



**DEPARTMENT OF MINES
WESTERN AUSTRALIA**

SIGNIFICANT INCIDENT REPORT NO. 12

SLOPE FAILURE – OPEN PIT MINE

INCIDENT

A slope failure involving an estimated 270,000 tonnes of rock occurred recently in an open pit mine. The slope in which the failure occurred had been extensively cable bolted.

The failure buried machinery valued at approximately \$400,000 and effectively destroyed the main haul road to the pit. The failure occurred without apparent warning and lasted approximately one minute. Although pit personnel were not injured, a haulpack operator and driller were fortunate to escape injury.

COMMENTS AND RECOMMENDATIONS

The cause of the failure is being investigated but initial indications are that a 'toppling' rather than circular or planar failure mechanism was involved.

Pit operators are reminded that evidence of slope instability should be looked for on a routine basis. The most common signs of instability are tension cracks developing around the pit edge, on haul-roads or on berms. Monitoring of the rate of opening of these tension cracks usually gives sufficient warning of a pending slope failure to allow personnel and equipment to be withdrawn from the immediate area.

It is strongly recommended that pit edges and berms be thoroughly and routinely inspected twice daily for signs of instability. Monitoring of tension crack widths should be instituted as soon as they are detected and appropriate actions taken to eliminate any risk of injury to personnel should wall failure occur.

J M Torlach
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SAFETY AWARENESS SAVES LIVES