

CANADIAN EXPLORATION LIMITED

700 BARRARD BUILDING

VANCOUVER 5, B. C. CANADA

GEOPHYSICAL REPORT

INDUCED POLARIZATION, MAGNETOMETER AND  
E.M.16 SURVEYS ON THE JAM 1-10, 15-20;  
GOLDEN #1FR-#6 FR; AND GOLDEN 7-14  
MINERAL CLAIMS

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3617 MAP ~~3~~

KAMLOOPS AREA: 50°40', 120°30'

GOLDEN GATE EXPLORATIONS LTD.

3617

R. W. Cannon, B. A. Sc., P. Eng.

April 1972

Vancouver, B. C.  
May 9, 1972.

BREAKDOWN OF EXPENDITURES OF GEOPHYSICAL  
SURVEYS

LABOUR COSTS

	Linecutting, Mag., E.M., I.P.	I.P. Oper.	Labour Cost
R. Cannon	6 days	3 days	6 x \$50 = \$ 300
J. Thornton	9 days		9 x 40 = 360
P. Kowalczyk	6 days	3 days	6 x 40 = 240
B. McIntosh	<u>9 days</u>		9 x 40 = <u>360</u>
	30 days	6 days	\$1,260

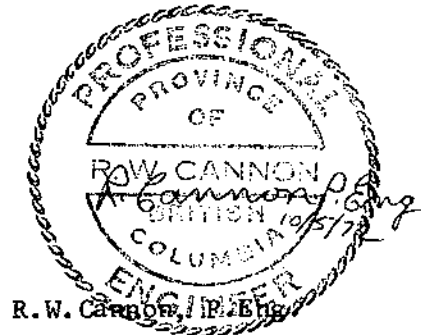
I.P. Operator man-days = 6  
Labour man-days = 30

36 man-days

Rental of I.P. Equipment + 2 operators

3 operating days @ \$265/day	795
2 travelling days @ \$132.50/day	265
Rental of Jalander Magnetometer	50
Rental of E.M.16	50
Room and Board Costs @ \$17/day/man x 36	612
Compensation, Administration and Supervision @ \$7/day/man x 36	252
Transportation costs @ \$500/month = 9/30 x 500	150
Report writing and drafting costs	<u>200</u>

Total cost of surveys \$3,634



(over)

Declared before me at the *City*  
of *Vancouver*, in the  
Province of British Columbia, this *10*  
day of *May*, 1972, A.D.

*Peter J. Hall*

*A. Gennette*  
A Commissioner for taking Affidavits within British Columbia of  
A Notary Public in and for the Province of British Columbia

**SUB-MINING RECORDER**

TABLE OF CONTENTS

	<u>PAGE</u>
The Method of Field Operation	0
Introduction	1
Location and Access	1
Property	1
Previous Work	2
Presentation of Results	2
Discussion of Results	2
Conclusions and Recommendations	4

LIST OF ILLUSTRATIONS

<i>A1</i> General Property Plan	in pocket
<i>2</i> Magnetometer Survey Results	in pocket
<i>3</i> V.L.F. (E.M.-16) Results	in pocket
<i>4-6</i> I.P. Sections	at end of text.

- THE METHOD OF FIELD OPERATION -

In the field procedure, measurements on the surface were made in a way that allows the effects of lateral changes in the properties of the ground to be separated from the effects of vertical changes in the properties of the ground. Current was applied to the ground at two points (X) feet apart. The potentials were measured at two other points (X) feet apart, in line with the current electrodes. The distance between the nearest current and potential electrodes was an integer number (N) times the basic distance (X).

The measurements were made along surveyed lines, with a constant distance (NX) between the nearest current and potential electrodes. Measurements were taken with values of  $N = 1, 2$  and  $3^4$  for  $X = 400'$ .

