		Page 2
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7	INDEX	
8		
9	KENLEY HAYWOOD McQUEEN, JR. Direct by Ms. Munds-Dry	07
10	Cross by Mr. Bruce	18
11	EXHIBITS	
12	EXHIBITS 1 - 6 ADMITTED	17
13	EXHIBITS A - O ADMITTED UNDER SEAL	17
14		
15		
16		
17		
18		
19		
20		
21		
22		•
23		
24		
25		

- 1 (Note: The public volume of the above-captioned proceeding
- 2 commenced as follows:)
- 3 EXAMINER BROOKS: Very good. At this time we will
- 4 call Case Number 14663, application of Williams Production
- 5 Company LLC for an exception to the special rules and
- 6 regulations for the Basin Mancos Pool for increased well
- 7 density in the Rosa Unit, San Juan and Rio Arriba Counties,
- 8 New Mexico. Call for appearances.
- 9 MS. MUNDS-DRY: Good morning, Mr. Examiners. Ocean
- 10 Munds-Dry with the law firm of Holland and Hart, LLP,
- 11 representing Williams Production Company LLC. I have one
- 12 witness, and then I have a procedural matter to address.
- EXAMINER BROOKS: Okay. Mr. Bruce?
- 14 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe
- 15 representing San Juan Basin Resources LLC. I have no
- 16 witnesses.
- 17 EXAMINER BROOKS: Very good. You may proceed with
- 18 your procedural issue.
- 19 MS. MUNDS-DRY: Thank you, Mr. Brooks. As I
- 20 notified you earlier this week -- and Mr. Bruce wasn't aware.
- 21 He hadn't entered an appearance when we had that discussion,
- 22 but I talked to Mr. Bruce -- a great portion of what we plan
- 23 to present to you in our testimony and evidence today is
- 24 considered highly proprietary and confidential by Williams so
- 25 that we would ask -- and, you know, I don't have any

- 1 particular preference, other than portions of the proceeding
- 2 today we would ask to be held confidential, both the
- 3 testimony and exhibits we plan to present.
- I have talked to Mr. Bruce, and I have provided him
- 5 a copy of the non-confidential exhibits. Unfortunately they
- 6 are sort of interspersed with -- our presentation had some
- 7 not confidential exhibits and some that are. I think it
- 8 would be cleaner if the entire hearing would -- would be held
- 9 confidential, and it might be easier that way, but certainly
- 10 if Mr. Bruce wants to be present for the non-confidential
- 11 public portions of it, we certainly wouldn't have any
- 12 objection to that other than he might be having to come in
- 13 and out of the proceeding.
- I took the liberty of drafting a confidentiality
- 15 order, which I can submit to you, but I don't know if Mr.
- 16 Bruce, if he has some thoughts on how to proceed and how you
- 17 wanted to do that, Mr. Bruce.
- 18 EXAMINER BROOKS: Mr. Bruce?
- 19 MR. BRUCE: And I told Ms. Munds-Dry that I would --
- 20 you know, if Williams needed to keep certain exhibits
- 21 confidential, we had no objection to that.
- 22 EXAMINER BROOKS: Okay. Ordinarily I would think
- 23 the attorneys who would be parties -- who would be involved
- in the presentation of the case would be entitled to see any
- 25 confidential exhibits that would be admitted into evidence,

- 1 even though they were admitted under seal. It may be, in the
- 2 case of direct competitors, that we would direct that they
- 3 not disclose those matters to their clients without prior
- 4 consultation with the attorneys who are the attorneys for the
- 5 moving party, but I don't really see how we can exclude the
- 6 attorneys participating in the case from any evidence that's
- 7 presented, unless of course they agreed to it.
- 8 MR. BRUCE: I would like to stay here, but probably
- 9 my ability to reproduce anything Mr. McQueen is going to
- 10 testify about in a confidential aspect is probably close to
- 11 zero.
- MS. MUNDS-DRY: I don't think we have any objection
- 13 to allowing Mr. Bruce to see it with the understanding he
- 14 wouldn't share with their client. I don't know how much it
- 15 helps him.
- 16 EXAMINER BROOKS: I would think that would be the
- 17 appropriate procedure, that he would be entitled to see it,
- 18 but he would only be entitled, however, to share it with his
- 19 clients after appropriate consultation.
- MR. BRUCE: I have no objection.
- 21 EXAMINER BROOKS: So you may need to modify the
- 22 order which you have -- you have prepared. However, I
- 23 suppose we can do that at the conclusion of the case.
- 24 MR. BRUCE: I will agree to give these exhibits back
- 25 at the end of the --

