

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 TITUS OIL & GAS PRODUCTION LLC
FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.

CASE NOS: 20833 - 20835

APPLICATIONS OF NOVO OIL & GAS NORTHERN
DELAWARE LLC FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.

CASE NOS: 21037 - 21040

REPORTER'S TRANSCRIPT OF PROCEEDINGS
EXAMINER HEARING
FEBRUARY 20, 2020
SANTA FE, NEW MEXICO

This matter came on for hearing before the New Mexico Oil Conservation Division, EXAMINERS FELICIA ORTH, LEONARD LOWE and DYLAN COSS, on Thursday, February 20, 2019, 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: Irene Delgado, NMCCR 253
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1 A P P E A R A N C E S

2 For the Applicant:

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8 For Titus Oil & Gas:

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1 HEARING EXAMINER ORTH: All righty. Let's go
2 back on the record after a short break. We have Mr. Dylan
3 Coss joining us here at the hearing examiner table for these
4 matters I would like to call all at once, 20833, 20834
5 20835, 21037, 21038, 21039, 21040.

6 The first of those were Titus, the first three of
7 them. The second four are Novo. All of them compulsory
8 pooling. The wells involved are Laguna Salado and
9 Saturninus. Appearances please. Start with you.

10 MS. SHAHEEN: Sharon Shaheen for Titus Oil & Gas
11 Production LLC.

12 MR. FELDEWERT: May it please the Examiners,
13 Michael Feldewert from the Santa Fe office of Holland & Hart
14 appearing on behalf of the applicant in 21037 through 21040,
15 which is Novo Oil and Gas Northern Delaware LLC.

16 HEARING EXAMINER ORTH: All right. Thank you.
17 So Ms. Shaheen based on our conversation during the break, I
18 understand you would have some information to share about
19 20833 through 835.

20 MS. SHAHEEN: That is correct. Titus at this
21 point has decided to request dismissal of those three cases,
22 20833, 20834 and 20835.

23 HEARING EXAMINER ORTH: Okay. Thank you. I will
24 prepare a brief dismissal order, probably tomorrow. All
25 right. However, as I understand it, you have entered an

1 appearance in the other four cases I mentioned for Novo.

2 MS. SHAHEEN: That is correct.

3 HEARING EXAMINER ORTH: So, Mr. Feldewert?

4 MR. FELDEWERT: Ms. Orth, we have two witnesses
5 to present here today.

6 HEARING EXAMINER ORTH: Okay.

7 MR. FELDEWERT: Who need to be sworn.

8 HEARING EXAMINER ORTH: These two gentleman?
9 Yes? Raise your right hands. Do you and each of you swear
10 or affirm that the testimony you are about to give will be
11 the truth, the whole truth, and nothing about truth?

12 THE WITNESSES: (Collectively) Yes, I do.

13 HEARING EXAMINER ORTH: Thank you. That was both
14 of your witnesses.

15 MR. FELDEWERT: We will call our first witness.

16 BRANDON PATRICK

17 (Sworn, testified as follows:)

18 DIRECT EXAMINATION

19 By MR. FELDEWERT:

20 Q. Would you please state your name, identify by
21 whom you are employed, and in what capacity.

22 A. Brandon Patrick, vice president of land for Novo
23 Oil & Gas Northern Delaware LLC.

24 Q. How long have you been with Novo?

25 A. For a little over two and a half years?

1 Q. Have your responsibilities during that time
2 included the Permian Basin of New Mexico?

3 A. Yes.

4 Q. And have you previously testified before this
5 Division as an expert in petroleum land matters?

6 A. Yes.

7 Q. Were your credentials accepted and made a matter
8 of public record?

9 A. Yes.

10 Q. Are you familiar with the applications filed by
11 Novo in this case?

12 A. Yes.

13 Q. Have you previously seen the applications filed
14 by Titus which have now been dismissed?

15 A. Yes.

16 Q. And as a result, are you familiar with the status
17 of the lands in the subject area?

18 A. Yes.

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

21 HEARING EXAMINER ORTH: Any objection?

22 MS. SHAHEEN: No objection.

23 HEARING EXAMINER ORTH: Do you have any questions
24 about his qualifications, either of you?

25 EXAMINER LOWE: No.

1 EXAMINER COSS: No.

2 HEARING EXAMINER ORTH: Thank you. He is so
3 recognized.

4 BY MR. FELDEWERT:

5 Q. Mr. Patrick, I know we no longer have competing
6 pooling cases before the Division, so we are going to be
7 able to shorten our presentation a little bit. But I want
8 you to turn to Novo Exhibit Number 1, and would you please
9 explain to the Examiners what you are showing in this
10 exhibit?

11 A. Yes. So this is a map showing Novo's position in
12 this area where the pooling applications take place. You
13 can see that everything in yellow is Novo operated, so we
14 have a very large contiguous position in this area.

15 We have already started drilling wells in this
16 area we have experience in. So we also own in the lands
17 that we are talking about, Section 10 and 15, we own about
18 90 percent of that pooled unit.

19 The only interest that we're aware of that Titus
20 had in this area was in this federal lease that's outlined
21 in red, it's about 22 percent. There are multiple tracts
22 within that lease, and ownership is different in each of
23 those tracts, so I'm giving you a general flavor for how
24 much they own, but they own about 22 percent, and we own
25 about 78 percent in that federal lease. That's just an

1 overview of this area and how big a position Novo has.

2 Q. Now, the acreage at issue today is the W/2 of the
3 W/2 of Section 15. Is that correct?

4 A. Yes --

5 Q. I'm sorry, the W/2 of 10 and 15?

6 A. Yes, the W/2 of 10 and 15

7 Q. What is the hatched green, or the hatched area
8 that you see in yellow in the W/2 of 10?

9 A. That's Novo's mineral position, so we actually
10 own the minerals under the oil and gas as well, so we own
11 the working interest and royalty interest in that
12 crosshatch.

13 Q. So that's 100 percent you?

14 A. That's correct.

15 Q. Has this been your core focus of development of
16 the company as a result of your substantial acreage
17 position?

18 A. Yes.

19 Q. Do you have a rig running that's actually
20 developing this core area?

21 A. Yes. We actually stood up a rig this week,
22 again, and it's drilling over in Sections 4 and 9 of 23
23 South, 28 East. After we drill some well wells there, we
24 are going to move back to this larger position that you see
25 further to the east.

1 Q. As I look up there in Sections 4, 5 and 6 in the
2 subject township, you have actually drilled some wells up
3 there; correct?

4 A. Yes. We have drilled two 2 mile Lower Wolfcamp
5 wells there that have been drilled and completed
6 successfully, and we are drilling the third well back in the
7 area.

8 Q. So this is a core area for you?

9 A. Yes.

10 Q. And you've got some experience?

11 A. Yes.

12 Q. Let's turn to what's been marked as Novo Exhibit
13 Number 2. Is this a plat of the acreage that's at issue in
14 your application?

15 A. Yes. This is the W/2 of 10 and 15, the lands
16 that are part of the pooling application. It shows a
17 breakdown of each tract. The yellow is our minerals
18 position. We own 100 percent of that.

19 The orange and blue are both part of that federal
20 lease, and as I mentioned earlier, the ownership in that
21 federal lease has multiple tracts and it varies a little
22 bit. In the orange we own 78.75 percent working interest.
23 Titus owns the remainder, 21 and a quarter. In SW/4, the
24 blue, we own 75. Titus owns the other 25 percent.

25 Q. When you look at this subject acreage as a whole,

1 I see you've have got it pulled out that you own roughly 90
2 percent?

3 A. Yes, across the whole west half of 10 and 15.

4 Q. With Titus owning the remaining 10 percent?

5 A. That's correct.

6 Q. Is it Titus' minority interest that you seek to
7 pool for your proposed Bone Spring and Wolfcamp spacing
8 units?

9 A. Yes.

10 Q. Are there any overriding royalty interest owners?

11 A. Yes, there are a few, all carved out of the
12 federal lease. Those overriding royalty owners have been
13 notified. There are I think four of them, Quientesa,
14 Rubicon, Mike Hayes and Lenox. Lenox is actually a part of
15 Titus, so it's their group, but those are the four
16 overriding royalty owners that were given notice.

17 Q. When you look at your acreage that you seek to
18 develop, is there some substantial acreage restrictions in
19 this area?

20 A. Yes.

21 Q. If I turn to what's been marked as Novo
22 Exhibit 3, does this help depict some of the challenges in
23 development in this area?

24 A. Yes, it does. So this area is in the designated
25 potash, which I know the panel is very familiar with. It's

1 also plagued with some very difficult surface restrictions.

2 You can see the Salt Lake on the west side of this map.

3 You know, so with the Salt Lake and potash
4 restrictions -- I should point out the potash boundary here,
5 that red really skinny line that goes through here, that's
6 the buffer for the drill island, where you can locate drill
7 islands.

8 And this is Mosaic. This is -- we worked with
9 Mosaic, the potash company, on being able to know exactly
10 where the line falls and where we can place the drill
11 islands, but we have worked with them, with BLM.

12 We have conducted an on-site, and that on-site
13 resulted in approval of a drill island in the southwest
14 corner. In that blue tract you see, the southwest corner of
15 Section 15. It's currently being finalized by the BLM. We
16 are working with the archeology department to finalize the
17 dimensions of that pad. There are some archeological sites,
18 but we are working to preserve those. But the BLM has
19 assured us, yes, there's going to be a pad, we just need to
20 finalize some of the dimensions.

21 **Q. That pad there looks like it's in the SW SW of**
22 **15; right?**

23 A. That is correct.

24 **Q. Will you be able to drill all of your proposed**
25 **wells from that BLM approved location?**

1 A. Yes.

2 Q. Okay. In addition to these surface restrictions,
3 are there any horizontal wells under the subject acreage?

4 A. Yes, there is. There is one First Bone Spring
5 well that runs perpendicular to this pooled unit. It cuts
6 through -- it starts -- it's a 1.5 mile First Bone Spring
7 well called USPC 3H.

8 Q. Let me stop you right there. Turn to what's been
9 marked Novo Exhibit Number 4.

10 A. Yes.

11 Q. Is that the C-102 for the well you are talking
12 about?

13 A. Yes, it is.

14 Q. What acreage overlaps with your proposed spacing
15 unit?

16 A. The S/2 of the SW/4 of Section 10.

17 Q. Now, this well was actually drilled from a
18 different location; correct?

19 A. Yes. It was drilled from the west, SW SW of
20 Section 9 is about where the surface hole location is. It's
21 a 1.5 mile well, and it cuts through the S/2 S/2 of 9 and SW
22 SW of 10.

23 Q. What interval did this well penetrate?

24 A. The First Bone Spring.

25 Q. And I see COG is the operator?

1 A. Yes.

2 **Q. Are they still the operator?**

3 A. Yes.

4 **Q. And when you look at the land records here, did**
5 **this well create an ownership depth severance in a portion**
6 **of your acreage?**

7 A. Yes, it did. Actually, Concho had the lease
8 covering all 8, 9 18, the W/2 of 10, but they only drilled
9 this well -- they drilled this and another well, but what we
10 need to talk about today is just this well. This well was
11 drilled and it perpetuated the shallow rights for that oil
12 and gas lease.

13 So from surface down to 7838 feet those are the
14 depths that Concho currently holds in the S/2 S/2 of 9 and
15 S/2 SW of 10. All the other depths below that are
16 terminated, all other lanes were terminated, so that's the
17 only ownership that Concho has today.

18 **Q. So you own below that depth severance?**

19 A. That's correct.

20 **Q. If I turn to Novo Exhibit 5, does this provide a**
21 **little more background on that depth severance?**

22 A. Yes. This illustrates, the map on the left side
23 of this slide illustrates what I was just mentioning. You
24 see the wellbore, you can see the cross-hatch, the black
25 polygon where that spacing unit is, and that's where the

1 acreage is. The acreage is from surface down to 7838 feet.

2 So we wanted to take this into consideration when
3 we are formulating our pooled units, and that's why we are
4 today seeking a depth-severed Bone Spring pooled unit from
5 7839 feet, so just below the depth severance down to the
6 base of the Bone Spring. So we wanted to make sure we were
7 not going to have any overlap with that spacing unit that
8 Concho still has.

9 Q. So Bullet Point 2 identifies the interval you are
10 talking about; right?

11 A. That's correct.

12 Q. Depth severance being at 7838?

13 A. That's correct, that second bullet point, yes.

14 Q. Did you consult at all with COG Operating in
15 putting together your development plan?

16 A. Of course, yes. We talked to Concho about it.
17 We knew they should be aware of what we were doing, so we
18 gave them notice and had calls and talked to them. And you
19 can see as a result of the collaborating and working with
20 them we have an e-mail from Buck Underwood that was a week
21 ago, and he clearly states Concho is not opposed to Novo's
22 pooling application.

23 Q. Turn to what's been marked Novo Exhibit 6, is
24 that a complete copy of that e-mail?

25 A. Yes.

1 Q. And correspondence?

2 A. Yes, it is.

3 Q. Okay. Let's go forward with the development
4 plans under each of your proposed spacing units.

5 A. Okay.

6 Q. And I want to start with case 21037, which I
7 believe involves the W/2 W/2 of Section 15?

8 A. That's correct.

9 Q. We turn to what's been marked as Novo Exhibit
10 Number 7.

11 A. Yes.

12 Q. Is that a land plat identifying the acreage
13 that's at issue under that case?

14 A. Yes. This slide has two maps on it. The one on
15 the left shows the pooled unit and ownership breakdown. As
16 you will see, Novo's interest in the pooled unit is 82.1875
17 percent. Titus has the remainder, 17.8125 percent.

18 Again, this is just for the First Bone Spring.
19 So it's from 7702 down to 7839, so it meets with our other
20 depths in the pooling application. But we limited it to the
21 W/2 W/2 of 15 to avoid going into Section 10 because we
22 didn't want any overlap with the USPC well. And you can see
23 on the right side of this slide, that's where you can see
24 the wellbore layout. We are talking about a 1-mile well,
25 W/2 W/2 of 15.

1 Q. If I look at the second page of this exhibit,
2 does it contain a draft C-102 for that particular dedicated
3 well?

4 A. Yes, it does.

5 Q. Okay. I notice it doesn't have the pool.
6 There's a pool code. Have you confirmed it's the Laguna
7 Salado Bone Spring Pool?

8 A. Yes.

9 Q. Number 96721?

10 A. Yes.

11 Q. Is that the Bone Spring pool that's involved in
12 all of your Bone Spring applications?

13 A. Yes, it is.

14 Q. Okay. And I believe that's identified in our
15 prehearing statement. And you testified that this spacing
16 unit will not interfere with COG's existing development up
17 there in the S/2 -- the S/2 of the SW/4 of 10?

18 A. Absolutely. It stops short.

19 Q. If I turn to Novo Exhibit Number 8, is that the
20 well proposal letter that you submitted to Titus for this
21 First Bone Spring well?

22 A. Yes, it is.

23 Q. Okay. And it was -- this amended application was
24 sent or amended notice was sent in December of 2019?

25 A. Yes, it was.

1 Q. Does it explain in here the reason why you
2 amended your initial proposal to only involve the W/2 W/2 of
3 15?

4 A. Yes, we state in here it was due to the existing
5 horizontal First Bone Spring well, USPC Number 3H.

6 Q. Does this particular letter also note that you
7 proposed a mirror well in the E/2 of W/2 of Section 15?

8 A. Yes.

9 Q. And was it -- at this point is there any pooling
10 necessary?

11 A. No.

12 Q. And that's why the case before them is the W/2 of
13 the W/2?

14 A. That is correct.

15 Q. For the First Bone Spring?

16 A. That's correct.

17 Q. Okay. All right. And then if I turn to what's
18 been marked as Novo Exhibit Number 9, does this contain a
19 land plat for Case 21038?

20 A. Yes, it does.

21 Q. What's the company seeking, and how does this
22 differ from the case we just looked at?

23 A. So we are going to have a depth-severed pooling
24 application that goes from really the bottom of that other
25 one we just talked about, the First Bone Spring interval, we

1 are going to be pooling from that top of the 7839 down to
2 the base of the Bone Spring. The intent is to be able to
3 capture the Second and Third Bone Spring intervals, so we
4 want to drill two wells in this pooled unit.

5 **Q. Okay. And therefore, what do you seek to pool**
6 **here, just the Second and Third Bone Spring intervals?**

7 A. Yes. The Second and Third Bone Spring intervals
8 for the W/2 W/2 of 10 and 15.

9 **Q. And what wells will be initially dedicated to**
10 **this W/2 W/2 two-mile unit?**

11 A. The Saturninus Fed Com 1510 121H and 131H. So we
12 use the 12 series as a Second Bone Spring, the 13 series is
13 the Third Bone Spring.

14 **Q. And do you have a depiction on the right-hand**
15 **side showing basically how those wellbores will initially be**
16 **drilled in that spacing unit?**

17 A. Yes. They overlap each other so you only see one
18 stick, but there's two wells. And that's indicated by the
19 legend showing Second and Third Bone Spring.

20 **Q. You are going to drill that from the same**
21 **location as the other one we spoke about?**

22 A. Yes, the same drill island, yes.

23 **Q. Turn to the remaining pages of this exhibit, does**
24 **it contain the draft C-102s for the two initial wells?**

25 A. Yes, it does.

1 Q. And then if I turn to what's been marked as Novo
2 Number 10, is this a similar plat, Case 21039 for the W/2 --
3 I'm sorry -- E/2 W/2 Bone Spring unit?

4 A. Yes, it is. It's essentially the same thing, but
5 just for the E/2 W/2. It's the same depth. We're
6 submitting a mirror image pooling application for the E/2
7 W/2 for full development of the W/2.

8 Q. Does the right-hand side show the initial wells
9 for this, for this spacing unit?

10 A. Yes, it does. Both Second and Third Bone Spring
11 for the initial wells in this pooled unit.

12 Q. And if I look at the remaining pages of the Draft
13 C-102s for the two initially dedicated wells?

14 A. Yes, it is for the 122H and 132H .

15 Q. 122 being in the Second Bone Spring?

16 A. That's correct. And then 132 being in the Third
17 Bone Spring.

18 Q. Okay. All right. And then if I turn to Exhibit
19 Number 11, is this the spacing unit that's involved in case
20 21040?

21 A. Yes, it is.

22 Q. What does the company seek under this case?

23 A. To pool the Wolfcamp, the entire Wolfcamp
24 formation. You can see our ownership here is almost 90
25 percent. Titus is around 10 percent. This will be for the

1 entire W/2 of 10 and 15. There are no existing wellbores
2 that you have to worry about here, so there is no need for a
3 depth-severed application. We can do the entire Wolfcamp
4 under this pooling.

5 And on the right side of the slide, you will see
6 the wellbore layout. That's for the three target intervals
7 that we want to drill. We call it the Wolfcamp XY, Wolfcamp
8 A and Wolfcamp B. Those go from shallowest to deepest. You
9 can see we want to do three wells in each interval, and that
10 layout is here. You can see those. You can see the colors.
11 You will see where each of those sticks go.

12 Q. And how does -- what's the nomenclature for the
13 wells to identify the targeted interval? So the numbers of
14 the wells.

15 A. Oh, sorry. Sorry about that. The two -- the 21
16 series is the Wolfcamp XY. The 22 series is Wolfcamp A, and
17 the 23 series is Wolfcamp B. So we have nine initial wells
18 that we want to propose. That is the 211H, 212H and 215H,
19 and then 221H, 222H and 225H and 231H, 232H and 235H.

20 Q. If I look at the remaining pages of this exhibit,
21 does it contain the draft C-102 for these wells in numeric
22 order?

23 A. Yes, it does.

24 Q. All to be drilled from that same well pad?

25 A. Yes.

1 Q. What pool is in those?

2 A. This is the Purple Sage Pool.

3 Q. And you're aware of the rule, special rules for
4 that gas pool?

5 A. Yes, I am.

6 Q. And will those wells comply with those rules?

7 A. Yes, they do.

8 Q. If I turn to Novo Exhibit Number 12, does this
9 contain the amended well proposal letter that was sent to
10 Titus in November for these wells and spacing units that we
11 just went through?

12 A. It was sent in December, but yes, this is the
13 well proposal letter that we sent out, and this is identical
14 to the one we looked at earlier. We included the Bone
15 Spring that we reference in the previous two cases on the
16 same well proposal, but this well proposal contains all of
17 our Wolfcamp wells that we proposed as our part of this
18 particular pooling application for 21040.

19 Q. And how are the wells organized in terms of
20 presentation on this well proposal letter?

21 A. From shallowest to deepest, so Second Bone, Third
22 Bone Spring, Wolfcamp XY, Wolfcamp A and then Wolfcamp B.

23 Q. As I look at this letter, does it note some place
24 that you had sent a proposed JOA to Titus?

25 A. Yes, on the last page.

1 **Q. Okay. Go ahead.**

2 A. Page 4 of 6 of this letter, the last paragraph,
3 we provided a joint operating agreement back in September of
4 2019 reiterating we were interested in working with Titus on
5 executing a JOA.

6 **Q. Did they respond with any comments to your JOA in**
7 **September?**

8 A. No, they did not.

9 **Q. October?**

10 A. No.

11 **Q. November?**

12 A. No.

13 **Q. December?**

14 A. No.

15 **Q. Okay. After you sent this proposal, while you**
16 **were waiting on them to provide comments on the JOA, did you**
17 **ask that you get together and have some technical meetings?**

18 A. Yes. We asked on multiple occasions to have
19 conference calls with our technical teams to discuss
20 problems they might have with our development plans, but we
21 were unable to make that work.

22 **Q. Did they ever give you a date where they could**
23 **meet?**

24 A. No.

25 **Q. Okay. If I turn to what's been marked as Novo**

1 **Exhibit Number 13.**

2 A. Yes.

3 **Q. Are these the -- does this contain the latest**
4 **AFEs for the proposed wells that you just went through?**

5 A. Yes. All of them, even the First Bone Spring
6 well, the 111H all the way through the Wolfcamp.

7 **Q. For ease of review, are they organized by number?**

8 A. They are.

9 **Q. Okay. Did you recently modify two of these AFEs?**

10 A. Yes, the Second Bone Spring, we modified those
11 because we realized, our operations team, you know, did just
12 a QC of all the AFEs to make sure they were up to date and
13 noticed they overstated the amount for the day rate on our
14 drilling rate for the Second Bone Spring well.

15 **Q. So that would be the second and third pages of**
16 **this exhibit?**

17 A. That's right, the 121H and 122H.

18 **Q. And so this looks like they were modified**
19 **recently; right?**

20 A. Yes, they were. It didn't result in a
21 significant change, but it did lower the cost overall a
22 little bit.

23 **Q. Are the costs reflected on these AFEs consistent**
24 **with what Novo and other operators have incurred for**
25 **drilling similar wells?**

1 A. Yes.

2 Q. Have you estimated the overhead and
3 administrative costs while producing them -- while drilling
4 and also while producing when you are successful?

5 A. Yes. 8,000 while drilling, 800 while producing.

6 Q. Okay. Are these costs in line with what Novo and
7 other operators in this area charge for similar wells?

8 A. Yes, we receive pooling orders with identical
9 costs.

10 Q. If I turn to what's been marked as Novo Exhibit
11 14, does this provide the Examiners with a, kind of a cake
12 plot view of the wells that you just identified in each of
13 of the spacing units?