In plotting the results, the values of the apparent resistivity, percent frequency effect and the apparent metal factor measured for each set of electrode positions were plotted at the intersection of grid lines, one from the center point of the current electrodes and the other from the center point of the potential electrodes. The resistivity values were plotted above the line and the percent frequency effect and metal factors below. The lateral displacement of a given value is determined by the location along the survey line of the center point between the current and potential electrodes. The distance of the value from the line is determined by the distance (NX) between the current and potential electrodes when the measurement was made. The separation between sender and receiver electrodes is only one factor which determines the depth to which the ground is being sampled in any particular measurement. The plotted results were contoured using a logarithmic contour interval 1, 1.5, 2, 3, 5, 7.5 and 10.

INDUCED POLARIZATION, MAGNETOMETER AND E.M.16  
SURVEYS ON THE GOLDEN GATE PROPERTY, KAMLOOPS  
AREA, B.C.

INTRODUCTION

Three separate Geophysical Surveys were carried out on the Golden Gate claims during the month of April 1972.

The magnetometer and E.M.-16 surveys covered a total of 15.7 miles of flagged line. The I.P. survey was carried out along 1.8 miles of flagged line.

The majority of the lines were flagged at 800-ft. intervals with stations marked every 100 feet. Lines in the southeast corner of the grid were spaced 400 feet apart.

The Induced Polarization survey was carried out using McPhar frequency effect equipment (Models P654 and P660) employing frequencies of 0.31 and 5.0 cycles per second. The magnetometer employed was a Jalander magnetometer with a sensitivity of  $\pm 10$  gammas (Model W505). A Ronka E.M.-16 was used for the electromagnetic survey (the Seattle transmitter 18.6 Khz was used).

LOCATION AND ACCESS

The property is located 9 miles west of Kamloops, B.C. and covers an area immediately north of the Trans-Canada Highway. Numerous roads and right-of-ways traverse the property and allow access by means of any two-wheel drive vehicle.

PROPERTY

The property consists of 30 contiguous claims and fractions with the following names:

<u>Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Golden #1 Fr - #6 Fr	107808-107813	March 28, 1973
Golden 7-14	108381-108388	April 4, 1973
Jam 1-10, 15-20	96795-96810	May 13, 1972.

#### PREVIOUS WORK

No previous work had been carried out on the property prior to the work by Canex Aerial Exploration Ltd.

#### PRESENTATION OF RESULTS

The Induced Polarization and Resistivity results are shown on the enclosed data plots in the manner described in the notes preceding this report. The three lines were run using an electrode spread of 400 feet and dipole separations of  $N = 1, 2, 3$  and  $4$ . The Percent Frequency Effect results shown in parenthesis are noisy readings and are not very reliable. Readings enclosed in square brackets have been corrected for coupling effects. The magnetometer data is presented as a contour plot while the E.M.-16 data is shown as profiles plotted along the lines.

#### DISCUSSION OF RESULTS

The I.P. survey was greatly affected by man-made interference in the form of powerlines, telephone lines and pipelines with anode nets. The results obtained showed the area near the Trans-Canada Highway to have a very low resistivity which greatly contributed to the noise problem. This noise problem could not be overcome even when a current of 3.0 amperes was employed. The I.P. survey was not continued because reliable frequency effect results could not be obtained.

The E.M.-16 survey was also affected by the man-made conductors and therefore gave no meaningful results south of the baseline. One significant continuous anomaly was picked up at the following locations:

Line 40+00E, 13+00N  
Line 48+00E, 15+00N  
Line 72+00E, 21+00N

This anomaly coincides with a prominent cliff face on Line 56+00E, Line 88+00E and Line 96+00E, and therefore this anomaly is surmised to be caused by a conductive fault zone.

The magnetometer survey revealed two significant magnetic lows which trend NW-SE. These lows are located as follows:-

- (1) Line 32+00E, 4+00S  
Line 40+00E, 10+00S  
Line 48+00E, 13+50S.
- (2) Line 68+00E, 6+00S  
Line 72+00E, 8+00S  
Line 76+00E, 10+00S  
Line 80+00E, 12+00S.

