

VLF-EM and Magnetometer Report

on the

HOMFRAY LAKE PROPERTY

Kamloops M.D.

92 I/7E

R Claim Group 50 km S.W. of Kamloops

For: Thunderbolt Resources Ltd.
 404-850 West Hastings
 Vancouver, B.C.

Work Done: April 10, - 13, 1979

Report by: L. Sookochoff, P.Eng.

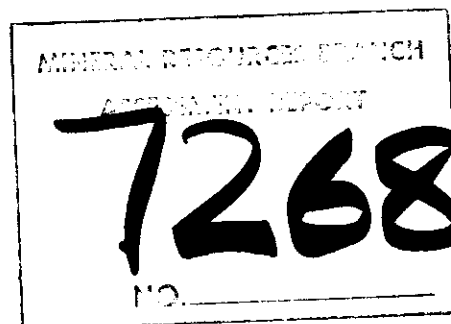
Date of Report: May 4, 1979

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MAPS

	<u>Scale</u>
LOCATION	1 : 50,000
MAGNETOMETER SURVEY RESULTS	1 : 3,000
VLF-EM SURVEY RESULTS	1 : 3,000



Magnetic and VLF-EM Survey

on the

HOMFRAY LAKE PROPERTY

for

THUNDERBOLT RESOURCES LTD.

INTRODUCTION

A magnetometer and VLF-EM survey was carried out on the Homfray Lake property during April, 1979 as the first stage in the exploration program as recommended in the writer's report dated June 23, 1978.

The field work which was carried out in conjunction with a geological survey was carried out by the writer and an assistant. Fourteen line kilometers was completed in this survey.

The object of the geophysical surveys was to aid in the interpretation of the geology of the property and to locate near surface intrusives or structures which may host or control possible mineralization.

PROPERTY, LOCATION AND ACCESS

The property is comprised of six claims located 50 km southwest of Kamloops, B.C. and within the Kamloops M.D. Particulars of the claims are as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
R3 - R8	1266 - 1271	June 9, 1979

The claims are owned by Thunderbolt Resources Ltd. Access to the property is from the Lac La Jeune road to the Dupont Lake secondary road, 48 km from Kamloops. The northern boundary of the property is four km from the junction.

TOPOGRAPHY, WATER AND POWER

Topography is of gently rolling hills with elevations ranging from 1,200 to 1,500 m. Sufficient water for exploration purposes would be available from creeks or ponds within the property boundaries.

A power line is within four km to the southwest.

GEOLOGY

The R claims are located within a 40 km wide arcuate north-south trending band of Upper Triassic sediments and volcanics. This Nicola group stretches from Princeton in the south through Merritt and beyond Kamloops Lake to the north. Peripheral rocks are predominantly intrusives in addition to Cretaceous and younger sediments and volcanics. Stocks and plugs of intrusives are occasionally evident within the Nicola rocks.

In the adjacent area of the R claims, a dioritic plug with a pyritic halo is reported to outcrop to the northeast. A magnetic high to the north may indicate an undisclosed or near surface intrusive.

MAGNETOMETER AND VLF-EM SURVEYS

1) Survey Method

As indicated on the accompanying maps, an east-west base line was established which coincides (in part) to the R3-R8 claim line. Stations for perpendicular cross lines were established at initially 50 meters and subsequently every 100 meters. Readings were taken at 30 meter intervals along the cross lines. Stations along the base line and cross lines were flagged and marked with the appropriate co-ordinates. A total of 14 line kilometers of survey were completed.

2) Results

a) Magnetic

The mean background value of the magnetic data was determined to be 55,500 gammas which was subtracted from all the readings so that positive and negative values were established against a mean background value of 0 gammas. The resulting values were contoured at an interval of 50 gammas. The negative values are drawn in dashed lines.

b) VLF-EM

The VLF-EM results were plotted after application of the Fraser filter method. The advantage of the Fraser filter is that a conductor that does not show up as a crossover on the unfiltered data may show up on the filtered results.

The positive dip-angle readings have been contoured at an interval of 5° .

3. Interpretation

VLF-EM

Four prime northeasterly trending anomalies were delineated in addition to a number of smaller confined or discontinuous anomalies which are not considered significant at this time.

Although the major structures in this general area are indicated to trend northwesterly, the contoured data suggests northeasterly trends. The contours could be biased northeasterly for continuity across lines however, knowing the preferred structural direction in the area and local dominant fracture orientation, a northwesterly trend could be assumed as indicated on the accompanying map (Anomaly A to Anomaly D).

