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 ASCENT ENERGY, LLC FOR APPROVAL OF A NONSTANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.	CASE NOs. 15992, 15993, 15994, 15995, 15996
AMENDED APPLICATION OF CENTENNIAL RESOURCE PRODUCTION, LLC FOR A NONSTANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.	CASE NO. 15988
APPLICATION OF CENTENNIAL RESOURCE PRODUCTION, LLC FOR A NONSTANDARD SPACING AND PRORATION UNIT AND COMPULSORY POOLING, LEA COUNTY, NEW MEXICO.	CASE NOs. 16016, 16017, 16018

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

March 15, 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, March 15, 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

APPEARANCES

FOR APPLICANT ASCENT ENERGY, LLC:

JAMES G. BRUCE, ESQ.
Post Office Box 1056
Santa Fe, New Mexico 87504
(505) 982-2043
jamesbruc@aol.com

FOR APPLICANT CENTENNIAL RESOURCE PRODUCTION, LLC:

MICHAEL H. FELDEWERT, ESQ.
HOLLAND & HART, LLP
110 North Guadalupe, Suite 1
Santa Fe, New Mexico 87501
(505) 988-4421
mfeldewert@hollandhart.com

FOR INTERESTED PARTY CIMAREX ENERGY COMPANY:

JENNIFER L. BRADFUTE, ESQ.
MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.
500 4th Street, Northwest, Suite 1000
Albuquerque, New Mexico 87102
(505) 848-1800
jlb@modrall.com

INDEX

	PAGE
Case Numbers 15992, 15993, 15994, 15995, 15996, 15988, 16016, 16017 and 16018 Called	6
Opening Statement by Mr. Feldewert	9
Opening Statement by Mr. Bruce	19
Comment by Ms. Bradfute	20
Centennial Resource Production, LLC's Case-in-Chief:	
Witnesses:	
Gavin Smith:	
Direct Examination by Mr. Feldewert	21
Cross-Examination by Mr. Bruce	47
Cross-Examination by Ms. Bradfute	51
Cross-Examination by Examiner Brooks	52
Cross-Examination by Examiner Lowe	53
Cross-Examination by Examiner Jones	54
Recross Examination by Examiner Brooks	60
Recross Examination by Examiner Jones	62
Recross Examination by Mr. Bruce	63
Redirect Examination by Mr. Feldewert	63
Nick Daniele:	
Direct Examination by Mr. Feldewert	65
Cross-Examination by Mr. Bruce	82
Cross-Examination by Examiner Lowe	82
Cross-Examination by Examiner Jones	83
Brett Thompson:	
Direct Examination by Mr. Feldewert	87
Voir Dire Examination by Mr. Bruce	90
Continued Direct Examination by Mr. Feldewert	90
Cross-Examination by Mr. Bruce	105
Cross-Examination by Examiner Lowe	106
Cross-Examination by Examiner Brooks	107
Cross-Examination by Examiner Jones	107
Lunch Recess	115

INDEX (Cont'd)

	PAGE
Centennial Resource Production, LLC's Case-in-Chief:	
Witnesses:	
Grant Morby:	
Direct Examination by Mr. Feldewert	115
Cross-Examination by Mr. Bruce	140
Cross-Examination by Examiner Lowe	142
Cross-Examination by Examiner Brooks	142
Cross-Examination by Examiner Jones	150
Redirect Examination by Mr. Feldewert	154, 157
Recross Examination by Examiner Brooks	156
Centennial Resource Production, LLC Rests	158
Ascent Energy, LLC's Case-in-Chief:	
Witnesses:	
Lee Zink:	
Direct Examination by Mr. Bruce	158
Cross-Examination by Mr. Feldewert	175
Cross-Examination by Ms. Bradfute	186
Cross-Examination by Examiner Jones	188
Redirect Examination by Mr. Bruce	194
Ben Metz:	
Direct Examination by Mr. Bruce	198
Cross-Examination by Mr. Feldewert	213
Cross-Examination by Examiner Brooks	231
Cross-Examination by Examiner Jones	232
Redirect Examination by Mr. Bruce	237, 240
Recross Examination by Mr. Feldewert	238
Jody Robins:	
Direct Examination by Mr. Bruce	241
Cross-Examination by Mr. Feldewert	255
Cross-Examination by Examiner Brooks	262
Cross-Examination by Examiner Jones	263
Proceedings Conclude/Certificate of Court Reporter	274

EXHIBITS OFFERED AND ADMITTED

Centennial Resource Production, LLC Exhibit Numbers 1 through 6	47
Centennial Resource Production, LLC Exhibit Numbers 7 through 11	82
Centennial Resource Production, LLC Exhibit Numbers 12 through 15	105
Centennial Resource Production, LLC Exhibit Numbers 16 through 19	140
Centennial Resource Production, LLC Exhibit Number 20	(Attached)
Ascent Energy, LLC Exhibit Letter A	174
Ascent Energy, LLC Exhibit Numbers 1 through 10	174
Ascent Energy, LLC Exhibit Numbers 11 through 14	213
Ascent Energy, LLC Exhibit Numbers 1 through 18	255
Ascent Energy, LLC Exhibit Numbers 21 through 27	255

(9:04 a.m.)

EXAMINER JONES: Okay. Let's go on the record this morning.

This is a special examiner hearing for Thursday, March 15th, 2018. I'm William V. Jones.

This is David Brooks for the Examiner, and Leonard Lowe is going to be assisting today with the examiner hearing.

And I understand we've got nine cases on the docket. Let's call the -- let's call all the cases, and then we'll talk about pre -- pre-hearing stuff.

For the Ascent cases, these are Case Numbers 15992, 15993, 15994, 15995 and 15996. They're all the application of Ascent Energy, LLC for approval of a nonstandard spacing and proration unit and compulsory pooling in Lea County, New Mexico.

For those cases, call for appearances.

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe representing the Applicant. I have three witnesses.

MR. FELDEWERT: Mr. Examiner, Michael Feldewert, with the Santa Fe office of Holland & Hart, appearing on behalf of Centennial Resource Production, LLC. And I have four witnesses here today.

MS. BRADFUTE: Mr. Examiner, Jennifer

Bradfute, with the Modrall Sperling Law Firm. And I do not have any witnesses. I'm appearing on behalf of Cimarex Energy Co.

EXAMINER JONES: Okay. Let's go ahead and we'll call the other cases. These are the Centennial cases. These are Case Numbers 15988 and 16016, 16017 and 16018. Case Number 15988 is the amended application of Centennial Resource Production, LLC for a nonstandard spacing and proration unit and compulsory pooling in Eddy County -- Lea County, New Mexico, and all of the other four -- other three cases are applications of Centennial Resource Production, LLC for a nonstandard spacing and proration unit and compulsory pooling in Lea County, New Mexico, for all four of the Centennial cases.

Call for appearances.

MR. FELDEWERT: May it please the Examiner, Michael Feldewert, with the Santa Fe office of Holland & Hart, appearing on behalf of the Applicant. And as I said, I have four witnesses here today.

MR. BRUCE: Mr. Examiner, Jim Bruce representing Ascent Energy, LLC. And I have the same three witnesses.

MS. BRADFUTE: Mr. Examiner, Jennifer Bradfute, with the Modrall Sperling Law Firm, on behalf

of Cimarex Energy Company. And I have no witnesses.

EXAMINER JONES: You're sitting over there, but is Cimarex allies with -- are you going to bring that out in the --

MS. BRADFUTE: As far as the position goes, Cimarex takes a neutral position in both cases. It owns -- it's lessee of record in the east half of Section 7, Township 21 South, Range 33 East, and it originally had concerns with surface locations located on its leasehold interests. Those concerns are alleviated right now. There is a deal in principle that's been entered into with Ascent. We're not aware of any plans for surface locations on Cimarex's lease by Centennial. At this point in time, however, Cimarex would like to still reserve its right to appeal in the event plans change or agreements aren't executed.

EXAMINER JONES: Will all the witnesses who are going to testify today please stand?

And the court reporter will swear the witnesses, and we'll get the names later.

(Mr. Smith, Mr. Daniele, Mr. Thompson, Mr. Morby, Mr. Metz, Mr. Zink, Mr. Robins sworn.)

EXAMINER JONES: Okay. Mr. Brooks, you want to take over here as far as the pre-hearing?

EXAMINER BROOKS: I don't recall that I have anything that I need to be concerned about now. I thought we got that taken care of -- oh, you mean --

EXAMINER JONES: Yeah.

EXAMINER BROOKS: No. The notice issues are on the other case.

EXAMINER JONES: Yeah. Well, the business about --

Would anyone like to make an opening statement?

MR. FELDEWERT: Certainly. Yeah.

OPENING STATEMENT

MR. FELDEWERT: Mr. Examiner -- or Examiners, this morning I've handed you Order Number R-14518, which was issued by the Division in December of 2017. It was initially subject to a de novo appeal, which has been dropped now. And as I understand, this is the latest case discussing the factors that the Division will consider when they have competing pooling applications for acreage like we have here today.

The acreage at issue here is the east half of Section 18. And what's at issue here in the east half are two 160-acre stand-up spacing units. Each party holds a 50-percent interest, so the ownership is the same. Each party proposed stand-up wells, so there

is no debate about the orientation. Both parties are targeting the Bone Spring Formation and the Wolfcamp Formation.

But when I go to page 6 of this order, which I invite you to turn to, it lays out in ordering paragraph 16 what the Division considers precedent in examining these competing pooling applications, and it has subparagraphs A, B, C, D, E and F. So in preparation for this case, I went through this, and the first thing that it notes in paragraph 16A is, are there any differences in any proposed well location. Okay? There is a major difference here that you will see that favors Centennial.

Ascent is going to drill north to south, assuming they get their agreement signed up with Cimarex.

Centennial is drilling south to north from acreage in which they already have agreements in place, have already staked the wells. And the reason they're drilling south to north is they can drill toe up and stay within the target zone. And they're going to testify that that is important for extending the life of the well in recovering the reserves.

The second thing that's important about the well location and the completion design is that

Centennial has filed for nonstandard locations administratively. They filed administratively for nonstandard locations for the first take point and the last take point, to be 100 feet off of that northern and southern boundary. They've done that because it increases your lateral length by 460 feet, almost a 10 percent increase. And it allows a recovery of reserves that otherwise you're not going to get to because of the offset. So that's been filed.

If you look at paragraph A, the other factor it talks about is who has the prospect of efficiently recovering the oil, the recovery plan. Again, we have a major difference here favoring Centennial.

Centennial has proposed two 3rd Bone Spring wells. They proposed two Wolfcamp A wells. Those zones are right next to each other. Okay? And the reason they've done that is they're going to develop those zones simultaneously, and they're going to talk about why that's important. They've got their wells spaced within the zone, and they've got their wells tagged in a wine-rack pattern for the very purpose of simultaneous development, simultaneous drilling and completion, so that you don't have a completion effect that would otherwise occur if you developed them independently. So

they have planned that way.

They also are developing the lower zone before developing the upper zone, the 2nd Bone Spring, the 1st Bone Spring. Why do you do that? If you -- and the reason you do that, they're going to say, is because if you're a company that's actually going to develop this acreage and if you're a company that's here to fully develop that acreage, that's how you do it. You start in the lower zones and you move up, because each of those wells you penetrate into the lower zone allows you an examination of the upper zone, helps you determine the viability of that zone and also, more importantly, helps you find a good landing point.

So if you're a company like Centennial that is going to develop this fully and bought it to develop it and has plans to develop, that's how you start. Okay? So there are some major differences there, because Ascent doesn't have those kinds of plans. They've got scattered wells all over the place, no real plan, from what we can tell, as to what they're doing.

And we're going to have -- a geologist and a reservoir engineer is going to testify that if you do it like they're doing it, it's going to result in waste.

Paragraph B, comparison of the risk. It appears the same for both parties. No issues there.

Paragraph C. There it talks about negotiations, your well proposals, your negotiations, what occurred prior to pooling. Again, that favors Centennial. We're going to present you a timeline. It's in our Exhibit Number 20 [sic]. You might want to refer to that occasionally as to what occurred here.

Essentially, one of the reasons our witnesses are going first is because we were the first to properly propose a well with the correct spacing unit, and we were the first to file a pooling application after we engaged in efforts to reach a voluntary agreement. So before filing our pooling application, we properly proposed the well. We sent them a JOA. We held meeting with Ascent, offered trades of acreage that I thought were pretty reasonable and they thought were pretty reasonable, and each time, they were simply rejected by Ascent with no counteroffer, zero.

In between the time that Ascent finally proposed a well and filed its pooling application, in that period of time, they didn't make a single offer to Centennial. All they did was just reject Centennial's offers.

So we're the first to timely and properly propose the well with the right spacing unit. We're the

first to file a timely pooling application, and we engaged in good-faith efforts to reach an agreement.

Ascent, they've proposed five wells. They finally got around to properly proposing those wells one day before they filed their pooling application. They didn't even do -- they didn't even file a timely pooling application. They proposed those wells one day before they filed a pooling application. So all of those factors, the negotiations, was it properly done, you're going to see that that favors Centennial.

Paragraph D, "The ability of each party to prudently operate the property with an FI to prevent waste." Okay. Ascent, I'll submit to you, is a lot like Black Mountain in this case that you're looking at right now. They have absolutely zero prior experience in drilling horizontal wells in New Mexico, a big, fat zero. They're a private equity company. They aggregate acreage. They get a bunch of permits. Okay? They haven't done anything yet. We can kind of guess what they're going to do. That's what they do. They acquire it. They acquire the permits, try to flip the acreage. Okay? They acquired their acreage in the fall of 2016, their first step in New Mexico, so that's almost a year and a half ago. They haven't drilled a single horizontal well. All they've gotten is permits.

Their AFEs -- we're going to show you, when you look at their AFEs that they submitted with their well proposals, they either were not aware or they don't care about the casing requirements that are necessary in this area. This is the Capitan Reef. This is the potash area. Their drilling plan under their AFE, from what we can tell, doesn't even account for the extra casing string that the BLM requires. These are federal minerals. They've got to have an extra casing string when producing the Bone Spring. It's not in their AFE. They don't account for the increased pressure that you're going to get when you get into the Wolfcamp. They don't have the extra casing string in the Wolfcamp in their AFE to account for those pressures. And then all the -- for a Wolfcamp well, all the extra size uphole -- I'm not an expert on this; we've got a guy that's going to talk about that -- they don't account for all that. It's not in their AFE. So they're not equipped, and they don't account for the cost to accommodate the casing that's necessary.

Also in their AFE, they don't account for the flowback facilities, the water and gas takeaway costs, the air emission facilities and costs that are associated with that. None of that's in their AFE.

And they have no vendors. They've got no

experience in New Mexico. They've got no vendors to deal with water, gas takeaway, all of which are major issues now. Okay?

Big contrast: Centennial's witnesses are going to tell you they've drilled over 100 Bone Spring and Wolfcamp wells in Texas. They came to New Mexico about a year and a half, two years ago --

Is that right?

-- and brought that experience to New Mexico. They've already drilled five wells. They're in the process of drilling two more right now. Okay? They are here to develop. They're not here to flip acres. They're here to develop. That's why they bought this acreage. They have rigs. They have experienced frac crews. They have vendors. They have service providers. They know the casing requirements. It's built into their AFE. They know the costs that are associated with that. It's in their AFE. They know the costs associated with the flowback facilities and the gas takeaway and the water takeaway. It's in their AFE. They know the costs that are associated with the air emissions equipment. It's in their AFE.

So they have the experience. And they have examples that I will also show you -- and we're going to go through those -- that their completion process that

they utilize is proven and successful. It has worked very well in Texas, and it has shown great wells here in New Mexico when you compare to the prior operators. So they know what they're doing. They have a completion process with a frac crew that is proven.

And so when you look at this factor, who is going to prudently operate, who is going to best operate the acreage, that factor exclusively weighs in favor of Centennial, clearly. Okay?

Then you get to paragraph E, AFE costs. So what are you going to hear from them? Oh, my goodness, our AFEs are higher. Yes, they're higher. They're higher because we built in the casing costs for the Bone Spring and the Wolfcamp. We built in the flowback -- the facilities needed for flowback, for the gas takeaway, for the oil takeaway. We built into our AFEs the air emission facilities that are necessary. So yes, our AFEs are higher. And they're higher because we know what we're doing out there, and we built that into our AFEs, and they did not. Okay?

So -- and then also the other factor that we're going to talk about here is they have no experience. They don't know their vendor costs. Our AFEs are based on actual vendor costs, our experience. So yes, their AFEs are lower than ours, but there is a

very good reason for that. There is a very good reason for that. So that factor should not weigh against us.

Paragraph F. That's the mineral interest held by each party. That's the same. That's the same. It's 50 percent each. We own the northeast quarter. It's a federal lease. They own the southeast quarter. It's a state lease. So that's a nonfactor.

So what do we have here? We're going to present four witnesses. And at the end of the day, this evidence is going to establish that the relevant factors substantially weigh in our favor. We're the first to properly propose a well at the right spacing unit. We're the first to -- we're the only ones that, you know, submitted offers to try to get this resolved, trades that they'll talk about that they just simply rejected and no counteroffer. We're the first to file a pooling application after engaging in those good-faith efforts to reach agreement. We have the experience. We've got the best plan to develop this. And I'm talking fully develop this, not a one-and-done, you know, to fully develop this from the top -- from the bottom up, okay, and do it prudently and properly with the experience that they have brought over here from Texas, and they know how to do it right. That's what the evidence is going to show you. And when you apply

that against these factors, that means our applications should be and approved theirs should not be.

EXAMINER JONES: Mr. Bruce?

OPENING STATEMENT

MR. BRUCE: Mr. Examiner, I'm not going to go into great detail for the most part until the hearing. I'll make a few comments. But, frankly, once you go through these lists and see what Ascent proposes, you'll realize that most of what Mr. Feldewert said is baloney.

My client has experience in drilling and completing wells. It hasn't drilled a well yet. Fine. But it has spent a year and a half getting a lot of things in place to commence drilling wells. Period. There is no problem with that. What are you going to do? Prevent new operators from coming into the state? Is that what the OCD's job is? If you haven't drilled a well in the state, you can't drill a well in the state? Sounds kind of foolish to me.

As the OCD knows, there have been dozens of new companies that have come into the state of New Mexico in the last couple of years. Mr. Feldewert is representing one right now. I'm representing one right now. I've represented five or six others. They've got to get in and start drilling. It doesn't

mean they don't know what to do. They're talking about importing experience from Texas. Yeah. That's what you do. You import experience from where you've already operated. Big deal.

Insofar as making the first big proposal, sorry, that was Ascent who did that. I'll show -- when they go through their exhibits, I'll show you some defects in their proposals.

In comparison of each of the ability to operate, we have a sound, solid crew who knows how to drill and operate wells.

Insofar as differences in the AFE costs, Centennial says, Oh, they haven't accounted for the four strings. Our AFEs account for the four casing strings. Period. Frankly, their costs are excessive. They're higher than anyone else's in this area, and that favors Ascent.

When you go through all the things, after all the testimony, you will see that Ascent's application should be granted.

EXAMINER JONES: Ms. Bradfute?

MS. BRADFUTE: Mr. Examiner, I just wanted to clarify one point. Cimarex does not take a position as to either operator's proposal, but they are satisfied with the deal that they've entered into in principle

with Ascent. As long as that paperwork is signed, they have no objection to Ascent's proposed development plans.

EXAMINER JONES: Very well.

Mr. Feldewert, you want to present your case?

MR. FELDEWERT: Yes, sir. Call our first witness.

GAVIN SMITH,

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

DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Would you please state your name, identify by whom you're employed and in what capacity?

A. My name is a Gavin Smith. I'm a landman for Centennial Resource Development.

Q. And have your responsibilities while with Centennial included the Permian Basin of New Mexico?

A. Yes.

Q. And, Mr. Smith, you have previously testified before this Division and been accepted as an expert in petroleum land matters, correct?

A. Yes, I have.

Q. Are you familiar with the applications that

have been filed in these consolidated cases by both parties?

A. I am.

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

A. I am.

MR. FELDEWERT: I would retender Mr. Smith as an expert witness in petroleum land matters.

MR. BRUCE: No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: So qualified.

Q. (BY MR. FELDEWERT) Would you please turn to Exhibit Number 1 marked "Centennial" in the black notebook? And first off, Mr. Smith, Centennial Exhibit Number 1, are these the draft C-102s for each of the wells the company has proposed?

A. Yes, they are.

Q. Okay. Am I correct that there are two 3rd Bone Spring wells and two Wolfcamp wells?

A. Correct.

Q. What does the company seek under these applications?

A. We seek to create four -- create four nonstandard -- 160-acre nonstandard spacing units covering in the east half of Section 18, Township 21

South, 33 East in Lea County, New Mexico. For each of those wells, the west half of the east half is the spacing unit for the Horseshoe Fed Com 601H Bone Spring well. The east half of the east half is the spacing unit for the Horseshoe Fed Com 602H Bone Spring well. The west half of the east half is the spacing unit for the Horseshoe Fed Com 701H Wolfcamp well, and the east half-east half is the spacing unit for the Horseshoe Fed Com 702H Wolfcamp well.

Q. So the 600s are the 3rd Bone Spring, and the 700s are the Wolfcamps?

A. Yes, sir.

Q. What's the ownership and nature of the acreage in the east half of Section 18?

A. Centennial owns the federal lease in the northeast quarter of Section 18, and the southeast quarter is a federal lease owned by Ascent.

Q. So a 50/50 ownership at this point in the spacing units?

A. Yes.

Q. Now, have you been able to identify the pools that are involved for these two formations?

A. Yes, sir. They're the Wolfcamp -- or wildcat Wolfcamp Pool and the wildcat Bone Spring Pool.

Q. And did you glean that from offsetting wells?

A. We did.

Q. Did Mr. --

MR. FELDEWERT: We have not confirmed that with Mr. Kautz, but in case you're interested -- and I'm not going to give the entire number. But the Bone Spring Pool appears to be Pool Code 97895, and the Wolfcamp Pool, wildcat, appears to be Pool Code 98033.

EXAMINER JONES: Thank you.

MR. FELDEWERT: Again, though, with the caveat that's based on --

EXAMINER JONES: The codes usually stay the same. The names change.

Q. (BY MR. FELDEWERT) Mr. Smith, are these pools -- and as wildcat pools, are they subject to the Division statewide rules for oil wells?

A. They are.

Q. And will the completed interval for each well comply with the 330-foot setbacks?

A. As to the lateral lengths for the east -- to the east and west, it will be 330-foot setbacks. As for the north and south, as earlier discussed, we're seeking a nonstandard location administratively to perf 100 feet from the north line and 100 feet from the south line.

Q. And that, then, will allow the company to extend the four laterals another 460 feet?

A. It will.

Q. And will that allow the company to capture additional stranded reserves that would otherwise be in that north and south --

A. Yes.

Q. And these are horizontal wells?

A. Correct.

Q. All right. Does the -- do the draft applications to drill here in Exhibit Number 1, they reflect both location -- proposed locations being 100 feet off?

A. They --

Q. Of the north and south lines of the first take point?

A. Yes, sir.

Q. Do these also reflect that you intend to drill from an off-lease location?

A. They do.

Q. And where is that?

A. In the north -- really in the north half of the northeast quarter of Section 19, we'll have two surface-hole locations there for both pads.

Q. Okay. First off, has the company confirmed that the location of those off-lease pads, given the depth and the curve, would that allow the company to

perforate at 100 feet off of the -- off of the south line from those well pad locations?

A. Yes. And our drilling engineer can testify to that later on.

Q. Okay. And does Centennial actually have in place the approvals necessary to utilize these off-lease surface locations?

A. We do. The lease in Section 19 is a state lease run by Advance Energy Partners. We've entered into a letter agreement with them that will allow us to -- they've given us the right to use those two surface-hole locations on their lease.

Q. Is that letter agreement done?

A. It is done, signed by both parties.

Q. Go ahead.

A. Also, we've received a waiver signed by Intrepid Potash that waives the LMR area in Section 19.

Q. So hold up. We're within the potash area?

A. We are.

Q. We're within an LMR?

A. Yes.

Q. And so it's within the Intrepid Potash?

A. Correct.

Q. And you've received that?

A. We have.

Q. Is that reflected in Centennial's Exhibit Number 2?

A. It is.

Q. Finally, is there -- these are federal minerals. So has the company actually staked the wells?

A. We have staked the wells, and we have submitted our notice of staking to the BLM to schedule an on-site with them.

Q. Okay. All right. If I then turn to Centennial Exhibit Number 3, is this a timeline of events that you assisted in putting together?

A. It is.

Q. And does it accurately reflect the events leading up to the hearing here today?

A. It does.

Q. And before we get to the timeline, does Centennial Exhibit Number 4 contain the well-proposal letters sent by Centennial that are noted in the timeline?

A. It does.

Q. And there are four of them that are separated within Exhibit Number 4 by yellow sheets?

A. Correct.

Q. Okay. And it starts with 601 and ends with the proposals for the 702H, correct?

A. Yes.

Q. Does Centennial Exhibit Number 5 contain the Ascent well-proposal letters that are noted in the timeline?

A. It does.

Q. Likewise, are they provided by a yellow sheet?

A. Yes.

Q. Okay. All right. Now, with that said, we're going to kind of be flipping back and forth between these three exhibits. All right?

A. (Indicating.)

Q. If I look at the timeline here, it notes that on September 26, Ascent actually proposed a 501H well, correct?

A. They did.

Q. But you've got a note on here that it was with an incorrect east-half 320-acre spacing unit?

A. Yes.

Q. So if I look, for example, at Exhibit Number 5, this is for their Trucker 501 well, correct?

A. Correct.

Q. Okay. And the first thing I note is that they have identified the entire east half of Section 18 for this well, up in the "Re" portion?

A. That's right.

Q. And you've identified the spacing unit as being 320 acres?

A. That's right.

Q. And they indicate, in the second line of this paragraph, that it's going to be a well, as they say, in the Bone Spring Formation?

A. Correct. And the AFE further clarifies that it's the 2nd Bone Spring.

Q. Okay. And is it true that in this area, for the Bone Spring Formation, you don't have 320-acre spacing units?

A. That's correct.

Q. And so that would be wrong, right?

A. That's right.

Q. Secondly, what did you observe about the depth that they have proposed for this well?

A. They listed a total vertical depth of 11,120 feet, and as I mentioned, the AFE calls this a 2nd Bone Spring well. Also, the AFE references a total vertical depth of 150 feet.

Q. So we have the letter saying 100 -- 1120 [sic] feet and the AFE saying 1150 [sic] feet?

A. That's correct.

Q. Are either of those depths in this area landing in the 2nd Bone Spring Sand?

A. They're not. Based on our review, they're landing in the 3rd Bone Spring Carbonate.

Q. So we have, in this letter, a wrong spacing unit, right?

A. Correct.

Q. We've got conflicting depths in this proposal, and neither one of those depths are in the 2nd Bone Spring?

A. That's right.

Q. If I continue on through this -- stay with this exhibit and I continue on to the last page of this proposal for 501, so before I get to the first yellow sheet, there is a letter dated January 22nd, 2018 from Ascent. So it's the last page in the first set of groupings of 501, before the first yellow sheet. Are you there?

A. Uh-huh.

Q. Okay. And is that the first time that Ascent identified the spacing unit that they actually intended to dedicate to this well?

A. Through a formal proposal, yes.

Q. That would be the west half of the east half?

A. Correct.

Q. And did they, in this letter, clarify the actual depth of the well?

A. They do not.

Q. In fact, if I go to the last paragraph of this letter, it says they have amended the spacing unit or what they call the contract area of 160 acres, but then the last sentence says, "All other terms and dates of the original proposal remain unchanged," right?

A. That's right.

Q. So they didn't change the total vertical depth?

A. No.

Q. And this amendment letter wasn't sent out until what -- roughly, what, four months after they sent their incorrect proposal letter in September?

A. That's right.

Q. All right. When you got this rather confusing well-proposal letter in September, was there a meeting finally at Centennial's office to discuss this?

A. There was. On October 20th, we met with Ascent in our office to address some of our concerns about the proposal and just tried to get some clarification.

Q. And that's reflected on Exhibit Number 3?

A. That's correct.

Q. At that time did you inquire about Ascent's drilling experience?

A. We did. And they indicated they had not drilled a well in New Mexico and did not give, really,

an indication of when they would drill this well either.

Q. So they couldn't tell you when they intended to drill?

A. Correct.

Q. Did you raise your concerns about their proposal?

A. We did. We -- we inquired about the TVD depth, and they said they were going to look into it. And then we also mentioned that we thought the 3rd Bone Spring Sand was a better target for the area.

Q. And that was based on your experience?

A. Yes.

Q. Okay. Did -- had you -- did you discuss with them the fact that you had actually acquired this acreage?

A. Yes.

Q. Okay. And did you discuss with them that you had acquired it to actually fully develop the acreage?

A. Yes.

Q. Okay. And that you had bought the acreage to operate it?

A. Correct, from GMT.

Q. And you indicated to them that you wanted to start at a lower formation, right?

A. Yes.

Q. Okay. Did -- how did that meeting end?

A. We both ended with both wanting to operate the section.

Q. After this meeting, what did Centennial do?

A. On November 1st, we then sent them a well proposal for our Horseshoe 601H well in the 3rd Bone Spring Sand, with the spacing unit in the west half of the east half of Section 18, and we also provided a joint operating agreement covering the east half of Section 18.

