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:

CASE NO. 13,069

APPLICATION OF THE NEW MEXICO OIL CONSERVATION DIVISION THROUGH THE ENGINEERING BUREAU CHIEF FOR ADOPTION OF A NEW RULE RELATING TO COMPULSORY POOLING AND PRESCRIBING RISK CHARGES

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

COMMISSION HEARING

BEFORE: LORI WROTENBERY, CHAIRMAN JAMI BAILEY, COMMISSIONER ROBERT LEE, COMMISSIONER

Oil Conservation Division

May 15th, 2003

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Commission, LORI WROTENBERY, Chairman, on Thursday, May 15th, 2003, 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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* * *

WHEREUPON, the following proceedings were had at 9:33 a.m.:

CHAIRMAN WROTENBERY: And we'll move on to Case 13,069. This is the Application of the New Mexico Oil Conservation Division through the Engineering Bureau Chief for adoption of a new rule relating to compulsory pooling and prescribing risk charges.

And we'll call for appearances.

MR. BROOKS: Madame Chairman, honorable

Commissioners, my name is David Brooks. I'm Assistant

General Counsel, Energy, Minerals and Natural Resources

Department of the State of New Mexico. I'm appearing for the New Mexico Oil Conservation Division, and I have two witnesses.

CHAIRMAN WROTENBERY: Two witnesses.

MR. KELLAHIN: Madame Chair, I'm Tom Kellahin of the Santa Fe law firm of Kellahin and Kellahin. I'm appearing this morning on behalf of Burlington Resources Oil and Gas Company. They also put an LP after their company. And I have two witnesses.

CHAIRMAN WROTENBERY: Okay, thank you.

MR. CARR: May it please the Commission, my name is William F. Carr with the Santa Fe office of Holland and Hart. We'd like to enter our appearance in this case for BP America Production Company, Yates Petroleum Corporation

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     and New Mexico Oil and Gas Association, and I have no
     witnesses -- unless I have to step in and deal with Mr.
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     Patterson.
               (Laughter)
               CHAIRMAN WROTENBERY: Okay, thank you.
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               MR. BROOKS: You have to cross-examine your
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     client.
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                          I'll be very careful if I do.
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               MR. CARR:
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               CHAIRMAN WROTENBERY: Any other appearances in
     this matter?
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               In that case, would all of the witnesses please
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     stand to be sworn.
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               (Thereupon, the witnesses were sworn.)
               MR. BROOKS: We only had one set of exhibits for
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     opposing counsel, so I guess you and Bill are going to have
     to share.
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               May it please the Commission?
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               CHAIRMAN WROTENBERY: Please proceed.
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               MR. BROOKS: Madame Chairman, honorable
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     Commissioners, this is a rule amendment that is being
     proposed here. It is a little bit more complex, and
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     particularly a little bit more controversial than the last
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     three I've presented.
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               I am proposing on behalf of the Oil Conservation
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     Division the adoption of a new rule which for
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administrative convenience at this point I've denominated Rule 35, which is the next numbering sequence in the general provisions set of our Rules.

The purpose of this rule, as originally envisioned, was to adopt by rule the standards which the Division has evolved over the years for carrying out its statutory responsibilities to fix risk penalties or risk charges.

And I want to be careful to use that term "risk charges", because that is actually the term used in the statute. We tend to talk about risk penalties around here, but it really is a charge. It's not a penalty, there's nothing -- there's no moral opprobrium in a working interest owner going nonconsent on a well, it's not something that they should be fined for. It is simply a charge that is being imposed because of a service that the operator of a well is doing for them by taking the risk of an unproductive well.

Under the New Mexico Oil and Gas Act, the

Division is given the power to force pool units, which

means that those persons who own working interests in the

unit, who have not made a deal with the person who proposes

to drill -- who for the sake of convenience I'll call the

operator -- if they have not made a deal with the operator,

then we have the right to make a deal for them and to bring

their interest into that proposal.

and we have the right to require that the pooled party make a choice, either to put up his share of the cost of drilling that well, in which case he gets his share of all the proceeds, or to not put up his share of the cost of drilling the well, in which case the operator gets to recover out of the pooled party's share of the oil and gas produced all of his costs of drilling that well -- drilling and completing is the phrase used in the statute -- all of his costs, plus an additional amount to compensate the operator for the risk that he undertakes by putting up the up-front money to drill the well.

Now, if the well does not produce enough to enable the operator to recover the cost of drilling out of the pooled party's share of production, then the operator is left holding the bag. He has no right to recover the excess from the pooled party.

of production, then the operator gets to take out of the pooled party's share an amount that we fix -- we the Oil Conservation Division, or the Oil Conservation Commission if it's appealed, fix. And that amount is measured by a percentage of the costs of drilling and completing the well. The statute does not say what that percentage will be, other than it may be no more than 200 percent. We can

fix it at zero, we can fix it at 200 percent, we can fix it anywhere in between.

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Over the years we have evolved some standards that we apply with considerable consistency in fixing those risk charges. And the original idea of this proposed new Rule 35 was to incorporate those standards, that we have already evolved and that we are already applying, into the Rules, rather than go through the case-by-case adjudication process, thereby saving the Division the time that's involved in hearing technical testimony on the extent of risk involved in each prospect that is presented to us for compulsory pooling, and saving the industry the time and money that is involved in having an expert come to Santa Fe, prepare a presentation and testify before the Division, and if necessary the Commission, on an issue where the conclusion is in practice dictated not by the nature of the testimony in each case but by some standards that we have evolved over the years.

Now, this proceeding has become somewhat more complicated than its origin. I think that that proposition of putting the standards in a rule rather than going through the case-by-case adjudication with bringing an expert in each case -- I think that proposition is not really controversial. Everyone, I believe, the Division and industry, would like to see the hearings shorter, less

expensive and get to the point where we're going to get anyway.

What has occurred, however, is that if we're going to do this we all want to get it right. And there is considerable disagreement in the industry over what the standards should be.

Now, what the Division determined to do, as the Division, is to submit a rule to you that would follow the original idea, that is, that would adopt the standards that we were already applying. And the rule that we have submitted to you, while it contains a few innovations, is basically that, that it adopts the standards we were already following as the Division.

We as the Division have said that we are not unreceptive to people that think those standards should be changed. We have invited the industry to come before you and present the reasons why they believe changes should be made.

However, we as the Division have concluded after full evaluation of the matter that what we're recommending to you is that you adopt standards, and we invite the Commission to listen to the presentations made and determine if they want to stick with the standards that the Division has already done or if they want to adopt new standards.

And we won't be adversarial as the Division either way. We want you to adopt the right standards, and then we as the Division will follow them from thence forward.

Thank you very much.

CHAIRMAN WROTENBERY: Thank you, Mr. Brooks.

Mr. Kellahin, Mr. Carr, would you like to make a statement at this point?

MR. KELLAHIN: To simply supplement Mr. Brooks, there's two comments.

One is that Burlington would like to take this opportunity to see if we couldn't persuade you to make the maximum penalty in the coal the same as all the other pools. You'll see the proposed rule pegs the coal risk at 156 percent. We'd like to suggest, and I think we can demonstrate effectively, that we ought to change that and make it 200 percent.

To supplement Mr. Brooks, it's my understanding, and perhaps I'm wrong, that if we default to the 200 percent, if there's a party being pooled that chooses to contest that, then that issue can, in fact, be contested at the pooling hearing. So if there's some unique circumstance that would cause the parties to want to dispute that risk factor, then we can have such a hearing. But I concur with Mr. Brooks that the practice has been for

1 years now to simply to default to the 200 percent in all 2 pools except the coal gas. And it's become a substantial nuisance to the attorneys, the clients and the party to get 3 ready for a technical presentation that really results in 4 the same answer, and we seldom do it anymore unless there's 5 really a dispute over that issue. 6 7 CHAIRMAN WROTENBERY: Thank you, Mr. Kellahin. Mr. Carr? 8 9 MR. CARR: May it please the Commission, BP and NMOGA have brief statements, and we would -- I think it 10 11 would be appropriate to make those at the conclusion of the 12 presentation here. 13 CHAIRMAN WROTENBERY: Okay, thank you. Mr. Brooks? 14 15 MR. BROOKS: Very good. As my first witness I 16 will call Michael E. Stogner. 17 MICHAEL E. STOGNER, the witness herein, after having been first duly sworn upon 18 his oath, was examined and testified as follows: 19 20 DIRECT EXAMINATION BY MR. BROOKS: 21 22 Q. Good morning, Mr. Stogner. 23 Good morning. Α. 24 Just as a matter of housekeeping explanation, Mr. Q. 25 Stogner, because OCD Exhibit Number 3 is -- you will not

find in the folder -- is quite voluminous, and that is 1 copies from a notebook that you have made, that you 2 compiled, rather than prepare a copy for the witness, which 3 would have made one extra copy of this multi-page exhibit, 4 5 I have simply put your notebook there in front of you so that you have the original, and when I refer to Exhibit 6 Number 3, that is what I'm asking you to refer to. 7 Would you state your name for the record, please? 8 Michael E. Stogner. Α. 9 And by whom are you employed? 10 Q. The New Mexico Oil Conservation Division here in 11 Α. 12 Santa Fe. And in what capacity? 13 Q. I am a petroleum engineer, Hearing Examiner. 14 Α. And how long have you been in that capacity? 15 Q. 16 Α. Almost 22 years with the Division. 17 Q. Long time. 18 A. Long time. Would you hazard a guess as to how many 19 Q. 20 compulsory pooling cases you have heard? Α. Actually, I asked Mr. Ben Stone to give me 21 a figure, and that's 755 compulsory pooling orders. 22 23 Q. Are compulsory pooling cases a substantial 24 portion of the Division's caseload? 25 Α. Yes, they are.

This is a digression from what I had planned to Q. 1 say, but it's on the same head: If the Division could 2 reduce each compulsory pooling hearing by 50 percent, that 3 would significantly reduce the extent of time we spend in 4 hearings, would it not? 5 6 Α. That is correct, yes. Okay. And it would also considerably reduce the 7 Q. length of the transcripts of those hearings? 8 Yes. Yes, it would. 9 Α. Thank you. 10 Q. Sorry, Steve. 11 A. Yes. 12 (Laughter) 13 Q. Now at present the OCD has rules about procedure for compulsory pooling hearings, but do we have any rules 14 15 that tell us what we need to put in those orders that we issue? 16 17 Α. No, there is no rules. The only rules have to do 18 with notification, and that's 1207.A, subparagraph (1). 19 Right, and just as an aside, I've already warned 20 my work group that we're going to work on that rule next, but we're not going to get into that today. 21 22 Now, what we look to, then, since we don't have 23 rules, what we look to for what you as an Examiner or I as

an Examiner would recommend, and what the Director looks to

as to what we will include in a compulsory pooling order,

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is the provisions of the New Mexico Oil and Gas Act,
correct?

A. That is correct.

- Q. Okay. I will now call your attention to what I -- Well, first of all, for the purposes of the record, let me have you identify Exhibit Number 1.
- A. Okay, Exhibit Number 1 is two pages, and this is the proposed Rule 35, "Compulsory Pooling, Charge for Risk".

MR. BROOKS: If anybody wants a copy of that, I'm passing them around. I don't probably have enough for everyone here, but I have about eight or nine more there.

- Q. (By Mr. Brooks) Now then, I will ask you to look at what has been marked as OCD Exhibit Number 2. I will represent to you that OCD Exhibit Number 2 is a copy of Section 17 of the New Mexico Oil and Gas Act, as amended, and I'm sure you're familiar enough with that statute that glancing over it you can recognize it as such?
 - A. Yes, sir, this is 70-2-17 --
 - Q. Correct.

- A. -- of the Statutes.
- Q. Now, I will call your attention to the portion of Section 17 that I have circled in green on Exhibit Number 2, and I will ask you to read that language for the record.
 - A. If you'll refer to the first page of Exhibit

Number 2, that's a little over three-quarters of the way down and it begins, "Such pooling order of the division shall make definite provision as to any owner, or owners, who elects not to pay his proportionate share in advance for the prorata reimbursement solely out of production to the parties advancing the costs of the development and operation, which shall be limited to the actual expenditures required for such purpose..." not to exceed "...of what are reasonable, but which shall include a reasonable charge for supervision and may include a charge for the risk involved in the drilling of such well, which charge for risk shall not exceed two hundred percent of the nonconsenting working interest owner's or owners' prorata share of the cost of drilling and completing the well."

Q. Now, in the third line of that -- There are two formulations here, and I want to point them out and point out the difference between them. In the third line of the highlighted portion there is the phrase "costs of... development and operation", and I would point there that it says "the costs of...development and operation" will be reimbursed "...solely out of production to the parties advancing..." those costs.

Now, "the costs of...development and operation" would refer to both the cost of drilling the well and the cost of operating the well after it's drilled, correct?

A. That's correct.

- Q. Now then, when you go down to the 200 percent, the phrase "not to exceed two hundred percent" appears in the next to the last line and it says "not to exceed two hundred percent of the nonconsenting working interest owner...or owners' prorata share of the cost of drilling and completing the well." Now, that is something different from "the cost of...development and operation", correct?
 - A. That is correct.
- Q. And not everybody in the industry would necessarily classify every expense that an operator incurs in the same way under those rules, probably, correct?
 - A. That's correct.
- Q. So there is some room for us as the Oil
 Conservation Division to make some interpretation of those
 provisions by rule, correct?
 - A. That's correct.
- Q. What are costs of operation and what are costs of drilling. But is there not some general understanding among people in the oil industry as to what is the cost of operation and what is the cost of drilling and completion?
 - A. There generally is, yes.
- Q. So there may be some gray areas, but much of it is fairly well understood in the industry?
 - A. Much of it is understood across the board, yes.

Q. Okay. We'll be asking you some more detailed questions about that because we attempted to define well costs in Exhibit 1, but I will get to that later.

Now, what I want to point out right now is that this provision that you just read from the Oil and Gas Act says that the order shall provide for recovery of costs of development and operation and that it may provide for risk charge.

Now, lawyers like to quibble over "may" and "shall", and you'll find court opinions that say "may" can mean "shall" and "shall" can mean "may". But when you use those two terms in the same sentence, referring to different things, it would seem to me it's fairly clear that the Legislature has told us we shall allow the operator to recover costs in a compulsory pooling order, and we may provide for a risk charge. Is that your interpretation?

- A. That's my interpretation ever since I got here, yes.
- Q. Now, it says that that risk charge shall not exceed 200 percent, correct?
 - A. That is correct.
 - Q. But it could be zero?
 - A. It could be zero.
- Q. And it could be 200 percent?

A. It could be 200 percent.

- Q. And it could be anywhere in between?
- A. Anywhere in between.
- Q. Now, what we have always done traditionally is that we have listened to testimony in every case, the Examiner makes a recommendation for the risk charge, and the Director makes a decision based on that recommendation as to what that percentage risk charge is going to be for that case, correct?
- A. That is correct.
 - Q. And that is incorporated in the order?
 - A. Yes, it is.
 - Q. Now, in practice are there not some guidelines that have emerged over the years that we generally follow in terms of fixing what you as an Examiner or I as an Examiner will recommend and what the Director will include as a risk charge in his orders?
 - A. That is correct, there has been some guidelines.
 - Q. We talk about around here the 200-percent rule, the 156-percent rule and the 100-percent rule. Since each of these is stated in a form -- not necessarily the form in which it's currently used, but something approximating that in the proposed rule, I'm going to ask you to explain each of those rules. And because the 200-percent is sort of a catch-all that we use in all other cases, I'm going to

begin with the lesser ones.

What is the 156-percent rule, and when does it apply?

- A. Okay, the 156-percent rule is applied in the Fruitland Coal, Basin-Fruitland Coal Pool, in the San Juan Basin area.
- Q. Okay, I'm going to ask you to go into the history of that in just a minute. But first of all, what is the 100-percent rule and when does it apply?
- A. Generally the 100-percent rule applies when there is an existing wellbore to the primary zone of interest.
- Q. Now, I can think of at least three situations in which that would be an accurate description, and they involve some different considerations. And if you can think of any more, then tell me.

But one would be where there is a plugged and abandoned well that can be re-entered, correct?

- A. That is correct.
- Q. Another one would be what in the industry is often called the behind-the-pipe completion, where there is an existing producing well that either is producing or has produced from a deeper zone, and it's decided that it's appropriate to plug that well back and complete it in a shallower zone where there are some outstanding interests in that zone, correct?

