1	STATE OF NEW MEXICO
2	ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
3	OIL CONSERVATION DIVISION
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7	EXAMINER HEARING
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9	IN THE MATTER OF:
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11	Application of Northwest Case 9843
12	Pipeline Corporation for an
13	unorthodox coal gas well location
14	and a nonstandard gas proration
15	unit, San Juan County, New Mexico
16	
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18	TRANSCRIPT OF PROCEEDINGS
19	
20	BEFORE: DAVID R. CATANACH, EXAMINER
21	
22	STATE LAND OFFICE BUILDING
23	SANTA FE, NEW MEXICO
2 4	December 13, 1989
25	
	ORIGIRAL

APPEARANCES

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123 East Marcy Street

Santa Fe, New Mexico 87504 BY: PAUL A. COOTER, ESQ.

I N D E X Page Number Appearances DARRELL GILLEN Direct Examination by Mr. Cooter Cross-Examination by Hearing Examiner JEFF VAUGHN Direct Examination by Mr. Cooter Cross-Examination by Hearing Examiner Statement by Mr. Broome Certificate of Reporter EXHIBITS Exhibit A Exhibit B Exhibit C Exhibit D Exhibit E Exhibit F Exhibit G Exhibit H Exhibit I Exhibit J Exhibit K Exhibit L 2.2

1 HEARING EXAMINER: At this time we'll call 2 Case 9843.

MR. STOVALL: Application of Northwest Pipeline Corporation for an unorthodox coal gas well location and a nonstandard gas proration unit, San Juan County, New Mexico.

7 HEARING EXAMINER: Are there appearances in 8 this case?

MR. COOTER: Paul Cooter with the Rodey law firm in Santa Fe, appearing on behalf of the applicant, Northwest Pipeline. At counsel table with me will be Mark Moench, in-house counsel for the applicant. We have two witnesses, and then Mr. George Broome with McElvain Oil and Gas will make a statement in support of the application at the conclusion of our case.

HEARING EXAMINER: Will the witnesses please stand and be sworn in?

(Witnesses sworn.)

MR. COOTER: If it may be permitted, I would like to make a brief opening statement which I think might clarify what is sought by the case and the reasons for it.

I would ask the Division to take administrative notice of Order No. R-1066, which is

dated October 9, 1957, a copy of which is attached to the book of exhibits. It's part of Exhibit B. that order, the Commission established a series of nonstandard proration units, lettered Tract A through Tract O, along the west and north side of Township 31 The necessity North, Range 7 West, San Juan County. was strictly by reason of the corrections being made in the surveys at that point. Those lands were included in the Pacific Northwest Pipeline Corporation, San Juan 32-7 Unit, and Block B established by that order is the same proration unit covered in the application. After the entry of Order No. R-1066 in 1957, this Commission entered its Order No. R-6938 on April 16, 1982. A copy of that is also included in the volume of exhibits. Tract B was divided into two nonstandard Pictured Cliffs proration units which overlap that Mesa Verde unit. B-1 and B-2 are the same as, again,

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With that very brief background, I'll commence my examination of Mr. Gillen.

DARREL GILLEN,

Tract B, the same lands included in this application.

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

2 BY MR. COOTER:

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- Q. Would you please state your name for the record, sir.
 - A. Darrell Gillen.
 - O. And by whom are you employed, Mr. Gillen?
- 7 A. Northwest Pipeline Corporation, one of the 8 Williams companies.
 - O. What's your position with that company?
- 10 A. Land manager.
 - Q. Is this the first time you've testified before the New Mexico Oil Conservation Division?
- 13 A. Yes, it is.
- Q. Would you relate briefly your education and your professional experience?
- A. I have a B.S. in business administration.

