1	STATE OF NEW MEXICO
2	ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
3	OIL CONSERVATION DIVISION
4	CASE 10109
5	
6	
7	EXAMINER HEARING
8	
9	IN THE MATTER OF:
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11	Application of M. B. Resources Corporation
12	for a Horizontal Directional Drilling Pilot
13	Project, Special Operating Rules Therefore,
1 4	and a Nonstandard Oil Proration Unit,
15	Lea County, New Mexico.
16	
17	TRANSCRIPT OF PROCEEDINGS
18	
1 9	BEFORE: JIM MORROW, EXAMINER
2 0	
21	STATE LAND OFFICE BUILDING
2 2	SANTA FE, NEW MEXICO
2 3	October 3, 1990
2 4	
2 5	ORIGINAL
	To the term of the

CUMBRE COURT REPORTING (505) 984-2244

1	APPE	ARANCES
2		
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- EXAMINER MORROW: At this time we'll call
- 2 the next case, No. 10109.
- MR. STOVALL: Application of M. B.
- 4 Resources Corporation for a horizontal directional
- 5 drilling pilot project, special operating rules
- 6 therefore, and a nonstandard oil proration unit, Lea
- 7 County, New Mexico.
- 8 EXAMINER MORROW: Call for appearances.
- 9 MR. PEARCE: Mr. Examiner, I am W. Perry
- 10 Pearce, of Montgomery & Andrews, P.A. in Santa Fe, New
- 11 Mexico, appearing in this matter on behalf of M. B.
- 12 Resources Corporation. I have two witnesses who need
- 13 to be sworn.
- 14 EXAMINER MORROW: Will the witnesses please
- 15 stand to be sworn.
- 16 Are there additional appearances?
- MS. CALLAHAN: I am Candace Callahan with
- 18 the Santa Fe Law Firm of Kellahin, Kellahin & Aubrey,
- 19 appearing for Harken Exploration Company. We have no
- 20 witnesses to be sworn.
- 21 EXAMINER MORROW: Go ahead, Mr. Pearce.
- MR. PEARCE: Thank you, Mr. Examiner.
- 23 WILLIAM C. BAHLBURG
- 24 the witness herein, after having been first duly sworn
- 25 upon his oath, was examined and testified as follows:

5

- 1 EXAMINATION
- 2 BY MR. PEARCE:
- 3 Q. I would ask the witness to please state his
- 4 name, occupation, place of residence.
- 5 A. My name is William C. Bahlburg, and I am a
- 6 geologist/geophysicist and officer of M. B. Resources
- 7 Corporation, and I reside in Plano, Texas, which is a
- 8 suburb of Dallas.
- 9 Q. Mr. Bahlburg, for the court reporter, would
- 10 you spell your last name, please.
- 11 A. BAHLBURG.
- 12 Q. Thank you, sir. Mr. Bahlburg, have you
- 13 previously appeared before the New Mexico Oil
- 14 Conservation Division and had your credentials as an
- 15 expert in the field of petroleum geology accepted and
- 16 made a matter of record?
- 17 A. Yes, I have.
- 18 Q. Are you familiar with the application filed
- 19 in this matter on behalf of M. B. Resources
- 20 Corporation?
- 21 A. Yes, I am.
- MR. PEARCE: Mr. Examiner, at this time I
- 23 would ask recognition of Mr. Bahlburg as an expert in
- 24 the field of petroleum geology.
- EXAMINER MORROW: He's so qualified.

