1	NEW MEXICO OIL CONSERVATION DIVISION
2	STATE LAND OFFICE BUILDING
3	STATE OF NEW MEXICO
4	CASE NO. 10557
5	
6	IN THE MATTER OF:
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8	The Application of Hallwood Petroleum, Inc., for an Unorthodox Coal Gas
9	Well Location, San Juan County, New Mexico
10	NCW MCX100
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13	BEFORE:
14	DAVID R. CATANACH
15	Hearing Examiner
16	State Land Office Building
17	October 15, 1992
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20	
21	REPORTED BY:
22	CARLA DIANE RODRIGUEZ Certified Shorthand Reporter
23	for the State of New Mexico
2 4	
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ORIGINAL

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6	Post Office Box 2265
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EXAMINER CATANACH: Call the hearing 1 back to order at this time, and at this time 2 we'll call Case 10557, the Application of 3 Hallwood Petroleum, Incorporated, for an 4 unorthodox coal gas well location, San Juan 5 County, New Mexico. 6 This case was originally heard 7 8 September 17th and continued for purpose of readvertisement. 9 10 Are there appearances at this time? MR. KELLAHIN: Mr. Examiner, I'm Tom 11 Kellahin of the Santa Fe law firm of Kellahin & 12 13 Kellahin appearing on behalf of the Applicant. 14 EXAMINER CATANACH: Any other 15 appearances? Mr. Kellahin? 16 MR. KELLAHIN: Mr. Examiner, the 17 18 changed location was due to an archaeological 19 survey. The testimony back on September 17th 20 referred to the amended location that you now see 21 on the docket. The well is unorthodox insofar as we're 22 23 in the southeast quarter as opposed to the 24 northeast or southwest quarter section. 25 original footage location was 818 from the south

1	line and 1099 from the east line, so we were
2	moving slightly closer to the south boundary,
3	farther away from the east boundary.
4	It was a material change, and so we
5	renotified all the parties that might be
6	affected. I have a copy of our supplemental
7	certificate of mailing. Those parties were
8	Southland Royalty, Meridian Oil Company and
9	Robert Click. All those parties have waived any
10	objection to our amended location, and I have
11	that certificate for you.
12	EXAMINER CATANACH: Okay. The
13	certificate will be entered as evidence in this
14	case.
15	MR. KELLAHIN: That concludes our
16	presentation in this case, Mr. Examiner.
17	EXAMINER CATANACH: There being nothing
18	further, Case 10557 will be taken under
19	advisement.
20	(And the proceedings concluded.)
2 1	
2 2	I do hereby certify that the foregoing is
23	Complete record of the pressure in
2 4	the Examiner hearing 2 10557 heard by me on Octuber 15 52
25	Oll Conservation Division

CERTIFICATE OF REPORTER 1 2 STATE OF NEW MEXICO 3 SS. COUNTY OF SANTA FE 4 5 I, Carla Diane Rodriguez, Certified 6 7 Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of 8 9 proceedings before the Oil Conservation Division 10 was reported by me; that I caused my notes to be transcribed under my personal supervision; and 11 12 that the foregoing is a true and accurate record 13 of the proceedings. 14 I FURTHER CERTIFY that I am not a relative or employee of any of the parties or 15 attorneys involved in this matter and that I have 16 no personal interest in the final disposition of 17 18 this matter. WITNESS MY HAND AND SEAL November 2, 19 20 1992. 21 22 23 24 CARLA DIANE RODRIGU CSR No.

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1	APPEARANCES
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3	FOR THE NEW MEXICO OIL CONSERVATION DIVISION:
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	ALSO APPEARING:
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	MR. ROBERT CLICK
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EXAMINER CATANACH: At this time we'll 1 2 call Case 10557. 3 MR. STOVALL: The application of Hallwood Petroleum, Inc., for an unorthodox coal gas well location, San Juan County, New Mexico. 5 6 EXAMINER CATANACH: Are there 7 appearances in this case? MR. KELLAHIN: Yes, Mr. Examiner. 8 Tom Kellahin of the Santa Fe law firm of Kellahin 9 & Kellahin, appearing on behalf of Hallwood 10 Petroleum, Inc., and I have two witnesses. 11 EXAMINER CATANACH: Any other 12 13 appearances? Will the witnesses please stand to be 14 15 sworn in. 16 [The witnesses were duly sworn.] 17 MR. KELLAHIN: Mr. Examiner, I would 18 also like to introduce to you, although he's not 19 a witness, Mr. Robert Click who is in the room. 20 He's one of the participants and a working interest owner in the section, and is 21 22 participating with Hallwood in the development of 23 the coal gas well. 24 The application, Mr. Examiner, has been 25 amended. Just about the time we got this filed,

we had a surface problem with an archaeological issue on the surface, and the location has been moved. That request has already been placed on the Examiner's docket for the October 15th docket.

