Highland Valley Copper

INDUCED POLARIZATION and RESISTIVITY REPORT on the SKU 1–2, 5–8, 10–11, 31–33 and 51–52 MINERAL CLAIMS

SKU–LEO PROJECT

KAMLOOPS MINING DIVISION
NTS 92I/6E, 92I/7W

Latitude 50° 20' Longitude 120° 58'

for
HIGHLAND VALLEY COPPER
BOX 1500
LOGAN LAKE, BC
V0K 1W0

Report by
LORNE A. BOND

Logan Lake, BC
December 27, 1999

U:\1999\ENG\LB99037

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In Pocket

1.0 INTRODUCTION

During the period September 13 to September 28, 1999, a program of induced polarization and resistivity surveys was conducted over a portion of the property holdings of the Highland Valley Copper partnership. The mineral claims on which the gridlines are located are situated approximately 14 kilometers south of the Highland Valley Copper mill and plant site. The north and south blocks of the SKU mineral claims straddle the Skuhun Creek valley and the gravel road that runs from Highway 8 to Chataway Lakes. *Figure 1* shows the general location of the survey grid and *Figure 2* illustrates the position of the gridlines relative to the mineral claim holdings of Highland Valley Copper.

The objective of the survey was to test for large tonnage porphyry type sulfide mineralization within the grid area. This report describes the procedures used for this survey, presents the data and discusses the results.

Expenditures on this program have been applied to property mineral claims on Statement of Work 3141409 (Group HVC-13) filed on November 1, 1999.

2.0 SURVEY PARAMETERS AND EQUIPMENT

The geophysical surveys were conducted on gridlines prepared in the previous exploration season. The lines were hand cut and chained with stations established at 100 metre intervals.

The contract for the 1999 Induced Polarizational/Resistivity survey was awarded to Scott Geophysics Ltd. of Vancouver. A five man crew was employed on the project. Geophysical surveying of the grid was executed between September 13 and 28, 1999.

L7200S

L7500S

L7800S

SKU 1-4
& 31-46

LEO 1-4

L7600E

L18000S

L10200E

L22200S

SKU 5-11
47-52
59-67
& 101-106

SKU-LEO PROJECT
1999 IP/RES SURVEY
Location Plan

SCALE

Metres 1000 500 0 1000 2000 3000 4000 Mètres

NTS 92I/6E & 92I/7W

Figure 1

A total of 24.7 line kilometres was surveyed using north-south baselines and east-west gridlines. The exploration target was a large, low grade, porphyry copper system. The survey program was reconnaissance in scope. Lines surveyed in whole or in part were L7200S, L7500S, L7500S, L18000S, L22200S, L7600E and L10200E.

A pole-dipole array was used for the Induced Polarizational/Resistivity survey, with an electrode spacing of a = 100 metres and n separation of 1, 2, 3, 4, 5 and 6. A Scintrex IPR-12 receiver and Scintrex TSQ4 (10.0 kw) transmitter were used on the survey. Measurements were taken in the time domain using a two (2) second alternating square wave. Chargeabilities measured were for the interval 120 to 1,020 milliseconds after current interruption (midpoint at 570 m sec.).

3.0 DATA PRESENTATION

The chargeability and resistivity results are presented in standard pseudosection format. The location of the current electrode with respect to the receiving electrodes is given in the title block area of each pseudosection. Chargeability results are expressed in mV/Volt (M_x for 120 – 1.020 m secs) and apparent resistivities are reported in ohm–m. Horizontal scale on the pseudosections is 1:10,000 and contours are at 2.5 mV/Volt and 250 ohm-m increments for chargeability and apparent resistivity respectively.

4.0 DESCRIPTION OF RESULTS AND CONCLUSIONS

No chargeability highs were detected on this survey. Background levels for chargeabilities were in the 3 – 6 mV/Volt range. Apparent resistivity readings had a wider range likely reflecting variable depths of our overburden, changes in underlying lithologies and some local structural features. The lines surveyed were widespread and covered only a portion of the claim group. The Induced Polarization/Resistivity survey will be continued to provide coverage on a 300 metre line spacing which would provide sufficient density of coverage for a large porphyry copper target.

