

2353

GEOLOGICAL, GEOCHEMICAL & GEOPHYSICAL REPORT

ON

92 I/15 FS

GROUP

OF

G.M. Keith
B.K. Olsson
K.W. Geiger

BY

ROYAL CANADIAN VENTURES LTD.

AT

Kamloops, B.C.
50° 120° N.W.

By

N.B. Vollo, P. Eng.

April 10, 1970.

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Maps in Pocket

#1 Geological Plan	=	1" = 400'
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Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **2353** MAP

SUMMARY

Approximately 5 miles of magnetic, VLF-EM and geochemical soil surveys, were completed in November and December, ¹⁹⁶⁹ ~~1970~~, and an area of approximately 40 claims geologically mapped. Minor copper mineralization was noted in Cherry Creek intrusive rock, but nothing of economic interest was discovered.

LOCATION & ACCESS

The group is located 12 miles west of Kamloops, at Frederick Siding, on the north shore of Kamloops Lake, and is easily accessible by road. The CNR main line is located along the southern boundary.

TOPOGRAPHY & CLIMATE

Elevations range from 1130' at Kamloops Lake to a maximum of 2500'. The area is hilly, with sharp cliffs along the shore of Kamloops Lake. The climate is arid and vegetation largely limited to grass and sage brush, with sparse scattered ponderosa pine, interior fir and juniper.

HISTORY & PREVIOUS WORK

A few tons of high grade copper ore were produced from the North Star or Maxine Mine (BCDM 1910, 1913, 1915, 1918, GSC Memoir 249). Located on the present OK 9 Claim. The Arequipa Mining Company optioned the ground in 1962, drilled two holes totalling 400' and did some geological mapping (BCDM 1962). In 1963 and 1964, (?) considerable bulldozing and trenching was done on the mineralized ridge on the Hilltop 1 and 3 claims, by Silver Arrow Mines.

The group was optioned by Royal Canadian Ventures Ltd. in 1968 and a magnetic survey done on the eastern part. Approximately 2 miles of I.P. survey and 500' of diamond drilling were done in June, 1969.

FIELD WORK

Approximately 5 miles of VLF - EM, magnetic and soil geochemical survey were done by 2 men between November 26th and December 2nd, 1969. Geological mapping was carried out by the writer over a period of 4 days in November, 1969.

GEOLOGY

The area was mapped by Cockfield (GSM Mem. 249) who shows volcanic rocks of Kingsvale age overlying older intrusives, and Nicola Volcanics. However, no evidence of Kingsvale rocks was seen by the writer, and the intrusive extends much further west along Kamloops Lake than shown by Cockfield.

Mapping was done using enlarged air photos, and traverses made to most outcrop areas. Outcrop is relatively abundant.

Three groups of rocks were mapped within the claim groups, Tranquille sediments, Cherry Creek monzonite and older presumably Nicola volcanics.

Tranquille Sediments

These poorly consolidated sediments cover the extreme west part of the group and are relatively flat lying and undisturbed and were not observed in detail by the writer.

Cherry Creek Monzonite

The southern part of the group, from the eastern boundary to near Red Point is underlain entirely by monzonite. The monzonite is not uniform, with grain size varying from medium to very fine, and color from pink to dark greenish grey. Its most consistent character, is the presence of pink orthoclase and an

equigranular, idiomorphic texture. It can be divided into fine grained and medium grained zones, and is so shown on the accompanying map. (In pocket).

Nicola Volcanics

These are uniform fine grained andesitic rocks and no features indicative of their attitude were seen.

Mineralization

A little bornite and malachite were seen on the dumps at the old Maxine Mine. Several adits were open but in bad condition and were not entered. They are in chloritized amphibolitized rocks, probably belonging to the Nicola group.

Malachite is fairly common through the Cherry Creek rocks and chalcopyrite can sometimes be seen. A fairly strong zone of oxidation and leaching, with abundant malachite, some pyrite, occupies the Doherty Creek gorge and trends westerly to just west of the Frederick Siding scree. A 500' drill hole beneath this zone intersected moderately altered and pyritized Cherry Creek rock, but no copper mineralization.

A prominent ridge on the Hilltop 3 claim has been intensively trenched by former operators. Chalcopyrite and bornite are fairly widespread in very small amounts, in the range of 0.05% to 0.10% copper.

Age Relationship

The oxidized zone along Doherty Creek was apparently mistaken for Kingsvale rocks by Cockfield. In any case, unquestionable Cherry Creek rocks extend much further west, to Red Point.

Cherry Creek rocks were not seen in direct contact with the volcanics to the north, but grain size in the intrusive increases rapidly away from the contact, indicating an intrusive relationship.

GEOCHEMICAL SURVEY

Samples were taken at 200' intervals along lines 400' apart using a soil auger. Samples were placed in kraft paper envelopes and sent to TSL Laboratories in Vancouver. Analysis were made for hot acid extractible Cu and Mo, using atomic absorption and the Zn-dithiol method respectively.

The soil in the area is thin and very stoney, with a poorly developed chernozem type profile. Samples were taken immediately below the humus horizon.

