

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

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

APPLICATION OF CHESAPEAKE EXPLORATION, LCC,
FOR STATUTORY UNITIZATION OF THE QUAIL QUEEN
UNIT AREA, LEA COUNTY, NEW MEXICO

CASE NO. 14001

AND

APPLICATION OF CHESAPEAKE EXPLORATION, LCC,
FOR APPROVAL OF A WATERFLOOD PROJECT AND
QUALIFICATION OF THE PROJECT AREA OF THE
QUAIL QUEEN UNIT FOR THE RECOVERED OIL TAX
RATE PURSUANT TO THE ENHANCED OIL RECOVERY
ACT, LEA COUNTY, NEW MEXICO

CASE NO. 14002

CASE NO. 14014: Order Adopted
CASE NO. 14074: Cont to 11/7, Special
Setting
CASE NO. 14134: Cont to 12/11
CASE NO. 14141: Cont to 12/11

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REPORTER'S TRANSCRIPT OF PROCEEDINGS

COMMISSIONER HEARING

BEFORE: MARK E. FESMIRE, CHAIRMAN
JAMI BAILEY, COMMISSIONER
WILLIAM C. OLSON, COMMISSIONER

September 11, 2008

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico
Oil Conservation Commission, MARK E. FESMIRE, Chairman, on
Thursday, September 11, 2008, at the New Mexico Energy,
Minerals and Natural Resources Department, 1220 South
Saint Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: JOYCE D. CALVERT, P-03
Paul Baca Court Reporters
500 Fourth Street, NW, Suite 105
Albuquerque, New Mexico 87102

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A P P E A R A N C E S

FOR THE APPLICANT:

William F. Carr
HOLLAND & HART, LLP
110 North Guadalupe, Suite 1
Santa Fe, New Mexico 87501

FOR THE RESPONDENT:

James G. Bruce, Esq.
ATTORNEY AT LAW
P.O. Box 1056
Santa Fe, New Mexico 87504

FOR THE OIL CONSERVATION DIVISION:

Gail MacQuesten
Assistant General Counsel
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

ALSO PRESENT:

Cheryl Bada, Assistant General Counsel
Mark A. Smith, Assistant General Counsel

1 CHAIRMAN FESMIRE: At this time, we will call to
2 order the Thursday, September 11th, 2008, regularly scheduled
3 meeting of the New Mexico Oil Conservation Commission. Let the
4 record reflect that it is 1:00 p.m., and that all three
5 Commissioners are present, Commissioner Baily,
6 Commissioner Olson and Commissioner Fesmire.

7 Before we start, I want to welcome back our
8 secretary. She's been gone, and I want to thank Theresa for
9 filling in for her for the time that she was gone. Thank you,
10 and welcome.

11 First item on the agenda this morning is the minutes
12 of the August 14th, 2008, Commission meeting. Have the
13 Commissioners had an opportunity to look at those minutes?

14 COMMISSIONER BAILEY: Yes, I have, and I move we
15 adopt them.

16 CHAIRMAN FESMIRE: Commissioner Olson?

17 COMMISSIONER OLSON: Yeah, I made a couple of edits.
18 Would they be folded into it, I guess?

19 CHAIRMAN FESMIRE: Were Commissioner Olson's edits
20 folded into the minutes?

21 MS. DURAN-SAENZ: I don't recall that they were.

22 CHAIRMAN FESMIRE: Counsel, can we hand-make the
23 edits or should we wait to adopt them at the next regularly
24 scheduled meeting?

25 MS. BADA: I think you can adopt them and just direct

1 the Commission.

2 COMMISSIONER OLSON: I'll second that, as long as we
3 can fold in some of the edits that I have. Because I see, like
4 for example, on the de novo Case 14055, it didn't mention who
5 made the motions and the seconds. We usually -- it's in other
6 places in here, but it wasn't in this one. I had a few other
7 edits that were in here as well. I want to make sure it's
8 accurately reflected.

9 CHAIRMAN FESMIRE: Why don't you tell us what those
10 edits would be and see if Jamie and I have any objection to
11 them.

12 COMMISSIONER OLSON: Well, on the first one, there
13 was -- it's on de novo Case 14055. It just talks about a
14 motion and a second. I think it was a motion by Commissioner
15 Baily and a second by Commissioner Olson, just to clarify the
16 motions that were made. It was actually several edits. I
17 don't know if you want to go through all these.

18 CHAIRMAN FESMIRE: Why don't you just read them real
19 quick, and we'll see if there's anything that --

20 COMMISSIONER OLSON: Okay. I had on the de novo
21 Case 14041, identifying what witness it was that wasn't
22 available. It was Jane Prouty. And that it wasn't that she
23 wasn't available, I think it was just that she wasn't currently
24 available for swearing in at that point.

25 COMMISSIONER BAILEY: No problem.

1 CHAIRMAN FESMIRE: No problem.

2 COMMISSIONER OLSON: In the section on opening
3 statements, it talked about Division's opening statement --
4 violations. I think it should be violations of OCD rules just
5 for clarity. I was just adding "of OCD rules."

6 And there's a couple of typos in a few spots as well
7 where it's "explains" verses "explained." There were a couple
8 of other typos in that section. And then I think just for
9 consistency throughout this, I think it listed a lot of this
10 as -- in some places it listed the operator as defined as "the
11 operator." In some places it's "Marks and Garner." It should
12 be used consistently through the whole thing as either Marks
13 and Garner Production Limited Company or the operator.

14 And I had a couple of other minor typos. In just one
15 place where it says "attempts of" instead of "attempts by."
16 And I think the rest of them are minor.

17 And then in the cross-examination of Mr. Welborn, I
18 think just to clarify, "Mr. Fesmire overruled the objection
19 that was made by Mr. Padilla."

20 And I think that's it.

21 CHAIRMAN FESMIRE: Commissioner Bailey, do you have
22 any problems with this?

23 COMMISSIONER BAILEY: I have no problems with this.

24 CHAIRMAN FESMIRE: Nor do I. So counsel, we can --

25 MS. BADA: I think you should move to have the

1 minutes adopted as revised.

2 CHAIRMAN FESMIRE: Okay. At this time, the Chair
3 would accept a motion to adopt the minutes as amended and
4 instruct the secretary to make those corrections.

5 COMMISSIONER BAILEY: I so move.

6 COMMISSIONER OLSON: Second.

7 CHAIRMAN FESMIRE: All those in favor signify by
8 saying "aye."

9 COMMISSIONER BAILEY: Aye.

10 COMMISSIONER OLSON: Aye.

11 CHAIRMAN FESMIRE: Aye. The minutes will be so
12 adopted with the instructions to the secretary to make those
13 corrections. And upon those corrections, the Chairman will
14 sign them and make them part of the record.

15 COMMISSIONER OLSON: I can e-mail them back to you so
16 you all get an electronic version.

17 CHAIRMAN FESMIRE: Okay. The next item on the agenda
18 is Case No. 14041, the de novo Application of the New Mexico
19 Oil Conservation Division for a Compliance Order Against Marks
20 and Garner Production Ltd Company. The Commission deliberated
21 and had directed counsel to draft an order. Have the
22 Commissioners had a chance to review the order presented by
23 counsel?

24 COMMISSIONER BAILEY: Yes, I have. And I believe it
25 accurately reflects the decisions that we reached.

1 CHAIRMAN FESMIRE: Commissioner Olson, did you have a
2 chance to look at it?

3 COMMISSIONER OLSON: Yes, I have, and I agree with
4 Commissioner Bailey's assessment, and I'll second that.

5 CHAIRMAN FESMIRE: All those in favor of adopting the
6 order as the decision of the Commission, signify by saying
7 "aye."

8 COMMISSIONER BAILEY: Aye.

9 COMMISSIONER OLSON: Aye.

10 CHAIRMAN FESMIRE: Aye. Let the record reflect the
11 decision was unanimous. The Chair has signed the order and
12 will ask Commissioner Bailey for her signature.

13 And to Commissioner Olson for his signature.

14 Let the record reflect that the order has been
15 executed by all three Commissioners and transmitted to the
16 secretary for reporting.

17 The next case on the docket is Case No. 14074. It's
18 the de novo Application of the New Mexico Oil Conservation
19 Division for a Compliance Order Against Jackie Brewer d/b/a
20 Sandlot Energy. I understand that at the request of counsel,
21 this case has been continued to the November 7th special
22 setting, and the record will so reflect that.

