

south-southeast plunge of mesoscopic, first generation fold axes define the plunge of the main syncline. Prevalent south-plunging mineral lineations suggest a north-directed thrust component is present in east-trending faults. Metamorphic grade ranges from chlorite-tremolite assemblages in the southern map area to pumpellyite facies in the north.

Examination of known mineral occurrences in the eastern Seal Lake area confirm native copper, malachite, and bornite mineralization hosted by quartz + carbonate veins associated with fractures and small-scale shear zones proximal to basalt-slate contacts. Bornite, chalcocite, Cu-carbonates, and chalcocopyrite are also hosted in gabbro sill margins. Several new copper indications and minor uranium mineralization were identified during the 2008 survey.

Regional mapping in the eastern Seal Lake Group

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The Mesoproterozoic Seal Lake Group in central Labrador consists of a succession of six formations of argillaceous and arenaceous sedimentary rocks, intercalated with basalt flows and intruded by gabbro sills. The entire group is folded into an east-trending syncline of which the southern limb has been overturned and thrust northwards during Grenvillian deformation. The group is host to numerous copper sulphide and native copper occurrences and minor uranium mineralization.

Regional mapping in the eastern Seal Lake area included rocks representative of all six formations and several known copper occurrences were investigated. Two periods of deformation are recognized. The first regional event produced a dominant east-northeast-striking fabric, resulted in folding of the main syncline and fault development along the limbs and hinge area. A later deformation resulted in folding of the main fabric into small-scale folds and open warps. A dominant