

05/779

DOMES MTN. GOLD-SILVER PROSPECTS  
-- -- SMITHERS AREA, B.C. -- --

SUMMARY AND RECOMMENDATIONS

At least a dozen precious metals bearing vein structures are known on Dome Mtn., 20 miles east of Smithers, B.C.

Drilling to date indicates 80,000 tons grading 0.595 oz/ton gold on the Boulder Creek zone and some 20,000 tons of 0.688 oz/ton material at the Forks zone 2100 ft. south. Good grades over appreciable core lengths (1.79 oz/ton over 13 ft.) have been intersected in the Boulder Creek zone which is partially open to depth and in one direction along strike. Silver and base metals values are present.

Positive aspects of the Dome Mtn. property include apparent consistency of gold grades (0.60 oz/ton) over widths of at least 6 ft., conventional access, the presence of numerous known gold-silver bearing structures and good potential for the discovery of additional zones.

Negative aspects include a complex set of underlying agreements and the distinct possibility that while numerous mineralized structures are present, none of them may be large enough to warrant development.

Financing is in hand for a major program in 1986 and I would recommend Lacana keep current on future developments. A detailed property examination is in order.

## INTRODUCTION

The Dome Mtn. properties were originally brought to Lacana's attention in October of 1984 prior to Noranda making a deal with Canadian United Minerals to fund exploration work. Copies of my summary report and old assay data are on file in both the Toronto and Vancouver offices.

## LOCATION

Dome Mtn. is 20 miles east of Smithers in west-central British Columbia. Access to areas of current interest is by road.

## PROPERTY STATUS

The property at present includes 28 full and eight fractional reverted Crown granted mineral claims, 17 2-post claims and 12 modified grid claims comprising 184 units. The claims cover an area from Mt. McKendrick on the north to the southeast slope of Dome Mtn (see attached sketch map).

The reverted Crown granted mineral claims are central to the property and cover most of the known occurrences. A complicated ownership situation relates to these claims which were held for many years by Karl Springer who neglected to pay land taxes in the 1970's. Upon reversion of the claims to the Crown, Ministry of Mines conducted a lottery system of allocating the claims to the public. This resulted in the claims ending up in the hands of five individuals and two companies - Silver Standard and McIntyre Mines.

These two companies acquired additional ground by staking, prior to making an option agreement with Reako Explorations and Panther Mines in 1980 who also acquired an option on reverted Crown grants held by Smithers resident Lorne Warren. The optioned claims complemented 3 Modified Grid claims held by Reako/Panther covering one of the principal showings, the Free Gold.

Noranda Exploration began optioning reverted Crown grants held by other individuals in 1984 and at the same time took over Reako/Panther's optioned claims with the exception of the three covering the Free Gold showing. The numerous underlying agreements involve varying residual interests ranging from 10% NPI's to NSR's of up to 5%. A total of \$75,000 in property payments has been made or is due in 1986 with remaining payments through 1992 totalling

\$1,567,500. Work commitments on Reako/Panther optioned ground totals \$250,000 in 1986 and \$5 million must be spent prior to October 1988. Work commitments include property payments.

Noranda made an agreement with Canadian United Minerals (CUN) in late 1984 whereby CUN would undertake all of Noranda's obligations re optioned ground and provide funding for exploration work with Noranda as operator. (Noranda's acquisition costs to that point were in the order of \$160,000). CUN would earn a 50% interest by taking the property through feasibility stage after which Noranda's 50% would be retained by equipping the property for production. This has since been revised to allow Noranda to elect to take a 5% NSR.

CUN assumed the role of operator late in 1985 and made a deal with Teeshin Resources whereby Teeshin is to assume all of CUN's (Noranda's) obligations to earn 75% of CUN's interest. Teeshin has recently secured \$1.225 million in flow through financing for the 1986 program.

Claims data and summary outlines of all underlying agreements are on file in the Lacana Vancouver Office.

The property situation is still evolving - an agreement is in the works regarding Reako/Panther's three claims covering the Free Gold showing and CUN/Teeshin are trying to work something out regarding the Noranda position.

#### WORK TO DATE

Original claims on Dome Mtn were located prior to 1920. Underground exploration work was done on the Forks showing in 1923 and on the Free Gold showing in the 1930's. Several other quartz vein systems were explored by trenching and limited underground work during this period.