14 A. Yes.

15 Q. It looks like for each of the Bone Spring
16 intervals you proposed two initial wells for this half
17 section.

18 A. Yes.

19 Q. Okay. And the one each spacing unit?

20 A. Yes.

21 Q. W/2 W/2 and then E/2 of W/2?

22 A. That's correct.

23 Q. When you were -- and your team were designing
24 your well proposals and your well spacing, did you just look
25 at the W/2 acreage, or did you also take into account the

1 **E/2 acreage?**

2 A. We also took into account the E/2 acreage. We
3 wanted to be able to put together a plan in the W/2 that
4 complemented Novo and Titus ownership in the E/2 as well.

5 **Q. When I look at the distances here from your Bone**
6 **Spring, I see you have 330 and then 1870?**

7 A. That's correct.

8 **Q. What's the purpose of that particular spacing?**

9 A. Well, we looked at the full section development
10 of these intervals, and we were thinking four wells per
11 section. So to have even spacing of those four wells, just
12 the easy math is you have to do 80, you take into account
13 the setback requirements, 330 on each side, so you have 4620
14 to play with and three gaps, so divide by three, 1540 feet
15 between wells, that's what we did. So we wanted even
16 spacing between the four wells across the whole section.

17 **Q. Why would, why did you look at four wells per**
18 **section for the Bone Spring?**

19 A. We have looked in the area and seen other
20 developments and thought that was appropriate.

21 **Q. So this is similar to what other operators are**
22 **doing in this area for the Bone Spring?**

23 A. Yes.

24 **Q. In terms of four wells per section?**

25 A. Yes.

1 Q. Two wells per half section?

2 A. Yes.

3 Q. Okay. When I look at the Wolfcamp Formation, I
4 see a little different spacing pattern. Why did the company
5 propose this particular pattern?

6 A. Well, the Wolfcamp XY and Wolfcamp A, we believe,
7 need to be co-developed, and that's the reason why we
8 staggered them a little bit. The Wolfcamp B -- and our
9 geologist can speak more to this, but we think the Wolfcamp
10 B does communicate with the two other Wolfcamp intervals.

11 So we can start that and drill from 330, starting
12 the first well there from 330 from the west line and equally
13 space across the whole section. But for the XY and A we
14 thought we would need to do a wine rack pattern to
15 co-develop those intervals.

16 Q. So we see the wine rack between XY and A, and it
17 looks like a series of --

18 A. Yes.

19 Q. You mentioned that you would want to co-develop.
20 What do you mean by that?

21 A. Batch drill. So we'll drill and complete these
22 wells back to back to back. It might not literally be just
23 like that. We might not do 1 well at a time. It will be
24 having multiple rigs on there or something along those
25 lines, but basically we are going to drill all of these

1 wells and complete all of these wells in all one field swoop.

2 Q. And what's the purpose for that? Why do you
3 drill all the wells first and then simultaneously complete
4 them when you are dealing with the XY and A?

5 A. We don't want to have to come back later and have
6 detrimental parent-child issues. We want to drill at the
7 same time, complete at the same time, bring them on line at
8 the same time. We feel like that's the most appropriate,
9 and that's industry standard right now.

10 Q. And what do you mean by parent-child?

11 A. The first well drilled -- a parent-child will be
12 a first well drilled in a flow unit and produce it and come
13 back later and drill the second well. That second well is
14 the child well. In a child well you might not have the same
15 production in that child well due to the drilling the parent
16 well first.

17 I'm definitely not -- I'm definitely not
18 qualified to speak about the engineering on that, but that's
19 a landman's way of saying it. Basically the parent-child
20 relationship is detrimental to the overall development of
21 the reservoir, and we would like to co-develop everything at
22 once to mitigate that issue.

23 Q. When you are dealing with the XY and A?

24 A. Yes.

25 Q. You mentioned the Wolfcamp B wells. You proposed

1 **three initial wells in this half section.**

2 A. Yes.

3 Q. **Again, when you were putting this plan together,**
4 **did you just look at the half section, or did you look at**
5 **the entire section?**

6 A. We looked at the full section. So if you just
7 kept this going, you would actually see the same footage as
8 in the E/2 but it would be from the east line because we
9 keep all of our wells the same distance apart. These are
10 spaced 924 feet apart, and that's what you would see
11 between, you know, the third well. And then if you kept
12 going you would have a fourth well in the E/2 and it would
13 go 920 feet apart between the third and fourth well and so
14 on for full development of the section.

15 Q. **This distance of 924 feet between Wolfcamp B**
16 **wells, are other operators developing the Wolfcamp base**
17 **similarly?**

18 A. Yes, we are.

19 Q. **You and other operators?**

20 A. Yes.

21 Q. **Where are you actually doing this?**

22 A. We are executing that development pattern in --
23 the bottom hole of these wells is actually less than a mile
24 away from our development. We are drilling in this
25 township. If you were to look back at Exhibit 1, the

1 overview, it's in Section 4, 5 and 6 of this township. And
2 we drilled those first two 2-mile Wolfcamp B wells, and
3 after we are standing up our rig over in the township over
4 right now, but our plan is to come back and drill four more
5 wells, to drill the rest of the Wolfcamp B on a six well per
6 section spacing pattern.

7 Q. Okay. Now this area where you are drilling right
8 now in this six well per section spacing pattern for the
9 Wolfcamp B, what's your percentage of ownership there?

10 A. We own 100 percent. And first -- for the top
11 three wells that are in 5 and 6, and then we own 97 percent
12 in Section 4 and 5. So we own, you know, the vast majority
13 of the working interest associated with that six well
14 spacing pattern that we are executing.

15 Q. So this is clear, since you own a vast majority
16 of the interest, almost 100 percent, that means you're
17 footing 100 percent of the cost?

18 A. That's right.

19 Q. And likewise, dealing with 100 percent of the
20 risk?

21 A. That's right.

22 Q. And the company therefore strongly feels that you
23 need six wells --

24 A. Yes.

25 Q. -- per section in the Wolfcamp B?

1 A. Yes. Not just our company, but our financial
2 sponsor, too. We had to get approval to drill these wells.
3 It's not just our CEO deciding, it's a whole group that
4 funds us and we had to get approval to drill that whole six
5 wells per spacing pattern.

6 Q. So you are kind of putting your money where your
7 mouth is?

8 A. Absolutely. We are putting our money and
9 company's money to work.

10 Q. When I go back and look at Exhibit 2, you own or
11 control 90 per of that acreage?

12 A. Yes, that's correct.

13 Q. Which means 90 percent of the costs, 90 percent
14 of the risks for development of the Bone Spring and the
15 Wolfcamp that you have proposed?

16 A. Yes.

17 Q. Is there, aside from what you discussed, the
18 basis for your spacing here that we see on 14, is there a
19 practical reason why Novo has proposed three wells in each
20 of these benches for purposes of seeking its pooling
21 application?

22 A. Yes. So we understand that the rules require the
23 operator to drill the initial well before drilling in-fill
24 wells, and we want to batch drill and batch complete these
25 wells. And if we weren't to list all the development, we

1 would have to first drill the initial wells, and if we
2 propose two and we really thought we should drill three, we
3 drill two wells, complete those two, then have to propose
4 that third well, and that's creating that parent-child
5 relationship issue that I mentioned earlier. So what we
6 would rather do is to propose full development, make all the
7 wells, initial wells and allow us to batch drill and batch
8 complete them. That's the most efficient way of doing it.

9 **Q. Does it also take a while to get your federal**
10 **permits?**

11 A. Yes, it does.

12 **Q. How long does it take you to get your federal**
13 **permits?**

14 A. It varies, but from the very beginning of trying
15 to put the other prospect from the time of spudding, it
16 could take 12 to 18 months. That's just a lead time.
17 That's putting in a lot of processing time from the time you
18 submit the permit to the BLM to the time they actually
19 approve it, but also our lead time in preparing that, doing
20 onsites things like that.

21 **Q. So you hope to have your permits here sometime**
22 **soon?**

23 A. We haven't submitted permits yet because we just
24 had the onsites back in October of 2019, but we are
25 preparing those permits. We have C-102s there. We are

1 working with BLM to finalize the archeology issues. Once we
2 have those ironed out, we are going to submit the permits.

3 **Q. So today, if you got your permits today, if I**
4 **could snap my fingers and you get your permits, where would**
5 **you start your development of this Wolfcamp?**

6 A. We'd probably start with Wolfcamp B. That's the
7 one that we have been drilling and we feel like we have the
8 best understanding of right now. It's also a stand-alone
9 interval. It doesn't need to be co-developed with any other
10 interval.

11 So you can drill the Wolfcamp B without risk of
12 tipping over the dominoes, if you want to think of it, you
13 don't have to go drill the Wolfcamp XY, A immediately after
14 that. You can drill Wolfcamp B, and while we are drilling
15 the Wolfcamp, we can watch the spacing tests that are
16 happening nearby, seeing some of that production come
17 online. We have data trades with a lot of these operators,
18 so we are learning more. But our intent would be,
19 immediately after drilling the Wolfcamp B, to go ahead and
20 start the full development of the rest of the Wolfcamp and
21 Bone Spring interval.

22 **Q. So by proposing three wells in the Wolfcamp B, if**
23 **you were able to get your permits in, after you got your**
24 **pooling order and you got your permits today, you could go**
25 **out and batch drill those three initial wells?**

1 A. Yes.

2 Q. And is there a cost savings associated with that?

3 A. Yes.

4 Q. And simultaneously complete?

5 A. Yes.

6 Q. If you only propose one or two wells in Wolfcamp
7 B, you wouldn't be able to batch drill?

8 A. That's correct.

9 Q. And then similarly, you mentioned you were
10 watching development around you in a time frame that's
11 involved before maybe where you have your permits to allow
12 you to drill, is it possible then that that development
13 around you may cause you to change your initial target zone
14 for your Wolfcamp spacing unit?

15 A. Absolutely. We are watching Marathon, XTO,
16 Chevron, Matador, you know, our own development, there is
17 tons of development going on around us, and yes, we're to go
18 execute the best plan at the time they're spudding the
19 wells, and we're going to take the learnings over the next
20 12 months as we are awaiting these permits, we are going to
21 take those learnings and apply them.

22 Q. So if you look at Wolfcamp XY and Wolfcamp A,
23 which you would want to development simultaneous; right?

24 A. Yes.

25 Q. Batch drill and complete simultaneously?

1 A. Yes.

2 Q. If you only propose three of those, or three or
3 four of those six wells, you wouldn't be able to do your
4 batch drilling as a simultaneous completion?

5 A. That's right. Under the rules, under the state
6 rules, you have to first drill the initial wells, and then
7 after you complete the initial wells, you can propose
8 in-fill wells. That's what counsel is talking about.

9 We don't want to do that. We want to be able to
10 batch drill and batch complete all of, all the locations of
11 the Wolfcamp XY, and we don't want to have that parent-
12 child relationship issue.

13 Q. So by proposing six wells in the wine rack
14 pattern, you would be positioning yourself to be able to
15 drill those wells simultaneously if by the time you get
16 permits it makes sense to start there rather than Wolfcamp
17 B?

18 A. Absolutely.

19 Q. Is that flexibility important?

20 A. Absolutely it is. Yeah, there is -- there is
21 offset development happening. There is a ton of reasons why
22 the circumstances might change where we might, rather than
23 drilling the Wolfcamp B first, we might choose a different
24 interval. So we want to prepare our app -- our -- we don't
25 have permits, and we want to have NMOCD pooling orders to be

1 able to go execute any of these intervals first or last, it
2 doesn't matter. We want to be able to have that flexibility
3 because we want to execute the most efficient plan.

4 Q. And you have a rig available to do that?

5 A. Yes.

6 Q. An open rig and some other rigs?

7 A. That's right. That's right.

8 Q. If I turn to what's been marked as Novo Exhibit
9 16 -- and I note that there is no Exhibit 15. Okay -- so
10 Exhibit 16, is this an affidavit prepared by my office with
11 the attached letters providing notice of this hearing?

12 A. Yes, it is.

13 Q. There were -- there was actually three sets of
14 parties that you notified or had us notify?

15 A. Yes.

16 Q. The first being Titus?

17 A. Yes.

18 Q. Pool their minority interest?

19 A. Yes.

20 Q. The second being the overriding royalty interest
21 owners?

22 A. Yes.

23 Q. If I look at the past letters, and I go in about
24 halfway I see a list that has Titus, Lenox Mineral Title
25 Holdings, Michael D. Hayes, Rubicon Oil & Gas, Quientesa,

1 those are the overriding royalty interest owners you were
2 talking about?

3 A. Yes.

4 Q. Okay. And in addition to that, I see another
5 list that has McCully-Chapman, Wade Petroleum, and COG. Who
6 are those?

7 A. They are the working interest owners in the First
8 Bone Spring and S/2 SE/4 of Section 10. So back to that,
9 that USPC Number 3H Well, those are the working interest
10 owners in that well and in the lease covering the shallow
11 depths.

12 Q. So they received notice of your hearing for
13 vertical and offset owners?

14 A. Yes.

15 Q. And COG made it very clear as an operator they
16 have no problem with your drilling?

17 A. That's right.

18 Q. Were exhibits -- I'm sorry. Then if I look at
19 16B, is this a affidavit of publication for each of these
20 cases directed at the parties that you seek to pool?

21 A. Yes.

22 Q. Okay. Were Exhibits 1 through 14 prepared by you
23 or compiled under your direction or supervision?

24 A. Yes.

25 Q. So with that, I would move the admission into

1 evidence of Novo Exhibits 1 through 14, as well as Exhibit
2 16, which is my notice affidavit recognizing, again, that
3 there is no Exhibit 15.

4 HEARING EXAMINER ORTH: All right. Objections?

5 MS. SHAHEEN: No objection.

6 HEARING EXAMINER ORTH: Thank you. Exhibits 1
7 through 14 and 16 are admitted.

8 (Exhibits 1 through 14 and 16 admitted.)

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

11 HEARING EXAMINER ORTH: Thank you. Ms. Shaheen,
12 do you have questions of this witness?

13 MS. SHAHEEN: Yes, I do.

14 CROSS-EXAMINATION

15 BY MS. SHAHEEN:

16 Q. Good afternoon, Mr. Patrick. When did Novo
17 acquire its original interest in this acreage?

18 A. I believe in July of 2019.

19 Q. When did it first develop well proposals for the
20 area.

21 A. July 2019.

22 Q. These proposed wells are in the potash area. You
23 testified to that earlier; correct?

24 A. Correct.

25 Q. And at that time did you have an approved

1 drilling island prior to seeking out your initial well
2 proposal?

3 A. No.

4 Q. Had you proposed a drilling island to BLM at that
5 time?

6 A. I don't recall, but I don't believe so.

7 Q. When did you first request a drilling island on
8 site from BLM?

9 A. I believe it was fall or late summer of last
10 year.

11 Q. And has your drilling island been approved?

12 A. Not final approval, but Jim Rutley has approved
13 it.

14 Q. And who is Jim Rutley?

15 A. Jim Rutley is, I guess -- how would you phrase
16 it? He is a geologist, but he's the person in charge of the
17 designated potash area for the BLM.

18 Q. But you don't have an official approval of your
19 drilling island at this time; is that correct?

20 A. The reason I'm saying we don't is because the
21 archeology refused the undergoing, so on approval of that,
22 yes, we will, yeah.

23 Q. But at this time you don't have approval of your
24 drilling island; isn't that correct?

25 A. That is correct.

1 **Q. Do you know the size of a pad that will be**
2 **available for you?**

3 A. No, because we are still waiting on the
4 archeology department of BLM to finalize the dimensions.

5 **Q. How do you know for sure that you can drill all**
6 **15 wells, correct, from the same pad without knowing what**
7 **the final pad dimensions are?**

8 A. That's a good question, but we do have a rough
9 idea of the dimensions of the pad. We don't think they are
10 going to shrink too terribly. We have been working closely
11 with the BLM on that. Given our understanding we are
12 confident that we can fit all 15.

13 **Q. What size of pad do you anticipate getting?**

14 A. I don't have that on me right now. I can provide
15 that at a later date if you want.

16 **Q. How many wells has Novo drilled on a single pad?**

17 A. Just one from a single pad. We are planning on
18 full development, obviously, but yeah, we haven't drilled
19 multiple wells from a single pad yet as an entity. The
20 individuals that comprise Novo have drilled, you know,
21 numerous multi-well pads in their experience.

22 **Q. But Novo has not?**

23 A. The entity of Novo has not.

24 **Q. Just to make sure I understand, Novo has only**
25 **drilled one well from a single pad?**

1 A. We have drilled three wells as a company, and
2 they have all been single-well pads.

3 **Q. And how many wells has Novo drilled?**

4 A. Three wells.

5 **Q. Is Novo concerned at all about its ability to**
6 **drill 15 wells on a single pad?**

7 A. No, because the individuals that comprise Novo
8 have experience doing so.

9 **Q. And who would that be?**

10 A. Kurt Shipley, our COO, he has ten years
11 experience in Permian drilling horizontal wells. He has 28
12 years drilling and completing wells over his career. Our
13 drilling engineer Alex Boreland, he is a recent hire, he was
14 at Devon for the last five years, and actually, he drilled
15 the Spud Muffin Wells that is a very robust development
16 program in Section 30 and 31 of this township, and they were
17 Bone Spring and Wolfcamp horizontal wells.

18 **Q. And what is the maximum number of wells any of**
19 **those folks have drilled from a single pad?**

20 A. I can ask them and provide that at a later date
21 if you would like.

22 **Q. Can you estimate? Do you have any idea?**

23 A. I didn't work with them prior to Novo, so I don't
24 know.

25 **Q. So you don't know whether any of them have**

1 **experience with drilling 15 wells from a single pad?**

2 A. No, I can't put my hand -- I can't put my finger
3 on the exact prospect that they would drill 15 wells from,
4 nor would I have that knowledge, but I can provide that if
5 you would like.

6 Q. That would be great. If you could let us know
7 the maximum number, and let the Division know the maximum
8 number of wells anyone associated with Novo has drilled from
9 a single pad.

10 A. (Nodding.)

11 Q. Did I ask you, and forgive me if I'm being
12 redundant, what size of pad do you anticipate getting
13 approval for?

14 A. That's -- you asked that earlier. I believe I
15 said I was still waiting on the archeology review to
16 finalize the acreage figure of that pad.

17 Q. You testified earlier about Case Number 21038.
18 That's your development in the W/2 W/2, Second and Third
19 Bone Spring; correct?

20 A. Correct.

21 Q. Help me out if you can, I'm trying to remember
22 which exhibit that was.

23 A. I think it was Exhibit 7. No, that's not right.

24 HEARING EXAMINER ORTH: Nine?

25 A. Exhibit 9.

1 Q. Right. And you testified that you're drilling
2 Second Bone Spring and the Third Bone Spring directly below
3 that; is that right?

4 A. That's right.

5 Q. And what is the vertical distance between the
6 Second Bone Spring well and the Third Bone Spring well?

7 A. I can have our geologist talk about that. I'm
8 not --

9 Q. Okay. That's a geologist question. You
10 testified previously that you are looking at results of
11 adjacent development or nearby development; is that correct?

12 A. That's correct.

13 Q. And how long do you think you will be -- it will
14 be before you can see results of those nearby developments?

15 A. We have some of those results now, but there is
16 about four or five, maybe more different drilling programs
17 going on in this area. Some of those have already come on
18 line and we have data on that, and some are coming on line I
19 think prior to this hearing.

20 Q. So if you are still waiting on the results of
21 those developments, why are you in such a hurry to get these
22 pooled?

23 A. We want to drill these as soon as possible.
24 Titus and Novo have spent a considerable amount of money
25 acquiring these interests, and as we spend that money, as

1 you can imagine, we don't just have that cash; we have to
2 borrow it. Just like anybody who borrows money from
3 somebody, there is a rate, and the longer we wait before we
4 go drill rates wells and see returns, the less money we are
5 making as a company. So we are preparing for development
6 right now so we can go execute this plan as soon as
7 possible. We believe that we have considerable information
8 that allows us to be confident of the development plan we
9 have proposed, and that's the reason we proposed it.

10 **Q. Have you -- how far away from your proposed**
11 **development are the developments that you're monitoring?**

12 A. Less -- well, actually next door in Sections 16
13 and 21, the Blue Steel test that's happening, Novo owns some
14 of the minerals under that, the Remuda test that XTO drilled
15 a couple of miles southeast, Chevron drilled some wells
16 further south. Tap Rock drilled some wells in the same
17 township. Spud Muffin in the southwest corner of this
18 township, they are all very close.

19 **Q. And can you talk about the results of some of**
20 **those developments?**

21 A. I'm only a landman, and don't believe I'm
22 equipped to speak on the results of those. Plus some of
23 those, the results of those aren't public, and we are bound
24 by confidentiality provisions for the data that we have.

25 **Q. So you're not looking at current drilling**

1 **production data to, to determine the viability of this**
2 **development?**

3 A. I will rephrase. We are looking at real time
4 data. Some of that data we acquired in data trade, and it's
5 subject to confidentiality agreements. And we're not, you
6 know, willing to provide it because we would be in breach of
7 our confidentiality agreements with those operators.

8 **Q. Have you included in your study, have you**
9 **included production data in those studies of the nearby**
10 **developments?**

11 A. I don't know because I didn't carry out those
12 agreements, I just know there is confidentiality provisions.
13 But outside of that, I don't know the all the data that's in
14 that. I rely on my technical team to provide that analysis.

15 **Q. Well, production data would be public data;**
16 **correct?**

17 A. I believe so, yes, but there is a lag between the
18 time in which it's actually published by those public data
19 sources and the time it actually is produced. So we
20 actually see this before it actually hits the public.

21 **Q. So can you summarize the results of your study of**
22 **these nearby developments without revealing any of the**
23 **confidential information?**

24 A. One, I don't believe that we could; and two, I'm
25 not the one that would be able to do that because I'm a

1 landman.

2 Q. That's a geologist question, all right.

3 A. But I would add that we would -- we are not
4 allowed to talk about those things because of the
5 confidentiality agreements.

6 Q. You testified earlier about a JOA that was
7 provided to Titus in September, I believe; is that correct?

8 A. That's correct.

9 Q. Did you also provide a JOA to Titus in the
10 December-January, time frame?

11 A. No, but I reiterated that in December when we
12 sent the well proposals that the same JOA form that we
13 provided in September was still good, and we were looking
14 forward to their reply.

15 Q. And since you sent out your third set of well
16 proposals, has Titus provided you with comments on the JOA?

17 A. Recently they did. I think a couple of weeks ago
18 they did.

19 Q. Have you responded to those comments?

20 A. Yes. We said that a material problem with the
21 request that they made was that they wanted to limit where
22 we can place our wells. And they didn't want us to -- they
23 wanted us to say no greater than -- I don't remember exactly
24 what the offer was, but they wanted us to basically keep the
25 wells as far west as possible.

1 **Q. And with respect to other provisions of the JOA**
2 **that Titus had concerns about, have you responded to those**
3 **comments?**

4 A. It's not necessary because we, we said the
5 biggest sticking point was their request to limit the number
6 of wells that we could drill and also where we could place
7 the wells, so there was really no reason to talk about the
8 more trivial provisions of the JOA that are not impactful.
9 There is no reason to discuss those trivial provisions if
10 you are not willing to back off on the material requests
11 that Titus made.

12 **Q. What trivial provisions are you speaking of?**

13 A. In the JOA?

14 **Q. Yes.**

15 A. I don't have it before me right now, so I
16 couldn't highlight specific provisions that they made
17 changes to.

18 **Q. When do you anticipate providing a response to**
19 **Titus' comments on the JOA?**

20 A. I think as soon as they would come off of their
21 request to limit the number of wells and to also not try to
22 dictate where the wells are placed, because there is no
23 reason to talk about the other provisions if they are not
24 willing to come off of that -- that request.

25 It seems like a waste of time to negotiate a long

1 agreement whenever there is big sticking points and we are
2 not going to be able to resolve that.

