93L/2W 2E

GEOPHYSICAL REPORT on an
INDUCED POLARIZATION SURVEY on a portion of the
SILVER QUEEN PROPERTY
(Nadina Mine)
situated immediately east of Owen Lake
Omineca M.D., British Columbia
Field Work Between July 15 and 21, 1971
by
D. R. Cochrane, P.Eng.

93L/2W 2E 93L-2

Report by:

A. Scott, B.Sc.,

D. R. Cochrane, P.Eng.,

Delta, B.C.,

August 5, 1971.

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SUMMARY AND CONCLUSION - PART A

A-1 SUMMARY

Between July 15 and July 21, 1971, a field crew employed by D. R. Cochrane, P. Eng. completed 6 line miles of induced polarization surveying and two induced polarization depth probes on the Nadina Mines Bralorne Can - Fer Resources Silver Queen property.

A Hewitt Enterprises induced polarization unit was utilized on the survey and detailed instrument specifications are tabulated in Appendix III. A Wenner field array was deployed at an "a" spacing of 400 feet. (Normally the "a" spacing is roughly equal to the depth of exploration.) The six grid lines run North 30° East and are 600 feet apart.

The purpose of the survey was to investigate an area of geological interest between the Ruby Vein and the Chisholm Shaft.

A-2 CONCLUSIONS

1. The induced polarization survey outlined three ridges of "moderately to strongly anomalous" chargeability response. They are roughly 800 to 1000 feet apart, subparallel and trend East-West across the area surveyed. They have been designated IP anomolies one to three inclusive.

2. The northernmost anomaly (IP Anomaly 1, see Figures 7 and 12,) forms a slightly convex arc and is situated immediately south of the baseline. It is open to the east and west and additional surveying is necessary to fully delineate the zone. The west end of IP Anomaly One is coincident with a "strongly anomalous" SP gradient and therefore suggests a sulphide source.

In addition, 8 t o 4 second current pulse ratios indicate sulphide-type polarization. (See section C-5). The westernmost 800 feet of the anomaly closely coincides with the up dip projection of the Ruby vein, and some portion of the chargeability response must be due to its presence. However, since the Ruby vein dips north, any displacement of the anomaly should be to the north if this vein system is the entire polarization source. The inference is then that there is a zone of more strongly polarizing material associated with the vein on the southern edge, or possibly a second parallel vein. IP anomaly No. 1 peaks at 39.2 milliseconds (m.s.) and assuming a background of 10 m.s., total bulk sulphide content over the 400 foot "a" spacing should be on the order of 4 or more percent. (Assuming background polarization is roughly equivalent to 1 or so percent disseminated sulphides). Induced polarization depth probe "B" indicates a steep northerly dip for this anomaly's east end. Diamond drilling is recommended in order to determine if the east end of anomaly one represents an extension of the Ruby vein system.

3. IP Anomaly 2 (see Figures 7 and 12) lies about 800 feet south of IP anomaly 1 and is subparallel to it. It trends true east-west across the grid and is open to the east. The east limb very nearly parallels Anomaly 1 and is very similar in shape and amplitude. The very high amplitude anomaly centered at 22S on IP line 2 (12+00W) is coincident with a "low background" apparent resistivity embayment. Eight to 4 second current pulse ratios indicate a sulphide-type polarization source. The anomaly peaks at 51.6 m.s. (station 22S, line 12 + 00N) indicating 5 percent or more total sulphides, or equivalent polarizing material.

Depth Probe "A" suggests a fairly flat lying polarizing body that dips to the north at depth.

A diamond drill hole to determine the nature of the polarization source of this anomaly is recommended.

4. IP Anomaly 3 on Figures 7 and 12 lies some 800 feet south of, and is parallel to, Anomaly 2. It is of lower amplitude than Anomalies 1 and 2, and peaks at 32.2 m.s. at station 30S on line 1 (6 + 00W). It is coincident with a very steep self potential (SP) gradient at the IP peak where the SP changed from - 200 to + 200 millivolts within 800 feet. Eight to 4 second chargeability ratios indicate a hybrid source of polarization. (See section C - 5 of this report). Diamond drill investigation of this anomaly is recommended.

5. Two geophysical linears were distinguished on the apparent resistivity plan. These are shown on the compillation map (Figure 12) and the linears may represent a contact between two rock types.

6. Extension of the grid to the north, east, and west would "close" the anomalies, and establish a true "background" chargeability value for this area.

Respectfully submitted,

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — D. R. COCHRANE

D. R. Cochrane, P. Eng.

A. Scott, B. Sc.

PART B

B-1 INTRODUCTION:

Between July 15 and July 21, 1971, a field crew employed by D. R. Cochrane, P. Eng. completed 6 line miles of induced polarization surveying, and two induced polarization depth probes on Bralorne Can-Fer Resources Nadina Mines Silver Queen property at Owen Lake. A Hewitt pulse-type IP unit was used exclusively for induced polarization surveying.

This report describes the instrumentation, field and data processing procedure and discusses the results obtained.

B-2 LOCATION AND ACCESS:

The mine workings are situated immediately east of Owen Lake, in the Houston area of north central British Columbia. Facile access is via an all weather gravel road which proceeds south from a point just west of the town of Houston (on highway #16) to Francois Lake. The property is centered 27 road miles south on the Owen Lake Road. Numerous mine and farm roads provide access to most parts of the property.

The latitude is 54° 05' North and the longitude 126° 44' West. The National Topographic Survey code for the area is 93L/2.

B-3 CLAIMS AND OWNERSHIP:

Note: Claims information must be appended if survey work is submitted for assessment work credits.

B-4 GENERAL SETTING:

The Silver Queen Property is situated on the west flank of the Nechako Plateau, on the divide between the Skeena and Fraser River drainage systems. The area is a fairly gently rolling upland surface with a maximum relief of just less than 2,000 feet. The highest point locally is Mine Hill, which rises to just over 3,200 feet from Owen Lake which is just less than 2,500 feet above mean sea level.

The geophysical work was conducted on the southwest facing slope of Mine Hill. It is a relatively open grassland area, with scrub bush developing in arroyos and stream valleys. Natural bedrock exposure is poor, but surface trenching, pitting and drilling, in addition to underground work, has made the geological picture fairly clear. Mr. N. Church has mapped the area, and the reader is referred to his description for details. (Published in Geology, Exploration and Mining in British Columbia, 1969, pages 126 - 139).

Church shows the area surveyed as underlain by two rock types, the Okusyelda dacite-rhyolite sequence to the east of Chisholm shaft, and south of Cole Creek, and the Wrinch Creek dacite (andesite) elsewhere.

The northeast sections of the IP lines cross the Ruby vein, which varies from a foot or so to several feet in width. Sphalerite

B-4 GENERAL SETTING cont'd

and pyrite are the main sulphides, with local concentrations of galena, specularite and chalcopyrite. The host rock near the southeast end of the main adit on the Ruby vein, is brecciated, pyritic rhyolite.

B-5 GROUND CONTROL GRID:

IP survey lines were compassed and chained during survey operation. The front stake line was measured to 400 feet and was used for chainnage between IP stations. The front stake man maintained line direction with a Brunton compass. At each IP station, a picket was numbered and flagged and driven in the ground. Notes of the grid location of all roads, creeks, trenches etc. were made by the operator and form the basis of the location map presented as Figure 1.

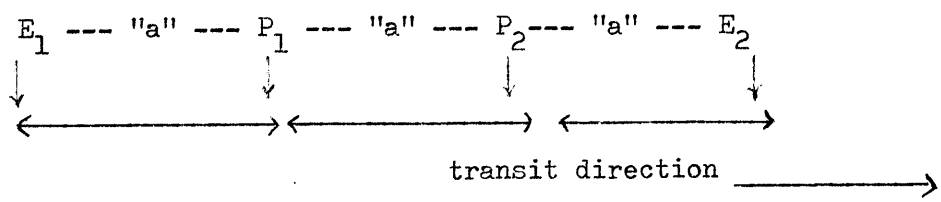
Establishment of a starting point and line direction was made by Mr. Plecash at the mine site.

The lines were run North 30° East and are 600 feet apart. A base line was established along the ridge above the Ruby vein, and all lines were run southerly (i.e. downslope) so that a good foresight could be established for ground control.

PART C

C-1 FIELD PROCEDURE:

A standard Wenner Array with an "a" spacing of 400 feet was used for the IP survey of the Silver Queen Property. For this array, the distance between pots and electrodes is equal, as illustrated below:



The front positions are electrically positive and rear positions negative.

A suitable station was chosen for instrument - set up, and the stake men and front pot man moved to the appropriate positions on the line. A small hole was dug beneath the humus and cleared of rocks in order to seat the pots (positions P_1 and P_2). A small amount of salt was added to improve electrical contact.

The stakemen (positions E_1 and E_2) cleared a strip of ground (roughly 1 foot square) of grass, leaves and rocks, spread aluminum foil over the cleared part and buried the foil. Salt water was poured on the foil to assure good ground contact. If contact was

C-1 FIELD PROCEDURE:cont'd

still subnormal, two more stakes were set out some 6 feet to either side of the foil.

Communication with the instrument operator was facilitated by small transceivers and when all positions were reported "ready", the instrument operator commenced measurement. Firstly, the self potential of the ground between front (P_1) and rear (P_2) pots was balanced and recorded in millivolts (front pot was always defined as positive pole and data was corrected when plotted to account for changes in transit direction). A 4 second current pulse was then initiated during which the transmitter current and impressed EMF between pots was noted. On cessation of the current pulse, an integrated value of the residual decay voltage is automatically registered on the receiver galvanometer. This value was recorded along with position of instrument, RC filter, integration function, output voltage of the transmitter, notes on terrain, steadiness of SP, and the "sharpness" of the IP. The IP was normalized and the procedure repeated for a minimum of three successive pulses. Often an 8 second current pulse was used and various combinations of filters and integration times to assist in interpretation of results.

