STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION COMMISSION

| | |
|---|---|
| IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING: | |
| APPLICATION OF SAMSON RESOURCES COMPANY, KAISER-FRANCIS OIL COMPANY, AND MEWBOURNE OIL COMPANY FOR CANCELLATION OF TWO DRILLING PERMITS AND APPROVAL OF A DRILLING PERMIT, LEA COUNTY, NEW MEXICO | CASE NOS. 13,492 |
| APPLICATION OF CHESAPEAKE PERMIAN, L.P., FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO | and 13,493 (Consolidated) |

2007 JAN 16 PM 1 35

REPORTER'S TRANSCRIPT OF PROCEEDINGS

COMMISSION HEARING

ORIGINAL

BEFORE: MARK E. FESMIRE, CHAIRMAN
JAMI BAILEY, COMMISSIONER (Present by telephone)
WILLIAM C. OLSON, COMMISSIONER

Volume IV - January 2nd, 2007

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Commission, MARK E. FESMIRE, Chairman, on August 10th, December 14th and 15th, 2006, and January 2nd, 2007, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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# C U M U L A T I V E  I N D E X

August 10th, December 14th-15th, 2006, January 2nd, 2007
Commission Hearing
CASE NOS. 13,492 and 13,493 (Consolidated)

Volume I: Thursday, August 10th, 2006:



(Continued...)

C U M U L A T I V E  I N D E X  (Continued)



(Continued...)

C U M U L A T I V E  I N D E X  (Continued)



(Continued...)

C U M U L A T I V E  I N D E X  (Continued)

Volume III: Friday, December 15th, 2006 (Continued):

SAMSON/KAISER-FRANCIS/MEWBOURNE WITNESSES (Continued):



* * *

(Continued...)

C U M U L A T I V E  I N D E X  (Continued)



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CUMULATIVE INDEX OF EXHIBITS

Volume I: Thursday, August 10th, 2006:

| Stipulated | Identified | Admitted |
|---|---|---|
| Exhibit 1 | 12, 73 | - |
| Exhibit 2 | - | - |
| Exhibit 3 | - | - |
| Exhibit 4 | - | - |
| Exhibit 5 | - | - |
| Exhibit 6 | - | - |
| Exhibit 7 | - | - |
| Exhibit 8 | - | - |
| Exhibit 9 | 38, 43 | - |
| Exhibit 10 | - | - |
| Exhibit 11 | 67 | - |
| Exhibit 12 | 83 | - |
| Exhibit 13 | - | - |
| Exhibit 14 | - | - |
| Exhibit 15 (not a stipulated exhibit) | 111 | 114 |

* * *

| Samson/Mewbourne | Identified | Admitted |
|---|---|---|
| Exhibit 58 | 31 | 37 |
| Exhibit 59 | 33 | 37 |
| Exhibit 60 | 34 | - |

* * *

| Kaiser-Francis | Identified | Admitted |
|---|---|---|
| Exhibit H-1 | 122 | 126 |

* * *

(Continued...)

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* * *

Volume II: Thursday, December 14th, 2006:

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| Exhibit GEO 2 | 164 | 226 |
| Exhibit GEO 3 | 172 | 226 |
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| Exhibit GEO 9 | 204 | 226 |
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| Exhibit GEO 11 | 208 | 226 |
| Exhibit GEO 12 | 211 | 226 |
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| Exhibit GEO 16 | 217 | 226 |
| Exhibit GEO 17 | 218 | 226 |
| Exhibit GEO 18 | 174 | 226 |
| Exhibit GEO 19 | 177, 734 | 226, 757 |
| Exhibit GEO 20 | - | - |
| Exhibit GEO 21 | 731 | 757 |

(Continued...)

CUMULATIVE INDEX OF EXHIBITS (Continued)

Volume II: Thursday, December 14th, 2006 (Continued):

| Chesapeake | Identified | Admitted |
|---|---|---|
| Exhibit GEO 22 | - | - |
| Exhibit GEO 23 | - | - |
| Exhibit GEO 24 | - | - |
| Exhibit GEO 25 | - | - |
| Exhibit GEO 26 | - | - |
| Exhibit GEO 27 | 181 | 226 |
| Exhibit PE 1 | - | 324 |
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| Exhibit PE 34 | 320 | 324 |
| Exhibit PE 35 | 321 | 324 |
| Exhibit PE 36 | 321 | 324 |
| Exhibit PE 37 | 323 | 324 |

* * *

| Samson/Kaiser-Francis/Mewbourne | Identified | Admitted |
|---|---|---|
| Cross-Examination Exhibit 1 | 260 | 262 |
| Cross-Examination Exhibit 2 | 262 | 262 |
| Cross-Examination Exhibit 3 | 350 | - |
| Exhibit 54 | 387 | 408 |
| Exhibit 55 | 392 | 408 |
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| Exhibit 2 | 458 | 540 |
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| Exhibit 4 | 462 | 540 |
| Exhibit 5 | 463 | 540 |
| Exhibit 6 | 464 | 540 |
| Exhibit 7 | 468 | 540 |
| Exhibit 8 | 459 | 540 |
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| Exhibit 11 | 474 | 540 |
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| Exhibit 13 | 474 | 540 |
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| Exhibit 14 | - | 540 |
| Exhibit 15 | 479 | 540 |
| Exhibit 15A | 485 | 540 |
| Exhibit 16 | 488 | 540 |
| Exhibit 17 | 491 | 540 |
| Exhibit 18 | 494 | 540 |
| Exhibit 19 | 498 | 540 |
| Exhibit 20 | 498 | 540 |
| Exhibit 21 | 500 | 540 |
| Exhibit 22 | | (withdrawn) |
| Exhibit 22A | 501 | 540 |
| Exhibit 23 | 503 | 540 |
| Exhibit 24 | | (withdrawn) |

(Continued...)

CUMULATIVE INDEX OF EXHIBITS (Continued)

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Samson/Kaiser-Francis/Mewbourne (Continued)



(Continued...)

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Samson/Kaiser-Francis/Mewbourne (Continued)

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|---|---|---|
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| Exhibit 40 | 533 | 540 |
| Exhibit 41 | 536 | 540 |
| Exhibit 42 | - | - |
| Exhibit 43 | - | - |
| Exhibit 43A | 537 | 540 |
| Exhibit 43B | 537 | 540 |
| Exhibit 43C | 537 | 540 |
| Exhibit 44 | 596 | 623 |
| Exhibit 45 | | (withdrawn) |
| Exhibit 45A | 596 | 623 |
| Exhibit 46 | | (withdrawn) |
| Exhibit 46A | - | 623 |
| Exhibit 46B | 600 | 623 |
| Exhibit 46C | 600 | 623 |
| Exhibit 46D | 601 | 623 |
| Exhibit 46E | 601 | 623 |
| Exhibit 46F | 602 | 623 |
| Exhibit 47 | 602 | 623 |
| Exhibit 48 | 608 | 623 |
| Exhibit 49 | 611 | 623 |
| Exhibit 50 | - | - |
| Exhibit 50A | - | - |
| Exhibit 50B | - | - |
| Exhibit 50C | 617 | 623 |
| Exhibit 51 | - | - |

(Continued...)

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| | Identified | Admitted |
|---|---|---|
| Exhibit 52 | - | - |
| Exhibit 53 | - | - |
| Exhibit 57 | - | - |
| Exhibit 61 | 593 | 623 |

* * *

| Chesapeake | Identified | Admitted |
|---|---|---|
| Rebuttal Exhibit A-1 | 542 | - |

* * *

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| Rebuttal Exhibit B-1 | 713 | 713, 757 |
| Literature Rebuttal 2 | (714) | 757 |
| Literature Rebuttal 3 | (715) | 757 |
| Literature Rebuttal 4 | (715) | 757 |
| Literature Rebuttal 5 | 717 | 757 |
| Literature Rebuttal 6 | 719 | 757 |
| Literature Rebuttal 7 | 719 | 757 |
| Literature Rebuttal 8 | (721) | 757 |
| Literature Rebuttal 9 | (721) | 757 |
| Exhibit GEO 19 | 177, 734 | 226, 757 |
| Exhibit GEO 21 | 731 | 757 |
| Exhibit GEOR 1 | (743) | 757 |
| Exhibit GEOR 2 | 744 | 757 |
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| Exhibit GEOR 7 | 727 | 757 |
| Exhibit GEOAD 35 | 741 | 757 |
| Exhibit PE 40 | 801 | - |
| Exhibit PE 53 | 794 | - |
| Exhibit PE 56 | 796 | - |
| Exhibit PE 66 | 791 | - |

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Volume IV: Tuesday, January 2nd, 2007 (Continued):

Additional submissions by Chesapeake, not offered or admitted:



* * *

Samson/Kaiser-Francis/Mewbourne



* * *

Additional submissions by Samson/Kaiser-Francis/Mewbourne, not offered or admitted:



(Continued...)

CUMULATIVE INDEX OF EXHIBITS (Continued)

Volume IV: Tuesday, January 2nd, 2007 (Continued):

Additional submissions by Samson/Kaiser-Francis/Mewbourne, not offered or admitted (Continued):



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A P P E A R A N C E S

Volume IV: Tuesday, January 2nd, 2007:

FOR THE COMMISSION:

CHERYL BADA
Assistant General Counsel
Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

FOR SAMSON RESOURCES COMPANY and MEWBOURNE OIL COMPANY:

GALLEGOS LAW FIRM
460 St. Michael's Drive, #300
Santa Fe, New Mexico 87505
By: J.E. GALLEGOS
and
McELROY, SULLIVAN & MILLER, L.L.P.
1201 Spyglass, Suite 200
Austin, Texas 78746
By: MICKEY R. OLMSTEAD

FOR KAISER-FRANCIS OIL COMPANY:

MILLER STRATVERT, P.A.
150 Washington
Suite 300
Santa Fe, New Mexico 87501
By: J. SCOTT HALL

(Continued...)

A P P E A R A N C E S (Continued)

Volume IV: Tuesday, January 2nd, 2007 (Continued):

FOR CHESAPEAKE PERMIAN, L.P.:

MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.
Bank of America Centre
500 Fourth Street NW, Suite 1000
P.O. Box 2168
Albuquerque, New Mexico 87103-2168
By: JOHN R. COONEY
and
EARL E. DEBRINE, JR.

and

KELLAHIN & KELLAHIN
117 N. Guadalupe
P.O. Box 2265
Santa Fe, New Mexico 87504-2265
By: W. THOMAS KELLAHIN

* * *

ALSO PRESENT:

Volume IV: Tuesday, January 2nd, 2007:

RONALD JOHNSON
Samson

KEN KRAWIETZ
Samson

MARK M. LAUER
Senior House Counsel
Samson Resources Company

LEZLYE RICKEY
Samson

* * *

WHEREUPON, the following proceedings were had at 1:10 p.m.:

CHAIRMAN FESMIRE: Okay, let's go on the record now with the continuation of Causes Number 13,492 and 13,493. 13,492 is the Application of Samson Resources Company, Kaiser-Francis Oil Company and Mewbourne Oil Company for cancellation of two drilling permits and approval of a drilling permit in Lea County, New Mexico; Cause Number 13,493 is the *de novo* Application of Chesapeake Permian, L.P., for compulsory pooling, Lea County, New Mexico.

Let the record reflect that these causes have been continued from the December 14th and 15th specially set meetings of the New Mexico Oil Conservation Commission, that this meeting is taking place on January 2nd, 2007. It's approximately 1:10 p.m. The location of the meeting is Porter Hall in the offices of the Energy, Minerals and Natural Resources Department in Santa Fe, New Mexico.

Physically present are Commissioners Fesmire and Olson, and present by telephone is Commissioner Bailey. Also present is Commission secretary Davidson and Commission counsel Bada.

At this time we'll take the entry -- reiteration of appearances, I guess, for counsel in the case, please.

MR. KELLAHIN: Mr. Chairman, I'm Tom Kellahin of

the Santa Fe law firm of Kellahin and Kellahin. Appearing with me today is Mr. John Cooney and Mr. Earl DeBrine, of the Modrall law firm. Collectively we represent Chesapeake.

MR. GALLEGOS: If it please the Commission, Gene Gallegos, Santa Fe, New Mexico, along with Mickey Olmstead, Austin, Texas, appearing for Samson and Mewbourne.

MR. HALL: Mr. Chairman, Scott Hall, Miller Stratvert law firm, Santa Fe, appearing on behalf of Kaiser-Francis Oil Company.

CHAIRMAN FESMIRE: Mr. Gallegos, you represent Mewbourne and --

MR. GALLEGOS: -- and Samson.

CHAIRMAN FESMIRE: -- and Samson together?

MR. GALLEGOS: As does Mr. Olmstead.

CHAIRMAN FESMIRE: I believe where we left off last month was that -- Mr. Kellahin, were you going to start your rebuttal?

MR. KELLAHIN: That's correct, Mr. Chairman. When we last adjourned, Chesapeake was ready to present its rebuttal case. We have two witnesses. Mr. David Godsey is the geologist that you heard back on the 14th. And then the engineer is Jeff Finnell; he's going to present his rebuttal case.

Before we start that, Mr. Chairman, when we

concluded on Friday, on the 15th, I neglected to move the introduction of a rebuttal exhibit. I had a rebuttal Exhibit A-1. It was an exhibit I showed to Mr. Johnson. It was his first geologic exhibit that he presented to the Division Examiner back in the Examiner Hearing. To refresh your recollection, this is the document that was circulated and identified by Mr. Johnson.

CHAIRMAN FESMIRE: Does the court reporter have a copy of it?

MR. KELLAHIN: He may have that copy. I believe he does, but at this time I'd formally move the introduction of Chesapeake's Rebuttal Exhibit A-1.

CHAIRMAN FESMIRE: Is there any objection to the admission of Rebuttal Exhibit A-1?

MR. OLMSTEAD: Yeah, we've got a copy of it. No, sir, no objection.

CHAIRMAN FESMIRE: Rebuttal Exhibit A-1, Chesapeake's Rebuttal Exhibit A-1, is admitted.

MR. KELLAHIN: Mr. Godsey?

CHAIRMAN FESMIRE: Mr. Godsey --

MR. GALLEGOS: Excuse me, Mr. Kellahin.

Mr. -- Chairman Fesmire and members of the Commission, on behalf of the respondents we would like to ask leave to present some short surrebuttal testimony. We're talking about 20, 25 minutes, and that depends upon

what the rebuttal is, but we'd just like to ask that at this time. The court -- I mean, the Commission can rule on that at the appropriate time.

CHAIRMAN FESMIRE: Okay. Is there any objection to that, given the length that this hearing has drawn out?

MR. KELLAHIN: We have objected, I think Mr. Cooney and Mr. DeBrine have told Mr. Gallegos that we were objecting.

The basis for our objection is that at the prehearing scheduling conference it was agreed that both sides for direct and cross would be limited to seven hours, and Mr. Brenner advises me that with the September 14th and 15th hearing [*sic*], for those two days, Samson/Kaiser has collectively used 402.14 minutes. That's 6.7 hours.

Chesapeake has used 233.49 minutes, which is 3.89 hours. So we have something over three hours left.

CHAIRMAN FESMIRE: Okay. And so you say that's -- 402 is --

MR. KELLAHIN: Should be 6.7 hours.

CHAIRMAN FESMIRE: 6.7 hours. So to comply with the agreement, he's got about 18 minutes left?

MR. KELLAHIN: I believe that's correct.

CHAIRMAN FESMIRE: Mr. Gallegos, can you do it in 18 minutes?

MR. GALLEGOS: Well, I don't know, but when we

split hairs, how much of that time was cross-examination by Mr. Kellahin, not our case? You know, we're only asking for 20 or 30 minutes at most. I don't think that's fair, and I don't think we need to split hairs that much to get a just record in this case.

CHAIRMAN FESMIRE: Okay. Mr. Gallegos, I'm inclined to grant your surrebuttal, as long it doesn't exceed the 20 minutes.

MR. KELLAHIN: To make it clear, if you misunderstood me, my calculation of the time from Mr. Brenner included direct and cross that we utilized.

CHAIRMAN FESMIRE: All right.

MR. KELLAHIN: We're ready to proceed, Mr. Chairman.

CHAIRMAN FESMIRE: Okay. Mr. Godsey --

MR. GODSEY: Yes.

CHAIRMAN FESMIRE: -- would you please take the witness stand?

Mr. Godsey, you've previously been sworn in this case; is that correct?

MR. GODSEY: Yes, sir.

CHAIRMAN FESMIRE: And you understand that that oath runs to anything that you say or are asked today; is that correct?

MR. GODSEY: Yes, sir.

DAVID A. GODSEY,

the witness herein, having been previously duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Godsey, for the record, sir, would you please state your name?

A. David A. Godsey.

Q. Were you present in the hearing room on the 14th and 15th of December of this year?

A. Yes, I was.

Q. Did you present the direct geologic presentation for Chesapeake?

A. Yes, I did.

Q. Are you prepared now to present Chesapeake's rebuttal case?

A. Yes, I am.

Q. As part of your review, Mr. Godsey, did you review all the literature references that Mr. Johnson had provided to the Commission?

A. Yes, I did.

Q. And what have you determined?

A. I determined that most of the Samson literature references, in fact, support the Chesapeake opinions.

Q. Have you taken from the Samson literature

exhibits a compilation of the references from their literature that in fact supports your case?

A. Yes, I have.

Q. When I show you what is marked as Chesapeake Rebuttal Exhibit B-1 -- May I approach the witness?

CHAIRMAN FESMIRE: You may, sir.

Commissioner Bailey, can you hear us?

COMMISSIONER BAILEY: Yes, I can.

Q. (By Mr. Kellahin) Mr. Godsey, can you identify what I've marked as Exhibit B-1?

A. Yes, this is the summary of our case, of the Samson literature rebutting and contradicting its geologic testimony.

Q. In addition to the hard copies, have you put certain key portions of that on your PowerPoint slide?

A. Yes, I have.

MR. KELLAHIN: Mr. Chairman, at this time we move the introduction of Chesapeake's Rebuttal Exhibit B-1.

CHAIRMAN FESMIRE: Is there any objection?

MR. GALLEGOS: I think reserve, depending upon the testimony.

CHAIRMAN FESMIRE: Okay, Chesapeake's Rebuttal Exhibit B-1 is admitted, subject to rebuttal.

Q. (By Mr. Kellahin) Mr. Godsey, as part of your review of the Samson literature, have you reviewed Louis

Mazzullo's paper cited by Mr. Johnson?

A. Yes, that would be Samson Exhibit Number 7.

Q. And what did you find?

A. I found that Mr. Johnson has ignored Mr. Mazzullo's cautions in mapping the Morrow, and in fact he's ignored his entire outline for exploration and development strategies for evaluating the Morrow.

Q. Do you have a slide that demonstrates that?

A. Yes, I do.

Q. Let's look at that.

A. This first slide is from Samson Exhibit 7, page 59. I've highlighted in red the pertinent remarks. I will mention a few of them right here.

Mazzullo states that, Using simplified models or gross isopach maps is not going to tell the whole story, certainly not to the level of detail required to accurately predict reservoir orientations. He goes on to say, If you treat the entire section as a single geologic engineering unit, presumptions made regarding depositional environments and reservoir trends can be misleading and can result in either missed opportunities or dry holes.

Q. What else do you find, Mr. Godsey, out of Mr. Mazzullo's paper?

A. On the next page of his paper, page 60, Mr. Mazzullo states that, The first practices that must be

abandoned are the treatment of the Morrow section as a single unit.

Q. Has Mr. Johnson followed the recommendations of Mr. Mazzullo?

A. No. Continuing on that same page 60 of Exhibit 70 -- or Exhibit 7, excuse me, Mr. Johnson has followed none of the techniques outlined by Mr. Mazzullo. Mazzullo states that, quote, The Morrow should be divided into smaller sequences based initially upon first-pass correlations using large-scale logs. And he follows that up by saying, Detailed sample analysis should follow up. Again, that's on page 60 of the Mazzullo paper.

Then he goes on to say on page 61, Isopach maps of each small sequence should be drawn to determine, 1), the precise geometry and orientation of each reservoir, and, 2), any potential terminations of reservoirs. Then he says, Production histories and bottomhole pressure data may be useful in determining pressure separation.

Again, that's all out of Samson Exhibit 7, the Mazzullo paper.

Mr. Johnson has done exactly what Mr. Mazzullo has stated should not be done.

Q. Did Mr. Mazzullo make reference to what a geologist should do in this area in terms of analyzing the Morrow sands in relationship to the Central Basin Platform?

A. Yes, he did.

Q. And what did you find?

A. Well, Mr. Johnson has ignored Mr. Mazzullo's references in that respect and where he says that in the eastern portions of the Delaware Basin the Central Basin Platform was a local sediment source for the Morrow.

We can see that in this same sense in Exhibit 7, on pages 55 and 56.

Q. What else have you found in the literature, Mr. Godsey?

A. I found that the Central Basin Platform and the Delaware Basin began forming in late Mississippian, into the early Pennsylvanian. Morrow sediments were derived from the Pedernal Uplift to the northwest and locally from the Central Basin Platform to the east. The Midland Basin was not yet formed and was an emergent area of nondeposition and minor erosion. This is consistent throughout the literature.

To support that, I have listed in your handout the list of Samson exhibits that reference that. That would be Samson Exhibit 7 -- I can go through the page numbers if you want, but they're in your handout -- Samson Exhibit 12, Samson Exhibit 15, Samson Exhibit 15A, Samson Exhibit 16, Samson Exhibit 18, Samson Exhibit 9, and Samson Exhibit 10, and then for good measure I threw in

Chesapeake's Exhibit GEO 13.

In your handout you will see in blue a page-number reference, and that would reference the page number of the handout for a quick, easy reference for you.