 I've worked with Northwest Pipeline 15 years, ten

 years in the joint operation department, five years in

 the land department, the last year as land manager.
- 20 Q. Are you a member of any professional 21 associations?
- A. Yes. I'm a member of AAPL and also the
 Utah Petroleum Association of Mining Landmen, which
 now I'm serving as the president of that association.
 - Q. What does Northwest Pipeline seek by this

application?

- A. We'd like approval for a Basin-Fruitland Coal Gas coal nonstandard proration unit for the San Juan 32-7 unit No. 201 well, which includes part of Section 7 and part of Section 18 in Township 31 North, Range 7 West.
- Q. Was administrative approval first sought for that nonstandard proration unit?
- A. Yes. On November 8, 1989, we sought administrative approval. It was denied due to the fact that there are no provisions that allow administrative approval for a nonstandard proration unit that crosses section lines.
- Q. Copies of that request for administrative approval and the subsequent rejection of it by Mr. Stogner, together with a copy of this application, constitute Exhibit A to the volume of exhibits, do they not?
 - A. Yes, they do.
- Q. Let me then direct your attention, if you would, to Exhibit B, the first page of that exhibit, and have you identify and explain it.
- A. Possibly before I explain Exhibit B, going along with what we're seeking, I could also include just for the Commission, Northwest Pipeline is the

operator of the federal unit San Juan 32-7, and as such, we have the responsibility of polling all the working interest owners' desires of that unit for drilling requests for each year. Last year, as we did that, T. H. McElvain Oil and Gas Properties, who are a mineral owner in the boundaries of the San Juan 32-7 unit, requested that we drill a well in Section 18, 31 North, 7 West. Along with the lands that they were proposing to be included in that spacing unit, they owned that property, 120 acres, with Kindermac Partners.

Due to the fact that the north and west boundaries of 31-7 are nonstandard sections, we were required to develop nonstandard proration units in order to go along with the 320-acre spacing under Order R-8768 that was developed for Fruitland Coal in 1988.

As we researched, we found that proration units had already been established, and this is what Exhibit B indicates for the Blanco-Mesa Verde formation.

There's 15 nonstandard proration units that have been developed, starting with A through O.

Outlined in red are those proration units that have been approved by the Commission.

The green markings in the middle of those proration units indicate 14 proration units in the Pictured Cliffs formation that were applied for and approved by the Commission in 1982 under Order R-6938. These Pictured Cliffs formations just overlay the existing Mesa Verde formations' nonstandard proration units.

The highlighted yellow area is the area that we are now asking for approval of a nonstandard proration unit. The blue dot is a proposed well location in that proration unit, approximately.

- Q. The block numbers given on that page you've just talked about are the same block numbers that were set forth by this Commission in its Order No. R-1066 back in 1957?
- A. Yes, they correspond with the Order lot numbers.
- Q. Turn to the second page of Exhibit B, if you would, which appears to be another plat.
- A. In 1977, Palmer Oil made application for four Mesa Verde nonstandard proration units and five Pictured Cliffs nonstandard proration units. They have been highlighted again, the Mesa Verde and Dakota proration units in red, the Pictured Cliffs in green, splitting up the Mesa Verde proration unit. These

were applied for and approved. There is a conflict on the Mesa Verde and Pictured Cliffs proration unit as approved in the 1957 order, being B, C, and D proration units have been established here.

What they've done is taken the original Order 1957, I and H proration units, and made three proration units out of those two, going down into Section 10, which would give them the additional acreage needed for the three proration units.

- Q. Those blocks A through G, however, as established by the Commission in 1957, particularly including tract B, which is the subject matter of this application, remain unchanged?
- A. That's correct. Also J remains unchanged in Section 2.
 - Q. Behind those two plats, there appear copies of the Commission orders to which reference has been made in your testimony; is that correct?
 - A. That's correct.

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- Q. Let's turn then to Exhibit C and ask you to explain that to us?
- A. Exhibit C outlines the existing Mesa Verde wells that have been drilled on the nonstandard proration units that have already been approved. In Section 7 you'll see a proration unit that was

established in 1957, which well No. 79 has incorporated as its spacing unit. That's unchanged from the 1957 order.

