

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

N.T.S.: 92I/6

INDUCED POLARIZATION SURVEY

TOKETIC PROPERTY

Spences Bridge Area, Kamloops M.D.
British Columbia

Latitude: 50°28'N; Longitude: 121°14'W

Work Performed: June 8 - 12, 1978

Claims Covered: TOC 1 (16 units)

6943

OCTOBER 1978

ALAN SCOTT

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INTRODUCTION AND SUMMARY

During the period June 8-12, 1978, a Cominco geophysical crew completed some 7.3 line kilometers of multiseparation IP survey over portions of the TOC 1 mineral claim.

The Toketic property is located some 10 kilometers north east of Spences Bridge, B.C. as indicated on the location plan, plate 137-78-1. The TOC 1 mineral claim, in relation to the lines surveyed, is shown on plate 137-78-2.

This report describes the procedures used on the induced polarization survey, presents the data collected, and briefly discusses the results.

INDUCED POLARIZATION SURVEY

G.J. Niemeyer, geophysical technician, was the party chief on the survey, and obtained the n=3 and n=4 readings. B. Lum, geophysicist in training, obtained the n=1 and n=2 readings.

Two Scintrex IPR-8 receivers, in combination with a Hunttec 7.5 KW motor generator/transmitter were used for the survey. The equipment operates in the time domain, employing a 2 second current on/2 second current off alternating square wave. The data plotted is the M₂₃₂ value and the units are millivolts per volt. To change these values to the more usual millisecond value (such as the IPR-7) the numbers would be multiplied by 0.7 (for a "typical" decay curve). The reader is referred to the Scintrex manual for a more detailed description of this instrument.

The pole dipole electrode array was used on the survey, with a "2" spacing of 90 meters and "n" separations of 1,2,3, and 4. The current electrode was always located to the east of the potential dipole.

The apparent resistivity data is given in units of ohm meters, and was calculated from the relation:

$$\text{apparent resistivity} = (V/I) \cdot K,$$

where V is the voltage drop across the potential dipole due to a current I, and K is a constant dependant upon the "a" spacing and "n" separation.

The chargeability (IP) and apparent resistivity values are plotted in the standard pseudo section format as accompanying plates 137-78-3 to 137-78-5.

DESCRIPTION OF RESULTS

Three lines were surveyed on the Toketic property, namely lines 0+00, 1+50N, and 3+00N. The highest chargeability values were obtained on the west portion of the lines, with the highest value being 13.0 millivolts/volt at station 990W (n=4), on line 1+50N. This weakly anomalous chargeability zone lies between 810W and 1080W on lines 1+50N, and between 720W to 990W on line 3+00N. The anomaly is coincident with low apparent resistivity values.

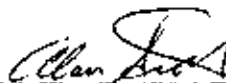
CONCLUSIONS

A time domain IP survey was conducted on the TOC 1 mineral claim in the early summer of 1978. Three lines were surveyed, using a multiseperation pole dipole array.

A weakly anomalous chargeability zone was detected on the west portion of the survey lines.

A geological and geochemical assessment of this zone is recommended.

Respectfully Submitted:



Alan Scott
Geophysicist

Endorsed for Release by:



G. Harden
Manager, Exploration
Western District

ARS/deb

23 October 1978

Distribution:

Mining Recorder (2)
Western District (1)
Geophysics File (1)

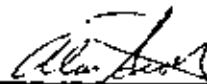
APPENDIX I

IN THE MATTER OF THE B.C. MINERAL ACT
AND IN THE MATTER OF A GEOPHYSICAL PROGRAMME
CARRIED OUT ON PORTIONS OF THE TOC 1 MINERAL CLAIM
ON THE TOKETIC PROPERTY
LOCATED 10 KM NORTHEAST OF SPENCES BRIDGE IN THE KAMLOOPS MINING DIVISION
OF THE PROVINCE OF BRITISH COLUMBIA, MORE PARTICULARLY
N.T.S.: 921/6

