

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

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

7 APPLICATION OF BLACK MOUNTAIN CASE NO. 15655
8 OPERATING, LLC FOR A NONSTANDARD
9 OIL SPACING AND PRORATION UNIT,
10 COMPULSORY POOLING AND AN UNORTHODOX
11 WELL LOCATION, LEA COUNTY, NEW MEXICO.

Consolidated with

12 APPLICATION OF BLACK MOUNTAIN CASE NO. 15656
13 OPERATING, LLC FOR A NONSTANDARD
14 OIL SPACING AND PRORATION UNIT,
15 COMPULSORY POOLING AND AN UNORTHODOX
16 WELL LOCATION, LEA COUNTY, NEW MEXICO.

Consolidated with

17 APPLICATION OF GMT EXPLORATION CASE NO. 15659
18 COMPANY, LLC FOR A NONSTANDARD
19 OIL SPACING AND PRORATION UNIT
20 AND COMPULSORY POOLING, LEA COUNTY,
21 NEW MEXICO.

Consolidated with

22 APPLICATION OF GMT EXPLORATION CASE NO. 15660
23 COMPANY, LCC FOR A NONSTANDARD
24 OIL SPACING AND PRORATION UNIT
25 AND COMPULSORY POOLING, LEA COUNTY,
NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

May 11, 2017

Santa Fe, New Mexico

BEFORE: MICHAEL McMILLAN, CHIEF EXAMINER
WILLIAM V. JONES, TECHNICAL EXAMINER
DAVID K. BROOKS, LEGAL EXAMINER

1 This matter came on for hearing before the
2 New Mexico Oil Conservation Division, Michael McMillan,
3 Chief Examiner, William V. Jones, Technical Examiner,
4 and David K. Brooks, Legal Examiner, on Thursday,
5 May 11, 2017, at the New Mexico Energy, Minerals and
6 Natural Resources Department, Wendell Chino Building,
7 1220 South St. Francis Drive, Porter Hall, Room 102,
8 Santa Fe, New Mexico.

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1 (1:16 p.m.)

2 EXAMINER McMILLAN: Now what we're going to
3 do is we're going to be calling Cases 15655, 56, 59 and
4 60.

5 So at this time, I'd like to call Case
6 Number 15655, application of Black Mountain Operating,
7 LLC for a nonstandard oil spacing and proration unit,
8 compulsory pooling and an unorthodox well location, Lea
9 County, New Mexico. It will be combined with the next
10 following three cases, Cases Number 15656, application
11 of Black Mountain Operating, LLC for a nonstandard oil
12 spacing and proration unit, compulsory pooling and an
13 unorthodox well location, Lea County, New Mexico; Case
14 Number 15659, application of GMT Exploration Company,
15 LLC for a nonstandard oil spacing and proration unit and
16 compulsory pooling, Lea County, New Mexico; lastly, Case
17 15660, application of GMT Exploration Company, LLC for a
18 nonstandard oil spacing and proration unit, Lea County,
19 New Mexico.

20 Call for appearances.

21 MR. McMILLAN: Seth McMillan, Montgomery &
22 Andrews, on behalf of Black Mountain.

23 MR. BRUCE: And Jim Bruce of Santa Fe
24 representing GMT Exploration Company. I have three
25 witnesses.

1 EXAMINER McMILLAN: Okay. If all the
2 witnesses would please stand up and be sworn in.

3 MR. BRUCE: I'm also representing --
4 entering appearances for BTA Oil Producers, LLC, and I
5 have one witness for them. And I'm also entering an
6 appearance for Devon Energy Production Company.

7 EXAMINER McMILLAN: Thank you.

8 (Mr. Zimmerman, Mr. Moore, Dr. McCracken,
9 Mr. Schuster, Mr. Rand, Mr. Dilli and
10 Mr. Christensen sworn.)

11 MR. McMILLAN: I just have a scheduling
12 question, Mr. Examiner. If it's all the same, Black
13 Mountain would invite GMT to go first on their
14 application.

15 It's up to you, Mr. Bruce.

16 MR. BRUCE: Well, you filed the
17 applications first, so --

18 MR. McMILLAN: Do you want us to go first?

19 MR. BRUCE: Yeah.

20 MR. McMILLAN: Okay. We're here on your
21 continuance and the denial of our continuance. Is it
22 standard procedure for us to go first? Is that --

23 EXAMINER BROOKS: I don't know that I've
24 been in enough of these hearings to know for sure, but
25 it kind of makes sense, first to file, first --

1 MR. BRUCE: In the Mewbourne-Black Mountain
2 ones, we filed first, and we went first. So --

3 EXAMINER BROOKS: Yeah. Okay. Well,
4 you're saying in this case, Black Mountain filed first?

5 MR. BRUCE: We have the lowercase numbers.

6 MR. McMILLAN: We do have the lowercase
7 numbers.

8 EXAMINER BROOKS: Well, that does give
9 us -- you know, if you-all can't agree, that does give
10 us a basis on which to rule. And remember, our current
11 director having said that -- having heard the same
12 parties litigate several times the question of who
13 should be an operator in successful compulsory pooling
14 cases, that he told them if they didn't agree, from now
15 on, he was going to alternate between them. So you may
16 proceed.

17 MR. McMILLAN: Okay. Thank you,
18 Mr. Examiner.

19 I'd like to call my first witness Robbie
20 Zimmerman.

21 ROBERT "ROBBIE" E. ZIMMERMAN,
22 after having been previously sworn under oath, was
23 questioned and testified as follows:
24
25

1 DIRECT EXAMINATION

2 BY MR. McMILLAN:

3 Q. Good afternoon, Mr. Zimmerman.

4 A. Good afternoon.

5 Q. Would you please state your full name and place
6 of residence?

7 A. Robert E. Zimmerman, and I reside in Fort
8 Worth, Texas.

9 Q. By whom are you employed?

10 A. I'm a senior landman at Black Mountain
11 Operating.

12 Q. Are you authorized to testify today on Black
13 Mountain's behalf?

14 A. Yes.

15 Q. Have you previously testified before the
16 Division or one of its examiners and had your
17 credentials accepted and made a matter of record?

18 A. Yes.

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

21 A. Yes.

22 Q. And are you familiar with the lands at issue in
23 this case?

24 A. Yes.

25 MR. McMILLAN: Mr. Examiner, I would move

1 to qualify Mr. Zimmerman as an expert landman.

2 MR. BRUCE: I have no objection.

3 EXAMINER McMILLAN: So qualified.

4 Q. (BY MR. McMILLAN) Mr. Zimmerman, would you
5 briefly state, please, what Black Mountain seeks in
6 these applications?

7 A. In Case Number 15655, Black Mountain seeks an
8 order approving a nonstandard oil spacing unit and
9 proration unit in the Bone Spring Formation comprised of
10 the west half-southwest quarter of Section 35, Township
11 21 South, Range 34 East, in Lea County, and the west
12 half-west half of Section 2, Township 22 South, Range 34
13 East, Lea County, and pooling all mineral interests in
14 the Bone Spring Formation underlying the nonstandard
15 unit.

16 In Case Number 15656, Black Mountain seeks
17 an order approving a nonstandard oil spacing and
18 proration unit in the Bone Spring Formation comprised of
19 the east half-southwest quarter of Section 35, Township
20 21 South, Range 34 East, Lea County, New Mexico, in the
21 east half-west half of Section 2, Township 22 South,
22 Range 34 East, Lea County, New Mexico, and pooling all
23 mineral interests in the Bone Spring Formation
24 underlying the nonstandard unit.

25 Q. And have you prepared certain exhibits for

1 introduction in the cases?

2 A. Yes.

3 MR. McMILLAN: If I may approach, I'd like
4 to hand out exhibits in this case.

5 Q. (BY MR. McMILLAN) Let's please turn now to your
6 Exhibit 1. Is Exhibit 1 a land plat showing each
7 proposed unit with surface- and bottom-hole locations?

8 A. It is.

9 Q. What are the surface- and bottom-hole locations
10 for the proposed wells?

11 A. You can see here the surface-hole location is
12 marked by the blue square.

13 Q. Are you sure? The blue square, is it blue on
14 your copy?

15 A. Yes.

16 Q. And that's -- I'm sure that's your surface-hole
17 location?

18 A. Yes.

19 Q. What are the setbacks for the oil wells in this
20 pool?

21 A. 330 feet.

22 Q. Are your -- are the take points of the well
23 within these setbacks?

24 A. Yes.

25 Q. I guess we didn't cover this already. What are

1 the names of the wells being proposed?

2 A. Case Number 15655, we are proposing the Grama
3 Ridge State Com 1H and the Grama Ridge State Com 3H.

4 Q. And help us out. Which is which on this plat?

5 A. The 1H is to the west, and the 3H is to the
6 east.

7 Q. What's the primary objective for these wells?

8 A. In both cases, the primary objective is to
9 drill to a depth sufficient to test the Bone Spring
10 Formation and complete the well with a 7,500-foot
11 lateral.

12 Q. And are you requesting 240-acre project areas
13 here?

14 A. Yes.

15 Q. Are these standard -- are 240-project areas
16 established for the Bone Spring in this area?

17 A. That's what we're seeking.

18 Q. Does Black Mountain own the right to drill in
19 each tract that will be traversed by the wellbore?

20 A. No.

21 Q. What does Black Mountain own?

22 A. Black Mountain has leases under the southwest
23 quarter of Section 35 and the northwest quarter of
24 Section 2. We do not own any interest in the southwest
25 quarter of Section 2.

1 Q. Okay. Let's take a look at your Exhibit Number
2 2, please. Is this an ownership breakdown?

3 A. Yes. This is the Exhibit A to the JOA we sent
4 out to the working interest parties showing their
5 respective interest in the proposed 480-acre unit.

6 Q. For the record, will you recite for us what the
7 respective working interests are?

8 A. Black Mountain would have approximately 59.3
9 percent working interest. GMT's would be approximately
10 33.3 percent working interest, and Devon's would be
11 approximately 7.35.

12 Q. When, Mr. Zimmerman, did Black Mountain first
13 commence its geologic evaluation of this area?

14 A. Back in October of 2015.

15 Q. And what was done then?

16 A. Once we acquired these assets, we had
17 originally planned to drill the northwest quarter of
18 Section 2 along -- drill one-mile laterals in the
19 northwest -- northwest quarter of Section 2 and the
20 southwest quarter of Section 35. And then in an effort
21 to -- in an effort to not leave any stranded acreage, we
22 looked into the southwest quarter of Section 2, which we
23 noticed was owned by BF Petroleum. And after just
24 discussing with them and looking into their leasehold,
25 they had already agreed to plug the well with the State

1 and thus losing their lease, so we nominated that parcel
2 for the state lease sale and came in second, where GMT
3 got their interest at the lease sale.

4 Q. The nomination, though -- that whole process
5 was intended not to strand acreage; is that correct?

6 A. Correct.

7 Q. And just for clarification, that process began
8 in October of 2015, correct?

9 A. That's correct.

10 Q. Okay. What experience generally does Black
11 Mountain have in drilling and operating these types of
12 horizontal oil wells?

13 A. Black Mountain just drilled and is completing,
14 starting Monday, our first well -- first horizontal well
15 in New Mexico. And all of our employees have been well
16 versed in horizontal development, and our C.O.,
17 Dr. McCracken, is going to touch on our technical team's
18 experience in depth in his testimony.

19 Q. These are north-south-oriented wells, correct?

20 A. Yes.

21 Q. And is that north-south orientation consistent
22 with the prevailing development pattern in this area?

23 A. Yes. It's the preferred orientation of
24 operators in the area.

25 Q. Does Black Mountain's current development plan

1 potentially strand any acreage? And maybe we should
2 look at Exhibit 3 as you discuss.

3 A. No. I mean, there are multiple scenarios where
4 any operators to the north don't have to leave stranded
5 acreage with our development plan. And, again,
6 Dr. McCracken is going to touch on different scenarios
7 in his testimony.

8 Q. Okay. Great.

9 Is Black Mountain asking the Division to
10 pool the unjoined working interests and mineral
11 interests?

12 A. Yes.

13 Q. Does Black Mountain also seek the imposition of
14 a 200 percent risk penalty against those unjoined
15 working interests?

16 A. Yes.

17 Q. Does Black Mountain also seek to be designated
18 the operator for the wells?

19 A. Yes, we do.

20 Q. Okay. In your opinion, has Black Mountain made
21 a good-faith effort to locate all of the working
22 interest owners and communicate with them in order to
23 obtain their voluntary participation in the wells?

24 A. Yes.

25 Q. Would you please discuss the efforts that you

1 took on behalf of Black Mountain to obtain voluntary
2 participation?

3 A. On December 23rd, 2016, we sent a well proposal
4 with JOA and pertinent exhibits to GMT. We had no
5 response.

6 On January 10th, we sent a well proposal
7 with JOA and pertinent exhibits to the other working
8 interest party, Devon, and we had a few discussions with
9 Devon and were later told that they were going to farm
10 out their interest to GMT.

11 We subsequently offered to discuss
12 alternate plans to drill a two-mile lateral, as they
13 were concerned about the possibility of stranding
14 acreage in the northwest quarter of Section 35.

15 Q. Is Exhibit 4 -- if you'll turn to Exhibit 4,
16 are these copies of the well-proposal letters that were
17 sent to the working interest owners?

18 A. Yes.

19 Q. And is Exhibit 4 -- or when you sent these
20 letters, did you include a complete JOA?

21 A. Yes.

22 Q. Did you have any communications with the offset
23 operator, BTA?

24 A. We were approached by BTA to discuss the
25 possibility of stranded acreage, and we responded three

1 times and never heard back.

2 Q. Is Exhibit 5 comprised of the emails Black
3 Mountain sent to BTA but were never responded to?

4 A. Yes.

5 Q. Has any other operator or lease owner indicated
6 that there is a dispute over the geologic risk involved
7 in locating or drilling these wells?

8 A. No.

9 Q. Has any other lease owner indicated that Black
10 Mountain's estimated well costs are out of line?

11 A. No.

12 Q. Would you take a look at your Exhibit 6,
13 please? Are these the AFEs for these two wells?

14 A. Yes.

15 Q. Can you, for the record, please tell us what
16 the estimated total for a completed well is here?

17 A. Approximately \$8.2 million.

18 Q. Have these AFE cost estimates been updated
19 since the time of Black Mountain's original well
20 proposals?

21 A. They have not.

22 Q. To your knowledge, are these costs in line with
23 what's being charged by other operators in the area for
24 similar wells?

25 A. I believe so, yes.

1 Q. Have you made an estimate of overhead and
2 administrative costs while drilling and producing the
3 well?

4 A. Yes, \$7,000 a month for estimated drilling
5 costs and \$700 a month producing.

6 Q. Are these costs in line with what is being
7 charged by other operators in the area?

8 A. Yes.

9 Q. Do you recommend that the drilling and
10 producing overhead rates be incorporated into the order
11 that results from this hearing?

12 A. Yes.

13 Q. Does Black Mountain request that the order to
14 be issued in this case provide for an adjustment of the
15 drilling and producing of overhead rates in accordance
16 with the current COPAS bulletin for the area?

17 A. Yes, we do.

18 Q. In your opinion, has Black Mountain acted
19 diligently to develop these reserves?

20 A. Yes.

21 Q. Has Black Mountain acted in the best interest
22 of the working interest owners in Sections 32 -- 35 and
23 the south half of Section 2?

24 A. Yes, I believe we have.

25 Q. Has GMT proposed a well unit that's in conflict

1 with the unit designated by Black Mountain?

2 A. Yes.

3 Q. Did Black Mountain receive anything from GMT
4 with respect to their proposal?

5 A. Yes. October 14th, 2016, we received a cover
6 letter with no JOA or any details about the well. And
7 then on December 15th, 2016, we received another
8 proposal for the same well that did include a JOA that
9 had many missing exhibits.

10 Q. In your position as a landman at Black
11 Mountain, do you see a lot of well proposals?

12 A. Yes.

13 Q. And I'm going to have an exhibit for this, but
14 I'd like you to -- well, let me start by handing out the
15 exhibit. This one is out of order, and I apologize.
16 This will be Exhibit 14. Do you recognize this
17 document?

18 A. Yes.

19 Q. What is it?

20 A. It's a well proposal from GMT.

21 Q. This is the December --

22 A. Yes.

23 Q. -- 19, 2016?

24 A. Yes.

25 Q. Can you just -- when you say that the JOA that

1 was sent in December was incomplete, can you give us a
2 sense of what specifically was missing?

3 A. Mostly it would refer to the exhibits that are
4 to be attached to the JOA. Page 2 of the JOA says that
5 there would be an Exhibit C -- Exhibit A, C, D, E, F and
6 H, and the JOA they sent just has an Exhibit A and then
7 a COPAS agreement, which is usually Exhibit C, though
8 it's not labeled, and an Exhibit F.

9 Q. And in looking at that Exhibit A, what page is
10 Exhibit A on?

11 A. These pages aren't numbered, but it is the
12 first exhibit after the signature pages in the JOA.

13 Q. And does this Exhibit A seem incomplete to you?

14 A. Yes.

15 Q. How so?

16 A. There are no leases listed on it, nor is there
17 any breakdown of working interests.

18 Q. Are these the kind of things you would expect
19 to see on a proper well-proposal JOA?

20 A. No. Well, yeah, you would expect to see the
21 breakdown of working interests and leases to be included
22 in the operating area.

23 Q. Is this the only JOA you received -- Black
24 Mountain received from GMT?

25 A. Yes.

1 Q. Okay. In your opinion, would the granting of
2 Black Mountain's applications be in the best interest of
3 conservation, the prevention of waste and the protection
4 of correlative rights?

5 A. Yes.

6 Q. And were Exhibits 1 through 6 and Exhibit 14
7 prepared by you or at your direction and control?

8 A. Yes.

9 MR. McMILLAN: Mr. Examiner, I move to
10 admit Exhibits 1 through 6 and Exhibit 14 at this time.

11 MR. BRUCE: No objection.

12 EXAMINER McMILLAN: Exhibits 1 through 6
13 and Exhibit 14 may now be accepted as part of the
14 record.

15 (Black Mountain Operating, LLC Exhibit
16 Numbers 1 through 6 and Exhibit Number 14
17 are offered and admitted into evidence.)

18 MR. McMILLAN: Thank you. I believe that
19 concludes my direct examination.

20 EXAMINER McMILLAN: Please proceed.

21 MR. BRUCE: Just a few questions,
22 Mr. Examiner.

23 CROSS-EXAMINATION

24 BY MR. BRUCE:

25 Q. You were talking about -- I was a little

1 confused, so I just want a clarification. When you were
2 talking about a quarter section that the lease had
3 expired, that's the southwest quarter of Section 2?

4 A. Yes, sir.

5 Q. And then I'm looking at your Exhibit 6. These
6 have the well numbers as 3H. Which is the 1H and which
7 is the 3H?

8 A. The 1H is the first page, and it's labeled at
9 the top as "Gramma Ridge State Com 1H AFE," and the
10 second page is the "Gramma Ridge State Com 3H." I do
11 see that the well number on there does say "3H." It
12 must have been a typo.

13 Q. Mr. McMillan asked about Black Mountain's
14 experience. You're talking about completing your first
15 well. That's in Eddy County, isn't it --

16 A. Yes, sir.

17 Q. -- 40 or 45 miles away from here?

18 A. Yes, sir.

19 Q. Has Black Mountain drilled any wells in Lea
20 County?

21 A. No, sir. We have not.

22 Q. And have you ever reviewed Oil Conservation
23 Division Order R-13165?

24 A. I have not.

25 Q. Do you know that that order says a proposal

1 letter needs to contain the name of the well, its
2 location, its depth, its surface location, its end point
3 and an AFE --

4 MR. McMILLAN: I'm sorry. Mr. Bruce, do
5 you have an exhibit that --

6 MR. BRUCE: I don't, but we can dig that up
7 if necessary.

8 Q. (BY MR. BRUCE) -- but it does not say that a
9 JOA is required to be sent with the proposal letter?

10 A. Is that a question?

11 Q. Are you aware that that order does not require
12 a JOA to be sent with the well?

13 A. I'm not aware.

14 Q. And after you received this proposal, what,
15 four-and-a-half months ago from GMT and you looked at
16 the JOA, did you ever call them and ask them for more
17 data, more exhibits?

18 A. Not to my knowledge.

19 Q. And Exhibit A, of course, is the contract area,
20 but the remaining exhibits are pretty much boilerplate,
21 aren't they?

22 A. For the most part, yes, sir.

23 Q. Thank you.

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

1 EXAMINER McMILLAN: Okay.

2 EXAMINER BROOKS: I don't believe I have
3 any questions at this juncture.

4 CROSS-EXAMINATION

5 BY EXAMINER McMILLAN:

6 Q. One of the things that has come up is we need
7 to know your surface location. If the surface location
8 costs are going to change, then everything else would
9 change. So the Oil Conservation Division's going to
10 want to know your surface-hole location and bottom-hole
11 location. You didn't clearly say that, so will you
12 please state that?

13 A. Yes. Shown on Exhibit 1, in our proposed
14 pad --

15 Q. That's not my question. What's the surface
16 location for each well?

17 A. They're stated on the AFE.

18 Q. So is it safe to say for the number one, it's
19 144.3 feet from the south and 911 from the west?

20 A. Yes, sir.

21 Q. And also for the 3H, it's 144.3 from the south
22 and 971 from the west?

23 A. Yes.

24 Q. And I have written down 20 -- for the 1H, 2,371
25 from the south, 330 from the west?

1 A. Excuse me. For the --

2 Q. Bottom hole.

3 A. Yes, sir, that's correct.

4 Q. For the 3H is 2,387 and 1,707?

5 A. I believe that's right.

6 CROSS-EXAMINATION

7 BY EXAMINER JONES:

8 Q. Do we have API number for these?

9 A. We do not.

10 Q. But --

11 EXAMINER McMILLAN: It was in their
12 application.

13 EXAMINER JONES: Oh, it was in the
14 application.

15 THE WITNESS: Sorry.

16 Q. (BY EXAMINER JONES) So is it clear that it's
17 possible that there is a typo on the location -- the
18 surface locations of these wells? Is the pad supposed
19 to be in the middle?

