#### GEOCHEMICAL REPORT

ON

THE 92P/14 SL GROUP

OF
ROYAL CANADIAN VENTURES LTD.

 $\mathbf{AT}$ 

LAC LA HACHE, B.C.
51° 121° NE

by

N.B. Vollo, P.Eng.

May 24th, 1970

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## Map in Pocket

#/ Geochemical Plan, 1" = 400'

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2378 MAP

#### Summary

Soil samples were collected and analyzed for trace mercury vapour content over a magnetic and electromagnetic anomaly. Weak positive evidence of base metal mineralization was obtained.

#### Location and Access

The SL group is located 10 miles east of Lac La Hache and can be reached by good secondary roads.

#### Topography and Climate

The group lies 3000' above sea level and has low relief. Rainfall and snowfall are moderate, and a light second growth of fir and lodgepole pine is general.

#### Claims

The group consists of 16 claims, SL 1 - 16 inc., Record Numbers 16648 - 16558, in the Clinton Mining Division. The claims are all held by Royal Canadian Ventures Ltd.

#### Previous Work

The group was staked to cover an airborne magnetic anomaly in 1968. Geological, geophysical and geochemical ground work indicated a strong magnetic anomaly with weak associated VLF electromagnetic response, no anomalous geocemical response. The magnetic anomaly is located at or near the contact between granodiorite and Nicola volcanics.

### Geochemical Survey

Considerable interest has recently been shown in mercury vapour anomalies as guides to buried base metal deposits (Hawkes and Webb, 1962, CH. James, 1962, 1964, Warren, Delavault and Barakso, 1966, Sutherland Brown, 1967). Analytical methods for detecting mercury in the low parts per billion range have recently been developed (Barringer, 1966). The use of this tecknique to evaluate marginal geophysical anomalies such as that on the SL group may be useful.

55 samples were collected at 200 foot intervals along lines spaced 800 feet apart, across the magnetic anomaly. Samples were taken from the C zone or parent soil using a hand auger, placed in kraft paper bags and shipped wet. Analysis were made by Barringer Research Ltd. of Toronto, measuring mercury vapour content in the ppb range.

No obvious statistical anomaly is evident. Back-ground ranges from 11 to 70 ppb, with a median value of about 35 ppb. Three analysis above 100 ppb occur at random with respect to the magnetic anomaly. A single analysis of 435 ppb, however, coincides with the apex of the magnetic anomaly and may be significent.

#### Conclusions and Recommendations

The mercury vapour survey, while not conclusive, gives some indication that the geophysical anomaly may be associated with base metal mineralization. A percussion test hole should be drilled to bedrock at the apex of the magnetic anomaly.

N.B. Vollo, P.Eng. May 24th, 1970

# Referances

Hawkes, J.E., and Webb, J.S., 1962, Geochemistry in Mineral Exploration, Harper and Row, New York.

James, C.H., 1962, A review of the geochemistry of Mercury, and its application to geochemical prospecting; Technical Communication No. 41, Imperial College of Science and Technology.

James, C.H., 1964; The potential role of mercury in modern geochemical prospecting; Mining Magazine, July.

WARREN, H.V., DELAVAULT, R.E. AND Barakso, J., Observations on the geochemistry of mercury as applied to prospecting, Economic Geology, Vol. 61, pp. 1015, 1966

Sutherland Brown, A., Investigation of mercury dispersion halos around mineral deposits in central B.C., G.S.C. Paper 66-54 Barringer, A.R., Interferance free spectrometer for high sensitivity mercury analysis of soils, rocks and air; Transactions, Institution of Mining and Metallurgy, Vol. 75, 1966.

#### AFFIDAVIT ON EXPENDITURES

#### Personnel

N.B. Vollo, P.Eng., supervision and report, 1 day @ \$75	- \$75.00
M. Hjelt, sample collection, 1 day @ \$45,April 28th, 1970,	- 45.00
D. Barlow, assistant, 1 day @ \$25	- 25.00
Analysis	
Barringer Research Ltd, Toronto, Ont	110.00
Accomodation, subsistance	19.40
Vehicle Expenses	
Kamloops SL group return, 270 miles  @ 12¢	32.40
	\$306.80

I, Nels B. Vollo, of the City of Kamloops in the Province of British Columbia, make the above declaration, concientiously believing it to be true and knowing it is of the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

of

Declared before me at the Province of British Columbia, this 1970, A.D.

A commissioner for taking affidavits for British Columbia.

