

SOLUTION MINING RESEARCH INSTITUTE

**812 MURIEL STREET
WOODSTOCK, ILLINOIS 60098
815-338-8579**

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SOLUTION MINING OF CAVERNS IN THE SALADO BEDDED SALT FORMATION OF WEST TEXAS FOR STORAGE OF NATURAL GAS

L. Jay Evans, Jr., John A. Istvan and Dan T. McDonald

**AMERICAN OIL & GAS CORP.
333 Clay St., Suite 2000
Houston, Texas 77002
(713) 739-2951**

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**SOLUTION MINING OF CAVERNS IN THE SALADO BEDDED SALT
FORMATION OF WEST TEXAS FOR STORAGE OF NATURAL GAS**

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ABSTRACT

This paper describes the planning and construction involved in the first bedded salt cavern built exclusively for the use of storage of natural gas in the U.S.A. Construction of the caverns in the lower "dirty" section of the Permian Salado Salt beds of West Texas. Historically, LPG has been stored in the upper "cleaner" section of these beds. The involved geological formations used for the fresh water source, solution mining and disposal of brine are discussed. The paper will describe the design of the down hole and surface facility equipment; the process of solution mining to development of the desired cavern size and configuration; the results of the mechanical integrity testing; and the debrining and filling of the cavern with natural gas for the startup of the facility.

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