

2654

GEOLOGICAL, GEOPHYSICAL & GEOCHEMICAL REPORT

on

The 82M/4 SC GROUP

of

ROYAL CANADIAN VENTURES LTD.

at

ADAMS LAKE, B.C.

51° 119° S.W.

by

N.B. Vollo, P. Eng.

October 8th, 1970

**Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT**

NO. 2654 M-P

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Maps in Pocket

#1 Geological Plan	1" = 1,000'
#2 Geochemical Plan	1" = 1,000'
#3 Magnetic Survey	1" = 1,000'
#4 EM-16 Survey	1" = 1,000'

### SUMMARY

Geological, geochemical, magnetic and VLF-EM Surveys were completed over approximately 100 miles of grid during the period May 22nd to September 3rd, 1970. Nothing of economic interest was uncovered. The group should be maintained in good standing pending work on nearby properties.

### LOCATION & ACCESS

The group is approximately 25 miles east of Barriere. The east side can be reached by a good logging road along Spapilem Creek; the west side by a poorer logging road along Blomley Creek.

### TOPOGRAPHY & CLIMATE

The group is located on the Adams Plateau, at elevations ranging from 4500 to 6200 feet above sea level and has relatively subdued local relief. Rain fall and snowfall are moderate to high. A heavy stand of timber, partly logged and consisting mostly of alpine fir and spruce is present to above 6,000 feet.

### CLAIMS

The group consists of 226 claims as follows: -

SC 1 - 166	Record Nos. 84503 - 84667
SC 165A, 166A, 167 - 182	Record Nos. 86239 - 86256
SC 183 - 224	Record Nos. not available

All are held by Royal Canadian Ventures Ltd.

### HISTORY & PREVIOUS WORK

The area has been mapped by R.B. Campbell, and a map, 48-1963, on a scale of 1" = 4 miles, published by the geological survey of Canada. Federal - Provincial aeromagnetic coverage is also available.

(Map 5320G.)

### FIELD WORK

A tent camp was established at the head of Spapilem canyon and 4 to 6 men worked from May 22nd to September 3rd, 1970. Approximately 100 miles of grid were blazed and chained with lines 800 to 1600 feet apart. Geological mapping, a geochemical soil survey, magnetic and VLF-EM surveys were completed.

## GEOLOGY

The group is located astride the south west contact of the Barriere intrusion with paleozoic rocks (Campbell 1963). Rock exposure is extremely sparse and cannot be located from air photos. The Spapilem Blomley valley area probably contains a great deal of valley fill. Outcrops were noted as encountered by the chaining crews and later geologically mapped and sampled.

## Lithology

The Barriere intrusion consists of medium to coarse grained biotite quartz monzonite. Coarse phenocrysts of euhedral feldspar are fairly sparsely distributed in a medium to coarse matrix of quartz feldspar and biotite.

A zone of fine to medium grained light colored gneiss is commonly present near the intrusive contact. The gneiss consisted mostly of quartz and feldspar with thin partings of biotite.

The gneiss is succeeded by grey to green mica and chlorite schists with some graphitic sections.

## Structure

A prominent nose of quartz monzonite extends in a south westerly direction into the property. Foliation in the gneiss and schist dips away from the intrusive.

A little chalcophyrite bearing float was noted at the head of Spapilem canyon, but no mineralization was seen in place.

### Geochemical Survey

Samples were taken at 200' intervals along lines 800 or 1600 feet apart and also along base lines and tie lines. Soil augers were used, the samples placed in kraft paper envelopes and sent to TSL Laboratories in Vancouver. Analysis were made for total Cu, Zn, Ag and Mo using hot aqua regia extraction and the atomic absorption method.

A fairly good podzol type soil profile has been developed with a distinct red to light reddish brown "B" horizaon, averaging about 1 foot thick. Samples were taken from the "B" zone except in some swampy areas where only humus could be obtained.

Copper content is very low, with a background of between 5 and 10 ppm, a few analysis ranging to 50 ppm. No anomalous zones are present.

Zinc background is about 30 ppm, with a few analysis ranging to 150 ppm. No anomalous zones are present.

Molybdenum background is about 1 ppm with scattered analysis ranging to 15 ppm, none of which are considered anomalous.

Silver content is uniformly below 0.5 ppm. Copper only was plotted and is shown on the accompanying map (in pocket).

