

CAMPBELL & BLACK, P.A.

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April 10, 1990

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OIL CONSERVATION DIVISION

9935

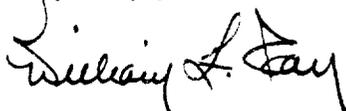
William J. LeMay, Director  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
State Land Office Building  
Santa Fe, New Mexico 87503

Re: In the Matter of the Application of Harvey E. Yates Company for  
Directional Drilling and Horizontal Drilling, Lea County, New Mexico

Dear Mr. LeMay:

Enclosed in triplicate is an application of Harvey E. Yates Company in the above-referenced case. Harvey E. Yates Company respectfully requests that this matter be placed on the docket for the May 2, 1990 Examiner hearings.

Very truly yours,



WILLIAM F. CARR

WFC:mlh

Enclosures

cc w/enclosure:

Mr. Ray F. Nokes  
Harvey E. Yates Company  
Post Office Box 1933  
Roswell, New Mexico 88202

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May 15, 1990

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Mr. David R. Catanach  
Hearing Examiner  
Oil Conservation Division  
New Mexico Department of Energy,  
Minerals and Natural Resources  
State Land Office Building  
Santa Fe, New Mexico 87503

*CASE  
FILE-9935*

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MAY 15 1990

OIL CONSERVATION DIVISION

Re: Oil Conservation Division Case No. 9935:  
Application of Harvey E. Yates Company for Horizontal Directional Drilling  
Pilot Project and Special Operating Rules, Lea County, New Mexico

Dear Mr. Catanach:

Pursuant to your request of May 2, 1990 enclosed please find the proposed Order of the  
Division of Harvey E. Yates Company in the above-referenced case.

If you need anything further from HEYCO to proceed with your consideration in this  
matter, please advise.

Very truly yours,



WILLIAM F. CARR

Enclosure

WFC:mlh

cc w/enc.: Mr. Ray Nokes  
Mr. Bob Bell  
Mr. Larry Brooks

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

RECEIVED

MAY 15 1990

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:

Case No. 9935  
Order No. R-\_\_\_\_\_

APPLICATION OF HARVEY E. YATES COMPANY  
FOR A HORIZONTAL DIRECTIONAL DRILLING  
PILOT PROJECT AND SPECIAL OPERATING  
RULES, LEA COUNTY, NEW MEXICO.

**HARVEY E. YATES COMPANY'S**  
**PROPOSED ORDER OF THE DIVISION**

**BY THE DIVISION:**

This cause came on for hearing at 8:15 a.m. on May 2, 1990, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this \_\_\_\_\_ day of May, 1990, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

**FINDS:**

(1) Due public notice having been given as required by law, the Division has jurisdiction over this cause and the subject matter thereof.

(2) The applicant, Harvey E. Yates Company, seeks authority to initiate a horizontal directional drilling pilot project located in the S/2 of Section 26, Township 13 South, Range 35 East, N.M.P.M., Austin-Mississippian Northwest Pool, Lea County, New Mexico, and the promulgation of special provisions within said project area.

(3) The applicant proposes to workover its currently shut-in Duncan Unit No. 3 Well which is located at an orthodox surface location 600 feet from the South line and 1,980 feet from the West line of Section 26, Township 13 South, Range 35 East, N.M.P.M., Lea County, New Mexico.

(4) The Duncan Unit No. 3 Well is located within the boundaries of the Austin-Mississippian Northwest Pool and is subject to Rule 104 of the Division's Rules and Regulations governing the spacing of wells which requires 320-acre spacing and proration units with wells to be located no closer than 660 feet to the nearest side boundary nor closer than 1,980 to the nearest end boundary, nor closer than 330 feet from any quarter-quarter section or subdivision inner boundary of a spacing unit.

(5) The applicant proposes to workover and complete the Duncan Unit No. 3 Well in the following unconventional manner:

- (A) Reenter the Duncan Unit No. 3 Well, squeeze off the current Bough perforations and pressure test the Mississippian formation in the existing wellbore.
- (B) Directionally drill the well by kicking off from vertical at a depth of approximately 13,090 feet and side tracking the well and drilling to a core point at a depth of approximately 13,434 feet. At that time the well will be surveyed to determine its distance from the original wellbore, two 40-foot oriented cores will be cut in the Mississippian lime. The well will then be deepened approximately 60-feet, logged and tested. The cores will be tested and studied by Sandia National Laboratories to determine the presence and orientation of the fractures in this formation.