3 Q. Well, these are -- well, I will wait.

4 When do you anticipate getting your federal
5 permits?

6 A. We haven't submitted them yet, so it's hard to
7 say. As soon as we submit them, I would guess six, nine
8 months afterward.

9 Q. When do you anticipate submitting the permits?

10 A. As soon as we get approval from the archeology
11 department for the pad. It's hard for us to really estimate
12 when that will happen because we -- it's out of our hands,
13 it's up to the BLM, but as soon as we have all of the APD
14 packet put together, and we need the archeologist review to
15 be able to put that together, as soon as we have that APD
16 packet for each well put together, we will submit it very
17 timely. We want to get out as soon as possible.

18 Q. This may be a question for the geologist. Do you
19 have analogues for the six wells section in the Wolfcamp A?

20 A. That is a question for the geologist.

21 Q. Do you have the footage costs for the surface
22 hole location?

23 A. I believe they would be on the C-102s and as well
24 as on the well proposal letters.

25 Q. What is Novo's drilling schedules for the

1 **proposed wells?**

2 A. I believe we mentioned it earlier, and also I
3 would say that all of this is subject to change because we
4 are going to have a significant amount of time waiting on
5 the permits, and we are going to be watching those, the
6 studies nearby and be able to optimize our development plan.
7 Before we spud anything, we want to make sure it's the most
8 efficient plan, so all of this is subject to change.

9 So with that said, I would say right now we would
10 first go drill the deepest Wolfcamp interval, Wolfcamp B.
11 There is efficiency in doing that. One, we have already
12 drilled Wolfcamp B, so we understand it. Two, it will give
13 us a chance to drill through other formations on the way
14 down and be able to know if we are going to get ourselves
15 into drill the subsequent wells. So we will drill the
16 Wolfcamp B first and then come back and drill the other
17 Wolfcamp zones, the Third, Second, First Bone Spring.

18 **Q. How soon after you receive approval for your**
19 **development area do you anticipate spudding the first well?**

20 A. It would depend on the rigs that we have and what
21 they are currently drilling, so it's tough to answer. We
22 will try to drill it as soon as possible.

23 Also there is a lease suspension, so this federal
24 lease that Titus owns an interest in is currently suspended.
25 It's got 11 months left on the term. It was suspended due

1 to potash reasons. And basically we would make sure that we
2 are going to drill these wells before that lease expires
3 because we own the vast majority of that lease, anyway, we
4 are not going to let it expire. So that's -- we want to
5 execute that development plan the way I just said.

6 Q. Okay. So you talked about the lease that Titus
7 has an interest in being suspended; is that correct?

8 A. That's correct.

9 Q. And it's not 11 months from this point forward,
10 right, it's 11 months after the suspension is lifted?

11 A. Right. Right. And the suspension would be
12 lifted upon approval of APDs.

13 Q. So it would be no later than 11 months after you
14 receive development approval that you would be spudding the
15 first well?

16 A. By development approval, if you mean approval of
17 the APDs, yes.

18 Q. How long do you anticipate between spudding the
19 first well and completing the first well?

20 A. That's really probably a better technical
21 question because there's a lot of different ways that people
22 are drilling these wells. You have zipper fracking where
23 you might have a couple of wells completed at a time. So
24 you might drill two wells and then complete those back to
25 back. You might drill all three in one interval and

1 complete all three.

2 So depending on what our operations team decides
3 is appropriate at the time, you know, it could be anywhere
4 from immediately after drilling the first well or a few
5 months after that, but it's based on what they deem is the
6 most efficient way to develop the reservoir.

7 **Q. When does Novo plan to send out its AFEs if it**
8 **receives a pooling order?**

9 A. Before drilling the well.

10 MR. FELDEWERT: Object. It depends upon the
11 terms of the pooling order. The pooling order governs it.

12 HEARING EXAMINER ORTH: Okay. Ms. Shaheen?

13 MS. SHAHEEN: Let me ask it a different way.

14 BY MS. SHAHEEN:

15 **Q. Do you plan to send out AFEs for all 14 wells**
16 **when you get the pooling order?**

17 A. No, of course not. I feel like that would be,
18 you know, it wouldn't be good faith, and we don't, we don't
19 do things that way at Novo.

20 **Q. How does Novo do it?**

21 A. We will propose wells before we drill. We are
22 not going to propose a bunch of wells we don't intend on
23 drilling. We will propose them shortly before we execute
24 the development program.

25 **Q. So would it be fair to say that the AFEs will be**

1 **staggered depending on when the wells are going to be**
2 **drilled?**

3 A. Can you rephrase staggered?

4 Q. **My understanding of your testimony is that you**
5 **will not be sending out AFEs on all 14 wells at the same**
6 **time; is that right?**

7 A. That's correct.

8 Q. **And about how many months before you begin**
9 **drilling will you send out an AFE?**

10 A. Two to three months is typically what we do.
11 That gives the non-operating working interest owners time to
12 think about it. If they need a little more time, we might
13 give it to them depending on circumstances, but, yeah,
14 somewhere between, yeah, two to three months.

15 Q. **What is the average number of drilling days from**
16 **spud to rig release in Novo's AFEs for the Third Bone Spring**
17 **and Upper Wolfcamp?**

18 A. That is a very, very detailed question that I did
19 not draft AFEs for, so I'm not equipped to answer that.

20 Q. **Is that a geology question? It's in Tab 13.**

21 A. I understand. If you want to point me to it, I
22 would be happy to recite whatever you are looking at.

23 Q. **Turn to Tab 13.**

24 A. Uh-huh. Are you saying for the Third Bone Spring
25 and the Wolfcamp XY, the number of drilling days on AFE?

1 Q. Yeah, the Third Bone Spring, like four or five
2 cases in.

3 A. So it says 24 drilling days on the Third Bone
4 Spring wells and 32 drilling days on the Wolfcamp XY wells.

5 Q. What are Novo's actual costs for the well that it
6 has drilled?

7 A. I don't know off the top of my head.

8 Q. Is that something THAT you could provide to us in
9 the near future?

10 A. If, if the Division feels it's appropriate, I
11 will.

12 Q. I would ask that you provide that information to
13 Novo -- I mean to Titus.

14 A. Titus doesn't own an interest in the well we
15 drilled, so that's proprietary information, but we want to
16 be compliant with whatever the Division --

17 MR. FELDEWERT: I would suggest that if they want
18 information like that they can send a request and we will
19 take a look at it.

20 EXAMINER LOWE: Okay.

21 MR. FELDEWERT: I'm not sure what relevance it
22 has, but that's --

23 MS. SHAHEEN: I am informed we have made that
24 request.

25 MR. FELDEWERT: And what was their response?

1 MR. JONES: There was no response. We haven't
2 heard -- the initial response was it was protected.

3 MR. FELDEWERT: It was proprietary information,
4 then that's the company's position and nothing I can do
5 about that.

6 BY MS. SHAHEEN:

7 Q. Let me ask you this, how did the actual cost
8 compare to the AFE cost of those wells?

9 A. The AFE figures are just a little bit lower than
10 our actual.

11 Q. And when you say a little bit, what does that
12 mean?

13 A. I don't remember the exact figure, so it's hard
14 for me to really say, but I don't know. Not very much.
15 It's --

16 Q. Try to ballpark it. 500,000?

17 A. Don't know. I really don't know.

18 Q. One million?

19 A. You are probably warm there, I will put it that
20 way. I couldn't tell you definitively, so I don't want to
21 perjure myself.

22 Q. Okay. What is Novo's estimated -- and this is
23 probably a geology question, but I will ask it anyway to
24 make sure I don't miss out on my witness here -- what is
25 Novo's estimated ultimate recovery per lateral foot in the

1 **Third Bone Spring?**

2 A. That is definitely not something I'm equipped to
3 talk about.

4 Q. Not a land question?

5 A. No, it's not.

6 Q. Okay. You mentioned that Novo owns the minerals
7 in Section 10 in NW NW/4 of 15, Section 15. Would you agree
8 that owning the minerals 100 percent is more economically
9 attractive than having an interest involved in those lands?

10 A. Sure. Yeah.

11 MS. SHAHEEN: I think that's it for the questions
12 as a landman.

13 HEARING EXAMINER ORTH: All right. Thank you,
14 sir. Would you give us your name, please, for the
15 transcript?

16 MR. JONES: Walter Jones.

17 HEARING EXAMINER ORTH: Walter Jones, thank you.
18 Gentlemen, Mr. Coss, do you have a question?

19 EXAMINER COSS: Well, good afternoon. Nice to
20 see you again. So my question is in reference to, I saw you
21 a few months ago, and the case seemed similar. Could you
22 explain to me what was going on in that case and what is
23 going on this case.

24 THE WITNESS: It's seems similar because it's in
25 the same area, deals with the Salt Lake, has surface

1 restrictions similarly. In the other case we were very --
2 in a similar situation, we were very limited on our surface
3 location in the other case. The opposing party to our
4 application wanted us to move the locations closer to the
5 lake which was impossible.

6 You know, Mosaic, the potash company, the BLM,
7 the surface owner, none of them would agree to that, and we
8 tried. So it's similar in that the surface restrictions
9 are, are pretty similar.

10 It's, we are limited to basically the pad you are
11 looking at here. It's also similar because we own a
12 significant interest in the pooled unit. But outside of
13 that, it's not very -- that's the end of the similarities.

14 In the other case they were proposing wells into
15 our unit from adjacent land. Here before Titus dismissed
16 their cases, they had competing well proposals in the same
17 land, so that's really how they compare as between the two.

18 EXAMINER COSS: Okay. Clarifying, how far away
19 is that?

20 THE WITNESS: Very close. It was in Section 8 of
21 this township, and here we are talking about Section 15 of
22 this township, so as the crow flies, maybe a couple of
23 miles, two and a half.

24 EXAMINER COSS: And maybe this isn't the right
25 moment for this question, but where is the, where is the

1 conflict coming from in this case, in your mind?

2 THE WITNESS: They want to limit the number of
3 wells that we can drill, and we still don't know exactly
4 what they're proposing that we do, but that's the general, I
5 think, sticking point.

6 EXAMINER COSS: Okay. Well, we will wait for
7 answers later then. So back then Ms. Shaheen was talking
8 about drilling 15 wells on this pad, and I guess I would be
9 curious, how many of these proposed wells will be from kind
10 of one well tower? How many can you do there, and how much
11 space would you need per kind of -- kind of drilling
12 location?

13 THE WITNESS: Yeah, so we -- it's really an
14 operations question, but I have been out there enough to be
15 able to give you a rough idea.

16 First, yes, we want to drill all wells from this
17 pad. We would love to expand it. We are trying to expand
18 this pad as far as we can. We are working with BLM on that,
19 but even with the size that we currently think it's going to
20 be, and we have a pretty strong feeling on that, pretty
21 accurate because we have been talking about it, but we can
22 fit all 15 wells on there.

23 As far as the spacing between each wellbore,
24 that's, that's something that I wouldn't feel comfortable
25 giving you a quote on. I'm happy to hunt it down from our

1 operations team, but I know that it varies. Our pad design,
2 you know, it's based on the pad that you are given. So what
3 might work in one pad elsewhere might not work here. You
4 know what I mean? Because we are limited with what we've
5 got.

6 EXAMINER COSS: Do you have an idea on how many
7 wellbores you need to --

8 THE WITNESS: 15. Yeah, 15 wellbores, all
9 separate wells each.

10 EXAMINER COSS: So you are kind of take off --
11 down --

12 THE WITNESS: Okay, yes, yes. I understand
13 your question, yes. We are not going to be doing any multi
14 lateral from the same wellbore. It's all one lateral per
15 vertical wellbore.

16 EXAMINER COSS: I see, okay. And this will still
17 accommodate for tank batteries on this well pad?

18 THE WITNESS: No, no. So because it is a drill
19 island, the BLM prefers you don't put the CTB because it
20 takes up potential location. So, yes, we are working on the
21 CTB pipeline route, road route, et cetera. The full surface
22 we are working with BLM on, but facilities we are currently
23 working on right now, we are not putting any facilities on
24 those pads -- or this pad.

25 EXAMINER COSS: Well, that's helpful to know as

1 well. That runs out most of the questions that I have, but
2 I will tell you that I'm curious to know why you think it's
3 best to drill the Wolfcamp B initially and why you think
4 that there is isolation between -- did I hear correct -- the
5 Second Bone Spring and First Bone Spring.

6 THE WITNESS: If you would like me to elaborate a
7 little bit on that. Geology can really speak to the seals,
8 if there is no communication between some of these
9 intervals, but we would like for the Wolfcamp to be first.
10 Just from a strategic standpoint, it makes sense. We are
11 going to drill through all the other intervals on your way
12 down to Wolfcamp B, so it's sort of a practice run for all
13 the other ones that you are going down to the Wolfcamp B.

14 Also we have already drilled Wolfcamp B wells out
15 here. We feel like we really understand how to drill those
16 wells. We had success drilling the first two. We are
17 drilling our third right now. We have plans to drill four
18 more right after and we are going to keep moving through our
19 whole asset. So we really like that interval.

20 So it makes sense from an economic standpoint, it
21 makes sense from a strategic standpoint to be able to see
22 the other intervals on the way down, but the other question
23 about communication between different intervals, I will
24 leave that to our geologist.

25 EXAMINER COSS: Okay, thanks. And one more

1 thing, you had mentioned this is in an area that --
2 description of the land that this is one of the areas where
3 you have all of the -- all of the mineral interests. Is
4 that correct?

5 THE WITNESS: So if you want to look back to
6 Exhibit Number 2, you can see, here we break out the
7 difference. The yellow tract is where we own 100 percent
8 minerals, so we own the working interest and the royalty
9 interest, if you want to think of it that way. And then the
10 orange and blue, that's part of a federal lease, and that
11 federal lease, you know, we don't have the minerals. That's
12 the BLM that owns the minerals.

13 We have 70 -- 78.57 percent in working interest
14 in the orange, 75.5 percent working interest in the blue
15 tract.

16 EXAMINER COSS: And where is the drill island
17 going to be down in the --

18 THE WITNESS: It's the SW SW corner of -- SW
19 SW/4, but really tucked into the SW corner of 15.

20 EXAMINER COSS: Perfect. Thank you. That
21 creates my understanding.

22 HEARING EXAMINER ORTH: Thank you, Mr. Lowe, do
23 you have questions?

24 EXAMINER LOWE: Yes, I do. Good afternoon. In
25 reference to your Exhibit 3, I have a question on that lower

1 out of the colored zone area, that green area.

2 THE WITNESS: Yes.

3 EXAMINER LOWE: Is that another well pad?

4 THE WITNESS: Another drill island for the E/2
5 development of Section 10 and 15. So we would not be using
6 that drill island because you need that drill island to be
7 able to develop the E/2 of these sections.

8 EXAMINER LOWE: And this whole area of, of your
9 proposed drilling, what are other areas of concern surface-
10 wise, other than the potash?

11 THE WITNESS: Archeology is a big one. We
12 actually found a 10,000 year old battle axe during the
13 onsite. We are working to preserve that archeology. It was
14 our archeologist that found that. There is a little bit of
15 wildlife concerns, but we are mitigating that with the BLM.

16 We have talked about sound walls bouncing, they
17 are going to make us have to have them. I don't think that
18 there is any -- it's really, what it comes down to is
19 surface and archeology, and archeology is being worked out
20 right now.

21 EXAMINER LOWE: What about other issues about
22 downhole in the area?

23 THE WITNESS: Not that I'm aware of. Our
24 geologist can affirm that, but I feel comfortable saying we
25 have not found any downhole impediments to developing this

1 acreage.

2 EXAMINER LOWE: Okay. And just to, just to
3 reconfirm what I thought I heard, you intend all that you
4 are proposing, of all your wells you intend to drill the
5 Wolfcamp B first?

6 THE WITNESS: Yes. Yes.

7 EXAMINER LOWE: And then thereafter you intend to
8 do the Wolfcamp A and XY as a batch drill?

9 THE WITNESS: Yes, we would. I don't want to
10 commit to saying we would absolutely drill the Wolfcamp XY
11 and A immediately after drilling the Wolfcamp B. We might
12 have at that point drilled the First Bone or Second Bone at
13 that bone earlier, but I say all of that because those plans
14 are subject to learning more about the spacing tests that
15 are going on.

16 EXAMINER LOWE: Okay.

17 THE WITNESS: But I think in general, yes, I
18 think our development plan, yes, it would be drill Wolfcamp
19 B, more than likely drill Wolfcamp XY and A right after that
20 and keep moving uphole.

21 EXAMINER LOWE: Okay. And how far on your
22 surface location -- it appears to the potash adjacent to the
23 well pad that you are proposing, how far off do you have to
24 be from the surface water like that?

25 THE WITNESS: So good question. So all-depth

1 drill islands -- and I tried to show this on Exhibit Number
2 3, but what we have approval is an all-depth drill island.
3 That means that you have to stick a half mile from that red
4 polygon, not polygon, but the red line that you see on
5 Exhibit Number 3. And we are more than half a mile away,
6 and that's the reason why we received approval, or at least
7 preliminary approval of this drill island, and that's the
8 reason why the potash companies have not objected to this
9 location.

10 EXAMINER LOWE: Okay. That's all I have. Thank
11 you.

12 HEARING EXAMINER ORTH: All right. Any follow
13 up?

14 MR. FELDEWERT: If I may.

15 REDIRECT EXAMINATION

16 BY MR. FELDEWERT:

17 Q. Mr. Patrick, I was curious that they were
18 questioning your drilling location using their pad size.
19 Isn't that the same pad that Novo proposed to use to drill
20 all of its wells?

21 A. Yes.

22 Q. I'm sorry -- Titus proposed to use to drill its
23 wells?

24 A. Yes.

25 Q. The same area, same pad; right?

1 A. Yes.

2 Q. It's actually the BLM, it's not you, it's not
3 them, it's BLM that controls that pad; right?

4 A. That's right. Regardless of whoever is operating
5 the W/2 of 10 and 15 is going to drill from whatever the BLM
6 gives them.

7 Q. And they tell you how many and how big?

8 A. That's right.

9 Q. And you don't get to choose then?

10 A. That's right.

11 Q. They asked why you were starting pooling now.
12 Okay? You actually started this process in July; is that
13 correct?

14 A. Yes.

15 Q. Okay. That was August, September, October
16 November, December, January, February, seven months ago.
17 And we have had two continuances, have we not, because of
18 their competing pooling applications?

19 A. Yes.

20 Q. Which they have now dismissed?

21 A. Yes.

22 Q. After seven months?

23 A. Yes.

24 Q. And you sent them a JOA in September?

25 A. Yes.

1 Q. And they did not provide you any comments on that
2 JOA until two weeks ago?

3 A. That's right.

4 Q. And when they sent you their comments for the
5 first time two weeks ago, if I go to Exhibit 14, you are
6 right there?

7 A. Yes. Yes.

8 Q. Without explaining why they want to reduce the
9 number of wells that you've got platted on here?

10 A. Yes.

11 Q. That was one of their sudden demands two weeks
12 ago?

13 A. Yes.

14 Q. And then they wanted you to push these wells
15 further west away from that boundary between the W/2 and
16 E/2?

17 A. That's correct.

18 Q. Without explaining why?

19 A. That's right.

20 Q. And mess up your entire spacing pattern when you
21 look across the section from the W/2 to the E/2?

22 A. That's correct.

23 Q. Did you ask them when you received their
24 competing well proposals to have a technical meeting so you
25 could sit down with them, with the right people and answer

1 the questions that they kept posing here today?

2 A. Yes, numerous times.

3 Q. Numerous times. Did they ever set up a meeting?

4 A. No.

5 Q. And is it, as a landman, having done this now,
6 okay, when you propose a permit, what you think you might
7 need to effectively develop as shown on here on Exhibit 14,
8 you get the pooling that you need in those wells, and you
9 get the permits that allows you to, if necessary, you can
10 then reduce from that and not drill as many?

11 A. That's correct.

12 Q. If that's what is feasible or what makes sense at
13 the time you are able to get around to drilling?

14 A. That's correct.

15 Q. But if you propose less than that, and you pool
16 for less than that, and you get your permits, you can't come
17 back -- then you have to -- and then you need to increase
18 it, you have to come back and do this all over again; right?

19 A. That's correct.

20 Q. You have to repropose the well, get your pooling
21 order to authorize additional wells that you now need and
22 you have to go get your permits?

23 A. That's correct.

24 Q. So as a landman trying to do this logically in
25 planning ahead, are you better off seeking a pooling order

1 that has what you think you're actually going to might need
2 and list those wells in the pooling order. Or are you
3 better off conceding something like Titus where they
4 willy-nilly say they want less wells?

5 A. You definitely want to plan for what you actually
6 think you are going to drill on the front end.

7 MR. FELDEWERT: Okay. That's all the questions
8 I've got.

9 HEARING EXAMINER ORTH: Anything further from
10 anyone?

11 EXAMINER LOWE: I have another question. Is
12 there intentionally missing 15 in exhibits?

13 MR. FELDEWERT: Yes, it was an oversight.

14 EXAMINER LOWE: Just to make sure that one. I'm
15 looking at it.

16 HEARING EXAMINER ORTH: All right. Thank you
17 very much, Mr. Patrick.

18 MR. FELDEWERT: We will call our next witness.

19 HEARING EXAMINER ORTH: Thank you. Unless you
20 need a break.

21

22

23

24

25

1 MICHAEL HALE

2 (Sworn, testified as follows:)

3 DIRECT EXAMINATION

4 BY MR. FELDEWERT:

5 Q. Would you please state your name, and identify by
6 whom you are employed and in what capacity.

7 A. Yes, Michael Hale, vice president of exploration
8 and geoscience at Novo Oil & Gas in Oklahoma City.

9 Q. What is geoscience?

10 A. Geoscience is basically all of the disciplines
11 that go into understanding the subsurface from a -- really a
12 geologic point of view. So essentially I manage a group of
13 geologists and petrophysicists.

14 Q. Okay. All right. And how long have you been
15 managing this group?

16 A. 18 months.

17 Q. Okay. And prior to that, what was your role
18 within the company?

19 A. I was the exploration manager. I was actually
20 lumping all of that in. As part of the exploration manager,
21 I was also in charge of managing the petrophysicists and one
22 of the geologists, but when I took over the role as vice
23 president, it's just kind of everything that came along and
24 I added a geologist. Nothing really changed except for in
25 title and some executive responsibilities.

1 Q. And have your responsibilities over this period
2 of time included the Permian Basin of New Mexico?

3 A. Yes.

4 Q. In particular, your core area that's identified
5 here in Exhibit Number 1?

6 A. Yes.

7 Q. Have you previously testified before the Division
8 as an expert in petroleum geologist?

9 A. I have.

10 Q. And have your credentials been accepted and made
11 a matter of public record?

12 A. They have.

13 Q. You examined the applications that were filed in
14 these four cases; right?

15 A. I have.

16 Q. And you conducted a geologic study of the land
17 that is the subject here today?

18 A. Yes.

19 Q. In preparation for this hearing, have you created
20 location maps and structure maps and cross sections for the
21 Bone Spring and Wolfcamp spacing units that Novo seeks?

22 A. Yes, I have.

23 Q. Let's go to Novo Exhibit 17. Is this a location
24 map that you created for Case 21037?

25 A. Yes, it is.

1 **Q. And what spacing unit is involved in that case?**

2 A. This is for the Saturninus 15 -- sorry --
3 Saturninus Fed Com 15 111H which is a First Bone Spring
4 one-mile unit.