23 The next case is Case No. 14001. It's the
24 Application of Chesapeake Exploration, LLC, for Statutory
25 Unitization in the Quail Queen Unit in Lea County, New Mexico.

1 There's a companion case to that case. It's Case No. 14002,
2 the Application of Chesapeake Exploration, LLC, for Approval
3 for a Waterflood Project and Qualification of the Project for
4 the Recovered Oil Tax Rate Pursuant to the Enhanced Oil
5 Recovery Act in Lea County, New Mexico.

6 At this time, I'm assuming that counsel agrees with
7 the suggestion that we handle both of those cases
8 simultaneously.

9 MR. BRUCE: Yes, sir.

10 MR. CARR: Yes, Mr. Chairman, we do and would request
11 that one order be entered as consolidated cases.

12 CHAIRMAN FESMIRE: Okay. At this time, the
13 Commission will therefore call Cases No. 14001 and 14002 and
14 ask the attorneys to make their appearances at this time.

15 MR. CARR: May it please the Commission, my name is
16 William F. Carr with the Santa Fe office of Holland and Hart,
17 LLP. We represent Chesapeake Operating, Inc., in these
18 consolidated cases, and I have three witnesses.

19 CHAIRMAN FESMIRE: Okay. Mr. Bruce?

20 MR. BRUCE: Mr. Chairman, Jim Bruce of Santa Fe
21 representing Pintail Production Company, Inc. I have no
22 witnesses.

23 CHAIRMAN FESMIRE: Mr. Carr?

24 MS. MACQUESTEN: Mr. Chairman, Gail MacQuesten,
25 appearing for the Oil Conservation Division.

1 Mr. Chairman, the Oil Conservation Division entered
2 its appearance to alert the Commission to two potential
3 problems in this case, and I'm here to report that both
4 problems have been resolved.

5 The first issue was that the original application was
6 not in the name of the operator of record of the wells. An
7 amended application was filed in the case under the name of the
8 correct operator.

9 The second issue was that the operator of record was
10 out of compliance with Rule 40 because it had too many inactive
11 wells. The operator has entered into an Agreed Compliance
12 Order reducing the number of inactive wells on the list and is
13 currently in compliance of Rule 40.

14 CHAIRMAN FESMIRE: Okay. Ms. MacQuesten, who was the
15 prior operator of record?

16 MS. MACQUESTEN: Well, the operator of record never
17 changed. The operator of record was always Chesapeake
18 Operating, Inc. The problem was that the application was
19 brought under the name of another Chesapeake entity.

20 CHAIRMAN FESMIRE: Okay. And that's been resolved to
21 the OCD's satisfaction?

22 MS. MACQUESTEN: Both the issues have been resolved,
23 and the OCD takes no position on the underlying issues in this
24 case and won't be participating in the case.

25 CHAIRMAN FESMIRE: Thank you, Ms. MacQuesten.

1 Mr. Carr, would you ask your witnesses to stand and
2 be sworn, please?

3 [Witnesses sworn.]

4 MR. CARR: Mr. Chairman, may I give a brief opening
5 statement?

6 CHAIRMAN FESMIRE: You may, sir.

7 MR. CARR: Mr. Chairman, this case, these
8 applications, were originally heard by the Division Examiner on
9 November 1st of 2007. At that time, the applications were
10 opposed by Pintail Production Company, Pride Energy Company,
11 Gene A. Snow Operating Company.

12 Basically their objection was to the participation
13 formula in the unit agreement. Pintail called a witness and
14 proposed an alternative participation formula. An order was
15 entered by the Division on June 2nd of 2008. The order
16 approved statutory unitization. The order approved the
17 waterflood project, but it imposed a number of conditions on
18 Chesapeake that had to be met prior to the commencement of
19 operations.

20 Chesapeake looked at this order and concluded that,
21 although the participation formula was different than what they
22 had proposed, it was a reasonable way to allocate to the
23 various owners their repetitive share of the benefits of
24 unitization, and they decided to go forward in accordance with
25 the Division's order. To do that, they amended, as the

1 evidence will show, the unit agreement, and they resubmitted it
2 to the interest owners in the unit area.

3 By so doing, they changed the participation formula
4 and accepted what the Examiner had recommended. So although
5 this is a de novo case, we are not before you proposing what we
6 originally proposed. We have moved forward through that
7 process. And we now have a case where we are asking you to
8 approve what the Division ordered and what we have accepted.

9 As Ms. MacQuesten had indicated, I had filed the case
10 under the name of Chesapeake Exploration, LLC, and actually
11 it's Chesapeake Operating Inc. that is authorized to operate
12 wells under an appropriate OGRID number. And so at her
13 request, we are initiating procedures to change the designation
14 of operator in the unit agreement. That is not done, but
15 underway. And we readvertised the case, and we re-notified
16 everybody, so that there's no confusion as to who the
17 appropriate operator is.

18 This matter has been pending for about a year. Some
19 of it's our fault. We now have Agreed Compliance Order 198,
20 and we're in compliance with Rule 40. We have the application
21 correctly before you. And we're here now in a de novo setting.
22 And what we're going to do is present our full case to you
23 again, but we have changed the participation factors. And we
24 want it understood that what we are seeking here today is the
25 same thing that the Division ordered at the end of the -- when

1 the order was issued in June. Because we had been operating
2 under that order for a couple of months, we not only changed
3 the participation formula, we have gone out to other people and
4 we've had people ratify that wouldn't ratify before.

5 So we're not in a position just to roll back and run
6 this again as if it were a new hearing. So I think -- that's
7 something I just wanted to put in context at the beginning of
8 the case. We've been trying to get an approval and the unit in
9 place for about a year and we would ask that at the end of this
10 hearing, the order be expedited.

11 CHAIRMAN FESMIRE: Okay. Mr. Carr, Pintail is the
12 only non-ratifying party? Pride and Snow have already
13 ratified?

14 MR. CARR: No. Pride has ratified. Snow has not
15 responded. And there are a couple of other very small interest
16 owners that simply have not responded to us. The evidence will
17 show that, at this point in time, 96.65 percent of the working
18 interest is committed. And we have a preliminary approval from
19 the Commissioner of Land, and the unit is 100 percent State
20 lands where 100 percent of the royalty would be in.

21 CHAIRMAN FESMIRE: Mr. Bruce?

22 MR. BRUCE: Very briefly, Mr. Chairman. Pintail does
23 not object to the unitization or the waterflood, and would
24 encourage, obviously, Chesapeake to move forward in the
25 original hearing.

1 Pintail, through its owner Mr. Mueller, that's
2 M-u-e-l-l-e-r, contested the old allocation formula, especially
3 with respect to estimated ultimate recovery. The Division went
4 along with him on that, but also altered other factors which he
5 did not like. And rather than go through that now, I think at
6 the end of the hearing, I can make about a 90-second
7 presentation to say where we dispute and present Pintail's
8 position.

9 I'd rather just go forward with the evidence at this
10 time.

11 CHAIRMAN FESMIRE: Mr. Carr, call your first witness.

12 MR. CARR: May it please the Commission, at this time
13 we call Terry Frohnapfel.

14 Does everyone have a set of our exhibits? We
15 pre-filed them.

16 CHAIRMAN FESMIRE: How do you spell Mr. Frohnapfel's
17 last name?

18 MR. CARR: F-r-o-h-n-a-p-f-e-l.

19 TERRENCE ALEXANDER FROHNAFEL
20 after having been first duly sworn under oath,
21 was questioned and testified as follows:

22 DIRECT EXAMINATION

23 BY MR. CARR:

24 Q. State your name for the record, please.

25 A. Terrence Alexander Frohnapfel.

1 Q. Mr. Frohnapfel, where do you reside?

2 A. Where am I employed or reside?

3 Q. Where do you reside?

4 A. I reside in Edmond, Oklahoma.

5 Q. And by whom are you employed?

6 A. Chesapeake Energy Corp.

7 Q. And what is your current position at Chesapeake?

8 A. North Permian senior landman.

9 Q. And have you previously testified before the
10 New Mexico Oil Conservation Commission?

11 A. Not the full Commission, but I have the
12 New Mexico Oil Conservation Division.

13 Q. Could you review for the Commission your
14 educational background?

15 A. Bachelor's of science from Oklahoma State
16 University. I have a CPL, which is a Certified Petroleum
17 Landman, registration, so --

18 Q. Since graduation, for whom have you worked?

19 A. I've worked for several oil companies, different
20 ones in Tulsa, and three-and-a-half years now for Chesapeake.

21 Q. Are you the land person that has been responsible
22 for the unitization of the Quail Queen unit area?

23 A. Yes, I am.

24 Q. And are you familiar with the applications filed
25 in each of these cases?

1 A. Yes.

2 Q. Are you familiar with the status of the lands
3 involved in the proposed Quail Queen unit area?

4 A. Yes.

5 MR. CARR: We tender Mr. Frohnapfel as an expert in
6 petroleum land matters.

7 MR. BRUCE: No objection.

8 CHAIRMAN FESMIRE: Mr. Frohnapfel will be so
9 accepted.

10 Q. (By Mr. Carr): Mr. Frohnapfel, would you briefly
11 state what it is that Chesapeake Operating, Inc., seeks in this
12 case?