We would like to go ahead and have Mr. O'Connell and Ms. Volk testify today with regards to the amended location, recognizing that it will again appear on the October 15th docket, and if there's no opposition, then, we would like to be excused from bringing them back. But there is a change from this docket, and Mr. O'Connell will identify and explain the change for you.

EXAMINER CATANACH: Okay..

KEVIN E. O'CONNELL

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

- Q. For the record, sir, would you please state your name and occupation?
- A. My name is Kevin E. O'Connell. I'm a drilling and production supervisor for Hallwood Petroleum, Inc.
- Q. Have you testified on prior occasions

before the Oil Conservation Commission?

A. Yes, sir.

- Q. In what capacity?
- A. As a petroleum engineer, registered.
- Q. With regards to this application by your company, you have made an engineering, as well as a geologic review of the location of a coal gas well in the Basin Fruitland Coal Gas Pool?
- A. Yes, sir.
- Q. Having made that review and study, have you come to engineering conclusions about the optimum place in which to locate this well in the spacing unit for Section 24 of 32 North, 13 West?
 - A. Yes, sir.
- MR. KELLAHIN: We tender Mr. O'Connell as an expert petroleum engineer.
- EXAMINER CATANACH: Mr. O'Connell is so qualified.
- Q. Let me have you orient us as to where we are in the coal pool. If you'll turn to Exhibit 1 and identify that for us?
- A. Exhibit No. 1 is just an outline of the San Juan Basin and the Fruitland Coal area. I've identified with a circle Hallwood's quote-unquote

La Plata Area, where we currently have seven Fruitland Coal wells. It's in the extreme northwest edge of the basin.

to where we are in the basin in the Fruitland
Coal play. I've identified with a circle
Hallwood's area. We just called it quote-unquote
the La Plata Area. We're three and a half miles
northeast of La Plata, New Mexico, along the
Plata River and just south of the Colorado, New
Mexico state line. But we are on the extreme
northwest edge of the Fruitland Coal play,
outside of the majority of the activity. Our
wells are currently about five miles from any
existing producing coal wells.

- Q. Let's turn to Exhibit No. 2. Identify and describe this display.
- A. Exhibit No. 2 is a portion of our larger structure map. It covers the nine-section area surrounding Section 24 where we're requesting the location exception in the southeast quarter of Section 24.

It's a structure map on the base of the Fruitland Coal, which is the top of the Pictured Cliffs. Two things of note on here. The lines

shown on there are a four-well cross-section that we'll discuss that go from south to north, from A to A'.

It goes through—the first well is Hallwood's Montoya, 25-2, a Fruitland Coal well. The next well is Hallwood's Montoya 25-1, a Fruitland Coal well. It comes up through the southeast quarter of Section 24 and picks up a Dakota Mesaverde well, and then it continues on up into the northeast quarter of Section 24 to a well that was P & A'd. Never produced.

- Q. When we look at Section 24, are there currently any coal gas wells in that section?
 - A. No, sir.

- Q. What is the orientation of the 320 gas spacing unit that you're proposing for the well?
- A. It would be a stand-up 320, comprising the east half of Section 24, and that is consistent with the deeper existing 320 for the Mesaverde Dakota.

The other thing I wanted to mention on there, this is a rather unusual structure map as we're going to discuss more in detail, but you can see the coal rises tremendously across

Section 24, and actually in the far northwest

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corner of this map in Section 14, the coal outcrops and is surface mined by BHP about two to three miles roughly from where we're producing.

- Q. The location is going to necessitate an exception from Rule 7 of the pool rules because you are in the wrong quarter section?
- A. That's correct. The legal location would be in the northeast quarter of Section 24 as prescribed by the current Basin Fruitland Coal field rules.
- Q. Or, in the alternative, in the southwest quarter?
 - A. Yes, sir.

