A METHOD FOR THE PREDICTION OF THE RATE OF SETTLEMENT IN LATERITIC SOILS

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It is shown that lateritic soils are partially saturated soils whose consolidation properties are governed by the flow of air or water or both. In many cases it is the air which flows through the soil and hence conventional analysis grossly under-estimates the rate of settlement. An alternative method is proposed for predicting the rate of settlement. This method is first applied to test the permeability of thin soil samples in the horizontal and vertical directions, and the two permeabilities are found to be not very different. It is also shown that in the standard oedometer test on lateritic soils, only a very few readings are available in the primary consolidation stage, and hence only approximate values can be obtained for the primary compression characteristics. Finally, the method is used to predict rates of settlement in the field, and relatively good agreement is obtained between the observed and predicted rates of settlement.