STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11,578

APPLICATION OF ENRON OIL AND GAS COMPANY)
FOR COMPULSORY POOLING, EDDY COUNTY, NEW)
MEXICO

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

July 25th, 1996

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH,
Hearing Examiner, on Thursday, July 25th, 1996, at the New Mexico Energy, Minerals and Natural Resources Department,
Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico,
Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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INDEX

July 25th, 1996 Examiner Hearing CASE NO. 11,578

APPEARANCES 3

APPLICANT'S WITNESSES:

PATRICK J. TOWER (Landman)
Direct Examination by Mr. Carr 4
Examination by Examiner Catanach 13

RANDALL S. CATE (Engineer)
Direct Examination by Mr. Carr 15

REPORTER'S CERTIFICATE 26

* * *

EXHIBITS

Applicant's	Identified	Admitted
Exhibit 1 Exhibit 2	6 7	13 13
Exhibit 3	11	13
Exhibit 4 Exhibit 5	17 17	24 24
Exhibit 6	17, 19	24
Exhibit 7	20	24
Exhibit 8	20	24
Exhibit 9	21	24

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APPEARANCES

FOR THE DIVISION:

RAND L. CARROLL Attorney at Law Legal Counsel to the Division 2040 South Pacheco Santa Fe, New Mexico 87505

FOR THE APPLICANT:

CAMPBELL, CARR, BERGE and SHERIDAN, P.A. Suite 1 - 110 N. Guadalupe P.O. Box 2208
Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

* * *

1	WHEREUPON, the following proceedings were had at
2	9:25 a.m.:
3	EXAMINER CATANACH: At this time we'll call Case
4	11,578.
5	MR. CARROLL: Application of Enron Oil and Gas
6	Company for compulsory pooling, Eddy County, New Mexico.
7	EXAMINER CATANACH: Are there appearances in this
8	case?
9	MR. CARR: May it please the Examiner, my name is
10	William F. Carr with the Santa Fe law firm Campbell, Carr,
11	Berge and Sheridan. We represent Enron Oil and Gas Company
12	in this case, and I have two witnesses.
13	EXAMINER CATANACH: Additional appearances?
14	Will the two witnesses please stand to be sworn
15	in?
16	(Thereupon, the witnesses were sworn.)
17	PATRICK J. TOWER,
18	the witness herein, after having been first duly sworn upon
19	his oath, was examined and testified as follows:
20	DIRECT EXAMINATION
21	BY MR. CARR:
22	Q. Would you state your name for the record, please?
23	A. Patrick J. Tower.
24	Q. Where do you reside?
25	A. Midland, Texas.

1 By whom are you employed? Q. 2 Α. Enron Oil and Gas Company. 3 Q. Mr. Tower, what is your current position with Enron? 4 I'm a project landman. 5 Α. Have you previously testified before this 6 Q. Division? 7 8 Α. Yes, I have. At the time of that testimony, were your 9 Q. credentials as a petroleum landman accepted and made a 10 11 matter of record? 12 A. Yes, they were. 13 Are you familiar with the Application filed in Q. this case on behalf of Enron? 14 15 Yes, I am. A. And are you also familiar with the status of the 16 Q. 17 lands in the subject area? Α. Yes, I am. 18 19 MR. CARR: Are Mr. Tower's qualifications 20 acceptable? 21 EXAMINER CATANACH: Yes, they are. (By Mr. Carr) Could you briefly review for Mr. 22 Q. 23 Catanach what Enron seeks with this Application? 24 Α. Yes, Enron is seeking an order pooling all

mineral interests from the surface to the base of the

Morrow formation underlying the south half of Section 32,
Township 17 South, Range 30 East, in Eddy County, New
Mexico, for all formations developed on 320-acre spacing
and, as to the southwest quarter, for all formations
developed for 160-acre spacing and, as to the south half of
the southwest quarter, for all formations developed on 80acre spacing.

