

NAME OF PROPERTY	LUCKY FOUR		
OBJECT LOCATED	-Main Showing, on Lucky Four No. 4 (Lot 989).		
UNCERTAINTY IN METRES	150.	Lat. 49°09'47"	Long. 121°34'50"
Mining Division	New Westminster	District	Yale
County	Township or Parish		
Lot	Concession or Range		
Sec	Tp.	R.	

OWNER OR OPERATOR

DESCRIPTION OF DEPOSIT

The main geologic feature of the property is a contact metamorphic zone in Pennsylvanian and Permian rocks of the Chilliwack Group adjacent to a large mass of Tertiary granodiorite. This contact is irregular in detail but has a general trend north 70 degrees west. The absence of any marked deflection of the outcrop where it crosses the steep crest of the range near the Main showing indicates that the contact is essentially vertical.

The sediments, consisting of conglomerates, argillites, quartzites and beds of limestone, strike northwesterly approximately parallel to the granodiorite contact and dip either vertically or steeply to the northeast. Within a zone about 300 feet wide adjacent to the granodiorite, the sedimentary rocks are closely crumpled, highly metamorphosed, and contain abundant feldspathic material from the intrusive body. The original rocks are now represented by quartz-feldspar-mica schists and gneisses. The mineralized zones are within this zone of altered sediments, the Main showing being about 150 feet from the grano-

Associated minerals or products - Silver, gold, molybdenum. see Card 2

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at elevations of 5,400 to 6,300 feet on Foley Peak in the Skagit Range, 16 miles east of Chilliwack.

Prospectors from Hope discovered the showings in the Fall of 1915 and staked the Lucky Four group of claims. In 1916 the claims were optioned by A.S. Williamson of North Vancouver for his principals, Sperry and White, of Seattle. The Lucky Jack group of 4 claims adjoining to the northwest were also acquired by Sperry and White. The claims were surveyed at that time.

The contracting firm of Welch, Stewart, and Foley acquired the property in 1917. Diamond drilling totalling 1,425 feet in 6 holes were done from the snowfield surface. Additional work on the Main showing during the period 1917 to 1919 included open cutting and stripping. In 1919 an adit, variously reported at 150 and 200 feet in length, was driven below the East showing. No further activity was reported and following the demise of the contracting company the property was left with the Royal Trust Company in trust for the Estate of Donald McLeod. In November 1948 Royal Trust optioned the Lucky Four Nos. 1-6 (Lots 990, 999, 1001, 989, 1033, and 1034 respectively) to O.B. Gerle and C.P. Flater of Vancouver. They subsequently assigned the option to Panameric Mines & Resources, Limited.

Rico Copper Mines, Limited in January 1949 acquired from Panameric its rights in the above option agreement. In March 1949 Rico purchased from O.B. Gerle an additional 4 Crown-granted claims, the Epsilon Fr., Gamma Fr., Sperry, and Delta Fr. (Lots 991, 998, 1098, and 1000 respectively). In addition the company staked some 99 surrounding claims in the Rico Copper group. The Pi Fr. (Lot 988) and Phee Fr. (Lot 1002) claims, covering a triangular area lying between the Main and East showings, were owned by T.E. Arnold.

Chillicopper Corporation Limited in 1951 acquired a controlling interest (53%) in Rico Copper. During the year an adit collared at an elevation of 5,970 feet, some 200 feet below the Main showing outcrop, was driven southeasterly from near the northwest corner of the Lucky Four No. 4 claim. In 1954 the adit was extended to a length of 550 feet. Diamond drilling during the period 1950-1955 totalled 4,000 feet in about 30 surface holes, and 10,440 feet under-

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

NAME OF PROPERTY

LUCKY FOUR

DESCRIPTION OF DEPOSIT (continued)

diorite contact and the East showing less than 50 feet from the contact.

The Main showing is a skarn zone that outcrops as a prominent steep bluff on the crest of the mountain and extends north-westerly down a precipitous spur. The skarn zone is a coarsely crystallized mass of brown garnet and contains sheaves of curved, columnar, black crystals believed to be zoisite, dark-green pyroxene, calcite, and clear quartz.

Mineralization consists of disseminated chalcopyrite to form low to medium grade zones, and high grade lenticular concentrations of chalcopyrite. Other sulphide minerals present are pyrrhotite, pyrite, arsenopyrite and minor amounts of molybdenite. Gangue minerals are coarsely crystalline garnet with zoisite, pyroxene, calcite and quartz with included unmineralized country rock.

The skarn zone is about 50 feet wide, has an exposed horizontal length of 500 feet and a vertical range of 400 feet. At the crest of the mountain the skarn zone ends abruptly against foliated gneiss and a granitic dyke. Northwestward it disappears beneath a small glacier but does not reappear on the other side of the glacier 200 feet beyond.