20 A. Yes, sir. Yes, sir.

21 Q. So it would be around 1,300 feet from the west;
22 is that right? Somewhere around there anyway?

23 EXAMINER McMILLAN: Yeah.

24 THE WITNESS: Yeah.

25 Q. (BY EXAMINER JONES) So the section -- Section 2

1 and the north half of Section -- actually Section --
2 north half of 2 and all of the southwest of 35 are old
3 state leases?

4 A. Yes, sir.

5 Q. So what burdens are those? Those are old --

6 A. 12 and a half.

7 Q. 12 and a half --

8 A. Yes, sir.

9 Q. -- ten-year leases?

10 A. Yes, sir.

11 Q. They're held by production from other --

12 A. Yes, sir.

13 Q. And so the lessee is Aztec Oil & Gas, and it's
14 still under the name of Ganey [sic;phonetic] Oil
15 Company, the lease?

16 A. That sounds right.

17 Q. Okay. So Chevron is still paying the --
18 somebody's paying the pay zone to the State anyway.
19 That's interesting it would be under the oil company
20 name.

21 So what was the -- can't quite make an
22 agreement here. Is that what I'm hearing?

23 A. Yes, sir.

24 Q. Somebody needs to drill these wells, but you
25 can't quite decide who is going to do it?

1 A. Well, GMT's proposal is for 5,000-foot
2 laterals, and ours are for 7,500-foot laterals.

3 Q. Okay. So is it your understanding that's the
4 main problem Black Mountain has, is they want to build
5 mile-and-a-half laterals?

6 A. Yes, sir. Yes, sir.

7 Q. And in the Bone Spring?

8 A. That's correct.

9 Q. Okay. And we've got to do an NSL here
10 because -- do you know why we have to -- these are both
11 proposed as nonstandard locations, is that correct, both
12 of these?

13 MR. McMILLAN: That may be an error. I
14 believe, upon further investigation, that this is a
15 standard location.

16 EXAMINER JONES: Okay. So the completed
17 interval will be standard?

18 MR. McMILLAN: That's correct.

19 Q. (BY EXAMINER JONES) Okay. Is this 22 -- South,
20 34 East, is that near Buckeye? Is that correct or --

21 A. The town?

22 Q. What layman's location would this be? Like,
23 outside of Lovington to the north?

24 A. Yeah. That sounds right. I've been out there
25 once.

1 MR. McMILLAN: For what it's worth, their
2 application -- advertising --

3 THE WITNESS: Eunice.

4 MR. McMILLAN: -- 17 miles west of
5 beautiful downtown Eunice.

6 DR. McCRACKEN: The Allen Ridge area.

7 EXAMINER JONES: Okay. Thank you.

8 EXAMINER McMILLAN: I don't have any
9 questions.

10 EXAMINER BROOKS: Did either of you have
11 any further questions?

12 MR. McMILLAN: Nothing further. That's it.
13 Nothing further.

14 EXAMINER BROOKS: Very good. The witness
15 may be excused.

16 MR. McMILLAN: Black Mountain would call
17 its next witness.

18 JARVIS "JAY" MOORE,
19 after having been previously sworn under oath, was
20 questioned and testified as follows:

21 DIRECT EXAMINATION

22 BY MR. McMILLAN:

23 Q. Good afternoon, Mr. Moore.

24 A. Good afternoon.

25 Q. Please state your full name and place of the

1 residence.

2 A. Jarvis Moore. Place of residence is Arlington,
3 Texas.

4 Q. By whom are you employed and in what capacity?

5 A. I am vice president of geoscience for Black
6 Mountain Oil & Gas.

7 Q. Are you authorized today to testify on Black
8 Mountain's behalf?

9 A. I am, yes.

10 Q. Have you previously testified before the
11 Division or one of its examiners?

12 A. I have not.

13 Q. Can you please go ahead and give the Examiners
14 a brief summary of your education and work experience?

15 A. Happily. I hold a Bachelor of Science degree
16 in geology from Georgia Southern University, a Master of
17 Science degree in geology from Texas Christian
18 University.

19 I have approximately 20 years of direct
20 industry experience, including work with companies such
21 as Denbury Resources, Merit Energy, XTO Energy. I
22 helped co-found Black Mountain in 2015. In addition to
23 that, I'm a licensed professional geoscientist in the
24 state of Texas.

25 Q. Are you familiar with the applications filed in

1 these cases?

2 A. I am, yes.

3 Q. Are you familiar with the subject areas and the
4 proposed wells?

5 A. I am, yes.

6 MR. McMILLAN: Mr. Examiner, I would tender
7 Mr. Moore as an expert petroleum geologist.

8 MR. BRUCE: No objection.

9 EXAMINER McMILLAN: So qualified.

10 Q. (BY MR. McMILLAN) Congratulations.

11 A. All right. Thank you.

12 Q. Have you prepared certain exhibits for
13 introduction in this case?

14 A. Yes, I have.

15 Q. Good. We have a geologist, so we have nice,
16 big colorful pictures. Let's take a look at your
17 Exhibit 7.

18 A. Yes. Exhibit 7 --

19 Q. Would you explain to us what we're seeing here?

20 A. Yes. This is -- this is a structure map on top
21 of the Wolfcamp horizon in what we call our Grama Ridge
22 area. This is our -- our operating area is outlined in
23 red on the map. You can see the subsurface values on
24 the top of the Wolfcamp pick there in blue below the
25 well spots. This is all well spots in the area. I have

1 not culled them out by depth or anything of that nature.

2 And that's really -- that's pretty well it.

3 Q. Okay. In your investigation, is the Bone

4 Spring continuous across Sections 2 and 35?

5 A. Yes, it is. That would be referenced better
6 with the next exhibit.

7 Q. Okay. Let's go there. Let's take a look at
8 your Exhibit 8.

9 A. So Exhibit 8 is a cross section labeled A to A
10 prime. As you can see on the exhibit --

11 EXAMINER McMILLAN: Okay. Give me a
12 second.

13 THE WITNESS: Okay. Exhibit 8 is a cross
14 section, which is referenced on Exhibit 7, is A to A
15 prime. It's the black line. The cross section runs --
16 from the well on the left is your northern well, and the
17 well on the far right of the cross section is far south,
18 crossing into GMT's acreage. The map is a structural --
19 or sorry -- the cross section is structural.

20 EXAMINER McMILLAN: What's the reference
21 map?

22 THE WITNESS: It's the previous exhibit,
23 sir. It's map seven -- or Exhibit 7. Sorry.

24 Just to repeat there, the cross section,
25 which is Exhibit 8, is referenced on the map, which is

1 Exhibit 7, as section A to A prime. It is a north-south
2 section with the well on the left and the cross section
3 being furthest to the north. It's a structural section
4 on subsea depth. You see the top of the 3rd Bone Spring
5 line marker. Coming further down the section, you see
6 the top of our correlated 3rd Bone Spring Sand section,
7 and you see the Wolfcamp top which we have, and that's
8 the structural top that Exhibit 7, the Wolfcamp
9 structure map, is contoured upon.

10 The primary takeaway from this cross
11 section is the continuity of the 3rd Bone Spring Sand
12 section from north to south across the area of interest.
13 You do see a bit of thickening as you move off to the
14 south, and I'll get to that in a minute when we get to
15 the pay maps. But, in general, you have a nice thick
16 reservoir that's continuous across the area of interest
17 with 200 feet or greater of gross thickness.

18 Q. (BY MR. McMILLAN) Let's take a look at Exhibit
19 9.

20 A. Uh-huh.

21 Q. Let's hold on a minute and give the
22 Examiners --

23 A. I'll give them all the time they want.

24 Q. Okay. Can you explain to us what we're looking
25 at in Exhibit 9?

1 A. Yes. Exhibit 9 is a net pay map. It is
2 contoured -- or net pay isopach contoured on the 3rd
3 Bone Spring Sand. The cutoffs used for this map were a
4 root mean square-derived cross plot porosity --

5 (The court reporter requested a repeat of
6 the terminology.)

7 A. Root mean square. It's a method for
8 determining average porosity between a density porosity
9 and a neutron porosity curve. It's an accurate
10 cross-plot porosity independent of lithology. But just
11 to simplify that, it's a net pay map based on a 6
12 percent porosity cutoff within the basal 3rd Bone Spring
13 Sand member. And that would be the top reference on the
14 previous section as the 3rd Bone Spring Sand to the
15 interval at the top labeled "Wolfcamp."

16 You can see I posted the net pay values
17 derived on the map in blue for each individual well
18 spot. The cross section previously referenced is also
19 posted on here again as A to A prime. The major
20 takeaway here is there is very good continuity of over
21 200 feet of net pay across the entire interval being
22 discussed in the issue today. We see no concerns with
23 continuity of pay across Sections 35 or 2.

24 Q. In light of your investigation, do you believe
25 that all of the 40-acre tracts involved here contribute

1 reserves to the wells?

2 A. Yes, I do.

3 Q. Are you seeing any geologic or structural
4 discontinuities across the project areas for the wells
5 that would -- that adversely -- that could adversely
6 affect development by the use of horizontal wells?

7 A. No. There is some structural relief, but I
8 don't think it will negatively affect the wells or cause
9 any impediments to drilling.

10 Q. Okay. In your investigation, in your opinion,
11 is the horizontal well the most economical method for
12 producing each of the 40-acre units comprising the
13 project area?

14 A. Yes, it is.

15 Q. In your opinion, can the completed interval of
16 the well be produced in conformity with the setbacks for
17 the project area?

18 A. Yes.

19 Q. Let's take a look at that northwest border of
20 Section 35.

21 A. Is there a specific map I should reference?

22 Q. I don't know. Of your --

23 A. Exhibit 9, the pay map, probably does the best
24 job.

25 Q. In your opinion, is there anything geologically

1 speaking that would preclude whoever's drilling up there
2 from drilling near the south line of that northwest
3 quarter and drilling northward?

4 A. No, not at all. I think both structurally and
5 from a pay reservoir continuity standpoint, you could
6 easily put surface locations at the midpoint of the west
7 half of Section 35 and drill 7,500-foot laterals to the
8 north if you chose to.

9 Q. Okay. Okay. In your opinion, would granting
10 Black Mountain's applications be in the best interest of
11 conservation, the prevention of waste and the protection
12 of correlative rights?

13 A. Yes.

14 Q. And were Exhibits 7 through 9 prepared by you
15 or at your direction and control?

16 A. They were prepared by me.

17 MR. McMILLAN: Mr. Examiner, I move the
18 admission of Exhibits 7 through 9 at this time.

19 MR. BRUCE: No objection.

20 EXAMINER McMILLAN: Exhibits 7 through 9
21 may now be accepted as part of the record.

22 (Black Mountain Operating, LLC Exhibit
23 Numbers 7 through 9 are offered and
24 admitted into evidence.)

25 MR. BRUCE: I have no questions.

1 EXAMINER McMILLAN: Okay.

2 CROSS-EXAMINATION

3 BY EXAMINER McMILLAN:

4 Q. My question is going back to your cross
5 section.

6 A. Yes, sir.

7 Q. Where is the target?

8 A. The target? That's a good question, sir. And
9 I apologize. We had a little printing error. But if
10 you look at the well on the far right-hand side, over
11 towards A prime, and you look down just above 7,650,
12 subsea, above what's labeled as the Wolfcamp top, it got
13 grayed out, but it says "Offset Horizontal Target." I'm
14 happy to come point it out.

15 Q. Yeah. I see where you are.

16 A. So essentially the target interval is the
17 basal -- at the base of the basal 3rd Bone Spring Sand.
18 I would say we're generally targeting 40 to 50 feet
19 above the Wolfcamp top on average when we do the
20 planning for these wells.

21 EXAMINER BROOKS: Is this on Exhibit 8 or
22 Exhibit 10?

23 THE WITNESS: That would be Exhibit 8, sir.

24 Q. (BY EXAMINER McMILLAN) Is Mitchell Energy kind
25 of the closest well?

1 A. Let me reference that.

2 Q. Second well on the right.

3 A. Well, no, sir. I think the Great Western
4 Onshore State #1 in Section 11 -- the northern part of
5 Section 11, it and the Mitchell Energy Corporation Two
6 State #1 both I think are very germane to what you're
7 asking there.

8 Q. For a more visual reference, if you're looking
9 at the Mitchell Energy Corporation State Two #1, the
10 second well in from the right-hand side on that cross
11 section, just above 11,200 feet measured depth, you see
12 where you have a resistivity decrease? That's usually
13 indicative of the reservoir interval in that basal 3rd
14 Bone Spring Sand, and that's -- right at the base or
15 that gamma ray marker that you see on the left-hand
16 track is generally where we target those.

17 CROSS-EXAMINATION

18 BY EXAMINER JONES:

19 Q. It's the kick-over to the right of the gamma
20 ray?

21 A. May I come show you?

22 Q. Yes. You'll have to talk out loud for the
23 court reporter.

24 A. Yes.

25 So on the Mitchell Energy Corporation Two

1 State #1 well, here just above 11,200 feet measured
2 depth, you see a resistivity decrease (indicating)?
3 There is a correlative gamma ray decrease -- or sorry --
4 increase on the gamma ray in Tract 1.

5 Q. An increase?

6 A. We generally target right there. It serves as
7 a good marker for geosteering.

8 Q. So you're only, what, 20 feet or less above the
9 top of the Wolfcamp?

10 A. Yes, sir.

11 EXAMINER JONES: Did you ask if there were
12 any --

13 EXAMINER McMILLAN: Depth severances?

14 EXAMINER JONES: -- depth severances in the
15 top of the Wolfcamp? We would have to ask that.

16 EXAMINER McMILLAN: Yeah. The landman will
17 have to come back.

18 EXAMINER JONES: We'd have to ask the
19 geologist, and he'd say, That's not my responsibility.

20 MR. McMILLAN: Would you like us to
21 bring --

22 EXAMINER JONES: So let's keep on going
23 here, and we can do that later.

24 Q. (BY EXAMINER JONES) So why this zone?

25 A. It's been targeted by operators throughout this

1 area. Yeah. It's commonly completed and drilled,
2 targeted. GMT actually produces it from their wells
3 immediately to the south and had great results. So --

4 Q. Your net pay amount really pinches -- you've
5 got it really pinching off to the northeast. Is that --
6 so you've got some pretty good control, that the 6
7 percent doesn't exist?

8 A. That's correct. The correlative interval does
9 persist, but it does get tighter. It gets more
10 carbonate in the interval, and you lose your porosity as
11 you go further to the northeast up onto the Antelope
12 Ridge structure.

13 Q. So it's carbonate, but it's not dolomite?

14 A. It's not been dolomitized. There is no
15 secondary porosity that I'm aware of.

16 Q. So just looking at this net pay map, are you
17 still interested in the southwest quarter of 2, even
18 though it looks like you've got a map that -- 35 and the
19 northwest of 2 might be the best; is that correct?

20 A. I'm sorry. Could you restate the question?
21 I'm not quite following.

22 Q. It looks like there is -- your -- it
23 actually -- does that get thicker?

24 A. The pay is getting thicker as you move south.
25 Yes.

1 Q. Okay. Okay. So you're very interested in the
2 southwest of 2 --

3 A. Yes.

4 Q. -- in your well?

5 A. Yes.

6 Q. Of course, this is -- this is the thickness in
7 the whole 3rd Bone Spring, correct?

8 A. That's correct.

9 Q. Okay. Does that correlate with productivity of
10 a well, you think?

11 A. I'm not sure I understand the question.

12 Q. I mean, the 3rd Bone Spring is -- what's the
13 gross thickness of it?

14 A. We believe the entire interval, through proper
15 completion of fracing techniques, you do see a
16 contribution from the entire 3rd Bone Spring Sand
17 system, if that's what you're asking.

18 Q. That's a good answer. Good answer.

19 So basically you get more and more net pay
20 as you go southwest, and if you go too far to the
21 northeast, you're pinching out. At least in your target
22 interval, you're not getting much, but -- but that would
23 be over in Sections 25, anyway -- 26, 25?

24 A. That's correct.

25 Q. So there was a debate earlier about whether you

1 could -- you could propose and drill a well from the
2 midpoint of 35 North. You would do that?

3 A. If I owned the acreage in Section 26 and
4 northwest of 35, absolutely; I would have no objection
5 to doing that. I think my colleague will speak to that
6 a little more on follow-up.

7 Q. Okay. So basically -- but you would still
8 possibly target more Bone Spring intervals uphole?

9 A. Yes. I did not bring exhibits to reflect that
10 fact, but I do think the 2nd Bone Spring Sand is also
11 productive across this interval.

12 Q. Are you familiar with Paul Kautz, our geologist
13 in Hobbs? He's got a thing called the Wolfbone he's
14 talking about.

15 A. Uh-huh.

16 Q. And, you know, it could have been called
17 something else --

18 A. Right.

19 Q. -- but it kind of includes the 3rd Bone Spring
20 and the top.

21 A. Yeah. I'm well familiar with that term.

22 Q. But it's not applicable here?

23 A. No -- I mean, in my personal experience,
24 generally those terms are applied when we are just doing
25 vertical wells, and we would stimulate and commingle

1 multiple zones 3,000 feet. So you -- and that term
2 first came about in the Midland Basin, where we had
3 Wolfcamp and Spraberry, so you heard the term
4 "Wolfberry." So you had 3,000 feet of vertical open
5 hole with ten stages, and you're fracing and
6 commingling. So you weren't producing any one single
7 interval. You were commingling them all. So it began
8 to be known as Wolfberry.

9 And you know how the industry likes to grab
10 jargon and run with it. So they came over here to the
11 Delaware Basin and said, Well, over here, you don't have
12 Spraberry. You've got Bone Spring. So it's Wolfbone
13 over here.

14 Q. So your well is called Grama Ridge?

15 A. Yes.

16 Q. And the other competing well is called Squeeze?

17 A. Somebody else could speak to that better than I
18 could.

19 Q. Yeah. Okay.

20 EXAMINER McMILLAN: We want -- OCD
21 requests --

22 I don't have any more questions.

23 EXAMINER JONES: Well, David might.

24 EXAMINER BROOKS: I just wanted to
25 facetiously suggest that the Wolfberry or the Wolfbone

1 makes it kind of a rough go for the wolf.

2 (Laughter.)

3 EXAMINER JONES: The wolf had a hard time.

4 EXAMINER BROOKS: I have no questions
5 (laughter).

6 EXAMINER JONES: Before we release the
7 geologist, Mr. Bruce, do you have any questions?

8 MR. BRUCE: I don't have any questions for
9 the geologist.

10 EXAMINER JONES: Mr. McMillan, do you have
11 any follow-up?

12 MR. McMILLAN: I don't have any follow-up.

13 EXAMINER McMILLAN: The landman has to come
14 back.

15 MR. McMILLAN: Bring back Robbie Zimmerly.

16 ROBERT "ROBBIE" E. ZIMMERMAN,
17 after having been previously sworn under oath, was
18 recalled, questioned and testified as follows:

19 CROSS-EXAMINATION

20 BY EXAMINER McMILLAN:

21 Q. Are there any depth severances in the Bone
22 Spring?

23 A. No, sir. The Bone Spring --

24 Q. Are there any depth severances in the Wolfcamp?

25 A. There is a depth severance in the southwest

1 quarter of Section 35, and there is from the surface to
2 the Morrow. And geologically, I'm not sure if the
3 Morrow is above or below --

4 Q. Morrow is deeper?

5 A. Yeah.

6 Q. So within the Bone Spring and Wolfcamp?

7 A. All interests would be the same.

8 Q. Identical interests?

9 A. Yes.

10 EXAMINER JONES: In the vertical well but
11 not a compulsory pooled well.

12 We don't have a vertical setback, if
13 anybody wants to talk about that.

14 EXAMINER BROOKS: It doesn't seem like they
15 were going to from the overwhelming enthusiasm.

16 MR. BRUCE: No matter what we do, you're
17 still not --

18 EXAMINER JONES: Thank you very much.

19 EXAMINER McMILLAN: Thank you.

20 MR. McMILLAN: Thanks, Robbie.

21 Okay. Black Mountain calls its third
22 witness, Dr. Michael McCracken.

23 MICHAEL E. MCCRACKEN, Ph.D.,
24 after having been previously sworn under oath, was
25 questioned and testified as follows:

1 DIRECT EXAMINATION

2 BY MR. McMILLAN:

3 Q. Dr. McCracken, would you please state your full
4 name for the record?

5 A. Michael Edward McCracken.

6 Q. And where do you reside?

7 A. I reside in Flower Mound, Texas.

8 Q. By whom are you employed and in what capacity?

9 A. I'm employed by Black Mountain Oil & Gas as a
10 chief operating officer.

11 Q. Have you previously testified before the
12 New Mexico Oil Conservation Division and had your
13 credentials as an expert in petroleum engineering
14 accepted and made matter of record?

15 A. Yes, I have.

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

18 A. Yes, I am.

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

21 A. I am.

22 MR. McMILLAN: At this time, Mr. Examiners,
23 I tender Dr. McCracken as an expert in petroleum
24 engineering.

25 MR. BRUCE: No objection.

1 EXAMINER McMILLAN: So qualified.

2 Q. (BY MR. McMILLAN) Dr. McCracken, could you
3 please give the Hearing Examiners a brief overview of
4 the drilling and completion plans of these wells?