Q. In your opinion as a geologist, Mr. Godsey, what is the consensus of the geologic literature on this topic?

A. The Central Basin Platform was an exposed landmass during Morrowan time and shed sediments into the Delaware Basin in an east-to-west direction. Consensus of the literature is evident in the various paleogeographic maps for the Morrow, and I've prepared those in slide form as well as in the handout.

Q. So when we look at what's on the wall now as your Rebuttal Exhibit 5, this slide 5 --

A. Yes, this is one of those paleogeographic maps. This is from Samson Exhibit 7, page 55. In this, it shows the paleogeographic map of the Delaware Basin in Morrow time, with the Central Basin Platform shown as a sediment source. You can see that with the small arrows coming off of the Central Basin Platform in an east-to-westerly direction, going into the Delaware Basin.

The next reference I've prepared will be from Samson Exhibit 12, page 39, again from another author. This shows the paleogeographic map of the Pennsylvanian with Morrow sediment sourced from the Central Basin

Platform. They state in here, in this article, that the Pennsylvanian clastic input was from the Pedernal Uplift and the Central Basin Platform.

Once again, in the map you can see the arrows of sediment supply, yes, coming from the Pedernal Uplift to the northwest, but also coming off of the Central Basin Platform in an east-to-west direction into the Delaware Basin.

The next slide, slide --

COMMISSIONER OLSON: Mr. Chair --

THE WITNESS: Yes.

COMMISSIONER OLSON: -- I didn't see any matching the -- what I've got here.

CHAIRMAN FESMIRE: Yeah, I can't -- I don't think we have that Exhibit 12.

THE WITNESS: Well, let me check.

CHAIRMAN FESMIRE: Oh, here it is, it's on the next page.

COMMISSIONER OLSON: Okay.

THE WITNESS: Okay?

COMMISSIONER OLSON: Found it, thanks.

THE WITNESS: Do you want me to back up to this one or --

CHAIRMAN FESMIRE: No.

COMMISSIONER OLSON: No, that's okay.

THE WITNESS: All right.

Q. (By Mr. Kellahin) For clarification -- just a minute, Mr. Godsey --

A. Yes.

Q. -- your page numbers in the bottom right corner of --

A. Yes.

Q. -- of the hard copy, if we use this number, we can then relate this number to the slide?

A. Yes, in red I have the slide Lit Rebut number, but in blue is the page number that will appear in your handout.

Q. So when we're looking at the wall in Slide Literature Rebuttal 7, if we turn to page 8 of the handout, then we're looking at the hard copy of what's displayed on the screen?

A. That's correct.

Q. Please continue, Mr. Godsey.

A. Okay, this is slide 6 again, I think that's the one we just talked about.

Q. Yes, sir.

A. The next one, slide 7, is still out of Samson Exhibit 12, from page 42. Again it shows the paleogeographic map of the Morrow, with sediment source from the Central Basin Platform. It shows east-to-westerly

sediment transport direction. You can see that with the numerous fluvial channel systems drawn in here.

And it shows the outline of the Delaware Basin. If you look at this curved line through here, this is more or less the outline, if you will, of the Delaware Basin. You'll note how the transport direction varies as you come around the arc of the Delaware Basin. Exactly what you would expect.

For instance, on the west side of the Delaware Basin, your transport direction is from the -- more or less a west-to-east or northwest-to-southeast direction. As we go northerly into the Basin, northern extents of the Basin, the transport direction is from the north to the south. And as we come over to the east flanks of the Delaware Basin where we are, off of the flank of the Central Basin Platform, the transport direction would be from east to west.

You'll note also, the axis of the Delaware Basin is out here just west of the Eddy-Lea County line, trending in a north-northwest-to-south-southeast direction. Significant- -- As a matter of fact, the deep part or axis of the Delaware Basin, that line would be due west of the KF area.

Following the literature again, this is Samson Exhibit 18, page 160. Now this is a -- zoomed in on the

very bottom right-hand corner of that exhibit, and again, this is --

Q. Excuse me, Mr. Godsey.

A. Yes, sir.

Q. You're looking at page 19 on the hard copies?

A. Yes, page 19 on the hard copies. I'm sorry, I'll start referencing that. My mistake.

So again, from Samson Exhibit 18, page 160, bottom right-hand corner -- it would be page 19 in your handout -- again, this is another paleogeographic map of the Delaware Basin. Again, you can see the sediment transport direction from the east to west direction, coming off of the Central Basin Platform highlands into the Delaware Basin in an east-to-west direction.

The next slide would be Chesapeake Exhibit GEO 13, and that would be page 24 in your handout. Again, this is the McGooky book. Once again, he states -- he shows the paleogeographic map of the Morrow. Again, you can see the shape of the Basin, you can see the Central Basin Platform area, and you can see the arrows showing the east-to-west transport direction for the river systems coming off of the Central Basin Platform highlands into the Delaware Basin.

So these are -- what? -- five different examples, all showing essentially the same thing throughout the literature about the shape of the Delaware Basin, the

timing of it, sediment transport coming from the Central Basin Platform into the Delaware Basin.

Q. Let me direct your attention to the Mississippian. In reviewing the literature search again for information about the topic, what did you conclude about the Mississippian?

A. The Mississippian rocks were eroded from the surrounding exposed land masses and were viable sediment sources for the Morrow sand deposition. Erosion of the Barnett and Chester sands and the lower Mississippian cherts contributed sediment. I would refer you to Samson Exhibits 6, page 75; Samson Exhibit 10, pages 414, 415, 417; Samson Exhibit 12, page 38; Samson Exhibit 15; and Samson Exhibit 15A, page 77.

Again, for the east of your reviewing this, the page numbers of the handout are shown in here beside them.

Q. What did you conclude about the axis of the Delaware Basin, Mr. Godsey?

A. The axis of the Delaware Basin lies to the west of the KF 4 State Number 1 area. It's near to the Lea-Eddy County line and trends in a north-northwest-to-south-southeast linear lineation. Again, I can refer you to Samson Exhibits 40, page -- figure 1-7; Samson Exhibit 12, pages 39 and pages 42; Samson Exhibit 18 at page 160; and again to the Chesapeake Exhibit GEO 13. And once again,

those page numbers for your handout are shown out beside those.

Q. Let's talk about the review of Samson's literature papers with regards to the Central Basin Platform.

A. Well, in the vicinity of the KF 4 State Number 1, sediments originally eroded from the Pedernal and deposited during transgression and highstand along the flanks of the Central Basin Platform were then eroded again from the Central Basin Platform and re-deposited by dip-trending incised fluvial systems during regression and lowstand. Supplemental sediments were derived from erosion of the Mississippian section, off of the exposed Central Basin Platform itself. Now this resulted in an overall east-to-west deposition direction by dip-oriented fluvial and fluvial deltaic systems in the vicinity of the KF 4 State Number 1.

Here I can refer you to Samson Exhibit 40, page 2; Samson Exhibit 40, pages -- figures 3-29; and Samson Exhibit 18, pages 159 and 160. Again, for your reference, the page number of the handout is shown there in blue next to your outline.

Q. Based on all the literature search, Mr. Godsey, that you have reviewed from the Samson literature documents, can you give us the summary?

A. Yes, I can. That would be slide 10, and it's also the last page of the handout here.

Many of the points on this literature summary are what I've already made here, but the first one I really want to hit on. This is a cross-section of the literature from 1955 to present. It includes 25 different authors, and they're all saying essentially the same thing that I've indicated here in the outline.

The Delaware Basin began forming in the late Mississippian, into the early Pennsylvanian.

Morrowan sediments were derived from the Pedernales Uplift to the northwest and locally from the Central Basin Platform to the east.

In the vicinity of the KF 4 State Number 1, this included sediments originally eroded from the Pedernal, deposited during transgressions and highstands along the flanks of the Central Basin Platform, and then eroded again from the Central Basin Platform and re-deposited.

Supplemental sediments were derived from erosion of the Mississippian section off the exposed Central Basin Platform.

The Midland Basin was not yet formed during Morrowan time and was an area of non-deposition.

This resulted in an overall east-west deposition direction by dip-oriented incised fluvial and fluvio-

deltaic systems in the vicinity of the KF 4 State Number 1.

The axis of the Delaware Basin lies to the west of the KF 4 State Number area and trends in a north-south lineation.

To the west of the KF 4 State Number 1 vicinity, dip-oriented fluvial sand depositional systems merged in the deeper Delaware Basin with sands derived directly from the Pedernal Uplift.

Mapping of the middle Morrow sands as one unit must be followed by detailed stratigraphic correlations and sample analysis to differentiate individual sand units.

Individual sandbodies should then be mapped separately to differentiate reservoir separation.

And then finally, reservoir engineering data, production decline histories and pressure data analysis should be utilized to confirm geologic interpretation.

This is a summary of the information I gleaned from the literature exhibits presented by Samson, as well as what I had presented previously.

Q. All right, Mr. Godsey, let's turn to your geologic rebuttal slides.

A. I'll have to end this show and go to the next one. It will take just a minute for it to pull up. Okay, I'm ready.

Q. All right. Mr. Godsey, do you agree with Mr.

Johnson's opinion that the Central Basin Platform did not exist during the time the Morrow sands were being deposited in the area of the KF State 4 well?

A. No, I do not. The literature is clear and consistent in that the formation of the Central Basin Platform began in late Mississippian, into the earliest Pennsylvanian. The literature is clear on that, plus the regional work that I've done throughout my career in the area bears out this time.

Q. Do you agree that at the time of the Middle Morrow sand deposition, that the area of the Central Basin Platform was too low a relief and swampy to contribute significantly to Morrow sediments?

A. No, I do not. The vast majority of the literature is in agreement that the Central Basin Platform was emergent at this time. In fact, many of the authors refer to the Central Basin Platform as a mountainous highland. My own work shows that the CBP, Central Basin Platform, was an exposed landmass.

Now during the most extreme high-sea-level periods it may have been a relatively low-relief area, but during dropping sea levels and lowstands the Central Basin Platform clearly had substantial relief. Remember, sea level fluctuated numerous times throughout the Morrowan time, and the fluctuation was 250 feet to as much as 400

feet of sea-level fluctuation, and that would give plenty of relief.

Q. Do you agree with Mr. Johnson that the Central Basin Platform did not contribute the deposition of the Morrow sands?

A. No. Again, the literature is clear and consistent regarding erosion of the exposed highlands surrounding the Delaware Basin. That included the Central Basin Platform in shedding sediments into the Basin during the Morrowan time.

Also, the work I have done in the Basin the last 27 years all agrees with this.

Q. Do you agree with Mr. Johnson that there is no Mississippian erosion in proximity of the KF State 4 area?

A. No. The literature is very clear about the erosion of the Mississippian section, and my own work supports that as well.

Q. Do you have a slide you can show us?

A. Yes, I can. That would be Exhibit GEOR 7. The purpose of this is to illustrate the erosion of the lower Paleozoics from the Central Basin Platform.

Q. Do that for us. Show us.

A. I'm sorry. This cross-section here is a stratigraphic cross-section. It's hung at the Atoka. Up here you can see the flat line where it's hung. It's a

three-well cross-section. The right end is to the east, up on the Central Basin Platform. It's not up on the very tip-top. If I went further up, higher on the Central Basin Platform, even this section would be gone.

What we see in this well on the right, this is a part of the lower Mississippian section, and we have the -- I'm sorry -- yes, lower Mississippian section. Then we have Woodford and Devonian below that.

As I come to the middle log in the section, you can see it has dropped down some. We have more of the Mississippian section left, but still not a complete section.

And as we come to the third well, the most westerly of them, we have yet more of the Mississippian section left there. Still probably not a full section, because there's no Morrow even present.

If you look on the index map here, you can see the KF State area is south of it about 3 1/2 miles, and it's actually slightly east. So the last two wells on the left side of the cross-section are still up on the Central Basin Platform, yet they are north and just slightly west of the KF area. And so the Central Basin Platform at this area juts out to the west, there is no Morrow present right there. And that, in and of itself, would preclude a north-south orientation of sands coming from the Pedernal Uplift,

which is way off to the northwest.

Q. Do you agree with Mr. Johnson that the erosion of the Mississippian could not be a sand source for the KF State 4 area?

A. No, I do not. By eroding the Mississippian, Barnett shale and the Chester, there would have been contribution of sand -- that's illustrated in the literature handout that you have -- but also erosion of the Mississippian cherts and cherty limestone sequence would have contributed sand sediment, and this is illustrated in the next slide.

This is just a zoomed-in section of the middle well in the cross-section. We're looking here at the lower Mississippian chert section. This entire section here of, oh, about 120 feet, is predominantly chert right there, and it is a kind of a brownish-looking chert or cherty limestone, or in this case it's kind of -- a little bit of a limey chert.

Below that, in the lower Miss. limestones, you have still significant chert even in that section, but this would be part of the sediment source for the supplemental sands deposited that came off of the Central Basin Platform.

Q. How does this match the description from the mud log of the sand?

A. Well, it actually -- it matches it very well. And if you think about it, when you drill into a chert nodule in and of itself and break that up with your bit, yes, you're going to see a fresh broken face there, it'll be a very sharp, angular, conchoidal-fracture-looking piece in the cuttings.

However, if you take that same chert, erode it and weather it, transport it, maybe deposit it and re-deposit it two or three times by sea-level fluctuations and being picked back up by fluvial systems and redeposited back and forth, what you are doing then is, you're abrading it, you're rounding it off a little bit, and you're weathering it such that when you drill into that, it has been deposited as sand grain. You're going to look at it in cuttings, and it will be a subangular to angular, brownish-looking sand grain, which matches much of the sand described in the mud logs on both the KF State and the Osudo well.

Q. Mr. Godsey, both you and Mr. Johnson have used different methods for determining the net clean sand for each of the control wells in this five-section area?

A. Yes, we have.

Q. Does the difference matter?

A. Yes, it does.

Q. And why is that?

A. Well, first of all, his technique does not actually determine lithology, as we discussed in my previous testimony. It's really a second-best-guess technique to be used when you don't have a complete neutron density log suite.

But one of the key wells is the Hunger Buster Number 3. It's located in Section 9, Unit I. Mr. Johnson's first assessment was of 32 net feet of sand. He now claims there are 26 feet. But it is clearly 11 feet when you properly determine the lithology. Now that's a significant difference because of the location of the wellbore.

I conclude this well is on the edge of an east-to-west-trending reservoir, and the production performance bears that out. If you'll recall, that's a very poor well.

But Mr. Johnson said that because of his thickness assessment and the location immediately south of the Osudo Number 1, that it's in the heart of a north-south-trending channel.

Can you demonstrate why you believe you're correct and why you believe Mr. Johnson is wrong?

A. Yes. We'll need to go to slide 4. This is Chesapeake Exhibit GEO 21 again. Again, this is the log section from the Hunger Buster. The gamma ray is on the left, the neutron density on the right. Let me identify

some of this for you. Highlighted in yellow and matching the neutron density lithology crossover that you see on the logs, that would be the Chesapeake evaluation. It totals up to 11 net feet of sand.

Now what Mr. Johnson has done, he's used -- he stated he used a 50-API gamma-ray cutoff and a 6-percent porosity cutoff. This red line here is the 6-percent porosity cutoff. Keep in mind the scale on these. Porosity scale is on the right. That's minus 10 to 30 at the depth column, so this is two porosity units per division. This would be zero right here, and where the red line is, that's 6 percent. And he's using cross-plot porosity. The shorter dashed line here is the neutron log, the long dash-dot line would be the cross-plot, and the solid curve would be the density log.

He also used a 50-API gamma-ray cutoff, which is this line highlighted in green. The gamma-ray scale here is zero to 100.

Now when I go in here and look at this I cannot come up with Mr. Johnson's numbers. When I use a 50-API cutoff in here, as he stated he used, I actually get something like 38 feet.

Now if you look, the way you do this is, you take anything less than or equal to your cutoff on the gamma-ray and count that, and then anything within that that has 6-

percent or greater porosity.

Well, at first glance at the porosity cutoff you can see everything is greater than 6 percent. So then by definition, anything that is less than his 50-API cutoff he's counting as sand. When I do that, in this uppermost lobe you'll count 5 feet of sand. In this middle lobe at about 11,850, I count 6 feet of sand there. Remember, this is 2 feet per division on the depth scale. And the next sand down I get 3 feet. And then this bottom sand unit I get 24. That adds up to 38 feet. I cannot duplicate his number.

Now --

Q. In order to duplicate his number, what did you have to do?

A. Well, I had to drop down, really, just below a 40-API cutoff to get towards his 26-foot number. Now this is a modern log. In fact, it's one of the most recent ones drilled out here. Of the recent drilling activity out here, Halliburton has logged the KF, the CC, the Apache well and the Hunger Buster, so these are all Halliburton logs that were logged within a few months of each other. In fact, the logging truck came out of Hobbs, New Mexico. All of them used the same tool setup, they used the same API scale of zero to 100. And they all do the same pre-survey and post-survey calibrations, meaning before they

log they calibrate the tool, they log the hole, and then they calibrate it again to check and make sure that it's still within calibrations, and it was on all of these.

Now the Osudo was logged by Schlumberger. They used very -- almost the same procedure. They calibrate before and after, and everyone is using the same API-type source that's designated by the American Petroleum Institute, and they're on a zero-to-100 scale also. So there's no normalizing of the curves to take place here. Those modern ones are reading about the same.

So what I surmise is, his 50 API that he claimed he used on all the wells out here he's not applied consistently.

Q. Let's go to slide 5.

A. Now to illustrate some of the differences here and where they fall, if you recall, this is our GEO 19 exhibit, which is the cross-plot chart out of the Halliburton log book. And I stated at that time that in green the Hunger Buster 3 Number 9 I, is the well in question here, will not plot close to the sand line. If you recall, the sand area is the area highlighted in yellow here, and it's hovering around the sandstone line on the cross-plot.

Let me run back just very quickly to the actual log. The areas that I'm talking about that are in dispute

are circled in green here on the log, right there at about 11,850 and then here around 11,900 again. And if you look here at the readings of the logs, where the neutron and densities are actually falling, they're not going to plot anywhere near the sand line. In fact, here in this upper lobe, this is 6, that's 8, 10, 12 -- we're reading about 12 on the neutron, and we're reading 6 to 8 on the density curve.

When you go back to the next slide, the chart book and you come in on the density curve, you come in with the 10- to 12-type number -- I'm sorry, on the neutron log down here, you come in at 12, you come up until you hit the density log, which is reading about 8, and that's where it plots. It plots not anywhere near the sand line. In fact, it's the other side of the limestone line from the sand region.

So what Mr. Johnson has done in these disputed areas that I've highlighted in green -- there and there, there's more of them right in this area just above that -- he's counted that as sand when, in fact, it is not sandstone.

Q. Did you review a copy of Samson's Exhibit 34C.

A. Yes, I did.

Q. That was the Halliburton display.

A. Yes, I did.

Q. Do you have a copy of that?
A. Yes, I do. Can we put this --
Q. Let's put this on the -- Here, I've got one.
A. Do you have one all ready to put up?
Q. No, I'll have to use yours.
A. Okay.
Q. Identify this display now.
A. Okay, this is Samson Exhibit 34C. It's the log analysis that was done by Halliburton.
Q. What's your assessment of this?
A. Well, it's really, actually misleading, as far as determining net feet of clean Morrow sand.
Q. This was an exhibit that Halliburton prepared on behalf of Mr. Johnson, right?
A. Yes, this was prepared by Halliburton. In fact, the log analyst that did this work was Mr. Jeff Laufer out of Midland, Texas.
Q. Are you aware of who he is?
A. Yes, I've known Jeff for a number of years.
Q. Have you inquired of Mr. Laufer the computer program that he utilized for this purpose?
A. Yes, I have, I talked to Jeff specifically about this analysis back in early October of 2006. I almost said this year.
Q. Have you satisfied yourself that you have a clear

understanding of the method he utilized to generate this analysis?

A. Yes, I have.

Q. In your opinion, does the Halliburton analysis reflect the use of a 50-percent gamma-ray cutoff?

A. No, it does not at all. What this program actually uses is a clay volume cutoff, not a gamma-ray cutoff. And I think there was a -- possibly a miscommunication between Mr. Johnson and Mr. Laufer. Mr. Johnson testified that he gave him the parameters to use, and he said to use a 50-percent cutoff. Now --

Q. Apparently -- What does it look like they used when they actually did the work?

A. Well, they actually used a 50-percent clay volume cutoff, not a 50-API gamma-ray cutoff, which is significantly different.

Q. Tell us why that matters.

A. Well, it's a huge difference. Normally what Mr. Laufer would use, and what I would use, would be -- if I'm calculating a clay volume to determine net clean sand, I would use a 30-percent clay volume as my maximum cutoff. My experience shows that anything greater than that, your clay volume is so great that it's really not going to be productive at all.

So -- And as a matter of fact, in Mr. Johnson's

testimony I heard him state several times when he was discussing the 50 cutoff -- He means a 50-API gamma-ray cutoff; he actually said a couple times by mistake a 50-percent cutoff. There is no percent on the gamma-ray curve. It's an API curve of -- and it's scaled generally in this area at zero to 100 API units.

So when Mr. Johnson was talking about a 50-percent cutoff, Mr. Laufer, thinking -- in his analysis must have thought he meant a 50-percent clay volume cutoff, and it's a dramatically different thing.

Q. If you use the calculation the way you think it ought to be used, what's the net resulting clean sand for the Hunger Buster?

A. Well, you get 11 feet of net clean sand, and I discussed that specific question with Mr. Laufer.

Q. Were you present for the testimony and the exhibits presented by Mr. Charuk?

A. Yes, I was.

Q. Did Chesapeake buy some of Mr. Charuk's proposed acreage?

A. Yes, we did.

Q. In doing so, Mr. Godsey, did Chesapeake also buy the geologic interpretation that Mr. Charuk was peddling as part of his prospect, that there was a north-south-oriented channel to the Morrow?

