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

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

ORIGINAL

APPLICATION OF BURLINGTON OIL & GAS COMPANY LP FOR AN EXCEPTION TO THE WELL DENSITY REQUIREMENTS (LOW PRODUCTIVITY AREA) OF RULE 7(d) OF THE SPECIAL RULES AND REGULATIONS FOR THE BASIN FRUITLAND COAL-GAS POOL, SAN JUAN COUNTY, NEW MEXICO

CASE NO. 14280

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: TERRY G. WARNELL, Legal Examiner
DAVID K. BROOKS, Technical Examiner

March 5, 2009

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, TERRY G. WARNELL, Legal Examiner, and DAVID K. BROOKS, Technical Examiner, on Thursday, March 5, 2009, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: Jacqueline R. Lujan, CCR #91
Paul Baca Professional Court Reporters
500 Fourth Street, N.W., Suite 105
Albuquerque, NM 87103 505-843-9241

A P P E A R A N C E S

FOR THE APPLICANT:

KELLAHIN & KELLAHIN
W. Thomas Kellahin, Esq.
706 Gonzales Road
Santa Fe, New Mexico 87501

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MR. WARNELL: I'll call Case Number 14280, Application of Burlington Resources Oil & Gas Company LP for an exception to the well density requirements (Low Productivity Area) of Rule 7(d) of the Special Rules and Regulations for the Basin Fruitland Coal-Gas Pool, San Juan County, New Mexico. Call for appearances.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the Santa Fe law firm of Kellahin & Kellahin appearing this morning on behalf of the applicant, and I have two witnesses to be sworn.

MR. WARNELL: Will the witnesses please stand and state your name and be sworn?

MR. CREEKMORE: Charles Creekmore.

MR. MEAD: And Hal Meed.

(The witnesses were sworn.)

MR. WARNELL: If there are no other appearances, Mr. Kellahin, you can proceed with your first witness, please.

MR. KELLAHIN: Thank you, Mr. Examiner. Our first witness is a landman for Burlington. His name is Mr. Chuck Creekmore. Mr. Creekmore and I are taking some of the PowerPoint slides slightly out of order than the way they appear in the exhibit book. The exhibit book you have before you is the entire presentation, and it starts with the application and leads through the

discussion.

In order to orient you and give you a sense vectorially of what we're trying to accomplish, we've skipped ahead and we are going to start with what is marked as Slide Number 17 in the PowerPoint, and found behind Exhibit Tab Number 3. We hope by the presentation that you won't have to thumb through a bunch of pages, and we'll just concentrate on the PowerPoint slides and see if that works.

CHARLES CREEKMORE

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Creekmore, for the record, sir, would you please state your name and occupation?

A. My name is Charles Creekmore. I'm a landman employed by ConocoPhillips.

Q. When and where did you obtain your degree?

A. I have a bachelor's degree from Knox College, another bachelor's degree from the University of Tulsa and juris doctorate from the University of Tulsa, and I'm also licensed as an attorney in the state of Oklahoma.

Q. Your current position with Burlington is what, sir?

A. I'm a landman.

Q. Among your duties, are you responsible for knowledge about the ownership of the area involved with the Reese Mesa project?

A. Yes, I am. In addition to being the ConocoPhillips' landman, I also do the ownerships for our affiliate Burlington Resources Oil & Gas LP.

Q. How long have you been a practicing petroleum landman?

A. For over 20 years.

Q. To the best of your knowledge, have you made an accurate search to determine the off-setting interest owners, including the operators that surround the 160-acre spacing unit that's the subject of this application?

A. Yes, I have.

Q. Are you familiar with the spacing unit, itself?

A. Yes, I am.

MR. KELLAHIN: We tender Mr. Creekmore as an expert petroleum landman.

MR. WARNELL: Mr. Creekmore, have you been before the hearing in Santa Fe?

THE WITNESS: Many years ago I was an expert witness on a unit before this commission.