- Q. Does Enron have all interests in the 40-acre tract or no interest?
 - A. At this time Enron has no interest.
- 11 Q. To what well will these spacing units be 12 dedicated?
 - A. The Sand Tank 32 State Com Number 1 well.
 - O. And where is that well to be drilled?
 - A. To be drilled at a legal location or a standard location 660 feet from the south line and 1980 from the west line of said Section 32.
 - Q. Have you prepared exhibits for presentation here today, Mr. Tower?
 - A. Yes, I have.

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- Q. Let's go to what has been marked Enron Exhibit
 Number 1. Would you identify that and review it for Mr.
 Catanach?
- A. Yes, Exhibit Number 1 is a land plat depicting the lands associated with this pooling order, this order

that we seek. Outlined in red is the south half of Section 32, which is the 320-acre spacing unit, with the -- located with a pink dot is the standard location that we propose to drill.

- Q. What are the primary and secondary objectives in this well?
- A. Primary objective is the Morrow, as well as the Strawn, located in the Sand Tank-Strawn Pool and the Sand Tank-Morrow Gas Pool and also the Undesignated South Loco Hills-Morrow Gas Pool.

Secondary objectives would be any of the formations uphole, which our other technical witness will get into in a little more depth.

- Q. Let's go to Enron Exhibit Number 2. What is this?
- A. Exhibit Number 2 is a spreadsheet depicting the various owners that we're seeking to pool here. One thing you will note, there are columns for each of the spacing units, the parties involved that we're pooling.

One thing you will also note, there's a total on here for each of the spacing units. It depicts the parties that have not totally committed voluntarily at this time. The remaining parties -- for example, in 320-acre spacing approximately 38 percent is listed as the total of that particular column. The balance to the 100 percent has

committed to voluntary agreement to drilling of this well at this time.

The -- One thing also, we have numerous parties, for example, on the 320-acre spacing unit. The primary parties that we came in to pool were some unknown heirs that we have been trying to locate, those being the heirs of J.R. Cole and also the heirs of Albert Sidney Johnson, representing, oh, approximately one and a half percent of the spacing unit working interest. And we have since filing our Application, have run down some leads on the Coles. I think it was tracing them to -- I believe it's Honduras. And so we're still trying to find those people and get a voluntary commitment.

The remaining parties on this list under the southwest quarter, and also the south half, southwest quarter, are the same parties, it just -- which of those parties fall within those particular spacing units.

The balance of the parties outside the two unknown heirs that we're trying to locate have in some fashion indicated that they will voluntarily commit to participation or farmout or some voluntary agreement for this test. However, at the time of this hearing, we do not have the actual signed agreements in on these particular parties. So they have not come forth with actual signatures to commit it. However, there's been that

indication.

- Q. Now, Mr. Tower, if you go on this exhibit to the portion that relates to the south half of the 320-acre unit, first of all, the parties listed own 38.5 percent of the working interest in this tract; is that right?
 - A. That is correct.
- Q. Of those, the only people you were unable to locate are those two groups shown as the heirs of J.R. Cole and the heir of Albert S. (Sidney) Johnson; is that right?
 - A. That is correct.
- Q. And you have contacted the others and they indicated a willingness to participate; is that right?
 - A. Or enter in some voluntary agreement, yes.
- Q. And -- But as of this time, certainly, those interest owners have not returned paperwork to finalize agreements with Enron; is that right?
 - A. That is correct.
- Q. At this time, to be sure all the loose ends are tied up, does Enron propose to renotify those who have not executed the paperwork and also attempt to notify the heirs of J.R. Cole?
- A. Yes, that's correct. What our proposal for this matter, since we thought that all of these agreements would be in, and primarily we're focusing on the unknown heirs, we did not send out notice, so we thought it would be

proper to leave the record open for an additional four weeks. We will send out proper notice, and at such time as the actual voluntary commitments are signed, these parties will be dismissed, but leave the record open to cover these additional parties.

- Q. You will provide an affidavit four weeks from now that will identify those parties to whom notice has been given and will also verify that all parties have been notified in accordance with OCD rule; is that right?
 - A. That is correct.