A. No, we did not, and we can reference Exhibit GEOR 5 for that.

Q. Were you present for those discussions with Mr. Charuk at Chesapeake?

A. Yes, I was.

Q. Let's turn to your Exhibit -- Rebuttal Exhibit 5.

A. Okay, this is Exhibit GEOR 5. The purpose of this is to show that Chesapeake did not buy the prospect but rather purchased some of their leasehold acreage. Now this is a copy of his map. The acreage we purchased from Cheney and Charuk is highlighted in green. That would be these greenish squares you see there, there, up here and to the north. The acreage we did not purchase is highlighted in green -- excuse me, in gray -- this kind of laydown L-shaped tract there. And then acreage that Chesapeake independently purchased is highlighted in blue. That would be these 160-acre tracts here, here, there and there.

We never necessarily agreed with their mapping, but we did like some of their acreage due to our own mapping. We never discussed our interpretation of the area, nor did we show them any of our geology.

Now --

Q. Had you based your purchase and your exploration on their mapping, what would you have done?

A. Oh, well, we would have drilled nothing but dry

holes. In fact, all the activity that has taken place since this has disproven and discredited this -- discredited the interpretation.

The CC State 3 Number 1 was drilled here. It is essentially a dry hole. It had two 3-foot sands in it, so his map missed on that significantly.

The well south of that in Section 10 by Apache is a dry hole.

The Osudo 9 State Number 1 is out here where it maps no sand. It's obviously a very good well.

The KF 4 State Number 1 is mapped out here where he shows no sand. It's a good well.

And then out here at the Hunger Buster we have -- I claim 11 feet of sand in that, and yet he maps zero sand.

So all of the activity that's taken place since this map was generated has discredited this map entirely and illustrates why we really weren't buying his interpretation of the area. We liked some of his acreage, and that's why we responded as he mentioned in his testimony, Mr. Charuk did, was that we responded very quickly that we would like to, yes, look at their prospect.

Exactly, we did, because as soon as their acreage position was pointed out to us we pulled out our mapping of the area and we said, Oh, yeah, we like some of this. And we did not rely upon his geology at all in evaluating the

area.

Q. Has Mr. Charuk complied with the cautions that Mr. Mazzullo put forth in his literature papers?

A. Well, no, he's not. If you recall, what Mr. Mazzullo said was, if you treat the entire section as a single geologic engineering unit, presumptions made regarding depositional environments and reservoir trends can be misleading and can result in either missed opportunities or dry holes. Again, that's out of Samson Exhibit 7, Mazzullo, page 59.

Q. Can you illustrate for us the effects of the mistakes that Samson has made with regards to their original geologic mapping?

A. Yes, that would be slide 7. Now this is --

Q. First of all, describe what we're seeing here.

A. Sure. This is our GEOAD 35 exhibit. This is Samson's original map that they showed in the original hearing a year ago. It's a sand isopach with color fill in here where you see sand. It's superimposed on structure in here.

Now what I've pointed out here are the problems that this map encounters and how it's similar to exactly what Mr. Mazzullo has stated.

First of all, you'll notice there's numerous Morrow producers that he's mapped as zero that are now

producers. There are producers here -- two producers in Section 7 that he's got mapped as zero sand. There's a producer in 18C that's he's mapped as zero sand. There's producers down here in Section 21 he's mapped as no sand. There's a producer right here in 14P he's mapped as no sand, but again it's a Morrow producer. And we have a Morrow producer up on the north end that he's also mapped as no sand. So that's one of the problems that Mazzullo pointed out.

Also, you will note that part of his reason or excuse for drawing this north-south sand trend in the KF area was what he believes to be a paleo-high in the northern part of the map area that created a distribution trough or low that controls sand deposition. When you look here at his map, here's his low, right here, and his sand doesn't even go through it. In fact, it goes wandering off up towards the Central Basin Platform, not even in the low that he claims is what would have controlled sand deposition in the area.

Also you look in here, the best well in the area, 28.5 BCF up here in Section 5, it's up on this high that he says is a paleo-high that controls sand deposition.

So you know, this and numerous other points all point to the Mazzullo caution and why Mr. Mazzullo stated that.

Q. Have you done additional analysis of Samson's geologic presentation?

A. Yes, I have.

Q. Turn to slide 8.

A. Okay, this is slide 8, and it's actually the same map that you just saw. What we've done is, we've digitized that map in, his isopach contours, and then I just changed the color fill slightly.

What you see here in the gray area is where he has mapped zero sand present in the Morrow out here. And then in red are where Morrow producers actually are. And then I've added in some dots here. Yellow dots are an indication of where there are -- where there is sand by his current evaluation of sand presence of 5 feet or greater.

Q. Does drilling demonstrate the presence of Morrow sand production in areas that should not have been productive, using Mr. Johnson's map?

A. Absolutely, absolutely. Again, you can see these producers here in Sections 7 and 18, you can see producers in 21, as well as 14, and producers up to the north in Section 29 up there to the north.

Q. What's the color code -- the gray color code mean?

A. The gray wells are wells that essentially have no sand. It's 4 feet or less. So where you see a yellow dot

on here, it has 5 feet or greater sand by his current determination of sand. Where you see the gray dot is where he has essentially no sand.

What you see is, up in this area to the north part of the map where he claims the paleo-high is, you see yellow going right across there, i.e., there's sand in those wells. And you see the gray dots, where there's essentially no sand, are scattered all around the map with no relationship to any paleo-high.

Q. All right, let's go to your Rebuttal Exhibit Number 2. Can you use this -- You prepared this next display?

A. Yes, I did.

Q. And it's superimposed on one of Mr. Johnson's geologic maps?

A. Yes, and what I've done is the same thing, same technique I did on the previous slide. Again, we took --

Q. This is his final map?

A. This is his final map. We digitized in his contour lines, and then I put in the same color fill on the contours as you saw on the previous slide.

Now the only thing that has changed here is, he's re-mapped it. There hasn't been any real drilling activity that really could have changed anything, but look how dramatically different these maps appear. Remember, the

gray areas are areas where he has zero sand. With the same well control, this is what it looks like. He shows no areas that are gray, i.e., no sand areas, out here where he showed so much previously.

In mapping this, he has changed his values by 10 feet or more in this map area on 51 wells. It's not due to new activity, it's due to him changing his values that he's used. He's been very, very inconsistent.

Another thing you'll notice in here is, this map extends a little further to the south, beyond where he stopped mapping. This string of red dots lining up continuously in an east-to-west direction are Morrow producers down here to the south. You can see that his mapping is not going to match that at all.

Q. When you look at the KF State 4 sand, where is the control for the north points on that contour?

A. Well, there's really not any. If you look here, he's on a 20-foot contour interval. And from the KF and Osudo area, this 20-foot contour line, he has no control until he goes to the very northern part of the map, three and a half miles up there, is the next point of control that has 20 feet or greater sand. So he's extended this entire sand trend up there with no control.

He's done that several times in the map area. If you look over here on the two most westerly sand trends

he's drawn in here, you can see down in here, in the region between Sections 7 and 12 and 18 and 13, there is no point of control to give you a thin area. The wells are very close together, yet he's chosen not to connect those sandbodies together at all, and yet he's extended this 20-foot contour line four miles to the north. There is no point of control on that entire sand trend that gets to 20 feet. So to force-fit a north-south orientation in here he has drawn sand trends that he has no control for and ignored the nearby control.

Q. Let's turn to the topic of this paleo-high. Is Mr. Johnson correct about the paleo-high being a closed structure that has caused the sand, Morrow sands, to split into a western channel and an eastern channel with an orientation north-south?

A. No, he's not.

Q. Can you illustrate for us why you think he's wrong?

A. Yes, I can, and this would be slide 10, it's Chesapeake Exhibit GEOR 3.

Q. First of all, tell us what we're seeing --

A. Okay --

Q. -- when we talk about the information you've imposed on it.

A. Okay, this again is Mr. Johnson's map, current

map, as he presented in this hearing. It is a composite map. We have structural contours on 100-foot contour interval that he's hand-drawn with -- I believe he was mapping on his pick for top of the Morrow clastics. Then in the -- and he's isopached the -- what he's determined to be net middle Morrow sand, and that's color-filled in a yellow to orange to red color-fill pattern in here.

What I have superimposed on this, again in yellow, are wells that he has indicated have sand in them, i.e., 5 feet or more. And then in gray, though, I've put in wells where he says there's essentially no sand.

What you can see immediately from looking at that is that the gray dots where there are no sands have no real relationship to the supposed -- let me get this map pulled out -- to the supposed paleo-high that he's centered up here in the northern part of the map. As a matter of fact, those are yellow dots going right across that paleo-high.

So I believe his paleo-high is not a high at all -- there is a high there -- and his sand-distribution trough that he puts across here is really not present.

Q. Let me direct your attention to the seismic display that Mr. Johnson utilized in his direct presentation.

A. That would be slide 11.

Q. Do you agree with Mr. Johnson about whether this

seismic profile line establishes the paleo-high as being a closed structure?

A. No, I do not agree with that at all, and I think that this seismic line is not being interpreted in any form or fashion to support that contention.

Q. Well, what's the problem with this interpretation -- what's the problem with the slide?

A. Well, to define a paleo-high that had any kind of effect in the middle Morrow, then you need to define the top of the middle Morrow, and then you need to clearly define the bottom of -- or the base of the middle Morrow, i.e., you need to define that exact interval, and Mr. Johnson has not done that.

He has tied himself in very loosely with the well that's 2000 feet from the line. He's colored in in red on the line -- or excuse me, orange I guess -- a very vague area that he says is the Morrow and then has not represented what the middle Morrow sequence is at all on here.

Now once you've identified that middle Morrow interval, then you need to isochron that interval, meaning you need to pick the iso-time interval from the top of the Morrow clastics to the base of the Morrow clastics and look for iso-time thinning across the structure.

Q. So you can identify a structure?

A. Yeah, so you can identify the timing of the structure and ascertain if it was present at time of deposition and sediments would have thinned over it.

Q. Can you, based upon this data, look at thinning and thickening to determine that you have a paleo-high, as defined by Mr. Johnson?

A. None of the work Mr. Johnson has done here identifies or clarifies any of that, as a matter of fact. Neither has he identified any thickening in the trough area over here, kind of on the right side of the slide. Again, when you look in there he's not identified the actual middle Morrow sequence, he's just loosely colored in in orange just more or less where he thinks the Morrow is, and then he's colored in about where he thinks the Mississippian is, and that is a much thicker sequence than what the middle Morrow really is.

Q. Give us a sense of scale, Mr. Godsey.

A. For scale, the middle Morrow out here is 150 feet thick in this well that he tied in. And that -- It's about 7 to 8 milliseconds per foot out here, so 20 milliseconds would actually be the middle Morrow sequence.

Now in the time scale, you see these time numbers here. That would -- 20 milliseconds would be one-fifth of that, so it would be an interval from about there to there on the line, on the seismic line, and that's much more than

what he's identified there.

So he hasn't done -- he hasn't properly identified the middle Morrow, he hasn't isochroned it to determine any thickening or thinning timewise. Then you would need to actually convert that to depth to see if time thinning or thickening actually related to depth thickening or thinning, and he hasn't done any of that.

I'm very familiar --

Q. Is this Morrow -- Is this Morrow reflector here discontinuous or continuous?

A. Oh, it's very discontinuous. If you really pull out the exhibit and look at in a much clearer sequence than what you can see on this seismic line, that reflector is what we would almost call wormy through there. It's not a good, continuous reflector. It's very difficult to stay on that also. So this line does not define any type of thickening or thinning in here and therefore cannot define any paleo-high aspect to it.

There's a structure here, there's no doubt. Everyone can see that you have faulting to the west, faulting to the east. In my opinion, as I look at this, I cannot discern any time-thinning of the seismic line in the high as compared to going off of the high. That's what --

Q. In your opinion, is this seismic line actually the middle Morrow?

A. What he's define here, no, that pretty much covers the entire Morrow section and maybe a little bit more.

Q. Have you done any additional work, Mr. Godsey, to evaluate the paleo-high, to see if it is in fact a paleo-structure?

A. Yes, I have, and that's in slide 12.

Q. Let's turn to that, sir.

A. Okay, this is Chesapeake Exhibit GEOR 4. Let me fold mine out so it's easier to read. Now --

Q. How did you prepare the map?

A. All right, this is a map generated using Mr. Johnson's well control points for the top of the Morrow clastics. We also incorporated in the fault pattern that he has on his maps right there.

Q. What contours are you using?

A. We're using a 100-foot contour interval, just like he did, but this is a computer-generated map, and it's generated by a computer-mapping algorithm. It eliminates the bias, geological bias, or interpretive mapping applied by Mr. Johnson, and it's just the computer is drawing it based upon his data points.

Now how we really build this thing is, we take the data points, we digitize in his fault traces, and we have the computer draw each fault block separately. If we

didn't do that, it would just try to draw them right across the fault line.

Now what you see here, up here in this paleo-high area, you'll see that there actually is no closure at all. The high is actually up to the northeast, it comes down, and then it flattens out -- there's a structure there, just like we said, but there's no actual closure in here, and --

Q. Keep your pointer there. Now what are the yellow dots there?

A. Right, and that's what I would point out again. As we've seen on previous exhibits, the yellow dots on here are the wells that he has depicted to have sand in the middle Morrow, 5 feet or greater. The gray dots are the ones that have no sand.

And what you see is where this entire high area is, he has sand going all the way across that. When you look at the gray dots, where there's actually no sand, they're scattered around the map area with no relationship to that high structure up there at all; i.e., this really is not a paleo-high, it was not a closed structure, and it did not control sand deposition.

Now one other thing I'd point out here for a quality control check. In this kind of southwest quadrant of the map, you'll note that the contours coming along here and meeting kind of overlap, and then there's a little tail

to them. I said that this was -- this map was generated by the computer in four -- one, two, three, four different blocks. Well, this is a good quality control check. You can see that these contour lines are coming up and meeting and crossing the appropriate contour lines. It's a very good quality control check to make sure that what I've done -- had the computer do -- is actually matching up very well.

So the conclusion from this map, drawn without any bias at all, using his data, is that there is no paleo-high there, there is a structure, it had nothing to do with sand deposition. In fact, where the high is there's sand by his own evaluation, going right across the high.

Q. Let's complete your rebuttal now, Mr. Godsey. Summarize for us your geologic conclusion.

A. Okay, to summarize this, this is slide 13, and I think we have those to hand out in case the Examiners do not have them, Mr. Kellahin. Chesapeake has submitted regional --

MR. KELLAHIN: Excuse me, Mr. Godsey, wait a minute.

CHAIRMAN FESMIRE: Commissioner Bailey, are you still with us?

COMMISSIONER BAILEY: Oh, yeah, I can hear Mr. Godsey loud and clear.

THE WITNESS: Good, I've been trying to speak up.

Q. (By Mr. Kellahin) What we're looking at is a summary that you prepared, Mr. Godsey?

A. Yes, it is.

Q. Give us your summary of your conclusion.

A. Chesapeake has submitted regional geology that is supported and confirmed by the technical literature. Samson has not submitted any regional geology.

Chesapeake's local geology is supported by the geologic literature. Samson's is not.

Chesapeake has utilized the proper industry standard technique for determining sand content from wireline logs. Samson has not.

Chesapeake has been consistent in its sand value determination. Samson has not.

Chesapeake can repeatedly demonstrate their sand determination values. Samson cannot.

The Chesapeake geologic mapping has been consistent throughout. Samson's has not.

The Chesapeake geology is established by multiple mapping horizons. Samson's is not.

Chesapeake has done detailed stratigraphic correlations and mapped the individual sand units. Samson has not.

Chesapeake's geology and sand orientation is

confirmed by the reservoir engineering data. Samson's is not.

The Chesapeake mapping has accurately predicted Morrow sand presence and productivity. Samson's has not.

The Samson "paleo-high" and "sand distribution trough" did not exist.

A north-south orientation of Morrow sand reservoirs is not reasonable in this area.

Composite mapping of the net middle Morrow sands indicates an east-west depositional pattern.

Detailed stratigraphic correlations and mapping of three individual sand units indicates this same east-west depositional pattern.

Reservoir engineering pressure data and gas gravity analysis confirm the Chesapeake geology.

And finally, reservoir engineering evaluation of estimated ultimate recoveries by decline curve analysis and by volumetric analysis confirms the Chesapeake geology.

MR. KELLAHIN: Mr. Chairman, I would move at this time the introduction of Chesapeake's exhibits, and I'll give you a list here.

CHAIRMAN FESMIRE: Why don't you go ahead and give us the list?

MR. KELLAHIN: The list is the literature handout, which is Rebuttal Exhibit B-1; and then there were

slides that Mr. Godsey has identified as GEOR, and all the R slides are 1, 2, 3, 4, 5 and 7; and then he's got two slides that were GEO, they were 19 and 21; and then finally there's a GEOAD 35 slide. We would move the introduction of those exhibits.

CHAIRMAN FESMIRE: Okay. Do we have a copy for the court reporter of the --

MR. KELLAHIN: Yes, I do. He has it.

CHAIRMAN FESMIRE: At this time, is there any objection to the admission of Chesapeake's rebuttal slides B-1; GEOR 1, 2, 3, 4, 5 and 7; GEO 19 and 21; and GEOAD 35?

MR. OLMSTEAD: Mr. Chairman, the only objection I have is to Rebuttal Exhibit B-1. The scheduling order clearly required all rebuttal exhibits be filed by December 7th. Chesapeake had our literature exhibits for two months prior to that. They certainly could have gotten this to us sooner so that we could have prepared for it, so I think that I have to object.

MR. KELLAHIN: Mr. Chairman, these are taken straight from their own exhibits, and for sake of clarity in our presentation we have assimilated them and marked them as an exhibit for rebuttal.

CHAIRMAN FESMIRE: Okay, everything in Rebuttal Exhibit B-1 has previously been admitted as part of --

MR. KELLAHIN: Yes, sir.

CHAIRMAN FESMIRE: Okay. What we'll do is, we'll admit Rebuttal Exhibit B-1 simply for demonstrative purposes to show where those quotes can be located in the Samson exhibits. Is that acceptable, Mr. Olmstead?

MR. OLMSTEAD: Yes, sir. Thank you, Mr. Chairman.

CHAIRMAN FESMIRE: With that, we'll admit Exhibits Number B-1 for demonstrative purposes; GEOR 1, 2, 3, 4, 5 and 7; GEO 19 and 21; and GEOAD 35.

I forget how we were doing this. Mr. Olmstead, are you going to do a cross first?

MR. OLMSTEAD: Yes, sir, if that's permissible.

CHAIRMAN FESMIRE: Yeah.

MR. OLMSTEAD: And I would ask Mr. Godsey to -- if he can reload his presentation so that we can go through the exhibits that way.

THE WITNESS: Do you want the -- Sure, do you want the literature one or the -- just --

MR. OLMSTEAD: The geologic, please.

THE WITNESS: Sure. As a matter of fact, I think all I have to do is...

(Off the record)

MR. OLMSTEAD: Okay, are you reloaded, Mr. Godsey?

THE WITNESS: I think so. I have paper ones here

that are sometimes easier to read, I was trying to get them out. Halfway organized, but I think I'm essentially ready.

CROSS-EXAMINATION

BY MR. OLMSTEAD:

Q. Well, let me ask you about some of the literature first. You quoted Mr. Mazzullo several times, but as I understood, when you quoted him he was talking about the entire Morrow formation, correct? The Morrow A, B and C, when he was -- when you quoted him, the parts in his literature. Isn't that correct?

A. I'm sorry, I loaded the geologic. Did you want the literature rebuttal one loaded?

Q. No.

A. Okay.

Q. Can you just remember what you just testified to about 20 minutes ago?

A. I'll have to go back and look back at those again, if you want me to do that.

Q. I'm sorry, go ahead.

A. I'm sorry, could you restate your question? I got lost here.

Q. The parts of Mr. Mazzullo's paper that you quoted, he was talking about the entire Morrow formation, the Morrow A, B and C; isn't that correct? And there we're talking about more than a thousand feet of interval?

A. I think I'd have to know exactly which quote, because in some cases he may have been talking about a specific part, or he may have been talking about the whole thing, so if you go to --

Q. Can you go back to -- Pick any one of his quotes that you testified to earlier.

A. Okay, let me -- You didn't want the slide show, so let me find that hard copy of that.

MR. KELLAHIN: May I approach the witness? I'll give him my hard copy. I think it's easier.

CHAIRMAN FESMIRE: You may.

MR. KELLAHIN: All right. Mr. Godsey --

THE WITNESS: Yes.

MR. KELLAHIN: -- you may use this.

THE WITNESS: Thank you. I've got a mess of paperwork here.

Q. (By Mr. Olmstead) Well, let's just go to your -- page 1 on your Rebuttal Exhibit B-1. Mazzullo states that, Using simplified models and gross isopach maps -- if you treat the entire section as a single geologic/engineering unit. He's talking about the entire Morrow there, is he not?

A. He's actually talking about the entire Morrow or the entire middle Morrow or the entire lower Morrow or the entire upper Morrow. What he's saying is to break that

into smaller segments.

Q. Break the entire Morrow into smaller segments. Didn't Mr. Johnson do that when he talked about the -- specifically the middle Morrow B sand?

A. No, that's not what Mr. Mazzullo said, and that's not what --

Q. That's not what he's saying right here on page 1?

A. Okay, which question am I answering? I'm sorry --

Q. Isn't that, in fact, what Mr. Mazzullo is saying right here, paragraph 1, page 1?

A. He says to break the Morrow into smaller segments. He also means to break even the middle Morrow into smaller individual sand units.

