

For use in Special Collections

THE UNIVERSITY OF ADELAIDE DEPARTMENT OF ECONOMIC GEOLOGY

REPORT ON MONARTO-SUMMERFIELD AREA.

DEPARTMENT OF ECONOMIC GEOLOGY, THE UNIVERSITY OF ADELAIDE, ADELAIDE, SOUTH AUSTRALIA.

> B. McD. Hopkins December, 1950.

Copy



Hopkins, B.McD. Honours thesis 1950

Department of Economic Geology

Supervisor: unknown

REPORT ON MONARTO-SUMMERFIELD AREA

SUMMARY.

The following conclusions can be drawn from the investigation of the broader features of the area.

- (1) The area of low-grade schists has been developed by the metamorphism of arenaceous material which was originally deposited in a geosyncline. The east limb of the fold shows approximately 20,000 feet of sodiments.
- (2) The age of the rocks is not known, but the presence of grits and the ilmenitic rocks indicates the base of the Adelaide (Proterozoic) series.
- (3) A compressional couple acting in an east-west direction produced major folding and small-scale faulting associated with it. There is no complex folding.
- (4) Tertiary block-faulting (Kosiuskan period of Orogeny) produced an upthrust block of old rocks on the west side of the area, while Tertiary beds constitute the Murray Plains in the east.
- (5) There are no important centres of mining and the prospects for future development are not convincing. The cost of exploration is not warranted by the nature of the mineralization.