

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
State Land Office Building  
Santa Fe, New Mexico  
28 March 1979

EXAMINER HEARING

-----  
IN THE MATTER OF:

Application of Phoenix Resources )  
Company for a unit agreement, Chaves ) CASE  
County, New Mexico. ) 6504  
-----

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

A P P E A R A N C E S

For the Oil Conservation Division: Lynn Teschendorf, Esq.  
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For the Applicant: W. Thomas Kellahin, Esq.  
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1 MR. STAMETS: We'll call next Case 6504.

2 MS. TESCHENDORF: Case 6504. Application  
3 of Phoenix Resources Company for a unit agreement, Chaves  
4 County, New Mexico.

5 MR. STAMETS: Call for appearances in this  
6 case.

7 MR. KELLAHIN: Tom Kellahin of Santa Fe,  
8 New Mexico, appearing on behalf of the applicant, and I have  
9 two witnesses.

10 MR. STAMETS: I'd like to have both wit-  
11 nesses stand and be sworn at this time.

12  
13 (Witnesses sworn.)  
14

15 MR. KELLAHIN: If the Examiner please, this  
16 is a replacement unit for the Buckhorn Canyon Unit that the  
17 Division approved as a result of a hearing heard on January  
18 31st, 1979. The case was 6430; the Division Order number  
19 was R-5916. That unit was called the Buckhorn Canyon Unit.

20 I'm advised by the USGS that there ought  
21 to be two changes made in our application in this particular  
22 case. The first of which is to designate this as the Ranch  
23 Road Unit, as opposed to the Buckhorn Canyon Unit No. 2,  
24 and that as a result of requirements by the USGS, the total  
25 number of acreage is reduced to 17,254.4 acres.

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1 MR. STAMETS: The acreage in question is  
2 just a reduction of what was advertised and does not take  
3 in any acreage which was not advertised, is that correct?

4 MR. KELLAHIN: That's correct. We've eli-  
5 minated approximately seven sections.

6 MR. STAMETS: All right. We can amend your  
7 application to take in this name change and to account for  
8 the reduced number of acres.

9 MR. KELLAHIN: Thank you.

10  
11 HARVEY CASE

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

14  
15 DIRECT EXAMINATION

16 BY MR. KELLAHIN:

17 Q Would you please state your name, by whom  
18 you're employed, and in what capacity?

19 A My name is Harvey Case. I'm employed by  
20 Phoenix Resources Company in Oklahoma City, as a land man.

21 Q Mr. Case, have you previously testified  
22 before the Oil Conservation Division?

23 A Yes, I have.

24 Q And were you an expert witness in the Divi-  
25 sion hearing held on January 31st with regards to the Buck-

1 horn Canyon Unit?

2 A. Yes.

3 Q. And are you familiar with the facts sur-  
4 rounding this particular application?

5 A. Yes.

6 MR. KELLAHIN: If the Examiner please, we  
7 tender Mr. Case as an expert petroleum land man.

8 MR. STAMETS: He is considered qualified.

9 Q. (Mr. Kellahin continuing.) Mr. Case, would  
10 you refer to what we've marked as Applicant Exhibit Number  
11 One, identify it, and explain briefly what Phoenix is  
12 seeking to accomplish?

13 A. This will be a land plat defining the new  
14 area with the sections that were removed. This plat shows --  
15 this is Federal and State, all the acreage; there are no  
16 fee acres involved, and this plat simply indicates the  
17 State, giving the State lease numbers, and the Federal,  
18 giving Federal lease numbers, and their locations through-  
19 out this prospect.

20 Q. What are the total number of State acres  
21 within the unit boundaries?

22 A. 4,679.21.

23 Q. And what is the total number of Federal  
24 acres in the unit that is under lease?

25 A. 9,734.99.

1 Q And what, if any, are the total number of  
2 Federal unleased acres in the unit?

3 A 2,840.20.

4 Q And what is the total acreage for the unit?

5 A 17,254.40.

6 Q All right, sir. Let's refer to Exhibit  
7 Number Two and have you identify that.

8 A This is our unit agreement and it's approved  
9 by the USGS and preliminary approval -- it's the same con-  
10 tract as you have approved before, with appropriate changes.