Q. Where does he say that? Where does he specifically say break the middle Morrow into smaller specific sand units?

A. He didn't say specifically middle Morrow.

Q. Okay.

A. Okay.

Q. Mr. Godsey, you will agree that the middle Morrow sand is a quartz sand, correct?

A. Predominantly, yes.

Q. Okay, and sand is one type of sediment, correct?

A. Yes.

Q. But sediments -- the word "sediment" includes the whole gambit [*sic*]: shale, chert, limestone and sand, correct?

A. Okay, correct.

Q. And didn't, in his paper, Mr. Mazzullo specifically distinguish between sand coming from the Pedernal Uplift and sediments coming from the Central Basin Platform?

A. Actually, Mr. Mazzullo used the terms pretty much interchangeably, as did most of the authors in the research I did.

Q. Now you will agree that the Pedernal Uplift to the north is the predominant source of the Morrow sand in New Mexico?

A. Well, let's define where north is, in reference to where, because relative to the KF area the Pedernal is not to the north, it's to the northwest.

Q. Okay.

A. In the literature, when they refer to the Pedernal coming in north of the Delaware Basin in general, then yes, it's north and northwest of the Delaware Basin. And I stated -- and the literature has said, and I agree -- that the predominant source of sediments shed into the Delaware Basin for the Morrow was from the Pedernal Uplift.

Q. Okay. But you're saying it's just here locally

that there's some sediment off of the Central Basin Platform, correct?

A. The Central Basin Platform, I believe, and the literature says also, that it was a local sediment source for the Morrow.

Q. Okay, but the sediment from the Central Basin Platform is different from the quartz sand coming off the Pedernal Uplift, correct?

A. Oh, yeah, and as a matter of fact, you can see that throughout the Basin. When you go over into Eddy County and up into Chaves County where you move up closer to the Pedernal Uplift, you'll see that the sand grains are more predominantly white/clear, subangular, sometimes angular; whereas when you move east of, say, the central hinge line, if you will, of the axis of the Delaware Basin, to the east side of the Basin, you will see that the sands are not quite so totally white to clear to whitish in color, you see an influx of brownish-colored and darker colored sands. That's exactly what you're seeing in the samples in both the KF and the Osudo.

I've also observed that myself in numerous wells I've drilled in the area.

Q. So --

A. You can go up to the Lovington high, which is north of this area about two townships. That was a high

that was also high at the time of Morrow deposition. And as a matter of fact, from that you have some sand that was deposited in a north direction, going from the Lovington high to the north, and there it had been -- and to the west and to the south off of it, off of that exposed high.

Q. Mr. Godsey --

A. There also you see the sand to be --

Q. Mr. Godsey, you've gone past my question --

A. Oh, okay, I'm sorry.

Q. -- let me re-focus you a little bit.

So that we're clear, the mud logs on wells just west of the Central Basin Platform are going to be different from mud logs of Morrow wells elsewhere in the Delaware Basin, correct?

A. The samples and the sand that you see is a little bit different, yes, because of your positioning from your sediment sources. As you move closer up to the Pedernal, away from the Central Basin Platform --

Q. -- you would expect more quartz sand --

A. -- you would see less --

Q. -- less of the Central Basin Platform --

A. -- you would see --

Q. -- sediment?

A. -- yeah, you would not see the Central Basin Platform sediments very much at all --

Q. And what are --

A. -- over there.

Q. -- the Central Basin Platform sediments?

A. I'm sorry, what?

Q. What are the Central Basin Platform sediments that form the Morrow sand that we're talking about?

A. You had several sources. One of them is the erosion and abrasion and breakdown of the Cherts out of the lower Mississippian section. Also, there are sands and siltstones present in the Barnett shale, which is Mississippian age, as well as the entire upper section of the sand-shale sequence of the Mississippian, and you have sands present there also, and that's in the literature as well.

Q. And I think you mentioned Chester sands earlier, but Chester is a limestone, correct?

A. If you look in your literature that I cited in here, the Chester has some sandstone units in it also.

Q. Okay, and what happened to the Chert? Why don't we see more chert in the mud logs for the KF 4 and Osudo 9 wells?

A. Because what you're seeing there is not a chert -- a freshly broken by the drill bit chert nodule. What you're seeing is chert that was up on the Central Basin Platform. It was weathered, it was eroded, it was

transported. As it's being transported, it's being abraded, rounded off, knocked down to sand-size grains, and it's deposited as a sand along with the other sediments.

Q. So the mudlogger is not able to distinguish the chert from the sand in the mud log?

A. At the time it is deposited like that in the Morrow, it's not really considered a chert, it's a sand grain.

Q. But it's chert, you're telling us?

A. Its source ultimately was a chert. Look, keep in mind, the Pedernal Uplift was a granite. We're not describing that in samples as granite, are we? No, we're --

Q. We're describing it as quartz --

A. -- describing it as sand grain --

Q. -- quartz sandstone --

A. -- because it was eroded from that granite as a sand.

Q. Mr. Godsey, where -- is there any Morrow in the Midland Basin?

A. No, not that I've discerned, and not that I've found in the literature.

Q. Now just a minute ago you testified that Mr. Johnson had previously testified that the Central Basin Platform didn't exist during Morrow time. I think, in

fact, what he testified to was it was not exposed. Wouldn't that be a more accurate reflection of Mr. Johnson's testimony?

A. I guess to agree with that, we'd have to go through all of the actual -- gosh, that would be a lot of reading.

Q. Mr. Godsey, how far would chert need to be transported to become subrounded.

A. To become subrounded. I don't know, that actually would depend upon how many times it's been transported and deposited and re-eroded and transported again, and what the bed-load was. See, that stuff is transported by traction along the bed-load of a fluvial system, and so it's being eroded as it's banging against other grains. And then if it -- if you have a drop in the fluid flow so that it's deposited, then it can get re-eroded, then moved again. It can move back and forth.

Q. So if you're that close -- I mean, if you're just within walking distance of your source, the Central Basin Platform, your chert is really not going to be rounded, is it?

A. Actually, it depends again on how much it has been worked and re-worked. Because typically what has happened to these sediments, and most sediment in here, it has been deposited and then re-worked and re-deposited

multiple times.

And if you look on the mud logs, that's why you see such a hodge-podge of a description in there. You'll see that they're describing white, clear to brown. Well, the brown stuff obviously is not -- and he's describing in both mud logs brown sand grains. Those brown sand grains are sourced from the Mississippian cherts.

MR. OLMSTEAD: Mr. Chairman, if I can approach the witness --

CHAIRMAN FESMIRE: You may.

MR. OLMSTEAD: -- and borrow one of their oversized exhibits, and this is the Halliburton -- this is actually a Samson exhibit, the Halliburton analysis of the Hunger Buster Number 3 well.

CHAIRMAN FESMIRE: Do we have an exhibit number on that?

MR. HALL: 34C.

Q. (By Mr. Olmstead) And the Hunger Buster Number 3 well is central, isn't it, Mr. Godsey, to your theory that there is no north-south trend in this immediate area? Would you agree to that?

A. No, I wouldn't.

Q. Well, you spent a lot of time analyzing the Hunger Buster 3 and disputing Mr. Johnson's analysis of it. Why is that?

A. Because it seemed to be central to his evaluation of this as a north-south-oriented sand.

Q. Okay. But would you agree, then, that if the Hunger Buster Number 3 does have 26 or so feet of sand, that that would indicate a north-south-trend sand in this area?

A. No, not necessarily at all.

(Off the record)

Q. (By Mr. Olmstead) Now let's see, I think Mr. Johnson has testified that he sees 26 feet of sand in that well. How many feet did Kaiser-Francis perf in that well, Mr. Godsey?

A. I don't know, I've not added it up.

Q. Why don't you do that for us?

A. Can you give me the exhibit?

Well, I don't know exactly how many -- what his -- exact perf did he -- did Kaiser-Francis perforate. One shot per foot? I don't know.

Q. Let's just add up the feet that's indicated on the log.

A. Oh, you want me to add up what -- the overall interval, okay.

Q. Yes, sir.

A. Looks like about -- Their total perf interval is, it looks like, 36 feet.

Q. Okay. And 36 feet is certainly more consistent with Mr. Johnson's 26 feet than your 11 feet, correct?

A. As far as the numbers being closer, that's correct.

Q. All right. How many feet of sand did Halliburton come up with on Exhibit 34C?

A. Ah, well, I asked Mr. Laufer that exact question, and his answer --

Q. Look at your Exhibit 34C --

A. -- was that it was 10 to 12 net feet of sand, is what he would give it.

Q. Well, but 34C, if you'll look at the center, they're calling this sand, are they not? It's highlighted in yellow.

A. What you're pointing to is the mud log. Halliburton didn't have anything to do with the mud log.

Q. How much feet of sand is the mud log showing here?

A. The mud log is not defining net feet of sand.

Q. But they're showing sand over an interval. How long is that interval, Mr. Godsey?

A. Could I have the exhibit?

Q. Sure.

A. It's over across the room from me. You're wanting to know how much of the interval that they're

showing sand to be in --

Q. Yes.

A. -- correct?

Q. That's correct. Just add up the feet on Exhibit 34C.

A. All -- it looks like -- well, of course they're only logging about 20 feet there. Well, okay, let's see. They are still logging sand way down here, so there's -- Let's make sure of my depth. That's 20, 40, 60, about 74 feet of interval that they're showing sand. Of course, most of that interval isn't where you all are claiming sand to be. They're not logging any sand up here.

Q. Well, let's look at what Halliburton did log, and they are -- Here Halliburton is calling it -- Well, I've lost it, Ron. Where are they designating the sand?

MR. JOHNSON: The lithology guide is right here.

MR. OLMSTEAD: Oh, okay, quartz.

MR. JOHNSON: Quartz.

Q. (By Mr. Olmstead) All right, and how many feet is Halliburton calling quartz sand?

A. In the whole log section there? I don't know, I've not added that up. Of course, that's including a large portion of what Mr. Johnson calls the Morrow A, where they're -- In fact, if you look on here, on this lithology column here, this is Mr. Johnson's pick, I believe, for the

Morrow clastics. So this is the interval in question. But they're also logging all this up here. And this yellow is sand. If anything, this analysis is showing probably more sand up here in the upper Morrow, the Morrow A, than they're showing in the Morrow B.

Q. But Halliburton is calling all this shaded yellow quartz, correct?

A. Yes.

Q. All right, and Halliburton came up with 26 feet of quartz sand in the --

A. I don't know that Halliburton did.

Q. -- in the Hunger Buster? Isn't that what Exhibit 34C exhibits?

A. No, I have not added that up. That's what Mr. Johnson testified to. But when I asked Jeff Laufer, the Halliburton log analyst, how many net feet of clean sand he gave that interval, he told me -- his exact wording was, All 10 feet. Then he paused and said, No, no, I would say 12, yes, 12 is the number I would use. Those are his exact words.

Q. Well, but his exhibit is different -- or his log analysis is apparently different than what he purportedly told you, correct?

A. Not necessarily. That log analysis is not sitting there counting up and telling you net feet of clean

sand.

Q. In the red here?

MR. JOHNSON: Down to your right.

Q. (By Mr. Olmstead) Here?

MR. JOHNSON: Keep on going, the box is right -- no, keep on -- There you go, right there.

Q. (By Mr. Olmstead) Oh, okay. So on Exhibit 34 he does have net pay and net sand indicated, and wouldn't you say that represents about 26 feet, Mr. Godsey?

A. Again, you've got my exhibit across the room. I need to look at it.

Q. Well, that's okay.

Now -- and again, you mentioned that the Hunger Buster was a poor well, but you -- Are you aware of the completion problems they had with the Hunger Buster, including the parted casing and the defective frac job?

A. I heard the testimony given in the previous part of the hearing, yes.

MR. OLMSTEAD: Okay, if I might approach the witness again, Mr. Chairman --

CHAIRMAN FESMIRE: You may.

Q. (By Mr. Olmstead) -- and I'll show you -- I'm going to present to you your Exhibits GEO 21 and 23. And so your Hunger Buster analysis, as you represent on GEO Exhibit 21, you used the cross-plot, correct?

A. Yes, that's correct.

Q. And on the immediate offset well -- this is your Exhibit GEO 23, the State WEK 1 -- you just used the density curve; is that correct?

A. Well, I had to. There was no neutron log on that. And that's where I talked earlier about your best choice to use is the neutron density log when you have that logging suite.

When you do not have the complete logging suite, then you go to the second-best method, which to use a gamma-ray cutoff and some type of porosity cutoff, as Mr. Johnson has attempted to do on all the wells.

Q. Well now, isn't that mixing apples and oranges? How is that consistent in sand value determination when you're using cross-plot with one well and not on another?

A. Well again, as I just said, you have to use whatever data is available. If you have a wellbore that does not have a neutron density log suite to utilize, then you have to use whatever you have.

Q. But you have a density curve on the Hunger Buster. You could just go with the density curve. That would give you more feet, correct?

A. That would not define lithology properly.

Q. According to your testimony.

A. Actually, according to virtually any log analysis

book you go to -- every log analysis book you go to.

Q. Let's go to your GEO Exhibit Number -- let's see, 34C -- No, I'm sorry, that was a Samson exhibit.

Okay, you testified earlier that you met with Mr. Charuk, correct, when he sold Chesapeake some acreage?

A. That's correct.

Q. Did you or the other geologist there, Mr. Dave Brown, ever discuss or even mention any east-west-trending sands in that meeting?

A. Mr. Brown is Mike Brown, not Dave.

Q. I'm sorry.

A. I'm Dave. No, we did not. It is our policy, we do not show our geology, we do not discuss our interpretation. When someone comes in to show us a prospect we look at what they have, and then we compare it to our existing work to see how it fits our idea of the area.

If we've not done work in the area, then we still do not take a prospect based upon the seller's geology. We do our own work to confirm the prospect.

Q. Can you pull up your GEOAD Number 28?

A. Let me see which slide that might have been. GEOAD 28. I'm not sure which slide that was.

CHAIRMAN FESMIRE: We don't have --

COMMISSIONER OLSON: There wasn't one.

CHAIRMAN FESMIRE: -- GEOAD 28. We've got a GEOAD 35.

MR. KELLAHIN: 35 is the one we used.

MR. OLMSTEAD: Oh, okay, we didn't do 28?

MR. KELLAHIN: No, sir.

Q. (By Mr. Olmstead) Okay, I'm sorry. 35 then.

A. Okay. Be patient while I scroll back here, then. There, yes.

Q. Okay. Now, you did testify that this is Mr. Johnson's original map from the original hearing, right?

A. That's my understanding. You can see the Samson Resources Exhibit K, NMOCD Case Number 13,493, stamp on there.

Q. Well now, so why are you picking on his oldest map? Why not -- Any reason why you're picking on an old map like this? I mean, you've updated your maps, right?

A. Yes, I have.

Q. Okay.

A. Okay. Do you want me to answer your question?

Q. Yeah, please.

A. All right. The purpose of going back to his original map and then -- and looking at it was to illustrate several things. One is that he's been extremely inconsistent in his sand determination values out here, he's been extremely inconsistent in his mapping out here,

and his original mapping was actually extremely inaccurate and did a very poor job of defining sand and Morrow producers out here.

Q. Well, let's just look at what you printed out on GEOAD 35.

A. Okay.

Q. We'll start at the top left-hand corner. You say that the best Morrow producer in the area is on a high that Samson says diverted the sand. And actually it's not on that high, is it? It's on the flank, wouldn't you agree?

A. It depends on where you want to define how high is high.

Q. All right, and then --

A. I don't want to sound like Bill Clinton either.

Q. -- over here you say that the sand is trending uninterrupted across faulting from any down- -- even downthrown to upthrown side. Well, I think we all agree that the faults were not there at the time of deposition. Or maybe they were minimized at the time of deposition. This map shows structure as it is now, correct?

A. I think you asked about three questions there.

Q. Can you answer any of them?

A. Sure, which one do you want me to answer? Just ask one of them, though.

Q. This map indicates structure as it is now,

correct?

A. This map indicates the structure as he sees it now, yes.

Q. Okay. And so those faults may not have been there or certainly not as big at time of deposition, correct?

A. That would be correct --

Q. Okay.

A. -- could be correct.

Q. Now you point to three Morrow producers, but these -- you know, there's a difference between showing no sand and having no data for a well; isn't that correct?

A. Okay, are you asking me specifically about those three wells, or are you saying -- making a question in general if there's a difference between one --

Q. Yes, just because he said -- just because he doesn't have any data there doesn't mean that he's indicating that there's no sand; he just may not have the data, correct?

A. Well, actually he's mapped it as zero sand, and actually those -- all three wells were already down and producing. As a matter of fact, the well in Section 7J is you all's well. It was producing, a Morrow producer flowing down -- selling gas down the pipeline at the time of the hearing, the original hearing.

Also the well at 18C was also a producer that was you all -- and by "you all", I'm saying the three companies represented here -- it was also a Morrow well, had been logged, completed and was flowing gas the day of the hearing we originally had.

So this is not a case of not having the data. You all had the data. I didn't have the data, you all did, and yet you mapped it as zero sand.

Now if you go back to my maps, conversely, I mapped it as sand. In fact, I virtually didn't have to change my maps. I'm glad you brought those up.

Q. Well, I'm glad you brought that up. But just because Mewbourne drilled the well doesn't mean that Mr. Johnson has the data, does it?

A. Well, Mr. Johnson represented in the hearing that he was doing the geology and speaking on behalf of all three parties for the geologic testimony.

Q. Now Mr. --

A. And at the very least, I think -- well...

Q. Mr. Godsey, you've changed your maps over time, correct?

A. Yes, I have.

Q. All right. Substantially?

A. I wouldn't say substantially, no.

Q. Really?

A. They have changed some, but not -- nothing like the changes you see here, that's for certain.

Q. Well, you changed your map about 50 feet, didn't you, more or less? And I'm referring now to your Exhibit 22 from the original hearing. And in fact, this has now been previously submitted by Chesapeake as GEOAD -- Exhibit GEOAD 35. So I would like to go ahead and submit that into the record, but I'll specifically point -- This is your map, correct, Mr. Godsey?

A. I just don't recognize the exhibit number.

CHAIRMAN FESMIRE: Mr. Olmstead, before we get into that, is this GEOAD 35?

MR. OLMSTEAD: I believe it is.

CHAIRMAN FESMIRE: Okay, this is what was admitted in rebuttal as GEOAD 35?

THE WITNESS: No, that's GEOAD 35.

CHAIRMAN FESMIRE: This is --

MR. OLMSTEAD: Okay, let me dig around a little bit.

CHAIRMAN FESMIRE: While we're doing that, Mr. Olmstead, why don't we take about a 10-minute break and get organized and pick things up?

MR. OLMSTEAD: Yes, sir. Thank you.

CHAIRMAN FESMIRE: Are you still there, Jami?

COMMISSIONER BAILEY: I'm still here. Does that

mean that we come back at 3:05?

CHAIRMAN FESMIRE: Yes.

COMMISSIONER BAILEY: All right, I'll be right here.

CHAIRMAN FESMIRE: Okay. Want to just leave the phone on, or do you want me to call you back?

COMMISSIONER BAILEY: We can leave the phone on.

(Thereupon, a recess was taken at 2:55 p.m.)

(The following proceedings had at 3:05 p.m.)

CHAIRMAN FESMIRE: Okay, let's go back on the record. Let the record reflect that it's 3:05, January 2nd, 2007. We're continuing with Mr. Olmstead's cross-examination of Mr. Godsey.

MR. OLMSTEAD: Thank you, Mr. Chairman. If I may approach the witness --

CHAIRMAN FESMIRE: You may, sir.

Q. (By Mr. Olmstead) -- Mr. Godsey, I'm showing you what was previously marked as Chesapeake Exhibit Number 22 in the original hearing, and I do believe it's now been marked as GEOAD 28; is that correct?

A. Yes, that's correct.

Q. So they are one and the same exhibit?

A. (No response)

Q. And I will point your attention to -- on Exhibit 22, where -- about where the Apache well would have been

drilled, you expected the Apache well to come in with something between 40 and 50 feet of net sand; is that accurate?

A. Right around 40, yes.

Q. All right. So you had to adjust your map substantially yourself, correct?

A. I did adjust that, yes.

Q. And I would ask that Chesapeake Exhibit GEOAD 28 be admitted into the record.

MR. KELLAHIN: No objection.

CHAIRMAN FESMIRE: No objection *as* Chesapeake Exhibit zero -- AD 28, or as --

MR. KELLAHIN: I don't know how to keep the record straight. I'm happy to have --

MR. OLMSTEAD: I'm happy with that figure as well, that exhibit number.

CHAIRMAN FESMIRE: Okay, we'll call it GEOAD 28, and it is admitted.

Q. (By Mr. Olmstead) Okay, now I refer your attention, Mr. Godsey, to your Exhibit GEO 4, and I point to what I would call a closed high structure in Section 32. Would you agree that that is a closed high structure in Section 32?

A. Yes.

Q. And further, Mr. Godsey, on Exhibit GEO 4, isn't

this property that's shaded yellow in Section 27, at the bottom of the exhibit -- isn't that additional acreage that you bought from Mr. Godsey -- Mr. Charuk?

(Laughter)

THE WITNESS: You're going to get me in big trouble.

(Laughter)

THE WITNESS: I don't recall where that acreage came from.

Q. (By Mr. Olmstead) If Mr. Charuk represents that he sold it to you, you would --

A. I can't -- I couldn't argue with that statement. It possibly could be true. You're talking about in 27?

Q. Section 27.

A. That may have come from there, yeah.

Q. And that is referenced on your Exhibit GEO 4 as being Chesapeake acreage, correct? It's shaded yellow?

A. Yes --

Q. Okay.

A. -- correct.

Q. By your map, that acreage doesn't look very productive, does it?

A. Well, it depends on what you find when you drill there. I have sand mapped through there.

Q. That acreage is predominantly between the zero

and 10-foot net sand interval; is that correct?

