

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOHearing Date JUNE 27, 1990 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
William L. Jay	Campbell and Black, P.A.	Santa Fe
Bryan C. Cotner	Chevron U.S.A.	Hobbs
Rick Jones	Chevron U.S.A.	Hobbs
Alan Bohling	Chevron U.S.A.	Hobbs.
Jerry Hoover	Conoco	Midland
Rerry Pearce	Montgomery, Andrews, PA	Santa Fe
Larry L. Bernat	Jay & Bernat	Subsidiary
Tommy Roberts	Tansey Law Firm	Farmington
Karen Aubrey	Kellaker, Kellaker + Aubrey	Santa Fe
John Caruth	HIXON DEVELOPMENT	FARMINGTON
David R. Vandiver	Fisk + Vandiver	Artesia
Robert Bullock	Yates Petroleum Corp.	Artesia
James Bruce	Hinkle Law Firm	ABQ
Ernst L. Padilla	Padilla + Snyder	SF
RICK RICKETTS	PEOC	MIDLAND, TX

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOHearing Date JUNE 27, 1990 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
SCOTT HALL	MILLER, STRATVERT FIRM	ST
W. Kelbick	Kelbick, Kelbick, Aubrey	Santa Fe
D. Talcan	MERIDIAN OIL	FMN, NM.
Bill Bell	YATES ENERGY	ROSWELL, N.M.
Sharon R. Hamelton	Yates Energy	Roswell, NM
MIKE STEWART	DOYLE HARTMAN	MIDLAND, TX
Gene Gallegos	Gallegos Law Firm	Santa Fe
Ray J. ...	Doyle Hartman	Midland
Dan ...	Caero, Engr	Santa Fe

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

CASE 9969

EXAMINER HEARING

IN THE MATTER OF:

Application of Hixon Development Company for  
Downhole Commingling and a non-standard oil proration  
unit, Rio Arriba County, New Mexico

TRANSCRIPT OF PROCEEDINGS

BEFORE: DAVID R. CATANACH, EXAMINER

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

June 27, 1990

**ORIGINAL**

A P P E A R A N C E S

FOR THE DIVISION:

RAND L. CARROLL  
 Attorney at Law  
 Natural Gas Programs  
 P.O. Box 2088  
 Room 206, State Land Office Building  
 Santa Fe, New Mexico 87504

FOR THE APPLICANT:

TANSEY, ROSEBROUGH, GERDING & STROTHER, P.C.  
 Attorneys at Law  
 By: TOMMY ROBERTS  
 621 West Arrington  
 P.O. Box 1020  
 Farmington, New Mexico 87401

\* \* \*

I N D E X

	Page Number
Appearances	2
Exhibits	3
JOHN CORBETT	
Examination by Mr. Roberts	5
Examination by Examiner Catanach	27
Certificate of Reporter	33

\* \* \*

## E X H I B I T S

## APPLICANT'S EXHIBITS:

Exhibit 1	9
Exhibit 2	9
Exhibit 3	10
Exhibit 4	14
Exhibit 5	15
Exhibit 6	16
Exhibit 7	18
Exhibit 8	19
Exhibit 9	20

\* \* \*

1 WHEREUPON, the following proceedings were had  
2 at 8:22 a.m.:

3  
4 EXAMINER CATANACH: At this time we'll call  
5 Case 9969.

6 MR. CARROLL: Application of Hixon  
7 Development Company for downhole commingling and a non-  
8 standard oil proration unit, Rio Arriba County, New  
9 Mexico.

10 EXAMINER CATANACH: Are there appearances in  
11 this case?

12 MR. ROBERTS: Mr. Examiner, my name is Tommy  
13 Roberts with the law firm of Tansey, Rosebrough,  
14 Gerding & Strother in Farmington, New Mexico.

15 I'm appearing on behalf of the Applicant.

16 EXAMINER CATANACH: Any other appearances?  
17 Will the -- Do you have witnesses?

18 MR. ROBERTS: I have one witness to be sworn.

19 EXAMINER CATANACH: Witness please stand and  
20 be sworn in.

21 (Off the record)

22 (Thereupon, the witness was sworn)

23

24

25

1                                    JOHN CORBETT,

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

4                                    EXAMINATION

5        BY MR. ROBERTS:

6                Q.     Would you please state your name and your  
7        place of residence for the record?

8                A.     My name is John Corbett.    I'm from  
9        Farmington, New Mexico.

10              Q.     What is your occupation?

11              A.     Petroleum Geologist with Hixon Development  
12        Company.

13              Q.     Have you testified before the New Mexico Oil  
14        Conservation Division on any prior occasion?

