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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:

CASE NO. 14119

APPLICATION OF BURLINGTON RESOURCES OIL  
& GAS COMPANY LP FOR AN EXCEPTION TO  
THE WELL DENSITY REQUIREMENTS OF THE  
BLANCO-MESAVERDE GAS POOL, RIO ARRIBA  
COUNTY, NEW MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS  
EXAMINER HEARING

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

May 15, 2008

Santa Fe, New Mexico

This matter came for hearing before the New Mexico Oil  
Conservation Division, DAVID K. BROOKS, Legal Examiner, and  
TERRY G. WARNELL, Technical Examiner, RICHARD EZEANYIM,  
Technical Examiner, on May 15, 2008, at the New Mexico Energy,  
Minerals and Natural Resources Department, 1220 South  
St. Francis Drive, Room 102, Santa Fe, New Mexico.

REPORTED BY: JOYCE D. CALVERT, P-03  
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22	APPEARANCES	
23	FOR THE APPLICANT:	
24	W. Thomas Kellahin	
25	KELLAHIN AND KELLAHIN	
26	706 Gonzales Road	
27	Santa Fe, New Mexico 87501	
28	WITNESSES:	
29	Mr. Alan Alexander, Senior Land Advisor,	
30	Burlington Resources and ConocoPhillips	
31	Mr. Chon Robinson, Drilling Engineer,	
32	Burlington Resources and ConocoPhillips	
33		
34		

1                   MR. WARNELL: Next case is Case No. 14119,  
2 Application of Burlington Resources for an exception to the  
3 well density requirements of the Blanco-Mesaverde Gas Pool, Rio  
4 Arriba County, New Mexico.

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

8                   MR. WARNELL: Will the witnesses please stand and be  
9 sworn?

10                  MR. EZEANYIM: Any other appearance in this case?

11                  MR. KELLAHIN: No.

12                  [Witnesses sworn.]

13                  MR. KELLAHIN: Mr. Examiner, with your permission,  
14 we'll have two witnesses to present. Mr. Alan Alexander is a  
15 petroleum landman and he's knowledgeable about this area and  
16 the parties involved and can testify as to compliance with the  
17 notice procedures, talk about the spacing, and focus your  
18 attention on the exception we're seeking.

19                  The second witnesses is a drilling engineer who can  
20 describe for you the mechanical problems with drilling this  
21 well that resulted in the well being at the location that it  
22 was drilled.

23                  MR. WARNELL: And the drilling engineer's name is?

24                  MR. KELLAHIN: Mr. Chon Robinson.

25                  MR. EZEANYIM: When you call the witnesses, if they

1 would stand up and identify yourselves, please.

2 MR. KELLAHIN: As the application states,  
3 Mr. Examiner, we're seeking an exception for the well bore in  
4 the Blanco-Mesaverde Gas Pool. While this well is also to be  
5 completed in the Dakota, it is not an exception to those rules.  
6 It doesn't exceed the density, and it's in the right quarter  
7 section for the Dakota.

8 In the Mesaverde, however, we ended up with two  
9 infill wells in this same quarter section, which is not  
10 permitted by Division order R-10987-A1, which is a specific  
11 order that sets forth the rules that preclude two well bores in  
12 the same 160-acre tract.

13 However, in the spacing unit, the 320-acre spacing  
14 unit, we have not exceeded the density. So that's the focus of  
15 what has occurred. It was a mechanical problem with one of the  
16 tools used to drill the well and monitor it's location.  
17 Mr. Robinson is here to explain to you exactly what happened  
18 with that well bore.

19 But to set the stage and your understanding of how we  
20 got here, I'd like to call on Mr. Alexander to explain the land  
21 situation.

22 MR. WARNELL: Very good, Mr. Alexander.

23 ALAN ALEXANDER

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

DIRECT EXAMINATION

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BY MR. KELLAHIN:

Q. For the record, sir, would you please state your name and occupation.

A. My name is Alan Alexander. I'm a senior land advisor for Burlington and ConocoPhillips located in our Farmington, New Mexico office.

Q. Mr. Alexander, on prior occasions have you testified before the Division and been accepted as an expert petroleum landman?

