

## NEW MEXICO OIL CONSERVATION COMMISSION

EXAMINER HEARINGSANTA FE, NEW MEXICOHearing Date NOVEMBER 14, 1990 Time: 8:15 A.M.

NAME	REPRESENTING	LOCATION
William L. Jan	Campbell and Clark, P.A.	Santa Fe
Boya Jan	Doyle Hartman	Midland, TX
Bill Hering	Unocal	Farmington, NM
Mike Herson	Unocal	Midland, TX
Harold Overton	Newbourne Oil Co	Midland, TX
Paul Haden	Newbourne	"
Mease Bennett	UNOCAL	Midland TX
Doug O	Sch 2 Abstract 6	SF NM
R. Bobo Kendeich	El Paso Natural Gas	El Paso TX
Ernest L. Padilla	Padilla & Snyder	SF NM
Joanne Reuter	Doyle Hartman	SF NM
Alan W. Buhling	Chevron, U.S.A.	Midland, TX
Jon Vaughan	Grand Prod. Co.	OKC, OK
George Velotta	Grand Prod Co	OKla. City OK
Victor Lyon	Consultant	Santa Fe
W Perry Pearce	Montgomery & Andrews, P.A.	Santa Fe
W D Kellish	Kellish-Kellish Aubrey	Santa Fe
Charles Calkin	Grand Prod Co	Santa Fe

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NAME	REPRESENTING	LOCATION
<i>Walter Regal</i> <i>K. Frank Monahan</i>	<i>Pedco</i> <i>PANDA RESOURCES, INC.</i>	<i>Esperole</i> <i>TULSA, OK.</i>
<i>David R. Vandine</i>	<i>Fisk + Vandine</i>	<i>Artesia</i>
<i>MIKE BURCH</i>	<i>YATES PET CORP</i>	<i>"</i>
<i>Frank Yates</i>	<i>Yates Pet Corp</i>	<i>"</i>
<i>Brent May</i>	<i>Yates Pet Corp</i>	<i>"</i>
<i>Mark Nearburg</i>	<i>Nearburg Producing</i>	<i>Midland</i>
<i>J.C. Johnson</i>	<i>Petroleum Dev. Corp</i>	<i>Albuquerque</i>
<i>LOUIS MAZZUCCO</i>	<i>Geol. Cons., NEARBURG PRO</i>	<i>MIDLAND</i>
<i>Ann Dalton</i>	<i>URS Company of New Mexico</i>	<i>Albuquerque</i>
<i>John Potts</i>	<i>Energy Partners</i>	<i>Midland</i>
<i>CHARLES BUDD</i>	<i>GREEN HILL PETROLEUM</i>	<i>Houston</i>
<i>MIKE NEWPORT</i> <i>Carolyn Sebastian</i>	<i>Doyle Petroleum</i>	<i>Midland</i>
<i>MIKE STEWART</i>	<i>Doyle Petroleum</i>	<i>Midland</i>
<i>Bill Brown</i>	<i>Meridian Oil Inc</i>	<i>Midland</i>
<i>Brett Adams</i>	<i>Meridian Oil Inc</i>	<i>Midland</i>
<i>Dave Dineen</i>	<i>Cons Eng</i>	<i>Santa Fe</i>

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

IN THE MATTER OF: )  
 )  
APPLICATION OF YATES PETROLEUM ) CASE NO. 10135  
CORPORATION FOR A UNIT AGREEMENT, LEA )  
COUNTY, NEW MEXICO )  
 )  
 )  
----- )

REPORTER'S TRANSCRIPT OF PROCEEDINGS  
EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Examiner  
  
November 14, 1990  
8:30 a.m.  
Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on November 14, 1990, at 8:30 a.m. at the Oil Conservation Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Susan G. Ptacek, a Certified Shorthand Reporter No. 124 and Notary Public in and for the County of Santa Fe, State of New Mexico.

