

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 CONOCOPHILLIPS COMPANY CASE NO. 14394
AND BURLINGTON RESOURCES OIL & GAS COMPANY,
LP, TO EXPAND THE HORIZONTAL LIMITS OF THE UTE
DOME-PARADOX GAS POOL TO INCLUDE ALL OF SECTION 23,
T32N R14W AND THE CONCOMITANT CONTRACTION OF THE
BARKER DOME-PARADOX POOL, THE BARKER DOME-AKAH/UPPER
BARKER CREEK POOL, THE BARKER DOME-DESERT CREEK POOL
AND THE BARKER DOME-ISMAI POOL, SAN JUAN COUNTY,
NEW MEXICO

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: WILLIAM V. JONES, Presiding Examiner
DAVID K. BROOKS, Legal Examiner

October 29, 2009

Santa Fe, New Mexico

This matter came on for hearing before the
New Mexico Oil Conservation Division, WILLIAM V. JONES,
Presiding Examiner, and DAVID K. BROOKS, Legal Examiner,
on Thursday, October 29, 2009, at the New Mexico Energy,
Minerals and Natural Resources Department, 1220 South St.
Francis Drive, Room 102, Santa Fe, New Mexico.

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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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1 MR. JONES: Let's call Case 14394,
2 application of ConocoPhillips Company and Burlington
3 Resources Oil & Gas Company, LP, to expand the horizontal
4 limits of the Ute Dome-Paradox Gas Pool to include all of
5 Section 23, of 32/14 and the concomitant contraction of
6 the Barker Dome-Paradox Pool, the Barker Dome-Akah/Upper
7 Barker Creek Pool, the Barker Dome-Desert Creek Pool and
8 the Barker Dome-Ismay Pool, San Juan County, New Mexico.
9 Call for appearances.

10 MR. KELLAHIN: Mr. Examiner, I'm Tom
11 Kellahin, of the Santa Fe law firm of Kellahin &
12 Kellahin, appearing this morning on behalf of the
13 applicants, and I have three witnesses to be sworn.

14 MR. JONES: Will the witnesses please
15 stand and state your names to be sworn.

16 (The witnesses were sworn.)

17 MR. BROOKS: Please state your names for
18 the record.

19 MR. BICKLEY: I'm Mark Bickley.

20 MS. BLANKENSHIP: Michelle Blankenship.

21 MR. KOERSCHNER: Bill Koerschner.

22 MR. KELLAHIN: Mr. Examiner, by way of
23 introduction, I'd like to give you a short perspective.
24 I think this is the short answer to what appears to be
25 more complicated.

1 We're dealing with Section 23 here. There are
2 two distinct geologic structures out here. There's the
3 system called the Barker Dome to the west of 23. To the
4 east and south of 23 is the Ute Dome. Those are distinct
5 structural features. Section 23, the Northwest Quarter
6 of 23, is part of the Barker Dome pools. There's four
7 collective pools in Barker Dome. So the Northeast
8 Quarter of 23 is in the Barker Dome Pool.

9 ConocoPhillips/Burlington wants to develop
10 Section 23 and has sought the advice of Steve Hayden at
11 the district office in Aztec, and his regulatory
12 preference would simply be to move all of Section 23 and
13 make it subject to the Barker Dome Rules.

14 The Barker Dome Rules are different in that
15 Barker Dome has 640-acre spacing but with optional infill
16 wells to a density of one well per 160 acres, and they
17 have setbacks and well locations that are applicable to
18 that kind of density. Barker Dome is being developed by
19 XTO.

20 MS. BLANKENSHIP: The other way.

21 MR. KELLAHIN: I'm sorry. Ute Dome. Ute
22 Dome is being developed by XTO, and they have development
23 in that pool under the current rules. And ConocoPhillips
24 and Burlington chooses to be in that pool and to have the
25 opportunity to develop their acreage.

1 You'll find the geologic evidence is very
2 persuasive. There is a fault system that separates the
3 two structural features, and we have that geologic
4 evidence for you. So the complexities of this, I think,
5 are simplified by the fact that we're simply moving one
6 section to make it completely subject to the Ute Dome
7 rules.

8 MR. JONES: Okay.

9 MICHELLE BLANKENSHIP

10 Having been first duly sworn, testified as follows:

11 DIRECT EXAMINATION

12 BY MR. KELLAHIN:

13 Q. Ma'am, for the record, would you please state
14 your name and occupation.

15 A. Michelle Blankenship. I'm a landman for
16 ConocoPhillips.

17 Q. On prior occasions, Ms. Blankenship, have you
18 testified before the Division?

19 A. No, I haven't.

20 Q. Summarize for us your education.

21 A. I went to Oklahoma State University with an
22 accounting degree.

23 Q. What year was that?

24 A. That was in 1990 that I graduated. In 2005, I
25 achieved my MBA, and I've been a landman -- I have 19

1 years of experience with ConocoPhillips, and I've been a
2 landman for three years.

3 Q. Are part of your responsibilities to manage
4 the land issues with regards to the subject 23?

5 A. Yes.

6 Q. As part of that activity, have your technical
7 people asked you to process the necessary permits in
8 order for them to drill additional wells in Section 23?

9 A. Yes. They asked me to provide the land
10 information and the pooling requirements, spacing
11 requirements, for Section 23.

12 Q. As part of that effort have you made yourself
13 knowledgeable about the ownership?

14 A. Yes, I have.

15 Q. Have you compiled in the exhibit book what you
16 believe to be the relevant orders that are applicable in
17 this area?

