

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BLDG.  
SANTA FE, NEW MEXICO

1 July 1987

EXAMINER HEARING

IN THE MATTER OF:

Application of Amerind Oil Company for compulsory pooling and a non- standard oil proration unit, Lea County, New Mexico.	CASE 9162
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BEFORE: David R. Catanach, Examiner

## TRANSCRIPT OF HEARING

## A P P E A R A N C E S

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1

2

MR. CATANACH: Call next Case

3

9162.

4

MR. TAYLOR: Application of

5

Amerind Oil Company for compulsory pooling and a non-standard oil proration unit, Lea County, New Mexico.

7

MR. CATANACH: Are there

8

appearances in this case?

9

MR. CARR: May it please the

10

Examiner, my name is William F. Carr, with the law firm of

11

Campbell & Black, P. A., of Santa Fe, appearing on behalf of

12

Amerind.

13

We will have two witnesses.

14

MR. CATANACH: Are there other

15

appearances?

16

MR. PADILLA: Ernest L.

17

Padilla, of the law firm Padilla & Snyder, Santa Fe,

18

appearing on behalf of Rio Pecos Corporation, and we have

19

two witnesses.

20

MR. CATANACH: Will all the

21

witnesses please stand and be sworn in?

22

23

(Witnesses sworn.)

24

25

MR. CARR: At this time I'd

1 call Bill Seltzer.

2

3

BILL SELTZER,

4 being called as a witness and being duly sworn upon his  
5 oath, testified as follows, to-wit:

6

7

DIRECT EXAMINATION

8

BY MR. CARR:

9

Q

Will you state your full name for the re-  
10 cord, please?

11

A

Bill Seltzer.

12

Q

Spell your last name.

13

A

S-E-L-T-Z-E-R, Midland, Texas.

14

Q

By whom are you employed and in what ca-  
15 pacity?

16

A

I am a land consultant and I'm repre-  
17 senting Amerind Oil Company of Midland, Texas.

18

Q

Mr. Seltzer, have you previously testi-  
19 fied before the Division and had your credentials as a land  
20 consultant accepted and made a matter of record?

21

A

Yes.

22

Q

Are you familiar with the application  
23 filed in this case on behalf of Amerind Oil Company?

24

A

Yes.

25

Q

Are you familiar with the subject area?

1                   A           Yes.

2                                   MR. CARR:   Are the witness'  
3 qualifications acceptable?

4                                   MR. CATANACH: They are.

5                   Q           Mr. Seltzer, would you briefly state what  
6 Amerind seeks with this application?

7                   A           Amerind seeks an order to pool all of the  
8 mineral interest in the Strawn and Atoka formation in a non-  
9 standard unit consisting of the southeast of the southwest  
10 and the southwest of the southeast of Section 28, Township  
11 16 South, Range 37 East, Lea County, New Mexico.

12                  Q           Have you prepared certain exhibits for  
13 introduction in this case?

14                  A           Yes, I have.

15                  Q           Would you please refer to what has been  
16 marked for identification as Amerind Exhibit Number One,  
17 identify this, and review the information contained thereon?

18                  A           Amerind Exhibit Number One is a plat, a  
19 land plat, showing the nonstandard proration unit, together  
20 with the ownership of the acreage adjacent thereto.

21                  Q           Does this show all wells completed in the  
22 immediate area?

23                  A           This shows all the wells that were com-  
24 pleted in the immediate area, yes.

25                  Q           What is the status of the ownership in

1 the south half of Section 28?

2 A The ownership of the mineral interest in  
3 the south half of 28 is common throughout.

4 Q When do the underlying leases in this  
5 area, current leases, expire? And you might want to refer  
6 to Exhibit Number Two in answering this question.

7 A The leases begin to expire on July the  
8 16th, 1987, the first one, and then it just goes on.

9 Q Have you been able to get extensions of  
10 any of these leases?

11 A No, I have not.

12 Q Have you attempted to do that?

13 A I have tried to secure extensions on  
14 these leases and I have found out that I have been top  
15 leased in several instances.

16 Q Because of the forthcoming lease expira-  
17 tions, is it necessary that Amerind go forward with plans to  
18 develop the acreage?

19 A Yes, it is -- we should go forward and  
20 develop this acreage or we're going to lose our leasehold  
21 position.

22 Q When does Amerind plan to spud a well on  
23 the proposed nonstandard proration unit?

24 A We propose to spud this well on or before  
25 July the 16th.



1           Q           Do you therefore request that any order  
2 entered in this case be expedited?

3           A           Expedited as soon as possible.

4           Q           What is the primary objective in the pro-  
5 posed well?

6           A           The primary objective is to test the  
7 Strawn formation at approximately 11,500 feet, plus or  
8 minus.

9           Q           Why is Amerind proposing the subject non-  
10 standard spacing and proration unit?

11          A           I think that we'll have a geologist that  
12 will testify to that.

13          Q           Would you now go to what has been marked  
14 as Amerind Exhibit Number Three, identify that, and review  
15 the information contained thereon?

16          A           Exhibit Number Three is a breakdown of  
17 the ownership as we have it at this time.

18          Q           And this exhibit --

19          A           Showing the people who have joined us in  
20 this proposed location.

21          Q           What percentage of the acreage under the  
22 nonstandard unit has voluntarily joined in this well?

23          A           I believe we had about 68 percent.

24          Q           Would you now go to Exhibit Number Four,  
25 a copy of the AFE, identify this and review the totals on

1 the AFE?

2 A The AFE for a completed well is \$554,000.

3 Q \$545,000?

4 A \$545,000.

5 Q Has a copy of this AFE; been supplied to  
6 the other interest owners?

7 A It has been supplied to all interest  
8 owners, leasehold interest owners.

9 Q Are these costs in line with what is  
10 being charged by other operators in this area for similar  
11 wells?

12 A These are in line with everything that we  
13 have done in the area and they're probably a lot lower than  
14 anybody else operating in the area.

15 Q And has Amerind drilled other Strawn  
16 wells in this immediate area?

17 A We have drilled quite a few Strawn wells  
18 in this area.

19 Q Could you briefly summarize for Mr.  
20 Catanach the efforts that you have made to obtain voluntary  
21 joinder of all interest owners in the proposed well?

22 A We sent out in our exhibit, shown on our  
23 Exhibit Five, letters to all interest owners that we -- of  
24 the last known address, offering to purchase an oil and gas  
25 lease from these people.

1                   We got replies from some of them. This  
2 was sent out return receipt requested.

3                   Some of them were undeliverable. We pur-  
4 chased some leases, some we did not purchase, but this was  
5 by -- these owners were as a result of a mail order deal  
6 made several years ago by Mr. Wright, I believe, and scat-  
7 tered all over Iowa and Nebraska, and other parts of the  
8 northern part of the United States.

9           Q           You made a good faith effort to locate  
10 all of these individuals?

11           A           We have tried to make a good faith effort  
12 to locate all of these people.

13           Q           And you have offered to lease their in-  
14 terest?

15           A           We have offered to lease them.

16           Q           How large were these interests?

17           A           These interests, we get down to 1/3200.  
18 When you get down to it, it's a .1 of an acre.

19                   Other interests are like 1/6400, is .05  
20 of one acre.

21                   These people probably don't even know  
22 they own it now, or many of them are dead.

23           Q           And in making an offer to lease these  
24 properties, was there any other practical offer you could  
25 make to them to voluntarily bring --

1           A           No, you could not make another practical  
2 offer to these people outside of the leasing their proper-  
3 ties.

4           Q           Accounting costs would exceed the cost of  
5 their interest.

6           A           Right.

7           Q           Would you refer to what has been marked  
8 as Amerind Exhibit Number Six and identify that, please?

9           A           Amerind Exhibit Number Six is a letter  
10 sent to all the known working interest owners by registered  
11 mail, return receipt, offering to them to join Amerind in  
12 the drilling of this proposed test well.

13          Q           In your opinion has Amerind made a good  
14 faith offer or effort to obtain voluntary joinder in this  
15 proposed project?

16          A           We certainly have.

17          Q           Would you now identify for Mr. Catanach  
18 what has been marked as Amerind Exhibit Number Six.

19          A           Six? That was Six.

20          Q           I'm sorry, Exhibit Number Seven.

21          A           Seven? Seven is the letter, an affidavit  
22 by Mr. Carr, wherein he had sent the notices to all interest  
23 parties that we could possibly find.

24          Q           Are those individuals set out on Exhibit  
25 A to that affidavit?

1 A Yes, they are.

2 Q Is a copy of the letter giving notice al-  
3 so attached?

4 A Yes.

5 Q And are copies of return receipts and re-  
6 turned letters also included?

7 A Yes, it is.

8 Q Would you now refer to what has been  
9 marked as Amerind Exhibit Number Eight and identify that,  
10 please?

11 A Exhibit Number Eight is an operating  
12 agreement for the drilling of this proposed test well.

13 Q Has this operating agreement been accep-  
14 ted by other interest owners in the proposed prospect?

15 A Yes, it has.

16 Q Have you made an estimate of overhead and  
17 administrative costs while drilling the well and also while  
18 producing it, if in fact it's successful?

19 A Yes. In line with what we have done in  
20 the area on other wells, we have \$5000 for a drilling well,  
21 \$500 for a producing well.

22 Q And these figures are contained in the  
23 operating agreement?

24 A They're in the operating agreement.

25 Q Do you recommend that these figures be

1 incorporated into any order which results from today's hear-  
2 ing?

3 A Yes, we would desire to have these  
4 figures incorporated in the order.

5 Q Does Amerind Oil Company seek to be  
6 designated operator of the proposed well?

7 A Yes.

8 Q Were Exhibits One through Eight either  
9 prepared by you or compiled under your direction and super-  
10 vision?

11 A Yes, sir.

12 MR. CARR: At this time, Mr.  
13 Catanach, we would offer into evidence Amerind Exhibits One  
14 through Eight.

15 MR. CATANACH: Exhibits One  
16 through Eight will be admitted into evidence.

17 MR. CARR: That concludes my  
18 direct examination of Mr. Seltzer.

19 MR. CATANACH: Mr. Padilla, any  
20 questions?

21

22 CROSS EXAMINATION

23 BY MR PADILLA:

24 Q Mr. Seltzer, have you provided Rio Peco  
25 Corporation a copy of this operating agreement?

1           A           No, we have not, but we do have one right  
2 now.

3           Q           Isn't it normal to present an operating  
4 agreement prior to a hearing of this nature?

5           A           Not necessarily.

6           Q           Why not?

7           A           Because at the time they did not desire  
8 to join.

9           Q           When did you provide notice to Rio Pecos  
10 of your intentions to drill a well?

11          A           I think it's right there, Ernie, on that  
12 one, June the 10th.

13          Q           When did you file with the Commission  
14 your application?

15          A           It was 22 days prior to this hearing and  
16 I do not have that date offhand.

17                   MR. CARR: It was filed June  
18 the 19th. It was an amended application, and there was an  
19 application filed prior to that time, June the 11th.

20          A           June the 11th.

21          Q           Did you provide Rio Pecos with a copy of  
22 your amended application?

23          A           I do not know whether it was or not.

24                   MR. CARR: I don't believe they  
25 were provided with a copy of any application. They were

1 provided notice of the hearing as required by Commission  
2 rules.

3 Q Do you know when or let me ask, how did  
4 you provide notice to Rio Pecos?

5 A Registered mail, return receipt.

6 Q When did they receive the notice?

7 A Bill, you got it there? You got it,  
8 Scott?

9 MR. SCOTT WILSON: June 15th.

10 A Is when you received it?

11 MR. SCOTT WILSON: Yes, sir.

12 A Okay.

13 MR. WILSON: This arrived June  
14 15th, Mr. Seltzer?

15 A I sent it on the day, they should have had  
16 it the next day.

17 Q Okay, but you in fact don't really know  
18 when -- you don't have any personal knowledge of when they  
19 actually received the notice, do you?

