Energy Research and Development Division
FINAL PROJECT REPORT

MT SURVEY FOR RESOURCE ASSESSMENT AND ENVIRONMENTAL MITIGATION AT THE GLASS MOUNTAIN KGRA

APPENDICES W-X

Prepared for: California Energy Commission – Geothermal Resources Development Account
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PREFACE

The California Legislature created the Geothermal Resources Development Account (GRDA) and the Geothermal Program in 1980. Funding comes from revenues paid to the United States government by geothermal developers for leases on federal land in California. Under the Geothermal Program, the California Energy Commission has assisted numerous eligible private entities and local jurisdictions in geothermal research, development, demonstration, commercialization, planning, mitigations, and environmental enhancement projects related to geothermal energy. The purpose of the program is to enhance and promote geothermal development in California. For more information on the Geothermal Program, please visit the California Energy Commission's Web site at. http://www.energy.ca.gov/geothermal/index.html

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ABSTRACT

The objectives of this project were to use non-invasive methods to indirectly image the permeable geothermal reservoir geometry and mitigate the drilling costs and environmental impact of future geothermal development at Glass Mountain Known Geothermal Resource Area. This was done by more efficiently focusing exploration wells on the most promising target zones. Significant advances were achieved in three dimensional magnetotelluric imaging, allowing three dimensional imaging to be given greater weight than two dimensional imaging in interpreting the data. Magnetotellurics is a geophysical investigation technique that images the earth's subsurface by measuring natural variations of electric and magnetic fields at the surface. Magnetotelluric resistivity patterns were correlated with detailed data on subsurface temperatures, downhole resistivity logging, patterns of rock alteration zones and water entry zones from wells along geologic cross-sections. This confirmed that reservoir interpretation based on correlating magnetotelluric resistivity with temperature sensitive clay alteration was feasible. The magnetotelluric resistivity maps and cross-sections extended these correlations to undrilled areas, revealing the likely geometry of the geothermal system.

Conceptual models based on the resistivity images indicated that major northeast trending structures and the Medicine Lake Volcano rim structure form permeable zones and reservoir boundaries in the Glass Mountain Known Geothermal Resource Area. Several areas that appear to host a relatively shallow permeable reservoir were identified. The magnetotelluric interpretation also indicated that a significant part of the Medicine Lake Volcano was unlikely to host a developable geothermal resource. Depending on the resource development strategy and supporting studies, follow-up magnetotelluric surveys could be justified. The conceptual resource model derived from this study's integrated interpretation illustrates well-targeting strategies that can be reviewed with respect to engineering and environmental issues. By more efficiently directing well targeting, magnetotelluric resistivity imaging can reduce dry hole costs, as well as focus planning efforts and mitigate the environmental impacts of resource development.

Keywords: electromagnetic survey, geothermal exploration, geophysics resistivity, magnetotellurics, petrography, Medicine Lake, Glass Mountain Known Geothermal Resource Area

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Glass Mountain, California Magnetotelluric Data Prepared for Union Oil Company

Attachment XXII

CEC-500-2007-XXX-ATXXII

Glass Mountain, California Magnetotelluric Data Prepared for Union Oil Company

This document is an attachment to a report funded by the California Energy Commission's Geothermal Resource Development Account (GRDA) Program. The GRDA Program did not fund this document, but the authors of the GRDA funded report have attached it as a supporting document.

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Glass Mountain, California Magnetotelluric Data

Prepared for
Union Oil Company

September 1981

Woodward-Clyde Consultants
Consulting Engineers, Geologists and Environmental Scientists
Three Embarcadero Center Suite 700, San Francisco CA 94111

Glass Mountain, California Magnetotelluric Data

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September 1981

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Woodward-Clyde Consultants

16 October 1981

Mr. Don Watts
Union Oil Company of California
Union Geothermal Division
2099 Range Avenue
Santa Rosa, CA 95406

Dear Mr. Watts:

Enclosed are the data which complete the deliverables for the Glass Mountain, California MT survey. This survey was conducted by Woodward-Clyde Consultants for Union Oil Company in September 1981. Twenty-two stations were occupied in eleven paired setups.

The data are presented in a report format, with preliminary field printouts and plots finalized and reduced to page size. Three copies of this report are enclosed. A map pocket is found in the back of each report; one contains the field map that is being returned.

Dumps of all the setup files give setup, stations, and instrumental parameter data and are bound in a separate enclosed binder; only a sample set is included in the report. Field data backups that are being returned include the digitized raw data tapes (format described in Appendix IX), log sheets of tape files, and corresponding analog strip charts (separate sets for base and remote). The final setup and crosspower files, and calculated result and plot files, have been copied to standard DEC RX01 (IBM 3740) formatted floppy disks. These disks are enclosed with directories in Appendix X: file naming conventions are also described in Appendix X. The original field floppy disks will be saved for six months, after which time they will be erased for reuse.

If your records do not agree with these deliverables, please do not hesitate to contact me at (415) 956-7070. We look forward to future work with Union Oil Company, and hope you will continue to take advantage of our real-time capability in planning a survey.

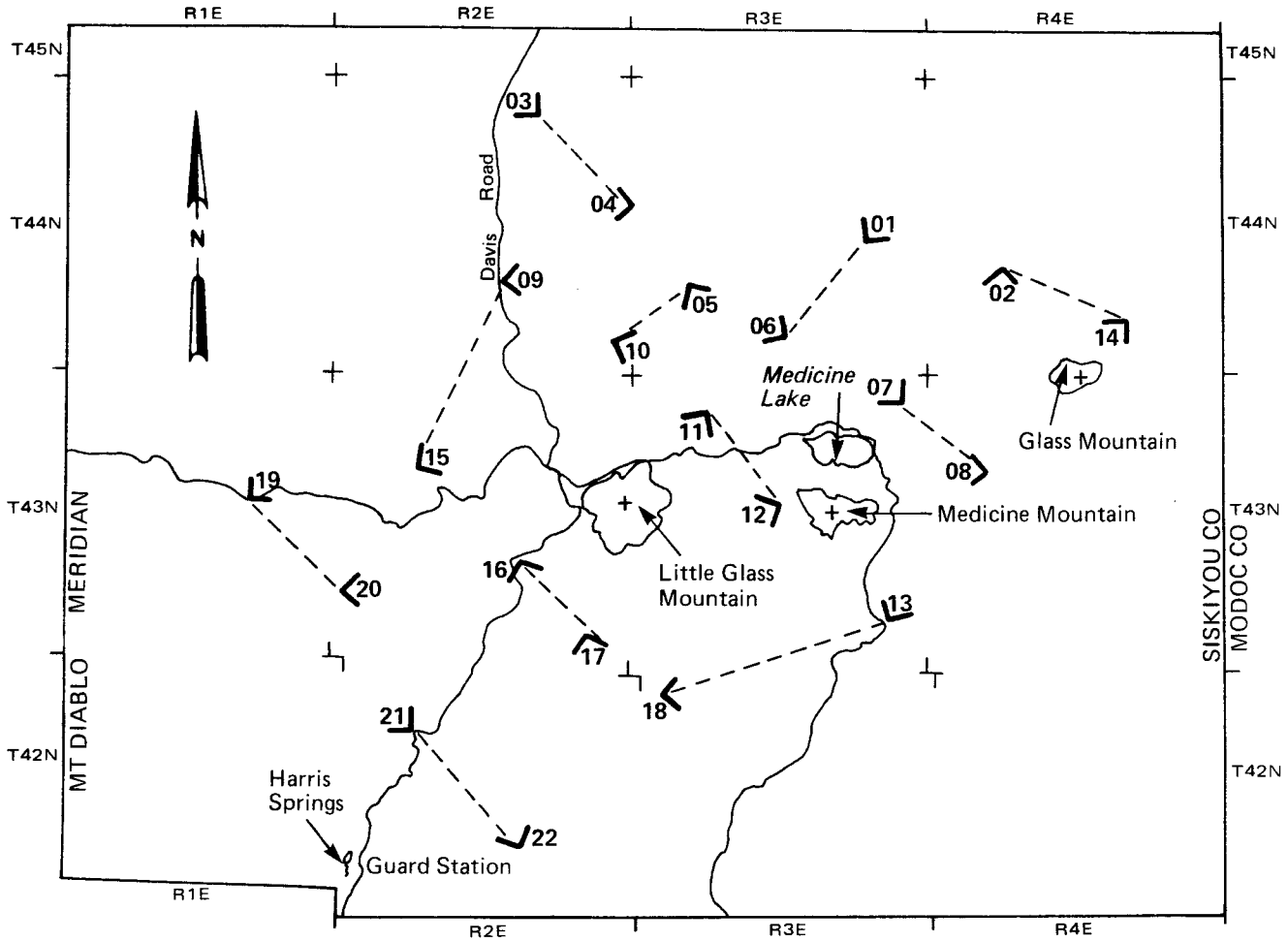
Sincerely,

Ron Goss

Ron Goss
Senior Project Geophysicist

RG:rd

Enclosures:
- Assembled Final Report - 3 copies
- Field Map(s) returned
- Bound computer printouts of setup file dumps
- Raw data tapes
- Analog strip Charts
- RX01 formatted floppy disks of final files



LEGEND

- Azimuth directions
- 01 Station identification
- Setup pair

0 1 2 3 4 5 Miles

GENERALIZED LOCATION MAP TO THE MAGNETOTELLURIC SURVEY AREA FOR GLASS MOUNTAIN, CALIFORNIA

GLASS MOUNTAIN, CALIFORNIA
SURVEY SUMMARY

PREPARED FOR
UNION OIL COMPANY

Setup Base/Remote	Period, per band Segments used/Recorded	Date 1981	Comments
19/20	250 sec., 1-57/57 5-48/48	30-31 August	Signal strong, (except for long period) Total time on line; 10 hours, 40 minute Total recording time; 8 hours, 35 minutes.
16/17	250 sec., 1-38/38 3-69/72 5-32/32	31 August- 1 September	Available maps did not show present road; base station located by topography; 1.5-hour delay. Total time on line; 15 hours. Total recording time; 9 hours, 5 minutes.
11/12	250 sec., 1-98/175 5-33/34	1-2 September	Time spent to lower contact resistance to within acceptable limits; 2.5 hours. High frequency weak during late night hours. Total time on line; 8 hours, 50 minutes. Total recording time; 6 hours, 55 minutes.
13/18	250 sec., 1-0/27 2-56/56 3-113/113 5-37/37	2-3 September	Tall trees near base magnetometer contributed to long period noise. Total time on line; 9 hours, 55 minutes. Total recording time; 8 hours, 20 minutes.
21/22	250 sec., 2-52/53 3-52/53 5-10/10	3-4 September	Difficulty in setting up repeater for good telemetry. Total time on line; 7 hours. Total recording time; 5 hours, 35 minutes.
07/08	250 sec., 1-0/18 2-55/55 3-176/176 5-18/67	5-6 September	Low signal strength. Total time on line; 16 hours, 45 minutes. Total recording time; 14 hours, 55 minutes.
01/06	250 sec., 2-48/53 3-54/76 5-26/26	6 September	Total time on line; 9 hours. Total recording time; 8 hours, 25 minutes.
02/14	250 sec., 2-63/85 3-132/132 5-14/19	7 September	Available maps inadequate; located base site using topography; 3.5-hour delay. Total time on line; 8 hours. Total recording time; 7 hours, 10 minutes.

Setup Base/Remote	Period, per band Segments used/Recorded	Date 1981	Comments
04/03	250 sec., 2-48/48 3-57/57 5-53/53	8-9 September	Long period signal weak during night and morning hours; therefore, unable to collect data during the day. Station site near logging road. Total time on line; 13 hours, 45 minutes. Total recording time; 10 hours, 10 minutes.
10/05	250 sec., 2-85/146 3-67/100 5-12/12	9 September	Total time on line; 10 hours, 40 minutes. Total recording time; 8 hours, 5 minutes.
09/15	250 sec., 1-107/107 5-22/22	10 September	Time to establish a good repeater position; 2.5 hours. Total time on line; 6 hours, 10 minutes. Total recording time; 5 hours, 10 minutes.

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APPENDIX I. THEORY OF THE MAGNETOTELLURIC METHOD

APPENDIX I
THEORY OF THE MAGNETOTELLURIC METHOD

The magnetotelluric method is primarily based upon two assumptions about a magnetic wave incident on the surface of the earth: 1) the source is at a distance such that an arriving wave is essentially planar, and 2) the wave is nonpolarized, as if there were numerous sources at various azimuthal directions. These two assumptions, while still the subject of debate, appear to be valid over the range of magnetotelluric frequencies.

Maxwell's equations relating electric and magnetic wave propagation can be written:

$$\nabla \times H = \sigma E - i\omega\varepsilon E \qquad (1)$$

For all earth materials, $\sigma >> \omega\varepsilon$ at MT frequencies. Hence, from Snell's law, we can state that the angle of transmittance of an incident wave will be virtually vertical, regardless of the angle of incidence.

Should the earth structure be a half-space of resistivity ρ, an incident magnetic field $H(\omega)$ with a time dependence $\varepsilon^{-i\omega t}$, will provide a resultant electric field.

$$E(\omega) = (i-1)\sqrt{\frac{\omega\mu\rho}{2}}\; H(\omega)e^{-i\omega t} \qquad (2)$$

This resultant field will have a direction 90° clockwise to $H(\omega)$, and a phase lag of 45°.

In vector notation, we can express this relationship

$$\begin{bmatrix} E_x \\ E_y \end{bmatrix} = \begin{bmatrix} 0 & -(i-1)\sqrt{\frac{\omega\mu\rho}{2}} \\ (i-1)\sqrt{\frac{\omega\mu\rho}{2}} & 0 \end{bmatrix} \begin{bmatrix} H_x \\ H_y \end{bmatrix} = \begin{bmatrix} 0 & Z_{xy} \\ Z_{yx} & 0 \end{bmatrix} \begin{bmatrix} H_x \\ H_y \end{bmatrix} \qquad (3)$$

where a right-hand coordinate system is assumed. For an earth structure varying with depth where $\rho = \rho(z)$, we define apparent resistivity as a function of frequency,

$$\rho_a(\omega) = \frac{|Z(\omega)|^2}{\omega\mu} \tag{4}$$

and impedance phase $= \tan^{-1}\left[\frac{E(\omega)}{H(\omega)}\right]$ such that equation (3) still holds. Apparent resistivity (a function of frequency) is the value of resistivity we measure, assuming the earth is a half space. While for a half space the phase lag is 45°, for a layered 1-D earth the phase shifts in accordance with the structure but is restrained to the fourth quadrant (0° to -90°).

Consider now a layered earth, but with two orthogonal directions of differing resistivity. The relationship is still linear, but diagonal terms of impedance Z do not necessarily have to be zero. We can write

$$\begin{bmatrix} E_x \\ E_y \end{bmatrix} = \begin{bmatrix} Z_{xx} & Z_{xy} \\ Z_{yx} & Z_{yy} \end{bmatrix} \begin{bmatrix} H_x \\ H_y \end{bmatrix} \tag{5}$$

Should x and y be aligned with the principal directions, $Z_{xx} = Z_{yy} = 0$ and Equation (3) results; more generally,, however,

$$E_x = Z_{xx}H_x + Z_{xy}H_y \quad \text{, and} \tag{6a}$$

$$E_y = Z_{yx}H_x + Z_{yy}H_y \quad \text{, and} \tag{6b}$$

For a two-dimensional earth, the situation becomes more complex. A vertical H_z component (tipper) is produced as well as secondary horizontal fields (which can be derived by applying Maxwell's equations to a surface having a lateral discontinuity). However, even for a three-dimensional earth,

equations 6a and 6b are a valid approximation if we are a reasonable distance (on the order of 3 skin depths) from the surface inhomogeneities or topographical discontinuities.

For a planar incident wave and noise-free instrumentation, determination of the impedance matrix $Z(\omega)$ would only require two independent readings of E_x and E_y for different polarizations. This is seldom the case, and we have to satisfy ourselves with a technique for determing a 'best' estimate of $Z(\omega)$. Let us define this measurement error as

$$\varepsilon_x(\omega) = E_x(\omega) - Z_{xx}(\omega)H_x(\omega) + Z_{xy}(\omega)H_y(\omega) \tag{7}$$

and similarly for $E_y(\omega)$. We want to find values of $Z_{xx}(\omega)$ and $Z_{xy}(\omega)$ that minimize the auto-power $\varepsilon_x(\omega)\ \varepsilon_x{}^*(\omega)$.

Let us assume we have N measurements, and take the derivatives

$$\frac{\partial}{\partial Z_{xx}(\omega)} \sum_{i=1}^{N} \varepsilon_{ix}(\omega)\varepsilon_{ix}{}^*(\omega) = 0 \quad \text{, and} \tag{8}$$

$$\frac{\partial}{\partial Z_{xy}(\omega)} \sum_{i=1}^{N} \varepsilon_{ix}(\omega)\varepsilon_{ix}{}^*(\omega) = 0$$

Factoring out, we obtain the relations

$$\overline{E_x H_x{}^*} = Z_{xx}\ \overline{H_x H_x{}^*} + Z_{xy}\ \overline{H_y H_x{}^*} \quad \text{, and} \tag{9}$$

$$\overline{E_x H_y{}^*} = Z_{xx}\ \overline{H_x H_y{}^*} + Z_{xy}\ \overline{H_y H_y{}^*}$$

$$\text{where } \overline{AB^*} = \sum_{i=1}^{N} A_i(\omega)B_i{}^*(\omega)\,.$$

The same procedure for E_y results in four equations that can be solved for Z_{xx}, Z_{xy}, Z_{yy}, and Z_{yx}.

One can seek also to reduce the error utilizing the admittance relationship, i.e.,

$$\frac{\partial}{\partial Y_{xx}(\omega)} \sum_{i=1}^{N} \zeta_{ix}(\omega)\zeta_{ix}^{*}(\omega) = 0,$$

$$\text{where } \zeta_{ix}(\omega) = |H(\omega) - y(\omega)E(\omega)| \qquad (10a)$$

$$\text{and } y(\omega) = Z(\omega)^{-1} \quad .$$

This result yields

$$\overline{E_x E_x^*} = Z_{xx}\,\overline{H_x E_x^*} + Z_{xy}\,\overline{H_y E_x^*} \quad ,$$

$$\overline{E_x E_y^*} = Z_{xx}\,\overline{H_x E_y^*} + Z_{xy}\,\overline{H_y E_y^*} \quad , \qquad (10b)$$

and again we can arrive at four equations to solve for the 'best' $Z(\omega)$.

An inherent problem is noise biasing, since measured signal $E_x(\omega)$ is actually signal plus noise, such that $E_x(\omega) = E_{xs}(\omega) + E_{xn}(\omega)$. The auto-power equals the auto-power of the signal plus the auto-power of the noise:
$[E_x(\omega)\ E_x^*(\omega)] = [E_{xs}(\omega)\ E_{xs}^*(\omega)] + [E_{xn}(\omega)\ E_{xn}^*(\omega)]$.
For two measured signals with uncorrelated noise, however, the cross-power of these measured signals equals the auto-power of the signal itself: $[E_x(\omega)\ E_y^*(\omega)] = [E_{xs}(\omega)\ E_{ys}^*(\omega)]$.

This fact led to the idea of utilizing a remote magnetometer recording simultaneously some distance from the measurement station. If we define the remote signals as $H_xR(\omega)$ and $H_yR(\omega)$, Equation 9 can be rewritten

$$\overline{E_x H_x^{R*}} = Z_{xx}\,\overline{H_x H_x^{R*}} + Z_{xy}\,\overline{H_y H_x^{R*}} \quad , \qquad (11a)$$

$$\overline{E_x H_y^{R*}} = Z_{xx}\,\overline{H_x H_y^{R*}} + Z_{xy}\,\overline{H_y H_y^{R*}} \quad \text{, and} \tag{11b}$$

$$\overline{H_x\,H_x^{R*}} = \Sigma(H_{xs} + H_{xn})\,(H_{xs}^{R} + H_{xn}^{R})^{*} \tag{11c}$$

$$= \overline{H_{xs}H_{xs}^{R*}} + \overline{H_{xn}H_{xn}^{R*}} \quad .$$

Assuming that noise is uncorrelated between the local and remote station, $(\overline{H_{xn}\,H_{xn}^{R*}}) = 0$ and $(\overline{H_x\,H_x^{R*}}) = (\overline{H_{xs}H_{xs}^{R*}})$.

Solving equations (11) where $D = \overline{H_x H_x^{R*}\,H_y H_y^{R*}} - \overline{H_x H_y^{R*}\,H_y H_x^{R*}}$, ,

$$Z_{xx} = \frac{\overline{E_x H_x^{R*}}\;\overline{H_y H_y^{R*}} - \overline{E_x H_y^{R*}}\;\overline{H_y H_x^{R*}}}{D} \quad \text{, and}$$

$$Z_{xy} = \frac{\overline{E_x H_y^{R*}}\;\overline{H_x H_x^{R*}} - \overline{E_x H_x^{R*}}\;\overline{H_x H_y^{R*}}}{D} \quad . \tag{12}$$

Similarly, solving for Z_{yx} and Z_{yy} from the relations for $E_y(\omega)$

$$Z_{yx} = \frac{\overline{E_y H_x^{R*}}\;\overline{H_y H_y^{R*}} - \overline{E_y H_y^{R*}}\;\overline{H_y H_x^{R*}}}{D} \quad \text{, and} \tag{13}$$

$$Z_{yy} = \frac{\overline{E_y H_y^{R*}}\;\overline{H_x H_x^{R*}} - \overline{E_y H_x^{R*}}\;\overline{H_x H_y^{R*}}}{D} \quad .$$

It is worth noting in Equations (12) and (13) that the impedance values are not affected by phase shifts or attenuation of the remote reference channels.

The remote channels are not restricted to the magnetic signals H_xR, H_yR to obtain an estimate of the impedance tensor. For example, in Equation 11, the pair of remote electric signals E_xR, E_yR can be substituted for H_xR, H_yR. Even mixed E, H pairs can be used (e.g., H_xR, E_xR).

However, the denominator D approaches zero when the two remote channels are higly correlated, and the set of solutions (12) and (13) become indeterminate. For one- and two-dimensional earth, the off diagonal elements of the impedance tensor are greater than the diagonal elements.

Equation (5) shows quite readily that in this case, E_x is highly correlated with H_y, and E_y is highly correlated with H_x. These pairs would not be a prudent choice as remote reference signals. The form of feasible remote reference pairs are: (H_xR, H_yR); (E_xR, E_yR); (H_xR, E_xR); (H_yR, E_yR).

The fundamental assumption of the magnetotelluric method is that incident magnetic fields are planar. Parallel signal components at sites separated by several wavelengths would be equal. If the assumption of non-polarized source is valid, two orthogonal planar components would be completely uncorrelated. Secondary induced magnetic fields due to lateral inhomogenities would be correlated to a degree with normal incident fields; however, the power density of secondary fields is much less than that of the primary field.

Electric fields result from incident magnetic fields on the earth, and as such, would be dependent on the site locality. In inhomogeneous earth, separated electric components, even when aligned, would not be equal. Orthogonal components would also be partially correlated due to the non-zero Z_{xx}, Z_{yy} terms in the tensor matrix.

In summary, theory (and experience) has shown that remote H components are preferable as remote reference channels.

The first stage of the data interpretation scheme is to rotate the horizontal reference axes to align with the impedance principal directions; that is, we want to maximize the quantity $\left|Z'_{xy}(\theta)\right|^2 + \left|Z'_{yx}(\theta)\right|^2$. The rotation angle is given by

$$\theta = 0.25 \tan^{-1} \left\{ 2 \times \text{Real} \left[\frac{(Z_{xy} + Z_{yx})\,(Z_{yy} - Z_{xx})^*}{(Z_{xy} + Z_{yx})(Z_{xy} + Z_{yx})^* - (Z_{yy} - Z_{xx})(Z_{yy} - Z_{xx})^*} \right] \right\}. \tag{14}$$

Note that for any solution θ , $\theta + K \cdot 45°$ is also a solution for any integer K. Maxima and minima actually alternate with every 45° increment. The 90° ambiguity in the maximum can be resolved with the use of tipper strike.

Impedances are computed from Equations (12) and (13), and then rotated by θ to align with the principal directions.

A common measure of quality is ordinary coherency, which is defined as the ratio of predicted signal to observed signal. For E_x, for example, the coherency is given by

$$\text{COH}\ (E_x) = \left\{ \frac{(E_x\ E_x P^*)\ \ (E_x{}^* E_x P)}{(E_x E_x{}^*)\ \ (E_x P\ E_x P^*)} \right\}^{\frac{1}{2}} \tag{15}$$

where $E_xP = Z_{xx}H_x + Z_{xy}H_y$, E_xP is predicted signal, and E_x is measured signal.

A high coherency implies a large signal-to-noise ratio. A coherency approaching zero implies a low ratio, and the reliability of the computed results must be judged accordingly.

A useful quantity is the skewness, defined as the ratio of the sum of diagonal terms to the difference of off-diagonal terms of the tensor matrix

$$S = \left| \frac{Z_{xx} + Z_{yy}}{Z_{xy} - Z_{yx}} \right| . \qquad (16)$$

Skewness can be looked upon as a measure of the one-, two-, or three-dimensionality of the earth. For a layered isotropic earth, $Z_{xx} = Z_{yy} = 0$ and $Z_{xy} = -Z_{yx}$, so skewness would approach zero. For a layered but anisotropic earth with two principal directons of resistivity, S will be small. Two-dimensional structure will yield non-zero but low values of skewness if the station is removed from a resistivity discontinuity. High values of skewness imply inherent three-dimensionality and/or proximity to surface inhomogeneities.

Skewness is independent of sensor orientation, since by definition it is constructed from tensor invariants. A similar function, ellipticity, depends upon orientation angle.

$$E = \left| \frac{Z_{xx} - Z_{yy}}{Z_{xy} + Z_{yx}} \right| . \qquad (17)$$

Ellipticity is minimized when the reference axes align with the principal directions.

An important parameter for interpreting two- and three-dimensional structure is the tipper. For two-dimensional earth, with strike θ, the vertical component H_z can be calculated by the relationship:

$$H_z(\omega) = \frac{1}{i\omega\mu} \frac{\partial E_\theta}{\partial_x} \quad \text{where } E_\theta \text{ is the} \tag{18}$$

electric field parallel to strike (TE mode). In general, for three-dimensional earth, there are two components of horizontal electric field, and the above equation would be written

$$H_z(\omega) = \frac{1}{i\omega\mu} \left[\frac{\partial E_y}{\partial_x} - \frac{\partial E_x}{\partial_y} \right] . \tag{19}$$

$$\text{Recall that } E_x = Z_{xx}H_x + Z_{xy}H_y \quad , \text{ and}$$
$$E_y = Z_{yx}H_x + Z_{yy}H_y \quad . \tag{20}$$

Therefore, at any point there is a linear ratio between the incident horizontal magnetic field and the resultant vertical component:

$$H_z(\omega) = T_x(\omega)H_x(\omega) + T_y(\omega)H_y(\omega)$$

$$\text{where } T_x(\omega) = \frac{1}{i\omega\mu} \left(Z_{yx}\frac{\partial}{\partial_x} - Z_{xx}\frac{\partial}{\partial_y} \right) H_x(\omega) \quad , \text{ and} \tag{21}$$

$$T_y(\omega) = \frac{1}{i\omega\mu} \left(Z_{yy}\frac{\partial}{\partial_x} - Z_{xy}\frac{\partial}{\partial_y} \right) H_y(\omega) \quad .$$

The vector matrix $T=[T_x, T_y]$ is defined as the tipper in the same way as the least-squares estimate for the impedance tensor matrix, and measurement error for the tipper is given as

$$\varepsilon_z(\omega) = H_z(\omega) - T_x(\omega)H_x(\omega) + T_y(\omega)H_y(\omega) \quad . \tag{22}$$

Take the derivatives with respect to T_x and T_y and set them equal to zero to obtain

$$\begin{aligned} \frac{\partial}{\partial T_x(\omega)} \sum_{i=1}^{N} \varepsilon_{iz}(\omega)\varepsilon_{iz}(\omega)^* &= 0 \quad , \\ \frac{\partial}{\partial T_y(\omega)} \sum_{i=1}^{N} \varepsilon_{iz}(\omega)\varepsilon_{iz}(\omega)^* &= 0 \quad . \end{aligned} \tag{23}$$

Factoring out, we obtain the least-squares estimate for the $H_zH_x^*$ and $H_zH_y^*$ cross powers.

$$\begin{aligned} H_zH_x^* &= T_xH_xH_x^* + T_xH_yH_x^* \\ H_zH_y^* &= T_xH_xH_y^* + T_yH_yH_y^* \end{aligned} \tag{24}$$

In the presence of noise, the auto-powers $H_xH_x^*$ and $H_yH_y^*$ would bias the tipper estimate downwards. The solution to this problem, as for the impedance tensor, is to use the remote reference magnetic fields. Replacing Equation (21) by

$$
\begin{aligned}
H_zH_x^{R^*} &= T_xH_xH_x^{R^*} + T_yH_yH_x^{R^*} \quad , \text{ and} \\
H_zH_y^{R^*} &= T_xH_xH_y^{R^*} + T_yH_yH_y^{R^*} \quad ,
\end{aligned}
\tag{25}
$$

which is expressed in matrix form as:

$$
\begin{bmatrix} H_zH_x^{R^*} \\ H_zH_y^{R^*} \end{bmatrix} = \begin{bmatrix} H_xH_x^{R^*} & H_yH_x^{R^*} \\ H_xH_y^{R^*} & H_yH_y^{R^*} \end{bmatrix} \begin{bmatrix} T_x \\ T_y \end{bmatrix} . \tag{26}
$$

The two tipper components $T_x(\omega)$ and $T_y(\omega)$ can be computed by matrix inversion.

For two-dimensional structure, the strike can be determined from the tipper vector. When the x axis is aligned parallel to strike, $(T_xT_x^*)$ will be at a minimum and $(T_yT_y^*)$ at a maximum.

The strike direction at an angle ϕ from a reference axis can be computed by setting the derivative of the horizontal magnetic field auto-power ($H_x H_x^*$) with respect to ϕ equal to zero, which has a solution

$$\phi = 0.5 \tan^{-1} \left(\frac{2 \times \text{Real } (T_x T_y^*)}{T_x T_x^* - T_y T_y^*} \right) \quad . \qquad (27)$$

As $\phi + 90°$ also satisfies Equation (27), it is important to check which of ϕ or $\phi = \phi + 90°$ yields a minimum to the resultant T_x magnitude

$$\left| T'_x(\phi) \right| = \left| T_x \cos \phi + T_y \sin \phi \right| \quad . \qquad (28)$$

The value of ϕ that minimizes $\left| T'_x(\phi) \right|$ in this equation is the apparent strike direction. Tipper phase is defined as the phase delay of an incident magnetic field to the resultant H_z or tipper component. In two-dimensional earth, the component of H parallel to strike (TM) has no net tipper resultant and so, for modeling purposes, it is of interest to compute the component of incident H normal to strike.

For previously derived strike angle $\theta_\perp$ with respect to the x axis, the component of tipper parallel to strike is:

$$T_{\parallel} = T_x \cos \theta_T + T_y \sin \theta_T \quad , \qquad (29)$$

and the component of tipper normal to strike is:

$$T_{\perp} = T_y \cos \theta_T - T_x \sin \theta_T \quad . \qquad (30)$$

$T_{//}$ and $T_{\perp}$ are complex values. The tipper phase is defined as the phase of $T_{\perp}$.

The tipper phase is a useful quantity to determine direction of increasing resistivity. Comparing tipper phase for stations adjacent along a normal to strike, tipper phase would increase for stations closer to a contact. If the resistive zone occurred after the contact, then the decreasing phase would point to a conductive zone.

A useful parameter is minimum tipper power ($T_{//}$ $T_{//}$ *). For two-dimensional structure, $T_{//}$ would be exactly zero, since a component of magnetic field parallel to strike (TM mode) has no resultant H_z component. Minimum tipper is computed by the equation:

$$\left|T_{//}\right|^2 = \left|T_x\right|^2 \cos^2\theta_T + 2 \text{ Re } (T_x T_y^*) \sin\theta_T \cos\theta_T + \left|T_y\right|^2 \sin^2\theta_T \qquad (31)$$

A useful measure of signal quality is local channel/remote channel coherency. Parallel signal components displaced spatially should have a high coherency, if the assumption of plane wave incidence is valid. Orthogonal signal components should have a low coherency if the source field is unpolarized.

In many field situations, horizontal coordinate axes at the local station (X_L, Y_L) are askew with respect to the coordinate axes at the remote station (X_R, Y_R) by a rotation angle β. Measured signal components along the remote coordinate system axes [$R'_X(\omega)$, $R'_Y(\omega)$] would have to be rotated to resultant components [$R'_X(\omega)$, $R'_T(\omega)$] aligned with the (X_L, Y_L) axes.

$$R'_X(\omega) = R_X(\omega) \cos \beta - R_Y(\omega) \sin \beta, \qquad (32)$$

$$R'_Y(\omega) = R_X(\omega) \sin \beta + R_Y(\omega) \cos \beta.$$

Coherency between a local signal component and a remote signal component $R'(\omega)$ is given as:

$$\mathrm{COH}\ (L, R') = \left[\frac{(L, R'^{*})\ (L^{*}R')}{(LL^{*})\ (R'R'^{*})} \right]^{1/2} \qquad (33)$$

where L represent E_x, E_y, H_x, H_y, or H_z, and R' represents E_xR', E_yR', H_xR', H_yR', or H_zR, (remote horizontal signal components having been rotated to local axes by Equation 32).

APPENDIX II. WOODWARD-CLYDE MAGNETOTELLURIC SYSTEM

APPENDIX II
WOODWARD-CLYDE MT-1 MAGNETOTELLURIC SYSTEM

The Woodward-Clyde MT-1 system collects data with two five-component, tensor MT stations linked by high dynamic range telemetry. Data reduction follows the Ph.D. research of Dr. Tom Gamble of the University of California, Berkeley wherein the two stations are used to provide remote magnetic reference for each other. This method is a least squares cross-power MT approach of determining the tensor impedance values. It eliminates the serious MT problem of coherent electromagnetic noise across channels at one site, which may bias the results. With this technique, one station can be located somewhat closer to cultural noise than would be possible with only a single recording station, thus offering added flexibility in MT site selection.

The system provides the real-time visual display of MT results, near real-time generation of report quality, hard copy prints and plots of all MT results, and floppy disk files of the results at each station. The real-time data processing and plotting system for MT surveying provides assurance that the results have met an acceptable standard of quality before the station is moved. WCC's MT system and features are outlined in the block diagram on Figure II.1.

MT SENSORS

Magnetometers

The three mutually orthogonal magnetic components, H_x, H_y, H_z, are sensed with a three-component cryogenic (SQUID) magnetometer. For frequencies above 0.01 Hz, the noise spectrum of this magnetometer is independent of the signal frequency. Below 0.01 Hz, the rms noise amplitude in a 1-Hz bandwidth varies as the square root of (1/f), f being the frequency. Above 0.01 Hz,

the resolution of the magnetometer is 10^{-4} gamma. The dynamic range of the magnetometer is 134 dB greater than the resolution.

The magnetometer is nominally flat in response from DC to a 200-Hz, -3 dB point. The high frequency roll off is determined by a single pole, -6 dB/octave filter, with a -3 dB point at 50 Hz, introduced by placing the magnetometer into a carefully shaped aluminum can. This filter tends to limit the unlocking of the magnetometer during high amplitude-high frequency transients such as atmospheric discharges and severe cultural noise. Additional filtering is done in the signal conditioning units that follow in the signal path.

Telluric Sensors

The two orthogonal electric components, E_x, E_y, are usually sensed with an L-shaped array of three porous-pot, copper-copper sulphate electrodes, and usually with a 150-meter spacing between them.

Signal Conditioning

At each station high input impedance signal conditioners are used to amplify and pre-whiten the five input channels. Amplification is variable gain, from 40 to 2000, on each channel. A notch filter with a 60-Hz center frequency attenuates ambient cultural noise due to power lines, so low power fields can be detected. Prewhitening is done below 0.16 Hz on each channel. For the magnetic channels the prewhitening actually consists of two high-pass, single-pole filters, with the half-power points at 0.16 Hz and 0.001 Hz, and a single pole, 0.001 Hz high-pass filter on each of the electric channels. This prewhitening greatly reduces the demands on telemetry and on the A/D conversion later in the signal chain; a dynamic range of 66 dB and a 12-bit A/D converter are more than adequate for the magnetotelluric signals. Thus a broad band of signal periods, ranging from 2000 seconds to 0.025 seconds, or 40 Hz, can be handled by all five signal channels.

Signal Bandpass Filtering

To reduce the data processing effort and to accommodate the shape of the geomagnetic spectrum, MT data are typically recorded in two or more overlapping bands. The bandpass filters are 4-pole Butterworth filters with slopes of 24 dB/octave. These steep slopes are needed to prevent large amounts of power outside the band of interest from contaminating the signal spectra of the band itself. Gain is variable from 1-100 in increments of ten decibels.

Signal Recording and Display

The data recording media are paper chart rolls, magnetic tape, and floppy disks, and display media are video monitors and computer listings. The output of each bandpass filter is split into three parallel signal outputs. One output goes to a paper chart recorder. The paper speed is adjusted appropriately so the operator can resolve the highest frequency signals being recorded.

The second output of each bandpass filter goes to an A/D converter. This A/D converter accepts up to 16 channels of analog input, adds the header information selected on a series of thumbwheel switches, and produces a 12-bit digital output. A dual character buffer, read, write, and read-after-write tape deck is used to record the digital data on nine-track, 800-bpi tape. The read-after-write capability avoids parity errors on the data tape.

The third output of each bandpass filter goes to the real-time data processing and plotting computer that is the heart of the Woodward-Clyde Consultants MT-1 data processing system.

MT-1 DATA PROCESSING SYSTEM

Hardware

Woodward-Clyde Consultants has developed a unique real-time magnetotelluric data processing computer system that is unprecedented in capability. The computer consists of four LSI-11 microcomputers. Of these four LSI-11 microcomputers, one is a master with 128K of memory and the other three are satellites. Two satellite microcomputers are dedicated to the two five-channel MT stations, while the third is a cross-power box. All four computers are interconnected by a hardware interprocessor buffer with direct memory access. Additional hardware consists of three floppy disk drives, a winchester or hard disk drive, three video display units, one extended memory unit, one input terminal, and one printer plotter.

Software

The software is an extensively modified and augmented version of RT-11, with multitask and background/foreground capability. The software is split into tasks that are grouped into high priority, or foreground tasks, and low priority, or background tasks.

Foreground tasks for two of the satellite computers consist of analog-to-digital conversion and buffering with variable overlap between segments, transmission of raw data to the master computer for display on the video units, removal of trend and mean from each data segment, tapering, conversion from the time domain to the frequency domain with FFT, and transmission of the FFT results to the master. Cross-power calculations are the foreground tasks of the third satellite. The foreground tasks in the master computer are real-time control functions, raw data display, and the calculation, normalization, stacking and storage of auto- and cross-powers on floppy disk.

The background tasks of the master computer are to calculate a complete set of MT results and error statistics, display them on a CRT screen, list them on a console or a printer, and create hard-copy plots of final report quality. The background jobs do not interrupt the data collection process of the foreground. Background tasks include the establishment of the setup parameters for the station, band, and segment being processed and the creation of disk files containing the pertinent information regarding all aspects of a particular set of stations.

Real-Time Displays

There are five different displays available to the operator of the Woodward-Clyde real-time MT-1 system. On the basis of the continually updated digitized raw data display, the operator may reset the start of a data segment if he suspects the presence of excessive noise. Potentially bad segments may be noted and excluded, if desired, during later processing. The operator may also suspend data processing, in which case data will continue to be collected and displayed, but will not be further processed. Such suspension permits the operator to observe data while awaiting better signal, or make telemetry and certain equipment adjustments. When the quality of the results is shown to be adequate by one of the four calculated real-time display modes, the operator may close the station. The pending data segment is added in, and all files are closed. The data collection is suspended, but the background software, for example, plotting, continues to run.

Real-time display mode 1 is the rotated apparent resistivity and associated parameters as a function of period. Real-time display mode 2 is the ratio of signal to signal-plus-noise as a function of frequency. Real-time display mode 3 consists of the tipper parameters as a function of period. Real-time display mode 4 consists of polar diagrams.

Hard Copy Output

As well as the real-time displays, the operator may generate hard copy, report quality, printed tables and plots. These tables and plots may be for single or combined bands, they may be for stations in progress, or for previous stations. There are several groups of plots. One group shows the power spectra of the signal and of the noise for each of the five components of a station. Another group of plots shows the tensor resistivity curves resulting from MT analysis. Other groups of plots are the data variables useful in the interpretation of the MT resistivity curves, and simple 1-D inversions of these curves. The results are stored on double-sided double-density floppy disks.

APPENDIX III. SYSTEM CALIBRATION

APPENDIX III
SYSTEM CALIBRATION

A thorough calibration of the entire MT system is made on a periodic basis (usually every six months). The complete calibration, for each individual component and the entire system, is kept on file for quality control.

Calibrations of the individual components and the throughput system include a comparison of empirically determined magnitude and phase response with calculated responses, which are based on the theoretical transfer functions. For all present passbands and gains, the match of the responses agree to within ± 5 percent of each other, within a band starting an octave below and ending an octave above the -3 dB corner frequencies. Within the passband the agreement is better than ± 3 percent. A description of the calibration procedure, the calculations, and the plotted results are on file for documentation. In addition to the frequency domain calibration, the time domain responses were compared with the computed inverse of the Laplace transforms for the individual component method of solving the initial valued differential equations. The agreement between the theoretical and empirical values for both the impulse response and unit step responses are reasonable.

The system calibration also includes checking levels of crosstalk between channels and total system noise. Shorted input noise levels were measured to within ± 10 mV to insure that the overall 60-dB or greater dynamic range of the system is fully used. Checks of the system response and noise level of the magnetometer and telemetry equipment are done as well. Cultural and geologic noises are obviously dependent on site location, and field procedures include a check of these levels as well as an effort to minimize noise problems where possible. Field procedures at each station include: calibration of the remote station telemetry using peak-to-peak gain response, a linearity check, and a measure of the wide band noise level.

APPENDIX IV. FIELD PROCEDURES

APPENDIX IV
FIELD PROCEDURES

Woodward-Clyde follows many field procedures that help insure quality control of the data acquisition process. Operator entered parameters at each station are stored on floppy disks. Among the parameters are measurements of electrode contact resistances, self potentials, average dips and electrode separations; and angles of electrode and magnetometer axes. A brief description of any pertinent site factors such as nearby power lines, fences and other potential noise sources is kept with the recordings. Site selection is based on access, favorable topography for laying the electrodes, and the minimization of cultural noise sources (nearby roads, fences, power lines, etc.). While line-of-site is recommended, the telemetry can be used in areas of rolling topography where the carrier wave bends gradually to reach the receiver. Repeaters, acting as relay stations, are used in rough terrain where hills or dense vegetation may prohibit direct transmission. If possible, base and remote axes are similarly aligned to aid the visual correlation of the time series signals.

Important considerations for each station setup are optimizing orientation of axes, recognizing potential noise sources, overcoming high contact resistance or self potentials and following procedures that minimize operator error. Use of extra electrodes and deeper water saturation of the ground around the electrode pots will decrease the contact resistance between the electrodes and the ground. Self potentials are generally less than 100 mV and are easily eliminated by a bucking box present in both field setups. Gain settings and the bucking box enable larger potentials to be eliminated.

During setup, electrodes are buried six to twelve inches in soil, watered once, and covered to avoid rapid drying. The area in which the electrodes are located should be as clear an area as possible; roots are avoided and care taken that only the porous bottoms of the pots make contact with the earth; and the rubber tops and connectors do not touch earth. All electrode lines are checked before each setup for any shorting problems and to assure consistent reliability. Electrode wires are kept close to ground or worked beneath brush and secured to avoid wind vibration and noise. Shake tests confirm electric line axis identification, as well as absence of crosstalk. Axis alignment and leveling of the magnetometer are checked and are kept accurate within one degree. The magnetometer is preferably located in a cleared area to avoid wind vibration (wind coupling with nearby shrubs and trees). The magnetometer is at least 40 meters from the base van and 80 meters from the generator, and usually 50 meters or more from nearby roads, depending on the conditions prevailing for accessibility. A recheck of all cables and cable orientations is done prior to recording, including resets on each of the magnetometer channels to assure correct magnetic channel identification.

Electrode separation is usually fixed by the length of the electrode lines (typically 150 meters $\pm$ 1.5 meters). This length provides adequate gain and spatial averaging of the telluric signal over small-scale local inhomogeneities, while also providing a manageable length of line for use in areas of rough terrain. In difficult topography the operator can rotate the tellurics or use shorter lines (rarely less than 100 meters). If the signal strength is low, additional 150-meter lengths are easily added to increase the electrode separations and the strength of the input signal. The in-field software corrects for these changes. Average dips, angles of the electrode lines and angles of the magnetometer axes are determined with a Brunton compass accurate to $\pm$ 1 degree (although in severe terrain the

dip may vary as much as ± 2 degrees). Electrode line axis orientations are rechecked by 'shooting back' 180 degrees from the ground electrodes. The magnetometer is leveled carefully prior to aligning its axis with the tellurics. Local declination is preset on the Bruntons so that all azimuths are with respect to true north.

Standard 'technical fixes' for high contact resistance and self potentials include the use of multiple parallel electrodes and self potential bucking boxes. Noise problems for a given channel are reduced by twisted pair transmission lines for the electrodes, hooked into common mode rejection preamplifiers. Crosstalk is minimized by using bypass capacitors and longitudinal chokes throughout the circuits at each of the field sites. Wind noise is minimized by a stable, partly buried shield around the magnetometer, and by securing the telluric lines close to the ground to prevent oscillation.

Prerecording procedures begin with an initial check of all filter settings. Telemetry discriminators are balanced for all remote channels. Analog strip chart pens are centered and the magnetic tape recorder heads are cleaned. SQUID boxes are tuned and reset and all preamplifiers are put on 'fast settle' to prevent ringing. Shorted noise levels are checked on open band and zero gain filter settings, by inspecting the analog strip chart records. The noise amplitudes divided by the chart recorder sensitivities and preamplifier gains yield the input value of preamplifier, telemetry and filter noise. Finally, sequential calibration of the remote station using a known input signal (typically a ± 5V triangle wave input at the front of the preamplifiers) calibrates the gains, insures correct channel identification, and gives a measure of crosstalk and linearity.

Prerecording procedures are completed by checking for the narrow band correlation (6.3-10 Hz) near the Schumann resonance, and correlation in the band of interest; first base and remote source magnetic fields (H_x, H_y, and H_{xr}, H_{yr}) are compared, then correlations between source and induced fields are checked (E_x, H_y, and E_y, H_x respectively) for both base and remote. Equipment settings are entered on the strip chart records, the floppy disk file, and the log book.

The reliability of the setup procedures is further checked by the in-field processing of the data. Short-period bands are processed first, and examined for obvious discrepancies, before the time consuming longer-period bands are collected. CRT screens allow resistivity and other curves to be displayed for each bandpass, and a printer in the field gives printouts for all data, so that a detailed examination can be done on site. Also, repeatability of results is commonly examined by processing a second short-period band before leaving a site.

APPENDIX V. STATION SETUP

APPENDIX V
STATION SETUP

The assigned band numbers for a given frequency recording range may change depending on the requirements of a job, but will usually remain fixed for a given survey. At each station pair setup for each band recorded, a setup file is created that contains all pertinent information on instrument settings, location and terrain conditions, etc. Some of the information is just for the record but other data are used by the system to define the transfer functions that generate normalized cross-powers. The information is grouped according to data related to a given station pair setup (line lengths, contact resistance, etc.), data related to a given band/pass (filter corners and gains, etc.), and data related to the reduction scheme (normalized factors, in-field data display scales, etc., not generally passed on to the client).

The printout includes:

1. Station parameters listed with the first band, pages 1, 2, 3.

   Project, setup, station and magnetometer assignments.

   Magnetometer sensitivities and corner frequencies per channel.

   Station locations (usually Township, Range, and Section of map).

   Magnetometer and E line orientations (degrees from true north), mean dip of E lines, and E line electrode separation, contact resistance, and self potential for each E channel.

   Base operator's initials and any special remarks or comments for the setup or stations.

2. Parameters listed for each band/pass used, pages 4, 5 (or 1 and 2 of subsequent bands).

   All parameters that define a band segment, such as number of points, time, window center periods and harmonics, taper, trend removal and overlap for FFT, and over-range rejection mode settings.

   Magnetometer helium levels and SQUID settings.

   Preamplifier filter settings and Ithaco filter corner frequencies.

   All gain settings at the magnetometers, preamplifiers and Ithacos, for each channel.

   Final information is the identification of the floppy disks and magnetic tape on which data are being recorded for this pass, and any special band/pass comments (a pass is an alphabetic identification for one of several recording sessions at a given band).

3. Reduction parameters not generally passed on to client, pages 6, 7, 8.

   Normalization factors calculated by a transfer function based on the system response, for each channel and each center period window.

   CRT screen display parameters or scale limits for the A-D raw data display, and for the various data result display modes.

SAMPLE SETUP

PROJECT: GLASS MOUNTAIN, CA.
SETUP: 19 GLS-20 GLS, BAND 1, PASS A

NUMBER OF STATIONS: 2
NUMBER OF CHANNELS PER STATION: 5
MAXIMUM NUMBER OF WINDOWS DEFINED: 20

SERIAL NO. OF LOGICAL MAGNETOMETER 1: 306
SERIAL NO. OF LOGICAL MAGNETOMETER 2: 307

MAGNETOMETER SENSITIVITY

	LOGICAL NO. 1	LOGICAL NO. 2
Hx	0.14000E-01	0.16000E-01
Hy	0.59000E-01	0.13000E-01
Hz	0.13000E-01	0.14000E-01

HIGH CORNER FREQUENCY (HZ) OF MAGNETOMETER SHIELD

	LOGICAL NO. 1	LOGICAL NO. 2
Hx	49.000	40.000
Hy	49.000	40.000
Hz	42.000	35.000

PROJECT: GLASS MOUNTAIN, CA.
SETUP: 19 GLS-20 GLS, BAND 1, PASS A

LOCATION OF STATION 1:
T43N, R1E, SW 1/4, SEC 14
LOCATION OF STATION 2:
T43N, R2E (APPROX.)

