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

EXAMINER HEARING

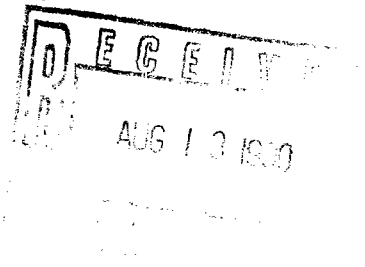
IN THE MATTER OF:

Application of Phillips Petroleum for a carbon dioxide injection project, Lea County, New Mexico — Case 9965

TRANSCRIPT OF PROCEEDINGS

BEFORE: MICHAEL E. STOGNER, EXAMINER

STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
June 13, 1990



ORIGINAL

APPEARANCES

FOR THE DIVISION:	ROBERT G. STOVALL Attorney at Law Legal Counsel to the Divison State Land Office Building Santa Fe, New Mexico
FOR THE APPLICANT:	KELLAHIN, KELLAHIN & AUBREY Attorneys at Law 117 N. Guadalupe Santa Fe, New Mexico 87504 BY: W. THOMAS KELLAHIN, ESQ.

I N D E X

E X H I B I T S

HEARING EXAMINER: This hearing will come to order. Call next case No. 9965.

MR. STOVALL: Application of Phillips Petroleum Company for a carbon dioxide injection project, Lea County, New Mexico.

HEARING EXAMINER: Call for appearances.

MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the Santa Fe law firm of Kellahin, Kellahin & Aubrey, appearing on behalf of the applicant, and I have one witness to be worn.

HEARING EXAMINER: Are there any other appearances? Will the witness please stand and be sworn.

SUSAN G. COURTRIGHT,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:.

Q. Miss Courtright, would you please state your name and occupation.

A. Yes. My name is Susan Courtright, and I'm a reservoir engineer for Phillips Petroleum Corporation.

Q. Miss Courtright, on prior occasions have you testified before the Division as a reservoir

engineer?

A. Yes, I have.

Q. Pursuant to your employment as a reservoir engineer, have you made a study of the subject matter of this application by Phillips?

A. Yes, I have.

Q. Did you prepare the exhibits and compile the necessary information for completing the C-108 that was filed in this case?

A. Yes, either I compiled them or they were prepared under my supervision.

MR. KELLAHIN: At this time, Mr. Examiner, we tender Miss Courtright as an expert reservoir engineer.

HEARING EXAMINER: Miss Courtright is so qualified.

Q. (BY MR. KELLAHIN) Let me direct your attention to what we've marked as Exhibit 1. Would you identify that, please.

A. Exhibit No. 1 is the area of the view around Leamex Well #26, our proposed CO2 injection well.

Q. Take a moment and orient us as to where your project is in relation to any other similar-type pilot injection CO2 projects.

A. Yes. The acreage shown in yellow highlights the Phillips acreage, and we're located halfway in between the Conoco MCA CO2 flood to the west and our East Vacuum CO2 flood to the east. This acreage is 100 percent Phillips, and the only royalty interest is the state one-eighth royalty interest.

Q. What is represented by the area on the display contained within the yellow shading that is outlined in green?

A. Yes. That is our proposed project area. It's 480 acres, which we propose for our Leamex Paddock CO2 project.

Q. Within that project area, is the working interest and the mineral and overriding royalty interest the same?

A. Yes, it is. And with our particular project, there are two leases involved, the Leamex lease and the Devon State Lease. The production from those leases is both 100 percent Phillips and one-eighth royalty to the state, and the production is dedicated to the same institution.

Q. When we look at the area of review around the initial injector, the half-mile radius, then there are no other operators of wells in this area other than Phillips?

A. No, sir, this is all Phillips acreage.

Q. You referred to the Philmex area where you have also instituted a waterflood injection project -- I'm sorry -- a carbon dioxide project?

A. Yes, sir. In the southwest quarter of Section 26 is our current Maljamar CO2 pilot. We are injecting CO2 into our Philmex Well No. 38, indicated by the green upside down triangle, and we are injecting CO2 at line pressure, supply line pressure or approximately 1750 psi.

MR. KELLAHIN: Mr. Examiner, for your reference, we have made copies of Division Order R-3668 and then 3668-A and B. That project was originally a waterflood. It was amended in June of 1989 to provide for the injection of CO2. Examiner Catanach heard that case, and then subsequently it was modified six months later to correct a well location and to change some typographical errors in the order and to broaden the zone of injection.