5 **Q. Is this the W/2 of W/2?**

6 A. Yes. In the W/2 of the W/2 of Section 15.

7 **Q. In that case, that's the one where we are pooling**
8 **the First Bone Spring interval?**

9 A. That is correct. You will also see on this map
10 that I have all proximal First Bone Spring producers. That
11 is the sticks with the colored ball at the end. That is
12 indicating those are all First Bone Spring producing wells
13 in the vicinity.

14 I have one well highlighted, and that is the USPC
15 Number 3, and that's directly north of the proposed spacing
16 unit, and that kind of helps to illustrate why this one
17 spacing unit is only a mile long, because we have that
18 Concho USPC well that goes into the eastern half of Section
19 15 or Section 10, which limits how long our lateral can be.

20 **Q. What do you observe about the well orientation in**
21 **this area?**

22 A. There is a combination of stand up and lay down,
23 so orientation does not matter.

24 **Q. Does not matter?**

25 A. Correct.

1 Q. Okay. If I turn to what's been marked as Novo
2 Exhibit 18, is this a structure map that you created for the
3 First Bone Spring interval?

4 A. Yes.

5 Q. Why don't you walk us through this?

6 A. This is a structure map. At the top of the --
7 it's subsea structure map at the top of the First Bone
8 Spring Sand. There are 20 foot contour intervals. What you
9 can see is the location of the proposed spacing unit in the
10 W/2 of the W/2 of Section 15 of the proposed wellbore
11 location which is indicated by a red dash line. The surface
12 hole and bottom hole location are indicated as SH and BH
13 respectively. The well is labeled as Saturninus Fed Com 15
14 111H. And then you can see all the data points that went
15 into making this map are indicated by the red plus signs
16 with the magenta numbers next to them representing the
17 actual depth at which that formation occurred.

18 Q. What did you observe about the structure?

19 A. It's very gentle. I don't see any evidence of
20 faults or any potential geohazards.

21 Q. You have an A to A prime here?

22 A. Yes. That's going to indicate the wells that
23 were incorporated into the cross section that will be shown
24 in the next exhibit.

25 Q. Why did you choose to utilize these two wells?

1 A. Two reasons. One is I wanted wells that would
2 bookend the unit so you could see how things would change
3 along the lateral, and two, these wells are also the ones in
4 which we had the best and most complete log data suite.

5 **Q. Gamma ray, resistivity?**

6 A. Gamma ray, resistivity, density neutron and
7 density porosity.

8 **Q. If I then turn to Novo Exhibit 19, is this the**
9 **cross section A to A prime in the prior exhibit?**

10 A. Yes.

11 **Q. You have identified the formations on here?**

12 A. Yes, I have. So starting from the top, you can
13 see the horizontal black line says FBSG. That's the First
14 Bone Spring, so that's the top of the interval of interest.

15 Above that is the First Bone Spring carbonate,
16 but not really relevant.

17 Below that you see the SBSGC. That's the Second
18 Bone Spring Carbonate, and then below that SBSG would be the
19 top of the Second Bone Spring Sand, and below that is top of
20 the Second Bone Spring carbonate. So it's highlighting all
21 of the proximal formations. What is worth noting is that
22 the location of the anticipated frac barrier below us, which
23 is the Second Bone Spring carbonate that is approximately
24 500 feet thick of relatively a porous carbonate, so we don't
25 have to worry about fracking down.

1 There is a potential frac barrier vertically.
 2 You have 20 to 30 feet of some limestones, and these are
 3 approximately 150 feet or so above the proposed target,
 4 which is indicated on the left margin. What we are
 5 targeting is that one continuous porosity interval that is
 6 present in both intervals.

7 So what you can see is in the -- there is a
 8 little bit of a limestone stringer in the second well, which
 9 is the Laguna Salado South, and we are trying to land just
 10 above them, so basically indicating the target and
 11 continuous nature of the reservoir quality.

12 **Q. In your opinion, can this First Bone Spring**
 13 **interval under your proposed spacing unit be efficiently and**
 14 **economically developed by horizontal wells?**

15 A. Yes.

16 **Q. Will each tract in the proposed unit contribute**
 17 **sufficiently to warrant inclusion in the spacing?**

18 A. Yes.

19 **Q. Then turn to Novo Exhibit 20. Now, does this**
 20 **involve cases 21038 to 39?**

21 A. Yes, it does.

22 **Q. And that's your -- that's the two side-by-side,**
 23 **two-mile Bone Spring spacing units?**

24 A. That's correct.

25 **Q. If I look on this map, have you identified those**

1 **spacing units?**

2 A. I have. The two spacing units are indicated by
3 the blue dash boxes. And then within each box you can see
4 the approximate location of the proposed wellbore. Those
5 are indicated by the red dash line. Once again the surface
6 hole location and bottom hole location are indicated as is
7 the well names.

8 So in this case you see I have Saturninus Fed Com
9 1510 121H and then, comma, 131H. The 12 series indicates
10 Second Bone Spring, and the 13 series represents Third Bone
11 Spring. So it would be one slot for the First -- or Second
12 Bone Spring and Third Bone Spring, and then next to it you
13 see 122H and 132H for the two slots there are Second and
14 Third Bone Spring.

15 **Q. These are the spacing units that you're pooling**
16 **only from 78 to 39 to base of the Bone Spring?**

17 A. That's correct.

18 **Q. And have you identified the surrounding Second**
19 **and Third Bone Spring development?**

20 A. Yes. Those are indicated on the map. You can
21 see I highlighted some of the closest producing intervals.
22 So to the west you have the Road Lizard 5 Federal 2H, and
23 the Bank 18 Federal C 1H, those are both Second Bone Spring
24 producers.

25 To the east I have the Remuda North 25 State 904

1 and 902H, those are Third Bone Spring producers. So we have
2 a proximal production that gives us good confidence.

3 Q. What do you observe about the well orientation?

4 A. Once again, both stand up and lay down, so there
5 is no preferential orientation.

6 Q. Have you looked at the stress orientation in this
7 area?

8 A. I have.

9 Q. And does it support either stand up or lay down?

10 A. It does.

11 Q. Does the surrounding development help inform you
12 in support of the four wells per section spacing for each
13 interval that Novo has initially proposed?

14 A. Yes, it does.

15 Q. And to be clear, that would be two wells in each
16 half section?

17 A. That's correct. Yeah, you can see, the best
18 examples of this would be in Section 1 in the NW corner of
19 the map, RKI drilled four Second Bone Spring wells. You can
20 also see directly south of the proposed units, there is two
21 sections, 33 and 34 that are developed on four well spacing,
22 or two wells per half section, four wells per section
23 spacing for the Second Bone Spring and that is the Cyprus
24 unit.

25 Q. And you monitored your spacing after that?

1 A. Yes.

2 Q. On a section-wide basis?

3 A. Yes.

4 Q. Are the wells that Novo has initially proposed
5 reach these intervals at locations to allow effective
6 development in the Second and Third Bone Spring.

7 A. Yes.

8 Q. If I turn to what's been marked as Novo Exhibit
9 21, is this a structure map you created for the two spacing
10 units?

11 A. Yes, it is. And just so, you know, we're clear,
12 this is already said, but these spacing units are for both
13 the Second and Third Bone Spring, but I only put a top of
14 Second Bone Spring structure here, and that's because it's
15 representative of both intervals. What we really see here
16 is that there is nothing -- there is no major structures.
17 It's a very gentle dipping east structure. Similar to the
18 other map, you have a subsea structure map with 20 foot
19 contours, so you can see that nothing -- there is no major
20 sharp turns or anything in the vicinity of the proposed
21 spacing units and wellbores.

22 I also have, like the other map, the First Bone
23 Spring structure map, I have location of all the data points
24 that are incorporated into the map.

25 Q. I see a line labeled B to B prime.

1 A. That's correct.

2 **Q. Does this involve the same wells?**

3 A. Involves the same wells, but I wanted to make
4 sure that I differentiated it because we are looking at a
5 different interval. In the case of the First Bone Spring, I
6 really had it focused in so we could see that First Bone
7 Spring interval. This is going to focus on the Second and
8 Third Bone Spring.

9 So it is the same exact wells. We do the same
10 logic. These two wellbores bookend the proposed unit so we
11 can see how reservoir quality changes along the lateral, if
12 it changes at all, and then of course the two wells give us
13 the best log suite data in the vicinity.

14 **Q. If I turn to Novo Exhibit 22 --**

15 A. Yes.

16 **Q. -- is that the stratigraphic cross section that**
17 **corresponds with the B to B prime on the prior exhibit?**

18 A. Yes, it is, and this --

19 **Q. Once again, have you identified your formations**
20 **here?**

21 A. Yes, I have. You can see, starting from the
22 top -- actually I have a box in here, I should have pointed
23 this out in the last cross section, but within each
24 formation there is a box that tells us what it is. So the
25 first top for the FBSG is for the First Bone Spring section.

1 You can see the box there, and then --

2 Q. Let me stop you there while you are there. The
3 red line, what does that mean?

4 A. That represents the depth severance that was
5 referring back to the wellbore I pointed out on the very
6 first line which is that USPC well that was drilled across
7 the section right next door, but it's drilled halfway into
8 Section 15, and that was a First Bone Spring well drilled by
9 Concho. And so because of that, we can't drill two-mile
10 First Bone Spring wells across 10 and 15; they have to be
11 one mile.

12 So for these Bone Spring spacing units for the
13 Second and Third Bone Spring, we have to have that depth
14 severance, so this is where the depths are severed.

15 Q. So to be clear, what then we would be pooling
16 under these two cases is from that red line down to the base
17 of the Bone Spring?

18 A. That is correct.

19 Q. Okay. All right. And have you identified the
20 target intervals for each of the proposed wells for these
21 two spacing units?

22 Yes, I have. You can see on the left margin, you
23 can see where the expected frac barriers are, which are the
24 massive carbonates that separate the First and Second Bone
25 Spring, and the Second and Third Bone Spring. And you can

1 **see the proposed targets, which in both intervals are in the**
2 **basal sand. These calculate the best and it's pretty much**
3 **industry standard to target that.**

4 THE WITNESS: Is it Ms. Shaheen? Is that
5 correct?

6 MS. SHAHEEN: yes.

7 THE WITNESS: You asked a question before of
8 Brandon, what was the vertical distance between the Second
9 and Third Bone Spring targets, and I think this is an
10 opportunity to address that. So Second Bone Spring target
11 on the -- on the left is shown at approximately 8780 feet,
12 and the target for the Third Bone Spring is approximately
13 9900 feet. So we are looking at approximately 1200 feet, or
14 I guess 1150 feet or so vertical distance, and there is a
15 massive limestone separating the two.

16 BY MR. FELDEWERT:

17 **Q. What do you observe about the continuity of the**
18 **targeted formation that are across the spacing units?**

19 A. It does not change much at all.

20 **Q. Okay. In your opinion, can both of these**
21 **intervals under your proposed spacing units be efficiently**
22 **and effectively developed as horizontal wells?**

23 A. Yes.

24 **Q. Will each tract in the proposed spacing units**
25 **contribute sufficiently to warrant inclusion into the**

1 **spacing units?**

2 A. Yes.

3 Q. Okay. We then turn to Novo Exhibit 23. Is this
4 the area map you've created for Case 21040?

5 A. It is.

6 Q. Now, is this the case under which the company is
7 seeking to pool the W/2 for the Wolfcamp?

8 A. This is.

9 Q. Okay. So the W/2 of 10 and 15?

10 A. Yes.

11 Q. And you have identified that acreage on this
12 exhibit?

13 A. Yes, I have. So same as in the previous
14 exhibits, the proposed spacing unit is indicated by a dashed
15 blue box. The proposed wellbores are highlighted within
16 that box as red dash lines. The surface and bottom hole are
17 indicated at SH and BH respectively. I have a box off to
18 the side showing the proposed well names, so Saturninus Fed
19 Com 1510, and then it's 211, 221 and 231H for the XY, A and
20 Wolfcamp B intervals in the western most slot; 212, 222 and
21 232H for the same intervals in the middle, and then 215, 225
22 and 235 for the three intervals on the eastern most area.

23 Q. Based on your analysis of those zones which you
24 just referenced to the Wolfcamp XY and Wolfcamp A and
25 Wolfcamp B, are they separate productive horizons?

1 A. Well, the Wolfcamp B is a separate productive
2 horizon from the Wolfcamp XY and A, but the XY and A should
3 be co-developed.

4 **Q. Are they separate ventures you would recommend**
5 **targeting?**

6 A. Yes.

7 **Q. Have you identified on here the surrounding**
8 **Wolfcamp zone?**

9 A. I have. I just highlighted some key wells just
10 nearby just to kind of show that all three of these horizons
11 have been productive in the vicinity. So I would draw your
12 attention to the two wells in the northwestern corner, the
13 Rana Salado Fed Com 0605 231H and 0504 234H, those are the
14 two Wolfcamp wells that Novo drilled in the third quarter of
15 2019.

16 You can see they are very close. The bottom hole
17 location would basically -- the bottom hole location of the
18 234H would be 4- or 500 feet or something like that from the
19 bottom hole location of the 211H, so very close. We have
20 experience in the vicinity.

21 **Q. Let me ask you this: What do you see about the**
22 **well orientations here?**

23 A. I see that, like everything else, there is no
24 preferred orientation. In this area for the Wolfcamp,
25 historically people drilled north-south, but that wasn't for

1 any other reason than maximizing acreage and being able to
2 develop it most effectively. But as you can see, Novo has
3 drilled wells east-west in the Rana Salado wells. And more
4 recently we have had wells proposed -- we proposed our
5 Astrodog units east-west, and Marathon proposed Valkyrie
6 units in 12 and 7, also east-west. A lot of the future -- a
7 lot of the current pooling applications that are out there
8 right now are actually for east-west development. There is
9 no preferred orientation.

10 Q. So maximum stress direction would allow either
11 orientation?

12 A. Right.

13 Q. Okay. Does this surrounding development, when
14 you look at it, does it support the six well per section
15 spacing that Novo has initially proposed that is three wells
16 in each of the benches per half section?

17 A. I believe it does.

18 Q. What's the first thing you look to that supports
19 that?

20 A. Well, approximately 2 miles away to the east we
21 have the Remuda North test. They have also drilled six
22 wells per half section in the Wolfcamp A and XY, so that's a
23 very, very close test.

24 Q. So we don't get our numbers mixed up, that means
25 they have, they have in each bench for that half section,

1 **they have drilled six?**

2 A. For -- no, I'm sorry, six combined. Six
3 combined. They drilled four wells in Wolfcamp A and two
4 wells in Wolfcamp XY. But the way they have them spaced,
5 the A and XY, they kind of ride that margin. To be honest,
6 the spacing isn't that much different than what we have, or
7 the plan isn't that much different than what we have,
8 although we think ours is a little bit better. Another,
9 proximal --

10 **Q. The same number of wells?**

11 A. Same number per half.

12 **Q. In that Wolfcamp?**

13 A. Yes.

14 **Q. That you proposed?**

15 A. Yes.

16 **Q. Have you looked at the information from those**
17 **wells?**

18 A. We have.

19 **Q. How long have those wells been reporting oil**
20 **production?**

21 A. We have production, it ranges a little bit, but
22 the oldest wells have been producing for 16 months, the
23 youngest wells have been producing for approximately five
24 months.

25 **Q. And have you been able to ascertain whether those**

1 **wells are economic?**

2 A. We believe they are.

3 **Q. Okay. Then what do you observe with respect to**
4 **the Wolfcamp B?**

5 A. Yes. With the Wolfcamp B, one of the examples
6 doesn't actually have the in-fill spacing indicated here,
7 but it was mentioned by Brandon Patrick, our VP of land, in
8 his previous testimony that right now you can see the
9 location of those Rana Salado Fed Com 231 234H wells, those
10 are the only two wells that are currently producing, but we
11 have a rig on the ground right now and we will be drilling
12 all the in-fill wells.

13 And we are drilling four in-fill wells, so that
14 will be on six well spacing per section, or three well per
15 half section for the Wolfcamp B., So the exact same thing
16 that we are proposing for the Wolfcamp B.

17 **Q. That's where you have 100 percent of the costs**
18 **and 100 percent of the risk?**

19 A. Exactly right. We have a 100 percent in the Rana
20 Salado 231 and 100 percent in the 234, so we are absolutely
21 incurring the full brunt of the financial and operational
22 risk in those.

23 **Q. Is there someone else drilling out here with six**
24 **wells per section or three per half section in the Wolfcamp**
25 **B?**

1 A. Yes. Tap Rock is currently doing that exactly 2
2 miles to the south of our Saturninus unit in Section 34.
3 They are drilling the Wolfcamp B in two different horizons,
4 all on three wells per half section spacing.

5 So essentially it would be 12 wells per section,
6 but two different horizons. So similar spacing, they are
7 just trying something different. We are monitoring those
8 wells. We are not necessarily prepared to go full six wells
9 for -- three wells per bench in two different benches, but
10 we are monitoring what they are doing, but they are also
11 doing an awful lot to derisk some of the spacing concerns we
12 have out here.

13 Q. In your opinion, are the have wells Novo
14 initially proposed for the Wolfcamp spacing unit at
15 locations to allow for effective development of the
16 formation?

17 A. Yes.

18 Q. If I turn to what's been marked as Novo Exhibit
19 24, is this a structure map that you have created for this
20 spacing unit?

21 A. It is, yes. So this is a Wolfcamp B subsea
22 structure map. So I chose the Wolfcamp B, once again
23 representative of all the Wolfcamp structures and because it
24 pretty much separates the Upper Wolfcamp and Lower Wolfcamp,
25 so it's very representative imbedded right in the middle.

1 You can see the proposed spacing unit there in
2 the dash blue box. The red line shows the proposed
3 wellbores. The surface hole and bottom hole location are
4 indicated, as well as the data points that went into the
5 map. And similar to the other maps, this is on a 20 foot
6 contour spacing.

7 **Q. Do you see any faulting, pinchouts or other**
8 **geologic concerns with developing this area with horizontal**
9 **wells?**

10 A. No.

11 **Q. You see now a type log or a line here, so C to C**
12 **prime?**

13 A. Yes. Once again, same exact wells chosen
14 specifically because they bookend the proposed spacing unit.
15 They'll give a good indication of how the reservoir changes
16 or doesn't change along the lateral, and also they have the
17 best log suite.

18 **Q. So if I turn to what's marked as Novo Exhibit 25.**

19 A. Yes.

20 **Q. This is a stratigraphic cross section that**
21 **corresponds with C to C prime on the prior exhibit?**

22 A. Yes.

23 **Q. And again have you identified the formations?**

24 A. I have.

25 **Q. And have you identified the target intervals?**

1 A. Yes. The formations are indicated in the well on
2 the right, the Laguna Salado, you can see there's a box
3 there starting from the top, it says Third Bone Spring
4 carbonate, Third Bone Spring, and that's the Third Bone
5 Spring Sand, Wolfcamp XY, Wolfcamp A.

6 We have the Upper Wolfcamp B Shale, which is our
7 frac barrier, and I will go into that in a second, and then
8 our Wolfcamp Flow Unit, which is the Lower Wolfcamp B. The
9 targets are indicated by the word target on the left-hand
10 margin and the blue arrow.

11 And that anticipated frac barrier, really it's
12 just a very high clay-rich interval, the Lower Wolfcamp B
13 flow unit has a range of maybe 25 to 25 percent clay, and
14 the target has that about 10 to 15 percent clay. But that
15 whole Upper Shale, which is about 200 to 225 feet thick goes
16 up to about 50 percent clay.

17 And all of our conversations that we have had
18 with neighboring operators have all said they are not seeing
19 any evidence of communication between the Upper and Lower
20 Wolfcamp. And it's actually a good point to note that, you
21 know, Brandon had testified that we extended an offer to
22 have a conversation with Titus, and the reason we do that is
23 that's standard operating procedure. Before we operate out
24 here on anything, we engage all of our neighbors or whoever
25 is going to be potentially affected. We have had

1 conversations with almost every single operator in this
2 township. We have shared ideas. We have worked on ways to
3 test different things, you know, so we tried to do
4 everything we could. I think we have tried to be a good
5 operator, and we have tried to be very diligent with respect
6 to acquiring as much information as we possibly can and
7 learn from other people's experience to make sure that we do
8 things properly. In return we reciprocate the things we
9 learn to them. It's about building relationships.

10 **Q. When I look at the targeted intervals, what do**
11 **you observe about their continuity?**

12 A. Very continuous.

13 **Q. Okay.**

14 A. So in the Wolfcamp B -- in the proposed target
15 interval, the continuity is very similar. Below the target
16 interval there are debris flows that change things, but it
17 doesn't affect our drilling of Wolfcamp B at all.

18 For the Wolfcamp A, you can see I'm targeting a
19 porous interval, so I will walk you through what the logs
20 mean.

21 But starting from the left that's our gamma ray
22 log. And then next would be the red curve is the
23 resistivity curve. And in the right track are the porosity
24 curves. And porosity is kind of weird because it increases
25 from right to left, so that bulge to the left, that's

1 actually good. It's indicative of porosity.

2 So in the Wolfcamp B, the interval we are
3 targeting has approximately 10 to 14 percent density
4 porosity in the Wolfcamp A. The interval we are targeting
5 has approximately 10 percent porosity, and that is present
6 in both logs, so we don't think that reservoir changes very
7 much. And then in the lower-most Wolfcamp XY, once again
8 the logs have been about 10 percent density porosity, and
9 they are very continuous. So we are looking for a
10 continuous reservoir so we are not going to have any
11 surprises.

12 **Q. So in your opinion, can the Wolfcamp interval**
13 **under your proposed spacing units be efficiently and**
14 **effectively developed by horizontal wells?**

15 A. Yes.

16 **Q. In your opinion, will each tract contribute**
17 **sufficiently to allow inclusion in the unit?**

18 A. Yes.

19 **Q. Now, Mr. Patrick talked about simultaneous**
20 **development in the Wolfcamp XY and A. Were you here for**
21 **that?**

22 A. Yes.

23 **Q. Do you believe these zones need to be**
24 **simultaneously developed when possible?**

25 A. I absolutely do. I think if you run the risk of

1 drilling one well or a couple of wells and feel like you
2 actually need to drill more, if you come back in later you
3 are going to have reservoir issues. There is going to be
4 potential depletion. Pressures will be variable. We
5 have -- there have been pretty comprehensive studies that
6 show that a lot of what they call child wells only make a
7 fraction of the oil that the parent wells drill. So the
8 best way to do that is drill everything at once so you have
9 kind of virgin reservoir pressures spread out across the
10 whole unit, and when you complete them you are not depleting
11 one thing preferentially.

12 **Q. Is using a wine rack pattern appropriate when**
13 **it's available?**

14 A. Yes. We think that will create a more complex
15 fracture network and also minimize interference with
16 overlying wells.

17 **Q. If I turn to what's marked Novo Exhibit 26 --**

18 A. Yes.

19 **Q. -- now, you have a 3-D diagram in the middle.**

20 A. Yes.

21 **Q. Does that show both the E/2 acreage in 10 and 15,**
22 **as well as the W/2 acreage?**

23 A. It does, yes.

24 **Q. And the acreage at issue here is the W/2?**

25 A. It is. We just wanted to show both sides because

1 we view this as part of a whole development plan. We want
2 to be consistent across both and make sure spacing is
3 optimized, so we are drilling things in both sides of the
4 section similarly.

5 Q. And so when you were putting together your
6 development plan, you took into account the E/2 acreage --

7 A. Absolutely.

8 Q. -- and spaced your wells accordingly?

9 A. Yes.

10 Q. And in each of these intervals, are you showing
11 for this Second Bone Spring and Third and then the Wolfcamp
12 the section-wide development plan?

13 A. Yes.

14 Q. Okay. In your opinion, is that the appropriate
15 method of developing this section in each of these half
16 sections based on the information that's available today?

