

2. Soils

Systematic hand augering for soil samples was carried out over lines 248N-192N of the northern extension and in-fill lines 132N-108N (see Table 8, in Appendix C for details). Samples were taken at 20 m intervals, "C" horizon samples being taken wherever possible. The minus 80 mesh fraction was assayed by AAS at Mt. Lyell for Cu, Pb, Zn, Ag, Mn and Co. Figure 17 shows the assay results for Cu, Pb, Zn, Ag for samples taken during 1980-82.

Table 9 and Figures 18 to 20 summarise the distributions of Cu, Pb and Zn for all soils taken from the Selina Grid during 1980-82.

The northern grid extension produced minor Cu anomalies (Figure 16) which were generally related to "A" horizon samples and are not regarded as being significant. A 10 ppm Ag assay from line 240N, 100 mE, is also from an "A" horizon sample, 10 m downslope from outcropping pyritic schist which only assayed 2 ppm Ag (rock chip sample 27458).

Anomalous Pb-Zn-Ag assays were obtained for soil samples from in-fill lines 124N, 116N and 108N (Figure 16), further defining the geochemical anomaly zone detected in 1980-81. The zone is highlighted by contouring block averages of Pb and Zn soil assays (Figures 21 and 22) and is seen to be roughly 800 m in diameter and centred near the baseline between lines 120N and 116N.

This zone covers several different rock types and the patchy distribution of high values within the zone (Figures 23 to 25) suggest that the source mineralisation is due to a secondary hydrothermal event rather than syngenetic deposition of Pb-Zn sulphides. There may be a connection between the geochemical anomalies and prominent NW-trending faults which cut through the zone (Figure 15).

A zone of moderate-order Cu-Pb-Ag anomalies was detected on line 132N, 700 mW-540 mW, corresponding with the Western Pyrite Zone (Figures 16, 23 and 25). This zone was tested in 1971 by D.D.H's LS5, 70 m to the south of line 132N, and LS6, 60 m to the north. Neither hole intersected significant base metal mineralisation and only moderate Ag mineralisation was recorded in the more pyritic sections of the core (Meares, et al, 1980 Table 9). Therefore this zone appears to be adequately tested.

3. Rock Chips

During 1981-82 65 rock chip samples from the Selina Grid were assayed for Cu, Pb, Zn, Ag, S, Co, Mn by AAS and/or Ag, Au by fire assay (Figure 26). Sample preparation (crushing, splitting, pulverising) and assaying were done at Mt. Lyell.

53 rock chip samples came from outcrops and float material from the Mt. Selina Geochemical Anomaly Zone between lines 128N-108N. Significant assays are given in Table 10. There is a reasonably close association between soil and rock chip assays and it is therefore concluded that the anomalies do not indicate economically significant mineralisation.