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:
APPLICATION OF ENRE CORPORATION

CASE NO. 11,128

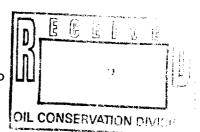
ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

October 27th, 1994 Santa Fe, New Mexico



This matter came on for hearing before the Oil Conservation Division on Thursday, October 27th, 1994, at Morgan Hall, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

I N D E X

October 27th, 1994 Examiner Hearing CASE NO. 11,128

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APPLICANT'S WITNESSES:

MITCH MICHELSON

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* * *

EXHIBITS

		Identified	Admitted
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Exhibit	2	14	21
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* * *

APPEARANCES

FOR THE DIVISION:

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Legal Counsel to the Division
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Santa Fe, New Mexico 87504

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE & SHERIDAN, P.A. Suite 1 - 110 N. Guadalupe P.O. Box 2208
Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

* * :

WHEREUPON, the following proceedings were had at 1 2 9:40 a.m.: 3 4 5 6 EXAMINER STOGNER: Call next case, Number 11,128. 7 MR. CARROLL: Application of EnRe Corporation for 8 a high-angle/horizontal directional drilling pilot project, 9 special operating rules therefor, and an unorthodox oil 10 11 well location, Rio Arriba County, New Mexico. EXAMINER STOGNER: Call for appearances. 12 MR. CARR: May it please the Examiner, my name is 13 William F. Carr with the Santa Fe law firm Campbell, Carr, 14 15 Berge and Sheridan. I represent EnRe Corporation in this matter, and 16 17 I have one witness. EXAMINER STOGNER: Seeing there's nobody else in 18 the room, I am going to assume there's no objection or any 19 20 other appearances. 21 Mr. Carr, you may continue. I believe the witness should be sworn. 22 MR. CARR: EXAMINER STOGNER: There is one witness. 23 24 the witness please stand to be sworn? 25 MR. CARR: Would you take the stand?

1	MITCH MICHELSON,		
2	the witness herein, after having been first duly sworn upon		
3	his oath, was examined and testified as follows:		
4	DIRECT EXAMINATION		
5	BY MR. CARR:		
6	Q. Could you state your name for the record, please?		
7	A. My name is Mitch Michelson.		
8	Q. Mr. Michelson, where do you reside?		
9	A. San Antonio, Texas.		
10	Q. By whom are you employed?		
11	A. EnRe Corporation.		
12	Q. And what is your current position with EnRe		
13	Corporation?		
14	A. I'm vice president.		
15	Q. Have you previously testified before the New		
16	Mexico Oil Conservation Division?		
17	A. No, I have not.		
18	Q. Could you briefly summarize your educational		
19	background?		
20	A. I attended Texas A&M University, have a degree in		
21	business administration with a major in economics.		
22	Q. And when did you receive your degree?		
23	A. 1976.		
24	Q. Following your graduation from Texas A&M, for		
25	whom have you worked?		

I have worked for EnRe Corporation since that A. 1 time. 2 And in your role as vice president, do you 3 0. 4 supervise the technical employees of EnRe Corporation? 5 Α. Yes, I do. And they report to you? 6 Q. 7 Yes, they do. Α. Now, you are not the witness who was identified 8 9 as going to be here and available to testify today; is that correct? 10 That's correct. 11 A. And who was that witness to be? 12 0. Mr. Jeff Kirn. 13 Α. And is he a geologist? 14 0. He's a petroleum geologist. 15 A. And does he report to you? 16 Q. 17 Yes, he does. Α. Could you explain to Mr. Stogner the 18 Q. circumstances surrounding his absence here today? 19 Mr. Kirn is currently involved in our Cedar 20 Canyon 22-G well in Rio Arriba County, which is the subject 21 of a prior hearing for horizontal drilling, and we just got 22 to a critical point on that well, and he couldn't leave. 23 And in the prior hearing, that, Mr. Stogner, was 24 Q. 25 Case 11,050. And an order in that case was entered