A. Yes, I have.

Q. Pursuant to your employment by the companies involved, are you familiar with the land configuration for the spacing unit in question?

A. Yes, I am.

Q. And are you also familiar with where that tract lies in relation to the federal unit associated with it?

A. Yes, I am.

Q. Are you also familiar with and have working knowledge for the rules for the Blanco-Mesaverde pool rules?

A. Correct.

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

MR. WARNELL: We accept.

Q. (Mr. Kellahin): To set the stage, Mr. Alexander,

1 would you first turn to the Exhibit book and identify for the  
2 record what is shown as Exhibit Tab No. 1.

3 A. Yes. Behind Exhibit Tab No. 1 is our notice and  
4 application, which is the application for the increased density  
5 for the San Juan 29-7 Unit No. 58N well located on the west  
6 half of Section 26, Township 29 North, Range 7 West.

7 And then behind the application we have included some  
8 exhibits. One of the exhibits is the NMOCD form C-102 that is  
9 a plat that has been annotated to show the various distances  
10 where the surface and bottom hole are located away from the  
11 quarter section lines.

12 And then behind that tab, we have included the sundry  
13 that we filed with the Aztec Office explaining what happened  
14 when we drilled the well. And Mr. Robinson will get further  
15 into that information later on.

16 Also are included are some drilling information  
17 drilling curves and daily drilling reports behind that.

18 Q. Having shown those documents, Mr. Alexander,  
19 let's turn to tab number two and help the Examiner locate where  
20 he is in the San Juan Basin starting off what identifying what  
21 we're looking at.

22 A. Yes. This is a land plat showing the majority of  
23 the San Juan Basin. We've indicated on there where the  
24 San Juan 29-7 No. 58N well was located. It is located within  
25 the San Juan 29-7 federal unit. You'll see on there we've

1 outlined the towns of Farmington, Bloomfield and Aztec. The  
2 blue water is the Navajo Reservoir. This kind of locates you  
3 within the San Juan Basin.

4 Q. Let's turn to Exhibit Tab No. 3 and look more  
5 specifically where this spacing unit and well lie within the  
6 federal unit.

7 A. We included a 9 Section plat here with symbology  
8 for the existing wells within this 9 Section. We've also shown  
9 where the larger black dot is the surface location. That was  
10 the location this vertical well was intended to be drilled at.

11 However, as Mr. Robinson will explain, the hole  
12 deviated somewhat and crossed over to the northwest quarter  
13 slightly into the southwest quarter, and that's where both the  
14 Mesaverde and the Dakota bottom hole.

15 On this plat, I also wanted to show you the  
16 relationship of the participating areas within the federal  
17 unit. The green dashed or hatched outline is the Mesaverde  
18 participating area. Everything in the 9 Section area is  
19 included in the Mesaverde participating area. Therefore, all  
20 the ownership is common, and that's why we did not require any  
21 notice in this particular case; it's all common ownership.

22 I did go ahead and include the Dakota participating  
23 area just for your information. However, the Dakota is not a  
24 density violation, nor is it a violation of the setbacks for --  
25 it is at a standard location. So the Dakota is really not a

1 part of this case today, except the well was drilled as a  
2 Mesaverde and Dakota formation well. We just wanted to include  
3 both of these.

4 Q. Let's look specifically at Section 26. Describe  
5 for us what is the problem with compliance with the  
6 Blanco-Mesaverde pool rules.

7 A. You'll see the symbology there. The blue kind of  
8 wagon wheel symbols are the Mesaverde wells that are in this  
9 area. The red squares are the Dakota wells. You will see that  
10 we already have two Mesaverde wells in the southeast quarter --  
11 I'm sorry, the southwest quarter. This is a west half  
12 dedication -- however, we only have one Dakota well. So that's  
13 why it is not a density violation for a Dakota.

14 But since the bottom hole crossed over into the  
15 southwest quarter, that would make three Mesaverde completions  
16 in the southwest quarter, and that is a violation of the rule.

17 MR. EZEANYIM: While we are seeing this map, could  
18 you explain why you think that this -- is this identical? You  
19 told me this one was identical here? Can you explain that for  
20 us?