18 A. Yes.

19 MR. KELLAHIN: At this time, Mr. Examiner,
20 we tender Ms. Blankenship as an expert petroleum landman.

21 MR. JONES: Ms. Blankenship is qualified
22 as an expert petroleum landman.

23 Q. (By Mr. Kellahin) Ms. Blankenship, let's skip
24 past Exhibit Tab 1 for the moment, and let's turn to some
25 locator maps. If you'll turn to Tab 2, behind Tab 2

1 there are going to be two maps. The first one of which
2 is a map that you have prepared?

3 A. Yes.

4 Q. Take a moment and help us identify where the
5 subject Section 23 is.

6 A. The subject 23 is outlined in the dark blue
7 outline, and as you can see, it falls right in between
8 these two Paradox Pool areas.

9 Q. When we're looking at the Barker Dome area and
10 the Ute Dome areas, what type of leases are involved in
11 this area?

12 A. These are tribal leases.

13 Q. What tribe is it?

14 A. The Ute Mountain Ute Tribe.

15 Q. So regardless of where we are in either one of
16 these pools, to the best of your knowledge, these are Ute
17 Mountain Ute tribal lands?

18 A. Yes.

19 Q. Within the tribal system there are individual
20 leases and different numbers associated; right?

21 A. Yes.

22 Q. When we look at this locator map, you've got a
23 color code associated with it. What's the significance
24 of the yellow?

25 A. The yellow is the outline of the Barker

1 Dome-Paradox Pool per Order 46-A.

2 Q. Of the Barker Dome collective pools, there are
3 four of those associated with Order 46-A; right?

4 A. Yes.

5 Q. I was just indicating that that's part of
6 Barker Dome?

7 A. Yes.

8 Q. When we move over to the blue area, what are
9 we looking at there?

10 A. This is the Ute Dome-Paradox Pool, and there's
11 mainly one Paradox Pool versus how it's broken in the
12 Barker Dome into four pools. The Paradox is broken into
13 four pools in the Barker Dome.

14 Q. When we look at the map you have well symbols
15 associated with the map.

16 A. Yes.

17 Q. What kind of wells are on the map?

18 A. These are not just Paradox Pool wells, but
19 these include shallow wells, so Dakota wells, along with
20 Penn wells.

21 Q. When we look at Section 23, specifically, the
22 Northwest Quarter, is shaded yellow?

23 A. Um-hum.

24 Q. And within the Northwest Quarter there's a
25 well symbol that says, "Ute Mountain Ute 73."

1 A. Right.

2 Q. What is that?

3 A. That is no longer an active well. Huntington
4 Energy drilled that, and it was a Dakota well and it was
5 not successful. They tried to re-complete it to the
6 Niobrara, and it was also not successful, so it is
7 currently temporarily abandoned and will be permanently
8 abandoned.

9 Q. Has ConocoPhillips' technical team asked you
10 to do something for them in terms of permitting
11 additional wells in Section 23?

12 A. They told me they'd like to drill two wells in
13 the south half of 23, which caused me a problem because
14 of where this section falls.

15 Q. What is the problem?

16 A. The problem is that under either Dome rules,
17 if we were to drill it as a Barker Dome Well in the
18 lowest interval, which is the Lower Barker Creek Alkali
19 Gulch, that requires 640-acres. Under the Ute Dome
20 rules, it also requires 640 acres. So under either
21 rules, we need 640 acres to drill a well.

22 Q. Have you shared this situation with Mr. Steve
23 Hayden of the Aztec office of the Division?

24 A. Yes. I asked him if we permitted this under
25 the Ute Dome rules, if we could possibly have a special

1 480-acre non-standard unit, and he told me that we would
2 be required to have 640 acres and that we would need to
3 permit it as a -- we would need to come to hearing and
4 ask for it to be brought into the Ute Dome.

5 Q. And you have agreed to do that?

6 A. Yes.

7 Q. If Section 23 is part of the Ute Dome rules
8 and pool --

9 A. Um-hum.

10 Q. -- then you would have the flexibility to do
11 what?

12 A. We would have more relaxed setbacks, and we
13 would be allowed to drill more than one well.

14 Q. Let's turn to the next map display. The one
15 behind that sheet is substantially in blue color.

16 A. Um-hum.

17 Q. Describe for the Examiner what you're
18 depicting here with this display.

19 A. What I'm trying to show here is
20 ConocoPhillips' leasehold. If you look at Section 23, we
21 have a lease with the Ute Mountain Ute Tribe being 100
22 percent leasehold owner in that section, so it's common
23 ownership.

24 Q. So regardless of how you subdivide that,
25 you're dealing with the same entities and the same

1 percentages?

2 A. Yes.

3 Q. If you'll turn back to the prior display, in
4 terms of notification of parties that might be affected
5 by this application, are there operators associated to
6 Section 23, other than ConocoPhillips/Burlington?

7 A. No, sir.

8 Q. When we look over in Ute Dome, are there other
9 operators besides those two entities?

10 A. Yes, sir. XTO.

11 Q. Apart from XTO, are there any other operators?

12 A. Not that I know of.

13 Q. Have you caused notification to be sent to the
14 BLM and to the tribal regulators?

15 A. Yes.

16 Q. Let's turn to Exhibit Tab 1, if you would,
17 please. Behind Exhibit Tab Number 1, you have subdivided
18 Exhibit 1 and you've separated the different parts of it
19 by colored paper, have you not?

20 A. Yes.

21 Q. When we look at the first documents associated
22 with Exhibit 1, what's enclosed in the first set?

23 A. The application exhibits similar to my locator
24 map and a notice listing.

25 Q. Let's turn past that and look at the first

1 colored page that subdivides Exhibit 1. Turn past that
2 colored sheet and there's a certification of mailing.

3 A. Yes.

4 Q. Do you have that?

5 A. Yes.

6 Q. Have you examined this?

7 A. Yes, I have.

8 Q. To the best of your knowledge, has
9 notification been provided to all the parties entitled to
10 notification?

11 A. Yes.

12 Q. If you turn past the affidavit of notice,
13 that's -- show the Examiner what else you put in the
14 exhibit book. I next find Order R-46-A. Is that what
15 you have?