5.0 STATEMENT OF COSTS

SKU-LEO Mineral Claims

Geophysics – Induced Polarization/Resistivity survey – 24.7 kilometres Conducted by Scott Geophysics Ltd.	$30,986
Project management, planning, supervision, report preparation Lorne Bond, Highland Valley Copper 10 days @ $400 per day	$4,000
TOTAL	**$34,968**

6.0 STATEMENT OF QUALIFICATIONS

I, **Lorne Allan Bond**, of the city of Kamloops, British Columbia do hereby certify that:

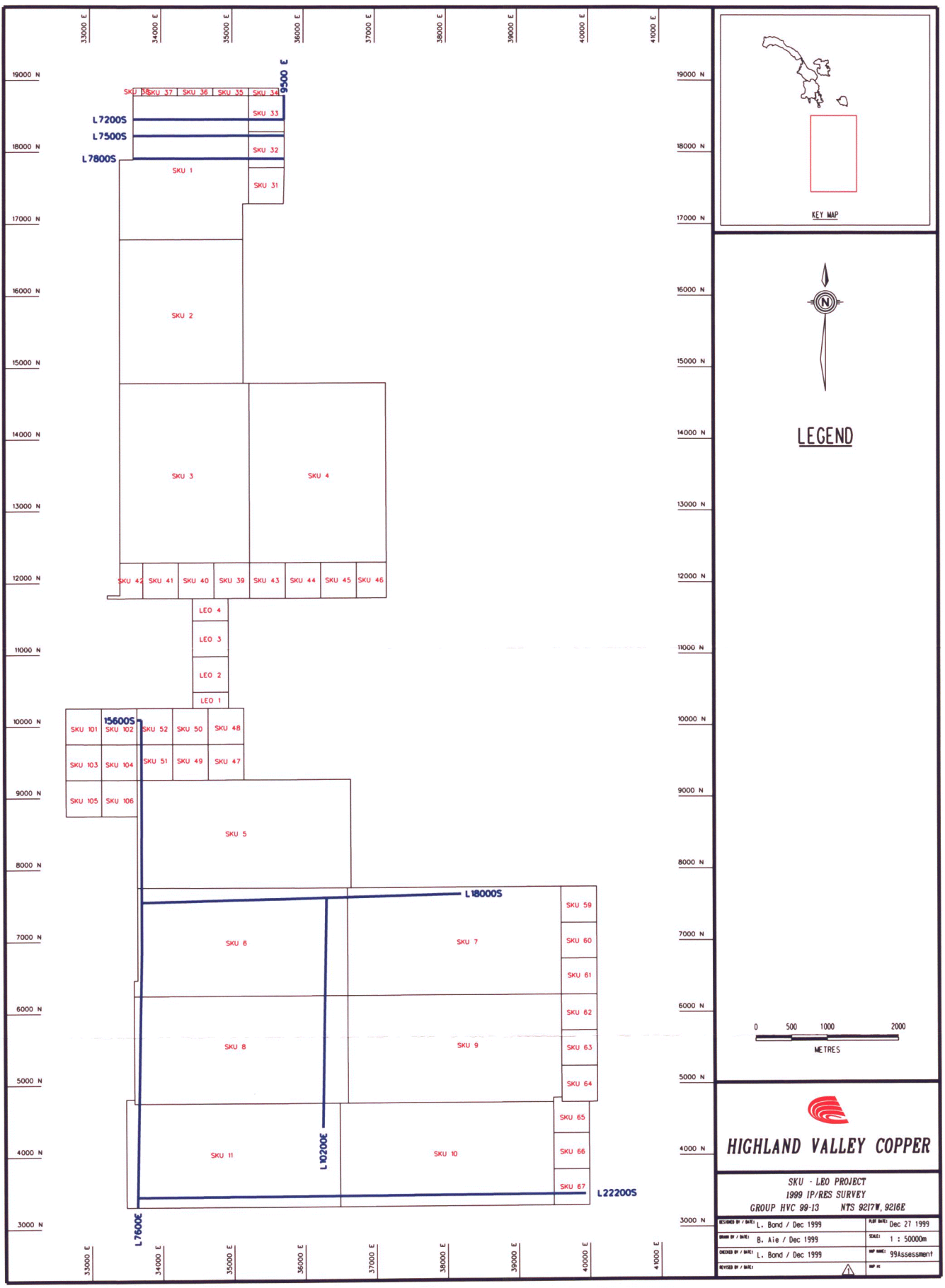
1. I am a qualified, practicing Geologist.