Anomaly number (2) coincides with a swampy area and is interpreted as a fault zone which strikes toward the east end of the Afton ore zone. Anomaly number (1) has also been interpreted as a fault zone which parallels number (2). A significant change in intensity of the magnetics occurs at 17+00N and 18+00N on Line 64+00E which corresponds to the fault zone picked up with the E.M.-16.

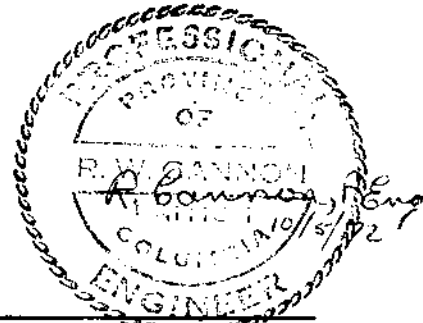


CONCLUSIONS AND RECOMMENDATIONS

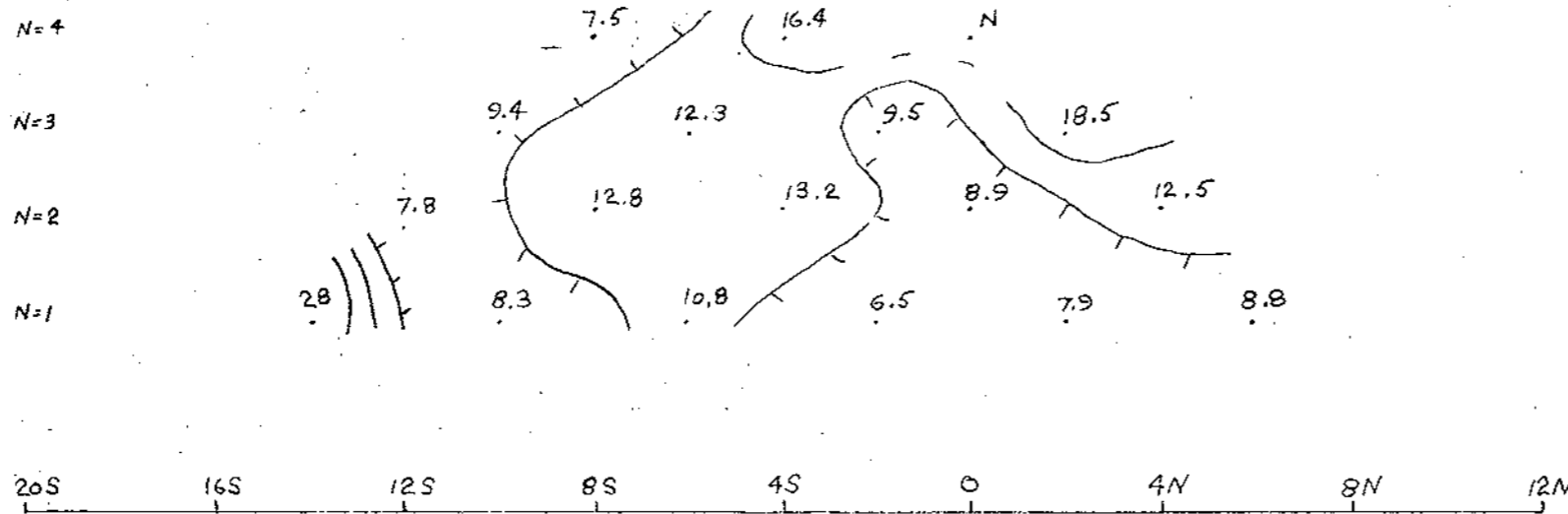
It was concluded that the only significant results obtained were those of the magnetometer and E.M.-16 survey.

It is recommended that no further use be made of I.P. or E.M.-16 surveys over the southern portion of the property and that the magnetometer survey be extended on a tighter grid of 200' line spacings with a more sensitive instrument. This extension of the survey would greatly aid the determination of drill hole locations.