15              A.     Yes, I have.

16              Q.     And in what capacity?

17              A.     As a petroleum geologist.

18              Q.     Have your qualifications as an expert in the  
19        field of petroleum geology been made a matter of record  
20        and accepted by the Oil Conservation Division?

21              A.     Yes, they have.

22              Q.     Are you familiar with the operations of Hixon  
23        Development Company in the Mancos Oil Pool, Gavilan-  
24        Mancos Oil Pool area?

25              A.     Yes, I am.

1 Q. And are you familiar with the Application of  
2 Hixon Development Company in this case?

3 A. Yes, I am.

4 Q. Have you made a study of pertinent data for  
5 purposes of providing testimony in this case?

6 A. I have.

7 MR. ROBERTS: Mr. Examiner, we would tender  
8 Mr. Corbett as an expert in the field of petroleum  
9 geology.

10 EXAMINER CATANACH: He is so qualified.

11 Q. (By Mr. Roberts) Mr. Corbett, would you  
12 briefly summarize the purpose of this Application?

13 A. Hixon Development Company has acquired a 320-  
14 acre lease adjacent to but outside of the boundary of  
15 the Gavilan-Mancos Oil Pool in Rio Arriba County, New  
16 Mexico.

17 We have developed that lease as a 320-acre --  
18 on a 320-acre proration unit in the Gavilan-Greenhorn-  
19 Graneros-Dakota Pool. The well is economic at present  
20 but very marginal.

21 We seek to recomplete that well in the  
22 Gavilan-Mancos Pool and are requesting a 320-acre  
23 nonstandard proration unit for the Gavilan-Mancos.

24 Q. And does your Application also seek to obtain  
25 approval for the downhole commingling of production



1 from both zones?

2 A. We do because of the limited potential in the  
3 Gavilan-Greenhorn-Graneros-Dakota Pool. We're seeking  
4 to commingle downhole the Greenhorn-Graneros-Dakota and  
5 the Gavilan-Mancos Pools.

6 Q. Mr. Corbett, would you elaborate a little bit  
7 on the lease history regarding the lease that Hixon  
8 Development Company owns covering the west half of  
9 Section 5?

10 A. Covering all of Section 5, if I may, the east  
11 half of the section was originally developed by J.P.  
12 McHugh. In 1986 they drilled the Lady Luck, and in May  
13 of 1986 that well was first produced in the Gavilan-  
14 Mancos.

15 Subsequent to that, the well was sold to Sun  
16 Operating, now Oryx Energy.

17 The well was operated on a standard 320-acre  
18 proration unit in the Gavilan-Mancos.

19 In August of 1988 the Gavilan-Mancos Pool was  
20 respaced to 640-acre proration units. This well was  
21 left on the 320-acre proration unit. The pool boundary  
22 divided the section east/west, or into an east half  
23 which was producing and a west half which was at that  
24 time leased by El Paso Production. That was  
25 nonproducing in the Gavilan-Mancos.

1 El Paso's lease was purchased by the land  
2 owner from them in February of 1989. He was attempting  
3 to get the lease brought into production. El Paso  
4 Production didn't feel that it would be economic to  
5 drill the Mancos or Dakota, so the land owner bought  
6 back the lease, which was HBP, and resold it -- or  
7 re-leased it -- to Hixon Development in July of 1989.

8 In January of 1990, Hixon Development Company  
9 drilled the Evans Number 1 and completed it in the  
10 Gavilan-Greenhorn-Graneros-Dakota on a standard 320-  
11 acre proration unit, and we're now seeking to  
12 recomplete in the Mancos.

13 Q. Now, you mentioned that the east half of  
14 Section 5 had been developed with Sun Operating Limited  
15 Partnership, Lady Luck Number 1 Well. Where is that  
16 well located within the east half of Section 5?

17 A. That well is in the northeast-northeast of  
18 Section 5.

19 Q. As a point of clarification, you referred to  
20 the land owner having purchased the rights from El Paso  
21 Production Company. Is the land owner the mineral-  
22 interest owner in this case?

23 A. Yes, that's correct. It was Mr. Curtis  
24 Evans, who is the mineral owner.

25 Q. Okay. Let's turn your attention to the

1 exhibit package and refer to what has been marked as  
2 Exhibit Number 1, and would you identify that exhibit?

3 A. Exhibit Number 1 is a plat showing Section 5,  
4 Township 24 North, Range 2 West. Outlined on -- and  
5 the adjacent sections.