MR. WARNELL: Mr. Creekmore is so

qualified.

MR. KELLAHIN: Thank you, Mr. Examiner.

Q. (By Mr. Kellahin) Mr. Creekmore, if you'll turn to Slide 17, let's give the Examiner and Mr. Brooks a vectorial representation of what it is that you're trying to accomplish. First of all, focus for us on what will be designated as the spacing unit that's the subject of the application.

A. The spacing unit for this application is the east half of Section 13, 32 north, 8 west. We have two existing wells within this 320-acre spacing unit; one in the southeast quarter, which is the Reese Mesa 101, and then another well in the northeast quarter, the Reese Mesa 101S.

What -- our engineering has come to me -- they came to me with a problem because they wanted to build it back into the Reese Mesa 101 and proceed to the northeast with a lateral re-entry in a horizontal well that would go into the spacing unit for the Reese Mesa 101S, which would create a density violation.

Q. What are the pool rules for which you have found a potential violation and, therefore, a need for an exception?

A. You're allowed two wells per 321 per each quarter section.

Q. And in what pool are we dealing with?

A. We're in the Fruitland Basin, Fruitland Coal pool.

Q. This is the low-productivity area of that pool?

A. Yes, it is.

Q. And the concept, as you understand it, is taking the existing wellbore in the south, using that wellbore as the re-entry form and drilling horizontally to a bottom-hole location that finishes up in the northeast quarter?

A. Yes, that is correct. The black dot up at the -- the black dot up there is the bottom hole.

Q. Is there a color code on this display, as well as in the exhibit book, that explains the types of wells that you're dealing with in these different displays?

A. Yes. The triangular wells are the Fruitland Coal wells in the area. You also see the triangle under the Reese Mesa 101, in addition to being a mesa plume.

Q. Have you made yourself aware of the notice requirements of the Division by which you need to notify interest owners and parties --

A. Yes, I have.

Q. -- in order to obtain an exception in this case?

A. Yes, I have.

Q. What is your understanding of that rule?

A. That we need to notify all the adjoining and adjacent working interest owners to notify them of our hearing and application to get this -- receive a density exception.

Q. In this case, when you look at all the diagonal and adjacent offsetting spacing units to the east half of 13, are all those operated by Burlington?

A. They're all operated either by Burlington or ConocoPhillips or a subsidiary of ConocoPhillips.

Q. So, therefore, then, you've gone ahead and put together a composite list of the working interest owners for all those tracts around this spacing unit?

A. Yes, based on our internal information as operator.

Q. Let's look at the list. I think it's your Slide Number 10. As part of your search, have you satisfied yourself that you believe you have an accurate compilation of that list?

A. Yes, sir. Some of our -- ConocoPhillips is not on there and some of the affiliate companies are not on this list, because we did not need to notice them internally.

MR. BROOKS: Is this in the exhibit book

somewhere?

MR. KELLAHIN: Yes, sir. It's the last page behind Exhibit Tab Number 1.

MR. BROOKS: Thank you. Not in my book.

MR. WARNELL: Before the green card, about the third-to-the-last page.

Q. (By Mr. Kellahin) Three back is the notice list, and my book doesn't have it, so you put the green cards in the book?

A. Yes.

Q. So we're looking at a tabulation of the parties, and then following that, then you have copies of your green cards?

A. Yes.

Q. Let me ask you this: In addition to sending this matter out by certified mail, do you have a copy of the actual notice letter that was sent?

A. Yes.

Q. Where is that?

A. It's the first page behind Tab Number 1, a letter from you to the working interest owners and then the application itself, followed by the exhibits showing the C-102s for the existing wells and the proposed lateral re-entry well.

Q. So the letter I signed was sent by you at

least 20 days before the hearing date, as indicated in the letter?

A. Yes.

Q. As a result of sending out that notification, have you received or are you aware of any objection to the approval of this application?

