

BLINEBRY SBHP

Blinebry Perfs - 5465' to 5675' Avg. Depth - 5570'

Blinebry γ_g - 0.700

Assume P_{atm} - 13.2 psia

Assume Temp. Grad. - $0.4^\circ\text{F}/100'$

Assume Avg. Surface Temp. - 74°F

$$\text{BGT} = 74^\circ\text{F} + 5570' \frac{0.4^\circ\text{F}}{100'} = 96^\circ\text{F}$$

$$P_{whs} = 513.2 \text{ psia}$$

$$P_{sfs} = P_{whs} \times \frac{C}{\bar{z}} \quad \text{Where: } C = \frac{(\gamma_g) (\text{TVD})}{53.34 \bar{T}}$$

$$\bar{T} = \frac{74^\circ\text{F} + 96^\circ\text{F}}{2} + 460^\circ\text{R} = 545^\circ\text{R}$$

$$C = \frac{(0.700)(5570')}{(53.34)(545^\circ\text{R})} = 0.131$$

$$\text{Assume } P_{sfs} = 616 \text{ psia} \quad \bar{P} = \frac{616 \text{ psia} + 513.2 \text{ psia}}{2} = 564.6 \text{ psia}$$

$$\bar{z} = 0.91$$

$$P_{sfs} = (513.2 \text{ psia}) e^{\frac{0.131}{0.91}} = 592.7 \text{ psia}$$

$$\text{Assume } \bar{P} = \frac{592.7 \text{ psia} + 513.2 \text{ psia}}{2} = 553 \text{ psia}$$

$$\bar{z} = 0.91$$