

NAME OF PROPERTY

BONANZA

OBJECT LOCATED - mine symbol, Map 103 P/5.

UNCERTAINTY IN METRES 300. Lat. 55°23'45" Long. 129°51'15"

Mining Division Skeena District

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR

Cominco Ltd.

DESCRIPTION OF DEPOSIT

Jurassic Hazelton group volcanic and sedimentary rocks which underlie most of the Granby Bay area form a large inclusion in the granitic matrix of the Coast Range complex. The surrounding granitic rocks are generally coarse-grained granodiorites which grade variably between hornblende quartz diorite and leucocratic quartz monzonite. The volcanic rocks in the Granby Bay inclusion consists largely of altered, pillowed, and massive andesites, some banded crystal tuffs, and massive basic sills. The volcanics have been intruded by small gabbroic plugs and various dykes. The overlying sediments include thinly striped argillites, colour-banded dark siltstones, dark sandstones, and minor limestone as lenses. The main contact is usually sharply defined, and is apparently conformable, although complicated by involved concentric folding.

The Bonanza copper deposit lies in a shear zone in amphibolite. The amphibolite body is irregular in shape and much elongated in a southerly direction. It invades argillites and is
see Card 2

Associated minerals or products - Silver, gold.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located in Granby Bay on the west side of Observatory Inlet some 75 miles north of Prince Rupert. The showings are located at about 200 foot elevation on Bonanza Creek, about a mile from Granby Bay, and 2 miles southwest of the sight of the Granby company smelter at Anyox.

John Flewin, Government Agent at Port Simpson, accompanied by his son H.C. Flewin, E. Donahue, and an Indian named Albert Allen discovered the showings in May 1900. The Bonanza group of 6 claims, the first staked in the district, were located at that time. In June 1901 Flewin bonded the property for a period of 18 months to M.K. Rodgers, of Seattle, agent for the Marcus Daly interests of Butte. Development work included about 800 feet of drifts and cross-cuts in several adits. Work was suspended in July 1902 and the work force transferred to the Hidden Creek property.

The Granby Consolidated Mining, Smelting and Power Company, Limited acquired the property in 1911. Diamond drilling carried out in 1913 roughly blocked out 414,775 tons of 2.6% copper and 489,580 tons at 0.7% copper (MMAR 1915, p. 185). Most of the original claims, including the Bonanza, North Star, Emma, Moana, Princess Louise, Emerald, Emma Fr., and Brenau Fr. (Lots 1667-1674 respectively) were Crown-granted to Granby in 1915. Further diamond drilling was done in 1921. A crusher was installed in 1928 and a tramline built from the mine workings to the smelter at Anyox. Production began early in 1929. The mine was developed from an adit and inclined shaft. The shaft was sunk to a depth of 684 feet on the north side of the creek and levels established at 300 and 650 feet. On the south side of the creek the main 250 foot level was extended and raises driven from it for mining the south end of the orebody; the south end was developed and mined for a horizontal length of about 1,600 feet. Between the workings on the north and south sides of the creek there is a distance of approximately 370 feet in which no mining was carried out. Operations ceased on July 31, 1934 and all equipment was removed.

The Consolidated Mining and Smelting Company of Canada Limited apparently purchased the property in 1937, along with the Hidden Creek mine. Reserves are reported as 226,800 tonnes at 1.0% copper (BCDM R I).

see Card 2

HISTORY OF PRODUCTION

From 1929 to 1934, 724,193 tons of ore were shipped from this property. From this ore 2,784 ounces of gold, 281,244 ounces of silver, and 31,525,588 pounds of copper were recovered.