RWC/mm

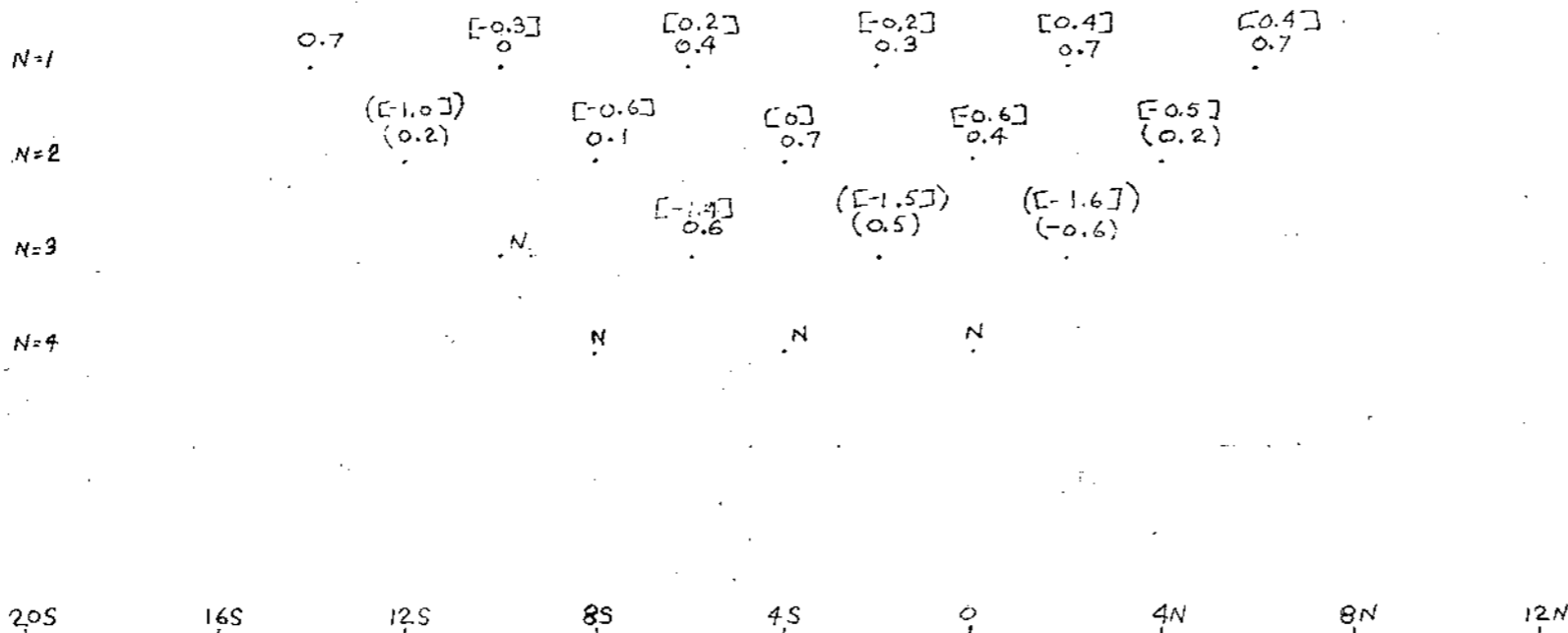


R. W. Cannon, P. Eng.



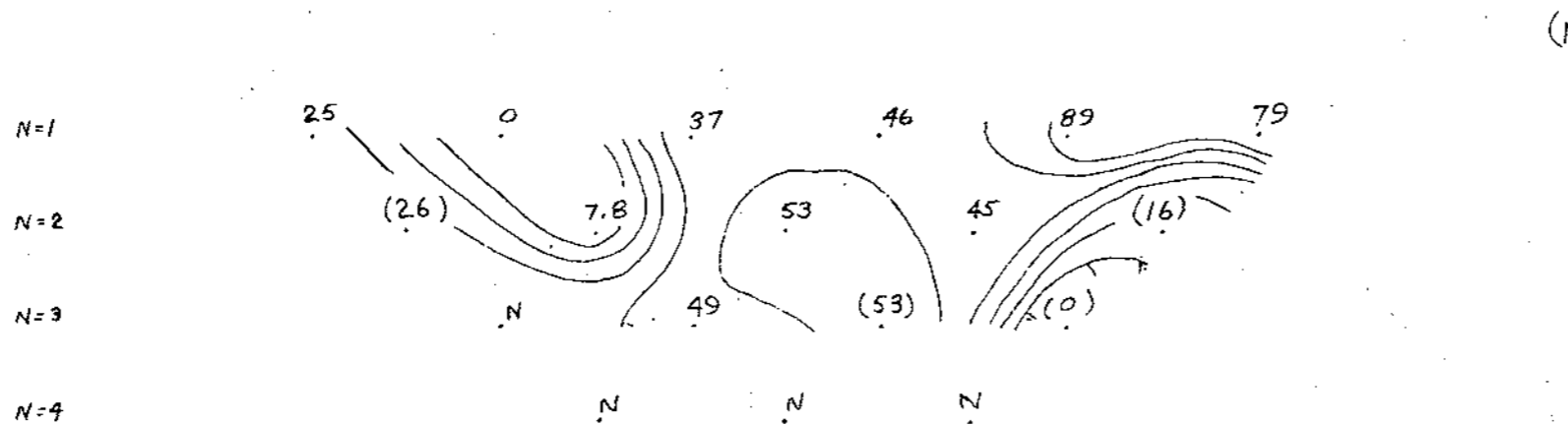
P<sub>2</sub>/2π

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ASSESSMENT REPORT  
NO. 3617 MAP #4



