

Production Department Hobbs Division August 27, 1987

APPLICATION FOR PERMIT TO RE-ENTER PATTERSON FEDERAL NO. 1, LEA COUNTY, NEW MEXICO

Bureau of Land Management P.O. Box 1778 Carlsbad, NM 88220

Gentlemen:

We are submitting a re-entry plan and a surface use plan which should accompany application for permit to re-enter. See the present and proposed well diagram and procedure.

Well: Patterson Federal Well No. 1

- (1) Location: 660' FNL and 660' FEL Section 4-T19S-R32E, Lea County, New Mexico.
- (2) Elevation of Unprepared Ground: 3679.7' GL
- (3) Geologic Name of Surface Formation: Quarternary alluvium.
- (4) Type Drilling Tools: Pulling unit with associated equipment.
- (5) Proposed Re-entry Depth: To cement plug at 4100'. Existing TD 10,900'.
- (6) Estimated Tops of Geologic Markers: Salt 1250', Base of Salt 2700'. 7 Rivers 3450', Queen 3885'.
- (7) Estimated Depths at Which Anticipated Gas or Oil-Bearing
 Formations Expected: 7 Rivers section 3819' to 3833' may produce oil.
- (8) Casing Program, Setting Depths and TOC:

| | _Size_ | Weight | <u>Grade</u> | Setting Depth | TOC |
|------------|---------|--------|--------------|---------------|---------|
| Surface | 11-3/4" | 42# | H-40 | 400' | Surface |
| Production | 8-5/8" | 24# | K-55 | 4178' | Surface |

Note: OH cement plug 4100 - 4750'.

(9) Pressure Control Equipment: The minimum specifications for pressure control equipment can be seen on the attached drawing for 2000 psi WP.