September 26th, and the order number is R-10,196. 1 Was the drilling engineer also present and 2 available to testify in that hearing? 3 4 Α. Yes. 5 0. And who was that? Mr. Harvey Ashford. 6 A. Is he also on this particular well? 7 Q. He's at the well site, yes, sir. 8 Α. 9 And what is the nature of the property involved Q. in both of these cases? Is it Jicarilla Apache? 10 They're both Jicarilla Apache. They're mineral 11 Α. 12 development agreement lands. In the prior case, a special project area 13 Q. comprising 640 acres was approved by the Division; is that 14 15 correct? 16 Α. Yes. And that's because that well was in close 17 0. proximity to the Boulder-Mancos Pool? 18 That's correct. 19 Α. This well is in what pool? 20 Q. West Puerto Chiquito-Mancos. 21 Α. 22 And is that pool developed on 640-acre spacing? Q. 23 Yes, it is. Α. 24 Q. And so there's no request in this case for a 25 special project area?

A. That's correct.

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- Q. Other than that change, are the wells that are being proposed here today and the well that was approved by Order Number R-10,196, are they virtually identical?
 - A. Yes, they are.
 - Q. They're both in the Mancos?
- 7 A. Both in the Mancos and both in the same 8 structure.
 - Q. And the technical presentation of Mr. Kirn would be virtually identical to the one presented on August the 18th if he were here?
 - A. That's correct.
 - Q. And Mr. Ashford's presentation would be virtually identical?
 - A. That's correct.
 - Q. The only change -- It would be just difference in well location and the physical differences in the drilling of the well?
- 19 A. That's correct.
 - Q. Now, in your career with EnRe, how many horizontal wells have you actually been the supervising manager for?
 - A. We've done four in the past.
 - Q. And this will be your fifth?
- 25 A. This will be our fifth.

Have you also been the person in house Q. responsible for the directional drilling of certain wells? Yes, I have. A. And approximately how many of those have you 0. personally been responsible for? I think it's about eight. Α. Are the Jicarillas pushing EnRe to get these 0. wells drilled? Α. Yes, under our -- the terms of our agreements, we have until the end of this year to complete the Cedar Canyon well, the well that's the subject of the hearing today, and two other wells. And for that reason, when Mr. Kern was 0. unavailable, did EnRe decide it was important for you to come and present EnRe's data to the Oil Conservation Division? Yes, we were concerned about the time frame. Α. MR. CARR: Mr. Stogner, in view of this testimony and the circumstances -- and we recognize it's unusual -we would request that the record in Case Number 11,050, including the exhibits, be incorporated into the record of this case. And the reason is, it does provide the technical presentation we think necessary to support the

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Application.

The only differences, other than well location --

and obviously location -- are that there is a different

type log that has been selected and that the structure is
slightly flatter here. Other than that, even the exhibits
are the same.

And we would request that the prior record be
incorporated into this case and that Mr. Michelson be
permitted to review EnRe's Exhibits with you today.

(Off the record)

EXAMINER STOGNER: Mr. Carr, I'll go ahead and accept your proposal to consolidate -- I'm sorry, to --

MR. CARR: -- incorporate the record.

EXAMINER STOGNER: Yeah, that, of Case 11,050 into today's proceedings and allow you to go forward with Mr. Michelson as your witness.

And I accept his testimony as vice president of EnRe Corporation and supervisor of the technical aspects of that corporation.

MR. CARR: Thank you, Mr. Stogner.

- Q. (By Mr. Carr) Mr. Michelson, could you briefly state what EnRe seeks in this Application?
- A. We're seeking the approval or authority to drill a horizontal well in Section 15 of Township 27, Range 2
 West, I believe it is.
 - Q. 1 West.
 - A. 1 West, excuse me.

