

# Paul Maconochie – Curriculum Vitae

## QUALIFICATIONS

- 1984 Master of Engineering Science (UNSW)
- 1976 Bachelor of Science (UNSW)

## PROFESSIONAL REGISTRATIONS

- 2000 Registered Professional Engineer of Queensland
- 1988 Chartered Professional Engineer

## AFFILIATIONS

- 1992 Member, Australasian Institute of Mining and Metallurgy
- 1988 Member, Institution of Engineers, Australia
- 1977 Member, International Society of Rock Mechanics
- 1977 Member, International Association of Engineering Geologists
- 1977 Member, Australian Geomechanics Society

## EMPLOYMENT

### 1999 – Present

#### **Director GeoTek Solutions Pty Ltd, Brisbane**

Paul Maconochie founded GeoTek Solutions (GTS) in 1999 to provide niche geotechnical and engineering geology consulting services. Paul's core practice is in geotechnical engineering for open pit mining, particularly slope stability. He has carried out projects for hard and soft rock mines in Australia, Brazil, Canada, Fiji, Indonesia, Papua New Guinea, the Philippines, and the Solomon Islands. His early experience with Douglas Partners was predominantly in foundations of various types in both soil and rock and pavements.

A selected list of recent projects and a brief description of them is appended.

Before starting GeoTek Solutions, Paul had held the following positions:

- 1998 – 1999 **Cutting Edge Technology, Brisbane:** Senior Geotechnical Engineer
- 1993 – 1998 **CSIRO, Brisbane, Variously:**  
Leader, Sirovision Research Program  
Manager, Minesite Rehabilitation Research Program,  
Manager, Coal Mining, and Mining Science
- 1987 – 1993 **Ok Tedi Mining, PNG** Including: Registered Mine Manager, and Geotechnical Superintendent
- 1976 – 1987 **Douglas Partners, Sydney:** Engineering Geologist

## SELECTED PROJECTS

### Metalliferous Mining Projects

Year	Project	Client	Description
2012, 2014	Hidden Valley Gold Mine, PNG	Morobe Mining JV	Geotechnical audits.
2013	Otjikoto Gold Project, Namibia	Macquarie Bank	Geotechnical due diligence
2008-10	Serra Pelada, Brazil	Colossus Minerals	Geotechnical logging and stability analysis for open cut and underground mine
2008	Ok Tedi Mine, PNG	OTML	Structural mapping of the complete 2km diameter pit using photogrammetric techniques
2007-10	Hidden Valley Gold Mine, PNG	Morobe Mining JV	Engineering geological mapping, construction supervision and risk assessment for infrastructure at a new gold mine in PNG
2008, 2010	Wafi, PNG	Lihir Gold	Stability assessment of camp and proposed camp expansion
2001-07	Lihir Gold Mine, PNG	Lihir Gold	Various projects including: Phase 7 pushback, installing inclinometers, post-landslide support, and foundations investigation for mill extension.
2005	Mt Norma Copper Mine, QLD	Tennent Isokangas	Geotechnical design for a small copper mine in NW Queensland
2001	Atlas Mine, Philippines	Maunsell, Philippines	Geotechnical component of a major environmental study for the abandoned mine. It is now operating again

### Open Cut Coal Mining Projects

Year	Project	Client	Description
2013	Poitrel	BHP Mitsui Coal	Review of tailings storage facility
2012-13	China Stone	Macmines Austasia	Geotechnical analysis and design
2012	Dingo	Whitehaven Coal	Geotechnical analysis and design
2012	Dysart East	Dysart Mining Group	Geotechnical analysis and design
2012	Harrybrandt	Yancoal Australia	Geotechnical analysis and design
2010-12	Kevin's Corner	Hancock Coal	Geotechnical analysis and design
2009-12	Alpha	Hancock Galilee	Geotechnical analysis and design
2010-11	Minerva	Felix Resources	Geotechnical analysis and design
2009-12	Commodore	Downer EDi	Ongoing review of Commodore mine
2008-13	Sonoma	Leighton	Ongoing review of Sonoma mine
2006-13	Isaac Plains South	Isaac Plains Coal	Geotechnical analysis and design
2001-11	Foxleigh	Foxleigh Mining, Anglo Coal	Design and review of Foxleigh mine
2000-11	Coppabella	Thiess, Roche, and Macarthur	Design and review of Coppabella mine
2000-11	Moorvale	Leighton and Macarthur Coal	Design and review of Moorvale mine

### Underground Coal Gasification Projects

Year	Project	Client	Description
2010	Kunioon	JB Mining Services	Review of the state of the art of UCG and an initial assessment of UCG potential

