## 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 AN UNORTHODOX GAS WELL
LOCATION, EDDY COUNTY, NEW MEXICO

ORIGINAL

## REPORTER'S TRANSCRIPT OF PROCEEDINGS

#### EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

November 6th, 1997

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, November 6th, 1997, 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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## INDEX

November 6th, 1997 Examiner Hearing CASE NO. 11,874

	PAGE
EXHIBITS	3
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>JANET RICHARDSON</u> (Landman)	
Direct Examination by Mr. Carr	4
Examination by Examiner Catanach	8
BRENT MAY (Geologist)	
Direct Examination by Mr. Carr	9
Examination by Examiner Catanach	16
REPORTER'S CERTIFICATE	20

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## EXHIBITS

Applicant's	Identified	Admitted
Exhibit 1	6	8
Exhibit 2	7	8
Exhibit 3	10	15

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## APPEARANCES

## FOR THE APPLICANT:

CAMPBELL, CARR, BERGE and SHERIDAN, P.A. Suite 1 - 110 N. Guadalupe P.O. Box 2208
Santa Fe, New Mexico 87504-2208
By: WILLIAM F. CARR

\* \* \*

1	WHEREUPON, the following proceedings were had at
2	9:18 a.m.:
3	EXAMINER CATANACH: At this time I'll call Case
4	11,874, the Application of Yates Petroleum Corporation for
5	an unorthodox gas well location, Eddy County, New Mexico.
6	Call for appearances.
7	MR. CARR: May it please the Examiner, my name is
8	William F. Carr with the Santa Fe law firm Campbell, Carr,
9	Berge and Sheridan. We represent Yates Petroleum
10	Corporation in this matter, and I have two witnesses.
11	EXAMINER CATANACH: Call for additional
12	appearances?
13	Okay, will the witnesses please stand to be sworn
14	in?
<b>1</b> 5	(Thereupon, the witnesses were sworn.)
16	JANET RICHARDSON,
17	the witness herein, after having been first duly sworn upon
18	her oath, was examined and testified as follows:
19	DIRECT EXAMINATION
20	BY MR. CARR:
21	Q. Will you state your name for the record, please?
22	A. Janet Richardson.
23	Q. Where do you reside?
24	A. Artesia, New Mexico.
25	Q. By whom are you employed?

1	A. Yates Petroleum Corporation, as a petroleum
2	landman.
3	Q. Have you previously testified before this
4	Division and had your credentials as an expert in petroleum
5	land matters accepted and made a matter of record?
6	A. Yes, I have.
7	Q. Are you familiar with the Application filed in
8	this case on behalf of Yates Petroleum Corporation?
9	A. Yes.
10	Q. Are you familiar with the status of the lands in
11	the area which is the subject of this case?
12	A. Yes.
13	MR. CARR: Are the witness's qualifications
14	acceptable?
15	EXAMINER CATANACH: They are.
16	Q. (By Mr. Carr) Ms. Richardson, would you briefly
17	summarize for the Examiner what Yates Petroleum Corporation
18	seeks with this Application?
19	A. Yes, we are seeking approval of an unorthodox
20	well location for our State K Number 4 well, which is
21	producing from the Morrow formation, and it's located 1980
22	feet from the south line and 660 feet from the west line of
23	Section 28 in Township 19 South, Range 25 East, Eddy
24	County, New Mexico.
25	Q. What is the current status of this well?

Q.

A. This well was drilled at an orthodox location, a standard location, and was drilled to test the Canyon formation. And much to our surprise and dismay, it was dry in the Canyon.

And so while we were on location it was decided that we would drill it to the Morrow formation. And at that point it has made a commercial well in the Cemetery-Morrow Gas Pool.

- Q. Now, Ms. Richardson, we've discussed this matter with the OCD and were advised that we needed to bring this matter to hearing on this date; is that not correct?
  - A. Yes.

