

GEOPHYSICAL REPORT

ON THE

WEST CLAIMS

VICTORIA MINING DISTRICT, B.C.

NTS MAP SHEET 92B/13E

BY

DELTA GEOSCIENCE LTD.

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Introduction

This brief report describes an Induced Polarization and Resistivity survey carried out on the West property. The property is owned by Falconbridge Ltd., and is located in the Victoria Mining Division, close to the town of Crofton, B.C. The field work was done during the period August 15-18, and September 30, 1986.

The property is located within the Sicker volcanic rocks. Exploration was for volcanogenic massive sulphide deposits.

Delta Geoscience Ltd. conducted the field work on behalf of Falconbridge Ltd.

Client representative was Steve Enns, the senior project geologist for Falconbridge Ltd. G. Hendrickson, the author of this report, discussed the survey with S. Enns prior to its commencement, but did not participate in the field work.

Accommodation for the Delta Geoscience Ltd. crew was provided in the house Falconbridge rented in the town of Chemainus. Access to the grid area was by four wheel drive vehicles.

Personnel

Grant Hendrickson	- Senior Geophysicist - Supervisor) Delta Geoscience Ltd.
Tim Huttemann	- Junior Geophysicist - Crew Chief	
Scott Cosman	- Junior Geophysicist	
Eric Hards	- Junior Geophysicist	
Geoff Heminsley	- Junior Geophysicist	

Equipment

- 1 - Scintrex I.P.R. 10 Induced Polarization Receiver.
- 1 - Scintrex 250 watt Induced Polarization Transmitter.
- 3 - Portable V.H.F. Radios.

Data Presentation

Data is presented in contoured plan format at a scale of 1:2500. This format facilitates viewing of the spatial position of anomalies.

The chargeability data is contoured at 10 millisecond intervals. The resistivity data is contoured at the 5000, 1000, 500 and 200 ohm-m intervals. These contours were chosen since they point out the most salient features. Further contouring would not have improved the map.

The contour plans can be found in the pockets at the back of this report.

Survey Procedure

Falconbridge ensured that lines 6E to 15E were accurately chained prior to the arrival of the Delta Geoscience crew. Station interval was set at 20 metres. Lines were spaced 100 metres apart.

The Schlumberger electrode configuration was used for this survey. Current electrode separation, AB, was set at 240 metres. Potential electrode separation, MN, was set at 40 metres. This array gives excellent horizontal resolution, with the prime depth of investigation at the 30 to 50 metre depth range. The array also gives better signal to noise response, when compared to other arrays for the same depth of investigation - an important consideration when using a small battery-powered transmitter. Some information on dip is also obtained by using the Schlumberger array.

Porous ceramic pots filled with copper sulphate were used as potential electrodes. Stainless steel rods were used for the current electrodes. Water was used to improve the electrical contact with the ground.

The moderate resistivity of the volcanics helped to keep the signal to noise response generally adequate. However, the very dry conditions encountered in the area during late August, made it extremely difficult (particularly on the west side of the grid), to establish proper electrical contact with the ground. The numerous areas of outcropping rock were particularly dry. Lines 6E and 7E had to be left until late September, when moisture had returned to the area. The data for lines 8E and 9E was particularly affected by the dry conditions (numerous readings rejected), and should be redone if any further surveys in the area are contemplated.

Discussion of the Data

The high chargeability background value (>30 milliseconds) encountered over most of the survey area, suggests the sulphide content of the volcanics averages around 4% to 5%. There appears to be sufficient sulphide to appreciably lower the resistivity of the volcanics. Alteration of the volcanics may also be causing the relatively low resistivity south of Breen Lake.

The lower chargeability values found on the west side and the north-east corner of the grid coincides with areas of high resistivity ≈ 5000 ohm-m. A perusal of the geology map indicates these areas are mapped as Gabbro, which agrees well with the data.

The data suggests overburden thickness is minimal ($<5m.$). The data also generally suggests a steep south dip to the rocks.