REFERENCES

Reports of Minister of Mines, British Columbia:

1900, p. 789; 1901, p. 993; 1902, pp. 45, 49; 1903, p. 53; 1904, p. 101; 1905, p. 80; 1911, p. 65; 1913, p. 83; 1914, p. 148; 1915, pp. 185, 195, 448; 1916, p. 252; 1921, p. 47; 1928, pp. 77, 423; 1929, p. 79; 1930, pp. 81 +, 358; 1931, p. 37; 1932, p. 52; 1933, pp. 46, 301; 1934, p. B-12 +; 1935, p. G-47; 1965, pp. 57-59 +; 1967, p. 40.

††Hanson, G.; Portland Canal Area, B.C.; Memoir 175, pp. 88-91, Geol. Surv. of Canada, 1935.

McConnell, R.G.; Portions of Portland Canal and Skeena Mining Divisions, Skeena District, B.C.; Memoir 32, p. 90, Geol. Surv. of Canada, 1913.

Mineral Policy Sector; Corporation Files: "Granby Consolidated Mining, Smelting and Power Company, Limited".

Geology, Exploration and Mining; British Columbia Dept. of Mines: 1976, p. E-164.

Exploration in British Columbia; BCDM: 1982, p. 372.

Geological Fieldwork; British Columbia Dept. of Mines: 1985, p. 211.

MAP REFERENCES

Map 307 A, Portland Canal Area, (Geol.), Sc. 1":4 miles - accomp. Mem. 175.

Geology of the Anyox Area, Sc. 1":2 miles, Report of Minister of Mines, British Columbia, 1965, p. 58.

#Map 103 P/5, Observatory Inlet, (Topo.), Sc. 1:50,000.

Geology of the eastern Anyox pendant, Sc. 1 cm:0.9 km, Fig. 29-1, Geological Fieldwork, 1985, p. 212.

REMARKS

See: Hidden Creek, Area 103 P/5, CU 4.

Comp./Rev. By	DMacR	DMacR					
Date	2-79	08-86					

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BONANZA

DESCRIPTION OF DEPOSIT (continued)

apparently a tongue from the main amphibolite body outcropping a short distance to the west.

The ore-body outcrops in Bonanza creek and lies in a shear zone that strikes east and dips about 20 degrees north. Along the strike the shear zone is only 300 feet long but is known to extend down the dip for half a mile. It is 40 to 70 feet thick and has the shape of a very much flattened tube pitching north. At the west side the shearing turns northward rather abruptly and on the east side it turns southward. Faults are in evidence locally on the east and west sides. To the north, down the dip, the zone at a depth of 200 feet below sea-level is cut off by a fault that strikes northwest along Bonanza creek and dips 65 degrees northeast. This fault has let down the northern extension of the zone a distance of 800 feet or more. South of the outcrop in Bonanza creek the zone has been traced to where it is 700 feet beneath the surface.

The ore-body has a strike length of about 200 feet and locally was 30 or 40 feet thick. The dip length is known to exceed half a mile and ore was continuous throughout this distance. Where the shear zone was thinner the ore-body narrowed also, but filled the whole shear zone. Where the shear zone widened the ore-body was somewhat thicker but did not fill the whole zone. Above the creek level the ore-body along its west side ends in two blunt wedges one above the other. On its east side the ore-body in most places is bounded by a minor fault, but in a few places ore of a somewhat different appearance has been mined east of the fault. Below the creek level the west side of the ore-body is bounded by a fault whose relations with the large fault at the north end of the ore-body are not known, but the large fault is probably later.

The walls of the ore-body are chlorite, actinolite, and biotite schists. Locally augite, labradorite, and enstatite can be recognized. The copper mineral is chalcopyrite and is in many places quite pure. Pyrrhotite, sphalerite, and pyrite also occur in the ore.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

The company name was changed in 1966 to Cominco Ltd. Geological mapping was carried out in the area between Bonanza creek and the Hidden Creek mine in 1967. Further geological mapping and a geochemical rock sample survey was carried out on some of the Bonanza Crown-grants in 1976.

Imperial Metals Corporation held adjacent ground in 1982; work under a joint venture agreement with Procan Exploration Company included airborne geophysical surveys.