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Discussions and Replies Session 13

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DISCUSSIONS AND REPLIES

SESSION XIII

Discussion by B.S.Y. Chen

on
"Effective Stress Method for Piezocone Evaluation of s_u "

Paper No. 13.16

Piezocone penetration tests produce three different types of data, i.e. tip resistance (q_c), sleeve friction (f_s), and pore water pressures (u_m) measured at various locations along the cone. For the piezocone evaluation of s_u , most existing approaches use either the

corrected net tip resistance ($s_u = \frac{q_T - \sigma_{vo}}{N_{KT}}$) or the excess pore

water pressure ($s_u = \frac{u_m - u_o}{N_{\Delta u}}$). A large number of these

approaches are empirically determined. The authors propose an alternative which makes the better use of piezocone parameters

($s_u = \frac{q_T - u_{bl}}{N_{qu}}$) and the method is derived based on the cavity

expansion theory and the modified cam clay model. Figure 1 summarizes the case studies presented in the paper. More data from stiffer clays are plotted in Figure 2. The results appear to be encouraging.

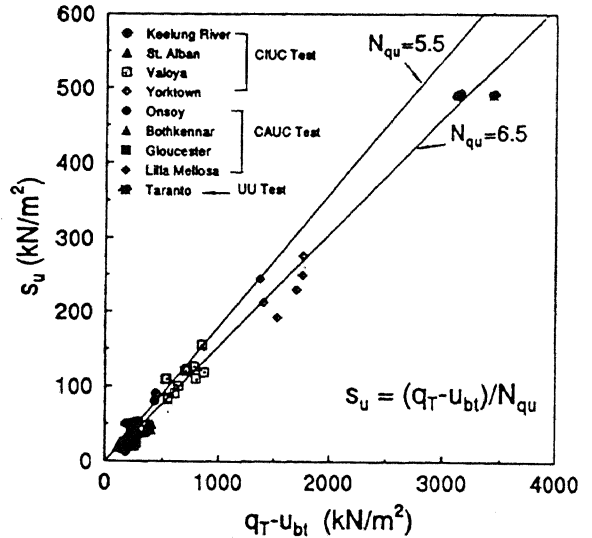


Figure 2

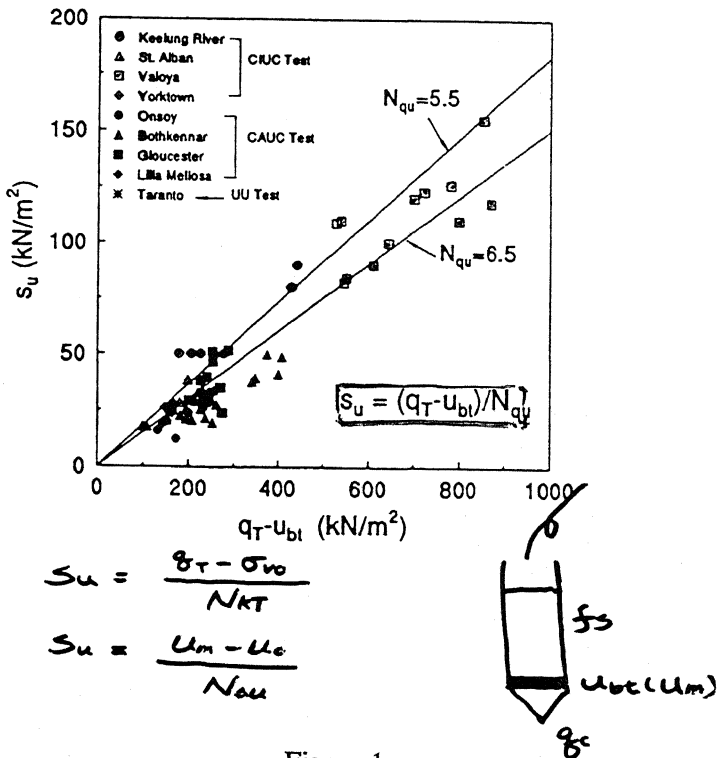


Figure 1