- (C) If the information obtained from the evaluation of the cores is favorable the well will be drilled with a medium-radius curve in such a manner as to penetrate the Mississippian limestone horizontally at a depth of approximately 13,454 feet. Utilizing existing and proven technology the well will be drilled horizontally within the Mississippian formation in either a northerly, northeasterly, or easterly direction, as determined from core analysis, for a distance of approximately 1,000 feet and the Mississippian formation will be produced with an open hole completion throughout the entire horizontal interval.

(6) The producing interval in the well will be within the S/2 of Section 26, which is the spacing unit currently dedicated to the Duncan Unit No. 3 Well.

(7) Correlative rights will be protected for the well will be located a minimum distance from the outer boundary of the spacing unit equal to the standard setback required by Division Rule 104 and, as such, will not encroach upon offsetting spacing units, and the Duncan Unit No. 3 Well is located in the interior of the Duncan Unit and all offsetting tracts are operated by the applicant.

(8) Testimony by the applicant further indicated that this type of well completion should result in the recovery of a substantially greater amount of hydrocarbons than would normally be recovered by a conventional well completion, thereby preventing waste.

(9) In the interest of conservation, prevention of waste, and the protection of correlative rights, the application of Harvey E. Yates Company for a horizontal directional drilling pilot project should be approved subject to the following bottomhole location provisions:

- (A) The bottomhole location of the proposed well should not be located closer than 660 feet to the nearest side boundary nor closer than 1,980 feet to the nearest end boundary of the spacing unit.

- (B) The applicant should be required to conduct a directional survey on the proposed well during the drilling of or after the completion of drilling operations on the well, and submit to the Santa Fe Office of the Division a copy of said directional survey.

(10) Since the Duncan Unit No. 3 Well is located in the interior of the Harvey E. Yates operated Duncan Unit and is therefore offset in all directions by acreage operated by the applicant and, since the orientation of the horizontal portion of this wellbore can only be determined after the cores taken from this well have been evaluated, an administrative procedure should be established whereby the Division Director may authorize Harvey E. Yates Company to alter or amend its proposal for horizontal drilling without the necessity of further Division hearings.

**IT IS THEREFORE ORDERED:**

(1) The application of Harvey E. Yates Company for a horizontal directional drilling pilot project consisting of the S/2 of Section 26, Township 13 South, Range 35 East, N.M.P.M., Austin-Mississippian Northwest Pool, Lea County, New Mexico is hereby approved.

(2) The applicant is further authorized to rework and complete its Duncan Unit No. 3 Well which is located at an orthodox surface location 600 feet from the South line and 1,980 feet from the West line of Section 26, in the following manner:

- (A) Reenter the Duncan Unit No. 3 Well, squeeze off the current Bough perforations and pressure test the Mississippian formation in the existing wellbore.
- (B) Directionally drill the well by kicking off from vertical at a depth of approximately 13,090 feet and side tracking the well and drilling to a core point at a depth of approximately 13,434 feet. At that time the well will be surveyed to determine its distance from the original wellbore, two 40-foot oriented cores will be cut in the Mississippian lime. The well will then be deepened

approximately 60-feet, logged and tested. The cores will be tested and studied by Sandia National Laboratories to determine the presence and orientation of the fractures in this formation.

- (C) If the information obtained from the evaluation of the cores is favorable the well will be drilled with a medium-radius curve in such a manner as to penetrate the Mississippian limestone horizontally at a depth of approximately 13,454 feet. Utilizing existing and proven technology the well will be drilled horizontally within the Mississippian formation in either a northerly, northeasterly, or easterly direction, as determined from core analysis, for a distance of approximately 1,000 feet and the Mississippian formation will be produced with an open hole completion throughout the entire horizontal interval.

(3) The application for an exception to the spacing requirements of Division Rule 104 is hereby granted, however, the bottomhole location of the proposed well shall not be located closer than 660 feet to the nearest side boundary, nor closer than 1,980 feet to the nearest boundary of the spacing unit.

(4) The applicant shall conduct a directional survey on the well during the drilling or after the completion of drilling operations on the well and shall submit to the Santa Fe Office of the Division a copy of said directional survey.

(5) A standard 320-acre proration unit shall be dedicated to the well.

(6) The Division Director may authorize Harvey E. Yates Company to alter or amend its proposed orientation of the horizontal portion of this well based on information obtained from cores removed from the well without the necessity of further hearing.

(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

CASE NO. 9935

ORDER NO. \_\_\_\_\_

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**DONE** at Santa Fe, New Mexico, on the day and year hereinafove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

WILLIAM J. LeMAY  
Director

S E A L