13 A. Statutory unitization of the proposed Quail Queen
14 unit, approval of the waterflood project in the unit area, and
15 qualification of the project for incentive tax rate authorized
16 by the New Mexico Enhanced Oil Recovery Act.

17 Q. Would you just identify for the Commission what
18 has been marked as Chesapeake Exhibit A?

19 A. That's the order No. R-12952.

20 Q. And is it correct that Chesapeake is asking the
21 Commission to basically affirm or enter a new order doing the
22 same thing that the Division actually did in this case?

23 A. That's correct.

24 Q. Could you identify what has been marked as
25 Exhibit No. 1 and review this for the Commission?

1 A. That's the same as Exhibit A to the unit
2 agreement. It shows the proposed unit boundary. It's about
3 25 miles southwest of Hobbs. The field was discovered in
4 May 1967, and it shows all the Queen wells.

5 Q. And this plat also shows a number of acres in the
6 unit, correct?

7 A. Correct.

8 Q. And what is the character of the land in this
9 unit?

10 A. It's 100 percent State land.

11 Q. And there are 840 acres; is that correct?

12 A. Right.

13 Q. Let's go to Exhibit No. 2. Would you identify
14 that, please?

15 A. That's the standard form that the State likes to
16 use. It's State fee, provides for waterflooding, sets out the
17 basis for participation for all interest owners in the unitized
18 substances.

19 Q. Has this unit agreement been revised in
20 accordance with the order of the Oil Conservation Division?

21 A. Yes.

22 Q. It still bears the name of -- let's see --
23 Chesapeake Exploration, LLC; is that correct?

24 A. Yes. And they are entitled.

25 Q. And are you undertaking appropriate procedures to

1 change that to Chesapeake Operating?

2 A. Yes.

3 Q. Are there any other changes in the unit agreement
4 when you compare this one to the one that we presented to the
5 Examiner?

6 A. Just other than the tract participating factors
7 and the interest amounts on some of the exhibits, but
8 everything else remains the same.

9 Q. Let's go to Exhibit No. 3. Would you identify
10 this, please?

11 A. It's the listing that shows participation in the
12 unit area by tract. It's the tract participating factors.
13 It's the same as Exhibit C in the unit agreement.

14 Q. And placing a 40-percent weight on ultimate
15 primary and pore volume, those were, in fact, what was ordered
16 by the Oil Conservation Division?

17 A. Yes.

18 Q. What is Exhibit No. 4?

19 A. That's the name changes for all the wells,
20 re-designation of names.

21 Q. And Exhibit 5?

22 A. That is the unit operating agreement.

23 Q. Basically, this is the same agreement that was
24 presented before?

25 A. They're all the same.

1 Q. Some schedules have been revised, but the text is
2 the same?

3 A. Correct.

4 Q. Could you refer to Chesapeake Exhibit No. 6 and
5 basically explain to the Commission what this is?

6 A. Okay. That was a letter that we sent out August
7 29 of '07, the first contact that we made to all the interest
8 owners talking about the unit agreement, unit operating
9 agreement, ratifications, election ballot, and the feasibility
10 study -- just our plan to do the waterflood.

11 Q. And was this your first effort to obtain a
12 voluntary participation in the proposed unit?

13 A. Yes.

14 Q. I'd ask you to go out of order and go to Exhibit
15 No. 8.

16 A. Okay. The notice?

17 Q. Is Exhibit No. 8 the copy of the letter by which
18 you transmitted the revised unit agreement to the interest
19 owners in the unit as required by the Division?

20 A. Yes.

21 Q. Attached to the unit agreement, were operating
22 agreement forms -- or an operating agreement and ratification
23 forms; is that correct?

24 A. That is correct.

25 Q. All right. Let's -- what is the status at this

1 time of the voluntary commitment to the unit of the working
2 interest owners?

3 A. The working interest owners, 96.65 percent have
4 approved. We've got preliminary approval from 100 percent of
5 the mineral interest ownership.

6 Q. As to Pintail, what is the status of your
7 negotiations with them?

8 A. We've talked to them several times on the phone
9 and they still have a problem with the TPF, the pool volume.

10 Q. Have you been able to reach an agreement with
11 Pintail?

12 A. No.

13 Q. What about Pride Energy?

14 A. Pride Energy has approved the new unit operating
15 agreement, the unit agreement.

16 Q. Have they agreed to the new participation
17 formulas?

18 A. They have ratified the whole plan.

19 Q. What about the Gene A. Snow interest. Have you
20 heard from them?

21 A. We have not gotten a response back from them.
22 They verbally have not opposed the unit, but they have just
23 failed to respond.

24 Q. Could you refer to what has been marked
25 Chesapeake Exhibit No. 7 and identify that for the Commission?

1 A. Okay. That's the preliminary approval letter
2 from the Commissioner of Land Office.

3 Q. This is the approval letter dated September 27,
4 2007; is that right?

5 A. Right.

6 Q. And would you then would jump out of order again
7 and go to what has been marked Exhibit No 26. What is that?

8 A. Revised preliminary approval letter.

9 Q. And this approval letter was, in fact, received
10 after we pre-filed our exhibits; is that correct?

11 A. Correct.

12 Q. You resubmitted the unit documents to the Land
13 Office?

14 A. Correct.

15 Q. And you again have their preliminary approval?

16 A. Yes.

17 Q. When the land office --

18 CHAIRMAN FESMIRE: Mr. Carr?

19 MR. CARR: Yes.

20 CHAIRMAN FESMIRE: I don't think we have a copy
21 of 26.

22 MR. CARR: You know why you don't have a copy of 26
23 is because we received it after we pre-filed. And I'll give
24 you the original. If you would like additional copies, I will
25 provide that.

1 CHAIRMAN FESMIRE: Mr. Carr, with your permission,
2 may the court reporter have the original or would you like to
3 make a copy?

4 MR. CARR: You have my permission, if you desire,
5 Mr. Chairman -- anything.

6 Q. (By Mr. Carr): Mr. Frohnapfel, do you believe
7 you've done all that you can reasonably can do to obtain
8 voluntary commitment to this unit plan?

9 A. Yes.

10 Q. Has Chesapeake made a good-faith effort to obtain
11 voluntary unitization of all the owners' working royalty in the
12 area affected by the application?

13 A. Yes.

14 Q. Will Chesapeake call additional witnesses to
15 review the technical portions of this case?

16 A. Yes.

17 Q. Now, Exhibit 8, that you previously referenced,
18 were letters to the interest owners in the unit providing them
19 with copies of the new unit agreement; is that correct?

20 A. That's correct.

21 Q. And Exhibit No. 9 is what?

22 A. The Notice of Affidavit of the waterflood.

23 Q. And this is the one that was sent for this
24 hearing today?

25 A. Yes.

1 Q. And then what is Exhibit 27, which the Commission
2 also may not have -- Notice of Affidavit?

3 A. Notice of Affidavit.

4 Q. Is this the notice that --

5 A. Corrects the name of the applicant.

6 MR. CARR: And Mr. Chairman, with your permission, I
7 will provide a copy of the Notice of Affidavit and give it to
8 the court reporter.

9 CHAIRMAN FESMIRE: Okay.

10 Q. (By Mr. Carr): Mr. Frohnapfel, were Exhibits 1
11 through 9 and 27 and A compiled by you or prepared under your
12 direction and supervision?