2. I am a graduate of Loyola College (Concordia University), with a B. Sc. (1967) in Geotechnical Sciences.

3. I have practiced my profession since 1967 while employed with Sherritt-Gordon Mines Ltd., Cominco Ltd., Afton Operating Corporation and Highland Valley Copper.

4. This report describes geophysical exploration performed under my direction during the period September 13 to September 28, 1999.

Lorne A. Bond
Senior Mine Geologist
Highland Valley Copper
December 27, 1999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4000 N
3000 N
L 9500 E
L 7200S
L 7500S
L 7800S
L 15600S
L 18000S
L 10200E
L 7600E
L 22200S
SKU 34
SKU 35
SKU 36
SKU 37
SKU 38
SKU 33
SKU 32
SKU 31
SKU 1
SKU 2
SKU 3
SKU 4
SKU 42
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SKU 6
SKU 7
SKU 59
SKU 60
SKU 61
SKU 8
SKU 9
SKU 62
SKU 63
SKU 64
SKU 11
SKU 10
SKU 65
SKU 66
SKU 67
KEY MAP
LEGEND
0
500
1000
2000
METRES
HIGHLAND VALLEY COPPER
SKU - LEO PROJECT
1999 IP/RES SURVEY
GROUP HVC 99-13 NTS 92I7W, 92I8E
DESIGNED BY / DATE: L. Bond / Dec 1999
DRAWN BY / DATE: B. Aie / Dec 1999
CHECKED BY / DATE: L. Bond / Dec 1999
REVISED BY / DATE:
PLOT DATE: Dec 27 1999
SCALE: 1 : 50000m
MAP NAME: 99Assessment
MAP #:

Figure 2

Figure 3

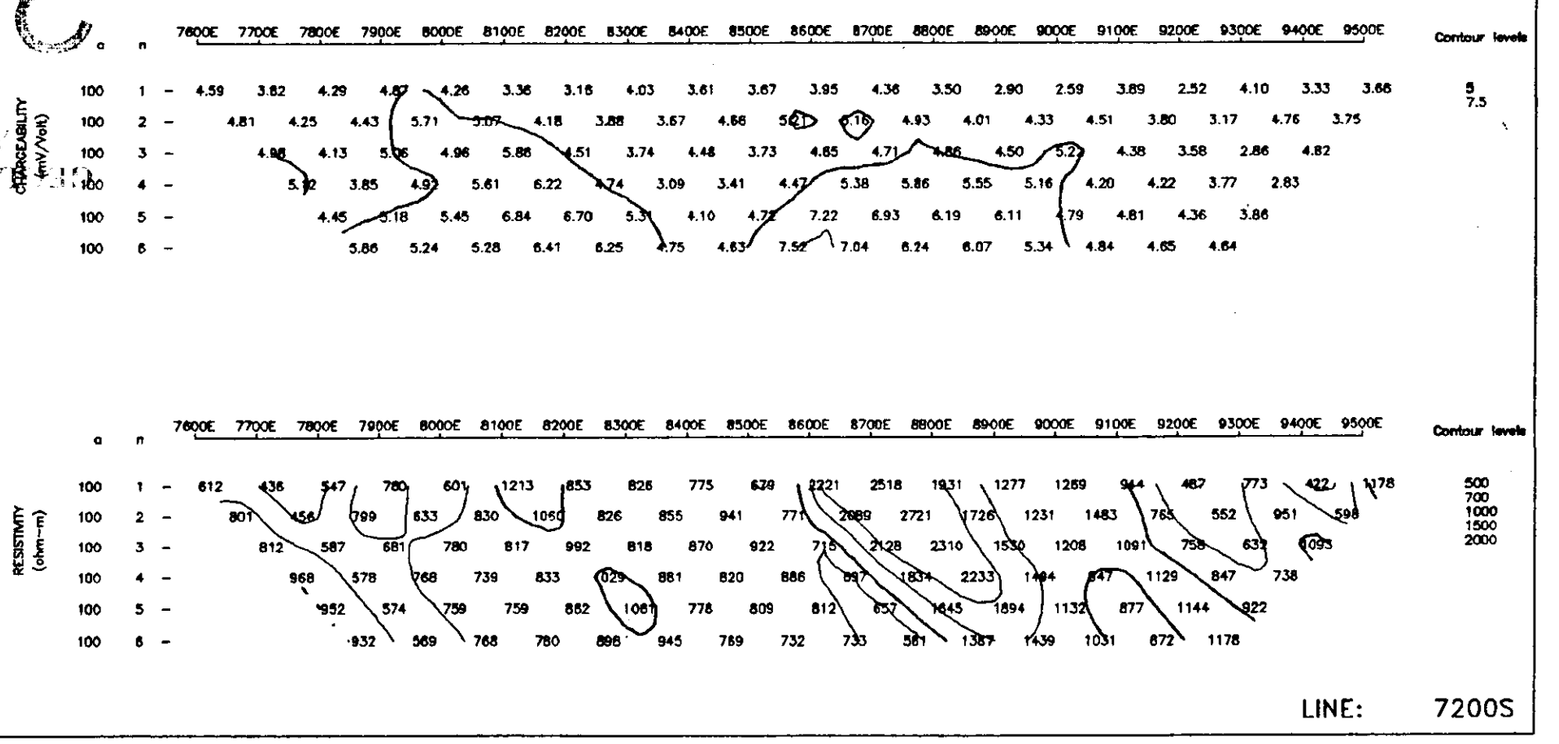
COMINCO LTD.

