in the conductor. The oscillating magnetic field due to this intensity induces an e.m.f. in the receiver coil which therefore detects a net field which is the sum of the fields due to any secondary electric currents in a conductor and to the magnetisation intensity in it. This effect will create apparent E.M. anomalies in highly magnetic non-conductors such as the ultrabasic rocks on the west of the grid, and will distort and possibly displace E.M. anomalies due to magnetic conductors such as pyrrhotite bodies.

5.8.8. CONCLUSIONS

The Colebrook Hill Grid shows distinct potential for replacement style Sn mineralisation. There is anomalous Sn in the soils. The rocks show metasomatic alteration features which are associated with other replacement deposits such as Renison Bell. The sediments either side of the ultrabasic unit appear to belong to two separate geochemical and geophysical regimes. It is possible that they are two separate structural blocks lying either side of a fault which is now obscured by later ultrabasic intrusion. It seems reasonable that such an intrusive would exploit any lines of weakness present. Furthermore, the concentration of Pb, Zn, Cu, As and Sn along the eastern contact of the ultrabasic could be indicative of a permeable channel structure which has allowed the introduction of metals, particularly Cu, As and Sn into the system. Geophysically the area is highly active, with conductivities so high that massive sulphides are indicated, and magnetic signatures indicating that these sulphides must be rich in pyrrhotite.

That mineralisation is present is undenyable. The geochemical and geophysical parameters are favourable. Geologically there is evidence for a potential feeder structure, and the old Colebrook workings show all the

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