- Q. Could you identify what has been marked as Yates Exhibit Number 1?
- A. Yes, Exhibit Number 1 is a plat showing the spacing unit for this Morrow well, which would be the south half of Section 28. It also has the well location spotted on the map, and it shows the nine sections around the location, shown by color code, the solid yellow is what Yates has 100 percent, and the outlined in yellow is what Yates has a partial interest in.
- Q. Who are the offsetting operators north, northwest and west?
- A. Okay, north of the well the offsetting operator is Yates Petroleum. Northwest of the well is also Yates

1 Petroleum. To the west, that spacing unit is Yates Petroleum, and Nearburg operates one well in there. 2 Is Exhibit Number 2 an affidavit confirming that 3 4 notice of this Application has been provided in accordance with Oil Conservation Division rules? 5 Α. Yes, it is. 6 7 You have also provided notice to Mewbourne Oil Company; is that not correct? 8 A. Yes, we have. 9 And where is Mewbourne's interest? 10 0. They operate wells to the south of our location. 11 Α. 12 Q. So other than Yates, the only offsetting owners 13 are Mewbourne and Nearburg? 14 A. Yes. 15 Q. And they've all been notified of this case? They're the offsetting operators. 16 Α. 17 0. Right. 18 Yes, and they have been notified. A. Will Yates call a geological witness to explain 19 Q. 20 this particular location? 21 Α. Yes, we will. 22 Q. Were Exhibits 1 and 2 prepared by you? 23 Α. Yes. 24 MR. CARR: At this time, Mr. Catanach, we move 25 the admission into evidence of Yates Petroleum Corporation

1	Exhibits 1 and 2.
2	EXAMINER CATANACH: Exhibits 1 and 2 will be
3	admitted as evidence.
4	MR. CARR: And that concludes my direct
5	examination of Ms. Richardson.
6	EXAMINATION
7	BY EXAMINER CATANACH:
8	Q. Ms. Richardson, is there actually offset
9	production in the Morrow?
10	A. Not that I'm aware of.
11	Q. Okay. When you say that Yates is the offset
12	operator in the proration units, is that in the
13	Cisco/Canyon?
14	A. Yes.
15	Q. Okay. And to the west you said Nearburg also
16	operates a Cisco/Canyon well in there?
17	A. Yes, the Boyd X Number 5.
18	Q. That's in the southeast quarter?
19	A. Yes, it's in the northeast of the southeast. It
20	should be a direct west offset.
21	Q. Do you think if those wells are in the what
22	pool those wells are? Is it the north or south, do you
23	know?
24	A. I don't know.
25	Q. Okay. I'll ask the geologist.

1	A. Thank you.
2	EXAMINER CATANACH: I think that's all I have of
3	this witness, Mr. Carr.
4	MR. CARR: At this time we call Brent May.
5	BRENT MAY,
6	the witness herein, after having been first duly sworn upon
7	his oath, was examined and testified as follows:
8	DIRECT EXAMINATION
9	BY MR. CARR:
10	Q. Will you state your name for the record, please?
11	A. Brent May.
12	Q. And where do you reside?
13	A. Artesia, New Mexico.
14	Q. By whom are you employed?
15	A. Yates Petroleum.
16	Q. What is your current position with Yates?
17	A. I'm a petroleum geologist.
18	Q. Have you previously testified before this
19	Division and had your credentials as an expert in petroleum
20	geology accepted and made a matter of record?
21	A. Yes, I have.
22	Q. Are you familiar with the Application filed on
23	behalf of Yates Petroleum Corporation in this case?
24	A. Yes, I am.
25	Q. Have you made a geological study of the area

1 surrounding the State K Well Number 4? Yes, I have. 2 A. Are you prepared to share the results of that 3 work with the Examiner? 4 5 A. Yes, I am. MR. CARR: Are the witness's qualifications 6 acceptable? 7 EXAMINER CATANACH: Yes, they are. 8 (By Mr. Carr) Mr. May, let's go to what's been 9 Q. marked as Exhibit Number 3. Would you identify and review 10 that for Mr. Catanach? 11 12 Α. This is a cross-section, A-A'. It's a structural cross-section in the North Dagger Draw area. It's mostly 13 of the upper Penn or what I call the Canyon section. It's 14 15 a west-to-east cross-section. In the lower right-hand corner is a location map 16 showing the location on the cross-section and the 17 18 surrounding production. I might point out that on this location map 19 there's several dark-colored circles, well symbols. 20 all of those well symbols are producing from the 21 Canyon/Cisco, with the exception of a few down in the very 22 lower right-hand corner of Section 34. But all the others 23 24 produce from the Cisco/Canyon.

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And there are a few scattered gas well symbols,

and those are mostly Morrow producers.

I've shown on this cross-section the top of the Canyon limestone, the top of the Canyon dolomite and the base of the dolomite, and that dolomite which is the reservoir out here has been shaded in purple. The datum is a minus 4200. It is a structural cross-section.

Starting on the left-hand side of the crosssection is the Yates Pet Boyd X State Number 5.