20 MR. CARR: May it please the  
21 Examiner, we can, if we want to take a break and go through  
22 --

23 A We can go through this if you want to --

24 MR. CARR: -- 80 sheets.

25 A There it is right there, isn't it?

MR. CARR: It's attached as one



1 of our exhibits and --

2 MR. WILSON: It's attached to  
3 Exhibit Six, the June 15th --

4 The date on this is June the  
5 11th.

6 A June the 11th --

7 MR. CARR: June the 11th and  
8 then there is a received stamped by Rio Pecos on their copy  
9 showing June 15th.

10 A And our return receipt was -- what date  
11 was it?

12 MR. CARR: June the 15th.

13 MR. TAYLOR: No, it was dated  
14 -- sent June 10th. It was received June 11th.

15 MR. CARR: Let me take just a  
16 minute. We're talking about two letters. One went from  
17 Amerind June the 10th, received June the 11th. One was  
18 mailed from my office June the 11th and received June the  
19 15th.

20 Q Mr. Seltzer, let me hand you the original  
21 letter which I believe that you have sent to Rio Pecos Cor-  
22 poration. Is that a letter that you sent on June 10th?

23 A That's correct.

24 Q Does that letter inform Rio Pecos of your  
25 nonstandard location or nonstandard proration unit?

1           A           That is a proposal for drilling a well at  
2 a legal location.

3           Q           Does that letter say anything about com-  
4 pulsory pooling?

5           A           Let me see. No, it doesn't.

6                       MR. PADILLA: Mr. Chairman, I'd  
7 like to offer this letter into -- let me check.

8                       Has this letter, has this --

9                       MR. CARR: I believe that is  
10 part of Exhibit Six.

11           Q           Mr. Seltzer, counting from June 15th,  
12 when would 20 days expire thereafter?

13                       MR. CARR: Objection. I -- Mr.  
14 Padilla has not laid a proper foundation for that question.

15                       If we can count from any parti-  
16 cular day we can count 20 days but June 15 is not -- he's  
17 not shown why that is a significant date.

18                       We're required to provide  
19 notice by placing it in the mail 20 days in advance, which  
20 we have done. If he's moving toward a motion to try and  
21 continue this case because they didn't receive notice, I  
22 think we should lay that on the table. The receipts and the  
23 evidence that you have shows that we provided notice advis-  
24 ing them of the hearing pursuant to the rules of the Divi-  
25 sion on the 11th of June. That was Thursday, with tomorrow  
will be three weeks. That's 20 days ago. If we'd been one

1 day earlier, it would have been three weeks ago today, 21  
2 days.

3 We timely filed notice and we're properly  
4 before you and if that's the thrust of this, trying to again  
5 delay, I think we'll be able to see when we see who top  
6 leased this property why they're trying to delay, but I  
7 think we ought to get to the point and have the motion on  
8 the table and ask for a ruling on that.

9 MR. PADILLA: Well, Mr. Cata-  
10 nach, I would then move for a continuance of this case until  
11 my clients can get proper notice.

12 It is (unclear) this case in  
13 accordance with the notice rule.

14 MR. CARR: Mr. Catanach, Rule  
15 1207 provides that notice required by this rule shall be to  
16 the last known address of the party to whom notice is to be  
17 given at least 20 days prior to the date of hearing.

18 That has always been construed  
19 as having been mailed, certified mail, on that date. If  
20 not, anyone who you've talked to about a proposal to drill a  
21 well could defeat any effort by the Commission to pool by  
22 simply refusing to accept their mail. It's absolutely ab-  
23 surd. The notice was timely given and appropriately given.

24 Furthermore, as to notice re-  
25 quirements, you waive your objection when you show up ready

1 to go forward, and if Mr. Padilla isn't ready to go forward,  
2 he ought to say so.

3 Q And that's the only discussion, verbal,  
4 that you've had with them?

5 A That was at their suggestion.

6 Q Okay. Mr. Seltzer, in referring to, I  
7 believe, your Exhibit Number Two, can you tell me the --  
8 which of your leases are expiring and when they're expiring?

9 A The fourth one on that list is expiring  
10 on the 16th of July, which is the First National Bank in  
11 Oklahoma City, the first lease.

12 Q What's the percentage of the proposed  
13 proration unit of that lease?

14 A I haven't figured that out.

15 Q How about the -- which other leases are  
16 expiring?

17 A The next lease down I have been top  
18 leased by Rio Pecos.

19 Q And that is --

20 A It goes out on the 20th.

21 Q Is that one acre lease?

22 A That's a one acre lease.

23 Q Is that surface or minerals or what is  
24 that?

25 A This is all minerals.

1 Q And then the next one is expiring, also?

2 A That's right, on the 21st.

3 Q Are those the three -- the only leases  
4 that are expiring immediately or in short order?

5 A That is part of them and then Mr.  
6 Henderson there at one time had said that he was going to  
7 make a lease but he signed, he has since signed -- sent me  
8 an AFE to join us.

9 If you'll go over on page -- on the  
10 second one there, Mr. Padilla, over here you'll see it  
11 broken down as to the southwest quarter and the southeast  
12 quarter, go over on about page, fourth page, there's another  
13 breakdown, right there, see it at the top?

14 Q Yes.

15 A I've been top leased on the Ward lease,  
16 Pat Austin Ward, by Rio Pecos. That interest is 2.96875 un-  
17 der each quarter, or a total of 5.9 acres, which is a signi-  
18 ficant amount.

19 Q Now that covers the entire southeast  
20 quarter, is that correct?

21 A Southeast and southwest quarter. The  
22 lease covered the whole thing.

23 Q When you proportionately reduce it down  
24 to the proration unit it's a smaller percentage, isn't it?

25 A In this area they're all small.

1                   Q               You haven't answered my question, Mr.  
2 Seltzer. When you proportionately reduce it down to the  
3 size of the proration unit, that percentage is smaller,  
4 isn't it?

5                   A               The percentage -- I'm not going to talk  
6 in percentage. I talk in acres. It's 2.9 acres under each  
7 one of the 160-acre tracts.

8                               I haven't figured out the percentages.

9                   Q               Okay. On page three of this exhibit, is  
10 that writing yours?

11                  A               Where?

12                  Q               The writing on -- the fractions that you  
13 have written on page three, is that your writing?

14                  A               Correct.

15                  Q               Is that just a calculation that you  
16 did there?

17                  A               Those are some mineral interests that we  
18 own and Rio Pecos also has purchased a mineral interest from  
19 people by the name of Grace McIntosh, Margie Vance, Verla  
20 Bennett, and Bill, if you'll give me copy of that thing, I  
21 believe it was in April of this year, I purchased this par-  
22 ticular minerals in 1985.

23                  Q               This just simply shows a breakdown, is  
24 that correct?

25                  A               Uh-huh.

1 Q It's not intended for any other thing?

2 A Well, that's what we own.

3 Q Well, I understand that, but I don't see  
4 that it's typed and I don't want to qualify --

5 A It's the what?

6 Q I don't see that it's typed. You added  
7 this language after --

8 A That's just for the benefit of figuring  
9 out what those mineral interests cover.

10 Q Okay, and they apply and that's the cor-  
11 rect mineral interest?

12 A I believe it's correct. I do not have a  
13 title examination. It will come out with the complete title  
14 examination.

15 Q You don't have a drilling title opinion  
16 at this time?

17 A No. Do you all have one?

18 Q We're not proposing to drill the well,  
19 Mr. Seltzer.

20 MR. PADILLA: I believe that's  
21 all the questions I have.

22

23 CROSS EXAMINATION

24 BY MR. CATANACH:

25 Q Mr. Seltzer, when is the last time that

1 Amerind drilled a well in this area?

2 A In this area? How do we want to define  
3 the area, Mr. Examiner?

4 Q Well, in the Strawn formation area.

5 A We are in the process of completing a  
6 well right now within a mile of this location.

7 Q And so these drilling costs are actually  
8 in -- are current --

9 A Yes.

10 Q -- current costs.

11 A Yes, and I think that if you'll compare  
12 our AFE with anybody else in the business you will find that  
13 we're much cheaper than anybody.

14 Q Also your overhead rates, those are in  
15 line with what you charged in the area?

16 A That was on our last well. These are the  
17 exact same figures, the same accounting procedure.

18 Q Okay.

19 MR. CATANACH: I think that's  
20 all I have for Mr. Seltzer at this time. He may be excused.

21 MR. CARR: At this time I'd  
22 call Mr. Greg Hair.

23

24

25



1 GREGORY L. HAIR,  
2 being called as a witness and being duly sworn upon his  
3 oath, testified as follows, to-wit:

4  
5 DIRECT EXAMINATION

6 BY MR. CARR:

7 Q Will you state your full name for the  
8 record, please?

9 A Gregory L. Hair.

10 Q Mr. Hair, where do you reside?

11 A Midland, Texas.

12 Q By whom are you employed and in what cap-  
13 acity?

14 A I'm a consulting geologist and I'm cur-  
15 rently employed by Amerind Oil Company in this action.

16 Q Would you please summarise your educa-  
17 tional background and review your work experience?

18 A I received a Bachelor of Science in geo-  
19 logy from Illinois State University in 1974; received a Mas-  
20 ter of Science in geology from the University of Texas at El  
21 Paso in 1977.

22 Went to work for Pennzoil Company in  
23 Houston, Texas, in 1976; transferred to Midland with Penn-  
24 zoil Company in 1979; worked for Pennzoil Company through  
25 1986; and since December of '86 have been a consulting geo-

1     logist.

2                   Q             Are you familiar with the area which is  
3     the subject of this case?

4                   A             Yes, I am. I've worked this area for ap-  
5     proximately eight years and exclusively it's been my only  
6     area of work with Pennzoil for the past four and a half  
7     years, and I've participated in drilling about on the order  
8     of fourteen wells in this area in the last four years.

9                   Q             Are you familiar with the application in  
10    this case on behalf of Amerind Oil Company?

11                  A             Yes, I am.

12                                 MR. CARR: We tender Mr. Hair  
13    as an expert witness in the field of petroleum geology.

14                                 MR. CATANACH: He is so quali-  
15    fied.

16                  Q             Mr. Hair, in what pool will the proposed  
17    well be completed?

18                  A             West Casey Strawn.

19                  Q             Are there special pool rules in effect  
20    for this pool?

21                  A             Yes, I believe there are.

22                  Q             Do you happen to know what the spacing  
23    provisions are in that order?

24                  A             It's spaced on 80 acres.

25                  Q             Are there any requirements for the provi-

1 sions governing standard spacing and proration units?

2 A Yes. The standard proration units being  
3 either the north half, the south half, the east half, or the  
4 west half of a quarter quarter section.

5 Q So what you're seeking here is an excep-  
6 tion to those provisions for the spacing units. You're not  
7 challenging the 80-acre size of the spacing units.

8 A That is correct.

9 Q Have you prepared certain exhibits for  
10 introduction in this case?

11 A Yes, I have.

12 Q Would you please refer to what has been  
13 marked for identification as Amerind Exhibit Number Nine,  
14 identify this, and review it for Mr. Catanach?

15 A This is a plat of the area. It shows all  
16 the wells that have been drilled in the area.

17 The circled wells on here are Strawn,  
18 wells that have penetrated the Strawn formation.

19 The contours on the map are there primar-  
20 ily for reference. They're structural contours on the top  
21 of the Lower Strawn Lime.

