

# Deep Freeze Shaft, PCS Scissors Creek Shaft, Canada



## Scope of Work

Design and construction of a freeze shaft through Blairmore formation down to salt deposits

### Client

Potash Corporation of Saskatchewan Inc.

### Project Location

Rocanville, Canada

### Geology

Claystone, water-saturated quick sands (Blairmore/ depth approx. 470 m), fissure, water-bearing limestone, salt

### Duration

2008 - End Date Open

### Technical Data

Final diameter	6m
Depth	Approx. 1,100 m
Freeze pipe circle diameter	12.0 m, up to depth of ~200 m, 15.5 m - at a depth of ~400 m, 17.0 m - at a depth of ~580 m
Sinking	Frozen to the bottom of the Blairmore formation, Grouting in limestone, Drill and Blast work
Inner lining	Concrete lining to 427.5 m, Tubbing down to 594.2 m, Below 594.2 m still in the design phase

### Special Features

- Inclined, directional drilled freeze holes with great accuracy