

Salt Cavern GeoContainment™

BGES & GeoContainment ™

BGES is a leader in subsurface GeoContainment[™] services for the petroleum and mining industries in Canada, with expertise in logging, field testing, lab testing and simulation. We bridge the science-practice implementation gap by combining a multi-disciplinary Geoscience & Engineering team with experienced operations personnel to provide end-to-end geocontainment solutions.

Murrah Mulan



Sonar Survey

BGES & SOCON had formed an exclusive partnership to conduct SOCON's world renowned sonar surveys in Canada.

SOCON's sonar technology is considered a high water mark in industry today. This technology can be deployed in open and cased caverns in various media such as brine, water, air, and gaseous & liquid hydrocarbons.





Corrosion / MID Logging

The Magnetic Image Defectoscope (MID) is a slim downhole tool designed to scan metal using electromagnetic pulses. The tool was designed by TGT and deployed by BGES through a strategic partnership.

It can be run though tubing to detect metal loss (corrosion) in 1st and 2nd barrier independently, and is capable of locating and recognizing completion elements.



MIT and Other Logs/Tests

BGES is proud to introduce our new & improved proprietary Gamma-Density Interface Tool (patent pending) specially designed to make MITs more cost-effective and operationally streamlined. Other logging services include :

- Compensated neutron with GR & CCL
- Temperature and noise log
- Pressure gradient survey
- Radial cement bond log
- Flow, pressure & temperature measurements

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GEOTECHNICAL TESTING & SIMULATION



Caprock and Salt Core Handling

BGES's Geoscience & Engineering team provides solutions both in the field and in the laboratory to obtain high-quality data as inputs for model development.

Quality data starts with quality core and accurate in situ measurements. Diligent core handling and management is key to a successful lab test. At BGES, we place great emphasis on the planning stage before and during field operations.



Laboratory Testing

BGES offers a full suite of geomechanical testing and analysis for salt, potash, and caprock projects. Test programs are designed to evaluate major elements of cavern behaviour, strength, stiffness and creep :

- Constant Mean Stress Triaxial Compression (CMS)
- Constant Mean Stress Triaxial Extension (CMT)
- Multi-Stage Creep Test (MSCT)
- Brazilian Indirect Tensile Strength (BITS) Test
- Unconfined Compressive Strength
 (UCS) Test



Numerical Modeling & Simulation

BGES' staged modelling approach allows evaluation at several stage gates.

- 1. Development of 3D Mechanical Earth Model (3DMEM)
- 2. Simulation of existing caverns
- 3. Simulation of new cavern
- 4. History match of new cavern and long-term prediction



Professionals serving professionals

BGES offers a transparent process through every stage, from clear management of data from the field, through laboratory testing, data input and development of 3D model, simulation, to delivery of the final report as well as regulatory application development/ coordination. Our expert Geoscience & Engineering team is available for support through the entire process.

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