The order was then given to move 400 feet to the next station and the procedure repeated.

C-2 DATA PROCESSING:

The IP data was normalized and the apparent resistivites were calculated by slide rule in the field and spot checked in the office with a Diehl mini- computer.

The chargeability is defined by the relationship:

$$\text{apparent resistivity (ohm - feet)} = 2\pi a \frac{dV}{I}$$

where,

a = spacing (400' in this instance)
I = transmitted current
dV = impressed EMF between receiving pots

The chargeabilities and apparent resistivities were plotted and contoured, and accompany this report as Figures 5 and 7. Self potential gradient data was corrected for a standard pole and accompany this report as Figure 6.

The grouping of the data and computation of arithmetic mean, standard deviation and coefficient of correlation was done with the aid of a Diehl Algotronic Programmable Calculator.

C-3 APPARENT RESISTIVITY RESULTS:

An iso-apparent resistivity plan accompanies this report as Figure 5 and Figure 2 shows the frequency distribution of 67 apparent resistivity values.

The results vary from a low of 248 ohm-feet to a high of 1070 ohm-feet. The arithmetic mean is 644 ohm-feet and the standard deviation is 194 ohm-feet.

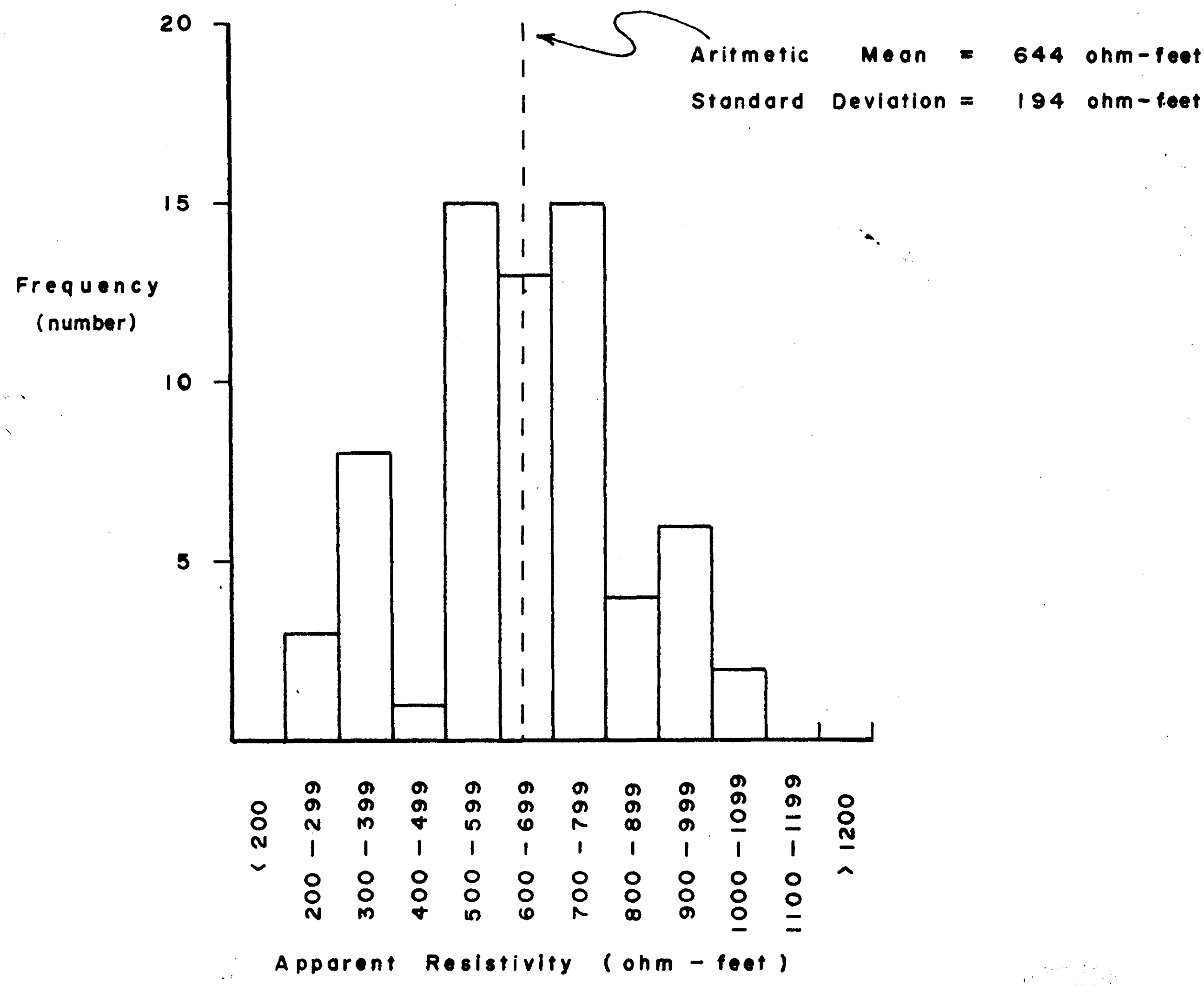


FIGURE 2

BRALORNE CAN-FER RESOURCES LTD

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FREQUENCY HISTOGRAM
APPARENT RESISTIVITY

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To accompany geophysical report by A. Scott, B. Sc. & D. R. Cochrane, P.Eng. on the Silver Queen Property Owen Lake Area, Omineca M.D., B.C., dated August 9, 1971

C-3 APPARENT RESISTIVITY RESULTS cont'd

The frequency histogram shows a multimodal distribution with two primary modes, each encompassing 22 percent of the population lying in the 500 - 599 and 700 - 799 ohm-foot classes. A secondary mode encompassing 12 percent of the population lies in the 300 - 399 ohm-foot class. A tertiary mode encompassing 9 percent of the population and lies in the 900 - 999 ohm-foot class.

The multimodal resistivity distribution suggests the area surveyed is underlain by more than one rock type.

Based on the statistics, the following apparent resistivity classes have been defined:

$<$400 ohm-feet	" anomalously low"	apparent	resistivity
400-600 ohm-feet	" low background	"	"
600-800 ohm-feet	"high background	"	"
$>$800 ohm-feet	" anomalously high"	"	"

The resistivity plan is characterized by a series of "anomalously high" apparent resistivity hills surrounding a broad trough of "low background" to "anomalously low" apparent resistivity values. Two resistivity linears are obvious on the apparent resistivity plan. They are shown on the compilation map and may represent a contact between two rock types or perhaps a fault.

A trough of "low background" apparent resistivity extends from Line 1 (6 + OOW) to Line 3 (18 + OOW) 600 feet south of the base line.

C-3 APPAREMT RESISTIVITY RESULTS cont'd

The most interesting resistivity feature is the broad "anomalously Low" series of values situated in the southeast survey quadrant. The 400 ohm-foot iso-resistivity contour outlined an area characterized by quite abnormally low subsurface resistivity (i.e. high conductivity). It coincides in part with IP anomaly Number 3, and may be due to the presence of sulphides, or alteration products, or an increase in the subsurface moisture content, or a change in rock type.

C-4 SELF POTENTIAL RESULTS:

A self-potential gradient plan accompanies this report as Figure 6. The plotted values represent the potential difference (in millivolts) between a point 200 feet north and a point 200 feet south of the plotted number. Values have been corrected for positive pole south.

The results vary from a low of -200 millivolts over 400 feet, to a high gradient of +200 millivolts over 400 feet.

The frequency distribution histogram (Figure 3) has its mode in the 0 - 24.9 millivolt class and encompasses 46 percent of the values. The arithmetic mean is +3 millivolts and the standard deviation is 50 millivolts. Statistically the following self-potential (SP) gradient classes have been defined.