A. That is correct.

- Q. And a third case would be where a party that owns an undivided interest in the unit, or a divided interest in the unit but does not own the whole unit, decides, which he has the right to do under the common law, to go out and drill a well, and he drills a well, drills it down to the zone that he's interested in, and then he comes to us and asks us to pool that zone, correct?
 - A. That is correct.
- Q. Now, is your understanding of the 100-percent rule as it has been practiced that we would normally assign a 100-percent, as opposed to a 200-percent risk charge, in any of those three cases?
 - A. That is correct.
- Q. Now, are there any other situations you can think of where the 100-percent rule -- that are functionally different from those three, that the 100-percent rule would apply?
 - A. Generally speaking, no.
 - Q. So that basically covers the waterfront?
- A. That's basically it.
- Q. Justice Blackstone, in his celebrated commentaries on the laws of England, described as a custom that has the force of law as being something that has been done for such a long period of time that the memory of man

runneth not to the contrary. Now, we're really not talking
about that type of custom when we're talking about these
200-percent, 100-percent, 156-percent rules, are we? At
least the memory of Michael Stogner runneth to the
contrary, does it not?

A. I'm not familiar with Mr. Blackstone, but yes,
generally that's correct.

(Laughter)

- Q. Well, the way one shows that one is an erudite lawyer is to quote Blackstone. That is -- It's even better to speak in Latin, but I'm not very good at that.
 - A. And I do not understand that.

(Laughter)

- Q. Did you keep a record for a period of time of the risk charges that were adopted in compulsory pooling cases by the Division?
 - A. Yes, I did.
- Q. And did you begin by reconstructing that, going back to before you came here and looking up the orders and noting them in your record?
 - A. That is correct.
- Q. Now, you have a notation in your record that says that as of March 30, 1973, the Oil and Gas Act was amended to allow 200-percent risk charge. Now, when I attempted to verify that I found that indeed there is a reference to an

amendment of the Oil and Gas Act that was effective March 30, 1973, so I went to the Office of the Secretary library to look up that amendment and I found that they had the session laws only back to 1975. However, I will attempt to furnish the Commission subsequent to the hearing with a copy of that amendment. I'm sure that Mr. Stogner is correct about this. I've found Mr. Stogner is very seldom in error.

Proceed.

- A. This notation that you mentioned, I remember seeing it one time, and I don't have a copy of it anymore, but I'll help you retrieve that.
- Q. Well, it's in there somewhere, and I may have gotten the pages in the wrong order when I took them out to copy them to make Exhibit 3 yesterday. There were a lot of pages.

Now looking at Exhibit Number 3 -- and of course you have in front of you, instead of Exhibit 3, the original of your notebook, a copy of which is Exhibit 3 -- when I looked through it, it appeared to me that the first time we saw a 200-percent risk charge was in the case of Order Number R-4702 in Case Number 5174.

- A. Yes. I have a copy of that somewhere.
- Q. And I believe that the archives of the Division, of which I will ask that the Commission take administrative

notice, will reflect that that order was issued on January 1 2 15, 1974. CHAIRMAN WROTENBERY: Could you state the R 3 4 number and the case number again for me? 5 MR. BROOKS: R-4702, Case Number 5147. 6 CHAIRMAN WROTENBERY: Okay, I think it's Case 5129 for R-4702. Just --7 MR. BROOKS: Yeah, I'm trying to find it on here, 8 9 yes. Okay, the --10 CHAIRMAN WROTENBERY: It's on page 6 of Exhibit 11 3. I think you just jumped down a line to pick up Case 12 5147. 13 MR. BROOKS: That's probably correct. Yes, 5129 14 is the correct case number. I believe that the date that 15 -- and Mr. Stogner has furnished me with a copy of that 16 order, and the date of January 15, 1974, is correct. And I 17 believe the Division's archives will so reflect. My notes 18 were the only thing that was wrong. 19 0. (By Mr. Brooks) Now, if we go through the pages 20 subsequent to page 6 where that particular order is noted, 21 would it be fair to say that we begin seeing -- not 22 immediately, but as you page over you begin seeing 200 23 percent with considerable frequency? 24 That is correct. What this is, let me explain what Exhibit Number 3 is. 25

Q. Please.

A. This was an index started in the mid- to early 1960s. Prior to that there was an index card file. Then this notebook was kept, and the notebook was divided up in several subjects, topics, that we regularly heard, like dual completions, compulsory pooling, nonstandard locations, nonstandard proration units. And this was kept up, I think, until about the early 1990s. And then we went to -- or we started formulating the computer program and process. But this was up to date at that time.

And at one time -- and that's what the typed pages, or the type, represents, is essentially the index showing the case number, the order number, who the applicant was, and a short description of where the property was, in this case compulsory pooling. Also it would show if it was dismissed or not. And then if you look over, generally on the far right you'll see a handwritten notation showing percentages.

And at one time I went back and started looking at this information and compiling some data, and I'm going to say that was in the late 1980s or early 1990s, that stretched through that time period, and that's where those numbers came from. I physically went back and pulled the order number and transcribed what was issued in that order, and that's what you see on the far right side as a

representation.

- Q. Okay. And you have already noted that the 200 percent appears with increasing frequency as you page through these orders; is that correct?
- A. That is correct. If you go back to the first one it comes up very frequently, and then by the time you reach a certain point -- I'd have to go back and take a look. I even quit showing 200 percent in my evaluation, because they were just such a frequent -- So when you get toward the latter portion or the middle to late portion, you might see 156 percent. You can assume that if it wasn't dismissed it's going to carry a 200 percent. So later on I started just only showing if it was different than 200 percent.

And then the latter portion of this, I quit keeping records. So don't assume at one point -- if you see the last 156 percent, more than likely that's where I quit evaluating or reviewing or finding this information.

- Q. Okay. Now, I'm going to call your attention to the page -- and I had some trouble finding it, so I figure other people will have trouble finding it too, but I'm going to call your attention to the page on which is noted Case Number 8783 and -- Case Number 8755 and Case Number 8788.
 - A. Okay, that's toward the middle, I believe, maybe

even toward the first part.

- Q. Should be -- In the pages pulled for purposes of the exhibit, it should be about three-fourths of the way through in your actual notebook, because I didn't include the more recent ones where there are no notations. It would, you're right, be about the middle.
 - A. Well, assuming everybody's there, I'm there.
- Q. Okay. What is the risk penalty -- or risk charge noted in Cases Number 8755 and 8783?
 - A. 8755 and 8783 shows 150 percent.
- Q. And those were in Lea County, so those were not in the Fruitland Coal, correct?
 - A. That is correct.
- Q. Now, unless I missed something in going through your notations, those were the last cases, other than Fruitland Coal cases, where you have noted a risk charge other than 200 percent?
 - A. That is correct.
- Q. And I believe that the record will reflect that those two orders were -- I believe the archives of the Division will reflect that Case Number -- I'm sorry, that Order Number R-8136-A in Case Number 8783 was issued on February 26th, 1986, and Order Number R-8135-B was issued by the Commission in Case Number 8755 on February the 28th, 1986.

- A. That's what I have, yes.
- Q. And all of the risk charges, other than 200 percent, that are noted throughout the rest of your log are 156-percent Fruitland Coal cases, correct?
 - A. That is correct.
- Q. And while the log is not complete, and soon after that you discontinued the process of making these notations, is this some indication that for at least the past 15 years the Division has followed the 200-percent rule in cases other than Fruitland Coal cases?
- A. That would be safe to say for those cases that you had a new well drilled.
- 13 Q. Correct.
- 14 A. Yes.

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- Q. Okay. 1986 was actually 17 years, so I'm being a little conservative in saying 15 years here.
- Okay, now let me reassemble this exhibit so it
 won't get mixed with other things.
 - I want to at this point call your attention to Exhibit Number 1 again, and look at subparagraph A.1 of Exhibit Number 1.
 - A. A.1, yes.
 - Q. Now, subparagraph A.1 reads, "200% of well costs in the case of a well to be drilled or deepened (or a plugged and abandoned well to be re-entered) and complete

in a...pool other than the Basin-Fruitland Coal..." 1 2 Now, except for the parenthetical expression about plugged and abandoned wells, does subparagraph A.1 3 represent your understanding of the practice consistently 4 followed by the Division for the past 15 years? 5 A. Yes. 6 7 But with regard to plugged and abandoned wells, that's different, correct? 8 That is correct. 9 A. Q. Okay. Now, I want to talk about the 156-percent 10 rule. Are you, Mr. Stogner, intimately familiar with the 11 origins of the 156-percent rule in the Basin-Fruitland 12 Coal? 13 14 Why, yes, I am. In fact, it arose from a recommended order that 15 0. you drafted, did it not? 16 That is correct. 17 Α. 18 Q. And would that have been Order Number R-8818, 19 issued in Case Number 9537? 20 Α. Why, that is correct. 21 Q. And is that Exhibit Number 5 in this proceeding? 22 Α. Exhibit 5, yes, it is. And that represents six pages of that order, Order R-8818, Case Number 9537. 23 Q. 24 And that was entered on November the 22nd, 1988, 25 correct?

- A. I have December 28th, 1988.
- Q. Oh, I'm sorry, it was heard on November the 22nd.

 It was entered on December the 28th.
 - A. That is correct.
 - Q. Do you personally remember this case?
- A. Yes, I do.

- Q. As a background for what I'm going to ask you next, would you identify Exhibit Number 4?
 - A. Okay, Exhibit Number 4.
 - Q. Sorry I got you out of order.
- A. Okay, Exhibit Number 4 is a single sheet and it's entitled "Risk Penalty Analysis", Case 9597. Now, 9597 was heard subsequently later, but it was the basis of what led to the risk penalty in this instance, and for coal gas pools later on.
- Q. Now, the notes on this Exhibit 4 were made by you, correct?
 - A. Yes, all the hen-scratching was made by me.
- Q. Now, would you go through this and in your own words explain to us how you arrived at 156 percent?
- A. Okay, a little bit of a background. That case was heard subsequent to the formation of the Fruitland Coal Gas Pool, which was a few months earlier, and the pool was created covering three counties, a substantially large area of three counties, and it covered the coal-gas producing

formation. And there was a substantial amount of testimony at that point.

The case that you see, or Exhibit Number 5, represents that first hearing that was heard, and at the time the applicant requested 200 percent.

In cross-examining the witness requesting 200 percent, it was brought out and I asked what substantiates the 200 percent in this instance? And the witness at that time had presented certain risk, being geological, reservoir, economic and operations risk. And the witness at that time even came up with some sub-subjects under each one of those.

There again, I apologize for the hen-scratching, but if you can kind of just get away from that at that point and take a look at what was represented on this sheet of paper, geologic risk included coal stratigraphy and thickness, being one, cleating and fracturing, another, and coal characteristics as being another.

And then reservoir risk involved sustained deliverability, de-watering and reserve recovery and undefined coal producing characteristics.

Economic risk included project, the gathering, facilities and water disposal; the treating of water and the ${\rm CO}_2$ coming out of the formation, which is -- ${\rm CO}_2$ is indicative of production coming from the high-methane coal

gases; marketing, which included testing, demand and mechanical downtime.

And also operations risk, down at the bottom:

Completion operations, equipment failures while drilling
and formation problems while drilling.

And if you look over to the right side, risk penalty, this is what the witness at the time had given for each one. And this was a mathematical formulation of that.

Well, I took it -- and that's where the henscratching comes in -- economic risk was not considered.

In my opinion that was not viable as drilling or
completion, so I threw that out. That's where the 66
percent then comes in. Sixty-six percent times three is
roughly 200 percent. 198. So that was what was formulated
for the three subdivisions.

- Q. Now, let me interrupt you, just to be sure everyone understands. You said that the maximum risk penalty would be 200 percent, so you said we've got these three types of risk, and we balance them approximately equally, therefore we say that the risk -- each type of risk should contribute a 66-percent risk charge, so that if all three risks are present, then you have a 200-percent risk charge, correct?
 - A. That is correct.
- Q. Okay, continue.

A. So the three big ones -- that being geological, reservoir and operations risk -- were given essentially two-thirds -- I'm sorry, a third each. So that's 66 percent.

Then up at the top, geologic risk, I subdivided those out. And each one of those was given to the 22 percent. Essentially a third for that third was 22 percent of the 200 percent.

Okay. I give them operations risk, all of it, so that would get 66 percent.

Reservoir risk, I give them all of that. So now we're up to two-thirds of the 200 percent.

Now, the geologic risk, I struck or knocked out the geological stratigraphy and thickness and the cleating/fracturing because of the testimony presented when the coal pool was created. There was a substantial amount of testimony that the coal was there, that's why we form a pool, the coal was there. So the risk was taken out. I did give them coal characteristics, however, because you don't know what you're going to get until you get down there. But they had assured us, or from the testimony presented, that the pool was there.

So I knocked out two, so that was 200 percent minus 44, came out to the magic 156 percent.

Q. Okay, so this has great mathematical precision?

- A. Great mathematical precision, considering I didn't have a calculator.
- Q. Now, this conclusion was based on the testimony given in these consolidated cases, and I note that -- I call your attention to finding number (2) in Order Number R-8818, and that recites a fairly lengthy list of cases which were consolidated for the purposes of testimony, correct?
 - A. That is correct.

- Q. And the testimony that was given in that consolidated hearing, plus the testimony that was given in Case Number 9420, which was the original case that designated the Fruitland Coal, Basin-Fruitland Coal Gas Pool, that testimony led you to believe that there really wasn't any substantial risk that they would not encounter the Fruitland Coal in the wells that were being proposed?
 - A. That is correct.
- Q. And that basically they knew some things about the Fruitland Coal that were more or less uniform throughout that formation, that reduced the risk?
 - A. That is correct.
- MR. BROOKS: Madame Chairman, members of the Commission, let me interject at this point that I undertook to obtain the transcripts for this consolidated hearing in Case Number 9537 and related cases and in Case Number 9520.

I was not able to obtain them in time for the hearing 1 2 today. I will undertake to obtain those transcripts and 3 excerpt for the Commission, if the Commission would like me 4 to do so, excerpt for the Commission the testimony that's 5 material to this issue from those transcripts, if you would 6 like me to do so. 7 CHAIRMAN WROTENBERY: Where are the transcripts? MR. BROOKS: They're in archives. 8 9 CHAIRMAN WROTENBERY: Oh, I understand. 10 MR. BROOKS: Ms. Davidson can explain to you the 11 circumstances. 12 CHAIRMAN WROTENBERY: Okay, that won't be 13 necessary. What do you think, Mr. Ross? Would that be 14 helpful, to have that as part of the record, or --15 MR. ROSS: Well, I guess of Mr. Brooks wants them 16 17 made part of the record and it's a formal request, then --18 MR. BROOKS: Okay, with that I will so request. I remember I always used to chastise attorneys for asking 19 me when I was the judge whether they ought to offer 20 21 something in evidence, because that's not really the 22 appropriate thing for the judge to decide. 23 Yes, I will request that we be permitted to 24 excerpt those and submit them subsequently and made part of 25 the record.

CHAIRMAN WROTENBERY: That would be helpful, Mr. 1 2 Brooks. Thank you. MR. BROOKS: And of course at the end of this I'm 3 going to -- for that purpose it will be necessary, at least 4 for a limited purpose, to keep the record open. I think 5 there may be some other requests to keep the record open, 6 but I will defer my position on that till the end of the 7 hearing, if that's acceptable. 8 9 CHAIRMAN WROTENBERY: Yes, thank you. MR. BROOKS: May I continue? 10 CHAIRMAN WROTENBERY: 11 (By Mr. Brooks) Now, I believe we've mentioned 12 Q. that Case Number 9420, that was the case in which the 13 Basin-Fruitland Coal Pool was originally designated; is 14 that correct? 15 That is correct. 16 Α. I'll next call your attention to what has been 17 marked as Exhibit Number 6, and I don't know what the 18 extent of your personal familiarity with this exhibit is, 19 20 but you've been around here long enough you can tell us what this is. 21 22 Exhibit Number 6 is a copy of Order Number 23 R-11,301-B, as in bravo, Case Number 12,299. That tells me

that there were two other orders prior to this and that it

was heard by the Commission and was a hearing heard on

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appeal concerning the Red Wolf Production, Inc., compulsory 1 2 pooling case in San Juan County, New Mexico. Now, this order reflects that it was issued on 3 4 July 21st, 2000, correct? 5 Α. That is correct, the Commission order was -- this 6 order B was issued that date. 7 Okay, and I will ask you to look at finding paragraph (12) on page 3 of Order Number R-11,301-B. 8 Okay, I'm looking at that now. That's the second 9 Α. paragraph from the top on page 3. 10 11 And would you read that finding paragraph for the 0. 12 record? 13 Α. It reads, "Because the risk involved in drilling wells within the Basin-Fruitland Coal Formation is somewhat 14 15 less, the typical risk penalty in that pool has been 16 assessed at 156% rather than the statutory maximum of 200%. 17 Testimony and evidence presented in this case and testimony and evidence presented in Case 9420 establish that a 156% 18 19 nonconsent risk penalty is appropriate for this unit." 20 Q. Okay. So the Commission has considered this 21 matter about two years ago, or three years ago, and came to 22 the conclusion that the 156 percent was appropriate on

that the original case, Order Number R-8818, and all the

That is correct. And it's interesting to note

whatever evidence they reviewed at that time?

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Α.

other ones, as far as I know, this was the first de novo.

