

6500
Part 1 of 2

A REPORT

ON

AN INDUCED POLARIZATION SURVEY

Stikine Area, Liard M.D.,

British Columbia

FOR

GREAT PLAINS DEVELOPMENT COMPANY OF CANADA LTD.

Calgary, Alberta

BY

PETER E. WALCOTT & ASSOCIATES LIMITED

Vancouver, British Columbia

OCTOBER 1977

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ACCOMPANYING MAPS- Scale 1" = 400'

MAP POCKET

CONTOURS OF APPARENT RESISTIVITY a = 100'	n = 1	W-242-1
" " " " "	n = 2	W-242-2
" " " CHARGEABILITY "	n = 1	W-242-3
" " " " "	n = 2	W-242-4

INTRODUCTION

Between August 3rd and 12th, 1977, Peter E. Walcott and Associates Limited carried out an induced polarization (I.P.) survey for Great Plains Development Company of Canada Ltd. over part of their G.J. property, Stikine Region, Northern British Columbia.

At the request of the client first and second separation measurements of apparent chargeability (the I.P. response parameter) were made every 100 feet along a "compass and picket" grid using the dipole-dipole method of surveying and a 100 foot dipole. In addition simultaneous measurements of resistivity were also made.

The data are presented in contour form on plan maps of the grid, Maps W-242-1 to 4, that accompany this report.

PROPERTY, LOCATION AND ACCESS

The property is located in the Liard Mining Division of British Columbia. It consists of the G.J. claim of 4 unit lengths E-W and 3 unit lengths N-S i.e. a total of 12 units.

The claim is approximately 240 miles north of Terrace, B.C., and 60 miles southeast of Telegraph Creek. It is situated on the southern end of the Klastline Plateau about 3 1/2 miles west of Kinaskan Lake.

Access can be obtained either by tote road from Kinaskan Lake or by helicopter from Tatogga Lake. On this survey access was obtained by means of the latter.

PREVIOUS WORK.

Previous work on the property consisted of geological mapping, geochemical soil and silt sampling, magnetic and induced polarization surveys, and diamond drilling that were carried out at some time by one of three companies, namely Convest Exploration Company Limited, Amoco Canada Petroleum Company Ltd., and Great Plains Development Company of Canada Ltd.

The results of the above are supposedly documented in reports held by Great Plains Development Company although the writer has not personally seen them.

PURPOSE.

The purpose of the survey was to delineate the areas of sulphide occurrences on the property in an effort to refine the drill targets which exist in the areas of geochemical anomalies and structural intersections.

GEOLOGY.

The reader is referred to the previously mentioned reports held by Great Plains.

SURVEY SPECIFICATIONS

The induced polarization (I.P.) survey was carried out using a pulse system manufactured by Crone Geophysics Limited of Mississauga, Ontario.

The transmitter, a 250 watt battery powered unit, injects current into the ground at two electrodes C_1 and C_2 at a cycling rate of 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity, while the receiver measures the primary voltage appearing between the potential electrodes, P_1 and P_2 , during the "current-on" part of the cycle, and the apparent chargeability, a measure of the overvoltage effect, across the same potential electrodes during the "current-off" part of the cycle.

In effect the data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the electrodes, C_1 and C_2 , the primary voltage (V_p) across the potential electrodes as above, and the apparent chargeability (M_a) presented as a direct readout (two samples of the decay curve, M_a (0.45 - 0.90 seconds) and N_a (0.90 - 1.35 seconds) are taken for 3 current cycles, automatically averaged, adjusted to the $33M_1$ standard and stored.

The apparent resistivity (ρ_a) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using the "dipole-dipole" electrode array with a 100 foot dipole as illustrated on Map W-242-3. As only first and second separation measurements were required the two current electrodes, C_1 and C_2 , and the three potential electrodes P_{11} , $P_{12/21}$ and P_{22} were moved in unison along the survey lines.

In all some 9.7 miles were surveyed using this method.

DISCUSSION OF RESULTS.

