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:

CASE NO. 11141 Order No. R-10082-A

APPLICATION OF MARATHON OIL COMPANY FOR TWO ADDITIONAL HIGH ANGLE/HORIZONTAL WELLS AND TO AMEND DIVISION ORDER NO. R-10082, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

<u>BY THE DIVISION</u>:

This cause came on for hearing at 8:15 a.m. on November 10, 1994, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 28th day of November, 1994, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

((2) By Order No. R-10082 issued in Case No. 10922 on March 15, 1994, the Division, upon application of Marathon Oil Company, approved a high angle/horizontal directional drilling pilot project in the Denton-Devonian Pool underlying the SW/4, N/2 SE/4 and SE/4 SE/4 of Section 11, Township 15 South, Range 37 East, NMPM, Lea County, New Mexico. This order further authorized the applicant to utilize its existing J. M. Denton Well No. 5, located at a standard surface location 660 feet from the South line and 1980 feet from the West line (Unit N) of Section 11, to horizontally drill to an unorthodox bottomhole location 1154 feet from the South line and 2305 feet from the West line (Unit N) of Section 11.

(3) The applicant, Marathon Oil Company, seeks to amend Division Order No. R-10082 by horizontally drilling its existing J. M. Denton Well Nos. 4 and 6 located, respectively, 1980 feet from the South line and 2080 feet from the West line (Unit K), and 660 feet from the South line and 990 feet from the East line (Unit P), both in Section 11, within the project area in lieu of horizontally drilling the aforesaid J. M. Denton Well No. 5.

(4) The applicant proposes to horizontally drill the J. M. Denton Well No. 4 in the following unconventional manner:

Squeeze perforations from approximately 11,226 feet to 11,600 feet. Mill casing from a depth of 11,210 feet to 11,250 feet. Set cement plug and kick off from the vertical at a depth of approximately 11,240 feet and drill in a southeast direction building angle to approximately 90 degrees so as to penetrate the upper portion of the Devonian formation at a depth of 11,285 feet. Continue drilling horizontally a distance of approximately 900 feet so as to bottom said wellbore within the NW/4 SE/4 of Section 11.

(5) The applicant proposes to horizontally drill the J. M. Denton Well No. 6 in the following unconventional manner:

Squeeze perforations from approximately 11,826 feet to 11,958 feet. Mill casing from a depth of 11,810 feet to 11,860 feet. Set cement plug and kick off from the vertical at a depth of approximately 11,840 feet and drill in a northeast direction building angle to approximately 90 degrees so as to penetrate the upper portion of the Devonian formation at a depth of 11,885 feet. Continue drilling horizontally a distance of approximately 1000 feet so as to bottom said wellbore within the NE/4 SE/4 of Section 11.

(6) According to applicant's evidence and testimony, at the time the original application was filed to horizontally drill the J. M. Denton Well No. 5, the J. M. Denton Well No. 4 was not a candidate for horizontal drilling due to its good producing rate.

(7) Subsequent to that time, the production from the J. M. Denton Well No. 4 has declined to approximately 8 barrels of oil per day.