FOR: OIL CONSERVATION DIVISION BY: SUSAN G. PTACEK  
Certified Shorthand Reporter  
CSR No. 1224

## I N D E X

November 14  
Examiner Hearing  
Case No. 10135

PAGE

## APPEARANCES

3

## APPLICANT WITNESS:

## MIKE BURCH

Direct Examination by Mr. Vandiver  
Examination by Examiner Catanach

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## BRENT MAY

Direct Examination by Mr. Vandiver  
Examination by Examiner Catanach  
Redirect Examination by Mr. Vandiver

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## REPORTER'S CERTIFICATE

19

\* \* \*

## E X H I B I T S

Admtd

## APPLICANT'S EXHIBIT

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

FOR THE DIVISION: ROBERT G. STOVALL, ESQ.  
General Counsel  
Oil Conservation Division  
State Land Office Building  
Santa Fe, New Mexico 87504

FOR THE APPLICANT: FISK & VANDIVER  
Attorneys at Law  
BY: DAVID R. VANDIVER, ESQ.  
Seventh & Mahone, Suite E  
Artesia, New Mexico 88210

\* \* \*

1 EXAMINER CATANACH: At this time we will call Case No.  
2 10135.

3 MR. STOVALL: The application of Yates Petroleum  
4 Corporation for a unit agreement, Lea County, New Mexico.

5 EXAMINER CATANACH: Are there appearances in this  
6 case?

7 MR. VANDIVER: Mr. Examiner, my name is David Vandiver  
8 of the Artesian law firm of Fisk & Vandiver appearing on  
9 behalf of Yates Petroleum Corporation, and I have two  
10 witnesses to be sworn.

11 EXAMINER CATANACH: Are there any other appearances?  
12 If the witnesses would come forward to be sworn in?

13 MIKE BURCH,  
14 the Witness herein, having been first duly sworn, was  
15 examined and testified as follows:

16 DIRECT EXAMINATION  
17 BY MR. VANDIVER:

18 Q. Mr. Burch, would you state your name and by whom  
19 you are employed and in what capacity?

20 A. My name is Mike Burch. I'm employed by Yates  
21 Petroleum Corporation, Artesia, New Mexico, as a petroleum  
22 landman.

23 Q. Mr. Burch, have you previously testified as a  
24 petroleum landman before the New Mexico Oil Conservation  
25 Division, had your qualifications as a landman accepted and

1 made a matter of record?

2 A. Yes, I have.

3 Q. Are you familiar with the title to the lands  
4 within the area of the proposed Hourglass State Unit?

5 A. Yes, I am.

6 MR. VANDIVER: Mr. examiner, I tender Mr. Burch as an  
7 expert in petroleum land matters.

8 EXAMINER CATANACH: He is so qualified.

9 Q. (By Mr. Vandiver) Mr. Burch, briefly summarize  
10 the purpose of Yates Petroleum Corporation's application in  
11 Case No. 10135.

12 A. Yates Petroleum Corporation desires to form this  
13 exploratory State Unit covering the south half of Section  
14 10, northeast quarter of Section 16, northeast-northeast  
15 quarter of Section 15, and the southeast-southeast quarter  
16 of Section 9-18-35 in Lea county, New Mexico to allow Yates  
17 Petroleum to more efficiently and effectively explore for  
18 oil and gas.

19 Q. Mr. Burch, if I could refer you to Yates Exhibit  
20 1 in this case, and ask you to describe what that is.

21 A. It's a plat outlining in blue the proposed State  
22 Unit. There is also a red mark for our proposed location  
23 for our first well.

24 Q. Are all the minerals within the proposed unit  
25 area owned by the state of New Mexico?

1 A. Yes, they are.

2 MR. STOVALL: Mr. Vandiver, let me do one thing just  
3 to clarify the record. Mr. Burch, is Section 15 -- what  
4 are the lands to be included in the unit again?