STATION SETUP DATE: 30-AUG-81, TIME: 21:33:38

SERIAL NUMBER OF MAGNETOMETER AT STATION 1: 306
SERIAL NUMBER OF MAGNETOMETER AT STATION 2: 307

AZIMUTH CORRECTION (DEGREES) FOR STATION 1: 0.00000
AZIMUTH CORRECTION (DEGREES) FOR STATION 2: -40.000

AZIMUTH (DEGREES)

	STATION 1	STATION 2
Ex	0.00000	40.000
Ey	90.000	130.00
Hx	0.00000	40.000

AVERAGE DIP (DEGREES)

	STATION 1	STATION 2
Ex	1.0000	0.00000
Ey	0.00000	0.00000

ELECTRODE SEPARATION (METERS)

	STATION 1	STATION 2
Ex	150.00	150.00
Ey	150.00	150.00

CONTACT RESISTANCE (OHMS)

	STATION 1	STATION 2
Ex	10700.	15400.
Ey	20000.	16900.

PROJECT: GLASS MOUNTAIN, CA.
SETUP: 19 GLS-20 GLS, BAND 1, PASS A

SELF-POTENTIAL (mV)

	STATION 1	STATION 2
Ex	0.00000	0.00000
Ey	0.00000	0.00000

STATION SETUP OPERATOR'S NAME:
JJ

STATION SETUP REMARKS:
CONTACT RESISTANCE OF STATION 19 BASE EY IS 20.4 K.

PROJECT: GLASS MOUNTAIN, CA.
SETUP: 19 GLS-20 GLS, BAND 1, PASS A

SAMPLING FREQUENCY (Hz): 120.00
NUMBER OF DATA POINTS PER SEGMENT: 2048
RECORDING TIME PER SEGMENT (SEC): 17.067
TOTAL NUMBER OF SPECTRAL WINDOWS DEFINED: 18
Q-FACTOR FOR WINDOW DETERMINATION: 3.0000
CROSS-POWERS COMPUTED BY FOREGROUND FOR WINDOWS 2 - 18
CROSS-POWERS ANALYZED BY BACKGROUND FOR WINDOWS 2 - 18

WINDOW	CENTER PERIOD (SEC)	CENTER FREQ (Hz)	NUMBER OF HARMONICS
1	0.020	50.6696	293
2	0.028	36.1700	209
3	0.039	25.8300	149
4	0.054	18.4316	107
5	0.076	13.1477	76
6	0.106	9.3940	54
7	0.149	6.7051	39
8	0.210	4.7688	28
9	0.296	3.3822	20
10	0.416	2.4016	14
11	0.585	1.7083	10
12	0.821	1.2178	7
13	1.148	0.8711	5
14	1.642	0.6089	4
15	2.463	0.4059	3
16	3.816	0.2620	2
17	5.689	0.1758	1
18	8.533	0.1172	1

JUMBER OF POINTS TAPERED FOR FFT: 512
JUMBER OF POINTS SEGMENTS ARE OVERLAPPED: 0
TREND REMOVAL: NO
JUT-OF-RANGE COUNT FOR BAD DATA DETECTION: 1
:N-RANGE COUNT FOR BAD DATA DETECTION: 1
IINIMUM NUMBER OF POINTS TO RESET START OF SEGMENT: 1536

IELIUM LEVEL AT STATION 1 MAGNETOMETER (%): 98.00
IELIUM LEVEL AT STATION 2 MAGNETOMETER (%): 98.00
IAGNETOMETER LOW PASS FILTER: OUT
IAGNETOMETER SLEW RATE: MEDIUM
IAGNETOMETER NOTCH FILTER: OUT
IAGNETOMETER SHIELD: IN

'RE-AMPLIFIER NOTCH FILTER: IN
'RE-AMPLIFIER HIGH PASS FILTER
FOR E CHANNELS (Hz): 0.10000E-02
FOR H CHANNELS (Hz): 0.90000E-03 (VALID AFTER MAY 1981)
IAGNETOMETERS PRE-AMPLIFIER PRE-WHITENER: IN

'THACO LOW CORNER FREQUENCY (Hz): 0.12500
THACO HIGH CORNER FREQUENCY (Hz): 40.000
ITHACO FILTER TYPE: NORMAL

PROJECT: GLASS MOUNTAIN, CA.
SETUP: 19 GLS-20 GLS, BAND 1, PASS A

MAGNETOMETER GAINS

	STATION 1	STATION 2
Hx	1.0000	1.0000
Hy	1.0000	1.0000
Hz	1.0000	1.0000

PRE-AMPLIFIER GAINS

	STATION 1	STATION 2
Ex	2000.0	2000.0
Ey	2000.0	2000.0
Hx	1000.0	1000.0
Hy	500.00	1000.0
Hz	1000.0	1000.0

ITHACO GAINS

	STATION 1	STATION 2
Ex	10.000	10.000
Ey	10.000	10.000
Hx	20.000	20.000
Hy	20.000	20.000
Hz	30.000	30.000

ID OF DISKETTE 1: SET-01 GLS
ID OF DISKETTE 2: ACT-01 GLS
ID OF MAGNETIC TAPE: TAPE A GLS

PASS OPERATOR'S NAME:
JJ

PASS REMARKS:
TIME 21:40
WIND 2 TO 5 MPH

PROJECT: GLASS MOUNTAIN, CA.
SETUP: 19 GLS-20 GLS, BAND 1, PASS A

NORMALIZATION FACTORS

STATION 1	Ex	Ey	Hx	Hy	Hz
WINDOW 2	-5.118E-06	-5.117E-06	7.856E-08	3.728E-08	2.926E-08
	8.803E-06	8.802E-06	-3.440E-08	-1.632E-08	-1.027E-08
WINDOW 3	4.457E-06	4.456E-06	-2.275E-08	-1.079E-08	-7.318E-09
	2.139E-06	2.139E-06	-3.027E-08	-1.437E-08	-1.122E-08
WINDOW 4	3.054E-06	3.054E-06	-2.657E-08	-1.261E-08	-9.391E-09
	-2.333E-06	-2.333E-06	8.257E-09	3.918E-09	2.373E-09
WINDOW 5	5.842E-07	5.841E-07	-9.879E-09	-4.688E-09	-3.716E-09
	-3.404E-06	-3.404E-06	2.212E-08	1.050E-08	7.479E-09
WINDOW 6	-1.134E-06	-1.134E-06	4.057E-09	1.925E-09	1.156E-09
	-3.085E-06	-3.084E-06	2.231E-08	1.059E-08	7.686E-09
WINDOW 7	-2.135E-06	-2.134E-06	1.268E-08	6.016E-09	4.194E-09
	-2.395E-06	-2.394E-06	1.791E-08	8.501E-09	6.216E-09
WINDOW 8	-2.678E-06	-2.677E-06	1.747E-08	8.291E-09	5.889E-09
	-1.695E-06	-1.695E-06	1.268E-08	6.018E-09	4.421E-09
WINDOW 9	-2.957E-06	-2.957E-06	1.994E-08	9.464E-09	6.766E-09
	-1.085E-06	-1.085E-06	7.813E-09	3.708E-09	2.741E-09
WINDOW 10	-3.089E-06	-3.088E-06	2.106E-08	9.996E-09	7.166E-09
	-5.682E-07	-5.681E-07	3.495E-09	1.659E-09	1.249E-09
WINDOW 11	-3.134E-06	-3.133E-06	2.135E-08	1.013E-08	7.272E-09
	-1.082E-07	-1.081E-07	-5.120E-10	-2.430E-10	-1.322E-10
WINDOW 12	-3.115E-06	-3.115E-06	2.093E-08	9.933E-09	7.135E-09
	3.378E-07	3.377E-07	-4.543E-09	-2.156E-09	-1.518E-09
WINDOW 13	-3.025E-06	-3.025E-06	1.965E-08	9.328E-09	6.703E-09
	8.106E-07	8.105E-07	-8.908E-09	-4.228E-09	-3.014E-09
WINDOW 14	-2.805E-06	-2.805E-06	1.671E-08	7.930E-09	5.701E-09
	1.392E-06	1.392E-06	-1.422E-08	-6.746E-09	-4.830E-09
WINDOW 15	-2.260E-06	-2.260E-06	9.700E-09	4.603E-09	3.313E-09
	2.167E-06	2.167E-06	-2.064E-08	-9.795E-09	-7.024E-09
WINDOW 16	-9.533E-07	-9.532E-07	-5.758E-09	-2.733E-09	-1.954E-09
	2.987E-06	2.986E-06	-2.421E-08	-1.149E-08	-8.248E-09
WINDOW 17	1.423E-06	1.423E-06	-2.749E-08	-1.305E-08	-9.360E-09
	2.901E-06	2.901E-06	-1.100E-08	-5.218E-09	-3.750E-09
WINDOW 18	4.987E-06	4.986E-06	-2.316E-08	-1.099E-08	-7.895E-09
	-1.168E-06	-1.167E-06	5.397E-08	2.561E-08	1.838E-08

PROJECT: GLASS MOUNTAIN, CA.
SETUP: 19 GLS-20 GLS, BAND 1, PASS A

STATION 2	Ex	Ey	Hx	Hy	Hz
WINDOW 2	-5.740E-06	-5.740E-06	7.904E-08	9.728E-08	3.090E-08
	8.409E-06	8.409E-06	-1.943E-08	-2.392E-08	-5.444E-09
WINDOW 3	4.340E-06	4.340E-06	-1.686E-08	-2.076E-08	-5.632E-09
	2.366E-06	2.366E-06	-3.054E-08	-3.759E-08	-1.190E-08
WINDOW 4	3.138E-06	3.138E-06	-2.463E-08	-3.031E-08	-9.218E-09
	-2.219E-06	-2.219E-06	4.798E-09	5.905E-09	1.294E-09
WINDOW 5	6.734E-07	6.734E-07	-1.037E-08	-1.276E-08	-4.088E-09
	-3.387E-06	-3.387E-06	1.890E-08	2.326E-08	6.767E-09
WINDOW 6	-1.076E-06	-1.076E-06	2.393E-09	2.945E-09	6.428E-10
	-3.105E-06	-3.105E-06	1.987E-08	2.446E-08	7.264E-09
WINDOW 7	-2.102E-06	-2.102E-06	1.045E-08	1.286E-08	3.654E-09
	-2.423E-06	-2.423E-06	1.622E-08	1.996E-08	5.971E-09
WINDOW 8	-2.661E-06	-2.661E-06	1.497E-08	1.842E-08	5.350E-09
	-1.720E-06	-1.720E-06	1.159E-08	1.427E-08	4.289E-09
WINDOW 9	-2.949E-06	-2.949E-06	1.731E-08	2.131E-08	6.232E-09
	-1.105E-06	-1.105E-06	7.230E-09	8.899E-09	2.691E-09
WINDOW 10	-3.085E-06	-3.085E-06	1.839E-08	2.263E-08	6.639E-09
	-5.830E-07	-5.830E-07	3.351E-09	4.124E-09	1.268E-09
WINDOW 11	-3.133E-06	-3.133E-06	1.869E-08	2.300E-08	6.756E-09
	-1.189E-07	-1.189E-07	-2.379E-10	-2.928E-10	-4.488E-11
WINDOW 12	-3.115E-06	-3.115E-06	1.835E-08	2.258E-08	6.638E-09
	3.302E-07	3.302E-07	-3.828E-09	-4.712E-09	-1.355E-09
WINDOW 13	-3.026E-06	-3.026E-06	1.724E-08	2.122E-08	6.241E-09
	8.052E-07	8.052E-07	-7.697E-09	-9.473E-09	-2.762E-09
WINDOW 14	-2.806E-06	-2.806E-06	1.467E-08	1.806E-08	5.312E-09
	1.388E-06	1.388E-06	-1.238E-08	-1.524E-08	-4.463E-09
WINDOW 15	-2.261E-06	-2.261E-06	8.536E-09	1.051E-08	3.094E-09
	2.165E-06	2.165E-06	-1.804E-08	-2.220E-08	-6.514E-09
WINDOW 16	-9.548E-07	-9.548E-07	-5.002E-09	-6.156E-09	-1.801E-09
	2.986E-06	2.986E-06	-2.120E-08	-2.609E-08	-7.662E-09
WINDOW 17	1.422E-06	1.422E-06	-2.404E-08	-2.959E-08	-8.687E-09
	2.902E-06	2.902E-06	-9.649E-09	-1.188E-08	-3.493E-09
WINDOW 18	4.986E-06	4.986E-06	-2.030E-08	-2.499E-08	-7.345E-09
	-1.166E-06	-1.166E-06	4.720E-08	5.810E-08	1.706E-08

PROJECT: GLASS MOUNTAIN, CA.
SETUP: 19 GLS-20 GLS, BAND 1, PASS A

---FOREGROUND DISPLAY---

NUMBER OF POINTS BETWEEN DATA TRANSMISSIONS: 256
A-D CALIBRATION DISPLAY: NO

---BACKGROUND DISPLAY---

AUTORANGE: NO
PERIOD RANGE - WHOLE NUMBER OF DECADES: YES

DISPLAY RANGES:

	LOWER	UPPER
PERIOD (HORIZONTAL)	-2.0000	1.0000
SKEWNESS	0.00000	1.0000
ROTATION ANGLE	0.00000	180.00
APPARENT RESIST. XY	1.0000	4.0000
APPARENT RESIST. YX	1.0000	4.0000
PHASE OF ROTATED ZXY	-90.000	0.00000
PHASE OF ROTATED ZYX	90.000	180.00
TIPPER MAGNITUDE	0.00000	1.0000
TIPPER STRIKE	0.00000	180.00
TIPPER PHASE	-270.00	90.000
MINIMUM TIPPER X	0.00000	0.50000

WINDOWS FOR POLAR DIAGRAM DISPLAY:

3	5	7
9	11	13

APPENDIX VI. COMPUTER LISTINGS OF DATA

APPENDIX VI
COMPUTER LISTINGS OF DATA

The assigned band numbers for a given frequency recording range may change depending on the requirements of a job, but will usually remain fixed for a given survey. Complete sets of calculated results are printed out for each accepted pass or combination of passes (one set per band) that is determined to be the best at the given setup. These include, for the local or base station and remote station:

Referenced tensor impedance parameters--window number, period at center of window in seconds, rotation angle for xy principal axis from true north reference in degrees with 90° ambiguity (rotation error, note that all errors follow values in parentheses and are 50, 75, or 95% confidence interval estimates), xy rotated apparent resistivity in ohm-meters (xy rho error), xy phase angle in degrees (xy phase error), yx rotated apparent resistivity (yx rho error), yx phase (yx phase error). The average rotation angle is given and if greater than 180°, the listing has been shifted by -180° (file data remains same).

Referenced tipper skew and ellipticity parameters--window number, period at center of window in seconds, tipper magnitude or complex linear coefficient ratio (magnitude error), tipper strike angle from true north reference in degrees with 180° ambiguity (strike error), tipper phase angle in degrees (phase error), minimum tipper (minimum error), skewness ratio (skewness error), ellipticity ratio (ellipticity error). The average tipper strike is given, and if greater than 180°, the listing has been shifted by -180° (file data remains same).

Signal and noise power spectra parameters--window number, period at center of window in seconds, E_x, E_y, H_x, H_y, H_z signal power in $(mV/km)^2$, E_x, E_y, H_x, H_y, H_z noise power estimates based on remote reference in $(mV/km)^2/Hz$.

Least squares or ordinary unreferenced estimates--window number, period at center of window in seconds, impedance parameters and admittance parameters for skewness, rotation angle, xy resistivity, xy phase, yx resistivity, yx phase, in same units as referenced estimates above. These are the values that would have been obtained without a remote reference. The average rotation angle is given, and if greater than 180°, the listing has been shifted by -180° (file data remains same).

Predicted and channel coherencies--window number, period at center of window in seconds, E_x, E_y and H_z ordinary coherency ratios as based on predicted versus observed data, coherency ratios between channels (taken in the direction of the base azimuths before rotation) for E_x local - E_x remote, $E_{yl}-E_{yr}$, $E_{xl}-E_{yr}$, $E_{yl}-E_{xr}$, and $H_{xl}-H_{xr}$, $H_{yl}-H_{yr}$, $H_{zl}-H_{zr}$, $H_{xl}-H_{yr}$, $H_{yl}-H_{xr}$.

GLASS MOUNTAIN, CALIFORNIA
SURVEY SUMMARY

PREPARED FOR
UNION OIL COMPANY

Setup Base/Remote	Period, per band Segments used/Recorded	Date 1981	Comments
19/20	250 sec., 1-57/57 5-48/48	30-31 August	Signal strong, (except for long period) Total time on line; 10 hours, 40 minute Total recording time; 8 hours, 35 minutes.
16/17	250 sec., 1-38/38 3-69/72 5-32/32	31 August- 1 September	Available maps did not show present road; base station located by topography; 1.5-hour delay. Total time on line; 15 hours. Total recording time; 9 hours, 5 minutes.
11/12	250 sec., 1-98/175 5-33/34	1-2 September	Time spent to lower contact resistance to within acceptable limits; 2.5 hours. High frequency weak during late night hours. Total time on line; 8 hours, 50 minutes. Total recording time; 6 hours, 55 minutes.
13/18	250 sec., 1-0/27 2-56/56 3-113/113 5-37/37	2-3 September	Tall trees near base magnetometer contributed to long period noise. Total time on line; 9 hours, 55 minutes. Total recording time; 8 hours, 20 minutes.
21/22	250 sec., 2-52/53 3-52/53 5-10/10	3-4 September	Difficulty in setting up repeater for good telemetry. Total time on line; 7 hours. Total recording time; 5 hours, 35 minutes.
07/08	250 sec., 1-0/18 2-55/55 3-176/176 5-18/67	5-6 September	Low signal strength. Total time on line; 16 hours, 45 minutes. Total recording time; 14 hours, 55 minutes.
01/06	250 sec., 2-48/53 3-54/76 5-26/26	6 September	Total time on line; 9 hours. Total recording time; 8 hours, 25 minutes.
02/14	250 sec., 2-63/85 3-132/132 5-14/19	7 September	Available maps inadequate; located base site using topography; 3.5-hour delay. Total time on line; 8 hours. Total recording time; 7 hours, 10 minutes.

Setup Base/Remote	Period, per band Segments used/Recorded	Date 1981	Comments
04/03	250 sec., 2-48/48 3-57/57 5-53/53	8-9 September	Long period signal weak during night and morning hours; therefore, unable to collect data during the day. Station site near logging road. Total time on line; 13 hours, 45 minutes. Total recording time; 10 hours, 10 minutes.
10/05	250 sec., 2-85/146 3-67/100 5-12/12	9 September	Total time on line; 10 hours, 40 minutes. Total recording time; 8 hours, 5 minutes.
09/15	250 sec., 1-107/107 5-22/22	10 September	Time to establish a good repeater position; 2.5 hours. Total time on line; 6 hours, 10 minutes. Total recording time; 5 hours, 10 minutes.

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 1920C1.ADE
RECORDING COMPLETED: 22:21:21 30-Aug-81

SETUP 19 GLS-20 GLS, BAND 1, PASS A

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 120.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 57 DATA SEGMENTS, 17.07 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	0.028	5.5 (1.8)	538. (6.0)	-81.0 (0.3)	408. (2.4)	101.5 (0.2)
3	0.039	14.4 (19.2)	437. (27.)	-78.6 (2.0)	374. (11.)	101.4 (1.1)
4	0.054	6.2 (2.0)	369. (9.4)	-82.6 (0.7)	286. (1.6)	100.2 (0.2)
5	0.076	178.4 (1.4)	283. (3.3)	-80.0 (0.3)	217. (1.1)	101.3 (0.1)
6	0.106	18.8 (1.4)	203. (1.4)	-78.8 (0.2)	156. (0.91)	102.1 (0.2)
7	0.149	2.2 (1.4)	174. (0.87)	-78.9 (0.1)	136. (0.67)	102.2 (0.1)
8	0.210	12.5 (2.2)	130. (1.4)	-78.2 (0.3)	95.2 (0.79)	103.6 (0.3)
9	0.296	8.6 (2.6)	94.6 (0.84)	-76.1 (0.3)	73.3 (0.52)	104.8 (0.2)
10	0.416	8.7 (2.5)	70.7 (0.68)	-74.5 (0.3)	56.2 (0.40)	106.2 (0.2)
11	0.585	5.3 (2.9)	54.5 (0.56)	-71.2 (0.3)	44.4 (0.39)	110.3 (0.3)
12	0.821	14.9 (4.6)	40.3 (0.56)	-68.2 (0.4)	34.1 (0.42)	113.4 (0.4)
13	1.148	170.3 (4.1)	35.6 (0.55)	-62.1 (0.5)	27.9 (0.52)	118.9 (0.5)
14	1.642	19.6 (7.1)	30.6 (0.70)	-55.9 (0.7)	26.6 (0.44)	126.2 (0.5)
15	2.463	2.1 (10.6)	31.6 (0.88)	-46.6 (0.8)	26.9 (0.71)	132.6 (0.8)
16	3.816	36.7 (5.3)	37.4 (2.1)	-33.2 (1.6)	29.0 (1.4)	140.3 (1.3)
17	5.689	40.5 (12.5)	48.6 (4.7)	-40.9 (3.5)	31.8 (3.1)	148.1 (3.6)
18	8.533	179.1 (8.0)	43.4 (2.6)	-31.0 (1.8)	31.1 (2.0)	139.6 (1.6)

AVERAGE ROTATION ANGLE ON FILE = 42.6

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	0.028	57.1 (0.5)	198. (2.0)	-63.5 (0.3)	65.4 (0.82)	94.4 (0.3)
3	0.039	73.1 (3.6)	191. (2.1)	-69.9 (0.8)	73.6 (5.1)	103.6 (2.2)
4	0.054	69.2 (1.0)	180. (2.0)	-71.5 (0.4)	72.2 (1.3)	103.5 (0.5)
5	0.076	74.4 (0.6)	142. (1.0)	-73.3 (0.2)	58.7 (0.69)	104.1 (0.3)
6	0.106	74.2 (0.5)	111. (0.98)	-74.2 (0.3)	42.1 (0.51)	103.9 (0.3)
7	0.149	76.6 (0.6)	94.0 (0.69)	-74.0 (0.2)	39.1 (0.50)	104.0 (0.4)
8	0.210	78.7 (0.9)	68.6 (0.80)	-73.2 (0.3)	27.4 (0.64)	105.5 (0.7)
9	0.296	76.3 (1.1)	52.0 (0.65)	-71.8 (0.4)	23.6 (0.58)	107.2 (0.7)
10	0.416	82.4 (1.1)	40.5 (0.51)	-68.7 (0.4)	16.1 (0.45)	108.3 (0.8)
11	0.585	79.6 (1.3)	30.9 (0.52)	-64.4 (0.5)	12.6 (0.45)	112.5 (1.0)
12	0.821	79.6 (2.1)	24.8 (0.63)	-60.6 (0.7)	10.5 (0.49)	117.6 (1.3)
13	1.148	90.0 (2.6)	22.9 (0.75)	-51.8 (0.9)	9.10 (0.41)	120.1 (1.3)
14	1.642	78.5 (2.9)	22.1 (1.0)	-45.4 (1.3)	8.19 (0.44)	134.1 (1.6)
15	2.463	75.5 (3.3)	28.1 (1.6)	-37.8 (1.6)	8.70 (0.70)	137.9 (2.3)
16	3.816	81.5 (3.0)	40.1 (2.4)	-31.3 (1.7)	7.26 (0.80)	143.8 (3.2)
17	5.689	53.7 (12.0)	28.5 (6.7)	-46.3 (6.5)	17.3 (5.4)	162.7 (5.3)
18	8.533	11.9 (8.1)	16.0 (1.5)	-42.1 (3.0)	37.0 (3.2)	145.8 (2.5)

AVERAGE ROTATION ANGLE ON FILE = 71.3

WOODWARD-CLYDE CONSULTANTS

SETUP 19 GLS-20 GLS, BAND 1, PASS A

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.058 (0.006)	54.1 (20.2)	16.1 (10.5)	0.033 (0.007)	0.086 (0.005)	0.220 (0.065)
3	0.039	0.122 (0.015)	32.2 (13.2)	-6.3 (6.7)	0.065 (0.010)	0.046 (0.018)	0.670 (0.690)
4	0.054	0.062 (0.004)	75.2 (6.9)	25.7 (3.3)	0.008 (0.007)	0.092 (0.005)	0.278 (0.071)
5	0.076	0.067 (0.004)	67.2 (4.7)	17.1 (3.0)	0.003 (0.005)	0.096 (0.003)	0.058 (0.048)
6	0.106	0.062 (0.004)	71.7 (5.8)	13.2 (3.7)	0.002 (0.006)	0.064 (0.003)	0.777 (0.074)
7	0.149	0.084 (0.004)	52.0 (3.3)	15.7 (3.0)	0.004 (0.005)	0.097 (0.003)	0.082 (0.050)
8	0.210	0.083 (0.007)	62.1 (6.5)	13.9 (4.7)	0.012 (0.009)	0.069 (0.006)	0.565 (0.082)
9	0.296	0.087 (0.006)	61.8 (5.7)	4.1 (4.1)	0.022 (0.008)	0.085 (0.005)	0.447 (0.088)
10	0.416	0.082 (0.003)	86.0 (5.7)	12.2 (2.3)	0.006 (0.008)	0.080 (0.005)	0.316 (0.094)
11	0.585	0.105 (0.004)	76.3 (4.3)	-1.0 (2.2)	0.022 (0.007)	0.090 (0.005)	0.207 (0.104)
12	0.821	0.120 (0.005)	68.0 (3.6)	-14.7 (2.2)	0.022 (0.007)	0.081 (0.007)	0.621 (0.196)
13	1.148	0.110 (0.003)	79.7 (3.5)	-22.5 (1.8)	0.008 (0.007)	0.098 (0.009)	0.380 (0.158)
14	1.642	0.112 (0.003)	79.1 (3.1)	-39.1 (1.8)	0.006 (0.006)	0.069 (0.010)	0.826 (0.388)
15	2.463	0.112 (0.004)	77.6 (3.9)	-64.1 (2.1)	0.017 (0.007)	0.089 (0.015)	0.105 (0.371)
16	3.816	0.115 (0.005)	73.3 (4.5)	-84.5 (2.6)	0.002 (0.009)	0.052 (0.022)	3.125 (1.935)
17	5.689	0.143 (0.013)	51.5 (6.0)	-123.5 (5.7)	0.042 (0.012)	0.101 (0.033)	1.454 (0.511)
18	8.533	0.120 (0.008)	74.0 (5.9)	-123.3 (3.8)	0.017 (0.012)	0.143 (0.030)	0.272 (0.260)

AVERAGE TIPPER STRIKE ON FILE = 67.2

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.039 (0.004)	1.2 (2.8)	4.6 (5.9)	0.002 (0.002)	0.044 (0.005)	0.716 (0.023)
3	0.039	0.095 (0.019)	-5.8 (1.4)	4.5 (11.7)	0.003 (0.002)	0.072 (0.022)	1.564 (0.270)
4	0.054	0.030 (0.006)	-3.8 (5.1)	33.9 (11.7)	0.007 (0.002)	0.021 (0.007)	1.503 (0.097)
5	0.076	0.023 (0.003)	6.1 (11.7)	2.4 (6.4)	0.011 (0.002)	0.023 (0.004)	2.459 (0.142)
6	0.106	0.028 (0.003)	25.3 (4.3)	-46.2 (6.8)	0.001 (0.002)	0.045 (0.004)	2.512 (0.139)
7	0.149	0.031 (0.003)	19.1 (4.0)	-33.2 (6.1)	0.007 (0.002)	0.038 (0.004)	3.321 (0.244)
8	0.210	0.039 (0.005)	32.1 (4.9)	-81.8 (7.2)	0.001 (0.003)	0.032 (0.007)	4.246 (0.623)
9	0.296	0.048 (0.005)	33.2 (3.9)	-78.1 (6.0)	0.004 (0.003)	0.037 (0.008)	3.142 (0.409)
10	0.416	0.048 (0.004)	41.6 (4.7)	-76.6 (5.3)	0.012 (0.003)	0.028 (0.009)	10.784 (4.319)
11	0.585	0.057 (0.004)	50.5 (4.4)	-100.1 (4.0)	0.014 (0.004)	0.043 (0.011)	5.072 (1.240)
12	0.821	0.075 (0.004)	52.7 (3.6)	-110.5 (3.0)	0.012 (0.004)	0.027 (0.017)	5.040 (1.925)
13	1.148	0.078 (0.004)	53.9 (3.4)	-120.6 (2.9)	0.002 (0.005)	0.045 (0.021)	5.614 (2.898)
14	1.642	0.105 (0.004)	54.0 (2.2)	-132.9 (2.1)	0.008 (0.004)	0.044 (0.027)	3.786 (1.524)
15	2.463	0.111 (0.004)	57.6 (2.8)	-142.0 (2.1)	0.009 (0.005)	0.108 (0.037)	2.915 (1.080)
16	3.816	0.145 (0.005)	58.1 (2.6)	-148.7 (2.0)	0.017 (0.006)	0.093 (0.045)	8.151 (7.121)
17	5.689	0.142 (0.007)	70.1 (5.1)	-155.8 (3.0)	0.016 (0.012)	0.244 (0.079)	0.802 (0.259)
18	8.533	0.157 (0.008)	63.9 (3.5)	-162.0 (2.8)	0.023 (0.009)	0.133 (0.061)	1.462 (0.838)

AVERAGE TIPPER STRIKE ON FILE = 35.9

WOODWARD-CLYDE CONSULTANTS

SETUP 19 GLS-20 GLS, BAND 1, PASS A

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	1.90E-02	7.61E-02	1.03E-06	1.87E-07	7.93E-10
3	0.039	5.00E-02	4.30E-02	8.82E-07	9.13E-07	2.01E-08
4	0.054	6.89E-03	2.96E-02	1.11E-06	2.03E-07	3.19E-09
5	0.076	5.68E-03	2.27E-02	1.57E-06	3.09E-07	5.97E-09
6	0.106	3.13E-03	1.11E-02	1.46E-06	3.50E-07	4.78E-09
7	0.149	2.78E-03	1.17E-02	2.55E-06	4.77E-07	1.08E-08
8	0.210	9.98E-04	5.13E-03	2.17E-06	3.46E-07	9.96E-09
9	0.296	7.61E-04	4.18E-03	3.25E-06	5.22E-07	1.53E-08
10	0.416	5.81E-04	3.18E-03	4.62E-06	7.31E-07	3.01E-08
11	0.585	5.18E-04	2.36E-03	6.12E-06	1.16E-06	6.04E-08
12	0.821	4.35E-04	1.92E-03	9.00E-06	1.81E-06	1.12E-07
13	1.148	4.33E-04	1.73E-03	1.39E-05	2.90E-06	1.62E-07
14	1.642	5.00E-04	2.29E-03	2.73E-05	5.97E-06	3.06E-07
15	2.463	4.95E-04	2.24E-03	4.03E-05	8.13E-06	4.54E-07
16	3.816	5.33E-04	3.02E-03	7.20E-05	1.28E-05	8.44E-07
17	5.689	8.09E-04	5.25E-03	1.80E-04	2.29E-05	1.91E-06
18	8.533	1.94E-03	8.31E-03	4.25E-04	8.81E-05	5.25E-06

LOCAL SITE, NOISE

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	6.47E-04	2.23E-03	2.81E-07	9.30E-08	2.65E-07
3	0.039	-3.32E-02	3.13E-04	2.76E-06	4.65E-06	8.73E-07
4	0.054	3.94E-06	3.18E-04	1.86E-07	3.70E-07	1.45E-07
5	0.076	4.41E-05	2.11E-04	1.39E-07	1.21E-07	1.33E-07
6	0.106	3.48E-05	1.16E-04	1.27E-07	1.40E-08	1.27E-07
7	0.149	1.56E-05	1.02E-04	1.15E-07	1.64E-08	1.21E-07
8	0.210	1.01E-05	4.85E-05	1.26E-07	1.48E-08	1.15E-07
9	0.296	9.98E-06	4.25E-05	1.30E-07	1.63E-08	1.15E-07
10	0.416	8.87E-06	5.67E-05	1.34E-07	1.89E-08	1.29E-07
11	0.585	9.91E-06	4.90E-05	1.41E-07	3.72E-08	1.28E-07
12	0.821	1.43E-05	6.48E-05	1.65E-07	4.38E-08	1.38E-07
13	1.148	1.75E-05	9.08E-05	2.73E-07	9.37E-08	1.38E-07
14	1.642	2.74E-05	1.21E-04	3.85E-07	1.96E-07	1.83E-07
15	2.463	4.83E-05	2.24E-04	8.55E-07	3.06E-07	2.87E-07
16	3.816	1.02E-04	4.12E-04	1.16E-06	5.32E-07	5.22E-07
17	5.689	1.58E-04	6.19E-04	2.43E-06	1.23E-06	1.27E-06
18	8.533	3.49E-04	1.05E-03	1.11E-05	2.66E-06	2.99E-06

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	2.13E-02	1.16E-02	5.84E-07	5.52E-07	3.71E-10
3	0.039	1.21E-02	8.72E-03	5.06E-07	4.42E-07	5.21E-10
4	0.054	8.24E-03	7.06E-03	6.00E-07	4.80E-07	3.25E-10
5	0.076	6.01E-03	6.11E-03	8.81E-07	6.48E-07	3.17E-10
6	0.106	2.88E-03	3.27E-03	8.76E-07	5.68E-07	3.65E-10
7	0.149	3.16E-03	3.39E-03	1.36E-06	1.04E-06	7.88E-10
8	0.210	1.29E-03	1.53E-03	1.19E-06	8.18E-07	1.09E-09
9	0.296	9.82E-04	1.32E-03	1.87E-06	1.11E-06	2.03E-09
10	0.416	7.97E-04	1.03E-03	2.54E-06	1.69E-06	4 44E-09
11	0.585	6.45E-04	7.59E-04	3.51E-06	2.58E-06	9.71E-09
12	0.821	5.50E-04	5.97E-04	4.80E-06	3.82E-06	2.67E-08
13	1.148	5.58E-04	6.70E-04	7.92E-06	5.97E-06	4.95E-08
14	1.642	6.39E-04	8.87E-04	1.74E-05	9.32E-06	1.54E-07
15	2.463	8.35E-04	1.01E-03	2.28E-05	1.59E-05	3.00E-07
16	3.816	1.22E-03	1.65E-03	3.92E-05	2.58E-05	8.28E-07
17	5.689	1.55E-03	2.18E-03	9.94E-05	5.31E-05	2.25E-06
18	8.533	2.59E-03	5.12E-03	2.68E-04	1.22E-04	5.59E-06

REMOTE SITE, NOISE

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	3.57E-04	5.21E-04	2.31E-07	5.15E-07	1.20E-07
3	0.039	1.89E-04	2.03E-05	1.38E-07	2.97E-07	7.17E-08
4	0.054	4.71E-05	1.51E-04	9.95E-08	2.56E-07	6.11E-08
5	0.076	2.89E-05	1.54E-04	8.79E-08	2.34E-07	5.12E-08
6	0.106	3.22E-05	1.31E-04	7.91E-08	2.18E-07	4.79E-08
7	0.149	2.86E-05	1.24E-04	8.53E-08	2.12E-07	4.88E-08
8	0.210	1.66E-05	1.20E-04	7.75E-08	2.21E-07	4.65E-08
9	0.296	2.66E-05	1.32E-04	7.30E-08	2.07E-07	5.08E-08
10	0.416	4.32E-05	1.44E-04	7.86E-08	2.19E-07	5.33E-08
11	0.585	5.17E-05	1.59E-04	6.81E-08	2.26E-07	5.29E-08
12	0.821	8.20E-05	1.82E-04	1.25E-07	2.29E-07	6.31E-08
13	1.148	1.24E-04	2.44E-04	1.04E-07	2.44E-07	8.85E-08
14	1.642	2.34E-04	3.40E-04	5.02E-08	3.40E-07	1.07E-07
15	2.463	3.48E-04	5.25E-04	1.31E-07	4.77E-07	1.68E-07
16	3.816	4.41E-04	7.10E-04	3.96E-07	5.51E-07	2.73E-07
17	5.689	8.84E-04	1.19E-03	2.13E-06	2.19E-06	7.81E-07
18	8.533	1.26E-03	2.00E-03	4.08E-06	4.89E-06	1.80E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 19 GLS-20 GLS, BAND 1, PASS A

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.072	151.1	2.24E+02	-81.0	2.67E+02	102.7	0.081	3.6	5.77E+02	-80.9	4.32E+02	102.5
3	0.039	0.369	154.5	9.7	-45.1	2.02E+02	95.3	0.332	157.2	33.	-48.3	4.86E+02	95.8
4	0.054	0.206	7.6	40.	-78.2	2.18E+02	100.0	0.091	6.3	3.70E+02	-81.1	2.92E+02	100.4
5	0.076	0.054	159.5	1.42E+02	-79.8	1.92E+02	101.6	0.093	178.0	2.88E+02	-79.7	2.21E+02	101.4
6	0.106	0.085	6.7	1.82E+02	-78.4	1.33E+02	102.2	0.066	18.0	2.08E+02	-78.5	1.59E+02	102.2
7	0.149	0.099	0.0	1.62E+02	-78.8	1.25E+02	102.2	0.096	2.7	1.76E+02	-78.9	1.39E+02	102.3
8	0.210	0.105	0.7	1.13E+02	-77.5	84.	104.0	0.076	9.7	1.32E+02	-77.7	98.	103.6
9	0.296	0.098	2.5	87.	-76.1	67.	105.0	0.080	10.7	97.	-76.1	75.	104.7
10	0.416	0.082	6.1	67.	-74.5	53.	106.2	0.059	20.2	75.	-74.6	57.	106.3
11	0.585	0.089	8.3	51.	-71.2	42.	110.4	0.087	7.7	57.	-71.0	46.	110.4
12	0.821	0.074	22.2	39.	-67.9	32.	113.4	0.069	20.5	44.	-67.3	36.	112.9
13	1.148	0.094	173.7	33.	-61.4	27.	118.5	0.083	4.1	38.	-61.4	31.	118.7
14	1.642	0.066	29.0	29.	-56.1	26.	126.3	0.046	30.4	36.	-55.4	29.	125.8
15	2.463	0.074	18.2	30.	-46.0	26.	132.3	0.062	26.8	40.	-45.8	31.	132.1
16	3.816	0.070	41.2	36.	-32.6	27.	139.0	0.080	36.6	54.	-32.0	37.	138.4
17	5.689	0.110	50.3	43.	-43.2	31.	149.8	0.092	29.5	71.	-39.2	39.	145.7
18	8.533	0.151	1.4	41.	-30.5	29.	140.2	0.121	7.0	62.	-30.5	40.	139.9

AVERAGE ROTATION ANGLE = 49.0

AVERAGE ROTATION ANGLE = 33.5

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.230	177.5	7.5	-76.7	89.	106.2	0.045	55.3	1.99E+02	-64.2	86.	94.2
3	0.039	0.182	90.7	1.16E+02	-75.5	14.	107.9	0.018	62.7	2.06E+02	-69.0	86.	100.1
4	0.054	0.150	92.9	1.21E+02	-76.2	18.	107.7	0.009	71.0	1.82E+02	-72.4	80.	103.0
5	0.076	0.090	92.5	1.07E+02	-75.0	24.	105.5	0.012	77.4	1.43E+02	-73.8	65.	104.2
6	0.106	0.071	92.3	82.	-76.2	19.	105.9	0.020	76.8	1.13E+02	-74.8	50.	104.3
7	0.149	0.038	89.1	79.	-74.4	22.	104.1	0.024	79.9	96.	-74.2	47.	103.8
8	0.210	0.126	95.1	55.	-75.5	10.	107.9	0.099	97.4	73.	-75.0	46.	105.8
9	0.296	0.064	93.4	44.	-72.9	12.	109.1	0.080	102.8	56.	-73.1	40.	108.8
10	0.416	0.057	92.0	37.	-68.7	10.	107.7	0.102	107.3	48.	-69.2	29.	108.3
11	0.585	0.009	86.8	29.	-63.9	9.5	111.4	0.105	110.6	41.	-64.1	26.	112.2
12	0.821	0.025	84.6	23.	-60.1	8.3	116.5	0.156	118.7	42.	-61.0	24.	118.8
13	1.148	0.074	93.1	22.	-51.8	7.8	119.6	0.205	112.0	43.	-53.9	18.	123.8
14	1.642	0.025	83.3	21.	-44.7	7.8	133.3	0.049	79.7	41.	-43.6	19.	132.2
15	2.463	0.086	79.0	27.	-37.9	7.8	137.4	0.118	84.7	58	-36.8	25.	136.3
16	3.816	0.099	82.6	39.	-31.1	6.6	142.7	0.049	94.0	74.	-31.8	32.	144.0
17	5.689	0.214	64.2	28.	-42.2	13.	159.5	0.279	51.5	72.	-48.2	43.	164.5
18	8.533	0.136	13.1	14.	-39.9	36.	145.7	0.097	89.0	79.	-35.4	29.	141.7

AVERAGE ROTATION ANGLE = 88.4

AVERAGE ROTATION ANGLE = 86.5

WOODWARD-CLYDE CONSULTANTS

SETUP 19 GLS-20 GLS, BAND 1, PASS A

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	0.028	0.81	0.87	0.08	0.74	0.87	0.03
3	0.039	0.72	0.49	0.71	0.82	0.83	0.04
4	0.054	0.58	0.93	0.13	0.83	0.93	0.07
5	0.076	0.85	0.95	0.20	0.88	0.96	0.07
6	0.106	0.97	0.95	0.18	0.87	0.96	0.07
7	0.149	0.98	0.97	0.27	0.92	0.97	0.12
8	0.210	0.97	0.97	0.27	0.90	0.95	0.13
9	0.296	0.98	0.98	0.34	0.92	0.95	0.17
10	0.416	0.98	0.98	0.42	0.93	0.93	0.27
11	0.585	0.97	0.98	0.55	0.93	0.91	0.38
12	0.821	0.97	0.97	0.66	0.91	0.87	0.54
13	1.148	0.97	0.96	0.73	0.89	0.86	0.59
14	1.642	0.96	0.97	0.78	0.84	0.85	0.76
15	2.463	0.94	0.94	0.76	0.83	0.83	0.80
16	3.816	0.90	0.93	0.78	0.85	0.86	0.86
17	5.689	0.89	0.94	0.76	0.78	0.81	0.86
18	8.533	0.91	0.93	0.80	0.81	0.84	0.87

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.36	0.34	0.85	0.97	0.18	0.09	0.01	0.73	0.49
0.26	0.10	0.71	0.98	0.14	0.03	0.02	0.43	0.12
0.30	0.24	0.90	0.99	0.28	0.10	0.02	0.83	0.44
0.16	0.35	0.89	0.99	0.30	0.08	0.04	0.89	0.69
0.23	0.42	0.88	0.99	0.35	0.22	0.04	0.89	0.82
0.20	0.38	0.85	0.99	0.31	0.12	0.07	0.94	0.84
0.49	0.57	0.81	0.98	0.52	0.49	0.05	0.92	0.83
0.37	0.56	0.80	0.98	0.52	0.42	0.07	0.95	0.87
0.06	0.47	0.74	0.96	0.42	0.17	0.07	0.96	0.89
0.22	0.41	0.70	0.94	0.41	0.25	0.20	0.97	0.91
0.37	0.42	0.70	0.90	0.48	0.37	0.38	0.98	0.93
0.23	0.37	0.70	0.87	0.41	0.30	0.39	0.98	0.94
0.19	0.48	0.74	0.84	0.53	0.32	0.57	0.98	0.95
0.16	0.46	0.62	0.80	0.42	0.24	0.67	0.98	0.94
0.06	0.45	0.50	0.78	0.42	0.18	0.67	0.98	0.93
0.15	0.42	0.66	0.76	0.55	0.33	0.67	0.98	0.93
0.15	0.54	0.73	0.80	0.56	0.35	0.66	0.98	0.94

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 1920C5.BCV
RECORDING COMPLETED: 06:26:05 31-Aug-81

SETUP 19 GLS-20 GLS, BAND 5, PASS B

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 48 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	174.8 (6.1)	34.6 (1.6)	-37.4 (1.5)	25.3 (0.48)	142.1 (0.8)
3	4.635	177.5 (6.7)	34.8 (1.2)	-34.7 (1.0)	30.0 (0.40)	143.8 (0.4)
4	6.486	26.1 (2.6)	44.1 (1.3)	-28.4 (0.9)	33.9 (0.53)	144.9 (0.5)
5	9.062	15.1 (2.4)	58.8 (1.2)	-27.8 (0.6)	42.4 (0.62)	146.2 (0.5)
6	12.648	15.9 (0.9)	72.1 (0.57)	-30.0 (0.2)	47.1 (0.42)	146.5 (0.3)
7	17.561	17.6 (1.1)	78.7 (0.62)	-32.1 (0.2)	57.2 (0.40)	143.0 (0.3)
8	24.381	14.1 (1.1)	91.7 (0.61)	-37.8 (0.2)	65.3 (0.28)	139.6 (0.2)
9	33.945	13.0 (0.2)	108. (0.50)	-41.9 (0.1)	57.4 (0.18)	134.5 (0.1)
10	46.984	27.3 (0.3)	100. (0.41)	-42.1 (0.1)	59.4 (0.27)	127.3 (0.1)
11	64.506	28.7 (0.3)	101. (0.48)	-46.0 (0.1)	52.2 (0.33)	124.4 (0.2)
12	89.811	28.7 (0.3)	93.6 (0.52)	-49.4 (0.2)	45.3 (0.31)	121.6 (0.2)
13	129.012	26.8 (0.3)	87.1 (0.65)	-51.0 (0.2)	36.8 (0.18)	121.5 (0.1)
14	186.956	25.9 (0.3)	75.1 (0.53)	-50.2 (0.2)	29.9 (0.26)	123.8 (0.2)
15	256.000	23.1 (0.4)	72.7 (0.79)	-47.4 (0.3)	27.0 (0.26)	126.6 (0.3)
16	341.333	23.2 (0.9)	69.4 (0.95)	-46.5 (0.4)	26.3 (0.44)	130.7 (0.5)
17	512.000	22.0 (1.9)	71.9 (1.9)	-47.0 (0.8)	27.8 (0.69)	135.7 (0.7)

AVERAGE ROTATION ANGLE ON FILE = 41.2

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	175.5 (2.2)	8.69 (0.78)	-47.2 (2.5)	27.6 (0.71)	143.5 (0.8)
3	4.635	179.1 (2.0)	8.78 (0.72)	-55.2 (2.2)	29.9 (0.68)	145.4 (0.7)
4	6.486	7.5 (2.6)	14.8 (0.75)	-36.5 (1.5)	38.4 (1.1)	148.7 (0.8)
5	9.062	176.5 (2.7)	17.4 (0.66)	-34.0 (1.3)	41.2 (1.4)	147.9 (1.1)
6	12.648	171.1 (0.9)	19.1 (0.35)	-35.0 (0.6)	57.2 (0.96)	150.4 (0.5)
7	17.561	175.5 (0.6)	21.0 (0.28)	-36.5 (0.4)	72.7 (0.75)	146.8 (0.3)
8	24.381	173.9 (0.6)	23.6 (0.27)	-42.0 (0.3)	82.3 (0.52)	143.7 (0.2)
9	33.945	169.1 (0.3)	25.6 (0.18)	-45.8 (0.2)	75.1 (0.48)	138.4 (0.2)
10	46.984	166.2 (0.5)	20.9 (0.23)	-49.8 (0.3)	80.6 (1.2)	132.2 (0.4)
11	64.506	165.6 (0.9)	20.7 (0.46)	-51.7 (0.7)	74.4 (1.8)	131.2 (0.7)
12	89.811	161.0 (0.7)	14.0 (0.48)	-57.3 (1.0)	75.3 (1.5)	127.7 (0.6)
13	129.012	159.8 (0.9)	12.4 (0.65)	-56.7 (1.6)	62.3 (1.8)	127.9 (0.8)
14	186.956	161.3 (1.0)	12.4 (0.51)	-52.6 (1.2)	52.6 (1.3)	125.0 (0.7)
15	256.000	159.0 (0.9)	12.5 (0.53)	-50.1 (1.2)	45.1 (0.97)	128.0 (0.6)
16	341.333	159.3 (1.3)	12.1 (0.73)	-47.4 (1.7)	42.3 (1.5)	128.7 (1.0)
17	512.000	158.8 (1.9)	12.4 (1.0)	-40.4 (2.5)	43.7 (2.2)	131.2 (1.5)

AVERAGE ROTATION ANGLE ON FILE = 157.4

WOODWARD-CLYDE CONSULTANTS

SETUP 19 GLS-20 GLS, BAND 5, PASS B

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.162 (0.023)	-44.6 (10.1)	108.2 (9.9)	0.054 (0.022)	0.096 (0.012)	0.486 (0.174)
3	4.635	0.168 (0.017)	-86.1 (15.0)	85.3 (7.9)	0.061 (0.034)	0.083 (0.009)	0.091 (0.235)
4	6.486	0.143 (0.024)	-113.5 (14.8)	47.2 (9.7)	0.044 (0.031)	0.039 (0.008)	1.292 (0.243)
5	9.062	0.204 (0.017)	-92.6 (8.3)	45.0 (4.6)	0.055 (0.026)	0.079 (0.006)	0.698 (0.086)
6	12.648	0.149 (0.009)	-119.9 (7.0)	36.6 (3.4)	0.014 (0.018)	0.058 (0.003)	0.688 (0.038)
7	17.561	0.166 (0.004)	-113.8 (4.9)	14.3 (1.4)	0.001 (0.014)	0.088 (0.003)	0.801 (0.040)
8	24.381	0.179 (0.002)	-92.7 (2.3)	-3.4 (0.8)	0.011 (0.007)	0.103 (0.002)	0.755 (0.031)
9	33.945	0.143 (0.002)	-90.0 (1.8)	-15.1 (1.0)	0.020 (0.004)	0.068 (0.002)	0.534 (0.009)
10	46.984	0.144 (0.005)	-87.6 (2.0)	-14.2 (1.8)	0.036 (0.004)	0.085 (0.002)	1.372 (0.025)
11	64.506	0.137 (0.005)	-74.5 (5.8)	-5.5 (3.3)	0.076 (0.005)	0.090 (0.002)	1.556 (0.035)
12	89.811	0.115 (0.005)	-76.2 (7.8)	-3.3 (4.8)	0.067 (0.005)	0.076 (0.002)	1.557 (0.035)
13	129.012	0.122 (0.006)	-25.6 (10.8)	44.9 (3.7)	0.075 (0.005)	0.082 (0.002)	1.352 (0.025)
14	186.956	0.106 (0.003)	-43.6 (2.2)	18.5 (1.7)	0.037 (0.003)	0.058 (0.003)	1.263 (0.029)
15	256.000	0.126 (0.004)	-36.9 (1.8)	12.6 (1.8)	0.017 (0.004)	0.061 (0.004)	1.043 (0.032)
16	341.333	0.140 (0.003)	-34.2 (1.1)	6.7 (1.1)	0.017 (0.003)	0.038 (0.008)	1.049 (0.064)
17	512.000	0.158 (0.004)	-32.3 (1.3)	-7.3 (1.4)	0.003 (0.004)	0.019 (0.017)	0.969 (0.125)