21 A. Yes. The Mesaverde formation within the San Juan  
22 29-7 Unit is fully expanded. So the participating area  
23 includes all lands within the San Juan 29-7 Unit. And since  
24 they're in a participating area, all people royalties, working  
25 interest, overrides, participate in the production from every



1 well that's drilled in there. Therefore, we do not gave a  
2 correlative rights situation because of that.

3 MR. EZEANYIM: Okay.

4 Q. (Mr. Kellahin): Let me have you turn to the  
5 first documents after the tab for Exhibit 4 and identify what  
6 we've marked as 4-1.

7 A. This is a separate exhibit. This exhibit was  
8 also included in the application, but we wanted to spend a  
9 little bit more time on it here.

10 This exhibit is the C-102. It shows that this  
11 particular well was, from a surface location, was drilled  
12 2485 feet from the north line and 2075 feet from the west line.  
13 That was the intended bottom hole location. However, the  
14 mechanical problems caused it to walk south and west. And  
15 you'll see that the current bottom hole of that is 1990 feet  
16 from the west line and 2600 feet from the south line. And it  
17 did cross over the northwest quarter into the southwest  
18 quarter.

19 Q. Mr. Alexander, explain to us why the bottom hole  
20 location is not a non-standard location.

21 A. Well, within the participating areas, which both  
22 the Mesaverde and the Dakota we are in the participating areas,  
23 you can complete a well up to 10 feet from interior quarter,  
24 quarter/quarter section lines. So, therefore, the well did  
25 bottom hole some 36 feet from the half section line. So it is

1 a standard location in that regard.

2 Q. If terms of compliance with the Division rules  
3 for this particular pool, the only noncompliance issue is  
4 having it in the wrong quarter section?

5 A. That's correct.

6 MR. KELLAHIN: That concludes my examination of  
7 Mr. Alexander.

8 We move the introduction of Exhibits 1 through 3 and  
9 the first page of Exhibit 4.

10 MR. WARNELL: We'll accept the exhibits and the  
11 examples.

12 Mr. Alexander, I have no questions.

13 EXAMINATION

14 BY MR. BROOKS:

15 Q. I do not have my local rule book here with me.  
16 Would you refresh my recollection as to -- this is  
17 Blanco-Pictured Cliffs?

18 A. Blanco-Mesaverde.

19 Q. Blanco-Mesaverde. Sorry. And how many wells are  
20 allowed in the -- Blanco-Mesaverde is on 320s?

21 A. It's 320-acre spacing and 80-acre density.

22 Q. Okay. So it's 320-acre spacing with four wells  
23 allowed per unit?

24 A. Yes, sir. Per drilling -- per spacing unit.

25 Q. And you currently have three wells in this unit,

1 two of which are in the southwest corner; is that correct?

2 A. That is correct.

3 Q. So this will make three in the southwest quarter  
4 the one in the northwest quarter.

5 A. Yes, sir.

6 Q. Now, the Dakota, what is the spacing for the --  
7 this is Basin Dakota?

8 A. Yes, sir.

9 Q. And what is the spacing for the Basin Dakota?

10 A. It is actually the same. It's on 320-acre units  
11 and it has 80-acre density.

12 Q. And it looks like you currently have two Basin  
13 Dakota wells in this unit?

14 A. Yes, sir. That is correct.

15 Q. They are in the northwest and the southwest  
16 quarter respectively, right?

17 A. Yes, sir. That's correct.

18 Q. So this will be the second Basin Dakota well in  
19 the southwest quarter, so that it is in a quarter section that  
20 has a basin Dakota well -- it is in a quarter section that has  
21 one Basin Dakota well and in a quarter/quarter section that  
22 does not have a Basin Dakota well; is that correct?

23 A. That is correct.

24 Q. So that makes it a permitted third infill well --  
25 or second infill, right?

1 A. That is correct.

2 Q. Okay. Now I think I understand it. Thank you.

3 EXAMINATION

4 BY MR. EZEANYIM:

5 Q. The only question I have is that the well No. 58N  
6 was intended as an []injection well, and you wanted to drill at  
7 the same location in that Unit F, right?

