

PRODUCT	COPPER	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	92 I/7	REF. CU 14
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NAME OF PROPERTY	SHEBA					
OBJECT LOCATED -	Peel showing, Jay 101 claim.					
UNCERTAINTY IN METRES	300.	Lat. 50°26'40"	Long. 120°59'35"			
Mining Division	Kamloops	District				
County	Township or Parish					
Lot	Concession or Range					
Sec	Tp.	R.				

OWNER OR OPERATOR AND ADDRESS
 Sheba Copper Mines Limited.

DESCRIPTION OF DEPOSIT

The claims are underlain by Triassic-Jurassic granitic rocks of the Guichon Creek batholith. Rocks of the Skeena variety underlie the central part of the property and are flanked to the east by rocks of the Bethlehem phase. Farther east, the Bethlehem phase rocks give way to rocks of the Highland Valley phase. All the rocks are quartz diorites or granodiorites. Distinctions between them for mapping purposes are based on textural criteria and colour index. The granitic rocks are cut by quartz-plagioclase porphyry and aplite dykes. A small elongated body of Bethsaida granodiorite enclosed in Skeena quartz diorite occurs near the north edge of the property. Joints striking approximately 100 degrees predominate, but those striking 025, 065, and 160 degrees are common and equally well developed. Veins range widely in strike but those with north and northeast trends are most common.

Drilling indicates weak but widespread argillic and propylitic alteration. Sericitic feldspar alteration is moderately to intensely developed in several closely fractured areas.

Associated minerals or products of value - Molybdenum.

see Card 2

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located on the south side of the Highland Valley, covering in part the lower north slopes of Gnawed Mountain, mainly north and east of Gnawed Lake. The mineralized zone on the Jay 101 claim is located at approximately 5,100 feet elevation some 3,000 feet north-northwest of Gnawed Lake.

Developments at Bethlehem Copper in 1955 led to the staking of a large number of claims in the Highland Valley in 1956. Cassiar Consolidated Mines Limited and Royal Canadian Ventures Ltd. staked 51 and 25 claims, respectively, comprising the CS, JJ, Dawn, CU, Lynn, J. and Jay groups. In November 1956 the companies incorporated Sheba Copper Mines Limited to acquire the combined property. Prospecting and trenching was carried out. American Smelting and Refining Company optioned the property and carried out an airborne magnetometer survey, trenching, and geological mapping in 1958.

Peel Resources Limited in 1959 purchased 310,323 Sheba Copper Mines shares which had been issued to Royal Canadian Ventures for its claims and its expenditures thereon. Peel also acquired an option on an additional 500,000 shares, which would give the company a 53.6% interest in Sheba. No further activity was reported until late 1961 when road construction by Peel Resources uncovered a copper showing on Jay 101 claim. Work on this showing during 1961-62 included an induced polarization survey and approximately 1,400 feet of diamond drilling in 6 holes. This work indicated a limited tonnage grading from 1 to 2% copper.

Anaconda American Brass Limited optioned the Sheba and adjacent properties to the south in late summer of 1963. Work on the various properties during 1963-1965 included geological mapping, geochemical and geophysical surveys, trenching, and diamond drilling. The option terminated in November 1965.

By an April 1967 agreement Sumitomo Metal Mining Co. of Canada Ltd. acquired the right to carry out exploration work on the property in return for treasury shares in Sheba Copper. Work by Sumitomo during 1967-68 included geological mapping, geochemical soil and induced potential surveys, bulldozer trenching, percussion drilling in 21 holes totalling 5,785 feet, and diamond drilling in 15 holes totalling 6,600 ft. The agreement terminated on July 31st, 1968.

see Card 2

HISTORY OF PRODUCTION

REFERENCES

Reports of Minister of Mines, British Columbia:
 1957, p. 26; 1962, p. 49; 1963, p. 47; 1964,
 p. 89; 1965, p. 148; 1967, p. 158; 1968, p. 193.

Geology, Exploration, and Mining; British Columbia Dept.
 of Mines: 1969, p. 264; 1970, p. 350; 1971, pp. 348-
 357⁺; 1972, pp. 163-167⁺⁺; 1973, p. 175; 1974,
 p. 145; 1976, p. E 94; 1977, p. E 146.

Mineral Policy Sector; Corporation Files: "Sheba
 Copper Mines Limited"; "Peel Resources Limited";
 "The Dowa Mining Co., Ltd.".

