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MINFILE / po MASTER REPORT

GEOLOGICAL SURVEY BRANCH - MINERAL RESOURCES DIVISION MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

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Jun 21/61

MINFILE NUMBER: 092HNW070

NAME(S): NORTH FORK

STATUS: Prospect NTS MAP: 092H12E LATITUDE: 49 34 33 LONGITUDE: 121 44 50

ELEVATION: 0930 Metres LOCATION ACCURACY: Within 500M

COMMENTS: Location of North Fork showing (Assessment Report 14001, Figure No.

COMMODITIES: Copper

Zinc

Silver

Gold

NATIONAL MINERAL INVENTORY:

MINERALS

SIGNIFICANT: Pyrite

Chalcopyrite

Sphalerite

Pyrrhotite

DEPOSIT

MINERALIZATION AGE: Unknown

CHARACTER: Massive Stratiform CLASSIFICATION: Sedimentary Exhalative

Stratabound Syngenetic

Concordant

TYPE: Besshi massive sulphide Zn-Cu-Pb

SHAPE: Tabular

50 x DIMENSION: 100 x 1 Metres STRIKE/DIP: 165/85E

TREND/PLUNGE: 180/60

COMMENTS: Attitude is average of enclosing schists.

Dimensions are minimums for main massive sulphide lens.

HOST ROCK

DOMINANT HOST ROCK: Metasedimentary

STRATIGRAPHIC AGE Paleozoic-Mesozoic Cretaceous-Tertiary GROUP

FORMATION

IGNEOUS/METAMORPHIC/OTHER

MINING DIVISION: New Westminster

NORTHING: 5492000 EASTING: 590575

UTM ZONE: 10

Cogburn Schist

Unnamed/Unknown Informal

LITHOLOGY: Biotite Quartz Schist

Massive Amphibolite Phyllitic Argillite

Chert Gabbro

Talc Serpentine Schist

Amphibole Plagioclase Quartz Schist

HOST ROCK COMMENTS. Recrystalized chert occurs adjacent to the showing.

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline

TERRANE: Bridge River

METAMORPHIC TYPE: Regional

PHYSIOGRAPHIC AREA: Fiord Ranges (Southern)

RELATIONSHIP: Post-mineralization GRADE: Greenschist Amphibolite

INVENTORY

ORE ZONE: ROADCUT

CATEGORY: Assav/analysis

YEAR: 1985

SAMPLE TYPE: Channel

COMMODITY Silver

GRADE 48.0000

Gold Copper

Grams per tonne 0.3500 Grams per tonne 3.7200 Per cent

1.4100 Per cent COMMENTS: Sample across 0.8 metre from main sulphide lens.

REFERENCE: Assessment Report 14001

CAPSULE GEOLOGY

The Cogburn Creek area is underlain by metasedimentary and metavolcanic members of the Cogburn Schist which is possibly correlative with the Permian to Jurassic Hozameen/Bridge River complexes. Granitic, gabbroic and ultramafic masses of Cretaceous to Tertiary age intrude these rocks.

In the area of the occurrence, a northwest striking, steeply east dipping sequence of medium to dark coloured, fine to

medium-grained amphibole-plagioclase-quartz schist, grey to light brown, thinly-bedded to massive biotite-quartz schist, phyllitic argillite and recrystallized chert hosts small, commonly fault-bounded masses of metamorphosed and deformed gabbro and talc-serpentine schist. The latter unit is believed to have been

originally emplaced as peridotite and/or pyroxenite.

The North Fork showing consists of four stratabound lenses or beds of massive and banded sulphides. The stratigraphically lowest lens ranges from 0.8 to 1.2 metres thick and comprises predominantly

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CAPSULE GEOLOGY

massive, medium-grained pyrite with minor chalcopyrite and sphalerite near the base and sphalerite-pyrite and chalcopyrite bands at the top. Chalcopyrite is associated with pyrite and sphalerite, but is concentrated in fractures which are oriented at right angles to the long axis of the lens. A 0.8-metre wide sample across the lens assayed 3.72 per cent copper, 1.41 per cent zinc, 48.0 grams per tonne silver and 0.35 gram per tonne gold (Assessment Report 14001).

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Three thin (less than 30-centimetre wide), conformable and discontinuous massive sulphide lenses occur in the hangingwall of the main lens. These lenses comprise medium-grained pyrite-pyrrhotite, chalcopyrite and minor sphalerite and are not internally banded.

There is some question as to whether a distinct stringer sulphide zone and attendant disconformable alteration zone adjacent to the massive lens has been located. A lack of such zones would suggest that the North Fork occurrence may be a distal exhalative deposit.

Although massive sulphide mineralization is restricted to distinct lenses, the host biotite-quartz schist contains up to 25 per cent disseminated pyrite and minor chalcopyrite. A 0.9-metre wide sample across a pyritic zone adjacent to the main lens assayed 1.78 per cent copper, 0.27 per cent zinc, 23.5 grams per tonne silver and 0.28 gram per tonne gold (Assessment Report 14001).

Drilling undertaken to date has defined the extent of the massive sulphide lens to a depth of approximately 250 metres downplunge from the surface showing. Here, a 2.16-metre interval graded 4.82 per cent copper, 0.46 per cent zinc, 19.94 grams per tonne silver and 0.17 gram per tonne gold. Testing further downplunge failed to intersect massive sulphide mineralization. The best drill assay has come from 1982 hole DDH 1, collared 50 metres west of the main sulphide lens. Here, a three-metre interval from 63 to 66 metres averaged 2.04 per cent copper, 0.98 per cent zinc and 9.17 grams per tonne silver (Assessment Report 10797).

BIBLIOGRAPHY

EMPR ASS RPT 9834, 10797, *14001, 17558, 18810 GSC MAP 737A; 12-1969; 41-1989

GSC P 69-47

Albino, G. (1983): Geology of the North Fork Property and Surrounding Area, Corporation Falconbridge Copper internal report, 13 pages Medford, G.A. (1987): Geological Report on the North Fork 1-5 Claims for Island Star Resources Corporation

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