ABSTRACT

EFFICIENCY BY DESIGN ABSORPTION WELLS FIELD TEST RESULTS PERMEABILITY IN VILLAGE BERINGIN JAYA KEMILING DISTRICT WITH DIFFERENT SURFACE SOIL

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The difference in elevation can cause the hydraulic gradient is quite high and cause seepage. When the flow of seepage water layer with a finer grain to the layer of coarse, granular material terangkutnya possibility that more subtle pass through the coarser material can occur. The nature of the soil that allows water to pass through at different flow rates is called the permeability of the soil. In this study to calculate the coefficient of permeability, and then determine the number of recharge wells efficient.

Soil samples were tested in this study are derived from clay Kedaung Housing, Village Banyan Jaya, District Kemiling, Bandar Lampung. This study was conducted to determine the efficient amount of recharge wells that will be created with the value of the field permeability test results with tools that have been modified. Based on the examination of the physical properties of the original soil, classify soil samples in group argillaceous soil, while USCS classified as clay soil samples and included in the CL group.

The results of the analysis and calculations were performed, the field permeability coefficient obtained x 1.06863 - 1.8372 x cm / sec. Research conducted in the laboratory for comparison, obtained 2.2507 x 10^-7 - 3.6638 x 10^-7. This indicates that the value of the coefficient of permeability between field and laboratory tidah too much difference. Permeability coefficient values were used to calculate the amount of recharge wells that efisien. In making effective absorption wells are numbered 2 pieces with a diameter of 1.5 meters and a depth of 3 meters

Keywords: clay, permeability, infiltration well