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GEOPHSYICAL REPORT

INDUCED POLARIZATION SURVEY

MOUNT SICKER PROPERTY

VANCOUVER ISLAND, B.C.

on behalf of

CORPORATION FALCONBRIDGE COPPER
6415 - 64th Street
Delta, B.C. V4K 4E2

Report by

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1. INTRODUCTION

Induced polarization and apparent resistivity surveys were conducted over portions of the Mount Sicker Property, Vancouver Island, B.C. on behalf of Corporation Falconbridge Copper, within the period June 24 to July 2, 1986.

The pole dipole electrode array at an "a" spacing of 50 meters was used on the survey, with readings taken at "n" separations of 1, 2, 3, 4, and 5. The current electrode was to the south of the receiving electrodes on all survey lines.

Anomalies detected on the survey are categorized in this report.

2. SURVEY LOCATION

The Mount Sicker Property is located about 8 kilometers west of the village of Crofton, B.C. Access is via a network of old logging and mining roads from the Mount Prevost Road.

3. SURVEY GRID AND SURVEY COVERAGE

The induced polarization survey was conducted over 17 lines (lines 2200E to 3800E, for a total of 23.3 line kilometers. All stations surveyed are south of the main base line. Details of survey coverage are given in the previously submitted production reports.

4. INSTRUMENTATION

A Scintrex IPR-11 time domain microprocessor based induced polarization receiver was used on the survey. This instrument operates on an alternating square wave transmitted current pulse train, and samples the decay curve at ten semilogarithmically spaced times after cessation of each pulse. A 2 second on/2 second off pulse was used on the survey. The data is continually averaged until the operator is satisfied convergence has occurred, and is filed into solid state memory. The eighth slice (from 690 to 1050 milliseconds after shutoff: midpoint at 870 milliseconds) is the value that has been plotted on the plans and pseudosections.

A Scintrex IPC-7 2.5 kw time domain transmitter was used for the survey. The survey data was archived, processed, and plotted using a Corona PPC 400 microcomputer running the Scintrex Soft II software, and posted in plan using proprietory software.

5. DISCUSSION OF RESULTS

The results of the survey are presented as a series of stacked pseudosections (figures 1 and 2), and as contour plans of the first separation chargeability and resistivity (figures 3 and 4).

The pseudosections have been coloured at the following intervals:

Chargeability:	yellow	5 to 10 (millivolts/volt)
	orange	10 to 15
	pink	15 to 20
	red	20 to 30
	carmine	> 30
Resistivity:	purple	< 200 (ohm meters)
	dk. blue	200 to 500
	lt. blue	500 to 1000
	dk. green	1000 to 2000
	lt. green	2000 to 5000
	brown	> 5000

Chargeability (IP) anomalies have been categorized on the pseudosections and contour plans as follows:

- strong chargeability high
- moderate chargeability high
- weak chargeability high
- weak chargeabiity high, poorly defined

If the anomaly has been defined by a separation other than n=1, this is noted below the anomaly symbol (e.g. n=2,3).

Local resistivity lows (conductivity highs) have been categorized as follows:

- strong local resistivity low
- moderate local resistivity low
- weak local resistivity low
- weak local resistivity low, poorly defined

Where resistivity lows are directly coincident with a well defined chargeability high, a "C" appears above the anomaly symbol.

