

## From the Mineral Inventory Files

### Potential for Ni-Cu-Co Deposits in Ultramafic Rocks of the Cape Breton Highlands is Finally Recognized

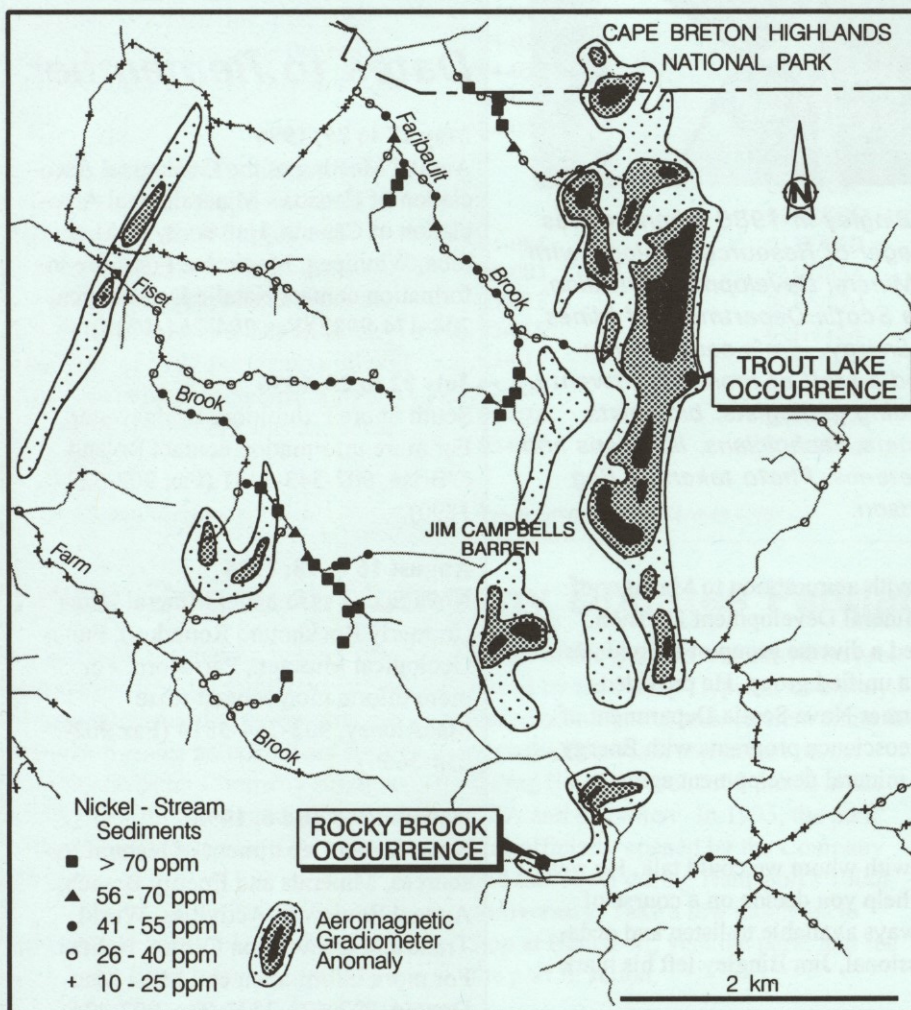
Discovery of the spectacular Voisey's Bay Ni-Cu-Co deposit in Labrador may be spurring exploration for similar deposits in Nova Scotia. Even though the exploration efforts of two of our region's prospectors, John Dawe and Alex Thompson, showed the potential for Ni-Cu-Co deposits in ultramafic rocks of the Cape Breton Highlands as far back as 1988, it wasn't until the recent activity in Labrador that industry attention came our way. In the highlands east of Cheticamp are two mineral occurrences,

Rocky Brook and Trout Lake (see map), that were explored as early as 1956. A low-grade Cu deposit was defined at Rocky Brook but no attention was paid to its Ni and Co contents. In 1988 Dawe and Thompson sampled a pyrrhotite-rich section of the abandoned drill core from Rocky Brook and found it to contain 0.44% Co and 412 ppm Ni over a 5 m zone. Unfortunately, they couldn't interest anyone in optioning their property at that time.

The map below shows several clusters of significant stream sediment Ni anomalies in streams draining this region. Airborne vertical gradient data, recently published by the Geological Survey of Canada, show that very pronounced anomalies underlie this area, a feature consistent with the presence of mafic intrusions. Natural Resources geologist Garth DeMont confirmed from the limited outcrop that these anomalies correspond with an ultramafic pluton or plutons. In addition, geochemical analysis of a specimen of pyrrhotite-rich pyroxenite from the Trout Lake occurrence showed concentrations of 1,163 ppm Ni, 461 ppm Cu and 273 ppm Co.

The presence of ultramafic-hosted mineral deposits in the Cape Breton Highlands shouldn't be considered unusual. Garth's research established that deposits of Ni, Cu and Pt-group elements are known to be associated with several mafic or ultramafic intrusions in the northern Appalachians. These locations have a geological setting similar to the Cape Breton Highlands. Perhaps the more notable deposits are the >200 million ton pyrrhotite body hosted in the Katahdin Gabbro of Maine, and the 1 million ton, peridotite-hosted sulphide deposit containing 1.05% Ni and 0.53% Cu at St. Stephen, New Brunswick.

Simply put, the combination of all these features is a recipe for a valid exploration play, and that is just what is happening now. Tri-Explorations Limited, Dawe and Thompson's company, has currently optioned the property to North Cape Breton Resources Limited and it looks like active exploration will take place this year.



Stream sediment geochemical data (Ni) from the Trout Lake-Rocky Brook area.

George O'Reilly