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## **SIGNIFICANT INCIDENT REPORT NO: 121**

### **HAUL ROAD STABILITY IN OPEN CUT OPERATIONS**

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#### **INCIDENT**

On dayshift of Friday 13 September 2002, a truck driver was fatally injured when the truck he was driving fell from the haul road down to the base of a large open pit when there was a failure of part of the haul road. The truck, after rolling some 50 metres down the rill slope, was completely submerged in water when it came to rest. The operator appears to have been thrown from the cab of the truck during the accident.

This incident reminds us of the importance of managing geotechnical risks in open pits through an effective ground control management plan.

It is not suggested that all (or any) of the following has relevance to the primary causes of the incident described above.

#### **PRECAUTIONS**

Managers and Supervisors in open pit mining operations should check to ensure that the working procedures and operating policies specified in the ground control management plan deal effectively with the following:

- Operating practices are established at the mine to ensure due consideration is given to the collection of geotechnical data, adequacy of the design process and quality of work performed. This should include assessment of geological defects, wall geometry, pit layout and effects of blasting on the stability of its edges, berms and haul roads.
- Geotechnical monitoring systems are put in place which are capable of effectively monitoring slope movement. The functionality of monitoring systems should be regularly reviewed, as open pit operations are dynamic and subject to change.
- Timely reporting of unusual or unexpected conditions to the supervisor and/or the manager is mandatory. In particular it is important to be vigilant in examining areas near edges of benches for cracking or slumping, which may indicate potential failures.
- The condition of pit edges and berms above and below working horizons should be regularly checked for signs of instability, both local and globally. Signs of impending failure may include cracking and small volume rock failures, as well as bulging or swelling of the face or toe of pit walls. Effective lighting must be provided for inspections to be done at night. It is important that regular checks are made after blasting and rainfall events. The appearance of groundwater or changes in the flow should be reported, investigated and monitored.

- All operators and passengers of mobile plant should wear appropriate seat belts at all times when riding in or on equipment.
- Rigorous enforcement of clearly articulated policies and practices should be undertaken at all levels of the operation. Risks associated with pit wall stability especially in the vicinity of accumulated water should be properly assessed and appropriate controls put in place to ensure the safety of all employees.

Further reference to the management of geotechnical hazards is provided in Safety Bulletin #67.

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