SKU-LEO CLAIMS, HIGHLAND VALLEY AREA, B.C.

LINE: 7200S

INDUCED POLARIZATION SURVEY (Pole-Dipole Array)
SCOTT GEOPHYSICS LTD. Scintrex IPR12
August/99 Pulse Rate: 2 sec
Current electrode East of potential electrodes (array heading W)
Mx Chargeability is for the interval 120 to 1020 msecs after shutoff

METERS 0 100 200 400 600



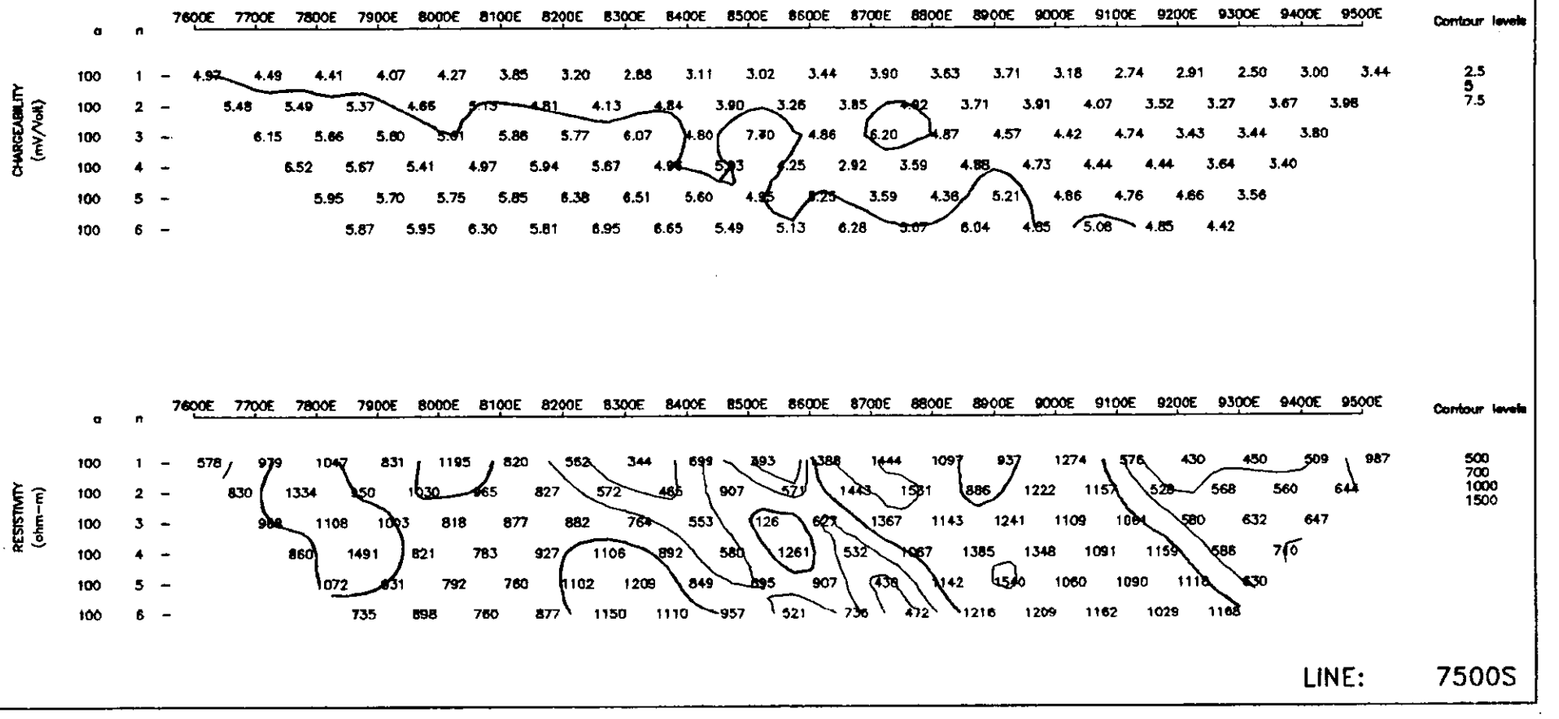
COMINCO LTD.

