

Solution Mining Research Institute Spring 2010 Technical Conference  
Grand Junction, Colorado, USA, 26-27 April 2010

## **DESIGN DECISIONS LEADING TO THE LONG TERM OPTIMISATION OF SATURATED BRINE SUPPLY**

Robin Craig

INEOS Enterprises Limited, Northwich, Cheshire, UK

### **Abstract**

INEOS Enterprises operates a multifunctional brinefield providing saturated brine to Chlor-Alkali, Salt and Soda Ash Production, creating and operating gas, ethylene storage and inert residue disposal cavities. Investment is needed on an ongoing basis to maintain the long-term provision of saturated brine while allowing for the needs of the storage operations. The scale of the operations means that technology and equipment selection can have a significant impact on the investment programme and operating costs.

This paper will initially introduce the scale of the operations and then go on to explain how the long-term production of saturated brine is forecast. It will then focus on a specific engineering choice available to optimise the production of saturated brine: the casing size, showing how practical operating data influences this key technical decision.

**Key words:** Bedded Salt Deposits, Cavern Development, Cavern Hydraulics, United Kingdom

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