6 The plat is illustrating offset operators to  
7 the Evans Number 1. It shows that the west half of  
8 Section 5 is operated by Hixon Development Company. A  
9 number of sections adjacent to that are operated by  
10 Mobil Producing Texas & New Mexico. And the east half  
11 of Section 5 and one other section on the plat are  
12 operated by Sun Operating Limited Partnership for Oryx  
13 Energy.

14 Q. Okay. This exhibit also illustrates the  
15 location of the Evans Number 1 Well, which is Hixon  
16 Development Company's Gavilan-Dakota-Greenhorn-Graneros  
17 oil completion. Is that location a standard location  
18 for a recompletion in the Gavilan-Mancos Oil Pool?

19 A. That's correct. We're 790 feet off of the  
20 north and west lines of the section.

21 Q. Refer to what's been marked as Exhibit Number  
22 2 and identify that exhibit.

23 A. Exhibit Number 2 is a similar plat  
24 illustrating the ownership in the offset sections.  
25 Again, a large number of adjacent tracts owned by

1 Mobile Producing Texas & New Mexico, with working  
2 interests owned by Conoco and TOC Rocky Mountain.

3 The east half of Section 5 is owned by Sun  
4 Operating Limited Partnership. And also a part of  
5 Section 33, the northeast quarter of Section 33 of 25  
6 North and 2 West, is owned by Prime Energy Corporation.

7 The west half of Section 5 is -- The lease is  
8 owned by Hixon Development Company.

9 Q. Then is it accurate to say that the  
10 difference between Exhibits 1 and 2 is that Exhibit 1  
11 identifies offset operators, operators of offset  
12 tracts, and that Exhibit 2 identifies owners of  
13 leasehold interests immediately adjacent to the  
14 proposed proration unit?

15 A. That's correct.

16 Q. Do you have any information regarding the  
17 nature of the mineral ownership in these offsetting  
18 acreages, whether they be federal, state or fee-owned  
19 tracts?

20 A. The west half of Section 5 is fee-owned. The  
21 balance, I'm not acquainted with.

22 Q. Okay. Refer to Exhibit Number 3, identify  
23 that exhibit.

24 A. Exhibit Number 3 illustrates the -- is the  
25 notification requirements whereby Hixon Development

1 Company has notified the offset owners and operators of  
2 this cause and received from them waivers of  
3 objections.

4 Q. Mr. Corbett, would you go through, with  
5 respect to each owner, and identify what we have in  
6 this package with respect to that owner?

7 A. The first page is a cover letter from Oryx  
8 Energy, which was returned. We sent the offset  
9 operators and owners a sign-and-return letter where we  
10 had worded the disclaimer, also notifying them of this  
11 case and their opportunity to appear.

12 The second page is the actual letter -- or a  
13 photocopy of the letter sent to Oryx which was signed  
14 -- or their objections were waived by a reservoir  
15 engineering supervisor.

16 Q. Let me stop you there, and can you testify as  
17 to the relationship between Oryx Energy Company and Sun  
18 Operating Limited Partnership?

19 A. The leases owned and operated by Sun -- It's  
20 Sun Operating Limited Partnership for Oryx Energy,  
21 which is actually the parent company.

22 Q. Okay, go ahead with your description of  
23 what's contained in Exhibit 3.

24 A. Okay.

25 Q. I believe you were at the point where you

1 were referring to the return receipt from Oryx Energy?

2 A. That's correct. The next page is our  
3 certified mail return receipt from Oryx Energy.

4 The next page is from -- a return letter from  
5 Mobil Oil Corporation. This is the letter that we sent  
6 to them, which was signed and approved by an  
7 environmental and regulatory loss-prevention supervisor  
8 with Mobil.

9 The next page is the return receipt to and  
10 from Mobil.

11 Q. And did Mobil's return letter indicate no  
12 objection to your proposed plans for a nonstandard  
13 proration unit as well as downhole commingling?

14 A. That's correct.

15 Q. Okay.

16 A. Next page is our waiver, as it was returned  
17 from Conoco. Again, they had no objection to our  
18 proposed commingling or proration unit.

19 Next page is our return receipt from the Post  
20 Office on that.

21 Next page is a cover letter from Amoco  
22 whereby they waived their objection to a nonstandard  
23 proration unit and downhole commingling. They note  
24 that their objection is contingent upon us receiving  
25 half of the Gavilan Well.

1 Q. Okay.

2 A. The next page is from the same company.  
3 Our -- Because the record title owner is TOC Rocky  
4 Mountains, Inc., which is wholly owned by Amoco  
5 Production, we sent the letter to TOC Amoco on the  
6 preceding page back.