SKU-LEO CLAIMS, HIGHLAND VALLEY AREA, B.C.

LINE: 7500S

INDUCED POLARIZATION SURVEY (Pole-Dipole Array)
SCOTT GEOPHYSICS LTD. Scintrex IPR12
August/99 Pulse Rate: 2 sec
Current electrode East of potential electrodes (array heading W)
Mx Chargeability is for the interval 120 to 1020 msecs after shutoff

METERS 0 100 200 400 600



COMINCO LTD.

SKU-LEO CLAIMS, HIGHLAND VALLEY AREA, B.C.

LINE: 7800S

INDUCED POLARIZATION SURVEY (Pole-Dipole Array)
SCOTT GEOPHYSICS LTD. Scintrex IPR12
August/99 Pulse Rate: 2 sec
Current electrode East of potential electrodes (array heading W)
Mx Chargeability is for the interval 120 to 1020 msecs after shutoff

METERS 0 100 200 400 600

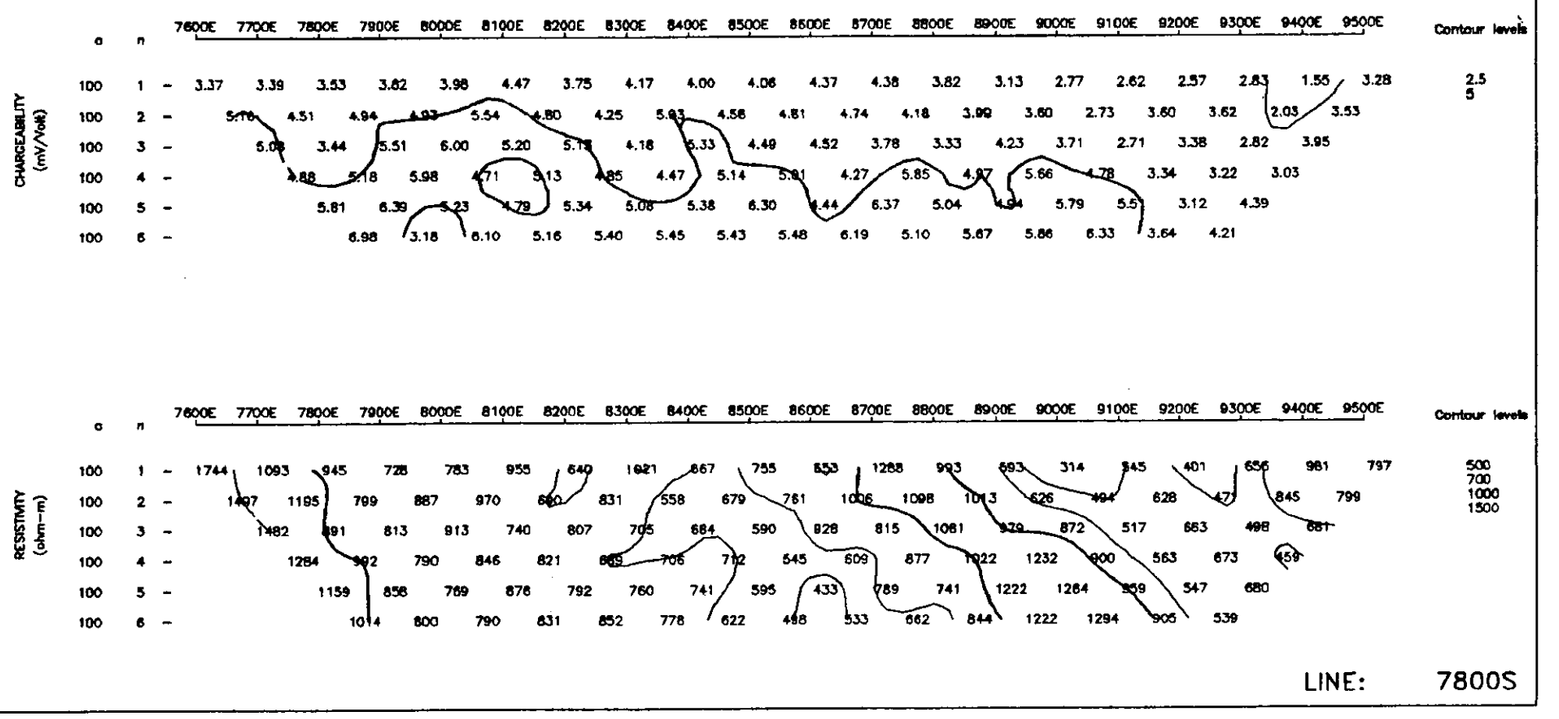


Figure 4

COMINCO LTD.

SKU-LEO CLAIMS, HIGHLAND VALLEY AREA, B.C.

LINE: 7600E

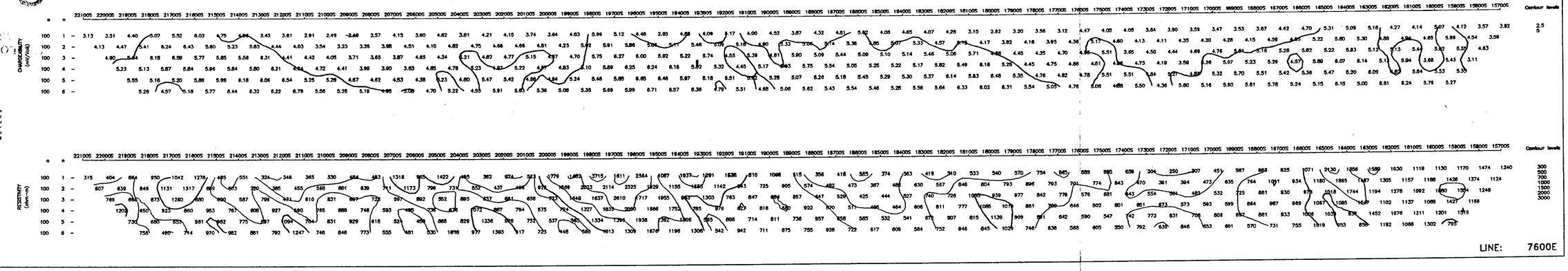
INDUCED POLARIZATION SURVEY (Pole-Dipole Array)

SCOTT GEOPHYSICS LTD. Scintrex IPR12

August/99 Pulse Rate: 2 sec

Current electrode North of potential electrodes (array heading S)

Mx Chargeability is for the interval 120 to 1020 msecs after shutoff



COMINCO LTD.

SKU-LEO CLAIMS, HIGHLAND VALLEY AREA, B.C.

LINE: 10200E

INDUCED POLARIZATION SURVEY (Pole-Dipole Array)

SCOTT GEOPHYSICS LTD. Scintrex IPR12

August/99 Pulse Rate: 2 sec

Current electrode North of potential electrodes (array heading S)

