STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
CASE 10110

EXAMINER HEARING

IN THE MATTER OF:

Application of Giant Exploration and Production Company for a Horizontal Directional Drilling Pilot Project, Special Operation Rules Therefore, Nonstandard Oil Proration Unit and an Unorthodox Oil Well Location, San Juan County, New Mexico.

TRANSCRIPT OF PROCEEDINGS

BEFORE: JIM MORROW, EXAMINER

STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
October 3, 1990

ORIGINAL

A P P E A R A N C E S

FOR THE DIVISION:

ROBERT G. STOVALL, ESQ.
Counsel to the Division
Post Office Box 2088
State Land Office Building
Santa Fe, N.M. 87504-2088

MICHAEL E. STOGNER
OCD Examiner/Engineer
Post Office Box 2088
State Land Office Building
Santa Fe, N.M. 87504-2088

FOR THE APPLICANT:

TOMMY ROBERTS, ESQ.
Post Office Box 1020
Farmington, N.M. 87499

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EXAMINER MORROW: Call case 10110 at this time.

MR. STOVALL: Application of Giant Exploration and Production Company for a horizontal directional drilling pilot project,, special operating rules therefore, nonstandard oil proration unit and an unorthodox oil well location, San Juan County, New Mexico.

EXAMINER MORROW: Call for appearances.

MR. ROBERTS: Mr. Examiner, my name is Tommy Roberts. I'm an attorney in Farmington, New Mexico, appearing on behalf of the Applicant. I have two witnesses to be sworn.

EXAMINER MORROW: Will the witnesses please stand to be sworn?

JOHN CORBETT

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

EXAMINATION

BY MR. ROBERTS:

Q. Would you state your name and your place of residence for the record, please.

A. My name is John Corbett; I'm from Farmington, New Mexico.

Q. What is your occupation?

A. I'm a petroleum geologist and vice-president of exploration with Giant Exploration and Production Company.

Q. How long have you been employed in that capacity?

A. I've been with Giant for seven years.

Q. What are your general responsibilities with Giant?

A. I'm in charge of our exploration group, replacement of our company reserves, permitting new wells.

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

A. Yes, I have.

Q. In what capacity?

A. As a petroleum geologist.

Q. Were you qualified as an expert at that time?

A. I was.

Q. Are you familiar with the operations of Giant Exploration and Production Company in the area of the Bisti Lower Gallup Oil Pool?

A. Yes, I am.

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

A. I am.

MR. ROBERTS: Mr. Examiner, I would tender Mr. Corbett as an expert in the field of petroleum geology.

EXAMINER MORROW: His qualifications are accepted.

Q. Mr. Corbett, would you briefly describe the purpose of the application?

A. We're applying for a horizontal drilling project. We have, because of the presence of the De-Na-Zin Wilderness Area south of the Bisti oil field, have been required by BLM to develop our leases by directional, or what they call slant drilling, to meet the wilderness, from a surface location outside the wilderness area's boundaries. We've projected a Gallup sand trend beneath the wilderness and that's the objective of this well.

Q. What is the name of the well which you propose to drill directionally and horizontally?

A. The proposed well is the Debra Geiger No. 1.

Q. Let's have you refer to what has been marked as Exhibit No. 1, and identify the exhibit and explain its relevance to the application?

A. Exhibit No. 1 is a publication by the

Bureau of Land Management. It's the final management plan for the De-Na-Zin Wilderness Area. The significant portion of this refers to minerals and management policy.

On page 25 of the management plan, they note that they will require slant drilling. If you look on page 25 in the right-hand column, the third stipulation from the top, it says slant drilling, no surface occupancy will be considered within the wilderness area. They had originally intended this for wells within a quarter of a mile of the boundary. However, we've been informed by BLM that they will not approve applications to drill unless surface occupancy is beyond the wilderness.

Q. Did you, in fact, submit an application for permit to drill the Debra Geiger No. 1 well at a surface location within the boundaries of the De-Na-Zin Wilderness Area?

A. That's correct. We staked originally the Debra Geiger location within the wilderness, and the BLM, in their environmental assessment of the wilderness, said that they would not approve that plan.

We then moved our location outside of the wilderness and applied for a horizontal well. The BLM

has approved our application and are now waiting on an order from the OCD.

