

PETER E. WALCOTT & ASSOC. LTD.

LOG NO: 0209

RD.

ACTION:

10/88

FILE NO:

A GEOPHYSICAL REPORT
ON
MAGNETIC, ELECTROMAGNETIC, INDUCED POLARIZATION
AND
CSAMT SURVEYING

Buttle Lake Area, British Columbia
49° 30'N, 125° 32'W
N.T.S. 92F/5 & 12

Claims surveyed: CREAM 3 & 4E
D 7 - 18
F 25
X 1-6, 8-13, 20

Survey Dates: May 26th to JULY 23rd, 1987
GEOGRAPHICAL BRANCH
ASSESSOR'S REPORT

PART 3 OF 3

Owner/Operator: CREAM SILVER MINES LTD.
Vancouver, B.C.

17,003

BY

PETER E. WALCOTT & ASSOCIATES LIMITED
Vancouver, British Columbia

JANUARY 1988

GEOPHYSICAL SERVICES

PETER E. WALCOTT & ASSOC. LTD.

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
PROPERTY, LOCATION & ACCESS	3
PREVIOUS WORK	4
GEOLOGY	5
PURPOSE	6
SPECIFICATIONS	7
DISCUSSION OF RESULTS	11
SUMMARY, CONCLUSION AND RECOMMENDATIONS	13

APPENDIX "A"

REPORT ON REPROCESSING AND INTERPRETATION OF CSAMT
DATA BY M. YAMASHITA

APPENDIX "B"

COST OF SURVEY	i
PERSONNEL EMPLOYED ON SURVEY	ii
CERTIFICATION	iii
LOCATION MAP - Scale 1:2,000,000	
THELWOOD - PRICE GRID MAP - Scale 1:15,000	
I.P. PSEUDO SECTIONS	
CSAMT - PSEUDOSECTIONS vs. FREQUENCY	
CSAMT - PSEUDOSECTIONS vs. DEPTH	

PETER E. WALCOTT & ASSOC. LTD.

TABLE OF CONTENTS cont'd

ACCOMPANYING MAPS.

MAP POCKET

GRID LOCATION MAP	SCALE 1:50,000	
MAGNETIC PROFILES - Grid 1	SCALE 1:1250	W-411-1
ELECTROMAGNETIC PROFILES - Grid 1	SCALE 1:1250	W-411-2
MAGNETIC PROFILES - Grid 2	SCALE 1:1250	W-411-3
ELECTROMAGNETIC PROFILES - Grid 2.....	SCALE 1:1250	W-411-4
CSAMT INTERPRETATION - Main Grid	SCALE 1:10,000	Fig. 2

INTRODUCTION.

Between May 26th and July 23rd, 1987, Peter E. Walcott & Associates Limited undertook a geophysical survey programme for Cream Silver Mines Ltd. over their Buttle Lake property located in Strathcona Park on Vancouver Island.

The programme consisted of reconnaissance magnetic and electromagnetic surveying over and around showings on upper Price creek and at Cream Lake, induced polarization surveying on the east side of middle Price creek, and CSAMT - controlled source audio frequency magneto-telluric surveying over an area centred around the Price and Thelwood creeks' confluence and extending northwards to the property boundary.

The magnetic and electromagnetic surveys were carried out on lines flagged out in the mainly snow covered areas by the geophysical crew, whereas the I.P. and CSAMT ones were conducted over various portions of an N 60° E line grid established by personnel from Alionis Geological Services.

Measurements of the total intensity of the earth's magnetic field were taken at 25 metre intervals on the magnetic survey using proton precession magnetometers while % normalized amplitude ratios were taken at three frequency pairs with an SE 88 electromagnetic unit on the EM survey.

Measurements (first to fourth separation) of apparent chargeability - the I.P. response parameter - and resistivity were made with a 50 metre dipole using the pole-dipole technique on the I.P. survey.

Measurements of the electric field (E-field) made with a 50 metre dipole and twenty five frequencies from 0.667 to 4092 Hz. and the magnetic field (H-field) induced by the electromagnetic field transmitted from electrical current in a large grounded dipole some four kilometres or more away were obtained on the CSAMT survey.

The progress of the survey was considerably slowed by the steepness of the terrain and the quality of the lines, these in part occasioned by the restrictions imposed by the park use permit, and by minor skirmishes with other landowners and interested parties in the area.

PETER E. WALCOTT & ASSOC. LTD.

2

The magnetic and EM data are presented in profile form on idealized grid lines, while the I.P. are presented in contour form on individual pseudo-sections bound in this report. The CSAMT data are the subject of reporting by M. Yamashita, P.Eng. included as separate entity in this report.

PROPERTY, LOCATION & ACCESS

The claims are located in the Alberni Mining Division of British Columbia and consist of the following claims:

Name of Claim	Record No.	Anniversary Date
BEAR 2	10353	September 23rd
BEAR 6	10557	September 23rd
BEAR 8	10359	September 23rd
BEAR 21 - 26	10372-377	September 23rd
CREAM 1 - 2	11497-498	July 22nd
CREAM 3 - 12	9418-427	July 22nd
CREAM 13 - 14	10394-395	September 23rd
CREAM 15 - 18	11574-577	October 12th
CREAM 1E - 2E	11499-500	July 27th
CREAM 3E - 6E	11570-573	October 12th
D 1 - 18	16271-288	January 27th
F 1 - 16	15882-897	November 25th
F 17 - 28	16846-857	May 22nd
STAN 12 - 13	17057-058	September 23rd
15 - 16	17060-061	September 23rd
18 - 20	17063-065	September 23rd
X 1 - 20	15577-596	September 17th

They are situated between the south end of Buttle Lake and Cream Lake, for the most straddling Price creek, in the southern portion of Strathcona Provincial Park.

Access to the northern part of the property was obtained off the paved highway linking the mine of Westmin Resources and the town of Campbell River, while that to the southern part was gained by helicopter.

PREVIOUS WORK.

Documented work has been undertaken on the property from 1966 to 1973, when legislation was enacted prohibiting the issuance of park use permits for mineral exploration in provincial parks, and consisted of airborne magnetics, soil sampling, geological mapping and trenching, induced polarization surveying and diamond drilling.

Exploration work was continued in 1986 after a Supreme Court of Canada ruled against such legislation in another park, and an input EM and magnetic survey was flown over the northern half of the property - inclement weather and cloud cover did not permit the more mountainous southern section to be flown.

The results of all these programmes are contained in reports held by Cream Silver Mines Ltd.

GEOLOGY.

The reader is referred to the forementioned reports on the property held by Cream Silver Mines, and to the numerous publications in the literature re the Sicker Group and the deposits of Westmin Resources - formerly Western Mines.

Basically the property is underlain by rocks of the Sicker Group comprised of felsic and intermediate flows, tuffs and agglomerates. These are overlain by Buttle Lake limestones - top of the group -, which are in turn unconformably overlain by Karmutsen basic volcanics on the eastern extremes of the property.

Ore mineralization at the Westmin deposits is limited to occurrences within a stratigraphic zone some 1500 feet thick in the Myra formation. The base of this sequence is marked by the H-W rhyolite, which hosts the H-W ore body, whereas the Lynx-Myra-Price rhyolite occurs near the top.

This sequence is overlain by a thick unit of bedded tuff with interbedded green to grey chert. Similar rocks have been mapped in the Price creek - Thelwood creek area - the area of primary concern to the writer, thereby suggesting the mine sequence exists there.

PURPOSE.

The purpose of the EM survey was to see if any significant massive sulphide mineralization was associated with either the mineralized float near Price creek or the reported showing near Cream Lake.

That of the I.P. survey was to investigate the possible projection of the flat lying northwest trending Lynx-Myra-Price anticline axis across Thelwood valley.

The purpose of the CSAMT survey was to search for resistivity lows at depth in the Thelwood valley area that could be related to the H.W. rhyolite sequence with its black argillite and possible sulphide assemblages.

SURVEY SPECIFICATIONS.

Method and Equipment:

The basic principle of any electromagnetic survey is that when conductors are subjected to primary alternating fields secondary magnetic fields are induced in them. Measurements of these secondary fields give indications as to the size, shape and conductivity of conductors. In the absence of conductors no secondary fields are obtained.

The reconnaissance electromagnetic survey on the hip chain lines was carried out using a SE 88 Genie electromagnetic system manufactured by Scintrex Limited of Metropolitan Toronto, Ontario. The operation of this system is based on the simultaneous transmission of two preselected, well separated frequencies from the transmitter, and the simultaneous reception and amplitude comparison of the resultant signals by that single receiver. There is no cable or radio link between the coils, and since there are effectively no coil geometry errors, the instrument is very effective in rugged topography and heavily forested areas. In the absence of atmospheric noise useful amplitude ratio changes may be made up to a transmitter-receiver separation of 150 metres.

On this survey measurements were made at three frequency pairs at a 100 metre coil separation.

The magnetic survey was carried out using an Omni proton precession magnetometer manufactured by EDA Instruments Ltd. of Metropolitan Toronto, Ontario. This instrument measures variations in the earth's magnetic field to an accuracy of plus or minus 1 gamma. Corrections for diurnal variations were made by comparison with readings obtained on a base magnetometer manufactured by the same company.

The induced polarization (I.P.) survey was carried out using a pulse type system, the principal components of which are manufactured by Huntex Limited and EDA Instruments Ltd. of Metropolitan Toronto, Ontario.

The system consists basically of three units, a receiver (EDA), a transmitter and a motor generator (Huntex). The transmitter, which provides a maximum of 7.5 kw d.c. to the

ground, obtains its power from a 7.5 kw 400 c.p.s. three phase alternator driven by a gasoline engine. The cycling rate of the transmitter is 2 seconds "current-on" and 2 seconds "current-off" with the pulses reversing continuously in polarity. The data recorded in the field consists of careful measurements of the current (I) in amperes flowing through the current electrodes C_1 and C_2 , the primary voltage (V) appearing between the two potential electrodes, P_1 and P_2 , during the "current-on" part of the cycle, and the apparent chargeability (M_a) presented as a direct readout in millivolts per volt using a 160 millisecond delay and a 1580 millisecond sample window by the receiver, a digital receiver controlled by a micro-processor.

The apparent resistivity (ρ_a) in ohm metres is proportional to the ratio of the primary voltage and the measured current, the proportionality factor depending on the geometry of the array used. The chargeability and resistivity are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous the calculated apparent chargeability and resistivity are functions of the actual chargeability and resistivity of the rocks.

The survey was carried out using the "pole-dipole" method of surveying. In this method the current electrode C_1 , and the two potential electrodes, P_1 and P_2 , are moved in unison along the survey lines. The spacing " na " (n an integer) between C_1 and P_1 is kept constant for each traverse at a distance roughly equal to the depth to be explored by that traverse, while that of P_1 and P_2 (the dipole) is kept constant at " a ". The second current electrode C_2 is kept constant at "infinity".

Thus usually on a "pole-dipole" array traverse with an electrode spacing of 100 metres a body lying at a depth of 50 metres will produce a strong response, whereas the same body lying at a depth of 100 metres will only just be detected. By running subsequent traverses at different electrode separations, more precise estimates can be made of depth, width, thickness and percentage of sulphides of causative bodies located by the I.P. method.

A 50 metre dipole was employed on this survey and first to fourth separation measurements were made every 50 metres along the five survey lines.

The CSAMT survey was carried out using instruments manufactured by Phoenix Geophysics Ltd. of Metropolitan Toronto, Ontario. Essentially the system consists of a transmitter, a motor-generator and a receiver. The transmitter, powered by a 3 kilowatt generator, sends a controlled current to the ground via a long grounded dipole - 4 kilometres. The receiver, a microprocessor controled unit, simultaneously measures the parallel electric field (E-field) over six dipoles and the orthogonal magnetic field (H-field) induced by the electromagnetic field transmitted from the current in the grounded dipole some four kilometres away over some twenty five binary related frequencies from 0.667 to 4092 Hz. on lines parallel to the transmitting dipole.

The apparent resistivities (P_a) at each frequency are calculated from the Cagniard equation,

$$P_a \approx \frac{1}{5f} \left| \frac{E}{H} \right|^2 ; \quad \phi = \phi_E - \phi_H$$

where f is the frequency in Hz; E is the E-field magnitude in mV/km ; H is the H-field magnitude in gammas, and ϕ is the phase difference in radians, displayed and stored in memory along with the magnitude of the above.

The Cagniard equation only holds in the plane wave configuration of the transmitted electromagnetic field, i.e. when the distance between the transmitting signal and receiving location is sufficiently large. This for field distance, L_x , is given by the following equation

$$L_x > 3 \text{ skin depth} \approx 1509 \sqrt{p/f}$$

where L_x is in metres, and p is the resistivity of the homogeneous earth in $\text{ohm}\cdot\text{m}$.

In practise, because of the need for measurable signal, the transmitter-receiver separation is considerably less than L_x , the transmitted field is not plane wave, and the Cagniard equation overestimates the resistivity, and thus corrections have to be done.

On this survey readings were made with an E dipole of 50 metres on lines 4.1 to 7.5 kilometres distant from the transmitting dipole.

PETER E. WALCOTT & ASSOC. LTD.

10

In all some 5.5 kilometres of magnetic and electromagnetic surveying, 6.6 kilometres of I.P. surveying and 17.6 kilometres of CSAMT surveying were carried out.

DISCUSSION OF RESULTS.

Cream Lake & Upper Price Creek. As can be seen from the EM profiles on Map W-411-2 & 4 no electromagnetic responses, indicative of massive sulphide mineralization, were indicated over the two areas. Similarly no diagnostic magnetic responses were observed on the limited magnetic coverage as can be observed on the plotted magnetic profiles - Maps W-411-1 & 3.

Thelwood - Price Grid. Although the writer is unfamiliar with the various geophysical methods tried over the Westmin deposits and their respective responses it is generally known that they were relatively unsuccessful.

Western Mines did carry out I.P. surveying around the Price zone in 1971, and three months later they conducted a similar survey in the Thelwood Valley.

Here they were faced with the problem of looking for a narrow target at depth - the larger HW zone was unknown at that time - and thus employed a 200 foot dipole and made second and third separation measurements in an effort to sensitize the volume sample technique.

Low chargeability readings - 2 to 3 milliseconds - and high resistivity values - 3000 to 20,000 ohm metres - were obtained above which two weak zones were observed with responses of approximately 2 milliseconds.

Subsequent drilling of these and a soil anomaly did encounter minor sulphide mineralization. However from the rock sequence encountered it would appear that the holes were stopped in formations known to overlie the favourable sequence and thus any future geophysical survey would need to be planned to achieve greater depth penetration.

On the 1986 fixed wing airborne Input EM survey flown over the area only three weak responses - first channel only - were observed reflecting the highly resistive nature of the rocks, and the absence of any massive sulphide mineralization or conductive graphitic material to a depth of some 300 metres.

After modelling the response of an H-W sized cross-

section at depth using the CSAMT method - assuming it to be somewhat conductive - it was decided to use this technique in an effort to search for resistivity lows caused by similar occurrences and/or graphitic material at depth.

A grid was laid out to cover the northern portion of the claims using a N 30° W baseline. Unfortunately less than half of it was completed due to the ruggedness of the terrain. CSAMT surveying was then conducted over the grid, and a separate report of the results of the survey by M. Yamashita, P.Eng. of Phoenix Geophysics Limited is included in Appendix "A".

Induced polarization surveying was carried out on five lines at higher elevations up Price creek to search for smaller, less conductive Myra-type sulphide occurrences. This surveying was carried out using the pole-dipole technique, as dictated by the rugged terrain, with a 50 metre dipole.

No I.P. response was obtained on the five lines surveyed. However a large resistivity high - apparent resistivities in the several thousands of ohm metres - can be observed striking across the grid centred around 6E, confirming the survey lines were crossing the geological strike.

This resistivity high is the same as that observed to the east of Zone 7 on the CSAMT survey.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Between May 26th and July 23rd, 1987, Peter E. Walcott & Associates Limited carried out geophysical surveying on various parts of the Buttle Lake property of Cream Silver Mines Ltd.

These surveys consisted of magnetic, electromagnetic, induced polarization and controlled source audio-frequency magneto-telluric investigations on different grids for different reasons.

No encouraging results were obtained on the electromagnetic and magnetic surveys conducted in the Cream Lake and upper Price creek areas.

The I.P. surveys failed to delineate any zones of high chargeability on the lines surveyed that could be attributable to sulphide mineralization.

The CSAMT survey located eight conductive zones at depth and five surficial or near surface ones, four of which are more distinct and worthy of further investigation at this time-namely Zones 3, 4, 6 & 7 of the accompanying report of M. Yamashita, P.Eng.

Zones 6 and 7 appear to be the same zone offset by faulting along Price creek.

On the basis of the I.P. and CSAMT surveys it appeared that the survey lines are perpendicular to the strike of the geological formations, and thus the measurement mode of the CSAMT was considered to be transverse magnetic. For two dimensional structures this mode is representative of good lateral resolution but poor depth information.

The transverse electric mode, where the electric dipole is parallel to the strike, has better depth resolution but poor lateral resolution, and normally could have been used to define better depths for borehole investigation. However in this case it entailed setting up the transmitting dipole outside of the property and recreational boundaries, which was not permitted. Another alternative, that of AMT where the variations of the natural electric and magnetic fields, derived mainly from lightning activity, are measured, was not attempted as the park

PETER E. WALCOTT & ASSOC. LTD.

14

use permit expired before it could be implemented.

As a result of the above investigations the writer recommends that the four zones be investigated by diamond drilling to determine their causative sources.

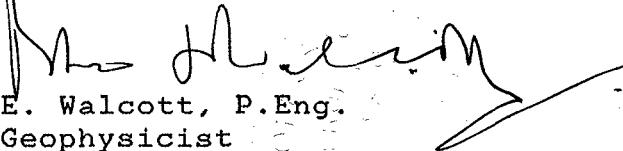
Steeply dipping boreholes should be planned to minimize the possibility of missing the target due to poor depth resolution.

Although the supposed dip of the structures is to the east permits should be applied for 11 drill sites positioned so that 70° holes from either side would intersect the resistivity lows on Lines 16S, 14S, 10S, 2 N and 4N at the interpreted depths shown on the respective resistivity-depth sections.

Downhole resistivity and I.P. surveys, as well as directional surveys, should be undertaken in the open holes to properly locate the resistivity lows, and to make adjustments to the drill directions where and if necessary.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LTD.


Peter E. Walcott, P.Eng.
Geophysicist

Vancouver, B.C.

January 1988

PETER E. WALCOTT & ASSOC. LTD.

APPENDIX "A"

REPORT ON THE
REPROCESSING AND INTERPRETATION
OF THE DATA FROM THE CSAMT SURVEY
IN THE CREAM SILVER MINE AREA
BRITISH COLUMBIA.

September, 1987

INTRODUCTION

This CSAMT survey was carried out by personnel from Peter E. Wolcott and Associates and Phoenix Geophysics during July, 1987. All data was obtained using the Phoenix V4 CSAMT data acquisition system with preliminary processing of the data being done in the camp on a daily basis as data acquisition was in progress.

The CSAMT measurements were made with a 50m Ex dipole at 25 frequencies over a range of 4092 Hz to .667 Hz. The data quality is generally good, with most of the individual soundings having a smooth apparent resistivity vs frequency curve. However, the data at 4096 Hz is occasionally of poorer quality due to low transmitter current at this high frequency. (As frequency increases, the inductance of the long transmitter dipole also increases, thus reducing the current output of the transmitter.)

Due to the extremely steep terrain in the survey area, there was considerable fluctuation in the horizontal length of the receiving dipole. However, a value of 50m was used in the original calculation of all resistivities. Thus, for those dipoles where the true dipole length was significantly less than 50m due to terrain effects, the original value of resistivity is too low. For example, if the true length of the measuring dipole is only 40m (80% of the nominal value),

the resulting calculated apparent resistivity will be approximately 44% too low (refer to the equation shown on page 2 of Appendix A). This erroneous effect is very similar to the more common 'static shift' which effects MT and CSAMT data. Static shifts are caused by small near-surface resistivity changes as explained on pages 21 and 23 of Appendix A.

When a CSAMT sounding is affected by a static shift, all resistivities are multiplied by a constant. Thus, the resistivity curve is shifted upward or downward by the same amount at all frequencies. A similar effect is caused by dipole length fluctuations due to rough terrain although, in this case, the resistivities can only be shifted downward since the true dipole length is always less than the nominal dipole length.

Shifts in the apparent resistivity data due to both static effects and dipole length effects are indicated by vertical contour patterns which extend over the entire frequency range of acquisition. In the original plots from this survey, many of the dipoles can be seen to be shifted.

Due to the generally high background resistivity in the survey area, very strong near-field effects can be seen in this CSAMT data. Based upon the TX-RX separation (4.1 to 7.5 km) and the background resistivity, true far-field data

was only obtained at the highest few frequencies at which measurements were taken. The background resistivity was estimated to be from 5000 ohm-m to more than 15000 ohm-m based upon values obtained after the first order near-field correction.

DATA REPROCESSING

The CSAMT data obtained on this survey was reprocessed in the Phoenix office and various corrections were made to the data as discussed below. As part of this process, those lines which were acquired in two parts were combined to make a single pseudosection for each line.

Bad Sample Correction

For each station acquired, the apparent resistivity, normalized H-field and normalized E-field data were plotted in profile vs frequency. Sample points which were obviously contaminated by noise were manually corrected by editting the affected E- or H-field value and then recalculating the apparent resistivity. Some of the data at F12 (4096 Hz) which was obviously noisy was also editted by extrapolation of the E-field and/or the H-field from lower frequency.

Static Correction

Stations at which the apparent resistivities were shifted either by statics or by Ex dipole length errors were found by a careful examination of the apparent resistivity

pseudosections and topographic maps of the survey area. The amount of shift was estimated at each of these stations primarily by using the apparent resistivity observed at adjacent stations. A correction was then made to these stations by multiplying the E-field values by an appropriate number to adjust the apparent resistivity to the desired value. This process was done in several iterations until satisfactory results were obtained. During this process, great care was taken to avoid over correction and unnecessary correction of the data.

PRESENTATION OF DATA

Apparent Resistivity vs' Frequency Pseudosections

After applying the first order near-field correction (refer to Appendix A), the apparent resistivities for each line were plotted in pseudosections vs frequency at a horizontal scale of 50m/2cm. These pseudosections were contoured using a logarithmically constant interval (1-1.8-3.2-5.6-10) and apparent resistivities of less than 1800 ohm-m were shaded to allow easy recognition of low resistivity areas. Appendix B of this report contains these pseudosection plots.

