INTRODUCTION

The Tasmania Department of Mines carried out an aeromagnetic survey in 1982 over the west coast of Tasmania. The specifications of the survey, which covered an area of 620 square kilometres, are set out in Appendix 1, and by Corbett et al (1982). The aim of the survey was to provide a guide to the distribution of rock types on the west coast and to aid in the structural interpretation. The data has been interpreted by Corbett et al (1982) and the major magnetic zones or provinces have been identified along with the probable sources of the anomalies. This review aims to examine the magnetic signature, and any other available geophysical data, of the major formations and mineral deposits on the west coast. The report will also relate the magnetic results to specific geological features and identify in detail the magnetic expression of various mineral deposits in the area.

Included in the review is a summary of the available gravity, electromagnetic, radiometric and other data which has been integrated into the magnetic interpretation. It is important to include as many results as possible from the previous work carried out in an area when interpreting new results. Although the aeromagnetic survey specifications did not include a radiation spectrometer there is sufficient ground data published (Collins et al 1981) to show that the granite bodies associated with the tin mineralisation have a definite radiometric signature similar to that recognised elsewhere.

Attached to the review are 7 Geophysical Interpretation Maps. These maps, Plates 1 to 7 overlay the magnetic contours plotted at a scale of 1:50,000. An attempt has been made to locate all geophysical anomalies, any specific geological feature discussed in the review, and where possible, the topographic or cultural names. Plate 8 is a Contour Map of the recently released gravity data in the Zeehan and Renison Bell area.

The interpretation of the geophysical results presented in this review is not meant to be considered as final. There is a wealth of confidential data not yet released to open file, some of which will obviously change the interpretation, however the ideas presented should be of assistance to exploration groups interested in the area.