PRODUCT	LEAD	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	93 E/11	REF. PB 1

NAME OF PROPERTY EMERALD-GLACIER

OBJECT LOCATED - stoped section of vein.

UNCERTAINTY IN METRES 300. Lat. 53°44'20" Long. 127°15'45"

Mining Division Omineca District Coast, Range 4

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR

DESCRIPTION OF DEPOSIT

In the vicinity of the workings the property is underlain by the sedimentary member of the Jurassic Hazelton Group, comprising sandstone, tuff, and tuffaceous sandstone, siltstone, and shale that appear to be interfingering. The stratified panel strikes about N10°W and dips on the average 60° east. The vein shears are a closely aligned in echelon group extending for 4,000 feet or more and nearly conformable with the formation. The shear in which the main oreshoot is located has a proven length of 400 feet. The mined oreshoot is about 250 feet long and up to 10 feet wide. Most of the shoot is contained in altered volcanic sandstone, but the northern end may be in altered volcanic rocks. Sulphide minerals include galena, sphalerite, chalcopyrite and pyrite. Gangue is mainly quartz and altered rock but includes calcite and a little rhodochrosite. All the ore produced to 1967 came from this one oreshoot in the 6,400 level. Sampling on this level in 1967 is reported to have indicated an average grade of 11.5 ozs/ton silver, and

see Card 2 ....

Associated minerals or products - Zinc, silver, gold, cadmium, copper.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at the 6,400 foot elevation on the south slope of Mt. Sweeney, about 75 miles south of Smithers.

The Emerald-Glacier showings were staked in 1915 by W.J. Sweeney and associates; adjacent showings were staked by Sweeney and associates as the Grand View and Dominion groups. During the period 1917-1919 the Emerald-Glacier was under option to J. Cronin, who drove a 125 foot drift adit at the 6,400 foot elevation. The Consolidated Mining & Smelting Company of Canada Limited optioned the property in 1927. Development work began in July 1928 and continued into 1930. The 6,400 level was extended 220 feet, and adits at the 6,000 and 5,400 levels were driven 229 and 360 feet, respectively. This work showed the main orebody did not extend to the lower levels. A program of diamond drilling completed in 1931 located other parallel veins. Work was suspended early in 1931. The Emerald and Emerald 1-4 claims and Glacier and Glacier 1-3 claims were Crown-granted in 1931 as follows: the Emerald (L 2762) and Glacier No. 1 (L 2767) to W.J. Sweeney; the Emerald No. 1 (L 2761) and Glacier (L 2766) to the Estate of Otis J. Benson; the Emerald No. 3 (L 2760) and Glacier No. 2 (L 2770) to the Consolidated Mining and Smelting Company; the Emerald No. 2 (L 2763) and Glacier No. 3 (L 2771) to D.L. McGibbon; and the Emerald No. 4 (L 2764) to Roy McDonnell. No further activity was reported for a number of years although the claims were maintained by the owners, with the exception of the Glacier No. 2 and Emerald No. 3 claims which apparently reverted to the Crown for taxes.

Emerald Glacier Mines Limited (which prior to a name change in 1949 was known as Kootenay Lake Mines, Limited) in 1949 acquired an option to purchase the above claims from F.C. Buckland, Vice President of the company, from the Estates of Otis J. Benson and W.J. Sweeney, and from Messrs. McGibbon and McDonnell. By a 1950 agreement Quebec Gold Mining Corporation provided financing through the purchase of 500,000 shares of the capital stock of the company. Work by the company during 1951-1952 included 4,366 feet of surface diamond drilling, and 1,448 feet of drifting and crosscutting. A stope was opened on the 6,400 level for a distance of 280 feet. Ore shipments during

see Card 2 ....

Mineral Policy Sector, Department of Energy, Mines and Resources, Ottawa

HISTORY OF PRODUCTION

1951-53, 4,631 tons shipped.
1966,67, 2,001 tons milled.
1968 - 2,564 tons milled.

