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:

APPLICATIONS OF MARBOB ENERGY CORPORATION

CASE NOS. 10,903
10,904

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: JIM MORROW, Hearing Examiner

February 3, 1994

MAR 2 1 1994

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on Thursday, February 3rd, 1994, at Morgan Hall, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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I N D E X

February 3, 1994
Examiner Hearing
CASE NOS. 10,903, 10,904

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A P P E A R A N C E S

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* * *

WHEREUPON, the following proceedings were had at 9:43 a.m.:

EXAMINER MORROW: At this time we'll call Case 10,903, which is the Application of Marbob Energy Corporation for abolishment of the Grayburg-Paddock Pool and extension of the vertical limits of the Grayburg-Jackson Pool, Eddy County, New Mexico.

Call for appearances in this case.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge and Sheridan.

We represent Marbob Energy Corporation in this case, and at this time I would request that the case be consolidated for purposes of hearing with Case Number 10,904, which also involves this same unit, and it will shorten the presentation if we consolidate the two for purposes of testimony.

EXAMINER MORROW: All right. We'll also call case 10,904, which is the Application of Marbob for authorization of unorthodox well location within its Burch Keely Unit, Eddy County, New Mexico.

Are there any other appearances?

Will the witnesses please stand and be sworn?

(Thereupon, the witnesses were sworn.)

EXAMINER MORROW: Go ahead.

RAYE P. MILLER,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. My name is Raye Paul Miller.

Q. Mr. Miller, by whom are you employed?

A. Marbob Energy Corporation.

Q. And what is your current position with Marbob?

A. I'm secretary/treasurer.

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

A. Yes, I have.

Q. And at the time of that prior testimony, were your qualifications as a practical oilman accepted and made a matter of record?

A. Yes, they were.

Q. Are you familiar with the Applications filed in each of these cases on behalf of Marbob Energy Corporation?

A. Yes, I am.

Q. And are you familiar with the Marbob Energy Corporation Burch Keely Unit?

A. Yes.

MR. CARR: Are the witness's qualifications

acceptable?

EXAMINER MORROW: Yes, sir.

Q. (By Mr. Carr) Mr. Miller, would you briefly state what Marbob seeks in these cases?

A. We seek the abolishment of the Grayburg-Paddock Pool and also the extension of the vertical limits of the Grayburg-Jackson Pool to include the Glorieta Yeso (Paddock) formation under the Burch Keely Unit -- that unit comprises a little over eight sections of federal land -- and also the authorization to drill additional producing wells in the Burch Keely Unit at unorthodox locations.

Q. All right, Mr. Miller, let's go to what has been marked Marbob Exhibit Number 1. Would you identify this for Mr. Morrow and then review the information contained on this exhibit?

A. Exhibit Number 1 shows all of the wells that are currently located on the Burch Keely Unit. It identifies injection wells, our one disposal well, wells that are shut in and TA'd, old producing wells, as well as new producing wells.

The outside or the boundary of the unit is actually the exterior boundary line outside the wells that are actually shown. This is only a portion of the Grayburg-Jackson Pool.

The pool is extremely large. It extends from

Township 17-29, all the way to Township 17 South, Range 32 East, or about four townships and ranges across, and about a township and range to a township and range and a half wide.

But this map only shows the actual unit wells and acreage.

Q. The Applications in each of these cases only affect acreage within the unit and the formations under the unit area?

A. That is correct.

Q. Initially, could you tell us when the Seven Rivers, Queen, Grayburg and San Andres formations in this area -- when these formations were originally developed?

A. The Grayburg and San Andres were the first formations that were found to be productive in this area, and that development began in the late 1920s.

At this time, inside the unit boundaries, the Queen formation is actually not productive.

The Seven Rivers formation was first produced in 1976 and has been developed some since then.

Q. When did Marbob actually acquire its interest in this area?

A. We purchased our interest in November of 1992.

Q. From whom did you acquire the interest?

A. From Phillips Petroleum Company.

Q. What is the status of the waterflood in the unit area at this time?

A. The waterflood was originally a cooperative waterflood that was requested by Phillips petroleum when they owned it. It was approved under Order R-7900 on April 25th, 1985.

Currently, that cooperative waterflood is a portion of the Burch Keely Unit and is under active waterflood operations in the San Andres and Grayburg formation.

Q. Now, not all the unit is under the waterflood at this time; is that right?

A. Not at this time.

Q. Let's go to Marbob Exhibit Number 2. Would you identify and review that, please?

A. Exhibit Number 2 is a possible expansion of the waterflood to encompass the entire unit area.

It identifies the injection wells that were approved as of 1-1-1987, and identifies additional injection wells that would be needed to expand the project to encompass the entire boundaries of the unit.

Q. Will the Glorieta Yeso or Paddock formation be included in this waterflood project?

A. No, it will not.

Q. Could you review briefly what you're currently

doing to evaluate the effectiveness of the waterflood project in this unit area?

A. Currently we have returned several wells to a producing status. One additional injection well which was TA'd has been returned to active injection.

We completed a deep disposal well on the unit and drilled 12 additional new wells in 1993. We're evaluating through the drilling of these wells to try to acquire additional data as to what extent the waterflood has worked in the past or additional reserves that may be recovered.

Q. How many additional wells do you anticipate could be required to fully develop the area and expand the waterflood project?

A. At this price of oil, probably not very many. But with hopes of higher prices, we see that potentially 60 infill wells may be added.

Q. Would these wells be drilled at unorthodox locations?

A. Yes, most of the wells that we anticipate would be drilled at unorthodox locations.

We have already obtained administrative approval for 13 unorthodox locations, which are in the interior of the Burch Keely unit. That was out of a total of 14 applications, so one location was orthodox, 13 were unorthodox. Out of those, twelve wells have already been

drilled.

We looked at the fact of how many additional wells potentially would be drilled in this and felt like that there was a lot of -- If each one was filed individually for administrative approval, that it would require considerable work by the OCD and by Marbob.

I discussed with Mr. Stogner here at the OCD about the continuous filing of these type applications, and one of the reasons that we're asking for this approval is because of the fact that it would then allow to not have to file and hopefully lessen the administrative burden.

