

For pressures below or equal to bubble point, Standing's correlation for calculating Bo is herein presented:

$$B_o = 0.9759 + 0.00012F^{1.2} \text{ --- --- --- --- --- 2.35}$$

$$\text{Where } F = R_s \left(\frac{\gamma_g}{\gamma_o} \right)^{0.5} + 1.25T_F \text{ --- --- --- --- --- 2.36}$$

Note: T_F is temperature in degree Fahrenheit.

For pressure above bubble point, the analytical equation applicable is given as:

$$B_o = B_{ob} \exp[c_o(P_b - P)] \text{ --- --- --- --- --- 2.37}$$

B_{ob} is the B_o at bubble point and can be calculated using equation 2.35 and 2.36