These pseudosection plots have also been reduced by a factor of 2 and plotted on the plan map (Figure 1) so that the line-to-line correlation of resistivity zones can be easily seen.

Apparent Resistivity vs Depth Pseudosections

The corrected apparent resistivity data from this survey has also been plotted in pseudosections vs depth (m) which are included here in Appendix C. The contour interval and scale of these pseudosections is the same as those vs frequency described above.

The depth estimates for the resistivities on these pseudosections were obtained using a direct inversion process. This inversion is based upon the assumptions of a plane wave (far-field) situation and a one-dimensional (layered) earth. Thus, the depths estimated by this inversion in the more complex case of this survey may not be very accurate. However, this type of pseudosection is useful in that it gives an approximate idea of depth.

It should also be noted that the lateral locations of the stations on these pseudosections may not be particularly accurate since no slope corrections were done on the length of the measuring dipoles during data acquisition.

DISCUSSION OF RESULTS

Selection of Anomalous Zones

Several low resistivity zones have been located in the survey data by doing a line-to-line correlation of the resistivity lows seen on the pseudosection plots. These zones are marked on the apparent resistivity pseudosection plots in Figure 1 and on the interpretation map, Figure 2. Possible geological boundaries (based upon resistivity changes) have also been marked on both the pseudosections and the interpretation map.

Measurement Mode

In general, it appears that the survey lines are perpendicular to the strike of the area. Thus, the measurement mode of this survey can be considered to be transverse magnetic (TM). For further explanation of measurement modes, refer to page 21 of Appendix A. As is discussed and clearly demonstrated in Figure 093.12, page 22 of Appendix A, for two-dimensional structure, the TM mode is characterized by excellent lateral resolution but poor depth information. (The other mode, transverse electric or TE in which the electric dipole is parallel to strike, has better depth resolution but poorer lateral resolution.) Thus, the lateral locations of boundaries interpreted from this CSAMT data should be fairly accurate while the depth estimates should be less accurate.

Depths of Anomalous Low Resistivity Zones

As is discussed above, due to the mode of this survey (TM), it is difficult to estimate accurately the depths to the low resistivity zones. Therefore, the interpreted depths to the anomalous zones are based upon both the depth and the frequency pseudosections.

Anomalous zones are categorized into two groups--those which are surficial/near-surface and those at depth. Due to the extremely high background resistivity in the area, the depth of exploration of even the highest frequency data may be several hundred meters so it is difficult to distinguish between surficial and near-surface conductors. For these anomalies, the contour pattern usually starts at the highest frequency while the center of the low resistivity contour pattern is generally around several hundred Hertz which is equivalent to several hundred meters in depth.

Interpretation Map

Eight conductive zones at depth and five near-surface or surficial conductive zones have been located by this survey. Most of these zones can be correlated line-to-line and they typically have a strike direction which is nearly perpendicular to the survey direction. A few possible geological boundaries (based upon resistivity changes) have also been located. These boundaries and zones (along with

zone number) are all shown on the interpretation map, Figure 2. As has already been discussed, the depth estimation for these zones is not particularly accurate.

Zones 3, 4, 6, and 7 are the most interesting and distinct anomalies located by this survey. Zone 7 is especially interesting because of the accompanying high resistivity zone (14) immediately to the northeast. The depth to Zone 6 appears to increase to the northwest. Zone 10 may be a fault associated with Zone 3. Thus, Zone 3 should be investigated further.

Zone 8 is a weak anomaly, possibly due to a very deep conductor. Zones 1, 2 and 5 are also weak anomalies and therefore of lower priority (based only upon the CSAMT results). Zones 11, 12, and 13 are surficial conductors and of less interest.

Zone 9 which is shallow and conductive is correlated through seven survey lines. This type of narrow pattern of low resistivity may be indicative of a fault zone.

There seems to be a discontinuity in the general trend of NW-SE between survey lines 12S and 14S.

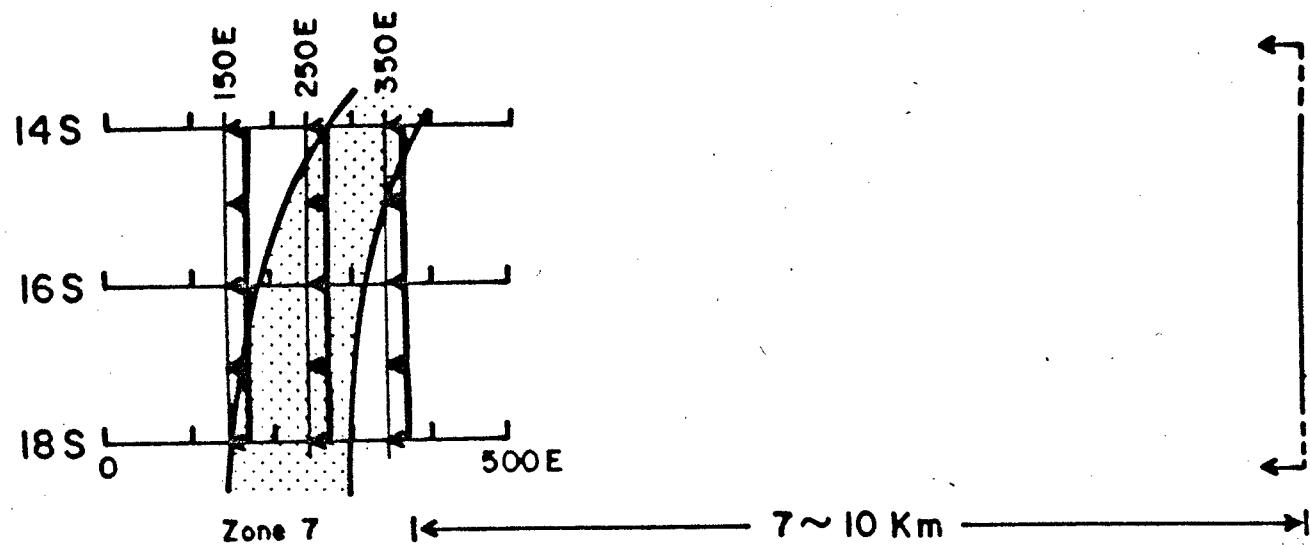
It should be noted that this interpretation was done using only the CSAMT results as no other geological and/or geophysical data was available to the interpreter. Thus, if there is other data available from the survey area, the above interpretations should be reviewed and correlated with this data.

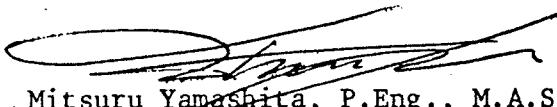
RECOMMENDATIONS

Since the measurements on this survey were performed in the TM mode, it is difficult to estimate the depth and resistivity of the conductive zones. Therefore, it is recommended to carry out a followup CSAMT survey using the TE mode of measurement over Zones 7, 6, and 3 to understand better both their depth and true resistivity. The following figure illustrates the survey configuration which would be needed to perform this type of survey. The transmitter bipole should be placed at a distance of 7 to 10 km from the area to be surveyed and should be approximately parallel to the zones of interest. Survey lines should then be recorded along the strike of these zones resulting in TE-type measurements.

3 sounding setup lines

Transmitter bipole




Mitsuru Yamashita, P.Eng., M.A.Sc.
Vice President/Senior Geophysicist

PHOENIX GEOPHYSICS LIMITED.

PETER E. WALCOTT & ASSOC. LTD.

APPENDIX "B"

COSTS STATEMENT
CREAM SILVER MINES LTD.
BUTTLE LAKE PROPERTY
15 MAY - 15 AUGUST 1988

GENERAL COSTS

FOOD & ACCOMMODATION:

4 persons, 75 man-days @ \$55.36/day	\$ 4,151.83
--------------------------------------	-------------

FUEL:

	247.84
--	--------

SUPPLIES & SUNDAY:

	605.49
--	--------

HELICOPTER:

Van. Island 206B, 5-22 July 26.7 Hrs. @ \$561.25/hr	14,985.41
---	-----------

FERRY:

	197.50
--	--------

TELEPHONE SERVICE:

	206.37
--	--------

SHIPMENTS:

	36.07
--	-------

CONSULTANT FEES:

Archean Engineering Ltd.	\$3,900.00
--------------------------	------------

Adder Expl. & Dev. Ltd.	328.00
-------------------------	--------

	4,228.00
--	----------

RENTALS:

Gabriel 4WD Blazer 9-15 May 7 days @ \$50/day	\$600.00
--	----------

Gallant, 4WD Blazer 11-31 July 21 days @ \$50/day	450.00
--	--------

Ezekiel's Field Equipment 75 man-days @ \$6/day	450.00
--	--------

	1,850.00
--	----------

MAINTENANCE:	92.12
---------------------	--------------

TOTAL GENERAL COSTS	\$26,600.63
----------------------------	--------------------

STAKING

ALIONIS:	\$9,450.00
HELICOPTER:	
Okanagan Hel. 18-20 Mar. 9.9 Hrs @ \$556.55	5,509.84
TOTAL STAKING COSTS	\$14,959.84

WATER (ENVIRONMENT) TESTS

SALARIES & WAGES:	
2 Pers., 4 man-days @ \$133.33/day	\$ 533.34
BENEFITS: @ 20%	106.66
CONSULTANT FEES:	
Hatfield	2,985.00
GENERAL COSTS APPORTIONED:	
4/75 X \$26,600.63	1,418.70
TOTAL WATER TESTS COSTS	\$5,043.70

GEOPHYSICAL SURVEY COSTS

P.E. WALCOTT:	
I.P., CSAMT, MAG, & VLF-EM	\$96,657.43
ALIONIS:	
Line & Survey Assistance	35,237.37
TOTAL GEOPHYSICAL SURVEY COSTS	\$131,894.80

GEOLOGICAL MAPPING COSTS

SALARIES & WAGES:

4 Pers., 64 man-days @ \$142.47/day	\$ 9,117.84
BENEFITS: @ 20%	1,023.57

DELTA AERIAL SURVEYS:

1:2500 Base Map	3,920.00
-----------------	----------

GENERAL COSTS APPORTIONED

64/75 X \$26,600.63	22,699.20
---------------------	-----------

TOTAL GEOLOGICAL MAPPING COSTS	\$36,760.61
--------------------------------	-------------

GEOCHEMICAL SURVEY COSTS

SALARIES & WAGES:

3 Pers., 7 man-days @ \$124.17/day	\$ 869.21
BENEFITS: @ 20%	173.85

ASSAYS & ANALYSES-CHEMEX LABS:

56 Soils for Au & 32 elem ICP @ \$16	\$896.00
7 HMC for 31 elem ICP @ \$28.50	199.50
	<hr/>
	1,095.50

GENERAL COSTS APPORTIONED

7/75 X \$26,600.63	2,482.73
--------------------	----------

TOTAL GEOCHEMICAL SURVEY COSTS	\$ 4,621.29
--------------------------------	-------------

COST SUMMARY

STAKING	\$ 14,959.84
WATER TESTS	5,043.70
GEOPHYSICAL SURVEY	131,894.80
GEOLOGICAL MAPPING	36,760.61
GEOCHEMICAL SURVEYS	4,621.29
TOTAL COSTS:	\$193,280.24
	 <hr/> <hr/>

PETER E. WALCOTT & ASSOC. LTD.

- ii -

PERSONNEL EMPLOYED ON SURVEY

Name	Occupation	Address	Dates
Peter E. Walcott	Geophysicist	Peter E. Walcott & Assoc. 605 Rutland Court, Coquitlam, B.C. V3J 3T8	June 11-12, 87, 19-23, 27-30 Jul.12-13,20-23 Aug.12-13,Dec 8 10,Jan 2-7, 88
G. MacMillan	Geophysical Operator	"	May 26-28,1987 June 11-17, June 24-Jul.23, Dec. 10-15,1987
P. Charlie	"	"	June 11- July 23, 1987
J. Mandryk	"	"	"
G. Rowland	Helper	"	June 13- July 23, 1987
P. Bolden	"	"	June 16-. June 30, 1987
S. Turner	"	"	June 16- June 21, 1987
C. Dobie	"	"	June 22 - July 4, 1987
J. Walcott	Typing	"	January 25-26, 1988
G. Elliott	Geophysical Operator	Phoenix Geophysics Lt. 7100 Warren Ave. Unionville, Ontario	June 27-Jul.16, 1987
M.Yamashita	Geophysicist	"	Aug. 26-Sept.3, 1987
Assorted Helpers	Helpers	Alionis Geological 1011-837 W. Hastings, Vancouver, B.C.	June 13-18, 1987 16 man days

PETER E. WALCOTT & ASSOC. LTD.

- iii -

CERTIFICATION

I, Peter E. Walcott, of the Municipality of Coquitlam, British Columbia, hereby certify that:

1. I am a Graduate of the University of Toronto in 1962 with a B.A.Sc. in Engineering Physics, Geophysics Option.
2. I have been practising my profession for the last twenty five years.
3. I am a member of the Association of Professional Engineers of British Columbia and Ontario.
4. I hold no interest, direct or indirect, in the securities or properties of Cream Silver Mines Ltd.



Peter E. Walcott, P. Eng.

Vancouver, B.C.

January 1988

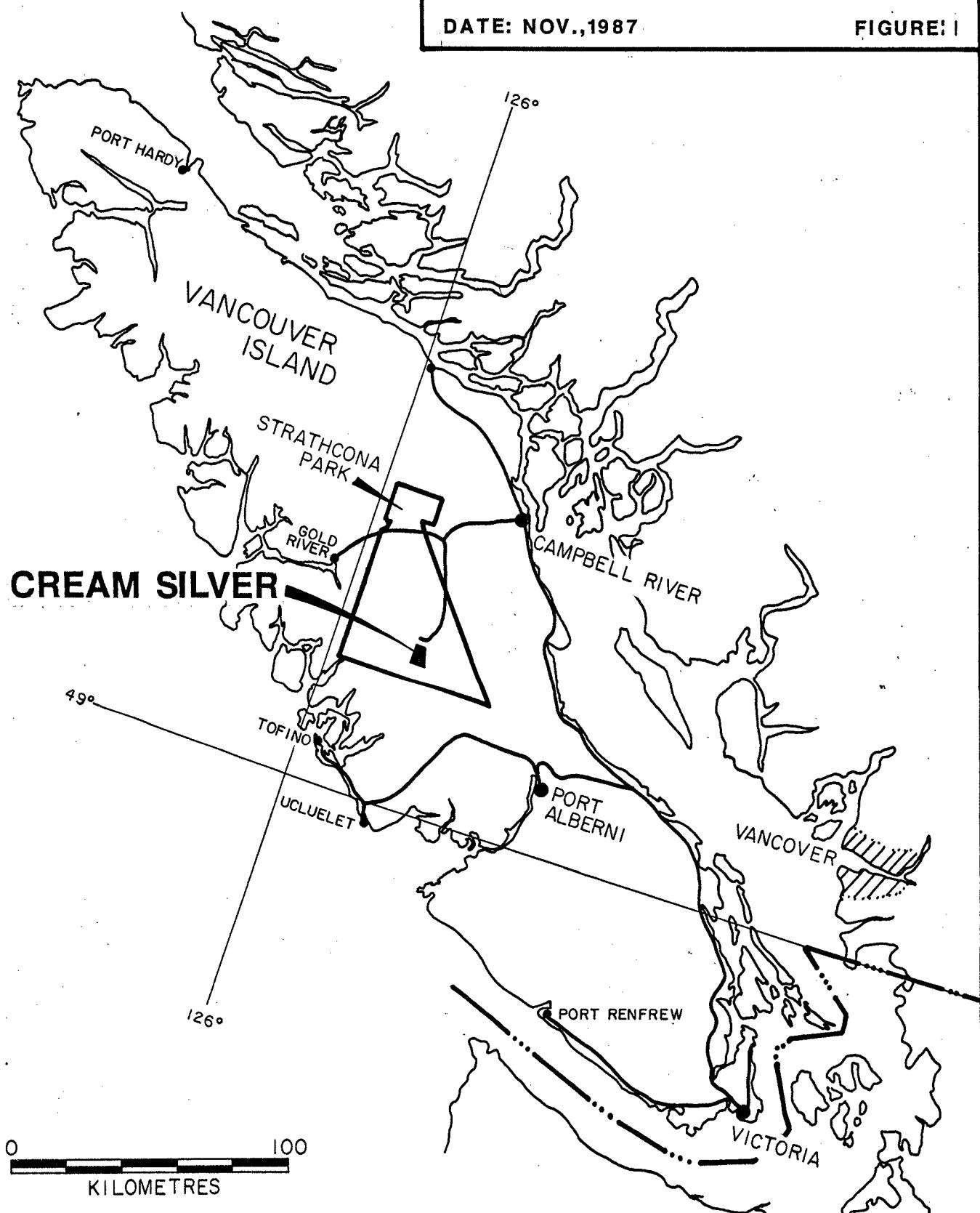
CREAM SILVER MINES LTD.

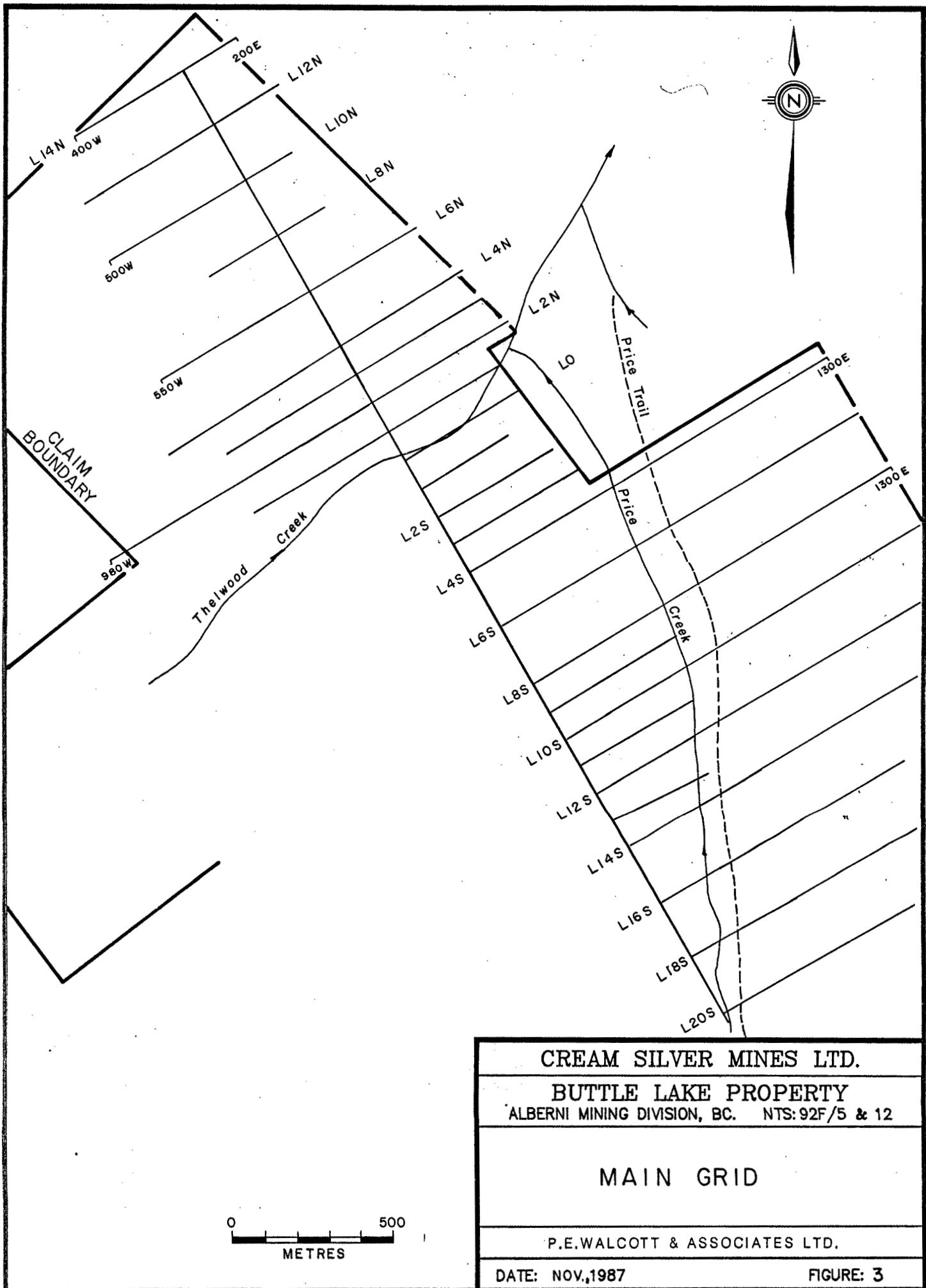
BUTTLE LAKE PROPERTY
ALBERNI M.D.-B.C. NTS:92-F-5&12

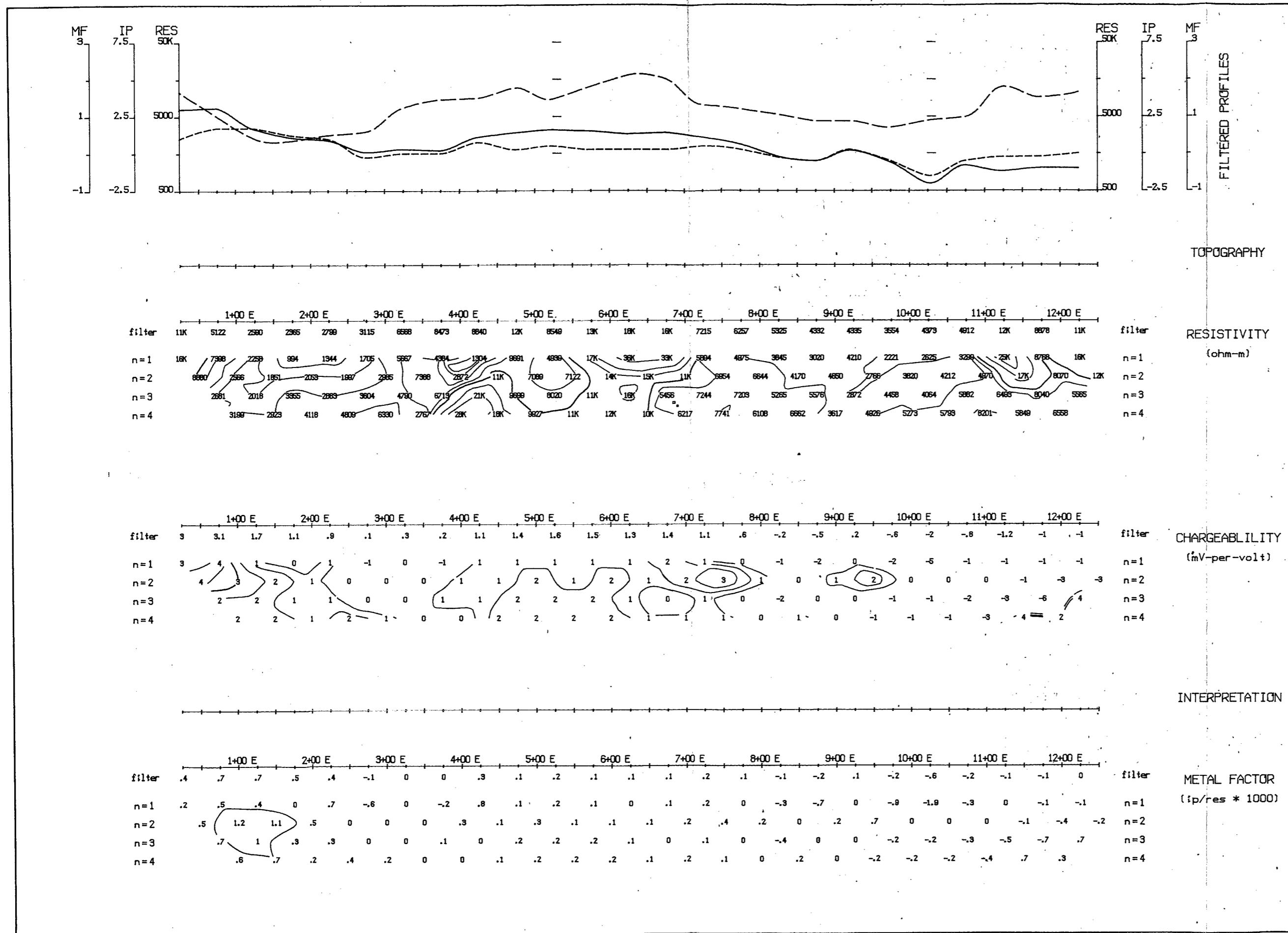
LOCATION MAP

DATE: NOV., 1987

FIGURE: 1







$a = 50 \text{ m}$
 $n = 1, 2, 3, 4$

Filtered Profiles

resistivity	-----	filter
IP	-----	*
Metal Factor	-----	* * *
		* * * *

Logarithmic 1, 1.5, 2, 3, 5, 7.5, 10,...
Contours

Instrument: MkII, EDA2
Operators: G.M., P.E.W.

INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
 - Well defined increase in polarization without marked resistivity decrease.
 - Poorly defined polarization increase with no resistivity signature.
 - ▼ Low resistivity feature.

CREAM SILVER MINES LTD.

INDUCED POLARIZATION SURVEY

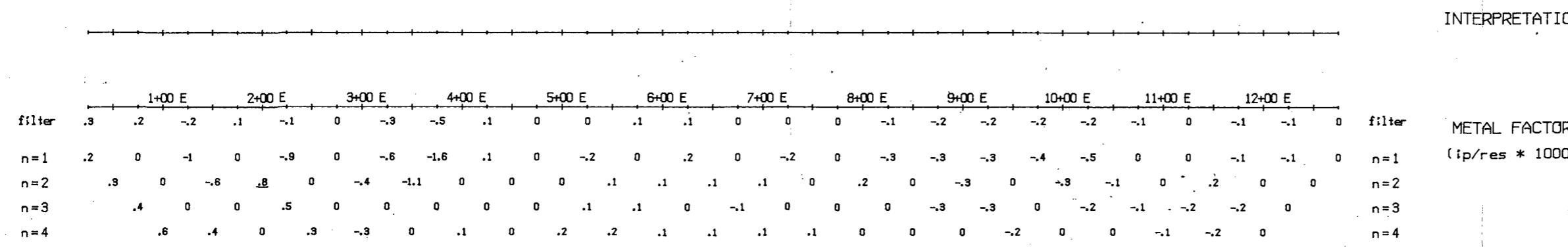
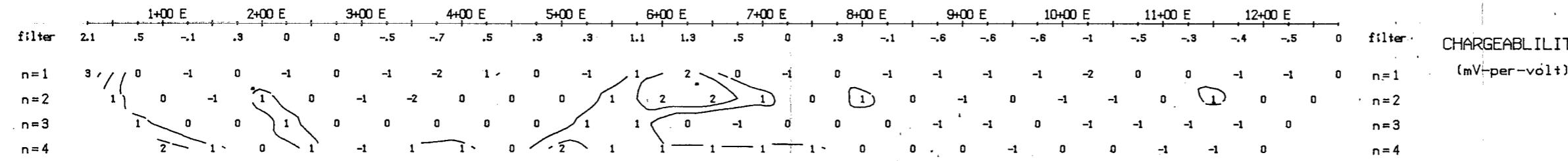
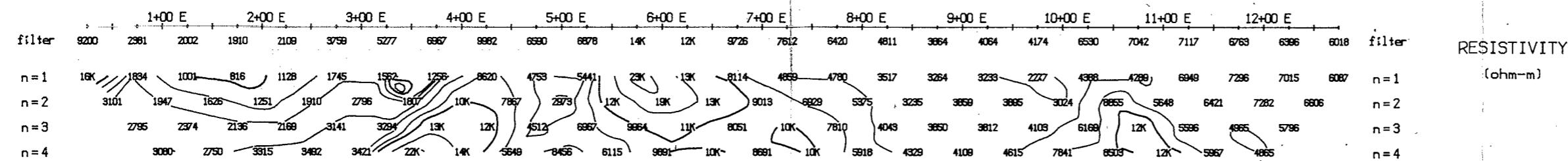
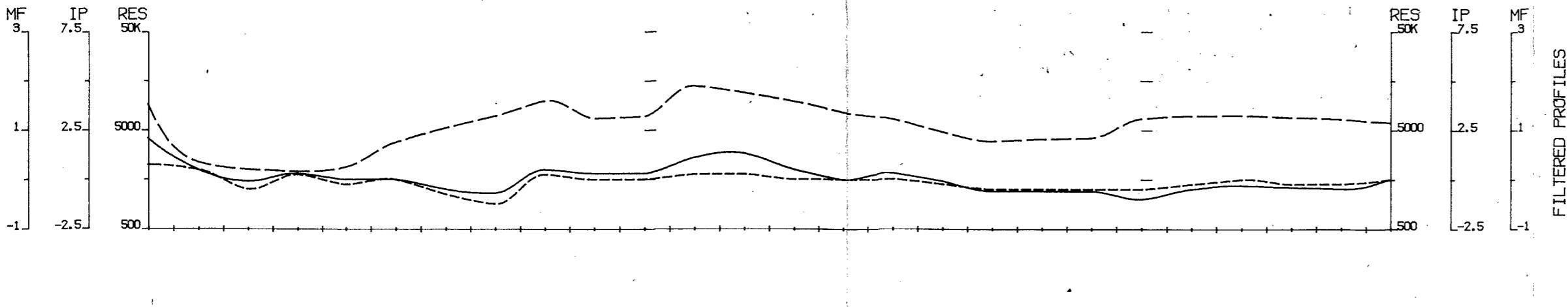
PRICE GRID
BUTTLE LAKE

Date: 87/06 NTS Ref: 92 F/12
Interpretation by: P.E.W.
Scale: 1 : 5000

PETER E. WALCOTT & ASSOC. LTD.

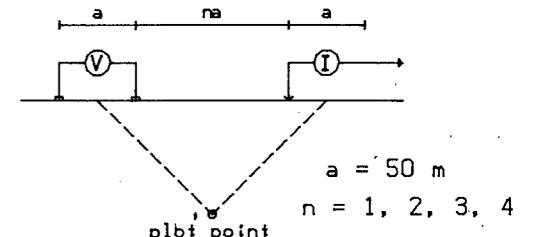
*GEOLOGICAL BRANCH
ASSESSMENT REPORT*

17-003



L-18S

Pole-Dipole Array



Filtered Profiles

filter
Resistivity ————— *
IP ————— * *
Metal Factor ————— * * *
Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10, ...

Instrument: MkII, EDA2
Operators: G.M., P.E.W.

INTERPRETATION

- Strong increase in polarization accompanied by marked decrease in resistivity.
- Well defined increase in polarization without marked resistivity decrease.
- Poorly defined polarization increase with no resistivity signature.
- ▼ Low resistivity feature.

CREAM SILVER MINES LTD.

INDUCED POLARIZATION SURVEY

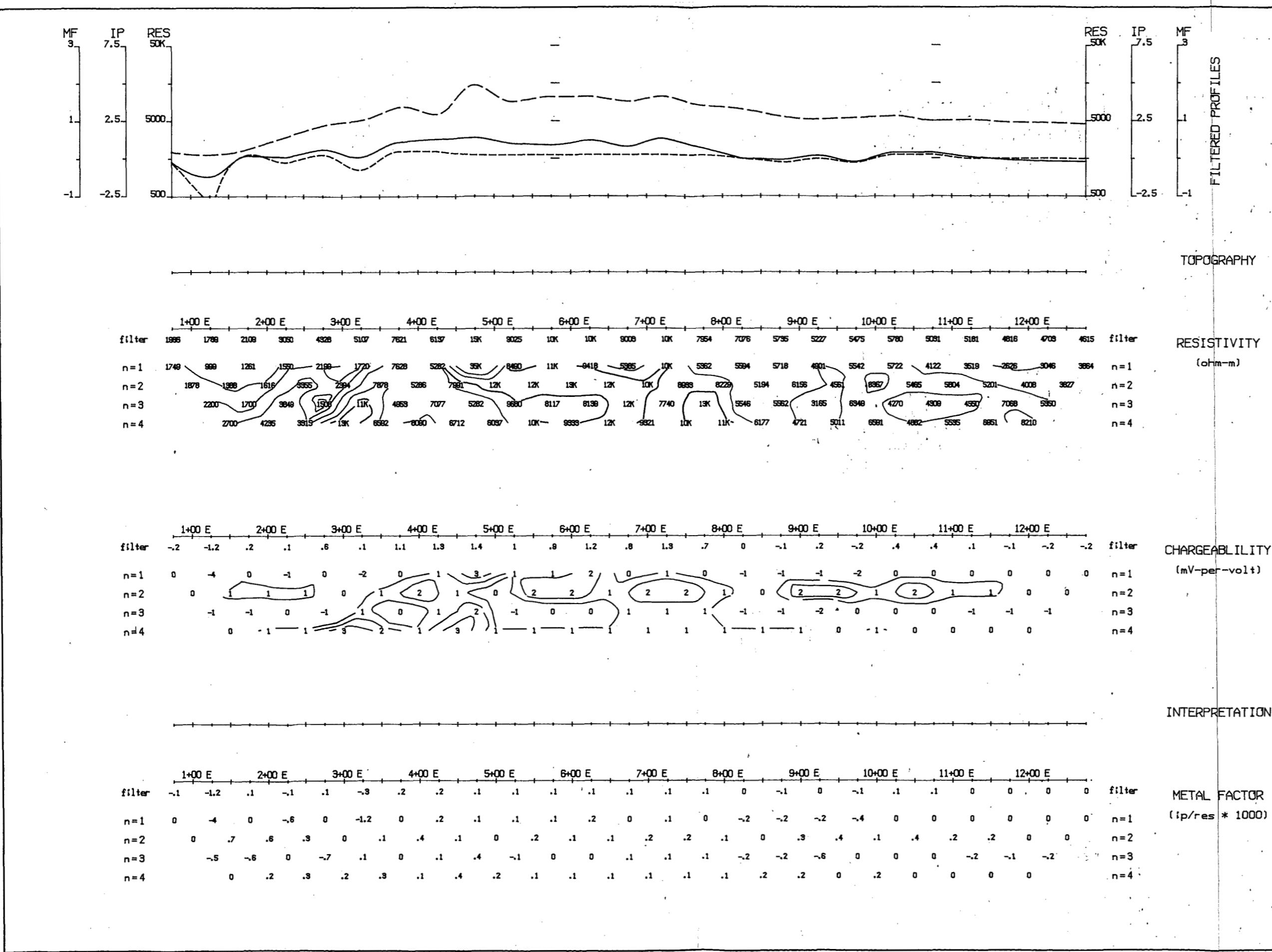
PRICE GRID
BUTTLE LAKE

Date: 87/06 NTS Ref: 92 F/12
Interpretation by: P.E.W.
Scale: 1 : 5000

PETER E. WALCOTT & ASSOC. LTD.

17003

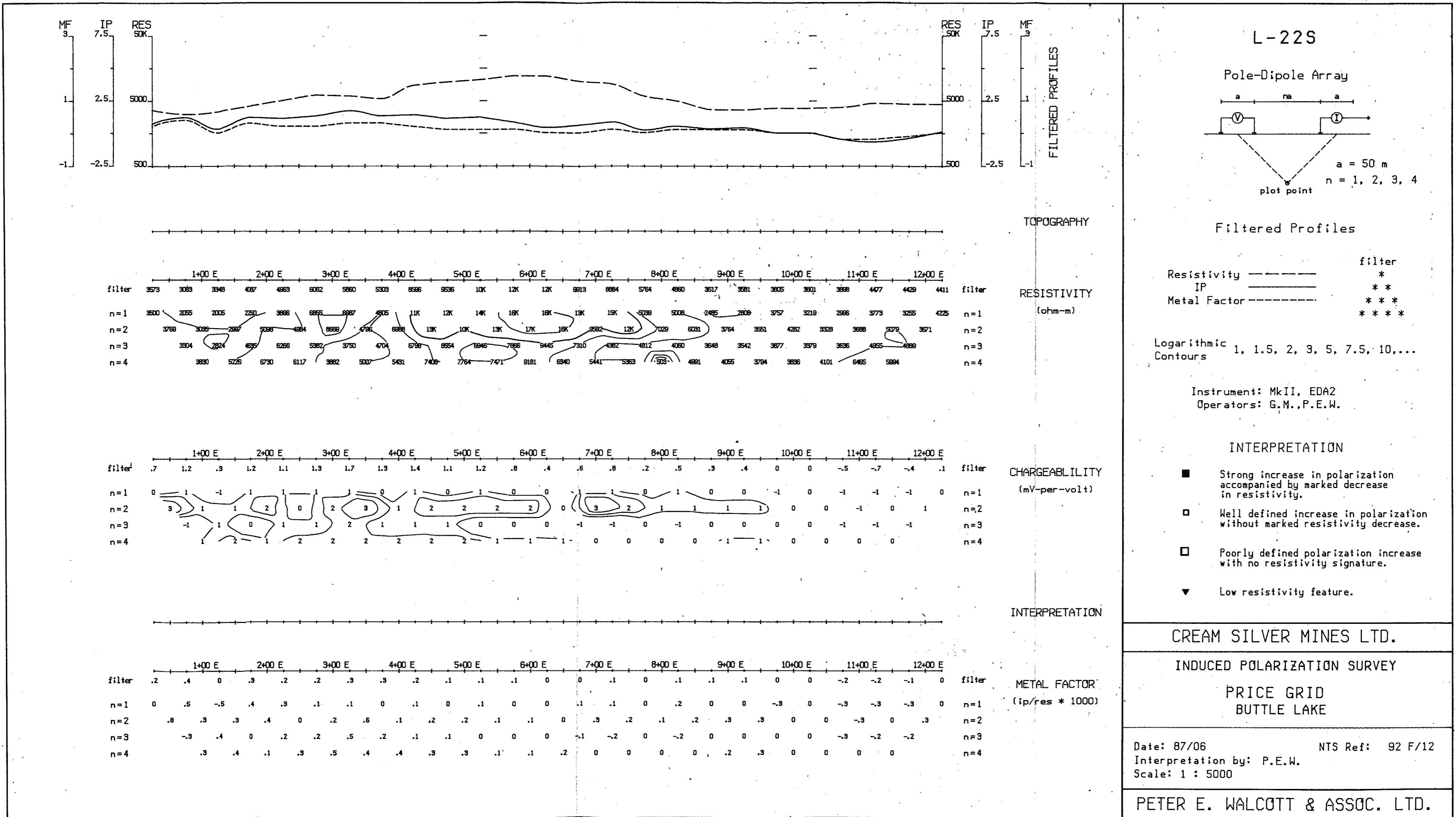
GEOLOGICAL BRANCH
ASSESSMENT REPORT
17-003



17003

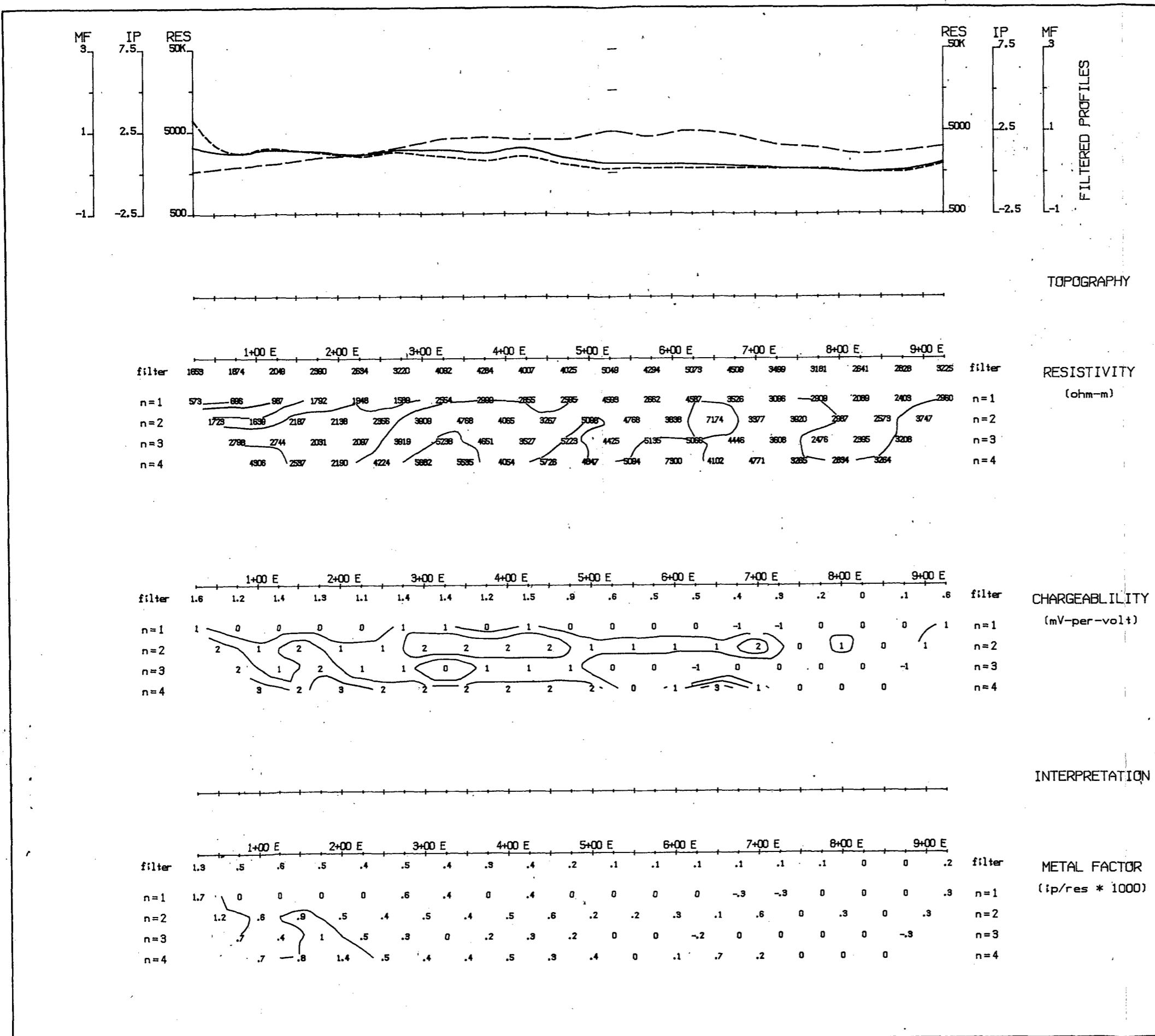
GEOLOGICAL BRANCH
ASSESSMENT REPORT

17.003



GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,003



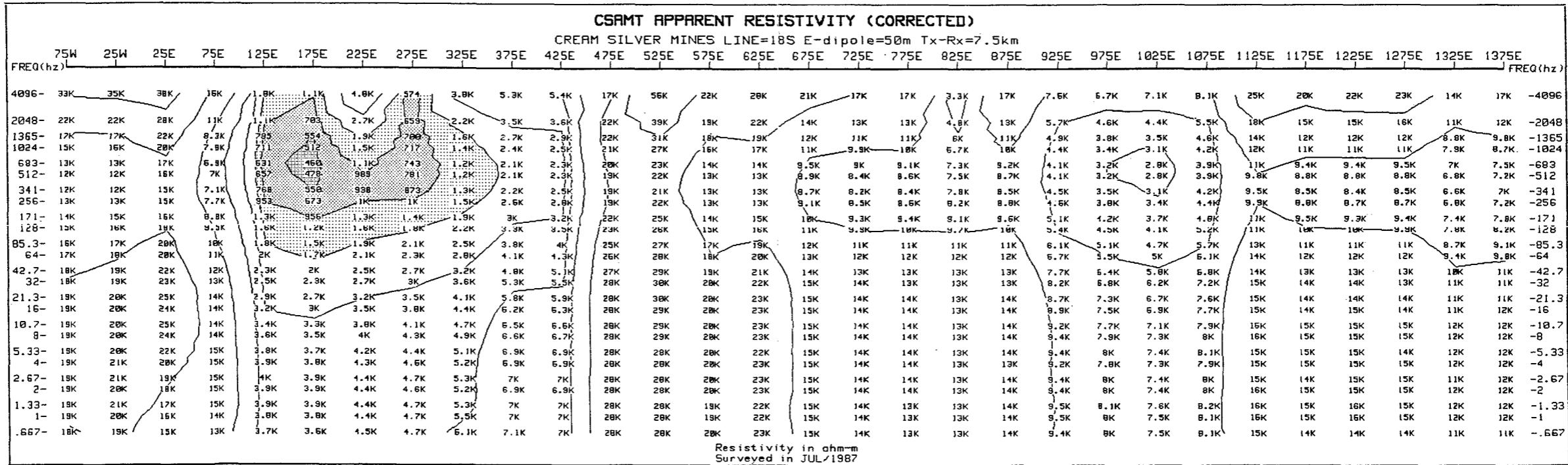
CREAM SILVER MINES LTD.

