

BACA PROJECT

DATA AND REPORTSGEOLOGY

<u>No.</u>	<u>Transfer Date</u>	<u>Release Date</u>	<u>Title</u>
1.	B	B	Hydrothermal Geology of the Valles Caldera, New Mexico by R.F. Dondanville - 1971.
2.	B	B	Airborne Infrared Geothermal Exploration-- Valles Caldera, New Mexico Earth Resources Operations, North American Rockwell Corp.-1972.
3.	B	B	Electrical Resistivity Survey in Valles Caldera, New Mexico by Group Seven, Inc. - 1972.
4.	B	B	Additional Data--Electrical Resistivity Survey in the Valles Caldera, New Mexico by Group Seven, Inc. - 1972.
5.	B	B	Reconnaissance Resistivity Survey Baca Property, McPhar - 1973.
6.	B	B	Supplemental Report--Reconnaissance Resistivity and Schlumberger Depth Sounding Surveys Baca Property - McPhar - 1973.
7.	B	B	Quantitative Gravity Interpretation Valles Caldera Area, New Mexico by R.L. Segar - 1974.
8.	B	B	Mercury Soil Gas Survey Baca Prospect by Allied Geophysics Inc. - 1974.
9.	A	A	Mercury analysis - 1974 gradient holes.
10.	B	B	Geothermal Geology of the Redondo Creek Area Baca Location by T.R. Slodowski - 1976.
11.	B	B	Magnetotelluric--Telluric Profile Survey, Valles Caldera Prospect by Geonomics - 1976.
12.	B	B	Geological Resume of the Valles Caldera by T.R. Slodowski - 1977.



Final Report

DECEMBER 10, 1972

ADDITIONAL ELECTRICAL GEOPHYSICAL
SURVEYS OF THE VALLES CALDERA AREA,
SANDOVAL COUNTY, NEW MEXICO

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for:

UNION OIL COMPANY OF CALIFORNIA

GROUP SEVEN

ADDITIONAL ELECTRICAL GEOPHYSICAL SURVEYS OF
THE VALLES CALDERA AREA, SANDOVAL COUNTY, NEW MEXICO

ABSTRACT

Group Seven, Incorporated has extended the resistivity surveys originally carried out in the Valles Caldera area of Sandoval County, New Mexico by using one additional source to make both dipole mapping measurements and electromagnetic soundings. These measurements were concentrated along a profile extending up Redondo Creek and into the headwaters of Jaramillo Creek. The patterns of high and low resistivity seen with this survey do not differ essentially from those seen earlier. There is a small area of moderately low resistivity at the head of Redondo Creek, apparently associated with the outcrop of thermal waters. Two major boundaries in electrical structure were recognized. One lies along Jaramillo Creek, separating an area of high resistivity south of Jaramillo Creek from more conductive rocks to the north. The second boundary trends northwest-southeast at the southwest end of Redondo Creek, and bounds an area with high conductance to the southwest. Along Redondo Creek, resistivities are moderate, and sounding data indicates the presence of a surface layer with a resistivity of 40 to 60 ohm-meters almost a kilometer thick resting on more resistant rocks at depth.

ADDITIONAL ELECTRICAL GEOPHYSICAL SURVEYS OF
THE VALLES CALDERA AREA, SANDOVAL COUNTY, NEW MEXICO

INTRODUCTION

Group Seven, Inc. has carried out additional electrical resistivity surveys in the Valles Caldera area of North Central New Mexico, to further detail an area studied earlier during May and June, 1972. Both surveys were carried out on behalf of the Union Oil Company of California. Field operations covered the first two weeks of October, 1972.

The Valles Caldera prospect occupies an area some 12 miles square in Sandoval county, New Mexico, west of the town of Los Alamos. The area in which the present survey was carried out lies within the limits of four U. S. Geological Survey 7-1/2 minute topographic quadrangle maps; these are the Bland, Valle Toledo, Redondo Peak and Valle San Antonio quadrangles. The results of the current surveys are presented on a basemap at a scale of 1:24000 prepared from these quadrangle maps. Results of the earlier surveys were presented on base maps at the same scale prepared from the 1:62500 scale quadrangles of the same area, the Jemez Springs and Frijoles quadrangles.

The resistivity surveys carried out by Group Seven, Incorporated, during May and June of 1972 delineated an area of moderately low resistivity generally west of Sulfur Creek, along the western edge of the prospect. This trend of low resistivity ran southwestward from Valle Seco, through Mushroom Basin, to the vicinity of Horseshoe Spring. The survey indicated only very limited areas of moderate resistivity along Redondo Creek, where both early and recent drilling has produced geothermal fluids. The additional electrical surveys described in this report were carried out to clarify the possible association of the producing wells with a geothermal reservoir.

The surveys to be described in this report differ to some extent from the surveys described in the earlier report. In the present work, a dipole source with much greater moment than was used in the initial survey was provided. An intense source permits measurements to be made at greater distances, or conversely, permits the source to be located at greater distance from the target area. When this is done, the patterns of apparent resistivity become simpler and more closely related to local changes in resistivity than is the case when the source

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is close to the target. At large distances, the proportional change in distance over the area of the target is small, making the normal change in electric field behavior small. Also, at large distances, the current field from a dipole source has a better chance of spreading uniformly over the conductive part of the section, and there is less chance of complications in behavior arising from varying depths of penetration of the current.

A second feature of the current survey was a greater emphasis on electromagnetic sounding. Electromagnetic sounding has several advantages over dipole mapping, despite the fact that reduction of electromagnetic sounding data is considerably more complicated than reduction of dipole mapping data. One advantage is that electromagnetic sounding permits determination of the way in which resistivity varies with depth at a receiver station, while the apparent resistivity recorder in dipole mapping contains no such information. A second advantage is that electromagnetic sounding permits detection of conductive zones lying beneath resistive rock, while dipole mapping may not be able to do this.

For the surveys described in this report, a single dipole source, source 8, was used, located in Valle Grande, near the Ranch headquarters. Most of the measurements, both dipole mapping and electromagnetic sounding, were made along a traverse extending up Redondo Creek and into the headwaters of Jaramillo Creek. Some measurements were also made to the north and west of this traverse, and three electromagnetic soundings were made to the southeast of the source, along the edge of Valle Grande.

The dipole mapping measurements are described in the following section, the electromagnetic soundings in the third section section, and the implications that may be drawn from the studies in the final section of this report.

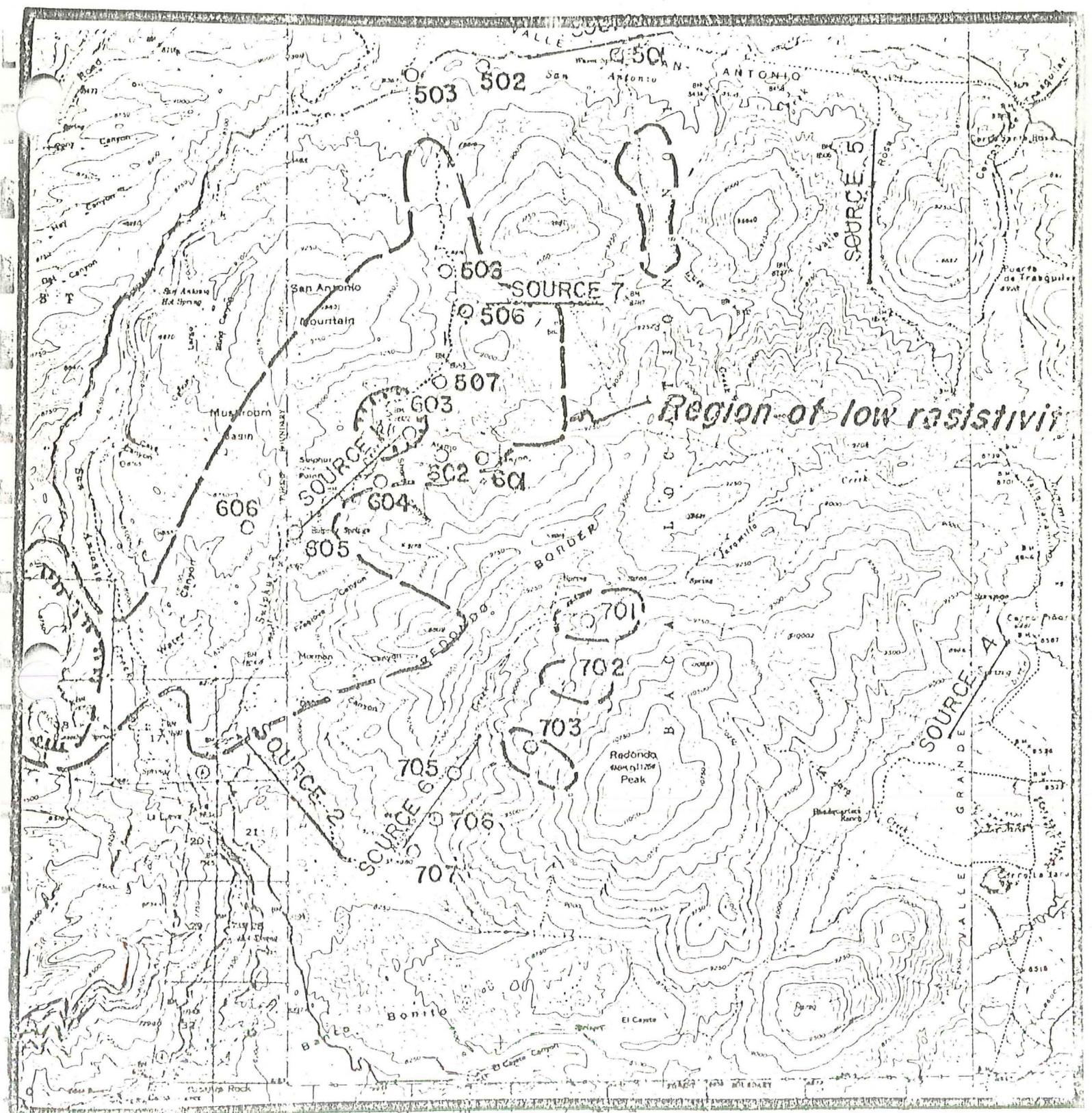


Figure 1. Map of the southwestern part of the Valles Caldera showing area of relatively low resistivity mapped in earlier surveys.

DIPOLE MAPPING SURVEY

In a dipole mapping survey, an electric field is developed in the earth by passing current between electrode contacts sited in the general vicinity of the target area. As the current flows through the ground from this dipole source, the flow pattern will be governed in detail by variations in the resistivity of the earth to a depth comparable to the offset distance at which measurements are being made, or to resistant basement, whichever depth is less. The general scheme of a dipole mapping survey is shown in Figure 2. For the survey carried out in October at the Valles Caldera prospect, a dipole length of 4290 meters was used, with current amplitudes of 30 to 36 amperes being driven into the ground. Power was provided by a 45 KVA motor generator set. The 235-volt three-phase 60 Hz output of the generator was stepped up to 880 volts with a transformer, rectified to form direct current and alternately switched to flow first one way and then the other in the cable connecting the power supply to the electrode contacts. The period of reversal of the current flow was set at 24 seconds, so that the frequencies contained in the waveform of the current would be sufficiently low to avoid problems with electromagnetic attenuation. Also, the current waveform was asymmetrical, with the duration of current flow in one direction being about 40 percent greater than the duration in the other; this provided a means for assigning a polarity to the voltage detected at the receiving sites. The amplitude of the current steps was monitored visually with an indicating meter.

The current field from the source dipole was mapped by measuring voltages between electrode pairs at many points about the source dipole. Because the direction of current flow at a receiver station is quite unpredictable, the total voltage drop must be determined by making measurements with two electrode pairs oriented at right angles to one another and adding the voltages vectorially. The electric field is then assumed to be the ratio of voltage drop to the separation between the receiving electrodes. Measurements were made with receiving electrode separations of 30 or 100 meters, with the longer separations being used in areas where the signal strength was low. The receiver consisted of a sensitive preamplifier and battery operated recorder. Recorded deflections as small as 1 microvolt could be recognized, but readings of less than 20 microvolts are not considered to be reliable data.

The primary data obtained using dipole 8 at the Valles Caldera are listed in Appendix I, along with computed values

for apparent resistivity and apparent conductance. Apparent resistivity is computed using the formula

$$\rho_a = \frac{2\pi R_1^2}{[1 + (R_1/R_2)^2 - 2(R_1/R_2)\cos\delta_2^{1/2}]} \frac{E_T}{I}$$

under the assumption that the earth is completely uniform. Apparent conductance is computed using the formula

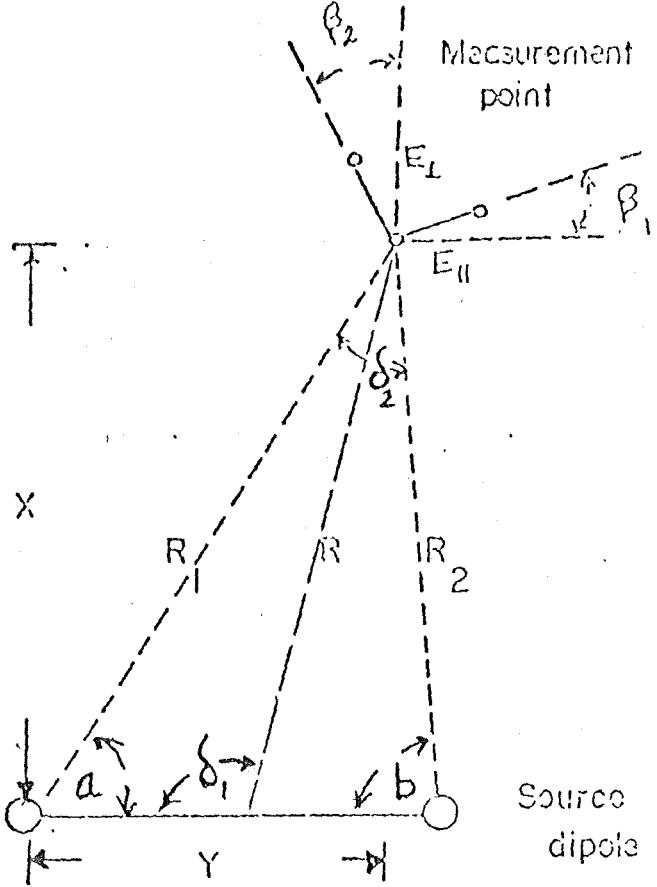
$$S_a = \frac{[1 + (R_1/R_2)^2 - 2(R_1/R_2)\cos\delta_2^{1/2}]}{2\pi R_1^2} \frac{I}{E_T}$$

in which the earth is modelled as a thin conducting sheet resting on an insulating substratum. In these formulas, R_1 and R_2 are the distances from the receiving station to the two ends of the source dipole, I is the amplitude of the current steps driven through the source dipole, E_T is the magnitude of the electric field vector at the receiving station, and the angle δ_2 is as shown in Figure 2.

When measurements are made at distances from the dipole source greater than the depth to basement, values of apparent conductance are a more meaningful representation of the behavior of the electric field than are values of apparent resistivity. Apparent resistivity values should show a pronounced tendency to increase linearly with distance, at distances greater than the depth to insulating basement, and this behavior may mask local patterns in resistivity which are of interest. Inasmuch as most of the electric field measurements were made at distances of 5 to 10 kilometers from source 8, which is greater than the probable depth to basement, only the apparent conductance values have been used to prepare an iso-conductance map (Plate 1).

The patterns of high and low conductance values shown on Plate 1 differ only in minor ways from patterns developed during the earlier surveys. The larger area of coverage from a single dipole source and the relatively close interval between stations in the headwaters of Redondo Creek provide somewhat better definition of the contours than was obtained in the earlier survey. The principal features of the iso-conductance map are as follows:

1. There is a local area of moderately high conductance values along the headwaters of Redondo Creek, with values between 100 and 200 mhos. The relatively sharp boundaries to this zone suggest that the low resistivity material occurs quite near the surface. If the conductive zone had considerable vertical extent, one might expect the effect to be seen at greater distances from the edges. This area of high conductance values may be connected with the more extensive area



PARALLEL

$$\rho_a = \frac{2\pi}{\left(\frac{\cos a}{R_1^2} + \frac{\cos b}{R_2^2} \right)} \frac{E_{\parallel}}{I}$$

PERPENDICULAR

$$\rho_a = \frac{2\pi}{\left(\frac{\sin a}{R_1^2} - \frac{\sin b}{R_2^2} \right)} \frac{E_{\perp}}{I}$$

TOTAL-FIELD

$$\rho_a = \frac{2\pi R_1^2}{[1 + (R_1/R_2)^2 - 2(R_1/R_2)^2 \cos \delta_2]^{1/2}} \frac{E_T}{I}$$

CONDUCTANCE

$$S_a = \frac{[1 + (R_1/R_2)^2 - 2(R_1/R_2) \cos \delta_2]^{1/2}}{2\pi R_1^2} \frac{I}{E_T}$$

Figure 2. Layout of electrodes for a dipole mapping survey and formulas used in computing apparent resistivity.

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of high values extending westward along Valle Seco and into the Sulfur Creek area.

2. The highest values of conductance were measured at the southwest end of Redondo Creek. This was also noted on the earlier surveys, where values as great as 1000 mhos and more were mapped a few miles further to the southwest. Within the area of the present survey, the highest values recorded were slightly over 300 mhos.

3. Very low conductance values were again observed over the central part of the Redondo Border and along Jaramillo Creek. These low values appear to be sharply bounded by an east-west line. Generally, conductance values of less than 50 mhos were observed in these areas.

A histogram giving the distribution of conductance values is shown in Figure 3. The distribution is not particularly log normal, as is expected when a single type of rock is involved in a survey area. The number of measurements made in this survey is too small to allow the resolution of the various parts of this distribution, but one might infer that the median conductances associated with the areas listed above are in the neighborhood of 140 mhos, for the area at the headwaters of Redondo Creek, and 35 mhos for the low conductance areas along Redondo Border and Jaramillo Creek.

A plot of the apparent resistivity values as a function of the distance from the source is shown in Figure 4. As with the earlier surveys, there is very wide scatter to values measured at similar distances from the source, reflecting the high degree of variability of the properties of the conductive surface rocks. The upper limit of the data indicates the presence of a surface layer with a resistivity of 60 to 70 ohm-meters, and a thickness of 1.5 to 1.7 kilometers. It should be noted that the points which define the upper limit of the data were recorded near the source and in the vicinity of Jaramillo Creek; therefore, the interpretation is probably representative only of this area.

The data forming the low side of the scatter plot in Figure 4 do not show a tendency to flatten out to a recognizable value for the first-layer resistivity. This merely indicates that the conductive areas are far removed from the source, being located at the south end of Redondo Creek and in Valle Seco. The earlier surveys indicated that the resistivity of the surface layer in these areas was probably 10 to 20 ohm-meters. The corresponding depths to basement indicated by the lower limit of the conductance data would be 2 to 4 kilometers, for these assumed surficial resistivities.

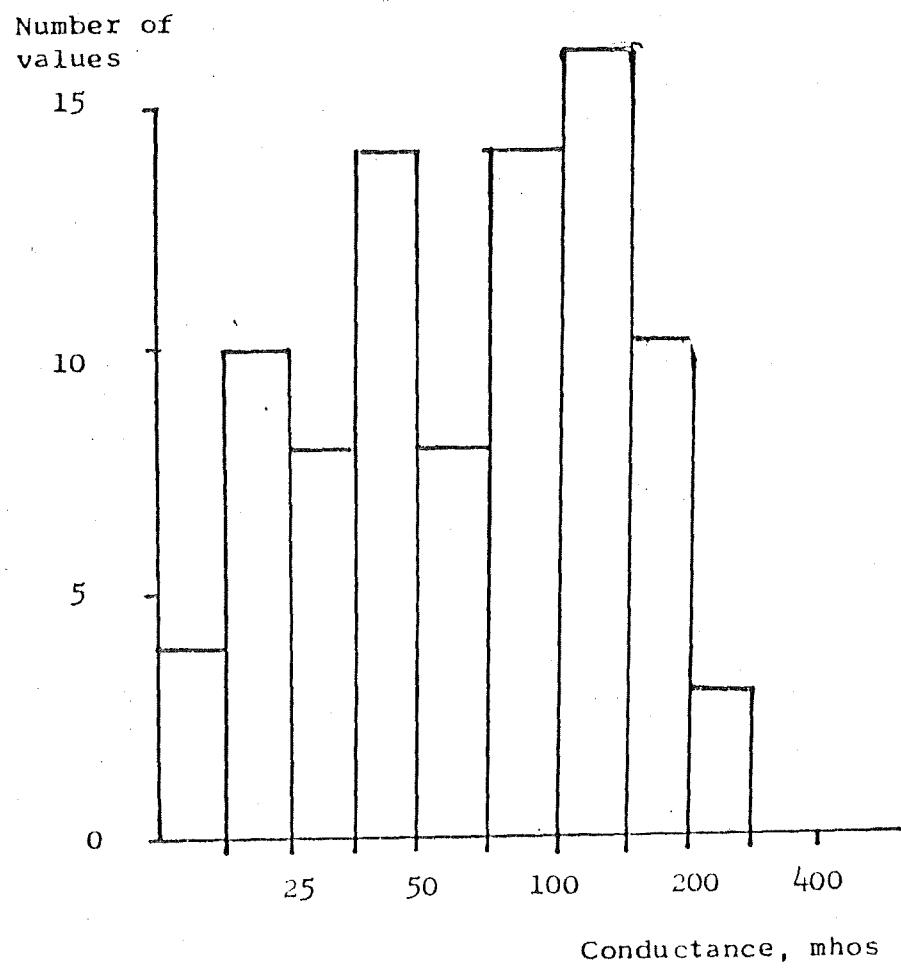


Figure 3. Histogram showing the distribution of conductance values measured about source 8.

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Apparent resistivity,
ohm-meters

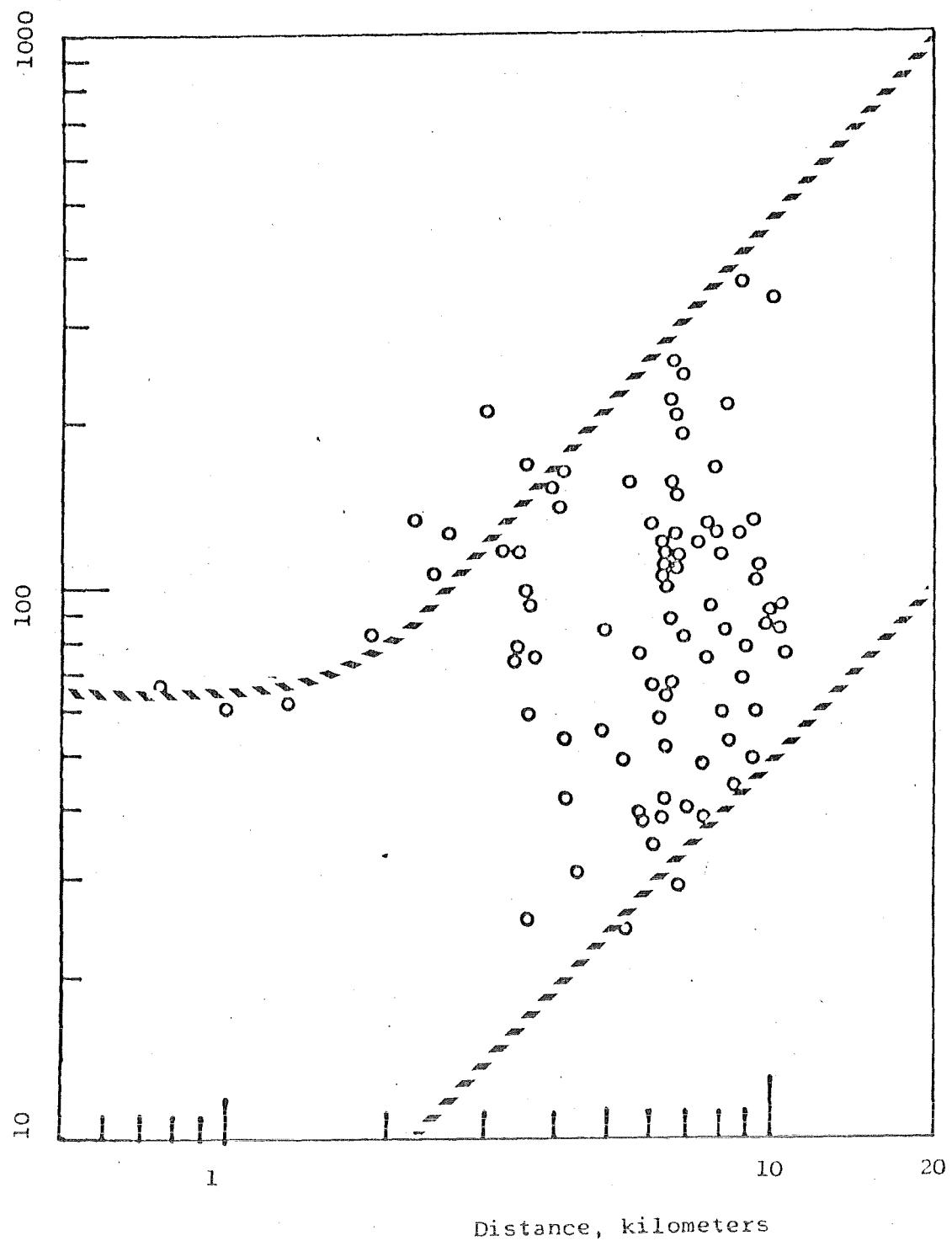


Figure 4. Apparent resistivities measured from dipole source 8, as a function of the distance to the near end of the source.

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ELECTROMAGNETIC SOUNDINGS

In addition to the dipole mapping survey described in the preceeding section, a total of 54 time-domain electromagnetic soundings were carried out, primarily along a traverse extending up Redondo Creek and into the Jaramillo Creek valley. The purpose of the electromagnetic soundings was to provide an independent survey of resistivity patterns in the Redondo Creek area and to provide information about the variation of resistivity with depth that is not obtainable from dipole mapping surveys.

In the time-domain electromagnetic sounding method, an electromagnetic field is generated by passing a step-wave of current through a grounded length of wire. The magnetic field from this current is detected at the receiver site with a multi-turn loop of wire laid on the ground. The voltage induced in this loop of wire by the electromagnetic field incident at a receiver site was recorded on an analog recorder.

The same source wire was used for both the dipole mapping survey and the electromagnetic soundings. The induction loops used for receivers consisted of 24 or 42 conductor cables, either 1000 or 1240 feet long, laid on the ground in the form of a square and connected so that the conductors were in series to form one continuous loop. The voltage generated in such a loop were filtered to attenuate frequencies above 25 Hertz, and then recorded on an analog oscilloscope.

Processing of the recorded data to remove noise and distortion for the recording equipment and to convert the obsered voltages to apparent resistivity consisted of the following steps:

1. Synchronous stacking to reduce the level of uncorrelated noise;
2. Deconvolution, to minimize the effect of distortion in the recording equipment;
3. Smoothing with an exponentially time-varying filter, to further reduce uncorrelated noise; and
4. conversion to values of apparent resistivity, for comparison with theoretical models.

In performing the deconvolution, the transfer function of the recording system was computed from a record of the response to a step input voltage. The Fourier transform of each data set was computed and divided by the step-response spectrum. The resulting compensated spectrum was then transformed back to the time domain.

The non-linear filter applied to the data was based on a shape-invariant characteristic of transient electromagnetic sounding curves when they are plotted to logarithmic coordinates. When linearly sampled field data are plotted to logarithmic coordinates, the early part of a signal appears to be sparsely sampled while the late part appears to be densely sampled. The common component of noise has a half-period equal to the distance between two successive data points, so the noise appears to increase in frequency for progressively later parts of the signal, when the data are presented in a logarithmic form. Moreover, the signal to noise ratio is higher in the early part of the signal than in the later part. This variation in signal to noise ratio as the apparent frequency varies provides a basis for separating the signal from noise during the late part of the signal without undoing the effect of deconvolution on the early part. This is accomplished by applying a linear smoothing filter in the logarithmic domain, which is equivalent to applying a logarithmically time-compressed filter in the original linear-time domain.

Conversion to apparent resistivity: The final step in data reduction was the conversion of the measured voltages to values of apparent resistivity. Because there is no unique relationship between observed voltage and apparent resistivity for induction-field electromagnetic soundings, a value for apparent resistivity can be computed only by assuming some asymptotic condition. An expression given by Vanyan (1967), valid only for the early part of a signal, was used in converted the observed signals to early-time apparent resistivity curves. This expression is:

$$\rho_a = \frac{2\pi R^4}{3AM \cos \theta} V(t)$$

where M is the moment of the source (product of current and wire length), A is the area of the receiving loop, θ is the angle between the equatorial axis of the source line and the radius vector from the middle of the source line to the receiving station, R is the distance between the center of the source wire and the center of the receiver loop, and V(t) is the recorded voltage as a function of time, t.

The initial data reduction described above is intended primarily to convert the observed data to a standardized form for interpretation. Two approaches to the interpretation of these data in terms of geological features will be described here, the first being an empirical approach designed to point out anomalous areas, and the second a quantitative approach. Inasmuch as quantitative interpretation of electromagnetic soundings is a relatively recent development, such interpretations are subject to an indeterminant amount of personal bias, whereas, the qualitative interpretation procedures should be free of such bias.

The approach to qualitative interpretation used here consisted of picking characteristic points from the electromagnetic sounding curves, and using these to prepare contour maps (Plates 2-4). The characteristic points used are indicated on Figure 5, and are as follows:

1. The initial resistivity, recorded at the shortest time interval following the beginning of the transient coupling that can be resolved. This value should be closely associated with the average resistivity of the conductive surface layer.

2. The peak resistivity. Almost all of the recorded curves (plots are shown in Appendix II) show a rise in resistivity to a maximum, and then decreasing apparent resistivity. Consideration of theoretical curves which have been computed for the case of a thin conducting layer resting on a uniform substratum shows that the height of this maximum above the initial value increases in proportion to the ratio R/h , where R is the distance from the source and h is the thickness of the surface layer. This dependence was removed from the plotted values simply by plotting the quantity:

$$\frac{0.4 R}{\rho_{\max}}$$

where ρ_{\max} is the apparent resistivity value at the maximum on the electromagnetic sounding curve. The factor 0.4 is used, because according to the theoretical models, if the substratum is a perfect insulator, and if the earth is ideally layered, this product would be equal to the conductance, h_1/ρ_1 , of the surface layer. For lesser contrasts in resistivity, this value will differ from the actual conductance of the surface layer by factors as great as 2.

3. The time at which the electromagnetic sounding curve has dropped to one-half its initial value, normalized by the factor

$$4\pi R^2/\rho_1$$

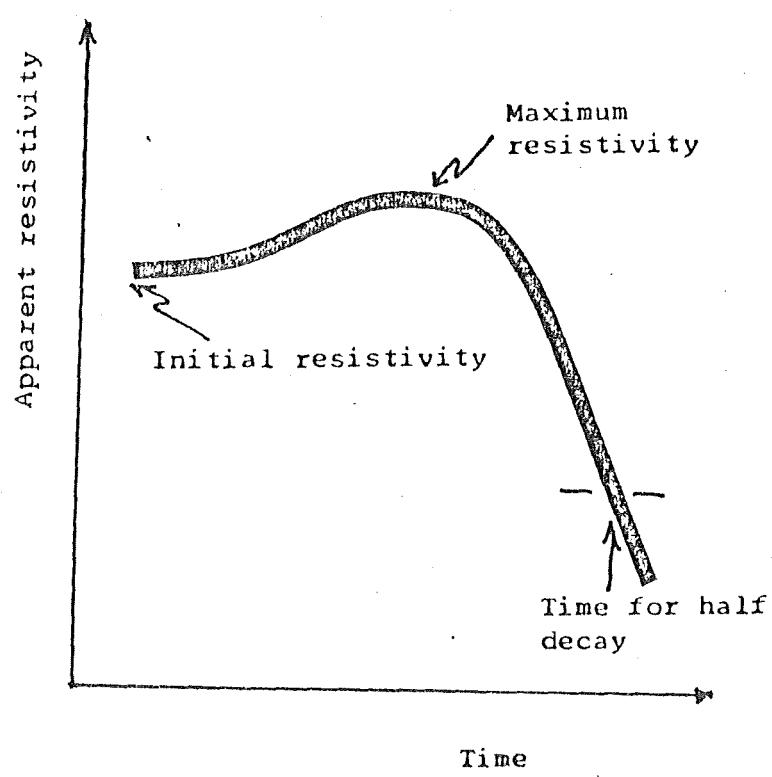


Figure 5. Sketch of a time-domain apparent resistivity curve showing the diagnostic points used in preparing plates 2-4.