The I.P. survey outlined a generally broad anomalous zone, in which several individual anomalies are contained, which occurs on and around the contact of the western extremity of the dioritic intrusive and the surrounding country rocks of volcanic and sedimentary origin as outlined by the 30 millisecond contour on Maps W-242-3 & 4.

This zone, although having a similar distribution of anomalous readings as the copper geochemical zone, is not coincident with it appearing for the most further away from the intrusive-country rock contact, and downslope from the geochemical anomalies.

The first and second separation results are very similar with generally slightly higher response with depth.

The pronounced I.P. anomaly on the southern edge of the grid appears to be associated with felsitized rocks, and is most probably caused by disseminated pyrite in the same.

The higher I.P. response on lines 22 and 26 in the region of low geochemical response could be attributable to pyrite in cherts as there is a zone of high resistivity partly associated with them that could be due to silification.

The lows on the resistivity survey, Maps W-242-1 & 2, are thought to be mostly related to conductive overburden as the ground is generally more boggy at their locations. Similarly the highs are probably due to suboutcropping areas and/or silicified portions of the altered intrusive-country rock.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

Between August 3rd and 12th, 1977, Peter E. Walcott and Associates Limited carried out an I.P. survey for Great Plains Development Company of Canada Ltd. over their G. J. property in northern British Columbia.

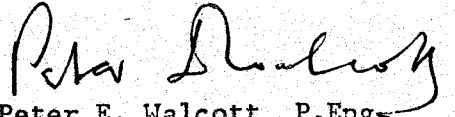
The survey outlined a broad zone of high chargeability responses occurring on and around the western intrusive - country rock contact.

This zone although similar in shape to the geochemical anomaly is not coincident with it leading the writer to conclude that the chargeability responses are mostly due to pyrite.

As a result he therefore recommends that the I.P. data be closely studied in conjunction with the geology and geochemical results, particularly with those from the recent bedrock sampling work before embarking on a diamond drilling programme.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED


Peter E. Walcott, P.Eng.
Geophysicist

Vancouver, B.C.

October 1977

APPENDIX

COST OF SURVEY.

Peter E. Walcott and Associates Limited undertook the survey on a daily basis. Mobilization and draughting costs were extra so that the total cost of services provided was \$9,428.59.

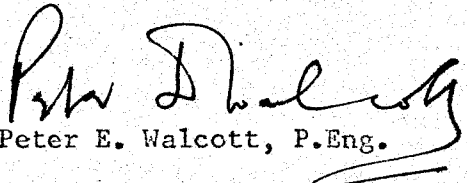
PERSONNEL EMPLOYED ON SURVEY.

<u>Name</u>	<u>Occupation</u>	<u>Address</u>	<u>Dates</u>
Peter E. Walcott	Geophysicist	Peter E. Walcott & Assoc. 605 Rutland Court, Coquitlam, B.C.	Aug. 3rd - 12th, Sept. 29th - 30th, 1977
J. Flanagan	Geophysical Operator	" "	Aug. 3rd - 12th, 77
V. Tanzini	"	" "	"
S. Scurvey	Helper	" "	"
P. Charlie	"	" "	"
J. Walcott	Typing	" "	Oct. 6th, 1977
J. Winfield	Draughting	Altair Drafting Services Vancouver, B.C.	Sept. 25th - Oct. 3rd, 1977

CERTIFICATION.