Q. Refer to Exhibit No. 2, identify the exhibit and briefly describe its relevance to the application?

A. Exhibit No. 2 is titled a land plat. It shows both surface ownership and mineral ownership in the vicinity of the Debra Geiger Well #1.

You can see in Section 32 of Township 25 North, Range 11 West, a shaded quarter section and then a brick pattern, which is actually the physical location of the well site or well path that we'll be drilling the Debra Geiger No. 1 from, assuming it's approved.

Section 32 is state minerals, Navajo Tribal Trust surface. I'm not familiar with how the state became separated there, but we have permission from the Navajo tribe to use that surface from their well drilled to a bottom-hole location as shown in Section 4 of Township 24 North, Range 11 West, drilling horizontally along the trend of our projected Gallup sand.

Q. Let me stop you there. The oil and gas lease which covers the lands on which the surface location will exist, is that a state oil and gas

lease, the minerals owned by the State of New Mexico?

A. The surface location overlies state minerals.

Q. Who holds that oil and gas lease?

A. Giant Exploration and Production Company is the operator of State Lease B10894-12, which is where the location is.

Q. Would you state for the record the footage location of the surface location proposed for the Debra Geiger No. 1 well?

A. The surface location will be 105 feet from the south line, which is the wilderness area boundary, and 125 feet from the east line of Section 32.

Q. Go ahead and continue on with your description of the relevant features of this exhibit.

A. In the lower portion of Section 4 of 24 North, 11 West, the lease ownership you can see is Union Pacific Resources Company, et al. Its Federal Lease 36356.

That lease covers the entirety of Section 4 and has, in its entirety, been farmed out to Giant Exploration and Production Company by UPRC. Ownership of all of the Section 4, the entire length of the wellbore and our entire proposed nonstandard proration unit is common and operated by Giant Exploration and

Production Company.

Q. What is the status of the lease which covers all of Section 4?

A. The lease is currently suspended or the terms for operations and production of the lease are suspended. The lease would have expired, the primary term ran out while the BLM was considering our application after preparing the environmental assessment in their final management plan for the wilderness.

Because the lease was to expire, we requested suspension of the terms for operations and production, and they've granted us that suspension until such time as we have an order from the NMOCD to drill a directional well.

Q. Has the BLM imposed any drilling deadline upon Giant Exploration and Production Company?

A. We currently did not have a deadline. It's suspended indefinitely pending both the approval of our case, and also we're in a position of waiting on the rotary tools, the down-hole motor to the well.

Q. Does this exhibit also illustrate offsetting lease ownership, as well as ownership of unleased minerals?

A. It does. We have attempted to lease the

unleased minerals. As you can see from this plat, a large portion of them have been withdrawn from mineral leasing by BLM. They are, for the most part, federal minerals.

To the west of our proposed proration unit and location in Section 5 of 24 North, 11 West, Dugan Production Company has the lease. They have farmed out portions of that lease also to Giant Exploration and Production Company. Our intent is to drill a directional well, not a horizontal well but a directional penetration in the Gallup in Section 5.

Q. Mr. Corbett, for the record, please state how the boundaries of the De-Na-Zin Wilderness Area are noted on this exhibit?

A. It's a dashed line, painted yellow, that runs along the north section line in Sections 4 and 5 of 24 North, 11 West. It includes a portion of the south half of Section 34, and most of 25 North, 11 West, most of Section 10 of 24 North, 11 West.

Q. In what pool does the proposed area of development lie?

A. It's adjacent to but beyond the boundary of the Bisti Lower Gallup Pool per the one-mile rule. I think it will be an extension.

Q. What spacing pattern do the rules for the

Bisti Lower Gallup Oil Pool provide?

A. The rules call for laid-down 80-acre proration units.

Q. Does this exhibit also illustrate the proposed spacing and proration unit?

A. It does. There's a striped pattern across a portion of Section 4. We're seeking an enlarged 480-acre proration unit cross-section that will include the north half and the north half of the south half. We've asked for 330-foot setback from the boundaries to be our target window, and that 330 foot is per pool rules.

Q. How is that 330-foot setback illustrated on the exhibit?

A. There's a line around the area. The buffer zone, if you will, is left white. The area where we may complete a bottom-hole location has been dashed with a stripe through it.

