

OTN Bull SEPT 1983  
 103P/5W  
 103P 021

The Hidden Creek Cupriferous Massive Sulphide Deposit, Anyox, B.C.

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Cominco Ltd.'s Hidden Creek volcanogenic massive sulphide property is located near Anyox, B.C., approximately 130 km northeast of Prince Rupert. Production from the deposit by Granby Mines from 1914 to 1935 amounted to 24,010,235 tonnes grading 1.5% copper, 0.005 oz/T gold and 0.30 oz/T silver. Zinc was not recovered but assay records indicate that values ranged from 0.2 to 1.7% for the individual orebodies.

Eight massive cupriferous sulphide bodies comprise the Hidden Creek deposit. A large area of chloritized and pyritized basalt directly underlies the sulphide layers and lenses. Stockwork mineralization (chalcopyrite) transcends to pyrrhotite-chalcopyrite lenses within the basaltic pile which in turn are overlain by tabular sheets of massive pyrite-chalcopyrite and quartz. The main tabular deposits lie along the basalt-argillite contact but small individual lenses are wholly enclosed by argillite.

A well-defined chert layer lies exactly along the basalt-sediment contact; it is up to 75 m thick near the old orebodies but narrows to thin bands several cm thick that persist for over 1 km laterally. This cherty bed has been sampled to investigate metal dispersion trends away from the Hidden Creek hydrothermal centre. Copper, lead and zinc enrichments are proximal to the hydrothermal vent field while sulphur is dispersed over 1 km beyond the recognized vent area.

Analyses of the chert around the Hidden Creek deposits show that barium, fluorine, mercury and silver have weak dispersions away from the tabular sulphide occurrences. The contents of Mn, Sr, Ni, Co, Bi, As and Au in cherts do not show any pattern related to copper mineralization at Hidden Creek.

The Hidden Creek deposit consists of massive cupriferous sulphide bodies generated over a complex hydrothermal vent field associated with the terminal stage of basaltic volcanism. The deposit formed in a submarine environment similar to the active hydrothermal centres currently found on the east Pacific Ocean floor.

Arcadia Explorations Ltd. received \$125,000 from sale of 300,000 shares and \$8,020 from other sources in year ended 31Dec69, spent \$53,324 on exploration and \$13,303 on administration and ended the year with \$54,767 in working capital. Of 5,000,000 shares authorized, 1,250,005 are issued including 750,000 issued for property in escrow and a further 200,000 deposited with Guaranty Trust releasable subject to B.C. Securities Commission consent.

Work was done on two B.C. properties in 1969, most of it at Anyox on tidewater some 80 miles N of Prince Rupert on Arcadia's 121 claim block surrounding the old Hidden Creek Mine now held by Cominco Ltd. but from which The Granby Mining Co. Ltd. produced over 700,000,000 pounds of copper and 6,000,000 ounces of silver with significant gold between 1914 and 1936. Arcadia's work last season comprised airphoto studies, 30 square miles of airborne electromagnetic and magnetometer surveys which disclosed 12 anomalies near the favorable greenstone-argillite contact. Ground followup with EM and mag. on four anomalous zones was done plus limited X-ray drilling for structure. Blasting and trenching on one zone exposed 20 ft. of 0.52% copper with 0.5 oz. silver. Further work here depends on further financing (GCNL 35,12Feb70).

On the 54 Ark claims adjoining the silver-base metal property of Nadina Explorations Ltd. at Owen Lake, 27 miles S of Houston, B.C., magnetometer and geochemical work indicated several areas which will be investigated this year.

The annual meeting was in Georgia Hotel, Vancouver, at 10:30 a.m., 24Apr70. Directors elected were Jas. Tho's Williamson, president (holding 759,251 shares); Geo. Blore (5,000 shs.); and John Vogan (1,000 shs.):

NO.88 (APRIL 27, 1970) \* GEORGE CROSS NEWS LETTER LTD. \* TWENTY-THIRD YEAR OF PUBLICATION \*