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where ρ_0 is the initial resistivity on the sounding curve. For a uniform earth, this value should be 0.23. If resistivity increases with depth, this factor does not change greatly from the value .23, but if resistivity decreases with depth, this value may decrease markedly. Therefore, this quantity provides a measure of the type of resistivity distribution being mapped. This relationship is shown on Figure 6.

The three maps present much the same picture of resistivity distributions as did the electric-field dipole map in Plate 1. There is a small, sharply bounded area at the head of Redondo Creek with anomalously low resistivities, and larger areas of low resistivity at the southwest end of Redondo Creek and in Valle Seco. In the high resistivity areas, the initial resistivity values are in the range 60 to 100 ohm-meters, as also was indicated by the dipole mapping data. In the anomalous areas, the initial resistivities are 20 ohm-meters or less. All data appear to indicate a relatively thin conductive surface layer with high resistivity at depth.

Quantitative interpretation was done by comparing the plotted electromagnetic curves with an extensive family of theoretical curves computed for the case of a single layer resting on a uniform substratum. A few examples of such curves for varying resistivity contrasts between the layer and the substratum are shown in Figure 7. The results of such interpretations are given in Table 1.

It may be seen from this table that not all the soundings were interpretable in terms of horizontal layering. A number of sounding curves exhibited a brief negative deflection at the beginning of the record, as shown by the example in Figure 8. A normal curve is shown in Figure 9 for comparison. This negative deflection occurs when the bulk of conductive material lies to the side of the receiver coil, rather than beneath it. If the negative deflection is short-lived, the disturbing mass of conductive material probably lies close to the surface, at depths less than one kilometer. Such curves cannot be interpreted in terms of horizontal layering because of the distortion, but such measurements are extremely useful in locating the position of sharp lateral changes in resistivity. These stations are indicated by the letter "N" on Plates 2-4.

A section based on these interpretations is shown in Figure 10, for stations along the traverse from Redondo Creek to Jaramillo Creek. The anomalous area at the head of Redondo Creek is evident. Through the rest of Redondo Creek, the data indicate the presence of a relatively thin layer of surficial rock, from 0.8 to 1.2 kilometers thick, having a resistivity of 30 to 60 ohm-meters. Along Jaramillo Creek,

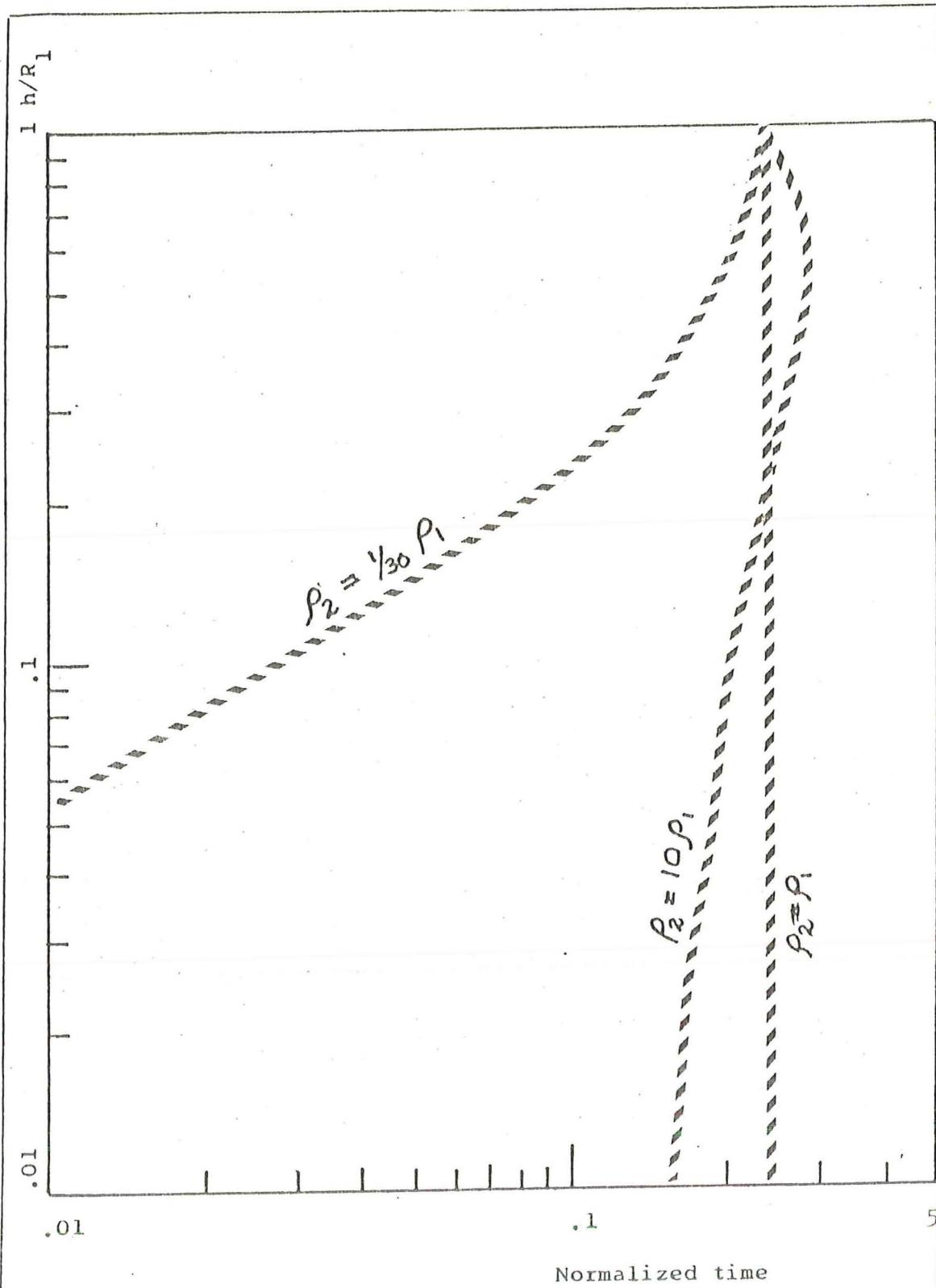


Figure 6. Relationship of normalized time to layering in the earth. The ratio h/R is the ratio of layer thickness to distance from source.

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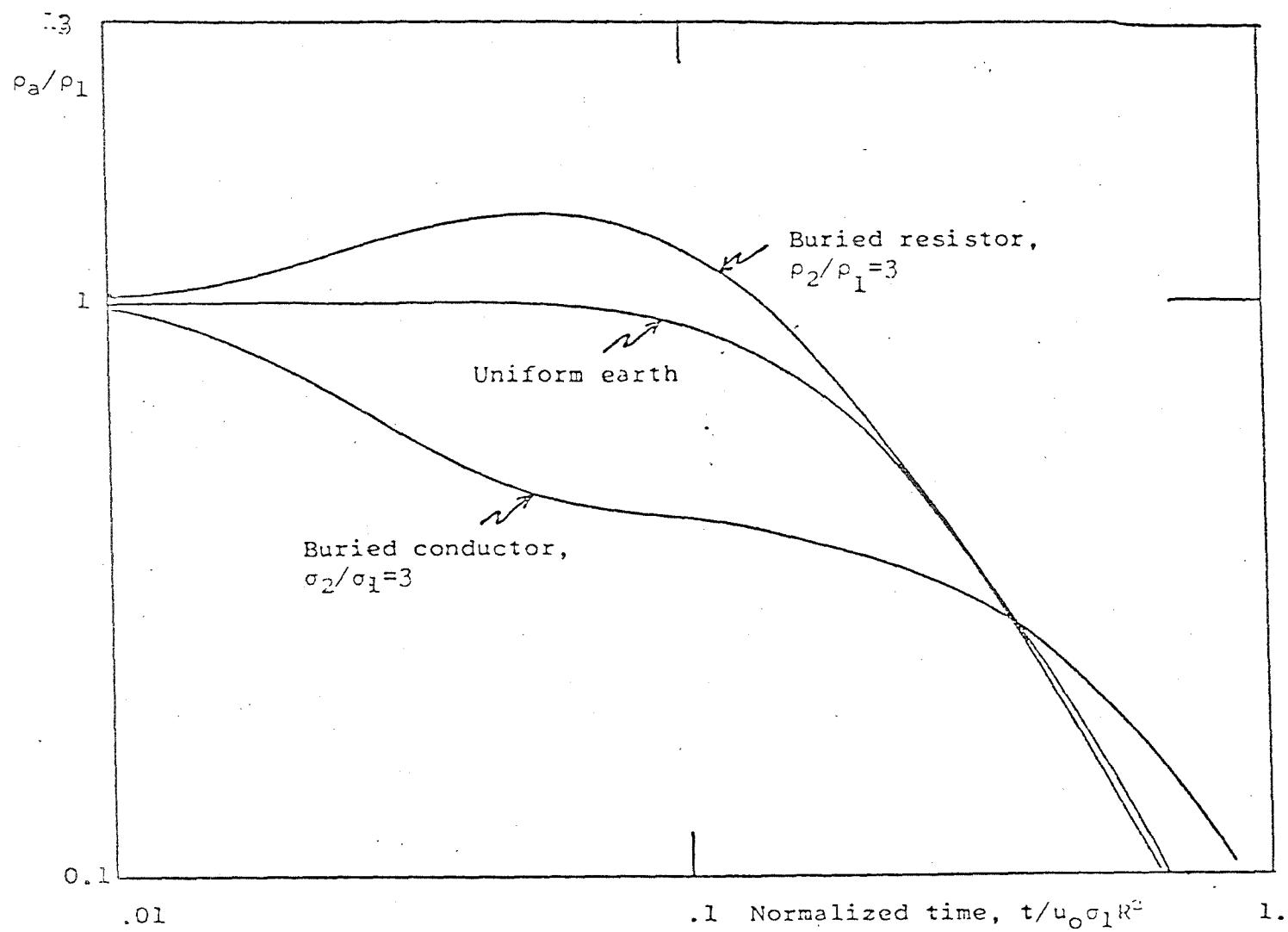


Figure 7. Examples of two-layer electromagnetic sounding curves for the case in which the thickness of the first layer is 1/16 the separation, R .

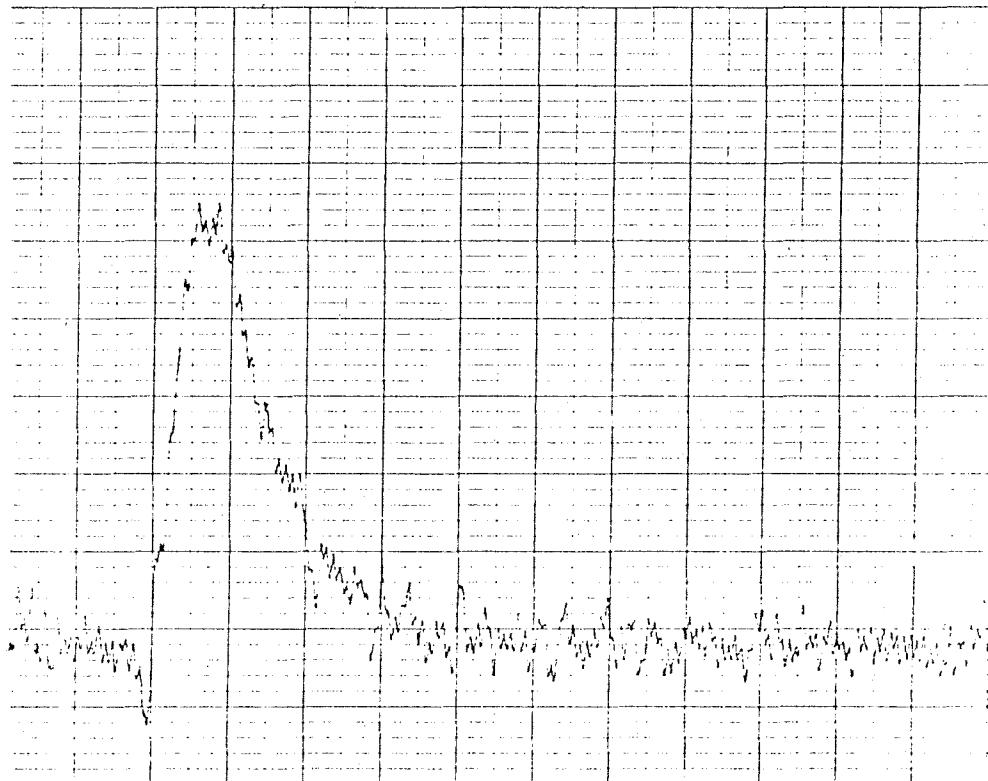


Figure 8. Example of a time-domain electromagnetic sounding curve with an initial negative deflection. This record was obtained at station 837. The vertical scale is 2 microvolts per division, the horizontal scale is 100 milliseconds per division.

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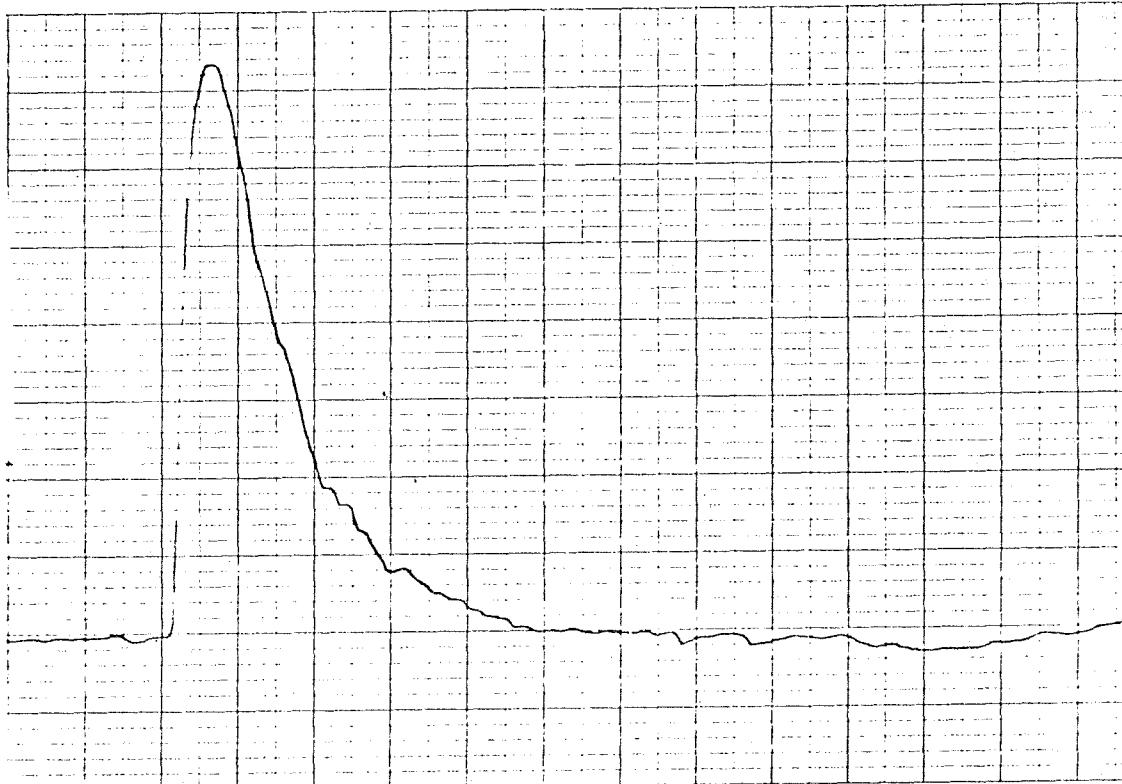


Figure 9. Example of a normal time-domain electromagnetic sounding curve. This record was obtained at station 856. The vertical scale is 10 microvolts per division, the horizontal scale is 100 milliseconds per division.

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Depth,
km.

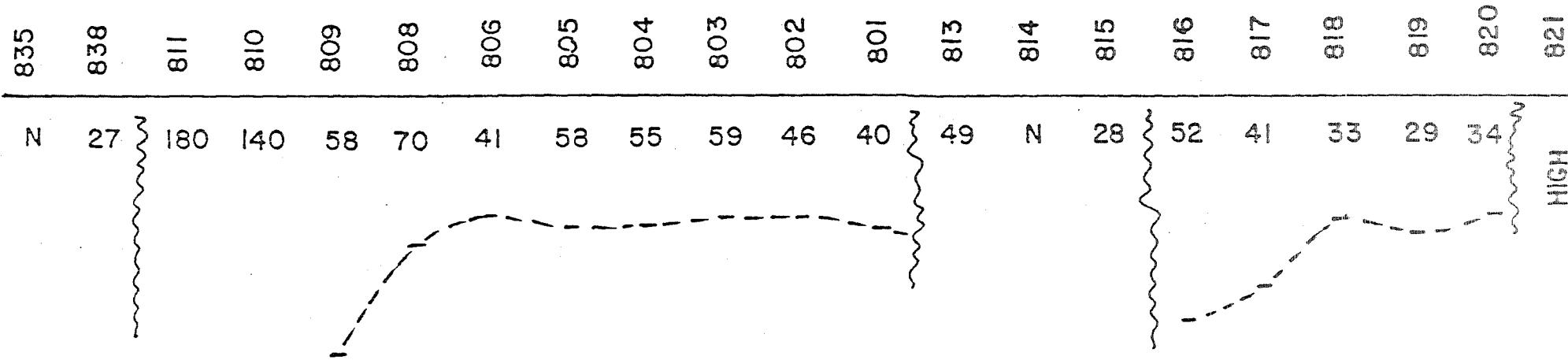


Figure 10. Cross section along Redondo Creek, based on electromagnetic sounding. The upper figures are station numbers, the lower figures are resistivities for the surface layer. The depths plotted are to resistant rock beneath the conductive veneer.

the resistivities are sufficiently high, that the surface layer cannot be identified with any degree of reliability from the electromagnetic soundings. At the southwest end of Redondo Creek, the soundings indicate a sharp lateral change in resistivity, but soundings were not made far enough to the southwest to determine the thickness of the section on the conductive side of this boundary.

Measurements made in the Valle Seco area indicate a great depth to basement, about 3.5 kilometers, with an average resistivity of 60 to 80 ohm-meters to that depth. No such deep boundaries had been recognized in the earlier surveys, but none of the previous soundings had been made at a great enough distance from the source to see to a depth of 3.5 kilometers.

Table 1. Interpretation of electromagnetic soundings

Sounding	Initial resistivity	$\frac{0.4 R}{\rho_{max}}$	$\frac{t_0 \rho_1}{4\pi R^2}$	ρ_1	h_1
801	62. ohm-m	44.3	.105	40.	820 m.
802	71	30.0	.180	46.	750
803	59	31.4	.164	not interpreted	
804	86	24.3	.206	55.	830
805	76	25.2	.200	48.	860
806	67	28.0	.199	41.	720
807	no record				
808	92	21.4	.266	70.	912
809	59	35.0	.160	58.	1650
810	145	22.0	.320	140	3620(?)
811	183	17.9	.257	not interpreted	
812	118	22.0	.207	100	3300(/)
813	49	37.3	.170	not interpreted	
814	negative deflection			not interpreted	
815	34	42.1	.123	28.	810
816	63	36.3	.149	52.	1450
817	52	38.4	.148	41.	1220
818	52	36.7	.160	33.	770
819	45	44.8	.116	29.	870
820	54	33.7	.137	34.	780
821	122	16.0	.183	high resistivity	
822	35			high resistivity	
823	42	35.5	.104	high resistivity	
824	negative deflection			high resistivity	
825	62	28.5	.126	high resistivity	
826	51	33.3	.111	high resistivity	
827	54	27.5	.129	high resistivity	
828	69	23.5	.136	high resistivity	
829	159	22.8	.104	high resistivity	
830	34	28.0	.158	30.	1810
831	115	26.0	.302	105	2990
832	33	27.2	.148	100	2610
833	17	98.	.068	16.	1720
834	58	37.6	.101	37.	1140
835	negative deflection				

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Table 1 (Continued)

Sounding	Initial resistivity	$\frac{0.4 R}{\rho_{max}}$	$\frac{t_0 \rho_1}{4\pi R^2}$	ρ_1	h_1
836	21.0	82.	.098	19.0	1090 m
837	negative deflection				
838	29.5	48.0	.140	27.	1060
839	19.7	43.5	.114	18.	680
840	24.5	94.2	.087	12.	810
841	23.2	86.5	.100	23.	2180
842	negative deflection				
843	26.5	106	.073	17.	1170
844	66.5	43.5	.178	67.	3640
845	65.9	43.4	.187	74.	3530
846	47.6	62.5	.174	46.	2180
847	58.8	48.9	.192	63.	3570
848	42.7	50.2	.188	no interpretation	
849	40.6	54.3	.169	no interpretation	
850	130	77.8	.126	no interpretation	
851	negative deflection				
852	no record				
853	12.8	49.9	.102	no interpretation	
854	74.4	36.0	.213	77.	3290
855	87.0	34.4	.218	85.	3750
856	67.6	40.5	.218	76.	3240

EVALUATION AND RECOMMENDATIONS

Both the dipole mapping data and the electromagnetic sounding data from source 8 substantiate earlier conclusions regarding the small size of the anomalously conductive area in Redondo Creek Valley. Generally, the conductive surface rocks along Redondo Creek are less than one kilometer thick, and have a moderately high resistivity, 40 to 60 ohm-meters. The anomalous area at the head of Redondo Creek has an area of less than one square mile, if the 100-mho contour is considered to be its boundary. Because of this limited area, it is difficult to obtain reliable depth estimates with any of the electrical surveying techniques. However, the electromagnetic sounding data and the dipole mapping data both indicate that the 100 mho conductance contour is associated with an area in which the surface resistivity is 20 ohm-meters or less. The corresponding depth to resistant rock is therefore of the order of 2 kilometers or less.

The source 8 data show clearly two boundaries marking off areas with distinctively different electrical properties. One is an east-west boundary along Jaramillo Creek, south of which the resistivity is quite high. The area along Redondo Creek does not belong to this category, and a boundary must exist to the east of Redondo Creek outside the area where measurements were made. The other major boundary trends northwest-southeast, at the southwest end of Redondo Creek, and bounds an area of high conductance to the southwest.

If the geothermal producing areas at the Valles Caldera are bounded by contours as low as 100 mhos in conductance, these values would then be the lower than those for any producing geothermal field in the world. Most fields have conductances in excess of 1000 mhos, though in some cases, it may be argued that areas with conductances as low as a few hundred mhos comprise part of a geothermal field. The ground water in the Valles Caldera may be quite fresh. However, even fresh water has a reasonable amount of conductivity when it is in contact with minerals because of ion exchange processes. It is unlikely that water in place in the pore structure of a rock can have a resistivity higher than 2 to 5 ohm-meters, even if there is no free salt in solution, at normal temperatures. At temperatures of 200° to 250° C, this conduction would be enhanced by the reduced viscosity of the pore water, and resistivities in excess of 0.4 to 1 ohm-meter are unlikely, even in heated rocks. Thus, a resistivity of 20 ohm-meters and a water resistivity of 1 ohm-meter would yield a formation factor of 20; according to Archie's law, the porosity would be approximately 22 percent.

Inasmuch as it appears that even these conductive rocks are relatively thin, part of the geothermal reservoir capacity must exist at greater depths, in higher resistivity rock. The rock beneath the surface veneer must have a resistivity of at least 100 ohm-meters, and more probably, several hundred ohm-meters. The corresponding porosities, if these rocks are saturated with hot water, would be 10 percent or less.

It may be possible to delineate the conductive regions with more resolution by using a very large source moment located at a considerable distance from the prospect areas in the Valles Caldera. As shown by this survey, as the source is taken further from the target area, and as more area is covered with excitation from the same source, better resolution can be obtained in locating the boundaries of areas with different electrical characteristics. Power requirements increase rapidly as one moves the source away from the area in which measurements are being made. This is shown by the data in Figure 11, a plot of the maximum voltage recorded on the various electromagnetic soundings, as a function of the distance from the source. As predicted by theory, this voltage decreases as the fourth power of the distance from the source (this relationship is shown by the solid curve on Figure 11). The least signal that can be measured reliably in electromagnetic sounding is about 30 microvolts. Therefore, in order to double the distance from the source at which measurements can be made (that is, to 20 - 25 kilometers), it would be necessary to increase the source moment by a factor of approximately 8. It is quite feasible to conduct such a survey.

Signal strength,
microvolts

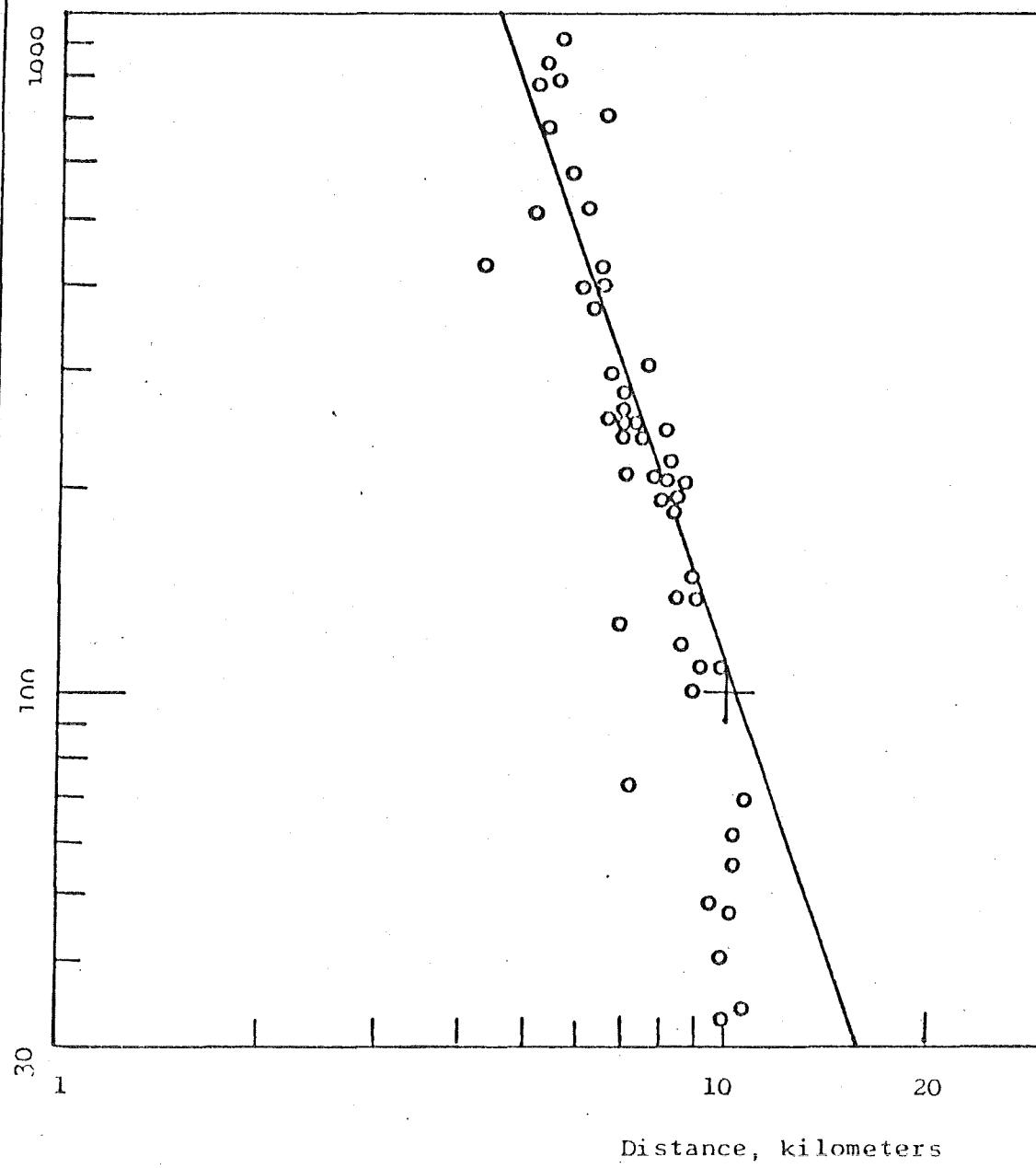


Figure 11. Maximum signal strength recorded in time-domain electromagnetic soundings from source 8, as a function of distance.

GROUP SEVEN

APPENDIX I: Tabulation of observed data for dipole resistivity surveys.

The following quantities are listed;

- N Station number, keyed to the maps with plotted results
- R1 Distance from observation point to one end of the source dipole, measured in kilometers
- R2 Distance from observation point to the other end of the source dipole, measured in kilometers
- D The angle between the two lines R1 and R2 running from an observation point to the two ends of the source dipole.
- T The angle between the two directions in which electric field measurements were made at each site (nominally 90°)
- V1 Voltage measured between one pair of receiver electrodes, in microvolts
- V2 Voltage measured between the other pair of receiver electrodes, in microvolts
- X Length of receiver line, in meters
- I Amplitude of current steps, in amperes (average current was one-half this value)
- RT Apparent resistivity computed using the magnitude of the electric field, in ohm-meters
- SA Apparent conductance computed using the magnitude of the electric field, in mhos

Appendix I.

N	R1	R2	D	T	V1	V2	X	I	RT	SA
801	6.150	8.200	30.	90.	-75.	-295.	30.	32.0	128.8	42.
802	6.270	8.450	28.	90.	-110.	215.	30.	32.0	108.2	49.
803	6.300	8.600	28.	90.	-170.	-170.	30.	32.0	106.9	50.
804	6.250	8.720	27.	90.	18.	-255.	30.	32.0	110.7	46.
805	6.530	9.070	25.	90.	130.	205.	30.	32.0	117.9	45.
806	6.700	9.280	25.	90.	90.	185.	30.	32.0	105.6	51.
807	6.800	9.480	23.	90.	-235.	-265.	30.	32.0	190.0	28.
808	6.950	9.710	22.	90.	45.	135.	30.	32.0	80.4	66.
809	7.520	10.250	20.	90.	-85.	150.	30.	32.0	121.1	47.
810	7.950	10.450	20.	90.	180.	88.	30.	32.0	166.3	37.
811	2.400	2.500	125.	90.	3150.	3550.	30.	32.0	104.9	23.
812	2.470	2.970	103.	90.	150.	4150.	30.	32.0	124.0	21.
813	3.600	3.760	72.	90.	-910.	2050.	30.	32.0	168.9	22.
818	0.750	3.570	165.	90.	16600.	1220.	30.	32.0	58.7	15.
819	1.000	3.320	164.	90.	7900.	3200.	30.	32.0	51.2	23.
820	1.300	3.030	163.	90.	6500.	1620.	30.	32.0	62.9	25.
821	6.200	8.020	32.	90.	88.	105.	30.	32.0	58.6	97.
822	6.320	8.000	32.	90.	105.	90.	30.	32.0	62.8	93.
823	6.350	7.820	48.	90.	165.	-220.	30.	30.0	104.4	62.
824	6.450	7.730	33.	95.	235.	295.	30.	30.0	203.3	31.
825	6.430	7.540	34.	90.	-105.	-140.	30.	30.0	88.8	71.
826	6.500	7.420	35.	90.	-40.	-100.	30.	30.0	55.2	118.
827	6.550	7.270	36.	90.	75.	230.	30.	30.0	123.3	54.

Appendix I.