S T A T E M E N T

I, ALAN SCOTT OF THE CITY OF VANCOUVER IN THE PROVINCE
OF BRITISH COLUMBIA, MAKE OATH AND SAY: -

1. THAT I AM EMPLOYED AS A GEOPHYSICIST BY COMINCO LTD.
AND, AS SUCH, HAVE A PERSONAL KNOWLEDGE OF THE FACTS
TO WHICH I HEREINAFTER DEPOSE;
2. THAT ANNEXED HERETO AND MARKED AS "APPENDIX II" TO
THIS STATEMENT IS A TRUE COPY OF EXPENDITURES INCURRED
ON GEOPHYSICAL SURVEY AND LINECUTTING ON THE TOC 1
MINERAL CLAIM;
3. THAT THE SAID EXPENDITURES WERE INCURRED BETWEEN THE
8TH OF JUNE AND THE 12TH OF JUNE, 1978 FOR THE PUR-
POSE OF MINERAL EXPLORATION OF THE ABOVE NOTED CLAIMS.



Alan Scott
Geophysicist

ARS/deb
23 October 1978

APPENDIX II

TOC 1 MINERAL CLAIM (16 units)

STATEMENT OF EXPENDITURES

SALARIES:

G.J. Niemeyer	June 8-12		
	5 days @ \$120	\$ 600.00	
B. Lum	June 8-12		
	5 days @ \$ 82	\$ 410.00	
I. Cummings	June 8-12		
	5 days @ \$ 82	\$ 410.00	
C. LaPrairie	June 8-12		
	5 days @ \$ 82	\$ 410.00	
J. Reader	June 8-12		
	5 days @ \$ 82	\$ 410.00	
R. Grant	June 8-12		
	5 days @ \$ 82	\$ 410.00	
			\$ 3,060.00

MISCELLANEOUS:

Food, lodging, consumables \$ 1,263.82

OPERATING CHARGES:

Towards report, drafting, supervision
4 survey days @ \$ 175 \$ 700.00

GEOPHYSICAL EQUIPMENT AND
VEHICLE RENTALS:

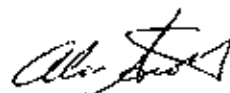
4 survey days @ \$ 282 \$ 1,128.00

LINECUTTING:

12.3 line kilometers @ \$160 \$ 1,960.00

TOTAL COST:..... \$ 8,111.82

ARS/deb
23 October 1978



APPENDIX III

C E R T I F I C A T I O N

I, ALAN SCOTT, OF 4013 W. 14TH AVENUE IN THE CITY OF
VANCOUVER, IN THE PROVINCE OF BRITISH COLUMBIA, DO

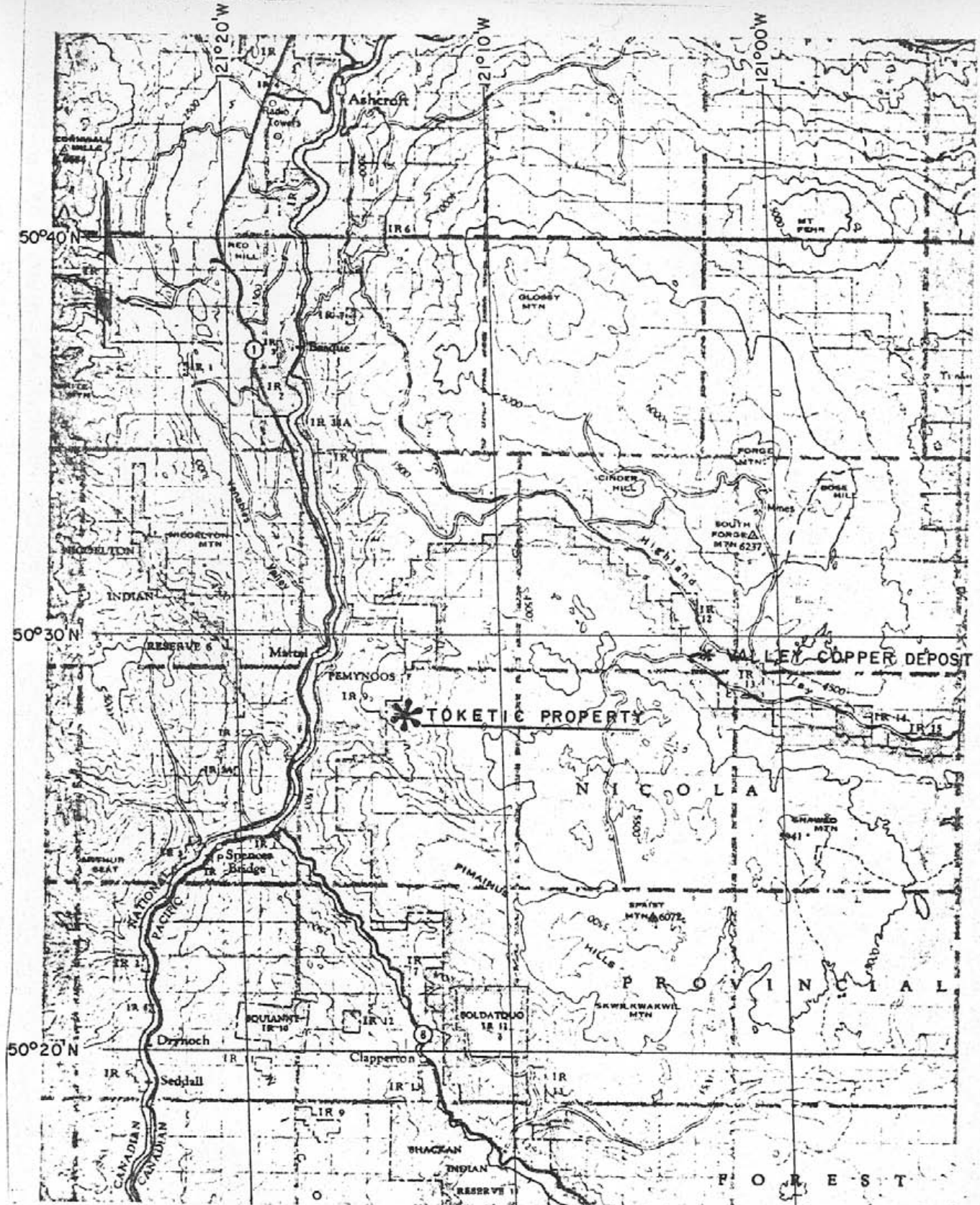
HEREBY CERTIFY THAT: -

1. I graduated from the University of British Columbia
in 1970 with a B.Sc. in Geophysics.
2. I am a member of the Association of Professional
Engineers of the Province of Saskatchewan, the
Society of Exploration Geophysicists of America,
and the British Columbia Geophysical Society.
3. I have been practising my profession for the past
eight years.



Alan Scott
Geophysicist

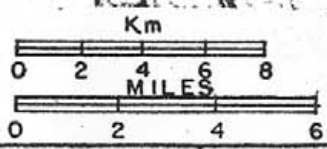
ARS/deb
23 October 1978



TOKETIC PROPERTY

NICOLA VALLEY COPPER DEPOSIT

NICOLA HILLS PROVINCIAL FOREST



N.T.S. 9216

TOKETIC PROPERTY

LOCATION MAP

KAMLOOPS M.D., B.C.

Drawn by:		Traced by:	
Revised by	Date	Revised by	Date

Scale: 1:50,000

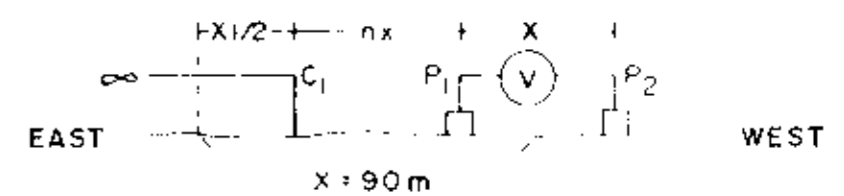
Date: SEPT 1978

Plate: 137-78-1

COMINCO LTD. TOKETIC PROPERTY KAMLOOPS M.D., B.C.

