PRODUCT	COPPER	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	82 M/9	REF. CU 2

NAME OF PROPERTY GOLDSTREAM (PAT)

OBJECT LOCATED - #5 on Fig. 2.

UNCERTAINTY IN METRES 400. Lat. 51°37'20" Long. 118°25'40"

Mining Division Revelstoke District Kootenay

County Township or Parish

Lot Concession or Range

Sec Tp. R.

OWNER OR OPERATOR AND ADDRESS

Noranda Mines Limited.

DESCRIPTION OF DEPOSIT

The Goldstream deposit is a stratabound high-grade copper-zinc massive sulphide body. The stratigraphy hosting the deposit consists of a package of palaeozoic meta-sedimentary and meta-volcanic rocks. In the vicinity of the deposit these have an average strike of N70°W and dip of 35° northeast. What is considered to be the host rock (Reinertson's Unit 3) is a quartz-sericite-chlorite-biotite phyllite. It varies in color from pale green to brownish green as the quartz content decreases and the biotite content increases. Pyrrhotite, chalcopyrite and sphalerite, where not massive, may comprise up to 25 per cent of the unit and occur as disseminated trains along foliations or thin bands paralleling foliations.

The massive sulphide zone (Unit 4) occurs within Unit 3 as a continuous layer varying in thickness from 3 m to 6 m. It consists of a medium to coarse grained mixture of pyrrhotite, chalcopyrite, and sphalerite in the relative ratio of 5:3:1. Inclusions of various types may comprise up to 30 per cent of the massive zone. Some of these are eyes of clear glassy quartz,

see Card 2 ....

Associated minerals or products of value - Silver, zinc.

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located on the south side of the Goldstream River some 8 miles east of its junction with the Columbia River and 45 miles north-northwest of Revelstoke.

Angular float assaying up to 5 per cent Cu was first discovered in the Goldstream valley in glacial till overburden during logging road construction in 1972. Attempts to locate the source of this material were unsuccessful at that time.

In September of 1973, Frank King of Vernon staked the first claims in the area (Pat 1-67) to cover the mineralized float. At this point he brought in as partners Gordon and Bruce Bried, a father and son prospecting team from Kamloops. Because of the extensive overburden cover, further attempts to find the same material in outcrop met with little success, other than to locate more float in the immediate area. As a result, the owners drilled four x-ray holes in the hillside. These holes intersected a 3 m zone of heavy sulphides, primarily pyrrhotite, that assayed less than 1 per cent Cu. At this stage, a concerted effort was made to farm out the property. However, the owners were unable to convince any majors that additional work was warranted.

Persistent prospecting that fall located more high grade float west of, and uphill from, the original find. The onset of winter prevented any followup of this material that fall. Despite the prevailing snow conditions, the owners were back in March of 1974 to begin digging a series of hand pits in the area of the "new float". The first pit was very successful, after only a few feet it encountered a considerable amount of weathered material consisting mainly of malachite, azurite and limonite. More pitting in the same area gave encouraging results.

The next step was to set up the x-ray drill next to the first pit. This hole encountered 3.3 m of overburden, 2 m of weakly mineralized quartz-sericite phyllite, and 4.25 m of massive sulphide that assayed 3.8 per cent Cu. During 1974 a total of 23 x-ray diamond drill holes were put down, 14 of which intersected the mineralized zone.

Noranda Exploration Company, Limited negotiated an option agreement with the owners late in 1974 and took control of the property on Dec. 31, 1974. Additional staking was done in the Pat 100 to 1200 claims (130 units). A diamond drilling program carried out during 1975 totalled 8,912 metres

see Card 2 ....

Mineral Development Sector, Department of Energy, Mines and Resources, Ottawa.
120043

HISTORY OF PRODUCTION

During 1983 and 1984, there were milled 427,886 tonnes from which were recovered 3,820,315 grams Ag 11,848,837 kilograms Cu and 505,176 kilograms Zn. (BC Minfile 082 M 141).

