

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

~~17~~ October 1984

EXAMINER HEARING

IN THE MATTER OF:

Application of Petroleum Corpor-	CASE
ation of Delaware for pool creation	8371
and special pool rules, Eddy County,	
New Mexico.	

BEFORE: Gilbert P. Quintana, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

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	Santa Fe, New Mexico 87501

For the Applicant:	James G. Bruce
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I N D E X

L. E. THOMAS

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3 MR. QUINTANA: We'll call next  
4 Case 8371.

5 MR. TAYLOR: The application of  
6 Petroleum Corporation of Delaware for pool creation and  
7 special pool rules, Eddy County, New Mexico.

8 MR. BRUCE: Mr. Examiner, my  
9 name is Jim Bruce from the Hinkle Law Firm in Santa Fe, and  
10 I have one witness to be sworn.

11 MR. QUINTANA: Are there other  
12 appearances in this case?

13 Would you please stand and be  
14 sworn in, sir?

15 (Witness sworn.)

16 L. E. THOMAS,  
17 being called as a witness and being duly sworn upon his  
18 oath, testified as follows, to-wit:

19 DIRECT EXAMINATION

20 BY MR. BRUCE:

21 Q Would you please state your name, city of  
22 residence, occupation, and employer?

23 A My name is L. E. Thomas. I live in Dal-  
24 las, Texas. Employed by the Petroleum Corporation of Dela-  
25 ware in Dallas, and I'm Operations Manager.

1  
2 Q And have you previously testified before  
3 the OCD as an engineer and had your credentials accepted?

4 A I have.

5 Q And are you familiar with Case 8371, the  
6 application of Petroleum Corporation of Delaware in this  
7 matter?

8 A Yes, I am.

9 MR. BRUCE: Mr. Examiner, is  
10 the witness considered qualified?

11 MR. QUINTANA: He seems to be.  
12 Could you repeat your title?

13 A I'm the Manager of Operations.

14 MR. QUINTANA: The witness is  
15 so considered qualified as a witness.

16 Q Mr. Thomas, would you briefly state what  
17 the applicant seeks in this matter?

18 A Okay. Petroleum Corporation of Delaware  
19 is seeking the creation of a new oil pool for the Strawn  
20 production in the southeast quarter of Section 5, Township  
21 20 South, Range 29 East, in Eddy County, New Mexico, and the  
22 promulgation of special rules mandating 160-acre spacing and  
23 a gas/oil ratio limit of 3000-to-1.

24 Q Would you please now refer to Exhibit  
25 Number One, describe the acreage controlled by the applicant  
and the well involved in this application?

A Exhibit Number One is a portion of an  
ownership map of Eddy County, New Mexico.

1  
2 The acreage owned by the Petroleum Cor-  
3 poration of Delaware is colored in yellow and, obviously,  
4 shows other operators and wells in the area.

5 The new pool was discovered in Petroleum  
6 Corporation's Delaware -- Superior Federal 4, which is indi-  
7 cated with a red arrow on this exhibit. It was discovered  
8 in 1980 and produced in the Burton Flats Morrow Field for  
9 approximately two years and it was recompleted into the  
10 Strawn. It was completed in the Morrow in '78 and was re-  
completed into the Strawn in 1980.

11 Q Thank you. Would you please now refer to  
12 Exhibit Number Two and describe the producing wells in this  
13 area?

14 A Exhibit Two is another map showing the  
15 acreage held by the Petroleum Corporation of Delaware. It  
16 also highlights wells in the area that produce from the  
Strawn interval.

17 The Coquina Bass State No. 1, north of  
18 our well in Section 32, is completed in the Strawn and it's  
19 called, the pool is called Burton Penn North.

20 Our Superior Federal 4, marked with a red  
21 arrow, was classified by the OCD because of its oil produc-  
22 tion.

23 The blue colored wells are gas wells in  
24 the immediate area that are assigned to the Burton Flats  
Strawn East Gas Pool.

25 This exhibit also indicates cross sec-

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tion, a north/south cross section that we'll discuss next.

Q But this chart does not highlight any  
Morrow or Atoka wells in this --

A No.