Copper background is relatively high, about 60 ppm (Map in pocket). A few higher values correlate roughly with observed very weak mineralization. Molybdenum content is consistently below 1 ppm.

MAGNETIC SURVEY

Readings were taken at 100' intervals along lines 400' apart using a Sharpe MF-1 Fluxgate Magnetometer. The instrument was set at 1950 gammas at line 0+00 to correlate with the previous survey. Substations were established at each line intersection, traverses were looped and correction made for diurnal variation where necessary.

A magnetics show fairly strong relief with a distinct easterly trend and correlate roughly with the observed facies changes in the Cherry Creek Rocks.

VLF-ELECTRO MAGNETIC SURVEY

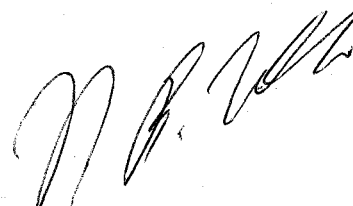
Readings were taken at 100' intervals along lines 400' apart using a Ronka EM-16 unit. All readings were taken facing north-erly, using NAA, Cutler, Maine, as source. The field from this station is roughly north and at a considerable angle to the traverse lines. Vertical control was maintained with a Thommen Pocket Altimeter. In-phase, quadrature and topography are plotted as profiles (Map in pocket), and correction for topographic effects can be made visually.

Several weak to moderate conductors are present. One on the OK 5 claim correlates fairly closely with a mapped zone of weak mineralization. A second, parallel to the Doherty Creek gorge, is at least in part due to topographic effects, but may mark a shear zone along the gorge.

CONCLUSIONS AND RECOMMENDATIONS

Although weak copper mineralization is common, no concentration approaching economic magnitude appear to be present and the probability of hidden ones appears remote.

On present knowledge therefore, no further work can be recommended.



N.B. Vollo, P. Eng.

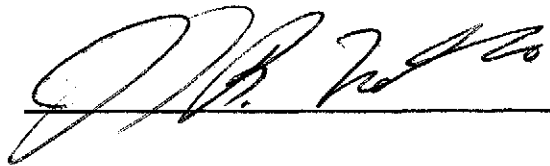
April 10th, 1970.

AFFIDAVIT ON EXPENDITURES

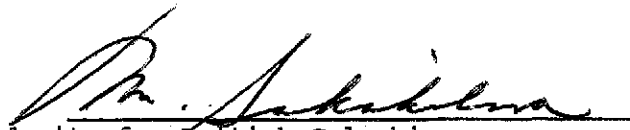
PERSONNEL

N.B. Vollo, P. Eng.	
Field Mapping, November 1969, 4 days @ \$75.00 ----	\$ 300.00
Supervision and Report, 3 days @ \$75.00 -----	225.00
M. Hjelt, Chaining, Geochemical Survey,	
November 1969, 3 days @ \$45.00 -----	135.00
Drafting, 2 days @ \$45.00 -----	90.00
L. Loranger, Chaining, November 1st, 1969	
1 day @ \$45.00 -----	45.00
EM-16 Survey, November 1969, 2 days @ \$45.00 ----	90.00
Magnetic Survey, December 1969, 2 days @ \$45.00 --	90.00
Printing, Flagging, Pickets, etc. -----	36.75
Vehicle Mileage, 420 miles @ .12¢ -----	50.40
Geochemical Analysis, 146 samples @ \$1.50 -----	219.00
TOTAL	\$ 1,281.15

I, Nels B. Vollo, of the City of Kamloops in the Province of British Columbia, make the above declaration, conscientiously 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.



Declared before me at the City of Kamloops, in the Province of British Columbia, this 28 day of April, 1970, A.D.



Commissioner for taking affidavits for British Columbia,
*Commissioner for taking affidavits
in the Province of British Columbia.*

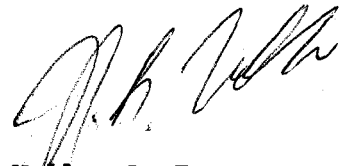
QUALIFICATIONS OF OPERATORS

LEO LORANGER is 41 years of age and completed Grade IX at Englehart, Ontario.

He was employed for four years, from 1962 to 1966, by the Noranda Exploration Co. at Matagami, Quebec, as a geophysical assistant and instrument operator.

