

GEOCHEMISTRY  
MAP IIIMethod.

A reconnaissance geochemical ~~soil~~ survey was done with particular attention being paid to rusty areas of relatively acid volcanics. Reliance was placed primarily on talus sampling since most of the area of interest is well above tree line, rugged and devoid of soil development.

Talus samples consist of approximately 500 grams of the finest available talus and "soil" fragments collected at 100 to 500 metre intervals generally along contour traverses. These samples are collected by hand into kraft paper envelopes and are forwarded to base camp for drying and sifting. The -35 mesh dried and sifted fraction of the talus samples were then forwarded to Chemex Labs, North Vancouver for analysis. Approximately 110 talus samples were thus prepared and were then analysed for Au, Ag, As and Hg.

Nine soil samples, collected where soil had developed, were treated in the same manner as talus samples.

Six silt samples were collected from local streams and were analysed for Au Ag As.

Thirty one rock specimens were collected from the area and were forwarded to Chemex for analysis for Au Ag As and Hg.

~~Data sheets prepared by the field crews are included in this report as Appendix~~

## Results

Data sheets prepared by the field crews are included in this report as Appendix I.

Results of tetus sampling are plotted on Map III which is an enlargement of the drainage pattern shown on Map I Topography. Analytical values for mercury and arsenic are contoured showing a moderate arsenic anomaly centered over the rusty rhyolitic rock types. This anomalous area is partially surrounded by a moderately strong mercury anomaly. ~~The eastern extension~~ The possible eastern extension of this mercury halo is cut off by deep overburden in the broad valley east of the rusty outcrop areas.

~~No sign~~ A comparison of mercury and arsenic values is shown in Figure 4 and indicates a relatively clear separation of the two geochemical haloes.

The highest <sup>gold</sup> value obtained from any sample was 40 ppb and the highest silver value was 0.9 ppm. These negative results indicate very low potential for near surface precious metal values.

The arsenic anomaly at Level Mountain reaches peaks of 370 ppm in tetus samples and ~~335~~ <sup>335</sup> ppm in rock samples. These values are modest when compared with the relatively large areas running  $>1000$  ppm arsenic within the Heart Peaks formation on the west side of Heart Peaks.

No comparable information on mercury levels is available for Heart Peaks.

## MISCELLANEOUS

1. The campsite is adequate, with good water nearby, easy helicopter accessibility, no firewood and little shelter from the elements. The same would apply to any other spot within five miles. Equivalent campsites in the creeks draining the gossan would save some walking (which is easy in this area).
2. Four <sup>Kowall</sup> corner posts (including the LCP for Rainbow Princess & Golden Castle) were located.
3. Three Kerr-Addison geologists (including one formerly of Lornex) dropped in on the Level Mountain gossan on July 11, in a Dease Lake JetRanger.
4. Unfortunately, we never received Hamilton's thesis from Alpha, so we couldn't compare our rocks with his descriptions.
5. Unfortunately, we forgot our whole-rock analysis laboratory, and so we couldn't distinguish phonolite from trachyte from rhyolite from commendite from ...
6. Unfortunately, we forgot our glossary of obscure rock names, and so we never did find out what tristantite or ankaramite was. (But we'll live without).
- ~~7. We have no~~
7. Unfortunately, we never found any pregnant material. 73702 may be near conception though.