

Project: Indicator Mineral Project: Scheelite Chemistry as an Indicator of Intrusion-related W-Mo-(Au) Mineralization

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This fully funded, two year MSc project, which is part of a Geological Survey of Canada project on indicator minerals overseen by Dr. Beth McClenaghan, is focused on the mineralogical and chemical characterization of scheelite (CaWO_4), a mineral sought after for applications in the high technology industry. The intent of the project is to fully characterize scheelite from a variety of ore deposit settings (skarn, porphyry, orogenic gold) using major and trace element chemistry, mineral inclusions cathodoluminescence, and the chemistry of fluid inclusions. This data base will then be used to assess if scheelite chemistry can be used to discriminate among deposit types and thus applied as an indicator mineral for regional till sampling as part of mineral exploration programs. Samples for the study will come from archived suites at universities and other institutions and supplement if necessary with further sampling.

The project will commence in September 2012, but this can be negotiated if necessary. Those interested should have a strong background and interest in mineralogy, geochemistry, and be competent with a variety computer software programs and applications. In addition, the emphasis will be on using a wide variety on analytical tools (SEM-EDS, EMPA, laser Raman, fluid inclusion microthermometry), thus interested parties should have an interest in such applications. Applicants can get in touch via email at dkontak@laurentian.ca.