O. That's block C?

A. That would be block C. Block F in Section 5 and part of Section -- well, in Section 5, has well No. 18 on it. That is also unchanged.

Block G in Section 4 with Well No. 19 is also unchanged from the 1957 order.

- Q. Let me ask you at that point, even though other tracts, such as tract A, B, D, and E were designated by the 1957 order, no Mesa Verde wells were drilled on those?
- A. No Mesa Verde well was drilled; that's correct.
 - Q. Then turn to the next page of Exhibit C, if you would?
 - A. Exhibit C would indicate the existing Pictured Cliffs wells that have been drilled. They have all been drilled under the order that was approved in 1977, Order No. R-5364.
 - Q. The Pictured Cliffs is on 160 acres. The Mesa Verde is on a 320-acre spacing unit?
 - A. That is correct.
 - Q. All right. Turn to Exhibit D, if you

would, and explain that.

A. The first page of Exhibit D is an application for a permit to drill. The second page of that shows the Commission's approval in Aztec, New Mexico, the district office there, of the C-102.

The plat, again, outlines the nonstandard proration unit that we're asking approval for. It indicates that the well is drilled 880 feet from the east line, 500 feet from the south line in Section 7.

Q. If I may interrupt your testimony at this point.

MR. COOTER: Mr. Catanach, it's our position that -- we notice that the advertisement included drilling of a well at an unorthodox location. It's our position that if the nonstandard proration unit be approved, that then this well would be drilled at an orthodox location within that nonstandard proration unit, being further than 790 feet from the exterior boundaries of the unit, and in the northwest portion -- pardon me -- northeast portion of the unit, even though it's not the northeast quarter of the government subdivision.

That's why it was treated that way in the application.

HEARING EXAMINER: Okay.

Q. (BY MR. COOTER) Did you discuss this

proposed application with Mr. Bush?

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- A. I did not, but Paul Thompson, our production manager out of our Farmington office, did. Ernie Bush recommended -- originally, we had this well slated for the northeast quarter of Section 18. He recommended that we move that up to the southeast quarter of 7, which it's now outlined, so that if the time comes where there needs to be an infill well drilled, that we can drill that infill well in the south part of this proration unit.
- Q. Then turn to Exhibit E. I'd ask you to turn to it, and explain what is shown there.
- A. The first page of Exhibit E is the offsetting operator and owner's plat. That would indicate on the west of our proration unit, Meridian Oil owns Section 12 and Section 13 in 31-8. Northwest Pipeline has been indicated as numerical No. 1. They are the unit operator of the San Juan 32-7 unit. Numeric No. 6 is owned by Amoco Production Company. Numeric No. 4 is owned by Kindermac Partners and T. H. McElvain Oil and Gas Properties.
- Q. Let me ask you to correlate that exhibit back with the first page of Exhibit B. The land which you show owned by Amoco is that little strung-out section that is part of block C?

- A. Yes. That would be the west half of the west half of Section 7 there.
- Q. And then the little tracts in the center of tract B are owned by --
- A. They are owned undividedly by McElvain and Kindermac Properties.
- Q. And down in the southwest corner of tract
 B, which would be, I guess, the southeast of the -pardon me -- southwest of the northeast of Section 18?
- A. That is also owned by McElvain and Kindermac. And then the southeast of the southeast of 18 is owned by Hixon Development Company.
- Q. Are there any other offsetting owners or operators other than those that you've enumerated?
- A. And then on the west side in 31-8, Sections 12 and 13 are owned by Meridian.
- Q. Did you request from those various companies waivers of protest for your application?
 - A. Yes, we have.

- Q. And those are attached as part of Exhibit 21 E?
 - A. Those are part of Exhibit E. Each company has given waiver to this application.
- Q. That is, waivers from Meridian Oil, Inc.,

 Hixon Development Company, Kindermac Partners, T. H.