N	R1	R2	D	T	V1	V2	X	I	RT	SA
828	6.530	7.060	36.	90.	90.	430.	30.	30.0	221.9	30.
829	6.690	6.960	37.	90.	24.	-285.	30.	30.0	145.6	47.
830	6.560	6.800	38.	90.	320.	-26.	30.	30.0	152.8	43.
831	1.800	2.560	166.	90.	3850.	4350.	30.	32.0	82.8	25.
832	2.200	2.200	167.	90.	7600.	3900.	30.	32.0	136.0	16.
833	3.420	7.030	26.	93.	-920.	-920.	30.	34.5	119.3	22.
834	3.760	7.320	26.	90.	-600.	300.	30.	34.5	74.7	38.
835	4.020	7.630	23.	90.	0.	-1250.	30.	34.5	162.3	18.
836	4.000	7.850	19.	97.	82.	-1160.	30.	34.5	148.5	19.
837	6.300	6.500	39.	90.	-14.	-108.	30.	36.0	38.7	165.
838	6.700	6.750	37.	101.	-54.	-15.	30.	36.0	24.8	271.
839	6.320	6.830	38.	90.	76.	-112.	30.	36.0	50.9	126.
840	6.470	6.900	35.	90.	48.	-295.	31.	36.0	122.3	54.
841	6.320	7.320	38.	86.	66.	-56.	30.	30.0	40.6	156.
842	6.160	6.530	39.	90.	-120.	100.	30.	30.0	64.9	97.
843	6.130	6.210	41.	90.	85.	46.	30.	32.0	34.4	179.
844	5.880	5.920	42.	90.	-70.	93.	30.	32.0	37.0	160.
845	5.730	5.960	43.	90.	-120.	0.	30.	30.0	38.9	150.
846	5.300	5.600	46.	90.	70.	-170.	30.	30.0	48.4	112.
847	5.030	5.460	47.	90.	235.	265.	30.	30.0	83.4	62.
848	4.740	5.320	50.	90.	245.	-120.	30.	30.0	54.9	89.
849	4.430	5.130	53.	90.	38.	-215.	30.	36.0	30.8	149.
850	4.200	5.100	54.	90.	270.	-32.	30.	30.0	41.2	106.
851	4.050	5.220	53.	90.	330.	175.	30.	30.0	53.5	77.

Appendix I.

N	R1	R2	D	T	V1	V2	X	I	RT	SA
852	4.030	5.520	52.	90.	260.	933.	30.	30.0	138.5	29.
853	3.690	5.430	52.	116.	860.	-620.	30.	35.0	91.6	40.
854	3.610	5.600	50.	117.	1030.	-480.	30.	36.0	97.8	35.
855	3.620	5.880	47.	118.	185.	-250.	30.	34.5	26.3	128.
856	3.600	6.120	43.	111.	580.	-114.	30.	34.5	59.1	54.
857	3.400	6.280	40.	116.	700.	-710.	30.	34.5	73.2	40.
858	3.450	6.530	36.	115.	770.	-10.	30.	34.5	77.0	37.
859	3.380	6.680	33.	105.	820.	-1200.	30.	34.5	114.1	24.
860	3.260	6.760	30.	103.	2625.	-860.	30.	34.5	209.8	12.
861	7.240	7.430	24.	90.	-52.	10.	30.	36.0	39.6	184.
862	7.730	7.830	32.	90.	-110.	35.	30.	36.0	73.8	105.
863	7.820	8.470	30.	90.	-115.	60.	30.	36.0	92.5	85.
864	8.170	8.620	30.	90.	110.	100.	30.	36.0	115.2	72.
865	8.820	9.040	27.	90.	90.	-85.	30.	36.0	122.6	73.
866	9.230	9.390	26.	90.	38.	110.	30.	36.0	129.9	71.
867	9.560	9.620	26.	90.	-18.	-90.	30.	36.0	109.2	88.
868	10.220	10.250	24.	90.	56.	16.	30.	36.0	85.4	120.
869	10.000	10.000	25.	90.	-40.	-50.	30.	36.0	86.0	116.
870	10.700	11.450	22.	90.	-36.	24.	30.	36.0	76.3	139.
871	8.100	9.420	26.	90.	72.	12.	30.	36.0	59.7	128.
872	7.800	8.700	29.	90.	-48.	-22.	30.	36.0	38.1	203.
873	8.100	8.600	30.	90.	-100.	-45.	30.	36.0	83.6	98.
874	7.900	8.000	31.	90.	-160.	-85.	30.	36.0	124.5	64.
875	6.850	7.800	33.	90.	-500.	-80.	30.	36.0	252.0	27.

Appendix I.

N	R1	R2	D	T	V1	V2	X	I	RT	SA
876	5.500	7.200	35.	90.	75.	40.	30.	36.0	24.1	212.
877	5.500	6.600	40.	30.	-140.	155.	30.	36.0	155.5	35.
878	5.850	6.500	40.	90.	-85.	230.	30.	36.0	75.9	79.
879	7.500	10.300	21.	90.	160.	140.	30.	36.0	128.8	45.
880	10.000	11.620	17.	90.	0.	210.	30.	36.0	336.4	25.
881	8.250	11.500	17.	90.	-270.	60.	30.	36.0	206.9	28.
882	8.150	11.750	13.	90.	355.	360.	30.	36.0	359.7	15.
883	10.480	11.400	22.	90.	-50.	-22.	30.	36.0	91.0	112.
884	10.100	11.000	23.	90.	-60.	0.	30.	36.0	89.5	111.
885	9.630	10.800	24.	90.	-65.	45.	30.	36.0	100.9	92.
886	9.270	10.620	25.	90.	-56.	-42.	30.	36.0	78.3	112.
887	8.900	10.350	25.	90.	60.	-30.	30.	36.0	68.2	122.
888	8.560	10.180	24.	90.	-55.	-12.	30.	36.0	52.6	147.
889	9.050	11.950	23.	90.	-30.	175.	100.	36.0	48.6	151.
890	9.400	11.450	21.	90.	-16.	170.	100.	36.0	59.5	134.
891	8.740	10.600	24.	90.	95.	125.	100.	36.0	44.6	174.
892	7.540	9.570	26.	90.	-250.	-10.	100.	36.0	47.8	137.

APPENDIX II: Listing of electromagnetic sounding data.

The following quantities are tabulated:

TIME : The length of time following the beginning of a transient at which the voltage is sampled, in seconds

NUMBER : The number of individual samples added together to form an average (in this survey, NUMBER is 1 because only the single best signal recorded was used).

AVERAGE : The average voltage at a given time, in millivolts (exponential format)

ST. DEV. : Standard deviation of the voltage samples from which the average was formed

EARLY
RESISTIVITY : Resistivity computed from the formula valid only for the early part of the transient coupling, in ohm-m.

Listings of the stacked voltages along with statistics developed during stacking are given on the following pages. These data are then followed by listings of the deconvolved and smoothed apparent resistivity curves,

VALLES EM SOUNDING 801
 OFFSET DISTANCE IS 6850. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 32.0 AMPERES
 DEFLECTION ANGLE IS 24.0 DEGREES
 DIGITIZING SCALE IS 0.229 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.145E-03	0.164E-04	0.324E+02
.04	5	0.203E-03	0.841E-05	0.454E+02
.06	5	0.216E-03	0.929E-05	0.482E+02
.08	5	0.204E-03	0.833E-05	0.456E+02
.10	5	0.170E-03	0.162E-04	0.381E+02
.12	5	0.145E-03	0.198E-04	0.325E+02
.14	5	0.123E-03	0.214E-04	0.276E+02
.16	5	0.108E-03	0.234E-04	0.242E+02
.18	5	0.977E-04	0.230E-04	0.218E+02
.20	5	0.734E-04	0.137E-04	0.164E+02
.22	5	0.550E-04	0.141E-04	0.123E+02
.24	5	0.427E-04	0.189E-04	0.954E+01
.26	5	0.390E-04	0.201E-04	0.872E+01
.28	5	0.372E-04	0.211E-04	0.831E+01
.30	5	0.344E-04	0.158E-04	0.769E+01
.32	5	0.317E-04	0.119E-04	0.708E+01
.34	5	0.289E-04	0.150E-04	0.646E+01
.36	5	0.261E-04	0.154E-04	0.585E+01
.38	5	0.243E-04	0.123E-04	0.544E+01
.40	5	0.133E-04	0.967E-05	0.297E+01
.42	5	0.780E-05	0.109E-04	0.174E+01
.44	5	0.596E-05	0.143E-04	0.133E+01
.46	5	0.321E-05	0.133E-04	0.718E+00
.48	5	0.826E-05	0.138E-04	0.185E+01
.50	5	0.123E-04	0.152E-04	0.287E+01
.52	5	0.101E-04	0.195E-04	0.226E+01
.54	5	0.275E-05	0.141E-04	0.615E+00
.56	5	0.367E-05	0.133E-04	0.821E+00
.58	5	-0.917E-06	0.140E-04	-0.205E+00
.60	5	0.917E-06	0.127E-04	0.205E+00
.62	5	-0.183E-05	0.222E-05	-0.410E+00
.64	5	-0.138E-05	0.117E-04	-0.303E+00
.66	5	-0.133E-05	0.171E-04	-0.410E+00
.68	5	0.550E-05	0.191E-04	0.123E+01
.70	5	0.229E-05	0.135E-04	0.513E+00
.72	5	-0.138E-05	0.105E-04	-0.303E+00
.74	5	-0.734E-05	0.114E-04	-0.164E+01
.76	5	-0.101E-04	0.101E-04	-0.226E+01
.78	5	-0.826E-05	0.924E-05	-0.185E+01

GROUP SEVEN

VALLES EM SOUNDING 802
 OFFSET DISTANCE IS 6830. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 28.0 DEGREES
 DIGITIZING SCALE IS 0.115 MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	3	0.975E-04	0.232E-04	0.239E+02
.04	3	0.233E-03	0.315E-04	0.571E+02
.06	3	0.307E-03	0.161E-04	0.752E+02
.08	3	0.306E-03	0.854E-05	0.749E+02
.10	3	0.275E-03	0.137E-04	
.12	3	0.237E-03	0.120E-04	0.582E+02
.14	3	0.204E-03	0.667E-05	0.499E+02
.16	3	0.162E-03	0.760E-05	0.397E+02
.18	3	0.133E-03	0.109E-04	0.327E+02
.20	3	0.126E-03	0.179E-04	0.308E+02
.22	3	0.119E-03	0.275E-04	0.292E+02
.24	3	0.105E-03	0.255E-04	0.257E+02
.26	3	0.910E-04	0.189E-04	0.223E+02
.28	3	0.787E-04	0.222E-04	0.193E+02
.30	3	0.703E-04	0.133E-04	0.172E+02
.32	3	0.580E-04	0.130E-04	0.142E+02
.34	3	0.530E-04	0.106E-04	0.130E+02
.36	3	0.465E-04	0.104E-04	0.114E+02
.38	3	0.388E-04	0.680E-05	0.950E+01
.40	3	0.323E-04	0.941E-06	0.790E+01
.42	3	0.300E-04	0.249E-05	0.706E+01
.44	3	0.288E-04	0.249E-05	0.593E+01
.46	3	0.242E-04	0.249E-05	0.574E+01
.48	3	0.234E-04	0.144E-05	0.499E+01
.50	3	0.204E-04	0.196E-05	0.442E+01
.52	3	0.180E-04	0.144E-05	0.414E+01
.54	3	0.169E-04	0.109E-05	0.311E+01
.56	3	0.127E-04	0.163E-05	0.263E+01
.58	3	0.108E-04	0.144E-05	0.254E+01
.60	3	0.104E-04	0.163E-05	0.207E+01
.62	3	0.845E-05	0.237E-05	0.169E+01
.64	3	0.691E-05	0.282E-05	0.160E+01
.66	3	0.653E-05	0.287E-05	0.169E+01
.68	3	0.691E-05	0.163E-05	0.151E+01
.70	3	0.614E-05	0.543E-06	0.151E+01
.72	3	0.614E-05	0.543E-06	0.132E+01
.74	3	0.538E-05	0.109E-05	0.113E+01
.76	3	0.461E-05	0.168E-05	0.941E+00
.78	3	0.384E-05	0.144E-05	

GROUP SEVEN

VALLES FM SOUNDING 803
 OFFSET DISTANCE IS .6870. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 29.0 DEGREES
 DIGITIZING SCALE IS 0.115 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.664E-04	0.140E-04	0.168E+02
.04	4	0.194E-03	0.290E-04	0.493E+02
.06	4	0.278E-03	0.547E-05	0.706E+02
.08	4	0.282E-03	0.643E-05	0.715E+02
.10	4	0.257E-03	0.751E-05	0.652E+02
.12	4	0.218E-03	0.696E-05	0.553E+02
.14	4	0.178E-03	0.610E-05	0.451E+02
.16	4	0.152E-03	0.588E-05	0.385E+02
.18	4	0.126E-03	0.237E-05	0.319E+02
.20	4	0.105E-03	0.498E-05	0.267E+02
.22	4	0.888E-04	0.319E-05	0.225E+02
.24	4	0.730E-04	0.925E-05	0.185E+02
.26	4	0.647E-04	0.297E-05	0.164E+02
.28	4	0.580E-04	0.129E-05	0.147E+02
.30	4	0.494E-04	0.345E-05	0.125E+02
.32	4	0.431E-04	0.340E-05	0.109E+02
.34	4	0.365E-04	0.483E-05	0.925E+01
.36	4	0.325E-04	0.249E-05	0.823E+01
.38	4	0.310E-04	0.215E-05	0.787E+01
.40	4	0.276E-04	0.293E-05	0.699E+01
.42	4	0.253E-04	0.390E-05	0.641E+01
.44	4	0.250E-04	0.221E-05	0.634E+01
.46	4	0.224E-04	0.330E-05	0.568E+01
.48	4	0.193E-04	0.221E-05	0.488E+01
.50	4	0.184E-04	0.813E-06	0.466E+01
.52	4	0.170E-04	0.262E-05	0.430E+01
.54	4	0.141E-04	0.376E-05	0.357E+01
.56	4	0.129E-04	0.425E-05	0.328E+01
.58	4	0.124E-04	0.541E-05	0.313E+01
.60	4	0.112E-04	0.553E-05	0.284E+01
.62	4	0.977E-05	0.350E-05	0.243E+01
.64	4	0.862E-05	0.263E-05	0.219E+01
.66	4	0.747E-05	0.129E-05	0.189E+01
.68	4	0.718E-05	0.170E-05	0.182E+01
.70	4	0.747E-05	0.172E-05	0.189E+01
.72	4	0.747E-05	0.172E-05	0.189E+01
.74	4	0.776E-05	0.221E-05	0.197E+01
.76	4	0.713E-05	0.348E-05	0.182E+01
.78	4	0.718E-05	0.348E-05	0.182E+01

GROUP SEVEN

VALLES EM SOUNDING 804
 OFFSET DISTANCE IS 6950. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 31.0DEGREES
 DIGITIZING SCALE IS 0.115MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.101E-03	0.321E-04	0.274E+02
.04	5	0.260E-03	0.505E-04	0.707E+02
.06	5	0.347E-03	0.183E-04	0.942E+02
.08	5	0.351E-03	0.145E-04	0.954E+02
.10	5	0.317E-03	0.244E-04	0.861E+02
.12	5	0.261E-03	0.219E-04	0.709E+02
.14	5	0.212E-03	0.245E-04	0.577E+02
.16	5	0.175E-03	0.178E-04	0.474E+02
.18	5	0.145E-03	0.130E-04	0.395E+02
.20	5	0.126E-03	0.118E-04	0.343E+02
.22	5	0.105E-03	0.111E-04	0.284E+02
.24	5	0.848E-04	0.722E-05	0.230E+02
.26	5	0.718E-04	0.435E-05	0.195E+02
.28	5	0.633E-04	0.382E-05	0.172E+02
.30	5	0.527E-04	0.331E-05	0.143E+02
.32	5	0.485E-04	0.511E-05	0.132E+02
.34	5	0.411E-04	0.298E-05	0.112E+02
.36	5	0.349E-04	0.338E-05	0.948E+01
.38	5	0.291E-04	0.409E-05	0.791E+01
.40	5	0.219E-04	0.273E-05	0.596E+01
.42	5	0.194E-04	0.267E-05	0.527E+01
.44	5	0.176E-04	0.382E-05	0.477E+01
.46	5	0.182E-04	0.572E-05	0.496E+01
.48	5	0.173E-04	0.551E-05	0.471E+01
.50	5	0.125E-04	0.403E-05	0.339E+01
.52	5	0.102E-04	0.277E-05	0.276E+01
.54	5	0.947E-05	0.199E-05	0.257E+01
.56	5	0.831E-05	0.236E-05	0.226E+01
.58	5	0.808E-05	0.242E-05	0.220E+01
.60	5	0.785E-05	0.267E-05	0.213E+01
.62	5	0.739E-05	0.315E-05	0.201E+01
.64	5	0.739E-05	0.279E-05	0.201E+01
.66	5	0.554E-05	0.237E-05	0.151E+01
.68	5	0.439E-05	0.237E-05	0.119E+01
.70	5	0.393E-05	0.370E-05	0.107E+01
.72	5	0.185E-05	0.417E-05	0.502E+00
.74	5	0.231E-05	0.343E-05	0.628E+00
.76	5	0.346E-05	0.420E-05	0.941E+00
.78	5	0.277E-05	0.238E-05	0.753E+00

GROUP SEVEN

VALLES EM SOUNDING 805
 OFFSET DISTANCE IS 7180. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 34.0 DEGREES
 DIGITIZING SCALE IS 0.115 MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.825E-04	0.113E-04	0.265E+02
.04	4	0.192E-03	0.136E-04	0.618E+02
.06	4	0.300E-03	0.583E-05	0.964E+02
.08	4	0.308E-03	0.813E-06	0.991E+02
.10	4	0.290E-03	0.363E-05	0.931E+02
.12	4	0.243E-03	0.384E-05	0.783E+02
.14	4	0.199E-03	0.299E-05	0.641E+02
.16	4	0.165E-03	0.262E-05	0.529E+02
.18	4	0.137E-03	0.188E-05	0.441E+02
.20	4	0.118E-03	0.339E-05	0.378E+02
.22	4	0.966E-04	0.293E-05	0.310E+02
.24	4	0.810E-04	0.995E-06	0.261E+02
.26	4	0.658E-04	0.262E-05	0.212E+02
.28	4	0.560E-04	0.205E-05	0.180E+02
.30	4	0.480E-04	0.221E-05	0.154E+02
.32	4	0.422E-04	0.249E-05	0.136E+02
.34	4	0.379E-04	0.453E-05	0.122E+02
.36	4	0.319E-04	0.953E-06	0.103E+02
.38	4	0.284E-04	0.149E-05	0.915E+01
.40	4	0.239E-04	0.221E-05	0.767E+01
.42	4	0.207E-04	0.282E-05	0.665E+01
.44	4	0.172E-04	0.244E-05	0.554E+01
.46	4	0.155E-04	0.995E-06	0.499E+01
.48	4	0.126E-04	0.000E+00	0.407E+01
.50	4	0.109E-04	0.995E-06	0.351E+01
.52	4	0.948E-05	0.125E-05	0.305E+01
.54	4	0.920E-05	0.813E-06	0.296E+01
.56	4	0.776E-05	0.498E-06	0.249E+01
.58	4	0.776E-05	0.125E-05	0.249E+01
.60	4	0.632E-05	0.172E-05	0.203E+01
.62	4	0.575E-05	0.215E-05	0.185E+01
.64	4	0.632E-05	0.575E-06	0.203E+01
.66	4	0.575E-05	0.813E-06	0.185E+01
.68	4	0.460E-05	0.813E-06	0.148E+01
.70	4	0.489E-05	0.498E-06	0.157E+01
.72	4	0.287E-05	0.299E-05	0.924E+00
.74	4	0.259E-05	0.170E-05	0.832E+00
.76	4	0.345E-05	0.182E-05	0.111E+01
.78	4	0.316E-05	0.205E-05	0.102E+01

GROUP SEVEN

VALLES EM SOUNDING 806
 OFFSET DISTANCE IS 7200. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 36.0DEGREES
 DIGITIZING SCALE IS 0.115MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	6	0.730E-04	0.295E-04	0.244E+02
.04	6	0.158E-03	0.316E-04	0.528E+02
.06	6	0.249E-03	0.208E-04	0.833E+02
.08	6	0.275E-03	0.355E-05	0.920E+02
.10	5	0.256E-03	0.921E-05	0.855E+02
.12	6	0.227E-03	0.131E-04	0.759E+02
.14	6	0.195E-03	0.132E-04	0.650E+02
.16	6	0.165E-03	0.139E-04	0.550E+02
.18	6	0.141E-03	0.111E-04	0.471E+02
.20	6	0.120E-03	0.100E-04	0.403E+02
.22	6	0.993E-04	0.768E-05	0.332E+02
.24	6	0.870E-04	0.583E-05	0.291E+02
.26	6	0.753E-04	0.630E-05	0.252E+02
.28	6	0.632E-04	0.757E-05	0.211E+02
.30	6	0.543E-04	0.607E-05	0.182E+02
.32	6	0.484E-04	0.628E-05	0.162E+02
.34	6	0.426E-04	0.610E-05	0.143E+02
.36	6	0.371E-04	0.607E-05	0.124E+02
.38	6	0.305E-04	0.414E-05	0.102E+02
.40	6	0.269E-04	0.414E-05	0.899E+01
.42	6	0.253E-04	0.346E-05	0.848E+01
.44	6	0.202E-04	0.392E-05	0.674E+01
.46	6	0.194E-04	0.463E-05	0.649E+01
.48	6	0.171E-04	0.373E-05	0.572E+01
.50	6	0.146E-04	0.414E-05	0.488E+01
.52	6	0.131E-04	0.445E-05	0.437E+01
.54	6	0.127E-04	0.333E-05	0.424E+01
.56	6	0.106E-04	0.293E-05	0.353E+01
.58	6	0.104E-04	0.240E-05	0.347E+01
.60	6	0.979E-05	0.303E-05	0.327E+01
.62	6	0.845E-05	0.343E-05	0.283E+01
.64	6	0.806E-05	0.258E-05	0.270E+01
.66	6	0.768E-05	0.310E-05	0.257E+01
.68	6	0.614E-05	0.440E-05	0.205E+01
.70	6	0.538E-05	0.310E-05	0.180E+01
.72	6	0.480E-05	0.278E-05	0.161E+01
.74	6	0.557E-05	0.335E-05	0.186E+01
.76	5	0.760E-05	0.255E-05	0.254E+01
.78	6	0.614E-05	0.227E-05	0.205E+01

GROUP SEVEN

VALLES EM SOUNDING 808
 OFFSET DISTANCE IS 7600. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 39.0 DEGREES
 DIGITIZING SCALE IS 0.116MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.703E-04	0.101E-04	0.306E+02
.04	5	0.172E-03	0.126E-04	0.748E+02
.06	5	0.257E-03	0.142E-04	0.112E+03
.08	5	0.299E-03	0.325E-05	0.130E+03
.10	5	0.297E-03	0.157E-05	0.129E+03
.12	5	0.271E-03	0.517E-05	0.118E+03
.14	5	0.234E-03	0.835E-05	0.102E+03
.16	5	0.206E-03	0.714E-05	0.895E+02
.18	5	0.176E-03	0.642E-05	0.764E+02
.20	5	0.146E-03	0.532E-05	0.634E+02
.22	5	0.125E-03	0.514E-05	0.545E+02
.24	5	0.107E-03	0.695E-05	0.467E+02
.26	5	0.935E-04	0.789E-05	0.407E+02
.28	5	0.784E-04	0.659E-05	0.341E+02
.30	5	0.677E-04	0.239E-05	0.295E+02
.32	5	0.589E-04	0.868E-06	0.256E+02
.34	5	0.506E-04	0.157E-05	0.220E+02
.36	5	0.429E-04	0.127E-05	0.187E+02
.38	5	0.346E-04	0.278E-05	0.150E+02
.40	5	0.320E-04	0.215E-05	0.139E+02
.42	5	0.276E-04	0.355E-05	0.120E+02
.44	5	0.223E-04	0.398E-05	0.969E+01
.46	5	0.206E-04	0.455E-05	0.898E+01
.48	5	0.195E-04	0.347E-05	0.847E+01
.50	5	0.172E-04	0.370E-05	0.747E+01
.52	5	0.160E-04	0.472E-05	0.696E+01
.54	5	0.142E-04	0.315E-05	0.615E+01
.56	5	0.130E-04	0.355E-05	0.565E+01
.58	5	0.128E-04	0.208E-05	0.555E+01
.60	5	0.111E-04	0.118E-05	0.484E+01
.62	5	0.998E-05	0.271E-05	0.434E+01
.64	5	0.928E-05	0.220E-05	0.404E+01
.66	5	0.812E-05	0.265E-05	0.353E+01
.68	5	0.789E-05	0.114E-05	0.343E+01
.70	5	0.835E-05	0.135E-05	0.363E+01
.72	5	0.766E-05	0.308E-05	0.333E+01
.74	5	0.673E-05	0.306E-05	0.293E+01
.76	5	0.673E-05	0.315E-05	0.293E+01
.78	5	0.557E-05	0.323E-05	0.242E+01

GROUP SEVEN

VALLES EM SOUNDING 809
 OFFSET DISTANCE IS 7880. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 40.0 AMPERES
 DEFLECTION ANGLE IS 0.0 DEGREES
 DIGITIZING SCALE IS 0.115MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.869E-04	0.929E-05	0.246E+02
.04	4	0.164E-03	0.108E-04	0.463E+02
.06	4	0.253E-03	0.120E-04	0.717E+02
.08	4	0.292E-03	0.852E-05	0.823E+02
.10	4	0.291E-03	0.540E-05	0.823E+02
.12	4	0.271E-03	0.128E-04	0.766E+02
.14	4	0.240E-03	0.110E-04	0.679E+02
.16	4	0.204E-03	0.587E-05	0.576E+02
.18	4	0.180E-03	0.754E-05	0.508E+02
.20	4	0.154E-03	0.879E-05	0.435E+02
.22	4	0.131E-03	0.132E-04	0.371E+02
.24	4	0.110E-03	0.128E-04	0.310E+02
.26	4	0.903E-04	0.848E-05	0.255E+02
.28	4	0.757E-04	0.631E-05	0.214E+02
.30	4	0.648E-04	0.620E-05	0.183E+02
.32	4	0.568E-04	0.576E-05	0.161E+02
.34	4	0.502E-04	0.205E-05	0.142E+02
.36	4	0.430E-04	0.298E-05	0.122E+02
.38	4	0.370E-04	0.338E-05	0.105E+02
.40	4	0.290E-04	0.509E-05	0.819E+01
.42	4	0.235E-04	0.448E-05	0.665E+01
.44	4	0.198E-04	0.375E-05	0.559E+01
.46	4	0.181E-04	0.384E-05	0.511E+01
.48	4	0.138E-04	0.556E-05	0.389E+01
.50	4	0.129E-04	0.439E-05	0.365E+01
.52	4	0.106E-04	0.375E-05	0.300E+01
.54	4	0.103E-04	0.437E-05	0.292E+01
.56	4	0.975E-05	0.367E-05	0.276E+01
.58	4	0.774E-05	0.273E-05	0.219E+01
.60	4	0.745E-05	0.309E-05	0.211E+01
.62	4	0.545E-05	0.261E-05	0.154E+01
.64	4	0.602E-05	0.220E-05	0.170E+01
.66	4	0.573E-05	0.353E-05	0.162E+01
.68	4	0.516E-05	0.417E-05	0.146E+01
.70	4	0.344E-05	0.140E-05	0.973E+00
.72	4	0.315E-05	0.125E-05	0.892E+00
.74	4	0.172E-05	0.339E-05	0.486E+00
.76	4	0.258E-05	0.220E-05	0.730E+00
.78	4	0.315E-05	0.125E-05	0.892E+00

VALLES EM SOUNDING 810
 OFFSET DISTANCE IS 8050. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 40.0 DEGREES
 DIGITIZING SCALE IS 0.230 MICRO VOL TS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.116E-03	0.192E-04	0.644E+02
.04	5	0.190E-03	0.303E-04	0.106E+03
.06	5	0.232E-03	0.147E-04	0.129E+03
.08	5	0.242E-03	0.122E-04	0.135E+03
.10	5	0.242E-03	0.163E-04	0.135E+03
.12	5	0.227E-03	0.181E-04	0.126E+03
.14	5	0.206E-03	0.222E-04	0.114E+03
.16	5	0.184E-03	0.206E-04	0.103E+03
.18	5	0.155E-03	0.191E-04	0.862E+02
.20	5	0.135E-03	0.113E-04	0.754E+02
.22	5	0.127E-03	0.967E-05	0.705E+02
.24	5	0.103E-03	0.113E-04	0.572E+02
.26	5	0.959E-04	0.113E-04	0.533E+02
.28	5	0.779E-04	0.159E-04	0.433E+02
.30	5	0.627E-04	0.143E-04	0.349E+02
.32	5	0.516E-04	0.857E-05	0.287E+02
.34	5	0.419E-04	0.269E-05	0.233E+02
.36	5	0.410E-04	0.396E-05	0.228E+02
.38	5	0.346E-04	0.785E-05	0.192E+02
.40	5	0.295E-04	0.422E-05	0.164E+02
.42	5	0.286E-04	0.779E-05	0.159E+02
.44	5	0.221E-04	0.661E-05	0.123E+02
.46	5	0.263E-04	0.102E-04	0.146E+02
.48	5	0.203E-04	0.116E-04	0.113E+02
.50	5	0.226E-04	0.817E-05	0.126E+02
.52	5	0.180E-04	0.492E-05	0.100E+02
.54	5	0.120E-04	0.690E-05	0.667E+01
.56	5	0.111E-04	0.915E-05	0.615E+01
.58	5	0.829E-05	0.116E-04	0.462E+01
.60	5	0.922E-05	0.967E-05	0.513E+01
.62	5	0.147E-04	0.779E-05	0.821E+01
.64	5	0.124E-04	0.766E-05	0.692E+01
.66	5	0.124E-04	0.832E-05	0.692E+01
.68	5	0.106E-04	0.101E-04	0.590E+01
.70	5	0.922E-05	0.811E-05	0.513E+01
.72	5	0.691E-05	0.944E-05	0.385E+01
.74	5	0.599E-05	0.940E-05	0.333E+01
.76	5	0.876E-05	0.817E-05	0.437E+01
.78	5	0.968E-05	0.817E-05	0.539E+01

GROUP SEVEN

VALLES EM SØUNDING 811
 OFFSET DISTANCE IS 8180. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 43.0 DEGREES
 DIGITIZING SCALE IS 0.230MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.171E-03	0.235E-04	0.107E+03
.04	5	0.199E-03	0.127E-04	0.124E+03
.06	5	0.209E-03	0.122E-04	0.131E+03
.08	5	0.197E-03	0.137E-04	0.123E+03
.10	5	0.176E-03	0.226E-04	0.110E+03
.12	5	0.140E-03	0.273E-04	0.878E+02
.14	5	0.112E-03	0.110E-04	0.702E+02
.16	5	0.947E-04	0.990E-05	0.593E+02
.18	5	0.818E-04	0.235E-04	0.512E+02
.20	5	0.800E-04	0.314E-04	0.501E+02
.22	5	0.768E-04	0.310E-04	0.481E+02
.24	5	0.777E-04	0.287E-04	0.486E+02
.26	5	0.635E-04	0.166E-04	0.429E+02
.28	5	0.492E-04	0.256E-04	0.308E+02
.30	5	0.382E-04	0.268E-04	0.239E+02
.32	5	0.234E-04	0.118E-04	0.147E+02
.34	5	0.690E-05	0.149E-04	0.432E+01
.36	5	0.460E-06	0.279E-04	0.288E+00
.38	5	0.598E-05	0.297E-04	0.374E+01
.40	5	0.189E-04	0.317E-04	0.118E+02
.42	5	0.271E-04	0.274E-04	0.170E+02
.44	5	0.345E-04	0.234E-04	0.216E+02
.46	5	0.372E-04	0.235E-04	0.233E+02
.48	5	0.244E-04	0.206E-04	0.153E+02
.50	5	0.189E-04	0.187E-04	0.118E+02
.52	5	0.368E-05	0.213E-04	0.230E+01
.54	5	-0.276E-05	0.398E-04	-0.173E+01
.56	5	-0.920E-05	0.408E-04	-0.576E+01
.58	5	-0.322E-05	0.317E-04	-0.202E+01
.60	5	-0.460E-06	0.254E-04	-0.288E+00
.62	5	0.147E-04	0.307E-04	0.921E+01
.64	5	0.262E-04	0.249E-04	0.164E+02
.66	5	0.368E-04	0.186E-04	0.230E+02
.68	5	0.308E-04	0.184E-04	0.193E+02
.70	5	0.202E-04	0.194E-04	0.127E+02
.72	5	0.129E-04	0.262E-04	0.806E+01
.74	5	0.736E-05	0.276E-04	0.461E+01
.76	5	-0.782E-05	0.290E-04	-0.489E+01
.78	5	-0.874E-05	0.258E-04	-0.547E+01

