

1 STATE OF NEW MEXICO  
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
3 OIL CONSERVATION DIVISION  
4  
5

6 EXAMINER HEARING  
7

8 IN THE MATTER OF:  
9

10 Application of Texaco Producing Inc.  
11 for an unorthodox well location,  
12 Lea County, New Mexico.

Case 10096

Case 10097

13  
14  
15

16 TRANSCRIPT OF PROCEEDINGS  
17

18 BEFORE: DAVID R. CATANACH, EXAMINER  
19  
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21 STATE LAND OFFICE BUILDING

22 SANTA FE, NEW MEXICO

23 September 19, 1990  
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A P P E A R A N C E S

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1 P R O C E E D I N G S

2 HEARING EXAMINER: Call the hearing back to order  
3 and at this time call Case 10096.

4 MR. STOVALL: Application of Texaco Producing, Inc.  
5 for an unorthodox oil well location, Lea County, New Mexico.

6 HEARING EXAMINER: Are there appearances in this  
7 case?

8 MR. CARR: May it please the Examiner, my name is  
9 William F. Carr with the law firm Campbell & Black, P.A. of  
10 Santa Fe. We represent Texaco in this case.

11 At this time I would request that the division also  
12 call Case 10097. It also involves an unorthodox oil well  
13 location. They offset one another and the testimony will be  
14 identical.

15 HEARING EXAMINER: At this time we'll call Case  
16 10097.

17 MR. STOVALL: Application of Texaco Producing, Inc.  
18 for unorthodox oil well location, Lea County, New Mexico.

19 HEARING EXAMINER: Are there any other appearances  
20 in either one of these cases?

21 MR. CARR: Mr. Examiner, I have one witness.

22 HEARING EXAMINER: Okay. Witness please stand to be  
23 sworn in.

24 WILLIAM N. PHILLIPS,  
25 the witness herein, after having been first duly sworn upon his

1 oath, was examined and testified as follows:

2 EXAMINATION

3 BY MR. CARR:

4 Q. Will you state your full name and place of  
5 residence.

6 A. My name is William N. Phillips, Midland, Texas.

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

8 A. Texaco U.S.A. I am a reservoir supervisor.

9 Q. Have you previously testified before the New Mexico  
10 Oil Conservation Division?

11 A. No, I have not.

12 Q. Would you review your educational background and  
13 then briefly summarize your work experience for Mr. Catanach.

14 A. I graduated from Texas Tech University in 1981 with  
15 a degree in petroleum engineering. I was employed by Texaco at  
16 that time and have had a broad range of experience: two years  
17 as a production engineer, one year as a drilling foreman,  
18 approximately five years as a reservoir engineer, and most  
19 recently as a team leader of a reservoir management group.

20 Q. Are you familiar with the applications filed in this  
21 case on behalf of Texaco?

22 A. Yes, I am.

23 Q. Are you familiar with the proposed wells?

24 A. Yes, I am.

25 Q. Are you also familiar with the Texaco Dollarhide

1 Drinkard unit?

2 A. Yes, I am.

3 MR. CARR: We tender Mr. Phillips as an expert  
4 witness in petroleum engineering.

5 HEARING EXAMINER: He is so qualified.

6 Q. (BY MR. CARR) Mr. Phillips, would you briefly state  
7 what Texaco seeks with these applications.

8 A. We seek two unorthodox locations very close to the  
9 state line of Texas and New Mexico. We have been offset  
10 drilled by the operator in Texas, Unocal, in their Dollarhide  
11 Clearfork unit. To protect our correlative rights and to  
12 prevent waste we seek approval of these two applications.

13 Q. And what pool will these wells be completed?

14 A. The Dollarhide Tubb-Drinkard.

15 Q. They are in the Dollarhide Drinkard unit?

16 A. Yes. It's a waterflood unit.

17 Q. And the offsetting unit on the Texas side of the  
18 line also a waterflood unit?

19 A. Yes, it is.

20 (Thereupon, Exhibit A was  
21 marked for identification.)

22 Q. Could you refer to what has been marked as Exhibit  
23 A, it's a large exhibit, for the Examiner. Identify this and  
24 just briefly review what this shows.

25 A. Yes. That's a large base map of the Clearfork or

1 Drinkard fields in the state line area. The line north-south  
2 is the Texas-New Mexico line.

3 Q. And this shows the boundaries of the West  
4 Drinkard -- or West Dollarhide Drinkard unit which is operated  
5 by Texaco?

