

INTRODUCTION.

Further discussions with Dr. B. Scott, Geological-in-Charge of L.E.E., were held in Queenstown, Tasmania, Between the 8th. and 19th. December, 1958.

The purpose of this visit was twofold:-

- (a) In the light of additional geological evidence, to re-examine the Job No. AH117 results (of the Gordon Concession), which comprise the subject of the first report to L.E.E. entitled "Geophysical Report to Lyell-E.Z. Explorations on Aerogeophysical Results of An Area in South-West Tasmania Job No. AH117". This is dealt with in Part A. of this report.
- (b) To undertake a preliminary review of the aerogeophysical results of Job No. AH125, covering part of the Arthur Concession, South West Tasmania. This constitutes Part B. of this report.

PART A. SOME ADDITIONAL COMMENTS ON JOB NO. AH117.I. THE ULTRABASIC BELTS.

Detailed photo interpretation, the results of which are contained in Geological Report G73 "The Ultrabasic Rocks of the Gordon Concession, S.W. Tasmania", suggests a further enquiry into the aerogeophysical data for these belts. The main points, some of which are completely new, whilst others are modified, which seemingly warrant fresh emphasis and which appear particularly relevant, are as follows:-

- (a) The three western belts, named Modder, Spero and Settlement, within Cambrian Dundas are "exposed" whilst the easternmost belt, the Birch, is under Tertiary cover.
- (b) With respect to the Birch magnetic N-S high trend, basic lavas (Cambrian Dundas) have been discovered at one point showing through the Tertiary cover on the western edge of Birch Inlet. This leads to two important possibilities.
 - (i) The more complex nature of magnetic pattern of the Birch belt near Birch Inlet, especially the western portion, arises probably from these intra-Cambrian Dundas basic rocks, taken in conjunction with the ultra-basic rocks and thinner Tertiary sediments in this area.
 - (ii) Although it is not favoured as the more probable alternative, it should be recognised that the whole N-S zone of magnetic highs from Birch Inlet on Sheet 14, under thicker Tertiary cover on Sheet 17 and joining(?) with Sheets 20 and 23 could be arising from an intra-Cambrian Dundas