

عنوان مقاله:

Behavior of Gypseous Soil under Static and Dynamic Loading

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خلاصه مقاله:

This study focusses on studying soaking and leaching effects on gypseous soil at both static and dynamic conditions. The soil used was Natural gypseous soil with ۵۰% gypsum. Three parameters were studied (deformation ratio, dissolve gypsum salts and hydraulic conductivity) in both static and dynamic conditions. ۲۰ tests were carried by laboratory model manufactured locally. A platform base connected to loading frame was designed in a manner that allow free movement provided for dynamic test, as in earth quake. Results of experimental work reviled that the deformation ratio S/B (settlement /footing width) for sample subjected to ۳۰ seconds vibration was ۱۵ times that of sample without vibration. On the other hand, ۷۰% of hydraulic conductivity was achieved at the first ۱۰ minutes leaching for model subjected to ۳۰ seconds vibration. That reflects the effect of earth quack on structures constructed on such problematic soil. Author recommend to take cautions when constructing footings beside any dynamic soars .specially in gypseous soil

کلمات کلیدی:

Dynamic loading, Gypseous Soil Behavior, earthquake, vibration

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