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VIRGINIA OIL AND GAS CONSERVATION BOARD

HEARING OF NOVEMBER 19, 1991

9:00 A. M.

AT THE SOUTHWEST VIRGINIA 4-H CENTER

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1 November 19, 1991

2 This matter came on to be heard before the Virginia Gas
3 and Oil Board on this the 19th day of November, 1991, at the
4 Southwest Virginia 4-H Center, Abingdon, Virginia, pursuant to
5 Section 45.1-361.19.B.
6

7 MR. WAMPLER: Good morning. My name is Benny Wampler and I'm
8 assistant director for mining for the Virginia Department
9 of Mines, Minerals and Energy and chairman of the Gas and
10 Oil Board. We'll begin by an introduction of ourselves.
11

12 (MEMBERS INTRODUCED.)
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ITEM I

MR. CHAIRMAN: The first item on the agenda today is a petition by Edwards & Harding Petroleum Company for establishment of a compulsory pooled drilling unit under Section 45.1-361.21 for proposed well EH-86. This is Docket Number VGOB-91/10/15-0156. Any parties wishing to address the board, please come forward at this time regarding this well.

MR. MULLINS: All right, sir. My name is Tom Mullins. I'm with the Street law firm in Grundy, Virginia and I'm representing Edwards & Harding in this matter. We have one witness to call in regards to this forced pooling application and that's Mr. Mike Edwards.

CLERK: (Swears witness.)

MICHAEL L. EDWARDS

a witness who, after having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MULLINS:

Q. Sir, would you please state your name?

1 A. Michael L. Edwards.
2 Q. What do you do for a living? Where do you work?
3 A. I am the president of Edwards & Harding Petroleum
4 Company In Abingdon, Virginia.
5 Q. Have you testified before this Board as a expert witness
6 before?
7 A. Yes, I have.
8 Q. And have your credentials been accepted by the Board as
9 an expert witness?
10 A. Yes, sir.
11 Q. Turning to the application of EH-86, are you familiar
12 with the application filed by Edwards & Harding Petroleum
13 Company for the drilling unit designated as EH-86?
14 A. I am.
15 Q. Is Edwards & Harding seeking to force pool the interests
16 of EH-86 identified on the plat that's filed as part of
17 the application?
18 A. Yes, sir. That's correct.
19 Q. Has notice been sent to the interested parties by
20 certified mail, return receipt requested?
21 A. It has.
22 Q. Have copies of the mail receipts been filed with the
23 Board?
24 A. That's my understanding, yes.
25 Q. What is the size of this unit?

1 A. It's 125.59 acres.

2 Q. How much of this unit is leased and how much is
3 outstanding?

4 A. Approximately 95 percent of the interest in this unit is
5 leased. A little over five percent -- I think it's 5.61
6 percent is unleased.

7 Q. Do you want to dismiss any party that has been leased
8 subsequent to your filing of this application?

9 A. No, I don't believe so.

10 Q. Who owns the drilling rights in the unit?

11 A. My company, Edwards & Harding Petroleum.

12 Q. Is this a conventional well?

13 A. Yes, sir, it is.

14 Q. What formations are you seeking to force pool?

15 A. Basically all conventional formations, Raven Cliff
16 Sands, Maxim Sands, Big Lime, Berea Sands and the Upper
17 Devonian Shell.

18 Q. What is the proposed depth of the well?

19 A. It's approximately 4,875 feet.

20 Q. Have you attempted to contact each party concerning an
21 agreement prior to your filing for the application we're
22 here today on?

23 A. Yes, sir. We've repeatedly been in contact with the
24 three outstanding interest owners and it does not appear
25 that we'll be able to reach agreement with them.

1 Q. And you've made multiple efforts to agree with these
2 parties?
3 A. Yeah, repeated. We've spent a lot of time in person.
4 We've been working on this for close to a year.
5 Q. As an Exhibit to the application is there a list naming
6 the parties that have not been leased?
7 A. Yes. It's Exhibit B.
8 Q. And that's the entire list of all parties unleased?
9 A. That is correct.
10 Q. Whose interests and drilling rights are being sought to
11 be forced pooled? Those people on the Exhibit list?
12 A. That's correct. Mr. Robert Breist of Madison Heights,
13 Michigan, Mr. Ronnie Owens of Birchleaf, Virginia, Mr.
14 Alfred Eugene Sutherland of Haysi, Virginia.
15 Q. Is Edwards & Harding Petroleum Company requesting to be
16 named as the drilling operator in Unit EH-867?
17 A. Yes, sir, we are.
18 Q. Was an AFE prepared?
19 A. Yes, it has been.
20 Q. Was it prepared by somebody knowledgeable in the costs
21 and the operation of wells of this type?
22 A. That is correct.
23 Q. Are you familiar with the AFE?
24 A. I am.
25 Q. Based upon your experience in the gas industry, is this a

1 reasonable AFE for the type of well and the depth it's
2 being drilled to?
3 A. I believe it is.
4 Q. Are there any owners who have decided to be a non-
5 participating operator?
6 A. Not to the best of my knowledge.
7 Q. Does any amount need to be escrowed by the Board?
8 A. No.
9 MR. EVANS: There's no AFE marked.
10 MR. MULLINS: All right. Do you have copies of it, sir?
11 THE WITNESS: Yes.
12 MR. MULLINS: All right. We have copies.
13 Q. (Mr. Mullins continues.) Do you wish to incorporate this
14 AFE as part of your application?
15 A. Yes, sir, we do.
16 Q. Does any amount need to be escrowed by the Board?
17 A. No, not to the best of my knowledge.
18 Q. What is the estimated production over the life of this
19 well?
20 A. We estimate approximately half of ECF, five hundred
21 million cubic feet of gas.
22 Q. Does Edwards & Harding have a blanket bond as required by
23 statute to cover plugging and reclamation costs?
24 A. Yes, we do.
25 MR. MULLINS: That's all that I have for this witness unless

1 the Board has some questions for him.

2 MR. CHAIRMAN: Any questions from members of the Board?

3 (Witness stands aside.)

4 MR. CHAIRMAN: Mr. Fulmer, did you have something that you
5 wanted to represent?

6 MR. FULMER: I have a revised Exhibit B that was submitted.

7 MR. EVANS: Mr. Chairman, which Exhibit B are we looking at
8 here? You mentioned that you had three. This exhibit
9 shows two unleased.

10 MR. EDWARDS: We have reached agreement with -- I was mistaken
11 previously. We have reached an agreement with Ronnie
12 Owens at Birch Leaf, the two remaining unleased
13 parties, and I apologize, are Robert Breist and Gene
14 Sutherland -- Alfred Eugene Sutherland.

15 MR. CHAIRMAN: Have you contacted the Department of
16 Transportation for the State route that goes through this
17 area?

18 MR. EDWARDS: I believe that our title work has indicated
19 that the Department of Transportation does not own an
20 interest in the minerals underneath this unit, but their
21 interest is merely in the surface. As such I don't think
22 they did.

23 MR. FULMER: Mr. Chairman, according to the Highway
24 Department we have a submitted letter with the well
25 application where they state that the highways referenced

1 does not have an interest on the Russell Fork River or
2 the other creeks extremely above mentioned four well and
3 plus the State highway.

4 MR. CHAIRMAN: Have you similarly contacted the Virginia
5 Marine Resource Commission regarding the minerals under
6 the stream box?

7 MR. EDWARDS: I don't believe that -- then again, I'm not
8 an attorney. But my understanding is that the criteria
9 for ownership is that the waters be navigable. I don't
10 believe that the Russell Fork in this area is navigable
11 and therefore, it was our opinion that the Commonwealth
12 did not own the narrows underneath the river and that the
13 ownership accrues to the parties that own the lands on
14 both sides of the stream.

15 MR. EVANS: Mr. Chairman, I have a question.

16 MR. CHAIRMAN: Mr. Evans.

17 MR. EVANS: Do you know what the criteria for navigable waters
18 is?

19 MR. EDWARDS: Off the top of my head, no.

20 MR. MCGLOTHLIN: I would make a motion that we approve this
21 unit with the stipulation that Edwards & Harding contact
22 Marine Resources and barring no objections from that
23 that we approve this unit.

24 THE CHAIRMAN: We have a motion.

25 MR. EVANS: Second.

1 MR. CHAIRMAN: A motion and a second. All in favor signify by
2 saying yes. (ALL AFFIRM.) Opposed, say no. (NONE.)

3 MR. FULMER: Mr. Chairman, for the benefit of the staff, on
4 the motion of stipulation, is there a time period they
5 have to do that? Because once we get in the order we
6 have to record it and file it.

7 MR. MCGLOTHLIN: Would you like to call him back, Mr.
8 Chairman?

9 (AFTER A BRIEF PERIOD OFF THE RECORD, THE HEARING
10 CONTINUED AS FOLLOWS.)

11 MR. CHAIRMAN: We had a question come up about the
12 stipulation of time for you to make that contact. We
13 didn't want to discuss that in your absence. Okay?

14 MR. MCGLOTHLIN: I will amend my motion if it needs to be to
15 thirty days.

16 MR. FULMER: That's fine.

17 MR. EVANS: Second.

18 MR. CHAIRMAN: All in favor signify by saying yes. (ALL
19 AFFIRM.) All opposed say no. (NONE.)

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3 ITEM II

4 MR. CHAIRMAN: The second item on the agenda is a petition by
5 OXY USA, Inc. for the establishment of a compulsory
6 pooled drilling unit for proposed well CBM T-1. This is
7 Docket Number VGOB-91/11/19-0157. Would all the parties
8 that wish to address the Board regarding this proposal
9 come forward, please.

10 MR. SALISBURY: I'm Howard Salisbury on behalf of OXY USA,
11 Inc. First I would like to call Mr. Martin E. Wirth.

12 CLERK: (Swears witness.)
13

14 MARTIN E. WIRTH

15 a witness who, after having been duly sworn, was examined and
16 testified as follows:
17

18 DIRECT EXAMINATION
19

20 BY MR. SALISBURY:

- 21 Q. Would you state your name please, sir?
22 A. Martin E. Wirth.
23 Q. By whom are you employed?
24 A. OXY USA, Inc.
25 Q. What's your job with OXY?

1 A. I'm project land manager.
2 Q. How long have you been in that occupation?
3 A. Fourteen years.
4 Q. Are you familiar with the application that's been filed
5 with respect to the unit designated as T-1?
6 A. Yes, I am.
7 Q. Did you, in fact, prepare that application?
8 A. That's correct.
9 Q. Did you prepare also the notice of hearing that was filed
10 with that application?
11 A. That is also correct.
12 Q. There's a list of people on the application whose
13 interest is sought to be pooled here today. How did you
14 go about identifying these interested parties?
15 A. The parties and the respondents shown on Exhibit B of the
16 application, title was performed under all tracts in the
17 80 acre unit and there was outstanding interest of
18 Edward W. Lindsey, trustee; May B. Harris, George B.
19 Harris and Irene Harris, his wife, and also the heirs and
20 successors or assigns of devisees of John G. Harris and
21 E. Stewart Harris.
22 Q. Were a notice of the hearing and a copy of application
23 sent to those parties?
24 A. That's correct.
25 Q. And how was that done?

1 A. By certified return receipt mail.

2 Q. And were returned cards received on all of those
3 mailings?

4 A. That is correct, as shown on Exhibit F.

5 Q. And two copies of that exhibit were filed with the Board
6 prior to the hearing?

7 A. That is correct.

8 Q. Was notice also published?

9 A. Yes, it was, as shown on Exhibit E, certificate of
10 publication. We have served notice in the Virginia
11 Mountaineer and they've provided us with proof of
12 publication that said that notice of publication was
13 published on October 24th, 1991.

14 Q. And two copies of proof of that publication were filed
15 with the Board?

16 A. That's correct.

17 Q. At this time do you want to amend the application to add
18 or dismiss any parties?

19 A. Yes, I do. On Exhibit B, I believe it's respondent
20 number three -- let me see. Yes, we have an executed
21 lease with Irene Harris, a widow. Mr. George B. Harris
22 is now deceased and the deed and will left everything to
23 his widow, Irene. That is the only party we wish
24 dismissed.

25 Q. And you do not wish to add any parties at this time?

- 1 A. That is correct.
- 2 Q. What is the interest in this unit that OXY has under
3 lease at the present?
- 4 A. OXY has 55.77 percent under lease with 44.22 percent
5 outstanding.
- 6 Q. Does that percentage include the lease that you have
7 recently entered into with Irene Harris?
- 8 A. Those numbers will not be effected because this is a
9 gross number again. As the Board realizes, the net
10 interest, yes, would definitely be effected into the
11 figures on the lease there. You see on Exhibit B, again,
12 that George and Irene, now being Irene, had an undivided
13 interest of 6.38 percent which we have now acquired. So
14 it may be deducted from the gross interest as shown on
15 Exhibit A.
- 16 Q. And OXY is seeking to pool interest in what formations?
- 17 A. This would be from the base of the Tiller and below to
18 the base of the Pocahontas #3 coal seam.
- 19 Q. What are the terms of the leases that you've entered into
20 with respect to this unit?
- 21 A. These are one-eighth royalty interests at \$1 an acre
22 bonus with a ten-year term.
- 23 Q. And are those the usual and customary terms for such
24 leases in this area?
- 25 A. Yes, they are.

1 Q. Would it be your recommendation that any order entered by
2 this Board with respect to this unit incorporate similar
3 terms?

4 A. I would.

5 Q. To your knowledge is OXY Corporation qualified to do
6 business in Virginia?

7 A. Yes, we are. We do have a bond and are certified by the
8 Commonwealth of Virginia.

9 Q. And do you have a blanket bond on file with DME?

10 A. That's correct.

11 Q. What is the size of this unit?

12 A. Again, this is an 80 acre unit.

13 MR. SALISBURY: I don't have any further questions.

14 MR. CHAIRMAN: Any questions, members of the Board?

15 (Witness stands aside.)

16 MR. CHAIRMAN: Do you have another witness?

17 MR. SALISBURY: Yes, sir. At this time I would like to call
18 Glen VanGolen.

19 CLERK: (Swears witness.)
20
21

22 GLEN VANGOLEN

23 a witness who, after having been duly sworn, was examined and
24 testified as follows:
25

DIRECT EXAMINATION

BY MR. SALISBURY:

Q. State your name please, sir?

A. Glen VanGolen.

Q. By whom are you employed, Mr. VanGolen?

A. OXY USA as project manager for the Virginia Coal Bed Methane Project.

Q. How long have you been in that job?

A. A year and a half, two years.

Q. Have you appeared previously before this Board?

A. Yes, I have.

Q. And have your qualifications been accepted on those occasions?

A. Yes, they have.

Q. Did you prepare a detailed well estimate with respect to the unit that's designated T-1?

A. Yes, I have.

Q. And when was that done?

A. On August 17th, 1991. I'm sorry -- September 13th, 1991.

Q. And that was prepared by you?

A. Yes, it was.

Q. What is the projected depth of that well?

A. The projected depth was 2402.

Q. To your knowledge has this well been drilled?

1 A. No, it has not.
2 Q. So that is a projected depth?
3 A. Yes, it is.
4 Q. What is the target formation for that well?
5 A. The Pocahontas #3 seam.
6 Q. And is the projected depth sufficient to produce from the
7 target seam?
8 A. Yes, it is.
9 Q. In the course of preparing the detailed well estimate
10 how many stimulations were contemplated?
11 A. Three stimulations.
12 Q. What is the overall projected cost of drilling and
13 completing the unit?
14 A. \$253,438.
15 Q. In your opinion, is that a reasonable estimate of the
16 cost of drilling and completing this well?
17 A. Yes, it is.
18 Q. Is it your opinion that the proposed well will
19 effectively drain the coal bed methane in and underneath
20 the unit?
21 A. Yes, it is.
22 Q. Is the applicant's plan one that will reasonably produce
23 the resource and protect the correlative rights?
24 A. Yes, it is.
25 Q. And will it also serve to prevent physical and economic

1 waste in your opinion?

2 A. Yes, it will.

3 MR. SALISBURY: I have no further questions.

4 MR. CHAIRMAN: Any questions, members of the Board?

5 (Witness stands aside.)

6 MR. EVANS: Mr. Chairman, I have one question for Mr. Wirth.

7 Could you please explain Exhibit B, the last two, you
8 have John G. Harris heirs and E. Stewart Harris heirs.
9 You have gross acreage and undivided interest as unknown?

10 MR. WIRTH: The reason being is because you see Mr. Edward
11 Lindsey as trustee. We do not know for sure if he is a
12 trustee of the children or heirs of John G. and E.
13 Stewart. Therefore, we need to pool any and all
14 interests that may be in it. And at this point we don't
15 know if that is all the children. We don't have the
16 trust agreement or anything to see if it corresponds with
17 our title.

18 MR. EVANS: You know what the total is, but you just don't
19 know what each --

20 MR. WIRTH: That's correct. According to our title work, the
21 break out of interests is their undivided interest. Of
22 course, as you know, in methane it might not all be coal,
23 it might not all be gas, and we have not been able to --
24 Mr. Lindsey is going to send us the trust papers and
25 everything for us to review.

1 MR. EVANS: When do you expect to receive that?

2 MR. WIRTH: He was the first one that said he would lease and
3 then Irene came in first. So they've all voluntarily or
4 verbally I should say agreed to lease, but we have not
5 received executed copies at this time.

6 MR. MASON: Mr. Wirth, what is the relationship between Mr.
7 Lindsey and this Ms. Harris?

8 MR. WIRTH: Mr. Lindsey -- and I cannot swear an oath on the
9 Bible on this -- I believe in our title and everything
10 is married to one of the Harris' daughters. And he
11 became trustee of some of the children in a trust
12 agreement early on in the title.

13 MR. MASON: Thank you.

14 MR. CHAIRMAN: Any other questions, members of the Board?

15 MR. EVANS: When you force pool, how do you propose to set up
16 the escrow agreement for these last two?

17 MR. WIRTH: The escrow agreement upon receiving and, of
18 course, the order reads now, by Board order is within 60
19 days after the date of execution of the order, and if we
20 received elections or anything then I would provide you
21 with the break out of it. We should have, at that
22 point, completed title work. If not, I will have to ask
23 the Board for extended time. But we feel that title --
24 it's almost complete now. We're almost sure that we've
25 covered all parties, but just in case, we need to protect

1 all the parties rights. We've included John G.'s and E.
2 Stewart's and any heirs and successors that we may have
3 miss. The whole percentage is of 100 percent. It might
4 take away from one party or add to another party and take
5 away from the other, but we shall have that before if
6 there is an escrow. These people do own oil and gas and
7 do own coal. So we don't believe there's conflicting
8 interests existing out here.

9 MR. EVANS: Let me ask you this. In your opinion, is there
10 any reason why this can't wait until such time as you
11 have that information?

12 MR. WIRTH: The --

13 MR. EVANS: This whole issue before us right now, forced
14 pooling.

15 MR. WIRTH: The purpose of pooling is to protect correlative
16 rights and I would rather than try to pool before -- in a
17 normal situation you always pool before you drill the
18 well. Therefore, you know who elects to participate and
19 not to participate and how much capital you'll be
20 expending. You always pool before you drill and we would
21 like to keep on drilling. Therefore, title can be -- the
22 division orders will be taken care of prior to the sale
23 of gas or usually there's a time frame thereafter that
24 you provide warrant of title to your gas purchaser saying
25 these people own it. And it is OXY, USA as the

1 operator's business responsibility to make sure title is
2 or we would have somebody come and have a claim against
3 us.

4 MR. EVANS: Mr. VanGolen, when is this well proposed to be
5 drilled?

6 MR. VANGOLEN: Not until the first quarter of next year,
7 second quarter.

8 MR. CHAIRMAN: Any other questions, members of the Board?

9 MR. EVANS: Mr. Chairman, I'm going to make the motion that
10 until this trust agreement papers are in and we find out
11 exactly what interests we're talking about and how
12 they're related that we hold this in obedience.

13 MR. WIRTH: Could I ask the purpose of this?

14 MR. EVANS: I would like to see exactly how these people are
15 related to one another and exactly what interests we're
16 talking about as far as escrow and to protect these
17 people to make sure -- you stated that some peoples
18 interests may decrease, others may increase. I would
19 like to know exactly what that is before we say yes, go
20 ahead.

21 MR. WIRTH: Okay. It would increase and decrease as to that
22 family. There should not be no escrow proceedings.

23 MR. SALISBURY: Mr. Evans, if I might, it seems like in the
24 Board's concern with this issue we're getting into issues
25 of title which are not before the Board in this

1 proceeding.

2 MR. EVANS: I'm trying to protect these peoples' rights to the
3 gas and the proceeds involved.

4 MR. SALISBURY: I think the procedures --

5 MR. EVANS: You haven't explained it sufficiently to say,
6 "Okay, this is one big pot. It's all the Harris
7 family." You have eight or ten people involved in that.
8 They all have rights. I don't know what those rights are
9 and until I do, I've got to try and protect those rights.
10 You haven't explained to me sufficiently why I should let
11 this go the way it is.

12 MR. CHAIRMAN: I have a motion. Is there a second?

13 MR. MCGLOTHLIN: Second.

14 MR. CHAIRMAN: A motion and a second. All in favor signify
15 by saying yes. (SOME AFFIRM.) Opposed say no. (SOME
16 OPPOSE.)

17 MR. WIRTH: We have clarification for a title attorney here,
18 if you would like to ask him the questions.

19 MR. EVANS: That's fine.

20 CLERK: (Swears witness.)

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23 TIMOTHY SCOTT

24 a witness who, after having been duly sworn, was examined and
25 testified as follows:

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DIRECT EXAMINATION

BY MR. EVANS:

Q. Explain to me.

A. The way title devolved on this tract is that there was originally an undivided interest owned by a lady by the name of Margaret M. Williams. She died and she devised her interest in undivided thirds to three individuals; John G. Harris, Florence Harris Curtis, and to E. Stewart Harris. The Florence Harris died -- Florence Harris Curtis died and she devised her interest to Humphrey Curtis and then that interest then was devised to a trust. The question arose because when Stewart Harris died he died, I believe, in the forties, there was a chancery action brought to determine whether or not his widow, Gertrude Nash Harris, was entitled to an undivided interest in his estate. The Court said no, she's not going to get anything. However, the interest that he had at the time of his death would devolve to his siblings. The siblings were not listed. However, based on the record, interests were leased through Marjorie Lindsey who appears to be a sister of Stewart Harris, John G. Harris who also appears to be a sibling, Florence Harris Curtis who appeared to be a sibling, and her interest -- she died after her brother. So her interest would have

1 devolved to Humphrey Curtis and then on to the Sovran
2 Bank. And then also George Ben Harris. Now, Marjorie
3 Lindsey is the wife of Edward Lindsey who is the trustee
4 about whom Mr. Wirth spoke. Now, it's my opinion based
5 on the records that we have a pie -- one pie of Margaret
6 M. Williams' interest and we've accounted for all those
7 interests. They're all going to get something based on
8 the records that we have seen. The question is of what
9 percent. We believe that those heirs acquired interest
10 from Margaret M. Williams, but they also acquired
11 interest from their sibling, Stewart Harris. So they're
12 all accounted for. It's just a matter of how much. It's
13 minimal interest because the tract was owned in undivided
14 interest at the outset. So as her interest devolved
15 through testamentary succession, that's where you come up
16 with why Marty put it that way. But they're all
17 accounted for.

18 MR. EVANS: Okay. Thank you.

19 MR. CHAIRMAN: State your name for the record.

20 THE WITNESS: Timothy Scott.

21 MR. EVANS: Mr. Chairman, I would like to withdraw my motion.

22 MR. CHAIRMAN: Board members, we voted. Now, is there any
23 objection to the withdrawn? (NONE.) Any further
24 questions, members of the Board? What's your pleasure?

25 MR. EVANS: I make the motion that we accept this petition

1 as filed.

2 MR. MASON: Second.

3 MR. CHAIRMAN: A motion and a second to accept the petition as
4 filed. All in favor signify by saying yes. (ALL
5 AFFIRM.) Opposed say no. (NONE.)

6 MR. FULMER: Before we dispose of this, I have one question as
7 far as our internal records with the Board. The two
8 unknowns in this petition, is that within the 6.318
9 percent of the Lindseys -- Edward Lindsey? Is that what
10 you're telling us, what I'm understanding?

11 MR. SCOTT: Yeah, that should be right.

12 MR. FULMER: So the two unknowns would be within the Lindsey
13 trustee as far as the percent?

14 MR. SCOTT: Right. It's the M. M. Williams pie.

15 MR. CHAIRMAN: We'll take a ten minute recess.

16 (AFTER A BRIEF RECESS, THE HEARING CONTINUED AS FOLLOWS:)

ITEM III

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3 MR. CHAIRMAN: The next item on the agenda is a petition by
4 Pocahontas Gas Company for establishment of longwall
5 panel drilling units designated as the SLW1, SLW2, SLW3
6 and SLW4 for the production of coalbed methane and active
7 coalbed methane gob gas and is located and the locations
8 are listed in the application. The Docket Number is
9 VGOB-91/11/19/-0158. I would ask that anyone that wished
10 to address the Board, other than those sitting at the
11 table, please identify yourself at this time. Is there
12 anyone that wished to address the Board regarding this
13 case?

14 MR. SWARTZ: It's possible that I may.

15 MR. CHAIRMAN: Thank you, Mr. Swartz. Anyone else?

16 MR. JONES: Mr. Chairman, ladies and gentlemen, good morning.
17 My name is Jim Jones and along with Elizabeth McClannahan
18 we represent the applicant Pocahontas Gas Partnership in
19 this application. I would like to ask for the Board's
20 indulgence. We have four applications pending,
21 basically the north unit and south unit, two applications
22 for each. We would like, just because frankly, we've
23 gotten our papers arranged in that manner, if we could
24 take up the north unit first and that's actually number
25 160 and 161 on your docket rather than 158 and 159.

1 Obviously, the principles surrounding these applications
2 are similar for both groups or sets of applications, but
3 it would just be easier for us if we could do that, if
4 that's agreeable.

5 MR. CHAIRMAN: Any problems with that, members of the Board,
6 and I'll put it in the record? Okay.
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ITEM V

MR. CHAIRMAN: We will go to agenda Item V and VI. For the record, Item V is a petition by Pocahontas Gas for Petition for the establishment of longwall panel drilling units designated as the NELW2, NELW3, NELW4, NELW5, NELW6, NELW7, NELW8, NELW9 AND NELW10. This is Docket Number VGOB-91/11/19-0160. Before you go to 161 we'll have to make that clarification. We'll deal with 161, is that clear?

MR. JONES: Yes, sir.

MR. CHAIRMAN: Okay. You may proceed.

MR. JONES: Mr. Chairman and members of the Board, we obviously have a lot of people up here at the table and it might be helpful to the Board, if you agree Mr. Chairman, for me to give just a very brief -- not prolonged, but very brief summary of what we -- at least the subject matter of the testimony of the several witnesses that we intend to call, again, not for the purpose of evidence, but just to assist the Board in seeing what's coming as far as testimony is concerned.

MR. CHAIRMAN: I think that would be helpful.

MR. JONES: We have up on the easel, if it can be seen by everyone, a drawing of the proposed units. There is also shown in green sealed gob units which the Board has

1 previously approved in applications filed by our client,
2 the BUN1 and the BUS1. Those are outlined in green to
3 the left of the drawing. The units that we will be
4 concerned with today are those outlined in orange and
5 blue. The first one will be the longwall panel units
6 which are the units outlined in orange. And then the
7 second application in connection with this group is the
8 sealed gob unit outlined in blue. And then similarly we
9 will get later to the southern unit and again, it has the
10 proposed longwall units and the sealed gob unit outlined
11 in blue. Our first witness will be Les Arrington who you
12 have heard and seen before and he will testify as to the
13 ownership involved in the longwall panel unit. Next we
14 will ask Ken Carsody who's down at the end who will
15 testify, we believe, that there is one coalbed underlying
16 the unit capable of producing coalbed methane gas as
17 required by the statute. We will then turn to Claude
18 Morgan, to my right, and Flint Kennedy who are employees
19 of one of the partners of this enterprise, Consolidation
20 Coal Company, who will testify as to production data in
21 regard to these units. We will then hear from Randall
22 Albert who you have also heard from before who is the
23 project manager who will testify as to the various
24 aspects of the proposed unit and their benefits. And we
25 also have with us, to my right, Stan Grays who is an

1 independent petroleum engineer with experience in the
2 Appalachian Basin who will confirm that the unit plan of
3 development that we propose is necessary for mine safety,
4 necessary for conformance to Consol's mine plan, and is
5 the best plan for protection of correlative rights. And,
6 of course, at the conclusion of our evidence we believe
7 that the Board will agree. If there's no questions at
8 this point, Mr. Chairman, my colleague Ms. McClannahan
9 will proceed with our first witnesses.

10 MR. CHAIRMAN: Thank you, Mr. Jones. Ms. McClannahan.

11 MS. MCCLANNAHAN: I would like to call Les Arrington.

12 CLERK: (Swears witness.)
13
14

15 LESLIE K. ARRINGTON

16 a witness who, after having been duly sworn, was examined and
17 testified as follows:
18

19 DIRECT EXAMINATION
20

21 BY MS. MCCLANNAHAN:

22 Q. Mr. Arrington, would you please state your full name for
23 the record?

24 A. Leslie K. Arrington.

25 Q. And your address?

1 A. 26 Mountaintop Drive, Princeton, West Virginia.
2 Q. And by whom are you employed?
3 A. Consolidation Coal.
4 Q. And what is your position at Consol?
5 A. Permit specialist.
6 Q. What are your responsibilities and duties as the permit
7 specialist?
8 A. Collecting data and assembling permits and applications
9 for the Gas and Oil Division.
10 Q. And what is your educational background?
11 A. I have an Associates of Science in mechanical
12 engineering, a Bachelor of Science in civil engineering
13 technology.
14 Q. Have you testified before the Virginia Gas and Oil Board
15 before?
16 A. Yes.
17 Q. And have your qualifications been accepted?
18 A. Yes.
19 Q. Has there been a continuous property acquisition program
20 in the development of the Buchanan #1 mine --
21 A. Yes.
22 Q. -- which underlies the BUN-1 unit?
23
24
25

1 A. Yes, it has.

2 Q. And how are the names of the potential owners of the
3 coalbed methane and coalbed methane located in the active
4 gob area identified by Consolidation?

5 A. They were identified by field research, title opinions,
6 and mapping.

7 Q. Since the development of the mine began how much of the
8 coal estate is controlled by Pocahontas Gas Partnership
9 in each of the units that are designated within the BUN-
10 1, that would be Northeast longwall unit 1 through 10.

11 A. In northeast 1 there's 100 percent to all coal below
12 drainage. Northeast 2, there's 100 percent. Northeast
13 3, there's 100 percent. Northeast 4, there's 100 percent
14 of the coal. Northeast 5, we control 100 percent of all
15 coal. This is all coal below drainage. Northeast 6 is
16 100 percent of all coal below drainage. Northeast 7, 100
17 percent. Northeast 8, 100 percent. Northeast longwall
18 9, we control 99.6276 percent of the Pocahontas #3 seam
19 and 87.2129 percent of all coal below drainage. In
20 northeast 10 we control 49.6049 percent of the Pocahontas
21 #3 seam and 49.5768 percent of all coal below drainage.

22 Q. Mr. Arrington, do you have your exhibits for the Board
23 members?

24 A. Yes.

25 MS. McCLAINAHAN: What we've done just as a matter of

1 procedure is prepared all of our exhibits in booklets
2 that we absolutely know that we're going to use today for
3 each of the Board members. Obviously, there may be some
4 that we use that we didn't include in the books, but we
5 do have copies of those. We just thought it would be
6 easier than handing out exhibits every time we're ready.

7 MR. CHAIRMAN: Thank you. We will accept those, but if you
8 will, as you intend to introduce it, for the record
9 identify that, please.

10 MS. McCLANNAHAN: Yes, sir.

11 Q. (Ms. McClannahan continues.) The exhibit that's upon the
12 screen, Mr. Arrington, could you explain that, please?

13 A. Yes. That's the location of the unit within the Oakwood
14 Field.

15 MS. McCLANNAHAN: We would like to introduce this as
16 Exhibit 1.

17 (Coal Control Map marked as Exhibit 1.)

18 A. (The witness continues.) And that exhibit is also in the
19 application.

20 MR. MASON: Is this Item V on our docket?

21 THE WITNESS: No, sir. The exhibit shown is the exhibit in
22 your application.

23 MR. CHAIRMAN: It is Item V. It's 160.

24 THE WITNESS: 160 is Exhibit A in the application.

25 MS. McCLANNAHAN: I suppose we don't need to introduce that

1 then, since it's Exhibit A to the application.

2 MR. CHAIRMAN: I think it would be helpful just to keep the

3 record clear since we're going to be referencing this.

4 MS. McCLANNAHAN: Okay.

5 MR. CHAIRMAN: I'm not discouraging you from saying it's also

6 in the application. I'm just trying to make sure we're

7 all clear when we're referencing what we've handed now.

8 And also, even in the discussion, just to help us, you're

9 going to stay just strictly with Docket 160.

10 MS. McCLANNAHAN: That's fine.

11 MR. CHAIRMAN: Okay. Proceed.

12 A. (The witness continues.) The exhibit shown is Exhibit 1

13 in your booklet, the coal control map, and that's the

14 number that I just defined for you.

15 Q. The yellow section, what does that represent?

16 A. The yellow section is all coal below drainage and leased.

17 Q. By Pocahontas Gas Partnership, is that correct?

18 A. Yes. And that's leased or owned, I'm sorry.

19 Q. And the green is?

20 A. That is Pocahontas #3 seam only controlled.

21 Q. The pink?

22 A. The pink is all coal below drainage less the Pocahontas

23 #3 seam.

24 MS. McCLANNAHAN: We would introduce this as Exhibit 2.

25 (Oil & Gas Control Map marked as Exhibit 2.)

1 MR. FULMER: For the record, I'd rather call them Exhibit B-1,
2 B-2, B-3 and so forth. We've already got an Exhibit A.

3 (AFTER A BRIEF DISCUSSION OF THE RECORD, THE HEARING
4 CONTINUED AS FOLLOWS:)

5 Q. (Ms. McClannahan continues.) With regard to the oil and
6 gases controlled by Pocahontas Gas Partnership, can you
7 list for the Board the percentages of control in each
8 unit Northeast longwall 1 through 10?

9 A. Yes. That will be Exhibit 2 in the book. Pocahontas Gas
10 Partnership controls in northeast 1 90.3211 percent.
11 Northeast 2, 86.1687. Northeast 3, 93.1172 percent.
12 Northeast 4, 99.9657 percent. Northeast 5, 100 percent.
13 Northeast 6, 100 percent. Northeast 7, Pocahontas Gas
14 controls 94.2113 percent. Northeast 8, 99.5060 percent.
15 Northeast 9, 87.2129 percent. Northeast 10, 44.6933
16 percent.

17 Q. Along with the coal and oil and gas that is controlled by
18 Pocahontas Gas Partnership in each of these units
19 Northeast longwall 1 through 10, what percentage of the
20 coalbed methane is controlled by PGP?

21 A. The coalbed methane as shown on Exhibit 3 in the
22 booklet, Pocahontas Gas Partnership controls 100 percent
23 in northeast 1, 2, 3, 4, 5, 6, 7 and 8. In northeast 9
24 Pocahontas Gas controls 87.2129 percent and in northeast
25 10, 49.5768 percent.