LINE NO. 3+00 N

POLE-DIPOLE
ELECTRODE CONFIGURATION



PLOTTING POINT
n = 1, 2, 3, 4

CURRENT ELECTRODE EAST OF POTENTIAL DIPOLE

DATE SURVEYED JUNE 9, 1978

CONTOUR INTERVALS:
APP. RES. 100 Ω_m
APP. CHARG. - 1.0 Mv/V

DATE

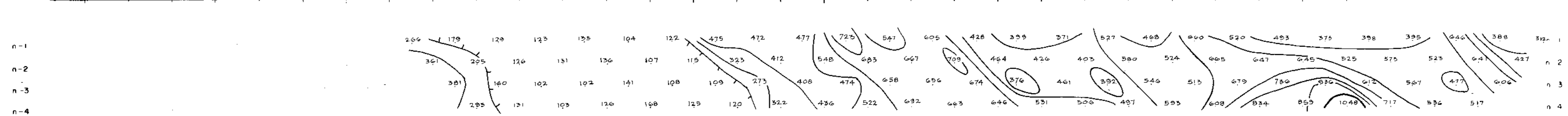
TRANSMITTER - HUNTEC 7.5 Kw
RECEIVER - IPR 8

MINERAL REPORT NO. 6943

6943

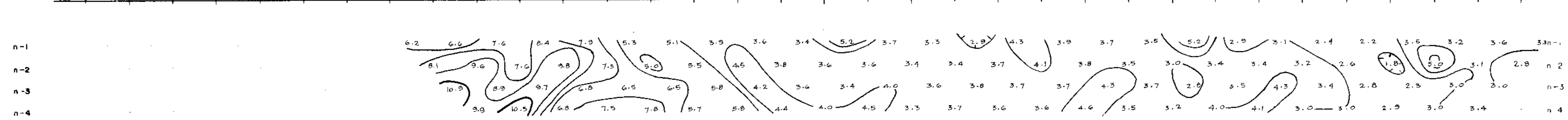
INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY COMINCO LTD., EXPLORATION DIVISION

1260W 1170W 1080W 990W 900W 810W 720W 630W 540W 450W 360W 270W 180W 90W 8L 90E 180E 270E 360E 450E 540E 630E 720E 810E 900E 990E 1080E 1170E



1260W 1170W 1080W 990W 900W 810W 720W 630W 540W 450W 360W 270W 180W 90W 8L 90E 180E 270E 360E 450E 540E 630E 720E 810E 900E 990E 1080E 1170E

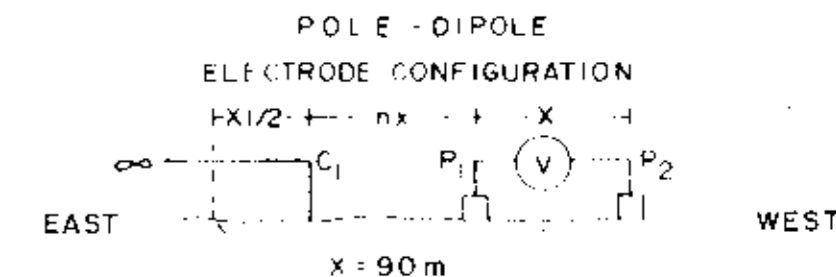
Apparent Chargeability M_a



NORTH LINE

COMINCO LTD. TOKETIC PROPERTY KAMLOOPS M.D., B.C.

