The HI – MARS Project Porphyry Cu +/- Mo +/- Au

The Hi Mars copper molybdenum porphyry property consist of at least six showings of copper and Molybdenum in a porphyry environment. The property consists of six main mineralised zones:

The Bruce, Lewis, Spring Lake, Ho 5, Hi Mars, Mary V.



Reserves are listed as 82 000 000 tonnes (Geological) at 0.3% Cu (Producing Mines, Mineral Deposits with Reserves, Sheet 2,
B.C. Dept. of Mines, April 1984) (George Cross Newsletter, 10/03/78).

The OK property is about 18 Km to the NW of the Hi Mars property... Potential resources at the OK Property were 408 000 000 tonnes of greater than 0.24 per cent copper and 0.009 per cent molybdenum, An independent report prepared in 1989 for CanQuest Resource Corporation further refined analysis to provide a "proven plus probable resource, recoverable by a selective open pit mining operation" of 104 900 000 tonnes of 0.46 per cent copper and 0.028 per cent molybdenum at a 0.4 per cent copper equivalent cut-off.

At Hi Mars the granodiorite has been sericite-altered and hosts biotite, quartz sericite and pyrite. Silicification is associated with a quartz vein stockwork in the granodiorite as well as in area containing lenses of quartz within brecciated granodiorite, parallel to a feldspar porphyry dyke. Veins, joints and dykes are controlled by a 070 to 080 degree trending fracture system that dips steeply north. Pyrite and chalcopyrite, with minor pyrrhotite, magnetite and sphalerite occur as disseminations within silicified granodiorite and in the quartz vein stockwork.



The intensity of fracturing decreases away from the Main showing but pyrite-coated joints are still well developed 300 metres away. Pods and irregular masses of chalcopyrite also occur at the Main showing, trending 110 to 150 degrees and crosscutting the jointing. Diamond drilling in 1967, mostly in the vicinity of the main trench, included **16.5 metres of 0.25 per cent copper**. Two samples from the main trench taken over a distance of 30 metres averaged **2.40 per cent copper** (Caracas Mining Co., 1970 Prospectus, page 18). About 150 to 200 metres east of this showing, and on strike with it, chalcopyrite occurs as irregular masses near strongly silicified porphyritic granodiorite and quartz diorite.

The **Mary V** occurrence is underlain by quartz diorite and quartz monzonite of the Jurassic to Tertiary Coast Plutonic Complex. Mineralization occurs in quartz diorite that has been intruded by small aplite stringers, feldspar porphyry dykes and several masses of quartz up to 2.4 m. wide. The mineralization occurs over an area of 30 metres near the dykes and quartz lenses. It consists of disseminated chalcopyrite and moly, and veinlets and lenses of chalcopyrite and pyrite.

The **Spring Lake** occurrence is underlain by multi-phased granodioritic intrusions of the Mesozoic Coast Plutonic Complex. Locally, the granodiorite is chloritized with epidote- coated fractures. Several west-northwest trending leucocratic felsic dykes, of the same general age as the host rock, and late mafic dykes are present. Mineralization occurs in four zones located within 500 metres of each other. In zone A, disseminated chalcopyrite and pyrite occur in siliceous granodiorite. Minor mineralization is also present as fracture coatings. A sample assayed 0.32 per cent copper and 0.014 per cent molybdenite (sample number 7606165 in Assessment Report 6433, page 15).

Zone B contains molybdenite and magnetite in thin quartz veinlets. A sample assayed 0.71 per cent copper and 0.47 per cent molybdenum (Assessment Report 6433, page 14).

Zone C, considered the most significant, contains finely disseminated chalcopyrite and pyrite in a felsic dyke. Chalcopyrite, molybdenite and magnetite are also present in quartz veinlets in granodiorite near a felsic dyke. Locally, the zone contains azurite and malachite on fracture surfaces. A sample assayed 0.46 per cent copper and 0.005 per cent molybdenite (Assessment Report 6433, page 14).

Zone D contains disseminated molybdenite and minor chalcopyrite and pyrite in a leucocratic felsic dyke. Some rusty pyrite occurs on fractures. A sample assayed 0.07 per cent copper and trace molybdenite (Assessment Report 6433, page 14).

The Ho 5 occurrence is underlain by quartz diorite of the Mesozoic Coast Plutonic Complex.

Molybdenite and chalcopyrite occur in narrow quartz veins. A sample across 1.5 metres from a trench on the southeast corner of the old Ho 5 claim assayed 0.03 per cent copper and 0.046 per cent molybdenite (Assessment Report 5798).

The **Hi-Mars** occurrence is underlain by granodiorite and quartz diorite of the Jurassic to Tertiary Coast Plutonic Complex which grades into diorite. Jointing in the rocks strikes northeast and dips 90 degrees south, and locally contains quartz veinlets. Fractures contain pyrite, chalcopyrite, molybdenite and limonite. Quartz-filled fractures host chalcopyrite and molybdenite. Disseminated pyrite and magnetite are present in the granodiorite and quartz diorite host rock. Up to 0.5 per cent copper and minor molybdenite are reported.



The Lewis occurrence is underlain by Mesozoic diorite of the Coast Plutonic Complex which has been intruded by a 500 metre wide quartz diorite phase of the same age. Northeast and northwest striking andesite dykes cut the intrusive rocks. Chlorite alteration is pervasive. Secondary biotite is present in a north-northeast striking zone of shearing that projects through the area of mineralization. Alaskite dykes up to one metre wide occur near the shear zone.

Mineralization is present in three locations, the **Central zone**, and the **East and South zones**, 250 metres east and southwest of the Central zone, respectively. Mineralization consists of disseminated and fracture-filling chalcopyrite in the Central zone, and chalcopyrite with molybdenite in the East and South zones. Disseminated pyrite and magnetite are reported near the andesite dykes. Maximum values of 0.74 per cent copper over 1.8 metres, and 0.026 per cent molybdenite over 1.5 metres have been reported, but the average value from all trenches was 0.12 per cent copper.

The Bruce Zone (Main Trench)



The Bruce Main Trench occurrence is underlain by Cretaceous hornblende diorite and quartz diorite of the Coast Plutonic Complex which have been intruded by later phases of granodiorite. The granodiorite has in turn, been intruded by quartz feldspar porphyry and feldspar porphyry dykes. A few narrow andesite to basalt dykes cut all other rock types.

Substantial copper grades have been obtained in the Bruce area, including 3.40 % copper over fifty feet (15.24 metres) in the main trench area.



Malachite staining on Quartz Diorite



Py - Cpy - Mo in Quartz Diorite



Numerous logging blocks and new roads occur on the Hi Mars property.





This property has excellent further discovery potential

This property is offered for sale by way of working option to purchase.

For further information please contact Craig Lynes: Rich River Exploration Ltd.

Cell: 250-804-6189 Email: prospect@richriver.bc.ca

Web: <u>www.richriver.bc.ca</u>