17 A. Yes.

18 Q. Okay. And will the granting of Novo's
19 applications allow the drilling of wells at locations that
20 are needed to efficiently and effectively develop this
21 section?

22 A. Yes.

23 Q. And in your opinion, will the granting of your
24 application be in the best interest of conservation and
25 prevention of waste and protection of correlative rights?

1 A. Yes, I do.

2 Q. Were Novo Exhibits 17 through 25 prepared by you
3 -- through 26 -- prepared by you or compiled under your
4 direction and supervision?

5 A. Yes.

6 MR. FELDEWERT: I would move the admission of
7 Exhibits 17 through 26.

8 HEARING EXAMINER ORTH: Any objection?

9 MS. SHAHEEN: No objection.

10 HEARING EXAMINER ORTH: Exhibits 17 through 26
11 are admitted.

12 (Exhibits 17 through 26 admitted.)

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

15 HEARING EXAMINER ORTH: Can we take a short break
16 before we resume cross-exam, five, eight minutes?

17 (Recess taken.)

18 HEARING EXAMINER ORTH: We are back on the record
19 after a short break. Ms. Shaheen, do you have questions of
20 this witness?

21 MS. SHAHEEN: I do.

22 CROSS-EXAMINATION

23 BY MS. SHAHEEN:

24 Q. Good afternoon, Mr. Hale.

25 A. Good afternoon.

1 Q. How large must the pad be to accommodate 15
2 wells?

3 A. I have no idea.

4 Q. Who can answer that question for me?

5 A. Somebody in our office department.

6 Q. Could you provide that information to us?

7 MR. FELDEWERT: I object on the grounds that we
8 offered to have technical meetings they refused to have, and
9 now they come here with a new list of information. If they
10 want to put together some kind of subpoena, we will take a
11 look at it and see how we can respond, but doing it in a
12 hearing like this makes no sense.

13 HEARING EXAMINER ORTH: Let me ask Mr. Coss. Is
14 this the kind of information you feel you are going to need
15 in order to evaluate the claim?

16 EXAMINER COSS: It probably would be nice to see
17 a layout of the proposed wellbore location, but it's not
18 directly necessary.

19 HEARING EXAMINER ORTH: She asked about the size
20 of the pad.

21 EXAMINER COSS: Well a blueprint of wellbore
22 locations on the pad, but again, not --

23 MR. FELDEWERT: Let me say. We are waiting on
24 the BLM. I mean, we don't control that. The BLM is going
25 to control it.

1 HEARING EXAMINER ORTH: Okay. How do you want to
2 handle this?

3 EXAMINER COSS: Outside of the hearing in a
4 technical meeting.

5 HEARING EXAMINER ORTH: I don't know how long
6 your evaluation is going to take versus how long the BLM is
7 going to take.

8 EXAMINER COSS: We are certainly -- I can't say
9 we are certainly going to be faster than the BLM, and I
10 don't know what happens if we forbid all 15 wells and it
11 ends up not being the case, what happens after that?

12 MR. FELDEWERT: I mean, the pooling, like I said
13 earlier, the reason you pool and you name initial wells is
14 so that you can drill those wells on a batch basis without
15 having to proceed as in-fill wells. Because in the
16 compulsory pooling wells, if you take a -- like you can't
17 propose an in-fill well until after the initial well is
18 drilled; you can't drill and complete it.

19 So if the idea is you want to have the ability
20 and flexibility to target different benches and batch drill,
21 you have to list the wells in your pooling application that
22 you are going to batch drill. If you only -- for example,
23 if we only have two, and we think going we're going to want
24 three and we don't list all three in the pooling application
25 and it turns out we need all three, we have to come back and

1 amend the pooling. We have to repropose the well and come
2 back and amend.

3 There is a reason why you list. That's why all
4 the pooling applications, there is reason why you now list
5 the well pattern that you think you are going to need and to
6 batch drill in each zone so you don't have to consistently
7 come back and amend your pooling order. You can always cut
8 back from that.

9 So if the BLM who controls this says, no, you are
10 only going to drill 10 wells that from pad, we will adjust
11 our drilling program accordingly. We may have to get
12 another pad, but we have to adjust the drilling program
13 according to BLM. So you can always reduce, but you can't
14 increase without coming back and pooling -- repooling.
15 That's why you do it.

16 So, in my mind, the second thing is, the Division
17 doesn't deal with surface locations. This is a BLM issue.
18 You deal with spacing units, okay, and what wells are
19 authorized as initial wells in the spacing unit, and that's
20 it. That's a BLM issue. To my mind, this whole idea about
21 a blueprint, I don't know if we've got a blueprint at this
22 point because we don't know what the BLM is going to allow,
23 but that has nothing to do with the pooling issue before
24 you.

25 HEARING EXAMINER ORTH: So, Ms. Shaheen, I

1 haven't forgotten that it was your question that prompted
2 this. It sounds as though we are not going to be able to
3 get an answer today, potentially not an answer before the
4 package to evaluate it.

5 BY MS. SHAHEEN:

6 Q. Mr. Hale, what is the average number of drilling
7 days from spud to rig release and Novo's -- sorry, I have
8 already asked that question.

9 A. You did ask it of Brandon.

10 Q. Right. Moving along, I have a Q next to the
11 question. What is Novo's estimated ultimate oil recovery
12 per lateral foot in the Third Bone Spring?

13 A. Off the top of my head I would not be able to
14 tell you that.

15 Q. Have you made that analysis?

16 A. I'm sure our reservoir team made that analysis.

17 Q. And you don't know what the estimated oil
18 recovery is per lateral foot in the Third Bone Spring?

19 A. No.

20 Q. Can you provide that information to us?

21 MR. FELDEWERT: Object. Again, if they want to
22 send a subpoena and ask for data, we will take a look at it.

23 HEARING EXAMINER ORTH: I'm going to turn to Mr.
24 Coss again.

25 EXAMINER COSS: I tend to agree with Mr.

1 Feldewert on this.

2 HEARING EXAMINER ORTH: Okay. Thank you.

3 MS. SHAHEEN: May I respond to Mr. Feldewert's
4 position?

5 HEARING EXAMINER ORTH: Yes.

6 MS. SHAHEEN: We have asked for information, and
7 we haven't been provided with all the information we have
8 asked for. And so that's a little bit frustrating for us
9 that we can't get the information that we need to make a
10 decision as to whether we would participate or not, whether
11 we would be willing to sign a JOA or not, what Titus'
12 business decision is going to be if a forced pooling order
13 is entered. So I find it a little bit stubborn on --

14 MR. FELDEWERT: I'm not --

15 MS. SHAHEEN: I am talking on Novo's part to just
16 refuse to provide this information without a subpoena. We
17 would have to ask for, for permission from the Division to
18 issue a subpoena. And it's indicative of the problems that
19 have been going on for the past seven months in terms of
20 trying to negotiate with Novo.

21 And when our witnesses are here to testify, you
22 will hear their side of the story, but I'm a little bit
23 frustrated about the obstinacy here in refusing to provide
24 information. And we are here today to get information, to
25 cross-examine Novo to acquire the information that we think

1 is important for the Division in deciding whether these
2 applications should be granted.

3 And yet we are getting, "I don't know."

4 And we ask, "Can you provide that information,"
5 and they said, "No, we're not gonna." So that's the end of
6 my spiel, but I don't think it's a --

7 MR. FELDEWERT: Can I give my spiel?

8 MS. SHAHEEN: You already had your spiel, Mike.

9 HEARING EXAMINER ORTH: So thank you for all of
10 that. As you can see, my focus is on what the technical
11 staff actually needs to evaluate, which, you know, I
12 understand that good-faith effort negotiate isn't part of
13 what the Division looks at, and yet I don't know that -- I
14 don't know how much detail we need to go into while you are
15 cross-examining the geologist.

16 MS. SHAHEEN: In terms of the Division or the
17 Division's obligation to conserve -- for conservation and
18 protection of correlative rights and prevention of waste, I
19 think these questions are an issue that should be considered
20 by the Division. So that's -- I will leave it at that.

21 HEARING EXAMINER ORTH: Thank you.

22 MS. SHAHEEN: Thank you.

23 THE WITNESS: If I may say something. I promise
24 you, I will answer anything that I know the answer to. The
25 problem is they are asking questions that I physically do

1 not know. And I feel pretty confident that Allen would say
2 the same thing if he were in my position. You are asking
3 questions that are designed for different disciplines. I'm
4 not trying to be obstinate.

5 MS. SHAHEEN: I understand that, but when Mr.
6 Feldewert says, "get a subpoena," you do have someone at
7 Novo who can answer those questions.

8 MR. FELDEWERT: We requested two technical
9 meetings and they would not set it up. We have had the
10 delay for months on their continuance to allow them to get
11 ready for the hearing, and when they refuse our effort to
12 meet with them and don't send a subpoena for the information
13 they think they need to prepare for this hearing when they
14 have have delayed it twice so they could prepare for this
15 hearing, this is not the time for them to come in and say,
16 "You didn't give us the information we think we now need."
17 This is a hearing.

18 MS. SHAHEEN: Mr. Feldewert is misrepresenting
19 the history of this case, and when Titus' witnesses are
20 allowed to testify, we will explain.

21 HEARING EXAMINER ORTH: All right. So for now we
22 are going to move on. Do you have other questions of Mr.
23 Hale?

24 MS. SHAHEEN: I do. I do.

25 HEARING EXAMINER ORTH: All right.

1 BY MS. SHAHEEN:

2 Q. Do you have analogues for the six well section
3 spacing unit in the Wolfcamp A?

4 A. We have analogues for six well spacing combined
5 between the Wolfcamp A and XY in the XTO Remuda.

6 Q. Is that information that you can provide to
7 Titus?

8 MR. FELDEWERT: Object.

9 A. What exactly, just for clarification, what
10 exactly is it you are asking me for?

11 Q. I will withdraw that last question.

12 A. I mean, what I can say is that that data is
13 public, so the production data is available. All the
14 analyses that have been done on that data has come from IHS
15 and other public venues, so --

16 HEARING EXAMINER ORTH: Thank you.

17 THE WITNESS: Yeah.

18 BY MS. SHAHEEN:

19 Q. Are there frac barriers between the Third Bone
20 Spring and the Wolfcamp XY?

21 A. No.

22 Q. Are there frac barriers between the Wolfcamp XY
23 and Wolfcamp A?

24 A. No.

25 Q. What's the vertical separation between the Third

1 **Bone Spring and the Wolfcamp XY in your proposed wells?**

2 A. I think 125 feet.

3 **Q. What's the vertical separation between the**
4 **Wolfcamp XY and B in your proposed well?**

5 A. I think it's approximately 200 feet, maybe a
6 little more. I can look.

7 **Q. Are the Third Bone Spring Sand and the Wolfcamp**
8 **XY wells in your proposal stacked vertically?**

9 A. I think they are. But I would also add that
10 that's something we have discussed changing, so --

11 **Q. Can you elaborate on what you discussed changing**
12 **in terms of stacking the wells?**

13 A. Yes. I think we would, we would consider
14 shifting the Third Bone Spring to honor the wine rack
15 pattern in the A and XY, the bottom hole location.

16 **Q. Do you think it is necessary to drill all the**
17 **proposed wells in the Third Bone Spring and the Wolfcamp to**
18 **officially uncover all the hydrocarbons in that flow unit?**

19 A. Yes.

20 **Q. Why is that?**

21 A. It's what I mentioned earlier. The problem you
22 have parent-child relationships are incredibly important in
23 the spacing, and it's pretty much all you hear about now
24 when you listen to conference calls or anything. People are
25 finding if you drill the initial well and then try to return

1 to the pad later, it becomes very difficult. The wells
2 usually only produce maybe 70 percent of the parent well,
3 and that's entirely dependent upon the amount of time before
4 you return. There are some cases wells are producing 50
5 percent of the parent because somebody returns to a pad a
6 year later. Timing is of the essence. The least amount of
7 time that you have in between completing one well and
8 returning and completing another is better.

9 **Q. With the proposed spacing, do you think these**
10 **wells will frac across the flow unit and compete for**
11 **hydrocarbons?**

12 A. Yes, probably. But that's actually part of the
13 idea. The truth is is you always want overlapping
14 fractures. That's a fact. Whenever you are going to frac
15 your wells you want there to be an overlapping fracture
16 network. What you want to do is minimize the amount of
17 overlapping fracture. You don't want to put two wells 500
18 feet away and both put a 2500 pound frac job on them because
19 that's just pointless. But you want to make sure you are
20 maybe 1200 feet and have maybe 100 or 150 feet overlap,
21 because what that means is you didn't leave any rock
22 unstimulated. So in a way there is a concession that you
23 are going to waste a little bit of it, but you are wasting a
24 little bit of your frac energy to get more hydrocarbons out
25 of the ground. So having overlapping fracs is not a problem

1 in any way, shape or form. That's really what you want.
 2 What you want to is make sure you don't adversely damage the
 3 other wells.

4 **Q. What about in a vertical sense?**

5 A. Yeah, same. But I also think that's why I try to
 6 maximize the wine rack pattern as much as possible, to
 7 minimize the amount of vertical communication becomes very
 8 important.

9 **Q. What is the basis for your testimony that all of**
 10 **XTO's wells in the Remuda development are economic?**

11 A. Well, what I mean is, you know, economics are
 12 based on a lot of things. They are based on commodity
 13 pricing. They are based on your nets or what nets you are
 14 assuming when you are doing your analysis. EURs are highly
 15 interpretive. You know, EURs can be -- you can fit a line
 16 to an EUR in a lot of ways. The reality is there always
 17 some margin of error associated with EURs. But what we have
 18 is, as a project, all the wells we have analyzed from Remuda
 19 unit are meeting an economic threshold to successfully
 20 administer a full development campaign.

21 **Q. What is Novo's minimum economic threshold?**

22 A. 35 percent rate of return. Many of them are far
 23 better than that.

24 **Q. Is that 35 percent rate of return dependent on**
 25 **your 100 percent ownership of the minerals?**

1 A. No. The analysis was done on a lower number than
2 our actual net. We always run things on a conservative
3 basis, always.

4 Q. Does Novo have an interest in XTO Remuda wells
5 that you analyzed?

6 A. No.

7 Q. Then how do you know that all of them are
8 economic?

9 A. Just based off the public production data. Like
10 I said, the longest producing wells have been on line, I
11 think, for 16 months. And the youngest ones have at least
12 five months of production history, but on that whole entire
13 unit, the north and south, we have something like 24
14 different wells we have analyzed data for, and the way you
15 look at it is the project economics are, are favorable.

16 MS. SHAHEEN: I think that's all I have for you
17 Mr. Hale.

18 HEARING EXAMINER ORTH: Thank you, Ms. Shaheen.
19 Mr. Coss, do you have questions of Mr. Hale?

20 EXAMINER COSS: I suppose so. Hi. Good
21 afternoon.

22 THE WITNESS: Good to see you again. You are
23 Brandon's doppelganger, but he is not here.

24 EXAMINER COSS: What was I going to say? So you
25 testified you don't believe that the well orientation is of

1 significant concern --

2 THE WITNESS: Correct.

3 EXAMINER COSS: -- in the area. What, in this
4 part of the basin, would Mr. Zoback say the maximum
5 principal of stress is.

6 THE WITNESS: Approximately North 45 East, North
7 45 East, South 45 West.

8 EXAMINER COSS: We are still in that area of the
9 basin?

10 THE WITNESS: Yes.

11 EXAMINER COSS: Have you looked at the production
12 data for the Bone Spring wells that are running, many of the
13 First Bone Spring wells. That's 19 or 20 Exhibit.

14 THE WITNESS: Which one, yeah. That might be
15 Exhibit 17; is that right?

16 I think the problem -- I'm pretty sure that
17 analysis has been done. It was not done by me. But the
18 only thing I could point out, especially with respect to the
19 First Bone Spring, is on this first image, the predominant
20 orientation out here has been E/W, but there has been NW
21 wells drilled, so the problem becomes you don't know if you
22 have a representative sample to be able to come up with a
23 meaningful answer.

24 EXAMINER COSS: Okay, that's fair. And on these
25 target intervals, it seems to me that -- oh, okay. So I

1 wanted to address the stress orientation question with
2 reference to your fracs.

3 How far does Novo think these fracs will
4 propagate, and based on the stress orientation, which is
5 going to be the preferred direction of the fractures.

6 THE WITNESS: The very short answer to that, we
7 don't know, but we are running some science on the upcoming
8 wells to answer that exact question.

9 EXAMINER COSS: Okay. And it seems as if it's
10 hard for me to get, with the compression of the scale here,
11 that many of the targets are from the limier, more calcic
12 rich intervals lower in the total zone from up --

13 THE WITNESS: Which wells?

14 EXAMINER COSS: I'm looking at Exhibit 19 now,
15 the First Bone Spring, and I feel like it's something that I
16 observed -- this is the first time I have seen the packet,
17 so I'm generalizing that the target intervals -- and now in
18 Exhibit 22, for instance, the target on the Second Bone
19 Spring is very low in the overall Bone Spring interval, and
20 same for the Third Bone Spring interval.

21 THE WITNESS: Yes.

22 EXAMINER COSS: How thick is this target zone?

23 THE WITNESS: I would say for the First Bone
24 Spring you have most of the formation. The thing about the
25 First Bone Spring is I've seen wells drilled all over it, I

1 have seen wells drilled at the top, kind of in the middle.
2 The reality is it's a pretty saturated interval, so I don't
3 know if the target matters that much, but we think it's good
4 practice to land as low as possible so when you frac up, you
5 basically have your fracture network grow up to get the rest
6 of the interval.

7 EXAMINER COSS: You are not worried about the
8 downward frac?

9 THE WITNESS: There is not much evidence that
10 suggests fracs grow down. I mean, they do grow down, but
11 it's not very much. Theoretically speaking, stress always
12 increases vertically -- or decreases vertically because the
13 amount of overburden decreases, so fractures are generally
14 going to want to propagate in the direction of least stress.
15 So what we see, and this is confirmed by microseismic data,
16 your predominant fracture growth is vertical.

17 EXAMINER COSS: So then on the Wolfcamp where you
18 testified that you don't -- that there are many frac
19 barriers present.

20 THE WITNESS: Correct.

21 EXAMINER COSS: That would be a good thing that
22 you have landed them low in the target?

23 THE WITNESS: Yeah. In the Wolfcamp base,
24 specifically there is a very good lower porosity in the
25 Lower Wolfcamp base. The very base of the Wolfcamp base is

1 pretty tight lime which is what we want to avoid. We want
2 to land directly above it. But there is very nice porosity
3 interval relatively sandy that lies directly above that lime
4 interval and it's very good porosity.

5 And we think that's a good target to develop
6 because, once again, when you are doing the full development
7 program, if you target that interval in conjunction with the
8 Wolfcamp XY, you get full coverage of the entire flow unit.
9 So it's about making sure you don't have too many wells
10 directly on top of each other so they are competing. You
11 want them to be staggered and vertically removed.

12 EXAMINER COSS: Okay. And there is no concern
13 from C to C prime -- I'm looking at Exhibit 25 now, the
14 lateral contiguity from C to C prime, and you mentioned
15 there is a kind of a -- describing those kinds of carbonate
16 lenses as part of the debris flow.

17 THE WITNESS: They are, yeah. Where our acreage
18 is located, we are very proximal to the northern shelf, and
19 you definitely see superimposed within a lot of these sandy
20 sections carbonate lenses, and there are almost certainly
21 debris flows that have come down.

22 We have not found this to be too much of an
23 impediment. They are definitely difficult to drilling, but
24 we've not seen much evidence we have trouble fracking. When
25 we drilled our Wolfcamp B well, that interval we targeted is

1 specifically kind of a limy interval because, one, we think
2 it has higher fracability, and two, it's decreased in clay.

3 And to be honest, the fracs went off without any
4 problem, but we definitely had some tighter limes in there.
5 When we were drilling, it chewed up some bits, but it
6 doesn't create a problem with initiating a frac.

7 What you don't want is to have something like
8 several hundred feet thick. If it's 20 feet thick or less,
9 you can get through it. We're putting a sizable completion
10 job on these, but if it becomes several hundred feet thick
11 or maybe 50 feet thick you might have trouble breaking
12 through it. It baffles the completion, but I don't see
13 anything within the Wolfcamp A that leads me to believe that
14 we would have trouble connecting the Lower Wolfcamp A with
15 the Upper Wolfcamp A and XY.

16 EXAMINER COSS: Exhibit 25, I see the wells are
17 laid out, so I'm trying to -- within the Wolfcamp section.

18 THE WITNESS: Yes.

19 EXAMINER COSS: It seems as if your proposed
20 wells are -- the middle wells are slightly vertically
21 offset. Is that just a part of the image, or are they
22 actually going to be slightly vertically offset?

23 THE WITNESS: No. The idea would be to offset
24 them vertically. So the idea would be kind of, you know,
25 you drill three like this, but then three like that. So

1 basically each well would kind of lie in between the gap and
2 the well above or below it. That's why we call it wine
3 racking. It's basically developing like this. And so you
4 create a complex fracture network, but try not to complete
5 the well that's directly above you.

6 EXAMINER COSS: Okay. Thanks for the depiction
7 of that. Helpful in this case to a degree. So those are
8 all my questions.

9 THE WITNESS: Okay.

10 HEARING EXAMINER ORTH: Mr. Feldewert, do you
11 have any follow up?

12 MR. FELDEWERT: I do not.

13 HEARING EXAMINER ORTH: Anything further from
14 anyone. No? Thank you very much.

15 THE WITNESS: Thank you very much.

16 HEARING EXAMINER ORTH: So Mr. Feldewert, I think
17 I probably forgot to invite you to request consolidation,
18 and I would like to have that on the transcript.

19 MR. FELDEWERT: Oh, I don't know. Yes,
20 consolidation of the cases?

21 HEARING EXAMINER ORTH: Yes.

22 MR. FELDEWERT: We requested it. It was in our
23 prehearing statement that the cases be consolidated.

24 HEARING EXAMINER ORTH: Thank you. I just wanted
25 to put that on the transcript. They are consolidated for

1 purposes of the hearing we are having already.

2 MR. FELDEWERT: That's my oversight. I should
3 have requested that.

4 HEARING EXAMINER ORTH: Mine. Ms. Shaheen, you
5 are done?

6 MS. SHAHEEN: Yes.

7 I do have two witnesses, Mr. Jones and
8 Mr. Frierson.

9 HEARING EXAMINER ORTH: You have both been sworn.
10 You are still under oath.

11 WALTER JONES

12 (Previously sworn, testified as follows:)

13 DIRECT EXAMINATION

14 BY MS. SHAHEEN:

15 Q. Mr. Jones, please state your name and place of
16 residence for the record.

17 A. Walter Jones, Ft. Worth Texas.

18 Q. And by whom are you employed and in what
19 capacity?

20 A. Titus Oil & Gas as the vice president of land.

21 Q. And you are authorized today to testify on behalf
22 of Titus Oil & Gas Production; is that correct?

23 A. I am.

24 Q. Have you previously testified before the Division
25 and one of the Examiners?

1 A. I have.

2 Q. And were your credentials accepted and made a
3 matter of record?

4 A. They were.

5 Q. Has part of your experience involved land in
6 southeast New Mexico?

7 A. It has.

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

10 A. I am.

11 Q. Can you tell us --

12 MS. SHAHEEN: Well, I would like to offer
13 Mr. Jones -- Mr. Jones as an expert witness in petroleum
14 lands matters.

15 MR. FELDEWERT: No objection.

16 HEARING EXAMINER ORTH: He is so recognized.

17 BY MS. SHAHEEN:

18 Q. Can you tell us when Titus first became aware of
19 Novo's plan for its proposed development of the subject
20 matter?