MR. ROBERTS: Mr. Examiner, for the record, allow me to state that the legal description for the proposed spacing and proration unit would be Lots 1 through 4 in the south half of the north half, and the north half of the south half of Section 4. It consists of 482.64 acres.

Q. Mr. Corbett, is the horizontal extent of

the proposed wellbore illustrated on the exhibit?

A. Yes, it is. This is our projected target wellbore. We'll attempt to drill the entire length of this.

Q. What distance does that horizontal wellbore extend?

A. This is to be approximately 4000 feet across Section 4.

Q. At what point will the wellbore make contact with the Gallup formation?

A. The northwest end of this line, approximately 400 feet from the west line of Section 4, will be our contact point. At that point we hope to become horizontal and drill a cross-section from there.

Q. If the horizontal extent of the wellbore is drilled as planned, will it constitute a standard bottom-hole location?

A. If our exception to the pool rules is approved, that will be a standard location.

Q. Mr. Corbett, are other completions in the Gallup formation in this surrounding area illustrated on this exhibit?

A. Yes, there are. This shows all of the Bisti Lower Gallup Pool wells that fall within this

nine-section area, all of those wells being in Section 32 of 25 North, 11 West. All of these wells were drilled and are operated by Giant Exploration and Production.

Q. Let's turn to what has been marked as Exhibit No. 3. Please identify that exhibit?

A. Exhibit No. 3 is a map showing only the Gallup formation oil wells in the Bisti trend in San Juan County, New Mexico. It shows the projection of the sand trend and the De-Na-Zin Wilderness Area. It shows our proposed proration unit, the bottom hole and surface locations of the Debra Geiger Well #1 as proposed.

Q. Can you briefly describe the mapping parameters?

A. The older Bisti Gallup was discovered in 1955 and drilled through the late 50s and early 60s. Generally a microlog was run on these so that a microlog crossover was the sole mapping parameter in the heart of the bar.

The projected sand trend, as it's labeled on this map, was discovered in 1984 and developed by Giant Exploration and Production since that time. It's currently being developed. The projected limits of the sand trend are estimated and based on

approximately a 10 percent porosity cutoff.

Q. What conclusions, if any, do you draw from the data illustrated on this exhibit insofar as it pertains to the application?

A. This illustrates to us that the Gallup sand trend does, in fact, continue beneath the De-Na-Zin Wilderness Area and this plat gives us a general direction for the trend which will be the direction of our wellbore. Our proration unit has been tailored to fit the sand trend as best as possible.

Q. Let's turn to what's been marked as Exhibit No. 4. Identify that exhibit and explain its relevance to the application.

A. Exhibit 4 is a comparison of drilling one horizontal well, being a standard legal location completed in our proposed proration unit, versus complying with the existing pool rules and developing the six 80-acre proration units lying within our one proposed 480-acre proration unit. We compare economically the drilling of the six wells on standard 80s for the current pool rules to one horizontal well for our current proposed exception.

Q. The six wells that would be drilled in accordance with existing pool rules all involve directional drilling in as much as you cannot locate

the surface of those wellbores within the boundaries of the De-Na-Zin Wilderness Area, is that correct?

A. That's correct. Conventional vertical drilling is out of the question because of the De-Na-Zin Wilderness Area. The six wells that are contemplated here all require some degree of directional drilling, although not completely horizontal drilling.

Q. Describe the parameters utilized in this economic analysis.

A. We've made our best guess. The first page of this economic analysis is per our AFE for the Debra Geiger Well No. 1. We've IP'd the well at 150 barrels per day and given it a 28-percent decline. This is, I think, conservative, and it is in keeping with what we've seen on other wells within this Lower Gallup trend. The present value of the horizontal well is $1.159 million. It would recover, we're estimating--

EXAMINER MORROW: Excuse me. I'm having trouble finding that on this exhibit. Would you tell me where to see those numbers?

THE WITNESS: These economics, if we start from the top of the page, going across from left to right. We have the year of production, the number of wells. The "point three" is not .3 of a well but one

well of .3 years' gross oil production, and it estimates per the decline that we're projecting for this well, annual production. The bottom of that is remaining at the end of a given period of years, and below that the total. That total would be the cumulative production from this well at the time that it's reached its economic limit. The number you should see there is 158,790 barrels.

