

2157

GEOPHYSICAL REPORT

on the

ROYAL 28 CLAIM GROUP

CALLING LAKE

50° 121° S.E.

KAMLOOPS MINING DIVISION

by

W.R. BACON, Ph.D, P.Eng.

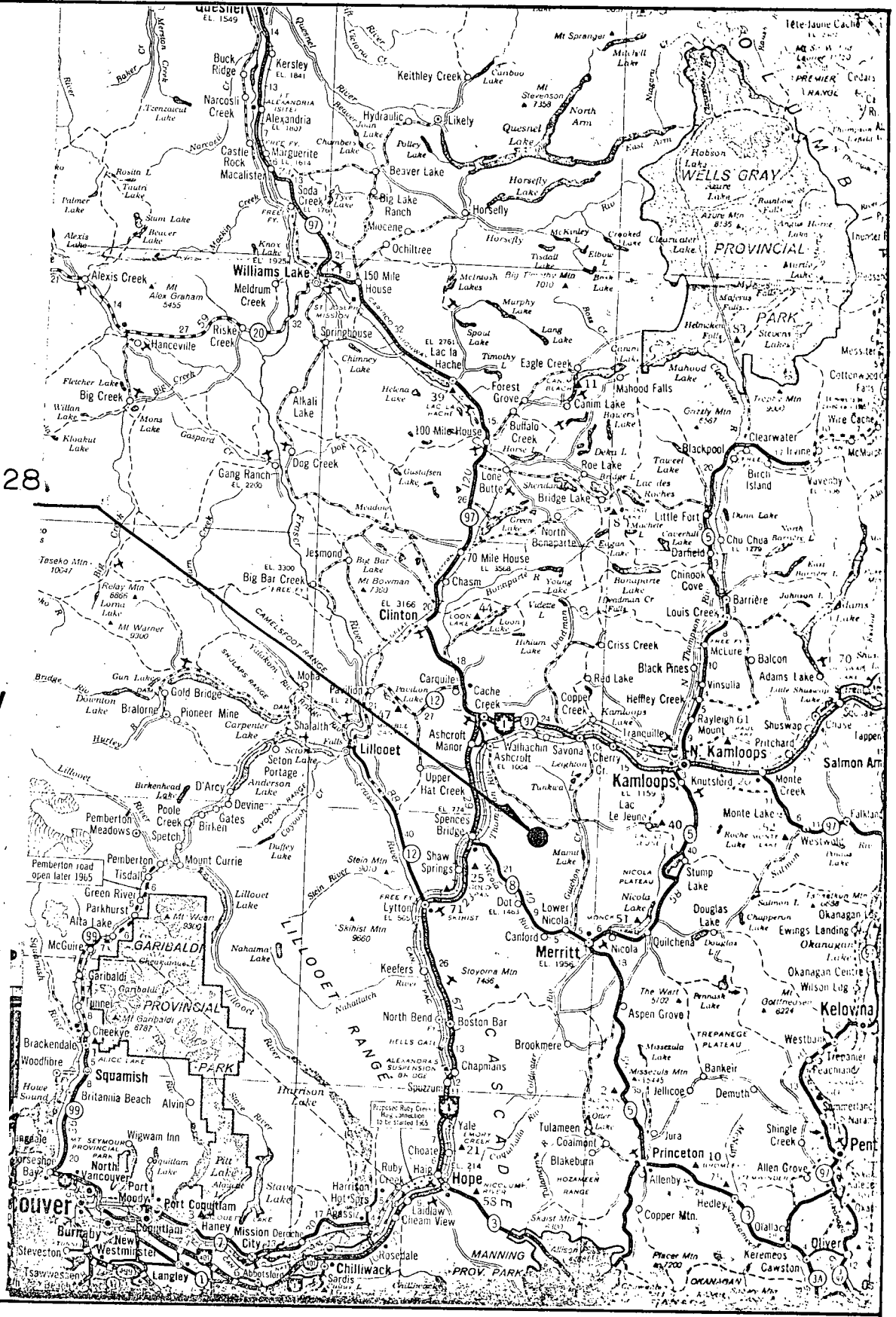
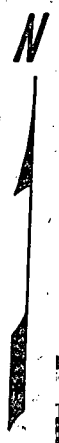
Claims owned by Royal Canadian Ventures Ltd.

Report on behalf of
Great Plains Development Company of Canada Ltd.

Vancouver, B.C.

December 19, 1969.