A. No, I am not.

Q. At this point, let's run through some information slides so that we can orient the Examiner and Mr. Brooks as to the portion of New Mexico that we're dealing with. Your first part of your slides are going to be the slides for what's in the exhibit book behind Exhibit Tab 1. There you go. If you start with Exhibit Tab 2, then, the first slide after Exhibit Tab 2 is a generalized locator map.

Mr. Creekmore, show us where we are.

A. Okay. This is the San Juan Basin. This is the tri-cities area. Here's the location of where our wells are that are in this application. We're right up close to the Colorado border.

Q. Go to the next slide. What are we looking at here, sir?

A. Here are the wells again with a nine-section plat, and this is Colorado up here. Here we are in Section 13. It's, again, the east half. Here's the well

we want to re-enter, and here's the well that we will be creating that -- which creates the density violation when we cross the half section line.

Q. As part of your preparation, Mr. Creekmore, when you prepared this, are you now aware that visually it appears that in certain sections there exists more than two Fruitland Coal wells in 160-acre tract in that spacing unit?

A. There are some on this plat.

Q. For example, let's look at the southeast quarter of Section 18 to the east.

A. Yes. In 32-7 you'll see two Fruitland Coals there. One of them is actually a replacement well in that quarter section.

Q. So when the Examiner reviews these color displays, if it appears that there are two coal-gas wells producing in the same quarter section, your research indicates what?

A. In that instance, it was a replacement well.

Q. In other instances are there any explanation for the color coding that explains that there are, in fact, not two coal-gas wells in the same 160?

A. Well, when we were looking at this yesterday, we saw that there were two down here in 23, I believe. Yes, down in 23. One of those is actually a Fruitland

Sand well and not a Fruitland Coal well. We've had some problems with our symbology, and over in 32-7, some of the Pictured Cliff formation wells actually came up as a Fruitland Coal well that we have -- I can go into greater detail, but we're satisfied that it was our symbology that was incorrect.

Q. Let's go to the next slide, sir. Again, what are we looking at?

A. Again, this is a nine-section review of where this well is located, and, as you can see, we're -- again, where the existing wells are and where the bottom hole of the proposal that we're wanting our density exception for.

Q. The next slide, sir? Give us a chance to orient ourselves. What is it that we are seeing?

A. This is where our well is and, again, we're south of the Colorado border.

Q. Put your pointer on the Colorado/New Mexico border.

A. Right along this line right here. Then we're the second section down, again, from the border. And this shows some of the Fruitland Coal activity north of the border, and you can barely see it, but a lot of the acreage up there on 80-acre spacing for the Fruitland Coal in Colorado.

Q. So what's your point?

A. That operators are doing what they can to creatively get as much gas out of the Fruitland Coal as they possibly can.

Q. At this point the Colorado rules are more generous in well densities than we are at this point in New Mexico?

A. Yes.

MR. KELLAHIN: I believe that concludes my presentation of Mr. Creekmore's exhibits and his testimony. At this point we move the introduction of his exhibits behind Exhibit Tab Number 1 and Number 2.

MR. WARNELL: Exhibit Tab Number 1 and Number 2 are admitted.

(Exhibits 1 and 2 were admitted.)

Any questions, Mr. Brooks?

MR. BROOKS: I don't think I have any questions.

MR. WARNELL: I don't believe I do, either.

Well, Mr. Creekmore, you did mention all the working interest is either ConocoPhillips or Burlington or a subsidiary thereof?

THE WITNESS: All the operators.

MR. WARNELL: All the operators.

THE WITNESS: Yes, sir. I did say that.

MR. WARNELL: They're on this certified mailing list?

THE WITNESS: Burlington wasn't and neither was -- we had Phillips New Mexico --

MR. WARNELL: -- Partners LP?

THE WITNESS: We had two there. One was Phillips New Mexico Partners -- pardon me. I didn't bring my reading glasses. I just have my bifocals. Sorry, gentlemen.

MR. WARNELL: No problem.