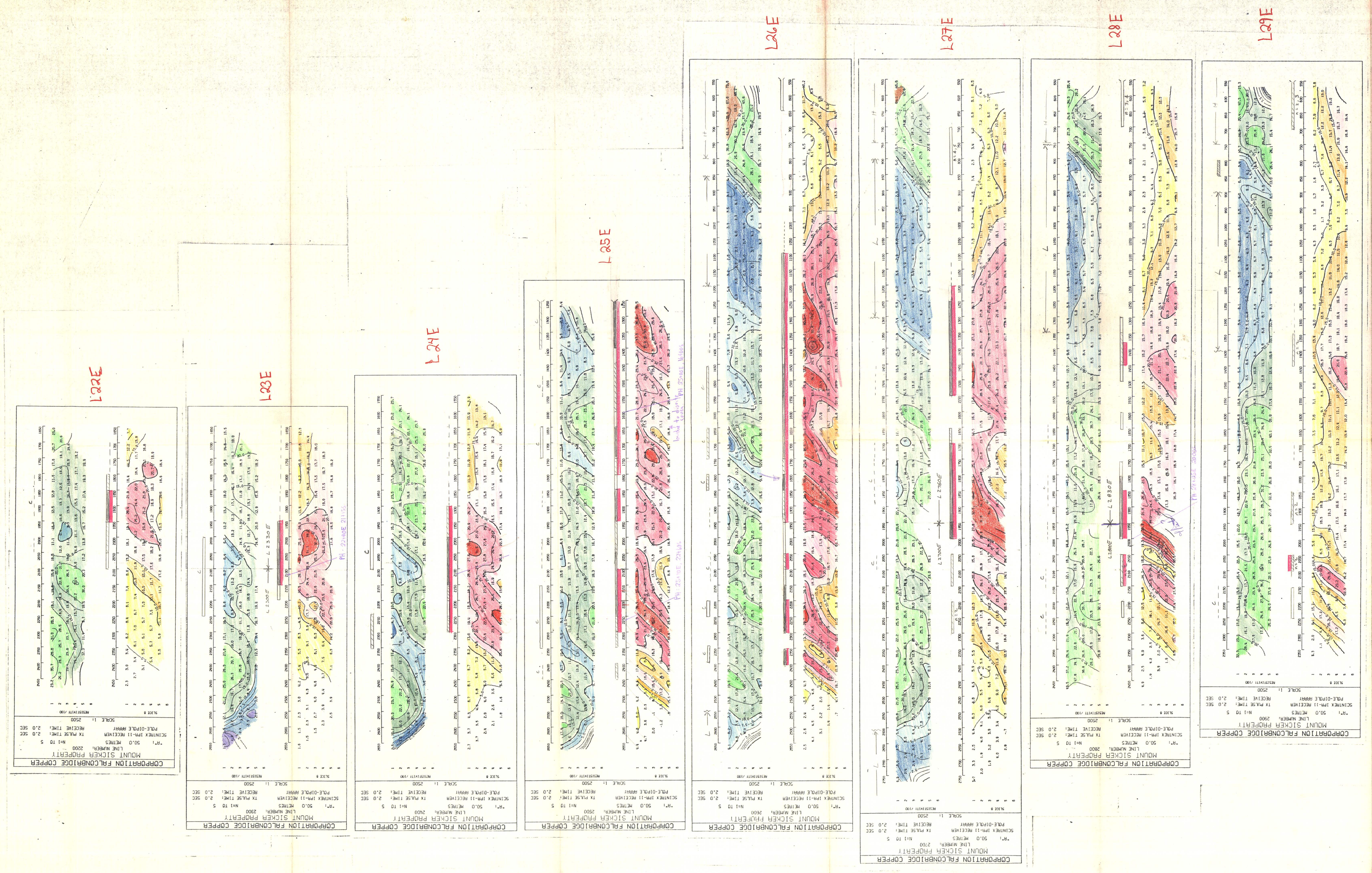
Broad resisitvity highs and lows are noted by the symbols "H" and "L" respectfully.

6. RECOMMENDATIONS

The IPR11 survey at Mount Sicker defined several moderate to strong chargeability anomalies that merit diamond drilling and/or trenching work. Correlation of these results to the geological and geochemical data bases is recommended in order to set priorities for such work.

Respectfully Submitted,

Alan Scott,
Geophysicist


L22E
L23E
L24E
L25E
L26E
L27E
L28E
L29E
CORPORATION FALCONBRIDGE COPPER
MOUNT SICKER PROPERTY
LINE NUMBER, 2200
"A": 50.0 METERS N=1 TO 5
SCINTREX IPR-11 RECEIVER
POLE-DIPOLE ARRAY
TX PULSE TIME: 2.0 SEC
RECEIVE TIME: 2.0 SEC
SCALE 1: 2500
RESISTIVITY /100
LINE NUMBER, 2300
LINE NUMBER, 2400
LINE NUMBER, 2500
LINE NUMBER, 2600
LINE NUMBER, 2700
LINE NUMBER, 2800
LINE NUMBER, 2900
Resistivity
> 5000 ohm-meters
2000 - 5000
1000 - 2000
500 - 1000
200 - 500
< 200
Chargeability (MS)
> 30 mV
20-30
15-20
10-15
5-10
Strong Chargeability high
Moderate
Weak
Weak, particularly defined Chargeability high
Strong Total res. low
Moderate local res. low
Weak local res. low
Weak, particularly defined local res. low enhanced with Chargeability high
C
meters
0 100 200 500
1: 5000
NOTES
1. Contours are based on the Geometric Mean Resistivity and Chargeability values.
2. Resistivity values are based on the Geometric Mean Resistivity values.
3. Chargeability values are based on the Geometric Mean Chargeability values.
4. Resistivity values are based on the Geometric Mean Resistivity values.
5. Chargeability values are based on the Geometric Mean Chargeability values.
6. Resistivity values are based on the Geometric Mean Resistivity values.
7. Chargeability values are based on the Geometric Mean Chargeability values.