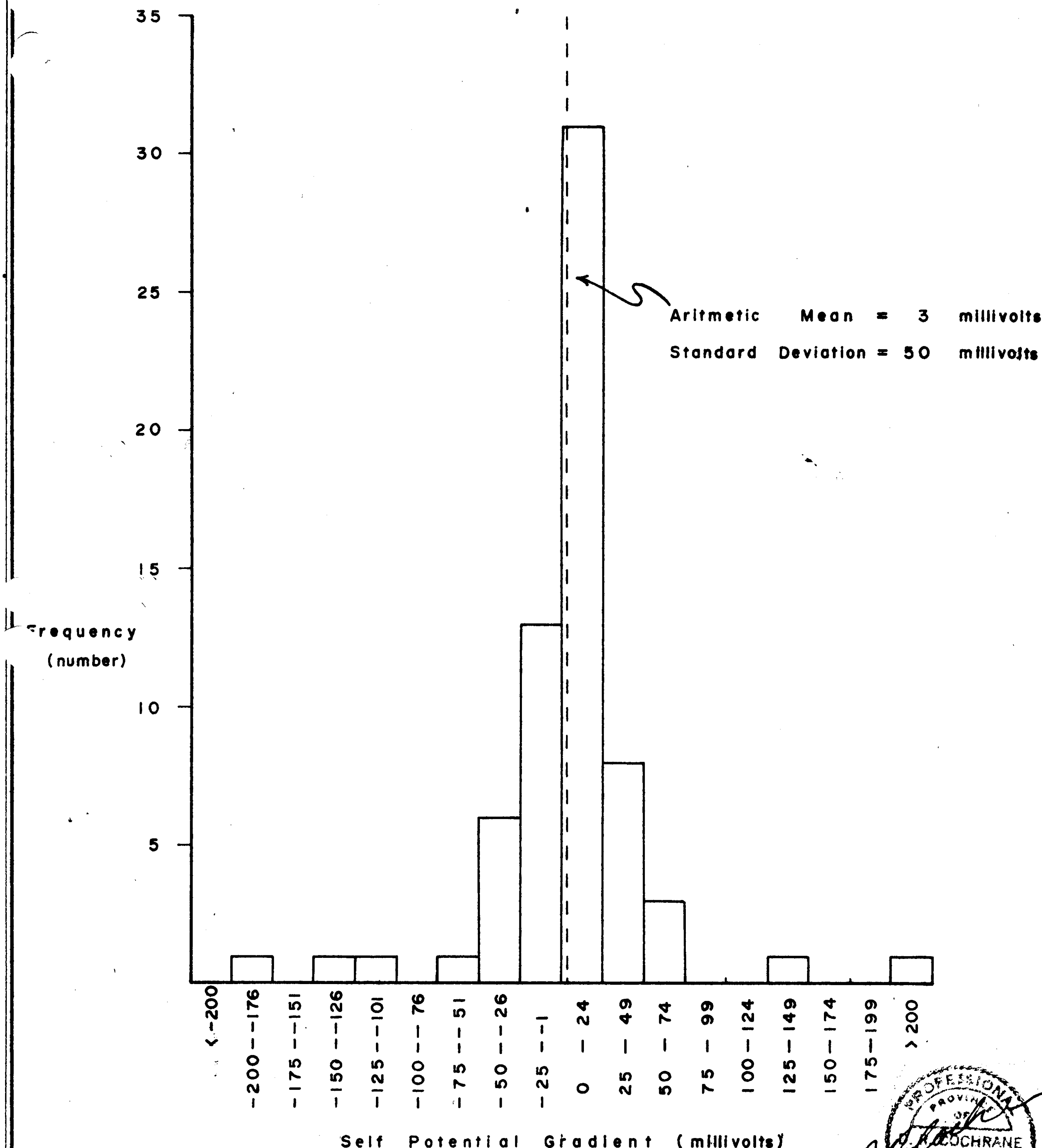

FIGURE 3

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FREQUENCY HISTOGRAM

SELF POTENTIAL GRADIENT

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To accompany geophysical report by A. Scott, B. Sc. & D. R. Cochrane, P.Eng. on the Silver Queen Property Owen Lake Area, Omineca M.D., B.C., dated August 9, 1971

C-4 SELF POTENTIAL RESULTS cont'd

< - 100 millivolts	--	strongly anomalous negative gradient
- 100 - -51 millivolts	--	moderately anomalous neg. gradient
- 51 - +49 millivolts	--	background
50 - 99 millivolts	--	moderately anomalous positive gradient
> 100 millivolts	--	strongly anomalous positive gradient

The SP gradient values have been profiled (Figure 6) at a vertical scale of 200 m.v. per inch. Two trends of "moderately to strongly anomalous" SP gradients were outlined.

The first trend, designated 1 on Figure 6 extends from 8S on Line 1 (6 + OOW to 5S on Line 4 (24 + OOW). The maximum gradient is on Line 4 at station 2S and is -136 millivolts.

Number 2 trend extends from station 28S on Line 1 (6 + OOW) to 28S on Line 3 (18 + OOW). The maximum negative and maximum positive gradients are each 200 m.v. and are situated at stations 26S and 30S on Line 1 (6 + OOW).

While there are many variables that can account for SP effects (for example, topography, ground water, etc.) strong SP gradients often indicate the presence of sulphides. In addition, strong SP gradients in the presence of high chargeability strongly suggests a sulphide source. The presence of the large SP gradients in conjunction with high chargeability results increases the importance of the IP anomalies.

C-5 CHARGEABILITY RESULTS:

An iso-chargeability plan accompanies this report as Figure 7, and Figure 4 shows the frequency distribution of 67 chargeability values.

The results vary from a low of 11.4 milli-seconds (m.s.) to a high of 51.6 m.s. The arithmetic mean is 27.0 m.s. and the standard deviation is 8.5 m.s. The frequency histogram shows a bimodal distribution. The primary mode lies in the 25.0 - 29.9 m.s. class and encompasses 33 percent of the population, and the secondary mode lies in the 10.0 - 14.9 m.s. class and encompasses 10 percent of the population.

A statistical classification of the observed chargeability values places "background" in the 18.5 - 35.5 m.s. range. However, from past experience in the area, and in similar geological environments, the authors feel that this is far too high.

Normally "background chargeability" is less than 10 m.s. and values from 15 - 35 m.s. are "weakly to moderately anomalous". Values greater than 35 m.s. are generally considered "strongly anomalous". The very high background response obtained on the Nadina survey is considered to be due to the relatively small area surveyed and the unusually high IP response.

The chargeability plan shows a series of ridges of "moderately anomalous" to "strongly anomalous" amplitude

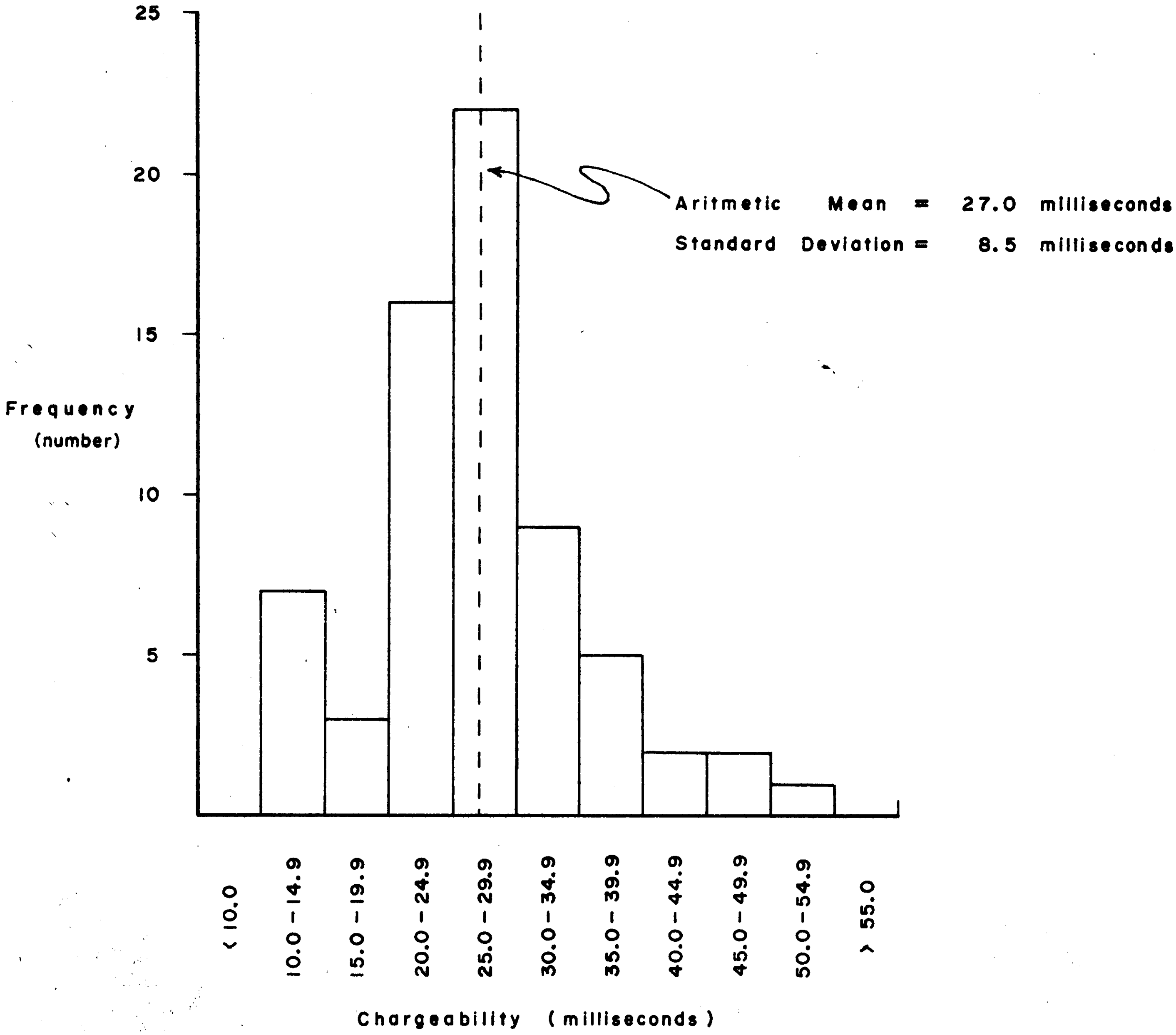

FIGURE 4

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FREQUENCY HISTOGRAM

CHARGEABILITY

To accompany geophysical report by A. Scott, B. Sc. & D. R. Cochrane, P.Eng. on the Silver Queen Property Owen Lake Area, Omineca M.D., B.C., dated August 9, 1971

chargeability. The first ridge, designated Anomaly 1 on Figure 7, forms a slightly convex arc immediately south of the baseline. It extends from station 6S on Line 5 (6 + 00E) to station 2S on Line 4 (24 + 00W). This anomaly peaks at 39.2 m.s. at station 10S on Line 1 (6 + 00W). It is coincident with the Ruby vein system, which must account for some portion of the chargeability.

A number of ratios of 8 second current pulse to 4 second current pulse chargeabilities were obtained on this anomaly. These ratios are useful in determining polarization type.