AVERAGE TIPPER STRIKE ON FILE = -72.7

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.145 (0.001)	56.7 (1.0)	-147.8 (0.6)	0.025 (0.002)	0.160 (0.022)	6.500 (3.143)
3	4.635	0.156 (0.001)	59.2 (0.8)	-153.9 (0.5)	0.025 (0.002)	0.069 (0.023)	3.585 (0.848)
4	6.486	0.172 (0.002)	61.3 (0.7)	-158.8 (0.5)	0.017 (0.002)	0.036 (0.021)	2.021 (0.440)
5	9.062	0.188 (0.001)	62.3 (0.6)	-166.8 (0.4)	0.021 (0.002)	0.076 (0.017)	2.919 (0.720)
6	12.648	0.199 (0.001)	65.6 (0.3)	-173.1 (0.2)	0.022 (0.001)	0.039 (0.007)	5.697 (1.041)
7	17.561	0.209 (0.000)	67.1 (0.3)	179.7 (0.1)	0.011 (0.001)	0.021 (0.006)	15.752 (5.481)
8	24.381	0.218 (0.001)	73.0 (0.5)	166.5 (0.2)	0.002 (0.002)	0.026 (0.006)	13.119 (3.299)
9	33.945	0.191 (0.001)	73.9 (0.4)	156.6 (0.2)	0.006 (0.001)	0.038 (0.003)	4.596 (0.253)
10	46.984	0.175 (0.001)	74.4 (0.4)	153.1 (0.4)	0.023 (0.001)	0.058 (0.005)	2.620 (0.116)
11	64.506	0.141 (0.001)	71.6 (0.7)	146.7 (0.6)	0.034 (0.001)	0.042 (0.009)	2.826 (0.268)
12	89.811	0.118 (0.002)	65.9 (1.1)	142.9 (0.8)	0.035 (0.002)	0.136 (0.010)	1.833 (0.106)
13	129.012	0.099 (0.002)	74.3 (2.7)	145.3 (1.0)	0.052 (0.002)	0.145 (0.017)	1.668 (0.112)
14	186.956	0.098 (0.002)	105.8 (3.5)	174.8 (2.3)	0.058 (0.002)	0.092 (0.014)	1.884 (0.148)
15	256.000	0.092 (0.002)	119.7 (2.7)	-175.6 (1.5)	0.037 (0.003)	0.106 (0.014)	1.560 (0.098)
16	341.333	0.105 (0.002)	132.5 (1.7)	-175.1 (1.2)	0.030 (0.003)	0.102 (0.022)	1.622 (0.165)
17	512.000	0.117 (0.003)	139.6 (2.0)	174.8 (1.7)	0.015 (0.004)	0.132 (0.034)	1.538 (0.207)

AVERAGE TIPPER STRIKE ON FILE = 81.4

WOODWARD-CLYDE CONSULTANTS

SETUP 19 GLS-20 GLS, BAND 5, PASS B

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	3.98E-04	1.53E-03	4.07E-05	7.50E-06	6.16E-07
3	4.635	7.05E-04	3.60E-03	1.09E-04	1.93E-05	2.52E-06
4	6.486	1.32E-03	4.70E-03	1.72E-04	4.28E-05	2.63E-06
5	9.062	4.20E-03	8.11E-03	3.40E-04	1.29E-04	1.36E-05
6	12.648	7.56E-02	8.88E-02	4.61E-03	2.44E-03	1.31E-04
7	17.561	4.16E-01	7.74E-01	4.97E-02	1.36E-02	1.63E-03
8	24.381	1.20E+00	4.15E+00	3.17E-01	3.76E-02	1.05E-02
9	33.945	1.18E+01	1.57E+01	1.88E+00	6.21E-01	4.26E-02
10	46.984	9.58E+00	4.44E+00	7.79E-01	8.68E-01	2.17E-02
11	64.506	3.64E+00	3.13E+00	6.46E-01	4.70E-01	1.08E-02
12	89.811	5.93E+00	6.71E+00	2.12E+00	1.13E+00	2.13E-02
13	129.012	1.10E+01	2.91E+01	1.64E+01	3.90E+00	1.09E-01
14	186.956	4.12E+01	8.82E+01	8.65E+01	2.12E+01	5.14E-01
15	256.000	7.22E+01	2.22E+02	3.52E+02	5.75E+01	3.07E+00
16	341.333	1.26E+02	5.31E+02	1.19E+03	1.58E+02	1.24E+01
17	512.000	1.95E+02	1.78E+03	5.96E+03	4.96E+02	7.48E+01

LOCAL SITE, NOISE

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	3.46E-03	2.24E-03	5.31E-06	3.77E-06	1.13E-04
3	4.635	2.01E-03	1.62E-03	1.16E-05	8.96E-06	2.44E-04
4	6.486	2.30E-03	1.89E-03	2.27E-05	2.33E-05	4.56E-04
5	9.062	2.01E-03	1.54E-03	3.59E-05	3.75E-05	6.11E-04
6	12.648	2.63E-03	2.22E-03	7.95E-05	6.61E-05	2.02E-03
7	17.561	4.47E-03	5.63E-03	1.63E-04	1.70E-04	3.67E-03
8	24.381	6.88E-03	1.62E-02	2.73E-04	3.12E-04	3.13E-03
9	33.945	3.12E-02	2.48E-02	6.04E-04	6.63E-04	8.60E-03
10	46.984	2.07E-02	1.44E-02	9.90E-04	8.97E-04	1.27E-02
11	64.506	1.16E-02	1.83E-02	2.08E-03	1.57E-03	1.53E-02
12	89.811	2.15E-02	3.61E-02	6.00E-03	2.15E-03	3.03E-02
13	129.012	5.26E-02	7.13E-02	1.68E-02	4.52E-03	1.08E-01
14	186.956	1.44E-01	3.13E-01	5.49E-02	1.32E-02	1.20E-01
15	256.000	3.56E-01	6.20E-01	1.31E-01	3.57E-02	2.81E-01
16	341.333	1.46E+00	3.97E+00	6.05E-01	1.61E-01	3.65E-01
17	512.000	6.43E+00	2.89E+01	3.06E+00	6.77E-01	1.71E+00

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	6.10E-04	7.24E-04	1.76E-05	1.81E-05	5.35E-07
3	4.635	1.17E-03	1.67E-03	5.56E-05	4.06E-05	1.47E-06
4	6.486	1.53E-03	2.69E-03	9.75E-05	6.17E-05	2.95E-06
5	9.062	3.51E-03	3.65E-03	1.79E-04	1.88E-04	8.12E-06
6	12.648	6.61E-02	2.84E-02	1.25E-03	4.13E-03	1.53E-04
7	17.561	5.54E-01	2.44E-01	8.45E-03	3.80E-02	1.82E-03
8	24.381	2.26E+00	1.65E+00	9.58E-02	1.55E-01	1.06E-02
9	33.945	8.97E+00	7.30E+00	9.02E-01	9.43E-01	4.76E-02
10	46.984	3.70E+00	2.37E+00	6.32E-01	6.96E-01	2.05E-02
11	64.506	2.10E+00	1.26E+00	3.90E-01	4.96E-01	9.31E-03
12	89.811	4.81E+00	2.74E+00	1.12E+00	1.46E+00	2.00E-02
13	129.012	1.36E+01	1.35E+01	9.82E+00	5.57E+00	6.84E-02
14	186.956	4.83E+01	3.91E+01	4.53E+01	3.57E+01	3.23E-01
15	256.000	1.02E+02	1.03E+02	1.90E+02	1.13E+02	1.60E+00
16	341.333	2.17E+02	2.58E+02	6.63E+02	3.40E+02	6.84E+00
17	512.000	6.20E+02	9.82E+02	3.47E+03	1.35E+03	3.92E+01

REMOTE SITE, NOISE

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	2.52E-03	3.78E-03	2.96E-06	2.08E-06	5.59E-07
3	4.635	1.87E-03	3.90E-03	1.78E-06	2.19E-06	6.93E-07
4	6.486	2.56E-03	5.84E-03	8.96E-06	3.86E-06	1.18E-06
5	9.062	3.45E-03	9.29E-03	6.73E-06	5.05E-06	2.43E-06
6	12.648	5.91E-03	1.53E-02	2.81E-05	1.32E-05	6.18E-06
7	17.561	1.07E-02	2.61E-02	2.09E-05	3.35E-05	2.05E-05
8	24.381	2.30E-02	5.17E-02	1.20E-04	1.21E-04	1.82E-04
9	33.945	4.48E-02	8.87E-02	8.93E-05	1.80E-04	6.49E-04
10	46.984	7.33E-02	1.70E-01	6.45E-04	6.23E-04	6.66E-04
11	64.506	1.22E-01	3.50E-01	7.02E-04	1.21E-03	9.79E-04
12	89.811	1.83E-01	5.55E-01	5.57E-03	2.42E-03	3.18E-03
13	129.012	6.64E-01	2.15E+00	-4.56E-03	7.39E-03	1.16E-02
14	186.956	1.24E+00	3.55E+00	1.29E-02	1.34E-02	3.20E-02
15	256.000	9.78E-01	3.29E+00	1.90E-01	1.05E-02	1.19E-01
16	341.333	5.42E+00	1.53E+01	-6.14E-01	-4.79E-02	2.84E-01
17	512.000	2.14E+01	4.95E+01	-2.40E+00	-3.14E-01	1.54E+00

WOODWARD-CLYDE CONSULTANTS

SETUP 19 GLS-20 GLS, BAND 5, PASS B

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.063	144.8	13.	-42.5	23.	136.8	0.165	8.1	3.42E+03	-46.1	1.39E+02	137.8
3	4.635	0.118	150.1	13.	-34.7	32.	146.6	0.140	12.5	6.32E+02	-32.3	60.	146.4
4	6.486	0.102	150.0	15.	-36.6	38.	144.7	0.089	20.0	3.73E+02	-38.2	55.	145.5
5	9.062	0.065	43.9	44.	-28.5	27.	146.3	0.072	9.4	1.33E+02	-30.0	60.	147.2
6	12.648	0.055	24.6	67.	-29.3	41.	145.6	0.064	10.7	79.	-30.6	51.	146.7
7	17.561	0.085	24.3	75.	-31.7	54.	142.6	0.087	14.0	82.	-32.3	59.	143.3
8	24.381	0.100	19.2	90.	-37.2	64.	139.0	0.100	14.3	94.	-37.7	66.	139.5
9	33.945	0.067	13.3	1.08E+02	-41.8	57.	134.5	0.067	13.1	1.09E+02	-41.8	58.	134.5
10	46.984	0.085	27.3	1.00E+02	-42.0	59.	127.3	0.086	27.5	1.01E+02	-42.0	60.	127.2
11	64.506	0.090	28.8	1.01E+02	-46.0	52.	124.4	0.091	28.9	1.02E+02	-46.0	53.	124.4
12	89.811	0.076	28.7	93.	-49.4	45.	121.6	0.076	28.8	94.	-49.4	46.	121.7
13	129.012	0.082	26.8	87.	-51.0	37.	121.5	0.080	26.8	88.	-51.0	37.	121.6
14	186.956	0.058	25.9	75.	-50.2	30.	123.8	0.058	25.7	76.	-50.2	30.	123.8
15	256.000	0.060	23.1	73.	-47.4	27.	126.6	0.060	23.0	73.	-47.4	27.	126.6
16	341.333	0.037	23.3	69.	-46.6	26.	130.7	0.037	22.5	70.	-46.6	27.	130.7
17	512.000	0.020	22.1	72.	-47.0	28.	135.7	0.014	20.9	76.	-47.1	29.	135.9

AVERAGE ROTATION ANGLE = 48.5 — AVERAGE ROTATION ANGLE = 19.1

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.169	84.7	24.	-36.0	4.3	132.0	0.154	77.0	4.22E+02	-34.8	9.59E+03	134.7
3	4.635	0.111	179.5	7.2	-52.1	28.	144.9	0.353	162.4	2.04E+03	-47.4	1.18E+02	133.0
4	6.486	0.072	0.7	10.	-36.3	34.	147.8	0.253	152.7	7.08E+02	-32.4	1.81E+02	142.1
5	9.062	0.088	176.7	16.	-33.8	39.	147.7	0.305	32.7	64.	-36.5	6.07E+02	145.0
6	12.648	0.047	169.7	18.	-35.1	56.	150.6	0.157	18.2	28.	-32.9	1.63E+02	146.8
7	17.561	0.022	175.3	21.	-36.4	72.	146.8	0.102	12.3	27.	-34.9	1.06E+02	145.3
8	24.381	0.026	173.9	23.	-42.1	82.	143.7	0.054	1.1	28.	-42.3	91.	143.9
9	33.945	0.038	169.1	26.	-45.8	75.	138.4	0.033	170.5	27.	-46.4	78.	138.9
10	46.984	0.056	166.2	21.	-49.7	80.	132.3	0.075	169.8	23.	-50.8	97.	133.2
11	64.506	0.042	165.6	21.	-51.8	74.	131.3	0.026	176.2	25.	-50.8	1.04E+02	130.5
12	89.811	0.136	161.0	14.	-57.4	75.	127.9	0.067	170.8	20.	-54.8	93.	126.1
13	129.012	0.144	159.9	12.	-56.6	62.	127.8	0.019	171.0	18.	-51.2	71.	123.7
14	186.956	0.092	161.3	12.	-52.6	53.	124.9	0.036	167.7	15.	-50.3	57.	122.9
15	256.000	0.107	158.9	12.	-50.0	45.	127.9	0.082	161.3	14.	-49.3	46.	127.4
16	341.333	0.101	159.4	12.	-47.3	42.	128.7	0.056	163.7	14.	-46.8	43.	128.3
17	512.000	0.133	158.8	12.	-40.1	44.	131.1	0.087	161.8	15.	-41.0	44.	131.6

AVERAGE ROTATION ANGLE = 151.3 — AVERAGE ROTATION ANGLE = 123.1

WOODWARD-CLYDE CONSULTANTS

SETUP 19 GLS-20 GLS, BAND 5, PASS B

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	3.311	0.27	0.59	0.06	0.42	0.39	0.68
3	4.635	0.43	0.79	0.10	0.61	0.55	0.82
4	6.486	0.50	0.79	0.07	0.60	0.54	0.84
5	9.062	0.73	0.87	0.15	0.70	0.52	0.87
6	12.648	0.97	0.98	0.25	0.96	0.83	0.98
7	17.561	0.99	0.99	0.56	0.99	1.01	0.99
8	24.381	1.00	1.00	0.88	0.99	1.02	0.99
9	33.945	1.00	1.00	0.91	1.00	1.01	0.99
10	46.984	1.00	1.00	0.80	0.99	0.94	0.98
11	64.506	1.00	1.00	0.64	0.97	0.89	0.95
12	89.811	1.00	1.00	0.64	0.98	0.94	0.93
13	129.012	1.00	1.00	0.71	0.98	0.94	0.92
14	186.956	1.00	1.00	0.90	0.99	0.98	0.95
15	256.000	1.00	1.00	0.96	1.00	1.00	0.96
16	341.333	0.99	1.00	0.99	0.99	0.99	0.98
17	512.000	0.98	0.99	0.99	0.98	0.99	0.98

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.05	0.08	0.03	0.32	0.22	0.13	0.04	0.91	0.72
3	0.10	0.23	0.13	0.55	0.46	0.24	0.07	0.94	0.72
4	0.02	0.23	0.20	0.52	0.44	0.15	0.06	0.92	0.73
5	0.17	0.20	0.42	0.57	0.26	0.26	0.12	0.93	0.85
6	0.68	0.45	0.81	0.90	0.58	0.69	0.25	0.99	0.98
7	0.84	0.47	0.84	0.98	0.66	0.79	0.56	1.00	0.98
8	0.82	0.62	0.83	0.99	0.56	0.68	0.88	1.00	0.96
9	0.84	0.80	0.96	0.99	0.79	0.80	0.92	1.00	0.99
10	0.71	0.63	0.98	0.96	0.69	0.69	0.79	0.99	1.00
11	0.47	0.11	0.90	0.92	0.02	0.24	0.56	0.99	0.99
12	0.59	0.17	0.86	0.94	0.09	0.27	0.53	0.99	0.99
13	0.48	0.49	0.79	0.95	0.53	0.37	0.66	1.00	0.98
14	0.57	0.39	0.83	0.97	0.44	0.36	0.84	1.00	0.98
15	0.39	0.38	0.80	0.99	0.48	0.22	0.92	1.00	0.97
16	0.21	0.48	0.76	0.98	0.57	0.31	0.98	1.00	0.97
17	0.14	0.77	0.71	0.99	0.79	0.61	0.98	1.00	0.97

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA

RESULTS FROM CROSSPOWER FILE: 1617S1.AAE
RECORDING COMPLETED: 15:32:03 31-Aug-81

SETUP 16 GLS-17 GLS, BAND 1, PASS A

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 120.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 38 DATA SEGMENTS, 17.07 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	0.028	127.9 (0.9)	238. (2.0)	-77.7 (0.2)	94.2 (3.1)	100.4 (0.9)
3	0.039	124.5 (2.1)	206. (4.5)	-78.3 (0.6)	82.2 (5.4)	98.2 (1.9)
4	0.054	127.6 (2.3)	176. (3.8)	-76.1 (0.6)	69.9 (5.8)	100.1 (2.4)
5	0.076	126.8 (1.4)	138. (2.0)	-73.2 (0.4)	47.4 (3.0)	103.0 (1.9)
6	0.106	124.6 (0.8)	101. (1.1)	-68.7 (0.3)	39.3 (1.0)	109.8 (0.7)
7	0.149	124.7 (0.6)	93.5 (0.85)	-66.6 (0.3)	33.4 (0.69)	108.9 (0.6)
8	0.210	124.8 (1.3)	72.0 (1.5)	-62.2 (0.6)	28.4 (1.1)	115.5 (1.1)
9	0.296	128.1 (1.9)	63.2 (1.9)	-60.9 (0.9)	26.1 (1.2)	120.7 (1.4)
10	0.416	121.4 (3.3)	55.2 (2.2)	-53.6 (1.1)	25.0 (1.4)	121.0 (1.6)
11	0.585	132.4 (3.1)	56.7 (3.3)	-39.9 (2.0)	21.4 (1.3)	119.4 (1.8)
12	0.821	129.0 (3.1)	70.6 (5.7)	-36.7 (2.3)	14.1 (1.4)	120.3 (2.9)
13	1.148	131.7 (7.1)	66.8 (7.7)	-30.7 (4.4)	24.1 (2.9)	128.1 (3.8)
14	1.642	151.7 (4.8)	125. (34.)	-1.5 (9.1)	36.4 (11.)	116.7 (5.9)
15	2.463	137.3 (10.6)	164. (77.)	-18.1 (13.4)	30.6 (12.)	130.8 (11.4)
16	3.816	130.4 (10.0)	229. (82.)	-30.7 (10.4)	13.0 (6.5)	133.2 (16.0)
17	5.689	159.9 (11.1)	909. (6.25E+02)	-30.1 (23.4)	20.6 (68.)	16.7 (78.4)
18	8.533	115.0 (6.2)	574. (1.29E+02)	-16.9 (7.1)	42.9 (19.)	104.5 (12.5)

AVERAGE ROTATION ANGLE ON FILE = 130.4

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	0.028	130.0 (1.7)	138. (2.4)	-61.8 (0.4)	151. (4.0)	98.4 (0.6)
3	0.039	93.6 (9.1)	120. (1.9)	-70.6 (2.1)	204. (14.)	108.3 (3.3)
4	0.054	108.8 (3.8)	107. (0.92)	-70.4 (0.3)	166. (13.)	102.2 (2.1)
5	0.076	110.2 (2.3)	87.0 (0.64)	-71.2 (0.2)	145. (4.6)	107.3 (0.9)
6	0.106	110.2 (0.9)	63.7 (0.55)	-71.3 (0.3)	118. (1.6)	108.9 (0.4)
7	0.149	107.4 (0.9)	58.1 (0.49)	-71.2 (0.2)	108. (1.3)	108.6 (0.4)
8	0.210	103.8 (1.8)	42.5 (0.67)	-70.3 (0.5)	80.2 (1.8)	110.4 (0.7)
9	0.296	117.2 (1.8)	33.3 (0.87)	-69.7 (0.8)	68.7 (2.1)	115.1 (0.9)
10	0.416	112.0 (2.8)	25.5 (0.95)	-66.0 (1.1)	62.2 (3.0)	112.4 (1.4)
11	0.585	113.0 (3.3)	21.0 (0.93)	-61.5 (1.3)	52.4 (2.9)	118.1 (1.6)
12	0.821	130.6 (4.6)	15.6 (1.8)	-54.2 (2.9)	38.0 (3.5)	112.5 (2.7)
13	1.148	85.8 (3.5)	16.3 (1.4)	-57.0 (3.2)	62.0 (7.0)	142.3 (3.5)
14	1.642	115.5 (10.0)	12.1 (1.9)	-54.7 (7.4)	55.1 (11.)	124.3 (7.1)
15	2.463	77.4 (17.5)	11.5 (3.4)	-47.2 (8.9)	26.8 (15.)	137.4 (16.3)
16	3.816	88.5 (7.8)	33.4 (7.7)	-22.1 (7.6)	4.79 (7.6)	-132.5 (43.8)
17	5.689	82.6 (66.1)	4.87 (72.)	-94.2 (****)	206. (2.31E+02)	183.0 (85.0)
18	8.533	39.7 (19.5)	14.9 (8.6)	-37.1 (15.8)	94.9 (43.)	150.1 (13.3)

AVERAGE ROTATION ANGLE ON FILE = 101.6

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 1, PASS A

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.052 (0.009)	-96.8 (20.6)	-1.9 (9.7)	0.008 (0.018)	0.026 (0.004)	1.466 (0.097)
3	0.039	0.127 (0.029)	-167.9 (8.8)	60.2 (15.9)	0.043 (0.011)	0.023 (0.009)	1.142 (0.162)
4	0.054	0.166 (0.043)	-189.3 (10.2)	-130.0 (16.8)	0.055 (0.019)	0.026 (0.010)	1.434 (0.241)
5	0.076	0.159 (0.026)	-118.6 (26.1)	-1.2 (15.4)	0.087 (0.031)	0.015 (0.007)	1.343 (0.138)
6	0.106	0.124 (0.029)	-92.7 (23.3)	-81.9 (13.8)	0.011 (0.050)	0.020 (0.005)	1.157 (0.065)
7	0.149	0.140 (0.060)	-162.8 (16.2)	-161.8 (24.5)	0.031 (0.034)	0.019 (0.005)	1.169 (0.046)
8	0.210	0.389 (0.118)	-193.7 (14.3)	105.6 (21.8)	0.129 (0.068)	0.024 (0.011)	1.174 (0.105)
9	0.296	0.658 (0.157)	-182.9 (7.0)	-64.7 (13.8)	0.045 (0.079)	0.051 (0.015)	1.413 (0.177)
10	0.416	0.560 (0.269)	-178.6 (12.3)	-132.8 (27.5)	0.009 (0.120)	0.083 (0.023)	0.928 (0.209)
11	0.585	0.810 (0.270)	-186.0 (9.9)	-95.8 (19.3)	0.060 (0.137)	0.091 (0.030)	1.769 (0.363)
12	0.821	1.180 (0.408)	-169.4 (8.7)	141.6 (20.4)	0.232 (0.147)	0.058 (0.047)	1.591 (0.383)
13	1.148	0.867 (0.538)	-168.7 (36.8)	112.8 (55.7)	0.395 (0.200)	0.134 (0.069)	1.565 (0.601)
14	1.642	0.602 (0.864)	-197.9 (51.0)	151.1 (82.2)	0.013 (0.535)	0.474 (0.126)	1.965 (0.531)
15	2.463	16.055 (3.633)	-176.0 (3.5)	-76.5 (13.4)	2.198 (0.801)	0.145 (0.210)	3.612 (5.195)
16	3.816	2.486 (1.728)	-169.7 (23.4)	23.8 (40.4)	0.835 (0.521)	0.123 (0.211)	1.685 (1.224)
17	5.689	8.863 (4.489)	-140.0 (12.2)	25.4 (29.0)	0.376 (1.868)	0.989 (0.547)	1.444 (0.837)
18	8.533	1.682 (0.896)	-54.8 (72.3)	63.0 (43.6)	0.811 (1.224)	0.485 (0.159)	0.652 (0.247)

AVERAGE TIPPER STRIKE ON FILE =-155.6

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.093 (0.007)	-24.3 (7.8)	-8.6 (4.5)	0.046 (0.006)	0.102 (0.008)	0.451 (0.049)
3	0.039	0.074 (0.011)	-44.1 (14.7)	2.7 (8.8)	0.024 (0.015)	0.149 (0.014)	1.198 (0.237)
4	0.054	0.102 (0.013)	-20.4 (6.2)	-7.3 (7.6)	0.023 (0.010)	0.113 (0.015)	0.652 (0.178)
5	0.076	0.080 (0.008)	-34.4 (6.8)	-1.2 (5.8)	0.001 (0.010)	0.106 (0.010)	0.569 (0.108)
6	0.106	0.069 (0.003)	-57.3 (4.1)	-7.5 (2.1)	0.001 (0.005)	0.096 (0.005)	0.580 (0.042)
7	0.149	0.063 (0.002)	-63.9 (3.9)	-10.4 (1.9)	0.002 (0.004)	0.118 (0.004)	0.709 (0.044)
8	0.210	0.069 (0.004)	-83.8 (7.8)	-22.2 (3.0)	0.026 (0.007)	0.137 (0.010)	0.910 (0.112)
9	0.296	0.062 (0.005)	-48.5 (11.1)	-18.5 (5.5)	0.031 (0.006)	0.089 (0.014)	0.294 (0.068)
10	0.416	0.074 (0.007)	8.6 (9.7)	49.9 (8.9)	0.040 (0.003)	0.108 (0.024)	0.488 (0.122)
11	0.585	0.067 (0.008)	9.3 (5.8)	38.8 (7.6)	0.028 (0.003)	0.120 (0.028)	0.449 (0.139)
12	0.821	0.043 (0.011)	-2.2 (8.4)	30.6 (15.0)	0.012 (0.005)	0.004 (0.047)	0.336 (0.156)
13	1.148	0.091 (0.015)	2.3 (3.1)	55.0 (9.4)	0.002 (0.005)	0.278 (0.043)	2.544 (0.719)
14	1.642	0.177 (0.027)	9.0 (1.9)	36.3 (8.9)	0.006 (0.006)	0.287 (0.084)	0.607 (0.278)
15	2.463	0.126 (0.049)	-17.1 (12.9)	61.0 (22.9)	0.016 (0.027)	0.265 (0.156)	3.810 (8.378)
16	3.816	0.141 (0.061)	9.8 (8.8)	-29.9 (25.2)	0.022 (0.018)	0.620 (0.368)	2.719 (2.103)
17	5.689	0.215 (0.116)	-4.5 (25.0)	37.4 (32.2)	0.058 (0.077)	0.620 (0.595)	1.172 (0.874)
18	8.533	0.162 (0.026)	-8.5 (8.8)	-7.2 (9.1)	0.024 (0.024)	0.147 (0.291)	0.200 (0.690)

AVERAGE TIPPER STRIKE ON FILE = -21.8

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 1, PASS A

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	4.90E-02	7.34E-03	2.80E-07	1.36E-06	6.78E-09
3	0.039	2.80E-02	1.36E-02	9.35E-07	1.16E-06	1.38E-07
4	0.054	1.84E-02	2.45E-03	2.53E-07	1.35E-06	4.57E-08
5	0.076	1.51E-02	2.05E-03	4.27E-07	2.02E-06	1.14E-07
6	0.106	6.16E-03	1.30E-03	5.33E-07	1.49E-06	1.96E-08
7	0.149	7.53E-03	1.19E-03	8.00E-07	2.83E-06	1.48E-08
8	0.210	2.71E-03	4.09E-04	4.41E-07	1.83E-06	5.56E-08
9	0.296	2.09E-03	3.58E-04	5.68E-07	2.27E-06	1.71E-07
10	0.416	2.07E-03	2.97E-04	6.32E-07	3.41E-06	1.95E-07
11	0.585	2.38E-03	3.10E-04	9.40E-07	5.65E-06	1.22E-06
12	0.821	3.12E-03	4.18E-04	1.21E-06	9.39E-06	1.41E-06
13	1.148	3.42E-03	5.46E-04	2.23E-06	1.35E-05	3.82E-06
14	1.642	5.51E-03	7.53E-04	2.26E-06	2.27E-05	1.42E-08
15	2.463	5.51E-03	1.12E-03	2.86E-06	3.16E-05	1.13E-04
16	3.816	8.29E-03	2.07E-03	5.00E-06	4.07E-05	7.00E-05
17	5.689	7.36E-03	4.07E-03	1.18E-05	2.81E-05	6.86E-04
18	8.533	4.19E-02	1.66E-02	1.11E-04	1.39E-04	2.77E-04

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.15E-03	8.96E-04	2.17E-06	1.74E-07	2.17E-06
-8.72E-04	-7.59E-03	5.15E-06	3.33E-07	2.82E-06
4.43E-04	3.98E-04	4.66E-06	4.36E-07	4.09E-06
2.68E-04	4.17E-04	6.48E-06	2.73E-07	6.21E-06
7.14E-04	5.03E-04	6.42E-07	4.00E-08	9.92E-06
4.39E-04	1.72E-04	4.04E-07	2.57E-08	1.58E-05
7.26E-04	2.37E-04	3.02E-07	1.29E-08	2.52E-05
9.63E-04	2.64E-04	3.02E-07	1.23E-08	3.93E-05
1.15E-03	3.25E-04	3.82E-07	2.12E-08	9.49E-05
1.46E-03	4.54E-04	6.22E-07	-3.78E-09	1.14E-04
2.46E-03	7.52E-04	1.27E-06	9.64E-08	2.28E-04
3.53E-03	8.84E-04	1.95E-06	3.98E-07	4.27E-04
9.16E-03	2.71E-03	5.22E-06	5.59E-07	9.42E-04
1.12E-02	3.40E-03	1.53E-05	5.09E-06	1.46E-03
1.64E-02	6.17E-03	2.78E-05	2.65E-05	3.28E-03
2.46E-02	6.46E-03	5.08E-05	5.19E-05	4.69E-03
3.79E-02	1.22E-02	9.77E-05	1.21E-04	1.34E-02

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	2.82E-02	1.29E-02	4.35E-07	1.27E-06	5.70E-09
3	0.039	1.59E-02	8.82E-03	3.63E-07	1.01E-06	5.70E-09
4	0.054	1.11E-02	6.83E-03	4.32E-07	1.19E-06	1.07E-08
5	0.076	9.11E-03	6.02E-03	6.18E-07	1.71E-06	7.73E-09
6	0.106	3.69E-03	3.35E-03	6.16E-07	1.29E-06	6.25E-09
7	0.149	4.16E-03	3.75E-03	1.04E-06	2.31E-06	9.69E-09
8	0.210	1.40E-03	1.17E-03	6.25E-07	1.51E-06	6.61E-09
9	0.296	1.06E-03	9.10E-04	7.58E-07	2.02E-06	5.94E-09
10	0.416	8.78E-04	6.45E-04	8.78E-07	3.15E-06	7.12E-09
11	0.585	8.66E-04	6.84E-04	1.50E-06	5.40E-06	9.11E-09
12	0.821	9.88E-04	6.39E-04	2.47E-06	9.54E-06	5.73E-09
13	1.148	9.55E-04	6.61E-04	3.53E-06	1.38E-05	2.20E-08
14	1.642	7.96E-04	8.72E-04	5.87E-06	2.21E-05	8.88E-08
15	2.463	8.90E-04	7.00E-04	1.74E-05	3.08E-05	9.42E-07
16	3.816	1.86E-03	2.36E-04	7.59E-06	4.29E-05	7.98E-07
17	5.689	4.21E-03	2.78E-04	8.61E-06	6.98E-05	1.89E-06
18	8.533	1.57E-02	2.25E-03	2.01E-04	2.85E-04	6.47E-06

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
3.92E-04	1.62E-04	1.78E-07	3.10E-07	1.11E-07
6.19E-05	-6.56E-05	2.38E-07	2.87E-07	8.36E-08
2.73E-04	1.89E-04	3.40E-07	3.23E-07	7.84E-08
1.66E-04	1.21E-04	7.30E-08	1.72E-07	5.32E-08
1.07E-04	6.90E-05	7.73E-08	1.80E-07	5.07E-08
1.49E-04	8.20E-05	7.42E-08	1.70E-07	4.88E-08
2.48E-04	1.45E-04	7.20E-08	1.73E-07	4.71E-08
3.82E-04	2.60E-04	8.56E-08	1.37E-07	5.39E-08
5.71E-04	3.91E-04	9.45E-08	1.89E-07	5.81E-08
6.19E-04	3.53E-04	1.12E-07	3.09E-07	6.89E-08
8.72E-04	3.69E-04	4.85E-08	1.08E-07	1.05E-07
7.02E-04	2.56E-04	7.23E-07	6.60E-07	1.63E-07
1.43E-03	5.88E-04	2.12E-06	1.58E-06	3.98E-07
3.74E-03	1.00E-03	1.53E-05	2.69E-05	3.06E-06
3.33E-03	1.11E-03	1.23E-05	2.27E-05	2.93E-06
1.14E-02	2.65E-03	2.51E-05	1.68E-05	3.58E-06
6.71E-02	9.44E-03	-5.22E-05	5.19E-05	8.21E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 1, PASS A

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.034	111.5	1.88E+02	-77.1	1.4	103.7	0.026	133.7	2.63E+02	-76.0	1.12E+02	102.8
3	0.039	0.181	107.2	1.14E+02	-77.1	1.8	93.7	0.150	103.5	1.84E+02	-76.8	16.	94.4
4	0.054	0.041	110.4	1.08E+02	-75.7	0.21	99.7	0.026	135.4	1.98E+02	-75.8	90.	100.1
5	0.076	0.016	110.9	1.19E+02	-72.8	0.20	104.2	0.027	136.2	1.57E+02	-72.9	64.	104.4
6	0.106	0.034	112.4	91.	-68.6	8.6	110.8	0.023	139.5	1.48E+02	-68.8	65.	111.1
7	0.149	0.030	115.3	87.	-66.8	15.	110.1	0.026	127.6	1.05E+02	-66.4	46.	109.7
8	0.210	0.047	112.5	66.	-61.5	11.	113.0	0.126	130.5	1.10E+02	-59.7	92.	112.2
9	0.296	0.051	115.9	59.	-58.4	12.	120.2	0.107	128.1	1.24E+02	-57.3	1.08E+02	119.7
10	0.416	0.077	113.9	53.	-53.3	9.9	119.0	0.046	150.0	1.97E+02	-53.7	82.	119.7
11	0.585	0.165	114.3	51.	-43.8	7.6	128.2	0.244	150.8	3.19E+02	-36.4	45.	116.8
12	0.821	0.100	116.5	59.	-37.3	3.9	124.6	0.479	155.1	7.69E+02	-30.7	54.	101.5
13	1.148	0.136	122.7	64.	-31.4	5.8	132.9	0.444	148.5	5.97E+02	-22.6	36.	109.6
14	1.642	0.209	111.8	79.	-32.7	2.3	173.6	0.832	155.9	4.08E+03	4.1	1.70E+02	74.2
15	2.463	0.358	112.4	68.	-19.2	0.59	142.9	0.682	153.9	6.24E+03	12.8	4.05E+02	109.3
16	3.816	0.188	124.1	91.	-25.9	0.47	104.3	0.318	155.4	6.10E+03	-38.5	2.05E+02	113.8
17	5.689	0.327	139.1	50.	-37.1	1.7	199.9	0.514	108.2	5.44E+03	-12.1	3.92E+02	138.6
18	8.533	0.481	117.4	1.60E+02	-14.0	12.	105.1	0.445	111.0	2.15E+03	-11.1	1.77E+02	104.1

AVERAGE ROTATION ANGLE = 115.8

AVERAGE ROTATION ANGLE = 136.7

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.074	129.4	77.	-62.7	70.	97.9	0.119	128.5	1.44E+02	-62.9	1.57E+02	98.5
3	0.039	0.060	86.9	90.	-72.8	37.	109.1	0.119	117.5	1.33E+02	-66.7	1.82E+02	103.4
4	0.054	0.090	89.2	79.	-73.5	27.	106.6	0.122	106.1	1.11E+02	-70.9	1.83E+02	104.4
5	0.076	0.101	122.0	71.	-70.6	1.06E+02	106.4	0.123	105.0	88.	-71.4	1.58E+02	107.4
6	0.106	0.084	120.4	49.	-71.0	87.	108.4	0.099	109.4	67.	-71.4	1.23E+02	108.8
7	0.149	0.113	117.8	49.	-70.9	86.	107.7	0.121	105.8	62.	-71.1	1.15E+02	108.3
8	0.210	0.105	123.1	33.	-68.6	56.	108.7	0.154	102.1	59.	-70.2	98.	109.6
9	0.296	0.123	120.3	30.	-68.2	50.	112.6	0.139	114.8	64.	-68.0	1.02E+02	111.8
10	0.416	0.092	119.9	22.	-66.6	45.	114.0	0.105	124.5	68.	-64.6	1.39E+02	111.1
11	0.585	0.055	125.9	17.	-62.9	42.	119.4	0.145	104.2	60.	-62.3	1.28E+02	118.9
12	0.821	0.175	107.4	19.	-55.8	36.	122.7	0.317	78.0	54.	-67.1	1.36E+02	128.8
13	1.148	0.107	133.5	15.	-39.9	23.	120.6	0.389	167.5	1.94E+02	-42.4	41.	111.2
14	1.642	0.151	57.5	18.	-54.4	12.	143.7	0.392	81.4	43.	-66.8	5.79E+02	144.5
15	2.463	0.211	73.4	11.	-51.7	1.2	151.9	0.548	156.4	1.11E+03	-21.3	89.	99.2
16	3.816	0.403	98.6	22.	-24.9	2.0	124.7	0.346	84.8	80.	-48.5	1.46E+03	153.4
17	5.689	0.035	39.6	19.	-43.9	38.	140.9	0.437	71.7	1.79E+02	-65.0	2.24E+03	145.5
18	8.533	0.217	51.1	29.	-40.2	70.	141.1	0.249	61.5	57.	-51.4	4.18E+03	144.4

AVERAGE ROTATION ANGLE = 100.9

AVERAGE ROTATION ANGLE = 107.0

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 1, PASS A

PREDICTED COHERENCIES

WINDOW	PERIOD	LOCAL SITE EXCOH	LOCAL SITE EYCOH	LOCAL SITE HZCOH	REMOTE SITE EXCOH	REMOTE SITE EYCOH	REMOTE SITE HZCOH
2	0.028	0.95	0.36	0.08	0.88	0.84	0.18
3	0.039	0.86	0.62	0.27	0.84	0.79	0.24
4	0.054	0.90	0.24	0.07	0.85	0.75	0.35
5	0.076	0.98	0.26	0.13	0.94	0.94	0.33
6	0.106	0.94	0.59	0.04	0.92	0.93	0.31
7	0.149	0.97	0.78	0.02	0.94	0.96	0.39
8	0.210	0.88	0.63	0.03	0.86	0.90	0.33
9	0.296	0.83	0.63	0.05	0.83	0.84	0.30
10	0.416	0.80	0.58	0.03	0.75	0.75	0.31
11	0.585	0.79	0.53	0.10	0.74	0.79	0.35
12	0.821	0.74	0.51	0.05	0.72	0.79	0.25
13	1.148	0.69	0.53	0.09	0.69	0.77	0.33
14	1.642	0.56	0.34	0.00	0.55	0.65	0.33
15	2.463	0.50	0.30	0.05	0.26	0.49	0.79
16	3.816	0.47	0.38	0.09	0.54	0.33	0.61
17	5.689	0.18	0.23	0.14	0.34	0.39	0.55
18	8.533	0.53	0.56	0.10	0.40	0.52	0.69

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.84	0.06	0.89	0.84	0.14	0.72	0.01	0.12	0.77
3	0.82	0.01	0.88	0.71	0.08	0.64	0.01	0.07	0.71
4	0.82	0.03	0.88	0.87	0.10	0.63	0.02	0.07	0.69
5	0.81	0.05	0.87	0.87	0.13	0.79	0.01	0.09	0.83
6	0.69	0.17	0.78	0.78	0.33	0.76	0.06	0.30	0.84
7	0.75	0.26	0.85	0.82	0.46	0.84	0.02	0.30	0.89
8	0.62	0.14	0.75	0.67	0.36	0.82	0.05	0.27	0.89
9	0.58	0.14	0.64	0.60	0.37	0.84	0.06	0.31	0.89
10	0.51	0.11	0.55	0.52	0.23	0.89	0.04	0.33	0.91
11	0.47	0.12	0.54	0.45	0.20	0.90	0.07	0.34	0.92
12	0.43	0.28	0.53	0.41	0.18	0.92	0.03	0.30	0.93
13	0.44	0.25	0.55	0.44	0.16	0.90	0.07	0.34	0.92
14	0.21	0.15	0.40	0.16	0.14	0.87	0.09	0.23	0.90
15	0.17	0.21	0.37	0.18	0.24	0.51	0.34	0.12	0.80
16	0.36	0.31	0.43	0.34	0.14	0.57	0.05	0.17	0.72
17	0.20	0.15	0.13	0.23	0.28	0.54	0.10	0.31	0.52
18	0.29	0.23	0.28	0.28	0.23	0.62	0.17	0.45	0.48

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 1617C3.HDQ
RECORDING COMPLETED: 01:10:34 00-Sep-81

SETUP 16 GLS-17 GLS, BAND 3, PASS H

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 10.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 69 DATA SEGMENTS, 102.40 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	121.5 (0.2)	55.4 (0.15)	-48.2 (0.1)	20.5 (0.20)	124.1 (0.3)
4	0.649	122.1 (0.2)	57.5 (0.17)	-42.2 (0.1)	20.9 (0.24)	122.9 (0.3)
5	0.906	124.1 (0.3)	60.7 (0.25)	-35.0 (0.1)	18.3 (0.30)	124.4 (0.5)
6	1.265	125.1 (0.3)	70.5 (0.34)	-29.0 (0.1)	15.3 (0.34)	127.6 (0.6)
7	1.756	126.2 (0.4)	86.0 (0.54)	-24.6 (0.2)	15.3 (0.45)	132.7 (0.8)
8	2.438	122.8 (1.2)	106. (1.9)	-22.1 (0.5)	11.8 (1.6)	123.1 (3.9)
9	3.395	123.9 (1.2)	145. (4.1)	-20.6 (0.8)	15.9 (1.5)	139.8 (2.6)
10	4.698	129.0 (0.6)	204. (4.0)	-14.9 (0.6)	16.5 (0.82)	136.8 (1.4)
11	6.451	126.6 (0.7)	231. (4.0)	-17.9 (0.5)	17.6 (1.2)	139.8 (1.9)
12	8.981	129.6 (0.9)	299. (7.7)	-22.4 (0.8)	19.9 (1.7)	141.3 (2.7)

AVERAGE ROTATION ANGLE ON FILE = 125.1

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	111.2 (0.3)	21.0 (0.13)	-64.0 (0.2)	51.3 (0.30)	114.9 (0.2)
4	0.649	110.8 (0.3)	19.0 (0.14)	-59.3 (0.2)	45.3 (0.35)	117.4 (0.2)
5	0.906	111.7 (0.6)	16.8 (0.15)	-53.7 (0.3)	39.1 (0.51)	121.8 (0.4)
6	1.265	112.2 (1.1)	15.1 (0.19)	-45.4 (0.4)	34.7 (0.70)	125.9 (0.7)
7	1.756	103.3 (2.4)	16.9 (0.47)	-39.8 (0.7)	35.2 (1.5)	128.0 (1.5)
8	2.438	118.4 (5.3)	18.1 (1.1)	-33.9 (1.4)	26.2 (3.5)	124.0 (4.1)
9	3.395	110.5 (5.5)	22.2 (0.96)	-30.6 (1.2)	31.5 (3.5)	133.5 (2.9)
10	4.698	152.0 (3.0)	46.5 (2.8)	-23.1 (1.5)	23.0 (1.0)	136.6 (1.4)
11	6.451	155.9 (2.0)	65.8 (3.4)	-24.9 (1.4)	19.4 (1.2)	138.4 (1.9)
12	8.981	164.2 (4.8)	68.4 (4.8)	-37.5 (2.6)	27.3 (2.4)	150.1 (3.0)

AVERAGE ROTATION ANGLE ON FILE = 125.0

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 3, PASS H

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.044 (0.001)	-9.6 (3.0)	56.4 (1.6)	0.009 (0.002)	0.026 (0.002)	0.930 (0.012)
4	0.649	0.082 (0.002)	8.8 (1.4)	35.2 (1.6)	0.002 (0.002)	0.045 (0.002)	0.974 (0.015)
5	0.906	0.094 (0.003)	11.9 (1.5)	9.1 (1.9)	0.026 (0.002)	0.042 (0.003)	1.115 (0.022)
6	1.265	0.108 (0.003)	14.5 (2.3)	-18.2 (1.5)	0.052 (0.002)	0.038 (0.004)	1.203 (0.025)
7	1.756	0.117 (0.003)	31.0 (5.0)	-49.3 (3.0)	0.071 (0.002)	0.041 (0.005)	1.300 (0.033)
8	2.438	0.126 (0.012)	61.5 (6.5)	-117.9 (6.4)	0.044 (0.011)	0.103 (0.022)	1.019 (0.084)
9	3.395	0.101 (0.006)	84.5 (7.2)	-135.9 (3.1)	0.026 (0.011)	0.105 (0.021)	1.102 (0.090)
10	4.698	0.116 (0.004)	86.4 (4.3)	-138.3 (1.8)	0.024 (0.008)	0.021 (0.012)	1.593 (0.069)
11	6.451	0.128 (0.005)	95.9 (4.9)	-153.3 (2.2)	0.013 (0.011)	0.104 (0.016)	1.339 (0.072)
12	8.981	0.144 (0.008)	103.9 (6.1)	-154.4 (3.2)	0.053 (0.012)	0.197 (0.018)	1.515 (0.089)

AVERAGE TIPPER STRIKE ON FILE = 48.9

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.060 (0.002)	31.1 (3.0)	74.2 (3.6)	0.033 (0.001)	0.136 (0.002)	0.533 (0.011)
4	0.649	0.065 (0.002)	13.0 (1.7)	49.5 (1.9)	0.019 (0.002)	0.127 (0.003)	0.557 (0.015)
5	0.906	0.079 (0.003)	12.2 (1.3)	46.1 (2.2)	0.009 (0.002)	0.126 (0.004)	0.564 (0.023)
6	1.265	0.098 (0.004)	5.4 (1.3)	26.8 (2.1)	0.012 (0.002)	0.137 (0.006)	0.663 (0.034)
7	1.756	0.096 (0.005)	-3.9 (2.1)	31.0 (3.1)	0.013 (0.003)	0.163 (0.011)	0.967 (0.098)
8	2.438	0.140 (0.016)	4.3 (4.1)	30.8 (6.6)	0.005 (0.010)	0.159 (0.037)	0.401 (0.174)
9	3.395	0.137 (0.012)	-13.0 (4.3)	25.5 (5.1)	0.038 (0.008)	0.128 (0.026)	0.623 (0.220)
10	4.698	0.134 (0.007)	-21.6 (4.8)	8.2 (3.0)	0.063 (0.006)	0.084 (0.015)	1.201 (0.151)
11	6.451	0.119 (0.007)	-39.4 (6.3)	25.4 (3.3)	0.026 (0.012)	0.119 (0.021)	1.738 (0.256)
12	8.981	0.120 (0.011)	-69.4 (10.6)	26.7 (4.9)	0.042 (0.017)	0.188 (0.029)	1.912 (0.481)

AVERAGE TIPPER STRIKE ON FILE = -8.1

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 3, PASS H

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	2.85E-03	1.57E-03	4.28E-06	4.38E-06	1.19E-08
4	0.649	2.49E-03	9.75E-04	3.57E-06	5.31E-06	2.46E-08
5	0.906	2.04E-03	4.70E-04	2.63E-06	6.03E-06	1.53E-08
6	1.265	2.24E-03	4.17E-04	2.74E-06	8.38E-06	2.21E-08
7	1.756	2.95E-03	5.10E-04	3.65E-06	1.34E-05	5.55E-08
8	2.438	3.03E-03	6.30E-04	4.61E-06	1.54E-05	1.06E-07
9	3.395	5.34E-03	9.06E-04	8.23E-06	3.02E-05	2.31E-07
10	4.698	8.50E-03	2.12E-03	1.33E-05	5.72E-05	7.80E-07
11	6.451	1.17E-02	3.47E-03	2.15E-05	7.98E-05	1.33E-06
12	8.981	6.86E-03	2.47E-03	2.97E-05	4.77E-05	1.01E-06

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.97E-05	4.00E-05	3.07E-07	7.30E-08	9.16E-08
1.58E-05	3.64E-05	2.22E-07	7.62E-08	9.32E-08
1.45E-05	4.60E-05	2.49E-07	1.23E-07	9.99E-08
1.47E-05	5.73E-05	3.47E-07	1.84E-07	1.12E-07
1.69E-05	7.58E-05	5.13E-07	3.78E-07	1.38E-07
6.70E-05	1.29E-04	5.34E-07	6.05E-07	2.24E-07
1.42E-04	1.48E-04	9.75E-07	2.08E-06	3.83E-07
6.14E-05	1.84E-04	2.16E-06	4.57E-06	9.44E-07
1.72E-04	2.62E-04	2.59E-06	5.46E-06	1.69E-06
1.75E-04	3.86E-04	6.85E-06	1.09E-05	2.43E-06

