

REDBANK TUNNEL DEVIATION
TAHMOOR, NSW, AUSTRALIA

Slope Protection

Problem

Erosion was occurring on the 45 degree slope of up to 30 metres in height due to the friable and unstable shale face. As a result, rocks and sediments were clogging the cess drains at the base of this rail corridor cutting.

Solution

Macmat R was chosen not only for its effectiveness as a unique solution but also for the substantial cost saving realized by requiring only one single installation process over this vast area of 22,000 m².

16mm diameter bolts were drilled and grouted at 1m centres (ie: 22,000) into the 45 degree slope.

An innovative platform was designed and built by the Contractor, to carry out the installation.

The platform design enabled it to be maneuvered up and down and across the face of the slope resulting in a crew of only two men to fully install up to 400 bolts per day.

The most critical feature of the platform was that it allowed trains to operate through the site without any disruption to either train timetables or the installation crew.

Client: Xstrata Coal

Designer / Consultant: GHD Geotechnics

Contractor: Pan Civil

Products used (Qty.)

- MacMat R - Poly 22,000 m²

Date of construction: 03/2014 - 04/2014



During construction



Installation crew drilling and grouting bolts



Nearing completion



Project completed