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THE GEOLOGY OF THE
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THE GEOLOGY OF THE HINCKLEY RANGES, W.A.

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ABSTRACT

The Hinckley Range is situated on the South Australia and Western Australia border between coordinates, latitude $25^{\circ}05'S$ to $26^{\circ}10'S$, longitude $128^{\circ}42'E$ to $129^{\circ}05'E$.

Lithological units include granulite facies rocks (mafic and felsic), granitoid intrusives, Giles Complex (meso gabbros, olivine meso gabbros, meso norites) and three distinct dolerite sets. All the above rock types have undergone severe cataclasis during the development of the Hinckley Mylonite Zone.

A sequence of events together with hypotheses for the genesis of the "mafic granulites" are proposed. These have been accomplished using field relations, structure, petrology, X-ray Diffraction (on the Giles suite rocks) and comparisons with similar provinces in other parts of the world.