3-9. If $N'_{70} = 25$ and $p'_o = 100$ kPa, for Eq. (3-5a), what is D_r? What is your best estimate for D_r if the OCR = 3? Estimate ϕ from Table 3-4 for a medium (coarse) sand.

3-11. Plot the CPT data including f_R of Table P3-11 and estimate s_u at depth = 5.6 m if $I_P = 30$; also estimate ϕ at depth 7.62 m. Assume an average $\gamma = 16.5$ kN/m^3 to GWT at depth = 3 m and $\gamma = 19.81$ kN/m^3 for soil below the GWT.

3-15. Plot the following corrected pressuremeter data and estimate p_h, E_{sp}, and K_o. For E_{sp} take μ = 0.2 and 0.4. Also assume average $\gamma = 17.65$ kN/m^3 and test depth = 2.60 m. What is the "limiting pressure"?

V, cm^3	55	88	110	130	175	195	230	300	400	500
p, kPa	10	30	110	192	290	325	390	430	460	475