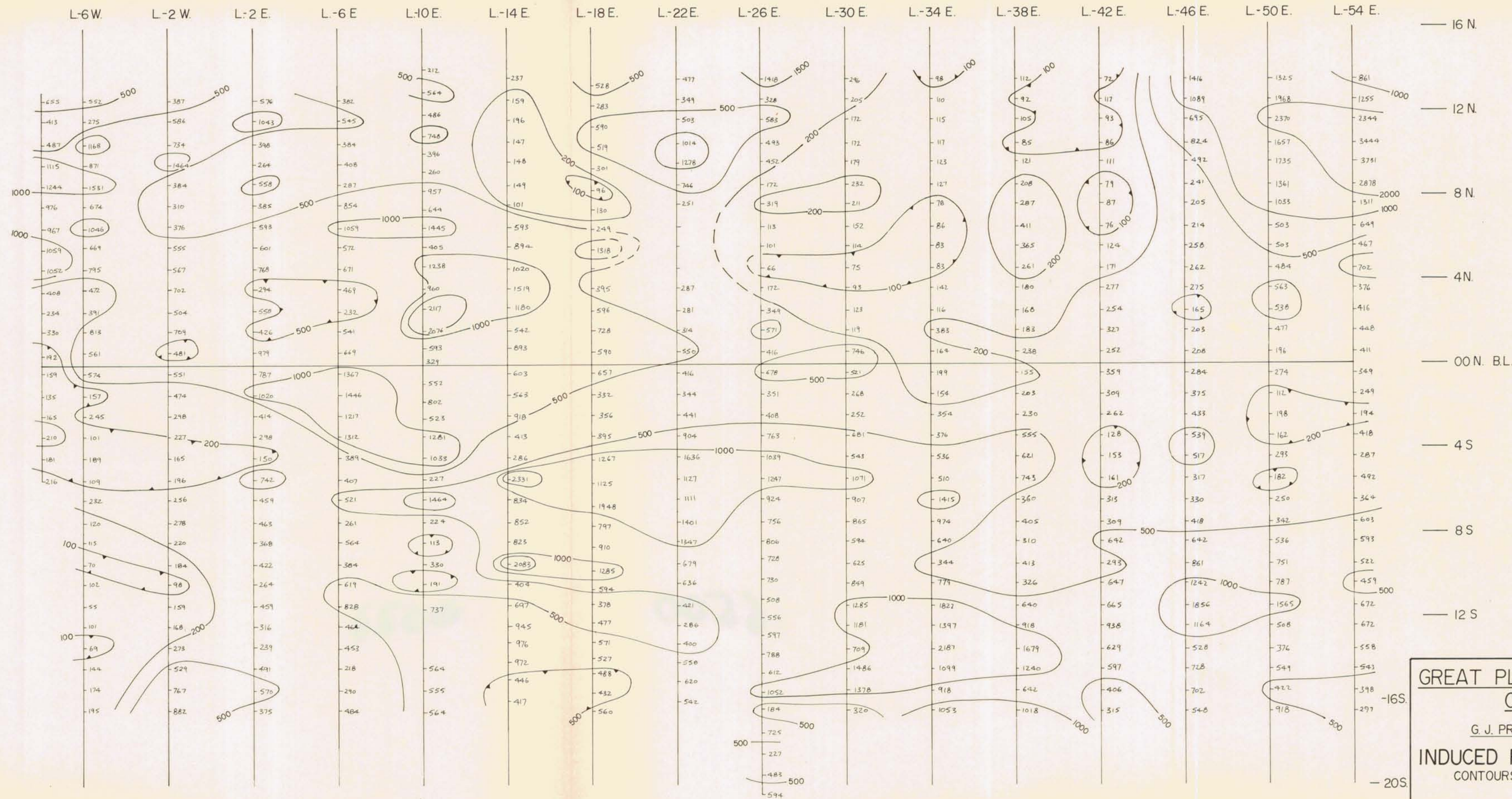
I, Peter E. Walcott of the Municipality of Coquitlam, British Columbia, hereby certify that:

1. I am a Graduate of the University of Toronto in 1962 with a B.A.Sc. in Engineering Physics, Geophysics Option.
2. I have been practising my profession for the last fifteen years.
3. I am a member of the Association of Professional Engineers of British Columbia, Ontario and the Yukon Territory.
4. I hold no interest, direct or indirect in the securities or properties of Great Plains Development Company of Canada Ltd., nor do I expect to receive any.


Peter E. Walcott, P.Eng.

Vancouver, B.C.