A rather empirical classification, which has proved to be useful in the past is as follows:

Ratio of 8 to 4 second IP Response	Type of Polarization
Less than 1.2	Membrane (clays, alteration products, etc)
1.2 - 1.35	Hybrid (e.g. alteration products and sulphide-type)
greater than 1.35	Sulphide-type (pyrite, chalcopyrite, galena, graphite, etc.)

Ratios on Anomaly 1 vary from 1.33 to 1.48. The suggestion then is that the source is a sulphide type.

The second ridge, designated 2 on Figure 7, extends from Station 14 on Line 5 (6 + 00E) to Station 26S on Line 4 (24 + 00W).

This anomaly peaks at 51.6 m.s. at Station 22S on Line 2 (12 + 00W). The 8 to 4 second ratio at Station 18S on Line 1 (6 + 00W) is 1.36, again indicating a sulphide-type source. The overall form is very similar to Anomaly 1 and may represent a second vein system subparallel to the main No. 4 - Ruby system. An induced polarization depth probe was conducted on this anomaly and the results are discussed in Section C-6.

A third anomaly, of slightly lower amplitude and less areal extent, extends from 26S on Line 5 (6 + 00E) to station 34S on Line 2 (12 + 00W). It peaks at 32.2 m.s. and has an 8 to 4 second ratio of 1.24. The indication is a hybrid source of moderately anomalous chargeability response.

C-6 DEPTH PROBE RESULTS:

Two induced polarization depth probes were conducted on the Silver Queen Property.

Depth Probe A

Depth probe A was conducted at station 24S on Line 2 (12 + 00W). Results are presented in profile form as Figure 8 (chargeability results) and Figure 10 (apparent resistivity results).

The apparent resistivity profile indicates a lens-like body of high resistivity material to the north of 24S at the 100-200 foot depth. The dip of this material is apparently southerly. The 600 ohm-foot contour roughly parallels the 400 foot level.

A suggested model to the chargeability profile is an acute angled wedge of high chargeability material, open to the north. Apparently the polarization peak is at the 400 foot level and the lower limb dips northerly at depth.

8 to 4 second chargeability ratios vary from 1.25 to 1.8 indicating a hybrid to sulphide type polarization source.

Depth Probe B

Depth probe B was conducted at Station 0 + 00, 500 feet east of Line 0. The chargeability results and the apparent resistivity results are presented in standard profile form as Figures 9 and 11 respectively.

The profile indicates a steep northerly dip to the polarizing body. The peak polarization of 43.7 m.s. was at about the 500 foot level some 400 feet south of 0 + 00. The anomaly is open to the south, and appears to be part of Anomaly No. 1 on the chargeability plan (Figure 7).

8 to 4 second chargeability ratios vary from 1.23 to 1.33 indicating a hybrid-type polarizing body.

C-7 CORRELATION OF DATA:

A compilation map of chargeability, self potential gradients, and apparent resistivity anomalies and trends accompanies this report as Figure 12.

The coefficient of correlation for IP to SP and IP to apparent resistivity spatially paired data were calculated. A coefficient of ± 1.0 indicates perfect positive or negative correlation and a coefficient of 0.0 indicates wholly imperfect correlation.

The coefficient of correlation for chargeability and apparent resistivity data is +0.15 indicating a slight tendency for high chargeabilities and high resistivities to coincide. The coefficient for SP gradient to chargeability is -0.10 indicating a tendency for negative gradients to coincide with chargeability highs.

IP Anomaly 1

This anomaly cuts east-west across the grid immediately south of the base line. The anomaly is coincident with SP gradient Anomaly No. 1. Furthermore the western 800 feet closely coincides with the Ruby vein and the strike is parallel to the vein system.

Depth Probe "B" indicates a polarizing body dipping steeply north which extends to near the surface at the approximate location of Anomaly 1.

IP Anomaly 2

This anomaly lies roughly 800 feet south of and is sub-parallel to Anomaly 1. The "strongly anomalous" zone centered about Station 22S on Line 2 (12 + 00W) is coincident with the 600 ohm-foot apparent resistivity embayment. The western edge of SP gradient Anomaly No. 2 is adjacent to the extreme western part of the IP anomaly.

Depth Probe "A" suggests a "wedge shaped" polarizing body open to the north.

IP Anomaly 3

This anomaly lies some 900 feet south of and is parallel to Anomaly No. 2. It peaks at 32.2 m.s. in the vicinity of a trench at 30S on Line 1 (6 + 00W). This station also has a very large SP Anomaly (from -200 m.v. (milli-volts)to +200 m.v. over 800 feet).

The authors suggest that diamond drilling be conducted on each of the anomalies in order to determine the nature of the polarizing material.

Respectfully submitted,

A. Scott, (B.Sc., Geophysics)

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D. R. COCHRANE

D. R. Cochrane, P.Eng.
Delta, B.C. - August 5, 1971.

APPENDIX I

Certificates

Name: COCHRANE, Donald Robert

Education: B.A.Sc. - University of Toronto
M.Sc. (Eng.) - Queen's University

Professional Associations: Professional Engineer of B.C., Ontario, and Saskatchewan. Member of C.I.M.M., G.A.C., M.A.C., Geological Engineer.

Experience: Engaged in the profession since 1962 while employed with Noranda Exploration Co. Ltd., Quebec Cartier Mines Ltd., and Meridian Exploration Syndicate.

Name: SCOTT, Alan R.

Education: B.Sc. - Geophysics, U.B.C.

Experience: Two summers - crew member and operator with Geo-X Surveys Ltd.
Presently employed with D.R. Cochrane - Geophysicist

Professional Associations: Member of S.E.G.

Name: CHASE, William

Age: 20

Education: Grade 12 Diploma

Experience: Employed since September, 1970 and engaged in EM and IP surveying. Previous experience at the Anvil Mine, Y.T. Summer 1970.

Name: ESTACAILLE, N.

Age: 24

Education: Grade 12 Diploma

Experience: One-half year exploration experience with Huntec.

APPENDIX I

Certificates

(cont'd)

NAME: GRIFFITH, David

Education: B. A.(English), Queen's, 1970

Experience: 1 Field Season, general experience in mining exploration
1 Season with D. R. Cochrane - Chief Operator

NAME: ELLIOTT, David

Education: Presently - student B.C.I.T. - Computer Technology

Experience: 2 years - Geology - Geophysics - University of British Columbia
5 years - Field work and Geological Drafting

APPENDIX II

Personnel and Days Worked

		Dates
D. R. Cochrane	IP Survey	July 21
	Report Preparation	Aug. 4, 5, 6, 7
A. Scott	Set up Camp & Grid Location	July 15
	IP Survey	July 16, 17, 18, 20
	Data processing & Report Preparation	July 23, 26, 27, Aug. 3 to 6
W. Chase	Set Up Camp & Grid location	July 15
	IP Survey	July 16 to 18, 20,
D. Griffith	IP Survey	July 21
N. Estacaille	Set up Camp & Grid Location	July 15
	IP Survey	July 16-18, 20, 21
D. Elliott	Drafting	July 26, 27
		Aug. 4 to 6, 9

APPENDIX III

Cost Breakdown

As per agreement between Bralorne Can-Fer Resources Limited, and D. R. Cochrane, P.Eng. re IP surveying on Nadina's Silver Queen Property:

5 line miles IP survey @ \$550.00/line mile	=	\$ 2,750.00
One day detailing @ \$355.00/day		355.00
Expenses for detailing:		
(a) 54 road miles @ 15¢/mile		8.10
(b) 4 men, 3 meals @ \$1.50/meal		18.00
(c) lodging, 4 men, 1 night @ \$5.00/man		20.00
TOTAL		\$ 3,151.10

APPENDIX IV

Instrument Specifications

Transmitter Unit

Current pulse period (D.C. Pulse) Manual initiated timer	1 - 10 seconds
Current measuring ranges	0 - 500 0 - 1000 milliamperes 0 - 5000
Internal voltage converter 27 volt D.C. 350 watt output with belt pack batteries	250 500 volts D.C . 1000 normal

500 watts using 27 volt aircraft batteries

Transmitter can switch up to 3 amps at 1000 volts from generator or battery supply with resistive load. The switching is done internally in the transmitter unit. Remote control output can switch up to 10 kilowatts of power by using a separate control unit. A remote control cord is supplied with auxiliary equipment.

Receiver Unit

Self Potential Range	0 - 1000 m.v. 1 m.v. resolution
Integration time periods	.8 seconds 1.6 seconds
Tandem Integration time periods	1.6 seconds 3.2 seconds
Input filtering	3 ranges plus 4 integration combinations
Delay time from cessation of current pulse	.3 seconds

(Combined Photo Electric Coupled Receiver and Transmitter)

