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 COLUMBIA GAS DEVELOPMENT CORPORATION

CASE NO. 10669

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: David R. Catanach, Hearing Examiner

March 4, 1993

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on March 4, 1993, at 8:50 a.m. at the Oil Conservation Division Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Freda Donica, RPR, Certified Court Reporter No. 45, for the State of New Mexico.

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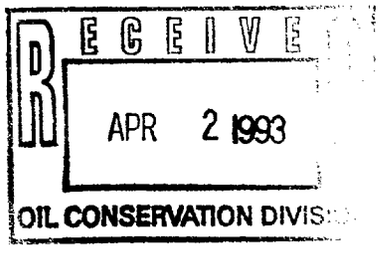

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A P P E A R A N C E S

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Santa Fe, New Mexico
BY: WILLIAM F. CARR, ESQUIRE

EXAMINER CATANACH: We'll call Case 10669.

MR. STOVALL: Application of Columbia Gas Development Corporation for pool creation, special pool rules and a discovery allowable, Lea County, New Mexico.

EXAMINER CATANACH: Are there appearances in this case?

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm of Campbell, Carr, Berge & Sheridan. We represent Columbia Gas Development Corporation, and I have two witnesses.

EXAMINER CATANACH: Any other appearances? Will the two witnesses please stand and be sworn in?

(Witnesses sworn.)

MR. CARR: Mr. Examiner, we initially requested a discovery allowable for this well. That will be unnecessary, and we therefore request that that portion of this case be dismissed.

EXAMINER CATANACH: Okay.

MR. CARR: And at this time we call Jerry Metz.

EXAMINER CATANACH: All right.

JERRY P. METZ

the witness herein, after having been first duly sworn

upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. CARR:

Q. Will you state your name for the record, please?

A. Yes, my name is Jerry P. Metz.

Q. Where do you reside?

A. In Houston, Texas.

Q. By whom are you employed?

A. I'm employed by Columbia Gas Development Corporation.

Q. And in what capacity?

A. As a geologist.

Q. Have you previously testified before the New Mexico Oil Conservation Division?

A. No, I have not.

Q. Could you briefly review your educational background and then summarize your work experience for Mr. Catanach?

A. I have a bachelor's and master's degrees from Kansas State University. I have 31 years of experience in oil and gas exploration, various companies. The last 20 years have been primarily in the Permian Basin, which, of course, involves southeast New Mexico.

Q. How long have you been employed by Columbia Gas Development Corporation?

A. Three years.

Q. And does the geographic area of your responsibility for Columbia include the portion of southeastern New Mexico involved in this case?

A. Yes, it does.

Q. Are you familiar with the application filed on behalf of Columbia in this matter?

A. Yes, I am.

Q. And have you made a geological study of the area involved?

A. Yes.

MR. CARR: We tender Mr. Metz as an expert witness and petroleum geologist.

EXAMINER CATANACH: Mr. Metz is so qualified.

Q. (By Mr. Carr) Would you briefly state what Columbia seeks with this application?

A. Yes. We seek the formation of a new pool designation, special spacing rules, 160-acre spacing rules, and 330-foot setbacks from the outer limits of spacing units.

Q. And in what formation are you proposing to create this new pool?

A. The Wolfcamp.

Q. Can you identify for Mr. Catanach the geographic area that is being proposed for the initial pool boundary?

A. Yes, if we might refer to Exhibit 1.

Q. That is in the exhibit book?

A. Yes. This is a structure map, top of the Wolfcamp porosity and the -- in Section 34, 14 South, 38 East, Columbia drilled their Number 1 McMillan Well. That well is located 400 feet from the north line, 1980 feet from the west line of Section 34. And we're asking 160-acre spacing, which would consist of the northwest quarter section of Section 34, 14 South, 38 East.

Q. When was this well actually drilled and completed?

A. It was spudded in late 1991, completed in June of 1992.

Q. Was the well originally drilled to the standard location?

A. Yes.

Q. Now, Exhibit Number 1 is a structure map on the top of the Wolfcamp?

A. That is right.

Q. What data did you use for the preparation

of this exhibit?

