6 True

7 False - Pressure will change along with these factors

8 False - absolute pressure is always positive

9 True

10 False

11 $h = 4000 ft$ $P_a = 14.70 psia$ $\gamma = 0.0764 lb/ft^3$

$\Delta P = \gamma h$

$\Delta P = 305.6/12$

$\Delta P = 2.12 psia$

$P = P_a - P_\Delta$

$P = 12.58 psia$

12 $P_{abs} = P_{atm}$

$P_g = P_{abs} - P_{atm}$

$P_g = 0$

41 $P_A = 180 psig$ $Sg = 0.9$ $h = 64 in$

$Sg = \text{oil}/\text{water}$

$0.9 = \gamma_o / 62.4\ lb/ft^3$

$\gamma_o = 0.9 \cdot 62.4$

$\gamma_o = 56.2/12$

$\gamma_o = 0.033\ lb/in^3$

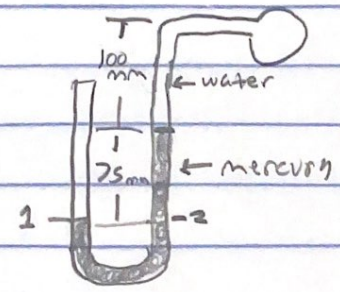
$\Delta p = (0.033\ lb/in^3)(64 in)$

$\Delta p = 2.112\ lb/in^3$

$P_a = 180 psig - 2.112 psig$

$P_a = \boxed{177.9\ psig}$

62



$P_A + \gamma_w h_w + \gamma_{Hg} h_{Hg} = P_{atm}$

$(P_a)_{gage} = -(\gamma_w h_w + \gamma_w SG_{Hg} h_{Hg})$

$= -(9810 * 0.1 + 9810 * 13.54 \cdot 0.075)$

$= -10943.055 \, N/m^2$

$= \boxed{-10.943 \, kPa}$

83

$P_{atm} = 30.65$ in of Hg

1 inch of Hg = 0.49 psia

$30.65 \cdot 0.49 = 15$ psia

$\boxed{P_{atm} = 15 \, psia}$

96

$P = -68200 \, Pa$

$-68200 \cdot 0.0075 = -511.5 \, mm \, Hg$

$\boxed{P = -511.5 \, mm \, Hg}$

94

$\Delta p = \gamma h$

$\Delta p = 9.81 \cdot 16$

$\boxed{\Delta p = 156.96 \, kPa}$