GROUP SEVEN

VALLES EM SOUNDING 312
 OFFSET DISTANCE IS 8250. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 45.0 DEGREES
 DIGITIZING SCALE IS 0.115 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.869E-04	0.115E-04	0.585E+02
.04	5	0.128E-03	0.132E-04	0.864E+02
.06	5	0.185E-03	0.160E-04	0.125E+03
.08	5	0.194E-03	0.102E-04	0.131E+03
.10	5	0.187E-03	0.179E-04	0.126E+03
.12	5	0.162E-03	0.244E-04	0.109E+03
.14	5	0.133E-03	0.270E-04	0.898E+02
.16	5	0.106E-03	0.219E-04	0.712E+02
.18	5	0.869E-04	0.711E-05	0.585E+02
.20	5	0.761E-04	0.526E-05	0.513E+02
.22	5	0.777E-04	0.798E-05	0.524E+02
.24	5	0.791E-04	0.122E-04	0.533E+02
.26	5	0.805E-04	0.155E-04	0.542E+02
.28	5	0.779E-04	0.114E-04	0.525E+02
.30	5	0.708E-04	0.880E-05	0.477E+02
.32	5	0.490E-04	0.144E-04	0.330E+02
.34	5	0.237E-04	0.224E-04	0.160E+02
.36	5	0.828E-05	0.204E-04	0.558E+01
.38	5	-0.161E-05	0.158E-04	-0.108E+01
.40	5	-0.230E-06	0.130E-04	-0.155E+00
.42	5	0.805E-05	0.178E-04	0.542E+01
.44	5	0.251E-04	0.256E-04	0.169E+02
.46	5	0.317E-04	0.175E-04	0.214E+02
.48	5	0.395E-04	0.136E-04	0.266E+02
.50	5	0.326E-04	0.547E-05	0.220E+02
.52	5	0.126E-04	0.191E-04	0.852E+01
.54	5	0.230E-05	0.218E-04	0.155E+01
.56	5	-0.828E-05	0.222E-04	-0.558E+01
.58	5	-0.152E-04	0.211E-04	-0.102E+02
.60	5	-0.138E-04	0.185E-04	-0.929E+01
.62	5	-0.575E-05	0.246E-04	-0.387E+01
.64	5	0.322E-05	0.253E-04	0.217E+01
.66	5	0.110E-04	0.223E-04	0.743E+01
.68	5	0.149E-04	0.160E-04	0.101E+02
.70	5	0.172E-04	0.113E-04	0.116E+02
.72	5	0.103E-04	0.187E-04	0.697E+01
.74	5	0.713E-05	0.224E-04	0.480E+01
.76	5	-0.276E-05	0.238E-04	-0.186E+01
.78	5	-0.106E-04	0.186E-04	-0.712E+01

GROUP SEVEN

VALLES EM SOUNDING 813
 OFFSET DISTANCE IS 6800. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 20.0 DEGREES
 DIGITIZING SCALE IS 0.228 MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.620E-04	0.261E-04	0.139E+02
.04	5	0.177E-03	0.167E-04	0.398E+02
.06	6	0.252E-03	0.141E-04	0.565E+02
.08	6	0.255E-03	0.151E-04	0.572E+02
.10	6	0.240E-03	0.214E-04	0.538E+02
.12	5	0.200E-03	0.177E-04	0.449E+02
.14	6	0.180E-03	0.196E-04	0.404E+02
.16	6	0.153E-03	0.139E-04	0.342E+02
.18	6	0.137E-03	0.159E-04	0.308E+02
.20	6	0.119E-03	0.196E-04	0.267E+02
.22	6	0.105E-03	0.167E-04	0.236E+02
.24	6	0.885E-04	0.145E-04	0.198E+02
.26	6	0.744E-04	0.945E-05	0.167E+02
.28	6	0.699E-04	0.653E-05	0.157E+02
.30	6	0.661E-04	0.372E-05	0.148E+02
.32	6	0.585E-04	0.927E-05	0.131E+02
.34	6	0.573E-04	0.111E-04	0.129E+02
.36	5	0.592E-04	0.108E-04	0.133E+02
.38	6	0.497E-04	0.127E-04	0.112E+02
.40	6	0.463E-04	0.140E-04	0.104E+02
.42	6	0.395E-04	0.150E-04	0.886E+01
.44	5	0.319E-04	0.140E-04	0.715E+01
.46	5	0.273E-04	0.120E-04	0.623E+01
.48	5	0.241E-04	0.123E-04	0.542E+01
.50	5	0.232E-04	0.101E-04	0.521E+01
.52	6	0.258E-04	0.102E-04	0.579E+01
.54	6	0.235E-04	0.849E-05	0.528E+01
.56	6	0.216E-04	0.470E-05	0.485E+01
.58	6	0.235E-04	0.553E-05	0.528E+01
.60	6	0.228E-04	0.671E-05	0.511E+01
.62	6	0.213E-04	0.101E-04	0.477E+01
.64	6	0.197E-04	0.104E-04	0.443E+01
.66	6	0.190E-04	0.111E-04	0.426E+01
.68	6	0.201E-04	0.119E-04	0.451E+01
.70	6	0.209E-04	0.119E-04	0.468E+01
.72	6	0.201E-04	0.140E-04	0.451E+01
.74	6	0.190E-04	0.150E-04	0.426E+01
.76	5	0.114E-04	0.161E-04	0.255E+01
.78	6	0.152E-04	0.157E-04	0.341E+01

GROUP SEVEN

VALLES EM SOUNDING 814
 OFFSET DISTANCE IS 6820. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 30.0 AMPERES
 DEFLECTION ANGLE IS 18.0 DEGREES
 DIGITIZING SCALE IS 0.115 MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	-0.225E-04	0.252E-04	-0.503E+01
.04	5	0.140E-04	0.132E-04	0.313E+01
.06	5	0.830E-04	0.974E-04	0.186E+02
.08	5	0.124E-03	0.156E-03	0.278E+02
.10	5	0.130E-03	0.170E-03	0.290E+02
.12	5	0.122E-03	0.164E-03	0.274E+02
.14	5	0.105E-03	0.143E-03	0.235E+02
.16	5	0.867E-04	0.123E-03	0.194E+02
.18	5	0.743E-04	0.105E-03	0.166E+02
.20	5	0.663E-04	0.890E-04	0.148E+02
.22	5	0.573E-04	0.763E-04	0.128E+02
.24	5	0.507E-04	0.675E-04	0.113E+02
.26	5	0.479E-04	0.638E-04	0.107E+02
.28	5	0.415E-04	0.572E-04	0.929E+01
.30	5	0.360E-04	0.504E-04	0.806E+01
.32	5	0.271E-04	0.400E-04	0.606E+01
.34	5	0.280E-04	0.348E-04	0.627E+01
.36	5	0.264E-04	0.312E-04	0.591E+01
.38	5	0.211E-04	0.282E-04	0.472E+01
.40	5	0.158E-04	0.221E-04	0.354E+01
.42	5	0.133E-04	0.212E-04	0.298E+01
.44	5	0.124E-04	0.208E-04	0.277E+01
.46	5	0.110E-04	0.167E-04	0.246E+01
.48	5	0.103E-04	0.164E-04	0.231E+01
.50	5	0.963E-05	0.125E-04	0.216E+01
.52	5	0.849E-05	0.135E-04	0.190E+01
.54	5	0.757E-05	0.131E-04	0.169E+01
.56	5	0.894E-05	0.125E-04	0.200E+01
.58	5	0.803E-05	0.108E-04	0.180E+01
.60	5	0.711E-05	0.101E-04	0.159E+01
.62	5	0.665E-05	0.101E-04	0.149E+01
.64	5	0.573E-05	0.102E-04	0.128E+01
.66	5	0.550E-05	0.119E-04	0.123E+01
.68	5	0.459E-05	0.915E-05	0.103E+01
.70	5	0.482E-05	0.841E-05	0.108E+01
.72	5	0.459E-05	0.791E-05	0.103E+01
.74	5	0.206E-05	0.654E-05	0.462E+00
.76	5	0.321E-05	0.393E-05	0.719E+00
.78	5	0.459E-05	0.562E-05	0.103E+01

GROUP SEVEN

VALLES EM SOUNDING 815
 OFFSET DISTANCE IS 6750. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 15.0 DEGREES
 DIGITIZING SCALE IS 0.115MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.538E-04	0.126E-04	0.944E+01
.04	5	0.164E-03	0.184E-04	0.287E+02
.06	5	0.282E-03	0.149E-04	0.494E+02
.08	5	0.317E-03	0.460E-05	0.557E+02
.10	5	0.303E-03	0.721E-05	0.532E+02
.12	5	0.269E-03	0.703E-05	0.473E+02
.14	5	0.225E-03	0.733E-05	0.395E+02
.16	5	0.186E-03	0.529E-05	0.327E+02
.18	5	0.154E-03	0.561E-05	0.271E+02
.20	5	0.133E-03	0.709E-05	0.234E+02
.22	5	0.112E-03	0.396E-05	0.197E+02
.24	5	0.101E-03	0.703E-05	0.178E+02
.26	5	0.853E-04	0.521E-05	0.150E+02
.28	5	0.754E-04	0.278E-05	0.132E+02
.30	5	0.660E-04	0.338E-05	0.116E+02
.32	5	0.572E-04	0.266E-05	0.100E+02
.34	5	0.492E-04	0.456E-05	0.863E+01
.36	5	0.425E-04	0.163E-05	0.746E+01
.38	5	0.372E-04	0.213E-05	0.654E+01
.40	5	0.354E-04	0.211E-05	0.621E+01
.42	5	0.310E-04	0.163E-05	0.545E+01
.44	5	0.285E-04	0.303E-05	0.500E+01
.46	5	0.246E-04	0.156E-05	0.432E+01
.48	5	0.225E-04	0.156E-05	0.395E+01
.50	5	0.198E-04	0.285E-05	0.347E+01
.52	5	0.177E-04	0.225E-05	0.311E+01
.54	5	0.149E-04	0.218E-05	0.262E+01
.56	5	0.140E-04	0.134E-05	0.246E+01
.58	5	0.136E-04	0.113E-05	0.238E+01
.60	5	0.126E-04	0.163E-05	0.222E+01
.62	5	0.117E-04	0.211E-05	0.206E+01
.64	5	0.106E-04	0.352E-05	0.186E+01
.66	5	0.989E-05	0.415E-05	0.174E+01
.68	5	0.805E-05	0.333E-05	0.141E+01
.70	5	0.713E-05	0.245E-05	0.125E+01
.72	5	0.644E-05	0.172E-05	0.113E+01
.74	5	0.598E-05	0.266E-05	0.105E+01
.76	5	0.598E-05	0.294E-05	0.105E+01
.78	5	0.598E-05	0.223E-05	0.105E+01

GROUP SEVEN

VALLES EM SOUNDING 816
 OFFSET DISTANCE IS 6600. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 34.5 AMPERES
 DEFLECTION ANGLE IS 12.0 DEGREES
 DIGITIZING SCALE IS 0.230MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.143E-03	0.186E-04	0.235E+02
.04	5	0.298E-03	0.119E-04	0.492E+02
.06	5	0.374E-03	0.138E-04	0.617E+02
.08	5	0.393E-03	0.889E-05	0.648E+02
.10	5	0.355E-03	0.138E-04	0.587E+02
.12	5	0.288E-03	0.137E-04	0.476E+02
.14	5	0.225E-03	0.953E-05	0.372E+02
.16	5	0.191E-03	0.980E-05	0.316E+02
.18	5	0.156E-03	0.106E-04	0.258E+02
.20	5	0.133E-03	0.840E-05	0.219E+02
.22	5	0.112E-03	0.761E-05	0.185E+02
.24	5	0.989E-04	0.106E-04	0.163E+02
.26	5	0.814E-04	0.971E-05	0.134E+02
.28	5	0.653E-04	0.982E-05	0.108E+02
.30	5	0.625E-04	0.761E-05	0.103E+02
.32	5	0.570E-04	0.840E-05	0.941E+01
.34	5	0.492E-04	0.938E-05	0.812E+01
.36	5	0.409E-04	0.640E-05	0.675E+01
.38	5	0.368E-04	0.544E-05	0.607E+01
.40	5	0.317E-04	0.512E-05	0.524E+01
.42	5	0.267E-04	0.736E-05	0.440E+01
.44	5	0.248E-04	0.102E-04	0.410E+01
.46	5	0.234E-04	0.853E-05	0.387E+01
.48	5	0.253E-04	0.727E-05	0.417E+01
.50	5	0.216E-04	0.592E-05	0.357E+01
.52	5	0.166E-04	0.761E-05	0.273E+01
.54	5	0.147E-04	0.804E-05	0.243E+01
.56	5	0.133E-04	0.788E-05	0.220E+01
.58	5	0.106E-04	0.721E-05	0.175E+01
.60	5	0.120E-04	0.673E-05	0.197E+01
.62	5	0.106E-04	0.592E-05	0.175E+01
.64	5	0.106E-04	0.312E-05	0.175E+01
.66	5	0.966E-05	0.571E-05	0.159E+01
.68	5	0.736E-05	0.958E-05	0.121E+01
.70	5	0.736E-05	0.733E-05	0.121E+01
.72	5	0.506E-05	0.688E-05	0.835E+00
.74	5	0.414E-05	0.703E-05	0.683E+00
.76	5	0.736E-05	0.512E-05	0.121E+01
.78	4	0.690E-05	0.276E-05	0.114E+01

GROUP SEVEN

VALLES EM SOUNDING 817
 OFFSET DISTANCE IS 6430. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 34.5 AMPERES
 DEFLECTION ANGLE IS 8.0 DEGREES
 DIGITIZING SCALE IS 0.229 MICROVOL TS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.123E-03	0.864E-05	0.181E+02
.04	4	0.280E-03	0.103E-04	0.410E+02
.06	4	0.382E-03	0.413E-05	0.560E+02
.08	4	0.403E-03	0.993E-05	0.590E+02
.10	4	0.373E-03	0.573E-05	0.547E+02
.12	4	0.321E-03	0.106E-04	0.471E+02
.14	4	0.259E-03	0.636E-05	0.379E+02
.16	4	0.207E-03	0.833E-05	0.304E+02
.18	4	0.171E-03	0.121E-04	0.251E+02
.20	4	0.146E-03	0.819E-05	0.214E+02
.22	4	0.124E-03	0.973E-05	0.182E+02
.24	4	0.106E-03	0.987E-05	0.155E+02
.26	4	0.935E-04	0.676E-05	0.137E+02
.28	4	0.803E-04	0.903E-05	0.118E+02
.30	4	0.705E-04	0.767E-05	0.103E+02
.32	4	0.631E-04	0.925E-05	0.925E+01
.34	4	0.573E-04	0.873E-05	0.841E+01
.36	4	0.505E-04	0.843E-05	0.740E+01
.38	4	0.424E-04	0.769E-05	0.622E+01
.40	4	0.413E-04	0.628E-05	0.605E+01
.42	4	0.373E-04	0.819E-05	0.555E+01
.44	4	0.367E-04	0.707E-05	0.538E+01
.46	4	0.321E-04	0.111E-04	0.471E+01
.48	4	0.287E-04	0.819E-05	0.420E+01
.50	4	0.275E-04	0.585E-05	0.404E+01
.52	4	0.235E-04	0.469E-05	0.345E+01
.54	4	0.183E-04	0.429E-05	0.269E+01
.56	4	0.206E-04	0.707E-05	0.303E+01
.58	4	0.155E-04	0.107E-04	0.227E+01
.60	4	0.149E-04	0.678E-05	0.219E+01
.62	4	0.149E-04	0.573E-05	0.219E+01
.64	4	0.132E-04	0.409E-05	0.193E+01
.66	4	0.138E-04	0.585E-05	0.202E+01
.68	4	0.120E-04	0.767E-05	0.177E+01
.70	4	0.917E-05	0.562E-05	0.135E+01
.72	4	0.860E-05	0.571E-05	0.126E+01
.74	4	0.917E-05	0.562E-05	0.135E+01
.76	4	0.803E-05	0.526E-05	0.118E+01
.78	4	0.631E-05	0.522E-05	0.925E+00

GROUP SEVEN

VALLES EM SURVEY 818
 OFFSET DISTANCE IS 6400. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 34.5 AMPERES
 DEFLECTION ANGLE IS 4.0 DEGREES
 DIGITIZING SCALE IS 0.229 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.122E-03	0.247E-04	0.175E+02
.04	5	0.295E-03	0.281E-04	0.422E+02
.06	5	0.404E-03	0.167E-04	0.576E+02
.08	5	0.428E-03	0.956E-05	0.612E+02
.10	5	0.394E-03	0.151E-04	0.562E+02
.12	5	0.329E-03	0.172E-04	0.469E+02
.14	5	0.269E-03	0.124E-04	0.384E+02
.16	5	0.219E-03	0.120E-04	0.312E+02
.18	5	0.180E-03	0.120E-04	0.257E+02
.20	5	0.148E-03	0.990E-05	0.211E+02
.22	5	0.122E-03	0.901E-05	0.175E+02
.24	5	0.106E-03	0.626E-05	0.152E+02
.26	5	0.908E-04	0.690E-05	0.130E+02
.28	5	0.844E-04	0.745E-05	0.120E+02
.30	5	0.706E-04	0.887E-05	0.101E+02
.32	5	0.619E-04	0.711E-05	0.884E+01
.34	5	0.573E-04	0.598E-05	0.818E+01
.36	5	0.555E-04	0.838E-05	0.792E+01
.38	5	0.427E-04	0.111E-04	0.609E+01
.40	5	0.394E-04	0.813E-05	0.563E+01
.42	5	0.372E-04	0.911E-05	0.530E+01
.44	5	0.362E-04	0.109E-04	0.517E+01
.46	5	0.317E-04	0.142E-04	0.452E+01
.48	5	0.298E-04	0.134E-04	0.426E+01
.50	5	0.252E-04	0.124E-04	0.360E+01
.52	5	0.229E-04	0.110E-04	0.327E+01
.54	5	0.202E-04	0.988E-05	0.288E+01
.56	5	0.206E-04	0.106E-04	0.295E+01
.58	5	0.188E-04	0.838E-05	0.268E+01
.60	5	0.179E-04	0.933E-05	0.255E+01
.62	5	0.174E-04	0.853E-05	0.249E+01
.64	5	0.142E-04	0.813E-05	0.203E+01
.66	5	0.124E-04	0.748E-05	0.177E+01
.68	5	0.124E-04	0.674E-05	0.177E+01
.70	5	0.917E-05	0.523E-05	0.131E+01
.72	5	0.101E-04	0.373E-05	0.144E+01
.74	5	0.872E-05	0.445E-05	0.124E+01
.76	5	0.688E-05	0.205E-05	0.982E+00
.78	5	0.596E-05	0.183E-05	0.851E+00

GROUP SEVEN

VALLES EM SOUNDING 819
 OFFSET DISTANCE IS 6200. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 34.5 AMPERES
 DEFLECTION ANGLE IS 5.0 DEGREES
 DIGITIZING SCALE IS 0.229 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.129E-03	0.162E-04	0.162E+02
.04	6	0.284E-03	0.236E-04	0.358E+02
.06	6	0.374E-03	0.688E-05	0.471E+02
.08	6	0.375E-03	0.113E-04	0.472E+02
.10	6	0.330E-03	0.159E-04	0.416E+02
.12	6	0.268E-03	0.190E-04	0.337E+02
.14	6	0.209E-03	0.143E-04	0.263E+02
.16	6	0.176E-03	0.175E-04	0.222E+02
.18	5	0.151E-03	0.106E-04	0.190E+02
.20	6	0.120E-03	0.781E-05	0.152E+02
.22	6	0.982E-04	0.142E-04	0.124E+02
.24	6	0.849E-04	0.116E-04	0.107E+02
.26	6	0.791E-04	0.769E-05	0.996E+01
.28	6	0.677E-04	0.632E-05	0.852E+01
.30	6	0.543E-04	0.791E-05	0.683E+01
.32	5	0.528E-04	0.562E-05	0.664E+01
.34	6	0.436E-04	0.737E-05	0.549E+01
.36	5	0.404E-04	0.950E-05	0.508E+01
.38	6	0.325E-04	0.765E-05	0.409E+01
.40	6	0.298E-04	0.419E-05	0.375E+01
.42	6	0.268E-04	0.745E-05	0.337E+01
.44	6	0.229E-04	0.713E-05	0.289E+01
.46	6	0.218E-04	0.632E-05	0.274E+01
.48	6	0.183E-04	0.688E-05	0.231E+01
.50	6	0.172E-04	0.734E-05	0.217E+01
.52	6	0.141E-04	0.668E-05	0.178E+01
.54	6	0.145E-04	0.524E-05	0.183E+01
.56	6	0.119E-04	0.553E-05	0.149E+01
.58	6	0.103E-04	0.473E-05	0.130E+01
.60	6	0.994E-05	0.587E-05	0.125E+01
.62	6	0.688E-05	0.701E-05	0.866E+00
.64	6	0.765E-05	0.834E-05	0.963E+00
.66	6	0.612E-05	0.733E-05	0.770E+00
.68	6	0.420E-05	0.821E-05	0.529E+00
.70	5	0.917E-05	0.745E-05	0.116E+01
.72	6	0.459E-05	0.783E-05	0.578E+00
.74	6	0.344E-05	0.392E-05	0.433E+00
.76	6	0.306E-05	0.342E-05	0.335E+00
.78	5	0.459E-05	0.668E-05	0.578E+00

GROUP SEVEN

VALLES EM SOUNDING 820
 OFFSET DISTANCE IS 6000. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 34.5 AMPERES
 DEFLECTION ANGLE IS 3.0 DEGREES
 DIGITIZING SCALE IS 0.231 MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.146E-03	0.157E-04	0.161E+02
.04	5	0.399E-03	0.285E-04	0.439E+02
.06	5	0.518E-03	0.145E-04	0.570E+02
.08	5	0.514E-03	0.106E-04	0.566E+02
.10	5	0.426E-03	0.277E-04	0.469E+02
.12	5	0.321E-03	0.269E-05	0.354E+02
.14	5	0.244E-03	0.129E-04	0.269E+02
.16	5	0.199E-03	0.905E-05	0.219E+02
.18	5	0.162E-03	0.527E-05	0.178E+02
.20	5	0.132E-03	0.514E-05	0.145E+02
.22	5	0.112E-03	0.539E-05	0.124E+02
.24	5	0.924E-04	0.462E-05	0.102E+02
.26	5	0.813E-04	0.554E-05	0.895E+01
.28	5	0.721E-04	0.707E-05	0.794E+01
.30	5	0.614E-04	0.647E-05	0.677E+01
.32	5	0.550E-04	0.592E-05	0.605E+01
.34	5	0.503E-04	0.609E-05	0.554E+01
.36	5	0.471E-04	0.647E-05	0.519E+01
.38	5	0.411E-04	0.736E-05	0.453E+01
.40	5	0.365E-04	0.493E-05	0.402E+01
.42	5	0.337E-04	0.428E-05	0.371E+01
.44	5	0.282E-04	0.370E-05	0.310E+01
.46	5	0.273E-04	0.423E-05	0.300E+01
.48	5	0.254E-04	0.386E-05	0.280E+01
.50	5	0.240E-04	0.346E-05	0.265E+01
.52	5	0.212E-04	0.306E-05	0.234E+01
.54	5	0.185E-04	0.327E-05	0.203E+01
.56	5	0.185E-04	0.253E-05	0.203E+01
.58	5	0.189E-04	0.173E-05	0.209E+01
.60	5	0.171E-04	0.313E-05	0.188E+01
.62	5	0.157E-04	0.226E-05	0.173E+01
.64	5	0.134E-04	0.306E-05	0.148E+01
.66	5	0.139E-04	0.146E-05	0.153E+01
.68	5	0.162E-04	0.413E-05	0.178E+01
.70	5	0.148E-04	0.313E-05	0.163E+01
.72	5	0.120E-04	0.306E-05	0.132E+01
.74	5	0.102E-04	0.236E-05	0.112E+01
.76	4	0.139E-04	0.277E-05	0.153E+01
.78	5	0.115E-04	0.292E-05	0.127E+01

GROUP SEVEN

VALLES EM SOUNING 821
 OFFSET DISTANCE IS 6550. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 34.0 AMPERES
 DEFLECTION ANGLE IS 0.0 DEGREES
 DIGITIZING SCALE IS 0.230MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.199E-03	0.601E-04	0.316E+02
.04	4	0.655E-03	0.484E-04	0.104E+03
.06	4	0.718E-03	0.169E-04	0.114E+03
.08	4	0.628E-03	0.342E-04	0.995E+02
.10	4	0.454E-03	0.438E-04	0.719E+02
.12	4	0.320E-03	0.375E-04	0.507E+02
.14	4	0.222E-03	0.193E-04	0.352E+02
.16	4	0.179E-03	0.166E-04	0.284E+02
.18	4	0.141E-03	0.815E-05	0.223E+02
.20	4	0.117E-03	0.983E-05	0.185E+02
.22	4	0.933E-04	0.528E-05	0.148E+02
.24	4	0.812E-04	0.771E-05	0.129E+02
.26	4	0.691E-04	0.862E-05	0.110E+02
.28	4	0.588E-04	0.104E-04	0.931E+01
.30	4	0.472E-04	0.109E-04	0.748E+01
.32	4	0.403E-04	0.115E-04	0.639E+01
.34	4	0.300E-04	0.107E-04	0.475E+01
.36	4	0.248E-04	0.698E-05	0.393E+01
.38	4	0.213E-04	0.550E-05	0.338E+01
.40	4	0.225E-04	0.913E-05	0.356E+01
.42	4	0.230E-04	0.991E-05	0.365E+01
.44	4	0.167E-04	0.996E-05	0.265E+01
.46	4	0.132E-04	0.158E-04	0.210E+01
.48	4	0.138E-04	0.152E-04	0.219E+01
.50	4	0.127E-04	0.124E-04	0.201E+01
.52	4	0.138E-04	0.515E-05	0.219E+01
.54	4	0.156E-04	0.618E-05	0.246E+01
.56	4	0.138E-04	0.747E-05	0.219E+01
.58	4	0.167E-04	0.411E-05	0.265E+01
.60	4	0.115E-04	0.282E-05	0.183E+01
.62	4	0.121E-04	0.299E-05	0.192E+01
.64	4	0.115E-04	0.564E-05	0.183E+01
.66	4	0.864E-05	0.596E-05	0.137E+01
.68	4	0.806E-05	0.475E-05	0.128E+01
.70	4	0.922E-05	0.489E-05	0.146E+01
.72	4	0.634E-05	0.659E-05	0.100E+01
.74	4	-0.288E-05	0.913E-05	-0.456E+00
.76	4	-0.403E-05	0.898E-05	-0.639E+00
.78	4	0.576E-06	0.102E-04	0.913E-01

GROUP SEVEN

VALLES EM SOUNDING 822
 OFFSET DISTANCE IS 5430. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 5.0 DEGREES
 DIGITIZING SCALE IS 0.231MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.147E-03	0.387E-04	0.105E+02
.04	4	0.403E-03	0.213E-04	0.287E+02
.06	4	0.529E-03	0.150E-04	0.377E+02
.08	4	0.470E-03	0.294E-04	0.334E+02
.10	4	0.357E-03	0.381E-04	0.254E+02
.12	4	0.263E-03	0.279E-04	0.187E+02
.14	4	0.204E-03	0.998E-05	0.145E+02
.16	4	0.162E-03	0.139E-04	0.115E+02
.18	4	0.131E-03	0.189E-04	0.933E+01
.20	4	0.113E-03	0.998E-05	0.801E+01
.22	4	0.803E-04	0.915E-05	0.571E+01
.24	4	0.722E-04	0.106E-04	0.514E+01
.26	4	0.647E-04	0.589E-05	0.460E+01
.28	4	0.560E-04	0.412E-05	0.399E+01
.30	4	0.462E-04	0.432E-05	0.329E+01
.32	4	0.381E-04	0.622E-05	0.271E+01
.34	4	0.312E-04	0.115E-05	0.222E+01
.36	4	0.300E-04	0.163E-05	0.214E+01
.38	4	0.260E-04	0.681E-05	0.185E+01
.40	4	0.231E-04	0.849E-05	0.164E+01
.42	4	0.173E-04	0.258E-05	0.123E+01
.44	4	0.144E-04	0.412E-05	0.103E+01
.46	4	0.156E-04	0.597E-05	0.111E+01
.48	4	0.139E-04	0.432E-05	0.986E+00
.50	4	0.104E-04	0.346E-05	0.739E+00
.52	4	0.866E-05	0.526E-05	0.616E+00
.54	4	0.866E-05	0.500E-05	0.616E+00
.56	4	0.924E-05	0.589E-05	0.657E+00
.58	4	0.751E-05	0.252E-05	0.534E+00
.60	4	0.751E-05	0.252E-05	0.534E+00
.62	4	0.808E-05	0.115E-05	0.575E+00
.64	4	0.924E-05	0.233E-05	0.657E+00
.66	4	0.808E-05	0.503E-05	0.575E+00
.68	4	0.693E-05	0.490E-05	0.493E+00
.70	4	0.404E-05	0.379E-05	0.288E+00
.72	4	0.635E-05	0.500E-05	0.452E+00
.74	4	0.693E-05	0.589E-05	0.493E+00
.76	4	0.751E-05	0.500E-05	0.534E+00
.78	4	0.462E-05	0.490E-05	0.329E+00

GROUP SEVEN

VALLES EM SOUNDING 823
 OFFSET DISTANCE IS 5300. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 8.0 DEGREES
 DIGITIZING SCALE IS 0.230MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.157E-03	0.177E-04	0.102E+02
.04	4	0.551E-03	0.328E-04	0.358E+02
.06	4	0.680E-03	0.991E-05	0.442E+02
.08	4	0.594E-03	0.324E-04	0.386E+02
.10	4	0.437E-03	0.263E-04	0.284E+02
.12	4	0.302E-03	0.118E-04	0.197E+02
.14	4	0.221E-03	0.525E-05	0.143E+02
.16	4	0.176E-03	0.528E-05	0.115E+02
.18	4	0.134E-03	0.442E-05	0.873E+01
.20	4	0.116E-03	0.755E-05	0.757E+01
.22	4	0.922E-04	0.431E-05	0.599E+01
.24	4	0.801E-04	0.596E-05	0.521E+01
.26	4	0.709E-04	0.191E-05	0.461E+01
.28	4	0.588E-04	0.346E-05	0.382E+01
.30	4	0.501E-04	0.837E-05	0.326E+01
.32	4	0.490E-04	0.659E-05	0.318E+01
.34	4	0.444E-04	0.341E-05	0.288E+01
.36	4	0.386E-04	0.341E-05	0.251E+01
.38	4	0.300E-04	0.540E-05	0.195E+01
.40	4	0.276E-04	0.431E-05	0.180E+01
.42	4	0.253E-04	0.631E-05	0.165E+01
.44	4	0.207E-04	0.431E-05	0.135E+01
.46	4	0.213E-04	0.442E-05	0.139E+01
.48	4	0.207E-04	0.230E-05	0.135E+01
.50	4	0.207E-04	0.282E-05	0.135E+01
.52	4	0.173E-04	0.115E-05	0.112E+01
.54	4	0.104E-04	0.502E-05	0.674E+00
.56	4	0.121E-04	0.442E-05	0.787E+00
.58	4	0.115E-04	0.364E-05	0.749E+00
.60	4	0.121E-04	0.341E-05	0.767E+00
.62	4	0.979E-05	0.378E-05	0.637E+00
.64	4	0.121E-04	0.525E-05	0.737E+00
.66	4	0.806E-05	0.599E-05	0.524E+00
.68	4	0.576E-05	0.346E-05	0.375E+00
.70	4	0.806E-05	0.415E-05	0.524E+00
.72	4	0.634E-05	0.299E-05	0.412E+00
.74	4	0.461E-05	0.431E-05	0.300E+00
.76	4	0.691E-05	0.672E-05	0.449E+00
.78	4	0.922E-05	0.587E-05	0.599E+00