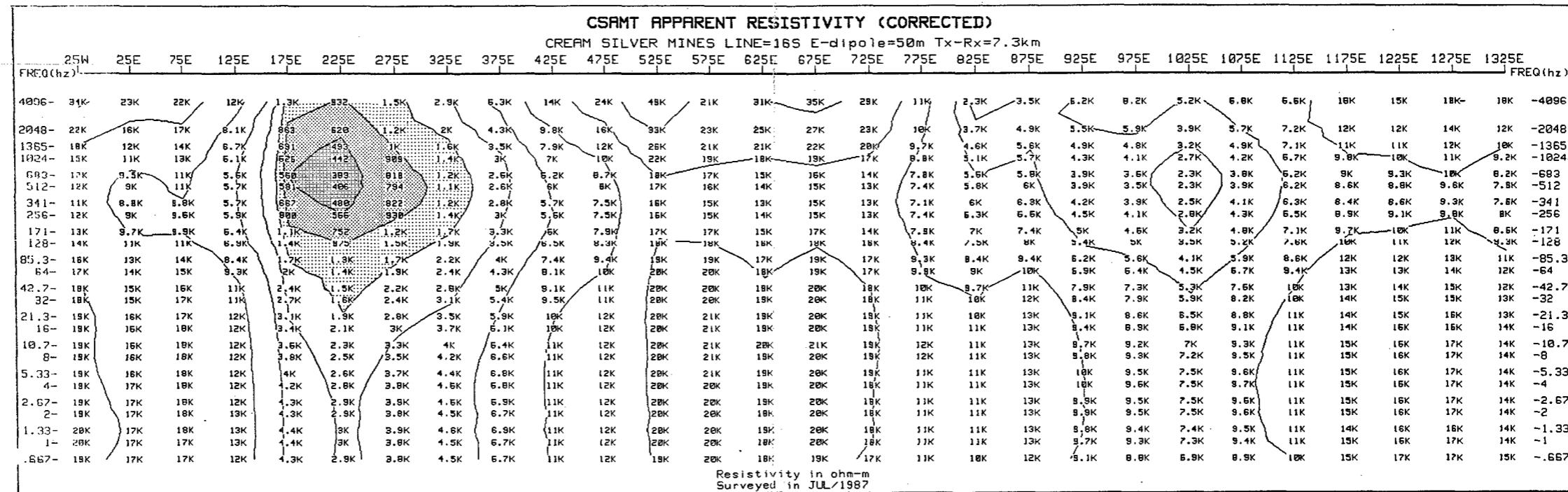
INDUCED POLARIZATION SURVEY

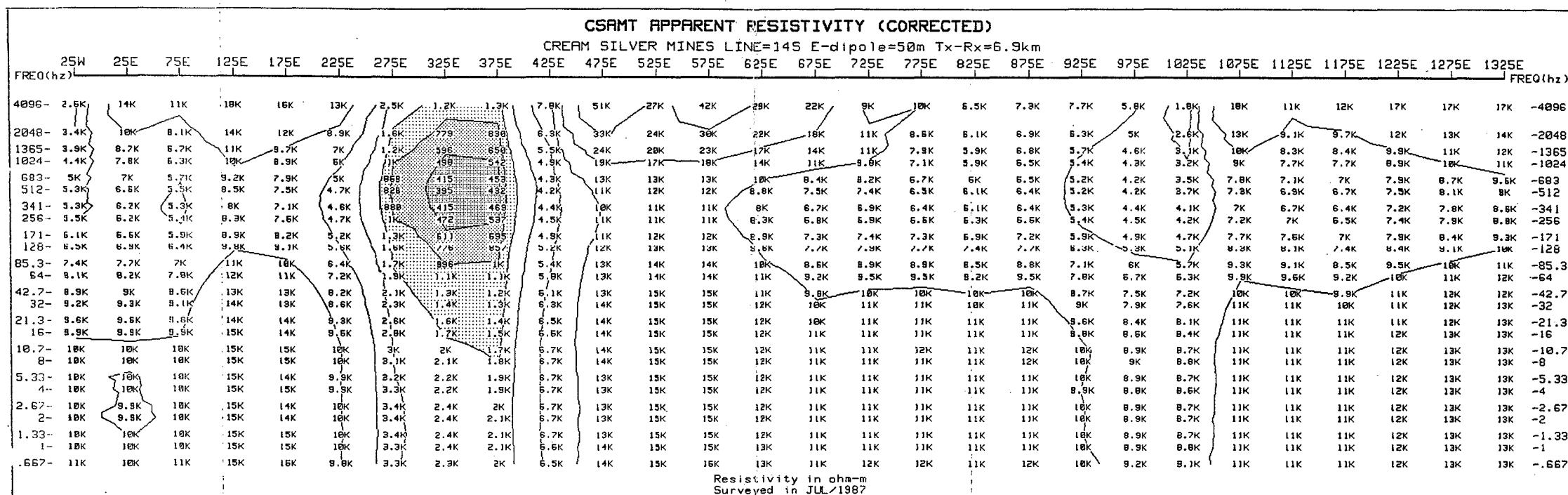
PRICE GRID
BUTTLE LAKE

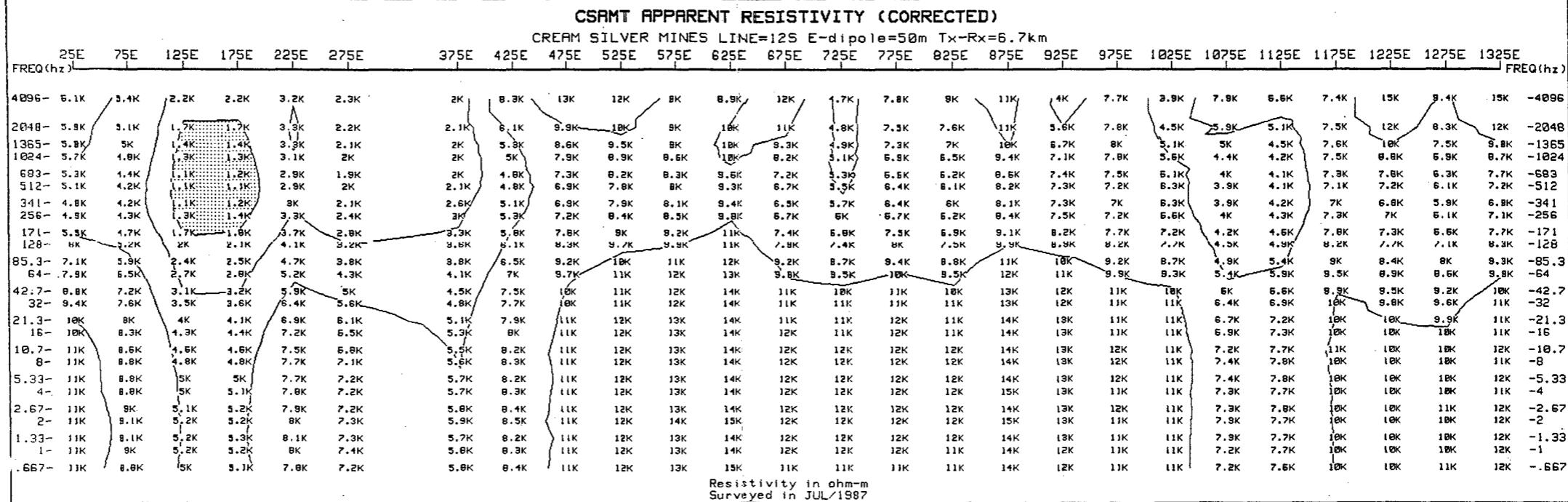
Date: 87/06 NTS Ref: 92 F/12
Interpretation by: P.E.W.
Scale: 1 : 5000

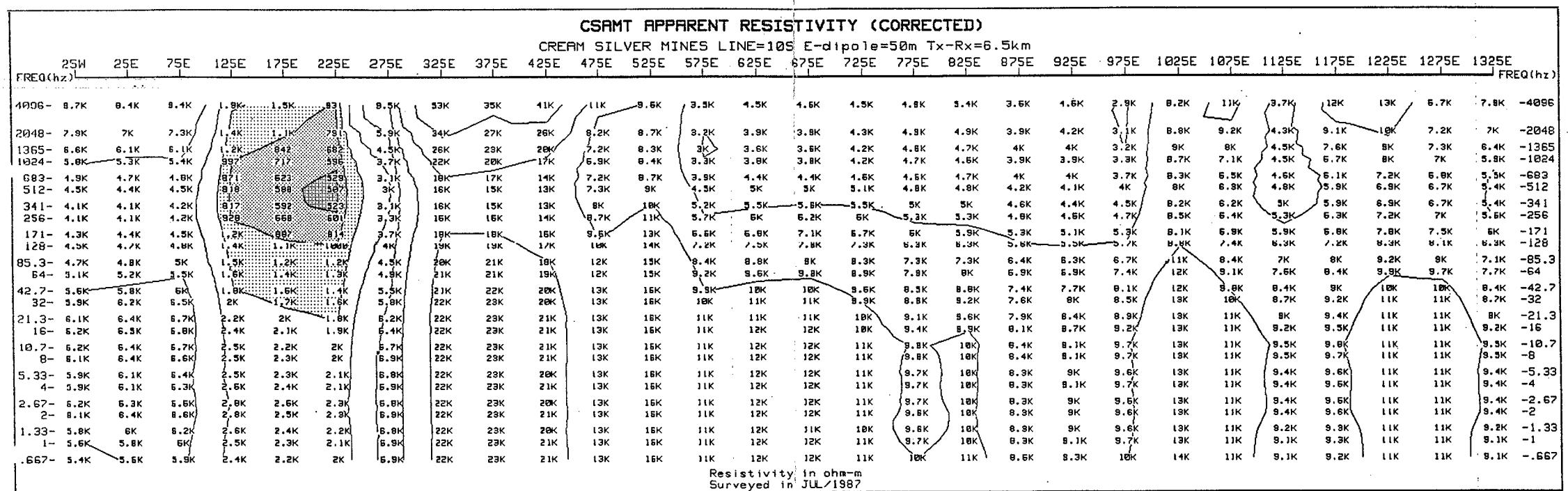
PETER E. WALCOTT & ASSOC. LTD.

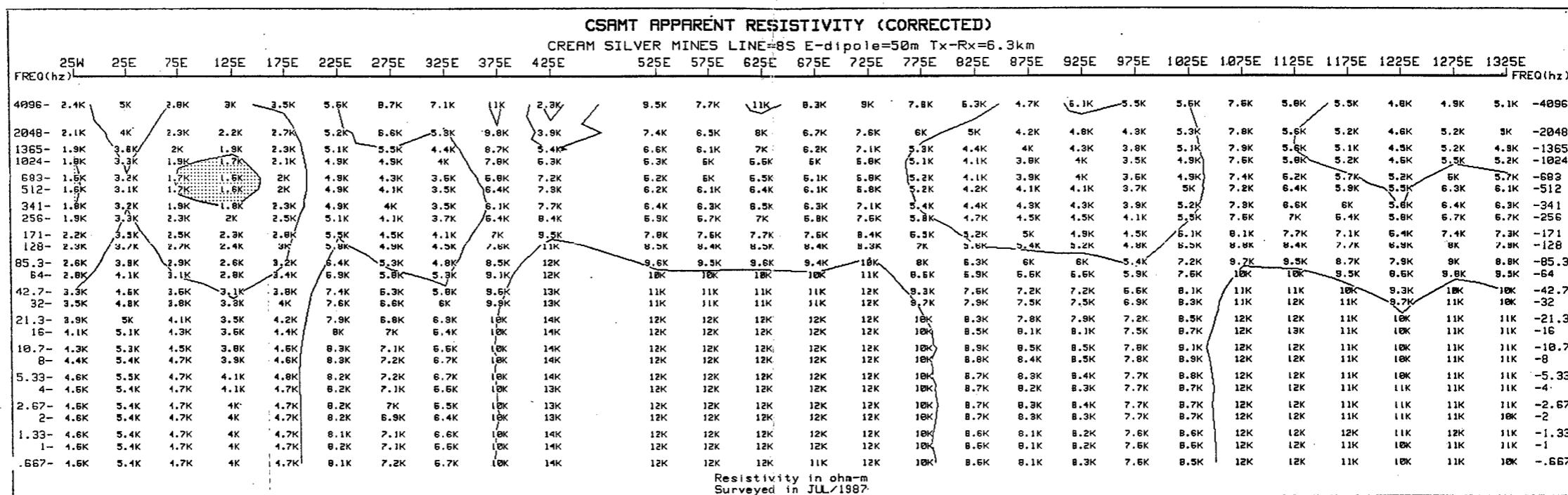


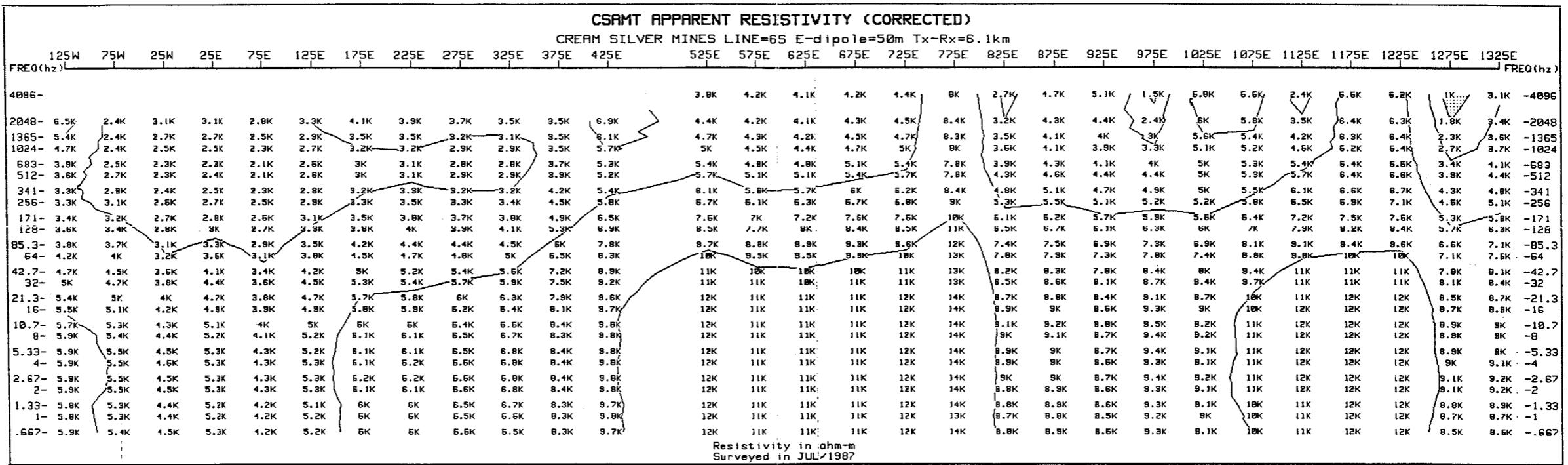


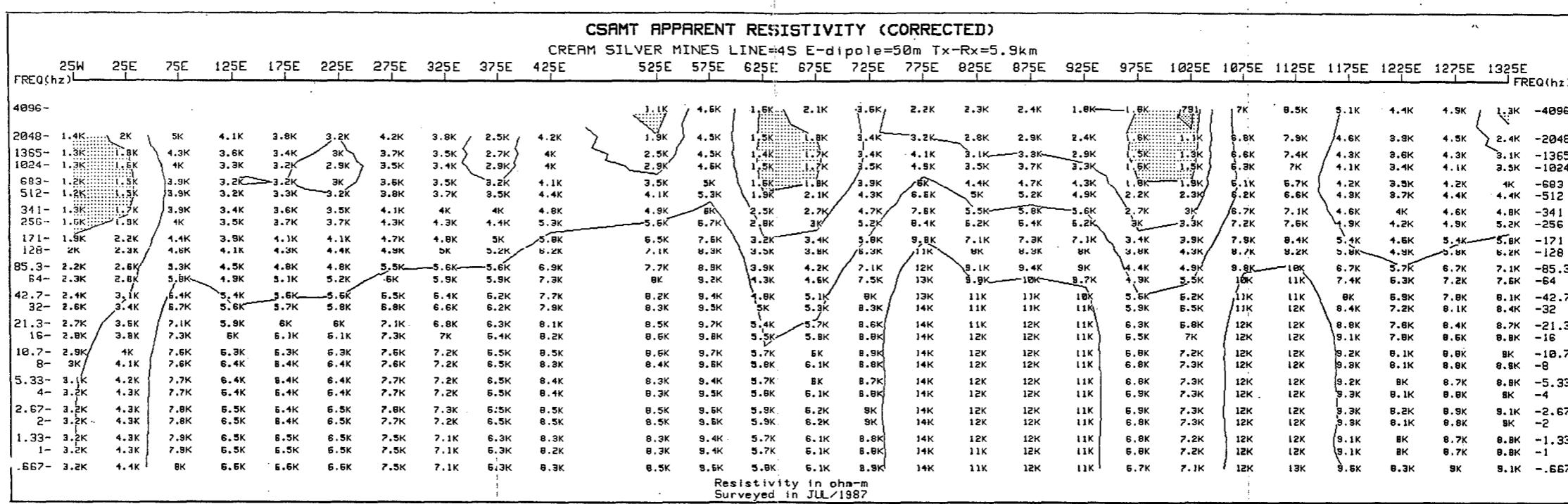












CSAMT APPARENT RESISTIVITY (CORRECTED)

CREAM SILVER MINES LINE=35 E-dipole=50m Tx-Rx=5.8km

	125W	75W	25W	25E	75E	125E	175E	225E	275E	325E	375E	425E	FREO(hz)
	4096-												-4096
2048-	4.8K	4.1K	5.1K	3.6K	3.8K	2.6K	2.6K	6.3K	5.7K	3.2K	3.6K	5.3K	-2048
1365-	4.5K	4K	4.7K	3.4K	3.6K	2.5K	2.4K	6.4K	5.8K	3.1K	3.8K	5.3K	-1365
1024-	4.2K	3.9K	4.3K	3.2K	3.5K	2.4K	2.4K	6.2K	5.7K	3K	3.9K	5.3K	-1024
683-	3.7K	3.6K	3.8K	3K	3.9K	2.3K	2.2K	5.8K	5.5K	3K	4K	5.1K	-683
512-	3.5K	3.5K	3.6K	2.9K	3.8K	2.4K	2.3K	5.7K	5.4K	3.2K	4.2K	5.1K	-512
341-	3.4K	3.5K	3.5K	3K	3.4K	2.7K	2.6K	5.9K	5.7K	3.6K	4.5K	5.4K	-341
256-	3.5K	3.6K	3.6K	3.2K	3.5K	2.8K	2.9K	6.3K	6.1K	3.8K	4.8K	5.9K	-256
171-	3.9K	4K	4.1K	3.5K	3.9K	3.1K	3.2K	6.8K	6.7K	4.3K	5.4K	6.7K	-171
128-	4.3K	4.3K	4.4K	3.8K	4.2K	3.4K	3.4K	7.4K	7.3K	4.8K	5.9K	7.3K	-128
85.3-	4.8K	4.9K	4.8K	4.1K	4.5K	3.6K	3.7K	8.1K	8K	5.1K	6.6K	8.1K	-85.3
64-	5.3K	5.4K	5.2K	4.6K	4.9K	3.9K	4K	8.5K	8.5K	5.9K	7K	8.6K	-64
42.7-	5.9K	6.1K	5.7K	5K	5.4K	4.3K	4.5K	8.8K	8.8K	6K	7.4K	8K	-42.7
32-	6.2K	6.4K	6K	5.3K	5.6K	4.5K	4.7K	8.9K	8.9K	6.2K	7.7K	9.2K	-32
21.3-	6.8K	6.8K	6.2K	5.5K	5.9K	4.8K	4.9K	9.1K	9.1K	6.4K	7.9K	9.4K	-21.3
16-	6.8K	7K	6.3K	5.6K	6K	4.8K	5K	9.2K	9.2K	6.6K	8K	9.5K	-16
10.7-	7K	7.3K	6.6K	5.9K	6.2K	5K	5.2K	9.3K	9.3K	6.8K	8.2K	8.6K	-10.7
8-	7K	7.3K	6.6K	5.9K	6.3K	5.1K	5.4K	9.2K	9.2K	6.8K	8.1K	9.8K	-8
5.33-	7.1K	7.4K	6.6K	6K	6.8K	5.2K	5.4K	9.3K	9.3K	6.8K	8.2K	9.7K	-5.33
4-	7.1K	7.3K	6.5K	5.9K	6.3K	5.1K	5.4K	9.3K	9.3K	6.8K	8.2K	9.6K	-4
2.67-	7.1K	7.4K	6.7K	6K	6.3K	5.2K	5.5K	9.4K	9.4K	6.9K	8.3K	9.7K	-2.67
2-	7.1K	7.4K	6.6K	6K	6.3K	5.2K	5.5K	9.4K	9.4K	6.9K	8.3K	9.8K	-2
1.33-	7.1K	7.4K	6.7K	6K	6.3K	5.2K	5.5K	9.4K	9.4K	6.9K	8.3K	9.7K	-1.33
1-	7.2K	7.4K	6.7K	6K	6.4K	5.2K	5.6K	9.5K	9.5K	7K	8.4K	9.8K	-1
.667-	7.3K	7.5K	6.8K	6.1K	6.5K	5.3K	5.7K	9.7K	9.9K	7K	8.6K	10K	-.667

CSAMT APPARENT RESISTIVITY (CORRECTED)