5 THE WITNESS: The northwest quarter of the northwest  
6 quarter.

7 MR. STOVALL: I think you said northeast before.

8 THE WITNESS: I apologize. It is the northwest of the  
9 northwest quarter.

10 Q. (By Mr. Vandiver) Do you know, Mr. Burch, what  
11 is the primary formation that you will be seeking to test  
12 in the drilling of your initial test well?

13 A. The primary zone that they're looking for in the  
14 initial test is the Bone Springs.

15 Q. All right. Mr. Burch, identify Exhibit 2 and  
16 describe what that is, please, sir.

17 A. Exhibit 2 is a unit agreement for the  
18 development, operation of the Hourglass Unit. It's on an  
19 approved form by the Commission of Public Lands.

20 Q. And under the terms of the unit agreement what  
21 formations are to be unitized?

22 A. We request that all formations be unitized.

23 Q. Who is designated as operator under the unit?

24 A. Yates Petroleum Corporation.

25 Q. As required by the laws of the state and rules



1 of the commissioner, the unit agreement allocates  
2 production from any well drilled on a committed tract  
3 within the unit area to each of the separately owned tracts  
4 on the surface acreage basis; is that correct?

5 A. That's correct.

6 Q. Could refer to Exhibit A of the unit agreement  
7 and tell the examiner what information generally is  
8 contained in that exhibit?

9 A. Okay. Exhibit A outlines the proposed unit,  
10 covering the south half of 10, southeast-southeast of  
11 Section 9, northeast quarter of Section 16, and the  
12 northwest-northwest of Section 15 in 18 South, 35 East.  
13 Also states the ownership of those state leases, and also  
14 notes the dates of those expirations.

15 Q. If you could refer to Exhibit B of the unit  
16 agreement and describe what information is contained on  
17 that exhibit?

18 A. Exhibit B includes the tracts with the land  
19 descriptions in the proposed unit, the number of acres that  
20 encompasses the unit. The serial numbers and expirations  
21 of the leases that comprise the unit, the basic royalty and  
22 ownership of those leases, the lessees of record, any known  
23 overrides that affect those, and the working interest  
24 ownership of those leases.

25 Q. As reflected on Exhibit B of the unit agreement,

1 Mr. Burch, what is the earliest expiration date of the  
2 leases to be committed to the proposed unit?

3 A. The earliest expiration is December the 1st of  
4 1990.

5 Q. And so you're seeking an order approving this  
6 unit agreement in time to commence drilling operations  
7 prior to December 1?

8 A. That's correct.

9 Q. What is the status of joinder of the working  
10 interest owners to the proposed unit?

11 A. We have approximately 85 percent joinder.

12 Q. That would --

13 A. At this time.

14 Q. That would be the Yates Petroleum Corporation  
15 and related entities?

16 A. That is correct.

17 Q. And Penrock Oil Corporation, which owns the  
18 southeast-southeast quarter of Section 9 and Hondo Oil and  
19 Gas Company which owns northwest quarter-northwest quarter  
20 of Section 15 have not at this time agreed to commit their  
21 leases to the proposed unit?

22 A. They have not agreed yet.

23 Q. But you have an excess of 85 percent of the unit  
24 area committed?

25 A. Yes, we do.

1 Q. Now, Mr. Burch, identify Exhibit 3, and describe  
2 what it is, please.

3 A. Exhibit 3 is an A.A.P.L. Form 610-1977 Model  
4 Operating Agreement form. Outlines the tracts involved in  
5 the State Unit.

6 Q. That covers only the land within the unit?

7 A. That's correct.

8 Q. Has this unit operating agreement been submitted  
9 to all of the working interest owners?

10 A. Yes, it has.

11 Q. And if you would refer to Exhibit A of the unit  
12 operating agreement and review the manner in which the cost  
13 of the initial test well will be paid?

14 A. Exhibit A reflects the lands that would be  
15 subject to the agreement, depth restrictions, also  
16 indicates the percentage interest and the parties under the  
17 agreement. This would be revised. Right now it contains  
18 all the parties that would have leases in the unit. It  
19 would be revised if we get -- if there is no joinder by  
20 Penrock Oil Corporation or Hondo Oil & Gas. It also states  
21 the leasehold interest of the parties involved.