Q -- area.

A It does not highlight anything but Strawn.

Q Would you please now refer ot the cross  
section marked as Exhibit Number Three and describe its con-  
tents?

A Exhibit Three is a cross section north to  
south, starting with Coquina Oil Corporation's Bass State  
No. 1, going through our Superior Federal 4, our Superior  
Federal 3, Texas Oil and Gas Corporation Williamson Federal  
No. 1, and Texas Oil and Gas Yates Federal No. 1.

This cross section shows the top portion  
of the Strawn colored in yellow across these leases. It al-  
so indicates a shale barrier, colored in green.

Then in orange is colored what they call  
the shale -- the Strawn Massive; is probably, oh, 150-200  
feet in thickness.

The Coquina Bass Well is perforated from  
10,258 to 10,333, indicated on the cross section in red, and  
is well down in the Strawn Massive.

The initial completion showed 175 barrels  
of condensate, 2.8 million cubic feet of gas per day with a  
gas/oil ratio of 16,000.

1  
2 Our Superior Federal 4 you'll notice is  
3 completed in the very upper portion of the yellow through  
4 perforations 10,314 to 318; tested 203 barrels of oil per  
5 day; 500 Mcf gas per day; with a gas/oil ratio of only 2600.

6 Our Superior Federal 3 is perforated at  
7 10,512 to 28, well down in the Strawn Massive. It tested 7  
8 barrels of condensate, 1,700,000 Mcf gas, for a gas/oil ra-  
tio of 26,000.

9 The two TXO wells to the south, as you  
10 can tell on the cross section, were perforated well down in  
11 the Strawn Massive, and upon completion had gas/oil ratios  
12 upwards of 50,000-to-1.

13 This exhibit merely shows that the well  
14 in question is perforated in an interval above a shale bar-  
15 rier that's different from any of the wells in the immediate  
area north and south.

16 Q Thank you. Will you please now refer to  
17 Exhibit Four and briefly describe it?

18 A Exhibit Four is another plat showing the  
19 Petroleum Corporation acreage, also the wells producing from  
20 the Strawn, and this time indicates an east/west cross sec-  
21 tion B-B'.

22 Q Would you please now refer to that cross  
23 section marked as Exhibit Number Five and describe its con-  
tents?

24 A Cross section B-B' includes our Superior  
25 Federal 6, which is west of the Superior Federal 4, and our

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Superior Federal 3, which is east of our Superior Federal 4.

It, without going into detail, again shows perforated intervals in the two offset wells that are well down in the Strawn Massive and are separated by the shale barrier from our Superior Federal 4.

Our Superior Federal 6, which is west of the Superior Federal 4, and our Superior Federal 3, which is east of our Superior Federal 4.

It, without going into detail, again shows perforated intervals in the two offset wells that are well down in the Strawn Massive, and are separated by the shale barrier from our Superior Federal 4.

Q Okay, and once again, the other wells have very high gas/oil ratios, is that correct?

A Yes, our Superior Federal 6 has a gas/oil ratio in that it produced zero fluid and we discussed the other two wells.

Q Okay. Would you please now refer to the table marked as Exhibit Number Six and describe the production history of the Superior Federal No. 4 in the Strawn formation?

A First I'd like to say that these cross sections were prepared and show that we are in a separate pool. Also it shows that we are not sure of the areal extent of this particular little oil stringer, and that in itself, aside -- and associated with the fact that the other wells in the area have 160-acre spacing and some 320's, we

1 request the 160 for this particular temporary rule.

2 Q Thank you. Please now move on to Exhibit  
3 Number Six.

4 A Exhibit Six is a tabulation of oil, gas,  
5 oil and gas production for the life of our Superior Federal  
6 No. 4.

7 The first four years are tabulated on an  
8 annual basis.

9 The wells originally produced 100 barrels  
10 of oil per day average with a gas/oil ratio of approximately  
11 3000-to-1.

12 The oil volume, oil production, has drop-  
13 ped steadily during these four years. Gas has remained re-  
14 latively constant; therefore causing the gas/oil ratio to  
15 have a gradual increase.