THE WITNESS: Okay. We had Phillips New Mexico Partners LP, and we did notice Phillips San Juan Limited Partnership. We didn't notice ConocoPhillips. Then we also have a contractual -- San Juan Basin Trust. We have a contractual agreement, and we received notice for them. San Juan Basin Royalty Trust.

MR. WARNELL: Thank you. No further questions.

MR. KELLAHIN: At this time we'll call Mr. Hal Mead. If you'll exchange seats, please.

I'll give Mr. Mead a chance to get organized. Mr. Mead is a reservoir engineer with Burlington, and he's going to explain the technical aspects of what we're trying to accomplish here. Mr. Mead's portion of the

PowerPoint corresponds to the exhibit book, and we're going to start with Exhibit 3 and we will go in sequence through the book as it's arranged.

HAL MEAD

Having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Mead, for the record, sir, would you please state your name and occupation?

A. My name is Hal Mead. I am a petroleum engineer with ConocoPhillips.

Q. On prior occasions have you testified as a petroleum engineer before the Division?

A. I have not.

Q. Summarize for us your education.

A. I graduated in May 2005 from the University of Wyoming with a bachelor's in engineering.

Q. Subsequent to that, summarize for us your engineering employment.

A. Since that time, in May '05, I have been employed with ConocoPhillips. I started off in Houston, Texas. For the last two and a half years I've been working on specifically the Fruitland Coal as a reservoir engineer based in Farmington, New Mexico.

Q. When we look at the Reese Mesa project, what

is your association with that project?

A. I guess you could say it's my project. I'm the one that initiated the project.

Q. As part of initiating this project, have you prepared for the Examiner and the Division attorney a presentation that deals with the technical aspects of this project?

A. Yes.

Q. And at the end of your presentation, have you reached certain engineering conclusions about the viability and necessity of this project?

A. Yes.

MR. KELLAHIN: We tender Mr. Mead as an expert reservoir engineer.

MR. WARNELL: Mr. Mead is so qualified.

Q. (By Mr. Kellahin) Mr. Mead, let me have you turn to the first PowerPoint slide. Describe generally what your concept is.

A. It's a similar slide to what Mr. Creekmore showed. We will re-enter the existing wellbore on the Reese Mesa 101 and drill horizontal laterals in two different coal seams, so there will be stacked laterals, and drill past the Reese Mesa 101S, stay completely within the 320 drill block and within our set-backs. Our proposal is to have -- be allowed a density exception in

that northeast part of the quarter.

Q. Let's go through the summary, then, of your study and start with what you captioned "Objectives and Expectations." Summarize this for us.

A. This objective, like I said, is to obtain approval to drill this well. Under the justification, there are three main points. The first one is -- I'll show you the calculation that we have made that we have -- we have produced 1 percent of the gas in place to date in this 320, since these wells -- the original well was drilled about 20 years ago.

The second point is that the well to the north, the Reese Mesa 101S, is unsuitable for re-entry due to small casing size. And the last point, we feel this is a good technology to be proven, that we need to test the technology in the area so that we can do it throughout the state line and more fully develop the reserves for New Mexico, and it will, hence, minimize surface disturbance and rig activity and maximize our hydrocarbon recovery.

The second bullet point, the concepts to test, we want to see how well this horizontal well will do in this specific area of the state line and, hence, determine the influence of that well on that existing parent well to the north, as well. My expectation is

that we will recover close to 50 percent of the remaining reserves in the drill block from this one directionally-drilled horizontal well, and it will be a good project, minimize surface disturbance.

We'd only have to re-enter one well, and then we can prove up the economics for later cases, that it will be a viable way to produce the state line, which is a low productivity area where we have traditionally -- where history has shown that we are producing less than Colorado in that area.

Q. Mr. Mead, when you look at the methods by which either of the two existing vertical wells were drilled, completed and produced, do you find any problems with how those were done to explain the low productivity of those two wells?