I might add that -- Ms. Richardson said that Nearburg operates this well. Currently Yates is the operator, but there are some, I should say, legal --

- Q. -- negotiations.
- A. -- negotiations, that's a good word -- between Yates and Nearburg on this well.

This well is in Section 29 of 19 South, 25 East.

It was drilled just to the Canyon. It was completed as a

Canyon. It IP'd flowing about 600 barrels of oil a day,

close to a million in gas and about 700 barrels of water.

Might note on this well the top of the Canyon dolomite and where the current perforations are at. They are in the upper half of this Canyon dolomite.

Moving to the next location is the Yates Pet State K Number 4 in Section 28 of 19 South, 25 East. That is the well we're concerned about in this hearing today. This well was originally permitted and was only originally

going to be a Canyon test. We drilled down to the Canyon, and as you can see, we lost the upper part of the Canyon dolomite. We had nothing but Canyon lime in the upper part.

When we finally did encounter the Canyon dolomite at about 7800, a depth of about 7800, which is about 100 to 150 feet lower than the surrounding wells, we started running DSTs, because we knew we were structurally low compared to the production in the surrounding area.

We ran 3 DSTs throughout most of the existing dolomite in this well and only recovered mud and water, no hydrocarbon shows. So in other words, we were structurally too low for the -- most of the hydrocarbon potential in this area, and the Canyon dolomite has been in the upper half and we lost the upper half.

At that point, we could either plug the well and walk away or kick around the idea of going down to the Morrow. We polled the other partners. I believe all of them except one joined in, and we proceeded to drill down to the Morrow.

At that point, in the lower part of the crosssection, I did show a piece of the Morrow to show what we
did encounter. We did encounter a Morrow sand. We DST'd.
The DST recovered about 1.2 million out of that sand. We
did run a pipe to bottom and have perforated and run a

short test, and it tested approximately 1.4 million. It's currently shut in, waiting the outcome of this hearing.

The next well on the cross-section, which would be the east offset, direct offset to the State K 4, is the Yates Pet States K Number 3 in Section 28 of 19 South, 25 East.

This again is a Canyon producer, it was only drilled to the Canyon. And again, note that all the perforations are in the upper half of the Canyon dolomite, which we lost in the State K Number 4.

- Q. Mr. May, the reason you decided to go down and test the Morrow was the fact that there is an offsetting well completed in the Morrow; is that not correct?
- A. At the time we drilled the well, the State K
  Number 1, which is the southeast diagonal offset to the
  State K Number 4, which you can see on the location map -let's see, that would be Unit N up in Section 28 -- was
  producing out of the Morrow. I believe it is producing
  around 100 to 150 MCF.

There was some concern whether or not this location of the State K Number 4, if there would be some depletion in the Morrow. But since we either could go down and look for some additional gas or plug the well, it was decided to go on down and take a look at the Morrow. And we did encounter the Morrow, and from what we saw of the

pressures on the DST it doesn't appear at this point that 1 there's any depletion in the Morrow sand of the State K 2 3 Number 4. 4 Q. What pool will this Morrow well be completed in? 5 A. The Cemetery-Morrow. And that provides for 320-acre Morrow spacing? 6 Q. That's correct. 7 Α. What acreage will be dedicated to the State K 8 Q. Number 4 well? 9 That would be the south half. 10 Α. And is this a prorated pool? 11 Q. Not that I'm aware of. 12 Α. 13 0. So you would only be permitted to have one well at a time in a south-half unit? 14 That's correct. 15 Α. 16 And what are you doing to deal with that issue? Q. We have already sent out AFEs and have, I 17 Α. believe, gotten back everything from all the partners to 18 19 re-enter the State K Number 1, abandon the Morrow in the 20 State K 1 and move up to the Canyon dolomite. That well was drilled, I believe, back in the 21 22 1970s or early 1980s, and on the way the Canyon dolomite was DST'd. Over 1000 feet of oil was recovered. 23

feel very confident we can convert this into a Canyon

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dolomite producer.

