

NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARING

SANTA FE, NEW MEXICO

Hearing Date FEBRUARY 22, 1996 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
John McKee	Yates Pet	Artesia
Kathy Porter	"	"
J. Yellabini	Yellabini & Yellabini	Santa Fe
William [unclear]	Campbell, Jan + Bruce	Santa Fe
Michael Shean	West Oil	Santa Fe
Steve Thomson	GOCO, Inc.	Midland, TX
Jim W. [unclear]	Artesia Oil	

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY )  
THE OIL CONSERVATION DIVISION FOR THE )  
PURPOSE OF CONSIDERING: )  
APPLICATION OF YATES PETROLEUM )  
CORPORATION FOR A UNIT AGREEMENT, )  
LEA COUNTY, NEW MEXICO )

CASE NO. 11,469

ORIGINAL

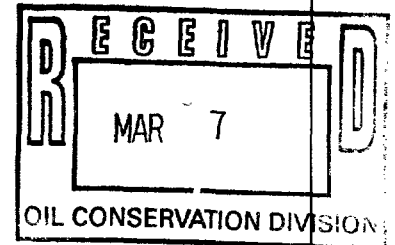
REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

February 22nd, 1996

Santa Fe, New Mexico



This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, February 22nd, 1996, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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## I N D E X

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Examiner Hearing  
CASE NO. 11,469

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\* \* \*

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

FOR THE DIVISION:

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 Attorney at Law  
 Legal Counsel to the Division  
 2040 South Pacheco  
 Santa Fe, New Mexico 87505

FOR THE APPLICANT:

CAMPBELL, CARR & BERGE, P.A.  
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 P.O. Box 2208  
 Santa Fe, New Mexico 87504-2208  
 By: WILLIAM F. CARR

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2   8:18 a.m.:

3           EXAMINER CATANACH: At this time we'll call Case  
4   11,469.

5           MR. CARROLL: Application of Yates Petroleum  
6   Corporation for a unit agreement, Lea County, New Mexico.

7           EXAMINER CATANACH: Are there appearances in this  
8   case?

9           MR. CARR: May it please the Examiner, my name is  
10   William F. Carr with the Santa Fe law firm Campbell, Carr  
11   and Berge.

12           We represent Yates Petroleum Corporation in this  
13   matter, and I have two witnesses.

14           EXAMINER CATANACH: Any other appearances?

15           Will the two witnesses please stand to be sworn  
16   in at this time?

17           (Thereupon, the witnesses were sworn.)

18                         KATHY H. PORTER,

19   the witness herein, after having been first duly sworn upon  
20   her oath, was examined and testified as follows:

21                                 DIRECT EXAMINATION

22   BY MR. CARR:

23           Q.    Would you state your name for the record, please?

24           A.    Kathy Porter.

25           Q.    And where do you reside?

1 A. Artesia, New Mexico.

2 Q. By whom are you employed?

3 A. I'm employed by Yates Petroleum Corporation.

4 Q. And what is your current position with Yates  
5 Petroleum Corporation?

6 A. I'm a landman.

7 Q. Ms. Porter, have you previously testified before  
8 this Division?

9 A. Yes, I have.

10 Q. At the time of that testimony, were your  
11 credentials as a petroleum landman accepted and made a  
12 matter of record?

13 A. Yes, they were.

14 Q. Are you familiar with the Application filed in  
15 this case on behalf of Yates Petroleum Corporation?

16 A. Yes.

17 Q. And are you familiar with the proposed Alphabet  
18 Unit?

19 A. Yes, I am.

20 MR. CARR: Are the witness's qualifications  
21 acceptable?

22 EXAMINER CATANACH: They are.

23 Q. (By Mr. Carr) Ms. Porter, would you briefly  
24 state what Yates Petroleum Corporation seeks with this  
25 Application?

1           A.     Yates Petroleum Corporation seeks approval of the  
2     Alphabet Unit agreement, a voluntary exploratory unit  
3     comprising 1997.01 acres of state and fee lands in Lea  
4     County, New Mexico.

5           Q.     Have you prepared exhibits for presentation in  
6     this hearing?

7           A.     Yes, I have.

8           Q.     Could you refer to what has been marked for  
9     identification as Yates Petroleum Corporation Exhibit  
10    Number 1, identify this and review it for Mr. Catanach?

11          A.     Yates Exhibit 1 is the unit agreement on the  
12    state/fee form for an exploratory unit agreement.