McElvain Oil and Gas Properties, and Amoco?

A. Yes.

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- Q. Are those true and correct copies of those actual waivers?
 - A. These are copies of a faxed copy that I received, and they are true and correct.
 - Q. Mr. Gillen, were the maps which appear as pages 1 and 2 of Exhibit B, pages 1 and 2 of Exhibit C, and page 1 of Exhibit E prepared by you or under your direction and supervision?
 - A. Yes.
- Q. Do those accurately and correctly reflect the information that's shown thereon and about which you've testified?
- 15 A. Yes, they do.
- Q. Are the other exhibits about which you testified true and correct copies of those identified copies?
- 19 A. Yes.
- MR. COOTER: At this time, Mr. Catanach, we offer Exhibits A through E.
- HEARING EXAMINER: Exhibits A through E

 will be admitted as evidence.
- Q. (BY MR. COOTER) Mr. Gillen, in your opinion, would the granting of this application by the

- Oil Conservation Division afford Northwest Pipeline
 the opportunity to produce its just and equitable
 share of gas in the Basin-Fruitland Coal Gas Pool
 covered by the proposal?
 A. Yes, it would.

 O. Would it prevent economic loss caused by
 - Q. Would it prevent economic loss caused by the drilling of unnecessary wells?
- 8 A. Yes.

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- 9 Q. Prevent other physical or economic waste 10 and protect correlative rights?
- 11 A. Yes.
- MR. COOTER: That concludes my direct examination of Mr. Gillen.
- 14 CROSS-EXAMINATION
- 15 BY HEARING EXAMINER:
- Q. Mr. Gillen, let me see if I understand all of this. R-1066 created the 320-acre proration units or the ones you have labeled on Exhibit B?
- 19 A. Yes, they do.
- Q. The ones outlined in red?
- 21 A. Yes.
- Q. The nonstandard proration unit you're proposing is tract B; is that correct?
- 24 A. That's correct.
- Q. And that corresponds to the one that was

approved by R-1066?

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- By R-5364, is it my understanding that some 0. of those proration units were altered?
 - Yes, they were. On the second page of Exhibit B, tracts B, C, and D have been altered, which were originally tracts H and I on the 1066 order. Now, I could not come across any documentation that altered it or rejected it; however, there are wells that are under the 5364 proration spacing order.
- This really doesn't have an effect on your 0. 12 application at this time?
 - No, it does not, other than we felt that we Α. should indicate what is existing out there on nonstandard proration units.
 - Q. Does Northwest Pipeline anticipate coming in and creating some additional Fruitland Coal proration units?
 - If this well proves to be a good well, yes, we'll be in to apply for additional proration units for the Fruitland Coal.
 - It may be a factor later on then? 0.
 - It could be a factor later on. Α.
 - Am I correct in understanding you 0. I see. have received waivers from all offset operators?

Yes, we have, and they're part of Exhibit 1 Α. 2 Ε. Am I also correct that in your proposed 3 Q. proration unit, a Mesa Verde well was never drilled; 4 is that correct? 5 6 Α. That's correct. HEARING EXAMINER: That's all the questions 7 I have of this witness. He may be excused. 8 9 THE WITNESS: Thank you. MR. COOTER: Next call Jeff Vaughn. 10 JEFF VAUGHN, 11 the witness herein, after having been first duly sworn 12 upon his oath, was examined and testified as follows: 13 DIRECT EXAMINATION 14 1.5 BY MR. COOTER: 16 Would you state your name for the record, Q. 17 please, sir. 18 My name is Jeff Vaughn. Α. By whom are you employed, Mr. Vaughn? 19 Q. 20 Northwest Pipeline. Α. 21 In what position? Q. 22 I'm a production and drilling engineer in Α. 23 Farmington, New Mexico. 24 Q. Is this the first time that you've

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testified before the Oil Conservation Division in the

State of New Mexico?