5 A. Yes, I can. So our completion plans for these
6 wells are to drill wells in a north-south orientation
7 starting at the southern end of Section 2 and drilling
8 to the north, halfway through Section 35, pulling long
9 laterals, what we'll call nominally 7,500-foot laterals.

10 Q. Have you developed an exhibit, Exhibit 10, for
11 our reference during this hearing?

12 A. Yes, I have.

13 Q. Okay. Let's take a look at Exhibit 10.
14 Turning to page 1, this appears to be an Executive
15 Summary of your testimony. Can you please summarize
16 what you see here for us?

17 A. Yes, I can. So Black Mountain's development
18 plans, we basically propose deploying long laterals to
19 enhance hydrocarbon recovery and maximize economic
20 benefit. And I mentioned earlier, we want to drill
21 mile-and-a-half laterals versus the standard one-mile
22 lateral because of the many benefits that provides. And
23 it's kind of well-known in the industry about those
24 benefits, and I've highlighted a few here.

25 One -- and I'll show this in further

1 testimony -- there is a nearly linear increase in EUR
2 versus completed lateral length, but the costs are
3 lower, typically, for drilling long laterals because
4 you're not drilling the overburden multiple times as
5 you're doing that development. There is enhanced
6 hydrocarbon recovery because you have less lease line
7 setbacks, and so you're able to delete and produce the
8 reserves that sit inside those setback areas.

9 Additionally, there are benefits for
10 reducing your surface footprint and also having less
11 surface facilities. You kind of look at a larger
12 aggregate plan, so less rights-of-way, less lease roads,
13 less disturbance for ranchers and so forth.

14 We'll talk a little bit that GMT's plans
15 call for drilling nominally one-mile laterals or what
16 we'll call 5,000-foot laterals, and compared to the
17 longer laterals, this is less economically efficient and
18 will lead to the loss of hydrocarbon recovery.

19 There's also been, I guess, for matters of
20 this hearing some concerns expressed by BTA on the
21 ability to develop their acreage, and we'll show here
22 that the Bone Spring section is continuous. Mr. Moore
23 showed that earlier. And we'll show that there are
24 development options for them in their northern acreage.

25 Q. Great.

1 Let's take a look at page 2. Is this an
2 area locator map?

3 A. Yes, it is.

4 Q. Can you orient us using this exhibit?

5 A. I can. This is an area locator map. On the
6 left side is a zoomed-out map that's largely in Lea
7 County. The potash outline is there in red. I've put a
8 square black box around the area of land that we are
9 interested here, and there is a zoom-out of that on the
10 right-hand side of that exhibit.

11 I've circled three comparison areas that
12 I'm going to go through, as I did similarly in previous
13 testimony that I know Mr. Jones, at least, sat in on.
14 The other Examiner may not have participated in that
15 one. And I'll reference back to those areas in the rest
16 of the testimony.

17 In the zoom-out, on the right, that shows
18 Black Mountain's acreage position in this area. We have
19 a pretty consolidated block of acreage. We have already
20 been permitting wells where we own lands that underlie
21 the full length of those laterals, and those are the
22 laterals that you're seeing in the east half of Section
23 2 and the east half of Section 35, where we own enough
24 acreage that we could go two-mile laterals, and then in
25 Section 36 and the south half of 25, where we plan to

1 drill mile-and-a-half laterals.

2 The lands that we're talking about today
3 are in the west half of Section 2 and Section 35, and
4 I've drawn in here the sticks representing our proposed
5 7,500-foot laterals.

6 Q. Those are kind of a darker stick?

7 A. Yes. Those are the darker ones.

8 Q. Since you're talking about Sections 2 and 35,
9 can you describe Black Mountain's acreage position in
10 these two sections?

11 A. Yes. We own approximately 153 acres in the
12 northwest quarter of Section 2 and approximately 135
13 acres in the southwest quarter of Section 35. So that
14 would be about 288 acres out of the two times 240-acre
15 spacing units that we're proposing. So basically 288
16 out of 480 acres.

17 Q. Let's take a look at page 3, which appears to
18 be Black Mountain's development plan. Can you describe
19 what we're looking at here?

20 A. Yes. This diagram shows both an aerial view to
21 the left, and then some people call it a gun-barrel or
22 wine-rack view on the right. So from an aerial sense,
23 since we're talking about Bone Spring development here,
24 we have our proposed development plans in the 2nd and
25 3rd Bone Spring. You can see our proposed surface-hole

1 locations, and then we plan to deploy pad drilling to
2 reduce surface footprint and to develop both the 2nd and
3 3rd Bone Spring. In doing that, kind of the gun-barrel
4 view, with four wells per section, coming across four in
5 the 2nd Bone, four in the 3rd Bone.

6 Additionally, we think that there is
7 Wolfcamp potential on this acreage, but we haven't gone
8 into detail for purposes of this hearing.

9 Q. You mentioned potential development of the
10 Wolfcamp. Any other potential targets for development
11 in these sections?

12 A. I mean, the area has been rapidly growing and
13 potential through time, so I wouldn't want to speculate.
14 But those are the targets that we like right now.

15 Q. Great.

16 And just to be clear, what length of
17 laterals are you proposing to use in Sections 2 and 35?

18 A. Mile-and-a-half laterals.

19 Q. What are the unit configurations to be
20 designated for the wells?

21 A. 240 acres.

22 Q. And the take points are situated in orthodox
23 locations?

24 A. Yes.

25 Q. Have you conducted any sort of engineering

1 investigation to determine whether the drilling of these
2 proposed 7,500-foot laterals is a more efficient way to
3 develop the oil in this area than perhaps a shorter
4 lateral would be?

5 A. Yes, I have.

6 Q. Can you summarize for the Examiners the
7 conclusions you've reached with respect to whether
8 drilling these 7,500-foot laterals on 240-acre units
9 will result in recoveries exceeding those you would
10 anticipate from shorter laterals?

11 A. Yes. We believe that there is evidence -- and
12 I'll go and present that evidence as we proceed here --
13 that the longer laterals allow for more completed
14 lateral length per acre mostly due to the reduction of
15 how many setbacks exist, and that leads to enhanced
16 hydrocarbon recovery versus short laterals.

17 Q. And have you put together exhibits to
18 demonstrate these benefits?

19 A. I have.

20 Q. Okay. Can you walk us through those, please?

21 A. Yes. So if everyone will turn to page 4, this
22 will show an example where there are both short and long
23 laterals and what I call Comparison Area 1. So if you
24 look at that locator map, this is the closest comparison
25 area to the acreage in question, and it's also wells

1 that are completed in the exact same target interval.

2 This is probably the most apples-to-apples comparison we
3 can get using empirical data.

4 What we have here is Concho has drilled the
5 Corazon State unit wells 1H through 9H, four of them
6 being 5,000-foot laterals in Section 10, and then four
7 of them being longer laterals, nominally 7,500 feet, in
8 Section 3. So you have a locator map on the top center
9 page, and at the bottom, there is a table. And all of
10 the cells there that are colored in a light yellow refer
11 to the one-mile-long laterals, and the ones in the green
12 refer to the mile-and-a-half-long laterals.

13 And this is a summary table of looking at,
14 you know, how the completed lateral length was, how much
15 proppant was deployed, how much oil had been produced to
16 date, how much reserves remaining and then from that,
17 calculating a gross EUR.

18 So when you add up the fully developed
19 sections for both of these, you can compare the EUR, you
20 know, barrel oil equivalent basis, and you get a ratio
21 of 1.73. If you compare the lateral lengths, you get a
22 ratio of 1.61. Take the ratio of two of those, you
23 actually see, in this case, that you get a slightly
24 greater than linear scaling, where you're getting a
25 little bit more recovery than even what you would get,

1 you know, on a foot-by-foot basis per completed lateral
2 length. But basically it's very close to being linear.

3 This is a good example because the proppant
4 loading on these wells is also very close, and that's
5 something very important to consider when making these
6 comparisons. And the average pounds per foot for
7 proppant on the one-mile laterals is about 984 pounds
8 per foot. A mile-and-a-half lateral is at 995 pounds
9 per foot. It ends up being a ratio of 1.01.

10 If you go to slide five, this again shows
11 the second comparison area. This is the 2nd Bone
12 Spring. And here we show long laterals that were
13 drilled by Concho, the Gettysburg State, and then there
14 are offset wells that were drilled in the 2nd Bone
15 Spring by Mewbourne and Endurance, Stratocaster and
16 Antelope wells.

17 Similarly, again, you have a summary table
18 at the bottom, and if you look at the BOE, EUR of
19 420,000 barrels versus the long lateral average being
20 592, you get a ratio of 1.41.

21 On the proppant loading, it's not quite
22 linear, so it's a little bit more difficult to make this
23 comparison directly, and the shorter laterals in this
24 instance actually had the higher proppant loading. Your
25 ratio for completed lateral lengths are at 1.72. So in

1 this case, we get a slightly less than linear scaling,
2 but we also don't have equivalent proppant loading. If
3 you additionally adjust it for proppant loading, you
4 would be at about a linear scale.

5 Q. Okay. Moving on to slide six?

6 A. Okay. Slide six is a last -- here we show
7 Avalon wells that were drilled in our Comparison Area 3
8 by EOG. And, again, at the bottom, we have a summary
9 table, where we looked at the one-mile long laterals
10 versus the mile-and-a-half long laterals.

11 And on a BOE basis, we're getting a ratio
12 of 1.99. On the completed lateral length, it's a 1.55.
13 So, again, it's kind of a super linear scaling.

14 The proppant loading in this case is pretty
15 close to being one to one.

16 In general, from a technical standpoint, I
17 wouldn't expect the scaling to be super linear, but the
18 math kind of worked out that way here. But I think the
19 larger thing to take away here is that the EUR is
20 generally scaling linear with the completed lateral
21 length, so you want to get more lateral length to
22 improve your hydrocarbon recovery.

23 Q. Great.

24 Can you -- just jumping ahead --

25 MR. McMILLAN: So everybody knows, we're

1 not going through all 30 pages of these in detail.

2 Q. (BY MR. McMILLAN) Can you just let us know what
3 pages 11 through 33 of your exhibit -- how those relate
4 to what we just went over.

5 A. Yeah. Slides 11 through 33 are basically
6 backup slides that show all the details for how we did
7 our decline curve work for calculating those EURs, and
8 basically just submitting that as kind of evidence that
9 these were all reasonably done and that we didn't play
10 around with these forecasts just to make this fit with
11 what we wanted to say.

12 Q. In the interest of transparency, you might say?

13 A. Yes, sir.

14 Q. Let's look at your slide seven here. Can you
15 tell us what we're seeing here?

16 A. Slide seven is a comparison of what happens in
17 different development plan scenarios. So on the left,
18 we have nominally mile-long lateral development with our
19 standard 330-foot setbacks and then compared to it, kind
20 of in the center of the document, is how development
21 looks with mile-and-a-half-long laterals. And if you
22 notice, between the two, there are less setbacks in a
23 7,500-foot lateral development, which that allows for
24 more completed lateral length, which, as I showed
25 earlier, means also more reserves, which means more

1 money for the State. And we'll go through that math
2 here in a minute.

3 So if you kind of compare the undeveloped
4 acres due to the setbacks for these kind of three miles,
5 in the 5,000-foot laterals, you're looking at about
6 240-acre that get undeveloped, and in the 7,500-foot
7 lateral, you're looking at about 160 acres that are
8 undeveloped. The table to the right makes a comparison
9 of those two. So if you take the 240 acres and subtract
10 the 160, you end up with 80 acres of waste when
11 comparing the two plans, which is about 4.2 percent of
12 the acreage that gets underdeveloped.

13 Using the EURs from the 2nd Bone Spring
14 work that I showed there (indicating), you have about
15 310,000 barrels of oil and about 661 million cubic feet
16 of gas. So if you multiply that 4.2 percent, you end up
17 with 12.9 thousand barrels of oil that are lost -- for a
18 loss and about 28 million cubic feet of gas. Using kind
19 of standard state revenues per severance taxes, 8.13
20 percent on oil and 8.92 on gas, you end up having about
21 \$60,000 of lost revenue per well per zone.

22 And then just for hypothetical reasons here
23 or case, we're looking at up to four prospective
24 intervals. In this case we're talking about two 2nd and
25 3rd Bone and four wells per section. So if you took the

1 difference of these development plans over an entire
2 section, you'd be looking at a million dollar difference
3 for four zones if we just compared the Bone Spring, we
4 cut that in half, we'd be talking about a million
5 dollars difference. And that's just in state revenue
6 alone, let alone what the other working owners are
7 giving up.

8 And I guess the other reason why I think
9 that you can have strong conviction that the acreage is
10 undeveloped in the setbacks is that the industry
11 standard is going to tighter and tighter cluster
12 spacing, and they're seeing better and better results
13 from that. And, you know, everyone is doing probably 35
14 foot less now. I'll stretch and say 50 feet, and 35
15 feet is a lot less than 660 feet. So by not creating
16 fractures in those setbacks, we're not optimally
17 developing it or recovering those reserves.

18 Q. Great. Thank you for that.

19 Let's take a look at the two slides left.
20 Let's look at slide number eight, and tell us what we're
21 looking at.

22 A. Okay. Slide number eight illustrates another
23 way that long laterals help you with increasing your
24 recovery, and this has to do with the economic life of a
25 well. As a well produces, over time, obviously the

1 production declines, and the revenue declines. The
2 biggest obstacle for an operator becomes their fixed
3 cost. They have to pay a pumper. They have to pay a
4 meter fee. And, you know, there are a set number of
5 workovers that kind of end up coming up, and they don't
6 have nothing to do with the production level in the life
7 of a well. So those fixed fees are kind of where you'll
8 break over your cash-flow limit, and you won't, you
9 know, economically produce the well.

10 And so I've put here for illustration
11 purposes two different cash-flow profiles, one for a
12 5,000-foot lateral, another for a 7,500-foot lateral
13 using the -- using type curves that are based upon
14 offset wells. And in the last -- in the last hearing,
15 Mr. Bruce pointed out that we haven't necessarily seen a
16 well that's produced for 50 years yet. And while that
17 may be true, this concept is true no matter if the well
18 ends up being 30 years. But as it declines, eventually
19 you're going to cross over to this point, and the longer
20 lateral is going to -- as developed over more acreage,
21 the type curve sits higher, it will stay cash-flow
22 positive for longer. And when you do that, you
23 basically look at the math. And in this scenario, that
24 7,500-foot lateral produces for six years longer, yields
25 an additional approximately \$22,000 in severance taxes

1 per well.

2 I have to kind of normalize this for the
3 5,000-foot lateral, so I multiply it by two-thirds. So
4 that's about \$1,500 in lost severance tax per well. And
5 if we had -- in this case it was a hypothetical case of
6 21 wells. If you multiply by that, you get \$306,000.
7 In our case, we're looking at four wells, so you're
8 probably looking at about \$60,000 of lost severance tax
9 revenue.

10 Q. Very good.

11 And let's take a look at slide nine and the
12 development plan options and the evolution of Black
13 Mountain's development plan.

14 A. Okay. So slide nine basically kind of shows
15 how our development plans evolved over time and our
16 logic behind what we want to do, as well as the options
17 that would exist for someone in the future. When we
18 originally purchased our acreage, we planned to drill
19 mile-long laterals over the acreage that we own the
20 majority of interest in, and we would have had 90
21 percent working interest. And that would be in that
22 northwest section, Section 2, and the southwest of 35.
23 And that was what was presented to our board at the time
24 of our acquisition when they approved our funding.

25 The wells that are sitting on the west half

1 of Section 11, those two -- well, one is a permit, and
2 one is a well that GMT has actually drilled now.
3 Neither one of those wells existed. We saw that the
4 acreage in the southwest quarter of Section 2 was owned
5 by BF Petroleum. We approached them and met with them
6 in their offices. And they were initially open to doing
7 a deal on that acreage, but it turned out they had
8 already made an agreement with the State for how they
9 were going to plug the well that HPB'd [sic] that and
10 that they said they didn't want to cause any issues with
11 the State and they were just going to plug the well and
12 release the lease back to the State.

13 So that happened. And then we went and
14 nominated it because we saw that, one, we liked the
15 lateral development because it's better for everyone,
16 and, two, we didn't want to leave any acreage stranded.
17 So we nominated that for the state lease sale. We
18 participated in the state lease sale, as Mr. Zimmerman
19 testified. And I guess unfortunately for us, we came in
20 second place, and GMT wound up winning that lease.

21 But our development plan, ever since we
22 were talking with BF Petroleum, was to go ahead and go
23 mile-and-a-half-long laterals because, one, it doesn't
24 strand acreage, and, two, it would -- it's to the
25 economic benefit of everyone just because of the

1 enhanced recovery. And that's our current plan right
2 now.

3 As we mentioned earlier, this leaves
4 options open for BTA and whoever else owns in Section 26
5 to develop their acreage, and they can go ahead and
6 drill mile-and-a-half laterals to the north, and there
7 are no existing horizontal wells or anything that would
8 preclude them from developing that. And as Mr. Moore
9 testified, the 3rd Bone Spring section is contiguous up
10 there and as thick, and so we see no geologic reason for
11 why that development could not go forward.

12 We are willing to and we have always been
13 proponents of long-lateral development, and we would
14 definitely be open to drilling two-mile laterals if
15 someone wanted to do that. I guess just in comparing
16 working interest over these different scenarios, we
17 would have been about 90 percent the original one and
18 about 60 percent in the next one. In the two-mile
19 lateral, we'd be 45 percent, but we would still have the
20 majority interest over any other party, and we think
21 that would make a strong case for us to be the operator.

22 The current plan that's being pushed by GMT
23 and BTA is the only scenario where we would not be
24 operator out here, and in Section -- well, not operator
25 but where our working interest would be less than the

1 other proposed operator. Where they're proposing
2 mile-long laterals in Section 2, our working interest
3 would be 47 percent, and mile-long laterals in 35, where
4 our interest would be 42 percent.

5 So I don't think it's that hard to see
6 what's going on, that basically GMT and BTA are teaming
7 up against us to try to force us out of operatorship, in
8 my opinion.

9 Q. Okay. In light of your very thorough
10 investigation, would developments with 7,500-foot
11 laterals enable Black Mountain to be able to efficiently
12 and economically recover additional incremental reserves
13 that would otherwise go unproduced?

14 A. Yes.

15 Q. And would this result in improved project
16 economics so that premature abandonment could be
17 avoided?

18 A. Yes.

19 Q. What's your understanding of how much reservoir
20 thickness can effectively be stimulated here?

21 A. So there is a lot of discussion in the industry
22 as far as, you know, how much reservoir fracture can
23 effectively stimulate and prop -- and prop, and that
24 gets a little bit to the question that I was asked by
25 the Examiners today about what is the benefit of -- how

1 much benefit is there; how much more valuable is the
2 acreage to the south versus acreage that's to the north?
3 And I don't know if anyone knows the exact number, but,
4 in general, most people in the industry are going to use
5 a rule of thumb of about 200 feet of thickness is what
6 you can kind of count on being stimulated.

7 Q. And is there a typical industry practice for
8 drilling and completing wells where there is a reservoir
9 thickness greater than, say, 250 feet?

10 A. Yes. So, you know, you can see in the Midland
11 Basin and a lot of other plays that when you start to
12 get to very thick sections of rock, that people actually
13 stagger and create two rows of laterals when they get
14 very thick sections of rock, and a lot of times, that
15 break-over point may be about 250 feet.

16 Q. Let's talk about surface disturbance. Will the
17 development of horizontal wells allow Black Mountain to
18 minimize surface disturbance?

19 A. Yes, absolutely. A 7,500-foot lateral will
20 obviously lead to less surface locations, less
21 facilities being built, less rights-of-way, less lease
22 roads, so on, so forth.

23 Q. And you're using pad locations here to further
24 minimize surface disturbance, correct?

25 A. That's correct.

1 Q. And is Black Mountain development's plan
2 disruptive of the predominant development in the area?

3 A. No, it is not.

4 Q. On what date -- are you familiar with the GMT
5 applications filed?

6 A. I am.

7 Q. And have you looked at GMT's well-permitting
8 papers?

9 A. I have.

10 Q. On what date were GMT's wells permitted?

11 A. Let me get my notes out here.

12 So the original permits were October 5th of
13 2016.

14 Q. Were those permits canceled at some point?

15 A. Yes, sir. Canceled on December 9th, 2016.

16 Q. And were those permits -- were those wells
17 re-permitted with new API numbers?

18 A. Yes, they were.

19 Q. On what date?

20 A. April 7th, 2017.

21 Q. And when was the original hearing date in this
22 matter prior to continuance?

23 A. Our originally hearing date was -- let's see.

24 Q. Was it March 30th?

25 A. Yeah, March 30th.

1 Q. And so were these wells -- did GMT re-permit
2 these wells during the pendency of a continuance
3 requested by GMT of these matters?

4 A. It appears so.

5 Q. Also, with respect to those permitting
6 documents --

7 Oh, let's talk about the pool. In what
8 pool is Black Mountain's target interval located?

9 A. We're in the Grama Ridge; Bone Spring,
10 Northeast interval.

11 Q. Does that have an associated pool number?

12 A. It does.

13 Q. What is that?

14 A. 28435.

15 Q. And this is the pool in which Black Mountain
16 permitted its wells?

17 A. Yes.

18 Q. Did Black Mountain contact the OCD Hobbs
19 District Office yesterday to confirm that it had
20 properly permitted its wells in the correct pool?

