

3601

GEOCHEMICAL AND GEOPHYSICAL REPORT

ON THE

92 P/7 WL GROUP

of

ROYAL CANADIAN VENTURES LTD.

Bridge Lake, B.C.

51° 120° S.W.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

by

NO. 3601 MAP

N.B. Vollo, P. Eng.

February 16th, 1972.

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	1
LOCATION & ACCESS	1
TOPOGRAPHY & CLIMATE	1
CLAIMS	1
HISTORY & PREVIOUS WORK	2
FIELD WORK	2
GEOLOGY	2
GEOCHEMICAL SURVEY	3
MAGNETIC SURVEY	3
VLF-EM SURVEY	4
CONCLUSIONS & RECOMMENDATIONS	5
QUALIFICATIONS OF OPERATORS	6
AFFIDAVIT ON EXPENDITURES	7

Maps In Pocket

1 Geochemical Plan - Copper, Molybdenum	1" = 400'
2 EM-16 Survey	1" = 400'
3 Magnetic Survey	1" = 400'

SUMMARY

Approximately 800 soil samples were collected and 30 miles of VLF-EM and magnetic surveys completed around a copper molybdenum showing.

A weak copper anomaly was outlined and a small amount of additional work is recommended.

LOCATION & ACCESS

The group is located about 3 miles southeast of Bridge Lake, approximately 60 miles north of Kamloops. A good secondary road passes through the east half of the property.

TOPOGRAPHY & CLIMATE

The area is a low relief upland surface, approximately 4000 feet above sea level. Precipitation is low to moderate. Part of the area is open grassland or cleared hay meadows, the remainder covered by a very open growth of lodgepole pine, fir, and poplar.

CLAIMS

The group consists of 84 claims, in the Clinton Mining Division, as follows: -

TeePee	1 - 4	Record Nos. 25312 - 25315
WL	1 - 80	Record Nos. 26018 - 26097

All are held by Royal Canadian Ventures.

HISTORY & PREVIOUS WORK

The TeePee claims were staked by T. Gordon of Little Fort on an old copper molybdenum showing about 4500' south east of Whitley Lake. A short adit, now caved, was driven into the cliffside many years ago and at least one short diamond drill hole drilled. Trenching was done along the showing in 1970 by T. Gordon.

The area was mapped in 1964 - 65 by Campbell & Tipper and a 1"=4 miles map published as part of GSC Memoir 363.

FIELD WORK

Five men were employed for an average of 3 weeks in June, 1972, with minor follow-up work in July, August and October. Approximately 800 soil samples were collected, 30 miles of grid blazed and chained and VLF-EM and magnetic surveys completed.

GEOLOGY

The showing consists of molybdenum-chalcophyrite mineralization accompanied by strong K-feldspar alteration, in a narrow northwesterly striking fault zone cutting granodiorite of the Thuya Batholith. The showing occurs immediately to the south of the contact between the batholith and Nicola volcanic rocks. Outcrop is extremely sparse east and southeast of the showing, but fairly abundant to the west. Geochemical and geophysical surveys were carried out to check for the possible presence of porphyry type mineralization in the covered area.

GEOCHEMICAL SURVEY

Samples were taken at 200 foot intervals along lines 800 feet apart with spacing tightened to 100' x 400' around a few anomalous samples. Soil augers were used, the samples were placed in kraft paper envelopes and sent to Core Laboratories in Vancouver. Analysis were made for total Cu and Mo using hot aqua regia extraction and the atomic absorption method.

A poorly developed podzol type soil profile is present and samples were taken from the "B" horizon were recognizable. Direction of last glacial advance was about south 30°E., judging from features on air photographs. Depth of till probably averages less than 100'.

Copper background is about 16 ppm over both granodiorite and Nicola volcanics. Threshold was taken at 30 ppm. A very weak but reasonably consistent anomaly is present on claim WL58 and WL60, with analysis to 200 ppm. A second less well defined zone is present on claim WL38.

