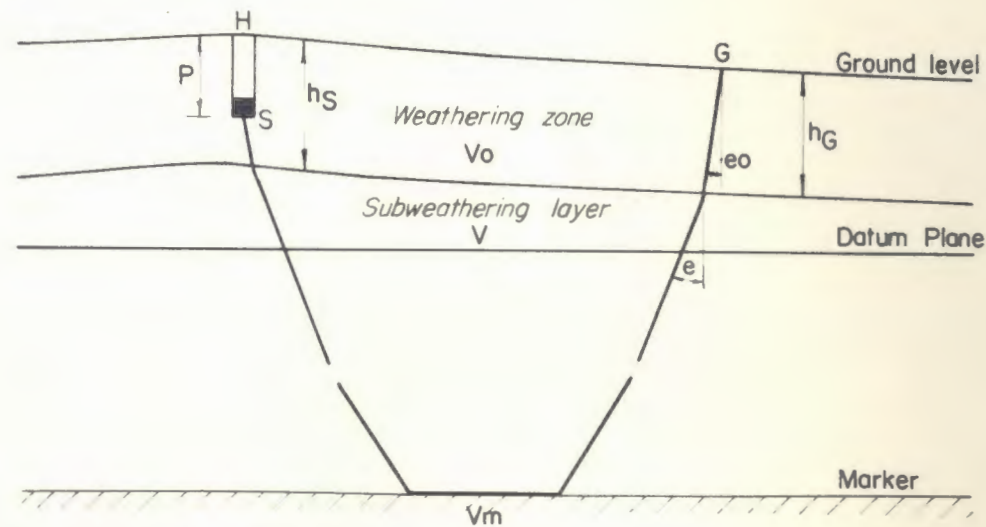


FIG. 7.

REFRACTION CORRECTIONS



V_o = Weathering zone velocity
 V = Elevation correction velocity
 V_m = Marker velocity
 $\sin e = \frac{V}{V_m} \quad \sin e_o = \frac{V_o}{V_m}$

D.P. = Elevation Datum Plane

SHOT POINT CORRECTION

$$Z_{S.P.} = S.P. \text{ Elevation}$$

P = Maximum depth of the hole

h_S = Depth of the weathering zone beneath the S.P.

$$C_{SP} = \text{S.P. elevation correction} = \frac{D.P. - (Z_{SP} - P)}{V / \cos e}$$

CH = Horizontal correction if any

$$C_{WZ} = \text{Weathering correction to the S.P} = (h_s - P) \left(\frac{1}{V/\cos e} - \frac{1}{V_0/\cos e_0} \right)$$
$$\Sigma c = C_{SP} + C_{WZ} + C_T + C_H$$

GEOPHONE CORRECTION

 Z_G = Geophone elevation h_G = Depth of the weathering zone beneath the geophone
$$E_C = \text{Elevation correction} = \frac{D.P. - ZG}{V/\cos e}$$
$$C_{WZ} = \text{Weathering zone correction to the geophone} = h_G \left(\frac{1}{V/\cos e} - \frac{1}{V_0/\cos e_0} \right)$$

STATIC CORRECTION

$$\Sigma C = \Sigma c + C_{WZ} + Ec$$
[illegible][illegible]