### Magnetic Survey

Readings were taken at 100 foot intervals along lines 800' or 1600' apart using a Sharpe MF-1 Fluxgate magnetometer. A base station

was established at 80 + 00 east on the 0 + 00 base line and substations progressively established from this along the remaining base lines and tie lines. Traverses were looped and correction made for diurnal variation where necessary. Results are plotted on the accompanying map but are not contoured.

Magnetic relief is very low with only occasional small anomalous zones, mostly of the dipole type, and of an unknown origin.

#### VLF-EM SURVEY

Readings were taken at 100' intervals along lines 800' to 1600' apart using a Ronka EM - 16 unit. Primary source on north-south lines was NAA, Cutler, Maine, whose field at this point averages about North  $15^{\circ}$  west. Primary source on east-west lines was NPG, Seattle, Washington, whose field at this point averages about north  $55^{\circ}$  west. Readings were taken facing northerly on north-south lines, westerly on east-west lines. In-phase and quadrature readings are plotted as profiles on the accompanying map (in pocket), using a vertical scale of 1" = 50%. It should be noted that the quadrature polarity is reversed in this instrument and the quadrature profile is therefore inverted in sign with respect to the in-phase profile. A rough correction for slope effects can be made from topographic contours shown on the same map.

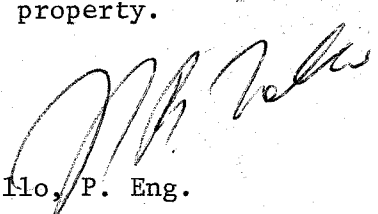
Numerous minor crossovers are present. The more prominent ones, with obvious continuity from line to line are shown on the accompany-

ing map. The "A" zone, while only moderate in intensity, is well defined and transverse to the nearest observed schistosity. The origin is unknown.

The "B" and "C" zones, of moderate intensity and good definition are associated with observed graphitic schists in nearby outcrops. The "D" and "E" zones are rather poorly defined and weak, but may mark the quartz monzonite contact. The "F" and "G" zones are of weak to moderate intensity, with rather poor definition. Their origin is unknown.

#### CONCLUSIONS AND RECOMMENDATIONS

Based on present knowledge, no further work can be recommended. The group should however be maintained in good standing as far as possible pending development on adjoining property.

  
N.B. VoFlo, P. Eng.

October 8th, 1970.

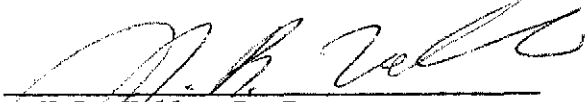


AFFIDAVIT ON EXPENDITURE

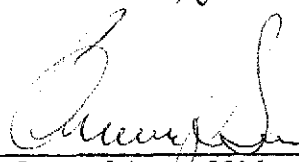
Personnel

N.B. Vollo, P. Eng.	Supervision May 19 to Sept. 3 6 days @ \$75.00 Interpretation & report 3 days @ \$75.00	\$ 450.00 225.00
M.Hjelt	Drafting, Feb. 2 to Oct. 13 6 days @ \$45.00	270.00
L. Loranger	Field work, May 19 to Sept. 3 55 days @ \$45.00 Plotting, Sept. 1 to Oct 5 6 days @ \$45.00	2,475.00 270.00
M. Fennell	Field work, May 25 to Sept. 3 16 days @ \$35.00 Plotting, Sept. 28 to Oct. 6 6 days @ \$35.00	560.00 210.00
C. Mohn	May 18 to Oct 21 85 days @ \$30.00	2,550.00
T. Mann	Assistant Geologist, May 21 to June 5th, 12 days @ \$30.00	360.00
D. Barlow	May 20th to August 17th 68 days @ \$30.00	2,040.00
G. Turcotte	May 20th to August 6th 73 days @ \$25.00	1,825.00
J. Brown	May 21st to June 5th 8 days @ \$25.00	<u>200.00</u>
Total		\$ 11,435.00
Vehicle Expense, 5,837 miles @ 12¢		700.44
Camp Expenses		1,714.94
Air photos, prints, flagging, etc.		369.62
Geochemical Analysis - TSL Laboratories, Vancouver, B.C.		<u>5,328.00</u>
		<u>\$ 19,542.50</u>

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 has the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

  
\_\_\_\_\_  
N.B. Vollo, P. Eng.

Declared before me at the City of Kamloops, in the Province of British Columbia, this 16<sup>th</sup> day of October 1970, A.D.

  
\_\_\_\_\_  
Commissioner for taking affidavits for British Columbia.