7 The next page is return receipt information  
8 on the TOC Rocky Mountains letter.

9 The final return letter is from Prime Energy,  
10 who is not an operator but an owner, and whereby they  
11 waived their objection to our nonstandard proration  
12 unit and downhole commingling.

13 And the final page of Exhibit 3 is the return  
14 receipt information from Prime Energy.

15 Q. Mr. Corbett, you indicated that Prime Energy  
16 had waived any objection to your Application. The copy  
17 of the letter that I have in my exhibit package does  
18 not indicate it's been signed by Prime Energy. Can you  
19 review that and --

20 A. This -- Prime Energy has verbally notified us  
21 that they have no objection. They have informed us  
22 that they were sending a waiver letter such as this is  
23 a copy of, returned to us.

24 This letter was sent out, allowing them over  
25 the 20 days notification period as required, and you

1 can verify that from the return receipt information on  
2 the final page of this exhibit. We had not at the time  
3 we were preparing for this exhibit received that  
4 letter.

5 Q. In your opinion, have the notice requirements  
6 set forth in the Rules and Regulations of the Oil  
7 Conservation Division been satisfied?

8 A. They have.

9 Q. Refer to Exhibit Number 4, please, and  
10 identify that Exhibit.

11 A. Exhibit Number 4 is a base map, structure  
12 contours on the Gavilan, the top of the Gavilan-Mancos  
13 Oil Pool Formation.

14 It illustrates in yellow our proposed  
15 nonstandard proration unit, which is also our standard  
16 proration unit in the Gavilan-Greenhorn-Graneros-Dakota  
17 Pool.

18 There is an arrow highlighting the location  
19 of the Evans Number 1. There are also marked in red  
20 commingled Gallup Dakota oil wells within the Gavilan-  
21 Mancos and Gavilan-Greenhorn-Graneros-Dakota Pools.

22 Q. Are the boundaries of the Gavilan-Mancos Oil  
23 Pool coexistent with the boundaries of the Gavilan-  
24 Dakota-Greenhorn-Graneros Oil Pool?

25 A. Within the vicinity of the Evans Number 1,



1 they are.

2 Q. What is the significance of the contour -- of  
3 the structure contours that are depicted on this map?

4 A. This illustrates that the Gavilan -- the  
5 Mancos Formation, as it produces in the Gavilan-Mancos  
6 Pool, is continuous across the leasehold.

7 Q. It would appear also that this area map  
8 depicts the location of offset wells to the Evans  
9 Number 1. Is the Lady Luck Number 1 Well depicted?

10 A. It's shown. It's in the northeast quarter of  
11 the northeast quarter of Section 5, 24 North and 2  
12 West.

13 Q. And who is the operator of the well in the  
14 east half of Section 6, which is labeled the 73 B Unit?

15 A. That's Mobil Producing.

16 Q. Okay. Now, refer to Exhibit Number 5 and  
17 identify that exhibit, please, and describe it.

18 A. Exhibit Number 5 is a decline curve from the  
19 Sun Lady Luck Number 1.

20 This was plotted from data from Dwight's  
21 Energy Data, a public data base. It shows the  
22 historical production and decline of that well, along  
23 with a curve that illustrates a best-fit curve model  
24 for a decline from that well.

25 The decline and the parameters shown in the

1 lower right of the corner are the production as of  
2 January of 1990, and the decline rates were used in  
3 calculations determining whether or not we should  
4 attempt to join this well and whether or not we should  
5 attempt to recomplete the Evans Number 1 in the  
6 Gavilan-Mancos.

7 Q. What is the cumulative production from the  
8 Lady Luck Number 1 Well as of January, 1990?

9 A. The cumulative, January of 1990, is 31,832  
10 barrels of oil and 85,433 MCF gas.

11 Q. And what is the rate of decline?

12 A. This well shows a 63-percent annual decline  
13 rate.

14 Q. Okay. Let's turn to Exhibit Number 6, and  
15 identify that exhibit and explain its significance to  
16 the Application.

17 A. Exhibit Number 6 is the calculation of the  
18 present value of the Lady Luck Number 1, which is the  
19 well in the northeast-northeast of Section 5 in the  
20 Gavilan-Mancos.

21 The second page of the exhibit is the  
22 economic calculations. The final page is input data  
23 which has been derived from both Hixon's experience  
24 operating wells within the pool and adjacent to the  
25 pool.