11 Q When you say "appropriate changes", what do  
12 you mean by that, Mr. Case?

13 A Changing the name and the acreage.

14 Q Does the tabulation of lease ownership with  
15 regards to working and royalty interests attached to the  
16 unit agreement, has that also been changed?

17 A Yes, it has. That would be Exhibit -- it's  
18 attached as Exhibit B, or Exhibit 1, and the appropriate  
19 reductions have been made.

20 Q Now you've indicated that this matter has  
21 been submitted to the New Mexico State Land Office for ap-  
22 proval.

23 A Yes.

24 Q And as of today what is the status with the  
25 Land Office?

1 A. We have verbal approval with written approval  
2 forthcoming.

3 Q. What is the soonest expiration date for any  
4 of the Federal or State leases committed to the unit?

5 A. The Federal leases will be extended two  
6 years as to termination of the Buckhorn Canyon Unit. The  
7 first State leases will be expiring April the 15th of this  
8 year, '79.

9 Q. What, if any, agreement have you reached  
10 with the State Land Office with regards to those expiring  
11 State leases and their commitment to this particular unit?

12 A. What we have proposed to do with the State  
13 is drill a well that will be in Section 20 and it will be  
14 on State property. This well will have to be commenced by  
15 April the 15th in order to perpetuate the State leases.

16 Their approval is contingent on yours and  
17 USGS, and if we receive approval from you and USGS, the  
18 leases will be perpetuated.

19 We would like this because it gives us con-  
20 trol in the area and we would maintain our State leases, and  
21 this is a very wildcat area out in the western portion.

22 Q. All right. Let me refer to what has been  
23 marked as Exhibit Number Three, and ask you to identify  
24 that document.

25 A. Yes, this is a unit operating agreement and

1 it regulates each unit as they are drilled and subsequent  
2 wells, hopefully, as they are drilled.

3 Q What, if any, differences are there in this  
4 unit operating agreement with the unit operating agreement  
5 introduced in the prior case on the Buckhorn Canyon Unit?

6 A The only changes that have been made were  
7 boundary changes and decreases in acreage and name change.

8 Q And are the unit agreements and unit oper-  
9 ating agreements introduced into evidence here today the  
10 same documents as submitted to the USGS and the State Land  
11 Office?

12 A Yes.

13 Q Would you refer to Exhibit Number Four, now,  
14 and identify it?

15 A This is a summation of working interest  
16 owners that have ratified and joined our Ranch Road Unit.  
17 As you can see, we give their total number of acres and  
18 the percent of control each has in the unit. As of yester-  
19 day we had 73.51 percent, not including Federal unleased.  
20 Adding the Federal unleased we have 89 percent.

21 With verbal commitments from three other  
22 working interest owners, which would bring us over 90 per-  
23 cent on commitment as of today.

24 Q Please refer to Exhibit Number Five and  
25 identify it.

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1 A. This is our application to Mr. Graham at  
2 the State Land Office setting out requirements we have ful-  
3 filled for preliminary approval of the unit.

4 Q. Would you explain to the Examiner what, if  
5 anything, is to be done about the Federal unleased acreage  
6 that is committed to the unit?

7 A. The unleased Federal will be committed to  
8 the unit if we receive -- all this is contingent on final  
9 approval. If we get final approval from the State and the  
10 USGS, the USGS will in turn write the BLM and make a re-  
11 quirement to the person awarded the lease that it will be  
12 committed to the unit. So we can in essence count Federal  
13 unleased as committed acreage because if we do get approval,  
14 then we do get commitment from the USGS of these leases.