8 A. The N is the infill nomenclature for the Dakota.  
9 We name them after the deepest formation.

10 Q. I'm not talking about the N, but the intention of  
11 that well, you wanted to drill it as a []injection well?

12 A. Yes, sir. Correct.

13 Q. But because of LMT, you changed it to Unit K?

14 A. Yes, sir. It was originally scheduled for  
15 Unit F.

16 Q. To comply with the 1.B? To comply with 1.B of  
17 that rule, right?

18 A. Yes, sir.

19 Q. But because of -- I know the engineer is coming  
20 up to tell us why -- but because of that mechanical problems,  
21 you know, you were working in Unit K, right?

22 A. Yes, sir. That is correct.

23 Q. I just wanted to understand before he shows up.

24 MR. WARNELL: Okay, very good. The witness may step  
25 down. Thank you, Mr. Alexander.

1 Next witness, please.

2 MR. KELLAHIN: Mr. Examiner, we call Mr. Chon  
3 Robinson.

4 CHON ROBINSON

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

7 DIRECT EXAMINATION

8 BY MR. KELLAHIN:

9 Q. Mr. Robinson, for the record, would you please  
10 state your name and occupation.

11 A. Chon Robinson. I'm the drilling engineer and  
12 supervisor for ConocoPhillips in Farmington, New Mexico.

13 Q. And where do you reside?

14 A. Farmington, New Mexico.

15 Q. As part of your responsibilities was it your  
16 responsibility to supervise the drilling of this well?

17 A. It is.

18 Q. Others are working under your direction and  
19 control?

20 A. Correct.

21 Q. Are you knowledgeable about what happened with  
22 this well bore?

23 A. I am.

24 Q. And therefore can describe the filings and the  
25 mechanics and the tools used and the problems associated with

1 it?

2 A. I can.

3 MR. KELLAHIN: We tender Mr. Robinson as an expert  
4 drilling engineer.

5 MR. EZEANYIM: Before you answer, can you state your  
6 name for the record?

7 THE WITNESS: Chon Robinson.

8 MR. EZEANYIM: Mr. Robinson, do you happen to be a  
9 licensed PE?

10 THE WITNESS: I'm not. I'm an engineer in training.

11 MR. EZEANYIM: So you have a --

12 THE WITNESS: I have not taken the PE exam.

13 MR. EZEANYIM: Very, good.

14 MR. WARNELL: We'll accept him as an expert.

15 Q. (By Mr. Kellahin): Mr. Robinson, take a moment  
16 and summarize us for us the structure under which you operate  
17 and control the drilling of this well bore?

18 A. Again, I'm the drilling engineering supervisor.  
19 I have seven drilling engineers that work with me. And most of  
20 them are relatively young, new to the industry, so I take a  
21 pretty active role in mentoring and helping them. In fact, the  
22 rig that drilled this particular well, I was the drilling  
23 engineer the month prior. I was just made the supervisor, so I  
24 participated in the design of the wells for that rig line.

25 Q. Let's look specifically for the circumstances for

1 this well bore and have you give us an overview of what  
2 happened, and then we'll come back and look at individual  
3 documents and the data.

4 A. Okay. If turn to Exhibit 5, on this particular  
5 well, in the 29-7 area, we've historically had severe hole  
6 problems while drilling the intermediate hole, which is down to  
7 approximately 3600 feet. In that hole section, we can drill it  
8 quite quickly, but many times it takes us two, possibly three,  
9 and we've seen as many as five days to get out of the hole  
10 after we've drilled that hole prior to successfully getting  
11 casing to bottom. Sometimes we have to run the casing multiple  
12 times.

13 So in an attempt to improve that performance on the  
14 drilling curve and save money, we had instituted use of an  
15 under-reaming tool, which drills a slightly over-gauged hole.  
16 The thought process being that if we drilled a slightly  
17 over-gauged hold to what we normally did, we'd be able to get  
18 out of the hole, get the casing in the ground, in a more timely  
19 fashion. And, in fact, we were able to do that. One of the  
20 fastest wells we drilled used this same BHA and bottom hole  
21 assembly and reaming tool.

22 So on this particular well, if you look at the first  
23 page in Exhibit 5, I'll walk you through the process that we  
24 used to drill this well. This is Report #4 you'll see in the  
25 top right corner.