Operation Temperature .25°F - 120°F

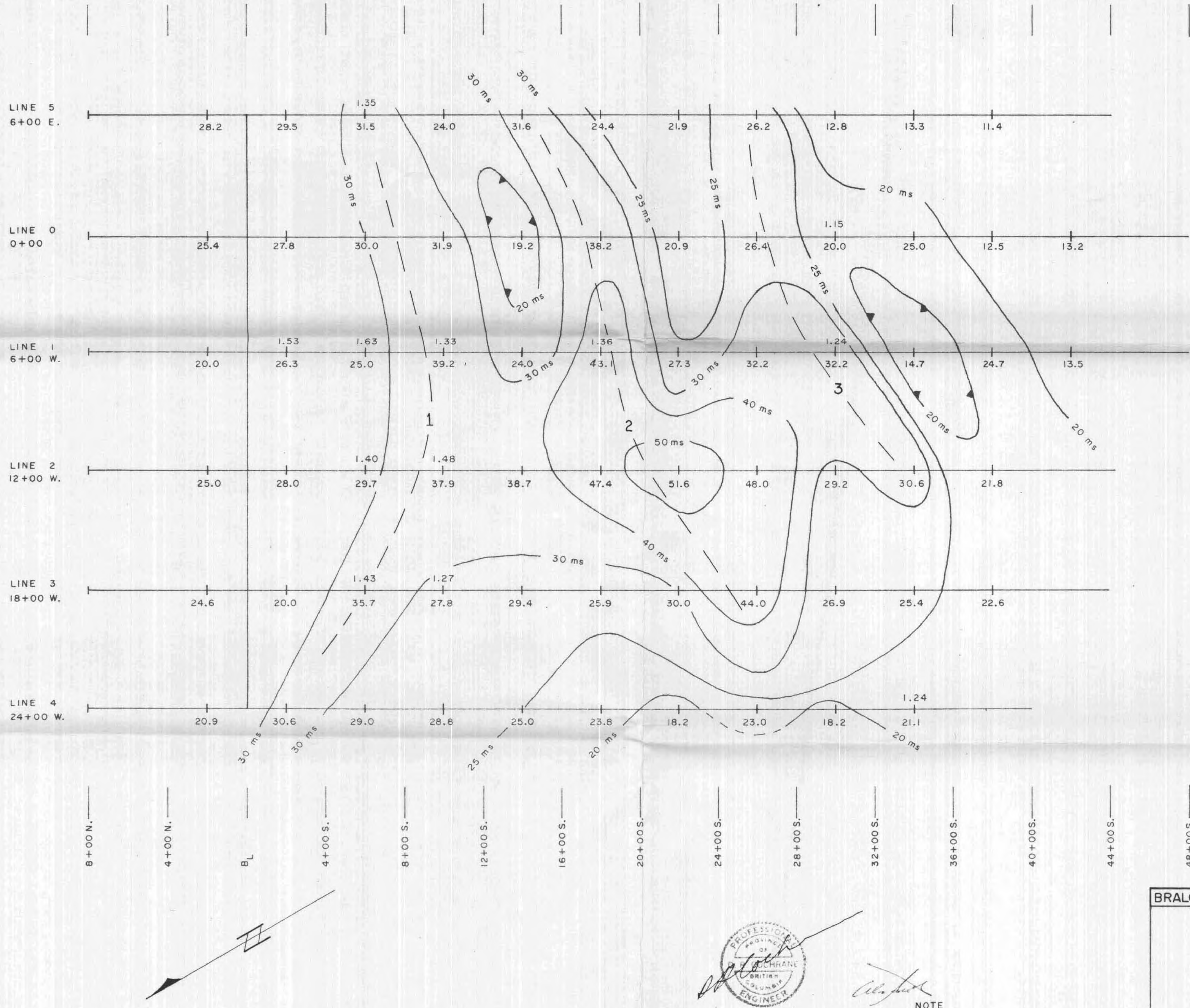
POWER SUPPLY

Receiver Unit	4	Eveready	E136	Mercury	Batteries
	2	"	E134	"	"
	2	"	E401	"	"

Transmitter Unit (recon. mode) Sealed Rechargeable 8 amp. hr. belt pack capable of driving the converter at 350 watts for a minimum of one day's operation before recharge.

Transmitter Unit (med. power mode) Aircraft 11 amp. hr. Battery

Battery Charger Custom Automatic cutoff for charging sealed batteries



inches 0 1 2
0 1 2 3 4 5 centimetres

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BRITISH COLUMBIA GEOLOGICAL SURVEY

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — COCHRANE

NOTE

Values Above Line are

8/4 second current pulse ratios

To accompany geophysical report by A. Scott, B. Sc. & D.R. Cochrane, P.Eng. on the Silver Queen Property Owen Lake Area, Omineca M.D., B.C. dated August 9, 1971

BRALORNE CAN-FER RESOURCES LTD

NADINA MINES LTD.

