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Paper 25 — 11:00 a.m.

Geology of the Tasu Copper-Iron Deposit, Queen Charlotte Islands; An Update.

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The Tasu copper-iron occurrence is a typical Insular Belt pyrometasomatic deposit within a geological environment consisting of Triassic limestones and volcanics intruded by Jurassic or Cretaceous (?) quartz diorite. It differs from most deposits of this category in that it is larger and contains swarms of pre- and post-ore dykes and a complicated assemblage of pre-ore porphyry sheets. Minor faults and folds are common, particularly in the limestone unit. Mineralogy is simple, although the magnetite exhibits textural changes.

The mineralized zone extends essentially continuously for 1220 m (4000 ft), closely paralleling the limestone-volcanic contact through a vertical range of 400 m (1300 ft). Maximum thicknesses are 60 m (200 ft).

This paper updates geological features as encountered since the property was earlier well described in papers by the B.C. Department of Mines.

Ore mined to date approximates 20,000,000 D.M.T., from which approximately 11,000,000 D.M.T. of copper and iron concentrate have been shipped. This was obtained from two separately mineable sections, one copper-rich and one copper-poor, and a third intermediate one. Proximity to the limestone appears to have controlled the copper deposition.

Mining has shown earlier postulated folds in the orebody to be a series of offsetting faults instead, causing constant revisions in underground planning.

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