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Induced polarisation was selected as the best possible method of locating sulphide mineralisation at depth with the additional benefit of penetrating areas of glacial cover. A mixture of I.P. techniques was utilised including frequency domain dipole-dipole, time domain dipole-dipole and time domain gradient array. The selection of the method to be used is very much dependent on the purpose of the survey; thickness and resistivity of any overburden and the grid layout and logistics required.

Soil geochemistry (nominal 'C' horizon) was considered as the second technique to locate mineralisation and to aid in selection of priorities for follow-up of I.P. anomalies. Any lack of soil geochemical response should be treated with caution due to the variation in soil types and the extensive areas of glacial cover. Soil samples have been individually plotted at 1:5,000 and contoured data photo reduced to 1:10,000 scale (Refer to Sheets AO-525-0025 - AO-525-0027 and AO-525-0030 - AO-525-0032)

Geological mapping should:

- i) Elucidate the stratigraphy and structure to ensure that grids are laid out in the most effective orientation, and
- ii) locate any alteration or mineralisation warranting further examination even though geophysical and geochemical techniques may not have produced encouraging results, and
- iii) Locate any stratigraphy or stratigraphic horizon considered as a favourable geological environment.

## 6. CONTRACT SERVICES AND REPORTS RECEIVED

### 6.1. Topographic Mapping (Refer to Plan No. JD-525-0062)

Prior to 1973, the majority of exploration information was presented on grid plans at various scale between 40':1" and 400':1". The grids used varied from extensions of Rosebery Mine and Hercules Mine grids to localised grids established with tape and compass surveys. Only limited use was made of the Lands Dept. 1":20 chains (1:15,840) scale topographic plans.

In 1973, the 1":20 chain topographic plans were photo-enlarged to 1:10,000 scale and a set of base sheets drawn for the Mt. Black E.L.