We see that -- the possibility at the future that the OCD might want to consider, particularly in cases where they're not protested, they fall within the guidelines of a waterflood, that, you know, maybe some of these type of applications could be handled at district level rather than at the state -- or at the Santa Fe level.

Certainly what we're looking for in these unorthodox locations within the unit area is locations that are no closer than 330 feet from the outer boundary of the unit, and also that they are at least 25 feet from any quarter-quarter section line or internal quarter-quarter line inside each section.

Q. Mr. Miller, it was because of these conversations with Mr. Stogner that you're here today seeking authority

or approval -- a blanket authority for unorthodox well locations within this particular unit; is that correct?

A. Yes, conversations with him, and to relieve the administrative burden.

Q. And you are requesting this authority, provided no well be closer to the outer boundary of the unit than the standard well location requirements applicable for these pools?

A. That is correct.

Q. And this is the only question that relates to the current waterflood project that is before the Division in these two cases; is that right?

A. Yes.

Q. And what is the status today of the Burch Keely Unit?

A. The unit is -- comprises slightly over eight sections of federal land. It is all federal. It's a total of 5149.44 acres.

It was statutorily unitized, pursuant to Order Number R-7900-A on October 28th, 1993, to bring all overriding royalty interests into the unit.

Q. All right, let's go to Exhibit Number 3. Would you just identify that, please?

A. Exhibit Number 3 is a unit agreement or a copy of the unit agreement that covers the Burch Keely Unit.

Q. And what is the unitized interval in the unit?

A. Presently it is the interval in the Grayburg-Jackson Pool from the top of the Seven Rivers formation to the base of the San Andres formation, or a true vertical depth of 5000 feet, whichever is less, the base of the San Andres is above that 5000-foot depth.

Q. If Marbob's Application is granted to extend the vertical limits of a portion of the Grayburg-Jackson Pool under this unit, can this new interval be included in the Burch Keely Unit?

A. I'm not a lawyer, but the Burch Keely Unit agreement expressly authorizes the vertical expansion of the unitized interval to include additional formations, and that's located in Section 4 of the unit agreement, and the agreement has previously been approved by the BLM.

If this Application is granted, we feel that this interval can be included in the unit.

Q. Would inclusion of this interval change the participation of any interest owner in the Burch Keely Unit?

A. No, the working interest owners, royalty owners and overriding royalty owners are the same above and below the unit depth.

Granting the application, we do not see, presents any ownership problems and also would not have an impact on

the allocation of production in the unit.

Q. Do you believe that granting the Application would require an amendment of the Division's statutory unitization rule?

A. Well, again, I'm not a lawyer, but it's a thing where the unit agreement was incorporated by reference into Order R-79-A [*sic*], which grants Marbob's application for statutory unitization. Therefore, the provisions concerning adding the formation have been incorporated in that order.

Furthermore, the order unitizes the Grayburg-Jackson-Seven Rivers-Queen-Grayburg-San Andres Pool, which is the pool we seek to expand under the Burch Keely Unit with this Application. Because of these factors, we do not feel that it would require an amendment.

Q. Okay. So to clarify what we're not here for, we're not presenting any issue here today that we believe affects the formation of the unit itself?

A. That's correct.

Q. And as to the waterflood, other than just authority for unorthodox locations, there is nothing before the Division concerning the waterflood?

A. That's correct.

Q. All right. Could you tell the Examiner why it is that Marbob Energy seeks to expand the vertical limits of

the Grayburg-Jackson Pool under the Burch Keely Unit?

A. We feel it's necessary because of -- It's the only way to produce the additional remaining reserves economically under the unit.

Q. Now, if you are to expand the vertical limits of the Grayburg-Jackson Pool, is it also necessary to abolish the Grayburg-Paddock Pool?

A. Yes.

Q. And what are the boundaries of the Grayburg-Paddock Pool?

A. The Grayburg-Paddock Pool currently is identified as being in Township 17 South, Range 30 East, Section 18, the southeast quarter, which all falls within the unit.

Q. Why doesn't Marbob just downhole commingle Glorieta Yeso production with production from the Grayburg-Jackson Pool?

A. OCD, in our discussions, has suggested that as a possible alternative, which we explored, and unfortunately that approach was not acceptable to the BLM.

The BLM would only allow production from the Glorieta Yeso to be part of the Burch Keely Unit if the Glorieta Yeso was part of the Grayburg-Jackson Pool. Or in other words, it must be part of the same pool for them to allow downhole commingling with the unit, or to be part of the unit.

Q. And if you didn't expand the pool in this fashion, you would be compelled to independently develop the Yeso or the Paddock formation?

A. That's correct, on a lease basis.

Q. And other witnesses will address the viability of that option; is that correct?

A. Yes, sir.

Q. Could you identify Marbob Exhibit Number 4, please?

A. Exhibit Number 4 is a plat that shows offset operators and owners.

There are currently no unleased tracts offsetting the Burch Keely Unit. We have identified through records as to ownership of wells, who the operators are, as well as have done a search of the records to identify other rights that may not be owned by operators who would own rights in either the Grayburg San Andres, Glorieta Yeso (Paddock), and should be notified as part of this.

I apologize, but I must point out that there is an error in my exhibit. The blue in the southwest quarter is identified as being Southwest Royalties and Arco, and -- the only time that I ever made a mistake. That should be Southland Royalty and Arco.

EXAMINER MORROW: All right.

THE WITNESS: And Southland Royalty was actually

notified, not Southwest Royalties -- Well, Southwest Royalties was also notified, because they also are an offset operator. But that blue is actually a notification of Southland Royalty and Arco and Southland was notified.

MR. STOVALL: You're talking, just clarify, basically part of Section 27, 34 and 35, that's the area you're talking about?

THE WITNESS: Yes, this area right down here.

MR. STOVALL: Yeah.

THE WITNESS: That is correct.