Q. Let me ask you to describe for the Examiner how the Philmex CO2 project compares to or contrasts from what you propose to do with the Leamex project?

A. Our Philmex CO2 pilot is similar to our paddocked flood in that we will be injecting into only one well, and that this injection will be straight

from line pressure.

It is dissimilar from our pilot in that it will be going into a different formation, and that is the Leamex Paddock formation, which is approximately 6,000 feet deep opposed to the Grayburg/San Andres, which is about 4,500 feet deep.

Q. Looking at your Exhibit 1, describe for us your plan of operation, if you will, for the injection of CO2 and then the subsequent production of the hydrocarbons.

A. Yes. We plan to inject into our Leamex Well No. 26, which is in Unit Letter M of Section 22. Our two current producing wells are Leamex 21 in Unit N, and Devon State 2 in Unit Letter O, both of Section 22.

We do show other wells within the half mile radius which have been drilled to and tested in the Leamex Paddock formation. These are indicated by a small "p" to the side of the well. These wells include the No. 3 Well, located in Unit J of Section 22, Leamex No. 35 in Unit K, Leamex 34 in Unit Letter L, all of Section 22. Also Leamex 30 in Unit P of Section 21, Philmex 15 in Unit Letter A of Section 28, and, lastly, Philmex 13 in Unit B of Section 27.

Q. Describe for us the productive intervals

within the project.

A. The production will be from the paddock zone, which is a primarily dolomite with some shale stringers.

Q. We'll get into the geology later, but describe for us briefly the mechanics of how you propose to inject the gas and then recover the hydrocarbons.

A. We will be injecting into Leamex 26, which is our well which is our highest structure well, and we will be producing from the wells which are downdip to this injection well.

Q. Have you instituted a waterflood aspect to the project?

A. No, we have not. We will be going straight to continuous CO2 injection.

Q. Currently, the producing wells then for the Paddock Pool are which wells?

A. The only three wells which are producing from the Paddock Pool are the Leamex 26 and 21 and the Devon State No. 22.

Q. And then you'll convert one of the 3, the 26, for injection and continue to produce the other two in some combination?

A. That's correct.

Q. Describe for us the type of order you're requesting from the Examiner in terms of the specific details. If it aids you in your discussion, you might refer to the order that we received on the Philmex property. If not, summarize for us the kinds of components or parts that you want in the order.

A. One, we would like the project area to be defined as follows, and that is the east half of the southeast quarter of Section 21, the southwest quarter and the west half of the southeast quarter of Section 22, the northwest quarter of the northeast quarter of Section 27, along with the north half of the northwest quarter of Section 27, and, lastly, the northeast northeast of Section 28.

Q. What's the purpose for that area being described as the project area for the CO2 injection?

A. That would allow us at any later time to go back to any well which is deep enough to reenter and test these wells to see if there is any sort of response in the paddock in these wells.

Q. The initial effort then to determine response for the CO2 injection in 26 is to look to Well 21 and 2; if that appears to be successful, then you want the opportunity to produce the hydrocarbons out of the other wells in the project area?

A. That's correct. And that will mean the addition of three additional proration units, and that would be Unit J and O in Section 22 and Unit B in Section 27.

Q. Describe for us your proposal to the Examiner with how to handle the producing allowable for the project.

A. Yes. We would like the project to be assigned a maximum project allowable which is the sum of the individual well top allowables, and that is to include all the wells which are completed in the Leamex Paddock field.

Q. For example, show us how that might work. If currently we have three wells in the project area, what would be the actual producing maximum allowable for the project on a daily basis?

A. As we have three wells currently completed in the Leamex Paddock, we would request that we receive the top allowable for three wells. And the well allowable for the Leamex Paddock formation is 142 barrels a day.

Q. It's customary, is it not, in projects like this to take the allowable for the injector and transfer that to the producing wells?

A. That's correct.

Q. So you do get credit for the allowable that an injector might otherwise be able to earn?

A. Yes, that's right.

HEARING EXAMINER: Let me make sure I've got this straight. The allowables currently enacted for the Paddock is 142 barrels of oil per day per 40 acre unit?

THE WITNESS: Yes.