A. No. The well to the north is a well that was cased and fracture stimulated in late '06, early '07, and it is in a low-productivity area. It is producing about what would be expected from a similar well. And that's the preferred completion in that area. The well to the south is an open-hole cavity completion, a completion that is not quite as proven in that area but is very viable and just produces a lot of water and not much gas.

Q. As a reservoir engineer, what's your suspicions about the reason those wellbores had such a

small productivity?

A. My suspicion would be two-fold. First, that the reservoir is poor. It's the low-productivity area. It's not the fairway and, therefore, it requires an extended amount of de-watering and a longer de-watering time than the fairway.

The other reason would be just timing. You need more time in this area to be able to produce these wells, hence, it's harder to meet economic expectations when you have to de-water them all the time.

Q. Let's turn to the concept cartoon so we can visualize how you intend to do this. This is behind Exhibit Tab Number 4.

MR. BROOKS: It's also on the front cover, I take it.

MR. KELLAHIN: Yes, sir.

Q. (By Mr. Kellahin) Go ahead and explain this to us, Mr. Mead.

A. You've seen the top view or the plan view, and this would be the side view if you could cut a cross-section of the earth. We're going to re-enter that well to the south, like I said, that has an existing open-hole cavity completion and drill two wells and set a bridge plug and a whip stock and mill a window in the casing and drill out approximately 3,300 feet in both

cases. That's total vertical section.

And then afterwards, we will retrieve the bridge plugs and whip stocks and produce these wells that would be encased with perforated liners, and we'll actually produce through the existing completion, as well. So we will have not only the laterals producing, but the original completion, as well.

Q. Your plan is to utilize the 101 for two laterals?

A. That's correct.

Q. Why two?

A. Because there are two good targets for us that are not -- well, that we feel are not in communication.

Q. The cartoon would mislead you by showing that the horizontals intersect the 101S; is that, in fact, correct?

A. They do not intersect the 101S as it says in the second bullet point there. The laterals will pass approximately 500 feet or more west of the 101S wellbore.

Q. Let's turn to the line of cross-section and the cross-section to give the Examiner a geologic picture of what you're trying to do. If you'll turn to Exhibit Tab Number 5. Let's look at the first slide. Describe what we see.

A. This slide has -- shows the east half of

Section 13 and all the wells for which we have geologic control. It's a precursor to the next slide, which will show the cross-section between the four wells that are circled in purple. That cross-section will start there in the southwest and kind of move into -- the second well will be the Reese Mesa 101, the actual well that we're going to re-enter, and then a well to the north on the same pad is the Reese Mesa 101S, the other coal well in that area, and then one more well in the northwest.

Q. What was your reason to select these particular four wells to use for drawing your cross-section?

A. The reason for the cross-section, in general, is to show that these coal seams are laterally continuous and that we can, in fact, do this from a horizontal drilling standpoint. As we drill through one coal, we will stay in that coal and be able to drain the reserves in that drill block.

Q. Let's go to the next slide. Identify for us the important portions of the cross-section that you want to draw our attention to.

A. The most important part would be these middle two logs. We will re-enter this Reese Mesa 101.

Q. There's a caption there that says, "Lateral Targets"?

A. Yes. That indicates that we will mill a window in this 101 and drill into this lower coal seam and drill the first lateral into this seam. And this just shows that the lower coal seam is continuous. It is a skinnier coal seam, about seven foot in thickness. And then the upper target is kind of the best target in the well. It's 19 foot thick. That would be our second target.

Q. In your opinion, are each of the laterals penetrating reservoir that's geologically suitable for horizontal drilling?

A. Very suitable for horizontal drilling.

MR. BROOKS: One says, "Reese Mesa 3." Is that the same as the 101S?

THE WITNESS: That's on the same pad as the 101S.

Q. Turn now to Slide Number 6, Mr. Mead. Summarize for us what you included in the exhibit book behind Exhibit Tab Number 6. What are we seeing here?

A. This exhibit summarizes the calculations to determine the original gas in place for this reservoir and the current gas in place. And the first slide in summary on the bottom, it tells you the standard cubic feet per ton of coal.

