

Youanmi Gold Mine – Western Australia - 1996**Mine - Plug**

No long hole cover drilling was practiced during development and a fault zone was intersected on the down ramp which yielded 15 litres of saline water per second at a pressure of 40 Bar/580P.S.I.

The mine attempted to seal this water leak using cement and encountered sealing problems due to the high salinity.

After further development of the area the fault increased water inflow to 29 litres per second. Inadequate pumping capacity together with environmental issues necessitated the sealing of the water. The sealing procedure required the construction of a 25 MPa concrete plug (3m x 3m x 4m long) which was pinned into the sidewalls and hanging-wall. Three drain holes were drilled into the fissure 20 metres back from the plug with inclinations of 10°, 20°, and 30° respectively.

The injection of our product was carried out through 20 injection points in the plug itself.

The grout was left to cure for 24 hours before the top two monitoring holes, which had clean saline water flowing from them, were closed confirming that a good seal was achieved.