



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

June 30, 1997

Mobil Exploration & Producing U. S. Inc.  
c/o Permits West, Inc.  
37 Verano Loop  
Santa Fe, New Mexico 87505  
Attention: Brain Wood

*Administrative Order DD-177(H)*  
High Angle/Horizontal

Dear Mr. Wood:

Reference is made to your application dated June 15, 1997 on behalf of the operator Mobil Producing Texas & New Mexico Inc. ("Mobil") for authorization to institute high angle/horizontal directionally drilling in the Vacuum-Abo Pool within its Mobil North Vacuum Abo Pressure Maintenance Project Area in Lea County, New Mexico.

**The Division Director Finds That:**

- (1) The application of Mobil as Unit operator of the North Vacuum-Abo Unit (approved by Division Order No. R-4412, dated October 10, 1972) has been duly filed under the provisions of Rule 111.D and E of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995;
- (2) By Division Order No. R-4430, as amended, Mobil was authorized to institute its Mobil North Vacuum Abo Pressure Maintenance Project comprising the following described area in Lea County, New Mexico, by the injection of gas and water into the North Vacuum-Abo Pool:

**TOWNSHIP 17 SOUTH, RANGE 34 EAST, NMPM**

Section 2:	SW/4
Section 3:	SE/4
Section 10:	E/2
Section 11:	S/2
Section 12:	NE/4 and S/2
Section 13:	N/2 and SW/4
Section 14:	All
Section 15:	E/2
Section 22:	E/2
Sections 23 and 24:	All
Section 25:	N/2 NE/4 and NW/4
Section 26:	All

Section 27: E/2

TOWNSHIP 17 SOUTH, RANGE 35 EAST, NMPM

Section 19: W/2 NW/4.

- (3) Said Order No. R-4430, as amended, further provides for additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of the North Vacuum-Abo Unit Area as may be necessary to complete an efficient production and injection pattern, provided said wells are drilled no closer than 460 feet to the outer boundary of said Pressure Maintenance Project nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary (see Rule 10);
- (4) The North Vacuum-Abo Pool is subject to the "*Special Rules and Regulations for the North Vacuum-Abo (Oil) Pool*", as promulgated by Division Order No. R-2421, as amended, which provides for 80-acre oil spacing and proration units, or drilling units, and requires that wells be located within a 200 foot radius of the center of a governmental quarter-quarter section or lot, provided that the first well on the 80-acre unit is located in either the NW/4 or SE/4 of a governmental quarter section;
- (5) Mobil is seeking to commence high angle/horizontal directional drilling in the North Vacuum-Abo Pool within its Mobil North Vacuum Abo Pressure Maintenance Project Area, as described above in order to further enhance oil recovery from this existing secondary recovery project;
- (6) The "project area", pursuant to Division General Rule 111.A(7), for said high angle/horizontal drilling should coincide with that area described above as the Mobil North Vacuum Abo Pressure Maintenance Project Area;
- (7) It is Mobil's intent at this time to recomplete:
  - (a) its North Vacuum Abo-Unit Well No. 244 (API No. 30-025-28603), located within a standard 80-acre oil spacing and proration unit for the North Vacuum-Abo Pool comprising the W/2 SE/4 of said Section 23 at a standard oil well location 589 feet from the South line and 1859 feet from the East line (Unit O) of said Section 23, by milling a window in the 5-1/2 inch production casing string at an approximate depth of 8,370 feet, kick-off in a northwesterly direction, and drill a high-angle hole a lateral distance of approximately 1400 feet through the Abo formation; and,
  - (b) its North Vacuum Abo-Unit Well No. 278 (API No. 30-025-29235), located within a standard 80-acre oil

spacing and proration unit comprising the S/2 SW/4 of said Section 23 at a standard oil well location 500 feet from the South line and 650 feet from the West line (Unit M) of said Section 23, by milling a window in the 5-1/2 inch production casing string at an approximate depth of 8,445 feet, kick-off in a southwesterly direction, and drill a high-angle hole a lateral distance of approximately 1700 feet through the Abo formation;

- (8) The applicable drilling window or "producing area", pursuant to Division General Rule 111.A(8), for said wellbores should include that area within the above-described Mobil North Vacuum Abo Pressure Maintenance Project and coinciding high angle/horizontal directional drilling project area that is no closer than 460 feet to its outer boundary; and,
- (9) It appears the applicant has satisfied all of the appropriate requirements prescribed in said Rule 111.D and E, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of Division General Rule 111.