13 A. Yes.

14 CHAIRMAN FESMIRE: And 26.

15 Q. (By Mr. Carr): And 26.

16 A. And 26.

17 Q. A, 1 through 9, 26 and 27: Were those compiled
18 under your direction?

19 A. Yes, they were.

20 MR. CARR: May it please the Examiner, I move the
21 admission of these exhibits into evidence.

22 MR. BRUCE: No objection.

23 MR. CARR: And that concludes --

24 CHAIRMAN FESMIRE: Exhibits 1, 2, 3, 4, 5, 6, 7, 8,
25 9, 26 and 27 will be so admitted.

1 MS. BADA: And A.

2 CHAIRMAN FESMIRE: And A.

3 [Applicant's Exhibits A and 1 through 9 and 26 and 27
4 admitted into evidence.]

5 MR. CARR: And that concludes my examination of
6 Mr. Frohnapfel.

7 CHAIRMAN FESMIRE: Mr. Bruce?

8 MR. BRUCE: I have no questions of the witness.

9 CHAIRMAN FESMIRE: Commissioner Bailey?

10 COMMISSIONER BAILEY: I have no questions.

11 CHAIRMAN FESMIRE: Commissioner Olson?

12 COMMISSIONER OLSON: I have no questions.

13 CHAIRMAN FESMIRE: And nor do I.

14 MR. CARR: At this time -- and we're trying to meet
15 an airplane.

16 CHAIRMAN FESMIRE: Mr. Frohnapfel, thank you very
17 much.

18 MR. CARR: May it please the Commission, at this time
19 I would call Mr. Robert Martin.

20 CHAIRMAN FESMIRE: Mr. Martin? This hearing is in
21 high gear now, ain't it?

22 ROBERT LEE WILLIS MARTIN, II

23 after having been first duly sworn under oath,

24 was questioned and testified as follows:

25

DIRECT EXAMINATION

1
2 BY MR. CARR:

3 Q. Would you state your name for the record, please.

4 A. Robert Lee Willis Martin, II.

5 Q. Mr. Martin, where do you reside?

6 A. In Edmond, Oklahoma.

7 Q. And by whom are you employed?

8 A. Chesapeake.

9 Q. And what is your position with Chesapeake?

10 A. Senior geologist with the Permian North.

11 Q. Have you previously testified before the Oil
12 Conservation Commission?

13 A. I have testified before the Commission, but not
14 the full Commission.

15 Q. Would you review for the Commission your
16 educational background and your work experience?

17 A. Graduated in 1982 from Texas Tech with a Bachelor
18 of science in geology, worked in Midland for 26 years for
19 various oil companies doing exploration and development, and
20 this last three years with Chesapeake in Oklahoma City.

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

23 A. Yes.

24 Q. Have you made a geological study of the portion
25 of the Quail Queen pool that's involved in this case?

1 A. Yes.

2 Q. And are you prepared to share the results of your
3 studies with the Oil Conservation Commission?

4 A. Yes.

5 MR. CARR: Are the witnesses' qualifications
6 acceptable?

7 MR. BRUCE: No objection.

8 CHAIRMAN FESMIRE: The witness will be admitted as an
9 expert in petroleum geology.

10 Q. Mr. Martin, have you prepared exhibits for
11 presentation in this case?

12 A. Yes, I have.

13 Q. Would you refer to what has been marked as
14 Chesapeake Exhibit No. 10 and review this for the Commission?

15 A. Exhibit 10 is what we're using as a type log.
16 It's also the log that we'll always refer back to when we want
17 to talk about the different zones of the Queen that we will be
18 waterflooding. Basically, it just shows that we have the
19 Queen B and the Queen C designated. And it will also be noted
20 on the map that I'll show next where that well is located.

21 Q. And this includes the entire interval to be
22 unitized?

23 A. That's correct.

24 Q. Generally describe for the Commission the nature
25 of the Queen formation in this area.

1 A. Okay. It does consist of, like I said, the two
2 sands that we'll be mainly dealing with, the Queen B and the
3 Queen C sands. These are shallow shelf sands, and basically
4 the C sand is the one that we'll focus the most on and is the
5 one that's been producing the most in this field.

6 Q. Let's go to Exhibit No. 11. Identify that,
7 please.

8 A. Exhibit 11 is a structure map of the top of
9 Queen, and it basically just shows dip going from north to
10 south. It shows the stratographic nature of the Queen where we
11 don't have a closure for a trap -- that we have a stratographic
12 trap.

13 Q. And let's go to Exhibit 12 the north/south cross
14 section.

15 A. The cross section just defined. Our structure,
16 it shows the target zones and the continuity of the sands
17 within the unit itself. As you can see, the Queen B and the
18 Queen C are fairly consistent across the field.

19 Q. And the type log is also shown on the cross
20 section?

21 A. That's correct. It's No. 4.

22 Q. Other than showing the continuity of the
23 reservoir in the area, is there anything in particular this
24 exhibit has been presented for?

25 A. It's just more for the continuity.

1 Q. Okay. Let's take a look at your porosity maps.
2 Let's go to Exhibit 13, and I'd ask you to review this for the
3 Commission.

4 A. You did say 13, right?

5 Q. Yes. The Queen B isopach.

6 A. Okay. As you've seen on the cross section, what
7 we did was we got an isopach map of everything that's greater
8 than 14 percent porosity mapped out, and this is an isopach of
9 that Queen B interval within the unit.

10 Q. You've also shown the boundary of the unit on
11 this exhibit?

12 A. Right. The boundary is the green line. The
13 orange are Queen producers.

14 Q. Okay. Let's go to your next exhibit, the isopach
15 on the Queen C.

16 A. Same type of map except for the Queen C
17 formation, using a 14 percent cutoff in porosity. And the same
18 thing, we've got the outline.

19 Q. And the triangle in the center of the exhibit?

20 A. That is the type log.

21 Q. What geological conclusions can you reach from
22 your study of this area?

23 A. That this is a good candidate for a waterflood.
24 We've got great examples all around us in the Queen that have
25 been waterflooded. And we do have a continuous reservoir

1 within the waterflood unit outline.

2 Q. And you are confident that the reservoir is
3 adequately defined?

4 A. Yes.

5 Q. Can the portion of the pool that's included in
6 the proposed unit, in your opinion, from a geological point of
7 view, be efficient and effectively operated under the unit plan
8 and development?

9 A. Yes.

10 Q. Were Exhibits 10 through 14 prepared by you?

11 A. Yes.

12 MR. CARR: May it please the Commission, I move the
13 admission of Exhibits 10 through 14.

14 MR. BRUCE: No objection.

15 CHAIRMAN FESMIRE: Exhibits 10 through 14 will be
16 admitted.

17 [Applicant's Exhibits 10 through 14 admitted into
18 evidence.]

19 MR. CARR: That concludes my examination of
20 Mr. Martin.

21 CHAIRMAN FESMIRE: Mr. Bruce?

22 MR. BRUCE: Just one question.

23 CROSS-EXAMINATION

24 BY MR. BRUCE:

25 Q. Mr. Martin, the hydrocarbon pore volume, was that

1 based on your maps 13 and 14?

2 A. Yes. The engineer used those maps for his
3 calculations; that's correct.

4 Q. Thank you. That's all I have.

5 CHAIRMAN FESMIRE: Commissioner Bailey?

6 COMMISSIONER BAILEY: I have no questions.

7 CHAIRMAN FESMIRE: Commissioner Olson?

8 COMMISSIONER OLSON: I have no questions.

9 CHAIRMAN FESMIRE: Nor do I, Mr. Carr.

10 MR. CARR: May it please the Commission, at this
11 time, we would call Greg Adams.

12 CHAIRMAN FESMIRE: Mr. Adams?

13 GREGORY GROVE ADAMS

14 after having been first duly sworn under oath,
15 was questioned and testified as follows:

16 DIRECT EXAMINATION

17 BY MR. CARR:

18 Q. Would you state your name for the record, please.

19 A. Gregory Grove Adams.

20 Q. And Mr. Adams, where do you reside?

21 A. Edmond, Oklahoma.

22 Q. By whom are you employed?

23 A. Chesapeake.

24 Q. And what is your current position with
25 Chesapeake?

1 A. Senior reservoir engineer for the Permian North.

2 Q. Have you previously testified before the
3 New Mexico Oil Conservation Commission?

4 A. The Division, but not the full Commission.

5 Q. Would you review your educational background and
6 work experience for the Commissioners?

7 A. In 1980 I received a Bachelor's of science in
8 mechanical engineering from Texas A&M University. My work
9 experience has included several oil and gas companies, the
10 first 23 years in Houston with several oil and gas companies
11 and consulting firms. And then since 2004 in Oklahoma, Tulsa
12 and Oklahoma City, for Vintage Petroleum first and now
13 Chesapeake since December of '04.

