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9	CASE NUMBER 15387 CALLED			
10	EOG RESOURCES, INC.			
11	WITNESS PAUL BOLAND			
12	Dr. Mr. Foldovort	Direct 4	Redirect	Further
13	By Mr. Feldewert	-		
14	Examiner Jones	EXAMINAT 11, 13,		
15	Examiner McMillan	13		
16	Examiner Wade	15, 17,	21	
17	WITNESS MATT GARRISON			
18	By Mr. Feldewert	Direct 25	Redirect	Further
19	by III. LCAUCWCAC	25		
20	Examiner Jones	EXAMINAT 37	ION	
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PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

I am Paul Boland, employed by EOG Resources,

whom you're employed, and in what capacity?

24

25

- 1 Inc., and I work as a senior landman in the Midland
- 2 Division.
- Q. And, Mr. Boland, have you previously testified
- 4 before the Division?
- 5 A. No.
- 6 Q. Would you please outline your educational
- 7 background.
- 8 A. I have a bachelor's of science in energy
- 9 management from the University of Oklahoma.
- 10 Q. And when did you receive that degree?
- 11 A. In 2008.
- 12 Q. What has been your work experience since 2008?
- 13 A. I have worked for EOG only for the last
- 14 six-and-a-half-years approximately. I have worked out
- of the Corpus Christi Division, the San Antonio Division
- 16 and, most recently, the Midland Division, working the
- 17 Delaware Basin for the past year.
- 18 Q. With respect to your responsibilities once you
- 19 moved to the Midland Division, did those
- 20 responsibilities as a landman include the Permian Basin
- 21 of New Mexico?
- 22 A. Yes.
- Q. Are you a member of any professional associations
- 24 or affiliations?
- 25 A. Yes. The American Association of Professional

- 1 Landmmen, the New Mexico Landman's Association and the
- 2 Permian Basin Landman Association.
- 3 Q. How long have you been a member of the American
- 4 Association of Petroleum Landmen?
- 5 A. Approximately seven years.
- 6 Q. And what about the other two organizations?
- 7 A. Approximately one year each.
- Q. Are you familiar with the application filed in
- 9 this case?
- 10 A. Yes.
- 11 Q. Are you familiar with the status of the lands in
- 12 the subject area?
- 13 A. Yes.
- MR. FELDEWERT: I would tender Mr. Boland as
- 15 an expert witness in petroleum land matters.
- 16 EXAMINER JONES: Mr. Boland, do you go to the
- 17 courthouse and research -- do abstract work or do you
- 18 call -- do you contract that out?
- 19 THE WITNESS: We contract that out for the
- 20 most part.
- 21 EXAMINER JONES: Mr. Boland is so qualified.
- Q. Would you please turn to what has been marked as
- 23 EOG Exhibit 1, first identify it and explain what the
- 24 company seeks under this application.
- 25 A. This is the proposed unit agreement for the

- 1 Bridge State Units, which comprises 3,520 acres in Lea
- 2 County, New Mexico, which is what we are seeking
- 3 approval of.
- Q. And does this particular agreement follow the
- 5 state form?
- 6 A. Yes, it does.
- 7 Q. And it contains an Exhibit A which provides an
- 8 outline of the proposed unit, correct?
- A. That is correct.
- 10 Q. And then does it also contain as Exhibit B an
- 11 ownership breakdown by tract foot and acreage?
- 12 A. That is correct.
- 13 Q. Is this -- now the form here is state and fee
- 14 exploratory unit, but is this also state acreage?
- 15 A. Yes, it is.
- Q. And is this particular agreement for both
- 17 horizontal and vertical well development?
- 18 A. Yes.
- 19 Q. What depths are being unitized under this form
- 20 agreement?
- 21 A. All depths.
- 22 Q. What interval or formation does the company
- 23 initially seek to develop?
- 24 A. The Bone Spring.
- Q. And, in fact, if I look at paragraph eight of

- 1 this particular agreement, is that the formation that
- 2 will be targeted by the initial unit well?
- 3 A. Yes.
- Q. And have you had the opportunity to sit down with
- 5 the State Land Office and discuss this particular unit?
- 6 A. Yes. We have met with them twice in person and
- 7 have had multiple telephone conversations.
- 8 Q. And have you spoken with them recently about the
- 9 status of their preliminary approval?
- 10 A. Yes, yesterday.
- 11 Q. And what were you informed?
- 12 A. It's my understanding that the preliminary
- 13 approval letter is sitting on the Commissioner's desk
- 14 awaiting execution.
- 15 Q. So we don't have it yet?
- 16 A. No, sir.
- 17 Q. Did they indicate to you that they were going to
- 18 preliminarily approve the unit?
- 19 A. Yes.
- 20 Q. Are there any uncommitted working interest owners
- 21 for this particular unit?
- 22 A. Yes.
- Q. Who is that?
- 24 A. Oxy Y-1 Company.
- Q. Now this is a voluntary unit, correct?