21 A. Yes, we did.

22 Q. And what were you told?

23 A. We were told that we were in the correct pool.

24 Q. Do you happen to know what pool GMT permitted
25 their wells in Section 2?

1 A. According to the paperwork on the State site,
2 it's the Ojo Chiso; Bone Spring, Number 96553.

3 Q. To your understanding, is that the correct pool
4 designation?

5 A. It's my understanding that is not the correct
6 pool designation.

7 Q. So in your opinion and in your best
8 understanding, are the GMT wells properly permitted?

9 A. It's my understanding they are not properly
10 permitted.

11 Q. Have you examined GMT's development plan for
12 this acreage?

13 A. Yes, I have.

14 Q. And do you have any conclusions in comparing
15 GMT's development plans with Black Mountain's?

16 A. Yes. What we've been talking about here,
17 they're proposing mile-long laterals, which compared to
18 mile-and-a-half-long laterals, two-mile-long laterals,
19 lease to loss reserves due to setbacks.

20 Q. Okay. And have you examined GMT's AFEs?

21 A. Yes, we have.

22 Q. Do you have any conclusions or opinions in
23 comparing GMT's AFEs with Black Mountain's?

24 A. When comparing the two AFEs, if you scale for
25 lateral length, they would be roughly similar but not be

1 slightly cheaper. In general, we would expect the
2 longer lateral to be even at a lower-cost ratio than
3 that. When digging down into the details and scaling up
4 the cost, the scaled-up GMT's costs to our 7,500-foot
5 lateral cost, their completion runs about \$1.7 million
6 less expensive than ours would.

7 Q. Okay. Did you see -- in drilling down to the
8 details, so to speak, of the two AFEs, did you see where
9 that cost difference is reflected? Are there particular
10 line items that seemed grossly disproportionate between
11 the two AFEs?

12 A. Yes. As I mentioned, the biggest difference
13 being in the completion costs. There are some other
14 minor costs in the battery, differences where they may
15 be using less expensive containment systems or something
16 like that that gets them to a slightly lower cost.

17 Q. Okay. And did you find GMT's completion
18 estimates to be realistic?

19 A. We do not believe they're realistic with the
20 current market environments. We've bid out to multiple
21 vendors and all vendors come in a very tight range, and
22 GMT's costs are -- their estimate of completion costs
23 are almost 60 percent of ours, so substantially less.

24 Q. Is it true that Marathon is on the verge of
25 acquiring Black Mountain's interests here?

1 A. Yes, it is.

2 Q. That's public information?

3 A. That is public information.

4 Q. Are you aware of Marathon's drilling plans at
5 this point?

6 A. Yes, I am.

7 Q. Do you have any idea what they're anticipating?

8 A. Yes.

9 MR. BRUCE: I would object. I would
10 object.

11 This is -- Marathon's plans are -- I would
12 first ask the question, in Exhibit 11, Mr. McCracken, is
13 that from Marathon Oil to you?

14 THE WITNESS: Exhibit 11 is Marathon Oil to
15 the public record. This is a slide from their most
16 recent investor release.

17 MR. BRUCE: Okay.

18 Q. (BY MR. McMILLAN) So this Exhibit 11 is public,
19 to be clear?

20 A. Yes.

21 Q. And what does Exhibit 11 reflect?

22 A. Exhibit 11 reflects a slide from Marathon Oil's
23 most recent investor release. And notable here is that
24 they anticipate ramping up their rig count from one rig
25 right now to three rigs by middle of this year.

1 Q. Are there any challenges you can think of to
2 ramping up to that amount of activity so quickly?

3 A. Yes. Locations that are immediately drillable
4 are a concern to Marathon Oil and their ability to ramp
5 up their rig count.

6 Q. And the wells being discussed today would be
7 immediately drillable, essentially, upon appropriate
8 approval?

9 A. Yeah. Upon approval of the compulsory pooling,
10 these locations are immediately drillable.

11 Q. Mr. Zimmerman gave a little preview and talked
12 a little bit about Black Mountain's experience drilling
13 horizontal wells. Just in case something goes sideways
14 with respect to Marathon, let's hear a little bit more
15 about Black Mountain's direct experience drilling
16 horizontal wells.

17 A. Yes. It was testified in the previous hearing
18 on this, even though Black Mountain Oil & Gas is
19 relatively new to New Mexico -- we've just drilled our
20 first well; we're completing it on Monday -- all of our
21 staff are highly versed in horizontal development.

22 Mr. Moore has been involved in hundreds of
23 horizontal well drilling. I worked with Pioneer Natural
24 Resources in developing Eagle Ford assets, and we were
25 running up to 14 rigs at the time. Additionally, I was

1 involved in horizontal drilling with a small company
2 where you have to be fully involved from beginning to
3 end, and we drilled about 30 horizontal wells.

4 And we have staff that's experienced in
5 geosteering, et cetera. So if something happened that
6 Marathon Oil did not close on these assets, we are more
7 than capable to develop them.

8 Q. Great.

9 In your opinion, would granting Black
10 Mountain's applications be in the best interest of
11 conservation, the prevention of waste and the protection
12 of correlative rights?

13 A. Yes.

14 Q. And were Exhibits 10 and 11 prepared either by
15 you or at your direction?

16 A. 10 was prepared at my direction. 11 is a copy
17 of the public record of Marathon.

18 MR. McMILLAN: Move at this time for
19 admission of Exhibits 10 and 11.

20 MR. BRUCE: No objection.

21 EXAMINER McMILLAN: Exhibits 10 and 11 may
22 now be accepted as part of the record.

23 (Black Mountain Operating, LLC Exhibit
24 Numbers 10 and 11 are offered and admitted
25 into evidence.)

1 MR. McMILLAN: I would also move the
2 admission of Exhibit 12, which is my Notice of
3 Affidavit. Attached to the affidavit are a list of
4 working interest owners and offset operators who were
5 sent actual notice of the applications and the hearing.
6 I regret to inform you that we're still waiting for a
7 green slip back from EOG Resources, whom you can see on
8 the second page of the exhibit was served.

9 MR. BRUCE: Welcome to my world,
10 Mr. McMillan.

11 MR. McMILLAN: We sent this to them at two
12 addresses, a P.O. Box and a physical address. As a
13 result, I have to ask this case be continued just for
14 purposes of collecting that green slip and submitting it
15 to the Division.

16 MR. BRUCE: I have no objection to that.

17 EXAMINER McMILLAN: Okay. Cases 15655 and
18 15656 shall be continued.

19 (Black Mountain Operating, LLC Exhibit
20 Number 12 was offered into evidence.)

21 MR. McMILLAN: Thank you. That's
22 everything that I had for this witness and with respect
23 to the exhibits.

24 EXAMINER McMILLAN: Let's take a ten-minute
25 break.

1 EXAMINER BROOKS: Remember that Jim hasn't
2 had a chance to cross-examine this witness.

3 Right?

4 MR. BRUCE: That's fine.

5 EXAMINER BROOKS: Jim will be at bat when
6 we come back.

7 EXAMINER McMILLAN: Yes.

8 (Recess, 2:44 p.m. to 3:05 p.m.)

9 EXAMINER McMILLAN: I'll call back to order
10 Case 15655 and Case Number 15656.

11 And I believe Mr. Bruce has questions.

12 MR. BRUCE: Yeah. Not too many, actually.

13 CROSS-EXAMINATION

14 BY MR. BRUCE:

15 Q. Mr. McCracken, you did a decline curve analysis
16 for this, right?

17 A. Yes, we did.

18 Q. And I think you'll agree that -- the prior
19 hearing that's been referred to, you'd agree that
20 decline curves -- that's really not an exact science.
21 There is a little --

22 A. Yes. If you gave five engineers the same set
23 of data, you would get -- you would get a range of
24 answers. But I think in the last -- I testified they
25 wouldn't change wildly, but they're not going to be

1 exact.

2 Q. And look at page 5 of your Exhibit 10. And
3 this goes for the other comments that, you know -- on
4 page 8, you project the wells out 50 years, and you
5 recognize there is no horizontal 50-year well in
6 New Mexico yet; and I hope I don't live to see one
7 (laughter). But looking at your page 5, one of the
8 wells you pull out for a mile lateral is -- I think
9 that's the Mewbourne Antelope well?

10 A. Yes, sir.

11 Q. And that's not quite two years old. And with
12 gross remaining reserves, for instance, it looks like,
13 from what you're projecting there, that well is only
14 going to last maybe six years?

15 A. Right. Yeah. I believe we talked about this
16 one at the last hearing also, and it has a fairly steep
17 decline, which is why the forecast ended up --

18 Q. So depending on the location of the wells,
19 there could be quite a variance in productivity?

20 A. Yeah. There is a wide range of reasons why
21 productivity can vary: Operational, mechanical,
22 reserves, artificial lift.

23 MR. BRUCE: I think that's all I have,
24 Mr. Examiner.

25 EXAMINER BROOKS: We should have done that

1 before the break.

2 (Laughter.)

3 EXAMINER JONES: Do you want me to start?

4 EXAMINER McMILLAN: Uh-huh.

5 EXAMINER JONES: I don't have a lot.

6 CROSS-EXAMINATION

7 BY EXAMINER JONES:

8 Q. First of all -- I probably asked this before --
9 how do you -- how would you predict the workout [sic]
10 here without -- I know you can do the escalating costs
11 versus declining revenue, but what usually results in
12 the end of these wells? Is it water loading or -- or --

13 A. Yeah. I mean, if you really -- I mean, it's
14 quite varied. I mean -- so if you have a dry gas well,
15 you're not going to have a water-loading issue.

16 You know, on a conventional formation,
17 sometimes you might get water encroachment, which, you
18 know, would just be -- well the water out, unless your
19 artificial lift mechanism wasn't sufficient for it, then
20 you won't pay for the next artificial lift mechanism
21 because it's too expensive. In these conventional
22 wells, what we have seen is -- we haven't seen water-oil
23 ratios kind of increasing over time, so it's going to be
24 more about can you -- how long are you willing to
25 tolerate the cost of the artificial lift mechanism that

1 you have in place.

2 Q. Okay. That was just a critical question,
3 actually.

4 But I see your argument on the setbacks.
5 And are you saying they're putting some of these fracs
6 as close as 50 feet?

7 A. Oh, yeah, even closer, down to 20 feet, what
8 we'll call cluster spacing, which is the distance
9 between the sets of perfs. And no one has a video
10 camera to tell exactly how many fractures are made, but
11 the idea is that one -- one fracture is initiated for
12 every cluster, is the conceptual idea.

13 Q. Yeah. Okay. So when you start getting them so
14 close together, do you see some drop-off on your net
15 pressure plots? In other words, you start seeing
16 some --

17 A. Yeah. Some call it stress shadowing. I'm not
18 an expert in it, but if you get too close together, you
19 can start to have those problems. Everything I've heard
20 would just be hearsay to you guys, but I can tell you
21 what I've heard. But, in general, people have not
22 complained [sic] about all the way down to 20 feet.

23 Q. Okay. But the bottom line is it seems like the
24 330-foot setbacks is a bit -- well, almost just a land
25 issue, where one person drills 330 from the line, the

1 other person drills 330 from the line, but you both end
2 up leaving reserves in the ground.

3 A. I agree. I mean -- yeah. Several of these
4 hearings -- I mean, if the NMOCD ever, at some point in
5 time, were to consider reducing the setbacks, you'd see
6 me here, you know, being a proponent for that.

7 Q. Okay. Then the State Land Office, they --
8 they -- obviously, they're the ones that make the money
9 for the schoolkids, you know, and so -- but they're --
10 you didn't make a case to them for this? They didn't
11 show up here, obviously.

12 A. Oh, for this one? No. I mean, we participate
13 in NMOGA, and NMOGA's been involved in trying to get
14 some rules set where the setbacks could get reduced.
15 And I think right now there is a proposal to get it down
16 to 100-foot setback, if I'm remembering correctly.

17 Q. 100 feet from the toe -- the toe and the heel?

18 A. Yeah. Yeah, which would be correct. You still
19 would need the -- you still need the 330 setback from
20 the -- you know, parallel with the wellbore, but your
21 frac are going outward.

22 Q. Okay. Okay. I believe that -- so -- but you
23 don't want to join their well, and they don't want to
24 join your well. And if you joined a well that they
25 proposed for a mile and a half, would that be a

1 preferable situation, or you would rather operate the
2 well?

3 A. Yeah. Obviously, we would rather operate and
4 be able to control -- control and fracture how we see
5 fit. But yeah. I mean, I think the worst-case scenario
6 is that we all live in a world of 5,000-foot laterals.
7 I mean, that just doesn't benefit anyone. So yeah. I
8 mean, I guess it would be a scenario where we'd have a
9 mile-and-a-half lateral and we had the majority working
10 interest and we're not the operator. That doesn't
11 really quite seem right, but we would prefer that than
12 not being the operator of a 5,000-foot lateral.

13 Q. Okay. Thank you very much.

14 EXAMINER JONES: Mr. Brooks?

15 EXAMINER BROOKS: Yeah.

16 CROSS-EXAMINATION

17 BY EXAMINER BROOKS:

18 Q. You're proposing -- right now we're dealing
19 only with the wells in -- in the west half of Section 2
20 and the southwest quarter of Section 35; is that
21 correct?

22 A. That's correct.

23 Q. But you're also proposing mile-and-a-half
24 laterals in the -- in the east half of 2 and the --

25 A. Those are two-mile laterals.

1 Q. Two-mile laterals.

2 A. So we own interest in the full set.

3 Q. You own interest in the entire project area
4 over there?

5 A. Right. Yes.

6 Q. Okay. Now, the problem you've got -- wait.
7 Which -- which section is it where BHP [sic] owns? Is
8 that the southwest quarter of 2?

9 A. Northwest of 35.

10 Q. Northwest of 35.

11 Okay. So they don't own -- they don't own
12 anything in --

13 EXAMINER JONES: Is that BTA or is it --

14 THE WITNESS: Yeah. BTA owns -- yeah. My
15 understanding is that BTA owns in the northwest of 35
16 and GMT owns in the southwest of Section 2.

17 EXAMINER BROOKS: And who is the other
18 party here? BTA, I know about. But I was thinking --

19 MR. McMILLAN: Devon is here as well.

20 EXAMINER BROOKS: Yeah, but there is -- who
21 is the person who is proposing the alternative proposal?

22 THE WITNESS: GMT.

23 EXAMINER BROOKS: I'm sorry?

24 EXAMINER JONES: GMT.

25 THE WITNESS: GMT.

1 EXAMINER BROOKS: GMT?

2 THE WITNESS: T, as in Tom.

3 Q. (BY EXAMINER BROOKS) Okay. So GMT owns the --
4 owns what? Where is their acreage?

5 A. They're in the southwest quarter of Section 2.

6 Q. They're in the southwest quarter of Section 2.
7 Okay. You're on both sides of them? You're in the
8 north -- you're in the -- they're -- no, wait. They're
9 in the southwest quarter of Section 2, so you propose --
10 you own the northwest -- in the northwest quarter of 2
11 and the southwest quarter of 35?

12 A. Northwest of 2, yes.

13 Q. And what you want to do is drill the west half
14 of 2 and the northwest of -- and the southwest of 35?

15 A. Yes, sir.

16 Q. And GMT, what they want to do is drill the
17 northwest -- wait. You said they own the northwest
18 quarter of 2, right?

19 A. Southwest.

20 Q. Southwest quarter of 2.

21 I'm trying to get this -- I'm getting
22 confused here because -- it might help if I had my
23 glasses on and I could see the section numbers.

24 Okay. There are existing wells owned by
25 other parties down in Section 11, right?

1 A. Yes, by GMT.

2 Q. Okay. And BTA owns in the northwest quarter of
3 35?

4 A. Yes.

5 MR. McMILLAN: Uh-huh.

6 Q. (BY EXAMINER BROOKS) Okay. So the reason you
7 want to drill there is that you want to get a
8 three-quarter mile -- or a mile-and-a-half lateral
9 rather than a one-mile lateral because you could drill a
10 one-mile lateral entirely on your own land?

11 A. Well, we could have drilled a one-mile lateral
12 on our own land and proposed that, but that makes no
13 sense because it leaves stranded acreage to the south.
14 Plus, it's a short lateral development, so --

15 Q. Yeah. And even if somebody else gets all the
16 additional -- has all the additional interest, it's
17 still to your interest to drill mile-and-a-half laterals
18 because you can get greater efficiency; is that correct?

19 A. That's correct.

20 Q. And that's the argument that I heard day before
21 yesterday, and I hadn't really thought it through that
22 way. So that's -- that's the reason you want to drill
23 the mile-and-a-half. I understand that we don't like
24 stranded acreage, but at the same time, the acreage
25 you'd be stranding wouldn't be -- wouldn't be yours. So

1 your loss would be not the stranded acreage, but the
2 fact that you would be drilling a shorter lateral and,
3 therefore, your recovery per foot would be less. Is
4 that --

5 A. Right. Recovery -- yeah. And then also think
6 about your cost per completed lateral foot because --

7 Q. Yeah, that's it.

8 A. -- you're -- multiple times --

9 Q. Your net -- your recovery --

10 A. Yeah.

11 Q. -- per foot. Probably not your gross. Your
12 gross would probably be the same, but your net would
13 be -- your net would be greater because your cost would
14 be less. I mean, you're the engineer. You tell me.
15 But I don't see why your gross per foot would be any
16 more -- would be any more.

17 A. No, no. Wait. What I'm saying is that because
18 of the offset's issue, you get more completed lateral
19 length, so you get more reserves, so you recover more.
20 But at the same time, because you're only drilling the
21 vertical section --

22 Q. Yes.

23 A. -- like, if you think about developing a large
24 area, right, many, many sections together --

25 Q. Yeah.

1 A. -- the number of times I'm drilling the
2 vertical section is much less. So the well cost -- the
3 cost of the well -- so you have two components.

4 Q. Yes.

5 A. You have the recovery of the well and the cost
6 of the well. There are benefits on both sides.

7 Q. So you're better off to have two-thirds of a
8 mile-and-a-half well than you are to have all of a
9 one-mile?

10 A. Absolutely. Yes. Yeah, not just us, but any
11 working interest party, in our opinion.

12 Q. That's what I wanted to understand. Thank you.

13 EXAMINER BROOKS: I'm through.

14 MR. BRUCE: No questions.

15 EXAMINER BROOKS: The witness may be
16 excused.

17 EXAMINER JONES: We've got the whole other
18 two parties.

19 Is that it.

20 MR. McMILLAN: That's all for our case.

21 EXAMINER BROOKS: Now, are we going to --
22 are we going to --

23 Mr. Bruce, are you going to --

24 MR. BRUCE: Yes. I've got three witnesses.

25 EXAMINER BROOKS: Do you want to present a

1 defense in their cases and then present your own
2 cases --

3 MR. BRUCE: No. I think it's just --

4 EXAMINER BROOKS: -- or do you want to
5 present that at the same time?

6 MR. BRUCE: At the same time.

7 EXAMINER BROOKS: We did not say at the
8 beginning of this that all four cases were consolidated
9 for purpose of hearing. It sounds to me like that would
10 be the most efficient way to do it.

11 MR. BRUCE: That's fine. I doubt an order
12 is coming out in the next two weeks.

13 (Laughter.)

14 EXAMINER McMILLAN: I'm doing this one.
15 I've got to have all the --

16 EXAMINER JONES: You only need two weeks to
17 get that?

18 MR. McMILLAN: I would hope so.

19 EXAMINER JONES: They were here this
20 morning.

21 MR. McMILLAN: Yeah. I should have
22 mentioned something to them.

23 We mailed those out a while ago. I
24 expected to see those by now, to see the green cards by
25 now.

1 EXAMINER BROOKS: Okay. Mr. Chairman, is
2 that consistent with what you think appropriate to do?
3 Go ahead and let Mr. Bruce present responsive testimony
4 on the --

5 MR. BRUCE: It's all part and parcel of the
6 same thing.

7 EXAMINER BROOKS: That was my
8 understanding. Let's go ahead and treat all four cases
9 as consolidated for purposes of hearing, and we'll let
10 Mr. Bruce proceed with his case. That will prevent
11 waste and protect correlative rights.

12 EXAMINER McMILLAN: The only comment I want
13 to make is that the field -- field rules will be
14 determined by the Hobbs District Office with a formal
15 email to all affected parties.

16 EXAMINER BROOKS: You mean the pool
17 assignment?

18 EXAMINER McMILLAN: Yeah, the pool
19 assignment, because it's overlapping pools. And that
20 will be determined -- the Hobbs District Office will
21 determine the pool designation, and he will supply an
22 email to all affected parties. And once that email is
23 received, that will be -- that will determine the pool
24 designation. That's the only thing that will determine
25 the pool designation at this point.

1 EXAMINER BROOKS: Paul Kautz rules.

2 EXAMINER McMILLAN: Yes.

3 HANS SCHUSTER,

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

6 DIRECT EXAMINATION

7 BY MR. BRUCE:

8 Q. Would you please state your name and city of
9 residence for the record?

10 A. My name is Hans Schuster, and I live in Denver,
11 Colorado.

12 Q. Who do you work for and in what capacity?

13 A. I work with GMT Exploration Company, LLC as a
14 landman.

15 Q. Have you previously testified before the
16 Division?

17 A. No, I have not.

18 Q. Could you summarize your educational and
19 employment background for the Examiner?

20 A. I received my bachelor's degree in business
21 administration from Western State College in Colorado in
22 2007. I then left and returned to Western State in
23 January 2009, received a second degree in professional
24 land and resource management.

25 I've been employed by GMT Exploration

1 Company as a petroleum landman for two-and-a-half years.
2 Prior to my employment with GMT, I worked with Noble
3 Energy, Inc. for five years, and prior to Noble Energy,
4 I worked as an independent landman for two years. And
5 I'm also a certified professional landman through the
6 American Association of Petroleum Landmen.