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

16 A. Yes.

17 Q. Have you made an engineering study of the area
18 that's involved in this case?

19 A. Yes.

20 Q. Are you prepared to share the results of your
21 work with the Commission?

22 A. Yes, I am.

23 MR. CARR: We tender Mr. Adams as an expert in
24 petroleum engineering.

25 MR. BRUCE: No objection.

1 CHAIRMAN FESMIRE: Mr. Adams, are you a licensed
2 professional engineer?

3 THE WITNESS: No, I am not.

4 CHAIRMAN FESMIRE: Mr. Adams will be admitted as an
5 expert in petroleum engineering.

6 Q. (By Mr. Carr): Mr. Adams, are you familiar with
7 the New Mexico Statutory Unitization Act?

8 A. Yes.

9 Q. Have you prepared exhibits for presentation in
10 this case?

11 A. Yes, I have.

12 Q. Would you refer to what has been marked as
13 Chesapeake Exhibit 15 and review that for the Commission?

14 A. This is an executive summary that was taken out
15 of the feasibility study. It's just giving pertinent
16 information about the proposed unit, where it's located, the
17 formation that's being proposed to be flooded. There's 12
18 active wells that are currently producing. Three have been
19 temporarily abandoned. Five have been plugged and abandoned,
20 and there's one dry hole.

21 It shows daily production of about 23 barrels of oil
22 per day; reservoir parameters showing the depth at 5100 feet;
23 the productive area; the unitized area; the initial reservoir
24 pressure was 1850 pounds; the current is about 450 pounds.

25 And then the second -- the bottom half of that

1 exhibit shows some pertinent reservoir information, including
2 the original oil in place of about four-and-a-half million
3 barrels of oil; cumulative primary recovery through July 1st,
4 2007, of about 790,000 barrels; the ultimate primary of
5 867,000 barrels, which will give you a primary efficiency of
6 19 percent; and, 91 percent of the primary has been recovered
7 through 7/07.

8 It also lists towards the bottom the estimated
9 secondary reserves that we anticipate to recover of about
10 725,000 000 barrels of oil, which will give us a total
11 recovery, primary and secondary, of about 1.6 million barrels,
12 giving us a total recovery efficiency of about 36 percent.

13 Q. Let's go to Chesapeake Exhibit No. 16, and I'd
14 ask you to review for the Commission why this particular
15 reservoir is a good candidate for a waterflood project.

16 A. One of the things we look for in reservoir
17 engineering in trying to identify candidates for waterflooding
18 is pilots that have been done as well as saltwater disposal
19 wells that have been injecting water into the proposed
20 formation, in this case, the Queen.

21 And in this particular field, we did have a saltwater
22 disposal well in the middle of the field that was disposing of
23 water for several years, from 1997 until 2004. And it showed
24 some response from the offset producers to this disposal well,
25 which is an indication that injecting water into this proposed

1 producing formation will have the desired effect upon the
2 offset producing wells in recovering additional oil in place
3 and increasing the pressure in the reservoir so that additional
4 oil can be produced.

5 Q. And the information on Exhibit 16 shows that
6 response in the offsetting wells?

7 A. Right. The four offset wells to the injection,
8 or disposal well, in this case.

9 Q. What is Exhibit No. 17?

10 A. Exhibit No. 17 is another method that we use to
11 determine candidates for waterflooding. And in this case, it's
12 an offset Quail -- not Quail -- but Queen unit called the West
13 Pearl Queen unit that's located about three-and-a-half miles to
14 the southeast of our proposed Quail Queen unit. This
15 particular unit was unitized in 1964 and has recovered quite a
16 bit of secondary oil. And if you look at the logs, it has
17 basically the same productive interval that we propose to turn
18 into a waterflood at the Quail Queen.

19 Q. Now, the tract participation factors that were
20 ordered by the Division, are they the same tract participation
21 factors that, in fact, were used in the West Pearl Queen unit?

22 A. I've never seen them, but according to Mr. Will
23 Jones, who was the Examiner in that first hearing, I do know
24 that they used -- ultimate recovery and pore volume were two of
25 the parameters that they used and weighted heavily.

1 Q. When you looked at the parameters contained in
2 the OCD order, what impact did that have on Chesapeake's
3 interest in the unit area?

4 A. We actually lost approximately 4 percent working
5 interest as a result of making that proposed change.

6 Q. Was it Chesapeake's determination that, even in
7 view of that loss, that using those parameters was still a
8 reasonable way to allocate the benefits of unitization to the
9 owners in the unit area?

10 A. Yes.

11 Q. Let's go to Exhibit No. 18. Would you explain
12 that, please?

13 A. I mentioned the offset West Pearl Queen unit.
14 This is just a number of parameters laying side by side showing
15 the comparison of the two. Of course, theirs, the West Pearl
16 Queen unit, had secondary recovery operations going on since
17 1964. And then we have our proposed parameters on the left
18 side and what we anticipate what the recovery will be. And
19 some of the other reservoir effects that would take place as a
20 result of the waterflood. And as you can see, even though the
21 West Pearl Queen unit is about three times bigger from a
22 surface area standpoint as the Quail Queen unit, a lot of the
23 recovery efficiencies and porosities and reservoir
24 characteristics are very similar.

25 Q. Let's talk now about the participation formula in

1 the new unit agreement. I'd ask you to refer to Exhibit 19.
2 First of all, is this exhibit similar to the exhibit presented
3 last year?

4 A. Yes. It's similar except it does incorporate the
5 changes that the Division Examiner recommended in his order.

6 Q. Okay. Can you review this, please?

7 A. It shows the four different parameters that we
8 used were the usable well bores, the current production rate,
9 the ultimate primary recovery, and the reservoir pore volume.
10 It shows the percent that each one of the tracts
11 participates -- or the percentage that it actually has whenever
12 you calculate the percentage of the total -- and then the TPFs
13 were determined based on using the weight factors that the
14 Examiner recommended; that being 10 percent on usable well
15 bores, 10 percent on the current rate, 40 percent on ultimate
16 primary, and 40 percent on the reservoir pore volume.

17 Once all those factors and weighting factors are
18 plugged into the formula for the TPFs, then the actual TPFs for
19 each tract is realized there shown on the right-hand column of
20 that Exhibit No. 19.

21 Q. Okay. What we've done is we've adopted the
22 participation factors ordered by the OCD?

23 A. Yes.

24 Q. And in your opinion, will using these factors
25 reasonably allocate the benefits of all owners in the unit?

1 A. Yes.

2 Q. Will unitization and adoption of the proposed
3 unitization benefit all working interest owners and all
4 non-cost bearing interest owners in the affected properties?

5 A. Yes, it will.

6 Q. Let's talk now about the waterflood project.
7 Would you look at what has been marked Chesapeake Exhibit
8 No. 20 and review that for the Commission?

9 A. It's just a base map that shows the proposed
10 unitized boundary, 840 acres. It shows the current producing
11 wells, which are the green circles, and the proposed conversion
12 wells.

13 There will be six wells that are initially converted
14 from producing wells to injection wells. And we're going to be
15 developing 40-acre five spots -- I'm sorry -- 80-acre five
16 spots. The wells were drilled on 40s and, therefore, the
17 waterflood pattern will be an 80-acre five-spot pattern.

18 Q. What does Exhibit 21 show us?

19 A. Exhibit 21 is the future unit as we foresee it
20 several years out into the future whenever we see additional
21 response from some of the producers. There's an area down to
22 the southeast that needs to be better developed. And we need
23 to re-drill a well, re-enter a well, and drill a new injection
24 well down there in the southeastern part of the unit.

25 Q. What does Exhibit No. 22 show?

1 A. Exhibit 22 is an estimation of the oil production
2 beginning in 2008 whenever we anticipate injection beginning,
3 and then throughout the life of that waterflood unit.

4 Q. What does Exhibit 23 show us? Actually, what we
5 need to do is go to the portion of the case involving the
6 waterflood application. We need to actually go now to
7 Exhibit No. 24, the C-108 application.