- 1 EXAMINER BROOKS: Very good. And we need -- we will
- 2 need to ask you to step out because it's confidential in
- 3 nature.
- 4 MS. MUNDS-DRY: There was a similar order I prepared
- 5 in another hearing where we have similar language with
- 6 sharing with just the attorneys, but I will have to modify
- 7 that.
- 8 EXAMINER BROOKS: So we have everybody identified.
- 9 And, of course, the court reporter necessarily is included in
- 10 anything that is presented.
- MS. MUNDS-DRY: I think with that, Mr. Brooks, we
- 12 may proceed with the understanding that we are holding this
- 13 proceeding as confidential.
- 14 EXAMINER BROOKS: Okay. If you would please
- 15 designate which exhibits are to be filed under seal, and the
- 16 court reporter will take appropriate -- you are requesting
- 17 that all of the testimony be --
- 18 MS. MUNDS-DRY: The testimony as it relates to the
- 19 confidential exhibits marked as -- and what we can do is, as
- 20 we go through exhibits, I believe on each exhibit we have
- 21 noted they are proprietary and confidential, so when we get
- 22 to that exhibit, I can make a note of that and ask at that
- 23 time that that portion of the testimony be considered
- 24 confidential.
- 25 EXAMINER BROOKS: And please specify to the court

- 1 reporter that, "Beginning at this point this will be
- 2 considered confidential" -- not beginning now, but, when you
- 3 are ready to state that something is confidential, please so
- 4 state so the court reporter can prepare a public transcript
- 5 and a separate sealed transcript with the portions of it
- 6 confidential.
- 7 MS. MUNDS-DRY: Thank you, Mr. Brooks.
- 8 EXAMINER BROOKS: You may proceed.
- 9 KENLEY HAYWOOD McQUEEN, JUNIOR
- 10 (Previously sworn, testified as follows:)
- 11 DIRECT EXAMINATION
- 12 BY MS. MUNDS-DRY:
- Q. Would you please state your full name for the
- 14 record?
- 15 A. Kenley Haywood McQueen, Junior.
- 16 Q. Mr. McQueen, where do you reside?
- 17 A. I reside in Tulsa, Oklahoma.
- 18 Q. By whom are you employed?
- 19 A. I'm employed by Williams.
- Q. What do you do for Williams?
- 21 A. I'm the director of the San Juan Asset Team.
- 22 Q. And were your credentials -- you testified before
- 23 the Division, and were your credentials accepted as a matter
- 24 of record at that time?
- 25 A. I have, and they were.

- 1 Q. Are you familiar with the application that has been
- 2 filed by Williams in this case?
- 3 A. I am.
- 4 Q. And have you made an engineering study of the land
- 5 subject to this application and are you familiar with the
- 6 status of the land?
- 7 A. I have, and I am.
- MS. MUNDS-DRY: We tender Mr. McQueen as an expert
- 9 in petroleum engineering.
- MR. BRUCE: No objection.
- 11 EXAMINER BROOKS: He is so qualified.
- Q. Mr. McQueen, if you could first for the Examiners
- 13 briefly summarize what Williams seeks in this application.
- 14 A. Williams is seeking an exception to the special
- 15 rules and regulations for the Basin Mancos Gas Pool to
- 16 increase the well density from four to eight Mancos wells per
- 17 320 spacing unit in the Rosa Unit.
- 18 Q. Thank you. And if you could turn to what's been
- 19 marked as Williams Exhibit Number 1 and identify it for the
- 20 Examiners.
- 21 A. The Rosa Unit sits in portions of the San Juan and
- 22 Rio Arriba County. The Rosa Unit itself is approximately
- 23 54,200 acres in size and is shown on this exhibit with the
- 24 red boundary. The Mancos participating area is shown in the
- 25 brown color on the left or west side of the exhibit.