LINE NO. 1+50 N



PLOTTING POINT
n=1, 2, 3, 4

CURRENT ELECTRODE EAST OF POTENTIAL DIPOLE

DATE SURVEYED JUNE 10, 1978

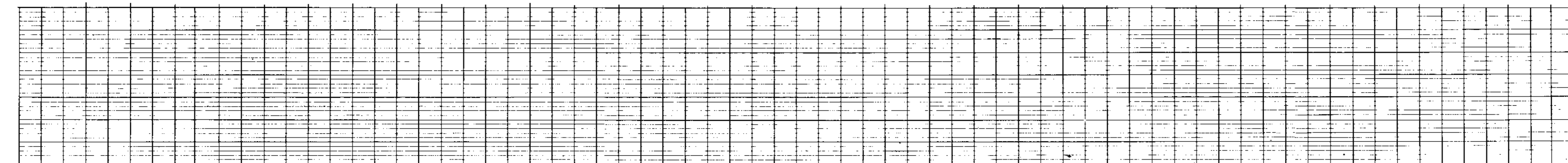
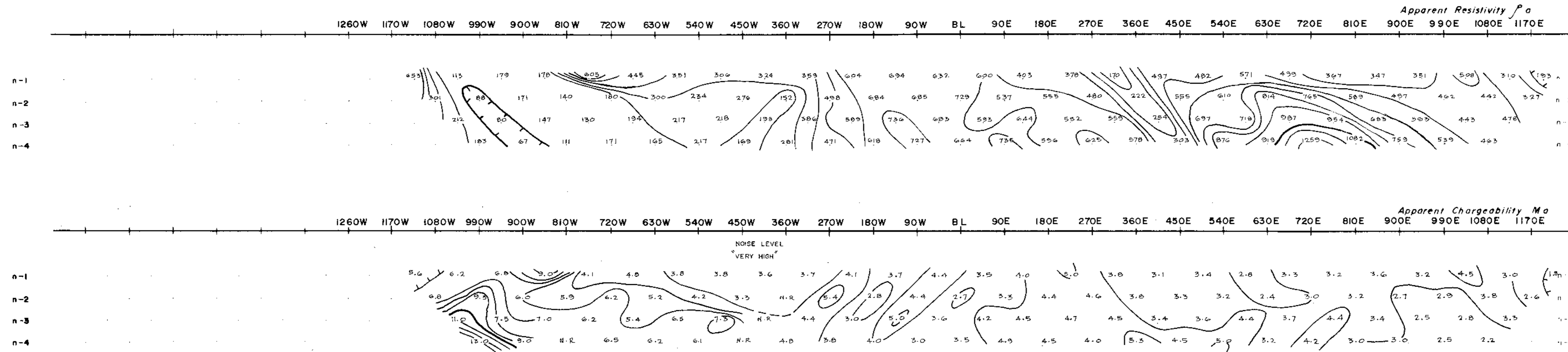
CONTOUR INTERVALS:
APP. RES. 100 Ω m
APP. CHARG. -1.0 Mv/V

APPROVED

TRANSMITTER - HUNTEC 7.5 Kw
RECEIVER - IPR 8

DATE
6943

INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY COMINCO LTD., EXPLORATION DIVISION

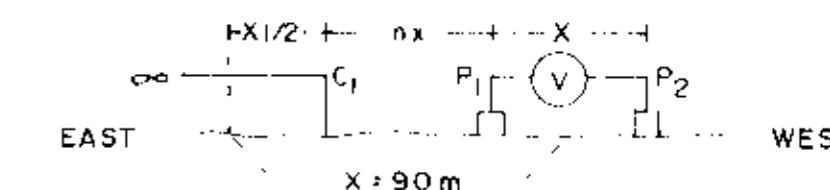


LINE 1+50 N

COMINCO LTD. TOKETIC PROPERTY KAMLOOPS M.D., B.C.