- Q. Thank you. Now, I will ask you to look at subparagraph A.2 of Exhibit 1, of proposed Rule 35 as reflected in Exhibit 1. Again, with the exception of the parenthetical about plugged and abandoned wells, does subparagraph A.2 reflect the practice of the Division that has been followed consistently for the past 15 years in terms of assessing risk charges for compulsory pooling in the Basin-Fruitland Coal?
 - A. Yes, it does.

- Q. Thank you. Now, let's talk about the 100-percent rule. And you have told us what functionally your understanding of the 100-percent rule is. Do you recall its origins?
- A. Not to the degree of the 156-percent, but I do recall somewhat, yes.
- Q. Can you tell the Commission what you can recall about the origins of the 100-percent rule?
- A. It was about the time that Mr. Bill LeMay became Director. Dave Catanach and I were at that time the two Examiners that had been with the Division the longest. I started hearing cases in 1982, Mr. Catanach, I believe, in 1983, and -- I might even say, since that time we've both been Hearing Examiners. And there's been -- a third Examiner has come in. But by the time Mr. LeMay got here

it was apparent that we needed somewhat of a consistency in this situation where we had an existing wellbore that had penetrated that formation.

Dave Catanach and I -- and I believe at that time maybe Mr. Dick Lyon was the third Examiner -- we talked amongst ourselves and we essentially established a lesser than 200-percent, which eventually became the 100-percent rule that you see today.

That is, in a nutshell, how we got to that point, yes.

- Q. And approximately when did that occur? Time frame?
- A. Mr. LeMay got here in about 1988, so it was -- the origins can go back to that point, yes.
- Q. So it would have been very close to the time that the 156-percent rule was developed?
- A. At least the rule, or the practice that we have,

 I think if we even go back a little bit further we might

 find some information.
- Q. Okay. Now, can you explain to me -- We've talked about the three scenarios, the plugged and abandoned -- the re-entry well, the behind-the-pipe completion and the new well that's already been drilled. Now what is it about those situations that would cause you to believe that a lesser risk penalty, a risk charge, would be appropriate?

All through those scenarios, you already have a 1 Α. hole that goes to that formation. 2 So there's not any risk that you -- At the time 3 that the OCD addresses the issue, there's not any risk that 4 they won't encounter the formation? 5 That is correct. 6 Α. 7 And probably they know a little something about 0. 8 the formation, do they not? They have logs. 9 Α. At least a little something, yes. 10 They don't know everything? Q. 11 No, not everything, no. Α. Particularly if it's an old well and the logs 12 Q. were taken, say, 1950s, what they know about it may be 13 14 somewhat limited compared to what would be available from modern technology, correct? 15 That is correct. 16 Α. 17 But they do have some information? 0. 18 Α. They do have some information. 19 Now, of course in the case of the new well that's 0. 20 been drilled, the operator did not have that information at 21 the time that he decided to spend his money and drill that 22 well, correct? 23 That is correct. Α. 24 Q. Whereas in the other two cases, if he's got an

existing well that he somehow fell heir to, whether he --

somebody -- whether it's been abandoned or whether he purchased it when it was declining in production or otherwise, whatever, he's got the well -- at the time he decides to spend the money on the prospect that he's doing the recompletion for, he already has that log information?

A. That's right.

- Q. But when we go to the guy that decides to drill a new well and decides to do it before he pools, he may not have any -- he may be taking just as much risk, but would it be fair to say, just speculating, I guess, to a degree, but just inferring from his conduct in drilling that new well, would it be fair to say that he is willing to sustain that risk, regardless of whether or not the pooled-in parties elect to participate in that well?
 - A. That is a fair statement.
 - Q. He's made his decision?
- A. He made a --
- Q. He drilled a well?
- A. Yes, he made his decision.
- Q. So it could be argued, then, that from an economic standpoint it is not necessary for the Oil Conservation Division to allow him a risk charge in order to induce him to drill that well?
 - A. That's right.
 - Q. Okay, thank you.

- A. Now, as far as the log information, I'd refer to Rule 117. That just --
 - Q. And what does that provide?
 - A. That essentially tells when an operator is to provide the Oil Conservation Division a log. So in some instances, a log may be available to that individual.
 - Q. Yeah.

- A. But not all the time.
- Q. Yeah. Of course, that brings us to another issue, but I think I will leave that for subsequent discussion.

In your opinion, then, the 100-percent -- the lower 100-percent penalty is justified by either the lower risk that the operator is taking or the lower sensitivity to risk that is exhibited by his conduct in those situations?

- A. That is correct.
- Q. Okay. Looking at subparagraph A.3 of the rule and disregarding the fact that we have made a specific provision in A.1 and A.2 for plugged and abandoned wells that does not conform to present practice, otherwise does subparagraph A.3 correctly describe the practice that has been followed by the Commission for the last *circa* 15 years?
 - A. Yes, it does.

MR. BROOKS: Thank you. And that brings me to the second phase of our testimony. If the honorable Commissioners are disposed to take a break, this may be a convenient time to do it.

CHAIRMAN WROTENBERY: Okay, let's take a 10-minute break then. Thank you.

MR. BROOKS: Thank you very much.

(Thereupon, a recess was taken at 10:33 a.m.)

(The following proceedings had at 10:43 a.m.)

CHAIRMAN WROTENBERY: Okay, we'll go back on the record.

A few organizational matters. I need to head out by about 12:30 or one o'clock. I've got another commitment I can't avoid, and so I apologize for having to leave in the middle of the hearing, but I will leave. And if Commissioner Bailey, Commissioner Lee all are available to stay a little bit longer this afternoon to finish up the presentation on this particular case, I'd appreciate it, and then I'll review the transcript at a later point.

But I would like to have the benefit of hearing from everybody on the most difficult parts of this proposal, those issues that have generated some level of controversy. So I would hope we might restructure our presentation a little bit this morning, take some things out of order, so that I could at least hear the portion on

the risk charges from all parties and anything else that might turn out to be in a matter that doesn't have full consensus of the work group.

MR. BROOKS: Okay, madame Chairman, what I would propose in this regard, given our time situation,
Burlington Resources, I know, has prepared a presentation.
I solicited that presentation because I felt the Commission needed the benefit of that information to make a proper decision on this Fruitland Coal issue. I believe their presentation is largely, if not entirely, limited to the Fruitland Coal issue.

in-chief with regard to the Fruitland Coal issue, and to be sure that Burlington is not sent home without -- Burlington and their witnesses are not sent home without being given an opportunity to speak their peace, I would like at this time to pass the witness for the limited purpose of allowing Burlington to cross-examine him and then to put on their case on the Fruitland Coal issue, while you are here to participate personally in that hearing.

CHAIRMAN WROTENBERY: Thank you very much, Mr. Brooks.

MR. BROOKS: Is that acceptable, Mr. Kellahin?

CHAIRMAN WROTENBERY: Will that work for you, Mr.

25 | Kellahin?

MR. KELLAHIN: I have a slight footnote. 1 CHAIRMAN WROTENBERY: 2 MR. KELLAHIN: I have never had a chance to ask 3 Mr. Stogner any questions, and I just cannot resist the 4 5 temptation. And frankly, it may be so much fun I won't be able to stop. 6 7 (Laughter) MR. BROOKS: Okay --8 MR. KELLAHIN: May we have Mr. Stogner available 9 10 at the continuation of this case so that the Commission and I might ask him questions? I don't want to cut short the 11 opportunity for the Commission to be able to interact with 12 13 the witnesses, but if I start we might not finish. MR. BROOKS: Well, unless Mr. Stogner is on leave 14 15 for some reason -- on June the 12th, is it? CHAIRMAN WROTENBERY: That will be the next 16 17 Commission Hearing, and --18 MR. BROOKS: Yeah, you will be available, 19 correct? 20 CHAIRMAN WROTENBERY: If we need to continue to 21 June 12th. 22 THE WITNESS: I don't have my calculator here --23 I mean my --24 MR. BROOKS: -- calendar. 25 THE WITNESS: -- calendar --

CHAIRMAN WROTENBERY: -- calendar. 1 EXAMINER STOGNER: -- because I already have some 2 leave in June that I'm going to take. 3 COMMISSIONER LEE: Your leave is denied. 4 5 (Laughter) MR. BROOKS: Well, we will address that issue 6 later, if it's acceptable, then go ahead and proceed on 7 this issue. 8 CHAIRMAN WROTENBERY: So Mr. Kellahin, you would 9 like to go ahead and allow your witnesses --10 11 MR. KELLAHIN: -- to put on their presentation. It might take --12 13 CHAIRMAN WROTENBERY: -- to put on their presentation at this point? 14 MR. KELLAHIN: -- about an hour. I'd like you to 15 see their technical stuff that updates the reservoir as to 16 what Mr. Stogner was looking at some 15 years ago, and the 17 Commission as well, in setting the pool. But our focus 18 19 point is limited to the risk-factor penalty, and our 20 ultimate conclusion is, we would like you to increase it to 21 200 percent, as you do with the other reservoirs. 22 MR. BROOKS: Now, my understanding is that you 23 would like to defer your cross-examination of Mr. Stogner 24 until after you've presented your case-in-chief? 25 MR. KELLAHIN: Yes, sir.

MR. BROOKS: That's acceptable to the Division.

There are two housekeeping matters I need to do before I pass the witness.

CHAIRMAN WROTENBERY: Okay. Mr. Carr, did you have something you need to say?

MR. CARR: I have to have to pipe in, but I do.

The other issue that is of real importance to a number of
us who are here is the 100-percent, 200-percent distinction
that is in the draft rule, and we would appreciate it if
the full Commission could be present to hear the testimony
on that. Mr. Patterson plans to present testimony.

MR. BROOKS: Yes, I concur in that, and the Division is planning to call Mr. Patterson. And as I had promised him -- since he is giving testimony supporting other aspects of the rule, I promised him the opportunity of the pulpit up here to present his testimony under the sponsorship of the Division.

What I would like to do is first of all take this Fruitland Coal issue. If you have enough time left after that is done, then I will present the additional Division case on the 100-percent issue and let anyone else speak who wants to. If you do not have time, then I'm going to suggest we defer the consideration of that issue till the June 12th hearing.

CHAIRMAN WROTENBERY: Okay, let's try it that

1 way, then. MR. BROOKS: Very good. 2 CHAIRMAN WROTENBERY: Thank you. 3 (By Mr. Brooks) Mr. Stogner, I forgot to ask you 4 5 one question. Have your credentials as a petroleum 6 engineer and the Division Hearing Examiner been the subject 7 of testimony before the Oil Conservation Commission on prior occasions and made a matter of record? 8 9 Yes, they have, and they have been accepted. Α. MR. BROOKS: And are the witness's credentials 10 accepted for purposes of this hearing? 11 CHAIRMAN WROTENBERY: We have no doubt that the 12 witness is qualified to testify at this hearing. 13 MR. BROOKS: Very good. We'll tender into 14 evidence Division Exhibits 1 through 6. 15 CHAIRMAN WROTENBERY: Okay, any objection --16 17 MR. KELLAHIN: No, ma'am. CHAIRMAN WROTENBERY: -- to the admission? 18 MR. BROOKS: Pass the witness for the limited 19 20 purpose of addressing the Fruitland Coal issues. 21 CHAIRMAN WROTENBERY: Thank you, Mr. Brooks, and OCD Exhibits 1 through 6 are admitted into evidence. 22 23 And Mr. Stogner, we appreciate you bearing with 24 us while we adjust the order of presentation here to 25 accommodate the Commission's schedule.

1	MR. STOGNER: Thank you.
2	CHAIRMAN WROTENBERY: If we can, then, we'll
3	call
4	MR. KELLAHIN: I have two Burlington witnesses.
5	CHAIRMAN WROTENBERY: This is from Burlington.
6	MR. KELLAHIN: Their presentations are on
7	PowerPoint.
8	CHAIRMAN WROTENBERY: Okay.
9	MR. KELLAHIN: We have, hopefully, enough copies,
10	hard copies, of the exhibit books, certainly for the
11	Commission and for Mr. Brooks.
12	If others want those, we can give them to you on
13	a diskette, or we can reproduce the hard copies. But you
14	will have a hard copy to look at as we go through the
15	presentation.
16	CHAIRMAN WROTENBERY: Okay, thank you.
17	MR. BROOKS: Would it be more preferable to you
18	to sit at this table, Mr. Kellahin? I can move over to the
19	opposing counsel table here.
20	MR. KELLAHIN: Well, you might have That
21	screen goes back. You're welcome to stay there, I can sit
22	with you.
23	MR. BROOKS: Okay.
24	MR. KELLAHIN: That works fine.
25	MR. BROOKS: We can sit at the same table.

JIM SCHLABAUGH, 1 the witness herein, after having been first duly sworn upon 2 his oath, was examined and testified as follows: 3 DIRECT EXAMINATION 4 BY MR. KELLAHIN: 5 Mr. Schlabaugh, would you please state your name 6 Q. 7 and occupation? 8 Α. Yes, my name is Jim Schlabaugh and I'm a reservoir engineer working for Burlington Resources. 9 Q. Mr. Schlabaugh, would you spell your name for us? 10 CHAIRMAN WROTENBERY: Thank you. 11 THE WITNESS: Yes, it's S-c-h-l-a-b-a-u-q-h. 12 13 CHAIRMAN WROTENBERY: Schlabaugh? 14 THE WITNESS: Schlabaugh, yes. 15 (By Mr. Kellahin) On prior occasions, Mr. 0. Schlabaugh, have you testified before the Division or the 16 Commission? 17 No, I haven't. A. 18 Summarize for us your education. 19 0. 20 I'm a graduate of the Colorado School of Mines, 1974. I've worked in the industry ever since, and 21 22 Burlington since 1993 as a reservoir engineer. 23 Let's focus specifically on your engineering studies of the Basin-Fruitland Coal Gas Pool. 24 25 A. Yes.

When did you become involved on behalf of Q. 1 Burlington in that activity? 2 July of last year. 3 Α. Is it a full-time job for you at this point? 4 Q. Yes, it is. 5 A. In general, describe -- give us an overview of 6 Q. 7 the kinds of engineering things you're doing with regards 8 to the Fruitland Coal. 9 Α. I've done some reviews for enhanced coalbed 10 I'm currently in the process of looking at 11 capital inventory, new wells to be drilled in specifically 12 the non-fairway or low-productivity area of the Basin. Have you also been involved with the engineering 13 Q. team for Burlington that is studying the request that's 14 coming before the Commission in a month or so concerning 15 the increased density of wells in this pool? 16 17 Α. I have not been directly involved in that, but I've been on the skirts of it. I've reviewed some of that 18 19 work. 20 Your presentation this morning is focused on what objective? 21 22 Α. The presentation this morning is to review actual 23 historical results of drilling in the Fruitland Coal over about the last 15 to 17 years. 24

Based upon that review, do you have an opinion

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Q.

about your recommendation for the Commission concerning 1 what to do with the risk-factor penalty in the Basin-2 Fruitland Coal Gas Pool? 3 Yes, we believe -- or I believe, that the risk 4 charge should be increased to 200 percent to match the 5 other formations that are at 200 percent. 6 MR. KELLAHIN: Madame Chair, we tender Mr. 7 Schlabaugh as an expert petroleum engineer. 8 9 CHAIRMAN WROTENBERY: Any objection? 10 MR. BROOKS: No objection. CHAIRMAN WROTENBERY: We find him so qualified. 11 (By Mr. Kellahin) Let's summarize what you're 12 Q. about to show us. Describe for us what we're about to see 13 today. 14 Today what I wanted to show was the status at the 15 time of the original finding for the 156-percent charge, 16 and also I wanted to review the actual historical economic 17 success and the actual historical abandonment rate in the 18 19 Fruitland Coal and compare it to some of the other formations. 20 21 0. At the conclusion of presenting the slide and 22 having your testimony, tell us where you're going to end 23 What are your ultimate conclusions?

drilling a Fruitland Coal well out here has historically

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Α.

My conclusions are that basically the risk for

been the same as or, in fact, some cases worse or more than some of the other major formations, and the final conclusion is that essentially if the risk is the same as or more than the other formations, that we believe that the risk charge should be the same.

- Q. Do you have a working geologic understanding of the other reservoirs in the San Juan Basin?
 - A. A basic, yes.

- Q. Principally, you would be dealing with the Pictured Cliff, the Dakota and the Mesaverde?
 - A. The Mesaverde, yes.
- Q. In terms of reservoir complexity, how would you compare the reservoir complexity in the coal pool with the other reservoirs in the San Juan Basin?
- A. The reservoir itself is significantly more complex. One of the problems with dealing with coals is that all coals are not created equal. They can change very rapidly over short distances.
- Q. Do you have an opinion as to whether the presence of the coal seam reduces the geologic risk?
- A. Yes, my opinion is that essentially, just having the coal seam itself is not sufficient. In the interim period we've found that there are places where there is essentially no cleating, or very little cleating, in the coal, and that in those areas there is almost no

permeability. That is the functional equivalent,
basically, of not having a reservoir there. If you cannot
move fluid through it, it is not a functional reservoir.