22 Q In your opinion how important is struc-  
23 ture?

24 A In my opinion it is not very important.  
25 You do see structures on top of the Lower Strawn and I do

1 not feel you see significant structure underneath the Lower  
2 Strawn.

3 Q Now, Mr. Hair, would you explain to Mr.  
4 Catanach what the various colors on this exhibit indicate?

5 A Yes. The colors, the patterns we show  
6 here are the crux of the geology of the area, in my opinion.

7 The green shading here is what we feel  
8 represents the Strawn reservoirs, the oil productive  
9 reservoirs.

10 The blue color represents water  
11 productive reservoirs.

12 And the brown represents trends where  
13 there is no reservoir rock present at all.

14 Q What are the red lines drawn across the  
15 green pods? What do those indicate?

16 A The red lines indicate the trend of the  
17 Strawn algal mounds that we feel exist here and they  
18 basically begin -- they're just to show the  
19 northeast/southwest alignment of this -- of these pods.

20 Q Would you now refer to what has been  
21 marked as Amerind Exhibit Number Ten, your A-A' cross  
22 section, and review that, please?

23 A A-A' is a cross section which runs  
24 east/west through the northern part of Section 33. It  
25 contains three wells, the Amerind Meyers No. 1, the Amerind

1 Shipp No. 1, and the Amerind Shipp No. 2.

2 The Amerind Meyers No. 1 and Shipp No. 1  
3 are Strawn producers. I believe the Shipp No. 1 was the  
4 discovery well for the West Casey Strawn Field, and the  
5 Shipp No. 2 is a dry hole that was drilled off to the east  
6 of the reservoir.

7 The Shipp No. 2 Well contains absolutely  
8 no porosity.

9 The Shipp No. 1 and the Meyers No. 1 con-  
10 tain significant porosity are oil productive.

11 Q Are these the only two producing wells  
12 from the subject pool at this time?

13 A That is correct.

14 Q Would you now refer to Exhibit Number  
15 Eleven, your cross section B-B'?

16 A Cross section B-B' shows three wells with  
17 brackets proposed spacing, they being the Shell Homestake  
18 No. 1, the Yates No. 1 Burton, the C&K Shipp 28 No. 1.

19 Q Would you go through this cross section  
20 and I'd like you to address each of the individual wells and  
21 the log information depicted on this exhibit and explain to  
22 Mr. Catanach what you believe each of these logs shows about  
23 the reservoir?

24 A Let's start with the Shell Homestake No.  
25 1. The Homestake No. 1 was drilled in the early fifties.

1 The logs here are nebulous at best. They're hard to inter-  
2 pret. They are not good logs.

3 It is my believe that Shell is prudent  
4 operator. Had they had any porosity in this well, had it  
5 been anything, it was a tremendous wildcat back then, they  
6 would have tested this zone. They ran no tests, no drill  
7 stem tests, no other tests in this zone and therefore I feel  
8 that this is a nonporous dry hole.

9 Q Would you go to the Burton No. 1.

10 A The Yates Burton No. 1 was drilled in the  
11 late seventies and it is -- it has modern logs and is fairly  
12 easy to interpret. I believe, again, it is a nonporous,  
13 nonproductive well in the Strawn.

14 Q Now, if you'd go to the C&K Shipp 28 No.  
15 1.

16 A All right. C&K Shipp 28 No. 1 was  
17 drilled in the eighties, in the early eighties and it was a  
18 well that encountered reservoir in the Strawn; however, when  
19 the reservoir was perforated, it proved to be wet. They  
20 swabbed water with no shows.

21 They perforated two separate zones in the  
22 well, one zone at approximately 11,406 to 414 feet, and that  
23 is the lower porosity zone. That zone is obviously porous  
24 on the logs and shows -- did recover water.

25 The second zone that they perforated from

1 11,342 feet to 356 feet is a zone that in my experience in  
2 this area shows no real porosity. It's tremendously washed  
3 out and appears to be porous but over this area there are  
4 large zones like this that are heavily fractured; however,  
5 that fracturing tends to give no fluid.

6 Now the operator did report swabbing  
7 water and I can't dispute that; however, at least in my  
8 opinion, I would question that and say that he probably was  
9 recovering spend acid water or something of that sort, but I  
10 have no proof of that, obviously, but the well to me appears  
11 to be a wet well in the Strawn.

12 Q Mr. Hair, in your opinion reviewing this  
13 log, do you see any indication of porosity that in your  
14 opinion would be part of the pool in which the two existing  
15 Amerind wells are completed?

16 A I do not believe that the porosity in the  
17 Shipp well is correlable to the porosity in the Amerind  
18 well.

19 Q Do you see any evidence of fracturing or  
20 anything that would change your opinion concerning this  
21 well?

22 A No.

23 Q Looking at the location that is proposed  
24 by Amerind, in your opinion are there better locations in  
25 the south half of 28 than that which is being proposed?

1           A           No.    I think that that -- and I think it  
2 is concensus, at least for many of the operators, that that  
3 is the best location if a well is to be drilled on that --  
4 in that 40-acre section, or that southern half there, that  
5 is probably the best location to drill.

6           Q           Looking at the index map that is on your  
7 Exhibit Number Eleven, where you have -- the locations of  
8 each of the wells on that cross section are depicted, based  
9 on this and the cross section, in your opinion are there any  
10 other acres other than the 80 that are proposed to be dedi-  
11 cated to this well that could contribute production to it?

12          A           I won't define it quite that narrowly.  
13 Obviously the Commission knows how much trouble we have de-  
14 fining these reservoirs and there is a possibility that  
15 there are acres outside that 80; however, I think that ac-  
16 reage is minor because it has been condemned on at least  
17 three sides by dry holes. The major bulk of that acreage  
18 has been condemned by nonproductive wells.

19                    But I can't say that when you hit that  
20 little dotted line that outlines our proration unit that  
21 that's the end of the reservoir. There may be other acreage  
22 but it would be minor compared to the 80-acres that is out-  
23 lined. That is where the bulk of the production could lie.

24          Q           Now, Mr. Hair, in your experience in this  
25 area have you been involved in the drilling of a well that



1 was not a commercial success in the Strawn in this area?

2 A Oh, yes.

3 Q In your opinion is it possible to drill a  
4 well that would not be a commercial success at the proposed  
5 location?

6 A Oh, yes. I think this is an extremely  
7 risky location.

8 Q Are you prepared to make a recommendation  
9 to the Examiner as to the risk penalty that should be asses-  
10 sed against any nonconsenting interest owner in this well?

11 A Yes. I think that because of the inate  
12 risk in the reservoir, also the fact that we feel this is on  
13 the edge of the reservoir, that the maximum 200 percent pen-  
14 alty should be applicable.

15 Q In your opinion will granting the appli-  
16 cation in this case of Amerind Oil Company be in the best  
17 interest of conservation, the prevention of waste, and the  
18 protection of correlative rights?

19 A Yes, I think it will.

20 Q Were Exhibits Nine, Ten, and Eleven pre-  
21 pared by you?

22 A Yes.

23 MR. CARR: At this time we  
24 would offer into evidence Amerind Exhibits Nine, Ten, and  
25 Eleven.

1 MR. CATANACH: Exhibits Nine,  
2 Ten, and Eleven will be admitted into evidence.

3 MR. CARR: With that we'll con-  
4 clude our direct examination of Mr. Hair and pass the wit-  
5 ness.

6 MR. CATANACH: Mr. Padilla?

7 MR. PADILLA: No questions, Mr.  
8 Examiner.

9 One question, Mr. Examiner.  
10

11 CROSS EXAMINATION

12 BY MR. PADILLA:

13 Q What is the exact location, the exact  
14 footage location that you -- where you intend to drill the  
15 well?

16 A I believe it's 510 feet from the south  
17 line, 1980 feet from the east line.  
18

19 CROSS EXAMINATION

20 BY MR. CATANACH:

21 Q Mr. Hair, is that a standard location for  
22 the West Casey Strawn Pool?

23 A Yes, it is.

24 Q How is that 80-acre nonstandard unit  
25 going to affect the development of the south half of Section

1 14?

2 A That obviously could be the crux of this  
3 matter and I think that what it does, in my opinion, and in  
4 the opinion of Amerind where this interpretation came from,  
5 it limits the over-drilling of the reservoir. We feel that  
6 a majority of the reservoir, due to the fact that in Section  
7 28 it's surrounded by dry holes, is down in Section 33.

8 It is possible if the application isn't  
9 granted that two wells could be drilled very close to the  
10 lease line, they're very close together, edge into a reser-  
11 voir that may exist only in -- we've given it a maximum of  
12 80; it could just as well have 20.

13 As has been stated before this Commission  
14 many, many times, a well, even if it only has 8 or 10 feet  
15 of porosity present, will drain 80 acres no matter how much  
16 -- how big it gets somewhere else. They drain tremendous  
17 areas.

18 So two wells along that line could drain  
19 a tremendous amount of oil even if that oil is not present  
20 in that section.

21 Q So you think that that's the only 80 ac-  
22 res that's going to be productive in the south half of 28?

23 A Certainly based on the dry holes that are  
24 present. The southeast of the southeast has been condemned  
25 with a dry hole. The northwest of the southeast has been

1 condemned with a dry hole, and the southwest of the south-  
2 west has been condemned with a dry hole.

3 Now, why I have made the concession, cer-  
4 tainly anybody would, that there may be minor acreage on  
5 those 40-acre tracts that is productive, they have dry holes  
6 right in the middle of them.

7 The only 80 acres there that could be a  
8 contiguous unit is what we've shown that could be produc-  
9 tive.

10 MR. CATANACH: I don't think I  
11 have anything further at this time.

12 Mr. Padilla?

13

14 RECROSS EXAMINATION

15 BY MR. PADILLA:

16 Q Mr. Hair, the Examiner asked you a ques-  
17 tion and I don't recall what the exact question is, but was  
18 it your testimony that some of these wells drain large areas  
19 in this field?

20 A My testimony was that it has been shown  
21 many times over that a well, no matter how thin or thick, is  
22 capable of draining 80 acres, possibly more, and I consider  
23 that a large area for a well to drain in this reservoir.

24 Q Do you have any knowledge of the pres-  
25 sures in this area, the bottom hole pressures, initial bot-

1 tom hole pressures?

2 A In the -- I assume we're in -- when we  
3 say in this area, we're talking about is in the Amerind  
4 Meyers No. 1 and the Shipp No. 1.

5 Q Yes, sir.

6 A No, I do not know those. I can't quote  
7 those to you. I wouldn't want to.

8 Q How about in the Casey Strawn and the  
9 Shipp Strawn and the other Strawn pools here?

10 A Oh, certainly. I have -- I have  
11 knowledge, at least at given points in time, of pressure  
12 data, yes.

13 Q How do those pressures vary from well to  
14 well?

15 A They can vary greatly from well to well.

16 MR. PADILLA: No further  
17 questions.

18 MR. CATANACH: The witness may  
19 be excused.

20 MR. CARR: That concludes our  
21 direct case.

22 MR. PADILLA: Mr. Examiner, we  
23 call Scott Wilson.

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SCOTT WILSON,

being called as a witness and being duly sworn upon his  
oath, testified as follows, to-wit:

DIRECT EXAMINATION

BY MR. PADILLA:

Q Mr. Wilson, for the record would you  
please state your name and what your connection with Rio  
Pecos Corporation is?

A My name is Scott E. Wilson. I'm a Certi-  
fied Professional Landman and Vice President of Rio Peco  
Corporation.

Q Where do you live, Mr. Scott?

A Midland, Texas.

Q Have you previously testified before the  
Oil Conservation Division as a petroleum landmana and had  
your record accepted as a matter of course?

A Yes, I have.