October 1977

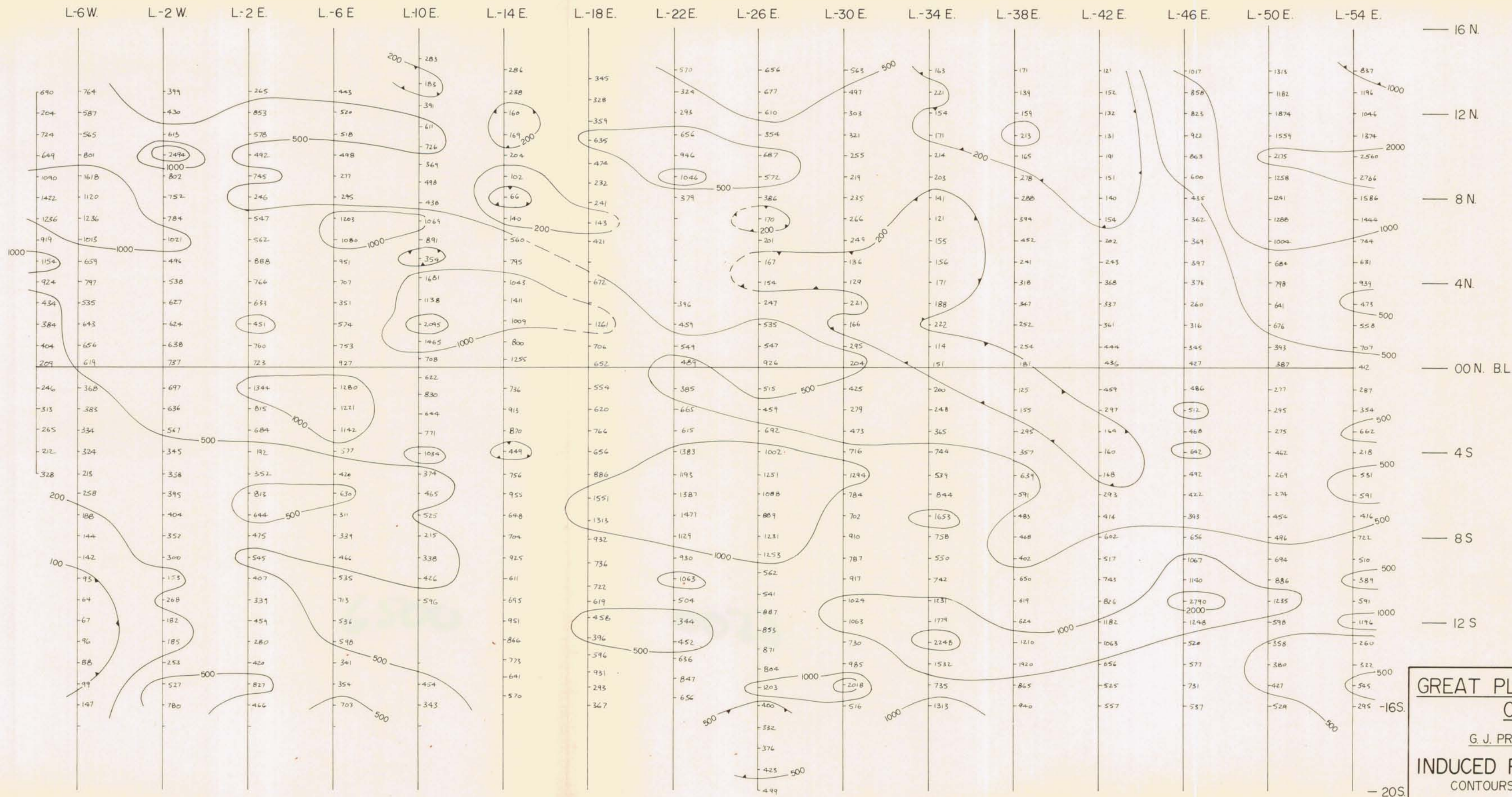


Part 1 of 2
 MINERAL RESOURCES BRANCH
 ASSESSMENT REPORT
 NO. 6500

GREAT PLAINS DEVELOPMENT
 CO. OF CANADA
 G. J. PROPERTY, LIARD M.D., B.C.
 INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT RESISTIVITY
 (Ohm-metres)
 $a = 100'$, $n = 1$
 SCALE: 1 INCH = 400 FEET
 MAP NO. W-242-1
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P. Eng., DATED SEPT-1977