- Q. So we'll be asking or requesting a continuance of four weeks on this case to cover the notice issue; is that right?
 - A. That is correct.
- Q. When we -- Based on your conversations with these individuals, what percentage of the ownership in the south half will be voluntarily committed to this well? What do you anticipate you'll voluntarily have in?
 - A. Approximately 98 percent.
- Q. And that general percentage would also be applicable to the smallest -- or proration units that are the subject of this hearing?
- A. Let's see. Yeah, that is correct. It would actually be a smaller percentage uncommitted. And in the south half, southwest quarter, there would be zero percent

uncommitted in the final analysis, is what I anticipate.

- Q. Okay. Let's go to Exhibit Number 3. Can you identify this and then, using this exhibit, review your efforts to obtain voluntary participation in this proposed well?
- A. Yeah, Exhibit Number 3 is a volume of correspondence and certified receipts and notice to all those parties that are listed on Exhibit 2.

In addition to all of the notification and correspondence, there are a couple letters in here from independent landmen who, under my supervision, conducted a title search. We had a title search by an attorney, but subsequent to that, in an effort to locate the unknown heirs, we tracked from the records in the Fifties or Sixties, led us to checking probate, district court records in Santa Fe County, in Dallas County, and Bernalillo County, and we have done that, finding no evidence to find the heirs.

However, we did find some leads -- Excuse me, in Dallas we did find some probate there that led us to an heir, but we have not located that heir as of this time.

As well with the J.R. Cole interest, which was in Santa Fe County and Bernalillo County, we have now ran down some information through a law firm that may have knowledge of where these people are located. The records did not

give us any indication, so we're following up on that lead.

- Q. In fact, the Cole interest may be the wife of the senior partner of the Santa Fe law firm; isn't that right?
 - A. That is what I have been advised of late.
- Q. In any event, we're going to pursue that quickly; is that not correct?
 - A. That is correct.

- Q. In your opinion, has Enron made a good-faith effort to locate and obtain the voluntary joinder of all interest owners in the proposed spacing units?
 - A. Yes, we have.
- Q. Have you made an estimate of the overhead and administrative costs to be incurred while drilling this well and also while producing it if, in fact, it is successful?
- A. Yes, we have, and those recommended rates are \$5800 drilling well rate and \$580 on a producing well rate.
- Q. Are these the same overhead rates that were recently approved by the Division for a similar well in Case 11,540?
 - A. Yes, they were.
- Q. That was for your Empire Number 5 well?
- A. That is correct.
 - Q. These are also in line with the costs being charged by other operators in the area, are they not?

1 A. Yes, they are.
2 Q. Is it your rec

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- Q. Is it your recommendation that these figures be incorporated into the order which results from today's hearing?
 - A. Yes, it is.
- Q. Will Enron call a technical witness to testify about the risk associated with the drilling of the proposed well?
- A. Yes, we will.
 - Q. Were Exhibits 1 through 3 prepared by you or compiled under your direction?
- 12 A. Yes, they were.
- MR. CARR: At this time, Mr. Catanach, we would
 move the admission into evidence of Enron Exhibits 1
 through 3.
- EXAMINER CATANACH: Exhibits 1 through 3 will be admitted as evidence.
- MR. CARR: And that concludes my direct examination of Mr. Tower.

20 EXAMINATION

- 21 BY EXAMINER CATANACH:
- Q. Mr. Tower, which parties did Enron give notice to of the hearing today?
- A. At this time, none. Several verbally are aware of the hearing. Quite a number of these, however, we did

not give official notice as, for some time they have indicated they would return signed agreements. So we did not anticipate having to name all these parties, other than the unknown heirs, so we did not do that.

However, since we would like to proceed with this matter, we thought it only appropriate to go ahead and leave the record open, since we do not have the signed agreements -- we anticipate or hope we get all the signed agreements but leave the record open, give proper notice and go ahead and handle the hearing here to cover both situations.