- 1 A. Yes.
- 2 Q. What context have you had with Oxy Y-1 about
- 3 joining this voluntary unit?
- A. We have had both e-mail and telephone exchange in
- 5 regards to the unit and their participation.
- 6 Q. And what is your understanding of the status of
- 7 their decision on participation?
- 8 A. They are still taking it under advisement.
- 9 Q. Okay. Are there -- have you sent them a copy of
- 10 the unit agreement?
- 11 A. Yes.
- 12 Q. Are there any overriding royalty interests in
- 13 these state leases?
- 14 A. Yes.
- 15 Q. And did the company provide notice of this
- 16 hearing to these overriding royalty interest owners?
- 17 A. Yes.
- 18 Q. And, in fact, these overriding royalty interest
- 19 owners, are they the companies from which you acquired
- 20 your interest?
- 21 A. Yes.
- Q. When I say "you," I should say EOG.
- 23 A. Yes.
- Q. And is the affidavit providing notice of this
- 25 hearing to these overriding royalty interest owners

- 1 attached as EOG Exhibit 2?
- 2 A. Yes.
- O. And the entities would be Yates Petroleum, ABO
- 4 Petroleum, and MYCO Industries, correct?
- 5 A. Yes, sir.
- 6 Q. And with respect to this effort to unitize, do
- 7 you already have contractual authority from these three
- 8 entities to unitize this acreage by virtue of the
- 9 assignments?
- 10 A. Yes.
- 11 Q. Were EOG Exhibits 1 and 2 prepared by you or
- 12 compiled under your direction and supervision?
- 13 A. Yes.
- MR. FELDEWERT: I move the admission into
- 15 evidence of EOG Exhibits 1 and 2.
- 16 EXAMINER JONES: Exhibits 1 and 2 are
- 17 admitted.
- 18 (EOG Resources, Inc., Exhibit 1 and 2 were
- offered and admitted.)
- MR. FELDEWERT: I have no further questions
- 21 of this witness. We will be calling a geologist.
- 22 EXAMINER JONES: Okay. Go ahead, Mike.
- 23 EXAMINER McMILLAN: Go ahead.
- 24 EXAMINER JONES: Gabe.
- 25 EXAMINER WADE: You start.

- 1 EXAMINATION BY EXAMINER JONES
- 2 EXAMINER JONES: There is a hole, it looks
- 3 like, in the southwest of the northeast of section 27.
- 4 Is that -- how come?
- 5 THE WITNESS: We have done preliminary
- 6 research on that acreage, and it appears to be an HBP
- 7 old state lease. And our records, as far as the
- 8 ownership, are inclusive. And so we felt uncomfortable
- 9 given the timing including that acreage in the unit at
- 10 this time.
- 11 We did talk to the State Land Office about
- 12 this particular issue as well. And as development of
- 13 the unit acreage progresses to the east, we intend to
- 14 fully utilize that acreage and communitize it with the
- 15 unit acreage.
- 16 EXAMINER JONES: So you can always drill
- it and communitize it or compulsory pool it if need be.
- 18 THE WITNESS: Yes. We would like to
- 19 communitize it.
- 20 EXAMINER JONES: Are you familiar with the
- 21 pool in this general area for the Bone Spring? Is there
- 22 a pool or is this -- is there any existing wells out
- 23 here in the Bone Spring? You are going for all depths
- 24 anyway, though, correct?
- 25 THE WITNESS: Correct.

- 1 EXAMINER JONES: Okay. And also the
- 2 south -- there's a couple of notches in the unit, in
- 3 like the northwest of the -- the northeast of the
- 4 northeast of 20. So if you had your preference, you
- 5 would have a smooth unit boundary; is that correct?
- THE WITNESS: Yes.
- 7 EXAMINER JONES: Okay. Our rules have a
- 8 statement that covers state exploratory units, including
- 9 them as a project area. You'd want that relief also; is
- 10 that correct?
- 11 THE WITNESS: Yes.
- MR. FELDEWERT: Mr. Examiner, I think you
- 13 are correct, under the Division rules this automatically
- 14 would be a project area.
- 15 EXAMINER JONES: Okay.
- 16 If the pools are the same, your surface
- 17 commingle -- I mean that would be not an issue either.
- 18 But also your setbacks between wells within adjacent
- 19 spacing units will be not a problem.
- THE WITNESS: Yes.
- 21 EXAMINER JONES: So Pete didn't tell you
- when the Commissioner would sign this thing?
- THE WITNESS: No, he didn't know. He said
- 24 it was on his desk waiting. It could be today, it could
- 25 be a week from now, just depending on the Commissioner's

- 1 schedule.
- 2 EXAMINER JONES: He may be out golfing with
- 3 the guys.
- 4 THE WITNESS: No comment.
- 5 EXAMINER JONES: I better pass this on to
- 6 the --
- 7 EXAMINATION BY EXAMINER McMILLAN
- 8 EXAMINER McMILLAN: What is that well in
- 9 section 22, that horizontal well producing?
- 10 THE WITNESS: That is not a producing well.
- 11 It's a permitted well. It is a well that is maintaining
- 12 that lease with its operations. That is a well that we
- 13 acquired from Yates Petroleum.
- 14 EXAMINER McMILLAN: And you are trying to
- 15 work on something in the northeast -- is the northeast,
- 16 the northeast of section 20, is that going to be part of
- 17 the unit?
- 18 THE WITNESS: It's not proposed to be a part
- 19 of the unit. That is private ownership. And, again, as
- 20 we progress that way in our development, we will look to
- 21 include them in our project.
- 22 EXAMINATION BY EXAMINER JONES
- 23 EXAMINER JONES: These state leases, as of
- 24 this, did they include a segregation clause for those
- 25 leases or what kind of segregation clause did they use