Q. And so you followed up with a well proposal for the zone that you thought -- the Bone Spring zone, anyway, that you thought would be most appropriate to start with?

A. Yes, sir.

Q. And is that -- is that proposal contained in -- I guess it would be the first letter of Exhibit Number 4?

A. Yes.

Q. And that was sent out November 1st, 2017?

A. Correct.

Q. Did Ascent respond to this proposal?

A. They did not.

Q. No response at all?

A. No.

Q. Did you follow up with them then?

A. We did.

Q. Okay. What did you do?

A. We proposed our first acreage trade on December 7th. And the details of the trade were essentially to --

Q. Let me step back a minute.

A. Sure.

Q. If I look at the timeline here --

A. Oh, I'm sorry. I'm sorry.

Q. Was there a meeting on November 14th?

A. Yes. I skipped that.

Q. Okay.

A. We did. We had a meeting with them in our office on November 14th.

Q. Did you initiate that meeting?

A. We did. I think both parties really initiated it. We wanted to get our operating teams together so we could discuss how to work out a solution.

Q. Okay. Now, what was the nature of that meeting?

A. We -- we -- they again affirmed that they thought the 2nd Bone Spring was the target they wanted to seek, and we reaffirmed that we thought the 3rd Bone Spring Sand was the target. They also tried to explain

about their experience in other parts of the Basin -- in other parts of the Basin or other basins, not in the Delaware Basin, and with other companies, not Ascent. They further affirmed that Ascent had not drilled a well in New Mexico and then also asked Centennial and our operations team about how we complete wells in New Mexico and what our plan was.

Q. So they were asking you how you do -- complete your wells?

A. That's correct.

Q. Did they indicate whether they had any completion plans?

A. They did not.

Q. Did they indicate whether they had any completion experience as a company?

A. No.

Q. Did they indicate whether they had any completion crews?

A. No.

Q. Okay. And so with their lack of experience, they were asking what you guys actually do to complete your wells?

MR. BRUCE: I object to characterizing it as lack of experience. They might not have experience in New Mexico, but my witnesses are qualified technical

people.

Q. (BY MR. FELDEWERT) But they were asking you what you do?

A. Correct.

Q. Okay. All right. How did that meeting end?

A. Both parties still wanted to operate -- operate the section.

Q. Okay. All right. So then with that meeting, what did you then do next? I'm looking at the time where it indicates in December you proposed an acreage trade?

A. We did. We did.

Q. How did you propose it to them?

A. We sent that through an email and regular mail over to their offices and gave them a call just to see -- to let them know we were sending an acreage trade over.

Q. So a phone call, email, a formal proposal by letter; is that right?

A. Correct.

Q. What was the proposal?

A. It was to trade our lease in the northeast quarter, 160 acres, in exchange for Ascent's 160 acres in the southwest quarter that they also own and just to flip those two. That way Ascent could have operated the

entire east half on their own, and we would have been 50 percent in the west half. We were willing to deal with the other partners in that west half to drill wells on that side.

Q. So they would -- you would take your northeast quarter acreage, give that to them so that they would have the entire east half?

A. Correct.

Q. And then you would have the southwest-quarter acreage, so you'd be able to operate in the west half?

A. Correct.

Q. And that sounds like that's a pretty reasonable proposal to me. Did they like it?

A. No. Well, at first, they said they'd look into it, and then there was no response.

Q. No response?

A. Correct.

Q. So what did you do then when you didn't get a response to your acreage trade?

A. After that, a few weeks later, gave them a call to see what the status of it was, and they declined the trade and didn't really give a reason why, and then there was no counteroffer either.

Q. Zero?

A. No.

Q. So if I'm looking at this timeline here, after three months here, at the end of December, there was no acceptance of Centennial's well proposal or their proposed JOA that they had sent, right?

A. Correct.

Q. There was no offers by Ascent after they sent their September 26th rather confusing well-proposal letter, right?

A. Right.

Q. No offers from them at all?

A. Correct.

Q. Okay. No modification of what they had sent in September with the wrong spacing unit, confusing vertical depth? No changes there, right?

A. Correct.

Q. And so what did you then do in January of 2018 to get this development moving along?

A. We then proposed -- or, really, gave them a call letting them know we were going to propose the Horseshoe 602H, 702H to show our development plan or initial phase development plan of co-developing the 3rd Bone Spring Sand and --

Q. And those additional well-proposal letters are the remaining part of Exhibit Number 4?

A. That's correct.

Q. Now, you mention that you sent these well-proposal letters which resulted in two 3rd Bone Spring Wells and two Wolfcamp wells?

A. Yes, sir.

Q. And that was for what reason? You said simultaneous development?

A. Yeah, co-development of the 3rd Bone Spring Sand and Wolfcamp.

Q. And does the company believe that's the most prudent way to proceed in this area?

A. We do.

Q. And you've got someone who is going to testify further about that?

A. We do.

Q. Okay. In each case, when you sent your well-proposal letters, did they contain an AFE?

A. They did.

Q. And did they reference the previously submitted joint operating agreement?

A. They did.

Q. Okay. Did Ascent ever comment on your joint operating agreement?

A. No.

Q. What was Ascent's response to your January -- looking at your timeline here, Exhibit Number 3, what

was Ascent's response to your well proposals for simultaneous development of the 3rd Bone Spring with the Wolfcamp?

A. Ascent then proposed the Trucker 502H, 601H, 701H, and I believe it's actually the 703H listed on the plats. And they also amended the 501H proposal to be that west half-east half instead of just the east half.

Q. All right. So that would be contained in Exhibit Number 5, right?

A. Correct.

Q. So we had the letter in January, the 22nd, that we had previously examined, the 501, where they corrected the spacing unit but not the total vertical depth; is that right?

A. That's right.

Q. And then we had -- as we go through that exhibit, we've got a letter for the 502H, right, after the first yellow sheet in Exhibit Number 5?

A. Yes.

Q. And that's for a 2nd Bone Spring well?

A. Correct.

Q. And then they go on and have a well-proposal letter for the 601H with the 3rd Bone Spring well?

A. Correct.

Q. Just one 3rd Bone Spring well?

A. Yes, just one.

Q. And then the well-proposal letter sent out January 22nd for the two Wolfcamp wells?

A. Correct.

Q. And these were received three days after you had sent them your simultaneous development plan for the 3rd Bone Spring and the Wolfcamp?

A. That's right.

Q. All right. Okay. Then did Ascent at that point then -- or did Centennial then take steps to bring this matter to hearing?

A. We did. We filed our pooling application for the 601H well.

Q. If I look at the timeline, that's on January 23rd, 2018?

A. Correct.

Q. Why did you just file for the 601H well?

A. That was the only proposal that had been with Ascent for over 30 days.

Q. So the other ones were -- you were waiting for the proper time frame to expire before you filed pooling application for those wells?

A. Correct. We had just sent them.

Q. In contrast, it shows that Ascent filed their pooling applications on the same day, right, on January

23rd?

A. That's right.

Q. That would be one day after they proposed their wells to you?

A. Correct.

Q. Is that why your timeline here says that Ascent files untimely pooling application?

A. That's right.

Q. Okay. All right. I just want to be clear here. Between the time in which they proposed their 501H well up there in September and the untimely filing of these pooling applications, had Ascent made any offer for a voluntary agreement?

A. No.

Q. They just simply rejected your efforts?

A. Correct.

Q. And made no counterproposal?

A. Correct.

Q. In February -- I'm looking at the timeline -- did Centennial once again try to reach agreement with Ascent?

A. We did. We sent a second acreage trade to them. We hand-delivered it to their office and also emailed it over to them.

Q. And it was a second acreage trade?

A. Yes, sir.

Q. What was your second proposal for the acreage trade?

A. We proposed essentially the same as the first but localized it to the east half. So we proposed to assign them the west half of the northeast quarter in exchange for the east half of the southeast quarter so that Centennial could then operate the east half of the east half of Section 18, and Ascent would have the west half of the east half to themselves.

Q. Did they accept that offer?

A. They did not.

Q. Did they offer any counterproposal?

A. No.

Q. Did the company then prepare for hearing?

A. We did.

Q. And did you reflect that -- on February 15th, you sent out -- you sent out amended well proposals. Why did you do that?

A. To note our change to the off-lease surface-hole locations on Ascent's -- on Advance's lease.

Q. Okay. So you had been able to acquire a drilling position in the section to the south?

A. That's right.

Q. And you sent out amendments to your well proposals to reflect that ability to drill off lease?

A. Correct.

Q. And then did you file your remaining pooling applications for your wells?

A. We did.

Q. All right. Looking at these events, am I correct that Centennial was the first one to propose a well with the correct spacing unit and identification of the targeted zone?

A. That's right.

Q. And prior to filing any pooling application, did the company initiate meetings with Ascent to try to reach an agreement?

A. Did Centennial?

Q. I'm sorry. Centennial.

A. Yes.

Q. And you proposed acreage trades?

A. Yes, we did.

Q. And after Ascent rejected all those offers, with no counterproposal, was Centennial the first to file a timely pooling application?

A. We were.

Q. In your opinion, when you look at these timeline of events, did Ascent engage in good-faith

efforts to reach a voluntary agreement prior to filing its competing pooling application?

A. No, they did not.

Q. And, in fact, they filed their pooling application just one day after they had properly proposed their wells, correct?

A. Correct.

Q. Now, you mentioned that had you had sent the JOA?

A. Yes, we did.

Q. And that in each case, with your well proposals, you had included an AFE?

A. We did.

Q. Are the costs reflected in those AFEs consistent with the company and other operators have actually incurred for drilling similar horizontal wells in the area?

A. Yes.

Q. Okay. And does your -- do your AFEs reflect the additional costs that are associated with drilling wells into the Bone Spring and a Wolfcamp in this area?

A. They do.

Q. Okay. What is Centennial willing to accept as overhead rates for the pooling order?

A. We're willing to accept 7,000 per month for

drilling and 700 for producing.

Q. You understand that that's what Ascent believes is -- is appropriate?

A. We do.

Q. And are these costs at or below what other operators are charging for similar development plans?

A. Yes.

Q. In preparation for this hearing, did the company identify the operators and the lease mineral interest owners in the offsetting 40-acre tracts for these proposed spacing units?

A. Yes, we did.

Q. And were these offsetting parties provided notice of this hearing?

A. They were.

Q. If I turn to what's been marked as Centennial Exhibit Number 6, is this the affidavit prepared by my office with an attached letter providing notice of this --

A. Yes.

Q. Mr. Smith, were Exhibits 1 through 5 prepared by you or compiled under your direction or supervision?

A. They were.

MR. FELDEWERT: Mr. Examiner, I would move admission into evidence of Centennial Exhibits 1 through

6, which includes my notice affidavit.

MR. BRUCE: No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: Exhibits 1 through 6 for Centennial are admitted.

(Centennial Resource Production, LLC Exhibit Numbers 1 through 6 are offered and admitted into evidence.)

MR. FELDEWERT: And that concludes my examination of this witness.

EXAMINER JONES: Mr. Bruce?

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Mr. Smith, would you turn to Exhibit 1, please?

A. Sure.

Q. In looking at the -- I believe Mr. Feldewert stated that you filed for unorthodox-location approval for these wells?

A. Yes, sir.

Q. Looking at -- for the 601H well, did you -- who did you notify?

A. We notified the operators to the north and diagonally to the -- for the 601, to the north, so that would have been Cimarex.

Q. Cimarex.

A. And Ascent as well.

Q. Okay. When were these applications filed?

A. I believe on Tuesday.

MR. FELDEWERT: Tuesday.

Q. (BY MR. BRUCE) And to the south, that section is operated by --

A. Advance.

Q. Advance.

A. Yes, sir.

Q. And then go to the last one, the 702H. Who did you notify to the northeast and to the southeast?

A. I believe to the northeast was Concho, and the southeast -- I may be wrong because I'm trying to remember it. But I think it's Devon to the southeast there.

Q. Okay. Your locations -- I'm looking at your Exhibit 2, the letter from Intrepid. Your locations in Section 19, who is the surface owner of Section 19?

A. The State of New Mexico, I believe.

Q. Do you know who the grazing lessee is?

A. I do not.

Q. Have you -- so you haven't reached any agreement with the grazing lessee regarding the surface location?

A. I believe our --

MR. FELDEWERT: Let me object. That assumes there is a grazing lessee for --

EXAMINER BROOKS: That's a question of law, but the question of fact can be answered.

Q. (BY MR. BRUCE) Assuming there is a grazing lessee, you haven't reached an agreement with them?

A. I believe it's Merchant Livestock, and our surface manager does have constant communication with them. And I believe that Advance let them know that we were seeking locations there.

Q. Have you applied for state business leases for the surface locations?

A. We have not yet but are planning to.

Q. Let's go to your Exhibit 4, please. In looking at each of your proposal letters, do any of them give a surface location?

A. They do not.

Q. For each of the four wells?

A. No.

Q. Do they give footages for the first take point and last take point?

A. No.

Q. Do they give any locations whatsoever?

A. We did reference the spacing unit as the west half of the east half, Section 18.

Q. And then you said you're enclosing a JOA for the west half of Section 18?

A. And that is incorrect there. It should be the east half.

Q. Did it cover the east half of Section 18?

A. Yes.

Q. And in looking at the first page of your Exhibit 5, Ascent did send you an east-half JOA, correct?

A. They did.

Q. And this was more than month before you sent them an east-half JOA?

A. Correct.

Q. So the fact of the matter is you both wanted to drill the east half?

A. Yes.

Q. Is there anything wrong with that?

A. No.

Q. Other than with your exhibits -- your exhibits under Tab 1 here today, have you previously notified Ascent of the unorthodox locations?

A. Can you clarify?

Q. Before today?

A. Before today? Yes. They're on the notice list of the application we sent on Tuesday.

Q. Okay. So they probably haven't received them yet?

A. Probably not.

MR. FELDEWERT: They went certified mail.

Q. (BY MR. BRUCE) One final thing: On your proposals, did you give -- do you set forth the working interest of each party?

A. We do not.

Q. And do you set forth the total vertical depth?

A. We do not.

Q. And do you set forth the total measured depth?

A. We do not.

MR. BRUCE: That's all I have, Mr. Examiner.

MS. BRADFUTE: Mr. Examiner, just a couple of questions.

CROSS-EXAMINATION

BY MS. BRADFUTE:

Q. Mr. Smith, about the C-102 and the NSL application and I believe it's for the 601H well --

A. Correct.

Q. -- you said you had notified Cimarex Energy Co. of the proposed NSL?

A. We did.

Q. That application, you said, was sent out on

March 13th, this past Tuesday?

A. Yes.

Q. Does Centennial agree that there is still a 20-day period for Cimarex or any other operator to raise any objections to that application?

A. Yes. Yes.

MS. BRADFUTE: That concludes my questioning.

CROSS-EXAMINATION

BY EXAMINER BROOKS:

Q. Okay. If I understand it, the parties here, Centennial and Ascent, are 50/50 working interest owners in this unit?

A. Yes, sir.

Q. There are no other working interest owners in the proposed unit?

A. Correct.

Q. Are there any royalty interests in the unit?

A. Our lease does have an overriding royalty interest. Yes.

Q. Okay. Have you notified the other overriding royalty interests, or are they bound by agreements that authorize you to pool --

A. Bound by agreements.

Q. And are those agreements in the assignment or

otherwise?

A. In the assignment.

Q. Okay. Are there any overrides under Ascent's interests?

A. I do not think so.

Q. Have you examined the title or reviewed the title material to determine that?

A. We have.

Q. Okay. I think that's all the questions that occur to me right now. I think I will --

EXAMINER JONES: Have more later?

EXAMINER BROOKS: Yes. I think I'll let you go ahead.

EXAMINER JONES: Mr. Lowe?

CROSS-EXAMINATION

BY EXAMINER LOWE:

Q. Good morning.

A. Good morning.

Q. I have a question. For each of these surface locations for each well, they're all located in the north half of the northeast quarter of Section 19?

A. That's correct.

Q. And you indicated that the surface owner is state land? Is that --

A. I beli- -- yes, sir.

Q. Who is the operator in that area?

A. Advance Energy Partners.

Q. Advance who?

A. Advance Energy Partners, I believe, is their full name.

Q. Okay. And the question was brought up of grazing lessees.

A. Yes.

Q. Is there anything that you-all do on your end -- do you guys indicate anything or notify the grazing lessees whenever you're locating the well?

A. Yes.

Q. You do?

A. We do.

Q. That's all the question I've got. Thank you.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. So basically all four of these wells are unstandard; is that correct?

A. Yes, sir.

Q. So you're applying for a nonstandard for all four?

A. All four, yes, sir.

Q. And they're all going to be located off section? No, no. Actually -- yeah, they are. All of

them are off section.

A. They should be.

Q. So -- so you were assigned the lease -- you hold the title to the lease -- the federal lease; is that correct?

A. Yes, sir, in the northeast quarter.

Q. So all of the northeast and all of the -- but you also own the state lease in the southwest quarter?

A. No. Sorry for the confusion. That was -- that was a trade proposal. Ascent owns that southwest quarter, and that was part of the trade proposal from us, for them to assign that southwest to us in exchange for the northeast.

Q. Is there one state lease on the south half and one federal lease on the north half, is that correct, in this section?

A. I believe it's one state -- I believe that the northeast and the northwest are two federal -- separate federal leases, and the south half is one state lease.

Q. Okay. So is it true that it's 50/50 ownership by both companies in the west half also?

A. Centennial is not in the west half at all.

Q. Okay. And the federal lease, does it have an expiration coming up?

A. The federal lease for -- a federal lease that

we own? I don't know.

Q. I guess if it did, you would know. Your software would kick it up, wouldn't it, and you'd be prompted by that?

A. (No response.)

Q. So, basically, in the east half, there are two separate tracts. So each of these wells has two separate tracts?

A. Correct.

Q. Okay. And the com agreement is in the works; is that correct?

A. Yes.

Q. So is it -- any feedback from both the Feds or the State about the com agreement?

A. No, sir.

Q. It's the same form? You just -- Fed-State agreement you sent to both?

A. We haven't sent the com agreement yet.

Q. Okay.

MR. FELDEWERT: Mr. Examiner, neither party can file an APD until they get the pooling order.

EXAMINER JONES: Okay. Yeah. So there are no APDs yet. There are no APIs.

MR. FELDEWERT: Correct. Correct.

Q. (BY EXAMINER JONES) But the well names are

going to stay the same.

A. Yes, sir.

Q. And you came up with these Horseshoe names, or the geologist did?

A. Yeah.

Q. Geologists get all the luck on that, get to pick the names.

Is there a drill-island issue out here?

A. There is not, since we have a waiver letter from Intrepid Potash.

Q. But what about from the State or the BLM?

A. We were -- the BLM indicated -- we first -- we first -- really, when we were looking at that location in Section 19, we got a call from Jim Rutley at the BLM, and he got us in contact with Intrepid. We were able to talk with them, work out surface-hole locations in that area that were in the LMR. Intrepid agreed that it did not affect their reserves -- life-of-mine reserves and granted us the waiver.

Q. Did the LMR cover the whole section of 18? Do you know?

A. I believe it's actually the line somewhere in Section 18.

Q. Will these wells all be affected by it?

A. I'm not -- Ascent would have to assert where

their locations are. I'm not sure.

Q. Okay. In your JOA proposal, what terms are you offering there?

A. On the JOA?

Q. Yeah.

A. I believe it was 7,000 for drilling and 700 for producing, and I believe it was a 300 percent nonconsent penalty.

Q. Okay. So 100 payout, plus 200 percent?

A. Correct.

Q. So that's just a proposal for them to sign, and they have -- the history was gone over laboriously. So they have not signed either the JOA or the proposed JOA or your proposed well proposals yet?

A. Correct.

Q. Okay. And you have not signed theirs either?

A. No.

Q. Okay. Okay. And the timing of the proposal, does -- I guess you're maintaining there was no good-faith effort on Ascent's part, and, can you say, because the depth was incorrect and the timing was incorrect?

A. I believe that assertion is more from the fact that in between our initial well proposal and filing for forced pooling, there were no offers from Ascent or

willingness for offers or counteroffers to come to agreement.

Q. Okay. It falls back on the legal people to look at this. I'm not sure if we've had cases that the attorneys could cite -- good-faith effort was not cited as a reason for --

The letter agreement with potash and letter agreement with the surface owners, but there is no other -- besides the -- you've got the reef here and the potash; is that correct? You know about the reef? Potash is what gets you --

A. Yes, sir. That may be out of my portion here.

Q. Yeah. Okay.

I'm sure -- the AFEs are all federal; is that correct? They have to go straight to the Feds first, the BLM first?

A. The AFEs?

Q. Yeah. I mean, the -- the -- yeah. They have to be approved by the --

EXAMINER BROOKS: You mean the APDs.

Q. (BY EXAMINER JONES) APDs. APDs.

A. Yes, sir. When -- when we're allowed to submit them, we'll need to -- that's why we scheduled our on-site. We sent a notice of staking to the BLM so that we could, at the earliest date, get out there with them,

have them approve the locations and be ready to submit an APD.

Q. Okay. And these on-sites, do you see any reason why they would, right now, move your surface location, because I guess we don't -- you've got that on your C-102s, your surface locations.

A. Yes, sir.

Q. But we try to put that in our orders. So anyway, you've got it there.

And your NSL proposals will have your first and last take points, is that correct?

A. Correct.

Q. Okay. Thank you.

EXAMINER JONES: Do you guys have any more questions?

EXAMINER BROOKS: Yeah.

RECROSS EXAMINATION

BY EXAMINER BROOKS:

Q. I see now why you can't -- I think I understand now why you can't file your APD even though it's federal, because it's on -- the surface location is on state land, right?

A. The surface location is on state land, but really the federal land is in the northeast quarter, which makes it Fed action.

Q. Yeah, I understand. But I didn't know what -- I do not know what the BLM requires as preliminary to AFEs -- to APDs -- I'm getting mixed up now.

EXAMINER JONES: Sorry about that.

Q. (BY EXAMINER BROOKS) But my understanding is, if you drill a surface location on state land and you're drilling under both state and federal, then you have to file both with us and with the BLM?

A. Correct. We will.

Q. And you cannot file with us until -- unless you have permission from every -- from a working interest owner for every tract in the spacing unit.

A. Correct.

Q. Which you do not have?

A. Correct.

Q. Okay. Now, you do not have, at this point, any permission from the State for that surface -- from the State Land Office?

A. We need to seek a business lease from them. Yes, sir.

Q. Right.

Now, do they make any difference of -- well, let me go on.

Cimarex is the lessee?

A. Not of Section 19.

Q. Not of Section 19. Okay.

A. No, sir.

Q. So who is the lessee?

A. That's Advance Energy Partners.

Q. Okay. You already said that. I'm sorry.

A. That's okay.

Q. Do you have their permission for that surface location?

A. We do. We have a letter agreement with them.

Q. Okay. Thank you.

RECROSS EXAMINATION

BY EXAMINER JONES:

Q. Is the location you've got actually -- the location is already built by other oil companies in the past or drilled in the past?

A. No. They'll be new locations. They are state, but they'll be new locations.

Q. This first application, 15988, is amended. Why was it amended?

MR. FELDEWERT: Mr. Examiner, it was amended to note that the surface location was going to be in the north half of the northeast quarter.

EXAMINER JONES: Okay. And the first application was not saying that?

MR. FELDEWERT: Correct, because they

didn't have permission to drill at that point in time.

EXAMINER JONES: Okay. Thank you very much.

Any more questions of this witness?

MR. BRUCE: Just one, really.

RECROSS EXAMINATION

BY MR. BRUCE:

Q. Mr. Smith, you just said you're going to have new -- there's going to be new drilling sites, right?

A. (Indicating.)

Q. Are there -- are there existing roads to your well sites?

A. I don't know.

Q. You don't know?

A. I'm not sure.

Q. There is no pipeline out there either, is there?

A. That would be more under our service department.

Q. Okay. If you don't know, that's fine.

A. Okay.

REDIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Mr. Smith, they've been staked, right?

A. Yes, sir.

Q. And you mentioned the fact that you have to get a business lease from the State Land Office. You're not aware of any -- the usual problems in getting a business lease and paying them for a business lease if everybody agrees with the surface location?

A. We've never had an issue in other circumstances.

Q. Okay. And they don't mind requiring you to pay for a business lease?

A. No.

Q. Also, the -- the JOA that was sent by Ascent, was it a complete JOA?

A. It was not. It was just the body of the JOA. The exhibits were not attached.

Q. So it doesn't have a contract area?

A. It did on the first page of the body, but the Exhibit A was not there that further clarified that.

Q. Didn't have any of the exhibits?

A. No.

Q. Okay. And finally, with respect to your well proposal that Mr. Bruce noted, unlike their proposal, didn't it actually say "3rd Bone Spring Sand"?

A. It did.

Q. That's all the questions I have.

EXAMINER JONES: Okay.

EXAMINER BROOKS: Nothing further.

EXAMINER JONES: Okay. Thank you very much.

THE WITNESS: Thank you.

MR. FELDEWERT: We'll call our next witness.

EXAMINER JONES: I guess we're full speed ahead here.

MR. FELDEWERT: I'm sorry.

EXAMINER JONES: We're fine. Keep going.

NICK DANIELE,

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

DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Would you please state your name, identify by whom you're employed and in what capacity?

A. Nick Daniele, petroleum geologist for Centennial Resource Development.

Q. And, Mr. Daniele, have your responsibilities as a petroleum geologist with the company included the Permian Basin of New Mexico?

A. Yes, sir.

Q. Have you previously testified before this Division?

A. No, sir.

Q. Would you please outline your educational background?

A. I received my Bachelor of Science degree in geology from Marshall University in 2010, and I received my Master's of Science degree in geology from the Colorado School of Mines in 2012.

Q. After you got your master's from the Colorado School of Mines, where did you go to work?

A. I interned with Apache Corporation my first year of grad school, and I got hired on full time and worked with them until May of 2017.

Q. Okay. And when you were with Apache, did your responsibilities include a number of different basins?

A. Yes, sir.

Q. And when you came on with Centennial in 2017, did you focus on the Permian Basin of New Mexico?

A. Yes, sir.

Q. Are you a member of any professional associations or affiliations?

A. American Association of Petroleum Geologists.

Q. And how long have you been a member of that group?

A. Since 2012.

Q. Mr. Daniele, are you familiar with the

applications filed in these consolidated cases?

A. Yes, I am.

Q. And have you conducted a geologic study of the Bone Spring and Wolfcamp Formations in this area?

A. Yes, I have.

MR. FELDEWERT: I would tender Mr. Daniele as an expert witness in petroleum geology.

MR. BRUCE: I have no objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: He is so qualified.

Q. (BY MR. FELDEWERT) Mr. Daniele, what are the targeted interval -- what are the actual targeted intervals for Centennial's proposed wells?

A. The proposed wells target the Wolfcamp A in the 3rd Bone Spring Sand.

Q. Have you prepared a structure map and cross section for each of these targeted zones?

A. Yes, I have.

Q. If I turn to what's been marked as Centennial Exhibit Number 7, is that a structure map that you have prepared for the 3rd Bone Spring Sand?

A. Yes. This is the subsea structure map on top of the 3rd Bone Spring Sand. All the wells shown have 3rd Bone Spring Sand tops picked, along with the producing horizontal wells in the 3rd Bone Spring Sand.

The bubbles indicate the first six-month cum for oil, and the posted data are overall cum oil, gas and water. And --

Q. Let me stop you there.

So those numbers aren't limited to six months?

A. The bubbles are six months, and the posted data is the overall cums for the wells.

Centennial's two 3rd Bone Spring Sand wells are located in Section 19 and drilling from south to north into Section 18. Overall, there's about 2 degree updip, which results in roughly 100 TVD difference from heel to toe. And the subsea structure map shows 50-foot contours.

Q. Now, you said all the wells that you show on here are 3rd Bone Spring Sand wells?

A. The horizontals, yes.

Q. So you're stepping out to the what, the southwest, I guess, from the developed area?

A. Yes, sir. We're pushing the play down to the southwest.

Q. Okay. And I see that there are some 3rd Bone Spring wells directly to the east?

A. Yes, sir.

Q. Have those wells been successful?

A. Yes, sir.

Q. Do you see any -- across the area, the east half of Section 18, do you see any faulting or pinchouts or other geologic impediments to horizontal wells?

A. No, sir.

Q. And you mentioned that you will be drilling updip?

A. Yes, sir, toe up.

Q. Toe up.

Okay. And there are some advantages associated with that?

A. There are. And our reservoir engineer will elaborate on those.

Q. And this will allow you to drill toe up and remain within the targeted interval, and you wouldn't have to weave around in the targeted interval?

A. Yes, sir. We could stay within our 20-foot targeted interval of best-quality rock.

Q. Okay. Now, there's a red line on here. Is that the wells that were utilized for a cross section?

A. Yes, sir.

Q. There are four wells?

A. Four wells.

Q. Okay. And if I turn to what's been marked as Centennial Exhibit Number 8, is this a similar structure

map for the Wolfcamp Formation?

A. Yes, sir. It's a subsea structure map on top of the Wolfcamp. The wells shown here are the data points to create the subsea structure map, 50-foot contour interval. And the horizontal wells shown are producing Wolfcamp horizontals, with the bubbles as the first six months' cum oil, again. And the data posted are overall cum oil, gas and water, again.

