

More recently, Schnaid (1997) proposed empirical correlations between  $\text{Log} \frac{G_o/p_a}{(N)_{60}}$  &  $\text{Log}(N_1)_{60}$ .

This correlation has the advantage that, unlike Otha e Goto (1978) eq., the knowledge of soil composition is not necessary. Figure 15 shows the experimental values of  $\text{Log} \frac{G_o/p_a}{(N)_{60}}$  &  $\text{Log}(N_1)_{60}$ .

The Figure also shows the empirical correlation obtained by regression analysis of the data.

$$\text{Log} \left( \frac{G_o/p_a}{(N)_{60}} \right) = -0.83 \cdot \text{Log}(N_1)_{60} + 3.2 \quad (3)$$

Figure 16 shows the shear modulus as obtained from shear wave velocities measured in DH tests and those inferred using eq. (3). Figure 16 clearly shows very poor correlation between measured and computed values.

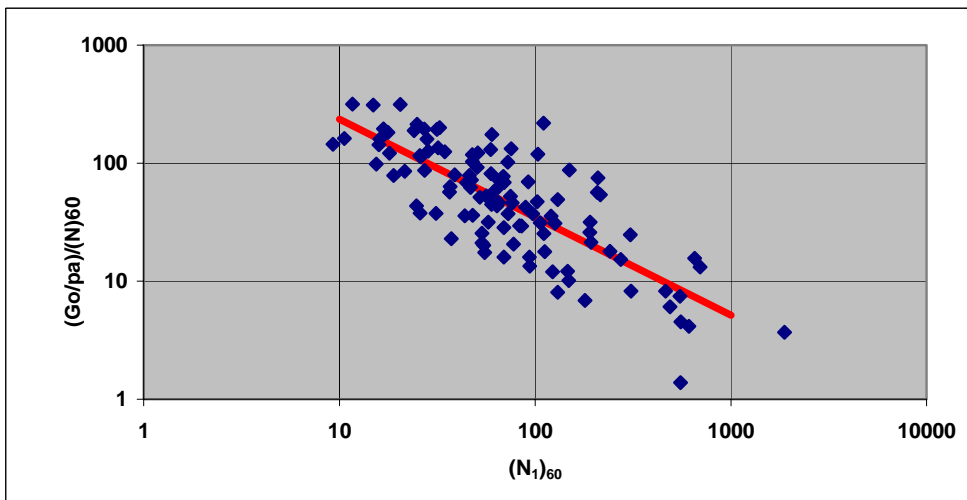


Figure 15 Normalized shear modulus vs.  $(N_1)_{60}$  according to Schnaid (1997) approach

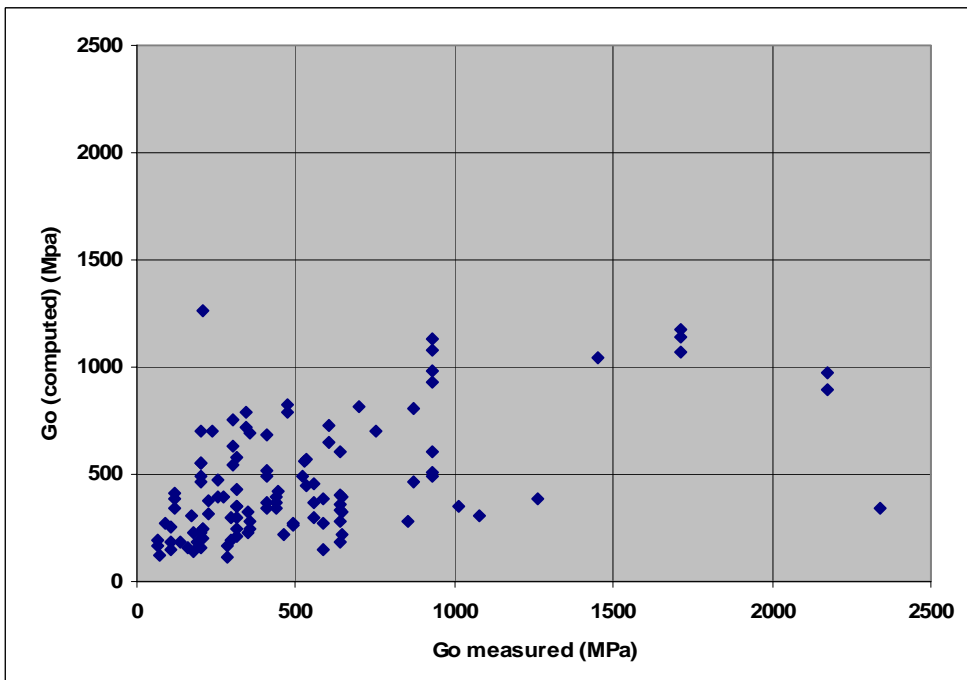


Figure 16 Shear modulus (from shear wave velocities measured in down-hole tests) vs. computed (according to Schnaid, 1997) values