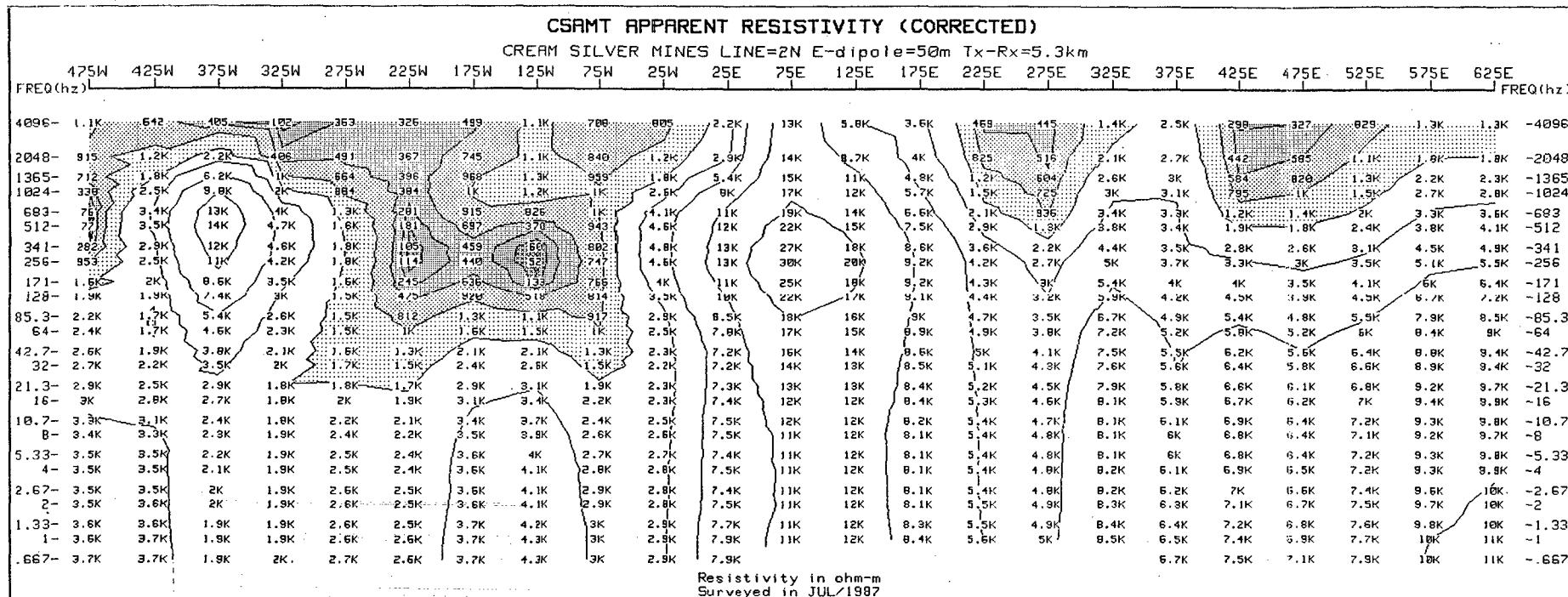
CREAM SILVER MINES LINE=2S E-dipole=50m Tx-Rx=5.7km

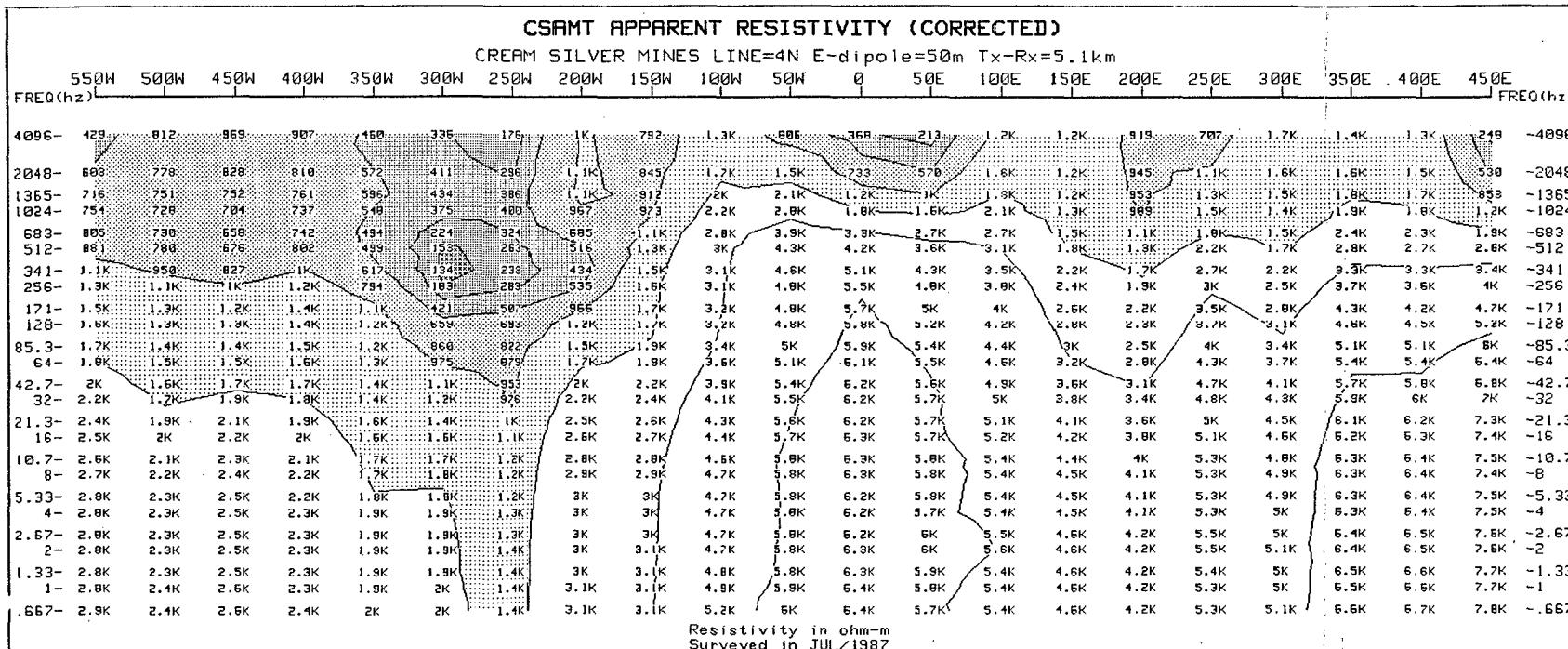
CSAMT APPARENT RESISTIVITY (CORRECTED)

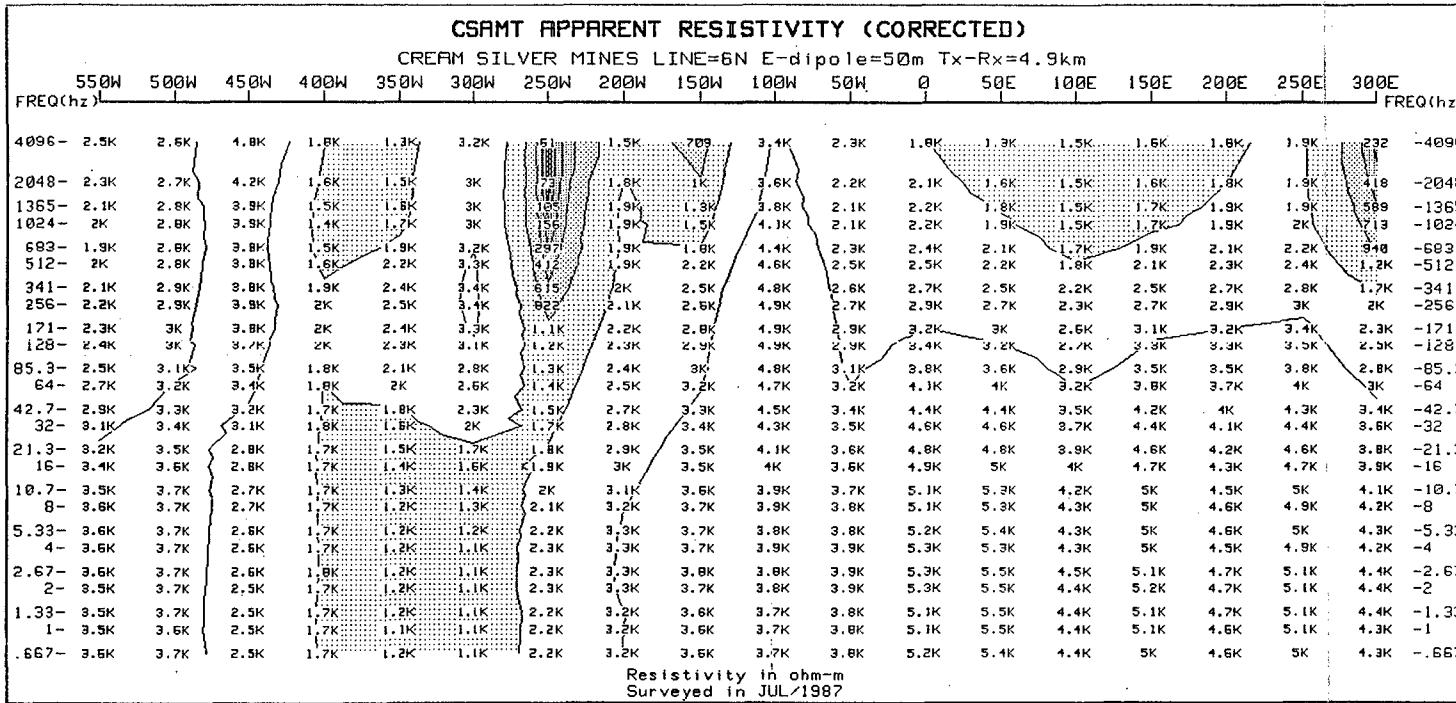
CREAM SILVER MINES LINE=0 E-dipole=50m Tx-Rx=5.5km

	25W	25E	75E	125E	175E	225E	275E	325E	375E	425E	475E	525E	FREQ(hz)
													FREQ(hz)
4096-													
2048-	12K	3.4K	3K	2.4K	2.9K	2.9K	1K	1.9K	1.8K	.864	.629	.525	-2048
1365-	8.1K	3.3K	2.6K	2.1K	2.2K	3.1K	1.4K	2.4K	1.5K	1K	765	653	-1365
1024-	6.1K	3.2K	2.6K	2K	2.1K	3.4K	1.9K	2.9K	1.7K	1.2K	887	773	-1024
603-	4.2K	3.1K	2.5K	1.9K	2.3K	4K	2.9K	4.1K	2.4K	1.5K	1.1K	.989	-603
512-	3.3K	3.1K	2.6K	2.1K	2.5K	4.4K	3.8K	4.9K	3K	2K	1.4K	1.2K	-512
341-	2.8K	3.1K	2.7K	2.4K	3K	5K	4.6K	5.7K	3.7K	2.6K	2K	1.8K	-341
256-	2.7K	3.3K	2.8K	2.5K	3.2K	5.5K	5K	6.3K	4.1K	2.9K	2.4K	2.1K	-256
171-	3.1K	3.5K	3.1K	2.8K	3.5K	5.9K	5.4K	6.8K	4.5K	3.4K	2.8K	2.5K	-171
128-	3.5K	4K	3.4K	3K	3.7K	6.2K	5.7K	7.4K	4.9K	3.6K	3.1K	2.8K	-128
85.3-	4.1K	4.7K	3.9K	3.3K	3.9K	6.5K	6.1K	8.1K	5.7K	4.1K	3.5K	3.3K	-85.3
64-	4.6K	5.2K	4.3K	3.5K	4.1K	6.5K	6.2K	8.4K	6K	4.5K	3.9K	3.7K	-64
42.7-	5.2K	5.8K	4.8K	3.9K	4.3K	6.4K	6.3K	8.5K	6.4K	4.3K	4.1K	4.2K	-42.7
32-	5.5K	6.2K	5.1K	4.1K	4.4K	6.3K	6.2K	8.5K	6.5K	5K	4.6K	4.4K	-32
21.3-	5.9K	6.6K	5.5K	4.4K	4.5K	6.2K	6.1K	8.5K	6.7K	5.3K	4.9K	4.8K	-21.3
16-	6.1K	6.9K	5.7K	4.5K	4.5K	6.1K	6.1K	8.6K	6.8K	5.4K	5K	5K	-16
10.7-	6.4K	7.2K	5.9K	4.6K	4.5K	6K	6K	8.5K	7K	5.5K	5.1K	5.1K	-10.7
8-	6.4K	7.2K	6K	4.7K	4.6K	5.9K	6K	8.4K	7K	5.5K	5.3K	5.2K	-8
5.33-	6.4K	7.2K	6K	4.7K	4.6K	5.8K	5.9K	8.4K	6.9K	5.5K	5.3K	5.2K	-5.33
4-	6.4K	7.2K	6K	4.7K	4.6K	5.8K	5.9K	8.4K	6.9K	5.6K	5.3K	5.3K	-4
2.67-	6.5K	7.3K	6.1K	4.8K	4.7K	5.8K	5.9K	8.5K	7K	5.7K	5.4K	5.4K	-2.67
2-	6.5K	7.3K	6.1K	4.8K	4.7K	5.8K	5.9K	8.5K	7K	5.7K	5.4K	5.4K	-2
1.33-	6.5K	7.3K	6.1K	4.8K	4.6K	6.1K	5.9K	8.4K	6.9K	5.6K	5.3K	5.2K	-1.33
1-	6.5K	7.3K	6K	4.8K	4.7K	5.9K	6K	8.5K	6.9K	5.7K	5.3K	5.3K	-1
.667-	6.4K	7.3K	6K	4.6K	4.5K	5.6K	6.1K	8.7K	7.1K	5.8K	5.5K	5.4K	-.667

Resistivity in ohm-m
Surveyed in JUL/1987

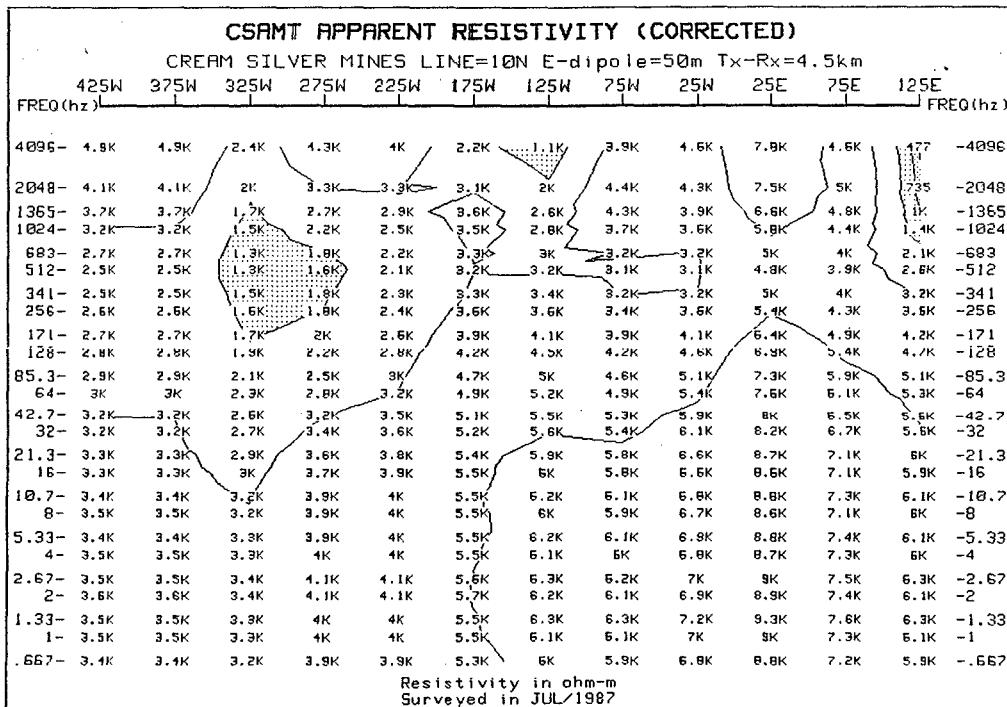






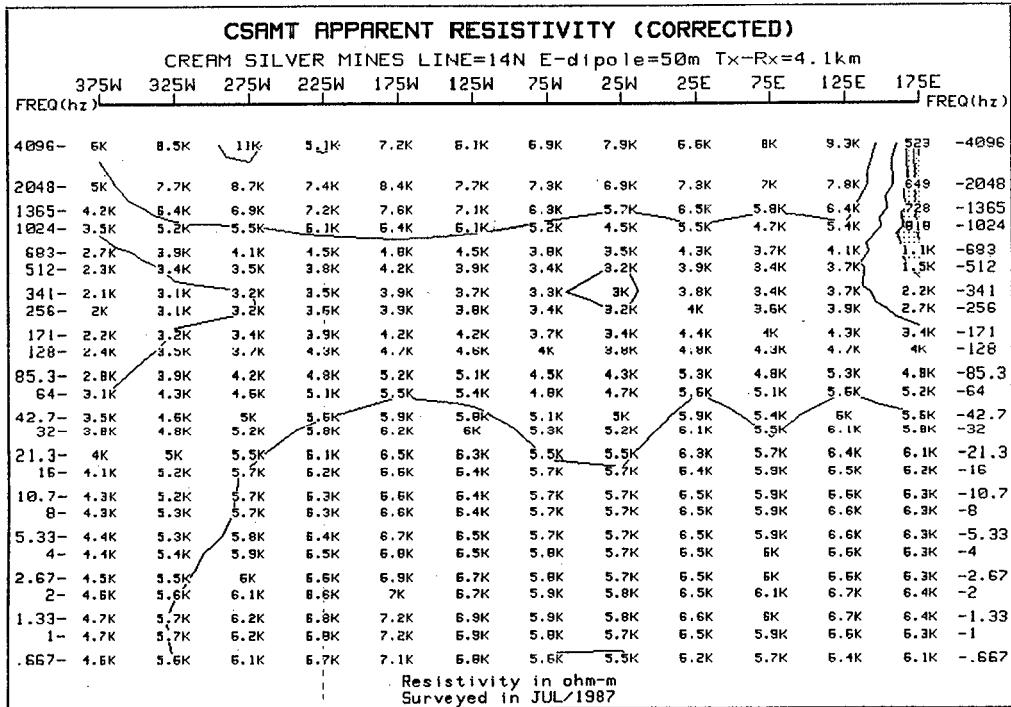
CSAMT APPARENT RESISTIVITY (CORRECTED)										
CREAM SILVER MINES LINE=8N E-dipole=50m Tx-Rx=4.7km										
	225W	175W	125W	75W	25W	25E	75E	125E	FREQ(hz)	FREQ(hz)
4096-	1.6K	3.6K	1.1K	1.2K	2.2K	1.7K	3K	110	-4096	
2048-	1.7K	3.1K	8.9K	1.6K	2K	1.9K	2.9K	131	-2048	
1365-	1.7K	2.8K	7.1K	1.8K	1.9K	1.9K	2.7K	170	-1365	
1024-	1.6K	2.6K	5.7K	1.9K	1.6K	1.8K	2.5K	229	-1024	
683-	1.6K	2.4K	4.3K	1.9K	1.4K	1.7K	2.4K	372	-683	
512-	1.6K	2.4K	3.9K	2K	1.5K	1.8K	2.5K	539	-512	
341-	1.6K	2.5K	3.8K	2.4K	1.8K	2.1K	2.8K	1K	-341	
256-	2K	2.6K	3.9K	2.5K	1.9K	2.3K	3K	1.4K	-256	
171-	2.3K	3K	4K	2.8K	2.1K	2.5K	3.4K	1.8K	-171	
128-	2.5K	3.2K	4K	3K	2.3K	2.6K	3.5K	2.1K	-128	
85.3-	2.9K	3.5K	4K	3.2K	2.3K	2.7K	3.7K	2.3K	-85.3	
64-	3.2K	3.8K	4K	3.4K	2.5K	2.8K	3.9K	2.3K	-64	
42.7-	3.7K	4.2K	4.1K	3.6K	2.6K	2.9K	4K	2.8K	-42.7	
32-	3.9K	4.5K	4K	3.7K	2.7K	3K	3.9K	3K	-32	
21.3-	4.2K	4.7K	3.9K	3.8K	2.8K	3K	4K	3.2K	-21.3	
16-	4.4K	4.8K	3.9K	3.9K	2.9K	3.1K	4K	3.3K	-16	
10.7-	4.6K	5K	4K	4K	3K	3.2K	4.2K	3.5K	-10.7	
8-	4.6K	5K	4K	4.1K	3.1K	3.2K	4.2K	3.5K	-8	
5.33-	4.7K	5.1K	4K	4.1K	3.2K	3.3K	4.2K	3.6K	-5.33	
4-	4.7K	5.1K	4K	4.1K	3.2K	3.3K	4.2K	3.7K	-4	
2.67-	4.7K	5.1K	4K	4.1K	3.2K	3.3K	4.2K	3.7K	-2.67	
2-	4.7K	5.1K	3.9K	4.1K	3.1K	3.3K	4.2K	3.7K	-2	
1.33-	4.8K	5.2K	4K	4.1K	3.2K	3.3K	4.2K	3.7K	-1.33	
1-	4.8K	5.2K	4.1K	4.2K	3.2K	3.4K	4.4K	3.8K	-1	
.667-	4.8K	5.2K	4.4K	4.3K	3.4K	3.6K	4.5K	4K	-.667	

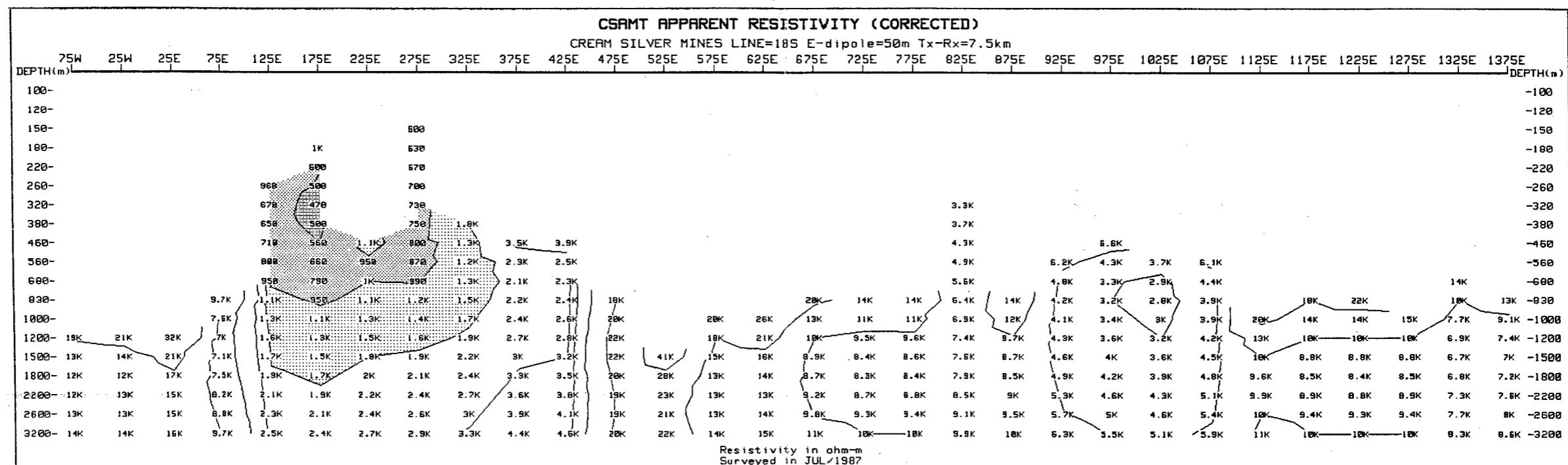
Resistivity in ohm-m
Surveyed in JUL/1987

