

LIST OF REFERENCES

1. Alehossein, H & Carter, J P 1990, 'On the implicit and explicit inclusion of joints in the analysis of rock masses', in Rossmannith, H P (ed.), *Proceedings of the International Conference on Mechanics of Jointed and Faulted Rock*, 18th – 20th April 1990, Institute of Mechanics, Technical University of Vienna, Balkema, Rotterdam, pp. 487 – 494.
2. Alejano, L R, Ramirez-Oyanguren, P & Taboada, J 1999, 'FDM predictive methodology for subsidence due to flat and inclined coal seam mining', *International Journal of Rock Mechanics and Mining Sciences*, vol. 36, issue 4, June 1999, pp. 475 – 491.
3. Australian Mining Engineering Consultants 2000, 'The influence of subsidence cracking on longwall extraction beneath water courses, aquifers, open cut voids and spoil piles', ACARP Research Project No. C5016, *Australian Coal Association Research Program, Brisbane, Queensland, Australia*.
4. Badelow, F, Best, R, Bertuzzi, R & Maconochie, D 2005, 'Modelling of defect and rock bolt behaviour in geotechnical numerical analysis for Lane Cove Tunnel', *Proceedings Geotechnical Aspects of Tunnelling for Infrastructure Projects, Mini-Symposium*, 12th October 2005, Milsons Point, Australia, 9 p.
5. Barton, N 1976, 'The shear strength of rock and rock joints', *International Journal of Rock Mechanics and Mining Sciences and Geomechanics Abstracts*, vol. 13, issue 9, September 1976, pp. 255 – 279.
6. Bhasin, R & Høeg, K 1998, 'Parametric study for a large cavern in jointed rock using a distinct element model (UDEC-BB)', *International Journal of Rock Mechanics and Mining Sciences*, vol. 35, issue 1, January 1998, pp. 17 – 29.

7. BHP Billiton 2005, *BHP Sustainability Report 2005 – Community Case Studies – Integrated Mine Planning in the Illawarra*, BHP Billiton, Melbourne, Victoria, viewed 12 January 2007, <<http://hsecreport.bhpbilliton.com/2005/repository/community/caseStudies/caseStudies23.asp>>.
8. Bowman, H N 1974, 'Geology of the Wollongong, Kiama and Robertson 1:50,000 Sheets', *Geological Survey of New South Wales, Sydney*.
9. Brady, B H & Brown, E T 2006, *Rock Mechanics for Underground Mining*, 3rd edn, Springer, pp. 130 – 138.
10. Brady, B H, Hsiung, S H, Chowdhury, A H & Philip, J 1990, 'Verification studies on the UDEC computational model of jointed rock', in Rossmannith, H P (ed.), *Proceedings of the International Conference on Mechanics of Jointed and Faulted Rock*, 18th – 20th April 1990, Institute of Mechanics, Technical University of Vienna, Balkema, Rotterdam, pp. 551 – 558.
11. Chan, K F, Kotze, G P & Stone, P C 2005, 'Geotechnical modelling of station caverns for the Epping to Chatswood rail line project', *Proceedings Geotechnical Aspects of Tunnelling for Infrastructure Projects, Mini-Symposium*, 12th October 2005, Milsons Point, Australia, 15 p.
12. Choi, S K & Coulthard, M A 1990, 'Modelling of jointed rock masses using the distinct element method', in Rossmannith, H P (ed.), *Proceedings of the International Conference on Mechanics of Jointed and Faulted Rock*, 18th – 20th April 1990, Institute of Mechanics, Technical University of Vienna, Balkema, Rotterdam, pp. 471 – 477.
13. Colwell Geotechnical Services 1998, 'Chain pillar design (calibration of ALPS)', ACARP Research Project No. C6036, *Australian Coal Association Research Program, Brisbane, Queensland, Australia*.