21 A. July, late July of 2019.

22 Q. And does Titus have competing proposals for the
23 same acreage?

24 A. We did.

25 Q. And you exchanged well proposals with Novo

1 **approximately the same time; is that right?**

2 A. That's correct.

3 Q. **In end of July, first part of the August?**

4 A. That's correct.

5 Q. **And ultimately Titus filed three applications**
6 **with respect to those well proposals, Case Numbers 20833,**
7 **20834 and 20835; is that right?**

8 A. That's correct.

9 Q. **And what is the status of Titus's application?**

10 A. They were dismissed earlier today.

11 Q. **Why did Titus decide to dismiss its application?**

12 A. In the interest of, I think, kind of hopefully
13 working together with Novo to come to a resolution on the
14 number of wells. And we had 10 percent in the -- in the
15 unit, and so felt like it would be hopefully a good-faith
16 effort to work together.

17 Q. **Nonetheless, Titus still has concerns about**
18 **Novo's application; is that right?**

19 A. That's correct.

20 Q. **And why does Titus object to Novo's application**
21 **at this point?**

22 A. Our main focus is what we feel like is
23 overdevelopment. We do have some concerns about putting 15
24 wellbores on a yet-to-be-finalized pad site right next to a
25 lake, but our main concern is overdevelopment.

1 Q. And going back to the original well proposals
2 that you received from Novo at the end of July 2019, what
3 were your concerns about Novo's first proposal?

4 A. Upon initial review there were two First Bone
5 Spring wells that were bisecting the USPC well that we
6 previously spoken about. Originally, that was a two-mile --
7 those were two-mile well proposals that we were sent that we
8 felt like there was an issue there with the two First Bone
9 Spring wells bisecting the existing First Bone.

10 The surface location just said the NW/4 of
11 Section 22, which was in the middle of a lake. So we felt
12 like that wasn't a good place to locate the wells, and gosh,
13 there was one more -- oh, and the AFEs, there were some what
14 appeared to be some pretty big inconsistencies in the AFE,
15 just on a general level deeper, significantly deeper wells
16 that cost significantly less than shallow wells, so it, it
17 gave us some real concerns.

18 Q. And you later received a second set of well
19 proposals from Novo; is that right?

20 A. That's correct.

21 Q. About the first part of December -- I'm sorry,
22 September?

23 A. Correct.

24 Q. And did they correct their proposals in the
25 second set of well proposals?

1 A. They corrected one issue.

2 Q. And what was that?

3 A. They moved the surface location from the lake to
4 land.

5 Q. And did they move their surface location from a
6 lake to the surface locations that you had identified in
7 Titus' application?

8 A. Yes. Very, very close to what we had identified.

9 Q. So you still had concerns when you received the
10 second set of well proposals; is that right?

11 A. We did. At that point there was still two First
12 Bone Spring bisecting an existing First Bone producer, and
13 they had not updated their AFEs.

14 Q. And they still proposed the same number of wells
15 that you were concerned would result in overdevelopment?

16 A. Correct.

17 Q. And was it about this time that you were
18 communicating with Novo and they suggested a technical
19 meeting?

20 A. It was, yes.

21 Q. And why didn't Titus respond and set up a time
22 for that technical meeting?

23 A. So as I recall, that was late September that we
24 were kind of going back and forth on setting up a technical
25 meeting. Also, right around that time, I believe, October 1

1 or October 5, something like that, Novo either bought into
2 or traded into an adversarial position in a lawsuit for
3 adjacent acreage to this acreage, some of which had some
4 overlapping history.

5 So it didn't feel as though when they are buying
6 into a currently -- current existing litigation that it was
7 a good-faith effort to work with us in this area.

8 Q. So it was your understanding at the time it would
9 not be fruitful to have that technical meeting with Novo at
10 that time?

11 A. That's correct.

12 Q. Then subsequently in December of 2018, you
13 received a third set of well proposals from Novo?

14 A. That's correct.

15 Q. And did they correct their proposals in the third
16 set?

17 A. They did, yes, they shortened the First Bone
18 Spring wells to a one -- to a one mile well. The other one
19 mile First Bone Spring well is subject to a JOA that we are
20 a party to. And AFEs were more -- at least made sense from
21 a landman's perspective of, as you get deeper, the AFEs get
22 more expensive.

23 Q. Did they change the number of wells that they had
24 proposed?

25 A. They did not.

1 Q. So you still had the same concern about
2 overdevelopment?

3 A. That's correct.

4 Q. Resulting in waste; is that correct?

5 A. Yes.

6 Q. And you conferred with Novo regarding your
7 current concerns; is that correct?

8 A. We have.

9 Q. And is it Titus' position they would prefer to
10 enter into a JOA if the number of wells would not result in
11 overdevelopment?

12 A. Yes, we would prefer.

13 Q. And you have provided comments with respect to
14 the proposed JOA; is that right?

15 A. We have.

16 Q. What concerns do you have about the JOA at this
17 time?

18 A. Our main concern is we would like just some extra
19 protection on advanced billing. We would like -- gosh, what
20 are the other --

21 Q. Have they altered the form JOA with respect to
22 the proposal of wells?

23 A. Yeah. So as it was proposed to us as a
24 non-operator, we wouldn't have the ability at any point to
25 propose wells that are subject to the -- on land that are

1 subject to the JOA, so that we would like to have the option
2 of proposing wells as a non-operator.

3 Q. And did you have concerns about how certain
4 burdens would be shared?

5 A. Yes, just because of the nature of Novo's
6 interest as a mineral owner in the N/2 or really I guess the
7 W/2 of Section 10 and NW NW of Section 15, there is some --
8 we wanted some clarification on how burdens would be shared
9 amongst the working interest parties.

10 Q. Novo has not responded to those comments that you
11 have made with respect to the JOA; isn't that right?

12 A. That's correct.

13 Q. Are you concerned about the cost related to
14 Novo's drilling 14 wells?

15 A. Yes.

16 Q. Are you concerned about getting the cash call for
17 all 14 wells at the same time.

18 A. Yes.

19 Q. And it's your understanding now after
20 Mr. Patrick's testimony that Novo will not be making a cash
21 call for all 14 wells at the same time; is that right?

22 A. It's my understanding.

23 Q. It's your understanding that when they do make a
24 call, it will be as wells are drilled, approximately two to
25 three months before they are drilled; is that right?

1 A. That's my understanding.

2 MS. SHAHEEN: I think that's all the questions I
3 have for you. I pass the witness.

4 HEARING EXAMINER ORTH: Thank you. Mr.
5 Feldewert, any questions for this witness?

6 CROSS-EXAMINATION

7 BY MR. FELDEWERT:

8 Q. **Mr. Jones, does Titus operate any horizontal**
9 **wells in New Mexico?**

10 A. Not currently.

11 Q. **And so likewise, has Titus never drilled any**
12 **horizontal wells in New Mexico?**

13 A. That's correct.

14 Q. **Neither in the Bone Spring or the Wolfcamp?**

15 A. That's correct.

16 Q. **Does Titus have any rig running, any rig under**
17 **contract?**

18 A. We do.

19 Q. **Where?**

20 A. Reeves County.

21 Q. **New Mexico?**

22 A. Oh, no, not New Mexico.

23 Q. **Nothing under contract in New Mexico?**

24 A. Not at the time.

25 Q. **I think you testified that you believe the AFEs**

1 **now, as you have said, make sense?**

2 A. To my landman understanding.

3 **Q. You don't have any issue as a landman --**

4 A. As a landman looking at an AFE, as it gets
5 deeper, in theory it should be more expensive. That makes
6 sense to me, but that's about where my AFE knowledge begins
7 and ends.

8 **Q. So you are not here offering testimony that their**
9 **AFEs are out of line or anything like that?**

10 A. Not as a landman.

11 **Q. Okay. Isn't it true that Titus sent its well**
12 **proposals to the W/2 unit only after they received Novo's**
13 **proposals?**

14 A. We did.

15 **Q. Afterwards; right?**

16 A. Yeah, because we didn't know Novo owned the
17 acreage at the time.

18 **Q. Okay. And isn't it true that your well proposals**
19 **and eventually your applications didn't even account for the**
20 **COG well and the difference in ownership?**

21 A. Our well proposals started at the Second Bone
22 Spring.

23 **Q. But you are pooling the entire Bone Spring?**

24 A. We are not pooling anything now, but --

25 **Q. So the ones you did file never accounted for**

1 **COG's existing well, any ownership depth severance?**

2 A. That's correct.

3 Q. Okay. Now, didn't you mention that Novo did
4 ask -- and I'm glad you clarified and confirmed Novo did ask
5 for technical meetings.

6 A. They did.

7 Q. In fact, they asked at least twice?

8 A. Yeah.

9 Q. Right?

10 A. Uh-huh.

11 Q. And I believe your testimony is you didn't feel
12 like meeting because they had bought into a lawsuit some
13 place?

14 A. That's inaccurate.

15 Q. Why didn't you meet?

16 A. We felt as though they had taken an adversarial
17 position towards us working in this area.

18 Q. Because of their acquisition in the E/2?

19 A. Because their acquisition of an adversarial
20 position in a lawsuit.

21 Q. So that was the reason you didn't feel like
22 meeting?

23 A. That was one of the reasons that we didn't feel
24 like it was wise to engage with Novo at that time. We just
25 entered into a lawsuit that was apparently pending.

1 Q. At no point did you ever agree on a meeting date?

2 A. That's correct.

3 Q. Novo also sent you a JOA for the W/2 acreage in
4 September of last year; correct?

5 A. That's correct.

6 Q. And you didn't send any of your comments that you
7 referenced, you didn't send them in October; right?

8 A. Yeah. At that point in September, the JOA would
9 have covered two First Bone Spring wells bisecting an
10 existing well. It would have had --

11 Q. Did you send any comments?

12 A. No. And we also provided a JOA that we had no
13 comments back to.

14 Q. Did you send any comments in November or
15 December?

16 A. No. We didn't receive updated well proposals
17 until December 16.

18 Q. And when they sent those updated well proposals,
19 didn't they ask you again for comments on their JOA?

20 A. They did, and we provided it.

21 Q. When?

22 A. February 4.

23 Q. February -- two weeks ago?

24 A. Yeah.

25 Q. So they sent it to you in September, and the

1 **first comments you sent were two weeks ago?**

2 A. They sent us a JOA that was going to govern some
3 wells that in no world would we have agreed to.

4 Q. But you didn't provide any comments until two
5 weeks ago?

6 A. We provided comments a few weeks after receiving
7 updated and corrected well proposals in December.

8 Q. What were your comments in December.

9 A. Oh, no. We received the well proposals in
10 December.

11 Q. Yeah, your comments and the concerns that you now
12 raise for the first time, you didn't raise until two weeks
13 ago?

14 A. That's correct.

15 Q. Okay. After you had been sitting on a JOA and
16 well proposal for six months?

17 A. We had been sitting on incorrect well proposals.

18 Q. And when you finally responded two months ago,
19 you made a couple of surprising demands; right?

20 A. I wouldn't say they were demands. I think they
21 were more of a discussion.

22 Q. Didn't you demand that they cap the number of
23 wells to be drilled in the JOA at nine?

24 A. We requested.

25 Q. Okay. Said you wouldn't sign it unless it was

1 capped at nine.

2 A. No, we said we would like to talk to them about
3 capping it at eight, nine, and provided some JOA comments.

4 Q. And didn't you also then say that you didn't want
5 them to drill any XY wells?

6 A. I can't recall if we specifically said, "I don't
7 want you to drill any XY wells."

8 Q. Do you recall telling them that you wanted a
9 maximum of nine wells?

10 A. I do recall that.

11 Q. Okay. Two in the Second Bone Spring?

12 A. Correct.

13 Q. Which they have done?

14 A. Uh-huh.

15 Q. Two in the Third Bone Spring, which they have
16 done?

17 A. Uh-huh.

18 Q. Okay. Two in the Wolfcamp A?

19 A. Yes.

20 Q. None in the XY?

21 A. Correct. I think we have a little bit more of
22 some different thoughts on spacing between the Wolfcamp, but
23 that's -- I think that's a little more not exactly my area
24 of expertise.

25 Q. Well, you wrote this; right?

1 A. I did, but as a landman you often communicate
2 your company's thoughts on things. You don't always --
3 everything you write isn't your original thought.

4 Q. But you said two in the Wolfcamp A, but we don't
5 want anything other than two in the Wolfcamp A?

6 A. That's correct.

7 Q. And then you said three in the Wolfcamp C?

8 A. Yes.

9 Q. Which is what they are doing; right?

10 A. Uh-huh.

11 Q. And did you also then say that all wells shall be
12 drilled no greater than nine -- 1980 from the west line.

13 A. Yeah, we requested that.

14 Q. Okay. So that would be, if I looked in our
15 Exhibit 14, you would -- you are requiring them to stay 1980
16 from that west line, or asking them to stay 660 from the
17 center line between the E/2 and W/2?

18 A. Correct.

19 Q. Why?

20 A. Just to, to kind of -- the parent-child issue
21 that was previously mentioned and --

22 Q. Well, wait a minute. From the west, so a
23 distance from the west?

24 A. Future development in the E/2 of Section 10 of
25 15.

1 Q. And you want them to stay 660 off the E/2 line?

2 A. Off the mid line.

3 Q. Off of the mid line?

4 A. Uh-huh.

5 Q. And you are saying that's because of the parent-
6 child concern?

7 A. Well, actually that's probably -- I'm giving out
8 a -- that's probably not something I should speak to.

9 Q. Well, before you wrote it, did you find out why
10 you would say, "We don't want wells drilled any greater than
11 1980 from the west line"?

12 A. That was a request of the engineer.

13 Q. Do you understand why he made that request?

14 A. Just to protect the E/2 wells.

15 Q. What E/2 wells?

16 A. The future development of the E/2, which we have
17 a larger interest in.

18 Q. What's your interest in the E/2?

19 A. I would rather not speak to that at this point.

20 Q. I know you would rather not, but what's your
21 interest in the east half?

22 A. It's involved in litigation, and I'm not going to
23 put that on record.

24 Q. You can't -- so do you have a minority interest
25 in the E/2?

1 A. I'm not going to speak to it on the record.

2 MS. SHAHEEN: I'm going to object because I don't
3 believe it's relevant to the Division's concern of this
4 application.

5 HEARING EXAMINER ORTH: Granted.

6 Q. Then I think, you did send, did you not, a
7 follow-up e-mail to Mr. Patrick on Monday?

8 A. Yes. Maybe Tuesday.

9 Q. February 18. Does that make sense?

10 A. I think that's Tuesday.

11 Q. You might be right. So two days ago?

12 A. Yes.

13 Q. Okay. In which you then made an additional
14 demand, did you not, about the JOA?

15 A. I think you will have to refresh me.

16 Q. Didn't you say, "We only want a JOA, a single
17 well JOA"?

18 A. For the 111?

19 Q. Uh-huh.

20 A. Yeah.

21 Q. The -- not the spacing, I just want a single well
22 JOA.

23 A. The hope was 111, that we could hammer that out
24 before the hearing and have a JOA in place because it's one
25 mile, it's a little bit different than the 2 mile.

1 Q. But you wouldn't do it for the spacing unit, you
2 would only do it for the single well?

3 A. Yeah, that was our initial request, yes.

4 Q. Two days ago?

5 A. Uh-huh.

6 Q. Okay. And you reiterated your statement that you
7 would only want nine wells?

8 A. That's correct.

9 Q. In fact, didn't you say, "We'll agree to a JOA if
10 you are willing to reduce down to nine wells?

11 A. Yes.

12 Q. So that was a requirement to execute a JOA?

13 A. No -- well. Also coming to an agreeable JOA
14 form.

15 Q. If I looked at Exhibit -- are you still on
16 Exhibit 14?

17 A. Yes.

18 Q. What wells do you suggest should be eliminated?

19 A. I'm going to let our geologist speak to that.

20 Q. Is there any -- do you still have a -- when you
21 say down to nine wells, do you still disagree with three
22 wells in the Third Bone Spring?

23 MS. SHAHEEN: Objection. I think he is, he
24 stated that he would let the geologist speak to that.

25 MR. FELDEWERT: I didn't hear him say that.

1 Q. And my question is, did you -- does your
2 company -- and you are sitting there speaking for your
3 company -- do you still object to three wells in the -- I'm
4 sorry -- in the Wolfcamp -- I misspoke -- in the Wolfcamp B
5 as shown on Exhibit 14?

6 A. That's not an ideal way that we -- at least what
7 I have been told, that we would like to develop that, but in
8 the spirit of trying to get something done, we were open to
9 that.

10 Q. My question is, today, do you still disagree with
11 three wells in the Third Bone Spring?

12 MS. SHAHEEN: I'm going to object. He's still
13 saying this is for the geologist.

14 HEARING EXAMINER ORTH: He is not really asking
15 him a geological question. He is asking about the company's
16 position. I think the landman said -- Mr. Jones did lay out
17 the company's position in correspondence with Novo, but I
18 believe Mr. Feldewert is asking to speak to correspondence.
19 Did I misunderstand that?

20 MR. FELDEWERT: I'm trying to figure out their
21 position.

22 Q. Do you still disagree with the three proposed
23 wells in the Wolfcamp B as shown on Exhibit 14?

24 A. I can't speak to as exactly shown on Exhibit 14.
25 I don't think that in theory that the three -- that we're

1 completely opposed to the three wells in Wolfcamp B.

2 Q. Are you opposed to the locations in Wolfcamp B?

3 A. I'm going to let our geologist speak to that.

4 Q. I need to know what your company's position is.

5 A. I'm going to let our geologist speak to that.

6 EXAMINER COSS: If I could say, these would be
7 questions better answered by the geologist.

8 HEARING EXAMINER ORTH: Okay.

9 Q. But your company still opposes -- still believes
10 that nine wells is the magic number for the W/2 acreage?

11 A. That was what we are willing to try to work with
12 Novo on. I mean, we proposed originally eight wells. I
13 think in a perfect world that's what we would do, but we
14 have dismissed our proposals. We are not trying to go down
15 that road. In the interest of working with Novo and getting
16 something done, we are open to nine wells in the W/2.

17 Q. Did you, Mr. Jones, did you propose wells to
18 Chevron for the E/2 of Sections 10 and 15?

19 A. We did.

20 Q. When did you do that?

21 MS. SHAHEEN: I'm going to object on the basis
22 that has nothing whatsoever to do --

23 MR. FELDEWERT: It has something to do with it.

24 HEARING EXAMINER ORTH: Mr. Coss, is that
25 something you would consider in evaluating this case?

1 EXAMINER COSS: Can you repeat the question?

2 MR. FELDEWERT: Sure.

3 BY MR. FELDEWERT:

4 Q. Isn't it true, Mr. Jones, that you proposed wells
5 to Chevron in the E/2 acreage, Sections 10 and 15?

6 HEARING EXAMINER ORTH: And he said yes, and then
7 he asked him when.

8 MS. SHAHEEN: And then I objected because I don't
9 believe it's relevant to your consideration of Novo's
10 application in this matter which are related to the W/2 of
11 Sections 10 and 15.

12 EXAMINER COSS: I would agree with you.

13 BY MR. FELDEWERT:

14 Q. Do you recall, Mr. Jones, how many wells you
15 proposed to Chevron in the E/2 acreage?

16 MS. SHAHEEN: Objection for the same reason.

17 HEARING EXAMINER ORTH: Why is it relevant?

18 MR. FELDEWERT: Because they proposed 12.

19 HEARING EXAMINER ORTH: I'm sorry?

20 MR. FELDEWERT: They proposed 12.

21 HEARING EXAMINER ORTH: They proposed --

22 MR. FELDEWERT: Being Titus.

23 BY MR. FELDEWERT:

24 A. Those are different formations, but --

25 Q. Do you want to go through them?

1 MS. SHAHEEN: I will have a continuing, if I may
2 have a continuing objection to discussion about a completely
3 different well proposal and completely different acreage.

4 HEARING EXAMINER ORTH: Okay.

5 MR. FELDEWERT: Let me put it in perspective. If
6 I look at Exhibit 11, if you open up Exhibit 11. That's our
7 Wolfcamp layout, and also that's where the Bone Springs we
8 are dealing with W/2 of Sections 10 and 15. Okay?

9 HEARING EXAMINER ORTH: Uh-huh, uh-huh.

10 MR. FELDEWERT: What I'm trying to establish, and
11 I can introduce an exhibit, I guess, if I need to, is that
12 on the E/2 acreage, the same company who now sits here and
13 says it should only be nine proposed 12 wells to Chevron.

14 MS. SHAHEEN: And may I say it's a different
15 plan. It's a different, different proposal. It is not the
16 same proposal that Novo is making here in these
17 applications, and that's why it's not relevant.

18 THE WITNESS: It was also over a year ago, so
19 plans change. I'm not saying they have, I'm just saying we
20 are talking about things that are over a year old in an
21 industry that's constantly evolving.

22 BY MR. FELDEWERT:

23 Q. Have your plans changed in the E/2?

24 A. I'm not going to speak to that.

25 Q. You're not going to, you just don't want to?

1 MS. SHAHEEN: Objection --

2 A. This is subject to ongoing litigation, exactly
3 what he is talking about.

4 HEARING EXAMINER ORTH: All right. So -- no, all
5 right. I'm just going to go back to what you need to know
6 in order to evaluate the package. Would you ordinarily, in
7 order to evaluate the package, be looking at other proposals
8 on the east acreage --

9 THE WITNESS: From over a year ago.

10 EXAMINER COSS: I would say no. I think it's an
11 interesting point, and I think it's been made, and I think
12 we can move on from it.

13 HEARING EXAMINER ORTH: Okay. I just want to
14 make sure that I'm not shutting out evidence that you would
15 need.

16 EXAMINER COSS: I don't think it needs to be
17 evaluated.

18 HEARING EXAMINER ORTH: All right. So if you
19 would move on.

20 MR. FELDEWERT: Certainly, okay.

21 BY MR. FELDEWERT:

22 Q. You recognize that, do you not, Mr. Jones, that
23 after a pooling order is issued here, that you are going to
24 have an opportunity to eventually elect on a well-by-well
25 basis whether to participate in any particular well with

1 your 10 percent interest?

2 A. I do understand that.

3 Q. Okay. And at that time you can choose to elect
4 to participate in just one well with your your 10 percent,
5 or two wells, or a group of proposed wells with your 10
6 percent interest.

7 A. That's correct.

8 Q. And going back to your suggestion that there
9 should only be nine wells, you could even elect as you
10 desire to only participate with your 10 percent interest in
11 nine wells?

12 A. Well, we are -- we do not like the idea of more
13 than those wells. That's the rub.

14 Q. And you don't like that as a 10 percent interest
15 owner?

16 A. That's correct. As a working interest owner in
17 these wells.

18 Q. And in this circumstance, Novo owns 90 percent
19 and will be footing 90 percent of the cost and 90 percent of
20 the risk.

21 MS. SHAHEEN: Objection to Mr. Feldewert's
22 testimony.

23 HEARING EXAMINER ORTH: It was a long question,
24 but I think you have answered it already, Mr. Jones.

25 MR. FELDEWERT: That's all the questions I have.

1 Thank you.

2 HEARING EXAMINER ORTH: All right. Mr. Coss, do
3 you have questions? I'm sorry, that was redirect, wasn't
4 it -- no, that was cross.

5 MR. FELDEWERT: Correct.

6 EXAMINER COSS: It's late. So if I'm
7 understanding this correctly, for Titus they have worried
8 about the overall cost of the project of the 15 wells. Is
9 that's the way I should take it, or it doesn't believe it's
10 going to be an efficient -- could you -- well, okay.

