

ZINC & COPPER MINE CHANNEL LINING

MATERIALS USED
CC8™ BULK ROLLS

PRODUCT AMOUNT
36,499 sqft / 11,125 sqm

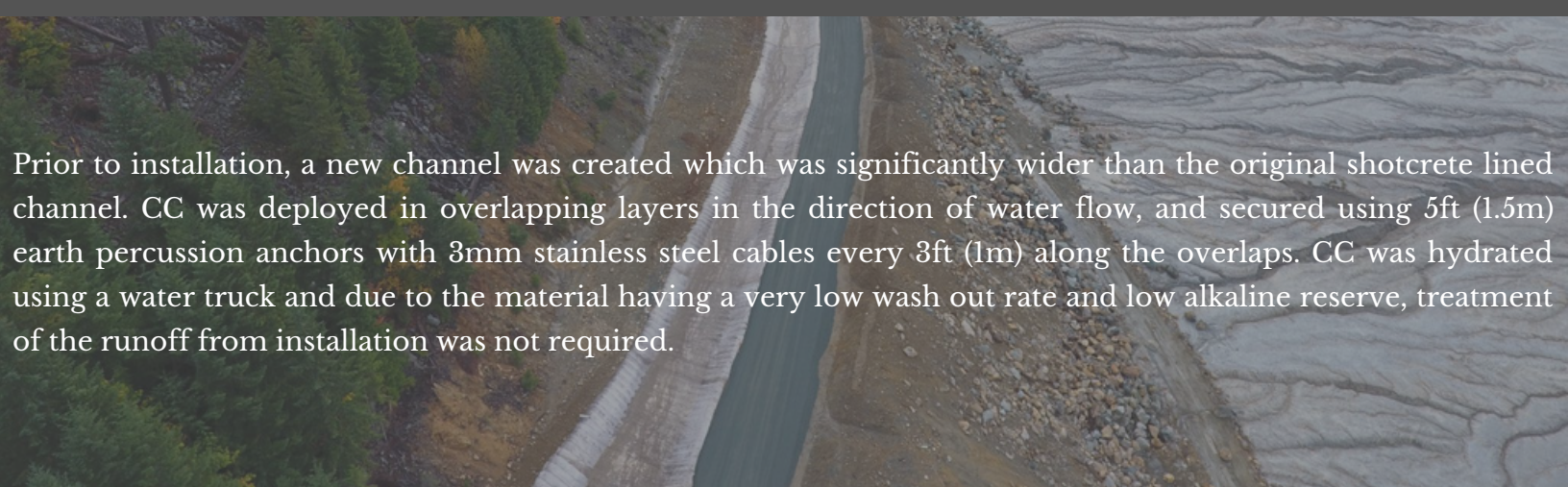
PROJECT DURATION
6 weeks | 6-man crew

In August of 2016, over 36,000sf (11,000sm) of Concrete Canvas®(CC) GGCM* was installed as a protective liner for a large diversion channel at an underground zinc and copper mine in Canada. The channel, which conveys clean water from the hillside above to a lower creek, was originally lined with shotcrete which had begun to degrade over time. It was recommended that the channel be enlarged and realigned to effectively handle the high-water volume and velocities.

*Geosynthetic Cementitious Composition Mat



CC8™ was specified due to its ability to cope with high water velocities, accommodate variance in profile, and ease of repair if future damage occurred due to falling trees or boulders from the above hillside. The channel was designed to handle water velocities of up to 45mph with slopes as steep as 16% and 20% in some sections. Speed of installation was key, as the water was diverted away from the channel during installation, and the pipes would not be able to handle the high-water volume expected to begin in early October.



Prior to installation, a new channel was created which was significantly wider than the original shotcrete lined channel. CC was deployed in overlapping layers in the direction of water flow, and secured using 5ft (1.5m) earth percussion anchors with 3mm stainless steel cables every 3ft (1m) along the overlaps. CC was hydrated using a water truck and due to the material having a very low wash out rate and low alkaline reserve, treatment of the runoff from installation was not required.

The client was satisfied with the product and the minimal amount of specialist training or equipment required. In addition, the speed of installation meant the project was completed before the heavier precipitation arrived at the mine in early October which may have caused significant project delays.