14. Coulthard, M A 1995, 'Distinct element modelling of mining-induced subsidence – a case study', in Myer, L R et al. (eds.), *Proceedings of the Conference on Fractured and Jointed Rock Masses*, 3rd – 5th June 1992, Lake Tahoe, California, USA, Balkema, Rotterdam, pp. 725 – 732.
15. Coulthard, M A & Dutton, A J 1988, 'Numerical modelling of subsidence induced by underground coal mining' in Cundall P A, Sterling R L & Starfield, A M (eds.), *Proceedings of the 29th U.S. Symposium: Key Questions in Rock Mechanics*, 13th – 15th June 1988, University of Minnesota, Minneapolis, Balkema, Rotterdam, pp. 529 – 536.
16. CSIRO Exploration & Mining & Strata Control Technology 1999, 'Ground behaviour about longwall faces and its effect on mining', ACARP Research Project No. C5017, *Australian Coal Association Research Program, Brisbane, Queensland, Australia*.
17. CSIRO Petroleum 2002, 'Numerical Modelling Studies', in Waddington Kay & Associates, '*Research into the impacts of mine subsidence on the strata and hydrology of river valleys and development of management guidelines for undermining cliffs, gorges and river systems*', ACARP Research Project No. C9067, *Australian Coal Association Research Program, Brisbane, Queensland, Australia*.
18. Cundall, P A 1971, 'A computer model for simulating progressive large-scale movements in blocky rock systems', *Proceedings of the Symposium of the International Society for Rock Mechanics, Nancy, France, 1971*, vol. 1, Paper No. II-8.
19. Gale, W J 2005, 'Application of computer modelling in the understanding of caving and induced hydraulic conductivity about longwall panels', *Proceedings of the Coal2005 6th Australasian Coal Operators' Conference*, 26th – 28th April 2005, Brisbane, Australia, pp. 11 – 15.

20. Ghobadi, M H 1994, 'Engineering geologic factors influencing the stability of slopes in the Northern Illawarra region', PhD thesis, University of Wollongong, Australia.
21. Hanlon, F N 1953, 'Southern Coalfield, geology of the Stanwell Park – Coledale area', Technical Report No. 1, *Department of Mines, New South Wales*, pp. 20 – 35.
22. Hibbeler, RC 1997, *Engineering Mechanics – Dynamics*, SI edn, Prentice Hall, pp. 47 – 49.
23. Hoek, E 2000, *Rock Engineering Course Notes*, Evert Hoek Consulting Engineer Inc., viewed 7 March 2007, <http://www.roscience.com/hoek/PracticalRockEngineering.asp>.
24. Hoek, E & Brown, ET 1980, *Underground Excavations in Rock*, The Institute of Mining and Metallurgy, p. 235.
25. Holla, L 1985, *Mining Subsidence in New South Wales – Surface Subsidence Prediction in the Southern Coalfield*, New South Wales Department of Mineral Resources, Sydney, p. 8.
26. Holla, L & Armstrong, M 1986, 'Measurement of sub-surface strata movement by multi-wire borehole instrumentation', *The AusIMM Bulletin & Proceedings*, The Australasian Institute of Mining and Metallurgy, Parkville, Victoria, vol. 291, no. 7, October 1986, pp. 65 – 72.
27. Holla, L & Barclay, E 2000, *Mine Subsidence in the Southern Coalfield, NSW, Australia*, New South Wales Department of Mineral Resources, pp. 1 – 16.
28. Hudson, J A, Stephansson, O & Andersson, J 2005, 'Guidance on numerical modelling of thermo-hydro-mechanical coupled processes for performance assessment of radioactive waste repositories', *International Journal of Rock Mechanics and Mining Sciences*, vol. 42, issues 5 – 6, July – September 1999, pp. 850 – 870.