LINE NO. 0+00 N

POLE-DIPOLE
ELECTRODE CONFIGURATION



CURRENT ELECTRODE EAST OF POTENTIAL DIPOLE

DATE SURVEYED JUNE 11, 1978

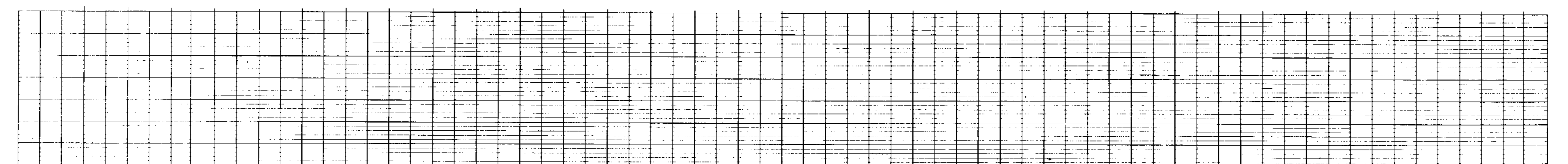
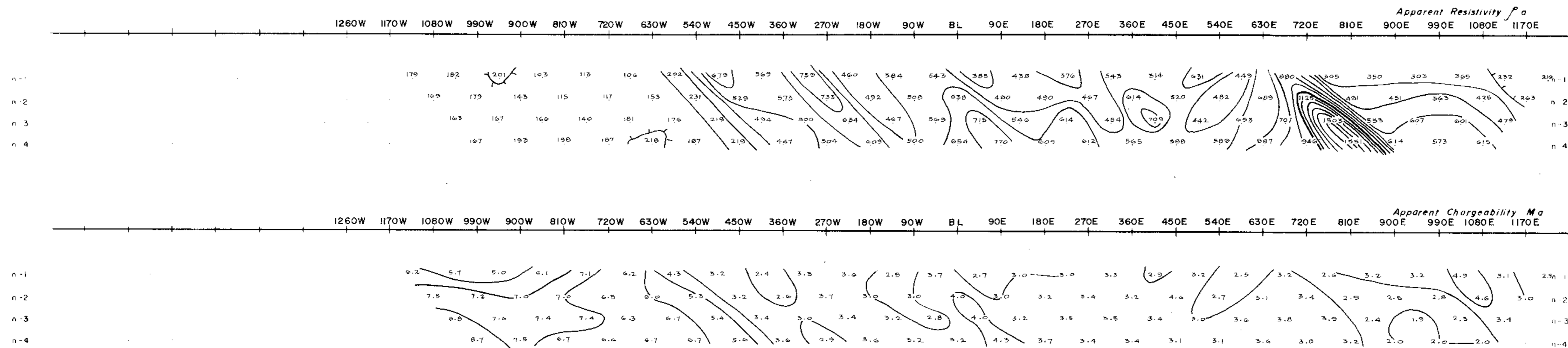
CONTOUR INTERVALS:
APP. RES. 100 Ω m
APP. CHARG. 1.0 Mv/V

APPROVED [Signature]