Mx Chargeability is for the interval 120 to 1020 msecs after shutoff

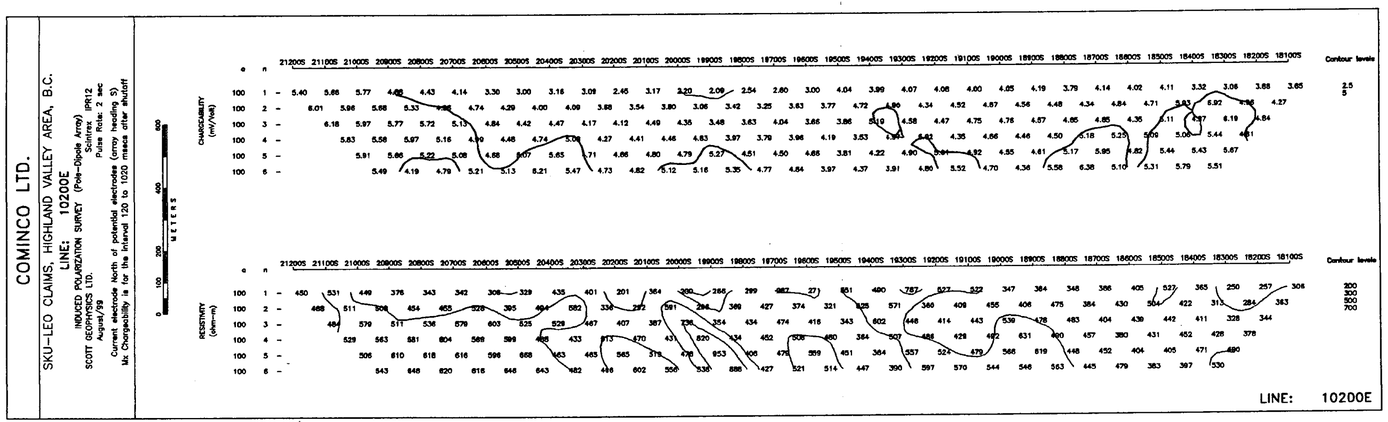


Figure 5

COMINCO LTD.

SKU–LEO CLAIMS, HIGHLAND VALLEY AREA, B.C.

LINE: 22200S

INDUCED POLARIZATION SURVEY (Pole–Dipole Array)

SCOTT GEOPHYSICS LTD. Scintrex IPR12

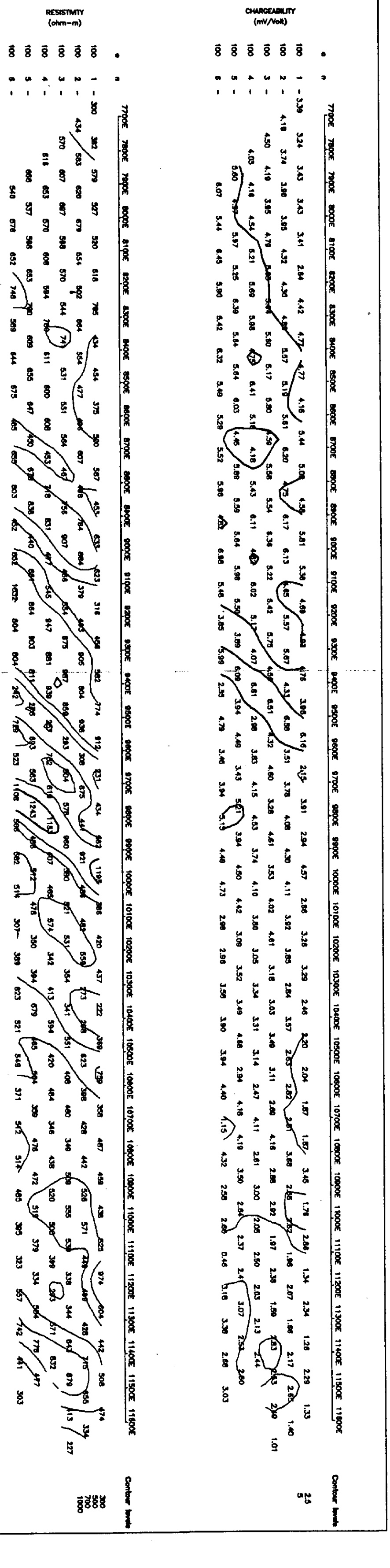
August/99 Pulse Rate: 2 sec

Current electrode West of potential electrodes (array heading E)

Mx Chargeability is for the interval 120 to 1020 msecs after shutoff

RESISTIVITY (ohm–m)

CHARGEABILITY (mV/Volt)



COMINCO LTD.

SKU–LEO CLAIMS, HIGHLAND VALLEY AREA, B.C.

LINE: 18000S

INDUCED POLARIZATION SURVEY (Pole–Dipole Array)

SCOTT GEOPHYSICS LTD. Scintrex IPR12

August/99 Pulse Rate: 2 sec

Current electrode West of potential electrodes (array heading E)

Mx Chargeability is for the interval 120 to 1020 msecs after shutoff

RESISTIVITY (ohm–m)

CHARGEABILITY (mV/Volt)