1 MR. CHAIRMAN: For clarification, again, are we talking about
2 the gas below drainage or are we talking about -- when
3 you're saying you own interest what interest are we
4 talking about?

5 MS. McCLANNAHAN: Oil and gas.

6 THE WITNESS: All the oil and gas.

7 MR. CHAIRMAN: Below drainage or --

8 MS. McCLANNAHAN: All oil and gas.

9 MR. CHAIRMAN: Oh, okay. You had a reference early on and you
10 were saying below drainage and I was making sure that
11 that was --

12 THE WITNESS: That was for the coal.

13 MR. CHAIRMAN: Okay.

14 Q. (Ms. McClannahan continues.) With regard to all the
15 Northeast longwall units that have been proposed by
16 Pocahontas Gas Partnership shown in the northeast 1, what
17 is the total acreage of control for the coal estate?

18 A. The total acreage is 1,429.13 acres. Pocahontas Gas
19 controls 86.1664 percent of that of the Pocahontas #3
20 seam and 84.7593 percent of all coal below drainage less
21 the Pocahontas #3 seam.

22 Q. Are these the same ownership control percentages that
23 you've listed on the applications as they've been
24 previously filed?

25 A. Yes.

- 1 Q. Is that true also for the Northeast longwall 107
- 2 A. No, except for that. We do have a new Exhibit C and D.
- 3 Q. So these are amended Exhibits C and D to the application
- 4 that we would like to submit. For what reason do we need
- 5 to amend Exhibits C and D?
- 6 A. We locate the heirs of Walter Wade.
- 7 Q. And were those heirs unknown at the time that the
- 8 application was filed?
- 9 A. Yes, they were.
- 10 Q. Have they, since the application was filed, been properly
- 11 notified of the application?
- 12 A. Yes, they have.
- 13 Q. Mr. Arrington, who are the owners of the coal below the
- 14 Tiller seam within each of these units?
- 15 A. Consolidation Coal Company and Hugh Macrea Land Trust,
- 16 Yukon-Pocahontas, Salyers-Pocahontas Coal Company,
- 17 Buchanan Coal Company, and Georgia Pacific Corporation.
- 18 Q. Are these also your coal lessors?
- 19 A. Consolidation Coal Company has a coal lease from Hugh
- 20 Macrea Land Trust and we have a sub-lease from Island
- 21 Creek Coal Company for Pocahontas #3 seam on the portion
- 22 of Yukon-Pocahontas.
- 23 Q. Did you file a notice of hearing and mail it to each of
- 24 the parties that are contained in the application for
- 25 establishment of each of the units?

1 A. Yes, I have. And that is Exhibit 4 in the book.

2 MS. McCLANNAHAN: We would like to introduce Exhibit 4 as it's
3 listed in the book that we submitted.

4 (Hearing Notice for BUNEI Units marked as
5 Exhibit 4.)

6 Q. (Ms. McClannahan continues.) How was this notice of
7 hearing mailed to each of the parties?

8 A. By certified mail, return receipt requested.

9 Q. Do you have those returned receipts?

10 A. Yes, we do. They've been given to the Inspector and
11 there's a copy of them in the exhibit booklet as Exhibit
12 5.

13 MS. McCLANNAHAN: We would submit Exhibit 5 of the booklet as
14 Exhibit 5 to the hearing.

15 (Return Receipts From Notice Mailing marked as
16 Exhibit 5.)

17 Q. (Ms. McClannahan continues.) How were the persons whose
18 names and/or addresses are listed as unknown notified?

19 A. By publication in the Virginia Mountaineer, Bristol
20 Herald Courier, and the Bluefield Daily Telegraph on
21 10/21 and 10.24 respectively. And that has been
22 previously submitted to the Inspector.

23 MS. McCLANNAHAN: That's all I have for this witness.

24 MR. CHAIRMAN: Mr. Fulmer, would you identify that you have
25 received those?

1 MR. FULMER: Yes, sir.

2 MR. CHAIRMAN: Thank you. Any other questions, members of the
3 Board, of this witness?

4 MR. MASON: Sir, with respect to Oakwood Unit S-23 on your
5 map, Exhibit 2, as I understand it, that Oakwood unit is
6 included within your longwall unit, is that correct?

7 THE WITNESS: Yes.

8 MR. MASON: Yet based on this map you have no oil and gas
9 lease on any of that acreage?

10 THE WITNESS: That is correct.

11 MR. MASON: On the adjoining unit S-22, you have none on that
12 unit either?

13 THE WITNESS: That's correct.

14 MR. MASON: And on T-22 you have a very small portion?

15 THE WITNESS: Correct.

16 MR. MASON: And likewise, you have probably less than a half
17 on U-23?

18 THE WITNESS: Now, U-23 is included also in previous BUONI.

19 MR. MASON: Thank you.

20 MR. CHAIRMAN: Other questions?

21 (Witness stands aside.)

22 MR. CHAIRMAN: You may call your next witness.

23 MS. McCLANAHAN: Kenneth Carmody.

24 CLERK: (Swears witness.)
25

1 engineer and computer and environmental courses.

2 Q. Are you licensed as a geologist?

3 A. I am certified in the Commonwealth of Virginia as a
4 professional geologist and also by the American
5 Institute of Professional Geologists.

6 Q. Could you please give us a brief employment background?

7 A. I've been employed with Consolidated Coal for a little
8 over fourteen years.

9 Q. And are you a member of any professional associations?

10 A. Yes. I'm a member of the Association of Ground Water
11 Scientists and Engineers. I'm also a member of the
12 American Institute of Professional Geologists. Currently
13 I am the president of the Virginia section and also on
14 their educational committee.

15 Q. Have you written any articles or books on coalbed methane
16 gas production or coal geology subjects?

17 A. I have. My thesis dealt with the release of heavy metals
18 from coal mine overburden. I've written numerous
19 articles, publications for Consol dealing with the
20 geology evaluations of coal and coal resources. Prior to
21 our research and development group coming into being
22 involved in coalbed methane, the exploration group was
23 doing the coalbed methane tests in the early eighties and
24 late seventies.

25 Q. Have you ever been qualified as an expert witness in

1 geology before the Virginia Gas and Oil Board prior to
2 today?

3 A. Yes, I have.

4 Q. Mr. Carmody, could you please identify and locate the
5 coal seams that lie below the Tiller seam and that
6 underlie the Northeast longwall 1 through Northeast
7 longwall 10 units?

8 A. What we've done, as in the first applications for the
9 units that PGP approved previously in June, we've put
10 together a general strat column showing the seams
11 involved in what you'll be seeing today. But below the
12 Tiller we have the Lower Castle, Upper Seaboard, Lower
13 Seaboard -- I'm sorry. Exhibit 9. Below the Lower
14 Seaboard you have the Upper Horsepen, the Middle
15 Horsepen, C Seam, the War Creek or the 11 Seam,
16 Pocahontas 10, Lower Horsepen, Pocahontas 9, 8, 7, 6, 5,
17 4, 3. These are the coal seams involved in the areas
18 that you'll be viewing today. The coal seam thicknesses,
19 they have a wide range in here. Generally most of the
20 coal seams encountered are less than two feet in
21 thickness. We have a few that are greater than that.
22 One is the 11 Seam or War Creek, the 5 Seam and the 4 and
23 the 3 Seam average is over five feet in thickness.
24 MS. McCLANNAHAN: We would like to submit this as Exhibit 9 to
25 the hearing, if we can, and we'll be going back to pick

1 up the other exhibits. Just to keep this in order, I
2 think that would be better.

3 (Stratigraphic Column marked as Exhibit 9.)

4 Q. (Ms. McClannahan continues.) What is the nature and
5 character of the producing coal seams as listed on the
6 unit application?

7 A. The coal seams involved in the unit applications are low
8 to mid vol bituminous coals generally low in sulphur.
9 Again, the Pocahontas #3 seam is one of the most
10 desirable coals in the world. The rock strata in
11 between the coal seams are composed of sandstones, sandy
12 shells, shells, coals in the fire cleaves or under
13 cleaves.

14 Q. What are the coal thicknesses of each of the seams that
15 you've just listed?

16 A. As we go down the section again, the Lower Castle is
17 approximately -- these are all average thicknesses from
18 across the field. 1.7 for the Lower Castle. Upper
19 Seaboard 1.6. Greasy Creek 1.6. Middle Seaboard 1.5.
20 Lower Seaboard 1.4. Upper Horsepen 1.3. Middle Horsepen
21 1.7. C Seam 1 foot. Pocahontas 11 or War Creek 2.3. 10
22 Seam 1.34. Lower Horsepen 1.8. The 9 Seam 1.5. 8 Seam
23 1.5. The 7 Seam 1 foot. The 6 Seam 1 foot. The 5 Seam
24 1 and a half. The 4 Seam 2.7. Pocahontas 3 is 5.33.
25 Again, with these coal seams, these are average

1 thicknesses. So in certain areas they will increase
2 depending on where the units are.

3 Q. Are there similarities in the structure of the coal
4 seams?

5 A. What we've done on the next exhibit, Exhibit 6 --

6 MS. McCLANNAHAN: Mr. Chairman, we would submit this as
7 Exhibit 6 to the hearing.

8 (LC Seam Map marked as Exhibit 6.)

9 A. (The witness continues.) We've taken the geological data
10 we've acquired through our drilling program and entered
11 it into the computer. It generated a structure and
12 isopac maps. The colored line -- the bluish colored
13 line is the structure of the bottom of the coal of the P-
14 3 seam. These are twenty foot contour intervals and the
15 elevation runs from about 60 feet above sea level in the
16 northwest corner to over 400 feet in the southeast
17 corner. The dip of the coal is approximately one to two
18 degrees and the dip is to the northwest. The units that
19 you'll see today sit on the northern flank of the
20 southwestwardly (inaudible) dry fork anticline. The
21 anticline dips to the southwest at approximately a half a
22 degree. The next map --

23 MS. McCLANNAHAN: I want to introduce this as Exhibit 7 to the
24 hearing. It's also Exhibit 7 in the book.

25 (PS Seam Map marked as Exhibit 7.)

1 THE WITNESS: I'm sorry. I did the Lower Castle. This is the
2 P3 Seam. Do you want to go back to the Castle?

3 A. (The witness continues.) This is the Lower Castle, the
4 same thing, isopac and structure lines. The Lower Castle
5 runs above sea level from a little over 1,100 feet in the
6 northwest to over 1,400 feet in the southeast. My
7 apologies to the Board. What we've done then on the next
8 exhibit, we've combined the structure of the Lower Castle
9 seam and the P3 Seam. There's approximately 1,200 feet
10 of stratigraphic section between the two coals. And what
11 this exhibit shows is that both seams and all the
12 intervening seams in between have basically the same
13 structure. They trend northeast southwest and dip to the
14 northwest at one to two degrees. So we really are
15 talking about the same geologic stage for all the coals
16 involved in these areas.

17 MS. McCLANNAHAN: We would introduce this as Exhibit A for the
18 hearing.

19 (Document marked as Exhibit A.)

20 Q. (Ms. McClannahan continues.) Of what does the strat
21 within the coal bearing area of Consol's Buchanan #1 mine
22 consist?

23 A. Basically there's about 50 percent of the strata that's
24 composed of sandstones and I call it a very wacky
25 sandstone or a dirty sand. It's composed of quartz and a

1 lot of accessory minerals. It generally has a very low
2 porosity. The next lithology type are sand shells again,
3 composed of sand grains and clay grains. When formed
4 into rocks, again, they have a low porosity. The next
5 units besides the coal are the shells and the under
6 cleaves which are usually found below the coals composed
7 almost entirely of clay which provides, again, no
8 porosity. Very little primary porosity in this areas.
9 There's three formations that we deal with here. Going
10 down in stratigraphic order, we have the Norton
11 formation that goes from above the Tiller down to the
12 Lower Horsepen. The Lee formation takes in the 9 and 8
13 Seam. And the Pocahontas formation takes in the rest of
14 the Pocahontas coals.

15 Q. Is the acreage that is covered by each of the units
16 Northeast longwall 1 through 10 underlain by at least one
17 coalbed capable of producing coalbed methane and coalbed
18 methane located in the active gob area?

19 A. Yes.

20 MS. McCLANNAHAN: Those are all the questions I have for this
21 witness.

22 MR. EVANS: Mr. Carmody, would you clarify exactly what
23 Exhibits 6, 7 and 8 are?

24 THE WITNESS: I got ahead here and I apologize. Mr. Evans,
25 Exhibit 6 is the Lower Castle seam, the structure and

1 isopac of the Lower Castle seam. Exhibit 7 is the
2 Pocahontas 3 Seam, structure and isopac. And then on
3 Exhibit 8 we combined the bottom seam structures above
4 the coals to show the same basic geologic structure of
5 them.

6 MR. CHAIRMAN: Any other questions, members of the Board?

7 (Witness stands aside.)

8 MR. CHAIRMAN: Proceed.

9 MR. JONES: Mr. Chairman, I'd like to call Claude Morgan.

10 CLERK: (Swears witness.)

11
12
13 CLAUDE MORGAN

14 a witness who, after having been duly sworn, was examined and
15 testified as follows:

16
17 DIRECT EXAMINATION

18
19 BY MR. JONES:

20 Q. Would you state your name, please?

21 A. Claude D. Morgan.

22 Q. And what is your address, Mr. Morgan?

23 A. 2222 Fairfield Avenue, Bluefield, West Virginia.

24 Q. By whom are you employed?

25 A. Consolidation Coal Company.

- 1 Q. And what is your position there?
- 2 A. I'm the regional manager of engineering and environmental
3 affairs for the Southern Appalachia Region.
- 4 Q. What are your responsibilities and duties as such?
- 5 A. I'm responsible for the oversight of the overall
6 engineering and environmental control for this region of
7 Consolidation Coal Company which includes southwest
8 Virginia, southern West Virginia, eastern Kentucky, and
9 Tennessee.
- 10 Q. What is your educational background?
- 11 A. I have a BS in civil engineering.
- 12 Q. What is your work background?
- 13 A. I've been with Consolidation Coal Company for almost
14 nineteen years. I have worked in various jobs with
15 Consolidation Coal Company. For the last eight years I
16 have been regional manager of engineering and
17 environmental affairs.
- 18 Q. Do you have any relevant licenses or professional
19 associations of which you're a member?
- 20 A. I am a registered professional engineer in Virginia, West
21 Virginia, and Tennessee.
- 22 Q. Have you ever qualified before as an expert witness in
23 any judicial proceeding?
- 24 A. Yes, I have.
- 25 Q. And what was the subject of your testimony at such

1 proceedings?

2 A. I have appeared before the -- what use to be the Well
3 Review Board in matters relating to the location of gas
4 wells in and around underground mining operations. I
5 have appeared in various coal mine related civil actions.
6 As well I have appeared at various legislative hearings
7 to speak on regulatory matters.

8 Q. Mr. Morgan, when did Consol begin the development of the
9 Buchanan #1 mine in the Pocahontas #3 seam?

10 A. We started construction in the spring of 1980.

11 Q. And when was construction of the facility completed?

12 A. 1985.

13 Q. Let me direct your attention to what's been marked as
14 Exhibit 10, Mr. Morgan, and we see a slide of that on the
15 screen. What does that represent?

16 A. That is a mine map of the Buchanan #1 mine which is the
17 in the Pocahontas #3 seam. It shows the mine works and
18 it shows the projected mine development for the next ten
19 years.

20 MR. JONES: Mr. Chairman, I would move the introduction of
21 Exhibit 10.

22 (USGS Quad Map with Mine Plan marked
23 as Exhibit 10.)

24 Q. (Mr. Jones continues.) Has there been developed a ten
25 year plan for this mine?

1 A. Yes, there has.

2 Q. How is the Pocahontas Gas Partnership project a part of
3 that mine plan?

4 A. The Buchanan mine began operating from that shaft
5 locations located here on Garden Creek. We started our
6 development to the north and to the south. Our first
7 longwall operation began here in the north, what is now
8 our BUN 1 sealed gob area. The second longwall began
9 operation in the south of the BUS 1 sealed gob area. We
10 have completed mining in these areas. This area has been
11 sealed. We have completed the mining in this area and
12 this area is being sealed.

13 Q. And when you say this area you mean the BUN 1 and the BUS
14 17

15 A. The Bus 1 is being sealed. Upon completion of the
16 longwall mining in the area that's labeled as BUN 1 on
17 the map we moved into the area which is now contained in
18 our Northeast longwall unit proposal that's been sub-
19 mitted by the Pocahontas Gas Partnership. Our first
20 longwall panel to be mined was in our Northeast longwall
21 1. We have mined it out. We have mined out Northeast
22 longwall 2. We're presently longwall mining the North-
23 east longwall 3 and we're beginning the development of
24 the Northeast longwall 4. Within the next five years we
25 would anticipate completion of mining of these longwalls

1 within this mine plan area.

2 Q. Mr. Morgan, how did Consol become involved in the
3 development of coalbed methane wells at the Buchanan #1
4 mine?

5 A. When we started the mining operation here we knew and we
6 had heard that the Pocahontas #3 seam had extremely high
7 methane contents. We began a program in 1984 and
8 attempted to degasify the coalbed seam ahead of mining
9 it. That program began here in the first longwall unit
10 in BUN 1. We drilled vertical holes into the coal seam,
11 hydraulically fractured the seam, and produced the gas
12 ahead of the mining operation. These holes were drilled
13 in the middle of longwall panels so that later as the
14 longwall mining came through these same holes could be
15 converted to vertical ventilation gob holes. Another
16 part of the scenario that we developed because even with
17 the drainage ahead of us, we still had a fairly high
18 methane content in the coal seam, we went to a horizontal
19 or as quite often referred to the short hole technique
20 whereby we horizontally drill into the longwall panel a
21 series of holes. Those were connected to a pipeline and
22 transported to another vertical hole to the surface. All
23 of these gas was vented to the atmosphere.

24 Q. Mr. Morgan, let me interrupt you there. We have an
25 Exhibit 11 and 12. Perhaps if you would look at 11 that

1 might -- would that assist you in a further explanation?

2 A. All right. That's better. This is a schematic of the
3 northeast longwall unit area. Again, this is the
4 Northeast longwall 1 panel which has been mined out, the
5 Northeast longwall 2 panel which has been mined out, and
6 the Northeast 3 longwall panel which is presently being
7 mined.

8 Q. Let me show you Exhibit 12. What does that represent?

9 A. This represents vertical ventilation holes that have been
10 drilled into and through the Pocahontas #3 seam for the
11 liberation of the gas. The dark dots are existing
12 vertical ventilation holes. They're not shown in these
13 two panels because there's already mines through these
14 two panels. But these are existing vertical ventilation
15 holes that have been drilled and stimulated into the
16 Pocahontas #3 seam.

17 MR. JONES: Mr. Chairman, I'd move the introduction of
18 Exhibits, 11 and 12.

19 MR. CHAIRMAN: Without objection.

20 (Mine Plan marked as Exhibit 11.)

21 (Mine Plan with degasification panel by panel &
22 additional wells marked as Exhibit 12.)

23 Q. (Mr. Jones continues.) What are the dots that are not
24 colored?

25 A. Those are anticipated future vertical ventilation holes

1 for production out of the gob area.

2 Q. Mr. Morgan, I'd like you to explain the production
3 process from these wells that you have discussed and we
4 have Exhibits 13, 14, and 15 which might be of assistance
5 to you. Let me show you 13 first and ask you about it.

6 MR. CHAIRMAN: Excuse me just a second. Mr. Mason?

7 MR. MASON: Yeah. I just want to ask a question. I've been
8 looking at Exhibit 2 which shows -- as I understand it
9 from the legend, the little squares on here indicate
10 mined areas, is that correct?

11 MR. JONES: Let me show Mr. Morgan Exhibit 2.

12 MR. MASON: Well, it's the one when we were talking about
13 what's leased, the oil and gas control map, Exhibit 2.
14 It's colored in. It shows the green and the yellow.

15 MR. MORGAN: The squares do depict --

16 MR. MASON: The little square areas.

17 MR. MORGAN: The square areas that you're referring to depict
18 the mine developments.

19 MR. MASON: Okay. If you look at Exhibit 12, this one
20 indicates as to your proposed longwall panel 3 and 4, a
21 very minute amount of mining area in one end, whereas
22 this map on Exhibit 12 indicates that your proposed
23 longwall panel 3 has had a substantial amount of mining
24 activities, or what appears to be.

25 MR. MORGAN: This is an ongoing mining operation and it's from

1 the time that this map was developed to the development
2 of that mine, but that mining has taken place.

3 MR. MASON: Which one is correct?

4 MR. MORGAN: The more up to day I think is probably Exhibit 12
5 and it's probably changed some from that date.

6 MR. CHAIRMAN: You're saying that the date that's on the
7 Exhibit as October 25th, 1991 and the one that's dated
8 October 30th identified as Exhibit 12 --

9 MR. ARRINGTON: And even still, the October 25th map, the
10 mining on there was even probably a week or two earlier
11 than that date.

12 MR. MORGAN: The base map which -- Exhibit 2 was prepared on
13 which had all the property control and so on had been
14 prepared for some time. The control one which is the one
15 added here did not change the mine plan on that base
16 map. Mining has progressed a good bit since that base
17 map was prepared.

18 MR. MASON: Thank you.

19 MR. JONES: Does that assist you, Mr. Mason?

20 MR. MASON: I'm just trying to determine what's been mined and
21 what hasn't.

22 MR. JONES: Right.

23 Q. (Mr. Jones continues.) Mr. Morgan, it's a question of
24 the mapping catching up with the mining, is that correct?

25 A. That's true.

1 MR. MASON: Let me ask, if I may, again. How long does it
2 take to cut one of these longwall panels out?

3 MR. MORGAN: Depending on the length of the panel, for
4 instance, longwall panel 3 is probably four months of
5 longwall mining. Four to five months. It depends on --
6 we operate two longwalls. We do not operate two long-
7 walls continuously. So it depends on how much time we
8 spend on one of the other longwalls, but longwall 3 may
9 be four to five months.

10 MR. MASON: So basically what you're telling me is that
11 Exhibit 2 map is really what, four or five months behind
12 Exhibit 12?

13 MR. MORGAN: That's true, the base map. There was additional
14 information. And the reason that has an October 25th
15 date, there was additional information put on that base
16 map and the mine works were contained on the base map.

17 MR. MASON: Okay. Thank you.

18 Q. (Mr. Jones continues.) Mr. Morgan, could you explain the
19 production process from these wells? You have in front
20 of you Exhibit 13 and you also will be looking at Exhibit
21 14 and 15.

22 A. If I may, let me look at Northeast longwall panel 4 here.
23 This panel has not been longwall mined. We are now
24 mining adjacent to that panel in longwall 3. Prior to
25 any mining, the three holes shown here as 44, 45, and 46

1 were drilled through 3 seams, was stimulated and produced
2 gas, coalbed methane gas, out of the Pocahontas #3 seam
3 after the #3 longwall was developed by the continuous
4 mine. The continuous miner drives along side each of
5 these longwall panels and drives up four entries or
6 tunnels on each side. He drives across an area at the
7 set up longwall and then the longwall pulls out the solid
8 block of coal. After the entries were driven along side
9 of what would be the next four longwall panels we then
10 move around to drive entries along this side to the
11 panel. While these entries are being driven we came in
12 here and drilled horizontal holes into this panel to
13 remove more of the methane from the coal seam while this
14 is being developed. This is brought out into a pipeline
15 which was brought to a hole here, a ventilation shaft,
16 and discharged through that hole to the surface by
17 pipeline. Development continues along this side and
18 entries are driven for the set up and the longwall mining
19 process will begin. As the longwall mines through --
20 obviously it will be mining through areas where some of
21 the horizontal holes have been in place and those will
22 start falling off as the mining comes through. But as
23 the longwall mines through, one of these holes that has
24 previously been fracked, P3 producer, that hole will
25 convert to a gob hole and will produce methane out of the

1 gob area behind the longwall mining. This process will
2 continue on through this entire panel. At the end you
3 will have a panel here with a rubble zone above it from
4 which all three of these wells and any future which we
5 may have to dictated by the mine claim to drill in
6 between will be liberating out of that same gob zone.

7 MR. CHAIRMAN: Mr. Morgan, when you say P3 you're talking
8 about Pocahontas #3?

9 MR. MORGAN: The Pocahontas #3 seam.

10 MR. JONES: Mr. Chairman, I would move the introduction of
11 Exhibit 13.

12 (Cross Section Location marked as Exhibit 13.)

13 Q. (Mr. Jones continues.) Let me show you Exhibit 14, Mr.
14 Morgan.

15 A. Exhibit 14 is a pictorial of a section drawn lengthwise
16 along the longwall panel. I'm in the wrong one. Excuse
17 me. I'm in the south. I'm looking south and north and
18 I'm going from one unit to the other. My south units run
19 north south. This runs east west. So this is a pic-
20 torial across the ten units that are located in the
21 Northeast longwall unit area. It shows the strata with
22 the numerous coal seams located above the Pocahontas #3
23 seam which is located in this area. What this shows is a
24 -- and I call it a rubble zone and it's referred that way
25 in many mining text as a mining zone and that's exactly

1 what it is for an area where the longwall coal is
2 removed. The space in between is where the four entries
3 were driven that I described to you and it's commonly
4 referred to as the gate entries. Obviously with longwall
5 mining there is some subsidence which occurs. Immediately
6 above the panel there's a separation of plains and
7 there's some further cracking which comes up beyond this
8 rubble zone. All of this gas out of this area and these
9 seams above have been produced out of this gob hole to
10 the surface.

11 Q. So this exhibit shows two longwall panels that have been
12 mined through and then shows the other proposed units
13 before mining, is that correct?

14 A. As a section, and I think that section was shown on a
15 previous exhibit, this would be Northeast longwall 1
16 which is already mined, the Northeast longwall 2 which
17 is already mined. This is a portion of Northeast 3
18 which is not yet mined, and the remaining panels going
19 north.

20 MR. JONES: Mr. Chairman, I move the introduction of Exhibit
21 14.

22 (North/South Cross Section Map marked as
23 Exhibit 14.)

24 Q. (Mr. Jones continues.) Let me show you now Exhibit 15,
25 Mr. Morgan, and ask you if you can explain that.

1 A. This is the 1 Northeast longwall mined area. It has
2 already been mined out. This depicts the one which we
3 propose to convert to a coalbed methane well which is
4 basically drilled into the center of this longwall panel.
5 If I may use this overview map which was used previously
6 showing the location of the mine, that would be PGP 3-14
7 which was drilled to the side to miss mine works in a
8 lower seam and then kicked toward the center of the panel
9 -- or did go toward the center of the panel. This would
10 be a proposed gob well and the unit application that's
11 before you for the Northeast longwall well.

12 MR. JONES: I would move the introduction of Exhibit 15, Mr.
13 Chairman.

14 (East/West Cross Section Map marked as
15 Exhibit 15.)

16 Q. (Mr. Jones continues.) Let me direct your attention to
17 Exhibit 16 and ask you if you could explain that, Mr.
18 Morgan.

19 A. This is a pictorial. It does not refer to a specific
20 longwall panel, but it's a pictorial of what we propose
21 to do with our active gob production. After the longwall
22 is mined out we may have from four to eight holes in
23 there that are liberating -- that have been used during
24 the active mining phase of that longwall to liberate the
25 methane out of gob area immediately behind the walls.

1 Obviously with the entries driven and this would entries
2 driven on this end of the panel -- entries driven toward
3 this end of the panel, we are still for the safety of the
4 mines required to keep those areas clear of methane or
5 below a regulatory percentage. As such we keep many of
6 these holes open even after mining and we will utilize at
7 least one of those holes with a blower on it to make sure
8 we pull enough of that methane out of the gob to keep
9 these entries open. This has not been sealed at this
10 point. Air from the mine that's been used to ventilate
11 the mine can still come in, penetrate this area, and the
12 portion of the methane contained in this gob area would
13 be unusable because of the air contain and the methane.
14 Methane is lighter. Methane tends to accumulate near the
15 top and in the cracked areas in the very tops of the
16 rubble zone. Our testing has shown there's some good
17 quality coalbed methane that could be produced out of
18 those areas. What we would propose to do would be to
19 utilize wells in these areas to free flow methane out of
20 the tops of these areas for active gob production phase.

21 MR. JONES: I would move the introduction of Exhibit 16, Mr.
22 Chairman.

23 MR. CHAIRMAN: Without objection.

24 (Gob Zone marked as Exhibit 16.)

25 Q. (Mr. Jones continues.) Let me show you now Exhibit 17,

1 Mr. Morgan, and ask you if you can explain that.

2 A. This is a sketch of a vertical ventilation hole which has
3 been drilled that we are proposing to convert to coalbed
4 methane wells. It's drilled from the surface. We have a
5 thirteen and three-eighths water protection stream and
6 coal protection stream which is installed below -- in
7 this area below us minable coal seam which in this area
8 happens to be the Jaw Bone seam and installed to protect
9 that seam. We then drill a twelve and a quarter hole
10 from that point down to a point just above, and that may
11 be anywhere from 40 to 100 feet above the Pocahontas #3
12 seam at which point we go with a seven and seven-eighth
13 diameter hole and drill below the Pocahontas #3 seam.
14 Inside of that total then and down to just the top of the
15 Pocahontas #3 seam we install a five and a half inch
16 casing. Through this five and a half inch casing we will
17 fracture the Pocahontas #3 seam and through that five and
18 a half inch casing we produce the gas out of the Pocahon-
19 tas #3 seam from that fracture. Just before the longwall
20 comes through we will go back in the hole, (Inaudible.)
21 the area across the Pocahontas #3 seam, cut the five and
22 a half inch casing and remove it from the hole. As the
23 longwall miner comes through this twelve and a quarter
24 inch hole that's remaining becomes the gob well which we
25 are proposing in the application.

1 Q. Mr. Morgan, I think you've explained the various produc-
2 tion processes of the horizontal gas and the frack gas,
3 the gob gas. What about conversion to seal gob, how
4 does that fit into this process?

5 A. After mining is complete in the northeast area, after all
6 ten panels have been mined, we would propose to seal that
7 area to prevent the mine air from entering the gob area
8 and contaminating the methane that is within the gob and
9 thereby enrich the methane to be produced out of those
10 same existing gob wells for production.

11 Q. Again, how long would that be before that would be
12 accomplished?

13 A. Mining is projected in the northeast area for five years.
14 We would anticipate sealing to occur shortly thereafter.

15 Q. Anything further, Mr. Morgan, in regard to the production
16 process that you would like to explain?

17 A. I would like to point out that it is a complicated ever
18 changing process as evidenced by Mr. Mason's question on
19 our mine maps. Even during the time that we've been
20 involved in preparing these applications, it's a con-
21 stantly changing process. We're constantly changing
22 from frack production to gob production. We've got
23 horizontal gas coming out for a period that may be from
24 six months to maybe a year depending on the mining time.
25 It's a very constant changing situation.

1 Q. Mr. Morgan, let me ask you about the volume of methane.
2 What volume of methane do the coal seams below the Tiller
3 seam in this unit area contain?

4 A. I looked at it by longwall unit and just for demonstra-
5 tion purposes I selected a panel which was sort of in the
6 middle. I selected Northeast longwall 6. There is in
7 these seams that Mr. Carnody identified, including the
8 Pocahontas #3 seam, 34.8 feet of coal measures within
9 that zone. All of this is below drainage coal. All of
10 this coal will contain coalbed methane. To determine the
11 approximate volume of gas, coalbed methane, in place
12 above that panel, utilizing what we've seen as an average
13 of 600 cubic feet per ton in the Pocahontas #3 seam and
14 utilizing the minimum of 230 cubic feet per ton and
15 without samples in every individual seam, but using just
16 a linear average and applying that to those 34.8 feet of
17 coal within that are there is roughly 2.76 billion cubic
18 feet of coalbed methane within that longwall panel unit.

19 Q. What are the average production numbers for a typical
20 well in the unit area?

21 A. The typical fracked well, the ones drilled ahead of
22 mining will produce -- and this is stimulated in the
23 Pocahontas #3 seam only -- will produce anywhere from
24 50,000 to 150,000 cubic feet per day. An average number
25 is probably in the range of 85,000.

- 1 Q. And that was for what gas production?
- 2 A. That is for coalbed methane production out of the
- 3 Pocahontas #3 seam through a typical hole that was
- 4 drilled and fractured into the #3 seam ahead of mining.
- 5 Q. What about the short hole production?
- 6 A. This is based on our experience over the entire mine area
- 7 including the BUNN1, the BUS1, what we'll be referring
- 8 to later as the BUSS2 and the first two panels of the
- 9 Northeast have produced on the average about 15 million
- 10 cubic feet per 1,000 foot of longwall.
- 11 Q. What about gob gas production?
- 12 A. Gob gas production, we're estimating on the recoverable
- 13 basis again depending on the size of the longwall -- if
- 14 you look at Northeast longwall 1, we're anticipating
- 15 anywhere from 250,000 to 750,000 as we go to the larger
- 16 units and units to the north per day. This is recover-
- 17 able coalbed methane. This is not obviously all of the
- 18 coalbed methane to be liberated from the gob holes
- 19 because all of it will not be pipeline followed.
- 20 Q. Mr. Morgan, have you prepared a chart in relation to the
- 21 production of various types of gas?
- 22 A. Yes, I have. Again, looking at our production scenario
- 23 for the Northeast longwall panel and trying to get
- 24 something with the quickly moving mining operation that's
- 25 pitched sort of in the middle has some frack production,

1 horizontal production, some active gob production, and
2 then beyond that, the sealed gob. So I picked the
3 Northeast 6 longwall to depict the production.

4 MR. McGLOTHLIN: Mr. Morgan, I have a question about Exhibit
5 17.

6 MR. JONES: Let me show you a copy of that.

7 MR. McGLOTHLIN: I'm confused as to why you would remove the
8 five and a half casing once you convert to a gob well.

9 MR. MORGAN: The volumes to be produced out of the gob well
10 are much more than a five and a half inch casing will
11 carry. That's the reason we drill a twelve and a quarter
12 inch hole to begin with. It's to carry the volumes of
13 coalbed methane that may be produced out of that hole.

14 MR. McGLOTHLIN: Is it not typical in the industry to have a
15 production casing going all the way down to the strata of
16 which the gas, the coalbed methane, will be fracked?

17 MR. MORGAN: The strata from which the coalbed methane will be
18 produced during that phase runs from this point -- from
19 the #3 seam, basically all the way up to our coal
20 protection stream.

21 MR. McGLOTHLIN: Is this a way to defer expenses by not having
22 to frack at several different locations within the
23 rubble out area or below the Jaw Bone seam?

24 MR. MORGAN: No, it isn't. We have never attempted fracking
25 of multiple seams at this time. It has been an economic

1 decision. We are studying that and our concern is we
2 don't know that there's anything under it. Our concern,
3 number one, is for the mine's safety and protection of
4 miners operating underground in the design of any well
5 that would be done. This design is entirely to allow
6 free flow of large, large volumes of coalbed methane out
7 of this during the period per say three or four months
8 immediately after the longwall goes through. We have
9 seen flows coming out of one of these holes in that time
10 period of three to four months immediately after at 8 and
11 9 million cubic feet a day. That's the reason for the
12 twelve and a quarter inch hole. And it's coming out of
13 all of those various seams that are along that area. If
14 there was a casing in place it couldn't get to the bore
15 hole.

16 MR. MCGLOTHLIN: Could you anticipate at some point in the
17 future that the strata fracks higher than the Jaw Bone or
18 above the Tiller to the subsidence and that gas not get
19 into the water stream?