In correlating the available geological information, the northwesterly E.M. anomaly orientation would be preferred as coincidence is established with an assumed geological contact of red and gray volcanics.

Additional information would be required to establish the significance of either direction.

Magnetic

The results of the magnetometer survey were considered to be extremely flat with minor magnetic variation. This would indicate primarily one rock type which in this case would be volcanics. The geology indicates variable volcanic flows on the property.

In correlating the magnetic with the VLF-EM survey, the magnetic low associated with Anomaly A generally correlates with the VLF-EM Anomaly A. This could reflect a strong fault, shear zone or hydrothermal alteration in which the magnetite associated with the original volcanic flow has been altered to a nonmagnetic mineral. Similar correlation is reflected in the magnetic low of Anomaly C and VLF-EM Anomaly D in addition to the magnetic low of Anomaly B and VLF-EM Anomaly C.

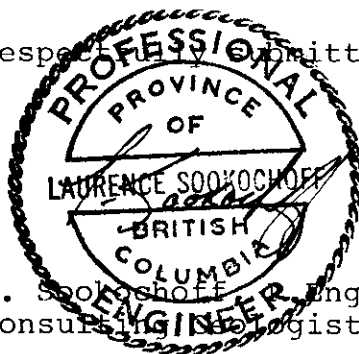
In this latter correlation, although the magnetic results are relatively low, magnetic Anomaly B may indicate a near surface intrusive with associated increased magnetic values.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer and VLF-EM surveys were successful in the objectives of delineating prime anomalous areas for follow-up detailed exploration and in providing data for correlative purposes in future exploration.

Four prime indicated shear zones or fault structures and possible sulphide mineralization - three of which are associated with magnetic lows warrant detailed exploration in addition to follow-up exploration as recommended in the Stage II program of the original recommended exploration program.

Respectfully submitted



L. Sookchoff, Eng.
Consulting Geologist

May 4, 1979
Vancouver, B.C.

CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

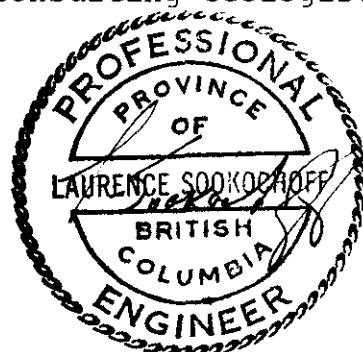
That I am a Consulting Geologist with the firm of Pan-American Consultants Ltd. of 2602-1055 West Georgia Street, Vancouver, B.C.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practising my profession for the past thirteen years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. The information for the accompanying report is based on work done on the property on April 10 - 13, 1979.
5. Neither I or Pan-American has direct or indirect interest in the property described herein, or in the securities of Thunderbolt Resources Ltd.

Laurence Sookochoff, P.Eng.
Consulting Geologist

May 4, 1979
Vancouver, B.C.



Cost Breakdown

Geophysical Survey

on the

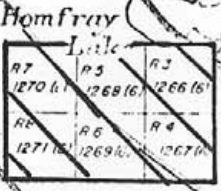
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Kamloops M.D.