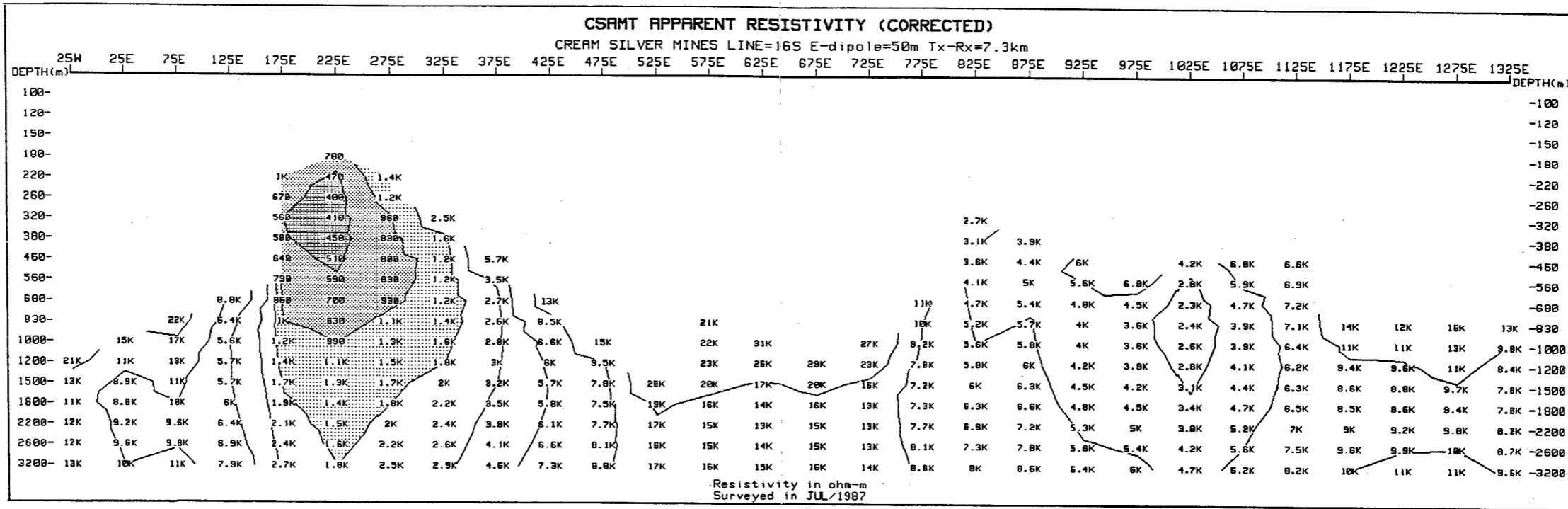


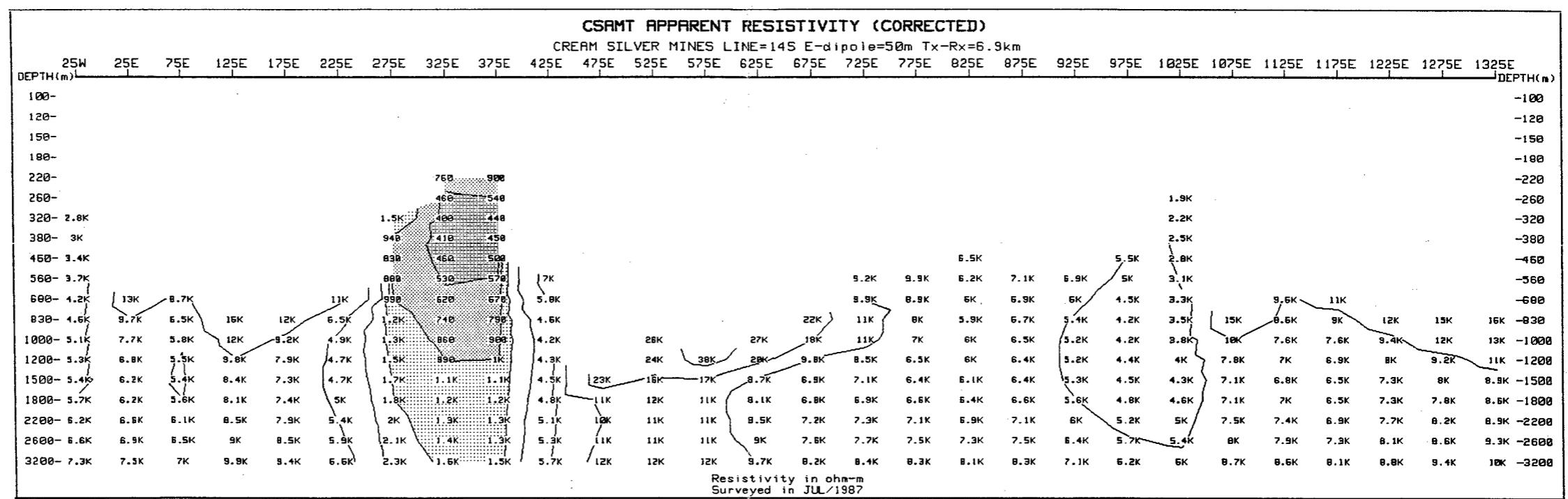
CSAMT APPARENT RESISTIVITY (CORRECTED)														
CREAM SILVER MINES LINE=12N E-dipole=50m Tx-Rx=4.3km														
425W	375W	325W	275W	225W	175W	125W	75W	25W	25E	75E	125E	175E	FREQ(hz)	FREQ(hz)
4096 - 1.3K	5.3K	3.8K	2.8K	1.4K	17K	1.3K	3.3K	2K	1.8K	1.5K	125	4.9K	-4096	
2048 - 1.5K	4.3K	3.4K	2.5K	1.4K	14K	2.2K	3.7K	2.4K	2K	2K	151	5.1K	-2048	
1365 - 1.6K	3.7K	2.9K	2.2K	1.3K	11K	2.6K	3.7K	2.9K	2.1K	2.1K	151	4.8K	-1365	
1024 - 1.6K	3.1K	2.4K	1.9K	1.4K	9K	2.7K	3.4K	2.9K	2.1K	2.1K	151	4.5K	-1024	
683 - 1.6K	2.7K	2K	1.8K	1.7K	6.7K	2.7K	2.9K	2.9K	2.1K	2K	153	3.8K	-683	
512 - 1.6K	2.5K	2K	1.7K	2K	5.7K	2.8K	2.7K	2.9K	2.1K	2K	152	3.4K	-512	
341 - 1.8K	2.5K	2K	1.8K	2.5K	5.8K	3K	2.6K	3.2K	2.8K	2.2K	1.4K	3.5K	-341	
256 - 1.9K	2.6K	2.1K	1.9K	2.9K	5.1K	3.3K	2.8K	3.6K	2.6K	2.4K	1.9K	3.8K	-256	
171 - 2.1K	2.8K	2.3K	2.1K	3.5K	6K	3.7K	3.4K	4.2K	3.1K	2.8K	2.6K	4.4K	-171	
128 - 2.2K	3.1K	2.4K	2.3K	4.1K	6.3K	4.3K	3.9K	4.7K	3.5K	3.1K	3K	4.8K	-128	
85.3 - 2.5K	3.5K	2.7K	2.6K	4.8K	6.4K	5K	4.7K	5.3K	3.9K	3.7K	3.5K	4.7K	-85.3	
64 - 2.7K	3.8K	2.9K	2.9K	5.2K	6.7K	5.3K	5.1K	5.5K	4.2K	4.1K	3.8K	5.1K	-64	
42.7 - 3.1K	4.1K	3.1K	3.9K	5.7K	7.2K	5.3K	5.5K	5.8K	4.5K	4.4K	4.1K	5.5K	-42.7	
32 - 3.2K	4.3K	3.2K	3.4K	5.9K	7.5K	5.4K	5.7K	6K	4.7K	4.7K	4.4K	5.8K	-32	
21.3 - 3.4K	4.5K	3.4K	3.7K	6.2K	7.8K	5.3K	6K	6.2K	4.9K	4.9K	4.5K	6.1K	-21.3	
16 - 3.5K	4.6K	3.5K	3.8K	6.4K	7.8K	5.4K	6.2K	6.3K	5K	5K	4.6K	6.2K	-16	
10.7 - 3.8K	4.8K	3.7K	4.1K	6.6K	8.1K	5.5K	6.2K	6.3K	5.1K	5.1K	4.8K	6.3K	-10.7	
8 - 3.8K	4.9K	3.7K	4.1K	6.7K	8.1K	5.7K	6.2K	6.3K	5.1K	5.2K	4.7K	6.3K	-8	
5.33 - 3.8K	4.9K	3.7K	4.1K	6.7K	8.2K	5.6K	6.3K	6.4K	5.2K	5.2K	4.6K	6.4K	-5.33	
4 - 3.8K	4.9K	3.7K	4K	6.6K	8.1K	5.6K	6.1K	6.4K	5.2K	5.1K	4.8K	6.3K	-4	
2.67 - 3.7K	4.8K	3.6K	4K	6.5K	7.9K	6K	6.2K	6.5K	5.3K	5.2K	4.9K	6.4K	-2.67	
2 - 3.7K	4.8K	3.6K	4K	6.6K	8K	6K	6.1K	6.5K	5.3K	5.1K	4.9K	6.3K	-2	
1.33 - 3.7K	4.8K	3.7K	4K	6.6K	8K	6K	6.3K	6.5K	5.3K	5.2K	4.9K	6.5K	-1.33	
1 - 3.8K	4.9K	3.7K	4.1K	6.6K	8.1K	5.5K	6.1K	6.4K	5.2K	5.1K	4.8K	6.3K	-1	
.667 - 3.7K	4.8K	3.7K	4K	6.5K	8.1K	5K	6K	6.1K	5K	5K	4.7K	6.2K	-.667	

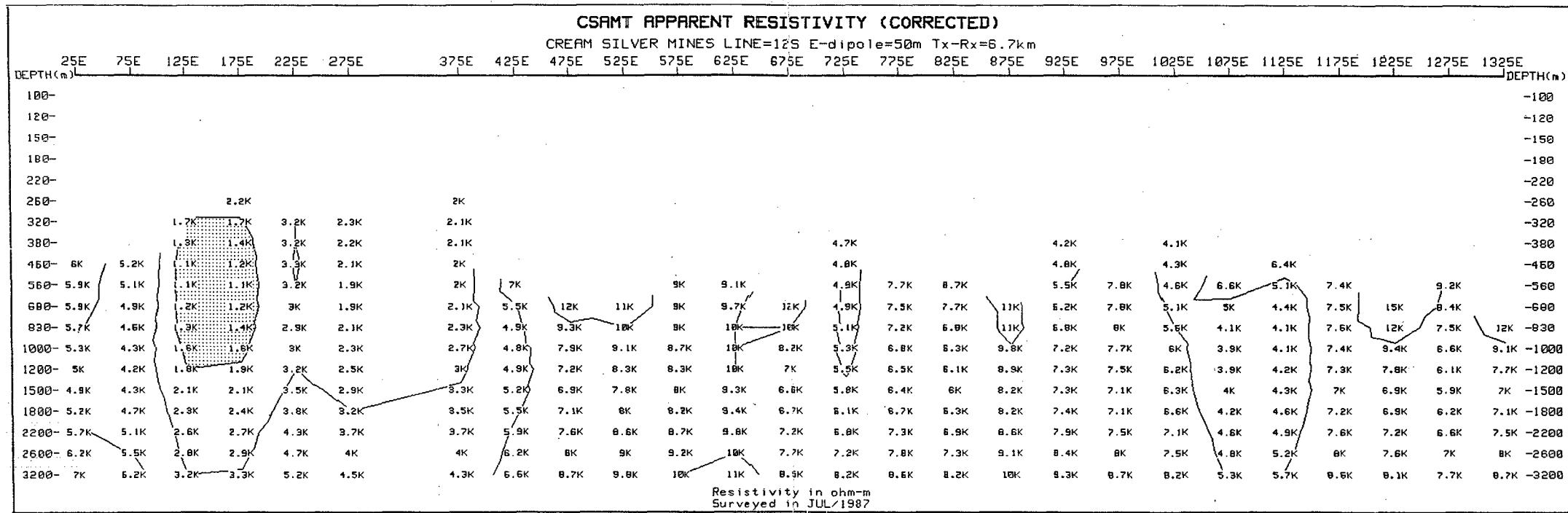
Resistivity in ohm-m
Surveyed in JUL/1987

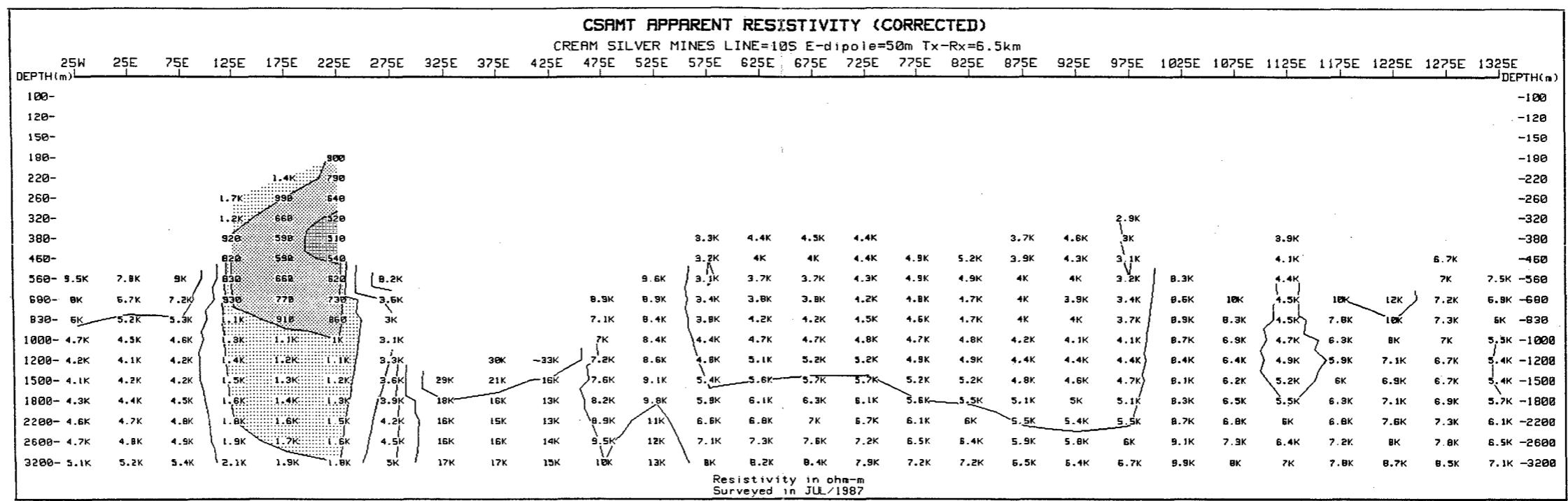


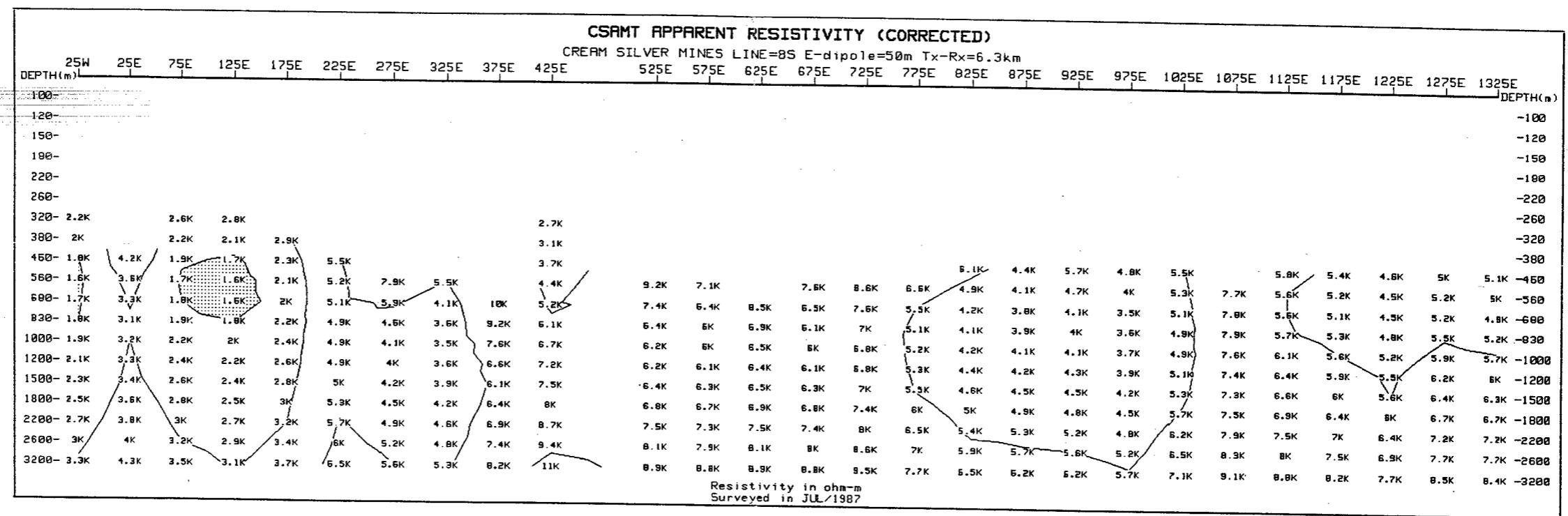


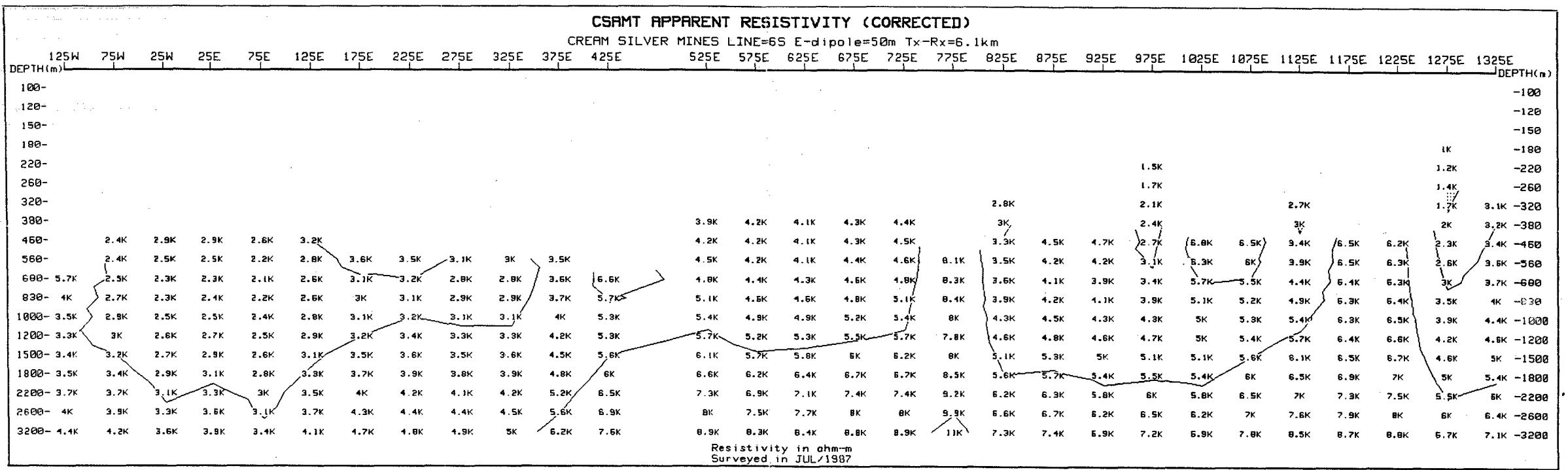


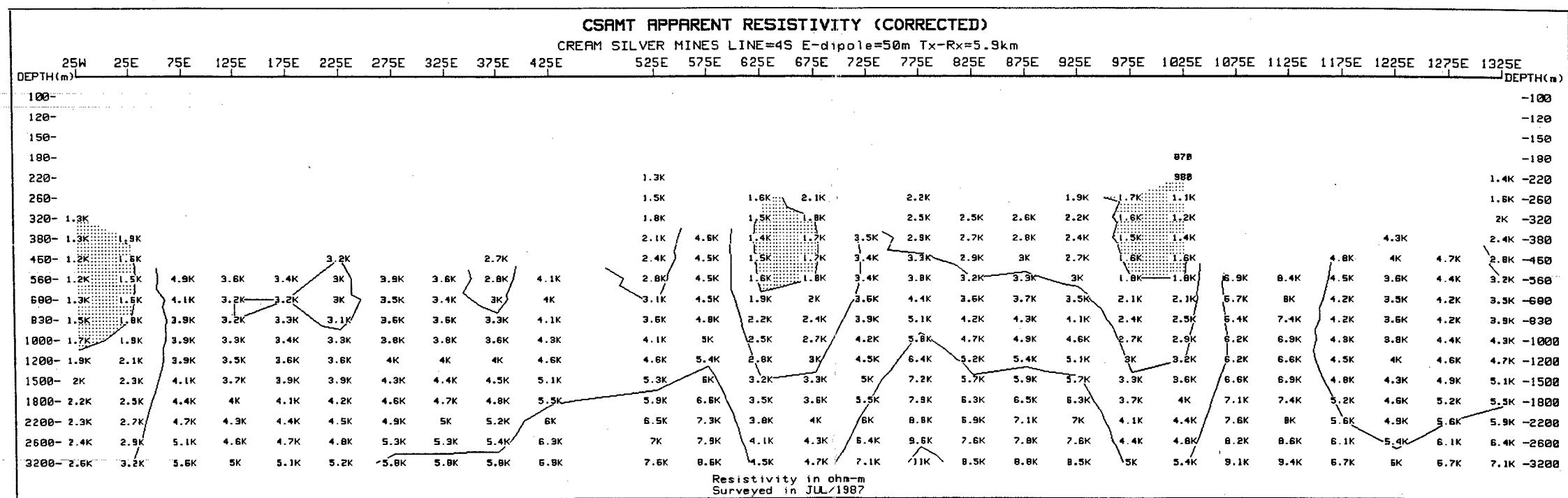












CSAMT APPARENT RESISTIVITY (CORRECTED)