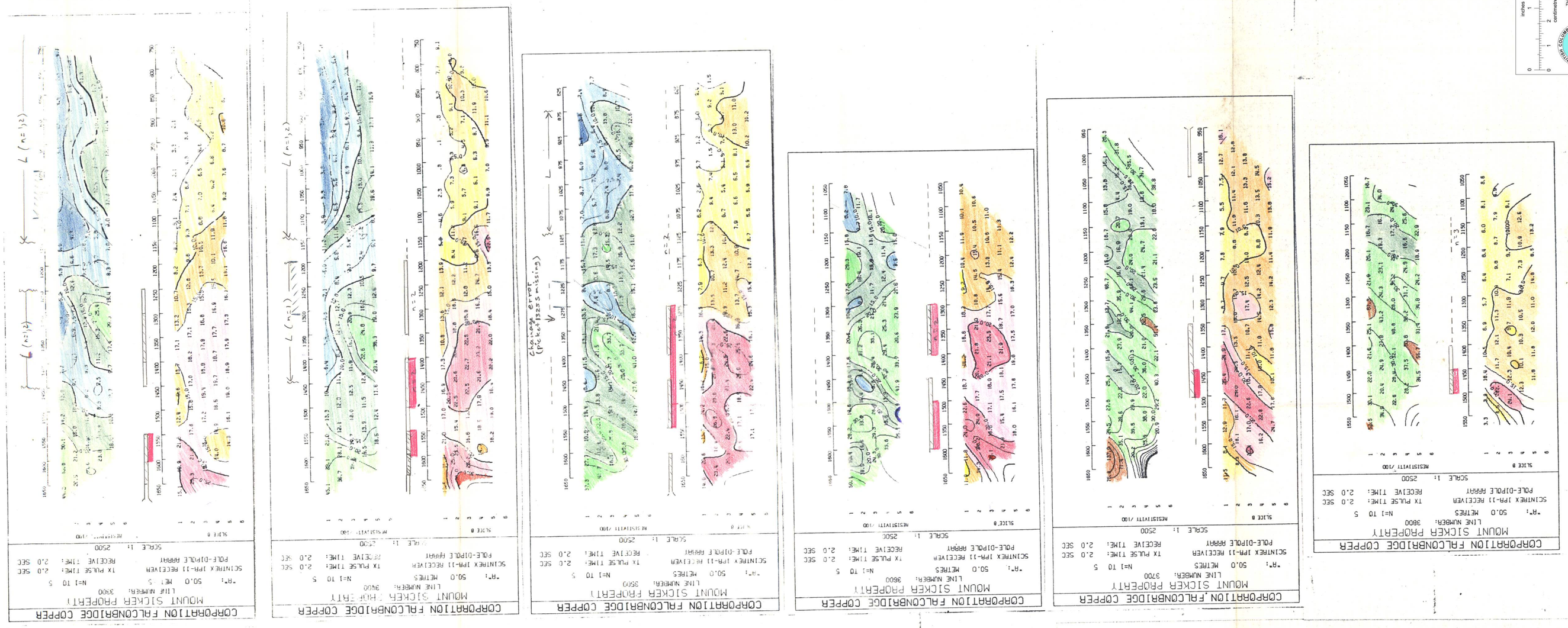
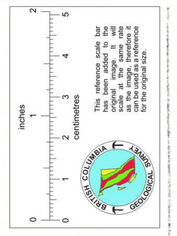


FIGURE 2

CORPORATION FALCONBRIDGE COPPER
MOUNT SICKER PROJECT
IPR 11 SURVEY
LINES 3000E to 3900E
MT (ρa/ρ) and RESISTIVITY (Ωm/100)