- Q. Are the unknown heirs the only parties that you anticipate will not voluntarily agree to the --
- A. Ultimately, that is -- Yes, that is a correct statement. I anticipate that all of these people will be voluntarily committed, although I have reservation for some, have for sometime starting May and June, have said they would commit, and I yet have to get my paperwork in. Whether they have procrastinated or what, so...

My anticipation, though, is, it will just simply be the unknown heirs. And again, we have some leads now that hopefully, we'll get some voluntary commitment there once we can find those people.

Q. Okay. You still will not -- Are you still going to pursue the Albert Johnson heirs?

1 Α. Yes, we are. We have an heir, Thelma Richards. We have found another family member, has no knowledge of 2 where she's located, but we have found a lead that maybe 3 will get us to find out where she's located. We have found 4 5 a probate that tells who that heir is now. We just have not been able to locate her. But we plan to attempt to 6 7 still do so, and -- So we have not quit our search, since we've got some additional leads to pursue. 8 Besides those two heirs, you have been in contact 9 Q. with all the rest of those interest owners? 10 That is correct. 11 Α. 12 EXAMINER CATANACH: Okay, that's all the questions I have of the witness. 13 14 MR. CARR: At this time, Mr. Catanach, we would 15 call Randy Cate. 16 RANDALL S. CATE, 17 the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows: 18 DIRECT EXAMINATION 19 BY MR. CARR: 20 Would you state your name for the record, please? 21 Q. 22 Α. Yes, my name is Randall Cate. 23 Where do you reside? Q. I reside in Midland, Texas. 24 Α. 25 By whom are you employed? Q.

I am employed by Enron Oil and Gas Company. Α. 1 What is your current occupation with Enron? 2 0. I'm a reservoir engineer. 3 Α. 4 Q. Have you previously testified before this Division? 5 Yes, I have. 6 Α. 7 At the time of that testimony, were your Q. 8 credentials as a petroleum engineer accepted and made a matter of record? 9 10 Α. Yes, they were. Are you familiar with the Application filed in 11 0. this case on behalf of Enron? 12 13 Α. Yes. Have you with others made a technical study of 14 0. 15 the area surrounding this proposed well? Α. Yes. 16 Are you prepared to share the results of that 17 ο. study with Mr. Catanach? 18 19 Α. Yes, I am. MR. CARR: Are the witness's qualifications 20 21 acceptable? 22 EXAMINER CATANACH: Yes, they are. (By Mr. Carr) Mr. Cate, initially could you just 23 Q. 24 identify for Mr. Catanach the primary and secondary

objectives in the proposed well?

Yes, the primary objective is the Morrow 1 Α. formation at an approximate depth of 11,200 feet or so, and 2 then the Strawn carbonate is a secondary objective. 3 Let's go to what has been marked as Enron Exhibit 0. 4 5 Number 4, the AFE, and I'd ask you to review that for the Examiner. 6 All right, Exhibit Number 4 is the drilling and 7 Α. completion AFE for the estimated cost through completion on 8 9 a well at our 11,800-foot test, and the estimated dryhole cost through logs would be \$518,000, and a total completed 10 11 well cost would be in the range of \$871,000. Are these costs in line with what has been 12 0. charged by other operators for similar wells in the area? 13 14 Α. Yes, it is. And Enron has drilled other Morrow wells in this 15 0. 16 area? 17 Α. Yes, we have drilled other wells to this depth range, and these costs are right in line with what we've 18 experienced. 19 Let's go to Exhibit Number 5, the cross-section, 20 ο. and you may want to also at the same time refer to Exhibit 21 Number 6, because on that there is a trace for the cross-22 section, and I would ask you to review those exhibits for 23

As you can tell, we like large cross-

Mr. Catanach.

Α.

Yes.

24

sections.

This cross-section -- correlation also with Exhibit Number 6 which is a Morrow structure map, and as Mr. Carr stated, you can see the trace there. But it shows several wells that we have chosen that represent the Morrow pay section that we were -- that we are using as an objective in this well, and also the Strawn, and it also includes the other intervals in between, such as the Atoka, and there is a lower Morrow section here also.