- Q. The original location of the well on the docket was 818 feet from the south line, 1,099 from the east line, and that now has been moved to a surface location 947 feet from the south line and 800 feet from the east line?
 - A. Yes, that's correct.
- Q. So you're still standard as to the 790 footage setback of the spacing unit, but you're in the wrong quarter section?
- A. That's correct. We just had to move about 175 feet to the northeast due to archaeological reasons.

- Q. Does this amended surface location now satisfy all the surface constraints or limitations for approval of this location?
 - A. Yes, sir.

- Q. Why the southeast quarter and not one of the other quarter sections?
- A. We feel, as we'll discuss more in detail, that literally because the coal is, as we referred to it, it's an elbow, is rising so fast in outcrop, that literally as you go from the southeast quarter of Section 24 to the northwest quarter, you go from productive coal to nonproductive coal and actually go through the trap mechanism in the Fruitland Coal here.
- Q. What kind of rates are you achieving on the other wells in this area that you operate?
- A. The closest well due south in Section 25, that Montoya 25-1 that I referred to in the northeast quarter, it was a recompletion to the Fruitland Coal. It's currently producing at about 600 to 700 Mcf a day, with about 250 barrels of water. And then the 25-1 well is making about 800 Mcf a day and 250 barrels of water.
 - Q. Are you seeing any appreciable change

in those rates over time?

- A. No. In fact, our Montoya 25-1 well up in the northeast again, has been essentially flat. We've seen no evidence to date of what you could pinpoint as D watering, as per normal coal wells. The water production has been very flat over time, between 250 and 400 barrels a day.
- Q. Let me have you continue with your justifications for being in the southeast quarter of the section, and have you now turn to Exhibit No. 3.
- A. Exhibit No. 3, because this is a rather complex area and looking at that structure map doesn't do complete justice to what we're trying to illustrate, Exhibit No. 3 is a three-dimensional interpretation, that was prepared under my supervision, of what's physically happening as you move through the section there.

This would be looking towards the northwest corner of the section, or basically you could take that outline of that coal there and that would be, essentially, the section.

We are proposing to drill in the southeast, which is basically the same structural

elevation as the existing producing coal wells, but then, to the northwest of that, the coal increases to about a 27-degree slope.

There's fracturing associated with the coal, but as you move up the limb of the coal you have compaction that has closed the fracture system and actually provided the trap that we know has to exist. Otherwise there would be no gas in the coal, it would have migrated out through the adjacent outcrop over geologic time.

So we feel that the coal just becomes so tight that if we drilled at the legal location in the northeast quarter, we would just have a well that would probably only produce 20 or 30 Mcf a day and be a--would be too risky of a location to drill and probably be too marginal of a well to ever economically produce.

- Q. Does your proposed location in the southeast quarter provide you the opportunity to test for coal gas production in your spacing unit that will put you at a point that is down structure of this point of flexure in the coal?
- A. Yes, and that's what we tried to illustrate with Exhibit 3 and also Exhibit 4.
 - Q. Let's go to Exhibit 4 and you have a

copy of that on the hearing room wall, if you'll simply describe it and illustrate for us the point that you want to make?

A. Exhibit 4 is just a structural cross-section on the Basin Fruitland Coal.

Again, as you move from A to A', which is south to north, the furthest well on the left is our Montoya 25-2. It was just recently drilled in July and completed. It's now producing at, oh, approximately 800 Mcf a day and 250 barrels of water.

The next well is the Montoya 25-1. It was recompleted in 1989 and not produced until 1991 due to construction of an evaporation pond, gathering facilities, gas contract, et cetera.

The third well is an existing Mesaverde Dakota dual completion well that has a log across the coal. And then we've also illustrated our proposed location because we're essentially 150 to 250 feet away from the existing well.

As you move through the last well, the furthest well on the right, the USA 1M, that well was drilled as a Dakota test and dry hole, and you can see the graphic illustration of how high and abruptly you come up on the structure, about

800 feet, and the coal is illustrated there.

And basically that dry hole--that well would constitute a legal location, but, as we discussed, it would be about 800 feet higher and we believe structurally tight and nonproductive.

- Q. Summarize for us your conclusions about this location, Mr. O'Connell.
- A. We feel, Hallwood and its partners feel that the southeast quarter is really the only feasible and economical location for a coal well to be drilled in the entire Section 24. And that's it. A well, in our opinion, has to be drilled at the southeast or unorthodox location or one will probably not be drilled in this section.

