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RECOGNIZED SPECIALIST IN THE AREA OF  
NATURAL RESOURCES-OIL AND GAS LAW

JASON KELLAHIN (RETIRED 1991)

October 9, 1992

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

**HAND DELIVERED**

RECEIVED

OCT 09 1992

OIL CONSERVATION DIVISION

10595

Re: Tapacitos #3 Well  
Sec 16, T26N, R2W, NMPM.  
Application of MERIDIAN OIL INC.  
for a High Angle/Horizontal Directional  
Drilling Pilot Project, including Special  
Operating Rules, and An Unorthodox Oil Well  
Location, Gavilan-Mancos Pool,  
Rio Arriba County, New Mexico

Dear Mr. LeMay:

On behalf of Meridian Oil., 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 November 5, 1992.

By copy of this letter and application, sent certified mail, we are notifying all interested parties offsetting the subject well and is 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.

Very truly yours,



W. Thomas Kellahin

WTK/jcl  
Enclosure

Mr. William J. LeMay  
October 9, 1992  
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cc: Meridian Oil Inc.  
Farmington, New Mexico

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

app1009a.330

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

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OIL CONSERVATION DIVISION

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

CASE:

10595

APPLICATION OF MERIDIAN OIL INC.  
FOR A HIGH ANGLE/HORIZONTAL DIRECTIONAL  
DRILLING PILOT PROJECT INCLUDING  
SPECIAL OPERATING RULES, AND  
AN UNORTHODOX OIL WELL LOCATION,  
RIO ARRIBA COUNTY, NEW MEXICO

A P P L I C A T I O N

Comes now MERIDIAN OIL INC., 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 Niobrara ("Gallup") formation of the Gavilan-Mancos Oil Pool, including Special Operating Rules, and a standard 640 acre spacing and proration unit consisting of all of Section 16, T26N, R2W, NMPM, Rio Arriba County, New Mexico, including an Unorthodox Oil Well Location for its Tapacitos #3 Well to be re-entered at its existing unorthodox surface location 1540 feet FNL and 995 feet

FEL of said Section 16. Applicant further seeks special rules and provision within the pilot project area including the designation of a prescribed area limiting the horizontal displacement of the wellbore such that its producing interval be no closer than 790 feet to the outer boundaries of the spacing unit. In support the Applicant states:

(1) Applicant is the operator of all of Section 16, T26N, R2W, NMPM, Rio Arriba County, New Mexico.

(2) On November 5, 1988, Applicant spudded its Tapacitos #3 Well at an unorthodox surface location 1540 feet FNL and 995 feet FEL of Section 16 and drilled the well to a total depth of 7,900 feet. On or about January 4, 1998, Applicant was unsuccessful in attempting to complete the well as a producing vertical well in the Gavilan-Mancos Oil. Because the well failed to produce, Applicant did not obtain an order from the Division approving the unorthodox well location.

(3) Applicant proposes to re-enter its Tapacitos #3 Well and attempt to recomplete it as a high angle/horizontal directional well in the Gavilan Mancos Oil Pool by squeezing the existing Mancos perforations

from 7146 feet to 7476 feet, milling a section from 6830 feet to 6910 feet, setting a cement kickoff plug from 6830 feet to 6910 feet and drilling to the kickoff point at approximately 6877 feet. 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 westerly direction and commence to building angle at an appropriate rate which will reach the target point such that the producing interval of the well will be within the drilling-producing window from the top of the Niobrara B zone to the base of the Niobrara C zone. A copy of Applicant's preliminary projection of a horizontal and vertical plans for the subject well are attached as Exhibits "A" and "B" respectively.

(4) The drilling-producing window is identified as the area within Section 16 which shall be no closer than 790 feet to the outer spacing unit boundary. 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 Niobrara interval of Gavilan-Mancos Oil Pool is characterized by tight, low permeability blocks interconnected by a high capacity fracture system. That interval is the potential productive zone in this section and is anticipated to contain numerous fractures with orientations in a north-south direction and good permeability associated with the fractures.

(7) The well is located in the Gavilan-Mancos Oil Pool where Rule 2 provides for 640-acre spacing and proration units and Rule 4 provides that wells shall not be located nearer than 790 feet from the outer boundary of the proration unit nor closer than 330 feet to a quarter-quarter section line.

(8) While the producing interval of the well will be no closer than 790 feet to the outer boundary of the spacing unit, it will be closer than 330 feet to a quarter-quarter section line within the interior of the spacing unit and therefore an unorthodox well location is necessary.

(9) Past experience in the Niobrara formation has shown that unless a conventionally drilled (vertical)

well intersects natural fractures, the chance of obtaining commercial production is severely curtailed.

(10) By drilling a high angle/horizontal wellbore, the applicant is attempting to increase the probability of encountering several of these fractures, which may ultimately result in the recovery of a greater amount of gas and oil, thereby preventing waste.

(11) 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 drilling-producing window.

(12) As required, notice is provided to those offsetting operators as listed on Exhibit "C."

(13) The granting of this Application will be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

WHEREFORE, Applicant requests that this matter be set for hearing on November 5, 1992 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.

Application of Meridian Oil Inc.  
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Respectfully submitted,

KELLAHIN and KELLAHIN

A handwritten signature in black ink, appearing to read 'W. Thomas Kellahin', written over a horizontal line.

By:  
W. Thomas Kellahin  
Post Office Box 2265  
Santa Fe, New Mexico 87504  
(505) 982-4285

Attorneys for Applicant