ROYAL 28
GROUP



Scale: 1" = 30 miles

LOCATION MAP ROYAL 28 GROUP

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<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. <u>2157</u> MAP _____</p>
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PROPERTY

The Royal 28 Group, consisting of 23 contiguous mineral claims, is owned by Royal Canadian Ventures Ltd. The present work and report is for Great Plains Development Company of Canada Ltd. who are optionors of the property.

LOCATION AND ACCESS

The Royal 28 Group is ten miles east of Spences Bridge and eight miles southwest of Bethlehem Copper Mines in the Highland Valley. The northernmost claims partly cover Calling Lake.

Access to the Royal 28 Group is made possible from the main Highland Valley road by two poor gravel roads. One, to the west, leaves the Alwin Mines road near Alwin Mines and goes south to within one half mile of the most westerly claims in the Royal 28 Group; the other, to the east, cuts the most easterly claims in the Royal 28 Group. A four-wheel-drive vehicle is necessary on both roads during most of the year.

SUMMARY AND CONCLUSIONS

The magnetometer survey conducted on the Royal 28 Group indicated a relatively low magnetic relief with a maximum value of 1880 gammas. The larger fluctuations in magnetic values occur in areas

of outcrop. Many magnetic lows of 200 to 400 gamma magnitude exist.

The results of the magnetic survey must be correlated with previously conducted geophysical and geochemical surveys to define any specific targets for further work.

HISTORY

Considerable previous work has been done on some of the Royal 28 Group claims including geological mapping by Mr. N. Vollo, an induced polarization survey by Sulmac, trenching both by hand and tractor and some diamond drilling.

MAGNETOMETER SURVEY

(a) PURPOSE

An accurate magnetic map is considered useful when searching for porphyry type ore deposits; a magnetic anomaly of 200 to 400 gammas can be quite significant in terms of associated mineralization.


In the Highland Valley context a magnetic low may result from the destruction (alteration to hematite) of the original magnetite in the host rock. A magnetic low can also be caused by many other geological conditions and hence the results of a magnetic survey must be used in conjunction with other exploration findings.

(b) METHOD

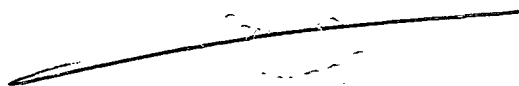
A Sharpe MF-1 fluxgate magnetometer, operated by Colin Campbell, B.Sc., an honours geology graduate of the University of British Columbia, was used to take readings at 100 foot intervals on a picket-line grid. Two base stations were established. One base station was occupied several times each day to establish diurnal variation curves, from which readings were corrected. The corrected readings are plotted on Figure 1; the results are also presented as a graph in Figure 2.

(c) RESULTS AND INTERPRETATION

A total of 16.8 miles of line was surveyed at 100 foot intervals on lines 400 feet apart. The maximum magnetic relief on the Royal 28 Group was found to be 1880 gammas; however generally the magnetic profile (Figure 2) is relatively flat with large fluctuations occurring only in outcrop areas. The existence of many lows of 200 to 400 gammas indicates the need for correlating the magnetic data with the results of other surveys, geophysical and geochemical.



W.R. Bacon, Ph.D., P.Eng.



DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
To Wit:

In the Matter of

GEOPHYSICAL REPORT
on Royal 28 Group
by W.R. Bacon, Ph.D., P.Eng.

I, Colin J. Campbell, B.Sc.

of 102 - 1111 West Georgia St.,
Vancouver, 5, B.C.

in the Province of British Columbia, do solemnly declare that

I am an agent of Royal Canadian Ventures Ltd.

During October 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30
November 9, 10
December 3, 4, 18, 1969

I did 16.8 line miles of magnetometer survey and compiled data on the
Royal 28 Group at a cost of \$1264.08.

Including:

Wages (16 days @ \$50.00/day) (Colin Campbell - Geologist)	\$800.00
Meals	83.82
Hotel	17.60
Four Wheel Drive Rental, gasoline & oil	222.66
Magnetometer Rental (14 days @ \$10/day)	<u>140.00</u>
Total	\$1264.08

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of
the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

