

Resurrection of Ancient Bedded Salt Caverns in Armenia

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Abstract

In the early 1960's, the first conversions of Morton Salt Company's bedded salt caverns to natural gas storage service were completed in Marysville, Michigan. About the same time, the Russians and Armenians were beginning to develop bedded caverns for the identical purpose. The storage wells were developed with Armenian drilling rigs, supervised by Russian drilling engineers. Basic solution mining procedures were followed from Russian experience at Donbass and other locations.

Armazprom, the Armenian transmission and distribution company, injected gas into the caverns. The displaced brine was used as feedstock for the Nairit chemical plant in Yerevan. In addition, the brine was used by the Avan salt mine for making evaporated salt. Since the breakup of the Soviet Union, maintenance activities in the compressor station and storage field have been severely lacking.

This presentation provides a historical look at the old USSR's methods of cavern development, operation, earthquake damage and repair, and long-term rehabilitation of both the surface and subsurface facilities.

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