GROUP SEVEN

VALLES EM SOUNDING 824
 OFFSET DISTANCE IS 5100. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 11.0 DEGREES
 DIGITIZING SCALE IS -0.230MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	-0.145E-03	0.163E-03	-0.817E+01
.04	4	0.167E-03	0.658E-04	0.940E+01
.06	4	0.358E-03	0.411E-03	0.202E+02
.08	4	0.285E-03	0.520E-03	0.160E+02
.10	4	0.229E-03	0.414E-03	0.129E+02
.12	4	0.171E-03	0.315E-03	0.960E+01
.14	4	0.126E-03	0.239E-03	0.707E+01
.16	4	0.945E-04	0.176E-03	0.532E+01
.18	4	0.703E-04	0.146E-03	0.396E+01
.20	4	0.634E-04	0.124E-03	0.357E+01
.22	4	0.559E-04	0.102E-03	0.315E+01
.24	4	0.484E-04	0.813E-04	0.272E+01
.26	4	0.380E-04	0.626E-04	0.214E+01
.28	4	0.374E-04	0.623E-04	0.211E+01
.30	4	0.323E-04	0.520E-04	0.182E+01
.32	4	0.311E-04	0.460E-04	0.175E+01
.34	4	0.259E-04	0.417E-04	0.146E+01
.36	4	0.219E-04	0.401E-04	0.123E+01
.38	4	0.190E-04	0.370E-04	0.107E+01
.40	4	0.179E-04	0.297E-04	0.101E+01
.42	4	0.190E-04	0.258E-04	0.107E+01
.44	4	0.144E-04	0.260E-04	0.811E+00
.46	4	0.138E-04	0.248E-04	0.778E+00
.48	4	0.132E-04	0.260E-04	0.746E+00
.50	4	0.109E-04	0.194E-04	0.616E+00
.52	4	0.109E-04	0.196E-04	0.616E+00
.54	4	0.864E-05	0.147E-04	0.486E+00
.56	4	0.115E-04	0.112E-04	0.649E+00
.58	4	0.115E-04	0.147E-04	0.649E+00
.60	4	0.461E-05	0.157E-04	0.259E+00
.62	4	0.576E-05	0.957E-05	0.324E+00
.64	4	0.749E-05	0.898E-05	0.422E+00
.66	4	0.806E-05	0.599E-05	0.454E+00
.68	4	0.104E-04	0.929E-05	0.584E+00
.70	4	0.979E-05	0.573E-05	0.551E+00
.72	4	0.749E-05	0.804E-05	0.422E+00
.74	4	0.346E-05	0.957E-05	0.195E+00
.76	4	0.288E-05	0.927E-05	0.162E+00
.78	4	0.346E-05	0.125E-04	0.195E+00

GROUP SEVEN

VALLES EM SOUNDING 825
 OFFSET DISTANCE IS 5180. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 17.0 DEGREES
 DIGITIZING SCALE IS -0.230MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.345E-03	0.453E-04	0.213E+02
.04	4	0.773E-03	0.168E-04	0.477E+02
.06	4	0.797E-03	0.117E-04	0.492E+02
.08	4	0.595E-03	0.693E-04	0.367E+02
.10	4	0.400E-03	0.176E-04	0.247E+02
.12	4	0.287E-03	0.171E-04	0.177E+02
.14	4	0.198E-03	0.107E-04	0.122E+02
.16	4	0.160E-03	0.868E-05	0.986E+01
.18	4	0.128E-03	0.129E-04	0.767E+01
.20	4	0.106E-03	0.107E-04	0.653E+01
.22	4	0.891E-04	0.109E-04	0.550E+01
.24	4	0.776E-04	0.548E-05	0.479E+01
.26	4	0.661E-04	0.803E-05	0.408E+01
.28	4	0.546E-04	0.803E-05	0.337E+01
.30	4	0.506E-04	0.586E-05	0.312E+01
.32	4	0.425E-04	0.575E-05	0.262E+01
.34	4	0.356E-04	0.474E-05	0.220E+01
.36	4	0.345E-04	0.282E-05	0.213E+01
.38	4	0.316E-04	0.441E-05	0.195E+01
.40	4	0.253E-04	0.905E-05	0.156E+01
.42	4	0.270E-04	0.716E-05	0.167E+01
.44	4	0.241E-04	0.474E-05	0.149E+01
.46	4	0.224E-04	0.410E-05	0.138E+01
.48	4	0.184E-04	0.563E-05	0.113E+01
.50	4	0.172E-04	0.474E-05	0.106E+01
.52	4	0.149E-04	0.597E-05	0.922E+00
.54	4	0.126E-04	0.883E-05	0.780E+00
.56	4	0.115E-04	0.709E-05	0.709E+00
.58	4	0.109E-04	0.548E-05	0.674E+00
.60	4	0.977E-05	0.658E-05	0.603E+00
.62	4	0.920E-05	0.727E-05	0.567E+00
.64	4	0.362E-05	0.678E-05	0.532E+00
.66	4	0.690E-05	0.762E-05	0.426E+00
.68	4	0.690E-05	0.709E-05	0.426E+00
.70	4	0.747E-05	0.441E-05	0.461E+00
.72	4	0.747E-05	0.410E-05	0.461E+00
.74	4	0.632E-05	0.340E-05	0.390E+00
.76	4	0.517E-05	0.441E-05	0.319E+00
.78	4	0.517E-05	0.191E-05	0.319E+00

GROUP SEVEN

VALLES EM SOUNDING 826
 OFFSET DISTANCE IS 5670. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 15.0 DEGREES
 DIGITIZING SCALE IS 0.231MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.158E-03	0.604E-04	0.138E+02
.04	5	0.480E-03	0.825E-04	0.421E+02
.06	5	0.577E-03	0.477E-05	0.506E+02
.08	5	0.503E-03	0.262E-04	0.441E+02
.10	5	0.379E-03	0.206E-04	0.332E+02
.12	5	0.277E-03	0.151E-04	0.243E+02
.14	5	0.212E-03	0.797E-05	0.186E+02
.16	5	0.165E-03	0.741E-05	0.145E+02
.18	5	0.129E-03	0.628E-05	0.113E+02
.20	5	0.110E-03	0.429E-05	0.961E+01
.22	5	0.894E-04	0.726E-05	0.783E+01
.24	5	0.796E-04	0.236E-05	0.697E+01
.26	5	0.644E-04	0.340E-05	0.564E+01
.28	5	0.583E-04	0.449E-05	0.511E+01
.30	5	0.523E-04	0.314E-05	0.458E+01
.32	5	0.468E-04	0.340E-05	0.410E+01
.34	5	0.380E-04	0.429E-05	0.333E+01
.36	5	0.366E-04	0.307E-05	0.320E+01
.38	5	0.324E-04	0.528E-05	0.284E+01
.40	5	0.306E-04	0.575E-05	0.268E+01
.42	5	0.269E-04	0.314E-05	0.235E+01
.44	5	0.222E-04	0.314E-05	0.199E+01
.46	5	0.227E-04	0.398E-05	0.199E+01
.48	5	0.190E-04	0.536E-05	0.166E+01
.50	5	0.167E-04	0.340E-05	0.146E+01
.52	4	0.162E-04	0.926E-06	0.142E+01
.54	5	0.139E-04	0.254E-05	0.122E+01
.56	5	0.120E-04	0.340E-05	0.105E+01
.58	5	0.120E-04	0.370E-05	0.105E+01
.60	5	0.148E-04	0.376E-05	0.130E+01
.62	5	0.926E-05	0.638E-05	0.811E+00
.64	5	0.787E-05	0.477E-05	0.639E+00
.66	5	0.102E-04	0.631E-05	0.892E+00
.68	5	0.972E-05	0.370E-05	0.852E+00
.70	5	0.926E-05	0.254E-05	0.811E+00
.72	5	0.787E-05	0.185E-05	0.639E+00
.74	5	0.694E-05	0.207E-05	0.606E+00
.76	5	0.737E-05	0.314E-05	0.639E+00
.78	5	0.370E-05	0.404E-05	0.324E+00

GROUP SEVEN

VALLES EM SOUNDING 827
 OFFSET DISTANCE IS 5270. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SURFACE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 23.0 DEGREES
 DIGITIZING SCALE IS 0.230 MICRO VOL TS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.200E-03	0.615E-04	0.138E+02
.04	4	0.662E-03	0.552E-04	0.457E+02
.06	4	0.842E-03	0.224E-04	0.581E+02
.08	4	0.706E-03	0.289E-04	0.468E+02
.10	4	0.484E-03	0.515E-04	0.334E+02
.12	4	0.328E-03	0.288E-04	0.226E+02
.14	4	0.239E-03	0.150E-04	0.165E+02
.16	4	0.176E-03	0.738E-05	0.122E+02
.18	4	0.142E-03	0.868E-05	0.982E+01
.20	4	0.113E-03	0.107E-04	0.779E+01
.22	4	0.870E-04	0.341E-05	0.600E+01
.24	4	0.778E-04	0.341E-05	0.537E+01
.26	4	0.691E-04	0.364E-05	0.477E+01
.28	4	0.507E-04	0.587E-05	0.350E+01
.30	4	0.472E-04	0.475E-05	0.326E+01
.32	4	0.455E-04	0.499E-05	0.314E+01
.34	4	0.351E-04	0.499E-05	0.243E+01
.36	4	0.282E-04	0.659E-05	0.195E+01
.38	4	0.259E-04	0.525E-05	0.179E+01
.40	4	0.248E-04	0.659E-05	0.171E+01
.42	4	0.225E-04	0.698E-05	0.155E+01
.44	4	0.202E-04	0.341E-05	0.139E+01
.46	4	0.173E-04	0.258E-05	0.119E+01
.48	4	0.167E-04	0.299E-05	0.115E+01
.50	4	0.115E-04	0.431E-05	0.795E+00
.52	4	0.121E-04	0.499E-05	0.835E+00
.54	4	0.104E-04	0.415E-05	0.716E+00
.56	4	0.864E-05	0.191E-05	0.596E+00
.58	4	0.864E-05	0.191E-05	0.596E+00
.60	4	0.749E-05	0.251E-05	0.517E+00
.62	4	0.518E-05	0.596E-05	0.358E+00
.64	4	0.461E-05	0.282E-05	0.318E+00
.66	4	0.518E-05	0.411E-05	0.358E+00
.68	4	0.576E-05	0.346E-05	0.398E+00
.70	4	0.634E-05	0.411E-05	0.437E+00
.72	4	0.634E-05	0.442E-05	0.437E+00
.74	4	0.173E-05	0.299E-05	0.119E+00
.76	4	0.518E-05	0.341E-05	0.358E+00
.78	4	0.461E-05	0.326E-05	0.318E+00

GROUP SEVEN

VALLES EM SOUNDING 828
 OFFSET DISTANCE IS 5300. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 30.0DEGREES
 DIGITIZING SCALE IS 0.228MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.246E-03	0.605E-04	0.186E+02
.04	4	0.741E-03	0.753E-04	0.561E+02
.06	4	0.799E-03	0.319E-04	0.604E+02
.08	4	0.612E-03	0.467E-04	0.463E+02
.10	4	0.390E-03	0.450E-04	0.295E+02
.12	4	0.283E-03	0.250E-04	0.214E+02
.14	4	0.199E-03	0.165E-04	0.151E+02
.16	4	0.152E-03	0.815E-05	0.115E+02
.18	4	0.123E-03	0.839E-05	0.933E+01
.20	4	0.976E-04	0.189E-05	0.739E+01
.22	4	0.839E-04	0.438E-05	0.635E+01
.24	4	0.679E-04	0.189E-05	0.514E+01
.26	4	0.559E-04	0.471E-05	0.423E+01
.28	4	0.479E-04	0.532E-05	0.363E+01
.30	4	0.439E-04	0.189E-05	0.333E+01
.32	4	0.400E-04	0.471E-05	0.302E+01
.34	4	0.365E-04	0.361E-05	0.276E+01
.36	4	0.325E-04	0.249E-05	0.246E+01
.38	4	0.268E-04	0.338E-05	0.203E+01
.40	4	0.245E-04	0.297E-05	0.186E+01
.42	4	0.217E-04	0.342E-05	0.164E+01
.44	4	0.200E-04	0.189E-05	0.151E+01
.46	4	0.194E-04	0.198E-05	0.147E+01
.48	4	0.160E-04	0.511E-05	0.121E+01
.50	4	0.146E-04	0.593E-05	0.112E+01
.52	4	0.143E-04	0.520E-05	0.108E+01
.54	4	0.114E-04	0.427E-05	0.864E+00
.56	4	0.114E-04	0.582E-05	0.864E+00
.58	4	0.108E-04	0.297E-05	0.821E+00
.60	4	0.114E-04	0.395E-05	0.864E+00
.62	4	0.742E-05	0.374E-05	0.562E+00
.64	4	0.856E-05	0.467E-05	0.643E+00
.66	4	0.856E-05	0.338E-05	0.648E+00
.68	4	0.742E-05	0.374E-05	0.562E+00
.70	4	0.742E-05	0.249E-05	0.562E+00
.72	4	0.628E-05	0.297E-05	0.475E+00
.74	4	0.457E-05	0.427E-05	0.346E+00
.76	4	0.400E-05	0.249E-05	0.302E+00
.78	4	0.342E-05	0.412E-05	0.259E+00

GROUP SEVEN

VALLES EM SOUNDING 829
 OFFSET DISTANCE IS 5500. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 38.0 DEGREES
 DIGITIZING SCALE IS 0.576 MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	3	0.509E-03	0.437E-04	0.498E+02
.04	3	0.117E-02	0.815E-05	0.114E+03
.06	3	0.908E-03	0.503E-04	0.888E+02
.08	3	0.589E-03	0.411E-04	0.577E+02
.10	3	0.359E-03	0.340E-04	0.351E+02
.12	3	0.252E-03	0.118E-04	0.246E+02
.14	3	0.175E-03	0.165E-04	0.171E+02
.16	3	0.119E-03	0.144E-04	0.116E+02
.18	3	0.979E-04	0.470E-05	0.953E+01
.20	3	0.826E-04	0.272E-05	0.620E+01
.22	3	0.634E-04	0.470E-05	0.563E+01
.24	3	0.576E-04	0.124E-04	0.451E+01
.26	3	0.461E-04	0.470E-05	0.507E+01
.28	3	0.518E-04	0.815E-05	0.394E+01
.30	3	0.403E-04	0.470E-05	0.319E+01
.32	3	0.326E-04	0.718E-05	0.282E+01
.34	3	0.288E-04	0.470E-05	0.207E+01
.36	3	0.211E-04	0.272E-05	0.188E+01
.38	3	0.192E-04	0.979E-05	0.169E+01
.40	3	0.173E-04	0.815E-05	0.150E+01
.42	3	0.154E-04	0.718E-05	0.113E+01
.44	3	0.115E-04	0.815E-05	0.113E+01
.46	3	0.115E-04	0.815E-05	0.751E+00
.48	3	0.768E-05	0.718E-05	0.939E+00
.50	3	0.960E-05	0.543E-05	0.751E+00
.52	3	0.768E-05	0.718E-05	0.563E+00
.54	3	0.576E-05	0.470E-05	0.376E+00
.56	3	0.384E-05	0.272E-05	0.751E+00
.58	3	0.768E-05	0.272E-05	0.563E+00
.60	3	0.768E-05	0.272E-05	0.751E+00
.62	3	0.576E-05	0.470E-05	0.563E+00
.64	3	0.576E-05	0.470E-05	0.563E+00
.66	3	0.576E-05	0.470E-05	0.563E+00
.68	3	0.576E-05	0.470E-05	0.563E+00
.70	3	0.576E-05	0.470E-05	0.563E+00
.72	3	0.576E-05	0.470E-05	0.563E+00
.74	3	0.576E-05	0.470E-05	0.563E+00
.76	3	0.576E-05	0.470E-05	0.563E+00
.78	3	0.576E-05	0.470E-05	0.563E+00

GROUP SEVEN

VALLES EM SOUNDING 830
 OFFSET DISTANCE IS 4900. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 18.0 DEGREES
 DIGITIZING SCALE IS 0.231MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.294E-03	0.355E-04	0.146E+02
.04	5	0.500E-03	0.185E-04	0.248E+02
.05	5	0.501E-03	0.886E-05	0.249E+02
.08	5	0.429E-03	0.216E-04	0.213E+02
.10	5	0.307E-03	0.159E-04	0.152E+02
.12	5	0.234E-03	0.206E-04	0.116E+02
.14	5	0.179E-03	0.109E-04	0.886E+01
.16	5	0.124E-03	0.153E-04	0.615E+01
.18	5	0.949E-04	0.154E-04	0.471E+01
.20	5	0.694E-04	0.107E-04	0.344E+01
.22	5	0.620E-04	0.723E-05	0.308E+01
.24	5	0.583E-04	0.871E-05	0.239E+01
.26	5	0.523E-04	0.967E-05	0.259E+01
.28	5	0.477E-04	0.107E-04	0.237E+01
.30	5	0.389E-04	0.723E-05	0.193E+01
.32	5	0.347E-04	0.111E-04	0.172E+01
.34	5	0.306E-04	0.820E-05	0.152E+01
.36	5	0.222E-04	0.664E-05	0.110E+01
.38	5	0.194E-04	0.520E-05	0.965E+00
.40	5	0.190E-04	0.398E-05	0.942E+00
.42	5	0.181E-04	0.516E-05	0.896E+00
.44	5	0.162E-04	0.439E-05	0.804E+00
.46	5	0.176E-04	0.429E-05	0.873E+00
.48	5	0.167E-04	0.645E-05	0.827E+00
.50	5	0.153E-04	0.559E-05	0.758E+00
.52	5	0.125E-04	0.429E-05	0.620E+00
.54	5	0.106E-04	0.346E-05	0.523E+00
.56	5	0.972E-05	0.393E-05	0.482E+00
.58	5	0.116E-04	0.207E-05	0.574E+00
.60	5	0.125E-04	0.314E-05	0.620E+00
.62	5	0.926E-05	0.207E-05	0.459E+00
.64	5	0.972E-05	0.307E-05	0.432E+00
.66	5	0.125E-04	0.278E-05	0.620E+00
.68	5	0.106E-04	0.314E-05	0.523E+00
.70	5	0.111E-04	0.472E-05	0.551E+00
.72	5	0.648E-05	0.449E-05	0.322E+00
.74	5	0.648E-05	0.270E-05	0.322E+00
.76	5	0.694E-05	0.327E-05	0.344E+00
.78	5	0.737E-05	0.578E-05	0.390E+00

GROUP SEVEN

VALLES EM SOUNDING 831
 OFFSET DISTANCE IS 7470. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 44.0 DEGREES
 DIGITIZING SCALE IS 0.231MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	7	0.143E-03	0.435E-04	0.527E+02
.04	7	0.221E-03	0.343E-04	0.819E+02
.06	7	0.272E-03	0.329E-04	0.100E+03
.08	7	0.306E-03	0.308E-04	0.113E+03
.10	7	0.310E-03	0.221E-04	0.115E+03
.12	7	0.286E-03	0.277E-04	0.106E+03
.14	7	0.264E-03	0.231E-04	0.975E+02
.16	7	0.230E-03	0.180E-04	0.852E+02
.18	7	0.208E-03	0.243E-04	0.763E+02
.20	7	0.171E-03	0.196E-04	0.632E+02
.22	7	0.143E-03	0.143E-04	0.530E+02
.24	7	0.114E-03	0.170E-04	0.421E+02
.26	6	0.974E-04	0.152E-04	0.360E+02
.28	7	0.957E-04	0.799E-05	0.354E+02
.30	7	0.769E-04	0.123E-04	0.284E+02
.32	7	0.673E-04	0.885E-05	0.249E+02
.34	7	0.591E-04	0.845E-05	0.218E+02
.36	7	0.468E-04	0.124E-04	0.173E+02
.38	7	0.422E-04	0.970E-05	0.156E+02
.40	7	0.379E-04	0.507E-05	0.140E+02
.42	7	0.373E-04	0.850E-05	0.138E+02
.44	7	0.343E-04	0.841E-05	0.127E+02
.46	7	0.304E-04	0.598E-05	0.112E+02
.48	7	0.267E-04	0.460E-05	0.939E+01
.50	7	0.208E-04	0.370E-05	0.769E+01
.52	7	0.145E-04	0.489E-05	0.537E+01
.54	7	0.185E-04	0.617E-05	0.683E+01
.56	7	0.181E-04	0.585E-05	0.671E+01
.58	6	0.192E-04	0.536E-05	0.712E+01
.60	7	0.162E-04	0.524E-05	0.598E+01
.62	7	0.132E-04	0.516E-05	0.483E+01
.64	7	0.957E-05	0.775E-05	0.354E+01
.66	7	0.119E-04	0.692E-05	0.439E+01
.68	7	0.102E-04	0.889E-05	0.373E+01
.70	7	0.792E-05	0.708E-05	0.293E+01
.72	6	0.104E-04	0.686E-05	0.384E+01
.74	6	0.112E-04	0.670E-05	0.413E+01
.76	7	0.891E-05	0.692E-05	0.330E+01
.78	7	0.462E-05	0.972E-05	0.171E+01

GROUP SEVEN

VALLES EM SØNDING 832
 OFFSFT DISTANCE IS 7070. METERS
 LOOP AREA IS .3951 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 48.0 DEGREES
 DIGITIZING SCALE IS -0.230MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	-0.415E-04	0.954E-04	-0.564E+01
.04	6	0.305E-03	0.775E-04	0.414E+02
.06	6	0.509E-03	0.674E-04	0.693E+02
.08	6	0.685E-03	0.351E-04	0.932E+02
.10	6	0.742E-03	0.166E-04	0.101E+03
.12	6	0.728E-03	0.349E-04	0.991E+02
.14	6	0.649E-03	0.324E-04	0.883E+02
.16	5	0.525E-03	0.351E-04	0.714E+02
.18	6	0.446E-03	0.167E-04	0.607E+02
.20	6	0.362E-03	0.364E-04	0.493E+02
.22	6	0.304E-03	0.281E-04	0.413E+02
.24	6	0.255E-03	0.208E-04	0.347E+02
.26	6	0.213E-03	0.242E-04	0.289E+02
.28	6	0.167E-03	0.115E-04	0.228E+02
.30	6	0.145E-03	0.119E-04	0.198E+02
.32	6	0.121E-03	0.869E-05	0.164E+02
.34	6	0.106E-03	0.199E-04	0.144E+02
.36	6	0.868E-04	0.189E-04	0.118E+02
.38	6	0.718E-04	0.173E-04	0.977E+01
.40	6	0.622E-04	0.148E-04	0.846E+01
.42	6	0.515E-04	0.168E-04	0.700E+01
.44	6	0.480E-04	0.133E-04	0.653E+01
.46	6	0.434E-04	0.211E-04	0.590E+01
.48	6	0.365E-04	0.191E-04	0.496E+01
.50	6	0.296E-04	0.193E-04	0.402E+01
.52	6	0.257E-04	0.137E-04	0.350E+01
.54	6	0.246E-04	0.174E-04	0.334E+01
.56	6	0.223E-04	0.182E-04	0.303E+01
.58	6	0.211E-04	0.176E-04	0.287E+01
.60	6	0.169E-04	0.196E-04	0.230E+01
.62	6	0.150E-04	0.189E-04	0.204E+01
.64	6	0.127E-04	0.188E-04	0.172E+01
.66	6	0.111E-04	0.173E-04	0.152E+01
.68	6	0.108E-04	0.194E-04	0.146E+01
.70	6	0.103E-04	0.201E-04	0.146E+01
.72	6	0.883E-05	0.191E-04	0.120E+01
.74	6	0.806E-05	0.203E-04	0.110E+01
.76	6	0.883E-05	0.224E-04	0.120E+01
.78	6	0.461E-05	0.192E-04	0.627E+00

GROUP SEVEN

VALLES EM SOUNDING 833
 OFFSET DISTANCE IS 4300. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 16.0DEGREES
 DIGITIZING SCALE IS 0.115MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.245E-03	0.367E-04	0.712E+01
.04	5	0.425E-03	0.146E-04	0.124E+02
.06	5	0.444E-03	0.396E-05	0.129E+02
.08	5	0.409E-03	0.156E-04	0.119E+02
.10	5	0.333E-03	0.135E-04	0.969E+01
.12	5	0.247E-03	0.754E-05	0.717E+01
.14	5	0.206E-03	0.101E-04	0.600E+01
.16	5	0.169E-03	0.548E-05	0.491E+01
.18	5	0.128E-03	0.133E-04	0.373E+01
.20	5	0.105E-03	0.651E-05	0.305E+01
.22	5	0.935E-04	0.532E-05	0.272E+01
.24	5	0.815E-04	0.279E-05	0.237E+01
.26	5	0.670E-04	0.293E-05	0.195E+01
.28	5	0.589E-04	0.163E-05	0.171E+01
.30	5	0.520E-04	0.462E-05	0.151E+01
.32	5	0.483E-04	0.247E-05	0.140E+01
.34	5	0.436E-04	0.382E-05	0.127E+01
.36	5	0.393E-04	0.379E-05	0.114E+01
.38	5	0.339E-04	0.226E-05	0.987E+00
.40	5	0.296E-04	0.214E-05	0.859E+00
.42	5	0.277E-04	0.163E-05	0.805E+00
.44	5	0.247E-04	0.331E-05	0.718E+00
.46	5	0.217E-04	0.224E-05	0.631E+00
.48	5	0.226E-04	0.173E-05	0.658E+00
.50	5	0.206E-04	0.236E-05	0.597E+00
.52	5	0.180E-04	0.238E-05	0.524E+00
.54	5	0.166E-04	0.298E-05	0.433E+00
.56	5	0.127E-04	0.372E-05	0.369E+00
.58	5	0.125E-04	0.313E-05	0.362E+00
.60	5	0.134E-04	0.315E-05	0.389E+00
.62	5	0.139E-04	0.327E-05	0.403E+00
.64	5	0.129E-04	0.396E-05	0.376E+00
.66	5	0.109E-04	0.269E-05	0.315E+00
.68	5	0.855E-05	0.173E-05	0.248E+00
.70	5	0.831E-05	0.170E-05	0.242E+00
.72	5	0.831E-05	0.305E-05	0.242E+00
.74	5	0.111E-04	0.384E-05	0.322E+00
.76	5	0.993E-05	0.315E-05	0.289E+00
.78	5	0.878E-05	0.331E-05	0.255E+00

GROUP SEVEN

VALLFS EM SOUNDING 834
 OFFSET DISTANCE IS 6000. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 35.0 AMPERES
 DEFLECTION ANGLE IS 26.0 DEGREES
 DIGITIZING SCALE IS 0.228MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.179E-03	0.169E-04	0.219E+02
.04	5	0.358E-03	0.130E-04	0.438E+02
.06	5	0.381E-03	0.722E-05	0.467E+02
.08	5	0.332E-03	0.133E-04	0.407E+02
.10	5	0.261E-03	0.188E-04	0.320E+02
.12	5	0.204E-03	0.175E-04	0.250E+02
.14	5	0.158E-03	0.106E-04	0.194E+02
.16	5	0.117E-03	0.728E-05	0.143E+02
.18	5	0.918E-04	0.602E-05	0.112E+02
.20	5	0.753E-04	0.116E-04	0.924E+01
.22	5	0.584E-04	0.492E-05	0.716E+01
.24	5	0.521E-04	0.266E-05	0.638E+01
.26	5	0.447E-04	0.849E-05	0.549E+01
.28	5	0.365E-04	0.677E-05	0.448E+01
.30	5	0.306E-04	0.423E-05	0.375E+01
.32	5	0.247E-04	0.336E-05	0.302E+01
.34	5	0.247E-04	0.365E-05	0.302E+01
.36	5	0.215E-04	0.233E-05	0.263E+01
.38	5	0.205E-04	0.408E-05	0.252E+01
.40	5	0.178E-04	0.443E-05	0.218E+01
.42	5	0.178E-04	0.529E-05	0.218E+01
.44	5	0.146E-04	0.655E-05	0.179E+01
.46	5	0.128E-04	0.745E-05	0.157E+01
.48	5	0.142E-04	0.443E-05	0.174E+01
.50	5	0.114E-04	0.408E-05	0.140E+01
.52	5	0.959E-05	0.466E-05	0.118E+01
.54	5	0.822E-05	0.606E-05	0.101E+01
.56	5	0.731E-05	0.488E-05	0.896E+00
.58	5	0.685E-05	0.433E-05	0.840E+00
.60	5	0.594E-05	0.513E-05	0.728E+00
.62	5	0.594E-05	0.671E-05	0.728E+00
.64	5	0.685E-05	0.479E-05	0.840E+00
.66	5	0.457E-05	0.382E-05	0.560E+00
.68	5	0.548E-05	0.470E-05	0.672E+00
.70	5	0.502E-05	0.419E-05	0.616E+00
.72	5	0.548E-05	0.371E-05	0.672E+00
.74	5	0.365E-05	0.371E-05	0.448E+00
.76	5	0.457E-05	0.521E-05	0.560E+00
.78	5	0.365E-05	0.233E-05	0.448E+00

GROUP SEVEN

VALLES FM SOUNDING 835
 OFFSET DISTANCE IS 9800. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 34.0 AMPERES
 DEFLECTION ANGLE IS 47.0 DEGREES
 DIGITIZING SCALE IS 0.023MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.839E-05	0.373E-06	0.104E+02
.04	5	0.394E-05	0.307E-05	0.487E+01
.06	5	-0.372E-05	0.326E-05	-0.459E+01
.08	5	-0.115E-04	0.285E-05	-0.142E+02
.10	5	-0.188E-04	0.224E-05	-0.232E+02
.12	5	-0.263E-04	0.269E-05	-0.325E+02
.14	5	-0.341E-04	0.286E-05	-0.421E+02
.16	5	-0.380E-04	0.273E-05	-0.469E+02
.18	5	-0.412E-04	0.356E-05	-0.509E+02
.20	5	-0.417E-04	0.346E-05	-0.514E+02
.22	5	-0.403E-04	0.251E-05	-0.497E+02
.24	5	-0.372E-04	0.235E-05	-0.459E+02
.26	5	-0.351E-04	0.172E-05	-0.433E+02
.28	5	-0.318E-04	0.200E-05	-0.393E+02
.30	5	-0.293E-04	0.165E-05	-0.362E+02
.32	5	-0.267E-04	0.140E-05	-0.330E+02
.34	5	-0.245E-04	0.141E-05	-0.303E+02
.36	5	-0.211E-04	0.183E-05	-0.260E+02
.38	5	-0.187E-04	0.180E-05	-0.231E+02
.40	5	-0.167E-04	0.268E-05	-0.207E+02
.42	5	-0.149E-04	0.204E-05	-0.184E+02
.44	5	-0.128E-04	0.149E-05	-0.158E+02
.46	5	-0.109E-04	0.515E-06	-0.135E+02
.48	5	-0.982E-05	0.121E-05	-0.121E+02
.50	5	-0.853E-05	0.162E-05	-0.105E+02
.52	5	-0.729E-05	0.977E-06	-0.901E+01
.54	5	-0.651E-05	0.137E-05	-0.804E+01
.56	5	-0.560E-05	0.109E-05	-0.691E+01
.58	5	-0.482E-05	0.139E-05	-0.595E+01
.60	5	-0.472E-05	0.124E-05	-0.583E+01
.62	5	-0.417E-05	0.875E-06	-0.515E+01
.64	5	-0.331E-05	0.889E-06	-0.470E+01
.66	5	-0.289E-05	0.125E-05	-0.357E+01
.68	5	-0.326E-05	0.162E-05	-0.402E+01
.70	5	-0.284E-05	0.130E-05	-0.351E+01
.72	5	-0.275E-05	0.117E-05	-0.340E+01
.74	5	-0.234E-05	0.924E-06	-0.351E+01
.76	5	-0.261E-05	0.901E-06	-0.323E+01
.78	5	-0.239E-05	0.115E-05	-0.295E+01