- Q. And if you could review for the Examiners what rules
- govern the development of this pool.
- 3 A. This pool is spaced on 320 acres with up to four
- 4 wells per spacing unit, and with the requirement that wells
- 5 are drilled no closer than 660 feet to the outer boundary of
- 6 the unit for uncommitted lands, and no closer than ten feet
- 7 to any interior quarter quarter line or subdivision inner
- 8 boundary.
- 9 Q. And is Williams pre-approved to have non-standard
- 10 locations in the Rosa Unit in all the producing formations in
- 11 the unit?
- 12 A. Yes. We are pre-approved through case Number 14335.
- 13 That was Order Number R-13200-A. Williams, in that case, was
- 14 granted pre-approval.
- Q. And is Williams Exhibit Number 2 the notice packet
- 16 which includes all the information showing that proper notice
- 17 was given of this application?
- 18 A. That's correct.
- 19 MS. MUNDS-DRY: And, Mr. Examiner, when we were
- 20 reviewing this notice last, it came to our attention
- 21 yesterday that there were three parties that should have been
- 22 notified and that were not. So at the conclusion of this
- 23 hearing we will ask that this matter be continued for four
- 24 weeks while we give that additional notice.
- 25 EXAMINER BROOKS: Very good.

- MS. MUNDS-DRY: Just wanted to apprise you of that.
- Q. If you could then, Mr. McQueen, before we go there,
- 3 who did Williams notify of this application, understanding
- 4 that there were a few parties that were missed?
- 5 A. We notified all interest owners and all offset
- 6 operators. Actually the offset operators we did notify would
- 7 have been Devon, Energen, Conoco-Phillips, and additionally
- 8 we notified the State Land Office and Bureau of Land
- 9 Management.
- 10 Q. Did you meet with BLM and the Forest Service
- 11 regarding this application?
- 12 A. We did. We met with the BLM in Farmington on June
- 13 23. We apprised the Forest Service of our application on a
- 14 phone conference call on June 28.
- Q. Did you meet with the OCD Aztec office about this
- 16 application?
- 17 A. Yes. We also met with the OCD Aztec office on June
- 18 23, and I had a follow-up phone call with Ms. Primo on
- 19 July 1.
- 20 Q. And has Williams received any objection to this
- 21 application?
- 22 A. We have received no objections.
- Q. Thank you. Let's turn to what's been marked as
- 24 Williams Number 3, which should be your next slide. If you
- 25 could identify this for the Examiners.

Basically this is the stratigraphic column that's 1 Α. 2 present in the San Juan Basin, in particular in the Rosa 3 Unit. And there are a number of productive gas zones within this stratigraphics column. Some of those are productive 5 from coal bed methane gas, some of those are productive from 6 tight gas sands, and some of those are productive from shales. Our interest today is in discussing in particular 8 the Mancos Shale which basically sits below the base of the 9 10 Mesa Verde and extends to the top of the Dakota and also includes the Greenhorn Formation. In Rosa it's approximately 11 1800 feet thick. 12 MS. MUNDS-DRY: And, for the record, Williams 13 Exhibit Number A and the following testimony should be 14 considered confidential. 15 16 17 (Williams Exhibit A, direct examination and associated testimony are considered confidential 18 and under separate cover and seal.) 19 20 MS. MUNDS-DRY: For the record, the testimony 21 related to the next exhibit, Exhibit B, shall be 22 confidential. 23 24 25 (Williams Exhibit B, direct examination and

- 1 associated testimony are considered confidential
- and under separate cover and seal.)

