

strike to the north and south massive sequences of tuffs in HA2 and BL3 probably indicate a closer proximity to their respective volcanic sources.

Alteration within this unit appears to be limited to chlorite (mostly derived from greenschist metamorphism) and minor sericite (e.g. in BL4). To the north of Newton Creek outcrops show some silicification associated with disseminated pyrite and minor base metals.

This middle unit appears to be an excellent prospective horizon for a Rosebery-type orebody as indicated by massive pyrite intersected in BL4. But location of such an orebody is inhibited by extensive glacial cover over easily erodable areas, i.e. sediments and sulphides which are not associated with silicification.

The upper part of the "Queenstown Pyroclastic" sequence consists of a fine grained andesitic crystal lithic tuff accompanied with a hematite carbonate accumulation in the Howard's Anomaly area. The hematite and carbonate, which decreases laterally to the north of HA3 and to the south of HA4, appears to be a local exhalative accumulation possibly with a pond environment. This unit which is associated with sporadic Ag mineralisation (confined to the Howard's Anomaly area), also contains disseminated pyrite and minor base metal mineralisation. Although Ag mineralisation was not encountered in BL1-3 a similar Ag bearing zone may occur on strike.

The fine grained andesitic tuffs are overlain by the felsic lavas and agglomerates of the Tyndall Group. The contact located in drill holes HA3, HA6 and BL1 is characterised by an increase, to the east, in the presence of rounded rhyolitic lava fragments with chilled margins within the fine grained tuffs. The Tyndall Group rocks do not appear to be prospective.

2.5.7 Conclusions

Location of massive and disseminated sulphide in BL4 may indicate a prospective mineralised horizon. However location of a possible Pb-Zn orebody in an area of poor outcrop and extensive glacial cover may need geophysical techniques such as gravity for definition before further drilling. I.P. may not distinguish between such a sulphide body from black shales which give good I.P. responses (e.g. BL4 and costean 00). Despite this most of the higher I.P. responses on the western side of the Basin Lake grid have been tested and new evidence and an ongoing evaluation is required before further drilling is recommended.

References

- Howland-Rose, A. W. (1974) - A Report on Gradient Array E.I.P. and total magnetic field surveys over the Basin Lake Grid on behalf of the Mount Lyell Mining and Railway Company Limited. Scintrex Report No. Tas-025B.
- Sheppard, N. W. (1974) - E.L. 41/71 (Henty Yolande Area) Annual Report 1973/74, Mount Lyell Company Report.