1           So we're a little ways into the well. We've set  
2   surface casing, we've begun -- we've tested and nipped up our  
3   pull-out preventers, and we're about to drill ahead.  
4   Hopefully, your copies have two highlighted areas. So if you  
5   look at the first highlighted line where it shows a 9 7/8 RWD  
6   Reamer assemble, that's the particular tool that allows under  
7   reaming the hole to slightly over gauge what we normally drill.

8           The second highlighted portion shows us beginning  
9   drilling. So we started drilling 234 feet to 888 feet on this  
10  particular day. If you turn two pages back, we survey every --  
11  approximately every 500 feet. Hopefully, two pages back. It's  
12  still report four, and in the top left, you'll see the actual  
13  surveys that were taken. The survey at 421 feet was 1 degree,  
14  6234 feet was 2 degrees, and 829 feet was 1 degree.

15           So at this point, everything looked good. We were  
16  drilling vertically.

17           Q. What do those numbers mean to you?

18           A. That there's no issue. We're drilling  
19  vertically.

20           Q. At what point would those numbers be large enough  
21  that you would have a point of concern?

22           A. At 3 degrees, you'd start paying attention; at 4  
23  degrees, you'd change your operating procedures. Because at 5  
24  degrees, the well changes the kind of classification and we  
25  need to provide additional survey work. And, obviously, it's



1 not -- it's getting away from vertical.

2 Q. The intervals at which you gauge your location  
3 and depth are where? Are they required by Division rules?

4 A. They are. The rules states 500 feet or nearest  
5 bit trip. And rules were written a long time ago, so  
6 originally bit trips were 500 feet or less. Now we can drill  
7 the entire section 3,000-plus feet in one bit. But we still  
8 survey approximately every 500 feet.

9 Q. What happens then?

10 A. So at this point, again, at the end of day four,  
11 we look -- everything looks great.

12 Turn one page over and you're on Report #5. So at  
13 8:30 in the morning, we drilled another couple hundred feet.  
14 And at 1,016 feet, we ran -- you can see two Teledrift surveys.  
15 The reason we ran two is because the first showed 6. The  
16 Teledrift tool maxes out at 6 degrees in the particular design  
17 that we run. And what that tells us is, if you see a 6, either  
18 the well is at 6 degrees inclination or greater.

19 If doesn't -- if it's at a 20 degrees, it won't say  
20 20. It will say 6. So at that point, we knew we had an issue,  
21 and we began to try and remediate it.

22 Q. Does this tool tell you the actual direction  
23 you're drifting?

24 A. It does not.

25 Q. So it just gives you the magnitude of drift, but

1 it doesn't tell you where you are?

2 MR. EZEANYIM: Excuse me. This drift, let's go back  
3 to that sheet that says 1 degree or 2 degrees. So far, is that  
4 correct?

5 THE WITNESS: Yes.

6 MR. EZEANYIM: Or something was wrong with the drift?

7 THE WITNESS: It ends up on the very last survey on  
8 Report #4. That was an incorrect -- that was the tool  
9 malfunction.

10 MR. EZEANYIM: Those readings?

11 THE WITNESS: Correct. At that depth, it should have  
12 read approximately 6 degrees.

13 MR. WARNELL: What was that depth, then, is that the  
14 829?

15 THE WITNESS: Correct.

16 MR. EZEANYIM: But it's reading 1 degree.

17 THE WITNESS: Correct.

18 MR. EZEANYIM: Do you know why is that? If you have  
19 that tool, and it's giving you that, are you going to use that  
20 tool again? I mean, why is it reading 1 instead of 6? Do you  
21 know why is it doing that?

22 THE WITNESS: Obviously, it's a tool malfunction. We  
23 drilled approximately 330 wells last year. Of those 330 well,  
24 we used the Teledrift tool on approximately 280 wells. And on  
25 those 280 wells -- we do have Teledrift failures -- this is not

1 the first time it's ever failed. But it's a very low number,  
2 less than 5 percent.

3 MR. EZEANYIM: Is that all?

4 THE WITNESS: Yes. But, unfortunately, in this case,  
5 it resulted in extreme -- an extreme case. Normally it's not.  
6 We were close to a lease line or a mid section line, so it  
7 resulted in something not as good as we had hoped.