Molybdenum background is less than 1 ppm with scattered analysis to 7 ppm. None are considered anomalous. Copper and molybdenum are shown plotted on the accompanying map (in pocket).

MAGNETIC SURVEY

Readings were taken at 100 foot intervals along lines 800 feet apart, using a Sharpe MF-1 Fluxgate magnetometer. The instrument was arbitrarily set at 500 gammas at 0 + 00, and sub-stations established from this at line intersections along the central base line. Traverses were looped and correction made for diurnal variation where necessary. Results are shown plotted on the accompanying map, contoured at 500 gamma intervals, except over the geochemical anomalies where 200

gamma contours were used.

The 1000 gamma contour roughly indicates the granodiorite-volcanic contact, trending westerly across the central part of the property and agrees well with sparse observations on outcrop. The granodiorite is generally above 1000 gammas, with moderate relief, while the volcanics average about 500 gammas with low relief.

A fairly distinct westerly trending high of about 500 gammas coincides closely with the south geochemical anomaly.

VLf-EM SURVEY

Readings were taken at 100 foot intervals along lines 800 feet apart, closing to 400 feet over the geochemical anomalies, using a Ronka EM-16 unit. NPG, Seattle, Washington, was used as source, and has a near east-west field at this point. Readings were taken facing westerly, and are shown plotted on the accompanying map in profile form (in pocket). The quadrature polarity on this instrument is reversed.

Numerous cross overs are indicated on the profiles, but consistent trends are very scarce and few in-phase cross overs have associated favourable quadrature response. (Which should parallel the in-phase profiles in this instrument). The fault zone associated with the showing (at 4 + 00 east on line 4 + 00 south), can be traced only 400 feet south, though a good topographic lineament is present. Two weak zones, consistent over two lines, trend northerly across the geochemical anomalies and have weak associated quadrature response. These may be significant.

CONCLUSIONS AND RECOMMENDATIONS

A weak copper geochemical anomaly has been defined approximately 2000 feet east of a copper molybdenum showing, and has weak associated magnetic and electro-magnetic features. Further work is recommended as follows: -

1. Check all available outcrop within and immediately around the anomaly for possible mineralization and alteration.
2. Contingent upon the results of the above, drill one 200' hole at 34 + 00 East, 16 + 00 south.
3. Stake 8 additional claims north of WL79 and WL80.

Cost of this work should not exceed \$2,000.00.



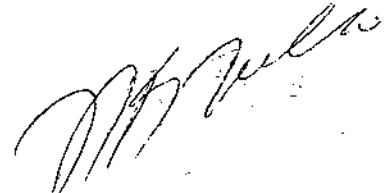
N.B. Volto, P. Eng.

February 16th, 1972.

QUALIFICATION OF OPERATORS

Michael Fennell is 22 years of age and completed Grade 12 at Barriere, B.C. He has been employed by Royal Canadian Ventures Ltd., for 2 years. 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.

Allen Berke is 21 years of age and completed 2 years of geology at the University of British Columbia. He was employed by Royal Canadian Ventures for the summer of 1971. He has been carefully instructed in the operation of the Sharpe MF-1 Fluxgate Magnetometer by the undersigned, who knows his work to be carefully and reliably done.



N.B. Vollo, P. Eng.

February 16th, 1972.

AFFIDAVIT ON EXPENDITURES

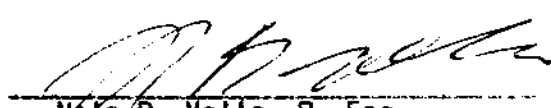
Personnel

N.B. Vollo, P. Eng., Supervision, Interpretation and report 4 days @ \$80.00	\$ 320.00
M. Hjelt, June 9th to 12th, August 6th, field work - 5 days @ \$ 45.00	225.00
Drafting and plotting - 6 days @ \$45.00	270.00
L. Loranger, June 9th to 18th, field work 10 days @ \$45.00	450.00
Drafting & Plotting - 3 1/2 days @ \$45.00	157.50
M. Fennell, June 9th to 30th, July 5th to 8th, October 5th, field work - 18 days @ \$35.00	630.00
Drafting and plotting 3 1/2 days @ \$35.00	122.50
T. Mann, June 9th to 18th, field work 10 days @ \$35.00	350.00
A. Berke, June 9th to 30th, July 5th to 8th, field work 17 days @ \$30.00	510.00
Drafting and plotting - 1 day @ \$30.00	30.00