HEARING EXAMINER: So this would be multiplied presently times three for the two producing wells?

THE WITNESS: Correct.

HEARING EXAMINER: And then any time another well comes on board, it would be multiplied by that factor?

THE WITNESS: Yes, sir.

HEARING EXAMINER: Okay. Just want to make sure I understand.

Mr. Kellahin?

MR. KELLAHIN: That you, Mr. Examiner.

Q. We'll get into some of the details of the C-108 in a moment, but describe for the Examiner whether or not there are any pressure limitations necessary. You understand the .2 psi per foot of depth guideline of the Division?

A. Yes. We are asking that our maximum pressure be 1800 psi, and that does not abide by the .2 psi per foot requirement by the Commission. However, if we are granted the 1800 psi maximum limitation, we will make full utilization of our line supply pressure. And, of course, we will conduct a separate test and submit that to the Commission prior to beginning CO2 injection.

Q. What would be the surface pressure if .2 psi per foot of depth is applied?

A. That would limit us to approximately 1,200 psi.

Q. And your line pressure into the project is what, 1800?

A. The maximum line pressure guaranteed us is 1800.

Q. Have you used a similar concept, if you will, in the Philmex CO2 flood?

A. Yes, that's correct. After conducting our separate test, we are allowed the 1800 as our maximum pressure.

HEARING EXAMINER: Before we go any further, I've got some questions on this particular -- your 1800 in your -- let me rephrase that. Your current CO2 pilot project down in Section 26 has a

1800 pressure limit?

THE WITNESS: Yes. In the order I believe it states 1750, and we had --

HEARING EXAMINER: In 3668-A or B? Here it is, in paragraph 5 of 3668-A.

THE WITNESS: Yes. And that was 1700 psi. Later, after the separate test, we wrote a letter to the Commission and were granted the full line pressure of 1800.

HEARING EXAMINER: And that was done administratively; right?

THE WITNESS: Yes.

HEARING EXAMINER: I keep hearing about the line pressure of 1800 psi. What line are we talking about?

THE WITNESS: We are talking about the CO2 supply line which goes through our property, through the Phillips acreage, which supplies CO2 to both East Vacuum and to Conoco's Maljamar unit.

HEARING EXAMINER: Whose line is that?

THE WITNESS: That is Big Three's.

HEARING EXAMINER: That's a feeder line from the Seminole; is that right?

THE WITNESS: No. We receive the CO2 from McElmo Dome in Colorado, the Cortez pipeline.

HEARING EXAMINER: That's the Shell pipeline, as I know it, the one that comes from southwest Colorado across New Mexico and eventually into the Seminole area; is that correct?

THE WITNESS: Yes.

HEARING EXAMINER: I know it was a Shell line for some reason. You know it as something different. I wanted to make sure we're talking about the same thing.

Okay, Mr. Kellahin.

Q. (BY MR. KELLAHIN) Let's turn to your next display. Identify Exhibit No. 2 for us.

A. Exhibit No. 2 is a cross-section through the current three producing Leamex Paddock wells in addition to two wells, one on either side of the producing wells.

Q. Your proposed injector is the second well from the left?

A. That's correct, and the middle three logs are the current Paddock producers.

Q. When we look at the line on the display, it's the bottom line running horizontal that connects the various logs, what does that represent?

A. Yes. These logs were correlated based on the top of the Paddock pay. However, I'd like to

point out to you, the second log from the right for the Devon State #2, this is the discovery well in the Paddock field. What we have marked is the top of the Paddock as reported to the state at the time this well was discovered.

Q. What does that represent in terms of your project?

A. We did not correlate based on this topic. It was chosen by another company. This well was drilled by Kirby Petroleum. And we subsequently bought this well and this lease several years ago. So we simply noted at the top of this formation simply for reference sake.

Q. Your geologists have made new correlations for you for these three wells with control wells on each end?

A. Yes, that's correct.

Q. What significance do you as an engineer attach to the project with this correlation?

A. We will be injecting into the structurally high well, the Leamex #26, and there are two benefits to this. One is it will aid in increasing the induced recovery and also minimize CO2 breakthrough.

Q. Why would you put the CO2 at that point in the structure as opposed to somewhere else in the

structure?

A. By injecting upstructure, we will be able to promote a more efficient flood and more or less create a gas cap type of a flood.