Q. (By Mr. Carr) And so the error is just a typographical error in terms of naming the party?

A. Yes, sir, it was just --

Q. But correct --

A. -- a typographical on my map.

Q. But notice was correctly provided to Southland?

A. Yes, it was.

Q. Was notice of this Application provided to all the offset operators indicated on Exhibit Number 4?

A. Yes, they were. I believe we have provided copies of the notice letter and the receipt return as part of the exhibit.

Q. And is Exhibit Number 5 an affidavit confirming that in fact this notice has been provided?

A. Yes.

Q. Was notice also provided to the owner of the deep rights under the unit, Phillips?

A. Yes, Phillips is an operator of the deep rights underneath the Burch Keely Unit, as well as an operator outside, and they were notified.

Q. Mr. Miller, is there a precedent in OCD orders for an application of this nature?

A. Yes, there are three instances which we're familiar with.

MR. CARR: May it please the Examiner, there are three instances we've been able to identify where the vertical interval has been expanded within a unit and a waterflood project, and the order numbers are R-8539 -- That's a Shell Western case where the vertical limits of the Tubb were expanded in a waterflood project. That's R-8539.

Also, Order Number R-7767. In that case, under Gulf's Eunice-Monument South Unit, the vertical limits of the Eunice-Monument Pool were expanded to include portions of the Eumont. That's Order R-7767.

And finally, Arco Oil and Gas Company, by Order R-9745, was authorized to expand its South Justis Unit to include Tubb and Drinkard intervals in a unit that they were forming and proposing to waterflood.

So we believe there's precedent for what we're

seeking here confined to the boundaries of a unit -- a particular unit.

Q. (By Mr. Carr) Mr. Miller, will Marbob also call geological and engineering witnesses to review those aspects of this case?

A. Yes, sir.

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

A. Yes, even the mistake.

MR. CARR: At this time, Mr. Morrow, we would move the admission of Marbob Energy Corporation Exhibits 1 through 5.

EXAMINER MORROW: 1 through 5 are admitted.

MR. CARR: And that concludes my direct examination of Mr. Miller.

EXAMINATION

BY EXAMINER MORROW:

Q. Mr. Miller, the Grayburg-Jackson Pool, again, at present, includes what formations?

A. The Seven Rivers, Queen, Grayburg and San Andres.

Q. You didn't say Yates, did you?

A. I don't believe it's identified in the --

Q. Okay. When you bought it from Phillips in 1992, what vertical depth did you purchase from them?

A. We purchased to a depth of 5000 feet.

Q. So you owned to 5000 feet?

A. Yes, sir. The depths below 5000 feet were part of the Grayburg Deep Unit, and there is a difference in ownership there. Phillips did not own a hundred percent below 5000 feet.

Q. Where is that, now?

A. Underneath the unit, below 5000 feet, it's called the Grayburg Deep Unit.

Q. Oh, okay.

A. And there is a difference in ownership. Phillips did not own 100 percent of the rights as to those depths.

Q. So Phillips kept that, then?

A. Yes, sir.

Q. The 60 infill wells would be 60 new wells, I assume; it wouldn't include the --

A. Yes, sir, we anticipate over the course of the next two years that we will return all of the currently TA'd or shut-in wells to either a producing or plugged status, as well as drilling additional wells.

This year we're hoping, if the price of oil returns, to probably drill between 10 and 15 additional wells, to help further evaluate the Grayburg-San Andres formation.

Q. What price?

A. Well, we drilled 12 last year at a price that

ranged from $16 to $18 dollars a barrel for sour. In December we hit a low of $11.25 a barrel and, thankfully, the rig had lowered the derrick before that price, and John and I shook our heads and said, Good thing we got this over with, because we sure couldn't justify it at this.

It appears that $15 per barrel becomes a fairly magical point as far as fairly intensive capital outlays. We do have some requirements with the BLM that will require some capital outlays irregardless of price.

MR. STOVALL: If it gets much below $11, you'll give it back to the BLM, right, and let them operate?

THE WITNESS: Well, actually we're fairly fortunate. The unit produces about 1.7 million in casinghead gas, and so far gas prices have held up substantially better than crude oil, to where that certainly helps offset a good portion of the operating cost involved.

MR. STOVALL: I say that in jest, Mr. Miller.

Q. (By Examiner Morrow) There seems to be a little bit of conflict there in the testimony concerning what is the base of the unit, and what BLM told you about what they would agree to include in it, if we would make the Glorieta Yeso or Paddock a part of this Grayburg-Jackson Pool. I believe you testified that the base of the unit is the base of the San Andres --

A. Yes, sir.

Q. -- or 5000 feet, whichever is lesser?

A. That's correct.

Q. So really, that would be a little bit in conflict, it would seem to me, and --

A. Well, at this point the base of the San Andres is lesser than 5000 feet, and so the depth of the unit is the base of the San Andres.

Q. Right. So just by moving this Glorieta Yeso into the pool designation, you feel that that would overcome any legal problems you might have?

A. No, sir, we would have to go back and actually request the BLM to then allow the amendment of the unit to add the Glorieta Yeso to the unit.

Q. To that wording that says San Andres?

A. Yes, sir. And --

Q. If you -- Excuse me.

A. -- the unit, when the original discussions were held with the BLM, the unit was originally discussed as a Grayburg-San Andres unit because of the fact that the waterflooding -- it's basically a waterflood unit.

And the BLM agreed to include the Seven Rivers because of the marginal nature of the production, the fact that there were existing six wells that were completed in both the Seven Rivers as well as the Grayburg-San Andres,

and it was a part of the Grayburg-Jackson Pool.

Then they consented to expand the unit to include that additional formation, and in the discussions we had preliminarily they indicated that if there were other, you know, sections that might justify through the marginal characterization of it, that then that could be considered for the expansion.

Q. All right. I assume you'd go back to your working interest owner also, or would you?

A. The working interest owners -- 100 percent of the working interest was originally owned by Phillips.

Currently the working interest ownership is Marbob Energy, which is owned and operated by Mr. Gray, Mr. Gray's trust, which is owned by himself, Pitch Energy Corporation, which he owns, and my uncle and myself. And if I'm going to have employment I'm going to agree.

Q. How about the royalty interest? Is the agreement written in such a way that you would not have to go back to them, or would you go back to them?

A. The royalty is all federal and, of course, in requesting the amendment from the BLM we would then have received the royalty approval.

