

# METALLOGENY OF THE LABRADOR TROUGH

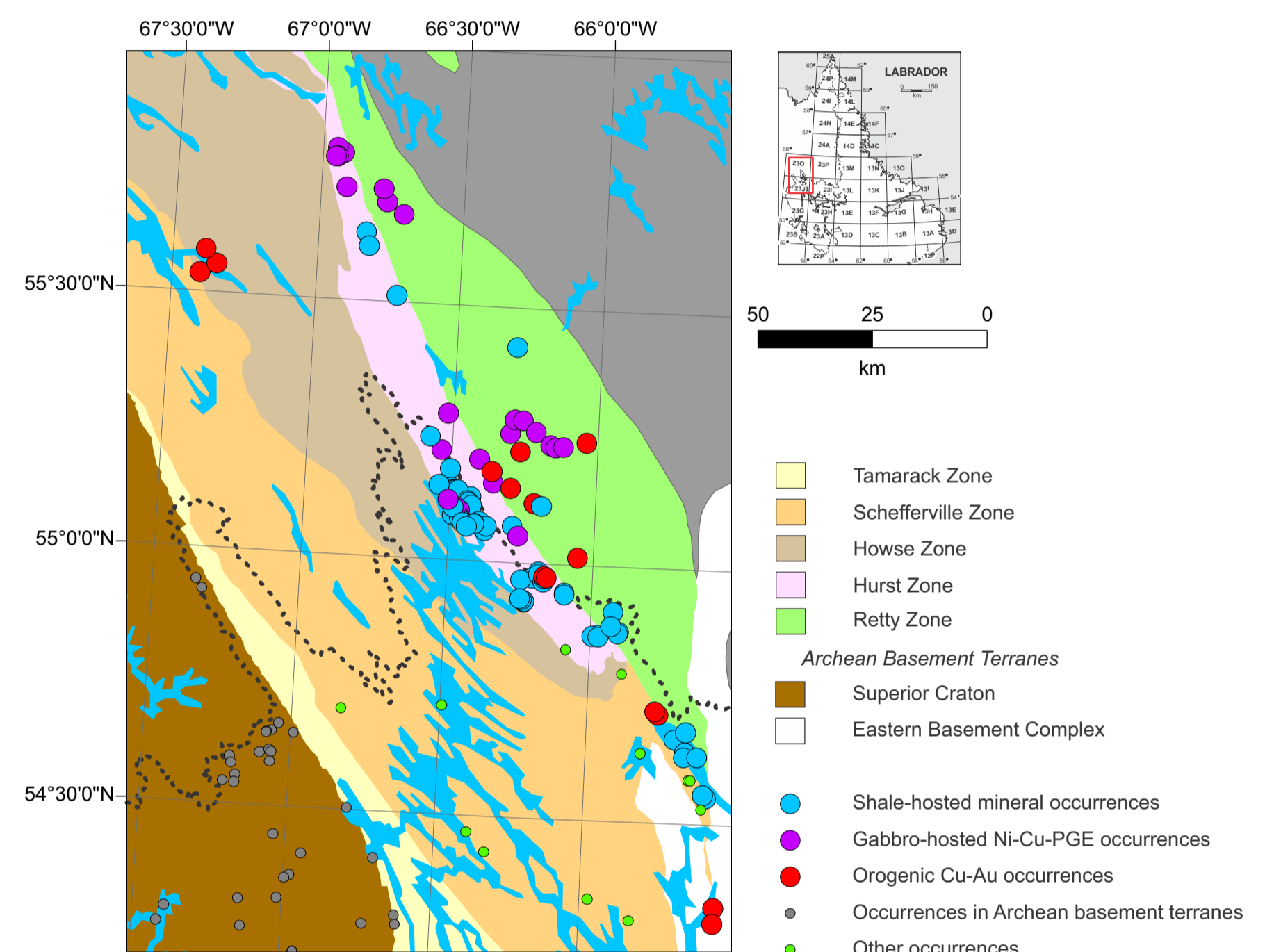
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The Labrador Trough, located in western Labrador and northeastern Québec, is well known for its extensive iron ore deposits, including those currently mined in the Labrador City and Schefferville areas. However, the base-metal potential of the Labrador Trough has also long been recognised, with numerous base-metal occurrences recorded in the MODS database, particularly in the eastern portion of the Labrador Trough. The presence of multiple mineral occurrences in this area indicates that the eastern Labrador Trough has good potential for future discoveries, and this project aims to create a metallogenic framework for the area to aid future exploration in the region.

The geology of the eastern margin of the Labrador Trough is comprised of a series of Paleoproterozoic (2.17 to 1.87 Ga) sedimentary and volcanic rocks, which have been subdivided into a series of distinct lithotectonic zones.

Numerous mineral occurrences are known in this region, which include the following deposit types:

- Magmatic Ni-Cu-PGE showings hosted in gabbro sills (e.g. Howse Lake)
- Base and precious metal showings in graphitic mudstones (e.g. Martin Lake, Captain)
- Late-stage Cu-Au mineralization of possible orogenic origin (e.g. Montgomery Lake)



Outcrop of rusty, sulphide bearing gabbro from the Howse Lake area



Gossan zone at the Captain occurrence



Massive sulphide boulder from the Martin Lake occurrence

## Montgomery Lake Cu-Au Prospect



Chalcopyrite mineralization at main trenches, Montgomery Lake prospect



Chalcopyrite-bearing breccia, ~700 m northeast of main trenches

The Montgomery Lake Cu-Au prospect is located approximately 80 km southeast of Schefferville. Grab samples from historic trenches have returned assay values of up to 5.48% Cu and 424 ppb Au, and diamond drilling in 1966 intersected 0.4% Cu over 9.6 m.

In addition to the trenches, chalcopyrite-bearing breccias have been recorded close to the shore of Montgomery Lake, ~700 m northeast of the historic trenches. All these occurrences are located in a zone of intense silica-sericite-albite alteration that can be traced along strike for over 1.5 km.

In 2018, samples of mineralized and altered rocks were collected in the Montgomery Lake area for geochemical and spectral analyses to better characterize the alteration styles and classify the mineral deposit type.