QUALIFICATIONS OF OPERATORS

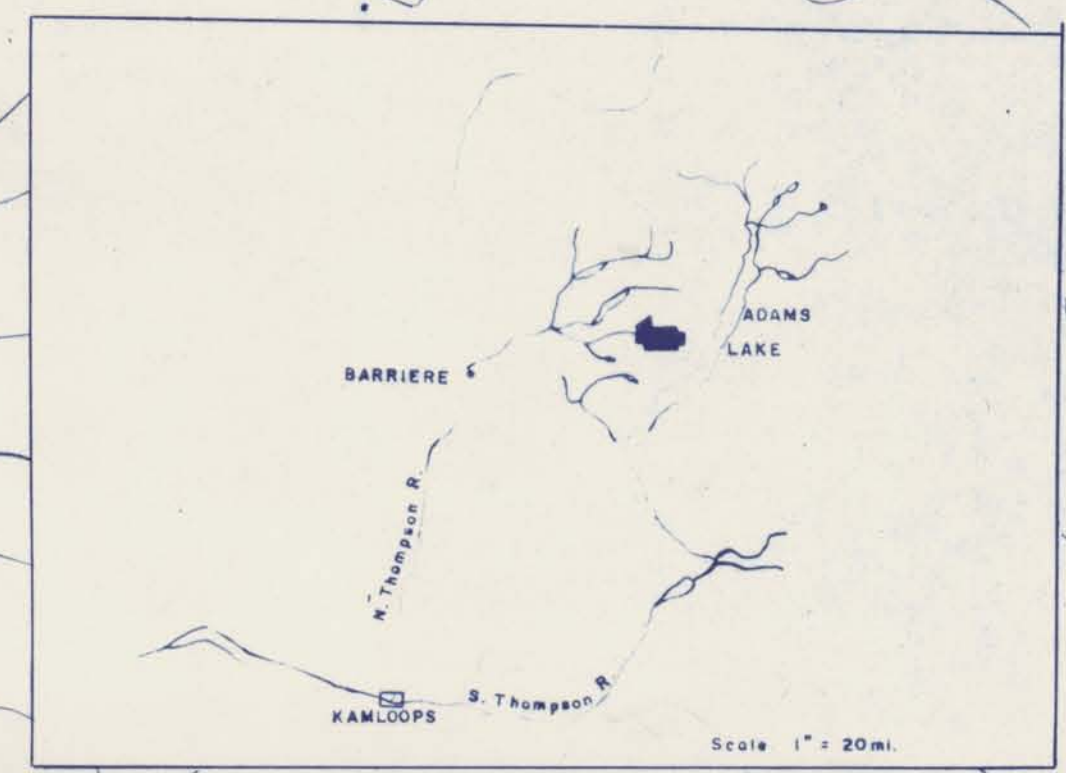
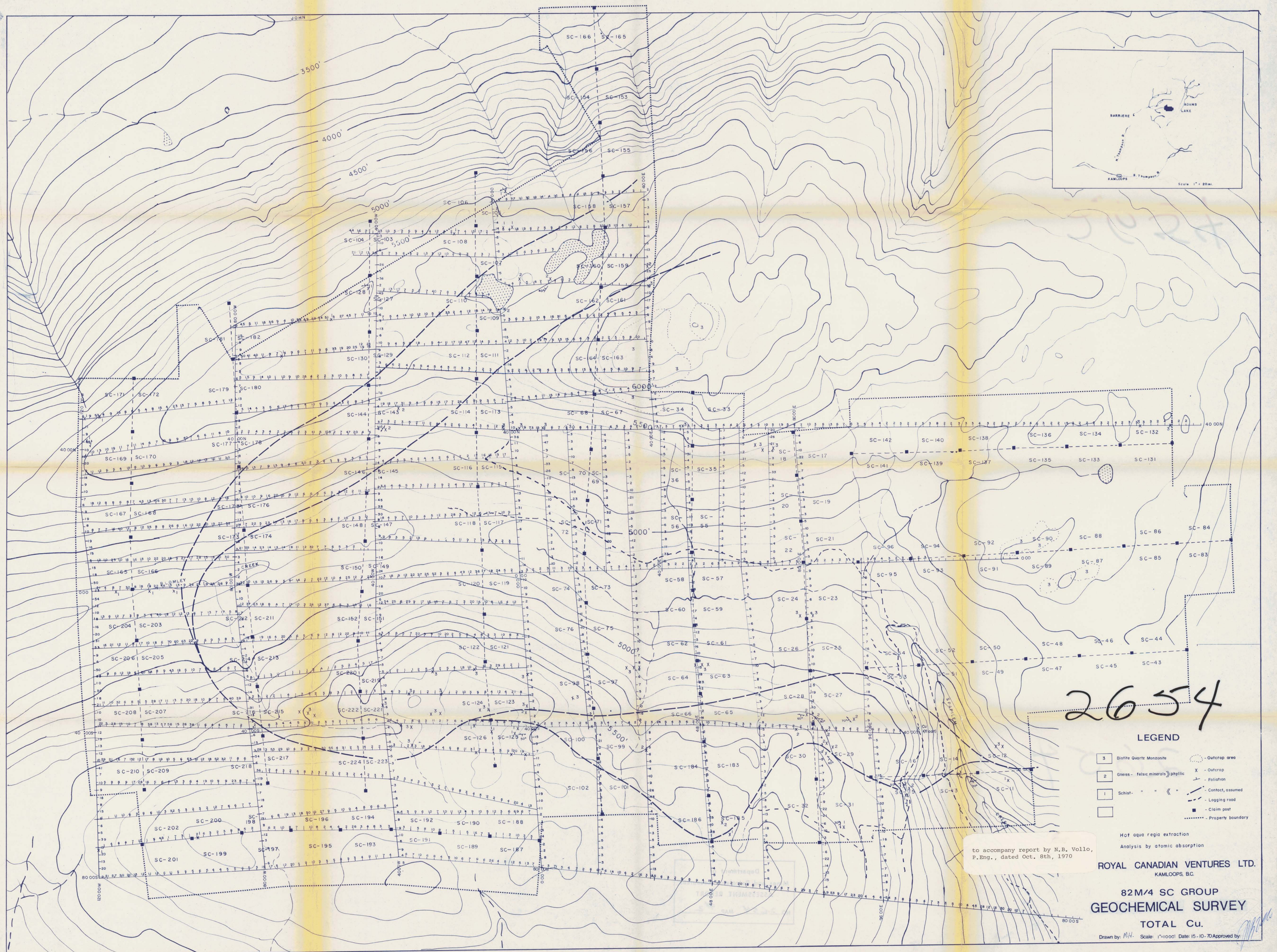
Chris Mohn is 23 years of age and completed Grade 12 in the Province of Alberta. He has completed 3 years of electrical engineering at the University of Calgary. He has been employed for three summers by Royal Canadian Ventures Ltd., as an instrument operator. He has been carefully instructed in the operation of the Sharpe MF-1 Magnetometer by the undersigned, who knows his work to be carefully and reliably done.