- Q. So you disagree with the past practice of the Division to discount the risk-factor penalty in pooling cases in the coal because the coal seams are present in the Basin?
 - A. That's correct.

MR. KELLAHIN: Let's begin your presentation. Take us to your first slide.

I'm sorry, did I tender him as an expert? I did, didn't I?

CHAIRMAN WROTENBERY: Yes,

- Q. (By Mr. Kellahin) Take us to your first slide.
- A. Okay, this first slide basically shows the status of the development of the original -- at the original finding in 1989. Actually, the finding was in 1988, but this is wells completed prior to 1989.

It depicts the location of all the Fruitland Coals we could find in a public database. And as you can see, most of the wells are in this -- it's kind of hard here to get this -- in the fairway, the high-productivity area that has in some other hearings been defined as greater than 2-million-cubic-foot-a-day productivity area.

There are some wells that are outside of that.

Most of those, we're finding, were drilled prior to about 1986. We think that a lot of those were mislabeled as coal when they were actually Fruitland sand wells.

So the bottom line for this slide is that at the time of the original hearing most of the historical data was in a very high-productivity area, but it does not reflect the current area for development.

- Q. When you describe your slides and use the pointer --
 - A. Yes.

- Q. -- make sure that you verbalize where you are, so that the court reporter will be able to know --
 - A. Yes.
 - Q. -- in the transcript what you've done. Okay.

In summary, when we look at the snapshot of the pool back in 1997 [sic], what are we seeing?

- A. Again, what we see is that there was a predominance of drilling and data in what we now know is an abnormally high productivity area for the entire Basin.
 - Q. Let's go to the next slide.
- A. Okay, the next slide -- It's a little difficult to see the high-productivity area on this slide. What this depicts is our best understanding of the current state of development in the Fruitland Coal, and the little hand on here is pointed approximately at the high-productivity

area, and you can see that the development has expanded significantly beyond that and into an area that is significantly lower in productivity and much riskier.

- Q. Let me clarify something with you. When we look at the hard copies --
 - A. Yes.

- Q. -- we can see on the hard copy that there is this -- it appears to be red to me --
 - A. Yes.
 - Q. -- line, and that represents the boundary that the Division is currently using to contain what we've characterized as the high-productivity area?
 - A. That's correct.
 - Q. And if you're outside of that boundary, you're in the balance of the pool that's characterized as the low-productivity area?
 - A. That's correct.
 - Q. And in contrast to 1987 to now, the earlier slide showed that substantially all of the development was occurring in the high-productivity area?
 - A. That's correct.
 - Q. Bring us up to date, as of the date of this display. Describe where you're getting the data.
- A. The data that is on this slide here is from a public database, IHS Energy, I believe. We call it P2000,

their service.

- Q. It would not, then, include data after the year 2000?
 - A. No, it would not.
 - Q. Okay, so this is up to year 2000?
- A. Oh, excuse me, P2000 is the name of the service.

 The data would be actually up through approximately October of 2002, if I remember correctly.
 - Q. What does this show to you?
- A. What this shows to me is that the highproductivity area has essentially to this point been
 developed, and there is not much prospect of developing it
 on 320s in the future, and that the drilling that will
 occur in the future is all going to be further and further
 away from that high-productivity area, in much riskier
 areas of the reservoir.
 - Q. Let's go to the next slide, number -- 3, is it?
- 18 A. Yes.
 - Q. Okay. Again, what's the source of this data?
- 20 A. The source of this data is -- let's see, public records.
 - Q. Okay, what's the purpose of the display?
 - A. The purpose of this display is again to show the undeveloped and the developed, as opposed to the developed, areas of the Fruitland Coal sections. You can see that the

undeveloped sections are in a blue or green on there, and
the developed sections or those sections that have at least
one well drilled in them are whited out. And I can show
you with the little hand on here, that would be this -basically this area here, large area of whited-out
sections.

- Q. How does this slide relate to supporting your argument and conclusion that the risk-factor penalty in the coal should be increased to 200 percent?
- A. What this does is, it shows that the -essentially all the future development in the coal would be
 in the low-productivity area. And that area is an area
 that I will show more explicit data on later, but it is
 apparently significantly riskier than the high-productivity
 area.
- Q. Let's go to the next slide. What are we now seeing?
- A. This slide shows the status of coal wells drilled to date, as far as we can tell from public data and from our own analysis.
 - Q. Let's look at the bottom of the display.
- 22 A. Yes.

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- Q. You have the color-coding, and you've identified the color-coding with certain phrases?
- 25 A. Yes.

Q. Identify each of those for us.

A. Okay, the black dots are wells that from our analysis we've determined to be economic. In other words, they will have an ultimate recovery larger than what it takes to pay for the drilling and completion of the well. There are 2193 of those.

The red dots are wells that we have determined from our analysis to be subeconomic, they will not pay for the cost of drilling and completion. There are 648 of those.

And the green dots, of which there are 160, are wells that were abandoned or dry holes.

- Q. Define for me the types of wells that are in the abandonment category.
- A. The abandoned category includes both temporarily abandoned and plugged and abandoned wells. What I did was, I cut off -- because oftentimes the Fruitland Coal is completed and produced for some period of time before it's determined that it's a noncommercial or dry hole, what I did was, I cut off, I think, at about 20 million cubic feet. So if a well was plugged and it had more than 20 million cubic feet, I'm assuming that it was a producer and it was plugged for other reasons. If it had less than 20 million cubic feet, I'm assuming that the operator decided that it was not going to be productive and plugged it as a

dry hole.

- Q. Is this plug-and-abandonment data data that was not available to Mr. Stogner and to the Division when they were deciding the initial risk-factor penalty in the coal back in 1989?
- A. That's correct, that's correct. The great bulk of this data has occurred over -- or this drilling, has occurred in the interim.
 - Q. Let's go to the next slide.
- A. Okay.
- Q. You're going to have to be careful with us now and make sure we figure out what you're doing.
 - A. Yes, sir.
 - Q. What are we looking at?
- A. Right now what you're looking at is a depiction of -- What I wanted to show was the actual risk of drilling an uneconomic well in the Fruitland Coal over that period from 1988 to present.
- Q. Would this risk be applicable to wells throughout the pool?
- A. This risk is actually -- What I did here was, I tried to restrict this to wells in the low-productivity area. You will see up in the title it says UPE. That is an internal designation for Burlington that this is the underpressured area of the reservoir, and thus low

61 productivity. 1 This would then be in the portion of the pool 2 0. that you think future drilling activity is going to occur 3 as we develop these additional spacing units? 4 5 Α. That's correct. And if those cases generate force pooling cases, 6 0. 7 we're now in an area that is different, in terms of the 8 economic risk, than if we were in pooling cases in the 9 high-productivity area? 10 Α. Yes. Start with the bottom scale. What's the bottom Q. 11 scale? 1.2 The bottom scale shows calculated ultimate 13 Α. recoveries from essentially -- It's a log scale, and it 14 15 shows it from .001 million cubic feet, up to 100,000 16

- million cubic feet.
 - Is this limited just to Burlington wells? Q.
- No, this is -- actually takes into account over 1600 wells that were drilled. They were individually analyzed for ultimate recovery.
 - Q. When we look at the far right vertical scale --
- 22 Yes. Α.

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- -- what are you showing there? Q.
- What I'm showing there is the probability that 24 Α. 25 any of those points will be exceeded. In other words, if

you go to the line that says P50, which is -- if I can get to it over here -- right there, and you follow over to the blue line here or set of points, and then you follow straight down, you'll find that the ultimate recovery for that point is about 600 million cubic feet.

The significance of the P50 is that 50 percent of the wells that you see depicted on there had ultimate recoveries greater than 50 percent, or than 600 million, and 50 percent of them had ultimate recoveries less than 600 million.

- Q. What does the green line represent?
- A. The green line is essentially -- This presentation here comes from a standardized package that Burlington uses for risking and sizing, and so the program itself tries to fit a straight line to that data. And in this case, as you can see, the data does not quite fit a straight line and so the computer is making its best estimate.

COMMISSIONER LEE: How big the area of this --

THE WITNESS: Pardon?

COMMISSIONER LEE: How big the area? You have 1600 wells.

THE WITNESS: The 1600 wells would cover most of the wells that were depicted outside of that high-productivity area line on my previous exhibits.

COMMISSIONER LEE: So from -- you cover the full 1 2 range of the -- Does your engineering training tell you, 3 regardless of your engineering approach, this picture have any meaning? 4 5 THE WITNESS: This picture has a couple of 6 meanings. 7 COMMISSIONER LEE: Suppose I have this chart for the United States, and if I talk about San Juan Basin is 8 9 this chart valid? THE WITNESS: This chart is valid for that given 10 In other words, if I were to go back and try to do a 11 distribution on -- or find out what the risk of drilling a 12 well that is in excess of 600 million cubic feet --13 14 COMMISSIONER LEE: What is the area you cover? 15 THE WITNESS: The geographic area? 16 COMMISSIONER LEE: 17 THE WITNESS: The geographic area, if -- Let's 18 see. The geographic area --19 COMMISSIONER LEE: Does it include the fairway? 20 THE WITNESS: No, and that's what I would like 21 to --22 COMMISSIONER LEE: How many --23 THE WITNESS: -- point out, is that it covers the 24 area from this pink line, or the red line on here, which is the high-productivity area -- it covers everything from 25

1	there to the south and to the west.
2	COMMISSIONER LEE: Tell me what is the area
3	what is the area in miles?
4	THE WITNESS: In square miles? It would be
5	COMMISSIONER LEE: You see, your engineering
6	training tell you, you can have a one single chart for the
7	whole area, including the different type of the coal?
8	THE WITNESS: I'm not sure I know understand
9	what you mean. This is actual data.
10	COMMISSIONER LEE: Actual data.
11	THE WITNESS: Yes.
12	COMMISSIONER LEE: But whenever you have actual
13	data, you increase the area of your actual data, you lose
14	the meaning?
15	THE WITNESS: I'm not sure
16	COMMISSIONER LEE: If this chart
17	THE WITNESS: what you mean.
18	COMMISSIONER LEE: is United States chart
19	THE WITNESS: Yes.
20	COMMISSIONER LEE: can that explain what
21	happens in the San Juan Basin?
22	THE WITNESS: No, and I'm not trying to use that
23	to depict anything outside of the area that I am
24	COMMISSIONER LEE: I'm just asking you
25	THE WITNESS: depicting.

COMMISSIONER LEE: -- from your engineering 1 2 training --THE WITNESS: 3 Yes. COMMISSIONER LEE: -- is this valid? 4 THE WITNESS: 5 Yes. 6 COMMISSIONER LEE: Okay. When you're back on this 7 Q. (By Mr. Kellahin) statistical analysis --8 9 Α. Yes. -- let me figure out how you use this as one of 10 your components for assessing the risk of a well in the 11 low-productivity area. 12 Α. Yes. 13 If I'm in that area, give me an example of what 14 happens to my statistical expectations, based upon this 15 display. 16 Α. Based upon this display -- and this is actual 17 data, so what I did here was, I looked at an economic 18 break-even point, which --19 20 0. Let's talk about the economic assumptions. Okay. 21 Α. 22 Tell us what assumptions you made. Q. 23 What I made here -- and they're in this box that I'm pointing out -- is that I used a gas price of \$2.75 an 24 25 MCF, a drilling and completion cost of \$280,000, and an

operational cost of \$800 per month. And that is an average cost calculated for a well over that entire area that we're covering in this analysis.

What I came up with from that analysis was that in order to cover the costs of drilling and completion, we need approximately 200 million cubic feet. And if you look at this chart -- and that is depicted by the red arrows in

- Q. Okay, so when I look at the vertical red arrow --
- 10 A. Yes.

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11 Q. -- that's 2 million --

the break-even box --

- 12 A. That's 200 million --
- 13 Q. -- MCF?
- 14 A. -- cubic feet, yes.
- Q. All right, and I know that's going to be break
 even --
- 17 | A. Yes.
- Q. -- under this assumption?
- 19 A. That's correct.
 - Q. If I take this population of wells that you have looked at --
- 22 A. Yes.
- Q. -- in the underpressured area and go up on your chart and read over to the right, where does that put me?
- 25 A. That puts me at about a P70 probability, and what

that means is that roughly -- of the actual wells that were 1 drilled out here, roughly 30 percent of them were 2 3 subeconomic. So I can find by using that that there's Q. 4 5 approximately 70 percent that might be economic? 6 Α. Yes, approximately. So then below that would be the remaining 30 7 0. percent that you would categorize as being subeconomic? 8 Α. Yes. 9 In trying to give us a Basin understanding of the 10 0. different components of risk associated with these wells --11 Yes. 12 A. -- at this time, have you attempted to analyze 13 Q. the statistics for the coal with any other pool? 14 15 Yes, I did, I had data on one additional pool. Α. What pool did you pick? 16 0. 17 The Dakota. Α. Why did you select the Dakota? 18 Q. 19 Α. Essentially, we had some in-house work that was 20 done in detail on this. We had an individual analysis for 21 each of the 5600 wells that are depicted on this slide 22 here. 23 Q. Let's go through that. Show us what you've done 24 with the Dakota.

Essentially with Dakota, I pretty much tried to

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match the analysis, or the chart that was shown previously. 1 We calculated again in this box to the left an average 2 drilling and completion cost over the area of concern and 3 then also an operating cost over the area of concern, calculated an economic limit or a break-even point for that 5 6 which comes out to, if I can see on there correctly, about 700 million cubic feet. 7

If you look at the red arrows and follow them across, that comes out also to roughly about a P70. And again, what we're looking at for -- on an approximate basis, is that roughly 30 percent to a third of the wells that have been drilled in the Dakota and analyzed on this slide are or have been subeconomic.

- Let's look at the drivers for the conclusion. 0. In the Dakota you're going to need 700 million, because the costs associated with a Dakota well are more than the Fruitland Coal?
 - Α. That's correct.
- So in order to pay for those costs you have analyzed to say instead of 200 million you need 700 million?
 - Α. Yes.

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Q. When you make a comparison, then, of the Dakota well population, of all those wells exposed to that cost range, you find that you get a break-even point at 700

million? 1 Α. That's correct. 2 And if there's an opportunity to exceed that, 3 Q. you'll do so? 4 5 Α. Yes. But a little more than 30 percent of the time in 6 Q. 7 the Dakota it's going to be an economically unsuccessful well? 8 Yes, it will. 9 A. All right, let's go to the next slide. 10 Q. 11 Α. Okay. CHAIRMAN WROTENBERY: Before we do -- I'm sorry 12 if you said it and I missed it, but what region are we 13 talking about here on this Dakota chart? 14 15 THE WITNESS: On the Dakota chart we are talking about essentially the entire San Juan Basin, you know, on 16 17 the New Mexico side. 18 CHAIRMAN WROTENBERY: Thank you. 19 Q. (By Mr. Kellahin) How many total wells are in 20 that population? Α. In this population there are slightly over 5600 21 22 wells. 23 Q. And you're dealing with the Basin-Dakota? 24 Α. Yes. 25 Q. Let's look at other ways that we can

analyze the potential risk associated with the risk charge that the Commission is allowed to --

A. Yes.

- Q. -- decide. Explain to us what we're seeing now with the next slide.
- A. With the next slide what I wanted to show was a comparison between actual abandonment rates for San Juan Basin wells drilled from the time frame of the original finding up to present.

And if you will look at the actual data on here, which was taken from a combination of both Commission databases and public databases, you'll see that the Dakota had roughly 1000 wells drilled during that time frame, 23 of which were abandoned; Fruitland Coal had 2369 wells drilled during that time, 160 of which were abandoned; Mesaverde had 880 drilled -- or completed, excuse me -- and six abandoned; and the Pictured Cliff had 708 completed and 42 abandoned.

If you'll look at the Percent Abandoned column, you can see that essentially the Fruitland Coal had 6.3 percent abandoned, and that exceeds all of the other three major formations.

COMMISSIONER LEE: How many of this one is infill drilling and how many of this one is proration?

THE WITNESS: This does not differentiate between

infill -- In fact, there are no infill, actually. 1 COMMISSIONER LEE: Then a hundred percent for the 2 200 percent --3 CHAIRMAN WROTENBERY: A hundred percent for the 4 5 200 percent. COMMISSIONER LEE: But I don't buy your 6 7 presentation. I mean, I think you have a lot of uncertainty together, so -- My view of this one is, 200 8 percent will stimulate the drilling or increase the State 9 Land Office revenue, so I'm for it from that point of view. 10 But if you lump it exploration and also infill drilling 11 together, you're misleading people. 12 THE WITNESS: The reason that I put this slide 13 together is that no matter what -- in this case here, no 14 15 matter whether it is exploration, development or infill, for the other formations the charge has been 200 percent. 16 17 For --COMMISSIONER LEE: Do you feel that infill, the 18 19 risk will be less than exploration? THE WITNESS: The infill risk will be the same, I 20 21 think, on a relative basis as it is for the other formations, and I think that's my basic point. 22 23 COMMISSIONER LEE: Again, I'm for the 200 24 percent. 25 THE WITNESS: Yes.