- 1 for these exploratory leases?
- THE WITNESS: The base lease doesn't have
- 3 any, but the unit agreement does.
- 4 EXAMINER JONES: So it's not a strict
- 5 segregation; it's a modified segregation?
- 6 THE WITNESS: Yes.
- 7 EXAMINER JONES: So we're not seeing the
- 8 proposed breakdown of ownership, but we got your
- 9 testimony that you've got enough interest to control
- 10 formation of the unit. That's what we got so far.
- 11 THE WITNESS: Exhibit B has the breakdown of
- 12 the ownership, although it may not indicate the total
- 13 percentage of the parties on a unitized basis.
- 14 But EOG is the record title owner of all
- 15 leases in the proposed unit. And as far as the
- 16 operating rights go, Oxy Y-1, if participating, would
- 17 have approximately 11 percent operating rights with EOG
- 18 has the balance, so...
- 19 EXAMINER JONES: So you got 89 almost, 88
- 20 and 1/2 percent, all under EOG as the lessee.
- 21 THE WITNESS: Yes, sir.
- 22 EXAMINER JONES: And EOG is also a working
- 23 interest owner, the same percentage?
- 24 THE WITNESS: Yes, sir -- well, record
- 25 title, we have 100 percent. Operating rights, we would

- 1 have approximately 89 percent in the unit area.
- 2 EXAMINER JONES: Go ahead.
- 3 EXAMINATION BY EXAMINER WADE
- 4 EXAMINER WADE: So I quess I'm a little
- 5 confused. Are you asking for the approval of a unit or
- 6 a project area?
- 7 THE WITNESS: A unit.
- 8 EXAMINER WADE: Under what rule?
- 9 MR. FELDEWERT: There is a Division rule
- 10 that discusses units. If you also look at the state
- 11 form, in the whereas clause, it states that the Division
- 12 approves the units.
- 13 EXAMINER WADE: The unit agreement from the
- 14 State Land Office?
- MR. FELDEWERT: Yes. So if I look at
- 16 the whereas -- now, granted, there is a Division rule
- 17 that discusses units. And we've had some issue over
- 18 exactly what that rule means. But as you know, the
- 19 Division has historically approved units.
- 20 EXAMINER WADE: I am not seeing any citation
- 21 in your application, so that's why I'm asking.
- 22 MR. FELDEWERT: Correct. Because I'm not
- 23 sure that rule actually applies to this. That would
- 24 appear, in my opinion, to apply to segregated recovery
- 25 units.

- 1 in time provisions that one could interpret as
- 2 authorizing the Division to approve units. I am looking
- 3 at 70-2-17, subparagraph E, as in Edward. I'm not saying
- 4 that that's exactly what it means, but one could
- 5 interpret that.
- 6 EXAMINER WADE: Is there a question?
- 7 EXAMINATION BY EXAMINER JONES
- 8 EXAMINER JONES: Yes. I was just going to
- 9 ask one question.
- 10 The advertisement for the unit is -- is it
- 11 the same as -- in other words, did Pete change this unit
- 12 yesterday when you talked to him -- had it contracted or
- 13 expanded into lands that weren't advertised here?
- 14 THE WITNESS: No, sir.
- 15 EXAMINER JONES: Okay.
- 16 EXAMINATION BY EXAMINER WADE
- 17 EXAMINER WADE: I quess you -- I might have
- 18 missed this, you said this was a voluntary unit -- we
- 19 are calling it a unit. But what agreement shows it is a
- 20 voluntary? What proof do you have of that?
- 21 THE WITNESS: I think by definition this
- 22 exploratory unit is voluntary. We cannot force Oxy Y-1
- 23 to participate.
- 24 EXAMINER WADE: And that's through the State
- 25 Land Office unit agreement?

- 1 THE WITNESS: Yes.
- 2 MR. FELDEWERT: Well, the Statutory
- 3 Unitization Act does not apply to primary recovery
- 4 units. It only applies to secondary.
- 5 So there's no statutory authority to force
- 6 any party into an exploratory unit. Therefore, the only
- 7 mechanism to bring together their interest into an
- 8 exploratory unit is by contract. So that is why this is
- 9 a voluntary unit.
- 10 EXAMINER WADE: If you execute a unit
- 11 agreement with the State Land Office, it's then a
- 12 project area.
- 13 MR. FELDEWERT: Correct, by definition.
- 14 EXAMINER WADE: Why wouldn't you apply just
- 15 for a project area? Why wouldn't the application be for
- 16 a project area?
- MR. FELDEWERT: Because it's a project area
- 18 by rule. There is no application needed.
- 19 EXAMINER WADE: But I guess what are you
- 20 asking us to approve, then?
- MR. FELDEWERT: I'm asking you to approve
- 22 the combination of the lands into a unit, and by virtue
- 23 of the fourth paragraph here, in this unit agreement,
- 24 the whereas clause, it states that the Oil Conservation
- 25 Division is authorized by the Act, and they cite the