- Q. Mr. Bahlburg, at this time would you
- 2 briefly describe what M. B. Resources is seeking in
- 3 this case?
- A. M. B. Resources is seeking to reenter the
- 5 #2 Ramco State well located in the northeast of the
- 6 southeast quarter of Section 35, 16 South, 35 East,
- 7 and drill a directional hole at an approximate depth
- 8 of 10,200 feet to a location 1,000 feet immediately
- 9 east of the Ramco State borehole and thereby intersect
- 10 what is known as the Shoebar-Penn field reservoir and
- 11 produce from that horizontal segment.
- 12 Q. All right, sir. Let's look, please, at
- 13 what we've marked as Exhibit 1 to this proceeding.
- 14 Would you please describe that for the Examiner and
- 15 those in attendance?
- 16 A. Exhibit No. 1 is a land plat which shows
- 17 the location of the M. B. Resources owned state leases
- 18 which consists of two 80-acre north/south oriented
- 19 80-acre tracts, one located in the east half of the
- 20 southeast of Section 35, the other located in the west
- 21 half of the southwest of Section 36, of 16 South, 35
- 22 East, in Lea County.
- In addition, this map also shows the offset
- 24 operators, the mineral ownership, and also the
- 25 location of the #2 Ramco State well in the northeast

- 1 of the southeast of Section 35; the proposed 80-acre
- 2 unit which we have applied for, which consists of the
- 3 northeast of the southeast of 35, and the northwest of
- 4 the southwest of Section 36. And, in addition, it
- 5 also shows, as indicated by the orange-colored dashed
- 6 line, the orientation and direction of the horizontal
- 7 hole that we are applying for today.
- 8 Q. Mr. Bahlburg, at the present time the
- 9 Shoebar-Pennsylvanian pool is spaced on 40 acres, is
- 10 that correct?
- 11 A. That's correct.
- Q. M. B. is proposing to form a nonstandard
- 13 80-acre unit and among the special pool rules it's
- 14 seeking is a proposal for an allowable which would be
- 15 standard for an 80-acre spacing and proration unit to
- 16 this depth, is that correct?
- 17 A. That's correct.
- 18 Q. Let's turn now, if you would, please, to
- 19 Exhibit No. 2. Would you please describe that for us?
- 20 A. Okay. Exhibit No. 2 is a structure map on
- 21 top of what is known as the Shoebar-Penn reservoir.
- 22 We prefer to call it Lower Wolfcamp, and an in-house
- 23 name of beta limestone. This map shows the
- 24 generalized structure for the Shoebar field area, and
- 25 shows those wells as indicated in green that have

- 1 produced from the Shoebar-Penn reservoir zone.
- 2 You'll notice up to the north there is a
- 3 group of five producers in Section 26, and then down
- 4 to the southeast there's also the well located in the
- 5 northeast of the southeast of 35, which is, in fact,
- 6 the Ramco State well.
- 7 In addition, we are showing, colored in
- 8 red, a cross-section that ties the production to the
- 9 north with the Ramco State well to the south, and then
- 10 continues on into some more recently drilled wells in
- 11 the mid-80s by Mobil in Section 1 of 17 South, 35
- 12 East.
- 13 Also on this map we have outlined the
- 14 acreage in yellow, our two 80-acre state leases. And,
- 15 in addition to that, we have shown, outlined in
- 16 orange, our proposed 80-acre proration unit. And then
- 17 likewise we have also outlined in green, kind of a
- 18 dotted, circular-like line, showing what we believe to
- 19 be the productive limits of the reservoir which
- 20 surrounds the #2 Ramco State well, as well as the
- 21 reservoir which surrounds the wells to the north in
- 22 Section 26.
- Q. All right, sir. You mentioned a
- 24 cross-section. I would refer you to what we've marked
- 25 as Exhibit No. 3 to this producing.

9

- A. Okay. This cross-section runs in a
- 2 northwest/southeast orientation and essentially tries
- 3 to tie the production in the wells in Section 26, that
- 4 are classified as Shoebar-Penn with the Ramco State
- 5 well. It is designated on the cross-section as the
- 6 Western Natural Gas #2 Ramco State because they were
- 7 the original operator, and also there's the bold words
- 8 "horizontal recompletion" above it.
- 9 It also shows the perforated intervals at
- 10 least of record that we could find in the state files
- 11 for all of the wells. It goes through a number of
- 12 wells which separate the Ramco State from the
- 13 production to the north. It shows, down at the bottom
- 14 of the cross-section, microlog sections of the
- 15 reservoir pay interval from the wells to the north, as
- 16 well as the Ramco State, and it also shows how the
- 17 Ramco State well correlates to the Mobil production in
- 18 wells down to the southeast in Section 1 of 17/35.
- In addition, we have tried to show
- 20 schematically what we intend to do with the Ramco
- 21 State borehole, in that we intend to essentially
- 22 kickoff and drill a medium-radius, horizontal hole
- 23 into the reservoir which has produced approximately
- 24 65- to 66,000 barrels from what is known as the
- 25 Shoebar-Penn, and then hopefully drill towards and

