

Expansive characteristics of gypsiferous/anhydritic soil formations

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Abstract: Geology and climatic and environmental conditions have led to the formation of expansive soils in the Eastern Province of Saudi Arabia. Calcium sulphate, which commonly occurs in such soils, is well known for phase transformation and dissolution. Phase changes from gypsum to anhydrite and vice versa, and dissolution of these phases, add to the potential hazards of local expansive soils. This paper discusses the behaviour of the expansive soil formations of eastern Saudi Arabia containing gypsum and anhydrite. Geology and climatic and environmental conditions have led to the formation of expansive soils in the Eastern Province of Saudi Arabia. Calcium sulphate, which commonly occurs in such soils, is well known for phase transformation and dissolution. Phase changes from gypsum to anhydrite and vice versa, and dissolution of these phases, add to the potential hazards of local expansive soils. This paper discusses the behaviour of the expansive soil formations of eastern Saudi Arabia containing gypsum and anhydrite.