

12. ELECTRICAL INDUCED POLARISATION SURVEYS.A. SHEET 1, SHEPHERD AND MURPHY AREAPreliminary:

Prior to any I.P. survey being conducted in the area, samples of core of basalt and wriggilite from Mt. Lyell's drill hole ML2 were tested for geophysical properties including density, magnetic susceptibility and metal factor. These were to be used in part as an aid to interpretation of I.P. surveys to follow. Results are in Appendix 16.

Scintrex survey:

A time domain electrical induced polarization gradient array survey was carried out in 1975 by Scintrex Pty. Ltd. The aim was to determine whether I.P. was a suitable technique for locating wriggilite, and if sulphide rich skarns occurred.

A full report on this survey by A. Howland-Rose is attached, Appendix 17, and results are on drawings TAS-78-145, 146, 147 and 148.

Electrical soundings were also carried out by Scintrex over the area of ML2, and an anomalous feature which is centred at about 500S for 200 m E and W of 200 E, and about 200 m wide. (Results also in report by Howland-Rose.)

The survey found that the skarn zones were both resistive and chargeable, but that substantial I.P. anomalies within Moina sandstone eclipsed the effects in skarn, and so to interpret whether Moina sandstone or skarn lay beneath basalt is extremely difficult.

Two possible chargeable skarn zones beneath basalt were identified, centred at 500S/200E (which was electrically sounded) and at 650E/250S. Also of considerable interest were highly chargeable zones within Moina sandstone to the east of Bismuth Creek.

Comalco investigations:

The chargeable zones east of Bismuth Creek were further investigated with electrical soundings by Comalco. Results and discussion are in Appendix 18.

The two chargeable zones beneath basalt were subsequently diamond drilled:

- (a) SMD 8 was sited at 00/550S on the anomaly which was sounded. It intersected Tertiary