888169 AUG. '92

MT. DAVIDSON (PEM) [MI 93F037]

On August 7th Bob Lane and I visited the Mt. Davidson (Pem) prospect located on the northern flanks of Mt. Davidson approx. 150 km south of Vanderhoof via the Kluskus Forest Service Road. Gord Allen, on contract with Granges) very kindly acted as tour guide. Previous work by Granges (75%) and Cominco (25%) totalling over $1.2 million has resulted in the discovery of two zones of mineralization:

1) the "Silver Zone" estimated to contain a mineral inventory of 6 million tonnes at 37 g/t Ag and 0.05 g/t Au at shallow depth, and
2) the "Gold Zone" containing several drill hole intersections of potentially economic grade but with unlimited/untested continuity.

The best intersection from drill hole DAV-11 assayed 11.2 g/t Au, 21 g/t Ag over 8.2m. A quick look at the core makes me wonder how well it was logged/sampled and what kind of drilling recoveries were achieved (i.e. good potential to upgrade?). Host rocks include Upper Cretaceous Ootsa Lake Group rhyolitic and andesitic flows and pyroclastics. The rhyolitic rocks (sills - Quanchus Intrusives?) have patches/disseminations of garnet, very similar to the style/textures observed at the Capoose property located some 25 km to the NW (est. 28.3 million tonnes @ 36 g/t Ag and 0.91 g/t Au). Mineralization consists of 1% to 5% sulphides comprising sphalerite, tetrahedrite, pyrite, galena, arsenopyrite, pyrrhotite and boulangerite. An envelope of pervasive, intensive, clay-sericite alteration envelopes the mineralized areas. Locally, the garnet 'patches' appear to be replaced (nuclei-growth) by sulphides (see photos), and rarely quartz (sometimes vuggy). The altered mineralized rhyolitic rocks also exhibit a characteristic hematite/manganese staining on the surface, similar to that observed at Capoose. This year Granges will be conducting a 65 km long IP survey to further define targets for drilling (very little outcrop on property). I believe (and the company too) that the type of mineralization target is 'TRANSITIONAL' (eg. Equity Silver, Capoose), implying a genetic relation/spatial relationship to an intrusive event (buried at Davidson?). Hopefully, drilling will take place this year.

On an environmental note, previous drill holes are making very acidic waters (incl. formation of modern-day ferricrete) and should be dealt with accordingly. Also the general reclamation of the old camp and drill access roads will need to be addressed. [Ref: Private Company report March 1992; AR #17032]

SULPHURETS GOLD (SULPHSIDE) / KERR

On August 4th and 5th Bob Lane, Paul Wojdak and I visited the Placer Dome Sulphurets Gold/Kerr projects located approx. 40 km air-miles north of Stewart. Access was gained via helicopter from the Tide Lake airstrip. Hosts at the camp included Brian Fowler (project leader for both projects), Steve Price (Kerr), Ron Wells (contracted consultant - Sulphurets Gold), Gwen Ditson (Kerr), and Lorne Warner (Sulphurets Gold). A total of 8 geologists are involved in the two projects. The size of the camp on Sulphurets Creek has ranged from 28 (now) to 52 persons.

a) **SULPHURETS GOLD** [MI 104B182]

The 1992 program was budgeted at $1.3 million and includes 22 diamond drill holes totalling 5300 metres. The **'Main Copper' (Montgomery)** fracture-controlled chalcopyrite in intrusive (a la southern BC types) showing occurs **above** the Sulphurets Thrust and is more typical of a 'porphyry'. The **Sulphurets Gold** Cu-Au showing occurs **below** the thrust and includes both tourmaline plus biotite plus albite alteration in strongly altered (silicified) intrusives. The sodium (albite) appears to be peripheral (outboard) to the biotite zone. Dykes appear to control mineralization at the 'Main Copper' showing on the upper plate but do **not** cross into the lower plate (i.e. mineralization is pre-thrusting). The Sulphurets Gold Zone has been traced by drilling over 900m in length, 15 to 80m in width, and 450m in depth. Chalcopyrite is the main economic mineral; there is no bornite. In 1991, Newhawk returned an assay of 0.59% Cu and 0.61 g/t Au over 117.6m in DDH 91-389. There is a direct 1:1 correlation of Cu:Au. Tourmaline does **not** occur in mineralized sections (rather peripheral on the southern lower cliff faces). Alteration episodes consisted of an original, early k-spar alteration (best Cu-mineralization) followed by an overprint of biotitic alteration. The 'core' of the altered intrusive (eg. DDH SG-92-2) carries good Cu values for over 100m in thickness. Above the thrust plate, gold values are up to 5 or 10 g/t Au.
At the time of our visit, no assays had been received but mineralization appeared to be widespread. This zone plus others such as Mitchell (MI 104B180) and Iron Cap (MI 104B173,174) should provide enough copper and gold to suggest a significant mining scenario.