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	1.79E-03	6.66E-04	1.34E-06	6.21E-06	1.03E-08
4	0.649	1.22E-03	3.68E-04	1.20E-06	6.94E-06	1.59E-08
5	0.906	7.00E-04	2.46E-04	1.34E-06	6.92E-06	1.74E-08
6	1.265	5.89E-04	2.01E-04	1.72E-06	9.22E-06	2.42E-08
7	1.756	7.17E-04	2.12E-04	2.83E-06	1.40E-05	4.03E-08
8	2.438	6.75E-04	1.83E-04	3.50E-06	1.94E-05	1.83E-06
9	3.395	1.04E-03	2.87E-04	8.25E-06	3.35E-05	9.75E-07
10	4.698	1.95E-03	5.98E-04	1.71E-05	5.89E-05	9.65E-07
11	6.451	3.14E-03	4.15E-04	1.53E-05	9.02E-05	1.53E-06
12	8.981	1.77E-03	5.18E-04	2.16E-05	5.76E-05	1.39E-06

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
3.72E-05	2.41E-05	9.28E-08	2.00E-07	5.41E-08
3.70E-05	2.49E-05	9.47E-08	1.98E-07	5.98E-08
4.31E-05	2.60E-05	2.01E-07	2.70E-07	8.48E-08
6.32E-05	5.72E-05	2.88E-07	3.04E-07	1.12E-07
1.65E-04	3.48E-04	1.30E-06	1.17E-06	2.97E-07
6.30E-04	3.68E-04	2.49E-05	3.27E-05	3.26E-06
5.52E-04	2.37E-04	1.39E-05	1.68E-05	2.23E-06
3.42E-04	2.82E-04	5.35E-06	7.94E-06	1.40E-06
3.54E-04	3.19E-04	6.09E-06	1.02E-05	2.68E-06
6.19E-04	5.43E-04	1.00E-05	1.68E-05	5.43E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 3, PASS H

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.064	123.1	55.	-48.0	12.	123.9	0.021	121.4	55.	-48.2	26.	124.3
4	0.649	0.048	122.6	56.	-42.6	14.	123.7	0.058	123.9	58.	-41.7	30.	123.0
5	0.906	0.023	123.0	58.	-35.3	12.	124.5	0.089	130.0	64.	-33.7	34.	123.3
6	1.265	0.029	123.7	66.	-29.2	9.5	128.6	0.075	134.3	77.	-27.5	36.	127.2
7	1.756	0.017	124.7	81.	-24.7	9.8	131.1	0.086	133.3	95.	-24.4	38.	130.8
8	2.438	0.029	126.0	1.02E+02	-20.2	8.5	138.5	0.054	135.8	1.21E+02	-19.9	48.	138.4
9	3.395	0.050	126.4	1.28E+02	-17.8	11.	134.9	0.117	132.7	1.61E+02	-19.2	54.	135.5
10	4.698	0.033	129.0	1.78E+02	-15.6	12.	137.7	0.011	133.7	2.23E+02	-16.8	39.	138.7
11	6.451	0.058	129.5	2.19E+02	-18.8	12.	141.2	0.033	133.1	2.55E+02	-19.9	50.	142.1
12	8.981	0.204	132.4	2.47E+02	-22.9	9.9	143.8	0.109	133.2	3.30E+02	-23.0	75.	142.2

AVERAGE ROTATION ANGLE = 126.0 — AVERAGE ROTATION ANGLE = 131.1

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.138	104.1	18.	-64.2	43.	115.7	0.124	114.9	23.	-63.7	56.	115.1
4	0.649	0.126	104.5	17.	-59.7	38.	117.4	0.128	114.4	21.	-58.4	53.	116.7
5	0.906	0.108	110.4	15.	-55.1	26.	122.0	0.151	111.1	20.	-52.5	51.	120.9
6	1.265	0.128	117.3	15.	-45.0	22.	125.3	0.182	109.8	19.	-43.9	67.	126.2
7	1.756	0.215	145.4	19.	-39.6	9.2	130.7	0.186	113.5	29.	-38.8	2.90E+02	132.3
8	2.438	0.470	94.5	11.	-38.1	9.32E-02	115.4	0.098	115.1	58.	-32.6	2.56E+02	134.3
9	3.395	0.250	92.2	16.	-36.5	0.68	132.9	0.278	91.2	34.	-27.4	2.54E+02	130.7
10	4.698	0.149	130.5	23.	-19.3	14.	132.8	0.140	87.8	29.	-37.0	1.48E+02	149.6
11	6.451	0.078	135.4	37.	-22.7	13.	131.8	0.115	190.3	1.47E+02	-39.5	41.	149.1
12	8.981	0.152	146.2	36.	-30.7	14.	141.1	0.072	193.2	2.19E+02	-39.8	82.	150.2

AVERAGE ROTATION ANGLE = 118.0 — AVERAGE ROTATION ANGLE = 124.1

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 3, PASS H

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.464	0.99	0.96	0.33	0.98	0.95	0.39
4	0.649	0.99	0.96	0.44	0.97	0.93	0.46
5	0.906	0.99	0.92	0.34	0.95	0.88	0.40
6	1.265	0.99	0.91	0.37	0.93	0.81	0.41
7	1.756	0.99	0.90	0.50	0.87	0.50	0.32
8	2.438	0.98	0.90	0.52	0.46	0.21	0.83
9	3.395	0.96	0.90	0.59	0.63	0.41	0.74
10	4.698	0.96	0.92	0.66	0.85	0.71	0.68
11	6.451	0.97	0.94	0.65	0.88	0.64	0.66
12	8.981	0.93	0.89	0.51	0.75	0.58	0.53

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
3	0.93	0.18	0.30	0.98	0.06	0.94	0.11	0.90	0.52
4	0.93	0.28	0.58	0.97	0.36	0.94	0.20	0.90	0.72
5	0.90	0.45	0.79	0.92	0.54	0.93	0.12	0.83	0.85
6	0.86	0.46	0.80	0.88	0.49	0.93	0.15	0.77	0.87
7	0.78	0.37	0.66	0.79	0.42	0.91	0.12	0.69	0.83
8	0.62	0.32	0.54	0.59	0.17	0.44	0.03	0.34	0.56
9	0.69	0.50	0.77	0.70	0.45	0.63	0.11	0.45	0.79
10	0.84	0.57	0.77	0.85	0.36	0.81	0.33	0.41	0.87
11	0.90	0.55	0.71	0.90	0.16	0.85	0.30	0.57	0.82
12	0.80	0.28	0.46	0.77	0.23	0.68	0.24	0.54	0.66

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 1617C5.ICF
RECORDING COMPLETED: 06:04:23 00-Sep-81

SETUP 16 GLS-17 GLS, BAND 5, PASS I

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 32 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	127.7 (0.9)	128. (2.4)	-17.4 (0.5)	16.3 (1.2)	142.3 (2.1)
3	4.635	127.7 (0.4)	172. (1.7)	-17.0 (0.3)	15.6 (0.49)	141.4 (0.9)
4	6.486	127.4 (0.5)	223. (3.1)	-18.6 (0.4)	17.8 (0.71)	145.3 (1.1)
5	9.062	125.6 (0.8)	258. (8.5)	-17.7 (1.0)	15.5 (1.1)	155.4 (2.0)
6	12.648	127.3 (0.6)	390. (12.)	-23.5 (0.9)	19.0 (0.92)	148.4 (1.4)
7	17.561	104.4 (2.8)	236. (25.)	-35.6 (3.0)	1.59 (2.4)	45.2 (40.4)
8	24.381	125.9 (0.4)	522. (8.3)	-35.4 (0.5)	24.2 (0.78)	138.1 (0.9)
9	33.945	126.3 (0.2)	540. (4.1)	-41.4 (0.2)	25.6 (0.31)	134.3 (0.3)
10	46.984	125.1 (0.2)	513. (4.8)	-48.6 (0.3)	24.0 (0.27)	131.4 (0.3)
11	64.506	125.3 (0.2)	497. (8.1)	-52.1 (0.5)	23.7 (0.39)	127.0 (0.5)
12	89.811	125.4 (0.2)	397. (4.9)	-55.9 (0.4)	21.0 (0.23)	126.0 (0.3)
13	129.012	126.1 (0.3)	338. (5.0)	-55.7 (0.4)	17.8 (0.44)	125.6 (0.7)
14	186.956	125.8 (0.4)	262. (4.2)	-55.2 (0.5)	15.6 (0.57)	125.5 (1.0)
15	256.000	125.4 (0.5)	248. (5.7)	-51.6 (0.7)	14.0 (0.67)	129.1 (1.4)
16	341.333	127.6 (0.6)	303. (9.0)	-48.1 (0.8)	14.0 (0.55)	131.9 (1.1)
17	512.000	126.8 (0.6)	317. (7.4)	-42.8 (0.7)	12.4 (0.44)	135.7 (1.0)

AVERAGE ROTATION ANGLE ON FILE = 125.0

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	125.8 (6.0)	26.2 (1.6)	-24.2 (1.1)	31.1 (2.3)	135.6 (1.4)
3	4.635	138.0 (13.0)	38.7 (5.8)	-24.5 (2.3)	29.2 (5.5)	134.1 (1.2)
4	6.486	154.5 (2.1)	54.6 (2.0)	-24.5 (1.1)	25.3 (1.1)	141.6 (1.3)
5	9.062	154.8 (2.4)	65.8 (3.2)	-25.2 (1.6)	24.8 (1.4)	143.8 (1.8)
6	12.648	148.2 (1.6)	86.9 (4.3)	-28.0 (1.4)	28.2 (1.4)	141.5 (1.4)
7	17.561	149.4 (1.2)	279. (28.)	-68.8 (3.0)	30.5 (3.4)	157.8 (2.8)
8	24.381	149.9 (0.8)	128. (3.4)	-36.6 (0.8)	41.2 (0.90)	140.2 (0.6)
9	33.945	148.7 (0.5)	118. (1.4)	-41.1 (0.3)	40.5 (0.59)	134.3 (0.4)
10	46.984	146.2 (0.5)	114. (1.5)	-49.3 (0.4)	38.9 (0.53)	131.3 (0.4)
11	64.506	147.5 (0.8)	106. (2.5)	-51.8 (0.7)	36.0 (0.63)	126.9 (0.5)
12	89.811	148.0 (0.6)	94.3 (1.6)	-55.1 (0.5)	32.0 (0.50)	123.3 (0.4)
13	129.012	146.6 (0.7)	83.7 (1.4)	-55.3 (0.5)	28.5 (0.61)	124.3 (0.6)
14	186.956	149.3 (1.0)	60.4 (1.2)	-53.6 (0.6)	23.7 (0.67)	125.2 (0.8)
15	256.000	150.2 (1.3)	62.4 (2.3)	-47.9 (1.1)	20.7 (0.70)	125.4 (1.0)
16	341.333	151.9 (1.1)	74.4 (2.5)	-47.7 (1.0)	19.9 (0.56)	129.5 (0.8)
17	512.000	149.3 (1.0)	79.7 (1.9)	-44.0 (0.7)	18.9 (0.59)	134.0 (0.9)

AVERAGE ROTATION ANGLE ON FILE = 147.4

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 5, PASS I

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.003 (0.001)	-72.7 (67.1)	147.0 (16.6)	0.001 (0.002)	0.050 (0.016)	1.446 (0.100)
3	4.635	0.004 (0.001)	-40.7 (22.4)	157.1 (12.7)	0.002 (0.001)	0.053 (0.007)	1.449 (0.040)
4	6.486	0.012 (0.002)	38.4 (5.2)	-126.7 (8.1)	0.002 (0.001)	0.050 (0.009)	1.414 (0.050)
5	9.062	0.008 (0.002)	-39.1 (26.8)	42.5 (18.7)	0.003 (0.002)	0.065 (0.015)	1.232 (0.071)
6	12.648	0.007 (0.003)	-28.1 (22.3)	157.2 (24.7)	0.002 (0.002)	0.048 (0.012)	1.402 (0.061)
7	17.561	0.013 (0.003)	-32.7 (8.0)	-172.5 (11.5)	0.003 (0.001)	0.365 (0.070)	0.199 (0.098)
8	24.381	0.004 (0.002)	25.9 (25.5)	4.4 (24.5)	0.001 (0.001)	0.073 (0.007)	1.273 (0.035)
9	33.945	0.006 (0.001)	44.1 (18.4)	-18.7 (11.8)	0.002 (0.001)	0.071 (0.004)	1.312 (0.015)
10	46.984	0.008 (0.001)	-45.9 (18.6)	159.6 (10.0)	0.004 (0.001)	0.093 (0.003)	1.201 (0.013)
11	64.506	0.012 (0.003)	-81.4 (10.0)	-154.9 (12.6)	0.001 (0.002)	0.101 (0.005)	1.214 (0.019)
12	89.811	0.004 (0.002)	-117.9 (33.5)	-42.5 (23.2)	0.001 (0.002)	0.100 (0.004)	1.228 (0.016)
13	129.012	0.011 (0.002)	-127.3 (16.0)	-164.7 (11.4)	0.004 (0.002)	0.089 (0.007)	1.288 (0.029)
14	186.956	0.007 (0.003)	-155.0 (28.8)	-176.2 (26.5)	0.002 (0.003)	0.097 (0.009)	1.260 (0.038)
15	256.000	0.012 (0.005)	-140.8 (21.8)	170.7 (21.6)	0.001 (0.005)	0.119 (0.011)	1.229 (0.042)
16	341.333	0.008 (0.004)	-61.4 (26.1)	105.4 (25.9)	0.001 (0.004)	0.102 (0.013)	1.437 (0.059)
17	512.000	0.003 (0.002)	-4.9 (58.6)	74.0 (52.6)	0.001 (0.003)	0.125 (0.015)	1.352 (0.060)

AVERAGE TIPPER STRIKE ON FILE = -52.5

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.130 (0.005)	-9.5 (2.7)	7.5 (2.4)	0.049 (0.004)	0.069 (0.023)	0.583 (0.138)
3	4.635	0.125 (0.003)	-20.9 (1.8)	12.7 (1.3)	0.049 (0.003)	0.107 (0.013)	0.944 (0.080)
4	6.486	0.120 (0.003)	-35.4 (2.3)	16.5 (1.6)	0.025 (0.005)	0.038 (0.015)	1.381 (0.143)
5	9.062	0.124 (0.005)	-50.5 (3.4)	5.7 (2.3)	0.042 (0.006)	0.038 (0.019)	1.402 (0.168)
6	12.648	0.114 (0.007)	-35.8 (3.3)	-7.3 (3.7)	0.008 (0.007)	0.026 (0.018)	1.047 (0.110)
7	17.561	0.177 (0.006)	-50.4 (1.9)	-6.2 (2.1)	0.019 (0.006)	0.421 (0.037)	1.127 (0.086)
8	24.381	0.149 (0.003)	-51.6 (1.6)	-7.4 (1.3)	0.002 (0.004)	0.055 (0.009)	1.174 (0.062)
9	33.945	0.142 (0.002)	-50.0 (1.1)	-13.4 (0.9)	0.010 (0.003)	0.025 (0.005)	1.084 (0.037)
10	46.984	0.113 (0.003)	-55.0 (1.3)	-23.6 (1.3)	0.007 (0.003)	0.035 (0.005)	0.917 (0.033)
11	64.506	0.102 (0.005)	-60.6 (2.1)	-30.1 (2.7)	0.010 (0.004)	0.033 (0.007)	1.001 (0.052)
12	89.811	0.097 (0.004)	-44.3 (1.8)	-12.3 (2.2)	0.014 (0.003)	0.020 (0.006)	1.036 (0.044)
13	129.012	0.088 (0.004)	-31.6 (3.5)	0.1 (2.6)	0.032 (0.004)	0.042 (0.007)	0.942 (0.048)
14	186.956	0.082 (0.004)	-27.7 (3.4)	1.4 (3.1)	0.002 (0.005)	0.056 (0.009)	1.136 (0.080)
15	256.000	0.103 (0.008)	-17.2 (4.0)	14.7 (4.6)	0.015 (0.007)	0.030 (0.013)	1.199 (0.111)
16	341.333	0.131 (0.007)	-10.6 (3.0)	12.1 (2.9)	0.037 (0.006)	0.023 (0.012)	1.366 (0.106)
17	512.000	0.135 (0.005)	-17.7 (3.0)	-4.8 (2.3)	0.029 (0.007)	0.038 (0.013)	1.134 (0.077)

AVERAGE TIPPER STRIKE ON FILE = -35.5

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 5, PASS I

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	3.71E-03	7.04E-04	4.89E-06	2.30E-05	1.47E-10
3	4.635	6.68E-03	1.67E-03	1.21E-05	4.67E-05	5.10E-10
4	6.486	7.29E-03	2.13E-03	2.19E-05	5.35E-05	3.14E-09
5	9.062	7.36E-03	1.80E-03	4.40E-05	7.00E-05	1.22E-09
6	12.648	1.53E-02	4.21E-03	1.05E-04	1.49E-04	8.93E-09
7	17.561	7.14E-02	7.72E-03	3.57E-03	1.00E-03	8.10E-08
8	24.381	1.06E+00	1.80E-01	4.56E-03	1.50E-02	6.64E-08
9	33.945	4.47E+00	1.12E+00	4.68E-02	7.75E-02	1.00E-06
10	46.984	4.37E+00	1.26E+00	1.27E-01	1.18E-01	4.02E-06
11	64.506	3.04E+00	1.12E+00	2.20E-01	1.25E-01	1.51E-05
12	89.811	1.05E+01	3.36E+00	8.79E-01	7.01E-01	1.56E-05
13	129.012	2.36E+01	7.06E+00	1.76E+00	2.35E+00	1.84E-04
14	186.956	5.57E+01	1.68E+01	5.81E+00	9.55E+00	3.21E-04
15	256.000	7.08E+01	2.24E+01	1.59E+01	1.94E+01	2.61E-03
16	341.333	1.72E+02	6.30E+01	4.89E+01	5.32E+01	3.51E-03
17	512.000	1.33E+03	5.39E+02	3.90E+02	4.78E+02	3.40E-03

LOCAL SITE, NOISE

WINDOW	EX	EY	HX	HY	HZ
2	6.71E-04	5.21E-04	1.32E-06	1.84E-06	6.85E-08
3	5.98E-04	5.31E-04	1.58E-06	3.52E-06	1.20E-07
4	8.20E-04	1.01E-03	2.85E-06	7.04E-06	3.03E-07
5	3.94E-03	5.46E-03	5.16E-06	1.27E-05	9.40E-07
6	3.88E-03	4.14E-03	5.37E-06	3.01E-05	2.50E-06
7	2.39E-01	3.26E-01	-2.83E-03	5.41E-05	6.43E-06
8	2.95E-02	3.26E-02	2.32E-05	1.35E-04	2.05E-05
9	2.84E-02	1.22E-02	2.68E-04	3.01E-04	6.23E-05
10	4.22E-02	1.50E-02	7.25E-04	8.51E-04	1.67E-04
11	6.99E-02	3.02E-02	1.24E-03	2.45E-03	4.56E-04
12	1.64E-01	3.26E-02	4.67E-03	3.93E-03	1.39E-03
13	4.35E-01	1.21E-01	9.54E-03	9.56E-03	3.57E-03
14	9.32E-01	2.92E-01	5.87E-02	3.68E-02	1.72E-02
15	1.00E+00	4.83E-01	2.39E-01	5.16E-02	4.48E-02
16	4.47E+00	2.07E+00	3.53E-01	2.00E-01	9.42E-02
17	2.35E+01	9.25E+00	8.94E-01	2.64E-01	2.88E-01

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	8.55E-04	1.49E-04	3.84E-06	2.29E-05	6.28E-07
3	4.635	1.46E-03	4.47E-04	1.18E-05	4.37E-05	5.65E-07
4	6.486	1.72E-03	4.73E-04	1.66E-05	5.49E-05	9.40E-07
5	9.062	1.51E-03	6.93E-04	3.88E-05	5.91E-05	1.35E-06
6	12.648	3.31E-03	1.22E-03	9.47E-05	1.27E-04	2.22E-06
7	17.561	1.64E-02	9.73E-03	8.79E-04	5.99E-04	2.46E-05
8	24.381	2.16E-01	4.12E-02	6.25E-03	1.21E-02	2.60E-04
9	33.945	9.62E-01	2.53E-01	4.18E-02	7.01E-02	1.26E-03
10	46.984	9.57E-01	4.81E-01	1.06E-01	9.88E-02	1.36E-03
11	64.506	6.95E-01	5.72E-01	1.80E-01	1.01E-01	1.23E-03
12	89.811	2.37E+00	1.53E+00	7.48E-01	5.52E-01	4.90E-03
13	129.012	5.92E+00	1.66E+00	1.35E+00	2.16E+00	1.51E-02
14	186.956	1.31E+01	3.05E+00	3.91E+00	9.47E+00	4.90E-02
15	256.000	1.64E+01	6.41E+00	1.24E+01	1.70E+01	1.13E-01
16	341.333	4.14E+01	1.55E+01	3.71E+01	4.83E+01	6.04E-01
17	512.000	3.62E+02	7.57E+01	1.98E+02	5.43E+02	8.34E+00

REMOTE SITE, NOISE

WINDOW	EX	EY	HX	HY	HZ
2	2.26E-03	3.95E-04	9.68E-06	1.05E-05	1.59E-06
3	1.67E-03	4.20E-04	3.31E-06	4.08E-06	1.09E-06
4	1.95E-03	4.70E-04	4.95E-06	6.61E-06	2.29E-06
5	3.73E-03	9.14E-04	7.28E-06	1.45E-05	5.27E-06
6	4.43E-03	1.41E-03	1.66E-05	2.57E-05	1.35E-05
7	1.59E-01	7.53E-03	-6.94E-05	1.91E-04	4.09E-05
8	2.31E-02	5.53E-03	5.26E-05	1.09E-04	9.36E-05
9	1.79E-02	1.22E-02	2.04E-04	2.43E-04	2.14E-04
10	2.50E-02	1.83E-02	6.35E-04	2.02E-04	4.80E-04
11	5.27E-02	3.21E-02	1.95E-04	6.14E-04	1.39E-03
12	9.73E-02	4.41E-02	2.00E-03	9.74E-04	3.51E-03
13	1.31E-01	7.26E-02	5.00E-03	6.98E-03	1.02E-02
14	2.75E-01	1.15E-01	3.01E-02	3.53E-02	3.13E-02
15	6.27E-01	1.88E-01	8.01E-02	3.15E-02	9.54E-02
16	1.28E+00	6.10E-01	1.00E-01	3.83E-02	2.09E-01
17	6.11E+00	1.42E+00	5.82E-01	3.30E-01	1.40E+00

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 5, PASS I

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.019	127.7	1.15E+02	-16.6	7.8	140.5	0.055	99.9	1.35E+02	-22.9	4.92E+02	148.2
3	4.635	0.032	129.5	1.61E+02	-17.1	11.	139.9	0.110	145.8	2.85E+02	-18.3	79.	140.0
4	6.486	0.028	129.8	1.87E+02	-20.1	12.	143.1	0.161	152.9	4.23E+02	-24.9	97.	146.1
5	9.062	0.057	127.2	1.93E+02	-23.4	14.	142.5	0.310	160.2	2.53E+03	-30.3	72.	145.6
6	12.648	0.077	129.4	2.72E+02	-26.7	16.	147.0	0.149	146.8	1.10E+03	-31.4	76.	150.5
7	17.561	0.085	145.9	5.66E+02	-73.2	46.	146.4	0.251	156.0	4.18E+04	-85.6	43.	168.4
8	24.381	0.084	125.5	5.06E+02	-36.0	24.	136.4	0.083	135.6	7.88E+02	-35.2	49.	136.1
9	33.945	0.074	126.2	5.33E+02	-41.5	25.	134.3	0.074	126.5	5.53E+02	-41.5	28.	134.1
10	46.984	0.092	125.1	5.04E+02	-48.5	24.	131.5	0.096	125.1	5.25E+02	-48.7	25.	131.4
11	64.506	0.098	125.4	4.76E+02	-51.9	23.	127.0	0.104	125.3	5.22E+02	-52.0	26.	126.9
12	89.811	0.100	125.4	3.92E+02	-55.9	21.	126.0	0.102	125.2	4.08E+02	-55.9	21.	126.0
13	129.012	0.090	126.0	3.34E+02	-55.7	18.	125.7	0.095	125.7	3.48E+02	-55.8	20.	125.7
14	186.956	0.096	125.8	2.61E+02	-55.2	15.	125.7	0.100	125.4	2.70E+02	-55.1	18.	125.7
15	256.000	0.121	125.3	2.47E+02	-51.6	13.	129.1	0.120	125.6	2.55E+02	-51.6	16.	129.2
16	341.333	0.101	127.6	3.01E+02	-48.2	14.	131.9	0.098	127.9	3.20E+02	-48.2	15.	132.0
17	512.000	0.127	126.7	3.17E+02	-42.8	12.	135.7	0.129	126.6	3.28E+02	-42.9	13.	136.0

AVERAGE ROTATION ANGLE = 128.0 — AVERAGE ROTATION ANGLE = 133.2

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.261	100.5	16.	-31.5	0.92	142.7	0.315	81.1	1.30E+02	-32.9	9.20E+02	150.0
3	4.635	0.148	129.6	25.	-22.0	18.	133.8	0.299	153.7	2.63E+02	-16.6	1.24E+02	125.4
4	6.486	0.150	132.2	32.	-22.0	18.	139.0	0.259	148.0	2.30E+02	-14.1	1.76E+02	134.1
5	9.062	0.101	133.7	31.	-17.4	22.	137.8	0.104	126.3	5.42E+02	-17.7	1.89E+02	137.3
6	12.648	0.055	134.3	47.	-24.2	22.	137.5	0.142	140.3	4.44E+02	-22.0	1.67E+02	135.8
7	17.561	0.465	152.5	28.	-65.1	53.	139.9	0.308	133.0	2.09E+04	-51.6	34.	169.0
8	24.381	0.023	148.3	1.16E+02	-35.1	40.	139.0	0.127	154.3	1.92E+02	-38.2	52.	142.9
9	33.945	0.020	148.6	1.16E+02	-41.0	40.	134.1	0.045	151.0	1.28E+02	-41.1	45.	134.3
10	46.984	0.033	146.0	1.13E+02	-49.3	38	131.3	0.049	147.4	1.23E+02	-49.2	42.	131.3
11	64.506	0.032	147.9	1.05E+02	-51.7	36.	127.0	0.047	147.8	1.25E+02	-51.7	40.	126.9
12	89.811	0.021	147.9	94.	-55.0	32.	123.4	0.024	147.5	1.02E+02	-55.0	34.	123.4
13	129.012	0.040	146.6	83.	-55.1	28.	124.3	0.052	147.4	88.	-55.2	31.	124.5
14	186.956	0.056	149.5	60.	-53.5	23.	125.2	0.048	150.0	63.	-53.3	26.	125.0
15	256.000	0.025	150.2	62.	-48.1	20.	125.4	0.038	150.4	68.	-47.8	22.	125.2
16	341.333	0.025	151.7	74.	-47.8	20.	129.5	0.021	152.6	80.	-47.8	21.	129.5
17	512.000	0.038	149.2	80.	-44.1	19.	134.0	0.039	149.2	82.	-44.0	20.	134.0

AVERAGE ROTATION ANGLE = 141.8 — AVERAGE ROTATION ANGLE = 142.5

WOODWARD-CLYDE CONSULTANTS

SETUP 16 GLS-17 GLS, BAND 5, PASS I

		PREDICTED COHERENCIES						LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES (WITH RESPECT TO LOCAL UNROTATED AXES)								
		LOCAL SITE			REMOTE SITE											
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	3.311	0.89	0.73	0.05	0.42	0.25	0.69	0.44	0.23	0.46	0.35	0.24	0.65	0.01	0.42	0.73
3	4.635	0.93	0.85	0.07	0.65	0.63	0.61	0.63	0.34	0.54	0.61	0.26	0.83	0.04	0.49	0.84
4	6.486	0.90	0.79	0.09	0.64	0.62	0.59	0.66	0.29	0.49	0.62	0.32	0.78	0.02	0.57	0.79
5	9.062	0.74	0.47	0.03	0.47	0.57	0.50	0.65	0.39	0.54	0.57	0.51	0.67	0.02	0.38	0.74
6	12.648	0.82	0.67	0.07	0.58	0.61	0.43	0.70	0.35	0.55	0.72	0.61	0.64	0.02	0.45	0.77
7	17.561	0.47	0.18	0.11	0.21	0.70	0.63	0.94	0.87	0.93	0.97	0.74	0.69	0.11	0.27	0.89
8	24.381	0.98	0.91	0.05	0.94	0.91	0.86	0.93	0.69	0.89	0.96	0.73	0.91	0.05	0.50	0.95
9	33.945	0.99	0.99	0.13	0.99	0.97	0.92	0.95	0.67	0.84	0.98	0.77	0.89	0.12	0.74	0.92
10	46.984	0.99	0.99	0.15	0.99	0.97	0.86	0.88	0.44	0.73	0.97	0.79	0.75	0.08	0.69	0.87
11	64.506	0.98	0.98	0.17	0.96	0.97	0.69	0.79	0.30	0.56	0.95	0.84	0.57	0.09	0.68	0.83
12	89.811	0.99	0.99	0.11	0.98	0.98	0.76	0.81	0.09	0.60	0.97	0.77	0.62	0.06	0.60	0.82
13	129.012	0.99	0.99	0.21	0.99	0.97	0.77	0.91	0.28	0.68	0.97	0.57	0.80	0.14	0.62	0.83
14	186.956	0.99	0.99	0.13	0.99	0.98	0.78	0.94	0.39	0.69	0.98	0.41	0.87	0.14	0.64	0.84
15	256.000	0.99	0.99	0.23	0.98	0.98	0.73	0.89	0.40	0.70	0.97	0.68	0.80	0.08	0.66	0.85
16	341.333	0.99	0.98	0.19	0.98	0.97	0.86	0.90	0.11	0.54	0.98	0.63	0.75	0.19	0.61	0.81
17	512.000	0.99	0.99	0.10	0.99	1.01	0.92	0.96	0.30	0.55	1.00	0.36	0.88	0.17	0.79	0.75

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA RESULTS FROM CROSSPOWER FILE: 1112C1.BET
RECORDING COMPLETED: 00:52:02 02-Sep-81

SETUP 11 GLS-12 GLS, BAND 1, PASS 8

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 120.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 98 DATA SEGMENTS, 17.07 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES		XY PHASE(Z)	YX ROTATED APP RES		YX PHASE(Z)
2	0.028	153.4 (1.2)	27.0	(0.23)	-84.9 (0.3)	47.8	(0.89)	101.7 (0.6)
3	0.039	147.5 (1.7)	24.0	(0.57)	-84.9 (0.8)	43.2	(1.5)	101.8 (1.1)
4	0.054	149.3 (0.7)	18.3	(0.14)	-80.2 (0.2)	36.8	(0.56)	100.9 (0.4)
5	0.076	151.2 (0.7)	14.3	(0.12)	-77.0 (0.3)	29.4	(0.35)	105.6 (0.4)
6	0.106	146.9 (0.6)	10.1	(6.72E-02)	-73.2 (0.2)	20.3	(0.27)	111.3 (0.4)
7	0.149	146.0 (0.6)	9.65	(5.87E-02)	-71.0 (0.2)	19.8	(0.23)	112.2 (0.4)
8	0.210	145.9 (1.1)	7.21	(8.76E-02)	-66.6 (0.5)	15.7	(0.34)	118.2 (0.7)
9	0.296	141.2 (1.1)	5.71	(8.79E-02)	-63.6 (0.6)	13.9	(0.30)	123.1 (0.7)
10	0.416	146.1 (1.3)	4.94	(9.05E-02)	-53.1 (0.6)	13.0	(0.32)	125.3 (0.8)
11	0.585	140.9 (2.1)	4.35	(0.13)	-45.1 (1.0)	11.8	(0.47)	130.5 (1.4)
12	0.821	145.7 (2.5)	4.30	(0.18)	-37.5 (1.1)	11.7	(0.60)	126.3 (1.9)
13	1.148	131.5 (3.5)	4.49	(0.20)	-31.7 (1.8)	12.8	(0.61)	141.4 (2.1)
14	1.642	88.4 (5.4)	5.93	(0.63)	-46.1 (2.3)	10.4	(0.73)	158.9 (1.5)
15	2.463	73.4 (3.7)	8.15	(0.99)	-49.3 (2.3)	11.3	(0.71)	166.0 (1.1)
16	3.816	92.5 (1.9)	8.01	(0.52)	-36.3 (2.2)	27.2	(1.2)	171.5 (1.1)
17	5.689	83.5 (1.3)	9.14	(0.78)	-43.7 (2.5)	31.8	(0.97)	169.0 (0.9)
18	8.533	85.7 (0.8)	8.52	(0.52)	-39.8 (1.9)	39.2	(0.66)	161.0 (0.5)

AVERAGE ROTATION ANGLE ON FILE = 127.6

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES		XY PHASE(Z)	YX ROTATED APP RES		YX PHASE(Z)
2	0.028	23.3 (0.6)	35.6	(0.73)	-65.5 (0.6)	27.5	(0.16)	94.0 (0.2)
3	0.039	19.7 (3.2)	35.6	(2.5)	-63.8 (1.8)	33.2	(0.46)	102.1 (0.2)
4	0.054	42.8 (3.8)	34.3	(0.79)	-64.9 (0.6)	30.4	(0.51)	107.3 (0.2)
5	0.076	76.1 (1.9)	34.7	(0.27)	-66.8 (0.3)	25.5	(0.36)	112.3 (0.4)
6	0.106	74.3 (1.7)	27.3	(0.27)	-60.9 (0.3)	19.3	(0.33)	114.3 (0.5)
7	0.149	78.8 (1.4)	28.1	(0.24)	-60.0 (0.3)	18.1	(0.39)	118.1 (0.6)
8	0.210	88.2 (2.5)	25.1	(0.46)	-57.1 (0.6)	12.4	(0.77)	115.0 (2.0)
9	0.296	86.6 (3.0)	22.6	(0.59)	-52.3 (0.8)	10.3	(0.79)	126.3 (2.3)
10	0.416	90.5 (8.8)	19.8	(0.72)	-48.4 (1.7)	10.9	(1.0)	132.7 (3.5)
11	0.585	68.9 (27.5)	18.9	(1.4)	-48.5 (4.7)	13.7	(1.6)	136.2 (4.7)
12	0.821	33.3 (2.2)	21.1	(2.5)	-65.4 (3.2)	23.0	(1.3)	153.2 (1.5)
13	1.148	18.8 (2.1)	7.97	(1.3)	-58.8 (4.7)	25.7	(0.90)	148.2 (1.1)
14	1.642	-23.9 (7.8)	15.9	(1.9)	-20.0 (1.5)	19.1	(1.9)	135.3 (2.2)
15	2.463	-54.5 (9.9)	27.9	(1.5)	-22.1 (2.9)	13.7	(2.2)	143.8 (4.7)
16	3.816	-37.3 (1.9)	39.3	(0.80)	-11.0 (0.8)	18.6	(1.4)	142.2 (1.8)
17	5.689	-44.1 (1.0)	54.2	(0.76)	-16.0 (0.4)	19.8	(0.90)	138.1 (1.3)
18	8.533	-44.3 (0.7)	64.7	(0.70)	-22.1 (0.3)	20.4	(0.59)	137.6 (0.9)

AVERAGE ROTATION ANGLE ON FILE = 209.2
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND L, PASS B

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.214 (0.011)	7.0 (1.3)	4.5 (2.9)	0.025 (0.004)	0.079 (0.006)	0.748 (0.045)
3	0.039	0.181 (0.019)	-1.8 (3.2)	15.1 (6.2)	0.021 (0.010)	0.056 (0.013)	1.002 (0.089)
4	0.054	0.152 (0.008)	0.2 (1.4)	-4.0 (3.1)	0.011 (0.004)	0.023 (0.005)	0.891 (0.040)
5	0.076	0.165 (0.006)	-1.8 (1.3)	-1.9 (2.0)	0.040 (0.003)	0.036 (0.004)	0.795 (0.036)
6	0.106	0.168 (0.006)	0.1 (1.4)	-16.0 (2.1)	0.043 (0.003)	0.038 (0.005)	1.034 (0.039)
7	0.149	0.170 (0.006)	7.9 (1.3)	-14.6 (1.9)	0.051 (0.003)	0.032 (0.004)	1.091 (0.036)
8	0.210	0.148 (0.011)	4.8 (4.8)	-30.4 (4.3)	0.063 (0.007)	0.036 (0.007)	1.090 (0.067)
9	0.296	0.133 (0.010)	15.5 (4.5)	-40.8 (4.5)	0.034 (0.009)	0.047 (0.007)	1.420 (0.089)
10	0.416	0.138 (0.008)	3.0 (6.0)	-58.1 (4.0)	0.053 (0.011)	0.051 (0.008)	1.076 (0.071)
11	0.585	0.178 (0.013)	51.1 (3.5)	-28.9 (4.3)	0.042 (0.009)	0.064 (0.010)	1.343 (0.130)
12	0.821	0.123 (0.011)	38.9 (6.0)	-55.3 (6.3)	0.051 (0.008)	0.064 (0.012)	1.065 (0.092)
13	1.148	0.130 (0.009)	47.5 (3.3)	-69.9 (5.0)	0.049 (0.005)	0.068 (0.014)	1.485 (0.163)
14	1.642	0.138 (0.007)	50.7 (1.8)	-82.5 (3.3)	0.036 (0.003)	0.094 (0.017)	0.785 (0.087)
15	2.463	0.125 (0.006)	54.2 (2.4)	-105.2 (3.6)	0.041 (0.004)	0.131 (0.020)	0.674 (0.078)
16	3.816	0.140 (0.006)	54.2 (2.1)	-132.8 (2.9)	0.050 (0.003)	0.121 (0.017)	0.588 (0.066)
17	5.689	0.138 (0.004)	52.6 (1.2)	-152.0 (1.6)	0.044 (0.002)	0.129 (0.018)	0.321 (0.043)
18	8.533	0.143 (0.003)	53.7 (0.8)	-154.5 (1.1)	0.040 (0.002)	0.168 (0.010)	0.296 (0.029)

AVERAGE TIPPER STRIKE ON FILE = 25.8

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.020 (0.003)	-33.8 (14.1)	139.5 (8.2)	0.004 (0.005)	0.035 (0.004)	0.255 (0.021)
3	0.039	0.026 (0.012)	-17.3 (19.9)	132.2 (26.4)	0.004 (0.009)	0.032 (0.009)	0.421 (0.093)
4	0.054	0.017 (0.003)	-8.7 (12.3)	121.5 (13.4)	0.006 (0.003)	0.034 (0.004)	1.006 (0.091)
5	0.076	0.011 (0.003)	-16.9 (13.1)	42.5 (16.7)	0.001 (0.002)	0.046 (0.003)	1.840 (0.220)
6	0.106	0.022 (0.003)	-106.0 (37.1)	-87.0 (36.0)	0.014 (0.003)	0.064 (0.004)	2.366 (0.343)
7	0.149	0.026 (0.002)	-54.4 (11.0)	-57.4 (6.1)	0.011 (0.003)	0.045 (0.004)	1.808 (0.199)
8	0.210	0.039 (0.004)	-51.1 (9.1)	-74.0 (6.7)	0.007 (0.006)	0.031 (0.011)	0.967 (0.119)
9	0.296	0.040 (0.005)	-45.9 (10.6)	-97.2 (9.2)	0.011 (0.006)	0.067 (0.018)	1.056 (0.195)
10	0.416	0.071 (0.007)	-58.4 (5.3)	-112.0 (6.2)	0.009 (0.006)	0.120 (0.031)	0.887 (0.310)
11	0.585	0.104 (0.009)	-60.2 (4.9)	-136.0 (4.9)	0.017 (0.008)	0.054 (0.042)	1.397 (0.952)
12	0.821	0.115 (0.007)	-64.8 (4.9)	-143.9 (3.5)	0.033 (0.008)	0.237 (0.033)	0.576 (0.088)
13	1.148	0.133 (0.004)	-55.8 (3.3)	-154.0 (1.8)	0.015 (0.007)	0.140 (0.032)	0.269 (0.067)
14	1.642	0.149 (0.003)	-53.3 (2.9)	-159.3 (1.2)	0.031 (0.007)	0.056 (0.018)	1.296 (0.186)
15	2.463	0.158 (0.003)	-54.0 (2.3)	-171.9 (0.9)	0.005 (0.006)	0.025 (0.016)	0.920 (0.113)
16	3.816	0.163 (0.002)	-55.5 (2.0)	174.4 (0.7)	0.005 (0.006)	0.030 (0.014)	1.556 (0.143)
17	5.689	0.159 (0.002)	-51.7 (1.4)	165.5 (0.6)	0.019 (0.004)	0.032 (0.011)	1.233 (0.075)
18	8.533	0.149 (0.001)	-50.9 (0.9)	160.8 (0.5)	0.021 (0.002)	0.020 (0.007)	1.235 (0.055)

AVERAGE TIPPER STRIKE ON FILE = -49.3

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 1, PASS B

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	8.33E-04	2.67E-03	3.05E-07	1.94E-07	4.81E-09
3	0.039	3.71E-03	2.95E-03	5.04E-07	9.90E-07	7.59E-09
4	0.054	3.12E-04	1.18E-03	3.87E-07	1.90E-07	3.51E-09
5	0.076	2.80E-04	1.18E-03	6.59E-07	3.05E-07	7.91E-09
6	0.106	1.75E-04	5.94E-04	6.96E-07	3.60E-07	9.93E-09
7	0.149	1.69E-04	6.26E-04	1.08E-06	4.98E-07	1.59E-08
8	0.210	5.27E-05	1.73E-04	4.81E-07	2.95E-07	4.51E-09
9	0.296	4.49E-05	9.21E-05	3.94E-07	3.64E-07	5.82E-09
10	0.416	4.07E-05	4.57E-05	2.96E-07	4.94E-07	9.69E-09
11	0.585	4.99E-05	2.66E-05	3.04E-07	9.28E-07	1.82E-08
12	0.821	6.49E-05	3.25E-05	6.47E-07	1.89E-06	1.92E-08
13	1.148	1.26E-04	6.40E-05	2.11E-06	4.21E-06	3.41E-08
14	1.642	2.81E-04	1.73E-04	1.06E-05	1.12E-05	9.48E-08
15	2.463	9.18E-04	4.39E-04	3.94E-05	3.70E-05	2.86E-07
16	3.816	6.67E-03	1.78E-03	2.15E-04	2.25E-04	2.13E-06
17	5.689	3.74E-02	5.96E-03	1.04E-03	1.32E-03	1.16E-05
18	8.533	1.93E-01	1.91E-02	4.38E-03	8.49E-03	8.48E-05

LOCAL SITE, NOISE

	EX	EY	HX	HY	HZ
2	8.72E-05	1.74E-04	2.82E-07	3.57E-08	2.36E-07
3	-6.23E-04	3.00E-03	9.43E-08	4.31E-07	4.83E-07
4	1.18E-05	3.14E-05	2.17E-07	1.86E-08	1.43E-07
5	3.24E-05	4.80E-05	2.13E-07	7.43E-08	1.34E-07
6	4.70E-06	5.74E-06	2.71E-07	1.62E-08	1.33E-07
7	2.90E-06	9.51E-06	2.18E-07	1.74E-08	1.29E-07
8	1.88E-06	4.00E-06	1.70E-07	2.22E-08	1.24E-07
9	2.29E-06	6.86E-06	1.57E-07	2.87E-08	1.24E-07
10	3.62E-06	1.10E-05	1.58E-07	4.77E-08	1.24E-07
11	6.02E-06	2.13E-05	1.62E-07	7.40E-08	1.38E-07
12	1.06E-05	4.09E-05	2.34E-07	1.12E-07	1.48E-07
13	2.60E-05	9.26E-05	3.48E-07	2.88E-07	1.94E-07
14	5.96E-05	1.69E-04	4.42E-07	4.99E-07	2.69E-07
15	1.59E-04	5.96E-04	1.54E-06	2.06E-06	6.46E-07
16	4.00E-04	1.49E-03	3.26E-06	1.18E-05	1.85E-06
17	8.75E-04	3.78E-03	3.73E-05	3.69E-05	2.13E-06
18	2.18E-03	7.92E-03	7.54E-05	9.11E-05	9.19E-06

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	6.20E-04	1.90E-03	3.77E-07	9.69E-08	9.13E-11
3	0.039	3.57E-04	1.50E-03	3.52E-07	7.78E-08	9.11E-11
4	0.054	3.54E-04	1.19E-03	3.82E-07	1.22E-07	4.67E-11
5	0.076	3.68E-04	1.31E-03	6.07E-07	1.97E-07	3.26E-11
6	0.106	2.14E-04	7.64E-04	6.36E-07	2.11E-07	1.74E-10
7	0.149	2.26E-04	8.57E-04	9.81E-07	3.06E-07	5.83E-10
8	0.210	7.10E-05	2.26E-04	4.17E-07	1.94E-07	5.69E-10
9	0.296	5.28E-05	1.12E-04	3.36E-07	2.59E-07	7.44E-10
10	0.416	5.30E-05	5.12E-05	2.29E-07	3.70E-07	1.28E-09
11	0.585	5.85E-05	5.41E-05	3.72E-07	4.76E-07	4.78E-09
12	0.821	6.72E-05	1.51E-04	1.11E-06	8.71E-07	1.79E-08
13	1.148	5.74E-05	3.12E-04	3.09E-06	1.64E-06	6.07E-08
14	1.642	1.09E-04	9.74E-04	1.41E-05	2.76E-06	2.99E-07
15	2.463	3.48E-04	2.81E-03	4.87E-05	9.62E-06	1.20E-06
16	3.816	2.40E-03	1.44E-02	2.85E-04	5.33E-05	7.86E-06
17	5.689	1.38E-02	6.71E-02	1.48E-03	3.78E-04	3.91E-05
18	8.533	7.43E-02	2.52E-01	6.58E-03	3.46E-03	1.74E-04

REMOTE SITE, NOISE

	EX	EY	HX	HY	HZ
2	9.97E-05	9.21E-06	1.61E-07	4.27E-07	1.09E-07
3	8.63E-05	1.03E-05	1.13E-07	3.17E-07	7.41E-08
4	9.96E-05	1.96E-05	9.42E-08	2.85E-07	6.03E-08
5	1.27E-04	1.41E-05	8.83E-08	2.54E-07	5.38E-08
6	1.95E-04	2.34E-05	8.30E-08	2.43E-07	5.12E-08
7	2.29E-04	3.73E-05	8.02E-08	2.47E-07	4.78E-08
8	3.44E-04	3.70E-05	8.34E-08	2.34E-07	4.75E-08
9	3.51E-04	5.60E-05	8.33E-08	2.48E-07	5.10E-08
10	4.85E-04	8.00E-05	9.05E-08	2.10E-07	5.59E-08
11	4.56E-04	8.62E-05	9.64E-08	2.73E-07	6.30E-08
12	4.61E-04	9.64E-05	1.36E-07	2.49E-07	7.75E-08
13	4.91E-04	1.21E-04	1.60E-07	2.57E-07	1.01E-07
14	2.81E-04	1.57E-04	2.03E-07	3.46E-07	1.68E-07
15	4.90E-04	2.89E-04	3.95E-07	3.91E-07	3.47E-07
16	7.58E-04	7.17E-04	2.22E-06	9.42E-07	8.95E-07
17	8.06E-04	1.41E-03	4.18E-06	-1.99E-07	1.42E-06
18	1.77E-03	3.86E-03	5.22E-06	3.67E-06	4.49E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 1, PASS 8

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.305	138.6	21.	-87.6	8.5	109.9	0.042	144.5	31.	-84.6	64.	101.7
3	0.039	0.364	131.6	6.4	-79.6	37.	95.8	0.229	152.1	14.	-79.0	86.	95.1
4	0.054	0.163	129.8	15.	-83.6	13.	107.2	0.032	147.1	20.	-80.5	39.	102.7
5	0.076	0.121	178.5	9.1	-73.7	15.	102.8	0.022	141.8	16.	-77.7	36.	106.2
6	0.106	0.111	122.5	8.9	-75.1	10.	114.3	0.044	145.3	11.	-73.3	21.	111.8
7	0.149	0.076	139.0	9.2	-71.0	13.	112.4	0.034	145.5	10.	-71.1	20.	112.5
8	0.210	0.188	120.1	5.8	-75.3	8.1	127.6	0.036	146.1	7.8	-66.4	17.	117.6
9	0.296	0.167	119.6	3.8	-70.9	8.4	129.8	0.022	148.0	6.9	-60.8	16.	120.4
10	0.416	0.073	120.4	2.7	-58.3	7.9	129.8	0.062	156.6	6.5	-51.1	20.	123.3
11	0.585	0.016	116.0	2.3	-49.0	7.4	136.3	0.125	160.3	6.9	-41.4	38.	130.0
12	0.821	0.045	120.1	2.9	-45.6	7.7	136.1	0.120	158.9	7.2	-37.1	53.	128.1
13	1.148	0.069	124.6	3.5	-33.8	10.	142.1	0.060	152.8	8.7	-26.0	59.	133.8
14	1.642	0.073	176.2	9.5	-20.3	5.8	133.0	0.130	144.3	9.1	-16.9	50.	134.0
15	2.463	0.136	69.0	8.8	-46.9	9.5	166.5	0.244	53.9	82.	-48.2	11.	172.9
16	3.816	0.144	91.4	7.9	-36.1	24.	168.7	0.197	47.4	73.	-32.7	14.	170.5
17	5.689	0.146	83.9	8.6	-42.4	30.	168.1	0.226	70.8	33.	-43.4	29.	172.5
18	8.533	0.173	85.5	8.2	-40.2	38.	161.1	0.157	90.5	16.	-39.8	43.	160.8