MR. PADILLA: Mr. Examiner, we  
tender Mr. Wilson as a petroleum -- as an expert in -- as a  
petroleum landman.

MR. CATANACH: He is so quali-  
fied.

Q Mr. Scott, would you refer to your Exhi-  
bit Number Ten and have you tell us what that is and what it

1 contains?

2           A           Exhibit Ten, to the best of my knowledge  
3 is simply a list of the working interest owners that would  
4 be involved in a well drilled at some location in the south  
5 half of Section 28. I broke it down into two columns, the  
6 southeast quarter of Section 28 and the southwest quarter of  
7 Section 28.

8                       I basically prepared this to show who the  
9 major working interest owners are in order and also to  
10 reflect based upon an asterisk after various companies'  
11 names, individuals' names, what companies and what  
12 individuals also have an interest in what we feel is a  
13 competing well, the Shipp No. 1 in the northwest quarter of  
14 the northeast quarter of Section 33.

15           Q           What does that comparison do with the  
16 Shipp No. 1 Well?

17           A           Well, we basically prepared this thinking  
18 that we would have a certain number of parties supporting us  
19 and that Amerind would have a certain number of parties  
20 supporting them and our contention was going to be that  
21 probably a lot of the parties that were otherwise supporting  
22 Amerind also had an interest in the competing, draining well  
23 in Section 33; therefore, wasn't so concerned about  
24 correlative rights and drainage in the south half of Section  
25 28, and therefore might be more inclined to support Amerind

1 than ourselves.

2 Q Okay, let's go on to your Exhibit Number  
3 Eleven, I mean Eleven, yes. Tell us what that is.

4 A Exhibit Number Eleven is simply a letter  
5 from Conoco which in effect -- by which they in effect are  
6 protesting the nonstandard proration unit proposed by  
7 Amerind.

8 They basically pattern, I believe, their  
9 letter to that effect after another letter that I had sent  
10 Conoco, which also went out to numerous other working  
11 interest owners.

12 Q Is that the letter shown on your Exhibit  
13 Number Twelve?

14 A Yes, that's the letter on Exhibit Number  
15 Twelve, which basically made the case for -- from our point  
16 of view, for objecting to Amerind's proposed nonstandard  
17 proration unit.

18 Q Okay, let me ask you now, do you -- you  
19 have now joined the well or tell us about whether or not you  
20 have joined the well?

21 A We conditionally signed the AFE and  
22 returned it to Amerind, I believe on June the 24th. They  
23 probably received it the day after, but prior ot this  
24 hearing; conditionally signed the AFE.

25 Our main objection is the nonstandard



1 proration unit. We're ready to drill this well yesterday.

2 Q Over on the southwest of the southeast?

3 A At their location in the southwest quar-  
4 ter of the southeast quarter providing a standard proration  
5 unit is dedicated to the well. We don't want to be pre-  
6 empted from drilling another well in the southeast quarter  
7 of the southwest quarter of Section 28 by -- which this non-  
8 standard proration unit would accomplish.

9 Q Can you briefly tell us what Exhibit  
10 Twelve -- just summarize for the Examiner what it is.

11 A Okay, just partly reading, paraphrasing,  
12 Amerind is the operator of two producing Strawn wells, the  
13 Shipp No. 1 in the northwest quarter of the northeast quar-  
14 ter and the Meyers No. 1 Well in the northeast quarter of  
15 the northwest quarter of Section 33, which were completed in  
16 December, 1985, and February, 1986, respectively, and which  
17 we feel are draining the oil and gas reserves from the  
18 Strawn Pool that extends into the south half of Section 28.

19 We feel that the Strawn pool which Amer-  
20 ind is draining lies in approximately equal proportions be-  
21 neath the south half of Section 28 and the north half of  
22 Section 33, which warrants the drilling of two wells, one in  
23 the southwest quarter of the southeast quarter, and one in  
24 the southeast quarter of the southwest quarter of Section  
25 28, offsetting Amerind's two wells.

1 Amerind's proposed nonstandard proration  
2 unit would take away the right of the mineral and leasehold  
3 owners in the south half of Section 28 to drill and share in  
4 the production from a second well that we feel can and  
5 should be drilled in the southeast quarter of the southwest  
6 quarter of Section 28.

7 If the mineral and leasehold owners in  
8 the south half of Section 28 are not allowed to drill a  
9 second well, then they will lose their right to recover  
10 their just and equitable share of the recoverable reserves  
11 in the Strawn Pool.

12 Amerind's delay in drilling the offset-  
13 ting wells, which has been about a year and a half, has al-  
14 ready resulted in the mineral and leasehold owners losing a  
15 portion of their share of recoverable reserves in the Strawn  
16 Pool.

17 And that, also I go on to say, we feel  
18 that an ultimate loss of recoverable reserves will occur re-  
19 sulting in underground waste if a second well is not drilled  
20 in the southeast quarter southwest quarter.

21 And we sent that out to various parties  
22 listed on the addressee list attached towards the back.  
23 Those parties on the addressee list which have a check by  
24 their name signed this letter, or sent us a side letter sup-  
25 porting us in our protest of this nonstandard proration unit

1 and I also made some other comments based upon my conserva-  
2 tions with some of the companies as to whether they were  
3 possibly neutral in this case or possibly supported Amerind.

4 The only company on my addressee list  
5 that basically supported Amerind at the time was Standard  
6 Oil Production Company and I might also point out that that  
7 company does have an interest in the offsetting, competing  
8 well, being the Shipp No. 1 in the northwest quarter north-  
9 east quarter of Section 33.

10 Q Mr. Wilson, do you have anything further  
11 to add to your testimony?

12 A I'd like to add just one thing. Basicall-  
13 ly, we're very supportive of Amerind. We think they're a  
14 great company, good people, good operators. We think their  
15 AFE is in fact probably as cheap as you can drill a well and  
16 still do a good job of it.

17 I do think Amerind's predicament about  
18 their expiring leases, that is, if they don't get out there  
19 and start drilling here shortly, is not necessarily any  
20 fault of ours. Surely they've known that these leases were  
21 otherwise going to expire for quite some time, especially if  
22 they were unsuccessful in renewing them, and I'd like to  
23 point out that the interest involved involves some very  
24 small interests. One of the top leases covers 2.96 acres in  
25 the southwest quarter, which is only 1.8 percent of the

1 southwest quarter.

2 The other top lease that we have covers  
3 only one acre beneath the south half, which is .003125,  
4 effect we're talking about a little over 2 percent. That's  
5 what the big panic is here.

6 And that's all I'd like to say.

7 MR. PADILLA: Pass the witness.

8  
9 CROSS EXAMINATION

10 BY MR. CARR:

11 Q Mr. Wilson, I'd like to direct your at-  
12 tention first to your Exhibit Number Ten, the breakdown of  
13 the working interest ownership.

14 A Right.

15 Q The first interest owner, and the largest  
16 one, appears to be Amerind Oil Company in the south half of  
17 Section 28.

18 Second behind that, you seem to have them  
19 in order, is Rio Pecos Corporation, is that correct?

20 A That is correct.

21 Q When was your interest acquired in the  
22 southeast quarter of Section 28?

23 A We've been acquiring numerous interests.  
24 We've got a total of 14 different leases covering acreage in  
25 the southeast quarter. I believe we started our leasing ef-

1    forts back in, well, it's been three or four months, about  
2    three months, about three months ago we started our leasing  
3    efforts in this area.

4            Q            All of it's been acquired within the last  
5    three months.

6            A            Yes, sir.

7            Q            The same applies to the southwest quarter  
8    --

9            A            Yes, sir.

10          Q            -- is that not true? You've been writing  
11    a number of people in the area recently --

12          A            Yes.

13          Q            -- it appears. The letter that Conoco  
14    sent you, is that in response to the letter which you have  
15    marked as Exhibit Number Twelve?

16          A            Yes.

17          Q            And did you receive any other letters  
18    back from interest owners?

19          A            We have one letter coming that I have  
20    checked on this addressee list, the Grisso Family Trust.  
21    They were express mailing that to Mr. Padilla's office to-  
22    day. I've checked it off but I haven't supplied you with  
23    the signature page yet.

24          Q            Okay, and that is --

25          A            That is it. That's -- at least that is

1 all we bothered to contact, though there were many, many  
2 more, and what I did was basically contact those parties  
3 that had a few percent or more, as has already been indi-  
4 cated. There's eighty different mineral owners, approxi-  
5 mately, that own 99 percent of the minerals and then there's  
6 another sixty that own 1 percent, and out of those eighty we  
7 tried to contact those that had two or three percent or more  
8 that we thought might support us.

9 Q Now, if I understand your testimony, you  
10 have been doing some top leasing, not passing judgment on  
11 that .

12 A Yes. Yes.

13 Q If the well is not drilled yesterday or  
14 sometime soon, there will be a shift in ownership in the  
15 property as these leases expire and the interests go to Rio  
16 Pecos, is that not true?

17 A It's basically a legal argument. I  
18 checked with our attorney in Artesia, Chad Dickerson, and he  
19 basically said it depends upon what your definition of com-  
20 mencing operations is, and it's very possible that just the  
21 mere fact they're here at a hearing trying to get a well  
22 drilled will perpetuate their lease, and our top leases  
23 cover such a small interest, if they're ready to drill,  
24 we'll assign them those top leases. We just want to see the  
25 well drilled as soon as possible but on a standard proration

1 unit.

2 Q Now you indicated you had given a condi-  
3 tional acceptance of Amerind's proposal.

4 A Yes.

5 Q Did you accept the well location?

6 A Yes. Yes. The well location is per-  
7 fectly acceptable.

8 Q But in your proposal back did you accept  
9 the location?

10 A Yes, yes, yes.

11 Q But what you have done is you said we  
12 will go with it, but we won't go with the proration unit.

13 A Yes.

14 Q So that is the condition.

15 A That, that is true.

16 Q All right, and then if for some reason  
17 the attorneys haggle and you haven't commenced operations,  
18 there could be a shift of ownership if something isn't done  
19 out there quickly.

20 A Yes. There could be, though we want to  
21 cooperate with Amerind and I think we can work out something  
22 on those few top leases that cover such a small interest  
23 that it's not in our best interest to hold on to those if  
24 Amerind is diligent in getting on with drilling a well.

25 Q This morning we were unable to reach an

1 agreement.

2           A           That was over another -- that's true.  
3 That's true, but it's based upon the nonstandard proration  
4 unit. That is the thrust of the case.

5           Q           Now, if I understand your testimony,  
6 Amerind's interest also is the same, virtually the same, in  
7 the south half of 28 as in the north half of 33.

8           A           Virtually the same. There's about a 2.  
9 -- 2 percentage point swing. They would have 47 percent in  
10 the southeast of 28 and 45 percent, roughly, in the south-  
11 west of 28.

12          Q           And if you're not the proper person to  
13 ask any question to I'm sure you'll tell me. Are you, does  
14 Rio Pecos have any application pending either a permit to  
15 drill or a pooling hearing to --

16          A           None. We would love to see Amerind as  
17 operator drill this well.

18          Q           Does, in fact, Rio Pecos drill wells in  
19 the area?

20          A           No, we are strictly in oil and gas  
21 exploration, in that we do the -- we work up prospects from  
22 a geological point of view, put deals together on those  
23 prospects from a land point of view, and turn over the head-  
24 ache of operations to somebody else.

25



1                   Q               So you don't operate any wells in the  
2 area?

3                   A               We do not operate, but we have gotten  
4 about a dozen wells drilled in this area, primarily by Yates  
5 Petroleum Corporation, based upon our prospects and our ef-  
6 forts.