A. We used subsurface control, as indicated, the McMillan well in Section 34. We have subsequently drilled a dry hole to the north in Section 27, called the Cave Estate. Another subsurface point in the northeast of 34, Greathouse, Pierce & Davis Well, which was drilled, I believe, in the 1950s. A well drilled by Warren Petroleum Corporation, again, in the 1950s in the southwest of Section 21, 14 South, 38 East. And then three wells in the southern half of Section 33, all drilled by Reading & Bates Corporation on the Dickinson Cattle Company lease. And then we also supplemented subsurface control with seismic data, and the pertinent seismic data is located on the map by the designation of dash lines across the map.

Q. Mr. Flores, what we're talking about here, really, is just the small geologic feature in the northwest of 34 and the southwest of 27; is that correct?

A. That is correct.

Q. What is the character of the land in this area of state, federal, or fee?

A. It is all fee land.

Q. Could you briefly describe for Mr. Catanach Columbia's future development plans for this geologic

feature?

A. Well, I might -- of course, we drilled the McMillan. We had drilled the Cave Estate approximately one-half mile to the north, which was a dry hole due to structural position. We -- based on correlation between those two wells, we would expect that the pool limits are at or about the minus 5600-foot contour shown on the structure map. On that basis, we would then appear to have no more than a two-well field. And we certainly are contemplating an additional well or additional development in the southwest of 27, which will be largely dependent on economics.

Q. Are there other Wolfcamp fields in the immediate area?

A. Yes. The one well field in the south half of Section 33, the Reading & Bates-Dickinson Cattle Company Well Number 1 is completed in the Wolfcamp, and that is called the Pollack Field.

Q. Is this a separate geologic feature and pool from what we're talking about here today?

A. Yes, it is, as evidenced -- their structural top at the Wolfcamp, a minus 5608, and our McMillan well, we are minus 5564, roughly some 40 -- 50 feet high to the Dickinson Cattle Company well.

Seismic indicates a strong low or reentrant separating the two features, and we do appear to have a different reservoir drive mechanism.

Q. Are there any Wolfcamp wells within a mile of the proposed pool?

A. The -- no, not within a mile. The Dickinson Cattle Company would be the closest one, over a mile away.

Q. Let's move Columbia Exhibit Number 2. Would you identify and review that for the Examiner?

A. Yes. Exhibit Number 2 is a land map showing Columbia's leasehold position in the area. And that position is indicated in yellow, the solid yellow being 100 percent working interest, and the hatchered area being less than 100 percent.

Q. Now let's move to Exhibit Number 3. Would you identify that and review it for Mr. Catanach?

A. Exhibit Number 3 is a portion of the porosity log, the compensated neutron density log, on the McMillan well. I've indicated tops and bottoms of units on this log, the top of the Wolfcamp at a depth of 9336, the top of the Wolfcamp porosity at 9344. The arrows and the depth tract indicate the points of perforations within the Wolfcamp section. Further down the log we have a regional marker that we call

the double X, that is at a depth of 9584 feet. And then we have additional perforations just below that in still a Wolfcamp reservoir. We refer to it as the double X zone.

Q. You actually have two Wolfcamp zones?

A. Yes, we do.

Q. How were they tested? Have they been independently tested?

A. Yes. Both zones -- during completion process, each zone was tested independently. They were given acid treatments. Each zone by itself were -- tested almost equally. Both zones were then comingled on final completion. The well potential for 227 barrels of oil, 40 barrels of water, probably including some load water. Very minor amount of gas.

Q. What is this well's current producing rate?

A. It is currently producing on pump 70 barrels of oil, 4 barrels of water, and an estimated 4 MCF gas.

Q. Do you know what gas-oil ratio this translates to?

A. The original one was about 171.

Q. Could you discuss the general characteristics of this Wolfcamp pool?

A. Well, the zones are -- both zones are

carbonates. They're a mix of dolomites and limestone. We believe the trap to be a structural closure at the top of the shoal area, offshore shoal. The drive mechanism on this is pressure depletion.

Q. How does this reservoir drive mechanism compare to what you understand to be the reservoir drive mechanism in the Pollack Field for the southwest?

A. The Pollack Field appears to have a strong water association with it. The Reading & Bates-Dickinson Cattle Company Well -- the number 1 well that was completed in the early 1980s, it has produced approximately 209,000 barrels of oil and over three million barrels of water. Our well is virtually water-free.

