## STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 1 OIL CONSERVATION DIVISION STATE LAND OFFICE BUILDING 2 SANTA FE, NEW MEXICO 3 26 October 1988 5 EXAMINER HEARING 6 7 IN THE MATTER OF: 8 Application of Yates Petroleum Company CASE 9 for an unorthodox gas well location, 9510 Eddy County, New Mexico. 10 11 12 BEFORE: Michael E. Stogner, Examiner 13 14 15 TRANSCRIPT OF HEARING 16 17 APPEARANCES 18 19 For the Division: Robert G. Stovall Legal Counsel to the Division 20 State Land Office Bldg. Santa Fe, New Mexico 21 For the Applicant: Chad Dickerson 22 Attorney at Law DICKERSON, FISK & VANDIVER 23 Seventh & Mahone\Suite E Artesia, New Mexico 88210 24

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3 ١ MR. STOGNER: At this time 2 I'll call Case Number 9510. 3 MR. STOVALL: Application of 4 Yates Petroleum Corporation for an unorthodox gas well 5 location, Eddy County, New Mexico. 6 MR. STOGNER: I'll now call 7 for appearances. 8 MR. DICKERSON: Mr. Examiner, 9 I'm Chad Dickerson of Artesia, New Mexico, on behalf of the 10 applicant, and I have one witness. 11 MR. STOGNER: Are there any 12 other appearances in this matter? 13 Will the witnesses please 14 stand to be sworn. 15 16 (Witness sworn.) 17 18 RAY BECK, 19 being called as a witness and being duly sworn upon his 20 oath, testified as follows, to-wit: 21 22 DIRECT EXAMINATION 23 BY MR. DICKERSON: 24 Q Mr. Beck, will you state your name, your 25 occupation and by whom you're employed, please?

A Ray Beck, geologist for Yates Petroleum Corporation?

Q Mr. Beck, you have testified on numerous occasions before this Division and its examiners and in the recent past, have you not?

A Yes, I have.

Q And are you familiar with the geological information surrounding Yates' application in Case 9510?

A I am.

MR. DICKERSON: Is the witness

qualified, Mr. Examiner?

MR. STOGNER: Mr. Beck is so

qualified.

Q Mr. Beck, will you summarize the purpose of Yates' application in Case 9510 for us?

In Case 9510 Yates Petroleum Corporation respectfully requests approval of the unorthodox gas well location of the proposed New Deal "AFD" Federal No. 1, to be drilled deeper at a location 1980 feet from the north line and 760 feet from the east line of Section 6, Township 18 South, Range 25 East, Eddy County, New Mexico. The north half of Section 6 would be dedicated to the well.

The well will be drilled into the top of the Mississippian formation; however, the necessity for this nonstandard location is based on geologic conditions

prevailing in a Permo-Penn limestone bank, the primary objective.

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The well to be drilled will be an old well drilled deeper. The old hole was drilled to a TD of 1425 feet in the San Andres formation. The 8 and 5 casing was set at 1,070 feet. The new TD will be approximately

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8450 feet.

shows.

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Q Mr. Beck, refer to the plat we've submitted as Exhibit Number One and tell us what that map

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A Exhibit Number One is a land plat showing the proposed location as a red spot and its relationship to the surrounding acreage situation. The proration

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unit is outlined in red. The yellow colored acreage denotes that acreage in which Yates has full or partial oper-

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ating rights.

in this application?

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Q And the map indicates, does it not, that Chevron in the north half of 5 and Hondo Oil and Gas in the

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southwest quarter of the southwest quarter of Section 5 are

20 21 the offsetting operators against whom Yates is encroaching

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A That is true.

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Q Okay. Identify for us what we've submitted as Exhibit Number Two and describe what it shows.

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A Exhibit Number Two is a combined poro-

1 sity and structure map. The solid lines are contoured on 2 in the Permo-Penn limestone bank facies we porosity feet 3 refer to as the Antelope Sink Zone. The dotted lines are structural contours on the top of the Antelope Sink Zone. The blue colored well spots indicate wells completed only 6 in the Permo Penn Antelope Sink Zone. The red colored 7 wells -- the red colored well spot indicates a well com-8 pleted only in the Morrow. Combined blue and red well 9 indicate wells in which production is or has been 10 from both the Permo-Penn and the Morrow.

Permo-Penn production has been assigned to the Eagle Creek Permo-Penn Gas Pool and Morrow production has been assigned to the Richard Knob Atoka-Morrow Gas Pool.

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As the map shows, the solid porosity feet contours indicate that the best Permo-Penn porosity in the north half of Section 6 should be found in the southeast quarter of the northeast quarter of Section 6 where the proposed well is located.

Orthodox drilling locations to the west, or northwest would have less porosity and therefor produce less gas over the life of the well than the proposed location.

The black on gold numbers near blue well spots show the cumulative Permo-Penn production through

July of this year, 1988.

The cumulative production numbers corroborate the porosity feet contours and further indicate that the proposed location is the best allowable location in the north half of Section 6.