COMMISSIONER LEE: I think it should be higher 1 2 than 200 percent, but --3 CHAIRMAN WROTENBERY: We have to go to the 4 Legislature. COMMISSIONER LEE: Right. But whenever you want 5 to present engineering data, please put some engineering 6 7 sense into that, because these statistics -- you know, when you represent statistics, you have the meaning of that. 8 You have to tell the audience what you're meaning of your 9 statistics. So if that is a pure -- if you're not trying 10 to imply anything, that's okay. But if you're implying the 11 Fruitland Coal is more risk than others, then I'm 12 13 questioning you. I'm implying that for that time 14 THE WITNESS: frame there have been more abandonments of the Fruitland 15 Coal. 16 17 COMMISSIONER LEE: Yeah, but --18 THE WITNESS: During that time frame there has 19 been a 200-percent penalty for all of the other zones, 20 other than the Fruitland Coal, and I apologize. That's 21 really the only thing I'm trying to depict here. 22 COMMISSIONER LEE: Okay. 23 MR. KELLAHIN: That concludes my presentation of 24 Mr. Schlabaugh. 25 We move the introduction of his exhibits.

1 think they're 1 through -- I'm sorry, they're behind Exhibit Tab 1, and they take you all the way through 3. 2 3 One, 2 and 3. 4 CHAIRMAN WROTENBERY: Any objection? 5 MR. BROOKS: The Division has no objections. CHAIRMAN WROTENBERY: The exhibits behind Tabs 1 6 7 through 3 are admitted into evidence. 8 Mr. Brooks, do you have questions? 9 CROSS-EXAMINATION BY MR. BROOKS: 10 11 Well, I just want to understand, I guess, 12 basically the same thing that Dr. Lee was asking about the 13 area. 14 Looking at the third sheet under Exhibit Tab 1 15 where you have the blue and white -- yes, I believe that's 16 the sheet that I'm looking at -- the full area that's 17 outlined there in the blue outline, is that area equivalent 18 to the Basin-Fruitland Coal Gas Pool as presently defined 19 by the OCD? 20 Α. Yes. 21 Okay, it's not any wider area than the pool Q. 22 itself. 23 Now, would the same be true of the other data, 24 for instance, the data you used on the exhibits under 25 Exhibit Tab 2?

Are those data based on -- As I understand it,
those -- the first slide under Tab 2 refers to the
Fruitland Coal, and the area you used to compile that data
was all of the Basin-Fruitland Coal Gas Pool outside of
what under the existing Order is defined as the highproductivity area; is that correct?

- A. The data that I have doesn't cover that area completely. It covers essentially -- And the reason it's restricted is because we had a study that was done for that area. It covers an area that is roughly from this point, following that red line to the south and to the west. That small area up in the northeast corner we do not have an individual analysis on at this time, so --
- Q. So the area that goes into the data on the first slide under Exhibit Tab 2 --
 - A. Uh-huh.

- Q. -- is less extensive than the area that is mapped on the third slide under Exhibit Tab 1?
 - A. Slightly, yes.
- Q. But with some slight modifications it's generally the portion of the area described on the third slide under Exhibit Tab 1, less the area outlined in the magenta?
 - A. Very close, yes.
- Q. Now, you have compared in your testimony the Basin-Fruitland Coal with the other productive formations

in the San Juan Basin, which I understand is your area of 1 specialization, correct? 2 3 Α. Yes. Do you have any expertise in terms of the 4 Q. producing formations in southeastern New Mexico? 5 Α. No. 6 So you would not be in a position to tell us 7 Q. whether the Fruitland Coal involves more or less risk than, 8 9 say, the Morrow or the Atoka? 10 Α. No, I have not done any studies with those. Thank you. No further questions. 11 MR. BROOKS: 12 CHAIRMAN WROTENBERY: Okay. Mr. Schlabaugh, let 13 me just ask you for the record, would you mark on the court 14 reporter's copy of the exhibit the point that you --15 THE WITNESS: Yes. 16 CHAIRMAN WROTENBERY: -- designated on the screen 17 here? Just for the record. 18 Thank you. 19 Mr. Carr, did you have any questions? 20 MR. CARR: No questions. 21 CHAIRMAN WROTENBERY: Commissioners? 22 COMMISSIONER BAILEY: Just one. 23 **EXAMINATION** 24 BY COMMISSIONER BAILEY: 25 Q. You mentioned that there is no permeability in

the coalbed methane wells without cleating of the coal. 1 Α. Yes. 2 What predictive factors do you look for, for 3 Q. 4 cleating in the coal? Drilling the ell. 5 Α. You don't use any other type of predictive models 6 0. or geological information? 7 Our geologist can expand on that but from my own 8 short experience, in this basin it's very difficult to 9 predict whether there will be cleating, particularly in the 10 low-productivity area. 11 But we've even experienced some problems with it 12 in the high-productivity area, and we have drilled wells 13 that have essentially no permeability. And there was no 14 15 way to predict that ahead of time, none that we're aware 16 of. 17 COMMISSIONER BAILEY: That's all. 18 CHAIRMAN WROTENBERY: Commissioner Lee? 19 COMMISSIONER LEE: (Shakes head) 20 CHAIRMAN WROTENBERY: Thank you very much for 21 your testimony, Mr. Schlabaugh. 22 THE WITNESS: You're welcome. 23 MR. KELLAHIN: Madame Chair, we'll call at this 24 time Mr. Steve Thibodeaux. 25 CHAIRMAN WROTENBERY: Mr. Thibodeaux.

STEVEN M. THIBODEAUX, 1 the witness herein, after having been first duly sworn upon 2 his oath, was examined and testified as follows: 3 DIRECT EXAMINATION 4 BY MR. KELLAHIN: 5 Mr. Thibodeaux, would you please state your name 6 Q. and occupation? 7 Sure, my name is Steven Thibodeaux, I'm a senior 8 9 staff geologist specializing in the Fruitland Coal for Burlington Resources. 10 11 Q. On prior occasions have you testified before the Division? 12 13 Α. Yes, I have. 14 0. In fact, you testified before Examiner Stogner 15 last summer when we addressed the issue of increased 16 density in the pool? 17 Α. Yes, I did. 18 Have you continued to be involved in the study of Q. 19 the Basin-Fruitland Coal? 20 Α. I am. 21 Q. Insofar as we're dealing with the appropriate 22 risk-factor penalty to apply pursuant to this new proposed 23 Rule by the Commission, do you have an opinion as to what 24 should be done?

Yes, I believe that the penalty should be

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appropriately raised to the maximum penalty of the other producing formations in this Basin.

Q. As part of your study, have you organized a

geologic presentation to support your recommendation?

A. Yes, I have.

MR. KELLAHIN: We tender Mr. Thibodeaux as an expert petroleum geologist.

MR. BROOKS: No objection.

CHAIRMAN WROTENBERY: Thank you, Mr. Brooks. We accept his qualifications.

Q. (By Mr. Kellahin) Let's go back to the premise that Mr. Stogner used back 14 years ago when he took the Meridian spreadsheet and he had it before him to subdivide between the geology, the engineering and operation. And then of those he made the decision to discount portions of the geologic risk based upon his belief that if you could find the coal, that there were hydrocarbons being present and that you ought to discount the risk.

How do you comment or explain that?

A. I agree with our earlier statements by Mr.

Schlabaugh that finding the coal does not necessitate

finding a reservoir. In this case, without permeability or

cleating or fracturing we have no reservoir. So therefore

finding the coal does not constitute a lack of geological

risk. In this case, the coal reservoir is only a reservoir

if it has coal and cleating and permeability.

- Q. Let's have you answer Commissioner Bailey's question about the science or the available methodology by which you can forecast the cleating and the fracturing in the coal, and whether that would help you discount the risk available to you.
- A. To date we've been unavailable [sic] to find any means with which to forecast permeability or cleating within the coal. You cannot tell from our line logs whether the coal is cleated or not. All you can simply tell is that the coal is there. We have established some rough and very preliminary correlations between density of the coal and the potential to cleat, but that still does not mean that the cleat will exist within those coals.

So at this point in time there is no way to predict whether coal will be cleated or not, regardless of where it's found within the Basin.

- Q. When you look at the categories for trying to decide the factors for the risk charge, when you look at geology, reservoir and operations, in your opinion can any of those stand alone to justify the maximum penalty?
- A. Any single one of those risk categories can result in a well being abandoned as a dryhole stand-alone. Any combination thereof is just that much worse.
 - Q. Let's address Dr. Lee's question that he had,

whether or not the -- I guess one of the points he was trying to make is, does the risk reduce itself because you're now drilling increased density wells? Is there a correlation between having a development well and an infill well?

A. Due to the extreme lateral and vertical heterogeneity in this reservoir I would say no. Statistically we have less risk because we have offset producers. However, we have drilled wells on numerous occasions directly offsetting an existing producer that produces very well and still encountered a nonproductive reservoir.

So statistically in a big sense, yes. But in actuality, no, we have not reduced the risk by infilling this reservoir.

- Q. When you're trying to rank or decide which among the pools in the San Juan Basin is the most complicated and you're looking at the coal gas, the PC, the Mesaverde and the Dakota, where would the coal gas pool be rated?
- A. I've worked all of them. I've been working with coal since 1996, so I'm semi-partial to the coal, but in my mind is by far the most complicated reservoir in the Basin, and we're still learning how to assess this potential.
- Q. Do you see any reason to provide a lesser risk factor charge in the coal than is provided to operators for

wells in the other reservoirs? 1 Absolutely not. 2 Α. What type of well density is currently available 0. 3 in the Dakota? 4 I believe we just went to 80-acre spacing. 5 Α. Well, 80-acre infill --6 Q. 80-acre infill, yes. 7 Α. And in the Mesaverde? 8 Q. 80 acres. 9 Α. 10 And that's an infill, right? Q. Uh-huh. 11 Α. And do those pools still enjoy a maximum 200-12 Q. percent penalty? 13 Yes, they do. 14 Α. Okay. Let's look at your specific presentation 15 Q. then. Before we get to the details, do you have a summary 16 17 slide? 18 Α. Yes, I do. My summary slide, this is 19 predominantly what we're going to be showing, is that 20 there's an extreme amount of production heterogeneity within this reservoir. 21 22 Burlington Resources, in an attempt to understand 23 why this exists, we identified nine genetic packages of coal. Let me define the term "genetic" for you. Genetic 24 is anything that was deposited during a period of time, be 25

it coal or associated clastics with it.

In identifying these, we were able to correlate them throughout most of the Basin, and we find that individual coalbed discontinuities, both on the macro scale, the large-package scale and on the individual coalbeds that make up those packages, are prevalent throughout the entire Basin, although with the term of genetic units we are able to correlate these genetic units throughout the entire Basin.

And all the coals -- there is no exceptions to this -- display both vertical and lateral heterogeneity.

This is simply a cumulative production map of all the coal-producing wells in the San Juan Basin. You can see the red line subdivides, of course, Colorado and New Mexico. The boundary of this to the top, the brown line, is the Fruitland Coal outcrop.

In this case, the blue and green colors represent cumulative production of up to 1/2 and 1 BCF respectively, contoured on .1-BCF increments. After that, we get red colors represent cum production from 1 to 5 BCF, the orange represents cumulative production from 5 to 10 BCF, the yellow from 10 to 15 BCF, and the purple represents wells that cum'd in excess of 15 BCF to date. From the red on up, all those are contoured on 1-BCF increments.

The outline in blue on this represents the area

that we currently have mapped. We have approximately 7500 digital logs over this area. This is what I've used to construct my geological models over the Basin.

I'll show you an example of how we've identified these genetic units. As I stated earlier, we have nine packages we've been able to map across the Basin. We took a type log in Township 13 North, 11 West, in Colorado, the area that I was working extensively. At the bottom of this log is the marine sandstone Pictured Cliffs, upon which all the Fruitland Coals were deposited.

Next are three informal groupings of coals that most operators will recognize as a basal group, a middle group and an upper coal group, and we've further subdivided those out based on a color code. It has nothing to do with any relationship to what the coals look like or any of their properties, it's just a convenient method for us to identify various subgroups within our packages.

One of the things that primarily aided us and our ability to segregate which coals are which are, as you see on the slide, the two red dashed lines, the T1 and the T2. These are two tonsteins or volcanic ashfalls that have a distinctive gamma-ray signature that we're able to correlate throughout the vast majority of the Basin. Since these represent instantaneous moments in time and we're able to recognize them in a wireline signature subsurface,

they allow us to maintain our correlations throughout a very large geographic area.

This is just a locator map to show two regional cross-sections I've constructed so that we can look at some of the individual layers in more detail. The northwest-to-southeast cross-section covers approximately 50 miles, and it's in the strike direction. The southwest-to-northeast cross-section covers about 35 miles and is in the depositional dip direction.

This is the first cross section. I apologize, some of the details are relatively small and unable to see.

I'd like to point out in this 50-mile cross-section some of the ways that these coals communicate differently with different vertical partners, depending on where we are.

As we can see on the left, the G3 and Brown 1 coals, first well on the left, are separated by quite a few feet of clastic sediments, maybe up to 45 feet.

As we go to the second well on this cross-section to the right, we can see that these coals have now come together and are most likely in vertical communication.

In the third well they again split apart by some 50 feet, and the upper coal, the G3, is no longer communicating with the coal below, but now in direct contact with the coal above. And so a good example of how these coals commonly split as we move across the Basin and

1	form different vertical communication partners.
2	Now, if we look at the gross interval between the
3	P1 coal and the G3 coal in Well Number 2, it's almost 170
4	feet thick. The same interval in Well Number 4
5	COMMISSIONER BAILEY: Well
6	THE WITNESS: Yes, ma'am?
7	COMMISSIONER BAILEY: could you slow down,
8	please
9	THE WITNESS: I'm sorry.
10	COMMISSIONER BAILEY: and help me to find the
11	P1, P2 and all these others?
12	THE WITNESS: On the very far right are the
13	designations of each one of these coals.
14	COMMISSIONER BAILEY: Okay.
15	THE WITNESS: It starts with blue at the top,
16	then P1, P2, which stands for Purple 1, Purple 2, then
17	Green 1, Green 2, Green 3, and the lines are color-coded
18	along with the colors that we've designated these coal
19	names.
20	COMMISSIONER BAILEY: Okay, now I can see that.
21	THE WITNESS: Do you see? I'm sorry, I should
22	have pointed that out earlier.
23	COMMISSIONER BAILEY: All right, go ahead.
24	THE WITNESS: Okay. This same interval that we
25	were just discussing, in Well Number 4 is now only 40 feet

Let's see, where are we? There's 70 feet thick thick. 1 between these two coals. And it really doesn't make that 2 much difference for the purpose of illustration which coals 3 we're talking about. I just wanted to point out that in 4 Well 2 the interval between these two particular coals is 5 170 feet, and in Well Number 4 the same interval is only 40 6 feet thick. Therefore, in Well Number 2 there's very 7 little likelihood they're communicating vertically. In 8 Well Number 4, there's all clumped up --10 COMMISSIONER BAILEY: Wait a minute, slow down, 11 please.

THE WITNESS: There -- Pardon me?

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COMMISSIONER BAILEY: Please slow down.

THE WITNESS: Oh, they're all clumped up in one 40-foot interval, and therefore likely to be in vertical communication.

Finally, I'll look at one big contrast. In the very first well to the left, we can see a very large interval between these two coal members. If you go all the way to the coal -- to the well to the extreme right in this cross-section, we can see that same exact interval is all lumped up into one big, massive coal occurrence, where I would expect most of these coals would be communicated vertically.