16 In 1984, early in the year we began to  
17 accumulate an over-production on the gas allowable, and were  
18 ordered by the OCD to close the well in to balance this  
19 overage.

20 We, for two reasons, hate to close a well  
21 in. One, obviously, is economic; the other is possible  
22 damage to the well when you close them in for prolonged per-  
23 iods.

24 So I visited with the Artesia office and  
25 we agreed to close the wells in for three days a week until  
this overage was balanced.

You'll notice on the tabulation, down in

1 July I begin to list the production on a weekly basis.  
2 Gas/oil ratios during the first two or three weeks in July  
3 were in the 10 and 11,000-to-1 range.

4 We closed our well in three days during  
5 the last week of July and immediately the gas/oil ratio in-  
6 creased to above 15,000-to-1.

7 We did this for four weeks consistently  
8 and the gas/oil ratio stayed above 13,000-to-1.

9 We began to become concerned and that's  
10 when we asked for the hearing to get relief from the in-  
11 creased gas/oil ratio. We felt that this was causing oil to  
12 be left in the reservoir.

13 So we took it on ourselves to open the  
14 well back up to continuous operation and you'll notice the  
15 third week in September the gas/oil ratio is already back  
16 down below 12,000-to-1.

17 Q And you have requested a 3000-to-1  
18 gas/oil ratio. Do you believe this will be sufficient for  
19 the operation of the well?

20 A The way the allowable is set is the top  
21 allowable for a well of this depth would be 320 barrels per  
22 day. That times 3000-to-1 ratio would give us around 900  
23 Mcf a day and we don't produce much over 650-700 Mcf a day.  
24 So this would be adequate.

25 Q As long as the well is not shut in.

26 A Right. As long as we can control the ra-  
27 tios to be what they are now.

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Q           Aside from the proposed gas/oil ratio and the 160-acre spacing which you requested, do you prefer to have all of the other pool rules conform to the statewide rules?

A           Yes, that would be fine.

Q           Why do you seek to have the order made retroactive to February 1, 1984?

A           We are requesting relief to balance the over-production so we won't have to continue shutting the well in.

Q           And have you discussed this matter with OCD personnel in Artesia?

A           Yes. Before we made the application I visited with Larry Brooks in Artesia about the geology and he concurred that this is logical.

Q           And do you have a suggested pool name for this new oil pool?

A           The Burton Flat Upper Strawn, I guess would be appropriate.

Q           And were Exhibits One through Six prepared by you or under your direction?

A           Yes, they were.

Q           In your opinion will the granting of this application be in the interest of conservation, the prevention of waste, and the protection of correlative rights?

A           Yes, it will.

MR. BRUCE: I would offer Exhi-

bits One through Six, Mr. Examiner.

MR. QUINTANA: Exhibits One through Six will be taken into evidence.

MR. BRUCE: I have no further questions of the witness.

#### CROSS EXAMINATION

BY MR. QUINTANA:

Q Mr. Thomas, will you explain to me again your reasoning and how you determined that you would like to have 160-acre spacing for this proposed Burton Flat Upper Strawn Pool?

A We really don't have any strong argument for 160's. We feel that there would be no other wells drilled for this particular little interval, and the other wells in the area, Morrow wells, Atoka wells, are on 160's and 320's. To stay consistent we're just requesting 160's for this one. It's a temporary rule and if we see evidence later on to change it, we'd go either way.

Q You also say that you're not really sure of the extent of this oil stringer. Why have you included the set acreage there as that pool, the area as pool boundaries? Why has that acreage been included?

A Well, there's a little bit of the porosity interval that's hard to see on these chopped down logs, but this little four foot interval that's in Well No. 4 shows up a little bit in our Superior Federal 3. It does

1 not show up north in the Bass well, nor west in our Superior  
2 Federal 6.

3 May I point out the little porosity  
4 interval I'm talking about?

5 Q Yes.

6  
7 (Thereupon a discussion was had off the record.)  
8

9 MR. QUINTANA: Let the record  
10 show that Mr. Thomas is referring to the cross sections, his  
11 cross section exhibits, and he's pointing out porosity  
12 intervals on the cross sections.