7                   Q               Okay, and of those efforts, have they all  
8 been commercial successes?

9                   A               Of course not.

10                                   MR. CARR: I have no further  
11 questions.

12                                   MR. CATANACH: Any redirect,  
13 Mr. Padilla?

14                                   Nothing further, Mr. Padilla?

15                                   MR. PADILLA: I have one ques-  
16 tion.

17

18                                   REDIRECT EXAMINATION

19 BY MR. PADILLA:

20                   Q               Mr. Scott, you like this area, don't you?

21                   A               Yes, sir, very much. This is the only  
22 area we are working at this point in time and we've concen-  
23 trated on this area almost exclusively over the last three  
24 years.

25                   Q               And that is -- that is the basis for

1 your activity in this area in the last three or four months?

2 A Yes.

3 MR. PADILLA: I have no further  
4 questions.

5 MR. CARR: We'd just like the  
6 record to reflect we also like this area.

7 MR. PADILLA: Call Mr. Mark  
8 Wilson, Mr. Examiner.

9  
10 MARK WILSON,  
11 being called as a witness and being duly sworn upon his  
12 oath, testified as follows, to-wit:

13  
14 DIRECT EXAMINATION

15 BY MR. PADILLA:

16 Q Mr. Wilson, for the record would you  
17 state your name?

18 A Mark D. Wilson.

19 Q Where do you reside?

20 A Midland, Texas.

21 Q What is your connection with Rio Pecos  
22 Corporation?

23 A I'm a geologist and president.

24 Q Have you previously testified before the  
25 Oil Conservation Division and had your credentials accepted

1 as a matter of record?

2 A I have.

3 Q Have you made a study of the area under  
4 consideration today?

5 A I have done so personally.

6 Q Have you prepared certain exhibits for  
7 introduction at this hearing today?

8 A Yes, sir.

9 MR. PADILLA: Mr. Examiner, we  
10 tender Mr. Wilson as an expert geologist.

11 MR. CATANACH: He is so quali-  
12 fied.

13 MR. PADILLA: And also we move  
14 the admission of Exhibits One through Twelve that I prev-  
15 iously neglected to do.

16 MR. CARR: One through Twelve?

17 MR. PADILLA: I mean Ten through  
18 Twelve, Ten, Eleven, and Twelve.

19 MR. CARR: We don't object to  
20 Ten through Twelve. We reserve the right to object to One  
21 through Nine.

22 MR. CATANACH: Exhibits Ten  
23 through Twelve will be admitted into evidence.

24 Q Mr. Wilson, you have prepared certain  
25 maps, geologic maps and cross sections for introduction at

1 this hearing today, have you not?

2 A That's correct.

3 Q Can you first of all basically tell us  
4 briefly, or tell the Commission or the Examiner where -- how  
5 you, or why Rio Pecos opposes the nonstandard proration  
6 unit?

7 A Well, in a nutshell, first we have bought  
8 leases here in the last three months, as Scott has testi-  
9 fied, in the south half of Section 28, and we bought those  
10 leases because the geologic work we have done, which  
11 indicated that the two Amerind wells in the north part of  
12 Seciton 33 are really on the south flank of the limestone  
13 mound in the Strawn, which we feel culminates in the south  
14 part of Section 28, as I'll show in my exhibits.

15 So, that's the principal reason we  
16 proceeded to see if we could acquire an interest.

17 Q Okay, let's go on and move to Exhibit  
18 Number One and have you tell the Examiner what that is and  
19 what it contains.

20 A Okay. Exhibit One is the structure map  
21 drawn on the base of our Strawn Limestone, and principally  
22 it shows dip towards the northeast. It's a slightly  
23 irregular planer surface, no prominent highs or lows. It is  
24 the foundation on which the Lower Strawn Limestone mounds  
25 developed.

1                   Q                   Do you want to move on to Exhibit Number  
2 Two now?

3                   A                   Yeah.

4                   Q                   Okay, let's go. What is Exhibit Number  
5 Two?

6                   A                   Exhibit Number Two is an Isopach of the  
7 Lower Strawn Limestone, that massive unit that everybody re-  
8 cognizes as the principal producing unit in this Lovington  
9 area.

10                                   And in contrast to the Exhibit One you  
11 begin to see a lot more complications in contouring and  
12 since the previous surface was essentially a flat surface,  
13 we interpret the highs and the lows in here to be due to  
14 this algal mound field which developed in the Lower Strawn  
15 time.

16                                   The thickest well in here, the thickest  
17 Strawn section penetrated is in the well which is in the  
18 southeast quarter of the southeast quarter of Section 28.  
19 It's a well that was drilled by Chambers and Kennedy back in  
20 1984, and in that well the Strawn is, Lower Strawn Limestone  
21 is 225 feet thick.

22                                   Amerind's two producing wells are shown  
23 colored green in the north part of Section 33, and you'll  
24 note there that they have very comparable thicknesses of  
25 limestone, 190 feet and 192 feet. They would seem to be on

1 east/west stratigraphic strike along the south side of this  
2 mound.

3 Now, they also drilled a well in the  
4 northeast quarter of the northeast quarter of Section 33,  
5 Shipp No. 2, which did not encounter porosity in the Strawn  
6 and in which there was a considerable thinning in the  
7 overall limestone section. In fact, the thickness there is  
8 162 feet.

9 Now, this map is contoured on 20-foot  
10 contour interval. You can see here that on the south side  
11 of the mound that the 180-foot contour rather nicely separ-  
12 ates the producing wells, the two Amerind wells, from the  
13 dry hole in the northeast quarter. In other words, you can  
14 kind of take that to be the south limit of the porosity on  
15 the mound.

16 Continuing with that line of thinking, in  
17 the northwest quarter of the southeast quarter of 28 there  
18 is a well that was drilled by HEYCO. It has 176 feet of  
19 Lower Strawn Limestone and if our cutoff up there, say, is  
20 180 feet, then it could be awfully close to having porosity  
21 in the Lower Strawn.

22 Going over into the southwest southwest  
23 of Section 28, the old Shell Homestake Well drilled in 1953,  
24 the Strawn there, or Strawn Limestone, is 168 feet thick;  
25 somewhat thinner than the HEYCO well. We'll discuss that

1 well a little more carefully here shortly, as to whether it  
2 has porosity or not.

3 But, if you look at the 180-foot contour  
4 wrapping around this mound, and make an assumption that  
5 that's somewhere near what's -- where the limits of porosity  
6 would be, then I think it is fairly evident that a principal  
7 part of this limestone mound lies in the south half of Sec-  
8 tion 28 and that the two Amerind wells in the northern part  
9 of Section 33 are on the south edge of the limestone mound.  
10 Therefore, I would have to argue that if we're going to pro-  
11 perly drain this mound and if we're going to get our proper  
12 share of the production out of this mound, that we need at  
13 least two locations up in the south half of Section 28.  
14 I'll have other reasons for this shortly in discussing the  
15 porosity.

16 Q Want to move on to Exhibit Number Three  
17 now, Mr. Wilson?

18 A Yes. Exhibit Three is an Isopach map of  
19 an interval overlying the Lower Strawn Limestone mounds and  
20 in effect is sort of like putting a plaster cast down over  
21 the mounds. Over the mounds the section tends to thin due  
22 to compactional effects in part and in part due to on-lap-  
23 ping effects of the post mound rocks.

24 The shale marker, which is the top boun-  
25 dary of this Isopach, can be found all throughout the (not

1 understood). It's a very prominent marker and we'll see it  
2 on the cross section, and I don't think anyone has any par-  
3 ticular problem picking a top of the Lower Strawn Limestone.

4 Looking around over the area, the known  
5 producing situations in the area, known fields in the area,  
6 I think without exception we see a thinning of this  
7 overlying unit over the productive areas and I would expect  
8 the same thing here in the south part of Section 28 and the  
9 north part of Section 33.

10 If we take a look at, say, the 130 foot  
11 contour, this would indicate that there is about an equal  
12 amount of acreage enclosed in the south half of 28 as there  
13 in the north half of 33. Again, the two Amerind wells have  
14 very comparable thicknesses, 135 feet and 136 feet,  
15 indicating again that they're on strike in an east/west  
16 direction.

17 Going to the dry hole in the northeast  
18 northeast of 33, the section thickens to 149 feet.

19 Up here in the C&K Well it's 134 feet,  
20 which is not much different from what the Amerind wells are.

21 So we take this to mean, again, that, you  
22 know, it's about equally divided.

23 Now, there are some differences between  
24 this exhibit and the Isopach of the Lower Strawn Limestone,  
25 which was Exhibit Two.



1 I really think of these two maps that Ex-  
2 hibit Two is more definitive of -- of where the mound peak  
3 is and it is more definitive of the geometry of the mound  
4 than the overlaying unit because after all we're mapping  
5 directly to the thickness of the limestones involved in the  
6 mounding.

7 So, if I had my druthers between these  
8 two maps, I'll take Exhibit Two. Of course, I might be a  
9 little selfish about that, too.

10 Again I'll make the same statement here,  
11 if we were to go with Amerind's proposed proration unit, it  
12 limits us to one well and preempts a drill site we think in  
13 the southeast of the southwest, and just doesn't seem like  
14 it would be very beneficial to the correlative rights of the  
15 people in the south half of Section 28 in view of the past  
16 production history, too, on the two Amerind wells.

17 Q Do you want to go on to Exhibit Number  
18 Four now?

19 A Exhibit Four is a cross section. If you  
20 will pick up Exhibit Two that shows the cross section line  
21 and well numbers on Exhibit Two correspond with well numbers  
22 on the cross section.

23 On the left generally is west and on the  
24 east is -- or on the right is east.

25 There are five wells on the cross sec-

1 tion. That is all the wells, really, that are associated  
2 with this particular mound.

3 The cross section is hung on the base of  
4 the Lower Strawn Limestone.

5 We show, really, the mounding effect that  
6 you get in this area, which is particularly prominent in  
7 well four. The top of the Lower Strawn Limestone is also  
8 shown and this Isopach, which is Exhibit Two, is between the  
9 unit marked at the top of the Lower Strawn Lime and the base  
10 of the Lower Strawn Limestone.

11 In looking at the section here you can  
12 see that well four, which is the C&K well in the southeast  
13 corner of Section 28, is the thickest well. That's where  
14 it's 225 feet thick, and you can see the mound effect there  
15 where that well is.

16 Wells two and three are the Meyers Well  
17 and the Shipp Well, respectively, and you can see that the  
18 Lower Strawn Limestone there is almost exactly the same  
19 thickness, within two feet of being the same thickness, and  
20 also you can see that the porosity development, developments  
21 which are colored dark red on the logs, are in very compar-  
22 able stratigraphic positions.

23 Going back to well four again, the C&K  
24 Well, Greg and I probably have a little different opinion  
25 about whether or not that porosity is associated with mound-

1 ing in the south part of 28 or I should say associated with  
2 the mounding that shows here in the Meyers and Shipp Wells.

3 I believe it is associated with the  
4 mounding in the Meyers and Shipp Wells.

5 As he stated in the C&K Well, well four,  
6 there are two porosity zones and I don't think anyone will  
7 argue about the lower zone's good porosity. It was perfor-  
8 ated in the top part and proven to be wet. Details are on  
9 the bottom there.

10 Then they came -- then they perforated  
11 also this upper zone of -- that can be sort of questionable  
12 as far as interpretation is concerned. The most obvious  
13 thing in that zone is this huge washout where the hole gets  
14 out to about 14 inches in diameter, that dotted curve on the  
15 left side being the (not understood), and then the huge por-  
16 osities indicated over on the east side that are probably  
17 related to lack of pad contact due to this washout.

18 Now they did perforate that section and  
19 they reported as follows: They acidized with 2760 gallons  
20 and they swabbed water with no shows; squeezed, then, with  
21 100 sacks.