And the point I'd like to make is that depending

on where you are in the Basin, these coals can either 1 communicate vertically in many different combinations, 2 either completely separate entities or all together as one 3 unit. 4 COMMISSIONER BAILEY: Is the Turner well the 5 third one from the left? 6 THE WITNESS: I can't read -- The writing is so 7 small, I can't even read --8 COMMISSIONER BAILEY: I can't either, that's why 9 I'm trying to correlate it with the previous slide. 10 THE WITNESS: Oh, the -- Yes, ma'am, the Turner 11 well would be the third well from the left. 12 COMMISSIONER BAILEY: And what is the blue line? 13 14 THE WITNESS: The blue line up top represents the 15 top of the blue coal interval. If you'd like to flip back two slides, 16 Commissioner Bailey, I'll show you the -- let's see, we get 17 through this. There we go. 18 19 The blue coal is somewhat unique in that it's 20 just a large genetic interval that encompasses a whole 21 bunch of little individual coalbeds, sometimes two feet, sometimes 10 feet thick. And so since these were very 22 23 difficult to correlate laterally what we did was, we picked stratigraphic markers and said this whole interval was 24

deposited during the same interval in time. We actually

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picked what we believe to be a maximum flooding surface to 1 define the top of the blue coal interval. 2 And so that coal, that blue line that you're 3 looking at in your cross-sections, is just a top coal 4 5 within that entire genetic unit of events that occurred. Although that coal might not be exact same coal well to 6 7 well, it's in the same interval. COMMISSIONER BAILEY: Okay, so let's go back 8 9 through, reading this. Blue coal is the top of the upper 10 coal group? 11 THE WITNESS: The upper coal group as we have 12 defined them and shown them in these cross-sections, yes, 13 ma'am. 14 COMMISSIONER BAILEY: Okay, P1 and P2 are part of 15 the middle coal group? 16 THE WITNESS: P1, P2, Green 1, Green 2 are all 17 part of the middle coal group. 18 COMMISSIONER BAILEY: Okay, thank you. 19 THE WITNESS: If there's no further questions on this cross-section, we'll move to the dip one and I'll 20 21 speak slower. 22 COMMISSIONER BAILEY: Thank you. 23 THE WITNESS: Just trying to accommodate 24 Commissioner Wrotenbery, but --25 COMMISSIONER BAILEY: There's no point if --

THE WITNESS: -- at the expense of speaking too 1 fast. 2 COMMISSIONER BAILEY: -- we don't understand what 3 you're saying. 4 THE WITNESS: Then I'll slow down immensely. 5 CHAIRMAN WROTENBERY: Thank you. 6 THE WITNESS: This is our dip cross-section. 7 It's comprised of five wells that go from the southwest to 8 the northeast. 9 The first well -- and I'm just going to point out 10 very similar relationships in the dip cross-section that we 11 12 just looked at, and the strike cross-section. 13 The first well on the left, we're looking at now just the three brown coals, the basal group, Brown 1, Brown 14 15 2, Brown 3. In the first well to the left we see that we have 16 17 a significant separation between the upper two, the Brown 1 and the Brown 2, and the lowermost, the Brown 3, coals. 18 As we move to the third well or the middle well 19 in this cross-section, we can see that all three of these 20 21 coals have not coalesced into one single package, in which 22 case yet again, they're most likely in vertical communication with each other. 23 24 As we move one further well to the northeast, the 25 fourth well from the left in this cross-section, we can see

now these three coals have all separated into three distinct entities that are unlikely to be in vertical communication with each other.

Okay, next -- this might make it a little bit easier -- we'll look at one single coal that I've colored in, the Green 1. This coal is the Green 1 coal, the G1 coal.

As we can see, downdip to the left this coal is not present. If we look at the gamma-ray signature, we see a fining upward sequence, indicating, to me at least, that we have typical terrestrial deposits.

As we move throughout this cross-section in Wells 2, 3 and 4 from the left, you can see pretty much the full development of this one single individual coal seam or coal package.

As we move to the farthest well to the right in this cross-section, the fifth well, we can see that this coal is now absent again into a coarsening-upward sequence which is -- actually represents a transgressive event in the Pictured Cliffs sandstone, where the sea came back inland and deposited another shoreline sand, terminating deposition of this coal.

Finally, if we look at some of the individual components of a single coal, in Well Number 2, again we're looking at the same G1 coal -- no, I'm sorry, this is the

G- -- yes, the G1 coal. We can see that in Well Number 2, with the two little green bars, that coal is actually two discrete coal seams.

As we move to the middle well, Well Number 3, we can see that both of those seams have coalesced into one single coal package.

And if we further correlate this coal one more well to the right, the fourth well from the left, we can see that one of those seams has dropped out completely and now is comprised of just a single coal seam.

And the point we'd like to make is that even though the packages are fairly continuous throughout the Basin, each package is consistent -- or composed of multiple individual coal seams, each of which can pinch out and come and go at will throughout the entire Basin.

Any questions? Okay. We'll now move to --

- Q. (By Mr. Kellahin) You're moving behind Tab 5
 - A. We're behind Tab 5, thank you, Tom.
- Q. You're changing chapters on us. What are we about to see now?
- A. What we're going to see now is a series of isopach maps of thicknesses of the coals within each of the nine genetic packages that we've described earlier.
 - Q. What's going to be your point?

- A. My point is to show the variance in depositional environment for these coals, the amount of lateral variation that we get in each one, and I'm now looking at the macro scale of all the coals within a package, how even on the macro scale we see large lateral discontinuities within each one of these packages.
- Q. How does that relate back to the appropriate risk-factor penalty to assess in these cases?
- A. Well, I'd like to point out that these coals in both the macro scale, the very large package scale, as well as the individual-seam scale, have a great degree of heterogeneity and lateral discount continuity [sic].
 - Q. All right, let's do that.

A. If you look at the first slide, this is -- We'll start at the coals lowest in the section. This will be the Brown 3, the very lowest or oldest coal that we've got in the Fruitland Coal.

On the left is a type log. I'll have a square red box or a red rectangular box around each of the coals that are represented in the isopach map to the right.

We have a number of other units and information on this in other colored lines. I'd just like to point out that the high-productivity area is in the burnt orange color, as illustrated to the right.

Q. Help me with the codes now. When I look at the

main map, I can see the outline of the high-productivity area.

A. Yes.

- Q. Within that, though, there are some red shapes. What are those?
- A. The red shapes, the small squares represent areas where Burlington has captured well-specific data within the high-productivity area for use later in the increased-density-drilling hearing.

The little yellow squares scattered around are where Burlington had five pilot infill wells in the low-productivity area and we have extensive data collected.

The kind of oblong right in the middle of the HPA, that's kind of an oblong red area, that's the NEBU unit where Devon will be showing data in three weeks at the next hearing for infilling the HPA.

And then finally at the top the yellow area represents the area where BP has collected extensive data infilling the Fruitland Coal in Colorado.

- Q. Now come back and tell me, what is the meaning of the color-coding for this portion of the lower coals that you're analyzing?
- A. Sure, for this portion of the coals that we're looking at, and in every subsequent isopach map, in general the lighter colors are thinner, the white is non-existent,

and the darker colors are thicker. So from light to dark we go from thin to thick coals.

Q. Okay, go ahead.

A. I'd like to show in this one, this represents the very first colonization of plants, and plants formed the peat that formed the coals later as the Cretaceous sealine retreated to the northeast. So this represents the very first colonization of plant growth on that substrate or the Pictured Cliffs sandstone, as the sea retreated to the east, to the northeast, and we began to have dry land form where plants could begin growing.

As we move to the next slide or the next pullup, again on the left we have a box around which coal that we're depicting here. This would be the Brown 2 coal. As you can see, in this coal we have much more extent of this. If we look at the coastline, we can see that the coastline has probably solidified this new position, stabilized here and allowed for a significant amount of plant growth behind the coast.

If we look carefully through this isopach thickness of the coals that exist within this package, we can see that there are a number of coal thins. These coal thins or absence of the coal represent the fluvial systems or the river systems that actually fed the marshes and the swamps that these plants grew in. Without that river

system in there we would not have had the plant growth that we have or the preservation of the peat which turned into coal later in time.

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As you can see, each one of these river systems would represent a lateral discontinuity or disruption in the lateral flow for these coals that exist within this package.

Again moving upsection to the Brown 1 coal, you can see that the coastline is still retreating to the northeast as the coal has advanced now beyond the point where the last of the younger coal -- older coal below it, was formed.

I've interpreted these areas near the coastline where there is white and no coal present as estuaries or bays where we likely had a regular influx of saltwater which inhibited plant growth.

Similar to the previous isopach, we can see definitive thin zones that were areas where the coal was either completely absent or very thin that would represent fluvial systems that were feeding these coastline marshes and swamps.

That doesn't mean, of course, during this entire time frame -- and we may be talking about hundreds of thousands of years while this single coal package developed -- that these rivers were in place the entire time. At one

point in time -- and this -- it might be helpful to watch the simulation rather than the slide -- this river down here might have existed during these 100,000 or several-100,000-year period in this place, and then later jumped banks and moved to another channel, and then later again jumped banks and moved to yet another channel.

So these thins don't represent continual flow of water, they represent rivers that were active during this entire time frame that all these coals were being deposited.

- Q. Mr. Thibodeaux, it appears that the feeder system, these river systems that you're showing now, are substantially different than the one we saw for the lower coal?
 - A. Yes.

- Q. The blue lines look different?
- A. Yes, they move -- We interpret the feeder systems or the river systems that provided the water for these marshes and coals and peats to form based on thins or absences of coals for each one of these packages, and yes, they moved continually throughout time, throughout geologic time, as each one of these packages were being developed and produced.
 - Q. Let's go to G3, I think is the next one.
 - A. We'll now move up into a different color code.

We're now in the green coal, this is the G3. This coal was formed just after the significant ashfall, the T1 tonstein that we had mapped. So this coal was formed directly on top of that ashfall.

Now, this event most likely killed all the plants that were growing below it. The ashfall could have been up to 10 or 15 or even 20 feet thick. It's now compressed to approximately about two feet throughout most of the Basin.

And so what we see is again, the plants, after all being died off after this volcanic ashfall, probably recolonized this area, so we see not quite the same continuity of this coal in my mapped areas we have in some of the previous coals that established a nice steady plant growth scenario.

You can see that the coastline has moved only slightly more to the northeast than the previous coal. There's also a large area outlined in the red oval to the southwest where no coal was either formed or preserved. This is likely a combination of the ashfall event and subsequent plant die-off, as well as the ubiquitous river systems that were probably migrating through this valley, back and forth.

Again, as with all the previous and following slides, we see evidence of multiple fluvial systems active during the formation of this coal package.

We're halfway there.

Moving further up the section, we're now in the G2 coal time, and we can see the significant regressive event that we mentioned earlier. When we looked at our cross-section and looked at this coal in particular, we saw where it terminated against that transgressive coarsening-upward sequence in the cross-section.

If we look at the previous coastline position, compared to where the coal is developed, we can see that the coastline has retreated inland a little bit. This is a direct representation of that transgressive event, that the sea level rose and moved back inland and prevented coal deposition or peat growth in this area.

Concurrent with this event and during this time, we see these two predominant river systems outlined in blue, both in the northwest and in the southeast. These two systems were extremely active during the next depositional event for the next three coal sequences. Coincidentally, they're very close to the current-day position of both the Animas River and the San Juan River, which leads me to believe that these river systems were formed as a result of basement tectonics.

We'll move to the final of our green coals. This is the Green 1 thickness isopach. We can see that again the sea has reversed direction. It has begun migrating

back to the northeast. The coastline is prograding along that direction, the coast is now growing again to the northeast as it's gone past the previous coastline position.

And again on this map, although there are numerous small fluvial channels, we see that these two large predominant channels are still dominating fluvial flow and preventing either coal deposition or formation in these two areas during this time period.

Again, what we see is that these two river systems, basically for the coal below and this coal, are bisecting completely this coal package into three distinct groups.

We're now moving further up into the P2
thickness. We only see in this case a very slight
progradation of the coastline to the northeast. In other
words, the coastline had retreated to a point and pretty
much stabilized at this point all during P2 time. Hence
the relatively thick coal accumulations that we see behind
it.

During this time frame, the dominant river system to the northwest is still very active. The one to the southeast is almost completely gone. We do see evidence of thins there, but that tells me that this river system that was active for many thousands of years and bisecting those

previous coals has now migrated off of this map or subdivided into a number of smaller fluvial systems that are beyond our mapping capabilities.

We'll now move to the P1 thickness isopach.

Again we can see that the shoreline is starting to prograde much more rapidly to the northeast as these coals are advancing quite a few miles past where the previous coals have been deposited. And both of the major river systems that were dominant in earlier times are now absent. But we can see the same level of intermittent or other fluvial activity present in this coal that we've seen in every coal to date.

Each one of these fluvial events or fluvial activity periods during this peat deposition would disrupt lateral continuity of this coal. It would also disrupt the quality of this coal as these rivers periodically flooded the river banks, dumped shale, sand and clastics into these peats and therefore degrading the quality of these coals.

First time in all of these maps, to the southwest, outlined in brown, we can now see the encroachment of dry land. Basically, as the shoreline progrades farther to the northeast, we're starting to see dry land or non-swamp, non-marsh conditions where no coal is either formed and/or preserved.

In addition, these three little bodies that I

have outline down here in red ovals to the southwest of this map are all probably lacustrine or abandoned oxbow lakes where you had little small marshes that preserved as the marsh steadily retreated to the northeast.

And finally, and last in all these coals, we're looking at the blue section. Again, I'd like to point out that this coal package is made up of many individual coal seams. They range from one feet up to more than 12 feet in thickness, and they're all lumped together at one genetic time unit because they're so difficult to correlate on an individual basis.

During this time frame the coastline has now migrated completely out of my mapped area and possibly completely out of the Basin.

Even mapping a number of multiple little seams, we can still see continuous traces of coal thins or absences that indicate that during all of this time these fluvial systems were very, very active. And as with the previous coal, we now see a significant advance of dry land to the southwest as this shoreline progrades completely out of the Basin, and eventually we're out of the coal-forming environment altogether.

Again, I'd like to point out two things about these depositional environments and their effect on the coal.

One, the coals that tend to be updip or southwest towards the dry-land area, the water table would fluctuate considerably in those areas as the water table rose and fell according to the level of the water in the swamps. As that would happen, the coals would periodically be exposed to atmospheric conditions and oxidized, which degrades the quality of the coal, as well as that clastics material being dumped on those coals on the margins.

And then this is also true of all the coals that form along these intermittent fluvial systems, is, they periodically flood.

All these things represent lateral discontinuities in the coal, as well as lateral barriers to flow, as we dump a lot of clastics within the peat.

And now in another tab, Tom?

Q. Yes, sir.

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A. Finally, what does all this mean to us? As we saw with the isopach mapping, different coals were formed in different areas, different plant types, multiple conditions affect production and coal-quality characteristics. Had we not done this mapping -- these two wells are 35 miles apart -- it would have been very easy to make this correlation. They look real similar. They're similar stratigraphic positions within the Fruitland Coal formation. However, our detailed mapping shows us that

these are not the correct correlations to make.

Now, why is that important to us? Because the well on the left could possibly be making 20 million a day. The well on the right, as we drill it and get this wireline response and made a wrong correlation, we could easily assume this well should be making 20 million a day, and it doesn't. That's because each one of these different coals were formed in slightly different environments and different areas within those environments, and the degree of heterogeneity that exists within this reservoir does not allow us to exactly predict what the productive capabilities of these coals would be.

However, we do understand now why we see such differences in the coal production in this area, because of that extreme lateral and vertical heterogeneity that we've discussed earlier.

- Q. Let's go to your conclusions now, Mr. Thibodeaux.
- A. Our conclusions are that the major coal packages are correlatable throughout the Basin. Our isopach maps clearly demonstrate that.

The high degree of production heterogeneity that we see can be directly attributed to the differences in coal depositional environments and the effect that those have had on the coal-productive capabilities.

To compound this even further, these coals have

multiple vertical, lateral discontinuities in both the major packages and the individual coal seams that make up those packages. Each one of those discontinuities or degradations in the coal-productive characteristics mean that we have barriers to flow, lateral barriers to flow, also different capabilities for each one of those coals to produce gas.

All of these characteristics make it extremely difficult to predict well performance on a new drill, based on offset well behavior. Many of these discontinuities and lateral heterogeneity events are beyond the resolution of us to map or even to see on wireline logs.

And therefore I believe that the nonconsent penalty should be appropriately raised, because this is an extremely difficult formation to predict performance on. It is a very heterogeneous and difficult -- very difficult to assess risk on an individual well basis, even when we have good control and offsets.

And that concludes my presentation.

MR. KELLAHIN: We move the introduction of Mr. Thibodeaux's exhibits. They're Number 4 through 6.

MR. BROOKS: No objection.

CHAIRMAN WROTENBERY: Okay, Mr. Thibodeaux's Exhibits Number 4 through 6 are admitted into evidence.

Mr. Brooks?

MR. BROOKS: Very brief here.

CROSS-EXAMINATION

BY MR. BROOKS:

Q. Much of your testimony was devoted to the differences in the way these various coal strata are assembled, and consequently they're -- or the extent to which they may be in communication with each other, as I understand it.

How does that relate specifically to the risk involved?

A. The risk involved is that if we have a -- as far as the discontinuities part -- This is a multiple-stage question, I believe.

The discontinuities part are that a lot of the discontinuities are beyond the resolution of our mapping capabilities. So we have an offset well that makes good gas and is economic. Now we want to drill a well that we don't have wireline logs on, in an undeveloped section, right next door. I do not know and cannot tell you that this well will have similar characteristics, production characteristics, or economics, to the well that was previously drilled because of these discontinuities in lateral heterogeneity within these seams.

This heterogeneity can be on the order of feet or miles. We see a disruption in the coal-forming

environments that I showed, depicted earlier, and the effects that those environments have on the coal quality.

Finally, as we saw on the landward side, as well as the things proximal to the shoreline, as well as things proximal to the -- that were formed proximal to the river systems, the effect that clastics or dumping shale and sand have on these coals is to increase the density content of the coals and make them less conducive to fracturing or forming cleats in the first place.