A Scott, Geophysicist July/86

See Figure 1 for legend



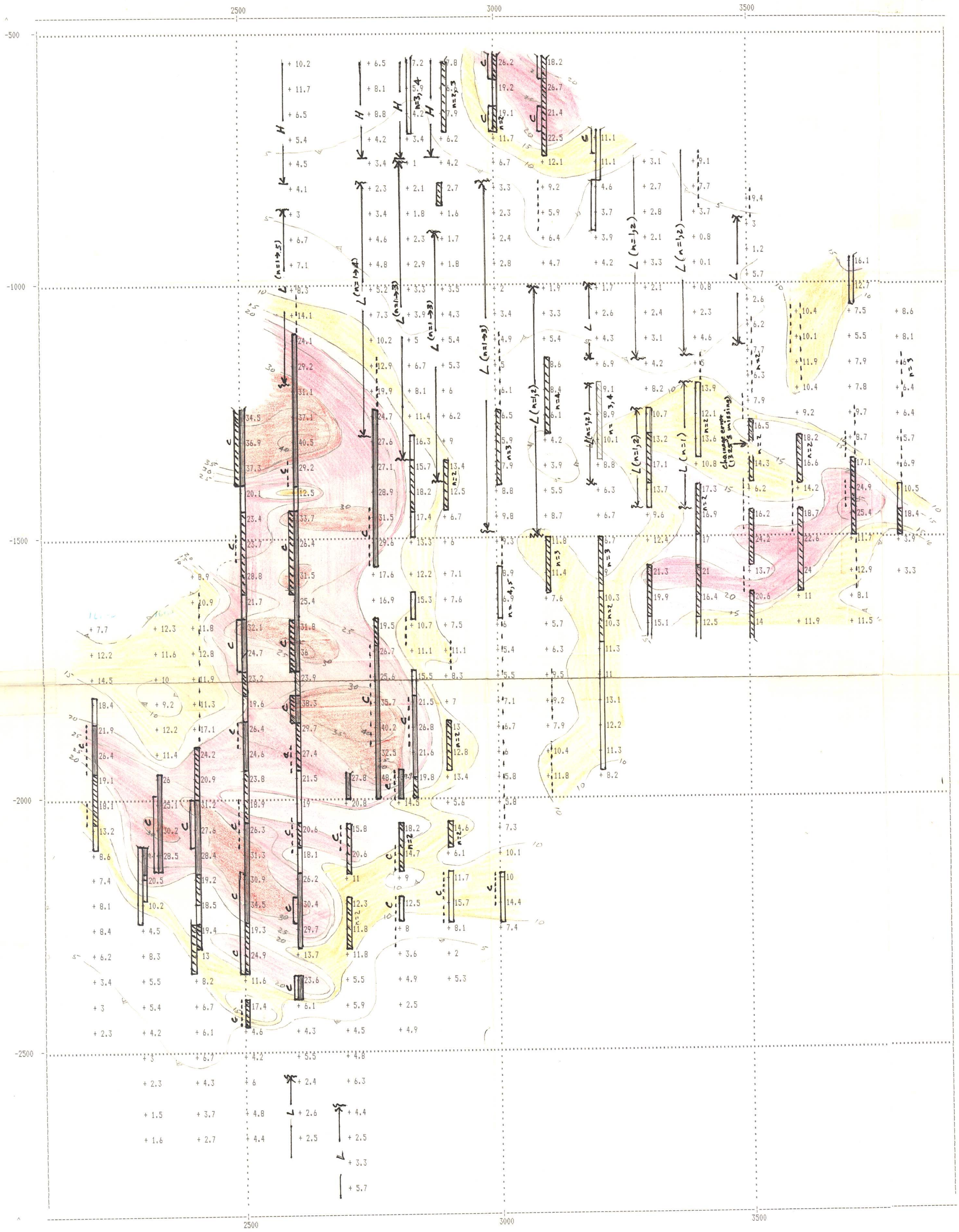


FIGURE 3

CORPORATION FALCONBRIDGE COPPER
MOUNT SICKER PROPERTY

INDUCED POLARIZATION SURVEY
Array:Pole-dipole C1 pos:S Dir:N A= 50
Field: M7 Sep: 1
DATE:July 3, 1986
Scale 1:5000 User:Alan Scott