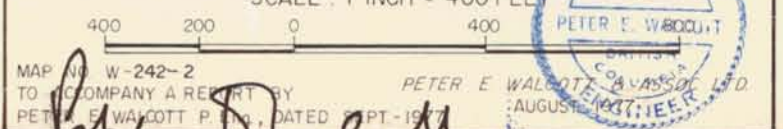


PETER E. WALCOTT P. Eng., DATED SEPT-1977



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 CO. OF CANADA
 G. J. PROPERTY, LIARD M.D., B.C.
 INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT RESISTIVITY
 (Ohm-metres)
 $a = 100', n = 2$
 SCALE: 1 INCH = 400 FEET
 MAP NO. W-242-2
 TO ACCOMPANY A REPORT BY
 PETER E. WALCOTT P. ENG., DATED SEPT-1977
 PETER E. WALCOTT CONSULTING ENGINEER
 AUGUST 1977

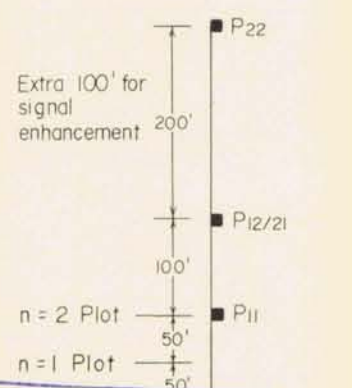




— 16 N.
 — 12 N.
 — 8 N.
 — 4 N.
 — 00 N. B.L.
 — 4 S.
 — 8 S.
 — 12 S.
 — 16 S.
 — 20 S.