David Barlow is 21 years of age and completed Grade 12 at Weyburn Saskatchewan. He has completed 3 years in Geology in the University of Saskatchewan. He has been employed for two summers by Royal Canadian Ventures Ltd., as a field assistant and instrument operator. He has been carefully instructed in the operation of the Ronka EM-16 unit by the undersigned, who knows his work to be carefully and reliably done.

  
N.B. Vollo, P. Eng.

October 8th, 1970.





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- LEGEND**
- 3 Biotite Quartz Monzonite
  - 2 Gneiss - felsic minerals phyllitic
  - 1 Schist
  - Outcrop area
  - X Outcrop
  - Foliation
  - Contact, assumed
  - Logging road
  - Claim post
  - ..... Property boundary

to accompany report by N.B. Vollo,  
P.Eng., dated Oct. 8th, 1970

Hot aqua regia extraction  
Analysis by atomic absorption

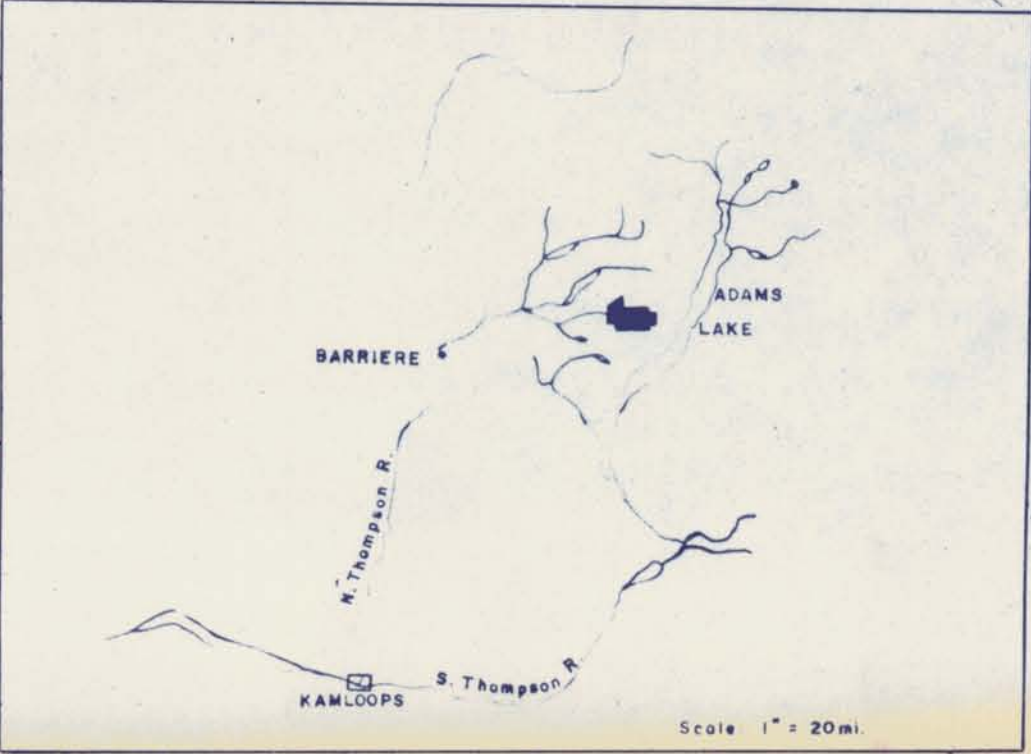
**ROYAL CANADIAN VENTURES LTD.**  
KAMLOOPS, B.C.

**82M/4 SC GROUP  
GEOCHEMICAL SURVEY**

**TOTAL Cu.**

Drawn by: *M.H.* Scale: 1"=1000' Date: 15-10-70 Approved by: *[Signature]*





**2654**

**LEGEND**

- Readings in x
- Corrected for diurnal
- Instrument - Sharpe MF-1
- Operator - Chris Mohr

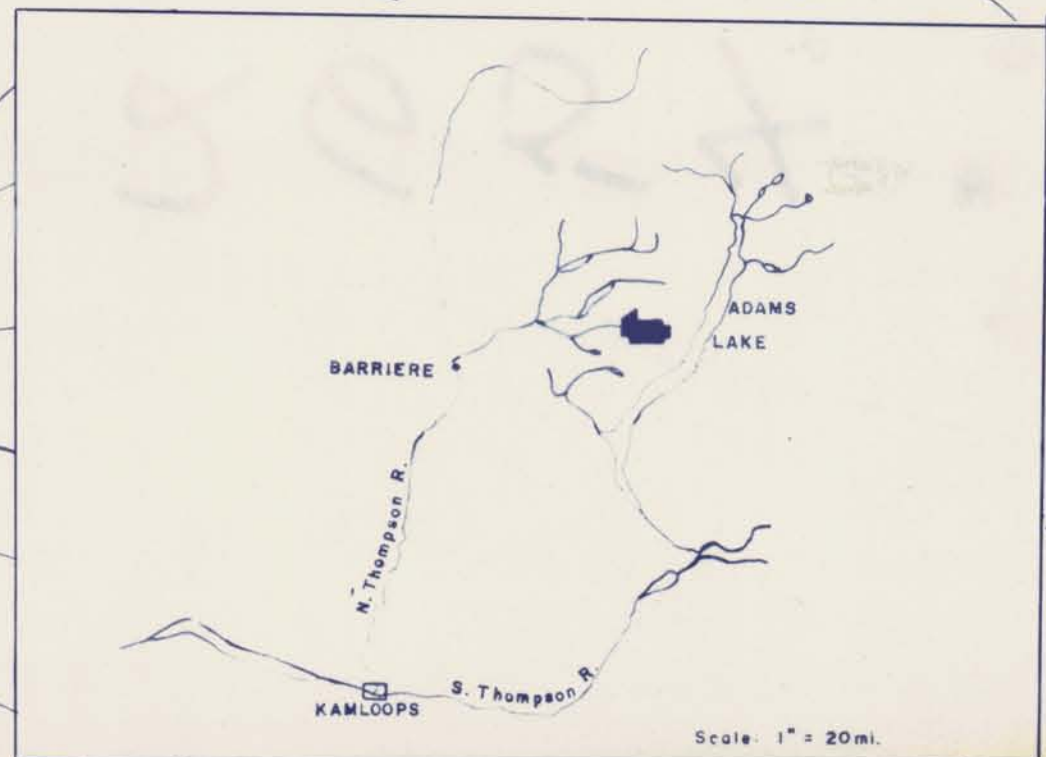
to accompany report by N.B. Vollo,  
P.Eng., dated Oct. 8th, 1970