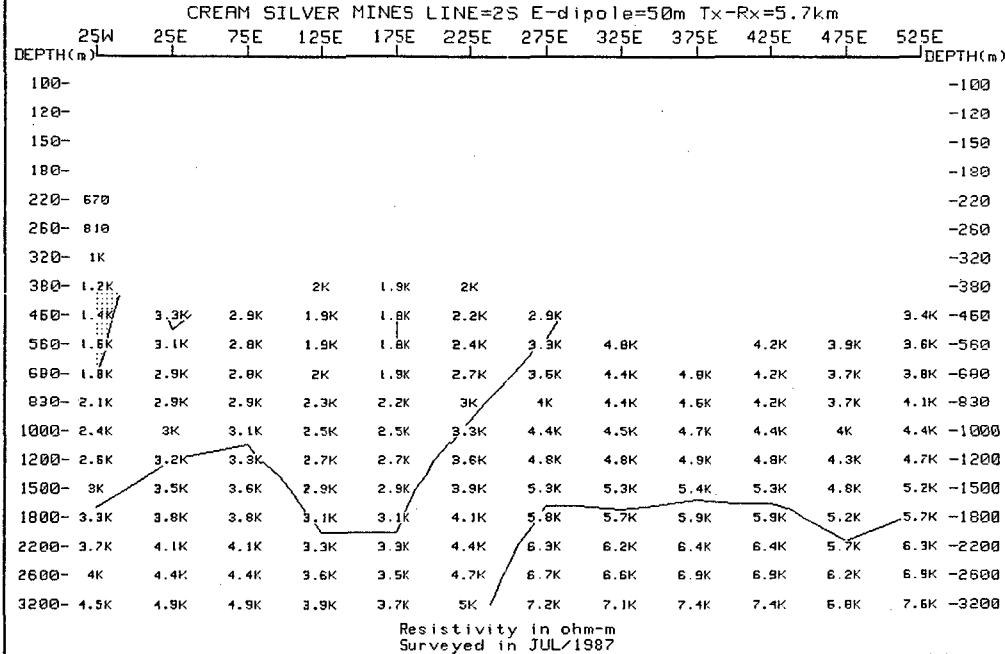
CREAM SILVER MINES LINE=3S E-dipole=50m Tx-Rx=5.8km

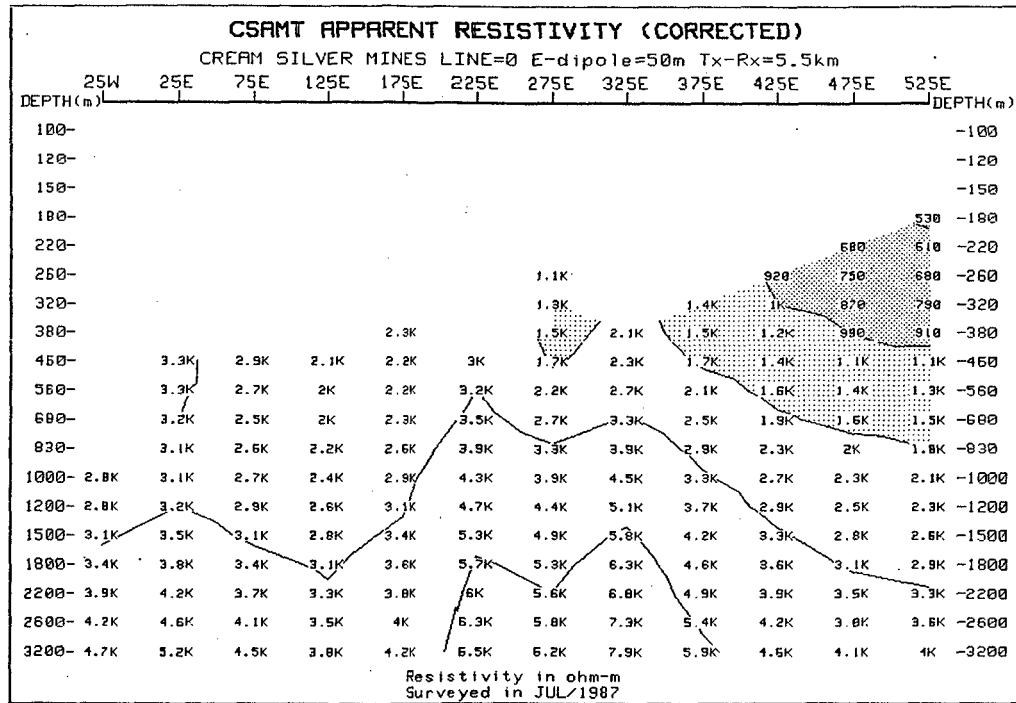
	125W	75W	25W	25E	75E	125E	175E	225E	275E	325E	375E	425E	DEPTH(m)
DEPTH(m)													DEPTH(m)
100-													-100
120-													-120
150-													-150
180-													-180
220-													-220
260-													-260
320-													-320
380-													-380
450-						2.5K	2.5K			3.2K			-450
550- 4.8K	4K	5.1K	3.4K	3.6K		2.4K	2.3K			3K	3.8K		-550
680- 4.3K	3.9K	4.6K	3.1K	3.4K		2.3K	2.2K		6.3K	5.8K	3K	3.9K	5.3K -680
830- 3.7K	3.6K	3.9K	2.9K	3.3K		2.5K	2.4K		6.3K	5.8K	3.1K	4K	5.2K -830
1000- 3.5K	3.5K	3.6K	3K	3.3K		2.7K	2.7K		5.9K	5.5K	3.3K	4.2K	5.1K -1000
1200- 3.5K	3.5K	3.6K	3.1K	3.5K		2.9K	2.8K		5.7K	5.5K	3.6K	4.4K	5.2K -1200
1500- 3.7K	3.8K	3.8K	3.4K	3.7K		3.1K	3.1K		5.9K	5.8K	4K	4.8K	5.8K -1500
1800- 4K	4.1K	4.1K	3.7K	4K		3.4K	3.4K		6.4K	6.2K	4.3K	5.2K	6.1K -1800
2200- 4.4K	4.5K	4.5K	4K	4.3K		3.5K	3.6K		6.8K	6.7K	4.7K	5.6K	6.7K -2200
2600- 4.7K	4.8K	4.7K	4.3K	4.5K		3.8K	3.9K		7.3K	7.2K	5K	6.1K	7.2K -2600
3200- 5.3K	5.3K	5.2K	4.7K	5K		4.1K	4.2K		7.9K	7.8K	5.5K	6.5K	7.9K -3200

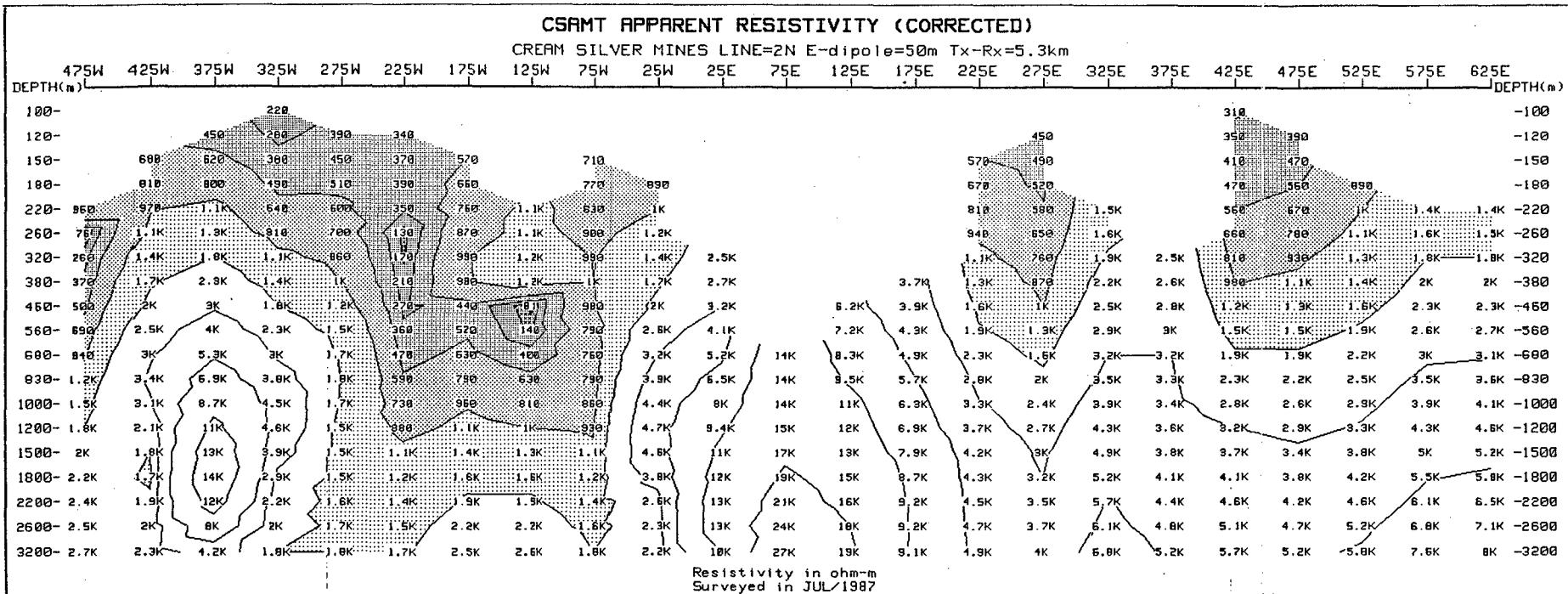
Resistivity in ohm-m
Surveyed in JULY 1987

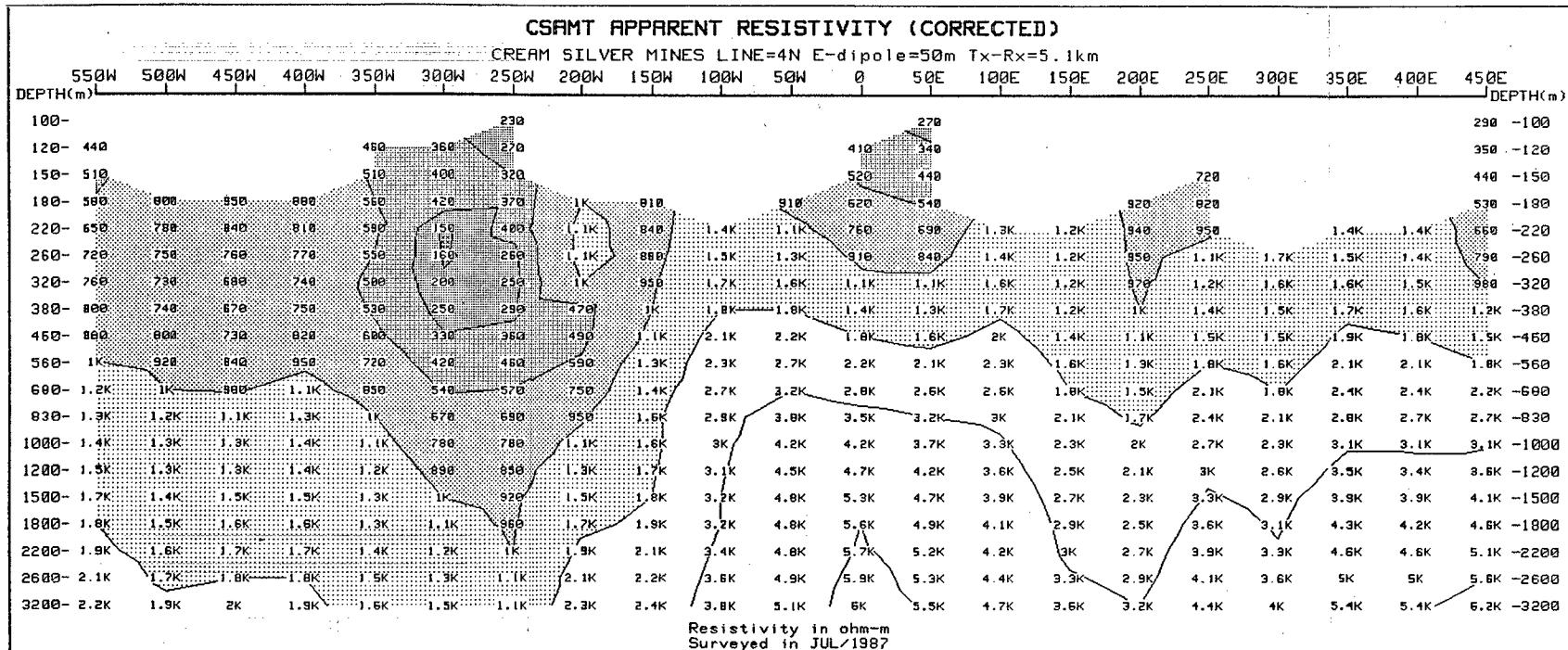
CSAMT APPARENT RESISTIVITY (CORRECTED)

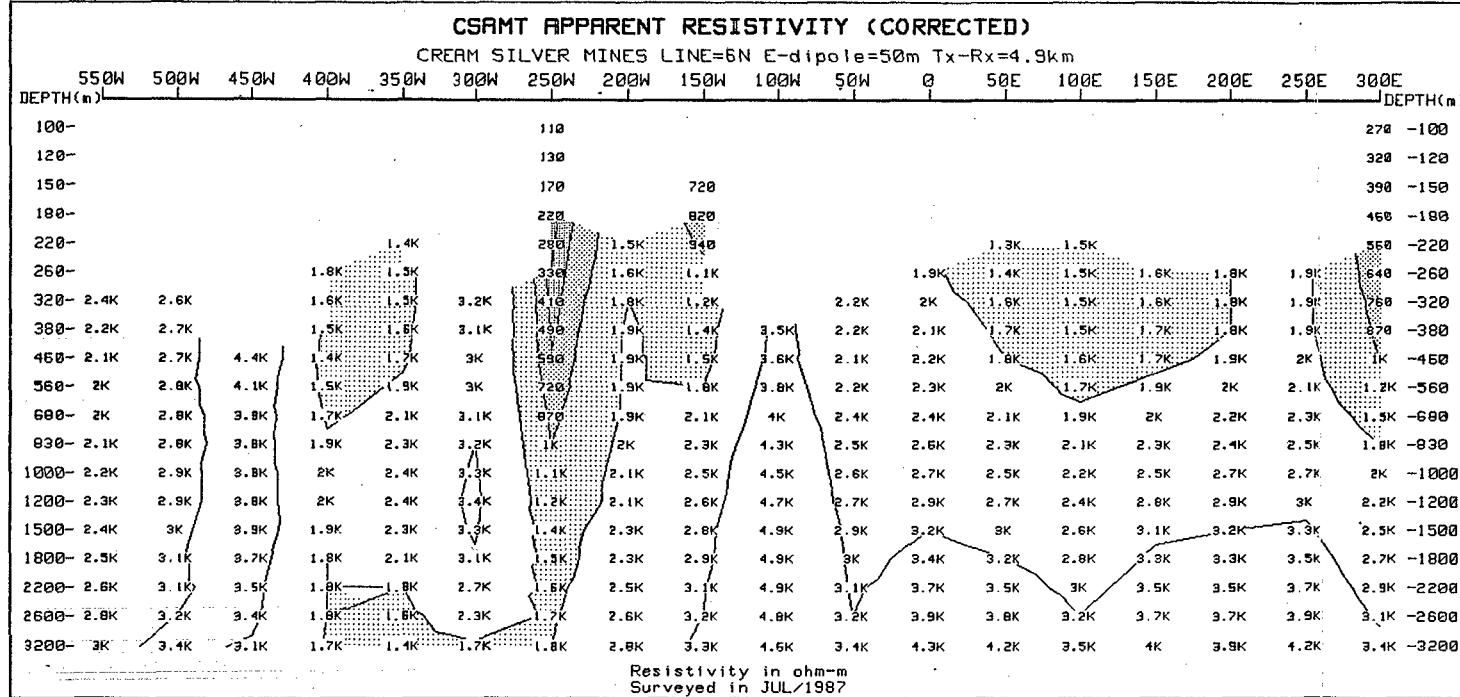
CREAM SILVER MINES LINE=2S E-dipole=50m Tx-Rx=5.7km





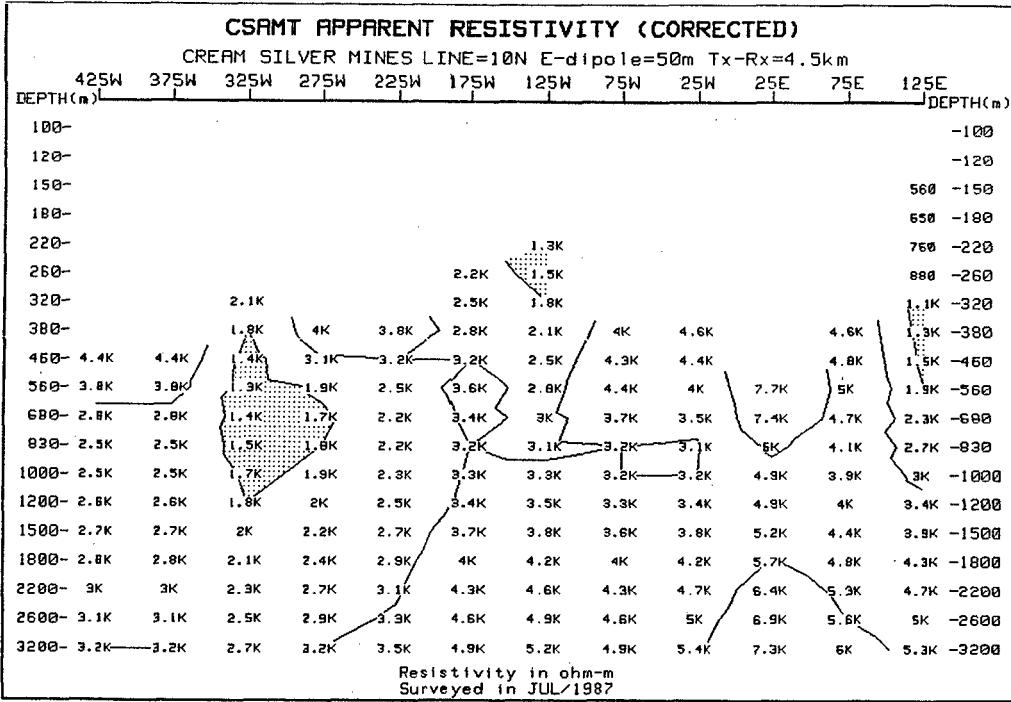






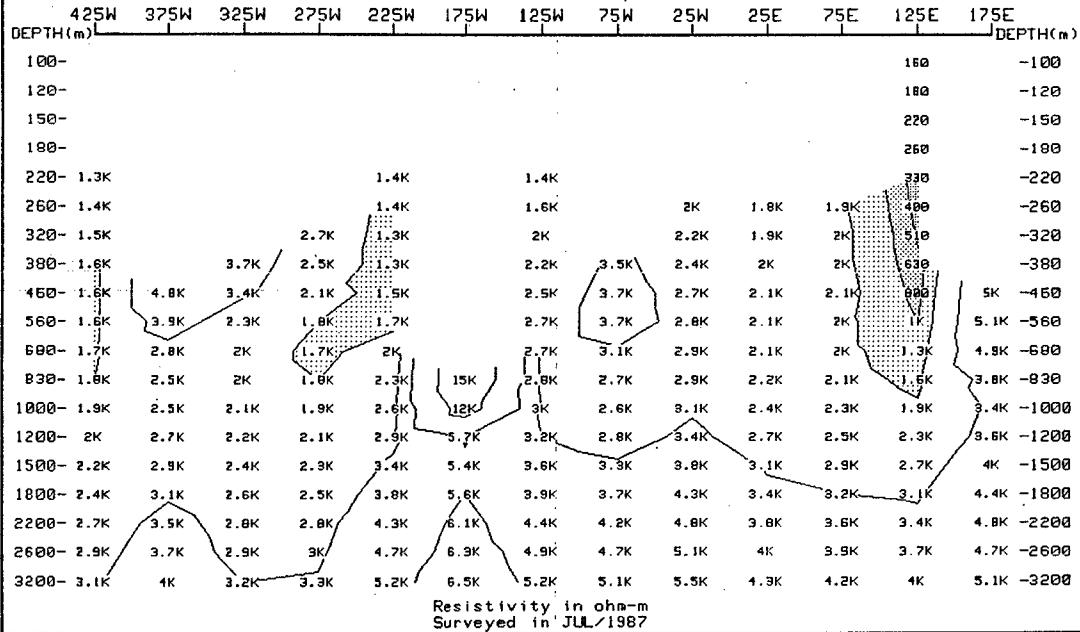
CSAMT APPARENT RESISTIVITY (CORRECTED)								
CREAM SILVER MINES LINE=8N E-dipole=50m Tx-Rx=4.7km								
225W	175W	125W	75W	25W	25E	75E	125E	DEPTH(m)
100-								140 -100
120-								160 -120
150-								200 -150
180-								240 -180
220-								310 -220
260- 1.7K								370 -260
320- 1.7K								470 -320
380- 1.7K	3.4K							570 -380
450- 1.6K	3K							620 -450
560- 1.6K	2.6K							910 -560
680- 1.7K	2.4K	9.8K	2K	1.6K	1.7K	2.5K	1.1K	-680
830- 1.8K	2.4K	6.1K	2.2K	1.8K	2K	2.6K	1.4K	-830
1000- 2K	2.5K	3.8K	2.4K	2K	2.2K	2.8K	1.8K	-1000
1200- 2.2K	2.7K	3.8K	2.6K	2.1K	2.4K	3K	1.8K	-1200
1500- 2.5K	3K	3.9K	2.9K	2.9K	2.5K	3.3K	2.1K	-1500
1800- 2.7K	3.2K	4K	3K	2.9K	2.6K	3.5K	2.3K	-1800
2200- 3K	3.5K	4K	3.2K	2.5K	2.7K	3.6K	2.5K	-2200
2600- 3.3K	3.7K	4K	3.4K	2.6K	2.8K	3.8K	2.7K	-2600
3200- 3.6K	4.1K	4K	3.6K	2.7K	2.9K	3.9K	2.8K	-3200