29. Itasca 2000, *UDEC User's Guide Version 3.1*, Itasca Consulting Group, Inc: Minneapolis, Minnesota, USA.
30. Johansson, E, Reikkola, R & Lorig, L 1988, 'Design analysis of multiple parallel caverns using explicit finite difference methods' in Cundall P A, Sterling R L & Starfield, A M (eds.), *Proceedings of the 29th U.S. Symposium: Key Questions in Rock Mechanics*, 13th – 15th June 1988, University of Minnesota, Minneapolis, Balkema, Rotterdam, pp. 325 – 333.
31. Jones, B G & Rust, B R 1983, 'Massive sandstone facies in the Hawkesbury Sandstone, a Triassic fluvial deposit near Sydney, Australia', *Journal of Sedimentary Research*, vol. 53, no. 4, December 1983, pp. 1249 – 1259.
32. Kapp, W A 1984, 'Mine subsidence and strata control in the Newcastle District of the Northern Coalfield New South Wales', PhD thesis, University of Wollongong, Australia.
33. Kratzsch, H 1983, *Mining Subsidence Engineering*, Springer – Verlag, p. 41, 153.
34. MacGregor, S & Conquest, G 2005, 'Geotechnical characterization and borehole completion logs for surface boreholes: Endeavour 3 (WCC DDH29), Endeavour 4 (WCC DDH 30) and Endeavour 5 (WCC DDH 31)', Report No. BHPC2843, *SCT Operations Pty. Ltd.*
35. Mandl, G 2005, *Rock Joints – The Mechanical Genesis*, Springer – Verlag, Germany, pp. 55 – 97.
36. McNally, G H 1996, 'Estimation of the geomechanical properties of coal measures rocks for numerical modelling', in McNally, G M & Ward, C R (eds.), *Proceedings of the Symposium on Geology in Longwall Mining*, 12th – 13th November 1996, University of New South Wales, pp. 63 – 72.

37. Mills, K W 2002, 'In situ measurements and installation of monitoring instruments at WRS1', Report No. MET2367, *Strata Control Technology Operations Pty. Ltd.*, pp. 6 – 16.
38. Mills, K W & Huuskes, W 2004, 'The effects of mining subsidence on rockbars in the Waratah Rivulet at Metropolitan Colliery', *Proceedings of the 6th Triennial Conference on Subsidence Management Issues*, Mine Subsidence Technological Society, Newcastle, Australia, pp. 47 – 64.
39. Mineral Policy Institute 2005, *RIVERS SOS: BHP Billiton and others urged to commit to mine a safe distance from precious water resources*, Mineral Policy Institute, Erskineville, New South Wales, viewed 12 January 2007, <http://www.mpi.org.au/companies/bhpb/river_sos/>.
40. National Coal Board 1975, *Subsidence Engineers' Handbook*, 2nd edn, National Coal Board Mining Department, UK, 111 p.
41. Nemcik, J A 2003, 'Floor failure mechanisms at underground longwall face', PhD thesis, University of Wollongong, Australia.
42. Nomikos, P P, Sofianos, A I & Tsoutrelis, C E 2002, 'Structural response of vertically multi-jointed roof rock beams', *International Journal of Rock Mechanics and Mining Sciences*, vol. 39, issue 1, January 2002, pp. 79 – 94.
43. NSW Department of Planning 2008, 'Impacts of underground coal mining on natural features in the Southern Coalfield – Strategic Review', *NSW Department of Planning, Sydney*.
44. NSW Planning Assessment Commission 2009, 'The Metropolitan Coal Project – Report Review', *NSW Planning Assessment Commission, Sydney*.
45. Obert, L & Duvall, W I 1967, *Rock Mechanics and the Design of Structures in Rock*, John Wiley and Sons, Inc., pp. 518 – 522.