Q. What conclusions have you been able to reach from your geologic study of this pool?

A. Conclusion is that we have a small area of indicated closure. It's probably no more than a two-well field. And the further development is, to a large extent, dependent on economics. And it is a separate source of supply from the Pollack Field to the southwest.

Q. If special pool rules are adopted for this pool on a temporary basis, for what period of time

would you recommend that they remain in place until Columbia is required to come back and establish that reservoir performance justifies permanent rules?

A. We would recommend 18 months.

Q. Will Columbia also be calling an engineering witness?

A. Yes, they will.

Q. Were Exhibits 1 through 3 either prepared by you or compiled under your direction?

A. Yes, they were.

MR. CARR: At this time, Mr. Catanach, we move the admission of Columbia Exhibits 1 through 3.

EXAMINER CATANACH: Exhibits 1 through 3 will be admitted as evidence.

MR. CARR: That concludes my direct examination of Mr. Metz.

EXAMINER CATANACH: Mr. Metz, the two intervals that you're producing in your well, are they segregated by some sort of barrier?

THE WITNESS: Well, we think there's a -- the double X marker is actually a shale zone. We think that's probably a seal on the lower zone. During the -- or during the drilling of the well, after we logged the well, we took a number of rotary sidewall cores through the bore hole. The lowest

perforation in the upper zone had about 95 -- 9468 was the deepest zone that we had any oil saturation in the cores. Further cores down in the 9500-foot range had no show of oil. We also cored the zone below the double X. It had oil shoals, and we would conclude from that that they are segregated and sealed from one another.

EXAMINER CATANACH: Do you have a -- I better ask the engineer that question. Do the porosity and the permeability compare? How do they compare on those two different zones?

THE WITNESS: The lower zone has thinner zones of porosity. But from a quality standpoint, cross-plotting the porosity, we see some points of up to 13 percent porosity. The entire zone would probably average out in the range of six percent. In the upper zone, or the upper set of perforations, lesser -- we have nothing to compare to the 13 percent range. We see an average overall there of around six, with a maximum of around nine percent, and based on the sidewall cores, lesser permeabilities.

EXAMINER CATANACH: Mr. Metz, have you looked at the logs on the producing well in Section 33 and compared the porosity or permeability to that well?

THE WITNESS: Yes. The Reading & Bates well, the upper Wolfcamp, is almost exclusively dolomite in that wellbore, as opposed to a mix of dolomite and limestone in our wellbore. Porosities in the upper zone -- and it is completed only in the zone that would compare to our 9344 to 9468 area -- those porosities generally go up into the ten percent, and based on some sonic logs in the wellbore, we tend to come to the conclusion that there are some fractures associated with that reservoir as well. It is, overall, a better reservoir.

EXAMINER CATANACH: The pool in Section 33, do you know what that is spaced on?

THE WITNESS: Yes, sir. It is spaced on 40 acres.

EXAMINER CATANACH: In terms of the geologic characteristics, do you think that you have -- well, what do you think the differences are between your new well and that well that's spaced on 40 acres? Is there a significant geologic difference in terms of maybe porosity or permeability?

THE WITNESS: Yes sir. We have less porosity -- probably more total thickness, but less quality. If you went to a porosity-foot basis, we would certainly have a lesser reservoir. We are

structurally high to that area. I think the drilling information from the Pollack, if you'll notice, they drilled a number two well to the west, dry hole, which appears to have an oil-water contact right through the wellbore. And then they drilled a third well to the east, which was structurally low and lacked porosity. The configuration of their pool indicates that it is probably a one, maybe a two -- maximum a two-well field also.

EXAMINER CATANACH: In terms of affecting different drainage areas, would you expect that your well has better permeability than that well in Section 33?

THE WITNESS: I would tend to think not because of the amount of fluid taken from there. That 200,000 barrels of oil and over three million barrels of water has to be coming from a pretty strong reservoir.

EXAMINER CATANACH: I believe that's all I have, Mr. Carr.

MR. CARR: At this time we'd call Mr. Flores.