1           There's also input data from the decline  
2       curve taken from Dwight's Energy Data. We used a 63-  
3       percent decline rate, production as of January of 1990  
4       of 130 barrels per month, the current price of oil,  
5       posted as of the beginning of this week, also the  
6       current spot-market price of gas, operating expenses of  
7       \$1000 per well per month, which is what our experience  
8       has been operating in this pool.

9           The economic parameters suggest that this  
10      well has already reached its economic limit as of July  
11      of 1990. The well is essentially -- While it still  
12      produces oil, it's operating without a positive cash  
13      flow.

14          Q.    Mr. Corbett, I would think that one  
15      alternative to the Application of Hixon Development  
16      Company in this case might be to reform the spacing  
17      unit for the Lady Luck Number 1 Well as to the Gavilan-  
18      Mancos Oil Pool, reform it from the currently existing  
19      320 acres to 640 acres, and to bring in the owners of  
20      the interest under the west half in that well.

21                Do you have an opinion as to the impact on  
22      the correlative rights of the parties in the west half  
23      of Section 5 with regard to that particular  
24      alternative?

25          A.    Feeling since the Lady Luck has reached its

1 economic limit, there would be no benefit to joining in  
2 ownership of that well. Our correlative rights would  
3 not be protected by joining that, as we would receive  
4 no benefit from production from that well.

5 Q. Let's turn to Exhibit Number 7. Describe  
6 that exhibit.

7 A. Exhibit Number 7 is present value of the  
8 Evans Number 1 as it's currently producing from its  
9 completion within the Gavilan-Greenhorn-Graneros-Dakota  
10 Oil Pool. The input parameters are taken from actual  
11 production expenses and production rates.

12 The well produces about three barrels per  
13 day. It's at or near its economic limit. According to  
14 these economic calculations, there are under 1000  
15 barrels remaining recoverable in the economic life of  
16 the well.

17 Q. And what would be the remaining economic life  
18 of this well in terms of days or months?

19 A. Approximately six months.

20 Q. Okay. What conclusions do you draw from the  
21 data depicted in Exhibit 7?

22 A. This data illustrates that the Gavilan-  
23 Greenhorn-Graneros-Dakota Pool here is not economically  
24 productive on its own. If we're confined to producing  
25 from this pool, within approximately six months it will

1 be time to plug and abandon the well.

2 Q. Let's turn to Exhibit Number 8. Identify  
3 that exhibit.

4 A. Exhibit Number 8 is a projected economic  
5 scenario based on the Lady Luck decline curve, taking  
6 the existing producing Evans Number 1, added \$50,000  
7 for a recompletion in the Gavilan-Mancos Pool, and then  
8 estimated the present value in reserves attributable to  
9 the well, based on the Lady Luck decline, using the  
10 same IP and reserves that Sun and Oryx has had in the  
11 Lady Luck.

12 This is probably a best-case scenario. It  
13 suggests that there are approximately 36,000 barrels of  
14 oil that could be recovered in this scenario from the  
15 Evans with a present value of \$350,000.

16 Q. How would the best-case scenario compare with  
17 the worst-case scenario?

18 A. The worst-case scenario is that the Gavilan-  
19 Mancos is nonproductive, in which case at the point  
20 where the Gavilan-Greenhorn-Graneros-Dakota is  
21 economically completed or below its economic limit,  
22 we'll plug the entire well.

23 Q. So what is the economic risk to Hixon  
24 Development Company of an attempted recompletion in the  
25 Gavilan-Mancos Oil Pool?

1           A.     \$50,000 for recompletion.

2           Q.     Now, if the Gavilan-Mancos Oil Pool  
3 recompletion attempt results in production, do you  
4 propose an allowable?

5           A.     We would propose, because our nonstandard  
6 proration unit is half of the Gavilan current proration  
7 unit, we would propose half of the allowable or 400  
8 barrels of oil per day.

9           Q.     What do you project to be the initial rate  
10 for production from the Gavilan-Mancos Oil Pool?

11          A.     Our initial rate, based on the analogous Lady  
12 Luck, is 100 barrels of oil per day.

13          Q.     Okay. Turn to Exhibit Number 9 and identify  
14 that exhibit.

15          A.     Exhibit Number 9 is a proposed projected  
16 economic scenario whereby we're allowed to recomplete  
17 the Evans in the Gavilan-Mancos for \$50,000 and  
18 commingle downhole production from the Gavilan-  
19 Greenhorn-Graneros-Dakota and the Gavilan-Mancos.