Are you familiar with the status of the lands Q. 1 involved in the case? 2 3 A. Yes, I am. Are they all Jicarilla Apache tribal lands? 4 Q. 5 Α. Yes, they are. Are all the lands offsetting the 640-acre spacing 6 Q. unit involved in this case also Jicarilla Apache tribal 7 lands? 8 9 Yes, they are. A. And pursuant to EnRe's agreement with the tribe, 10 Q. is EnRe the operator of all of those offsetting tracts? 11 Α. Yes. 12 Have exhibits been prepared for presentation here 13 Q. today in this case? 14 15 Yes, they have. Α. And have you reviewed those exhibits? 16 Q. Yes, I have. 17 Α. And can you testify as to the accuracy of the 18 Q. exhibits? 19 20 A. Yes, I can. 21 Q. In what pool is the proposed well to be located? West Puerto Chiquito-Mancos. 22 A. And what are the current rules governing this 23 Q. 24 pool?

I believe there are 640-acre spacing units, and I

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A.

don't recall what the offsets are. 1 1650-foot setback? 2 0. 3 Α. That sounds familiar, yes. 4 Q. What acreage do you propose to dedicate to the 5 well? Section 15. 6 Α. 7 Are you seeking exceptions to the existing well 0. location requirements for the well? 8 9 I'm sorry, I --Α. 10 Q. Is this going to be at an unorthodox surface location? 11 Oh, no, it's not. 12 A. What is the surface location? 13 0. I don't have the dimensions. 14 Α. 15 EXAMINER STOGNER: It's in the advertisement, if 16 you look at your docket. THE WITNESS: The surface location is 1295 from 17 the south line and 1360 from the west line. 18 19 Q. (By Mr. Carr) And that is closer, actually, than 20 the 1650-foot required setback? 21 Oh, yes, it is. Α. So the surface location is unorthodox? 22 Q. The surface location is unorthodox. 23 Α. Will EnRe keep the well setback at least 330 feet 24 25 from the outer boundary of the tract?

A. Yes, we will.

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- Q. If you get closer than that to the outer boundary of Section 15, will EnRe return to the Division for approval of the well location?
 - A. Yes, we will.
- Q. This wellbore will cross quarter-section lines with the horizontal portion of the wellbore, will it not?
 - A. Yes, it will.
- Q. And therefore it's important to receive an exception to Rule 4 of the special pool rules for the West Puerto Chiquito-Mancos Pool; is that correct?
- A. Yes, that's correct.
- Q. Do you need an exception to the acreagededication requirements?
- 15 A. I don't believe so, because it's the same 16 acreage.
 - Q. You're going to dedicate the entire section?
 - A. The entire section, that's right.
 - Q. Are you seeking any special allowable considerations?
- 21 A. No.
 - Q. And what is the reason behind this Application?
 - A. Well, the surface location being unorthodox in its position and the fact that it's a horizontal wellbore.
 - Q. And you're hoping with this wellbore to achieve

production of reserves from this formation that otherwise couldn't be developed with a vertical well at a standard location?

A. That's correct.

- Q. Could we go to what has been marked as EnRe Exhibit Number 1? Would you identify that and review it for Mr. Stogner?
- A. That's a plat that shows the section that we're going to drill on in the center and the offset sections around it.

It shows the surface location and then the proposed horizontal wellbore in the dotted line, and the bottomhole location in a dashed circle, and then some additional wells that were drilled on this area to the west.

- Q. And the cumulative oil production for each of those wells is shown?
- A. Yes, in the small numbers in the upper right of each well location.
 - Q. Were those wells drilled by EnRe?
- A. No, they were drilled by BMG Drilling Corporation.
 - Q. And they're a vertical well?
- 24 A. They are vertical wells.
- Q. Let's move to Exhibit Number 2. Can you identify

15 1 this, please? Yes, sir, this is the type log of the BMG well in 2 Α. Section 16. 3 That's shown on Exhibit Number 1? 4 Q. Yes, that's shown on Exhibit Number 1. 5 Α. 6 The exhibit itself has incorrectly identified the well as the Jicarilla 202 Number 1, but it's actually on 7 BMG's Jicarilla 404 lease. 8 9 Other than that, is the exhibit correct? Q. 10 Yes, it is. Α. And what does this show? 11 Q. 12 Α. It's a display of the Gallup formation in that 13 Section 16 well. 14 Q. And what intervals are you attempting to complete 15 this well in, the horizontal portion of the well? We plan to drill in the Mancos "B" zone. 16 Α. 17 Is there a sufficient section in the Mancos "B" Q. zone available to you to in fact make a successful 18 horizontal completion? 19 20 Yes, there is. Α. 21 Q. And the drilling equipment that you will use will

- Q. And the drilling equipment that you will use will give you sufficient control of the wellbore to keep it within that "B" zone?
- 24 A. Yes.

