

March 9, 1966

AREA DRAINAGE COMPUTED FROM PROJECTED RECOVERYHIGH PLAINS UNIT WELL NO. 1
HIGH PLAINS PENN POOLReservoir Volume Calculations

Porosity (Sonic Log)	10%
Water Saturation (Calculated)	32%
Net Effective Pay	25 feet
Recovery Factor (Assumed)	27%
Formation Volume Factor	1.653
Ultimate Recovery (Projected from Pressure versus Cumulative Production)	286,000 barrels

Oil in Place, Barrels per Acre-Foot

$$(7758)(.10)(1.00-0.32)(1/1.653) = 319 \text{ bbls/ac-ft}$$

Recoverable Oil, bbls per acre-foot

$$(319) \times (0.27) = 86 \text{ bbls/ac-ft}$$

Oil in Place, Barrels per Acre

$$(310) \times (25) = 7950 \text{ bbls/acre}$$

Recoverable Oil, Barrels per Acre

$$(7950) \times (0.27) = 2140 \text{ bbls/acre}$$

	<u>40 Acres</u>	<u>80 Acres</u>	<u>160 Acres</u>
Oil in Place, Barrels	318,000	635,000	1,270,000
Recoverable Oil, Barrels	85,000	170,000	340,000
Recoverable Gas, MMCF	153	306	612

Actual Area Drained from the Subject Well

$$X = \frac{286,000}{2140} = 134 \text{ Acres}$$