- 1 penetrate a better reservoir in addition to the
- 2 reservoir that has produced at the Ramco State.
- 3 Up at the top--I'll just point this
- 4 out--one of the reasons we've applied for this
- 5 application is not just from the standpoint that we
- 6 feel like we can more efficiently and effectively
- 7 drain the reservoir, but also we can cut the costs in
- 8 half to do the same thing that we were going to
- 9 originally do with a vertical hole in the northwest of
- 10 the southwest of Section 36.
- 11 Q. All right, sir. Based on the structure map
- 12 and the cross-section, have you constructed an isopach
- 13 map?
- 14 A. Yes, we have.
- 15 Q. Let's look at that, please. And we have
- 16 marked that as Exhibit No. 4 to this proceeding.
- 17 A. Before I go to the isopach, I'll refer you
- 18 to the cross-section again, and you'll notice that
- 19 above the productive reservoir colored in green
- 20 there's an interval that has been outlined in sort of
- 21 a purple color. That is an interval that has been
- 22 used to delineate reservoir distribution, if you will,
- 23 within this Shoebar-Penn reservoir interval. And on
- 24 this--
- 25 EXAMINER MORROW: That's the line on top?

- 1 THE WITNESS: Yes, sir. It's an interval
- 2 that's bracketed in purple there. That's the interval
- 3 shown on this isopach map.
- MR. PEARCE: If I may interrupt, Mr.
- 5 Examiner, it's hard to see, but there are two purple
- 6 lines, one immediately below the line designated "Top
- 7 Lower Wolfcamp" and the other line curving that is
- 8 below it at varying distances.
- 9 EXAMINER MORROW: All right.
- MR. PEARCE: Thank you, sir.
- 11 A. This isopach map also shows some of the
- 12 things that the structure map showed. In other words,
- 13 it outlines the acreage, it shows the proposed unit,
- 14 it shows the proposed direction of horizontal
- 15 drilling.
- In addition to that, it also shows in kind
- 17 of a stippled line pattern, some various seismic
- 18 control that we have over in the area that we have
- 19 used to aid in our delineation of the reservoir so we
- 20 could select a direction to drill. It also shows the
- 21 wells that are designated in and produced from the
- 22 Shoebar-Penn Pool as well as their cumulative
- 23 production rounded off to the nearest thousand
- 24 barrels.
- As you can see from this map, there is a

- 1 definite thin that surrounds and is coincident with
- 2 the production in Section 26 in this interval that
- 3 overlies what we believe to be kind of a carbonate
- 4 build-up.
- In addition to that, down to the south we
- 6 have identified a thin utilizing the well control, and
- 7 seismic technology around the Ramco State well it
- 8 appears to be isolated and relatively small; and hence
- 9 the reason we would like to drill in an eastward
- 10 direction to hopefully drill into a thicker part of
- ll the reservoir.
- 12 O. Other discussion of Exhibit 4?
- 13 A. No.
- 14 Q. I would ask you to refer to what we've
- 15 marked as Exhibit No. 5, and I would ask you if that
- 16 is a copy of a letter that was sent to offset
- 17 operators pursuant to Oil Conservation Division rules,
- 18 along with the return of service received on those
- 19 letters?
- 20 A. It is exactly that.
- 21 Q. I would ask you to please refer to the last
- 22 letter and return receipts in that package, which are
- 23 the last two pages, Mr. Examiner. I notice that is a
- 24 letter directed to Harken Exploration, is that
- 25 correct?