And Centennial's Wolfcamp wells are shown in Section 19, the north -- the north half of Section 19, drilling into Section 18.

Q. Okay. Now, is the -- you still have 50-foot contour intervals?

A. Yes, sir.

Q. So both -- as with the 3rd Bone Spring Sand, does your drilling plan in the Wolfcamp result in drilling updip?

A. Yes, sir.

Q. With toe up?

A. Toe up.

Q. Okay. And it looks like -- there is not a lot of Wolfcamp development in the immediate area, is there?

A. No. The Wolfcamp is underdeveloped in this area.

Q. And both parties are targeting the Wolfcamp

area?

A. Yes, sir. There are encouraging results recently.

Q. Okay. Do you see -- as with the 3rd Bone Spring, do you see within the Wolfcamp any faulting or pinchouts or any other geologic impediments to horizontal wells?

A. No, sir.

Q. And have you utilized the same -- you also show your cross-section line on here?

A. Yes, sir.

Q. With the red line?

A. Yup.

Q. Is it the same cross-section line, same wells?

A. Yes, sir.

Q. As you've shown for the 3rd Bone Spring?

A. Yes.

Q. Why did you choose these four wells?

A. They represent offset wells to our proposed horizontals in both the 3rd Sand and the Wolfcamp, and they offset current producers in the 3rd Sand and Wolfcamp as well. They also show the continuity of the various reservoirs and our proposed location.

Q. So they have some good logs that you can work off of then?

A. Yes, sir.

Q. If I turn to what's been marked as Centennial Exhibit Number 9, is this the cross section that corresponds with the wells identified in Exhibits 7 and 8?

A. Yes. The section is from north to south, north being on the left, south to the right. In each -- in each well, track one is your gamma ray curve. Track two is a resistivity curve, and in track three, I have the neutron and density porosity curves.

Q. You show the top of the 3rd Bone Spring Sand; is that right?

A. Yes, sir. From top to bottom, the top shown are 3rd Bone Spring Sand, TBSG Sand; the Wolfcamp A, WFMP A below that; and then the Wolfcamp B, WFMP B, making out the base of the A.

Also shown are the proposed Horseshoe Fed Com 601H and 602H target zones in the Lower 3rd Bone Spring Sand. And the proposed Horseshoe Fed Com 701, 702H, those are the Wolfcamp wells in the proposed target location as well. And you can see the continuity from north to south in the reservoir, and the TVD difference between the two zones is roughly 220 feet.

Q. Okay. So it's 220 feet between the two targeted zones?

A. Yes, sir. And there is also lack of mechanical barrier, which we think will play a big part in the development of both reservoirs.

Q. Okay. So in your opinion, does this indicate that each quarter section of the proposed nonstandard spacing and proration units will contribute equally to production of the proposed wells?

A. Yes, sir.

Q. Both for the 3rd Bone Spring and the Wolfcamp?

A. Yes, sir.

Q. Okay. All right. Now, you mentioned the simultaneous development plan?

A. Yes, sir.

Q. If I turn to what's been marked as Centennial Exhibit Number 10, does this depict the development plans?

A. Yes, sir.

Q. Okay. Now, I see "Development Stage 1" and "Development Stage 2." And it looks like the wells at issue here are the Stage 1 development?

A. Yes, sir.

Q. And then Stage 2 would be development of the 2nd Bone Spring Sand?

A. Yes, sir. And this development is set up for our east-half section.

Q. So this is -- you're planning on fully developing the section?

A. Yes, sir.

Q. And moving up top -- starting at the bottom and moving up?

A. Bottom to top is the methodology we prefer.

Q. And why is that?

A. One, in this instance, we have co-development opportunity in the Wolfcamp and 3rd Bone Spring Sand. We hope to development that first. Drilling those wells, we'll have more data points within the shallower zones to define our targeting and landing and potential to stay in the zone longer. So Centennial's methodology is developing from bottom up.

Q. So under your plan here, you're actually going to have four wellbores through the 2nd Bone Spring to help you with targeting and evaluation?

A. Yes, sir. And if we want to gather any more data on the shallower sections, we're able to do that as well.

Q. Okay. With respect to your Stage 1 development plan here, what do you show here in terms of the pattern and the spacing?

A. I'm showing a 1,320 in-zone spacing, meaning the two Wolfcamp wells are 1,320 feet apart. Also, the

3rd Bone Spring Sand wells are 1,320 feet apart, resulting in a 660 wine-rack stagger pattern.

Q. And why did you choose that particular spacing over -- the 1,320 in between and the wine-rack pattern here?

A. The 1,320 spacing -- let me back up. The 3rd Bone Spring Sand was our main target for this area, and the spacing that -- if you refer back to the structure map with the horizontal wells, all those wells were developed at 1,320 spacing, so it's an industry standard. That's a good starting point. So we based our 1,320 on the nearby development.

There are also four new wells in the Wolfcamp, which show it's a viable target as well. In order to mitigate waste and effectively drain both reservoirs, we put the Wolfcamp wells equidistant between the 3rd Bone Spring Sand wells. And without having a mechanical barrier, we need to co-develop these at the same time in order to mitigate waste. If you drill one zone without the other zone, you cause a pressure depletion, and if you go back in and develop the second zone, the completions will be hindered by the pressure depletion. So that's why we decided to co-develop with a stack-stagger pattern in the Wolfcamp A and the 3rd Bone Spring Sand.

Q. This spacing -- and I'll call it geometry -- with the wine-rack pattern, is that a methodology that has been used successfully by other operators in the area to simultaneously produce these two zones?

A. Yes, sir.

Q. And does Centennial have experience that it has brought to New Mexico of simultaneously developing these types of zones with this type of pattern?

A. Yes, sir.

Q. And in your opinion, in this geologic circumstance, is it necessary to simultaneously develop these two zones with this pattern in order to avoid waste?

A. Yes, sir.

Q. And have you visited with your reservoir engineers and other geologists within the company?

A. Yes, I have.

Q. And is it, likewise, the company's opinion that you need to develop these two zones simultaneously to avoid waste?

A. Yes, sir.

Q. And does this geometric pattern and spacing provide the most efficient way to develop these two zones simultaneously?

A. Yes, sir, and to mitigate communication and

waste.

Q. All right. And, Mr. Daniele, if you're a company that intends to fully develop the acreage, is it your opinion that the proper way to proceed is to start at the bottom and move up?

A. Yes, sir, I do.

Q. For the reasons that you stated earlier about getting the information you need to properly locate the zone --

A. Yes, sir.

Q. -- and evaluate the zone?

How does this development plan concur with Ascent's proposed plan?

A. Do you want me to go to the next exhibit?

Q. Sure. Let's go to Centennial Exhibit Number 11. Did you put this together?

A. I did. It's based on the proposals we received. I wasn't exactly sure about the exact target zones for Centennial, so I made -- or for Ascent so I made an estimate. But the spacing, I thought, is what was very important.

If you look at, first of all, the amount of wells -- the Trucker Fed Com 501 was placed somewhere in the 3rd Bone Spring Carb, which is not an ideal target, in my opinion, to first start drilling in this area.

The Trucker Fed Com 502 was a well proposed in the 2nd Bone Spring Sand.

Q. Let me stop you there.

So you've got their well proposals, right?

A. Yes, sir.

Q. And they identified total vertical depth?

A. Yes.

Q. And they had a vertical depth of the 502H that put them within the 2nd Bone Spring Sand?

A. The 502 is proposed in the 2nd Bone Spring Sand. Yes.

Q. And they had a vertical depth of the 501H that put it in the 3rd Bone Spring Carbonate?

A. Yes, sir.

Q. All right. What else did you observe about their plan?

A. They also had two Wolfcamp wells, the Fed Com -- Trucker Fed Com 701 and 703, as we did have two Wolfcamp wells, and they only had one 3rd Bone Spring Sand well, which is the 601H.

Q. Okay.

A. The spacing in the Trucker Fed Com 701 and 703 was 1,500 feet, with a stack-stagger pattern with the 3rd Bone Spring Sand at 750 feet.

Q. What's your opinion with respect to the spacing

that they have proposed here?

A. Based on the spacing, it seems to be too wide, and there is potential to have waste. And without having an additional 3rd Bone Spring Sand well causing pressure depletion, then going back in and drilling the initial 3rd Bone Spring Sand well, the completion would be hindered. And in my opinion, this is not an optimal development plan for the 3rd Bone Spring Sand and Wolfcamp.

Q. So in your opinion -- let's just look at the 3rd Bone Spring Sand and the Wolfcamp A Sand. Is it your opinion that they are not appropriately spaced to develop the zone?

A. Yes, sir.

Q. And is it your opinion that they are not appropriately spaced not only to develop the zone but to develop the zone simultaneously --

A. Yes, sir. They can be developed simultaneously but not efficiently.

Q. Okay. And is it your opinion that you would need more than just one 3rd Bone Spring well to properly and efficiently simultaneously develop both of these zones?

A. Yes, sir.

Q. Looking at their spacing -- let's step back.

I want you to assume, okay, that they actually intend to put that 501H up into the 2nd Bone Spring Sand. Okay?

A. Okay.

Q. With that assumption, is -- the spacing that is proposed with that assumption, is that appropriate to efficiently and effectively develop the 2nd Bone Spring Sand?

A. I don't believe so. There have been multiple spacing tests in the direct vicinity, but the more mature 2nd Bone Spring Sand wells were developed on 1,320 spacing as well. There have been some down-spacing efforts, but that depends on the targeting and completion design, which varies by operator. But a good starting point within the 2nd Bone Spring Sand would be 1,320, where this is showing over 1,800.

Q. Okay. I want to wrap this up. In your opinion, is the simultaneous completion of the 3rd Bone Spring Sand and the Wolfcamp as proposed by Centennial necessary to avoid waste?

A. Yes, sir.

Q. Is Centennial's proposed well spacing with the Stage 1 development plan the most prudent way to proceed to simultaneously develop?

A. Yes, sir.

Q. And is Centennial's well spacing for its Stage 2 plan as currently put forth, is that the most prudent way to develop the 2nd Bone Spring Sand?

A. Yes, sir.

Q. Will Ascent's proposed well spacing here result in the efficient and effective recovery of the targeted reserves?

A. No.

Q. In your opinion, should Ascent's applications be denied?

A. Yes, sir.

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

A. Yes.

Q. Were Centennial Exhibits 7 through 11 prepared by you or compiled under your direction and supervision?

A. Yes, they were.

MR. FELDEWERT: Mr. Examiner, I move admission into evidence of Centennial Exhibits 7 through 11.

MR. BRUCE: No objection.

MS. BRADFUTE: No objection.

]EXAMINER JONES: Exhibits 7 through 11 are

admitted.

(Centennial Resource Production, LLC Exhibit Numbers 7 through 11 are offered and admitted into evidence.)

MR. FELDEWERT: That concludes my examination of this witness.

EXAMINER JONES: Mr. Bruce?

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Just one question, Mr. Daniele. Could you turn to your Exhibit 7? In looking at the northeast quarter of Section 18, is that Centennial's only acreage in the area covered by this plat?

A. No.

Q. What other acreage do you have?

A. That's proprietary. Never mind. Sorry about that. I don't know off the top of my head the exact positions.

Q. Okay. That's fine.

MS. BRADFUTE: No questions.

EXAMINER BROOKS: No questions.

EXAMINER JONES: Mr. Lowe?

CROSS-EXAMINATION

BY EXAMINER LOWE:

Q. I've got a few questions.

Your strategy of toe-up drilling, is that for all the Wolfcamp area in this location, or is that in general?

A. That's in general. Our reservoir engineer will elaborate on why it's important.

Q. I've always heard the term or phrase "preventing waste" in whatever area. I process a few NSLs here. How do you determine that on your end? How do you quantify that to say it is?

A. It's kind of hard to quantify, but based on the development and the spacing of the 3rd Sand and the Wolfcamp, you can see a little communication, which you know you're accessing all the rock. This may be a better question for the reservoir engineer. But if you space your wells too far out and you're not accessing all the hydrocarbons possible, those would be wasted and not recoverable.

Q. So I suspect that each scenario for each -- when they say that, when it's stated for that well, it's all specific to a lot of variables?

A. Yeah, formation, lithology, pressure.

Q. Okay. That's it. Thank you.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. Mr. Daniele, I guess the Marshall basketball

team is a little better than the Colorado School of Mines' basketball team; is that correct (laughter)?

A. It's about time.

Q. Your surface pipe here is going down -- what are you protecting in the surface for freshwater? In other words, the wellbore itself, the strat -- the strat section all the way down, can you talk about it?

A. Well, we -- our drilling engineer is going to actually present the whole wellbore diagram and what we're casing off and why.

Q. Okay. But you actually advise him as to what formations to protect, so --

A. Yeah. Put it behind salt, salt behind pipe. In this case, the Capitan Aquifer behind pipe. Like I said, another intermediate casing. There is actually a pressure difference between the Wolfcamp and the 3rd Bone Spring Sand, so we have to set another intermediate within the 3rd carb. So in case we have to mud up and have hole-stability issues in the Wolfcamp, we're not going to take losses in the shallower zones.

Q. Okay. That 3rd Carbonate, is it -- is that because it's kind of a trap right there to -- there's an unconformity between the Bone Spring and the Wolfcamp?

A. There is. Yeah. There is -- there is a scour surface and conformity, deposition of the basal sand.

Q. So there was some pressures formed over the eons that --

A. And also you get higher pressures usually in shales, and the Wolfcamp is mostly a shale.

Q. Okay.

A. There is the X-Y Sand, I'm sure you've heard of, the top of the Wolfcamp. But the majority of the Wolfcamp is a shale, and it exhibits higher pore pressures.

Q. The Wolfcamp's got higher thermal maturity than the --

A. Yes. Generally, as you --

Q. It's a pretty good source for the Bone Spring also, right?

A. Yes. The Bone Spring's also self-sourcing from the carbonate intervals. There are actually organics in those, too, but the Wolfcamp is a major source in the Basin.

Q. Okay. But you like the 3rd Bone Spring Sand because of the porosity and the --

A. Yeah, porosity, permeability, the reservoir quality. It's better in sandstones and shales.

Q. So not -- sources is not an issue. It's the -- it's the reservoir characteristics?

A. Yes, sir.

Q. And so I wrote down 100 feet here. Okay. Your wells -- you're going to put your wells within 100 feet of the leaseline. Was that your recommendation?

A. Yeah, pending the new rules.

Q. Yeah. Well, but do you like that or not?

A. I do. You can have longer lateral lengths, which have shown to increase productivity of the wells and the rate of return as well.

Q. Okay. Your structure map here shows kind of a nose going to the northwest. What's up with that?

A. Just internal structure. There's -- like, from what I've seen, there's no faulting, just a structural nose coming down from the north.

Q. Okay. So as far as stress direction, it's an engineering question, I know, but geologists work -- you know about fraction orientations for sure. Do you have any indication of fracture orientation out here? Do you have any dipole sonics? Do you have any -- any FMIs or anything?

A. I'm not -- I'm not sure about the FMIs. I don't think we do in this area. Dipole sonics, we haven't dug into that side of the structural complexity of this area quite yet.

Q. And where will you put your mud loggers on? At the base of the -- at the Delaware, or are you going to

put them on at --

A. We have a pretty good idea of where the Delaware is going to come in, so we'll bring them on after we set the Capitan behind pipe.

Q. Okay. So then you'll be drilling with salt mud after that and go on down?

A. (Indicating.)

Q. Okay. That's it for me.

EXAMINER JONES: Anybody have more questions for this witness?

EXAMINER BROOKS: No.

MR. FELDEWERT: No, sir.

EXAMINER JONES: Thank you, Mr. Daniele. We'll take a ten-minute break.

EXAMINER BROOKS: Good idea.

(Recess, 10:39 a.m. to 10:58 a.m.)

EXAMINER JONES: Mr. Feldewert, call your next witness.

MR. FELDEWERT: Thank you, sir.

BRETT THOMPSON,

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

DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Would you state your name, identify by whom

you're employed and in what capacity?

A. Brett Thompson, Centennial Resource, drilling manager.

Q. And, Mr. Thompson, how long have you been a drilling manager with Centennial?

A. About a year and a half.

Q. And have your responsibilities included the Permian Basin of both Texas and New Mexico?

A. Yes, it has.

Q. Have you previously testified before this Division?

A. No, I have not.

Q. Would you please outline your educational background?

A. I got a mechanical engineering degree from the Colorado School of Mines in 1998 and a minor in economics and a minor in petroleum engineering.

Q. And what did you do after 1998? Did you work for various companies?

A. Yes. I worked for Conoco for seven years both domestically and overseas, and I worked for EOG for seven years all in the Rockies, North Dakota, Wyoming, Colorado, Utah. And then I worked for QEP Resources for four years before coming to Centennial.

Q. So you have roughly, if I'm counting right,

19-and-a-half years as a drilling engineer?

A. That's correct.

Q. During that time, have you also been a drilling manager?

A. Yes, I have.

Q. Okay. And are you familiar with the company's plans for the east half of Section 18?

A. Yes, I am.

Q. And did you -- was this put together by your team under your direction and supervision?

A. Yes, it was.

Q. And has the company, under your supervision, examined the drilling requirements proposed by the BLM in this area?

A. Yes, we have.

Q. And has the company, under your supervision, developed the drilling plans for both -- development of the 3rd Bone Spring Sand and then the pressures associated with the development of the Wolfcamp?

A. Yes, we have.

MR. FELDEWERT: I would tender Mr. Thompson as an expert witness in petroleum drilling engineering.

MR. BRUCE: I just have a couple of questions. I wasn't listening.

THE WITNESS: Sure.

VOIR DIRE EXAMINATION

BY MR. BRUCE:

Q. How long have you been at Centennial?

A. A year and a half. I started in October of 2016.

Q. Okay. And is that your -- the extent of your experience in the New Mexico Permian?

A. In the Permian Basin, yes, in Texas and New Mexico.

MR. BRUCE: Okay. No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: He is so qualified.

CONTINUED DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Now, Mr. Thompson, if you look at Centennial Exhibit Number 1, these are the C-102s for the four wells. The company plans to drill each well with the first take point and the last take point being 100 feet off of the north and south lines, correct?

A. That's correct.

Q. And if it's -- if you run into objections or if it's not approved over the objections, you would then move to 330 feet?

A. That is correct.

Q. Okay. My question to you is: Assuming it is

approved, is it feasible, from the surface location shown in Section 19, to actually perforate 100 foot off of those south lines?

A. Yes, it is.

Q. If I turn to what's been marked as Centennial Exhibit 12, is this a slide that you put together?

A. Yes, it is.

Q. And does it show the additional lateral length that is gained with the approval of the 100-foot setbacks from the first and last take point?

A. Yes, correct. It does.

Q. And am I correct that that is roughly -- I forgot my number. What's the --

A. 460 feet.

Q. -- 460 feet of lateral gain.

And will that allow the company to access additional reserves in those normally offset areas?

A. Yes, it would.

Q. And are the costs associated with the additional completion worth the additional reserves that will be covered?

A. Yes, it is.

Q. Okay. You note on here that your surface location in Section 19 will result in an 80 degree inclination; is that right?

A. That is correct.

Q. Why did you observe that?

A. Well, based on the offset of our surface hole to where we only have to land 100 feet across the section line, we're still building the curve, and it'll be at 80 degrees when we enter -- when we get to the 100-foot setback.

Q. And does that inclination allow to you perf at that point?

A. Yes, it does. We do it routinely in -- with our experience in north Texas and New Mexico, we perforate at that angle.

Q. Is the acreage that's involved here, is it within the confines of the Capitan Reef?

A. Yes, it is.

Q. If I turn to what's been marked as Centennial Exhibit Number 13, does this identify the drilling area that's involved here?

A. Yes, it does. The orange box is Township 21 South, Range 33 East, which is the location.

Q. And that is squarely, then, within the Capitan Reef?

A. Correct.

Q. Or above the Capitan Reef, I should say.

A. Correct.

Q. Have you also outlined the potash area here?

A. Yes. That's the red line, showing where the potash boundary is.

Q. And will the east half of -- any drilling in the east half of Section 18, will that require the approval of a federal drilling permit?

A. That is correct.

Q. When you are in this area, does the BLM have special casing requirements?

A. Yes, it does.

Q. And what do they mandate in this area?

A. That there is a four-string casing requirement.

Q. Okay. If I turn to what's been marked as Centennial is Exhibit 14, is this an email that the company obtained from a geologist at the BLM confirming that the four-string requirement will apply in this area?

A. That is correct.

Q. Okay. And have you, then, provided for the Examiners both a written description and a depiction of what is going to be required to drill both the 3rd Bone Spring Sand and the Wolfcamp A in this area?

A. That is correct.

Q. If I turn to what's been marked as Centennial Exhibit Number 15, is this the design requirements that

you put together for the Examiners?

A. That is correct.

Q. We have a written depiction on the first page and then pictures, I guess, on the second page of this exhibit, correct?

A. Correct.

Q. All right. Would you just walk us through what's going to be required for the drilling of the 3rd Bone Spring well in this area?

A. Okay. The four-string requirement by the BLM is for certain areas within the Capitan Reef. Not all of it is it required. It's only certain parts of it. That's what's listed in the exhibit example from the BLM. It's certain sections, townships and ranges that is required, but not all. This area, this whole township (indicating), is in that area. So --

Q. And go ahead. I'm sorry. What's required, as I look at your --

A. So the difference from a normal well is the salt string. You have to run an extra string through the salt. They want that isolated before you drill into the Capitan Reef, any special areas. They consider the Capitan Reef a freshwater aquifer. So as soon as you drill through the salts and then case those off, and once you hit the Capitan Reef, you case that off before

you can continue drilling there.

Q. Now, this same BLM requirement would apply to a Wolfcamp well?

A. That is correct, yes.

Q. But are there -- because you're drilling into the pressures of the Wolfcamp Formation, are there other considerations that any prudent drilling operation has to take into account?

A. Correct. So in the Wolfcamp, you'll see the same casing string, the same depth for the salts in the Capitan Reef, but what you will notice is there is a one size larger casing, and there is an additional casing that is set down in the 3rd Bone Carb.

Based on our experience with the Wolfcamp -- we've drilled only one well in New Mexico, but we've drilled many wells in Texas in the Wolfcamp -- that you can get into the need for mud weights. I labeled it as "pressure transition string." Put more simply, it would require higher mud weights. Drilling in the Wolfcamp, the one well that we have drilled in New Mexico, we got up to 11 pound, and the Bone Spring will not hold that 11 pound that's required to drill that. In Texas, we've seen all the way up to 13 pound equivalent in the Wolfcamp. So that string is there to protect yourself from losing circulation while drilling

the Wolfcamp with the higher mud weights.

Q. Now, that fifth -- I guess you'd call it a fifth string. That's required --

A. For the Wolfcamp, it would be a fifth.

Q. Since you've got to put a fifth string, what does that mean for all the other uphole casings?

A. Yeah. So every casing above it needs to be up-sized to get that additional casing string in the ground.

Q. Adding to the cost?

A. Additionally, yes, adding to the cost.

Q. And do these additional casing strings, the one required for the BLM and the second required for pressures in the Wolfcamp, does that add substantially to the AFEs for these wells?

A. Yes, it does.

Q. And the AFEs that were sent out with Centennial's well-proposal letters, do they account for the additional casing costs required by the BLM?

A. That is correct. Yes, they do.

Q. And do they account for the fifth string and the larger casing size required for drilling in the Wolfcamp wells?

A. Yes, they do.

Q. Now, Mr. Thompson, you mentioned that the

company has substantial drilling experience both in Texas and has drilled wells here in New Mexico?

A. That is correct.

Q. As a result of that, is the company in regular contract and have familiarity with the vendor costs that are associated with drilling these wells?

A. Yes, we do.

Q. I'm trying to remember if we did this. I'm not sure we did this. Would you outline briefly what Centennial's drilling and completion experience has been in the Permian Basin?

A. In the Permian Basin, we've drilled and completed over 100 wells, both of those being Bone Spring and Wolfcamp wells.

Q. Okay. And that includes wells in Texas and New Mexico?

A. Yes, the majority in Texas. As we mentioned earlier, we just got into New Mexico in September of this last year. We drilled five wells -- drilled and completed five wells to date, and we're currently drilling on a two-well pad, drilling our sixth and seventh wells.

Q. And these are both -- do they involve the Wolfcamp A Formation -- or zone?

A. Yes. We have drilled one Wolfcamp A.

Q. And then do they also involve wells in the Bone Spring Formation?

A. Yes. We have four Bone Spring. The two we're drilling now are Bone Spring.

Q. How many rigs does the company have?

A. We have seven rigs between -- in the Permian Basin, six in Texas down south and one here in New Mexico.

Q. As a result of these activities, does the company have regular vendors and surface providers that it utilizes?

A. Yes, we do.

Q. So you're familiar with contacts?

A. Yes.

Q. Routinely deal with these vendors and familiar with their costs?

A. Yes. We have anywhere from six-month to two-year contracts on drilling rigs at this time.

Q. And Centennial's AFEs that were submitted with their well-proposal letter, are they based on these actual vendor costs that you-all see on a regular basis?

A. Yes, they are.

Q. Have you compared Centennial's AFEs with Ascent's AFEs that the company sent out the day before they filed their pooling application?

A. Yes. I looked through them.

Q. Are Centennial's AFEs higher?

A. Yes, they are.

Q. How much -- with respect to the Bone Spring well, how much higher?

A. About $1.2 million.

Q. Let's focus on the 3rd Bone Spring wells. You've said that your AFE includes the BLM string costs?

A. Yes, it does.

Q. How much is that, roughly?

A. The additional costs for that string -- for the time for the string and for the time to do it, 350,000.

Q. Okay. And when the company put together its AFEs, it took a number of factors into account. One of these would have been what is necessary to handle flowback, right?

A. That's correct.

Q. And what's involved with flowback? What are we talking about?

A. It's all -- it's processing the fluid when it comes back and then also transporting the fluid and disposing of the fluid, as well as when they produce, they produce a lot of water that comes with the --

Q. So you have to be able to deal with that water?

A. Correct. We have to be able to deal with the

water disposal.

Q. You need facilities to deal with that water?

A. Correct.

Q. What about gas?

A. Yes. You do need to have gas takeaway.

Q. Are there -- since we're dealing with federal APDs, are there air emission requirements?

A. Yes, there is. I don't know them specifically. I'm not a facilities engineer, but both the State and the BLM have air emission requirements. Yes.

Q. And does the company's AFEs include those costs associated with the air emission requirements?

A. Yes. My discussions with the facilities engineer and the VP of ops, our costs include all that is needed to meet the requirement of air emissions.

Q. So in dealing with these flowback issues, water, gas and air emission requirements, how much does that add to an AFE for a Bone Spring well?

A. The difference between our AFE, if that's what you're asking --

Q. Yes. Yes.

A. -- is 850 million -- $850,000. It would be offshore with those numbers (laughter).

Q. So that takes into account the 350,000 for the additional string and then the additional cost

associated with the facilities. It gets up to -- that accounts for the $1.2 million difference?

A. Yes. That's what it looks like.

Q. Now, with respect to the Wolfcamp AFEs, what's the difference?

A. The Wolfcamp is a bigger difference. It's almost $4.6 million.

Q. Okay. So another net difference of about 400,000?

A. Correct.

Q. And what accounts for that net additional difference for the Wolfcamp wells?

A. It's taking every casing size up and having the additional casing size, because we've got a fifth string, and everything else has to be increased above it. It costs additional to do that, to have the additional casing and the larger-size casings above it.

Q. In your review of Ascent's AFEs, do they appear to include these additional necessary costs?

A. They do.

Q. Do they appear to include them?

A. Yes. Oh, Ascent's?

Q. Ascent's. I'm sorry.

A. No, it doesn't. Our first look at it, the drilling and completions, there is some difference

there. It looked like there was some casing and difference in days that we assumed to drill the wells. They have three or four days less than we assumed. And then the Wolfcamp one definitely does not have the fifth string in it.

The Bone Spring is hard to tell. There is one liner listed. So I'm not for sure whether they have that string in there or not.

Q. Okay. But in your opinion, Centennial's AFEs, do they account for the drilling requirements that are unique to this particular area?

A. Yes, they do.

Q. And do they account for the completion and takeaway requirements that are going to be imposed for any wells drilled in this area?

A. Yes, they do, for new wells in a new area.

Q. And do they account for the air emission requirements that are imposed in this area?

A. Yes, they do.

Q. And do they reflect the actual vendor costs that the company is seeing, given its experience in drilling Wolfcamp and Bone Spring wells?

A. Yes, they do.

Q. Now, in addition to knowing the costs, if you're going to drill in this particular area, the

finding [sic] operator needs access not only for your water disposal and gas takeaway options, but you've got to deal with completion, correct?

A. Correct.

Q. Does the company have active completion crews that it's utilizing both in Texas and New Mexico?

A. Yes. We have two crews that are actively working, have been working for us for quite a while.

Q. And do they bring -- do they have knowledge of how to put this into place, these completion processes?

A. Correct. Yes.

Q. You'll also need access to drilling rigs, right?

A. That's correct.

Q. And does the company -- you said the company currently has seven active rigs?

A. Yes, we do, seven active rigs.

Q. So you have relationships with the drilling rigs to get them in place when you get your APDs?

A. Yes, we will.

Q. Drilling rigs are becoming more difficult to come by?

A. Yes. Rigs with the capabilities to drill horizontals that require specifications to drill these types of wells is getting tougher to find. Yes.