Only limited work was done on the Crown granted claims while owned by Karl Springer. The area of the Free Gold showing was explored as a porphyry copper prospect by Amoco in the early 1970's.

Reako/Panther carried out limited diamond drilling in 1980-81 on the Free Gold and milled 5,850 tons of quartz vein material from an open cut which yielded grades of 0.06 oz/ton gold and 0.11 oz/ton silver with some lead and zinc values.

Work by Noranda/CUN/Teeshin in 1985 and 1986 has included soil geochemistry and trenching which resulted in the discovery of the Boulder Creek zone on which most of the diamond drilling to date has been done. The Forks zone was also tested by a drilling program in 1985.

#### GEOLOGICAL SETTING

Dome Mtn is underlain by submarine and subaerial Lower Jurassic volcanoclastic and sedimentary rocks of the basal Hazelton Group. The sequence occupies a southeast plunging anticlinal structure cut by east-northeast high angle faults. Small dykes and plugs of diorite and a quartz monzonite stock intrude the layered rocks.

More than a dozen gold-silver-basemetals-bearing quartz veins are known on Dome Mtn. Most of these are hosted by a fine-grained foliated sericite-carbonate altered tuff unit near the top of the basal submarine volcanic unit and as such these veins may be considered stratabound. These structures also precede the period of intense deformation. Notable exceptions are the Boulder Ck and Free Gold zones which are hosted by the younger subaerial volcanoclastic sequence.

The majority of known veins strike northwest with moderate to steep northeast dips. Some have northeast or east-west strikes. Vein widths range from a few inches to 10 feet. Pyrite, chalcopyrite, galena, sphalerite and arsenopyrite are common vein constituents. Better gold grades correlate with 15%+ sulphides, principally sphalerite. High zinc values in soils led to the discovery of the Boulder Creek zone.

#### FORKS ZONE

Northwest and northeast striking quartz veins were explored by a 100 ft. shaft, adits and winzes in the 1920's. A 150 ft. drift off the shaft on the northwest striking, 30° northeast dipping vein returned average grades of 0.447 oz/ton gold and 1.72 oz/ton silver over widths of between 1 and 5 ft. A 40 ft. drift on the northeast striking vein indicated average grades of 1.23 oz/ton gold and 2.5 oz/ton silver over 1 to 2.5 ft. widths. A major east-northeast fault separates the two principal vein structures.

Diamond drilling in 1985 traced the northwest vein structure over a strike length of 130 feet and down dip a distance of 280 feet. Average widths are 6 to 7 feet and the reported average grade is 0.688 oz/ton gold. A drill-indicated 20,000 tons is present and the structure is apparently open to depth.

No encouraging results were reported from the northeast striking vein.

#### FEE GOLD ZONE

The Free Gold showings are 1.3 miles northeast of the Forks zone (see attached sketch map). The zone is structurally complex and drilling results to date are difficult to correlate with surface structures. The principal vein structure strikes northwest and dips northeast and erratic precious metals grades are the norm. Poor results were obtained from milling of nearly 6,000 tons in 1981.

Canadian United-Teeshin are negotiating an agreement with Reako/Panther and plan to carry out additional drilling on the Free Gold in the near future.

#### BOULDER CREEK ZONE

This zone, on which most of the 1985/86 work has been done, is 2,100 feet north of the Forks zone.

The zone, discovered by trenching a basemetals geochemical anomaly, strikes west-northwest and dips gently to moderately (30-55°) south.

Drilling to date has defined an 800 ft. long shoot within the vein structure. The shoot has an average grade of 0.595 oz/ton gold (high assays cut to 1 oz) or 0.806 oz/ton uncut over an average width of 6.5 feet. Drilling to vertical depths of between 100 and 200 feet suggests the shoot rakes gently east and is still open in this direction.

Recent deeper drilling, up to 300 ft. vertically below some of the better intercepts has yielded generally disappointing results with the possible exception of one hole near the eastern end of the known zone limits which intersected heavy sulfides.

A realistic (conservative) estimate of 80,000 tons grading 0.595 oz/ton gold is present within the area drilled to date. An isolated lens on the western end of the structure contains 7,000

tons grading 0.30 oz/ton gold. No information regarding silver or base metal grades were seen - gold:silver ratios based on old data range from 1:2 to 1:5. Zones of better grade mineralization are characterized by 15% sulfide content.

