

A PETROLOGICAL STUDY OF THE ENCOUNTER BAY GRANITES

ABSTRACT

The petrological features of the Encounter Bay granites are described from the Port Elliot, Granite Island, and Rosetta Head localities. In relation to the field and petrographical evidence , the following problems are discussed.

- a. The Modal Variation of the Encounter Bay Granites.
- b. The Sequence of Crystallisation of Minerals.
- c. Albitisation.
- d. The Modified Hornfelses.
- e. Porphyroblastic Growth .
- f. The Relative Ages of the Encounter Bay Granites.

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PREVIOUS WORK.

TECHNIQUES USED IN EXAMINING SAMPLES.

THE PETROLOGY OF THE MAJOR LOCALITIES.

1. PORT ELLIOT.
2. GRANITE ISLAND.
3. ROSETTA HEAD.

SUMMARY AND DISCUSSION.

1. Nodal Variation of the Encounter Bay Granites.
2. Sequence of Crystallisation of Minerals.
3. Albitisation.
4. Chess-albite.
5. Modified Hornfelses, Granite Island.
6. Porphyroblastic Growth.
7. Relative Ages of the Encounter Bay Granites.
8. Other Features.

SUGGESTIONS FOR FURTHER RESEARCH.

APPENDIX.

Detailed Petrography of the Major Localities.

- (1) PORT ELLIOT.
- (2) GRANITE ISLAND
- (3) ROSETTA HEAD.

MAPS AND PLATES.