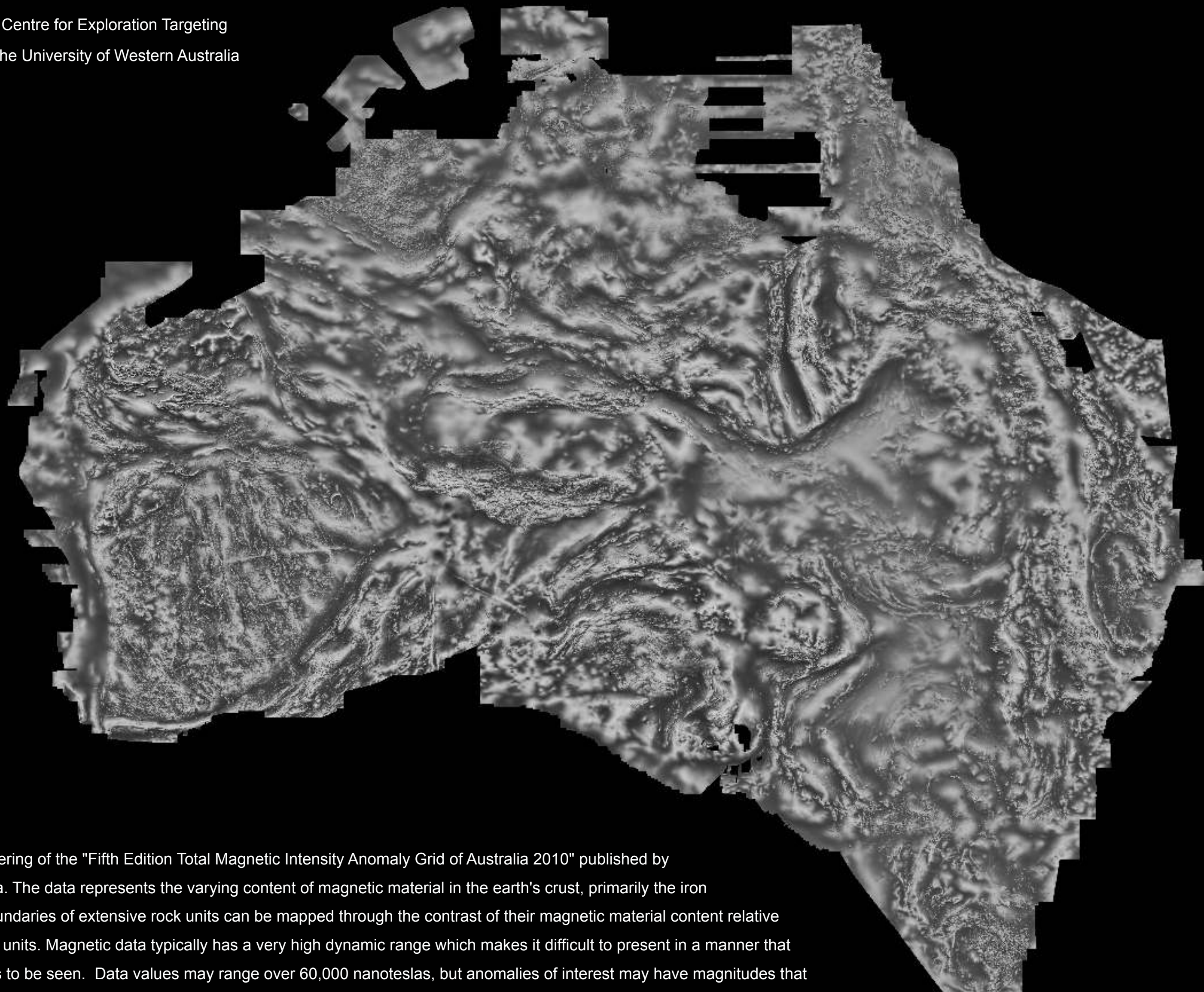


## Total Magnetic Intensity Anomaly Grid of Australia

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This image is a rendering of the "Fifth Edition Total Magnetic Intensity Anomaly Grid of Australia 2010" published by Geoscience Australia. The data represents the varying content of magnetic material in the earth's crust, primarily the iron oxide magnetite. Boundaries of extensive rock units can be mapped through the contrast of their magnetic material content relative to neighbouring rock units. Magnetic data typically has a very high dynamic range which makes it difficult to present in a manner that allows small features to be seen. Data values may range over 60,000 nanoteslas, but anomalies of interest may have magnitudes that are in the order of tens of nanoteslas. This rendering has been generated using a new phase preserving dynamic range compression technique. The 2D analytic signal of the data is computed to obtain local phase and amplitude at each point in the image. The amplitude is attenuated by taking its logarithm and the signal is then reconstructed using the original phase values.

Data (C) Commonwealth of Australia (Geoscience Australia) 2003.