6 A. Yes, it does.

7 Q. And then on the Texas side of the line we have the  
8 Dollarhide Clearfork unit which is a Unocal operated unit?

9 A. Yes.

10 Q. Is the Clearfork the Texas name for the Devonian --  
11 or the Drinkard formation?

12 A. Yes, it is.

13 Q. Also shown is the location of the OXY North  
14 Dollarhide unit?

15 A. That's correct.

16 Q. And then the wells in this area are also depicted on  
17 the exhibit.

18 A. Yes, the Clearfork wells or Drinkard wells.

19 Q. Are there any special pool rules in effect in this  
20 area?

21 A. No.

22 Q. So we're looking at 40-acre oil wells spacing?

23 A. Standard, yes.

24 Q. What is the primary producing interval, the Drinkard  
25 or the Tubb?

1           A.     The Drinkard.

2           Q.     And you stated, I believe, you might just review  
3 exactly why you are seeking these particular unorthodox well  
4 locations.

5           A.     We have been offset drilled approximately 100 feet  
6 from the state line in Texas by Unocal. And we seek to balance  
7 the patterns and carry their five spot pattern across into New  
8 Mexico.

9                   (Thereupon, Exhibit B was  
10 marked for identification.)

11          Q.     Could you identify Exhibit B, which I believe is a  
12 structure map.

13          A.     Yes. I believe that's the top of the Tubb interval.  
14 And it shows that the formation is continuous across the entire  
15 field.

16          Q.     And are the proposed two unorthodox locations  
17 indicated on this exhibit?

18          A.     Yes. I believe you have two green dots there.

19                   (Thereupon, Exhibit C and 11  
20 were marked for identification.)

21          Q.     Now, at this time, Mr. Phillips, I would like you to  
22 refer to the large exhibit, Exhibit Number C. I believe this  
23 is very similar to a smaller exhibit which is Exhibit No. 11 in  
24 the 8 1/2 by 11 exhibits that are clipped together. And  
25 basically referring to those two exhibits I would like you to



1 explain to the Examiner what this detailed map is designed to  
2 show.

3 A. Yes. This is a detail of the state line area where  
4 we propose to drill the two wells, No. 111 and 112. The large  
5 map that is posted is with the footage calls, and it also shows  
6 the two offsetting Unocal drilled wells. And the small detail  
7 map which is Exhibit No. 11 in your packet further identifies  
8 the unit operators and the states.

9 Q. How close to the unit and state line are the two  
10 wells which Texaco is seeking approval?

11 A. I believe they are both 130 feet from the state  
12 lines.

13 Q. Do you happen to know the distance from that common  
14 boundary of the Unocal wells?

15 A. I believe they are approximately 100 feet.

16 Q. They are shown on Exhibit C?

17 A. Yes.

18 Q. What is the basic spacing pattern that has been  
19 utilized by Unocal in developing its Clearfork unit?

20 A. They have reduced from 40 acres to 20 acres, and  
21 have seen a production increase that indicates they are  
22 recovering unrecoverable oil that would have been left in the  
23 ground under 40-acre well spacing.

24 (Thereupon, Exhibit 1 was  
25 marked for identification.)

1           Q.     Mr. Phillips, let's now go to the smaller exhibits.  
2     I'd ask you to refer to what has been marked Texaco Exhibit  
3     No. 1.  Would you identify this for the Examiner, then explain  
4     what this exhibit is designed to show.

5           A.     Yes.  The two outlines on the left is the West  
6     Dollarhide Drinkard unit in New Mexico.  On the east is the  
7     Unocal Dollarhide Clearfork unit.  It indicates cumulative oil  
8     from the old original 40-acre wells.  And several of these  
9     exhibits tie together to just show that it is prudent practice  
10    to infill drill this formation down to 20 acres.  We do recover  
11    increased reserves.

12          Q.     If we look at the Unocal unit we can see that with  
13    the denser development that in fact the cumulative oil  
14    production has been substantially increased from a number of  
15    wells?

16          A.     Yes.

17                 (Thereupon, Exhibit 2 was  
18                 marked for identification.)

19          Q.     Let's go now to Exhibit No. 2.

20          A.     That furthers the point.  The 20-acre well spacing  
21    along with injection well conversions does increase reserves.

22          Q.     If we look at the West Dollarhide Drinkard unit  
23    there are a number of spots there.  What do those show?