13          Q.     Let's go to Yates Exhibit Number 2, which is a  
14    copy of the plat marked as Exhibit A to the unit agreement.  
15    I'd ask you to refer to this plat and review the status of  
16    the leases committed to this unit plan.

17          A.     Yates Exhibit 2 is the plat of the Alphabet Unit  
18    area. There are 11 leases in this outline. Nine are state  
19    leases, two are fee leases. The earliest exploration date  
20    is March 1st, 1996.

21          Q.     As this unit was originally proposed, it  
22    contained 2077.01 acres. What has happened to the unit  
23    boundary since originally proposed?

24          A.     After it was proposed as the 2077.01 acres, the  
25    State Land Office recommended elimination of the east half,

1 northeast of Section 17. Therefore, the unit now includes  
2 1997.01 acres, and that is reflected in the unit agreement  
3 and the exhibits.

4 MR. CARR: Mr. Catanach, the legal advertisement  
5 for the case included that additional 80-acre tract, but  
6 since we are only deleting acreage, we would submit that  
7 the advertisement is sufficient.

8 Q. (By Mr. Carr) Ms. Porter, could you now move to  
9 what has been marked as Yates Petroleum Corporation Exhibit  
10 Number 3?

11 A. Yates Exhibit Number 3 is Exhibit B to the unit  
12 agreement. This sets out the working interest/royalty  
13 interest under each lease.

14 Q. What percentage of the acreage in the proposed  
15 unit area has been voluntarily committed to this unit plan?

16 A. 75.96 percent of the acreage has been committed  
17 at this time.

18 Q. And at this time who has not agreed to commit  
19 their interest to this unit?

20 A. Meridian with approximately 20 percent and  
21 Amerada Hess with approximately four percent are the other  
22 acreage owners.

23 Q. With approximately 75-percent commitment, will  
24 this provide Yates with effective control of unit  
25 operations?



1 A. Yes, it will.

2 Q. And you have reviewed this plan with the  
3 Commissioner of Public Lands, have you not?

4 A. That's correct.

5 Q. Has he given his preliminary approval to the  
6 unit?

7 A. Yes, Yates Exhibit Number 4 is a letter from the  
8 State Land Office, granting the preliminary approval.

9 Q. Does Yates desire to be designated operator of  
10 the unit?

11 A. Yes.

12 Q. Does the unit agreement provide for the periodic  
13 filing of plans of development?

14 A. Yes, it does.

15 Q. And will those plans be filed with the Oil  
16 Conservation Division at the same time they're filed with  
17 other agencies?

18 A. That's correct.

19 Q. Do you know how often these plans of development  
20 are to be filed?

21 A. The initial plan is to be filed within six months  
22 after completion of a commercial unit well. Subsequent  
23 plans are then filed 12 months following.

24 Q. Will Yates also call a geological witness to  
25 review the technical portions of this case?

1 A. Yes, we will.

2 Q. Were Exhibits 1 through 4 either prepared by you  
3 or compiled under your direction and supervision?

4 A. Yes, they were.

5 MR. CARR: Mr. Catanach, at this time we would  
6 move the admission into evidence of Yates Petroleum  
7 Corporation Exhibits 1 through 4.

8 EXAMINER CATANACH: Exhibits 1 through 4 will be  
9 admitted as evidence.

10 MR. CARR: And that concludes my direct  
11 examination of Ms. Porter.

12 EXAMINATION

13 BY EXAMINER CATANACH:

14 Q. Ms. Porter, the unitized formations are all oil  
15 formations?

16 A. That's correct.

17 Q. Do you know why that 80 acres was excluded?

18 A. After a preliminary meeting with the State Land  
19 Office, they looked at the area, they looked at some  
20 preliminary maps the geologists had done and recommended  
21 that that 80 acres be carved out.

22 Q. Do you anticipate agreement from Meridian or  
23 Amerada Hess?

24 A. No, sir, not at this time.

25 EXAMINER CATANACH: I have nothing further of the

1 witness.

2 MR. CARR: At this time we would call Mr. John  
3 McRae.

4 JOHN McRAE,

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

7 DIRECT EXAMINATION

8 BY MR. CARR:

9 Q. Would you state your name for the record, please?

10 A. John McRae.

11 Q. Where do you reside?

12 A. Artesia, New Mexico.

13 Q. By whom are you employed?

14 A. Yates Petroleum Corporation.

15 Q. What is your position with Yates Petroleum  
16 Corporation?

17 A. I'm an exploration geologist.

18 Q. Have you previously testified before the Oil  
19 Conservation Division?

20 A. Yes, I have.

21 Q. At the time of that testimony, were your  
22 credentials as a petroleum geologist accepted and made a  
23 matter of record?