**IT IS THEREFORE ORDERED THAT:**

(1) Mobil Producing Texas & New Mexico Inc. ("Mobil"), as Unit operator of the North Vacuum-Abo Unit (approved by Division Order No. R-4412, dated October 10, 1972), is hereby authorized to initiate a high angle/horizontal directional drilling project within the North Vacuum-Abo Pool in Lea County, New Mexico, by recompleting its:

(a) North Vacuum Abo-Unit Well No. 244 (API No. 30-025-28603), located at a standard oil well location 589 feet from the South line and 1859 feet from the East line (Unit O) of said Section 23, by milling a window in the 5-1/2 inch production casing string at an approximate depth of 8,370 feet, kick-off in a northwesterly direction, and drill a high-angle hole a lateral distance of approximately 1400 feet through the Abo formation; and,

(b) North Vacuum Abo-Unit Well No. 278 (API No. 30-025-29235), located at a standard oil well location 500 feet from the South line and 650 feet from the West line (Unit M) of said Section 23, by milling a window in the 5-1/2 inch production casing string at an approximate depth of 8,445 feet, kick-off in a southwesterly direction, and drill a high-angle hole a lateral distance of approximately 1700 feet through the Abo formation.

**PROVIDED HOWEVER THAT** prior to commencing directional drilling operations in said wellbores, the applicant shall establish the location of the kick-off point by means of a directional survey

acceptable to the Division.

**PROVIDED FURTHER THAT** during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in each wellbore in order that the subsurface bottomhole location, as well as the wellbore's true depth and course, may be determined.

(2) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(3) The "project area", pursuant to Division General Rule 111.A(7), for said high angle/horizontal drilling should coincide with the Mobil North Vacuum Abo Pressure Maintenance Project (approved by Division Order No. R-4430, as amended) comprising the following described area in Lea County, New Mexico:

**TOWNSHIP 17 SOUTH. RANGE 34 EAST. NMPM**

Section 2:	SW/4
Section 3:	SE/4
Section 10:	E/2
Section 11:	S/2
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Section 26:	All
Section 27:	E/2

**TOWNSHIP 17 SOUTH. RANGE 35 EAST. NMPM**

Section 19:	W/2 NW/4.
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(4) The applicable drilling window or "producing area", pursuant to Division General Rule 111.A(8), for said wellbores should include that area within the above-described Mobil North Vacuum Abo Pressure Maintenance Project and coinciding high angle/horizontal directional drilling project area that is no closer than 460 feet to its outer boundary.

(5) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F, and Order Nos. R-2421, as amended, and R-4430, as amended.

Administrative Order DD-177(H)  
Mobil Exploration & Producing U.S. Inc.  
June 30, 1997  
Page 5

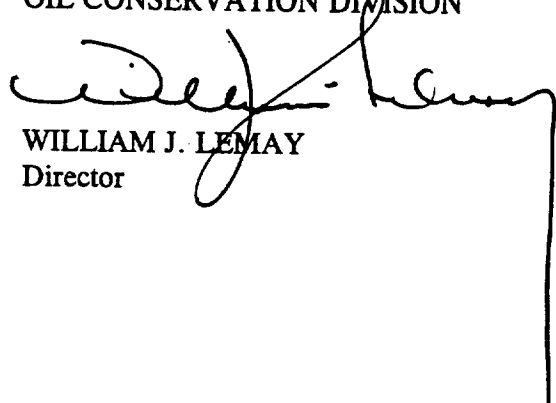
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(6) Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth (TVD) in addition to measured depths (MVD).

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

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
WILLIAM J. LEMAY  
Director

S E A L

cc: Oil Conservation Division - Hobbs  
New Mexico State Land Office - Santa Fe