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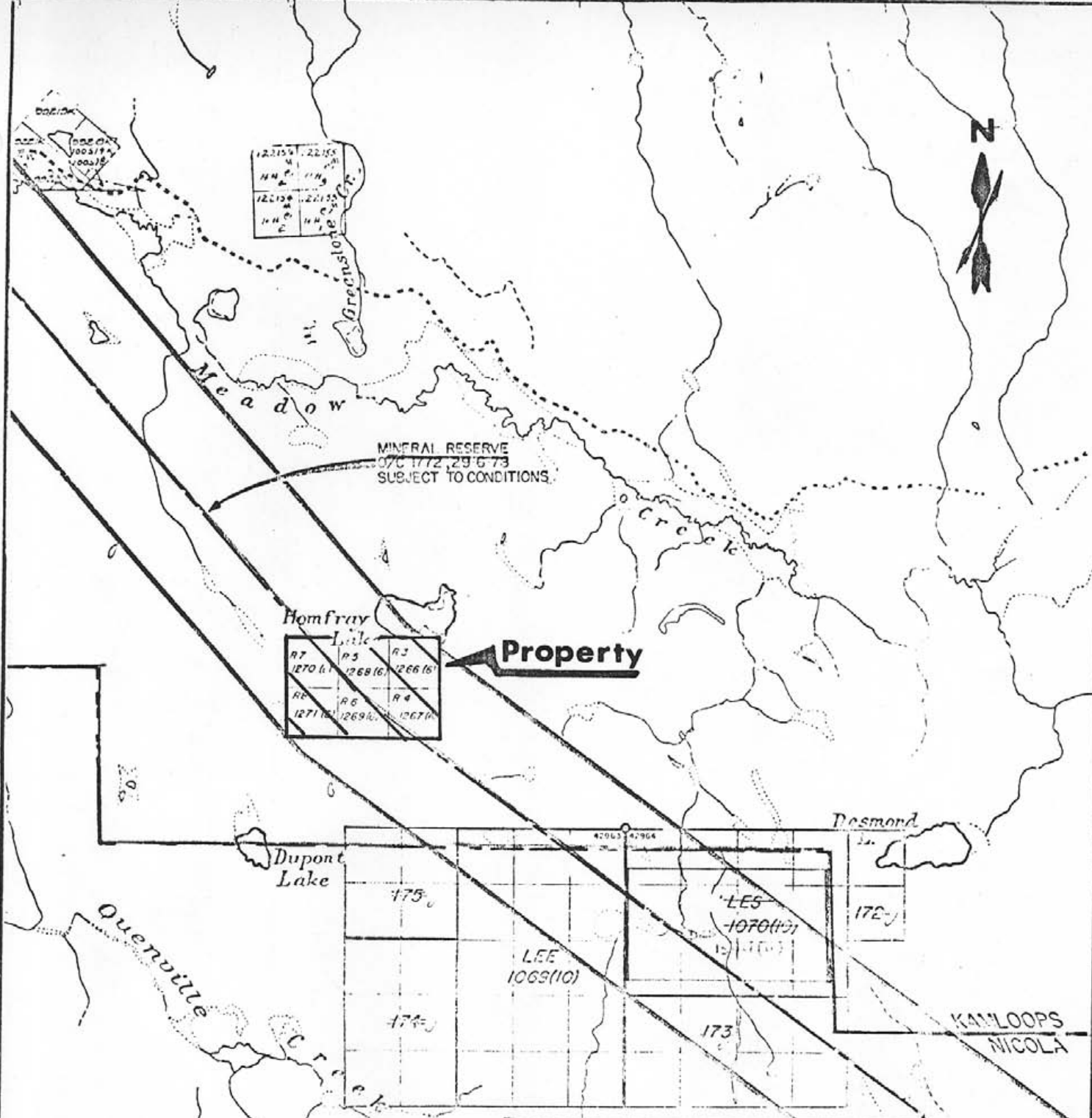
L. Sookochoff, P.Eng.	
April 10-13, 1979 4 days @ \$300	\$1,200.00
G. Sookochoff 4 days @ \$100	400.00
Vehicle rental and mileage	250.00
Drafting and mapping	550.00
Report	500.00
E.M. and Magnetometer rental 4 days @ \$35.00	140.00
Room and Board 8 man days @ \$50.00	400.00
	<u>400.00</u>
	\$3,440.00

L. Sookochoff



Property

MINERAL RESERVE
07C 1772, 29' 6" 73
SUBJECT TO CONDITIONS.



120°43'
50°27'