All those numbers on the side are -- it's an

array that shows how the gas content changes versus pressure in the coal, which is slightly different from the conventional methods of conventional reservoirs. But the definitions there I have applied are directly out of the Gas Research Institute book, and it's the standard way to calculate gas content for coalbed methane reservoirs.

Q. Do you, then, take this methodology in calculating standard coal-gas gas-in-place calculations by which, then, do you compute it to what you think is the gas in place in a specific spacing unit?

A. Yes.

Q. Let's look at that slide.

A. This is the Reese Mesa 100 and 101 combined gas in place for that whole 320-acre drill block. On the bottom, in summary, taking the volumetric parameters of the drill block and multiplying it by the gas content and these other variables in there, we received an 8 BCF of gas in place, so eight billion cubic feet of gas in place in this drill block.

Q. What, then, do you have in the exhibit package?

A. The next two slides just show a graphical summary of some of these details we've already discussed. This one shows the Langmuir Isotherms, which just

graphically shows the data that was on the slide two slides previous. So as we -- original pressure is somewhere up here in the 14, 15, 1,600 pound range, and as we reduce our pressure, our gas content is reduced. This just shows you what we calculated for the Reese Mesa area. Actually, this is a rare case where we have -- we, basically, have isotherm data from lab canister tests that were done on this specific well, which is very rare in what we do.

The next slide is the recovery factor versus reservoir pressure. And this is actually for the Reese Mesa area where our initial pressure was around 1,700 pounds, and today we've only depleted to about 1,600 pounds, and I'll show you that. So we haven't recovered much gas yet out of that 320 drill block.

Q. Under your engineering analysis, have you satisfied yourself that an estimate of the BCF gas in place in the spacing unit is reasonable and appropriate?

A. Yes.

Q. Let's step aside to the next topic and look at Slide Number 7. Let's use the concept of a bubble map, a production bubble map, so we can visualize what these wells are doing in relation to other wells in the area. Give us your conclusions about this display.

A. The blue dash lines kind of show the outline

of the drill block that we are talking about, and if you -- you can notice there's 28 million cubic feet of gas that has been produced out of the northern well, the Reese Mesa 101S, and 38 million cubic feet of gas has been produced out of the Reese Mesa 101 that we propose to re-enter.

This slide, in general, shows higher gas cums in wells that are getting down to the high productivity area. And it also shows a little bit higher gas cums north of the border than south of the border and in the low productivity area. But, in general, it does show very low recovery currently in the Reese Mesa area where we propose to test this technology.

Q. We've looked at the cum map. Let's look at the production map to see how other wells are doing.

A. The next slide shows the gas production rate, I guess, as of the middle of last year when this data was pulled. It shows one of the reasons why we decided to test it first in this drill block, with very low rates coming out of the entire drill block compared to some of the surrounding areas. We feel that it would be wise to test this technology here and hopefully expand it to other areas right on the state line.

Q. Let's turn now to the individual production data for each of these two wells, and let's start with

the 101 well.

A. The Reese Mesa 101 production history is shown here. Really, all you can take from this slide is that there's low production. It's been kind of erratic. Water rates are kind of up and down, even though we have produced it with a pump for much of this time. The early period, there was a period in which they temporarily abandoned the well because the well produced a lot of water and not a lot of gas and didn't make any money for the company. That's the well that we will re-enter.

Q. What's the explanation for the declining green line to the top portion of the data display?

A. That line is really an insignificant and inconclusive forecast. This plot was pulled from a program that we use to forecast wells, and if you attempted to put a forecast on this well you wouldn't -- you can't forecast it with this type of data. It's really insignificant. It doesn't mean anything.

Q. But it was what you had as a resource to display the actual production data?

A. Right.

Q. Turn to the next one and look at the 101S well.

A. Here's the 101S with about a year and a half of production, and it's reasonable for the first year and

a half of production for this area, actually. The green or blue line on this plot just shows a conservative forecast that we could report as these years.