b) **KERR** [MI 104B181,188,191,192,194,198]

The purpose of the 1992 program was to "twin" previous drill holes and attempt to increase the grade (by better recoveries). The rock is highly schistose and large 'cavities' were encountered in previous drilling. Preliminary reserves were reported at 126 million tonnes grading 0.61% Cu and 0.27 g/t Au.

Mineralization consisting of chalcopyrite and bornite with minor chalcocite, covellite, and native gold is related to strong silicification and quartz veining along strong north-south shear zone(s) which have been intruded by feldspar porphyry dykes.

To date in 1992, approx. 1400m of core were drilled in 12 holes for a total cost of $1.3 million. Obviously this was a very expensive, poor-recovery, relatively unsuccessful program. Geologically all core was logged using GEOLOG and thus there will finally be some consistency in the logging. The supergene mineralization will be a significant factor in this project. A total target of 350 million tons of ore is envisaged at KERR.

COMMENT
The "SULPHSIDE' project which includes most of the porphyry Cu-Au $\pm$ Mo prospects on the old "SULPHURETS" property has the potential for a very large, low grade bulk mineable operation. Access/development logistics will play an important role in feasibility studies.

RED MOUNTAIN [MI 103P220]

On August 10th & 11th I visited Lac Minerals' exploration office and core logging facilities in Stewart. Geologists on site included Adrian Bray, Kate Bull, Tony Henrickson, and Bob Singh. The purpose of the 1992 program was twofold:

(1) to complete regional mapping of their entire claim block; and,
(2) to conduct step out drilling along the trend of the Marc and the North Zones.

Relogging of all previous core during the past winter by Adrian Bray and John Watkins has enabled them (Lac) to develop a model for mineralization which they are keeping close to their chests until their presentation at the CIM District Six meeting to be held in Campbell River in October. This year's drilling is planned to total 4000 metres which will bring the total amount of drilling on the property to over 24,000 metres. At the time of my visit, approximately 2500 metres had been drilled.

A new mineral inventory has been calculated by Lac at **1.8 million tonnes grading 10 g/t Au** (or about 575,000 ounces of contained gold) in both the **Marc** and **North** zones. This represents a doubling of previously announced reserves. This inventory is over a strike length of about 300 metres; the overall northwesterly trending strike length (i.e. Marc Zone to Rio Blanco Zone) could be as long as 1200 to 1400 metres. Airborne magnetic surveys clearly outline strong northwesterly trends with mineralization being associated with magnetic lows. Also, the MILES induced polarization (IP) survey is proving to be very successful (>5% sulphide content). Lac is also using downhole geophysics to trace mineralized zone(s) in favourable (stratabound) horizons.

Mineralization, consisting essentially of pyrrhotite, pyrite, chalcopyrite, sphalerite and gold tellurides, occurs in structural zones (eg. Marc and North with a NW strike, dips @ 45^{o}SW and plunges 10^{o} to 15^{o} NW. Host rocks include waterlain tuffs and andesitic pyroclastics near the contact with the low-Ti Goldslide Intrusion of early Jurassic age (~200 Ma). Tourmaline is a fairly common accessory mineral, often showing a good correlation with mineralization. Axinite is also fairly common in the contact zone. Mineralization in the Marc Zone appears to be cut by dyke(s) of Goldslide Intrusion (i.e. slightly older - perhaps the host rocks are Stuhini, rather than Hazelton?). The regional mapping is **not** confirming the previously assumed Unuk River Fmn./Dilworth Fmn. stratigraphy. A preliminary mineral zoning appears to be emerging (although all ICP analyses will not be routinely dealt with until this winter):

1) brecciated and pyrrhotite-rich 'tops' underlain by pyrite-rich rocks
2) Zn-rich pods peripheral to main mineralization
3) Na-depletion peripheral to ore, and
4) apparent Cr-enrichment in the ore zone.

Obviously the careful relogging of core and reinterpretation of mineral styles on the Red Mountain property by Lac is providing some success and encouragement. [Reference - Expl'n in BC, 1991 - Schroeter, Lane, & Bray]