The dotted structure contours show regional dip to the southeast of 100 to 200 feet per mile on the top of the Permo-Penn Antelope Sink Zone.

Q Identify Exhibit Number Three for us, Mr. Beck, and describe it.

A Exhibit Number Three is a northwest to southeast stratigraphic cross section hung on a persistent Wolfcampian Shelf cycle we refer to as the Third Sister. Moving from northwest to the southeast the sedimentary facies in the Permo-Penn Antelope Sink interval change from tight shelf limestone to porous limestone banks to tight basin fill of clastics and limestones.

Cross plot porosity over 5 percent is colored in red on the logs and adds a third dimension to the porosity foot contours of Exhibit Two. The increase in porosity from northwest to southeast in the lime bank facies is reflected in the initial production figures and cumulative production figures shown at the base of the logs, 58 MCF, 324 per day, 1600 MCF a day and 4100 (unclear) per day.

In your opinion, Mr. Q Beck, will your proposed unorthodox location encounter less risk than would an orthodox location in the north half of Section 6?

Yes, it would.

Q Were Exhibits One, Two, Three prepared by you or under your direction and supervision?

> Α Yes, they were.

DICKERSON: Mr. Stogner, MR. Exhibit Number Four is an affidavit of mailing under Rule 1207, reflecting notice with return receipts attached to the offsetting operators.

move admission of Yates Ι Exhibits One, Two, Three and Four at this time and I have no further questions of Mr. Beck.

MR. STOGNER: Exhibits One, Two, Three and Four will be admitted into evidence at this time.

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## CROSS EXAMINATION

20 BY MR. STOGNER:

> Beck, is there any Mississippian Q Mr. producing wells in this area?

> Α No, sir, there really isn't. There has been some shows in the Mississippian and people have tried to complete it but I don't believe there's any -- any

production, recorded production.

Q Has any of these wells that you show on Exhibit Number Two, have they tested the Mississippian, or you mentioned that there had been some tests; are some of these wells them?

A We have taken some of these -- we take the wells down to the top of the Mississippian primarily to make sure we've gotten through all the basal Pennsylvanian sandstone, but sometimes we run into shows on a mud log and we've tried perforating them but usually don't make more than about 25 MCF a day, so we usually leave them behind and, you know, plug them off.

Q So the Mississippian in your particular case is more of a secondary test.

A That's true. It's -- we're -- we're going mainly for the Permo-Penn but as long as we're down that far, to 6500 feet or so, we decided to take it on down to look at anything that could be in the basal Penn, all the way through the Morrow, but the Morrow is not always prospective here, so we're locating this primarily on the Permo-Penn.

Q When was this particular well spudded, the subject well that we're talking about today?

A I can get that for you. We spudded it May the 25th of this year.

Q May 25th of '88. Is there any -- and this was, when it was spudded it was a San Andres test, is that correct?

A Yes, sir.

Q And what is the depth of the San Andres out there?

A It's TD'ed in the San Andres, what does it say? San Andres will be about approximately 622 feet and then we drilled on into it to 1425, set casing at 1070 feet, I believe.

Q Are there any San Andres producing wells surrounding this particular well?

A No, sir. It's a far southwest step out to the Eagle Creek San Andres Field to the north, to the northeast.

Q Does Yates usually complete a San Andres test like this with 8-5/8ths inch casing, 1075 feet, and --

A No, sir, we really -- we had an -- I had an expiring lease in the east half of the northeast quarter, looking at the land map there, and we wanted to save that lease; however, we couldn't drill a deep test at that time, because the west half of the northeast quarter was unleased Federal acreage. So we had to wait until we could obtain that acreage and when we did we decided to put in for this hearing to seek a well on down for a 320-acre

11 1 proration unit. 2 So we saved our acreage with the San 3 Andres, drilling the San Andres test. MR. STOGNER: I have no fur-5 ther questions of this witness. 6 Are there any other questions 7 of Mr. Beck? 8 MR. DICKERSON: No, sir. 9 MR. STOGNER: He may be ex-10 cused. 11 Mr. Dickerson, do you have 12 anything further in this case? 13 MR. DICKERSON: No. 14 MR. STOGNER: Does anybody 15 else have anything further in Case Number 9510? 16 This case will be taken under 17 advisement. 18 19 (Hearing concluded.) 20 21 22 23 24 25

## CERTIFICATE

I, SALLY W. BOYD, C. S. R. DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true and correct record of the hearing, prepared by me to the best of my ability.

Solly W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. <u>45/0</u> heard by me on <u>126 Oxfober</u> 19 88.

OII Conservation Division

## NEW MEXICO OIL CONSERVATION COMMISSION

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HOBBS	,	NEW	MEXI	CO

Hearing Date OCTOBER 26, 1988 Time: 8:15 A.M.

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Bill Seltzer	OY./	and land
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Bill MURITARY	Thillips To	The Colombian T
Labert Stravis		
SUSAN CONSTRIGHT	PANCEIPE	CDESIA, TX
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