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Q. Can you tell me just generally what the nature of

1 the characteristics of the Mancos formation are in this 2 area? 3 Α. It's generally a shale. These sections that are marked "A", "B" and "C" are slightly different shale 4 5 characteristics in those zones. 6 And within those zones is a sandstone-like layer 7 that actually -- The oil accumulates within those sandstone layers. 8 9 0. Let's go to Exhibit Number 3. Can you identify 10 and review that, please? 11 It's a plat of the Section 15, showing the well A. The surface location is a round circle in the 12 13 proposed horizontal wellbore in the dashed line with the bottomhole location indicated. 14 15 Does this also show the slope of the structure in Q. the Mancos? 16 Yes, it does. There's contour lines on 100-foot 17 Α. intervals. 18 And they're on top of the Mancos "B" interval? 19 Q. The Mancos "B" interval, that's correct. 20 Α. 21 Basically, it shows the formation is sloping in Q. what direction? 22 23 A. It's higher on the east and slopes downward to

This is identical, virtually, to the structure

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the west.

Q.

map that was presented in August, in the last horizontal case, presented by EnRe?

A. Yes.

- Q. And generally you have the same -- the structural configuration for this horizontal well as you did in the prior case?
- A. Yes, the degree of dipping in the beds would change somewhat, but it's structurally the same.
- Q. All right, let's go to what has been marked as EnRe Exhibit Number 4. Was this exhibit presented during the last hearing?
 - A. Yes, it was.
 - Q. And what is the purpose of this exhibit?
- A. It's a sketch to kind of give an indication of how the fracture system within the Mancos is -- It has a matrix effect to it, and this drawing was to show how the primary aspect of the fracture system is running in a north-south direction and the -- sort of the secondary construction of it runs in an east-west pattern, and how those fracture systems intersect.
- Q. Now, when you complete the horizontal portion of the wellbore, you're actually hoping to intersect the primary fractures that run in a north-south direction in this reservoir?
 - A. That's correct.

- Q. And then through those they will also, hopefully, be in communication with the secondary fracture system indicated on Exhibit Number 4?

 A. That's correct.
- Q. And this exhibit was presented by Mr. Kirn at the last hearing?
 - A. Yes.

- Q. Could we go now to what has been marked as EnRe Exhibit Number 5, and I'd ask you to identify this and then just explain to Mr. Stogner how EnRe proposes to drill this horizontal well.
- A. This well is a document prepared by Halliburton Drilling Services.

It shows in the upper left portion the horizontal or polar view of the wellbore direction as it goes from west to east. And then the lower portion, vertical view or cross-section view, shows the wellbore going the same direction.

It indicates some key points, such as the kickoff point at 6145 measured depth, the casing point at 6951 measured depth.

And then it shows how we enter the upper portion of the Mancos "B" zone to follow that sand. As the formation dip changes, the wellbore structure changes.

Q. You'll actually be drilling the horizontal

portion of the well updip as you move to the east?

- A. That's correct, to follow the dipping bed.
- Q. Will Mr. Ashford be the drilling engineer on this well, as well as the one that's currently being drilled?
 - A. Yes, he will.

- Q. And the exhibit that he reviewed in the last hearing was also a schematic of the horizontal prepared by Halliburton?
 - A. Yes, it was.
- Q. And the procedures that will be used by EnRe in this case are virtually identical to those that are utilized in the well that is being drilled and completed at this time?
 - A. Yes, that's correct.
- Q. Behind that exhibit is a summary of information concerning how the proposed well is to be drilled, and this was also prepared by Halliburton; is that correct?
- A. That's correct. It gives data on some of those key points I was --
- Q. What drilling company are you actually using?
 Halliburton? Are they the drilling --
- A. Halliburton is the subcontractor doing the directional drilling control.