15 Q. In the Buckhorn Canyon Unit did you have  
16 Federal unleased acreage?

17 A. Yes.

18 Q. In your opinion, Mr. Case, will the per-  
19 centage of owner ratifications that you have present today  
20 give you effective control over the unitized formation and  
21 the operation of the unit?

22 A. Yes, it will.

23 Q. Were Exhibits One through Five either com-  
24 piled by you directly or compiled under your supervision  
25 and direction?

1 A. Yes, they were.

2 MR. KELLAHIN: We move the introduction of  
3 Exhibits One through Five.

4 MR. STAMETS: These exhibits will be ad-  
5 mitted. Are there questions of the witness?  
6

7 CROSS EXAMINATION

8 BY MR. STAMETS:

9 Q Mr. Case, does the unit agreement provide  
10 for Commission approval of plans of development, changes of  
11 unit operator, expansions and contractions of the unit?

12 A. I believe it does, yes.

13 Q. Okay. This witness may be excused.  
14

15 GEORGE R. REDDY

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

18  
19 DIRECT EXAMINATION

20 BY MR. KELLAHIN:

21 Q. Would you please state your name and occu-  
22 pation?

23 A. My name is George R. Reddy. I'm a consulting  
24 petroleum geologist and my office is in the Petroleum Build-  
25 ing in Roswell, New Mexico.

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1 Q Mr. Reddy, have you previously testified  
2 before the Oil Conservation Division and had your qualifi-  
3 cations as an expert geologist accepted and made a matter  
4 of record?

5 A Yes.

6 Q And did you testify in Division Case 6430  
7 with regards to the Buckhorn Canyon Unit?

8 A Yes.

9 Q Have you made a study of and are you fami-  
10 liar with the facts surrounding this particular application?

11 A Yes, I have.

12 Q Have you been retained by -- as a consul-  
13 tant for Phoenix Resources Company in this matter?

14 A Yes.

15 MR. KELLAHIN: We tender Mr. Reddy as an  
16 expert geologist.

17 MR. STAMETS: He is considered qualified.

18 Q (Mr. Kellahin continuing.) Now, Mr. Reddy,  
19 who is designated as the operator for the particular unit  
20 involved?

21 A Phoenix Resources Company.

22 Q All right. Would you please refer to what  
23 we've marked as Exhibit Number Six and have you identify  
24 that.

25 A This is an application for designation of

1 area and depth proposed, Ranch Road Unit.

2 Q And to whom was that application submitted?

3 A To the United States Geological Survey.

4 Q And what, if any, response have you received  
5 from the USGS with regards to the application?

6 A We've received verbal approval.

7 Q Would you please refer to Exhibit Number  
8 Seven and identify it?

9 A It's a geological report for the proposed  
10 Ranch Road Unit.

11 Q In what ways does that geological report  
12 differ from the geological report entered in evidence in the  
13 Buckhorn Canyon Unit case?

14 A Well, it has twice as much control in the  
15 area that we're considering here, in that we've had one  
16 well drilled since that time.

17 Q Was that well the initial well for the  
18 original Buckhorn Canyon Unit?

19 A Yes, it was.

20 Q All right, would you explain to the Examiner  
21 the history of that particular well, commencing with its  
22 location and your structure map, Exhibit Number Eight?

23 A Well, its general location is in the south-  
24 east quarter of Section 18 of Township 19 South, Range 20  
25 East. I don't have the exact location.

1 I'm looking now at the Mississippian-Chester  
2 structure map, and the well is located about one-half mile  
3 west of the Texas Oil and Gas No. 1-A Federal. You can see  
4 that.

5 MR. STAMETS: Is that the small circle im-  
6 mediately to the left -- or to the right of the number 1436?

7 A. Right, that's correct. It is still com-  
8 pleting. We don't have a symbol for it yet.

9 That well came in at this horizon about  
10 302 feet high to the Texas Oil and Gas well, whereas it had  
11 been envisioned as coming in at 50 feet high, so it did  
12 change our geology in the area.