GROUP SEVEN

VALLES EM SOUNDING 836
 OFFSET DISTANCE IS 9500. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 45.0 DEGREES
 DIGITIZING SCALE IS 0.023 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.826E-05	0.111E-05	0.813E+01
.04	4	0.148E-04	0.276E-05	0.146E+02
.06	4	0.225E-04	0.354E-05	0.221E+02
.08	4	0.297E-04	0.414E-05	0.293E+02
.10	4	0.358E-04	0.442E-05	0.353E+02
.12	4	0.419E-04	0.366E-05	0.412E+02
.14	4	0.455E-04	0.204E-05	0.448E+02
.16	4	0.475E-04	0.124E-05	0.468E+02
.18	4	0.478E-04	0.122E-05	0.471E+02
.20	4	0.466E-04	0.108E-05	0.459E+02
.22	4	0.439E-04	0.596E-06	0.433E+02
.24	4	0.412E-04	0.169E-05	0.405E+02
.26	4	0.382E-04	0.172E-05	0.376E+02
.28	4	0.342E-04	0.206E-05	0.337E+02
.30	4	0.306E-04	0.240E-05	0.302E+02
.32	4	0.268E-04	0.261E-05	0.264E+02
.34	4	0.243E-04	0.273E-05	0.239E+02
.36	4	0.223E-04	0.247E-05	0.220E+02
.38	4	0.205E-04	0.118E-05	0.202E+02
.40	4	0.183E-04	0.186E-05	0.181E+02
.42	4	0.164E-04	0.835E-06	0.162E+02
.44	4	0.146E-04	0.769E-06	0.143E+02
.46	4	0.124E-04	0.122E-05	0.123E+02
.48	4	0.115E-04	0.197E-05	0.113E+02
.50	4	0.107E-04	0.172E-05	0.105E+02
.52	4	0.981E-05	0.147E-05	0.966E+01
.54	4	0.837E-05	0.103E-05	0.825E+01
.56	4	0.797E-05	0.849E-06	0.785E+01
.58	4	0.677E-05	0.881E-06	0.666E+01
.60	4	0.579E-05	0.497E-06	0.570E+01
.62	4	0.493E-05	0.803E-06	0.486E+01
.64	4	0.401E-05	0.106E-05	0.395E+01
.66	4	0.367E-05	0.623E-06	0.361E+01
.68	4	0.333E-05	0.734E-06	0.328E+01
.70	4	0.327E-05	0.864E-06	0.322E+01
.72	4	0.292E-05	0.750E-06	0.288E+01
.74	4	0.281E-05	0.250E-06	0.277E+01
.76	4	0.298E-05	0.811E-06	0.294E+01
.78	4	0.356E-05	0.106E-05	0.350E+01

GROUP SEVEN

VALLES EM SOUNDING 837
 OFFSET DISTANCE IS 9160. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4260. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 44.0 DEGREES
 DIGITIZING SCALE IS 0.023MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.190E-05	0.470E-05	0.160E+01
.04	5	0.316E-05	0.172E-05	0.266E+01
.06	5	0.464E-06	0.999E-05	0.391E+00
.08	5	-0.162E-05	0.193E-04	-0.137E+01
.10	5	-0.371E-05	0.283E-04	-0.313E+01
.12	5	-0.673E-05	0.394E-04	-0.567E+01
.14	5	-0.794E-05	0.466E-04	-0.668E+01
.16	5	-0.102E-04	0.525E-04	-0.860E+01
.18	5	-0.109E-04	0.548E-04	-0.915E+01
.20	5	-0.107E-04	0.543E-04	-0.938E+01
.22	5	-0.111E-04	0.526E-04	-0.973E+01
.24	5	-0.116E-04	0.486E-04	-0.918E+01
.26	5	-0.109E-04	0.441E-04	-0.875E+01
.28	5	-0.104E-04	0.401E-04	-0.754E+01
.30	5	-0.896E-05	0.364E-04	-0.633E+01
.32	5	-0.752E-05	0.327E-04	-0.676E+01
.34	5	-0.803E-05	0.288E-04	-0.618E+01
.36	5	-0.733E-05	0.258E-04	-0.520E+01
.38	5	-0.617E-05	0.231E-04	-0.410E+01
.40	5	-0.487E-05	0.204E-04	-0.367E+01
.42	5	-0.436E-05	0.177E-04	-0.328E+01
.44	5	-0.390E-05	0.146E-04	-0.289E+01
.46	5	-0.343E-05	0.131E-04	-0.235E+01
.48	5	-0.278E-05	0.114E-04	-0.168E+01
.50	5	-0.200E-05	0.100E-04	-0.180E+01
.52	5	-0.213E-05	0.876E-05	-0.152E+01
.54	5	-0.181E-05	0.785E-05	-0.141E+01
.56	5	-0.167E-05	0.671E-05	-0.109E+01
.58	5	-0.130E-05	0.546E-05	-0.121E+01
.60	5	-0.144E-05	0.511E-05	-0.109E+01
.62	5	-0.130E-05	0.465E-05	-0.938E+00
.64	5	-0.111E-05	0.403E-05	-0.743E+00
.66	5	-0.882E-06	0.345E-05	-0.586E+00
.68	5	-0.696E-06	0.316E-05	-0.547E+00
.70	5	-0.650E-06	0.319E-05	-0.313E+00
.72	5	-0.371E-06	0.305E-05	-0.156E+00
.74	5	-0.186E-06	0.232E-05	-0.156E+00
.76	5	-0.186E-06	0.207E-05	-0.391E-01
.78	5	0.464E-07	0.156E-05	

GROUP SEVEN

VALLES EM SOUNDING 838
 OFFSET DISTANCE IS 8800. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 45.0 DEGREES
 DIGITIZING SCALE IS 0.057 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.188E-04	0.228E-05	0.136E+02
.04	4	0.280E-04	0.224E-05	0.203E+02
.06	4	0.431E-04	0.270E-05	0.313E+02
.08	4	0.603E-04	0.340E-05	0.438E+02
.10	4	0.790E-04	0.329E-05	0.573E+02
.12	4	0.934E-04	0.953E-06	0.677E+02
.14	4	0.101E-03	0.252E-05	0.736E+02
.16	4	0.989E-04	0.352E-05	0.717E+02
.18	4	0.955E-04	0.324E-05	0.693E+02
.20	4	0.895E-04	0.252E-05	0.649E+02
.22	4	0.812E-04	0.216E-05	0.589E+02
.24	4	0.723E-04	0.313E-05	0.524E+02
.26	4	0.644E-04	0.211E-05	0.467E+02
.28	4	0.576E-04	0.248E-05	0.418E+02
.30	4	0.507E-04	0.224E-05	0.368E+02
.32	4	0.430E-04	0.179E-05	0.312E+02
.34	4	0.384E-04	0.209E-05	0.278E+02
.36	4	0.343E-04	0.174E-05	0.249E+02
.38	4	0.295E-04	0.179E-05	0.214E+02
.40	4	0.256E-04	0.184E-05	0.185E+02
.42	4	0.216E-04	0.643E-06	0.156E+02
.44	4	0.185E-04	0.213E-05	0.134E+02
.46	4	0.170E-04	0.271E-05	0.123E+02
.48	4	0.151E-04	0.192E-05	0.109E+02
.50	4	0.141E-04	0.184E-05	0.102E+02
.52	4	0.124E-04	0.217E-05	0.896E+01
.54	4	0.109E-04	0.147E-05	0.792E+01
.56	4	0.106E-04	0.643E-06	0.771E+01
.58	4	0.876E-05	0.124E-05	0.636E+01
.60	4	0.747E-05	0.406E-06	0.542E+01
.62	4	0.690E-05	0.122E-05	0.500E+01
.64	4	0.575E-05	0.147E-05	0.417E+01
.66	4	0.474E-05	0.143E-05	0.344E+01
.68	4	0.287E-05	0.237E-05	0.203E+01
.70	4	0.187E-05	0.216E-05	0.135E+01
.72	4	0.273E-05	0.143E-05	0.198E+01
.74	4	0.330E-05	0.110E-05	0.240E+01
.76	4	0.287E-05	0.122E-05	0.206E+01
.78	4	0.287E-05	0.168E-05	0.208E+01

GROUP SEVEN

VALLES EM SOUNDING 839
 OFFSET DISTANCE IS 8450. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 47.0 DEGREES
 DIGITIZING SCALE IS 0.057 MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.187E-04	0.460E-06	0.121E+02
.04	5	0.217E-04	0.231E-05	0.140E+02
.06	5	0.463E-04	0.318E-05	0.299E+02
.08	5	0.721E-04	0.346E-05	0.465E+02
.10	5	0.100E-03	0.248E-05	0.647E+02
.12	5	0.114E-03	0.261E-05	0.737E+02
.14	5	0.118E-03	0.285E-05	0.759E+02
.16	5	0.114E-03	0.338E-05	0.738E+02
.18	5	0.105E-03	0.482E-05	0.677E+02
.20	5	0.938E-04	0.311E-05	0.605E+02
.22	5	0.841E-04	0.223E-05	0.542E+02
.24	5	0.737E-04	0.476E-05	0.475E+02
.26	5	0.649E-04	0.270E-05	0.419E+02
.28	5	0.566E-04	0.191E-05	0.365E+02
.30	5	0.505E-04	0.292E-05	0.325E+02
.32	5	0.405E-04	0.234E-05	0.261E+02
.34	5	0.348E-04	0.303E-05	0.225E+02
.36	5	0.306E-04	0.237E-05	0.197E+02
.38	5	0.263E-04	0.160E-05	0.170E+02
.40	5	0.222E-04	0.251E-05	0.143E+02
.42	5	0.183E-04	0.228E-05	0.118E+02
.44	5	0.153E-04	0.201E-05	0.985E+01
.46	5	0.138E-04	0.163E-05	0.889E+01
.48	5	0.123E-04	0.194E-05	0.793E+01
.50	5	0.989E-05	0.183E-05	0.637E+01
.52	5	0.897E-05	0.113E-05	0.578E+01
.54	5	0.621E-05	0.210E-05	0.400E+01
.56	5	0.609E-05	0.134E-05	0.393E+01
.58	5	0.598E-05	0.118E-05	0.385E+01
.60	5	0.414E-05	0.123E-05	0.267E+01
.62	5	0.333E-05	0.920E-06	0.215E+01
.64	5	0.241E-05	0.430E-06	0.156E+01
.66	5	0.241E-05	0.563E-06	0.156E+01
.68	5	0.161E-05	0.123E-05	0.104E+01
.70	5	0.805E-06	0.129E-05	0.519E+00
.72	5	0.690E-06	0.168E-05	0.445E+00
.74	5	-0.142E-14	0.163E-05	-0.916E-09
.76	5	-0.460E-06	0.670E-06	-0.296E+00
.78	5	0.345E-06	0.780E-06	0.222E+00

GROUP SEVEN

VALLES EM SOUNDING 840
 OFFSET DISTANCE IS 10150. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 45.0 DEGREES
 DIGITIZING SCALE IS 0.023MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.120E-04	0.227E-05	0.154E+02
.04	5	0.112E-04	0.198E-05	0.144E+02
.06	5	0.122E-04	0.116E-05	0.157E+02
.08	5	0.161E-04	0.181E-05	0.207E+02
.10	5	0.247E-04	0.182E-05	0.317E+02
.12	5	0.294E-04	0.199E-05	0.379E+02
.14	5	0.316E-04	0.832E-06	0.407E+02
.16	5	0.329E-04	0.112E-05	0.423E+02
.18	5	0.333E-04	0.110E-05	0.428E+02
.20	5	0.353E-04	0.178E-05	0.455E+02
.22	5	0.352E-04	0.188E-05	0.452E+02
.24	5	0.331E-04	0.245E-05	0.426E+02
.26	5	0.309E-04	0.322E-05	0.397E+02
.28	5	0.271E-04	0.345E-05	0.349E+02
.30	5	0.234E-04	0.298E-05	0.302E+02
.32	5	0.212E-04	0.387E-05	0.272E+02
.34	5	0.185E-04	0.381E-05	0.233E+02
.36	5	0.162E-04	0.318E-05	0.209E+02
.38	5	0.140E-04	0.260E-05	0.180E+02
.40	5	0.121E-04	0.229E-05	0.156E+02
.42	5	0.106E-04	0.205E-05	0.136E+02
.44	5	0.949E-05	0.158E-05	0.122E+02
.46	5	0.847E-05	0.111E-05	0.109E+02
.48	5	0.753E-05	0.150E-05	0.969E+01
.50	5	0.660E-05	0.154E-05	0.850E+01
.52	5	0.581E-05	0.202E-05	0.746E+01
.54	5	0.572E-05	0.170E-05	0.736E+01
.56	5	0.484E-05	0.175E-05	0.622E+01
.58	5	0.460E-05	0.131E-05	0.592E+01
.60	5	0.414E-05	0.118E-05	0.533E+01
.62	5	0.372E-05	0.964E-06	0.479E+01
.64	5	0.349E-05	0.964E-06	0.442E+01
.66	5	0.340E-05	0.759E-06	0.437E+01
.68	5	0.298E-05	0.850E-06	0.363E+01
.70	5	0.279E-05	0.870E-06	0.359E+01
.72	5	0.223E-05	0.926E-06	0.267E+01
.74	5	0.242E-05	0.787E-06	0.311E+01
.76	5	0.247E-05	0.949E-06	0.317E+01
.78	5	0.205E-05	0.126E-05	0.263E+01

GROUP SEVEN

VALLES EM SOUNDING 841
 OFFSET DISTANCE IS 9900. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 42.0 DEGREES
 DIGITIZING SCALE IS 0.023MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.107E-04	0.195E-05	0.117E+02
.04	5	0.168E-04	0.279E-05	0.184E+02
.05	5	0.207E-04	0.404E-05	0.227E+02
.08	5	0.245E-04	0.430E-05	0.269E+02
.10	5	0.271E-04	0.430E-05	0.297E+02
.12	5	0.300E-04	0.426E-05	0.329E+02
.14	5	0.319E-04	0.351E-05	0.350E+02
.15	5	0.335E-04	0.271E-05	0.368E+02
.18	5	0.322E-04	0.154E-05	0.353E+02
.20	5	0.296E-04	0.194E-05	0.324E+02
.22	5	0.273E-04	0.249E-05	0.299E+02
.24	5	0.247E-04	0.287E-05	0.270E+02
.26	5	0.224E-04	0.189E-05	0.246E+02
.28	5	0.200E-04	0.171E-05	0.219E+02
.30	5	0.177E-04	0.163E-05	0.194E+02
.32	5	0.151E-04	0.249E-05	0.166E+02
.34	5	0.139E-04	0.343E-05	0.152E+02
.36	5	0.127E-04	0.421E-05	0.140E+02
.38	5	0.109E-04	0.302E-05	0.119E+02
.40	5	0.896E-05	0.186E-05	0.932E+01
.42	5	0.767E-05	0.164E-05	0.841E+01
.44	5	0.674E-05	0.105E-05	0.739E+01
.46	5	0.545E-05	0.132E-05	0.597E+01
.48	5	0.439E-05	0.138E-05	0.481E+01
.50	5	0.467E-05	0.103E-05	0.511E+01
.52	5	0.379E-05	0.129E-05	0.415E+01
.54	5	0.356E-05	0.133E-05	0.390E+01
.56	5	0.323E-05	0.157E-05	0.354E+01
.58	5	0.309E-05	0.164E-05	0.339E+01
.60	5	0.309E-05	0.164E-05	0.339E+01
.62	5	0.360E-05	0.224E-05	0.395E+01
.64	5	0.282E-05	0.290E-05	0.309E+01
.66	5	0.268E-05	0.317E-05	0.294E+01
.68	5	0.249E-05	0.313E-05	0.273E+01
.70	5	0.203E-05	0.239E-05	0.223E+01
.72	5	0.185E-05	0.203E-05	0.203E+01
.74	5	0.180E-05	0.240E-05	0.197E+01
.76	5	0.180E-05	0.224E-05	0.197E+01
.78	5	0.162E-05	0.224E-05	0.177E+01

GROUP SEVEN

VALLES EM SOUNDING 842
 OFFSET DISTANCE IS 10100. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 40.0 DEGREES
 DIGITIZING SCALE IS 0.023MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.624E-05	0.156E-05	0.717E+01
.04	4	0.716E-05	0.226E-05	0.823E+01
.06	4	0.358E-05	0.285E-05	0.411E+01
.08	4	0.173E-06	0.340E-05	0.199E+00
.10	4	-0.566E-05	0.267E-05	-0.650E+01
.12	4	-0.982E-05	0.349E-05	-0.113E+02
.14	4	-0.123E-04	0.384E-05	-0.147E+02
.16	4	-0.160E-04	0.313E-05	-0.184E+02
.18	4	-0.210E-04	0.124E-05	-0.241E+02
.20	4	-0.224E-04	0.864E-06	-0.259E+02
.22	4	-0.225E-04	0.207E-05	-0.267E+02
.24	4	-0.232E-04	0.327E-05	-0.249E+02
.26	4	-0.217E-04	0.263E-05	-0.226E+02
.28	4	-0.197E-04	0.210E-05	-0.200E+02
.30	4	-0.174E-04	0.214E-05	-0.182E+02
.32	4	-0.159E-04	0.222E-05	-0.170E+02
.34	4	-0.148E-04	0.270E-05	-0.165E+02
.36	4	-0.144E-04	0.293E-05	-0.154E+02
.38	4	-0.134E-04	0.281E-05	-0.142E+02
.40	4	-0.124E-04	0.249E-05	-0.128E+02
.42	4	-0.111E-04	0.159E-05	-0.117E+02
.44	4	-0.102E-04	0.203E-05	-0.108E+02
.46	4	-0.941E-05	0.258E-05	-0.955E+01
.48	4	-0.831E-05	0.247E-05	-0.849E+01
.50	4	-0.739E-05	0.265E-05	-0.796E+01
.52	4	-0.693E-05	0.247E-05	-0.610E+01
.54	4	-0.531E-05	0.244E-05	-0.557E+01
.56	4	-0.485E-05	0.197E-05	-0.478E+01
.58	4	-0.416E-05	0.238E-05	-0.445E+01
.60	4	-0.387E-05	0.153E-05	-0.398E+01
.62	4	-0.346E-05	0.108E-05	-0.365E+01
.64	4	-0.318E-05	0.900E-06	-0.358E+01
.66	4	-0.312E-05	0.757E-06	-0.305E+01
.68	4	-0.266E-05	0.887E-06	-0.259E+01
.70	4	-0.225E-05	0.870E-06	-0.259E+01
.72	4	-0.225E-05	0.971E-06	-0.252E+01
.74	4	-0.219E-05	0.702E-06	-0.212E+01
.76	4	-0.185E-05	0.379E-06	-0.186E+01
.78	4	-0.162E-05	0.632E-06	-0.166E+01

GROUP SEVEN

VALLES EM SOUNDING 843
 OFFSET DISTANCE IS 9750. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 37.0 DEGREES
 DIGITIZING SCALE IS 0.023MICROVOL TS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.126E-04	0.227E-05	0.120E+02
.04	4	0.153E-04	0.127E-05	0.145E+02
.06	4	0.188E-04	0.122E-05	0.178E+02
.08	4	0.247E-04	0.892E-06	0.234E+02
.10	4	0.303E-04	0.142E-05	0.288E+02
.12	4	0.366E-04	0.209E-05	0.347E+02
.14	4	0.406E-04	0.276E-05	0.385E+02
.16	4	0.452E-04	0.169E-05	0.429E+02
.18	4	0.478E-04	0.158E-05	0.454E+02
.20	4	0.486E-04	0.100E-05	0.461E+02
.22	4	0.478E-04	0.809E-06	0.454E+02
.24	4	0.461E-04	0.138E-05	0.438E+02
.26	4	0.423E-04	0.205E-05	0.401E+02
.28	4	0.398E-04	0.162E-05	0.377E+02
.30	4	0.377E-04	0.206E-05	0.358E+02
.32	4	0.340E-04	0.178E-05	0.323E+02
.34	4	0.296E-04	0.164E-05	0.281E+02
.36	4	0.273E-04	0.187E-05	0.259E+02
.38	4	0.236E-04	0.179E-05	0.224E+02
.40	4	0.207E-04	0.142E-05	0.197E+02
.42	4	0.190E-04	0.841E-06	0.180E+02
.44	4	0.176E-04	0.705E-06	0.167E+02
.46	4	0.149E-04	0.121E-05	0.142E+02
.48	4	0.128E-04	0.121E-05	0.121E+02
.50	4	0.112E-04	0.147E-05	0.106E+02
.52	4	0.103E-04	0.181E-05	0.977E+01
.54	4	0.927E-05	0.132E-05	0.879E+01
.56	4	0.892E-05	0.984E-06	0.847E+01
.58	4	0.830E-05	0.110E-05	0.787E+01
.60	4	0.692E-05	0.892E-06	0.657E+01
.62	4	0.612E-05	0.581E-06	0.581E+01
.64	4	0.584E-05	0.379E-06	0.554E+01
.66	4	0.566E-05	0.249E-06	0.537E+01
.68	4	0.532E-05	0.546E-06	0.505E+01
.70	4	0.493E-05	0.569E-06	0.472E+01
.72	4	0.431E-05	0.512E-06	0.456E+01
.74	4	0.339E-05	0.583E-06	0.369E+01
.76	4	0.343E-05	0.583E-06	0.326E+01
.78	4	0.309E-05	0.894E-06	0.293E+01

GROUP SEVEN

VALLES EM SOUNDING 844
 OFFSET DISTANCE IS 7900. METERS
 LOOP AREA IS .3951 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 9.0 DEGREES
 DIGITIZING SCALE IS 0.230MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	6	0.190E-03	0.489E-04	0.258E+02
.04	6	0.368E-03	0.238E-04	0.499E+02
.06	6	0.447E-03	0.990E-05	0.605E+02
.08	6	0.489E-03	0.687E-05	0.663E+02
.10	6	0.492E-03	0.869E-05	0.667E+02
.12	6	0.467E-03	0.117E-04	0.633E+02
.14	6	0.429E-03	0.153E-04	0.582E+02
.16	6	0.388E-03	0.161E-04	0.526E+02
.18	6	0.349E-03	0.860E-05	0.473E+02
.20	6	0.307E-03	0.104E-04	0.416E+02
.22	6	0.280E-03	0.700E-05	0.379E+02
.24	5	0.239E-03	0.993E-05	0.324E+02
.26	6	0.217E-03	0.814E-05	0.294E+02
.28	6	0.193E-03	0.559E-05	0.261E+02
.30	6	0.171E-03	0.678E-05	0.231E+02
.32	6	0.152E-03	0.897E-05	0.206E+02
.34	6	0.135E-03	0.454E-05	0.183E+02
.36	6	0.121E-03	0.575E-05	0.163E+02
.38	6	0.107E-03	0.591E-05	0.145E+02
.40	6	0.945E-04	0.753E-05	0.128E+02
.42	6	0.879E-04	0.746E-05	0.111E+02
.44	6	0.818E-04	0.436E-05	0.958E+01
.46	6	0.707E-04	0.737E-05	0.859E+01
.48	6	0.634E-04	0.456E-05	0.781E+01
.50	6	0.576E-04	0.515E-05	0.729E+01
.52	6	0.538E-04	0.368E-05	0.692E+01
.54	6	0.511E-04	0.386E-05	0.692E+01
.56	6	0.430E-04	0.725E-05	0.583E+01
.58	6	0.376E-04	0.760E-05	0.510E+01
.60	6	0.338E-04	0.509E-05	0.458E+01
.62	6	0.311E-04	0.544E-05	0.422E+01
.64	6	0.284E-04	0.737E-05	0.385E+01
.66	6	0.276E-04	0.764E-05	0.375E+01
.68	6	0.257E-04	0.769E-05	0.349E+01
.70	6	0.227E-04	0.362E-05	0.307E+01
.72	6	0.215E-04	0.414E-05	0.292E+01
.74	6	0.196E-04	0.370E-05	0.266E+01
.76	6	0.184E-04	0.392E-05	0.250E+01
.78	6	0.138E-04	0.580E-05	0.187E+01

GROUP SEVEN

VALLES EM SOUNDING 845
 OFFSET DISTANCE IS 8200. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 35.0 AMPERES
 DEFLECTION ANGLE IS 5.0 DEGREES
 DIGITIZING SCALE IS 0.057MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.632E-04	0.226E-04	0.240E+02
.04	5	0.132E-03	0.140E-04	0.503E+02
.06	5	0.163E-03	0.506E-05	0.620E+02
.08	5	0.182E-03	0.274E-05	0.690E+02
.10	5	0.184E-03	0.242E-05	0.700E+02
.12	5	0.180E-03	0.269E-05	0.684E+02
.14	5	0.167E-03	0.369E-05	0.633E+02
.16	5	0.152E-03	0.242E-05	0.573E+02
.18	5	0.139E-03	0.593E-05	0.527E+02
.20	5	0.125E-03	0.516E-05	0.474E+02
.22	5	0.114E-03	0.330E-05	0.432E+02
.24	5	0.101E-03	0.231E-05	0.382E+02
.26	5	0.899E-04	0.206E-05	0.341E+02
.28	5	0.810E-04	0.267E-05	0.307E+02
.30	5	0.708E-04	0.512E-05	0.269E+02
.32	5	0.647E-04	0.358E-05	0.246E+02
.34	5	0.579E-04	0.279E-05	0.220E+02
.36	5	0.538E-04	0.105E-05	0.204E+02
.38	5	0.446E-04	0.260E-05	0.169E+02
.40	5	0.408E-04	0.286E-05	0.155E+02
.42	5	0.367E-04	0.162E-05	0.139E+02
.44	5	0.334E-04	0.172E-05	0.127E+02
.46	5	0.319E-04	0.194E-05	0.121E+02
.48	5	0.253E-04	0.329E-05	0.962E+01
.50	5	0.239E-04	0.106E-05	0.906E+01
.52	5	0.231E-04	0.236E-05	0.875E+01
.54	5	0.214E-04	0.287E-05	0.814E+01
.56	5	0.183E-04	0.195E-05	0.697E+01
.58	5	0.162E-04	0.160E-05	0.614E+01
.60	5	0.151E-04	0.165E-05	0.575E+01
.62	5	0.141E-04	0.273E-05	0.536E+01
.64	5	0.119E-04	0.239E-05	0.453E+01
.66	5	0.116E-04	0.236E-05	0.440E+01
.68	5	0.112E-04	0.207E-05	0.427E+01
.70	5	0.104E-04	0.987E-06	0.396E+01
.72	5	0.929E-05	0.160E-05	0.353E+01
.74	5	0.814E-05	0.206E-05	0.309E+01
.76	5	0.826E-05	0.225E-05	0.314E+01
.78	5	0.791E-05	0.122E-05	0.300E+01

GROUP SEVEN

VALLES EM SOUNDING 846
 OFFSET DISTANCE IS 9100. METERS
 LOOP AREA IS .3951 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 2.0 DEGREES
 DIGITIZING SCALE IS 0.115MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.632E-04	0.613E-05	0.149E+02
.04	5	0.149E-03	0.121E-04	0.351E+02
.06	5	0.190E-03	0.107E-04	0.447E+02
.08	5	0.216E-03	0.889E-05	0.508E+02
.10	5	0.234E-03	0.462E-05	0.552E+02
.12	5	0.245E-03	0.546E-05	0.576E+02
.14	5	0.247E-03	0.746E-05	0.582E+02
.16	5	0.241E-03	0.684E-05	0.567E+02
.18	5	0.234E-03	0.556E-05	0.551E+02
.20	5	0.223E-03	0.498E-05	0.525E+02
.22	5	0.209E-03	0.479E-05	0.493E+02
.24	5	0.198E-03	0.496E-05	0.467E+02
.26	5	0.183E-03	0.442E-05	0.430E+02
.28	5	0.172E-03	0.552E-05	0.404E+02
.30	5	0.154E-03	0.200E-05	0.364E+02
.32	5	0.143E-03	0.346E-05	0.337E+02
.34	5	0.128E-03	0.640E-05	0.302E+02
.36	5	0.119E-03	0.644E-05	0.279E+02
.38	5	0.108E-03	0.473E-05	0.254E+02
.40	5	0.984E-04	0.547E-05	0.232E+02
.42	5	0.876E-04	0.336E-05	0.206E+02
.44	5	0.789E-04	0.287E-05	0.186E+02
.46	5	0.738E-04	0.579E-05	0.174E+02
.48	5	0.651E-04	0.892E-05	0.153E+02
.50	5	0.575E-04	0.678E-05	0.135E+02
.52	5	0.531E-04	0.381E-05	0.125E+02
.54	5	0.497E-04	0.285E-05	0.117E+02
.56	5	0.469E-04	0.381E-05	0.110E+02
.58	5	0.411E-04	0.601E-05	0.969E+01
.60	5	0.389E-04	0.320E-05	0.915E+01
.62	5	0.352E-04	0.330E-05	0.828E+01
.64	5	0.317E-04	0.402E-05	0.747E+01
.66	5	0.310E-04	0.477E-05	0.731E+01
.68	5	0.294E-04	0.517E-05	0.693E+01
.70	5	0.276E-04	0.544E-05	0.650E+01
.72	5	0.241E-04	0.701E-05	0.569E+01
.74	5	0.232E-04	0.597E-05	0.547E+01
.76	5	0.234E-04	0.446E-05	0.552E+01
.78	5	0.205E-04	0.366E-05	0.482E+01

GROUP SEVEN

VALLES EM SOUNDING 847
 OFFSET DISTANCE IS 8700. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 3.0 DEGREES
 DIGITIZING SCALE IS 0.057MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.468E-04	0.798E-05	0.218E+02
.04	5	0.937E-04	0.266E-05	0.437E+02
.06	5	0.120E-03	0.221E-05	0.562E+02
.08	5	0.135E-03	0.368E-05	0.631E+02
.10	5	0.145E-03	0.304E-05	0.676E+02
.12	5	0.146E-03	0.213E-05	0.680E+02
.14	5	0.144E-03	0.242E-05	0.672E+02
.16	5	0.136E-03	0.275E-05	0.636E+02
.18	5	0.127E-03	0.197E-05	0.591E+02
.20	5	0.116E-03	0.330E-05	0.541E+02
.22	5	0.104E-03	0.249E-05	0.487E+02
.24	5	0.970E-04	0.197E-05	0.453E+02
.26	5	0.897E-04	0.234E-05	0.418E+02
.28	5	0.806E-04	0.296E-05	0.376E+02
.30	5	0.742E-04	0.234E-05	0.346E+02
.32	5	0.665E-04	0.170E-05	0.310E+02
.34	5	0.588E-04	0.334E-05	0.274E+02
.36	5	0.533E-04	0.162E-05	0.249E+02
.38	5	0.501E-04	0.197E-05	0.234E+02
.40	5	0.450E-04	0.100E-05	0.210E+02
.42	5	0.413E-04	0.178E-05	0.193E+02
.44	5	0.391E-04	0.761E-06	0.182E+02
.46	5	0.321E-04	0.811E-06	0.150E+02
.48	5	0.299E-04	0.179E-05	0.140E+02
.50	5	0.279E-04	0.278E-05	0.130E+02
.52	5	0.258E-04	0.959E-06	0.120E+02
.54	5	0.241E-04	0.213E-05	0.112E+02
.56	5	0.210E-04	0.106E-05	0.979E+01
.58	5	0.177E-04	0.210E-05	0.824E+01
.60	5	0.172E-04	0.195E-05	0.803E+01
.62	5	0.163E-04	0.152E-05	0.760E+01
.64	5	0.146E-04	0.156E-05	0.679E+01
.66	5	0.130E-04	0.263E-05	0.605E+01
.68	5	0.127E-04	0.267E-05	0.594E+01
.70	5	0.108E-04	0.175E-05	0.503E+01
.72	5	0.906E-05	0.122E-05	0.423E+01
.74	5	0.872E-05	0.142E-05	0.407E+01
.76	5	0.814E-05	0.151E-05	0.380E+01
.78	5	0.734E-05	0.843E-06	0.342E+01

GROUP SEVEN

VALLES EM SOUNDING 848
 OFFSET DISTANCE IS 9600. METERS
 LOOP AREA IS .3951 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 1.0DEGREES
 DIGITIZING SCALE IS 0.115MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.392E-04	0.856E-05	0.114E+02
.04	5	0.104E-03	0.122E-04	0.304E+02
.06	5	0.153E-03	0.938E-05	0.444E+02
.08	5	0.180E-03	0.618E-05	0.523E+02
.10	5	0.207E-03	0.741E-05	0.603E+02
.12	5	0.228E-03	0.295E-05	0.664E+02
.14	5	0.236E-03	0.237E-05	0.686E+02
.16	5	0.240E-03	0.295E-05	0.698E+02
.18	5	0.238E-03	0.580E-05	0.693E+02
.20	5	0.236E-03	0.638E-05	0.686E+02
.22	5	0.224E-03	0.474E-05	0.651E+02
.24	5	0.214E-03	0.386E-05	0.623E+02
.26	5	0.205E-03	0.153E-05	0.597E+02
.28	5	0.194E-03	0.578E-05	0.563E+02
.30	5	0.179E-03	0.777E-05	0.521E+02
.32	5	0.170E-03	0.517E-05	0.493E+02
.34	5	0.154E-03	0.971E-05	0.447E+02
.36	5	0.144E-03	0.624E-05	0.418E+02
.38	5	0.129E-03	0.571E-05	0.376E+02
.40	5	0.121E-03	0.729E-05	0.352E+02
.42	5	0.111E-03	0.589E-05	0.322E+02
.44	5	0.104E-03	0.388E-05	0.302E+02
.46	5	0.938E-04	0.716E-05	0.273E+02
.48	5	0.857E-04	0.410E-05	0.249E+02
.50	5	0.774E-04	0.496E-05	0.225E+02
.52	5	0.694E-04	0.542E-05	0.202E+02
.54	5	0.666E-04	0.752E-05	0.194E+02
.56	5	0.601E-04	0.734E-05	0.175E+02
.58	5	0.555E-04	0.589E-05	0.162E+02
.60	5	0.495E-04	0.419E-05	0.144E+02
.62	5	0.435E-04	0.712E-05	0.127E+02
.64	5	0.422E-04	0.503E-05	0.123E+02
.66	5	0.387E-04	0.376E-05	0.113E+02
.68	5	0.389E-04	0.452E-05	0.113E+02
.70	5	0.353E-04	0.497E-05	0.103E+02
.72	5	0.329E-04	0.464E-05	0.953E+01
.74	5	0.320E-04	0.304E-05	0.932E+01
.76	5	0.256E-04	0.507E-05	0.744E+01
.78	5	0.224E-04	0.538E-05	0.650E+01