16 A. Yes.

17 Q. What is this?

18 A. This was the order in '95 that actually
19 divided the Paradox Pool in the Barker Dome into four --
20 basically, four pools.

21 Q. When we turn past that Division order, the
22 next colored page is this pale green, and there's an
23 Order Number R-46-B?

24 A. Um-hum.

25 Q. That's associated with what?

1 A. My understanding is that that helped describe
2 the regular sections and expanded the horizontal -- it
3 expanded the Barker Dome to include other sections and
4 gave a description as to those irregular sections.

5 Q. As part of your examination have you
6 discovered that there is multiple jurisdictional agencies
7 that apply procedures to this area?

8 A. Yes.

9 Q. And as part of that effort to comply with the
10 multiple jurisdictions, in addition to the OCD, you
11 submit documents to the BLM and to the tribal regulators?

12 A. Yes, we have.

13 Q. When we go past R-46-B and look at the next
14 color separator page, what is -- the next exhibit I find
15 is an XTO Order R-12444. Do you find that?

16 A. Yes.

17 Q. What is this?

18 A. This was XTO's -- helped define the Ute Dome
19 and provided them with the flexibility to drill a well
20 plus additional infills in the 640-acre unit with relaxed
21 setbacks.

22 Q. This would be the order, then, you're asking
23 the Division to approve so that Section 23 can be subject
24 to these orders?

25 A. Yes.

1 Q. In part of your research did you find any
2 orders subsequent to Order 12444 --

3 A. No.

4 Q. -- associated with this?

5 A. Just this additional amendment, which I think
6 is --

7 Q. It was a nunc pro tunc order?

8 A. I'm sorry?

9 Q. It was a nunc pro tunc order? BA order?

10 A. Yes.

11 Q. It's just a correction order?

12 A. Yes, just a correction order.

13 Q. Did you find any other Division orders or
14 procedures that you would like to bring to the attention
15 of the Examiner?

16 A. No. These are the only ones that I found
17 relevant.

18 MR. KELLAHIN: Mr. Examiner, that
19 concludes my examination of Ms. Blankenship. We move the
20 introduction of Exhibits 1 and 2.

21 MR. JONES: Exhibits 1 and 2 will be
22 admitted.

23 (Exhibits 1 and 2 were admitted.)

24

25

1 EXAMINATION

2 BY MR. JONES:

3 Q. Do you recall on this R-12444 -- it just says,
4 "Expand" -- the header says, "Expand the horizontal
5 limits and amend special rules and regs for the
6 Dome-Paradox," but they were expanding it in what
7 direction? Were they expanding it back down towards the
8 Barker Dome?

9 A. I'm not sure about that. I can find that out,
10 though.

11 Q. That's okay. I can read it. So, basically,
12 you're looking for something similar to the special rules
13 in the 12444?

14 A. Yes.

15 Q. At least as corrected?

16 A. Um-hum.

17 Q. The undesignated areas in the San Juan Basin
18 are two miles away from the boundary; is that correct?
19 Two miles around the -- in the pool, it's called
20 undesignated around the pool --

21 A. I don't --

22 Q. -- as far as requirements for notice? I guess
23 what I'm getting is the notice requirements -- I should
24 leave this to David -- the notice for contracting and
25 expanding the pool?

1 MR. KELLAHIN: I don't know. I'd have to
2 look it up. I can't remember.

3 MR. JONES: I think undesignated -- San
4 Juan is actually two -- instead of one mile, like it is
5 in the southeast, it's two miles in the northwest. But
6 as far as the notice rules for modifying a pool goes --

7 MR. KELLAHIN: This may be a different
8 creature. What we're looking at is to take a specific
9 section and move it over into the adjoining pool. We've
10 notified everybody that operates within those two areas.

11 MR. JONES: Within those two areas, but
12 not as far as --

13 MR. KELLAHIN: We didn't look to the outer
14 boundaries of the perimeters, the outer margins --

15 MR. JONES: Of the whole pool.

16 MR. KELLAHIN: -- of the whole pool.

17 MR. JONES: Okay.

18 MR. KELLAHIN: That doesn't mean it's
19 different people, but we haven't done it.

20 MR. JONES: Probably be the same --
21 similar people.

22 Q. (By Mr. Jones) But anyway, you're just
23 connected with -- Section 23 is the only section you're
24 concerned with?

25 A. Yes.

1 Q. And, basically, you're concerned with the
2 Northwest Quarter of Section 23?

3 A. Yes.

4 MR. JONES: So it does seem like these
5 pools have kind of grown together, so somebody had to
6 decide whose rules are --

7 MR. KELLAHIN: The history was that
8 initially they were separated on geologic features. In
9 describing the areas for Barker Dome, they're trying to
10 follow that fault line. And you can't draw a straight
11 line across these sections, so they checker-boarded it
12 down.

13 MR. JONES: Okay.

14 MR. KELLAHIN: And, inadvertently, now
15 having drilled the A3 Well, know that Section 23 is
16 substantially in the adjoining structural feature for Ute
17 Dome. And you'll see that with the geologic map. So
18 we're just trying to separate the geologic features to
19 different pools. It wasn't that they grew together.

20 MR. JONES: Okay. So you're going to talk
21 about that probably later.

22 MR. KELLAHIN: Yes, sir.

23 Q. (By Mr. Jones) But you have a lease that
24 covers all of Section 23?

25 A. Um-hum.

1 Q. A Ute Mountain Ute lease?

2 A. Yes.

3 MR. JONES: Is it subject to one of those
4 court cases for the Ute Mountain Utes?

5 MR. KELLAHIN: Yes, it does. The
6 implication is that Judge Parker's federal decision
7 recently with regard to severance taxes, collection of
8 taxes. You can read that to talk about generalized
9 jurisdiction between the tribe, the BLM and the OCD.

