

VICTOR-ANN PROJECT

By G.H.K. Pearse

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INTRODUCTION

The Victor-Ann Project covers an area of 800 sq. miles in Wheaton River mineral district some 40 miles south of Whitehorse. The project area is bounded by Bennet Lake and Primrose Lake on the east and west sides respectively, by Watson River on the north side and extends into northern B.C. to Homan Lake 8 miles west of Bennet on the White Pass and Yukon Railway line. It is accessible by 4 wheel drive truck using tote roads in the Wheaton Valley which connect with Annie Lake road. Elsewhere in the area, helicopter support is necessary.

Vein deposits of Sb, Au, Ag and Pb have been mined in the district over the past 60 years. Mineralization is associated with numerous small Tertiary acid stocks. The purpose of the project is to investigate the porphyry copper potential of the district.

GENERAL GEOLOGY

Most of the area is underlain by granitic rocks of the Coast Range Intrusions. A belt of Yukon Group metamorphic rocks trending NW underlies the northwest corner and several small roof pendants occur throughout the area. At least three periods of volcanic activity are evident in the area, the last of which is comprised of acid to basic flows and pyroclastics of the Skukum Group (Tertiary (?)). Of similar age and spatially related with the

volcanics are complex stocks of quartz porphyry, alaskite (monzonitic) and granite porphyry. Most of the known mineralization occurs around these intrusions. A remarkable ring dyke of this unit occurs in the southern part of the area. The ring diameter is 14 miles. The southern half lies in northern B.C. and was not mapped on that sheet. Within the ring are Skukum volcanics which dip in toward the centre. This structure is an excellent example of cauldron subsidence and provides a setting for possible high level intrusions with mineral potential. Skukum volcanics also occur in the north central part. Structural information is scanty but where present indicates that the area containing the volcanics is a cauldron subsidence feature. A plug of granite porphyry 1½ miles in diameter intrudes the volcanics north of the centre of the basin.

Several other small stocks occur throughout the northern half of Wheaton area.

GEOCHEMISTRY

Geochemical sampling was done on a reconnaissance scale in areas selected on the basis of favourable geology. Soil, silt and rock samples were collected in the northern half around areas of known showings, porphyry intrusions and Skukum volcanics. The southern part was largely restricted to silt sampling within and around the ring dyke. In total, 84 samples were taken. These were analyzed for Cu, Pb, Zn, Ag, and Mo and threshold values were

determined to be 40, 50, 140, 3 and 4 ppm respectively.

Thirty-eight samples are anomalous in one or more elements with Pb, Zn, Ag predominating. Nearly all anomalies are associated with high Pb and/or Zn. Copper highs except for one sample are associated with Pb and/or Zn highs. These associations appear to reflect vein type mineralization. Because of the reconnaissance nature of the sampling and consequently the large size of the drainage basins represented by the samples, the presence of porphyry type mineralization with peripheral Pb Zn concentrations cannot be ruled out. Minor malachite and chalcopyrite which was observed in porphyry modified by argillic alteration in the Yukon Antimony property lends weight to this possibility. Also economic concentrations of Pb, Zn, Ag, Au and Sb may occur and should be investigated.

SUMMARY AND CONCLUSION

Numerous Au, Ag, Pb, Zn, Sb and Cu showings associated with porphyry plugs occur in Wheaton area. High Cu, Pb, Zn, Ag and Mo anomalies occur in the southern part in and around a porphyry ring dyke. No showings have been found so far in this area.

A limited program of detailed silt sampling and geologic mapping is recommended to evaluate anomalies found during the reconnaissance survey.

The reconnaissance survey was guided by Geology as mapped by G.S.C. and areas within the district which were not covered should be recce sampled.

Au, Ag, Pb, Zn, Sb occurrences should also be evaluated.

Ten days for a geologist, geologist assistant and two samplers using 20 hours helicopter time should be adequate.

ESTIMATED COST

40 man days @ \$50	2,000
20 hours B-2 @ \$150	3,000
<u>Geochemistry Lab</u> (6 elements)	
400 samples @ \$5.00	2,000
contingent staking 100 claims @ \$50	<u>5,000</u>
Total Estimate	\$12,000

Respectfully submitted,

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Geologist

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