

Rare metals and rare earths in Labrador**Randy R. Miller**

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The discovery of the world class Strange Lake Zr-Y-Nb-Be-REE Deposit on the Quebec-Labrador border has focused attention on Labrador as a potential source of other rare metal - rare earth deposits. Areas of high potential in Labrador contain the following rare-metal - rare-earth showings, most of which have not been thoroughly evaluated: the Mann showings (Be-Nb±Y), the Two Tom Lake showing (Be-Nb±Y), and the Red Wine showings (Zr-Y), in the Letitia Lake area, and showings within the Flowers River Igneous Suite (Zr-Y-Nb-REE). Presently, only the Strange Lake property is staked, whereas all other rare-metal - rare-earth showings and areas with high potential are open for staking.

Recent petrological work on the Strange Lake Deposit and Letitia Lake area showings indicate that rare-metal - rare-earth mineralization is spatially and genetically associated with early Neohelikian peralkaline and felsic intrusive - volcanic rocks related to crustal uplift or extension. This mineralization is hosted by peralkaline granites (Strange Lake and Flowers River), peralkaline quartz syenites and trachytes (Mann and Two Tom Lake showings), and undersaturated peralkaline syenites (Red Wine Intrusive Suite nepheline syenite). The mineralization occurs within these felsic settings as aplite-pegmatite veins and lenses (Strange Lake, Flowers River), near-vent - late-stage flows (Mann

showings, Two Tom Lake), and other late-stage veins (Mann and Two Tom Lake showings) or satellite intrusions within an igneous suite (Strange Lake and Flowers River).

The development of a rare-metal - rare-earth exploration model from showings and deposits in Labrador has made it easier to identify specific exploration targets in Labrador. Prime targets for rare-metal - rare-earth mineralization in-

clude: the vicinity of the Strange Lake deposit, the Letitia Lake area and the Flowers River area. These target areas are currently being evaluated by the Newfoundland Geological Survey and the preliminary rare-metal - rare-earth results are encouraging. Companies wishing to obtain positions in the high-growth high-tech metals market should seriously consider exploration in Labrador.