

MEG LUNCHEON TALK

TITLE: THE MT. MILLIGAN GOLD-COPPER PORPHYRY DEPOSIT

SPEAKER: M. REBAGLIATI

The Mt. Milligan deposit, located 90 miles northwest of Prince George, BC, is an alkaline intrusive associated gold-copper porphyry deposit situated within the central volcanic core of the Upper Triassic-Lower Jurassic Takla Group of the Quesnel Belt. Volcanic strata, dominated by alkalic flows and coarse pyroclastics, are intruded by four closely-spaced high-level monzonite porphyry plutons. Porphyry-type gold-copper mineralization is associated with each of the plutons.

The Mt. Milligan deposit, the largest defined to date, has formed within and around the equidimensional, inward-dipping MBX stock. A large pyritic potassic alteration zone, extending up to 600 m from the MBX stock, comprised of early secondary biotite overprinted by pervasive potassium feldspar flooding and secondary magnetite, hosts the majority of the gold-copper reserves. Secondary K-spar and associated chalcopyrite are confined to breccias and stockwork development in the outer 100 m of the 500 m diameter MBX stock where gold concentrations are lower than within the enclosing volcanics. Propylitic alteration persists up to 3 km from the stock. Strong porphyry-style gold mineralization, associated with pyrite and only minor chalcopyrite, occurs in the southeastern portion of the deposit at the interdigitating transition between the potassic and propylitic alteration zones.

Numerous precious/base metal veins have formed marginal to, and radiating from, the Mt. Milligan deposit.

Recent drilling one kilometre south of the MBX stock, has discovered a second blind gold-copper porphyry deposit associated with extensive intrusion breccias in the Southern Star monzonite porphyry stock.

The Mt. Milligan deposit has a drill-inferred geological inventory exceeding 200 million tons with grades approximating 0.3% copper and 0.02 oz/ton gold.

DATE: 14 February 1990

TIME: 12 NOON

PLACE: Hotel Georgia

COST: \$15 at the Door
Non-Members Welcome