20 MR. MORGAN: We have never seen that occur in any of our
21 mining. I have been in Jaw Bone mines over areas that
22 have been longwalled at our mining operation and there
23 have been no methane problems associated with any of
24 those mines over the longwall panel.

25 MR. MCGLOTHLIN: But it could happen?

1 MR. MORGAN: Very inconceivable, I think.

2 MR. MCGLOTHLIN: But it could happen?

3 MR. MORGAN: In my professional opinion, no.

4 MR. MCGLOTHLIN: You said it was inconceivable, but it could
5 happen?

6 MR. MORGAN: If you talk infinite probabilities, anything is
7 possible. But my best engineering judgement and my best
8 understanding of the geology and the strata of the
9 mining process is it will not happen.

10 MR. MCGLOTHLIN: Thank you.

11 Q. (Mr. Jones continues.) Mr. Morgan, you have a chart that
12 you were going to put up, you can give me back that book
13 and -- Mr. Arrington is going to hand out those copies to
14 the Board members.

15 MR. JONES: Mr. Chairman, this is an exhibit that is not in
16 our book. To keep our order correct, if we could give
17 this Exhibit 17-A.

18 (Chart marked as Exhibit 17-A.)

19 Q. (Mr. Jones continues.) Mr. Morgan, you have before you
20 what's been introduced as Exhibit 17-A. If you could
21 identify that and explain what that chart is?

22 A. What I've done here is I have taken the Northeast 6
23 longwall unit and I have shown the projection production,
24 I'm talking recoverable coalbed methane production, out
25 of that unit during it's life and going beyond that

1 through the sealed gob production time frame. The green
2 area depicted on this chart, the chart shows in years
3 from zero to fifteen, the --

4 Q. The horizontal axis of the chart is years, is that
5 correct?

6 A. That's right, from zero to fifteen. The vertical axis
7 flow in thousand cubic feet per day. That unit which
8 contains three ventilation holes that were drilled and
9 fractured into the Pocahontas #3 seam prior to mining, we
10 would anticipate the production from that showing in
11 green on this chart. What this would reflect is that if
12 we started in production -- and when I speak of produc-
13 tion I'm talking of pipeline type production, not just
14 vented -- but we start in production say early next year
15 and the fracks would be producing at the rates I've
16 mentioned, the average rates of 85 MCFD -- 85,000 cubic
17 feet per day -- that would continue to produce until the
18 longwall operations starting cutting through the frac-
19 tures. I show the first hole dropping off here, then the
20 second hole dropping off, and then the third hole
21 dropping off. But prior to getting to that point we
22 would do the horizontal or short hole drilling as we
23 referred to. The production from that horizontal drilling
24 is depicted here in orange. We would drill the horizontal
25 holes over a period of about a month. We would have

1 about six months of production while the other side is
2 being developed. Then the longwall mining would start
3 and the horizontal hole production would gradually drop
4 off to nothing at the end of the mining. When we're
5 toward the middle of that panel we would start picking up
6 some --

7 MR. EVANS: Excuse me. This graft that we're looking at
8 here, when you're talking about the three vertical holes
9 producing and then your short holes producing, are those
10 cumulative?

11 MR. MORGAN: Those are cumulative. In other words, this line
12 right here is the cumulative production line.

13 MR. EVANS: Thank you. That's all I needed to know.

14 A. (The witness continues.) So the horizontal hole picks up.
15 It drops off toward the middle. The blue or the active
16 gob production as included in our application today comes
17 on. This would build. In this panel we're showing about
18 a 500,000 cubic feet per day active gob production. This
19 would continue until this point five years from now when
20 we would propose to seal the area after mining. At that
21 point the methane becomes more enriched, our production
22 picks up somewhat. And we're showing this as just a
23 steady decline for the next ten years, the production
24 numbers associated with this chart. The green represents
25 about 140 million cubic feet of methane production. The

1 orange represents about 77 or the short hole represents
2 about 77 million cubic feet of production. The blue or
3 the active gob represents 639 million cubic feet of
4 production. The yellow or the sealed gob represents 912
5 million cubic feet of production. I'd like to point out
6 here, if you look at this, the Oakwood field rules were
7 developed on the basis of production from the green area.
8 And there you see the reason why we are asking for
9 something different. The Oakwood field rules were not
10 developed for the majority of the coalbed methane which
11 we intend to produce. This green represents 16 percent
12 of that first five years of production. It only repre-
13 sents 8 percent of the total production from that area.

14 MR. JONES: That you, Mr. Morgan. That's all the questions I
15 have of this witness.

16 MR. CHAIRMAN: Any questions, members of the Board?

17 (Witness stands aside.)

18 MR. JONES: I'd like to call Mr. Kennedy.

19 CLERK: (Swears witness.)
20
21

22 FLINT KENNEDY

23 a witness who, after having been duly sworn, was examined and
24 testified as follows:
25

DIRECT EXAMINATION

BY MR. JONES:

Q. Would you state your name, please?

A. Flint Kennedy.

Q. And what is your address?

A. 4000 Brownsville Road, Library, Pennsylvania.

Q. By whom are you employed?

A. Consolidation Coal Company.

Q. What's your position with Consolidation Coal Company?

A. Vice-president research and development.

Q. What are your responsibilities, Dr. Kennedy, insofar as your position with Consol?

A. I'm responsible for all the RND activities for Consol including coal seam degasification and controlling the methane that is liberated as a consequence of mining.

Q. What is your educational background?

A. I have a Bachelor's degree in chemistry with minors in math and physics from Texas Christian University and a PhD in organic chemistry from Rice University.

Q. If you would, just briefly give your work background.

A. I spent twenty-five years in petro-chemicals feed stock upgrading and process development and that included enhanced (Inaudible.) recovery and I've been for the last ten years in coal RND. I'm a member of the advisory

1 board for the Pittsburgh Coal Conference and I serve on a
2 variety of other coal related advisory committees
3 including the technical advisory committee for the
4 Pennsylvania Energy Development Authority. I hold
5 fourteen patents and have published on a variety of
6 chemical processes, coal mining needs, and utilization of
7 coal in an environmentally acceptable manner. I serve on
8 the industrial advisory board for the Department of
9 Chemical and Petroleum Engineering at the University of
10 Pittsburgh.

11 Q. Dr. Kennedy, how did you become involved in the Pocahon-
12 tas Gas Partnership project?

13 A. Starting in the mid seventies the amount of methane in
14 some of the Pittsburgh seam coal that we had in northern
15 West Virginia was a problem. We adapted some drilling
16 technology from Conoco and began to develop a horizontal
17 drilling apparatus so that we could control the drill bit
18 and it went forward, not only with respect with staying
19 in the middle of the seam, but staying on the seam that
20 we wanted to. We have perfected that technology to where
21 we can drill a hole anywhere from 1,500 to 2,000 feet
22 from where the drilling rig is located. As a consequence
23 of the problems associated with liberating methane from
24 the Pocahontas #3 seam, the porosity is very low and a
25 horizontal hole does not cause enough gas to be liberated.

1 So we concluded that what we should do is drill vertical
2 holes and then hydraulically stimulate them very gently
3 in comparison to how one stimulates for petroleum oil and
4 gas needs and see if that would work. That is the
5 technology that Mr. Morgan has been describing to you
6 when he talks about hydraulic stimulation or fracking of
7 the Pocahontas #3 seam at Buchanan mine.

8 Q. Is your research and development group responsible for
9 the production information that Mr. Morgan testified to?

10 A. That's correct. We analyze it after it's been generated
11 at the mine site.

12 Q. For what time period has Consol monitored production from
13 the vertical ventilation holes?

14 A. We began to monitor the production from those vertical
15 ventilation holes starting with the wells we fracked in
16 1984.

17 Q. And how is the production monitored?

18 A. We use an orifice monitoring devise to measure the
19 production.

20 Q. And are you responsible for the analysis of these
21 productions?

22 A. We take the data and analyze it and communicate that back
23 to the appropriate people at the mine site and southern
24 Appalachian headquarters.

25 Q. What is the accuracy of your analytical process?

1 A. It's roughly plus or minus two percent.

2 MR. JONES: I have no further questions of this witness.

3 MR. CHAIRMAN: Any questions, members of the Board? Dr.
4 Kennedy, the information that was presented profile
5 that's up there in a color chart that Mr. Morgan just
6 discussed, is that a result of the research that your
7 group has done?

8 MR. KENNEDY: That's correct. We provided all of the informa-
9 tion, the list. The horizontal hole technology is that
10 that we devised for proceeding with additional drainage.
11 And we take the measurements off of the active gobs as he
12 described and this is a projection from the sealed gas.
13 We've only recently sealed this set of panels and this
14 set of panels and are beginning to collect the data with
15 respect to what we will expect.

16 MR. CHAIRMAN: What length of time has your monitoring been
17 going on?

18 MR. KENNEDY: We started with the panel here with the first
19 well we drilled in 1984. We had two that we put in place
20 and we've been monitoring since that time. As we add an
21 additional well, whether it's a frack well or a gob well,
22 we put a monitoring device on it as soon as it begins to
23 produce gas.

24 MR. CHAIRMAN: Thank you, Dr. Kennedy.

25 (Witness stands aside.)

1 MS. McCLANNAHAN: Our next witness is Randall Albert.

2 CLERK: (Swears witness.)

3
4
5 RANDALL M. ALBERT

6 a witness who, after having been duly sworn, was examined and
7 testified as follows:

8
9 DIRECT EXAMINATION

10
11 BY MS. McCLANNAHAN:

12 Q. Mr. Albert, would you please state your full name for the
13 record?

14 A. My name is Randall M. Albert.

15 Q. And your address?

16 A. 2801 Colossus Street, Bluefield, West Virginia.

17 Q. And by whom are you employed?

18 A. I'm employed by Consolidation Coal Company.

19 Q. And what is your position with Consolidation?

20 A. I'm the project manager of the Pocahontas Gas Partner-
21 ship.

22 Q. And your responsibilities and duties as project manager?

23 A. I'm responsible for the over all operation of Pocahontas
24 Gas project which is a joint venture with Consolidation
25 Coal Company and Conoco. I coordinate the supervision of

1 all drilling, production, and gathering of coalbed
2 methane gas in the Buchanan #1 mine.

3 Q. What is your educational background?

4 A. I have a BS degree in mining engineering through Virginia
5 Polytech Institute State University.

6 Q. And do you hold any licenses in engineering?

7 A. Yes. I'm a registered professional engineer in the
8 Commonwealth of Virginia.

9 Q. Could you give us your work background, please?

10 A. I've been with Consol since July of 1980. I have primary
11 been involved in ventilation or degasification of
12 underground coal mines over that eleven year time period.

13 Q. Are you a member of any professional associations?

14 A. Yes. I'm a member of the Society of Engineers.

15 Q. Have you ever been qualified as an expert witness in
16 mining engineering before the Virginia Gas and Oil Board?

17 A. Yes.

18 Q. With regard to the units, the Northeast longwall 1
19 through ten units that we've been talking about here
20 today, what is the time frame within which the Pocahontas
21 Gas Partnership plans to produce from the Northeast
22 units? This is Exhibit B-1 to the application.

23 A. As Mr. Morgan pointed out and I will elaborate just a
24 bit further, a due portion of this unit -- the first two
25 panels are mined out and a good portion of the third

1 panel is mined as well. The time period that we have to
2 complete this mining and the production of this gas in
3 the active phase prior to sealing is about five years
4 time.

5 Q. For the units that are in the south, for example, you
6 say 1 and 2 are already mined out, then we get to 3
7 partially mined out. Units 4 and 5, would you have as
8 much time as you say, five years, to produce from those
9 panels as you would from the 10?

10 A. No, I wouldn't. It would progressively less as we go
11 north for the frack production -- progressively more,
12 excuse me, as we go to the north.

13 Q. What dictates this time frame within which you can
14 produce gas from these wells?

15 A. Primarily, the reason we have this program is for the
16 safety of our mine operation to liberate this methane.
17 That is what dictates the time period that we do have to
18 liberate it in.

19 Q. What well spacing presently being employed for the VWHs
20 that are drilled within the pools underlying the North-
21 east longwall 1 through 10 units?

22 A. If you take the number of wells contained in the North-
23 east unit it's twenty-eight wells and divided that by the
24 total number of acreage. That comes out roughly 50
25 acres. That is due to the fact, as I mentioned and it

1 was also mentioned by Mr. Morgan, that a portion of that
2 unit is mined out. As a matter of record over the past
3 seven years we have tried to drill the frack wells on
4 approximately an 850 to 1,200 to 1,600 foot spacing which
5 gives you about a 23 to a 33 acre spacing on the frack
6 wells. We come back in and put the gob wells essentially
7 on an 850 by 600 spacing or about a 12 acre spacing.

8 Q. Is that depicted on Exhibit 187

9 A. Yes, it is.

10 Q. We don't have a slide on that, but that's Exhibit 18 in
11 the book. Can you explain how the additional wells are
12 drilled in connection with your existing VWHs shown on
13 this exhibit?

14 A. Yes. As you can see on your exhibit, for clarification,
15 the solid wells are the existing VWHs holes that were
16 drilled as frack wells that we're proposing to convert to
17 CBM wells. The hollow dots or the un-solid dots are
18 additional gob wells that we will propose to drill.
19 Again, the location of the gob wells are drilled based on
20 the safety requirements of the mine. It's as simple as
21 that.

22 Q. What kind of well spacing is then being proposed by the
23 application that you've submitted for the Northeast
24 longwall panels?

25 A. Well, what we're submitting is that we be allowed to

1 drill additional -- we be allowed to convert the wells as
2 we're showing and be allowed to drill additional wells as
3 CBM wells as opposed VWH wells. As Mr. Morgan stated,
4 this is a dynamic situation. We feel like we need the
5 flexibility to permit all the wells as coalbed methane
6 and then be allowed to capture or vent the gas based on
7 the safety requirements of the mine. If we're not
8 allowed this flexibility to drill additional wells as
9 coalbed methane we're going to end up wasting a tre-
10 mendous resource. The dynamics of the situation dictate
11 that all gas is not pipeline quality, but we do need the
12 flexibility to be able to capture all pipeline quality
13 gases available and unless we are allowed a proposal such
14 as this it would be very difficult to do.

15 Q. At what depth has gas production from the pools underly-
16 ing these units been found?

17 A. We have encountered gas production in all seams below the
18 Tiller seam in this pool.

19 Q. And what volume of methane do the coal seams below the
20 Tiller seam contain?

21 A. The coal seams contain from 230 to about 700 cubic feet
22 of methane per ton. Naturally, that increases as the
23 depth of the coal.

24 Q. Can you explain the most sufficient and economic drainage
25 of the methane gas by the wells to be converted?

- 1 A. Yes. The wells, naturally, are drilled to maximize the
2 degasification of each longwall panel prior to mining.
3 The wells drain -- it might be helpful if I come up front
4 here and just show you. The fractures from these wells
5 extend in a northeastwardly trending swath of about
6 north 55 to 60 degrees to the east. The wells drain in
7 concentric lipzoids around each fracture based on time.
8 We have mined through and mapped over thirty fractures
9 during this operation. So we feel like we have a pretty
10 good handle on how these things drain. Naturally, with
11 more time they would drain a larger area. We are
12 constrained by time in the area as have mentioned.
- 13 Q. What do you believe determines proper spacing for coalbed
14 methane wells in connection with the mine operation?
- 15 A. Well, the first and foremost is the time that you have
16 of drainage prior to mine through. Of course, mine
17 safety which ties into that is a prime concern. And then
18 the normal reservoir engineering parameters of per-
19 meability, the pressure, porosity, and the absorption
20 characteristics of the coal.
- 21 Q. If there is a low coal permeability reservoir will a
22 smaller spacing with more wells be necessary to effec-
23 tively and efficiently drain the area?
- 24 A. Yes, that is very true.
- 25 Q. Have you determined the coal permeability within the

1 units that you've proposed in this application and
2 notice the spacing necessary for the wells within the
3 units?

4 A. Yes. Over the course of this program we have done
5 numerous step rate injection tests to determine and
6 measure the permeability of the Pocahontas #3 seam. That
7 has ranged anywhere from about .1 up to 10 millidarcies
8 of permeability.

9 Q. Will the proposed program that you've submitted in these
10 particular applications fit into other projected mine
11 plans where large gob areas will be formed?

12 A. Yes, it will.

13 Q. Are the areas covered by the units within the Oakwood
14 coalbed gas field?

15 A. Yes, they are.

16 Q. Why is an exception to the Oakwood field rule required
17 for frack production from the coalbed methane wells that
18 are to be converted?

19 A. Well, one point I want to make and as I've explained this
20 process to various people and the one that has come out
21 is some people didn't realize that all of the wells that
22 we're asking you to convert are existing wells. They're
23 in the ground today. We don't have the ability to move
24 them around to fit inside of the 80 acre units. So first
25 and foremost we're asking for this plan to kind of

1 grandfather our existing wells into place without having
2 to come before the Board time after time for location
3 exceptions and increased density hearings. Again, time
4 is a huge factor. This plan is all before five years of
5 mining will take place. So we don't have tomorrow to get
6 this done. We've got five years or the gas is going to
7 be wasted. We have to continue the degasification of our
8 underground mine and first and foremost we need an
9 exception to the Oakwood field rules because the 80 acres
10 do not conform to our mine plan.

11 Q. With regard to Exhibits 19, 20, 21, and 22, can you
12 explain why the existing wells don't conform to the
13 Oakwood field rules or the mine plan that you've develop-
14 ed?

15 A. Yes. As you can see, Exhibit 19, 20 and 21 are a
16 depiction of the longwall units overlain by the 80 acre
17 field units. As you can see, what we have done is taken
18 the wells that we're asking to be converted plus wells
19 that we know will have to be drilled in the future and
20 shown what each unit would have in those. As you can
21 see, you run into situations where you have five and six
22 wells on one unit and then in the adjacent unit you may
23 only have one or two wells in. We don't feel like that
24 is the most equitable protection of correlative rights.
25 We feel like the panel by panel will do us a better job

1 in the protection of correlative rights because of that
2 issue.

3 Q. Are the wells spaced in a uniform pattern if you look at
4 them as they're spaced in panel units as shown on
5 Exhibit 227

6 A. Yes, they are.

7 Q. Is this particular panel unit also required because
8 you're dealing with areas where a portion of the mine is
9 already -- mining is already completed and a portion of
10 it isn't?

11 A. That is true. If you will look back at Exhibit 19 or 20,
12 either one, you'll see that Oakwood unit W-25 and W-26
13 overlay the area essentially mined out by our first
14 Northeast longwall panel. Well #314 is the black dot
15 just off to the -- it was a directionally drilled hole,
16 so this is the surface location. So the bottom of the
17 hole is in the middle of the longwall panel. As you can
18 see, we could produce gas out of well 314 under the
19 existing Oakwood field rule pay only those royalty owners
20 in W-25, ignoring the royalty owners in W-26, and be
21 perfectly legal under the existing Board order. However,
22 a drainage of gas from W-26 would be occurring.

23 Q. Do the areas sought to be spaced in the manner in which
24 you've filed the unit applications conform with Consol's
25 mine boundary?

1 A. Yes, they do.

2 Q. Is it your opinion that the spacing requested for each of
3 the units is necessary to allow conformity with Consol's
4 mine boundaries?

5 A. Yes, it is.

6 Q. What information do you have about the intrinsic reser-
7 voir pressure within the unit areas?

8 A. I'll confine most of my comments to the Pocahontas #3
9 seam because that is the area that I am personally
10 familiar with through the seven years of operation of
11 this program. The Pocahontas #3 seam is considered in
12 reservoir engineering terms to be an under pressured
13 reservoir. The pressured rating is about .33 PSI per
14 foot. And on average the reservoir pressure is about
15 600 pounds.

16 Q. Is the pressure in the unit sufficient to draw the
17 methane gas to the well bore?

18 A. Yes, it is. The reservoir is a saturated reservoir, so
19 there has to be some de-watering done. And because it is
20 an under pressured reservoir the hydrostatic pressure
21 would tend to hold the gas in place prior to de-water.
22 So once some initial de-watering is done, there is
23 sufficient pressure to draw the methane to the well bore
24 once the bottom hole pressure is lowered.

25 Q. In some areas it is difficult to obtain methane produc-

1 tion during the beginning life of the well. Is that the
2 case in the area of the proposed units?

3 A. Yes. As I just explained, it takes some type of stimula-
4 tion program and a lowering of the bottom hole pressure
5 and some initial de-watering for the methane to begin to
6 flow to the well bore.

7 Q. Your calculations for spacing and drainage, can you tell
8 us that those were based upon in determining how to
9 submit this application and how to drill additional wells
10 as you've proposed them?

11 A. The common means of doing this -- I'm sure the Board has
12 seen, is a typical ice-therm curve. It's just the gas
13 content versus pressure. Coal is not like an ordinary
14 reservoir. If you would think of an ordinary sandstone
15 type natural gas reservoir as a balloon that is filled
16 with gas, coal is more like a sponge where the methane
17 particles are absorbed onto the coal particles. Because
18 of that it takes an de-sorption process to remove the
19 gas. The fracture creates a channel for the gas to flow
20 and then the pressure draws it out into the fracture and
21 on to the well bore. But with any degasification or
22 removal of methane from the coal seam, time is your
23 biggest factor. It takes a long period of de-sorption
24 for the coal to be degasified.

25 Q. Have you measured gas de-sorption after the longwall

1 miner has been in a particular area?

2 A. Yes, we have. As part of our program over the past seven
3 years we have put our degasification wells in place and
4 then gone back and tried to quantify how much gas has
5 been removed through de-sorption tests in various places
6 of the mine. Those numbers tell us that up to 60 percent
7 of the gas was removed via the frack wells as compared to
8 the original reservoir numbers.

9 Q. And within what kind of time period were those tests
10 done?

11 A. All the wells that we have have never had more than a
12 three year life. So they were from one to three years.

13 Q. Does this actual production data that you've acquired
14 over this time period as well as the de-sorption measure-
15 ments that you've acquired support the proposed units as
16 submitted by your application?

17 A. Yes. We certainly think it does. As I touched briefly
18 on, we have the gas recovery percentages that we have
19 acquired through Dr. Kennedy's group through seven years
20 of research. We have taken our numbers, as Mr. Morgan
21 did, and extrapolated those out from the actual numbers
22 out to fifteen years. We've shown the benefits to the
23 royalty owners, the protection of correlative rights, and
24 we feel it's a fair and equitable plan.

25 Q. Do you believe that the wells that are shown on Exhibit B

1 that's attached to your application will effectively
2 drain the reservoir's methane gas reserves within the
3 time frame that's dictated by Consol's mine plan which
4 ranges from six months to five years through the life of
5 each particular panel?

6 A. Yes, I do.

7 Q. And how did you arrive at that conclusion?

8 A. Again, based on our seven years of actual operation and
9 the attending ongoing research program that we have had
10 with this degasification program.

11 Q. What is currently being done with the coalbed methane gas
12 that's being produced by the Buchanan #1 mine?

13 A. The gas is currently vented to atmosphere.

14 Q. Would the unit proposals that you've submitted minimize
15 the venting and wasting of this gas?

16 A. Yes, it would. The overall concept of this proposal is
17 to attempt to maximize through utilization of the Board's
18 rules a new technology to capture this methane which has
19 to date in the mining history been a safety hazard to our
20 workers. We feel like this proposal will be good for the
21 Commonwealth, will be good for the Board, and certainly
22 be good for our corporation.

23 Q. And why do you believe it would be good for the Common-
24 wealth?

25 A. As everyone knows, there is a severance tax based on

1 coalbed methane production. If we must continue to vent
2 this methane as a safety hazard there will be financial
3 losses to the Commonwealth and to a county that des-
4 perately needs an expanded tax place.

5 Q. Does this proposal also benefit the royalty owners who
6 are located within these units?

7 A. Yes, it does.

8 Q. Would any of the royalty owners receive proceeds if the
9 gas was vented?

10 A. No, they would not.

11 MS. McCLABBAHAN: That's all the questions I have for Mr.
12 Albert.

13 MR. CHAIRMAN: Any questions, members of the Board? Mr.
14 Albert, if I could take you to Exhibit 18 and make sure I
15 understand. Your exhibit shows, among other things, the
16 production or short hole gas. I see it's metered at the
17 end of each longwall panel there in the main entry.

18 MR. ALBERT: Yes, sir.

19 MR. CHAIRMAN: Is that intent to tie all of the production
20 back to the longwall unit?

21 MR. ALBERT: Yes, sir. As you can see, the short hole
22 production is a perfect example of why it's the proper
23 way to try to do this as we feel is on a panel basis, is
24 once the mining development has surrounded that panel
25 that longwall panel is an isolated 600 foot by 5,000 foot

1 block of coal. The short holes are drilled about 550
2 feet into that 600 feet and all of that gas is drained
3 from that panel. Any other method to try to take care of
4 this without trying to tie it back to that area of panel
5 being mined would be improper. But certainly there's no
6 way you could take it on a gross 80 acre basis and be
7 equitable in the distribution of that royalty.

8 MR. CHAIRMAN: Thank you. Any other questions of this
9 witness?

10 (Witness stands aside.)

11 MR. CHAIRMAN: You may call your next witness.

12 MS. McCLANNAHAN: I'd like to move the introduction of
13 Exhibits 18 through 22.

14 (Brief Exhibit A-1 -- uniformity of spacing
15 marked as Exhibit 18.)

16 (Brief Exhibit A-2 -- uniformity of spacing
17 marked as Exhibit 19.)

18 (Brief Exhibit A-3 -- uniformity of spacing
19 marked as Exhibit 20.)

20 (Brief Exhibit A-4 -- uniformity of spacing
21 marked as Exhibit 21.)

22 (Mine Plan Degasification -- Oakwood Field and
23 Additional Wells marked as Exhibit 22.)

24 MS. McCLANNAHAN: Our next witness is Stan Graves.

25 CLERK: (Swears witness.)

STANLEY L. GRAVES

a witness who, after having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. McCLAINJAHAN:

Q. Mr. Graves, would you please state your full name for the record?

A. Stanley L. Graves.

Q. And your address?

A. 2125 Hickory Ridge Circle, Birmingham, Alabama.

Q. And by whom are you employed?

A. Grayco Resources, 2101 Magnolia Avenue, Suite 407,
Birmingham, Alabama.

Q. And your position with Grayco?

A. President.

Q. And your responsibilities and duties as president of that corporation?

A. Technical consultant services and management.

Q. And what is your educational background?

A. I graduated from Auburn University in 1967 with a Bachelor of Science in engineering.

Q. What is your work background?

A. In 1970 I joined Graves (Inaudible.) Company which is a

1 third generation well drilling company involved in energy
2 and environmental and oil and gas -- or water wells
3 involved and was made president in 1975 and served in
4 that capacity until 1989 where I sold the company in 1985
5 to Energ Incorporation who is the largest coalbed methane
6 producer in Alabama and stayed on until 1989 in that
7 capacity. In 1989 I became vice-president for special
8 project development for Energ Incorporation. In 1990 I
9 left and formed Grayco Resources.

10 Q. By whom were you employed after graduating from Auburn?

11 A. I worked for the Geological Survey and Oil and Gas Board
12 for the State of Alabama for three years.

13 Q. And what was your position with the State Oil and Gas
14 Board?

15 A. I was a hydraulic engineer.

16 Q. And what were your responsibilities with the State of
17 Alabama Oil and Gas Board when you served on it?

18 A. The staff provided technical support to the Board and
19 regulatory oversight services.

20 Q. Have you ever been involved with the drafting and
21 promulgation of oil and gas regulations and rules?

22 A. I worked with the Board as an employee and then in the
23 early eighties the coalbed operators group in Alabama, I
24 served on the committee that developed the first coalbed
25 methane rules for any state. We adopted those rules in

1 1980. Those particular rules provided for ten to 80 acre
2 spacing for wells in Alabama. On that committee we had
3 mining related people as well as conventional or more
4 traditional vertical bore hole degasification companies.

5 Q. In what areas of the country have you worked in coalbed
6 methane development?

7 A. To some extent I have worked both nationally and interna-
8 tionally. I've done some work for the Alberta Research
9 counsel in Canada in the Alberta Basin. I worked in
10 Beckley, West Virginia several years ago in a coalbed
11 methane related project for a mine, in the Valley Basin
12 here in Virginia recently in review of some activities
13 there for a client. I have production in Appalachia in
14 Washington County, Pennsylvania on conventional oil and
15 gas. I have a working interest in that. And I have
16 extensive experience since 1975 in the Warrior Basin of
17 Alabama.

18 Q. Is the Black Warrior Basin an extension of the Ap-
19 palachian Basin?

20 A. Not a geologist, but traditionally I think that's
21 considered to be some what the same. We have many of the
22 same units, the Pocahontas coal seam and the Marley Blue
23 Creek are considered to be somewhat synonymous.

24 Q. Are you a member of any professional associations?

25 A. Yes. I'm a member of the Alabama Geological Society,

1 American Water Works, the National Ground Water Association
2 tion of which I'm a Board member, American Institute of
3 Mining in Metallurgical Engineers, the Auburn University
4 Research Advisory Counsel. I've currently served on the
5 Gas Research Institute Project Advisors Group in the
6 environmental area. Prior to that I have been a project
7 advisor on a long-term coalbed methane project at Rock
8 Creek in Alabama for the GRI. I'm a Board member of the
9 Coalbed Methane Association of Alabama, a member of the
10 GRI steering committee for the coalbed methane forum in
11 Alabama, and I'm currently chairman of the Alabama
12 Environmental Management Commission.

13 Q. Have you written any articles or books on oil and gas
14 subjects?

15 A. I've written several articles in the Oil and Gas Journal
16 that were published in 1989. I have published articles
17 as principle investigator on several projects for GRI, as
18 well as an article for the Alabama Association of Water
19 Pollution and Control on coalbed methane development and
20 water disposal in Alabama.

21 MS. McCLANNAHAN: We would like to submit that Mr. Graves is
22 an expert witness in the area of coalbed methane develop-
23 ment.

24 Q. (Ms. McClannahan continues.) In your opinion, Mr.
25 Graves, what are the factors that determine proper

1 spacing for a coalbed methane field in the Appalachian
2 Basin?

3 A. Well, I think it depends on the type of use and then the
4 reservoir parameters that Randy indicated earlier of
5 permeability, reservoir pressure, and gas saturation and
6 de-sorption rates primarily. And time is a major factor.
7 Coalbed methane wells tend to be long life wells.

8 Q. Have you reviewed Pocahontas Gas Partnership's applica-
9 tions and Consolidation Coal Company's mine plan?

10 A. Yes, ma'am, I have.

11 Q. And is it your opinion that the spacing requested for
12 each of the units is necessary to allow conformity with
13 Consol's mine boundaries?

14 A. Yes, I do. And I think that's evidenced by the graph
15 upon the board.

16 Q. With regard to reservoir pressure within the unit areas
17 is it your opinion also that based on the under pressured
18 reservoir in this area that this particular spacing is
19 necessary to remove the coalbed methane during a five
20 year time period?

21 A. Yes.

22 Q. What amount of methane released during mining operations
23 can be recovered during a coalbed degasification project?

24 A. It's going to depend on the reservoir characteristics and
25 obviously the spacing. It ranges from 30 percent to

1 conceivably as high as 75. There have been some docu-
2 mented cases in Alabama for 75 if the degasification
3 program has begun many years in advance of the mining.

4 Q. Based on the production information that has been
5 submitted by Mr. Morgan and Dr. Kennedy today, is it your
6 opinion that the wells as we've proposed them in our unit
7 applications will effectively drain the reservoir's
8 methane gas reserves within the time frame that's
9 dictated by Consol's mine plan?

10 A. Yes.

11 Q. And will the granting of the units application be in the
12 best interest of conservation, safety, prevention of
13 waste, and protection of correlative rights?

14 A. Absolutely.

15 MR. McCLANNAHAN: Those are all the questions I have for Mr.
16 Graves.

17 MR. CHAIRMAN: Any questions, members of the Board? Mr.
18 Graves, in your experience in Alabama have you had
19 similar proposals and are you aware of any similar
20 handling of this type of activity in Alabama?

21 MR. GRAVES: Yes. Alabama has been involved, as you know,
22 since the early eighties in the actual production of
23 methane. We have some 4,300 producing wells which
24 represent 30 percent of the total gas production in the
25 State. We are now above 6BCF per month. But specifical-

1 ly in the Jim Walter mines 4, 5, and 7 in the U. S. Steel
2 Oak Grove mine closer spacing is allowed simply because
3 it's a mining necessity. There becomes a time and I've
4 gotten a call at midnight, "I need a rig on a location in
5 the morning." That usually is done by unitization in our
6 area, but the flexibility of the Alabama rules do allow
7 for ten to 80 acre spacing.

8 MR. CHAIRMAN: Is the method of tracking and distributing the
9 royalty interest similar to the proposal?

10 MR. GRAVES: Very similar to what I've seen of your regula-
11 tions, yes.

12 MR. CHAIRMAN: Are they similar to the proposal that the Board
13 has before it today?

14 MR. GRAVES: Yes, sir.

15 MS. McCLANNAHAN: Mr. Graves, in Alabama isn't it true that
16 all of the production that you see on the chart, for
17 example, is paid on a unit basis, is that right?

18 MR. GRAVES: If it's unitized.

19 MS. McCLANNAHAN: Right.

20 MR. GRAVES: Yes, if the Board approves unitization that is
21 correct, but it's not necessary to unitize. But people
22 traditionally do to avoid the number of Board hearings
23 for exceptional locations.

24 MR. MASON: But we don't have unitization in Virginia.

25 MS. McCLANNAHAN: Right, absolutely. I just wanted to make it

1 clear when he said it was done similarly that it's not
2 exactly the same because Alabama has unitization and we
3 don't.

4 MR. MASON: Let me ask one more question. Of the 4,300 wells
5 that you have in Alabama, how many of those are involved
6 in an active mining area?

7 MR. GRAVES: All of the Jim Walters production. They have
8 four mines. I mentioned three, but they actually have
9 four mines. All of their wells are involved around
10 active mining programs. And the U. S. Steel Oak Grove
11 mine, all of those mines are involved --

12 MR. MASON: I mean, are we talking about half of them, a third
13 of them?

14 MR. GRAVES: Well, now, it wouldn't be that many because
15 there's probably 600,000 acres that's been developed and
16 maybe 80,000 acres in an active mine plan.

17 MR. CHAIRMAN: Do you believe that the drainage characteris-
18 tics that you've reviewed in this plan, and you did state
19 you had reviewed those, are they similar to the years of
20 experience that you've seen in Alabama from drainage
21 characteristics?

22 MR. GRAVES: Yes. In fact, the frack direction is very
23 identical -- almost identical. Our's is 60 degrees and
24 this is between 55 and 60. So even the direction of
25 frack, the permeabilities are very similar. We run -- in

1 some of the sweet spots we may be a little higher perm in
2 Alabama than you have here, but we'll run from one to
3 twenty-five millidarcies as opposed to one-tenth to ten
4 millidarcies. But certainly, we're in the same order of
5 magnitude.

6 MR. CHAIRMAN: And you believe that that history that you've
7 had there supports the capturing and tracking of the
8 production by a longwall panel. I know you said units
9 there, but do you believe that your experience shows
10 that that's a -- in your professional opinion is that the
11 best way to track production?