Mexico.

- A. Yes, sir, it is.
- Q. Would you briefly relate your education and professional experience for Mr. Catanach.
- A. Yes, sir. I graduated from the Colorado School of Mines with a Bachelor of Science in petroleum engineering in 1982. I worked for Kerr-McGee and Northwest Exploration while in college. After graduation, I worked for Northwest Pipeline as a reservoir engineer in Salt Lake City for two years, and the last five years I've worked as a production and drilling engineer in Farmington, New

I'm a Registered Professional Engineer in the State of New Mexico, president of the Four Corners chapter of API, and membership chairman of the Society of Petroleum Engineers.

- Q. For the record, have you been present and heard the testimony of Mr. Gillen?
 - A. Yes, I have.
- Q. For your testimony here today, have you prepared certain exhibits?
 - A. Yes, I have.
- Q. We direct your attention to what has been marked as Exhibit F in the compilation. Would you

identify and explain that?

- A. Exhibit F basically shows the topography within the proposed nonstandard proration unit, the location of the proposed well. And the main purpose here is to show the river running through the proration unit and that the well was staked in the northeast corner of the proration unit as suggested by Ernie Bush.
 - Q. Turn next if you would to Exhibit G.
- A. Exhibit G shows the offset wells. The star inside the boundary of the proposed location unit is our proposed well. To the northwest is the San Juan 32-7, No. 79 Mesa Verde, which is the closest offset, and to the southeast is the 32-7 No. 6 Fruitland well, which I will concentrate reservoir engineering position on those two wells as related to the proposed well.

There are other wells shown on here which are Fruitland sand wells which don't really relate to our proposed coal well.

There is another well, the 422 in Section 20 in the southwest quarter section recently completed by Blackwood Nichols which was gauged at 2 to 3 million a day.

Q. Are you ready to go on to Exhibit H?

A. Yes.

Q. Identify Exhibit H, please.

A. As I stated previously, our focus will be on the two offset wells. The well which provides us the most insight into what type of well we'll have in the proposed location is the San Juan 32-7 No. 6.

What I have here is a data sheet that shows the history of the well. This well has been documented by Brent Hale and Carolyn Firth. Brent Hale is the manager of reservoir engineering, Northwest Pipeline. Documented in the geology and coal bed resources of San Juan Basin, published by Rocky Mountain Association of Geologists in 1988, and what I've done is recap some of the history here.

It's the oldest, continuously producing coal well in New Mexico, to my knowledge. It is completed open hole in the coals. There are some sands in there as well, but we believe all indications are it's producing mainly from the coals.

I show a 10-day buildup of 1,540 pounds in 1953. A buildup conducted within the last two years shows the reservoir pressure is still 1,500 pounds. It's produced 1.4 Bcf to date. In 1988, the average production was 140 Mcf per day.

Our recoverable reserves are estimated at

2.7 Bcf with 1.3 remaining.

 $\hbox{ At the bottom I show the percent of CO2 and } \\ \\ \hbox{BTU data to confirm coal methane production.}$

And that's the summary of this exhibit.

- Q. Turn next to Exhibit I, if you would.
- A. Exhibit I is an isopach map of current production, coal gas production, and the star indicates the location of the proposed well.

 Basically what this map indicates is we can expect a rate of approximately 250 to 350 a day from the proposed well.
 - Q. Go next to Exhibit J.
- A. Exhibit J is a structural contour map of the area around the San Juan 32-7 No. 6 well. The 32-7 No. 79 well is in the upper left-hand corner of the cross-section, and, of course, our well would be directly south of that.

This basically shows that the 79 and the 6 and our proposed well are structurally equivalent and refers to the next exhibit.

- Q. Turn to that exhibit, if you would, sir.
- A. The next exhibit is a cross-section showing the 79 and the 6. In the black is outlined the coal sections. And as you can see from this exhibit, the wells are structurally equivalent, and we see the

coals are somewhat continuous through there. We do see all the coal beds in various thicknesses.