- 1 A. That's correct.
- 2 Q. The receipt for that shows it postmarked
- 3 September 17th. Am I correct that a letter was sent
- 4 earlier to the predecessor in interest to Harken, is
- 5 that correct?
- A. Actually, the letter was sent to a company
- 7 called Whiting Partnership, Ltd., in that originally
- 8 we determined that Kennedy and Mitchell was the
- 9 operator of that particular tract of land and that is
- 10 in the northeast 160 acres of Section 35, which is
- ll immediately north of the Ramco State well.
- We could not locate Kennedy and Mitchell,
- 13 so we sent a timely letter to Whiting, who in turn
- 14 notified us that Harken was the new operator and it
- 15 had acquired the interests of Kennedy and Mitchell and
- 16 then we sent the letter to Harken.
- Q. And since sending this letter to Harken
- 18 you've had discussions with their representative, is
- 19 that correct?
- 20 A. That's correct.
- 21 Q. And they have agreed to withdraw their
- 22 opposition to this application?
- A. That's correct, and to support it.
- 24 Q. Is there anything further you would like to
- 25 discuss for the Examiner at this time?

- 1 A. No.
- MR. PEARCE: Mr. Examiner, at this time I
- 3 would move the admission of M. B. Resources' Exhibits
- 4 1 through 5.
- 5 EXAMINER STOGNER: Exhibits 1 through 5 are
- 6 admitted.
- 7 MR. PEARCE: I have nothing further of this
- 8 witness at this time, Mr. Examiner.
- 9 EXAMINER MORROW: Ms. Callahan, do you have
- 10 any questions?
- 11 MS. CALLAHAN: No, I have no questions.
- 12 EXAMINER MORROW: You do have another
- 13 witness?
- MR. PEARCE: I do have, yes, sir.
- 15 EXAMINATION
- 16 BY EXAMINER MORROW:
- 17 Q. The well you plan to reenter and drill
- 18 horizontally, is it productive at this time?
- 19 A. Let me explain how we acquired it. It is
- 20 marginally productive but uneconomic. We went out and
- 21 acquired this state lease back in, I believe it was,
- 22 1988. At that particular time there was--this
- 23 wellbore did exist and it had not been plugged.
- 24 Subsequently we went into the well and
- 25 production-tested it. At that point in time I believe

- 1 it had made approximately 65,000 barrels. We got the
- 2 records from ARCO, who had, back I think in the 60s,
- 3 acquired the interest from Western Natural Gas, and
- 4 looked at the production history from that point up
- 5 until 1988, and had determined that basically the
- 6 economic profitability of that well was a function of
- 7 just what kind of influx of fluids you could get out
- 8 of the wellbore and had been produced for years and
- 9 years on an intermitter until the water hit, and then
- 10 they couldn't use the intermitter anymore, so we went
- ll and actually tried to pump-test it and put a pump on
- 12 it.
- What we found was that we could pump-test
- 14 the well. First of all, when we opened it up, it
- 15 literally flowed, and then it died. We went in and
- 16 the fluid level was right at about 4000 feet. We
- 17 pump-tested it, pumped off an approximate total,
- 18 including the fluid that flowed and the fluid that was
- 19 recovered on pump, of about 300 barrels, which ended
- 20 up being about 50/50 oil and water, until we reached a
- 21 point where we lost all our fluid level, had no gas
- 22 entry, no water entry, no oil entry.
- We shut it in for a month. The tubing
- 24 pressure built up to an approximate 600 pounds. The
- 25 fluid level rose again to approximately 4000 feet from

- 1 the surface, and we pump-tested it again. We did this
- 2 three times, saw the same results, and concluded that
- 3 information in conjunction with the information that
- 4 was provided and available in the ARCO files about the
- 5 production history of the well is that we were truly
- 6 tied into a larger reservoir of some sort, but we were
- 7 on the edge of it and poorly communicated to it. I
- 8 might add that regional studies duplicate this same
- 9 scenario in other fields producing out of equivalent
- 10 rocks.
- 11 Q. The 150 barrels was not in a day, but in--
- 12 A. No. It was over a period of approximately
- 13 seven or eight days until we would pump it off.
- So, based on that information, we felt
- 15 there was a good possibility that we had essentially
- 16 another edge well because there are many, and then set
- 17 about to delineate where the better reservoir would
- 18 lie, and determined that from seismic, in conjunction
- 19 with mapping the well control, and then, from that,
- 20 determined which direction we needed to go to drill a
- 21 well.
- We had intended on drilling a vertical
- 23 hole, literally at the same ending bottom hole
- 24 location of our proposed horizontal well. But, in
- 25 looking at it, the costs were significantly higher,

