

## **Mineral Assessment of Proposed Pickhandle Lakes SMA Progress Report**

The White River and Kluane First Nations proposed Pickhandle Lake as a Chapter 10 special management area (SMA) to be included in their Final Agreements. Current information from Land Claims Implementation Secretariat is that the area will be designated as a Habitat Protection Area with no up-front mineral withdrawal. The SMA proposal is confidential and the First Nations are in the process of ratifying the Final Agreement Memorandums of Understanding that were initialed on March 31<sup>st</sup>, 2002.

Located on NTS sheet 115F/16, the proposed SMA consists of approximately 57 km<sup>2</sup> of wetlands on the south side of Alaska Highway southeast of the Donjeck River crossing. The terrain is very low laying in nature and little outcrop is exposed within the proposed SMA boundary.

The proposed SMA is located within the Denali Fault zone. The Denali Fault is a major structural zone separating Wrangellia and Windy-McKinley Terrane rocks. Devonian-Cretaceous aged Windy Assemblage metamorphic rocks have been mapped along the regional trend.

The regional aero-magnetic geophysical survey results indicate a broad zone of low magnetic susceptibility reflecting the Denali Fault Structure.

A regional mineral assessment panel ranked tracts covered by the proposed SMA for the potential to host the following deposit types: gold-quartz vein, gabbroic copper-nickel, plutonic related gold, polymetallic veins, and Kuroko-VMS. The proposed SMA area is within tracts that ranked highest relative regional mineral potential with respect to Phase IV (SW Yukon) of the Yukon-wide Regional Mineral Potential Map (Figure 1 attached).

A compilation of available geoscientific data was completed in April 2002. Lithostratigraphic mapping combined with rock sampling for whole rock and multi-element analysis was used to indicate potential for economic types and styles of mineralization exposed along road cuts.

A total of 10 man-days were spent investigating the proposed SMA area. Thirty-one rock, soil, and silt samples were collected and analyzed as well as several whole rock specimens of petrographic analysis, and pan concentrates.

This new data is currently being integrated with existing geochemical, geophysical, and geological data in preparation for hosting a mineral assessment panel scheduled for the second week of December 2002. A mineral potential map of a study area slightly larger than the proposed SMA will be the result of the detailed assessment. Tracts of similar geology will be ranked, by consensus, relative to this much smaller detailed study area around the proposed SMA. A comprehensive report on the findings of the detailed assessment is forthcoming.