TASEKO MINES LIMITED - FISH LAKE GOLD-COPPER PORPHYRY DEPOSIT

The Fish Lake property is located 250 km north of Vancouver and 128 km southwest of Williams Lake, B.C. Access is by paved Highway 20 west from Williams Lake to Lees Corner at Hanceville, and then southwest along a gravel road to the Davidson bridge at the Taseko River. From the bridge, a gravel road covers the last 16 km to the deposit.

Copper mineralization on the Fish Lake property was discovered in 1960 by Phelps Dodge Corporation. Phelps Dodge allowed the project claims to lapse and the ground was staked by Taseko Mines Limited in 1969. Since then, a number of mining companies have directed exploration programs on the property including Quintana Minerals, Nittetsu Mineral Company, Bethlehem Copper and Cominco Ltd. This early work outlined a large-scale, disseminated gold and copper-rich sulphide deposit approximately 900 m in diametet and extending to a depth of 450 m. Many of the drill holes from this early work stopped in ore grade gold-copper mineralization.

Exploration programs completed on the property, including 1991 work, included; grid establishment; ground magnetometer, VLF-EM and Induced Polarization surveys; soil geochemistry; and percussion and diamond drilling. To date, a total of 50 line km of IP, magnetic, and soil geochemistry surveys have been completed. Diamond drilling totals 33,642 m in 200 holes. Of this total, 110 holes (28,944 m) were drilled to delineate the Fish Lake deposit as it is presently known; the remaining holes were drilled elsewhere in the 3 km by 4 km Induced Polarization chargeability anomaly that characterizes the Fish Lake deposit area.

The Fish Lake deposit is a large tonnage gold-copper porphyry deposit hosted within calc-alkaline volcanic rocks correlated with the upper Cretaceous Kingsvale Group, and calc-alkaline intrusions of Tertiary and Cretaceous age. These rocks form part of a 6.5 km long and 2.0 km wide, north-trending window within Tertiary plateau basalts. The geological setting is typical of porphyry copper deposits of the calc-alkaline affinity found elsewhere in British Columbia.

The lithologies of the deposit include dioritic to quartz dioritic intrusions that are underlain by andesitic to rhyodacitic volcaniclastic rocks. Both of these lithologies are cut by quartz feldspar porphyry dykes and lenses of intrusive breccia, as well as postore dykes. Biotite + chlorite alteration is widespread within the andesitic volcaniclastic rocks and it occurs locally within the dioritic intrusions and quartzfeldspar porphyry dykes. Intense biotite + magnetite alteration may represent potassic alteration zones. Sericite + carbonate alteration forms irregular-shaped zones within the biotite-altered volcaniclastic rocks and commonly occurs in the quartz feldspar porphyry dykes and dioritic intrusions. Chlorite + pyrite +, calcite alteration is relatively minor and forms a poorly-defined zone in the southeast portion of the deposit. This assemblage may represent propylitic-style alteration. Quartz alteration (silicification) is most common as haloes around fault structures and as discrete zones within the country rock. Two late-stage (post-ore) faults influence the geometry of the deposit; the Fish Lake Thrust and the Carramba Fault.

Gold and copper mineralization is uniformly distributed within all of the lithologies except post-ore dykes, and all alteration types except the chlorite + calcite type. Below 700 m elevation (750 m belew surface) the mineralized lithologies are juxtaposed against barren rocks by the Fish Lake Thrust. To the south, the east-trending Carramba Fault juxtaposes weakly mineralized rock in the top 200 m of the south block against well mineralized rock to the north.

Several generations and at least six distinct styles of copper mineralization have been recognized in the deposit. The styles vary within and between lithologies. All styles and generations are dominated by chalcopyrite with or without microscopic intergrowths and overgrowths of bornite, tetrahedrite and chalcocite. Minor disseminated bornite and tetrahedrite, bornite blebs within quartz - chalcopyrite veins, and late Cu oxides (malachite, tenorite) are also present. Native gold (1-3 micron size) has been identified as inclusions and fracture fillings in pyrite grains, as a matrix to massive brecciated pyrite, and as intergrowths with chalcopyrite and tetrahedrite.

The six observed mineralization styles are:

- 1. disseminations, intergrowths, and mm- to cm-scale blebs within altered groundmass;
- 2. very fine disseminated grains within altered clots and aggregates;
- 3. massive blebs and fine disseminations within quartz veins;
- 4. hairline, discontinuous stringers and fracture fillings;
- 5. massive blebs and fine disseminations within gypsum veins;
- 6. very fine disseminated grains within stringer networks.

Gold veins can be grouped as Main and Late stage types, based on re-occurring mineral assemblages and cross cutting relationships. Main stage veins are composed of quartz, pyrite, chalcopyrite and molybdenite with accessory carbonate, sericite, biotite, sphalerite, galena, magnetite/hematite, clay, anhydrite, and native gold. Late stage veins are composed of quartz, calcite, and gypsum, with accessory sericite, chalcopyrite, pyrite, anhydrite, sphalerite and galena.

The latest assessment of the Fish Lake deposit has defined a zone of mineralization containing a preliminary 600,000,000 ton reserve averaging 0.32% Cu and 0.55 grams Au/tonne. The presence of well mineralized intersections in relatively shallow drill holes peripheral to the deposit, in conjuction with information derived from the 1991 drill program, has established that the deposit remains open in all directions. These results provide the basis for a feasibility-stage diamond drilling and permitting program, and extensive exploration diamond drilling planned for 1992.









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