10 MR. JONES: Okay. As far as creating a
11 non-standard spacing unit, did Steve actually -- well, I
12 won't ask you what he said. I talked to him. He doesn't
13 have a problem with what you're doing here, so -- but it
14 looks like a non-standard spacing unit. I mean, we do
15 those, but I don't know if there's any other notice
16 issues. I'll turn it over to David.

17 MR. BROOKS: I hadn't picked up on this,
18 but since Mr. Jones has raised the issue, I'll look again
19 at the notice rules. I guess the question that arises
20 is, is this a case of special pool orders? But
21 4.12(A)(4) says, "Special pool orders regulating or
22 affecting a particular pool, if it involves other matters
23 shall notify the Division designated operators in the
24 pool and the Division designated operators within the
25 same formation as the pool and within one mile of the

1 pool's outer boundary." I gather what you did here is
2 just notify the offsets for this particular section; is
3 that correct?

4 MR. KELLAHIN: Yeah. We weren't creating
5 pool rules or amending pool rules. We're just moving a
6 section over, and we notified everybody within a mile of
7 that section.

8 MR. BROOKS: It seems like a reasonable
9 construction to me. I'm not sure if somebody might call
10 this a special pool order or not, but I don't see a
11 problem with everybody that's potentially affected that's
12 been notified.

13 Do you have a copy of Judge Parker's order?

14 MR. KELLAHIN: Yes.

15 MR. BROOKS: We should have a copy. We
16 probably have one somewhere, but I haven't been able to
17 locate it.

18 MR. KELLAHIN: It is 83 pages. You're
19 welcome to have my copy, or I can email it to you.

20 MR. BROOKS: I called the folks at Ute
21 Mountain Utes, and they were going to email it to me.
22 They hadn't done so as of yesterday afternoon, so it
23 probably would be best if you just email it to me if it's
24 easy for you.

25 MR. KELLAHIN: It's easy for me. If you

1 want a hard copy, you can have this one right here.

2 MR. BROOKS: I don't need that.

3 MR. KELLAHIN: It's interesting reading.

4 I misquoted. It's 62 pages. It felt like 83.

5 MR. BROOKS: Federal district judges have
6 too many law clerks that write too long of orders.

7 MR. KELLAHIN: I think that's what was
8 done. It looks like a law clerk did this.

9 MR. BROOKS: If we had law clerks, we
10 would probably write longer orders.

11 MR. KELLAHIN: We would certainly hope
12 not. It's an interesting decision.

13 MR. BROOKS: I have been interested to
14 read it. If it's on the District of New Mexico's
15 Website, I could get it, but I --

16 MR. KELLAHIN: I'll do it.

17 MR. BROOKS: That would be easier, because
18 I don't have to figure out how to find it there.

19 MR. KELLAHIN: Our plan of conduct is that
20 with the transcript of this case and the technical
21 evidence, that we would bundle that up and submit that to
22 the tribe and the BLM. That's our plan.

23 MR. BROOKS: What I have heard would
24 indicate that Taxation & Revenue, of course, controls
25 that case, plans to appeal. And if that's true, I would

1 assume that we would not exceed to Judge Parker's
2 findings, whatever they are, until such time as the
3 appeal is disposed of.

4 MR. KELLAHIN: Historically, when we did
5 these years ago, and when Mr. Alexander and I first came
6 before you to do the 46-A order, there was an
7 accommodation between the tribe and the BLM, where the
8 BLM imposed upon the OCD the use of your hearing process
9 because it was efficient, and it allowed us to do it in
10 that fashion. That's how we did that.

11 MR. BROOKS: I'm aware of that Memorandum
12 of Understanding. It expired several years ago.

13 MR. KELLAHIN: That's right. It's no
14 longer in place. But that was how this was created. We
15 used this process to satisfy their regulatory hearing
16 procedures, which they didn't have at all.

17 MR. BROOKS: Okay. Thank you.

18 Q. (By Mr. Jones) The only other thing is why
19 was this done in '95?

20 A. I wasn't working at the time, so I'm not sure
21 what was behind it.

22 MR. JONES: Sounds good to me.

23 MR. KELLAHIN: Okay.

24

25

1 BILL KOERSCHNER

2 Having been first duly sworn, testified as follows:

3 DIRECT EXAMINATION

4 BY MR. KELLAHIN:

5 Q. Mr. Koerschner, would you please state your
6 name and occupation.

7 A. Bill Koerschner. I'm a petroleum geologist
8 working for ConocoPhillips.

9 Q. Mr. Koerschner, on prior occasions have you
10 testified before the Division?

11 A. Not in New Mexico.

12 Q. Would you summarize for us your education?

13 A. I have a Bachelor of Science degree from
14 Virginia Tech in geology, and a Master's degree, also
15 from Virginia Tech.

16 Q. What years are those?

17 A. 1983 was the Master's degree.

18 Q. How long have you practiced your profession?

19 A. Twenty-seven years.

20 Q. What portion of that has been associated with
21 the geology of the San Juan Basin?

22 A. I've been working on this particular field,
23 the Barker Dome, for three years in the San Juan Basin.

24 Q. Does the geologic work product we're about to
25 see represent your work?

1 A. Yes. I prepared all these maps.

2 MR. KELLAHIN: We tender Mr. Koerschner as
3 an expert in geology.

4 MR. JONES: Mr. Koerschner is qualified as
5 an expert in geology.

6 Q. (By Mr. Kellahin) If you'll turn to the
7 exhibit book and look at Exhibit Tab 3, turn past the
8 divider, and let's look at what is marked "Location Map."
9 Describe for the Examiner what you're depicting here.