And so because we see this extreme amount of heterogeneity in the environments within these packets, let alone from package to package, it's very difficult to predict with this well, will it have so much dirt in it, basically, that it was unable to cleat properly? And without cleating, of course, we have no reservoir.

- Q. That was going to be the next question I would ask you. What do you mean by cleating?
- A. Cleating is a regularly spaced fracturing of the coal that's generally aligned in two directions that are 90 degrees to each other.
- Q. If we went back to -- Well, both from what Mr. Schlabaugh said and from what you have said, I've gathered that what you're telling us is that if the cleating does not exist, then you're not going to be able to produce effectively from that?

A. If the cleating does not exist, we do not have a reservoir.

- Q. Going back to Division Exhibit Number 4, what Mr. Stogner concluded based upon -- and we don't have before us now what testimony he based it on, but based upon the testimony that he then heard, you would say based on your current understanding of the reservoir, then, that there actually is a considerable doubt when you drill a well about whether you're going to encounter cleating/fractures at that location; is that --
 - A. Very considerable doubt.
- Q. And while -- Well, first of all, you would agree with the conclusions Mr. Stogner reached to the extent that there's not a lot of doubt when you drill in the San Juan Basin area that you will, in fact, encounter the Fruitland Coal; is that a --
 - A. That's correct.

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Q. -- fair statement?

But the first line on Mr. Stogner's exhibit that he did not consider to be a risk factor was coal stratigraphy and thickness, and from what I hear you testifying to it's your opinion, based on what you now know about this reservoir, that in fact the stratigraphy and thickness is a subject about which there would be some doubt?

1	A. Yes, sir, stratigraphy and thickness in a large
2	degree can give you indications about the environment that
3	coal was formed in and its ability to cleat, store and
4	produce gas.
5	Q. But you're saying the stratigraphy and thickness
6	of the coal varies considerably?
7	A. Yes, sir, it does.
8	Q. And if I understand what you're saying correctly,
9	you believe it's not real predictable?
10	A. Even with four-wells-per-section control, I still
11	find discontinuities that I could not predict existed. So
12	therefore the stratigraphy and thickness is highly variable
13	and unpredictable.
14	Q. Now, compared to other formations in the San Juan
15	Basin, do you believe it is predictably more likely or less
16	likely that you would get a would be able to predict the
17	location of a commercial well in the Fruitland Coal versus
18	the other formations, productive formations in the Basin?
19	A. I believe that it's much less predictable to find
20	a to predict, I guess, a commercial Fruitland Coal well
21	than any of the other formations in the Basin.
22	Q. That would be integrating all the factors that
23	would be involved that were on Mr. Stogner's

encountered permeability and cleating due to mud loss,

Exactly. We have instances where we know we've

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1	fluid loss while drilling, and then turned around and lost
2	our entire cement column while we're trying to set casing
3	in the well, and therefore it turned into a dry hole.
4	Q. Okay. Now, I'll ask you the same question I
5	asked Mr. Schlabaugh, to wrap up. Do you have any
6	familiarity with the productive formations in southeastern
7	New Mexico?
8	A. No, sir, I don't.
9	MR. BROOKS: Thank you, that's all my questions.
10	CHAIRMAN WROTENBERY: Thank you, Mr. Brooks.
11	Mr. Carr?
12	MR. CARR: No questions.
13	CHAIRMAN WROTENBERY: Commissioner Bailey?
14	COMMISSIONER BAILEY: No questions.
15	COMMISSIONER LEE: (Shakes head)
16	CHAIRMAN WROTENBERY: Thank you very much, Mr.
17	Thibodeaux.
18	THE WITNESS: Thanks.
19	MR. KELLAHIN: That concludes our direct
20	presentation.
21	CHAIRMAN WROTENBERY: Thank you.
22	Mr. Carr, would Or Mr. Brooks, who's going to
23	sponsor Mr. Patterson?
24	MR. BROOKS: Mr. Kellahin, would you want to
25	cross-examine Mr. Stogner at this time, or do you prefer

that I resume the Division's direct presentation? 1 MR. KELLAHIN: Well, I'd rather postpone that. Ι 2 don't know what your time constraints are. 3 MR. BROOKS: Well --4 MR. KELLAHIN: If you want to try to finish your 5 case, that's fine. 6 CHAIRMAN WROTENBERY: Well, I know Mr. Carr had 7 requested that I hear Mr. Patterson's comments upon --8 MR. BROOKS: What I would like to do would be to 9 10 put on a brief portion of Mr. Patterson's testimony, of the 11 testimony I contemplated eliciting from Mr. Patterson -that was the testimony with regard to the re-entry and the 12 100-percent rule, and not -- and defer that portion of both 13 Mr. Stogner's and Mr. Patterson's testimony that refers to 14 the definition of well costs as set forth in the proposed 15 16 rules, then would allow Mr. Carr to present what he wants 17 to do on the 100 percent, if time permits. If not, then we presumably have to carry that over till the June hearing. 18 19 CHAIRMAN WROTENBERY: Okay, thank you. Let's go 20 ahead with the 100-percent issue. 21 MR. BROOKS: Very good. I'll call Randy Patterson at this time. 22 23 Good afternoon, Mr. Patterson. 24 MR. PATTERSON: Good afternoon, Mr. Brooks. 25 MR. BROOKS: I apologize for the circumstances in

which this is going to be done, because I probably will not 1 follow the script that I gave you with any particular 2 precision, given that I'm trying to elicit only a portion 3 4 of your testimony this afternoon, but we will try to 5 accommodate our time constraints as best we can. 6 RANDY G. PATTERSON, the witness herein, after having been first duly sworn upon 7 8 his oath, was examined and testified as follows: 9 DIRECT EXAMINATION BY MR. BROOKS: 10 11 Would you state your name for the record, please? Q. Madame Chairman, honorable Commissioners, my name 12 Α. 13 is Randy G. Patterson. Q. And where do you reside? 14 15 I reside in Artesia, New Mexico. Α. By whom are you employed? 16 0. 17 I work for Yates Petroleum Corporation in Α. Artesia. 18 19 Q. Now, Yates Petroleum Corporation is the largest 20 independent producer in New Mexico, correct? 21 Α. Yes, sir, I believe that's correct. And when we say independent, that just means that 22 Q. 23 you don't do refinery? 24 A. That's correct. 25 Q. In what capacity are you employed by Yates?

1	A. I am the land manager for Yates Petroleum, as
2	well as other duties.
3	Q. Have you testified before the New Mexico Oil
4	Conservation Commission before?
5	A. Yes, I have.
6	Q. And have your credentials as a petroleum landman
7	been accepted and made a matter of record by the
8	Commission?
9	A. Yes, they have.
10	MR. BROOKS: We will tender Mr. Patterson both as
11	an expert petroleum and as also a person of extensive
12	experience in exploration and production considerations
13	generally, although he's not a geologist or a petroleum
14	engineer.
15	CHAIRMAN WROTENBERY: We'll accept his
16	qualifications.
17	MR. BROOKS: Thank you.
18	Q. (By Mr. Brooks) Rather than then continuing
19	exactly the way I had indicated that I would, I will call
20	your attention to Exhibit 1, Division OCD Exhibit 1,
21	which is the proposed rule, and I want to go directly to
22	the parentheticals in subparagraphs A.1 and A.2.
23	A. Yes, sir.
24	Q. Do these parentheticals indicate that under this

rule a proposal to re-enter a plugged and abandoned well

would be treated for risk-charge purposes in the same manner as a proposal to drill a new well, if the proposed rule were adopted?

- A. Yes, sir, that is correct, that is the proposal, that a re-entry would be treated as if it were a new drill.
- Q. And that is a re-entry where the well has previously been plugged and abandoned?
 - A. That's correct.
- Q. And of course you understand the distinction that was made in Mr. Stogner's testimony between a re-entry and recompletion, versus a behind-the-pipe completion?
- A. Yes, I do.

- Q. And you were here when Mr. Stogner testified this morning, correct?
 - A. Yes, sir.
- Q. And you understand that his testimony that the incorporation of a plugged well -- the treatment of a plugged and abandoned well in the same manner as a new well, versus treating it in the same manner as a behind-the-pipe completion, represents a proposal to change what has heretofore been the Division's policy?
 - A. Yes, sir, that is correct.
- Q. Mr. Patterson, are you a member of a work group that was organized under OCD sponsorship to consider compulsory-pooling issues?

A. Yes, sir, I participated in that group.

Q. And let me call your attention in the exhibit

folder -- I believe up there it would be the last two items

-- or did Mr. Stogner take the exhibit folder with him? I

will give you my copies here.

Exhibits 9 and 10 are those copies of the sign-in sheets that indicate the persons who have participated in the work group?

- A. Yes, sir, these are the parties that participated in those meetings.
- Q. The first one being the meeting that was held in January and the second being the meeting that was held in April, correct?
- A. The first meeting was held January 21st, 2003, the second meeting on April 23rd, 2003.
- Q. Now, at the January meeting, which was the first meeting of the work group, was this issue of the treatment of plugged and abandoned wells considered independently of other considerations by the work group?
 - A. Yes, I believe it was.
- Q. And did the work group at that time reach a consensus that proposals to re-enter plugged and abandoned wells should be treated in the same manner for risk assessment as new drills?
 - A. Yes, they did. The work group was unanimous on

the position that it should be treated the same as a newdrilled well.

- Q. Now, it is true, is it not, as Mr. Stogner testified this morning, that when you decide -- when you're considering whether or not to re-enter a plugged and abandoned well, you almost always would have more information about what formations you're going to encounter and in what thickness, than you would when you're deciding whether or not to drill a new well?
- A. Yes, sir, that is true. There is additional information that you would not have if you were going to drill a new wellbore.
- Q. On the other hand, is it not also true that there are some risk factors that are widely recognized in the industry when you re-enter a plugged well, that would not exist if you were dealing with a producing well?
- A. Yes, sir, that's true. In our experience at our company -- and I believe others on the work group expressed the same experience, that there is considerable risk of when you are going to re-enter a well.

In our experience, we've encountered mechanical risks, possibly junk in the hole that did not get reported, was not part of the body of information that you had prior to the re-entry, casing deteriorations that you can't get down into.

Mou also have geological risk. I believe it was mentioned earlier this morning that techniques have improved considerably over the years, and what used to not be considered a prospect may now be considered a prospect. And so there are geological risks, considering the information that you already have, that you may not encounter production or commercial production when you actually do the re-entry.

And associated with both that mechanical and geological risks, you have the economic risks that are associated with both. You can go out and spend a lot of money trying to re-enter a well and still not have an economic proposition when you get through.

- Q. Now, what we've mentioned specifically this morning on this head -- well, I'll note one thing that was mentioned specifically this morning on this head, is, technology of well logging has advanced considerably, has it not, in recent years?
- A. Yes, that's correct. Even though you may have a log on an old hole, you may have more information in surrounding wells that would establish a new prospect that didn't necessarily show up in the old hole logs.
- Q. So if you have an open hole that you can go out and log now, you probably have a lot more data about the formation than if you have an old log that's, say, 30 or 40

years old?

- A. You would hope you would have better information in today's technology.
- Q. Okay. Were these some of the considerations that led the members of the work group to suggest that a reentry should be treated in the same manner as a producing well?
 - A. Yes, sir, all of the --
 - O. As a new well?
- A. As a new well, yes, sir, all of those factors were discussed at length, and all the members, as I said, were in agreement.
- Q. And because the -- Well, first of all, the discussion in January, although we didn't focus on it, the discussion in January was sort of against a background that assumed that there would be a lower risk penalty for a behind-the-pipe completion; is that correct?
 - A. That's correct.
- Q. And that became a subject of controversy, which we'll talk about in a minute, at the later hearing -- or not controversy, really, but it became a subject of discussion at the later hearing, but we didn't have that discussion in January?
 - A. That's correct.
 - Q. Okay. So the conclusion reached in January was

that on the spectrum of risk penalties, that the re-entry of a plugged and abandoned well should be treated like a producing well, rather than at a lower risk penalty like a behind-the-pipe completion?

- A. Yes, that's a correct statement.
- Q. Okay. Now, at the April meeting we had the benefit of Mr. Bob Doty's suggestions from OXY, correct?
 - A. Yes, that is correct.

- Q. And one of the suggestions that Mr. Doty made was that all existing wells, absent special circumstances, should be raised to the 200-percent risk factor -- risk charge, correct?
- A. Yes, Mr. Doty made that suggestion. And after actually a series of e-mails and then extensive discussion at our April meeting, all the work group members agreed that that should be recommended to the Commission.
 - Q. Everyone ended up agreeing to that except me?
- A. Yes, and we thought maybe by the time that we walked out that we almost had you convinced.
- Q. Well, there is some point to that and I think there are some arguments for it. And one I want to mention and then I will give you the opportunity to mention any others that occur to you. But specifically focusing on the behind-the-pipe completion, in the case of either a behind-the-pipe completion or a re-entry, is it not quite likely

that the costs -- or almost certain, that the costs involved will be considerably less than they would be if you had to drill a new well from the surface?

- A. Well, that's right. If you have to drill a new well, of course, you have the cost of drilling and casing and all the cement and all. When you are making a behind-the-pipe completion, all that's already there. And so usually all you have to do is seal off the previous zone and come up and perforate and possibly stimulate. So it's a much-reduced amount of money.
- Q. And since the risk charge is computed as a percent of the drilling and completion costs, then even if the same percentage, 200 percent, were applied, the actual risk charge that would be recovered out of that pooled party's production before he began to get money into the bank would be considerably less because the base that the 200 percent would be multiplied by would be less, as compared to a new drill?
- A. That's correct. Since the amount of money is less, considerably less than drilling a new well to that zone, then the cost recovery or the charge for risk in dollars would be considerably less, even at the 200-percent-higher level, than it would be to move over and drill a new well to produce that, say, upper zone, recompleted zone.

Q. Okay. Now, are there any other factors that you would like to bring to the attention of the Commission that you believe militate in favor of scrapping the 100-percent rule that appears in subparagraph A.3 of the proposed rule and going to a 200-percent across the board, remembering, of course, that the 200-percent across the board means still that the OCD can make exceptions on specific facts?

A. Yes, sir.

- Q. And would you state those, please?
- A. Yes, I do have some ideas I would like to bring to you. And I realize, madame Chairman, that you want to get out of here, so I'll make this brief. I do have some comments that I'd like to make.

CHAIRMAN WROTENBERY: Please, go ahead. I just have to get out of here by 1:00, so...

THE WITNESS: Yates Petroleum Corporation is in agreement with Mr. Doty of OXY, and I believe that the whole work group were in agreement that the 100-percent rule should be abandoned in favor of an across-the-board 200-percent penalty, of course, as Mr. Brooks stated, subject to the Division or Commission being able to alter that, if you deem necessary.

I have five reasons that I would like to present to you. I don't have any pictures to show you or any evidence like that, but I won't promise that I might not

get animated with my hands in telling the story. 1 2 (Laughter) THE WITNESS: But I do have five reasons I'd like 3 to give you for believing we should have an across-the-4 board 200 percent. Those five reasons are: 5 The balance of risk. 6 7 The cost of hearings. I'm going to make an argument for an overall 8 higher risk penalty, realizing that we have a statute, but 9 there's still an argument to be made. 10 11 The fourth reason is gamesmanship. 12 And the last one is, I've already stated, 13 consensus of the industry and of the industry work group. My first point is the balance of risk, and I'm 14 going to start off by posing a question: What is the 15 important thing about having a hearing before a well is 16 17 drilled or before a drilling well reaches a target zone? 18 What's important about that? 19 Well the answer is, information. When the well has already been drilled or when you reach that target 20 21 zone, you have more information. And that information changes the balance of risk. 22 23 Okay, if it changes the balance of risk, how does 24 it change it? Who benefits most? Does the Applicant benefit from that, or does the party being force pooled 25

benefit from that?

I argue that the party being force pooled is the one that benefits from that balance of risk, that that information gives you. The applicant -- My reasons for that is, the applicant pays for the hole, he pays for his own interest, and he pays for the force-pooled party's interest right up front. The force-pooled party -- If you don't force pool until after the well is drilled, that applicant is going to pay for the whole thing. The force-pooled party does not pay anything, because the well is already being drilled.

The pooled party, therefore, after you gain this information, gets a lookback. He gets a free look at the well. He has no risk, he's put out no money, or at least he has substantially lower risk at that point in time when he gets his lookback. If the applicant or the operator makes a bad well, he can dump it in that operator's lap. The force-pooled party can say, No, I'm not going to pay any money, I'm going to sit here and let you get your risk charge back.

If he makes a good well, however, he can jump in and he can pay for his part of the well and he can assume his interest at no risk at all, or very far reduced risk.

So my argument is that this results in an actual higher risk to the applicant, or to the operator, because

he paid for more than he actually is going to end up with.

He paid for everybody's interest. And the other guy had a
lookback at no risk.