- 1 and we decided that rather than plug this well, we
- 2 would utilize the new technology to get to the same
- 3 point.
- 4 Q. Do you think this well you propose will
- 5 fully develop the south reservoir?
- 6 A. That's what I believe, yes. And I do
- 7 believe that the horizontal leg, because we do intend
- 8 to intersect the reservoir a very short distance from
- 9 the existing wellbore with the horizontal well and
- 10 then continuously drill in that same reservoir for
- 11 approximately 7- to 800 feet further, I do believe
- 12 that it will most definitely allow more efficient
- 13 drainage of the reservoir.
- 14 Q. These special pool rules you request are
- 15 for the entire pool, or just for this well?
- 16 A. I would have to say just for this well
- 17 because I feel it's only applicable here in this
- 18 particular instance. My information indicates that
- 19 the field to the north, looking at the production
- 20 history, is pretty well played out in the zone.
- 21 MR. PEARCE: If I may ask a couple of
- 22 clarifying questions?
- FURTHER EXAMINATION
- 24 BY MR. PEARCE:
- Q. Who operates the Ramco State #2 well at

- 1 this time?
- 2 A. The well is being operated by Manzano Oil
- 3 Corporation out of Roswell on our joint behalf.
- 4 Q. And they will operate the horizontal well,
- 5 is that correct?
- 6 A. That's correct.
- 7 MR. PEARCE: All right, sir. Nothing
- 8 further. Mr. Examiner, do you have anything further?
- 9 EXAMINER MORROW: You may be excused.
- 10 MR. STOVALL: Wait. I have one question
- 11 for you.
- 12 EXAMINATION
- 13 BY MR. STOVALL:
- 14 Q. Is the Harken interest anywhere of record,
- 15 either in county records or--
- 16 A. It was not. We went to the abstract in Lea
- 17 County and got our records there, and they had Kennedy
- 18 and Mitchell down. So it apparently was not.
- Q. And they weren't operating any well that
- 20 was in the OCD records, is that correct?
- 21 A. No. Not to our knowledge, anyway.
- MR. STOVALL: Okay. That's all we have.
- 23 <u>DONNIE E. BROWN</u>
- 24 the witness herein, after having been first duly sworn
- 25 upon his oath, was examined and testified as follows:

- 1 EXAMINATION
- 2 BY MR. PEARCE:
- Q. If I may go to the next witness, Mr.
- 4 Examiner, I would ask you, sir, to please state your
- 5 name, your professional occupation, and your employer?
- 6 A. My name is Donnie E. Brown. I'm
- 7 vice-president of engineering and acquisition for
- 8 Manzano Oil Company out of Roswell, New Mexico.
- 9 Q. Mr. Brown, have you previously appeared
- 10 before the New Mexico Oil Conservation Division and
- 11 had your credentials as a petroleum engineer accepted
- 12 and made a matter of record?
- 13 A. No, I have not.
- 14 Q. Would you briefly describe for the Examiner
- 15 your educational and work experience as it relates to
- 16 the field of petroleum engineering?
- 17 A. Yes. I have a B.S. degree in petroleum
- 18 engineering from the University of Texas at Austin. 1
- 19 have worked with Manzano Company in most of the
- 20 producing areas of the United States as a production
- 21 and reservoir engineer.
- The last 10 years with Manzano Oil Company
- 23 was as a drilling and production manager, Permian
- 24 Basin region in Midland, and I have been recently
- 25 employed as the vice-president of operations and