Q. In your opinion, Mr. Thompson, does the company have extensive drilling experience in both the Bone Spring and the Wolfcamp Formations in this area?

A. Yes, we do, in the Permian Basin.

Q. Okay. And does the company have a proven track record of developing these zones in an efficient and effective manner?

A. Yes, we do.

Q. And in your opinion, is the company well positioned with vendors to drill, complete and produce the reserves once these BLM contracts -- or permits are granted?

A. Yes, we are.

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

A. Yes, it is.

Q. Were Centennial Exhibits 12 through 15 prepared by you or compiled under your direction and supervision?

A. Yes, they were.

MR. FELDEWERT: Mr. Examiner, I'd move admission into evidence Centennial Exhibits 12 through 15.

MR. BRUCE: No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: Exhibits 12 through 15 for Centennial are admitted.

(Centennial Resource Production, LLC Exhibit Numbers 12 through 15 are offered and admitted into evidence.)

MR. FELDEWERT: That concludes my examination of this witness.

EXAMINER JONES: Mr. Bruce?

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Just a couple of questions, Mr. Thompson.

A. Sure.

Q. Centennial's -- first, Centennial bought its interest, property, from GMT in June or July of last year?

A. The New Mexico property, that's correct. Yes.

Q. The New Mexico property.

And did GMT have approved APDs on some of those properties?

A. Yes. We did use some of them.

Q. Okay. So you were able to use those APDs and start drilling?

A. Correct, on a couple.

Q. Okay. And, again, at this point, you have one

rig in New Mexico?

A. Correct. One active rig, yes.

Q. Okay. That's all I have. Thanks.

MS. BRADFUTE: No questions.

EXAMINER JONES: Mr. Lowe? He's also a mechanical engineer, so you better ask him questions.

THE WITNESS: Watch out.

(Laughter.)

EXAMINER LOWE: You've got one year on me.

CROSS-EXAMINATION

BY EXAMINER LOWE:

Q. I got confused here. Did you say Centennial's been in New Mexico for one-and-a-half years as operating, or have you been with Centennial?

A. I've been with Centennial a year and a half. We brought our first drilling rig into New Mexico in September of last year.

Q. Okay.

A. Yeah. So it's been about seven months now that we've been drilling in New Mexico.

Q. And you have 100 wells in the Permian Basin? That's both in New Mexico and Texas?

A. Correct. Yes. Five wells -- over 100 wells, and we've got five wells so far in New Mexico. We're drilling number six and number seven now.

Q. Okay. And just to clarify on something here, you said that the Wolfcamp AFE for the Wolfcamp is 400,000 more than the Bone Spring? Is that what that was?

A. Correct.

Q. Okay. That's all I've got. Thank you.

CROSS-EXAMINATION

BY EXAMINER BROOKS:

Q. And the main difference in those two AFEs is the additional casing string, right?

A. That's -- between ours or --

Q. No. Between the Bone Spring and the --

A. Yes, is the additional string to go into the Wolfcamp.

EXAMINER BROOKS: I really don't have any questions.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. Yeah. I would go ahead and ask, additionally, about this 5-1/2.

A. Uh-huh.

Q. Obviously, you need to bring it to surface on the Wolfcamp, but -- or even on the Bone Spring because you're going to frac down it; is that correct?

A. It's preferred by Completions in this area. In

Reeves County, we do not. We run a liner, and they frac down an intermediate casing. But I was out of my realm, but Completions prefers a long string 5-1/2 up here in New Mexico.

Q. Okay. What does it consist of? Is it an 80 on the bottom and an 80 on the top and J55 in the middle?

A. No. They run P110.

Q. P110 on the bottom?

A. Uh-huh.

Q. So do you have to run a DV tool on this -- on the -- on the Bone Spring completions with 5-1/2, do you run a DV tool?

A. We haven't had to. The one well that we've done up here -- or the Bone Spring wells, we have not, and the one Wolfcamp well, we have not had to for the 5-1/2 string.

Q. Okay.

A. Now, the intermediate string with the Capitan Reef, yes.

Q. Okay. You do have to there.

A. Depends how it looks when we drill it. You've got to get cement back to surface, so a lot of times we will run it to ensure that happens.

Q. Okay. Yeah. You've got the reef, and then above that, you've got the -- all the formations up to

the salt, which could be trouble also.

A. Yup.

Q. But you don't really like to frac down it if it's got a DV tool in it; is that correct?

A. We do it. In Reeves County, we do.

Q. Okay.

A. It's not preferred, but if we need to get a cement job -- at Centennial, we really believe in getting the cement job on all strings, not just the production string, a very good cement job. And we would prefer to do that than not have a DV tool or deal with a DV tool in fracking the well.

Q. How hard is it to get your cement in on these horizontal wells?

A. That's a matter of opinion. Any log you run, you know, some will look good, some don't. Stabilization. I mean, we stabilize -- run stabilizers on the casing to help keep it off the low side of the hole.

Q. Okay. And your final -- your final pump cement -- cement that goes in the horizontal section of the hole, what does that consist of?

A. What does the cement consist of?

Q. Yeah. Is it -- what additives do you put in it. Is it Class C?

A. Yeah. It's usually Class C. And then additives for time, basically, and water loss. Water loss is a key when you're drilling your horizontals.

Q. Okay. So you do lose some water?

A. You don't want it to dehydrate the sand because --

Q. Yeah. Okay. I didn't know how you got it up to the top of the hole.

A. You run a lead in the tail. So you'll run one type of slurry to bring back up in the vertical and a different slurry for out in the horizontal.

Q. Yeah. But in your horizontal, the actual top of the hole is --

A. It's going to get the most of it.

Q. Okay. Okay.

A. Yeah.

Q. It's under a lot of pressure, so I guess --

A. The good thing is they usually complete out the top.

Q. Okay. We don't have drilling engineers come up here very often.

A. I get that (laughter).

Q. So I guess you don't want me asking you questions (laughter).

And did you do the AFE?

A. No, I did not personally. A drilling engineer that works for me put it together.

Q. Okay. And so he has preferred providers? You have preferred providers?

A. Correct. And I should clarify that. I mean, it's not just the drilling engineer. We have a drilling engineer who does his portion, and the completion engineer does his portions. The production engineer does his portion, and the facility engineer did his portion.

Q. Okay. And do you still have that drilling service in Arapahoe County there that has drill times on a whole bunch of wells all over the United States and you can subscribe to it if you want?

A. Oh, it changed names, but I know what you're talking about.

Q. I thought it was called Centennial.

A. It's Drilling Records.

Q. Drilling Records. Okay.

A. But it got bought out. I can't remember the name.

THE WITNESS: Do you know it? You may know it.

MR. DANIELE: It's Drilling Info now.

EXAMINER JONES: Drilling Info.

Q. (BY EXAMINER JONES) They're calling these wildcats -- basically, Paul's calling it wildcat. Internally to you guys, it's -- you're going to call it a Bone structure wildcat or a Bone cat --

A. It will be a step out for us. You know, the acreage we bought is to the south, and the majority of our acreage is to the southeast. So this would be farther north and west than we have drilled a well in New Mexico yet. People on our team that are a part of Centennial have drilled wells and been involved in stuff in this area, but we have not yet.

Q. Okay.

A. We're what, two, three townships. The majority of our acreage is a couple of townships to the southeast where we've drilled our other five wells.

Q. When you frac these wells, are you going to put some chemical tracers in them or radioactive tracers?

A. I don't know for this specific well. We have done it. I do know that Centennial has used tracers quite regularly, one, to determine how the completion is flowing back, which stages when they've tried everything else, and their spacing and stage sizes and cluster spacing and all that stuff. Yes. We have done tracers on wells.

Q. Yeah. I guess you're primarily concerned with

getting the hole drilled efficiently and cased --

A. As far as I'm concerned, yup. I drill it. I get it cased, and then I move on to the next.

Q. Yeah.

And as far as the toe-up concept --

A. Uh-huh.

Q. -- is that -- can you talk more about that? I know the production engineers probably like it because it drains the water down --

A. Gravity, yeah. I'm not a production engineer, but it makes sense to me. Gravity at the hill [sic], right, less to pool?

Q. Did they tell you what kind of pump they're going to put in the well --

A. No. I don't know.

Q. -- after it quits flowing?

A. I know both ESPs and rod pump, but that's later down the line. But most of ours have been ESPs as far as I know.

Q. Okay. So you'll have electricity out there.

So you have a drilling foreman, and you talk to them every morning --

A. Sure.

Q. -- 3:00 a.m. or whatever you guys do?

A. Well, the size of operation that we have is

seven rigs. There are a couple of layers in there. When I first started with Centennial, yes, I was the drilling engineer, and we had four rigs. Two of us would talk to our rigs every day. And we had a superintendent in the field that also goes out and supervises to help make sure -- we have four different rigs going on, make sure they're doing the same thing.

Now we're up to seven rigs, so I do not talk directly to the company men or the foremen. I talk to the superintendent mostly, unless I deem I need to. But I usually want to let my engineers talk directly with their rigs instead of stepping on their toes. Right?

Q. Right.

So your organizational structure, you have a drilling superintendent that talks to all his drilling foremen?

A. Correct. And then the drilling engineer also talks to the drilling foremen and the superintendents. Yes. Yes.

Q. Okay.

EXAMINER JONES: Any more questions for this witness?

EXAMINER BROOKS: No.

MR. FELDEWERT: No, sir.

EXAMINER JONES: Okay. Thank you very much.

THE WITNESS: Yup.

MR. FELDEWERT: Mr. Examiner, we have one more witness. I note the time. So my suggestion is maybe we come back and start with our witness. It shouldn't take very long, about the same amount of time here.

And you've got three.

EXAMINER BROOKS: I'll be back at 1:30.

EXAMINER JONES: Okay. We're going 'till 1:30 then. Thank you very much.

(Recess, 11:27 a.m. to 1:37 p.m.)

EXAMINER JONES: Mr. Feldewert, can you call your next witness?

MR. FELDEWERT: Certainly.

GRANT MORBY,

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

DIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Would you please state your name, identify by whom you're employed and in what capacity?

A. Grant Morby, Centennial Resource Development, and I'm the reservoir engineering manager.

Q. And how long have you been a reservoir engineer involved with the Permian Basin of Texas and New Mexico?

A. It's been three -- about three years.

Q. Okay. Have you previously testified before this Division?

A. No, sir, I have not.

Q. What's your educational background?

A. I have a Bachelor of Science in petroleum engineering from the University of Texas at Austin, and I'm a member of SPE.

Q. How long have you been a member of SPE?

A. Since graduating from college in 2009.

Q. Okay. Now, beginning in 2009, who did you go to work for?

A. I went to work for EOG Resources, and I worked there for seven years before coming on board with Centennial.

Q. During that time, did you work in the Permian Basin with EOG?

A. Yes, sir. I worked for two years in EOG's Midland Division, operating out of the Permian Basin.

Q. Work with Pat Tower?

A. I did.

Q. He's a good guy over there.

Are you familiar with the application

that's been filed in these consolidated cases?

A. Yes, sir, I am.

Q. And do you have experience in developing the Bone Spring and the Wolfcamp Formations in the Permian Basin of New Mexico?

A. Yes, sir, I do.

Q. Both by virtue of your current employment and prior employment?

A. Yes, sir.

Q. Okay.

MR. FELDEWERT: I would tender Mr. Morby as an expert witness in petroleum engineering.

MR. BRUCE: I have no objection provided he spells his name for me.

EXAMINER JONES: Can you spell your name?

THE WITNESS: Yes. G-R-A-N-T. And last name is M-O-R-B-Y.

EXAMINER JONES: We won't make you spell Austin.

(Laughter.)

MR. BRUCE: I wasn't too far off.

No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: So qualified.

Q. (BY MR. FELDEWERT) Mr. Morby, you were here for

Mr. Thompson's testimony where he identified the drilling and completion experience the company has both in Texas and New Mexico?

A. Yes, sir, I was.

Q. And you bring that equation, also, the experience you've had with EOG in the Permian Basin of New Mexico, correct?

A. Yes, sir.

Q. Okay. Does the -- does Centennial have a completion, I guess, process or design procedure that has proven to be effective in the Wolfcamp and the Bone Spring Formations in both Texas and New Mexico?

A. Yes, sir. I believe we do.

Q. And what would you call it? A process, design or --

A. It's not a simple recipe of the amount of sand and the fluid system that you're using. There's a lot of intricate details that go into a completion design, including but not limited to the pump schedule that's utilized, the perforation charges that are used to perforate the casing, the number of clusters per stage that you're using, the slurry rate that you're pumping at, what is your pump rate per cluster that you're delivering to that reservoir, the experience in putting these designs and intricate details together from your

completion engineer, how that is then passed down to experienced frac consultants, which are hands and boots on the ground in the field, and then having a frac fleet that's employed a similar type of stimulation before.

Q. So you may have answered my question. I guess there is no magic formula, right?

A. Right.

Q. Can two companies use the same design, slurry rates and all the stuff you just went through and have different success rates?

A. Yes.

Q. Is the success dependent, then, upon your ability not only to design it but then execute it?

A. Yes, sir, it is.

Q. And as part of the execution process, do you need completion crews who are experienced in both the zones that you're working in and with that process?

A. I believe so.

Q. Does Centennial have within its company active, dedicated frac or completion crews with that necessary experience?

A. Yes, sir. We have two dedicated fleets currently.

Q. And where are they operating?

A. They operate between Texas and New Mexico as

needed. Currently, we're running a one-rig program in New Mexico, so that doesn't warrant a dedicated fleet in New Mexico, so they bounce back and forth across the state line.

Q. So you have two crews that work across the state line?

A. Yes, sir.

Q. But in the Permian Basin?

A. In the Permian Basin.

Q. And work in the Bone Spring zones -- Formation?

A. Yes, sir.

Q. Wolfcamp Formation?

A. Yes, sir.

Q. And use the company's pride and proven completion design, process techniques?

A. They do.

Q. And do you have examples for the Examiners of the success that Centennial has had with bringing its experienced and proven completion process to New Mexico?

A. I do.

Q. Okay. And these are examples in New Mexico?

A. Yes, sir, they are.

Q. All right. Let's turn to what's been marked as Centennial Exhibit Number 16. What do you show here, starting with the inlet box?

A. The inlet box is a map, and it's showing Township 22 South and Range 34 East. This is what Centennial calls our Pryor prospect area. It's a portion of our acreage that we acquired from GMT.

Q. Let me stop you there. It's P-R-Y-O-R?

A. Yes, sir.

Q. Okay. Go ahead.

A. All of these wells are targeting the 2nd Bone Spring Sand interval. They're in similar geologic settings and having similar net sand in the 2nd Bone Spring Sand interval.

And I'll start with the oldest well in this data set, which is the Merchant GAP 25 State Com 1H, which is a well drilled and completed by GMT back in 2014, targeting the 2nd Bone Spring Sand. It's shown in red on the graph, which is a cumulative oil versus time plot.

The next well that was drilled and completed was the Godfather 36 State Com 1H, drilled and completed by GMT. Its result is shown in yellow on the cumulative oil versus time plot.

The next well was the Tour Bus 23 State 502H, drilled and completed by EOG Resources, and this well is shown in gray. Since then -- since acquiring the GMT assets, Centennial has gone back into this

section, offset the original 502H well from EOG and drilled and completed the Tour Bus 23 State 503H and 504H, which are shown in two different shades of green. And this is showing wells in similar geologic settings and us employing our completion techniques and implementations and execution in the field versus some of the Legacy wells from GMT.

Q. Now, does Centennial -- I know there is no magic formula, but do they kind of follow what EOG has successfully done?

A. Yes, sir. Two of our engineers were employed by EOG Resources previous to Centennial, and I can say that our design is similar to that of EOG's.

Q. And so the two wells that you've drilled, do you expect a similar profile that you see of the EOG well?

A. Yes, sir, we do.

Q. Okay. Now, what is the basis, in your opinion, of the performance difference that we see between the wells shown with the green and the yellow and the red?

A. I would say that it's got -- it comes down to a refined target interval. So our geosteerers try to keep the bit within a 20- to 30-foot target interval of the best rock quality. GMT, I can't state anything factual about what their target interval was within the 2nd Bone

Spring Sand, but I would say it's a combination of refinement of that target interval and also completion design and execution in the field.

Q. Is it your opinion -- we've made note of the fact that the company intends to start with the lower zones and then complete -- or develop as you move uphole, for lack of a better word.

A. Yes, sir.

Q. Is that -- do you agree that that's an important methodology, if you're there to actually fully develop the acreage?

A. Yes, sir. I believe it is.

Q. Does that assist in refining the target interval for the upper zones?

A. It does.

Q. And in your opinion, is that one of the benefits that occurred here, was that you had lower development to help define the upper target zone?

A. Yes, sir. We have numerous 3rd Bone Spring Sand wells in this prospect area. They're not shown on this map, but we had a good idea of what our target interval was going to be from those previous wells.

One of our corporate goals is to hit 65,000 net barrels of oil per day for the company by 2020, and these assets, we look to fully develop and assist in

getting there to that goal.

Q. Any other aspect of this performance, you said, was the completion process?

A. Yes, sir.

Q. Do you have another example?

A. Yes, I do.

Q. Let's turn to what's been marked as Centennial Exhibit Number 17?

A. Yes. So this is Township 24 South, Range 34 East. This is a prospect area that Centennial knows as Solomon. These two wells are targeting the 2nd Bone Spring Sand.

The Pirate State 1H was drilled and completed by GMT back in 2014.

The Romeo Fed Com 1H was actually drilled by GMT also. It was a wellbore drilled -- uncompleted wellbore that was acquired when we acquired the acreage. They offered to complete the well themselves, and we said we'd like to take a shot at it. So this is the same geologic setting and same targeting, at least standards, between the wells. So the only difference that I see here warranting the performance is the completion design and the execution of that completion design in the field.

Q. They were both drilled in the same target

zones?

A. Yes, sir.

Q. Do you have another example?

A. I do. I have one more.

Q. Let's go to Centennial Exhibit Number 18.

A. So this is also Township 24 South, Range 34 East. This is, once again, our Solomon prospect area. These two wells are targeting the Wolfcamp A interval, so the deeper interval. The Sheba Fed Com 1H was GMT's well that they drilled and completed at the end of 2016. It was their last producing well that they brought on line before our acquisition of their acreage. And it was their first attempt at a slickwater design.

And since then, we've gone in and drilled our Juliet Fed Com 1H. This is drilled and completed by Centennial. We don't have a ton of data yet. It turned on a few weeks ago, but we're very encouraged with the results.

Q. And, again, the difference you see in the results, in your opinion, what's that based on?

A. I believe it's going to be, once again, the targeting within this interval, since two different drillers had two different target intervals that they were drilling, but also the completion design between the two wells.

Q. Anything else about this slide?

A. No, sir.

Q. Okay. Now, Mr. Morby, were you involved with meetings with Ascent Energy?

A. Yes, sir, I was.

Q. And based on -- to your knowledge, has Ascent drilled and completed any Bone Spring or Wolfcamp wells in New Mexico?

A. Not to my knowledge.

Q. In your opinion, is there going to be a learning curve both in terms of targeting and in executing the completion process?

A. I believe there will be, yes.

Q. Let me ask you: In those meetings -- you were here for the testimony where they were quizzing the company about the completion process it utilizes?

A. Yes, sir.

Q. And finding out information about that?

A. They were asking about our practices. Yes.

Q. Even if Ascent is able to copy your design, okay, does that mean that they're going to have the same success rate that you have proven here in New Mexico?

A. Not necessarily.

Q. And why is that?

A. I believe, at least from our experience, there

is a learning curve out in the field, getting -- getting frac fleets kind of lined out to pump these kind of designs and having experienced completion consultants that are used to the kind of pressures and formations that we're dealing with out here. And then, yeah, it just gets down to execution in the field and some of the intricate details that really don't come off the page in terms of his reporting or FracFocus.

Q. Okay. Mr. Morby, I apologize. I don't have a copy of the order in front of you, but I gave the Examiners an order, Order Number R-14518. Okay?

A. Yes.

MR. FELDEWERT: And I would invite the Examiners to go to page 7 of that order.

Q. (BY MR. FELDEWERT) Mr. Morby, I'm going to represent to you that in this order, after examining the evidence, the conclusion of the Division was that Mewbourne should be -- that their pooling application should be granted. Okay?

A. Okay.

Q. And I'm looking at paragraph 20, and it said, "Mewbourne" -- a successful operator here -- "provides sufficient evidence establishing a greater capacity to prudently operate the property based on successful drilling operations for the targeted interval in this

area, along with active production in its existing horizontal well completed...." And then it identifies the area. Okay?

A. Okay.

Q. With that in mind, in your opinion, does Centennial, due to its experience, have a greater capacity to prudently operate the property based on successful drilling operations in New Mexico in these zones?

A. I believe so.

Q. And part of that success is based on actual experience, right?

A. Yes, sir.

Q. And is it your opinion that it's hard to be successful until you actually gain that experience?

A. Yes, sir. I believe so.

Q. I want you now to turn back to Centennial Exhibit Number 10. This is Centennial's stage 1 development plan under the -- the proposals that it submitted both to Ascent and the Division under its pooling applications; is that correct?

A. Yes, sir.

Q. It follows exactly what we proposed and what we submitted?

A. Yes, it does.

Q. Did you participate in the development of this plan?

A. Yes, sir, I did.

Q. And in your expert opinion, do you agree that it's prudent to develop the 3rd Bone Spring Sand with the Wolfcamp A Sands before developing the 2nd Bone Spring Sand?

A. Yes, sir, I do.

Q. And why is that?

A. When we're here to develop all potential horizons, the best course of action is to drill a deep well first, log the intervals, get a look at what each of the target intervals is, what potential pay is there, potential targets for the future so that we -- as we're developing the lower intervals, we can start evaluating and picking our targets for the upper intervals and our ultimate development plan.

Q. Is that what companies do if they actually intend to fully develop, is my ultimate question?

A. Yes, sir.

Q. And in putting together this plan, do you agree that this has the proper spacing and wine-rack pattern to simultaneously -- to prudently and effectively and simultaneously develop these two zones?

A. Yes, sir.

Q. Okay. With respect to your 3rd Bone Spring Sand targets depicted on here, what sands are you targeting?

A. We were targeting the basal lobe of the 3rd Bone Spring Sand.

Q. And why are you doing that?

A. That is, in our opinion, the best rock quality of the 3rd Bone Spring Sand interval, and it has been drilled by industry all over the area.

Q. The basal sands?

A. Yes, sir.

Q. B-A-S --

A. B-A-S-A-L.

Q. Okay. So in your opinion, if you're going to develop the 3rd Bone Spring Sand, you should start with the basal sands?

A. In our opinion, yes.

Q. Now, with respect to the spacing that's shown here, both the wine rack and the 1,320-foot spacing, would you explain why that's important to efficiently and effectively develop these two zones simultaneously?

A. Yes, sir. So the 3rd Bone Spring Sand, comparing it to the Wolfcamp A interval, has overall better porosity and permeability in the area as developed by other operators in the industry. The

standard has been four wells per section or 1,320-foot spacing in zone, so we believe that was a good target or a good starting point for our development plan. You want to space these out because they have -- you know, they have wider drainage due to the enhanced permeability.

Of the two zones, we believe that the 3rd Bone Spring Sand is the better of the two intervals, but there is still hydrocarbons and good resource to be produced out of the Wolfcamp. So our stack-stagger plan was really established based off of the 1,320 spacing first in the 3rd Bone Spring Sand, and then our Wolfcamp wells were put equidistant away from these 3rd Bone Spring Sand wells. So if you're looking on a map, they look like they're 660 feet away between the Wolfcamp -- or the 3rd Bone and the Wolfcamp, 220-foot TVD difference.

And what we've noticed from microseismic data in this Basin and kind of general engineering principles, the deeper the target interval, the higher the pressure in the Permian. That's why when Brett testified, he talked about adding an additional string of casing for the Wolfcamp due to the increased pressures in the Wolfcamp. So when we're stimulating these wells, the fluid, it is goes out into the

reservoir, builds net pressure, cracks the rock, and then it wants to escape. And the place that it wants to escape to is to lower pressure, going from high to low pressure, so it moves upwards, and it goes out of the zone or vertically.

Now, our completion design is such with slickwater and 100 mesh proppant, so there is not much carrying capacity. So you don't have -- you don't have proppant moving upwards. It actually tends to settle around the wellbore. But you do have fluid trying to go from high to low pressure, and generally the tendency is to go upward. So we didn't want to put these Wolfcamp wells beneath our 3rd Bone Spring wells or close to them to give all four wells the best chance to produce the most hydrocarbons and not waste resource.

Q. So in your opinion, is it necessary to simultaneously develop these zones to avoid waste?

A. Yes, sir. I believe it is.

Q. And in your opinion, is the spacing in the wine-rack pattern, as reflected on here, the most efficient and effective way to accomplish that goal?

A. Yes, sir. I believe it is.

Q. And especially in this geologic setting where you have the proximity of the zones and then the absence of a mechanical barrier between the 3rd and the

Wolfcamp?

A. That's correct.

Q. Okay. Is this experience -- is this how the industry does it, Mr. Morby, the zones?

A. We have observed this in the mapped areas that you saw on the previous exhibits. EOG Resources did it with their Della 29 wells. There are two wells, one in the 3rd Sand, one in the Wolfcamp, and they're generally offsetting one another. In other parts of the Basin where the 3rd Bone Spring is not as prospective, you will see down-spacing in the Wolfcamp, and that's because there is not two prospective zones. But with two prospective zones, we feel that the best development plan is to wine-rack stagger these wellbores.

Q. Has Centennial itself actually utilized this spacing pattern in a similar geologic setting?

A. We have. Down in Reeves County, we're very active down there, and we develop multiple benches and sometimes within the same bench of the Wolfcamp, similar TVD differences, similar map view -- or spacing between the stagger patterns. And we do this kind of development and we do it at the same time or -- you know, we co-develop both zones as to prevent waste because there tends to be -- if you come in afterwards and drill a subsequent well, there tends to be

parent-child relationship, communication between the wells during the stimulation.

So you have a parent well in one of the target zones that has started production, started depleting fluid out of the reservoir. Therefore, the pressure is drawn down for this parent well. We come in with a subsequent well at similar TVD differences and stagger distances. And instead of the fluid coming into the reservoir, creating net pressure and then cracking the rock like we want it to, it tends to move towards the lower pressure, fill that void up before it can actually do what it's supposed to do, crack the rock and we can propagate that fracture and produce the resource out of there.

We've observed this numerous times in Texas with similar staggered patterns, and so we believe, with this geologic setting, that it's prudent to develop both of these sections at the same time.

Q. If I turn to what's been marked as Centennial Exhibit Number 19 --

A. Yes, sir.

Q. -- is this an example of the simultaneous development that you were discussing between the 3rd Bone Spring Sand and the Wolfcamp A?

A. Yes, sir, it is.

Q. Would you explain to us what is shown on this exhibit?

A. Yes. So these are the two EOG Resource drilled-and-completed wells. The Della 29 Fed Com 602H is the 3rd Bone Spring Sand well. What I have done is I have pulled the data within the mapped area in the previous exhibits to just wells that have lateral lengths between 4,000 and 5,000 feet of affected treated lateral. And so you can see on the 3rd Bone Spring Sand, on the left-hand side of the page, that that well is one of the best 3rd Bone Spring wells in this development or mapped area.

On the right-hand side, you see another cumulative oil versus time plot. This is the Della 29 Fed Com 701H. This was co-developed, so these wells were drilled together and completed together. And you can see that that well is average, if not above average, for the Wolfcamp wells in the area, and so this kind of shows the importance of that co-development of both zones.

Q. Did you have the same wine-rack pattern there?

A. Yes. These wells are spaced 880 feet apart between -- you know, the lateral view between the two wellbores is 880 feet, but one in the 3rd Sand and one in the Wolfcamp.

Q. Okay. Now, if I turn to Centennial Exhibit Number 11, is this the Ascent development plan as they proposed it to you in the well-proposal letter?

A. Yes, sir, it was.

Q. Exactly what they proposed?

A. Yes.

Q. Okay. And do you have an opinion about the feasibility and the success rate that would be attributable to this type of development plan proposed by Ascent?

A. Yes, sir.

Q. And what are those opinions?

A. Well, we'll first start in kind of the Phase 1 or what we call it for our development pattern in the 3rd Bone Spring Sand in the Wolfcamp intervals. I would have preferred to have two 3rd Bone Spring wells in this -- in this development pattern. Whereas, they're showing a single well in the 3rd Bone Spring Sand. I believe the 3rd Bone Spring Sand is, in our opinion, the better target interval. We have similar wells in the Wolfcamp that are planned, but I do not believe a single 3rd Bone Spring Sand well will drill -- will drain effectively the 320 acres.

Q. Is it appropriate to use a single 3rd Bone Spring well if you're going to efficiently and

effectively and simultaneously develop these two zones?

A. No, sir. I believe if -- even if you came back and planned a subsequent 3rd Bone Spring Sand well, these wells -- you know, these TVD differences between the wells and the lateral spacing between them, that you would, in my opinion, start to encounter parent and child relationships and the ineffectiveness of a stimulation -- or less efficient stimulation.

Q. In your opinion, does this development plan proposed by Ascent for the 3rd Bone Spring Sand in the Wolfcamp risk causing waste?