13 Is there any further questions  
14 of the witness? In that case, the witness may be excused.

15 Is there anything further in  
16 Case 8371?

17 Would it be too much for you to  
18 send in a proposed order?

19 MR. BRUCE: Right.

20 MR. QUINTANA: Of what you  
21 think will meet your needs?

22 MR. BRUCE: Okay, fine.

23 MR. QUINTANA: In that case,  
24 Case 8371 will be taken under advisement.  
25

(Hearing concluded.)

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

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY  
that the foregoing Transcript of Hearing before the Oil Con-  
servation Division was reported by me; that the said tran-  
script 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 and correct transcript of  
the hearing held before me on 8371  
held by me on OCTOBER 17, 1984.

Gilbert P. Quintana transcriber  
Oil Conservation Division

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO

20 January 1988

EXAMINER HEARING

IN THE MATTER OF:

In the matter of Case No. 8371 being CASE  
reopened pursuant to the provisions 8371  
of Division Order No. R-7783.

BEFORE: David R. Catanach, Examiner

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Division:

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Santa Fe, New Mexico 87504

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I N D E X

LARRY SHANNON

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E X H I B I T S

Petroleum Exhibit One, Plat	5
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Petroleum Exhibit Three, Production History	6
Petroleum Exhibit Four, Decline Curve	6

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MR. CATANACH: Call Case 8371,  
in the matter of Case Number 8371 being reopened pursuant to  
the provisions of Division Order No. R-7783, which promul-  
gated temporary special rules and regulations for the Burton  
Flat Upper Strawn Pool, including a provision for 160-acre  
spacing units.

Are there appearances in this  
case?

MR. BRUCE: Mr. Examiner, my  
name is Jim Bruce from the Hinkle Law Firm in Santa Fe, re-  
presenting the Petroleum Corporation of Delaware.

I have one witness to be  
sworn.

MR. CATANACH: Any other ap-  
pearances?

Will the witness please stand  
and be sworn in?

(Witness sworn.)

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

4  
DIRECT EXAMINATION

1  
2 BY MR. BRUCE:

3 Q Would you please state your full name and  
4 city of residence?

5 A Larry Shannon, Dallas, Texas.

6 Q And what is your occupation and who is  
7 your employer?

8 A I'm currently a manager with Presidio Oil  
9 Company that owns Petroleum Cororation of Delaware, one of  
10 their subsidiary companies.

11 Q And have you previously testified before  
12 the OCD as an engineer?

13 A Yes, I have, many times.

14 Q And are you familiar with Case Number  
15 8371 and the engineering matters related to the Burton Flat  
16 Upper Strawn Pool?

17 A Yes, I am.

18 MR. BRUCE: Mr. Examiner, is  
19 the witness considered qualified?

20 MR. CATANACH: He is so quali-  
21 fied.

22 Q Briefly, Mr. Shannon, why is the Petro-  
23 leum Corporation of Delaware appearing today?

24 A We're asking a continuation of the 160-  
25 acre spacing as it applies to the -- to our well.

1 Q Would you please give a brief history of  
2 the subject pool?

3 A The Superior Federal No. 4 Well, located  
4 660 feet from the east line and 1980 feet from the south  
5 line of Section 5, Township 20 South, Range 29 East, Eddy  
6 County, New Mexico, was completed originally from the Morrow  
7 formation in May, 1978.

8 In April, 1980, the well was recompleted  
9 in the Strawn zone with perforations at 10,314 to 10,318  
10 feet below the -- our Kelly bushing.

11 In the fall of 1984 the Petroleum Corpor-  
12 ation of Delaware applied in Case Number 8371 for pool crea-  
13 tion and spacing, special pool rules, for the Burton Flat  
14 Strawn Pool.

15 Division Order R-7783, issued January 21,  
16 1985, created the pool effective October 1, 1984, with  
17 standard units consisting of 160 acres and a limiting  
18 gas/oil ratio of 3000 cubic feet of gas per each barrel of  
19 oil produced.