Dipole-Dipole Array

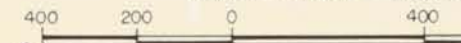


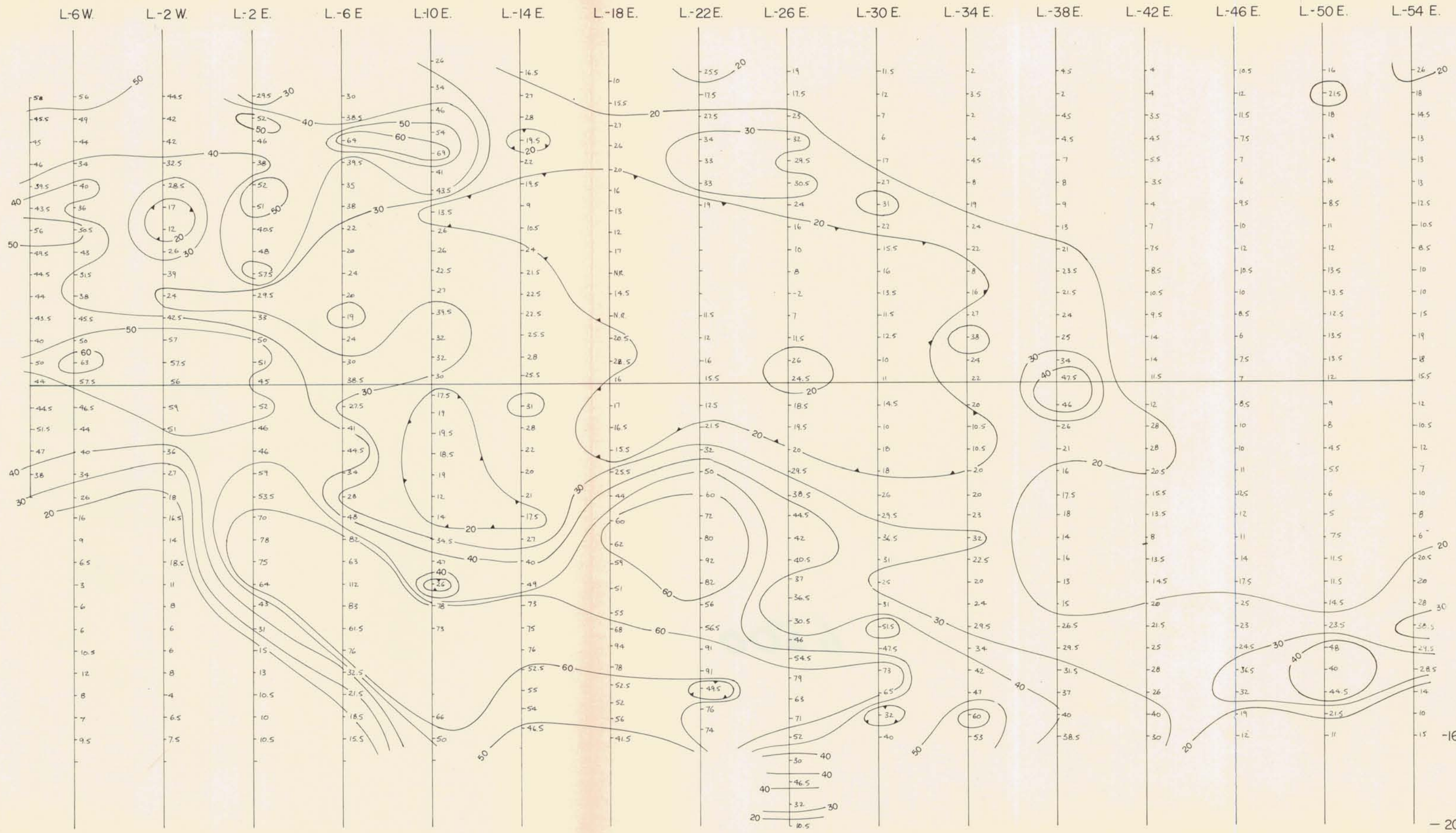
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GREAT PLAINS DEVELOPMENT
 CO. OF CANADA
 G. J. PROPERTY, LIARD M.D., B.C.
 INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT CHARGEABILITY
 (Milliseconds)
 $a = 100'$, $n = 1$
 SCALE: 1 INCH = 400 FEET

MAP NO. W-242-3
 TO COMPANY REPORT BY PETER E. WALCOTT P. ENG. DATED SEPT-1977
 PETER E. WALCOTT & ASSOC. LTD. AUGUST 1977