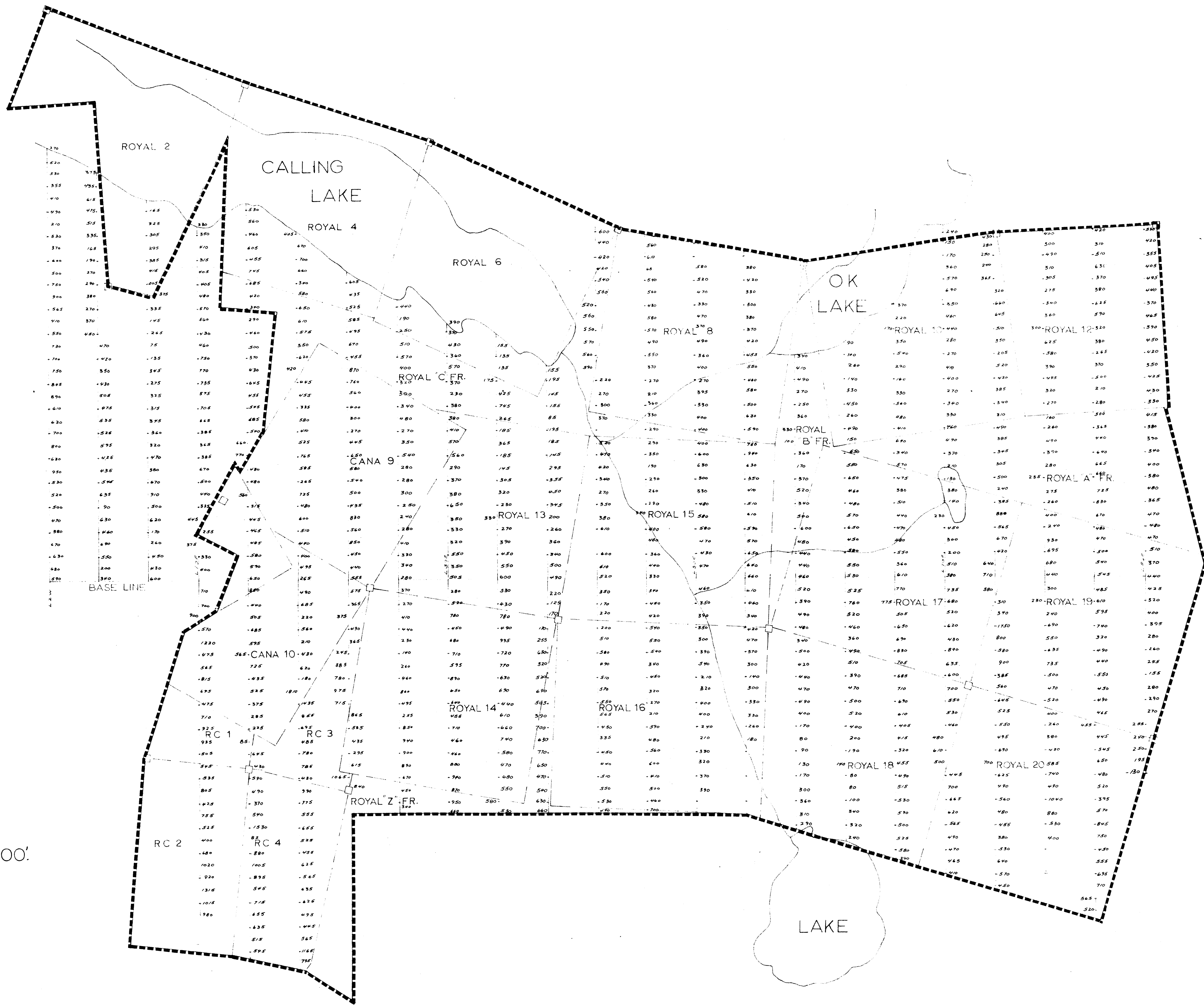
Declared before me at the city
of Vancouver, in the
Province of British Columbia, this 19
day of December 1969, A.D.

Colin J. Campbell

Jean Sauer SUB-MINING RECORDER
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

In the Matter of

Statutory Declaration
(CANADA EVIDENCE ACT)



Scale: 1" = 400'

LEGEND

- picket line with 200' stations indicated; values in gammas.
- claim post
- claim boundaries

