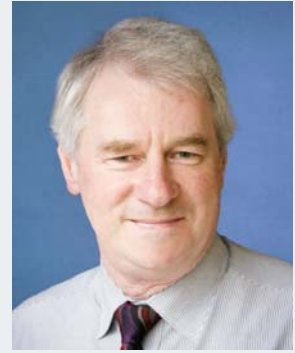


MALCOLM C BRIDGES

PRINCIPAL GEOMECHANICS GEOLOGIST

BSc (Hons)
MGSA, MAGS



EXPERTISE

- Expert specialist on the application of geomechanics for mining.
- Expert for investigation and assessment of failures-collapses-inrushes of geomaterials at mines, for mine management, insurance, coronial and court purposes.
- Audit and review of geomechanics programs or projects for mines.
- Investigation and assessment of rock conditions for mining and engineering works (physical properties, alteration, geologic structures, stress, groundwater).
- Specification of values of geomechanical design & scheduling parameters for open pit mines (such as slope angles) and underground mines (such as dimensioning of stopes and pillars, ground support, dimensioning of shafts).
- Application of geomechanics for monitoring of open pit and underground mines.
- Lecturing on management and application of mining geomechanics (university and in-house courses).
- Mining methods: open pit (hard-rock and coal), sublevel open stoping, sublevel caving, cut-and-fill (overhand and underhand), room-and-pillar (hard-rock and coal), longwall (coal).
- Also, investigation and analyses of groundwater, water control barriers, waste rock dumps, management of a geomaterials laboratory, structural geology.

SUMMARY OF EXPERIENCE

- 40 years experience of research and application of geomechanics for mining and engineering works:
 - 12 years, Mt Isa Mine, Geologist. Research and application of geomechanics for underground and open pit mining, particularly including research on fractures in rock, stress, monitoring, ground support, numerical modelling.
 - 3 years, MIM Group, Senior Geologist. Internal consultant for application of geomechanics for underground and open pit mining (hard-rock and coal), and international studies of sublevel open stoping and cut-and-fill mining.
 - 3 years, SMEC, Executive Engineering and Mining Consultant. Application of geomechanics for engineering works and conduct of laboratory services.
 - 22 years, AMC, Principal Geomechanics Consultant. Application of geomechanics for open pit and underground mining, and for lecturing on mining geomechanics.
- International experience with projects in Australia and 13 other countries.