10 A. This shows the Barker Dome and Ute Dome as
11 they are relative to Farmington. You can see it's in the
12 far northwest part of the San Juan Basin. The brown line
13 here, going across the middle of the map is the outcrop
14 of the Pictured Cliffs Sandstone, which basically defines
15 the deep -- the main part of the San Juan Basin from the
16 Four Corners platform, which contains Ute Dome and Barker
17 Dome, which are shown in the red ovals.

18 Q. When we turn past the locator map, the next
19 map I have is a structure map on top of the Barker Creek.
20 Do you have that?

21 A. Yes.

22 Q. Why have you chosen to put this type of
23 structure map in the exhibit book?

24 A. The Barker Creek is -- the top Barker Creek
25 pick is very easy to pick, a marker that most everyone --

1 every geologist would pick the same way. It falls in the
2 middle of Paradox productive interval, so it's
3 representative of the structural attitude of that
4 formation. We have -- the map depicts the two structural
5 features, Barker Dome to the northwest, and Ute Dome to
6 the southeast.

7 Q. What separates those two structural features?

8 A. The main feature that I've shown in blue here
9 is a fault that runs along the southeast side of the
10 Barker Dome. Barker Dome is a very asymmetric structure,
11 as we call it, with a gentle northwest side and a very
12 steep southeast side that rolls into that fault.

13 Q. When you look at the well symbols and the
14 color code for the well symbols, what type of wells are
15 you depicting on this structure map?

16 A. This map -- the orange circles represent wells
17 that have been completed in the Pennsylvanian section,
18 which is the Paradox formation. Underneath each of the
19 wells there's a red number that is the subsea depth of
20 the top of the Barker Creek interval.

21 Q. When you look at the subject section, 23, what
22 is your geologic opinion as to the appropriate pool in
23 which to place that entire section?

24 A. As you can see, the fault crosses the far
25 northwest corner of Section 23, so approximately 80

1 percent of this section is lying physically on the Ute
2 Dome structure and not on the Barker Dome structure.

3 Q. Tell us something about the Ute Mountain Ute
4 73 Well in the northwest of 23.

5 A. That is the only well that has been drilled in
6 Section 23 thus far. It is, as Michelle said, drilled by
7 Huntington Energy. They TD'd the well at 2,915 feet, and
8 they attempted to complete it in the Dakota formation.
9 They got a very minor amount of subcommercial production
10 and then attempted to plug the well back to the Niobrara
11 section, which also failed to produce in commercial
12 quantities, so the well is temporarily abandoned.

13 Q. Do you see any technical reason why the
14 northwest quarter of 23 ought to remain in the Barker
15 Dome pools?

16 A. I don't see why it would be logical to put it
17 within Barker Dome, since the section basically,
18 physically, is part of Ute Dome.

19 Q. What is ConocoPhillips' plan for Section 23?
20 What do you want to do?

21 A. We would like to drill two wells -- or I
22 should say up to two wells in the southern half of
23 Section 23. We have been watching the progress of XTO's
24 drilling in Ute Dome, and we are very interested in the
25 favorable results that they have obtained from the Ute

1 Indians' A 39 Well, which you can see is in the northwest
2 quarter of Section 27. And, also, the Ute Indians' A 61
3 Well, which is in the southeast quarter of Section 25,
4 which also is a very good well.

5 Q. When we turn past this structure map, there's
6 an additional structure map. It's on the top of the
7 Greenhorn. What is your reason for putting this
8 structure map in the exhibit book?

9 A. I just wanted to show a structure at a level
10 shallow enough to depict what the Ute Mountain Ute 73
11 Well actually hit, and you can see that these elevations
12 here are -- the Greenhorn, which is just above the Dakota
13 producing horizon, it's another very consistent geologic
14 marker.

15 But you can see that the 73 Well cut the
16 Greenhorn at 3,810 feet. That's actually a depth above
17 sea level because it's so shallow. You can see that that
18 well is very low structurally, basically, off of the
19 Barker Dome structure, which verifies the previous map
20 that this is, indeed, extremely low and that the bulk of
21 the section is in Ute Dome.

22 Q. Have you provided a display for the Examiner
23 that shows how you can compare the Barker Dome to the Ute
24 Dome in terms of these intervals that have different
25 rules applicable to it?

1 A. Yes. Just before we start on that, if you
2 could go back to the previous map of the top of the
3 Barker Creek, you'll notice there's -- up in Section 22
4 in Colorado there's a Ute 16 Well, and there's a little
5 word, "log," next to it. That's one of the wells that I
6 would show. And the other one is down on Ute Dome.
7 There's the Ute Indian 61 Well and the word, "log,"
8 written under that, so just to show you where they are.

9 Q. Do you think these are representative logs for
10 each of the two structures that provide for a comparison?

11 A. Yes, I do.

12 Q. Let's turn to the two well log comparison
13 tabulation. If you'll turn your exhibit book sideways,
14 you can unfold this sheet.

15 MR. JONES: This is nice.

16 Q. Mr. Koerschner, help us understand the display
17 here, and then we'll talk about what it says to us.

18 A. I selected two logs here just to compare the
19 stratigraphy of the two domes. The Ute 16 Well is the
20 type log used in the Barker Dome R-46-A hearing. They
21 referred to that to define the vertical limits of the
22 different pools, so that is the well. The Ute Dome well
23 I selected is a representative well, a typical well, I
24 should say, of the Ute Dome, in my opinion.

25 Q. When we look at the Ute Dome well on this log

1 section, show us the primary producing interval that XTO
2 is accessing in the Ute Dome pool.