7 Q. And at GMT, does your area of responsibility
8 include this portion of southeastern New Mexico?

9 A. It does.

10 Q. And are you familiar with the land matters
11 involved in the applications?

12 A. I am.

13 MR. BRUCE: Mr. Examiner, I tender
14 Mr. Schuster as an expert petroleum landman.

15 MR. McMILLAN: No objection.

16 EXAMINER McMILLAN: So qualified.

17 Q. (BY MR. BRUCE) Mr. Schuster, could you identify
18 Exhibit 1 for the Examiner and describe the well units
19 that GMT proposes?

20 A. Exhibit 1 is a Midland Map with two proposed
21 project areas, one being for the Pucker Rapid State Com
22 1H project area, which covers the west half of the west
23 half of Section 2. The second is for the Squeeze State
24 Com 1H project area, which covers the east half of the
25 west half of Section 2, both in 22 South, 34 East, Lea

1 County, New Mexico.

2 Q. And just to clarify what Mr. Brooks was asking,
3 Black Mountain's well proposals go from the south up
4 into the southwest quarter of Section 35?

5 A. Correct.

6 Q. Okay. And in the wells, you are seeking to
7 force pool the Bone Spring Formation?

8 A. That's correct.

9 Q. And what will be the target zone for GMT's
10 wells?

11 A. 2nd Bone Spring.

12 Q. Okay. Could you identify -- before we move on,
13 is there only one entity seeking to force pool in both
14 cases?

15 A. No. Just Black Mountain.

16 Q. That's what I mean. There is just one entity,
17 Black Mountain?

18 A. Correct.

19 Q. Okay. Could you identify Exhibit 2 for the
20 Examiners?

21 A. Exhibit 2 is the well proposal delivered to
22 Black Mountain. It's dated December 19th, 2016 for the
23 Pucker Rapid State in the west half-west half of Section
24 2.

25 Q. And if you run through that after the well

1 proposal -- and it does have the -- well, we'll get
2 through this in a minute.

3 It does have the AFE for the Pucker Rapid
4 State well. What is the completed well costs on that?

5 A. The total costs or the completion costs?

6 Q. Just the total cost of the proposed well.

7 A. It's 5.943 million.

8 Q. And does the well proposal also contain a
9 drilling prognosis and a C-102 for the Pucker Rapid
10 well?

11 A. It does. Yes, it does.

12 Q. Okay. And looking at it, will the producing
13 interval of the well be orthodox?

14 A. It will.

15 Q. And what is Exhibit 3?

16 A. It's a Form C-102 for the Pucker Rapid State
17 Com 1H.

18 Q. And that is an approved APD?

19 A. Correct.

20 Q. Now, looking at the additional well formation,
21 it says "3rd Bone Spring Sand," but you're actually
22 going after the 2nd?

23 A. Correct.

24 Q. And has an amendment been filed with the
25 Division?

1 A. It has. We filed a sundry a few days ago.

2 Q. What is Exhibit 4?

3 A. Exhibit 4 is the well proposal we delivered to
4 Black Mountain, dated December 19th, 2016. It's for the
5 Squeeze.

6 Q. Yeah. Number 4, do you have --

7 A. Squeeze State, correct, in the east half of the
8 west half of Section 2.

9 Q. And similarly, there is an AFE for the well,
10 and what is the estimated total cost of that well?

11 A. It's also 5.943 million.

12 Q. And, again, it contains the drilling prognosis,
13 as well as the C-102 for the well?

14 A. It does.

15 Q. And will the producing interval of the proposed
16 well have orthodox setbacks?

17 A. It will.

18 Q. What is Exhibit 5?

19 A. Exhibit 5 is an approved Form C-101 for the
20 Squeeze State Com 1H.

21 Q. And, again, that says "3rd Bone Spring," but
22 it's going to be a 2nd Bone Spring well?

23 A. Correct. It's the same circumstance as the
24 Pucker.

25 Q. And so a sundry notice has been filed?

1 A. Correct.

2 Q. Before we move on to the next exhibits, in your
3 opinion, is the estimated cost of the proposed wells
4 fair and reasonable and in line with the cost of other
5 similar wells drilled in this area of Lea County?

6 A. I believe so.

7 Q. When you -- and we'll get to this, the notice,
8 later on in the hearing.

9 But I originally notified Devon Energy
10 Production Company of this pooling hearing. You are not
11 seeking to force pool Devon, are you?

12 A. No, sir.

13 Q. Has GMT acquired Devon's interest?

14 A. We have.

15 Q. And their interest is located solely in the
16 northwest quarter of Section 2?

17 A. As it pertains to our deal, yes.

18 Q. Now, even though it's not attached, did you
19 submit a JOA -- two separate JOAs for each well with
20 your proposal letters in December of 2016?

21 A. I did.

22 Q. Did you hear Black Mountain's testimony that
23 some of the exhibits to the JOA were missing?

24 A. I did.

25 Q. Were most of those submitted to Black Mountain?

1 A. They were. I have a copy with me if we need
2 it.

3 Q. And do you agree with Black Mountain's landman
4 that there is no depth severance in the Bone Spring
5 Formation?

6 A. I do.

7 Q. And the land is all the State of New Mexico
8 land --

9 A. It is.

10 Q. -- State of New Mexico minerals?

11 A. Correct.

12 Q. When did GMT acquire its interest in the
13 southwest quarter?

14 A. September of 2016.

15 Q. Did -- promptly after that, did GMT begin
16 looking at getting out well proposals --

17 A. As soon as possible.

18 Q. -- for these wells?

19 And GMT is already in this general area; is
20 it not?

21 A. Correct. Yes.

22 Q. So it had already been studying the geology in
23 this area?

24 A. Yeah, for ten years.

25 Q. And our next witness can verify that?

1 A. Correct.

2 Q. Now, although the proposal letters are dated
3 mid-December 2016 -- we didn't include them as an
4 exhibit -- but did GMT send out an earlier letter to
5 Black Mountain regarding the drilling of these two
6 wells?

7 A. We did. It was regarding a notice of intent to
8 drill.

9 Q. And it wasn't strictly a well proposal?

10 A. No. It was -- we considered it a courtesy
11 letter of, you know: Hey, we're here; we plan on
12 drilling a well; we'll contact you with further notice.

13 Q. And after they received that well -- that
14 notice of intent, did you get a letter back from them?

15 A. Yes. We received a letter from their attorney
16 requesting that we pull the permits that we had filed
17 and included in the notice letter, which we did.

18 Q. And GMT did cancel those permits because at
19 that point you did not own an interest in the northwest
20 quarter of Section 2?

21 A. That's correct, as soon as reasonably possible.

22 Q. Now you do, and so you refiled the permits?

23 A. Correct.

24 Q. Looking at Exhibit 16 -- Exhibit 6 and --
25 really Exhibits 6 and 8. After you sent out your

1 notice -- not notice letters, but your letters of intent
2 to Black Mountain, did you receive from them Exhibits 6
3 and 8.

4 A. We did, about a month later.

5 Q. And are these letters virtually identical,
6 other than the well names, to the letters that you sent
7 them?

8 A. They are.

9 Q. And then you sent out your proposal letters in
10 mid-December to them. Did you then receive Exhibits 7
11 and 9 from them?

12 A. We did.

13 Q. So when you sent out a letter, they reacted and
14 sent you a letter?

15 A. So I believe the signed green cards for the
16 well proposals that we delivered to Black Mountain dated
17 December 19th were received by Black Mountain on the
18 22nd of December, and we received these when we got back
19 from Christmas break.

20 Q. And do you agree that the interest you're
21 seeking to pool with Black Mountain would be just
22 roughly 47 percent or so of the proposed well unit?

23 A. I do.

24 Q. And Black Mountain has not signed your JOA or
25 AFE -- JOAs or AFEs, correct?

1 A. No, sir.

2 Q. In your opinion, do you believe you made a
3 good-faith effort to obtain the voluntary joinder of
4 Black Mountain in this well -- in these wells?

5 A. In my opinion, I do.

6 Q. But operations are a sticking point, are they
7 not, for both companies?

8 A. Correct.

9 Q. And you do request that the Division appoint
10 GMT Exploration Company as operator of the wells?

11 A. We do.

12 Q. Now, what overhead rates did you propose in
13 your JOA?

14 A. 8,000 for drilling and 800 for producing.

15 Q. And is that what you request in this hearing?

16 A. I do.

17 Q. And can our engineer discuss that also?

18 A. Yes.

19 Q. But if the Division decided on another rate,
20 would that be acceptable to GMT?

21 A. It will be.

22 Q. Was Black Mountain notified of these
23 applications?

24 A. They were.

25 Q. And is that reflected in my Notice of Affidavit

1 marked as Exhibit 10?

2 A. It is.

3 MR. BRUCE: Mr. Examiner, if you look at
4 this, just as you're going through it, there are several
5 letters, two letters to Black Mountain. They also went
6 to Devon Energy, but Devon Energy is not being force
7 pooled. Also, from a case last year, the Commissioners
8 requested Public Lands -- they have requested they be
9 notified of pooling hearings affecting their state
10 lands, so I did send notice to Ed Martin at the
11 Commissioner of Public Lands, and that is reflected in
12 here, too.

13 EXAMINER JONES: Do you know that order
14 number they gave that?

15 MR. BRUCE: I will email it to you and to
16 Mr. McMillan. It was actually a Commission order,
17 Commission hearing.

18 Q. (BY MR. BRUCE) Let's move to the offsets. Did
19 you cause records to be searched regarding offsets, your
20 proposed wells?

21 A. We did.

22 Q. And for the most part -- and is that
23 reflected -- the plan plats and the persons notified
24 reflected in Exhibit 11?

25 A. It is.

1 Q. Now, there are several operated properties
2 around there, so you didn't notify the working interest
3 owners. You just notified the operators; is that
4 correct?

5 A. Correct.

6 Q. Just like Burgundy in the east half of Section
7 2, et cetera?

8 A. Correct.

9 Q. And was notice given to those parties?

10 A. It was.

11 MR. BRUCE: And, Mr. Examiner, Exhibit 12
12 is my Affidavit of Notice. Two letters were returned.
13 And one letter I sent, I just never got anything back.

14 But Exhibit 13 is an Affidavit of
15 Publication in the Carlsbad newspaper to offsets only.
16 And each of the three offsets who did not get actual
17 notice have been notified by publication.

18 EXAMINER JONES: You meant to say "Hobbs
19 News-Sun," didn't you, for the notice? You said
20 Carlsbad, but it looks like you sent it to Hobbs.

21 MR. BRUCE: Yeah. This is the "Hobbs
22 News-Sun," yeah. I have made that mistake before,
23 however.

24 Q. (BY MR. BRUCE) Final question on these
25 exhibits, Mr. Schuster. Before today, had you ever

1 spoken with BTA about GMT's well proposals and the well
2 proposals for the proposed wells that BTA has?

3 A. No, sir.

4 Q. So you haven't been colluding with them?

5 A. No. I actually met him for the first time
6 today.

7 Q. Just very briefly, Mr. Schuster, two final
8 exhibits. What is Exhibit 14?

9 A. It's a plat of a proposed gas processing
10 facility site.

11 Q. Does this also show the drilling pads two GMT
12 wells?

13 A. It does.

14 Q. And from what you've looked at, would the drill
15 sites for the two Black Mountain wells be located
16 between them?

17 A. It would be.

18 Q. And what is that crosshatched blue area between
19 GMT's well sites?

20 A. It's the 3Bear Energy proposed gas processing
21 facility site.

22 Q. And 3Bears plans on building a gas processing
23 facility there?

24 A. That's what they've explained to us.

25 Q. And if that's the case, that surface might not

1 be available for drilling wells?

2 A. They have expressed they have a deal with the
3 landowner to move forward, but I'm not expressly aware
4 of any agreement.

5 Q. Does GMT have a surface-use agreement under the
6 Surface Owners Protection Act with the landowner of its
7 two drill sites?

8 A. We do.

9 Q. And is that reflected in Exhibit 15?

10 A. It is.

11 Q. And is Merchant Livestock Company the owner of
12 the surface in the west half of Section 2?

13 A. They are.

14 Q. Were Exhibits -- let me get the right exhibit
15 numbers. Were Exhibits 1 through 9 and 14 and 15
16 prepared by you or under your supervision or compiled
17 from company business records?

18 A. They were.

19 Q. As was Exhibit 11, I believe, the buffer plat?

20 A. Correct.

21 MR. BRUCE: And, Mr. Examiner, of course,
22 Exhibits 10 and 12 are my Affidavit of Notice, and
23 Exhibit 13 is the Affidavit of Publication. And I would
24 move the admission of Exhibits 1 through 15.

25 MR. McMILLAN: No objection.

1 EXAMINER McMILLAN: Exhibits 1 through 15
2 may now be accepted as part of the record.

3 (GMT Exploration Company, LLC Exhibit
4 Numbers 1 through 15 are offered and
5 admitted into evidence.)

6 Q. (BY MR. BRUCE) One final question,
7 Mr. Schuster. Is the granting of GMT's application and
8 the denial of Black Mountain's applications in the
9 interest of conservation and the prevention of waste?

10 A. Yes.

11 MR. BRUCE: Pass the witness.

12 EXAMINER McMILLAN: You may proceed.

13 MR. McMILLAN: Couple of questions.

14 CROSS-EXAMINATION

15 BY MR. McMILLAN:

16 Q. With respect to the permitting of these wells,
17 I think you testified that prior to canceling the
18 permits, you did not have ownership in the northwest
19 quarter of Section 2; is that correct?

20 A. Correct.

21 Q. Can you clarify for me how you acquired
22 interests in the northwest quarter of Section 2 and when
23 that happened?

24 A. We have an agreement with Devon for a farm-out
25 in the northwest quarter.

1 Q. What was the date of that farm-out?

2 A. It's routed for approval right now.

3 Q. It's out for approval?

4 A. I mean, it's -- yes. It's in their approval
5 process right now.

6 Q. But it hasn't been fully approved? You don't
7 have a signed copy of a farm-out agreement?

8 A. Not with me, no.

9 Q. Does one exist?

10 A. I think so, yes.

11 Q. Even though it's still in the approval process?

12 A. Correct.

13 Q. Okay. So initially, were these -- these wells
14 were permitted for the 3rd Bone Spring, correct?

15 A. Correct.

16 Q. Why the change to the 2nd Bone Spring?

17 A. I'm not sure. That's from our geologist.

18 Q. Okay. We'll save that for him.

19 I'm recalling some testimony as to
20 Burgundy's ownership in Section 2. Did your research
21 indicate that Burgundy has some ownership in Section 2?

22 A. No.

23 Q. No? Okay.

24 A. I believe Black Mountain acquired Burgundy, and
25 that's where their interest went.

1 MR. McMILLAN: That's all I have for this
2 witness.

3 EXAMINER McMILLAN: Go ahead and start.

4 CROSS-EXAMINATION

5 BY EXAMINER BROOKS:

6 Q. Well, my understanding is, from a land
7 perspective, your testimony did not conflict with any of
8 the evidence that was presented by Black Mountain, is
9 that correct, in terms of the ownership?

10 A. Correct.

11 Q. In other words, GMT owns the -- owns the
12 northwest quarter of Section 2?

13 A. Southwest.

14 Q. Southwest quarter of Section 2. I keep getting
15 that mixed up. Owns the southwest quarter of Section 2.
16 Owns no interest in the northwest of Section 2?

17 A. Correct. Actually, we own the Devon piece.

18 Q. You own an interest you acquired from Devon?

19 A. A farm-out with Devon, yes.

20 Q. And how much is that?

21 A. It's about 3 percent in the project area.

22 Q. Okay. So you would own, then, about 48 percent
23 in your proposed project area?

24 A. About 53 percent.

25 Q. 53 percent. I'm sorry. You'd own about 53

1 percent in your proposed project area, and you would own
2 maybe 30-something -- 36 percent or something in Black
3 Mountain's proposed project area?

4 A. That sounds correct.

5 Q. Okay. Now, you didn't testify concerning
6 operating experience, right?

7 A. No, sir.

8 Q. And you didn't offer any testimony
9 concerning -- concerning generation of this prospect,
10 right?

11 A. I'm not sure I understand your question.

12 Q. Well, one of the issues that we've been
13 directed by past Commission orders to consider is which
14 party, if either one of them, generated this prospect
15 for development. And you didn't offer any testimony on
16 that?

17 A. We've owned a leasehold in and throughout this
18 area for -- I think since 2007, so the whole area is our
19 prospect.

20 Q. Okay. But I assume there is probably going to
21 be some other witness that's going to offer more
22 testimony on that subject?

23 EXAMINER BROOKS: Would that be correct,
24 Mr. Bruce?

25 MR. BRUCE: Correct.

1 EXAMINER BROOKS: I think that's all I have
2 at the moment.

3 Q. (BY EXAMINER BROOKS) Oh, well, there aren't any
4 other -- there aren't any other working interest owners
5 that are not parties here other than -- other than
6 Devon, whose interest you've acquired, right?

7 A. Correct.

8 EXAMINER BROOKS: Now, you said you
9 appeared on behalf of Devon?

10 MR. BRUCE: That is correct.

11 EXAMINER BROOKS: Do you disagree with the
12 proposition that they have --

13 MR. BRUCE: No. Devon requested me to
14 enter an appearance in this case and support GMT.

15 EXAMINER BROOKS: Okay. Very good. I have
16 nothing further.

17 CROSS-EXAMINATION

18 BY EXAMINER McMILLAN:

19 Q. There are no unlocatable interests?

20 A. No, sir.

21 EXAMINER McMILLAN: Do you have anything?

22 EXAMINER JONES: Yeah.

23 CROSS-EXAMINATION

24 BY EXAMINER JONES:

25 Q. So that lease was -- just in the southwest of 2

1 was -- that was a closed-bid lease?

2 A. It was -- yes. It was a closed-bid lease.

3 Q. They opened the envelope and --

4 A. Yup.

5 Q. -- you got it, and they didn't get it?

6 A. We were actually surprised we did get it.

7 Q. That 3Bear site -- so you basically have that
8 state lease. It's a brand-new state lease. And if
9 Black Mountain wants to drill -- put a well on there --
10 a well site on there to drill, I guess if they have you
11 compulsory pooled, the State Land Office would let them
12 go ahead and do a lease without a commercial --

13 MR. BRUCE: It's a fee surface.

14 THE WITNESS: Fee surface.

15 EXAMINER JONES: Oh, there we go. I didn't
16 know that. It's fee surface.

17 Q. (BY EXAMINER JONES) So this proposed 3Bear
18 site, is that correct I'm seeing this -- that's right
19 between? Is that a for-sure thing or --

20 A. Like I said, we've had conversations between
21 GMT and 3Bears regarding the location of their facility.
22 I think they saw the permits that we had filed and
23 pulled back and made a phone call to us. So they have
24 expressed that they've been working with the Merchant
25 Livestock Company, who owns the surface, to get this

1 moving forward.

2 Q. Okay. That well that's proposed -- the two
3 wells proposed by Black Mountain would be located pretty
4 close to that site; is that correct?

5 A. I believe they'd located right in the middle of
6 that site.

7 Q. So there might be an issue there?

8 A. Correct.

9 Q. Or there might not?

10 A. Well, the 3Bears is aware of our proposed pad
11 sites, and that's why you see the way that that thing is
12 drawn. I'm not sure if they're aware of Black
13 Mountain's proposed pad sites.

14 Q. Okay. Do you look at this as an either/or
15 situation here, or could both -- both parties'
16 compulsory pooling be approved in this situation?

17 MR. BRUCE: Mr. Examiner, I guess that's up
18 to the Division. I've always been told the Division
19 doesn't like divvying up the Bone Spring.

20 EXAMINER JONES: Well, the mile-and-a-half
21 versus the mile and one of them in the 2nd Bone Spring
22 and one in the 3rd Bone Spring -- well, actually, the
23 other one is 2nd and -- the first well would be in the
24 3rd Bone Spring.

25 MR. BRUCE: Their well, Black Mountain's,

1 is in the 3rd.

2 MR. McMILLAN: Correct.

3 EXAMINER JONES: Yours in the 2nd.

4 MR. BRUCE: GMT's in the 2nd.

5 EXAMINER JONES: GMT's in the 2nd.

6 MR. BRUCE: That's not my call,

7 Mr. Examiner. It's the man upstairs (laughter).

8 EXAMINER BROOKS: Not all the way up.

9 MR. BRUCE: No.

10 (Laughter.)

11 EXAMINER McMILLAN: Near the top of the
12 building.

13 MR. BRUCE: About 20 feet.

14 EXAMINER JONES: Well, I guess we're going
15 to talk to the engineer about how far the fracture is
16 going to go. We already talked to the other engineer.
17 Okay. I don't have anything else.

18 EXAMINER McMILLAN: I don't have anything
19 else.

20 MR. McMILLAN: I'm not sure if the time is
21 right to put our landman up for one rebuttal question.
22 Is that something to do later?

23 MR. BRUCE: I would rather put my witnesses
24 on, and he can come back.

25 MR. McMILLAN: Okay. Mike Dilli.

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

4 DIRECT EXAMINATION

5 BY MR. BRUCE:

6 Q. Would you please state your name and city of
7 residence?

8 A. Mike Dilli, Littleton, Colorado.

9 Q. Who do you work for and in what capacity?

10 A. GMT Exploration, vice president of
11 explorations.

12 Q. How long have you been with GMT?

13 A. About eight years.

14 Q. Have you previously testified before the
15 Division?

16 A. I have.

17 Q. And were your credentials as an expert
18 petroleum geologist accepted as a matter of record?

19 A. They were.

20 Q. Even though they were, could you expand a
21 little bit upon your experience in southeast New Mexico?

22 A. Okay. Specifically, in southeast New Mexico, I
23 worked for Santa Fe Energy in Midland, Texas and was
24 drilling wells in Lea County in the -- I guess it was
25 like the late '90s, when all the vertical wells were

1 being drilled out here. So I'm very, very familiar with
2 the hydrocarbon system and the geology out here. In
3 fact, that's why we came back to Lea County when I was
4 in charge at geology at GMT. I liked it, so we came
5 back to southeast New Mexico in about 2006 or '7 and
6 started our program back there, right when the
7 horizontal stuff was just starting to kick off.

