# april lee pickard

### **Publications:**

#### Journal Publications

- Langhi L, Strand J, Ross A, Gowlett-Holmes K, Frery E & Pickard A, 2018. Tertiary Deep-Water Coral Supports Cold Seeps in the Ceduna Sub-Basin. ASEG Extended Abstracts 2018(1) 1 – 1. <a href="https://www.publish.csiro.au/EX/ASEG2018abW8">https://www.publish.csiro.au/EX/ASEG2018abW8</a> 4C
- Van Hattum MWA, Hall R, Pickard AL & Nichols GJ, 2013. Provenance and geochronology of Cenozoic sandstones of northern Borneo. Journal of Asian Earth Sciences, Volume 76, Pages 266-282. https://www.sciencedirect.com/science/article/abs/pii/S1367912013001557
- Krapez B & Pickard AL, 2010. Detrital-zircon age-spectra for Late Archaean synorogenic basins
  of the Eastern Goldfields Superterrane, Western Australia. Precambrian Research, 178, 91-118.
- Pickard AL, Barley ME & Krapez B, 2004. Deep-marine depositional setting of banded iron formation: evidence from interbedded clastic sedimentary rocks in the early Palaeoproterozoic Dales Gorge Member, Hamersley Province, Western Australia. Sedimentary Geology, Volume 170, Issues 1-2, Pages 37-62. https://www.sciencedirect.com/science/article/abs/pii/S0037073804001952?via%3Dihub
- Krapez B., Barley ME & **Pickard AL**, 2003. Hydrothermal and resedimented origins of the precursor sediments to banded iron formation: sedimentological evidence from the early Palaeoproterozoic Brockman Supersequence of Western Australia. Sedimentology, 50, 979-1011.
- **Pickard AL**, 2003. SHRIMP U-Pb zircon ages for tuffaceous mudrocks in the Palaeoproterozoic Kuruman Iron Formation, Northern Cape Province, South Africa: implications for the correlation of Transvaal and Hamersley geology. Precambrian Research, 125, 275-315. <a href="https://www.sciencedirect.com/science/article/abs/pii/S030192680300113X?via%3Dihub">https://www.sciencedirect.com/science/article/abs/pii/S030192680300113X?via%3Dihub</a>
- Barley ME, Pickard AL, Khin Zaw, Rak P & Doyle MG, 2003. Jurassic to Miocene magmatism and metamorphism in the Mogok metamorphic belt and the India-Eurasia collision in Myanmar. Tectonics, 22(3), 4/1-4/11.
   <a href="https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2002TC001398">https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2002TC001398</a>
- **Pickard AL**, 2002. SHRIMP U-Pb zircon ages of tuffaceous mudrocks in the Brockman Iron Formation of the Hamersley Range, Western Australia. Australian Journal of Earth Sciences, 49(3), 491-507. <a href="https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1440-0952.2002.00933.x">https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1440-0952.2002.00933.x</a>
- Buick R, Brauhart CW, Morat P, Thornett JR, Maniw JG, Archibald NJ, Doepel MG, Fletcher IR, Pickard AL, Smith JB, Barley ME, Groves DI & McNaughton, NJ, 2002. Geochronology and stratigraphic relationships of the Sulphur Springs Group and Strelley Granite: a temporally distinct igneous province in the Archaean Pilbara Craton, Australia. Precambrian Research, 114, 87-120
- **Pickard AL**, Adams CJ & Barley ME, 2000. Australian provenance for Upper Permian to Cretaceous rocks forming accretionary complexes on the New Zealand sector of the gondwanaland margin. Australian Journal of Earth Sciences, 47(6), 987-1008. https://onlinelibrary.wiley.com/doi/full/10.1046/j.1440-0952.2000.00826.x
- Gutzmer J, Beukes NJ, Pickard AL & Barley ME, 2000. 1170 Ma SHRIMP age for Koras Group bimodal volcanism, Northern Cape Province. South African Journal of Geology, 103(1), 32-37.
- Barley ME & Pickard AL, 1999. An extensive, crustally derived, 3325 To 3310 Ma silicic volcanoplutonic suite in the Eastern Pilbara Craton; evidence from the Kelly Belt, McPhee Dome, and Corunna Downs Batholith. Precambrian Research, 96, 41-62.
- Barley ME, Pickard AL, Hagemann SG & Folkert SL, 1999. Hydrothermal origin for the 2 billion year old Mount Tom Price giant iron ore deposit, Hamersley Province, Western Australia. Mineralium Deposita, 34, 784-789.
- Gutzmer J, Nhleko N, Beukes NJ, Pickard AL & Barley ME, 1999. Geochemistry and ion microprobe (Shrimp) age of a quartz porphyry sill in the Mozaan Group of the Pongola Supergroup; implications for the Pongola and Witwatersrand Supergroups. South African Journal of Geology, 102(2), 139-146.
- Adams CJ, Barley ME, Fletcher IR & Pickard AL, 1998. Evidence from U-Pb zircon and 40Ar/39Ar muscovite detrital mineral ages in metasandstones for movement of the Torlesse Suspect Terrane around the eastern margin of Gondwanaland. Terra Nova, 10(4), 183-189.
- Barley ME, Pickard AL & Sylvester, PJ, 1997. Emplacement of a large igneous province as a possible cause of banded iron formation 2.45 billion years ago. Nature, 385, 55-58. <a href="https://www.nature.com/articles/385055a0">https://www.nature.com/articles/385055a0</a>