MT GUICHON

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HOMFRAY LAKE PROPERTY

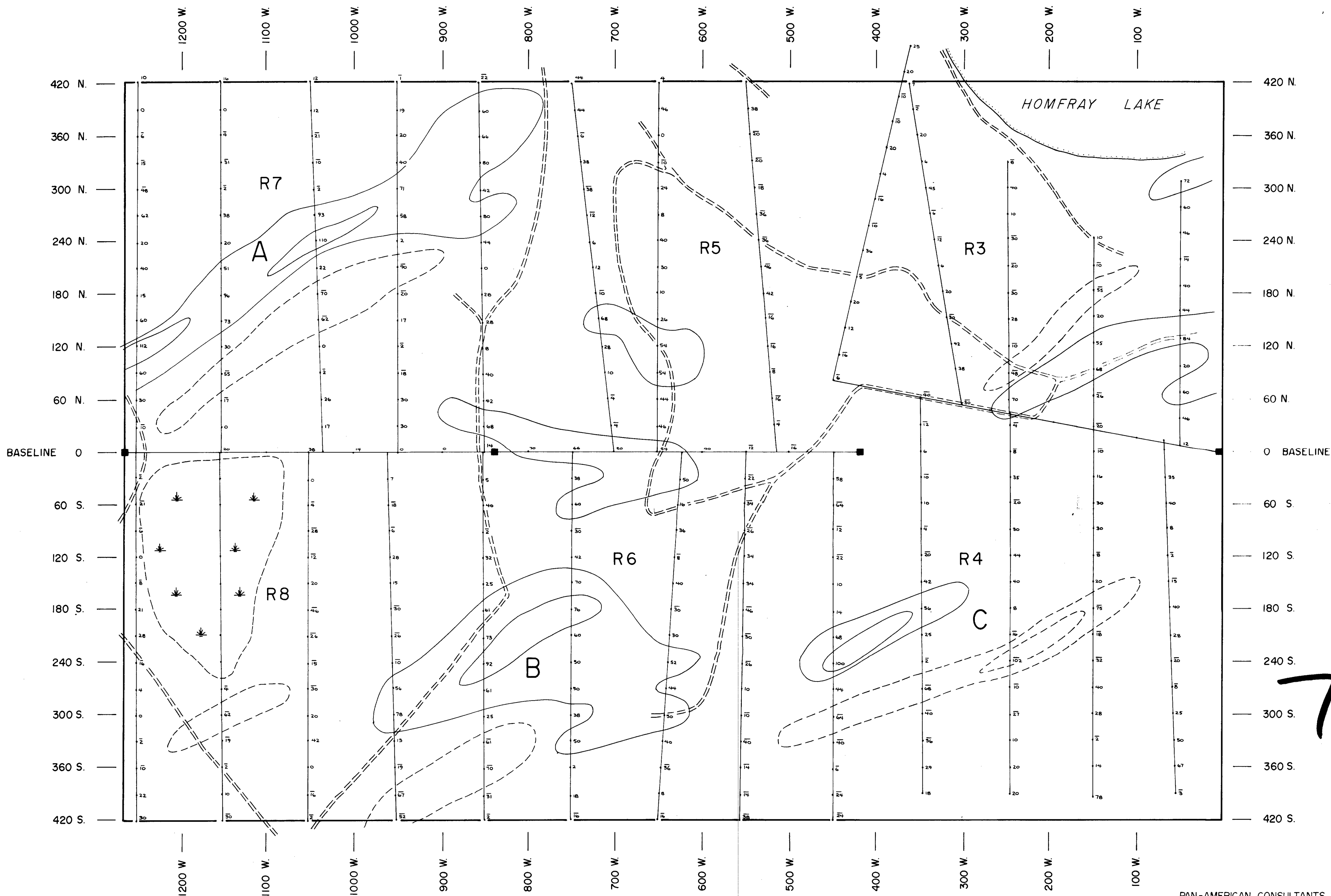
LOCATION MAP



SCALE: 1:50000



MAY 1979



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 HOMFRAY LAKE PROPERTY
 KAMLOOPS M.D., B.C.

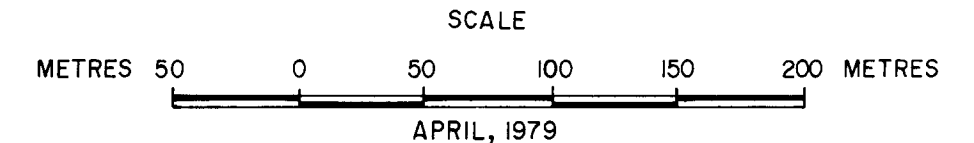
LEGEND
 ■ Claim post
 --- Road
 ⚡ Swamp

NOTE: Values are in gammas. These values have been obtained by subtracting 5500 gammas from the field values.

CONTOURS: Contour interval is 50 gammas.