Q. All right. The -- You said something about -- maybe I didn't understand, but the Paddock would not -- would not be developed with these 60 wells. Did I hear

that correctly or not?

A. No, sir, the question related to whether or not we were actually Looking to waterflood the Paddock or the Glorieta Yeso (Paddock), however it becomes defined.

And our current anticipation is that we would not be looking to waterflood that zone. The zone is fairly -- or high water production, and we're actually looking at using that water as make-up water into the waterflood of the Grayburg and San Andres formations, which other people will testify to later.

Q. All right. In those three examples which were mentioned by Mr. Carr, including additional vertical interval, did that go across -- did any of those go across geological boundaries?

Maybe I'd better wait and ask the geological witnesses, but to your knowledge did they go across geological boundaries as significant as we have here between the San Andres and the Clear -- or the --

A. I was going to say, where the Clear --

Q. -- Glorieta Yeso.

A. I believe that the expansion of a couple of them were into the Tubb formation, which is -- in fact, the Tubb is a geological marker, which is identified below the Glorieta Yeso in Mr. Stamets's presentation, and I think it is a fact that they were separate formations.

EXAMINER MORROW: Do you have any questions?

MR. STOVALL: Yeah, just actually one quick one now.

EXAMINATION

BY MR. STOVALL:

Q. Do I understand you right, Mr. Miller, you're not bringing any additional parties in; the parties are the same in the expansion area?

A. That's correct, and we would actually use the same allocation of production for the unit basis as presently stands.

MR. STOVALL: That would occur in what you deny is a legal opinion but what I think is an accurate interpretation of the order and the agreement -- The agreement itself is what governs the procedures for expansion, and no amendment of the forced -- of the statutory unitization order is required. So I would concur in his -- I think he understands it correctly.

EXAMINER MORROW: Has wisdom.

MR. STOVALL: That's right. He's a practical oilman and he learned from an expert, so he's learned well.

EXAMINER MORROW: All right. Thank you, Mr. Miller.

THE WITNESS: Thank you.

MR. CARR: At this time we call Richard L.

Stamets.

EXAMINER MORROW: Let's see, we admitted a bunch of these exhibits, didn't we?

THE WITNESS: Yes, sir.

MR. CARR: We've admitted 1 through 5, I believe.

EXAMINER MORROW: 1 through 5.

MR. STOVALL: The affidavit is Number 5, Mr. Carr; is that right?

MR. CARR: Yes, sir.

MR. STOVALL: Okay.

RICHARD L. STAMETS,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. My name is Richard L. Stamets.

Q. Where do you reside?

A. Santa Fe, New Mexico.

Q. By whom are you employed and in what capacity?

A. I'm a consultant living in Santa Fe, and in this case I'm working for Marbob.

Q. Have you previously testified before this Division?

A. Yes, I have.

Q. At the time of that prior testimony, were your credentials as a petroleum geologist accepted and made a matter of record?

A. Yes.

Q. Are you familiar with the Applications filed on behalf of Marbob Energy Corporation in each of these cases?

A. Yes.

Q. And have you made a geological study of the area surrounding the Burch Keely Unit?

A. Yes, I've looked at geological information and other information in the area.

MR. CARR: At this time, Mr. Morrow, we tender Mr. Stamets as an expert witness in petroleum geology.

EXAMINER MORROW: We accept your qualifications.

Q. (By Mr. Carr) Mr. Stamets, have you prepared certain exhibits for presentation here today?

A. Yes, I have. And I might preface my comments by saying that I was the district geologist in Artesia from 1959 to 1971, and some of my testimony will be based on what I remember happening in those years too.

Q. Let's go to what has been marked Marbob Exhibit Number 6. Would you identify this and review it for the Examiner, please?

A. Yes, this is a well log, and the same log will show up in a few minutes on the cross-section that we'll

present. And I obtained this log from the microfilm records of the Division here in Santa Fe and have put the tops of various formations and individual zones on here just to show the relationship between what is currently the vertical limits in the Grayburg-Jackson Pool and the additional horizons that we're talking about here today.

I'd point out that originally the Grayburg-Jackson Pool was only the Grayburg formation, which starts at 2200 feet on this log, and probably the upper couple hundred feet of the San Andres formation. The San Andres is about 2728.

The Keely zone, which you see below the Lovington Sand, was a separate producing horizon originally, even though it's a part of the San Andres formation itself. And of course that goes back to the olden days when we had good reservoirs that justified individual development.

And as time passed and the economics changed, the vertical limits were extended to include the Keely zone, as well as the upper part of the San Andres. Later the Queen was added, still later the Seven Rivers was added.

And this was pretty typical in the Sixties and Seventies, to add these other horizons as marginal development took place. I think, for example, that the Shugart Pool, which now includes the Yates, Seven Rivers, Queen and Grayburg, and the Artesia Pool, which is the -- I

believe that has had the Queen added to it, maybe the Seven Rivers. But a number of those old pools have had additions over the years.

Q. And the interval that's being added today by this Application, Mr. Stamets?

A. That would be the interval indicated as the Paddock, beginning at 4210. That's the top of the Yeso. I always interpreted the Glorieta to be the base of the San Andres, even though it's one of those zones that often is designated as a reservoir itself.

And then the Yeso extends to the Abo at 6300 feet. There's a Tubb marker down about 5723. But since the Tubb is not a common designation in Eddy County, I put that on there with a question mark. I'm not terribly certain of that.

And I have a little bit larger scale log if the Examiner would like to have that.

Q. Now, Mr. Stamets, let's go to Exhibit Number 7, the cross-section. Who prepared this exhibit?

A. This exhibit and the next exhibit were prepared by Jack Ahlen and his daughter Dawn, who live in Roswell and do work for Marbob.

When we initially had our meeting on this last October, I told them what sort of evidence we'd need to present. And they said, Well, we've already got that. And

so they brought it to me. And I have double-checked these exhibits and, you know, any geologist would -- you know, if he had to, he would put it five feet off one way or another, just to put his stamp on it.

But I don't see any -- I don't have any differences between what I see prepared by the Ahlens and my own views.

