



A palaeomagnetic study of Empress 1A, a stratigraphic drillhole in the Officer Basin: evidence for a low-latitude position of Australia in the Neoproterozoic



S. A. Pisarevsky, Z. X. Li^a, K. Grey^b and M. K. Stevens^b

^a Department of Geology and Geophysics, Tectonics Special Research Centre, The University of Western Australia, 35 Stirling Highway, Crawley, Western Australia 6009, Australia

^b Department of Minerals and Energy, Geological Survey of Western Australia, 100 Plain Street, East Perth, Western Australia 6004, Australia

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Abstract



A palaeomagnetic study of the continuously cored Empress 1A deep stratigraphic drillhole in the Officer Basin, Western Australia, has revealed a stable high-temperature remanence component for the Early Palaeozoic Table Hill Volcanics, and the Neoproterozoic Lupton, Steptoe, Kanpa, Hussar, and Browne Formations. The low inclination of the remanence supports a low-latitude position for Australia in the Neoproterozoic and Early Palaeozoic. These palaeolatitudinal estimates are consistent with the results of previous palaeomagnetic studies of Australian Neoproterozoic rocks, and support a low-latitude position during deposition of glaciogenic rocks in the Marinoan Lupton Formation.

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