## SHORT TERM ORE SEARCH OF SILVANA

April 30, 1990

The discussion on ore controls in the Sandon area that took place early this month at the Silvana office brought out the following: the essential control is a "lode" and in the Silmonac mine it is the <u>"main lode"</u> of the camp.

Other controls discussed with various emphasis on importance included:

Lithology: mostly with respect to competency, particularly variable competency and its effect on refraction within the lodes and other faults that might provide mineralizing pathways;

<u>Folding:</u> most mineralization in the Sandon area, particularily in the main lodes occurs between the elevations of 4000 and 5000 feet, which, I believe, is attributed to a fortuitous combination of lithologies and second and/or third order folds within the large recumbent fold complex of the area. Elevation control is the flat axial planes of the complex which prevail throughout most of the area, but are reported to dip, gentle southerly on the southern portion;

<u>Faulting:</u> the lode is a normal fault and there are numerous cross faults that probably play a significant function in introducing mineralizing solution into it;

<u>Heat Source:</u> undoubtedly an essential ingredient in the mineralizing process on a regional basis but too poorly understood to be a value as a specific ore locating guide.

Most of these actual, potential and/or imagined controls, apart from the lode itself and to some extent the elevation limits, mean little in our present concern to find more ore, and soon.

The Silmonac stoped and reserve areas extend over an east-west length of 4,500 feet and plan projection of the dip width between 300 and 700 feet. Within these limits a grade eye-ball estimate suggests 35-40 %. of the area consisted of ore and mining has been almost continuous from one end to the other except for a barren zone 400 feet long one third the distance from the east end. Undoubtedly many lithologies and a great number of faults of various displacement occur within this area. Whatever the control operating here it has broad and pervasive, not confined to local structures. Our search cannot be guided by local controls but must be conducted within the lodes and peripheral to the present workings. For convenience of discussion consider four general directions: east and west along stike and up and down dip.

- 1. To the east there is highest probability of success but the potential tonnage is severely limited.
- 2. To the west, as demonstrated by recent work by Pedley and Murrell it appears that the ore may only have been interrupted by late faults previously misinterpreted. The chances of locating more ore here appear good and the potential amount could be large.
- 3. Up dip, particularily between the present workings and those of the Ruth justifies investigation. Further west does not provide much encouragement. The upper elevation limit may prevail.
- 4. The down dip directions has to a large extent been discredited because of the large proportion of intrusive rock encountered in the lower workings suggesting the proximity of the main batholith. Also the lower elevation limit of the favourable host environment may be near. Neither of these considerations need be accepted. The intrusives appear to be similar to the dykes and sills scattered throughout the district and the dip of the favourable host panel may carry the lower limit of mineralization deeper here or it may not even apply in this direction.

At any rate this margin needs to be tested by a number of modertely deep holes before being written off.

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