- 1 engineering with Manzano Oil Company out of Roswell.
- Q. Mr. Brown, are you familiar with the
- 3 application filed in this matter on behalf of M. B.
- 4 Resources?
- 5 A. Yes, I am.
- 6 MR. PEARCE: Mr. Examiner, at this time I
- 7 would ask that Mr. Brown be qualified as an expert in
- 8 the field of petroleum engineering.
- 9 EXAMINER MORROW: So qualified.
- 10 Q. Mr. Brown, if you would, please, I would
- ll ask you to address your attention to what we've marked
- 12 as Exhibit No. 6 to this proceeding. Would you
- 13 describe for the Examiner and those in attendance the
- 14 information on that exhibit?
- 15 A. Yes. Exhibit No. 6 is a schematic diagram
- 16 of the Ramco State #2 well as it exists as of October
- 17 3, 1990. It basically shows that the well, at present
- 18 conditions, is well cased and cemented to protect the
- 19 environment and fresh water producing fresh water
- 20 zones. It shows that the objective formation is the
- 21 Wolfcamp at 10,440 to -505. It is effectively cutoff
- 22 at present with a cast-iron bridge plug at 10,300, and
- 23 it also shows open perfs in an Abo formation from 8730
- 24 to -50 that was tested in 1988 and proved
- 25 noncommercial.

- 1 Q. All right, sir. I would ask you to perhaps
- 2 put before you both what we've marked as Exhibit 7 and
- 3 Exhibit 8 at the same time, and describe what these
- 4 exhibits reflect?
- 5 A. Exhibit 7 is the schematic diagram of the
- 6 well as it will exist after we squeeze off the now
- 7 open zones and condition the well for a horizontal
- 8 kickoff and then our procedure for the horizontal
- 9 kickoff.
- 10 It shows that we will squeeze off the
- 11 present open perfs in the Abo from 8730 to -50. We
- 12 will set a cement retainer at 10,400 to squeeze off
- 13 the perforations in the Wolfcamp, which will be our
- 14 objective horizontal horizon from 10,440 to -505. We
- 15 will then mill out an 80- to 100-foot section casing
- 16 from 10,100 to -200, and then underream that to the
- 17 original hole size of eight and five-eighths.
- We will then set a 400-foot cement plug
- 19 from the top of the cement container to about 100 feet
- 20 above the milled out section of casing. We will then
- 21 dress off that plug to the middle of the milled out
- 22 section of approximately 150 feet, and then we will
- 23 kickoff building about 20 degrees per 100 feet at that
- 24 10,100-foot interval.
- 25 We should reach horizontal in about 300

- 1 feet horizontal distance from the wellbore, and then
- 2 continue our horizontal drilling for another 600 to
- 3 700 feet.
- 4 Q. I would ask you to direct your attention
- 5 briefly to what we've marked as Exhibit No. 9 with
- 6 regard to the well, and describe that? Although I
- 7 think you've probability done that already, do it
- 8 again, please.
- 9 A. Yes. Exhibit No. 9 will indicate the
- 10 directions of the horizontal hole as we kickoff from
- 11 10,150 as we achieve our horizontal position at about
- 12 300 feet away from true vertical depth, and as we end
- 13 the hole with about 700 feet of horizontal section.
- Q. Mr. Brown, were you in the room when Mr.
- 15 Bahlburg was testifying?
- 16 A. Yes, I was.
- 17 Q. Do you agree that to recomplete this well
- 18 through a horizontal drilling procedure will be less
- 19 expensive and, therefore, more efficient, than
- 20 drilling a second well in the adjoining section?
- 21 A. Yes, I do.
- Q. Do you believe that because of that this
- 23 application will act to prevent waste of resources?
- A. Yes, that's correct.
- Q. Do you believe that this application will

