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04 Jun 1993, 8:00 am - 10:00 am

## 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.

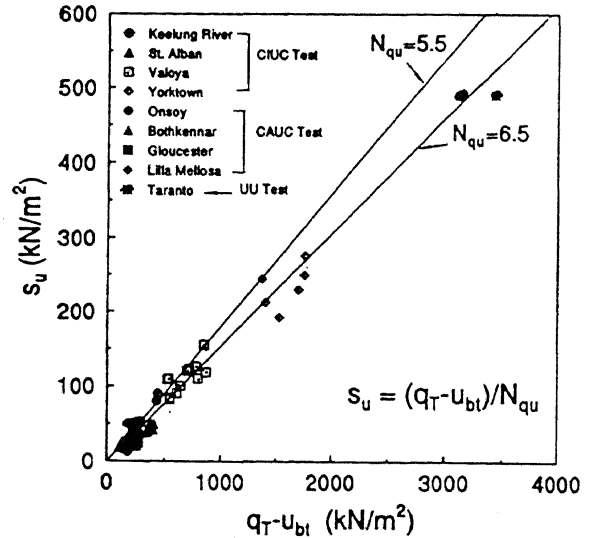


Figure 2

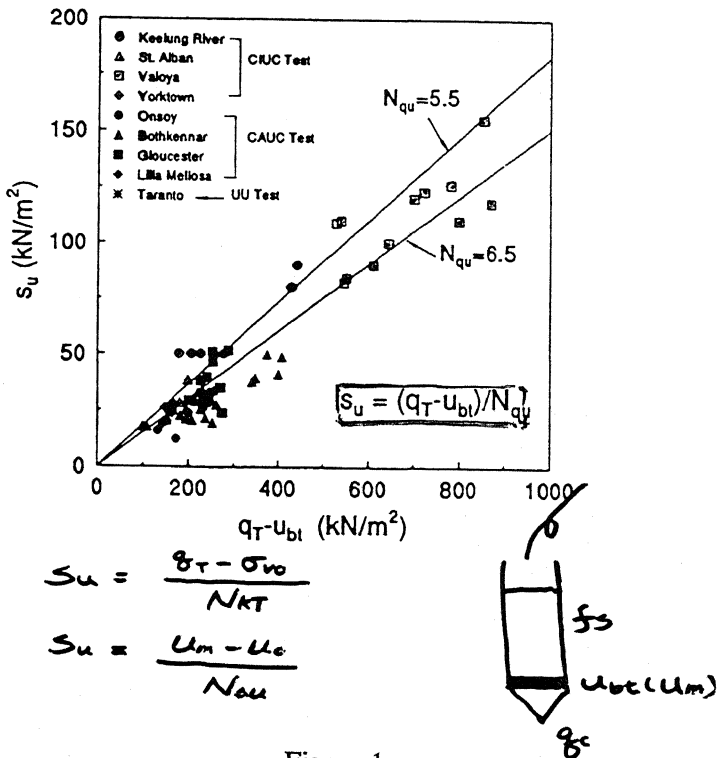


Figure 1