

CALCULATION OF THEORETICAL RESERVOIR PRESSURE AT ABANDONMENT

Example Well Roger C. Hanks-Zapata State No. 1 .

Abandonment Conditions:

Oil rate, Bbl/D	17
Water rate, Bbl/D	119
Fluid viscosity, cp	0.48
Formation capacity, Md. ft.	142
Wellbore pressure, psi	0

For 160 acre spacing

$$P_e - P_w = \frac{Q \ln \frac{r_e}{r_w}}{7.07 kh}$$

$$P_e - 0 = \frac{145 (0.48) \ln 1491/1}{7.07 (0.142)}$$

$$P_e = \underline{\underline{505 \text{ psi}}}$$

For 80 acre spacing

$$P_e - 0 = \frac{145 (0.48) \ln (1054/1)}{7.07 (0.142)}$$

$$P_e = \underline{\underline{482 \text{ psi}}}$$

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4

BEFORE EXAMINER NUTTER

OIL CONSERVATION COMMISSION

EXHIBIT NO. 4

CASE NO. 4161