13 Previous maps for the Buckhorn Canyon Unit  
14 were submitted which showed for this horizon a generally  
15 simple southeasterly plunging nose across the unit area,  
16 and this new information has dictated these changes. We  
17 see it now as a southeasterly plunging anticline separated  
18 by the new well and the Texas Oil and Gas well by a syncline,  
19 southeast plunging syncline.

20 Q. What is the primary productive formation  
21 within the unit boundary?

22 A. The prospective formation would be the basal  
23 Pennsylvanian sands above this particular horizon. We con-  
24 sider this economic basement for this particular proposed  
25 unit.

1 Q What are the general formations you hope to  
2 encounter production for this unit?

3 A Primary would be the Strawn; secondary ob-  
4 jectives would be the Cisco, Canyon, Atoka, and Morrow.

5 Q Let's look at Exhibit Number Nine and have  
6 you identify that.

7 A Okay, this, too, is a structure map revised  
8 as a result of the new well that we have in the area, on  
9 the Strawn formation, which is our primary objective. With  
10 that horizon we interpret this area to be occupied for the  
11 most part by the southeasterly plunging structural nose.

12 Q All right. Let's look at Exhibit Number Ten  
13 and have you identify that.

14 A This is a net sandstone Isopach, showing  
15 distribution of net feet of sandstone having greater than  
16 10 percent porosity over the area. We show 5 feet as an  
17 economic limit of our Strawn reservoir.

18 Q All right, let's look at Exhibit Number  
19 Eleven and have you identify that.

20 A All right, this is a composite map, taken  
21 from the two previous maps the minus 1700 foot structural  
22 contour and the 5 foot net sand contour to depict our inter-  
23 pretation of what the Strawn trap is. It's shown here in  
24 color, in the red, and the proposed Ranch Road Unit outline  
25 is also shown in red.

1           Q       In your opinion, Mr. Reddy, will the poten-  
2                   tially productive Strawn formation reasonably conform to the  
3                   unit boundaries?

4           A       Yes.

5           Q       Would you refer to Exhibit Number Twelve  
6                   and identify it?

7                   Excuse me, let's go back to Exhibit Number  
8                   Seven. Exhibit Number Seven was your geological report.  
9                   Would you update that report for us with regards to the ad-  
10                  ditional information you have based upon the new well being  
11                  drilled?

12           A       Okay. The new well was drilled in January  
13                   and February. It was drilled to a depth of 6,936 feet. We  
14                   ran four successful drill stem tests. The deepest of these  
15                   was to test the Siluro-Devonian reservoirs, and we found  
16                   that they had good reservoir characteristics but they were  
17                   water-bearing.

18                   And one test in the Strawn tested gas at a  
19                   rate of 131 Mcf per day on a quarter-inch choke from the  
20                   interval 5751 to 5913. We have a partial log here that  
21                   shows that test interval.

22                   Since that time -- we did set pipe on the  
23                   basis of the results of that test plus the fact that the  
24                   interval correlates with the gas-bearing sand in the Texas  
25                   Oil and Gas Federal 1-A, which is one-half mile east. And

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1 they have been completing the well to this date.

2 We have a chronological well history from  
3 the time we started testing to March 22nd, and in that time  
4 they've been attempting a completion.

5 On March 22nd, after acidizing the perfed  
6 interval that's indicated on the log, they flowed gas and  
7 unloaded their salt water, flowing tubing pressure 400 to  
8 500 psi on 1/2-inch choke, and the only information I have  
9 since that date is the report of the 27th for the activities  
10 of the 26th, and on that day the well flowed at 135 pounds  
11 tubing pressure on 10/64th-inch choke, a calculated flow  
12 of 180 Mcf per day.

13 Q Now referring back to Exhibit Number Eleven,  
14 would you identify for us the sections that have been de-  
15 leted from this particular unit that were previously in-  
16 cluded in the Buckhorn Canyon Unit?