MAP REFERENCES

- Map 886 A, Nicola, (Geol.), Sc. 1":4 miles - accomp.
 Memoir 249, Geol. Surv. of Canada, 1947.
- Geological Map of the Guichon Creek Batholith, Sc. 1":
 2 miles, Fig. 2, accomp. Bulletin 56, British Columbia
 Dept. of Mines, 1969.
- #Geological Map of the Highland Valley Area, Sc. 1":
 1,000 ft., Preliminary Map, May 1966, B.C. Dept. of
 Mines.
- Map 92 I/7 E, Highland Valley Project, (Geol.), Sc. 1":
 1,320 ft., Preliminary Map No. 7, British Columbia
 Dept. of Mines.
- General Geology of the Sheba Property, Fig. 42, Geology,
 Exploration, and Mining, 1971.
- Generalized Geology of Highland Valley, Sc. 1": $\frac{1}{2}$ mile,
 Fig. 12, Geology, Exploration, and Mining, 1972.
- Geological Map of the Sheba property, Fig. 15, Geology,
 Exploration, and Mining, 1973, p. 176.
- *Map 92 I/7, Mamit Lake, (Topo.), Sc. 1:50,000.
- Map 5212 G, Mamit Lake, (Aeromag.), Sc. 1":1 mile. (1968).

REMARKS

Comp./Rev. By	DMacR	DMacR	DMacR				
Date	2-77	6-78	05-86				

BCI 92 I/SE - 10, 76, 81

PRODUCT

COPPER

PROVINCE OR
TERRITORY

British Columbia

N.T.S. AREA 92 I/7

- Card 2 -
REF. CU 14

NAME OF PROPERTY

SHEBA

DESCRIPTION OF DEPOSIT (continued)

Mineralization is widely dispersed on the Sheba property but very low grade. Copper and molybdenite minerals occur in veins and along fractures in association with quartz, calcite, epidote, and chlorite. Argillic and sericitic alteration occurs locally and is sometimes associated with ore minerals, but weak propylitic alteration is the most common type developed.

The most common types of veins consist of epidote with or without quartz, hematite, and chlorite. However, epidote-chlorite veins containing K-feldspar or sericite or calcite, K-feldspar veins, and zeolite (laumontite) veins also are common. Barite was found in hole 71-4 in a vuggy vein. Chalcopyrite and bornite replaces mafic minerals, and occurs on fractures, in quartz-epidote, pyrite-chlorite-epidote-chalcopyrite, and quartz-sericite veins. Molybdenite coats fractures and occurs in quartz or quartz-chalcopyrite veins.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

Anaconda American Brass Limited reoptioned the property in November 1968 and during 1969 carried out an induced potential survey over 2.6 line-miles covering Dawn 1, 2, 5-8, and Lynn 1, 2, 5-8 claims. The induced potential results were tested by 5,214 feet of diamond drilling in 7 holes. The option terminated September 15, 1969.

The Dow Mining Co., Ltd. in March 1971 obtained a working option on Sheba's 96 claims. Under the agreement Sheba in December 1971 incorporated a wholly owned subsidiary, Saba Copper Mines Limited, to hold the property, with Dow having the right to earn a 65% interest in the new company. The option period runs until April 30, 1975. Work during 1971 included geological mapping, a geochemical survey (279 samples) over 5.3 line-miles and 8,569 feet of diamond drilling in 12 holes over an area approximately 8,300 feet long by 2,700 feet wide and including the Jay 101 showings. This work gave one drill intersection of 20 feet averaging 0.5% copper, another drill intersection of 20 feet averaging slightly less than 1% copper, and a third intersection (hole S71-11) of 60 feet of slightly less than 1% copper. Diamond drilling by Dow on various parts of the property during 1972-1974 totalled 17,533 feet in 24 holes. Reserves have been reported at 250,000 tons averaging 0.7% copper (Ref. B.C. Dept. of Mines, Mineral Inventory, 92 I/SE-10).

The Dow Mining Co. option terminated in April 1975. The subsidiary company Saba Copper, which was incorporated under the terms of the option agreement, was placed in voluntary liquidation in December 1977. The property was optioned to Western Mines Limited in June 1976; the agreement was terminated Jan. 31, 1977; Western did 3,130 metres of percussion drilling in 55 holes.

Bethlehem Copper Corporation optioned the property, comprising 81 claims, by an agreement of July 1977. Work included percussion drilling in 4 holes. Bethlehem subsequently increased its interest in the property to 80%. In 1982 Bethlehem was amalgamated with Cominco Ltd under the latter name.