

PRODUCT	ZINC	PROVINCE OR TERRITORY	British Columbia	N.T.S. AREA	82 L/10	REF. ZN 1
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NAME OF PROPERTY		FX (BRIGHT STAR TRIO) (BLACKJACK) (KINGFISHER)	
OBJECT LOCATED - Central Zone.			
UNCERTAINTY IN METRES	200.	Lat.	50°43'50" Long. 118°43'50"
Minning Division	Vernon	District	Kamloops
County		Township or Parish	
Lot		Concession or Range	
Sec	Tp.	R.	
OWNER OR OPERATOR AND ADDRESS			
Colby Resources Corp.			

DESCRIPTION OF DEPOSIT

The property lies within the Shuswap Complex, a belt of high-grade metamorphic rocks in the Columbian orogen of south-eastern British Columbia. Rocks in the Colby area have been assigned to the Monashee Group, a heterogeneous package of probable Proterozoic and Early Paleozoic age comprising granitoid gneiss, augen gneiss, sillimanite-bearing schist, and prominent marble and quartzite layers. Within the claim group the structure is dominated by four northwest-trending faults. These separate the layered rocks into five distinct blocks. The apparent movement of the faults is right-lateral strike-slip with displacement ranging from approximately 100 metres to 700 metres.

The Colby property includes a stratabound zinc deposit contained in marble, quartzite, and calc-silicate gneiss units of the Monashee Group. These units have been traced 6 kilometres over the length of the property with known mineralization restricted to five zones: (1) the Mile 8 showing, (2) the Dakota zone, (3) the Central zone, (4) the Cominco showing, and (5) the Mile 12 showing.

Mineralization in marbles consists of dark, medium-grained sphalerite, with varying amounts of pyrrhotite and minor pyrite disseminated through a medium to coarse-grained white calcite matrix. Galena is also common, though much finer grained and more widely scattered. The sulphide concentration varies considerably across a mineralized zone, commonly producing a crude layering. Poorly defined folds with tight hinge zones may be defined by this sulphide layering.

Associated minerals or products of value - Lead.

p.t.o. ...

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located on the east side of Kingfisher Creek, 5 miles west of the north end of Mabel Lake and some 36 miles northeast of Vernon.

The original showings, in the Central Zone, were discovered in 1963 by W.C. Rotar and associates, of Vernon, who were working under the name "Bright Star Trio Syndicate". Bright Star Trio Mining Ltd. was incorporated in December 1963 to acquire 28 claims in the Len, Deer, Rich, and Silver King groups. Sheep Creek Mines Limited optioned the property in 1964 and carried out some 2,400 lineal feet of trenching, and 642 feet of diamond drilling in 6 holes; the option was subsequently given up.

The Kingfisher group, adjoining to the east, in 1964 comprised 65 recorded claims, apparently owned by Messrs. Ens, Mills, and Rotar. The claims were under option to The Consolidated Mining and Smelting Company of Canada Limited, who carried out geological mapping, a magnetometer survey, and 370 feet of diamond drilling in 4 holes. (The 'Cominco' and 'Mile 12' Zones were located at that time).

Dakota Silver Mines Ltd. in 1965 staked the 35 claim Elk group just west of the Bright Star claims (the 'Dakota' zone). Trenching and diamond drilling in 2 holes was done on the Elk No. 3 claim.

Bright Star Trio Mining resumed work on their property in 1968 with further trenching, and 24 feet of diamond drilling in one hole. By 1969 the property had been expanded to 147 claims in the Bright Star Trio, Star, Bill, and Golden West groups. Work during the year included a ground magnetometer survey over 28 line-miles, a geochemical soil survey, and 597 feet of diamond drilling in 10 holes.