22 Q. And does this unit operating agreement contain  
23 all other customarily contractual terms of a joint  
24 operating agreement?

25 A. Yes, it does.

1 Q. Now, if I could ask you to identify Yates  
2 Exhibit 4 and describe what that is, please, sir.

3 A. Exhibit 4 is a letter from the Commissioner of  
4 Public Lands to Fisk & Vandiver --

5 Q. It is a letter from Fisk & Vandiver to the  
6 commissioner, is it not?

7 A. Excuse me. Yes, it's a letter from Fisk &  
8 Vandiver to the Commissioner of Public Lands requesting  
9 preliminary approval of our Hourglass State Unit.

10 Q. And have you had any response to this request  
11 for preliminary approval?

12 A. We had a verbal response from the Commissioner  
13 of Public Lands giving preliminary approval to the unit.

14 Q. Have they requested any changes in the unit  
15 agreement?

16 A. There was one request of change in the unit  
17 agreement on page 7 of the unit agreement, paragraph 17,  
18 effective date and term on line 3. The five years was  
19 omitted from the agreement. They have requested us to fill  
20 in five years after such date.

21 Q. That will be revised prior to submission of the  
22 executed unit agreement to the commissioner and the  
23 division?

24 A. Yes, it will.

25 Q. One of the requirements of the Commissioner of

1 Public Lands for approval of a State Unit agreement is that  
2 an order first be entered by the Oil Conservation Division  
3 approving the unit; is that correct?

4 A. Yes.

5 Q. And it is necessary that Yates have final  
6 approval of both the division and the commissioner prior to  
7 commencing drilling operations for the initial test well or  
8 prior to December 1, 1990?

9 A. Yes, we would like that.

10 Q. Mr. Burch, were Exhibits 1 through 4 prepared by  
11 you or under your direction supervision?

12 A. Yes, they were.

13 MR. VANDIVER: Mr. Examiner, I would move the  
14 admission of Yates Exhibits 1 through 4, and that concludes  
15 my direct examination of this witness.

16 EXAMINER CATANACH: Exhibits 1 through 4 will be  
17 admitted as evidence.

18 (Applicant's Exhibits 1 through 4  
19 were admitted into evidence.)

20 EXAMINATION

21 BY EXAMINER CATANACH:

22 Q. Mr. Burch, do you have a feeling as to whether  
23 Hondo and Penrock will voluntarily join the unit?

24 A. They will not join. We have received  
25 correspondence that they don't want to join.

1 EXAMINER CATANACH: I believe that's all I have. You  
2 may be excused.

3 BREN MAY,  
4 the Witness herein, having been first duly sworn, was  
5 examined and testified as follows:

6 DIRECT EXAMINATION

7 BY MR. VANDIVER:

8 Q. Mr. May, please state your full name, and by  
9 whom you are employed, and in what capacity?

10 A. My name is Brent May. I work for Yates  
11 Petroleum Corporation of Artesia, New Mexico. I'm a  
12 petroleum geologist.

13 Q. Mr. May, have you previously testified before  
14 the New Mexico Oil Conservation Division?

15 A. No, I have not.

16 Q. If you would, Mr. May, please tell the examiner  
17 your educational background.

18 A. I graduated from West Texas State in 1982 with a  
19 bachelor's of science degree with a major in geologist, and  
20 graduated from Texas Tech University in 1988 with a master  
21 of sciences degree with a major in geology.

22 Q. And how long have you been employed by the Yates  
23 Petroleum Corporation?

24 A. Approximately a year and a half.

25 Q. And have you made a study of the available

1 geological information regarding the proposed Hourglass  
2 State Unit agreement for the purposes of your testimony  
3 today?

4 A. Yes, I have.

5 Q. Are you familiar with the geological basis for  
6 the proposed unit?

7 A. Yes, I am.

8 Q. And have you prepared certain exhibits to  
9 illustrate the opinions you are going to express and the  
10 underlying basis for your opinions?