AVERAGE ROTATION ANGLE = 121.6 — AVERAGE ROTATION ANGLE = 129.8

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.076	19.2	1.2	-65.0	14.	93.1	0.029	25.6	49.	-65.3	28.	93.5
3	0.039	0.047	19.1	1.4	-65.4	19.	101.2	0.034	28.7	56.	-65.5	33.	101.4
4	0.054	0.026	14.5	2.6	-65.3	22.	107.2	0.050	30.3	53.	-64.8	34.	106.8
5	0.076	0.014	11.9	4.9	-66.6	25.	111.5	0.053	25.6	53.	-65.8	33.	110.8
6	0.106	0.025	102.3	20.	-63.2	4.4	115.5	0.058	106.6	27.	-63.7	82.	115.9
7	0.149	0.057	99.2	23.	-60.4	5.6	119.5	0.025	101.9	28.	-60.5	1.01E+02	119.6
8	0.210	0.140	102.3	15.	-58.6	2.3	119.8	0.233	99.0	28.	-59.5	9.25E+02	119.1
9	0.296	0.158	104.0	12.	-54.0	2.6	125.7	0.355	96.9	45.	-54.6	1.16E+03	127.1
10	0.416	0.086	101.1	9.7	-46.7	4.7	133.0	0.132	88.6	58.	-47.1	1.46E+03	135.0
11	0.585	0.180	123.2	10.	-41.7	4.5	130.5	0.462	109.1	94.	-12.0	1.48E+03	120.7
12	0.821	0.126	29.5	8.1	-69.3	17.	150.9	0.567	25.2	1.24E+03	-70.9	70.	181.2
13	1.148	0.095	22.2	5.2	-44.9	21.	146.8	0.408	20.8	1.07E+03	-47.5	26.	165.7
14	1.642	0.039	24.5	8.7	-34.9	22.	150.5	0.162	22.8	2.05E+02	-33.4	28.	148.5
15	2.463	0.001	-53.9	28.	-22.4	12.	142.6	0.051	-60.6	35.	-24.3	1.26E+02	146.2
16	3.816	0.030	-38.1	39.	-11.5	17.	142.2	0.062	-30.9	48.	-10.6	58.	142.6
17	5.689	0.030	-43.8	54.	-15.9	20.	138.0	0.055	-41.4	55.	-15.4	29.	137.6
18	8.533	0.020	-44.2	65.	-22.1	20.	137.6	0.017	-44.8	66.	-22.3	24.	137.6

AVERAGE ROTATION ANGLE = 214.9 — AVERAGE ROTATION ANGLE = 215.5

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS. BAND 1, PASS B

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	0.028	0.86	0.70	0.11	0.40	0.83	0.02
3	0.037	0.96	0.68	0.77	0.40	0.86	0.02
4	0.054	0.92	0.79	0.14	0.48	0.89	0.02
5	0.076	0.83	0.85	0.21	0.57	0.93	0.02
6	0.106	0.96	0.84	0.26	0.49	0.93	0.05
7	0.149	0.97	0.90	0.32	0.53	0.94	0.10
8	0.210	0.93	0.86	0.18	0.28	0.84	0.10
9	0.296	0.93	0.83	0.20	0.26	0.72	0.11
10	0.416	0.92	0.74	0.26	0.25	0.52	0.13
11	0.585	0.91	0.61	0.31	0.27	0.55	0.23
12	0.821	0.90	0.57	0.31	0.29	0.73	0.41
13	1.148	0.88	0.59	0.35	0.30	0.82	0.59
14	1.642	0.89	0.70	0.48	0.50	0.90	0.79
15	2.463	0.90	0.64	0.49	0.64	0.94	0.87
16	3.816	0.95	0.73	0.68	0.87	0.95	0.94
17	5.689	0.98	0.77	0.90	0.97	0.97	0.98
18	8.533	0.99	0.83	0.94	0.99	0.98	0.99

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.25	0.77	0.79	0.86	0.44	0.07	0.01	0.36	0.63
0.05	0.43	0.31	0.45	0.47	0.04	0.00	0.38	0.25
0.19	0.78	0.66	0.89	0.52	0.03	0.02	0.51	0.67
0.22	0.77	0.59	0.89	0.59	0.03	0.02	0.65	0.67
0.21	0.72	0.60	0.84	0.57	0.03	0.02	0.64	0.75
0.31	0.73	0.57	0.86	0.66	0.16	0.06	0.74	0.78
0.30	0.56	0.47	0.61	0.57	0.37	0.01	0.61	0.74
0.33	0.37	0.36	0.51	0.45	0.44	0.03	0.59	0.73
0.28	0.10	0.24	0.37	0.14	0.46	0.08	0.56	0.73
0.29	0.05	0.36	0.31	0.25	0.50	0.03	0.51	0.83
0.21	0.11	0.46	0.31	0.50	0.46	0.14	0.56	0.89
0.07	0.25	0.51	0.24	0.62	0.22	0.20	0.63	0.91
0.29	0.47	0.70	0.52	0.82	0.25	0.31	0.82	0.93
0.39	0.49	0.79	0.48	0.83	0.27	0.41	0.84	0.92
0.44	0.50	0.92	0.63	0.85	0.34	0.59	0.86	0.94
0.32	0.50	0.95	0.78	0.81	0.18	0.65	0.85	0.95
0.03	0.22	0.95	0.79	0.66	0.27	0.60	0.77	0.96

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA RESULTS FROM CROSSPOWER FILE: 1112C1.EDO
RECORDING COMPLETED: 07:45:01 02-Sep-81

SETUP 11 GLS-12 GLS, BAND 1, PASS E

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 120.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 67 DATA SEGMENTS, 17.07 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	0.028	156.5 (1.4)	27.5 (0.30)	-82.9 (0.4)	52.8 (0.79)	98.5 (0.5)
3	0.039	150.0 (1.7)	21.5 (0.47)	-83.4 (0.8)	43.3 (1.1)	102.1 (0.8)
4	0.054	148.6 (1.0)	18.3 (0.14)	-81.3 (0.3)	33.2 (0.33)	104.0 (0.3)
5	0.076	150.0 (1.2)	14.0 (0.16)	-76.9 (0.4)	28.1 (0.39)	106.4 (0.4)
6	0.106	147.8 (1.1)	10.4 (8.94E-02)	-73.4 (0.4)	19.6 (0.31)	111.7 (0.5)
7	0.149	144.8 (0.5)	9.79 (5.73E-02)	-71.4 (0.2)	19.7 (0.20)	112.2 (0.3)
8	0.210	145.3 (1.2)	7.27 (0.10)	-67.4 (0.5)	15.3 (0.40)	117.0 (0.8)
9	0.296	148.8 (2.0)	5.82 (9.99E-02)	-59.9 (0.8)	12.4 (0.39)	119.9 (1.1)
10	0.416	145.4 (1.8)	4.70 (0.11)	-52.7 (1.0)	12.6 (0.43)	124.2 (1.1)
11	0.585	143.5 (2.0)	4.61 (9.74E-02)	-47.2 (0.9)	11.6 (0.38)	129.3 (1.1)
12	0.821	128.1 (6.2)	4.28 (0.16)	-47.0 (3.4)	11.0 (0.59)	139.1 (2.9)
13	1.148	87.8 (3.8)	6.60 (0.68)	-56.0 (2.3)	8.57 (0.65)	157.6 (1.3)
14	1.642	48.1 (11.0)	12.0 (2.2)	-43.1 (5.9)	6.01 (1.1)	160.7 (2.5)
15	2.463	86.6 (4.1)	5.75 (1.0)	-50.9 (5.1)	14.6 (1.4)	169.7 (2.1)
16	3.816	98.7 (6.7)	7.87 (1.0)	-31.3 (6.5)	28.0 (2.5)	163.9 (3.2)
17	5.689	75.3 (3.0)	11.8 (2.1)	-50.0 (5.1)	27.6 (1.2)	168.4 (0.8)
18	8.533	76.2 (1.9)	9.17 (1.0)	-55.5 (3.4)	34.6 (1.1)	161.1 (0.7)

AVERAGE ROTATION ANGLE ON FILE = 122.4

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	0.028	24.9 (0.6)	40.5 (0.62)	-64.2 (0.4)	28.5 (0.26)	93.9 (0.3)
3	0.039	33.2 (4.7)	34.9 (1.5)	-67.8 (1.2)	30.5 (0.85)	101.6 (0.4)
4	0.054	44.7 (4.9)	34.3 (0.67)	-66.4 (0.4)	30.7 (0.64)	107.2 (0.3)
5	0.076	74.5 (1.6)	33.9 (0.28)	-67.1 (0.3)	24.1 (0.27)	111.5 (0.4)
6	0.106	72.5 (1.2)	26.5 (0.23)	-60.7 (0.3)	18.4 (0.20)	115.5 (0.3)
7	0.149	76.5 (1.1)	28.1 (0.24)	-60.8 (0.2)	18.7 (0.24)	116.9 (0.4)
8	0.210	88.1 (1.9)	22.8 (0.31)	-56.0 (0.4)	14.1 (0.42)	121.8 (0.9)
9	0.296	87.3 (1.9)	22.6 (0.38)	-51.2 (0.5)	12.3 (0.45)	122.1 (1.1)
10	0.416	89.5 (1.8)	22.5 (0.38)	-47.2 (0.5)	11.5 (0.46)	124.2 (1.3)
11	0.585	87.3 (1.9)	22.4 (0.37)	-43.7 (0.5)	11.3 (0.38)	134.2 (1.1)
12	0.821	90.1 (2.1)	23.1 (0.50)	-41.8 (0.8)	10.4 (0.34)	138.0 (1.2)
13	1.148	89.4 (3.9)	24.3 (0.56)	-39.7 (1.3)	11.5 (0.45)	144.9 (1.8)
14	1.642	89.8 (5.2)	24.5 (0.67)	-35.9 (1.5)	13.2 (0.71)	153.5 (1.8)
15	2.463	47.1 (2.9)	15.4 (0.96)	-39.3 (1.3)	26.9 (0.83)	162.0 (1.0)
16	3.816	47.1 (1.0)	16.1 (0.60)	-40.0 (1.0)	39.2 (0.76)	167.1 (0.6)
17	5.689	43.2 (0.7)	17.5 (0.58)	-36.1 (1.0)	56.0 (0.78)	165.0 (0.4)
18	8.533	42.8 (0.6)	17.1 (0.49)	-40.9 (0.8)	67.4 (0.88)	160.3 (0.4)

AVERAGE ROTATION ANGLE ON FILE = 246.4
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 1, PASS E

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.182 (0.010)	-3.2 (1.5)	-0.1 (3.2)	0.034 (0.004)	0.045 (0.008)	0.571 (0.055)
3	0.039	0.150 (0.014)	0.2 (2.2)	-3.6 (5.3)	0.002 (0.006)	0.036 (0.013)	0.865 (0.086)
4	0.054	0.152 (0.005)	-1.8 (1.3)	-5.1 (2.0)	0.023 (0.003)	0.047 (0.005)	0.947 (0.047)
5	0.076	0.161 (0.005)	-0.4 (1.4)	-7.6 (1.8)	0.035 (0.003)	0.033 (0.007)	0.856 (0.062)
6	0.106	0.171 (0.005)	5.6 (1.3)	-11.4 (1.8)	0.038 (0.003)	0.056 (0.007)	0.986 (0.059)
7	0.149	0.157 (0.005)	5.5 (1.4)	-23.5 (1.9)	0.038 (0.003)	0.027 (0.004)	1.181 (0.039)
8	0.210	0.180 (0.014)	12.3 (3.0)	-18.8 (4.5)	0.060 (0.006)	0.034 (0.010)	1.138 (0.081)
9	0.296	0.132 (0.017)	18.3 (6.9)	-29.8 (7.5)	0.058 (0.006)	0.056 (0.012)	0.942 (0.086)
10	0.416	0.154 (0.017)	20.8 (4.3)	-47.8 (7.0)	0.049 (0.008)	0.033 (0.013)	1.095 (0.090)
11	0.585	0.161 (0.012)	24.5 (3.9)	-57.7 (5.2)	0.055 (0.008)	0.051 (0.012)	1.175 (0.097)
12	0.821	0.141 (0.009)	32.8 (6.5)	-64.0 (5.9)	0.067 (0.008)	0.088 (0.017)	1.278 (0.139)
13	1.148	0.097 (0.010)	36.8 (6.4)	-83.6 (7.6)	0.035 (0.008)	0.180 (0.025)	0.576 (0.105)
14	1.642	0.109 (0.007)	56.6 (8.1)	-88.4 (8.7)	0.059 (0.006)	0.032 (0.034)	1.180 (0.247)
15	2.463	0.125 (0.005)	46.9 (2.4)	-114.7 (2.8)	0.038 (0.004)	0.252 (0.044)	0.380 (0.137)
16	3.816	0.128 (0.003)	51.5 (1.3)	-130.2 (1.5)	0.032 (0.003)	0.202 (0.030)	0.909 (0.154)
17	5.689	0.133 (0.003)	52.2 (1.0)	-147.1 (1.3)	0.026 (0.002)	0.184 (0.030)	0.358 (0.097)
18	8.533	0.144 (0.003)	54.3 (0.9)	-157.0 (1.1)	0.022 (0.002)	0.200 (0.019)	0.406 (0.059)

AVERAGE TIPPER STRIKE ON FILE = 24.3

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.033 (0.004)	-15.9 (5.8)	107.9 (6.8)	0.006 (0.003)	0.053 (0.005)	0.260 (0.022)
3	0.039	0.021 (0.010)	7.2 (9.4)	65.0 (27.8)	0.001 (0.003)	0.020 (0.008)	0.735 (0.126)
4	0.054	0.023 (0.003)	-0.4 (6.3)	111.6 (6.7)	0.003 (0.002)	0.043 (0.003)	1.038 (0.087)
5	0.076	0.022 (0.003)	-9.0 (9.2)	49.4 (7.9)	0.009 (0.003)	0.042 (0.004)	1.720 (0.136)
6	0.106	0.019 (0.002)	-64.7 (13.9)	-38.2 (7.3)	0.009 (0.003)	0.071 (0.003)	2.545 (0.266)
7	0.149	0.029 (0.002)	-75.7 (6.8)	-63.9 (4.7)	0.005 (0.003)	0.059 (0.003)	2.327 (0.245)
8	0.210	0.064 (0.006)	-24.9 (5.5)	-68.6 (5.8)	0.014 (0.006)	0.046 (0.007)	0.963 (0.124)
9	0.296	0.071 (0.006)	-45.0 (6.7)	-92.7 (4.7)	0.005 (0.008)	0.049 (0.008)	1.013 (0.118)
10	0.416	0.105 (0.007)	-35.0 (4.2)	-102.3 (4.0)	0.013 (0.007)	0.016 (0.009)	0.891 (0.094)
11	0.585	0.100 (0.006)	-53.2 (4.7)	-125.0 (3.5)	0.004 (0.008)	0.040 (0.009)	1.010 (0.104)
12	0.821	0.112 (0.006)	-53.0 (3.8)	-149.5 (3.3)	0.001 (0.007)	0.061 (0.009)	0.901 (0.078)
13	1.148	0.133 (0.007)	-49.7 (4.3)	-143.2 (2.9)	0.033 (0.009)	0.051 (0.010)	0.959 (0.085)
14	1.642	0.140 (0.006)	-51.6 (3.3)	-167.1 (2.3)	0.000 (0.007)	0.015 (0.010)	0.960 (0.090)
15	2.463	0.144 (0.004)	-60.7 (2.7)	-172.0 (1.6)	0.023 (0.006)	0.029 (0.011)	1.112 (0.076)
16	3.816	0.153 (0.003)	-55.1 (1.8)	176.4 (1.2)	0.018 (0.005)	0.017 (0.010)	1.291 (0.071)
17	5.689	0.160 (0.003)	-53.4 (1.9)	166.8 (1.1)	0.041 (0.005)	0.035 (0.008)	1.049 (0.049)
18	8.533	0.141 (0.002)	-51.0 (1.3)	160.5 (0.8)	0.025 (0.003)	0.029 (0.008)	1.022 (0.038)

AVERAGE TIPPER STRIKE ON FILE = -40.7

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 1, PASS F

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	9.56E-04	3.97E-03	4.28E-07	1.77E-07	1.56E-09
3	0.039	4.26E-03	4.16E-03	6.59E-07	1.27E-06	2.90E-08
4	0.054	7.33E-04	2.12E-03	7.27E-07	3.62E-07	8.11E-09
5	0.076	6.33E-04	1.93E-03	1.10E-06	5.30E-07	1.83E-08
6	0.106	3.40E-04	1.04E-03	1.24E-06	6.06E-07	2.63E-08
7	0.149	3.14E-04	8.29E-04	1.45E-06	7.91E-07	2.61E-08
8	0.210	4.06E-05	1.66E-04	5.20E-07	2.29E-07	7.36E-09
9	0.296	2.33E-05	1.17E-04	6.17E-07	2.47E-07	5.22E-09
10	0.416	1.80E-05	9.92E-05	7.82E-07	2.72E-07	6.26E-09
11	0.585	2.54E-05	9.55E-05	1.14E-06	4.87E-07	1.33E-08
12	0.821	3.86E-05	6.53E-05	1.14E-06	8.73E-07	1.43E-08
13	1.148	5.56E-05	6.51E-05	1.90E-06	1.51E-06	1.32E-08
14	1.642	8.99E-05	7.46E-05	3.56E-06	3.00E-06	3.36E-08
15	2.463	3.11E-04	1.85E-04	1.49E-05	1.06E-05	1.73E-07
16	3.816	2.04E-03	1.05E-03	7.52E-05	6.85E-05	1.08E-06
17	5.689	1.27E-02	3.58E-03	3.81E-04	4.59E-04	4.88E-06
18	8.533	6.14E-02	1.55E-02	3.62E-03	2.69E-03	5.48E-05

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
7.97E-05	2.21E-04	5.46E-07	4.57E-08	2.85E-07
-3.67E-05	4.33E-03	5.09E-07	2.75E-07	4.74E-07
1.75E-05	3.30E-05	4.32E-07	2.75E-08	1.72E-07
5.87E-05	7.36E-05	9.68E-07	9.66E-08	1.97E-07
4.62E-06	-1.68E-06	7.97E-07	2.63E-08	1.73E-07
2.48E-06	5.84E-06	1.99E-07	1.61E-08	1.27E-07
2.14E-06	4.86E-06	1.74E-07	1.70E-08	1.22E-07
1.89E-06	3.34E-06	1.67E-07	1.76E-08	1.22E-07
2.49E-06	6.03E-06	1.73E-07	2.49E-08	1.20E-07
4.06E-06	1.62E-05	1.56E-07	3.27E-08	1.28E-07
1.03E-05	4.44E-05	1.77E-07	3.76E-08	1.13E-07
2.41E-05	1.16E-04	1.33E-07	9.24E-08	1.45E-07
6.01E-05	3.34E-04	6.40E-07	2.56E-07	1.36E-07
2.18E-04	1.16E-03	1.15E-06	6.80E-07	1.98E-07
5.43E-04	2.84E-03	1.06E-06	1.76E-06	2.92E-07
1.16E-03	6.75E-03	4.45E-06	1.81E-06	7.52E-07
2.70E-03	1.29E-02	1.09E-05	8.65E-06	4.42E-06

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	1.38E-03	2.02E-03	3.63E-07	1.90E-07	2.81E-10
3	0.039	7.73E-04	1.71E-03	3.95E-07	1.73E-07	8.53E-11
4	0.054	1.15E-03	1.53E-03	4.69E-07	3.92E-07	1.23E-10
5	0.076	1.12E-03	1.44E-03	6.54E-07	6.06E-07	2.25E-10
6	0.106	5.11E-04	1.12E-03	9.50E-07	5.09E-07	3.10E-10
7	0.149	4.36E-04	1.05E-03	1.21E-06	5.85E-07	1.08E-09
8	0.210	5.83E-05	2.49E-04	4.71E-07	1.55E-07	9.02E-10
9	0.296	3.54E-05	1.97E-04	5.49E-07	1.39E-07	2.07E-09
10	0.416	3.48E-05	1.67E-04	6.58E-07	1.91E-07	5.46E-09
11	0.585	4.21E-05	1.67E-04	9.16E-07	3.42E-07	7.78E-09
12	0.821	4.61E-05	1.20E-04	9.09E-07	6.03E-07	1.03E-08
13	1.148	4.69E-05	1.61E-04	1.64E-06	8.11E-07	2.56E-08
14	1.642	6.75E-05	2.70E-04	3.70E-06	1.51E-06	7.09E-08
15	2.463	1.46E-04	8.55E-04	1.44E-05	4.91E-06	2.98E-07
16	3.816	8.13E-04	3.63E-03	6.94E-05	3.50E-05	1.70E-06
17	5.689	5.58E-03	1.92E-02	4.22E-04	2.00E-04	1.04E-05
18	8.533	2.16E-02	1.25E-01	3.50E-03	1.21E-03	6.75E-05

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
8.23E-06	-1.85E-05	1.78E-07	4.71E-07	1.05E-07
4.05E-05	5.20E-06	1.18E-07	3.47E-07	7.37E-08
1.76E-05	7.11E-06	1.01E-07	2.97E-07	6.02E-08
6.25E-06	2.01E-05	8.53E-08	2.76E-07	5.48E-08
9.31E-06	7.54E-06	8.68E-08	2.63E-07	4.99E-08
4.93E-07	4.88E-06	8.83E-08	2.74E-07	4.96E-08
1.47E-06	3.33E-06	8.67E-08	2.63E-07	4.89E-08
6.71E-07	3.03E-07	8.83E-08	2.67E-07	5.07E-08
-4.63E-08	1.90E-06	8.87E-08	2.78E-07	4.83E-08
1.29E-06	4.55E-06	9.59E-08	2.51E-07	5.99E-08
2.60E-06	6.48E-06	9.90E-08	2.84E-07	5.83E-08
6.33E-06	1.01E-05	9.65E-08	2.72E-07	8.30E-08
1.06E-05	1.56E-05	1.68E-07	3.18E-07	1.07E-07
2.68E-05	4.41E-05	2.74E-07	4.13E-07	1.68E-07
7.96E-05	1.66E-04	4.25E-07	8.11E-07	4.07E-07
1.57E-04	2.87E-04	8.30E-07	1.36E-06	1.09E-06
4.99E-04	1.42E-03	5.65E-06	8.78E-06	3.59E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 1, PASS E

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.126	200.6	24.	-76.0	8.1	92.7	0.073	143.1	30.	-87.1	63.	104.7
3	0.039	0.516	119.0	1.4	-89.8	41.	102.2	0.271	143.6	13.	-77.5	87.	98.2
4	0.054	0.094	113.8	8.9	-82.6	23.	105.6	0.044	147.3	19.	-81.0	34.	104.5
5	0.076	0.107	112.5	4.7	-76.7	15.	105.1	0.049	143.9	16.	-78.3	31.	106.9
6	0.106	0.044	194.6	12.	-69.1	5.9	107.5	0.065	146.1	11.	-73.7	20.	112.2
7	0.149	0.048	137.2	9.1	-70.2	15.	110.8	0.028	144.6	10.	-71.5	20.	112.2
8	0.210	0.096	122.9	6.5	-68.8	7.7	119.3	0.030	142.1	7.7	-67.6	17.	117.7
9	0.296	0.124	110.9	5.9	-65.5	6.2	124.8	0.035	142.4	6.3	-61.5	14.	120.2
10	0.416	0.095	151.3	4.2	-53.4	7.5	123.4	0.016	139.5	5.6	-55.4	15.	124.6
11	0.585	0.076	135.7	4.0	-50.1	8.9	133.6	0.032	138.9	5.3	-48.2	17.	131.8
12	0.821	0.104	118.8	3.5	-49.9	9.3	142.1	0.037	145.6	6.3	-37.4	32.	131.2
13	1.148	0.185	89.8	5.6	-55.6	7.8	157.1	0.045	147.5	7.9	-27.1	85.	128.9
14	1.642	0.054	67.4	6.3	-51.5	6.9	161.6	0.128	54.4	3.52E+02	-53.9	9.7	164.9
15	2.463	0.266	87.1	4.9	-51.0	13.	170.4	0.199	50.4	7.93E+02	-43.2	8.3	167.0
16	3.816	0.203	100.4	7.6	-30.3	28.	164.5	0.167	50.8	2.34E+02	-31.3	15.	168.7
17	5.689	0.182	75.8	12.	-49.0	27.	168.4	0.076	142.6	22.	-10.9	1.58E+02	132.9
18	8.533	0.198	75.9	9.1	-55.7	34.	161.1	0.215	46.6	55.	-50.2	22.	162.5

AVERAGE ROTATION ANGLE = 118.4 — AVERAGE ROTATION ANGLE = 121.7

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.098	5.9	2.2	-66.6	15.	95.7	0.041	23.9	41.	-64.8	28.	93.7
3	0.039	0.068	8.6	2.9	-68.8	20.	103.1	0.036	30.8	39.	-67.8	31.	102.1
4	0.054	0.041	3.3	8.2	-68.8	24.	109.0	0.037	46.9	35.	-66.5	31.	106.7
5	0.076	0.037	88.6	27.	-67.2	9.8	111.8	0.043	76.2	35.	-67.1	25.	111.7
6	0.106	0.044	93.6	21.	-61.4	7.7	116.4	0.067	71.0	27.	-60.7	19.	115.4
7	0.149	0.087	95.2	23.	-59.5	7.9	115.9	0.058	77.5	28.	-60.6	19.	116.8
8	0.210	0.024	102.2	16.	-56.0	1.9	121.3	0.050	86.2	24.	-56.3	15.	121.7
9	0.296	0.037	102.1	16.	-51.0	1.5	122.2	0.046	87.1	23.	-51.4	13.	122.5
10	0.416	0.068	100.9	17.	-47.2	1.8	124.2	0.026	91.8	23.	-47.6	12.	124.2
11	0.585	0.036	98.1	18.	-43.5	3.6	132.9	0.049	87.8	24.	-44.2	12.	133.6
12	0.821	0.042	98.9	18.	-41.8	4.8	136.0	0.058	90.0	26.	-42.6	12.	137.1
13	1.148	0.027	102.4	21.	-36.1	6.6	141.5	0.064	78.4	28.	-41.4	15.	147.8
14	1.642	0.016	101.6	22.	-33.2	8.7	150.1	0.043	74.5	29.	-38.8	17.	156.1
15	2.463	0.020	131.1	27.	-19.7	12.	141.7	0.048	61.8	26.	-40.5	26.	164.4
16	3.816	0.021	46.8	15.	-40.0	39.	167.2	0.013	50.3	22.	-40.6	41.	167.9
17	5.689	0.035	43.2	17.	-36.1	56.	165.0	0.034	43.5	20.	-36.2	57.	165.1
18	8.533	0.028	42.8	17.	-40.8	67.	160.3	0.029	43.1	19.	-41.0	68.	160.4

AVERAGE ROTATION ANGLE = 254.4 — AVERAGE ROTATION ANGLE = 245.9

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 1, PASS E

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	0.028	0.87	0.65	0.13	0.54	0.83	0.04
3	0.039	0.96	0.58	0.72	0.57	0.87	0.02
4	0.054	0.95	0.79	0.21	0.75	0.91	0.03
5	0.076	0.88	0.72	0.31	0.83	0.94	0.05
6	0.106	0.97	0.78	0.40	0.81	0.96	0.07
7	0.149	0.98	0.93	0.41	0.83	0.96	0.14
8	0.210	0.92	0.85	0.21	0.61	0.91	0.10
9	0.296	0.91	0.87	0.19	0.59	0.93	0.17
10	0.416	0.88	0.87	0.19	0.66	0.93	0.30
11	0.585	0.89	0.87	0.28	0.76	0.94	0.32
12	0.821	0.87	0.72	0.30	0.81	0.92	0.36
13	1.148	0.81	0.58	0.28	0.82	0.93	0.47
14	1.642	0.74	0.39	0.43	0.85	0.95	0.62
15	2.463	0.74	0.36	0.68	0.89	0.96	0.79
16	3.816	0.88	0.52	0.88	0.94	0.96	0.90
17	5.689	0.95	0.59	0.93	0.98	0.98	0.95
18	8.533	0.98	0.74	0.96	0.99	0.99	0.98

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.47	0.66	0.58	0.92	0.32	0.15	0.00	0.42	0.46
3	0.14	0.39	0.22	0.50	0.36	0.05	0.02	0.42	0.21
4	0.63	0.58	0.53	0.95	0.35	0.38	0.02	0.62	0.59
5	0.67	0.58	0.45	0.95	0.33	0.45	0.01	0.61	0.58
6	0.52	0.69	0.56	0.97	0.45	0.31	0.01	0.65	0.71
7	0.62	0.75	0.68	0.97	0.64	0.43	0.04	0.79	0.79
8	0.25	0.80	0.56	0.96	0.57	0.04	0.05	0.61	0.69
9	0.16	0.83	0.52	0.96	0.62	0.10	0.08	0.63	0.72
10	0.28	0.81	0.39	0.94	0.65	0.11	0.05	0.68	0.67
11	0.37	0.73	0.37	0.90	0.65	0.15	0.06	0.77	0.70
12	0.45	0.49	0.47	0.76	0.50	0.34	0.05	0.76	0.76
13	0.30	0.38	0.58	0.51	0.56	0.27	0.04	0.78	0.81
14	0.26	0.29	0.54	0.43	0.65	0.15	0.14	0.81	0.83
15	0.17	0.23	0.64	0.34	0.70	0.06	0.39	0.88	0.86
16	0.06	0.13	0.75	0.48	0.64	0.26	0.52	0.88	0.89
17	0.32	0.34	0.88	0.58	0.66	0.23	0.39	0.87	0.93
18	0.27	0.40	0.91	0.73	0.74	0.09	0.59	0.91	0.92

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 1112C5.DCG
RECORDING COMPLETED: 06:52:31 02-Sep-81

SETUP 11 GLS-12 GLS, BAND 5, PASS D

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 33 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	173.8 (0.9)	18.1 (0.29)	-14.9 (0.4)	7.30 (0.17)	137.3 (0.7)
3	4.635	173.3 (0.5)	24.6 (0.25)	-13.7 (0.2)	8.70 (0.15)	136.6 (0.6)
4	6.486	173.9 (0.3)	33.0 (0.16)	-15.1 (0.1)	8.81 (0.12)	140.1 (0.4)
5	9.062	173.4 (0.2)	41.6 (0.15)	-17.8 (0.1)	9.46 (0.12)	140.6 (0.4)
6	12.648	171.1 (0.2)	51.9 (0.23)	-20.5 (0.1)	11.0 (0.16)	139.6 (0.5)
7	17.561	171.8 (0.2)	67.4 (0.36)	-23.9 (0.1)	11.9 (0.13)	139.3 (0.3)
8	24.381	171.2 (0.2)	79.5 (0.40)	-29.1 (0.1)	12.6 (0.12)	136.2 (0.3)
9	33.945	171.3 (0.2)	88.1 (0.39)	-35.2 (0.1)	12.5 (0.15)	132.3 (0.4)
10	46.984	172.3 (0.2)	93.0 (0.51)	-41.7 (0.2)	12.5 (0.23)	127.3 (0.5)
11	64.506	172.3 (0.3)	86.0 (0.55)	-46.6 (0.2)	12.4 (0.28)	124.8 (0.7)
12	89.811	172.3 (0.3)	79.5 (0.63)	-50.9 (0.2)	9.19 (0.30)	122.9 (0.9)
13	129.012	173.6 (0.4)	69.5 (0.78)	-52.3 (0.3)	7.68 (0.34)	120.7 (1.3)
14	186.956	174.5 (0.7)	61.0 (1.1)	-50.7 (0.5)	6.26 (0.47)	117.1 (2.2)
15	256.000	174.0 (1.3)	55.6 (1.7)	-49.1 (0.9)	6.82 (0.85)	128.7 (3.6)
16	341.333	171.6 (1.2)	55.8 (1.8)	-47.2 (1.0)	4.33 (0.82)	131.0 (5.5)
17	512.000	171.0 (1.3)	71.3 (3.6)	-46.7 (1.5)	5.02 (0.96)	127.7 (5.6)

AVERAGE ROTATION ANGLE ON FILE = 172.6

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	47.5 (0.4)	18.9 (0.27)	-42.2 (0.4)	33.0 (0.20)	163.0 (0.2)
3	4.635	45.2 (0.2)	18.4 (0.16)	-40.6 (0.2)	44.0 (0.14)	163.4 (0.1)
4	6.486	45.2 (0.1)	18.9 (0.11)	-39.9 (0.2)	58.3 (0.12)	163.1 (0.1)
5	9.062	44.0 (0.1)	20.2 (7.14E-02)	-39.9 (0.1)	73.8 (0.15)	160.5 (0.1)
6	12.648	42.6 (0.1)	21.2 (9.41E-02)	-40.0 (0.1)	96.2 (0.25)	158.0 (0.1)
7	17.561	42.7 (0.1)	23.1 (0.12)	-41.6 (0.2)	122. (0.42)	154.4 (0.1)
8	24.381	42.6 (0.1)	24.7 (0.11)	-43.3 (0.1)	141. (0.52)	148.4 (0.1)
9	33.945	42.4 (0.1)	25.7 (0.12)	-47.0 (0.1)	154. (0.46)	142.1 (0.1)
10	46.984	41.9 (0.1)	24.6 (0.12)	-50.9 (0.1)	155. (0.49)	135.7 (0.1)
11	64.506	41.6 (0.1)	22.9 (0.13)	-54.8 (0.2)	143. (0.47)	130.6 (0.1)
12	89.811	41.8 (0.1)	20.4 (0.13)	-56.5 (0.2)	128. (0.55)	126.7 (0.1)
13	129.012	42.1 (0.2)	17.9 (0.18)	-57.7 (0.3)	107. (0.56)	124.9 (0.2)
14	186.956	43.3 (0.3)	15.7 (0.27)	-59.0 (0.5)	90.5 (0.83)	126.0 (0.3)
15	256.000	44.7 (0.5)	11.8 (0.43)	-58.0 (1.0)	82.2 (1.2)	128.6 (0.4)
16	341.333	45.3 (0.7)	11.8 (0.54)	-54.4 (1.3)	79.1 (1.8)	131.8 (0.7)
17	512.000	45.6 (1.2)	14.3 (1.0)	-51.1 (2.0)	92.1 (4.3)	136.2 (1.4)

AVERAGE ROTATION ANGLE ON FILE = 223.7
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 5, PASS D

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.120 (0.001)	49.8 (0.3)	-116.5 (0.3)	0.039 (0.000)	0.141 (0.006)	0.539 (0.023)
3	4.635	0.130 (0.000)	48.9 (0.2)	-134.0 (0.2)	0.042 (0.000)	0.181 (0.004)	0.449 (0.015)
4	6.486	0.138 (0.000)	52.7 (0.1)	-147.3 (0.1)	0.043 (0.000)	0.179 (0.002)	0.374 (0.009)
5	9.062	0.146 (0.000)	55.5 (0.1)	-158.5 (0.1)	0.039 (0.000)	0.193 (0.002)	0.314 (0.006)
6	12.648	0.148 (0.000)	59.8 (0.2)	-168.7 (0.1)	0.037 (0.000)	0.209 (0.003)	0.234 (0.007)
7	17.561	0.150 (0.000)	63.4 (0.3)	-179.4 (0.2)	0.039 (0.001)	0.222 (0.003)	0.157 (0.007)
8	24.381	0.156 (0.001)	58.5 (0.5)	165.7 (0.3)	0.051 (0.001)	0.227 (0.003)	0.107 (0.006)
9	33.945	0.123 (0.001)	70.8 (0.7)	158.3 (0.4)	0.052 (0.001)	0.232 (0.003)	0.076 (0.006)
10	46.984	0.109 (0.000)	75.9 (0.4)	161.6 (0.2)	0.036 (0.001)	0.259 (0.004)	0.100 (0.008)
11	64.506	0.102 (0.001)	73.5 (0.8)	157.4 (0.4)	0.046 (0.001)	0.253 (0.005)	0.085 (0.009)
12	89.811	0.098 (0.001)	86.9 (1.8)	167.1 (1.0)	0.058 (0.001)	0.281 (0.007)	0.099 (0.010)
13	129.012	0.097 (0.001)	128.9 (2.3)	-151.9 (0.7)	0.058 (0.001)	0.293 (0.009)	0.128 (0.014)
14	186.956	0.109 (0.002)	141.9 (1.4)	-142.4 (1.3)	0.046 (0.002)	0.321 (0.015)	0.166 (0.024)
15	256.000	0.121 (0.003)	141.8 (1.7)	-153.1 (1.7)	0.036 (0.003)	0.260 (0.023)	0.144 (0.046)
16	341.333	0.132 (0.004)	146.4 (1.7)	-159.3 (2.0)	0.014 (0.004)	0.291 (0.028)	0.113 (0.042)
17	512.000	0.131 (0.007)	148.4 (2.2)	-178.6 (2.8)	0.009 (0.005)	0.301 (0.032)	0.132 (0.046)

AVERAGE TIPPER STRIKE ON FILE = 87.7

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.166 (0.001)	-57.1 (0.3)	-179.1 (0.2)	0.016 (0.001)	0.018 (0.003)	1.266 (0.026)
3	4.635	0.161 (0.000)	-55.9 (0.3)	173.6 (0.1)	0.017 (0.001)	0.012 (0.002)	1.170 (0.013)
4	6.486	0.155 (0.000)	-53.5 (0.2)	165.8 (0.1)	0.020 (0.000)	0.018 (0.001)	1.191 (0.008)
5	9.062	0.146 (0.000)	-51.2 (0.1)	158.6 (0.1)	0.022 (0.000)	0.030 (0.001)	1.109 (0.006)
6	12.648	0.133 (0.000)	-47.9 (0.2)	150.2 (0.2)	0.022 (0.000)	0.044 (0.001)	1.005 (0.006)
7	17.561	0.118 (0.001).	-45.5 (0.3)	140.5 (0.3)	0.020 (0.001)	0.041 (0.002)	1.016 (0.006)
8	24.381	0.112 (0.001)	-38.3 (0.3)	130.8 (0.4)	0.014 (0.001)	0.054 (0.001)	1.007 (0.006)
9	33.945	0.089 (0.001)	-43.4 (0.5)	117.1 (0.5)	0.002 (0.001)	0.055 (0.001)	0.994 (0.006)
10	46.984	0.073 (0.001)	-49.1 (0.5)	106.8 (0.5)	0.010 (0.001)	0.069 (0.001)	0.960 (0.005)
11	64.506	0.068 (0.001)	-45.0 (0.6)	98.3 (0.8)	0.013 (0.001)	0.083 (0.001)	0.942 (0.006)
12	89.811	0.062 (0.001)	-45.3 (0.8)	83.6 (1.2)	0.009 (0.001)	0.090 (0.002)	0.951 (0.008)
13	129.012	0.061 (0.002)	-39.4 (1.1)	74.8 (1.6)	0.007 (0.001)	0.084 (0.003)	0.971 (0.011)
14	186.956	0.071 (0.003)	-36.0 (1.9)	66.1 (2.4)	0.001 (0.002)	0.087 (0.004)	1.057 (0.021)
15	256.000	0.074 (0.004)	-37.6 (3.0)	46.6 (3.3)	0.001 (0.004)	0.085 (0.008)	1.163 (0.037)
16	341.333	0.083 (0.005)	-33.0 (3.6)	42.9 (3.6)	0.011 (0.005)	0.092 (0.011)	1.216 (0.056)
17	512.000	0.060 (0.008)	-32.7 (7.1)	3.6 (7.2)	0.011 (0.007)	0.089 (0.019)	1.242 (0.107)

AVERAGE TIPPER STRIKE ON FILE = -44.4

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 5, PASS D

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	2.37E-03	1.51E-03	1.44E-04	8.35E-05	1.26E-06
3	4.635	1.14E-02	5.30E-03	6.44E-04	4.06E-04	6.53E-06
4	6.486	8.18E-02	1.94E-02	3.18E-03	3.29E-03	5.64E-05
5	9.062	3.54E-01	7.13E-02	1.12E-02	1.55E-02	2.63E-04
6	12.648	5.30E-01	1.38E-01	2.69E-02	2.45E-02	5.42E-04
7	17.561	9.50E-01	5.56E-01	1.47E-01	4.44E-02	2.82E-03
8	24.381	2.42E+00	1.76E+00	6.21E-01	1.54E-01	1.40E-02
9	33.945	8.78E+00	2.84E+00	1.54E+00	6.18E-01	2.14E-02
10	46.984	1.58E+01	5.49E+00	3.59E+00	1.67E+00	4.65E-02
11	64.506	2.33E+01	8.54E+00	7.15E+00	3.80E+00	8.43E-02
12	89.811	3.11E+01	1.20E+01	1.41E+01	8.25E+00	1.27E-01
13	129.012	3.35E+01	1.32E+01	2.76E+01	1.40E+01	1.99E-01
14	186.956	3.71E+01	1.24E+01	4.76E+01	2.48E+01	4.29E-01
15	256.000	5.00E+01	1.32E+01	7.58E+01	4.59E+01	8.40E-01
16	341.333	7.44E+01	1.21E+01	1.05E+02	9.46E+01	1.46E+00
17	512.000	2.23E+02	3.73E+01	4.30E+02	3.37E+02	4.96E+00

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
8.32E-04	2.36E-03	1.04E-06	4.54E-06	3.20E-07
9.75E-04	3.86E-03	3.09E-06	8.46E-06	5.53E-07
1.72E-03	7.09E-03	5.43E-06	1.63E-05	1.47E-06
3.98E-03	1.37E-02	6.82E-06	3.63E-05	4.54E-06
6.86E-03	2.56E-02	3.49E-05	6.22E-05	1.12E-05
1.13E-02	4.23E-02	3.77E-05	1.40E-04	5.02E-05
2.39E-02	7.33E-02	2.49E-05	3.40E-04	4.25E-04
4.35E-02	1.57E-01	2.36E-04	7.03E-04	9.08E-04
8.58E-02	3.63E-01	3.49E-04	1.74E-03	6.47E-04
1.22E-01	5.45E-01	-9.88E-04	2.12E-03	1.89E-03
2.05E-01	8.64E-01	3.45E-03	9.99E-03	4.39E-03
3.34E-01	1.51E+00	4.88E-03	1.44E-02	9.80E-03
5.78E-01	2.85E+00	2.10E-02	5.06E-02	3.13E-02
1.17E+00	5.87E+00	-5.50E-01	1.42E-01	8.30E-02
2.52E+00	8.54E+00	-1.17E+00	2.11E-01	2.37E-01
1.74E+01	2.66E+01	8.17E-01	2.55E+00	1.69E+00

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	1.25E-03	6.55E-03	1.33E-04	3.70E-05	3.42E-06
3	4.635	4.47E-03	2.86E-02	6.47E-04	1.55E-04	1.60E-05
4	6.486	3.19E-02	1.47E-01	3.39E-03	1.52E-03	8.63E-05
5	9.062	1.66E-01	3.98E-01	1.02E-02	9.53E-03	2.44E-04
6	12.648	2.53E-01	6.66E-01	2.03E-02	1.78E-02	3.36E-04
7	17.561	4.71E-01	2.15E+00	8.53E-02	5.46E-02	7.28E-04
8	24.381	1.17E+00	6.84E+00	3.30E-01	2.32E-01	2.32E-03
9	33.945	3.40E+00	1.92E+01	1.07E+00	5.58E-01	6.33E-03
10	46.984	6.76E+00	2.79E+01	2.14E+00	1.82E+00	1.03E-02
11	64.506	1.09E+01	3.44E+01	3.88E+00	4.45E+00	1.80E-02
12	89.811	1.67E+01	3.27E+01	5.98E+00	1.12E+01	2.13E-02
13	129.012	1.74E+01	4.06E+01	1.27E+01	1.93E+01	4.06E-02
14	186.956	1.74E+01	4.89E+01	2.54E+01	2.96E+01	1.04E-01
15	256.000	2.15E+01	6.15E+01	4.77E+01	4.71E+01	2.37E-01
16	341.333	3.50E+01	6.53E+01	6.63E+01	9.76E+01	5.36E-01
17	512.000	1.09E+02	2.00E+02	2.70E+02	3.93E+02	1.01E+00

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
5.00E-04	5.46E-04	1.34E-06	1.27E-06	4.68E-07
4.66E-04	6.26E-04	1.58E-06	1.09E-06	7.96E-07
8.62E-04	1.25E-03	1.94E-06	6.27E-06	1.89E-06
1.46E-03	2.61E-03	5.79E-06	6.75E-06	5.14E-06
2.48E-03	4.65E-03	6.32E-06	3.11E-05	1.34E-05
5.00E-03	1.29E-02	-2.26E-06	8.63E-05	4.37E-05
1.03E-02	3.03E-02	-2.67E-05	1.99E-04	2.01E-04
1.63E-02	4.64E-02	1.31E-04	5.89E-04	5.37E-04
2.80E-02	4.65E-02	3.11E-04	1.22E-03	6.63E-04
3.91E-02	5.54E-02	-1.59E-04	3.34E-03	1.51E-03
6.12E-02	6.92E-02	1.03E-03	1.29E-02	4.50E-03
1.24E-01	6.56E-02	2.75E-03	5.60E-02	1.13E-02
2.04E-01	1.94E-01	-1.12E-02	1.35E-01	4.65E-02
4.67E-01	3.25E-01	-1.04E-02	3.84E-01	1.06E-01
1.18E+00	9.49E-01	2.33E-02	1.07E+00	2.82E-01
9.95E+00	1.60E+01	-5.07E-01	9.59E+00	2.31E+00

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 5, PASS D

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.152	170.5	16.	-14.0	7.4	136.6	0.170	133.7	15.	-12.2	1.11E+02	139.8
3	4.635	0.185	171.7	23.	-13.2	8.7	136.1	0.189	129.7	13.	-15.7	62.	143.2
4	6.486	0.180	173.6	33.	-15.0	8.8	140.1	0.182	181.3	39.	-17.3	14.	141.2
5	9.062	0.193	173.4	41.	-17.8	9.4	140.5	0.171	175.7	43.	-18.5	13.	141.4
6	12.648	0.210	171.0	52.	-20.5	11.	139.6	0.185	173.3	54.	-21.6	15.	141.0
7	17.561	0.222	171.7	67.	-23.9	12.	139.2	0.220	173.4	70.	-24.7	14.	140.4
8	24.381	0.227	171.2	79.	-29.1	13.	136.2	0.231	172.1	81.	-29.2	14.	136.2
9	33.945	0.232	171.3	88.	-35.2	13.	132.3	0.235	172.4	90.	-35.3	14.	132.4
10	46.984	0.259	172.3	93.	-41.7	13.	127.3	0.259	173.5	95.	-41.5	14.	127.0
11	64.506	0.253	172.3	86.	-46.6	12.	124.8	0.250	173.4	87.	-46.3	14.	124.2
12	89.811	0.280	172.3	79.	-50.8	9.2	122.9	0.264	173.1	80.	-50.7	11.	122.7
13	129.012	0.293	173.6	69.	-52.3	7.7	120.7	0.276	175.1	71.	-52.1	10.	120.2
14	186.956	0.320	174.5	61.	-50.7	6.3	117.3	0.303	178.2	64.	-49.8	10.	115.6
15	256.000	0.256	174.0	55.	-49.2	6.9	128.9	0.229	182.3	62.	-48.4	14.	127.5
16	341.333	0.288	171.7	55.	-47.4	4.5	131.2	0.193	181.1	62.	-47.7	16.	131.0
17	512.000	0.301	171.0	70.	-46.7	5.0	127.7	0.217	179.3	83.	-48.5	18.	130.8

AVERAGE ROTATION ANGLE = 172.3 — AVERAGE ROTATION ANGLE = 170.5

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.014	46.1	18.	-42.4	32.	162.8	0.078	52.9	43.	-42.4	38.	163.8
3	4.635	0.012	45.0	18.	-40.7	44.	163.4	0.034	48.1	26.	-41.1	45.	164.0
4	6.486	0.016	45.2	19.	-40.0	58.	163.1	0.022	45.6	21.	-40.0	59.	163.1
5	9.062	0.030	44.0	20.	-39.8	74.	160.6	0.030	43.9	21.	-39.8	75.	160.5
6	12.648	0.043	42.6	21.	-40.0	96.	158.0	0.043	42.5	22.	-40.0	97.	158.0
7	17.561	0.041	42.7	23.	-41.6	1.22E+02	154.4	0.041	42.8	24.	-41.7	1.23E+02	154.5
8	24.381	0.054	42.6	25.	-43.3	1.41E+02	148.4	0.054	42.7	25.	-43.3	1.42E+02	148.5
9	33.945	0.055	42.4	26.	-46.9	1.54E+02	142.1	0.054	42.5	26.	-47.0	1.55E+02	142.1
10	46.984	0.069	41.9	25.	-50.9	1.55E+02	135.7	0.069	42.0	25.	-50.9	1.56E+02	135.8
11	64.506	0.082	41.6	23.	-54.8	1.43E+02	130.6	0.083	41.7	23.	-54.8	1.44E+02	130.6
12	89.811	0.090	41.7	20.	-56.5	1.28E+02	126.6	0.090	41.8	21.	-56.5	1.28E+02	126.6
13	129.012	0.084	41.9	18.	-57.6	1.06E+02	124.9	0.084	42.1	18.	-57.7	1.07E+02	124.9
14	186.956	0.086	43.0	16.	-58.8	90.	125.9	0.086	43.4	16.	-58.9	91.	126.0
15	256.000	0.084	44.4	12.	-57.7	82.	128.6	0.081	45.0	13.	-57.8	83.	128.7
16	341.333	0.090	45.0	12.	-54.2	78.	131.9	0.084	45.5	13.	-54.2	81.	132.0
17	512.000	0.091	45.0	14.	-50.8	90.	135.6	0.076	44.8	20.	-50.6	1.05E+02	135.5

AVERAGE ROTATION ANGLE = 223.4 — AVERAGE ROTATION ANGLE = 224.2

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 11 GLS-12 GLS, BAND 5, PASS D

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	3.311	0.84	0.62	0.87	0.83	0.95	0.93
3	4.635	0.95	0.76	0.95	0.95	0.98	0.97
4	6.486	0.99	0.85	0.98	0.98	0.99	0.99
5	9.062	0.99	0.92	0.99	1.00	0.99	0.99
6	12.648	0.99	0.92	0.99	0.99	0.99	0.98
7	17.561	0.99	0.96	0.99	0.99	1.00	0.97
8	24.381	0.99	0.98	0.98	0.99	1.00	0.96
9	33.945	1.00	0.97	0.98	1.00	1.00	0.96
10	46.984	1.00	0.97	0.99	1.00	1.00	0.97
11	64.506	1.00	0.97	0.99	1.00	1.00	0.96
12	89.811	1.00	0.97	0.98	1.00	1.01	0.91
13	129.012	0.99	0.95	0.98	0.99	1.00	0.88
14	186.956	0.99	0.90	0.96	0.99	1.00	0.83
15	256.000	0.99	0.83	0.95	0.98	1.00	0.83
16	341.333	0.98	0.77	0.93	0.98	0.99	0.80
17	512.000	0.96	0.76	0.86	0.95	0.97	0.52