- 1 statute to approve this agreement and the conservation
- 2 provisions thereof.
- 3 EXAMINER WADE: So you think that
- 4 70-2-17(D) --
- 5 MR. FELDEWERT: Well, all I can say is that
- 6 someone at some point in time made the legal
- 7 determination that the Oil and Gas Act, 70-2-1, et seq.,
- 8 authorizes the Division to approve this unit agreement.
- 9 EXAMINER WADE: But we don't know who or
- 10 when.
- MR. FELDEWERT: I personally do not.
- 12 EXAMINER WADE: Okay. And did you talk
- 13 about notice to offset operators? Are we asking for any
- 14 kind of variance in setbacks?
- MR. FELDEWERT: No.
- 16 EXAMINER WADE: It's all statewide rules?
- 17 MR. FELDEWERT: Correct.
- 18 EXAMINER WADE: And how would you report
- 19 production?
- THE WITNESS: I would have to go back and
- 21 look specifically as to how that works.
- 22 EXAMINER WADE: So you don't know at this
- 23 time?
- 24 THE WITNESS: Production would be allocated
- 25 on a surface acre basis in the unit area. So should

- 1 Oxy Y-1 participate, our interests are spread across the
- 2 entire unit area.
- 3 As far as reporting the production to the
- 4 applicable Division, I am not certain at this time.
- 5 EXAMINATION BY EXAMINER JONES
- 6 EXAMINER JONES: This Oxy Y-1 looks like
- 7 they own basically 20 percent of four different tracts.
- 8 So if you don't get their joinder, those tracts will
- 9 drop out, so you will only be left the first four tracts
- 10 in the unit; correct?
- 11 THE WITNESS: That's not my understanding,
- 12 that these acres would still be committed to the unit.
- 13 Those four leases, we actually have an operating unit
- 14 with Oxy by which we could propose wells if necessary.
- 15 EXAMINER JONES: So --
- 16 THE WITNESS: They have an undivided
- interest in each one of these leases. And so I think
- 18 the acreage would still be included within the unit
- 19 boundaries by virtue of our interest in those leases.
- 20 EXAMINER JONES: Because you own the majority
- 21 of these tracts?
- THE WITNESS: Yes, sir.
- 23 EXAMINER JONES: So Pete would go ahead and
- 24 include those, but when you went to drill a well, of
- 25 course you propose on a drill lot basis --

- 1 THE WITNESS: Yes, sir.
- 2 EXAMINER JONES: -- and if they don't
- 3 participate, they would get compulsory pooled?
- 4 MR. FELDEWERT: Correct.
- 5 EXAMINER JONES: Okay.
- 6 EXAMINATION BY EXAMINER WADE
- 7 EXAMINER WADE: I guess we've had some
- 8 issues with some of these unit applications regarding --
- 9 and I didn't see it and I don't know if you talked about
- 10 it -- is there a date, an effective date of this
- 11 exploratory unit?
- 12 THE WITNESS: We have not set an effective
- 13 date. It's pending approval via this hearing.
- 14 EXAMINER WADE: So the OCD would be required
- 15 to approve the nonexecuted exploratory unit agreement,
- 16 and then how would we handle an effective date? In
- 17 other words, when does reporting begin?
- 18 THE WITNESS: We will have to go back and
- 19 take a look at that specifically.
- MR. FELDEWERT: Mr. Examiner, I can tell you
- 21 what historically has happened is that the Division
- 22 issues an order approving the unit, the State Land
- 23 Office executes the unit and that becomes the effective
- 24 date, and then the obligation well must be drilled
- 25 within 60 days of the effective date of the agreement.

development plans to the State Land Office.

THE WITNESS: We have to submit annual

24

25

- 1 EXAMINER WADE: But not to the OCD?
- THE WITNESS: No.
- 3 EXAMINER WADE: Would you be willing to
- 4 submit them to the OCD?
- 5 THE WITNESS: Yes.
- 6 EXAMINER WADE: And what happens -- if
- 7 continuous drilling does not occur, what happens to the
- 8 OCD order at that time; is it still in effect?
- 9 MR. FELDEWERT: Well, I assume that this
- 10 order will have the same language it always has, and
- 11 that is that Division retains jurisdiction over the case
- 12 for purposes of any amendments to the order it deems
- 13 necessary.
- 14 EXAMINER WADE: So would we receive notice
- of any changes to the agreement?
- MR. FELDEWERT: To the agreement?
- 17 EXAMINER WADE: To the exploratory unit
- 18 agreement.
- MR. FELDEWERT: We can certainly provide
- 20 notice to the Division if there's any changes to the
- 21 exploratory unit. To the agreement, I would doubt that
- 22 that would occur because the Commissioner is about ready
- 23 to provide his approval, and they couldn't change it
- 24 without the State Land Office's approval.
- 25 EXAMINER WADE: But you are asking us to

- 1 approve it as well?
- 2 MR. FELDEWERT: Well, the agreement
- 3 itself -- this is from the State Land Office's form --
- 4 not my form -- the State Land Office's form discusses
- 5 the Division approving the unit agreement.
- 6 EXAMINER WADE: You say that the OCD has
- 7 historically approved units, do you mean unit agreements
- 8 like this which is presented before us?
- 9 MR. FELDEWERT: Well, all I can tell you is
- 10 that there have been over the years parties who have put
- 11 units together, they have used the required forms, and
- 12 they have come before the Division seeking an order
- 13 approving the unit.
- I have not gone through every single order
- 15 to see whether it discusses approval of the unit or the
- 16 unit agreement or whether it even makes any
- 17 differentiation between the two. But you'll find
- 18 numerous orders from the Division approving unitized
- 19 units.
- 20 EXAMINER WADE: Units or unit agreements?
- 21 MR. FELDEWERT: I don't know that
- 22 specifically.
- 23 EXAMINER WADE: That's what you are saying,
- 24 okay.
- MR. FELDEWERT: I am not sure it makes a