FIGURE 7

CHARGEABILITY PLAN

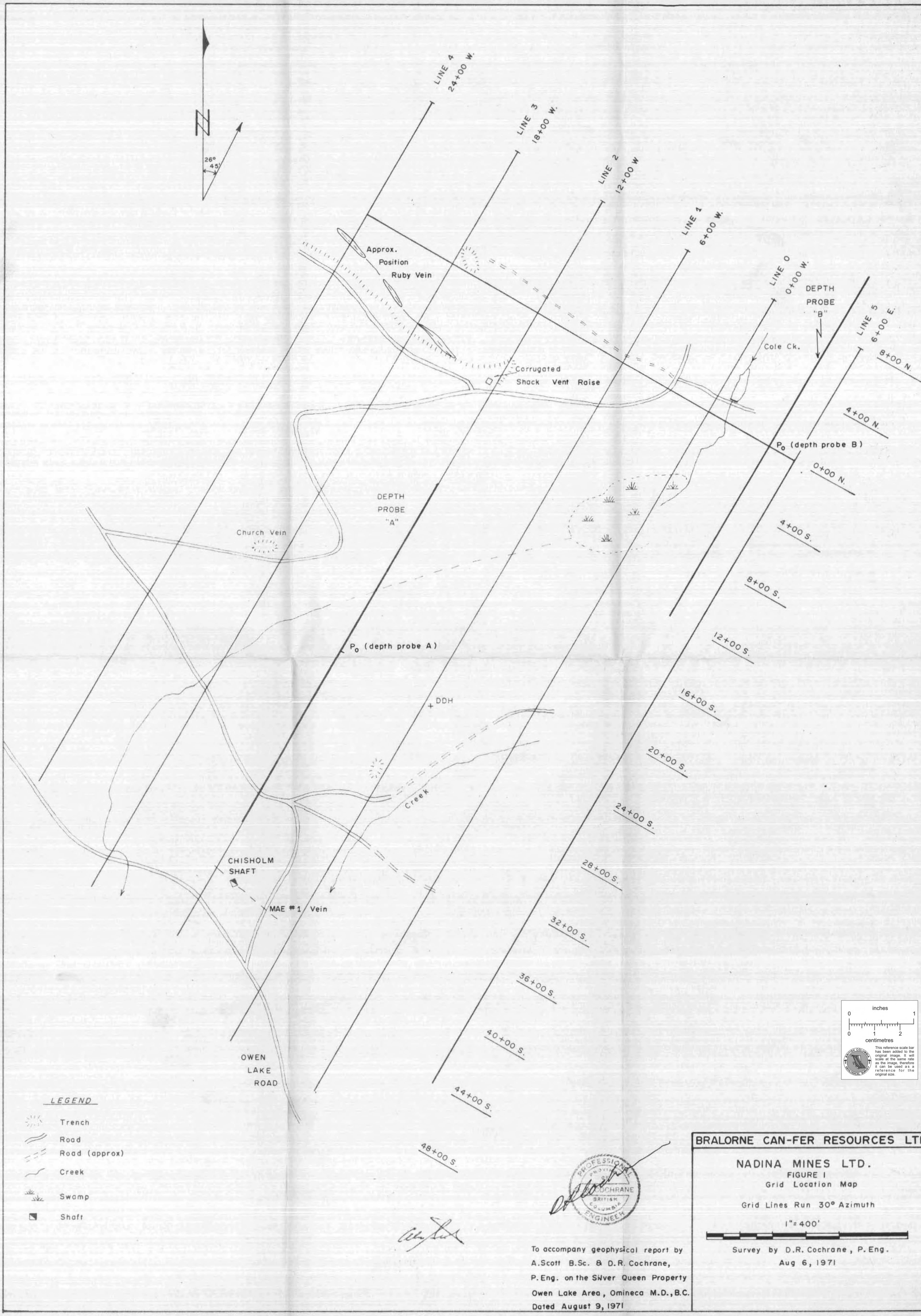
Values in milliseconds

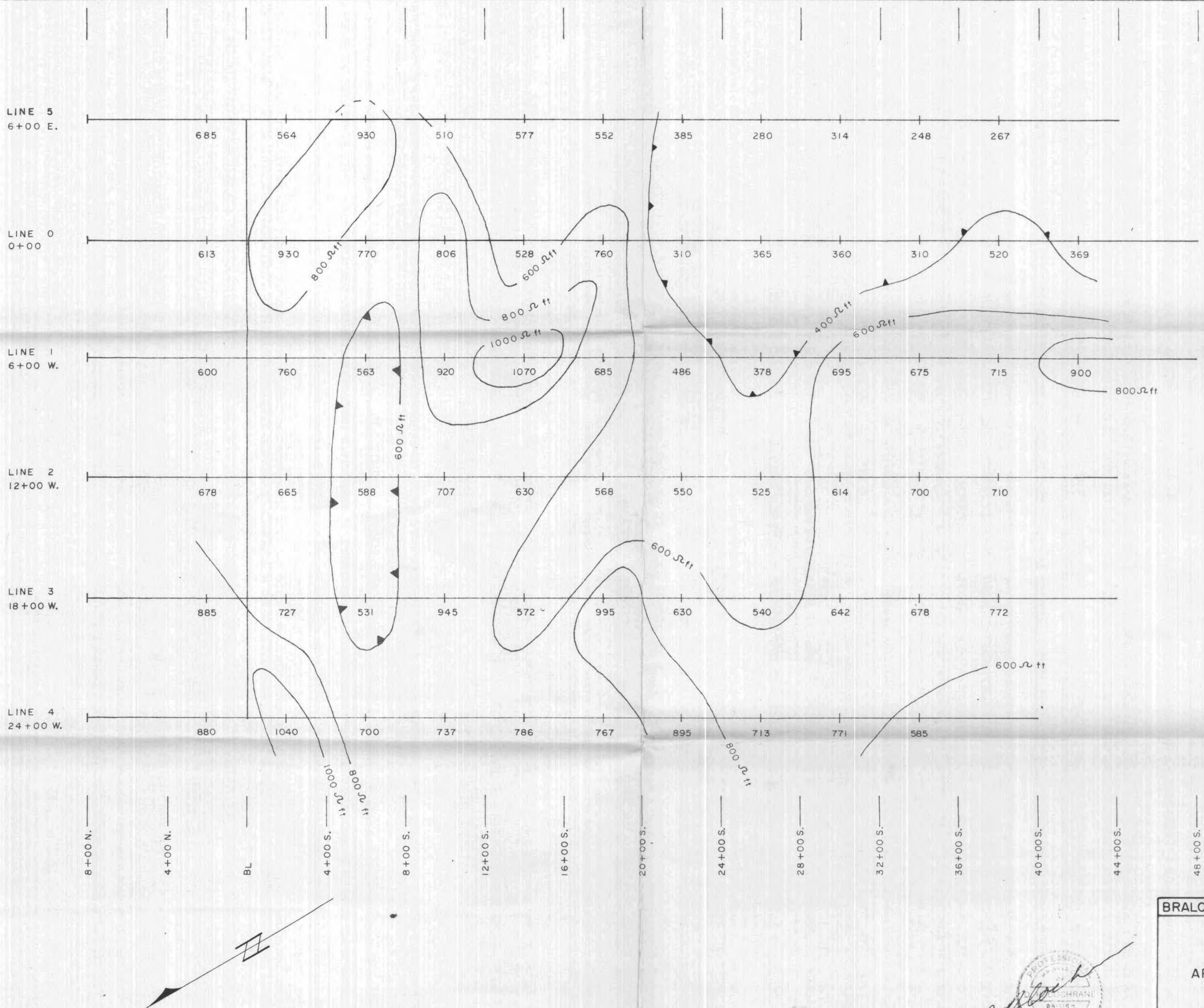
Contour Interval 10 milliseconds

0 1" = 400' 1200

Survey by D.R. Cochrane, P.Eng.

Aug 6, 1971


LINE 4 24+00 W.
LINE 3 18+00 W.
LINE 2 12+00 W
LINE 1 6+00 W.
LINE 0 0+00 W.
LINE 5 6+00 E.
26°
45'
Approx. Position Ruby Vein
DEPTH PROBE "B"
Cole Ck.
8+00 N.
4+00 N.
Corrugated Shack Vent Raise
P0 (depth probe B)
0+00 N.
DEPTH PROBE "A"
Church Vein
4+00 S.
8+00 S.
12+00 S.
P0 (depth probe A)
16+00 S.
DDH
20+00 S.
Creek
24+00 S.
CHISHOLM SHAFT
28+00 S.
MAE #1 Vein
32+00 S.
36+00 S.
40+00 S.
OWEN LAKE ROAD
44+00 S.
48+00 S.
LEGEND
Trench
Road
Road (approx)
Creek
Swamp
Shaft
PROFESSIONAL ENGINEER
D. R. COCHRANE
BRITISH COLUMBIA
BRALORNE CAN-FER RESOURCES LTD
NADINA MINES LTD.
FIGURE I
Grid Location Map
Grid Lines Run 30° Azimuth
1"= 400'
Survey by D.R. Cochrane, P.Eng.
Aug 6, 1971
To accompany geophysical report by
A.Scott B.Sc. & D.R. Cochrane,
P.Eng. on the Silver Queen Property
Owen Lake Area, Omineca M.D., B.C.
Dated August 9, 1971
inches
0
1
0
1
2
centimetres
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.



To accompany geophysical report by
A. Scott, B. Sc. & D. R. Cochrane,
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Owen Lake Area, Omineca M.D., B.C.

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FIGURE 5

APPARENT RESISTIVITY PLAN

Values in ohm - feet

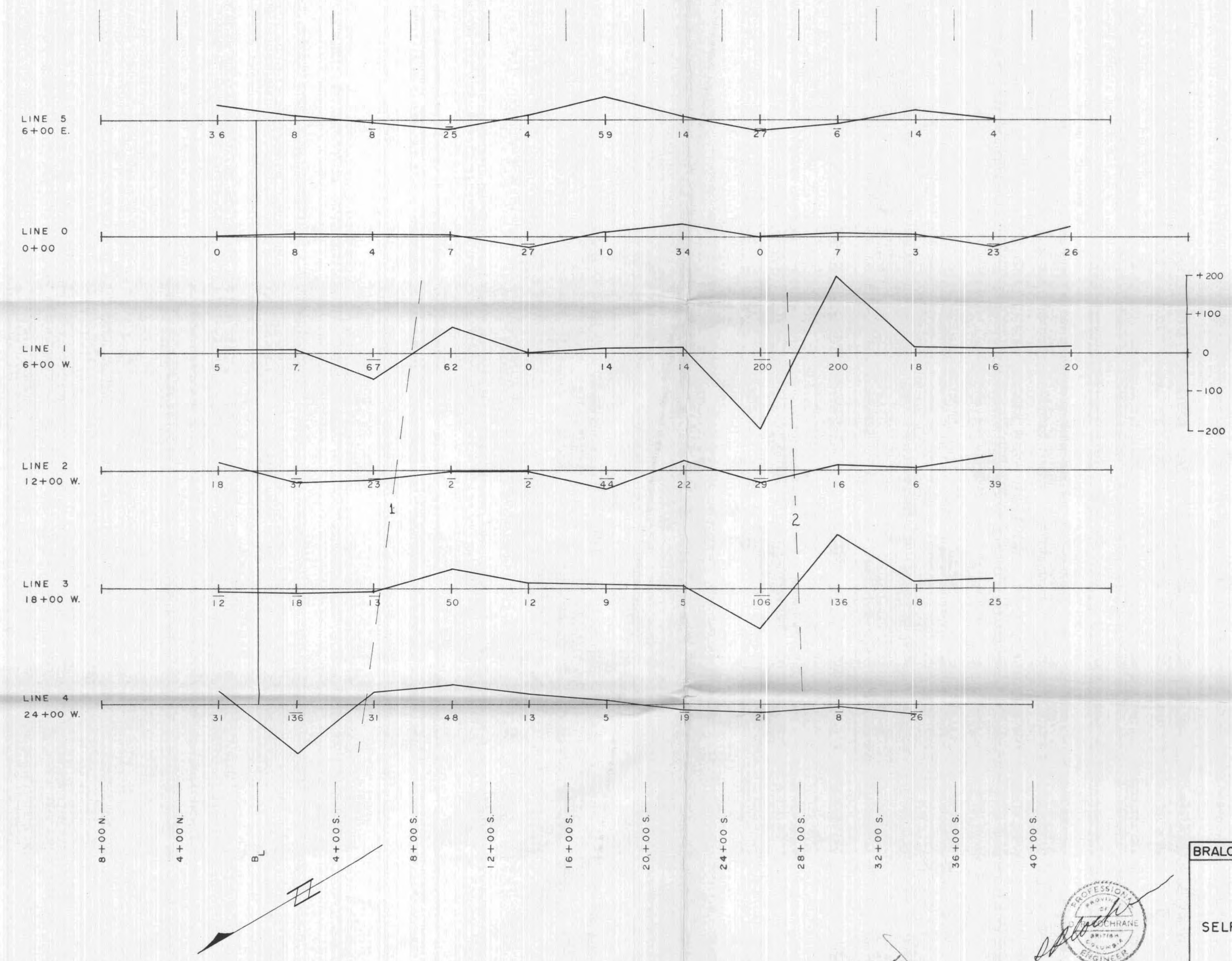
Contour Interval 200 ohm - feet

1" = 400'

0 1200

Survey by D. R. Cochrane, P. Eng.

Aug 6, 1971



To accompany geophysical report by A. Scott, B.Sc. & D.R. Cochrane, P.Eng. on the Silver Queen Property Owen Lake Area, Omineca M.D., B.C. dated August 9, 1971

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FIGURE 6

SELF POTENTIAL GRADIENT PLAN

Values in millivolts

0 1"= 400' 1200

Survey by D.R. Cochrane, P.Eng.

