PRECIOUS METALS

GEOCHEMICAL AND GEOLOGICAL

RECONNAISSANCE

NICOLA GROUP

FOR

LARAMIDE RESOURCES LTD.
904 - 675 WEST HASTINGS STREET
VANCOUVER, B. C. V6B 1N2

VOLUME I FIELD NOTES

WORK PERFORMED: JUNE 9 TO OCTOBER 9, 1985

LOCATION: NTS MAPS 92-H AND 92-I

by

L. P. DUQUETTE

NOVEMBER 15, 1985

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VOLUME II ANALYTICAL

RECORDS

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VOLUME I

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INTRODUCTION

In 1985, Laramide spent $103,000 on a programme of office research and field reconnaissance directed toward the discovery of bulk tonnage disseminated gold deposits in calcarious sedimentary rocks of the Nicola Formation.

The geological model for this project is represented by the Afton, Ingerbelle and Hedley Mines where more than two million ounces of gold has been produced from skarn beds and the Company's Snowflake prospect at Aspen Grove, B. C. where disseminated gold occurs in silty limestome. A more generalized comparison with the carbonate hosted disseminated gold deposits in Nevada can also be made.

The Nicola Formation is predominately volcanic and the lesser sedimentary facies are not well mapped. Areas of outcropping sediments were researched from published literature and intrusive-volcanic centres were identified by studying regional magnetic maps.

During the field season from May to November favourable areas of sedimentary rocks were examined and sampled. 1,221 samples were taken and analysed for gold, silver, barium, mercury, arsenic, copper and lead. 1,159 of these were rock chip samples and 62 were stream, heavy mineral concentrates.

Field observations are recorded on copies of sample inventory reference sheets included in this Volume (I) and the location of each sample site is plotted on nine 1:50,000 scale topographic maps, also enclosed. Included in a separate Volume (II) are record sheets listing the sample numbers and chemical analyses of each sample.

SUMMARY OF RESULTS

During the 1985 field season no new gold prospects with immediate commercial potential were found in the Southern Nicola Formation. Seven targets which have some modest potential for follow-up prospecting were identified. Brief descriptions of these seven areas are included in this section. In addition there is wide scope for carrying out further primary prospecting for gold deposits in calcareous sediments of the Nicola Group. Also, some geological potential for volcanogenic polly-metallic deposits was also observed at Iron Mt. located 4 miles south of Merritt and at Swakum Mt. 12 miles to the north.

(1) SADIM GOLD PROSPECT (See Fig. 2)

Gold values as high as 2,200 ppb were returned from an outcrop of buff coloured limy tuffs laced with a stockwork of quartz veinlets. The outcrop is 5' x 15' and averages approximately 500 ppb gold. It is geologically similar to the Company's Snowflake prospect located 13 miles to the north. An option was negotiated with the owners of the Sadim claims and further exploration work will be carried out on the prospect, which is located 2 miles southwest of the south end of Missezula Lake and 21 miles north of the Town of Princeton.

(2) PAUL CREEK ANOMALY (See Fig 3)

At the headwaters of Paul Creek, about 5,400' ASL, located 11 miles south west of the Village of Hedley anomalous concentrations of gold occur in sediments composed of argillite calcareous argillite, and limestone. The sediments have a general N.E. trend, dip steeply to the N.W. and are intruded by a series of intermediate sills up to 150' in thickness. The anomalous section has an estimated horizontal width of 100 ft. The 25 anomalous rock chip samples average 40-50 ppb Au with a peak value of 845 ppb Au and 10.3 ppm Ag. In the same area a

dark limestone band carries 18,000 ppm zinc. Some sulphides are noted in the sediments but no particular alteration pattern was recorded. This anomaly may represent the edge of a large mineralized gold zone and requires further prospecting and mapping.

In the same general area there are two heavy mineral stream samples, #1,155 in Smith Creek, and #590 in Johns Creek contain anomalous gold concentrations and require follow-up sampling.

(3) HELMER LAKE PROSPECT (See Fig. 5)

Immediately west of Helmer Lake, located near Swakum Mt. and 16 miles N.N.E of the Town of Merritt three rock samples from an old prospect trench carry anomalous values in gold, 350 to 500 ppb and mercury, 3,000 to 4,400 ppm. The anomalous formation is sericite and chlorite schist with quartz inclusions, traces of galena, malachite stain and manganese stain. This outcrop may represent a large shear zone or a bed of volcanic sediments.

Further sampling and prospecting is indicated.

(4) SHOVELNOSE MT. ANOMALY (See Fig. 2)

Two heavy mineral stream samples #57 (36 ppb Au) in Coley Creek and #56 (210 ppb Au) in Angstadt Creek have anomalous gold values. Both streams drain Shovelnose Mt. which is composed of Tertiary and Cretacious volcanic rocks. There is no obvious geological potential for mineralization but some check sampling is in order. The area of interest is located 12 miles S.W. of Aspen Grove.

(5) KANE CREEK ANOMALY

Heavy mineral stream sample #48 is anomalous (75 ppb Au) and requires check sampling. The sample site is lcoated 4 miles west of Aspen Grove.

(6) BRENDA LAKE ANOMALY (See Fig. 6)

A bed of black calcareous sediments near Brenda Lake, about 1 1/2 miles N.W. of the Brenda Cu Mo porphyry deposit, is weakly anomalous in gold (22 ppb max.) and Barite (304 ppm max.). Some further reconnaissance sampling of this unit is warranted, because of its close promimity to a strong "porphyry" system.

(7) SIWASH CREEK PLACER GOLD (See Fig. 2)

There is considerable evidence of Placer gold in Siwash Creek. No source has yet been identified, and further work to this end would be worthwhile. Siwash Creek is located about 20 miles N.N.E. of the Town of Princeton.