inches
0 1 2
0 1 2 3 4 5
centimetres

BRITISH COLUMBIA GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

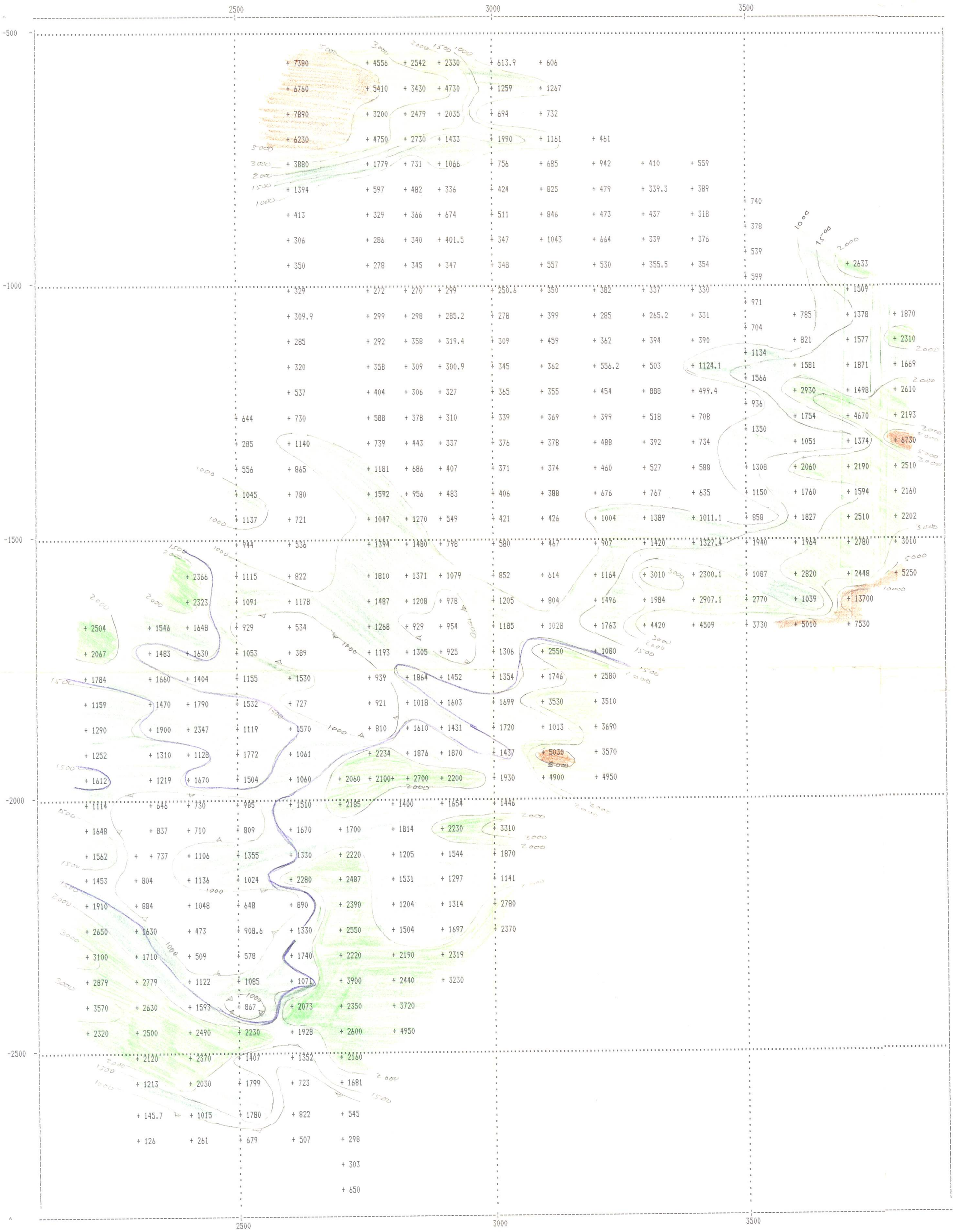


FIGURE 4

CORPORATION FALCONBRIDGE COPPER
MOUNT SICKER PROPERTY

INDUCED POLARIZATION SURVEY
Array:Pole-dipole C1 pos:S Dir:N A= 50
Field: RES. Sep: 1
DATE:July 3, 1986
Scale 1:5000 User:Alan Scott

inches
0 1 2
0 1 2 3 4 5
centimetres

BRITISH COLUMBIA GEOLOGICAL SURVEY

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