EXAMINER MORROW: What column is that in?

THE WITNESS: That would be the third column from the upper left.

EXAMINER MORROW: Maybe I'm on the wrong page.

THE WITNESS: We have a cover page and the next page should be labeled Debra Geiger Well No. 1. Below that you have the estimated year of production, the producing well, and then gross oil production.

EXAMINER MORROW: All right. Annual gross oil production?

THE WITNESS: That's correct. At the bottom of that column there should be a gap and it says "remaining," and then "total."

EXAMINER MORROW: All right. Okay. I found it.

THE WITNESS: That's where we're estimating

the gross recoverable of 158,000 barrels of oil.

EXAMINER MORROW: All right.

THE WITNESS: The other number that I've discussed, if you go down to the next row of numbers, the column on the far right is 10 percent cumulative discounted cash flow, or the net present value of the investment. This investment we're estimating to have a value of $1.159 million.

These numbers are to be compared, then, with the next page. We have entitled it Debra Geiger Drilling Alternative: Six Wells on 80-Acre Lay Down Tracts.

If this request were not granted and this were left on this standard Bisti Lower Gallup 80-acre lay downs and we drilled six wells from the edge of the wilderness to standard locations on 80s beneath this, this is a summary of what those wells would be. Recoverable reserves, we used the same number assuming we're not actually going to increase our recoverable by horizontal drilling over 80-acre development, so we have 158,000. There's a slight loss in reserves because of the operating costs associated with six wells versus one well, and they become uneconomic in a slightly shorter time, and we lose some reserve sampling.

The present value of these, if you go back down to the lower right, is a minus $93,000 and that's because the width of the sand, we're not actually going to be developing economic reserves. We shouldn't economically be drilling a couple of these 80s.

If you were to go to the next page, it has one-line summaries of those six wells. There are, for each of those potential wells, this is a cash flow and a recoverable reserves. In the far right we have the discounted cash flow, and you can see that we have a negative cash flow on three of those wells. All that says is that we shouldn't drill those wells if we have three of them with positive wells that we should drill, assuming that they meet our corporate minimum rate of return.

Of those three wells, you can come back over to--there's a column entitled "Gross Oil." Those three wells have a cumulative production of 89,000 barrels of oil. There's a 30,000, 29,752, and a second 29,752.

EXAMINER MORROW: Okay.

THE WITNESS: All right. Those are the wells that we would drill based on economics if this case is not granted.

You can see, though, that those three wells are anticipated to recover 89,500 barrels of oil versus 158,000 that we would recover by horizontal drilling, the difference being 69,000 barrels of oil that would be left in the ground because of the economics of directionally drilling six wells versus one horizontal well.

The difference, if we were to drill those three wells, they would have a cumulative cash flow of $170,000, a positive, and that's assuming we don't drill the wells with a negative cash flow, versus $1.159 million for the horizontal well. So that would be almost a million dollars, $989,000 of economic waste by drilling the wells directionally, recovering less reserves, and having them spend additional capital for three profitable wells versus one very profitable well.

Q. (BY MR. ROBERTS) Mr. Corbett, Let me ask you just to summarize, then, the conclusions that you're able to draw from the data that you've illustrated on this exhibit, particularly with respect to efficiency of recovery and the economics of drilling.

A. The efficiency of recovery, we believe that one horizontal well will recover 69,286 barrels of oil

that are not recoverable by directional drilling.

On a present value basis, the economic benefit is approximately a million dollars based on savings for drilling one horizontal well versus three directional wells, and the increased cash flow because of the value of the lost reserves.

Q. Do you propose that an increased allowable be assigned to the Debra Geiger No. 1 well?

A. We are proposing that the current allowable for the Bisti Gallup Pool is 160 barrels per day. We're anticipating an IP of somewhat higher than that because our 480-acre proposed proration unit actually includes six 80-acre proration units. We're asking that the allowable be combined, so six times 160, or 960 barrels per day.

Q. Let's have you refer now to what's been marked as Exhibit No. 5.

A. Exhibit No. 5 is our notification to offset operators wherein we contacted and received a response from Dugan Production. Dugan Production has the offset, in fact the only offset minerals not operated by Giant Exploration and Production.