24 A. Yes, they were.

25 Q. Are you familiar with the Application filed in

1 this case on behalf of Yates Petroleum Corporation?

2 A. Yes.

3 Q. And have you made a geological study of the area  
4 surrounding the proposed Alphabet Unit?

5 A. Yes, I have.

6 MR. CARR: Are the witness's qualifications  
7 acceptable?

8 EXAMINER CATANACH: Yes, they are.

9 Q. (By Mr. Carr) Mr. McRae, are all horizons being  
10 unitized in the proposed Alphabet Unit?

11 A. Yes.

12 Q. And what is the primary objective in the unit?

13 A. The Bone Spring formation is the primary  
14 objective.

15 Q. Are there secondary objectives?

16 A. Secondary objectives consist of the Delaware  
17 sands and also the shallow Yates-Seven Rivers Section.

18 Q. Let's go to what's been marked as Yates Exhibit  
19 Number 5. Would you identify this exhibit and review it  
20 for the Examiner?

21 A. This is a structure map that is on the top of the  
22 Avalon sand interval, and I can show you that more clearly  
23 on the cross-section, but it's essentially about 100 feet  
24 below the top of the Bone Spring. It changes.

25 On this map, I have coded the wells. There's a

1 legend in the left-hand bottom corner. I see we have a  
2 mistake here. The wells that are circled are 6000 feet and  
3 deeper. The wells that are not circled are shallow wells  
4 that are less than 6000 feet.

5 I've color-coded the Bone Spring producers in  
6 pink, and the yellow is Delaware producer, and a plugged  
7 producer has the plugged producer symbol there.

8 What this map shows on the top of the Avalon sand  
9 is, under the proposed Alphabet Unit is a structural  
10 closure with the minus 5150 contour, essentially defining  
11 that closure. This structural nose is parallel to -- It  
12 runs northeast and southwest, to the Osudo structure, which  
13 is on the southeast corner of this map.

14 The contours -- they go through Sections 21, 15  
15 and 11, essentially running northeast-southwest. That just  
16 climbs up onto another nose in that southeast corner, and  
17 that's controlled by a deep-seated fault that runs right  
18 through those sections I mentioned. And this is another  
19 nose with a closure on it that's parallel to that Osudo  
20 structure.

21 Also on this map, I've defined the cross-section  
22 that we'll talk about in just a minute, and I've noted the  
23 two wells, the key wells, Number 1 and Number 2.

24 Q. Was this geological presentation presented to the  
25 State Land Office?

1           A.    Yes, it was.

2           Q.    And based on this structural interpretation, did  
3 the Land Office request that the east half of the northeast  
4 quarter of Section 17 be eliminated from the unit area?

5           A.    That's correct.  On my preliminary map that I  
6 showed the State Land Office, the contour interval between  
7 the 5100 and the 5150 was quite a bit wider in that  
8 northeast corner, and after looking at that map, they  
9 suggested that the contour interval should be more  
10 parallel.  And when I recontoured it, then it required to  
11 pull out that northeast -- east half of the northeast of  
12 17.

13          Q.    Mr. McRae, let's go to the structural cross-  
14 section, Exhibit Number 6.  Could you first identify that  
15 and then review it for Mr. Catanach?

16          A.    This is a structural cross-section that's on the  
17 datum of sea level minus 5000 feet.  The north end of the  
18 cross-section is on the left-hand side, with the Berry Well  
19 numbered Number 1.

20          Q.    There's a trace for this cross-section on Exhibit  
21 Number 5, is there not?

22          A.    That's correct, on the structure map.  And then  
23 the Hunt -- I'm sorry, the Shell well, excuse me, is Well  
24 Number 2.

25                    What this shows is -- First of all, on the left-

1 hand side, I have noted the mapped horizon. That's the  
2 Avalon sand interval. So that's the zone that I used for  
3 the structure map.

4 The second thing that I'd like to point out on  
5 this cross-section is that it shows the saddle between the  
6 Berry well, to the north, Well Number 1, and then it shows  
7 the structural closure underneath the Alphabet Unit.