- 4 Q. (By Ms. Munds-Dry) Thank you, Mr. McQueen. Let's
- 5 turn to Williams Exhibit Number 4. If you could explain to
- 6 the Examiners what this shows.
- 7 A. I did want to show the Examiners where we had done
- 8 our science work. Basically in 2008 we drilled these four
- 9 vertical wells in West Rosa. In 2010, the green circles in
- 10 East Rosa in 31-4 were drilled. We are currently completing
- 11 those wells today, and, as I mentioned earlier, plan to have
- 12 all of the completions in the Mancos here concluded before
- 13 the forest closure on November 1.
- 14 And in addition to these four science wells we
- 15 drilled in 2010, we also drilled our first two horizontal
- 16 wells from these locations here in West Rosa. And the bulk
- 17 of subsequent testimony here today will be related to what we
- 18 have learned from those two horizontal wells and how we
- 19 believe we should discuss increased density on a go-forth
- 20 basis.
- Q. And what is Williams Exhibit Number 5?
- 22 A. I just wanted to demonstrate that, in addition to
- 23 the science wells, there has been numerous Mancos
- 24 penetrations over the years here in Rosa. In fact, all of
- 25 those wells that have been penetrated in the Mancos are shown

- 1 here in the magenta circles. Basically any well that is
- 2 drilled to the Dakota will see the Mancos interval. The
- 3 reason that we've done a lot of science work is most of these
- 4 wells that were drilled to Dakota were air drilled, and so we
- 5 didn't have the mud in the hole to run the proper logs that
- 6 we needed to gather the data necessary to properly analyze
- 7 the interval.
- 8 MS. MUNDS-DRY: I am going to request that the
- 9 testimony related to the next exhibit, Exhibit C, be
- 10 considered confidential.

- 12 (Williams Exhibit C, direct examination and
- associated testimony are considered confidential
- and under separate cover and seal.)

15

- 16 MS. MUNDS-DRY: And Williams requests that Exhibit D
- 17 and related testimony also be considered confidential.

18

- 19 (Williams Exhibit D, direct examination and
- 20 associated testimony are considered confidential
- and under separate cover and seal.)

22

- 23 MS. MUNDS-DRY: And Exhibit E should also be
- 24 considered confidential, as well as the testimony.

- 1 (Williams Exhibit E, direct examination and
 2 associated testimony are considered confidential
- and under separate cover and seal.)

- 9 Q. (By Ms. Munds-Dry) And what is Williams Exhibit
- 6 Number 6?
- 7 A. There is a SPE paper that's available, it's 119890,
- 8 and it was published a few years ago, but it's an excellent
- 9 paper on understanding microseismic interpretation in shale
- 10 reservoirs, which is different than interpretation in
- 11 conventional reservoirs.
- And what this paper does is develop a concept of SRV
- or stimulated reservoir volume, and of course a component of
- 14 volume is area, and the paper presents how -- or presents an
- 15 approach which we have utilized in determining SRA, or
- 16 stimulated reservoir area, and this is what we are using to
- 17 base our conclusion for increased density on.
- But I would -- I pulled some excerpts from the paper
- 19 very briefly just so that everyone would understand what
- 20 microseismic is. And microseismic events are mainly created
- 21 as a result of sheer slippages around the hydraulic
- 22 fractures. And the mechanism included sheer slippages
- 23 induced by altered stresses near the tip of the fractures, as
- 24 well as sheer slippages related to leak off induced pore
- 25 pressure changes. So there is two types of sheer slippages

- 1 that we can see the results of when we measure microseismic.
- 2 So basically what this microseismic does for us is
- 3 it records amplitude events that are observed in the
- 4 subsurface during the stimulation of the well. And
- 5 microseisms or microseismic events can be thought of as mini
- 6 earthquakes that are taking place as the stimulation is
- 7 conducted.
- 8 Q. Before we turn to our next exhibit, Mr. McQueen, I
- 9 know Mr. Jones and Mr. Brooks are smarter than me, but if you
- 10 could explain why microseismic -- and I know you began to go
- 11 there -- is the best tool to determine density in this
- 12 formation.
- 13 EXAMINER BROOKS: You should have pointed that to
- 14 Mr. Jones. We share the same perspective on things, but
- 15 these technical matters would be more understandable to our
- 16 Technical Examiner.
- 17 A. Well, there is a number of analyses that are
- 18 available to reservoir engineers to determine reservoir
- 19 drainage. Those approaches are actually more complicated in
- 20 shales than what they are in conventional reservoirs, and
- 21 most of those require determination after some time of
- 22 production.
- The advantage of the microseismic is we can see what
- 24 is being stimulated downhole at the time we do the
- 25 stimulation, and from that we can actually calculate