20                 We've combined the production streams, but  
21 because we can operate in both horizons for the same  
22 costs if we're allowed to downhole commingle, the costs  
23 for operating simply the Gavilan-Mancos are included.

24                 What this illustrates is that by downhole  
25 commingling we can produce the Gavilan-Greenhorn-

1 Graneros-Dakota beyond its economic limit and will  
2 receive approximately another 1000 barrels of oil from  
3 the wellbore.

4 Q. And how does that convert to dollar value?

5 A. It's a present value of approximately  
6 \$15,000.

7 Q. Mr. Corbett, it appears that there would be  
8 another alternative to the Application of Hixon  
9 Development Company in this case, and that would be the  
10 alternative where the spacing unit for the Lady Luck  
11 Number 1 Well would be reformed or enlarged from 320  
12 acres to 640 acres as to the Gavilan-Mancos Oil Pool,  
13 and then have Hixon Development Company recomplete the  
14 Gavilan-Mancos Oil Pool in its Evans Number 1 Well on  
15 an infill basis.

16 Do you have an opinion as to the impact on  
17 correlative rights of the interest owners in the west  
18 half with respect to that alternative?

19 A. We feel that this would deny the interest  
20 owners their correlative rights. The east half has  
21 produced without any benefit to the owners in the west  
22 half.

23 There is some possibility that the west half  
24 is, at least in part, depleted from production in the  
25 east half. We feel that if in fact the west half is

1       depleted, the economic risk is all Hixon Development  
2       Company's.

3               But it's a small risk compared to drilling a  
4       new well. We feel that it's worth the risk, because  
5       the well is soon going to be at its economic limit.

6               Q.    What -- Go ahead.

7               A.    The -- Well, maybe I haven't answered your  
8       question.

9               Q.    Well, I just wanted to have you elaborate on  
10       another issue. Let's assume that the alternative I  
11       have suggested were to be adopted. Do you have any  
12       opinion as to the impact of that alternative on your  
13       lease situation?

14              A.    Because the minerals in the west half of the  
15       section were leased at the time that the Lady Luck was  
16       drilled and completed and at the time that the Gavilan-  
17       Mancos was respaced to 640-acre spacing, if that lease  
18       were being depleted by the Lady Luck, then you could  
19       make a case that it was producing.

20              Mr. Evans bought back the lease from El Paso  
21       Production in order to obtain some benefit from  
22       production on the west half.

23              It's possible that if we were to reform the  
24       proration unit and have Hixon Development participate  
25       in historical production in the Lady Luck -- Is that



1 what you're suggesting?

2 Q. Yes.

3 A. -- that some benefit of that should have gone  
4 to El Paso Production, because at the time the Lady  
5 Luck was producing during its economic life, El Paso  
6 Production owned a lease in the west half.

7 There may be some revenue due them, and if in  
8 fact the lease was producing then -- and it could be  
9 that Hixon would not actually have -- or, Mr. Evans in  
10 buying those minerals to bring it into production would  
11 have erred, it could be that their lease could have  
12 been considered held by production.

13 Q. So in summary, it would be your position that  
14 the Hixon lease could be in jeopardy and might not be  
15 valid?

16 A. A case could be made that the El Paso lease  
17 could still be the valid lease on the west half.

18 Q. Let's turn your attention to the portion of  
19 the Application dealing with downhole commingling. How  
20 would you physically affect the downhole commingling of  
21 production in the wellbore?

22 A. Our intent is to recomplete the Gavilan-  
23 Mancos and then pump using one tubing string to the  
24 Gavilan-Mancos and the Greenhorn-Graneros-Dakota Pool.

25 Q. Would you expect the total value of the oil

1 produced from the Evans Number 1 to be diminished as a  
2 result of downhole commingling?

3 A. In the offset wells in this area, the  
4 character of the oil is very similar, and downhole  
5 commingling as it's already been effected in the  
6 Gavilan-Mancos Pool, has not diminished the character  
7 of the oil or the value of the oil.

8 Q. Based on your knowledge of ownership, is the  
9 working interest, the overriding royalty interest, and  
10 the royalty interest ownership of the two zones to be  
11 commingled common?

12 A. If our case for a nonstandard proration unit  
13 is approved, ownership is common in the two pools in  
14 the west half of Section 5.

15 Q. In your opinion, would the commingling  
16 jeopardize the efficiency of future secondary-recovery  
17 operations in either of the zones to be commingled?

