

# DETAIL MAGNETICS OVER KNOWN MINERALISATION

The aeromagnetic data over the known mineralisation on the North-West coast of Tasmania has been reviewed to determine whether it is possible to recognise a magnetic response which could be associated with the deposits and then used to locate other similar magnetic features. The location of each occurrence is plotted on the accompanying Geophysical Interpretation Maps along with an interpretation of the data. This presentation will examine four major types of deposit. It will review the aeromagnetic data, other the tin deposits and the tinfields, including Renison Bell, Cleveland, Mt. Bischoff, Zeehan, and the deposits associated with the Heemskirk Granite. The data over the Mt. Read Volcanics sulphide deposits will be presented including Mt. Lyell, Queenstown and the smaller prospects identified by Reid & Meares (1981). The third appraisal will be of the results over the lead-zinc-(copper) deposits in the Mt. Read Volcanics. Most of these ore bodies are non-magnetic however, it is worthwhile including the results to complete the presentation. The deposits assessed include Que River, Rosebery, Zeehan and some of the smaller prospects in the Zeehan-Renison area. Finally, the aeromagnetic data over the Savage River magnetite deposit and associated areas will be discussed.

The ultrabasic related mineralisation, which is the small occurrences of either nickel, asbestos or chromite will not be reviewed in detail. Ultrabasic bodies are coincident with large amplitude magnetic anomalies. Should this type of occurrence be of interest, magnetic methods can be used to define a number of potential areas.

## Tin Deposits

There are three major tin deposits on the west coast of Tasmania plus a number of small occurrences or prospects which warrant discussion. Although work presented by Hutchinson (1979) suggested the origin of the tin to be exhalative, this cannot be supported magnetically, therefore it is assumed by the author that the traditional granitic source still applies. Taylor (1976) summarised the tin areas as follows:

"The Devonian granitoids occur as small isolated stocks which appear to be associated with margins of the Precambrian blocks. They are multiphase granites with adamellite as the major rock type and several cupolas are associated with porphyritic dykes. The major mineralisation styles include:

(a) Isolated sulphide cassiterite ore bodies which occur principally as replacement of dolomitic sediments related to the underlying granitoid cupolas i.e. Renison Bell.