P.F.E.

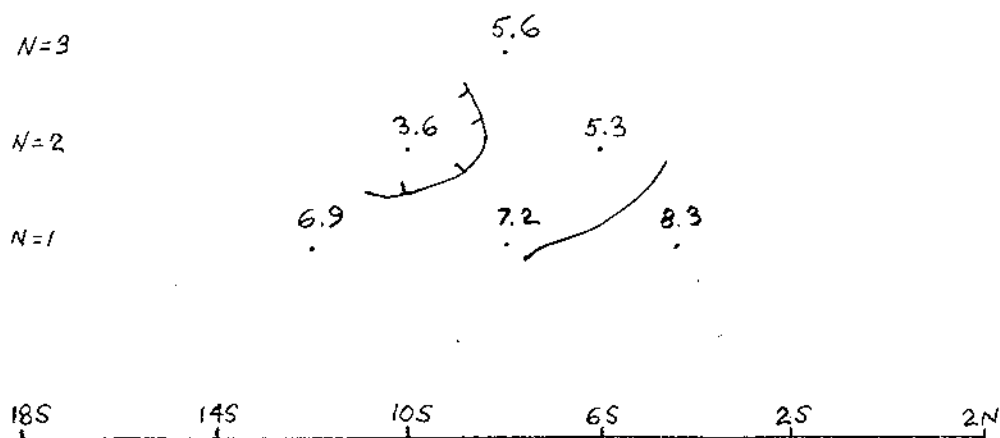
GOLDEN GATE  
LINE: 56 E  
DIPOLE - DIPOLE CONFIGURATION  
FREQUENCIES: 0.31 + 5.0 cps.  
X = 400'  
GANEX AERIAL EXPLORATION LTD. (P) LTD.  
DRAWN BY: P.L.K.  
DATE: 26/4/72