MR. KELLAHIN: That concludes my examination of Mr. O'Connell. We move the introduction of his Exhibits 1 through 4.

EXAMINER CATANACH: Exhibits 1 through 4 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

- Q. The well in the northwest quarter of Section 24, that was drilled to what formation?
- 25 A. It was a dual Mesaverde Dakota well.

The northeast of 25?

- Q. Northeast of 24.
- A. That was drilled to the Mesaverde. It tested Mesaverde, and I think they may have tested the PC, but it was never produced. It was a dry hole.
- Q. You've examined the logs in that well and you feel it would be nonproductive in the coal?
- A. Yes, because we are up so high that the coal has got to be tighter and provide the trapping mechanism.
- Q. There are no fractures in the coal when it reaches that height?
- A. Well, there may be some fracturing, but somewhere between the proposed location and the outcrop there's got to be a sealing of those fractures to inhibit the gas from flowing out to the Fruitland Coal.

MR. STOVALL: You indicated it was following its own tracks right to the surface?

THE WITNESS: Right. There would be no gas in the Fruitland Coal.

Q. What you're essentially saying is there's no porosity or permeability in that

northeast quarter?

A. Yeah, or that it would be so tight it would be nonproductive and noneconomical.

Because some of our other wells, we have some wells in the section just south of here, and some of those only started out at 60 to 80 Mcf a day wells, and luckily they have increased a little bit and we've got marginal wells now.

That's the problem with this area.

They're not super economically attractive wells to go after, and we feel that it would be too risky to go that high structurally. We want to stay at the same basic structural elevation as the other wells in the field.

- Q. Have you actually been able to look at the log on that well and obtained some of the properties? permeability? porosity?
- A. We can't get permeability. The porosity tools don't work, per se, in the coal. You can just get a density log. It's got comparable looking coal, but we have no indication of how tight or productive it could be.
- Q. So you're, in essence, just estimating that that's in the area that it's starting to

tighten up?

A. Yes, because we're literally only--at that point we're only about a mile and a half from the mine. In fact, where we staked the well, you can stand there and see the mine just to the northwest.

MR. STOVALL: Is the mine there just below the outcrop? Is that where it is?

THE WITNESS: It's at the outcrop.

They're mining that whole outcrop there. BHP has a mine.

MR. STOVALL: Is that the new La Plata Mine?

THE WITNESS: Yes, just about four miles north of La Plata, right near the state line.

MR. STOVALL: Where they built a whole new highway and all that to get down to the power plant, right?

THE WITNESS: Yes. And they've got the rail line that runs in and out of there.

- Q. (BY EXAMINER CATANACH) Who operates the Mesaverde and Dakota in the east half of that section?
- A. In the southeast quarter section?

1 Q. The well in the southeast quarter. That's Robert R. Click. 2 Α. 3 Q. Has your new location been approved, as far as--has it been cleared as far as 4 archaeological and surface? 5 6 Α. Yes, sir. 7 EXAMINER CATANACH: Okay. I believe that's all I have at this point. 8 MR. STOVALL: I do want to ask one more 9 question. 10 11 EXAMINATION BY MR. STOVALL: 12 13 Q. Actually where they're mining, can you see the slope of it in the mine? 14 15 Α. I've never physically been to the mine, 16 and they've-- You can't really tell from a 17 distance because there's just, you know--18 0. You have lots of dirt around and all 19 the other stuff? 20 Yes. But it has to be--I wondered if you could see the 21 22 structure in the seam at all? 23 In fact, we have a larger map. Α.

That elbow or that limb is confirmed because

there's dry holes all around there, Mesaverde dry

24

1 holes and deeper wells, and it's well-known that outcrop exists, and that slope has to be 27 to 30 2 3 degrees. FURTHER EXAMINATION BY EXAMINER CATANACH: 5 6 Mr. O'Connell, one more question. Ιs it your opinion this will be the only well 7 drilled in Section 24? 8 Yes. I believe, in our discussions 9 Α. with Meridian, who has the west half, they 10 11 basically said they have no interest in the 12 coal. It's too risky where they're at, so, yes, 13 I think so. 14 EXAMINER CATANACH: Thank you. 15 MR. KELLAHIN: Call at this time Ms. Kathleen Volk. 16 17 KATHLEEN VOLK Having been first duly sworn upon her oath, was 18 examined and testified as follows: 19 20 **EXAMINATION** BY MR. KELLAHIN: 21 22 Q. Would you please state your name and 23 occupation? 24 My name is Kathleen Volk. I'm the Α. western district land manager for Hallwood 25

Petroleum, Inc., in Denver.