20 Q I hand you Exhibit Number One and would  
21 you just please briefly describe the exhibit?

22 A Exhibit Number One is a land plat showing  
23 the Federal lease that applies to this well and others.  
24 It's one continuous lease and it covers all or parts of one,  
25 two, three, four, four sections, and there's another section

1 in this same lease that's -- there is even more acreage two  
2 miles to the east that's not shown on the plat but it's im-  
3 material to this application.

4 Q And is -- does the arrow mark the location  
5 of the Superior Federal No. 4 Well?

6 A Yes, the one that's in red.

7 Q Would you please now refer to Exhibit  
8 Number Two and briefly describe it for the Examiner?

9 A Exhibit Number Two is the compensated  
10 neutron density log that shows the zone that we have perfor-  
11 ated and it's from 10,314 to 10,318 feet, 4 foot of pay, and  
12 is a very thin zone, as you can see, in the very top of the  
13 Morrow section.

14 Q Would you please now refer to Exhibit  
15 Number Three and discuss the production history of the -- of  
16 the Superior Federal No. 4 Well?

17 A Okay. Exhibit Number Three shows our  
18 cumulative production and monthly production since inception  
19 and the most important is the last page, if you'll look at  
20 the cumulative. This well through November, 1987, has pro-  
21 duced 205,505 barrels of oil and 1,798,000,904 cubic feet of  
22 gas, so it's a significantly attractive well and still pro-  
23 ducing at good rates.

24 Q Would you please now move on to Exhibit  
25 Number Four and --

1           A           Exhibit Number Four is a decline curve  
2 that will indicate to you the -- what we think are the ultimate  
3 production limits of this well. It doesn't do it per  
4 se, but it shows you that this well is still producing at  
5 extremely good rates and we anticipate 300,000 barrels of  
6 oil ultimately recovered and something in the range of 2.5  
7 BCF of gas.

8           Q           Based on these exhibits would you please  
9 summarized your reasons why the subject pool should continue  
10 to be developed on 160-acre units.

11          A           Just a quick calculation shows that this  
12 well ultimately producing 300,000 barrels of oil on 160 acres  
13 is going to recover something in the range of 500 barrels  
14 per acre foot and that's really on the high side for  
15 that thin a zone, so we think that's more than adequate to  
16 support our 160-acre spacing.

17                       We've produced 2/3rds of that right now.

18          Q           And as you indicated, the pay zone is extremely  
19 thin.

20          A           Extremely thin.

21          Q           And would that lead you to believe that  
22 the areal extent of drainage was fairly large?

23          A           It's very large. We've found one other  
24 well that has this zone that's not been completed and it's  
25 to the north of us about two miles, but this zone probably

1 will eventually find other perforated intervals but the eco-  
2 nomics of oil and gas in this area in the last few years  
3 have been such that no one has wanted to drill in the area.

4 Q So even if spacing was decreased the pro-  
5 bability of somebody drilling to find 4 feet of pay is high-  
6 ly unlikely?

7 A Very highly unlikely.

8 Q Would you please discuss the gas/oil  
9 ratio change on this well?

10 A Yes. Originally this well's gas/oil  
11 ratio was 2684-to-1. Last month, November -- that we have  
12 records of, November, 1987, the GOR is currently at 32,272-  
13 to-1 and the life of this well is -- the GOR through the  
14 life, 8,753-to-1.

15 Q So the gas/oil ratio has been creeping up  
16 so that it is more like the gas/oil ratio of a gas well as  
17 opposed to an oil well, is it not?

18 A That's right, and the well immediately to  
19 the east of us is a gas well on 320-acre spacing in the  
20 Strawn zone. So I think if it does go to gas, we -- we are  
21 in the range, you know, that -- of what we should be.

22 Q One final item, Mr. Shannon, is working  
23 interest ownership and royalty interest ownership common  
24 throughout the 160 acres comprising the -- is it the south-  
25 east quarter of Section --

1 A Yes, that's correct, it is.

2 Q -- 5?

3 A Yes, it is. It is. It's common through-  
4 out this section, not just that quarter.

5 Q In your opinion will the continuance of  
6 160-acre spacing in the pool be in the interest of  
7 conservation, the prevention of waste, and the protection of  
8 correlative rights?

