



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

NSL-4750 (BHL) (SD)

PKR00 - 216135512

BILL RICHARDSON
Governor

April 23, 2004

Joanna Prukop
Cabinet Secretary
Acting Director
Oil Conservation Division

Marathon Oil Company
P. O. Box 3487
Houston, Texas 77253-3487

Attention: **Mark Mick**
Operations Engineer
msmick@marathonoil.com

AMENDED Administrative Order NSL-4750 (BHL) (SD)

Dear Mr. Mick:

Reference is made to the following: (i) your application filed with the New Mexico Oil Conservation Division ("Division") on March 29, 2004 (**administrative application reference No. pMES0-409128759**); (ii) my e-mail on Friday afternoon, April 23, 2004 requesting additional information to support your application; (iii) your e-mail response on the same day with the requested information; and (iv) the Division's records in Santa Fe, including the file on Division Administrative Orders NSL-4750 (BHL) (SD): all concerning Marathon Oil Company's ("Marathon") request for an exception to Rule 2 (b) of the "*Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool*", as promulgated by New Mexico Oil Conservation Division ("Division") Order Nos. R-9922, R-9922-A, R-9922-B, R-9922-C, R-9922-D, and R-9922-E and the "*General Rules and Regulations for the Associated Oil and Gas Pools of Northwest New Mexico and Southeast New Mexico*," as promulgated by Division Order No. R-5353, as amended, for Marathon's existing Indian Hills Unit Well No. 45 (**API No. 30-015-32338**) to be recompleted with a horizontal drainhole within an existing standard 298.02-acre spacing and proration unit within the Indian Basin-Upper Pennsylvanian Associated Pool (**33685**) comprising Lots 1 through 8 (E/2 equivalent) of Section 21, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.

This application has been duly filed under the provisions of: (i) Division Rule 104.F; (ii) Division Rule 1207.A; (iii) 111.C (2); and (iv) Rule 2 (c) of the aforementioned associated oil and gas pool rules.

This unit is currently simultaneously dedicated to Marathon's:

- (i) Indian Hills Unit Well No. 24 (**API No. 30-015-31266**), located on the surface 685 feet from the North line and 2073 feet from the East line (Unit B) of Section 28, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, and completed within the Indian Basin-Upper Pennsylvanian Associated Pool at a standard sub-surface location within Lot 6 (NW/4 SE/4 equivalent - Unit J) of Section 21;
- (ii) Indian Hills Unit Well No. 28 (**API No. 30-015-31267**), located on the surface 218 feet from the South line and 660 feet from the East line (Unit P) of Section 16, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, and completed within the Indian Basin-Upper Pennsylvanian Associated Pool at a standard sub-surface location within Lot 2 (NW/4 NE/4 equivalent - Unit B) of Section 21;
- (iii) Indian Hills Unit Well No. 41 (**API No. 30-015-32539**), located on the surface 199 feet from the South line and 524 feet from the East line (Unit P) of Section 16, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, and completed within the Indian Basin-Upper Pennsylvanian Associated Pool at a standard sub-surface location within Lot 4 (SE/4 NE/4 equivalent - Unit H) of Section 21; and

(iv) aforementioned Indian Hills Unit Well No. 45 (API No. 30-015-32338), which well was initially drilled in November, 2003 from a surface location 806 feet from the North line and 1010 feet from the East line (Unit B) of Section 28, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, and directionally drilled to the north to a total depth of 8,237 feet (MD), or 8,072 (TVD), at a bottom-hole location 305 feet from the South line and 1136 feet from the East line (Lot 8/Unit P) of Section 21, see Division Administrative Order NSL-4750 (BHL) (SD), dated June 18, 2002.

It is the Division's understanding that Marathon now intends to abandon the current Upper Pennsylvanian completion within its Indian Hills Unit Well No. 45 and recomplete by plugging back to a depth of 7,550 feet (MD), kick-off in a north-northeasterly direction, build angle to approximately 90 degrees, and continue drilling horizontally a distance of approximately 1,960 feet. The targeted end or bottom-hole location of this drainhole at 9,646 feet (MD) is proposed to be within Lot 5 (the NE/4 SE/4 equivalent - Unit I) of Section 21 at a standard subsurface location that is approximately 2084 feet from the South line and 785 feet from the East line of Section 21. This new high angle/horizontal directional wellbore is expected to intersect the top of the Upper-Pennsylvanian interval at an approximate depth of 8,954 feet (MD), or 7,700 feet (TVD) at a point 119 feet from the South line and 1080 feet from the East line (Lot 8/Unit P) of Section 21. The proposed well will be unorthodox in that its entry into the Upper-Pennsylvanian interval and a portion of the lateral drainhole will be closer than the standard setback distance of 660 from the South line of Section 21.

By the authority granted me under the provisions of Division Rule 104.F (2) and the applicable provisions of the special rules governing the Indian Basin-Upper Pennsylvanian Associated Pool, the above-described recompletion resulting in an unorthodox sub-surface location for the Indian Hills Unit Well No. 45 within the E/2 equivalent of Section 21, is hereby approved. Further, the aforementioned well and 320-acre spacing and proration unit will be subject to all existing rules, regulations, policies, and procedures applicable to the Indian Basin-Upper Pennsylvanian Associated Pool.

Furthermore, Marathon is hereby authorized to simultaneously dedicate production attributed to the Indian Basin-Upper Pennsylvanian Associated Pool from the aforementioned Indian Hills Unit Wells No. 24, 28, 41, and 45. Furthermore, Marathon is permitted to produce the allowable assigned the subject 298.28-acre spacing and proration unit from all four wells in any proportion. Finally, Marathon shall comply with all provisions of Division Rule 111 applicable in this matter.

The Division's original Administrative Order NSL-4750 (BHL) (SD), dated June 18, 2002, shall be placed in abeyance until further notice.

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

Sincerely,



Michael E. Stogner
Engineer/Hearing Officer

MES/ms

cc: New Mexico Oil Conservation Division - Artesia
U. S. Bureau of Land Management - Carlsbad
File: NSL-4750 (BHL) (SD)