18 A. No, I don't believe that it would.

19 Q. And would you expect the fluid  
20 characteristics to be compatible in the wellbore?

21 A. They are.

22 Q. Do you have enough information at this point  
23 to be able to propose an allocation formula?

24 A. We don't have adequate information at this  
25 point to propose an allocation formula, because pending

1 our approval of a nonstandard proration unit we have  
2 not completed in the Gavilan-Mancos Pool.

3 We're lacking production information, rates,  
4 pressures, that type of data that you'd need to have an  
5 allocation formula.

6 Q. There would seem to be other information that  
7 is not available at this time, just by virtue of the  
8 fact that the recompletion in the Mancos has not been  
9 done. Do you propose to submit pertinent information  
10 to a request for downhole commingling at a later date?

11 A. We would propose to submit that as  
12 information is obtained after completion in the  
13 Gavilan-Mancos.

14 Q. By way of summary, would you just briefly  
15 recap the productive capabilities of the Dakota  
16 Formation as you have seen it in the Evans Number 1  
17 Well?

18 A. The Evans Number 1, which is currently  
19 producing from the Dakota, is marginal at best. It has  
20 a relatively flat decline, but at approximately three  
21 barrels per day it's very marginal economic production.

22 We feel that there are economic reserves or  
23 reserves that can be recovered but that those can most  
24 efficiently be recovered by commingling.

25 Q. And describe the anticipated rate of

1 production or the anticipated productive capabilities  
2 of the Mancos Oil zone.

3 This is a bit of an unknown. Our scenario  
4 modeled after the Sun Lady Luck would be approximately  
5 a 100-barrel-a-day well, which would be economic and  
6 allow us to continue to produce both the Mancos and  
7 Dakota zones for five to ten years.

8 Q. What result will there be if the downhole  
9 commingling request is not granted?

10 A. If downhole commingling is not granted and  
11 the nonstandard proration unit is, we will plug the  
12 Dakota zone, thereby wasting the Dakota reserves. That  
13 would result in waste of reserves in the Dakota.

14 If the nonstandard proration unit -- Did I  
15 say if it was approved or if it was not? At any rate,  
16 if the nonstandard proration unit is approved and  
17 downhole commingling is not approved, we will produce  
18 the Mancos, plugging, possibly prematurely, the Dakota.

19 If nonstandard proration is not approved, the  
20 well in its entirety will be plugged at the economic --  
21 the end of the economic life of the Dakota production,  
22 thereby wasting reserves.

23 Q. In your opinion, will the granting of this  
24 Application result in the prevention of both economic  
25 and physical waste, would it be in the interests of

1 conservation, and would it result in the protection of  
2 correlative rights?

3 A. Yes, it would.

4 Q. Were Exhibits 1 through 9 either prepared by  
5 you or at your direction or under your supervision?

6 A. They were.

7 MR. ROBERTS: Mr. Examiner, we move the  
8 admission of Exhibits 1 through 9.

9 We have no further questions for the witness.

10 EXAMINER CATANACH: Exhibits 1 through 9 will  
11 be admitted as evidence.

12 EXAMINATION

13 BY EXAMINER CATANACH:

14 Q. Mr. Corbett, are there any wells in the  
15 sections surrounding Section 5 besides 6, besides  
16 Section 6?

17 A. There is in Section 32 of 25 North and 2  
18 West, the Mobil Lindrith B Unit Number 34.

19 Also to the south in Section 8 the Mobil  
20 Lindrith B Unit Number 72.

21 In Section 4 to the east, the Mobile Lindrith  
22 B Unit 37 and 38; and in Section 9, which has an  
23 adjacent common corner to the southeast, the Mobile  
24 Lindrith 74 B.

25 Our lease was -- well, it's geographically

1 within the area; it's landlocked, if you will, by the  
2 Mobile Lindrith B Unit.

3 At the time that the unit was formed, Mr.  
4 Evans's father would not sign the pooling clause --  
5 would not sign the lease with the pooling clause. This  
6 lease was effectively left out of Mobil's unit.

7 Q. I see. Okay, so Mobile would be the operator  
8 of all the offset acreage except for Sun? Mobile and  
9 Sun would be the two operators, offset operators?

10 A. That is correct.

11 Q. Now, the Amoco and the TOC interest, those  
12 are just interest owners with Mobil?

13 A. That's correct.

14 Q. The proration unit for the Lady Luck Number  
15 1, was that approved by the Division by some order that  
16 you know of, or was that grandfathered in when they  
17 changed the Rules?

18 A. That was grandfathered.

19 Q. It was? And you said that well has already  
20 reached its economic limit?

21 A. In -- to -- Based on the published, public  
22 data available to us and our economic calculations,  
23 it's reached its limit.

