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'NEW MEXICO BOARD OF LEGAL SPECIALIZATION RECOGNIZED SPECIALIST IN THE AREA OF NATURAL RESOURCES-OIL AND GAS LAW

W. THOMAS KELLAHIN\*

February 7, 1994

## HAND DELIVERED

FFB . ICH

Mr. William J. LeMay
Oil Conservation Division
State Land Office Building
310 Old Santa Fe Trail, 2nd Floor
Santa Fe, New Mexico 87501

Case 10923

Re: Indian Basin "C" Well No. 1
Sec 26, T21S, R23E, NMPM.
Application of Marathon Oil Company
for a High Angle/Horizontal Directional
Drilling Pilot Project, including Special
Operating Rules, and An Unorthodox Gas Well
Location, Indian Basin Upper Pennsylvanian Gas Pool,
Eddy County, New Mexico

Dear Mr. LeMay:

On behalf of Marathon Oil Company, please find enclosed our Application for a High Angle/Horizontal Direction Drilling Pilot Project as referenced above, which we request be set for hearing on the next available Examiner's docket now scheduled for March 3, 1994.

By copy of this letter and application, sent certified mail, we are notifying all interested parties offsetting the subject well and its proposed spacing and proration unit of their right to appear at the hearing and participate in this case, including the right to present evidence either in support of or in opposition to the application.

Our proposed advertisement to be used for the OCD docket and for the newspaper publication is also enclosed.

Marathon Oil Company February 7, 1994 Page 2.

In accordance with Division Memorandum 2-90, parties who may appear in this case are hereby requested to file a Pre-Hearing Statement with the Division, copy to the Applicant's attorney, not later than 4:00 PM on Friday, February 25, 1994.

W. Thomas Kéllahin

WTK/mg Enclosure

cc: Marathon Oil Company

By Certified Mail - Return Receipt
All Parties Listed on Exhibit "C" of Application

## Proposed Advertisement

Case 10923: Application of Marathon Oil Company for a high angle/horizontal directional drilling pilot project, special operating rules therefor and an unorthodox producing interval, Eddy County, New Mexico. Applicant seeks authority to initiate a high angle/horizontal directional drilling pilot project in the Indian Basin Upper Pennsylvanian Gas Pool, including special operating rules, including the designation of a prescribed area the surface location and the horizontal limiting displacement of the wellbore such that its surface location and producing interval be no closer than 1500 feet to the west and north or 1650 feet to the east and south outer boundaries of its spacing unit being a standard 640 acre spacing unit consisting of all of Section 26, T21S, R23E, NMPM, Eddy County, New Mexico. Said project area is located approximately 20 miles west from Carlsbad, New Mexico.

#### STATE OF NEW MEXICO

# ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

#### OIL CONSERVATION DIVISION

FEB - / 100A

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

CASE: / 0923

APPLICATION OF MARATHON OIL COMPANY FOR A HIGH ANGLE/HORIZONTAL DIRECTIONAL DRILLING PILOT PROJECT INCLUDING SPECIAL OPERATING RULES, AND AN UNORTHODOX GAS WELL LOCATION, EDDY COUNTY, NEW MEXICO

## APPLICATION

Comes now MARATHON OIL COMPANY, by and through its attorneys, Kellahin and Kellahin, and applies to the New Mexico Oil Conservation Division for approval for a High Angle/Horizontal Directional Drilling Pilot Project in the Indian Basin Upper Pennsylvanian Gas Pool, with Special Operating Rules including the designation of a prescribed area limiting the surface location and the horizontal displacement of the wellbore such that its surface location and producing interval shall be no closer than 1500 feet to the west and north or 1650 to the east and south outer boundaries of its spacing unit being a standard 640 acre spacing unit consisting of the all of Section 26, T21S, R23E, NMPM, Eddy County, New Mexico.

IN SUPPORT OF THIS APPLICATION, APPLICANT STATES:

(1) Applicant is the operator of all of Section 26, T21S, R23E, NMPM, Eddy County, New Mexico and proposes to dedicate all of said Section 26 for this pilot project's spacing unit. See Exhibit "A."

Marathon Oil Company NMOCD Application Page 2.

