PRODUCT *PRODUIT*	PROVINCE OR TERRITORY *PROVINCE OU TERRITOIRE*	N.T.S. AREA *RÉGION DU S.N.R.C.*	REF. *RÉF.*
COPPER	British Columbia	92 I/6	CU 2

NAME OF PROPERTY *NOM DE LA PROPRIÉTÉ*: LORNEX

OBJECT LOCATED *OBJET LOCALISÉ*: - open pit.

UNCERTAINTY *FACTEUR D'INCERTITUDE*

Lat. *Lat.* 50°27' Long. *Long.* 121°02'

Mining Division *Division minière*: Kamloops

District *District*: Kamloops

County *Comté*:

Township or Parish *Canton ou paroisse*:

Lot *Lot*:

Concession or Range *Concession ou rang*:

Sec *Sect.*: Tp. *Ct.*: R. *R.*:

OWNER OR OPERATOR/*PROPRIÉTAIRE OU EXPLOITANT*

Lornex Mining Corporation Ltd.

DESCRIPTION OF DEPOSIT/*DESCRIPTION DU GISEMENT*

The Lornex orebody is a zoned, structurally controlled porphyry deposit which occurs entirely within Skeena Quartz Diorite. The host rock is a variety of the Bethlehem phase of the Upper Triassic Guichon Creek batholith. A northwesterly trending pre-mineral quartz porphyry dyke intrudes the southern portion of the ore zone.

The Lornex fault, a north-striking and west-dipping regional structure, is the northwestern boundary of the orebody and separates the host rock from younger, virtually barren Bethsaida Granodiorite west of the orebody.

The ore zone is approximately 1900 meters long and 500 meters wide, and geological interpretations suggest that the orebody plunges 30 to 40 degrees toward the northwest. Mineralization is fracture controlled and commonly occurs as fracture coatings or veins. The major sulphides, in order of abundance, are chalcopyrite, bornite, molybdenite and pyrite.

Associated minerals or products *Minéraux ou produits associés* - Molybdenum, silver, gold.

HISTORY OF EXPLORATION AND DEVELOPMENT
HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

The property is located at about the 5,000 foot elevation in the Highland Valley 2 miles south of Quiltanton Lake, some 22 miles southeast of Ashcroft.

A small outcrop of copper-stained diorite was discovered in 1964 by E.H. Lorntzsen, who staked a number of claims and in July of that same year incorporated Lornex Mining Corporation Ltd. to acquire the property.

Exploration of the mineralized zone during the period 1965-68 inclusive included 86,017 feet of diamond drilling in 87 holes, 91,000 feet of percussion drilling in 511 holes, 4,200 feet of rotary drilling in 19 holes, and 5,439 feet of horizontal underground diamond drilling. A vertical shaft was sunk to 550 feet and 2,618 feet of underground lateral development carried out. The bulk sampling and mill testing (100 ton per day mill) was completed in July 1968. Reserves were estimated at 293,000,000 tons averaging 0.427% copper and 0.014% molybdenum (Lornex, 1968 Annual Report). This work was financed through exploration agreements which gave Rio Algom Mines Limited, a 36.4% interest, and The Yukon Consolidated Gold Corporation Limited a 23.9% interest, in Lornex.

Construction of open pit and mill facilities began in 1970 under a new financing agreement which raised Rio Algom's interest to just over 50%, while the Yukon Consolidated interest decreased to 19%. Tune up of the 38,000 tons per day mill began in April 1972, with commercial production delayed until October 1972 by a work stoppage and mechanical problems.

In the last quarter of 1973 an exploration program was begun to define the total ore reserves on the property. Work during 1973-74 included induced potential surveys over 128.5 line-miles, ground magnetometer surveys over 110 line-miles, a geochemical soil survey (137 samples), and 71,203 feet of diamond drilling in 70 holes. Reserves as of December 31, 1974, were estimated at 432,000,000 tons averaging 0.411% copper and 0.014% molybdenum (Lornex, 1974 Annual Report).