GROUP SEVEN

VALLES EM SOUNDING 849
 OFFSET DISTANCE IS 10150. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 1.0 DEGREES
 DIGITIZING SCALE IS 0.057 MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.141E-04	0.326E-05	0.122E+02
.04	5	0.318E-04	0.520E-05	0.275E+02
.06	5	0.469E-04	0.462E-05	0.406E+02
.08	5	0.565E-04	0.268E-05	0.489E+02
.10	5	0.653E-04	0.279E-05	0.565E+02
.12	5	0.712E-04	0.335E-05	0.616E+02
.14	5	0.763E-04	0.199E-05	0.660E+02
.16	5	0.787E-04	0.172E-05	0.681E+02
.18	5	0.791E-04	0.211E-05	0.685E+02
.20	5	0.779E-04	0.206E-05	0.674E+02
.22	5	0.755E-04	0.255E-05	0.653E+02
.24	5	0.732E-04	0.187E-05	0.633E+02
.26	5	0.712E-04	0.843E-06	0.616E+02
.28	5	0.679E-04	0.219E-05	0.587E+02
.30	5	0.651E-04	0.280E-05	0.564E+02
.32	5	0.620E-04	0.293E-05	0.537E+02
.34	5	0.570E-04	0.250E-05	0.493E+02
.36	5	0.507E-04	0.197E-05	0.439E+02
.38	5	0.462E-04	0.778E-06	0.400E+02
.40	5	0.431E-04	0.203E-05	0.373E+02
.42	5	0.403E-04	0.210E-05	0.348E+02
.44	5	0.366E-04	0.236E-05	0.316E+02
.46	5	0.343E-04	0.142E-05	0.297E+02
.48	5	0.314E-04	0.147E-05	0.272E+02
.50	5	0.288E-04	0.111E-05	0.249E+02
.52	5	0.272E-04	0.204E-05	0.235E+02
.54	5	0.242E-04	0.239E-05	0.209E+02
.56	5	0.231E-04	0.168E-05	0.199E+02
.58	5	0.217E-04	0.105E-05	0.188E+02
.60	5	0.196E-04	0.133E-05	0.170E+02
.62	5	0.173E-04	0.111E-05	0.150E+02
.64	5	0.158E-04	0.106E-05	0.137E+02
.66	5	0.159E-04	0.128E-05	0.138E+02
.68	5	0.142E-04	0.190E-05	0.123E+02
.70	5	0.116E-04	0.172E-05	0.100E+02
.72	5	0.107E-04	0.237E-05	0.923E+01
.74	5	0.998E-05	0.165E-05	0.863E+01
.76	5	0.929E-05	0.133E-05	0.804E+01
.78	5	0.814E-05	0.279E-05	0.704E+01

GROUP SEVEN

VALLES FM SOUNDING 850
 OFFSET DISTANCE IS 10700. METERS
 LOOP AREA IS .3951 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 11.0 AMPERES
 DEFLECTION ANGLE IS 0.0DEGREES
 DIGITIZING SCALE IS 0.057MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.278E-04	0.383E-05	0.409E+02
.04	5	0.513E-04	0.895E-05	0.755E+02
.06	5	0.810E-04	0.865E-05	0.119E+03
.08	5	0.108E-03	0.695E-05	0.160E+03
.10	5	0.135E-03	0.708E-05	0.198E+03
.12	5	0.151E-03	0.598E-05	0.223E+03
.14	5	0.165E-03	0.636E-05	0.242E+03
.16	5	0.171E-03	0.526E-05	0.252E+03
.18	5	0.178E-03	0.520E-05	0.261E+03
.20	5	0.182E-03	0.244E-05	0.268E+03
.22	5	0.185E-03	0.222E-05	0.272E+03
.24	5	0.181E-03	0.273E-05	0.267E+03
.26	5	0.174E-03	0.345E-05	0.256E+03
.28	5	0.169E-03	0.253E-05	0.249E+03
.30	5	0.163E-03	0.461E-05	0.240E+03
.32	5	0.154E-03	0.390E-05	0.227E+03
.34	5	0.146E-03	0.310E-05	0.214E+03
.36	5	0.138E-03	0.228E-05	0.203E+03
.38	5	0.128E-03	0.364E-05	0.188E+03
.40	5	0.121E-03	0.395E-05	0.178E+03
.42	5	0.111E-03	0.250E-05	0.163E+03
.44	5	0.103E-03	0.275E-05	0.152E+03
.46	5	0.963E-04	0.238E-05	0.142E+03
.48	5	0.907E-04	0.304E-05	0.134E+03
.50	5	0.827E-04	0.304E-05	0.122E+03
.52	5	0.751E-04	0.185E-05	0.111E+03
.54	5	0.709E-04	0.207E-05	0.104E+03
.56	5	0.663E-04	0.187E-05	0.976E+02
.58	5	0.583E-04	0.137E-05	0.858E+02
.60	5	0.549E-04	0.200E-05	0.809E+02
.62	5	0.486E-04	0.386E-05	0.716E+02
.64	5	0.455E-04	0.225E-05	0.670E+02
.66	5	0.431E-04	0.160E-05	0.635E+02
.68	5	0.404E-04	0.207E-05	0.594E+02
.70	5	0.380E-04	0.160E-05	0.559E+02
.72	5	0.354E-04	0.111E-05	0.522E+02
.74	5	0.315E-04	0.249E-05	0.464E+02
.76	5	0.287E-04	0.350E-05	0.422E+02
.78	5	0.252E-04	0.283E-05	0.371E+02

GROUP SEVEN

VALLES EM SOUNDING 851
 OFFSET DISTANCE IS 10200. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 15.0 DEGREES
 DIGITIZING SCALE IS 0.057MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.151E-04	0.212E-05	0.138E+02
.04	5	0.925E-05	0.669E-05	0.846E+01
.06	5	-0.129E-04	0.476E-05	-0.118E+02
.08	5	-0.318E-04	0.517E-05	-0.291E+02
.10	5	-0.412E-04	0.189E-05	-0.377E+02
.12	5	-0.475E-04	0.218E-05	-0.435E+02
.14	5	-0.522E-04	0.221E-05	-0.477E+02
.16	5	-0.549E-04	0.163E-05	-0.503E+02
.18	5	-0.582E-04	0.140E-05	-0.533E+02
.20	5	-0.594E-04	0.807E-06	-0.543E+02
.22	5	-0.607E-04	0.147E-05	-0.556E+02
.24	5	-0.595E-04	0.246E-05	-0.544E+02
.26	5	-0.573E-04	0.241E-05	-0.524E+02
.28	5	-0.565E-04	0.194E-05	-0.517E+02
.30	5	-0.524E-04	0.155E-05	-0.480E+02
.32	5	-0.508E-04	0.120E-05	-0.465E+02
.34	5	-0.477E-04	0.221E-05	-0.437E+02
.36	5	-0.446E-04	0.159E-05	-0.408E+02
.38	5	-0.422E-04	0.365E-05	-0.387E+02
.40	5	-0.389E-04	0.227E-05	-0.356E+02
.42	5	-0.368E-04	0.106E-05	-0.336E+02
.44	5	-0.331E-04	0.884E-06	-0.303E+02
.46	5	-0.317E-04	0.160E-05	-0.290E+02
.48	5	-0.312E-04	0.230E-05	-0.285E+02
.50	5	-0.269E-04	0.132E-05	-0.247E+02
.52	5	-0.252E-04	0.307E-05	-0.231E+02
.54	5	-0.229E-04	0.276E-05	-0.210E+02
.56	5	-0.203E-04	0.262E-05	-0.186E+02
.58	5	-0.193E-04	0.182E-05	-0.177E+02
.60	5	-0.186E-04	0.224E-05	-0.170E+02
.62	5	-0.176E-04	0.167E-05	-0.161E+02
.64	5	-0.160E-04	0.188E-05	-0.146E+02
.66	5	-0.142E-04	0.151E-05	-0.130E+02
.68	5	-0.127E-04	0.246E-05	-0.116E+02
.70	5	-0.114E-04	0.242E-05	-0.104E+02
.72	5	-0.102E-04	0.221E-05	-0.930E+01
.74	5	-0.100E-04	0.318E-05	-0.919E+01
.76	5	-0.947E-05	0.246E-05	-0.867E+01
.78	5	-0.913E-05	0.263E-05	-0.836E+01

GROUP SEVEN

VALLES EM SOUNDING 853
 OFFSET DISTANCE IS 9450. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 20.0DEGREES
 DIGITIZING SCALE IS 0.057MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	-0.105E-04	0.285E-05	-0.728E+01
.04	5	0.221E-04	0.112E-04	0.154E+02
.06	5	0.530E-04	0.840E-05	0.369E+02
.08	5	0.739E-04	0.591E-05	0.514E+02
.10	5	0.916E-04	0.497E-05	0.637E+02
.12	5	0.982E-04	0.242E-05	0.683E+02
.14	5	0.998E-04	0.100E-05	0.694E+02
.16	5	0.103E-03	0.211E-05	0.718E+02
.18	5	0.104E-03	0.107E-05	0.721E+02
.20	5	0.993E-04	0.228E-05	0.691E+02
.22	5	0.945E-04	0.148E-05	0.657E+02
.24	5	0.884E-04	0.266E-05	0.615E+02
.26	5	0.821E-04	0.190E-05	0.571E+02
.28	5	0.769E-04	0.210E-05	0.535E+02
.30	5	0.722E-04	0.240E-05	0.502E+02
.32	5	0.666E-04	0.180E-05	0.463E+02
.34	5	0.621E-04	0.367E-05	0.432E+02
.36	5	0.563E-04	0.182E-05	0.392E+02
.38	5	0.520E-04	0.412E-05	0.361E+02
.40	5	0.474E-04	0.366E-05	0.329E+02
.42	5	0.425E-04	0.265E-05	0.296E+02
.44	5	0.398E-04	0.292E-05	0.277E+02
.46	5	0.385E-04	0.298E-05	0.268E+02
.48	5	0.332E-04	0.292E-05	0.231E+02
.50	5	0.305E-04	0.115E-05	0.212E+02
.52	5	0.275E-04	0.156E-05	0.191E+02
.54	5	0.246E-04	0.183E-05	0.171E+02
.56	5	0.231E-04	0.183E-05	0.161E+02
.58	5	0.209E-04	0.113E-05	0.146E+02
.60	5	0.193E-04	0.129E-05	0.134E+02
.62	5	0.192E-04	0.139E-05	0.134E+02
.64	5	0.176E-04	0.129E-05	0.122E+02
.66	5	0.157E-04	0.226E-05	0.110E+02
.68	5	0.146E-04	0.248E-05	0.102E+02
.70	5	0.144E-04	0.170E-05	0.999E+01
.72	5	0.116E-04	0.133E-05	0.808E+01
.74	5	0.108E-04	0.123E-05	0.752E+01
.76	5	0.111E-04	0.100E-05	0.776E+01
.78	5	0.977E-05	0.126E-05	0.680E+01

GROUP SEVEN

VALLES EM SOUNDING 854
 OFFSET DISTANCE IS 8900. METERS
 LOOP AREA IS .3951 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 22.0 DEGREES
 DIGITIZING SCALE IS 0.115 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.899E-04	0.135E-04	0.211E+02
.04	5	0.256E-03	0.179E-04	0.600E+02
.06	5	0.333E-03	0.606E-05	0.781E+02
.08	5	0.376E-03	0.527E-05	0.883E+02
.10	5	0.388E-03	0.407E-05	0.909E+02
.12	5	0.383E-03	0.531E-05	0.897E+02
.14	5	0.370E-03	0.104E-04	0.868E+02
.16	5	0.341E-03	0.892E-05	0.799E+02
.18	5	0.316E-03	0.366E-05	0.742E+02
.20	5	0.283E-03	0.682E-05	0.663E+02
.22	5	0.251E-03	0.135E-04	0.590E+02
.24	5	0.234E-03	0.124E-04	0.550E+02
.26	5	0.209E-03	0.205E-04	0.490E+02
.28	5	0.184E-03	0.168E-04	0.431E+02
.30	5	0.168E-03	0.133E-04	0.394E+02
.32	5	0.147E-03	0.900E-05	0.345E+02
.34	5	0.133E-03	0.986E-05	0.313E+02
.36	5	0.123E-03	0.106E-04	0.290E+02
.38	5	0.112E-03	0.100E-04	0.263E+02
.40	5	0.105E-03	0.929E-05	0.246E+02
.42	5	0.869E-04	0.743E-05	0.204E+02
.44	5	0.779E-04	0.106E-04	0.183E+02
.46	5	0.713E-04	0.363E-05	0.167E+02
.48	5	0.671E-04	0.480E-05	0.157E+02
.50	5	0.621E-04	0.819E-05	0.146E+02
.52	5	0.552E-04	0.866E-05	0.129E+02
.54	5	0.529E-04	0.716E-05	0.124E+02
.56	5	0.444E-04	0.571E-05	0.104E+02
.58	5	0.361E-04	0.278E-05	0.847E+01
.60	5	0.336E-04	0.511E-05	0.787E+01
.62	5	0.306E-04	0.485E-05	0.717E+01
.64	5	0.301E-04	0.579E-05	0.706E+01
.66	5	0.267E-04	0.570E-05	0.625E+01
.68	5	0.251E-04	0.592E-05	0.588E+01
.70	5	0.214E-04	0.485E-05	0.501E+01
.72	5	0.172E-04	0.509E-05	0.404E+01
.74	5	0.182E-04	0.495E-05	0.426E+01
.76	5	0.170E-04	0.551E-05	0.399E+01
.78	5	0.143E-04	0.330E-05	0.334E+01

GROUP SEVEN

VALLES EM SOUNDING 855
 OFFSET DISTANCE IS 8350. METERS
 LOOP AREA IS .1664 SQUARE KILOMETERS
 SOURCE LENGTH IS 4300. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 20.0 DEGREES
 DIGITIZING SCALE IS 0.115 MICRO VOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	5	0.818E-04	0.105E-04	0.347E+02
.04	5	0.153E-03	0.672E-05	0.650E+02
.06	5	0.192E-03	0.103E-04	0.816E+02
.08	5	0.206E-03	0.528E-05	0.872E+02
.10	5	0.208E-03	0.321E-05	0.880E+02
.12	5	0.201E-03	0.238E-05	0.852E+02
.14	5	0.186E-03	0.508E-05	0.788E+02
.16	5	0.168E-03	0.429E-05	0.711E+02
.18	5	0.154E-03	0.464E-05	0.653E+02
.20	5	0.135E-03	0.558E-05	0.574E+02
.22	5	0.122E-03	0.403E-05	0.516E+02
.24	5	0.107E-03	0.801E-05	0.454E+02
.26	5	0.988E-04	0.367E-05	0.419E+02
.28	5	0.876E-04	0.263E-05	0.371E+02
.30	5	0.790E-04	0.453E-05	0.335E+02
.32	5	0.714E-04	0.309E-05	0.303E+02
.34	5	0.636E-04	0.381E-05	0.270E+02
.36	5	0.548E-04	0.369E-05	0.233E+02
.38	5	0.523E-04	0.459E-05	0.222E+02
.40	5	0.484E-04	0.146E-05	0.205E+02
.42	5	0.422E-04	0.278E-05	0.179E+02
.44	5	0.362E-04	0.331E-05	0.153E+02
.46	5	0.350E-04	0.361E-05	0.149E+02
.48	5	0.329E-04	0.331E-05	0.140E+02
.50	5	0.267E-04	0.134E-05	0.113E+02
.52	5	0.260E-04	0.201E-05	0.110E+02
.54	5	0.244E-04	0.198E-05	0.104E+02
.56	5	0.214E-04	0.269E-05	0.909E+01
.58	5	0.182E-04	0.134E-05	0.772E+01
.60	5	0.177E-04	0.214E-05	0.752E+01
.62	5	0.152E-04	0.304E-05	0.645E+01
.64	5	0.136E-04	0.381E-05	0.576E+01
.66	5	0.129E-04	0.295E-05	0.547E+01
.68	5	0.129E-04	0.313E-05	0.547E+01
.70	5	0.120E-04	0.346E-05	0.508E+01
.72	5	0.115E-04	0.300E-05	0.488E+01
.74	5	0.101E-04	0.198E-05	0.430E+01
.76	5	0.783E-05	0.374E-05	0.338E+01
.78	5	0.922E-05	0.525E-05	0.391E+01

GROUP SEVEN

VALLES EM SØNDING 856
 ØFFSET DISTANCE IS 8750. METERS
 LOOP AREA IS .3951 SQUARE KILOMETERS
 SOURCE LENGTH IS 4290. METERS
 CURRENT IS 36.0 AMPERES
 DEFLECTION ANGLE IS 19.0 DEGREES
 DIGITIZING SCALE IS 0.115MICROVOLTS/DIV

EDITED AND STACKED DATA

TIME	NUMBER	AVERAGE	ST. DEV.	EARLY R
.02	4	0.107E-03	0.134E-04	0.229E+02
.04	4	0.245E-03	0.277E-04	0.524E+02
.06	4	0.324E-03	0.529E-05	0.695E+02
.08	4	0.354E-03	0.910E-05	0.759E+02
.10	4	0.366E-03	0.293E-05	0.783E+02
.12	4	0.369E-03	0.417E-05	0.790E+02
.14	4	0.364E-03	0.125E-05	0.779E+02
.16	4	0.337E-03	0.600E-05	0.723E+02
.18	4	0.314E-03	0.699E-05	0.673E+02
.20	4	0.292E-03	0.565E-05	0.625E+02
.22	4	0.268E-03	0.488E-05	0.529E+02
.24	4	0.247E-03	0.262E-05	0.480E+02
.26	4	0.224E-03	0.455E-05	0.439E+02
.28	4	0.205E-03	0.494E-05	0.390E+02
.30	4	0.182E-03	0.463E-05	0.359E+02
.32	4	0.168E-03	0.433E-05	0.320E+02
.34	4	0.149E-03	0.335E-05	0.292E+02
.36	4	0.136E-03	0.449E-05	0.267E+02
.38	4	0.124E-03	0.170E-05	0.238E+02
.40	4	0.111E-03	0.262E-05	0.213E+02
.42	4	0.994E-04	0.463E-05	0.197E+02
.44	4	0.920E-04	0.315E-05	0.184E+02
.46	4	0.859E-04	0.510E-05	0.161E+02
.48	4	0.750E-04	0.594E-05	0.145E+02
.50	4	0.678E-04	0.381E-05	0.135E+02
.52	4	0.632E-04	0.215E-05	0.129E+02
.54	4	0.601E-04	0.149E-05	0.123E+02
.56	4	0.572E-04	0.221E-05	0.115E+02
.58	4	0.534E-04	0.418E-05	0.107E+02
.60	4	0.497E-04	0.565E-05	0.887E+01
.62	4	0.414E-04	0.527E-05	0.727E+01
.64	4	0.339E-04	0.643E-05	0.702E+01
.66	4	0.328E-04	0.330E-05	0.641E+01
.68	4	0.299E-04	0.215E-05	0.616E+01
.70	4	0.287E-04	0.244E-05	0.530E+01
.72	4	0.247E-04	0.600E-05	0.462E+01
.74	4	0.216E-04	0.510E-05	0.370E+01
.76	4	0.172E-04	0.182E-05	0.370E+01
.78	4	0.172E-04	0.182E-05	0.370E+01

GROUP SEVEN

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GROUP SEVEN

TIME	801	802	803	804	805	806	808	809
0.023	61.76	71.22	59.19	86.15	75.98	67.37	92.05	59.40
0.025	59.68	77.16	66.00	94.04	82.94	72.03	99.27	62.07
0.028	57.60	82.32	72.32	101.01	89.58	76.62	106.31	64.85
0.031	55.54	86.49	77.84	106.77	95.74	81.11	113.07	67.75
0.035	53.48	89.48	82.33	111.05	101.24	85.44	119.42	70.77
0.038	51.44	91.16	85.55	113.66	105.93	89.55	125.26	73.92
0.042	49.43	91.46	87.34	114.47	109.67	93.40	130.48	77.20
0.047	47.43	90.36	87.61	113.45	112.35	96.93	134.98	80.62
0.052	45.46	87.92	86.35	110.64	113.89	100.10	138.67	84.18
0.053	43.52	84.23	83.61	106.17	114.23	102.86	141.47	87.88
0.064	41.49	79.29	79.15	100.14	111.54	103.05	142.25	90.12
0.071	39.22	73.11	72.79	92.70	103.83	98.02	139.60	88.69
0.079	36.85	66.20	65.28	84.31	93.16	89.70	134.31	84.72
0.088	34.62	60.22	58.63	76.28	83.60	81.29	127.37	80.20
0.098	32.67	56.05	53.79	69.31	76.99	74.30	119.35	76.19
0.108	29.92	52.32	49.29	62.39	70.17	67.97	110.03	71.52
0.120	25.56	43.15	44.25	55.00	61.36	62.23	99.46	65.51
0.133	22.10	42.83	39.07	47.97	53.32	56.55	89.05	58.83
0.143	20.32	36.06	34.15	41.59	46.60	50.26	79.66	51.81
0.164	18.35	29.11	29.85	35.50	39.14	43.10	70.69	44.59
0.182	15.59	25.94	25.45	30.69	33.76	37.24	60.14	39.28
0.202	10.53	25.97	21.25	26.24	28.59	31.24	49.42	33.49
0.224	7.03	24.25	17.42	20.71	22.81	25.61	41.50	27.11
0.248	6.40	19.69	14.64	15.88	17.84	21.72	34.95	21.12
0.276	7.44	16.14	12.94	13.24	14.02	17.49	28.05	16.28
0.306	6.38	13.52	10.60	11.53	11.66	14.25	22.52	13.28
0.339	4.44	11.16	8.74	9.28	9.86	12.04	17.85	11.06
0.377	3.43	8.85	7.51	6.71	8.16	9.64	14.21	8.80
0.418	2.92	7.47	6.43	5.67	6.95	8.21	12.15	7.48
0.463	2.79	7.02	5.51	5.79	6.13	7.53	11.29	6.87
0.514	2.74	6.29	4.94	5.28	5.54	6.83	10.86	6.40

TIME	810	811	812	813	814	815	816	817
0.023	145.27	183.06	118.22	49.00	-3.25	33.47	63.12	51.93
0.025	145.79	170.54	118.73	54.84	-2.93	37.70	66.16	55.64
0.028	146.01	159.80	119.81	60.24	-2.01	41.97	68.70	58.97
0.031	145.95	150.62	121.48	64.96	0.19	46.19	70.68	61.81
0.035	145.60	142.80	123.76	68.75	4.61	50.23	72.03	64.08
0.038	144.96	136.19	126.69	71.43	11.92	54.00	72.72	65.71
0.042	144.04	130.65	130.29	72.84	21.67	57.37	72.73	66.65
0.047	142.84	126.09	134.63	72.91	31.70	60.25	72.06	66.87
0.052	141.37	122.41	139.77	71.63	38.63	62.54	70.73	66.35
0.053	139.64	119.56	145.77	69.03	39.63	64.16	68.78	65.13
0.064	137.55	116.89	149.06	65.56	37.35	64.05	66.15	62.92
0.071	134.98	113.68	144.83	61.45	36.12	60.97	62.79	59.45
0.079	132.08	110.37	135.77	56.81	34.09	55.92	58.87	55.14
0.088	129.96	108.87	126.79	52.12	30.99	50.80	54.29	50.91
0.098	129.45	110.54	120.33	47.75	27.48	46.54	49.05	47.27
0.103	126.01	106.24	110.75	43.74	24.47	42.52	42.91	43.20
0.120	115.25	87.93	94.13	40.29	22.88	38.52	35.83	37.98
0.133	104.58	73.06	77.85	37.27	20.97	34.24	30.25	32.31
0.149	96.39	65.51	63.34	34.27	18.02	29.55	26.93	26.97
0.164	83.87	52.89	46.12	30.66	15.46	24.96	24.29	22.76
0.182	69.19	44.77	34.69	27.62	13.64	21.55	20.69	19.78
0.202	60.29	38.67	31.01	24.14	12.53	18.70	16.89	17.38
0.224	53.21	33.49	34.79	20.07	10.77	15.81	14.37	14.60
0.243	43.22	30.02	33.93	16.71	9.08	13.35	11.86	12.06
0.276	36.00	22.73	43.83	14.53	7.90	11.13	9.42	10.52
0.306	27.64	19.15	42.03	12.71	5.94	9.28	8.75	8.90
0.339	21.66	15.35	20.19	11.38	4.96	7.57	7.10	7.74
0.377	17.86	11.96	2.95	10.65	4.08	6.38	5.46	6.40
0.413	15.35	10.49	1.40	9.17	3.38	5.47	4.67	5.43
0.463	13.32	9.31	12.29	7.21	3.18	4.79	4.41	4.81
0.514	13.49	9.35	17.32	5.72	2.87	4.34	3.94	4.09

TIME	818	819	820	821	822	823	824	825
0.023	52.31	44.80	53.74	121.85	35.07	41.75	-1.32	62.41
0.025	56.57	47.79	58.91	137.67	39.06	47.63	-1.07	68.12
0.028	60.43	50.39	63.42	150.51	42.51	52.72	-0.13	71.93
0.031	63.75	52.52	67.07	159.24	45.20	56.62	2.66	73.47
0.035	66.42	54.10	69.66	163.03	46.96	59.01	8.92	72.59
0.038	68.34	55.07	71.06	161.53	47.67	59.67	19.43	69.38
0.042	69.46	55.42	71.20	154.89	47.28	58.55	31.93	64.14
0.047	69.72	55.11	70.07	143.72	45.82	55.75	40.87	57.37
0.052	69.11	54.17	67.73	129.05	43.38	51.51	41.08	49.63
0.058	67.66	52.63	64.31	112.12	40.14	46.18	32.43	41.53
0.064	65.22	50.11	59.77	95.03	35.70	39.91	22.51	33.29
0.071	61.62	46.25	54.16	79.39	29.89	32.97	15.95	25.25
0.079	57.20	41.61	47.95	65.11	23.85	26.17	10.77	18.32
0.088	52.43	37.10	41.61	53.19	19.19	20.66	7.67	14.41
0.098	47.63	33.14	35.46	43.91	16.25	16.65	6.59	13.56
0.108	42.53	29.24	29.93	37.43	14.34	14.08	6.56	13.52
0.120	37.07	25.19	25.36	33.97	13.29	13.07	7.40	12.80
0.133	32.20	21.58	21.81	29.45	12.28	12.00	7.13	10.79
0.148	28.13	18.86	19.20	23.52	10.64	10.10	4.92	8.15
0.164	24.03	17.03	16.93	20.42	8.43	8.22	3.30	6.69
0.182	20.30	14.76	14.23	17.17	6.90	6.62	2.64	5.92
0.202	16.92	11.37	11.78	14.41	5.67	5.74	3.02	5.17
0.224	14.12	9.23	9.78	11.75	4.31	4.63	2.86	4.29
0.248	11.95	8.54	8.03	9.83	3.73	3.81	2.02	3.60
0.276	10.33	7.17	7.03	7.93	3.19	3.46	1.77	2.99
0.306	8.62	5.62	5.91	5.49	2.45	2.92	1.61	2.51
0.339	7.59	4.87	4.99	3.84	1.89	2.45	1.26	2.15
0.377	6.16	3.94	4.29	3.42	1.62	1.87	1.04	1.81
0.418	5.19	3.35	3.67	3.02	1.41	1.59	0.91	1.55
0.463	4.77	3.03	3.16	2.62	1.21	1.55	0.84	1.36
0.514	3.98	2.74	2.72	2.84	1.20	1.34	0.71	1.18

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GROUP SEVEN

TIME	826	827	828	829	830	831	832	833
0.023	50.75	53.49	68.74	159.24	34.24	114.73	33.14	17.01
0.025	56.96	61.00	77.86	181.17	34.91	113.77	42.97	17.37
0.028	62.16	67.52	84.93	193.10	34.98	113.02	53.89	17.49
0.031	65.93	72.57	89.23	192.81	34.44	112.46	65.36	17.35
0.035	67.98	75.71	90.28	180.37	33.33	112.11	76.67	16.96
0.038	68.14	76.68	87.99	158.07	31.70	111.94	86.99	16.34
0.042	66.40	75.40	82.58	129.77	29.62	111.97	95.45	15.52
0.047	68.90	71.97	74.66	99.82	27.21	112.20	101.29	14.52
0.052	57.91	66.70	65.00	71.93	24.56	112.62	103.96	13.39
0.058	51.84	60.01	54.51	48.55	21.78	113.24	103.19	12.17
0.064	44.96	51.30	43.40	32.23	19.02	113.90	101.56	11.00
0.071	37.63	40.55	32.23	22.41	16.40	114.38	102.32	10.02
0.079	30.50	30.08	22.61	15.97	13.96	114.75	103.91	9.14
0.088	25.01	22.30	16.87	13.75	12.06	114.09	103.14	8.26
0.098	21.49	17.30	14.68	16.52	10.84	111.63	98.26	7.37
0.108	19.12	14.61	14.33	21.15	9.86	105.79	92.42	6.43
0.120	17.64	14.33	15.45	21.71	8.87	94.97	87.73	5.46
0.133	15.60	13.61	14.11	14.90	7.38	84.88	77.78	4.86
0.143	12.67	10.91	9.79	7.51	5.45	77.75	62.70	4.54
0.164	10.30	8.24	7.64	6.03	3.93	69.80	52.15	3.72
0.182	8.72	6.63	6.62	6.92	3.30	61.81	44.31	2.85
0.202	7.52	5.57	5.94	6.76	2.89	50.66	37.30	2.36
0.224	6.27	4.49	4.85	4.34	2.61	39.98	30.09	2.20
0.248	5.22	3.95	3.76	3.60	2.39	31.05	23.74	1.86
0.276	4.37	3.04	3.18	3.93	2.02	27.05	17.78	1.50
0.306	3.83	2.55	2.80	2.72	1.70	23.07	14.04	1.34
0.339	3.09	2.17	2.41	1.83	1.33	18.76	11.45	1.15
0.377	2.67	1.72	1.93	1.62	0.99	15.41	8.81	0.94
0.418	2.33	1.43	1.65	1.41	0.83	13.04	7.50	0.80
0.463	1.98	1.33	1.53	1.26	0.82	11.82	7.20	0.72
0.514	1.75	1.24	1.27	1.30	0.79	10.43	6.94	0.61