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.27	0.42	0.69	0.57	0.77	0.12	0.57	0.93	0.86
3	0.36	0.52	0.85	0.72	0.81	0.17	0.66	0.93	0.90
4	0.08	0.36	0.90	0.83	0.69	0.25	0.70	0.89	0.92
5	0.31	0.08	0.90	0.91	0.42	0.46	0.49	0.88	0.92
6	0.35	0.28	0.88	0.91	0.47	0.46	0.37	0.92	0.88
7	0.38	0.59	0.81	0.96	0.67	0.39	0.61	0.97	0.74
8	0.05	0.59	0.75	0.98	0.66	0.40	0.62	0.97	0.68
9	0.11	0.51	0.88	0.97	0.67	0.20	0.64	0.95	0.83
10	0.24	0.39	0.85	0.96	0.59	0.49	0.77	0.95	0.83
11	0.38	0.37	0.84	0.97	0.53	0.60	0.79	0.94	0.84
12	0.50	0.15	0.79	0.96	0.26	0.70	0.68	0.95	0.81
13	0.42	0.18	0.79	0.94	0.34	0.64	0.72	0.94	0.79
14	0.38	0.26	0.84	0.88	0.51	0.61	0.80	0.94	0.82
15	0.28	0.21	0.88	0.81	0.49	0.48	0.80	0.91	0.86
16	0.45	0.18	0.90	0.69	0.29	0.61	0.80	0.89	0.89
17	0.47	0.15	0.90	0.77	0.28	0.63	0.74	0.90	0.86

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 1318C2.CDD
RECORDING COMPLETED: 23:56:03 02-Sep-81

SETUP 13 GLS-18 GLS, BAND 2, PASS C

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 200.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 56 DATA SEGMENTS, 10.24 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	163.9 (9.6)	123. (11.)	-86.2 (2.6)	205. (7.8)	101.1 (2.3)
4	0.033	131.2 (3.3)	138. (7.8)	-91.6 (1.6)	232. (27.)	109.4 (3.4)
5	0.046	155.8 (3.0)	87.0 (1.8)	-83.8 (0.7)	152. (3.4)	100.9 (0.9)
6	0.064	152.9 (2.2)	59.5 (1.8)	-82.6 (0.9)	120. (2.7)	102.7 (0.8)
7	0.089	150.9 (1.6)	57.5 (0.82)	-80.7 (0.4)	107. (2.6)	101.7 (0.7)
8	0.126	152.9 (0.8)	42.2 (0.30)	-78.0 (0.2)	80.2 (0.90)	104.0 (0.3)
9	0.177	154.3 (1.9)	33.5 (0.47)	-76.5 (0.5)	64.6 (1.6)	103.7 (0.8)
10	0.250	146.1 (2.4)	25.2 (0.60)	-73.2 (0.7)	50.3 (2.5)	108.6 (1.4)
11	0.351	147.4 (2.6)	21.8 (0.48)	-71.3 (0.6)	41.7 (2.9)	109.7 (2.0)
12	0.493	144.8 (3.8)	16.7 (0.57)	-72.0 (1.0)	28.0 (2.2)	102.9 (2.2)
13	0.689	140.0 (5.1)	13.2 (0.57)	-72.2 (1.4)	22.0 (1.5)	110.8 (2.1)
14	0.985	139.6 (2.5)	9.69 (0.37)	-67.0 (1.1)	25.2 (1.9)	111.6 (2.3)

AVERAGE ROTATION ANGLE ON FILE = 328.3
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	44.1 (1.4)	144. (5.9)	-55.1 (1.2)	88.6 (2.9)	94.9 (0.9)
4	0.033	35.8 (4.5)	174. (10.)	-62.2 (1.7)	106. (5.0)	107.5 (1.6)
5	0.046	44.9 (3.8)	133. (3.6)	-64.9 (0.8)	114. (3.1)	107.5 (0.8)
6	0.064	32.1 (7.1)	118. (3.1)	-68.9 (0.8)	100. (2.4)	112.5 (0.7)
7	0.089	26.9 (9.6)	98.9 (3.7)	-67.2 (0.9)	102. (3.7)	107.2 (0.9)
8	0.126	36.8 (5.2)	75.3 (1.3)	-70.0 (0.5)	85.5 (1.7)	107.0 (0.6)
9	0.177	60.0 (10.8)	65.2 (2.2)	-68.0 (0.9)	64.8 (2.8)	108.0 (1.2)
10	0.250	91.2 (19.4)	60.2 (4.8)	-70.5 (2.3)	53.0 (2.7)	110.1 (1.5)
11	0.351	92.0 (10.6)	55.9 (7.1)	-76.0 (3.8)	37.8 (2.6)	112.0 (2.4)
12	0.493	133.4 (20.7)	36.7 (3.5)	-71.5 (2.7)	30.7 (4.5)	117.3 (3.1)
13	0.689	95.4 (5.8)	58.5 (7.7)	-69.4 (3.9)	27.4 (2.1)	106.7 (2.4)
14	0.985	95.2 (47.9)	10.3 (13.)	-78.2 (35.3)	24.8 (3.3)	113.8 (12.9)

AVERAGE ROTATION ANGLE ON FILE = 65.6

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 2, PASS C

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.219 (0.071)	-40.1 (29.2)	18.6 (18.7)	0.092 (0.073)	0.057 (0.020)	0.693 (0.181)
4	0.033	0.129 (0.085)	24.1 (19.1)	14.5 (37.9)	0.008 (0.042)	0.155 (0.033)	1.560 (0.386)
5	0.046	0.328 (0.097)	27.9 (14.5)	-58.5 (20.0)	0.109 (0.058)	0.061 (0.011)	0.511 (0.080)
6	0.064	0.169 (0.091)	15.9 (15.9)	-69.1 (31.1)	0.010 (0.047)	0.080 (0.009)	0.454 (0.069)
7	0.089	0.346 (0.111)	36.8 (21.0)	77.1 (23.1)	0.116 (0.097)	0.070 (0.009)	0.332 (0.062)
8	0.126	0.084 (0.065)	38.6 (47.8)	118.8 (50.0)	0.025 (0.057)	0.079 (0.005)	0.323 (0.030)
9	0.177	0.389 (0.167)	-13.6 (20.8)	130.1 (26.4)	0.104 (0.116)	0.070 (0.010)	0.321 (0.064)
10	0.250	0.376 (0.245)	8.5 (47.8)	82.7 (37.4)	0.000 (0.332)	0.129 (0.013)	0.526 (0.106)
11	0.351	0.722 (0.412)	48.5 (35.8)	41.5 (36.2)	0.284 (0.284)	0.078 (0.014)	0.471 (0.110)
12	0.493	0.925 (0.344)	124.7 (74.0)	127.7 (29.7)	0.536 (0.439)	0.124 (0.018)	0.589 (0.178)
13	0.689	1.249 (0.379)	181.9 (22.9)	-148.4 (17.4)	0.189 (0.478)	0.107 (0.020)	0.865 (0.257)
14	0.985	2.830 (0.523)	229.4 (6.9)	-24.5 (10.7)	0.498 (0.309)	0.090 (0.018)	0.867 (0.143)

AVERAGE TIPPER STRIKE ON FILE = 56.9

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.151 (0.014)	-48.0 (8.5)	4.2 (5.2)	0.003 (0.022)	0.088 (0.014)	0.151 (0.049)
4	0.033	0.122 (0.022)	-104.6 (16.7)	39.3 (9.9)	0.032 (0.031)	0.106 (0.019)	0.356 (0.142)
5	0.046	0.105 (0.010)	-74.3 (12.4)	17.2 (5.9)	0.040 (0.017)	0.098 (0.011)	0.177 (0.137)
6	0.064	0.113 (0.010)	-105.3 (7.4)	13.3 (5.1)	0.017 (0.014)	0.089 (0.010)	0.331 (0.258)
7	0.089	0.114 (0.012)	-77.7 (13.0)	10.3 (7.2)	0.051 (0.016)	0.111 (0.012)	0.643 (0.322)
8	0.126	0.104 (0.006)	-84.3 (5.9)	12.2 (3.6)	0.017 (0.010)	0.124 (0.007)	0.240 (0.176)
9	0.177	0.103 (0.013)	-90.6 (10.6)	-8.0 (7.5)	0.022 (0.017)	0.106 (0.014)	0.847 (0.624)
10	0.250	0.059 (0.027)	-74.3 (24.0)	1.0 (25.5)	0.007 (0.024)	0.061 (0.024)	4.058 (11.557)
11	0.351	0.144 (0.043)	-106.2 (7.2)	-58.6 (17.1)	0.001 (0.018)	0.042 (0.033)	1.796 (0.932)
12	0.493	0.178 (0.030)	-87.0 (15.6)	-8.5 (10.1)	0.077 (0.030)	0.163 (0.042)	0.550 (0.518)
13	0.689	0.130 (0.025)	-7.6 (22.3)	33.8 (10.5)	0.057 (0.033)	0.045 (0.039)	2.191 (1.033)
14	0.985	0.133 (0.026)	-2.0 (15.4)	33.5 (11.2)	0.002 (0.036)	0.340 (0.194)	1.349 (1.808)

AVERAGE TIPPER STRIKE ON FILE = -71.8

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 2, PASS C

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	5.77E-03	1.58E-02	3.46E-07	1.98E-07	8.20E-10
4	0.033	6.21E-03	7.19E-03	3.71E-08	2.86E-07	7.37E-09
5	0.046	1.84E-03	5.28E-03	3.19E-07	1.82E-07	2.36E-09
6	0.064	1.51E-03	4.47E-03	4.75E-07	3.17E-07	4.70E-09
7	0.089	8.63E-04	2.17E-03	3.79E-07	2.63E-07	1.37E-08
8	0.126	1.24E-03	3.88E-03	1.30E-06	6.91E-07	5.65E-09
9	0.177	3.43E-04	8.96E-04	4.97E-07	3.57E-07	1.26E-08
10	0.250	2.48E-04	3.10E-04	3.04E-07	4.70E-07	3.55E-08
11	0.351	1.58E-04	9.85E-05	1.66E-07	4.93E-07	8.86E-08
12	0.493	1.07E-04	8.33E-05	3.25E-07	6.00E-07	1.90E-07
13	0.689	7.82E-05	7.07E-05	4.83E-07	7.41E-07	5.66E-07
14	0.985	8.80E-05	6.27E-05	5.78E-07	1.55E-06	1.29E-06

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.31E-02	1.32E-02	6.33E-07	1.33E-07	5.48E-06
8.52E-03	1.15E-02	1.11E-06	7.89E-07	4.19E-06
3.31E-04	3.72E-04	1.68E-07	1.49E-08	5.47E-06
9.72E-04	9.70E-04	1.53E-07	4.60E-08	7.26E-06
3.17E-05	4.13E-05	1.55E-07	1.74E-08	9.06E-06
1.44E-05	1.94E-05	1.51E-07	1.67E-08	1.23E-05
9.91E-06	9.77E-06	1.57E-07	1.49E-08	1.54E-05
7.93E-06	1.47E-05	1.51E-07	1.96E-08	2.30E-05
1.20E-05	1.09E-05	1.53E-07	1.76E-08	2.84E-05
2.23E-05	2.12E-05	1.91E-07	5.28E-08	3.80E-05
1.22E-05	1.53E-05	2.17E-07	6.49E-08	5.65E-05
1.23E-05	1.72E-05	2.33E-07	7.07E-08	6.58E-05

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	5.97E-03	5.33E-03	2.89E-07	1.72E-07	1.02E-10
4	0.033	3.60E-03	3.94E-03	2.61E-07	1.27E-07	3.41E-09
5	0.046	2.61E-03	2.89E-03	2.50E-07	1.58E-07	3.70E-09
6	0.064	2.13E-03	2.59E-03	3.52E-07	2.09E-07	4.51E-09
7	0.089	1.14E-03	1.42E-03	2.65E-07	1.91E-07	3.73E-09
8	0.126	2.22E-03	2.38E-03	7.63E-07	6.44E-07	1.10E-08
9	0.177	5.40E-04	5.85E-04	3.36E-07	2.73E-07	4.62E-09
10	0.250	2.44E-04	3.46E-04	3.09E-07	2.34E-07	4.40E-11
11	0.351	8.88E-05	1.91E-04	3.06E-07	1.53E-07	3.03E-09
12	0.493	5.61E-05	1.67E-04	4.28E-07	1.77E-07	1.39E-08
13	0.689	8.53E-05	1.43E-04	4.53E-07	3.50E-07	8.55E-09
14	0.985	3.39E-05	9.12E-05	7.02E-07	4.88E-07	1.37E-08

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
2.83E-04	1.26E-03	1.18E-06	7.50E-07	8.68E-07
-5.29E-05	2.76E-04	6.20E-07	3.23E-07	4.15E-07
3.71E-05	2.24E-04	4.90E-07	2.44E-07	3.23E-07
2.18E-05	2.04E-04	4.47E-07	2.23E-07	2.79E-07
1.45E-05	2.10E-04	4.26E-07	2.14E-07	2.49E-07
2.48E-05	1.73E-04	3.83E-07	1.99E-07	2.49E-07
2.74E-05	1.92E-04	4.10E-07	1.96E-07	2.33E-07
4.15E-05	2.02E-04	3.98E-07	2.00E-07	2.41E-07
7.37E-05	1.89E-04	3.77E-07	1.90E-07	2.42E-07
7.81E-05	2.12E-04	3.75E-07	1.96E-07	2.35E-07
9.11E-05	2.45E-04	4.74E-07	1.98E-07	2.33E-07
1.70E-03	1.81E-03	7.47E-07	1.66E-07	3.01E-07

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 2, PASS C

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.270	130.9	55.	-89.3	20.	117.1	0.195	199.3	6.33E+03	-71.9	1.64E+02	97.3
4	0.033	1.011	201.9	48.	195.3	25.	105.6	0.688	208.7	9.83E+02	185.3	1.52E+02	116.0
5	0.046	0.139	125.7	90.	-87.0	44.	105.8	0.085	127.3	1.16E+02	-85.0	2.44E+02	102.6
6	0.064	0.184	191.9	60.	-54.9	60.	96.4	0.203	114.1	85.	-76.7	3.68E+02	121.2
7	0.089	0.097	123.4	51.	-85.0	49.	106.6	0.083	143.8	61.	-81.6	1.15E+02	103.4
8	0.126	0.048	158.6	41.	-77.7	62.	103.9	0.083	151.2	43.	-78.4	82.	104.5
9	0.177	0.093	113.5	34.	-81.9	31.	110.3	0.075	150.8	36.	-76.5	67.	105.1
10	0.250	0.215	196.6	25.	-65.8	16.	96.7	0.109	142.1	27.	-75.5	54.	109.3
11	0.351	0.128	175.8	22.	-71.5	10.	109.7	0.094	138.5	23.	-72.6	53.	110.4
12	0.493	0.045	170.4	15.	-73.1	9.7	108.1	0.074	126.6	19.	-70.3	61.	105.0
13	0.689	0.118	100.2	8.2	-68.2	13.	111.9	0.107	128.2	15.	-71.4	41.	113.5
14	0.985	0.124	113.5	7.4	-64.6	13.	112.1	0.102	136.7	12.	-65.6	48.	111.8

AVERAGE ROTATION ANGLE = 330.2
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 327.3

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.077	69.0	7.6	-59.3	1.4	96.2	0.181	45.8	1.54E+02	-53.3	1.57E+02	93.5
4	0.033	0.055	69.9	18.	-63.2	4.9	102.1	0.114	45.7	1.58E+02	-61.1	1.21E+02	100.5
5	0.046	0.063	73.0	29.	-65.5	5.3	106.8	0.128	47.5	1.36E+02	-64.7	1.42E+02	106.1
6	0.064	0.040	73.8	36.	-67.9	10.	110.4	0.122	81.4	1.12E+02	-69.1	1.30E+02	111.3
7	0.089	0.168	70.0	26.	-66.6	9.4	107.1	0.139	50.8	97.	-69.0	1.43E+02	108.6
8	0.126	0.084	162.3	27.	-72.0	50.	108.5	0.143	48.2	77.	-69.8	1.02E+02	106.9
9	0.177	0.172	63.6	24.	-65.7	9.5	104.6	0.173	52.1	70.	-70.6	1.29E+02	107.4
10	0.250	0.362	96.0	7.6	-56.6	15.	103.7	0.187	16.9	75.	-67.0	2.18E+02	112.1
11	0.351	0.134	85.4	5.0	-75.9	11.	110.8	0.162	88.8	4.57E+02	-72.3	73.	106.8
12	0.493	0.216	62.4	6.5	-72.7	11.	115.2	0.237	87.4	3.80E+02	-62.6	1.06E+02	105.2
13	0.689	0.119	117.4	9.7	-74.1	13.	107.9	0.167	97.6	5.83E+02	-70.4	74.	103.9
14	0.985	0.252	95.0	3.4	-115.9	11.	110.8	0.405	79.3	3.32E+05	-104.1	3.64E+02	0.8

AVERAGE ROTATION ANGLE = 86.5

AVERAGE ROTATION ANGLE = 61.8

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 2, PASS C

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.023	0.43	0.45	0.01	0.44	0.39	0.00
4	0.033	0.66	0.24	0.03	0.55	0.50	0.05
5	0.046	0.88	0.78	0.01	0.64	0.55	0.07
6	0.064	0.76	0.79	0.03	0.71	0.63	0.09
7	0.087	0.95	0.83	0.03	0.70	0.56	0.09
8	0.126	0.98	0.94	0.02	0.88	0.78	0.18
9	0.177	0.97	0.87	0.02	0.75	0.58	0.11
10	0.250	0.96	0.80	0.03	0.66	0.52	0.02
11	0.351	0.95	0.69	0.05	0.47	0.47	0.07
12	0.493	0.87	0.70	0.06	0.44	0.49	0.19
13	0.689	0.89	0.75	0.08	0.54	0.41	0.14
14	0.985	0.92	0.74	0.07	0.12	0.15	0.17

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
3	0.41	0.48	0.19	0.63	0.09	0.28	0.01	0.26	0.19
4	0.36	0.37	0.19	0.56	0.06	0.19	0.01	0.25	0.12
5	0.74	0.60	0.33	0.87	0.17	0.47	0.03	0.49	0.29
6	0.59	0.55	0.36	0.76	0.20	0.48	0.01	0.57	0.34
7	0.74	0.64	0.59	0.79	0.26	0.46	0.02	0.51	0.42
8	0.76	0.66	0.45	0.86	0.37	0.57	0.01	0.77	0.49
9	0.69	0.66	0.59	0.77	0.33	0.49	0.03	0.58	0.51
10	0.63	0.71	0.81	0.58	0.40	0.49	0.00	0.44	0.68
11	0.50	0.50	0.73	0.23	0.19	0.48	0.02	0.26	0.67
12	0.51	0.34	0.56	0.32	0.15	0.58	0.09	0.47	0.62
13	0.39	0.44	0.61	0.37	0.32	0.50	0.13	0.47	0.67
14	0.14	0.25	0.39	0.05	0.29	0.65	0.04	0.58	0.78

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 131853.BE
RECORDING COMPLETED: 22:59:05 02-Sep-81

SETUP 13 GLS-18 GLS, BAND 3, PASS B

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 10.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 113 DATA SEGMENTS, 102.40 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	141.7 (0.3)	15.7 (6.13E-02)	-72.9 (0.1)	29.6 (0.19)	111.0 (0.2)
4	0.649	140.9 (0.3)	12.6 (5.92E-02)	-69.6 (0.1)	25.1 (0.20)	112.3 (0.2)
5	0.906	142.0 (0.4)	10.1 (5.51E-02)	-66.1 (0.2)	21.0 (0.21)	116.0 (0.3)
6	1.265	144.0 (0.5)	8.30 (5.79E-02)	-60.6 (0.2)	17.5 (0.20)	121.6 (0.3)
7	1.756	142.5 (0.7)	7.49 (8.21E-02)	-53.2 (0.3)	16.5 (0.28)	126.5 (0.5)
8	2.438	145.1 (1.1)	6.76 (0.13)	-47.2 (0.6)	16.4 (0.49)	130.7 (0.9)
9	3.395	140.8 (1.6)	7.44 (0.21)	-37.9 (0.8)	16.6 (0.72)	138.5 (1.3)
10	4.698	148.6 (2.2)	7.86 (0.36)	-32.1 (1.3)	17.4 (0.87)	141.9 (1.5)
11	6.451	149.8 (4.8)	10.8 (0.70)	-27.2 (1.8)	18.0 (1.4)	146.3 (2.3)
12	8.981	139.7 (3.4)	12.5 (0.76)	-27.6 (1.7)	27.8 (2.0)	141.7 (2.3)

AVERAGE ROTATION ANGLE ON FILE = 323.5
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	43.6 (4.3)	31.2 (0.41)	-68.7 (0.3)	32.4 (0.47)	106.8 (0.4)
4	0.649	21.9 (5.1)	26.5 (0.39)	-65.7 (0.4)	23.7 (0.42)	110.9 (0.5)
5	0.906	35.9 (13.7)	26.0 (1.4)	-65.4 (2.0)	20.3 (0.82)	115.1 (1.8)
6	1.265	44.9 (8.2)	13.8 (1.1)	-62.3 (2.3)	18.6 (0.77)	119.8 (1.3)
7	1.756	21.7 (16.0)	16.2 (0.64)	-58.6 (2.0)	12.7 (0.89)	125.2 (2.0)
8	2.438	176.6 (13.8)	14.9 (0.67)	-49.1 (1.3)	13.4 (1.6)	138.3 (3.3)
9	3.395	41.4 (9.6)	15.6 (2.4)	-52.4 (4.7)	10.8 (1.4)	148.2 (2.6)
10	4.698	54.8 (7.7)	17.3 (2.9)	-47.6 (4.8)	16.0 (1.6)	146.2 (2.8)
11	6.451	34.3 (14.2)	15.3 (3.4)	-54.3 (7.9)	29.2 (2.9)	140.0 (4.0)
12	8.981	57.7 (2.5)	11.2 (2.8)	-69.2 (7.1)	39.6 (3.5)	148.4 (2.6)

AVERAGE ROTATION ANGLE ON FILE = 53.3

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 3, PASS B

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.291 (0.024)	-81.9 (6.8)	-22.8 (4.7)	0.048 (0.033)	0.100 (0.002)	0.752 (0.016)
4	0.649	0.229 (0.037)	-149.3 (21.5)	55.2 (16.8)	0.129 (0.025)	0.100 (0.002)	0.790 (0.019)
5	0.906	0.217 (0.049)	-142.1 (7.3)	52.0 (12.9)	0.014 (0.027)	0.104 (0.003)	0.729 (0.020)
6	1.265	0.347 (0.033)	-76.4 (11.8)	7.0 (6.5)	0.154 (0.046)	0.094 (0.003)	0.632 (0.022)
7	1.756	0.281 (0.039)	-88.8 (14.9)	-71.1 (10.3)	0.108 (0.054)	0.102 (0.005)	0.708 (0.034)
8	2.438	0.199 (0.049)	-90.2 (22.5)	-38.8 (13.8)	0.046 (0.071)	0.130 (0.008)	0.623 (0.047)
9	3.395	0.402 (0.101)	-167.5 (5.3)	168.7 (14.5)	0.021 (0.036)	0.108 (0.013)	0.801 (0.089)
10	4.698	0.295 (0.103)	-141.5 (14.2)	-80.5 (24.0)	0.087 (0.054)	0.134 (0.018)	0.439 (0.089)
11	6.451	0.292 (0.129)	-172.5 (9.2)	-50.6 (25.3)	0.004 (0.047)	0.083 (0.027)	0.389 (0.188)
12	8.981	0.301 (0.097)	-161.9 (9.9)	-112.2 (21.5)	0.086 (0.034)	0.204 (0.023)	0.902 (0.146)

AVERAGE TIPPER STRIKE ON FILE =-127.2

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.094 (0.003)	92.0 (2.5)	169.2 (2.0)	0.019 (0.004)	0.108 (0.005)	0.430 (0.126)
4	0.649	0.095 (0.004)	96.5 (3.8)	169.7 (2.3)	0.037 (0.005)	0.124 (0.007)	0.768 (0.242)
5	0.906	0.098 (0.004)	111.3 (6.4)	179.3 (3.8)	0.052 (0.005)	0.103 (0.020)	0.580 (0.330)
6	1.265	0.103 (0.004)	145.0 (3.6)	-162.0 (2.1)	0.040 (0.005)	0.171 (0.024)	0.317 (0.274)
7	1.756	0.092 (0.004)	137.8 (5.7)	-165.3 (3.0)	0.042 (0.006)	0.155 (0.025)	0.858 (0.514)
8	2.438	0.099 (0.005)	144.2 (5.2)	-160.4 (2.7)	0.023 (0.008)	0.168 (0.038)	9.001 (38.778)
9	3.395	0.112 (0.005)	131.8 (5.2)	-158.8 (2.5)	0.000 (0.006)	0.089 (0.048)	0.576 (0.226)
10	4.698	0.127 (0.007)	134.9 (6.3)	-151.5 (3.3)	0.023 (0.013)	0.140 (0.059)	0.573 (0.355)
11	6.451	0.178 (0.016)	157.9 (6.3)	-165.0 (5.0)	0.051 (0.016)	0.206 (0.073)	0.597 (0.347)
12	8.981	0.162 (0.012)	130.6 (11.8)	-176.0 (6.7)	0.080 (0.019)	0.437 (0.072)	0.723 (0.129)

AVERAGE TIPPER STRIKE ON FILE = 128.2

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 3, PASS B

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	1.81E-04	2.73E-04	9.77E-07	9.92E-07	8.60E-08
4	0.649	1.24E-04	1.90E-04	1.17E-06	1.18E-06	5.12E-08
5	0.906	1.12E-04	1.53E-04	1.65E-06	1.86E-06	4.63E-08
6	1.265	1.07E-04	1.62E-04	2.82E-06	3.07E-06	3.59E-07
7	1.756	9.66E-05	1.60E-04	4.28E-06	4.23E-06	4.37E-07
8	2.438	9.36E-05	1.31E-04	5.19E-06	6.11E-06	2.02E-07
9	3.395	1.04E-04	1.94E-04	1.08E-05	9.00E-06	5.24E-07
10	4.698	1.19E-04	2.46E-04	1.64E-05	1.22E-05	5.00E-07
11	6.451	1.76E-04	2.99E-04	2.48E-05	1.87E-05	2.10E-07
12	8.981	6.47E-04	9.04E-04	8.69E-05	6.14E-05	1.86E-06

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
4.87E-06	9.51E-06	1.83E-07	3.78E-08	1.72E-05
4.54E-06	1.29E-05	1.83E-07	4.92E-08	2.04E-05
5.82E-06	1.53E-05	2.26E-07	6.90E-08	2.77E-05
7.43E-06	2.07E-05	3.67E-07	1.50E-07	3.60E-05
1.19E-05	3.46E-05	6.75E-07	2.81E-07	4.81E-05
1.84E-05	5.23E-05	1.41E-06	6.76E-07	6.06E-05
2.65E-05	5.72E-05	2.98E-06	1.34E-06	7.78E-05
3.74E-05	6.76E-05	6.21E-06	2.97E-06	1.09E-04
4.76E-05	8.65E-05	1.30E-05	7.42E-06	1.21E-04
9.14E-05	1.28E-04	2.74E-05	1.12E-05	1.82E-04

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	1.77E-04	2.90E-04	8.50E-07	5.00E-07	6.68E-09
4	0.649	1.20E-04	1.92E-04	1.07E-06	5.62E-07	8.95E-09
5	0.906	1.07E-04	1.85E-04	1.69E-06	6.96E-07	1.42E-08
6	1.265	8.13E-05	2.09E-04	2.92E-06	1.30E-06	2.85E-08
7	1.756	7.07E-05	1.60E-04	4.31E-06	1.47E-06	3.57E-08
8	2.438	5.26E-05	1.82E-04	6.43E-06	1.59E-06	7.10E-08
9	3.395	4.06E-05	1.53E-04	1.03E-05	2.04E-06	1.60E-07
10	4.698	1.06E-04	2.19E-04	1.34E-05	4.51E-06	3.19E-07
11	6.451	1.64E-04	4.77E-04	2.25E-05	5.86E-06	6.46E-07
12	8.981	2.50E-04	1.16E-03	7.58E-05	2.25E-05	2.37E-06

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
5.05E-05	2.69E-04	3.98E-07	2.98E-07	2.54E-07
6.49E-05	2.75E-04	3.52E-07	2.85E-07	2.58E-07
1.11E-03	1.27E-03	4.47E-07	3.06E-07	2.97E-07
1.06E-03	1.24E-03	5.55E-07	2.97E-07	3.37E-07
5.45E-04	7.61E-04	8.68E-07	5.54E-07	4.17E-07
6.31E-04	8.84E-04	1.07E-06	5.75E-07	5.51E-07
7.52E-04	9.09E-04	2.38E-06	2.62E-06	8.41E-07
7.45E-04	1.08E-03	4.21E-06	1.49E-06	1.39E-06
7.53E-04	1.14E-03	6.21E-06	2.84E-06	2.37E-06
8.47E-04	1.56E-03	1.15E-05	2.39E-06	4.41E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 3, PASS B

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.082	131.6	14.	-73.3	21.	111.6	0.101	140.2	16.	-73.1	32.	111.3
4	0.649	0.076	135.7	12.	-70.1	18.	113.3	0.102	139.3	13.	-69.9	29.	113.1
5	0.906	0.078	138.0	9.5	-66.5	15.	116.5	0.108	138.5	11.	-66.4	27.	116.4
6	1.265	0.080	141.4	7.6	-60.5	13.	122.1	0.112	138.9	9.1	-60.5	25.	122.1
7	1.756	0.074	138.3	6.7	-53.3	12.	125.0	0.128	136.1	8.9	-54.1	29.	125.3
8	2.438	0.068	138.7	5.9	-44.8	8.7	131.7	0.158	134.5	8.9	-46.2	48.	132.4
9	3.395	0.045	138.7	5.9	-35.6	7.9	133.2	0.147	127.1	9.9	-37.2	51.	134.3
10	4.698	0.026	144.7	5.6	-29.1	6.9	134.7	0.152	125.3	12.	-31.2	60.	136.2
11	6.451	0.095	105.0	6.9	-30.0	3.6	146.4	0.197	122.4	14.	-25.8	1.07E+02	144.0
12	8.981	0.169	119.5	12.	-31.4	6.5	143.3	0.192	124.0	19.	-24.6	70.	138.9

AVERAGE ROTATION ANGLE = 313.2

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 312.6

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.102	26.7	12.	-68.6	15.	107.4	0.148	45.0	50.	-69.0	1.21E+02	107.4
4	0.649	0.107	12.7	11.	-65.5	14.	110.2	0.164	41.8	57.	-66.6	1.43E+02	111.0
5	0.906	0.071	176.5	11.	-66.6	14.	116.8	0.207	166.0	1.01E+02	-67.1	5.15E+03	117.0
6	1.265	0.107	22.4	9.3	-62.6	13.	120.6	0.266	75.2	4.46E+03	-61.0	57.	124.9
7	1.756	0.168	75.9	7.7	-53.8	9.9	123.2	0.199	76.6	1.77E+03	-56.7	65.	127.2
8	2.438	0.124	18.4	7.1	-47.4	11.	134.9	0.349	160.5	51.	-41.4	3.26E+03	132.1
9	3.395	0.226	39.8	2.3	-67.4	6.5	150.3	0.420	150.8	1.26E+02	-10.0	4.78E+03	115.9
10	4.698	0.035	67.3	12.	-47.3	6.8	150.5	0.306	69.4	1.62E+03	-52.5	1.39E+02	164.0
11	6.451	0.199	98.0	22.	-40.1	4.5	121.2	0.635	53.7	1.81E+03	-79.6	3.80E+02	168.3
12	8.981	0.151	34.6	11.	-58.9	21.	146.6	0.601	57.4	6.17E+02	-73.5	1.87E+02	167.5

AVERAGE ROTATION ANGLE = 57.2

AVERAGE ROTATION ANGLE = 89.6

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 3, PASS B

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.464	0.97	0.90	0.06	0.70	0.59	0.13
4	0.649	0.96	0.89	0.05	0.66	0.55	0.16
5	0.906	0.96	0.89	0.04	0.25	0.31	0.20
6	1.265	0.94	0.88	0.09	0.24	0.34	0.27
7	1.756	0.91	0.84	0.09	0.29	0.38	0.28
8	2.438	0.86	0.74	0.04	0.24	0.37	0.35
9	3.395	0.83	0.77	0.07	0.15	0.33	0.40
10	4.698	0.78	0.75	0.05	0.31	0.35	0.48
11	6.451	0.75	0.70	0.02	0.38	0.48	0.47
12	8.981	0.87	0.78	0.12	0.47	0.53	0.61

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.59	0.46	0.59	0.56	0.22	0.59	0.02	0.68	0.62
0.52	0.42	0.51	0.50	0.20	0.64	0.01	0.73	0.61
0.23	0.25	0.36	0.23	0.10	0.70	0.00	0.77	0.67
0.24	0.21	0.37	0.21	0.14	0.71	0.05	0.78	0.70
0.28	0.22	0.38	0.25	0.05	0.73	0.05	0.80	0.70
0.27	0.12	0.34	0.25	0.12	0.76	0.06	0.77	0.70
0.26	0.09	0.29	0.26	0.06	0.77	0.02	0.77	0.53
0.30	0.19	0.22	0.30	0.04	0.72	0.07	0.74	0.52
0.42	0.24	0.31	0.39	0.12	0.70	0.01	0.71	0.48
0.56	0.35	0.52	0.46	0.36	0.81	0.08	0.81	0.64

WOODWARD-CLYDE CONSULTANTS

GLASS MOUNTAIN, CA.

RESULTS FROM CROSSPOWER FILE: 1318C5.DCK
RECORDING COMPLETED: 05:45:15 03-Sep-81

SETUP 13 GLS-18 GLS, BAND 5, PASS D

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 37 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	134.7 (4.6)	9.33 (0.51)	-34.9 (1.6)	17.2 (1.1)	140.9 (1.8)
3	4.635	148.7 (2.0)	8.43 (0.32)	-32.0 (1.1)	18.5 (0.61)	143.7 (1.0)
4	6.486	149.5 (2.1)	10.4 (0.33)	-30.3 (1.0)	20.4 (0.41)	143.4 (0.7)
5	9.062	143.3 (2.0)	13.0 (0.40)	-24.4 (0.9)	23.8 (0.60)	142.8 (0.8)
6	12.648	148.3 (2.6)	18.2 (0.41)	-24.4 (0.6)	26.2 (0.60)	145.3 (0.7)
7	17.561	178.1 (2.9)	21.7 (0.35)	-36.6 (0.6)	32.4 (0.45)	148.8 (0.6)
8	24.381	176.5 (1.6)	22.0 (0.29)	-37.7 (0.5)	37.8 (0.32)	145.5 (0.4)
9	33.945	184.4 (1.0)	25.3 (0.30)	-42.9 (0.3)	40.6 (0.39)	141.3 (0.3)
10	46.984	176.8 (0.8)	23.9 (0.24)	-48.1 (0.3)	41.1 (0.39)	135.2 (0.3)
11	64.506	178.9 (0.4)	21.7 (0.19)	-52.2 (0.2)	41.2 (0.28)	130.7 (0.2)
12	89.811	176.5 (0.6)	19.3 (0.21)	-54.3 (0.3)	36.3 (0.27)	126.1 (0.2)
13	129.012	176.0 (0.5)	16.5 (0.19)	-53.6 (0.3)	30.9 (0.19)	123.2 (0.2)
14	186.956	170.8 (0.8)	14.3 (0.21)	-52.5 (0.4)	26.1 (0.23)	124.3 (0.3)
15	256.000	171.9 (1.4)	13.4 (0.33)	-49.9 (0.7)	23.5 (0.32)	125.4 (0.4)
16	341.333	171.0 (2.8)	13.9 (0.44)	-47.4 (1.0)	21.7 (0.44)	127.4 (0.7)
17	512.000	183.4 (3.5)	14.9 (0.48)	-45.2 (0.9)	21.2 (0.51)	132.9 (0.7)

AVERAGE ROTATION ANGLE ON FILE = 346.8
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	26.0 (4.8)	16.4 (1.5)	-49.5 (2.7)	14.8 (0.67)	145.7 (1.3)
3	4.635	36.1 (3.5)	17.1 (1.3)	-47.6 (2.1)	17.5 (0.66)	148.8 (1.1)
4	6.486	34.5 (4.2)	18.2 (1.2)	-42.3 (1.6)	24.4 (1.2)	151.1 (1.4)
5	9.062	24.9 (4.4)	23.6 (1.3)	-41.3 (1.5)	26.9 (1.5)	152.9 (1.6)
6	12.648	33.0 (2.6)	21.1 (1.1)	-43.4 (1.5)	35.4 (1.4)	151.6 (1.1)
7	17.561	32.8 (2.1)	25.0 (0.79)	-41.2 (0.8)	41.3 (1.3)	149.4 (1.0)
8	24.381	33.2 (1.8)	27.8 (0.58)	-41.3 (0.6)	46.3 (1.5)	143.9 (0.9)
9	33.945	33.4 (1.5)	26.1 (0.55)	-46.6 (0.6)	53.4 (1.7)	137.5 (0.9)
10	46.984	33.4 (1.8)	26.2 (0.53)	-50.7 (0.6)	47.6 (1.4)	131.3 (0.9)
11	64.506	27.6 (1.1)	24.7 (0.30)	-52.8 (0.4)	46.2 (1.3)	129.6 (0.8)
12	89.811	32.5 (1.8)	23.4 (0.42)	-55.1 (0.5)	38.5 (0.95)	124.9 (0.7)
13	129.012	29.8 (1.2)	19.3 (0.32)	-55.4 (0.5)	33.1 (0.62)	122.8 (0.5)
14	186.956	33.0 (2.9)	16.9 (0.39)	-54.6 (0.8)	25.7 (0.57)	124.6 (0.8)
15	256.000	43.5 (2.9)	14.6 (0.53)	-54.5 (1.1)	23.8 (0.68)	129.7 (0.8)
16	341.333	48.0 (3.5)	14.1 (0.57)	-51.1 (1.2)	22.8 (0.66)	131.3 (0.8)
17	512.000	42.4 (2.3)	13.8 (0.63)	-46.1 (1.3)	27.7 (0.93)	134.6 (1.0)

AVERAGE ROTATION ANGLE ON FILE = 34.0

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 5, PASS D

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	1.562 (0.600)	5.5 (8.3)	-103.4 (24.0)	0.332 (0.165)	0.122 (0.021)	1.217 (0.392)
3	4.635	0.489 (0.307)	89.3 (****)	65.4 (****)	0.334 (0.378)	0.125 (0.012)	0.438 (0.080)
4	6.486	0.747 (0.267)	165.0 (22.1)	-123.5 (22.4)	0.207 (0.242)	0.116 (0.008)	0.615 (0.060)
5	9.062	1.308 (0.313)	186.3 (17.2)	167.7 (13.7)	0.336 (0.342)	0.144 (0.009)	0.778 (0.069)
6	12.648	0.479 (0.257)	188.3 (37.2)	-137.7 (32.5)	0.158 (0.241)	0.135 (0.007)	0.712 (0.066)
7	17.561	0.624 (0.159)	155.0 (13.3)	92.0 (14.9)	0.063 (0.142)	0.121 (0.005)	0.906 (0.059)
8	24.381	0.066 (0.077)	91.9 (97.2)	16.7 (66.8)	0.015 (0.101)	0.136 (0.004)	0.833 (0.042)
9	33.945	0.244 (0.088)	139.1 (18.2)	-156.0 (20.8)	0.073 (0.060)	0.134 (0.004)	1.111 (0.065)
10	46.984	0.129 (0.071)	191.3 (34.9)	179.0 (31.6)	0.021 (0.074)	0.155 (0.004)	0.682 (0.037)
11	64.506	0.263 (0.110)	139.8 (11.7)	-75.4 (24.2)	0.022 (0.052)	0.148 (0.003)	0.777 (0.025)
12	89.811	0.122 (0.073)	171.7 (26.4)	-96.0 (37.7)	0.026 (0.050)	0.158 (0.004)	0.655 (0.029)
13	129.012	0.190 (0.051)	123.8 (14.5)	143.3 (15.9)	0.050 (0.041)	0.170 (0.003)	0.630 (0.026)
14	186.956	0.108 (0.045)	113.2 (37.3)	112.6 (34.6)	0.047 (0.043)	0.194 (0.005)	0.444 (0.032)
15	256.000	0.113 (0.064)	168.2 (25.0)	-76.1 (38.2)	0.033 (0.038)	0.190 (0.008)	0.494 (0.054)
16	341.333	0.141 (0.062)	164.9 (14.0)	-159.5 (25.1)	0.016 (0.033)	0.203 (0.011)	0.501 (0.103)
17	512.000	0.204 (0.045)	168.4 (6.5)	178.9 (12.6)	0.003 (0.023)	0.169 (0.012)	1.066 (0.259)

AVERAGE TIPPER STRIKE ON FILE = 141.4

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.141 (0.020)	-24.0 (6.1)	26.0 (8.3)	0.002 (0.015)	0.163 (0.029)	0.548 (0.211)
3	4.635	0.084 (0.016)	-29.6 (14.6)	2.1 (11.3)	0.026 (0.017)	0.185 (0.022)	0.181 (0.124)
4	6.486	0.159 (0.018)	-41.4 (6.8)	18.3 (6.6)	0.036 (0.017)	0.142 (0.021)	0.418 (0.130)
5	9.062	0.158 (0.019)	-53.5 (8.2)	21.0 (6.7)	0.024 (0.022)	0.076 (0.024)	0.586 (0.204)
6	12.648	0.161 (0.012)	-61.5 (6.5)	5.0 (4.4)	0.018 (0.018)	0.088 (0.020)	0.273 (0.095)
7	17.561	0.177 (0.010)	-48.3 (3.7)	-9.8 (3.3)	0.016 (0.011)	0.078 (0.013)	0.299 (0.076)
8	24.381	0.166 (0.009)	-59.7 (2.9)	-13.2 (3.2)	0.006 (0.008)	0.068 (0.010)	0.289 (0.064)
9	33.945	0.146 (0.010)	-56.5 (3.5)	-25.0 (4.0)	0.008 (0.009)	0.073 (0.010)	0.293 (0.052)
10	46.984	0.118 (0.009)	-58.6 (4.1)	-18.3 (4.5)	0.005 (0.008)	0.055 (0.009)	0.296 (0.065)
11	64.506	0.101 (0.009)	-60.4 (2.9)	-23.1 (5.0)	0.003 (0.005)	0.065 (0.007)	0.474 (0.047)
12	89.811	0.092 (0.008)	-66.1 (4.4)	-32.0 (5.1)	0.013 (0.007)	0.044 (0.008)	0.338 (0.064)
13	129.012	0.082 (0.006)	-59.5 (5.1)	-13.6 (4.0)	0.032 (0.005)	0.046 (0.007)	0.396 (0.048)
14	186.956	0.093 (0.007)	-38.4 (3.6)	-1.9 (4.4)	0.017 (0.005)	0.025 (0.009)	0.498 (0.085)
15	256.000	0.096 (0.011)	-31.3 (4.3)	10.9 (6.3)	0.017 (0.007)	0.026 (0.014)	0.257 (0.097)
16	341.333	0.112 (0.010)	-27.9 (3.2)	10.9 (5.1)	0.010 (0.006)	0.026 (0.016)	0.325 (0.127)
17	512.000	0.103 (0.011)	-30.2 (3.7)	-2.9 (5.9)	0.002 (0.007)	0.071 (0.016)	0.164 (0.079)

AVERAGE TIPPER STRIKE ON FILE = -46.7

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 5, PASS D

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	1.43E-04	4.24E-04	2.18E-05	8.71E-06	5.90E-06
3	4.635	2.55E-04	7.00E-04	4.13E-05	2.43E-05	6.85E-06
4	6.486	4.17E-04	1.61E-03	1.08E-04	4.27E-05	2.23E-05
5	9.062	8.38E-04	2.26E-03	1.89E-04	9.29E-05	1.77E-04
6	12.648	4.27E-03	7.13E-03	7.52E-04	4.83E-04	6.37E-05
7	17.561	1.53E-02	3.25E-02	3.68E-03	1.97E-03	7.28E-04
8	24.381	3.27E-02	1.47E-01	1.93E-02	5.72E-03	5.42E-05
9	33.945	7.70E-02	2.66E-01	4.67E-02	1.77E-02	1.24E-03
10	46.984	1.83E-01	4.51E-01	1.06E-01	6.62E-02	1.60E-03
11	64.506	4.23E-01	2.62E+00	8.56E-01	2.95E-01	1.46E-02
12	89.811	8.10E-01	3.86E+00	2.01E+00	6.90E-01	9.74E-03
13	129.012	2.54E+00	1.12E+01	9.76E+00	3.36E+00	1.71E-01
14	186.956	5.32E+00	2.19E+01	3.20E+01	1.21E+01	1.87E-01
15	256.000	9.72E+00	5.13E+01	1.15E+02	3.32E+01	3.61E-01
16	341.333	1.65E+01	8.60E+01	2.74E+02	7.29E+01	1.44E+00
17	512.000	5.21E+01	2.11E+02	1.07E+03	2.72E+02	1.20E+01

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
5.47E-04	2.79E-04	1.68E-06	1.43E-06	4.71E-03
3.45E-04	2.18E-04	3.93E-06	2.45E-06	7.27E-03
3.73E-04	2.71E-04	7.12E-06	3.40E-06	1.53E-02
3.89E-04	3.39E-04	1.19E-05	1.03E-05	3.24E-02
4.42E-04	4.90E-04	3.83E-05	4.20E-05	7.04E-02
5.87E-04	2.43E-04	1.91E-04	9.25E-05	1.24E-01
1.04E-03	1.62E-03	2.47E-04	2.35E-04	1.28E-01
5.02E-04	1.45E-03	6.59E-04	5.86E-04	1.81E-01
3.57E-03	5.72E-03	4.22E-04	4.91E-04	4.05E-01
3.18E-03	6.24E-03	1.95E-03	8.32E-04	1.81E+00
1.12E-02	1.58E-02	4.00E-03	-1.02E-04	2.08E+00
3.59E-02	3.39E-02	1.04E-02	-4.67E-03	5.00E+00
6.45E-02	6.50E-02	8.01E-02	-6.37E-03	9.62E+00
1.12E-01	2.23E-01	1.59E-01	5.87E-02	1.89E+01
4.83E-01	9.58E-01	6.19E-01	-3.00E-02	4.00E+01
1.55E+00	3.85E+00	-8.74E-01	8.84E-01	8.78E+01

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	1.03E-04	2.90E-04	1.35E-05	3.35E-06	2.76E-07
3	4.635	1.63E-04	5.94E-04	3.26E-05	6.38E-06	5.52E-07
4	6.486	5.58E-04	1.13E-03	6.20E-05	3.59E-05	7.89E-06
5	9.062	1.19E-03	1.99E-03	1.37E-04	8.41E-05	3.47E-05
6	12.648	2.87E-03	8.51E-03	6.25E-04	3.01E-04	1.14E-04
7	17.561	1.36E-02	2.67E-02	2.28E-03	1.80E-03	2.70E-04
8	24.381	6.18E-02	6.03E-02	6.58E-03	1.02E-02	6.24E-04
9	33.945	1.12E-01	1.39E-01	1.85E-02	2.68E-02	1.10E-03
10	46.984	2.01E-01	2.91E-01	5.88E-02	7.06E-02	1.83E-03
11	64.506	1.25E+00	6.50E-01	1.92E-01	6.22E-01	3.95E-03
12	89.811	1.65E+00	1.37E+00	6.47E-01	1.26E+00	9.60E-03
13	129.012	4.67E+00	4.42E+00	3.49E+00	6.00E+00	3.50E-02
14	186.956	8.92E+00	9.02E+00	1.29E+01	2.02E+01	1.34E-01
15	256.000	2.05E+01	1.70E+01	3.62E+01	7.27E+01	3.86E-01
16	341.333	3.50E+01	2.74E+01	8.55E+01	1.73E+02	1.05E+00
17	512.000	8.57E+01	9.72E+01	3.86E+02	6.09E+02	3.43E+00

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
2.11E-03	1.42E-03	5.52E-06	2.70E-05	2.15E-05
1.85E-03	1.50E-03	2.46E-05	5.43E-05	4.81E-05
1.90E-03	1.53E-03	9.34E-05	1.14E-04	1.04E-04
1.86E-03	1.60E-03	2.57E-04	2.08E-04	2.00E-04
2.11E-03	1.73E-03	6.30E-04	4.31E-04	3.89E-04
2.15E-03	1.72E-03	1.32E-03	8.06E-04	7.45E-04
2.70E-03	2.15E-03	2.72E-03	1.55E-03	1.49E-03
3.72E-03	2.14E-03	5.65E-03	3.05E-03	3.25E-03
8.08E-03	8.53E-03	1.02E-02	5.67E-03	6.20E-03
1.63E-02	1.10E-02	1.98E-02	1.21E-02	1.27E-02
3.27E-02	2.29E-02	3.69E-02	3.06E-02	2.72E-02
8.90E-02	5.77E-02	7.60E-02	8.23E-02	6.29E-02
2.45E-01	1.74E-01	1.40E-01	2.42E-01	1.80E-01
5.80E-01	3.01E-01	2.72E-01	8.27E-01	4.80E-01
1.54E+00	7.94E-01	2.57E-01	2.24E+00	1.08E+00
4.20E+00	3.85E+00	8.12E-02	1.23E+01	5.30E+00