2157.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2157 MAP #2

GREAT PLAINS DEVELOPMENT
COMPANY OF CANADA LIMITED
ROYAL 28 GROUP

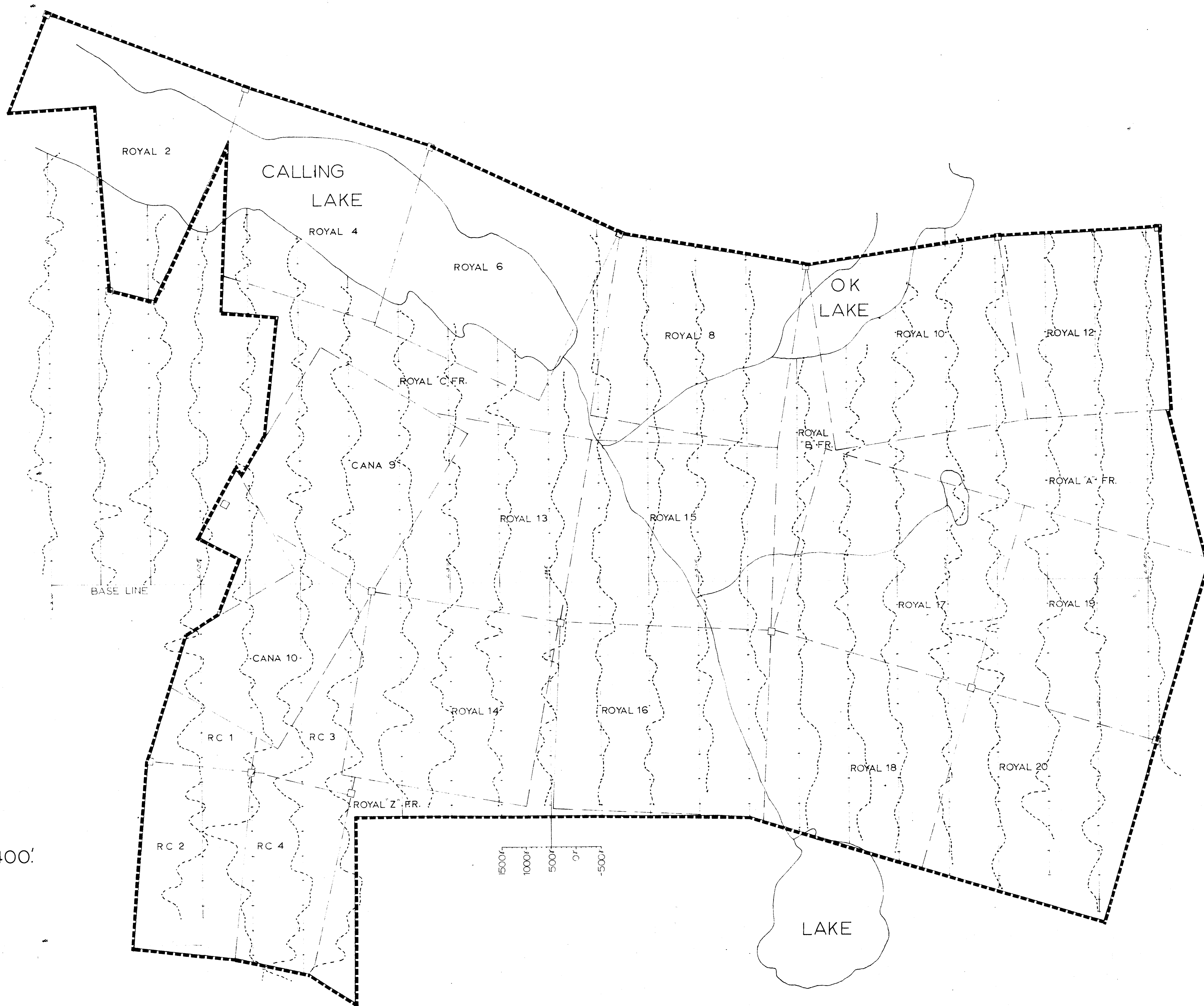
MAGNETOMETER SURVEY (DATA)

Bacon and Crowhurst Limited

Operator: C. Campbell. Drawn by: C. Campbell, December, 1969.

Figure 1 To accompany geophysical report by Dr. W.R. Bacon, P. Eng., on the Royal 28 Group, Kamloops Mining Division, Date: Dec. 19, 1969.

W.R. Bacon



LEGEND

- picket line with 200' stations; also used as 500 gamma base for graph.
- claim post.
- - - claim boundaries.

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ASSESSMENT REPORT
NO. 2157 MAP #3

Note: Corrected magnetometer readings are plotted as a graph; each N-S line represents a base level of 500 gammas; a vertical scale of 1" = 1000 gammas is used, e.g. line 38E.

GREAT PLAINS DEVELOPMENT
COMPANY OF CANADA LIMITED
ROYAL 28 GROUP

MAGNETOMETER SURVEY (INTERPRETATION)

Bacon and Crowhurst Limited

Operator: C. Campbell. Drawn by: C. Campbell, December 1969.

Figure 2 To accompany geophysical report by Dr. W.R. Bacon, P. Eng., on the Royal 28 Group, Kamloops Mining Division. Date: Dec. 19, 1969.

W.R. Bacon