- 1 stimulated reservoir volume at the time the well is
- 2 stimulated rather than having to wait some months, or,
- 3 probably in the case of shales where we are dealing with
- 4 nanodarcy permeability, years to see pressure transients move
- 5 across the reservoir.
- It's really a mechanism to give us a very early look
- 7 into what's going on at the reservoirs so that we can plan
- 8 appropriately at that point rather than having to wait to
- 9 sometime in the future for conducting other types of
- 10 analyses.
- MS. MUNDS-DRY: Thank you. And for the record, the
- 12 following exhibit and related testimony should be considered
- 13 confidential.

- 15 (Williams Exhibit F, direct examination and
- 16 associated testimony are considered confidential
- and under separate cover and seal.)

18

- 19 MS. MUNDS-DRY: For the record, the remaining
- 20 exhibits and testimony should be considered confidential, so
- 21 I don't have to interrupt each time.
- 22 EXAMINER BROOKS: Okay. Before we proceed further,
- 23 I think the time has come that we need to take our lunch
- 24 recess so we will stand in recess here until 1:30.

- 1 MS. MUNDS-DRY: Thank you, and I have nothing
- 2 further for Mr. McQueen. I pass the witness.
- 3 EXAMINER BROOKS: Mr. Bruce?
- 4 CROSS-EXAMINATION
- 5 BY MR. BRUCE:
- 6 Q. Mr. McQueen, I haven't been involved in this
- 7 reservoir before. It is a gas reservoir?
- 8 A. Yes. Dry gas.
- 9 Q. Dry gas. That was my next question.
- 10 A. In Rosa. The Mancos is productive with liquids. As
- 11 you get towards the edge of the basin and as the Mancos
- 12 interval becomes shallower, there are liquids that are
- 13 seemingly produced from the Mancos.
- 14 Q. But in this area --
- 15 A. It's dry, yes.
- 16 Q. And obviously from -- from the prior case, at least
- 17 at this point, Williams believes that east-west laterals are
- 18 the best way to develop at this point?
- 19 A. Yes.
- 20 Q. In looking at your Exhibit 3 -- and I will try to
- 21 restrain my curiosity too much on the double-secret exhibits,
- 22 but -- which is just your stratigraphic section.
- 23 A. Uh-huh.
- Q. At this point what you are looking at is the lower
- 25 Mancos has the better productive capabilities at this

- 1 point?
- 2 A. That's what we have seen to date. But based on our
- 3 cluster analysis, the two other zones calculate to have a lot
- 4 of gas in place and are viable targets. One of those would
- 5 be the red-green, which is above where we're at. The other
- 6 would be the cyan, which is below where we are at.
- 7 Q. But probably your initial wells will -- will
- 8 initially develop what you had called the black-brown and
- 9 olive?
- 10 A. The black-brown and the olive. That's correct.
- 11 Q. And what I'm getting up to there is, I think I
- 12 understand what you are saying, but what you are asking for
- is eight wells. What you are looking for is -- I don't even
- 14 know if I can describe it adequately -- what you are looking
- 15 at is several laterals proceeding from each well?
- 16 A. Yes.
- 17 Q. Three to four -- two to three to four, depending on
- 18 the results you get?
- 19 A. Yes. And it will actually be double that amount
- 20 because we plan to go both directions from the common pad.
- 21 Q. Okay.
- 22 A. We are actually in the final throes of contract
- 23 negotiations to build a purpose-built rig for this project.
- 24 And the rig has -- has a walking capability which means it
- 25 moves itself on a drilling pad. And so our plan, our reason