A. That's correct.

MR. OLMSTEAD: No further questions.

CHAIRMAN FESMIRE: Mr. Hall, do you have any questions of this witness?

MR. HALL: Briefly, Mr. Chairman.

CROSS-EXAMINATION

BY MR. HALL:

Q. Mr. Godsey, if we understand your testimony, at the time of your meeting with Mr. Charuk in May, 2004, is it correct that you had pre-existing mapping for the area?

A. I have mapped this area for years. I worked this area when I was working for EOG before I went to work for Chesapeake, and obviously I've been working this area since I've been with Chesapeake.

Q. Can you explain to the Commissioners why you chose not to share with them the mapping you had back in 2004 for the Osudo area?

A. Because that's -- I'd be glad to. Computers are wonderful things, but they're also -- they change how you do things. When we're doing things on a computer now, and basically drawing these on the screen with a mouse, whenever you get a new data point or multiple new data points or change your map in any way, the computer changes it, and that's gone. If any of those exist anywhere, I

don't know where they are. It really didn't occur to me to keep a record of these previous maps until this whole hearing thing came up.

MR. HALL: Nothing further, Mr. Chairman.

CHAIRMAN FESMIRE: Mr. Kellahin, any redirect?

MR. KELLAHIN: No, sir.

CHAIRMAN FESMIRE: Commissioner Bailey, do you have any questions of this witness?

COMMISSIONER BAILEY: Yes, I do.

CHAIRMAN FESMIRE: Speak up.

EXAMINATION

BY COMMISSIONER BAILEY:

Q. Let's paint a picture, let's visualize a scenario during Morrow time when it's an extremely low stand, which means that the Central Basin Platform would be relatively higher, as you testified, even mountainous at times, and the Pedernal Uplift would be relatively much higher, but you would expect drainage to come off of the Central Basin Platform from east to west, given your interpretation, right?

A. Yes, ma'am.

Q. Okay. These drainages, these fluvial systems, are flowing to the west, but at the same time during this very lowstand, the shoreline of the Delaware Basin will have retreated to the west and to the south; is that not

right?

A. Yes, ma'am.

Q. My question to you is, knowing that we have drainages from a very high uplift to the northwest, from the Pedernal, drainages coming from the east towards the west, can we not find a corollary in looking outside? Look at the Santa Fe River, which is flowing west to meet up with the Rio Grande, which flows north-south. Is it within your realm of interpretation that the fluvial drainages from the Central Basin Platform would have intersected with major drainages from the north and northwest, from the Pedernal --

A. Yes --

Q. -- and then flow into the Delaware Basin?

A. Yes. As a matter of fact, that is almost exactly what I am saying. I am saying that during lowstands fluvial systems would have been trending in overall east-to-west direction. There could have been some southwesterly component to that.

At the same time, you would have had fluvial systems coming from the Pedernal in kind of a northwest-to-southeast-type direction, and these would have converged at some point, i.e., coalesced, and then the predominant fluvial system probably -- maybe -- you know, would have been continued on in a southerly direction towards and into

the Delaware Basin.

My contention here in the KF area is that you're up on the flanks of the Central Basin Platform such that the sediment virtually had to go in an east-to-west direction. And when I say east-west I don't mean, you know, you're necessarily taking a compass and have to go exactly due east to west, just going to have an overall east-to-westerly component and then merge with sands coming off the Pedernales, and it will then -- you know, everything is turning and going south down in the deeper part of the Basin, you know, towards the Delaware Basin, that's correct.

COMMISSIONER BAILEY: Thank you, that's exactly what needed to be on the record.

That's all the questions I have.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: I have no questions.

EXAMINATION

BY CHAIRMAN FESMIRE:

Q. Mr. Godsey, one of the things that Mr. Johnson testified to, if I understood his testimony correctly, was that one of the reasons that the east-west-trending reservoir couldn't exist was that during Morrowan time there was no distribution system off the top of the Central Basin Platform, that in his work up there he had never

drilled into braided streams or sands or formations that would indicate that there was distribution off the top of the Central Basin Platform. How would you answer that?

A. Well, you wouldn't expect to find any indication of that today on top of the Central Basin Platform, because as he testified and I agree with, through time, through the Morrow on into the Pennsylvanian, up into the Permian time, the Central Basin Platform continued to move up, and he had more and more erosion, such that on the higher parts of the Central Basin Platform more and more of the sediment that had existed there at one time was eroded away, such that at the Eunice high, for instance, you go straight from Permian rocks into granite.

So the entire Paleozoic section essentially has been removed through time. So because it is not there now, you can't see the upper parts of these fluvial systems that were coming off of the Central Basin Platform. And on the very highest parts anyway, you really -- don't have anything really being deposited there, because it's being eroded away.

Q. Okay. The source material -- The Central Basin Platform, what does it consist of? I mean, what did it consist of at the Morrowan time?

A. At the Morrowan time it was -- the main thing exposed were the Mississippian sediments, and this would

have been the Barnett, Chester, and then the lower Mississippian, so -- which is --

Q. Finer-grain --

A. -- cherts --

Q. -- materials --

A. Well, these are -- the finer-grain materials, particularly the Barnett shale, it's shale, siltstone and some sandstone members. The Chester is, yes, predominantly limestone, but it has a few sandstone members in it.

But then also in the lower Mississippian, this was limestone and cherty limestone and limey cherts, as we saw in the exhibits I showed in rebuttal today. And that was hard rock. That was being eroded just like the Pedernal was. The Pedernal was granite, hard rock that was being weathered and eroded and transported.

So that's what was happening here locally on the Central Basin Platform, and that's the source of these dark to brownish-colored sand grains described in the mud logs in this area.

CHAIRMAN FESMIRE: Okay. I have no further questions.

Mr. Kellahin, do you have anything else?

MR. KELLAHIN: No, sir.

CHAIRMAN FESMIRE: Mr. Olmstead?

MR. OLMSTEAD: No, sir.

CHAIRMAN FESMIRE: Mr. Go- --

THE WITNESS: Godsey.

CHAIRMAN FESMIRE: Godsey, I keep wanting to call you Goseley. Mr. Godsey, thank you very much.

THE WITNESS: Thank you.

CHAIRMAN FESMIRE: Mr. Kellahin, do you have one more witness?

MR. KELLAHIN: Yes, sir, we call Mr. Jeff Finnell.

CHAIRMAN FESMIRE: Mr. Finnell, you've been previously sworn in this matter, have you not?

MR. FINNELL: Yes, I have, sir.

CHAIRMAN FESMIRE: And you understand that you're still under oath?

MR. FINNELL: Yes, I do.

CHAIRMAN FESMIRE: Mr. Kellahin, we're running out of time, so...

MR. KELLAHIN: Pardon?

CHAIRMAN FESMIRE: We're running out of time, so --

MR. KELLAHIN: Yes, sir --

CHAIRMAN FESMIRE: -- if you --

MR. KELLAHIN: -- we'll move right along.

CHAIRMAN FESMIRE: -- could do this quickly.

MR. KELLAHIN: You bet.

Mr. Finnell, do you need to change this slide show, or are you --

MR. FINNELL: No, we're ready to go.

JEFF FINNELL,

the witness herein, having been previously duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. All right. You were present during the Commission's hearings in December on the 14th and 15th?

A. Yes, I was.

Q. And you were here for Samson's engineering presentation?

A. Yes, I was.

Q. You examined the exhibits that Mr. Krawietz presented?

A. Yes.

Q. Has he said anything to cause you to change any of your ultimate conclusions?

A. No.

Q. Let's go straight to the conclusions then. What are your major key engineering points?

A. Okay, my key conclusions are that the KF State was not discovered at virgin pressure. The virgin pressure is over 7000 pounds.

Another conclusion was that there were some pressure production connections between the KF State 4 and the Osudo 9, that the best fit of the engineering data supports three separate reservoirs that are oriented generally northwest to southeast, that Mr. Godsey's mapping is consistent with the engineering data, that the greatest volume of potential reserves in Section 4 are in a 320-acre spacing unit consisting of the southern third, the laydown unit.

Q. Let's go to what you have marked as PE Exhibit 66. It's the one shown on the display here.

A. Okay.

Q. I want you to focus on the major areas of conflict between the engineering presentation by Samson and their geologic presentation.

A. Okay. The first conflict that I found was that Mr. Johnson's Morrow map -- Mr. Krawietz and others testified that Osudo 9 -- point to that well right there, which is right in the heart of the channel -- is not in communication with either the KF State of the CC State to the north, and was not in communication with the Hunger Buster to the south.

The problem is that Mr. Johnson's map is not big enough to hold all the reserves associated to the Osudo 9, because all of these reserves have to be sandwiched in

between these two boundaries. If they're not in connection here and not in connection there, it has to exist in here.

Q. Well now, look, on the eastern side there's a zero contour line?

A. Yes, there is.

Q. Now on the western side you don't see a zero contour line on Mr. Johnson's isopach?

A. No, that is correct.

Q. With that assumption in mind, though, is his container large enough to fit the forecasted production from the Osudo 9?

A. No, it's not. We went ahead and planimetered the area. We drew a line across this section line to the north, and we did a -- just to the north of the Hunger Buster, followed this zero contour here to the east and a similar zero contour to the west, which isn't on the map, but we assumed it there to have to have an end somewhere. And we came up with this reservoir inside this box will hold 6.6 BCF of gas.

The problem is, our reserve estimates for the Osudo 9 are 13 BCF of gas. This well has already made 5 BCF, and it's still making 5 million a day. All of that gas just doesn't fit in that map.

Q. So what does that, as an engineer, tell you about Samson's geologic map?

A. The map is wrong. It can't be right. In fact, that map has to be twice as big to hold all the gas that we're seeing from the production of the Osudo 9.

Q. Let's talk about the reservoir relationship of the KF State 4 and the Osudo 9.

A. Okay.

Q. Is the production from both of those two wells in competition in the reservoir, creating a boundary or a no-flow effect between the two at some point?

A. No, I don't believe that there is. I believe that those two wells are in communication with each other, drawing from the same reservoir.

Q. Well, as they draw from the same reservoir, they're going to have a point of drainage that meets, right?

A. Yes, that's correct.

Q. A no-flow boundary, if you would.

A. Okay.

Q. Can you approximate at this time where that no-flow boundary might be?

A. It depends. If you're using this map -- I'm not sure I could --

Q. Does it fit?

A. No.

Q. Doesn't fit?

A. It doesn't fit, not on that map.

Q. If that no-flow boundary is being created between those two wells, would you expect the reservoir being produced by the Osudo 9 to be elongated along that boundary?

A. Yes.

Q. You don't see that on this map, do you?

A. No.

Q. The map's too small?

A. The map is too small.

Q. Let's go to the 7000-p.s.i. line.

A. Okay.

Q. Have you examined that issue?

A. Yes, I have.

Q. Is that a difference of opinion between you that's a conflict?

A. Yes, it is. Let's go to Exhibit PE 53, which is Mr. Krawietz's 7000-p.s.i. line.

Q. This is Samson's Exhibit 47?

A. I believe that to be correct, yes.

Q. Does Mr. Krawietz' 7000-p.s.i. line make any sense to you as an engineer?

A. No, it does not.

Q. Does it make any sense in relation to Mr. Johnson's geologic map?

A. No, it does not. Matter of fact, he testified that he had not even considered the geology when he drew that map. It's merely an observation of pressures.

Q. In your opinion, is there any engineering basis --

A. No, there's --

Q. -- in reality to have that line like that?

A. No, there's no engineering basis to draw that, it's just an observation.

Q. What is this line?

A. Well, this line is just an explanation as to why the wells to the east are greater than 7000 pounds and the wells to the west are less than 7000 pounds. And he has to do that to explain the difference between the two.

Q. So the 7000-foot line there is necessary for his argument to explain the pressures?

A. To explain the virgin pressures, yes.

Q. Without that line, what happens?

A. There's no explanation as to why one side of the reservoir comes in at a high pressure and the one comes in at a low pressure.

Q. Let's go back to the prior exhibit. When you look at Exhibit 66, superimpose with your pointer where the 7000-foot line runs north-south and bisects the isopach.

A. That 7000 line runs right down this section line,

which bisects the channel just about down the middle.

Q. Does that make sense to you as an engineer, to see that pressure relationship east-west along the centerline of the axis of the channel?

A. No, it does not. I find no engineering explanation as to why one side of a reservoir channel would be at one pressure and the other side would be at the other -- at a lower pressure, a lower virgin pressure.

Q. Let's go to the next slide. Next one.

A. Okay.

Q. Here you've gone back to your PE Exhibit 56 --

A. Yes.

Q. -- and you're using Mr. Godsey's map for Chesapeake?

A. Yes.

Q. And on this display, then, you have sequenced the wells and provided data for each of the wells in the sequence in which they were drilled?

A. Yes, and this explanation fits, and that's why the engineering and the geology have to go hand in hand together.

Q. Explain to me how the engineering and the pressure data fit Mr. Godsey's map.

A. Okay, when we started looking at the pressure data we found that the first well in each of these three

separate pods -- We'll start with the WEK to the bottom, which came in at more than 7000 pounds, the second well also at 7000 pound, and the third well, going by pod, the CC State, were all the first wells drilled in each of those pods.

Now they all happen to be on the eastern edge of the pod, that's just the way the pod developed. But their explanation as to why those wells have the higher pressures has to do more with when they were drilled within their own isolated reservoirs.

Q. Let's look at the northernmost pod, the CC 3 pod.

A. Yes.

Q. There's no doubt in your mind that that's disconnected from the KF State 4?

A. That is correct, no doubt in my mind that that well is not connected to anything.

Q. All right, let's ignore that third pod for a moment --

A. Okay.

Q. -- and let's talk about the relationship of what I will call the northern pod to the southern pod. Let's start with the northern pod. You've got three wells in there?

A. The northern pod --

Q. The northern pod --

A. -- you're referring to --

Q. -- the first well in the northern pod is the second well drilled, and it's the WEL?

A. The WEL, yes, correct.

Q. Is that virgin reservoir pressure for that pod?

A. Yes, it is.

Q. What happens to the next two wells in that pod?

A. Okay, there was a big time split between when this well was drilled and the next well, which was the Osudo 9, was drilled. During that time period, this well was slowly draining the pressure off of this entire reservoir. So when the Osudo 9 was drilled, it came in at 6300 pounds, which was less than the original reservoir pressure for that pod.

Q. Of those three wells, then, which one has the only original virgin pressure for that pod?

A. It would be the WEL, the first well drilled.

Q. Did the KF State 4 well have virgin pressure?

A. No, it did not. It also had been affected by the production that came out of this well, and --

Q. Which is the WEL?

A. Which was the WEL, yes.

Q. And what's the relationship between the Osudo 9 and the WK 4?

A. The KF 4?

Q. The KF 4.

A. Both wells are pulling out of the same reservoir, both have below virgin pressure.

Q. Does all that make sense to you as an engineer, that those three wells are in the same pod?

A. Yes, it does. When we looked at this, that fit the map perfectly. It all made perfect sense to us.

Q. Let's look at the southern pod.

A. Uh-huh.

Q. When you're dealing in the southern pod, what's the first well drilled there?

A. Okay, that would be the WEK.

Q. Does that well represent virgin pressure for that pod?

A. Yes, it does.

Q. What's the next well drilled in that pod?

A. Okay, that would be the State 15 Number 1.

Q. Now look at the pressures.

A. Uh-huh.

Q. Why is the State 15 1 pressure higher at the time when it's drilled nine years later than the well that had virgin pressures, the WEK?

A. Okay, when we first saw this data point I thought this indicated that there was a problem with our interpretation, until we broke the log out and looked at

it, and there happened to be a very small stringer that was perforated in the State 15 1 that was not in the WEK 1, and that could explain where the pressure came from. It was a small isolated sand. That would have supplied the pressure that you saw. It depleted quickly, and then the reservoir pressure, then, equalized -- was representative of these two coming out of the same pod.

Q. What's the third well in the southern pod?

A. That would be the PQ Osudo State to the west.

Q. And are all those three wells in the southern pod in contact with each other?

A. Yes, I believe they are.

Q. Now separate the northern pod from the southern pod. How do you do that?

A. From this pod to this pod?

Q. Yes, sir.

A. We saw different pressure regimes between the two of them. We saw -- The pressure as well as the production was dramatically different between this pod and with that pod.

Q. Is there any doubt in your mind that the WEL Number 2 well and the WEK well are, in fact, separated?

A. Yes, I believe very strongly that these -- the WEK Number 1 is in a different, separate reservoir than the WEL Number 1 that was drilled to the north.

Q. That's the disconnect between the two pods?

A. That's correct.

Q. Let's focus, then, on the Hunger Buster 3 well.

A. Okay, let's go to the next -- This would be Exhibit PE 40.

Q. You have a conflict with the Samson engineering testimony with regards to the Hunger Buster 3 well?

A. Yes, I do.

Q. Let's talk about that.

A. And that's another point where -- Once again, the engineer's job is to come in here and say, Does that data that we have match the map? Do we have enough evidence here?

And what we're seeing here, if we look over at the Samson map, we've got this nice channel running down through here, we've got the Osudo 9 right in the heart of it. Okay? Great well.

We drop just a little bit to the south right down the centerline of this channel and we've got the Hunger Buster. That well, according to this map, ought to be a very good well. Not as good as the Osudo 9, but still a very good well.

And we get the KF State sitting over here on the western flank, you know, really out of the channel.

Looking at this map, I would expect the Osudo 9

to be a great well, the Hunger Buster to be a good well, and the KF State to be a marginal well, off on the side.

Now when we look at the actual production, at this graph at the bottom of the slide, we see a completely different story. We see the Osudo 9, great well. We see the KF State takes the position of the good well. And then we've got the Hunger Buster tagging along down here at the bottom.

Okay, now when we go to the Chesapeake explanation for this, now it all fits. Okay? We've got the Osudo 9 being a great well; both maps show it as so. Now we've got the KF State in a much better position within the reservoir. That should be the good well. And you've got the Hunger Buster down here on the southern edge of this middle reservoir, on the edge, and that says that that should be the lesser of the three.

Now Samson tried to explain away that the Hunger Buster was damaged while it was drilling and that there was a botched frac job. That's the explanation for why this is so. And my concern with that is, all of these wells out here were anticipating somewhere in the neighborhood of 7000 pounds of pressure while they were being drilled.

So all of the mud systems that would have been used on all of these wells would have been used on all of these wells would have been similar, they were ready for

the pressure. You had the CC State took a kick.

So why was the Hunger Buster the only well that was damaged? The well did not perform initially during the completion, so a frac was scheduled to try to make something out of this well. The Osudo 9 did not have to be frac'd, the KF State did not have to be frac'd -- as a matter of fact, the KF State was just perforated -- the CC State was not frac'd. All three of those wells came in at several million a day -- you know, this one 20 million a day, CC State was 2 million a day -- all without a frac. now we're down here at the Hunger Buster, and we're having to frac it to try to make a well out of it. The parted casing and all of the complications certainly didn't help that well, but I'm going to say that that well was damaged and destined to be a poor well even before the botched frac job.

MR. KELLAHIN: That concludes my questions of Mr. Finnell.

CHAIRMAN FESMIRE: Mr. Olmstead?

MR. KELLAHIN: I believe all his exhibits are already in evidence.

CROSS-EXAMINATION

BY MR. OLMSTEAD:

Q. Okay, yes sir. Mr. Finnell, can you go back to Exhibit 66, please, sir?

A. Sure, yes.

Q. Now when you -- Mr. Chairman, can I approach the exhibit?

CHAIRMAN FESMIRE: You may.

Q. (By Mr. Olmstead) When you -- I believe you just testified that there's just not enough sand to hold -- there's not enough sand in here to hold all the reserves, but that's assuming that the Hunger Buster is an 11-foot-sand well, right?

You're assuming that this sand pinches out right at the Hunger Buster?

A. No, that is not correct. No, what I am testifying is to -- what Mr. Krawietz and I believe every one of the testimonies from the previous hearing was saying, that the Hunger Buster and the Osudo 9 were not in communication. That was your testimony. So I used your map to do the isopaching, with your amount of sand that's indicated on this map.

Q. Well, let me ask you this then: If the -- Yeah, they testified that these two wells were not in communication.

A. Okay.

Q. What if this well, the Osudo 9, is in communication with all of this sand, 320 acres? That's enough to hold 9 BCF or 13 BCF.

A. Okay, but for that to be true, then there had to be a hole here in the middle that the Hunger Buster was in that wasn't touching the rest of this.

Q. Well, a hole or maybe stacked sands, different reservoirs, different pressure regimes as you just testified about, compartmentalized reservoirs. All of that would explain why this, the Hunger Buster, may be in a different reservoir than the Osudo 9, correct?

A. Okay, I heard compartmentalization, compartmentalization, compartmentalization during the testimony in the first part of this hearing. The reserves for the Osudo 9 are 13 BCF by our estimate. That's a huge compartment. That takes up twice as much space as every bit of sand that's on this map, that goes from here to here to here. It's twice as big as that. I don't see any way in the world that it's possible that it could not have touched the Hunger Buster well.

Q. But you would agree -- I mean, 13 BCF will fit within 320 acres, correct?

A. No, I would say that -- it might do that whole 320 if you include this fat piece down here in all of that, possibly might do that without any other wells in there.

Q. Of course 13 BCF is your number. I think the Kaiser-Francis -- the Samson number was somewhat less than that?

A. Yes, the 13 BCF was ours. We're the largest working interest owner, and that's our reservoir engineer's estimate of that for our reserve report.

Q. Can you go to your PE Exhibit 53, please, sir?

A. Okay.

Q. Okay now, that 7000-p.s.i. line, I mean, that's just a fact, right? All the wells to the right of that line came in at above 7000, all the wells to the left of that line came in at less than 7000?