- 1 operate to protect the correlative rights of
- 2 offsetting interest owners and those interest owners
- 3 in this tract?
- A. Yes.
- 5 Q. Do you have anything further at this time,
- 6 sir?
- 7 A. I believe that should cover it.
- MR. PEARCE: Mr. Examiner, at this time I
- 9 would move the admission of M. B. Resources Exhibits 6
- 10 through 9, and I have no further questions of the
- ll witness.
- 12 EXAMINER MORROW: Exhibits 6 through 9 are
- 13 admitted.
- Ms. Callahan, do you have any questions?
- 15 MS. CALLAHAN: No, I have no questions.
- 16 EXAMINATION
- 17 BY EXAMINER MORROW:
- 18 Q. In a recent case where horizontal approval
- 19 was requested, the operator indicated they planned to
- 20 drill the well, the horizontal portion, under
- 21 balance. Do you plan to have the well controlled
- 22 beyond that?
- A. We plan to have it under balance so we can
- 24 have a feel for what the bottom hole is dictating, but
- 25 we're also using a consultant from BecField, a

- l consulting firm, to do our horizontal drilling. They
- 2 have a solid track record in the Austin chalk on the
- 3 horizontal drilling, so we would be using them for
- 4 consultants.
- I anticipate that the well will be drilled
- 6 under balance. We'll let the hole dictate how we
- 7 complete it, but I also anticipate that we'll be using
- 8 a slotted liner in the horizontal section.
- 9 Q. If I understand you right, you would expect
- 10 to employ techniques of measurement while drilling --
- 11 A. Oh, yes.
- 12 Q. -- and control of the direction and the
- 13 angle of the wellbore?
- 14 A. Yes, we'll be measuring every 30 feet and
- 15 we'll have a down-hole measurement while drilling.
- 16 Also have the directional survey at the end of the
- 17 horizontal displacement.
- 18 EXAMINER MORROW: Okay, sir.
- 19 EXAMINATION
- 20 BY MR. STOVALL:
- 21 Q. Do I understand correctly that you
- 22 anticipate because it's a horizontal hole you'll
- 23 expect a higher production level than you would from a
- 24 vertical?
- 25 A. Oh, yes. The literature and also field

- 1 histories on other horizontal holes indicate that your
- 2 initial PI is anywhere from 5 to 15 times higher than
- 3 that of a vertical.
- 4 EXAMINER MORROW: You didn't request any
- 5 increased allowable, I don't believe, did you?
- 6 MR. PEARCE: Mr. Examiner, one of the items
- 7 we're requesting is what would be a standard allowable
- 8 for an 80-acre spacing unit, although the present
- 9 Shoebar-Pennsylvanian field is spaced on 40 acres.
- 10 EXAMINER MORROW: How much would that be?
- 11 THE WITNESS: I believe it's 560 at this
- 12 depth for the 80, versus 320 for the 40.
- 13 EXAMINER MORROW: And 560 would be adequate
- 14 for your expected results?
- 15 THE WITNESS: I believe so, yes, sir.
- MR. PEARCE: It would be nice if it was
- 17 not, Mr. Examiner.
- 18 EXAMINER MORROW: I believe that's all.
- 19 The witness may be excused.
- MR. PEARCE: Nothing further at this time,
- 21 Mr. Examiner.
- 22 EXAMINER MORROW: Case 10109 will be taken
- 23 under advisement.
- 24 (Thereupon, the proceedings concluded.)

25

1	CERTIFICATE OF REPORTER
2	
3	STATE OF NEW MEXICO )
4	) ss. COUNTY OF SANTA FE )
5	COUNTY OF BINNIN THE ,
6	I, Carla Diane Rodriguez, Certified
7	Shorthand Reporter and Notary Public, HEREBY CERTIFY
8	that the foregoing transcript of proceedings before
9	the Oil Conservation Division was reported by me; that
10	I caused my notes to be transcribed under my personal
11	supervision; and that the foregoing is a true and
12	accurate record of the proceedings.
13	I FURTHER CERTIFY that I am not a relative
14	or employee of any of the parties or attorneys
15	involved in this matter and that I have no personal
16	interest in the final disposition of this matter.
17	WITNESS MY HAND AND SEAL October 15, 1990.
18	
19	CARLA DIANE RODRIGUEZ
20	CSR No. 91
21	My commission expires: May 25, 1991
22	
23	
24	10109
25	Oct 3 90.