

**SOLUTION MINING  
RESEARCH INSTITUTE**

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**MEETING  
PAPER**



**Status and Development of  
Carnalite Solution Mining  
in Bleicherode, Germany**

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Presented at the Spring 1997 Meeting  
Cracow, Poland  
May 11-14, 1997

## Abstract

Cold, non-selective solution mining has been implemented since 1981 at a carnallite deposit in Bleicherode, while hot selective solution mining started in 1985.

Following the initial presentation at the 1990 SMRI Meeting in Paris of the solution mining of carnallite in general as an ecological and economical alternative to the conventional mining of carnallite, the intention here is to present a more detailed report on the current technological and engineering status of this new mining method for potassium-based fertilisers.

Based on a comprehensive data base, a number of statements are presented concerning the development of the

- brine composition and
- brine temperature

taking into account the solvents intended and the solvent temperature.

These physico-chemical aspects of dissolution are complemented by discussion of how to control the leaching process using typical technical means, e.g.

- the use of compressed air as blanket,
- the height of the successive mining cuts and
- the setting depth of the injection and production casings.

The presentation closes with a number of possibilities for the further technical development of this unique technology for the production of potash fertilisers.

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