3 A. You can see Paradox formation and Ute Dome.
4 It's just one big source of supply, so on the 61 Well,
5 all along the right side here is Paradox formation. That
6 same unit has been split into the four pools you see on
7 the other side of the diagram, which is from the top to
8 the bottom, the Ismay, the Desert Creek, the Akah/Upper
9 Barker Creek. And the Paradox vertical limits were
10 shrunk in that order down to just include the Lower
11 Barker Creek Alkali Gulch interval.

12 Q. So when we look at the Ute Dome log and where
13 XTO is accessing the Paradox, where is that interval?

14 A. They will perforate, basically, any limestone
15 layer anywhere within that interval, and it's all
16 commingled as one source of supply. So they don't make
17 any attempt to split that out.

18 Q. When we look over in the other pool in Barker
19 Dome, and looking down in the lower Paradox, which is the
20 640 pool, make a comparison between the production in
21 Barker Dome versus Ute Dome.

22 A. The principal difference between the two pools
23 in terms of the way they behave is if you look in the
24 bottom of the diagram, the Lower Barker Creek Alkali
25 Gulch interval, you can see in Ute Dome within the lower

1 Barker Creek -- I've seen dolomite pay. That thing is --
2 layer is 10 feet thick an average in Ute Dome. In Barker
3 Dome it's about 30 to 40 feet thick, 40 feet thick in
4 this particular well.

5 The zone, the Lower Barker Creek, produced 230
6 BCF in Barker Dome, and nearly all of the wells cut so
7 much water that they were shut off. Many of them have
8 been plugged or plugged back to shallower horizons. So
9 we only have three producing wells left out of the
10 original -- something like 18.

11 So the reason, in my opinion, that this zone
12 can still be completed in Ute Dome is that with the 10
13 feet and not very good quality reservoir, if it makes a
14 little water, it's not going to kill the well. Whereas
15 in Barker Dome we get tests of 400 barrels of water a
16 day.

17 Q. Is there any doubt in your mind that you're
18 dealing with separate geologic systems when you compare
19 the Barker Dome with the Ute Dome?

20 A. I guess it really comes down to the production
21 problem. Until we can come up with a method of producing
22 gas with 400 barrels of water a day, then we cannot
23 commingle that lower Paradox interval, the Lower Barker
24 Creek Alkali Gulch, with the rest of the formations as
25 they do in Ute Dome, or we'll just kill all of our wells.

1 Q. Do you see any evidence of communication
2 between the two geologic systems?

3 A. I think the fault separates the two domes
4 pretty clearly. So if you're on one side, you're in Ute
5 Dome in the southeast side of the fault. If you're on
6 the northwest side of the fault, you're in Barker Dome.
7 It's pretty much as simple as that.

8 MR. KELLAHIN: Mr. Examiner, that
9 concludes my examination of Mr. Koerschner. We move the
10 introduction of his exhibits behind Exhibit Tab Number 3.

11 MR. JONES: Exhibit Tab 3 exhibits will be
12 admitted.

13 (Exhibit 3 was admitted.)

14 EXAMINATION

15 BY MR. JONES:

16 Q. So this fault -- the structure, I kind of
17 notice that it drops off a little bit before the fault.
18 Did the fault cause the structure or did the structure
19 cause the fault, or --

20 A. Well, they are linked. I mean, when you
21 squeeze the geologic section here, then Barker Dome, I
22 think, popped up as a -- almost like a trap door. So
23 it's gentle on one side, and then it breaks over steeply
24 into that fault. The fault is nearly vertical as near as
25 we can tell.

1 Q. Is this Appalachian age stuff that pushed up
2 Barker Dome on the southeast side, or -- it's
3 Pennsylvanian-age, obviously, but is it --

4 A. Some of the articles you read, the published
5 stuff, said that there may be an earlier phase of
6 movement here that, basically, sets off the edge of the
7 Four Corners platform.

8 Q. It was not a common mountain-building epoch
9 that happened here? It was just an up-lift that
10 happened?

11 A. Yeah. A lot of these features have a long
12 history, particularly something that's -- if you're
13 familiar with the Hogback Fault that runs along the side
14 of the San Juan Basin -- that may have had movements very
15 early on, like following a basement feature, something in
16 the granite. As you go on, each time there's a
17 mountain-building event, this thing is a weak zone and
18 moves some more.

19 Q. Okay. I don't know -- I guess I'm asking
20 questions here about the Pennsylvanian, because I don't
21 know anything about the Pennsylvanian in the San Juan
22 Basin, and you're here and I thought I'd ask you some
23 questions. It doesn't seem to be any good as you go
24 southeast into the basin; is that correct?

25 A. I don't think we can conclude that yet.

1 Q. Okay. I'm going to give up.

2 A. I would love to drill a bunch of Wildcat wells
3 and find more gas reserves in the San Juan Basin, but
4 that requires drilling some very expensive wells.

5 MR. JONES: Deep wells?

6 A. Yeah, 13,000-foot wells.

7 Q. Okay. It must be because of the rock
8 formations they're drilling through, because they drill
9 13,000-foot wells in other places all the time. But as
10 far as what controls the production here, is it structure
11 or is it stratigraphic traps?

12 A. Primarily this is a structural trap.
13 Particularly the main reservoir, that Lower Barker Creek
14 Alkali Gulch, it's an anaclime with a very uniform
15 gas/water contact that wraps around it. There are some
16 stratigraphic changes, but they don't affect that
17 reservoir. It seems to be pretty sheet-like over the
18 whole area, one of the shallower sections.

19 Q. So is the Ute Dome -- if you put all those
20 intervals together, is it as good as the Barker Dome, or
21 has the Barker Dome always been better; is that correct?

22 A. The Barker Dome has always been better. The
23 230 BCF from just that one reservoir. The whole thing
24 has produced 270 BCF. The Ute Dome is about 115 -- well,
25 not including some of the recent drilling, but 115 is

1 what they said it had produced at the last hearing,
2 changed the spacing.