A. I believe you risk leaving hydrocarbons behind, especially in the 3rd Bone Spring Sand.

Q. And that's because of the depletion impacts?

A. Yes, sir.

Q. Is it also a function of their current spacing?

A. It's a function of the current spacing with a single well planned in the 3rd Bone Spring.

Q. Okay. Now, also, are you aware that with our -- Centennial's drilling plan, it's going to have the ability to drill within the zones toe up?

A. Yes, sir, I do.

Q. And there are some questions about that. Is it important to drill toe up when it's possible?

A. Yes, sir, it is.

Q. Why is that?

A. When you have a toe-up situation with a well, gravity works in your favor to migrate the fluids down to the heel of the well, is what we call it, where we land the curve, and fluids will tend to accumulate in this sump. And then you have shortened the distance that fluids have to make it from this sump to your artificial lift system. And this is usually applicable in the late lives of the wells when there is not much energy left in the reservoir. So we're talking 20 to 30 years into the production life where you're most likely on rod and beam lift, by that point in the well's life.

And in the Permian Basin, with the amount of water that is produced along with the oil, you have a lot of liquids to recover in order to effectively recover hydrocarbons also. So I think it's definitely important, especially in the Permian.

Q. Is it always possible to drill toe up?

A. It's not always possible. There are surface limitations, unit orientations, pipelines to avoid. I mean, you name it out there. We do not always have the opportunity -- always have the opportunity to drill toe up.

Q. But here you do?

A. We do.

Q. In your opinion, will Centennial's proposal to drill from south to north promote the accumulation of liquids on the heel?

A. Yes, sir, it will.

Q. Will it extend the life of the well?

A. I believe it will. I believe it will lower the abandonment pressure that's possible with the artificial lift system and result in more hydrocarbons being produced in the lifetime of the well.

Q. Okay. In your opinion, Mr. Morby, in addition to all these points, will Centennial's proposal to place the first take point and the last take point 100 feet from the in-lines result in additional recovery of reserves?

A. Yes, sir. I believe it will.

Q. In your opinion, Mr. Morby, should Ascent's applications be denied?

A. Yes, sir.

Q. In your opinion, will their proposed development plan result in waste?

A. Yes, sir. In my opinion, it will.

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

A. Yes, sir.

Q. Were Centennial Exhibits 16 through 19 prepared by you or compiled under your direction and supervision?

A. They were.

MR. FELDEWERT: Mr. Examiner, I'd move admission into evidence Centennial's Exhibits 16 through 19.

MR. BRUCE: No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: Exhibits 16 through 19 for Centennial are admitted.

(Centennial Resource Production, LLC Exhibit Numbers 16 through 19 are offered and admitted into evidence.)

MR. FELDEWERT: And that concludes my examination of this witness.

CROSS-EXAMINATION

BY MR. BRUCE:

Q. Yes, Mr. Morby, looking at your Exhibit 16, this is in 22 South, 34 East. How far away from it is Section 18 that we're dealing with today?

A. My estimate, 20 to 30 miles.

Q. And the next two exhibits are from 24 South, 34 East. How far away are those wells?

A. Oh, goodness. Farther than -- farther than 20

to 30 miles.

Q. It's not quite -- is it fair to say it's not quite in the area of Section 18, the plat that the geologist used?

A. It is not. That's correct.

Q. And it looks like on each of these, 16, 17, 18, the better wells are drilled from north to south?

A. That's true for 16 and 18 and 19 -- or 16, 17, 18.

Q. Now, you were talking about your completion process. You consider that proprietary, correct?

A. Yes, sir, we do.

Q. If you have working interest partners, do you share that information with them?

A. We do.

Q. But you weren't willing to share it with Ascent?

A. Not current -- we have not yet. No, sir.

Q. Okay. And looking at Exhibits 16 and 17, which are the 2nd Bone Spring, you don't have any equivalent information on the 3rd Bone Spring, do you, at least that you're presenting today?

A. No, sir. These examples are from the 2nd Bone Spring Sand.

Q. Thank you.

MS. BRADFUTE: No questions.

EXAMINER JONES: No questions?

Mr. Lowe?

CROSS-EXAMINATION

BY EXAMINER LOWE:

Q. Just to clarify on my end, you stated that you're shooting for 1,320-foot target interval for these wells?

A. Yes, sir.

Q. And you had indicated on one of the wells, they're 850 feet apart. Which ones were those? Were they all about the same? I don't know if I got that right.

A. Which example was that?

Q. I don't recall as far as what you indicated, but I can probably research on my side.

A. Okay.

Q. That's all I've got for now. Thank you.

EXAMINER JONES: Mr. Brooks?

CROSS-EXAMINATION

BY EXAMINER BROOKS:

Q. There was an exhibit that had a bunch of arrows going different directions and some circles with various colors that I think are a cross section of drain holes. Which exhibit was that?

A. Is it 10?

MR. FELDEWERT: The development plan?

Q. (BY EXAMINER BROOKS) 10 is one of them. There is another one like it that has the arrows -- where the arrows --

A. 11?

Q. -- are going in different directions. Well, no, that one is not going different directions. They're different sequences. I was looking at 11.

Okay. 10 -- yeah, that's right. 10 was the one you were talking about, right?

A. Yes, sir.

Q. Which of these is your plan, and which of these is Ascent's plan?

A. Exhibit 10 is Centennial's plan, and Exhibit 11 is Ascent's plan.

Q. Okay. So you're going to -- I don't know about wine racks because wine never stays in my house long enough.

(Laughter.)

MR. FELDEWERT: I'm not commenting on that one.

(Laughter.)

Q. (BY EXAMINER BROOKS) I believe what you're planning to do is drill -- is drill the 2nd Bone Spring

wells 1,320 feet apart. And you're drilling the 3rd Bone Spring wells 320 feet apart, and you're drilling the Wolfcamp wells 320 feet apart?

MR. FELDEWERT: Mr. Examiner, let me stop you right there. I think you meant to say "13."

EXAMINER BROOKS: 1,320 feet. No one wants you to drill them 320 feet apart.

Q. (BY EXAMINER BROOKS) But they're -- no one of them is going to be in a vertical direction lined up with the others. In other words, you're going to have -- your 2nd Bone Spring wells are going to be kind of in the middle, and your 3rd Bone Spring wells are going to be off to the left, and your Wolfcamp wells are going to be farther off to the right than your -- than your 2nd Bone Spring wells, right?

A. Yes, sir.

Q. So I guess after hearing it a couple of times as discussed, I kind of understand what you're doing. Your testimony was that that has certain advantages?

A. Yes, sir. We believe it does.

Q. Why would it -- since these wells are displaced substantially in the vertical, do you believe they'll affect one another?

A. I believe that the TVD distance between the 3rd Bone Spring Sand and the Wolfcamp, it's important to

stagger those targets. With our experience, 220-foot TVD -- we've seen interactions in other portions of the Basin, namely in Reeves County, in the Wolfcamp. We are not as concerned about staggering the 2nd Bone Spring Sand and 3rd Bone Spring Sand.

Q. Okay. And TVD means true vertical depth?

A. Yes, sir.

Q. And that's the difference between the elevation of the well at the surface and the elevation of the lowest part of the hole?

A. That's just -- that's just looking in the vertical sense, straight down.

Q. Yeah. Right.

Okay. Then when you go to their plan -- Exhibit Number 11 is Ascent's plan, right?

A. That's correct.

Q. And, now, did you ever figure out if they really want that well in the 2nd Bone Spring or if that was a result of a misunderstanding or misrecording of data?

A. From what I know, that's where the original well was proposed. When they came to the meeting with us, they let us know that they were up on a mesa with their location, and they had originally intended for it to be in the 2nd Bone Spring Sand.

Q. Okay. So you're fairly sure that they want one 2nd and one 3rd Bone Spring plan like you've drawn it and not something else?

A. I'm fairly -- from what they have proposed, I believe that they wanted two wells in the 2nd Bone Spring Sand and then two wells in the Wolfcamp A and one well, that we know of so far, in the 3rd Bone Spring Sand.

Q. Okay. So they want -- they want three wells in the Bone Spring, two in the 2nd and one in the 3rd?

A. Yes, sir.

Q. That's your understanding?

A. That's my understanding.

Q. You only show two of those here, right?

A. The two in gray, I believe, were supposed to be 2nd Bone Spring Sand targets. The one in yellow is the single 3rd Bone Spring Sand. Yes, sir.

Q. Oh, oh. It's going to be really close vertically to the Wolfcamp, right, 150 feet? And yours are going to be 220 feet?

A. We -- we don't have a firm understanding of where their target interval is within the Wolfcamp, so that's just our best estimation based on the plats.

Q. The next the question I was going ask is something different. Does it have any significance?

What would your answer be to that?

A. I'd rather have slightly more vertical distance between the two targets, if possible.

Q. But at this point, you don't really know where the best rock is?

A. We believe, in the 3rd Bone Spring Sand interval, the best target is the basal 3rd Bone Spring Sand, in our opinion, of the rock quality. And then our second interval down there will be the Wolfcamp A interval, which is what we drilled our Juliet Fed Com 1H in.

Q. Okay. Now, exactly what is it that you think is going to be -- cause waste about Ascent's plan?

A. The single well that was proposed in the 3rd Bone Spring Sand, generally this resource -- or this interval is drilled with four wells per section at 1,320 spacing in zone. I don't believe that a single well will be able to drain 320 acres of this reservoir and, therefore, will leave reserves behind.

Q. And even if they drilled it fairly far off toward the right, as you've shown, you still wouldn't have room -- well, if you drilled another one off to the left, that would still -- it would still interfere?

A. If you drilled a subsequent well after drilling these original three wells in the 3rd Bone Spring Sand,

I believe that you're putting yourself at risk of encountering parent-child interaction between the wells due to pressure depletion or pressure sinks.

Q. I didn't fully understand that, but I did kind of understand probably as much as I'm going to. That's good enough.

The rest of your lecture was mostly about your completion techniques, right?

A. Yes, sir.

Q. Now, when I go to these, that starts with 16. Let's see. Now, on 16, the exhibit -- the two wells that don't seem to be as productive are farther off to the south and west. Do you think that might be an explanation for the differences in that set of wells?

A. From our mapping and looking at the net sand within the 2nd Bone Spring Sand, they're actually in similar geologic settings, so I think the pay quality is similar between the two.

Q. Okay. Exhibit 17's again -- no, wait. Exhibit 17 is the other way around. You've got the better well south and west -- south and east and the not-so-good well north and west, right?

A. Yes, sir. The southeast well, in Exhibit 17, is better than the northwest well.

Q. Yeah.

But always -- no, wait. Then go to Exhibit 18. Your Juliet well is pretty new. Looks like it's coming on strong.

A. Yes, sir.

Q. And those wells are pretty close together?

A. They are.

Q. But they're off to the south and west also, right?

A. The Sheba is on the east side of the --

Q. South and east, I mean. I'm sorry.

A. Yes. Right. They're directly -- the Juliet is directly west of the Sheba well.

Q. So 17 and 19 would be consistent with -- not necessarily indicate, but would be consistent with a deterioration as you move east. But 16 -- no. 16 and 18 would be, but 17 would not -- 17 would indicate either no difference or other way around, right?

A. Right. We believe that the settings, especially example 18 being in the same section, Exhibit 17 a section away from one another, that the rock quality in each of these examples is similar, that they were drilled within the same zones, and the difference in the performance would be explained by our completion technique versus --

Q. Right.

And you have other data on which you believe that there is not either an improving or deteriorating trend in either direction?

A. Right.

Q. Thank you.

A. Yes, sir.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. He covered a lot my questions.

I don't know how much you want to talk about the completions, but you can tell me if you don't. I could ask a lot about whether you have improved your perforations, your phasing, your density, your charges and all that. Are you -- do you want to talk about it, or -- do you think there has been an improvement?

A. I believe -- over the past year, we started implementing a new completion design at Centennial, moving from a hybrid-gel-style frac, viscous gels to a slickwater design. The whole point of this design is really to generate near wellbore complexity around the wellbore. So instead of trying to place proppant far away from the wellbore and drain as far out as we can, we're trying to drain as much of the rock close to the wellbore. And if it's successful, it allows us to increase the number of wells that we're able to place in

a given section and improve the recovery of the wells --

Q. Okay.

A. -- and of the section as a whole. So that's our goal. That's kind of what we're trying to get at with our completion designs and what we've been gearing towards over the past year. We've definitely seen improvements in the well performance.

Q. Okay. So you've gone more toward the high-volume, high -- high-rate fracs and away from the gel loadings that might be -- is that gel clabbering up your bores? Is that what it's doing?

A. I think that's an active debate in the industry, whether it does or does not. One thing from my understanding of frac technology that gel does do is it's viscous. It has a higher carrying capacity of the proppant and can carry it further away from the wellbore. Slickwater does not have that carrying capacity, and proppant tends to fall out of the fluid stream quicker. And so that kind of allows for the generation of fractures near wellbore and then kind of a lot of proppant that, you know, is filling those cracks near wellbore and keeping the completion and stimulated rock volume close to the well.

Q. So have you changed the size of your pads, or have you -- the people that are watching your frac, you

know, governing the frac, are they getting more and more experienced or --

A. The completion consultants are definitely getting more experience as we get more wells under our belt.

The frac fleets -- at the beginning, when we get -- you know, if we get a new frac fleet, it takes, seems like, a few wells for them to get an understanding of what we're doing and what we want done out in the field. And once they get that under their belt, then operations seem to -- execution improves.

Q. Okay. But you've still got the same limitations on pressure on the size of your casing and everything. So can you tell us what final sand concentration you're going for or size of your sand, final size, the tail-end size?

A. 100 mesh sand.

Q. Nothing finer than that to start with?

A. No, sir.

Q. And you mentioned microseismic data. Does that mean actual surface-measured microseismic, or are you talking about FMI-type or some kind of a downhole-type seismic?

A. It's downhole arrays. We'll put a downhole microseismic array in a vertical wellbore or the

vertical portion of a horizontal wellbore adjacent to, you know, a frac that's going on. And we'll try to find another horizontal wellbore to put a whip array in, which a whip array goes into the actual horizontal portion of the lateral. And so then you can triangulate where these -- these noises are happening or where these cracks are occurring, and they pinpoint, you know, the events, is what they're called.

Q. So there is a lot here about no barriers or no significant barriers between your Wolfcamp A target and the lower part of your 3rd Bone Spring. But you've got those carbonates in there, and you've got a lot of variety on your gamma ray, it looks like. But you -- and you've got a big stress difference, right, because you've got higher pressures down in the Wolfcamp? So you still think it's affecting your Bone Spring -- the Wolfcamp fracs are affecting the Bone Spring?

A. I believe that your fracs are going to grow up into the Bone Spring. But from the Wolfcamp A interval, I believe -- we're not placing proppant above the wellbore with this slickwater design. Everything is settling out. So even if cracks occur above you, we don't believe they're going to be propagated, you know, for eternity. And as fluid is removed from the system again, we believe they can close back up over time.

Q. Okay. I probably better move on. Thanks very much.

A. Yes, sir. Thank you.

EXAMINER JONES: Any other questions?

REDIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Mr. Morby, turn to Exhibit 10. I want to get --

A. Yes.

Q. Help me understand Exhibit 10. If I look at the bottom, right-hand corner, you show the spacing that the company, based on its experience and what other operators use, as the appropriate spacing, right?

A. Yes.

Q. So you've got 1,320 in-zone spacing?

A. That is correct.

Q. And that's what other operators and that's what the company have seen as the most efficient spacing to start with, right?

A. That's a good starting point, is kind of what the industry has been doing. Yes.

Q. So that's why if I go -- start at the top and I go to the 2nd Bone Spring. You've got 1,320 at the top of those wells?

A. Yes, sir, we do.

Q. Go down to the 3rd Bone Spring zone area, you can see the basal sand that you're targeting, right?

A. That's correct.

Q. And then you've got 1,320 feet between those two yellow dots?

A. That's correct.

Q. And then that sets your pattern for your Wolfcamp, right?

A. That is correct.

Q. And you've got 1,320 between the Wolfcamp?

A. That's correct.

Q. Okay. And then you note that there are 660 stack-stagger spacing?

A. Right.

Q. That's the wine rack, right?

A. That is the wine rack.

Q. So, for example, if I took that bottom, right-hand red dot and I follow the dashed line all the way up into the 3rd Bone Spring Sand -- you've got your arrow there -- that's the distance you're talking about, the 660, right?

A. Right. That is the -- what I was calling the lateral distance between those -- those two wellbores, would be 660 feet between the 3rd Bone Spring Sand well and that easternmost Wolfcamp well.

Q. Okay. And your primary point was that to successfully and simultaneously complete these two zones, you need this kind of spacing with this kind of pattern?

A. Yes.

Q. Okay. Then if I look at Ascent's plan, you see various distances between the wells, right?

A. That's correct.

Q. And you see various -- you see different distances in terms of the wine rack?

A. That's correct.

Q. In fact, they've only got one 3rd Bone Spring well for the wine rack?

A. Correct.

Q. And that's your concerns about waste, correct?

A. That is.

Q. And that they won't be able to effectively and simultaneously complete those two zones?

A. That's correct.

MR. FELDEWERT: That's all I've got.

EXAMINER BROOKS: Let me ask one more question that's kind of related to that.

RECROSS EXAMINATION

BY EXAMINER BROOKS:

Q. I've heard a lot of engineers testify recently

that want to drill more -- they want to drill them closer than 1,320 feet apart. And that's a change from several years ago when they were all talking 1,320. Is this area -- is that not -- are those concerns not applicable really in this area?

A. Well, actually, in some of those other example areas that I was showing, we're testing five wells per zone, which would be 1,000-foot spacing.

Q. Yeah.

A. And, you know, we're going to continue testing. So we're hoping if that is successful, that we can bring it into these other development areas that we're a part of and potentially down-space. And for the reason I was explaining with this near wellbore design, we can keep things more contained close to the wellbore, harvest the most rock and hopefully put more wells in the zone.

Q. Yeah.

I have heard testimony that would support five or six across a section.

A. We would love to see that. Yes.

REDIRECT EXAMINATION

BY MR. FELDEWERT:

Q. Mr. Morby, the 1,320-foot spacing, to start with, does that allow you to do what Mr. Brooks is talking about?

A. The 1,320-foot spacing in this zone for the 3rd Bone Spring Sand, we would test it at 1,320 first before ever trying to down-space just to establish that that was a good spacing and we weren't seeing interaction between our 3rd Bone Spring Sand wells.

Q. Now, does that initial distance allow you the room to infill drill as necessary?

A. With that -- with that pattern established in the 3rd Sands, we would most likely not come back in in between or directly over top of our Wolfcamp wells in that area.

Q. Okay. Okay. All right.

EXAMINER JONES: Does anybody want a quick break before you start, or you want to start right now?

MR. BRUCE: Let's start with my landman and then take a break.

EXAMINER JONES: I'm sorry, Mr. Feldewert.

MR. FELDEWERT: That's it. I'm sorry. That concludes our presentation.

LEE ZINK,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you please state your name and city of

residence for the Examiners?

A. Lee Zink, Denver, Colorado.

Q. Who do you work for and in what capacity?

A. I work for Ascent Energy, LLC, and I'm the land manager.

Q. Have you previously testified before the Division?

A. I have.

Q. And were your credentials as an expert petroleum landman accepted as a matter of record?

A. They were.

Q. And have you been working for Ascent since they acquired their New Mexico interest?

A. I have.

Q. And how many years of experience do you have as a landman?

A. As a landman, I have 12 years' experience.

Q. And are you familiar with the land matters involved in these applications?

A. I am.

MR. BRUCE: Mr. Examiner, I tender Mr. Zink as an expert petroleum landman.

EXAMINER JONES: Any objection?

MR. FELDEWERT: No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: So qualified.

Q. (BY MR. BRUCE) Mr. Zink, let's start with your Exhibit 1. What is that?

A. Exhibit 1 is an Midland Map covering the following cases, Case Number 15992 through 15996. It's in Township 21 South, Range 33 East, Section 18, covering the east half. Also on this map, it shows our -- Ascent Energy's leasehold position and Centennial's leasehold position.

Q. Okay. And what is Exhibit 2?

A. Exhibit 2 is a regional lease map for Ascent Energy just kind of documenting the multiple units we have in this area and concentrated position that we own.

Q. And what is Exhibit 3?

A. Exhibit 3 is same map as Exhibit 2, except we've added on our spacing units on there. And as you can see, we've got -- one, two, three, four -- five operated spacing units in this area -- in this immediate area.

Q. And these are -- this is the oil potash area?

A. Correct.

Q. And so has Ascent been working with the BLM for quite some time trying to look for -- looking forward to developing this area and drilling this area?

A. That is correct.

Q. And what is Exhibit 4?

A. Exhibit 4 is the pooling unit map for Case Numbers 15992 and 15995. The pooling unit covers the west half of the east half in Section 18, Township 21 South, Range 33 East. These cover Ascent's Trucker Fed Com 501H well and the Trucker Fed Com 701H well. It also lists the working interest owners for both parties in this unit.

Q. The 501H is a 2nd Bone Spring; is that correct?

A. That's correct.

Q. And the 701 is a Wolfcamp?

A. That's correct.

Q. What is Exhibit 5?

A. Exhibit 5 is the pooling unit map covering the east half-east half of Section 18, and this is for Case Numbers 15993, 15994 and 15996. This unit covers Ascent's proposed Trucker Fed Com 502H, Trucker Fed Com 601H and Trucker Fed Com 703H and the working interests for both parties.

Q. And the 502H is a 2nd Bone Spring?

A. That's correct.

Q. The 601H is a 3rd Bone Spring?

A. Correct.

Q. And the 703H is the Wolfcamp well?

A. Correct.

Q. Now, looking at this in a little more detail -- and so will Ascent's other witnesses. But are you looking at just drilling one 3rd Bone Spring well in the east half of Section 18?

A. No.

Q. What numbers are you looking at in each of those zones?

A. I will leave that up --

Q. In a half section.

A. In a half section? I'll leave that up to our geologist and our drilling engineer to explain further on that, but there will be multiple wells in that unit in that zone.

Q. And in Case 15994, the 601H, that is at an unorthodox location; is that correct?

A. That is at a -- correct.

Q. It's close to the interior -- it's close to the line that divides the east half-east half from the west-east half?

A. That's correct.

Q. And then before we move any further, the west half of Section 18, Ascent has plans in that area, too, correct?

A. Ascent has plans to develop the west half of Section 18.

Q. And as a matter of fact, a month ago or a little more than a month ago, Ascent went to hearing to -- Ascent owns the southwest quarter of Section 18, correct?

A. Correct.

Q. And the northwest quarter of Section 18 is a federal lease?

A. That's correct.

Q. And you went to hearing on, I believe, February 8th to force pool the west half-west half and the east half-west half well unit --

A. That's correct.

Q. -- for future development?

A. Correct.

Q. Now, there's been a lot of talk about APDs. When Ascent acquired its acreage in New Mexico, did it have any -- did it acquire acreage with any approved APDs?

A. No, it did not.

Q. And at least in this area of what we're looking at is a lot of BLM acreage. Even if -- even if you don't own it, there's federal acreage in the well unit?

A. Correct.

Q. So does it take a while to arrange situations with the BLM to file -- even file an APD?

A. That's correct.

Q. And once you file, it takes quite a while to get approval for that?

A. Correct.

Q. And looking at this area, do you intend to actually develop all of these areas that are shown in yellow on Exhibit 2?

A. We do.

Q. And, again, you are working toward -- towards that aim, but, again, you can't even file -- for instance, in Section 18, you cannot even file until either a JOA is entered into with the north-half interest owners or you get a forced pooling order?

A. That's correct.

Q. It's not a quick process?

A. It is not, no.

Q. And let's move on to your Exhibit 6. Could you discuss -- could you identify that and discuss its contents?

A. Exhibit 6 is a summary of our communications with Centennial Resource Production covering Ascent's proposed Trucker Fed Com wells. Our interest in this area -- some of our communications date back all the way to 2016 when we first acquired a position in this area. We were in contact with GMT, who is Centennial's

predecessor. We worked with them to try to buy this lease from them and have since diligently, in good faith, worked with Centennial to engage conversations once they have -- once they acquired this interest from GMT.

Q. And you've had several meetings with Centennial; have you not?

A. We have.

Q. Just from a land standpoint -- I'll leave that for another witness.

And Exhibit 7, I believe another witness will discuss this, but is this -- if you could identify this and does this show the type of interactions you've had with the BLM regarding getting well locations approved and moving forward on surface locations?

A. That's correct. Yes. Exhibit 7 is a summary of our progress for these wells, for the Trucker Fed Com wells. It includes our conversations with the BLM, with the grazing lessee owner, with Cimarex, as the mineral lessee in Section 7. And we'll go more in-depth on that with one of our -- with my co-worker.

Q. Okay. And it mentions the Trucker wells, but it also mentions the Sombrero wells. Are those in the west half of Section 18?

A. That's correct.

Q. What does Exhibit 8 contain?

A. Exhibit 8 is Ascent's -- yeah. It's Ascent's well proposal for the Trucker Fed Com 501H well. This was -- this was sent over to Centennial on September 26th. And this outlines our surface location, bottom-hole location, our total vertical depth, total measured depth, our AFE and the associated JOA terms under this proposal -- well proposal.

Q. Now, in January, did you have a discussion with Centennial whereby -- did they inform you during that discussion that they were moving forward with their well proposals and would be filing pooling applications?

A. They did.

Q. And is that the reason you got your well proposals together, the January 22 ones, and filed your applications?

A. That's correct.

Q. You understood they were filing, too?

A. Yes. Yes.

Q. Now, you understand -- you've looked at Division orders regarding the timing of sending out proposal letters and the timing of filing pooling applications; have you not?

A. Repeat. You said Division orders?

Q. Yeah. OCD orders.

A. Oh, OCD orders. Yes, yes. I was thinking -- wrong context.

Q. Yeah. Sorry. I shouldn't say division orders to a landman.

A. Yes. I'm aware of that.

Q. And normally they like to see, say, 30 days elapse between filing -- or sending a proposal letter and filing an application?

A. That's correct.

Q. Was it your understanding that they were going to file soon, so -- that they were going to file their applications soon?

A. Right. Yes. So our understanding is they were going to file forced pooling on all four of their well proposals that they had made to Ascent Energy covering this east half.

Q. And you got their well proposals a few days later or around the same time frame?

A. Same time frame.

Q. So both companies were kind of playing fast and loose with the rules there?

A. Sure.

MR. FELDEWERT: Object to the form of the question. There's no evidence we played fast and loose with the rules.

THE WITNESS: Okay.

EXAMINER BROOKS: Well, I will sustain the objection to characterization.

Q. (BY MR. BRUCE) Mr. Zink, do you have Exhibit A?

A. I do.

Q. What is that?

A. Exhibit A here is an email from Gavin Smith to myself, and copying Ryan Parsley, who is Ascent's CEO, and Aaron Teneholz at Centennial. And this addresses the well proposals and the timing of the well proposals and the applications for forced pooling. And it says that both parties agree to not move forward regardless as long as Ascent agrees not to assert that our wells were not properly proposed to the timing of the hearing, and Centennial agrees to do the same for the proposals that they received from Ascent.

Q. Did you agree to that?

A. We did agree to that.

Q. Were you here during the testimony of Mr. Smith?

A. I was.

Q. And were a number of questions asked stating that your well proposals were incorrect and your filings were incorrect?

A. That's correct. Yeah.

Q. Isn't that contrary to this email?

A. Yes. That is contrary to this email.

Q. So you weren't even going to bring up the timing of their well proposals?

A. I was not going to bring up the timing of their well proposals.

Q. Because of this email?

A. That's correct.

Q. So do you consider this email breached?

A. Correct.

Q. Based on your contacts with Centennial and the contacts and discussions you've had, you believe that you've made -- Ascent has made a good-faith effort to obtain voluntary joinder of the interest owners in your proposed wells?

A. That is correct.

Q. One little thing I don't think has been mentioned before, but if you look at the Bone Spring and separately at the Wolfcamp Formation in both the northeast quarter and the southeast quarter of Section 18, are there any depth severances?

A. There are no depth severances that we're aware of, not on this --

Q. In your first letter, the first page of Exhibit 8, you did send them a JOA; did you not?

A. We did follow up with a JOA several weeks later.

Q. Several weeks later?

A. Yes. And that was after -- that was after a meeting with Ascent's land department and Centennial's land department when they requested an operating agreement.

Q. Have you ever received any comments until today on your proposed JOA?

A. We have not.

Q. And, of course, the only party you seek to pool in this case is Centennial?

A. That's correct.

Q. Will another witness discuss the AFEs for the well?

A. They will.

Q. And do you request that Ascent be appointed operator of the wells?

A. I do.

Q. Do you have a recommendation for the amount that should be paid to Ascent for supervision and administrative expenses?

A. 7,000 for drilling and 700 for producing overhead rates.

Q. And in your opinion, are these amounts fair and

reasonable and in line with those normally charged by Ascent and other operators?

A. I do [sic].

Q. Do you request that these rates be periodically adjusted by the COPAS accounting procedure?

A. Yes.

Q. Does Ascent request the maximum cost, plus 200 percent risk charge in the event Centennial goes nonconsent in a well?

A. Yes.

Q. Now, insofar as land -- just from a land standpoint, did Ascent like the -- splitting up the east half into the east half-east half and west half?