8 Q. And are you familiar with the geological
9 matters involved in these cases?

10 A. I am.

11 MR. BRUCE: Mr. Examiner, I tender
12 Mr. Dilli as an expert petroleum geologist.

13 MR. McMILLAN: No objection.

14 EXAMINER McMILLAN: So qualified.

15 Q. (BY MR. BRUCE) Mr. Dilli, we have put all of
16 your exhibits together and just marked them as Exhibit
17 16 and numbered the pages. Could you start off with
18 page 2 and discuss the contents of that exhibit?

19 A. Page 2 is just a simple structure map drawn on
20 the top of the 3rd Bone Spring. It's basically showing
21 a very, very gentle dip off to the southwest of our
22 leasehold there in the west half of Section 2. Well
23 spots are spotted and in the Mewbourne wells in the
24 purple ones to the south where we've got the little red
25 tail -- red tail on the horizontal wells already drilled

1 out there.

2 Q. Now, there's already been testimony that what
3 you are going after in your wells is the 2nd Bone
4 Spring, correct?

5 A. Yes.

6 Q. And besides -- and you have exhibits and you're
7 discussing the 2nd Bone Spring?

8 A. I do.

9 Q. Do you also have exhibits discussing the 3rd
10 Bone Spring in the Wolfcamp?

11 A. I do.

12 Q. And why are you discussing all three of those
13 zones?

14 A. Well, we're pretty specific when we pick up
15 leases. We've mapped all these prospective horizons in
16 Lea County. So when a lease pops up on a sale, we
17 usually are very familiar and we know what we want to do
18 with it. And when we look at a lease, we look at it in
19 the 2nd, 3rd, X-Y, the Wolfcamp A. So that's how we
20 value our leases. And so we think it's very important
21 to look at the full development of the prospect or lease
22 when we get it and what would be the best formation to
23 drill in there and then what would be follow-up,
24 subsequent locations that might be drillable in there.

25 In this particular case, the 2nd Bone

1 Spring is one of our -- we've got operations like three
2 miles to the northwest. Our Vitalizer well is one of
3 the best 2nd Bone Spring wells we've drilled.
4 Approximately five miles to the east, we have our Sauer
5 Soft [phonetic] well, which is another very good 2nd
6 Bone Spring well. And then approximately six miles or
7 so to the south and slightly east is our big chunk of
8 operated lands. We've got the 2nd Bone Spring, 3rd Bone
9 Spring and X-Y wells drilled. So we're intimately
10 familiar with this area.

11 And the two really good 2nd Bone Spring
12 wells that we have, you know, real close to here is why
13 we picked the 2nd Bone Spring as our initial target.
14 However, you'll see through the geology, we think the
15 3rd -- on our lease, the 3rd will work, the Wolfcamp
16 X-Y, which might be what you're calling the Wolfbone.
17 They have different terms for all that. But we're going
18 Wolfcamp X-Y and then Wolfcamp A. We think they really
19 look good on our wells on our section.

20 We think, as you move north, some of the
21 wells don't look nearly as good geologically. The
22 Delaware Basin in southeast New Mexico, yes, it's a big
23 horizontal play, tremendous oil column, got tremendous
24 reserves, one big oilfield out there, but unlike plays
25 like the Baca or the Eagle Ford or the Barnett and such,

1 there are discrete sand bodies that you will be chasing
2 or discrete targets for your wells. And so we have
3 internal cutoffs that we like to see on those. We
4 target those specific ones, either turbidites coming off
5 the platform. And because it's in this lease doesn't
6 mean it's going to be in that specific scene. However,
7 a different one might. So that's how we approach
8 exploration out here.

9 Q. Okay. And before we get to your next exhibits,
10 what would be the only zone, in your opinion, that has
11 decent amount of reservoir rock for a 1.5-mile lateral?

12 A. From my mapping, if we had all these leases out
13 here, the 2nd Bone Spring would be the only one that I
14 would drill a mile-and-a-half. You would be -- in my
15 opinion, you'd be pooling us into less -- the lesser
16 reservoir rock. That's what the other maps are showing.

17 Q. And so that's why you're looking at full
18 development of the west half of Section 35 alone?

19 A. Correct. Yes.

20 Q. And kind of offhandedly, does better-quality
21 reservoir rock make better wells?

22 A. Yeah. Amazingly, it does.

23 Q. Let's move on. What is page 3?

24 A. Page 3 is our isopach of the 2nd Bone Spring,
25 what we call the number 2 sand, which is the lower sand

1 in the 2nd Bone Spring section. And you can see I'm
2 using an 8 percent porosity cutoff for these maps. And
3 I would -- that's what we use to high grade where we buy
4 leases. You know, if you use -- we've mapped with all
5 different kinds of criteria. Back in the '90s and even
6 today, what's the best one?

7 We have found that if I use 8 percent
8 porosity cutoff, that you are in a good, hard -- good
9 reservoir play. And if you use less than that, we found
10 that you sometimes don't get -- I'm not saying you don't
11 get a well. I'm just saying it won't be nearly as good.
12 And I can point to examples where we've drilled. We
13 kind of drilled a step-out a few years ago, had a big,
14 thick Number 2 sand. Did not have but about 8 or 9 feet
15 of porosity over 8 percent. We went ahead and, you
16 know, drilled a horizontal and completed it and made a
17 well, but it's not near the wells we found with 8
18 percent porosity. Throughout the years we've been out
19 here, we've had more than one opportunity to -- you
20 know, people selling down deals or whatever, and in a
21 couple instances, they didn't have this cutoff that we
22 use, and so we declined it, and the wells didn't make
23 very good wells. Again, you'll make a well. There is
24 oil in the whole -- the whole rock's got oil in it,
25 anywhere there is any porosity. But we found, at least

1 for us, that the 8 percent cutoff works.

2 And so this map here is an 8 percent cutoff
3 of the lower sand. And we like to say, you know,
4 roughly, if we have 20 feet of this, we think it's worth
5 going for. So if you have 20 feet in a big section,
6 you've got a good shot for a reservoir. And you can see
7 by this map that we have well over 20 feet throughout
8 basically the whole thing in the 2nd Bone Spring Lower.

9 Q. And you're talking about the wells that GMT is
10 in. Do you have a rough number of wells in Lea County
11 that GMT operates?

12 A. I think we operate like 23, and we're in about
13 48 or 49 ones with other people, horizontal.

14 Q. And, again, looking at this, this is the 2nd
15 Bone Spring, Number 2 Sand, that's the only one that
16 seems reasonable to you as a geologist to drill a longer
17 lateral?

18 A. Correct.

19 Q. But looking down the road for development that
20 you intend to do somewhere down the road, you'd only
21 want mile laterals?

22 A. Correct.

23 Q. What is Exhibit 4?

24 A. Exhibit 4 is -- if you look on page 3, you see
25 the cross section, A to A prime, just a north-south

1 well, two wells that go along our mile lateral there.
2 And they're hung on the stratigraphic cross section,
3 hung on the top of the 2nd Bone Spring. The tracks are
4 labeled "Gamma Ray" on the left, "Resistivity" on the
5 right and "Density Neutron" on the left -- excuse me --
6 on the right, RT in the middle, resistivity. And then
7 that's the entire section. And you see highlighted in
8 red the porosity over 8 percent, which is kind of what
9 we're using for a cutoff.

10 Now, down at the bottom there, you see
11 where it says "Horizontal Isopach Interval." That would
12 be the target sand that we would target next. That
13 would be like our anchor sand. Obviously, you're going
14 to frac probably out of that a little bit, but we like
15 to see good reservoir rock at our target sand. And this
16 shows that that target sand is present, you know, by the
17 length of the cross section, along the whole length of
18 Section 2 there, so we're very comfortable. And this is
19 the same zone that we drilled our Vitalizer well that I
20 referenced earlier and our Sauer Soft and the stuff
21 we're going down to the south in our prior area, in that
22 exact same zone.

23 Q. And based on your isopach in the cross section,
24 is the 2nd Bone Spring continuous across the well unit?

25 A. It is.

1 Q. And from a geologic standpoint, will each
2 quarter-quarter section in the well unit contribute more
3 or less equally to production?

4 A. Yes.

5 Q. Is there any faulting or other problem out here
6 that would prevent the successful drilling of a
7 horizontal --

8 A. None that we've seen in this specific area, and
9 we always buy a 2D seismic to check that out. Sometimes
10 you can see it in the wells, and right now we have seen
11 nothing right here. There is stuff further to the east,
12 but nothing right here.

13 Q. And are people predominantly drilling stand-ups
14 in this area?

15 A. Yes.

16 Q. That seems to be the preferred direction?

17 A. Yes. The principal stress direction tells you
18 that. We learned that lesson the hard way.

19 Q. Let's go on to the 3rd Bone Spring and the
20 Wolfcamp. Could you run through the remaining pages of
21 your exhibit?

22 A. I will. I have got three isopach maps, and
23 then I have them all in one cross section. These are
24 the intervals today we think are the most prospective in
25 this area, and these are taken right off of my regional

1 map. So like on page 5, you see that kind of gray line
2 that streaks through the map? I probably should have
3 taken that off. To me that's a major depositional
4 fairway that I just highlighted with a big arrow. If
5 you had my regional map, you'd see this big depositional
6 arrow.

7 So on the 3rd Bone Spring Lower, you have
8 an 8 percent porosity cutoff. You see that you go from
9 A -- the next cross section is going to be a three-well
10 cross section, A to A prime, but it's after all the
11 maps. But, again, you can see, according to my mapping,
12 that as you move north of Section 2, you're getting less
13 than 20 feet of that porosity that we like to see in the
14 3rd Bone Spring. The gross interval is still there, but
15 we like to see porosity in that lower bench. And so we,
16 GMT, would not drill a well in Section 35 right now for
17 this section.

18 And I'm not sure if you want to look at the
19 cross section first or if you want to go through all the
20 formations, but --

21 Q. Go through all the formations first.

22 A. Okay. Very similar, X-Y Sand is the lower --
23 the lowest -- the Wolfcamp X-Y Sand is the upper part of
24 the Wolfcamp. There are usually two sands up there that
25 people are finding very, very productive here lately.

1 Those Mewbourne wells in Section 11 you see on that map,
2 those are all in the X-Y sand zone as we plot them.

3 Again, you can see, when you isopach the
4 X-Y sands, Section 2 has got the porosity, but we're
5 losing it a little bit on the east half of the west
6 half. But certainly up in Section 35, where we would be
7 pooled into, again, we wouldn't drill a well for that
8 formation.

9 The Wolfcamp A is a little bit different
10 animal in that there is not a specific sand or shale
11 that people generally target there. You know, you've
12 heard testimony that that's overpressured. It's a
13 little bit different geologically. But what we like to
14 do in that Upper Wolfcamp A -- what we call the Upper
15 Wolfcamp A is, again, we map porosity, because if you
16 have good porosity, then we think you'll make better
17 wells. And we've drilled -- we've been in a couple
18 Wolfcamp wells ourselves, and this mapping so far has
19 panned out pretty well.

20 Again, what you see in the cross section,
21 you're seeing up there, in the south part of 35, where
22 we think the Wolfcamp A gets tight. As you get on the
23 eastern -- as you start to get on the east flank of this
24 base, it starts getting more carbonate in here, and it
25 just gets tighter, in our opinion. So that's the

1 three -- well, actually, that's the four main formations
2 that we mapped when we mapped this prospect out. You
3 know, we've had -- well, we've had this regionally
4 mapped for years.

5 So then if I direct your --

6 Jim, is it okay to go on?

7 Q. Yes.

8 A. If I direct your attention to the three-well
9 cross section, we go from the well in Section 11 on the
10 left to the well up in Section 35 on the right side of
11 the cross section. This cross section is hung on the
12 top of the 3rd Bone Spring Sand. So on the left side of
13 the cross section and on the right, you see the isopach
14 intervals that I've isopached for each of the maps. And
15 the Lower 3rd Bone Spring Sand -- you see that block?
16 It's got the top of that orange, what we call the top of
17 the lower 3rd. And boy, virtually 89 percent of the
18 wells I see drilled the 3rd Bone Spring are in this
19 zone. The wells we've drilled ourselves are in this
20 same, exact equivalent. And you can see the well on the
21 right -- again, looking at the porosity, you can see
22 there in the Lower 3rd Bone Spring, you have 8 percent
23 porosity. And as you move to the north and by the time
24 you get to the well in 35, we think that that zone is
25 not porous. It's present, but it's not porous enough to

1 make our cutoffs when we drill a new well.

2 Then if you look down one notch, there is
3 the Wolfcamp X-Y zone so that we've got -- the top of
4 the Wolfcamp is that dashed line. We have the Wolfcamp
5 X-Y zone, again, you see the well in Section 11 to
6 the -- has a big, thick X-Y. And, again, these are what
7 Mewbourne's drilling in. You get to Section 2. You
8 still have the zone. By the time you get over to
9 Section 3, that zone is virtually gone.

10 Similar story with the Wolfcamp A. You can
11 see the Wolfcamp A. You can see the purple top of the
12 Wolfcamp A. You can see the Wolfcamp B top listed. If
13 you go from Section 11 to Section 2, you can see the
14 porosity -- the green streak, the porosity. And by the
15 time you get to Section 35, the Wolfcamp A zone, in my
16 opinion, would be too tight for us, with what we know
17 today, that we would want to put a well in there.

18 Q. So what you're looking at is if you were
19 drilling 3rd Bone Spring, you'd only want a mile
20 lateral?

21 A. Correct.

22 Q. And along that line, if Black Mountain's
23 proposal was granted, would you want to be in BTA's
24 shoes drilling up into Section 26?

25 A. No, in my opinion.

1 Q. Are you rapidly losing -- in the 3rd Bone
2 Spring, are you rapidly losing, you know, effective
3 porosity?

4 A. In my opinion, yes.

5 Q. And similarly with the Wolfcamp, you wouldn't
6 want to go into the south half of Section 35?

7 A. Neither in the X-Y, nor what I understand about
8 the Wolfcamp A either right now.

9 Q. How long has GMT been looking at the Bone
10 Spring and Wolfcamp geology in this general area in Lea
11 County for --

12 A. Well, GMT, when we went back in about 2006 and
13 we picked Lea County, we didn't even -- we didn't map in
14 Eddy County because it's a lot higher gas content. We
15 wanted to stay in the oil area. Lea County is, by far,
16 much oilier than Eddy County or even the east part of
17 the -- when you get into Texas. So we've been, in 2006,
18 mapping all these formations, and we've got all over
19 the -- all Lea County mapped. Like I said, when a lease
20 pops up, we've already got it mapped.

21 Q. And that's why you acquired the lease --

22 A. Yeah, plus the great success we've had
23 northeast and south of here with our own wells that
24 we've drilled in these formations. Yeah.

25 Q. Okay. Was Exhibit 16 prepared by you or under

1 your direction?

2 A. Yes, it was.

3 Q. In your opinion, is the granting of GMT's
4 applications and the denial of Black Mountain's
5 applications in the interest of conservation and the
6 prevention of waste?

7 A. Yes.

8 MR. BRUCE: Move the admission of Exhibit
9 16.

10 MR. McMILLAN: No objection.

11 EXAMINER McMILLAN: Exhibit 16 may now be
12 accepted as part of the record.

13 (GMT Exploration Company, LLC Exhibit
14 Number 16 is offered and admitted into
15 evidence.)

16 MR. BRUCE: And I pass the witness.

17 CROSS-EXAMINATION

18 BY MR. McMILLAN:

19 Q. First of all, if you look at page 3 of your
20 exhibit, where you've done an isopach map of the 2nd
21 Bone Spring Number 2 Sand --

22 A. Yes, sir.

23 Q. -- what's the reason for putting your cross
24 section in -- or outside of the subject acreage here
25 today? You've got your cross section, looks to me, in

1 Sections 3 and 10.

2 A. The well in Section 2 that I used in my other
3 cross sections did not have a log across the 2nd Bone
4 Spring. Or I couldn't find one. I tried all the
5 sources I could find. So I used the two wells closest
6 to our well path there in the west half-west half of
7 Section 2.

8 Q. Okay. How confident are you that we're looking
9 at roughly a comparable cross section in the subject
10 acreage actually being discussed today?

11 A. I'm very confident.

12 Q. Likewise, with respect to the cross section you
13 used for -- let's look at page 5.

14 A. The cross section?

15 Q. Yes. Sorry.

16 A. 4?

17 Q. Page 5. I'm looking at the isopach map for the
18 3rd Bone Spring, as well as page 6 and page 7 for the
19 Wolfcamp X-Y and the Wolfcamp A. Do you not have data
20 all the way up -- what's the reason for not running a
21 cross section all the way up Section 35, where that
22 is acreage that's subject to today's hearing?

23 A. Well, it is in 35.

24 Q. Right. It looks like you're not getting -- how
25 far up 35, are you?

1 A. Right in the middle of the section, the north
2 part of the south section --

3 Q. You're right. Okay.

4 Let's see. You mentioned, in running your
5 analysis, you used a 20-foot thickness and 8 percent
6 porosity; is that correct?

7 A. Yes.

8 Q. Using those numbers, do you know how much oil
9 would be in place?

10 A. Well, if you're doing an in-place number, you
11 should not use 8 percent porosity, because obviously
12 when we do our oil-in-place, I think we would have like
13 a 5 percent cutoff for oil-in-place numbers. Because,
14 like I said, this is what we used to hydrate where we
15 would drill, and we have drilled wells that don't have
16 this kind of porosity. They make well -- they make oil.
17 There's oil in them. It's just that the wells we have
18 seen are not economic for us.

19 Q. So to put a fine point on it, where you're
20 doing in-place, you're looking more like 5 percent
21 porosity --

22 A. Yes.

23 Q. -- not up to 8 percent?

24 Okay. Along the same lines, if you used a
25 6 percent cutoff, would that still include productive

1 rock, 6 percent for --

2 A. Yes. Yes. I mean, I think I just said you're
3 going to get contribution probably down to 4 percent.
4 And obviously if you use the 6 percent, you're going to
5 count the 8 percent.

6 Q. So would you take issue with Black Mountain
7 having used a 6 percent cutoff in its analysis?

8 A. No. For GMT, I wouldn't use that cutoff
9 because I want to drill where I think the best rock is.

10 Q. Right. But aren't you telling me that you go
11 down --

12 A. Oil in place. We're talking about drilling an
13 economic well with the best reservoir properties, yes.
14 Because we -- I have drilled wells with less than that,
15 and they haven't made economic wells.

16 Q. Okay. That's all we have.

17 CROSS-EXAMINATION

18 BY EXAMINER JONES:

19 Q. Just continuing on with the cutoffs, are you
20 talking log -- long matrix that you cross-plot porosity?

21 A. I don't cross-plot. I found through -- we did
22 this in the '90s with all these experts, and even today,
23 we hired a bunch of experts. What I found was if I --
24 because every -- remember, you've got all these old
25 Morrow wells out there, tons of them, which gives you

1 tons of data control. Every one of those wells was
2 virtually logged on 2.71 density-porosity matrix. So I
3 now run a 2.71 density-porosity matrix, so I don't have
4 to buy all those wells and convert them to a 265 [sic]
5 or 267 [sic]. I'm comparing apples to apples. So
6 I'm -- I'm looking at the same matrix. That's what I'm
7 mapping.

8 And the neutron, I don't -- well, I mean,
9 I've done -- you know, I'm not saying that's wrong.
10 Everybody can do that. It's just sometimes you get more
11 gas, and there is a stronger effect. I've just found,
12 historically, when we did it vertically, that doing
13 horizontally that you're mapping density-porosity 2.71.
14 I mean, you can change everything to a different matrix
15 and map the same thing.

16 Q. So basically -- density porosity and use 8
17 percent --

18 A. Yes.

19 Q. -- and then you do your net pay --

20 A. Yes.

21 Q. -- and hydrate your acreage --

22 A. Right.

23 Q. -- pretty much?

24 Did you digitize a lot of logs all over
25 Chaves and Lea Counties?

1 A. We have a ton of -- when we started, we didn't.
2 We were using rasters. So that's why I started this
3 2.71. But we've got tons of, you know -- we've drilled
4 a bunch of wells now and we've got a bunch -- we've got
5 LASes over everything that's right around where we're
6 doing it. And now if we've got a prospect, you know, a
7 lease comes up, we'll buy the LAS file to that as well.

8 Q. Does anybody get any sidewalls or cores from
9 where you plot your core porosity versus oil porosity
10 and come up with a relationship --

11 A. There's a --

12 Q. -- in the sandstone?

13 A. We -- we -- we did it -- we've done it in the
14 Avalon. We haven't done it in the 2nd Bone Spring or
15 the 3rd, for that matter. We've taken -- our guys
16 didn't want to do that. There is a core study out there
17 by Core Lab that was done in the '90s that some people
18 have and they do that.

19 But to answer your question, what we do do
20 a lot is cross plots, cross-plot porosities versus
21 resistivity, and we'll come up with a resistivity
22 cutoff. Not that there will be oil in it, but we
23 think -- it doesn't apply to here, but there are places
24 where if you get resistivity below a certain ohmmeter,
25 you produce a lot more water. And that's another reason

1 we've stayed in Lea County. It's less wet and less gas.

