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mac

Wojdai, June '96 MR

(0.01% Mo) also occurs in the porphyry system but is peripheral to the Au-Cu zone and its recovery is no longer proposed (Yeagher). Grade at Bronson Slope is low but in the same range as Kemess and Taurus. My concerns about the project relate to sparse drilling (confidence of resource definition), engineering of this very challenging site and whether high gold and copper recovery can be achieved.

Cinola

***Harmony Gold** (103F 034) project was toured with Robin Tolbert and Brian Bower of Misty Mountain Gold Ltd. on June 19. During the winter 49 holes (10 000 m) were drilled and a second round (125 holes, 25 000 m, \$4.5 million) was just underway. This is a low sulphide epithermal hot spring gold deposit related to a major structure, the Sandspit/Specogna fault. Gold occurs in silicified clastic sediments in the hanging wall of the fault, within rhyolite (14 Ma) intruded along the fault, and in dilational quartz veins. Pervasive silica is abundant, locally quartz has replaced bladed calcite. The deposit is being re-drilled in the opposite direction to that of City Resources to determine continuity of dilational veins (030° strike, subvertical dip) which contain 5-20 g/t Au. These banded veins are well represented in the 500 metre underground drift and crosscut. One development option is to recover free gold from the veins by gravity separation and produce a sulphide concentrate to be shipped off-site (eg Premier Gold). This option would forego economic and environmentally difficult treatment of 0.5-2 g/t Au from the wallrocks. Misty Mountain hopes to drill a couple of deep holes in hope that the deposit narrows to a bonanza zone below the known deposit. There is promising geochemical and geophysical expression of epithermal gold to the south at the Canyon zone. About 12 major companies have reviewed the Harmony project.

Endako

***Endako** mine visited on June 27 with mine geologist Glenn Johnson. Tom Schroeter, Don MacIntyre (GSB), Bert Struik (GSC) and Geoff Goodall (Fox Geological) participated. Formation of the deposit is related to emplacement of final intrusive phase of the Jurassic Francois granite batholith. Doming of the earlier Endako quartz monzonite phase resulted in northwest and northeast faulting and dilation along a WNW trend similar to the late-stage Casey alaskite. The main controlling structure of the hydrothermal system is the E-W South Boundary fault. Other faults and dilational fractures (moly veins) splay off it to the WNW to NW (110° to 170°) in horsetail fashion. Pre-ore dikes were emplaced along NE faults. Both NW and NE structures were reactivated during Eocene extension and intrusion of 'basalt' dikes (trachyte, Ootsa equivalent?). Adjacent these structures coarse moly is converted to fine moly encapsulated in quartz ("black quartz") with increased kaolinite, both contributing to lower metallurgical recovery. Current pit mapping aims to resolve Jurassic vs Eocene fault offset by comparing displacement of pre-ore granitic dikes and post-ore basalt dikes. Reserves are approximately 100 million tonnes at 0.126% MoS₂, sufficient for 10 years production. The geophysical signature is a magnetic high (associated magnetite) within an IP response caused by a marginal pyrite zone. An IP survey is being undertaken northwest of the mine. There is a deep exploration target on the South Boundary fault for the intrusion responsible for mineralization.

Mac

*The **Mac** Mo-Cu exploration project of Spokane Resources was examined on June 28. Geoff Goodall (Fox Geological) provided an excellent overview and assisted with transportation to the site. The Mac was discovered by Rio Algom using lake silt geochemistry in 1982. A quartz porphyritic quartz monzonite stock correlative with the Francois batholith (136 Ma) intrudes mafic volcanics assigned to the Cache Creek. Quartz "sweats" in the hornfels zone appear to be derived from the quartz-rich intrusion. A moly bearing quartz stockwork is developed in the stock and a fracture-controlled chalcopryite-molybdenite zone is developed in the hornfels zone on the east and west margins. The south margin is truncated by a NW fault. Marginal phase of the stock is biotite granodiorite that resembles the Babine intrusions. Drilling is permissive for 50-80 million tonnes at 0.25% MoS₂ and 0.3% Cu in the hornfels, and 100 million tonnes @ 0.08%