A. We did not. We do not think that -- ultimately, to develop the resource that that was a counterintuitive trade proposal.

Q. It would -- it would conflict with, say, putting three wells, say, in the 2nd Bone Spring across the east half of Section 18?

A. Correct.

Q. Now, another trade they proposed was the southwest quarter for the northeast quarter?

A. Correct.

Q. But you were already well along in getting a pooling order and trying to prepare to file APDs; were

you not?

A. Yes. On the west half, we had sent well proposals out to the other parties in the west -- in the west half of that section, and we were proceeding forward with pooling. And I believe we're just waiting on a signed order for that tract, for the west half there.

Q. And was Centennial notified of the pooling applications?

A. They were.

Q. And is that reflected in Exhibit 9?

A. I would -- I don't have Exhibit 9 in front of me.

EXAMINER BROOKS: I was going to say, something happened to Exhibits 9, 10 --

THE WITNESS: I just don't have it in front of me.

EXAMINER JONES: Here (indicating).

THE WITNESS: To answer the question, yes.

MR. FELDEWERT: I was going to say, we got notice.

Q. (BY MR. BRUCE) And was notice given to all of the offset operators or working interest owners in the 40-acre tracts surrounding all of the east half of Section 18?

A. They were. Notice was given.

Q. And that is reflected by Exhibit 10; is that correct?

A. Yes.

MR. BRUCE: And, Mr. Examiners, I merely point out that it's so rare that I get everybody to return a green card, I'm kind of celebrating.

EXAMINER JONES: A first. Celebrated on green day.

Q. (BY MR. BRUCE) Mr. Zink, in your opinion, is the granting of Ascent's applications for nonstandard units and compulsory pooling in the interest of conservation and the prevention of waste?

A. Yes.

Q. And in your opinion, should Centennial's applications be denied?

A. That's correct.

Q. Were Ascent Energy Exhibits 1 through 8 and Exhibit A prepared by you or under your supervision?

A. That is correct.

MR. BRUCE: And, Mr. Examiner, Exhibits 9 and 10 are my Affidavits of Notice. I would move the admission of Ascent Exhibit A and Ascent Exhibits 1 through 10.

MR. FELDEWERT: No objection.

MS. BRADFUTE: No objection.
EXAMINER JONES: Exhibit 10, that was the Affidavit of Notice --
MR. BRUCE: To the offsets.
EXAMINER JONES: -- to the offsets? Okay.
Okay. Exhibits 1 through 9 and Number 10 and Letter A are admitted.
(Ascent Energy, LLC Exhibit Numbers 1 through 10 and Letter A are offered and admitted into evidence.)
MR. BRUCE: Pass the witness.
EXAMINER JONES: And, Mr. Feldewert?
MR. FELDEWERT: Mr. Examiner, if I may approach the witness.
EXAMINER JONES: Fine with me.
EXAMINER BROOKS: We're kind of informal around here, but yes, certainly you may.
MR. FELDEWERT: I'm going to hand to Mr. Zink what we've marked as --
EXAMINER BROOKS: I have been asked that question many times, and I don't think I've ever said anything but yes.
EXAMINER JONES: It might have been dangerous --
(Laughter.)

MR. FELDEWERT: I'm handing out what's been marked as Centennial Exhibit Number 20, which is a record search from the Oil Conservation Division for Ascent Energy.

CROSS-EXAMINATION

BY MR. FELDEWERT:

Q. Now, if I'm reading this -- if I understand this correctly, having looked at the files, I think you testified either in this hearing or a previous hearing that the company acquired its assets -- first assets in the fall of 2016; is that right?

A. That's correct.

Q. And was that by way of a change-of-operator form between the company and Diamondback for the Mongoose well?

A. Not in 2016, no.

Q. Okay. But you did acquire assets in the fall of 2016?

A. In fall of 2016, yeah, we did acquire some assets.

Q. Is that when you first started acquiring your assets?

A. Yes, sir.

Q. And then I'm looking here. It looks like these Division records would reflect -- I apologize. It looks

like the Mongoose Fee well 1H well was a well that you acquired a change-of-operator form from Diamondback?

A. That's correct.

Q. And then you acquired the Gavilan well in change-of-operator form from Strata?

A. That's correct.

Q. And then there are a number of wells above that, beginning with the Emperor, and then all the way down to the Eddy State. My review of the records indicate that you got those with a change-of-operator form from Link [sic; phonetic], right?

A. That's correct.

Q. And then the remaining wells below there, starting with Toque State, those were wells in which you actually got approved applications to drill?

A. That's correct.

Q. Those are approved applications?

A. Those are approved.

Q. And that was in January; was it not?

A. In January of -- they've been -- yes, recently.

Q. January of what year?

A. '17, probably.

Q. Okay. So you've had those for quite some time?

A. Maybe fourth quarter of '17.

Q. You've had ten approved APDs from the

Division's district office since that time?

A. That's about -- sure.

Q. But the company has not drilled any horizontal wells in New Mexico?

A. We have not.

Q. And, in fact, I believe you testified previously that you have no drilling rigs under contract?

A. We do not have any drilling rigs under contract.

Q. And didn't you testify in this area that you had no agreements for takeaway for water or gas?

A. We have no signed agreements.

Q. Okay. Now, you mentioned that you've been working to get your off-lease locations approved.

A. Correct.

Q. Are those -- are those state or fee lands in that section above?

A. In Section 7?

Q. Yes.

A. They're state lands.

Q. Okay. All right. And is that -- do those require approval from the potash companies?

A. They do not.

Q. Even though they're within the LMR?

A. They're outside the LMR.

Q. Are they within the potash area?

A. They're within the potash area.

Q. All right. But you don't think you need approval from the potash --

A. We do not need approval from the potash companies for that area.

Q. You were here for the testimony of Centennial after you sent out the September 2017 well-proposal letter where you had various meetings with Centennial, correct?

A. We've had various meeting. Correct.

Q. And Centennial proposed a number of trades?

A. They proposed two trades. Correct.

Q. You rejected each of those trades?

A. That's correct.

Q. Now, the most intriguing trade to me was -- if I look, for example, at your Exhibit Number 3, your proposal -- your proposal was to trade out Centennial's acreage in the northeast quarter for your acreage in the southwest quarter, correct?

A. That was in trade. Yes.

Q. Okay. And that would then give you the entire half section to develop?

A. Correct.

Q. And Ascent then -- or Centennial then would be able to develop the east half, correct?

A. You have --

Q. I'm sorry. The west half.

A. That would be the theory behind that proposal, I'm guessing, on Centennial's side.

Q. And if that had been done, there wouldn't be any pooling necessarily, right, by you-all?

A. Yeah, possibly. But we were already --

Q. Because you would own 100 percent.

A. We were already down the road on well proposals on the west half, as we have already come to hearing for the west half.

Q. But these were all -- these proposals were made long before you filed any pooling application, right?

A. That is -- yes. Correct.

Q. These proposals, right?

A. Correct.

Q. So you could have avoided what now turned out to be two -- the cost of two pooling proceedings, and you could have proceeded with 100 percent ownership over there?

A. We also had proposed wells to the owners of the west half as well --

Q. Uh-huh.

A. -- prior to that trade.

Q. So why did you reject that trade offer?

A. Because to efficiently develop our units, especially up in Section 7, we can use existing surface to drill both wells and eliminate surface disturbance and centralize facilities and gathering lines, everything, into a specific area.

Q. And at the time that you proposed -- when you rejected that trade, you didn't make any suggestion like that, right? You just rejected it?

A. Yup.

Q. No counterproposal?

A. No counterproposal.

Q. In fact, between the time that you sent your well letter out in September of 2017 to the time of filing your pooling application, you made no proposal or to try to reach a resolution, did you?

A. We did not. No.

Q. You're the person that signed the September 26th, 2017 well-proposal letter; is that right?

A. I did. Correct.

Q. Did you examine the Bone Spring Pool requirements before sending it?

A. We did not before sending that, and that's why an amendment was sent on January 22nd.

Q. I'm sorry?

A. That's why the amendment was sent on January 22nd.

Q. But despite this testimony that you said you had all the plans to develop and all the plans that have been put in place, at least in September 2017, you weren't even aware of the spacing requirements in this area; isn't that true?

A. That's a fair statement.

Q. Okay. How long was it before you became aware of the actual spacing in this area?

A. Probably shortly thereafter. We sent out new well proposals on the west half covering those, the new -- the wildcat field rules.

Q. If you became aware shortly thereafter, you mean shortly after September 2017? Is that what you mean?

A. Yeah. I'm sorry. Repeat that, the timing on that question.

Q. You said you became aware of the proper spacing in this area shortly thereafter.

A. September 26th?

Q. Yeah.

A. Yeah. I'd say that's fair. Sometime in that time.

Q. Why did you wait four months to properly propose a spacing unit?

A. We were just working on surface -- surface issues out in that area, and we wanted to make sure we knew where our surface locations were before reproposing those wells or amending the well proposals.

Q. So you left in place for four months a proposal with the wrong spacing unit?

A. I guess that's a fair statement.

Q. Now, the letter says, "Bone Spring Formation," correct?

A. Yes.

Q. And it says a total vertical depth of 11,120 feet.

A. It does.

Q. Did you check with your geologist before listing the total vertical depth of 11,120 feet?

A. That's correct.

Q. And he told you that that was in the 2nd Bone Spring?

A. That was.

Q. Are you aware that it actually places your well in the 3rd Bone Spring Carbonate?

A. We had -- once we were -- once we realized that this issue -- and I believe it was a surface issue, we

had notified Centennial, and we reached out and facilitated a technical meeting between both companies.

Q. You told them you recognized that was a mistake?

A. We did.

Q. Is there a reason why you didn't correct your mistake in a formal letter that would identify the actual total vertical depth that you were proposing for your Bone Spring well?

A. That was one of the goals of the meeting -- technical meeting we had in person with our staff and their staff.

Q. My question was: Why didn't you amend your well-proposal letter to identify not only the correct spacing unit but the total vertical depth that this you were actually contemplating for the 2nd Bone Spring?

A. We did not amend -- we did not amend the vertical depth through a written letter. No.

Q. Why didn't you correct the January 28th letter?

A. Because the January 28th letter was to correct the contract area.

Q. I'm sorry. The January 22nd letter.

A. Yeah. It was to correct the contract area.

Q. Why didn't you identify the total vertical depth that you intended for your 501H well?

A. We did not feel it was necessary at that time to correct it in writing since we had already talked about it between both parties.

Q. Then when you filed your pooling application before this Division for the 501H well, did you identify, in that pooling application, the total vertical depth that you were proposing?

A. In the pooling application?

Q. Yes.

A. In the pooling application, no, it was not identified.

Q. In fact, in your pooling application, you didn't even identify -- you said Bone Spring Formation.

A. It is the Bone Spring Formation.

Q. So at the time that you filed your well-proposal letter, you had not identified in any formal proposal, either in your filing with the Division or any well-proposal letter, the vertical depth that you were contemplating for your 501H well?

A. We filed for pooling under the field rules in the Bone Spring Formation field rules.

Q. Bone Spring Formation?

A. Bone Spring Formation.

Q. Which encompasses, what, the 1st Bone Spring?

A. That's correct.

Q. 2nd Bone Spring?

A. Yup.

Q. 3rd Bone Spring?

A. Yup.

Q. My question is: At no point, either in your application or in a letter, did you identify the total vertical depth that you were targeting for 501H well?

A. Correct.

Q. And prior to filing your pooling application, had you at any point in time identified to Centennial the location or the target zone for your 502H well?

A. At any time?

Q. Prior to sending your well-proposal letter the day before your pooling application.

A. No.

Q. And had you -- prior to filing your pooling application, the day before your pooling application, at any point had you identified or proposed to Centennial a formation or a total vertical depth or cost or anything related to the 601H well?

A. Prior to sending a well proposal?

Q. Prior to sending your well-proposal letter the day before your pooling application.

A. No, we did not. The well proposal was our notice. The well proposal was our notice.

Q. Same holds true for the 701H well?

A. That's correct.

Q. And the 702H well?

A. That's correct.

Q. Okay. They have not been the subject of any prior discussions?

A. No, they have not.

MR. FELDEWERT: That's all the questions I have.

EXAMINER JONES: Ms. Bradfute?

CROSS-EXAMINATION

BY MS. BRADFUTE:

Q. I have just a few questions for you.

A. Sure. Uh-huh.

Q. I wanted to focus on Exhibit Number 7, which is the timeline on surface issues.

A. Yes.

Q. And I wanted to focus on the very last bullet point on this exhibit --

A. Yup.

Q. -- which is dated March 27, 2018.

A. Correct.

Q. This bullet point summarizes a conversation that you had with Cimarex's landman and asset manager to discuss the surface use of Cimarex's leasehold interest

in Section 7, correct?

A. Correct.

Q. And that call that you're summarizing in this bullet point would have been with Cody Elliott and Michael Swain at Cimarex?

A. That's correct.

Q. And when you had that telephone call with Mr. Elliott and Mr. Swain, were the companies able to reach some sort of agreement allowing for a subsurface easement underlying the east half of Section 7?

A. We did.

Q. Okay. And are the parties working on reducing that agreement to writing?

A. That's correct.

Q. And could you please explain the unique topography concerns in Section 7 which would require you to use Cimarex's --

A. Yeah. I believe we have another exhibit that our drilling engineer will go into, but in this -- in this localized area, we're on top of a mesa. Therefore, the top of the mesa is basically -- and the start of the hill going down is right on the section line between 7 and 18. And as we look at it -- as we did our kind of field reconnaissance and we met with the grazing lessee out there earlier this year -- and he is the fee surface

owner in Section 18 as well -- he pointed out and recommended that we use -- stay on top of the mesa for our surface location. So that was -- our initial field reconnaissance kind of dictated where that position of that well site would be located.

Q. And these are concerns that you conveyed to Cimarex in a phone call?

A. These were, yeah. Yeah. And we'll have a better illustration in one of our other exhibits.

Q. Thank you.

A. Sure.

EXAMINER LOWE: I have no questions for you. Thank you.

EXAMINER BROOKS: I don't really know that I have any. It must not have been very important.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. I guess I would ask, Mr. Zink, was there a consideration of making this whole west -- or east half into -- since you're planning on drilling the well real close to the line --

A. Uh-huh.

Q. -- were you thinking of making -- of applying for a standard project area -- or a nonstandard location -- or spacing unit through hearing, kind of

combining that?

A. For the development unit -- development of that section, yes, we would. In the future, we'll probably --

Q. But I mean on the centerline of the east half, like 1,320 feet.

A. Okay.

Q. You're talking about drilling three wells in the east half-east half, is that correct?

A. That's correct. Yes.

Q. And two wells in the west half-east half?

A. That's correct.

Q. And so -- okay. Well, the -- I guess I would -- I wanted to ask that and then something trivial. I guess calling the 500 level -- 500 series, 600 series, 700 series wells, both parties seem to be doing that today. Is that something that everybody has kind of agreed on?

A. Okay. It's the new strategy done by EOG that we just implemented, as well as -- as well as Centennial.

Q. EOG legacy?

A. I believe that's the originator on that.

Q. The 700 series is the Wolfcamp, and the 600 is the 3rd Bone Spring?

A. I believe that's the case. Yeah.

Q. I feel we're letting you off too easy here if I don't ask you more questions.

Is that Hat Mesa you're talking about?

A. That is Hat Mesa.

Q. In Lea County, there's a mesa?

(Laughter.)

MR. BRUCE: It's called a small rise.

EXAMINER JONES: Okay. Small rise.

THE WITNESS: And that's led to our naming of the Trucker and the Sombrero, different types of hats.

Q. (BY EXAMINER JONES) Okay. Okay.

And 7,000, 700?

A. Yup.

Q. And I'm still a bit confused about why you didn't -- why the trade didn't happen, but I guess nothing's ever totally off the table --

A. You mean --

Q. -- in the landman's world.

A. To follow up on the trade proposal, you know, we're working with the owners in the northwest quarter to acquire their property as well. So we would have -- we are the majority in the west half, and so we have the rights to propose operating those wells, and we're

working on acquiring the interest there. So we're already well down the road on the west half and, therefore, the trade didn't make sense to us as a company.

Q. Okay. Is there a difference in the royalty rate in the federal lease versus state lease?

A. Yeah. There would be a difference. Obviously, the Fed leases, I think, are 12-1/2, and the state leases are 3/16th.

Q. So it's a relatively new state lease then?

A. It's a relatively new state lease. Yeah. There are no overrides on our state lease.

Q. Anything expiring soon on these leases?

A. Our expiration is 2021, and I believe Centennial's expiration is 2022.

Q. Okay. And your company focus, are you the owner of this company, or do you work on the --

A. Yes.

Q. -- planning of the whole --

A. We have -- all employees are owners of this company.

Q. Oh, that's nice.

So can you tell us your companywide focus and why are you in this particular area?

A. Yes. So the company started in about July of

2016. A group of us -- about six of us came together. We all worked together at a former company. That former company -- we wanted -- we had plans to -- we were looking at assets in the Permian Basin. At that time that former company had decided to turn all of their assets non-ops and, therefore, close down the Denver office, which is where most of us were, all the operation staff. So in that -- in that closure, there was another opportunity that came up. So we all started together and raised our own money to start our own company. We knew we wanted to be in New Mexico and/or the Delaware Basin specifically, and we quickly focused on New Mexico, and all of our assets are in New Mexico.

Q. Can you talk about your timeline of when you want to drill, when you want to complete, when you want --

A. Yeah, of course. So as a company, we're organically grown, so each lease, we're picking up lease by lease at a time. So we weren't going to pick up a rig until we had enough acres, enough leases in our control. So that's where we are. So we spent a lot of time in the last year and a half acquiring acreage, building our units, doing a lot of the legwork and dealing with -- and we started focusing on this potash area. And, again, it just takes a lot of time, you

know, working with the BLM, the State office, you know, the surface -- surface lessees out there as well and getting everything in place. But we wanted to make sure we had enough permits in hand to pick up a rig and develop throughout the rest of the year and into the following year.

Q. Do you know about your process of talking to the rig companies or what kind of delay that would be?

A. Yeah. Jody will go more in-depth. Jody Robins is our VP of drilling. But we've had discussions with the rig company and looking at timing.

Q. And as far as disposing your water also? We didn't ask Centennial about that, but --

A. Yeah. No. We've got a comprehensive plan. Jody will describe it. Jody Robins will describe our gathering facility for all of our units. I believe it's on Exhibit 3, showing our development units, full gathering system plans in place. So we're looking at the development of oil, gas, water and recycle water lines out there.

Q. Okay. So a gas gatherer out there, do you know who those are?

A. We're looking at a couple options, but most likely it's going to be a company called 3 Bear.

Q. Were they called something else before that

or --

A. I do not know.

Q. I'm not familiar with them.

A. They've got permitted rights-of-way out there already.

Q. Okay.

EXAMINER JONES: Any other questions?

MR. BRUCE: Yeah. I've got a couple of follow-up ones.

REDIRECT EXAMINATION

BY MR. BRUCE:

Q. Mr. Zink, Mr. Feldewert was questioning you about your well proposals and asking you about some small errors or omissions in your well proposals.

I've handed you Centennial Exhibit 4. You've seen those proposal letters before, haven't you?

A. I have.

Q. And have you previously reviewed a copy of OCD Order R-13165 regarding what should be in a well proposal regarding a horizontal well?

A. That's correct.

Q. Do Centennial proposals comply with that order?

A. They do not.

Q. They do mention the 3rd Bone Spring and Wolfcamp; do they not?

A. They do.

Q. Do they give a proposed depth?

A. They do not have a targeted depth.

Q. Do they specify the well footages?

A. They do not.

Q. Surface locations?

A. They do not.

Q. The intended point of penetration and bottom-hole locations?

A. They do not.

Q. Even though your first proposal had an incorrect depth on it, did your proposal letters comply with Order R-13165?

A. That's correct.

Q. Thank you. That's all I have.

EXAMINER JONES: Does anybody know the case numbers for the west half pending before some lazy examiner (laughter)?

MR. BRUCE: I won't say any names (laughter).

EXAMINER JONES: Okay.

MR. BRUCE: Mr. Goetze.

EXAMINER JONES: Okay.

(Laughter.)

MR. BRUCE: I don't have --

THE WITNESS: I have them here. I have them here. It's Case Numbers 15949, 15950, 51 and 52.

EXAMINER JONES: 51 and 52?

THE WITNESS: Yeah.

EXAMINER JONES: Four of them. But they're all related to the west half?

THE WITNESS: They're all the west half of the section.

EXAMINER BROOKS: Maybe need to ask. Maybe. I'm not sure.

EXAMINER JONES: He would have to do an archeological study (laughter).

Thanks very much.

THE WITNESS: Thank you.

EXAMINER JONES: Let's take a break, but we promise not to be too long.

(Recess, 3:24 p.m. to 3:42 p.m.)

MR. FELDEWERT: Mr. Examiner, back on the record?

EXAMINER JONES: Yes.

MR. FELDEWERT: Before we go to our next witness -- I don't think I need to re-call Mr. Zink, but they caught me by surprise. But there was a statement that the well-proposal letter from Centennial did not identify a total vertical depth or other locations of

the well. And I would invite you, at your leisure, if you take a look at our Exhibit Number 4 and if you look at the first page of each of those segments and the last page, you will find that each case did identify not just Bone Spring, but the 3rd Bone Spring or 2nd Bone Spring. And between the first and the last letters, they identify total vertical depth and also provide the locations.

So I don't know what the source is for Mr. Zink's statement that they don't comply with those orders, but if you take a look at those letters, particularly the first and last page of each segment of Exhibit Number 4, you'll see that they do before we filed our pooling application.

MR. BRUCE: And my only comment on that is when you look at the last letter, it gives bottom-hole locations they are no longer seeking approval of.

MR. FELDEWERT: Total vertical depth?

MR. BRUCE: 330 feet from the north line. That's incorrect.

MR. FELDEWERT: That's the surface-hole location.

MR. BRUCE: No, bottom-hole location.

MR. FELDEWERT: The bottom-hole location. 330 feet from the north line is correct. Oh.

MR. BRUCE: You're seeking 100 feet from the --

MR. FELDEWERT: With the approvals for the -- if we get the approval for the nonstandard locations, which had not been filed when these letters were sent.

MR. BRUCE: Okay.

MR. FELDEWERT: Yes.

EXAMINER JONES: Okay. Mr. Bruce?

BEN METZ,

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

DIRECT EXAMINATION

BY MR. BRUCE:

Q. Would you state your name and city of residence, please?

A. Ben Metz, Golden, Colorado.

Q. And who do you work for?

A. I work for Ascent Energy.

Q. And what is your job there?

A. I'm the exploration manager.

Q. And by profession, are you a petroleum geologist?

A. Yes.

Q. And how long have you been a geologist -- a

petroleum geologist?

A. Since 2006.

Q. Have you previously testified before the Division?

A. Yes.

Q. And were your credentials as an expert petroleum geologist accepted as a matter of record?

A. Yes.

Q. And are you familiar with the geologic matters related to the development of Ascent's proposed development in this area?

A. Yes.

MR. BRUCE: Mr. Examiner, I tender Mr. Metz as an expert petroleum geologist.

MR. FELDEWERT: No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: No objection?

He is so qualified.

Q. (BY MR. BRUCE) Mr. Metz, could you identify your Exhibit 11 and describe the zones that Ascent is looking at in this area?

A. Yes. Exhibit 11 is an idealized fully developed half section, which this is showing the target starting at the bottom of two Lower Wolfcamp As, two Wolfcamp X-Ys. Those are on 1,320 spacing,

approximately. The 3rd Bone Spring will have two, also, on that same spacing. The 2nd Bone Spring, we believe that we'll be testing three possible locations there. Nothing is set in stone on that yet, but we feel three may be possible there: Two 1st Bone Spring wells, four Leonard wells and three Avalon wells.

You also see the 330-setback lines on each of those in the dashed red lines.

Q. Okay. Now, the way you're looking at it, there are two prospective Wolfcamp zones?

A. Yes.

Q. The X-Y and the A?

A. Yes.

Q. And what you're also looking at, at least in certain zones, is not four wells across the section but six wells across the section?

A. Across a full.

Q. Across the full section?

A. Yes.

Q. Or three across a half section?

A. Yes.

Q. And in order to do that efficiently and without impairing correlative rights, wouldn't that become more difficult if Centennial developed the east half-east half and Ascent developed the west half-east half?

A. Yes. That would only give you a 660 fairway. And to drill wells -- and to drill more than a single well in a zone, you would have to have spacing tighter than 660 so you don't drift over the setback lines.

Q. And then one other thing up front. There's been discussion of the initial well proposal for the 501H well where, based on the total vertical depth in that proposal letter, that would have put it in the 3rd Bone Spring Carbonate. You do not intend to drill in the 3rd Bone Spring Carbonate?

A. No.

Q. And what was the reason for that mistake?

A. So yes, that has been a common -- common topic. Looking at the offset wells, there is the East Hat Mesa well north of there and an east well in the south of 18. Both of all of those ground elevations were pretty darn close to being -- being out of flat. We all assumed northern -- or southeastern New Mexico is flat, but there is a reason why this is called a Hat Mesa. And that ground elevation was about 100 feet up above that, and that was the difference for the 100 feet dropping it down into the top of the 3rd Bone sea carbonate -- or the -- yeah, the top of the 3rd Bone Carbonate there.

Q. So if you eliminate that 100 feet, it would push it up into the 2nd Bone Spring?

A. Yeah. Yeah.

Q. And you informed Centennial of that?

A. Yes. We had had a technical meeting. We had provided a slide showing the topographic relief, and they had seemed satisfied at the time, in my opinion.

Q. Let's go to your Exhibit 12. A bunch of pages have been stapled together there because Exhibit 12 concerns the 501 -- proposed 501 and 502H wells?

A. Yes.

Q. Could you run through that, without too much interruption from me, and discuss the 2nd Bone Spring geology in this area?

A. Sure. This is the structure map on the top of the 2nd Bone Sand. You can see that there is a 50-foot contour interval, and we have about 50 feet of a dip across -- across the one-mile section going from the north to the south. Wells shown on here are 2nd Bone Spring wells. Those are the ones with the bubbles, and the six-month cums, that would be oil, gas and water. Seeing that some of these are all different vintages, giving total cums is kind of a skewed view there, so we are showing a six-month cums.

The other wells that are either vertical wells or are horizontal wells that are lacking bubbles have logs associated with them. And you can see there

are eight 2nd Bone Sand permits just south in Sections 9, 19 and 30 and part of 31. Those are one-and-a-half-mile-long wells permitted by Advance.

There is a line of cross section starting in the middle of Section 7, in the East Hat Mesa well, going into the Eaves well, which is in the south of 18, and then tying in the horizontal Dagger State 504 well and ending down at the surface -- surface spot of the 504 well.

Q. In looking at it, there is a well immediately south of the east half of Section 7, correct?

A. I'm sorry?

Q. There is an existing well immediately south of the east half of Section 18, I mean?

A. Yes. That is the Dagger State 504 completed by Amtex Energy, which is -- which is now operated by Advance.

Q. And those wells, the existing one and the proposed ones, are 2nd Bone Spring wells, and that piques your interest in the 2nd Bone Spring?

A. Yes. Yes. That 2nd Bone Spring well had a six-month cum of 183,000 barrels.

Q. Okay. Move through the rest of your exhibits.

A. Okay. Exhibit Number 12, I believe -- or sorry --

Q. The second page.

A. -- second page, is a 2nd Bone Spring isopach. And this is also on a 50-foot contour interval. This is showing between 5 -- between 550 feet of total gross isopach across Section 18, and, again, the same wells are being shown.

Q. And the next page?

A. Map three is a net sand map. This is -- this is greater than -- greater than 8 percent porosity. This is showing in between -- it is on a 25-foot contour interval in between 4 -- we have approximately 400 feet of total reservoir greater than the 6 percent. I think I had misspoken the first time.

Q. And then move on to the cross section. And do the wells on this cross section adequately represent the 2nd Bone Spring in this area?

A. Yes. So starting from the left going to the -- to the right, we would have the East Hat Mesa State in the middle of Section 7, going to the Eaves Unit 1, which is in the south of 18, the Dagger State 504, which is -- which toes [sic] into the south of Section 18, and then the Eaves Lea Unit State 1, and that shows that the reservoir is fairly consistent all the way across Section 18. And that is the -- and the red line there is the proposed Trucker 501H and the 502H. And you can

see it's a 100-foot mesa there. Offset would have dropped our well right down into the top of the 3rd Bone there.

The next plat is the 2nd Bone Spring production shown from the -- from all the 2nd Bone Spring wells being shown on the map, starting with the "Well Label" on the left and going through showing spud and completion dates, six-month cums and total cums. And it also shows your well orientation, whether they're north-south-trending wells or east-west-trending wells.

They do not specify whether it's drilled toe up or toe down.

Q. And then finally, the last two pages of Exhibit 12 are the C-102s for the 501 and 502H wells?

A. Yes.

Q. And will the locations of these wells be the orthodox locations?

A. Yes.

Q. One thing I notice, not only with respect to these two but the other three C-102s, if you look at, say, the 501H C-102, your location from the east line is proposed to be 2,247 feet. Rather than -- you could move it west to 2,310 feet, correct?

A. Correct.

Q. Why do you do that rather than go to the

furthest extent?