PROFESSIONAL
 PROVINCE
 800



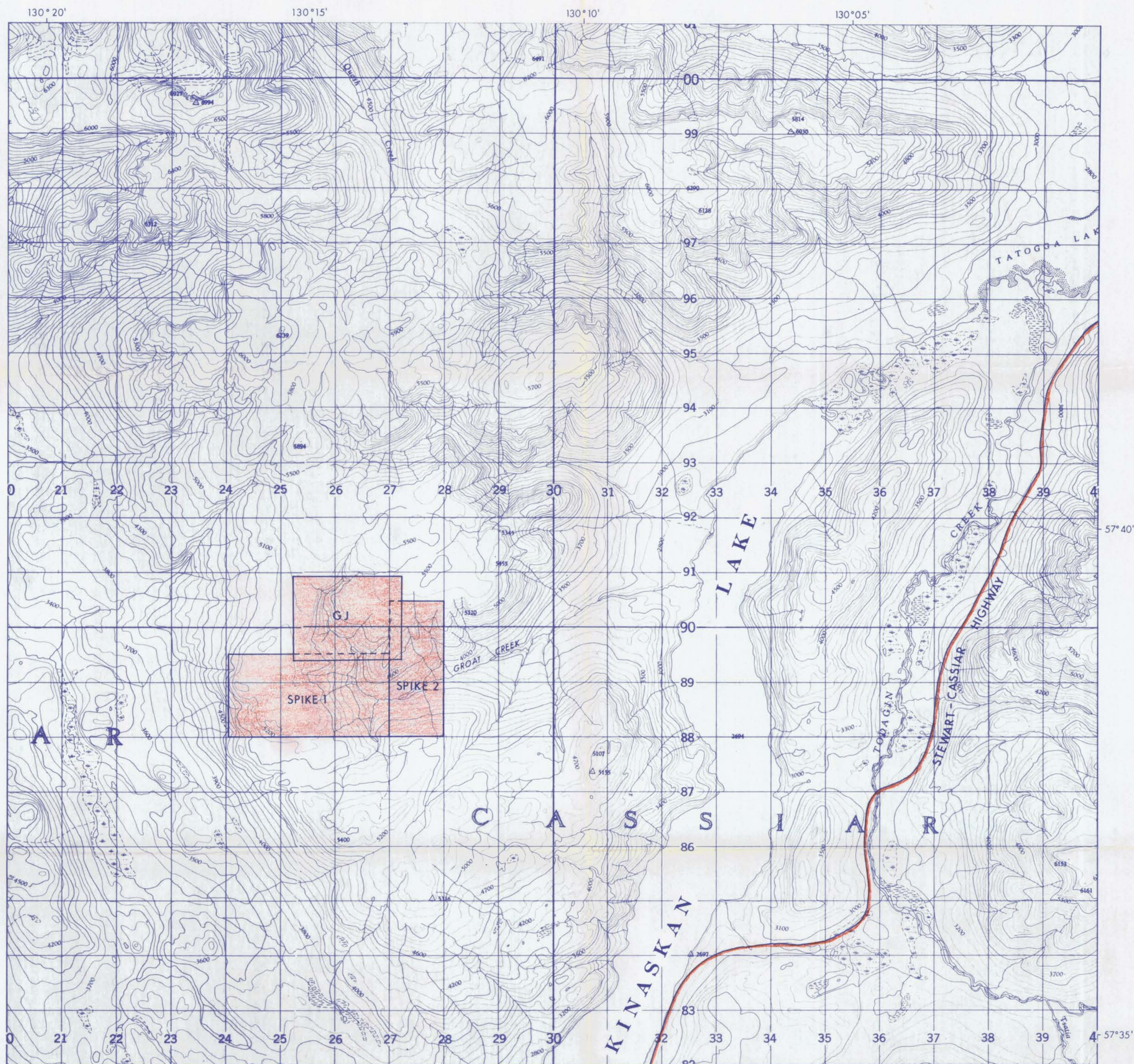


— 16 N.
 — 12 N.
 — 8 N.
 — 4 N.
 — 00 N. BL.
 — 4 S.
 — 8 S.
 — 12 S.
 — 16 S.
 — 20 S.



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GREAT PLAINS DEVELOPMENT
 CO. OF CANADA
 G. J. PROPERTY, LIARD M.D., B.C.
 INDUCED POLARIZATION SURVEY
 CONTOURS OF APPARENT CHARGEABILITY
 (MilliSeconds)
 $a = 100', n = 2$
 SCALE: 1 INCH = 400 FEET
 400 200 0 400
 MAP NO. W-242-4
 TO COMPANY A REPORT BY PETER E. WALCOTT
 PETER E. WALCOTT Eng. DATED SEPT-1972
 PETER E. WALCOTT
 PROFESSIONAL ENGINEER
 BRITISH COLUMBIA
 AUGUST 1972



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 DEVELOPMENT COMPANY OF CANADA, LTD.
BRITISH COLUMBIA
GJ OPTION
CLAIM LOCATION MAP
SCALE 1:50,000

D. Good

0 1 2 3 4
0 1 2 3 4
MILES
KILOMETERS

NTS: 104 G/9
LAIRD M.D.

PLATE 1

D. GOOD
OCTOBER 1977