# SUMMARY AND CONCLUSIONS

HAGGA

The area of Haggard and Ayesha Claims is in the Osoyoos Mining Division of British Columbia Canada, approximately 30 km north of the U.S.A. border. Inco Vault gold exploration area and the Dusty Mac gold mine are 10 and 15 km to the southeast respecively, and contain similar Eocene volcanics.

Herp

The Haggard - Ayesha area was not, to date, explored for gold (mainly because of a 10 year Uranium moratorium in the region - now cancelled ). Last year's brief reconnaissance found encouraging epithermal occurences and a few abnormally high assay results were obtained from rock samples collected at random.

This year's brief survey concentrated on clarifying some lithological discrepancies between the field and the reference data. Some of these were clarified. This survey also brought forward encouraging structural and lithological development ideas which could lead to economically gold prospective models.

It is strongly recommended that the locations indicated in 1990 Assessement Report be thoroughly investigated and sampled and that further recommaissance work be carried out in the larger, unmapped sections of the Haggard and Ayesha Claims area.

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M.M. Suska P.Geol.

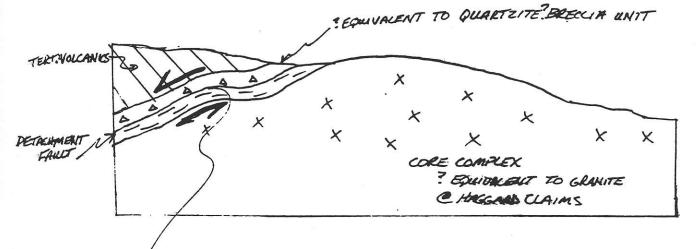
Calgary, June 1991.

SPECULATIVE COMMENTS ON POSSIBLE GOLD POTENTIAL 5, 12, 91.

by Michael Connolly (Dillon, Montanz 115A. Consulting Geologist

D THE QUARTZITE BRECCIA UNIT LOCATED ON THE MAGARD CLAIMS ABEA MAY BE RELATED TO THE ORANAGAN "DETACHMENT" FAULT ZONE DESCRIBED BY MULTIT (1986). THE POSITION OF THIS UNIT ABOVE THE GRANITE BASEMENT AND THE BRECCIATED TEXTURE SUPPORT THIS CONTENTION. IF THIS ORSERVATION IS CORRECT, THE LOW LEVEL GOLD VALUES FROM THIS UNIT ARE SERIE INTERESTING SINCE THEY MAY OCCUR OVER A LARGE AREA. THE DETACHMENT RELATED GOLD DEPOSIT MODEL IS VEC POPULAR IN THE SOUTHWEST USA. THE MESQUITE MINE IN CALLFORNIA IS THE PRIME EXAMPLE OF A DETACHMENT RELATED GOLD DEPOSIT.

> DIAGRAMMATICAL X-SECTION OF A DETACHMENT RELATED GOLD DEPOSIT (I.F. MESQUITE)



BRITTE

DUCTILE

OLE ZONE; FRACTURES WHICH HOST ORE. SPECULAR HEMATITE AND CHRYSOCOLLA ARE COMMON GANGUE MINERALS. ALSO QUARTZ, BARLITE AND FLUORITE

FAULT ZONE DIVIDED TNTO LOWER MYLDNITTC ZONE AND LARER BUTTLE ZONE

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\_\_\_\_\_MINOR FOLDS ALONG DETACHMENT MAY BE \_\_\_\_\_MORTANT IN LOCALIZING OLE BODIES. OLE BEARING FULLIDS "POND" @ THE CLESTS OF FOLDS.

# PETROGRAPHY OF THE BRENT LAKE - FARLEIGH LAKE AREA SAMPLES

by Andrzej Skupinski, Ph.D.

# SPECULATIVE COMMENTS

12 thin sections represent three genetically different groups of rocks: plutonic basement, mainly granitic and granodioritic with some contribution of the hornfelses; rhyolites: and foidal basalts.

The rhyolitic rocks (including rhyodacites) are genetically related to the basement and result from basement remelting. Common relics of not completely remelted plutonics and hornfelses, and also mineral components of basement material e.g. paleocrystals of microcline, are abundant within rhyolites. Foidal basalts undersaturated with silica, represent a completely independent stage of the volcanic activity within this area.

From the point of view of gold economies, the best prospects appear to be primarily in rhyolitic volcanics. The chance of gold mineralization is best within the porous and tuffaceous representatives of that family. The alteration processes and intensive siderite carbonatization of the tuffogenic varieties of the rhyolites are excellent indicators of the possible gold mineralization in the area. Siderite seems to be the product of the post rhyolitic hydrothermal activity and was found also in feldspathized hornfelses.