- 1 distinction within the orders, consciously or
- 2 unconsciously.
- 3 EXAMINER WADE: Any more questions?
- 4 EXAMINER JONES: No.
- 5 EXAMINER McMILLAN: No.
- 6 EXAMINER WADE: I have no further questions.
- 7 EXAMINER JONES: Thank you.
- 8 MR. FELDEWERT: Call our second witness.
- 9 MATT GARRISON
- 10 having been first duly sworn, was examined and testified
- 11 as follows:
- 12 DIRECT EXAMINATION
- 13 BY MR. FELDEWERT:
- Q. Would you please state your name, identify by
- 15 whom you are employed and in what capacity.
- A. My name is Matt Garrison and I'm employed by EOG
- 17 Resources. And I am the exploration manager overseeing
- 18 the Permian Basin development.
- 19 Q. How long have you been the exploration manager?
- 20 A. For two years now, and I have been employed with
- 21 the company for eight.
- Q. Employed with EOG as a geologist?
- 23 A. Yes.
- Q. And have you previously testified before this
- 25 Division and had your credentials accepted as an expert

- in petroleum geology?
- 2 A. Yes, I have.
- 3 Q. Are you familiar with the application filed in
- 4 this case?
- 5 A. Yes, I am.
- 6 Q. Have you conducted a geologic study of the lands
- 7 that are the subject of this application?
- 8 A. I have, yes.
- 9 MR. FELDEWERT: I would tender Mr. Garrison
- 10 as an expert witness in petroleum geology.
- 11 EXAMINER JONES: He is so qualified.
- 12 Q. We examined the unit agreement this morning.
- 13 What is the targeted formation or interval for the
- 14 initial unit well?
- 15 A. EOG intends to develop the Bone Spring. And at
- 16 this time, we have filed for the APD of the initial
- 17 exploratory well to be in the Second Bone Spring
- 18 interval.
- 19 But we intend to take logs and gather data and
- 20 decide at the time from the pilot well whether or not
- 21 that is, indeed, the formation we're going to go after.
- 22 But it will be within the Bone Spring.
- Q. So focusing in on the Bone Spring formation, does
- 24 this particular formation extend across the acreage that
- 25 EOG seeks to be unitized?

- 1 A. Yes. I have provided a structure map here --
- Q. Let me catch up here.
- 3 A. I'm sorry.
- Q. If I turn to what's been marked as EOG Exhibit 3,
- 5 is that the structure map you are talking about?
- 6 A. Yes, correct.
- 7 Q. Okay. Explain to us what you show on here.
- 8 A. So in answer to the prior question about the Bone
- 9 Spring continuing across the proposed unit, I have
- 10 highlighted on this map the outline of the Bridge Unit
- 11 being proposed. And the structure map is at the top of
- 12 the Bone Spring, which is referred to in the basin as
- 13 the Bone Spring line.
- 14 The color codes -- the contours are essentially
- 15 100-foot contours. And you can see that to the east of
- 16 the Bridge Unit proposed acreage is the Central Basin
- 17 Platform itself. And so you can see from the log
- 18 control, where we have log control, we have annotated a
- 19 structure map that shows where the Bone Spring line is
- 20 present. And the Bone Spring line denotes the top of
- 21 the Bone Spring Formation. And so we believe it to be
- 22 continuous across the unit.
- Q. And what do you observe with respect to the
- 24 structure itself; does it dip to the south or how --
- 25 A. Yes, that's correct. The shallower contours are

- 1 up to the north, the 77,000 to 79,000 range.
- We do see structure dip basically down to the
- 3 south and the west, fairly monoclinal dip, nothing that
- 4 would preclude the drilling of any area on this
- 5 particular unit.
- 6 Q. Does that include horizontal wells; do you see
- 7 any structural impediments to developing this unit with
- 8 horizontal wells?
- 9 A. We do not.
- 10 Q. You also have on here various wells that you've
- 11 marked as part of an A to A Prime line; is that correct?
- 12 A. That's correct.
- Q. Okay. And have you chosen a set of wells to put
- 14 together a cross section map?
- 15 A. Yes, I have.
- Q. And the wells that you have chosen, are they
- 17 representative of the area in question?
- 18 A. They were all the wells that we have on the
- 19 proposed Bridge Unit plus a few more than extend down
- 20 into where the play is active.
- 21 Q. Before we leave this exhibit, what is the
- 22 significance of the star that was hand-drawn in the
- 23 southwestern, in the very southwestern quarter of 22
- 24 South, 35 East?
- 25 A. In the printing of the maps, I noticed that we