24          A.     Yes.  We have drilled three 20-acre test wells and  
25    we do have 12 wells approved in the heart of the unit which

1 we've recently spudded.

2 (Thereupon, Exhibit 3 was  
3 marked for identification.)

4 Q. Let's go to Exhibit No. 3. Again would you just  
5 review what this indicates.

6 A. This is solely the West Dollarhide Drinkard unit in  
7 New Mexico. And it shows that our cumulative production has  
8 been best along the flank of the field, and so we are going to  
9 infill drill the heart of the field to recover unrecoverable  
10 reserves.

11 (Thereupon, Exhibit 4 was  
12 marked for identification.)

13 Q. Okay. Exhibit No. 4?

14 A. This is another interpretation of the same data. It  
15 shows that our secondary to primary ratio has been best along  
16 the flank of the field.

17 Q. And again this would confirm the need for additional  
18 drilling in this area, would it not?

19 A. Yes.

20 (Thereupon, Exhibit 5 was  
21 marked for identification.)

22 Q. Now let's go to the production plots. The first one  
23 is marked Exhibit No. 5, and I'd ask you to explain what this  
24 shows.

25 A. Along the lower portion of the plot there are dotted

1 lines. These indicate the number of wells in each of the  
2 units, Unocal's and Texaco's. And it shows in Texas the  
3 unitized for waterflood operations in the mid '60's. And their  
4 active well count went down as they converted wells. In New  
5 Mexico the unit was not formed until 1969.

6 The upper curves show on a per well basis the  
7 response to waterflood operations.

8 (Thereupon, Exhibit 6 was  
9 marked for identification.)

10 Q. Exhibit 6.

11 A. Exhibit 6, which shows that in the late -- well, the  
12 entire '80's when Unocal was infill drilling they did increase  
13 oil production. Where in New Mexico we stayed at a relatively  
14 flat decline.

15 Q. Why does the curve for OXY terminate about 1970?

16 A. At that time the Devonian and Clearfork were  
17 commingled and we lost the ability to track solely Clearfork  
18 production.

19 Q. So although they continue to produce you just don't  
20 have the data to place on the --

21 A. That is correct. They are under waterflood also.

22 (Thereupon, Exhibit 7 was  
23 marked for identification.)

24 Q. Let's now go to Texaco Exhibit 7.

25 A. This is a comparison of Unocal's and OXY's

1 production. Mainly to show prior to waterflood, which happened  
2 back in the '60's that the producing characteristics of these  
3 wells were extremely similar.

4 (Thereupon, Exhibit 8 was  
5 marked for identification.)

6 Q. Exhibit No. 8.

7 A. Likewise we're comparing the West Dollarhide  
8 Drinkard and OXY's production on a per well basis to show that  
9 the producing characteristics in the fields are very similar.

10 (Thereupon, Exhibit 9 was  
11 marked for identification.)

12 Q. Now let's go to Exhibit No. 9.

13 A. This is an overall exhibit to just show the  
14 relationship of the units and the two wells that we propose to  
15 drill.

16 Q. This is just a general orientation plat?

17 A. Yes.

18 (Thereupon, Exhibit 10 was  
19 marked for identification.)

20 Q. Exhibit 10.

21 A. Exhibit 10 is also a general orientation that just  
22 shows the well spacing. Oxidental -- excuse me, Unocal is  
23 fully developed on 20 acres. And have just recently drilled up  
24 to their lease lines. They are fully developed on 20 acres and  
25 we're proposing to down space that also.

1 Q. Exhibit No. 11, this is the exhibit that we reviewed  
2 in conjunction with Exhibit No. C; is that right?

3 A. Yes, that's correct.

4 (Thereupon, Exhibit 12 was  
5 marked for identification.)

6 Q. Is Exhibit 12 a copy of an affidavit confirming that  
7 notice of today's hearing has been provided?

8 A. Yes, it is.

9 Q. As required by the rules of the OCD?

10 A. Yes, it is.

11 Q. Mr. Phillips, do you have an opinion as to whether  
12 or not approval of this application, or these applications,  
13 will prevent drainage from the Texaco West Dollarhide Drinkard  
14 unit toward the Unocal unit on the east?

15 A. Yes, they will.

16 Q. If this application is approved and the wells are  
17 located as spaced will an efficient waterflood pattern be  
18 established?

19 A. Yes, it will.

20 Q. In your opinion if the application is granted will  
21 this tend to increase recovery from the West Dollarhide  
22 Drinkard unit?