And the primary emphasis here is that the Strawn sands are -- or, excuse me, carbonates, are up at the top level. You can see the proposed location over to the right side of the cross-section, and simply that for the Strawn area it is a carbonate again.

It's -- We've mapped the isopach that you'll see in a minute, based on clean carbonate section of this lower Strawn, which is between the lower Strawn line and this Atoka marker.

And what I'd like to show there is the porosities are relatively low in the 4- and 5-percent range. They're also highly variable, and the thicknesses within this interval are also highly variable. The Strawn will be interpreted as a shoal type of environment, a big shoal type of environment.

And then the other potential pay in the area for

this location would be this middle Morrow which is down towards the bottom of the cross-section. Again, it -- Now, it is interpreted as a marine bar environment. And again, you have variabilities within your thicknesses of the sands. The porosities can vary from down at 6 percent, which is generally nonproductive, and on up to possibly 13 percent. There is also some water -- high-water calculations on some of these sand intervals, which incorporates additional risks.

Also, the well to the far right, which is a north offset to our location, did encounter a Morrow stray sand that is not -- it does not correlate into the same stratigraphic interval as this middle Morrow where most of the production has been from, and again it's just a Morrow stray sand or upper Morrow, and it shows the well to the right did not encounter the primary pay interval, which is the middle Morrow.

- Q. Let's go now to the structure map on the lower Morrow. Can you review that, please? Exhibit Number 6.
- A. Yes, this is a structure map on the lower Morrow, which is shown as a dashed line on this cross-section. And the Morrow being a marine bar, you will expect the sands to lie in a long strike with the structure. There's no real extreme paleomovement or anything. There are some small highs, but through the location we don't anticipate any

paleomovement at all. It seems to be just regional dip.

- Q. All right. Let's go to the isopach on the middle Morrow, Exhibit Number 7. Can you review that?
- A. Exhibit Number 7 is a middle Morrow isopach. It was generated using a gamma-ray cutoff of 60 API units or less, and we also used crossover from the density neutron to indicate the presence of gas.

It's an overall thickness, or it could be equivalent to a net sand map, although this can include sands that we believe are possibly wet sands also. But we used this primarily as -- to identify where the sands may lie.

Again, the general trend is along the structural strike, and what should be noted here is that our location is directly between two wells with -- the well to the south, the Sand Tank 5, with only 7 feet of sand that met the cutoff, and the well to the north, the Loco Hills Fed Com 1 up in Section 29 that only had 10 feet of sand that met the cutoff. Neither of the wells made economic producers in that interval.

- Q. All right, let's go to the Strawn, take a look at the isopach of the lower Strawn, then, on Exhibit 8.
- A. Exhibit 8 is an isopach of the lower Strawn section. The cutoffs that we used here was a gamma ray of 30 API units or less to designate clean carbonate. And

again, the general trend of the thicknesses runs along strike with the structure.

The map shows that there are lots of variations in thicknesses, which you would anticipate in a -- show in an environment like this.

The Sand Tank 5 well, that is the direct offset to the south, does have a relatively thick interval, but its performance at this time is not indicative of that. We had come back and put a 20,000-gallon acid job on this Strawn in order to try to make some economic rates out of the well. We just did that last week, and we're trying to flow the well back, and it's too early to tell if that's going to work or not.

And then again, the well to the far north of our location only had 8 feet of this Strawn interval and did not encounter commercial quantities.

- Q. Let's now review how other wells in the area have performed, and I'd direct your attention to Enron Exhibit Number 9, your production map.
- A. Exhibit Number 9 is a cum production map for the area. The primary intervals of interest here, the Strawn is designated by the blue numbers and the Morrow is designated by the red numbers, and then the black -- Excuse me, the date of first production is, then, the -- designated right below the cum numbers.

You can see for the Strawn in the blue numbers that there is a Holly Fed 5 well that is in the south half of Section Number 5, approximately one mile south of our proposed location, and it is a good well. It's made good reserves.