8 Does this application contain all information
9 required by form C-108?

10 A. Yes.

11 Q. Is it an expansion of an existing project?

12 A. No.

13 Q. How many wells are included within this
14 application?

15 A. Six wells.

16 Q. And does Chesapeake seek authority to commit
17 additional wells to injection in orthodox and unorthodox
18 locations through administrative procedures in accordance with
19 the Division Rule 701?

20 A. That's correct.

21 Q. Now, Exhibit 24, would you just simply review
22 this for the Commission? This exhibit shows the location of
23 each injection well; does it not?

24 A. Yes.

25 Q. It has plats that show all wells within two miles

1 of each of these injection wells?

2 A. Yes.

3 Q. Lease ownership is reflected?

4 A. Yes.

5 Q. In the area of review for each well?

6 A. That's correct.

7 Q. Does the exhibit contain all information required
8 by the OCD for each well in any of the areas of review that
9 penetrate the injection interval?

10 A. Yes, it does.

11 Q. And is that data presented by individual
12 injections wells?

13 A. Yes.

14 Q. Are there plugged and abandoned wells within any
15 area of review?

16 A. Yes, several.

17 Q. And you have diagrammatic sketches in this
18 exhibit showing all plugging details?

19 A. Right.

20 Q. Have you reviewed the data available on the wells
21 within the areas of review for this waterflood project and
22 satisfied yourself that there is no remedial work required on
23 any of these wells to enable Chesapeake to safely operate this
24 project?

25 A. Yes. That's correct.

1 Q. The OCD, in the original order, requested that we
2 do certain things to various wells.. Is Chesapeake prepared to
3 meet all the requirements of that original order?

4 A. Yes. Several have already been met, and there
5 are several -- just a few that are left that we're working on
6 presently.

7 Q. But Chesapeake has been going forward under the
8 order as entered by the Division; is that correct?

9 A. That's correct.

10 Q. And you are intending to comply with all
11 provisions of that order?

12 A. Yes.

13 Q. And you will comply with whatever this Commission
14 does as well?

15 A. That's correct.

16 Q. What is -- what injection volumes is Chesapeake
17 proposing?

18 A. Initially we're requesting about 1,000 barrels
19 per day for each injection well, and we expect that to drop off
20 as the pressure builds.

21 Q. What is the source of the injection water?

22 A. Currently, we have a water source in the form of
23 a disposal system about three miles to the southeast where
24 we're going to lay a flow line from that disposal system. And
25 the water will be taken from several wells that are hauling

1 their water to this disposal system. And we'll be using that
2 water as the water source.

3 Q. Well, will Chesapeake use any freshwater on this
4 project?

5 A. No.

6 Q. And is a water analysis of this water from the
7 disposal system included in Exhibit No. 24?

8 A. Yes.

9 Q. Is this going to be an open or a closed system?

10 A. It'll be closed.

11 Q. And what injection pressure are you proposing?

12 A. Initially, I think we're asking for 3,000 pounds.
13 That may or may not be required, but we think that will be the
14 absolute maximum that we'll ever use.

15 Q. Will a surface injection pressure of two-tenths
16 pound for full depth to the top of the injection interval be
17 satisfactory for Chesapeake's purposes?

18 A. Yes. Initially, that will be -- we'll be doing
19 step-rate testing in the future to be able to increase that
20 pressure.

21 Q. And what is the current status of the wells --

22 CHAIRMAN FESMIRE: Mr. Carr?

23 MR. CARR: Yes?

24 CHAIRMAN FESMIRE: Can we -- since we're -- I thought
25 he just said that the injection pressure would be 3,000 pounds,

1 and then testified that .2 psi per foot would be adequate. At
2 5100 feet, that's --

3 THE WITNESS: I'm sorry. I must have misunderstood.
4 3,000 pounds would be the downhole pressure that we would
5 expect.

6 CHAIRMAN FESMIRE: Okay.

7 Q. (By Mr. Carr): And what is the current status of
8 the wells that Chesapeake is proposing to utilize in this
9 injection project? Are they --

10 A. I'm sorry. Could you repeat that?

11 Q. What is the current status of the injection
12 wells?

13 A. They're currently producing wells.

14 Q. Will Chesapeake monitor the wells to ensure the
15 integrity of the well bores?

16 A. Yes. There will a packer in the hole in each one
17 of the injection wells. And we'll monitor that casing's
18 annulus pressure.

19 Q. And you'll comply with all the requirements of
20 the federal underground injection control program?

21 A. Yes.

22 Q. In your opinion, will the proposed injection in
23 these wells propose any threat to groundwater or any source of
24 drinking water?

25 A. No.

1 Q. Are there freshwater zones in the area?

2 A. Yes, there is.

3 Q. And what are they, do you know?

4 A. I believe it's Ogallala.

5 Q. And no injection will be proposed into the
6 Ogallala, obviously?

7 A. No.

8 Q. It remains a shallow water producing zone in the
9 area -- or shallow water zone in the area?

10 A. It comes and goes. It's pretty sporadic, but
11 yes, that is the only fresh water zone that I know of.

12 Q. Are there any freshwater wells within a mile of
13 any injection well?

14 A. No, not to my knowledge. We have tested and
15 checked all the injection wells in the area, and we've done
16 water analyses on them so we can get a baseline on the
17 composition of the water in those freshwater wells.

18 Q. In your opinion, will the injection as proposed
19 by Chesapeake pose a threat to any groundwater in the area?

20 A. No.

21 Q. Have you examined the available engineering and
22 geologic information on this reservoir, and as a result of that
23 examination, have you found any evidence have of faults or
24 other hydrologic connections between the injection interval and
25 any underground source of drinking water?

1 A. No.

2 Q. Let's go now to what's been marked as Chesapeake
3 Exhibit 23, the application for qualification as an enhanced
4 oil recovery project. That's Exhibit 23.

5 Mr. Adams, does this application meet all the
6 requirements of Division rules to qualify a project for the
7 incentive tax rate?

8 A. Yes.

9 Q. What are the estimated additional capital costs
10 to be incurred in this project expansion?

11 A. The total capital costs anticipated is around \$5
12 million.

13 Q. And what are the total project costs in addition
14 to the capital cost, do you know?

15 A. Well, in addition to the capital costs, there's
16 going to be operating costs that will be incurred on an ongoing
17 basis. And we estimate that's going to be approximately \$2000
18 to \$2500 per well per month.

19 Q. How much additional production does Chesapeake
20 expect to obtain?

21 A. The current production is around 22 to 25 barrels
22 of oil per day. And whenever we reach peak production, we
23 anticipate a rate of about 100 to 150 barrels of oil per day.

24 Q. And this exhibit sets forth the total value of
25 additional production; does it not?

1 A. Yes.

2 Q. And do you know what that number is?

3 A. Based on \$70 oil, which is quite a bit less than
4 we're receiving currently, the economics show net operating
5 income of \$32 million over the life of the project. If you
6 discount that at 10 percent, it's \$9 million.

7 Q. And then, attached to your application -- again
8 the plat of the unit area, type log, and production curves,
9 some of them have been previously presented in this case; is
10 that right?

11 A. Yes.

12 Q. Mr. Adams, without unitized management operation
13 and further development in the unit area, do you believe that
14 these additional reserves will, in fact, be wasted?

15 A. Yes, they will.

16 Q. Is unitized management operation for the
17 development of the pool that is the subject of this application
18 necessary to effectively carry out a secondary recovery
19 operation in the unit area?

20 A. Yes, it is.

21 Q. In your opinion, will approval of the application
22 and implementation of the project result in the prevention of
23 waste of hydrocarbons and protect correlative rights of all
24 interest owners?

25 A. That's correct, yes.

1 Q. Would you identify what's been marked as
2 Chesapeake Exhibit 25?

3 A. This is the waterflood feasibility study that I
4 performed and sent to all the working interest owners and the
5 State, who is the only mineral interest owner, for their review
6 and comments and approval.

7 Q. And does it contain a narrative discussion of the
8 geological and engineering considerations that have been
9 presented here today by you and Mr. Martin?

10 A. Yes.

11 Q. How soon does Chesapeake anticipate commencing
12 enhanced recovery operations in the unit area?

13 A. We would hope to, if the order is received by
14 October 1st, that we would be able to begin the capital
15 expenditures immediately on converting wells to producing and
16 also laying the pipeline from the water source, the
17 three-and-a-half miles to our unit and hopefully have water
18 going into the ground before the end of the year.