46. O'Connor, K M & Dowding, C H 1990, 'Monitoring and simulation of mining-induced subsidence', in Rossmanith, H P (ed.), *Proceedings of the International Conference on Mechanics of Jointed and Faulted Rock*, 18th – 20th April 1990, Institute of Mechanics, Technical University of Vienna, Balkema, Rotterdam, pp. 781 – 787.
47. Packham, G H (ed.) 1969, *The Geology of New South Wales*, The Geological Society of Australia Incorporated, Sydney, pp. 370 – 375.
48. Pells, P J N 1985, 'Engineering properties of rocks in the Narrabeen Group', in P J N Pells (ed.), *Engineering Geology of the Sydney Region*, Balkema, Rotterdam, pp. 205 – 211.
49. Pells, P J N 1993, 'The 1993 E.H Davies Memorial lecture, rock mechanics and engineering geology in the design of underground works', *Australian Geomechanics Society*, pp. 3.1 – 3.33.
50. Peng, S S 1992, *Surface Subsidence Engineering*, Society for Mining, Metallurgy, and Exploration, Inc. (AIME), Braun-Brumfield, Inc., pp. 1 – 20.
51. Price, N J 1966, *Fault and Joint Development in Brittle and Semi-Brittle Rock*, Pergamon Press Ltd., London, pp. 144 – 147.
52. Reynolds, R G 1977, 'Coal mining under stored waters (stored waters inquiry report)', *New South Wales Government, Sydney*.
53. Seedsman, R W 2004, 'Back analysis of sub-critical subsidence events in the Newcastle Coalfield using voussoir beam concepts', *Proceedings of the 6th Triennial Conference on Subsidence Management Issues*, Mine Subsidence Technological Society, Newcastle, Australia, pp. 65 – 74.
54. Selley, R C 2000, *Applied Sedimentology*, 2nd edn, Academic Press, California, p. 142.

55. Sitharam, T G & Madhavi Latha, G 2002, 'Simulation of excavations in jointed rock masses using a practical equivalent continuum approach', *International Journal of Rock Mechanics and Mining Sciences*, vol. 39, issue 4, June 2002, pp. 517 – 525.
56. Sofianos, A I 1996, 'Analysis and design of an underground hard rock voussoir beam roof', *International Journal of Rock Mechanics and Mining Sciences*, vol. 33, issue 2, February 1996, pp. 153 – 166.
57. Sofianos, A I & Kapenis, A P 1998, 'Numerical evaluation of the response in bending of an underground hard rock voussoir beam roof', *International Journal of Rock Mechanics and Mining Sciences*, vol. 35, issue 8, December 1998, pp. 1071 – 1086.
58. Tucker, M E 2003, *Sedimentary Rocks in the Field*, 3rd edn, John Wiley & Sons Ltd, England, pp. 88 – 94.
59. Waddington, A A & Kay, D R 1995, 'The Incremental Profile Method for prediction of subsidence, tilt, curvature and strain over a series of longwalls', *Proceedings of the 3rd Triennial Conference on Mine Subsidence*, Mine Subsidence Technological Society, Newcastle, Australia, pp. 189 – 198.
60. Waddington, A A & Kay, D R 2001, 'Closure and uplift in creeks, valleys and gorges due to mine subsidence', *Proceedings of the 5th Triennial Conference on Coal Mine Subsidence Current Practice and Issues*, Mine Subsidence Technological Society, Newcastle, Australia, pp. 49 – 61.
61. Waddington Kay & Associates 2002, 'Research into the impacts of mine subsidence on the strata and hydrology of river valleys and development of management guidelines for undermining cliffs, gorges and river systems', ACARP Research Project No. C9067, *Australian Coal Association Research Program, Brisbane, Queensland, Australia*.

62. Waddington Kay & Associates, CSIRO Petroleum Division & University of New South Wales 2002, 'Management information handbook on the undermining of cliffs, gorges and river systems – projects C8005 and C9067', *Australian Coal Association Research Program, Brisbane, Queensland, Australia.*
63. Whittaker, B N & Reddish, D J 1989, *Subsidence – Occurrence, Prediction and Control*, Elsevier Science Publishers B V, pp. 15 – 113.
64. Williams, W A & Gray, P A 1980, 'The nature and properties of coal and coal measure strata', in Hargraves, A J (ed.), *Proceedings of Support in Coal Mines, The Aus. I.M.M., Illawarra Branch Roof Support Colloquium*, September 1980, The Australasian Institute of Mining and Metallurgy, Parkville, Victoria, Australia, pp. 1 – 12.