8 MR. WARNELL: Mr. Robinson, let me ask you. Back on  
9 Report #4 there, you said that -- you testified that you're  
10 taking a survey every 500 feet, generally. But yet here you're  
11 taking between 400 and 800 feet, you've taken three surveys.  
12 Am I reading that right?

13 THE WITNESS: Yeah.

14 MR. WARNELL: And then your next survey is over on  
15 Report #5, where we're down just past 1000 feet.

16 THE WITNESS: Right. So, again, we're exceeding --  
17 the requirement is 500. We're doing less than 500.

18 MR. WARNELL: Less than that.

19 THE WITNESS: But still the result was still poor.

20 Q. (By Mr. Kellahin): Pick up with your discussion.  
21 What happens now?

22 A. Now, again on Report #5 we see that we have an  
23 issue. We begin to -- if you read the rest of that page, you  
24 can see that we run another tool called a TOTCO survey which  
25 can measure up to 20-some-odd degrees. You can see at that

1 point, we ran the TOTCO twice, the first time not believing it  
2 because it showed 9 degrees. We ran it again and it showed 10.  
3 So we knew at that point we had a pretty significant issue. We  
4 pulled the TOTCO survey up hole to the 835 feet which would be  
5 analogous to our previous 1 degree survey depth and got a  
6 result of 6.

7 At that point, we came out of hole and laid down the  
8 RWD tool and proceeded to drop. We now have a well bore that's  
9 at 6 degrees. And we need to drop it back to vertical, because  
10 which was the original intent of the well.

11 Q. And how did you do that?

12 A. We ran a -- what's called a pendulum assembly.  
13 It will just naturally will drop at approximately two degrees  
14 per hundred feet of measured depth drill.

15 Q. Continue on and tell us how you ended up where  
16 you did in the bottom hole location.

17 A. So we drilled that intermediate section to TD, we  
18 ran the seven-inch casing, and then proceeded to air drill, and  
19 drilled that section to TD and then cemented casing. And then  
20 subsequent to that, we ran a gyro survey, which is, I believe  
21 in Exhibit 4.

22 Q. We'll come back to that in a minute.

23 A. Okay.

24 Q. In the daily drilling reports, you've highlighted  
25 some of the reports early on. Does Exhibit 5 contain all the

1 daily drilling reports should the Examiners care to look at the  
2 entire sequence?

3 A. It does. From spud to TD of the well, they are  
4 all there. We just put the relevant ones at the front.

5 Q. Let's turn to Exhibit Tab No. 6. What is  
6 included behind Exhibit Tab No. 6?

7 A. Exhibit 6 is some information regarding the RWD  
8 tool. It's a Hughes Christensen tool. Essentially, you screw  
9 a bit onto the base of that tool, a pilot bit. And you can see  
10 that it's eccentric, so it doesn't drill a circle like a normal  
11 bit does. It has an arm that walks around the hole and  
12 enlarges the hole. It's just some information on that tool.

13 Q. Let's turn back to Exhibit Tab No. 4, Mr.  
14 Robinson, and pick up with the exhibit that Mr. Alexander was  
15 talking about, this Exhibit 4-1 and look at the C-102.

16 Does it accurately represent the surface location  
17 where you started and the bottom hole actually drilled?

18 A. It does.

19 Q. Turn past that and let's look at Exhibit No. 4-2.  
20 What does this represent?

21 A. This is the sundry and the details on how this  
22 occurred and the survey results.

23 Q. Once you learned of this problem, then you  
24 reported timely to the Oil Conservation Division in Aztec?

25 A. We did.

1 Q. Is that what was accomplished with this form?

2 A. That's correct.

3 Q. Following that form, let's look at the  
4 visualization of the well bore survey. If you'll look at  
5 Exhibit 4-3, what are we seeing here?

6 A. This is a pictorial diagram showing the actual  
7 angle of the well bore. The box on the top right is if you  
8 were standing, looking from an aerial view of how the well  
9 moved from surface to TD.

10 Q. If you start with the far left column and read  
11 down to 1000 feet and then read to the right and intersect the  
12 curve, that will show you the drift of the well bore at that  
13 point of depth?