FERNANDO FLORES

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

EXAMINATION

BY MR. CARR:

Q. State your name for the record, please.

A. My name is Fernando Flores.

Q. Where do you reside?

A. I live in Houston, Texas.

Q. Mr. Flores, by whom are you employed and in what capacity?

A. I work for Columbia Gas Development Corporation as a reservoir engineer.

Q. Have you previously testified before the New Mexico Oil Conservation Division?

A. No, I have not.

Q. Would you briefly summarize for Mr. Catanach your educational background and then review your work experience?

A. I graduated from the University of Houston with a degree in engineering in 1974. After graduation, I worked for Shell Oil for three years as a petroleum engineer. I worked four years for Superior Oil as a petroleum engineer, and I have been with Columbia Gas 11 years as a reservoir engineer.

Q. Does the geographic area of your responsibility for Columbia include the portion of southeastern New Mexico involved in this case?

A. Yes, it does.

Q. Are you familiar with the application filed in this case?

A. Yes, I am.

Q. Have you made an engineering study of the McMillan 34 Number 1 Well?

A. I have.

Q. The general formation and the area?

A. Yes, I have.

MR. CARR: We tender Mr. Flores as an expert witness in petroleum engineering.

EXAMINER CATANACH: Mr. Flores is so qualified.

Q. (By Mr. Carr) Mr. Flores, let's go first to what has been marked as Columbia's Exhibit Number 4. And could you just briefly identify this for Mr. Catanach and explain what it's designed to show?

A. Exhibit Number 4 is the gas composition of the Wolfcamp gas. The only thing I want to point out here is that there is no H2S. It's listed here at the bottom as zero. The only thing I want to point out here is that there was no special handling of the gas by field personnel when working in the area of the well.

Q. Let's move to Exhibit Number 5. Could you

identify this for the Examiner?

A. Exhibit Number 5 is an engineering exhibit that shows the reservoir properties of the Wolfcamp Formation that's being produced by the McMillan Number 34-1. I'll go down the line here and list some of the critical parameters that I want you to kind of see here.

The initial reservoir pressure, based on the drill stem test, is 3808 PSI. It's got a very low bubble point pressure, up to 716 PSI. The average water saturation, based on log calculations, is 33 percent. The average porosity, based on log calculations, is six percent. The effective permeability, based on a drill stem test and, as it was done on the Horner plot analysis, is 7.9 millidarcies. The current gas-oil ratio is 57 cubic feet per barrel of oil. The current 24-hour rate of oil, gas, and water is 70 barrels of oil per day, 4 MCF per day and 1 barrel of water. Through the end of February of 1993, the well had produced 32,000 barrels of oil. Currently the gas is flared, the oil is sold to Koch, and the water is trucked. The estimated effective drainage area, based on engineering studies, is 160 acres. The estimated recoverable reserves are 124,000 barrels of oil.

Q. Let's go to Exhibit Number 6. I would ask you to review your volumetric calculations for the Examiner.

A. Exhibit Number 6 is the volumetric reserves and recovery estimates. The first equation that I have here is the equation used to calculate the barrels per acre. The porosity used in this equation is a porosity of six percent, previously described, water saturation of 33 percent, and an average net pay over 160 acres of 22 feet. The oil formation volume factor is 1.15, which was based on correlations. Based on this equation, there are 5,966 barrels per acre. Over 160 acres that equates to 954,598 barrels of oil in place.

Q. Let's now go to the recovery factor portion of this exhibit.

A. The estimated oil recovery, which I have labeled here as EUR, is equal to the cumulative production to date, plus the remaining reserves. The remaining reserves are calculated off of a decline curve which I will show in a later exhibit. And the equation is listed here. The parameters used in equation are the remaining oil, with an initial rate of 70 barrels of oil per day. The economic limit is ten barrels of oil per day. A decline rate based on

the production curve is 21 percent. Based on this equation, there are 92,000 barrels of oil remaining. Adding the cumulative production of 32,000 barrels, we have calculated an estimated ultimate oil recovery of 124,000 barrels of oil.

The next parameter which I have calculated here is a recovery factor. And that is the estimated ultimate oil recovery divided by the original oil in place. Based on those two numbers that I have earlier calculated here, I come up with a recovery factor of 13 percent over 160 acres.

Q. Is this a normal recovery factor for a reservoir of this nature?

A. Based on the mechanism of pressure depletion, a gas-oil ratio which is currently 57 cubic feet per barrel of oil, I'm calling this -- it's almost what I call a dead oil -- a 13 percent recovery factor appears to be correct.