19 Q. Were Exhibits 15 through 25 prepared by you?

20 A. Yes.

21 MR. CARR: May it please the Commission, at this
22 time, I moved the admission into evidence of Chesapeake
23 Exhibits 15 through 25.

24 CHAIRMAN FESMIRE: Mr. Bruce?

25 MR. BRUCE: No objection.

1 CHAIRMAN FESMIRE: Chesapeake Exhibits 15 through 25
2 will be admitted into the record.

3 [Applicant's Exhibits 15 through 25 admitted into
4 evidence.]

5 MR. CARR: And that concludes my direct examination
6 of Mr. Adams.

7 CHAIRMAN FESMIRE: Mr. Bruce?

8 MR. BRUCE: Just a couple of questions.

9 CROSS-EXAMINATION

10 BY MR. BRUCE:

11 Q. First, and I may have missed this, Mr. Adams,
12 what is the water source of the injection wells?

13 A. It's coming from several producing wells. I
14 believe they're Devonian producers in the area that are
15 currently going to a disposal system about three-and-a-half
16 miles away.

17 Q. Okay. And Mr. Adams, if you look at your
18 Exhibit 19.

19 A. Yes.

20 Q. Okay. And I'm focusing on Exhibit -- or excuse
21 me -- tract 3 in which Pintail owns an interest. And these
22 numbers kind of run together as you're going down, and I just
23 want to make sure I've got the right numbers.

24 But looking over in the green column.

25 A. Yes.

1 Q. That's the estimated ultimate primary; is that
2 correct?

3 A. That's correct.

4 Q. And that shows that Pintail's tract would have
5 just under 20 percent of the estimated ultimate in the unit
6 area.

7 A. That's correct.

8 Q. And then you go over to the blue column, and on
9 the reservoir pore volume, it has about 2.3 percent of the
10 reservoir pore volume.

11 A. That's correct.

12 Q. Is -- and I don't want to put words in your
13 mouth, but isn't that anomalous to have such a low pore volume
14 and a high ultimate recovery?

15 A. I don't believe so. I think it depends on when
16 the well is drilled. That Atlantic Richfield well was one of
17 the first wells drilled out there, and it had a long time to
18 produce a lot of the oil that's been produced out there.

19 And just because there's a 40-acre tract around that
20 well doesn't mean it didn't pull in production from off of that
21 tract, which it probably did since it was there for the longest
22 time of all the wells that have been produced out there. So
23 there's not a direct correlation between ultimate primary and
24 reservoir pore volume, in my opinion.

25 Q. Well, but when you look at the other tracts --

1 like you go to tract -- I guess it would be the other tracts
2 above, they seem to be more or less in line. You've got
3 ultimate recovery of 23 or 24 percent just above that line, and
4 the tracts reflected in that above tract three show, you know,
5 20-some percent pore volume?

6 A. Well, I see tract number two that has two wells
7 in it, the State BG #002 and BG #003. They're going to produce
8 about 24 percent of the ultimate primary, and they have about
9 13 percent of the pore volume. So that's considerably less
10 pore volume percentage than ultimate recovery.

11 The rest of them, it looks like, are fairly close.
12 But I wouldn't say that that's -- like I said before, it's not
13 necessary that they be correlatable in that manner because of
14 the movable oil that I had mentioned earlier. It depends on
15 when the wells were drilled, how connected to the reservoir
16 they are. The logs that we have only give us that particular
17 area that's immediately surrounding the well to determine our
18 net pay on. A short distance or a long distance from the well,
19 it may be connected and still be able to get more production
20 than you would anticipate from a net pay.

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

22 CHAIRMAN FESMIRE: Commissioner Bailey?

23 EXAMINATION

24 BY COMMISSIONER BAILEY:

25 Q. Exhibit 23, which is the application to qualify

1 for the recovery oil tax rate, you've signed it, but yet on
2 the -- on number -- paragraph 7, which is on the third page,
3 when asked to identify the fluid to be injected and the
4 anticipated volume, you indicate 2000 barrels of produced and
5 makeup water. Where would that makeup water be, and what is
6 that?

7 A. Well, the source of the water that we're going to
8 use for injection has been in flux because we didn't have it
9 nailed down over the past several months. But recently we have
10 come upon this particular operator of a saltwater disposal
11 system that has more than enough capacity for us to use in our
12 waterflood project. And, therefore, we anticipate 100 percent
13 of the water we need coming from that source.

14 Q. So this application can be amended to eliminate
15 the possibility of the use of fresh water?

16 A. Yes. And I didn't interpret that makeup water to
17 only be determined -- or only be identified as fresh water.
18 Makeup water can come from other sources as well and not be
19 fresh water, in my opinion.

20 Q. That's all I have.

21 CHAIRMAN FESMIRE: Commissioner Olson?

22 COMMISSIONER OLSON: I have no questions.

23 EXAMINATION

24 BY CHAIRMAN FESMIRE:

25 Q. Mr. Adams, real quick: I need you to explain a

1 phenomenon. It looks like the four decline curves that you
2 gave us in Exhibit 15, I believe?

3 A. Yes.

4 Q. You've got something labeled there called GOR
5 collapse. What's happening there?

6 A. It's a phenomenon that you see quite a bit in
7 waterflood projects. Early on in the project, whenever you
8 start injecting water into the produced formation, you see a
9 increase in reservoir pressure. And with that increase in
10 reservoir pressure, the gas that has come out of the solution
11 in the reservoir begins to go back in solution, and your GOR as
12 a result of that decreases because of pressure increase.

13 Q. You decrease it down to essentially nothing?

14 A. It does in this case. And it does in a lot of
15 the other cases that I've seen with a waterflood project.
16 Since it did in this case, we don't anticipate any additional
17 secondary gas being recovered in this project. We only have
18 secondary oil.

19 Q. Are you going to book any gas reserves for the
20 waterflood?

21 A. No. We don't have any scheduled to be booked.

22 Q. Okay. Now, which exhibit did you have -- let me
23 correct something for the record. That was Exhibit 16 that we
24 were talking about. Which exhibit did you have that compared
25 the West Pearl Queen unit with the Quail Queen unit?

1 A. 18.

2 Q. The West Pearl Queen unit was waterflooded, too,
3 wasn't it?

4 A. Yes.

5 Q. How do you explain this significant difference in
6 your estimated EUR and the EUR from the West Pearl Queen?

7 A. Are you talking about the total MBO number that's
8 reflected as 1.6 million barrels for the Quail Queen?

9 Q. I'm assuming, and I may be assuming wrong, the
10 .36 is the percentage of the original oil in place recovered
11 after waterflooding on the Quail Queen?

12 A. That's right.

13 Q. And the .22 percent is the percentage of the
14 original oil in place recovered after waterflooding in the West
15 Pearl Queen?

16 A. That's correct. Okay. I understand your
17 question now. Like I said, that West Pearl Queen unit was
18 unitized in 1964, which was a long time ago. And technology
19 has, of course, increased since that time. We're able to keep
20 wells pumped off, keep perforations open and recover a lot more
21 of the primary production as a result of that technology. So
22 we can get a bigger primary recovery on our wells which weren't
23 even drilled until three years after the West Pearl Queen unit
24 was unitized. And that's how I would explain that difference.

25 Q. Who's the operator of the West Pearl Queen unit?

1 A. Right now it's Xeric.

2 Q. It looks to me to be a tremendous opportunity
3 there for a sharp operator, don't you think?

4 A. Well, again, because of the age of the well bores
5 out there, you may be getting into a lot bigger problem than
6 you want to because of possible casing leaks and casing
7 problems. And whenever you start increasing pressure from
8 waterflooding, you can see a lot of these casing leaks starting
9 to be a problem and having to plug a lot of the wells and
10 re-drill them.

11 Q. Has any thought been given to future tertiary
12 potential on the Quail Queen unit?

13 A. To my knowledge, the Queen formation out here in
14 Lea County is not a good candidate for tertiary-type
15 recovery -- and I assume you're talking about CO₂.

16 Q. Right.

17 A. The Delaware is the only formation that I know of
18 that has responded well to tertiary recovery methods. But
19 that's something that we continually look at, and it may be a
20 possibility in the future. Again, with technology increasing
21 and becoming better and better each day, each year, then that's
22 a possibility in the future for the Queen.