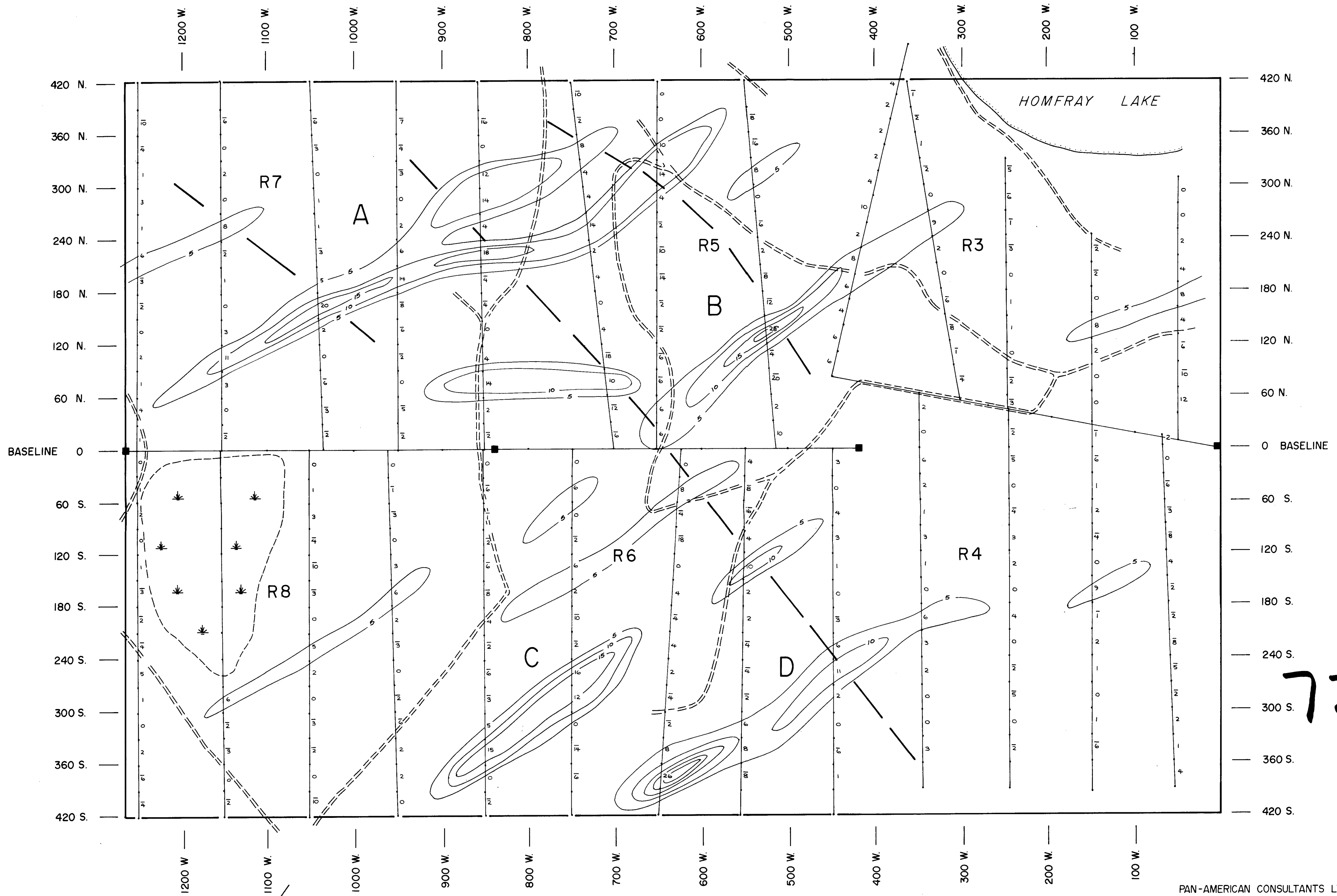
--- Negative Contour
 — Positive Contour

MAGNETOMETER SURVEY RESULTS

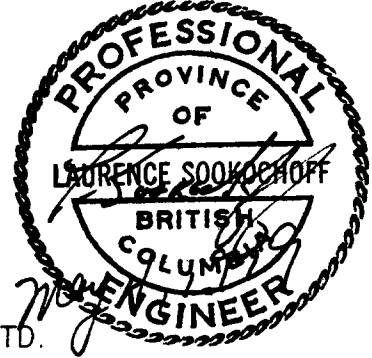


To accompany a report by L. Sookchoff, P. Eng. dated May 7, 1979

APRIL, 1979



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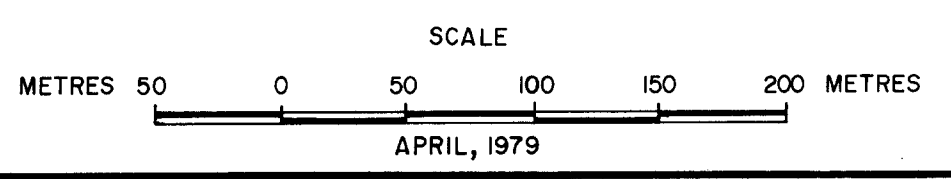
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KAMLOOPS M.D., B.C.

VLF - EM SURVEY RESULTS

LEGEND

- Claim post
- Road
- ⊛ Swamp
- Possible structural direction other than that of contour orientation.

NOTE: Readings are degrees.
Contour interval is 5°.



To accompany a report by L. Sookchoff, P. Eng. dated May 7, 1979

APRIL, 1979