

(10) The Macquarie Harbour Lineament is parallel to the Zeehan Lineament and although this feature is not continuous it is recognisable south-west of the Heemskirk Gravity Low and coincident with Macquarie Harbour.

These Lineaments can be used to define the following gravity provinces:

(1) The Meredith, Housetop and Heemskirk Granites are all located on a north-easterly striking gravity low feature which is defined by the Cleveland and St. Dizier Lineaments to the north and the Renison Lineament to the south. The majority of the tin deposits are located in this zone and the large deposits, eg. Renison, Cleveland and Mt. Bischoff, are in close proximity to the lineaments.

(2) The Rocky Cape Gravity Low is north-west of the Arthur Lineament with no regional gravity features interpreted as granitic intrusions.

(3) The gravity high over the synclinal structure in the Dundas Trough south of the Heemskirk Gravity Low is similar to the Rocky Cape area and there are no apparent features under the syncline which could be granitic sources.

(4) The Mt. Read Volcanic Sequences do not have a regional gravity expression. The majority of the mineralisation is east of the Queenstown Lineament.

(5) The isolated gravity high west of Luina correlates with the Bald Hills serpentinite and may partially explain the anomaly. This is the only serpentinite body on the west coast which has a coincident gravity high, the remainder have no regional gravity expression. The Savage River mineralisation does not show at this scale.

To summarise, the regional gravity data can be used to identify the zones of granitic intrusive activity such as the Meredith, Housetop and Heemskirk Granites. The major tin deposits are located near the Cleveland and Renison Lineaments and if research by Webster (1982) and Slade (1982) can be applied in this area, most of the prospective tin areas will also be located near the intersection of the lineaments with secondary features. The Whyte River area west of the Meredith Granite is located at the intersection of the Cleveland and Zeehan Lineaments. A synclinal model of the Arthur Lineament has been proposed whereby the Whyte River area has been uplifted by a major tectonic event associated with the emplacement of the Meredith Granite. If this model is acceptable, the non-magnetic zone and skarn anomalies along the contact of the Meredith Granite warrant investigation. This area is similar magnetically to the zone north of Cleveland and the area surrounding Mt. Bischoff.