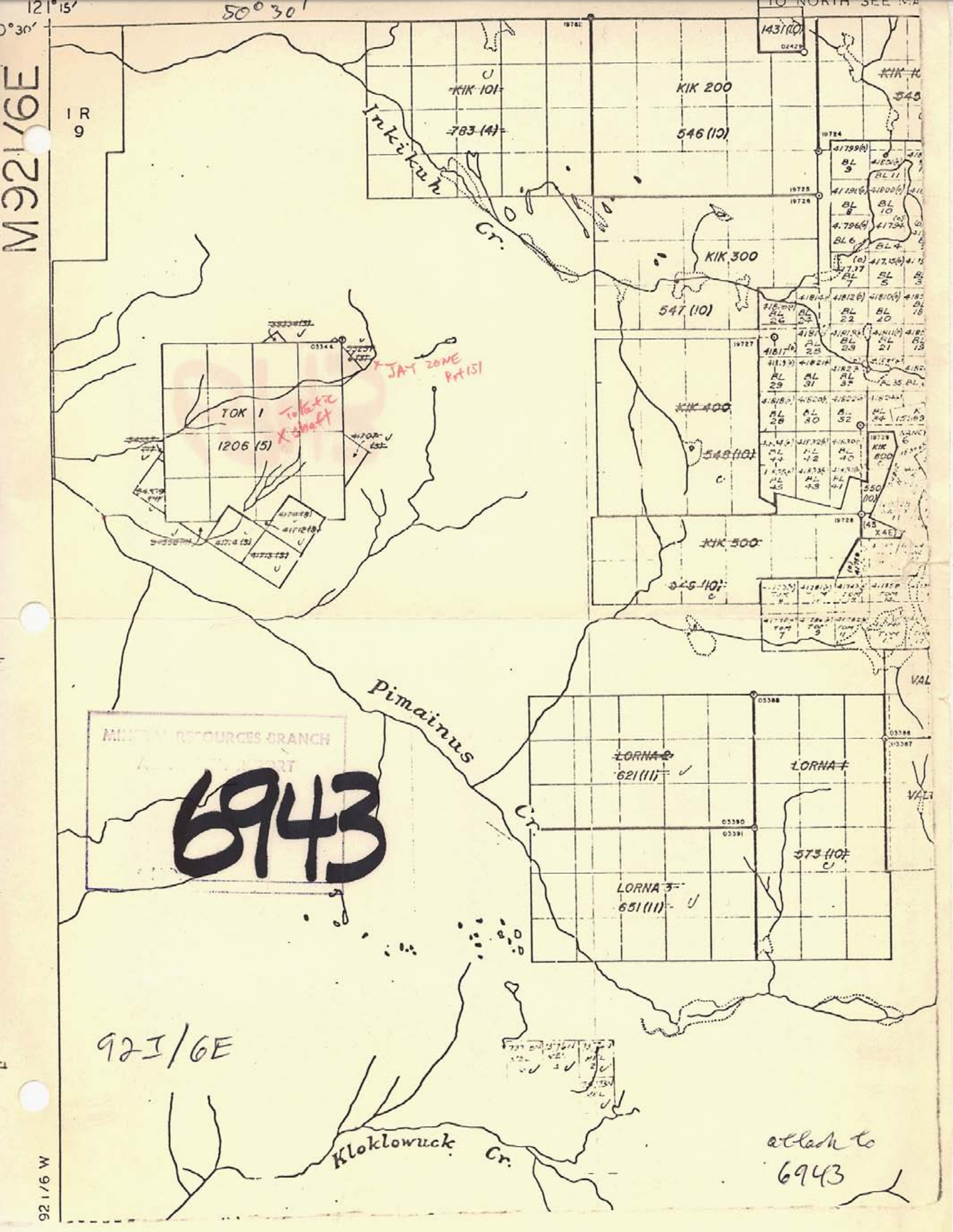
TRANSMITTER - HUNTEC 7.5 Kw
RECEIVER - IPR 8