Q. The portions of the log that are shown with the orange shading, what do those represent?

A. Those are the current producing perforations.

Q. Will you continue to maintain those perforations in the two producing wells?

A. Yes, we will.

Q. Where will the CO2 be injected in the Leamex 26 Well?

A. There will be no additional perforations added. We will use the current producing perforations.

Q. Let's turn now, if you will, to Exhibit No. 3 and identify and describe that.

A. Exhibit No. 3 is a structure map based on the top of the Paddock Pay as we identified it in the Exhibit No. 2 or our cross-section. What this further indicates is that our injection well, Leamex #26, is structurally high on an east-west trending anticline.

Q. Have you quantified an amount of additional recovery that you anticipate if this CO2 project is

successful?

A. Yes. I anticipate on recovering an additional 118,000 barrels of oil. This is based on recovering 10 percent of the original oil in place and the potential CO2 swept area.

Q. What's your basis for using a 10 percent recovery of the additional oil in place?

A. That is an industry accepted value of probable recovery due to a CO2 flood.

Q. Turn now to Exhibit No. 4. Would you identify and describe that?

A. Yes. This is a combined production or a composite production plot from our three Leamex Paddock wells. The oil shown in the black is in barrels per day, the blue indicates water production in barrels of water per day, and the red is the GOR in Mcf per barrel.

Q. What's the significance then of the gas-oil ratio we see plotted in red?

A. There are several significant trends shown on this plot. One is the relatively constant GOR and also the increasing water production.

Q. The water production is the blue line?

A. Yes, that's correct.

Q. And then your oil production is this

declining black line?

A. That's correct. The relatively constant GOR and the increasing water production indicates to me that this reservoir is receiving some pressure support by means of the waterdrive reservoir.

Q. What, if anything, will happen to the plot of data with the institution of the CO2 injection into the project?

A. We wouldn't anticipate the GOR to increase because that's hydrocarbon gas; however, we will increase our oil production. And I might also point out that having this sort of pressure support is advantageous to us for CO2 flood. We will most likely be near or above miscibility conditions.

Q. Why is that important to you as a reservoir engineer?

A. That is more efficient to operate a CO2 flood at those conditions.

Q. Let's turn now to the details of the C-108, and I believe you have marked your C-108 as Exhibit 5 and then labeled each of the pages?

A. Yes.

Q. Including the attachments consecutively, starting with the number 1?

A. Yes.

Q. You've described some of the basic information for the project. Let's skip just a little bit around. Let's go to page 5 and look at the schematic for the injector.

A. Yes.

Q. Describe for us how the well exists now and what you propose to do in order to convert it for CO2 injection.

A. The perforations shown in the lower left-hand corner, perforations from 6031 to 6063 are the current producing interval perforations, and they will remain to be our injection perforations. However, we will go in hole with a packer and plastic-coated tubing, and we will also place pressure gauges so that we might monitor the casing pressure.

HEARING EXAMINER: If I may, before we get off this well --

THE WITNESS: Yes.

HEARING EXAMINER: I notice that the production string is cemented all the way back up to surface. Is this the way it exists now?

THE WITNESS: Yes, it is.

HEARING EXAMINER: When was this well drilled?

THE WITNESS: This well was drilled in --

HEARING EXAMINER: Approximately.

THE WITNESS: -- 1976, approximately.

HEARING EXAMINER: It seems unusual for it to be cemented back to the surface. Was it in anticipation of the CO2 project?

THE WITNESS: No, sir.

HEARING EXAMINER: I'm glad to see that. Please continue, Mr. Kellahin.

Q. (BY MR. KELLAHIN) What else will you do or would determine necessary as a reservoir engineer in order to utilize the wellbore for CO2 injection?

A. We will do a small acid clean-up job prior to beginning CO2 injection.

Q. How do you monitor the integrity of your injector?

A. That will be via the pressure gauge placed to monitor the casing anulus.

Q. Do you handle the operations of the injector any differently than an injector that injects saltwater?

A. Yes. We will be monitoring and having CO2 monitors placed around the well site.

Q. When we look at your Exhibit 1, you have shown us your half-mile radius of review. Pursuant to that area, have you also tabulated the wellbore

information for all those wells within that half-mile radius?