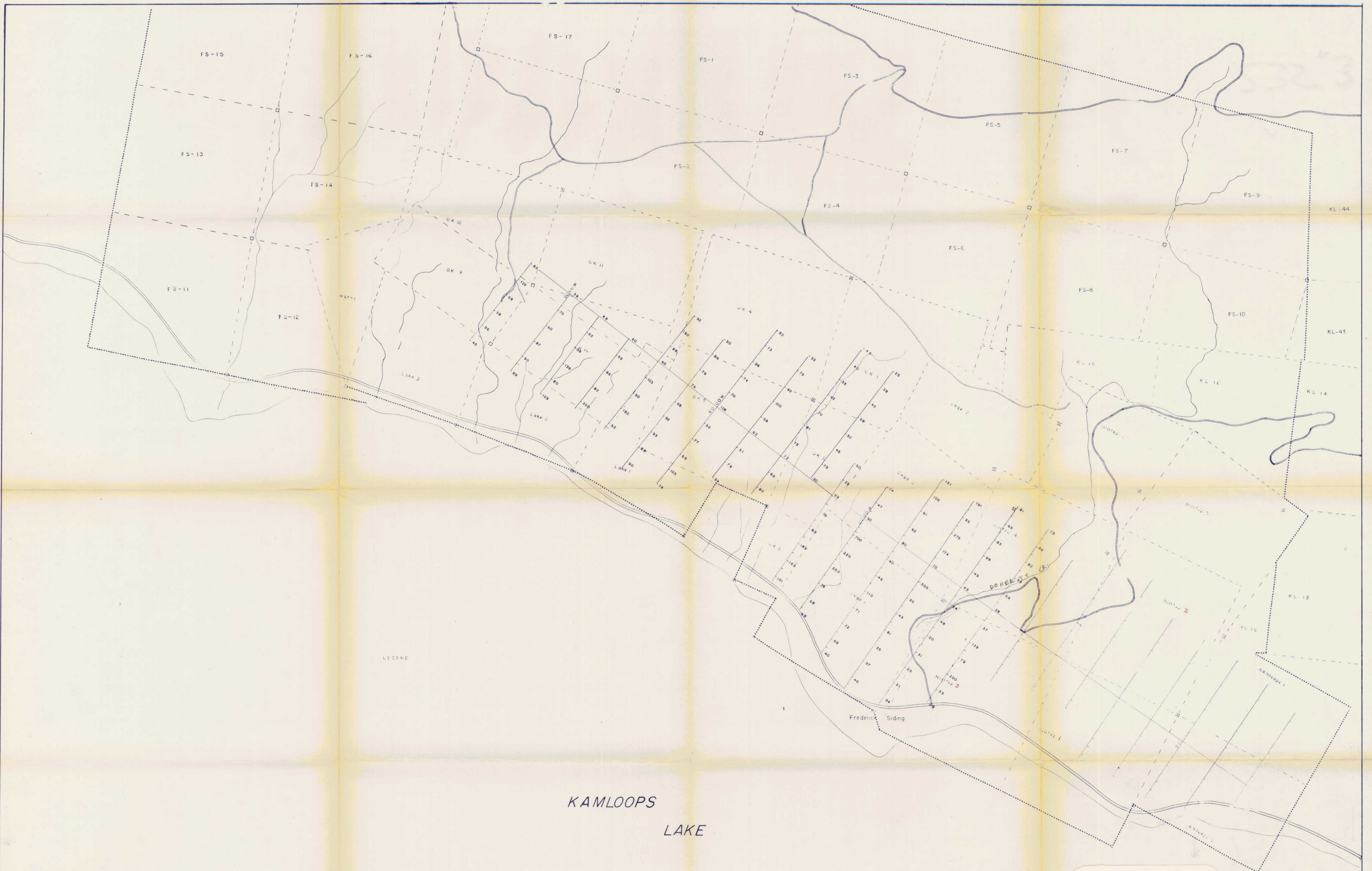
He was employed for two years, from 1966 to 1968, by Scurry Rainbow Oils, Calgary, Alberta, as a geophysical assistant and instrument operator.

He has been employed for two years by Royal Canadian Ventures, and has been carefully instructed in the operation of the Sharpe MF-1 magnetometer and the Ronka EM-16 Unit by the undersigned, who knows his work to be carefully and reliably done.



N.B. Vollo, P. Eng.

April 10th, 1970.



KAMLOOPS
LAKE

to accompany report by N.B. Vollo, R.
P.Eng., dated April 10th, 1970

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Department of
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ASSESSMENT REPORT
NO. **2353** MAP #2

921/15 FS
GEOCHEMICAL PLAN

TOTAL Mo., Cu.

Drawn by: M.H. Scale: 1"=400' Date: 20/2/70 Approved by:



DEPARTMENT OF
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 NO. **2353** MAP **#3**

LEGEND
 Readings in Y
 Corrected for diurnal
 Inst. - Sharpe MF-1
 Operator - Leo Loranger
 Contour Interval 200 Y

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LAKE

to accompany report by N.B. Vollo,
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MAGNETIC SURVEY

2353
#3

Drawn by: M.H. Scale: 1"=400' Date: 20/2/70 Approved by:



LEGEND

- Ironstone beds
- Monzonite
- Volcanics - mainly Andesite
- Property boundary
- Contact
- Adit
- Pit
- Diamond drill hole

TO ACCOMPANY REPORT BY N.E. VOLLO,
P. ENG., DATED APRIL 10th, 1970

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2353
2353
#1
GEOLOGICAL PLAN

Drawn by: M.H. Scale: 1" = 400' Date: 20/2/70

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- LEGEND
- + 50% ——— Direction faced
 - In-phase
 - Line
 - Quad
 - • • • • Conductor: wk, mod, strong
 - 50% ———

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LAKE

to accompany report by N.B. Vollo,
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#4

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EM-16 SURVEY