

## Project Info



02 / 10 / 12



CC5™ Bulk Rolls



53,200m<sup>2</sup>



Transverse layers



3rd Region of Atacama,  
Chile



Lined channel to divert  
glacial melt waters away  
from copper mine



Section of CC-lined ditch undergoing hydration

In October 2012, Concrete Canvas® GCCM\* (CC) was used to line a ditch in the 3rd Region of Atacama, Chile.

The Caserones Project is a ditch-lining project located in the 3rd Region of Atacama, 800 kilometres to the north of Santiago, with the aim of diverting glacial melt water that threatens to flood a nearby copper mine, owned and operated by Minera Lumina Copper Chile (MLCC). The project was being undertaken in a remote and challenging environment, with the bulk of the installation over 4,000m above sea level in an area subject to temperatures ranging from -10°C to 20°C.

CC5 was delivered to site in bulk rolls and dispensed using a spreader beam and crane truck. Lengths of 6.4m were cut on site to allow the CC to be laid across the width of the ditch, then held in place with ground pegs before being buried in an anchor trench situated at the head of the ditch sides. Adjoining layers of CC were overlapped by 100mm in the direction of water flow and held together with screws. The CC was hydrated using a sprayer truck, dispensing water that had been mixed with a CC-approved accelerant to help the material set faster in the cold environment. The hydrated CC was then covered in plastic sheeting for three days to again protect it from freezing temperatures during setting.

CC's ease of use meant that two 6-man teams were able to install it at an average rate of 230sqm/hour, without the need for specialist training, equipment or heavy plant. 53,200sqm of CC5 was installed in total.

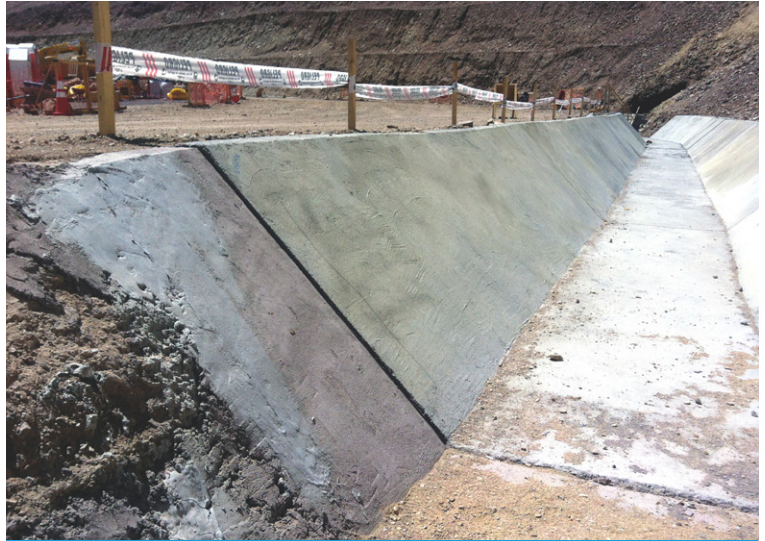
\*Geosynthetic Cementitious Composite Mat







*The ditch was graded and cleared of rocks and debris prior to installation*



*Parts of the ditch had been lined using poured concrete in the past*



*CC edges pegged and buried in anchor trenches*



*CC hydrated via water tanker*



*CC covered with plastic sheeting to protect it from low temperatures*



*Completed CC-lined section of ditch*