8 The other thing I'd like to point out is that I  
9 have colored in yellow the basic sand packages between the  
10 top of the Bone Spring, which is noted at the top, and the  
11 first Bone Spring sand, which is towards the bottom of the  
12 cross-section.

13 These are turbidite sands that came in from the  
14 north and northeast. They're not continuous sands. These  
15 are general sand packages. The structure is very important  
16 for this unit, because over the structures -- or on these  
17 structures, these sand -- the hydrocarbon potential is  
18 enhanced on the structure, versus just being simply  
19 stratigraphic.

20 On the Berry well, the Number 1 well, I've also  
21 noted all of the perforations that we have opened up, all  
22 the sands that we've opened up and are currently producing.  
23 This is a re-entry that we did a few months ago.

24 I would also point out that Zone 1A, if you'll  
25 look at the right-hand side of the cross-section, the very

1 last sand, that sand package does not appear to even be  
2 present in the Berry well. So we think that the Alphabet  
3 Unit has much higher potential than these wells to the  
4 north, due to the closure and also thicker sands, better  
5 porosity.

6 On the Well Number 2 I've also colored in, in  
7 red, the porosity from the sonic log. So you can see we've  
8 got a lot of porosity.

9 Q. Mr. McRae, this area has long been known for  
10 hydrocarbon potential in the Bone Spring, has it not?

11 A. That's correct.

12 Q. Yates has recently been working over wells in  
13 this area?

14 A. Yes, we worked over the Hunt well, which is in  
15 Section 4. It's coded yellow, as a Delaware producer.  
16 That well did produce from the Bone Spring, and is  
17 currently producing from the Delaware.

18 We've also -- currently have production from the  
19 Berry well, which is in Section 5, noted as Number 1 on the  
20 structure map.

21 Q. And it's the results of these recent workovers  
22 that caused Yates to decide to go back in and form this  
23 unit?

24 A. That's correct.

25 Q. Where will the initial test well be located on



1 the unit?

2 A. It will be in the northwest quarter of Section 8.

3 Q. Could you summarize for Mr. Catanach your  
4 geologic conclusions?

5 A. Due to our workovers and subsurface work, we  
6 recognize that this area has significant potential in the  
7 Bone Spring formation. The structural closure is required  
8 to enhance the hydrocarbon-trapping capabilities of these  
9 sands. The Alphabet Unit will cover that closure, that  
10 structural closure.

11 Q. In your opinion, is this an area that can best be  
12 developed under a unit plan?

13 A. Definitely, yes.

14 Q. How soon does Yates plan to drill the initial  
15 test well on the unit?

16 A. We will spud the initial well before 4-1-96 --  
17 3-1-96, excuse me.

18 Q. So you request that the order be expedited to the  
19 extent possible?

20 A. Yes, please.

21 Q. In your opinion, will approval of this  
22 Application be in the best interest of conservation, the  
23 prevention of waste and the protection of correlative  
24 rights?

25 A. Yes.

1 Q. Is Yates Exhibit Number 7 a written summary of  
2 your geological study of this area?

3 A. Yes, it is.

4 Q. Were Exhibits 5 through 7 prepared by you or  
5 compiled under your direction?

6 A. Yes.

7 MR. CARR: At this time, Mr. Catanach, we would  
8 move the admission into evidence of Yates Petroleum  
9 Corporation Exhibits 5 through 7.

10 EXAMINER CATANACH: Exhibits 5 through 7 will be  
11 admitted as evidence.

12 MR. CARR: And that concludes my direct  
13 examination of Mr. McRae.

14 EXAMINATION

15 BY EXAMINER CATANACH:

16 Q. Mr. McRae, the Number One well in Section 17,  
17 what was that drilled to, or for?

18 A. Originally, that was -- All that information is  
19 on the bottom of the cross-section. Originally, it was  
20 drilled by Getty in 1981 as a Morrow test. They completed  
21 it from the Morrow, and the completion produced a total of  
22 170 million cubic feet of gas.

23 It was recompleted a year later in the Atoka with  
24 no recorded production.

25 Then Texaco re-entered the well in 1987 and

1 attempted a Bone Springs completion. It IP'd at four  
2 barrels a day. They produced a total of 194 barrels of  
3 oil.

4 Yates re-entered that well in November of 1995,  
5 opened up quite a few more sands and treated these sands  
6 with a large frac, and we IP'd this well pumping 214  
7 barrels a day.

