

obviously combined to create problems when identifying the EM conductors in the field. The results of the survey should not be seriously considered when evaluating the area.

BASIC AND ULTRABASIC INTRUSIVES

A number of ultrabasic and basic complexes have been emplaced within the area extending from Cleveland to south of Macquarie Harbour. The largest complex occurs near Mt. Cleveland and Bald Hill and consists of orthopyroxenite, peridotite and dunite, with interstitial plagioclase, (Plate 2). The ultrabasic rocks are associated with basaltic and dacitic volcanic rocks which are intruded by dolerite dyke swarms. The magnetic data over this area is extremely complex (Figure 6), and although the major rock types can be outlined it is not possible to trace individual features, such as dykes or sills. In some areas the ultrabasic bodies tend to follow the contact of the Meredith Granite and at times could be interpreted as contact aureoles or skarns (Figure 7). The aureole-type ultrabasic bodies cut across the radial dykes which are believed to be associated with the Mt Bischoff porphyry system, thereby masking any response which could be interpreted as a magnetic link between the Meredith Granite and the Mt. Bischoff porphyry (Plate 3).

Over this area Corbett et al (1982) have described five magnetic features:

Zone 58 Bald Hill area; is a large, complex, magnetically active zone in which the sources of the larger anomalies have been attributed to ultramafic bodies.

Zone 59 Lower reaches of the Whyte River; is a 5 kilometre belt described as Devonian hornfels. This anomaly has the Meredith Granite to the east and a belt of non-magnetic Arthur Lineament to the west. The area is magnetically similar to Mt Lindsay and the source of the magnetic anomaly may also be a skarn. The non-magnetic portion of the Arthur Lineament is similar to the area surrounding Mt. Bischoff and Cleveland. The gravity data over this region, to be discussed at a later stage, shows that the area is located on the intersection of two major gravity lineaments (Plate 2). Such sites are ideal for the intrusion of granitic bodies. This area definitely warrants following up, firstly to identify the source of the magnetic anomaly, and then to map the area west of the magnetic linear.

Zone 60 Mt. Stewart; is a complex area and without more detail data it is difficult to positively identify any structures. The presence of ultramafic rocks in the area explains the larger anomalies, which may mask the more subtle effects.

Zone 61 Luina area; a large amplitude anomaly which has been identified as basalt. The magnetic survey carried out by Keunecke and Tate (1954) isolated a number of large amplitude anomalies (greater than 2500nT vertical field) on the ground directly associated with the mineralisation. In the area near Cleveland it