So we'll leave the Morrow behind, go up to the 1 Canyon dolomite, and then start producing out of the State 2 K Number 4, so we will have only one more producer in that 3 proration unit. 4 If we look at the nine-section plat, your index 5 Q. map to this exhibit, other than the State K Number 4 and 6 7 the State K Number 1, are you aware of any other Morrow production currently from the wells in this area? 8 As far as I'm aware, there's not any current 9 Α. Morrow production outside of that State K Number 1 and the 10 11 State K Number 4. In your opinion, will approval of this 12 0. Application and the production of the Morrow formation in 13 the State K Number 4 be in the best interests of 14 15 conservation, the prevention of waste and the protection of 16 correlative rights? 17 Α. Yes. Was Exhibit Number 3 prepared by you? 18 Q. Yes. 19 Α. MR. CARR: Mr. Catanach, at this time we would 20 move the admission into evidence of Yates Petroleum 21 Corporation Exhibit Number 3. 22 EXAMINER CATANACH: Exhibit Number 3 will be 23 admitted as evidence.

MR. CARR: And that concludes our presentation in

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1 | this case.

#### EXAMINATION

### BY EXAMINER CATANACH:

- Q. Mr. May, have you mapped any of the Morrow interval, or have you mapped this Morrow interval?
- A. I personally have not. There's another geologist that works the Morrow in this area, but I worked with him closely on this. I'm usually -- my area -- I usually take care of the Canyon dolomite in this area, and he takes care of the Morrow.

And I consulted with him when we encountered no pay in the Canyon dolomite and, of course, with management. And based on what he saw, he felt like that there was the possibility of Morrow sands, but everyone was worried about completion too. But we decided to take a chance and go on down and take a look at the Morrow.

- Q. Is that a channel sand?
- A. Yes, I believe so.
  - Q. Do you know which direction it's oriented?
- A. It's probably oriented either north-south or maybe a northwest-southeast direction, in that general direction.
- Q. Do you know why the decision was made to orient that proration unit in that direction, as opposed to a stand-up west half?

The State K 1, it was based off that A. I do not. 1 well. It was not originally drilled by Yates, I don't 2 We assumed operations of that well at a later 3 So I don't know exactly why that south half was 4 5 originally chosen for that. 6

And at this point in time we decided to stay with the south half since ownership would change if we converted to a standup west half.

- What was the current producing rate of the Number Q. 1 well?
- I believe -- I'm going off the top of my head, 11 12 but I believe it's around 100, 150 MCF.
- 13 Q. And there is no offset Morrow production to the west?
  - Not currently. There have been some wells that have gone down to the Morrow, but there is not current Morrow production.
    - And does that hold true for the northwest? Q.
- 19 A. In Section 20?

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- In Section -- well, actually in Section -- the Q. north half of Section 29.
- Oh, yes. All of Section 29, there is no current 22 Morrow production in that section. 23
  - Okay. And the north half of Section 28 as well? Q.
- 25 Α. That's correct, there is only Canyon production.

Q. Okay.

- A. There is one well, the Ross IZ Number 1, which originally went down to the Morrow, I think was originally as a stinker, what I'd call a stinker Morrow well, and it was then later recompleted to the Canyon.
  - Q. I'm sorry, which well was that?
- A. The Ross IZ Number 1, in the north half of Section 28. I believe that would be the southeast of the northwest.
  - Q. That was tested in the Morrow?
- A. I believe it actually did produce a little while out of the Morrow, but it was very poor and did not produce for very long.

Like I said, there are some more penetrations around, but outside of the State K 1 and the State K 4, there is -- I don't know of any other current Morrow production.

- Q. Do you have an opinion as to the potential of some Morrow production, say, in Section 29?
- A. Just off the top of my head, you know, there might be that possibility, but -- Let's see, I'm trying to remember which wells penetrated the Morrow in that section, and I'm not sure now. There is one well in the northeast-northeast of 32, the Savannah Number 1, which Conoco originally drilled and took down to the Morrow, and it was

1	basically never completed in the Morrow.
2	Q. When do you propose to start recompletion of the
3	Number 1 well?
4	A. I think all we're waiting on is the pulling unit.
5	Q. So that well is already, in effect, shut in and
6	not producing at this point?
7	A. As far as I know.
8	EXAMINER CATANACH: Okay. I have nothing
9	further, Mr. Carr.
10	MR. CARR: That concludes our presentation.
11	EXAMINER CATANACH: There being nothing further
12	in this case, Case 11,874 will be taken under advisement.
13	(Thereupon, these proceedings were concluded at
14	9:38 a.m.)
15	* * *
16	
17	
18	I do hereby certify that the foregoing is
19	the two oner pracing of Case do,
20	heard by see on November 6 1997.
21	Oli Conservation Division
22	an mailed relieft Division
23	
24	
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 November 16th, 1997.

STEVEN T. BRENNER

CCR No. 7

My commission expires: October 14, 1998