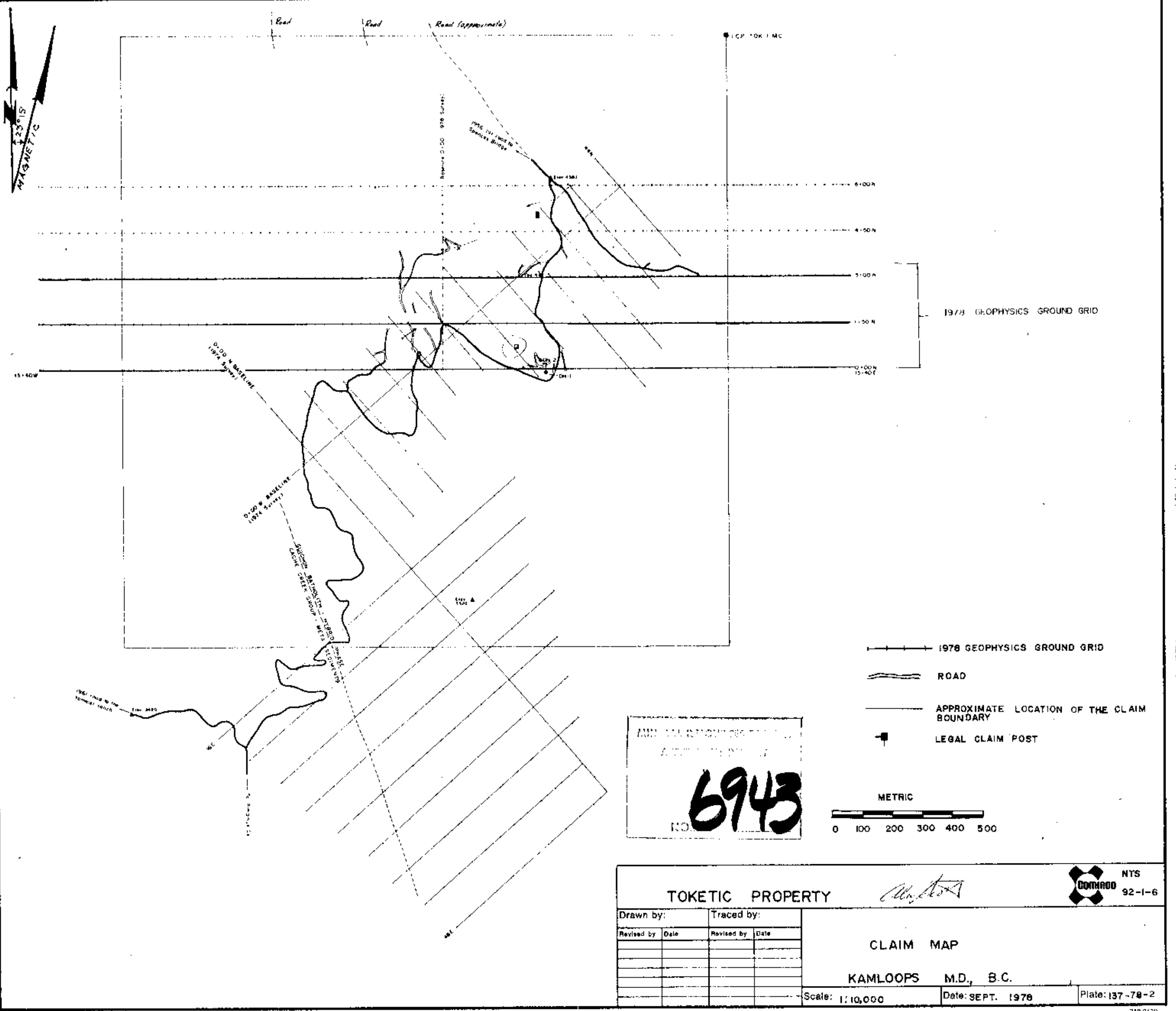
DATE: _____
 MINERAL RESOURCES BRANCH
 APPROVED BY:
6943
 NO. _____

INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY COMINCO LTD., EXPLORATION DIVISION



LINE 0+00 N

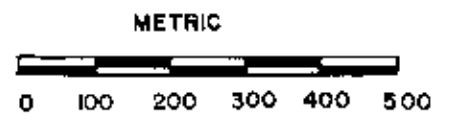




123°15'
MAGNETIC

1978 GEOPHYSICS GROUND GRID

- 1978 GEOPHYSICS GROUND GRID
- ~~~~~ ROAD
- APPROXIMATE LOCATION OF THE CLAIM BOUNDARY
- ⊙ LEGAL CLAIM POST



AMERICAN INSTITUTION OF MINING AND METALLURGY
 CLAIM NO. **6943**

TOKETIC PROPERTY				<i>Ally</i>	NTS 92-1-6
Drawn by:		Traced by:		CLAIM MAP	
Revised by	Date	Revised by	Date		
KAMLOOPS M.D., B.C.				Scale: 1:10,000	Date: SEPT. 1976
				Plate: 137-78-2	