3 Q. It's all sourced from the same -- is this sand
4 shale stuff here or is it limestone?

5 A. Primarily it's limestone with the dolomite
6 layers in there, which are the real primary high-perm
7 reservoirs. The sandstones become interbedded with it
8 when you go up into the top of the Paradox into the
9 overlying Honnacker Trail formation. That has
10 sandstones.

11 Q. So you go above the Paradox, you get some
12 sands before the Permian Age stuff comes in?

13 A. The higher up you go, the more sandy it gets,
14 until eventually it's all sand shale.

15 Q. Okay. Cretaceous Dakota, and all of a sudden
16 you're down in the Pennsylvanian, so you've got a big
17 section missing.

18 A. There's a lot of section in between there of
19 the Chinle, the Bluff Entrada. The Cutler is a big part
20 of it. All these are big, thick sections of sand and
21 shale --

22 Q. Okay.

23 A. -- non-productive in most places.

24 Q. Is that Entrada there a good water disposal?

25 A. Yes. That's the disposal well for this area.

1 Really, we dispose of water from both Ute Dome and Barker
2 Dome into our disposal well, and it's located at the top
3 of this map. There's a slightly different symbol.

4 There's Barker E 1, and there's a little injector there.
5 That's the disposal well into the Bluff Entrada section.

6 Q. This Barker Creek, which is, I guess, Lower
7 Paradox, you said that it -- it sounded kind of like you
8 would like to complete it, but the water production kind
9 of would make you turn into a centralizing company or a --
10 pump a lot of water and dispose of a lot of water; is
11 that correct?

12 A. That's correct. ConocoPhillips and its
13 predecessor companies in this field have been fighting
14 this battle since 1953, when the first well watered out.
15 And, you know, generations of engineers have been trying
16 to figure how to produce a sour gas reservoir, you know,
17 how do you pump water in that kind of conditions and how
18 do you make it economic.

19 Q. So it's real corrosive?

20 A. Oh, yeah. 15 percent CO2 and 1.5 percent H2S.

21 Q. Is that dome up in Colorado that produces all
22 the CO2, is that Paradox?

23 A. I think that comes out of the Mississippian.
24 I really don't know. It's McElmo Creek.

25 Q. I remember when I was in the oil patch, we

1 drilled in Utah, and we hit all CO2. It was all CO2.

2 But you think that there's good gas pay in this Lower
3 Paradox if you could handle the water and the corrosion?

4 A. I think if we can solve the production
5 problem, I think there's probably more gas to be had. It
6 appears that there's -- there is remaining reserves. We
7 have reservoir pressure of about 1,600 pounds still.

8 Q. You can calculate those on the log. Even
9 though you've got lots of water, you've still got a gas
10 saturation that you're not able to recover?

11 A. You can't really see the water on the logs,
12 but it comes out of the well. We're thinking maybe the
13 fractures are wet.

14 Q. Okay. But does it automatically shut off when
15 you get above the Lower Barker Creek, the water?

16 A. The other zones don't produce water. Just
17 that one.

18 Q. So is that water lower salinity water, or is
19 it a hydrodynamic component to it?

20 A. No, it's not. It's real salty water. I want
21 to say 65,000.

22 Q. Salty. Okay. So you think this is all one
23 common source of supply, to use OCD's terminology here?

24 A. What do you mean? The Paradox?

25 Q. The whole Paradox.

1 A. Well, I'd have to say that we're not here to
2 discuss whether the pools are appropriate or not. They
3 have been accepted as the -- appropriate for those two
4 fields. We're just trying to move acreage around.

5 Q. Okay. In that fault location, has it changed
6 with different interpretations over the years?

7 A. Pretty much stays right there.

8 Q. The fault doesn't move. That well that was
9 drilled to the Dakota, did it seat the fault? I notice
10 you've got it mapped right on top of the fault.

11 A. The fault does not extend up to the Greenhorn
12 level as near as we can tell. It dies out and then you
13 just have the fold over it.

14 Q. So it's ancient fault structures.

15 A. Certainly it does not reach the surface,
16 because we have surface geologic maps that do not show
17 the fault there.

18 Q. And you want up to two wells in the south half
19 of Section 23, but it looks like if you drilled in the
20 Northeast Quarter, you might be okay, too? Or you're
21 just going to work your way north?

22 A. I guess we'll find out if we ever get a well
23 drilled.

24 MR. JONES: Okay. That's all my
25 questions.

1 MR. BROOKS: I have nothing.

2 MR. JONES: Thanks very much.

3 MR. KELLAHIN: Mr. Examiner, our last
4 witness is Mr. Mark Bickley. He's a petroleum engineer.

5 MARK BICKLEY

6 Having been first duly sworn, testified as follows:

7 DIRECT EXAMINATION

8 BY MR. KELLAHIN:

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

11 A. Mark Bickley, engineer.

12 Q. On prior occasions have you testified before
13 the Division?

14 A. No.

15 Q. Summarize for us your education.

16 A. Bachelor of Science degree in petroleum
17 engineering in 1979.

18 Q. What are your current responsibilities for
19 ConocoPhillips?

20 A. Reservoir engineering for Barker Dome.

21 Q. Have you looked at the production associated
22 with certain of the Ute Dome wells that are operated by
23 XTO?

24 A. Yes, I have.

25 Q. Based upon your engineering perspective, do

1 you see any reason not to put a Section 23 in the same
2 pool as -- in the Ute Dome as the XTO wells?