A. Yes, we have.

Q. Turn us to the page of your Exhibit 5 that shows your tabulation of the wellbore information.

A. Page No. 4 shows the examination of all these wells, when they were drilled, and their present completions and where the tops of cements are.

Q. In making your examination, do you find any of those wells to be inadequately plugged, abandoned, completed in such a way to expose any other formation to risk by the injection of CO2 into the flood formation?

A. No, sir. Examination of all the wells have indicated that we do have proper cement jobs behind the casing.

There was one well which I would like to bring to your attention. It is the first well. It's Devon State #2. And we show the top of cement as being 2,500 feet. If you refer to page no. 6, the initial completion only placed cement in the wellbore up to a depth of 10,234. Subsequent to that, we perforated the well at 9,180 and placed further cement in the casing anulus. By temperature survey we determined the top of that cement is at 2,500.

Q. So what does that tell you?
A. This well is properly cemented.
Q. Have you provided wellbore schematics of all the plugged and abandoned wells?
A. Yes, we have.
Q. Direct our attention to that portion of your exhibit that talks about the water analysis.
A. Yes. Page No. 12 also identifies the Phillips acreage outlined in yellow, and we had the half-mile radius circle along with the two mile radius circle shown. Just inside the two mile radius circle is Attachment No. 11, and this was the well which we obtained a fresh water sample from.

Our other fresh water analysis is about a mile outside of the two mile radius, and this is Attachment No. 10.

Q. Ten is Page 13 of the exhibit and Attachment 11 is Page 14?
A. Yes.
Q. In your opinion, will the injection of CO2 as proposed cause potential risk to any fresh water sources?
A. No, sir.
Q. In your opinion, will the flood fluids remain confined into the hydrocarbon formation in

which those hydrocarbons are being produced?

A. Yes, it will.

Q. Let's go back to page 2 of your exhibit 108, Exhibit No. 5. Summarize for us the potential ranges of injection for the operation and the pressures you anticipate.

A. Yes. An average rate, estimated rate, is 380 Mcf per day. However, should this well take a million cubic feet of CO2, we will set a ceiling limitation at a million.

As we discussed earlier, the pressures, the average we anticipate to be 1720, while the maximum that we are requesting is 1800. Once again, that 1800 is the maximum line pressure which our CO2 supplier has guaranteed us, and we would like to be able to make full utilization of this line pressure.

Q. In your opinion, Miss Courtright, will approval of this application be in the best interests of conservation, the prevention of waste, and the protection of correlative rights?

A. Yes, it will.

MR. KELLAHIN: Exhibit No. 6, Mr. Examiner, is our notification to the surface owner; I believe that was the State of New Mexico.

We would at this time move the introduction

of Exhibits 1 through 6.

HEARING EXAMINER: Exhibits 1 through 6 will be admitted into evidence.

MR. KELLAHIN: That concludes any examination of Miss Courtright.

HEARING EXAMINER: A few points I want to clarify.

THE WITNESS: Yes?

CROSS-EXAMINATION

BY HEARING EXAMINER:

Q. In the project area as you described and as the advertisement describes, I see the Devon State lease, the Leamex lease, and the Philmex lease. The working interest and all the mineral interests are the same throughout all three of those particular leases?

A. Yes, they are.

Q. And you mentioned about the beneficiary on the state -- and these are all state leases; correct?

A. Yes.

Q. Naturally, they have the same working interest and interest ownership. Is it the same beneficiary throughout all three of these particular leases?

A. I'm afraid I only did check the Leamex and the Devon State as those are our current producers,

and those are the same beneficiaries, and I will certainly check on the Philmex lease.

Q. Your notification to the State Land Office -- that was Exhibit 6, wasn't it, Mr. Kellahin?

MR. KELLAHIN: Yes, sir.

HEARING EXAMINER: -- were they aware through this notification of the project area?

MR. KELLAHIN: Yes, Mr. Examiner. We sent them a copy not only of my cover letter that filed the application, but they had a copy of the application itself and a copy of the C-108; so we sent them everything that you're looking at today.

Q. (BY HEARING EXAMINER) So they were aware of that, and you did not hear anything from the State Land Office?

A. No, sir.

Q. You mentioned the 10 percent figure on additional recovery as an industry constant?

A. Yes.

Q. Is that an industry constant for CO2 floods in general or for dolomite configuration such as what you have here?

A. That is for CO2 floods in general. They can average anywhere between 8 to 15 percent, and we chose 10 percent. This is something that our East

Vacuum flood located to the east has also indicated an additional recovery of about 9 to 10 percent.