A. Well, going at 2,310, that is your minimum setback line. And I have -- out of my experience of being involved in over 120 horizontal wells, I have yet to see a horizontal wellbore stay in a 10-foot east-and-west window. Staying in a 10- or 15-foot window is a little bit easier than keeping it east and west.

Q. So you wouldn't want the wells to wander and become unorthodox, and then you're going to have to apply for an unorthodox-location approval to produce the well?

A. Right, or possibly not complete that interval if it was denied.

Q. Okay. And let's move on to the 3rd Bone Spring. Can you run through the same process with respect to Exhibit 13, please?

A. Yeah. Exhibit 13, the first map is, again, a 3rd Bone Spring Sand structure map on a 50-foot contour interval, and it's dipping down to the south, southeast. We have about a 100-foot TVD change across that dipping down to the south, southeast. And the wells as shown on here are similar definition as the ones on the 2nd Bone. These are all 3rd Bone Sand wells. The bubbles are based off the six-month cum.

And there was a recent 3rd Bone Spring well that was just -- that just came on a couple of months ago that I would like to point out here, the Becknell State Com 4. That has a surface hole in the southwest quarter of Section 5. It's a two-mile-long 3rd Bone Sand well, and it TDs in the southwest of the northwest quarter of Section 17, just adjacent to Section 18. And in three-plus months, that has cumed 114,000 barrels. So it actually didn't end up meeting our six-month cums, but I noted it.

Q. And that well was drilled from north to south?

A. Yes. That was toe down.

Q. And continue on, page 2.

A. Yes. The next map is a 3rd Bone Spring Sand isopach on a 25-foot contour interval, and we're showing anywhere between two -- approximately 250-foot gross isopach. And, again, these are showing the -- these are showing the 3rd Bone Spring wells. Case Number 15994 is only for the east half -- the east half-east half on that one.

Q. And the next page, the depth sand map?

A. Yeah. The next page is the PHIA greater than 8 percent net sand map, and this is showing -- again, we would be in the 225-foot range of sand greater than 8 percent. The whole 3rd Bone Sand has pretty consistent

porosity.

The next -- the next page is the same cross-section wells as previously shown, and this is showing where our 3rd Bone Sand target would be. It's approximately 100 feet above the top of the Wolfcamp. One of our reasons for that -- and that's -- we do not dispute that the -- that the most optimal rock is the basal 3rd Sand, but we do feel the X-Y sands in the Wolfcamps are a better target, as has been shown by recently completed Wolfcamp wells. So we are trying to keep our vertical offset a little bit -- a little bit further apart than some of those recent 3rd Bone Sand X-Y tests. And I'll go into that more here in a moment.

Q. But anyway, what you're basically saying is your development proposal will adequately develop the 3rd Bone Spring and the X-Y Sand?

A. Yes.

Q. And then the next plat, again?

A. And the next plat is, again, a table showing the cum 3rd Bone Spring Sand production, with the first six-month cums and the total cums listed for the wells being shown on the maps.

Q. And then the final page is the C-102 for the 601H. This is, again, an orthodox location; is it not?

A. Yes.

Q. Not north-south, but it's close to the middle of the half section?

A. Yes.

Q. And do you think that is necessary to adequately develop the Wolfcamp -- I mean the 3rd Bone Spring throughout the entire east half of Section 18?

A. At the moment, that spacing seems -- seems fitting pending -- pending additional well results.

Q. And finally, let's move on to your Exhibit 14, Mr. Metz. Go through that one, please.

A. Okay. This is the Wolfcamp A structure map. Again, we are showing a consistent dip going down to the south, and this is on a 50-foot contour interval. And across this acreage, there is about a 100-foot TVD change. Nothing readily showing any faulting or anything like that.

The three bubbled wells are the three current Wolfcamp producers. The Della Federal -- that has been mentioned previously -- is up there in the north in Section 29. The Moss Fed 4 is in Section 34, and then in 21-33 is the Witherspoon 26-33 #1H. The two northern Wolfcamp wells are X-Y Sand targets. The Witherspoon is a Lower A.

Q. Looking at those three wells, is there any difference between a north-south and a south-north well?

A. At this point I can't say that I see a huge difference there. The Moss Federal has cumed 121,000 barrels in a toe-down. The Della Federal cumed 96,000 barrels in the first -- in the first six months in a toe-up, and the Witherspoon, 89,000 barrels in the first six months in a toe-up orientation. So looking at just these three, the Moss Federal has been showing the greatest cum.

Q. Is there a recently spudded Wolfcamp well in this area?

A. So there is a Wolfcamp well that has just been spud by Advance Energy playing in the same fairway as the Dagger State 504H. It is in the east half-east half of the mile -- one-and-a-half-mile unit, consisting of Section 19 and Section 30, and that was just spud on February 20th.

Q. So you have no further data?

A. No. No.

Q. Let's keep on moving on to page 2, please.

A. Okay. This is also a gross isopach of the Wolfcamp A showing about 3 -- about 350 feet from the top of the Wolfcamp A to the top of the Wolfcamp B.

The next map is an 8 percent or greater, and it's giving us a -- on a 25-foot contour interval anywhere from 300- to 350-foot thick reservoir greater

than 8 percent.

The next page is the cross section, and this is identifying the excess sand, which is the 2nd Sand below the top of the Wolfcamp A. That is good for our 701 and 703. There are three wells. And has been shown on previous exhibits, there is about 150-foot total TVD in between the 3rd Bone Sand and this excess sand.

The next page is the six-month cums of the Wolfcamp wells that have the bubbles on the three previous other maps. I do apologize. It looks like the well label names got cut off. But as it starts from the top, that would be the Della 701, and then the center well is the Moss Fed 4H, and then the third well is the Witherspoon well. It still has -- and the location data.

Q. Are the final two pages simply the C-102s for the well showing the locations?

A. Yes. Yes.

Q. And those wells are at orthodox locations?

A. Yes.

Q. In your opinion, does Advance [sic] have a geological drilling program that will completely develop the 2nd -- the Bone Spring and then the Wolfcamp in this area?

A. Yes. Yes.

Q. And maximum production in this area?

A. Yes.

Sorry. Did you say Advance or Ascent?

Q. Ascent.

A. Ascent. Yes.

Q. And in each Bone Spring and Wolfcamp zone, are they continuous across each of the well units?

A. Yes.

Q. And in your opinion, will each quarter-quarter section in the well unit contribute more or less equally to production?

A. Yes.

Q. And were Exhibits 11 through 14 prepared by you or under your supervision or compiled from company business records?

A. Yes.

Q. And in your opinion, is the granting of Ascent's application in the interest of conservation and the prevention of waste?

A. Yes.

Q. In your opinion, should Centennial's applications be denied?

A. Yes.

MR. BRUCE: Mr. Examiner, I move the

admission of Exhibits 11 through 14.

EXAMINER JONES: Any objection?

MR. FELDEWERT: No objection.

MS. BRADFUTE: No objection.

EXAMINER JONES: Exhibits 11 through 14 are admitted.

(Ascent Energy, LLC Exhibit Numbers 11 through 14 are offered and admitted into evidence.)

CROSS-EXAMINATION

BY MR. FELDEWERT:

Q. Mr. Metz, I'm looking at your Exhibit Number 11.

A. Yes.

Q. You describe this as your company's idealized plan, correct?

A. Yes.

Q. Now, I'm trying to ascertain from this idealized plan exactly which of these dots on here were proposed and at issue here today. Okay?

A. Yes.

Q. All right. Help me out. Which -- if I'm looking at the 2nd Bone Spring Sand --

A. Uh-huh.

Q. -- okay, I see -- those would be the 501, 500

series wells?

A. Uh-huh.

Q. Which one -- which of these dots represent your proposed 500-series wells?

A. I believe they are the two outside wells.

Q. So the two outside wells --

A. Uh-huh.

Q. -- in the orange line?

A. Yup.

Q. Okay. Now, with respect to your single-proposed 3rd Bone Spring well --

A. Correct.

Q. -- which of these dots should I put a box around to represent the well that is actually at issue here today?

A. So as I said, these are idealized. So the 3rd Bone Sand well is actually at an offset to approximately 11 -- I believe that was -- the 601 is at 1,120 from the east -- from the east line. And if you look at the top of the chart, it basically starts at zero, and it goes at 100-foot intervals on that box. And the 1,120 would end up putting it in an unorthodox 160 stand-up location.

Q. Okay. So which -- if I look at the two dots --

A. So these are based off of the generalized

1,320. These other dots are not representative of the exact footage calls off of the C-102s.

Q. All right. Let me make sure -- I'm going to stop you and make sure I understand you.

So none of the dots in the brown line, which represents the 3rd Bone Spring Sand --

A. Uh-huh.

Q. -- none of those depict the well which the company actually proposed and then filed for forced pooling?

A. Those are from the C-102 locations. So where those two Wolfcamp X-Y wells that are at approximately 370 off the east -- off the east line and 1,870, which is 1,500-foot well spacing, are set differently than what the idealized spacing would be, the reason being --

Q. Hold on. Hold on. I'm not asking for the reason. I'm just trying to get the facts together.

A. Sure. Sure.

Q. Okay. Now, the company proposed wells at specific formations at specific locations with vertical depths, right?

A. Yes.

Q. Okay. And they did that the day before they filed the pooling application, and then they filed the pooling applications for those wells, correct?

A. Yes.

Q. Okay. So here's my question: One of the wells that they filed the pooling application for was the 601H in the 3rd Bone Spring Sand, right?

A. Correct.

Q. Okay. When I look at the brown lines on here in your Exhibit Number 11, that represents the 3rd Bone Spring Sand, correct?

A. (Indicating.)

Q. Yes?

A. Correct. Yes.

Q. Do any of those dots on there -- those black dots represent the well that was proposed?

A. So as I said, that would be the idealized 1,320 well spacing if you're going to fit four wells per section or two wells per half section, which, where this is at now, the 3rd Bone Spring Sand well that was sent in the well proposal was at 1,120, I believe. So it would be two more squares left of that first 3rd Bone Spring Sand on the right side.

Q. Okay. All right. So it would be two squares left --

A. Uh-huh.

Q. -- of that black dot?

A. Yes.

Q. So that black dot doesn't represent what was proposed?

A. No.

Q. And the company then proposed two Wolfcamp wells, right?

A. Correct.

Q. 701?

A. Yes.

Q. And 703?

A. Yes.

Q. Okay. In the Wolfcamp at certain depths?

A. Yes.

Q. In the Wolfcamp line here, there is -- I guess there is two of them. There are two green Wolfcamp lines on here, right?

A. Yes.

Q. Wolfcamp X-Y and the Wolfcamp A?

A. Yes.

Q. Which of these dots in either of those two lines represent the Wolfcamp wells that are actually proposed and at issue here today?

A. So they would be the 703, is on the -- I see the offsets here representing the east or west or west to east are Wolfcamp wells. The 701 would be 1,870 off of the east line, which I would put it approximately

just east of that red-dashed line.

Q. So the second green line --

A. Oh, I'm sorry. I'm sorry. So the 701 is in the west half of the east half. It would be -- it would be just outside. So showing it on here, on the idealized 1,320 spacing, doesn't exactly show the exact location. It would be a little bit left of there.

Q. Of what?

A. Of that first Wolfcamp X-Y well or the left side.

Q. So I've got a first -- I'm in the X-Y Wolfcamp X-Y bar, right?

A. Yes.

Q. And there is a dot there in the pink area?

A. Correct.

Q. And you're saying your well proposal is two squares left of that?

A. Yes.

Q. That's what you proposed --

A. Yes.

Q. -- right?

So you didn't propose the well in the Wolfcamp A. You're saying you proposed it in the X-Y?

A. Yes, which is part of the -- part of the Wolfcamp.

Q. But in your well-proposal letters and what's at issue here today, you proposed a different location than what is shown on your idealized plan, correct?

A. Correct.

Q. Now, what about the other well?

A. It would be that far eastern X-Y well that is 370 off of the east line.

Q. That black dot --

A. Yes.

Q. -- and that first green bar?

A. Yes.

Q. Again, not in the Wolfcamp A, but in the Wolfcamp X-Y?

A. Yes.

Q. All right. So am I correct, then, that this idealized plan doesn't match up with what you proposed to Centennial?

A. Correct.

Q. And it doesn't match up with what was pooled -- subject to the pooling applications here today?

A. I don't understand the question there.

Q. Okay. So it doesn't match up with what was sent in the well-proposal letters the day before you sent -- before you filed your pooling application? Doesn't match up with those wells?

A. No, because this is an idealized.

Q. Okay. So this is different, then, from what you proposed to Centennial?

A. Correct.

Q. Why didn't you propose your idealized plan?

A. Because we are -- we are currently evaluating whether a 660 offset in between a 3rd Bone Sand and a Wolfcamp X-Y or even an A is a reasonable spacing offset. There has only been two of those tests done anywhere near our Section 18. That would be the Della Fed, which has been noted previously, is on 880 spacing in between the 3rd Bone Sand and a Wolfcamp excess [sic] sand, and their 3rd Bone Sand was landed in the 3rd basal sand package. Concho's Moss Fed --

Q. Okay. Let me step back.

So the reason you didn't propose your idealized plan is because you were still trying to figure out the well spacing. Is that fair?

A. Yes.

Q. Okay.

A. And we only needed to propose one well in each zone.

Q. Okay. Now, the next question that I have, if I'm understanding this correctly, is you didn't propose the Wolfcamp -- any Wolfcamp A wells? You proposed

Wolfcamp X-Y? That's what you meant to propose?

A. Yes, which is in the Wolfcamp A.

Q. The X-Y zone?

A. Yes.

Q. But it would actually be closer, then, to the 3rd Bone Spring Sand zone than what Centennial has proposed?

A. Yes.

Q. Closer in proximity?

A. Yes. And it's approximately 50 feet lower than the top of the Wolfcamp A, which would be -- which is where the 3rd Bone Sand lays on top of.

Q. Now, if I look at your idealized plan here --

A. Uh-huh.

Q. -- and I look at the -- on the right-hand side and I look at the -- I'm sorry. If I look in the middle here, I see some wells that are stacked on top of each other. You've got the 3rd Bone Spring Sand well and then your theoretical Wolfcamp well?

A. Yes.

Q. I see that in two places. What's the approximate distance between those?

A. That's about 160-feet TVD.

Q. 160 feet difference between those two wells right on top of each other; is that right?

A. So -- yeah. It would be -- let me refer back here. So from where our 3rd Bone Sand target would be, which is about 100 feet, and down to the Lower A is 260 feet TVD, because our 3rd Bone Sand targets approximately 100 feet above the basal 3rd -- the 3rd Bone Sand boundary.

Q. Okay. Just so I'm clear, if I look at Exhibit 11 --

A. Yeah.

Q. -- that's your idealized plan.

A. Yeah.

Q. I recognize that these weren't proposed. But your idealized plan, I have two dots that appear to be on top of each other --

A. Uh-huh.

Q. -- in both the brown zone and the green zone, right?

A. Uh-huh.

Q. And what's the distance between those two, again? I'm sorry.

A. So in between the 3rd Bone Sand target and the Wolfcamp A target is about 260.

Q. Okay. Thank you.

All right. Now, my next question -- and I think I'm starting to understand this. If I go back up

to that orange line with the 2nd Bone Spring well proposals --

A. Yes.

Q. -- okay, and I look at the footages, the dots that you have there in the orange line, they don't represent what was proposed?

A. Those should be fairly out there close.

Q. But your footages, at least as proposed, would be in different boxes than what you have your black dot, correct?

A. So if you look at the 5 -- at the 501H --

Q. Yup.

A. -- which was proposed at 2,247 rather than 2,310, which is on that line, so about 60 feet off of the setback line, so I think that's pretty close to where that 2nd Bone Spring Sand well dot is on the far left side.

Q. But that's not what you proposed. It would be in the box over, right?

A. No.

Q. At 22- -- what did you say? 2,210?

A. 2,280. Sorry. It's at 2,280, the bottom -- bottom-hole location.

Q. And you have the black dot in the 2,300 box?

A. No. The 2,300 line, that is the line on the

left-hand side of the number.

Q. Yes.

A. Yes. So it's inside -- a little bit more than half from the 220. It's an approximate, being that all these dots are probably 70-feet or maybe 50-foot diameter, if you're looking at them on the -- based on the size of the box.

Q. Now, what about your other depiction here? You've got the black dot --

A. The 502?

Q. -- a 2nd Bone Spring Sand, the 502?

A. Yeah.

Q. Is that black dot in the right spot on the right-hand side?

A. About 360. That is probably a little further west. Those dots on this idealized was just based on a consistent spacing.

Q. Not on what you proposed?

A. Right.

Q. Okay. So these don't represent what you proposed?

A. No.

Q. Got it. Okay.

My next question is: If I understand what you're doing here, didn't you testify previously that --

or didn't the company indicate previously that you plan to target the 2nd Bone Spring Sand first instead of the lower zone?

A. That was the -- that was one of the initial well proposals sent. We were only planning on drilling a single -- a single other well first, and that was going to offset the best-producing well regardless of an interval in a few-mile radius.

Q. Is your plan today to target the 2nd Bone Spring Sand first?

A. I don't think that we've decided on our final drilling order.

Q. You don't know?

A. No.

Q. Now, a month ago --

A. Because --

Q. A month ago, Mr. Metz, didn't you testify that the intent of the company was to target the 2nd Bone Spring Sand first?

A. That was our original intent.

Q. Okay. But now you're not sure?

A. But, as with anything, schedules can change. Orders can change. So as of right now, nothing is set in permanent stone.

Q. Okay. So the Examiners don't know what your

first target zones are?

A. Well, we will be drilling all three of those wells on each quarter or on each -- on each DSU there at -- at the same time. So the Wolfcamp, the 3rd and the 2nd Bone Spring would probably be the other drilled at the same time on the one. Which one goes down first, it's going to be a batch of drilling ops. We already have a petrophysical log on the south of 18, so our landings are pretty solid.

Q. But you've only proposed five wells?

A. Uh-huh.

Q. Okay.

A. And that does not preclude us from proposing more, and an order has all been granted. The wells that we have proposed don't fully -- aren't -- those aren't our full -- our full development plan for the east half of Section 18.

Q. Okay.

A. I don't believe anybody sends out 18 well proposals for one-half.

Q. But for purposes of the hearing today --

A. Yes.

Q. -- and for purposes of the pooling orders that you have requested --

A. Uh-huh.

Q. -- we can only go by the wells you have proposed, correct?

A. Uh-huh. Yes.

Q. And if I understand you -- correct me if I'm wrong -- all you've done is in one of your spacing units, you've proposed the 2nd Bone Spring well, the 3rd Bone Spring well and the Wolfcamp well, correct?

A. Correct.

Q. And in the other spacing unit -- I don't know which one it is -- you've only proposed the 2nd Bone Spring well and the Wolfcamp well?

A. Yes.

Q. And so at this point in time, you can't tell us the company's plans as to which is going to be developed first?

A. No.

Q. All right. Now, a month ago, you also testified that the company was still working on its completion plan, correct?

A. Yes.

Q. Is that still the case?

A. Yes.

Q. You don't have a proven method yet?

A. No, sir.

Q. Okay. Finally, the 3rd Bone Spring well, the

one that you have proposed --

A. Yes.

Q. -- your 601H --

A. Yes.

Q. -- do you intend to put that -- well, let me step back.

The bubble maps that you show here for the 3rd Bone Spring Sand --

A. Yes.

Q. -- are those cum productions?

A. Those are six-month cums.

Q. Are those wells completed in the basal sands?

A. Most of them are.

Q. Most of them are.

A. There are a few that are in the next sand body up, which would be the Boone [phonetic] State wells in Section 16.

Q. If I go into your exhibit here and I go to the page that has the cross section --

EXAMINER JONES: Which exhibit?

MR. FELDEWERT: Exhibit 13.

Q. (BY MR. FELDEWERT) -- the page that has the cross section --

A. Yes, sir.

Q. -- there is a line there --

A. Yes, sir.

Q. -- the proposed landing zone for your 601 3rd Bone Spring Sand well?

A. Yes.

Q. What sands does that target?

A. That is the -- that is the next sand lobe above the basal 3rd Bone Spring Sand.

Q. So it's not targeting the basal sands that are --

A. The basal sand is that lower sand lobe. If you look at these from the relative depth off the top of the 3rd Bone Spring Sand, the basal sand body is from minus 240 -- or 240 up to about 190, and we'll be testing that next sand package just up above that at about 140 feet below the base of the top of the 3rd Bone Sand, which is similar to what the Boone State wells target.

Q. So you're not targeting the same sand that had been the subject of the cumulative productions?

A. All of these are 3rd Bone Sand.

Q. Okay. But you're not targeting the basal sand?

A. Correct. All of those are 3rd Bone Sand for that whole -- for that whole interval.

Q. And I think you just testified that most of those are completed in the basal sand?

A. Most, yes.

Q. Okay. And secondly, if I'm understanding, the sand that you're targeting with your 601H is a different sand, not the basal sand?

A. Correct.

Q. Okay. And number two, it's going to be closer to the top of the Wolfcamp than what Centennial has proposed?

A. No.

Q. It will be -- is it higher?

A. Yes.

Q. Okay. All right.

A. That basal 3rd -- that Bone Sand lies right on top of the Wolfcamp.

Q. Right on top of the Wolfcamp?

A. Yes.

Q. And Centennial's 3rd Bone Spring well is going to be further away from the top of the Wolfcamp, correct?

A. No. It'll be closer. They're on the -- they are in the basal sand.

Q. And you're above the basal sand?

A. Correct.

Q. That's all the questions I have.

MS. BRADFUTE: I have no questions.

EXAMINER LOWE: I have no questions at this

time.

CROSS-EXAMINATION

BY EXAMINER BROOKS:

Q. I'm thoroughly confused, but I simply ask this question: If the Examiner decides to -- Examiners decide to grant your application, Ascent's application, can we look at Ascent's Exhibit 8 to find the locations and the configuration of the proposed spacing units and write up an order based on the data in Ascent's Exhibit 8, and that's going to be the units and the wells that you currently want us to compulsory pool for?

A. I don't have Exhibit 8 here in front of me.

MR. FELDEWERT: That would be the well proposal.

THE WITNESS: Oh. Yes.

Q. (BY EXAMINER BROOKS) This group of well-proposal letters, the first being for the 501, September 26th, and we understand that that's amended by the first January 22nd, 2018 letter, correct?

A. Yes. I believe if we were to be ruled in favor of, then the spacing of all these wells would be -- can be consistent across both those.

Q. When the first January 22nd letter says "contract area," that means the spacing unit or project area that you're proposing to use?

A. Yes.

Q. Okay. Thank you. I think that's all I have. That will guide us in the right direction if we decide to go that way.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. So the well locations as stated here, there is no on-site scheduled for the BLM, or is it -- is this BLM acreage for the surface?

A. No. But since the wellbore [sic] crosses BLM, we did have to set up an on-site, and Jody Robbins, our VP of drilling, has been dealing with that.

Q. Okay.

A. One thing I would just like to add in there about the Wolfcamp spacing, 3rd Bone Spring Sand is that the wells around here -- the only two companies that have been doing Wolfcamp X-Y basal 3rd Bone Sand testing were those Della and Moss Fed wells, with a vertical distance separation of under 100 feet. But their tightest spacing has only been 880, and those are on the Della wells. The Moss Fed wells have tested at 1,320. They're currently testing -- or drilling. They have recently TD'd one of the Wolfcamp wells to end up going down to a 660. If that comes out as that is -- if that is a reasonable spacing set, then we would certainly be

looking at that spacing offsets.

Q. As infill wells, maybe?

A. Yes. Yes.

Q. Okay. Now, the -- I guess I was mistaken. The Wolfcamp X-Y, I was thinking that's a 703H. But I think you're talking about Wolfcamp X-Y being real close to the base of the 3rd Bone Spring?

A. Yes.

Q. Okay. So I got these reversed.

A. Yeah. The 703 and the 701 are both X-Y sand targets.

Q. Okay. 703 and the 701 are X-Y?

A. Yes. Yes.

Q. I know they're only 15 feet apart vertically.

A. Yeah.

Q. Okay. X-Y.

A. Formally targeting the X sand, the lower one.

Q. Okay. Okay. There are no depth severances, so that is reasonably close to the base of the Bone Spring, so it's real close to that unconformity.

A. Between -- yeah. There is -- I'm sorry. What was your question?

Q. The Wolfcamp A that's being proposed by Centennial is how much further vertically below this?

A. That's approximately 100 feet lower than that

our X sand, approximately.

Q. Okay. Okay. But you've got these 15 feet vertically apart?

A. Or maybe 150 feet where your target is from -- from that basal sand. Yeah. I think they had 250.

Q. Okay. And then you were talking about the base of the sand -- 3rd Bone Spring Sand -- the basal of the 3rd Bone Spring Sand. And to me it just looks like one big ol' sand (laughter).

A. Yeah. There are individual lobes there.

Q. Okay. There are?

A. Yeah.

Q. Okay. Can you tell us -- so you're basically -- you're watching closely the drilling that's going on out there right now. But this is your proposal right now?

A. Yes.

Q. Okay. So we can run with this if -- okay.

A. Yes.

Q. Okay. Because the applications didn't have a lot of detail on the locations, but you're showing them here at the hearing.

And the philosophy seems to be the Wolfcamp X-Y is your best bet right now?

A. Yes.

Q. But you still like the 3rd Bone Spring also?

A. Yes, and the Lower A as a future target down the line.

Q. Okay. You would go below where they're drilling?

A. Probably a little bit lower, yes.

Q. Okay. And so from a geologic standpoint, you would rather operate because you like your target better than their target; is that correct?

A. Yes.

Q. Okay. Okay.

A. And we also have the efficiencies of everything else right in the area on the west side and drilling the north to the Big Bucks just keeps everything tidy.

Q. Okay. And you're not worried about drilling toe down?

A. No.

Q. Yeah. We can talk to the engineer about that.

So as far as the advantage of the Wolfcamp X-Y versus the Wolfcamp A, your testimony previously has got all that in it?

A. (Indicating.)

Q. Okay. And so why -- what case would you make for the Wolfcamp A if you were going to make that case? Which well would be the well you would cite as being the

Wolfcamp A, best one in the area?

A. That would be the Witherspoon.

Q. Okay. Witherspoon.

A. Yes, if you look at the cum plot there. So they targeted the Lower A.

Q. And that's a good well?

A. It is a decent well. It's cumed 90,000 barrels in six months. Now, they did have quite a bit of drilling difficulties. Over there, you do get a little bit more carbonate intrusion going on. So they had six --

Q. Six bits?

A. -- six bit trips [sic] in the first mile -- one-and-a-quarter miles, and the well was planned to be a two-mile lateral well. And so they cut it off short.

Q. Oh. So those anhydrites or whatever they were hitting makes it --

A. They were hitting some carbonates over there, which we don't have over here.

Q. Okay. You don't even have them over here?

A. No.

Q. Even if you did go in that A?

A. Right.

Q. How do you know that, that you don't have them here (laughter)?

A. They actually had a pilot -- pilot log there.

Q. Those two dry holes in that Section 18, are they -- I'm not -- they're not necessarily dry hole. But I just saw -- be ONGARD wells there.

A. Yeah. They were old Morrow tests.

Q. Morrows.

Is the Morrow any good over here?

A. They were okay, but it's certainly not something you would be targeting now.

Q. Did you see anything interesting in the Upper Pennsylvanian?

A. So I really haven't gone quite all that deep yet.

Q. Okay. Okay. Thanks very much.

EXAMINER JONES: Does anybody --

MR. BRUCE: Just a couple follow-ups, Mr. Examiner.

REDIRECT EXAMINATION

BY MR. BRUCE:

Q. Just very briefly, Mr. Metz, your proposed Wolfcamp wells are very close to the top of the Wolfcamp?

A. Yes.

Q. Closer than Centennial's proposed wells?

A. Yes.

Q. And insofar as the correct well locations, those are set forth on the last pages of Exhibits 12, 13 and 14?

A. Yes.

Q. The C-102s set forth the correct well locations?

A. Yes.

Q. That's all.

MR. FELDEWERT: I do have a follow-up to Mr. Brook's question.

EXAMINER JONES: Yes.

RECROSS EXAMINATION

BY MR. FELDEWERT:

Q. If you went by Exhibit 8, your well-proposal letters, okay, where would you find a depiction of your plan. That was his question to you. And if I turn to Centennial Exhibit Number 11, Mr. Metz, doesn't that accurately reflect what's proposed in Ascent's well-proposal letters? That would take into account the footages you identified and the total depth you identified?

A. Yes. No. No. I'm sorry. No. That 3rd Bone Spring Sand, I believe is up one more.

Q. The 3rd -- the orange dot?

A. The 3rd Bone, the Trucker 601, they have that

landing, it looks like, down towards the bottom of that basal there and where I've got it.

Q. So that orange dot might be a little higher, is that what you're saying?

A. Yes.

Q. But it would be in the right location?

A. Yeah.

Q. So my point is: If you look and you're trying to match up with the well-proposal letters, it would be Exhibit Number 11 in terms of well locations, correct?

