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**Meeting Paper**



**A Salt-Cavern Abandonment Test**

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# A SALT-CAVERN ABANDONMENT TEST

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## Abstract

An 18-month test has been performed on a deep brine-filled cavern. The objective was to measure the equilibrium pressure reached when the cavern is closed. Such an equilibrium is reached when salt mass creep, which leads to cavern shrinkage, balances brine permeation through the cavern wall. This objective was met by imposing different pressure levels and observing whether the pressure increased (or decreased) with respect to time. Data misinterpretation (i.e., a well leak instead of a cavern-proper leak) was precluded by a special monitoring system. The observed equilibrium pressure was significantly smaller than lithostatic pressure, alleviating any fracture risk for a sealed and abandoned cavern in this salt formation.

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