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## There's gold in them hills: Optimizing exploration of the Troilus deposit, Quebec by reevaluating the mechanisms of ore deposition

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## **There's gold in them hills: Optimizing exploration of the Troilus deposit, Quebec by reevaluating the mechanisms of ore deposition**

Tavis Enno

Exploration Quebec's historical Troilus deposit by the Toronto-based company Troilus Gold Corporation has shown tremendous potential to produce gold, copper, and silver if the mine is reopened. However, the deposit remains poorly understood due to metamorphism, deformation, structural zonation, and remobilization of metals which occurred during multiple stages of mineralization. As a result of this complexity, the source and distribution of metals at the Troilus deposit is not well understood which is an obstacle to growing the resource and reopening the mine. I seek to constrain the evolution of the Troilus deposit by understanding the structures and rock types hosting ore, the fluids they precipitated from, and the tectonic processes which occurred during mineralization. This work will be applied to target promising zones of mineralization during exploration and assist with the development of the Troilus deposit into one of Canada's largest gold mines.



**Above:** Sunset over the historical J4 pit.