14 A. Correct.

15 Q. Once you have discovered what's happening with  
16 the mechanical failure, what happens then to the curve as it  
17 proceeded down?

18 A. We continued to deviate further from the current  
19 place where we had run the survey.

20 Q. At what point in this curve are you attempting to  
21 correct the tool error or failure in trying to get to the  
22 bottom hole location?

23 A. From that 1,012 feet.

24 Q. So all the rest of this curve represents the  
25 effort to get the well bore back to where it needs to go?

1           A.    Correct.

2           Q.    Following that Exhibit 4-3, there's a numerical  
3    tabulation shown as 4-5, and it should be 4-6.  What are these  
4    tabulations?

5           A.    At the top you'll see the original Teledrift  
6    surveys.  And on the bottom you'll see the gyro, which is the  
7    definitive survey.  So it contains both an inclination and an  
8    azimuth.

9           MR. WARNELL:  I lost my place.

10          MR. KELLAHIN:  Let's go back to Tab 4 and if you turn  
11   all the way to the end of Tab 4 and turn back two pages, you're  
12   going to see a numerical tabulation.

13          THE WITNESS:  Right behind the picture.

14          MR. EZEANYIM:  Before 5-5.

15          THE WITNESS:  One page.

16          MR. KELLAHIN:  It should be 4-5.

17          MR. WARNELL:  There it is.  Excuse me.

18          MR. KELLAHIN:  And then just ahead of that would be a  
19   graphic depiction of the plot.

20          MR. WARNELL:  Right, where it shows the walk.

21          THE WITNESS:  The graph is created from the numbers.

22          MR. KELLAHIN:  Mr. Examiner, that concludes my  
23   examination of Mr. Robinson.  We would move the introduction of  
24   Exhibits 4 through 6.

25          MR. WARNELL:  So be it.  We'll accept Exhibits 4

1 through 6 and open it up for questions.

2 MR. BROOKS: Just -- if I remember right, were you  
3 the drilling engineer that testified for ConocoPhillips at the  
4 pit rule hearing?

5 THE WITNESS: I was.

6 MR. BROOKS: I thought that was the.

7 MR. KELLAHIN: Was that a mistake to bring him back?

8 MR. BROOKS: No, actually, I was very impressed with  
9 the competence and articulateness of your testimony on that  
10 occasion. And I was, again, this morning. And thank you for  
11 explaining something that a lawyer would have great difficulty  
12 understanding in this case.

13 I won't admit I didn't understand the pit rule case.

14 That's all I have.

15 EXAMINATION

16 BY MR. EZEANYIM:

17 Q. Yeah. What would happen if you would have  
18 drilled that well with a normal assembly. If you wanted to  
19 drill it with a normal assembly, but you wanted to save time?

20 A. Correct.

21 Q. But you wanted to ream it? Okay, if you had  
22 drilled it with a normal assembly, would this have occurred?  
23 Would this situation have occurred, do you think?

24 A. That's a good question. With conventional  
25 assemblies, we do have similar issues, so we don't know



1 definitively that had we drilled it with a normal 8 3/4  
2 assembly without the RWD that the same thing would not have  
3 occurred. Because a lot of -- not a lot, but we've experienced  
4 at least three other wells that can remember where something  
5 very similar happened. We didn't cross a line that mattered,  
6 but we got severe inclination requiring remediation where we  
7 had to drop it back and then run gyros. So I can't  
8 definitively say that the RWD contributed to ti. I can say  
9 that we are not running it anymore because we have had two  
10 instances with this type of assembly where we built angle that  
11 we had to remediate. So we discontinued that until we can  
12 figure out if that is an issue.

13 Q. Explain to me again why you wanted to use the  
14 RWD. You know, because you said why you had used it, but I  
15 didn't catch that. Why do you use it?

16 A. Essentially to save time, which is money, because  
17 we pay daily for the rig and all the equipment while we're  
18 drilling, during the drilling operation. So many times we can  
19 drill that whole section in two days. And then, in this  
20 particular 29-7 area, many of the offset wells nearby have  
21 severe hole problems. And once we've drilled to TD, we're  
22 unsuccessful getting out of the hole. We have to ream out of  
23 the hole with a conventional 8 3/4 assembly. And sometimes  
24 we'll attempt to run 7-inch casing and it's get stuck or not  
25 reach the bottom and we'll have to pull the 7-inch out and make

1 a wiper trip. So it was an attempt to save time.