11 HEARING EXAMINER ORTH: He used the word over-
12 developing.

13 EXAMINER COSS: Could you describe what you mean
14 by overdeveloping and what you see as the down side of that?

15 THE WITNESS: Yeah, I think for a company like us
16 we are focused on well level returns, you know, the amount
17 of money it costs to drill a well and how quickly that pays
18 out. And so we don't feel like drilling the amount of wells
19 that Novo has proposed is an efficient use of our capital.

20 EXAMINER COSS: But so there is no -- and does
21 the overdevelopment come in, you don't think that it will
22 develop the resources as efficiently or as well?

23 THE WITNESS: I think for the amount of money
24 that it would cost to drill that many wells, I think the
25 returns can be realized in more -- in better ways, just

1 better ways to spend that drilling money than just
2 drilling -- overdeveloping the land.

3 EXAMINER COSS: And do I take it that the line of
4 questioning related to return per foot of lateral well in
5 the Second Bone Spring is Titus doesn't believe that that's
6 going to be a cost effective well?

7 THE WITNESS: That would be correct. I think it
8 might have been the Third Bone that we were talking about on
9 that particular metric, but yes, that's correct.

10 EXAMINER COSS: Okay.

11 MS. SHAHEEN: I would say that the geologist will
12 speak to this a little more in-depth.

13 EXAMINER COSS: Sure. So on the land directly to
14 the Division side with Novo on this, Titus won't pay for --
15 doesn't have to pay for the cost of the wells, it just
16 doesn't see a return until after the cost has been
17 recovered; correct? And/or now you are in a position here
18 you are going to be force pooled or in the joint operating
19 agreement, one way or the other.

20 THE WITNESS: That's correct.

21 EXAMINER COSS: And would Novo or would Titus
22 rather be force pooled right now or finish the joint
23 operating agreement.

24 THE WITNESS: No. We would rather finish a joint
25 operating agreement, and that was one of the last

1 communications I had with Brandon. It feels like we are at
2 an impasse. We would like -- we are open to drilling nine
3 wells for considering that full development. Novo has
4 requested to drill 14 wells. It feels like we are at an
5 impasse. Can we get the JOA to its final form and then let
6 the NMOCD decide what they feel like is the best path
7 forward. And then we would enter into a JOA with most
8 likely, you know, governing what the NMOCD --

9 EXAMINER COSS: But the JOA kills the need for
10 the force pooling.

11 THE WITNESS: Correct, but at that point they are
12 only interested in negotiating a JOA for 14 wells, which we
13 were, at that point, not wanting to enter into a JOA.

14 EXAMINER COSS: Okay. And is there, I don't want
15 to negotiate a JOA for you, so I will stop my questioning
16 right here.

17 HEARING EXAMINER ORTH: All right. Ms. Shaheen,
18 do you have any follow-up?

19 REDIRECT EXAMINATION

20 BY MS. SHAHEEN:

21 Q. I would like to clarify, Mr. Jones, clarify that
22 **Titus intends to enter into a JOA if it can agree on the**
23 **terms of the JOA, and the number of wells will be whatever**
24 **the Division determines should be proper development under**
25 **these applications. Is that, is that a correct statement of**

1 **Titus' intention?**

2 A. Yes. I believe that's a correct statement.

3 MS. SHAHEEN: And our geologist, you will hear
4 more technical --

5 EXAMINER COSS: I definitely will want to hear
6 from the geologist --

7 HEARING EXAMINER ORTH: One at time.

8 MS. SHAHEEN: We are on the same page.

9 MR. FELDEWERT: Can I interject here?

10 HEARING EXAMINER ORTH: Mr. Feldewert?

11 MR. FELDEWERT: Maybe we can stop this now. The
12 Division does not determine the number of wells in a spacing
13 unit. You know that. That's determined by the operator.
14 What the Division determines is whether a spacing unit
15 should be formed for an initial well. That's what it
16 determines.

17 They have made demands saying, "We will not
18 execute a JOA unless you agree to limit it to nine wells."

19 We said, "No, that makes no sense at this point
20 in time."

21 They also have an opportunity, whether under a
22 pooling order or JOA, to elect to participate in all 13 or
23 their magic nine. That's their choice, and that way they
24 can do with their capital whatever they want to do with
25 their capital. In this case where no -- is requested and

1 they do not oppose the formation after spacing unit where we
2 are named the operator of acreage where we own 90 percent,
3 and we will take 90 percent of cost and 90 percent of the
4 risk.

5 And so I don't understand why they think they can
6 come here before the Division and have you as part of the
7 pooling process dictate how many wells are going to be
8 drilled in the W/2 spacing unit over time. That's not your
9 role, and if that's all they are seeking, we should stop
10 right here because that's not your role.

11 HEARING EXAMINER ORTH: Mr. Coss -- yes, Ms.
12 Shaheen.

13 MS. SHAHEEN: First of all, they have four
14 applications. They are seeking to establish four different
15 spacing units with different sets of wells, so I believe
16 that we can come in here and ask the Division to approve a
17 particular spacing unit in a particular formation depending
18 on the application.

19 And the Division has a statutory obligation when
20 it's determining whether a spacing unit should be approved
21 to determine whether there may be waste. The Division has a
22 statutory obligation to prevent waste, to protect
23 correlative rights, and to act in the interest of
24 conservation. And our position is that the Division does
25 have authority under that statutory obligation to do exactly

1 what we are asking you to do today.

2 HEARING EXAMINER ORTH: So Mr. Coss, if you have
3 something helpful to say, but it sounds like kind of a mixed
4 question, kind of fact and law, so if you want to say
5 something, I'm not going to stop you, but as part of taking
6 these four matters under advisement, I trust your order will
7 reflect what you believe you have the authority to do.

8 EXAMINER COSS: Certainly. And I guess it seems
9 like the best case for Titus, and maybe you will have to
10 elaborate for me, if these are all taken as one, then the
11 Division can accept all 14 wells or not accept two wells
12 based on conservation or -- yeah, not conservation of
13 waste, but --

14 MR. FELDEWERT: Prevention of waste.

15 EXAMINER COSS: Prevention of waste, and we need
16 to know from Titus which of the cases it has the largest
17 objection to, but it's sounds like --

18 HEARING EXAMINER ORTH: Which I think Mr.
19 Feldewert was trying to ask Mr. Jones about.

20 THE WITNESS: That's also why we have a
21 geologist.

22 MS. SHAHEEN: If I may suggest that we allow the
23 geologist to testify, and Mr. Feldewert to cross-examine,
24 and I would suggest we provide you with written closing
25 statements on the question that you just raised.

1 HEARING EXAMINER ORTH: I was going to ask for
2 that, so thank you for offering that. I think we are done,
3 Mr. Jones, with your testimony, and thank you very much.

4 (Recess taken.)

5 HEARING EXAMINER ORTH: We are back after a short
6 break, and Mr. Frierson is at the witness table. You are
7 still under oath.

8 ALLEN FRIERSON

9 (Previously sworn, testified as follows:)

10 DIRECT EXAMINATION

11 BY MS. SHAHEEN:

12 Q. Mr. Frierson, please state your full name and
13 place of residence.

14 A. Allen E. Frierson, and I live in Ft. Worth Texas?

15 Q. And are you employed by Titus Oil & Gas
16 Production?

17 A. Yes.

18 Q. And in what capacity?

19 A. Geology manager.

20 Q. Are you authorized to testify on behalf of Titus?

21 A. Yes.

22 Q. And have you previously testified before the
23 Division?

24 A. Yes.

25 Q. Has part of your experience involved land in

1 **southeast New Mexico?**

2 A. Yes.

3 **Q. Are you familiar with the applications filed in**
4 **these cases?**

5 A. I am.

6 MS. SHAHEEN: I offer Mr. Frierson as an expert
7 witness in geology matters.

8 MR. FELDEWERT: No objection.

9 HEARING EXAMINER ORTH: Thank you. He is so
10 recognized.

11 BY MS. SHAHEEN:

12 **Q. Mr. Frierson, as a geologist, have you formed an**
13 **opinion as to Novo's development plan requested in this**
14 **application?**

15 A. I have. While the targets look like good targets
16 to land the lateral in, I do have concerns, some concerns in
17 a couple of the landings in the Wolfcamp A. They are a
18 little bit thin. Also, with the well spacing in the Third
19 Bone Spring sand, Wolfcamp XY and Wolfcamp A.

20 **Q. Have you prepared Exhibits that illustrate the**
21 **basis of your opinion?**

22 A. I have.

23 **Q. Part of your review included a comparison of**
24 **wells drilled by XTO; is that right?**

25 A. That's correct.

1 Q. And which XTO wells did you compare Novo's
2 proposal to?

3 A. An eight-well development in about a mile and a
4 half to the east southeast. It's the Remuda Basin, North 25
5 State Wells.

6 Q. Is it the 24 State Wells in Remuda State 24,
7 turning to Exhibit 1.

8 A. Okay. It's -- it's 25, but it's shown in the
9 W/2 of 24 with a surface hole location in the NW/4 of
10 Section 25.

11 Q. Exhibit 1 illustrates the distance between the
12 proposals by Novo and the Remuda Basin wells that you
13 reviewed; is that right?

14 A. That's correct.

15 Q. Can you recite for the Hearing Examiners where
16 the Remuda Basin wells are located on Exhibit 1?

17 A. Sure. In Exhibit 1, it's just a locator map, the
18 red dashed polygon outlined the proposed development area.
19 The green outline is, on the map, you will see elsewhere is
20 outlined federal units, and about a mile and a half, 2 miles
21 to the southeast is XTO's Remuda Basin, and the red outline
22 is the secretary's order of the potash boundary.

23 And also denoted is a cross section in the next
24 exhibit from A to A prime, A being in the north and A prime
25 in the southeast. It's a three-well cross section between

1 the Teledyne 4 Gas Com 1, the Spud 16 State 5, and Remuda
2 Basin 24 State 1 wells.

3 Q. And turning to Exhibit 2, can you explain how
4 this exhibit reflects your comparison of Novo's proposal to
5 the -- to XTO's Remuda Basin wells?

6 A. Sure. This is taken from three-well cross
7 section on the previous map. A to A Prime, A being on the
8 left-hand side of the cross section, A prime on the
9 right-hand side. So the well on the far left, the Teledyne
10 4 Gas Com 1 would be near the end of the proposed laterals
11 by Novo. The middle well, the Spud 16 State 5, would be
12 closer to the surface hole location of the proposed Novo
13 well, and the Remuda Basin 24 State 1 on the far right-hand
14 side is in XTO's Remuda Basin.

15 Similar to probably other cross sections we've
16 seen today, really the large display, gamma ray in the far
17 left track, porosity -- neutron and density porosity logs
18 and the second track over from the left, as Mr. Hale
19 mentioned, the porosity logs are indicating better porosity
20 to the left than the right. And I have also shaded that
21 over six percent shaded green.

22 And then in the far right log track, for each
23 well is the deep resistivity shaded red with anything
24 greater than 20 ohms resistivity.

25 A combination of those factors typically in the

1 lower basin are good indicators for what geologists might
2 consider pay in the Lower Basin, and they slightly change in
3 the Bone Spring Sand targeting into the Wolfcamp Shales. So
4 you need some combination of these three logs to come up
5 with what you identify as a good target.

6 Also on the left of the cross section, I put red
7 arrows in the number of wells pertaining to Novo's well
8 proposals. The red arrows, if you follow those over to the
9 logs, would be approximately where they plan to land, and
10 then a numbers of wells in that particular zone. And all of
11 those were confirmed via e-mail, I think, between Brandon
12 and someone at Titus. In particular, they were confirming
13 the landing zones in the Basal Third Bone Sand, the Wolfcamp
14 XY and the Wolfcamp A Shale.

15 Over on the right-hand side I've got XTO's Remuda
16 Basin wells, the wells that I will mention here in a bit,
17 and where they landed within the Basal Third Bone Wolfcamp
18 XY and Wolfcamp A Shale and a number of wells.

19 The only other thing to point out on this exhibit
20 is in the Teledyne 4 Gas Com 1, the well on the far left, if
21 you follow that down to basically between my WFMP underscore
22 100 top and WFMP 200 top is I denoted a tight carbonate
23 there, and I think Mr. Hale mentioned earlier they plan on
24 landing just above that, which is, they have picked the
25 right place to land.

1 My concern is that when comparing this to XTO, if
2 they are going to use that as an analogue, is that that
3 tight carbonate is, if it's even there, it's very thin. And
4 because it's not there, there's effectively more good
5 reservoir target where XTO's wells are in comparison to
6 where their proposed laterals are. So that's one concern.

7 **Q. In response to Mr. Coss' earlier question, to**
8 **clarify Titus' area of concern, is it accurate to say that**
9 **looking at Exhibit 2, the area of concern is that target --**
10 **those targeted areas where you've got five -- I think five**
11 **arrows there on the left which represent Novo's proposal,**
12 **and then XTO's wells that you have looked at on the right,**
13 **are these the target formations that we're concerned about?**

14 A. Correct.

15 **Q. Okay. Turn to Exhibit 3. Can you tell the**
16 **Hearing Examiners what this gun barrel exhibit illustrates?**

17 A. Yes. This is the example drawn from XTO's Remuda
18 Basin development, in particular the 8 -- it's two 4-well
19 pads, but drilled side by side, eight wells for 1.5 mile
20 laterals in the W/2 of Section 24 and NW/4 Section of 25,
21 township 23 South, Range 29 East, the red, light blue and
22 dark blue dots on the image are where their wells were
23 landed within the Third Basal Third Bone Sand, Wolfcamp XY
24 and Wolfcamp A.

25 Also what I have noted on here are the offset

1 distances between the wells, both in the vertical sense,
2 which you will find within that oval, and then if you move
3 further up the image or cross section, in the lateral sense
4 how close they are. And which we'll refer to Titus'
5 reservoir engineering model might slightly disagree.

6 And that's, as we mentioned earlier, in other
7 hearings, and probably I think some of the Novo's witnesses
8 maybe mentioned, engineering models are all interpretive.

9 So while I can see someone might have a slightly
10 different view than someone else, essentially a lot of the
11 data going into the model is the same. It's how you
12 interpret that data.

13 So our reservoir engineering model suggests that
14 this spacing is too tight, therefore lending concern. It
15 being the dataset in the area that they mentioned of all the
16 other datasets they are looking at, I think Mr. Patrick
17 mentioned a few others, this one has the most production
18 data on it. It's got, I think, 12 to 16 months of
19 production data on each lateral. That way you can better
20 fit your decline curve and estimate reserves with the more
21 production data you have.

22 With some of the other examples, they are still
23 in the drilling phase or maybe in the completion phase. If
24 they have production, it's very early on and tough to
25 predict.

1 Q. And so is it your opinion that looking at the
2 Remuda North 25 State data, that those wells have a similar
3 tight spacing or spacing -- tight spacing similar to that
4 proposed by Novo?

5 A. Yeah. Novo's is actually tighter.

6 Q. And your concern is both with the lateral spacing
7 being too close and with the vertical spacing being too
8 close; is that right?

9 A. Correct. And more particular, in this Remuda
10 Basin example, yes. In the Novo example it's more in a
11 vertical sense.

12 Q. Turning to Exhibit Number 4, can you explain to
13 the Hearing Examiner what this is?

14 A. Yes. This was some work done by the petroleum
15 engineer in house in conjunction with me. And this was
16 using the eight wells in the XTO Remuda Basin as an example.
17 And it comes from basically a decline curve analysis,
18 calculating what we think the EUR or estimated ultimate
19 recovery of each of these wells would be, and then basically
20 normalizing that to a lateral foot.

21 So using the complete lateral length of the well,
22 and what we think the total oil per well produced would be
23 over the life of that well, and dividing that by the number
24 of feet or length of the well. And what we -- in our
25 analysis, we saw that the average of these wells was almost

1 67 barrels of oil per foot on an EUR basis. The median, 67;
2 the P-10, roughly 48; and P-90, meaning the best well was
3 90. Internally at Titus, and it seems like really kind of
4 across industry people like to quote 100 as far as that
5 measure goes, so this is, you know, certainly a concern for
6 us in our internal analysis.

7 Q. When you say people like to quote 100, do you
8 mean that is basically understood in the industry that
9 production of 100 barrels of oil per foot EUR would indicate
10 that that well was economically worthwhile?

11 A. Yes, an economic success, uh-huh.

12 Q. And was it your conclusion that the Remuda Basin
13 wells were not an economic success based on the standard?

14 A. With our internal analysis we would think they
15 are -- they're probably not, and very marginal at best.

16 Q. Turning to Exhibit 5, does this illustrate Novo's
17 similarity to those Remuda Wells?

18 A. It does. If you -- again, the wellbores that are
19 outlined by the blue oval are what I'm comparing. Those are
20 targeting the same flow units which one could argue all act
21 as one once you frac these wells. They would suggest that
22 your frac height and frac length in many wells exceed 150
23 feet or 175 feet and even sometimes, you know, over 200
24 feet.

25 So in a vertical sense, internally to Titus, we,

1 we believe -- and with some research, industry research,
2 would suggest that stacking those on top of each other
3 anywhere closer than 400 feet in a vertical sense without a
4 discernable frac barrier, which Mr. Hale, you know, he
5 confirmed earlier that there is no existing, to their
6 knowledge, frac barrier between those targets, would --
7 would basically be, the bottom well or the top well really
8 would be competing for resources and would be losing frac
9 energy to the opposite well. So essentially using two
10 wellbores to stimulate a rock volume that you might be able
11 to stimulate the exact same rock volume with just one.

12 **Q. As a result, it's your opinion that Novo's**
13 **proposals are not economic and would result in waste; is**
14 **that correct?**

15 A. I think some of them. I think some of the wells
16 would not be economic.

17 **Q. When you say some of the wells, are you referring**
18 **to those in the Wolfcamp XY and -- some of the wells in**
19 **Wolfcamp XY and Wolfcamp A would be unnecessary and result**
20 **in waste if they were drilled?**

21 A. Correct. I think they would result in
22 overdevelopment, and I think by using more wells than you
23 need and by competing for resources with your own wells in a
24 half section, I think you could delay -- you could prolong
25 the payout of any single well because they're competing for

1 the same resource and not producing as much volume per well.

2 Q. Turning to Exhibit 6, I believe you have included
3 Titus' development as an example of what Titus believes
4 would be an economic development?

5 A. Yes. This was our, our proposed development.
6 It's eight wells. I know we have talked with Novo about
7 nine, but Titus believes, I think if you, if you read some
8 of the literature that's coming out, even the Wall Street
9 Journal is -- even the periodicals are writing articles
10 about overdevelopment. And because of that, it's brought up
11 other examples within the Delaware Basin where on a project
12 scale, a project level, it was, it was too -- too
13 aggressive, and the well struggles or the wells and projects
14 struggled to be economic.

15 So Titus, and I think a lot of operators now are
16 starting to get a more conservative approach to try and get
17 more with less wells. So that's -- that's our thought for
18 Titus, and yeah, so this is -- this is what we have laid
19 out, you know, maybe four wells in the Third Bone XY isn't
20 the right number, but I think eight is too many, you know.

21 I think what Mr. Hale said earlier is true, you
22 want to see maybe, maybe a little overlap so you know you
23 are getting everything, but you also don't want to really
24 seize production from another well and not properly
25 stimulate the rock around that particular wellbore, so --

1 Q. Turning now to the AFE -- you've received the AFE
2 in December when you sent your proposal; is that correct?

3 A. Yes.

4 Q. Does Titus have any concerns about the AFE?

5 A. So our concern really was again comparing the
6 number of total drilling days in the AFEs to proven drilling
7 days from some of the -- some of the largest operators in
8 the world. XTO nearby drilled all of their wells in the
9 Remuda Basin and their average well drilling days was 32,
10 which is what -- this is Third Bone, these wells are Third
11 Bone, Wolfcamp XY and Wolfcamp A, which is what Novo has in
12 their proposal. The difference is these are 1.5 mile
13 laterals, and Novo's are 2 mile laterals. So our concern
14 with that in an AFE is that if they are over promising on
15 how quickly they are going to drill the wells, they might
16 outspend the AFE if you are just using XTO as an analogue.

17 Q. Exhibit 7, is this an illustration of the days,
18 the drilling days that were required --

19 A. XTO.

20 Q. -- by XTO with respect to the wells that are
21 similar to the wells that Novo has proposed in Wolfcamp A
22 and Wolfcamp XY?

23 A. Correct. Uh-huh.

24 Q. So basically your opinion is that --

25 MR. FELDEWERT: Leading.

1 Q. Okay. In your opinion, in your opinion, has Novo
2 underestimated the cost to drill 14 wells by underestimating
3 the number of rig days required?

4 A. Correct.

5 Q. Is it your opinion that Novo's proposals will
6 result in economic loss?

7 A. Yes.

8 Q. Is it your opinion that Novo's proposal will
9 impair correlative rights?

10 A. Yes.

11 Q. Is it your opinion that Novo's proposals are
12 contrary to the conservation of mineral resources in New
13 Mexico?

14 A. Yes.

15 Q. Is it your opinion that Novo's application should
16 be denied as proposed. And I believe that I can identify in
17 our closing statement which application should be denied.

18 A. I think as proposed, yes.

19 MS. SHAHEEN: And I would liked to offer Exhibits
20 1 through 7 into the record.

21 MR. FELDEWERT: No objection.

22 HEARING EXAMINER ORTH: Exhibits 1 through 7 are
23 admitted.

24 MS. SHAHEEN: With that, I pass the witness.

25 (Exhibits 1 through 7 admitted.)

CROSS-EXAMINATION

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BY MR. FELDEWERT:

Q. Mr. Frierson, let's work backwards. Exhibit 7, I understood your concern here is Novo underestimated the rig days?

A. Yes.

Q. So their AFE is understated?

A. Correct.

Q. So in other words, if you paid your portion of the AFE, your 10 percent portion, you would be paying your portion of an AFE that in your opinion is underestimated rather than overestimated?

A. Correct.

Q. Okay. And if I'm -- you were here for the testimony that Titus hasn't drilled any wells in New Mexico?

A. That's correct.

Q. Okay. On Exhibit Number 6, this predicts what Titus had proposed as the development on the W/2?

A. Correct.

Q. Okay. And on further review you decided to -- and I think your point was that you thought maybe you would need more upper Wolfcamp wells?

A. I think that could be, you know --

Q. More than what you have depicted here?

A. Yeah, I mean, eight is too many. Four, four is

1 proven. You know, whether you can squeeze another one in,
2 you know, maybe, yeah.

3 Q. But ultimately you decided to dismiss your
4 pooling application?

5 A. Correct.

6 Q. And that drill as well?

7 A. Correct.

8 Q. Okay. On Exhibit Number 4 --

9 A. Uh-huh.

10 Q. -- these are -- you did a single well analysis;
11 is that right?

12 A. We did basically decline curves on each well,
13 yes, so an eight-well analysis.

14 Q. But you didn't do an analysis of the full
15 development plan?

16 A. Well, this is all -- these are the only wells
17 they have drilled in this particular W/2 of the unit that we
18 looked at. Yes, they haven't gone back in and in-filled or
19 drilled the E/2.

20 Q. Were these wells economic?

21 A. In our view, they were not.

22 Q. In your view they were not?

23 A. No.

24 Q. You want to be economic, right?

25 A. I agree.

1 Q. And you disagree with what XTO has done?

2 A. We would say that they have drilled too many
3 wells, that they have spaced them too tight.

4 Q. So if I'm understanding this here, your opinion
5 would differ from what XTO's opinion was on the development
6 of their acreage?