Sediments under Breen Lake may be masking the true chargeability values of the area and may account for the resistivity low. However, it is clear that relatively strong sulphide zones cross the lake. The data suggests the mineralization seen near the old adit on line 5E at approximately 5+50S, improves dramatically as you move east. In fact, the old adit is likely located where the volcanics are pinched out by the Gabbro. Broad zones outlined by the 50 millisecond contour probably average around 8% sulphide. However, narrow zones of much higher sulphide content may be contained within.

The holes drilled in 1985 appear to have missed the best geophysical evidence due to poor collar locations.

The 1985 V.L.F. survey anomaly agrees fairly well with the main chargeability anomaly extending east from the old adit area.

The 1985 magnetic survey does indicate the possibility that Gabbro will be encountered west of the old adit area and to the north of this survey area.

Conclusions

This interesting property requires a serious trenching and drilling program to evaluate the geophysical anomalies outlined over the past two years. Previous drilling in the vicinity of this grid was not definitive, since it was off the target. The 50 millisecond contour defines the spatial position of the stronger apparent sulphide horizons. These relatively strong chargeability anomalies clearly lie within the Quartz Sericite Schist horizon of the Myra formation.

Our experience with the Sicker rocks has shown that moderate strength I.P. anomalies are very significant when they lie within the right rock type.

The apparent sulphide anomalies found by this survey extend to the southwest, where they were detected by a previous survey. Effort should be made to merge the results of the two surveys.

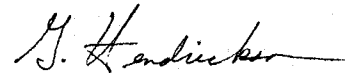


Grant A. Hendrickson.

Statement of Qualification

Grant A. Hendrickson

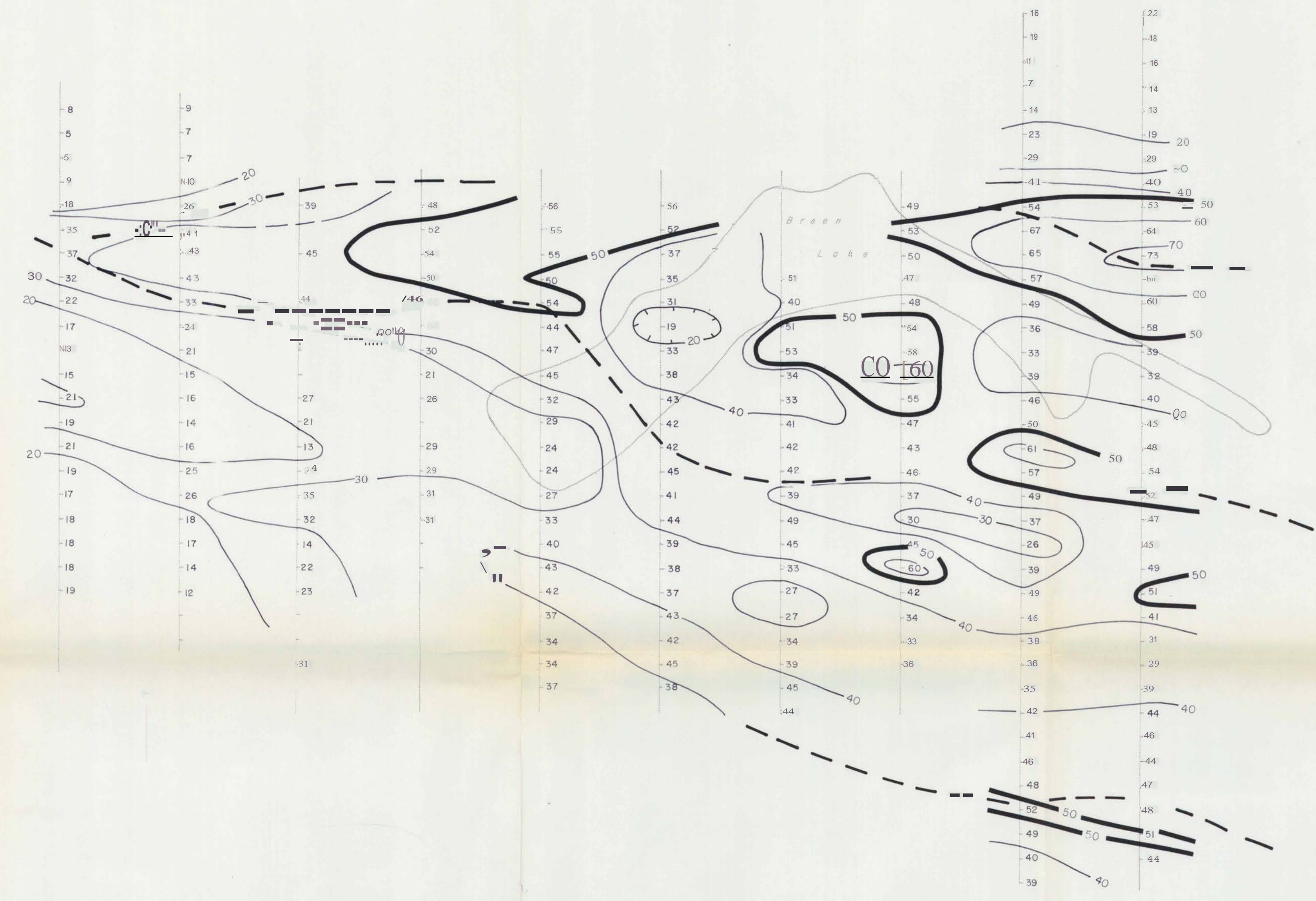
- B.Science, U.B.C. 1971, Geophysics option.
- for the past 16 years, I have been actively involved in mineral exploration projects throughout Canada and the United States.
- I am a registered Professional Geophysicist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- I am an active member of the S.E.G., E.A.E.G., and C.I.M.



