

A STUDY OF FRACTURES IN THE MID-NORTH OF

SOUTH AUSTRALIA

by C.N. WINSOR B.Sc.

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ABSTRACT

Fracture sets within the mid-north of South Australia are analysed and related to local structures. Most fracture sets can be related to folds and have orientations controlled by bedding anisotropy. Some other sets may be earlier and have orientations dependent on sedimentary transport directions. Very few fractures post-date the folding. The fracture pattern contains no evidence for major faults oblique to fold trends.

The history of fracture development and the growth of syntectonic quartz fibres in fractures is related to stresses induced during folding. Variations in fracture patterns are discussed and found to be due to (1) changes in lithology; (2) changes in fold orientations; (3) the effect of pre-existing fractures, and (4) variations in palaeocurrents.

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