

PHILLIPS PETROLEUM COMPANY

ODESSA, TEXAS 79762 4001 PENBROOK

NATURAL RESOURCES GROUP Exploration and Production

May 27, 1981

Expansion of Waterflood Project-East Vacuum Grayburg/San Andres Unit Lea County, New Mexico

New Mexico Department of Energy and Minerals (3) Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

Attention: Mr. Joe D. Ramey Division Director

Gentlemen:

We respectfully request administrative approval of expansion of waterflood injection well pattern, as provided by Order No. R-5897, Rule No. 9, for the East Vacuum Grayburg/San Andres Unit pressure maintenance project, to convert East Vacuum Grayburg/San Andres Unit, Tract 2150, Well No. 002; East Vacuum Grayburg/San Andres Unit, Tract 2230, Well No. 004; and East Vacuum Grayburg/San Andres Unit, Tract 2738, Well No. 008, to water injection service. The following data is submitted in support of this request:

- Unit plat reflecting the proposed injection well and injection well project area of each well (Tract 2150, No. 002--Unit P, Section 21, T-17-S, R-35-E; Tract 2230, No. 004--Unit M, Section 22, T-17-S, R-35-E; Tract 2738, No. 008--Unit F, Section 27, T-17-S, R-35-E).
- Compensated Neutron log (Tract 2738, No. 008) or Borehole Compensated Sonic log (Tract 2150, No. 002 and Tract 2230, No. 004) for the injection well.
- 3. Diagramatic sketch of each proposed well, injection tubing, packer, and pressure control elements identifying the San Andres perforated injection intervals.
- 4. The name of the injection formation of each well is San Andres with injection to be into the well intervals as follows: Tract 2150, No. 002--4510' to 4720'; Tract 2230, No. 004--4540' to 4680'; and Tract 2738, No. 008--4367' to 4598'. The maximum anticipated injection pressure will be no more than 0.2 psi per foot to the top of the perforations with a maximum daily volume anticipated to 2500 bbls for all identified wells.