Grant A. Hendrickson.

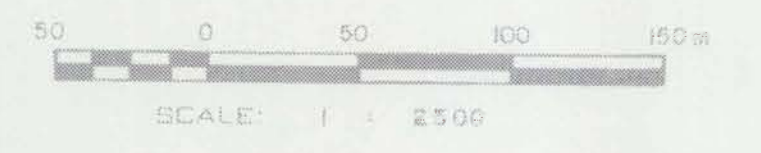
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11+00 S —
12+00 S —

L5E | L6E | L7E | L8E | L9E | L10E | L11E | L12E | L13E | L14E | L15E



Axis of VLF Conductor (from previous Falconbridge work)

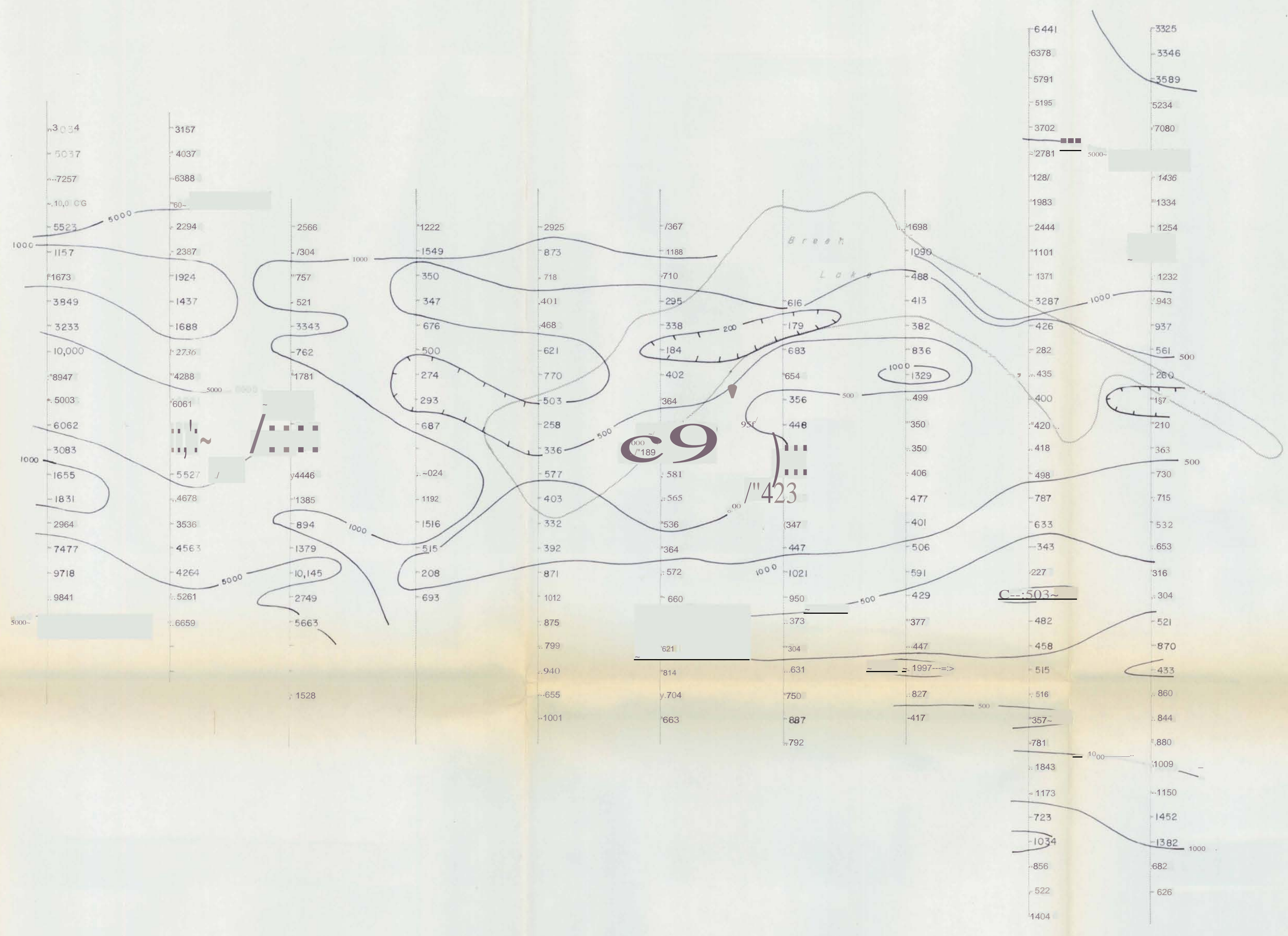
SC LUMBERGER ARRAY
AB 240m MN 40m



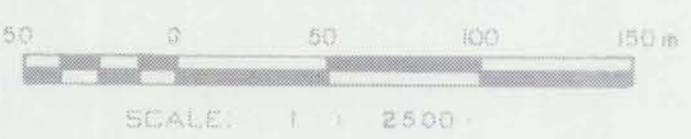
FALCONBRIDGE LTD.		
PROPERTY: WEST CLAIMS		
LOCATION: VANCOUVER ISLAND		
TYPE OF MAP: CHARGEABILITY PLAN		
WORKING PLACE:		
BASED ON: WORK BY DELTA GEOSCIENCE LTD.		
DATE OF WORK: AUG, 1986	MAP REF. NO.:	FIG. NO.
DRAWN BY: E.S.	PROJECT NO. 034	1
DATE: MAY, 1987	N.T.S. NO.: 92B/13E	

2+00 S
3+00 S
4+00 S
5+00 S
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9+00 S
10+00 S
11+00 S
12+00 S

L5E L6E L7E L8E L9E L10E L11E L12E L13E L14E L15E



SCHLUMBERGER ARRAY
AB 240 m MN 40 m



FALCONBRIDGE LTD.		
PROPERTY: WEST CLAIMS		
LOCATION: VANCOUVER ISLAND		
TYPE OF MAP: RESISTIVITY PLAN		
WORKING PLACE:		
BASED ON: WORK BY DELTA GEOSCIENCE LTD.		
DATE OF WORK: AUG., 1986	MAP REF. NO.:	FIG. NO.:
DRAWN BY: E.H.	PROJECT NO. 094	
DATE: MAY, 1987	N.T.S. NO.: 92B/13E	2