(M.F.)<sub>a</sub>

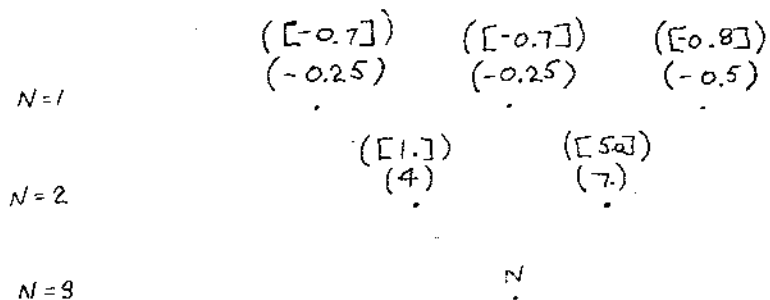




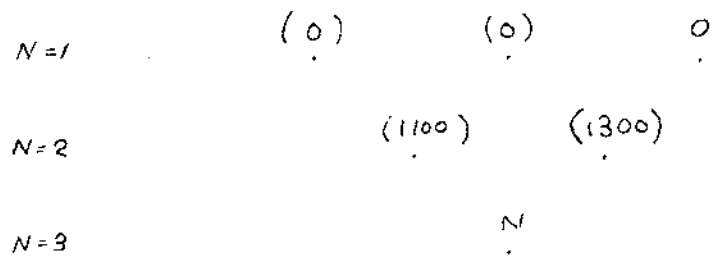


$P_a/2\pi$

P.F.E.



(M.F.)<sub>a</sub>



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ASSESSMENT REPORT  
NO. 3617 MAP # C

GOLDEN GATE  