22 Now I don't know whether that was forma-  
23 tion water or whether that was spent acid water or what it  
24 was. I don't really have too much of a problem assuming  
25 that they have some porosity here, where we have such an in-

1 tense fracturing. I can't argue with Greg in that I have  
2 seen myself a lot of cases where there was fracturing, or  
3 the washout phenomenon and then you perforate and you get  
4 zilch, basically.

5 So it doesn't have to be porosity but I  
6 would assume that they're reporting formation water here.

7 There's an interesting point to be made  
8 about this with respect to the oil/water contact. The top  
9 of that porosity, the upper unit of porosity --

10 Q In what well, Mr. --

11 A In well number four.

12 Q Okay.

13 A Is at -7537. In well three the base of  
14 the porosity is -7530 and that well is producing water-free,  
15 and in the Meyers Well the base of the porosity is -7517. So  
16 if the porosity is connected, then the C&K Well, which is  
17 well four, is maybe 7 feet below where -- or somewhere in  
18 the range of 7 feet below where the oil starts. In other  
19 words it's almost right at the oil/water contact and that  
20 may have some importance in deciding how you're going to de-  
21 dicate acreage to this well. I would insist that there is a  
22 fair possibility that a portion of the southeast southeast  
23 has some oil to be produced and it can best be produced out  
24 of a well not there but up where Amerind has proposed their  
25 well in a higher structural position.

1                    Looking again at the overall porosity  
2 distribution within the Lower Strawn Limestone, and back to  
3 well four one more time, the upper approximate 100 feet of  
4 porous Strawn lime in well four is tight and in most cases  
5 on these mounds you tend to get porosity developed up fairly  
6 near the top of it when you really get on top of the mound,  
7 so I would assume that there is some possibility lateral to  
8 this well that there may be porosity developed at that stra-  
9 tigraphic level.

10                                So I have extended a sort of dome of  
11 porosity up there with a lot of question marks on it to on-  
12 ly suggest that this is a possibility.

13 Now, with regard to the lower porosity in  
14 well four versus the porosity in wells two and three, the  
15 Amerind wells, I don't really have a problem connecting  
16 that. It may or may not connect but I've seen other cases  
17 where -- like in the North Casey area, where we would have a  
18 well that had low porosity, that is, you know, down on the  
19 flank of the mound. in this case it's on the east flank, and  
20 then as you find the top of the mound and drill the top of  
21 the mound, then the porosity is developed more towards the  
22 top but there is usually a connection between that lower  
23 porosity and the upper porosity. In that case over there,  
24 this is sort of borne out by the bottom hole pressure data.

25 But these are matters of opinion and in-

1    terpretation, but I will say flatly, myself, I believe that  
2    this carbonate build-up in well number four is related to  
3    the same carbonate build-up as the Amerind wells are in. I  
4    do not feel that that is a separate build-up.

5                    Q                    When you say carbonate build-up, what do  
6    you mean by that?

7                    A                    Oh, basically a carbonate mound. A  
8    limestone development with (not understood) and thinning on  
9    the flanks and it is quite common. The algal mounds, not in  
10   the Lovington area but you see them over the outcrops in the  
11   Sacramento Mountains, the Sanders Range, and various other  
12   places.

13                   Q                    Might we find some channeling in a carbo-  
14   nate type of reservoir?

15                   A                    Well, I will say this. I think most peo-  
16   ple will agree, it's a lot more difficult to waterflood a  
17   carbonate reservoir than it is a sand reservoir.

18                                    In a sand reservoir, you know, you assume  
19   fairly constant porosity and permeability conditions. I  
20   don't really believe that either because you get torrential  
21   crossbedding, that sort of thing in channel sands and other  
22   types of sand. You can have a lot of variations in perme-  
23   ability horizontally versus vertically because of the nature  
24   of the bedding.

25                                    But, in the carbamate mound situation, or

1 any carbonate situation, for that matter, I do not believe  
2 that you can have the uniformity of porosity development  
3 that is anywhere near as uniform as it would be in a sand  
4 reservoir. A lot of times when they start to waterflood a  
5 carbonate reservoir you end up getting channeling. You  
6 don't build up a flood front. It take an easy route and us-  
7 ually turns out to be some cavern that offers little resis-  
8 tance and you get very poor success in general flooding car-  
9 bonate reservoirs.

10 In the case of the algal mounds here,  
11 from what we have seen in the twelve wells, or so, we've  
12 been involved in, with a lot of dipmeter information, we see  
13 dips common 10, 20, and 30 degrees on the dipmeters. We  
14 have used this data in the North Casey or in 27 of picking  
15 the next drill site and with success, but any time that you  
16 have bedding of that magnitude on the flanks, you can surely  
17 anticipate you're going to have some problems with the hori-  
18 zontal permeability.

19 Also, I believe that down in the Shipp  
20 Field in Section 4 of 17, 37, where Pennzoil has some wells,  
21 and Tipperary, that they have found down there that it's a  
22 very complex reservoir situation, that each well has tended  
23 to have it's own bottom hole pressure and you would have a  
24 godawful time plotting, you know, pressures versus cumula-  
25 tive production for projecting out what kind of reserves

1 you're looking at.

2 They are very complex affairs.

3 Q What else do you have to tell us about  
4 Exhibit Number Four, Mr. Wilson?

5 A Let's see if I've covered everything. I  
6 was -- incidentally, oh, yeah, up here toward the top I've  
7 labeled the shale marker here, base regional shale marker,  
8 which is the top of the overlying Isopach interval. That  
9 Isopach interval here on the cross section would be from  
10 that marker down to the top of the Lower Strawn Limestone.

11 Also, there are two thinner limestone  
12 units that lie just over the Lower Strawn Limestone that can  
13 be correlated through this area very nicely and then down in  
14 the Atoka section, the base of the Lower Strawn Limestone is  
15 essentially coincident with the top of the Atoka series of  
16 the Pennsylvanian, and there are two limestone units down  
17 there that you can also neatly correlate right straight  
18 through all these wells.

19 Between those lime units and the base of  
20 our Strawn Limestone is a unit I've colored yellow here,  
21 which we call the sandy section, probably sandy limestone,  
22 some pure sands, maybe, but they have a different character  
23 on the density logs and so on and help you pick the base of  
24 the Strawn Limestone.

25 Oh, excuse me --



1 Q Do you have anything else to add?

2 A -- I did forget one important matter  
3 here, yeah, and that's -- this note here tells me I forgot  
4 it -- and that is the discussion of this Shell well, the  
5 Homestake Well over in the southwest southwest of Section  
6 28, and you've already heard Greg tell you that this is not  
7 a very definitive set of logs on this well, and I thoroughly  
8 agree.

9 The log which I have on the cross section  
10 here is the gamma ray neutron log which was run without a  
11 caliper curve. They also ran a gamma ray log without a cal-  
12 iper curve.

13 In looking at the neutron curve, which is  
14 the righthand curve, you can see that there is kind of a  
15 sharp separation there about halfway down through, right at  
16 the base of what I've colored red, on that neutron curve,  
17 and you might think that there could be porosity associated  
18 with the lesser values there in the upper half of the  
19 section.

20 When you look at the microlog, through an  
21 interval of about 72 feet there, almost continuous but with  
22 some minor breaks, you see microlog separation.

23 Q Can you illustrate that in some way, Mr.  
24 Wilson?

25 A Yeah, I've got a copy of the microlog

1 here. I didn't make this a formal exhibit but I'll pass it  
2 down so the commissioner can have a look at it, and if you  
3 want, you can lay that right alongside the well there, which  
4 is well one, and correlate the depths. It's the same scale.

5 Q Why don't you illustrate that on my exhi-  
6 bit for the examiner, Mr. Wilson?

7 A Okay.

8 Q On my copy of the exhibit.

9 A Or I could go straight up there and --

10 Q That would be fine.

11 A -- illustrate it.

12 Okay, this would hang in here just about  
13 like this.

14 Q Would you speak louder, Mr. Wilson, so  
15 the reporter can hear you?

16 A Okay, I'm in the process of lining up the  
17 microlog with the neutron log on the cross section and in  
18 the lower part of the Lower Strawn it shows that this sec-  
19 tion generally is tight, which corresponds with (not under-  
20 stood) type on the neutron curve here and where this sugges-  
21 tion of porosity is here on the neutron, there is also a  
22 suggestion of microlog porosity in here, or various microlog  
23 separation, let me put it that way.

24 Then there are scattered units of separa-  
25 tion in this upper part corresponding with breaks in the

1 neutron curve up here.

2 Now, I'm not going to tell you absolutely  
3 that this is the porosity. I'm going to say this for sure,  
4 there is microlog separation up here, and in my mind it's  
5 due to one of two things, either there is fracturing in here  
6 and the carbonate is washed out, you have a borehole  
7 enlargement and your pad is not making contact, or it is  
8 porosity, either vuggy porosity or algal plate-type poro-  
9 sity.

10 In any event, this well is high enough  
11 structurally, as I will show you here in a minute, to be  
12 productive if there is oil there, meaning that there is a  
13 possibility of porosity in this well, either fracture  
14 porosity or vuggy porosity or algal plate-type porosity.

15 Q Does this mean that the southwest quarter  
16 of the southwest quarter may be productive?

17 A It is a possibility.

18 Q Do you want to move on now to Exhibit Num-  
19 ber Five?

20 A Yeah. Exhibit Five is a gross -- is an  
21 Isopach of the gross porous interval within the Lower Strawn  
22 Limestone and it doesn't have so many contours, so it -- the  
23 outlines of the fields show a little more clearly and  
24 definitely.

25 To the east, for instance, is the greater

1 Casey Field, we'll call it, the early part of the Casey  
2 Field in the southeast part of 27 and the north part of 34.

3 Then our extension of it, with Yates' and  
4 our friends, Amerind, over in Section 28, where we encoun-  
5 tered reduced pressures when we drilled that stuff, and knew  
6 it was being -- had been drained previously to some degree.

7 And then here more recently there has  
8 been a south extension in the southwest corner of Section  
9 34, a well that Union Texas drilled, which we also partici-  
10 pate in, and that extends on down into Section 3. But  
11 that's kind of a -- I just point this out because it's a  
12 very complex reservoir system and it's got really three dif-  
13 ferent mounds in it most likely that are in permeability  
14 contact accounting for these reduced pressures in the later  
15 developments.

16 Now, back to -- well, I might talk also  
17 about the Shipp field down in Section 4, of 17, 37.

18 On this map, as on all the maps, it looks  
19 like a very simple affair, little fairly symmetrical type  
20 mounds, and then there are these horror stories about the  
21 pressure systems and why. Generally the pressures were re-  
22 duced. They were down to about 2400 pounds when normally  
23 you might expect something in the order of 4000 pounds if  
24 there had not been any development. They're not -- they're  
25 normal pressure reservoirs if there has not been drainage.

1                   And so even a simple sampling was terrib-  
2 ly complex when you get down to the pressure considerations  
3 as they imply complexities in the reservoirs geometry.

4                   Okay. Up in the south part of 28 again  
5 the two Pennzoil wells -- excuse me, let me start in the  
6 north part of Section 33, the Meyers well and the Shipp  
7 well, and they have, you know, grossly about 82 and 70 feet  
8 of gross porous interval and that's what I've interpreted as  
9 being the algal core facies of this mound.

10                  The C&K well in the southeast southeast  
11 of 28 has around 86 feet if you interpret this upper unit as  
12 being porosity, and of course the HEYCO well in the north-  
13 west of the southeast of 28 as zero porosity; then we have  
14 the controversial Shell Homestake Well, which has X amount  
15 of porosity, depending what you want to read into it.