Q. Let's finish this section with that portion of the log for the Reese Mesa 101 to, again, show the Examiner the two coal zones that you're trying to access with the two horizontal laterals.

A. Right. This is a final slide in that section. Once again, we will try to re-enter these two different coal seams and stay within them for approximately 3,300 feet.

Q. How did you go about the method of satisfying yourself what you expected each of those two existing wells to recover? What did you do?

A. These two existing wells, first of all, I reviewed offsets and, as well, reviewed the existing production. And at current conditions, we are trying to optimize the wells and they are not producing to our expectations. The one to the north is doing better, and we could be very patient on that and wait several years and expect it to do well. The one to the south, Reese Mesa 101, has not been a satisfactory well for us.

Q. As part of your analysis, do you infer a certain generic threshold of cost so that you can derive what you think would be abandonment rate for these wells?

A. Actually, on the slide -- the next slide in Exhibit 8, that is an actual operating cost -- an estimated operating cost for the Reese Mesa area for coal wells. It's an operating cost without compression. These wells are such high pressure that they don't need well head compression yet. As you see, it's $2,800 a month. In summary, this slide shows what gas rate we need to produce in order to make ends meet. Without making any money for the company, we need to produce 29 Mcf a day just to stay in operations. That indicates on the Reese Mesa 101 that we are not quite there yet.

Q. So neither of the two existing wells will meet your threshold bottom daily rate?

A. The northern well currently will, but that rate can be used, then, to predict when we will abandon that well.

Q. Turn to the next slide. What are you showing here for us, Mr. Mead?

A. This is a summary of what I stated before, that we have currently recovered about 1 percent -- it says .9 percent -- of the gas in place in the drill block. Then if we continue in current conditions, on the bottom it shows what we will likely recover from the well, which means that we're not going to recover much more gas from 101 at all, but the 101S will recover some

more gas, hopefully, at least 5 percent of the recovery in current conditions.

Q. Let's turn to the slide and give the Examiner some pressure information.

A. All this shows is the actual pressure data we have. We have taken two pressure readings within the last year to determine our bottom hole pressure. The most recent one there being a static pressure in the Reese Mesa 101 last November showing 1,600 pounds of reservoir pressure, which, if you remember from the recovery factor graphs, it shows that we haven't recovered very much gas and there's a lot of gas remaining in place.

Q. How will you, as a reservoir engineer, know that the horizontal wellbores have been successful?

A. They will be technically successful if we are able to drill them in that same coal seam as predictable, and we can successfully apply that to the technology. It will be economically successful if they produce at rates that we are satisfied with. And we've had experience drilling horizontal wells in the Allison Unit, for example, and also in Colorado across the state line where we have satisfactorily shown that, yes, this technology can be applied, but we have not re-entered existing wells and drilled through laterals. We have re-entered

existing wells for one lateral but not in the state line area.

Q. For horizontal wells drilled in this portion of the Basin, is there a de-watering component to the process for the horizontal wells?

A. In every instance of coalbed methane production where there is a high water saturation, there will be an added value or an added capacity as you de-water the well. In the instance of these horizontal wells, we are actually able to produce more gas with less water than we are the vertical wells. The vertical wells will produce more water and less gas, if that makes sense.

Part of the reason is that we can -- the capacity of the horizontal well could be so high that we can go down on that gas-in-place curve or that isotherm curve and be able to get the gas out and release some of the water behind it.

Q. Let's turn to Exhibit Tab Number 9 and have you identify the two displays in that exhibit set.

A. The first schematic is of the wellbore in the Reese Mesa 101. It shows the actual footages on the left-hand side. And all it depicts is we do have seven-inch casing down to -- I think it says 3,660 feet -- and seven-inch casing is satisfactory for us to

re-enter with our existing tools and to mill a window and kick off. And it shows the perforated liner that is installed in the lower portion.