In 1979 Yukon Consolidated was amalgamated with Brameda Resources Limited and Tecksub Limited to form a wholly owned subsidiary of Teck Corporation under the name Amalgamated Brameda-Yukon Limited. Lornex Mining Corporation Ltd. was at that time owned by Rio Algom (68.1%) and Teck Corporation

see Card 2 ....

Mineral Policy Sector, Department of Energy, Mines and Resources, Ottawa
Secteur de la politique minérale, ministère de l'Énergie, des Mines et des Ressources, Ottawa
503240

HISTORY OF PRODUCTION/*HISTORIQUE DE LA PRODUCTION*

From the start of production in 1972 to the end of 1974, 33,284,225 tons of ore were milled. From this ore 1,639 ozs Au, 1,005,062 ozs Ag, 245,064,422 lbs Cu, and 7,322,200 lbs Mo were recovered.

Production for the period 1975-78 inclusive totalled 58 540 777 tonnes. From this ore 47.193 Kg Au, 67 055 051 Kg Ag, 247 823 673 Kg Cu, and 6 832 867 Kg Mo were recovered (B.C. Dept. Mines data).

MAP REFERENCES/*RÉFÉRENCES CARTOGRAPHIQUES*

Geology of the Guichon Creek Batholith, Sc. 1":2 miles - accomp. Bulletin No. 56, British Columbia Dept. of Mines (1969).

Preliminary Geological Map of the Highland Valley, Sc. 1": 1,320 feet, Preliminary Map No. 7, British Columbia Dept. of Mines (1969).

Map 1010 A, Ashcroft, (Geol.), Sc. 1":4 miles - accomp. Memoir 262, Geol. Surv. of Canada.

General geology of the Lornex deposit, Sc. 1 cm:240 m, Fig. 1, CIM, Special Volume 15, p. 121.

Map 5211 G, Spences Bridge, (Aeromag.), Sc. 1":1 mile. (1968).

#Map 92 I/6, Spences Bridge, (Topo.), Sc. 1:50,000.

REMARKS/*REMAROUES*

Comp./Rev. By *Comp./rév. par*	DMacR						
Date *Date*	06-81						

REFERENCES/*BIBLIOGRAPHIE*

Reports of Minister of Mines, British Columbia: 1964, p. 88; 1965, p. 148; 1966, p. 155; 1967, p. 157; 1968, p. 187.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1969, p. 260; 1970, p. 344; 1971, p. 340; 1972, p. 150; 1973, p. 169; 1974, p. 135.

Mineral Policy Sector; Corporation Files: "Lornex Mining Corporation Ltd."; "Rio Algom Mines Limited"; "The Yukon Consolidated Gold Corporation Limited".

Northcote, K.E.; Geology and Geochronology of the Guichon Creek Batholith; Bulletin No. 56, British Columbia Dept. of Mines, 1969.

Lornex; International Geological Congress, Canada, 1972, Guidebook, Field Excursion A09-C09, pp. 60-63.

†Waldner, M.W., Smith, G.D., and Willis, R.D.; Lornex; Porphyry Deposits of the Canadian Cordillera, The Canadian Institute of Mining and Metallurgy, Special Volume 15, pp. 120-129, 1976.

Lornex Mining Corporation Ltd.; Western Miner, Vol. 46, No. 8, August 1972, pp. 35-53.

Mamen, C.; Lornex - 300 m tons on tap; Canadian Mining Journal, Vol. 94, No. 8, pp. 23-26, August 1973.

PRODUCT *PRODUIT*	PROVINCE OR TERRITORY *PROVINCE OU TERRITOIRE*	N.T.S. AREA *RÉGION DU S.N.R.C.*	REF. *RÉF.*
COPPER	British Columbia	92 I/6	CU 2

NAME OF PROPERTY *NOM DE LA PROPRIÉTÉ*: LORNEX

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)
HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

(21.1%). The expansion of mine and mill facilities, including the construction of a molybdenum leaching plant, was begun in 1979. This resulted in an increase in mill capacity to 80,000 tons per day by mid 1981. Reserves at Dec. 31, 1980, were 454,200,000 tons at 0.382% Cu and 0.015% Mo (Lornex, 1980 AR).