A. That is correct.

Q. Doesn't really matter where you draw the line, as long as you draw it between these wells as indicated, correct?

A. That's correct, you could put a curve and you could snake it in between those data points. But it has to go between that point and that point, that point and that point, that point and that point, that point and that point. It has to be right down the middle there.

Q. But again, that's just a fact. I mean, you don't dispute that all these wells came in at greater than seven and all these wells came in at less than seven, do you?

A. No, that's correct.

Q. Okay. Could you go to Exhibit PE 56, please, sir?

A. Uh-huh.

Q. Now, if you -- Let me get oriented here. This is the Kaiser-Francis -- or KF 4?

A. Uh-huh.

Q. And this is the Osudo 9?

A. Yes.

Q. And this is the immediate area that we're talking about, the subject of this hearing, right?

A. That's correct.

Q. If you look at this immediate area, aren't the majority of the contour lines going north-south? Here's the zero line. Is that due north-south?

A. That is the edge of the isopach map.

Q. Is it going due north-south?

A. Yes, that edge right there is -- in that quarter section, is going north-south right there.

Q. What about all these other lines? Are they predominantly north-south right in this immediate area?

A. Northwest-to-southeast to north-northwest-to-south-southeast, yes.

Q. To north-south?

A. In that little localized piece, yes.

MR. OLMSTEAD: No further questions.

CHAIRMAN FESMIRE: Mr. Hall?

MR. HALL: No questions, Mr. Chairman.

CHAIRMAN FESMIRE: Commissioner Bailey, do you

have any questions of this witness?

COMMISSIONER BAILEY: No, I don't.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: No questions.

EXAMINATION

BY CHAIRMAN FESMIRE:

Q. Can we go back to PE 53?

A. Yes, sir.

Q. I'm sorry, let's go back to PE 66.

A. This one, yes.

Q. Right. Now according to Samson's analysis, the Osudo 9 is basically in a pod by itself; is that correct?

A. That's what I heard, yes.

Q. And you're telling us that -- What average thickness would that 13 -- the EUR of 13 BCF cover 320 acres?

A. Okay, let me make sure that you're understanding me correctly.

My answer to the question -- All right, this is what we did. We took a planimeter of this map, so we drew a line right here at the section line and went from about a zero there to a zero there, came down along this contour to just above the Hunger Buster and drew it back across this way, and we were very generous, we got real close to it, came over to this imaginary zero line on the west and came

back up.

Q. Okay.

A. Okay. That volume -- Now that's a three-dimensional volume -- using their map, zero, 20, 40 feet, and back down the other side -- that volume right there holds 6.6 BCF of gas.

Q. Okay, so what you're saying is that the axis has to be extended east-west, right?

A. Yeah, it has -- yeah, if it can't go north and it can't go south, then it's got to go east and west about double what's drawn there.

Q. Okay. Now the question I'm asking you --

A. Uh-huh.

Q. -- is, what average thickness over that area did you use?

A. Okay --

Q. What average h in the calculation?

A. Okay, we didn't -- we used --

Q. You calculated a volume without an h?

A. Well, the map provides the h, you use the pyramid --

Q. Okay, so you just used what was on the map?

A. Used the map, right.

Q. Okay.

A. We -- You contour with the zero lines, you

contour with the 20, you contour with the 40, and the computer does a regression that finds an average between each of the contour lines to build you a three-dimensional curve --

Q. Okay, so --

A. It was a very complicated calculation done by the computer, not just an average that we did using -- by hand.

Q. Okay, basically you inferred a zero line on the west?

A. Yeah, we had to stop it someplace, so we used an equal distance here, over here.

Q. Okay, and then you basically calculated the area between the zero and the 20 line on both sides --

A. Uh-huh.

Q. -- used about 10 as an average thickness in that area --

A. Right.

Q. -- calculated your volume?

A. Right.

Q. Then you did the same thing between the 20 and the 40, and then up to what, about 45-foot max thickness on there?

A. I think that's correct, that's the way the computer program does it.

Q. Okay. Now, the number 320 has come up in prior

testimony, and I'm assuming that that was -- the reservoir engineer used that to come up with a volumetric number of about 13 BCF; is that correct?

A. Okay, no, the 13 BCF is coming off of a decline curve analysis. It's not the volumetrics associated with this map.

Q. Okay.

A. Okay, I want to be careful to specify that, that we're not using this map as being accurate --

Q. Right.

A. -- to describe the reserves.

Q. Right.

A. Our 13 BCF of reserves is based on the performance of the Osudo 9 well, based on a decline curve analysis.

Q. Okay. Using an average thickness of what, and an area of what, does it take to get the 13 BCF?

A. I would have to --

Q. You say the number came off the decline curve.

A. Yes.

Q. Well, did you back that into your contour map?

A. We took our map, and we planimetered the area. Now we didn't do it just for the Osudo 9, we included the KF State and all -- Can I switch exhibits here and go to our map?

Q. Sure.

A. Okay. We did this -- and if you'll remember, we called it area A.

Q. Right.

A. We planimetered this whole area, because we think this well -- you know, the KF State, the Osudo 9, and the WEL are all drawing from the same reservoir.

Q. Right.

A. So we didn't separate them out well by well, we took them as a group to decide, is this reservoir big enough to hold all the reserves that we're associating to these three wells? And the answer was yes.

Q. Okay. And is that where the 13 -- I mean, did you try to fit the 13 BCF from the decline curve into that area and come up with an average?

A. No, we did not break it down by well. Once again, we lumped these three wells together to look at the whole reservoir.

Q. Okay, and that pod circle has nothing to do with it, right?

A. No, that's just a --

Q. -- a grouping?

A. -- a grouping, yes. Yeah, the pod would be where we thin out here and separate from this pod to that pod.

Q. Okay. The number I'm trying to get to -- the two

numbers I'm trying to get to --

A. -- is how many reserves --

Q. -- is, if you're going to contain that 13 BCF, at what h would you use in that area, and what would that area be?

A. I want to be real careful before I just throw a number out at you.

Q. Okay, because it's kind of an important number.

A. Yeah. I would think a -- a rough estimate here, if you use an h of 30 feet and 320 acres, that that should be about right from the standpoint of the 13 BCF is about a third of what was contained in that, and that works out about right.

Q. Okay. And do you think that 30 foot would be a pretty average h to use over a 320-acre reservoir in that?

A. According to Mr. Godsey's map, that fits. We've got a very thick section running down through the middle that isn't quite 320 acres, it doesn't look like. So if you use an average of 320 across that, I think it all fits very nicely in there.

Q. Okay. And remember, that slope was kind of -- the slope on the decline curve was kind of --

Q. It was very early on that particular --

A. Right.

Q. -- slide.

A. Right.

Q. Now, when we did the 13 BCF for the Osudo 9, we did not use a decline curve over 30 years. We used just the production -- hang on, let's go to -- Now that curve is going to be much better determined than what you're picturing in your head, that very early -- looking at the whole time slice of the whole reservoir. We would have used this decline curve right here.

You know, being a public company, our reserves are reviewed quarterly by consultants, outside consultants, that we have to justify. And with us being the largest working interest owner in that well, that's a very, very important well to us and will be looked at very closely by the consultants to make sure that that number was right.

Q. Okay. But what I'm saying, at least on the KF well, or the Osudo 9 well -- I forget which one is the good one there.

A. The Osudo 9, the green.

Q. The Osudo 9. You know, the slope, the area, the h, it all kind of comes together at about 13 BCF, right, for that well?

A. Yes.

Q. Okay.

A. Yeah, the decline curve definitely points to 13 BCF.

Q. So we're looking at probably an average -- I mean, an effective drainage area, 320 acres, plus or minus --

A. Yeah, I would think that's correct over time.

Q. Okay. And at an h of 30, you're saying that as it's mapped by Samson, that that neck is too narrow to fit that size of reservoir in there?

A. Absolutely. It's half the size that it needs to be. That neck has to be double the size to physically hold the amount of gas that we're seeing is going to be produced from that well.

Q. What about if you include the other two wells, the Hunger Buster and the KF 4?

A. And you keep going? You know, they've got a whole lot of reserve- -- of net feet up here.

Q. So if those three wells are in the same pod on that map -- and I know we're forcing two different arguments here --

A. Right.

Q. -- you know, but if it were big enough, would it --

A. Yeah, I -- looking at this, I would say that that's possible, that that reservoir could be big enough. But then that would go against their testimony saying that these wells were not in communication with that well.

Q. But if those wells were in communication, the reservoir would be big enough as mapped?

A. I think that's correct. That's possible.

CHAIRMAN FESMIRE: I have no further questions.

Mr. Kellahin, do you have any redirect?

MR. KELLAHIN: No, sir.

CHAIRMAN FESMIRE: Okay.

MR. OLMSTEAD: Just a couple, Mr. Chairman.

CHAIRMAN FESMIRE: As long as it's within the scope of what we've asked.

MR. OLMSTEAD: Yes, sir.

FURTHER EXAMINATION

BY MR. OLMSTEAD:

Q. Mr. Finnell, if you remember the -- The 13 BCF, that's a Chesapeake number, right?

A. That is correct.

Q. The Samson number was more like 8 or 9, right?

A. If I remember correctly, that was kind of an off-the-cuff guess, yes.

Q. So if 13 BCF would fit within 320 acres, then 8 BCF would fit in roughly what, 240, 250?

A. That's possible, yeah.

Q. Now you mentioned that Chesapeake is the majority working interest owner in the prolific well, the Osudo 9. If you all were to shut that well in, you could get an

absolute number for reserves, right?

A. We do not operate that well.

Q. But as the majority working interest owner, you could ask the operator to do that for you, couldn't you? If you wanted to get an accurate reserve number?

A. I don't know.

MR. OLMSTEAD: Okay, no further questions.

CHAIRMAN FESMIRE: Mr. Finnell, thank you very much.

THE WITNESS: Okay.

MR. KELLAHIN: That concludes our rebuttal.

CHAIRMAN FESMIRE: Mr. Olmstead?

MR. OLMSTEAD: Yes, sir, I've got one witness, Mr. Lynn Charuk --

CHAIRMAN FESMIRE: Mr. Charuk.

MR. OLMSTEAD: -- testified at the previous hearing.

CHAIRMAN FESMIRE: Mr. Charuk, you too have been previously sworn; is that correct?

MR. CHARUK: Yes, sir.

CHAIRMAN FESMIRE: And you understand that that carries through to this testimony?

MR. CHARUK: Yes, I do.

MR. OLMSTEAD: Okay, Mr. Charuk, are you ready?

MR. CHARUK: Yes.

LYNN CHARUK,

the witness herein, having been previously duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. OLMSTEAD:

Q. All right, and you were at the original hearing in this matter, as well as you've been in attendance all day today, correct?

A. I was at the last two hearings. I wasn't at the very original hearing.

Q. Okay, but the last hearing being December 14th and 15th?

A. Right.

Q. Okay. Let me ask you your opinion, Mr. Charuk. Is Mr. -- Is Chesapeake's geology, as they have it mapped, plausible in your opinion?

A. Well, I've read all the literature, the same as was available for Ron and David, and I've gone through it all. And some observations that I see would lead me to conclude that the east-west-channel theory is not plausible.

Q. Why is that?

A. Because I just can't get comfortable with the source of sediments on the Central Basin Platform, being the Mississippi, the Barnett and the Chester, because if

you look at every log that's available -- and there's hundreds and hundreds of them -- I would say 95 percent of all that -- of those formations are carbonate, they're limestones. Chert is -- it's true that it's embedded in the lower Miss., and it's available as a source of sediment, but it is not quartz.

Geology 101 tells you that quartz and chert are two separate minerals. You cannot confuse the two. I don't care how small they roll or how long they roll, geology will tell you quartz and chert are two separate minerals.

And not only that but, if you look around the whole planet, quartz is a very abundant mineral, it's very abundant, it's all over the mountains up here in New Mexico, it was all embedded in the granites in the Pedernales. Chert is a trace mineral. It's -- maybe over all -- the whole planet, it comprises two percent or three percent at the most of all the sedimentary rocks available on the planet for erosion. And quartz is by far the most abundant and the most readily available source for all the sediments of the Morrow, middle Morrow B, in the Delaware Basin.

Q. Okay. Well, specifically, what about the Central Basin Platform? What is your opinion of that availability as a source during the Morrowan time?

A. Well, like both Ron and David mentioned the Mazzullo article. What I gleaned from the Mazzullo article was that the clastic -- and he was very specific, from what I read, that he was very careful to mention clastics coming from the northwest, from the Pedernales, and he distinguished that between sediments coming off of the Central Basin Platform.

And to me, those are two totally separate animals. Clastics, to me, is quartz. Sediments could mean limestone fragments, pieces of chert re-worked, rolled down, small, small-grain, silt-size particles. But it's not quartz.

And if you look at mud logs all over the Delaware Basin -- and I've got stacks of them, I went through my library at the office the other day. They all describe quartz. They don't describe chert. Mudloggers know the difference between chert and quartz. Quartz is not -- Quartz could be a sand-sized particle, but so is the white sands of Alamogordo. I mean, you can call that -- everyone calls that sand, but it's actually gypsum, it's not quartz.

So there's been a lot of, I think, today -- I think there's been a lot of blurring and fuzzing of definitions between sediment, sand, quartz and chert, but the most important distinction to keep in mind is that quartz is not chert, chert is not sand. The Morrow is not

chert, it's composed of sand.

There's many mud logs we could look at, you know, but just to make a long story short, it's described in mud logs as quartz.

Q. Okay. And so you heard Mr. Godsey testify earlier that you and Mr. Johnson hadn't done everything correctly according to the Mazzullo article. Can you touch on that a little bit, since you read the Mazzullo article?

A. Well, I -- you know, I just think that we can -- you can isopach each individual sand, which some workers have tried to do, and I think that ultimately that sure is the most -- best way to optimize your locations. But I think that you have to draw the line at some point as an explorationist to know how -- you know, how small of a scale can you go? I mean, your ultimate goal is to drill and find oil and gas. You can't just go down to 5-foot sands and that sort of thing, you have to be able to draw the line somewhere.

I think David's map shows -- to me, it shows a lot of locations there that would be -- I mean, I think it has so many good locations, it's hard to not drill a dry hole on his map, if you ask me. I think the Morrow is a little more complicated than that.

Q. What is the percentage of dry holes overall?

A. I don't know. Over the whole Delaware Basin, I

would say the average, I think, is, I think, one good well out of three.

CHAIRMAN FESMIRE: I'm one for five.

THE WITNESS: Uh-huh.

(Laughter)

THE WITNESS: So -- But as I look at these two maps, I don't know, this one strikes me as being more reasonable because it takes into account that -- those statistics.

I think that Mr. Godsey's map is a fine map, but you know, I think it's also kind of over- -- over-played. I think there's just too many thicks in there, you know. I mean, the Osudo 9 well had 50 feet of sand, and to my knowledge that's the thickest well in the whole township. But I see lots of 50-foot locations on his map, you know. I would love to drill a lot of those wells.

Q. (By Mr. Olmstead) Comparing that to the Samson map, Exhibit 25A, do you have an opinion regarding the drainage area, whether 8 BCF would fit within the pod for the Osudo 9 well, as evidenced on 25A?

MR. KELLAHIN: Objection, Mr. Chairman. This witness is a geologist, as I understand it, not a reservoir engineer.

CHAIRMAN FESMIRE: I don't think he's been qualified as a reservoir engineer.

MR. OLMSTEAD: Well, he's -- I thought he was qualified as a -- What's the word? He can testify by benefit of -- virtue of background and experience, because he's an explorationist himself. I mean, he puts these deals together and then sells them, an entrepreneur, if you will.

CHAIRMAN FESMIRE: Well, I think it's a completely different discipline. Surely they rely on each other, but reservoir engineer is one thing and a geologist is another, and I don't think that --

Q. (By Mr. Olmstead) Well, can I ask the witness, Mr. Charuk, have you ever -- do you do your own engineering? I mean, have you ever relied -- You don't hire an engineer, do you?

CHAIRMAN FESMIRE: We can take him on voir dire and discuss his qualifications if Mr. Kellahin is so interested.

MR. KELLAHIN: My objection stands. I understood he was a geologic promoter. He has no engineering background to express engineering opinions.

CHAIRMAN FESMIRE: He is a qualified expert geologist.

MR. OLMSTEAD: Can I ask him if he does his own engineering? Do you, Mr. Charuk?

THE WITNESS: No.

MR. OLMSTEAD: Okay.

(Laughter)

CHAIRMAN FESMIRE: That was a short dead-end, wasn't it?

THE WITNESS: Sorry, it's a fact.

MR. OLMSTEAD: Don't ever ask a question you don't already know the answer to.

Q. (By Mr. Olmstead) All right, let me hand out what we would ask be marked as Chesapeake -- excuse me, Samson Exhibit 62, and can you describe that, Mr. Charuk?

A. This is just one of the mud logs of many. This was a well, the Mescalero Springs 23 Number 1. It was my prospect, we drilled up in Chaves County.

MR. KELLAHIN: Excuse me --

THE WITNESS: I'm sorry, Mr. Kellahin.

MR. KELLAHIN: -- you're getting ahead of us.

THE WITNESS: Anyway, it's a mud log of the Morrow up in Chaves County.

Q. (By Mr. Olmstead) Okay, and you said in Chaves County?

A. Yes, sir.

MR. KELLAHIN: Objection, Mr. Chairman. This is not on any of the exhibit lists that we have.

MR. OLMSTEAD: And that's correct, Mr. Chairman, this is a rebuttal exhibit that came up during discussions,

last hearing and today.

CHAIRMAN FESMIRE: Again I'm going to fall back on, you can use it for demonstrative purposes, but it can't be part of the record.

MR. OLMSTEAD: Okay, that's fine.

Q. (By Mr. Olmstead) Is there a Morrow sand description anywhere on Exhibit 62?

A. Yes, we encountered Morrow sand from 10,920 down to 11,020. And as I said, I -- it's kind of closer up to the northwest, so it's closer to the Pedernales. It describes the typical Morrow sands, clear, buff, offwhite, white, some frosted, fine, sometimes it can be medium-grain, sometimes it's coarse, but it's always either subangular, subround or angular. It just varies, depending on the type of energy that it was deposited in, what kind of environment it was. It's no different than any of the other Morrow mud logs across the Eddy, Lea, Chaves County area.

Q. Specifically, it's no different from the mud logs in the KF 4 and the Osudo 9 --

A. I can't see any difference between them. I mean, I've looked at Morrow samples and I've been a mudlogger for two years. You have to know the difference between quartz and sand -- or quartz and chert. And you just don't -- you don't stay in this business very long if you don't.

Q. Now, you heard Mr. Godsey's testimony earlier when he testified that the mud logs closer to the Central Basin Platform would be distinctly different from other mud logs?

A. Yes.

Q. And what's your opinion on that?

A. I can't see the difference. I don't know if there is a difference. I don't know how he can tell that.

Q. Likewise, Mr. Charuk, I'd like to hand out what we would submit as Samson Exhibit Number 63. And, Mr. Charuk, would you describe that?

A. This is just another typical Morrow mud log. It's over in the Corbin area and kind of --

MR. KELLAHIN: Same objection, Mr. Chairman. In addition, we have a time problem here. They're way beyond their seven hours.

MR. OLMSTEAD: Well, I thought we had 20 minutes, and we've only been about 10, haven't we?

CHAIRMAN FESMIRE: I wish I had checked when we started. We can use this Petro Lewis log as a -- you know, for demonstrative purposes also, but it won't be admitted.

MR. OLMSTEAD: Okay, let me hand out just one more, then.

MR. KELLAHIN: Same objection.

Q. (By Mr. Olmstead) And I'm sorry, did you finish

identifying Exhibit Number 63, the Petro Lewis log?

A. It's a Morrow well in western Lea County, just west of the Vacuum field, kind of south of 529 as you're heading towards Artesia, before you cross over into the Eddy County line. And it just is another typical descriptive type of mud log that shows that the sands are medium fine-grained, friable, subangular, subround, poorly sorted. Some mud loggers are a little more descriptive with their color, you know, descriptions and that sort of thing. It's just another typical sand mud log. It's quartz, it's described as quartz. Some of it is light brown to gray. No chert at all within -- described within the mud log itself, in the sands.

Q. Okay, Mr. Charuk, and I've also just handed out Exhibit Number 64, for demonstrative purposes only. Just in summary, how do these mud logs compare to the -- and where are these wells located, and how do they compare to the local wells?

A. Well, they're all kind of to the west northwest. And this last Exhibit is the Amerada -- the original discovery well for the Osudo field, it's the WEK State Number 1, which was the discovery well in Section 15 in the north half, and the pay zone on this particular mud log is from 12,050 to about 12,090.

Those two sand intervals in there, they're

described as sandstone, gray, friable, unconsolidated with pyritic, clear, very fine-grain, unconsolidated gray sand, same as above, some clear, medium coarse-grained quartz, subangular, much free pyrite, clear, frosty, medium quartz, round, subround -- so it's been pretty well -- pretty far transported, a lot of it's been rounded pretty well -- clear to medium grain, very tight. Typical Morrow sand, quartz.

Q. In your opinion, Mr. Charuk, does that imply that the local area, the Osudo field area, was sourced by the same source, the Pedernal Uplift?

A. Well, I think the overall geologic framework of all the Morrow sands -- and I can trace lots of distributary channels to the northwest and -- north and west, and I just think, yes, that's where it came from.

MR. OLMSTEAD: Okay, no further questions.

CHAIRMAN FESMIRE: Mr. Kellahin?

MR. KELLAHIN: No cross.

CHAIRMAN FESMIRE: Mr. Hall?

MR. HALL: No questions.

CHAIRMAN FESMIRE: Commissioner Bailey, do you have any questions of this witness?

COMMISSIONER BAILEY: No, I don't.

CHAIRMAN FESMIRE: Commissioner Olson?