LINE: 72 E  
DIPOLE - DIPOLE CONFIGURATION  
FREQUENCIES: 0.31 + 5.0 cps.  
X = 400'  
CANEX AERIAL EXPLORATION LTD. ON LTD.  
DRAWN BY: P.L.K.  
DATE: 26/4/72



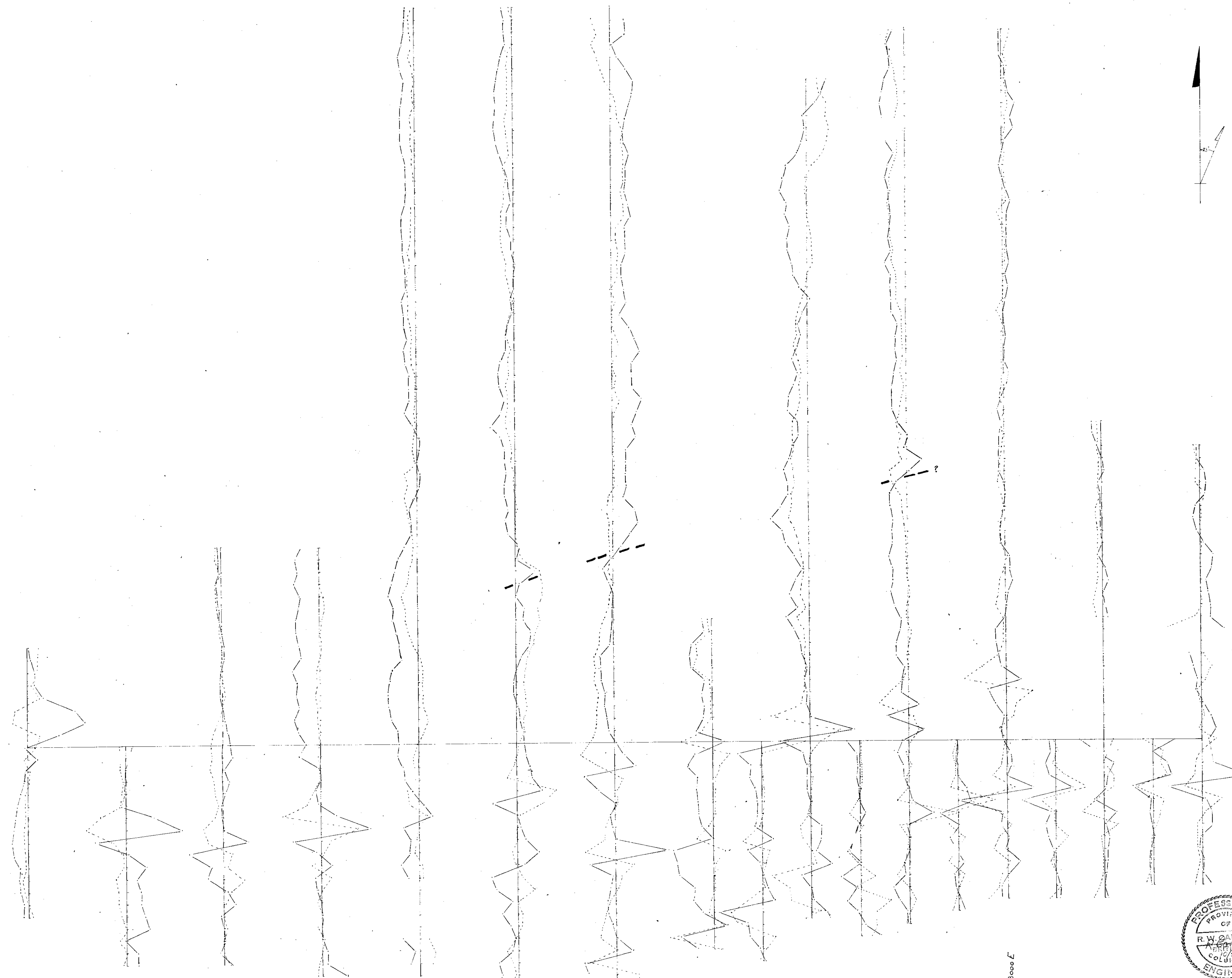
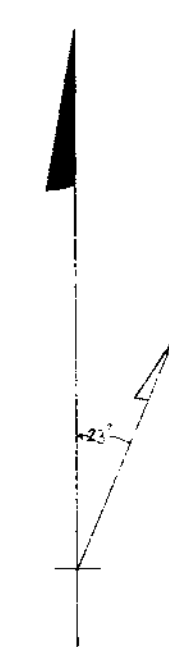
6000 N