The drilling contractor providing the rig is Four Corners Drilling in Farmington.

- 20 And when you finish the current horizontal well, 1 Q. you plan to utilize that rig to go forward with this second 2 well? 3 Yes, the one that's on Cedar Canyon is coming to 4 this well. 5 What acreage does EnRe anticipate can be 6 Q. effectively drained by this wellbore? 7 We're confident that the 640-acre will be drained 8 9 effectively with the wellbore. Do you anticipate excessive drainage from 10 0. offsetting tracts? 11 12 Α. No. In fact, if that should occur, it is Jicarilla 13 0. 14 tribal royalty, and it would be EnRe working interest; is 15 that right? 16 A. Yes, it would. 17 Okay. What do you anticipate to be the life of a Q. horizontal well in this particular formation? 18 19 At least ten years. A. Will EnRe run a directional survey on this well 20 0. 21 and provide copies of that survey to the Oil Conservation
 - Yes, we will. Α.

Division?

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Is Exhibit Number 6 an affidavit confirming that 0. notice has been provided in this Application to the

Jicarilla tribe and also to the Bureau of Indian Affairs? 1 Yes, it is. 2 Α. Are they the only other interest owners who could 3 be affected by this Application? 4 Yes, that's all. 5 Α. In your opinion, will granting the Application be 6 Q. 7 in the best interests of conservation, the prevention of waste and the protection of correlative rights? 8 9 A. Yes, sir. Will approval of the Application enable you to 10 Q. 11 also go forward in a timely fashion in your efforts to 12 comply with the time frames imposed on this effort by the Jicarilla Apache Tribe? 13 Yes, it would. Α. 14 Were Exhibits 1 through 6 either prepared by you, 15 or have you reviewed them and to the best of your ability 16 can you testify to their accuracy? 17 I've reviewed them, and I can say that they are 18 Α. 19 accurate. MR. CARR: At this time, Mr. Stogner, we would 20 move the admission of EnRe Exhibits 1 through 6. 21 22 EXAMINER STOGNER: Exhibits 1 through 6 will be admitted into evidence. 23 MR. CARR: And that concludes my direct 24

examination of Mr. Michelson.

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EXAMINATION

BY EXAMINER STOGNER:

- Q. Mr. Michelson, what's your understanding is the zone of interest? Is that the "B" zone?
- A. That's the zone we plan to drill the wellbore through, yes, sir.
- Q. And that's the one that -- the current one, the current well is also attempting a completion in that zone?
- A. The Cedar Canyon 22-G, yes, sir, that's -- In fact, that's why it was kind of critical that Mr. Kirn stay, because we just drilled out from casing, and we're getting to the point where we're entering the "B" zone and wanted to be sure that we're staying on target.
- Q. And as shown here on Exhibit Number 5, as is your well, I'm assuming, that is being drilled today, that your personnel are on, it's pertinent that that whole -- or the horizontal portion travel or at least stay within the top portion of that Mancos "B" zone?
 - A. Yes, sir, that's very critical.
- Q. Is the drilling of this horizontal well, is it contingent upon a successful completion or test for the well that's being presently drilled?
 - A. No, sir.

EXAMINER STOGNER: Okay, I don't have any other questions.

1	MR. CARR: We have nothing further in this case,		
2	Mr. Stogner.		
3	EXAMINER STOGNER: Does anybody else have		
4	anything further in Case 11,128?		
5	If not, then this case will be taken under		
6	advisement.		
7	MR. CARR: Thank you, Mr. Stogner.		
8	EXAMINER STOGNER: Thank you.		
9	(Thereupon, these proceedings were concluded at		
10	10:00 a.m.)		
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CERTIFICATE OF REPORTER

STATE OF NEW MEXICO ss. COUNTY OF SANTA FE

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; 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 October 29th, 1994.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 1998

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 11128. heard by me og 27 Oileber 1974.

_, Examiner

Oil Conservation Division