From the above ore 49 ounces of gold, 80,493 ounces of silver, 4,930 pounds of copper, 1,689,456 pounds of lead, 1,559,162 pounds of zinc, and 1,826 pounds of cadmium were recovered.

MAP REFERENCES

Map 1064 A, Whitesail Lake, (Geol.), Sc. 1":4 miles - accomp. Memoir 299.

#Plan and underground workings, Sc. 1":400 ft., Fig. 4, Memoir 299, p. 85.

Emerald Glacier Mine, (Geol.), Sc. 1":80 feet, Fig. 12, Report of Minister of Mines, British Columbia, 1967.

*Map 93 E/11, Troitsa Lake, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR	DMacR	DMacR				
Date	12-78	09-81	05-87				

REFERENCES

Reports of Minister of Mines, British Columbia: 1916, pp. 164, 165; 1918, p. 126; 1919, p. 104; 1927, p. 154; 1929, p. 183; 1945, p. 68; 1951, p. 117; 1952, p. 97; 1966, p. 105; 1967, pp. 110, 112, 113 + ; 1968, p. 141.

++Duffell, S.; Whitesail Lake Map-Area, British Columbia; Memoir 229, pp. 84-86, Geol. Surv. of Canada, 1959.

Marshall, J.R.; Whitesail-Tahtsa Lakes Area, British Columbia; Summary Report 1924, Pt. A, pp. 56-57, Geol. Surv. of Canada.

Mineral Policy Sector; Corporation Files: "Cominco Ltd."; "Emerald Glacier Mines Limited"; "Emerald Glacier Mines Ltd."; "Pine Glacier Mines Ltd.".

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, p. 92; 1970, p. 107; 1951, p. 145; 1973, p. 321.

NAME OF PROPERTY EMERALD-GLACIER

DESCRIPTION OF DEPOSIT (continued)

26.2% combined lead-zinc over a width of 4.5 feet for a length of 260 feet on the main vein.

Some mineralization is known on the surface in other shears of the set remote from the main vein; other thinner veins exist underground. Several stringers occur in the crosscut close to the main vein, and two parallel veins occur in a parallel drift. One of these is 60 feet long and up to 2½ feet wide, the other is up to 3 feet wide and exposed over 30 feet. These veins are dominated by sphalerite.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

1951-1953 were to the leased Kenville Gold Mines Limited mill at Nelson, B.C. The company (Emerald-Glacier) gave notice in 1957 that it would wind up voluntarily.

The 9 Crown-granted claims were acquired as Mineral Lease 15 by Terrace B.C. interests in 1965. Emerald Glacier Mines Ltd. was incorporated in June 1966 to develop the property. A 75 ton-per-day mill was installed and put into operation in October 1966, milling ore from the upper adit. D.D. Campbell, consultant, in 1967 estimated proven and indicated reserves at 45,000 tons (no grade stated) (WM, 4/67).

A 4th adit, 6,250 level, was begun in June 1967 and driven 452 feet, intersecting the main vein 270 feet from the portal; where intersected the vein was not strong. The mill operated intermittently in July and continuously during August and September. Production came from the upper (6,400) adit, and from the main vein with the exception of 100 tons from a parallel vein.

Emerald Glacier and Pine Buffalo Mines Ltd. in 1968 incorporated Pine Glacier Mines Ltd. to continue the operation. Drifting and raising during the year totalled 155 feet. The mill operated for a short period, possibly on development ore.

Surface exploration and mill maintenance was reported in 1969-1970. During 1971 a raise was driven from the 6,275 level to the 6,400 level. Three short drifts, totalling less than 100 feet in length, were driven for exploration. Surface stripping was reported in 1973. Emerald Glacier Mines Ltd. was dissolved in 1975.

Reserves are reported as 40 820 tonnes at 1.13 g/mt Au, 355 g/mt Ag, 8.23% Pb, 9.49% Zn (Preliminary Map 65, BCDM, 1986).