12 MR. GRAVES: Yes, I do. Once again, I'll refer to that. I
13 believe if you don't, the mining safety requirements --
14 and that's how we got started in Alabama, too, I would
15 point out. That the first coalbed methane wells drilled
16 in Alabama were drilled around the Oak Grove mine which I
17 drilled for them as part of the research team in 1975.
18 If you don't do this the time will not simply allow you
19 through conventional vertical bore hole to drain it and
20 the mine requirements will then require that the miner
21 must ventilate it and you're going to waste that portion
22 of the gas.

23 MR. CHAIRMAN: Any other questions?

24 (Witness stands aside.)

25 MR. CHAIRMAN: Do you have any other witnesses?

1 MS. McCLAINAHAN: No, we don't.

2 MR. JONES: No further witnesses, Mr. Chairman.

3 MR. CHAIRMAN: We will break for lunch and just remind
4 everyone that we won't be discussing anything during
5 lunch. We'll try to reconvene around 1:10.

6 (AFTER THE LUNCHEON RECESS, THE HEARING CONTINUED AS
7 FOLLOWS:)

8 MR. CHAIRMAN: We're back in session.

9 MR. JONES: Mr. Chairman, members of the Board, we have
10 concluded our evidence and I know that the Board has a
11 heavy docket. So we'll be glad to answer any questions,
12 any of our witnesses will be glad to answer any questions
13 to try to clear up any areas that we have failed to make
14 ourselves clear on. But other than that, we leave it to
15 the Board to ask us.

16 MR. CHAIRMAN: Any questions, members of the Board?

17 MR. MASON: Yes, sir. You can address these, whomever you
18 would. According to what I've seen, apparently the
19 Northeast longwall panels 4 through 10 has not had any
20 substantial amount of mining done on them, is that
21 correct?

22 MR. JONES: This is correct.

23 MR. MASON: So they haven't been mined. And you plan on
24 producing these areas through fractured wells prior to
25 having them actively mined?

1 MR. JONES: That's correct.

2 MR. MASON: I'd like to ask your geologist, are you familiar
3 with the geological information that was furnished in the
4 adoption of the Oakwood field?

5 MR. CARMODY: I read through it. Was it the ones that OXY
6 presented?

7 MR. MASON: Uh-huh.

8 MR. CARMODY: Yes.

9 MR. MASON: What's the difference between the data that we
10 used to support the 80 acre spacing for those field rules
11 from the conditions that will exist in the pre-mined
12 areas of these gob -- of this area?

13 MR. CARMODY: All I can address to on that, Mr. Mason, is that
14 we're talking about the same basic geologic scenario.
15 The coal seams are the same. We might have a few more
16 names for them, but other than that I did not detail
17 that. I just read that section.

18 MR. MASON: What troubles me, of course, is the fact that we
19 have made an enormous number of decisions and things
20 based on a decision or a conclusion of this Board that 80
21 acres was the proper drainage area for the adoption of
22 units in this Oakwood field. What we've got here as to
23 pre-mined conditions appear to me, based on the evidence,
24 are identical to the decision that we made in that
25 regard. I guess I have a problem with saying that 80

1 acres is right for everybody else, but if you're having a
2 mine through then it's not right. That put's us, in my
3 mind, into a dilemma which seriously questions the
4 validity of the basis upon which we adopted the Oakwood
5 rules and I'd like for somebody to clarify that.

6 MR. McCLANNAHAN: I think Randy Albert is probably the person
7 who needs to address this question.

8 MR. MASON: I mean, I understand that there are economic
9 considerations, mine plan considerations, and other
10 things involved external to the conclusion. But it was
11 understanding that the Oakwood rules -- the 80 acres was
12 developed on the basis of drainage pattern. And I can't
13 see that anyone has pointed out to me that there's any
14 difference in that in this case.

15 MR. ALBERT: Mr. Mason, if I might, take you back to the
16 Oakwood testimony. In no way are we trying to dispute
17 that 80 acres is the proper drainage area for a coalbed
18 methane well that has twenty years of drainage as
19 testified to in the Oakwood testimony. What we're bring
20 before you today are wells that have less than five years
21 of production life. I will say that in my professional
22 opinion that 80 acres is not the proper drainage area for
23 a well that only has five years -- less than five years
24 life. Even the Oakwood testimony would support that. So
25 I don't think we're doing anything that's contrary to

1 the Oakwood testimony that was presented in April of
2 1990.

3 MR. MASON: Well, these panels are larger than 80 acres.

4 MR. ALBERT: Yes, sir, but there's more than one well per
5 panel.

6 MR. MASON: You're telling me they're not in the pre-mine
7 area, from what I could tell. Some of them there are and
8 some of them there aren't. I understand -- basically I
9 divide this up into different problem areas. And the
10 primary focus that I have is that I don't understand why
11 in the pre-mine area that we don't have identically the
12 same situation that we have in the regular Oakwood field,
13 I mean, in terms of wells, number of wells. I guess I
14 can't get beyond that.

15 MR. ALBERT: Mr. Mason, time is the factor. One well as shown
16 in the Oakwood testimony will drain 80 acres in twenty
17 years. If you would look at the curves from the Oakwood
18 testimony, it takes more than one well to drain that in a
19 lesser time and that is what we have tried to bring out
20 here today. That is it proper, we feel, to do it on a
21 longwall panel basis for the frack wells because that is
22 what we are trying to drain. Each panel is drilled so
23 that if there is any drainage from outside of that panel
24 area it's compensated by the fact that each panel has
25 wells in it, that we are draining each panel.

1 MR. MASON: Well, I think that's probably true once you start
2 the active gob, but I'm talking about before that.

3 MR. ALBERT: I am as well.

4 MR. MASON: I mean, many of these units as I saw on these
5 maps, some of them don't have any wells in them at all
6 and some have one and some have multiple wells.

7 MR. MORGAN: That is the basic problem with trying to fit our
8 mine planning with the location where we had to drill
9 these wells to fit the mine plan, is the inequity of one
10 unit having one well and another unit having five wells
11 and the people in this one unit getting production out of
12 five wells while this unit gets production out of one
13 well and those wells are basically producing the same
14 amount of gas each. We're trying to apply that 80 acre
15 scenario to that mine plan. And as these wells are
16 already existing, it means that the people in this 80
17 acre unit and as I testified the average production out
18 of a frack in that 80 acre unit is about 85,000 cubic
19 feet per day, right beside of it would be another 80 acre
20 unit. And if you neglect the cost of the wells or
21 however you might have to do in the forced pooling
22 application to satisfy the Board for a forced pooling if
23 it was necessary, the production alone out of that 80
24 acre unit with those three wells would be triple the
25 production out of the other 80 acre unit. The production

1 would not be equitable under that 80 acre scenario with
2 the number of wells that we've had to drill ahead of
3 mining to drain the gas within the time frame allowed.
4 As far as the size of the unit, it's not the size of the
5 unit that's giving us the problems. We've got allowances
6 to come in for increase density under the Oakwood field
7 which there was no other alternative available, it would
8 have to do for all these other wells, but it's the shape
9 of it and the way it conforms during our mine drainage
10 scenario. We think that panel by panel better fits the
11 drainage from that panel, particularly when you look at
12 the short hole production which is limited to that panel
13 than when you look at the gob production which is limited
14 to that panel, we think it much better fits the drainage.

15 MR. MASON: I understand that and I accept that or at least
16 that premise as far as once the active gob starts or the
17 short hole production. I understand that. I just have a
18 problem in why it's different when it's unmined. I
19 understand what you're saying. Let me ask you this, if I
20 may. Can I continue?

21 MR. CHAIRMAN: Yes.

22 MR. MASON: Back to this map that I talked about earlier, as I
23 understand, like unit B-23 --

24 MR. CHAIRMAN: Which exhibit are you referring to?

25 MR. MASON: I'm looking at Exhibit 2. One of the things that

1 troubles me about that is if we make that entire -- I
2 guess that's your unit #10, is that correct?

3 MR. MORGAN: Yes, that's correct.

4 MR. MASON: One unit for purposes here, in effect, you would
5 be able to force pool everything in that unit, is that
6 correct?

7 MR. MORGAN: That's true.

8 MR. MASON: The effect of that on this Oakwood unit would be
9 that you could force pool that unit without owning a
10 sing's percentage of interest in that unit. The effect
11 of changing the scope of the size of the unit has the
12 collateral effect of allowing you to force pool and the
13 percentages required to do that are vastly altered by
14 this. And the larger the units are, if you follow the
15 same percentages, the more number of people that would be
16 effected by that, isn't that correct?

17 MR. MORGAN: For that particular unit, that is -- that sounds
18 right if I understand what you are saying. But let me
19 say this. The fact is that there is a well existing of
20 VVH at this time, existing in that unit. And that area
21 will be mined and that gas will be liberated. We're just
22 simply seeking a way to put that gas in a pipeline as
23 opposed to throwing it into the atmosphere.

24 MR. MASON: I understand that. Focus again -- look at B-22.
25 You end up -- potentially there is a royalty owner out

1 there that's got half of the unit. In T-22, in U-23,
2 you've got a situation where there are people that own
3 part units in this Oakwood field who are effected by
4 these other units. What could they do with those units
5 after this?

6 MR. ALBERT: That line would stop there because that is a mine
7 boundary between Consol's Buchanan #1 mine and Island
8 Creek Beatrice mine. So the fact of the reality is the
9 royalty owners of S-22, the western portion of that that
10 we're leaving out, that gas has been liberated by a
11 mining process and is gone. It would not be proper for
12 us to bring that to the unit boundary in that case
13 because, like I say, it is a nature mine boundary between
14 us and Island Creek.

15 MR. MASON: I was looking at this Exhibit 2 which shows which
16 areas you've got leased in yellow and it would indicate
17 that this unit S-22, that you don't have the oil and gas
18 lease on that.

19 MR. ALBERT: That is correct. We do have the Pocahontas #3
20 seam leased on that, though. So we do have a claim to
21 coalbed methane.

22 MR. MASON: That's not the point. The point is that, for
23 instance, if a court should find that the oil and gas
24 lessee had the right to the gas in that unit, then you,
25 in effect, have taken half of that unit away.

1 MR. ALBERT: No.

2 MR. MASON: No?

3 MR. ALBERT: No. Again, that half of the unit was undermined
4 or that coal -- the 3 seam was mined by Island Creek. It
5 was second mined so that a gob was created. That was
6 done, if my recollection is correct, over twenty years
7 by Island Creek. In all likelihood that gas is liberat-
8 ed.

9 MR. MASON: I guess the whole problem is where you split these
10 units. The potential for having that occur exists.

11 MR. ALBERT: And if I could draw your attention to the
12 northern boundary line there, that is why we went to the
13 80 acre boundary. Anywhere there wasn't a natural --
14 determine it like a mine boundary between us and Island
15 Creek. We went to the 80 acre boundary to try to protect
16 the correlative rights of those individuals that had a
17 gas interest in that unit and that was the reason for
18 doing that. So in every case possible we try to go to
19 the 80 acre boundary for that very reason.

20 MR. MASON: Let me ask you another question. On these
21 longwall units where you've got these after this is, in
22 fact, into the active gob area, do you think -- I guess
23 this would be addressed to one of your geology people.
24 Won't these gob areas actually draw gas from the adjoin-
25 ing unmined areas?

1 MR. ALBERT: Are you addressing the last panel in the north?

2 MR. MASON: Any of them. In other words, basically you've got
3 an area that's been mined against an area that's not
4 mined.

5 MR. MORGAN: We addressed this same thing in our BUNN1 and
6 BUSS-2 applications and the rationale for establishing
7 the borders of those gob units which is simply -- the
8 only difference being that it was sealed from other parts
9 of the mine. When we mined adjacent to the Beatrice mine
10 that Mr. Albert referred to -- if I may utilize the map
11 here to point out, when we mined in our BUNN1 unit
12 adjacent to the Beatrice mine which was located at the
13 northwestern boundary of our Buchanan #1 operation, we
14 expected to see what you're talking about. We thought we
15 would not have as much as gas when we mine there. But
16 Beatrice had mined and had pillared and created a gob
17 zone in that area to drain that. In fact, when we mined
18 this, the BUNN-1 area, when we mined areas 5, 6 and 7 we
19 did not see any reduction in gas content coming into our
20 gob as a result of the gob that had been created adjacent
21 to it some twenty years before. We do not think there is
22 the drainage of any significant potential outside of that
23 mine panel gob area.

24 MR. GRAVES: Mr. Mason, that can be confirmed by a number of
25 studies in Alabama in the Warrior Basin on similar

1 permeability coals. Because of the under pressured
2 reservoir the methane molecule is pretty well locked in
3 and unless there is something to enhance movement, ie, a
4 pressure seam, it's probably not going to move. We had a
5 test field of approximately one mile square that has been
6 produced since 1975, roughly an 80 acre spacing. We went
7 1,000 feet outside the boundary of that field and
8 measured in place gas concentrations of the coal and
9 found that it had no effect after ten or twelve years of
10 active degasification. So I think the physics of the
11 situation protect it from the problem that you're
12 discussing.

13 MR. MASON: that's assuming that the active gob area maintains
14 the hydraulic and pressure levels that the adjoining
15 areas have, isn't that correct?

16 MR. GRAVES: Well, I don't think the active gob is going to
17 last that long. It's going to be for a very short period
18 of time.

19 MR. MASON: Well, I understand that, but I mean even the
20 sealed gob is the same?

21 MR. GRAVES: Yeah. But for the methane to migrate you're
22 going to have to have a pressure sink of some kind.

23 MR. MASON: Right. That's what you said earlier, that one of
24 things that makes it move and makes it release from the
25 coal is either the water tables are dropped and lowers

1 the hydraulic pressure or the actual atmospheric pressure
2 or whatever is reduced and that creates the vacuum that
3 causes the draw, is that correct?

4 MR. GRAVES: The gas exists under some pressure in the
5 reservoir itself. And you create a low pressure event
6 around the well bore or in the gob and that creates the
7 migration and depending on the permeability is the
8 distances as to how far it will migrate. Permeability
9 and pressure are the determining factors.

10 MR. MASON: One of the things that really troubles me about
11 this is that it was my understanding that the whole
12 reason that we had moved to -- or people adopt field
13 rules and standard units is this concept that having a
14 field full of regularly shaped equal sized units, we all
15 know that the patterns of drainage are hard to predict
16 and so forth. And the theory, as I understand it, is
17 that by drawing up a field of regularly spaced units the
18 theory is that well, you might loss a little to one unit,
19 but you gain a little to the other. And by having equal
20 sized units that you create a state of equality among the
21 people in a given oil and gas bearing area. Why do you
22 believe that doing these irregular shapes based on these
23 longwall panels is really not a step backwards instead of
24 a step forward in dealing with this issue?

25 MR. ALBERT: I thought that the testimony that we had given

1 today, and I have some additional numbers on your
2 previous question, had shown that this was a proper
3 drainage area based on the time that we had to deal with.
4 We weren't talking with twenty years. In addition, I
5 feel like we have tried to keep it regular shaped where
6 drainage testimony would support going to the 80 acre
7 line. We did that. If I could back up just a bit on
8 your previous question on the active gob and remind you
9 that the numbers we have given you today are seven years
10 of actual -- come from seven years of actual production
11 and the research with those numbers. And on your active
12 gob question, sort of a number that comes to mind that
13 kind of just proves the idea you've had there to a
14 certain extent, is that if what you're saying is true and
15 that each time we mine the panel we should see succes-
16 sively more and more gas from the previous panel, in this
17 area that didn't happen. As we came south we actually
18 saw slightly less gas on each panel than before. So the
19 total amount of gas -- and I'm not talking about the
20 total amount of gas that we drain -- it was fairly
21 constant through there. It wasn't like that when we
22 mined one panel then we got to the next panel that it
23 kept contributing from the adjacent panel. And likewise,
24 we've saw no pre-drainage as we got into the next panel.
25 Like I say, it was fairly constant, slightly less from

1 the total liberation point because as we got into this
2 most southern area we had pre-drained some of that gas
3 off ahead of mining. So as a rule, what we have seen is
4 constant gas in gob areas.

5 MR. MASON: You don't see any unmarked increase in gas
6 production or drainage from the adjoining areas as the
7 gob area increases?

8 MR. ALBERT: That is absolutely correct.

9 MR. MORGAN: Mr. Mason, to address your question and rightful-
10 ly so when you establish the Oakwood field rules, regular
11 shape absent a mine plan, a regular shape as you estab-
12 lished with the Oakwood field rule is about the best
13 thing you can do absent a mine plan. In this situation
14 we have a mine plan in place. We have an active mine in
15 operation. And we can establish better boundaries which
16 better fit the mine plan than those regular shapes. We
17 are not saying that the Oakwood field rules are no good
18 for Buchanan County. That is not our contention. We
19 will in all likelihood drill some wells with the Oakwood
20 field rules that are welled out ahead of mining. But in
21 the short term operations as we have here where our
22 spacing has to be so close and where we have a mine plan
23 that we are firm about that is in place and being done,
24 we feel that better boundaries can be established that
25 better protects the correlative rights and better covers

1 the drainage from those areas than the 80 acre units that
2 were established.

3 MR. MASON: Nothing has been stated today about how you
4 propose to allocate production to any of these wells
5 from within these panels. If, in fact, any of these
6 wells had different royalty owners, how do you all
7 propose to allocate production or income and expenses to
8 the various wells?

9 MR. ALBERT: Mr. Mason, each well will be metered individual-
10 ly. The one pay meter that the division orders will done
11 from will be done on a unit basis. So the allocation
12 will be only the discrepancy between the well meter and
13 the pay meter. Like in any other proposal that we've
14 brought before the Board, we'll take our division back to
15 net surface acreage for each mineral owner contained
16 within that unit. If I understood your question correct-
17 ly, to my knowledge we don't have a situation where we
18 have different royalty owners within each well, if that's
19 what you were getting at.

20 MR. MASON: No. I was wondering, within this larger area if
21 you have any situations or is it possible that in a
22 situation where a different well bore within the same
23 panel would have different royalty owners?

24 MR. MORGAN: Mr. Mason, I think I understand your question.
25 Our intention here would be to distribute all production

1 out of that unit equally regardless of which of the three
2 wells it occurred from if there were three wells in that
3 unit. We would take the total production out of unit,
4 including the horizontal production and including the gob
5 production, and the reason we want to do it that way and
6 the reason we stretched this unit out for the gob
7 production is you may choose either of those three wells
8 if there happens to be three wells to produce that gob.
9 We would take total production out of that unit and
10 distribute that on a net acreage basis.

11 MR. MASON: That's exactly the point I'm trying to make. It
12 seems to me that you've got a number of bores within
13 this longwall panel and you might have different royalty
14 owners potentially owning an interest in each one of
15 those bores. There's nothing in this petition that would
16 indicate between them how you might allocate production
17 if you meter the gas for the entire panel at one point.
18 I'm curious as to how that would be done because obvious-
19 ly, the people that might have an interest or the
20 companies would want to know what -- and that would be
21 greatly effected by having these large units having
22 multiple wells as opposed to the Oakwood rules which we
23 would anticipate at least one well and possible more. I
24 understand that. But still there would be less -- I
25 can't articulate what I'm trying to say. I'm just

1 curious as to how you -- but you all anticipate on doing
2 it just on a straight proportionate basis.

3 MR. MORGAN: From the total production out of that unit. And
4 again, we're kicking in the horizontal gas and we're
5 kicking in -- or the short hole as some refer to it, and
6 we're kicking in the gob. The reason for doing that is
7 that is stretched out over the entire panel. We see that
8 as the only equitable way to do that, is to distribute
9 that on the total panel basis.

10 MS. McCLANAHAN: And that prevents another unfair situation
11 that could occur if you were on an 80 acre basis where
12 you just pick the well where you're the only royalty
13 owner in the panel. You're draining gas from an entire
14 panel, but paying the guy who's in the 80 acre unit.

15 MR. MASON: Maybe I missed it, but I don't think there's
16 anywhere in this application addresses that issue.

17 MS. McCLANAHAN: Well, payment allocation is really addressed
18 in the forced pooling situation.

19 MR. MASON: I understand that, but I'm more interested in
20 terms of -- not such much payment allocation, but I would
21 say there would be production. In other words, do you
22 all deem the production to be on an equal basis for all
23 bores produced within the single panel? Is that what
24 you're telling me?

25 MR. JONES: I think that's what we're telling you.

1 MS. McCLANDIAHAN: Right.

2 MR. JONES: On surface acreage ownership some type of prora-
3 tion on that basis.

4 MS. McCLANDIAHAN: Right. I think Mr. Albert is the one who
5 testified to this earlier, that it's an alithical
6 drainage pattern on the panel basis and there's no
7 communication between each panel, but that there is
8 communication within the panel itself. And that's why
9 it's more fair to pay or to allocate.

10 MR. MASON: Right. I'm just trying to understand. I don't
11 have anymore questions. Thank you.

12 MR. CHAIRMAN: Thank you, Mr. Mason. Any other questions,
13 members of the Board? While they're thinking, I'll ask
14 one. It's my understanding that this proposal is for the
15 mine plan area only, is that correct?

16 MR. JONES: That is correct.

17 MS. McCLANDIAHAN: Correct.

18 MR. MASON: Let me ask one more question, if I may. This is
19 more in the nature if -- it's sort of a question I would
20 hate to answer. Obviously, you've got a situation here
21 in which a lot of these wells were created prior to this
22 Board coming into existence, these Oakwood rules, as I
23 understand it. I guess I'm curious as to in the future,
24 if we adopt this plan or this rule or these exceptions
25 are we doing it based upon a concept of well, we can

1 continue to do this and continue to have exceptions or is
2 it something that -- someone mentioned the idea of being
3 grandfathered in. I have some serious concerns about --
4 I have this vision of these field rules and the way this
5 should all take place and some sense of future and
6 progressing into a more orderly way of doing things. I
7 guess what I'm looking for is is this something that
8 we're going to see time and again with respect to wells
9 drilled after the Oakwood rules or are we talking about
10 something that's only going to exist with things that are
11 happening now or can you even answer that?

12 MR. ALBERT: I will attempt to give it my best shot. Mr.
13 Mason, what we see, this being the appropriate scenario,
14 is in areas that mining is occurring where a mine plan is
15 on file. Certainly, areas that are outside of a mine
16 plan area we think that it would be proper to stay on the
17 80 acre spacing. However, in the area where we have
18 mining occurring and a mine plan is on file with the
19 Division, we think this is the proper way to do it.
20 That's not to say that this scenario would preclude any
21 other type of scenario that may come before the Board. I
22 think there has to be -- the Board has to give the
23 operators the flexibility to be able to handle these
24 situations. And what we have before you is one proposal
25 at least that allows us the flexibility that we need. So

1 I wouldn't say that you won't see this similar type of
2 proposal again, but I think it will be -- it will only be
3 asked for in areas that mining is occurring and that an
4 mine plan is on file with the State.

5 MR. MORGAN: If I may add a little bit to Randy, from what we
6 have looked at we think that we're probably looking at
7 something within a ten year mine plan. In other words,
8 if mining is going to occur less than ten years to where
9 you don't have the proper drainage plat during each time,
10 that we need something different and where we also feel
11 more comfortable with a ten year plan than trying to go
12 out there and develop a plan for the whole entire mine
13 block, but where mining will occur less than ten years
14 into the future. And it is entirely in one of those
15 areas of the Buchanan #1 area that we've been looking at
16 for potential drilling, to where we would probably do it
17 in conformance with the Oakwood rules, that's more than
18 ten years ahead of our mine plans.

19 MR. CHAIRMAN: Other questions, members of the Board? Mr.
20 Swartz, you indicated that you may have something to say.

21 MR. SWARTZ: I'd like to ask some questions of Mr. Graves, if
22 I might. Mr. Graves, I'm Mark Swartz and I represent
23 OXY, USA. I have a few questions for you.
24
25

STANLEY L. GRAVES

a witness who, after having previously sworn, was examined and testified as follows:

CROSS-EXAMINATION

BY MR. SWARTZ:

Q. It's my understanding that your role was to testify as an expert, that you reviewed the plans that are under consideration today with regard to these units for the purpose of offering your opinion as to whether or not the proposed units met certain standards imposed by law and in practicing the industry. Is that pretty much your role?

A. I think so, yes, sir.

Q. Can you tell me when you were first contacted to participate in this unit?

A. About ten days ago.

Q. And who would have contacted you?

A. Elizabeth McClannahan.

Q. After that initial contact did you receive any information from Ms. McClannahan or anyone else?

A. Yes, I did.

Q. And what were you furnished?

A. A package of the filing before this Board, as well as

1 other production data.

2 Q. And when you say the filing, can I assume that that's the
3 application that's under consideration right now?

4 A. That's correct. Yes, sir, the full group of four
5 applications.

6 Q. All four that are on the docket today?

7 A. Yes, sir.

8 Q. And some production data?

9 A. Yes.

10 Q. We saw a production chart today that was in various
11 colors, green and orange and yellow. Was that something
12 you received with the original materials?

13 A. No, I did not.

14 Q. Was that chart that we saw today something you par-
15 ticipated in?

16 A. Yes.

17 Q. Based on the production data that you received, is that
18 chart an average or how does it fall within --

19 A. I would suggest it would be an average. Mr. Morgan can
20 answer that better than I can.

21 Q. But it's your recollection that that was probably an
22 average?

23 A. Yes, sir.

24 Q. When did you receive these applications to review them?

25 A. Within a day after Ms. McClannahan contacted me.

- 1 Q. Other than the application and the production data, did
2 you receive or review any other materials or information
3 to help you reach the conclusions that you have shared
4 with us today?
- 5 A. Yes, I did.
- 6 Q. What else did you review?
- 7 A. Mine plans, well construction diagrams, geologic data,
8 engineering data in terms of reservoir characteristics.
- 9 Q. Anything else?
- 10 A. Not that I can think of at the moment.
- 11 Q. Did someone provide you with a copy of the Virginia Gas
12 and Oil Act for your consideration?
- 13 A. There was a copy, I think, of the regulations in our
14 meeting which I reviewed periodically.
- 15 Q. And when would that meeting have been?
- 16 A. Last week.
- 17 Q. Were they regulations that you reviewed or were they the
18 statutes?
- 19 A. Probably both.
- 20 Q. Do you know whether or not Virginia has a statute that
21 deals with the creation of the units and field rules?
- 22 A. To my knowledge, yes, but not a statute on unitization.
- 23 Q. Unitization is not available as you understand it at this
24 time in this State?
- 25 A. That is correct, as I understand it.

- 1 Q. The statute that is available and that we are presumably
2 talking about today, what consideration, if any, did you
3 give to the terms of that statute as they might apply to
4 the proposal that you've talked about today?
- 5 A. I did not. I simply reviewed the technical side.
- 6 Q. So you did not attempt to measure the proposal for the
7 creation of these ten drilling units against the terms of
8 the Virginia statute and come to conclusions as to
9 whether this proposal was consistent or inconsistent with
10 that statute?
- 11 A. That is correct, sir.
- 12 Q. Do you know whether or not the Virginia statute section
13 20 requires the Board when reasonably possible to attempt
14 to create units in spacing of uniform size or uniform
15 shape?
- 16 A. I could not testify to that, no.
- 17 Q. Would you agree that the proposal that you have testified
18 with regard to today certainly does not have uniform
19 sizes or uniform shapes?
- 20 A. I would agree to that.
- 21 Q. Do you know whether or not in creating field rules and
22 drilling units this Board has an obligation to consider
23 and pass upon correlative rights issues?
- 24 A. Yes. I'm sure it does.
- 25 Q. What, if anything, did you do to consider the impact of

1 these ten drilling units on correlative rights to access
2 whether or not the units were fair in design and concep-
3 tion from a correlative rights standpoint?

4 A. Being somewhat familiar with mining regulations and mine
5 safety issues and having dealt in similar mining situa-
6 tions in Alabama, it appeared to me that unless something
7 of this nature was done there would be excess
8 -- the potential existed for excessive venting of gas as
9 a requirement for mine safety. And it would appear to me
10 that correlative rights were better protected by attempt-
11 ing to find a method to put this gas in a pipeline
12 rather than venting it to atmosphere no matter what the
13 shape.

14 Q. Now, as I understand correlative rights and as I think I
15 understand your answer I think your answer really
16 addresses itself to an issue of physical waste. I mean,
17 aren't you suggesting that one of your concerns in
18 looking at this proposal was that there needed to be some
19 effort to remove this gas in advance of mining so that
20 you could get it into a pipeline? And isn't that a
21 physical waste issue?

22 A. Potentially, yes.

23 Q. Is correlative rights something different than physical
24 waste?

25 A. Yes, I guess it is.

1 Q. My question for you is what attention, if any, did you
2 give to these units in accessing whether or not they were
3 fair from a correlative rights standpoint?

4 A. I did not.

5 Q. If you wanted to look at correlative rights, I understand
6 you just told me you didn't, but if you wanted to look at
7 correlative rights in accessing unit design would one of
8 the considerations that you would have be to look at
9 whether or not the wells on the unit drained to any
10 significant extent adjoining units?

11 A. Certainly.

12 Q. Would you agree, perhaps, that one of the reasons you
13 didn't look at correlative rights issues here is because
14 it is pretty obvious when you look at these ten units
15 that virtually all of them drain adjoining units to a
16 significant extent?

17 A. I don't think the testimony has shown that.

18 Q. I'm not asking about what we've heard today. I'm asking
19 you as an expert, given the materials that you've
20 reviewed, knowing frack half links with regard to these
21 wells and knowing well spacing, knowing that these units
22 are relatively narrow and the frack links even if you
23 put it in the middle probably exceed the dimension to the
24 unit boundary, wouldn't you agree that it is obvious when
25 you looked at these units that from a correlative rights

1 standpoint, if that was your focus, there is significant
2 drainage in virtually every unit from adjoining units?

3 A. If you look at it on a panel by panel basis, sure.

4 Q. Well, is it your understanding that what is being
5 proposed by the applicant here today is to create a super
6 unit of these ten panels and somehow share cost in
7 revenue or is it your understanding that we're creating
8 ten units? What is the applicant asking for?

9 A. The effect of one -- both are somewhat the same.

10 MS. McCLAIN: Excuse me. Mr. Swartz, if you're leading to
11 him to a legal conclusion we need -- I mean, I see
12 exactly where you're going with this and he can't really
13 make a legal determination about what the application is
14 requesting.

15 MR. SWARTZ: Well, I think what I'm asking -- I probably
16 should respond to the Chairman. What I'm asking, he's
17 testified that he's reviewed these applications. Now, I
18 think I got an answer that just suggested to me that he's
19 looking at these ten units really as one unit. And I'm
20 asking him if that's what he's doing or if we're talking
21 about something else.

22 MR. JONES: Mr. Chairman, the question is -- what difference
23 does that make? This witness is not an authority. He
24 has said that he's not an authority on Virginia law or
25 the requirements of the Virginia law. What possible

1 difference does his speculation on the effect of the
2 application that Pocahontas filed make? He's not
3 Pocahontas. He didn't file the application. He's
4 testified in his areas of expertise and this simply isn't
5 one of his areas of expertise. I don't think it makes
6 any difference. Maybe if Mr. Swartz could enlighten all
7 of what the purpose of this cross-examination is we might
8 know more.

9 MR. SWARTZ: It's real easy. This man has testified that this
10 is -- I believe he's put his seal of approval that this
11 is the best way to deal with coalbed methane development
12 in the areas shown on this map. And I assume when he
13 says this is the best way to do it he's talking about the
14 application that's under consideration here. He's come
15 in as an expert witness and this is his opinion. I think
16 I have a right to ask him what he's talking about. Is he
17 telling me that this is fair if you look at it as a
18 combination of ten units or is he telling me that it is
19 fair if you look at it as individually ten units. And I
20 think I got an answer from him that caused me some
21 concern as to what his position was.

22 MR. CHAIRMAN: I'm going to allow you to explore that some.

23 Q. (Mr. Swartz continues.) From a correlative rights
24 standpoint is it your testimony today that if you want to
25 look at the fairness from a correlative rights standpoint

1 you really need to look at all ten of these units as a
2 combination or is it your testimony today that these
3 units if we focus on them one at a time from a correla-
4 tive rights standpoint would be fair?

5 A. Mr. Swartz, I was asked to review the proposal as the
6 most effective way to drain the bulk of the gas within a
7 five year time frame prior to mine through. I can
8 truthfully say that I did not dwell on correlative
9 rights, but more the physical characteristics of how
10 rapidly one can drain methane from a coalbed source.

11 Q. I think I'm getting a better understanding of why you
12 came here today. To put it differently, are you telling
13 me that essentially what you feel like you've looked at,
14 reviewed and considered, and what you're telling the
15 Board is that someone came to you, your client, whoever
16 retained you came to you and said, "We need to get all
17 the methane gas out of here in five years. We don't
18 care what it costs." Is this a reasonable way to do that
19 so that the gas is gone when we encounter the coal that
20 is used to in?

21 A. No, sir. Cost was discussed in the terms of the most
22 effective way, not in the matter of what the cost would
23 be.

24 Q. Well, if I look at the application, let's take for
25 example the ninth unit up toward the top here. There are

- 1 additional wells planned to be drilled in this unit which
2 are not shown in this map, correct?
- 3 A. Yes, sir. That's typical in a mining operation.
- 4 Q. So would it be fair to say with regard to the ninth unit
5 we'll wind up with seven wells?
- 6 A. That will be determined, as I understand it, by the
7 mining.
- 8 Q. What assumptions, if any, have you made with regard to
9 the kinds of royalties and royalties payments which may
10 be due to mineral interest owners in these various units?
- 11 A. I've made none.
- 12 Q. Could the kinds of royalties that might be payable be
13 important if we wanted to consider correlative rights and
14 the impact of this on correlative rights?
- 15 A. I would assume from your question the answer would be
16 yes, but not having seen the royalty situation there I
17 don't know.
- 18 Q. Were you furnished with a copy of a plan for field rules
19 in the Oakwood field which is also set for today's
20 hearing that was an application made by OXY?
- 21 A. I don't think I saw that. I did? Okay. I'm sorry
22 then. I stand corrected. I guess I did, but I'm not
23 sure that I reviewed it. No offense intended. That was
24 a lot of data to go through.
- 25 Q. My question and where I was headed, can I assume from

1 your answers that you have made no effort to compare
2 OXY's application to the application that we've got under
3 consideration?

4 A. That is correct, sir.

5 Q. So you couldn't tell me if I asked you if OXY's does a
6 better job dealing with the problem or does the worse
7 job?

8 A. I could not tell you that.

9 Q. Would you agree with me that you could devise pretty
10 simply the methodology to allocate production from an
11 active gob, for example, in a panel between 80 acre
12 units?

13 A. Yes, sir.

14 Q. You could do that on an acreage basis?

15 A. A prorated basis.

16 Q. Would you agree that the units which have been created,
17 these ten units, are clearly not the only available
18 reasonable way to allocate production?

19 A. I would say the establishment of any unit is somewhat
20 arbitrary.

21 Q. Right. Would you also agree that there are usually, if
22 you spend the time, several reasonable solutions to most
23 problems when you're looking at oil and gas, spacing or
24 units, or whatever?

25 A. Yes, sir, I would assume that.

- 1 Q. And would you agree that probably it's rare that there's
2 one answer?
- 3 A. Yes, sir.
- 4 MR. CHAIRMAN: Mr. Swartz, I'm going to ask you to define
5 where we're going.
- 6 MR. SWARTZ: Okay.
- 7 Q. (Mr. Swartz continues.) The Chairman asked you some
8 questions about Alabama. In Alabama unitization is
9 available?
- 10 A. That's correct.
- 11 Q. And unitization in mines, how big are those units?
12 What's their variation?
- 13 A. From a few hundred to -- I would say a couple of thousand
14 acres, and it may be bigger, the ones that I've been
15 involved with.
- 16 Q. And the difference between Alabama and what we have on
17 the board here would be, for example, if you were to
18 unitize, you could unitize in Alabama as one unit all ten
19 of these panels.
- 20 A. Correct, sir.
- 21 Q. So that every royalty owner in that mega unit would share
22 on an acreage basis.
- 23 A. Correct.
- 24 Q. Or some calculated basis, correct?
- 25 A. Yes.