Aug 6, 1971

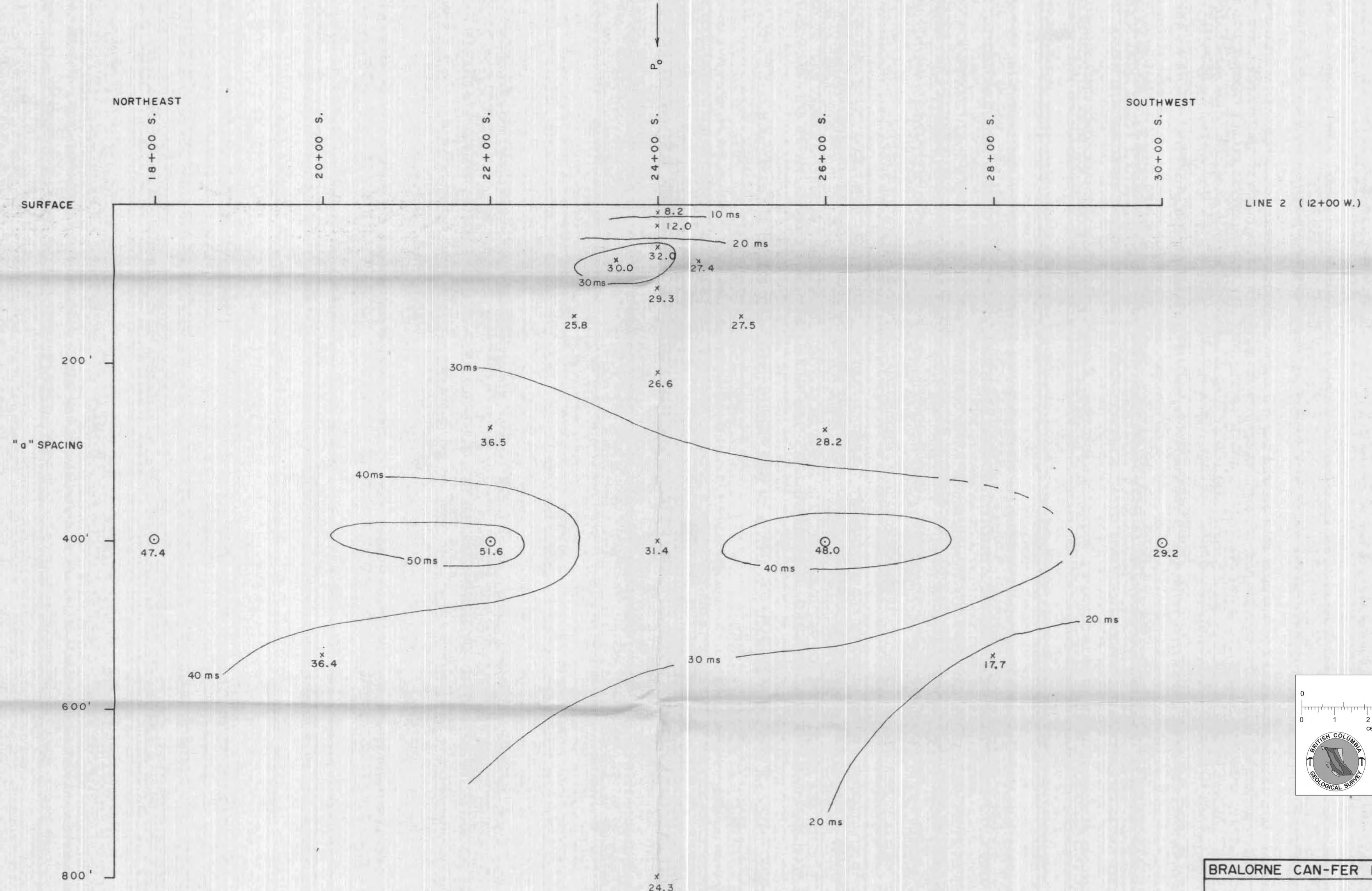

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FIGURE 8

CHARGEABILITY PROFILE

DEPTH PROBE "A" — 24+00 S., 12+00 W.

Values in milliseconds

1" = 100'

0 — 300

Facing East

Survey by D.R. Cochrane, P.Eng.
Aug 6, 1971

⊙ 400' "a" TRAVERSE VALUES

× DEPTH PROBE VALUES

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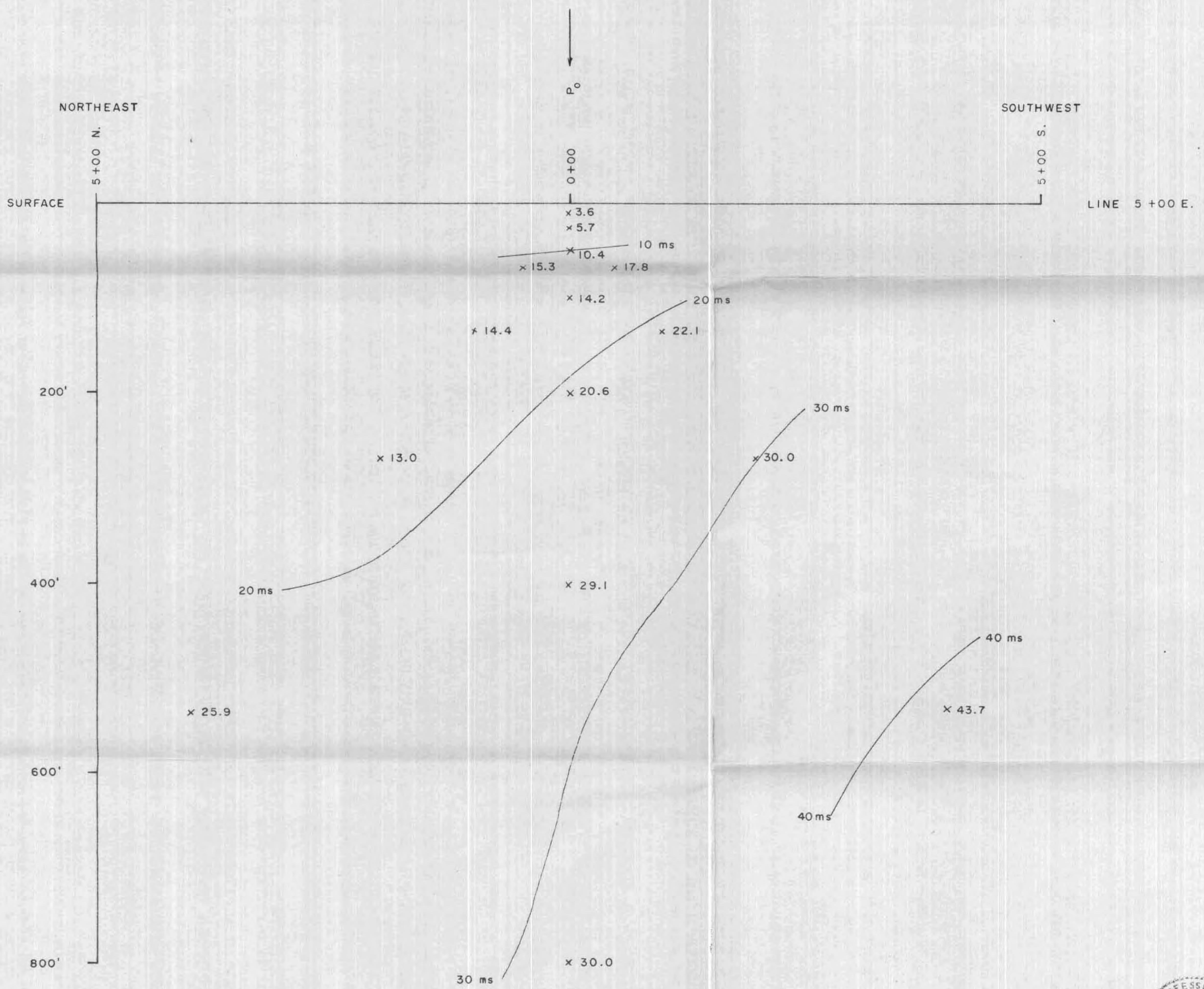

PROFESSIONAL ENGINEER, PROVINCE OF BRITISH COLUMBIA, D. R. COCHRANE

To accompany geophysical report by A.Scott, B.Sc. & D.R. Cochrane, P.Eng. on the Silver Queen Property Owen Lake Area, Omineca M.D., B.C. dated August 9, 1971

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FIGURE 9

CHARGEABILITY PROFILE

DEPTH PROBE "B" — 0+00 S., 5+00 E.

Values in milliseconds

1" = 100'

0 — 300

Facing East

Survey by D.R. Cochrane, P.Eng.
Aug 6, 1971

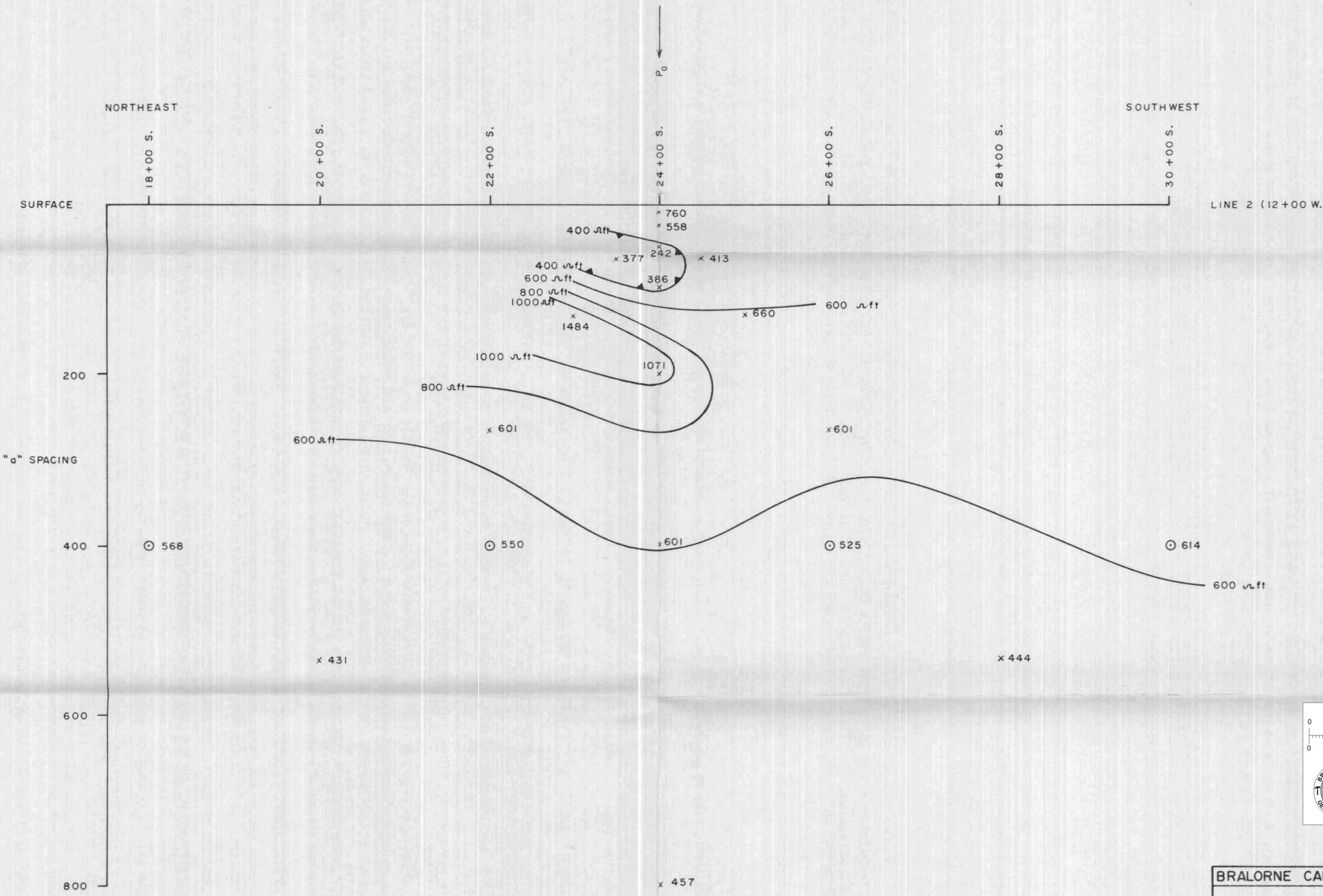

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FIGURE 10

APPARENT RESISTIVITY PROFILE

DEPTH PROBE "A" — 24+00 S., 12+00 W.

