

REFRACTION INTERPRETATION

X = Offset

H = Depth to refractor

hi = Thickness of overburden with velocity Vi

Vr = Refractor velocity

$$\beta_i = \frac{h_i}{H}$$

$$H = tR$$

$$R = \left[\sum \frac{\beta_i \cos \sin^{-1} \left(\frac{V_i}{V_r} \right)}{V_i} \right]^{-1}$$

$$X = H \left[\sum \beta_i \tan \sin^{-1} \left(\frac{V_i}{V_r} \right) \right] = H.S.$$

For Shot point 169, hi, H, Vi from reflection data. Refractor velocity = 16,910 ft/sec

$$h_i \quad \beta_i = \frac{h_i}{H} \quad V_i \quad \frac{\beta_i}{V_i} \left[1 - \left(\frac{V_i}{V_r} \right)^2 \right]^{\frac{1}{2}} \quad \beta_i \left(\frac{V_i^2}{V_r^2 - V_i^2} \right)^{\frac{1}{2}}$$

| | | | | |
|------|-------|-------|--------------------------|-------|
| 250 | •0497 | 4900 | •9710 x 10 ⁻⁵ | •0150 |
| 2060 | •3238 | 6700 | 4•438 x 10 ⁻⁵ | •1395 |
| 2630 | •1019 | 8700 | •6526 x 10 ⁻⁵ | •0612 |
| 4540 | •3417 | 9550 | 2•952 x 10 ⁻⁵ | •2340 |
| 5590 | •1878 | 11100 | 1•277 x 10 ⁻⁵ | •1633 |

$$\Sigma = \cdot 0001029$$

$$s = \Sigma = \cdot 6130$$

$$R = \Sigma^{-1} = 9718$$