1 Q. And would participate in costs on some overall basis as
2 well, correct?

3 A. That's correct.

4 Q. And you understand that it's not available here and the
5 production would be prorated here in Virginia and the
6 production would be prorated within units and costs would
7 be prorated within units, not across unit boundaries?

8 A. That's correct.

9 Q. In addition have you given any consideration to the fact
10 that one or more coal seams may not be owned in common
11 with other coal seams here in terms of assessing this
12 plan?

13 A. No, sir, I did not.

14 Q. Can you think of any reason why the existing 80 acre
15 units in the Oakwood field could not be used for purposes
16 of the degas of the mine that's under contemplation here
17 if someone wanted to use the existing unit?

18 A. Once again, I'll plead ignorance on your Virginia rules.
19 As I understand it, you can apply for extra density
20 wells. I'm not sure exactly what your terminology is.
21 It would seem to me that that would create quite a bit
22 more administrative work on the part of the applicants
23 and the Board to deal with exceptional locations as a
24 result of that. But physically or practically could you
25 do it under those rules, I suppose one could.

1 Q. Would you agree that every well beyond one well shown in
2 any of these ten units is an increased density well here
3 dictated by a mine plan?

4 A. It may be, depending on whether it's in the same unit or
5 not. If it's outside the unit --

6 Q. If you take a particular unit, would you agree that under
7 Virginia law you're entitled to one well and would you
8 agree that all the additional wells whether it's two more
9 or three more are increased density wells available under
10 the statute to accommodate mine hours?

11 A. As I understand that, but once I'll plead ignorance on
12 Virginia law.

13 MR. SWARTZ: I'm almost done, Mr. Chairman.

14 Q. (Mr. Swartz continues.) Have you looked at all at the
15 economics of these wells?

16 A. As I --

17 Q. Let me tell you where I'm coming from. As I understand
18 it -- and you can quarrel with this assumption, but let
19 me tell you what my understanding is and we can head off
20 in some direction. As I understand it, when you're
21 looking at sizing units and whether you're a geologist or
22 petroleum engineer or whatever and you look at a couple
23 of things, one is you look at how many wells is it going
24 to take to drain that unit in some reasonable period of
25 time. You don't want to be looking at one well draining

1 a hundred wells. So say you picked twenty or fifteen or
2 something. So how many wells is it going to take to
3 drain that area and you can dry it faster or slower
4 depending on how many wells you want to drill, but then
5 you start looking at the cost and the benefit of any
6 enhanced production, time value of money. And you start
7 looking at the cost and you sort of balance the cost of
8 additional wells against the production and time value
9 of money and you reach some recommendation that this size
10 makes sense given production, porosity, permeability,
11 whatever, and cost. Did you undertake that kind of
12 analysis to bring to bear on the ten units under con-
13 sideration here?

14 A. On a detailed basis, no. But peripherally I would say
15 intuitively it would appear to me that the increased
16 density would, in deed, be very cost effective weighed
17 against the potential venting of the gas as a necessary
18 requirement for mining activity.

19 Q. So what you're saying is you looked at the economics of
20 spending about \$250,000 per well to drill additional
21 wells and weighed that against some assumption you may or
22 may not have made with regard to how much gas might be
23 thrown away or vented?

24 A. Given Mr. Morgan's production scenario, the chart that
25 you saw there, that you are going to vent a significant

1 portion of the gas. I don't have the percentages at hand
2 right now. We'd have to go back to the testimony. But
3 if one could pay for that well out of the proposed
4 production of a fracked well and you got three times the
5 production out of an additional gob well, the math is
6 pretty simple. The economics should be there as well if
7 pay back is looked at accumulative production over the
8 life of the well.

9 Q. In some of these units -- let's take the third unit up
10 here. There are three wells showing. Let's assume three
11 oil wells be drilled to produce from the gob and let's
12 assume they cost \$250,00 a piece. You're at six wells,
13 about a million and half dollars. Did you actually sit
14 down and figure out the cost of the well and the produc-
15 tion associated with the wells?

16 A. No, I did not.

17 Q. You're telling me you've got a gut feeling based on
18 volumes of gas and some sense of what it cost to drill a
19 well, that at least you're going to break even on every
20 additional well?

21 A. If you took an average cost of the well and looked at the
22 additional gas production that you got from that versus
23 the vented gas it would appear that it would be economic
24 and that's as far as the analysis as I want. So if you
25 looked at an average unit I would say the answer is it

1 looks to me like to the economics should work. But did I
2 do a detailed analysis, no.

3 MR. JONES: Unless there is some particular reason for this we
4 have another witness, Mr. Toothman, who is present who
5 can really give some expert testimony in terms of the
6 economics of the situation. Unless Mr. Swartz has some
7 other reason for these questions that are not apparent to
8 us. I mean, if he really wants to find out some informa-
9 tion, we'd like to call Mr. Toothman.

10 MR. SWARTZ: Well, you can call him on rebuttal. I can't
11 prevent you from doing that. I'm just about finished
12 with this witness and that's the only one I want to talk
13 to.

14 MR. CHAIRMAN: Go ahead, Mr. Swartz.

15 Q. (Mr. Swartz continues.) The last couple of questions I
16 would like to ask are have you given any consideration to
17 the allocation of cost back either to royalty owners who
18 might have escrow in royalty provisions or to people who
19 want to participate?

20 A. No.

21 Q. So that is not something you've looked at?

22 A. No, sir, I did not.

23 Q. Mr. Graves, just one more question. Would you agree that
24 what is proposed or under consideration here is not at
25 all similar to what you all do in Alabama?

1 A. Would you rephrase that?

2 Q. In Alabama would you agree that we wouldn't be talking
3 about ten units here, we'd probably be talking about one
4 major unit?

5 MR. CHAIRMAN: I think he already stated that, Mr. Swartz.

6 Q. (Mr. Swartz continues.) Okay. So that they're not
7 comparable?

8 A. We unitize.

9 MR. SWARTZ: Mr. Chairman, as you all probably know we have an
10 application on file with regard to the field rules that
11 addresses the issues that are essentially under con-
12 sideration here. It is not my position or my client's
13 position that the proposal that you have before you now
14 is neutrally exclusive. But we would request that the
15 Board consider the possibility of deferring a decision
16 with regard to this unit until it has had a chance to
17 review our application. I think it is possible that you
18 might decide to do both, but it's possible that you might
19 not. And rather than asking to call witnesses in the
20 middle of their presentation because I don't think they
21 would appreciate it, I would at least ask the Board to
22 consider deferring a decision on this application until we
23 have an opportunity to present our proposal.

24 MR. CHAIRMAN: Well, I'll listen to the Board. I don't think
25 we have any plans of doing that. We take the cases as we

1 have in the past, as they come up, and decide and we
2 have this evidence before us. Do you feel any different-
3 ly? Okay. Any other questions? Any other comments?
4 Any other parties that want to address the Board regard-
5 ing this matter? If not, what's your pleasure, Board?

6 MS. McCLANNAHAN: Can we have jut a minute?

7 MR. CHAIRMAN: Yes.

8 (AFTER A BRIEF PERIOD OFF THE RECORD, THE HEARING
9 CONTINUED AS FOLLOWS:)

10 MR. JONES: Mr. Chairman, if we might, in view of the cross-
11 examination of Mr. Graves, we just have a couple other
12 questions and then we will be concluded, if that is
13 permissible.

14 MR. CHAIRMAN: I'll allow you to do that in light of that.

15
16 REDIRECT EXAMINATION

17
18 BY MS. McCLANNAHAN:

19 Q. Mr. Graves, with regard to the correlative rights issues
20 that you were asked about earlier, it is true that you
21 analyzed this proposal in comparison to a proposal which
22 would require that Pocahontas Gas Partnership drill
23 additional wells on 80 acre units and pay on those 80
24 acre unit basis, is that correct?

25 A. That is correct, yes.

1 Q. And that's as shown on Exhibits 22 and 20 previously
2 submitted, is that correct?

3 A. That's correct.

4 Q. And in analyzing the situation of a panel unit versus an
5 80 acre unit what was your determination about the
6 correlative rights of those two comparisons?

7 A. Re-ask your question. You lost me.

8 Q. Okay. What is your conclusion about the protection of
9 correlative rights if you are required to drill and pay
10 on an 80 acre basis, additional wells, for example in the
11 V-25, you have six wells unit and one on the line as
12 opposed to drilling them on a panel unit basis which is
13 the way we have them proposed?

14 MR. SWARTZ: I'm going to object to that. He has already
15 testified he didn't look at correlative rights.

16 MS. McCLANNAHAN: Mr. Chairman, I believe he did say he looked
17 at correlative rights in relation to a comparison between
18 80 acre increased density and panel units when I just
19 asked him the question.

20 A. (The witness continues.) It's conceivable you could end
21 up with one panel with no wells and one panel with
22 multiple wells. So correlative rights may not be
23 protected.

24 (Witness stands aside.)

25 MR. CHAIRMAN: Mr. Swartz's objection is noted. What is your

1 pleasure, Board?

2 MR. MASON: I would like to make two comments, Mr. Chairman.

3 MR. CHAIRMAN: Mr. Mason.

4 MR. MASON: It seems to me in listening to all this evidence
5 that the essence of this is that the mine plan for the
6 Buchanan #1 mine essentially conflicts with the 80 acre
7 spacing rules that we adopted for the Oakwood field. And
8 what we're in essence being asked to do is change our
9 rules to conform with their mine plan to afford them the
10 opportunity to produce this gas in a way that reduces the
11 difficulties associated with dealing with that. And it
12 seems to me there's been testimony that that's primarily
13 an administrative problem. And I guess the real issue
14 that we need to decide is whether or not we should --
15 what's to be gained by us doing that in terms of the
16 changing of our rules to meet what their mine plan is.
17 And secondly, I think that the effect of the varying
18 number of wells per panel and the fact that there is or
19 may be drainage from one panel to the other and the
20 effect of the irregular shape and size of the panel, a
21 combination of those three things, has the potential for
22 producing an unfair situation as to the royalty owners of
23 those wells.

24 MR. CHAIRMAN: Any other comments?

25 MR. KELLY: Mr. Chairman, I would just like to make a brief

1 comment. I fully appreciate what Mr. Mason has said. I
2 believe that certainly he has done that with a lot of due
3 consideration. I think equally so, though, you really
4 have to take into consideration the situation that
5 Pocahontas Gas is dealing with here in an attempt to
6 develop a mine, to protect the safety of the miners, to
7 look at the economic consequences of venting gas versus
8 producing gas into a line. It seems to me that an
9 adequate, if not more than adequate, attempt has been
10 made here to take into consideration all of the factors,
11 particularly the equity involved. I think the concern
12 with the correlative rights issue is a valid one and I
13 believe that a valid effort has been made here to show
14 that those rights are adequately being considered. And I
15 would like to say that I feel that the issue has been
16 addressed and that correlative rights is a concern, but
17 it has been adequately met here by the plan that's been
18 put forward.

19 MR. CHAIRMAN: Other comments?

20 MR. MCGLOTHLIN: Mr. Chairman, being from Buchanan County and
21 the general area of the County I have to commend the Gas
22 Partnership and Consol in an effort to capture this
23 methane gas. It's been dissipating into the atmosphere
24 for years and wasted energy. I have some problems, not
25 so much with the planning but with some of the expendi-

1 tures as was noted in BUNW1 and BUS1 and probably will
2 have some reservations about these expenditures as well
3 when they come before us. But not knowing -- this seems
4 to be a good plan. It's before us now and not having an
5 opportunity to see anything different, I would recommend
6 that we accept it and do so by making that into a motion.

7 MR. CHAIRMAN: I have a motion that we approve this plan as
8 presented.

9 MR. KELLY: I would second that.

10 MR. CHAIRMAN: We have a motion and a second. Any further
11 discussion? All in favor signify by saying yes. (SOME
12 AFFIRM.) Opposed say no. (ONE DENIES.) The motion
13 carries. Thank you.

14 MR. MASON: Mr. Chairman, as a matter of clarification, is
15 this an amendment to the Oakwood field rules or does this
16 stand alone?

17 MR. CHAIRMAN: This stands alone. We'll take a ten minute
18 break.

19 (AFTER A BRIEF RECESS, THE HEARING CONTINUED AS FOLLOWS:)

ITEM VI

MR. CHAIRMAN: The next item on the agenda, did you ask to go to 1617

MS. MCCLANNAHAN: Yes.

MR. CHAIRMAN: It is a petition by Pocahontas Gas Partnership for the establishment of a sealed coalbed methane gob gas unit designated as BUNE1 and this is Docket Number VGOB-91/11/19-0161. Would all the parties that wish to address the Board regarding this docket number please come forward.

MR. TEIGH: Joe Teigh with Cabott Oil and Gas. I would like to reserve the opportunity to come forward.

MR. SWARTZ: Mark Swartz for OXY, USA.

MR. JONES: Mr. Chairman, members of the Board, I might just say in preparation, this docket 161, of course, is the sealed gob that we would propose in conjunction with the panel units that we've just been discussing, outlined in blue on the map. Of course, the Board has previously approved sealed gob units on our application, the BUNE1 and BUS1, and this will be very similar to that. We will try to move along as rapidly as we can and, of course, please stop us if we're moving along too quickly. Ms. McClannahan will do the questioning.

MS. MCCLANNAHAN: Mr. Les Arrington is our first witness.

1 MR. CHAIRMAN: I will just remind you that you have been
2 sworn.

3
4
5 LESLEY K. ARRINGTON

6 a witness who, after having been previously sworn, was
7 examined and testified as follows:

8
9 DIRECT EXAMINATION

10
11 BY MS. McCLANNAHAN:

12 Q. Les, will you please state your full name for the record?

13 A. Lesley K. Arrington.

14 Q. And you are employed by Consolidation Coal Company, is
15 that correct?

16 A. Yes.

17 Q. And you are the permit specialist?

18 A. Yes.

19 Q. Your educational background quickly?

20 A. I have an Associate in science and mechanical engineering
21 and a Bachelor of science and civil engineering technol-
22 ogy.

23 MR. CHAIRMAN: You can just stipulate that with your wit-
24 nesses.

25 Q. (Ms. McClannahan continues.) How were the names of the

1 potential owners of the sealed coalbed methane gas
2 identified for the BUNE1 unit?

3 A. It was collected from title opinions, field research, and
4 mapping.

5 Q. Since the development of the mine began how much of the
6 coal estate is controlled by Pocahontas Gas Partnership
7 in the BUNE1 unit?

8 A. Approximately 99.4750 percent of the Pocahontas #3 seam
9 and 92.2724 of all coal below drainage less the Pocahon-
10 tas #3 seam.

11 MS. McCLANNAHAN: We have again prepared a book of our
12 exhibits. Exhibit 1 shows the coal control by Pocahontas
13 Gas Partnership as Mr. Arrington has just explained. And
14 I'll ask him if that is Exhibit 1 to the hearing tran-
15 script.

16 Q. (Ms. McClannahan continues.) Along with the coal, Mr.
17 Arrington, what percentage of the oil and gas in this
18 unit is controlled by Pocahontas Gas Partnership?

19 A. 89.5759 percent.

20 Q. And what percentage of the coalbed methane gas is
21 controlled by the Partnership?

22 A. 92.2724 percent.

23 Q. Are these the same ownership control percentages that are
24 listed on the applications as they have been filed?

25 A. Yes.

1 Q. Do the plant and acreage totals on the exhibit reflect
2 the relative contribution that each tract listed on the
3 map is expected to make per total BUNE1 production?

4 A. Yes.

5 Q. Who are the owners of the coal below the Tiller seam in
6 this particular unit?

7 A. Hugh Macrae Land Trust, Consolidation Coal Company,
8 Yukon-Pocahontas, Salyers, Pocahontas Coal Company,
9 Buchanan Coal Company, Georgia Pacific Corporation and C.
10 L. Ritter.

11 Q. And do you have coal leases from these coal owners?

12 A. Consolidation Coal Company has a coal lease from Hugh
13 Macrae Land Trust, and we have a sub-lease from Island
14 Creek Coal Company for the Pocahontas #3 seam on the
15 Yukon-Pocahontas tract.

16 Q. Exhibits 2 and 3 that are in the booklet, they list your
17 oil and gas control and coalbed methane control, is that
18 correct, as you've described them?

19 A. 2 and 3, yes.

20 MS. McCLANNAHAN: I would submit those as 2 and 3 for our
21 hearing.

22 (Gas & Oil Control Map marked as Exhibit 2.)

23 (Coalbed Methane Control Map marked as
24 Exhibit 3.)

25 Q. (Ms. McClannahan continues.) Did you mail a notice of

1 hearing to all the parties that are contained in the
2 application for establishment of the unit?

3 A. Yes, I did. I mailed the hearing notice by certified
4 mail return receipt requested.

5 Q. And is that Exhibit 4 in the booklet?

6 A. Yes.

7 MS. McCLANNAHAN: I would submit that as Exhibit 4 to the
8 hearing transcript.

9 (Hearing Notice for BUNEL marked as Exhibit 4.)

10 Q. (Ms. McClannahan continues.) Do you have the returned
11 receipts from the certified mailings that you did?

12 A. Yes. They have been submitted to the Inspector and they
13 are shown as Exhibit 5.

14 Q. Those are copies of those receipts, right?

15 A. Yes.

16 Q. And the originals have been submitted to the Inspector?

17 A. Yes.

18 MS. McCLANNAHAN: I would introduce Exhibit 5 in the book as
19 Exhibit 5 to the hearing transcript.

20 ((Return Receipts from Notice Mailing marked as
21 Exhibit 5.))

22 Q. (Ms. McClannahan continues.) How were the persons whose
23 names and addresses are listed as unknown notified?

24 A. By publication in the Virginia Mountaineer, the Bristol
25 Courier and the Bluefield Daily Telegraph newspapers

1 published on 10/21 and 10/24 respectfully.

2 Q. And do you have proofs of publication for those notices?

3 A. Yes, I have. That has also been submitted to the
4 Inspector.

5 MS. McCLANNAHAN: Those are the questions I have for this
6 particular witness.

7 MR. CHAIRMAN: Any questions, members of the Board?

8 (Witness stands aside.)

9 MR. CHAIRMAN: Mr. Fulmer, will you confirm that you have
10 the returned receipts?

11 MR. FULMER: Yes, sir.

12 MR. CHAIRMAN: Thank you.

13 MS. McCLANNAHAN: Mr. Albert is the next witness I would like
14 to call.

15 MR. CHAIRMAN: I would remind you that you are under oath.

16 MS. McCLANNAHAN: Mr. Chairman, you requested that we just
17 stipulate to his qualifications from the previous
18 hearing, Docket Number 160.

19 MR. CHAIRMAN: Is that suitable for the Board? Thank you.
20
21

22 RANDALL M. ALBERT

23 a witness who, after having been previously sworn, was
24 examined and testified as follows:
25

DIRECT EXAMINATION

BY MS. McCLANNAHAN:

Q. Mr. Albert, you've indicated in previous testimony today that Consol began the development of the Buchanan #1 mine and the Pocahontas #3 seam in the Spring of 1988, is that correct?

A. That is correct.

Q. Actually I believe Mr. Morgan indicated that earlier.

A. That is correct.

Q. When was construction of that facility completed?

A. In 1985.

Q. That Exhibit B-1 to our application and Exhibit 7 in the book that is on the slide projector, is that the mine plan applicable to the unit area as it has been submitted?

A. Yes, it is.

Q. Mr. Albert, could you please locate the VVM wells on this Exhibit 7 that have been drilled which you plan to convert to sealed coalbed methane gob gas?

A. That would be VVMs starting at the most southern panel there. It would be 314, 42, 44, 45, 46, and, if it please the Board, the rest of the wells that are shown on that exhibit.

Q. Can you please explain what your plan for development is

1 for these sealed coalbed methane gob gas wells?

2 A. Yes. It will be much the same as the BUNN1 or the BUS1.
3 We are permitting all of the wells. In all likelihood
4 and based on the short time that we've had to experiment
5 with your BUNN1 area, we will only produce out of one of
6 those wells bores per panel. But this is so distant in
7 the future, rather than come before the Board -- try
8 today to tell you which well we are going to produce out
9 of five years from now, we are including all of the wells
10 since they are going to be converted to CBMs.

11 Q. Could you explain the timing on when the sealed coalbed
12 methane gas will be developed in relation to the other
13 kinds of productions that will come from the areas that
14 are contained within the unit?

15 A. Yes, I can. The sealed coalbed methane will be the last
16 of the phases that Mr. Morgan talked to you about this
17 morning to be produced. The sealed coalbed methane will
18 be produced after mining is completed of that area. The
19 seals are erected underground to isolate that area from
20 the underground ventilation system. Then we will begin
21 producing each of the sealed panel -- each of the sealed
22 area via one or more wells per panel.

23 Q. Could you explain where the seals will be located for
24 this particular area?

25 A. Yes, I can. The seals as we propose them now would be

1 located along the boundary lines of the units. If you'll
2 remember, the BUNW1 boundary, it comes to the middle of
3 the main. So we simply brought this from over to the
4 (Inaudible.) so there would be no gas. The seals will
5 actually be built either right up through here or
6 depending on the conditions in the mines at that time
7 they possibly could be built across the mains here. This
8 set of mains here because they will no longer be used for
9 active mining. In all likelihood this panels will be
10 sealed, one set of seals here as opposed to our previous
11 method of sealing each individual panel. The effect will
12 be the same. It will just be less seals required to do
13 the same thing. Like I say, the mining will be completed
14 and once mining is completed I would imagine the normal
15 time frame would be about a year after this panel is
16 finished mining. It would take us nearly a year to
17 recover the equipment and get the seals erected and be
18 ready to be in production with the sealed gob. But as
19 shown by Mr. Morgan this morning, during that time period
20 we will be producing active gob gas from each of these
21 panels.

22 Q. How do you make the decision about where to locate the
23 seals in these particular boundary areas?

24 A. The seals are simply located so that we can isolate the
25 active mines from the part of the mine that is mined out.

1 Q. At what depth has gas production from the pool underlying
2 this particular sealed area been found?

3 A. We have found gas production in all seams below -- from
4 the Tiller seam and below.

5 Q. What volume of methane do the coal seams below the Tiller
6 seam contain?

7 A. The coal seams as we know them today contain from about
8 230 to 700 cubic feet of methane beginning increasing
9 with depth.

10 Q. The process for the field coalbed methane production is
11 described on the cross section maps at Exhibit 8 and 9,
12 is that correct?

13 A. Yes, it is.

14 Q. Mr. Morgan discussed these exhibits earlier this morning,
15 but can you please explain how these relate to the sealed
16 coalbed methane production?

17 A. Yes, I can. The seals are in place. This is a cross
18 section cutting across the panels from north to south.
19 The seals are in place across these development entries.
20 The entire pool is in communication with each other by
21 these entries which are open between the panels and
22 around the perimeter. The entire area needs to be
23 considered as one pool as discussed in previous testimony
24 before the Board. In fact, I think as I stated the last
25 time, if you so desire it would be possible, possibly not

1 feasible from a mine safety view point, but certainly
2 possible from a gas production standpoint to probably
3 come in here and produce something less than each panel
4 and still be able to drain the gas from that area. This
5 is a cross section running length wise of the panels
6 simply depicting the rubble zone as Mr. Morgan stipulated
7 to this morning. The rubble zone is that area that is
8 subsided after the longwall miner passes and the coal is
9 removed.

10 Q. Will this proposed program fit into other projected mine
11 plans where large gob areas will be formed for the
12 production of sealed coalbed methane gob gas?

13 A. Yes, it will.

14 Q. What is currently being done with the coalbed methane gas
15 being produced by the Buchanan #3 mine?

16 A. It is vented.

17 Q. And this BURNI sealed coalbed methane gob gas proposal
18 would eliminate the venting of the gas, is that correct?

19 A. Yes, it would.

20 MS. McCLANAHAN: I have no further questions of this witness.

21 MR. CHAIRMAN: Any questions, members of the Board?

22 MR. McLOTHLIN: Mr. Albert, can you go back to B-1? On your
23 sealing of the area, between the longwall mine out, is
24 there a block of coal in there that's going to seal each
25 longwall area from the other?

1 MR. ALBERT: These are development entries. It's not very
2 well depicted on this map. From here to here is the
3 longwall block itself. This area from here to here are
4 the development entries or what's commonly referred to in
5 the mining industry as the gate road. These blocks stay
6 in place. They're not second mined. That's the develop-
7 ment of mining. They're mined up. The blocks are left
8 there for roof support between each longwall panel.
9 This panel here -- this area from here to here along this
10 length is the coal that is removed by the longwall
11 method.

12 MR. McGLOTHLIN: In the block is there a cut and filler
13 system in there? Mined and then a pillar of coal?

14 MR. ALBERT: Yes. If you could look, it is the same system
15 that's used here. The entries are this area here and if
16 you can look closely you can see the solid white is the
17 block of coal that's left as the entries are developed.

18 MR. McGLOTHLIN: So gas could migrate from one longwall area
19 to another longwall area?

20 MR. ALBERT: Yes, sir.

21 MR. McGLOTHLIN: On the allocation of cost between BURN1 and
22 BURN1, how are you going to allocate where they adjoin
23 there, the cost of the sealing?

24 MR. ALBERT: That's a good question. I would imagine --
25 you've put me on the spot just a bit, but these seals

1 are in place and that cost has been recouped through our
2 initial BUNN1 proposal. So there would be no further --
3 if, in fact, these seals are used to, in effect, seal
4 this area there would be no further cost for the adjoin-
5 ing seals. However, mining logic would dictate that when
6 this area is done this set of mains is no longer needed.
7 So instead of having to build seals all the way up
8 through here, as I stated earlier, we would more than
9 likely come here across this main and simply build seven
10 seals as opposed to -- there are four entries each time
11 times eight or nine places. That's thirty-five or forty
12 seals. We can accomplish the same thing by building
13 seven seals. So it will be much cheaper this time than
14 sealing each individual panel. The reason we had to seal
15 up through here is this seal is part of the
16 -- this is now part of the active mine. Once we're
17 finished mining in this area, this is the end of reserve
18 in the north end and these mains are no longer needed.
19 But we are very sensitive to the cost issues and we will
20 find the most equitable way to do that.

21 MR. MCGLOTHLIN: Thank you.

22 MR. CHAIRMAN: Any other questions for Mr. Albert, members of
23 the Board?

24 (Witness stands aside.)

25 MS. McCLANNAHAN: We would call Mr. Carnody.

1 MR. CHAIRMAN: I would remind you that you are still under
2 oath.

3 MS. McCLANNAHAN: Mr. Chairman, may we also stipulate to his
4 qualification questions for purposes of this hearing
5 from Docket Number 1607

6 MR. CHAIRMAN: Yes.

7 MS. McCLANNAHAN: In addition, Mr. Carmody's questions are, of
8 course, all geologic and don't change from the last
9 hearing for Docket Number 160 because what he was
10 testifying to are the same formations underneath this
11 unit as the BUNMI that was proposed for 160. So if I may
12 just ask him if that's the case, then perhaps we won't
13 need to go through all of his testimony either.

14
15
16 KENNETH CARMODY

17 a witness who, after having been previously sworn, was
18 examined and testified as follows:

19
20 DIRECT EXAMINATION

21
22 BY MS. McCLANNAHAN:

23 Q. Mr. Carmody, is it true that the testimony that you gave
24 for the previous application, Docket Number 160, would
25 also be the same for Docket Number 161?

1 A. Yes. That's true.

2 Q. And the exhibits we have submitted as Exhibits 10 through
3 13 represent isopac and stratigraphic column maps
4 showing the coals underlying the unit area known as the
5 BUNE1 for Docket Number 161, is that correct?

6 A. That is correct.

7 Q. And your testimony during the hearing for Docket Number
8 160 about those particular exhibits would not be changed
9 in this hearing?

10 A. It would not change.

11 (Witness stands aside.)

12 MS. McCLANNAHAN: We would request that the Board stipulate to
13 his testimony from Docket Number 160.

14 MR. CHAIRMAN: Any problem with that, members of the Board?
15 We will allow you to stipulate that.

16 MR. EVANS: Is there anything that you would like to add? Are
17 there any additions to Mr. Carmody's testimony, this
18 versus the other?

19 MS. McCLANNAHAN: I don't think so, sir. The unit areas are
20 just a little different. That's why I asked him to
21 testify as to the unit area. We don't have any other
22 witnesses for this particular application.

23 MR. CHAIRMAN: Questions, members of the Board?

24 MR. KELLY: I'd like to interject this. Your unit or your
25 boundaries of your total area here are different from

1 your previous docket item, your group of ten units as
2 compared to the current one for the sealed gob area. And
3 we just had a discussion on correlative rights and
4 related issues which convinced me off -- I had no
5 problem with the original proposal on the other item.
6 However, I would like to hear how you reconcile the
7 differences between the out boundary of the initial item
8 and this item as far as a break down of the obvious
9 differences in the distribution of royalties.

10 MS. McCLANAHAN: Could I just call Mr. Albert back to answer
11 that?

12 MR. CHAIRMAN: Yes.

13 MR. ALBERT: That is a question that we struggled with
14 internally for some time. In the end I will give you our
15 line of thinking on that. This again is a mine boundary
16 between us and Island Creek. This time it's their VP2
17 mine. At some point in time -- and I see some represen-
18 tatives from Island Creek in the audience and they may
19 have something to add to this if I say something wrong,
20 but I would assume that at some point in time Island
21 Creek will mine this in a similar fashion to what we're
22 doing here by the longwall method of mining. And at that
23 point in time a gob area will be created here.

24 MR. KELLY: So that will leave a panel over there?

25 MR. ALBERT: Yes, sir. I am making an assumption. It could

1 have. That's what drove this decision. We spent
2 considerable time in our previous sealed gob application
3 hearings. And again today we don't see drainage from the
4 gob area from panel to panel or as we testified in the
5 Beatrice case, as we got close we saw no reduction in
6 methane. Again, we felt that the proper place for
7 drainage of the gob was along that mine boundary line,
8 not only from a drainage standpoint but by the fact that
9 if we extended it to the 80 acre line we would, in fact,
10 be putting -- these people would, in fact, get paid for
11 gas twice and I don't think that would be serving the
12 purposes of this Board, because they would get paid for
13 it as we mined it and then when Island Creek mines this
14 and creates a gob unit they would get paid again. The
15 gas is only there once. So we felt that this was the
16 proper place to break the line. And I think that if I
17 look that is the primary difference between the two
18 proposals. The other difference is we bring it out to
19 the -- include our mains here because, as I said, we're
20 going to seal it along here and include this. This gas
21 will be drained from this area here. And also Island
22 Creek in their VP2 reserve, this is their boundary again.
23 So we tried to square this up not to gas production units
24 say, but gob areas of the two coal companies. So that's
25 why there are some differences between the two and it is

1 done -- the larger part of the reason is that it's done
2 to reconcile the mine boundary between Consol and Island
3 Creek.

4 MS. MCCLAINJIAN: Is it also true that this particular
5 boundary conforms to the boundary?

6 MR. ALBERT: Yes. As previous testimony that we put on for
7 the BUN 1, this boundary does fall to those same patterns
8 of that testimony.

9 MR. KELLY: Well, I guess I'm just trying to reconcile in my
10 mind your argument you just put forth on the northern
11 boundary there that you don't want to pay people twice
12 for the same gas or for gas within that unit. Isn't the
13 reverse true for the boundary down the right-hand side
14 then? That, in fact, those people will be paid twice or
15 could be paid twice? Since those portions of those 80
16 acre units are not included in the initial group of
17 units, you're including that in your sealed area. The
18 other half of those units are going to be in Island
19 Creek's mine. They could presumably be paid on an 80
20 acre basis or on some other basis when that's developed.

21 MR. ALBERT: That is true, but if you will notice again in our
22 testimony this morning, for protection of correlative
23 rights where at all possible we try to break the boundar-
24 ies of this unit only existing 80 acre lines so that we
25 didn't create the situations that Mr. Mason was pointing

1 out where we were taking a half or so of the unit. So
2 along this line here, I don't know if it's clear or not,
3 but that is an existing 80 acre field line. So we tried
4 to break it on that and then for the sealed gob, again so
5 that as Island Creek would go forward with -- if they go
6 forward with a similar plan there would be something in
7 place, a defined place, for them to break their boundar-
8 ies on.

9 MR. KELLY: But it would be splitting up 80 acre units?

10 MR. ALBERT: Well, as much as of right now that the gob is
11 accepted from the 80 acre field rules it really wouldn't
12 be. That may change with another proposal today, but as
13 of right now gob gas is specifically excluded from the
14 Oakwood field rules.

15 MR. KELLY: In the area to the north, neither of those areas
16 at this point -- sorry, the area up to the right, on the
17 right side that is your development entries?

18 MR. ALBERT: Yes, sir.

19 MR. KELLY: Which is being mined and the area to the north has
20 not been mined?

21 MR. ALBERT: That is correct.

22 MR. MCGLOTHLIN: Mr. Albert, I'd like to refer you back to
23 your Exhibits 1, 2 and 3 of Docket Number 160, if that's
24 permissible, Mr. Chairman.

25 MR. CHAIRMAN: That's fine with me.

1 MR. MCGLOTHLIN: In comparing these with exhibits with 1, 2
2 and 3 of Docket 161, number one, the northern boundary up
3 there which coincides with the Oakwood Basin, you have
4 the green as coal subleased from Island Creek.

5 MR. ALBERT: Yes, sir.

6 MR. MCGLOTHLIN: That you had subleased from Island Creek?

7 MR. ALBERT: That is Pocahontas #3 seam is subleased from
8 Island Creek.

9 MR. MCGLOTHLIN: And in the purple?

10 MR. ALBERT: The purple is --

11 MR. MCGLOTHLIN: Gas that you have subleased from Island
12 Creek, am I correct?

13 MR. ALBERT: That is coal again owned or leased below drain-
14 age. In the Pocahontas #3 seam, that is areas -- let me
15 rephrase that a little bit. Those are areas that we
16 initially had all the coal below drainage under lease and
17 then we leased the 3 seam only to Island Creek. To give
18 you a little history of what happened there, the boundar-
19 ies between Consol and Island Creek were not always this
20 way. Early on they were very irregular shaped following
21 the property boundaries. Around 1980, I think, we
22 entered into an agreement principally to straighten the
23 lines since we were both operating longwall operations,
24 in other words, to square up the boundary between us. In
25 those areas you find along the borders, you'll probably

1 find areas as evidenced here where we have either leased
2 three seams to Island Creek or in another area a little
3 bit further to the west here where they had leased three
4 seams to us. So that is very common along the boarder.

5 MR. MCGLOTHLIN: Okay. Let's move on over the oil and gas --
6 particularly to the coalbed methane control maps,
7 Consolidation Coal Company and Pocahontas Gas Partnership
8 own/lease coalbed methane.

9 MR. ALBERT: Yes, sir.

10 MR. MCGLOTHLIN: Which takes it up to the upper most northern
11 end, but yet you're going to seal your gob up. What's
12 going to happen with that gas?