We've contacted Union Pacific Resources who is the farmour of the tract in Section 4 that we're proposing to develop with our horizontal well, and we

received a response from them.

Seabrook Corporation is the next one, and they're a working interest owner in Section 4 along with UPRC, as is Norcen Explorer, who is the next interest owner, and they're a working interest owner in our well.

That's followed by our notification of the Department of the Interior, Bureau of Land Management because they have unleased minerals that have, in fact, been withdrawn from leasing because of their line beneath the wilderness.

The next one is a notification and we've not received a response from the Bureau of Indian Affairs. BIA controls the alloted minerals in the south have of Section 33 of 25 North, 11 West. They've been given time. They were notified in a timely manner, and we simply have not received a response from the BIA.

Q. To your knowledge, do the materials that are contained in Exhibit No. 5, do they evidence compliance with the notice requirements of the Oil Conservation Division?

A. To my knowledge, yes.

Q. Are you aware of any objections to this application?

A. No, I'm not.

Q. Mr. Corbett, is ownership in the Gallup formation common throughout the area of the proposed spacing and proration unit?

A. Yes, it is.

Q. In your opinion, would the granting of this application be in the best interests of conservation and result in the prevention of wasste and the protection of correlative rights?

A. Yes, it would.

Q. Were Exhibits 1 through 5 either prepared by you or at your direction and under your supervision?

A. Yes, they were.

MR. ROBERTS: We would move for the admission of Exhibits 1 through 5.

EXAMINER MORROW: Exhibits 1 through 5 are admitted.

MR. ROBERTS: Mr. Examiner, I have no other questions on direct.

EXAMINATION

BY EXAMINER MORROW:

Q. Mr. Corbett, how is the State of New Mexico involved in the surface location?

A. The State of New Mexico is not involved in

the surface location, although Section 32 would ordinarily be a state tract and the minerals are, in fact, state minerals. The surface is owned by the Navajo Tribal Trust.

Q. Okay. On the exhibit that showed all the wells completed in the southwest trend shown on the Exhibit No. 3, I believe it was--

A. That's correct.

Q. --did you say that these wells were operated by Giant? All these wells?

A. That's correct.

Q. All these are operated by Giant?

A. Every well on this Bisti trend, yes.

Q. I tried to find those in the proration schedule. Is that the Bisti Lower Gallup, or is that some other designation?

A. These have been included in the Bisti Lower Gallup Oil Pool.

Q. So there are other wells in that pool but not in this particular trend that are other operators' wells?

A. That's correct.

Q. Is it your opinion, Mr. Corbett, that this well will adequately drain the reserves from the 400-plus-acre tract that you propose to assign to it?

A. If we're successful in drilling our 4000 feet of horizontal section, we believe this well will adequately, completely drain the Gallup across Section 4 through our proration unit.

Q. And what is the spacing in relation to lease lines in the current rules?

A. Current rules require 330-foot setbacks from lease boundaries.

Q. And where would you penetrate the formation of this well?

A. We'll contact the Gallup sand trend at approximately 400 feet inside of Section 4.

Q. So it would comply with the setback on the lease, but what rules, then, need to be modified?

A. We're asking for an expanded proration unit from 80 acres to 480 acres. And, in keeping with that, proportionately increasing our allowable from 160 barrels of oil per day to 960 barrels of oil per day.

EXAMINER MORROW: This witness may be excused.

MR. ROBERTS: Mr. McIntosh is next.

GREGORY E. McINTOSH

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

EXAMINATION

BY MR. ROBERTS:

Q. Would you state your name and your place of residence for the record?

A. My name's Gregory McIntosh, and I live in Farmington, New Mexico.

Q. What is your occupation?

A. I'm an associate engineer with Giant Exploration and Production.

Q. How long have you been employed in that capacity?

A. Six months.

Q. What are your general job responsibilities?

A. I take care of the drilling, completion and daily operation of several fields that Giant operates.

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

A. No, I have not.

Q. Would you briefly describe your educational background as it relates to the field of petroleum engineering?

A. I earned a Bachelor of Science degree in petroleum engineering from the Colorado School of Mines.

Q. Have you had any other subsequent training?

A. Yes. I worked as a field engineer for Davoil Schlumberger for 18 months, and then as a systems operator on urban drill sites in California for 8 months.