23 Q. Does Chesapeake operate any carbon floods --

24 A. Not to my knowledge.

25 Q. -- in New Mexico?

1 A. Not to my knowledge.

2 Q. Okay. And just to clear up something that I
3 panicked on when you said you were going to have a 3,000 pound
4 injection pressure, you're talking about the bottom hole
5 pressure, right?

6 A. Yes. That's with the weight of the fluid.

7 Q. Yeah. That wasn't the way Commissioner Bailey
8 and I took that at first.

9 I want to reiterate a question -- or elaborate a
10 little bit on a question that Mr. Bruce asked you. Did you say
11 that there's no relationship between the EUR and the PD?

12 A. I said there's not a direct correlation. There
13 may be a relationship, but there's not a direct correlation. I
14 might have misspoke. But if I did, then I would like to
15 correct it with that statement.

16 Q. And the point he was trying to make, the 2.3
17 percent of pore volume contributes 20 percent of the EUR. I
18 mean, "compared to 20 percent of the EUR," that doesn't raise a
19 red flag for you?

20 A. Yes, it does raise a red flag. But it doesn't
21 necessarily mean that, you know, we need to look at a different
22 method to calculate PPS. Because of the facts that I've
23 mentioned, you know, this is one of the oldest wells out there,
24 and it's had a lot more opportunity and length of time to
25 produce more of the hydrocarbons.

1 MR. CARR: Thank you, Mr. Chairman.

2 CHAIRMAN FESMIRE: Mr. Bruce, did you want to --

3 MR. BRUCE: I would just make a closing argument
4 before Mr. Carr. I had submitted some exhibits, but really
5 everything that I need to argue off of has been submitted by
6 Chesapeake, so I do not plan on submitting my exhibits on the
7 record.

8 CHAIRMAN FESMIRE: Okay. So I guess we're ready for
9 Mr. Carr's closing argument?

10 MR. CARR: I think that as the applicant, that I go
11 last.

12 CHAIRMAN FESMIRE: Don't you go first and last?

13 MR. CARR: I go first and last.

14 CHAIRMAN FESMIRE: Okay. I guess he's putting it to
15 you, Mr. Bruce.

16 MR. BRUCE: I don't mind going first. And this will
17 be very brief and Mr. Carr can do the closing. I don't mind.

18 CHAIRMAN FESMIRE: He does have a point, though. He
19 hasn't heard anything yet.

20 MR. BRUCE: And to the Commissioners, I ask you to
21 get Chesapeake Exhibits 3 and 19 out. And I will be very
22 short.

23 If you look at Exhibit 3, which is the tract
24 participations, when Chesapeake first came before the Division,
25 the tract participation factors were flipped. It was ultimate

1 primary was 10 percent, pore volume was 10 percent, usable well
2 bore was 40 percent, and current production was 40 percent.

3 Mr. Mueller of Pintail, his primary argument at the
4 Division hearing was that ultimate primary should have a bigger
5 factor than 10 percent, which the Division did and increased it
6 to 40 percent. It also increased pore volume to 40 percent.
7 And if you look through a number of Division orders on
8 secondary recovery and other matters like that, often pore
9 volume does have a high percentage, and it probably should.

10 But the numbers that you see in this on Exhibit 19,
11 is what I pointed out, it seems to me kind of anomalous when
12 Pintail's well has about 20 percent of the ultimate primary
13 within the unit, but only just over 2 percent of the pore
14 volumes. So Pintail's argument is there's something wrong in
15 the pore volume numbers. Either that, or Pintail's tract
16 really has a very, very high recovery just in the ultimate
17 primary. And that seems anomalous.

18 Pintail will, of course, accept whatever the
19 Commission comes up with. It would simply argue that because
20 of these anomalous pore volume numbers that perhaps, although
21 the usable well bores should remain at 10 percent and ultimate
22 primary at 40 percent, the other two factors should perhaps be
23 the pore volume and current production should each be weighted
24 25 percent, because of those anomalous numbers on Exhibit 19.

25 Thank you.

1 CHAIRMAN FESMIRE: Rebuttal, Mr. Carr?

2 MR. CARR: May it please the Commission, today we're
3 having a de novo hearing on the application for de novo hearing
4 of Pintail. We have no witness. We have no exhibits from
5 Pintail, and the arguments of counsel are not evidence. So
6 basically, Pintail has come before us and presented no
7 evidence. Chesapeake is trying to implement a waterflood.
8 We've been doing it for over a year.

9 Pintail objected. The Division took the objection,
10 considered it, changed the participation factors. We've been
11 trying to comply with that order. And we think that at this
12 point in time, with really no evidence from Pintail, it's time
13 to let us go ahead and put this unit in place and get on with
14 the development of the reserves in this acreage.

15 And so we would request on the evidence presented
16 here today that the application be granted and would ask that
17 it be expedited so we can go ahead with our project.

18 CHAIRMAN FESMIRE: Thank you all very much.

19 MR. CARR: Thank you, Mr. Chairman.

20 MR. BRUCE: Thank you, Mr. Chairman.

21 CHAIRMAN FESMIRE: I'm assuming that it is the
22 pleasure of the Commission to go into executive session to
23 deliberate.

24 COMMISSIONER BAILEY: Yes.

25 COMMISSIONER OLSON: I move that we go into executive

1 session.

2 COMMISSIONER BAILEY: I second.

3 CHAIRMAN FESMIRE: All those in favor signify by
4 saying "aye."

5 COMMISSIONER BAILEY: Aye.

6 COMMISSIONER OLSON: Aye.

7 CHAIRMAN FESMIRE: Aye. At this point, let the
8 record reflect that the Commission has voted to go into
9 executive session to deliberate on Cases No. 14001 and 14002,
10 and only those two consolidated cases.

11 [Executive session from 2:20 p.m. to 2:27 p.m., and
12 testimony continued as follows:]

13 CHAIRMAN FESMIRE: At this point, we will go back on
14 the record and reconvene the regularly scheduled Thursday,
15 September 11th, 2008, meeting of the New Mexico Oil
16 Conservation Commission.

17 The record should reflect that during the interim the
18 Commission met in executive session to deliberate their
19 decision on Cases No. 14001 and 14002. No other items were
20 discussed. And the Commission has reached a decision in those
21 cases.

22 The decision has been that we will adopt the
23 Division's order with the proviso that there will be a
24 prohibition in there against freshwater use in the waterflood.
25 We've directed counsel to draft an order to that effect for

1 presentation to the Commission at its next regularly scheduled
2 meeting, which I guess is November 6th.

3 So with that, we will go to the next item on the
4 docket. It's Case No. 14134. It's the Application of the
5 Board of County Commissioners of Rio Arriba County for
6 Cancellation or Suspension of Applications for Permits to Drill
7 filed by Approach Resources, LLC, in Rio Arriba County, New
8 Mexico. Case No. 14134 will be continued to the December 11th,
9 2008, Commission meeting.

10 The next item on the docket is Case No. 14141. It's
11 the Application of Approach Operating, LLC, for Approval of Six
12 Applications for Permits to drill in Rio Arriba County. This
13 case has been also continued to the December 11th, 2008,
14 Commission meeting. With that, is there any other business
15 before the Commission today? Seeing none, the Chair would
16 entertain a motion for adjournment.

17 COMMISSIONER BAILEY: I so move.

18 COMMISSIONER OLSON: Second.

19 CHAIRMAN FESMIRE: All those in favor signify by
20 saying "aye."

21 COMMISSIONER BAILEY: Aye.

22 COMMISSIONER OLSON: Aye.

23 CHAIRMAN FESMIRE: Aye. Let the record reflect that
24 the meeting was adjourned at 2:30 p.m. on Thursday,
25 September 11, 2008.

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REPORTER'S CERTIFICATE

I, JOYCE D. CALVERT, Provisional Court Reporter for the State of New Mexico, do hereby certify that I reported the foregoing proceedings in stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings and was reduced to printed form under my direct supervision.

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

DATED this 11th of September, 2008.



JOYCE D. CALVERT
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STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

I, JOYCE D. CALVERT, a New Mexico Provisional Reporter, working under the direction and direct supervision of Paul Baca, New Mexico CCR License Number 112, hereby certify that I reported the attached proceedings; that pages numbered 1-60 inclusive, are a true and correct transcript of my stenographic notes. On the date I reported these proceedings, I was the holder of Provisional License Number P-03.

Dated at Albuquerque, New Mexico, 11th day of September, 2008.



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