## C. WATER DEPTH and WATER REPLACEMENT STATIC CORRECTIONS

Water depths ranged from 200 feet to 6000 feet. Field recorded fathograms were available for water depths up to 1680 feet. Where water depths exceeded 1680 feet, the water depth values were computed from the water bottom reflection time on trace 24 of each vertically stacked record by applying the following formulae;

*CALIBRATION FACTOR includes SSD, etc.*

$$Tx = \frac{Tw}{2} - .012 \text{ sec}$$

$$T = \sqrt{Tx^2 - Ty^2}$$

$$Wd = Vw\sqrt{Tx^2 - Ty^2}$$

$$C = T - \frac{Wd}{Vr}$$

where:

Tw = Two-way water bottom reflection time read from trace 24 of vertical stack records.

Tx = One-way time to water bottom.

Ty = One-way horizontal travel time from energy source to a point mid-way between energy source and group 24.

T = One-way vertical time to water bottom.

Vw = Water velocity = 4850 feet per second.

Wd = Water depth.

Vr = Water replacement velocity = 7000 feet per second.

C = One-way static correction for replacement of water layer.

Travel times through water were computed from known water depths (fathograms) and compared with travel times obtained from vertically stacked records. A statistical analysis of these comparisons indicated an emperical

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