The next slide shows the well to the north, which, as I said, is unsuitable for re-entry. Currently at four-and-a-half-inch casing, we don't have tools in the basin that are able to do that.

Q. Behind Exhibit Tab Number 10, do you have some illustrations to show what an expectation may be if this wellbore is successful as a horizontal wellbore?

A. Yes.

Q. Let's look at those.

A. The slide entitled, "Allison Unit #135S," it's actually the Allison Unit Com 135S. It's a New Mexico well right on the border of Colorado and New Mexico near Navajo Lake. It's a well that was drilled as a new drill 70 degrees through the pay zone and then two kick-off points where we drilled horizontal laterals. Each of the horizontal laterals in this well were about 1,300 to 1,400 feet and it had very good production and is still producing today well above a million a day.

MR. BROOKS: Is this in New Mexico or Colorado?

THE WITNESS: This is New Mexico.

The next well is actually in Colorado in the

Allison Unit, and the laterals on this well were much longer than the previous well that I showed, and you see the higher rate that corresponds to the longer length of laterals. It is still producing today well above two million a day. So we would expect that the Reese Mesa 101 re-entry would produce somewhere in between these two wells with lateral lengths. In between these two wells, we would expect the rates to be somewhere in between. There are similar coal seams that we are intersecting.

Q. It would be your plan, if the Division will approve it, to have the Reese Mesa 101 well used as the wellbore for the two laterals and then to allow you to continue to produce the 101S well to the north?

A. That is correct.

Q. Do you still see a need to continue to produce that well?

A. Yes, we do. In fact, the Allison Unit Com 135S is being produced very closely to the Allison Unit Com 135, and that has seen a significant increase in production in the existing vertical well, as well.

Q. What does that generally tell you as a reservoir engineer?

A. It tells me that in coalbed methane where there is a need to de-water well, we need to drill as many wells as we can at the same time. In other words,

fully develop the field at the same time in order to get the optimum recovery.

MR. KELLAHIN: Mr. Examiner, that concludes my presentation with Mr. Mead. We move the introduction of Mr. Mead's Exhibits 3 through 10.

MR. WARNELL: Exhibits 3 through 10 are accepted.

Any questions, Mr. Brooks?

(Exhibits 3 through 10 were admitted.)

MR. BROOKS: No questions.

MR. WARNELL: I have a question or two, Mr. Mead. What do you calculate permeability to be out there?

THE WITNESS: We have very little permeability data in the area. We would estimate it to be anywhere between one and five millidarcies. But cores have shown -- and we do have core from this well -- that any individual coal seam can be from .1 millidarcies up to .9 millidarcies in the area.

MR. WARNELL: Then I had a question here on Tab 6, page 2, down there at the bottom where you're showing the area. The height, you have as 36.

THE WITNESS: Right.

MR. WARNELL: Should that be 26?

THE WITNESS: That is the height if you

account for all the coals in the vertical well. The interval that we have shown is that we will intersect 26 feet with our horizontal wells, and we assume that we -- that's why we would prefer to continue producing our vertical wells.

MR. WARNELL: Both vertical wells?

THE WITNESS: Yeah. Where there are small coal seams that we can't economically intersect and stay in with our current technology. That's a good question.

MR. WARNELL: Very well. Thank you. No further questions.

MR. KELLAHIN: That concludes our presentation, Mr. Examiner.

MR. WARNELL: All right. Then we will take Case 14280 under advisement.

* * *

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. ____ heard by me on _____.

_____, Examiner
Oil Conservation Division

REPORTER'S CERTIFICATE

I, JACQUELINE R. LUJAN, New Mexico CCR #91, DO HEREBY CERTIFY that on March 5, 2009, proceedings in the above captioned case were taken before me and that I did report in stenographic shorthand the proceedings set forth herein, and the foregoing pages are a true and correct transcription to the best of my ability.

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

WITNESS MY HAND this 16th day of March, 2009.

Jacqueline R. Lujan, CCR #91
Expires: 12/31/2009