17 A Okay, in Township 19 South, Range 19 East,  
18 it would be Sections 1, 12, 13, 24.

19 Q Those are sections along the western flank  
20 of the unit?

21 A That's of the previous unit, yes.

22 Q All right. What other sections?

23 A And in Township 19 South, Range 20 East, it  
24 would be Sections 32, 33, 34, and 35.

25 Q Those are the ones on the southern flank of



1 the new unit?

2 A. Of the previous unit.

3 Q. Of the previous unit --

4 A. Yes.

5 Q. -- that have been deleted? All right.

6 Would you refer to Exhibit Number Twelve and  
7 identify it?

8 A. This is cross section A-A', which crosses  
9 the proposed Ranch Road Unit. It's the same section that  
10 was submitted for the Buckhorn Canyon Unit. It is a strati-  
11 graphic section. We feel that it's still a valid geological  
12 interpretation and it's just re-submitted at this time.

13 Q. What's the purpose of the exhibit, Mr.  
14 Reddy?

15 A. It shows the sand conditions in the Texas  
16 Oil and Gas Federal No. 1-A as related to the UV Industries  
17 No. 1 Long Canyon wildcat southwest of the unit, and the  
18 Gardner Draw Unit east of the proposed unit.

19 Q. Were Exhibits Six through Twelve compiled  
20 by you or prepared under your direction and supervision?

21 A. Yes, they were.

22 Q. In your opinion, Mr. Reddy, will approval  
23 of this application be in the best interests of conservation,  
24 the prevention of waste, and the protection of correlative  
25 rights?

1 A. Yes.

2 MR. KELLAHIN: We move the introduction of  
3 Exhibits Six through Twelve.

4 MR. STAMETS: These exhibits will be ad-  
5 mitted.

6  
7 CROSS EXAMINATION

8 BY MR. STAMETS:

9 Q. Mr. Reddy, you've indicated your primary  
10 target here is the Strawn formation.

11 A. Yes.

12 Q. Will your test well go on down to the --  
13 to the Chester and test the deeper horizon?

14 A. Yes, it will. We plan to take it about  
15 50 feet into the Chester, so we'll test the full Pennsyl-  
16 vanian section.

17 Q. Looking at the exhibits here, the productive  
18 horizon in the Gardner Draw Unit, I believe, is Morrow?

19 A. Yes.

20 Q. Are those pretty good wells?

21 A. They haven't been produced yet. They  
22 tested -- the first one tested to be a good well, and there  
23 are two others now that are completed as gas wells, but  
24 we aren't producing yet.

25 Q. I've got a log here that's Appendix B-3.

1 What was that supposed to be attached to?

2 MR. KELLAHIN: That goes to Exhibit Seven.

3 MR. STAMETS: The geological report?

4 MR. KELLAHIN: Yes, sir.

5 MR. STAMETS: Okay. If I didn't admit your  
6 exhibits, they are, but I thought I did.

7 A. You did.

8 MR. STAMETS: Any other questions of this  
9 witness? He may be excused.

10 Anything further in this case?

11 MR. KELLAHIN: No, sir.

12 MR. STAMETS: The case will be taken under  
13 advisement.

14 (Hearing concluded.)

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## REPORTER'S CERTIFICATE

I, SALLY WALTON BOYD, a Court Reporter, DO HEREBY CERTIFY that the foregoing and attached Transcript of Hearing before the Oil Conservation Division was reported by me; that said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability, knowledge, and skill, from my notes taken at the time of the hearing.

*Sally W. Boyd*

Sally W. Boyd, C.S.R.

BEFORE EXAMINER STAMETS  
OIL CONSERVATION DIVISION

EXHIBIT NO. \_\_\_\_\_

CASE NO. \_\_\_\_\_

Submitted by \_\_\_\_\_

Hearing Date \_\_\_\_\_

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 6504  
heard by me on 3-28 1979.  
*Richard H. Stamps*, Examiner  
Oil Conservation Division

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