

1. The bed of a river 7 m deep consists of sand (saturated unit weight of sand is  $19.5 \text{ kN/m}^3$ ). Calculate the effective vertical stress 7 m below the surface of sand.
2. A 30 ft thick layer of stiff saturated clay is underlain by a layer of sand (the figure below). The sand is under artesian pressure. Calculate the maximum depth of cut,  $H$ , that can be made in clay.