But directly offsetting it, in Section 4, are noncommercial tests, two wells there, a noncommercial test down in Section 8, and then again our test that is currently underway in the north half of Section 5. Again, we had to put a rather large stimulation on it, and we are in the process of flowing that back.

But in the first four months of production on the Sand Tank 5 well, it IP'd at approximately 250 MCF per day and 70 barrels of condensate. Within four months it was down to approximately 150 MCF a day and 30 barrels of condensate, and that's what caused us to go with the large stimulation. So I believe that that shows the potential for low reserves, that risk there.

On the Morrow, the production, the nearest production, is the stray sand that was indicated on the right of the cross-section. That is the well to the north up in Section 29. Those reserves we would not consider economic.

And other than that, the wells -- another one and a half miles before you even have another test in the

Morrow pay.

So primarily here, I think what we're showing is that the Strawn and Morrow and any other pays that we might encounter in drilling this well are highly risky, not just from geologic but from a reserve potential.

- Q. Summarize the conclusions you've reached from your technical study.
- A. My conclusions are that due to the high degree of variability of thickness and porosity and the possibilities of encountering wet sands and/or carbonates within the Morrow and Strawn intervals, primarily, that there is a high chance of either a dryhole or a noncommercial well, and that the 200-percent penalty is appropriate.
- Q. In your opinion, is there a chance that at the proposed location you could make a well that in fact would not be a commercial success?
- A. Yes, there is.
- Q. Is it your recommendation that this 200-percent penalty apply to all formations in the area?
 - A. Yes, I do.
 - Q. In fact, if you encounter production and make a well in some other formation, other than the Morrow and the Strawn, that would, in fact, be a higher-risk venture at this point in time than either of the two subject formations; is that correct?

- A. That's correct.
- Q. Does Enron seek to be designated operator of the proposed well?
 - A. Yes, we do.
- Q. In your opinion, will the granting of this
 Application and the drilling of this well be in the best
 interest of conservation, the prevention of waste and the
 protection of correlative rights?
- A. Yes.

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- Q. Were Enron Exhibits 4 through 9 either prepared by you or have you reviewed them and can you testify as to their accuracy?
- 13 A. Yes, they were.
- MR. CARR: At this time, Mr. Catanach, we would
 move the admission into evidence of Enron Exhibits 4
 through 9.
- EXAMINER CATANACH: Exhibits 4 through 9 will be admitted as evidence.
- MR. CARR: And that concludes my direct examination of Mr. Cate.
- 21 EXAMINER CATANACH: I have no questions for Mr.
- 22 Cate.
- MR. CARR: That concludes our presentation in this case.
- EXAMINER CATANACH: Mr. Carr, one question I

Do you know -- You're seeking in this case to pool 1 have. 2 an 80-acre proration unit. Do you know if there's any 80-3 acre pools in this area? MR. CARR: We have looked, and I don't believe 4 5 there are. If we tied into something and we're looking at 80-acre spacing, but again it would require special rules 6 7 to do that. We would want to have the option to have 8 pooled that, those lanes. But... It was only included, really, Mr. Catanach, 9 because recently we've encountered a situation where we 10 11 didn't pool on that size spacing unit and now are having to 12 immediately come in for pool rules, and the question is 13 whether or not the pooling impacts of risk penalty in the subsequent case. At this point in time I can tell you we 14 can find no way to even pool. 15 16 EXAMINER CATANACH: Okay. And you are requesting we continue this case --17 MR. CARR: Yes, sir. 18 19 EXAMINER CATANACH: -- to August 22nd? MR. CARR: Yes. 20 21 EXAMINER CATANACH: Okay. With that, we'll 22 continue the case to August 22nd. (Thereupon, these proceedings were concluded at 23 24 9:55 a.m.) 25

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 July 28th, 1996.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 1998

I do hereby certify that the foregoing is

a complete record of the proceedings in the Examiner hearisty of Case No. 1518

reard by me on like 25

. Examiner

Oil Conservation Division