Q. All right, let's --

A. I used logs here in Santa Fe to double-check.

Q. Let's go to Exhibit 7 now, and would you review the information on this exhibit for Mr. Morrow?

A. Yes, if you look to the right of the exhibit, on the A' side, you'll see that that's the same log that we've just talked about.

And here we have the top of the Glorieta sandstone shown and the upper portion of the Yeso. This is hung on the minus 200 subsea datum.

You can see that the cross-section goes clear across the unit from west to east, that the Yeso interval is continuous across there, although it's highly doubtful that the productive zones are continuous across such an extended interval.

And at the base of the logs there's some information such as drill stem tests or shows or perforations and so on.

Q. The purpose of this exhibit is to show that the Yeso correlates across the Burch Keely Unit?

A. Yes, and just to give an idea of what the structure is in the area.

Q. All right. Well, let's move to Exhibit Number 8, your structure map. Was this again prepared by Mr. Ahlen and his daughter?

A. That's correct.

Q. Have you reviewed this?

A. I have. I've double-checked a number of the picks on here, and again, as I said, I might differ five or ten feet from place to place, but it does not make that much difference in the overall scheme of things.

Q. All right. Well, let's review, now, the structure map for the Examiner.

A. What we're seeing here in the northern portion of this is a relatively flat area with very gentle dips from west to east, and this is across the top of the Abo reef. And as you go to the south and come off the reef, more into the Basin, the dips become much more pronounced. And we have something on the order of -- what? 300 or 400 feet per mile dip to the southeast as you get into the off-reef sections.

Also in section 18, in the southeast quarter, I've just colored in the Grayburg Paddock pool in yellow.

Q. Basically this shows that the Glorieta zone is present again throughout the unit?

A. Yes, because the top is on the Glorieta, and the Glorieta would extend on down to the Capitan Reef, to the south of here some miles.

Q. The most productive part appears to be at the top of the structure?

A. That seems to be the case in this area. I've seen other areas where the Glorieta has been productive as deep as 1500 feet -- not Glorieta, the Yeso has been productive as deep as 1500 feet into the formation.

Q. All right, Mr. Stamets, let's now go to Marbob Exhibits 9 and 10, and I would ask you to identify these and review them together.

A. I sat down with the 1992 Annual Statistical Report and the latest district oil proration schedule to sort of review any pools that were already out there completed in the Glorieta or Yeso formation in Eddy County, and I think I got them all. It's possible, looking at all that data, to miss one.

But I think there are eleven pools, four of which currently produce out of the Glorieta or Yeso and seven pools which are abandoned. Those pools are all listed on exhibit -- This is Exhibit 8; is that correct?

Q. Exhibit 9.

A. 9, Exhibit 9.

EXAMINER MORROW: Let him get all those marked. Work on some more later.

THE WITNESS: And then Exhibit 10 shows eight --

EXAMINER MORROW: Oh, on the back. All right.

THE WITNESS: Exhibit 10 is a sketch map which shows eight of the eleven pools. And I've done this to sort of give a spatial relationship between where we are and where the good production seems to be in the Glorieta and Yeso.

The three pools we see south of Artesia -- the Peñasco Draw, the Atoka Glorieta Yeso and the Seven Rivers -- are all pretty decent pools producing out of the Yeso or Glorieta.

The Atoka still has a couple of nonmarginal wells, and through 1992 they had recovered an average of 33,000 barrels per well.

The Peñasco Draw, I did not go through there and get any data, because that's a combination of San Andres and Yeso, and some wells are completed in the San Andres only, some in the Yeso only, some of them were completed for a while in both and have been plugged back and are completed only in the San Andres now, so that didn't seem like it would give us very good data.

The Seven Rivers Yeso Pool still has one

nonmarginal well, and it's averaged 16,000 barrels recovery through the end of 1992.

The Red Lake Pool, that -- One well in there is marginal at the present time.

Of the seven abandoned pools, the water volumes have been about -- Well, the overall recoveries have been about 1500 barrels to 6000 barrels per well, and in general we see water volumes which are equal to or greater than the oil which has been produced.

On Exhibit Number 10 there are three more Yeso pools. These are all abandoned one-well pools. They are to the south and south and west of the area.

So what we're looking at is the good productions, about 20 miles west of where we're located.

Q. And generally what conclusions can you reach about the Glorieta Yeso or Paddock formation under the Burch Keely Unit area?

A. Well, in the area that we're looking at, it would appear as though the Yeso or Glorieta Yeso would be most likely very marginal in production. We would expect a substantial amount of water to be produced with that. And I would expect this to just be a salvage situation.

Q. Were Marbob Exhibits 6 through 10 either prepared by you or can you, based on your review, testify as to their accuracy?

A. Yes, that's correct.

MR. CARR: At this time, Mr. Morrow, we would offer Marbob Energy Corporation Exhibits 6 through 10.

EXAMINER MORROW: 6 through 10 are admitted into the record.

MR. CARR: And that concludes my direct examination of Mr. Stamets.

EXAMINATION

BY EXAMINER MORROW:

Q. Mr. Stamets, on this last Exhibit, Number 10, is the Burch Keely Unit identified there?

A. No, it isn't. But if you'll look at Exhibit Number 8, you can see the location of the pool relative to the unit. So here is the pool, and the unit is somewhat larger than that. So if you take a look at the Exhibit Number 10, you can see probably the unit runs down to about the highway.

Q. On here?

A. Yes.

Q. The highway on here? Which highway are you talking about?

A. Well, the one that runs east and west through Loco Hills.

MR. STOVALL: Is that US 82, Mr. Stamets? The symbol is --

THE WITNESS: Yes, I see it --

MR. STOVALL: -- a little to the left.

THE WITNESS: -- it is 82.

Q. (By Examiner Morrow) All right. Okay, that's the Paddock Pool. Okay, I've got you.

A. Right, and I would guess maybe that's -- Well, it runs maybe just south of the road there.

Q. It looks like there's two wells in that Grayburg-Paddock Pool. Are those producing at this time?

A. I think they're still producing, but not out of the Paddock. They were recompleted into the San Andres, I believe, a number of years ago, before Marbob acquired the property.