11 A. Yes, I have.

12 MR. VANDIVER: Mr. Examiner, I tender Mr. May as an  
13 expert petroleum geologist.

14 EXAMINER CATANACH: He is so qualified.

15 Q. (By Mr. Vandiver) Mr. May, if I could ask you  
16 to refer to what's been marked as Yates Exhibit 5 and ask  
17 you just to describe what that is. This is Exhibit 5?

18 A. That is a geologic explanation of the proposed  
19 Hourglass State Unit.

20 Q. Mr. May, in your opinion, is the area  
21 encompassed within the proposed Hourglass State Unit  
22 logically subject to unit development?

23 A. Yes, it is.

24 Q. What is Yates Petroleum Corporation's program  
25 objective in forming this unit in drilling the initial

1 exploratory well?

2 A. To test the hydrocarbon potential of the Bone  
3 Spring formation within the unit boundaries.

4 Q. If I could ask you do identify Applicant's  
5 Exhibit 6, which is the cross section, and ask you to  
6 review the information contained in that exhibit?

7 A. Cross section A, A prime, is a structural cross  
8 section showing the Bone Spring interval having a datum of  
9 4,500 feet below sea level. The First Bone Spring Sand,  
10 the Second Bone Spring Carbonate, Second Bone Spring Sand,  
11 Third Bone Spring Carbonate and Third Bone Spring Sand is  
12 shown on the cross section. The primarily objective of the  
13 initial well within the unit is to test the first and  
14 second banks of the Second Bone Spring Carbonate. These  
15 banks seen in the highlighted area consist of a porous bank  
16 facies shown in light blue and a Type 4 bank facies in dark  
17 blue.

18 Q. Mr. May, is there any production from the first  
19 and second bank as you described it within the area of the  
20 proposed unit?

21 A. No, there is not.

22 Q. Is there anything further with regard to this  
23 exhibit?

24 A. No, there is not.

25 Q. All right. Now, if I could ask you to refer to



1 Yates Exhibit 7 and describe what that is, please?

2 A. It is a structure map with the top of Second  
3 Bone Spring Sand as the datum. It shows the relatively  
4 gentle southeasterly dip in the area of the unit. This  
5 structural configuration provides an ideal depositional  
6 scenario of the buildup of porous carbonate banks. In  
7 contrast, the areas of steeper dip outside the unit  
8 boundaries provide poor areas for bank development.  
9 Seismic data was also used to delineate the potential areas  
10 of gentle dip.

11 Q. Anything further with regard to that exhibit?

12 A. No, there's not.

13 Q. Then I will ask you to refer to Yates Exhibit 8  
14 and describe what is contained in that Exhibit.

15 A. This is an isolith map that shows the limits of  
16 the second bank. The isolith is an net clean carbonate map  
17 with a gamma ray cutoff of 30 API units or less. The  
18 prospective areas highlighted in orange with an isolith  
19 cutoff of 80 feet. This cutoff value is used because  
20 several wells have penetrated the carbonate and encountered  
21 the thin southeastward four bank facies which is not a  
22 reservoir quality. The isolith along with seismic data  
23 show the thicker bank facies is an area where the Bone  
24 Spring has not been penetrated. Thus the proposed well  
25 should test this thicker bank facies for its reservoir

1 potential. The second bank is considered the primary  
2 target, with the first bank being a secondary target.

3 Q. Are there any other potential zones within the  
4 unit area that Yates intends to test in connection with its  
5 drilling operations?

6 A. Other potential pay zones include Queen,  
7 Delaware and other Bone Spring Carbonates and Sands. Yates  
8 intends to fully evaluate all hydrocarbon shows in order to  
9 establish economic production from the Hourglass State  
10 Unit.

11 Q. Mr. May, what conclusions have you drawn from  
12 your study of this area based upon your review of this  
13 data?