COMMISSIONER OLSON: Just one, I guess.

EXAMINATION

BY COMMISSIONER OLSON:

Q. Mr. Charuk, I'm just thinking conceptually, the Basin, in a lowstand time why would the flow in the Basin be parallel to the axis at the margins, versus going towards the axis of the Basin?

A. I'm not sure, Commissioner Olson, if I understand your question.

Q. Well, I think from seeing -- from a bunch of the exhibits here, that we're looking at an overall major contribution coming from the north, but also portions coming in -- of sediment coming in from the sides --

A. Like the Central Basin --

Q. -- of the Basin towards the Central Basin's axis --

A. Uh-huh.

Q. -- so especially in a low-sea-level time, why wouldn't flow be more towards the Basin axis?

A. Because the depositional framework for the overall Morrow itself was established early on in the lower Morrow, early Morrow times, and it was hard -- with all the sediment coming from the northwest, it would be hard to, you know, just kind of rotate that 90 degrees and have a huge effect on depositional models that have already been set up like point bar systems and stream mouth bars and

that sort of thing, distributary deltas. If all that stuff was in place, then it would be hard to just change it like that, you know, very rapidly.

And the lowstands during Morrow times were very brief. I mean, probably less than a million years. Most of it was, you know, fluctuating up and down but in very rapid cycles. So there wasn't a lot of time for a system coming from the east to the west to work and get -- push itself in there, like.

Q. Well, I guess -- do you agree, then -- I think I heard at this hearing Mr. Godsey today say that at times there was 250 to 400 foot of relief from the Central Basin Platform to the Basin. Do you agree with that?

A. I don't agree that it was ever that high during the lower Morrow times. If you look at, you know, going above lower Morrow times, most of all you see is carbonate. So the sea level, to me, was pretty close, you know, flat with the top of the Central Basin Platform. You know, I don't know that there was a lowstand that low where it dropped 200 or 300 feet.

And still, even if it did, my whole problem with the whole concept of the east-west is the fact that there isn't any quartz -- source of quartz on the Central Basin Platform to feed any of those channels. I mean, not that much. I mean, that's a ton of sand in there.

I mean -- And you know, he showed us one exhibit where there was 110 foot of maybe some cherty lime, and 110 feet of sand or cherty lime -- or, I'm sorry, cherty lime, could not produce all of that. I just don't think it's feasible.

Q. Well, I guess -- What kind of relief do you think there was between the Central Basin Platform and the Basin?

A. Geez. You mean all the way from the top to the bottom?

Q. More locally.

CHAIRMAN FESMIRE: To the base of the cliff, so to speak.

Q. (By Commissioner Olson) Yeah, from the edge of the --

A. I don't think I can determine that. I don't think I've ever thought about that question. I don't think I could give you an educated answer on that. I don't know if anyone can.

COMMISSIONER OLSON: Okay, that's all the questions I have.

EXAMINATION

BY CHAIRMAN FESMIRE:

Q. Sir, at the risk of showing my mineralogical ignorance, what's the difference in the chemical composition of quartz and chert?

A. Chert has an extra molecule of water. It's $SiO_2$, plus an $H_2O$ or -- it's hydrated, some OH or something like that. It has little molecules of water inclusions inside it. That's why you see a lot of chert is described as being mottled, because you see these little imperfections, impurities inside. It's because it has water in it.

Q. Okay, so chert is basically cryptocrystalline quartz, right?

A. It's amorphous, it's like -- it has no crystalline structure.

Q. Right.

A. Quartz has a definite structure. No matter how far and tiny you break it down, it's still got a crystalline structure, whereas chert is amorphous, it's like glass. There's no way you can not tell the difference between the two.

Q. Okay. What's the source of the lime in the calcareous cements and the --

A. That was probably post-depositional, after the sands were deposited, and limey -- you know, high concentrations of lime-enriched seawaters went through there and probably deposited some of the lime in there to make a calcite cement.

CHAIRMAN FESMIRE: Okay. I have no further questions.

Mr. Olmstead, do you have a --

MR. OLMSTEAD: No questions, no, sir.

CHAIRMAN FESMIRE: -- redirect?

THE WITNESS: Thanks for your time.

CHAIRMAN FESMIRE: Does anybody have any other witnesses?

MR. HALL: No, sir.

MR. OLMSTEAD: No, sir.

MR. KELLAHIN: No, sir.

CHAIRMAN FESMIRE: Okay, do you want a couple of minutes to prepare for close, or --

MR. GALLEGOS: Well, Mr. Chairman and members of the Commission, at the outset of this hearing on December 14th, you suggested that it would be a good idea to bring back before the Commission a summary of the 13,492 case, and I think that's really appropriate. We're prepared to do that now, and I think it would be helpful to try to pull everything together. I think, on our part, I could open that up and take 10 or 15 minutes to do that, and then I think we have this record complete.

CHAIRMAN FESMIRE: Okay. And Mr. Kellahin?

MR. KELLAHIN: Mr. Chairman, we have no objection to that. We're here at the pleasure of the Commission. If you want to visit this in a larger sense and tie in the legal issues that you have not had lately before you, we

have prepared a hearing brief to submit to you, and Mr. Cooney and Mr. DeBrine are prepared to talk to you about the permitting issues and take it all together and refresh your memory.

CHAIRMAN FESMIRE: Okay. Is 20 minutes long enough for you all to close on all issues?

MR. GALLEGOS: Not on all issues. I think I probably need about 15 minutes to present not so much a closing -- partially a closing argument, and I just wanted to bring the facts back before the Commission, because this thing has spread out so long. I'd probably need about 15 minutes for that, and I'm sure Mr. Olmstead would want more time than that to close on the science issue, so...

MR. OLMSTEAD: Well, I think I can do mine in about 10.

MR. GALLEGOS: Okay.

CHAIRMAN FESMIRE: So maybe 25 minutes apiece? Can you all do a sufficient closing in 25 minutes?

MR. HALL: Mr. Chairman, I had planned to address the 13,492 case as well. There may be some overlap between Mr. Gallegos and I. I think I can account for that. We've also prepared a hearing brief --

CHAIRMAN FESMIRE: Okay.

MR. HALL: -- for the Commissioners to address that.

CHAIRMAN FESMIRE: All right, here's what I'm thinking. Twenty-five minutes apiece, and then the hearing brief submitted by the next regular Commission meeting, where the Commission will decide when they will deliberate on this.

MR. HALL: We have briefs ready to go today --

MR. KELLAHIN: So do we, we're ready to file them.

CHAIRMAN FESMIRE: Okay, we'll go ahead, and then 25 minutes apiece on the closing and submit the briefs, and we'll continue the hearing until the 11th when -- the next regularly scheduled, when the Commission will probably deliberate or schedule a deliberation. Is that satisfactory to all the attorneys?

MR. KELLAHIN: Yes, sir.

CHAIRMAN FESMIRE: Okay.

MR. GALLEGOS: Yes, it is, Mr. Chairman.

CHAIRMAN FESMIRE: Okay, the next question, who goes first?

MR. GALLEGOS: I guess -- I think we do on the permit cancellation case.

CHAIRMAN FESMIRE: Okay.

Commissioner Bailey, can you still here?

COMMISSIONER BAILEY: Oh, I'm still here.

MR. GALLEGOS: Commissioner Bailey, what I'm

doing -- This is Gene Gallegos. I'm handing out to the Commission a copy of the stipulation that was entered into by the parties that was filed in August, a stipulation of undisputed evidence, and then a copy of the State Statutes, 70-2-17, and copies of what I call Pride 1 and Pride 2, two cases decided by the Division.

So we'll have to make those available for Commissioner Bailey, but the stipulation of facts has been in the record in this case before.

COMMISSIONER BAILEY: Yes, I've read that before.

MR. GALLEGOS: Let me review what the facts show in Case 13,492, in which Samson, Mewbourne and Kaiser-Francis have asked that the permit to drill the K4 F [*sic*] state well that was issued to Chesapeake be canceled and that a permit be issued to Mewbourne as operator of a well that would be in a -- located in the southeast quarter of this irregular Section 4.

The stipulation by the parties as to the evidence shows that there's no dispute as to the facts, basically just a question of law. There's no dispute. The record shows that in late March of 2005, the Osudo 9 well was logged. We know from the testimony of Chesapeake -- it's been repeated several times that Chesapeake was the largest working interest owner in the Osudo 9 well, so obviously very cognizant of what the logging showed. And that well

went on sales on March the 8th, 2005.

Now let's address what the facts are undisputed regarding Section 4, which is located just above Section 9 where -- just to the north of the Osudo 9 location. The oil and gas minerals within the entire Section 4 are owned by the State of New Mexico, and I'm simply reading from the stipulation of facts that all the parties signed off on.

Chesapeake does not own any interest in the southeast quarter of Section 4 and has not owned any such interest at any time relevant to this case.

On March 10th, 2005, Chesapeake Operating filed an APD for the K4 well, designating a laydown spacing unit, consisting of the southeast and the southwest quarters of Section 4. The Division approved Chesapeake's APD on March 11, 2005.

On March 28, 2005, Mewbourne as operator on behalf of Samson, et al., filed an APD for its proposed Osudo 4 State Com Number 1. The Mewbourne APD proposed a location in the southeast quarter and the east half of the middle third of Section 4. It would be the standup 320.

The Division rejected Mewbourne's APD on March 30, 2005, by reason of the earlier approval of Chesapeake's APD, which had been on March the 11th of '05, you'll remember.

On April 15th, 2005, Chesapeake began its

construction for the KF 4 well.

On April 26th, 2005, the Application in those cases were filed with the Division -- in these cases, excuse me, I misread. On April 26th, 2005, the Applications in these cases were filed with the Division. Case for cancellation of permit, case for force pooling.

On April 27th, 2005, Chesapeake spudded the KF 4 well.

Now what is important -- and I'll address what the Division did on this issue, but what's important is to take just a moment to think about and to read what the statutory authority for the Division -- for the Commission is in a case such as this.

Section 70-2-17 is the force pooling statute. It recites that owners who have a right to drill may either by agreement drill a well and form a spacing unit or obtain a force pooling.

I think what's important to notice, if you flip over to the second page which includes the unnumbered second paragraph of Section C of Section 70-2-17, provides that after that procedure plays itself out and there's a hearing, each order shall describe the lands included in the unit designated thereby, identify the pool or pools to which it applies, and designate an operator for the unit.

In other words, the power to do something of that

sort is delegated by the Legislature to this Commission. There is no right in some private party or company to designate itself as an operator, to identify the pool in which it's going to extract minerals or to describe the lands included in a unit that would constitute the dedication to a well.

Now what happened is that, very simply, the Division held that the conclusion that Chesapeake had acted in good faith and had drilled this well in good faith, and so the permits should not be canceled, was mandated -- the Division said it was mandated by Order R-12,108-C, which is in the Pride case. They misread the Pride case to say that is mandated by the holding in that case.

And that's really what brings us here, the Pride decision. And there are two Pride decisions important to know, what I'll refer to as Pride 1 and Pride 2.

To set the scene, Pride 1 which was -- The hearing was held in 2004 and the matter was decided in December of 2004.

I don't have a demonstration exhibit, but if you just picture a Section 12 with an abandoned well in the northwest quarter, Pride held a lease in the southwest quarter, Yates held a lease on all of the acreage -- the rest of the acreage of Section 12, the north half and the southeast quarter.

So Pride applies for an APD to go in and to re-work the abandoned well in the northwest quarter, called the State 1. Yates came in -- Actually, back up. Yates had had an application to re-work that well and had allowed it to expire. It had an application, it had a permit, didn't re-work it, they got a one-year extension, that expired. And so Pride comes in and says, We want a permit to re-work the well.

Yates applied to the Commission -- to the Division, the District. The District sent a letter to Pride saying, We're revoking your permit, we're issuing a permit to Yates. And that's how the matter came to be in dispute and come before the Division.

Now, when Pride made its application for force pooling, it asked for an order -- and this is important -- asked for an order that Yates not be entitled to go forward on the re-working of that well based on the permit that had been issued. Yates agreed, Yates agreed, that it would not go in and do anything on that well, it would let the force pooling process play out.

That's how you come around to the first Pride decision, Pride 1, and Order 12,108-C, which said basically -- and it referred back to a TMBR/Sharp case -- it said basically, you know, a party doesn't have to have a force pooling order before it applies for an APD, it can be one

or the other.

And the language -- the language that they quoted, if I can find that, they referred back to that TMBR/Sharp case where it was said in Order R-11,700-B, An operator may first apply for a permit to drill a well and may thereafter pool on a voluntary or compulsory basis separately owned tracts to the well. Alternatively, the operator may first pool and later seek a permit to drill. The two are not mutually exclusive, and there is no preferred methodology.

So in Pride 1 the Division said, The Commission accordingly concludes that an owner who would have a right to drill -- an owner who would have a right to drill at its proposed location in the event of a voluntary or compulsory pooling of the unit it proposes to dedicate to the well has the necessary good faith claim of title to permit it to file an APD, even though it has not yet filed a pooling application.

So what this case simply says is, yes, you could file an application for an APD and then file for force pooling.

There is nothing in that case, there is no support whatsoever for saying that obtaining an APD without a force pooling order, you can proceed to drill. That is the misreading, the clear misreading, by the Division of

what Pride 1 says. You don't seek a pooling order but go ahead and drill your APD. And this case was saying you can do either one first. But as in the case of Yates, it did not go forward.

Now what happened after that in Pride 2? Well, what happened is that Pride went in, had some mechanical difficulty, some time passed, that APD expired, and they came back a second time, so you have Pride 2, which Chairman Fesmire issued this order in May of 2006.

Again, it was Pride saying we want a west half, we want a west half 320, we have the southwest quarter, the well is in the northwest quarter, we want a 320, we want a permit to go back in and try again on that -- what they were calling the State Number 1 well. And they wanted to go back in, test the Mississippian formation.

Yates came in, protested that, the matter went to hearing, and the evidence presented supported Pride's case as far as force pooling the west half of that section.

And the Division pointed out in Pride 2, Pride did not own an interest in the northwest quarter of Section 12 and therefore does not have the right to re-enter the section -- the State Well Number 1 as it stands.

And here is the key, and the key language, where you have the understanding of what the procedure not only must be but has to be for any kind of regulatory control of

what's going on in New Mexico in the oil and gas industry. The Division said, The evidence presented at the hearing demonstrates that Pride, by virtue of owning a 50-percent working interest in the proposed unit, will, if its application is granted, have the right to re-enter the State Well Number 1.

In other words, if the application were granted, if Chesapeake had come forward, applied for an APD, no right to drill, come in before this Division and then the Commission in force pooling and gained the right, that would be a whole different matter.

But in fact what we have here is, we have Chesapeake naming itself as operator, contrary to statutory authority, designating what the unit would be on its own and designating the pool it would be operating. That's the authority of the Commission. You have had a party who has come in and basically swept away all of the procedure, the Division has misread what the Pride cases have held.

And not only, Mr. Chairman, members of the Commission, is this contrary to statutory law, you have to think about the regulatory chaos that can come to pass if that's what parties can do, they can simply go -- obtain an APD, go in and enter and drill on somebody else's lease. And that's what's happened here, and in a sense, it's the elephant in the room.

We've had a lot of very interesting, fascinating -- maybe that's not quite the word for it -- we've had a lot of interesting geology in the force pooling case, but the problem is, we shouldn't even be here on that matter, because the permit to drill this KF 4 well should have been, must be -- in order for there to be regulatory control of what goes on in the industry, that permit must be canceled, and it must be issued to the rightful operators.

And we submit that this Commission has to restore the order and correctly construe what the Pride case has said so that you have control and your District Supervisor and everybody else understands what the process is.

Thank you.

CHAIRMAN FESMIRE: Mr. Kellahin, would you like to --

MR. KELLAHIN: Mr. Cooney will.

MR. HALL: Mr. Chairman --

MR. COONEY: Mr. Chairman -- I'm sorry, do you want to answer that?

MR. HALL: If I might. Could you tell us how much time we have left for our side?

CHAIRMAN FESMIRE: That was right at 15 minutes.

MR. HALL: I'm going to cut my comments very short in view of Mr. Gallegos' comments. I appreciate his

reminding us of the Pride orders, the TMBR/Sharp orders, which started this whole series of events, and I would hope that the Commission would bear in mind the Valles Caldera order in that case, which preceded both Pride and TMBR/Sharp.

Here's what Chesapeake's case comes down to: They are telling the Commission that an APD is title. Under Pride and TMBR/Sharp, those two cases said quite simply that to get an APD an operator must have authorization to use the land, and its claim to an APD must have a good faith basis based on title.

Earlier briefing to the Division in this case, this is what Chesapeake said. Chesapeake said, The Commission's order in Pride tells us as a matter of administrative law that Chesapeake can rely upon its valid and approved APD as a good-faith basis for doing what it did and continues to do.

Simply, Chesapeake says an APD is title.

I submit that's wrong. I submit to a certain degree the TMBR/Sharp order, the Pride orders and the Valles Caldera order are in conflict, and the agency ought to take the opportunity to reconcile all three of those orders, either follow them, distinguish them or overrule them, and explain to the industry the meaning of the agency's APDs.

Now, I think the focus in each of those orders on the issue of title is correct, and that's what ought to underline your inquiry here. Can an operator go in and invoke an APD approval process and subvert title established by a private development agreement and a communitization agreement approved by the Commissioner of Public Lands.

We've taken the opportunity to brief for you the holdings of the New Mexico Supreme Court on the issue of what does and does not constitute title in the State.

CHAIRMAN FESMIRE: And this is the document you filed with the secretary?

MR. HALL: This is the brief we're filing now. I'll ask Ms. Davidson to forward a copy to Ms. Bailey.

Then once you have had an opportunity to consider the law and apply the law to the facts, even the undisputed facts here, I would turn your attention to what you directed industry to do, what you directed the agency to do in the Pride order at paragraph 8.F. And that order said, the Division can and should cancel an APD when it finds that no good faith claim exists. I would submit to you that that is the case here and that Chesapeake's APD ought to be canceled.

You needn't -- the Commission need not concern itself with well costs in this hearing. It's heard very

little about well costs and overhead. So the Commission is aware, there has been an objection to well costs, and that's a proceeding pending before the Division Examiners right now, pending the outcome of this case.

The issue of whether or not Chesapeake would be entitled to be reimbursed for well costs for this well will be decided by the Fifth Judicial District Court in Lovington at a future time.

Thank you, Mr. Chairman.

MR. COONEY: Mr. Chairman, I'm John Cooney from the Modrall firm, and with your permission I would like to address briefly the land issues addressed by Mr. Gallegos and Mr. Hall.

On behalf of Chesapeake, we want to thank the Commission and its members for their courtesy and attentiveness throughout this hearing, and particularly the cooperation and the many difficulties we all endured regarding scheduling.

The Division order concluded that under the Pride case, issued by this Commission, that Chesapeake had the requisite good faith claim of title to file its APD. The Division did not conclude that because we filed the APD, we win. What the Division concluded was that we had the good faith necessary to file the APD, but the ultimate decision of the orientation of the spacing unit was going to be

based on geology, what we've been listening to here for some time, and wasn't going to be controlled by the fact that we filed the APD first. They're very clear in the Division's order about that.

Mr. Gallegos in his pre-hearing statement referred to this as a trespass case, Mr. Hall refers this as a case to determine who has title to the property, whereas in fact the Commission has recognized on several occasions, including in Valles Caldera, TMBR and Pride, that it has no jurisdiction to determine issues of trespass or who owns title to property.

And there's no question here as to who owns title to these respective quarter sections of land. The only question is whether we have the right under existing Commission precedent to file the APD when we did, and that question has to be answered in the affirmative.

In the TMBR case, referring to Order Number 11,700-C, and I'll read from it, An operator may first apply for a permit to drill a well and may thereafter pool on a voluntary or compulsory basis separately on tracts. Alternatively, the operator may first pool and later seek a permit to drill. The two are not mutually exclusive, and there is no preferred methodology.

And the filing of an APD, as the Commission is well aware, and the approval of an APD, the granting by the

Division of permission to drill -- you can't produce the well, you can't have an allowable for the well until the proration unit is established.

So there again the focus is upon this Commission's power to conserve natural resources, prevent waste and protect correlative rights by establishing the appropriate orientation of the spacing unit, and we agree that's what we're all here for, and this issue of the supposed bad faith of Chesapeake is really a red herring.

The Pride case did settle this issue. In the Pride case, and I quote from Order Number 12,108-C, finding I on page 6, The Commission accordingly concludes that an owner who would have a right at its proposed location in the event of a voluntary or a compulsory pooling of the unit it proposes to dedicate to the well has the necessary good faith claim of title to permit it to file an APD, even though it has not yet filed a pooling application.

Nothing could be clearer. That exactly fits the facts of this case. Under this Commission's precedent and under the law, we have the requisite good faith to file for our APD when we did, because the unit we were proposing be dedicated to the production of this well would include the acreage on which we own the interest and where we were drilling the well. That's the beginning and the end, we believe, of this inquiry.

We complied with the Commission's and the Division's regulations. Mr. Kautza's testimony, which wasn't referred to in the opening here by the other side, made it clear that the consolidation block in the Form C-102 indicating who had title to what properties and what was being done, voluntary, compulsory, pending, whatever, didn't have to be filled in. And that wasn't -- that was the Division's practice and had been for years, even before online permitting came into being. And certainly after online permitting came in, a little over a year before we filed our permit, it was not a mandatory field. Hundreds of APDs had been approved without that field being filled in.

And why is that? What sense does that make? Well, it complies -- it provides and complies with the regulation that the Applicant provide the required information. That wasn't required. It makes sense, because the Division isn't going to assign an allowable, even though an APD is approved, until it determines what the appropriate proration unit is. For that reason, everyone is protected.