ANALYSIS

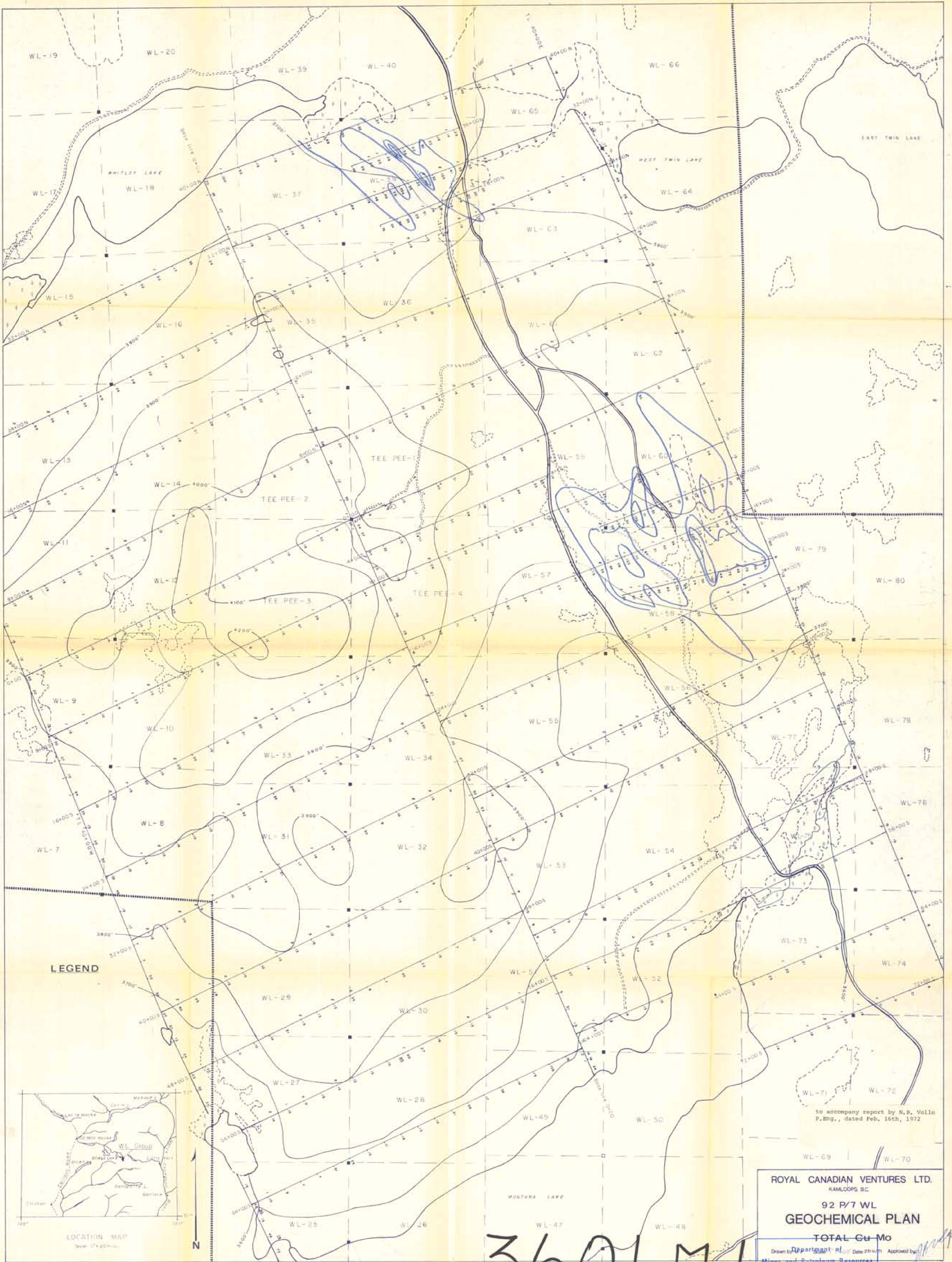
Core Laboratories, 325 Howe St., Vancouver, B.C.	1701.22
Accommodation & subsistence - Montana Lake Resort	406.13
Transportation - Company vehicle 1240 miles @ 12¢	148.80
Miscellaneous, flagging, prints, express, etc.	<u>122.78</u>
	<u>\$ 5,442.71</u>

