

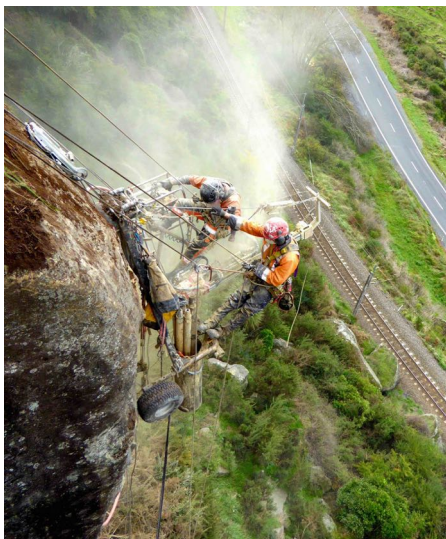
## REFERENCE PROJECT

### Geotechnical - Rockfall Protection

Location: NIMT 453km near Te Kuiti  
Date: May 2015  
Client: KiwiRail  
Consultant: AECOM NZ – (Wellington Office)

The ignimbrite cuttings along the NIMT line through the King Country are classed as some of the highest rock fall risk for the KiwiRail network.

Abseil Access was awarded the tender for the bolting of “Site 6” a large cliff above the rail corridor. The work had to be completed without delays to the rail network.



An a-frame drill rig with a hydraulic rotation unit drilled 46 boreholes, and 100mm in diameter, up to 12m deep. Characteristics of the ignimbrite included voids within the rock mass, which in places were up to 1.5m long. 38mm diameter Glass-fibre Reinforced Plastic (GRP) anchor rods were selected to overcome corrosion issues in the voids and to allow easier installation by rope access. Selections of anchors were proof load tested to 200kN.

Two Geofabrics HEA panels were also incorporated into the design, to stabilise areas of the cliff face that were not conducive to rock anchoring.

The project was completed within the allocated time frame despite extended periods of wet weather, the short winter days, busy rail line and extra anchors being specified.