13 MR. ALBERT: Well, from a sealed gob standpoint, as our
14 testimony has indicated, we don't believe we'll be
15 draining past this line from the sealed gob area. We
16 will, however, recognize that these wells being longer
17 than any of the others will drain some of this gas. So
18 we did accommodate the 80 acre line in moving to this
19 point. But from a sealed gob standpoint we don't think
20 it is again proper to move it to the 80 acre line.

21 MR. MCGLOTHLIN: The deviations that are shown there, do they
22 belong to Consolidation or to Island Creek?

23 MR. ALBERT: The deviations as shown belong to Consolidation
24 Coal Company -- well, to Pocahontas Gas Partnerships.

25 MR. MCGLOTHLIN: That would lead me to believe that somewhere

1 down the line Consol is going to longwall that or could
2 possibly longwall that area.

3 MR. ALBERT: We are going to longwall -- this line here is our
4 coal boundary, though. This will be the last longwall
5 panel that we longwall.

6 MR. MCGLOTHLIN: Mr. Albert, is doesn't make sense for you to
7 go in and drill \$250,000 or \$500,00 wells when you don't
8 own the coal up there. Will you explain that to me?

9 MR. ALBERT: What coal that we don't own or lease we have
10 subleased from Island Creek. So we do have a right to
11 mine the coal and that is reflected in this panel. We do
12 have the right to mine that entire panel.

13 MR. MCGLOTHLIN: How about the panel north of that?

14 MR. ALBERT: No, we don't.

15 MR. MCGLOTHLIN: But those are your deviations or
16 Pocahontas --

17 MR. ALBERT: There are no deviations north of right here.

18 MR. MCGLOTHLIN: Excuse me, Mr. Albert, you have then listed
19 right here, 51, 52, 53, 55, 56. And you have just
20 testified that those are yours.

21 MR. ALBERT: No, sir. You misunderstood.

22 MR. MCGLOTHLIN: No, sir. I asked you the question were those
23 your VVHs or Island Creek's VVHs and you said they belong
24 to you.

25 MR. ALBERT: Our deviations are denoted by the orange circles.

1 And the numbers VCHDG-68, 69, 70 and 71, these I would
2 imagine are simply tracts of land. This would be land
3 tract 51, 52, 56 and so forth. Those are not deviations.

4 MR. McGLOTHLIN: I misunderstood you then.

5 MR. ALBERT: And I may have answered incorrectly.

6 MR. CHAIRMAN: Does that clear it up for you, Mr. McGlothlin?

7 MR. McGLOTHLIN: I'm totally confused now because it just
8 doesn't make -- maybe I don't understand the economics of
9 mining coal in southwest Virginia as well as I should.

10 MR. JONES: I think Mr. McGlothlin is correct. That is
11 confusing, those numbers up at the top of that, and that
12 has confused me before. Those look like they are VVHs or
13 wells, but they're really not. Those are designations of
14 tracts of land apparently. Is that correct, Mr. Albert?

15 MR. ALBERT: I think that is correct. Les?

16 MR. ARRINGTON: Yes. The numbers you see on the map are the
17 tract IDs that you'll see in your exhibits. If you will
18 notice, the one that's on the slide has no numbers on it.
19 The map up here and the one that was in application 160
20 had little circles with numbers in it and that was tract
21 IDs which were in there as -- we had the tracts in here
22 with the acerages.

23 MR. McGLOTHLIN: I stand corrected.

24 MR. JONES: Well, we apologize for that.

25 MR. McGLOTHLIN: That is very confusing.

1 MR. CHAIRMAN: Any other questions? You have called all of
2 your witnesses, haven't you?

3 MR. JONES: Yes, sir.

4 MR. CHAIRMAN: Mr. Teigh.

5 MR. TEIGH: I'm Joe Teigh with Cabott Oil and Gas. I may
6 have missed something here, but we've got a working
7 interest under part of this, as I understand it, through
8 our Georgia Pacific and Yukon lease. My statement is
9 based on experience in other gas and oil states, the
10 states having some extensive experience in orderly
11 development. We feel that we don't understand why it
12 can't be done on the existing field rule as it is and
13 also why that with no more development that you have in
14 that you already know how much increased density how much
15 increased density work you'll to do. I would just like
16 to make that statement for the Board to consider, if you
17 would, because other working interests will have to be
18 considered as far as their future development.

19 MR. CHAIRMAN: Any questions, members of the Board?

20 MR. McCLANNAHAN: I'd just like to respond to that. Sealed
21 gob gas is not included in any existing field rules.

22 MR. CHAIRMAN: Thank you. Any other comments? Any other
23 persons wishing to address the Board regarding this case?
24 Any further questions from members of the Board? If not,
25 what is your pleasure?

1 MR. KELLY: I'd like to make a motion that the application be
2 approved.

3 MR. CHAIRMAN: We have a motion to approve.

4 MR. EVANS: Second.

5 MR. CHAIRMAN: A motion and a second. Further discussion?
6 If not, all in favor signify by saying yes. (ALL
7 AFFIRM.) All opposed say no. (NONE.) The motion
8 carries. Thank you.

ITEM III

MR. CHAIRMAN: The next item on the agenda is a petition by Pocahontas Gas Company for establishment of longwall drilling units designated as SLW1, SLW2, SLW3 and SLW4 for the production of coalbed methane and active coalbed methane gob gas. This is Docket Number VGOB-91/11/19-0158.

MR. JONES: Mr. Chairman, docket number 158 for BUS2 is, of course, and identical in principle and similar in many of it's actual aspects to docket number 160, the BUNE1 panel. Again, in the interest of time, we would ask if the Board would be agreeable to accept the testimony that was given in docket number 160 for Mr. Graves, including his cross-examination, Dr. Kennedy and Mr. Morgan. Then Mr. Albert can explain where there are differences between this application and the application involved in 160, if that would be agreeable to the Board.

MR. CHAIRMAN: Let me ask the folks in the room to identify themselves that wish to address the Board regarding this case, docket number 158.

MR. SWARTZ: Mark Swartz. I think a reasonable suggestion has just been made for you all to consider.

MR. CHAIRMAN: Okay. Any other people that wish to comment? Is that suitable to the Board? You may proceed on that

1 basis.

2 MR. JONES: Thank you, Mr. Chairman. I would also add Mr.
3 Arrington and Mr. Carmody also -- I may not have mention-
4 ed their names, but they also gave testimony in regard to
5 the application 160 that we would like to include and be
6 accepted in this application. Mr. Arrington in addition
7 will give some additional testimony that's particularly
8 applicable to this application in regard to the owner-
9 ship. Otherwise Mr. Carmody, Mr. Graves and Dr. Kennedy
10 and Mr. Morgan's testimony including cross-examination
11 would be accepted, as I understand, as part of this
12 testimony.

13 MR. CHAIRMAN: Yes. That's the understanding.

14 MS. McCLANNAHAN: I would like to call Mr. Arrington as the
15 first witness.

16 MR. CHAIRMAN: Mr. Arrington, you are still under oath.

17 MS. McCLANNAHAN: We would like for the Board to accept his
18 qualifications from the previous hearings to which he's
19 testified.
20

21
22 LESLIE K. ARRINGTON

23 a witness who, after having been previously sworn, was
24 examined and testified as follows:
25

DIRECT EXAMINATION

BY MS. McCLAINAHAN:

Q. Mr. Arrington, can you please tell me how much of the coal estate is controlled by Pocahontas Gas Partnership in the BUS 2 panel units designated as South Longwall 1 through South Longwall 4?

A. In all four panels we control 100 percent of all coal below drainage.

Q. And what percentage of the oil and gas is controlled by Pocahontas Gas Partnership in each of those units?

A. One hundred percent in all four units.

Q. What percentage of the coalbed methane gas is controlled by Pocahontas Gas Partnership in all four units?

A. One hundred percent.

Q. Are these percentages shown on Exhibits 1 through 3 as we have submitted in the books to the Board?

A. Yes, they are.

MS. McCLAINAHAN: I'd move the introduction of those three exhibits.

MR. CHAIRMAN: Without objection we accept them.

(Coal Control Map marked as Exhibit 1.)

(Oil & Gas Control Map marked as Exhibit 2.)

(Coalbed Methane Control Map marked as Exhibit 3.)

1 MR. CHAIRMAN: Mr. Swartz, would you like to move up to the
2 table?
3 MR. SWARTZ: I don't think I'll be participating in this,
4 thank you, but it sounds like we're going to go in
5 abbreviated fashion.
6 MR. CHAIRMAN: I think that's correct. I haven't heard any
7 objection to that.
8 MR. SWARTZ: And I'm in favor of that.
9 Q. (Ms. McClannahan continues.) Are these ownership control
10 percentages listed on the applications that you've given
11 here also listed on the applications as they were filed?
12 A. Yes, they are.
13 Q. Do the plat and acreage totals on the exhibits reflect
14 the relative contribution that each tract is expected to
15 make to each longwall unit panel production?
16 A. Yes, it is.
17 Q. Have all the parties in each of the units, South Longwall
18 1 through South Longwall 4, execute a unit and pooling
19 designation agreement?
20 A. Yes, they have.
21 Q. Who are the owners of the coal below the Tiller seam?
22 A. Hugh Macrae Land Trust and Consolidation Coal Company.
23 Q. Are these also your coal lessors?
24 A. Yes.
25 Q. Did you mail a notice of hearing to all the parties that

1 are contained in the application for establishment of
2 each of the units?

3 A. Yes, I did.

4 Q. And how was this accomplished?

5 A. By certified mail return receipt requested.

6 Q. Do you have those returned receipts?

7 A. Yes, I do. The original was given to the Inspector and a
8 copy of which is Exhibit 5.

9 MS. McCLANNAHAN: I would move the introduction of Exhibit 5.
10 (Return Receipts from Notice Mailing marked as
11 Exhibit 5.)

12 Q. (Ms. McClannahan continues.) In addition, did you
13 prepare the notice of hearing that is listed as Exhibit
14 4?

15 A. Yes, I did.

16 Q. And that is the hearing notice that was mailed, is that
17 correct?

18 A. Yes.

19 MS. McCLANNAHAN: I would move the introduction of Exhibit 4.
20 (Hearing Notice for BUS2 Units marked as
21 Exhibit 4.)

22 Q. (Ms. McClannahan continues.) There were no unknown
23 parties for this particular application, is that correct?

24 A. That's correct.

25 Q. You did, however, make a publication notice in the paper,

1 is that right?

2 A. Yes, I did.

3 Q. And what dates and in what papers was a notice of
4 publication made?

5 A. The Virginia Mountaineer, the Bristol Herald Courier, the
6 Bluefield Daily Telegraph on 10/24, 10/21 and 10/24
7 respectively.

8 Q. And do you have proofs of publication for those dates and
9 papers?

10 A. Yes. They were previously submitted to the Inspector.

11 MS. McCLANNAHAN: Those are all the questions I have for Mr.
12 Arrington.

13 MR. CHAIRMAN: Any questions, members of the Board?

14 (Witness stands aside.)

15 MR. CHAIRMAN: Call your next witness.

16 MS. McCLANNAHAN: I'd like to call Mr. Albert, please.

17 MR. CHAIRMAN: I would remind you that you are still under
18 oath.

19 MS. McCLANNAHAN: We would also like for the Board to accept
20 the qualifications of Mr. Albert as previously accepted
21 in docket number 160.

22
23 RANDALL M. ALBERT

24 a witness who, after having been previously sworn, was
25 examined and testified as follows:

DIRECT EXAMINATION

BY MS. McCLANAHAN:

Q. Mr. Albert, would you please look at Exhibit 10 as it's listed in the book and also on the slide. Mr. Albert, the red outline that's on Exhibit 10, is that the outline of the BUS2 South Longwall panels 1 through 4?

A. Yes, it is.

Q. Could you point out to us which is 1 through 4?

A. Yes. This is 1, 2, 3, and 4.

Q. Could you explain to the Board the operation of this particular BUS2 unit?

A. Yes, I can.

Q. I'm sorry. The four panels that are within what we are calling the BUS2.

A. Again, a similar situation to what we had in the north. This panel is about three-quarters of the way mined out. The development is done and essentially done for the second panel. So again we are in an active mining phase. This time we only have four panels that will be mined precluded from continuing this set of panels further to the east by geological fault, the King Mountain fault, which may step over and start over again. Again, a similar situation. Part of it's mined and part of it isn't. The wells are all existing and we're simply

1 asking that units be formed on the longwall panel basis.

2 Q. Could you explain why these run in a north/south axis and
3 the others are in east/west?

4 A. Sure. Again, as I mentioned, the King Mountain fault
5 cuts across the property about here. It simply best fit
6 for the mine plan for the panels to be oriented north/
7 south.

8 Q. Mr. Albert, are there any other differences between the
9 South Longwall panels 1 through 4 and the Northeast
10 panels 1 through 10 that you need to point out for the
11 Board at this particular time?

12 A. The big difference would be the time. As to here we are
13 nearly five years away from this last panel. Here we're
14 not quite two years away from mining this last panel. So
15 the entire process will be done in less than half the
16 time that we were talking about up here. Primarily that
17 is the biggest difference. That caused a little bit of
18 difference in our drainage pattern and where we stopped
19 our boundary lines, but that was about it.

20 Q. Mr. Albert, would all of your testimony given in the
21 Northeast longwall panels 1 through 10 be applicable to
22 the South longwall panels 1 through 4?

23 A. Yes, it would. The only exception would be that in the
24 northern most panel up here, because of the time period,
25 we felt it entirely proper to include the entire 80 acre

1 unit as part of that last unit. Here again because of
2 the short life of these wells, we are confining that
3 drainage to the panel itself. That's based solely on
4 time.

5 Q. And the other major difference between these particular
6 units and the ones in the northeast area are as Mr.
7 Arrington has previously indicated and that is that
8 Pocahontas Gas Partnership controls 100 percent of the
9 interest in this particular unit, is that correct?

10 A. Yes. We do control 100 percent. We do have a voluntary
11 agreement from all the parties to pool this in this
12 fashion.

13 MR. EVANS: I've got one question. When is mining scheduled
14 to begin on this unit?

15 MR. ALBERT: The mining of this panel here is about three-
16 quarters complete.

17 MR. CHAIRMAN: Are you maintaining records on a specified
18 frequency of the production advance of and during the
19 longwall mining that's taken place in production of the
20 coalbed methane gas?

21 MR. ALBERT: Yes, sir, we are.

22 MR. CHAIRMAN: On what frequency are you maintaining that?

23 MR. ALBERT: As, as testified to by Mr. Kennedy, each well is
24 equipped with an orifice meter. We read the meter on a
25 seven day -- the production is recorded either on a seven

1 day chart or a thirty-one day chart. Those charts are
2 sent to our research department for analysis. Essential-
3 ly the production on each well is read every day.

4 MR. CHAIRMAN: Do you believe that the data that you're
5 receiving on a cumulative basis will allow you to more
6 exactly project the drainage patterns and the life of
7 drainage for future wells?

8 MR. ALBERT: Yes, sir. I think that in due time it will allow
9 us to have a better handle. Certainly as with any
10 process, the more data you have and the longer you've
11 done it the more familiar you're going to be with it. So
12 I think as time goes on we would be able to make a more
13 accurate model, so to speak, of what is happening in the
14 coalbed methane drainage.

15 MR. CHAIRMAN: From the data that you've observed over the
16 past seven years that you have been collecting data, are
17 you noticing any changing trend now versus when you first
18 started out?

19 MR. ALBERT: No, sir. It has been fairly constant. The
20 typical production that we talked about up here this
21 morning would be very similar to what we have encounter
22 down here. It has remained fairly constant over the
23 entire mine area.

24 MR. CHAIRMAN: Any other questions, members of the Board?

25 MR. KELLY: One quick question. I understand your reasoning

1 for not including the area to the south of this in the
2 units. But what is the projected status of that for
3 mining or what happens to the south of that area?

4 MR. ALBERT: If I understand your question correctly, you're
5 possibly asking me what about the 80 acre units we cut in
6 essentially in half --

7 MR. KELLY: I understand your reasoning because of time for
8 not including the area on the south side. But what is
9 the status of that area as far as future development?

10 MR. ALBERT: We, in fact, planned in 1992 drilling to come
11 south of our active mining area and do some stand alone
12 coalbed methane wells on 80 acre units. I may be getting
13 a bit ahead of myself here at this point, but if we
14 include a well in either of these units which is likely
15 we would probably come before the Board with a petition
16 that would ask you to let us include this area that we
17 did truncate with the mine plan unit.

18 MR. KELLY: But that is still your lease to the south side?

19 MR. ALBERT: Yes, sir. That is our lease.

20 MR. KELLY: So you will be doing the longwall. It's not a
21 property boundary or a another mine boundary?

22 MR. ALBERT: No, sir, it is not. It's still our lease.

23 MR. KELLY: You mentioned the King Mountain fault on the east
24 side there. Is that also effected the development on the
25 north side?

1 MR. ALBERT: Yes, it has. The King Mountain fault cut right
2 across this -- if you look at our mine plan, the one
3 thing that is conspicuous is there is a large virgin
4 block of coal here. It is cut diagonally by the King
5 Mountain fault which precluded longwall development.

6 MR. KELLY: Thank you.

7 MR. CHAIRMAN: Any other questions, members of the Board?

8 MR. MCGLOTHLIN: South of your longwall area does Consol ever
9 expect to mine that?

10 MR. ALBERT: I would refer that question to Mr. Morgan who can
11 probably answer that better than I can, if that's okay.

12 MR. MCGLOTHLIN: Okay. I'll wait till Elizabeth brings him
13 up.

14 MS. MCCLANNAHAN: Well, actually I think we had agreed that
15 Mr. Morgan's testimony would just be taken from 160 and
16 accepted for this particular hearing. So you may need to
17 go ahead and ask Mr. Morgan.

18 Q. (Ms. McClannahan continues.) Mr. Albert, is it true that
19 the area south of the BUS2 South longwall panels 1
20 through 4 are not in your present mine plan?

21 A. Right. I can't answer to this point. This is not in our
22 mine plan as of today. It certainly doesn't mean --
23 naturally, economic conditions could change and this coal
24 could be mined. But as of today it is not in our mine
25 plan.

(Witness stands aside.)

MS. McCLARNIAHAN: Mr. McGlothlin, you're welcome to ask Mr. Morgan about future mining plans if that's the way you want to handle it.

MR. CHAIRMAN: I would just need to stipulate that you're under oath in answering and responding to the question. You can go ahead and ask him.

MR. MCGLOTHLIN: Let me ask you this. Is it not true that Consol's coal lease goes much more south than what we're seeing on these maps?

MR. MORGAN: If I could refer you to Exhibit 10, I'll show you what we consider a minable limit of this coal reserve. See this mine that goes right along through here, that is our plus or minus three foot line. Due to fanning of the seam and coal quality we stopped our mining at this point for this time frame. We are leaving this set of mains through here open as well as an access through here to get to -- there's another pocket over in here. There is minable coal here. There is re-minable coal here, but not under today's market. But we are leaving access to that coal. I would expect it in the future to be mined.

MR. MCGLOTHLIN: Could you give me a rough estimate of where your coal boundary ends in relationship to the map you have there?

MR. MORGAN: Our leases extend beyond this. This is the three

1 foot seam thickness which we consider our mine develop-
2 ment. Our coal leases do extend beyond this.

3 MR. KELLY: Just a follow up on that. What you're saying that
4 mine plans are at this point inconclusive and maybe even
5 not too likely in that area, particularly where the fault
6 is located. But it is not possible that the area could
7 still be drilled -- the coalbed methane production --
8 whether or not you actually include that in your mine
9 plan.

10 MR. MORGAN: Yes.

11 MR. KELLY: A reasonable expectation as far as the development
12 of those other units?

13 MR. MORGAN: As I stated, and I'm getting a bit ahead of
14 myself, but in our 1992 drilling plan we do have plans
15 that include the drilling of this area.

16 MR. KELLY: What about the area to the north?

17 MR. MORGAN: As of present we have no plans to develop that
18 area. That could change. That's been something that's
19 been on and off the table as an area because our mine
20 plan -- even though it's cut by the fault, we're still
21 not certain what we're going to do in there. It's very
22 close to active mining.

23 MR. KELLY: Thank you.

24 MR. CHAIRMAN: Any other questions? Do you have any other
25 witnesses?

1 MS. McCLAINAHAN: No, we don't. We would ask that all Mr.
2 Albert's testimony from docket number 160 also be
3 accepted for this particular unit application. In
4 addition, we would move the introduction of all the
5 exhibits that we've submitted to you, 1 through 22, for
6 the South longwall panel units 1 through 4.

7 MR. CHAIRMAN: Okay.

8 (Exhibits 1 through 22 of South Longwall Panel
9 Units 1 through 4 marked.)

10 MR. EVANS: I've got one little question on all the exhibits.
11 It appears that you're showing the sealed gob unit as far
12 as the outlines as opposed to just making that -- is that
13 what I'm looking at?

14 MS. McCLAINAHAN: You mean on the isopac maps?

15 MR. EVANS: Yes..

16 MR. McCLAINAHAN: They only have the gob unit lines instead of
17 the --

18 MR. EVANS: I was making sure that that's what I was looking
19 at. That's the gob unit and not this particular unit.
20 So items 6, 7, 8 those particular boundaries are not the
21 unit boundaries that we're discussing right now.

22 MS. McCLAINAHAN: That is correct.

23 MR. EVANS: Thank you.

24 MR. CHAIRMAN: I'll ask you on the Board's behalf to restate
25 what you're asking the Board to do, the relief that

1 you're seeking. You're asking us to establish rules
2 regarded a number of VVHs that may be converted?

3 MS. McCLANAHAN: That is correct. And additional wells that
4 can be drilled within units as long as they're 300 feet
5 from the unit boundary lines.

6 MR. CHAIRMAN: I guess what I want to specifically ask is is
7 that consistent with what you've actually proposed for
8 us to do. Are you asking us for something different
9 than what we've heard testimony on --

10 MS. McCLANAHAN: Than what we've proposed in the application?

11 MR. CHAIRMAN: -- the location of the wells and the proposed
12 well?

13 MS. McCLANAHAN: No, sir. We have not changed that from the
14 application as it's listed.

15 MR. CHAIRMAN: I'm trying to make sure no one gets any
16 surprises here. Any other questions? Mr. Swartz, did
17 you have anything that you wanted to say?

18 MR. SWARTZ: No, Mr. Chairman.

19 MR. CHAIRMAN: Are there any other parties in the room that
20 want to address the Board regarding this case? If not,
21 what's your pleasure, Board?

22 MR. McGLOTHLIN: I have a motion, Mr. Chairman. I make the
23 motion that we approve the application.

24 MR. CHAIRMAN: We have a motion to approve the application.

25 MR. EVANS: Second.

1 MR. CHAIRMAN: A motion and a second. All in favor signify
2 by saying yes. (ALL AFFIRM.) All opposed say no.
3 (NONE.) The motion carries.
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ITEM IV

MR. CHAIRMAN: The next item on the agenda is a petition by Pocahontas Gas for the establishment of a sealed coalbed methane gob unit designated as the BUS2. This is Docket Number VGOB-91/11/19-0159. I would ask that all parties that wish to address the Board regarding this matter to please state your name.

MR. JONES: Mr. Chairman, this is a sealed gob unit very similar, of course, in principle to the application submitted in connection with docket number 161 with regard to the north unit. And we would ask if the Board would agree that we might have accepted as part of the testimony here the testimony of Mr. Carmody who testified in regard to the docket number 161 application. What we would propose then is to again briefly ask Mr. Arrington some questions about the specifics of this application and Mr. Albert to explain any differences between this situation and the earlier one.

MR. CHAIRMAN: Is there any objection, anyone that wants to address the Board regarding this? Is that acceptable to the Board? Okay.

MR. McCLANAHAN: The first witness we would like to call is Mr. Arrington.

1 LESLIE K. ARRINGTON

2 a witness who, after having been previously sworn, was
3 examined and testified as follows:
4

5 DIRECT EXAMINATION
6

7 BY MS. McCLANNAHAN:

8 Q. Could you state your full name for the record, please?

9 A. Leslie K. Arrington.

10 MS. McCLANNAHAN: And the Board has indicated it will accept
11 his qualifications from the previous hearing.

12 MR. CHAIRMAN: That is correct.

13 Q. (Ms. McClannahan continues.) How much of the coal estate
14 is controlled by Pocahontas Gas Partnership in the BUS2
15 sealed coalbed methane gob gas unit?

16 A. 100 percent of all coal below drainage.

17 Q. And what percentage of the oil and gas is controlled by
18 Pocahontas Gas Partnership in this particular sealed gas
19 unit?

20 A. One hundred percent.

21 Q. And what percentage of the coalbed methane gas is
22 controlled by Pocahontas Gas Partnership?

23 A. One hundred percent.

24 Q. Are these the same ownership control percentages that
25 were listed on the application as you filed it?

1 A. Yes, they are.

2 Q. Have all parties in the BUS2 sealed coalbed methane sub

3 gas unit executed a unit in pooling designation agree-

4 ment?

5 A. Yes, they have.

6 Q. Will each of the tracts in the BUS2 sealed unit partici-

7 pate on a surface participation basis?

8 A. Yes.

9 Q. Are the plat and acreage totals that are listed on the

10 exhibit also the relative contribution that each tract is

11 expected to make to total BUS2 production?

12 A. Yes, it is.

13 Q. Who are the owners of the coal below the Tiller seam?

14 A. Hugh Macrae Land Trust and Consolidation Coal Company.

15 Q. And do you have coal leases from both those parties?

16 A. Yes.

17 Q. Are the ownership percentages that you've just indicated

18 to us as shown on Exhibits 1, 2, and 3 of the booklet

19 that we have submitted to the Board?

20 A. Yes, they are.

21 MS. McCLAIN: I would move the introduction of those three

22 exhibits.

23 MR. CHAIRMAN: Without objection.

24 (Coal Control Map marked as Exhibit 1.)

25 (Oil & Gas Control Map marked as Exhibit 2.)

1 (Coalbed Methane Control Map marked as
2 Exhibit 3.)

3 Q. (Ms. McClannahan continues.) Was a notice of hearing
4 mailed to the parties that are contained in the applica-
5 tion for establishment of this drilling unit?

6 A. Yes.

7 Q. Is that hearing notice that was mailed listed at Exhibit
8 4?

9 A. Yes.

10 MS. McCLANNAHAN: I would move the introduction of that as
11 Exhibit 4 to the hearing transcript.

(Hearing Notice for BUS2 marked as Exhibit 4.)

13 MR. CHAIRMAN: Okay. Mr. Fulmer, will you verify that?

14 MR. FULMER: I verify that.

15 Q. (Ms. McClannahan continues.) The notice of hearing, how
16 was it mailed to each of those parties, Mr. Arrington?

17 A. Certified mail return receipt requested.

18 Q. And do you have those returned receipts?

19 A. Yes, I do. The originals were given to the Inspector.

20 MR. FULMER: I verify that, Mr. Chairman.

21 Q. (Ms. McClannahan continues.) And are copies of those
22 receipts listed at Exhibit 5 of the application?

23 A. Yes, they are.

24 MS. McCLANNAHAN: I would move the introduction of Exhibit 5
25 as listed in the book submitted.

1 (Return Receipts from Notice Hearing marked as
2 Exhibit 5.)

3 Q. (Ms. McClannahan continues.) There were no unknown
4 persons or addressed for any persons for this particular
5 unit, is that correct?

6 A. Yes, that is correct.

7 Q. However, a notice publication was issued?

8 A. Yes, it was, in the Virginia Mountaineer, the Bristol
9 Herald Courier, the Bluefield Daily Telegraph on 10/24,
10 10/21 and 10/24 respectfully.

11 Q. And do you have proofs of publication for those publica-
12 tions?

13 A. Yes, I do. That has also been previously submitted to
14 the Inspector.

15 MR. FULMER: I verify that.

16 MS. McCLANNAHAN: Those are all the questions I have for Mr.
17 Arrington.

18 MR. CHAIRMAN: Any other questions, members of the Board?

19 (Witness stands aside.)

20 MS. McCLANNAHAN: The next witness I'd like to call is Mr.
21 Randall Albert. The Board will accept his qualifications
22 from the previous hearing, docket number 160.

23 MR. CHAIRMAN: That is correct.
24
25

1 RANDALL M. ALBERT

2 a witness who, after having been previously sworn, was
3 examined and testified as follows:
4

5 DIRECT EXAMINATION
6

7 BY MS. McCLAINAHAN:

8 Q. Mr. ALbert, with regard to the BUS2 sealed gob unit as
9 it's been proposed I believe that is outlined in the map
10 at Exhibit 6, is that correct?

11 A. Yes, it is.

12 Q. And as shown on this particular slide.

13 A. Yes.

14 Q. Could you show us the outline of the boundaries for that
15 particular sealed unit?

16 A. This the boundary of the sealed gob area as shown again
17 to the west. It matches the sealed gob area of BUS1 to
18 the south the mine plan boundary, I will call it, to the
19 north, the mine plan boundary, and to the west it is the
20 same line. Again, the mine plan boundary is as it was
21 with the panel by panel unit, very similar to the BUS1,
22 the BUN 1 or the BUNE 1.

23 Q. How did you determine to use these particular boundaries
24 for this sealed unit?

25 A. Again the western boundary is matched by the BUS1 unit.

1 The southern boundary is the same as any boundary.
2 Behind the longwall we come to the edge of the bleeder
3 entries. The western boundary is the same as we have
4 done in the past, particularly the southern end of the
5 BUN 1, again to the edge of the bleeder entries. The
6 northern boundary is to the edge of the mains that are
7 along the sealed line.

8 Q. Where will you locate the seals in this particular unit?

9 A. The seals for this particular unit will be across here,
10 across the bleeder path here, probably again across the
11 mains and possibly, depending on what our mine plan is at
12 the time, either across the mouth or across the mains in
13 this area.

14 Q. Will the production and development of this particular
15 sealed unit be the same as the production and development
16 for the BUNE 1 sealed gob gas application that was
17 submitted as docket number 1617

18 A. Yes, it will. Again we will in all likelihood from what
19 we know today produce out of one well per panel. Each
20 panel again will be kept inactive at the 3 seam level.
21 We will pay for whatever gas is produced based on the
22 entire unit size.

23 Q. Are there any other differences between this particular
24 unit production and the Northeast 1 unit production that
25 you haven't indicated to us?

1 A. No, there are no.

2 Q. Besides the fact, of course, that you control 100 percent
3 of the acreage in this particular unit, is that correct?

4 A. Again that is correct. In this unit as in the longwall
5 panel units, we do control 100 percent of the gas, oil
6 and coal and coalbed methane and we do have a voluntary
7 agreement again with the parties for a unit designation
8 pooling agreement.

9 Q. With the exhibits listed at 8 and 9 as we have submitted
10 and you've previously discussed for the Northeast 1 unit,
11 would the development of the wells in this particular
12 area be the same as those of the Northeast unit?

13 A. Yes, they would. Those are the cross sections again of
14 the longwall panels. The discussion and my testimony
15 would be the same for the south units as the north units.

16 MS. McCLANNAHAN: I would move the introduction of Exhibits 6,
17 8, and 9.

18 (USGS Quad Map with Mine Plan marked as
19 Exhibit 6.)

20 (North/South Cross Section Map marked as
21 Exhibit 8.)

22 (East/West Cross Section Map marked as
23 Exhibit 9.)

24 MS. McCLANNAHAN: As previously indicated by Mr. Jones, I
25 would also request that the Board accept Mr. Albert's

1 testimony on the BUNE 1 sealed coalbed methane gob gas
2 unit application for this application and also move the
3 introduction of Exhibits 1 through 13 as we have sub-
4 mitted to the Board for this particular application. We
5 have no further witnesses.

6 MR. CHAIRMAN: Any questions, members of the Board?

7 MR. EVANS: I've got a question and it's more for my own
8 information, though, than anything else. You say that
9 there is a potential for further coal recovery south of
10 this unit and you're going to leave the mains open. How
11 are you going to maintain those mains with two sealed
12 units buttercupped against each other?

13 MR. ALBERT: I feel it would be more proper for Mr. Morgan to
14 answer that than myself, if that pleases the Board.

15 MR. MORGAN: Mr. Evans, could you repeat your question. I
16 couldn't hear you for the fan over here.

17 MR. EVANS: A potential for the recovery of the coal still
18 exists south of this unit and you've got two units that
19 are going to be sealed for the comment of area, how are
20 you going to maintain access? It's just a question -- I
21 want to know how we're going to get down there.

22 MR. MORGAN: It's not really a common barrier. We have
23 adopted a common line between units to eliminate any
24 little gap that runs through between the sealed units.
25 There is a barrier to be left at each side of these

1 mains. There's about a 200 foot barrier between the
2 gates here in these mains and there's 300 to 400 foot
3 barriers between the mains here and these lines. We
4 brought the line to the middle here just to prevent
5 anybody from losing out.

6 MR. EVANS: Thank you, sir.

7 MR. CHAIRMAN: Any other questions?

8 MS. McCLANNAHAN: That's all we have.

9 MR. CHAIRMAN: Okay. What's your pleasure, Board?

10 MR. EVANS: I move we accept the application as submitted.

11 MR. CHAIRMAN: We have a motion.

12 MR. McGLOTHLIN: Second.

13 MR. CHAIRMAN: A motion and a second. All in favor signify
14 by saying yes. (ALL AFFIRM.) All opposed say no.
15 (NONE.) The motion carries. Ms. McClannahan, I would
16 like for you to prepare a draft of the orders for these,
17 please.
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ITEM VII

MR. CHAIRMAN: The next item on the agenda is a petition by OXY, USA, Inc. for the establishment of drilling units in the Oakwood Coalbed Methane Gas Field in Buchanan, Russell and Taxewell Counties of Virginia for unsealed gob gas, short hole gas, long hole gas, and gas from increased density wells underlying the subject lands located in Buchanan County, Virginia. This is Docket Number VGOB-91/11/19-0162. I would ask those that wish to address the Board regarding this proposal to please identify themselves.

MR. SWARTZ: Mark Swartz and Howard Salisbury, counsel for OXY.

MR. CHAIRMAN: Any others?

MR. JONES: Mr. Chairman, we reserve the right.