9 A I believe that it will.

10 Q Were Exhibits One through Four prepared  
11 by you or under your direction?

12 A They were.

13 MR. BRUCE: Mr. Examiner, at  
14 this time I move the admission of Exhibits One through Four.

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

17 MR. BRUCE: I have no further  
18 queestions at this time.

19

20 CROSS EXAMINATION

21 BY MR. CATANACH:

22 Q Mr. Shannon, is it Shannon?

23 A Shannon, yes, sir.

24 Q Okay. Mr. Shannon, what are the current  
25 pool boundaries for the pool? Does it just take up one 160

1 acres?

2 A Yes, sir, there's only one well in the  
3 pool.

4 Q So it would be the southeast quarter.

5 A It's the southeast quarter, yes.

6 Q Only one producing well in the pool.

7 A In that pool. There are other Strawn  
8 wells but they're not at the top of the Strawn and so it's  
9 not the same zone.

10 Q So there's a different Strawn Pool in  
11 this immediate area?

12 A Yes, right immediately to the east of us.  
13 That's what I wanted to make sure that you understood, and  
14 there's a Strawn zone that produces about 100 foot deeper in  
15 the structure that's a gas zone that's on 320 acres in the  
16 section immediately to the east of us, and that, we've had  
17 that spacing since the seventies.

18 Q And I assume that in the original hearing  
19 for this case you came in and showed that it was a  
20 different pool.

21 A Yes, sir, we did. That's why we had  
22 cross sections and all to show that, that it was different.

23 Q And where do you arrive at your figures  
24 for ultimate recovery? Is that from decline curves?

25 A Decline curve analysis, yes, sir.

1 Q What was the ultimate recovery for gas in  
2 this pool?

3 A We think it's going to be in the neigh-  
4 borhood of 2.5 BCF; that the oil is going to be in the range  
5 of right at 300,000 barrels.

6 Q And you've got 4 feet of pay in the  
7 Strawn.

8 A Yes, sir.

9 Q Is this -- is that pretty continuous  
10 throughout the area here?

11 A No, the only place we can find that 4  
12 foot of pay in the top of the Strawn is about two miles to  
13 the north of us. We think that they may interconnect some  
14 day. It's the only place we see that is right at the top of  
15 the Strawn and it's unusual that it's right at the top be-  
16 cause most of the Strawn production is into the (unclear).

17 Q Okay, but -- but it doesn't get thicker  
18 going to the south or the --

19 A No, sir.

20 Q -- east or the west or anything?

21 A No, sir.

22 Q It's probably --

23 A It's just highly unusual.

24 Q It's probably 2 feet or less in the en-  
25 tire quarter section, isn't that right?

1           A           Well, now it could be -- it has to be al-  
2 most thicker to get that kind of recovery. It's either that  
3 or we're -- or the recovery is much higher. I think that  
4 it's probably got the (unclear). I think it may have some 5  
5 foot pay that we just can't see but it's long and narrow and  
6 I -- the way it performs, I really think that there's some  
7 place in there when we drill a well we'll find that it's 6  
8 to 8 foot of pay in that particular zone. But that's just  
9 speculation. I have no way of proving that.

10           Q           Now, did you guys do some calculations on  
11 original oil in place initially or anything like that in  
12 this quarter section?

13           A           Well, yes, and initially this well was a  
14 -- was a Morrow sand well and it was not a very attractive  
15 sand producer, and you'd allowed us to commingle two, what  
16 we thought were two thin zones, the Strawn and a Morrow, and  
17 we shut the Strawn -- we shut the Morrow off to test the  
18 Strawn and it came in so strong that you all said, no, we  
19 cannot commingle any more, which we did not want to anyway,  
20 but there are still reserves there for some future date.

21                       We did not expect anything like this. We  
22 were surprised that it was this large, until it came in and  
23 once we saw the -- we saw it come in and we saw the  
24 production, then we saw the pressures that indicated, you  
25 know, significant reserves.