Q. So to the best of your knowledge, there's no production from that pool at this time?

A. That's correct.

Q. These two pools indicated on Exhibit 9, two of them seem to be examples of similar situations to what you're requesting today, the Peñasco and the Seven Rivers Yeso.

Were those set up that way initially, or were they combined at some time?

A. It seems to me -- I'm trying to remember. The -- Yates Petroleum developed that Peñasco Draw San Andres Yeso area, and I cannot recall this minute if they began to

develop those as two separate pools and came in and had them consolidated or not. I did not look that up, and my memory just doesn't go back.

That was -- They've had some special hearings on there, because it's an associated pool and there's some gas wells and oil wells and different spacing, and so there have been several hearings on that, and I just can't remember now if it was originally two separate pools and consolidated or not.

Q. Okay. How are the vertical limits currently defined in the Grayburg-Jackson Pool?

A. It would be from the top of the Seven Rivers to the base of the San Andres formation.

Q. Base of the San Andres?

A. Yes.

Q. And how would you propose that we define them, or that they be defined, if this Glorieta Yeso section is added?

A. Well, if I were going to define it, I'd just say -- I'd just add Yeso to the name.

As I said, I believe that the Glorieta is the base of the San Andres formation, and so by adding Yeso you would include that entire interval on down to the Abo.

Now, that certainly seems to be a lot of interval to include, but it would be simple to do, and it's doubtful

anybody else is going to come in there and try and develop that after all these years. Uh --

Q. Do you -- Excuse me, go ahead. Do you show that Abo on your cross-section or is it shown --

A. It's shown on my initial exhibit, which is Exhibit Number 6. If you go to the right-hand side of the page, you'll see the Abo at 6300 feet. That would be the Abo shale.

Q. That would include the Tubb then, possibly, if there's --

A. Yes, possibly. Yes, in Eddy County those -- the Yeso has never been divided up as it has over in the Lea County area because there haven't been good reservoirs found in the Yeso until over on the west side.

Q. Do you know of a little less all-inclusive marker that could possibly be used which would satisfy Marbob's purposes here?

A. Well, let me take a look. I think that this is okay with Marbob. Seemed like we talked about it yesterday.

If you wanted to be a little less inclusive, I would say include the upper 500 feet of the Yeso formation and just describe it that way, and that would be sufficient to get all the interval that's been tested by Marbob in this area.

I don't see anybody waving their arms, so I think that must be all right.

(Off the record)

Q. (By Examiner Morrow) And I assume that you would want to continue statewide rules; you're not asking for any rule changes today, are you?

A. That's correct, not in this portion of the case.

EXAMINER MORROW: Do you have anything you want to ask?

MR. STOVALL: Well, probably, but not related to this case.

EXAMINER MORROW: Thank you, Mr. Stamets. We appreciate your testimony.

MR. CARR: At this time we call Joe D. Ramey.

JOE D. RAMEY,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. Joe D. Ramey.

Q. Mr. Ramey, where do you reside?

A. In Albuquerque, New Mexico.

Q. By whom are you employed?

A. I'm an independent consultant, and I've been

retained by Marbob for appearance in this case.

Q. Have you previously testified before this Division?

A. Yes.

Q. At the time of that testimony, were your credentials as a petroleum engineer accepted and made a matter of record?

A. Yes, they were.

Q. Are you familiar with the Applications filed in these cases on behalf of Marbob?

A. Yes.

Q. And have you made an engineering study of the area involved in this case?

A. Yes.

MR. CARR: Are the witness's qualifications acceptable?

EXAMINER MORROW: Yes.

Q. (By Mr. Carr) Mr. Ramey, what have you examined in preparation for this hearing?

A. Well, I studied the production history of the two wells that are in the Paddock Pool in this area, and in general the production characteristics of those wells, and I built decline curves on the producing wells, and I studied what testing has been done in the area. I've looked at bottomhole pressure information, water analysis

and oil gravities. Just a general quick engineering study.

Q. Let's go to what has been marked as Marbob Exhibit Number 11. Could you identify this for Mr. Morrow and then review it, please?

A. This is a production performance curve on the General American Burch A Number 14. That's one of the two producing wells that were in the -- I guess it's the Maljamar Paddock Pool, I think.

MR. STAMETS: Grayburg.

THE WITNESS: Grayburg Paddock Pool.

These are -- We have months on the horizontal and production, oil, gas and water, on the vertical scale.

This well produced about 18 months, and it produced around ten barrels of oil per day. For most of its life in the last few months, it declined rapidly to about a barrel a day.

And water production was as high as 150 to 200 barrels per day.

Gas, there was no gas reported until the last five months of the production life, and I think at that time, why, it was -- The well was put on gas lift, and I think they started reporting the gas-lift gas used for producing the well as the gas production.

Q. (By Mr. Carr) Let's go now to Exhibit Number 12. Would you identify and review this?

A. Exhibit 12 is just a monthly rate versus cumulative curve for the same well. It shows a cumulative of pretty close to 4900 barrels of oil.

Q. This is one of the two wells produced from that old Paddock Pool?

A. Yes.

Q. Let's go to Exhibit Number 13. Could you identify this?

A. Exhibit 13 is a production performance curve for the General American Burch A Number 17, which is the second well that produced.

As you can see, the oil production started out at about 20 barrels a day, and then it settled to around three to four barrels a day, and then the last few months, why, it again declined. And I think the last month, why, it produced five barrels of oil.

Here again, gas production is what I think is gas-lift gas. This well was put on gas lift early in its producing life, and I think all of the gas reported is gas-lift gas. I can't visualize the well -- From the testing that Marbob has done on a couple wells, why, I can't visualize that you would get up to 300 or 400 MCF a day out of one of these wells.

Water production on this well got as high as 250 barrels a day.

Q. All right. Let's go now to Exhibit 14. Would you identify and review that?

A. This again is a rate-versus-cumulative curve, and it shows the cumulative to be around 5300 barrels.

Q. So this is all the production information there is on the two wells that produced for a time from the old Paddock Pool under the Burch Keely Unit?

A. Yes, I think Marbob has tested a couple of wells for a 30-day period.

Q. At this time, why don't we go to Exhibit Number 15? Would you identify this for Mr. Morrow and then explain what this exhibit shows?