Q. Let's go now to your economics as presented on Exhibit 7. Could you review these for the Examiner?

A. Exhibit Number 7 are the Wolfcamp Formation economics. Under letter A, I've labeled, are the parameters that fall under investment. The drill and complete is $988,000.00, facilities of $90,000.00, and

the pumping unit and installation is $110,000.00, which comes to $1,188,000.00 investment.

The current operating cost is $4,000.00 a month. The reserves and rate, the reserves used in these economics are an initial rate of 215 barrels of oil per day. The reserves used are 124,000 barrels of oil.

The economics, based on an initial oil price of $20.75, will give you a payout in 4.6 years, a cash flow, after tax and expenses, of $340,000.00. The rate of return after taxes is 11.9 percent.

Q. Mr. Flores, could there, from an economic point of view, be any justification for an effort to develop this reservoir on 40-acre spacing?

A. No. Based on 40-acre spacing, it would not be economic to go in and complete it.

Q. In your opinion, would development of this reservoir on 40-acre spacing be an efficient or effective way to develop the reservoir?

A. No.

Q. Would it be consistent with what you know of the way this reservoir performs?

A. No, it would not be consistent based on 40 acres.

Q. If the spacing should be left on state-wide

40 acres, could this trigger lease development obligations?

A. Yes, it would.

Q. Could you identify what has been marked as Columbia Exhibit Number 8?

A. Exhibit Number 8 is the production curve of the well. The bottom scale, horizontally, is the time scale. The vertical scale is the barrels of oil per day. The well initially started producing at about 200 barrels per day. And the solid line is the historical production up through February of 1993, which shows the well to be producing at 70 barrels of oil per day.

I have done a projection on the historical and the way other wells have produced, the reservoir parameters and the pressures, and it's the dash line seen there. And that's the forecast. And that gives us a 21 percent decline rate. This is the -- what I call the drainage area of the reservoir. It fits the volumetric parameters based on log calculations.

Q. Based on your engineering study, is 160-acre spacing the appropriate spacing pattern for this pool?

A. Yes, it is.

Q. And Columbia is requesting 330-foot setbacks for the outer boundary of any spacing unit?

A. Yes, we are.

Q. And why is that?

A. This will give us the flexibility to develop this reservoir in the most efficient manner and give us the opportunity to drill at the most optimum structure position.

Q. Now, currently there's one well in Section 34.

A. Yes.

Q. That's set back how far from the north line?

A. It's about 400 feet.

Q. And if you have the flexibility you're requesting, you could offset that production at a common distance from the section line that runs through this field?

A. Yes.

Q. I talked with Mr. Metz about a time period for temporary rules. Do you concur that 18 months would be an appropriate period of time?

A. Yes, sir, 18 months would allow us to look at the current well, look at the way it declines and verify all the numbers that we have percentages here.

Q. Would that also give you time to go forward with any development plans you may have in Section 27?

A. Yes, it will.

Q. In your opinion, will granting this application be in the best interest of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, it will.

Q. Were Exhibits 4 through 8 either prepared by you or compiled under your direction?

A. They were.

MR. CARR: Mr. Catanach, at this time we would move the admission of Columbia's Exhibits 4 through 8.

EXAMINER CATANACH: Exhibits 4 through 8 will be admitted as evidence.

MR. CARR: That concludes my examination of this witness.

EXAMINER CATANACH: Mr. Flores, I believe earlier testimony was that the productive limits of the reservoir were at the minus 5600-foot contour line?

THE WITNESS: Correct.

EXAMINER CATANACH: Do you know the areal extent of that area within that contour line?

THE WITNESS: The area that that would encompass, I am not familiar, but it's 100 and plus acreage.

EXAMINER CATANACH: Does your company plan to drill a section well in Section 27?

THE WITNESS: Yeah, we're currently looking at that area very closely. We're looking at the methods to economically and effectively be able to drill a well there.

EXAMINER CATANACH: Would you estimate that that pool contains 160 acres or less?

THE WITNESS: The pool down to 5600 foot?

EXAMINER CATANACH: Right.