1 Q What I was getting at is you've projected  
2 an ultimate recovery using decline curves but have you some-  
3 thing to compare that to to show you how much that well is  
4 draining and original oil in place or something to compare  
5 that to --

6 A I did not do that and I could. I apolo-  
7 gize for not doing it. I just thought it was so obvious  
8 that I didn't go to the trouble of doing that but I can,  
9 certainly.

10 Q Well, I think we need it, you know, some-  
11 thing to compare this to, you know, saying this is draining  
12 this area.

13 A Okay. Okay, I can certainly do that.

14 Q If you would.

15 A Surely. May I just prepare something and  
16 send it to you?

17 Q Yeah, that would be fine.

18 A Just to show the -- how much acreage we  
19 think is being produced.

20 Q Right. Right.

21 A Sure.

22 Q Comparing that to your, you know, projec-  
23 ted ultimate recovery.

24 A Let me give you a decline curve projec-  
25 tion, too, that will help support my -- which I have, I just

1 didn't bring. It will help support the 300,000 barrels I  
2 was telling you about. It has to be an extrapolation of  
3 this decline curve. I can send that to you.

4 Q Okay, that would be fine. Your gas/oil  
5 ratio has gone up significantly. Do you just propose to  
6 leave the -- the limiting GOR in place?

7 A I'd like to have it increased. It's just  
8 3000-to-1.

9 MR. CATANACH: Okay, Mr. Bruce,  
10 that's not in the advertisement for this case.

11 MR. BRUCE: Well, that's  
12 because I didn't know about it until this morning.

13 MR. CATANACH: Would you like  
14 to continue the case, Mr. Bruce, and then --

15 MR. BRUCE: Yeah, let's  
16 readvertise it for, what, February 20th.

17 MR. CATANACH: Yeah, February  
18 20th.

19 MR. BRUCE: And then submit the  
20 additional data you requested.

21 MR. CATANACH: Would you like  
22 your witness to come back at that time or do you want to go  
23 ahead and give testimony about increasing the GOR at this  
24 time?

25 MR. BRUCE: Yes.

## REDIRECT EXAMINATION

BY MR. BRUCE:

Q Mr. Shannon, would you discuss a requested GOR in this pool?

A I would like to see a limiting factor of 50,000-to-1 on the GOR and I see no reason that it's going to have any correlative rights problems, since we have all the leases around it. There's no -- there's no reason to restrict the GOR for anything that I'm aware of, as long as we can just get all the production from the well for everybody's benefit, and I see no reason everybody will not benefit from the higher GOR.

Q Has -- do you anticipate the gas/oil ratio --

A It will go higher, yes.

Q -- increasing above the 32,000?

A Yes, that's why I'd like to have at least 50,000-to-1, because I'm sure it's going to go higher. At the ultimate, at the end of it when we finally deplete the reservoir, I'm sure the GOR at the end will be higher than 50,000, probably.

MR. CATANACH: How high do you anticipate that GOR going?

A I don't really see it going much higher

1 than 50, 50-to-60,000, I think, Mr. Examiner, would be the  
2 highest.

3 It's just been a gradual -- you can see  
4 on the decline curve, it's just been a gradual increase.

5 MR. CATANACH: Is -- is the  
6 current GOR limiting your -- your oil production?

7 A Not now. We're not having any limits.  
8 We're producing everything that's there, legally or  
9 illegally.

10 MR. CATANACH: How much oil are  
11 you producing?

12 A It's right at 50 barrels a day. Let me  
13 see what it says. No, it's not, 25 barrels a day, excuse  
14 me.

15 MR. CATANACH: 25 barrels a  
16 day. Well, I don't -- I guess I don't understand why you  
17 need to increase the GOR if it's not affecting the oil  
18 productoin at this point.

19 A Well, I think we probably are -- if -- if  
20 we have a limit of 3000-to-1, is that not giving us a  
21 problem or can we still -- let me ask a question on the  
22 allowable.

23 Can we take the 3000-to-1 times the 300  
24 barrel a day allowable or whatever we are (unclear)?

25 Is that what -- is that our limit of gas?

1 MR. CATANACH: Your limit --

2 A I'm not sure. It must be because we're  
3 not having any problem selling the gas.

4 MR. CATANACH: How much gas are  
5 you producing?

6 A We produce right at a million a day.  
7 It's 24 -- it's 25 to 28-million cubic feet a month, just a  
8 little under a million cubic feet a day.