- 1 had neglected to put one of the wells that are on the
- 2 cross section that you'll see. There are six wells on
- 3 the next exhibit, and there were only five wells denoted
- 4 on the map. So we added the location of where that
- 5 second well should have been. And I apologize for that.
- 6 It was just a typo, and we saw it too late.
- 7 O. Okay. Now if I then turn to what has been marked
- 8 as EOG Exhibit 4, is this the cross section that
- 9 corresponds with the A to A Prime list of wells shown on
- 10 EOG Exhibit 3?
- 11 A. Yes, that is correct. The Paloma Blanco Well is
- 12 represented at the far left of the cross section. The
- 13 well with the hand-drawn star is the Lenox 32 State 2H.
- And just to kind of describe what we are looking
- 15 at here, we have used the same log template on all of
- 16 the wells that we have control on.
- 17 The left tract -- from left to right, the tracts
- 18 should be 1, 2, and 3. In the first tract, the rainbow
- 19 colored curve is the gamma ray curve.
- In the second tract, we have resistivity denoted.
- 21 And that is shallow and deep resistivities, so you can
- 22 start to see areas of separation where we do have
- 23 shallow curves.
- 24 Tract No. 3 is the density and the neutron
- 25 porosity tract. And it gives you kind of an indication

- 1 of reservoir quality.
- 2 O. Let me interrupt you right there just to get us
- 3 oriented again. If I am looking at EOG Exhibit 4, the
- 4 well on the very left side is the beginning of your
- 5 cross section; is that correct?
- 6 A. That is correct.
- 7 O. And then the second well from the left would be
- 8 where the star is located on EOG Exhibit No. 3?
- 9 A. That is correct.
- 10 Q. And then the remaining four wells, are those
- 11 either within or right outside the proposed unit area?
- 12 A. That is correct. That is all the log control we
- 13 have that's down deep.
- 14 Q. Okay. Would you then explain what you see with
- 15 respect to the Bone Spring interval as you move across
- 16 this area and, perhaps, identify other various
- 17 formations that you can review on this map.
- 18 A. Sure. Because we are filing for this unit to be,
- 19 you know, an exploratory unit and we are denoting that
- 20 we are intending to drill the Bone Spring, I felt it
- 21 prudent to show you all the Bone Spring interval itself
- 22 so that we can see what we have to look at.
- 23 From the top down, the green formation top --
- 24 this is a structural cross section, so it is not
- 25 stratigraphically hung on any particular marker.

- 1 The top formation is the Bone Spring Lime.
- 2 Beneath the Bone Spring Lime is the Avalon Shale. The
- 3 Avalon Shale is mostly carbonate up here, very little
- 4 mud rock or shale resource clay type material, as from
- 5 the prior hearing.
- 6 Left up here -- just because of the proximity to
- 7 the platform -- there's too much debris coming off the
- 8 platform, so we don't really deem that to be an overly
- 9 prospective target at this time.
- Going down to the blue marker is the first Bone
- 11 Spring Sand. Typically, the First Bone Spring Sand is
- 12 denoted by a low resistivity marker at the top. And you
- 13 can see in tract 2 all the wells corresponding with that
- 14 low resistivity marker. That is the First Bone Spring
- 15 Sand interval.
- The Second Bone Spring is indicated in the brown
- 17 marker. And you can see again another low resistivity
- 18 marker denoting the Second Bone Spring Sand. And from
- 19 what we can tell on the logs, the sand does appear to be
- 20 across the entirety of the unit, at least from what we
- 21 can tell on the log control.
- We do know that with the proximity to the Central
- 23 Basin Platform that there is some inherent risk
- 24 developing the east side of the lease first, which is
- 25 why we've proposed to drill the west side of the lease

- 1 closer to our known development areas.
- 2 The Third Bone Spring carbonate is the next kind
- 3 of big marker. You see the carbonate down there, cold,
- 4 gamma ray, purple colors, generally very tight.
- 5 However, it does exhibit areas of porosity within it,
- 6 and so we do deem the formation to be prospective as
- 7 well.
- 8 The Third Bone Spring Sand is the last marker
- 9 before you get to the Wolfcamp. And you can start to
- 10 see, as you go to the east on A Prime, the Third Bone
- 11 Spring Sand is demonstrating some thinning across the
- 12 unit. And we do believe that that is associated with
- 13 the movement of the platform at the time of the
- 14 deposition.
- So for the first target out the gate, we've
- 16 decided we'd like to go after the Second Bone Spring
- 17 interval, just because industry has also set the
- 18 precedent of the Second Bone Spring within this general
- 19 area, and so we are going to go after that for the first
- 20 well.
- 21 Q. Do you also show on here -- I forget what you
- 22 call them -- some test indicators testing volume?
- 23 A. That's correct, yes. There are test indicators
- 24 from the wells. People have tested these various zones
- 25 either with an acid job or a small frac job, and those

- 1 are denoted along the tracts themselves.
- 2 You can see them in tract 1 generally. And they
- 3 will test oil. They will test water in some cases. So
- 4 we do believe from the test indicators there -- even the
- 5 DSTs that are denoted -- that the entirety of the Bone
- 6 Spring itself is prospective. We just need a little
- 7 more time to kind of evaluate how many zones are
- 8 prospective and get some log data to confirm it.
- 9 Q. Did you visit with the State Land Office about
- 10 your analysis?
- 11 A. Yes. On two separate occasions, we came up and
- 12 met the State Land Office geologic group, and we
- 13 presented to them these cross sections and maps and we
- 14 had very candid conversations about it.
- Q. Given the exploratory nature of this area, did
- 16 they agree that it made sense to have a development
- 17 plan -- a unitized development plan that would allow you
- 18 to examine this particular area in an orderly fashion?
- 19 A. That's correct. And to shed some light on that,
- 20 the industry as a whole has developed -- if we look back
- 21 at Exhibit 3, the industry has set the precedent that
- 22 the Second Bone Spring and the Third Bone Spring are the
- 23 dominantly produced intervals in this area.
- 24 But the majority of the drilling occurs in 23,33,
- 25 22,33, 21,33, and, to a lesser degree, in the township