The Boulder Creek zone is hosted by subaerial volcanoclastics which immediately overlie the submarine tuff sequence hosting the Forks zone and numerous other mineralized structures on Dome Mtn.

Infill drilling is required to adequately assess the Boulder Creek zone. There are indications of perhaps 200,000 tons of reasonably good grade material being present within the Boulder Creek zone.

NCC/dh



DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES

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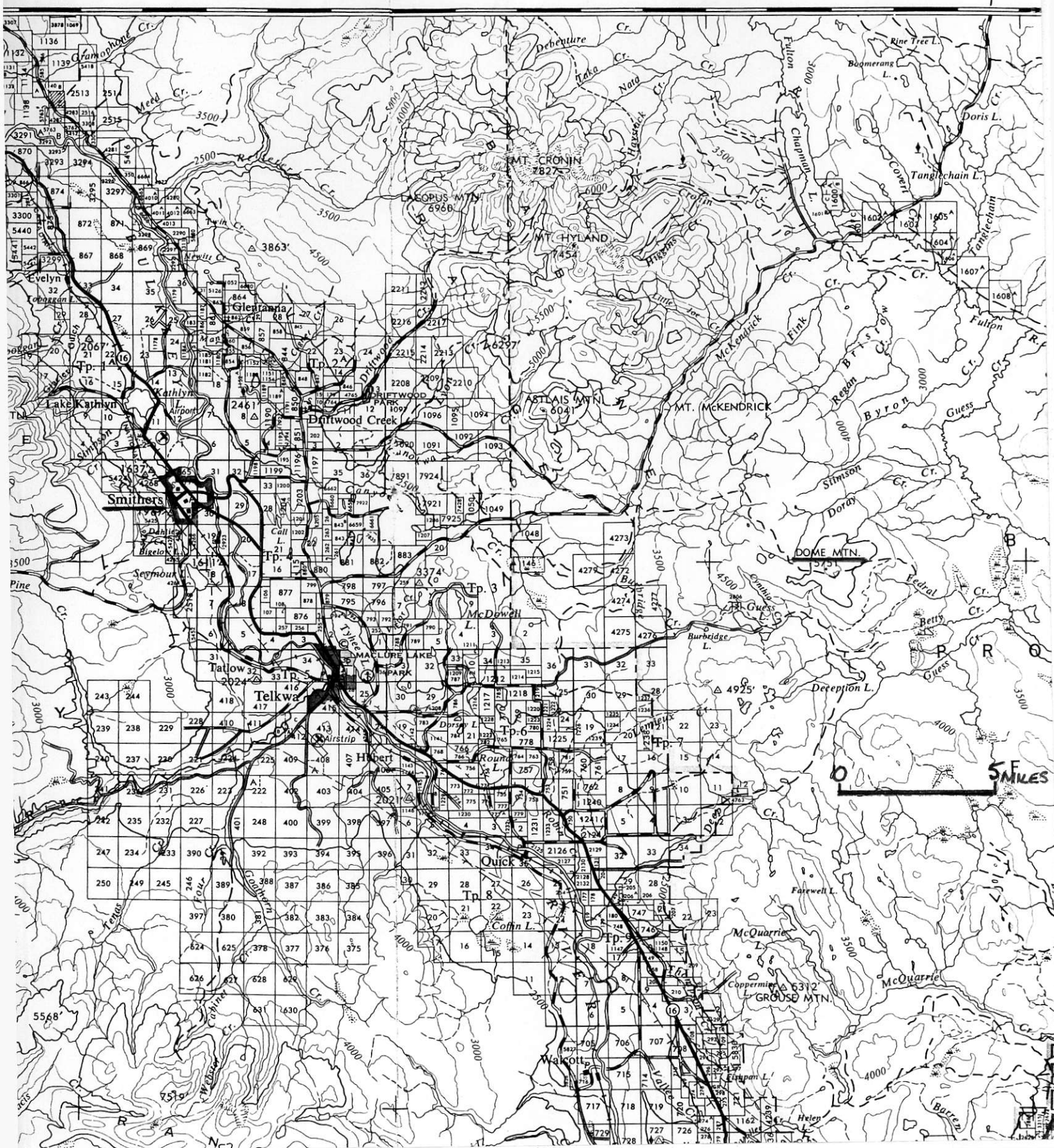
HONOURABLE R. G. WILLISTON, MINISTER

D. BORTHWICK, DEPUTY MINISTER OF LANDS

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