### Civil Projects

Year	Project	Client	Description
2007	Utkal Tailings Storage	Alcan	FMEA (failure modes and effects analysis) risk assessment of a proposed red mud dam
2007	Mt Coot-tha Quarry	BCC	Geotechnical risk assessment

### Sirovision Photogrammetric Mapping

Year	Project	Client	Description
2011	Alpha Test Pit	Hancock Coal	SV mapping as part of geotechnical design
2011	Minerva	Minerva JV	SV mapping as part of geotechnical design
2011-12	Moolarben	Moolarben Coal Operations	SV mapping as part of geotechnical design
2010	Meandu	Tarong Energy	SV mapping as part of geotechnical design and used in a paper presented at Bowen Basin Symposium 2010

## PUBLICATIONS

### Papers

1. Simmons, J., **Maconochie, A.P.**, Larkin, B. and Green, D., 2013. CoalLog: the standard for collection, recording, storage and transfer of geological and geotechnical data for the Australian coal industry. *Applied Earth Science (Trans. Inst. Min. Metall. B)* Vol 122, No 1.
2. **Maconochie, A.P.**, Soole, P., and Simmons, J.V., 2010 Validation of a simple one person method for structural mapping using Sirovision. In Beeston, J.W. ed., *Bowen Basin Symposium 2010 – Back in (the) black*. Geological Society of Australia Inc. Coal Geology Group and the Bowen Basin Geologists Group, Mackay, October 2010, 181-184.
3. Rosengren, K., Simmons, J.V., **Maconochie, A.P.** and Sullivan, T.P., 2010. Geotechnical investigations for open pit mines – 250m and beyond. In Beeston, J.W. ed., *Bowen Basin Symposium 2010 – Back in (the) black*. Geological Society of Australia Inc. Coal Geology Group and the Bowen Basin Geologists Group, Mackay, October 2010, 169-180.
4. Simmons, J.V., Simpson, P., McManus, D., **Maconochie, A.P.**, and Soole, P., 2005. Geotechnical design and performance of the Crinum East highwall trench. In Beeston, J.W. ed., *Bowen Basin Symposium 2005 – The future for coal – Fuel for thought*. Geological Society of Australia Inc. Coal Geology Group and the Bowen Basin Geologists Group, Yeppoon, October 2005, 253-266.
5. Smith, R.E.W., Wruck, G., Velasquez, A., Cuff, C., Sahami, A., **Maconochie, A.P.**, Spain, A., Graham, T., Merrett, D., and Visco, R. 2002. Environmental Assessment and Rehabilitation Investigation for the Atlas Copper Mine, Philippines. *Proc of MCA Environmental Workshop, Newcastle, NSW 2002*.
6. Cheung, L.C.C., Poniewierski, J., Ward, B., LeBlanc, D., Thurley, M.J. and **Maconochie, A.P.**, 1996, SIROJOINT and SIROFRAG - new techniques for joint mapping and rock fragment size distribution measurement, *FRAGBLAST'5, Proc. 5th Int. Symp. of Rock Fragmentation by Blasting*.
7. Poniewierski, J., Cheung, L.C.C. and **Maconochie, A.P.**, 1995, SIROFRAG - A new technique for post-blast rock fragmentation size distribution measurement, *Proc. EXPLOR 95*, AusIMM Publications Series 6/95, Melbourne.
8. **Maconochie, A.P.**, 1992, Geotechnical engineering at Ok Tedi - a multidisciplinary approach, *Proc. AusIMM Annual Conference*.
9. Read, J.R.L. and **Maconochie, A.P.**, 1992, The Vancouver Ridge landslide, Ok Tedi Mine, Papua New Guinea. In Landslides, Bell, D.H., ed, *Proc. Sixth Int. Symp. on Landslides*.
10. Jones, T.R.P. and **Maconochie, A.P.**, 1990, Twenty five million tonnes of ore and ten metres of rain, *Proc. Mine Geologists' Conference*, AusIMM.
11. Douglas, D.J., McMahon, B.K., and **Maconochie, A.P.**, 1987, Slip failure in Ashfield Shale at Artarmon, Sydney. In Walker, B.F. and Fell, R.F., eds., *Soil Slope Instability and Stabilisation, Proc. Extension Course*.

### Research Reports

1. Duncan-Fama, M., Shen, B. and **Maconochie, A.P.**, 2001. Optimal design and monitoring of layout stability for highwall mining. Report to ACARP for Project C8033 by CSIRO Exploration and Mining and GeoTek Solutions.
2. Shen, B., Duncan-Fama, M., Boland, J., Adhikary, D., **Maconochie, A.P.** and Hill, D., 2000, Monitoring and Stability Assessment of Entries for punch Longwall mining using HWMT. Report to ACARP for Project C9007 by CSIRO Exploration Mining, GeoTek Solutions and Strata Engineering.