**ROYAL CANADIAN VENTURES LTD.**  
KAMLOOPS, B.C.

**82M/4 SC GROUP  
MAGNETIC SURVEY**

Drawn by M.H. Scale: 1" = 1000' Date: 13-10-70 Approved by





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LEGEND

- 3 Biotite Quartz Monzonite
- 2 Gneiss - felsic minerals phyllitic
- 1 Schist - " " " "
- Outcrop area
- X - Outcrop
- Foliation
- Contact, assumed
- Logging road
- Claim post
- Property boundary

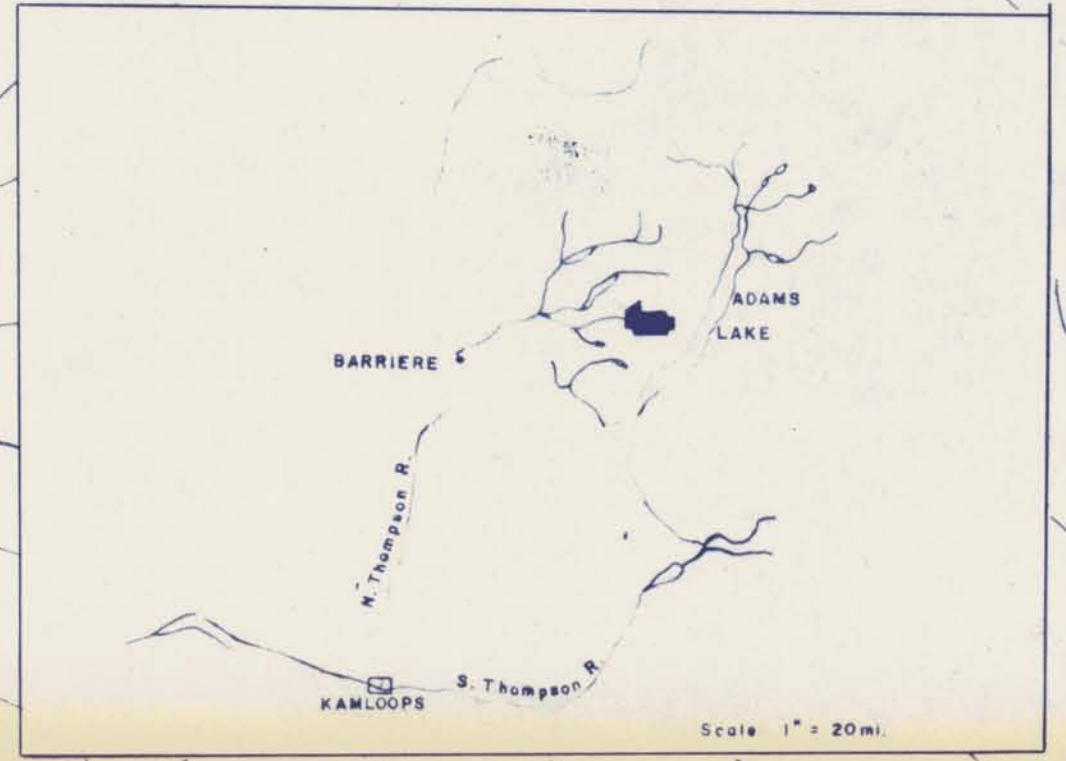
to accompany report by N.B. Vollo,  
P.Eng., dated Oct. 8th, 1970

ROYAL CANADIAN VENTURES LTD.  
KAMLOOPS, B.C.

82M/4 SC GROUP  
GEOLOGICAL SURVEY

Drawn by: K/V Scale: 1"=1000' Date: 13-10-70 Approved by:





- LEGEND**
- +50%
  - Direction faced
  - in-phase
  - 0-Line
  - Quadrature
  - Conductor; weak, mod., strong
  - 50%

**2654**

to accompany report by N.B. Vollo,  
P.Eng., dated Oct. 8th, 1970

**ROYAL CANADIAN VENTURES LTD.**  
KAMLOOPS, B.C.

**82M/4 SC GROUP**  
**EM-16 SURVEY**

Drawn by: *[Signature]* Scale: 1"=1000' Date: 13-10-70 Approved by: *[Signature]*