MAP REFERENCES

Map 12-1964, Big Bend, (Geol.), Sc. 1":4 miles - accomp. Paper 64-32, Geol. Surv. of Canada.

Map 82 M (MI), Seymour Arm, Revised Mineral Inventory Map, Sc. 1":4 miles, British Columbia Dept. of Mines.

*Map 82 M/9 W, Goldstream River, (Topo.), Sc. 1:50,000.

Map 8495 G, Goldstream River, (Aeromag.), Sc. 1":1 mile.

#Geological Map of the Goldstream Area, Sc. 1:50,000, Fig. 2, Bulletin 71, B.C. Dept. of Mines.

REMARKS

Comp./Rev. By	DMacR	DMacR	JL				
Date	5-78	08-83	01-91				

REFERENCES

+Reinertson, L.C.; Goldstream Massive Sulphide Deposit; Canadian Mining Journal, Vol. 99, No. 4, pp. 39-42, April 1978.

Mineral Policy Sector; Corporation Files: "Noranda Exploration Company, Limited"; "Noranda Mines Limited"; "Goldnev Resources Inc."; "Bethlehem Resources Corporation".

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1975, p. E-57; 1976, p. E-69; 1978, p. E 111.

Geological Fieldwork; British Columbia Dept. of Mines: 1976, pp. 23-29.

Höy, Trygve; Geology of the Goldstream Area; Bulletin 71, pp. 33-45, British Columbia Dept. of Mines, 1979.

BCI 82 M - 141

PRODUCT COPPER	PROVINCE OR TERRITORY British Columbia	N.T.S. AREA 82 M/9	Card 2 - REF. CU 2

NAME OF PROPERTY GOLDSTREAM (PAT)

DESCRIPTION OF DEPOSIT (continued)

generally less than 2 cm in diameter, eyes of white quartz up to 20 m in diameter and containing irregular blebs of sulphides, biotite-chlorite-sulphide assemblage, and coarse grained sphalerite-rich sulphides.

The contacts of the massive sulphide and the mineralized Unit 3 are very sharp and well defined. The deposit varies in thickness from 3 m to 6 m, in width from 150 m to 250 m, and it has been followed down-dip from 1,500 m. At this point it is 300 m below the Goldstream River.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

in 50 holes. In conjunction with the drilling program, 65 km of grid lines were established. These were used for soil sampling, proton magnetometer and two types of EM survey. A gravity survey was conducted over a portion of the grid at a later date. The drilling indicates reserves of approximately 3,175,000 metric tons with a grade, before dilution, of 4.49% copper, 3.24% zinc, and 0.68 ounce silver per ton (Northern Miner, March 4, 1976).

In 1976 a crosscut adit was collared at the 700 m elevation and driven 1,300 metres to the mineralized zone. The mineralization was drifted on east and west for a total length of 330 m. East and west hangingwall drifts were also driven to facilitate detailed diamond drilling from underground. This work totalled 1,200 metres of underground development and 3,000 metres of diamond drilling. Feasibility studies were carried out. The 1977 program consisted of engineering and design, power studies, and overburden drilling of plant and dam sites. A gravity survey (5.05 km) over the portal area and 941 m of diamond drilling in 9 holes was carried out in 1978. Initial mine development and mill construction began in 1980. Under the agreement with Noranda the prospectors retain a 35% carried interest in the property. Reserves were reported as 4,343,000 tons at 3.69% Cu, 2.67% Zn, 0.56 oz/t Ag (Noranda Mines, 1982 AR).

The 1,500 ton-per-day mill commenced operating on May 19, 1983. Ore mined by open pit supplied about 50% of mill feed during the early months of operation. Production ceased in April 1984. In 1989, Bethlehem Resources Corporation and Goldnev Resources Inc. purchased the property. Mineable reserves were 1,860,000 tonnes of 4.81% Cu and 3.06% Zn. (Statement of Material Facts #34/89).