2 Q. Okay. When you do your -- you let the machine
3 do your contouring?

4 A. No. I contour. No. But stuff like this
5 that's specific -- I'll do gross regional compact, but
6 let the machine do it. But I'll do -- we're doing some
7 in here. Anything we're going to drill, we're going to
8 do it ourselves, hand contour.

9 Q. Will you point out one more time the control
10 you have around Section 2 and Section 35?

11 A. You know, should I -- I think what I should
12 give you, sir -- I made these, and then I thought, you
13 know --

14 MR. BRUCE: Well, I need copies for Seth.

15 THE WITNESS: I've got four copies. I
16 prepared these to give to Jim, and then I thought, you
17 know, somebody may ask me that question. So we quickly
18 made some.

19 EXAMINER JONES: The cases are going to get
20 continued, so --

21 THE WITNESS: So except for the -- I don't
22 think I put the numbers on the structure map, but I did
23 on all the isopach maps, so then you'll see the control
24 for all the isopach.

25

1 REDIRECT EXAMINATION

2 BY MR. BRUCE:

3 Q. Mr. Dilli, I've handed you Exhibit 18. Would
4 you please identify that and tell the Examiner what it
5 is? And they may ask you questions.

6 A. Yeah. It's the exact same -- exact same
7 Exhibit as 16, only it has the data points for the
8 isopach maps.

9 EXAMINER JONES: Okay.

10 THE WITNESS: Everything else is exactly
11 the same.

12 RECROSS EXAMINATION

13 BY EXAMINER JONES:

14 Q. And so do you guys drill pilot wells out here
15 or --

16 A. We do -- well, we haven't lately because
17 there's -- like I said, there's all those Morrow control
18 wells, so we haven't needed to. Now, we have -- in the
19 past, if we're like more than a mile, mile and a half
20 from a good control point -- you know, we're picking
21 these specific sands, so we want to be in that sand. So
22 if we're a mile and a half away, we may not be there.
23 So we have in the past, but we haven't in the last
24 couple of years.

25 Q. Those Morrow wells, were they -- did they set

1 intermediate -- can you explain the --

2 A. Well, typically --

3 Q. Yeah.

4 A. -- they would drill down to somewhere in the
5 top of the Wolfcamp, so you'd have two logging runs.

6 Q. Okay. You were worried about the pressure in
7 the Wolfcamp --

8 A. Right. Right.

9 Q. -- and the Delaware?

10 Is it the Delaware here, or is it the San
11 Andres?

12 A. Delaware above the Bone Spring.

13 Q. Okay. Okay. So what I hear you saying is that
14 except for the 2nd Bone Spring, you don't think Section
15 35 is worth spending money on?

16 A. I'm saying GMT feels like we would be being
17 pooled into lesser reservoir rock, therefore making our
18 investment less. I'm not saying -- I'm saying we
19 wouldn't drill it. With the information I have today,
20 we would not drill those -- those wells. You know,
21 somebody else could, so I'm not going to make a decision
22 for them. But --

23 Q. Okay. And then -- okay. That's -- thank you.

24 MR. BRUCE: Mr. Examiner, I'd also move the
25 admission of Exhibit 18.

1 MR. McMILLAN: I have no objection.

2 EXAMINER McMILLAN: Exhibit 18 may now be
3 accepted as part of the record.

4 (GMT Exploration Company, LLC Exhibit
5 Number 18 is offered and admitted into
6 evidence.)

7 MR. McMILLAN: Can I have one more
8 question?

9 RECROSS EXAMINATION

10 BY MR. McMILLAN:

11 Q. I believe we heard you testify that the
12 reservoir changes rapidly? Is that a phrase you used?
13 Is that fair to say?

14 A. In some places. In places, it can.

15 Q. But you previously told me that you can use
16 your cross section in the offset section as a -- that
17 you were confident that there wouldn't be any changes as
18 you move into Section 2. Without looking at actual
19 Section 2 data, given the reservoir changes rapidly in
20 certain places, can you be fully confident that your
21 cross section is representative of the subject sections
22 here in these cases?

23 A. Well, I -- excuse me. I thought you asked me
24 about the well in 35 earlier. That's the one we don't
25 have a data point in the 2nd Bone Spring.

1 In Section 2, if you're talking about the
2 2nd -- or I'm sorry. I might have misunderstood.

3 Q. Let me slow down. Yeah. I'm looking at your
4 Exhibit 18 and/or page 3 of your Exhibit 16 --

5 A. Right.

6 Q. -- at your cross section, which as I noted
7 earlier is in Sections 3 and 10. Go ahead.

8 A. The reason I chose that is because the first
9 well we want to drill was in the west half-west half of
10 2, and that's where the two closest wells are located.
11 And those would be the two wells that we would use when
12 we directionally drill this well. That's our go-bys
13 [sic;phonetic]. You can see in Section 2, I have a data
14 point, and also in 11, you have a data point with pre --
15 over my 20-foot cutoffs. I just used that cross section
16 because that's the closest to the wellbore that we're
17 going to be drilling.

18 Q. Okay. That's everything from me.

19 MR. BRUCE: No further questions from me.

20 EXAMINER McMILLAN: We're going to take a
21 five-minute break.

22 (Recess, 4:22 p.m. to 4:32 p.m.)

23 EXAMINER McMILLAN: At this time I'd like
24 to call Case Numbers 15659 and 15660 back.

25 Please proceed.

1 THOMAS W. RAND,
2 after having been previously sworn under oath, was
3 questioned and testified as follows:

4 DIRECT EXAMINATION

5 BY MR. BRUCE:

6 Q. Would you please state your name for the
7 record?

8 A. My name is Thomas Walter Rand.

9 Q. And where do you reside, Mr. Rand?

10 A. Denver, Colorado.

11 Q. Who do you work for and in what capacity?

12 A. I work for GMT Exploration, LLC as a staff
13 operations engineer.

14 Q. Have you previously testified before the
15 Division?

16 A. No, I have not.

17 Q. Could you summarize your educational and
18 employment background for the Examiners?

19 A. I have a BS in chemical engineering, and I've
20 worked in the oil and gas business for 37 years in
21 various capacities, most recently with Texaco -- excuse
22 me -- Chevron internationally as a reservoir engineer
23 putting together development plans, so on and so forth.
24 I went to work for GMT in October of 2013.

25 Q. Okay. And are you familiar -- does your area

1 of responsibility at GMT cover this portion of
2 southeastern New Mexico?

3 A. Yes, it does.

4 Q. And are you familiar with the engineering
5 matters in these applications?

6 A. Yes, I am.

7 MR. BRUCE: Mr. Examiner, I tender Mr. Rand
8 as an expert engineer.

9 MR. McMILLAN: No objection.

10 EXAMINER McMILLAN: So qualified.

11 Q. (BY MR. BRUCE) Mr. Rand, before we move on to
12 your exhibit, GMT asked for overhead rates of 8,000 and
13 \$800 a month. Are those the rates that GMT typically
14 uses nowadays in its JOAs as an operator?

15 A. Yes, it is.

16 Q. And is that an equivalent to the amounts
17 usually charged to GMT in its nonoperated wells?

18 A. Yes, it is.

19 Q. One other question: There's been talk about
20 the AFEs. The AFEs for these wells are about
21 \$5.94 million for each of GMT's wells. Do you believe
22 that's a reasonable estimate?

23 A. It is. We've drilled several wells over the
24 last six months at that price. So we're very
25 comfortable with that price. We know that there is some

1 price pressure upwards, and so, you know, we're always
2 looking at revising our AFEs, especially when we're
3 making well proposals.

4 Q. And if GMT's applications were granted, would
5 you send out to the pooled party an updated AFE?

6 A. Yes, we would.

7 Q. Okay. Let's move on to your Exhibit 17, and
8 the pages are numbered. Without too much interference,
9 why don't you run through it and discuss what it shows.

10 A. Okay. The first pie chart that we're looking
11 at is just a count of the lateral wells that have been
12 drilled in Lea County since 2012. We've classified
13 these as the standard lateral, which is 4,620 feet or
14 less, a medium length lateral -- and I'll have to
15 apologize. There is a typo on the label underneath the
16 pie chart. The medium length should be greater than
17 4,620, but less than the 7,950. And then there are a
18 few wells that we're calling the long laterals, and
19 those are 7,590 or greater.

20 So when you look at that, that's 750 wells
21 total that have been drilled and completed in Lea County
22 since 2012. Of those wells, the long -- what we're
23 calling long laterals, 2.9 percent; medium laterals,
24 13.1 percent. So the vast majority have been the
25 standard length horizontal laterals.

1 Q. One-mile laterals?

2 A. Right.

3 Q. And what does page 2 reflect?

4 A. Page 2 is taking a more narrow time frame.

5 This is for 2015 and '16. Again, I have to apologize

6 for the labeling under the pie chart. That's not

7 correct on this one either. But, again, the percentages

8 have gone up slightly for the long laterals and the

9 medium laterals but not appreciably.

10 Q. The overwhelming majority of the wells these

11 days are still drilled as mile laterals?

12 A. Yes.

13 Q. Okay. Let's move on to pages 3 and 4.

14 A. Page 3 is looking at -- again, this is not

15 distinguishing lateral wells in any particular

16 geographical area in Lea County. These are just

17 plotting up wells that are completed in the 2nd Bone

18 Spring and comparing them -- the lateral lengths and

19 comparing the actual production for the first 12

20 months -- well, the first six months, first 12 months

21 and then two years.

22 So as you look at this, you can see that --

23 if you look under the "Perforated Interval Length," the

24 standard average -- of 315 wells that have been drilled

25 in Lea County, the average lateral length is 4,220 feet.

1 For a medium lateral, there have been 25 drilled, and
2 the length is 5,922. Now, that works out to be a ratio
3 in just lateral length of 1.4.

4 So as you go across this table -- it might
5 be easier to look at the graphs. We have gas on the
6 left and oil recovery on the right. The very top orange
7 curve on the gas is what a longer lateral should produce
8 based on the additional perforated interval. The bottom
9 red perf is the standard one-mile lateral. What's in
10 between is what the extended laterals have actually
11 recovered. So you've got 40 percent additional length,
12 but you're only getting 20 percent additional gas.

13 Q. Is the difference more striking in the oil?

14 A. It certainly is. In that particular case,
15 they're one-to-one. No difference at all.

16 Q. And these numbers on pages 3 and 4, it's not
17 decline curve analysis?

18 A. No, it's not. It's actual production numbers
19 off of the State Web site.

20 Q. And page 4 is similar data for the --

21 A. Similar data for the 3rd Bone Spring. So we're
22 looking at 1.47 additional perforated -- or lateral
23 length. So you should be getting 1.47 additional oil
24 and gas. In both gas and oil, you're getting 1.22 and
25 1.27, so, again, less than 30 percent.

1 Q. And could this be attributed to different
2 reasons, for instance, inconsistent geology?

3 A. Geology, completion technique, a lot of
4 variables, yes.

5 Q. But you're looking at hundreds of wells?

6 A. Right. So the distribution, it's a significant
7 sampling.

8 Q. So is it fair to say that you really -- for
9 medium laterals, you're really not getting the bang for
10 the buck that people have anticipated?

11 A. Not at this point in time.

12 Q. And is it more likely that as you drill longer
13 laterals, there could be operational difficulties?

14 A. Absolutely. Drilling and completion is a risky
15 business, and so expertise, experience plays a
16 significant role, especially drilling long-lateral
17 wells.

18 Q. And pages 5 and 6 is simply an AFE from the
19 Squeeze State well?

20 A. Right.

21 Q. And, again, that cost is -- estimated well cost
22 is fair and reasonable at this time?

23 A. As I said earlier, these are the costs that we
24 experienced in the three wells that we've drilled in the
25 last six months.

1 Q. And was Exhibit 17 prepared under your
2 supervision?

3 A. Yes.

4 Q. And in your opinion, is the granting of GMT's
5 application and the denial of Black Mountain's
6 applications in the interest of conservation and the
7 prevention of waste?

8 A. Yes.

9 MR. BRUCE: Mr. Examiner, I'd move the
10 admission of Exhibit 17.

11 MR. McMILLAN: No objection.

12 EXAMINER McMILLAN: Exhibit 17 may now be
13 accepted as part of the record.

14 (GMT Exploration Company, LLC Exhibit
15 Number 17 is offered and admitted into
16 evidence.)

17 MR. BRUCE: I pass the witness.

18 CROSS-EXAMINATION

19 BY MR. McMILLAN:

20 Q. With respect to your first two exhibits here,
21 it looks like you've got length counts since 2012 --

22 A. Right.

23 Q. -- and counts in 2015 and 2016.

24 I know it's only May, but do you have any
25 2017 data?

1 A. No, do not.

2 Q. With respect to page -- pages 3 and 4, it looks
3 like page 3 is well performance in the 2nd Bone Spring,
4 while page 4 is well performance in the 3rd?

5 A. That's correct.

6 Q. And while -- however it is you work this data,
7 you seem to have come up with a one-to-one
8 correspondence between standard laterals and medium
9 laterals in the 2nd Bone Spring. Is it not true that in
10 the 3rd Bone -- well, first of all, is it not true that
11 Black Mountain's proposal is for a 3rd Bone Spring well?
12 Is that correct?

13 A. Yes.

14 Q. And is it not true that there is actually --
15 there is hardly a one-to-one correspondence between the
16 standing lateral and the medium lateral in the 3rd Bone
17 Spring, correct?

18 A. Correct.

19 Q. And so what do you attribute that difference
20 between the one-to-one correspondence you're seeing in
21 the 2nd Bone Spring and the very different
22 correspondence in the 3rd Bone Spring?

23 A. A combination of things: a reservoir rock,
24 completion techniques, methodology of lifting, a number
25 of things. I don't know. I have not gone through each

1 well.

2 Q. Okay. So you agree that there are many
3 variables involved here --

4 A. Absolutely.

5 Q. -- with respect to both of these analyses here?

6 Based on your review of the data, what is
7 the general industry trend with respect to drilling
8 longer laterals?

9 A. My opinion, in areas where it's necessary, the
10 industry is going that direction, whether it be surface
11 use and/or conflicts with other mineral interests, for
12 instance, potash mining, and -- well, that's essentially
13 it.

14 Q. In developing your plans for these wells, how
15 much oil do you anticipate recovering from your proposed
16 wells?

17 A. Unfortunately, I can't answer that question.
18 I'm not the reservoir engineer directly involved with
19 putting together --

20 Q. Yeah.

21 A. -- the economics for these projects.

22 Q. And you haven't communicated with that
23 reservoir engineer enough to have a sense of how much --

24 A. Unfortunately, he's been out for a family
25 funeral. I didn't know I was coming to this hearing

1 until Monday --

2 Q. All right.

3 A. -- so --

4 Q. Do you know what the typical recovery factor is
5 for a Bone Spring well?

6 A. Not off the top of my head, no.

7 MR. McMILLAN: That's all we have for this
8 witness.

9 EXAMINER BROOKS: Very good.

10 EXAMINER McMILLAN: Start.

11 CROSS-EXAMINATION

12 BY EXAMINER JONES:

13 Q. Mr. Rand, did you also -- you did a cumulative
14 normalized plot, it looks like, but did you also look at
15 these from a standpoint of actually just the --

16 A. The decline curve?

17 Q. Yeah.

18 A. No, I did not. No. With 750 wells, it's
19 difficult to do in the time frame I was given.

20 Q. Well, no storms going on in Denver now, right
21 (laughter)?

22 A. Yeah.

23 Q. Okay. These costs -- but isn't it true also
24 what Mr. McCracken said, that if you drill two wells in
25 a -- in a total distance of three miles versus three

1 wells in a total distance of three miles, you don't have
2 to pay for drilling through the -- all the overburden?

3 A. Absolutely correct. Absolutely. But then
4 you're spending a lot more for fracture-stimulation
5 work, completion costs, the hydraulic horsepower that
6 you're using to try to get proppant out to the toe of
7 the well.

8 Q. Do you have to use any higher-grade casing or
9 anything for the mile-and-a-half wells versus the
10 one-mile wells?

11 A. No. No.

12 Q. Do you have trouble getting casing down on
13 these longer wells versus --

14 A. It just would be an opinion on my part. I've
15 not had any experience. I do know that we've had some
16 issues with some offset operators drilling longer
17 laterals and having difficulty getting pipe to bottom.
18 Yes.

19 CROSS-EXAMINATION

20 BY EXAMINER McMILLAN:

21 Q. My question relates back to the 660 feet. Do
22 you feel -- are you getting more reserves in the 660
23 feet with the additional costs versus drilling the
24 one-mile well?

25 A. I don't know. Offsets are set in place to

1 separate mineral interests and to make sure that
2 drainage across section lines aren't -- or leaselines --
3 you know, whether that's happening with a 330-foot
4 setback or a 10-foot setback, I don't know.

5 Q. Because you have com agreements take care of
6 that issue?

7 A. (Indicating.)

8 Q. So in other words -- you didn't answer the
9 question.

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

11 Q. So are you getting more reserve? You're going
12 to get more reserves because you're exposing more
13 borehole to the formation, right?

14 A. I think with the proper drilling and completion
15 technique, that may be true, but the data so far doesn't
16 show that.

17 Q. But then going back to your data, you didn't
18 really take into account different completion --

19 A. No.

20 Q. -- stages or anything like that, did you?

21 A. No. That's correct. But it gets averaged out
22 because there are different completion techniques being
23 used on standard lateral wells than there were two years
24 ago.

25 Q. Okay.

1 RECROSS EXAMINATION

2 BY EXAMINER JONES:

3 Q. Have you looked at any differences in your well
4 design versus the well design that Black Mountain used?
5 In other words, the surface pipe to setting, the size of
6 the intermediate pipe. Where are you setting
7 intermediate pipe?

8 A. Intermediate is typically set down through --
9 Mike, help me out.

10 MR. DILLI: Top of the Delaware.

11 THE WITNESS: Where are we setting
12 intermediate through?

13 MR. DILLI: If we're drilling the Bone
14 Spring?

15 THE WITNESS: Yes.

16 MR. DILLI: Drill it all at --

17 THE WITNESS: Yeah. But are we setting
18 intermediate pipe --

19 MR. DILLI: Top of the Delaware --

20 THE WITNESS: Top of the Delaware.

21 MR. DILLI: -- and then it's all one --

22 THE WITNESS: And then it's all one
23 continuous operation --

24 MR. DILLI: The Wolfcamp is different.

25 THE WITNESS: Yeah. Wolfcamp is different

1 because of the overpressure.

2 EXAMINER JONES: Because of the
3 overpressure.

4 THE WITNESS: Right.

5 EXAMINER JONES: Yeah. I've seen Devon
6 drill wells that way, top of the Delaware.

7 THE WITNESS: Uh-huh.

8 CROSS-EXAMINATION

9 BY EXAMINER BROOKS:

10 Q. To the extent I understand your data, they seem
11 to indicate that the increased production from a longer
12 lateral is less -- the proportion of actual -- of
13 production to length is actually less if you -- in a
14 longer lateral than it is in a shorter lateral --

15 A. That's what the data --

16 Q. -- within this range, that is from one mile to
17 a mile and a half?

18 A. That's what the data is showing.

19 Q. In your opinion, is there some general reason
20 or is that a general trend, or do you think that this
21 data is just -- or are you presenting this data as just
22 this data?

23 A. I'm just presenting it as this data to draw
24 conclusions from it at this point.

25 Q. You're not giving an opinion that that is a

1 general trend?

2 A. No, not one way or the other.

3 EXAMINER BROOKS: Thank you.

4 RECROSS EXAMINATION

5 BY EXAMINER JONES:

6 Q. It's true you're only looking two years out?

7 A. Exactly. Exactly. And current information may
8 show something different. I don't know.

9 Q. What is the expected well life of a Bone Spring
10 well?

11 A. We typically use a cutoff of somewhere around
12 25 to 30 years.

13 Q. But in the first five, they're pretty much done
14 there, aren't they?

15 A. Uh-huh. Uh-huh. I mean, a lot of -- the
16 initial costs, you've still got -- again, every operator
17 does it a little bit differently, how they account for
18 flowback water from, you know, stimulation work, whether
19 that's considered lease operating expense or if that's
20 capitalized and included in the AFE. It gets to be
21 somewhat arbitrary. But a lot of it, those fixed
22 monthly operating costs in the life of a well, as you
23 get towards the end of its use of life, water disposal
24 is a difficult issue to deal with, and that's what
25 really drives the economics.

1 Q. We've heard about those.

2 EXAMINER McMILLAN: I don't have any more.

3 Do you want rebuttal?

4 MR. McMILLAN: Oh, do we? I'd love to put
5 up one more witness.

6 MR. BRUCE: Mr. Examiner, I do have a
7 witness from BTA that will be extremely brief, and he's
8 a landman. We'll put him up as a landman. Maybe you'd
9 like to hear his testimony first.

10 MR. McMILLAN: You can do it first. Sure.

11 EXAMINER BROOKS: Well, I'm glad he's
12 extremely short because --

13 MR. BRUCE: That's Bill's job.

14 KENT CHRISTENSEN,
15 after having been previously sworn under oath, was
16 questioned and testified as follows:

17 DIRECT EXAMINATION

18 BY MR. BRUCE:

19 Q. Will you please state your name and city of
20 residence?

21 A. Kent Christensen, Midland, Texas.

22 Q. Who do you work for and in what capacity?

23 A. BTA Oil Producers, LLC.

24 Q. Have you previously testified before the
25 Division?

1 A. No, sir.

2 Q. Could you summarize your educational and
3 employment background for the Examiner?

4 A. Graduated Texas Christian University, received
5 my designation as a petroleum landman through their Land
6 Management Program through the Neeley School of
7 Business, and I've been a landman for the past ten
8 years.