24 Q. In the Gavilan-Mancos Pool?

25 A. That's correct. The well was drilled only to

1 the Gavilan Mancos -- No, I believe at that time that  
2 he was going to the Dakota, but he has not attempted --  
3 or his son has not attempted to complete in the Dakota.

4 Q. All right.

5 A. The proration unit for that would be a 320-  
6 acre Greenhorn-Graneros-Dakota spacing. That's  
7 standard, the east half.

8 Q. Okay. You said the Evans Number 1 is  
9 producing three barrels of oil per day, currently,  
10 approximately?

11 A. That's correct.

12 Q. Any water or gas?

13 A. It does produce gas. As shown on the  
14 Dwight's curve, it's producing approximately 2000 MCF  
15 per month.

16 MR. ROBERTS: Is that the Evans?

17 THE WITNESS: Oh, I'm sorry. The Evans or  
18 the Lady Luck?

19 Q. (By Examiner Catanach) Evans.

20 A. Oh, the Evans does produce some gas. It's  
21 currently not tied in, based on the limited reserves  
22 estimated.

23 Q. How did you arrive at the estimate of 100  
24 barrels a day potential for the Evans Number 1 in the  
25 Gavilan?

1           A.    That's based on the analog of the Lady Luck,  
2    the Dwight's decline curves there. Initial production  
3    was -- Or their peak production was 3000 barrels per  
4    month or about 100 barrels per day.

5           Q.    Okay. Have you done an analysis to determine  
6    that -- Well, is it your opinion that the Lady Luck  
7    Number 1 has not drained all of the west half of that  
8    section?

9           A.    We're -- We believe that there are  
10   recoverable reserves from the Mancos in the west half  
11   of the section.

12                   The best-case scenario is -- or well, that  
13   will -- If the well is not drained at all, if in fact  
14   the Lady Luck drained 320 acres, it's at any rate  
15   reached its economic limit.

16                   We feel that if it will drain the west half  
17   or if it's capable of draining the west half, it  
18   already has because it's reached -- the well is all  
19   played out. In that instance, we think it's worth the  
20   attempt.

21           Q.    Do you know at this point whether the well  
22   will flow when you complete in the Gavilan-Mancos Pool,  
23   or will it have to be pumped?

24           A.    Based on the offset wells, it will need to be  
25   pumped. We don't have pressure data at our location on



1 the Gavilan-Mancos yet.

2 Q. Do you have pressure information on the  
3 Dakota?

4 A. The Dakota, we have some. I can't quantify  
5 that, but we are pumping the well.

6 Q. Currently?

7 A. Yes.

8 Q. You don't have any -- You don't see that  
9 there will be any problems with cross-flow of any kind  
10 between the two zones?

11 A. Not at the anticipated rates. I'm sure that  
12 we'll be able to keep the well pumped off.

13 Q. Let me ask you this: The Lady Luck Number 1,  
14 did that produce at a GOR of less than 2000 to 1?

15 A. It did originally. I haven't calculated the  
16 GOR most recently.

17 Q. Now, the -- All of the west half is commonly  
18 owned by Hixon; Hixon is the only interest owner in  
19 that section?

20 A. Our lease covers from the base of the Mesa  
21 Verde, so that the ownership of the Gavilan-Mancos and  
22 the Greenhorn-Graneros-Dakota are common.

23 Q. Okay. And you propose to work with the  
24 District Supervisor to come up with an allocation  
25 formula if commingling is approved?

1           A.    That's correct, once we have adequate data to  
2 calculate a formula.

3           EXAMINER CATANACH:   I have no further  
4 questions of the witness.

5           MR. ROBERTS:   I have no --

6           EXAMINER CATANACH:   You're excused.

7           Anything further in this case?

8           If not, Case 9969 will be taken under  
9 advisement.

10           (Thereupon, these proceedings were concluded  
11 at 9:07 a.m.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

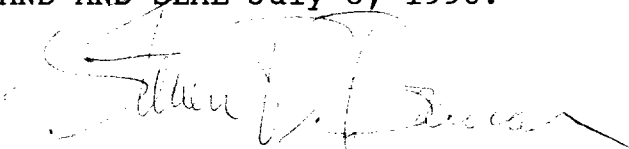
## CERTIFICATE OF REPORTER

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

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


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

WITNESS MY HAND AND SEAL July 8, 1990.

  
STEVEN T. BRENNER  
CSR No. 106

My commission expires: October 14, 1990

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8865, heard by me on June 27 1990.

  
\_\_\_\_\_, Examiner  
Oil Conservation Division