14 A. Areas of gentle dip within the unit boundaries  
15 have provided ideal locations for the formation of porous  
16 carbonate banks. These untested banks have the potential  
17 to be excellent hydrocarbon reservoirs.

18 Q. In your opinion, Mr. May, will approval of this  
19 exploratory unit be in the interest of conservation of oil  
20 and gas, and prevention of waste and the protection of  
21 correlative rights?

22 A. Yes, it will.

23 Q. Were Exhibits 5 through 8 prepared by you or  
24 under your direction and supervision?

25 A. Yes, they were.

1 MR. VANDIVER: Mr. Examiner, I move admission  
2 Applicant's Exhibits 5 through 8, and that concludes my  
3 direct examination of this witness.

4 EXAMINER CATANACH: Exhibits 5 through 8 will be  
5 admitted as evidence.

6 (Applicant's Exhibits 5 through 8  
7 were admitted into evidence.)

8 EXAMINATION

9 BY EXAMINER CATANACH:

10 Q. Mr. May, there is a well in Section 16 that  
11 shows a dry hole. Do you know what depth that penetrated  
12 to?

13 A. I believe it penetrated the Bone Spring and the  
14 Wolfcamp. So it definitely did penetrate the Bone Spring  
15 section. I believe that well is within the Type 4 bank  
16 facies that I described earlier.

17 Q. Was that a Yates well?

18 A. No, sir, it was not.

19 Q. But it was apparently dry?

20 A. Yes.

21 Q. What's the closest Bone Spring producer to this  
22 area here?

23 A. That well is in the northwest corner of Section  
24 22 of 18 South, 35 East that is currently -- that was  
25 plugged in 1975, and it did produce from the Bone Spring

1 formation.

2 EXAMINER CATANACH: I believe those are all the  
3 questions I have. The witness may be excused.

4 MR. VANDIVER: Just one more question, Mr. Examiner.

5 REDIRECT EXAMINATION

6 BY MR. VANDIVER:

7 Q. With regard to the well in the northwest quarter  
8 of Section 22 that produced from the Bone Spring, was that  
9 from the first or second banks of the Second Bone Spring  
10 Carbonate or another portion of the Bone Spring?

11 A. It was not from the first or second banks. It  
12 was from another portion of the Bone Spring formation.

13 MR. VANDIVER: I have no further questions, Mr.  
14 Examiner.

15 EXAMINER CATANACH: The witness may be excused. Is  
16 there anything further, Mr. Vandiver?

17 MR. VANDIVER: No, sir.

18 EXAMINER CATANACH: In that Case 10135 will be taken  
19 under advisement.

20 (Whereupon, the foregoing hearing was concluded)

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

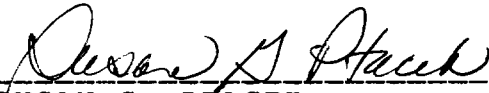
3 REPORTER'S CERTIFICATE

4  
 5 I, Susan G. Ptacek, a Certified Shorthand Reporter and  
 6 Notary Public, do HEREBY CERTIFY that I stenographically  
 7 reported the proceedings before the Oil Conservation  
 8 Division, and that the foregoing is a true, complete and  
 9 accurate transcript of the proceedings of said hearing as  
 10 appears from my stenographic notes so taken and transcribed  
 11 under my personal supervision.

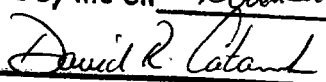
12 I FURTHER CERTIFY that I am not related to nor  
 13 employed by any of the parties hereto, and have no interest  
 14 in the outcome thereof.

15 DATED at Santa Fe, New Mexico, this 10th day of  
 16 December, 1990.

17  
 18 My Commission Expires:  
 19 December 10, 1993

  
 SUSAN G. PTACEK  
 Certified Shorthand Reporter  
 Notary Public

20  
 21 I do hereby certify that the foregoing is  
 22 a complete record of the proceedings in  
 23 the Examiner hearing of Case No. 1035,  
 heard by me on November 14 1990.

24  Examiner  
 25 Oil Conservation Division