Now, there's other objective evidence of Chesapeake's good faith in applying for its APD. When it applied for the APD, Samson, who was the record owner at the time of the interest in the other quarter section, had

agreed to participate. Later on they revoked that, but I think the Commission can determine that as of the time we filed our APD we had an agreement from the other interest owners to participate in the well. We had the surface lessee agreement.

And I think the most important factor here, wholly ignored in the presentation by Samson and Kaiser-Francis, is the Osudo 9 well, which distinguishes this case, we believe, from what they say the Pride case involved, which was, Oh, well, let's not drill a well here until we have this hearing upon the issue of what the orientation of the spacing unit ought to be. And apparently there wasn't a problem in the Pride case about when to drill the well or an immediacy of drilling the well, it was a re-working of an existing well.

In this case, the geologic and the engineering evidence indicates, and the parties understood at the time, and the Division understood at the time, that there was a risk of drainage of this acreage from the Osudo 9 well. There was a need to get that bit in the ground. We were willing to take the risk to put that bit in the ground and give this Commission the information -- the additional information it needs to determine what is the appropriate orientation of the spacing unit, because we did then, and we now have, confidence in our geology. We knew we were

right, and we knew we were willing to take that risk.

Now Mr. Gallegos in his statement now and in his prehearing statement has said that this has presented chaos in the oil and gas industry. Mr. Hall alludes to the same thing, that you need to straighten this out, or God knows what's going to happen, this parade of horribles.

Well, in fact, as discussed in Mr. Townsend's testimony in October of 2005, after this case got started, the Form C-102 was changed. And it now says in the operator certification that I hereby certify, in part, that this organization either owns a working interest or unleased mineral interest in the land, including the proposed bottomhole location, or has a right to drill this well at this location pursuant to a contract with the owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.

So that -- by this change in the Form C-102 changed the rules for filing an APD for the drilling of a well. Now you have to put that, now it's required. It wasn't required, and under the Pride case could not be required, we submit, back when we did it, back when we filed on March 10, 2005.

We played by the rules, we acted in good faith, and we take the position, with all due respect, that the

Commission cannot and ought not to change the rules after the fact and say, Oh, well, we wanted you guys to play by a different set of rules than the ones that were on the books and that the Division and Commission had been following when you took the risk and acted.

Now the attempt to distinguish Pride case is that there one of the parties, Yates, agreed not to go forward with the drilling of the well while the compulsory pooling application was pending. Well, that has been ruled on by the Division in June. We wanted to go ahead and drill the well. The -- Mewbourne, who isn't here today, they didn't appeal from the Division's order, but Mewbourne, Kaiser-Francis and Samson sought to -- an order, an emergency order from the Division preventing us from drilling the KF State well.

These issues of whether we should go forward or should not go forward with the drilling were presented to and argued before the Division, and the Division ruled that we should go ahead and complete the well, but that there would be no production from it until after the order of the Division. Appropriate.

And we did that, and they didn't appeal. So they're now -- from that order. So they're now trying to re-hash what was argued before and decided by the Division as to whether we should go forward and complete the

production of the drilling of the well, get ready for production, while these pooling applications were pending.

We followed the Division's order, we did that, we took the risk, we had the confidence in our geology, and we still do, and we're here before you today asking that you determine the appropriate orientation, laydown or standup.

The Valles Caldera case we don't believe is applicable, because there the Commission said they would not issue or grant an APD, or would revoke it, if it turned out that there was absolutely no right to conduct the activity.

It's interesting if you read the opinion. The opinion says, Well, the other side here cites this Texas case and says that an APD should be canceled if the Applicant doesn't have title or doesn't have the right to conduct the activity.

And then three or four paragraphs later the Commission says, Well, we can't determine title, that's outside of our jurisdiction; but we can sure determine whether there is a right to conduct the activity. And in fact, this Applicant needs to have a surface permit from the Forest Service and doesn't have it, therefore can't drill the well in any event, and on that basis we won't grant the drilling permit. Different facts, different circumstances, they're not the issue presented here.

The com agreement does not, as the Division properly found, prevent this Commission or the Division from exercising its statutory authority to prevent waste and protect correlative rights by establishing the appropriate orientation of the spacing unit.

And in fact, the com agreement was not signed by the Commissioner of Public Lands until the day after we filed our compulsory pooling application.

Our brief, our prehearing brief and the brief we're going to file here in just a couple of minutes cites many cases in which the New Mexico Supreme Court and the Commission have recognized that the entry into a voluntary com agreement doesn't divest you of your jurisdiction to determine what the appropriate orientation could be. And that makes sense that the Legislature vested you with that power, not the private party.

And if you determine that the geology is such that the spacing unit we ask for is appropriate, that's what needs to be done and you're not bound by the voluntary com agreement, even if it had been fully entered into before the compulsory pooling application had been filed, which is not the case here.

Further, in the com agreement itself, which is Exhibit 9, Stipulated Exhibit 9, paragraph 11 -- or 12, I'm sorry, says, If any order of the OCD upon which this

agreement is predicated or based is in any way changed or modified, then the agreement is likewise modified to conform thereto.

The Oil and Gas Manual of the Commissioner of Public Lands, which is online, provides in pertinent part that, The approval by the Commissioner of Public Lands of a Com agreement is tentative. The Commissioner again has to approve the Com agreement after the well is completed but before production.

Again, I think the Commissioner knows, Commissioner Lyons knows, that the Oil Conservation Division and the Oil Conservation Commission are not going to issue an allowable until they know that the appropriate spacing has been established. And the Commissioner is saying, Well, okay, my com agreement doesn't take effect either until that happens. And that hasn't happened here.

We know that by our land Exhibit 15, the Land Commissioner agrees wholeheartedly with our provision that geology is the answer here, not a red-herring issue that has already been determined, we believe, by the Division, that we should go ahead and drill the well and produce the information that would help you to determine what is the appropriate orientation.

In that letter, the State Land Office, the Commissioner, said, We don't believe the entry onto State

trust lands by Chesapeake was in bad faith, and we understand that issues pertaining to the configuration for the spacing unit for this well will be resolved by the proceedings pending in the Oil Conservation Division. As expressed in our meeting, the Land Office believes that geology should solely dictate the correct spacing, and all the parties will have their opportunity to be heard at the Oil Commission proceeding.

And we again submit, Mr. Chairman and members of the Commission, that that is the only and real issue pending before you, is the appropriate orientation.

Thank you.

CHAIRMAN FESMIRE: Thank you, sir.

Did you -- Mr. Kellahin, did you want to go ahead with the geology case? Close in the geology case?

MR. KELLAHIN: If you like, yes, sir.

CHAIRMAN FESMIRE: Why don't you go ahead?

MR. KELLAHIN: My undergraduate work was in English literature.

(Laughter)

MR. KELLAHIN: Some of my first courses were in Old English, Chaucer, Canterbury Tales. And if you look at a page of Chaucer in the Old English, it's virtually impossible to understand. But if you look at it repeatedly over the weeks and over the months, towards final exam you

can finally get a flavor of how to pronounce the words. If somebody gives you an outline you can finally figure out, what are they talking about?

I felt that way 30 years ago when I came before the Commission in my first case. My dad sent me over here. I watched these guys do it. Jack Campbell, the Governor, was sitting in your chair. The Governor used to come. The Land Office, the Commissioner of Public Lands sat, and then the Chairman of the Commission sat. So my first hearing was before the Governor, and I sat there -- What am I going to do? I don't understand this stuff. I don't know a cross-section from an isopach.

But over time you learn, and in 30 years I've learned a few things. I've learned that you look for the obvious. Do the pieces of the puzzle fit? Does this somehow make sense to you as a geologist. Does the engineering data somehow confirm what the geologist is trying to tell you? In this case, Chesapeake's pieces of the puzzle fit.

Let's first look at the key components of the Samson case. When you go through all these exhibits, I finally found one today that really turned on the light bulb for me.

When I look at Mr. Godsey's tabulations of the Samson literature and turn to his page 19, there was a

wonderful perspective of the relationship topographically of where is the Central Basin Platform and the Pedernal Highlands Uplift. Here was a picture that I could understand. For years we've talked about, Where is the Delaware Basin? I've done cases in all of these pools, Anderson Ranch, Vacuum and all the rest. And you look on the map and you try to find north Osudo. There it is, right adjacent to the Central Basin Platform. You couldn't draw it any closer.

And when you look in the nomenclature and try to find out where is the KF State 4 well, that's in the south Osudo, just to the south of this north Osudo. When you look at the cartoon on page 19, that jumps out at me. The proximity of the Central Basin Platform to the south Osudo, just south of the north Osudo, tells me that we're within a short walking distance of the Central Basin Platform.

And then it's intriguing to see, how are we going to handle sediments, sands, whatever you want to call these materials, as they're flowing through this area of the Delaware Basin? It occurred to me when Commissioner Bailey was asking Mr. Godsey a question earlier this afternoon, she in my mind was seeing the pieces of the puzzle, and they were fitting together for her. And as I understood her answer, she was seeing that there is in fact a channel, and it's running north and south.

But it's way over to the west, it's way over here to the west. The KF State 4 well is right here next to the Platform. So when you're looking at the orientation, you have to understand, where are you? You're way to the west of it. You may have an orientation where these things line up better north-south. When you're in proximity of the KF State 4 well, you need to see what the impact and influence of the Central Basin Platform has been. So that was the key to me, the proximity of it.

The next thing that I was intrigued by, and I've always been taught to look for, is, what was the log data for the well in question, the KF State 4 well? What kind of numbers do you have for that data point? And when you look at data points around that, what's your next control point?

So when I take Mr. Johnson's isopach and I find the KF State 4 well, I'm looking for the next control to the north. I go to the township line. Nothing. I go way up here to the very top of the map before I have some data point. I've never seen a geologist do that.

What you normally see is, they'll take the KF State 4 well, they'll project those lines, and they'll close these contours right about at the township line. There's nothing to say there's anything in here.

Then you have to decide, is there something that

deflected the sand and moved it out of this north-south orientation to the west? Is there some structure, some event, some characteristic that sort of split the channel somehow?

And so you come up here and you focus on what someone's called a paleo-high. I had no idea what that was. What was important to me was, was it a closed structure or not? And I think I understand, and Mr. Godsey's got me firmly convinced, that it's not, that this is not an event or a factor or an influence that in any way caused sand to migrate down an eastern channel. It didn't happen.

And you can look and see at the wells that produce across the top of that structural feature there, it's substantial production. One of the best wells in the whole area produces from there.

One of the other things my daddy taught me is, the geologists were awful good at taking the same data and presenting it in such a way that by the time you were either convinced one was right, one was wrong, or you were so convinced you didn't care. He said, Look to the engineer. If the engineer can use his data, he's going to be able to confirm which of the geologists makes sense. And when you look at the engineering data, as I see it, I think Mr. Finnell has confirmed Mr. Godsey's ultimate

conclusions.

One of the first things every engineer tells you, Show me some data, show me some pressure data. What we had is an area of five sections with nine wellbores, 23 data points of pressure, most of which were rejected by Samson's geologist. He only kept six of them.

But if you use the whole data set of the pressure, what does it tell you? It tells you absolutely that you cannot connect this north-south, there's a disconnect. There's a disconnect between the WEL well and the WEK well, absolutely disconnected. You can reject a lot of the data points, but that's a linchpin right there. There's a disconnect. You've got to have them linked together to run this thing north and south.

If you're going to run it north and south, pursue the questions that the Chairman had about, How are you going to squeeze this reservoir between the CC 4 over here, which we know by the engineering data is not connected to the KF State 4 -- how are you going to take that reservoir and squeeze it between the KF State 4 well, meet that restriction and still have a reservoir volume that matches your decline curves for your EUR? It doesn't fit.

So when you look at the disconnect north and south, the limitations of well data that tell you it can't go up in the north as they are contending and you have this

narrow constriction in the sand, you look at the layout of the topographical area from the map, you're drawn to one conclusion: Chesapeake's pieces to the puzzle fit.

They're further confirmed by Mr. Finnell when he shows you that if you draw these reservoirs such that you can link three wells in each pod, the north pod and the south pod, you can see that they're pressure-connected and production falls in line one with the other.

And that's the story for me. I think you can go to a set of about five different points and cut through all the exhibits and all the discussion and get to the ultimate point, is, Does this make any kind of sense? Go home and try to explain it to your wife in 30 minutes. What are you going to decide on? Where am I? What does it look like? How do the pieces come together? What do you as a scientist say makes the difference?

We contend that Examiner Brooks and Examiner Jones, when they entered the Examiner Order, got this case right, and it's our firm belief that having heard the entire record as you have now, the substantial evidence demonstrates that Chesapeake's right and Samson's pieces just don't fit.

CHAIRMAN FESMIRE: Mr. Olmstead?

MR. OLMSTEAD: Thank you, Mr. Chairman. May it please the Commission, Mickey Olmstead on behalf of Samson.

I want to thank you the Commissioners for allowing me to appear before you in this proceeding.

I agree with Mr. Kellahin: You should look at the obvious. And it is obvious that Chesapeake does not believe their own map. If they did, then they would have drilled in the southwest quarter of Section 4 for 6.4 BCF of gas, instead of in the southeast quarter for 2.5 BCF. Their own map. And Chesapeake supposedly had its east-west map drawn before the Kaiser-Francis 4 well was drilled, indicating that the thicker sand was in the southwest quarter. And yet they drilled in the southeast quarter of Section 4. Why else would Chesapeake drill for 50 percent of a 2-BCF well, when they could have drilled for 100 percent of a 6.4-BCF well?

The specific gravity analysis presented by Chesapeake is likewise flawed on so many different levels, and it indicates the lengths that Chesapeake is willing to go to, to manufacture whatever support it can for its unorthodox geological interpretation. This is most evident by the fact that they intentionally left out the specific gravity for the CC State 3, the .64, because it didn't fit with the story that they were selling.

Chesapeake's volumetrics were not any better. As Chesapeake's own engineer conceded, volumetrics is merely a geometry problem, completely dependent on the size of the

proposed container. Accordingly, Chesapeake's volumetric analysis is dependent upon its own geologic mapping and in no way independently confirms the validity of such mapping.

Likewise, it is undisputed that virgin pressure varies from well to well and area to area, so sand orientation simply cannot be determined with the limited engineering data available. I can make you this promise: The Cattleman Number 4 well due north of the subject KF 4 well will be drilled one way or another, regardless of which way you all rule in this proceeding. Likewise, the southwest quarter of Section 4 will never be drilled by Chesapeake, because they don't believe their own maps and they know it's goat pasture.

Chesapeake has done everything wrong in this proceeding. They were allowed to permit the KF 4 well, having absolutely no interest in the southeast quarter of Section 4, and before they even filed their pooling application. Then they drilled the well before the pooling application was even heard. Such improper behavior should not be rewarded. To do so clearly sets the wrong precedent.

In review, Samson and Kaiser-Francis presented two geologic and two engineering witnesses who testified that the middle Morrow B sand is a quartz sand, which is completely different from the chert and distinguished from

all-inclusive term "sediment". The Roswell Geological Society field study of the Osudo sand field, which Samson submitted, had absolutely no mention of any chert sands, only quartz sands. If chert from the Mississippian formation were a source of the Morrow sand, then you would certainly see chert in all the mud log descriptions throughout the Osudo field, which you do not.

The 2004 Core Lab study authorized by Samson and Chesapeake stated that the maximum chert component of the middle Morrow sand is 3.5 percent. That's the maximum. The average was .1 percent.

Likewise, the mud log descriptions from middle Morrow wells all over southeast New Mexico are the same and indicated no chert within the middle Morrow pay sands. If Chesapeake's interpretation were correct, then the mud log descriptions in the Osudo area should be distinctly different from all other mud logs, since they are sourced from distinctly different rock, but of course they are not. The rocks do not lie.

There are several key points as to why Chesapeake's Application to pool should be denied. First and foremost is the fact that the Central Basin Platform is clearly not the source of the middle Morrow B sands in the Delaware Basin. If it were, then obviously there would be Morrow sediments in the Midland Basin immediately on the

other side of the Central Basin Platform, and it is undisputed that there are none.

Samson Exhibits 34A and 34B, more than any other exhibit presented at this hearing, validate Samson's north-south interpretation, and negate Chesapeake's east-west interpretation. The first exhibit here, 34A, clearly evidences the continuity of the north-south fluvial channel sand stretching over seven miles. If you move over just a quarter of a mile to the west, the north-south -- this is just moving over one quarter mile to the south. Again, in the north-south -- one quarter mile to the west, and again in the north-south trend you see there's essentially no middle Morrow B sand.

The north-south -- Exhibit 34A, the north-south trend that indicates the middle Morrow sand, goes right up through the east side of Section 4, the Samson acreage. The cross-section to the west that shows almost no sand goes through and therefore condemns the Chesapeake acreage.

Okay, nothing condemns the Chesapeake acreage more so than these two dry holes here and here, the CC State 3 and the Apache Well Number 2 wells. Surely if there were any kind of an east-west trend in here, these two wells would have to have some productive sand. The Apache well is only 1300 feet away from the Osudo 9 well, which has 56 feet of net Morrow sand. And yet the Apache

well has absolutely no productive sand in it.

Conversely, the Hunger Buster 3, the KF 4 and the Osudo 9 confirm a north-south trend here in the immediate vicinity and therefore confirm the Samson Cattleman acreage as productive. In fact, if you look closely at this Chesapeake exhibit, which is GEO 4, in the immediate area of the Osudo 9 and KF well you can see that the contour lines are almost due north-south. It's only when they don't have any control that they're able to bend it over to the west, because there is no well control.

The Hunger Buster 3 clearly has 26 or more feet of middle Morrow sand as confirmed by the independent Halliburton well log analysis. You heard the Kaiser-Francis vice president testify that he is so confident that the Hunger Buster has sufficient sand and it is only the parted casing and defective completion that are adversely affecting the Hunger Buster production that they, Kaiser-Francis, are planning to drill and immediately offset due south of the Hunger Buster well here, again in the north-south -- following the north-south trend.

Mr. Godsey could not name any other geologist that he knows that match the Morrow sand in an east-west direction, other than some unnamed Chesapeake staff geologists.

Conversely, in addition to the Samson geologists,

we brought you the man who sold this deal to Chesapeake, again based on his north-south mapping. He met with Mr. Godsey and the senior Chesapeake geologist, and during that meeting no one mentioned anything about east-west trending sands during all their discussions.

Mr. Charuk also testified that he had seen several other geologists' mapping of the Morrow in this area, and it is all in the north-south direction.

Likewise, the vice president of Kaiser-Francis testified that he matched the middle Morrow B sand in a north-south direction, that he has seen the Mewbourne maps and that Mewbourne, who drilled the Osudo 9 well, also maps the Morrow sand in a north-south trend. Jim Wakefield testified that Kaiser-Francis and Mewbourne have no dog in this fight. They will receive the same interest from the Kaiser-Francis -- or the KF 4 well, regardless of which way the unit is finally established. They're only interested in the second well or the future well, and they know that that's going to be in a standup 320, as proposed by Samson.

Several witnesses testified regarding the new Mewbourne well, which should be spudding down due south of the KF 4 and Hunger Buster wells, again in a north-south trend. Additionally, several witnesses testified regarding the proposed Samson well up in Section 32, due north of the KF 4 well, again in the north- -- following the north-south

trend.

Another key component to Samson's case is the recently purchased seismic line which was run back in 1984. It completely confirms Samson's interpretation. The fact that operators are drilling on such close spacing in this area further confirms Samson's interpretation that the middle Morrow B sands are highly compartmentalized due to sand stacking and overlapping point bars.

Ninety-five percent of the published authority on this issue states that the Central Basin Platform could not possibly have been the source of the middle Morrow B sands. Chesapeake's only support is one article from 1984, which focused on the Parkway-Empire field in Eddy County, a completely different field in a different county, and which, as Ron Johnson testified, the article lifted the regional maps from another unrelated paper.

Notwithstanding Chesapeake's testimony in this hearing, all of Chesapeake's actions have been in a north-south trend, including the staking of the Cattleman 4 well here and the drilling of the KF 4 well.

As Applicant Chesapeake has the burden of proof, which they have clearly failed to meet. Chesapeake has put on no evidence of any necessity to prevent waste, and even if Chesapeake's geological interpretation were correct, its correlative rights were better protected by a nonstandard

unit in the southwest quarter of Section 4. Chesapeake's own maps show that it's better off with a nonstandard unit than with the proposed pooling, so force pooling is just not justified.

Prior to Chesapeake's filing its applications to pool, Samson had already formed a voluntary pooled unit, and such unit must be shown deference in the absence of waste, according to Section 70-2-17.

For all of the above reasons, Chesapeake's Application to force pool the southeast of Section -- southeast quarter of Section 4 in Lea County should be denied.

Thank you.

CHAIRMAN FESMIRE: Thank you, Mr. Olmstead.

Is there anything else from any party?

MR. COONEY: We have a brief to submit.

MR. KELLAHIN: We do have a brief to submit.

CHAIRMAN FESMIRE: At this time, with the Commissioners' permission, we're going to continue this case until the regularly scheduled Commission meeting on the 11th of January, at which time the Commissioners -- that is a pretty full docket, so I doubt if the Commissioners will actually get to deliberate on that date, but we will set a date for deliberation at that meeting.

Do the parties have any comment on the

scheduling?

MR. GALLEGOS: No, Mr. Chairman.

CHAIRMAN FESMIRE: With that, welcome to New Mexico.

MR. OLMSTEAD: Thank you, sir.

CHAIRMAN FESMIRE: We'll see some of you, I assume, on the 11th.

We're adjourned at 5:15 p.m. Thank you.

(Thereupon, these proceedings were continued at 5:15 p.m.)

* * *

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO )
) ss.
COUNTY OF SANTA FE )

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Commission was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL January 12th, 2007.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 16th, 2010