

Project Info



08 / 07 / 2014



CC8™ Bulk Rolls



1000sqm



Transverse Layers



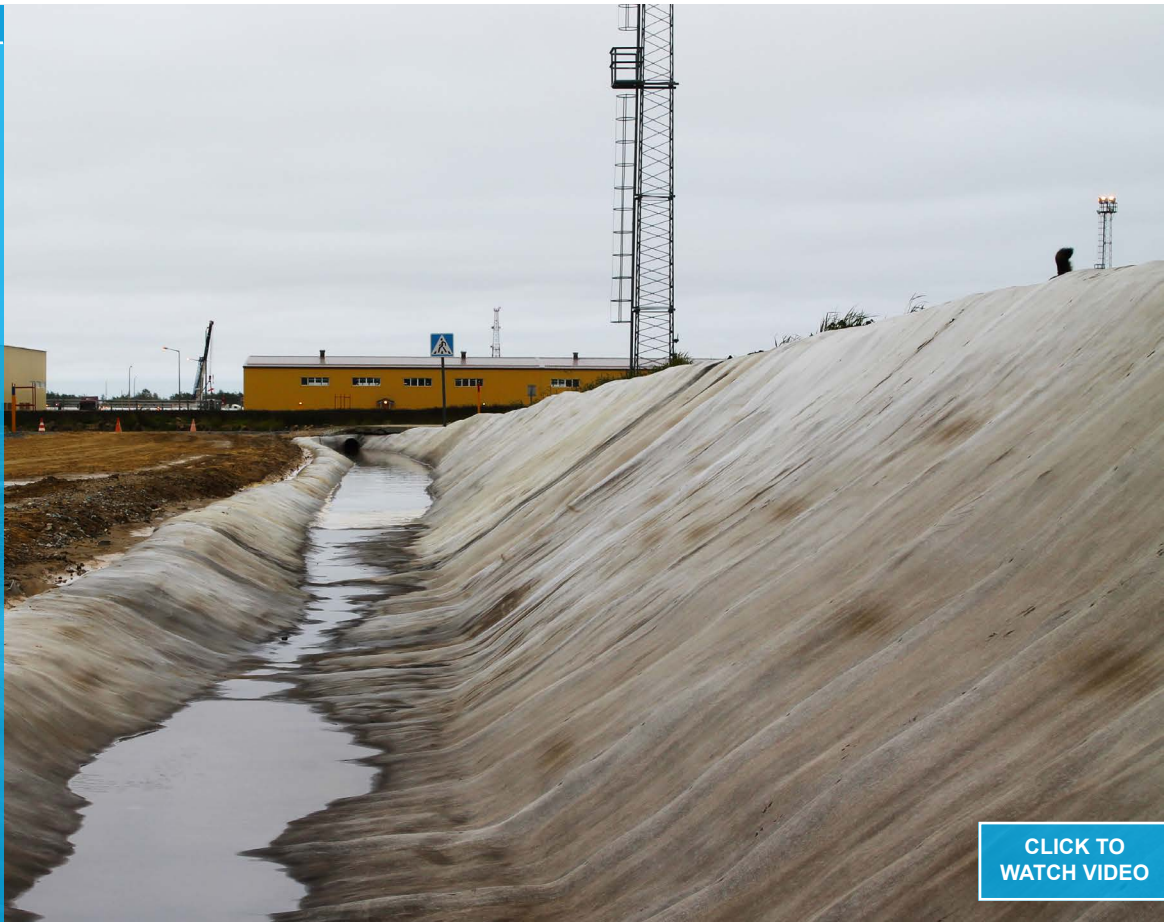
Chayvo OPF Onshore Processing Facility, Sakhalin, Russia



VECO a CH2M Hill Company



Lining drainage channels in front of PLF (Production Living Facility) Building to avoid erosion and undermining of the building and road.