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The No. 6 well is not drilled into the lower coals. We anticipate encountering the lower coals in our proposed well. And this all goes back to showing that the data from the No. 6 well is a good indication or should be a good indication of what we expect from our well.

- Q. One final Exhibit, Exhibit L. Would you identify that and explain it to us?
- A. Exhibit L is a blow-up of the actual log from the 79, which is the Mesa Verde well directly north of the proposed well. And in the margin there, in the middle of the log, the coal zones, the net coal, which is a conservative estimate of what will actually be our producing horizons, are highlighted. There's 25 feet of net coal that we expect to encounter in the proposed well.
- Q. Mr. Vaughn, you've testified about exhibits F through L. Were each of those exhibits prepared by you or under your direction and supervision?
 - A. Yes, they were.
- Q. Do those exhibits accurately and correctly reflect the information which is shown thereon and about which you've testified?

- Α. Yes, they do. 1 MR. COOTER: Mr. Catanach, we offer 2 exhibits F through L at this time. 3 HEARING EXAMINER: Exhibits F through L 4 will be admitted as evidence. 5 6 0. (BY MR. COOTER) Mr. Vaughn, in your opinion, would the granting of this application by the 7 Oil Conservation Division afford Northwest Pipeline 8 the opportunity to produce its just and equitable 9 share of gas in the Basin-Fruitland Coal Gas Pool? 10 Yes, I believe it would. 11 Α. Would it also prevent economic loss caused 12 0. by the drilling of unnecessary wells? 13 Yes, I believe it would. 14 Α. 15 0. Would it prevent possible other waste and protect correlative rights as well? 16 17 Α. Yes. MR. COOTER: That concludes my direct 18 19 examination of Mr. Vaughn. 20 CROSS-EXAMINATION BY HEARING EXAMINER: 21
- Q. Mr. Vaughn, have you satisfied yourself that the entire nonstandard proration unit will be productive in the Fruitland coal?
- 25 A. Yes, I believe it will.

Q. Do you believe that the proposed 201 well will effectively drain the proposed proration unit?

A. Yes, I believe it will. At this time we do not know exactly the total acreage that will be drained by the proposed well, and that's under study by the Oil Conservation Division, whether it be 160 acres or 320 acres, but I believe it will be the best location at this time.

9 HEARING EXAMINER: That's all the questions
10 I have.

The witness may be excused.

MR. COOTER: Mr. Catanach, at this time I would like to introduce Mr. George Broome with T. H. McElvain Oil and Gas Properties. We're not presenting him as our witness, but in discussing this case with us while we waited this morning, it was my understanding that Mr. Broome would like to make a statement to you, sir.

HEARING EXAMINER: Yes, sir. You may proceed, Mr. Broome.

MR. BROOME: As Mr. Gillen said, we proposed this well about a year ago, and we've been trying to encourage Northwest to drill it, and they had some problems with their leases that delayed them somewhat this year, but now they're in a position to

where they can go ahead with it, and we are giving them all the encouragement and support we can because we have budgeted this well to be drilled in this year, and we would like to see it drilled as soon as possible. HEARING EXAMINER: Okay. MR. COOTER: That concludes our case. HEARING EXAMINER: There being nothing further in this case, Case 9843 will be taken under advisement. MR. COOTER: Thank you, sir. 1.3

CERTIFICATE OF REPORTER

3 STATE OF NEW MEXICO)

Output

Outpu

I, Freda Simmons, Certified Shorthand
Reporter and Notary Public, HEREBY CERTIFY that the
foregoing transcript of proceedings before the Oil
Conservation Division was reported by me; that I
caused my notes to be transcribed under my personal
supervision; and that the foregoing is a true and
accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL February 18, 1989.

FREDA SIMMONS

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Oil Conservation Division