4000 N

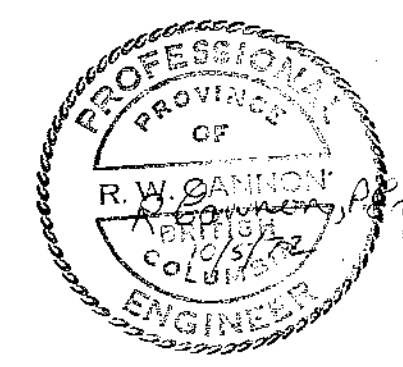
2000 N

0

2000 S

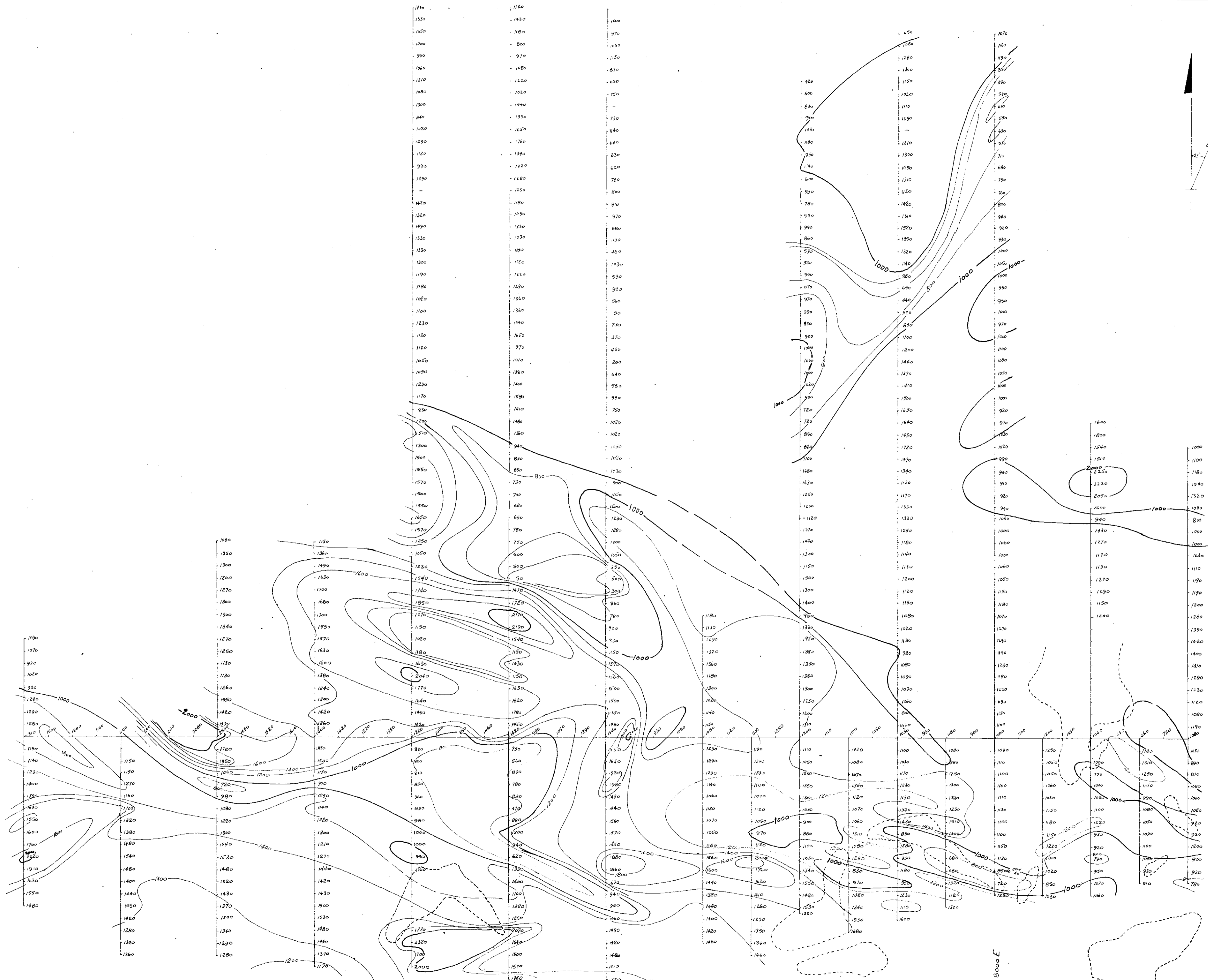


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ASSESSMENT REPORT  
NO. 3617 MAP #3

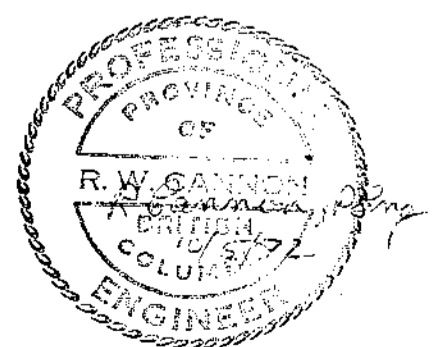


Readings taken facing SE  
Inclination \_\_\_\_\_  
Quadrature \_\_\_\_\_  
Scale: 1" = 40°

DRAWN J.M.T.	SCALE 1" = 40°	CANEX AERIAL EXPLORATION LTD.	VL.F. (E.M.16 SEATTLE) FILE No.
TRACED	DATE 1 May 1972	Golden Gate Expl. Ltd.	
APPROVED			



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ASSESSMENT REPORT  
NO. 3617 MAP #2



DRAWN J.M.T.	SCALE 1" = 400'	CANEX AERIAL EXPLORATION LTD.	Magnetometer Survey Results
TRACED	DATE 1 May 1972	<b>Golden Gate Expl. Ltd.</b>	
APPROVED		FILE No.	



3617 M-1

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3617 MAP A1



DRAWN J.M.T.	SCALE 1" = 400'	CANEX AERIAL EXPLORATION LTD.	General Property Plan
TRACED	DATE 1 May 1972	Golden Gate Expl. Ltd.	FILE No.
APPROVED			