- (2) Applicant's existing Indian Basin "C" Well No. 1 is located 1650 feet FNL and 1650 feet FWL of said Section 26 which was drilled and completed in the Indian Basin Upper Pennsylvanian Gas Pool. Applicant proposes to enter the Indian Basin "C" Well No. 1 and to recomplete said well as a high angle/horizontal directional well ("short radius") in the Indian Basin Upper Pennsylvanian Gas Pool by commencing at a proposed kickoff point at approximately 7334 feet TVD. At that point, the Applicant will select a target point within the drilling-producing window established for the well and then kick off the well in an estimated southerly direction and commence to building angle at appropriate rate which will reach the target point such that the producing interval of the well will be within the proposed drilling-producing window and confined to the vertical limits of the Indian Basin Pennsylvanian Gas Pool. Α CODY  $\mathbf{of}$ Applicant's preliminary projection of a horizontal and vertical plans for the subject well are attached as Exhibits "A" and "B" attached.
- (4) The drilling-producing window is identified as the area within Section 26 which shall be no closer than 1650 feet to the east and south or closer than 1500 feet to the north and west outer spacing unit boundaries. See Exhibit "A."
- (5) The target point is defined at the actual bottom hole location at the end point of the lateral of the subject well.
- (6) The well is located within the Indian Basin Upper Pennsylvanian Gas Pool and therefore is subject to the special rules and regulations for said pool as promulgated by Division Order R-2440, as amended by Order R-2440-A entered February 13, 1967, which among other things require:

Marathon Oil Company NMOCD Application Page 3.

- (a) Rule 2: provides for 640-acre spacing units; and
- (b) Rule 4: provides that wells shall be located no nearer than 1650 feet from the outer boundary of the proration unit nor closer than 330 feet to a quarter-quarter section line.
- (7) Due to the fact that when it was originally drilled, the existing Indian Basin "C" Well No 1 deviated from vertical such that the top of the Upper Pennsylvanian formation is believed to be approximately 1600 feet from the north and west lines of said Section 26, the producing interval of the well will be closer to the west and north outer boundaries of the spacing unit, an unorthodox well location is necessary.
- (8) Applicant seeks approval of this application in order to determine if this type of wellbore and completion in the Indian Basin Upper Pennsylvanian Gas Pool will result in the recovery of substantially greater amounts of hydrocarbons than would normally be recovered by a conventional well thereby improving ultimate recovery and preventing waste.
- (9) In as much as the exact distance and direction of the lateral portion of the wellbore is not known at this time, the Applicant seeks approval to be allowed to drill and produce said lateral portion anywhere within the proposed drilling-producing window.
- (10) As required by Division notice rules, notice is provided to those offsetting operators as listed on Exhibit "C."
- (11) The granting of this Application will be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

Marathon Oil Company NMOCD Application Page 4.

WHEREFORE, Applicant requests that this matter be set for hearing on March 3, 1994 before a duly appointed Examiner of the Oil Conservation Division and, after notice and hearing as required by law, the Division enter its Order granting this application.

Respectfully submitted,

KELLAHIN and KELLAHIN

W. Thomas Kellahin Post Office Box 2265

Santa Fe, New Mexico 87504

(505) 982-4285

Thomas C. Lowry, Esq. Marathon Oil Company

Attorneys for Applicant

# **EXHIBIT "A"**

23E

215 22 23 MARATHON 24 MARATHON MARATHON INDIAN BASIN GAS COM INDIAN BASIN "A" MARATHON 27 MARATHON 26 SANTA FE ÇS PROPOSED SHORT-RADIUS LATERAL INDIAN BASIN "F" INCIAN BASIN "E" INDIAN BASIN "C" MARATHON 34 APAÇHE 35 36 O≅YX | 35.1 BCF 3% New Well IPF 2400 Mct/d INDIAN BASIN "D" LOWE STATE GAS COM FEDERAL C-35

NOVEMBER ACTUALS

UPPER PENN PRODUCTION SUMMARY

-- -3480 - -3430 - -3470 -3460 -- -3500 -- -3520 -3510 7 - 3530 ...355₽ 354 - -3570 Top Carbonate Top Porosity SHORT-RADIUS LATERAL PLAN INDIAN BASIN "C" No. 1 - 87.3 500' fong Base Current Perfs Water Production 226 √E=5 **ª** 7450 ---7420 ---7430 ---7340 ---7440 — 7320 — 7390 — 7410 — 7360 -7380 — 7350 -7370 — 7400 -7330 -

EXHIBIT "B"

# **EXHIBIT "C"**

# OFFSET OPERATORS OTHER THAN MARATHON

Apache Corporation 2000 Post Oak Boulevard, Suite 100 Houston, Texas 77056-4400

Oryx Energy Company P. O. Box 2880 Dallas, Texas 75221-2880

Santa Fe Energy 550 West Texas, Suite 1330 Midland, Texas 79701