Colby Mines Ltd. located 34 claims over the original Bright Star property in 1973 (the FX and FC claims) and subsequently expanded the property to over 130 claims to include the original Kingfisher and Dakota claims as well. During 1973-74 a program of geological mapping, geophysical and geochemical soil surveys, trenching, and 5,604 feet of diamond drilling in 25 holes on FX 2, 3, 21 and 22 claims, was carried out. Trenching in August and September of 1974 led to the discovery of lead-zinc mineralization 150 to 200 metres east and downslope from the original Central Zone showings.

Indicated reserves were estimated in 1974 at 1,800,000 tons averaging 0.58% lead and 2.60% zinc (Colby Mines Ltd., p.t.o.)

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

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DESCRIPTION OF DEPOSIT (continued)

Mineralized quartzites almost invariably contain calcareous minerals in accessory amounts. Dark sphalerite with pyrrhotite is concentrated generally in thin layers, or is seen to define the foliation in the quartzite. Galena is more common in quartzites than in the marbles, although it is always subsidiary to sphalerite. The sulphide concentration varies from widely scattered individual sphalerite and pyrrhotite grains entirely enclosed in quartz to almost massive, sphalerite-pyrrhotite (+ galena, pyrite) intergrowths with only interstitial subrounded to subangular quartz and diopside grains.

Mineralization in calc-silicate gneisses shows gradational features between that in marble and that in quartzite. Sphalerite, pyrrhotite, pyrite + galena may be evenly distributed through a coarse-grained calcite-diopside rock or may trend to concentrate in layers in a more quartz-rich rock.

In general, mineralized sections in quartzites are of lower grade but are more continuous along strike with the layering than those in marbles. Discontinuous high-grade pods are common in the marbles.

REFERENCES

- +Geology in British Columbia; British Columbia Dept. of Mines, 1975, pp. G18-G30.
- ++Chisholm, E.O.; Report on the FC 1-13 and FX 2-22 claims, Kingfisher Creek Area; in Colby Mines Ltd., Statement of Material Facts, October 31, 1973.
- Reports of Minister of Mines, British Columbia: 1964, pp. 105-108; 1965, p. 165; 1968, p. 222.
- Geology, Exploration and Mining; British Columbia Dept. of Mines: 1969, p. 298; 1974, pp. 91-94.
- Exploration in British Columbia; British Columbia Dept. of Mines: 1975, p. E54; 1977, p. E 82.
- Mineral Policy Sector; Corporation Files: "Bright Star Trio Mining Ltd."; "Dakota Silver Mines Ltd."; "Colby Mines Ltd."
- Geological Fieldwork, British Columbia Dept. of Mines: 1975, pp. 11-18.

MAP REFERENCES

- #Geology of the Colby Mines Area, Sc. 1": $\frac{1}{4}$ mile, Fig. G-12 - accomp. Geology in British Columbia, 1975.
- Map 1059 A, Vernon, (Geol.), Sc. 1":4 miles - accomp. Memoir 296, Geol. Surv. of Canada.
- Black Jack claims, Sc. 1":1,500' - accomp. Rept. by Chisholm, 1973.
- *Map 82 L/10, Mabel Lake, (Topo.), Sc. 1:50,000.

HISTORY OF PRODUCTION

In 1966 W.C. Rotar shipped 4 tons of crude ore. From this ore 161 ounces of silver, 993 pounds of lead, and 365 pounds of zinc were recovered.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

property during 1977 and carried out a geochemical soil survey (1,200 samples) over all the claims, and 818 metres of diamond drilling in 7 holes on FX 2, 4, 21 and FC 10 Fr.

The company name (Colby Mines) was changed in February 1980 to Colby Resources Corp.

HISTORY OF EXPLORATION AND DEVELOPMENT (continued)

Statement of Material Facts, Oct. 25, 1974, Report by Chisholm).

During 1975 diamond drilling was done in 6 holes totalling 145 metres on FX 21 and FC 10 claims. Additional drilling in 1976 totalled 570 metres in 11 holes on FX 21 and 22. Union Oil Company of Canada Limited held an option on the

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