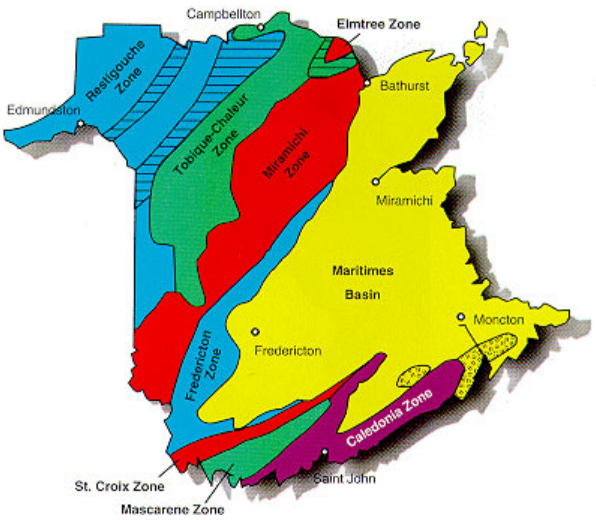
Copper Skarn and Sedimentary Copper Deposits



Tobique-Chaleur and Restigouche Zones

Cu, Fe, (W, Zn, Pb, Ag, Au) Deposits

- Host Rocks, Tobique-Chaleur Zone: Middle Silurian limestone
- Host Rocks, Restigouche Zone: Late Ordovician to Early Silurian limestone
- Tectonic Setting: Transpressional (syntectonic) shallow to moderately deep, ensialic marine basins
- Genetic Model: Hydrothermal metasomatic replacement of wall rocks contemporaneous with emplacement of syntectonic intrusions
- Ore Controls/Guide to Exploration: Impure limestone beds, close proximity to syntectonic intrusions of intermediate composition, structural and stratigraphic traps and fluid pathways, metal zoning
- Examples: Beresford Cu: more than 400 000 t grading 1.29% Cu; McKenzie Gulch: more than 400 000 t grading 1.6% Cu

Maritimes Basin

Cu (Ag) Deposits

- Host Rocks: Late Carboniferous sandstone
- Tectonic Setting: Post-tectonic successor basin
- Genetic Model: Groundwater transport of metals through oxidized beds with precipitation caused by changes in eH (biogenically produced sulphur from wood trash) and/or pH (carbonate)
- Ore Controls/Guide to Exploration: Permeable lower parts of fining upward fluvial cycles, fault and fracture zones
- Examples: Dorchester Cu: about 6 000 000 t of low grade Cu, with some zones grading 2-10% Cu; Elgin Cu: 25 000 t grading 2.25% Cu

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