

Underground Storage of Brine

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ABSTRACT

This paper discusses the concept of using a salt cavern for the storage and supply of brine for use in underground storage operations. An underground brine storage cavern would supplement or replace surface storage of brine in pits. Underground brine storage also alleviates the need to produce fresh brine when products need to be withdrawn from other storage caverns or to dispose of brine in disposal wells when products are placed into storage. Use of a cavern for brine storage involves displacing the brine with gas when brine is required for other operations. The cavern is then refilled with brine, which displaces the gas, when brine is available from the storage of petrochemicals or hydrocarbons in other caverns. Estimated costs of such operations are studied to provide a range of operating costs depending upon the method and quantity of brine storage considered.

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