A. It's labeled "Incremental Cost of Drilling and Completing Additional Zone". The bottom figure, the "Cost to Drill and Complete Well for this Zone Only", would be a well drilled with the explicit purpose of producing the Yeso, and that cost for a single well to the Yeso would be around $243,000.

Now, the upper part of the curve is the incremental cost for the drilling from the base of the Grayburg-Jackson down through the Yeso, and that cost is close to $27,000. So for an additional $27,000 on our drilling program, we can include this zone and recover the oil that's in the zone.

Q. How much additional or incremental production

would you need to justify taking a well down to this zone in an existing wellbore?

A. With $15 oil, it would be about 2500 barrels.

Q. So what conclusions can you draw from this information?

A. Well, I think it would be -- From the production information we have, I think it would be economical to drill these wells deeper and produce this oil.

It certainly -- There's no indication that it would be economical at all to make a single completion to drill individual wells to this zone.

Q. Now, a minute ago you indicated there was some additional testing of wells that had been performed by Marbob Energy in this area.

A. Yes.

Q. We've talked already about the two original wells. Could you generally summarize for the Examiner this additional drilling and testing information?

A. Marbob, in a couple of their, you know, recently developed wells last year, they drilled the BKU Number 210. It's in Section 13 of 17-29. And they tested that well for 30 days in the Yeso, and the well tested six barrels of oil, 91 barrels of water, and 14 MCF of gas.

They also tested the BKU Number 211, which is in Section 23 of 17-29, and that well tested at 14 barrels of

oil, 130 barrels of water, and 16 MCF of gas.

These seem to be comparable wells to the two wells that were in the pool originally.

Q. And again, this would appear to be more in the nature of a salvage effort to try and recover this additional Paddock oil?

A. Yes.

Q. Phillips also tested a couple of wells while they were in the Paddock well operating these properties. Do you have any information on that?

A. The BKU well unit -- BK Unit Number 4 in Section 13 of 17-29, they tested oil after an acid treatment. They reported they swabbed some oil.

They fractured the well, and as a result of fracturing -- they don't say whether they frac'd into water anyway, but they elected not to complete the well, and they plugged it back to the shallower zone.

And then the BKU Number 39, in Section 23 of 17-29, they reported oil during drilling, there were good shows in the samples. And they perforated -- or they acidized the well, and the results did not justify a completion attempt.

Q. Mr. Ramey, this information would suggest, would it not, that it is possible across this unit area to produce some oil from the Glorieta Yeso or Paddock

formation?

A. Yes, I think there's a potential on the area for a little bit of oil. Hopefully, you know, with modern-day completion practices we could perhaps, you know, improve recoveries. But even if we got 5000 barrels a well and, you know, we drilled 70 wells, why, that would be a considerable volume of oil that could be recovered.

Q. To recover this oil, development on a stand-alone basis, drilling wells just to the Yeso is not practical; is that right?

A. No, not at all.

Q. Are there any wells at this time currently producing the Glorieta Yeso (Paddock) formation in the Burch Keely Unit area?

A. No. We have two that can be produced, but...

Q. All right, Mr. Ramey, let's go now to what has been marked Marbob Exhibits Number 16 and 17. If you could identify these and then briefly review them together for the Examiner.

A. Number 16 is a bottomhole pressure test that was taken on the -- It's labeled Well Number 30, which is now Well Number 210, Burch Keely Unit Well Number 210.

These are bottomhole pressure tests that were taken when the well was completed, or the zone was -- prior to testing the Yeso zone on both of them. And as you can

see, the bottomhole pressure on the Number 210 is 1827 p.s.i. with a fluid level of 262 feet.

EXAMINER MORROW: Now, this is the Yeso?

THE WITNESS: Yes.

EXAMINER MORROW: Yeso formation --

THE WITNESS: Yes.

EXAMINER MORROW: -- you're talking about here?

THE WITNESS: These are on the two wells that they tested, the 210 and the 211.

The second one is labeled Number 49, which is now Well Number 211, and it shows a bottomhole pressure of 1757, with a fluid level of 295 feet.

Q. (By Mr. Carr) What do these exhibits -- This information, what does this tell you?

A. Well, it -- You know, those are reasonable bottomhole pressures, and the fluid levels are high, which indicates that the well should make some fluid of some kind.

Q. If the wells are shut in for an extended period of time for any reason, do you anticipate there could be reservoir damage resulting from that?

A. I don't think there would be any damage. I think there might be some crossflow, you know, based on this fluid level. But I would like to point out that after Marbob produced these wells for 30 days, why, on the Well

Number 210, the bottomhole pressure was 1172 pounds, which is a decline of --

EXAMINER MORROW: Produced how long?

THE WITNESS: Thirty days. It indicates a decline of, you know, 600 p.s.i. And the fluid level dropped from 262 feet from the surface to 2328 feet.

And on the Number 211 the bottomhole pressure, after producing 30 days, was 816 p.s.i. and the fluid level was at 2821 feet.

So we lost a lot of our head there, which might, you know -- I think that would certainly cut down on crossflow.

We had no problem, you know, pumping these wells, and we were able to pump off the wells and maintain, you know, a low fluid level, and so -- We have pumping equipment to where we can handle up to 600 barrels a day per well. And I doubt if we would, you know, ever see those volumes with both zones, with the Grayburg -- the present pool plus the addition of the Yeso. I don't think we would see those type of volumes.

Q. (By Mr. Carr) So you could physically pump these off to prevent any potential for crossflow --

A. Yes.

Q. -- between the Paddock and the Grayburg-Jackson Pool?

A. We would certainly anticipate doing that, that's...

Q. Mr. Ramey, let's go now to what has been marked Marbob Exhibit 18. Can you identify that and review it for us, please?

A. Is this the water analysis?

Q. Yes, sir.

A. Okay, this is a water analysis on two wells.

The Keely A Number 8, which is the Grayburg-Jackson water production, basically it shows total dissolved solids of, you know, 89,000, in excess of 89,000.

The second page is labeled Keely A - Well Number 30, which is Well Number 210, Grayburg Keely Unit Well Number 210. And it shows total solids of nearly 217,000.