[CLICK TO WATCH VIDEO](#)

Completed section ditch lined with CC8™

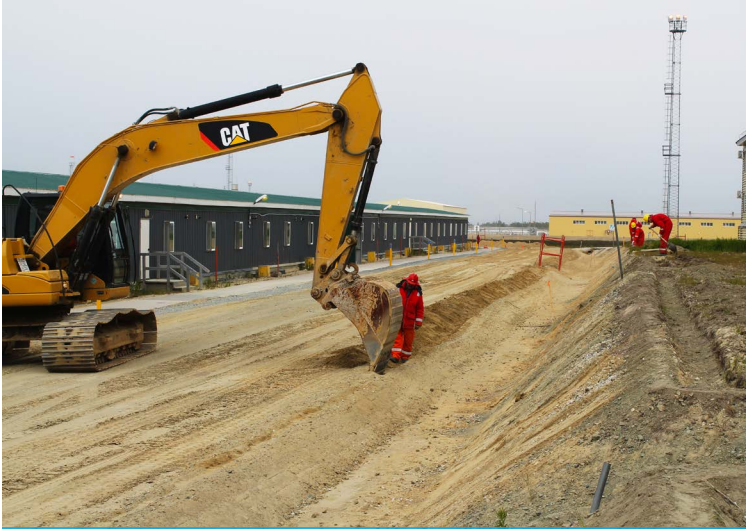
In July 2014 Concrete Canvas® GCCM* (CC) was used to line a drainage ditch at the Chayvo OPF Onshore Processing Facility, Sakhalin, Russia. The ditch was located in front of a PLF (Production Living Facility), and there was a risk of erosion undermining the PLF and the nearby road. Due to the weather conditions in Sakhalin, there are only a few months a year where construction work like this can feasibly take place, so installation speed was of the essence. The project was installed by VECO a CH2M Hill Company for ENL Exxon Neftegas Limited. CC was chosen due to the limited resources available on site and in the surrounding area, limited accessibility and cost effectiveness compared to conventional concreting methods.

The ditch was re-graded using an excavator, vegetation removed and an anchor trench cut on either shoulder. A transverse layup was chosen due to the varying profile of the ditch. A Zoom Boom and spreader bar combination was used to lift 8mm CC (CC8™) bulk rolls and manoeuvre them into position, either to be unrolled from the crest of the ditch or so they could be unrolled on the flat. The CC8™ was then cut to specific profile lengths using a utility knife, eliminating any wastage. The installation team ensured there was a 100mm overlap in the direction of water flow between the layers of CC8™ before fixing it to the substrate with 375mm J-pegs. The overlaps were then sealed with Dow Corning 762 sealant and screwed at 200mm centres with 30mm coated screws, before being hydrated with a pressure hose and 7000 litre bowser.

The installation of CC was considered a huge success, as alternatives such as **poured concrete are difficult to obtain there, and can cost up to \$2,750 (USD) per cubic metre.** The extreme climate in Chayvo, where the camp can be under 4m of snow for 8 Months of the Year, experiencing temperatures as low as -40 degrees Celcius meant that CC would be an enabling technology for ENL, allowing complete infrastructure projects to be completed in a single season.

*Geosynthetic Cementitious Composite Mat





The ditch was excavated and graded to profile



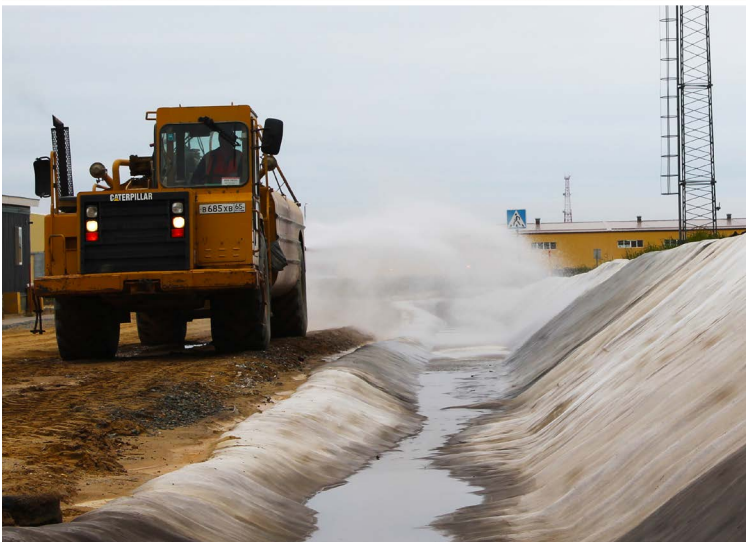
CC8™ bulk rolls were unrolled across the ditch and into anchor trenches



Unset CC8™ cut to length, avoiding wastage



CC8™ sealed, screwed and fixed to the substrate with ground pegs



Hydration with a pressure hose from a 7000 litre bowser



The finished project