- 1 to the west, 22,34 and 23,34.
- 2 And adjacent to this particular block in 22,35,
- 3 Casza has tested the Bone Spring in a couple of
- 4 different wells, Second Bone Spring and Third Bone
- 5 Spring. Their well results are significantly poorer
- 6 than what's been established by industry two townships
- 7 over.
- 8 So we do believe that the formation is a little
- 9 more challenging. Geologically, you see some of the
- 10 effect even on this Exhibit 4. The amount of carbonate
- 11 being brought into the system, it seems to reduce
- 12 overall reservoir quality from what we can tell, from
- 13 further down south and west, where you see well number A
- 14 on the cross section.
- 15 Q. Have you ascertained how you'll begin developing
- 16 and analyzing this unitized area?
- 17 A. Yes. We felt in discussions with the State Land
- 18 Office and, internally, at EOG, we feel that it would be
- 19 prudent to test the Second Bone Spring first, just
- 20 because of the depth of the Second Bone Spring and the
- 21 more consistent results a township or two to the west.
- Q. And have you decided on where you would begin
- 23 your development of the unit?
- A. Yes. I don't have that in front of me right now,
- 25 but it's in, I believe, section 20 -- is that correct?

- 1 -- the surface hole.
- 2 Q. So if you look at EOG Exhibit 1, and we go to the
- 3 Exhibit A to that unit agreement, which is a map of the
- 4 unitized area showing the various sections involved --
- 5 do you have that in front of you?
- 6 A. Exhibit 1.
- 7 Q. So Exhibit 1, almost toward the end, Exhibit A, a
- 8 map of the unitized area. There you go.
- 9 A. Yes.
- 10 O. Does that assist?
- 11 A. Yes, that's it.
- 12 Q. And identifying where EOG and the State Land
- 13 Office ascertain would be the best starting point for
- 14 developing --
- 15 A. Section 20 is where we decided we were going to
- 16 do it. The surface of the well would be in the
- 17 southwest quarter of section 20. So that would be the
- 18 west half of the west half. So, basically, 330 off the
- 19 lines, honoring the setbacks of the Bone Spring pool.
- 20 And we intend to drill on section 20 to the
- 21 northwest. So the surface hole's in the southwest,
- 22 drilling to the north.
- Q. Based on your analysis, is it your opinion that
- 24 the formation that will be the initial target for this
- 25 unitized area is fairly continuous across the unitized

- 1 acrreage?
- 2 A. Yes. This particular portion of the unit, we
- 3 have 3D seismic coverage over, so we were wanting to
- 4 test the first well where we have 3D seismic, where we
- 5 can tie in -- get some logs, tie it the seismic and do
- 6 the appropriate level of analysis, yes.
- 7 Q. Were there any faults or pinch-outs or geologic
- 8 impediments that would prevent this acreage from being
- 9 developed under an orderly unit development plan?
- 10 A. No, we do not see any at this time.
- 11 Q. In your opinion, will approval in of this
- 12 application be in the best of conservation and the
- 13 prevention of waste and of protection of correlative
- 14 rights?
- 15 A. We believe so, yes.
- Q. Were EOG Exhibits 3 and 4 prepared by you or
- 17 compiled under your direction and supervision?
- 18 A. They were, yes.
- 19 MR. FELDEWERT: Mr. Examiner, I move the
- 20 admission into evidence of EOG Exhibits 3 and 4.
- 21 EXAMINER JONES: Exhibits 3 and 4 are
- 22 admitted.
- 23 (EOG Resources, Inc., Exhibits 3 and 4 were
- offered and admitted.)
- MR. FELDEWERT: And that concludes my

- 1 examination of this witness.
- 2 EXAMINER JONES: Go ahead.
- 3 EXAMINER WADE: I don't have any questions.
- 4 EXAMINATION BY EXAMINER JONES
- 5 EXAMINER JONES: So that exploration well,
- 6 southwest of southwest is the spud location of 20, and
- 7 it is going to go directly north or is it going to go --
- 8 THE WITNESS: Due north. We are going to
- 9 honor the setback lines and drill due north.
- 10 EXAMINER JONES: So, basically, what I heard
- 11 is you saying that the Bone Spring is even more prolific
- 12 to the southwest of here, but we are kind of moving into
- 13 unchartered territory here.
- 14 THE WITNESS: We believe that is the case,
- 15 yes. You can look at production maps and you can look
- 16 at industry activity maps, and the majority of the
- 17 activity in the Bone Spring is occuring one to two
- 18 townships west of here. So that's why we are thinking
- 19 this needs a little more time to assess the geology.
- 20 EXAMINER JONES: So what about other
- 21 targets? This unit goes to all depths. And is there a
- 22 Pennsylvanian target?
- THE WITNESS: Good question.
- The first well out of the gate, we intend to
- 25 drill the pilot well into the Wolfcamp and assess the

