

NAME(S): Nanika Lake

MINFILE: 093E055

MODEL: Classic

NTS: 93E/13E

CLASS: Developed Prospect

PDI FILE: 031670

ROCK SUITE: Calc-alkalic

ARCHER, CATHRO: -0-



EXPLORATION HISTORY:

1966 - staked by Silver Cup Mines Ltd.
1967/70 - geology, mag, IP, geochem, 16 DDHs (3150 m); Quintana
1972 - Scurry Rainbow did IP
1973/4 - geochem checks, 11 DDHs (1613 m) by Granges Expl.

RESERVES/BEST ASSAYS:

20,047,000 tonnes of 0.437% Cu, 0.2 ppm Au, 3.5 ppm Ag and 0.009% Mo. If grades are lowered and deeper mineralization is accepted, up to 50 million tonnes of 0.34% Cu may be outlined.

DISCUSSION:

At Au=350, Cu=75-25=50, and 5000 tpd, worth \$6.84/tonne over 11.6 years (345 days/yr). While the Cu deposit appears to be drilled off, Au grades do not correlate with Cu, so perhaps there are unrecognized Au-only zones. Au assay intervals are not known, and not all Cu and Mo zones were analyzed for Au, indicating some selectivity. Although Au is reported as low as 0.001 opt, assays were done in 1968 and, therefore, subject to analytical imprecision. Our records do not include geologic logs, and assays are hole/zone averages. There is much room for improvement.

RANKING:

Attractive

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DESCRIPTION:

. Mineralization occurs in dacite porphyry of the Hazelton Group along the eastern contact of Coast Plutonic Complex quartz monzonite. A tongue of magnetite-rich quartz diorite intrudes dacite. Quartz diorite is interpreted to be part of the Coast Plutonic Complex, and forms the basement of the mineralized zone in its southern portion (where it is also weakly mineralized).

. A 30/20-40W fault zone in dacite which parallels the main contact zone has channelled sulphides into shattered portions of both the hanging wall and the foot wall. Dacite in the mineralized zone is reportedly altered by the addition of biotite, quartz and/or chlorite, and only spotty minor alteration is reported outside the zone. There is no significant pyrite halo associated with the mineralized zone.

. Pyrite, chalcopyrite, pyrrhotite and molybdenite (in order of abundance) occur as disseminations, fracture fillings and veinlets. Bornite was also noted in a B.C. annual report. Pyrite is variably distributed, and not related to Cu grades. Pyrrhotite is minor; some small massive lenses are present. Minor molybdenite is widespread.

. The mineralized zone is a well-defined 730 m long tabular zone up to 125 m wide which pinches out at both ends. No favourable geochem or geophysics occurs outside of the drilled area, where outcrops are generally abundant. Reserves were calculated using 6 drill hole cross-sections, 5 of which are separated by 70-110 m intervals; 1 separation is 265 m. The central portion of the zone has Ag:Cu ratios varying between 33 and 83 (with one exception of 142), while the ends generally have ratios between 3 and 10. Gold and copper do not correlate. The best Au grades occur near the northern end of the zone, where they are between 0.24 and 0.45 ppm.

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METAL DISTRIBUTION:

Ag:Au ratios zoned from central 33-83:1 zone to 3-10:1 on the ends. Cu: Au ppm generally 0.5-3:1 with 2 exceptions of 14-15:1 at the edges of the high Ag:Au core. Au does not correlate well with Cu.

METEORIC/EPITH. TRAITS:

-0-

STRUCTURAL TRAPS:

Shattered, faulted contact zone.

EXPLORATION ADEQUACY:

Very good; tonnage based on 7 drill hole intersections mostly separated by 70-110 m intervals, but 1 separation is 265 m. Granges results are not known, but they did not change reserves. No record of surface work on outcropping ore.

PDI FILE CONTENT/EVAL:

Excellent 1971 geological report with all drill sections in file. D. Howard rejected in 1969 because stripping ratio of 3:1 not supported by grade. S. Tennant rejected in 1976 because grades and tonnage not good enough, no additional potential, and probably not a porphyry.

CURRENT STATUS:

Staked for Placer Dome as the NEW NANIK claim of 18 units in January 1988.

SPECIAL NOTES:

-0-

RECOMMENDATION:

Acquire more detailed information from Quintana and Granges; do surface sampling?; re-assay core if available; re-map, etc.

LEVEL: 1

Author: G. Ditson

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