16                  Again, even if the Shell Homestake Well  
17 had zero porosity and you pulled the zero line down to just  
18 south of where that wellsite is, I think you'd find that  
19 there's as much gross porous interval in 28 in areal extent  
20 as there is in 33.

21                  That's all I have on that one.

22                  Q           Okay, go on to Exhibit Number Six, if you  
23 would, Mr. Wilson.

24                  A           Okay. Exhibit Six is a structure map on  
25 top of the Lower Strawn Limestone and what it shows, basic-

1 ally, is that if two wells were drilled in the south part of  
2 28, one in the southwest of the southeast and one in the  
3 southeast of the southwest, that those two wells would be in  
4 about the same structural position as Amerind's two wells in  
5 33, sort of an equality situation as far as structural posi-  
6 tion is concerned.

7 Also, going back to the C&K well in the  
8 southeast corner of 28, assuming that that upper unit poro-  
9 sity is right about where the oil/water contact is, that -  
10 7450 contour there might not be too bad a line for where  
11 the oil/water contact would be on the map, and it would in-  
12 dicate that some part of that 40 acres in the southeast  
13 southeast could have some oil in it that needs to be pro-  
14 duced and that's why we're suggesting the south half of the  
15 southeast quarter.

16 Q Mr. Wilson, before we move from Exhibit  
17 Number Six, let me ask you, has a well been drilled in the  
18 southeast quarter of the southeast quarter of Section 33 by  
19 Amerind?

20 A That is what I hear.

21 Q And that is between a dry hole or two dry  
22 holes, basically, and it offsets a producing well to the  
23 east, or to the west, I should say? Correct?

24 A Well, the producing well, I believe, is  
25 to the east, the Union Texas Well in the southwest southwest

1 of 34, and then that well is offset to the north by a TX,  
2 TXO dry hole.

3 To the south and probably going that  
4 direction, it would be the Pennzoil well which is in the  
5 northwest of the northeast of Section 4.

6 It's an area where there are kind of  
7 plentiful dry holes.

8 Q Does this sort of illustrate the complex-  
9 ity of the Strawn in that area?

10 A I think it certainly does and there's  
11 certainly no exception.

12 Q Mr. Wilson, have you had an opportunity  
13 to read the transcript in Case 8798, which was the applica-  
14 tion of Amerind for temporary special pool rules?

15 A Yeah, I looked at that last night.

16 Q And did the testimony in that hearing in-  
17 dicate what the size of the reservoir was? Or let me ask  
18 this question, was a material balance calculation done and  
19 testified to in that hearing?

20 A It was. I have very little comment to  
21 make on that because I have access to none of the -- or very  
22 little of the data that was used, and it may be that since  
23 then that they have also changed their minds.

24 MR. CARR: May it please the  
25 Commission, I would request that the Examiner take note of

1 the transcript and the proceedings in the cases that were  
2 brought for the creation and establishment of pool rules. I  
3 would also ask that you also take note of the state of  
4 development at that time. We don't have any quarrel with  
5 what we've done before but we don't think it's appropriate  
6 to come back years later and ask another witness to comment  
7 on it. It was sworn testimony and correct at the time and  
8 we certainly would encourage you to review it.

9 MR. PADILLA: Mr. Examiner,  
10 I'll withdraw the question.

11 Q Let's go on to Exhibit Number Seven, Mr.  
12 Wilson.

13 A Okay. Exhibit Seven is a compilation of  
14 the production since completion on the Amerind Shipp No. 1.

15 It was completed 12-12-85 and put on the  
16 line in December of '85; produced 19 days in December to the  
17 tune of about 12,849 barrels of oil, which would indicate  
18 that that thing has a rather substantial producing capacity.

19 Going on to year 1986, the first six  
20 months of the year the oil production numbers are in the  
21 lefthand column and they range from, oh, around 11,000 up to  
22 about 14,221, looking like a very good well.

23 No water production, and some of those  
24 months they didn't really produce every day, like in Janu-  
25 ary, 26 days; May, 27, and so on.



1                   Then we have a sort of a break in produc-  
2 tion for the second half of the year and if you look over to  
3 the righthandmost column, you can see also there is a break  
4 in the number of days produced, like in July, 24; August, 9  
5 days; September-October, 4 days each; November, 5 days; and  
6 December 9 days, and I don't know any better, but I would  
7 say that probably that has something to do with the crash in  
8 the oil prices in the second half of '86, maybe looking for-  
9 ward to a better day, like we all were.

10                   In any event, in the first three months  
11 of this year, which is as far as my data goes, we're back  
12 doing rather well again, 9255, 8200, and then back to 9396,  
13 producing all the days, I believe, of those months.

14                   And altogether, I'm trying to find my  
15 cumulative numbers here, well, by the end of 1986 this well  
16 had produced 110,000 barrels of oil and in the first three  
17 months of '87 it produced another 26,879 barrels of oil, so  
18 that's about 136,000 barrels of oil up through March.

19                   Q           Let's go on to Exhibit Number Eight, Mr.  
20 Wilson.

21                   A           Exhibit Eight is the production history  
22 on the Amerind Meyers No. 1. It was completed March the  
23 19th, '86, and to the end of '86 it had produced 58,371 bar-  
24 rels of oil, probably very little water, I think. This  
25 thing was treated with 22,244 gallons of acid so I think

1 some of the early water report is probably spent acid water.

2 It produced about the same rate in the  
3 early part of '87, those three months, as it did the last  
4 three months of '86.

5 There seems to be a bit of a hiatus there  
6 in production, too, starting about September. It looks like  
7 it did quite a lot better before that time than it did after  
8 that time, and also the producing days went down to 20, 22,  
9 25, that sort of thing. So maybe that well was being con-  
10 strained a little bit because of the problems and the price  
11 of oil.

12 In any event, putting all this together  
13 productionwise, to the end of March, 1987 Amerind has  
14 produced about 204,784 barrels of oil and 205,625 MCF of  
15 gas.

16 Q Are these pretty good wells, Mr. Wilson?

17 A I'd like to own them. I think the Shipp  
18 is an exceptional well and the Meyers is a better than  
19 average well.

20 Q Is that -- is that why you're interested  
21 in participating in the drilling of the well in the  
22 southwest quarter of the southeast quarter in Section 28?

23 A That's because I did the geology and I  
24 like it.

25 Q Assuming the proration unit, a

1 nonstandard proration unit is approved pursuant to the ap-  
2 plication, what ramifications would that have regarding the  
3 southwest quarter, in your opinion?

4           A           Well, going back to Exhibit Two, I think  
5 it's pretty evident what ramifications it has. Just looking  
6 at it from our point of view, we would be inclined to kind  
7 of wait and see. We'd drill a well in the southwest of the  
8 southeast and I don't have any objections to Amerind's loca-  
9 tion there, and dedicate the, I would think the south half  
10 of the southeast because of the proximity, possibly, of the  
11 C&K Well to the oil/water contact, and thinking that that 40  
12 might have some productive acreage in it.

13                       And then I would see what I got there. I  
14 am saying that this thing would be pretty much on top of a  
15 mound and I would drill the hole, and I looked at the logs  
16 and I'd probably run a dipmeter and I'd look at the pres-  
17 sures and the production and then like to have an option to  
18 drill in the southeast of the southwest. It just seems like  
19 the prudent thing for any operator to do, rather than ruling  
20 out and preempting that location in the southeast of the  
21 southwest. I don't think that's in the interest of the  
22 lease owners in the south half of 28 or to the royalty own-  
23 ers, and also, I don't think, given the geometry that I see  
24 here, of the mound, and the fact that perhaps these two  
25 wells in the south here on the south flank of the mound that

1 we would necessarily drain every unit of porosity we're  
2 going to encounter on that mound. We haven't seen what's on  
3 top of it. We don't know what's on the north side of it.

4 Q Would the ultimate fact of the proposed  
5 proration unit be underground waste?

6 A Well, that's what I just suggested, that  
7 until we drill we don't know what's there but the implica-  
8 tion is that the crest of the mound is in the south part of  
9 Section 28. Until we drill that crest I don't have a crys-  
10 tal ball, and I don't think anybody else does, that tells us  
11 what's going to be there. Is that higher porosity going to  
12 be there, for instance, and on the north flank, who knows.

13 The plate algae are -- are plants and  
14 they have some modern day analogs down around the Florida  
15 reef tract, for instance, and then the Pleistocene corals  
16 along the keys, they're normally associated with coral reefs  
17 out there but these things were plants. They grow up and  
18 they have calcium carbonate structure in their leaves and in  
19 their stems and they're green and they like the sunlight and  
20 they like water depths less than, say, 15-20 feet to grow  
21 in.

22 There are other factors, like they're  
23 very abundant in the reef tract where you also have a lot of  
24 wave energy and aeration and good supply of oxygen, in other  
25 words, and that's why it's associated with coral out in a

1 reef tract.

2 But, you know, when you start talking  
3 about -- I call it the lettuce patch, you can find it grow-  
4 ing anywhere up and down the coral reef tract in Florida,  
5 but it is patches and you don't know where you're going to  
6 find it next, and I would assume that these plate algae in  
7 the Strawn had a similar behavior. Who knows the ecologic  
8 subtleties that dictate where each patch grows? But then the  
9 porosity in this stuff is definitely associated with the al-  
10 gal plates. These things have porous interiors and they  
11 come off as fingernail size particles to limestone with por-  
12 osity between those plates, and so on.

13 And the other thing, given the fact that  
14 we have seen 10, 20, and 30 degree dips on dipmeters around  
15 these mounds, we know that the internal geology of the  
16 reservoir is very complex.

17 MR. PADILLA: No further ques-  
18 tions, Mr. Examiner.

19 MR. CATANACH: Mr. Carr.

20 MR. CARR: Thank you, Mr. Cata-  
21 nach.

22

23 CROSS EXAMINATION

24 BY MR. CARR:

25 Q Mr. Wilson, if I understand your testi-

1 mony, you are not proposing that Rio Pecos drill a well out  
2 here.

3 A We don't operate wells.

4 Q You're not proposing either, are you, 40-  
5 acre spacing and development patterns for this pool?

6 A No.

7 Q But if you in fact put a well on the  
8 southeast of the southwest and the southwest of the  
9 southeast you in fact would have four 40-acre tracts with a  
10 well on the center of each.

11 A Yeah, just like the rest of these fields  
12 around here, and if you get right down to it, in the case of  
13 the Amerind wells --

14 Q Well, if you talk about the other pools,  
15 are they all spaced on 80-acre spacing?

16 A As far as I know.

17 Q Okay.

18 A But the drilling, we've been looking at  
19 this here recently, the drilling is almost as if it were on  
20 40-acre spacing because of the nature of the flanks of these  
21 mounds, you know. People are not going to jump out 1980 feet  
22 away from a nearby well. It's just too far; we can get  
23 killed.

24 Q And if we look at your Exhibit Number Two,  
25 Exhibit Number Two is an Isopach and you have mapped the

1 gross interval on that exhibit, is that correct?

2 A Yeah.

3 Q Okay. And within that gross interval  
4 you have to have porosity for a well to in fact be able to  
5 contribute.

6 A Yeah, that's correct.

7 Q And so if we take the 180-foot contour  
8 and take it all the way up to the Yates well north of the  
9 proposed location, we in fact would be -- the gross interval  
10 goes all the way up to that well which has zero feet of  
11 porosity.

12 A That is correct.

13 Q Is it your testimony that everything  
14 within that 180-foot contour should be expected to  
15 contribute production to the -- to a well in that pool?

16 A No, that's not what I'm saying.

17 Q Okay.

18 A I would say on the other hand that within  
19 180-foot contour you've got a pretty good shot of having  
20 porosity.