23 A. Yes, it will.

24 Q. Do you anticipate that this would have any adverse  
25 impact on the correlative rights of any other interest owner?

1 A. No, I do not.

2 Q. Notice of today's hearing has been provided to  
3 Unocal?

4 A. Yes.

5 Q. And they are aware of your plans to offset on the  
6 20-acre spacing?

7 A. Yes, they are.

8 Q. As you go forward and develop the West Drinkard  
9 Dollarhide unit on a 20-acre spacing pattern do you anticipate  
10 that you will be able to see the increase in recovery that  
11 Unocal has experienced in its unit to the east?

12 A. Yes, we do.

13 Q. Were Exhibits A, B, C and 1 through 12 either  
14 prepared by you or compiled under your direction?

15 A. Yes, they were.

16 MR. CARR: At this time, Mr. Catanach, I would move  
17 the admission of Texaco Exhibits A, B, C and 1 through 12.

18 HEARING EXAMINER: Exhibits A, B, C and 1 through 12  
19 will be admitted as evidence.

20 MR. CARR: That concludes my direct examination of  
21 Mr. Phillips.

22 EXAMINATION

23 BY THE HEARING EXAMINER:

24 Q. Mr. Phillips, you have had contact with Unocal and  
25 OXY and they don't have any objection to your --

1           A.     That is correct.

2           Q.     You said that Unocal was developed -- is completely  
3 developed on 20 acres at this point?

4           A.     Yes.

5           Q.     What about OXY?

6           A.     They have drilled a few wells, and they have been  
7 drilling this year, in fact. I do not have their wells posted  
8 because I am not fully aware of their operation.

9           Q.     Is part of the reason you are drilling so close to  
10 the line is to offset their drilling so close to the line?

11          A.     Yes.

12          Q.     I see.

13          A.     Under review the patterns do mesh, though.

14          Q.     So the same interval is actually being flooded on  
15 both sides of the line?

16          A.     That is correct.

17          Q.     Is there any type of agreement between the three  
18 companies?

19          A.     No, there is not.

20          Q.     There is not. Just no objections?

21          A.     Yes.

22          Q.     On Exhibit No. 1 --

23          A.     Yes.

24          Q.     On the -- on Unocal's unit --

25          A.     Yes.



1 Q. You show, on the very north of that unit you show  
2 three large circles, three large red circles. Are those infill  
3 wells?

4 A. These are the original 40-acre wells. Some of the  
5 20-acre wells were used as injection, and so they have  
6 increased their production from their old 40-acre wells by  
7 infill drilling and utilizing some of the wells as injectors.

8 HEARING EXAMINER: I have no further questions of  
9 this witness. He may be excused.

10 Anything further?

11 MR. CARR: We have nothing further.

12 HEARING EXAMINER: There being nothing further, Case  
13 10096 and 10097 will be taken under advisement.

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I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case Nos. 10096, 10097  
heard by me on September 18 1990.  
David R. Catant, Examiner  
Oil Conservation Division

1 CERTIFICATE OF REPORTER

2

3 STATE OF NEW MEXICO )  
 4 ) ss.  
 5 COUNTY OF SANTA FE )

6

7 I, Diane M. Winter, Certified Shorthand Reporter and  
 8 Notary Public, HEREBY CERTIFY that the foregoing transcript of  
 9 proceedings before the Oil Conservation Division was reported  
 10 by me; that I caused my notes to be transcribed under my  
 11 personal supervision; and that the foregoing is a true and  
 12 accurate record of the proceedings.

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

17 WITNESS MY HAND AND SEAL September 28, 1990.

18

*Diane M. Winter*

19

DIANE M. WINTER  
 CSR No. 414

20

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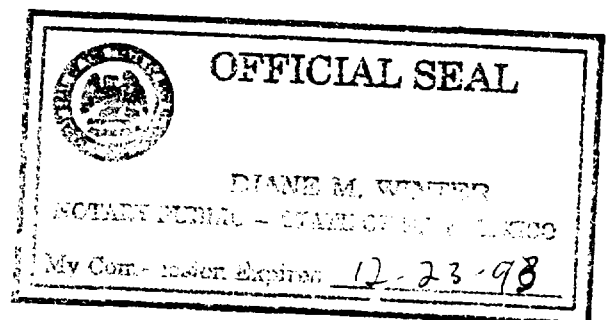
My commission expires: December 21, 1993

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