#### Conference Abstracts

- Langhi L, Strand J, Ross A, Gowlett-Holmes K, Frery E & Pickard A, 2018. Tertiary deep-water coral supports cold seeps in the Ceduna Sub-basin. In ASEG-PESA Australasian Exploration Geoscience Conference; 18 to 21 February 2018; Sydney. ASEG-PESA; 2018. 1p.
- Parr JM, Mole DR, Ross A, Talukder AR, Kempton R, Frery E & Pickard A, 2016. Characterising the Magmatic Activity of the Bight Basin Igneous Complex of the Australian Southern Margin. In AGU Chapman Conference on Submarine Volcanism: New Approaches and Research Frontiers; 29 January 3 February 2017; Hobart, Australia. American Geophysical Union (AGU); 2017. 1 p
- **Pickard AL**, Barley ME & Khin Zaw, 2004. The dating game: implications of U/Pb SHRIMP zircon ages of selected Myanmar granites. AOGS, Solid Earth 10, Abstracts, Singapore July 2004.
- Barley M, Krapez B, **Pickard A** & Bekker A, 2004. Global tectonics and Late Archean to Early

## april lee pickard

- Paleoproterozoic environmental change. In Mcphie J & Mcgoldrick P (Eds), 17th Australian Geological Convention. Dynamic Earth Past, Present And Future, Abstracts 73.
- Barley M, Zaw K & Pickard A, 2004. SHRIMP geochronology of granitoids from Myanmar: constraints on metallogeny and tectonic evolution of SE Asia. In Mcphie J & Mcgoldrick P (Eds), 17th Australian Geological Convention. Dynamic Earth — Past, Present And Future, Abstracts 73.
- Barley ME, **Pickard AL** & Khin Zaw, 2003. SHRIMP geochronology of granitoids in Myanmar: constraints on the tectonic evolution of SE Asia. SGTSG Kalbari 2003. Extended Abstracts.
- Pickard AL, Krapez B & Barley ME, 2001. Dales Gorge Member S macrobands what are they
  and why are they important? In The 4th International Archaean Symposium, Perth, Abstracts,
  P256-258
- Krapez B, Barley ME & Pickard AL, 2001. Banded Iron Formations: ambient pelagites, hydrothermal muds or metamorphic rocks? In The 4th International Archaean Symposium, Perth, Abstracts, P247-248.
- Adams CJ, Barley ME, Bradshaw MA & Pickard AL, 2001. Rodinia provenance of Devonian sandstones In Buller And Takaka Terranes, New Zealand. In The Rodinia Symposium 2001 -From Basins to Mountains: Rodinia at the turn of the century, Perth. Geological Society Of Australia, Abstracts 65, 3-6.
- Pickard AL, Barley ME & Beukes NJ, 2000. Correlation of the Brockman Iron Formation, Western Australia, and the Kuruman Iron Formation, South African, using zircon U-Pb SHRIMP geochronology and high-resolution geochemistry. In The 31st International Geological Congress, Rio de Janeiro, Abstracts.
- Barley ME, Khin Zaw & Pickard AL, 2000A. SHRIMP zircon dating of granitoids from Myanmar: constraints on the tectonic evolution of Southeast Asia. In The 31st International Geological Congress, Rio de Janeiro, Abstracts.
- Barley ME, Khin Zaw & Pickard AL, 2000B. SHRIMP zircon dating of granitoids from Myanmar: constraints on the tectonic evolution of southeast asia: 15th Australian Geological Convention, 3-7 July, 2000, Sydney, Australia.
- Pickard AL & Barley ME, 1998. An extensive, crustally derived, ~3.320 Ga silicic volcanoplutonic suite in the eastern Pilbara Craton. IAVCEI International Volcanological Congress, Abstracts, P46.
- Barley ME, Pickard AL, Hageman S & Folkert S, 1998. A hydrothermal origin for the giant Palaeoproterozoic Mount Tom Price iron ore deposit. In Geoscience for The New Millennium. Geological Society of Australia, Abstracts 49, P162.
- Barley ME, Pickard AL, Adams CJ & Fletcher IR, 1998. Evidence from u-pb zircon and 40Ar/39Ar muscovite detrital mineral age populations in metasandstones for large-scale movement of the Torlesse Suspect Terrane around the pacific margin of Gondwana. Gondwana 10: event stratigraphy of Gondwana, Special Abstracts Issue. Journal Of African Earth Sciences, 27(1A), P19.
- Pickard AL & Barley ME, 1994. Evolution and geochemistry of the Sulphur Springs volcanic-hosted base metal sulphide gossan, east Pilbara, WA. In MJ Freeman (Ed.), Geoscience Australia; 1994 and Beyond. Geological Society of Australia, Abstracts 37, P345.