- Q. On prior occasions have you testified as a landman before the Division?
 - A. Yes, I have.
- Q. Pursuant to your employment, are you knowledgeable about the ownership of your spacing unit and the ownership of the working interest in the offsetting spacing units?
 - A. Yes, I am.

MR. KELLAHIN: We tender Ms. Volk as an expert petroleum landman.

EXAMINER CATANACH: Ms. Volk is so qualified.

- Q. Let me ask you to turn to what has been marked as Exhibit 5, and identify that display for me.
- A. Exhibit No. 5 is a map showing Section 24 in the center. The east half is where Hallwood has proposed to place its unorthodox well location. In the southeast quarter it indicates that the offset owners to our proposed southeast quarter location are Meridian Oil, Southland Royalty and Robert R. Click and Hallwood Petroleum, Inc. I haven't put that on the map, but Hallwood is the operator to the

south. 1 Section 25, that's Hallwood? 2 Q. 3 Α. Yes. West half of 24 is Meridian? Q. 4 Α. Yes. 5 Q. Section 19 is Southland Royalty? 6 Yes. 7 Α. What about Section 30? 8 0. I believe Section 30 is also Southland 9 Royalty. I don't think that they were notified, 10 11 though, under ours for Section 30. Ο. I did. 12 Okay. I guess they were. 13 I wanted you to verify the ownership 14 Q. and not the notification. 15 16 Α. Okay. So those represent all the operators 17 that are offsetting the 160-acre tract that the 18 19 well will be located in? 20 Α. That's correct.

or Southland with regard to any possible

they do not have any objections, and I have a

objection to the location?

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Have you had discussions with Meridian

Yes, I have, and they have stated that

letter to that effect. 1 MR. STOVALL: Mr. Examiner, as we all 2 3 know, Meridian and Southland are the same people; isn't that correct? THE WITNESS: That is correct. 5 Basically, the notifications were sent to the 6 7 same address. MR. KELLAHIN: Mr. Examiner, I move the 8 introduction of Exhibit 5, which is the plat, 9 10 Exhibit 5A is my certificate of mailing of notification to Mr. Click, Meridian and to 11 Southland Royalty Company. 12 13 MR. STOVALL: I guess we can assume that Mr. Click has no objection to this location, 14 15 is that fair to say? 16 MR. CLICK: That's fair to say, yes. MR. KELLAHIN: We move the introduction 17 18 of Exhibits 5 and 5A. EXAMINER CATANACH: Exhibits 5 and 5A 19 will be admitted as evidence. 20 21 MR. KELLAHIN: That concludes my 22 examination of Mrs. Volk. 23 EXAMINATION 24 BY EXAMINER CATANACH: Mrs. Volk, just one question. 25 Q. The

1	relationship between Robert Click and Hallwood is
2	what?
3	A. We're partners in the drilling or what
4	we hope to be the drilling of the Fruitland Coal
5	well in the southeast quarter of Section 24.
6	EXAMINER CATANACH: Okay. Nothing
7	further. Is there anything further in this case?
8	MR. KELLAHIN: Nothing further.
9	EXAMINER CATANACH: There being nothing
10	further, Case 10557 will be taken under
l 1	advisement.
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1 CERTIFICATE OF REPORTER 2 STATE OF NEW MEXICO 3 SS. COUNTY OF SANTA FE 4 5 6 I, Carla Diane Rodriguez, Certified Shorthand Reporter and Notary Public, HEREBY 7 8 CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division 9 10 was reported by me; that I caused my notes to be 11 transcribed under my personal supervision; and 12 that the foregoing is a true and accurate record of the proceedings. 13 I FURTHER CERTIFY that I am not a 14 15 relative or employee of any of the parties or attorneys involved in this matter and that I have 16 17 no personal interest in the final disposition of 18 this matter. 19 WITNESS MY HAND AND SEAL September 28, 20 1992. 21 22

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CSR No.