Again, I mentioned balance of risk. You have a balance of risk, and when you get that information the balance changes. If the force-pooled party gets less risk because he gets more information and has that lookback, somebody has got to get the more risk. And in my opinion, that is the party who is doing the force-pooling, the applicant.

So my argument is that the risk penalty after drilling should actually be higher, and certainly should not be reduced. Therefore, we're recommending the 200 percent.

Now second point was the cost of hearings. Many of these force-pooling, after-the-fact hearings are done because you have a small party, you have a small mineral owner, you have a working interest owner that doesn't reply, you have somebody that you can't find. And so you need to force-pool that interest so that you have a complete spacing unit. As I say, it's usually a small interest.

And that party, the end result is, when you come to hearing, you have the hearing, you present your evidence, that party will be force-pooled. Doesn't matter

whether it's before or whether it's after. He's going to be force-pooled because he's not going to contest, you can't find him, and it's a very small interest.

The cost of coming to Santa Fe, to a company such as ours or OXY or any of the companies involved here, when you add up the cost of company personnel, the geologist's time in preparing his testimony, preparing his exhibits, the landman's time in preparing his testimony, preparing his exhibits, you've got technicians that's got to draw the pictures and make the PowerPoint presentations and whatever, then you're going to pay your attorney to get him here, you're going to meet with him the day before, probably, you're going to have him come make a presentation for you -- you have expenses, you've got hotels, you've got meals. If you're coming from Houston, Midland, Denver, somewhere else, other than Artesia where we drive our own cars, you have flights and rent cars.

So when you add all that up, it costs the company anywhere from \$5500 to \$6500 to hold a hearing.

- Q. (By Mr. Brooks) Is that partly because Bill Carr is so expensive?
 - A. No, Bill Carr, he's a small amount of that.

 (Laughter)
 - MR. CARR: I feel I should object, but --
- MR. BROOKS: Continue.

MR. CARR: -- Mr. Patterson bailed me out.

THE WITNESS: The company would prefer, if possible, to not have that expenditure if they can slide down the time frame and have that hearing for that small interest at some time that they're going to come up here for another hearing anyway.

So if you can consolidate the hearings, you can be more efficient, you have more efficient use of your personnel and your money. And again, as I said before, there's no difference because the party's going to be force-pooled whether he's down here on the time line, if he's before, or if he's after the well is drilled on the time line, he's still going to be force-pooled. And the company should be penalized by losing their risk charge, just because they're trying to be more efficient and consolidate the hearings.

My third argument, my third reason for recommending an across-the-board 200 percent, is, there's an argument to be made for an overall higher risk penalty. I believe Dr. Lee made the comment a while ago that he believes that it could even be higher. That 200 percent came into the statute, as was mentioned earlier, in 1973. If you'll look at the inflation-rate tables for the past 30 years, if you apply inflation rate to that 200 percent, that penalty -- or that 200-percent factor could go well

over 1000 percent. It certainly doesn't give you any reason to lower the penalty from 200 to 100.

Also, I believe there's an argument to be made that the risk is higher in the field. I mean, the easy ones have been found. All the easy stuff has been found. Now we're out there, we're still hunting, but the risk out in the field is higher today. It's harder to make a well today than it was in 1973.

My fourth reason was gamesmanship. A lower after-drilling penalty, the 100-percent rule, is tempting to a party to lead you down the primrose path in negotiations. "Oh, I'll make my decision next week." Or "Oh, we're going to work this out and everything's going to be okay." And they lead you down the primrose path and string you along until you've got a rig that's got to move, you've got a lease that's expiring, you're going to have to go drill a well, you're trying to negotiate with this person, and you get led down that primrose path.

And then, lo and behold, you have to start drilling the well, you get the well drilled and, "Oh, well, sorry, you're just going to get 100-percent penalty."

We believe that the lower penalty lends itself to gamesmanship in that way, and again recommend the 200-percent across-the-board.

And then my last argument, and I'll be through,

is, the consensus of the industry work group. All of the members of the work group sat in this room, we discussed all these ideas, and everybody agreed that the 100-percent penalty should be eliminated in favor of the 200-percent penalty, with the exception of Mr. Brooks.

Under the Rules and under the Commission and Division procedures, anyone can come in and object to that. They can come in and say, I don't believe you deserve 200 percent, I think you only ought to have 100 percent.

And it's my belief that it's going to be a whole lot easier for the Division Examiner or the Commission to lower that risk charge factor from 200, when they have someone complaining about it, to a lower number than it would be to -- on numerous occasions, people coming in asking, Oh, let's raise this up from 100 to 200. We believe it's easier to lower it from 200 to 100 than it is to raise it from 100 to 200, on a case-by-case basis.

Plus the notion that if we're required to come and have hearings to boost that 100-percent cost recovery up to 200, it's really -- defeats the purpose of this whole proceeding that we're doing, which is to try to streamline and to eliminate some of these hearing factors. We're just creating ourselves more hearings for -- to try to boost the 100 to 200.

So my conclusions are, we believe that the risk

assumed by an operator who is force-pooling a party after the well is drilled is at least as great, if not greater than, the risk before the well is drilled, because you're paying for that free look that the force-pooled party gets after the fact.

We believe that the efficient use of the industry's time and money can be reduced by consolidating hearings while still protecting the rights of all owners, both the operators seeking to force-pool parties, and parties being force-pooled.

And last, Yates Petroleum Corporation would request that the Commission agree with the consensus of the industry group to eliminate the unnecessary and arbitrary distinction between risk-penalty charges and decide to make the standard risk charge 200 percent for all occurrences.

Thank you.

CHAIRMAN WROTENBERY: Thank you.

- Q. (By Mr. Brooks) Okay, a couple of follow-up questions on that, Mr. Patterson. When you said that you thought had convinced me, I think you're about half right.
 - A. Good.

Q. I think there certainly are arguments in favor of them, and one of them we've already brought out.

Another thing I would ask about that I think favors the 200-percent across-the-board, you are familiar

with the kind of deals, are you not, that are made in the oil industry when parties are negotiating about what kind of penalty should be assessed in order for somebody to go nonconsent?

- A. Yes, sir, I believe I'm familiar with that.
- Q. And as far as the last 20 years or so, would it not be fair to say that the 300-penalty in the operating agreement is mathematically the same as the 200-percent in the OCD; is that not correct?
 - A. Yes, sir, that's correct.

- Q. Would it not be fair to say that it would be extremely rare that you would ever see an operating agreement that provided a lesser nonconsent penalty under any circumstances, that's been negotiated within the last 15, 20 years?
- A. Yes, sir, I would completely agree with that. I haven't seen any agreements with less than 300 percent nonconsent since before the 1970s. We do have in our files a couple of old agreements that have lower risk penalties, but they were drawn in the 1950s and 1960s, and I have not seen anything.

And the fact is, in recent years, the last five years, maybe ten years, the nonconsents have been increased. We use as our standard operating a 500-percent nonconsent. Many times we have to negotiate that back to

400 and occasionally 300, but we're currently using 500.

And we see many operating agreements coming from other operators that have 400 and 500 percent proposed in their operating agreements for nonconsent.

- Q. Over the time you've been in the industry, has there not been a long-term trend for nonconsent penalties negotiated between industry professionals to go up?
 - A. Yes, sir, that has been a trend.
- Q. Now, just mentioning some considerations that may militate the other way, I would like to ask you about just a little -- In terms of the membership of the work group, with the exception of the attorneys, Mr. Bruce and Mr. Carr, were not all of those people employed by companies that would probably be applicants from time to time in compulsory pooling proceedings?
- A. Yes, sir. If it would be okay, I could read the company names.
 - O. Please do.

A. OXY Permian was represented by Mr. Bob Doty.

Devon Energy was represented by Kevin Harwi. Burlington

Industry -- Burlington was represented by Alan Alexander in

one meeting and Jim Troiano in another meeting. Jim was

actually here in the first meeting. Steve Smith

participated as a representative of EOG Resources, and I

represented Yates Petroleum Corporation on this work group.

Now, any of those companies might also be a 1 Q. pooled party, or a respondent in a compulsory pooling; is 2 3 that not possible? Yes, that's correct. Both -- we -- All of us 4 Α. 5 have sat on both sides of that table. Q. But on the other hand, there was no one on the 6 work group that represented a somewhat passive oil and gas 7 investor, somebody that might own a mineral interest or 8 might own a portfolio working interest, but that was not 9 active in seeking prospects such that they would never be 10 an applicant; is that true? 11 As a specific representative of those people, 12 Α. 13 there was not someone in that capacity. However, I mentioned the fact that I own minerals personally, and 14 there were other members of the committee that possibly do 15 own their own minerals and would be in that position at 16 some time. 17 18 Q. Okay, that's just as a matter of fleshing out 19 what the work group was. 20 Now, I'm going to propose an argument and ask you 21 to respond to it, because this is the argument that seems 22 to me most persuasive in favor of the 100 percent in the 23 new-drill situation where the well has already gone down,

versus the behind-the-pipe situation.

24

light and somebody came up to me with a squeegee and washed my windshield, and then he knocked on my window where he put his hand out.

Is it not arguable that the person who drills the well and takes the entire risk and assumes somebody else's interest is sort of in that situation? Sure they've done them a favor, but they've done them a favor that wasn't negotiated and now they're coming in after the fact and asking to be paid for it. How would you respond to that argument?

A. Well, that is true. And the notion that was put forward earlier that a decision was made by that party prior to drilling to pay for that force-pooled party's interest before the well was drilled, that is true.

But that doesn't mitigate the fact that that force-pooled party does have the lookback ability and does have the ability to just come in, pay for his share, and take that interest away from the party that paid for it up front and took all of the risk up front for that party.

- Q. Okay, thank you very much. Is there anything else you would like to say to the honorable Commissioners on this --
- A. Well, there's probably something that I need to say, but I will say no at this time.

MR. BROOKS: Okay, subject to putting on my

testimony on the well-cost definition through this witness 1 as well as Mr. Stogner, I will pass the witness if anybody 2 3 else wants to ask questions at this time. CHAIRMAN WROTENBERY: Mr. Carr? 4 MR. CARR: No, Mr. Patterson has covered the 5 argument. If I asked any questions I'd have to bill him. 6 7 (Laughter) CHAIRMAN WROTENBERY: He's looking out for you, 8 Mr. Patterson. 9 Mr. Kellahin? 10 MR. KELLAHIN: I've done this before, and I won't 11 12 do it again. He's pretty tough to cross-examine. 13 CHAIRMAN WROTENBERY: Commissioners? 14 COMMISSIONER BAILEY: (Shakes head) 15 COMMISSIONER LEE: (Shakes head) **EXAMINATION** 16 BY CHAIRMAN WROTENBERY: 17 18 I did want to ask you one question about one of 19 the points you made -- I didn't really find it persuasive 20 at the time, but maybe I just didn't understand -- and that 21 was your point concerning the effects of inflation, and I'm 22 just not quite sure why the risk charge should go up to 23 account for inflation, given that, as Mr. Brooks explained

earlier, the risk charge is applied to the cost and

inflation would be reflected in the cost.

24

That's true, and you know, a strict inflationary Α. 1 2 factor put on the risk charge is probably not appropriate. But the fact is, in the industry, as I stated later in 3 response to Mr. Brooks' question, is that the industry has 4 been increasing these risk charges over the past ten years. 5 Before the middle 1980s you never saw anything 6 7 greater, or very seldom saw anything greater than 300percent nonconsent in an operating agreement. Since that 8 time you see numerous, many, many 400 percents and 500 9 percents, and I've even seen proposals of greater risk 10 factors than that. 11 Q. 12 Okay. And so, granted a strict inflationary factor, but 13 14 if you do consider inflation and the economy in general, 15 the price of bread or anything like that, and you apply those inflationary factors to it, if you applied that to 16 200 percent, it would really boost that number way up. 17 CHAIRMAN WROTENBERY: Okay. Thank you, Mr. 18 19 Patterson. 20 I think that's all we have, then, on this 21 particular point. 22 MR. BROOKS: Okay, just one follow-up question on that. 23 CHAIRMAN WROTENBERY: 24 Yes. 25 FURTHER EXAMINATION

BY MR. BROOKS: 1 Wasn't part of your point also, though, that the 2 Q. oil industry has some inflation factors that are not common 3 to the general economy, because the overall level of risk 4 in the industry has increased? 5 A. That's right. 6 For instance, it's not very likely you're going 7 Q. to find another east Texas field? 8 9 A. Right, and my comment that all the easy ones have 10 been found. MR. BROOKS: 11 Yeah. CHAIRMAN WROTENBERY: Got that, thank you. 12 Okay, I think at this point, then, I think I'll 13 turn the gavel over to Commissioner Bailey so that -- if 14 15 that's okay with you. I don't really find much occasion to use it, but feel free if needed. 16 17 MR. BROOKS: And what is the pleasure of the Commission? Would you like me to present to the other 18 19 Commissioners the well-cost-definition justification, or 20 would you like to save that till the next meeting? 21 CHAIRMAN WROTENBERY: Well, I would, I quess, defer --22 23 COMMISSIONER BAILEY: Are we going to continue? CHAIRMAN WROTENBERY: You're welcome to continue, 24

and if you do I will just read the transcript at a later

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1
     point. And that would be just fine with me, so --
               COMMISSIONER BAILEY: All right, so that you
 2
 3
     don't miss any of the testimony --
               CHAIRMAN WROTENBERY:
                                     That's right.
 4
               COMMISSIONER BAILEY: -- of the later --
 5
               CHAIRMAN WROTENBERY:
                                     That's right.
 6
               COMMISSIONER BAILEY:
                                      -- cases --
 7
               CHAIRMAN WROTENBERY: Uh-huh.
 8
 9
               COMMISSIONER BAILEY: -- points that are brought
10
     up.
               CHAIRMAN WROTENBERY: But if you all are willing
11
     to go ahead with it today, I think that would be great, to
12
     cover it. I think probably most people here would like to
13
14
     proceed.
15
               COMMISSIONER LEE: Yeah, otherwise you can find
16
     another $5500.
17
               CHAIRMAN WROTENBERY: That's right, come back and
     -- that's right.
18
19
               (Laughter)
20
               COMMISSIONER BAILEY: Well, what do we hear is
21
     the pleasure of the attorneys and the witnesses?
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               COMMISSIONER LEE: Bill Carr said he wanted
23
     another hearing.
24
               MR. BROOKS: I will defer to everyone else,
25
     because I'm a salaried employee of the State, and I will be
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here this afternoon, and I will be here on June the 12th, 1 regardless of which decision is made. 2 COMMISSIONER BAILEY: Mr. Carr? 3 It's generally my preference to have 4 all Commissioners present to hear a case. I think it's 5 awkward to have someone read part of it and take it from 6 the transcript. 7 If there is also going to be any follow-up on the 8 June hearing, it seems to me it would be most efficient to 9 10 do it that way, is going to be simply take it under advisement and close today, but that's your call. 11 COMMISSIONER LEE: Is that all right with the 12 others? 13 COMMISSIONER BAILEY: Any other comments on that 14 point? Mr. Kellahin? 15 MR. KELLAHIN: Chairman Bailey, I would prefer to 16 I concur with Mr. Carr. I like having all three of 17 you up here to interreact with the witness and to ask your 18 own questions, and sometimes you judge a witness by his 19 demeanor, as opposed to what you read on the printed page, 20 and sometimes that matters. 21 22 MR. BROOKS: Let me ask, if I may, madame 23 Chairman, can you be here on June the 12th? MR. PATTERSON: Yes, sir, that's not a problem 24 25 for me. I'm certainly willing to come back and finish this

1 testimony. COMMISSIONER LEE: Those two lawyers, can I ask 2 the company guys, what's your opinion? Are you coming 3 back? You know, they make money off this. 4 5 (Laughter) MR. PATTERSON: Yes, sir, I'm available, and I 6 intend to be back June the 12th, if it's your desire. 7 8 COMMISSIONER BAILEY: Then let's just continue it. 9 CHAIRMAN WROTENBERY: Okay. Then we'll just 10 break at this point in this matter and continue the case to 11 June 12th. 12 And again, I apologize to the Commissioners and 13 to all the participants here. It's just a situation where 14 15 the Governor's Office has told me to be someplace else at 1:30, so I've got to be there. 16 17 MR. BROOKS: So for the record, Case Number 18 13,069 is continued till June 12th, 2003, correct? 19 CHAIRMAN WROTENBERY: That's correct. 20 MR. BROOKS: Thank you. 21 CHAIRMAN WROTENBERY: And I don't believe we have 22 any other further matters for this Commission meeting, so 23 I'll entertain a motion to adjourn. 24 COMMISSIONER BAILEY: I move we adjourn. 25 COMMISSIONER LEE: Second.

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CHAIRMAN WROTENBERY: All in favor say aye.
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                COMMISSIONER BAILEY: Aye.
 3
                COMMISSIONER LEE: Aye.
                CHAIRMAN WROTENBERY: Aye.
 4
                (Thereupon, these proceedings were concluded at
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     12:53 p.m.)
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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 May 18th, 2003.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 16th, 2006