### Books And Course Notes

- Pickard AL, 2004. Genetic stratigraphic analysis and composition of the Dales Gorge Member, Brockman Iron Formation in Western Australia, and the correlation of the Palaeoproterozoic Brockman and Kuruman Iron Formations using high-precision geochemistry and U-Pb SHRIMP geochronology. The University of Western Australia, Unpublished Phd Thesis.
- **Pickard AL**, Barley ME & Morris RC (Compilers), 1997. Selected references for banded ironformations and the Hamersley Province. Publ. Univ. West. Aust. Geol. Dept. Ext. Serv., Publication 28, 33pp.
- Barley ME, Sylvester PJ & Pickard AL, 1997. Trace element geochemistry of igneous and volcaniclastic sedimentary rocks in the Hamersley Province: relevance to models of banded iron-formation deposition. In Advances in Understanding the Hamersley Province, Short Course Notes, January 1997. Publ. Univ. West. Aust. Geol. Dept. Ext. Serv.
- **Pickard AL**, 1993. A case study of VHMS gossan and other ironstone at Sulphur Springs, East Pilbara, Western Australia. The University of Western Australia, Unpublished Hons Thesis.

### Confidential Company Reports

- Kempton R, Ross A, Trefry C, Talukder A, Pickard A, Gong S, Schinteie R & Stalvies C, 2019. Characterisation of outcropping rocks in the Great Australian Bight and interpretation of their source rock potential: Findings from the Great Australian Bight Deepwater Marine Program Project 2. Source rocks of the GAB. Milestone deliverable: 2.2.3. CSIRO, Confidential Report 2019, 478 pp.
- Ross A, Kempton R, Parr J, Pickard A, Trefry C, Reynolds P, Williams A & Holford S, 2018. The
  distribution, formation and evolution of volcanics in the Great Australian Bight: Findings from
  the Great Australian Bight Deepwater Marine program Project 5: Understanding GAB volcanic
  distribution and character. Milestone deliverable: 5.6. CSIRO, Confidential Report 2018, 389 pp.
- Ross A, Stalvies C, Kempton R, Talukder A, Trefry C, Pickard A & Gong S, 2018.
   Characterisation of potential seepage in the Great Australian Bight: Findings from the Great Australian Bight Deepwater Marine Program. Project 3: Seeps of the GAB. Milestone deliverable:

### april lee pickard

- 3.4.2. CSIRO, Confidential Report 2018, 605 pp.
- Ross A, Kempton R, Trefry C, Parr J, Pickard A & Williams A, 2018. Appendix of analysis results from samples collected during the GABDMP seasons 1 and 2 voyages. Milestone deliverable: 5.4. CSIRO, Confidential Report 2018, 222 pp.
- Ross A, Trefry C, Pickard A, Geeves D, Williams A, Talukder A & Parr J, 2018. Seafloor geological characterization of the Great Australian Bight submarine canyons, potential hydrocarbon seeps and volcanic seamounts of the GAB - Marine survey 2 design and strategy. Perth, Australia: CSIRO, Confidential Report 2018.
- Williams A, Ross A, Althaus F, Trefry C, Parr J, Osterhage D, Mortimer N, Untiedt C, Loo M, Green M, Maslin S, MacIntosh H, **Pickard A**, Gowlett-Holmes K, Bourdet J, Mole D & Woltering M, 2018. Initial description of the benthic habitats from two 2017 surveys in the Great Australian Bight. Sub-project 4.3. Benthic Habitat characterisation. Milestone Deliverable 4.3.2.1. CSIRO, Confidential Report 2017, 59 pp.
- Wilkes P, Pickard A & Ramage A, 2016. Comparisons of magnetic basement interpretation with seismic data and Frogtech interpretation of potential field data for the Great Australian Bight. CSIRO, Confidential Report 2017
- **Pickard AL**, 2006. Prospectivity of the Dampier Sub-Basin and JPDA region, NW Shelf Australia. PGS Reservoir, Confidential Report, 20 pp.
- **Pickard AL** & Krapez B, 1999. Stratigraphic Interpretation Of The Joffre Member, Brockman Iron Formation. Hamersley Iron Pty Ltd, Restricted Report, 18pp.
- **Pickard AL**, 1998. Stratigraphic Interpretation Of The Whaleback Shale, Dales Gorge Member And The Marra Mamba Iron Formation. Hamersley Iron Pty Ltd, Restricted Report, 24pp.
- Barley ME & Pickard AL, 1998. Isotopic compositions of carbonates from north deposit.
   Restricted Report for Hamersley Iron Pty Ltd, Unpublished, 10pp.
- Barley ME & **Pickard AL**, 1997. The importance of variations in BIF composition and regional tectono-stratigraphic evolution to the development of high-grade iron ore. Restricted Report for Hamersley Iron Pty Ltd, Unpublished, 25pp, Appendices 69pp.