A. Yes.

Q. Centennial Exhibit Number 11 --

A. Yes.

Q. -- not Ascent's letter?

A. Based on the footages east and west.

Q. Okay. Finally, you said you want to target the X-Y zone in the Wolfcamp because of the Della wells?

A. The Della 701 was an X sand, and the Moss Fed 4H was an X sand as well.

Q. An X sand?

A. Uh-huh.

Q. Would it surprise you to learn that the Della well was not drilled in the X-Y zone but in the A zone?

A. Based on landing directional plans, it looks -- it looks as though it landed in the X.

Q. Okay. Are you aware we have someone in the room that can testify that they drilled the well?

A. I probably am, yes.

Q. Okay. And that they landed the well in the Wolfcamp A, right?

A. I don't know what he would say, but they probably would.

Q. And would you agree with me that since he drilled the well -- was there and drilled the well, he has better knowledge than you do about where they landed the well?

A. Probably would.

Q. Okay. Thank you.

EXAMINER BROOKS: Well, I'm not disparaging the clarifications that were asked for, but just to correct the record, I did not ask about the depiction. I simply asked if we could rely on Exhibit 8 to define what Ascent is asking us to do. Thank you.

I have no more questions.

MR. BRUCE: One other.

REDIRECT EXAMINATION

BY MR. BRUCE:

Q. On that same Exhibit 11, Mr. Metz, up in the 2nd Bone Spring, the 501H, that's actually going to be right at the same level AS the 502H; is it not?

A. Yes.

Q. Thank you.

MR. FELDEWERT: You're talking about Centennial Exhibit 11?

MR. BRUCE: Centennial Exhibit 11.

That's all I have with this witness, Mr. Examiner.

EXAMINER JONES: Okay. Thank you very much.

EXAMINER BROOKS: If we're going to have another witness this afternoon, I would like to have a break.

(Recess, 4:57 p.m. to 5:04 p.m.)

EXAMINER JONES: Mr. Bruce, you can call your next witness, please.

JODY ROBINS,

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

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. My name is Jody Robins.

Q. And where do you reside?

A. Denver, Colorado.

Q. Do you work for and in what capacity?

A. Ascent Energy as the VP of drilling.

Q. Have you previously testified before the Division?

A. I have not.

Q. Would you summarize your educational and employment background for the Examiners?

A. Sure. I have my BS in petroleum and natural gas engineering from Penn State. That was in '98. So I have 20 years of experience. I've drilled all over the continental United States, over 100 wells, 2/3 of which have been horizontal in various basins, a lot in the Bakken and the Paradox Basin in Utah and the San Juan Basin over just across the border in Colorado and in the Eagle Ford.

Q. Okay. And have you been employed by Ascent Energy for roughly the last year and a half or more?

A. I have.

Q. And are you familiar with the drilling plans of Ascent regarding these proposed wells?

A. Yes, I am.

Q. And are you also familiar with this plan with respect to Ascent's adjoining acreage?

A. Yes.

MR. BRUCE: Mr. Examiner, I tender

Mr. Robins as an expert drilling engineer.

EXAMINER JONES: Any objection?

MS. BRADFUTE: No objection.

MR. FELDEWERT: No.

EXAMINER JONES: So qualified.

MR. FELDEWERT: Well, he's only drilled 100 wells in 20 years, but that's all right.

Q. (BY MR. BRUCE) Mr. Robins, can you identify Exhibit 16 for the Examiner and discuss its contents?

A. I can. So this is an overhead map of what we are calling our Hat Mesa area. This is a satellite map. I've identified -- you can see in the very southeast. The yellow box is our Trucker DSU -- our proposed Trucker DSU. Just to the left of that is our Sombrero DSU. Just north of that is our Toque DSU. West of that is our Big Bucks development area, and over just a little bit to the northwest is our Gavilon development area.

You can see all the little red boxes on there. All of them except for the Toque DSU are proposed and approved by the BLM. The Toque wells are state. That's a State DSU. And those -- we are currently working on a JOA with Cimarex before we propose those APDs.

You can see the green line on here is the

midstream company, 3 Bear. That is a permitted and state and currently being built four-string gathering system. So four string being oil, gas, produced water and then a return line for treated, produced water for fracs. And they are also drilling disposal water wells. That's how they will be handling the water.

And you can see that for the Trucker DSU, if this is approved, we will already be building roads and infrastructure to our Sombrero DSU and to the Big Bucks development area. So from a surface-use efficiency standpoint, it makes a lot of sense to give us operatorship of the Trucker DSU.

In addition, we have already cleared all of those with the grazing lessee, Danny Barry. And he likes putting those up on top of the mesa because grass doesn't grow up. So it's not a problem for him.

Q. Because of that 3 Bear situation, when they complete the pipeline, you'll have a way to dispose of your produced water?

A. That's correct. We're currently in negotiations with them.

Q. Would you move to Exhibit 17, please?

A. Okay. Exhibit 17 is a little bit zoomed-in of the same image, and, basically, this kind of shows why we put our pads up on top of the mesa. When we

initially went to Jim Rutley over a year ago to propose putting pads at the south end of 18, he indicated it was in the potash life-of-mine reserves and that they would not be willing to grant us a waiver. They have since become easier to work with. But then once we started working on this in conjunction the Sombrero pads, it made a lot of sense to put it on top of the mesa. You can see why we can't move it into the north end of Section 18. It's quite deep. And by the time you get to a slope gentle enough to build a pad, you'd have a pretty large back-build in the vertical section where you're drilling.

Q. The BLM probably would not prove that?

A. And probably the BLM would not approve that. That's correct.

Q. And, again, looking at all this, you've got an efficiency of design and minimization of surface use for roads and pipelines?

A. That's correct. And that's also -- there was a road and pipeline that's also been approved by the BLM.

Q. And can you minimize facilities if you are named operator of the east half of Section 18?

A. That's right. If -- because 3 Bear will be building an oil takeaway line, that will allow us to have smaller tank batteries on each one of our pads,

which minimizes costs. Also, we won't have to drill our own water-disposal well, which minimizes costs.

And, frankly, one of the big advantages that we see is that they'll be treating our water and returning it to us for fracs, which not only minimizes costs but is environmentally the right thing to do.

Q. Let's move on to your Exhibit 18. An identical exhibit was submitted under Mr. Zink; was it not?

A. That's correct.

Q. But could you go into a little detail? You've been heavily involved in all this situation; have you not?

A. Yes. I've spearheaded all of our permitting efforts. And so, like I mentioned before, we initially wanted to put our locations in the south half of 18 and were kind of rebuked. But as we worked on the north, on the ones in 7, we liked those better anyway. We submitted the Trucker notice of stakings to the BLM way back in November of 2017. In the meantime, we met with Danny Barry of Barry Ranch to create a plan he would be okay with. And then just last Monday, we finally had our on-site for the Trucker and the Sombrero surface locations. The BLM was very happy with them, and it's all been approved, including the road and the midstream routes.

Q. And in your meeting with Danny Barry, you went over not only the well locations in the east half of Section 18 but for the well locations to the west and north, correct?

A. That's correct.

Q. So you've been working closely with him so that he would approve of what you were proposing?

A. Yes. That's right.

Q. And, again, as was already stated, you fully intend to enter an agreement with Cimarex so that they know that Ascent's plans won't interfere with their drilling plans?

A. That's right. They just had some input on the location of the road, which is no problem for us.

Q. Let's move on to your exhibits, I suppose together, 21 through 25, the AFEs.

MR. FELDEWERT: Just for the record, so we don't --

MR. BRUCE: Oh, yeah.

Mr. Examiner, I messed up and I had some duplicative exhibits, so there is no Exhibit 19 or no Exhibit 20.

EXAMINER JONES: I'm going to have to wake up and remember that.

Q. (BY MR. BRUCE) But just to be -- so that we

don't spend too much time, the exhibits on your AFEs, were you in charge of preparing these AFEs?

A. Yes, I was.

Q. And Exhibits 21 through 25, could you give the approximate well costs for the 2nd Bone Spring, 3rd Bone Spring, completed well costs, and Wolfcamp?

A. So let's see. Our 2nd Bone Spring, we have about $6.9 million. The 3rd Bone Spring, we've got $7 million.

Q. And that's accounted for mainly by the deeper depth, right?

A. That's right. It's just a little bit deeper. And then on the Wolfcamp, it is $7-1/2 million.

Q. Okay. In your opinion, are these costs fair and reasonable and in line with the costs of other wells of these types drilled in this area of southeast New Mexico?

A. Yes, they are. And I've got a few comments on this, the first being that near the top of each one of these AFEs, there is a note that says, "This assumes a four-string design." And if you go into the actual AFE, you can see that I accounted for four strings of casing in my costs. So I'm not really sure why there is a question there. We're certainly familiar with the

potash and with the -- oh, geez -- the loss zone. And so yeah, we understand that this is a four-string design area. That's always been in our plan.

Q. You're fully aware of the BLM's requirements regarding casing and design of wells in the potash area?

A. We are. And I actually have several casing bids that reflect these costs, one of which I had refreshed last week just to make sure that we were still accurate, and we are.

The other -- the other point that I'd like to bring up is that in the Wolfcamp well, I believe that Centennial had said that there needed to be a fifth string there because they needed to set an intermediate casing in the 3rd Bone Spring. Well, of the three close Wolfcamp wells to us, the Della 29 Fed 701H and the Moss Fed 4H both set their intermediate at around 5,500 feet, indicating that it's certainly possible to drill Wolfcamp wells without setting a deep intermediate string.

Q. And those wells were successfully completed?

A. Those are successful and good wells. Yes.

The other thing I'd like to talk about a little bit is just our completion design. We do have -- if we went out and drilled wells today, we do have a completion design. I'm happy to share that. We're

looking at 2,000 pounds per foot of sand, 100 mesh, and then we'd be tailing in with 30/50. We'd be looking at, actually, 40 stages, five clusters per stage with six to eight shots per cluster. We don't consider frac design to be very proprietary because you can get most of the details from the New Mexico OCD Web site. And that's, frankly, where we get our details -- our plans from, is from examining -- using statistical analysis to look at the best wells in the area and then going and see what those operators do whenever they frac wells.

Q. So you've looked at completions by EOG, for instance?

A. We've looked at every -- basically, every completion in the Basin, statistically sorted them using Spotfire and then gone in and looked at the best ones. And EOG and Concho generally rises to the top.

Q. Now, you have a completion plan if you could spud the well tomorrow?

A. That's right.

Q. Because of this hearing and then the time frame for obtaining APDs from the BLM, once approval of pooling is granted or the parties enter into a JOA, you're looking at quite a number of months before the wells will be drilled; is that correct?

A. Yes. I'd guess 8 to 12 months.

Q. And over the last few years, completion designs have changed substantially and quite rapidly; have they not?

A. They really have. Yes.

Q. So by the time you start drilling the well, you're going to have to re-review everything to make sure you're doing the best completion design possible?

A. Yes. I mean, of course we would review what our plan is, and we'd want to be up to whatever is industry standard at that point.

I think the timing issue is something else that came up earlier that I kind of wanted to comment on and that is why we haven't picked up a rig. If you look back at Exhibit 16, which was my first exhibit, you can see that of all those DSUs and development areas, only one is state. That's the only one, and we're still working on a JOA with Cimarex on that. So for us to be able to pick up a rig and run it consistently without having to drop it, we need BLM permits. And so that has been my focus for the last six months, I'd say.

And thankfully we just recently got approval for our Big Box DA and our Gavilon DA pads, so we are submitting those APDs as we speak. But that's still probably four to six months out. So we have -- yes, we do have State APDs that are approved, but not

enough that we feel that we can get started with a rig program.

That said, with our recent progress with the BLM, we are hoping to pick up a rig in August, is our tentative plan, which I keep my finger on the pulse of the rig supply, I guess. And I just recently spoke with a couple of different rig companies, and there are rigs available. I'm sure they're more expensive than they used to be, but there are rigs available.

Q. And you don't want to just get one rig and then drill a couple of wells and have to drop it and then come back again later?

A. That's correct. If we pick up a rig, we're looking at least one year, if not two.

Q. Next, could you move on to Exhibits 26 and 27 and do an AP cost comparison --

A. Sure.

Q. -- and then maybe discuss some of the elements of why there is a difference in costs between Centennial and Ascent's AFEs?

A. So Exhibit 26 is the Bone Spring D&C and facilities costs. This encompasses both 2nd Bone and 3rd Bone, since the costs are pretty similar. You can see there in green what our AFE is coming in for our 2nd Bone. The 3rd Bone is 100,000 more.

We went and compiled public information for surrounding operators for well costs and plotted them, and you can see that we are right in line with the average but a bit more, which is accounted for because of the four-string design and casing. That's another 400,000 or so.

You can see that the AFE that Centennial sent to us is higher than the average.

Exhibit 28 is the exact same thing except for the Wolfcamp, and X-Y and A being mixed together. Again, we're right in line but about 300,000 more than the average. You can see EOG is, you know, ahead of the class at 6.5 million. And, again, the AFE that we received seemed high.

Whenever I go through and do a comparison between our AFEs and the ones that were sent to us by Centennial, the obvious case on the Wolfcamp side is they have an extra string of casing. The other big cost that jumps out is their facilities design, where they're up near a million dollars and we're more around 500,000 for our facilities. And whenever you look at what surrounding operators are reporting to be spending on their facilities, they're looking at 250- to 400,000. We thought we were being conservative with 500,000, especially considering the ramifications of the

four-string -- I'm sorry -- the four-stream takeaway that we're looking at with our midstream. I think that'll bring -- that'll drive down our facilities costs.

Q. And so the facilities costs in your AFE is, you believe, exceedingly reasonable?

A. I think so.

Q. Based upon this information, is it your opinion, having drilled a number of horizontal wells, that you can drill and complete your wells at the cost range set forth in your AFEs?

A. Yes, I do.

Q. And do you think Centennial's AFEs are just too damn high?

A. I think so.

Q. Were Exhibits 16 and 27, excepting the nonexistent 19 and 20, prepared by you or under your supervision?

A. Yes, they were.

Q. And in your opinion, is the granting of Ascent's applications and the denial of Centennial's applications in the interest of conservation and the prevention of waste?

A. Yes, I do.

Q. And when you look at waste, are you looking at

economic waste besides wasted resources?

A. Yes, and surface disturbance waste.

Q. Thank you.

MR. BRUCE: Mr. Examiner, I move the admission of Exhibits 16 through 18 and 21 through 27.

MR. FELDEWERT: No objection.

EXAMINER JONES: Exhibits 16, 17 and 18 and 21 through 27 for Ascent are admitted.

(Ascent Energy, LLC Exhibit Numbers 16 through 18 and 21 through 27 are offered and admitted into evidence.)

CROSS-EXAMINATION

BY MR. FELDEWERT:

Q. Mr. Robins, your Exhibit 16 or Exhibit 17, those describe your takeaway options; is that right?

A. That's right.

Q. Okay. Those are -- at this point, that's still theoretical, correct, because you don't have any agreements?

A. We're in the middle of negotiating an agreement.

Q. Okay. And isn't it true that you've been in negotiations since July of 2017?

A. We have been in negotiations -- well, we've been talking to this company for quite a while.

Q. I think in previous -- one of your witnesses testified at the last hearing that you had been in negotiations on these takeaway requirements since July of 2017; is that correct?

A. That sounds about right.

Q. And you still don't have any agreements?

A. No.

Q. Okay.

A. By our choice.

Q. You said you have completion plans now that you have gleaned from looking at files and records of what other people have done?

A. That's correct.

Q. But you don't have any frac crews that you have utilized, correct?

A. Well, we haven't drilled any wells.

Q. Well, if you do commence drilling your wells, you have to acquire a frac crew and then implement a plan to be put together by others? Is that --

A. No. The plan would be designed by us. It would be based off of other successful plans.

Q. But you haven't put that plan into effect?

A. No. We don't have a rig.

Q. Now, you were here for the testimony about the fact that the location down in the southern part of

Section 19, that the company, Centennial, can drill toe up in these zones?

A. I did hear that.

Q. Okay. And do you agree that that provides an advantage for extending the life of the well?

A. I would disagree with that. On these wells is a very, very shallow dip. It's like a 2 percent incline. So with it being that gentle of an incline, no, I don't think it'll make a significant difference.

Q. And you don't think that that'll -- you don't think that that incline, allowing the liquids to accumulate in the heel, is going to extend the life of the well or increase the ability of the rods and other pumps to be utilized?

A. No.

Q. Huh. Okay.

Do you have wellbore diagrams that reflect what's reflected on your AFEs?

A. We do. I did not bring them today.

Q. Why not?

A. I don't know. We -- Jim and I didn't discuss bringing them.

Q. Your AFEs do not include a five-string design for the Wolfcamp wells?

A. No, they do not.

Q. And you don't think that there is any risk associated with that? Is that your statement?

A. I mean, there is always risk when you're drilling a well. Certainly, there are people that are more conservative and are setting a deeper intermediate, but whenever I look at the two most successful Wolfcamp wells that are closest to this area, they did not. And so I would not choose to do that, no.

Q. So having never drilled any wells in this area of New Mexico, your plan right now is not to use five strings through the Wolfcamp?

A. That's right.

Q. Okay. Exhibits 26 and 27, if I'm understanding them, those reflect D&C costs; is that right?

A. And facilities.

Q. This says D&C.

A. Right. They're D&C and facilities.

Q. D&C normally means drilling and completion.

A. D&C means drilling and completion, but I'm telling you that they are drilling and completion and facilities.

Q. And these numbers that you have utilized here, is this across the state of New Mexico?

A. It is.

Q. So it's not for this unique area where you have

the potash concerns in the Capitan Reef?

A. No.

Q. And these costs do not, for example, reflect the BLM casing requirements?

A. Our costs do, yes. That's why they are higher than others.

Q. But this particular graph that you've utilized here does not include the BLM casing requirements?

A. No. There are not very many wells drilled in that area.

Q. And it doesn't include the costs associated with the extra strings for the Wolfcamp pressures?

A. Well, we're not planning on using that. And EOG and Concho don't, so no.

Q. And I believe you say this is -- and if we go by the title on this and if we go by where you got it, from which is drilling and completion, this would not appear to reflect the facilities necessary to handle flowback, takeaway of oil and gas?

A. No. These costs do reflect.

Q. What do you get that from, Mr. Robins?

A. Well, they're from company-investor presentations.

Q. Uh-huh.

A. Yes.

Q. And it says, "Average excludes Centennial's data," right?

A. That's right. It wouldn't many sense to use proposed AFEs --

Q. And it says "Delaware D&C Cost." And you're saying that because of sources, company-investor presentations, that it means something more than just drilling and completion costs? Is that what you're saying?

A. I am saying that they are drilling and completion and facilities costs because I'm the one who gathered the data and I saw where they came from, and they all say drilling and completion and facilities.

Q. Do you have backup documents for this investment presentation?

A. No, but I can certainly provide them.

Q. Would it include the cost for air emissions controls?

A. That is rolled into facilities cost. Yes.

Q. If I go to your AFE, where is your line item for your flowback cost?

A. That would be about three-quarters of the way down the page, on the front page, under "Intangible Completion Costs." You can see it at 8306.224, "Flowback Testing, $76,500."

Q. 86 -- I'm sorry -- 224?

A. 224.

Q. Flowback and testing?

A. That's correct.

Q. And you have in there $75,000?

A. 76,500. That's right.

Q. That's your -- does that include your gas takeaway and water takeaway costs?

A. Yes.

Q. 75?

A. Yes. That's from a bid.

Q. Huh. Okay.

A. That assumes 30 days of flowback. All of my major costs are from bids from service companies.

Q. Do you have a line item for air emission requirements?

A. No. That's included in the facilities.

Q. And you mention that yours is -- what is Centennial's line items for these facilities costs?

A. I don't have their --

Q. They're higher, though, right?

A. Oh, sure. Yes. They're about a million dollars for their facilities costs.

Q. And yours is 75,000?

A. About 500,000. Oh, you said facilities. Are

you talking flowback?

Q. Well, facilities. I'm sorry. Let's go with facilities.

A. Facilities, they're about a million. We're about 500,000.

Q. Now, have you participated in any wells as a working interest owner drilled here in New Mexico?

A. No.

Q. So you haven't received any AFEs that you've signed off on and anticipated in?

A. We have received AFEs, yes, from Matador.

Q. Okay. And have you participated in wells under their AFEs?

A. Not yet.

Q. Any other company that you received AFEs from?

A. I can't recall.

MR. FELDEWERT: Okay. That's all the questions I have.

EXAMINER JONES: Mr. Brooks?

CROSS-EXAMINATION

BY EXAMINER BROOKS:

Q. On this Wolfcamp issue, have you analyzed pressures and subsurface conditions that exist in the Wolfcamp in this area and come to independent conclusions about the appropriate casing program?

A. I have.

Q. And based on that analysis, you believe that an additional string is not necessary?

A. That's correct.

Q. And I believe the drilling engineer this morning testified that the pressures that were present in the formation were problematic if you did not have an additional string. You disagree with that?

A. I think that there are probably areas in the Delaware that you do need the additional string, but if you look at the two most -- the two closest Wolfcamp wells to us, they did not need them. There is no reason to think that our pressures are significantly different.

Q. When you said in the Delaware, you mean the Delaware Basin, not the Delaware Formation?

A. That's right. That's right, the Delaware Basin. Sorry.

Q. Thank you.

CROSS-EXAMINATION

BY EXAMINER JONES:

Q. Do you have electricity up that mesa top, or are you going to have to pay for a substation?

A. There is not, but there is electricity that runs on -- that green line is right along a lease road, and so there is a power line along there.

Q. Okay. Okay. If your -- if you do -- if the BLM does insist on another string of pipe -- what I mean is salt protection, Capitan protection -- how much more would your AFEs be?

A. Well, we are -- this does assume the salt, the potash protection and the Capitan protection.

Q. So are you assuming the surface pipe would be through the salt?

A. The surface pipe is around 1,000 feet. The first intermediate would be set at around 3,000 feet.

Q. Okay.

A. And the second intermediate, we would set at around 5,500 feet. And that's -- the second intermediate is the Capitan protection.

Q. Okay. Well, I just -- you know, on your AFE, it says -- it says -- the one that says "2nd Bone Spring," it says, "Conductor of surface pipe, intermediate and the liner."

A. Right. The liner, that's an artifact of our AFE form. That would be our second intermediate. And then our production casing is under "Intangible Completion Costs."

Q. Oh, okay.

A. Since it's officially part of the completion.

Q. Okay. So as far as these well spacings go, --

you're the engineer. You also do all the -- you cover all aspects of engineering for the company?

A. I don't do reservoir, but I'm fairly familiar with it.

Q. Okay. But you're proposing a well in the -- pretty close to the center of the east half, is that correct, one of the Bone Spring wells?

A. That sounds right.

Q. So -- and you're in favor of this -- the spacing -- the lateral spacing?

A. Yes. So the way our wine rack is set up, we think that the 3rd Bone and our Wolfcamp X-Y, we need to have some space between them because there is no frac barrier between them. So that's why we set them up like that.

But between the 3rd Bone and our Wolfcamp A, there is a minor frac barrier just above the Wolfcamp A, and then there is enough other barriers due to X-Y that we think that'll give us -- we will not connect with our fracs between the 3rd Bone and the Wolfcamp A.

Q. So you guys are seeing these frac barriers, and I -- do you have a dipole sonic or something, a stress log or something through this?

A. We do. We have a nearby well that has a full log suite on it.

Q. Okay.

A. And then our VP of completions, he runs a completion -- I'm sorry -- a frac simulation to see -- to try to figure out which barriers we think are real and which ones can be fracked through.

Q. Which one would you drill first out here?

A. You know, I don't think it matters because we would be drilling them batch style. So, you know, with the rigs being able to move so easily, we'd drill our surface casing for all three and then go back the other way and drill the intermediate and then go back the other way and drill our other intermediate and then production. And so essentially you'd be drilling them at the same time.

Q. Do you have a different rig for the surface pipe than you do for the --

A. We would -- assuming we had time, we would come in and use a surface rig to set our surface casing and possibly our first intermediate.

Q. You don't see the need to drill the deeper -- deeper well first to do a log?

A. No. We have enough -- we have enough well control in the area that we wouldn't feel -- we probably would. Yeah. We'd probably -- we'd probably do the order so we did the Wolfcamp production first. Now,

which one would we spud first, I'm not sure. You'd have to work backwards.

Q. Yeah.

Do you agree with Mr. Metz about watching these Wolfcamp wells -- surrounding Wolfcamp wells to see if you might add a Wolfcamp A?

A. Oh, yeah. I think we feel really good about the A. I think that's very likely. But it's the X-Y in the 3rd that you'd want to frac at the same time.

Q. Yeah, because they're close together vertically.

A. Exactly. Right.

Q. And even though they're across the line there, where people are saying it's higher pressure maybe -- maybe and it's an unconformity, there is no frac barrier there?

A. That's right.

Q. Okay. That's what everybody keeps saying today. So --

And the 2 degrees per mile --

What about this business about the 1,000 -- the 100 feet? That's going to be proposed and this -- this horizontal well proposal rule change is already out there.

A. Right.

Q. And you guys can look at that. This 100 feet business, that does give you more -- more reservoir rock.

A. Right. We would -- if that is approved, we would surely change our directionals. We just didn't think that we would get an approval from Cimarex or Advance to ourselves to get that -- what do you call it -- nonconforming well.

Q. Yeah.

A. Of course, we would rather drill a longer lateral.

Q. Okay. If you did decide to do that, it wouldn't change your surface location, though, would it?

A. It would not. No. That's one nice thing about being on the south half of Section 7, is that there is no -- we have plenty of room to land our wells, you know, right across the leaseline.

Q. What about your AFE? It would change that a little bit, right? You'd have more frac stages, a little bit more length to the well?

A. It would. It would add a little bit. But once -- the lateral drilling is your cheapest drilling. So, you know, surrounding operators in the 2nd Bone Spring are drilling 2,000 feet a day. So adding 300 feet, 400 feet is just not that -- wouldn't make that

big of a difference.

Q. How do you keep your drilling costs down? Is it negotiating with these drilling companies as far as getting a good contract, or is it -- you got pipe -- I mean, how is your pipe cost going to be between now and six or eight months from now when the tariffs happen or whatever?

A. What I'm seeing is that vendor costs are going up. Their proposals to me have gone up, but people are getting better at drilling, and so the days are coming down.

Q. Do you do a day contract or a --

A. With the rig?

Q. -- or a footage contract?

A. It would be a day contract.

Q. Day contract.

Okay. So you have to have somebody out there monitoring it pretty close?

A. That's correct.

Q. Now, who would sit on your frac jobs? Who would be the person deciding when to cut -- when to cut pressure and everything?

A. Well, our VP of completions, he's very hands-on, so he would go out for our first few fracs for sure. And he has a few consultants that he's worked

with quite a bit in the past, including our last company, and that he trusts and that have -- you know, our last company, we drilled two Eagle Ford -- two Eagle Ford wells in east Texas, and those frac designs were very similar to what these would be, except at a higher pressure.

Q. Okay. And then once you frac your wells -- what's the latest thinking on flowback, and do you flowback immediately or --

A. That's a good question, because you've got EOG that's ripping open these wells and not even increasing the tubing, and then you've Concho that kind of babies them. I think they're hoping that they're looking at a better long-term EUR. I think we'd be more on the babying-them side.

Q. Are you looking at slickwater fracs like they were talking about?

A. Yes. Yes. It would be slickwater.

Q. So a little bit of heavier -- bigger sand to tail in with and --

A. That's right. We'd frac with 100 mesh and then tail in with 30/50.

Q. Hopefully it wouldn't come back too much.

A. Right, which is another reason not to rip them open. But then again, EOG has had a lot of success,

so -- you see these 4,000-barrel-a-day wells, and it's enticing. But, you know, I don't think -- I don't think that's the way we would go. We would be a little more careful with it.

Q. Okay.

EXAMINER JONES: Any more questions for this witness?

MR. FELDEWERT: No, sir.

MR. BRUCE: (Indicating.)

EXAMINER JONES: Thank you, Mr. Robins. Closing statements?

MR. BRUCE: Well, I can.

EXAMINER JONES: You want write it up?

MR. BRUCE: I would rather write it because my voice is ready to collapse.

EXAMINER BROOKS: I would rather you submit them in writing also.

EXAMINER JONES: Mr. Feldewert?

MR. FELDEWERT: I'm outvoted. I think written closing statements is fine with me. Jim and I can work out a time schedule.

EXAMINER BROOKS: I can't blame Mr. Feldewert for being on the other side of that, rhetorical abilities, but it's awfully late and --

EXAMINER JONES: Somebody is sucking on

something over there to keep his voice going.

MR. BRUCE: Halls cough drops.

EXAMINER BROOKS: If we have closing statements this afternoon, I might doze in the middle of them, and that would not be good.

MR. FELDEWERT: I'm fine with written statements. Maybe Jim and I can work on a schedule.

MR. BRUCE: We'll just -- yeah.

EXAMINER JONES: Okay. Ms. Bradfute, any last words, or do you want to say something in a closing statement, too?

MS. BRADFUTE: I don't believe that Cimarex needs to do a closing statement. I think we reserved our rights throughout the hearing.

EXAMINER JONES: Okay. Thank you very much.

MR. FELDEWERT: Thank you for your time.

EXAMINER BROOKS: Oh, I have a question. This says "Exhibit A," and we weren't using letters.

MR. BRUCE: It was introduced and accepted into the record.

EXAMINER JONES: Yeah, it was.

The record will reflect that all cases in this docket are taken under advisement. Or do I need to read every one of them?

Okay. Docket's closed.

(Case Numbers 15992, 15993, 15994, 15995, 15996, 15988, 16016, 16017 and 16018 conclude, 5:46 p.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.

DATED THIS 8th day of April 2018.

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