8 Q. Do you know what the current rate on that well  
9 is?

10 A. No, sir, I don't. It's dropped off to about 40  
11 barrels, 45 barrels a day.

12 Q. Okay. The well in Section 17, the Shell well --

13 A. Yes.

14 Q. -- what was that drilled for?

15 A. It was drilled by Shell in 1965. It was a Morrow  
16 test. And there's no mud log across the Bone Springs  
17 section. Very little information. I contacted Shell,  
18 attempted to get whatever information they had across that  
19 section.

20 So they ran no DST's, no cores through the Bone  
21 Spring. They went to the Morrow, tested it and then  
22 plugged the well in 1965.

23 Q. Does Yates have any plans to re-enter that well?

24 A. We would like to do that after we drill the  
25 initial well. The problem we have in here is, we're not

1 sure of the cement jobs and the casing integrity, so a new  
2 well would be a much better way to evaluate the potential,  
3 run DSTs and have a good mud log.

4 So yes, we will re-enter that at a later date.

5 Q. What did you use to construct your contour map?

6 A. I used strictly subsurface control. There's a  
7 lot of information on the Osudo structure, and based on  
8 that structural nose there appeared to be another one  
9 parallel to it, trending northeast-southwest. There's just  
10 a big, flat area in here, and I've interpreted that there's  
11 a closure.

12 Q. Now, the Osudo, that's a different Bone Spring  
13 structure?

14 A. It's a Morrow field.

15 Q. Oh, okay.

16 A. It's located -- You can see some of the gas wells  
17 in Section 23, 27, and then further off the map. That's  
18 well documented in the literature.

19 Q. Okay. So this is just a structure that parallels  
20 that, you're saying?

21 A. Yes, sir, appears to be that way.

22 Below I've mapped in section 10 and 15, 16,  
23 coming down through 21, that's well documented on seismic,  
24 numerous published maps.

25 Q. What -- Is it your opinion that everything below

1 minus 5150 is going to be nonproductive? Is that what  
2 you're trying to --

3 A. No, I'm simply trying to show that there is a  
4 flat area out here, a closure, and that under these  
5 closures, the Delaware fields to the south, and we think  
6 also here in the Bone Spring, the production is enhanced,  
7 you have a lot higher chance of having stacked pays under a  
8 closure, versus just simply on a nose. This is a much  
9 better area to develop the Bone Spring sands than simply a  
10 structural nose.

11 Q. But you're defining that as the productive limits  
12 of the reservoir, the minus 5150 contour line?

13 A. Yes, sir.

14 Q. Okay. What's the -- You mentioned Delaware and  
15 Yates as secondary targets?

16 A. Yes, sir, the wells in Section 16 that are not  
17 circled are Yates producers, and these are just small  
18 little Yates structures. That's a secondary possibility.

19 And also the Delaware, again, probably the  
20 Delaware will be draped across this structural closure, and  
21 we anticipate Delaware sand potential also.

22 Q. Did you see any of that in the Berry well?

23 A. We have not attempted a completion in the  
24 Delaware in the Berry, but we have in the Hunt well, in  
25 Section Number 4, the one that's colored yellow.

1 Q. Uh-huh.

2 A. And we're currently producing from the Delaware,  
3 and that well is making about 50 barrels a day at this  
4 point.

5 That well shows -- We have a mud log on it that  
6 shows numerous sands that had shows but were not tested.  
7 That was drilled in the early 1980s also. So we're going  
8 to adequately test that on the way down, drill a new well.

9 EXAMINER CATANACH: I have nothing further of  
10 this witness.

11 MR. CARR: That concludes our presentation in  
12 this case.

13 EXAMINER CATANACH: There being nothing further  
14 in this case, Case 11,469 will be taken under advisement.

15 (Thereupon, these proceedings were concluded at  
16 8:40 a.m.)

17 \* \* \*

18  
19  
20  
21 I do hereby certify that the foregoing is  
22 a complete record of the proceedings in  
the Examiner hearing of Case No. 11469,  
heard by me on February 22 1986.

23 David R. Catanach, Examiner  
24 Oil Conservation Division  
25

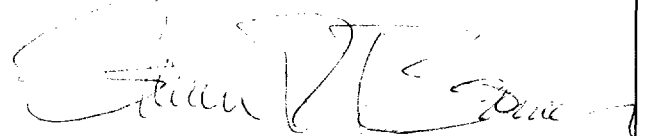
## CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court 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 February 27th, 1996.



STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 14, 1998