The third and fourth pages are compatibility tests, which indicates that the waters are compatible, mixed 50-50. It shows a minor scaling problem, which if that will -- you know, we will treat the water for scaling. And if any scaling occurs, why, it can be readily taken care of by dumping a little acid on the formation.

Q. Now, the waters are compatible. Are the oils compatible?

A. The oils are both sour oils. The gravities are 39.7 for the Paddock Pool and 38 for the Grayburg-Jackson Pool. The prices paid will be the same whether they're,

you know, kept isolated or mixed.

Q. Marbob's operations result in the production of a substantial volume of water. What does Marbob propose to do with the water?

A. At present under our waterflood, we are having to purchase fresh water and -- to mix in with our produced water. And we will stop buying fresh water and we will use the water produced from the Yeso along with the produced water from the Grayburg-Jackson Pool, the present Grayburg Jackson Pool. If the volume becomes excessive for our needs, why, it will be injected into our disposal well.

Q. What conclusions can you reach from your engineering study of this area?

A. Well, I think we've got at best a poor oil pool in the Yeso. It certainly would not support development on its own.

But I think we can recover an appreciable volume of oil if we're allowed to -- or if these pools -- or if the vertical limits of the present pool is extended to include the Yeso.

It seems to be limited reservoirs, a limited reservoir that the individual wells are not -- probably not draining 40 acres at this time. We may be able to fracture the wells. We'll have to experiment with the fracture treatments to see what will happen.

Hopefully we can increase recoveries to maybe up to 10,000 barrels per well. But certainly I don't anticipate that we could ever increase recoveries to where this zone would be independent and pay.

Q. Mr. Ramey, in your opinion will approval of this Application result in the recovery of hydrocarbons that would otherwise be left in the ground, thereby preventing waste?

A. Yes.

Q. Will approval of the Application otherwise be in the best interests of conservation and the protection of correlative rights?

A. Yes, it would be.

Q. Were Exhibits 10 through 18 either prepared by you or compiled under your direction?

A. Yes, sir, they were.

MR. CARR: Mr. Morrow, at this time we move the admission of Marbob Energy Corporation Exhibits 10 through 18.

EXAMINER MORROW: 10 through 18 are admitted.

MR. CARR: And that concludes my examination of Mr. Ramey.

EXAMINATION

BY EXAMINER MORROW:

Q. All right, sir. Mr. Ramey, I missed some of

those numbers. General American Burch A 14 and 17 -- I believe the 17 is the 211; is that correct?

A. No, no. Now, Burch A 14 and 17 were the --

Q. Oh, that was --

A. -- General --

Q. -- they're not in use, they're abandoned right now?

A. They're abandoned now. Those are the wells that were in the yellow area of Mr. Stamets's cross-section.

Q. They never were in the unit --

A. Well, they're located within the unit --

Q. -- within the unit boundary?

A. -- but they were not part of the unit.

Q. Do you know about when they were abandoned?

A. They produced from 1957 through 1959, in that period.

Q. Okay. All right, the two Marbob tests. The BKU 211 was tested, and what was the other one? The 210?

A. Yes, 210 and 211. Those are the two wells that produced.

Q. And I didn't get the location for 210.

A. It's in Section 13 --

Q. 13 --

A. -- of 17-29.

Q. -- 17-29. And it made six oil and 14 gas, and

how much water?

A. Ninety-one barrels of water.

Q. And I missed the gas on the 211.

A. The 211 was 16 MCF a day.

This is what's made me conclude that -- You know, the two wells have produced in this Paddock Pool reported high gas volumes, and I think that, you know, probably --

Q. That gas lift?

A. -- that gas was the gas-lift gas.

Q. Okay. Were these averages for the 30 days, or were they initial, or do you know what --

A. I think this was at the end of the 30-day period.

Q. At the end, okay.

A. Is that right?

Q. So that's kind of a -- That's a pretty well stabilized test?

A. Kind of the settled production after 30 days.

Q. Did you leave the well shut in a while before you ran those later bottomhole pressures?

A. One of them was 48 hours -- The first one was 48 hours, and the second one was only a 24-hour test.

Q. Do you have any bottomhole pressures for the Grayburg-Jackson interval?

A. No, I don't have.

Q. Now, is it your understanding that these 60 new

infill wells -- I think I've asked this earlier, but I don't remember the answer -- would be drilled into the Yeso?

A. Yes, sir, if this Application is approved, why, we will maybe -- you know, we will definitely -- As we progress, why, we will drill and test. And, you know, if we can recover some oil, why, we will continue.

If we reach a point where, you know, where maybe it's all underwater or something, why, we might stop the program.

But we certainly hope at this time that we could drill 60 additional wells into the Yeso and recover four or five 10,000 barrels per well.

Q. Were those tests of 210 and 211, were they within that upper 500 feet?

A. Yes, sir. Yes. They were immediately below the Glorieta Sand interval.

Q. Say maybe the first 100 feet or so?

A. Yes, probably within the first 200 feet anyway.

Q. Okay. I'll go ahead and ask you this -- we may need to call on one of the other witnesses -- but would 500 feet below the top of the Yeso get you below 5000 feet, or would that be a problem even if it did?

A. It might get us below 5000, but if -- I don't think we would ever perforate that deep into the interval,

and we certainly wouldn't perforate below --

Q. -- below unitized --

A. -- below 5000 feet, right. Yes, it's not our property.

Q. That's right, below 5000.

A. Yes.

EXAMINER MORROW: Okay. Have you got anything, Mr. Stovall?

MR. STOVALL: (Shakes head)

EXAMINER MORROW: That's all I have.

MR. CARR: We have nothing further on this case.

EXAMINER MORROW: Thank you, Mr. Ramey.

THE WITNESS: Thank you, Mr. Morrow.

EXAMINER MORROW: Cases 10,903 and 10,904 will be taken under advisement.

(Thereupon, these proceedings were concluded at 10:58 a.m.)

* * *

CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL March 6th, 1994.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1994

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10903 10904, heard by me on Feb. 3 1994.

, Examiner
Oil Conservation Division