Values in ohm-feet

1" = 100'

0 — 300

Facing East

Survey by D. R. Cochrane, P. Eng.
Aug 6, 1971

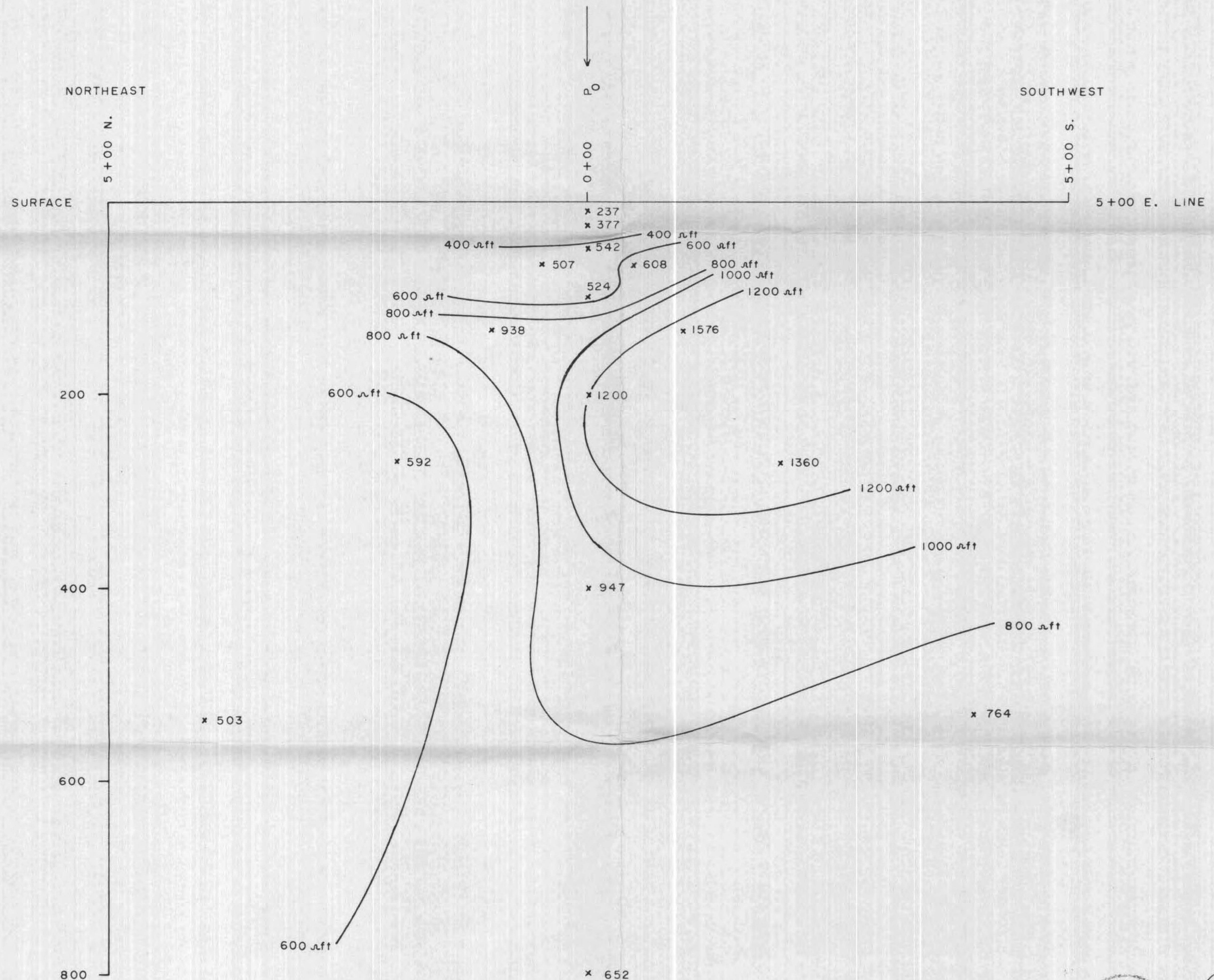

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FIGURE II

APPARENT RESISTIVITY PROFILE

DEPTH PROBE "B" — 0+00 S., 5+00 E

Values in ohm-feet

1"= 100'

Facing East

0 300

Survey by D. R. Cochrane, P. Eng.
Aug 6, 1971

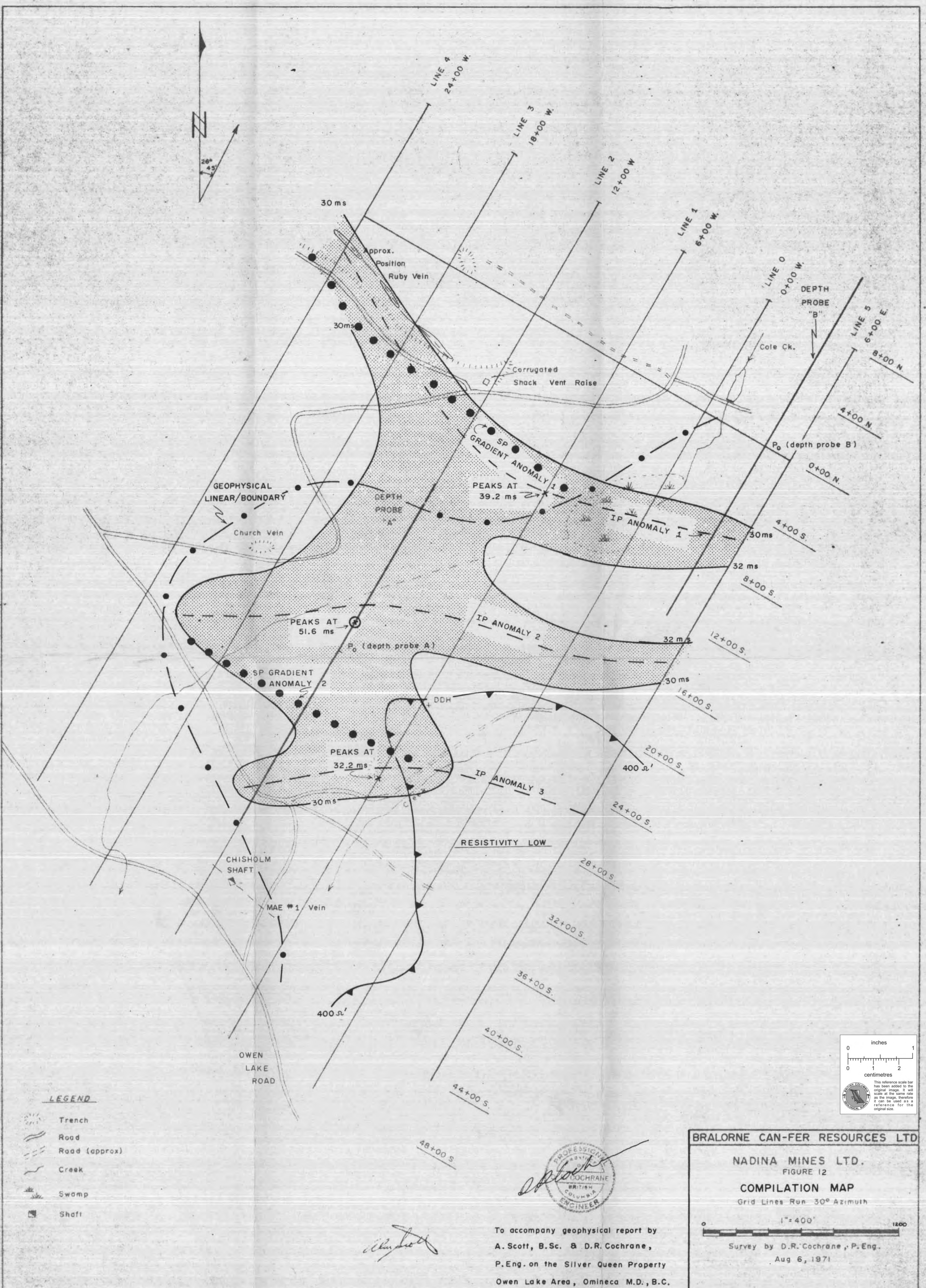

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FIGURE 12

COMPILATION MAP

Grid Lines Run 30° Azimuth

1" = 400'

0 1200

Survey by D.R. Cochrane, P.Eng.

Aug 6, 1971

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