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**MAJOR FALL OF GROUND TRAPS MINERS**

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**INCIDENT**

A major fall of ground occurred at approximately chainage 745m (approx. 135m depth) of the decline at an underground gold mining operation. All services and ventilation to the deeper sections of the mine were cut off, and the decline was effectively blocked.

At the time of the incident there were 27 mine employees below the area of the fall of ground. With the cessation of services workers retreated to nearby refuge chambers. The shift supervisor, made his way to the bottom of the ventilation shaft and using a mobile telephone raised the alarm.

At the same time the incident was identified from surface and the mine's emergency management plan was set in motion. Arrangements were made to remove all personnel from underground via the ventilation shaft. All personnel were transported to surface within six hours – no injuries were sustained.

**COMMENTS**

The cause of the fall of ground has not yet been established - the incident is being investigated by officers of WorkSafe Victoria.

The potentially hazardous nature of underground mining requires the application of sound geotechnical engineering practice to analyse ground conditions and determine the ground support and reinforcement requirements as well as the size, shape and orientation of every opening to be excavated in each particular rock mass.

Ground support must be installed, conditions monitored, and support maintained to ensure the stability of the excavation. The support installed must match the ground conditions and excavation geometry for the life of the excavation, and must take in to account both inherent and mining induced stresses.

**RECOMMENDATIONS & PREVENTATIVE ACTION**

- Employers at every underground mine must ensure that geotechnical information is obtained assessed and made available in an understandable form to allow/ensure the development and operation of a safe workplace.
- Employers must ensure that a program to monitor, review and upgrade the adequacy of ground support at the mine is developed and implemented.
- Employers must ensure that geotechnical training and understanding at all levels of their workforce is addressed.
- Employers must ensure that ground control management plans at their mines are adequate for all mining conditions and methods, and strategies to identify and treat changing ground conditions are specified in the plan. Methods to be used to ensure that all support measures are completed in compliance with work instructions must also be clearly recognised.
- Employers must ensure emergency refuges and alternate escape routes are maintained and operational at all times.

**FURTHER GUIDANCE CAN BE OBTAINED FROM**

- *Occupational Health and Safety Act 2004 and Occupational Health and Safety Regulations 2007*
- *Minerals Industry Safety Handbook (Available from the Department)*
- *National Rockfall Management Guidelines – Metalliferous Sector. Minerals Council of Australia.*
- *Surface Rock Support for Underground Mines – Code of Practice. Mines Occupational Safety & Health Board, Western Australia*
- *Reduction of Exposure to Rockfalls in Underground Metalliferous Mines. Queensland Government, Natural Resources, Mines & Energy Safety Bulletin No. 45.*
- *Geotechnical Considerations in Underground Mines – Guideline. Mines Occupational Safety and Health Advisory Board, Western Australia.*

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