THE WITNESS: It's about 160 acres, in that range. There's one from that area that we've found that appears to be 157 acres. And that was done based on some assumptions we made. We used the lowest known oil, the highest known water, and we took halfway between those two parameters.

EXAMINER CATANACH: Your volumetric estimates are based on an area of 160 acres?

THE WITNESS: Correct.

EXAMINER CATANACH: Is it your opinion that that really is about what you're going to get out of the whole pool?

THE WITNESS: Currently, what we've seen here, based on the volumetrics and the decline curves, yes, we believe that that will be the drainage area of this well. We don't have a hundred percent reliability on all the numbers, but -- and that's why we're asking for an additional 18 months; but, yes.

EXAMINER CATANACH: Yet it's your opinion -- well, is it your opinion that an additional well may be needed to drain those reserves?

THE WITNESS: That's why we need 18 months. We might need a second well to develop the field. We're closely looking at this well. We're closely looking at the decline curve to see if the production holds up or stays flat or so forth. But to our best estimates, the data we have presented here is what we believe, but we also know that we don't have a real strong handle on all the parameters. So we're asking for an additional 18 months.

EXAMINER CATANACH: So you don't plan on drilling the second well in the immediate future?

THE WITNESS: We hope that we'll have that decision in 18 months.

EXAMINER CATANACH: Do you, by any chance, know what the original reservoir pressure of the pool in Section 33 was?

THE WITNESS: As I recall, we didn't have any pressure data. Based on the depth and everything else we looked at, the production on it, we thought it was pretty close to ours.

EXAMINER CATANACH: To what you've encountered in your well.

THE WITNESS: Correct.

EXAMINER CATANACH: In your reservoir properties, Exhibit Number 5, you've got 31 feet for a net pay in the reservoir, and yet in your volumetric reserve you use 22 feet. Why the difference there?

THE WITNESS: Well, 31 feet is the log calculated in the current well and it goes down to zero. So the average from 31 feet down to zero is 21 feet.

EXAMINER CATANACH: I believe Mr. Carr asked you about some drilling obligations. Can you go through them?

THE WITNESS: As far as the timing of additional wells?

EXAMINER CATANACH: Or the spacing as it relates to the spacing in the area.

THE WITNESS: Well, we currently are trying to space the well at 160 acres. Obviously, if we have to go to closer spacing, we would need -- we wouldn't

be able to hold 160 acres, so we'd need -- well, we need -- for 160 acres, we'd need four wells.

EXAMINER CATANACH: Are you the only working interest owner in this well?

THE WITNESS: We have another working interest owner that has about a one-half percent working interest.

EXAMINER CATANACH: Do you know what the decline rate is on the well in Section 33?

THE WITNESS: The well in Section 33 has -- we looked at the decline on it. It has -- it makes a lot of water. I think we used, like, a -- it had different decline rates throughout its life. Currently, it's somewhere, like, on a 30 percent decline rate. It makes about 1,000 barrels of water per day and about 20 barrels of oil per day.

EXAMINER CATANACH: Mr. Flores, do you have an estimate on how much each of the two separate intervals are contributing to the well's production?

THE WITNESS: Yes. We looked -- we perforated and we tested the zone, we acidized the zone, we swabbed the zone. Geologically we looked at it. We believe that -- the best that we can tell, they're both contributing about the same amount.

EXAMINER CATANACH: I guess that's all I

have.

MR. CARR: We have nothing further in this case, Mr. Catanach.

EXAMINER CATANACH: There being nothing further, Case 10669 will be taken under advisement.

(The foregoing hearing was adjourned at the approximate hour of 9:35 a.m.)

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10669, heard by me on March 1993.

David R. Catanach, Examiner
Oil Conservation Division

STATE OF NEW MEXICO)
:
COUNTY OF SANTA FE)

I, FREDA DONICA, RPR, a Certified Court Reporter, DO HEREBY CERTIFY that I stenographically reported these proceedings before the Oil Conservation Division; and that the foregoing is a true, complete and accurate transcript of the proceedings of said hearing as appears from my stenographic notes so taken and transcribed under my personal supervision.

I FURTHER CERTIFY that I am not related to nor employed by any of the parties hereto, and have no interest in the outcome hereof.

DATED at Santa Fe, New Mexico, this 26th day of March, 1993.

Freda Donica
Certified Court Reporter
CCR No. 45