7 A. Correct.

8 Q. In your opinion, that now differs with what Novo
9 considers is appropriate for Novo's acreage?

10 A. Correct.

11 Q. Okay. How does the geology compare between the
12 Remuda area and Saturninus area?

13 A. As I mentioned earlier, the Wolfcamp A actually
14 looks quite a bit different based on the gamma ray
15 signature, the triple combo data, the resistivity looks
16 quite a bit different. The porosity log also has a
17 different character.

18 Q. Quite a bit of difference there.

19 A. Yeah.

20 Q. When we get down to our area --

21 A. Uh-huh.

22 Q. -- are the Wolfcamp and Bone Spring intervals in
23 Sections 10 and 15 fairly homogenous across that area?

24 A. Yes.

25 Q. Whether you are looking at the W/2 or E/2?

1 A. Yes.

2 Q. Do you agree where it's possible, it's best to
3 plan your wells based on a section-wide basis?

4 A. Yes.

5 Q. Rather than just a half section?

6 A. Uh-huh.

7 Q. Or maybe than a quarter-quarter section like W/2
8 W/2?

9 A. Yeah.

10 Q. If I look at Novo Exhibit Number 14, you were
11 here for the testimony in which they stated that they
12 developed this looking at the entire section, not just half
13 section; right?

14 A. Uh-huh.

15 Q. Okay. Can you identify for me what wells on here
16 you would not recommend to your company that they
17 participate in?

18 A. Yes.

19 MS. SHAHEEN: Objection; form.

20 HEARING EXAMINER ORTH: Form? What's wrong with
21 the form?

22 MS. SHAHEEN: Well, he is asking -- our point is
23 these wells should not be drilled. Our point is not that
24 these wells are wells that we should elect not to
25 participate in.

1 HEARING EXAMINER ORTH: But I thought he
2 asked -- Oh, I'm sorry, I thought your question was would
3 he have a recommendation to Titus as to which wells not to
4 drill.

5 MR. FELDEWERT: My question is, do -- I'm going
6 to approach it a little differently; right.

7 **Q. You are the geologist for Titus?**

8 A. Yes.

9 **Q. Okay. What wells would you recommend to the**
10 **company that they not participate in?**

11 HEARING EXAMINER ORTH: I see. And participation
12 is more of a cost-sharing question rather than a question as
13 to whether it's overdeveloped.

14 MS. SHAHEEN: Yes.

15 HEARING EXAMINER ORTH: For the geology.

16 MS. SHAHEEN: It could be misleading to talk
17 about which wells they should not participate in when Titus'
18 position is those wells should not be drilled at all,
19 therefore, we shouldn't have to elect to participate or not
20 to participate in those wells.

21 MR. FELDEWERT: That's fine if that's their
22 position.

23 BY MR. FELDEWERT:

24 **Q. My question is, I want to know whether they put**
25 **their money where their mouth is, which wells would you**

1 **recommend to the company that they not participate in.**

2 HEARING EXAMINER ORTH: Okay. Is that the sort
3 of thing you would normally answer?

4 A. Well, after collaboration with the rest of my
5 counterparts at Titus. So the geologist isn't the sole
6 person that makes that decision, and it's a team. It's a
7 technical team of geologists, a reservoir engineer. Those
8 are typically the two main disciplines that would make that
9 decision. As well as, you know, we've got a, you know, we
10 have got a financial -- a CFO, a financial person. It would
11 take more than just one person to decide for the company.

12 Q. I agree with that. My question is, you
13 participate in those decisions, do you not?

14 A. Yeah. Yup.

15 Q. Do you make recommendations?

16 A. I do.

17 Q. My question is, what would you -- when you look
18 at these wells -- and I know it's not just your decision.

19 A. Uh-huh.

20 Q. Which wells would you recommend that the company
21 not participate in.

22 MS. SHAHEEN: I will object again to the form of
23 the question.

24 HEARING EXAMINER ORTH: So that's overruled now
25 that -- now that we are all on the same page as to what

1 question he is answering -- at least I think we are.

2 MS. SHAHEEN: I don't think it's a --

3 EXAMINER COSS: Is it participate or not drill?

4 MR. FELDEWERT: Participate. With their 10
5 percent interest.

6 MS. SHAHEEN: And I don't think it's relevant to
7 the Division's consideration.

8 HEARING EXAMINER ORTH: That's overruled. Please
9 go ahead with whatever answer you have.

10 A. If Novo were planning to drill all of these wells
11 in this half section, I would not recommend participating in
12 every well. Now, right now, without all of the data and
13 putting it all into context, I could not tell you which
14 specific well numbers I would recommend not participating
15 in.

16 Q. Okay. All right. Which wells would you
17 recommend they not drill?

18 A. I think, as I have mentioned in my exhibits, the
19 zones that I'm concerned about overdevelopment -- and this,
20 this is not -- this is taking out the Shallow Bone Spring or
21 the Deep Wolfcamp wells, if just -- if we are just speaking
22 in the Third Bone Spring, Wolfcamp XY and Wolfcamp A, I
23 would recommend, in that one flow unit, I would recommend
24 drilling closer to a number of four wells and not eight.

25 Q. Which wells would you like eliminate on Exhibit

1 **Number 14?**

2 A. I think that stacking laterals that 150 feet
3 apart, I would eliminate one of those wells.

4 Q. **So which ones are you talking about here?**

5 A. The two in the far left side.

6 Q. **So that would be the Number 330 wells?**

7 A. The Third Bone Spring Sand and Wolfcamp XY.

8 Q. **Those two that are marked 330 from the west line?**

9 A. I would eliminate the XY.

10 Q. **You would eliminate the Wolfcamp XY well at 330?**

11 A. Uh-huh.

12 Q. **What else? What else? Any other well that you**
13 **would eliminate?**

14 A. I would eliminate the probably XY well over on
15 the other side.

16 Q. **The one that says 1914?**

17 A. Correct. If you want, I mean, if you want me to
18 come up with a development plan for Novo -- I don't
19 understand why I'm doing this when I have already outlined
20 what I think we would do.

21 Q. **I know, but you guys aren't drilling. What other**
22 **wells -- any other well that you would eliminate here?**

23 A. I would eliminate the middle Wolfcamp A well.

24 Q. **That would be the one that says 1518 from the**
25 **west line?**

1 A. Actually, see, you know, I don't know. That
2 would take -- that would take some more modeling on my part
3 of which of the Wolfcamp A wells you eliminate. But again
4 considering the entire full unit of the Third Bone Spring
5 Sand, the XY and A, frankly I don't think a lot of our
6 footage calls would not be the same as this.

7 **Q. Which wells?**

8 A. So for instance, 1122 from the west line well, I
9 couldn't tell you whether that would be our footage call.
10 In fact, our footage call would be, based on our gun barrel,
11 would be different from that. So basically what I'm trying
12 to do for you now within these three zones is try to space
13 these wells out as much as possible.

14 **Q. So my question to you --**

15 A. Yes.

16 **Q. Maybe you finished, and that's fine if you**
17 **finished.**

18 A. Yeah.

19 **Q. Are there any other wells on this exhibit that**
20 **you would not drill?**

21 A. Yes.

22 **Q. Which ones?**

23 A. I would want to do more analysis before I finish
24 answering -- before I added, before I took out any more
25 wells or, or which wells those would be.

1 **Q. So you can't tell us any other wells?**

2 A. No, I mean I could, I just --

3 **Q. Wolfcamp B, would you eliminate any of those**
4 **wells?**

5 MS. SHAHEEN: Objection. I believe Mr. Feldewert
6 is asking him to speculate. He already said that he can't
7 tell him unless he does more analysis.

8 HEARING EXAMINER ORTH: And that's your answer?

9 THE WITNESS: Yes.

10 MR. FELDEWERT: That's fine.

11 A. I think the decisions that go into -- I think I
12 would like to turn the question around and just say --
13 BY MR. FELDEWERT:

14 **Q. You don't get to do that.**

15 A. Right, but the work that goes into planning
16 something like this takes months.

17 **Q. Yes, it does.**

18 A. So for me to just look at their image and just
19 start taking -- moving wells around or taking wells out and
20 saying with 100 percent confident right now while I'm
21 sitting in this seat where I will drill those other than
22 what we have proposed, I would need more time.

23 HEARING EXAMINER ORTH: That's a great answer.
24 Thank you.

25 **Q. How long have you been examining Novo's well**

1 **proposal?**

2 A. Since we received them.

3 Q. So that would be July?

4 A. July.

5 Q. Okay. And you can't tell us any more than what
6 you have already done?

7 A. I can -- I can tell you with --

8 Q. Any more wells that you would eliminate other
9 than the two that you identified?

10 A. I would want -- so basically we have more data
11 today than we did in July. And the answer to that question
12 would, would require more collaboration with me and my --
13 the other disciplines.

14 Q. Now, what about the Wolfcamp B, would you
15 eliminate any of those wells?

16 A. No. In our proposal we propose two wells in the
17 Wolfcamp which we call C. Y'all call it Wolfcamp B. There
18 was a little bit of nomenclature change earlier.

19 Q. We are talking about the Lower Wolfcamp?

20 A. Yes, Lower Wolfcamp.

21 Q. Would you eliminate?

22 A. I would drill two wells in the Wolfcamp C.

23 Q. Which one would you eliminate?

24 A. I would shift them all around and take one out.

25 Q. Your company doesn't have any drilling experience

1 **on the Wolfcamp, do you?**

2 A. We do.

3 **Q. In New Mexico?**

4 A. No, in Texas. But I would like to say that
5 geology does not care about the state lines.

6 **Q. Are you -- were you involved in the proposal for**
7 **the Wolfcamp B wells in the E/2 of this section?**

8 MS. SHAHEEN: Objection, relevance. We have had
9 this discussion.

10 HEARING EXAMINER ORTH: What is the relevance,
11 Mr. Feldewert?

12 BY MR. FELDEWERT:

13 **Q. Isn't it true that in the E/2 of this acreage,**
14 **Section 10 to 15, that your company proposed three Wolfcamp**
15 **B wells at generally the same locations that have been**
16 **proposed by Novo?**

17 MS. SHAHEEN: I will object, relevance and
18 foundation.

19 HEARING EXAMINER ORTH: All right. If I
20 understand correctly Mr. Feldewert has asked this in
21 basically the form of an impeachment question.

22 MR. FELDEWERT: Correct.

23 HEARING EXAMINER ORTH: All right. Please go
24 ahead.

25 A. What was the timing of the proposals that you are

1 referring to?

2 **Q. November of 2018. Does that sound right to you?**

3 A. Probably.

4 **Q. Okay.**

5 A. I don't recall exactly.

6 **Q. You were involved?**

7 A. Yes.

8 **Q. Okay.**

9 A. But plans you get, that's over a year ago, and
10 you get a lot more data in a year so you can tweak your
11 plans. Would we drill three in the Wolfcamp B in this area
12 today?

13 **Q. Good question. Would you?**

14 A. I think with the ongoing litigation, you know, I
15 think that's not on topic.

16 **Q. Well, does Titus still intend to drill three**
17 **Wolfcamp B wells, as they proposed in the E/2 of Section 10**
18 **to 15.**

19 MS. SHAHEEN: I'm going to object to again on the
20 basis of relevance and on the basis that this very acreage
21 that we are talking about that is not relevant to this
22 application and is the subject of pending litigation.

23 HEARING EXAMINER ORTH: Okay. So again --

24 MS. SHAHEEN: The three --

25 HEARING EXAMINER ORTH: All right. So as to the

1 litigation portion, I mean, that's a little trickier. I
2 understand what you are trying to do by way of impeachment,
3 but if three is good on one --

4 MR. FELDEWERT: One side.

5 HEARING EXAMINER ORTH: -- why is it not good on
6 the other.

7 MR. FELDEWERT: Spacing.

8 HEARING EXAMINER ORTH: That's, that's what he is
9 trying to do is he is trying to, what we call, impeach you.
10 So do you have any anything to say other than what you have
11 already said about changing data since November 2018?

12 THE WITNESS: I don't.

13 HEARING EXAMINER ORTH: Okay.

14 BY MR. FELDEWERT:

15 **Q. Does Titus still intend to drill three Wolfcamp B**
16 **wells in the E/2 of 10 and 15 as you proposed?**

17 MS. SHAHEEN: I will object again.

18 HEARING EXAMINER ORTH: So, Mr. Feldewert, would
19 you address that objection which goes to the litigation.

20 MR. FELDEWERT: It doesn't go to the litigation.
21 I want to know what their intent is, whether they intend to
22 follow through, or whether they believe that they would
23 drill three wells in the E/2 of Section 10 and 15 as they
24 proposed.

25 HEARING EXAMINER ORTH: Okay.

1 MR. FELDEWERT: Which is exactly with we proposed
2 to do in the W/2.

3 MS. SHAHEEN: I believe that Mr. Frierson said
4 things have changed in the last year and a half, and he
5 would have to have more data and confer with folks with
6 Titus before that determination can be made.

7 HEARING EXAMINER ORTH: So sitting right here,
8 you can't answer the question as to whether Titus intends to
9 drill the three wells on the E/2?

10 THE WITNESS: Today, I cannot.

11 HEARING EXAMINER ORTH: Okay. That's always a
12 fine answer.

13 BY MR. FELDEWERT:

14 **Q. Today would you recommend to Titus that they**
15 **drill the wells, three wells that they proposed on the E/2?**

16 HEARING EXAMINER ORTH: You can answer that if
17 you have an answer.

18 A. I'm not going to answer.

19 **Q. You refuse to answer?**

20 MS. SHAHEEN: He already answered.

21 MR. JONES: We are in pending litigation over the
22 these well proposals. So it's ridiculous that we would have
23 to put on the record the proposal that we are in litigation
24 on. It's a very difficult situation that we are being put
25 into.

1 We are not trying to be obstinate, we're not
2 trying to be difficult, but these well proposals are a
3 central part of the litigation, and we don't want things --
4 we want to remain silent and let the litigation play out.

5 MR. FELDEWERT: We are entitled to know why they
6 come here and object to our well spacing in the Wolfcamp B
7 when it's exactly the same they propose in the E/2. And if
8 they change their position, that's fine, but I want to know
9 what the position is.

10 MS. SHAHEEN: I believe Mr. Frierson already
11 responded that that was 14 -- how many months ago now, four
12 plus 12, 16 months ago. And to answer your question he
13 would have to review additional data and confer with his
14 other folks at Titus before he can answer that question.

15 HEARING EXAMINER ORTH: So that may be the best
16 answer you get today, Mr. Feldewert.

17 BY MR. FELDEWERT:

18 **Q. What would you recommend?**

19 A. I would want to collaborate with the rest of the
20 Titus team before making a recommendation.

21 **Q. So you couldn't recommend that today?**

22 A. No.

23 **Q. Okay.**

24 MR. FELDEWERT: That's all the questions I have.

25 HEARING EXAMINER ORTH: All right. Mr. Coss?

1 EXAMINER COSS: Yeah, thanks for being here
2 today. I guess my question with the -- I guess in regards
3 to the XTO development that you were talking about was
4 overdeveloped, did the sister well or child well development
5 have anything to do with that, or were these developed in
6 the same way that Novo is proposing?

7 THE WITNESS: These, I believe these were
8 co-developed. So similar to the fashion that Novo is
9 suggesting. It was from two to four well packs, so maybe
10 those -- the wells on the, on the W/2 of the W/2 were all
11 drilled from one pad, and then the four wells in the E/2 and
12 W/2 were all drilled from one pad.

13 And timing, I would have to go back and look at
14 when the pads were brought on line in relation to each
15 other, but I know they were within a few months of each
16 other because all the production date ranges from 12 to, I
17 think, 14 months for all of these wells.

18 EXAMINER COSS: Okay.

19 THE WITNESS: So the, the loose definition of the
20 word, yeah, I would call that co-developed.

21 EXAMINER COSS: Okay, but not they could be on
22 the edges of that kind of co-developed, not optimally
23 developed.

24 THE WITNESS: I mean, that's pretty tight for
25 eight wells, yeah.

1 EXAMINER COSS: And what about the, the dollar
2 per foot of the production per foot on that at Exhibit 4, do
3 we have -- do we know anything about the development of any
4 of these wells or --

5 THE WITNESS: So these are the wells that are
6 depicted in that last --

7 EXAMINER COSS: Oh, and those are all -- okay, I
8 see. Perfect. But the geology is somewhat different across
9 the township there?

10 THE WITNESS: Yes. I think in the Wolfcamp A,
11 certain facies thicken that were thin across the 2 miles or
12 really, yeah.

13 EXAMINER COSS: And it can be somewhat variable
14 too because we are in --

15 THE WITNESS: Correct.

16 EXAMINER COSS: And it looks -- in your opinion
17 does the geology look better in the current acreage we are
18 talking about or where --

19 THE WITNESS: I think in the Wolfcamp A, if we
20 are just talking about Upper Wolfcamp A, it looks better
21 than Remuda Basin.

22 EXAMINER COSS: What's that based on?

23 THE WITNESS: That's the cross section in Exhibit
24 2, the far left well and far right well, obviously the one
25 in the middle is between the two, but in the far left well,

1 I have noted a tight carbonate between the Wolfcamp 100 and
2 Wolfcamp 200. On a gamma ray shade it turned a little bit
3 purplish and the curve kicks out to the left. And if you
4 move over to the second log, to the right, the porosity logs
5 are showing that there's -- that that's a tight rock, so
6 very little porosity.

7 EXAMINER COSS: Looks like the best porosity is
8 in the furthest to the left in Teledyne 4; is that correct?

9 THE WITNESS: Yes. So the green shaded is
10 shading high porosity zones.

11 EXAMINER COSS: Yeah.

12 THE WITNESS: So above or below that they are
13 proposing a line above that which I think the landing zone
14 selection, I think it's a fine landing zone. My concern is
15 it's just thin when compared to XTO.

16 EXAMINER COSS: I'm not seeing very much of the
17 green above 6 percent porosity.

18 THE WITNESS: Yeah, it's thin.

19 EXAMINER COSS: So it's thinner in the XTO area?

20 THE WITNESS: No, no, no. Over in the XTO area,
21 as you move over, so between the Wolfcamp 100 and Wolfcamp
22 200 top, if you start the Wolfcamp 200 top in that orange
23 line.

24 EXAMINER COSS: Uh-huh.

25 THE WITNESS: As you move up in section, you will

1 see that green shading.

2 EXAMINER COSS: Oh.

3 THE WITNESS: There is no tight carbonate cutting
4 any of that out. So that's what I'm comparing between the
5 two logs.

6 EXAMINER COSS: Wow, this is --

7 THE WITNESS: It's really zoomed out. It's hard.
8 It's small.

9 EXAMINER COSS: Not necessarily with too much
10 bearing on the case here -- well, I guess it does.

11 Those are all my questions.

12 HEARING EXAMINER ORTH: Do you have any
13 follow-up?

14 MS. SHAHEEN: I do.

15 REDIRECT EXAMINATION

16 BY MS. SHAHEEN:

17 Q. How many wells has Titus drilled in Texas?

18 A. Thirteen.

19 Q. You were just testifying about Exhibit 3, I
20 believe, or is it 2?

21 A. Two.

22 Q. Taking a look at Exhibit 2, my understanding of a
23 layperson's perspective is that you are comparing the
24 geology at the Remuda wells with the geology, more or less,
25 at the area where Novo is proposing to drill. And my

1 question for you is very simple. Is the geology better at
2 the Remuda wells or better at the proposed wells that
3 Novo -- that are at issue here?

4 A. In my opinion, the Wolfcamp A landing zone is
5 thicker where XTO drilled.

6 Q. And to clarify, Mr. Feldewert was asking you
7 earlier about what wells would be eliminated, and I
8 understand that your testimony was you needed more data and
9 more time to confer with your folks, but I also understood
10 that your proposal, your recommendation would be as Titus
11 has proposed in Exhibit 6; is that right?

12 A. That's correct.

13 Q. Mr. Feldewert also asked you how long you have
14 been examining Novo's proposal, suggesting you have been
15 examining the proposals at issue now since July. Do you
16 recall his questions in that regard?

17 A. Yes.

18 Q. And these proposals that we are talking about
19 today you received in December, December 16; is that
20 correct?

21 A. That's correct.

22 Q. So you have had less than about -- well, about
23 two months to examine those proposals that are --

24 A. That's correct.

25 Q. Hearing Examiner Coss asked you about the timing

1 of the Remuda wells. Does Exhibit 7 provide you any
2 information with respect to the timing of when those wells
3 were drilled?

4 A. Yes. Their spud date, completion date and drill
5 release.

6 Q. So that information is there --

7 A. Yeah.

8 Q. -- in Exhibit 7?

9 MS. SHAHEEN: And those are all the questions I
10 have.

11 HEARING EXAMINER ORTH: All right. Thank you.
12 Any recross?

13 MR. FELDEWERT: No.

14 HEARING EXAMINER ORTH: Any further questions,
15 Mr. Coss?

16 EXAMINER COSS: The tight carbonate outlined in
17 Exhibit 2 that you mentioned, how, how thick is that tight
18 carbonate?

19 THE WITNESS: It's hard to tell based on my scale
20 here, but actually in the Novo -- I don't know if it had the
21 same wells in the Novo exhibit, but it's zoomed in, it looks
22 like it was zoomed in more, but each tick here, depth tick
23 is 100 feet. So I'm not sure which exhibit it is in the
24 Novo one, but I mean it might be -- I'm going to ballpark
25 it -- 20 to 30 feet thick.

1 MS. SHAHEEN: We would be happy to provide you
2 something bigger.

3 THE WITNESS: Yeah, more zoomed in.

4 MS. SHAHEEN: If it would be helpful.

5 EXAMINER COSS: Yeah, that sounds reasonable. We
6 would like to review that, and whether or not, you know,
7 some of these are written as anticipated frac barriers, but
8 I believe Novo testified that some of the these carbonate
9 intervals are such thicknesses to be thick frac impediments
10 and actually are maybe not helpful, but aren't hindrances
11 either. So what is your thought about this thick carbonate?
12 Is it a frac barrier?

13 THE WITNESS: That's -- it could be. It could
14 be, yeah.

15 EXAMINER COSS: Okay. Well, that's about as good
16 as we are going to get.

17 HEARING EXAMINER ORTH: All right. If there is
18 nothing further from anyone? No? Thank you very much,
19 Mr. Frierson.

20 THE WITNESS: Thank you.

21 HEARING EXAMINER ORTH: So I would like to handle
22 this one the way we handled the last one, which is to
23 request that Florine send you notice as to when the
24 transcript has been received and let you prepare a written
25 closing argument in the five days after you have gotten that

1 notice.

2 EXAMINER COSS: And I would like to see within
3 the legal argument references to the literature of the kind
4 that validates the different kinds of development proposals
5 that were described on either side, just --

6 MS. SHAHEEN: By literature, you mean technical
7 scientific literature?

8 EXAMINER COSS: Yes. Not Moby Dick.

9 MS. SHAHEEN: I'm sorry?

10 EXAMINER COSS: Not Moby Dick.

11 HEARING EXAMINER ORTH: Okay. Is there anything
12 else we should talk about before we adjourn?

13 MR. FELDEWERT: I don't think so.

14 HEARING EXAMINER ORTH: Thank you all.

15 (Concluded.)
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1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

3

4 REPORTER'S CERTIFICATE

5

6 I, IRENE DELGADO, New Mexico Certified Court
7 Reporter, CCR 253, do hereby certify that I reported the
8 foregoing proceedings in stenographic shorthand and that the
9 foregoing pages are a true and correct transcript of those
10 proceedings that were reduced to printed form by me to the
11 best of my ability.

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

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

19 Dated this 20th day of February 2020.

20

21

Irene Delgado, NMCCR 253
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