The problem of the hornfelses within this area is not fully resolved. The samples: I16, I7m and 2 were described as hornfelses only on the basis of the typical sieve texture. The lack of typomorphic minerals e.g. cordierite, pyroxene could result from the intensive feldspathization very close to the contact with the granitic intrusion.

The most probable sequence of events within investigated area could be as follow:

1. Granitoid intrusion changes preexisting pelitic rocks to hornfelses. Further metasomathosis is responsible for their intensive microclinization.

2. Increasing temperature within the area is producing the rhyolitic lavas in the deeper parts of the basement. Rhyolites are products of the remelting both: granitoids and hornfelses. New lava is intensively rejected toward the shallower horizons through the tectonical discontinuities (faults, shearing zones ?). Energetic movement of rhyolitic lavas results in strong brecciation of their minerals.

3. Hydrothermal sideritization ends the rhyolitic stage of the volcanic activity.

4. The younger volcanics within the investigated area are mainly undersaturated with silica nephelinic basalts and tephrites. The andesitic sequence in the northeast is youngest.

5. The relation of the andesitic dyke I-5 to the rhyolites and the andesitic seguence is not clear at present.

#### SUMMARY

This desktop evaluation of data from the Astro 45 claim is carried out at the request of Petro-Canada Resources. The review includes work carried out by INCO at the VAULT property, data recently gathered by Whiterabbit Resources Ltd. and Lossan Explorations Ltd. and relies on the writer's personal experience in the area.

This report suggests that the 'pink grit' (Church, 1984; See Figure No. 3) cored by Petro-Canada's DDH 78-5 is equivalent to the bottom unit found at the VAULT property near Kaleden, where INCO Gold and partner Seven Mile High Resources Ltd. have defined an epithermal gold deposit with a resource potential in the Central Zone of 1.342 million tonnes of 2 grams Au/t, a mineral resource of 150,000 tonnes of 14 grams Au/t in the North Zone and an undisclosed resource of grade similar to the Central Zone on the West Zone.

In the Farleigh Lake and Brent Lake areas, the 'pink grit' unit, the 'underlying' Rhyolite Complex found at the bottom of DDH 78-5 and Church's Felsic Intrusions (See Figure No. 3) are all linked and included in the Lower Marama Formation. These units are reported altered and mineralized by Whiterabbit, who describes the hydrothermal alteration at Farleigh Lake as "...infillings of calcite, ankerite, zeolite, chalcedony and chlorite with several grab samples assaying from 70 to 103 and 280 ppb gold and up to 2.3 ppm Ag ... ' associated to a soil gold anomaly. At Brent Lake, chloritization, impregnation of matrix by Fe-oxides, and propylitic alteration of plagioclases are present ... ". Their geochemical analysis of grab samples from the area shows highs of 3.077 ppm Pb and 3.4 ppm Ag. Other assays reported by Whiterabbit indicates that this zone of hydrothermal alteration may indeed cover a large portion of the Astro 45 and Umslopogaas claims.

We strongly recommend that an exploration program consisting of reconnaissance prospecting, soil and rock sampling and geological mapping be carried out in the Farleigh Lake - Brent Lake areas. Should the geological model be confirmed and showings with economically significant assays be found, a program including trenching, gridded surveying (soil sampling, magnetometer, geological mapping) and diamond or rotary drilling would follow.

Calgary, March 27, 1991

Guillermo Salazar S. P. Eng.

File astro45.

## APPENDIX No. 1

### STATEMENT OF QUALIFICATIONS

I, Guillermo Salazar S., of 23 Brabourne Mews SW, Calgary, Alberta T2W-1V9, hereby certify that:

1. I attended and graduated from the Universidad Nacional de Ingenieria de Lima, Peru with a Bachelor's of Science and a Engineering Degrees in Mining Engineering and Mining Geology in 1967. I also attended Harvard University from which I was awarded a Master's of Arts degree in Economic Geology in 1969.

2. I am a registered Professional Engineer in the Province of British Columbia and Professional Geologist in the Province of Alberta. I am also a member in good standing of the Society of Economic Geologists of America and of the Society of Mining Engineers of the AIME.

3. I have in excess of twenty years of experience in my field in the U.S.A., Canada and South America.

Calgary, Alberta.

Guillermo Salazar S., P.Eng. (B.C.)

File astr45