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


Nels B. Vollo, P. Eng.

Declared before me at the City of Kamloops in the Province of British Columbia, this 25th day of February, 1972, A.D.


Commissioner for taking affidavits for British Columbia.



to accompany report by N.B. Valle
P.Eng., dated Feb. 16th, 1972

ROYAL CANADIAN VENTURES LTD.
KAMLOOPS BC

92 P/7 WL
GEOCHEMICAL PLAN

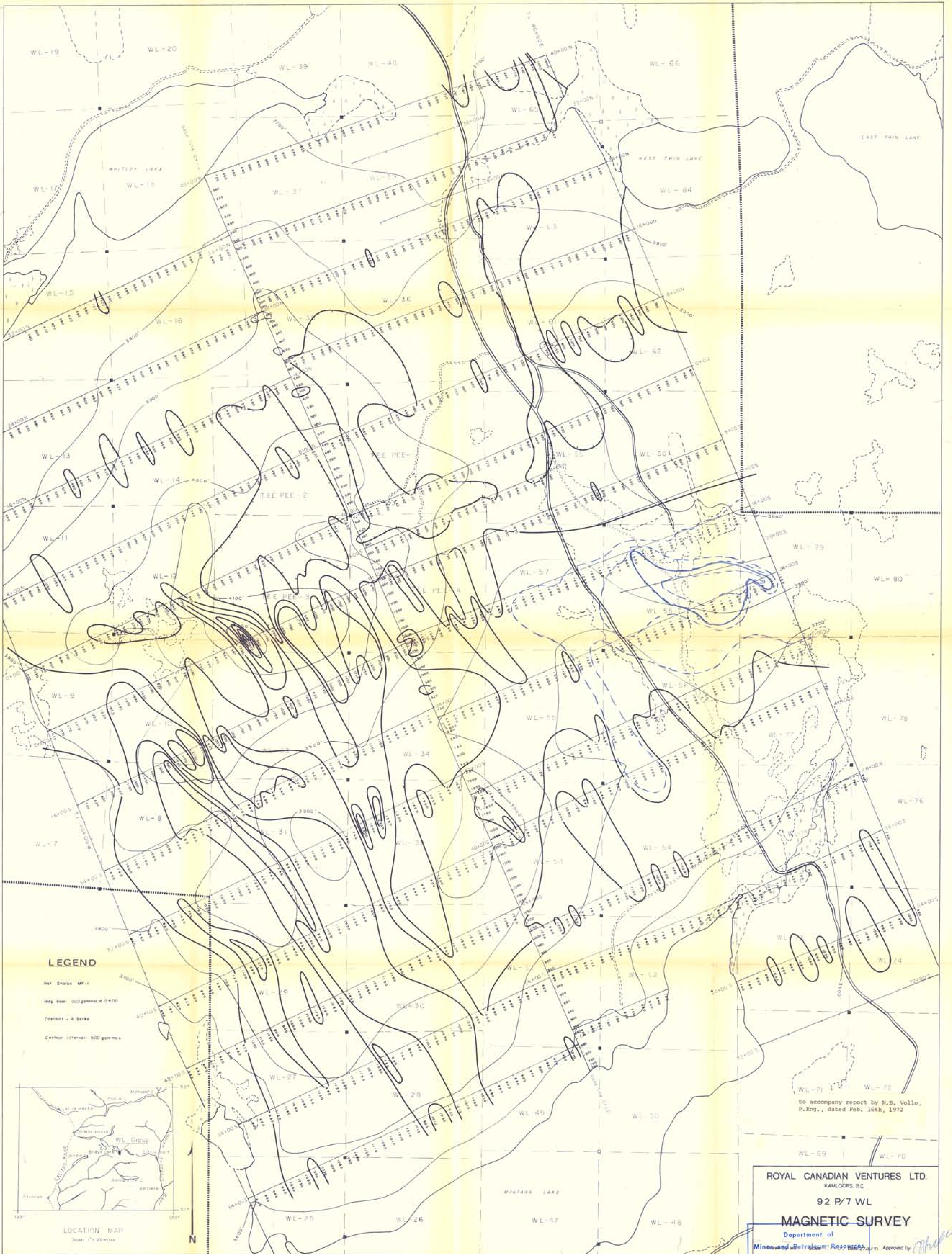
TOTAL Cu-Mo

Down by Department of Energy and Mines
Approved by: [Signature]