The distribution of copper mineralization within the skarn zone is very erratic. Much of the skarn contains little or no chalcopyrite; some contains the mineral sparsely disseminated; and in marked contrast, several small areas are of almost solid chalcopyrite. The three main bodies of massive copper ore exposed in the Main showing have an aggregate plan area of 2,500 square feet. The localization of mineralized shoots within the zone appears to be due to crossfracturing in the sediments. This crossfracturing has a generally westerly strike with dips of from 65 to 75 degrees to the south.

The East showing, Lat: 49°09'40", Long.: 121°34'20" is on the southern slope of the mountain, 2,000 feet southeasterly from and 800 feet lower than the Main showing. In this intervening distance large areas of the entire contact zone are exposed. As no skarn or copper mineralization is visible in these exposures, it is evident that the East showing is a separate deposit rather than an extension of the Main showing. The East showing is a skarn zone 15 feet wide, having an exposed horizontal length of 150 feet. Northwestward it splits into narrow stringers and

continued reserve of Card 2

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

ground from the adit. Based on this work Dr. Victor Dolmage reported indicated reserves of 26,000 tons averaging 8% copper and 5.98 ounces silver per ton in four separate shoots (Northern Miner, Dec. 15, 1955). Reserves were reported by the company as 125,000 tons averaging 3% copper (Financial Post Survey of Mines, 1958, p. 121).

During 1956 a road was built to Foley Lake to facilitate prospecting the area southeasterly from the showings. Work resumed on the East showing in 1965 and included trenching and driving a 40 foot adit. In 1966 the company was reorganised under the name Rico Copper (1966) Limited.

In 1967 the company held 60 claims including the Mex group which extended east from Foley Creek up the westerly slopes of Goetz and Williams Peaks, covering the easterly extension of the intrusive contact. Work during the year included a total of 450 feet of diamond drilling at several locations in this area.

During 1971 the surface and underground workings were mapped, a magnetometer survey was carried out over the showings for test purposes, and surface diamond drilling was done in 3 holes totalling 335 feet on the Main showing.

DESCRIPTION OF DEPOSIT (continued)

disappears in the gneissic banding; whereas to the southeast it is drift-covered. One body of massive chalcopyrite, with a plan area of 300 square feet, occurs in this zone. Sampling in 1949 gave values of 0.06 oz gold and 8.33 ounces silver per ton and 12.05% copper.

A third showing is some 6,000 feet northwesterly from the Main showing. It appears as a reddish area in a high cirque isolated by precipitous bluffs and glaciers. Some mineralized float, which may have come from this place, has been found below the glaciers.

HISTORY OF PRODUCTION

REFERENCES

Reports of Minister of Mines, British Columbia:
1916, p. 264; 1917, pp. 286, 300; 1918, p. 284;
1918, pp. 234, 258; 1924, p. 257; 1925, p. 293;
1926, p. 324; 1949, p. 214⁺; 1950, p. 167; 1951,
p. 194; 1952, p. 206; 1953, p. 158; 1954, p. 519;
1955, p. 74; 1956, p. 115; 1965, p. 219; 1967, p. 64.

Geology, Exploration, and Mining; British Columbia Dept.
of Mines: 1971, p. 257.

Mineral Policy Sector; Corporation Files: "Rico Copper
Mines, Limited"; "Rico Copper (1966) Limited";
"Chillicopper Corporation Limited.

⁺⁺Cairnes, C.E.; Lucky Four Mining Property, Cheam Range,
B.C.; Summary Report, 1922, Part A, pp. 127-133; Geol.
Surv. of Canada.

⁺⁺⁺Monger, J.W.H.; Hope Map-Area, West Half; Paper 69-47,
p. 66, Geol. Surv. of Canada, 1969.

McKechnie, D.C.; Report to Chillicopper Corporation
Limited on the Property of Rico Copper Mines Ltd.,
Aug. 24, 1951 - in Chillicopper Corporation Prospectus,
Sept. 28, 1951.

MAP REFERENCES

Map 12-1969, Hope, West Half, (Geol. & Topo.), Sc. 1:250,000,
Accomp. Paper 69-47.

Map 737 A, Hope-Yale, (Geol.), Sc. 1":4 miles; Geol. Surv.
of Canada, 1944.

Map 8537 G, Chilliwack, (Aeromag.), Sc. 1":1 mile.

#Part of the Lucky Four Group, (Geol.), Sc. 1":200 ft.,
Fig. 27, Report of Minister of Mines, British Columbia,
1949.

Main showings, Lucky Four group, (Geol.), Sc. 1":100 ft.,
Fig. 13, Report of Minister of Mines, British Columbia,
1952, p. 207.

*Map 92 H/4, Chilliwack, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR						
Date	9-78						