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 5, PASS D

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.132	149.4	6.4	-32.5	13.	139.1	0.093	181.8	8.89E+02	-34.9	31.	140.5
3	4.635	0.117	147.6	7.0	-31.5	15.	142.2	0.034	101.6	22.	-32.5	1.31E+02	143.0
4	6.486	0.147	146.1	8.6	-29.1	19.	142.5	0.139	190.6	62.	-36.6	23.	150.7
5	9.062	0.156	147.5	10.	-25.5	21.	144.1	0.146	114.5	24.	-25.4	49.	144.4
6	12.648	0.125	154.8	15.	-26.4	23.	146.3	0.128	134.1	24.	-24.1	34.	144.6
7	17.561	0.133	175.7	20.	-35.9	29.	148.8	0.130	183.2	25.	-36.7	32.	149.8
8	24.381	0.141	173.3	20.	-37.6	37.	144.7	0.135	179.2	24.	-38.6	39.	145.7
9	33.945	0.136	179.9	24.	-42.0	39.	140.6	0.136	182.8	26.	-42.4	41.	140.9
10	46.984	0.154	176.7	24.	-48.2	41.	135.4	0.153	177.6	25.	-48.2	42.	135.4
11	64.506	0.151	178.2	22.	-52.0	41.	130.6	0.153	178.6	22.	-52.1	41.	130.6
12	89.811	0.157	176.9	19.	-54.3	36.	126.2	0.160	176.9	20.	-54.2	37.	126.1
13	129.012	0.171	176.0	17.	-53.7	31.	123.2	0.172	176.0	17.	-53.7	31.	123.2
14	186.956	0.195	170.6	14.	-52.5	26.	124.4	0.198	170.2	15.	-52.5	26.	124.3
15	256.000	0.190	171.3	13.	-49.8	23.	125.4	0.195	170.7	14.	-49.8	24.	125.3
16	341.333	0.203	170.8	14.	-47.3	22.	127.4	0.209	170.6	15.	-47.3	22.	127.3
17	512.000	0.174	182.1	15.	-44.9	21.	132.8	0.175	183.1	16.	-44.9	22.	132.9

AVERAGE ROTATION ANGLE = 347.3 — AVERAGE ROTATION ANGLE = 347.0

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	1.056	36.6	0.13	126.6	12.	147.0	0.507	31.7	8.38E+03	-70.4	8.41E+02	149.9
3	4.635	0.847	47.5	4.84E-02	-128.0	14.	152.1	0.167	48.6	2.10E+03	-22.6	1.95E+02	155.6
4	6.486	0.490	66.2	1.2	-29.1	13.	146.0	0.231	10.5	2.23E+02	-46.5	1.79E+02	177.5
5	9.062	0.328	77.5	1.9	-18.4	15.	143.0	0.145	5.1	1.62E+02	-39.3	94.	169.5
6	12.648	0.324	161.2	25.	-34.3	2.7	156.7	0.063	10.5	67.	-37.5	55.	161.8
7	17.561	0.147	77.2	10.	-28.0	30.	142.1	0.089	18.2	37.	-40.1	45.	154.1
8	24.381	0.053	2.9	29.	-41.9	20.	147.1	0.080	33.5	30.	-40.4	50.	145.6
9	33.945	0.107	50.3	21.	-46.5	34.	140.4	0.096	33.7	27.	-45.2	56.	140.2
10	46.984	0.082	53.4	21.	-48.5	36.	132.3	0.078	31.1	28.	-49.4	51.	133.8
11	64.506	0.052	30.0	24.	-53.2	37.	132.0	0.076	26.0	25.	-52.5	48.	131.6
12	89.811	0.036	37.8	22.	-55.6	34.	126.7	0.059	30.5	24.	-54.0	41.	125.4
13	129.012	0.043	31.5	19.	-55.4	32.	123.5	0.051	28.4	20.	-55.0	34.	123.1
14	186.956	0.020	34.7	16.	-54.5	25.	125.5	0.035	28.9	18.	-53.5	27.	124.6
15	256.000	0.035	42.1	14.	-54.0	24.	129.7	0.036	39.7	15.	-53.4	25.	129.2
16	341.333	0.035	45.4	14.	-50.4	23.	131.1	0.038	43.5	15.	-50.1	24.	130.8
17	512.000	0.088	40.7	13.	-45.6	28.	134.2	0.079	40.8	15.	-45.8	30.	134.3

AVERAGE ROTATION ANGLE = 52.2 — AVERAGE ROTATION ANGLE = 28.8

WOODWARD-CLYDE CONSULTANTS

SETUP 13 GLS-18 GLS, BAND 5, PASS D

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	3.311	0.42	0.75	0.02	0.09	0.38	0.13
3	4.635	0.62	0.83	0.03	0.13	0.43	0.68
4	6.486	0.70	0.90	0.03	0.26	0.44	0.82
5	9.062	0.79	0.91	0.08	0.37	0.44	0.88
6	12.648	0.92	0.94	0.03	0.49	0.65	0.86
7	17.561	0.96	0.97	0.07	0.76	0.78	0.80
8	24.381	0.97	0.99	0.02	0.90	0.83	0.79
9	33.945	0.98	0.99	0.09	0.92	0.87	0.74
10	46.984	0.99	0.99	0.07	0.94	0.91	0.66
11	64.506	0.99	1.00	0.09	0.98	0.94	0.63
12	89.811	0.99	1.00	0.07	0.98	0.96	0.58
13	129.012	0.99	1.00	0.18	0.98	0.98	0.63
14	186.956	0.99	1.00	0.14	0.98	0.99	0.68
15	256.000	0.99	1.00	0.14	0.98	0.99	0.69
16	341.333	0.99	0.99	0.19	0.97	0.99	0.73
17	512.000	0.98	0.99	0.35	0.97	0.98	0.67

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.14	0.12	0.06	0.25	0.12	0.57	0.01	0.67	0.21
3	0.28	0.20	0.14	0.33	0.07	0.49	0.01	0.56	0.40
4	0.33	0.38	0.26	0.42	0.37	0.32	0.01	0.46	0.44
5	0.44	0.37	0.31	0.49	0.34	0.31	0.00	0.42	0.50
6	0.70	0.36	0.57	0.67	0.32	0.44	0.01	0.53	0.69
7	0.79	0.48	0.61	0.74	0.46	0.47	0.01	0.64	0.70
8	0.76	0.66	0.41	0.83	0.67	0.34	0.03	0.76	0.66
9	0.80	0.64	0.52	0.79	0.67	0.43	0.00	0.77	0.74
10	0.81	0.60	0.64	0.70	0.62	0.47	0.02	0.75	0.82
11	0.63	0.84	0.54	0.79	0.84	0.28	0.06	0.85	0.86
12	0.77	0.75	0.52	0.84	0.77	0.45	0.04	0.88	0.81
13	0.78	0.70	0.46	0.82	0.72	0.37	0.07	0.89	0.77
14	0.80	0.71	0.57	0.82	0.73	0.49	0.02	0.89	0.81
15	0.81	0.78	0.56	0.85	0.81	0.50	0.02	0.92	0.80
16	0.76	0.76	0.50	0.83	0.79	0.41	0.11	0.92	0.76
17	0.82	0.66	0.41	0.83	0.71	0.40	0.19	0.93	0.67

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 2122C2.ACZ
RECORDING COMPLETED: 22:50:18 04-Sep-81

SETUP 21 GLS-22 GLS, BAND 2, PASS A

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 200.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 52 DATA SEGMENTS, 10.24 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	91.1 (4.7)	368. (8.6)	-75.7 (0.7)	258. (15.)	104.8 (1.7)
4	0.033	70.5 (4.9)	346. (34.)	-81.0 (2.8)	222. (8.4)	105.3 (1.1)
5	0.046	86.7 (3.2)	256. (6.4)	-73.8 (0.8)	188. (2.6)	102.5 (0.4)
6	0.064	85.4 (2.5)	189. (3.4)	-74.4 (0.5)	141. (1.6)	104.7 (0.3)
7	0.089	78.8 (2.4)	174. (3.8)	-74.5 (0.6)	127. (1.5)	106.5 (0.3)
8	0.126	79.4 (1.5)	127. (1.5)	-68.6 (0.3)	94.1 (0.77)	110.8 (0.2)
9	0.177	73.1 (3.0)	110. (2.8)	-67.4 (0.8)	79.1 (1.4)	115.0 (0.5)
10	0.250	77.4 (4.9)	92.4 (3.4)	-60.8 (1.2)	66.4 (1.8)	119.2 (0.9)
11	0.351	81.7 (7.7)	80.2 (3.4)	-56.7 (1.5)	57.8 (2.3)	123.0 (1.6)
12	0.493	51.5 (7.2)	60.8 (4.4)	-54.9 (2.0)	66.0 (2.6)	134.6 (1.0)
13	0.689	91.1 (3.8)	67.1 (6.0)	-29.4 (2.5)	65.5 (4.1)	125.5 (1.5)
14	0.985	82.0 (3.3)	90.9 (12.)	-19.9 (3.8)	63.4 (6.2)	126.1 (2.6)

AVERAGE ROTATION ANGLE ON FILE = 259.1
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	114.6 (5.8)	194. (4.2)	-57.8 (0.3)	232. (13.)	113.0 (1.5)
4	0.033	121.8 (14.5)	205. (6.0)	-61.5 (1.7)	269. (20.)	114.2 (2.7)
5	0.046	121.7 (1.7)	182. (1.3)	-65.8 (0.2)	256. (5.7)	110.6 (0.6)
6	0.064	122.8 (1.4)	142. (0.96)	-67.1 (0.2)	202. (3.5)	111.7 (0.5)
7	0.089	121.8 (1.8)	129. (1.2)	-70.2 (0.3)	180. (3.7)	109.0 (0.6)
8	0.126	121.5 (0.9)	95.3 (0.72)	-70.3 (0.2)	147. (1.7)	108.8 (0.3)
9	0.177	129.6 (1.8)	75.0 (1.0)	-69.9 (0.4)	118. (3.2)	111.7 (0.8)
10	0.250	126.4 (3.4)	59.6 (1.1)	-68.7 (0.6)	90.2 (3.9)	113.2 (1.3)
11	0.351	145.2 (8.8)	43.7 (1.8)	-68.3 (1.4)	57.4 (4.0)	119.4 (1.8)
12	0.493	137.9 (6.5)	40.4 (1.5)	-61.0 (1.3)	59.6 (4.5)	125.5 (2.2)
13	0.689	140.6 (9.2)	34.4 (1.6)	-57.9 (1.3)	48.4 (5.1)	123.9 (3.0)
14	0.985	109.7 (5.8)	33.2 (2.6)	-51.9 (2.2)	40.9 (5.1)	105.1 (3.6)

AVERAGE ROTATION ANGLE ON FILE = 306.1
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 2, PASS A

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.074 (0.010)	94.6 (12.5)	-155.0 (7.4)	0.026 (0.013)	0.037 (0.014)	0.193 (0.157)
4	0.033	0.092 (0.009)	104.8 (11.5)	-166.4 (5.8)	0.023 (0.017)	0.076 (0.024)	0.811 (0.281)
5	0.046	0.085 (0.004)	115.2 (6.1)	179.3 (2.8)	0.027 (0.008)	0.044 (0.008)	0.256 (0.108)
6	0.064	0.094 (0.005)	79.1 (3.1)	-165.7 (3.0)	0.002 (0.005)	0.008 (0.006)	0.187 (0.090)
7	0.089	0.109 (0.006)	81.9 (3.3)	-171.3 (3.1)	0.005 (0.006)	0.013 (0.006)	0.425 (0.098)
8	0.126	0.086 (0.004)	88.0 (3.0)	-165.5 (2.3)	0.011 (0.004)	0.025 (0.004)	0.396 (0.058)
9	0.177	0.091 (0.006)	99.9 (7.0)	-160.8 (3.8)	0.001 (0.011)	0.029 (0.008)	0.722 (0.133)
10	0.250	0.103 (0.009)	106.7 (9.9)	-147.1 (4.9)	0.003 (0.018)	0.017 (0.012)	0.590 (0.174)
11	0.351	0.105 (0.010)	128.8 (14.0)	-153.6 (4.7)	0.033 (0.021)	0.035 (0.016)	0.596 (0.206)
12	0.493	0.125 (0.014)	99.1 (11.7)	-154.0 (6.2)	0.010 (0.025)	0.100 (0.025)	2.968 (2.188)
13	0.689	0.212 (0.019)	130.7 (62.9)	-155.0 (36.1)	0.143 (0.027)	0.168 (0.034)	0.370 (0.116)
14	0.985	0.254 (0.033)	68.5 (6.3)	-137.4 (7.8)	0.065 (0.024)	0.221 (0.053)	0.383 (0.116)

AVERAGE TIPPER STRIKE ON FILE = 99.8

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.079 (0.058)	1.5 (24.5)	74.6 (44.3)	0.014 (0.031)	0.034 (0.013)	0.524 (0.157)
4	0.033	0.252 (0.082)	35.9 (3.8)	35.6 (18.6)	0.008 (0.017)	0.048 (0.014)	0.717 (0.249)
5	0.046	0.067 (0.023)	-0.4 (27.7)	169.4 (19.0)	0.030 (0.019)	0.008 (0.005)	0.062 (0.060)
6	0.064	0.046 (0.020)	18.5 (19.4)	-142.8 (26.5)	0.017 (0.009)	0.019 (0.004)	0.119 (0.051)
7	0.089	0.062 (0.017)	-57.8 (70.2)	140.5 (13.2)	0.038 (0.024)	0.003 (0.005)	0.066 (0.064)
8	0.126	0.089 (0.011)	-24.7 (7.5)	157.1 (7.0)	0.003 (0.012)	0.022 (0.003)	0.100 (0.033)
9	0.177	0.057 (0.021)	-14.5 (29.9)	167.2 (21.0)	0.024 (0.019)	0.020 (0.007)	0.347 (0.071)
10	0.250	0.114 (0.036)	19.9 (13.2)	165.7 (17.7)	0.039 (0.016)	0.010 (0.012)	0.278 (0.121)
11	0.351	0.053 (0.017)	105.5 (37.5)	-71.4 (20.2)	0.014 (0.030)	0.052 (0.016)	1.093 (0.314)
12	0.493	0.097 (0.018)	143.8 (22.3)	-93.7 (10.8)	0.011 (0.037)	0.021 (0.022)	0.774 (0.291)
13	0.689	0.099 (0.018)	125.0 (26.7)	-128.3 (9.2)	0.037 (0.035)	0.062 (0.029)	0.876 (0.570)
14	0.985	0.181 (0.032)	180.5 (8.0)	-106.0 (10.0)	0.009 (0.025)	0.062 (0.044)	0.375 (0.233)

AVERAGE TIPPER STRIKE ON FILE = 44.4

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 2, PASS A

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	8.43E-02	5.02E-02	8.47E-07	1.10E-06	3.39E-08
4	0.033	4.15E-02	1.59E-02	4.72E-07	8.72E-07	2.67E-07
5	0.046	2.95E-02	1.43E-02	7.01E-07	1.06E-06	2.88E-08
6	0.064	2.03E-02	9.39E-03	8.60E-07	1.39E-06	1.54E-08
7	0.089	9.96E-03	4.98E-03	7.11E-07	1.07E-06	1.65E-08
8	0.126	1.47E-02	7.03E-03	1.91E-06	3.03E-06	2.64E-08
9	0.177	4.90E-03	1.99E-03	9.16E-07	1.67E-06	1.95E-08
10	0.250	2.29E-03	1.21E-03	9.30E-07	1.32E-06	2.06E-08
11	0.351	1.95E-03	9.95E-04	1.18E-06	1.80E-06	3.03E-08
12	0.493	2.11E-03	1.26E-03	1.95E-06	3.25E-06	5.04E-08
13	0.689	2.74E-03	1.59E-03	3.56E-06	4.74E-06	1.30E-07
14	0.985	4.11E-03	1.82E-03	5.66E-06	9.18E-06	2.50E-07

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
4.03E-03	1.09E-03	6.25E-06	1.42E-06	1.05E-06
9.18E-03	1.12E-02	2.34E-06	1.21E-05	1.30E-06
3.91E-04	3.79E-04	2.13E-07	1.11E-06	2.05E-07
3.33E-04	2.06E-04	1.65E-07	5.32E-07	1.50E-07
1.74E-04	1.04E-04	1.32E-07	4.07E-07	1.37E-07
2.22E-04	1.30E-04	1.19E-07	2.87E-07	1.51E-07
1.89E-04	1.42E-04	1.34E-07	3.15E-07	2.00E-07
2.14E-04	1.74E-04	1.16E-07	2.48E-07	2.28E-07
2.80E-04	1.51E-04	1.26E-07	2.26E-07	2.40E-07
2.18E-04	1.55E-04	1.98E-07	9.48E-07	3.84E-07
2.09E-04	1.59E-04	5.58E-07	2.50E-06	4.70E-07
3.96E-04	2.50E-04	1.22E-06	6.27E-06	9.19E-07

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	6.62E-02	1.73E-02	3.50E-07	1.55E-06	2.56E-09
4	0.033	3.85E-02	1.25E-02	3.04E-07	1.23E-06	4.00E-10
5	0.046	2.56E-02	7.80E-03	2.79E-07	1.28E-06	2.01E-09
6	0.064	1.77E-02	5.89E-03	3.72E-07	1.58E-06	8.85E-10
7	0.089	8.65E-03	3.53E-03	3.50E-07	1.19E-06	3.05E-09
8	0.126	1.16E-02	6.45E-03	1.12E-06	3.09E-06	1.48E-08
9	0.177	3.93E-03	1.48E-03	4.43E-07	1.81E-06	4.28E-09
10	0.250	1.91E-03	5.49E-04	3.05E-07	1.60E-06	3.15E-09
11	0.351	1.34E-03	3.88E-04	4.66E-07	2.20E-06	5.82E-09
12	0.493	1.60E-03	3.58E-04	6.11E-07	3.86E-06	3.32E-08
13	0.689	1.86E-03	4.13E-04	1.27E-06	7.24E-06	5.88E-08
14	0.985	2.00E-03	3.97E-04	1.73E-06	1.19E-05	1.41E-07

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
1.86E-04	1.35E-03	4.44E-07	5.12E-07	3.31E-06
1.16E-04	-1.79E-04	2.40E-07	2.21E-07	1.62E-06
3.98E-04	7.37E-05	1.89E-07	1.74E-07	1.28E-06
2.69E-04	7.20E-05	1.72E-07	1.62E-07	1.07E-06
2.75E-04	3.56E-05	1.85E-07	1.43E-07	1.01E-06
2.52E-04	4.96E-05	1.70E-07	1.55E-07	9.75E-07
2.35E-04	4.45E-05	2.35E-07	1.56E-07	9.23E-07
2.71E-04	6.47E-05	2.70E-07	1.75E-07	9.41E-07
3.45E-04	1.01E-04	5.85E-07	2.21E-07	8.23E-07
5.09E-04	1.72E-04	6.97E-07	3.10E-07	1.06E-06
6.93E-04	5.74E-04	7.74E-07	3.54E-07	1.12E-06
1.07E-03	5.02E-04	1.43E-06	7.35E-07	1.28E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 2, PASS A

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.297	108.5	78.	-74.7	0.69	109.3	0.029	76.8	4.31E+02	-74.8	2.90E+02	106.9
4	0.033	0.700	62.6	1.6	-132.8	23.	124.9	0.309	95.3	4.52E+02	-111.4	3.71E+02	107.2
5	0.046	0.293	56.0	16.	-73.5	1.58E+02	103.9	0.035	90.4	2.59E+02	-74.6	1.99E+02	103.3
6	0.064	0.134	47.0	40.	-74.2	1.36E+02	106.1	0.015	82.3	1.99E+02	-73.5	1.47E+02	105.2
7	0.089	0.111	47.7	45.	-74.3	1.17E+02	107.2	0.005	78.6	1.78E+02	-74.7	1.33E+02	107.3
8	0.126	0.025	112.3	1.00E+02	-67.4	77.	109.4	0.023	79.4	1.30E+02	-68.8	98.	110.8
9	0.177	0.075	36.1	42.	-68.7	78.	116.2	0.026	63.4	1.25E+02	-67.8	90.	115.7
10	0.250	0.071	40.4	33.	-63.4	65.	121.0	0.035	54.2	1.32E+02	-63.8	86.	121.5
11	0.351	0.062	118.0	59.	-54.1	39.	122.9	0.065	61.0	1.32E+02	-57.6	75.	126.5
12	0.493	0.183	70.4	26.	-54.0	59.	133.6	0.120	46.3	1.07E+02	-53.9	76.	135.4
13	0.689	0.351	76.8	15.	-29.6	63.	130.6	0.120	92.4	82.	-33.2	89.	129.9
14	0.985	0.427	74.6	13.	-12.5	62.	128.9	0.208	72.9	1.79E+02	-23.5	1.00E+02	126.9

AVERAGE ROTATION ANGLE = 250.9 — AVERAGE ROTATION ANGLE = 254.4

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.045	123.7	1.12E+02	-58.6	43.	110.7	0.018	118.4	2.00E+02	-58.5	2.66E+02	110.5
4	0.033	0.031	121.3	1.46E+02	-62.9	83.	111.2	0.014	121.6	2.05E+02	-62.9	2.59E+02	111.1
5	0.046	0.015	115.7	1.42E+02	-66.1	90.	111.0	0.012	120.8	1.88E+02	-66.2	2.61E+02	111.0
6	0.064	0.020	107.8	1.18E+02	-67.1	92.	110.2	0.016	121.7	1.47E+02	-67.5	2.07E+02	110.6
7	0.089	0.016	106.2	1.05E+02	-70.4	75.	108.7	0.010	125.5	1.37E+02	-70.5	1.84E+02	108.7
8	0.126	0.018	134.6	83.	-70.8	1.07E+02	109.6	0.022	123.0	99.	-70.5	1.48E+02	109.3
9	0.177	0.035	94.1	70.	-69.7	44.	110.9	0.012	131.7	84	-70.2	1.25E+02	111.3
10	0.250	0.026	112.0	49.	-68.3	25.	114.0	0.043	143.8	71.	-68.7	1.22E+02	114.2
11	0.351	0.054	110.4	37.	-64.5	11.	114.2	0.096	153.0	54.	-68.5	1.10E+02	117.7
12	0.493	0.086	103.3	40.	-58.3	12.	121.2	0.134	150.2	54.	-64.6	1.61E+02	126.3
13	0.689	0.108	98.4	37.	-54.5	15.	119.8	0.106	137.2	58.	-59.7	3.04E+02	124.8
14	0.985	0.202	106.0	32.	-52.6	11.	106.4	0.306	135.6	64.	-64.1	2.74E+02	112.1

AVERAGE ROTATION ANGLE = 291.1 — AVERAGE ROTATION ANGLE = 311.9

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 2, PASS A

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.023	0.64	0.35	0.50	0.87	0.64	0.02
4	0.033	0.27	0.33	0.86	0.92	0.75	0.00
5	0.046	0.69	0.87	0.48	0.93	0.77	0.03
6	0.064	0.84	0.90	0.33	0.95	0.82	0.02
7	0.089	0.84	0.91	0.34	0.93	0.81	0.05
8	0.126	0.95	0.96	0.40	0.97	0.93	0.11
9	0.177	0.90	0.90	0.32	0.93	0.80	0.08
10	0.250	0.87	0.88	0.30	0.89	0.69	0.03
11	0.351	0.88	0.89	0.35	0.85	0.60	0.08
12	0.493	0.84	0.90	0.32	0.84	0.57	0.16
13	0.689	0.79	0.89	0.34	0.83	0.51	0.22
14	0.985	0.74	0.85	0.52	0.78	0.49	0.27

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
3	0.81	0.24	0.87	0.94	0.07	0.48	0.01	0.27	0.45
4	0.76	0.18	0.83	0.91	0.10	0.22	0.02	0.42	0.20
5	0.81	0.21	0.89	0.94	0.22	0.54	0.02	0.75	0.56
6	0.80	0.20	0.90	0.94	0.24	0.67	0.03	0.80	0.72
7	0.76	0.08	0.89	0.93	0.14	0.63	0.02	0.79	0.69
8	0.73	0.32	0.91	0.92	0.33	0.74	0.06	0.85	0.86
9	0.77	0.16	0.88	0.88	0.22	0.72	0.04	0.80	0.78
10	0.75	0.19	0.81	0.86	0.27	0.73	0.02	0.82	0.74
11	0.73	0.17	0.72	0.82	0.23	0.74	0.05	0.81	0.73
12	0.75	0.28	0.71	0.83	0.34	0.70	0.08	0.85	0.72
13	0.74	0.26	0.58	0.81	0.37	0.64	0.10	0.87	0.69
14	0.71	0.27	0.57	0.76	0.39	0.67	0.08	0.82	0.63

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 2122R3.ECZ
RECORDING COMPLETED: 00:26:21 05-Sep-81

SETUP 21 GLS-22 GLS, BAND 3, PASS E

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 10.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 52 DATA SEGMENTS, 102.40 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	87.2 (1.8)	82.4 (1.5)	-47.4 (0.5)	54.8 (0.95)	128.3 (0.6)
4	0.649	94.9 (1.7)	85.8 (1.6)	-42.9 (0.5)	52.0 (1.1)	128.3 (0.7)
5	0.906	92.7 (1.3)	100. (2.2)	-35.2 (0.6)	52.6 (1.5)	130.8 (0.9)
6	1.265	92.0 (1.7)	108. (3.1)	-32.1 (0.8)	57.9 (1.9)	132.9 (1.0)
7	1.756	80.2 (3.1)	147. (6.1)	-26.2 (1.2)	57.5 (5.4)	139.2 (3.1)
8	2.438	90.7 (2.5)	144. (16.)	-16.9 (3.2)	78.0 (12.)	133.7 (4.5)
9	3.395	96.5 (5.5)	184. (18.)	-37.0 (3.4)	57.1 (6.0)	138.0 (4.2)
10	4.698	93.1 (2.0)	238. (14.)	-23.1 (1.8)	70.9 (4.9)	147.5 (2.0)
11	6.451	100.8 (1.5)	284. (10.)	-21.5 (1.0)	87.7 (3.0)	148.5 (1.0)
12	8.981	101.3 (1.0)	432. (15.)	-21.6 (1.0)	92.1 (2.0)	146.5 (0.6)

AVERAGE ROTATION ANGLE ON FILE = 272.9
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	146.7 (1.4)	38.4 (0.36)	-64.1 (0.3)	59.1 (1.2)	126.1 (0.6)
4	0.649	119.7 (1.5)	37.4 (0.33)	-56.1 (0.3)	61.3 (1.7)	122.3 (0.8)
5	0.906	130.6 (1.9)	32.8 (0.34)	-53.9 (0.5)	63.0 (1.8)	131.2 (1.0)
6	1.265	139.6 (3.5)	33.9 (0.49)	-49.7 (0.9)	58.0 (1.9)	136.1 (1.2)
7	1.756	148.8 (3.1)	36.1 (1.1)	-50.9 (0.9)	58.8 (2.7)	146.3 (1.2)
8	2.438	144.4 (3.5)	33.6 (1.1)	-40.8 (1.1)	63.9 (2.8)	143.7 (1.3)
9	3.395	142.3 (3.2)	33.0 (0.92)	-38.2 (1.2)	69.2 (3.0)	142.9 (1.5)
10	4.698	147.7 (1.7)	36.8 (1.1)	-38.5 (1.0)	92.7 (3.8)	153.8 (1.2)
11	6.451	154.1 (1.0)	42.5 (0.76)	-34.7 (0.6)	101. (2.2)	153.9 (0.6)
12	8.981	155.4 (0.9)	55.3 (0.74)	-34.3 (0.4)	114. (1.6)	151.2 (0.4)

AVERAGE ROTATION ANGLE ON FILE = 322.9
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 3, PASS E

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.120 (0.002)	105.4 (1.8)	-157.1 (1.1)	0.025 (0.003)	0.016 (0.006)	0.339 (0.057)
4	0.649	0.167 (0.003)	80.8 (1.0)	-140.3 (1.2)	0.033 (0.003)	0.042 (0.007)	0.465 (0.051)
5	0.906	0.208 (0.004)	82.3 (0.9)	-147.7 (1.0)	0.007 (0.003)	0.069 (0.009)	0.371 (0.040)
6	1.265	0.207 (0.004)	88.5 (1.1)	-158.0 (1.0)	0.013 (0.004)	0.039 (0.011)	0.405 (0.050)
7	1.756	0.217 (0.005)	94.5 (1.5)	-159.6 (1.2)	0.009 (0.006)	0.008 (0.025)	0.427 (0.113)
8	2.438	0.254 (0.005)	89.6 (1.3)	-166.5 (1.2)	0.022 (0.006)	0.148 (0.062)	0.068 (0.088)
9	3.395	0.252 (0.008)	92.2 (1.9)	-163.8 (1.7)	0.017 (0.008)	0.108 (0.043)	0.552 (0.148)
10	4.698	0.289 (0.008)	89.4 (1.7)	-167.6 (1.6)	0.041 (0.008)	0.057 (0.027)	0.119 (0.071)
11	6.451	0.299 (0.007)	90.1 (1.3)	-173.7 (1.3)	0.028 (0.007)	0.066 (0.015)	0.409 (0.060)
12	8.981	0.348 (0.007)	94.7 (1.1)	-174.7 (1.2)	0.002 (0.007)	0.050 (0.012)	0.428 (0.039)

AVERAGE TIPPER STRIKE ON FILE = 90.8

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.087 (0.005)	-55.2 (7.9)	94.3 (3.6)	0.023 (0.011)	0.093 (0.005)	1.227 (0.086)
4	0.649	0.097 (0.006)	-24.9 (6.1)	83.2 (4.0)	0.023 (0.009)	0.015 (0.006)	0.267 (0.050)
5	0.906	0.114 (0.006)	-49.2 (8.6)	74.2 (4.7)	0.054 (0.011)	0.022 (0.007)	0.635 (0.053)
6	1.265	0.125 (0.006)	-31.7 (5.5)	56.0 (2.5)	0.033 (0.011)	0.012 (0.008)	0.919 (0.096)
7	1.756	0.161 (0.006)	-28.7 (4.9)	55.0 (2.4)	0.060 (0.010)	0.063 (0.010)	1.217 (0.120)
8	2.438	0.139 (0.005)	-62.9 (4.7)	35.6 (1.8)	0.014 (0.011)	0.077 (0.016)	1.121 (0.238)
9	3.395	0.150 (0.005)	-35.0 (4.2)	29.8 (1.9)	0.018 (0.011)	0.038 (0.014)	0.991 (0.141)
10	4.698	0.181 (0.004)	-58.5 (3.1)	20.7 (1.4)	0.009 (0.010)	0.018 (0.013)	1.414 (0.165)
11	6.451	0.177 (0.003)	-51.8 (1.8)	12.6 (1.0)	0.012 (0.005)	0.038 (0.007)	2.174 (0.183)
12	8.981	0.201 (0.003)	-49.9 (1.2)	4.9 (0.7)	0.008 (0.004)	0.073 (0.005)	2.092 (0.136)

AVERAGE TIPPER STRIKE ON FILE = -44.8

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 3, PASS E

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	1.97E-03	1.52E-03	2.59E-06	2.33E-06	4.91E-08
4	0.649	2.27E-03	1.49E-03	3.62E-06	3.58E-06	8.46E-08
5	0.906	3.01E-03	1.79E-03	5.83E-06	6.04E-06	2.26E-07
6	1.265	3.78E-03	1.97E-03	8.84E-06	9.53E-06	4.31E-07
7	1.756	5.03E-03	1.79E-03	1.30E-05	1.41E-05	8.19E-07
8	2.438	7.03E-03	2.50E-03	1.97E-05	2.17E-05	1.48E-06
9	3.395	1.40E-02	4.27E-03	4.71E-05	4.69E-05	3.37E-06
10	4.698	2.38E-02	8.44E-03	9.43E-05	9.41E-05	9.01E-06
11	6.451	1.26E-01	3.67E-02	4.94E-04	5.05E-04	4.72E-05
12	8.981	6.37E-01	2.16E-01	3.40E-03	2.38E-03	3.14E-04

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
6.90E-04	6.98E-04	1.46E-07	2.34E-07	1.34E-07
6.27E-04	5.64E-04	1.45E-07	3.05E-07	1.42E-07
7.63E-04	7.42E-04	2.53E-07	4.13E-07	1.93E-07
9.84E-04	8.24E-04	4.79E-07	8.20E-07	2.63E-07
1.68E-03	7.81E-03	9.37E-07	1.50E-06	4.18E-07
2.05E-02	2.12E-02	3.70E-06	2.41E-06	6.53E-07
3.08E-02	1.05E-02	7.95E-06	1.07E-05	2.60E-06
9.52E-03	5.12E-03	6.84E-06	2.55E-05	2.95E-06
1.25E-02	6.10E-03	1.15E-05	9.69E-05	9.08E-06
3.06E-02	2.34E-03	1.61E-04	5.18E-04	3.91E-05

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	1.49E-03	4.43E-04	7.02E-07	3.62E-06	2.63E-08
4	0.649	1.53E-03	4.50E-04	9.48E-07	5.31E-06	4.14E-08
5	0.906	1.65E-03	5.07E-04	1.52E-06	9.11E-06	9.82E-08
6	1.265	1.89E-03	4.69E-04	2.15E-06	1.40E-05	1.92E-07
7	1.756	2.01E-03	5.75E-04	3.20E-06	2.14E-05	4.29E-07
8	2.438	2.41E-03	6.86E-04	5.96E-06	3.27E-05	6.52E-07
9	3.395	3.48E-03	1.55E-03	1.62E-05	6.59E-05	1.41E-06
10	4.698	6.29E-03	3.43E-03	3.55E-05	1.41E-04	4.68E-06
11	6.451	2.70E-02	1.64E-02	2.24E-04	6.40E-04	2.10E-05
12	8.981	1.54E-01	9.20E-02	1.62E-03	3.99E-03	1.63E-04

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
2.71E-04	3.38E-04	2.50E-07	1.70E-07	9.50E-07
2.56E-04	5.67E-04	3.76E-07	1.91E-07	8.77E-07
2.92E-04	5.02E-04	4.93E-07	2.04E-07	1.03E-06
3.18E-04	3.63E-04	6.68E-07	4.83E-07	1.14E-06
3.47E-04	3.66E-04	1.34E-06	5.23E-07	1.08E-06
7.75E-04	7.77E-04	2.03E-06	1.58E-06	1.43E-06
6.42E-04	5.81E-04	6.92E-06	7.94E-06	2.42E-06
9.17E-04	5.94E-04	9.98E-06	4.82E-06	2.83E-06
5.58E-04	1.11E-03	1.82E-05	1.34E-05	5.49E-06
-6.97E-04	2.56E-03	6.13E-05	1.36E-04	1.70E-05

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 3, PASS E

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.036	117.7	61.	-47.0	40.	128.1	0.035	48.1	3.03E+02	-51.2	1.06E+02	132.5
4	0.649	0.028	111.5	66.	-41.7	41.	126.7	0.051	49.5	2.56E+02	-50.0	98.	135.2
5	0.906	0.032	107.2	75.	-34.4	42.	130.9	0.067	130.6	1.13E+02	-35.8	2.52E+02	133.3
6	1.265	0.032	104.7	78.	-30.3	43.	133.5	0.046	136.2	1.16E+02	-35.4	2.90E+02	139.5
7	1.756	0.064	102.2	89.	-26.2	37.	135.7	0.537	109.0	59.	-3.3	6.93E+03	134.1
8	2.438	0.071	102.9	1.17E+02	-20.0	32.	128.7	1.153	82.9	8.31E+02	55.8	9.81E+03	125.7
9	3.395	0.107	111.1	1.21E+02	-29.8	28.	135.8	0.192	78.2	3.07E+03	-30.8	7.88E+02	134.7
10	4.698	0.111	115.7	1.35E+02	-21.1	47.	142.6	0.155	91.9	4.98E+02	-17.1	2.46E+02	139.5
11	6.451	0.141	112.7	2.01E+02	-21.2	70.	146.8	0.065	96.8	3.71E+02	-20.2	1.31E+02	147.3
12	8.981	0.127	108.1	2.88E+02	-21.1	79.	147.1	0.055	98.9	4.77E+02	-20.4	1.01E+02	146.8

AVERAGE ROTATION ANGLE = 289.4
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 272.2

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.057	161.5	32.	-61.9	33.	123.8	0.046	131.1	53.	-60.7	2.03E+02	122.6
4	0.649	0.041	180.0	31.	-59.6	34.	126.1	0.011	126.1	51.	-56.6	3.51E+02	123.1
5	0.906	0.028	159.9	31.	-55.8	36.	133.2	0.020	126.5	45.	-52.7	2.65E+02	130.1
6	1.265	0.067	168.9	28.	-50.5	38.	137.0	0.022	126.8	46.	-46.5	1.93E+02	132.8
7	1.756	0.053	158.8	28.	-47.8	35.	146.3	0.077	130.2	45.	-45.7	1.77E+02	143.4
8	2.438	0.078	171.6	25.	-46.7	44.	145.5	0.138	111.2	56.	-34.3	2.74E+02	133.8
9	3.395	0.109	164.0	21.	-40.1	44.	147.2	0.046	134.3	49.	-37.5	1.34E+02	143.8
10	4.698	0.085	158.2	29.	-38.2	64.	153.2	0.047	140.7	55.	-37.1	1.30E+02	151.8
11	6.451	0.044	158.5	39.	-35.6	91.	154.9	0.021	150.6	47.	-34.4	1.14E+02	153.6
12	8.981	0.049	155.9	48.	-34.4	1.17E+02	150.9	0.044	153.9	52.	-34.2	1.26E+02	150.7

AVERAGE ROTATION ANGLE = 343.7
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 313.1

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 3, PASS E

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.464	0.82	0.80	0.52	0.90	0.65	0.16
4	0.649	0.85	0.84	0.61	0.91	0.56	0.21
5	0.906	0.86	0.82	0.73	0.91	0.62	0.29
6	1.265	0.85	0.82	0.79	0.91	0.66	0.37
7	1.756	0.82	0.41	0.82	0.91	0.67	0.52
8	2.438	0.48	0.29	0.82	0.85	0.60	0.56
9	3.395	0.51	0.50	0.71	0.87	0.73	0.56
10	4.698	0.75	0.76	0.81	0.92	0.84	0.78
11	6.451	0.88	0.92	0.85	0.98	0.94	0.89
12	8.981	0.89	0.97	0.86	0.99	1.00	0.94

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.68	0.11	0.56	0.75	0.30	0.80	0.08	0.91	0.78
0.69	0.14	0.51	0.76	0.33	0.82	0.05	0.92	0.79
0.69	0.17	0.57	0.75	0.35	0.85	0.20	0.92	0.80
0.71	0.22	0.63	0.75	0.40	0.85	0.27	0.93	0.82
0.67	0.09	0.63	0.38	0.43	0.82	0.39	0.91	0.81
0.35	0.07	0.36	0.24	0.35	0.78	0.42	0.89	0.79
0.43	0.17	0.42	0.48	0.18	0.70	0.48	0.84	0.71
0.63	0.30	0.66	0.70	0.30	0.71	0.60	0.89	0.72
0.78	0.30	0.82	0.87	0.26	0.70	0.74	0.91	0.80
0.77	0.22	0.85	0.94	0.10	0.62	0.85	0.88	0.82

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 2122C5.DBJ
RECORDING COMPLETED: 02:13:14 05-Sep-81

SETUP 21 GLS-22 GLS, BAND 5, PASS D

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 10 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	96.5 (2.2)	187. (13.)	-22.9 (1.9)	56.8 (3.7)	142.7 (1.9)
3	4.635	96.7 (1.6)	213. (6.6)	-21.5 (0.9)	80.5 (3.6)	145.0 (1.2)
4	6.486	99.4 (0.8)	277. (4.7)	-23.0 (0.5)	79.3 (2.4)	147.3 (0.9)
5	9.062	98.1 (0.5)	370. (5.4)	-24.1 (0.4)	94.2 (2.0)	145.9 (0.6)
6	12.648	98.9 (0.2)	481. (3.0)	-27.2 (0.2)	108. (0.97)	143.7 (0.3)
7	17.561	99.4 (0.3)	546. (3.8)	-32.5 (0.2)	115. (0.94)	140.9 (0.2)
8	24.381	97.3 (0.4)	529. (4.9)	-37.3 (0.3)	126. (1.6)	138.5 (0.4)
9	33.945	98.6 (0.3)	642. (4.4)	-43.9 (0.2)	115. (1.4)	133.6 (0.4)
10	46.984	95.2 (0.3)	594. (3.3)	-50.0 (0.2)	123. (2.0)	128.1 (0.5)
11	64.506	94.4 (0.5)	522. (4.2)	-53.6 (0.2)	96.5 (2.9)	125.8 (0.9)
12	89.811	92.5 (0.5)	437. (3.2)	-56.4 (0.2)	91.1 (2.9)	126.0 (0.9)
13	129.012	93.6 (0.4)	359. (2.4)	-58.2 (0.2)	78.1 (1.6)	126.3 (0.6)
14	186.956	90.3 (0.6)	310. (2.8)	-57.2 (0.3)	71.4 (1.9)	128.4 (0.8)
15	256.000	93.9 (1.4)	276. (8.1)	-54.6 (0.8)	66.0 (1.2)	129.5 (0.5)
16	341.333	87.1 (1.8)	248. (4.7)	-50.6 (0.6)	58.8 (1.8)	131.2 (0.9)
17	512.000	96.5 (3.2)	249. (7.7)	-48.4 (0.9)	65.1 (3.3)	129.9 (1.5)

AVERAGE ROTATION ANGLE ON FILE = 275.5
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	150.3 (2.4)	27.5 (1.5)	-37.2 (1.8)	83.7 (4.6)	150.6 (1.7)
3	4.635	140.2 (2.4)	40.4 (1.6)	-34.2 (1.2)	86.4 (2.9)	145.7 (1.0)
4	6.486	150.0 (1.1)	43.7 (1.3)	-33.3 (0.9)	104. (1.8)	150.6 (0.5)
5	9.062	157.5 (0.9)	54.0 (1.2)	-34.1 (0.7)	119. (1.6)	151.2 (0.4)
6	12.648	161.1 (0.3)	60.5 (0.62)	-37.7 (0.3)	153. (0.92)	150.5 (0.2)
7	17.561	163.8 (0.4)	68.8 (0.78)	-39.8 (0.3)	171. (1.1)	146.0 (0.2)
8	24.381	157.0 (0.7)	65.5 (1.0)	-45.1 (0.5)	178. (1.2)	143.1 (0.2)
9	33.945	165.2 (0.6)	71.5 (1.5)	-47.3 (0.6)	198. (1.5)	136.0 (0.2)
10	46.984	158.6 (0.6)	62.0 (1.6)	-57.5 (0.7)	197. (1.3)	131.6 (0.2)
11	64.506	159.9 (0.9)	50.4 (2.3)	-54.2 (1.3)	174. (1.4)	127.1 (0.2)
12	89.811	157.0 (1.5)	47.8 (2.4)	-55.2 (1.6)	152. (1.9)	125.2 (0.5)
13	129.012	152.6 (1.0)	41.6 (1.2)	-55.1 (0.9)	132. (1.6)	124.4 (0.4)
14	186.956	149.6 (1.0)	35.4 (0.89)	-52.1 (0.8)	116. (1.9)	124.2 (0.5)
15	256.000	154.1 (2.0)	33.8 (1.7)	-50.5 (1.5)	94.1 (2.5)	126.4 (0.8)
16	341.333	147.7 (2.0)	26.3 (1.1)	-51.5 (1.4)	95.7 (3.8)	132.5 (1.2)
17	512.000	149.5 (4.7)	35.8 (1.8)	-53.1 (1.4)	87.3 (5.2)	132.6 (1.7)

AVERAGE ROTATION ANGLE ON FILE = 334.6
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 5, PASS D

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.230 (0.006)	91.9 (1.6)	-165.5 (1.6)	0.014 (0.006)	0.021 (0.028)	0.258 (0.080)
3	4.635	0.267 (0.004)	90.9 (1.2)	-166.6 (0.9)	0.008 (0.005)	0.020 (0.016)	0.307 (0.057)
4	6.486	0.306 (0.003)	89.3 (0.8)	-170.0 (0.6)	0.025 (0.004)	0.043 (0.010)	0.345 (0.033)
5	9.062	0.316 (0.003)	90.7 (0.7)	-175.6 (0.6)	0.011 (0.004)	0.021 (0.007)	0.292 (0.021)
6	12.648	0.379 (0.002)	95.6 (0.4)	171.2 (0.4)	0.009 (0.003)	0.041 (0.003)	0.322 (0.008)
7	17.561	0.389 (0.003)	100.5 (0.7)	164.8 (0.5)	0.008 (0.005)	0.064 (0.004)	0.347 (0.010)
8	24.381	0.338 (0.002)	94.0 (0.7)	160.1 (0.4)	0.027 (0.004)	0.024 (0.005)	0.296 (0.014)
9	33.945	0.352 (0.004)	98.9 (1.0)	160.1 (0.6)	0.083 (0.006)	0.075 (0.004)	0.322 (0.011)
10	46.984	0.354 (0.008)	112.3 (2.1)	136.6 (1.4)	0.015 (0.013)	0.037 (0.004)	0.223 (0.012)
11	64.506	0.224 (0.003)	89.8 (2.4)	135.7 (0.9)	0.011 (0.010)	0.047 (0.007)	0.169 (0.018)
12	89.811	0.188 (0.003)	101.0 (2.1)	136.6 (0.9)	0.030 (0.007)	0.022 (0.007)	0.096 (0.019)
13	129.012	0.143 (0.003)	84.9 (3.1)	131.6 (1.2)	0.056 (0.006)	0.050 (0.005)	0.166 (0.015)
14	186.956	0.131 (0.004)	116.6 (5.9)	158.3 (2.7)	0.073 (0.006)	0.024 (0.008)	0.037 (0.023)
15	256.000	0.155 (0.004)	138.5 (2.6)	-178.6 (1.6)	0.076 (0.003)	0.044 (0.017)	0.136 (0.051)
16	341.333	0.163 (0.005)	129.5 (2.8)	165.4 (1.7)	0.068 (0.005)	0.079 (0.022)	0.165 (0.062)
17	512.000	0.148 (0.006)	126.4 (2.9)	150.8 (2.2)	0.035 (0.007)	0.062 (0.037)	0.244 (0.118)

AVERAGE TIPPER STRIKE ON FILE = 103.2

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.169 (0.004)	-45.3 (3.2)	28.2 (1.4)	0.014 (0.009)	0.042 (0.021)	1.569 (0.237)
3	4.635	0.164 (0.004)	-53.2 (2.5)	18.9 (1.3)	0.011 (0.007)	0.095 (0.014)	0.876 (0.121)
4	6.486	0.191 (0.003)	-55.4 (1.4)	10.8 (0.9)	0.017 (0.004)	0.031 (0.008)	1.630 (0.128)
5	9.062	0.191 (0.003)	-58.1 (0.9)	8.0 (0.9)	0.006 (0.003)	0.044 (0.006)	3.015 (0.302)
6	12.648	0.250 (0.002)	-57.4 (0.5)	-6.6 (0.4)	0.002 (0.002)	0.047 (0.003)	6.075 (0.441)
7	17.561	0.271 (0.003)	-53.0 (0.7)	-15.9 (0.7)	0.002 (0.003)	0.057 (0.004)	22.532 (7.981)
8	24.381	0.212 (0.003)	-57.5 (0.6)	-23.1 (0.7)	0.000 (0.002)	0.028 (0.006)	3.480 (0.323)
9	33.945	0.225 (0.004)	-58.4 (1.1)	-17.3 (0.9)	0.017 (0.004)	0.080 (0.005)	12.668 (3.156)
10	46.984	0.249 (0.008)	-51.4 (1.8)	-49.1 (2.0)	0.009 (0.008)	0.039 (0.005)	4.070 (0.342)
11	64.506	0.135 (0.006)	-66.2 (3.2)	-49.0 (2.5)	0.005 (0.007)	0.043 (0.009)	4.845 (0.724)
12	89.811	0.092 (0.003)	-76.2 (3.9)	-56.3 (2.1)	0.008 (0.006)	0.086 (0.011)	2.028 (0.191)
13	129.012	0.082 (0.004)	-72.7 (6.6)	-53.2 (3.0)	0.036 (0.006)	0.039 (0.007)	1.879 (0.130)
14	186.956	0.099 (0.005)	-25.9 (3.4)	-6.4 (2.6)	0.045 (0.003)	0.023 (0.009)	1.569 (0.106)
15	256.000	0.111 (0.006)	-23.3 (2.6)	-0.9 (3.1)	0.040 (0.003)	0.046 (0.019)	2.197 (0.372)
16	341.333	0.102 (0.008)	-31.4 (5.9)	-6.1 (4.0)	0.048 (0.005)	0.101 (0.025)	1.381 (0.182)
17	512.000	0.093 (0.013)	-38.1 (7.4)	-26.8 (8.0)	0.032 (0.008)	0.046 (0.040)	1.657 (0.614)

AVERAGE TIPPER STRIKE ON FILE = -51.5

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 5, PASS D

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	8.20E-03	2.79E-03	2.91E-05	2.78E-05	1.51E-06
3	4.635	1.79E-02	4.09E-03	4.62E-05	7.44E-05	5.85E-06
4	6.486	7.85E-02	1.19E-02	1.74E-04	3.53E-04	3.31E-05
5	9.062	1.72E-01	3.58E-02	6.45E-04	8.42E-04	8.56E-05
6	12.648	2.81E+00	5.35E-01	1.14E-02	1.50E-02	2.14E-03
7	17.561	1.86E+01	1.78E+00	5.21E-02	1.24E-01	1.76E-02
8	24.381	6.29E+01	3.33E+00	1.73E-01	6.09E-01	6.25E-02
9	33.945	4.13E+01	2.38E+00	1.40E-01	4.46E-01	4.62E-02
10	46.984	1.14E+02	3.60E+00	3.07E-01	1.82E+00	1.92E-01
11	64.506	1.15E+02	2.74E+00	3.99E-01	2.91E+00	1.47E-01
12	89.811	1.21E+02	3.40E+00	6.89E-01	5.03E+00	1.62E-01
13	129.012	2.36E+02	1.01E+01	3.31E+00	1.70E+01	2.98E-01
14	186.956	6.01E+02	2.16E+01	1.12E+01	7.25E+01	8.12E-01
15	256.000	8.43E+02	5.91E+01	4.79E+01	1.61E+02	2.57E+00
16	341.333	2.60E+03	5.25E+01	6.05E+01	7.20E+02	1.19E+01
17	512.000	5.36E+03	7.73E+01	1.26E+02	2.25E+03	3.14E+01

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.55E-02	4.31E-03	8.99E-06	6.30E-06	1.81E-06
7.21E-03	2.57E-03	1.35E-05	6.98E-06	2.44E-06
7.31E-03	3.80E-03	2.52E-05	1.49E-05	5.49E-06
8.53E-03	3.80E-03	5.72E-05	2.23E-05	1.29E-05
1.73E-02	9.01E-03	7.07E-05	4.84E-05	8.11E-05
9.10E-02	1.19E-02	9.95E-05	1.62E-04	6.44E-04
1.76E-01	1.21E-02	7.66E-04	1.57E-04	5.50E-04
1.17E-01	2.42E-02	4.87E-04	4.82E-04	1.57E-03
1.54E-01	3.57E-02	2.47E-03	5.61E-04	1.59E-02
2.16E-01	9.57E-02	2.98E-03	1.07E-03	6.02E-03
2.31E-01	1.18E-01	3.49E-03	8.15E-04	4.79E-03
2.78E-01	1.05E-01	1.15E-02	3.23E-03	1.41E-02
1.12E+00	2.27E-01	5.64E-02	-5.37E-03	3.64E-02
6.28E+00	1.25E-01	8.19E-02	6.77E-02	3.84E-02
9.90E+00	3.07E-01	1.40E-01	-7.02E-03	1.11E-01
4.03E+01	1.50E+00	9.94E-01	-7.29E-01	3.43E-01