11-60

GROUP SEVEN

TIME	834	835	836	837	838	839	840	841
0.023	57.88	8.74	20.87	4.01	29.46	19.72	24.47	26.46
0.025	61.05	5.26	21.21	4.23	29.22	19.22	20.59	26.04
0.028	63.06	1.86	21.70	4.17	29.34	19.25	17.94	25.75
0.031	63.76	-1.44	22.36	3.82	29.81	19.83	16.20	25.59
0.035	63.12	-4.65	23.20	3.22	30.66	20.99	15.14	25.55
0.038	61.18	-7.74	24.24	2.38	31.92	22.83	14.66	25.64
0.042	58.06	-10.73	25.50	1.36	33.63	25.52	14.70	25.85
0.047	53.94	-13.59	27.01	0.22	35.86	29.32	15.27	26.19
0.052	49.07	-16.33	28.81	-0.99	38.71	34.60	16.43	26.66
0.058	43.70	-18.94	30.95	-2.22	42.28	41.96	18.31	27.27
0.064	38.33	-21.64	33.23	-3.19	46.43	50.48	21.06	28.08
0.071	33.37	-24.63	35.37	-3.67	50.79	57.61	24.88	29.15
0.079	23.78	-27.64	37.46	-3.90	55.58	63.68	30.20	30.49
0.088	25.29	-30.24	39.59	-4.35	60.80	69.36	36.35	32.01
0.098	23.24	-32.30	41.78	-5.23	66.34	74.77	42.05	33.62
0.108	21.44	-36.33	43.85	-6.23	71.13	77.59	45.60	34.92
0.120	19.11	-42.71	45.51	-7.19	73.40	75.10	44.28	35.30
0.133	16.07	-47.32	46.45	-8.01	73.10	71.05	42.12	35.76
0.148	12.52	-49.51	46.49	-8.98	70.20	67.55	41.86	36.59
0.164	9.40	-50.22	45.93	-9.76	64.96	61.93	41.67	35.70
0.182	7.99	-49.90	44.53	-9.63	60.38	55.40	42.57	32.04
0.202	6.99	-47.80	42.14	-8.41	55.65	48.61	43.13	27.74
0.224	5.56	-43.58	38.53	-8.62	48.57	41.45	40.43	24.53
0.248	4.69	-38.38	34.63	-8.64	40.93	34.53	35.32	21.44
0.276	3.93	-34.27	30.41	-7.40	34.95	28.72	29.39	18.25
0.306	3.12	-29.96	25.21	-5.84	28.74	23.35	24.19	14.58
0.339	2.63	-25.71	21.41	-5.53	23.17	18.01	20.32	12.37
0.377	2.41	-21.85	19.05	-4.83	19.43	14.93	16.59	10.62
0.418	2.06	-18.62	16.35	-3.91	16.62	12.81	14.14	9.04
0.463	1.69	-16.03	13.52	-3.49	14.70	11.47	12.70	7.82
0.514	1.49	-13.51	11.69	-2.75	13.43	11.06	11.42	6.91

II-61

GROUP SEVEN

TIME	8 42	8 43	8 44	8 45	8 46	8 47	8 48	8 49
0. 023	10. 82	23. 17	66. 51	65. 92	47. 61	53. 84	42. 69	40. 64
0. 025	9. 54	21. 53	68. 64	68. 74	50. 34	61. 13	46. 45	43. 15
0. 028	8. 17	20. 41	70. 35	71. 13	52. 75	63. 14	50. 02	45. 57
0. 031	6. 72	19. 73	71. 62	73. 04	54. 78	64. 86	53. 34	47. 89
0. 035	5. 20	19. 46	72. 43	74. 43	56. 37	66. 24	56. 32	50. 07
0. 038	3. 62	19. 57	72. 75	75. 27	57. 49	67. 26	58. 87	52. 09
0. 042	2. 01	20. 08	72. 59	75. 54	58. 11	67. 91	60. 92	53. 91
0. 047	0. 37	21. 01	71. 93	75. 23	58. 21	68. 18	62. 42	55. 51
0. 052	- 1. 28	22. 42	70. 80	74. 35	57. 78	68. 06	63. 32	56. 86
0. 058	- 2. 93	24. 41	69. 22	72. 92	56. 84	67. 56	63. 60	57. 95
0. 064	- 4. 67	26. 78	67. 74	71. 57	56. 17	67. 24	63. 90	59. 13
0. 071	- 6. 56	29. 17	67. 02	71. 06	56. 74	67. 85	65. 09	60. 89
0. 079	- 8. 52	31. 75	66. 72	71. 01	58. 11	69. 05	66. 83	63. 05
0. 088	- 10. 75	34. 58	66. 27	70. 84	59. 71	70. 28	69. 14	65. 78
0. 098	- 13. 29	37. 60	65. 38	70. 24	61. 26	71. 20	72. 27	69. 34
0. 108	- 15. 64	40. 22	63. 27	68. 55	62. 33	71. 12	75. 21	72. 70
0. 120	- 17. 49	41. 53	58. 96	64. 86	62. 10	69. 04	76. 48	74. 40
0. 133	- 18. 81	42. 50	53. 94	59. 86	60. 46	66. 26	75. 85	74. 75
0. 148	- 20. 67	43. 93	49. 29	54. 65	57. 82	63. 29	73. 73	74. 26
0. 164	- 24. 73	45. 22	44. 84	50. 40	55. 48	58. 84	71. 86	73. 46
0. 182	- 27. 60	45. 78	40. 18	46. 02	52. 94	53. 55	70. 63	72. 32
0. 202	- 27. 49	44. 68	35. 35	40. 97	49. 54	47. 83	68. 24	70. 03
0. 224	- 24. 75	41. 86	31. 09	36. 34	45. 91	43. 16	63. 81	66. 13
0. 248	- 23. 98	37. 69	26. 90	31. 87	41. 71	39. 81	59. 27	62. 44
0. 276	- 21. 85	33. 20	23. 08	26. 97	36. 76	35. 15	54. 27	58. 39
0. 306	- 18. 26	29. 45	19. 32	22. 66	32. 31	29. 72	48. 59	53. 32
0. 339	- 16. 59	25. 37	16. 53	19. 92	28. 06	25. 55	43. 11	46. 77
0. 377	- 15. 03	21. 22	13. 92	16. 45	24. 27	22. 43	37. 23	39. 54
0. 418	- 12. 95	18. 13	11. 85	14. 01	20. 84	19. 21	31. 87	33. 84
0. 463	- 10. 46	15. 90	10. 34	12. 43	17. 58	16. 02	26. 92	29. 12
0. 514	- 8. 39	13. 21	8. 96	10. 56	14. 57	13. 65	21. 53	23. 34

1K62

GROUP SEVEN

TIME	850	851	853	854	855	856
0.023	26.0	14.19	12.79	74.40	87.04	67.65
0.025	26.9	12.84	17.85	80.98	90.09	72.22
0.028	27.7	9.09	24.01	86.90	92.64	76.33
0.031	29.0	3.29	31.09	91.94	94.64	79.85
0.035	30.2	-4.03	38.79	95.89	96.05	82.70
0.038	31.8	-12.25	46.60	98.61	96.85	84.79
0.042	33.4	-20.75	53.93	99.98	97.02	86.06
0.047	35.5	-28.96	60.12	99.94	96.55	86.47
0.052	37.0	-36.47	64.54	98.49	95.46	86.01
0.058	40.5	-42.99	66.73	95.69	93.77	84.70
0.064	43.2	-47.85	67.98	92.99	91.87	83.05
0.071	49.2	-50.94	70.23	92.05	90.27	81.70
0.079	49.6	-53.06	72.60	92.01	83.75	80.39
0.088	52.0	-53.63	74.24	91.77	87.62	79.72
0.098	54.1	-51.92	74.83	90.79	87.22	80.29
0.108	55.6	-51.04	75.05	89.51	85.65	80.86
0.120	56.6	-54.67	75.65	88.08	80.85	80.06
0.133	56.4	-57.98	75.78	84.44	74.23	77.01
0.148	58.0	-60.20	75.34	77.85	67.45	71.64
0.164	58.5	-61.90	75.63	70.99	61.84	66.07
0.182	59.0	-61.78	72.65	64.10	56.44	61.95
0.202	59.0	-60.22	67.10	56.57	49.53	57.85
0.224	58.5	-58.81	61.70	50.89	43.55	52.34
0.243	54.3	-56.04	56.24	46.29	38.80	46.12
0.276	51.0	-52.51	50.93	39.41	33.30	39.68
0.306	47.3	-49.18	46.23	33.58	29.02	34.27
0.339	42.7	-43.78	40.89	28.23	24.30	29.69
0.377	37.5	-38.19	34.84	24.85	20.94	25.28
0.418	32.2	-32.89	29.84	21.42	18.04	21.65
0.463	26.7	-27.41	25.47	17.83	15.20	18.55
0.514	20.6	-21.49	20.41	15.50	13.27	15.68

Apparent resistivity,
ohm-meters

100

10

.01

.1 Time, seconds

802

803

801

GROUP SEVEN

II-63

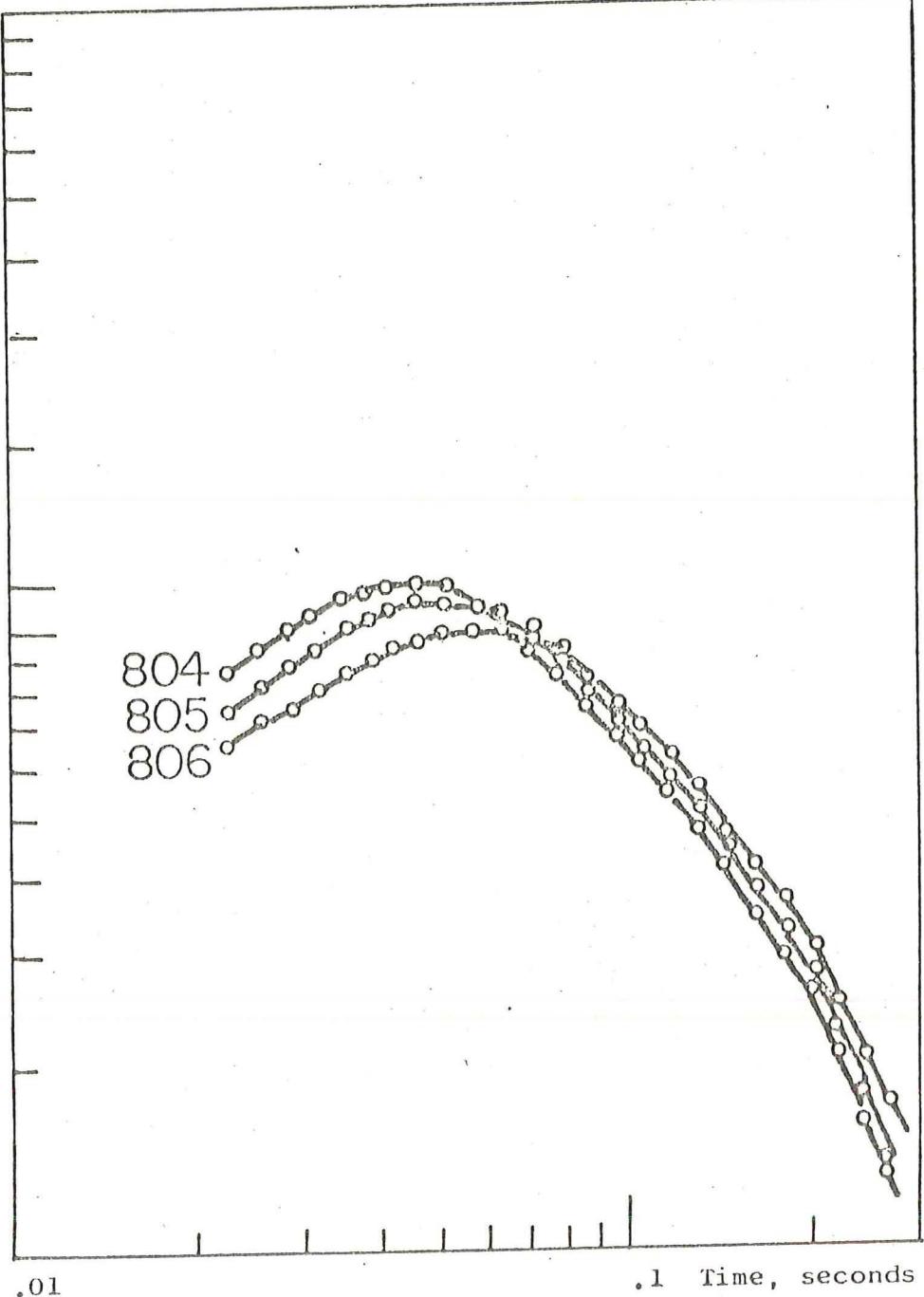
Resistivity,
ohm-meters

1000

100

10

804
805
806



GROUP SEVEN

II-64

Apparent resistivity,
ohm-meters

1000

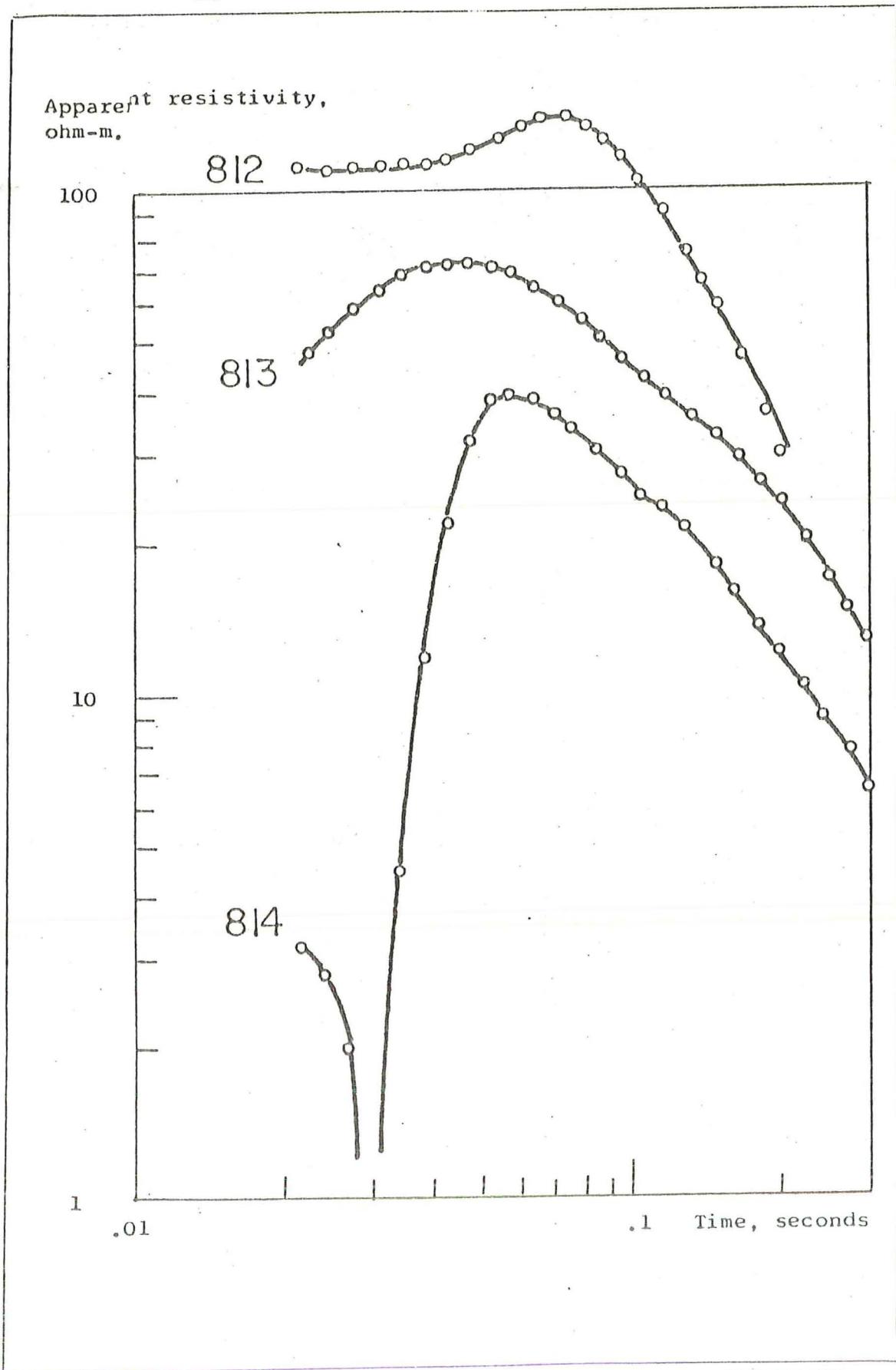
811
810
100.
808
809

10

.01

.1 Time, seconds

GROUP SEVEN



GROUP SEVEN

Apparent resistivity,
ohm-meters

100

10

1

.01

816

817

815

.1 Time, seconds

GROUP SEVEN

II-67

Apparent resistivity,
ohm-meters

100

10

1

.01

.1 Time, seconds

820
818
819

GROUP SEVEN

II - 68

Apparent resistivity,
ohm-meters

1000

100

10

.01

.1 Time, seconds

821

823

822

GROUP SEVEN

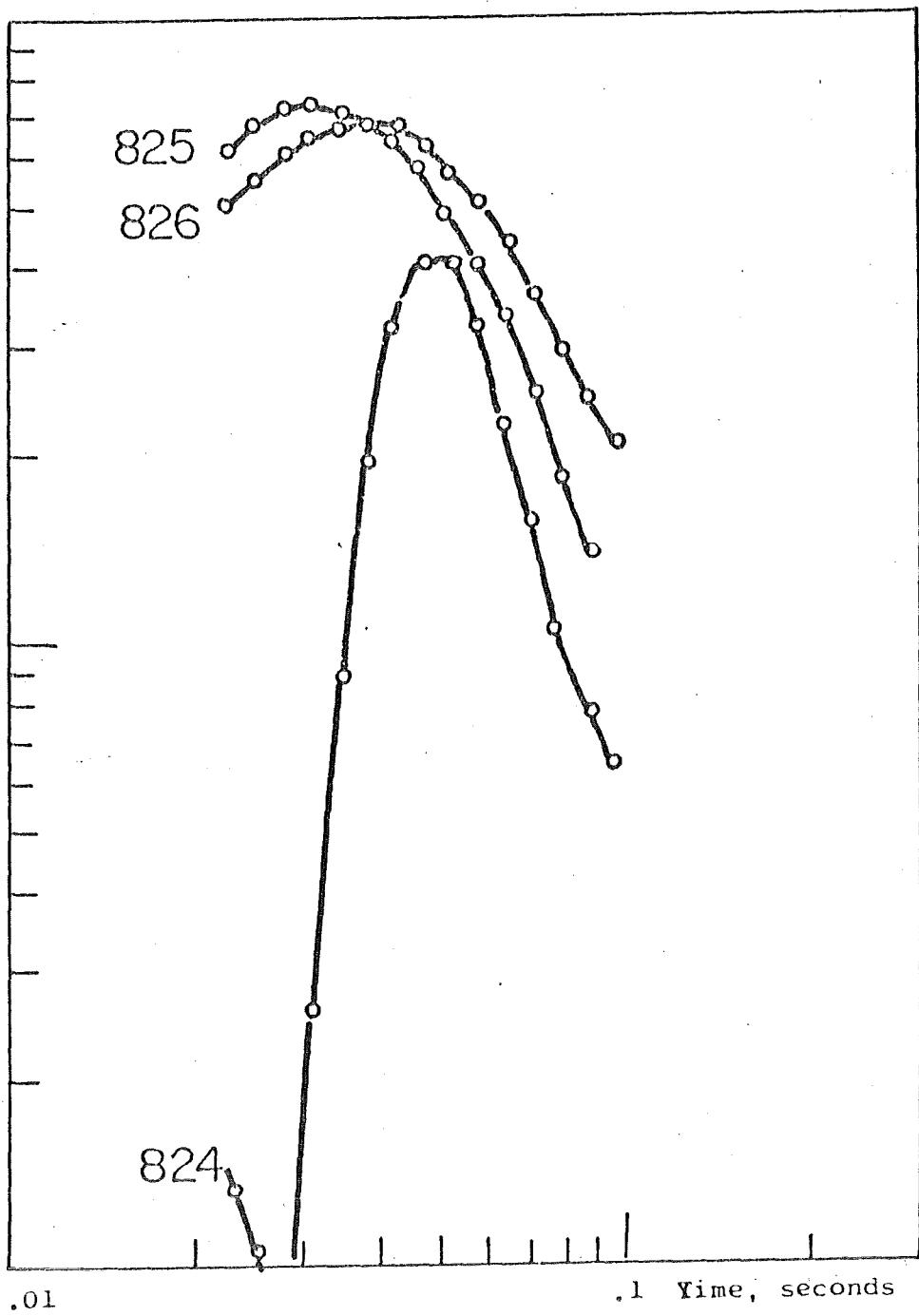
II-69

Apparent resistivity,
ohm-meters

100

10

1



GROUP SEVEN

Apparent resistivity,
ohm-meters

1000

100

10

.01

.1 Time, seconds

829

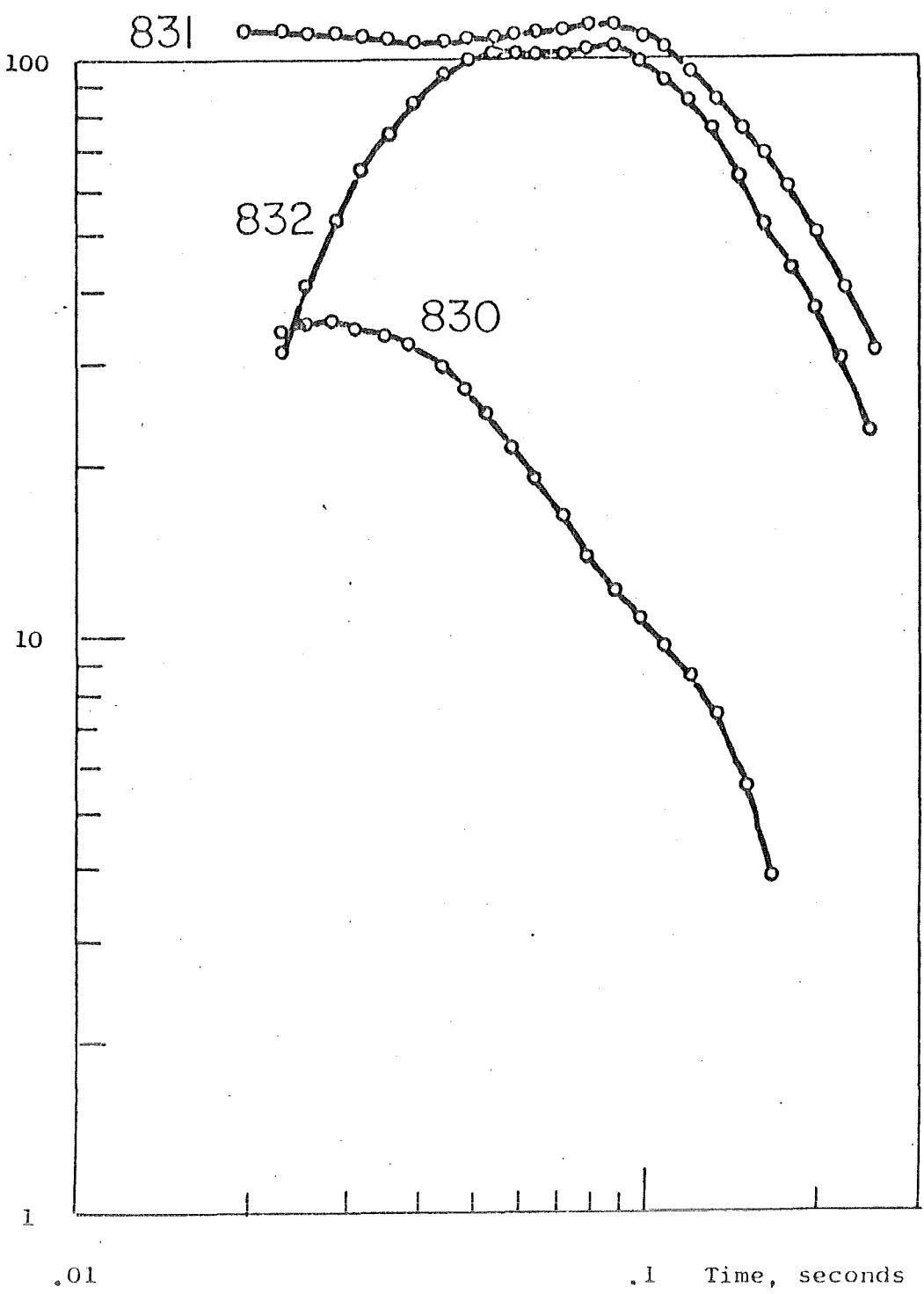
828

827

GROUP SEVEN

II-71

Apparent resistivity,
ohm-meters



GROUP SEVEN

Apparent resistivity,
ohm-meters

100

10

1

.01

1 Time, seconds

834

833

835

GROUP SEVEN

II-73

Apparent resistivity,
ohm-meters

100

10

1

.01

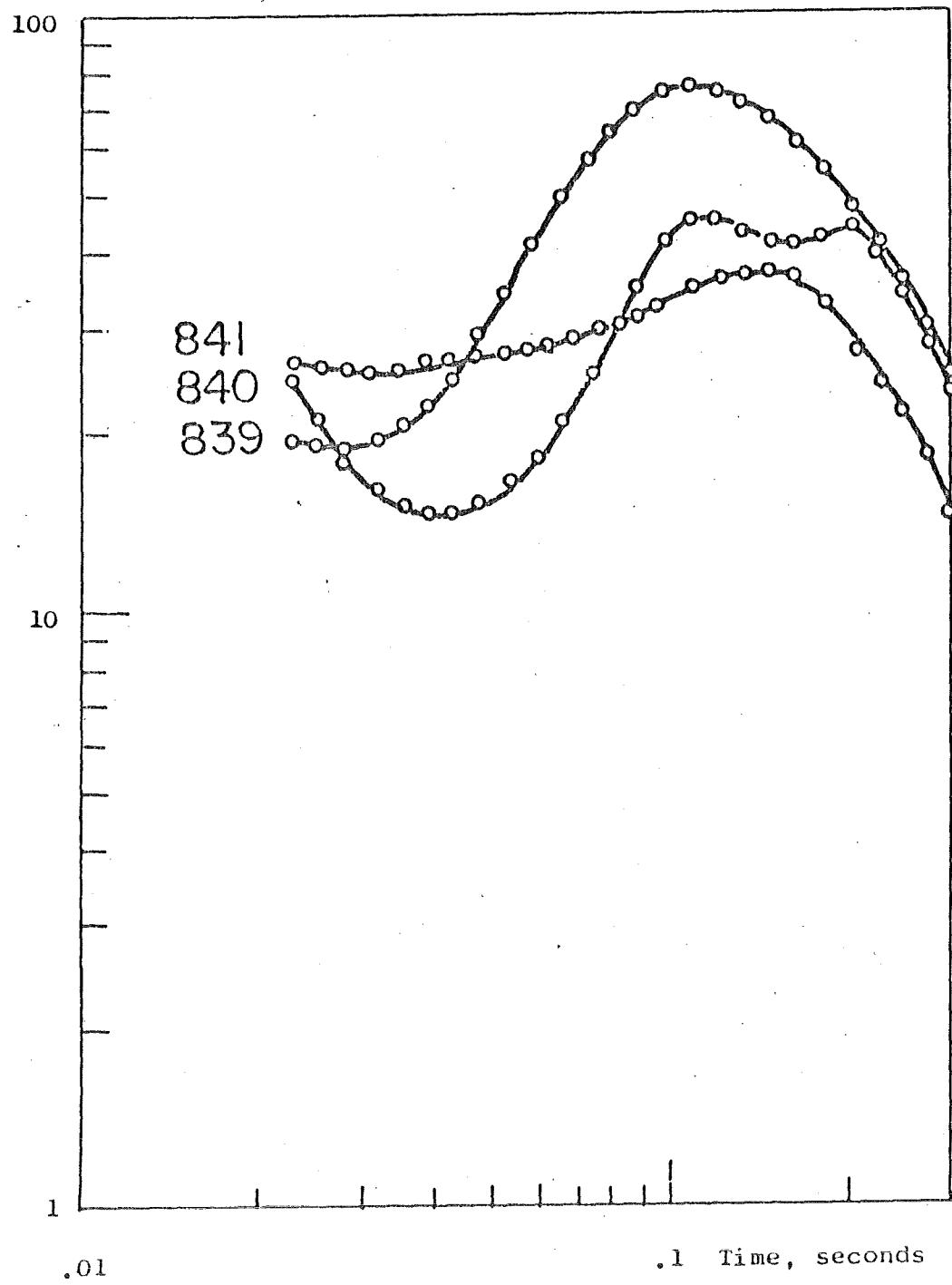
1 Time, seconds

838
836

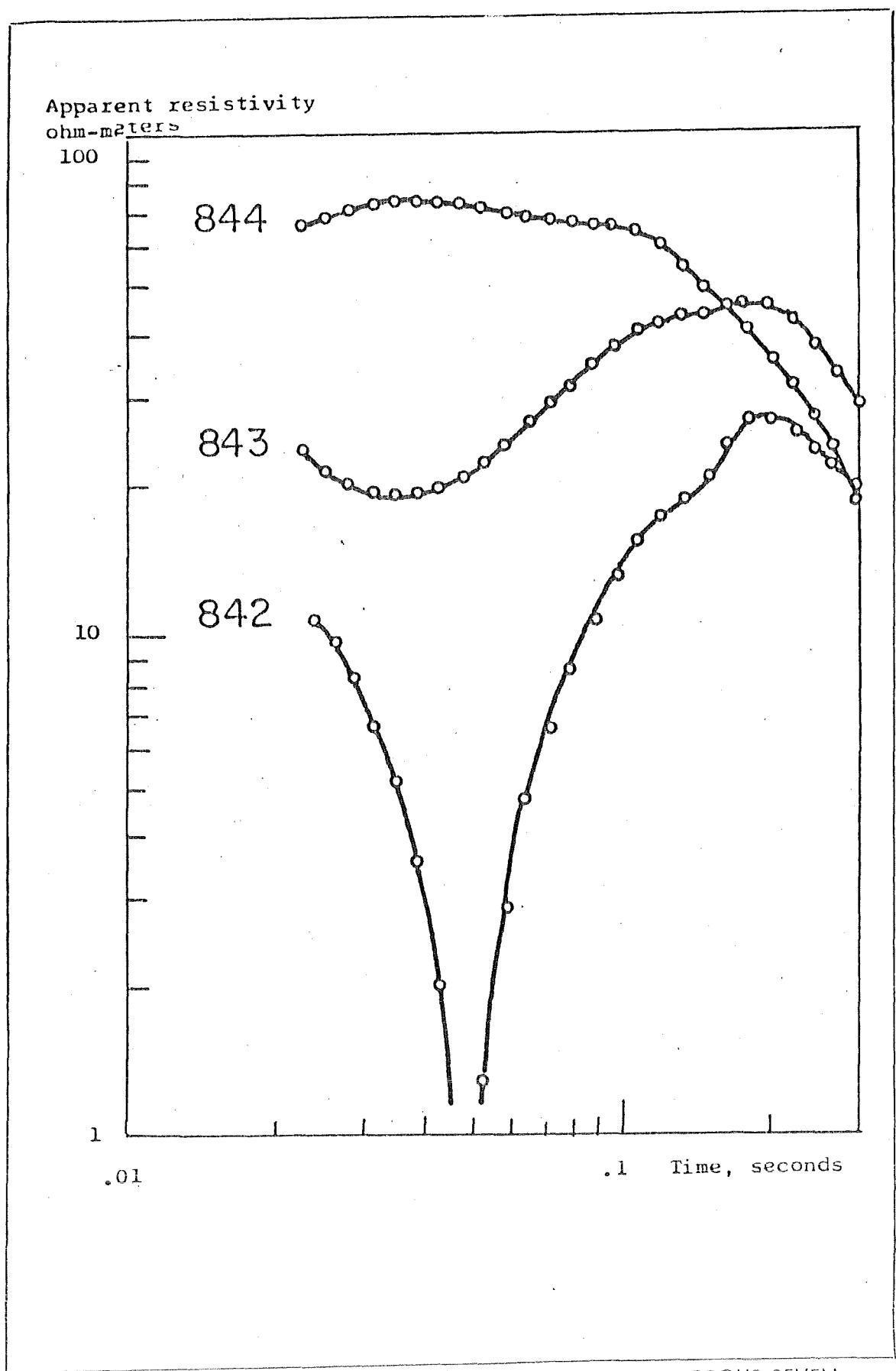
837

GROUP SEVEN

Apparent resistivity, ohm-meters



GROUP SEVEN



GROUP SEVEN

II-76

Apparent resistivity
ohm-meters

100

10

1

.01

.1 Time, seconds

845
847
846

GROUP SEVEN

II-77

Apparent resistivity,
ohm-meters

100

848

849

850

10

1

.01

.1 Time, seconds.

GROUP SEVEN

Apparent resistivity,
ohm-meters

100

10

1

.01

.1 Time, seconds

854

853

851

GROUP SEVEN

11-79

Apparent resistivity,
ohm-meters

100

10

1

.01

.1 Time, seconds

855

856

GROUP SEVEN

11-80

In addition to carrying out geophysical services, Group Seven offers management and consulting services for geothermal exploration. Interested organizations should contact:

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