

METALLOGENY OF PERALKALINE ROCKS IN LABRADOR: STRANGE LAKE PERALKALINE GRANITE AND LETITIA LAKE (MANN #1) SHOWING

by

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This year was the first of a five year project designed to study the metallogeny of the Strange Lake Zr-Y-Nb-REE mineralization and the Letitia Lake Be-Nb mineralization. To date, the preliminary field work has been completed for the Mann #1 showing at Letitia Lake, while the Strange Lake Alkalic Complex has been mapped and sampled. The available drill core from both of these showings has also been relogged.

The Strange Lake Alkalic Complex, located west of Nain on the Quebec-Labrador border, was mapped and sampled during the summer. A 1:10,000 scale bedrock geology map incorporating drill core and outcrop data will be completed in the near future. Samples collected for thin section, geochemical and mineralogical studies are presently being prepared; thus, results should be available in 1985. Planned laboratory studies include:

- a) microprobe mineral analysis,
- b) mineral separation and analysis,
- c) major, minor and rare earth element whole rock analysis,
- d) fluid inclusion study,
- e) petrographic characterization of samples,
- f) radiometric age dating.

These studies will help to characterize the ore minerals, some of which are unnamed minerals, and will help to establish the conditions and processes involved in ore formation.

The Mann #1 showing, located on Letitia Lake, 160 km northwest of Goose Bay, was visited this summer to collect samples and to identify geological problems. The study of both the field and drill core samples from the mineralized zones and host rocks will help to establish the ore-forming processes for this unusual type of deposit. Preliminary observations suggest that the Be-Nb mineralization is associated with peralkaline veins and sills, and with the metasomatism associated with their intrusion. Laboratory work this winter will include geochemical and mineralogical studies. The mineralization and host rocks will be mapped next summer to produce a 1:2,400 scale bedrock map.

It is hoped that the studies outlined above will aid in the further development of these deposits, as well as continued exploration for similar occurrences in other parts of Labrador.