Resistivity in ohm-m
Surveyed in JUL/1987



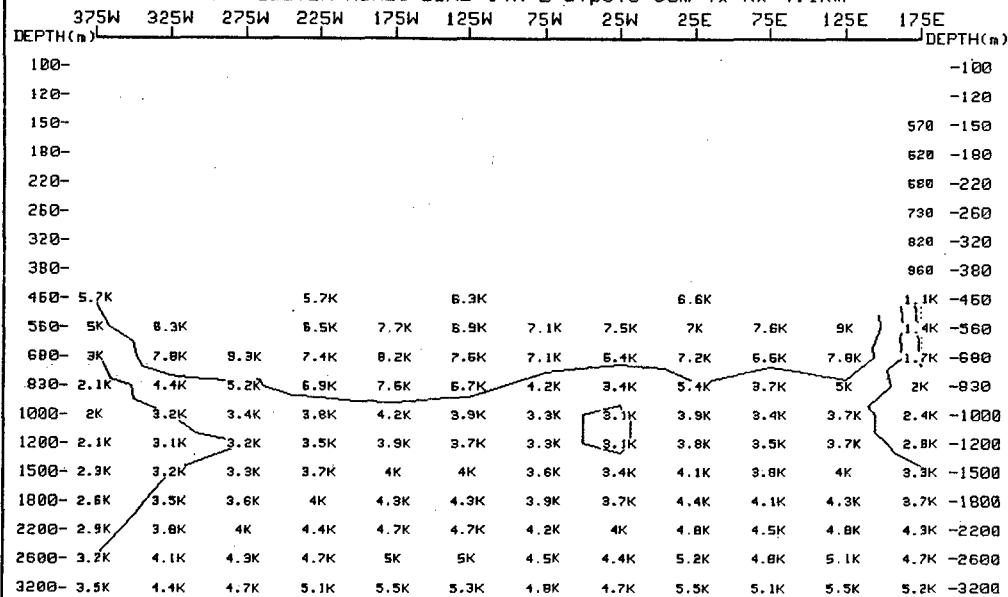
CSAMT APPARENT RESISTIVITY (CORRECTED)

CREAM SILVER MINES LINE=12N E-dipole=50m Tx-Rx=4.3km

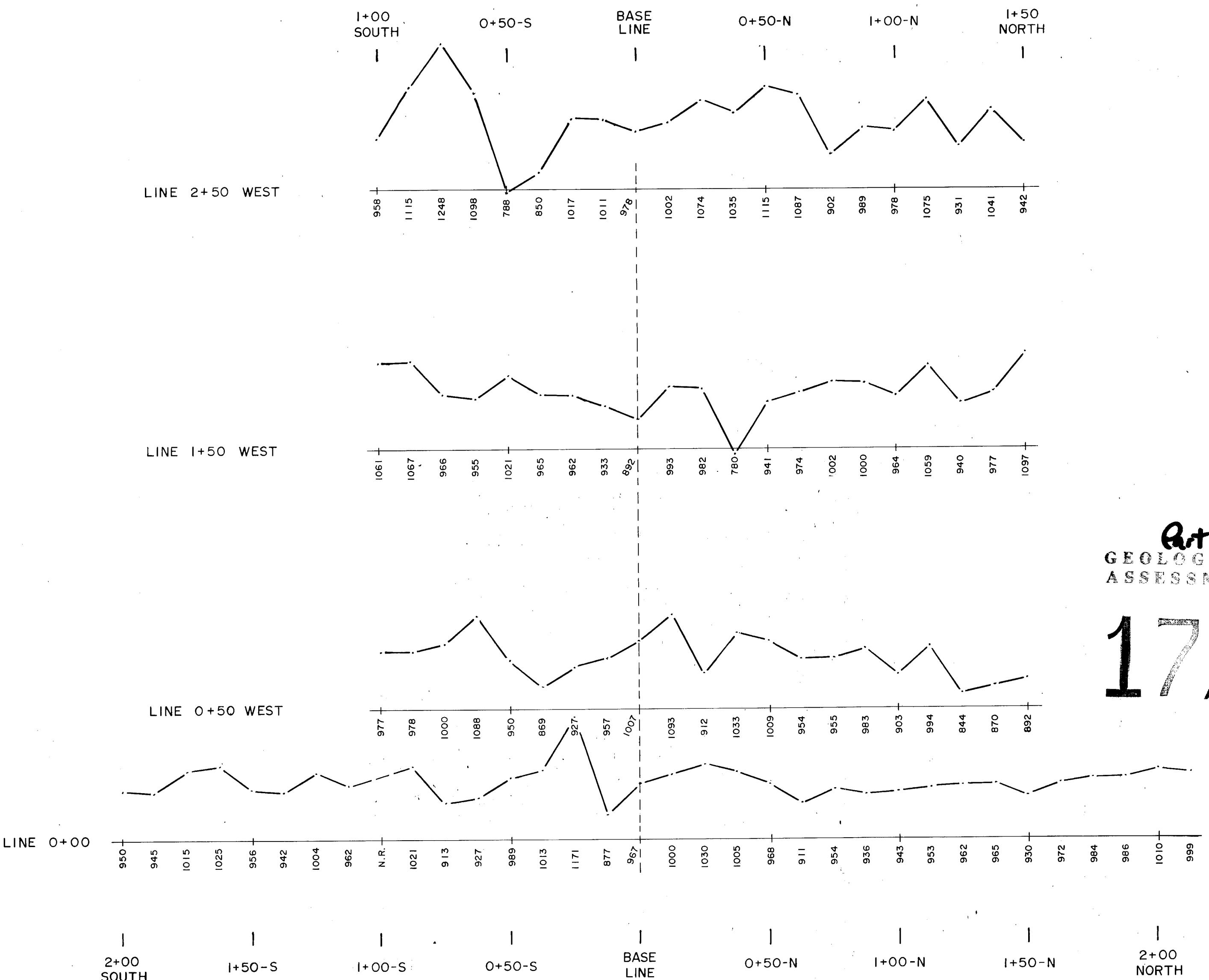


CSAMT APPARENT RESISTIVITY (CORRECTED)

CREAM SILVER MINES LINE=14N E-dipole=50m Tx-Rx=4.1km



Resistivity in ohm-m
Surveyed in JUL/1987



Part 3 of 3
GEOLOGICAL BRANCH
ASSESSMENT REPORT

17,003

0 25 100 m

ADDED 55,000 GAMMAS TO ALL READINGS

CREAM SILVER MINES LTD.
CREAM CLAIMS; BUTTLE LAKE AREA; NANAIMO M.D., B.C.

GRID #2
MAGNETOMETER SURVEY
PROFILES OF TOTAL FIELD INTENSITY
(IN GAMMAS)
SCALE 1:1,250
PETER E. WALCOTT & ASSOC. LTD.
JUNE - 1987
MAP No. W-411-3

I+00
SOUTH

0+50-S

BASE
LINE

0+50-N

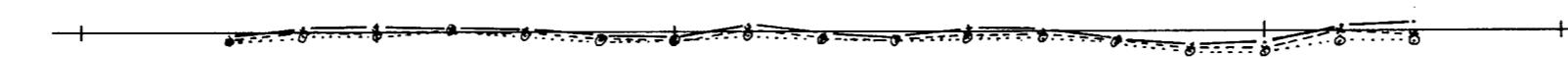
I+00-N

I+50
NORTH

LINE 2+50 WEST

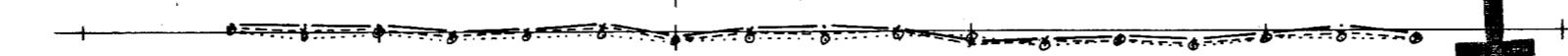


LINE 1+50 WEST



+20%
+10%
0%
-10%
-20%

LINE 0+50 WEST



LINE 0+00

2+00
SOUTH

I+50-S

I+00-S

0+50-S

BASE
LINE

0+50-N

I+00-N

I+50-N
2+00
NORTH

Part 3 of 3
GEOLOGICAL BRANCH
ASSESSMENT REPORT

RATIO 337 / 112

RATIO 1012 / 112

RATIO 3037 / 112

17,003

0 25 50 100 m

CREAM SILVER MINES LTD.

CREAM CLAIMS; BUTTLE LAKE AREA; NANAIMO M.D., B.C.

GRID #2

S.E. 88 GENIE SYSTEM

ELECTROMAGNETIC PROFILES

"a" = 100 METRES

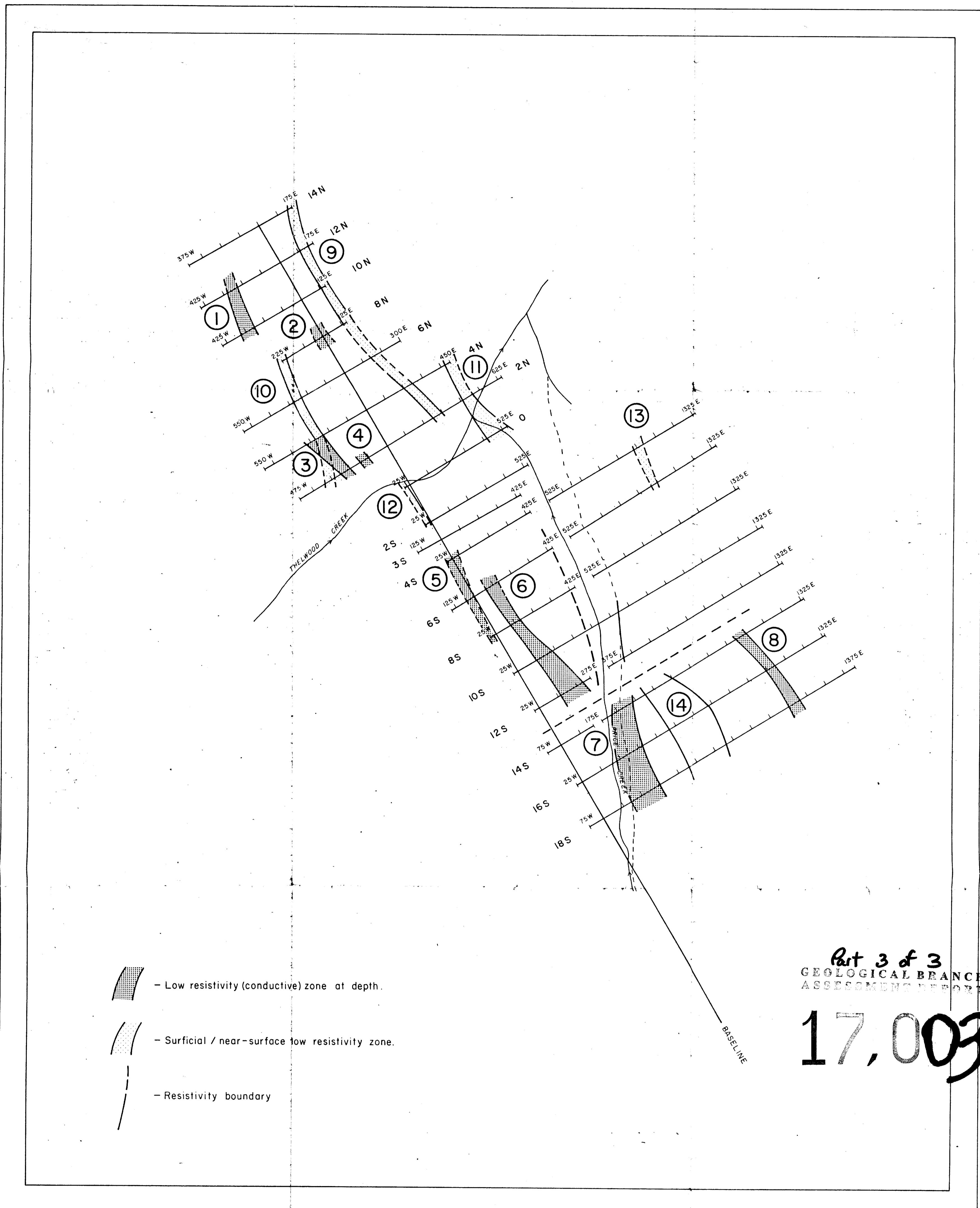
SCALE 1:1,250

PETER E. WALCOTT & ASSOC. LTD.

JUNE - 1987

MAP No. W-411-4

PHOENIX GEOPHYSICS LIMITED

CSAMT SURVEY
INTERPRETED PLAN MAP

PETER E. WALCOTT AND ASSOCIATES LTD.

CREAM SILVER MINES
BUTTLE LAKE, B.C.

SCALE

1:10000

0 100 200 M

DRAWN: R.C.N.

DATE: AUG. 1987

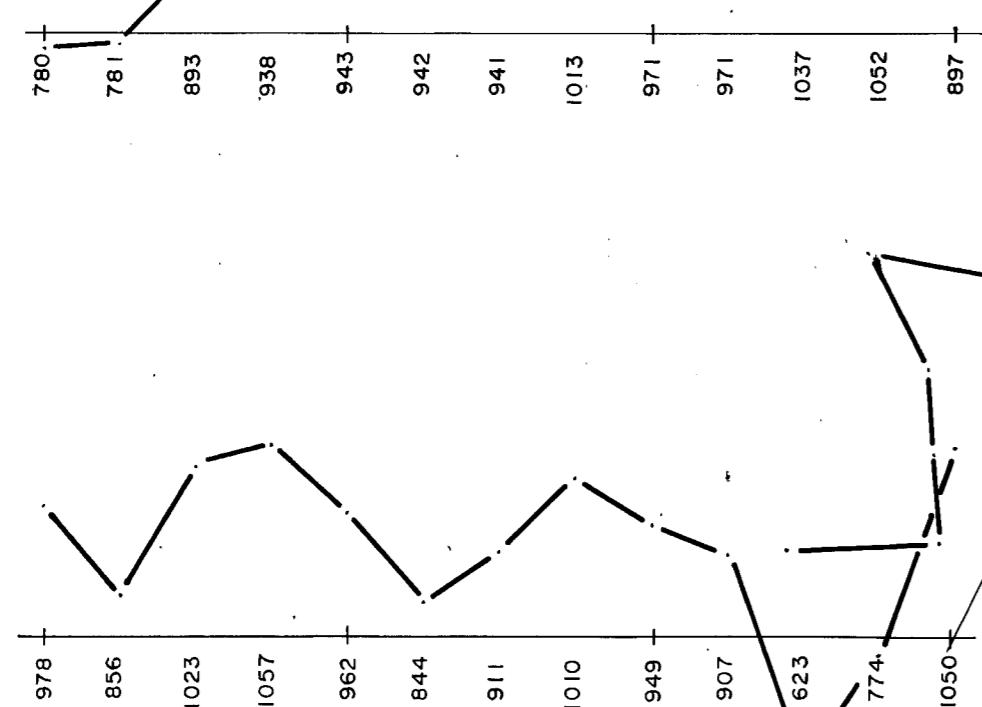
APPROVED:

[Signature]

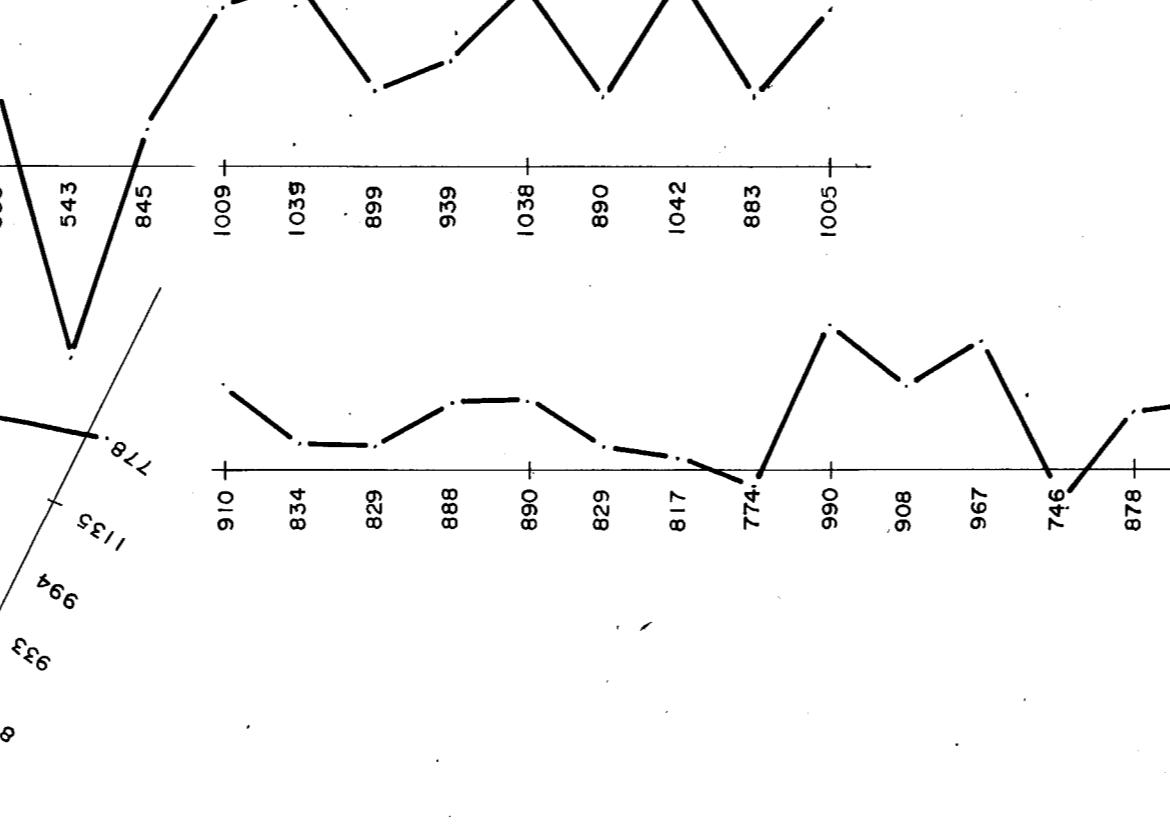
DATE:

Sep 8, 1987

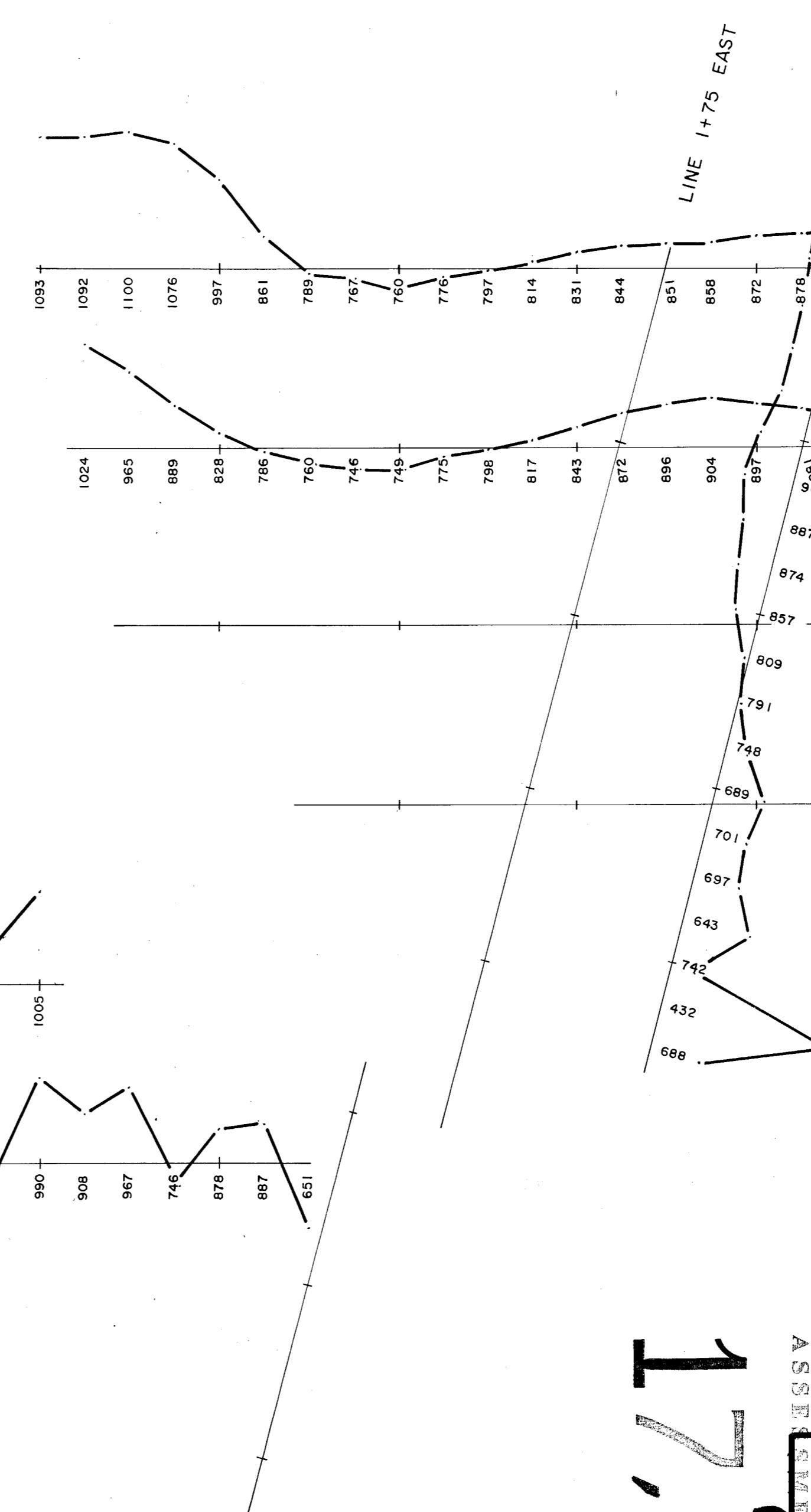
LINE 2+00 SOUTH



LINE 3+00 SOUTH



LINE 1+50 EAST



ADD 55,000 GAMMAS TO ALL READINGS

EAST
SOUTH
CROSS SECTION

CREAM SILVER MINES LTD.
CREAM CLAIMS; BUTTLE LAKE AREA; NANAIMO M.D., B.C.

GRID #1

MAGNETOMETER SURVEY

PROFILES OF TOTAL FIELD INTENSITY
(IN GAMMAS)

SCALE 1:1,250

PETER E. WALCOTT & ASSOC. LTD.
JUNE - 1987

LINE 2+25 EAST

CREEK
PRICE

LINE 0+00

LINE 0+50 SOUTH

LINE 1+00 SOUTH

LINE 1+50 SOUTH

0 25 100 m

