

$$Z_1 + \frac{144P_1}{\rho} + \frac{V_1^2}{2g} = Z_2 + \frac{144P_2}{\rho} + \frac{V_2^2}{2g} + \cancel{\frac{V_1^2}{2g}}$$

$$\cancel{V_2^2 - V_1^2}$$

$$\frac{V_1^2 - V_2^2}{2g} = \frac{144}{\rho} (P_2 - P_1)$$

$$V_1^2 - V_2^2 = \frac{(144)(2g)}{\rho} (P_2 - P_1)$$

$$V_2^2 - V_1^2 = \frac{(144)(2g)}{\rho} (P_1 - P_2)$$

$$\rho = \frac{PM}{RT}$$

$$V_2^2 - V_1^2 = \frac{288g}{\frac{(98.5)(29)}{(10.73)(540)}} \quad (3)$$

$$V_2^2 - V_1^2 = 56387$$

$$(4V_1)^2 - V_1^2 =$$

$$15V_1^2 =$$

$$\Delta V = 184 \text{ ft/sec}$$

$$V_1 = 61 \text{ ft/sec}$$

$$V_2 = 245 \text{ ft/sec}$$