MR. SWARTZ: This is an application for field rules that encompassed the Oakwood field. I've given you all an outline which is Exhibit K. This is a reference to some of the testimony that can expect to hear and an explanation, I think, of the salient features of the plan that we're proposing -- the field rules plan that we're proposing today. I'd like to give you an introduction which I think will save time. So I'm just going to proceed with that introduction and given an over view of

1 what this proposal contemplates. Mr. VanGolen will
2 testify. Mr. Wilson will also testify with regard to the
3 characteristics of the field, some drainage issues with
4 regard to the original Oakwood order. He participated
5 and testified when that original order was entered. And
6 I will have some brief testimony as well from Steve
7 Breeding of Island Creek Coal with regard to mining
8 techniques insofar as they might impact on field rules.
9 The starting point of the field rules so that you
10 understand where we're coming from, Exhibit A which was
11 submitted with the application is essentially a copy of
12 the Oakwood field that was dealt with in the original
13 order of May of 1990. I'm representing to you that
14 limits scope of what we're asking today is coextensive.
15 It is identical to the Oakwood field and Exhibit A that
16 was tendered with the application is the same grid. The
17 only difference, and there will be testimony later,
18 between what you see on Exhibit A for these field rule
19 applications and the Oakwood map is that the units that
20 we're talking about, the 80 acre units, which are the
21 same grid, the same size and the same location, do not
22 have drilling units. You'll notice that this is not a
23 second square in here off set 300 feet. This application
24 does not seek to have drilling windows established for
25 short hole production, long hole production, increased

1 density wells, or active gob. And there will testimony
2 that will explain to you why we think there a need not to
3 have drilling windows for those kinds of production.
4 These field rules will not change the Oakwood rules that
5 are already in place. So if you come in and you drill a
6 CBM well in one of these 80 acre units under the Oakwood
7 field you're going to be in the drilling, you're going to
8 have a drilling window to contend with, and you're going
9 to have that to contend with. These rules would only
10 come into play if there were secondary production. I'm
11 using that term in sort of a general sense. But if there
12 was production in addition to the initial CBM well that's
13 contemplated by the Oakwood rules, all of the kinds of
14 production that we're talking about in these units
15 essentially are associated with mining because we're
16 talking about increased density wells dictated by mine
17 plans which can be located anywhere at the request of the
18 mining company as the statute provides. I'm talking
19 about long hole and short hole gas and active gobs. So
20 the three kinds of production that this order would apply
21 to would be production associated with a mining process.
22 Our plan really has little, if anything, to do with
23 mining in the sense that it's a uniform plan for the
24 whole field which I recall is about 100,000 acres, to
25 the extent it deals with mining and there will be

1 testimony and there are examples in the outline. It does
2 address how do you allocate production from long holes,
3 short holes, gob gas unit, gob gas or active gob coming
4 out of longwall panels. How do you allocate it between
5 80 acre units and then also how do you allocate cost for
6 increased density wells. To the extent that there are
7 going to be costs associated with long hole or short hole
8 gases. If you want to allocate back to participants or
9 carrier operators, how do you allocate those costs.
10 Essentially what we're talking about and will be talking
11 about in the application today is we would start with --
12 what we're going to try to do is show you the methodology
13 that we have came up with which we believe allows the
14 allocation of cost, the allocation of production, within
15 the 80 acre units that were originally set up for this
16 field and works basically with any mine plan you've ever
17 came up with. When we initially dealt with the Oakwood
18 field rules we took mining into consideration and we
19 believed it would work. Essentially we are now getting
20 to a point where sometime early next year there will be
21 production from mining or associated mining by Island
22 Creek that we need to bring on in mining and we believe
23 that our proposal accommodates virtually any mining plan
24 you could imagine and allocates production for revenue
25 fairly between units. It takes the relevant factors into

1 consideration in allocating both production and cost.
2 The kinds of things that you see in mining and you have
3 already heard about that. Potentially -- and these
4 address long holes. And long holes are holes that are
5 drilled into the ribs and into the face in a coal mine
6 where you've got development and this is an entry, and
7 you can drill a long hole the length of the longwall
8 panel. You can drill it in the proposed entries to drain
9 gas. So what we're going to dealing with is how do you
10 allocate production from long holes in panels to a group
11 of 80 acre units. We also going to be talking about how
12 you allocate production from short holes to panels and to
13 groups of 80 acre units. How do you allocate gob gas
14 production on an ongoing basis among the 80 acre units
15 we've seen. In addition, and this is the last thing that
16 we want to consider, is you start off with a primary
17 development where you have CBM wells and these are in the
18 unit, but you have the conventional coalbed methane wells
19 that we've been talking about for about a year that we
20 can pool. And at some point as the mine plan point
21 begins to get closer you're going to drill increased
22 density wells. What we have done here is shown some
23 increased density wells which we are calling -- you
24 distinguish them as VVHs. We see that there's not a
25 spacing in the panels driven by the line increase for

1 these VVHs. And you have more of them and how are you
2 going to allocate production. Essentially what we are
3 going to be talking about today is how do you take the
4 various methods of production that come along as a
5 secondary phase of production into consideration and what
6 is a simple fair way of allocating this production to
7 units given due consideration to physical waste, economic
8 waste, due consideration to correlative rights and a fair
9 share of the production from any given portion of the
10 acreage owned by any given mineral owner. So that's
11 what we're going to be talking about today. And the
12 goal, I guess, is to demonstrate to you that the problem
13 we need to be addressing with field rules is not whether
14 or not mining can take place. The statutes that we're
15 dealing with here give mining companies the absolute
16 right to say where they need a VVH and how many they
17 need. So that's not really -- to some extent the mine
18 plan will call the shoots because of the way the statute
19 is worded. So we're not talking about whether or not
20 that's going to happen. It's going to happen. But what
21 we are talking about is what is a fair way to deal with
22 royalty owners, people who want to be carried, people who
23 want to participate, when you have this secondary
24 development. Some of things that we need to talk about
25 and think about are when is it fair to make people pay

1 for increased density wells? Should someone who wants to
2 participate in one of these units have to pay for all of
3 the VVHs and all the CBMs up front to participate or
4 should the CBMs be drilled, participation occur, and as
5 increased density wells are added as they are needed in
6 advance of mining, should there be a second participa-
7 tion? With regard to royalty interest owners, there are
8 different sorts of royalties out there on leases. Some
9 of are escalated and they escalate at a point in time
10 when the lessee has recouped a certain amount of costs.
11 If you allow all the costs to go in up front, that
12 royalty escalation is delayed perhaps for five years,
13 perhaps for ten years, because it's not going to pay out
14 until mine through comes. The same thing happens with
15 carried operators. If you load costs up front early the
16 amount of cost that have to recouped and the multiple of
17 cost is going to be a greater number that will not occur
18 but from mine through. The other problem -- and this is
19 the last thing and we'll move into the testimony -- that
20 you need to focus on is mine plans change and one of the
21 things that our proposal is attempting to do is what
22 happens if your mine plans change? If you go in, and we
23 know from the preexisting Oakwood order that all you need
24 under that order to drain one of these units is one well,
25 so if mining doesn't occur in these wells or allowed to

1 last their life expectancy of fifteen to twenty years,
2 they're going to drain these units and you're going to
3 have a one well cost to do that. If you drill additional
4 wells to increased density and mine through does not
5 occur, you've got a well on there that didn't make
6 economic sense that doesn't make economic sense that
7 increased the cost and if someone has been carried, will
8 it ever pay out? And the focus of our plan is that if
9 development is phased you are less likely to have
10 problems down the road trying to -- I mean, if your mine
11 plans change and mining doesn't occur here, how do you
12 back all this out? Do you need to back it out? Do you
13 need to reallocate royalty? And essentially what our
14 plan takes into consideration is that mine plans occur in
15 stages, production occurs in stages, mine plans are
16 subject to change and the VVHs do not go in until the
17 mine plan is relatively close to (Inaudible.) So the
18 chance that it's not going to happen or that it's going
19 to be changed is lessened and that the money is spent
20 more closely in time and allocated to participants or to
21 people who want to be carried more closely in time to the
22 point at which it's likely to pay off. The increased
23 density wells are likely to pay out in event of mine
24 through. As production, is it going to make sense for
25 more than two wells or more than one well or three wells

1 or four wells. With that introduction, I'd like to call
2 Glen VanGolen as my first witness unless you all have any
3 questions about where we're headed.

4 MR. CHAIRMAN: Any questions? Okay. Call your witness.

5 CLERK: (Swears witness.)
6
7

8 GLEN VANGOLEN

9 a witness who, after having been previously sworn, was
10 examined and testified as follows:
11

12 DIRECT EXAMINATION
13

14 BY MR. SWARTZ:

15 Q. State your name, please.

16 A. Glen VanGolen.

17 Q. I will remind you that you are already under oath. Mr.
18 VanGolen, did you participate in the preparation of the
19 application for the establishment of drilling units that
20 are under consideration?

21 A. Yes, I did.

22 Q. With regard to this application, does the application
23 cover the existing Oakwood field, the same area as the
24 existing Oakwood field?

25 A. Yes, it does.

- 1 Q. And what seams does it cover?
- 2 A. All the seams below the Tiller all the way through
- 3 including the Pocahontas #2 seam.
- 4 Q. Are those the same seams that were covered by the
- 5 original Oakwood order?
- 6 A. Yes, it is.
- 7 Q. Does the application that's under consideration today for
- 8 field rules address the same pool or reservoir that was
- 9 recognized by the predecessor of this Board in the
- 10 original Oakwood order?
- 11 A. Yes, it does.
- 12 Q. What kind of production is contemplated by the applica-
- 13 tion that's under consideration today?
- 14 A. All the long hole, short hole and unsealed gob production
- 15 and increased density wells.
- 16 Q. We have some definitions of that and if you could maybe
- 17 put those on the screen and quickly tell the Board what
- 18 we're talking about in terms of the various kinds of
- 19 productions.
- 20 A. I think most everybody has been through some of this
- 21 today, but so to clarify to where we're going here, this
- 22 is basically straight from the statute. Gob production
- 23 is from the D stress zone and it's after longwall mining
- 24 has gone through. The mined out area occurs dropping the
- 25 over burden and you change reservoir characteristics

1 within that area. You change permeability. You've gone
2 from a millidarcies to a darcies flow. You've done some
3 things there that alter your reservoir parameters. The
4 active gob production in a non-sealed area, these are
5 wells that are associated with this gob area. Typically
6 vertical bore holes drilled in advance of mining from the
7 surface typically make very little gas initially.
8 They're not stimulated. They can be stimulated in the
9 case of some operators. But after longwall mining occurs
10 they have tremendous fresh production, tremendous volumes
11 of gas liberated, and we hope to be able to incorporate
12 that into our production scheme. These are the coalbed
13 methane gas wells that are contemplated in the Oakwood
14 field rules. These were vertical bore holes drilled
15 either through the 3 seam or on top of the 3 seam or at
16 some point where you can perform a frack job, frack for
17 stimulation and enhance permeability, get flow, and
18 produce under normal oil and gas methods. Short holes,
19 you've heard some about this today and Mark's explained
20 some of this, these are horizontally drilled wells
21 initially hooked up to a pipeline, brought to the surface
22 from a vertical well bore. As they are mined through
23 they are brought off line, they are fused with water for
24 dust control. They vary in life. Typically short holes
25 are in there for only a year. The length of time the

1 panel exists. But the gas is and can be maintained or
2 will be tried to be maintained pipeline quality and can
3 be produced and brought to the surface and production
4 hopefully allocated if we get everything going here on a
5 longwall basis. This is some technology that is current-
6 ly being done or contemplated. These are basically the
7 same thing as short holes. What we're trying to do is
8 extend the length of these longwalls. What we are hoping
9 for is anywhere from 3,000 to 4,000. If we can go 5,000
10 feet, great. It's the same kind of things. It's
11 horizontal drilling technology and the whole idea is degas
12 prior to mine throughs and entry ways and long holes in
13 longwall panels. And this will be connected to the same
14 pipeline system underground and then brought to the
15 surface through the same vertical bore hole.

16 MR. SWARTZ: Obviously, all these productions need to be
17 metered in a way where we can allocate and distribute
18 production among all the interested parties. The thing
19 you've also heard some about today is the sealed gob
20 production. Now, this application does not contemplate
21 the sealed gob production. We're excluding that from
22 this. We feel that it's better addressed by what the
23 Board has previously approved where there's a redefini-
24 tion of the area that's contributing to the sealed gob
25 and we don't feel that this application will work for

1 this. Let's move to the heart of the matter in terms of
2 how these field rules address allocation issues. You've
3 got some pens there and I'm not real concerned what order
4 you take this in, but I would like to explain to the
5 Board -- one of things that you need to understand is
6 that this application requests specifically that the
7 Board approve an allocation methodology which would
8 require the filing of mine plans. In other words, we
9 would be allocating based on mine plans. So you need to
10 understand that one of the things we're asking in this
11 application is that the Board approve a generic alloca-
12 tion of production methodology that would require filing
13 of mine plans on which the allocation is based. So this
14 is not a hypothetical. In terms of your interest in it,
15 we're actually asking you to do something along these
16 lines.

17 A. (The witness continues.) I'm just going to doodle here,
18 so if you guys have questions I will bring the scenario
19 up and then you can ask your questions. Basically what
20 we're talking about here is just a production allocation.
21 You've got 80 acre units with longwall panels inside the
22 80 acre units. Initially, as you see on some of this
23 diagram, we might have some CBMs in here that have been
24 fracked, have been stimulated and produced for a period
25 of time. They are under the Oakwood field rules. At

1 some point in time as this plan gets defined -- as this
2 panel becomes a defined area, we started driving entries,
3 we see it's isolated. There's a period in here where a
4 guy might have to come in and drill a few VWs to help
5 out, you know, most likely. We're talking -- each panel
6 has anywhere from four to six -- you've seen seven VW
7 panel this morning. These wells will be drilled. The
8 production will be metered at each of these points and
9 brought forth on this longwall panel and allocated back
10 to these 80 acre units. So, in other words, if this
11 panel based on surface acreage has 20 percent, this guy
12 here has got 50 percent and this guy here has 30 percent
13 of the total acreage associated with that longwall panel,
14 you're going to take the production from all four wells
15 and 50 percent is going to get allocated to everybody in
16 this unit. Twenty percent of all the production in this
17 panel will be allocated to all the people in this unit.
18 The whole idea is here these people have participated in
19 an 80 acre unit and are entitled to the gas under that 80
20 acre unit in some manner. You're not going to distribute
21 across a new unit line. They've put their money up
22 front. They're participating. They've been pooled and
23 they've been carried. They're entitled to this gas.
24 Q. Let me interrupt you for a second, Glen. From a drainage
25 standpoint the original Oakwood field rules were predica-

1 ted on some assumptions with regard to the geology in
2 drainage. And what happens to those assumptions with
3 regard to drainage when you start isolating longwall
4 panels by driving entries and so forth?

5 A. Obviously, if you had this well here and had frack
6 through it and you started isolating this you've now
7 limited the length of that frack at least in that seam.
8 Your other seams, your up hole seams, still have your
9 frack, still have your extension. They're still effect-
10 ively draining this upper burden on top of this 80 acre
11 unit. They're still entitled that production of the 4
12 seam and 5 seam and the 7 seam. As this gets isolated
13 production scenarios are going to change in that panel.
14 You've not got a -- in the case that you start mining in
15 through here, you're going to start gob in this well
16 here. The people in this unit are entitled that gas,
17 allocated among the same acreage basis here among this
18 unit. Now, you've cut this wing here and you have
19 limited production and also you have this tremendous gob
20 gas and you're still going to allocate to all the people
21 of this unit. Just because you put these fictitious
22 boundaries in there, they're still entitled that gas. If
23 you get another panel in here, the gas that's underlain
24 by this acreage here is going to be allocated back to
25 them. The same here. It will be allocated back to these

1 people based on the percentage of the longwall panel.

2 MR. CHAIRMAN: What's to prevent you from -- if you have
3 ownership of the acreage within the center unit only,
4 what's to prevent you from drilling your wells there and
5 still draining effectively the two outer units without
6 any pay?

7 MR. SWARTZ: These field rules.

8 MR. CHAIRMAN: How would they do that?

9 MR. SWARTZ: Because they would require you to allocate.

10 MR. CHAIRMAN: Maybe I missed something. I thought he said
11 the allocation would be based on the number of wells
12 within that unit.

13 MR. SWARTZ: No. The allocation will be based on the surface
14 acreage of this total panel. Say this well's not even
15 here. It wasn't even drilled. As you come along and gob
16 this area and continue to mine, essentially this gas is
17 going to contribute to the over all production in this
18 panel. You're creating darcie flow. You've extended the
19 reservoir parameters beyond anything we could think of.
20 So the gas under this is also contributing to the over
21 all production in this panel. This guy should reap in
22 the benefits of the production. He should also be
23 allocated some of the cost of the production in these
24 wells, operating costs, things like that. He doesn't
25 only get the benefits, he also gets some of the costs

1 associated with it. And all the people within this unit
2 contributed in that. They were entitled that gas in the
3 first place.

4 MR. MCGLOTHLIN: Joe Blow owns the entire C 80 acres and he
5 owns it in fee. And you come in and you mine and he
6 doesn't lease to OXY, but yet 30 percent of the longwall
7 is underneath his ground and he's going to get 30
8 percent of the money. But you want to go back and charge
9 him 30 percent of the cost when he wanted nothing to do
10 with it to begin with?

11 MR. VANGOLEN: The premise here is that OXY OPC controls the
12 coal lease in which we are at least a claimant. Whom
13 ever mining the coal is at least a claimant. It doesn't
14 need to be OPC OXY. This unit would be coming before the
15 Board to force pool three units at one time. When we
16 came before the Board we would outline this plan, the
17 number of wells, the cost allocations, everything
18 associated with those units. You would be able to see
19 that the panel has been outlined, the mine plan is in
20 place, the entries have been driven, here is the number
21 of wells anticipated. It may be that there's going to be
22 an emergency VWH drilled there because the mine's getting
23 in trouble. Chances are we're not going to have time to
24 get a permit to go and put a line in there anyway. It's
25 going to be done by the coal company. There's going to

1 be no way to get production associated with that well.
2 In that incidence it's going to be bad. Unfortunately,
3 we don't have a mechanism to have an emergency permit.

4 Q. (Mr. Swartz continues.) Getting back to Kevin's question
5 though, is the fellow in C who owns the 80 acres in unit
6 C in fee going to be offered the election options
7 because he's going to be forced pooled?

8 A. Yes. He's going to be forced pooled. He's going to have
9 the same elections option. He's going to be able to
10 participate in 30 percent of that unit. He's going to be
11 able to be carried, leased.

12 MR. MCGLOTHLIN: Okay. The same scenario. Let's say you're
13 at the center of the boundary of coal, between ownership
14 between anywhere and Joe Blow again owns 500 or 600
15 acres in fee and you drive the mine up right through his
16 property and you're getting the gas off that and you're
17 going to bleed some gas from his profit. You don't have
18 it forced pooled. It's --

19 MR. VANGOLEN: Let's say that was a mine property boundary.
20 This acreage would also be forced pooled in this unit.
21 So Joe Blow who doesn't have anything in this mine is
22 also going to have the right to participate. He's in
23 that unit. He's entitled to a production and share in
24 allocation of production.

25 MR. MCGLOTHLIN: It's coming together.

1 MR. VANGOLEN: That's all the application is is an allocation
2 of production. It establishes the same units and --
3 probably the easiest one to first realize and this also
4 explains why you really can't have a 300 foot off set,
5 when you start doing short holes and all this is brought
6 to some point over here not even in the same unit, you're
7 going to be allocating production to these three 80 acre
8 units based on this surface acreage. As you start mining
9 and you start dropping off short holes you're right by
10 here, this guy is still going to get a share of the
11 production of the gas. Likewise, when it was producing
12 under his acreage he was contributing to this guy who's
13 also receiving a share in production.

14 MR. MCGLOTHLIN: Cover the short holes and the drilling
15 windows.

16 MR. VANGOLEN: One other reason why you don't can't have
17 drilling windows is you've got these short holes in the
18 middle of the panel and you can see that the short holes
19 are not dictated by any kind of a 300 foot window. I
20 mean, they're going to be where they've got to be. The
21 same thing might be with a VVH that's already there.
22 You can't have an off set provision for these kind of
23 productions. It's dictated by the mine plan.

24 MR. MCGLOTHLIN: Well, the drainage area for short holes is
25 going to be what, thought? It's going to be definable by

1 the panel that they're drilled into. It's not the
2 geology of the field.

3 MR. VANGOLEN: Right. It's the whole panel that the short
4 holes are drilled into, the whole length of the panel,
5 where the production comes from.

6 Q. (Mr. Swartz continues.) And we have a little different
7 proposal for long holes as I recall. Glen, can you give
8 them an indication of what we --

9 A. Long holes are a little different animal. To the extent
10 that you can define a drainage area, they're drilled into
11 a previously isolated or anticipated isolated longwall
12 panel or soon to be isolated longwall panel. What we're
13 recommending is that you do it on a per foot basis. So
14 if this 5,000 long, 2,000 of this long hole is in this
15 panel, 2,000 feet is in this panel, and 1,000 feet in
16 this panel, this guy here is going to get two-fifths of
17 production. Okay. This guy would get two-fifths of
18 production. This guy gets one-fifth of the production of
19 this longwall as it's metered right here. Just allocate
20 it on a per foot basis. The assumption is that basically
21 the pressure along that whole long hole is in virgin
22 area. The mechanism is going to be essentially the same
23 along the whole long hole, diffusion rates are the same,
24 and you can allocate it based on a per foot basis.

25 Q. Although allocation of costs are not really an issue on a

1 field rule, I'd like you to spend a moment and we're not
2 asking you to enter an order with regard to the alloca-
3 tion of cost because that comes up on pooling, but I
4 think for this to make sense there has to some explana-
5 tion with regard to cost. In general are we proposing
6 that there's to be an agreement in place with regard to
7 future development and cost allocations?

8 A. We're going to allocate cost the same way we're going to
9 allocate production. In other words, if we've got four
10 wells in this panel that cost \$100,000,000 and in the
11 case over here where this guy doesn't have a well but
12 he's receiving production, he's going to be paying for 30
13 percent of the cost off all the cost of that panel. It's
14 not just this guy, though. It's everybody in this unit
15 that's going to be contributing in that. They're all
16 going to share in the productions, they're all going to
17 pay their appropriate cost.

18 Q. In terms of participation would the JOA that we're
19 recommending be incorporated in any pooling order? How
20 does the JOA handle participation costs or how are we
21 proposing that it be handled? Are they all going to be
22 paid up front or are they going to be paid as development
23 proceeds?

24 A. No. They're all going to be paid as development pro-
25 ceeds. And obviously as the panel is isolated and

1 defined you're not looking at a definable time. It may
2 be three years from now. They may be pooled this year,
3 but costs aren't going to hit till three years from now.
4 That's when you're going to have the JOA in place.
5 You're going to have the wells drilled and the approp-
6 priate costs and elections are made to each of the people
7 in those 80 acre units. Now, one of the reasons we're
8 recommending the JOA is it provides for the same type of
9 elections as a pooling does. A guy can come in here and
10 participate in the first well. We've got his coalbed
11 methane well right here. To the extent we've got an
12 increased density well coming in here, he might have
13 participated in this well. The JOA provided that he can
14 go non-consent in this well. If he doesn't like it, if
15 he doesn't want to be any part of this business here, he
16 can go and not consent. It's the same type of provision
17 as a forced pooling arrangement till some pay off
18 calculation or 300 percent, 200 percent or whatever, then
19 he backs back in.

20 Q. Let's put that in layman's language. If he goes non-
21 consent on the second well, once a multiple of 300
22 percent of the well costs and 100 percent of some other
23 cost is recovered he comes back in, is that what you're
24 telling us, into the revenue stream?

25 A. Right. He comes back in and it becomes his working

1 interest owner proportion to the share of this 80 acre
2 unit. If he went non-consent in this and he decides that
3 hey, this is a pretty good deal, I want to get into this
4 gob gas business, he wants to participate in this well,
5 the JOA provides that he first back in or go back to here
6 and participate in the first well before he has a right
7 to participate in the second well. And this is normal
8 oil and gas increased density JOA type language.

9 MR. MCGLOTHLIN: If he elects to go back and participate in
10 the first well can he be carried on that first well as
11 well as the second one?

12 MR. VANGOLEN: If he originally deemed a lease, I guess he's
13 always deemed a lease. I don't know. He's assigned his
14 acreage to you, so he really doesn't have an election on
15 the second well. If he wanted carried on the first well,
16 then he's got an election in the second well. He can be
17 carried again or if he wants to participate in that one,
18 go back and pay his fair up front costs in the first and
19 get them even.

20 MR. MCGLOTHLIN: But he doesn't elect to participate in the
21 CBM well and now you're putting in a gob well and you
22 offer the participation there but he's got to go back
23 and participate in the first well, can he say okay, I
24 want to participate but as a carried participant?

25 MR. SWARTZ: What Glen's trying to tell you is it depends on

1 what he did in the first instance. If he elected to
2 lease he's leased for all time. So we've got to throw
3 those people out of the equation. If he's deemed to have
4 leased initially, his election was that he was deemed to
5 have leased, he's not going to get an opportunity under
6 the JOA. Now, that's something that you may want to
7 tinker with, but as the JOA is drafted that's the way
8 it's drafted. If he elected to be carried or participate
9 in that first well he has an ongoing option to be carried
10 or participate or either one as it progresses.

11 MR. VANGOLEN: If he elected to be carried in the first one
12 he's just a delayed working interest owner for whatever
13 happens in that unit. That's all carried is.

14 MR. MCGLOTHLIN: Okay. Let's tinker with that.

15 Q. (Mr. Swartz continues.) Let's move off of cost. I
16 wanted to give you some sense of how they can be allocat-
17 ed and how we would suggest that they be allocated with
18 an agreement. Let's move on to questions of -- we have
19 also asked for some relief with regard to existing wells
20 and we have also delineated a mechanism for dealing with
21 existing wells that have been forced pooled or units
22 that have been forced pooled. Could you explain to the
23 Board those two and if you need the application to refer
24 to I'll lend it to you, but can you explain to the Board
25 what we're talking about dealing with with regard to

1 existing wells or existing permanent wells in terms of
2 this application of these proposed rules?

3 A. To the extent this CBM is not effect by any part of the
4 mining process, it still continues to produce under the
5 Oakwood field rules. It's had little effect to it.
6 People have participated in it or been carried in it.
7 It's going to continue to produce especially from the
8 seams. It's going to continue to go on. To the extent
9 that this CBM which was originally drilled under the
10 Oakwood field rules is effected by a mining process, it
11 would now be covered under this application, once it's
12 isolated and once it's defined, entries driven around
13 this panel, and something has been done to isolate it
14 from the Oakwood field rules.

15 Q. Are we asking or contemplating that before you can
16 produce anything other than the primary CBM out of that
17 unit it would require another trip to the Board to force
18 pool under these field rules?

19 A. Right.

20 Q. So the people would have another kick at participating or
21 not participating and at the cost issues.

22 A. All these wells that were previously pooled under the
23 original Oakwood field rules are going to need to be re-
24 pooled under this new order.

25 Q. Only in the event, though, that mining impacts it?

- 1 A. Only in the event that mining impacts it. There's new
2 elections. There are other things that are contemplated
3 and they have a right to know how their production is
4 going to be effected.
- 5 Q. For the future with regard to -- essentially we are going
6 to have two overlying units. We're going to have
7 traditional CBM units in the Oakwood field order and we
8 would have these secondary production units. For future
9 poolings, units that have not been pooled as yet, would
10 you contemplate that in most instances both interests
11 would be pooled on one trip to the Board?
- 12 A. Yes, it would. Hopefully in those instances we would be
13 able to come forward to Board and show mine plans
14 especially in those units that need to be handled in that
15 manner.
- 16 Q. With regard to two issues I'll identify the issues and
17 then you can take them in any order. To what extent have
18 you considered drainage and correlative rights and
19 economic issues in recommending these rules or devising
20 this mechanism and recommending it to the Board?
- 21 A. Correlative rights, let's take that one first. We've
22 studied drainage patterns. Dr. Wilson can also provide
23 more testimony to that. We understand the correlative
24 issued within the 80 acre unit and how they need to be
25 protected at least under the Oakwood field rules and how

1 that carriers into these other productions that these
2 people are entitled to their gas. We feel that this
3 mechanism of allocating among the unit allows for equal
4 distribution of revenues and equal distribution of gas
5 and all parties are protected. You don't have any --
6 you're not leaving this guy out of the equation. He's
7 part of that unit. You're not leaving these people out
8 of that equation. They're participating. So we feel
9 that this is a mechanism that protects correlative
10 rights.

11 Q. Drainage?

12 A. Drainage. Because obviously once the panel is isolated
13 drainage issue is pretty easy. Consol's had testimony
14 today. Our testimony really doesn't deviate from that.
15 We see the same things pretty much. Once we've got this
16 panel there needs to be a new order in place. You can't
17 just go under the Oakwood field rule. That's why they're
18 limited to conventional production. That's why we need
19 this order. It protects drainage and allocates drainage
20 and gas all through there.

21 Q. What are the economic considerations that you've reflect-
22 ed upon in proposing to stay with the 80 acre units in
23 terms of participation costs and other costs allocations?

24 A. One thing it allows us to do is it allows people who have
25 interests in these units to continue to participate, to

1 continue to enjoy their estate and participate and reap
2 economic benefit under their estate. If they don't want
3 to participate, they don't have the money or they see
4 something they don't like, then they can elect similarly
5 under the forced pooling to reap some benefit through a
6 royalty mechanism but not have to contribute any money.
7 Economically these wells -- there are several classifica-
8 tions here. To the extent that the well already exists
9 and has been drilled for mining purposes, as an oil and
10 gas company if we have to buy that from our coal company
11 for some fair market value you can get into a pretty good
12 argument of what that is, but we think it's a liability
13 to them. They think it's worth a bunch. But to the
14 extent that we have to buy that from them at a reasonable
15 rate, obviously under a prudent operation standard we're
16 not going to do anything excessive. We think it's going
17 to be economic, then that's the rate we're going to pay
18 for that and that cost should be allocated in that. To
19 the extent that we can demonstrate that to drill four
20 wells economically produces this longwall panel, drill
21 new wells -- new CBM wells in this panel, and we can
22 demonstrate that, then all of those costs ought to be
23 included in that. To the extent we can only demonstrate
24 that four wells economically drain there but there needs
25 to seven in there, prudently I can't come before you and

1 do that. So you're going to allocate four wells or
2 whatever you think we can demonstrate.

3 Q. In terms of correlative rights, could you focus on either
4 situation where you have an escalating royalty or you
5 have someone who opts to be carried and the initial CBM
6 well is drilled and then two or more increased density
7 wells are drilled within the unit and the economics of
8 the ups and downs side of the mine plan changes as it
9 might impact on that from a correlative rights and
10 economic waste standpoint?

11 A. One of the things that we have, and there is a number of
12 escalating royalty leases, it's the same way with carried
13 interest, the more you throw into the front end of this
14 thing the longer the delay is going to be for the pay
15 back, the longer the reversion is. In some of our
16 leases it's a sixteenth escalates to a fifth. That's a
17 significant jump there. To the extent that you have one
18 of these wells with the 80 acre units and you have these
19 increased density wells come in later, you're not going
20 to allocate those costs until this well is isolated. So
21 if that's not isolated, that panel isn't isolated five
22 years from now, that's when that goes back into that pay
23 off calculation or that's where it goes back into the
24 carried interest calculation.

25 Q. Do you want to actually set a sum care in when you drill

1 increased density wells on any given 80 acre unit if
2 you're going to pay attention to correlative rights and
3 economic considerations in relation to mine plans?

4 A. Yeah. Obviously when you put in these costs and depend-
5 ing on the royalty situations you've got correlative
6 rights issues that need to be protected. You have to
7 look out for your royalty owners. And this mechanism
8 allows you to do that.

9 Q. For example, if you've got three wells on that unit A,
10 one regular CBM well and two increased density wells, do
11 you have an opinion as to whether or not those three
12 wells are likely to pay out or the royalty is likely to
13 escalate in the absence of a mine through and gob gas
14 production?

15 A. It is doubtful. If you had three wells there that are
16 not mined through at some point you've got a mine plan
17 change. If you just have a panel that would change and
18 this well now ends up in an entry, all of a sudden
19 economics hit head, you're going from 650 foot panels to
20 1,000 foot panels to 1,200 panels. You've effected
21 what's production. You might have had the best inten-
22 tions of all in the first place when you drilled these
23 wells. You've tried to beat a tax credit. You've put
24 all these wells next year at the anticipation of not
25 rolling them in for another two years into this provision

1 and also you've got a mine plan change. This well is no
2 longer mined through. You've had a significant impact on
3 that well. It should be included in calculations. It
4 won't be economic if it's not mined through.

5 Q. Then reflecting back on the impact on someone who has an
6 escalating royalty or someone who elected to be carried,
7 if you had multiple wells and you wind up not mining
8 through one or more of those wells is it likely that the
9 increased royalty will ever kick in if you've put those
10 costs in or is it likely that they'll ever participate?

11 A. No. In fact, you've delayed the participation in the
12 royalty interest. It's doubtful that guy would ever
13 revert. It's doubtful anybody carried would ever back
14 in.

15 Q. If mine plans change I assume from what I'm hearing from
16 you is that costs may have to be revisited?

17 A. That's correct. If mine plans change you're going to
18 have to do a reallocation of what -- basically you're
19 going to come before the Board in this pooling applica-
20 tion, coming forth with cost and well placement. To the
21 extent that that changes, we're revisiting the whole
22 scenario of production and we're going to have to come
23 back.

24 Q. Is it your intention and do you have the capability to
25 keep the kinds of production records on an ongoing basis

1 and the cost records so that if some costs need to be
2 backed out or production needs to be factored in that you
3 will have an ability to do that in the event that plans
4 change?

5 A. Yes. This is not unlike anything that we do in our
6 business dealing with Federal royalty unit, participa-
7 tions all the time. Each well is kept individual.
8 Production is kept individually. You can add them
9 together or subtract them, rearrange them, turn them
10 around. Accountants don't like you, but you can do it.

11 Q. Just a couple of wrap up questions and I'll turn you over
12 to the Board if they have any questions. Is it your
13 opinion, Glen, that the field rules and the allocation
14 mechanism that we are asking for is a fair and reasonable
15 way to accommodate and protect correlative rights in the
16 Oakwood field.

17 A. Yes, it is. I think so. I think it protects all
18 interest within the 80 acre units and all the correlative
19 rights within those 80 acres are protected.

20 Q. In devising the proposed field rules and the allocation
21 process have you considered economic waste, have you
22 considered drainage issues, changes in drainage dictated
23 by mining, and have you attempted to factor that in so
24 that those issues are fairly dealt with in this plan and
25 in the allocation mechanism?

1 A. Yes. That was the whole thing -- the answer is yes.
2 That is what brought us to this scenario.

3 Q. How many other scenarios have you looked at -- has OXY
4 looked at -- in terms of variety of ways to deal with
5 this and how long have we been struggling with this?

6 A. Probably before we even considered the Oakwood field
7 rules we had had -- it's very different from what we're
8 considering here. We've had ideas and concepts and
9 that's why we had the increased density included in the
10 field rules. This has been about a two year struggle in
11 figuring out how to do this. One thing that is important
12 here is, just like Consol demonstrated, there is a
13 tremendous amount of gas being wasted right now that
14 needs to be incorporated and needs to have a mechanism to
15 allocate royalty. Every day that's wasted in pipeline
16 and not getting our work done here is anywhere from
17 \$25,000 to \$50,000 a day going up in the air.

18 Q. Why has OXY filed this application now as opposed to
19 waiting to some time next year? What are OXY's plans, if
20 any, that --

21 A. We've had some enlightenment and it's been real recent.
22 For the last two to three weeks we've been trying a
23 number of things with Island Creek on their gob gas
24 program. There is no question that anybody felt that the
25 amount of gas liberated was tremendous. The question was

1 pipeline quality, whether it could be marketable. And we
2 think we've got some scenarios now that we're keeping
3 these wells in the 98, 99 percent methane range, 97, 96,
4 into the marketable area that can be blended with other
5 gas that we think is going to have a tremendous impact
6 for us out there and for the Commonwealth and the
7 royalty owners and everybody involved. We've moved this
8 and accelerate this in our schedule because we're
9 looking at a completion date of somewhere in February or
10 March for a pipeline system. Like I said, \$25,000 to
11 \$50,000 a day. The quicker you can go there and get it
12 you're saving gas from going into the air and saving
13 dollar bills from going into the air.