- 1 for incorporating that capability is this rig will be able to
- 2 walk itself from one wellhead to the next wellhead to the
- 3 next wellhead without rigging down or without moving pipe
- 4 from the derrick.
- 5 So our surface locations, we plan to put these
- 6 wellheads somewhere between 7 and a half feet and 15 feet
- 7 apart in a row, and then drill the wells directionally and
- 8 then into the horizontal lateral from that point. Again, all
- 9 directed at minimizing surface disturbances and surface
- 10 impacts.
- 11 EXAMINER BROOKS: I would like to be out there and
- 12 watch that rig walking from one wellhead to another.
- Q. This isn't going to look like the Terminator movie,
- 14 is it, Mr. McQueen?
- 15 A. They build these rigs in Edmonton, Alberta, and we
- 16 were up there week before last and watched one walk, and it
- 17 was really the most incredible sight I had ever seen because
- 18 this rig, this 20 foot substructure and 136 foot mass took
- 19 its two rails, picked them up, moved them forward, set down
- 20 the rails, and then the hydraulics picked up the rig and
- 21 moved the rig down the rails, set down the rig, the rig
- 22 picked up its rails, moved them down again, set them down,
- 23 and then the rig moved. And it looked like to me we could be
- 24 off one hole and started on another hole within an hour.
- 25 It's quite impressive.

- 1 Q. I imagine -- two questions on that -- I imagine it
 - 2 doesn't come cheap?
 - 3 A. No.
- 4 Q. My other question, how is it being transported down
- 5 here?
- 6 A. It requires about almost 30 truckloads of
- 7 movement.
- 8 Q. And I think I only have one other question, and it
- 9 relates to what -- the exhibit you have up there, what
- 10 does -- what's --
- MS. MUNDS-DRY: I'm sorry, but we ask that this
- 12 portion of the testimony be considered confidential, and of
- 13 course you can --
- MR. BRUCE: Absolutely.
- MS. MUNDS-DRY: -- ask questions about it.

- 17 (Williams Exhibit O, cross-examination and
- 18 associated testimony are considered confidential
- and under separate cover and seal.)
- 20 (Examiner inquiry was conducted under separate cover
- and seal following which the record concluded as
- 22 follows:)

- 24 EXAMINER BROOKS: Attorneys have any more questions
- 25 for this witness?

- 1 MS. MUNDS-DRY: I do not.
- 2 MR. BRUCE: Let the record reflect that I'm
- 3 returning Williams Exhibits A through O to Ms. Munds-Dry.
- 4 EXAMINER BROOKS: Let us return the extra copies
- 5 that the Examiners have, also.
- 6 MS. MUNDS-DRY: I can come by and collect those.
- 7 EXAMINER BROOKS: These are the public exhibits,
- 8 and, yeah, I think these are the complete sets from the
- 9 Examiners. So we will retain only the ones that the court
- 10 reporter has which will be kept separate under seal. Did you
- 11 have anything else, Ms. Munds-Dry?
- MS. MUNDS-DRY: No. I would just add, as I
- mentioned at the beginning, we would ask that this matter be
- 14 continued for four weeks for notice purposes. We have a few
- 15 other parties.
- 16 EXAMINER BROOKS: I appreciate you reminding me
- 17 because I probably would have forgotten. Mr. Bruce?
- MR. BRUCE: Nothing.
- 19 EXAMINER BROOKS: Does your client oppose the
- 20 granting of this application?
- MR. BRUCE: Absolutely not.
- 22 EXAMINER BROOKS: Okay, very good. Case Number
- 23 14663 will be continued to August 18 -- I'm sorry --
- 24 August 4.
- MS. MUNDS-DRY: August 4.

	Page 24
1	REPORTER'S CERTIFICATE
2	
3	I, IRENE DELGADO, New Mexico CCR 253, DO HEREBY
4	CERTIFY THAT ON July 7, 2011, proceedings in the
5	above-captioned case were taken before me and that I did
6	report in stenographic shorthand the proceedings set forth
7	herein, and the foregoing pages are a true and correct
8	transcription to the best of my ability.
9	I FURTHER CERTIFY that I am neither employed by nor
10	related to nor contracted with any of the parties or
11	attorneys in this case and that I have no interest whatsoever
12	in the final disposition of this case in any court.
13	
14	WITNESS MY HAND this day of JULY 2011.
15	
16	/
17	Drene Vilgado
18	Irene Delgado, CCR 253 Expires: 12-31-2011
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