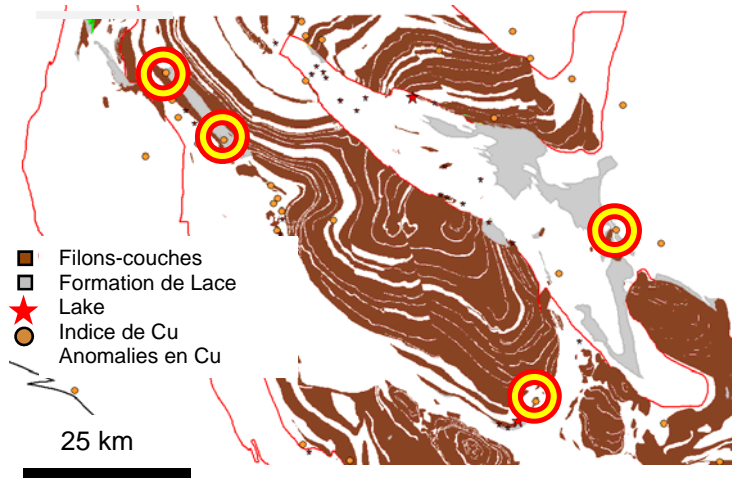


2010-06: Evaluation the potential of the Labrador Trough for mineralisation associated with the opening phase

The objective of project 2010-06 was to determine the potential of the Labrador Trough for mineralisation genetically related to the opening phase of the basin at the base of this volcano-sedimentary succession in northeastern Quebec. More specifically, the southern area of the territory (i.e. from Cambrian Lake to the Labrador border) was studied to define the potential for sedimentary red-bed hosted copper, for unconformity related and “roll-front” uranium, for SEDEX and VMS-type zinc, and for magmatic Ni-Cu-PGE.

The potential for the different types of mineralisation listed above was defined by a study in the variations of physical and chemical characteristics of sedimentary rocks belonging to the same formation. Thus, changes in facies, colour or composition were identified from outcrop descriptions contained in the Géologie Québec database and on old maps. The variations indicate changes that could reflect or facilitate the circulation of mineralising fluids and act as traps for metals.



Copper targets at the contact between sills and the Lace Lake Formation

Several formations proved to show good potential. Among the most significant, there are Sakami (U), Chakonipau (U, Cu), Dunphy (Cu), Lace Lake (U), Wishart (U) and Menihék (Zn) Formations. These formations are conceptual targets, but their potential is enhanced by several known occurrences and lake-bottom sediment anomalies. The Montagnais mafic sills and dikes are also favourable lithologies, but in this case for Ni-Cu-PGE mineralisation. The chemistry of the rocks as well as the anomalies in lake-bottom sediments led to the identification of areas with high potential. These interpretations defined a good number of regional and local targets for different metals.

Project 2010-06: Summary	
Objectives	<ul style="list-style-type: none"> To define the mineral potential of the southern area of the Labrador Trough.
Results	<ul style="list-style-type: none"> Identification of uranium potential in some formations (Sakami, Wishart, Lace Lake and Chakonipau). Identification of copper potential in some formations (Chakonipau, Dunphy, Lace Lake). The Menihék Formation shows zinc potential in the Hurst zone. The mafic sills of the Montagnais Formation have a potential for nickel, copper and platinum group elements (PGE).
Innovation	<ul style="list-style-type: none"> Using sedimentological data (sediment colour, grain size, composition) to identify the appropriate genetic models for the various formations in the Labrador Trough.