ASSESSMENT REPORT

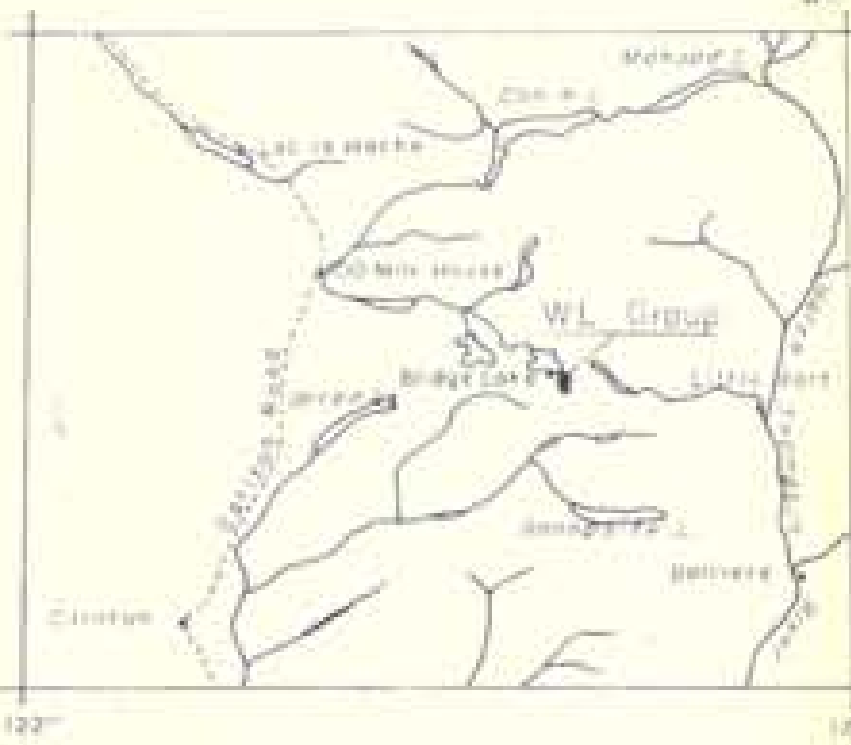
NO 3601 MAP #1

3601 M-1



LEGEND

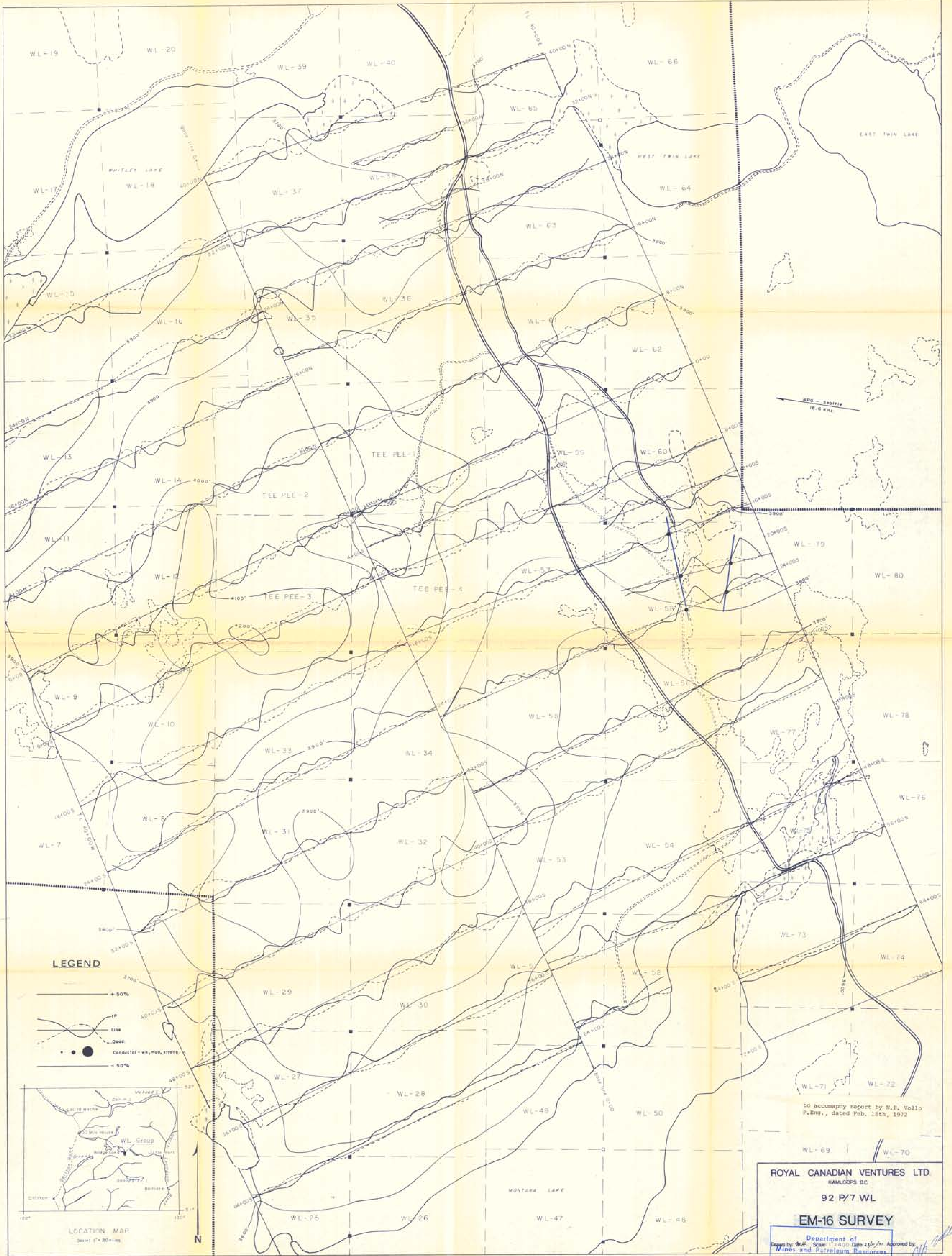
Mag. Scale: 500 gammas
 Operator: A. Baker
 Contour Interval: 500 gammas



LOCATION MAP
 Sheet 17 of 20-1156

to accompany report by N.B. Vollo,
 P.Eng., dated Feb. 16th, 1972

ROYAL CANADIAN VENTURES LTD.
 KAMLOOPS BC
 92 P/7 WL
MAGNETIC SURVEY
 Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 Approved by [Signature]
 NO. 3601 MAP #3



NPD - Section
18.6 R.M.

LEGEND

- + 50%
- 100%
- - - Quarter
- • • • • Section - 36, 36B, 37, 37B
- - 50%



to accompany report by N.B. Vollo
P.Eng., dated Feb. 16th, 1972

ROYAL CANADIAN VENTURES LTD.
KAMLOOPS BC

92 P/7 WL

EM-16 SURVEY

Department of
Mines and Petroleum Resources

ASSESSMENT REPORT
NO 3601 P. 2 #2