

NAME OF PROPERTY GO (KAKETSA MTN.)

OBJECT LOCATED - Main showing.

UNCERTAINTY IN METRES 200. Lat. 58°12'50" Long. 131°47'30"

Mining Division	Atlin	District	Cassiar
County	Township or Parish		
Lot	Concession or Range		
Sec	Tp.		R.

OWNER OR OPERATOR AND ADDRESS

1979 Sovereign Metals Corp.

DESCRIPTION OF DEPOSIT

A number of copper occurrences are known near the contact of the Kaketsa stock with Upper Triassic volcanic and related sedimentary rocks. The main area of interest is within a 6,000 by 2,500-foot zone of weakly pyritic rocks along the eastern margin of the stock. Here copper mineralization is localized along northwesterly trending fractures in a large embayment in the stock. Pyrite and traces of disseminated chalcopyrite are also found in many of the dykes and irregular intrusive bodies to the east and southeast of the main contact.

The volcanic rocks are mainly porphyritic flows with lesser tuffs and tuffaceous siltstones. The flow rocks form massive units without any discernible stratification. They are grey to dark green andesitic to basaltic porphyries with euhedral, prismatic phenocrysts of amphibole and uralitic hornblende up to 1 centimetre diameter in a fine-grained matrix of basic andesine and amphibole. Tuffaceous rocks occur in a single unit about 200 feet thick and outcrop in the northwest corner of the survey grid as a persistent north-northeast to northeast-striking band

see Card 2

Associated minerals or products of value

HISTORY OF EXPLORATION AND DEVELOPMENT

The property is located at the 4,300 foot elevation on Polar Creek on the southeast side of Kaketsa Mountain, 65 miles southwest of Dease Lake. (See also: GO - 104 J/4, CU 1).

The showings were discovered and staked by Skyline Explorations Ltd. in 1970. An option was given that same year to The Colorado Corporation who carried out a geo-chemical soil survey.

Maryland Natural Resources Corporation Ltd. optioned the property in 1971 and carried out geochemical and geo-physical surveys and trenching. The company name (Maryland) was changed in 1971 to Global Natural Resources Corporation Ltd.

The property in 1972 comprised some 475 claims in the GO, G, CU, Car, Bone, OH, Pat, HO, and Joy groups. Newconex Canadian Exploration Ltd. optioned the property from Skyline and Global and carried out geological mapping, trenching on GO 87-90, Car 9-15, and CU 13 and 15, and 2,708 feet of diamond drilling in 7 holes on GO 85-88, and 90.

HISTORY OF PRODUCTION

REFERENCES

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1970, p. 32; 1971, p. 48; 1972, pp. 547-549. +

MAP REFERENCES

Map 21-1962, Dease Lake, (Geol.), Sc. 1":4 miles.

#Geology of the Pyrrhotite Creek Grid Area; Sc. 1":500 ft., Fig. 68 - accomp. Geology, Exploration, and Mining, 1972, British Columbia Dept. of Mines.

*Map 104 J/4 W, Kennicott Lake, (Topo.), Sc. 1:50,000.

REMARKS

Comp./Rev. By	DMacR						
Date	4-76						

BCI 104 J - 18,20,21,23,24

BCI - 104 J - 18, 23, 24, 20, 21

PRODUCT

COPPER

PROVINCE OR
TERRITORY

British Columbia

N.T.S. AREA 104 J/4

Card 2
REF. CU 2

NAME OF PROPERTY

GO (KAKETSA MTN.)

DESCRIPTION OF DEPOSIT (continued)

with 60 to 75-degree dips to the west. Fossils collected by the Geological Survey of Canada (Map 21-1962) show the rocks to be Karnian (early Upper Triassic) and thus correlative with the Stuhini Group.

The Kaketsa stock is an elliptical intrusion some 2.5 by 3.5 miles in diameter. It is only slightly younger than the volcanic pile it intrudes. The stock and related dykes in the area of interest are mainly medium-grained hornblende diorite with a foliated appearance caused by preferred orientation of hornblende laths.

Minor intrusions related to the Kaketsa stock intrude volcanic rocks to the east and southeast of the main stock. They form dykes and irregular masses separated by screens and small roof pendants of volcanic rocks.

Two other groups of dykes were recognized: an early suite related to the volcanic rocks and a later suite of monzonite and syenite intrusions that may be late differentiates of the main diorite magma. The early dykes are diorite to diabase in composition and intrude randomly as thin bodies with no preferred trends. The younger dyke suite consists of diorite to quartz diorite and leucocratic grey and pink porphyritic dykes of monzonite and syenite. Syenite dykes along Polar Creek and to the east are a few feet to tens of feet wide but nearer the contact of the stock K-feldspar-bearing dykes are generally thin. Near the contact they range in composition from syenite to aplite and form vein-like structures of coarse K-feldspar with minor quartz and epidote. These aplite and K-feldspar-bearing dykelets, together with injections, veins, and fracture replacements may be regarded as a type of alteration. Most commonly the alteration is seen as thin, widely spaced K-feldspar-flooded fractures that also contain epidote and minor quartz, siderite, calcite, and sulphides. Otherwise alteration is generally weak and is indicated by a greenish colouration in the volcanic rocks caused by dispersed epidote, chlorite, actinolite, and magnetite that occurs mostly along fractures.

Sulphide mineralization is widespread as fracture-controlled pyrite in volcanic rocks and disseminated pyrite in diorite dykes. Chalcopyrite occurs in trace amounts with pyrite but higher copper grades are localized in steep, predominately north-westerly striking fracture zones. In the area of the main

continued above ...

DESCRIPTION OF DEPOSIT (continued)

showings a series of subparallel or interconnected fracture and shear zones and thin bands of mylonite have localized mineralization in a 200 by 300-foot area. Chalcopyrite is seen as fracture fillings and fine-grained replacements in the fractured volcanic rocks and margins of dykes within the zone. Chalcopyrite is frequently accompanied by patches, fracture fillings, and stringers of specular hematite and magnetite. Along strike from the main zone to the northwest and in a number of other localities, mineralization is more vein-like in character with siliceous zones in the highly fractured rocks containing impregnations of fine-grained magnetite and patches or grains of chalcopyrite, pyrite, sphalerite, hematite, marmatitic magnetite, siderite, and possibly marcasite.