9 Q. And how long have you been working for BTA?

10 A. A little over four years.

11 Q. Okay. Does your area of responsibility with
12 BTA include this area of southeast New Mexico?

13 A. Yes, it does.

14 Q. Are you familiar with BTA's ownership in the
15 area involved in these applications?

16 A. Yes.

17 MR. BRUCE: Mr. Examiner, I tender
18 Mr. Christensen as an expert petroleum landman.

19 MR. McMILLAN: No objection.

20 EXAMINER McMILLAN: So qualified.

21 Q. (BY MR. BRUCE) Could you identify Exhibit 1 for
22 the Examiner and describe what it shows?

23 A. Yes. In front of you is Exhibit 1. It's
24 basically just a land representation of BTA's ownership
25 throughout Sections 26, 35 and Section 2, specifically,

1 and it represents the two wells that we have permitted
2 as well in the west half of 35.

3 Q. Okay. Is there a JOA covering the west half of
4 35?

5 A. Yes, there is.

6 Q. How old is it, approximately?

7 A. I believe mid-August of 1977.

8 Q. Okay. Has it been kept in effect by production
9 in Section 35?

10 A. Yes.

11 Q. And from what you know of the land out here, is
12 Black Mountain subject to the JOA?

13 A. Yes, they are.

14 Q. There is also some crosshatching in Section 26
15 to the north. What does BTA own in the north half of
16 Section 26?

17 A. We own a small override only.

18 Q. What did -- how does BTA propose to develop the
19 acreage in the west half of Section 35?

20 A. Your traditional one-mile Bone Spring wells.

21 Q. And has BTA filed the APDs in the west half of
22 Section 35?

23 A. Yes, we have.

24 Q. Are those marked Exhibits 2 -- BTA Exhibits 2
25 and 3?

1 A. Yes.

2 Q. What problem does BTA see if Black Mountain's
3 applications are granted for mile-and-a-half laterals?

4 A. Basically, the majority of our ownership is in
5 the northwest quarter of 35, and that gets stranded out
6 through Black Mountain's proposed mile-and-a-half below
7 us. We lack ownership in any operational capacity in
8 Section 26 above us, and that is our argument, that we
9 would actually be stranded.

10 Q. And since there is a JOA in place in the west
11 half of 35, it's pretty simple to propose wells and get
12 them drilled?

13 A. Correct.

14 Q. Were Exhibits 1 through 3 either prepared by
15 you or compiled from company business records?

16 A. Yes, they were.

17 Q. And in your opinion, should GMT's applications
18 be granted and Black Mountain's applications be denied?

19 A. Yes.

20 MR. BRUCE: Mr. Examiner, I move the
21 admission of BTA Exhibits 1 through 3.

22 MR. McMILLAN: I have no objection.

23 EXAMINER McMILLAN: BTA Exhibits 1, 2 and 3
24 may now be accepted as part of the record.

25 (BTA Oil Producers, LLC Exhibit Numbers 1

1 through 3 are offered and admitted into
2 evidence.)

3 MR. BRUCE: And I pass the witness.

4 CROSS-EXAMINATION

5 BY MR. McMILLAN:

6 Q. Sir, you testified to a JOA in place for the
7 west half of 35, I believe, from 1977. Do you happen to
8 have a copy of that with you today?

9 MR. BRUCE: We did not bring one, but we
10 can provide one to you after the hearing.

11 MR. McMILLAN: Okay. I'd appreciate that.

12 Q. (BY MR. McMILLAN) You testified that you're
13 concerned about being stranded in the northwest quarter
14 of 35. Have you made any inquiries into acquiring any
15 ownership in Section 26?

16 A. No, we have not.

17 Q. And why not?

18 A. We farmed out our interest in the north half of
19 Section 26 a while back to OXY, I believe, and we are
20 unaware of the ownership in the south half of 26.

21 Q. Okay. Hypothetically speaking, were you to
22 investigate the south half of 26, could you not make an
23 attempt to gain ownership and run a well that wouldn't
24 leave you stranded in the northwest quarter of 35?

25 A. Technically, yes. That's correct. Within the

1 west half of 35, where we have an existing JOA, we
2 already have -- we have no administrative issues in just
3 proposing the well and doing it ourselves under that
4 JOA. We'd have to amend and go outside.

5 Q. I see. But it's technically possible?

6 A. Correct, technically.

7 Q. Okay. That's it. Thanks.

8 EXAMINER BROOKS: Do you want me to go, or
9 you go ahead?

10 CROSS-EXAMINATION

11 BY EXAMINER McMILLAN:

12 Q. So basically you're saying the west half of 35,
13 you have a current JOA?

14 A. Correct.

15 Q. And to the best of your knowledge, it's still
16 active?

17 A. Yes.

18 Q. And you said you would be willing to share the
19 JOA?

20 A. Yes.

21 Q. So I think -- I think that's -- to me it's a
22 big part. I believe that we should require that all
23 affected parties receive a copy of the JOA.

24 MR. BRUCE: That's fine, Mr. Examiner. I
25 had it on my desktop when I left the office this

1 morning.

2 EXAMINER McMILLAN: Okay. But I think we
3 should make it subject to every one -- all of the
4 affected parties, and we should set a hard date from
5 Thursday that they all receive it, so you can have a
6 chance to look at it before the hearing.

7 MR. BRUCE: I'll get it to them today or
8 tomorrow.

9 EXAMINER McMILLAN: Because I think that --

10 Q. (BY EXAMINER McMILLAN) So without looking at
11 it, you're saying that technically Black Mountain can't
12 drill into 35, with the JOA?

13 A. Yeah. They would need to follow the procedures
14 that are governed under the JOA.

15 Q. Is that a safe statement to make?

16 A. Correct.

17 Q. Okay.

18 EXAMINER McMILLAN: So that would -- you
19 will have to supply that.

20 MR. BRUCE: No problem.

21 EXAMINER McMILLAN: Go ahead.

22 CROSS-EXAMINATION

23 BY EXAMINER BROOKS:

24 Q. What is Black Mountain's ownership in the west
25 half of 35?

1 A. I believe -- and I might need help with that --
2 it would be -- let's see. We own 93, give or take,
3 percent working interest in the northwest quarter of 35,
4 and we own roughly around 9 percent in the southwest
5 quarter. I would assume that they own the complete
6 balance of that through recent purchases.

7 Q. And the entire west half of Section 35 is
8 subject to a joint operating agreement?

9 A. Yes.

10 Q. And that joint operating agreement, at the time
11 it was negotiated, had 100 percent -- was 100 percent of
12 the working interest?

13 A. I believe so, yes.

14 Q. Okay. Now -- let's see. What else was I going
15 to ask?

16 BTA doesn't own any interest in Section 2,
17 right?

18 A. Correct.

19 Q. And has BTA proposed -- has BTA proposed these
20 wells shown on this -- well, these are proposed wells.
21 They're not wells that have actually been drilled,
22 right?

23 A. These are -- we have not proposed them,
24 specifically.

25 Q. You haven't proposed them under the JOA?

1 A. Correct. We have just gotten the permits, the
2 APDs approved with the State.

3 Q. Okay. And let's see. When were these permits
4 issued? 5/1, looks like.

5 A. Do you have the approved date for the -- I
6 mean, we surveyed it April 4th.

7 Q. 5/1 on each of them.

8 A. Okay. That's the approved date?

9 Q. Yeah.

10 A. Okay.

11 Q. Okay. I think that's all I have. Thank you.

12 RECROSS EXAMINATION

13 BY MR. McMILLAN:

14 Q. With respect to this joint operating agreement,
15 does it cover the Bone Spring?

16 A. It was basically one of those old gas unit
17 agreements.

18 Q. Uh-huh.

19 A. We think it's still in existence from the
20 surface down to the Morrow area. That's what they're
21 targeting, 13,000 feet, roughly, if I remember
22 correctly.

23 Q. So is it correct that the agreement you're
24 thinking of is in the west half of Section 35 so far as
25 it covers the Morrow Formation?

1 A. No. It's one of those old JOAs that isn't
2 specific as to horizontal severances. It just has a
3 bottom cap. So it governs the actual depths that are
4 outlined, surfaced to the deepest producing formation
5 that you're targeting.

6 Q. Okay. Well, we have contrary information from
7 a title report, so we'll be very interested to see what
8 this JOA actually says, since nobody bothered to bring a
9 copy today.

10 Who operates in the northwest of Section
11 35?

12 A. BTA. That's us.

13 Q. Who operates in the southwest of Section 35?

14 A. I'm not sure specifically right now.

15 Q. How do the mechanics of this JOA work with
16 respect to the west half of Section 35 if you've got
17 different operators?

18 A. Are you aware of who operates the well in the
19 southwest quarter of 35?

20 Q. That's what I'm asking you.

21 A. I am not.

22 Q. You're not aware?

23 A. Correct. I would have 19, 20 minutes ago
24 before I got tired.

25 Q. Before you got tired? Understood.

1 Well, if it's not BTA, then we've got
2 different operators operating under a joint operating
3 agreement?

4 A. I'm not sure right now.

5 Q. Okay. Do you folks, BTA, own in the southwest
6 of Section 35?

7 A. Yes.

8 Q. You do?

9 A. Our records show around 9 percent contractual
10 working interest.

11 Q. Do you own -- does BTA own in each of the
12 450-acre parcels for which these permits were acquired?

13 A. Specifically in the west half of Section 35?

14 Q. Sure.

15 A. No. On the northwest quarter, I cannot be 100
16 percent certain as to the southwest quarter where that 9
17 percent lies. I mean, we haven't done that research yet
18 specifically.

19 Q. Okay. Would you agree with me that if BTA
20 doesn't have ownership in each of these parcels, that
21 this permit isn't appropriate?

22 A. I wouldn't say that, no.

23 Q. Okay. Were you listening to the testimony
24 concerning GMT's cancellation of their permits for
25 failure to have ownership in all of the appropriate

1 parcels?

2 A. Vaguely, yes.

3 Q. Vaguely?

4 A. Yes.

5 Q. Well, I'll just refresh your recollection that
6 GMT agreed that because they didn't have ownership where
7 appropriate, they had to cancel their permits and go
8 back and acquire ownership in order to have proper
9 permits. Do you recall that?

10 A. Yes.

11 Q. Okay. So you would agree with me that that's
12 probably the procedure you would have to follow if it
13 turned out that BTA didn't, in fact, have ownership
14 throughout here?

15 A. Yes.

16 Q. And just to be clear, you're not sure as you
17 sit here now what BTA's ownership is in the southwest of
18 Section 35?

19 A. On a 40-acre, as you asked previously?

20 Q. Yeah.

21 A. As to each, individual 40 acres, no, not -- I
22 can't give you that for certain.

23 RE CROSS EXAMINATION

24 BY EXAMINER BROOKS:

25 Q. Well, let me clarify here just a minute. When

1 you said you owned a 9. -- what was it? A 9.something?

2 A. It's roughly 9.3, I believe.

3 Q. And there you're talking about the interest --
4 you said contractual interest, in response to
5 cross-examination?

6 A. Yes.

7 Q. And by contractual interest, do you mean an
8 interest in the contract area under the terms of this
9 joint operating agreement you referred to?

10 A. I believe so, yes.

11 Q. And are you testifying that all of Section --
12 all of the west half of Section 35 is included in this
13 joint operating agreement?

14 A. Yes. That's correct.

15 Q. But as far as your testimony is concerned, you
16 can't testify that BTA owns any interest in the
17 southwest quarter other than pursuant to the joint
18 operating agreement?

19 A. That is correct. And I would have to
20 double-check that to be 100 percent sure.

21 Q. Very good.

22 Now, do you know if any memorandum of this
23 joint operating agreement has been filed of record with
24 the Office of the County Clerk of Lea County, New
25 Mexico?

1 A. I can't speak to that. I'm not certain.

2 Q. Okay. Thank you. That's all I have.

3 EXAMINER McMILLAN: Well, it appears to me
4 that we'll know a lot more by next Thursday because
5 everyone will have access to it. Since the case is
6 going to be continued, I'm sure everyone will come back.

7 MR. BRUCE: God, I hope not.

8 EXAMINER McMILLAN: Well, the landmen are
9 going to be coming back for sure.

10 EXAMINER BROOKS: We're going to have to
11 clarify this joint operating agreement.

12 EXAMINER McMILLAN: Yeah. That's where we
13 are on this.

14 EXAMINER BROOKS: Because that does make a
15 difference.

16 EXAMINER McMILLAN: Okay.

17 EXAMINER BROOKS: I don't have any other
18 questions for the witness.

19 I want to say something to the attorneys
20 before they leave.

21 MR. BRUCE: I believe Mr. McMillan wants to
22 put his landman up.

23 MR. McMILLAN: Actually, it's my engineer,
24 just for a quick rebuttal question.

25 EXAMINER BROOKS: Okay.

1 MR. McMILLAN: I just wanted Dr. McCracken
2 to give a little bit rebuttal testimony based on what
3 we've heard from GMT today.

4 MICHAEL E. MCCRACKEN, Ph.D.,
5 after having been previously sworn under oath, was
6 recalled and questioned and testified as follows:

7 DIRECT EXAMINATION

8 BY MR. McMILLAN:

9 Q. There was an issue brought forth concerning a
10 potential gas processing facility, I believe, in Section
11 2; am I correct?

12 A. Yes.

13 Q. If it became necessary for Black Mountain to
14 move its surface-hole locations because this gas
15 processing facility was going to be plunked down in
16 Section 2, is that -- is that technically feasible?

17 A. Yes. That would not be a problem to move the
18 surface locations. We could drill from the north-south,
19 or we could alter our locations in the southern part.

20 Q. With respect to the development plan that you
21 testified to earlier, I think that there was at least an
22 implication that Black Mountain wasn't looking at --
23 wasn't fully looking at development here, that you had
24 somehow honed in just on the 3rd Bone Spring and that
25 you kind of took a myopic view here. Is that, in fact,

1 true?

2 A. No. We're interested in developing multiple
3 horizons, as GMT has, in the 2nd, 3rd Bone, specifically
4 in the development plan. We're also interested in the
5 Wolfcamp, and we have no issues with long laterals over
6 any of those horizons.

7 Q. And your geologist, Jay Moore, testified
8 similarly, correct, that although you didn't have
9 exhibits here, you have looked into the 2nd Bone Spring
10 and Wolfcamp with respect to the development plan?

11 A. That's correct.

12 Q. Okay. I've just got a few questions here.
13 Going back to discussions about porosity and thickness,
14 using a 20-foot thickness and an 8 percent porosity, to
15 your mind, how much oil are we looking at in place?

16 A. On a 160-acre unit, we have approximately 1.8
17 million barrels of oil.

18 Q. And how much oil recovery would one expect to
19 recover there?

20 A. For the Bone Spring, you'd typically be less
21 than 10 percent, so you'd have an estimated recovery of
22 less than 180,000 barrels of oil in place --

23 Q. And what --

24 A. -- switch line.

25 Q. What specific oil recovery factor for the Bone

1 Spring well for any unconventional play is it?

2 A. I was saying 10 percent or less.

3 Q. And what would the recovery factor be if you
4 used a 400 million [sic] barrels of oil for the lands
5 and an 8 percent cutoff for the porosities?

6 A. Right. So if we took a typical recovery that
7 we're seeing in this area, about 400,000 barrels of oil,
8 and we only attributed this 1.8 million barrels in
9 place, we'd be looking at over 20 percent recovery,
10 about a 22 percent recovery.

11 Q. 22 percent recovery.

12 And what does that say about the
13 contribution of pay at a less than 8 percent porosity?

14 A. It says that you're getting well over half of
15 your contribution over pay less than the 8 percent
16 porosity. So, therefore, we think that a porosity
17 cutoff of less than 8 percent is fully reasonable. The
18 math doesn't work out if you don't attribute substantial
19 recovery for a porosity less than that. So we would not
20 discount lands that have significant thickness at a
21 lower cutoff than 8 percent.

22 Q. Okay. That's everything.

23 EXAMINER BROOKS: Cross-examination?

24

25

1 CROSS-EXAMINATION

2 BY MR. BRUCE:

3 Q. You listened to Mr. Dilli, the geologist,
4 testify; did you not?

5 A. I did.

6 Q. He didn't say he was discounting any oil
7 recovery lower than 8 percent. As a matter of fact, did
8 he say he expected some oil recovery down to 4 percent?

9 A. He did, but at the same time, he also said that
10 he would not drill a rock that had -- that had less than
11 8 percent -- than had less than 20 feet of 8 percent
12 porosity, and the math works out that well over half the
13 recovery would have to come from rock that's less than
14 that. So just logically, it doesn't -- the math doesn't
15 work out.

16 Q. Well, I think that you're comparing apples to
17 oranges. He says you're looking at getting the best
18 wells and looking at 8 percent cutoff, but you're still
19 producing oil at 4 and 5 and 6 and 7 percent.

20 A. That's correct.

21 MR. BRUCE: Thank you.

22 CROSS-EXAMINATION

23 BY EXAMINER JONES:

24 Q. What -- is that formation volume detector
25 [sic]?

1 A. Using a 1.2 on that calculation.

2 Q. And water saturation? Reusable?

3 A. Yeah. Actually, I used -- it's very low there,
4 so I do that -- ratio way higher, so -- yeah. But I use
5 like a 35 percent, let's say.

6 Q. Thanks.

7 CROSS-EXAMINATION

8 BY EXAMINER McMILLAN:

9 Q. I got confused when you -- okay. So how much
10 oil do you think you're going to get out of a mile
11 lateral?

12 A. 400,000 barrels of oil would not be
13 unreasonable based upon all the offset well production
14 for a Bone Spring.

15 Q. For a 160?

16 A. For a 160.

17 Q. So you think you could get six for 240?

18 A. Six for 240? Yes.

19 Q. Okay. All right. I think I'm understanding
20 that concept.

21 EXAMINER BROOKS: I have no more questions
22 for the witness.

23 EXAMINER McMILLAN: Okay. I want the GMT
24 landman to come back up. I've got questions for him.

25

1 HANS SCHUSTER,

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

4 CROSS-EXAMINATION

5 BY EXAMINER McMILLAN:

6 Q. Okay. My question, going back to your Exhibit
7 Number 1, is it safe to say in the northwest quarter,
8 when you submitted those wells, none of your -- the deal
9 you had with Devon was not of record, right? So
10 technically, you didn't have a deal, right?

11 A. Correct.

12 Q. Okay. And as of hearing, you don't have any
13 representation in the northwest quarter as of record,
14 right?

15 A. Correct.

16 Q. Okay. Well, that was my question. I wanted
17 clarity on that point.

18 A. Sure.

19 Q. Okay.

20 EXAMINER BROOKS: I have no questions.

21 MR. BRUCE: Are we all excused,
22 Mr. Examiner?

23 EXAMINER McMILLAN: You're excused.

24 EXAMINER BROOKS: I would like to talk to
25 the attorneys.

1 EXAMINER McMILLAN: Remember, Thursday is
2 the hard date.

3 EXAMINER JONES: No closings?

4 MR. McMILLAN: Well, do we want to save
5 that? We're going to come back.

6 MR. BRUCE: I think I'll save that.

7 EXAMINER BROOKS: Maybe we'll get through a
8 little earlier --

9 MR. BRUCE: Yeah. Thank you.

10 EXAMINER BROOKS: -- two weeks from now.
11 (Laughter.)

12 EXAMINER BROOKS: Gentlemen, I keep a
13 notebook, like many people do. This one is entitled --
14 of course, you probably can't see it from there --
15 "Preservation of Orders, Oil Conservation Division, Oil
16 Conservation Commission." You can see the thickness of
17 the notebook, so you know they're not all in here. The
18 reason the notebook isn't any thicker or it isn't
19 multivolume is because they're hard to find, not because
20 there aren't more of them.

21 I have two listed under the topic
22 "Compulsory Pooling, Selection of Operator." And those
23 two that I have listed are R-10731-B, as in Bravo.

24 MR. BRUCE: 17 -- excuse me.

25 EXAMINER BROOKS: 10731-B, and R-10922.

1 I'm sure those are not the only times that the
2 Commission has spoken to that subject, but they were
3 cited to me by eminent counsel for Concho in a case we
4 heard.

5 MR. BRUCE: Did you say eminent or ancient?
6 (Laughter.)

7 EXAMINER BROOKS: Eminent.

8 So I will ask that those of you who feel,
9 after looking at those, that I should consider others,
10 be so kind as to provide them to us. I say I because I
11 don't have any intention of writing this order, but I
12 will do legal review for it. I mean, this one is too
13 difficult for me, but I will do a legal review on it.

14 MR. BRUCE: I know I've read one of those.
15 I just don't remember.

16 EXAMINER BROOKS: Thank you.

17 Now, Mr. McMillan has something.

18 EXAMINER McMILLAN: This goes back to the
19 gas treatment plant. There has been a hearing order
20 where an operator changed the location, and he made them
21 come back to hearing, and that has been since Director
22 Catanach has been the OCD director. So keep that in
23 mind. If you -- I believe there is -- like I said,
24 there is a case where they changed the surface location.
25 They had to come back to hearing.

1 EXAMINER BROOKS: Well, the order has to be
2 amended.

3 EXAMINER McMILLAN: Yeah. That's where I
4 am.

5 EXAMINER BROOKS: The orders always say
6 what surface location is. It's not a vital term, but
7 it's usually in there.

8 And I guess that's all I have.

9 EXAMINER McMILLAN: I want that point
10 clearly made.

11 All right. Looks like we're done today,
12 and, unfortunately, I can't run out the door.

13 Hearing is adjourned.

14 (Case Numbers 15655, 15656, 15659 and
15 15660 conclude, 5:22 p.m.)

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1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

3

4 CERTIFICATE OF COURT REPORTER

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

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

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

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