2 Q. And money.

3 A. Correct.

4 Q. Okay.

5 MR. WARNELL: Any other questions?

6 MR. EZEANYIM: No.

7 EXAMINATION

8 BY MR. WARNELL:

9 Q. A couple of questions, Mr. Robinson. About which  
10 depth were you at here on the directional plot when you went  
11 from Unit F into Unit K?

12 A. Turn back one page.

13 Q. Is that Exhibit 4-3?

14 A. Yes. That would give you the -- unfortunately  
15 the curve is covered by the top view, but you can roughly  
16 ascertain that between, where you can see the curve, it would  
17 be a nice gentle curve.

18 Q. Okay.

19 A. So at 155 feet, I would say about 24- to 2600  
20 feet would be my guess.

21 Q. Okay.

22 A. If you go over to the gyro data, the subsequent  
23 data, you can see it at 2500 feet. You've got in the survey  
24 data reading lines across the top, you've got "Date MD," which  
25 is major depth inclination azimuth.

1 Q. Okay.

2 A. TD is vertical depth. VS is vertical section.

3 That's -- if you look down and find 155 feet, you're out about  
4 2500 major depth.

5 Q. Okay. I see that. Thank you.

6 And so then you went ahead and you drilled down to a  
7 TD of -- TD was approximately what?

8 A. 7550.

9 Q. 7550 -- logged and set pipe and then what  
10 happened? Did you complete the well?

11 A. We have completed it.

12 MR. EZEANYIM: 7500, is that TD? MD is major depth?

13 THE WITNESS: The 7550 number that I reference is a  
14 major depth of 7541. TBD is the volume survey.

15 Q. (By Mr. Warnell): So the well has been  
16 perforated. Do you have -- I don't know if it's in here, but  
17 do you recall the depth of perf, top and bottom?

18 A. I don't know that information.

19 Q. And the present status of the well right today?

20 A. I'm not sure. Alan may know.

21 MR. ALEXANDER: We shut in either the -- we shut in  
22 one of the wells so that we would not be in violation. It was  
23 either the 58N, I think -- I believe the 58N is producing. We  
24 wanted to get it cleaned up. It was producing about 800 NCF a  
25 day, and we shut in one of the other 58 wells so that we would

1 not be exceeding the density in terms of production. And it  
2 remains shut-in today until you gentlemen decide whether we  
3 will proceed with operating all wells in there.

4 MR. WARNELL: So you would have shut-in 58A or --

5 MR. EZEANYIM: 58.

6 MR. WARNELL: -- 58M is it?

7 MR. ALEXANDER: Yes, sir. I can provide that  
8 information to you, which one we did shut-in.

9 MR. EZEANYIM: You said 58.

10 MR. ALEXANDER: It was one of the 58 wells.

11 MR. WARNELL: If you can verify that, I'd appreciate  
12 it.

13 MR. ALEXANDER: I certainly will.

14 MR. WARNELL: I have no further questions.

15 MR. KELLAHIN: Thank you, Mr. Examiner.

16 MR. WARNELL: The witness may step down.

17 MR. KELLAHIN: We'd like you to take this case under  
18 advisement, subject to us sending you the information on which  
19 wall was shut-in.

20 MR. WARNELL: I appreciate that.

21 This case will be taken under advisement. And for  
22 the record, that's Case No. 14119.

23 [Hearing concluded.]

24

25

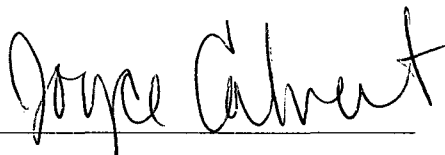
I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 14119,  
heard by me on May 15, 08

T.W., Examiner  
Oil Conservation Division

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

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

A handwritten signature in cursive script, reading "Joyce Calvert", is written over a horizontal line.

JOYCE D. CALVERT  
New Mexico P-03  
License Expires: 7/31/08

1 STATE OF NEW MEXICO )  
 )  
 2 COUNTY OF BERNALILLO )

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