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(57) Abstract :

ABSTRACT: Title: A Method for Determination of Radial Coefficient of Consolidation in Clays of High Compressibility The present disclosure proposes a method for determining radial coefficient (Cr) of consolidation in a particular type of clay with high compressibility by obtaining the relation between the coefficients of consolidation in radial and vertical directions (Cr and Cv). The method eliminates the need for complex Cr testing methods and empowers engineers to design more efficient prefabricated vertical drain (PVD) systems in clays by providing a user-friendly method for determining Cr based on Cv data. The method facilitates the design of effective PVD systems, thereby providing improved ground stabilization practices for construction projects involving saturated clays, mitigating settlement risks, and enhancing long-term performance of structures built on the soils. The method provides accurate Cr data, which allows optimal PVD spacing and configuration, thereby leading to faster consolidation and improved foundation stability.

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