

Project Info



06 / 06 / 11



CC8™ Batched Rolls



20m² per Vent Wall



Vertical layers



Creighton Mine, Ontario, Canada



Vale Canada Ltd.



CC was used to create vent closures in hard-to-access areas of a mine



Right justified picture caption

In June 2011, Concrete Canvas® GCCM* (CC) was used to create a simple yet effective vent closure in remote, hard-to-access areas of the Creighton Mine, an underground nickel mine, in Ontario, Canada.

In underground mining, up to 35% of the cost of running the mine is devoted to supplying a fresh air supply and ventilation. When the mining is finished in a particular shaft it is often closed and a vent wall is erected as a fresh air supply is no longer needed. In the past this could prove logistically difficult, requiring multiple work crews and specialised equipment, which are often difficult to mobilise in remote areas of a mine. The client, Vale Canada Ltd, required a solution which would be easy and quick and cost effective to install on vent walls in areas of the mine which had very limited access. CC also gave favourable results during concussion testing, which was important due to the fact that blasting was still taking place in nearby shafts. The works were carried out by Vale Canada Ltd, with advice provided by Nuna Innovations Inc.

Batched rolls of CC8™ were chosen for the project, allowing for easy manual transportation of the material. The rolls had been pre-batched in Concrete Canvas Ltd's to match the diameter of the vent openings, eliminating material waste as far as possible.

CC has changed the way vent walls are now constructed within the mine. Traditionally shotcrete would have been used, which not only requires multiple crews for installation but also more planning and considerable expense.

*Geosynthetic Cementitious Composite Mat



CC was hydrated before being hung and secured



Industrial cable ties used to attach CC to wire frame



Steel bars used to support CC on another vent wall



Spray foam used to fill any voids between vent wall and surrounding rock