14 MR. SWARTZ: That's all I have of Mr. VanGolen.

15 MR. CHAIRMAN: Any questions, members of the Board?

16 MR. MCGLOTHLIN: I have a few. Mr. VanGolen, if you would
17 indulge me on a couple of technical questions. In a long
18 hole and a short hole what method do you plan to get the
19 gas out or how do you plan to get the gas out of there?

20 MR. VANGOLEN: Well, short holes typically are what's done as
21 they're anywhere from 500 to 800 feet depending on the
22 panel width, rotary drilled from the face, PBC liner put
23 in, grounded around the edge, put right through a
24 pipeline system. Sometimes depending on water problems
25 they might have to put a little separator in there. It's

1 really pretty easy. An underground pipeline system is
2 all it is.

3 MR. MCGLOTHLIN: A perforated PVC line?

4 MR. VANGOEN: A perforated PVC line sometimes. Sometimes
5 just 100 foot of liner stuck in an 800 foot hole.

6 MR. MCGLOTHLIN: What's the diameter of the hole?

7 MR. VANGOEN: Three.

8 MR. MCGLOTHLIN: And pretty well the same principle on the
9 long hole?

10 MR. VANGOEN: It's pretty well the same principle for the
11 long wall. Different technology in the long hole, it's
12 kind of a drilling motor technology, a dyna-drill
13 technology, where you're not rotating the string, a motor
14 type thing.

15 MR. MCGLOTHLIN: What's your margin of error of allocation to
16 each 80 acre unit?

17 MR. VANGOEN: I think it's going to be minimal. I mean, this
18 is done daily in the coal business to allocate production
19 in whole. The numbers are going to be real similar.
20 You've got underground surveys that are going to tie this
21 panel together, tie it back to our title opinions, for
22 all the conflicting plans in the stages. The margin of
23 error is whatever the surveyors have on their instru-
24 ments, I guess, and you know more about that anyway.

25 MR. MCGLOTHLIN: Plus/minus one and less than one percent?

1 MR. VANGOLEN: Yeah.

2 MR. MCGLOTHLIN: On your allocation of cost to the well itself
3 on the longwall, what are those costs? What do you see
4 those costs to be?

5 MR. VANGOLEN: We don't anticipate owning anything under-
6 ground. And I don't think that anybody who participates
7 in the well wants to own anything underground as a
8 working interest owner. We're taking custody of the gas
9 at the surface and obviously if Island Creek spends this
10 money down there there's going to be some kind of an
11 operating fee that's established for them to be compen-
12 sated on capital expense, things like that. But I really
13 don't want custody of assets in the mine that I can't
14 touch. So the operating fee is what it is at the surface
15 and that is yet to be defined.

16 MR. MCGLOTHLIN: But the tangible cost is going to be the
17 underground pipeline, for the bore holes, and --

18 MR. VANGOLEN: That's all capital. It's currently done in the
19 mine. It's currently not anticipated that it's going to
20 be recouped in any manner other than an incentive fee for
21 Island Creek to continue to produce this gas in pipeline
22 quality.

23 MR. SWARTZ: Let me give you a really short answer. If there
24 is a charge for underground facilities on long hole and
25 short hole it will only be in the terms of a service fee.

1 There will be no capital, no participation fee assigned.
2 It would go into an operating charge as opposed to a
3 participation account.

4 MR. MCGLOTHLIN: What are you anticipating that cost to be or
5 have you even --

6 MR. VANGOLEN: We haven't even negotiated it yet.

7 MR. SWARTZ: Let me ask Glen another question on that. What
8 care, if any, does a mining company give to producing low
9 oxygen content in the methane they're evacuating current-
10 ly?

11 MR. VANGOLEN: Their whole mode is get it out of there, get it
12 quick, suck it hard and get it going. And obviously when
13 you want to try to put it on a pipeline you can't do
14 that. You're going to have to put some gaskets in your
15 flanges and there's a little more cost associated with
16 all that and a little bit of change in operating pressure
17 or philosophy. Instead of sucking the heck out of it at
18 the surface you might back off that a little bit and --

19 MR. MCGLOTHLIN: I just didn't want Island Creek going in and
20 saying it's going to cost \$100,000,000 -- whatever it
21 cost for the longwall.

22 MR. VANGOLEN: I don't want to own any assets underground and
23 I'm sure that anybody who participates in this doesn't
24 want to own any assets underground.

25 MR. MCGLOTHLIN: I have a couple more and these go back to the

1 correlative rights. The top left hand corner, A up
2 there, you have a surface owner in the bottom right hand
3 corner there. Let's take the whole 60 acres of that 80
4 acre unit, about where you have that line going through.
5 There's what, 100 feet from the end of the longwall
6 section to the next owner.

7 MR. VANGOLEN: Okay. 100 feet between here and here?

8 MR. MCGLOTHLIN: Yeah. We'll just say it's 100 feet all
9 around this. And you have the gob area now and as 20
10 percent of that 80 acre unit does the 40 acre owner still
11 get his share of the 20 percent?

12 MR. VANGOLEN: Everybody in this 80 acre unit have shares in
13 everything associated with this panel to the extent that
14 it's allocated based on percentages.

15 MR. SWARTZ: There's a two step allocation. What you've seen
16 thus far, when we come in with a pooling application you
17 see a break out of interest and that will exist for a
18 unit. Then there will be an allocation of production or
19 dollars to that unit which will be split by the interest
20 owners in that unit. It's two step. The production is
21 allocated out of the longwall, but once it hits the unit
22 it's allocated among the people who will have tracts in
23 the unit.

24 MR. VANGOLEN: So if this guy has 10 percent he's going to
25 get 10 percent of the 20 percent.

1 MR. MCGLOTHLIN: But it's not his coal and the gob is not
2 pulling gas from his coal?

3 MR. VANGOLEN: Yeah, but he's part of this unit and he was
4 entitled to get the gas somehow.

5 MR. MCGLOTHLIN: This question just popped in my head. My
6 next and last one. If the mine plan changes and you have
7 a VWH out there that now becomes obsolete, you've drilled
8 it in anticipation that it would be mined and it's not
9 mined or they moved the mining area, do you think that
10 the people participating on the 80 acre tract should be
11 help accountable or liable for that mistake? They're not
12 participating. They're just -- well, I guess they've had
13 to participate.

14 MR. VANGOLEN: You get into a couple of issues there. One is
15 if you're mining to this point then you stop, you've been
16 allocating royalty to maybe these people who have deemed
17 the lease the whole time. We'd have to come back in and
18 do a reallocation of royalty and back adjustment in that
19 case.

20 MR. MCGLOTHLIN: Put the VWHs that you had went ahead in
21 anticipation and put in where the longwall would have
22 been.

23 MR. VANGOLEN: This one up here?

24 MR. MCGLOTHLIN: Right. You're still going to --

25 MR. VANGOLEN: You'd have to back that out. We would do

1 something --

2 MR. MCGLOTHLIN: Charge that off against the participants?

3 MR. VANGOLEN: You wouldn't charge that off against the
4 participants.

5 MR. MCGLOTHLIN: OXY would --

6 MR. VANGOLEN: Yeah, or at some point there you're going to
7 have to make a cable production maybe. Maybe do a frack
8 job on it now.

9 MR. MCGLOTHLIN: I wasn't sure when you first explained that.
10 I wanted to check that out. Thank you, Mr. VanGolen.

11 MR. CHAIRMAN: Any other questions, members of the Board? Mr.
12 VanGolen, why do you feel that you need to modify all of
13 the Oakwood field rules as opposed to an area that
14 specifically accommodates your plans?

15 MR. VANGOLEN: It's really hard for me -- I've been associated
16 with this project for about two years and it's hard to
17 get my coal company to project two weeks ahead of time --
18 no. Mine plans change. There's just an -- with one
19 getting ready to shut down or there's no telling when
20 it's going to open back up. It could be next year. It
21 could be two years from now. We just -- there's other
22 VVHs that are previously drilled that fall under this
23 within that area that's already been mined out. There's
24 change in mine plans, extension, combining mines.
25 There's things that we can't plan for. As an oil and gas

1 operator I can't plan for -- it's hard for me to that to
2 predict. The best thing to do is just get the whole
3 field encompassed and then as those plans change then
4 we've got a mechanism to change with it.

5 MR. CHAIRMAN: Any other questions?

6 (Witness stands aside.)

7 MR. SWARTZ: Our next witness would be Weldon Wilson.

8 CLERK: (Swears witness.)
9
10

11 WELDON J. WILSON

12 a witness who, after having been duly sworn, was examined and
13 testified as follows:
14

15 DIRECT EXAMINATION
16

17 BY MR. SWARTZ:

18 Q. State your full name for us.

19 Q. Weldon J. Wilson.

20 Q. Who are you employed by?

21 A. OXY, USA, Incorporated.

22 Q. Where are you from?

23 A. I live at 1212 Foxlife Lane, Edmond, Oklahoma and I work
24 out of the OXY field office in Oklahoma City.

25 Q. Do you have a title.

- 1 A. I am an engineering advisor.
- 2 Q. Advising with regard to what?
- 3 A. Special technical projects, particularly in regards to
- 4 reservoir engineering that involve complex reservoirs
- 5 that are outside the scope of usual petroleum engineering
- 6 expertise, hydraulic pressuring and stimulation, reser-
- 7 voir modeling, maybe some specialized testing.
- 8 Q. Have you been involved in this coalbed methane project
- 9 for southwestern Virginia that OXY is proceeding with for
- 10 some period of time?
- 11 A. Yes. I was initially involved with it, I guess, at
- 12 conception about 1987 when OXY, USA got involved.
- 13 Q. Were you involved in the promulgation of the Oakwood
- 14 field rules at all?
- 15 A. Yes. I testified before this Board during the hearing
- 16 for the acceptance of those rules.
- 17 Q. Was it your opinion that the seams below the Tiller seam
- 18 when you testified in May or before the May order of 1990
- 19 that the collection of seams in associated structure
- 20 from the Tiller on down through the Pokie 2 were, in
- 21 fact, of such character that they should be considered as
- 22 one pool for the purpose of coalbed methane production?
- 23 A. Yes. And we so testified during those hearings.
- 24 Q. Did you undertake to do an analysis with regard to this
- 25 Oakwood field for the original Oakwood field to try and

1 come to a conclusion as to what a fair unit size would
2 be, unit size meaning unit around one well, give cor-
3 relative rights issues, drainage issues, and economic
4 and cost issues?

5 A. Yes, I did.

6 Q. And what was your recommendation in that regard?

7 A. The recommendation was that the coalbed methane wells
8 best suited to those purposes should drain an 80 acre
9 spacing.

10 Q. And did you look at a larger area than 80 acres in
11 reaching that conclusion?

12 A. Yes. In the study I considered a 320 acre study area and
13 looked at various numbers of CBM wells and at drainage in
14 a total 320 acre area to look at the relative merits of
15 production, both ultimate recoveries, the economics
16 associated with it and the drainage areas associated
17 with these other wells.

18 Q. Just in a rough sense, is it true or false that if one
19 well is good two is double and better and three is triple
20 and better? Is that true or untrue?

21 A. In general it's not true from an economic standpoint --
22 after an ultimate recovery standpoint you reach of
23 diminishing return as to how much gas you can physically
24 suck out and you also reach a point where it comes
25 uneconomic to drill an extra well to maybe get a tenth of

1 a percent more gas that you have gotten with one and
2 fewer wells.

3 Q. Absent mining, the impact of mining on the Oakwood field
4 80 acre units, would it still be your opinion that one
5 well per 80 acres is the appropriate economic correlative
6 rights mechanism for development of the Oakwood field?

7 A. Yes, I do.

8 Q. And when you studied the Oakwood field did you find it's
9 characteristics were generally uniform?

10 A. Yes. That was studied and it was so testified in that
11 previous hearing.

12 Q. When you start mining in a reservoir such as the Oakwood
13 field what happens -- what are the things that happen to
14 drainage or other factors that would be relevant to you
15 that would cause a need for the rules to be amended in
16 terms of allocation of production or allocation of cost?

17 A. Well, for one thing you'd have one fewer seams in which
18 coalbed methane is going to be coming out of. That's an
19 immediate consequence. The gob process which produced a
20 rubblized zone above the mined out area is an area of
21 enhanced permeability and enhanced relative permeabilit-
22 ies that are significantly different than the original
23 virgin condition reservoir properties. Some of the other
24 mechanisms that are typically used in the mining process
25 in terms of short holes and long holes have a much

1 different geometry from the orientation of the well bore
2 and their density and their drainage patterns than what's
3 considered in the Oakwood field area.

4 Q. Would it be fair to say that once you begin mining in the
5 area in the coal seam and start rubblizing seams perhaps
6 in the longwall that you can look at mine maps and
7 basically say that this line is where drainage begins or
8 ends?

9 A. Yes, to a rough extent that's a good statement.

10 Q. And would that be something that was not true when you
11 looked at the field before mining that wa's much harder
12 to draw a finite line and say drainage begins here or
13 ends here?

14 A. That's correct.

15 Q. Have you reviewed the application that's been filed with
16 the Board that they're considering today?

17 A. Yes, I have.

18 Q. Have you looked at the allocation recommendation and are
19 you fam'liar with the process of the recommendation that
20 we're making to the Board with regard to allocating
21 production associated with mining?

22 A. Yes.

23 Q. Do you have an opinion as to whether or not it is
24 practical and workable as a mechanism to accomplish the
25 goal of allocation of production?

1 A. I believe it's very practical and it's very similar to
2 the kinds of things that we typically do, although not
3 necessarily in coal mine projects, but in other areas
4 where we have fair share of recovery or other kinds of
5 things. It's a very flexible proposal in my opinion and
6 that is a big merit in view of the potential of changing
7 mining plans.

8 Q. In addition to looking at whether or not the allocation
9 process is practical and would worked, have you looked at
10 whether or not the allocation process that's proposed as
11 a part of this field rule that we're considering today or
12 at least drilling units that we're considering today,
13 have you looked at whether or not in your view if
14 correlative rights appear to have been considered and
15 protected?

16 A. Yes. I think that's -- really the key issue to me in the
17 development of this plan was trying to look at all
18 possibilities and ways to protect the correlative rights
19 in view of an ongoing project that may alter it's scope
20 and plans during the course of the project.

21 Q. Have you looked at or attended to cost associated with
22 increased density wells?

23 A. Yes, I have.

24 Q. And with regard to those increased density wells and
25 participants or people who elected to be carried or

1 people who have escalating royalties, what are your
2 thoughts or concerns and how does this plan, if at all,
3 appear to you to address those problems?

4 A. The allocation of production is basically one in which
5 you are saying that the gas that's originally there
6 belongs to the participants or the owners in that 80 acre
7 unit and you try to allocate that back to them as
8 purported to what is possible regardless of the mechanism
9 in which you produced it. In addition from an economic
10 side it is more of a pay as you go plan in that the
11 increased density well does not have to be implemented or
12 paid for until one is much closer to the actual mining
13 through the region that requires increased density and
14 thereby one has the actual expenses much closer to what
15 hopefully is the enhanced production that you will get
16 from that well once the well goes into the gob and that
17 well goes into gob production.

18 Q. Did you consider or reflect at all on whether or not the
19 proposed units that we're applying for today and the
20 allocation mechanism that's proposed was sufficiently
21 elastic to accommodate virtually any kind of mining
22 technology in gas production from virtually any kind of
23 mine design?

24 A. Yes. It should be a plan that is independent of mine
25 geometry, panel lengths, widths, orientations even in

1 respect to the unit. Those things were considered. I
2 also believe that it's something that -- obviously mining
3 technology does not stand still and there may be some
4 technique that is developed in the near or far term that
5 we haven't considered here, but that this plan probably
6 offers as good a plan as any that we can come up with
7 today of giving a fair allocation of costs and produc-
8 tions.

9 Q. Lastly, is it your opinion that these proposed drilling
10 units are essentially secondary recovery, short hole,
11 long hole, active, gob, increased density -- I realize
12 it's not technically secondary recovery, but a second
13 phase of recovery. Do you have an opinion as to whether
14 or not this is a reasonable plan to allocate production,
15 protect correlative rights, rid of both economic and
16 physical waste?

17 A. Yes. I believe it is a reasonable plan. It's not
18 necessarily the only plan that could accomplish the same
19 ends, but I believe it is a very reasonable plan and one
20 that has certainly had a lot of thought put into it to
21 try to address those issues.

22 MR. SWARTZ: That's all I have of Mr. Wilson.

23 MR. CHAIRMAN: Any questions, members of the Board?

24 (Witness stands aside.)

25 MR. SWARTZ: The last witness I'd like to call and hopefully

1 the questions get shorter is Steve Breeding.

2 CLERK: (Swears witness.)

3
4
5 STEVEN BREEDING

6 a witness who, after having been duly sworn, was examined and
7 testified as follows:

8
9 DIRECT EXAMINATION

10
11 BY MR. SWARTZ:

12 Q. Would you state your name for us?

13 A. My name is Steven Breeding.

14 Q. And you've been sworn?

15 A. Yes, I have.

16 Q. Where do you live, sir?

17 A. 171 Hutton Street, Abingdon, Virginia.

18 Q. Who do you work for?

19 A. I'm employed by Island Creek Coal Company.

20 Q. Do you have a title with them?

21 A. My official title is coalbed methane coordinator.

22 Q. Do you have a degree in mining engineer?

23 A. I have a Bachelor's of science degree in civil engineer-
24 ing from Virginia Military Institute.

25 Q. Have you had experience in mining engineering?

- 1 A. In the neighborhood of fifteen years.
- 2 Q. Have you designed mines?
- 3 A. Yes.
- 4 Q. In Buchanan County?
- 5 A. Not in Buchanan County.
- 6 Q. Where?
- 7 A. Wise County, Dickenson County. I've probably done one or
- 8 two.
- 9 Q. In the design of mines that you've participated in have
- 10 you had opportunities to taken into consideration various
- 11 degas mechanisms to degas the coal in advance of mining?
- 12 A. Yes. I'm familiar with the degas operations in Buchanan
- 13 County.
- 14 Q. Because I think I need to lay some kind of predict as to
- 15 what kind of mining I'm going to ask you a few leading
- 16 questions and if the Board has some questions we can deal
- 17 with those. Are you familiar generally with the Oakwood
- 18 field and the parameters of that field?
- 19 A. Yes.
- 20 Q. Does Island Creek have coal leases within that field?
- 21 A. Yes, we do.
- 22 Q. Do you anticipate that Island Creek will be doing -- is
- 23 Island Creek currently longwall mining in that field?
- 24 A. Yes, they are.
- 25 Q. Is Island Creek currently developing portions of mines or

1 doing any mining exclusively by continuous miners as
2 opposed to longwall?

3 A. We do our development work primarily by continuous
4 mining.

5 Q. In addition to using continuous miners in longwalls
6 moving to degas efforts has Island Creek drilled VVHs?

7 A. We drill VVHs on a continuous basis.

8 Q. Has Island Creek fracked any of the VVHs that they have
9 drilled?

10 A. We've done some experimental fracking of some of our
11 vertical ventilation holes, but as a norm we really don't
12 frack those holes.

13 Q. Has Island Creek drilled short holes into longwall panels
14 to assist in degassing those panels?

15 A. That's a major portion of our degas program, the drilling
16 of the horizontal short holes.

17 Q. And then you run it into a pipeline underground and you
18 get it above ground and currently vent it apparently?

19 A. That's correct.

20 Q. Has Island Creek done any long holes or experimented with
21 long holes in terms of degassing?

22 A. We did some experimental long holes several years ago.
23 We are currently getting ready to undertake an experiment
24 long hole program. We will try to drill long holes up to
25 4,000 feet for the purpose of degasifying some of our

1 development work, the continuous miners.

2 Q. You've been here during the testimony today with regard
3 to these drilling units that we've been talking about and
4 we've talked to you -- I know Mr. VanGolen has talked to
5 you over the years and I've talked to you before. Given
6 what you've heard about these units today and the
7 allocation process and so forth, can you tell the Board
8 whether or not it is your opinion that Island Creek's
9 mine plans and their degas efforts can be accommodated by
10 the proposed drilling units that have been under con-
11 sideration?

12 A. Yes, it appears to me that they can.

13 Q. Would you agree or does it appear to you that the generic
14 allocation formula in the 80 acre units that we have in
15 place are sufficiently flexible to at least take into
16 consideration current mining techniques and current
17 degas?

18 A. Yes, they are.

19 MR. SWARTZ: That's all I have.

20 MR. CHAIRMAN: Questions, members of the Board?

21 MR. McGLOTHLIN: Just for personal knowledge. Under short
22 hole/long hole cases which do you find is better to get
23 that gas out of the coal?

24 MR. BREEDING: Short hole compared to long hole?

25 MR. McGLOTHLIN: Yes, sir.

1 MR. BREEDING: Well, I really can't a comparison because
2 really right now the technology has changed since we did
3 the initial long holes. There were problems with
4 maintaining the direction of the hole. The technology
5 has changed substantially since we did those several
6 years ago, prior to my being with Island Creek. The
7 program that we're getting ready to start now is an
8 experimental program and there's several different
9 criteria. One of which is maintaining the proper
10 direction, horizon and vertical control these long holes.
11 So once we get through the experimental stage we'll be
12 able to tell you. I can envision assuming this long hole
13 is successful, I can envision incorporating both types of
14 drilling into a mining plan. In some areas one type
15 would be better and in some areas the short hole would be
16 better.

17 MR. MCGLOTHLIN: Thank you.

18 MR. CHAIRMAN: Any other questions?

19 (Witness stands aside.)

20 MR. CHAIRMAN: Do you have other witnesses?

21 MR. SWARTZ: No, I do not. What's your pleasure?

22 MR. JONES: Mr. Chairman, Jim Jones for Pocahontas Gas
23 Partnership. I wonder if I could ask a question?

24 MR. CHAIRMAN: Yes, you may.

25 MR. JONES: Directed to Mr. VanGolen. Mr. VanGolen, in

1 response to a question from the chairman about -- you
2 indicated that you had included in your application a
3 large area and not a specific area because mine plans
4 might change, is that correct?

5 MR. VANGOLEN: That's correct.

6 MR. JONES: But, in fact, the application includes the entire
7 field, does it not?

8 MR. VANGOLEN: It sure does.

9 MR. JONES: So it includes the fifteen or twenty percent of
10 the field that the Pocahontas Gas project my client
11 controls -- that has an interest in?

12 MR. VANGOLEN: That is correct. This proposal is a uniform
13 development for all operators.

14 MR. JONES: Is there any reason why it should not be limited
15 to the area in which OXY has an interest?

16 MR. VANGOLEN: Mr. Jones, I believe it could but in the ever
17 changing time of corporate ownerships I'm not sure one
18 would want to limit to that. OXY may be Consol, Consol
19 may be OXY next week.

20 MR. JONES: Would there be any problem with excluding from
21 your plan those areas in which Consol or Pocahontas Gas
22 projects affiliated company has a mine plan filed?

23 MR. VANGOLEN: I'd rather the Board make that decision.

24 MR. JONES: That wouldn't do any harm to your as you see it to
25 your --

1 MR. VANGOLEN: No. Not at this point in time, no.

2 MR. JONES: I have no other questions.

3 MR. CHAIRMAN: Mr. Teigh, any comments?

4 MR. TEIGH: No.

5 MR. SWARTZ: Let me correct that a little bit, though. In the

6 areas that were effected on the boundaries and to the

7 extent that our acreage does fall in there, then I think

8 that would have some impact.

9 MR. CHAIRMAN: Are there any other parties in the room that

10 want to address the Board regarding this matter?

11 MR. JONES: Mr. Chairman, again on behalf of my client, we

12 don't have any objection to the proposal that OXY has

13 made except to the extent that it effects the area which

14 may be controlled by my client, Pocahontas. Again, it

15 may be the system that Pocahontas wished to use in the

16 future, but we really feel that we need a little time to

17 look at that and the Board has already proved today on

18 two applications that we've filed a different system.

19 Obviously those areas would have to be excepted from what

20 OXY's asking for today. And we feel that really all of

21 the interest that Pocahontas has now ought to be excluded

22 and not include the entire field.

23 MR. SWARTZ: Just to response to that, OXY has some acreage

24 under consideration in the units equal to that. I mean,

25 anybody can come in and say don't do that because it

1 might effect me. My understanding of what happened today
2 with the Consol applications was that they came up with
3 some specific applications to create very specific units
4 driven by their mine plans and those were approved.
5 Since those units do not exist under any field rules or
6 under any mechanism, if that's what they want to do in
7 the future they're going to make a return trip regardless
8 of whether or not our application is granted or not
9 granted and to the extent that they can offer the kind
10 of evidence they offer today and convince you that it
11 makes sense, I assume you'll do what you did today. I
12 really do not think it is fair from the standpoint of
13 OXY's development plans to suggest that somehow our
14 proposal should not be implemented or delayed because
15 frankly when I look at what they did today that's what
16 they're going to have to do in the future if they want to
17 develop along the longwall units that were created today
18 and I don't see that this application or the pre-existing
19 Oakwood field rules prevent them from doing that or make
20 that any more difficult.

21 MR. CHAIRMAN: Is it at the same time unfair to you to
22 restrain your application to those areas effected by
23 Island Creek, OXY?

24 MR. SWARTZ: How are we going to define those areas and why
25 would we want to? One of the problems that I see here

1 and I think we've gotten deflected a little bit, and I'm
2 not -- I told you all earlier and I still feel this way,
3 that to the extent Island Creek or to the extent Island
4 Creek has development plans that they want to carve out
5 to make sense for them and make sense for you all, I
6 don't see these things as neutrally exclusive. But the
7 statute that we're working under and the statute that I'm
8 petitioning the Board under says, "To the extent reason-
9 ably possible drilling units shall be of uniform shape
10 and size for an entire pool." I mean, I sort of started
11 this enterprise, I think we all did, with an idea that we
12 should attempt to come up with something that worked in
13 the broadest possible dimensions and that's what we have
14 tried to do because I think that is the dictate of the
15 statute. I'm not taking this lightly. We've been over
16 this in the past. We believe we have a generic proposal
17 for this second phase of recovery that virtually accommo-
18 dates any mining plan and we think that the statute
19 dictates that to the extent it is uniform and can be
20 uniformly applied. That's the first goal. We start
21 carving stuff out of it, I think we could do it. If
22 that's your policy decision we could live with that, but
23 I think we need to -- the statute drives us in the
24 direction of uniformity and broadest possible rational
25 application. I don't think it makes their job anymore --

1 I don't think it requires them to do anything other than
2 what they've already done today if they want to continue
3 to do the kind of development we've seen. But at least
4 from your standpoint you've created a uniform system just
5 like you have uniform 80 acre units for this secondary
6 development. So for the people like Island Creek and
7 others who want to develop, they've got the rules in
8 place. They don't have to reinvent the wheel. They can
9 come in and utilize it. I mean, I think there is a
10 statutory intent expressed to do it on a uniform basis
11 and not to carve around. Also it would be very difficult
12 to isolate OXY's lease hold interests because they're all
13 over the place -- or I should say Island Creek and OXY.
14 There not just totally confined to one area. You're
15 going to find little bits and pieces everywhere. You
16 look at the titles of the Consol applications and you can
17 see that. I think you're going to find that anywhere.
18 But again perhaps to ward off further remarks from
19 counsel here, I am not suggesting arguing or contending
20 that what they have indicated as their at least current
21 development plans that we've seen and they've disclosed
22 is inconsistent with what we want to do or what we want
23 to do is going to prevent them from proceeding with a
24 pace with their plans to the extent that they want to
25 continue to come in here and create panel drilling units.

1 I hope that answered counsel's question and your ques-
2 tion.

3 MR. CHAIRMAN: Mr. Albert?

4 MR. ALBERT: Mr. Chairman, If I might address the Board on
5 this issue. I think what we're asking for is certainly
6 not unreasonable that we limit what OXY is asking for to
7 their area and exclude from that the areas which we
8 currently have mine plans for. One of the things that's
9 caused us a lot of what's going on today is the fact that
10 the 80 acre rules were promulgated on the acreage
11 controlled primarily by us. Without belaboring the point
12 primarily without our knowledge, I think it would be
13 behoove us at this point to avoid those type of conflicts
14 in the future if we would simply exclude the areas that
15 we're asking for. I don't think it's unreasonable.
16 Certainly we do have areas of control that overlap in the
17 Island Creek property as well as they have control that
18 laps over into our property. I'm certain we've had a
19 good history of working these things out between us in
20 the past. I'm certain we can do that as we go forward.
21 In fact, we're right now mutually trying to do a trade of
22 oil and gas and coalbed methane rights to look after
23 that. So I certainly would urge the Board to exclude
24 those areas for which we do have a mine plan on file for.
25 The other thing, as I look forward, our Hurricane Branch

1 property or RCP's Hurricane Branch property to the
2 eastern end of Buchanan County currently has no field
3 rules, no units on it. We may simply want to extend 80
4 acre units into that area and may not want to be burdened
5 with the plans that's known here. So I would ask that
6 the Board take our consideration not lightly.

7 MR. SWARTZ: I think that's a policy decision you all need to
8 make. And OXY can live with any decision you make, but I
9 think it's a policy decision in terms of uniformity that
10 you all need to make and it's your call. I'm not arguing
11 against it. We can live with it.

12 MR. CHAIRMAN: Any other questions? What's your pleasure?

13 MR. KELLY: I'd like to make a motion. I'd like to move that
14 further action on this application be deferred until at
15 least the December meeting to allow the Board to have a
16 little more time to review the information that's been
17 presented and to consider the implications of the
18 application in this situation and further to request
19 that OXY submit some more detailed information, schema-
20 tics, whatever might be appropriate for the vast scenar-
21 ion envisioned by the presentation today involving
22 participation election and various methodologies involved
23 in production allocation of royalties.

24 MR. CHAIRMAN: You've heard the motion.

25 MR. MCGLOTHLIN: Mr. Kelly, could I offer an amendment to your

1 motion in that Pocahontas submit a legal description of
2 the land that they would ask to be exempt from this
3 application based on their mining plans as of November
4 19th, 1991?

5 MR. CHAIRMAN: Do you have any problem with that?

6 MR. KELLY: I have no real problem with that, I don't guess.

7 MR. CHAIRMAN: Okay. We have a motion as amended.

8 MR. EVANS: I'll second it.

9 MR. CHAIRMAN: A motion as amended and a second. All in favor
10 signify by saying yes. (ALL AFFIRM.) Opposed say no.
11 (NONE.) The motion carries. I have one other quick item
12 I want to brief the Board about and then I'll get you out
13 of here. The thing I want to talk to you about is the
14 escrow. The Department received five responses to the
15 escrow RFB. They are Sovran Bank Corporation and Trust,
16 Crest-Star Bank, Signet Trust Company, E. R. King
17 Financial Services, Premiere Bank Shares Corporation.
18 The Department has certified the contracting officers,
19 one of which would propose to be on a committee that's
20 already been going through these and have already check
21 to see are they a Virginia corporation and did they
22 legally meet the minimum responses. It's my understand-
23 ing although I don't have anything in writing from them
24 that these five have meet those. This is a couple of
25 options of how we could handle this. The Board in it's

1 RFP had listed five evaluation criteria. This committee
2 made of Brad Simpson with the Gas and Oil Office, Don
3 Conklin who's the contracting officer through the
4 Department, and Frank Hampton, a financial services
5 person, could go through these utilizing this evaluation
6 criteria and then narrow it to the best offer, even
7 conduct interviews down to the point that they could
8 make a recommendation to the Board for us to consider at
9 the next meeting or if you want to do it any differently
10 I want to make sure we discuss it and try to handle it.
11 We have to make sure, of course, we meet the legal
12 contracting provisions of the Department and I'm trying
13 to minimize the amount of work the Board has to do, but
14 at the same time make sure the Board gets what it's
15 asking for.

16 MR. EVANS: Well, obviously I'm speaking for myself. I don't
17 know squat doodle about what makes a good -- I don't
18 have the basis knowledge of how to do escrows and all
19 that. I guess for me any recommendation, I would have to
20 depend on experts to make a recommendation.

21 MR. CHAIRMAN: They could create a record for us that I could
22 bring back to the next meeting based upon their evalua-
23 tion of these utilizing this criteria and who they would
24 narrow it to and we're still not bound by any of that.

25 MR. MCGLOTHLIN: If they could do that as to why, you know --

1 MR. EVANS: yeah, that would suit me, but I would still would
2 like -- I think the Board should be the one that chooses
3 them and interviews them to see what they want to offer.

4 MR. MCGLOTHLIN: I tell you what, for me to sit up here and
5 interview somebody he could tell me anything. I wouldn't
6 know good from bad. So I'm just going to tell you right
7 up front my ignorance is phenomenal when it comes to how
8 to set it up and what's good, bad or indifferent. I just
9 don't know.

10 MR. CHAIRMAN: Let me ask you this. Is it suitable to see how
11 this goes and then if you determine we need to interview
12 and get you copies of what they proposed and what this
13 committee comes up with and then you decide that -- I'm
14 saying the door won't be closed to that, if that's
15 acceptable.

16 MR. EVANS: Let's have them evaluate the criteria, your
17 committee. Do you need a motion to form the committee?

18 MR. CHAIRMAN: I don't think so because we're legally author-
19 ized to do that as a Department. I just want to make
20 sure that I'm doing things in accordance with the Board's
21 wishes. If they do an interview we'll have the results
22 of that interview. We'll be able to evaluate what they
23 asked, what the responses were. Because if they do an
24 interview they will be interviewing based still upon a
25 showing of these criteria. They can't move from these

1 evaluation criteria legally. They're bound to these.

2 MR. EVANS: If all five applicants or respondents meet the

3 legal criteria to respond, since there's just five could

4 they interview all five of them? I mean, is that over

5 burdening someone or --

6 MR. CHAIRMAN: Well, it depends on -- I think they are

7 checking like are they a Virginia corporation license, do

8 business. I'm not sure now that they've evaluated, did

9 they meet everything they had to meet in here. So they

10 all five may not have done that, but they may very well

11 interview all five.

12 MR. EVANS: Right. I'd like to see the figures on what

13 they --

14 MR. CHAIRMAN: We'll produce a record on everything.

15 MR. EVANS: Could you send us just the money proposal stuff,

16 not so much --

17 MR. CHAIRMAN: On all five?

18 MR. EVANS: Yes.

19 MR. MCGLOTHLIN: Who's going to charge what for what service.

20 MR. EVANS: There was a couple of exhibits that they had to

21 supply. It was basically just fill in the blank types.

22 Send those out to us if you can do that.

23 MR. CHAIRMAN: That's exactly right. Absolutely.

24 MR. EVANS: That would suit me. And then we can call you and

25 make comments?

1 MR. CHAIRMAN: Yes, sir, absolutely.
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4 (End of Proceedings for
5 November 19, 1991.)
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2 CERTIFICATE
3

4 COMMONWEALTH OF VIRGINIA
5 COUNTY OF WASHINGTON
6

7 I, Tamara L. White, Notary Public in and for the Common-
8 wealth of Virginia, at Large, do hereby certify that the
9 foregoing proceedings of the Virginia Gas and Oil Board
10 meeting held on November 19, 1991 at the Southwest Virginia
11 4-H Center, Abingdon, Virginia, were taken by me and that the
12 foregoing is a true and correct transcript of the Deposition
13 so given by her as aforesaid to the best of my ability.

14 I further certify that I am not a relative, counsel, or
15 attorney for either party, or otherwise interested in the
16 outcome of this action.
17

18 GIVEN under my hand this 3rd day of December, 1991.
19

20 
21 TAMARA L. WHITE
22 NOTARY PUBLIC
23

24 My commission expires January 21, 1992.
25