9 MR. CATANACH: Let's go off the  
10 record here for a minute.

11

12 (Thereupon a discussion was had off the record.)

13

14 MR. CATANACH: Okay, we will go  
15 back on the record at this time and this case will be  
16 readvertised for February 20th, 1988, to either increase the  
17 gas/oil ratio in the pool or to change the pool to a gas  
18 well, I mean to a gas pool at that time.

19 That's all we have in this  
20 case. We'll leave the record open.

21

22 (Hearing concluded.)

23

24

25

C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY  
 CERTIFY that 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 true and correct copy of the transcript of  
 the transcript of hearing of Case No. 8371,  
 heard by me on Jan 20, 1988.

David R. Catanach, Executive  
 Oil Conservation Division

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1 STATE OF NEW MEXICO  
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
3 OIL CONSERVATION DIVISION  
4 STATE LAND OFFICE BUILDING  
5 SANTA FE, NEW MEXICO

6 17 February 1988

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 In the matter of Case No. 8371 being CASE  
10 reopened pursuant to the provisions 8371  
11 of Division Order No. R-7783 which  
12 promulgated temporary special rules  
13 and regulations for the Burton Flat-  
14 Upper Strawn Pool, Eddy County, New  
15 Mexico.

16 BEFORE: David R. Catanach, Examiner  
17  
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19

20 TRANSCRIPT OF HEARING  
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23 A P P E A R A N C E S  
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For the Division:

For the Applicant:

James G. Bruce  
Attorney at Law  
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Santa Fe, New Mexico 87504

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MR. CATANACH: Call Case 8371.

In the matter of Case Number 9371 being reopened pursuant to the provisions of Division Order No. R-7783, which promulgated temporary special rules and regulations for the Burton Flat-Upper Strawn Pool, Eddy County, New Mexico, including a provision for 160-acre spacing units.

This case was heard January 20th and subsequently readvertised for today.

Is there any additional testimony?

MR. BRUCE: Mr. Examiner, my name is Jim Bruce from the Hinkle Law Firm, representing Petroleum Corporation of Delaware in this case.

We will be submitting some additional written material as requested by the Examiner at the prior hearing, and we would like to keep the record open until that is submitted within a couple of weeks.

MR. CATANACH: Okay, and this case, I understand, also, through an error in the advertisement in one of the newspapers, this case has to be readvertised for March 16th, 1988, so we'll keep the record open on that and continue the case to March 16th.

(Hearing concluded.)

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

I, SALLY W. BOYD, C.S.R., DO HEREBY  
CERTIFY that 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. 8371,  
heard by me on February 17, 1988.

David R. Catant, Examiner  
Oil Conservation Division

1 STATE OF NEW MEXICO  
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
3 OIL CONSERVATION DIVISION  
4 STATE LAND OFFICE BUILDING  
5 SANTA FE, NEW MEXICO

6  
7 16 March 1988

8 EXAMINER HEARING

9 IN THE MATTER OF:

10 In the matter of Case No. 8371 being CASE  
11 reopened pursuant to the provisions of 8371  
12 Division Order No. R-7783 which promul-  
13 gated temporary special rules and reg-  
14 ulations for the Burton Flat-Upper  
15 Strawn Pool, Eddy County, New Mexico.

16 BEFORE: David R. Catanach, Examiner  
17  
18

19 TRANSCRIPT OF HEARING

20 A P P E A R A N C E S

21 For the Division:  
22  
23

24 For the Applicant:  
25

1  
2 MR. CATANACH: Case 8371. In  
3 the matter of Case No. 8371 being reopened pursuant to the  
4 provisions of Division Order No. R-7783, Eddy County, New  
5 Mexico.

6 This case was heard February  
7 17th, 1988, and it had to be readvertised .

8 Call for appearances in this  
9 case?

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

12  
13 (Hearing concluded.)  
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## C E R T I F I C A T E

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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. 8571,  
heard by me on March 16 1988.

David R. Catamula, Examiner  
Oil Conservation Division