3 A. No, I do not.

4 Q. Have you prepared some plots of production
5 associated with the XTO wells in the Ute Dome Pool?

6 A. I have.

7 Q. Let's turn to Exhibit Number 4. Does this
8 represent your work?

9 A. Yes.

10 MR. KELLAHIN: Mr. Examiner, at this time
11 we tender Mr. Bickley as an expert in petroleum
12 engineering.

13 MR. JONES: Mr. Bickley is qualified as an
14 expert in petroleum engineering.

15 Q. (By Mr. Kellahin) We need to help the
16 Examiner find the two wells shown on the display for
17 Exhibit Number 4. If you'll turn back to Mr.
18 Koerschner's structure map -- I guess we could look at
19 the Barker Creek structure map. If you'll turn back to
20 Exhibit Tab 3, and if you'll look on that map, if you go
21 to Section 25, and if you look in the Southeast Quarter
22 of 25, you can find the first well, which is the A 61
23 Well?

24 A. That's correct.

25 Q. If you look at the last well on your exhibit,

1 which is the Ute Indian A 39 Well, on Mr. Koerschner's
2 map, that's going to be in Section 27, and here you're up
3 in the Northeast Quarter section?

4 A. That's right.

5 Q. Let's go back to your display here. Tell us
6 what you have depicted on the upper portion of Exhibit
7 Number 4? What are you showing?

8 A. In the upper left corner, it's just an index
9 map with a red square being Section 23, and the circle
10 being the well that has production plotted in the graph.
11 This well was completed only in the Alkali Gulch.

12 Q. When you look at the Alkali Gulch and the
13 production associated with this well, what does it tell
14 you as an engineer?

15 A. It tells me this is an economically-successful
16 well.

17 Q. Do you have an initial potential on this XTO
18 well? What did it originally test for?

19 A. 5.1 million.

20 Q. When we look at the bottom portion of the
21 display, at the Ute Indian A 39 Well, what was the
22 initial potential on that well? Do you have that
23 information?

24 A. It was 2.2 million cubic feet per day.

25 Q. And what are your general engineering

1 conclusions about the Ute Indian A 39 Well?

2 A. It's the same. It's an economically
3 successful well.

4 Q. From an engineering perspective, then, what
5 would you like the Examiner to allow ConocoPhillips to do
6 for wells to be drilled in Section 23?

7 A. We want to drill in Section 23 with the same
8 setbacks in similar wells per section.

9 Q. Do you think there's a reasonable opportunity
10 for ConocoPhillips to obtain additional production
11 associated with that section?

12 A. Yes.

13 MR. KELLAHIN: Mr. Examiner, that
14 concludes my examination of Mr. Bickley. We move the
15 introduction of Exhibit Number 4.

16 MR. JONES: Exhibit Number 4 will be
17 admitted.

18 (Exhibit 4 was admitted.)

19 EXAMINATION

20 BY MR. JONES:

21 Q. What's your schedule on when you want to start
22 drilling, when you want to get your APD? You said this
23 is a Ute Mountain Ute lease, so you have to get approval
24 through them, I guess?

25 A. I think we set out to stake the well, but

1 couldn't stake the well because we didn't have 640 acres.

2 Q. So, basically, you've already gotten
3 approved -- you don't have an approved APD through OCD
4 yet, though, obviously --

5 A. No.

6 Q. -- because of the spacing problem?

7 A. We haven't staked the well.

8 Q. But you want to drill next year?

9 A. As soon as possible.

10 Q. As soon as possible. I'll try to get this out
11 as soon as possible, I guess. Well, do you see the same
12 thing -- you see the lower zone as having water and the
13 upper zone and -- so how do you complete these wells? Is
14 it a couple of different frac jobs, or --

15 A. We haven't done the work on that yet.

16 Q. I mean, how would you complete all these
17 zones? You log them, you look at their -- see what zones
18 you want to perf and complete, and then most likely you
19 might want to hit something on each one of these
20 intervals?

21 A. Perforate and test separately the ones that
22 looked good.

23 Q. So you're of interest to know what each zone
24 is producing --

25 A. Yes.

1 Q. -- or can potentially?

2 A. Yes.

3 Q. How deep is this going to be?

4 A. About 9,000.

5 Q. Okay. So that Huntington well was very
6 shallow.

7 A. Probably between 3 and 4,000, yes.

8 Q. Okay. How are rigs nowadays? Is it easier to
9 get rigs?

10 A. I think so. We don't have very many
11 operating.

12 Q. How's your budget? All right?

13 A. I don't know.

14 Q. Do you do the economics for these wells?

15 A. Yes. I will.

16 Q. So you get it all together and submit it to
17 management, and they tell you where the money is going to
18 be allocated?

19 A. Right.

20 Q. 9,000-foot wells -- you got enough water
21 disposal capability, you think?

22 A. Yes. I think they'd be about a million and
23 half a well for drilling.

24 Q. Everybody in that section will share in that
25 well, I guess, if it becomes a 640-acre spacing for the

1 all zones. So, in your opinion, this is a better thing
2 to do, rather than just -- it's kind of a nightmare for
3 the land people, it seems to me like.

4 A. Yes.

5 Q. As far as engineering-wise, it's about the
6 same as you would do otherwise?

7 A. Right.

8 MR. JONES: Okay. I don't have anymore
9 questions.

10 MR. BROOKS: Nothing.

11 MR. JONES: Thank you very much.

12 MR. KELLAHIN: Thank you. Mr. Examiner,
13 that concludes our presentation.

14 MR. JONES: Thanks. We'll take Case 14394
15 under advisement. And that being the last case in this
16 docket, the docket is closed. Thank you.

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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

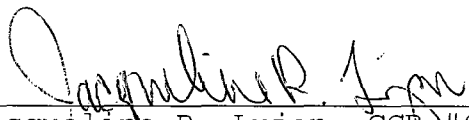
REPORTER'S CERTIFICATE

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I, JACQUELINE R. LUJAN, New Mexico CCR #91, DO
HEREBY CERTIFY that on October 29, 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 10th day of November,
2009.


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