21 Q Have you done any seismic work in this  
22 area?

23 A No.

24 Q Have you calculated or estimated the size  
25 of the productive reservoir?

1 A Yes.

2 Q Does it also extend into Section 32?

3 A It's possible.

4 Q And you stated that you liked the area,  
5 or your son did, and you stated that you liked the geology  
6 that you have done on this.

7 You've also done geology in other -- for  
8 other small Strawn pools in this area, have you not?

9 A Yes.

10 Q You did the geology for Yates for the  
11 pool in Section 27, did you not?

12 A Yes, my son and I did.

13 Q And you were -- based on that you drilled  
14 a couple of good wells?

15 A That's correct.

16 Q And a couple of very poor wells.

17 A One very poor, flanking well. That's the  
18 one that had the dipmeter where we saw the 22 degree dip.

19 Q Wasn't that the Shipp No. 1?

20 A Yeah.

21 Q CI?

22 A And we told us -- we did what the  
23 dipmeter said and that's when we got our first producing  
24 well.

25 Q Weren't you also involved in the drilling  
of the Yates Freeman ACF in Section 22?



1           A           Yeah, that was kind of an expiring lease  
2 situation. We weren't too thrilled with the science on that  
3 location.

4           Q           It was a poor well, was it not?

5           A           Nonexistent well in the Strawn.

6           Q           Plugged and abandoned.

7           A           We made --

8           Q           A Wolfcamp out of that?

9           A           -- a poor well up in the Wolfcamp.

10                       MR. CARR: That's all I have.

11                       MR. PADILLA: Mr. Examiner, we  
12 don't have an Exhibit Number Nine. We had intended to sub-  
13 mit a land plat and had it marked as Exhibit Number Nine, so  
14 I'd like the record to reflect that we don't have an Exhibit  
15 Number Nine, and we'd like to offer Exhibits One through  
16 Eight.

17                       MR. CARR: No objection.

18                       MR. CATANACH: Exhibits One  
19 through Eight will be admitted into evidence.

20                       Closing statements at this  
21 time?

22                       Mr. Padilla?

23                       MR. PADILLA: Mr. Examiner, I  
24 think this case is fairly simple from the standpoint of the  
25 exception requested by Amerind in this case.

1                   Special pool rules, and in fact  
2 all of the special pool rules for the Strawn pools in this  
3 area of southeast New Mexico, all basically state that the  
4 standard proration unit should be the north half, the east  
5 half, the south half, or west half of a quarter section.

6                   There is logic behind this kind  
7 of a rule and it certainly -- it is basically for the simple  
8 proposition that fields ought to be developed in that sort  
9 of a pattern so that it won't have an illogical pattern at a  
10 later time, should discovery of a potential field in this  
11 area occur.

12                   Historically the Division and  
13 the Commission has denied, or have denied, applications that  
14 cross either section lines or quarter quarter section lines  
15 as we are -- as is proposed in this case.

16                   I can recall no precedent in  
17 this matter; if there is, there's very little precedent in  
18 an extreme situation.

19                   We don't view this as an ex-  
20 treme situation at all. The well in the southwest of the  
21 southwest quarter of Section 28 was drilled in 1953. As has  
22 been explained by Mr. Wilson, this well may or may not, or  
23 at least a portion of the southwest of the southwest quarter  
24 may be productive. What you have there by drilling or dedi-  
25 cating the 80 acres as proposed, is that you would preclude

1 recovery of hydrocarbons underlying the southwest of the  
2 southwest.

3                   The same applies to the south  
4 half of the southeast quarter of Section 28, is that Mr.  
5 Wilson's testimony has been that -- and we believe it's in  
6 fact very reliable opinion, that this well just barely  
7 missed the oil. If that is so, then what you're going to  
8 have -- well, you're going to drain that but certainly that  
9 southeast of the southeast quarter is not going to be al-  
10 lowed to participate in any kind of production, and in fact  
11 it should.

12                   Now, it has been implied in  
13 questions by Mr. Carr to Mr. Wilson that this rule on 80-  
14 acre spacing here, and that's obviously true, but that cer-  
15 tainly is not borne by the two wells, the two Shipp -- the  
16 Meyers No. 1 and the Shipp No. 1 that are right by each  
17 other. Matter of fact, if you'll look at any of the geolo-  
18 gy, whether it's Mr. Hair's or Mr. Wilson's, probably only  
19 the -- what we're saying here is that those two wells are  
20 actually on 40-acre spacing, and in fact that's what we have  
21 through the entire --throughout this area in any of these  
22 Strawn fields.

23                   So I think in conclusion that  
24 this is a classic case for underground waste, If you allow  
25 crossing of the boundary from one quarter section to the

1 other, you're going to have and preclude in the future any  
2 drilling in the southwest quarter of Section 28. You're  
3 simply going to deny a location in the southwest quarter  
4 section of 28 and specifically the southeast of the south-  
5 west, where you could have, based on a future economic eval-  
6 uation, a well could be drilled there. Obviously, if a well  
7 in the southeast is proposed in the southeast quarter, as  
8 proposed, that's not very good, certainly the operator is  
9 going to take a hard look as if they're going to drill a  
10 well in the southwest quarter of -- the southeast of the  
11 southwest quarter, but this should be evaluated on a separ-  
12 ate basis and so -- but if you allow this nonstandard prora-  
13 tion unit to be made, then you will preclude any future de-  
14 velopment in the south half of Section 28.

15 MR. CATANACH: Mr. Carr?

16 MR. CARR: Mr. Catanach, Amer-  
17 ind Oil Company is before you today seeking approval of a  
18 nonstandard proration unit in the West Casey Strawn Pool and  
19 also an order pooling the interests in that unit so they can  
20 go forward with the drilling of a well. They're the only  
21 party before you with an application pending because they're  
22 the only party before you who proposes to go out and develop  
23 the acreage.

24 A nonstandard proration unit  
25 that crosses from the southeast of the southwest quarter of

1 a section is not a unique thing to have proposed to the Oil  
2 Conservation Commission. There is a reluctance to approve  
3 units which cross section lines but here you only -- well,  
4 you only need to look at the Jalmat to see multiple examples  
5 where proration units do cross in the fashion we're propos-  
6 ing here today.

7 Mr. Padilla is right, there is  
8 logic for when you, in the abstract, propose pool rules pro-  
9 viding that they will be the north, east, west, or south  
10 half of a quarter section, but that logic must fall when you  
11 have a situation as we have here today when we're looking at  
12 pool rules to provide for 80-acre spacing, pool rules that  
13 we're not collaterally attacking in this proceeding and ac-  
14 cept, and when we are looking at those we have one option  
15 and that is to dedicate to the well the 80 acres which we  
16 believe can contribute reserves to that well.

17 The Casey Strawn is a small  
18 pool. The size of the reservoir, any witness we call could  
19 give you a different figure, but the size of the reservoir  
20 is probably no more than 240 acres, especially if you rule  
21 out those properties which we submit are condemned by wells  
22 that have been plugged and abandoned or were wet when we  
23 drilled, and the well is currently being developed with two  
24 pools -- the pool is currently being developed with two  
25 wells and it's been developed for the last couple of years

1 by Amerind.

2                               Recent activity, covered with  
3 lease expirations has caused them to go forward with a third  
4 well, this one in the southwest of the southeast of Section  
5 28. Everyone agrees it's the best location. In fact,  
6 everyone agrees Amerind should drill the well.

7                               But as these -- as this effort  
8 moved forward and as the leases approached the end of their  
9 primary terms, Rio Pecos became interested in the prospect  
10 and since April has acquired a property interest.

11                              They don't propose to drill.  
12 They don't propose to operate, but they do propose to come  
13 in and try and dedicate or dictate what acreage we will de-  
14 dicate to the well.

15                              We submit that the technical  
16 evidence presented here today shows that the Shell Homestake  
17 Well, in fact, is a dry hole and condemns virtually all the  
18 southeast quarter.

19                              Now Mr. Wilson would take his  
20 Isopach map right up against that well. He'd go and take  
21 and take his gross interval right up against the Yates well,  
22 and he would include C&K's well in Section 4, but we think  
23 realistic geological interpretation shows you, and produc-  
24 tion history, shows you that those tracts in fact are con-  
25 demned.

1 I think it's important to re-  
2 mind you that we're not here today in a popularity contest.  
3 We don't ballot everyone in the county and see who can come  
4 in with the most check marks after anybody's name.

5 We come in here in a case that  
6 involves prevention of waste and protection of correlative  
7 rights and we're standing here on existing pool rules that  
8 provide for 80-acre spacing, and what they're proposing is  
9 collaterally we attack those and go for a 40-acre spacing  
10 pattern in the heart of this pool. We suggest that that's  
11 inappropriate.

12 We think you've got a duty be-  
13 yond just how many names we can rally behind our cause and  
14 bring in here and present to you. We submit that any accu-  
15 rate and thorough review of the technical data will show you  
16 that an additional well is all that would be required to ef-  
17 fectively and efficiently, without waste, produce the reser-  
18 ves in that tract.

19 As to the pooling portion of  
20 the case, we're the only applicant before you. We have been  
21 unable to reach voluntary agreement for the development of  
22 this property, and as such, we believe the statute entitles  
23 us, having made the showing we have today, to an order pool-  
24 ing the southeast of the southwest and the southwest of the  
25 southeast of Section 28, dedicating Amerind as operator and

1 we would request that that order be entered quickly so that  
2 we can go forward with out plans to develop the area before  
3 the top leasing situation, which has occurred in this area  
4 in the last three months, will not work and prevent us from  
5 the ownershp interest that we now have and that we plan to  
6 develop.

7 MR. CATANACH: Thank you, Mr.  
8 Carr.

9 Is there anything further in  
10 Case 9162?

11 If not, it will be taken under  
12 advisement.

13 MR. CARR: Wait.

14 MR. ENSLEY: Mr. Examiner.

15 MR. CATANACH: I'm sorry.

16 MR. ENSLEY: Yes, sir. My name  
17 is Art Ensley. I represent Standard Oil Production Company.  
18 Standard Oil Production Company  
19 owns both mineral interest and leasehold interest under the  
20 south half of Section 28.

21 For the record we would just  
22 like to enter a statement that we support Amerind's loca-  
23 tion. We support their application for a nonstandard spac-  
24 ing and proration unit. We support their application for  
25 compulsory pooling and agree in principle with their techni-



1 cal interpretation of the geologic interpretation that  
2 they've presented today.

3 Standard Oil Production Company  
4 has agreed to participate in this proposed well on the non-  
5 standard spacing unit and would be quite doubtful whether  
6 they would participate in any multiple drilling in the south  
7 half of Section 28.

8 MR. CATANACH: Thank you.

9 MR. WARE: Mr. Examiner.

10 MR. CATANACH: Yes, sir.

11 MR. WARE: My name is Clem  
12 Ware. I'm a Certified Professional Landman, Certificate No.  
13 14. I represent a 10-acre interest under the entire south  
14 half of Section 28.

15 Like Standard, we endorse the  
16 Amerind proposal to drill the well in the southwest  
17 southeast. We endorse the approval for -- or endorse  
18 the request for a nonstandard unit, and we request that the  
19 -- we are in accord with the request for forced pooling.

20 MR. CATANACH: Thank you, sir.

21 Anything else in this case?

22 It will be taken under  
23 advisement.

24

25

(Hearing concluded.)

## C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO  
HEREBY CERTIFY the foregoing Transcript of Hearing before  
the Oil Conservation Division (Commission) was reported by  
me; that the said transcript is a full, true, and correct  
record of the hearing, prepared by me to the best of my  
ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 9/62  
heard by me on July 1 1987

David R. Catanzaro, Examiner  
Oil Conservation Division