- 1 Wolfcamp as well as the Bone Spring for production
- 2 purposes. We would -- we play the Wolfcamp in New
- 3 Mexico, and so we certainly don't want to not be looking
- 4 at the Wolfcamp.
- 5 EXAMINER JONES: The Upper Wolfcamp?
- THE WITNESS: The Upper Wolfcamp, correct.
- 7 EXAMINER JONES: Where is the sweet spot for
- 8 the upper Wolfcamp in relation to this --
- 9 THE WITNESS: This would be the furthest
- 10 north test of that particular formation. The activity
- 11 again is a couple of townships to the west and about one
- 12 township to the south, right along the Texas, New Mexico
- 13 border.
- 14 EXAMINER JONES: Okay.
- THE WITNESS: And then, of course, in Texas,
- 16 the Wolfcamp is played extensively all the way down
- 17 through Loving and Ward Counties and Reeves.
- 18 EXAMINER JONES: So there's no -- these
- 19 members of the Bone Spring, are they unconformities or
- 20 are they just different transgression events?
- 21 THE WITNESS: No, they are not
- 22 unconformities. They are a case study in reciprocal
- 23 sedimentation. So it is sequence stratigraphy, high
- 24 stands and low stands. The low stand deposits are the
- 25 sandstones and the high stands are the carbonates.

- 1 Where the waters are high, the carbonates
- 2 flourish on the shelf, and they deposit debris down into
- 3 the basin. And when the sea levels are low, the shelf
- 4 is exposed and the sands wash in.
- 5 So you can track beautiful cycles up and
- 6 down the entire Bone Spring, so not unconformities.
- 7 EXAMINER JONES: And where was it charged
- 8 from? What was the source rock?
- 9 THE WITNESS: There's several theories
- 10 about the source. We have our own kind of internal
- 11 discussions on that. But we believe a lot of it is
- 12 sourced from the Wolfcamp. And then there is also
- 13 internal shale markers themselves, like the Avalon and
- 14 even some of the organic members of the First Bone
- 15 Spring. So we do believe that there's an element of
- 16 self-sourcing as well as migration into the Bone Spring
- 17 via adjacent source rocks.
- 18 EXAMINER JONES: Higher pressures down in
- 19 the Wolfcamp?
- THE WITNESS: Yes, sir.
- 21 EXAMINER JONES: So it might be generating
- 22 right now?
- THE WITNESS: The bottom hole temperatures
- 24 in the areas that we work down here don't seem to
- 25 suggest that we're actually in the generative window

- 1 anymore. But the pressure is still there, that's
- 2 correct.
- 3 EXAMINER JONES: Okay. You have a seismic
- 4 quy here?
- 5 THE WITNESS: Yes. We have the west --
- 6 basically, there's two surveys. There's a survey that
- 7 covers the east half and then there's a survey that
- 8 covers the west half, so two separate surveys. There's
- 9 a small seismic gap in the middle of the unit where the
- 10 surveys just didn't overlap.
- 11 The challenge, of course, is you've got some
- 12 of the Capitan Reef that sits on the top, and so that
- does tend to have a velocity pull-up in the seismic.
- 14 And so we are getting a good depth log to tie into the
- 15 seismic, will help us constrain the pull-up on the
- 16 seismic.
- 17 EXAMINER JONES: You would run a sonic?
- 18 THE WITNESS: Yes, sir, we would run a
- 19 sonic.
- 20 EXAMINER JONES: So is your focus Permian
- 21 Basin at EOG? Are you going to spend your money in
- 22 North Dakota or Eagle Ford? Do you have to go argue for
- 23 your prospects every year?
- THE WITNESS: Yes. Yes, our prospects have
- 25 to stand among the Boken and the Eagle Ford, and so we

	D 41	
1	Page 41 are in direct competition for capital from them.	
2	EXAMINER JONES: You have a pretty strong	
3	case?	
4	THE WITNESS: Yes, we do.	
5	EXAMINER JONES: Thank you very much.	
6	THE WITNESS: No problem.	
7	MR. FELDEWERT: That concludes our	
8	presentation.	
9	EXAMINER JONES: Let's take case 15387 under	
10	advisement. And let's take a 15-minute break. Try to	
11	come back at five till ten.	
12	come pack at five till ten.	
13		
14		
15	(Time noted 9:40 a.m.)	
16	(Time noted 5.40 a.m.)	
17		
18		
19	i co baraby certify that the foregoing is	
20	a compliste record of the proceedings in the Esaminer hearing of Case No.	
21	heard by me or	
22	Oll Coaservation Division	
23	SIL CONSCIVENCE CONSCIUNT	
24		
25		

	Page 42	2
1	STATE OF NEW MEXICO)	
2) ss.	
3	COUNTY OF BERNALILLO)	
4		
5		
6		
7	REPORTER'S CERTIFICATE	
8	I, ELLEN H. ALLANIC, New Mexico Reporter CCR	
9	No. 100, DO HEREBY CERTIFY that on Thursday, October 1,	
10	2015, the proceedings in the above-captioned matter were taken before me, that I did report in stenographic	ļ
11	shorthand the proceedings set forth herein, and the foregoing pages are a true and correct transcription to	
12	the best of my ability and control.	;
13		
14	I FURTHER CERTIFY that I am neither employed by nor related to nor contracted with (unless excepted by	
15	the rules) any of the parties or attorneys in this case, and that I have no interest whatsoever in the final	
	disposition of this case in any court.	
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