Q. So you're saying they're somewhat consistent?

A. Yes.

Q. You mentioned earlier in your geology that this was a dolomite; am I correct on that --

A. Yes.

Q. -- with some shale stringers. Looking at Exhibit No. 2, do these shale stringers finger through the split in the perforations, or are they below this area? Do they cut the area off? Do they seal this particular injection interval? How do the shale stringers figure into this?

A. I'm afraid I can't testify too much to that. It does appear that a shale stringer does run through the sets of perforations. However, I would like to ask a geologist before stating any more.

Q. Okay. Do you know if there are fertile communications between those perforations in the natural formation, or the same thing, would you like to verify that with a geologist?

A. Yes.

Q. You're requesting a higher pressure than our .2 psi per foot of depth that we normally have.

Do you have any testimony today for the Paddock formation on a separate test?

A. We have not conducted a separate test yet, but we will conduct one prior to beginning injection.

Q. When do you propose to start or what's your time frame on this project?

A. We would like to begin injection by mid-August, and we will not be conducting any means of separate testing until we receive your order.

HEARING EXAMINER: Mr. Kellahin, without this information, I am reluctant to make that provision in the order. However, as most injection orders are, they allow for an administrative process.

MR. KELLAHIN: We didn't mean to confuse you, Mr. Examiner. We want the standard order that allows the separate to justify the increased limits.

HEARING EXAMINER: I'm not confused, Mr. Kellahin. I just wanted to clarify that.

MR. KELLAHIN: It's not our intent to seek the increase now because we haven't conducted the separate test, and we will provide that to the Division before obtaining the increase.

HEARING EXAMINER: Good.

Q. I'd like to touch on something now, on the CO2, the volume, you said you had a ceiling limit of a

million cubic feet?

A. Yes.

Q. How does Phillips anticipate they would handle the CO2 after a breakthrough in these producing wells?

A. We have spoke with our gas company, and they have allowed us to produce approximately 60 to 70 percent should we be injecting the million a day, and they said that they will accept that volume of CO2.

Q. 70 percent?

A. Yes.

Q. To sell to your gas purchasers?

A. Yes, that's correct.

Q. And that would be put into the line, and it would be stripped out at the plant?

A. That's correct.

Q. Once you meet, if this became an issue, the 1 million ceiling limit, would injection of anything just cease, or do you anticipate a reinjection of gas or anything to that effect?

A. Do you mean will we inject over 1 million?

Q. Yes.

A. We will give this well all that it will take. However, you do have to -- since we are injecting updip, you do have to make sure that you do

not inject at such a high rate that you cause an inefficient flood; so we will be monitoring that, and we had initially set the limit at a million a day.

Q. That's an internal --

A. Yes.

Q. -- ceiling that you have put on yourself?

A. That's correct.

HEARING EXAMINER: And that's not to be included in any kind of an order, is it, Mr. Kellahin? I'm not confused?

I have no further questions of Miss Courtright. Are there any other questions of this witness?

MR. KELLAHIN: I have one question, Mr. Examiner.

HEARING EXAMINER: Mr. Kellahin?

REDIRECT EXAMINATION

BY MR. KELLAHIN:

Q. The interval that's to be produced and flooded is the entire Leamex Paddock Pool as defined by the Oil Division?

A. Yes. The Leamex Paddock Pool is defined as the south half of Section 22.

Q. Do you know what the vertical limits are established for that pool?

A. No, sir, I don't.
Q. But the intent of the project is to remain confined to the vertical limits of the pool?
A. That's correct.
HEARING EXAMINER: Are there any other questions of this witness?
MR. KELLAHIN: No, sir.
HEARING EXAMINER: If not, she may be confused.
Does anybody else have anything further in Case 9965? If not, the case will be taken under advisement.

CERTIFICATE OF REPORTER

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

I, Deborah O'Bine, 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 July 15, 1989.

Deborah O'Bine

DEBORAH O'BINE
CSR No. 127

My commission expires: August 10, 1990

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9965, heard by me on 16 June 1990.

, Examiner
Oil Conservation Division