Q. Have you begun the process of attaining that status of licensed professional engineer?

A. Yes, I have. I passed the EIT test before my completion of college, and I'm now currently gaining the experience so that I can take the PE test.

Q. Are you familiar with the operations of Giant Exploration and Production Company in the area of the Bisti Lower Gallup Oil Pool?

A. Yes, sir.

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

A. Yes, sir.

Q. Have you prepared certain exhibits to be utilized in conjunction with the testimony you give in this case?

A. Yes, sir, I have.

MR. ROBERTS: Mr. Examiner, I would tender Mr. McIntosh as an expert in the field of petroleum engineering.

EXAMINER MORROW: What was your job title again, Mr. McIntosh?

THE WITNESS: Currently it's associate engineer. That's the title they give for the first six months, and that will change next week.

MR. ROBERTS: What will you become then?

THE WITNESS: A staff engineer.

EXAMINER MORROW: His qualifications are accepted.

Q. (BY MR. ROBERTS) Mr. McIntosh, refer to what's been marked as Exhibit No. 6 and identify the exhibit and explain its relevance to the application.

A. This is a closer look at the actual wellbore plan and the outline of where it will actually track. You can see up in the upper left-hand corner it shows Section 32, Township 25 North, Range 11 West. That will be our surface location.

From there we will drill down and set surface casing, which will be 13 and three/eighths casing down to 350 feet. From there we will kickoff in a south direction and build at three degrees per 100 feet to nine degrees in a due south direction until we reach a measured depth of approximately 4133 feet, total vertical depth of 4083 feet.

At that point we will kickoff at eight degrees per 100 feet, building to 91 degrees in a southeasterly direction, and from there, just before

we get horizontal, we will contact the Gallup trend at approximately 620 feet from the north line, 470 feet from the west line, in Section 4, Township 24 North, Range 11 West. We will set nine-and-five-eighths casing to that point and cement back to surface.

From there we will continue at 91 degrees from vertical. It's essentially horizontal, just a little bit following the trend going up, and we will continue that approximately 4000 feet, and we will be placing a slotted liner in that section, in the horizontal section.

While we're drilling we will be using the measurement-while-drilling method to log it while we're drilling, along with taking directional surveys as often as necessary so that we can keep very close track of where we're at.

Q. Refer to Exhibit No. 7 and describe that exhibit.

A. It's essentially the--shows you the same thing as Exhibit 6 except it's a cross-section instead of a surface plot. This shows approximately where we will cross the section line and the 330 setback line before we contact the Gallup formation.

Q. Okay. Mr. McIntosh, in your opinion would the granting of this application be in the best

interests of conservation and result in the protection of correlative rights and prevention of waste?

A. Yes.

Q. Were Exhibits 6 and 7 prepared by you or under your direction and supervision?

A. Yes, they were.

MR. ROBERTS: Mr. Examiner, we'll move admission of Exhibits 6 and 7 at this time.

EXAMINER MORROW: Exhibits 6 and 7 are admitted.

MR. ROBERTS: I have no other questions for this witness on direct.

EXAMINATION

BY EXAMINER MORROW:

Q. How do you plan to supervise the drilling of the well? Do you plan to hire a contractor who has experience in this area?

A. Yes, we do. We will have a consultant on location along with the directional people that supply the tools. So we'll have that, and also we'll have one of our engineers on location at all times.

Q. Will you drill a well in an unbalanced condition or lighter mud than is required to hold bottom-hole pressure?

A. Right now we're planning on drilling it as

close to balanced as we can, and we will change as the wellbore allows us to or forces us to.

EXAMINER MORROW: The witness may be excused.

MR. ROBERTS: We have nothing else.

EXAMINER MORROW: Case 10110 will be taken under advisement.

(Thereupon, the proceedings concluded.)

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

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

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

WITNESS MY HAND AND SEAL October 15, 1990.

Carla Diane Rodriguez

CARLA DIANE RODRIGUEZ
CSR No. 91

My commission expires: May 25, 1991

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10110, heard by me on Oct 3 1990.

Examiner, Oil Conservation Division