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	1.99E-03	9.02E-04	9.02E-06	3.80E-05	1.06E-06
3	4.635	4.03E-03	2.85E-03	2.67E-05	8.07E-05	2.33E-06
4	6.486	1.57E-02	1.20E-02	1.35E-04	3.37E-04	1.23E-05
5	9.062	3.14E-02	3.67E-02	6.08E-04	7.25E-04	2.78E-05
6	12.648	5.54E-01	4.96E-01	1.03E-02	1.34E-02	8.20E-04
7	17.561	3.38E+00	3.21E+00	7.22E-02	8.75E-02	5.66E-03
8	24.381	9.51E+00	1.53E+01	4.33E-01	2.95E-01	1.22E-02
9	33.945	7.29E+00	6.65E+00	2.22E-01	3.23E-01	1.53E-02
10	46.984	1.88E+01	1.97E+01	8.35E-01	1.18E+00	5.98E-02
11	64.506	1.82E+01	2.23E+01	1.48E+00	1.69E+00	3.65E-02
12	89.811	1.91E+01	2.35E+01	2.31E+00	3.10E+00	3.55E-02
13	129.012	3.89E+01	4.18E+01	6.92E+00	1.18E+01	8.32E-02
14	186.956	9.65E+01	1.05E+02	2.71E+01	5.21E+01	2.41E-01
15	256.000	1.30E+02	1.78E+02	9.27E+01	9.96E+01	7.54E-01
16	341.333	4.30E+02	4.15E+02	2.52E+02	4.93E+02	2.88E+00
17	512.000	8.69E+02	8.89E+02	8.44E+02	1.48E+03	7.33E+00

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
2.87E-03	1.69E-03	6.06E-06	6.12E-06	2.06E-06
2.18E-03	1.17E-03	5.62E-06	6.38E-06	2.93E-06
1.92E-03	1.36E-03	1.34E-05	1.17E-05	5.21E-06
2.32E-03	1.70E-03	3.55E-05	3.06E-05	9.44E-06
3.29E-03	3.93E-03	1.28E-04	5.43E-05	4.09E-05
1.82E-02	1.98E-02	3.58E-04	1.14E-04	3.35E-04
2.82E-02	4.81E-02	8.85E-04	3.21E-04	2.35E-04
3.06E-02	2.64E-02	2.81E-03	1.05E-03	9.66E-04
3.19E-02	4.93E-02	4.12E-03	2.82E-03	7.31E-03
4.17E-02	5.85E-02	1.18E-02	6.83E-03	3.87E-03
4.14E-02	9.68E-02	2.38E-02	1.46E-02	3.46E-03
6.02E-02	1.57E-01	3.04E-02	1.61E-02	1.38E-02
1.87E-01	2.20E-01	6.79E-02	1.24E-02	2.21E-02
1.49E+00	5.76E-01	9.64E-02	1.37E-01	5.46E-02
1.80E+00	1.86E+00	4.64E-01	-4.54E-02	1.75E-01
4.54E+00	8.10E+00	1.82E+00	3.91E-01	8.48E-01

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 5, PASS D

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.090	105.6	1.17E+02	-23.8	25.	143.1	0.249	81.2	2.41E+03	-16.7	4.56E+02	133.0
3	4.635	0.065	100.5	1.76E+02	-21.0	38.	145.1	0.208	101.0	4.35E+02	-15.3	2.01E+02	140.7
4	6.486	0.050	99.0	2.55E+02	-22.9	59.	147.8	0.120	111.0	3.42E+02	-21.4	1.24E+02	146.6
5	9.062	0.020	97.3	3.50E+02	-24.1	80.	145.9	0.044	101.8	4.15E+02	-23.8	1.10E+02	145.6
6	12.648	0.042	99.0	4.78E+02	-27.2	1.07E+02	143.7	0.046	99.4	4.87E+02	-27.4	1.11E+02	143.8
7	17.561	0.063	99.3	5.44E+02	-32.5	1.14E+02	140.9	0.063	99.3	5.52E+02	-32.5	1.17E+02	140.9
8	24.381	0.020	96.7	5.28E+02	-37.0	1.23E+02	138.3	0.022	97.4	5.35E+02	-37.1	1.28E+02	138.4
9	33.945	0.072	98.4	6.38E+02	-43.9	1.14E+02	133.8	0.073	98.5	6.44E+02	-43.9	1.18E+02	133.8
10	46.984	0.036	95.0	5.94E+02	-50.0	1.21E+02	127.9	0.037	95.2	5.96E+02	-50.0	1.25E+02	127.9
11	64.506	0.048	94.3	5.22E+02	-53.5	95.	125.1	0.049	94.9	5.26E+02	-53.7	1.04E+02	125.2
12	89.811	0.026	92.5	4.37E+02	-56.5	90.	126.5	0.027	92.9	4.40E+02	-56.5	98.	126.5
13	129.012	0.049	93.5	3.59E+02	-58.2	78.	126.6	0.050	93.6	3.60E+02	-58.2	80.	126.6
14	186.956	0.023	90.2	3.10E+02	-57.2	71.	128.5	0.025	90.5	3.11E+02	-57.2	73.	128.6
15	256.000	0.047	94.1	2.77E+02	-54.6	66.	129.5	0.050	94.4	2.82E+02	-54.5	66.	129.5
16	341.333	0.083	86.7	2.48E+02	-50.6	58.	131.1	0.077	86.9	2.50E+02	-50.6	59.	131.2
17	512.000	0.062	95.7	2.49E+02	-48.6	64.	129.6	0.066	96.7	2.54E+02	-48.5	68.	129.6

AVERAGE ROTATION ANGLE = 276.1 — AVERAGE ROTATION ANGLE = 275.9

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.054	89.3	33.	-24.5	17.	134.8	0.159	112.5	2.35E+02	-22.8	5.81E+02	135.7
3	4.635	0.136	154.4	32.	-36.9	62.	149.0	0.175	184.1	2.09E+02	-41.4	1.21E+02	156.3
4	6.486	0.040	155.3	36.	-34.2	94.	151.4	0.044	134.8	75.	-32.0	1.28E+02	149.4
5	9.062	0.051	159.5	46.	-35.2	1.13E+02	151.9	0.056	159.4	68.	-35.1	1.29E+02	152.0
6	12.648	0.046	161.7	59.	-37.6	1.51E+02	150.5	0.047	160.8	62.	-37.7	1.54E+02	150.5
7	17.561	0.059	164.3	67.	-39.7	1.71E+02	146.0	0.057	163.7	70.	-39.8	1.74E+02	146.0
8	24.381	0.036	157.6	63.	-44.9	1.76E+02	143.0	0.028	156.8	67.	-45.1	1.78E+02	143.2
9	33.945	0.086	166.3	67.	-47.1	1.98E+02	135.8	0.082	165.4	73.	-47.2	1.99E+02	136.0
10	46.984	0.040	159.0	59.	-57.4	1.96E+02	131.6	0.036	157.8	65.	-57.6	1.98E+02	131.7
11	64.506	0.046	160.9	44.	-53.0	1.73E+02	127.0	0.037	159.1	55.	-53.3	1.75E+02	127.2
12	89.811	0.078	158.3	42.	-56.0	1.50E+02	124.6	0.075	154.5	53.	-57.0	1.54E+02	125.5
13	129.012	0.038	153.3	40.	-54.9	1.31E+02	124.3	0.035	151.7	43.	-55.1	1.33E+02	124.5
14	186.956	0.024	149.9	35.	-52.0	1.16E+02	124.2	0.025	149.3	36.	-52.2	1.17E+02	124.4
15	256.000	0.044	154.1	33.	-50.4	94.	126.3	0.051	155.4	35.	-50.4	95.	126.3
16	341.333	0.098	148.1	26.	-51.4	95.	132.5	0.098	147.6	27.	-51.3	97.	132.4
17	512.000	0.042	150.7	35.	-52.7	86.	132.4	0.037	146.8	37.	-52.6	91.	132.2

AVERAGE ROTATION ANGLE = 332.7 — AVERAGE ROTATION ANGLE = 333.7

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 21 GLS-22 GLS, BAND 5, PASS D

		PREDICTED COHERENCIES						LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES (WITH RESPECT TO LOCAL UNROTATED AXES)								
		LOCAL SITE			REMOTE SITE											
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	3.311	0.53	0.55	0.61	0.59	0.46	0.53	0.32	0.09	0.30	0.35	0.12	0.69	0.36	0.78	0.64
3	4.635	0.81	0.69	0.84	0.78	0.78	0.68	0.49	0.23	0.69	0.54	0.25	0.74	0.52	0.79	0.85
4	6.486	0.94	0.82	0.92	0.93	0.91	0.85	0.69	0.20	0.86	0.71	0.17	0.73	0.70	0.79	0.91
5	9.062	0.96	0.91	0.92	0.95	0.95	0.88	0.56	0.21	0.88	0.81	0.35	0.54	0.70	0.80	0.89
6	12.648	1.00	0.99	0.98	1.00	0.99	0.98	0.74	0.32	0.92	0.90	0.45	0.64	0.91	0.88	0.93
7	17.561	1.00	1.00	0.98	1.00	0.98	0.97	0.83	0.56	0.97	0.86	0.64	0.75	0.95	0.84	0.97
8	24.381	1.00	1.00	1.00	1.00	0.98	0.99	0.85	0.80	0.99	0.76	0.88	0.80	0.97	0.76	0.99
9	33.945	1.00	0.99	0.98	1.00	0.98	0.97	0.83	0.32	0.98	0.75	0.47	0.74	0.95	0.75	0.97
10	46.984	1.00	0.99	0.96	1.00	0.98	0.94	0.86	0.27	0.99	0.54	0.48	0.80	0.98	0.58	0.99
11	64.506	1.00	0.98	0.98	1.00	0.97	0.95	0.87	0.45	0.99	0.25	0.56	0.78	0.97	0.40	0.99
12	89.811	1.00	0.98	0.99	1.00	0.97	0.95	0.83	0.35	0.99	0.35	0.43	0.79	0.96	0.35	0.99
13	129.012	1.00	0.99	0.98	1.00	0.98	0.93	0.81	0.17	0.98	0.59	0.20	0.78	0.92	0.60	0.98
14	186.956	1.00	0.99	0.98	1.00	0.99	0.96	0.83	0.21	0.99	0.55	0.17	0.84	0.95	0.55	0.99
15	256.000	1.00	1.00	0.99	0.99	0.98	0.97	0.71	0.41	0.98	0.62	0.51	0.66	0.94	0.62	0.98
16	341.333	1.00	1.00	1.00	1.00	0.99	0.97	0.91	0.06	0.99	0.48	0.14	0.89	0.97	0.47	0.99
17	512.000	1.00	0.99	0.99	1.00	0.98	0.95	0.92	0.12	0.99	0.40	0.32	0.92	0.96	0.30	1.00

WOODWARD-CLYDE CONSULTANTS

GLASS MOUNTAIN, CA.

RESULTS FROM CROSSPOWER FILE: 0708C2.CDC
RECORDING COMPLETED: 18:30:40 05-Sep-81

SETUP 07 GLS-08 GLS, BAND 2, PASS C

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 200.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 55 DATA SEGMENTS, 10.24 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	127.8 (16.5)	70.0 (4.8)	-59.3 (1.9)	79.5 (9.7)	113.7 (3.3)
4	0.033	150.7 (4.8)	101. (4.2)	-67.9 (1.5)	60.3 (8.9)	124.9 (4.3)
5	0.046	191.4 (3.0)	89.3 (2.6)	-63.7 (0.8)	69.3 (1.1)	121.4 (0.5)
6	0.064	195.9 (2.5)	78.9 (1.7)	-63.0 (0.6)	57.3 (0.91)	121.7 (0.5)
7	0.089	195.5 (2.0)	75.5 (1.4)	-61.4 (0.5)	53.8 (0.75)	123.5 (0.4)
8	0.126	197.3 (1.6)	65.0 (0.91)	-57.6 (0.4)	47.1 (0.59)	127.3 (0.4)
9	0.177	208.1 (3.3)	57.6 (1.5)	-56.4 (0.8)	46.1 (0.76)	129.6 (0.5)
10	0.250	209.4 (3.5)	55.6 (2.0)	-51.9 (1.1)	44.0 (0.77)	135.3 (0.5)
11	0.351	232.2 (5.7)	51.2 (2.2)	-47.5 (1.2)	48.2 (0.93)	137.9 (0.6)
12	0.493	243.0 (5.7)	48.6 (2.0)	-45.0 (1.1)	49.5 (1.0)	141.0 (0.6)
13	0.689	276.3 (5.4)	49.8 (1.4)	-39.1 (0.8)	52.7 (2.5)	150.6 (1.4)
14	0.985	259.4 (5.6)	57.2 (2.2)	-39.9 (1.1)	61.4 (1.8)	147.9 (0.8)

AVERAGE ROTATION ANGLE ON FILE = 387.3
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	1.3 (7.6)	46.3 (4.9)	-77.9 (4.6)	16.7 (1.1)	105.1 (4.4)
4	0.033	1.2 (0.8)	48.8 (1.6)	-82.5 (1.0)	14.2 (0.29)	102.4 (0.6)
5	0.046	1.7 (0.4)	40.0 (0.70)	-77.3 (0.5)	11.6 (0.12)	99.0 (0.3)
6	0.064	1.8 (0.3)	31.1 (0.41)	-74.5 (0.4)	8.63 (8.19E-02)	100.9 (0.3)
7	0.089	0.1 (0.4)	27.0 (0.38)	-72.5 (0.4)	6.84 (8.65E-02)	102.1 (0.4)
8	0.126	0.3 (0.3)	20.5 (0.22)	-68.2 (0.3)	5.01 (5.96E-02)	104.5 (0.3)
9	0.177	1.5 (0.7)	17.6 (0.38)	-67.4 (0.6)	4.16 (0.11)	108.5 (0.7)
10	0.250	3.0 (1.1)	16.2 (0.55)	-63.4 (1.0)	3.91 (0.17)	111.5 (1.3)
11	0.351	3.1 (1.5)	12.8 (0.47)	-57.9 (1.1)	2.73 (0.17)	119.6 (1.9)
12	0.493	2.1 (1.4)	10.4 (0.48)	-46.5 (1.4)	2.38 (0.14)	117.6 (1.7)
13	0.689	9.4 (1.7)	10.5 (0.50)	-45.7 (1.4)	2.50 (0.15)	125.1 (1.6)
14	0.985	8.0 (2.0)	11.8 (0.61)	-32.9 (1.6)	2.16 (0.22)	124.6 (2.6)

AVERAGE ROTATION ANGLE ON FILE = 182.8
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 2, PASS C

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.140 (0.035)	43.7 (8.2)	-58.3 (14.2)	0.001 (0.020)	0.082 (0.033)	2.179 (2.469)
4	0.033	0.080 (0.013)	-2.0 (5.6)	93.4 (9.4)	0.001 (0.008)	0.229 (0.042)	1.522 (0.484)
5	0.046	0.046 (0.007)	-69.5 (20.1)	27.4 (8.6)	0.020 (0.011)	0.015 (0.008)	0.447 (0.120)
6	0.064	0.032 (0.007)	-38.4 (19.1)	37.6 (12.6)	0.009 (0.009)	0.030 (0.008)	0.644 (0.116)
7	0.089	0.071 (0.012)	24.9 (5.2)	77.2 (9.5)	0.003 (0.006)	0.033 (0.006)	0.601 (0.093)
8	0.126	0.043 (0.008)	44.6 (9.7)	102.3 (11.3)	0.008 (0.007)	0.021 (0.005)	0.697 (0.082)
9	0.177	0.065 (0.013)	51.1 (9.9)	95.7 (12.6)	0.012 (0.010)	0.026 (0.008)	1.409 (0.300)
10	0.250	0.047 (0.017)	0.9 (36.3)	49.7 (29.4)	0.025 (0.011)	0.021 (0.011)	1.648 (0.456)
11	0.351	0.038 (0.016)	1.1 (39.5)	-43.1 (29.6)	0.019 (0.011)	0.029 (0.011)	3.633 (2.783)
12	0.493	0.070 (0.018)	35.5 (6.1)	26.6 (14.7)	0.002 (0.007)	0.007 (0.010)	1.356 (0.539)
13	0.689	0.062 (0.016)	34.4 (6.1)	51.3 (15.1)	0.006 (0.006)	0.012 (0.012)	0.224 (0.198)
14	0.985	0.097 (0.015)	30.3 (3.8)	9.8 (9.0)	0.008 (0.006)	0.035 (0.011)	0.386 (0.224)

AVERAGE TIPPER STRIKE ON FILE = 13.1

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.095 (0.023)	34.4 (6.0)	92.9 (14.1)	0.001 (0.010)	0.017 (0.030)	1.416 (0.296)
4	0.033	0.024 (0.005)	102.4 (28.1)	-136.6 (9.6)	0.007 (0.010)	0.086 (0.009)	3.294 (0.315)
5	0.046	0.018 (0.004)	118.5 (27.2)	-156.8 (12.0)	0.008 (0.006)	0.066 (0.005)	4.088 (0.262)
6	0.064	0.043 (0.003)	128.7 (7.0)	175.0 (3.9)	0.010 (0.005)	0.051 (0.004)	3.944 (0.187)
7	0.089	0.035 (0.003)	107.6 (8.5)	-177.6 (4.6)	0.002 (0.005)	0.061 (0.005)	5.260 (0.355)
8	0.126	0.044 (0.003)	131.4 (6.1)	-179.1 (3.8)	0.019 (0.003)	0.046 (0.004)	5.119 (0.291)
9	0.177	0.044 (0.004)	99.3 (9.4)	152.7 (4.6)	0.011 (0.006)	0.063 (0.009)	4.274 (0.446)
10	0.250	0.045 (0.005)	94.7 (12.0)	122.4 (6.6)	0.014 (0.008)	0.055 (0.015)	3.389 (0.485)
11	0.351	0.050 (0.004)	107.4 (10.4)	109.1 (5.0)	0.015 (0.008)	0.072 (0.018)	2.956 (0.472)
12	0.493	0.074 (0.006)	76.1 (5.6)	88.5 (5.4)	0.022 (0.006)	0.099 (0.019)	3.633 (0.664)
13	0.689	0.102 (0.007)	65.4 (3.3)	70.4 (4.3)	0.023 (0.005)	0.075 (0.020)	1.781 (0.244)
14	0.985	0.120 (0.006)	68.5 (2.6)	68.5 (3.1)	0.018 (0.005)	0.146 (0.028)	1.762 (0.238)

AVERAGE TIPPER STRIKE ON FILE = 94.5

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 2, PASS C

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	2.99E-02	1.40E-02	9.92E-07	1.87E-06	2.66E-07
4	0.033	2.41E-02	1.33E-02	1.37E-06	4.28E-06	1.70E-08
5	0.046	9.07E-03	4.91E-03	5.48E-07	1.19E-06	1.58E-09
6	0.064	5.81E-03	3.02E-03	5.39E-07	1.28E-06	2.16E-10
7	0.089	3.26E-03	1.82E-03	4.76E-07	1.06E-06	7.77E-10
8	0.126	3.88E-03	2.24E-03	9.42E-07	2.03E-06	1.89E-09
9	0.177	1.69E-03	7.29E-04	4.75E-07	1.30E-06	2.87E-09
10	0.250	1.38E-03	6.12E-04	6.07E-07	1.57E-06	1.40E-09
11	0.351	1.74E-03	7.48E-04	1.12E-06	2.47E-06	1.38E-09
12	0.493	2.26E-03	9.39E-04	1.86E-06	4.49E-06	3.35E-09
13	0.689	3.15E-03	1.40E-03	3.63E-06	8.78E-06	4.05E-09
14	0.985	3.63E-03	1.79E-03	5.85E-06	1.21E-05	5.08E-09

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.45E-02	-1.52E-04	1.08E-05	1.55E-05	4.18E-06
3.08E-01	-4.23E-03	7.95E-07	-8.32E-07	9.20E-07
1.05E-03	-2.87E-04	1.21E-06	8.50E-07	5.91E-07
1.98E-03	3.40E-06	4.70E-07	5.26E-07	4.45E-07
1.63E-04	2.48E-05	2.50E-07	4.23E-07	3.99E-07
7.29E-05	5.03E-05	2.16E-07	4.32E-07	3.78E-07
5.91E-05	4.78E-05	1.79E-07	3.88E-07	3.54E-07
1.05E-04	3.02E-05	1.92E-07	4.20E-07	3.80E-07
7.09E-05	7.76E-05	2.36E-07	4.87E-07	4.20E-07
6.02E-05	4.07E-05	3.20E-07	5.48E-07	4.16E-07
8.72E-05	6.95E-05	8.20E-07	1.18E-06	4.50E-07
1.01E-04	4.93E-05	7.37E-07	1.09E-06	4.92E-07

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	3.46E-03	6.85E-03	1.32E-06	5.19E-07	1.47E-09
4	0.033	1.82E-03	3.27E-03	9.92E-07	4.23E-07	5.19E-10
5	0.046	1.31E-03	2.31E-03	1.14E-06	4.95E-07	5.56E-10
6	0.064	8.16E-04	1.52E-03	1.41E-06	5.89E-07	2.45E-09
7	0.089	4.88E-04	7.93E-04	1.20E-06	5.96E-07	1.78E-09
8	0.126	6.97E-04	7.80E-04	2.09E-06	1.58E-06	4.79E-09
9	0.177	1.75E-04	3.01E-04	1.53E-06	6.70E-07	2.97E-09
10	0.250	1.05E-04	2.65E-04	2.05E-06	5.65E-07	3.67E-09
11	0.351	9.60E-05	2.60E-04	3.72E-06	9.17E-07	8.35E-09
12	0.493	9.11E-05	2.82E-04	6.76E-06	1.54E-06	2.29E-08
13	0.689	1.36E-04	3.43E-04	1.29E-05	2.58E-06	5.71E-08
14	0.985	1.79E-04	3.83E-04	1.88E-05	4.31E-06	1.36E-07

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
1.38E-03	1.03E-03	2.99E-06	1.74E-06	4.03E-07
2.20E-04	2.36E-04	3.92E-07	2.55E-07	1.17E-07
7.12E-05	1.17E-04	1.98E-07	1.22E-07	8.33E-08
3.59E-05	8.75E-05	1.65E-07	8.59E-08	7.32E-08
3.67E-05	9.21E-05	1.34E-07	6.74E-08	6.83E-08
4.43E-05	8.01E-05	1.28E-07	5.82E-08	6.55E-08
5.86E-05	7.85E-05	1.35E-07	6.42E-08	6.59E-08
6.70E-05	1.05E-04	1.44E-07	1.10E-07	6.54E-08
8.77E-05	1.07E-04	1.04E-07	8.63E-08	6.65E-08
7.44E-05	8.95E-05	1.35E-07	2.39E-08	7.97E-08
7.16E-05	7.65E-05	1.50E-07	1.78E-07	9.43E-08
1.33E-04	1.64E-04	4.86E-07	3.78E-07	1.38E-07

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 2, PASS C

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.531	129.5	1.6	-67.0	4.63E-02	130.5	0.200	55.8	2.66E+02	-65.5	73.	114.6
4	0.033	3.931	148.6	1.18E+02	-72.8	1.63E+02	-49.2	0.258	169.4	1.03E+02	-64.5	1.16E+03	-26.1
5	0.046	0.259	111.1	23.	-64.7	6.1	118.6	0.204	126.5	59.	-68.1	1.50E+02	116.0
6	0.064	0.147	211.1	17.	-57.4	30.	117.7	0.052	152.0	71.	-60.3	1.28E+02	119.4
7	0.089	0.079	236.6	24.	-59.1	32.	120.8	0.046	202.6	82.	-61.2	58.	122.7
8	0.126	0.040	196.9	40.	-57.7	32.	127.6	0.024	200.2	69.	-57.1	48.	127.0
9	0.177	0.042	225.5	22.	-56.3	32.	129.6	0.025	206.9	70.	-56.0	48.	129.5
10	0.250	0.064	224.7	16.	-52.3	34.	135.0	0.066	219.8	78.	-52.5	46.	135.4
11	0.351	0.113	223.4	17.	-48.0	40.	137.2	0.037	215.8	81.	-49.0	51.	137.7
12	0.493	0.069	220.9	19.	-43.8	45.	139.8	0.018	235.9	60.	-45.0	52.	141.0
13	0.689	0.096	220.7	13.	-33.9	48.	143.7	0.028	285.1	53.	-38.8	69.	147.9
14	0.985	0.087	314.3	58.	-34.4	24.	143.7	0.019	263.0	64.	-39.6	67.	148.7

AVERAGE ROTATION ANGLE = 385.3
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 374.4

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.063	38.6	1.6	-73.8	2.2	95.1	0.061	11.3	86.	-75.2	23.	96.4
4	0.033	0.022	-6.3	14.	-80.5	8.0	99.6	0.067	4.4	59.	-78.8	17.	97.6
5	0.046	0.039	-0.3	23.	-78.7	8.8	98.6	0.058	2.0	44.	-78.4	13.	98.2
6	0.064	0.037	1.3	21.	-75.4	7.3	100.4	0.051	1.3	34.	-75.5	9.7	100.5
7	0.089	0.042	0.8	19.	-72.6	5.9	102.2	0.047	-1.1	31.	-72.8	8.8	102.4
8	0.126	0.051	1.6	18.	-68.1	4.6	104.1	0.040	-1.1	23.	-69.0	6.5	105.2
9	0.177	0.049	1.8	13.	-67.1	3.7	108.8	0.030	7.0	26.	-66.8	8.5	108.6
10	0.250	0.036	-1.6	11.	-63.4	3.3	113.8	0.075	21.5	33.	-62.7	12.	113.3
11	0.351	0.086	0.4	11.	-58.4	2.5	119.7	0.139	35.1	35.	-58.7	11.	121.0
12	0.493	0.084	2.9	9.5	-45.9	2.3	118.8	0.161	18.2	27.	-44.5	6.8	118.0
13	0.689	0.098	6.4	9.8	-45.6	2.3	123.0	0.122	23.5	21.	-46.3	5.5	123.8
14	0.985	0.160	4.2	10.	-33.5	2.0	119.1	0.135	22.6	28.	-37.5	10.	122.4

AVERAGE ROTATION ANGLE = 184.1
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 192.1

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 2, PASS C

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.023	0.28	0.27	0.45	0.38	0.44	0.02
4	0.033	0.38	0.78	0.44	0.71	0.68	0.05
5	0.046	0.73	0.56	0.16	0.86	0.82	0.09
6	0.064	0.73	0.72	0.06	0.90	0.86	0.16
7	0.089	0.82	0.80	0.03	0.90	0.84	0.16
8	0.126	0.90	0.89	0.06	0.95	0.89	0.26
9	0.177	0.86	0.82	0.08	0.82	0.80	0.20
10	0.250	0.85	0.84	0.05	0.70	0.77	0.23
11	0.351	0.90	0.86	0.05	0.69	0.78	0.33
12	0.493	0.93	0.91	0.07	0.73	0.80	0.47
13	0.689	0.92	0.88	0.17	0.79	0.85	0.60
14	0.985	0.95	0.93	0.05	0.73	0.76	0.69

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
3	0.33	0.12	0.66	0.90	0.05	0.08	0.02	0.12	0.17
4	0.09	0.10	0.19	0.79	0.10	0.25	0.01	0.34	0.46
5	0.38	0.11	0.85	0.97	0.11	0.37	0.02	0.45	0.64
6	0.38	0.13	0.81	0.96	0.20	0.47	0.02	0.65	0.79
7	0.39	0.06	0.90	0.94	0.17	0.43	0.06	0.73	0.79
8	0.38	0.25	0.92	0.95	0.26	0.42	0.03	0.85	0.87
9	0.41	0.13	0.80	0.89	0.20	0.52	0.02	0.77	0.83
10	0.53	0.29	0.69	0.83	0.38	0.64	0.06	0.81	0.85
11	0.55	0.33	0.64	0.85	0.50	0.68	0.09	0.87	0.89
12	0.57	0.39	0.73	0.85	0.51	0.73	0.06	0.89	0.92
13	0.60	0.43	0.76	0.89	0.52	0.76	0.03	0.88	0.92
14	0.52	0.45	0.67	0.86	0.53	0.73	0.09	0.92	0.94

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 070853.BEF
RECORDING COMPLETED: 17:44:47 05-Sep-81

SETUP 07 GLS-08 GLS, BAND 3, PASS B

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 10.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 176 DATA SEGMENTS, 102.40 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	51.8 (1.2)	47.4 (0.55)	-45.2 (0.3)	47.8 (0.19)	140.6 (0.1)
4	0.649	63.3 (1.1)	49.2 (0.67)	-42.7 (0.4)	51.8 (0.20)	143.8 (0.1)
5	0.906	71.5 (0.9)	49.3 (0.72)	-41.9 (0.4)	57.1 (0.24)	148.3 (0.1)
6	1.265	74.2 (1.0)	50.5 (0.84)	-40.0 (0.5)	64.7 (0.37)	151.6 (0.2)
7	1.756	70.7 (1.0)	52.9 (2.0)	-42.9 (1.1)	73.7 (0.66)	154.8 (0.3)
8	2.438	64.8 (0.9)	55.8 (2.7)	-47.3 (1.4)	91.2 (1.2)	160.5 (0.4)
9	3.395	68.1 (0.8)	57.4 (2.3)	-40.6 (1.2)	116. (1.2)	160.5 (0.3)
10	4.698	65.9 (0.9)	65.5 (3.0)	-37.3 (1.3)	151. (1.7)	160.8 (0.3)
11	6.451	64.1 (0.6)	60.3 (2.1)	-36.7 (1.0)	188. (1.7)	160.1 (0.3)
12	8.981	63.7 (0.6)	76.7 (2.5)	-40.4 (1.0)	249. (2.8)	157.2 (0.3)

AVERAGE ROTATION ANGLE ON FILE = 245.8
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	4.4 (0.5)	10.9 (0.16)	-49.6 (0.4)	2.43 (6.52E-02)	120.2 (0.8)
4	0.649	8.7 (0.5)	11.0 (0.19)	-43.4 (0.5)	2.48 (7.47E-02)	121.1 (0.8)
5	0.906	8.9 (0.5)	12.9 (0.24)	-37.3 (0.5)	1.96 (7.84E-02)	123.7 (1.1)
6	1.265	8.3 (0.7)	13.6 (0.37)	-33.5 (0.8)	1.79 (0.11)	129.8 (1.7)
7	1.756	9.5 (0.7)	17.0 (0.45)	-32.1 (0.8)	1.70 (0.13)	143.5 (2.3)
8	2.438	4.3 (1.5)	20.7 (1.2)	-31.1 (1.9)	1.61 (0.31)	133.8 (6.4)
9	3.395	13.6 (3.8)	34.2 (5.4)	-13.8 (4.5)	4.35 (1.0)	136.2 (7.4)
10	4.698	-4.4 (4.3)	30.4 (3.8)	-14.0 (3.5)	1.79 (1.1)	117.9 (18.6)
11	6.451	-6.4 (1.1)	32.8 (1.1)	-23.2 (0.9)	2.47 (0.35)	117.5 (4.6)
12	8.981	-0.5 (0.7)	45.9 (1.2)	-20.4 (0.7)	3.55 (0.29)	137.3 (2.4)

AVERAGE ROTATION ANGLE ON FILE = 184.6
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 3, PASS B

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.085 (0.002)	23.7 (0.8)	14.4 (1.5)	0.014 (0.001)	0.015 (0.003)	4.092 (0.727)
4	0.649	0.068 (0.002)	23.3 (1.0)	2.6 (2.0)	0.002 (0.001)	0.021 (0.003)	1.331 (0.105)
5	0.906	0.072 (0.003)	30.2 (0.9)	12.8 (2.2)	0.004 (0.001)	0.038 (0.003)	0.759 (0.048)
6	1.265	0.059 (0.003)	32.9 (1.4)	25.7 (3.0)	0.008 (0.001)	0.042 (0.004)	0.621 (0.045)
7	1.756	0.076 (0.004)	32.2 (1.2)	4.7 (2.8)	0.004 (0.002)	0.054 (0.009)	0.799 (0.054)
8	2.438	0.058 (0.005)	35.8 (2.0)	-17.5 (5.3)	0.001 (0.002)	0.012 (0.010)	1.177 (0.067)
9	3.395	0.068 (0.006)	32.6 (2.3)	-10.8 (5.0)	0.002 (0.003)	0.070 (0.007)	0.965 (0.052)
10	4.698	0.071 (0.007)	36.2 (2.7)	-16.9 (5.3)	0.014 (0.003)	0.092 (0.008)	1.109 (0.063)
11	6.451	0.064 (0.004)	33.7 (3.9)	-24.1 (3.7)	0.025 (0.003)	0.113 (0.006)	1.256 (0.050)
12	8.981	0.086 (0.004)	9.2 (9.4)	-0.3 (5.4)	0.053 (0.003)	0.164 (0.007)	1.287 (0.053)

AVERAGE TIPPER STRIKE ON FILE = 29.0

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.074 (0.001)	71.7 (0.6)	92.5 (0.8)	0.011 (0.001)	0.097 (0.008)	2.677 (0.126)
4	0.649	0.088 (0.001)	72.8 (0.6)	77.7 (0.8)	0.018 (0.001)	0.087 (0.009)	1.912 (0.086)
5	0.906	0.111 (0.002)	66.6 (0.6)	66.7 (0.9)	0.018 (0.001)	0.147 (0.011)	1.891 (0.081)
6	1.265	0.124 (0.002)	68.2 (0.7)	54.0 (1.1)	0.017 (0.002)	0.189 (0.015)	1.990 (0.120)
7	1.756	0.152 (0.003)	70.1 (0.7)	44.6 (1.3)	0.009 (0.002)	0.197 (0.017)	1.803 (0.099)
8	2.438	0.182 (0.006)	71.2 (1.3)	33.3 (1.9)	0.004 (0.004)	0.203 (0.042)	2.121 (0.234)
9	3.395	0.180 (0.007)	73.7 (1.4)	27.0 (2.3)	0.015 (0.004)	0.212 (0.057)	1.306 (0.347)
10	4.698	0.197 (0.009)	74.2 (1.5)	9.9 (2.6)	0.014 (0.005)	0.206 (0.049)	6.484 (6.227)
11	6.451	0.202 (0.006)	74.4 (1.1)	0.5 (1.6)	0.036 (0.004)	0.145 (0.019)	3.357 (0.405)
12	8.981	0.191 (0.005)	71.8 (1.5)	-4.6 (1.6)	0.048 (0.004)	0.085 (0.014)	4.979 (0.587)

AVERAGE TIPPER STRIKE ON FILE = 71.5

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 3, PASS B

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	2.57E-03	1.71E-03	3.40E-06	4.94E-06	7.32E-09
4	0.649	2.89E-03	1.92E-03	4.91E-06	7.42E-06	8.41E-10
5	0.906	3.43E-03	2.38E-03	7.84E-06	1.19E-05	1.19E-08
6	1.265	3.72E-03	2.86E-03	1.12E-05	1.75E-05	2.95E-08
7	1.756	4.23E-03	4.29E-03	1.93E-05	2.56E-05	6.78E-08
8	2.438	4.30E-03	4.57E-03	2.08E-05	3.76E-05	9.67E-08
9	3.395	5.41E-03	9.46E-03	4.42E-05	5.87E-05	2.03E-07
10	4.698	7.72E-03	1.59E-02	7.80E-05	9.27E-05	3.26E-07
11	6.451	1.63E-02	4.03E-02	2.48E-04	2.37E-04	1.97E-07
12	8.981	3.22E-02	6.43E-02	3.78E-04	5.59E-04	2.83E-06

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.57E-03	6.56E-05	3.34E-07	7.35E-07	4.10E-07
1.32E-03	5.18E-05	4.93E-07	1.05E-06	4.67E-07
1.16E-03	4.84E-05	8.07E-07	1.72E-06	5.53E-07
1.05E-03	6.99E-05	1.52E-06	3.22E-06	7.17E-07
6.29E-03	5.39E-05	2.65E-06	5.16E-06	1.00E-06
5.16E-03	9.10E-05	6.78E-06	1.27E-05	1.78E-06
2.10E-03	9.59E-05	1.03E-05	1.82E-05	2.80E-06
2.75E-03	2.09E-04	1.68E-05	2.75E-05	4.02E-06
4.24E-03	2.27E-04	4.05E-05	5.43E-05	8.03E-06
7.28E-03	4.19E-04	7.20E-05	8.54E-05	1.30E-05

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	2.05E-04	4.44E-04	8.42E-06	2.35E-06	2.47E-08
4	0.649	2.11E-04	4.23E-04	1.27E-05	3.00E-06	5.02E-08
5	0.906	2.57E-04	4.78E-04	2.16E-05	4.45E-06	1.01E-07
6	1.265	2.67E-04	5.19E-04	3.18E-05	6.21E-06	1.77E-07
7	1.756	4.76E-04	6.57E-04	4.71E-05	1.02E-05	3.56E-07
8	2.438	4.21E-04	7.56E-04	6.40E-05	1.02E-05	6.88E-07
9	3.395	1.35E-03	9.98E-04	1.10E-04	1.41E-05	1.09E-06
10	4.698	2.28E-03	2.31E-03	1.79E-04	4.74E-05	1.86E-06
11	6.451	4.12E-03	5.30E-03	4.35E-04	1.63E-04	6.96E-06
12	8.981	8.03E-03	7.53E-03	8.29E-04	3.66E-04	1.88E-05

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
4.70E-04	1.29E-03	2.19E-07	1.48E-07	1.24E-07
4.37E-04	1.15E-03	3.62E-07	3.02E-07	1.59E-07
4.35E-04	1.18E-03	2.43E-07	4.36E-07	2.50E-07
6.98E-04	1.42E-03	4.93E-07	4.40E-07	4.98E-07
5.16E-04	1.68E-03	2.35E-06	4.69E-07	8.84E-07
8.27E-04	4.81E-03	4.74E-06	2.26E-06	1.80E-06
2.95E-02	1.33E-02	3.52E-06	1.22E-05	3.27E-06
4.03E-02	2.85E-03	1.28E-05	-3.13E-06	6.36E-06
6.46E-03	2.94E-03	2.69E-05	1.28E-05	1.10E-05
3.72E-03	3.96E-03	5.30E-05	2.95E-05	2.43E-05

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 3, PASS B

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.061	50.8	23.	-44.8	44.	140.9	0.219	66.3	2.44E+02	-44.2	40.	140.6
4	0.649	0.075	51.6	21.	-42.8	48.	143.9	0.202	65.4	2.08E+02	-42.8	44.	144.3
5	0.906	0.098	53.8	19.	-42.0	52.	148.0	0.163	64.6	1.72E+02	-42.4	49.	149.2
6	1.265	0.100	54.3	15.	-39.8	58.	150.9	0.135	64.3	1.46E+02	-41.8	59.	153.2
7	1.756	0.081	57.0	16.	-43.0	66.	154.6	0.463	69.5	1.04E+03	-47.7	43.	173.7
8	2.438	0.138	54.5	5.9	-44.8	75.	160.3	0.550	64.0	1.10E+03	-51.0	59.	186.5
9	3.395	0.149	59.4	11.	-36.4	97.	161.6	0.245	63.1	2.37E+02	-38.6	1.06E+02	166.9
10	4.698	0.126	58.9	12.	-36.0	1.35E+02	162.4	0.234	62.6	2.62E+02	-37.1	1.42E+02	165.9
11	6.451	0.140	59.3	23.	-37.6	1.70E+02	160.5	0.162	55.6	1.38E+02	-37.5	1.89E+02	161.0
12	8.981	0.182	59.0	39.	-42.3	2.23E+02	158.1	0.180	56.5	1.48E+02	-42.4	2.50E+02	159.4

AVERAGE ROTATION ANGLE = 235.9
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 243.2

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.110	3.0	10.	-49.6	2.2	118.8	0.161	261.5	1.22E+02	-57.5	68.	128.1
4	0.649	0.081	6.3	9.6	-44.6	2.2	122.1	0.201	165.2	53.	-46.3	1.18E+02	125.7
5	0.906	0.132	7.5	11.	-36.7	1.9	124.4	0.251	169.7	44.	-33.0	1.19E+02	125.9
6	1.265	0.150	7.4	11.	-33.7	1.9	128.6	0.241	159.3	66.	-28.8	2.02E+02	128.9
7	1.756	0.163	9.0	15.	-30.9	1.7	139.1	0.488	174.3	49.	-7.6	2.15E+02	127.9
8	2.438	0.207	2.8	16.	-28.8	1.2	136.6	0.936	175.1	2.20E+02	29.1	1.40E+03	120.8
9	3.395	0.069	2.9	22.	-19.4	1.0	120.7	0.321	147.4	2.19E+03	-14.4	1.81E+05	125.5
10	4.698	0.158	0.1	30.	-13.0	2.0	132.5	0.208	228.1	1.52E+05	-44.5	31.	133.4
11	6.451	0.120	-5.6	30.	-21.4	2.1	124.0	0.040	146.8	47.	-19.2	7.21E+02	123.2
12	8.981	0.112	-1.1	39.	-20.6	3.1	139.1	0.215	153.2	60.	-13.9	1.17E+02	136.2

AVERAGE ROTATION ANGLE = 183.2
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 178.1

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 3, PASS B

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.464	0.74	0.93	0.09	0.54	0.48	0.40
4	0.649	0.78	0.94	0.02	0.55	0.49	0.49
5	0.906	0.81	0.94	0.10	0.58	0.49	0.51
6	1.265	0.82	0.93	0.24	0.51	0.46	0.49
7	1.756	0.59	0.94	0.23	0.67	0.46	0.49
8	2.438	0.59	0.88	0.27	0.55	0.30	0.45
9	3.395	0.75	0.93	0.30	0.19	0.23	0.40
10	4.698	0.77	0.94	0.30	0.23	0.60	0.38
11	6.451	0.83	0.96	0.16	0.61	0.75	0.54
12	8.981	0.85	0.95	0.37	0.80	0.75	0.60

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
3	0.27	0.14	0.28	0.57	0.41	0.66	0.04	0.92	0.90
4	0.32	0.13	0.31	0.59	0.46	0.69	0.02	0.93	0.90
5	0.34	0.16	0.30	0.63	0.50	0.71	0.07	0.93	0.90
6	0.32	0.18	0.31	0.59	0.50	0.70	0.10	0.91	0.89
7	0.27	0.18	0.20	0.66	0.48	0.70	0.10	0.90	0.87
8	0.22	0.12	0.13	0.49	0.50	0.68	0.04	0.82	0.83
9	0.18	0.06	0.04	0.31	0.45	0.69	0.07	0.88	0.78
10	0.29	0.09	0.08	0.44	0.45	0.67	0.11	0.86	0.81
11	0.50	0.08	0.18	0.82	0.22	0.56	0.19	0.88	0.84
12	0.50	0.25	0.36	0.89	0.13	0.54	0.30	0.85	0.88

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 0708C5.DBR
RECORDING COMPLETED: 21:30:58 05-Sep-81

SETUP 07 GLS-08 GLS, BAND 5, PASS D

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 18 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	72.0 (1.0)	60.9 (1.9)	-37.0 (0.9)	118. (2.2)	164.1 (0.5)
3	4.635	63.1 (1.2)	68.8 (2.9)	-39.3 (1.3)	143. (2.4)	162.4 (0.4)
4	6.486	67.7 (1.2)	72.8 (3.0)	-30.5 (1.3)	201. (3.7)	161.0 (0.5)
5	9.062	63.0 (0.7)	81.5 (2.6)	-36.2 (1.0)	258. (3.3)	158.6 (0.4)
6	12.648	60.1 (0.6)	88.0 (2.9)	-38.6 (1.0)	326. (4.1)	155.5 (0.4)
7	17.561	60.5 (0.5)	88.9 (2.6)	-37.4 (0.8)	406. (5.2)	149.2 (0.4)
8	24.381	58.7 (0.3)	102. (2.1)	-43.3 (0.6)	442. (4.2)	144.3 (0.3)
9	33.945	58.2 (0.2)	103. (1.1)	-48.9 (0.3)	459. (3.2)	138.2 (0.2)
10	46.984	60.3 (0.2)	92.0 (1.2)	-50.8 (0.4)	419. (3.0)	132.1 (0.2)
11	64.506	60.3 (0.4)	91.5 (2.8)	-55.3 (0.9)	371. (4.0)	126.7 (0.3)
12	89.811	62.6 (0.5)	71.9 (2.9)	-50.2 (1.2)	303. (3.5)	124.7 (0.3)
13	129.012	62.1 (0.8)	73.7 (3.2)	-53.9 (1.2)	248. (3.4)	125.7 (0.4)
14	186.956	64.1 (1.2)	56.3 (3.4)	-54.9 (1.8)	207. (4.7)	125.4 (0.7)
15	256.000	68.7 (2.1)	48.5 (6.2)	-59.5 (3.7)	191. (6.7)	130.0 (1.0)
16	341.333	72.2 (2.9)	38.6 (6.7)	-56.5 (5.0)	205. (11.)	131.6 (1.5)
17	512.000	67.3 (3.7)	35.5 (7.8)	-55.5 (6.1)	245. (22.)	135.3 (2.6)

AVERAGE ROTATION ANGLE ON FILE = 243.8
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	193.2 (1.9)	34.0 (2.5)	-25.1 (2.1)	2.13 (0.38)	157.4 (5.1)
3	4.635	186.3 (2.6)	30.7 (2.3)	-25.6 (2.2)	2.44 (0.67)	166.1 (7.5)
4	6.486	176.6 (1.7)	33.9 (1.6)	-27.7 (1.4)	0.370 (0.30)	148.0 (23.7)
5	9.062	179.6 (1.3)	50.2 (1.4)	-23.2 (0.8)	3.88 (0.56)	143.5 (4.7)
6	12.648	176.5 (1.1)	56.7 (1.2)	-25.3 (0.6)	3.80 (0.63)	134.7 (5.1)
7	17.561	174.8 (1.0)	71.6 (1.5)	-28.4 (0.6)	4.51 (0.64)	135.0 (4.2)
8	24.381	173.4 (0.7)	78.6 (1.2)	-32.7 (0.4)	4.07 (0.46)	135.0 (3.3)
9	33.945	173.4 (0.4)	88.0 (0.97)	-37.8 (0.3)	5.01 (0.22)	133.4 (1.3)
10	46.984	175.3 (0.5)	86.6 (1.5)	-43.6 (0.5)	4.58 (0.25)	134.6 (1.5)
11	64.506	171.9 (1.0)	74.4 (2.1)	-51.4 (0.8)	3.80 (0.50)	120.3 (3.8)
12	89.811	173.6 (1.2)	69.0 (2.2)	-51.5 (0.9)	2.88 (0.56)	133.6 (5.6)
13	129.012	172.6 (1.3)	57.5 (2.2)	-50.4 (1.1)	3.04 (0.56)	144.2 (5.6)
14	186.956	173.9 (2.0)	52.0 (3.8)	-50.3 (2.1)	3.21 (0.69)	136.7 (6.4)
15	256.000	184.7 (3.1)	85.5 (14.)	-39.0 (4.7)	3.82 (1.2)	140.7 (9.2)
16	341.333	184.0 (3.2)	86.6 (17.)	-34.1 (5.7)	2.40 (1.2)	135.6 (14.2)
17	512.000	187.4 (5.7)	65.1 (19.)	-32.8 (8.4)	4.16 (1.7)	126.3 (11.2)

AVERAGE ROTATION ANGLE ON FILE = 178.6

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 5, PASS D

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.087 (0.003)	33.5 (0.9)	-13.9 (2.1)	0.002 (0.001)	0.051 (0.009)	0.736 (0.052)
3	4.635	0.073 (0.004)	42.8 (1.6)	-26.1 (3.0)	0.015 (0.002)	0.079 (0.008)	1.302 (0.099)
4	6.486	0.071 (0.004)	54.8 (2.7)	-42.8 (3.7)	0.022 (0.002)	0.140 (0.008)	0.988 (0.079)
5	9.062	0.068 (0.004)	61.3 (4.1)	-55.0 (4.1)	0.029 (0.003)	0.120 (0.006)	1.350 (0.067)
6	12.648	0.063 (0.004)	144.9 (16.4)	-159.6 (8.7)	0.039 (0.004)	0.139 (0.007)	1.683 (0.079)
7	17.561	0.078 (0.005)	144.1 (10.5)	-174.0 (6.0)	0.045 (0.005)	0.156 (0.006)	1.661 (0.066)
8	24.381	0.067 (0.002)	116.4 (5.7)	-148.9 (2.0)	0.038 (0.002)	0.148 (0.005)	1.922 (0.057)
9	33.945	0.105 (0.003)	122.9 (2.8)	174.2 (1.6)	0.015 (0.005)	0.171 (0.004)	2.007 (0.037)
10	46.984	0.092 (0.003)	120.9 (4.8)	150.7 (2.0)	0.046 (0.004)	0.155 (0.004)	1.692 (0.029)
11	64.506	0.038 (0.002)	157.0 (4.3)	132.1 (3.9)	0.013 (0.002)	0.160 (0.007)	1.689 (0.059)
12	89.811	0.032 (0.002)	106.2 (5.3)	171.9 (3.8)	0.004 (0.003)	0.211 (0.008)	1.411 (0.056)
13	129.012	0.044 (0.003)	107.8 (5.5)	-169.0 (3.5)	0.016 (0.003)	0.208 (0.009)	1.471 (0.086)
14	186.956	0.048 (0.004)	126.3 (6.6)	-164.6 (5.0)	0.014 (0.005)	0.233 (0.015)	1.258 (0.104)
15	256.000	0.053 (0.007)	126.4 (8.8)	175.4 (7.5)	0.004 (0.008)	0.229 (0.029)	0.921 (0.138)
16	341.333	0.067 (0.010)	149.8 (5.7)	147.7 (8.2)	0.006 (0.007)	0.252 (0.041)	0.716 (0.153)
17	512.000	0.071 (0.012)	165.6 (7.4)	143.0 (9.7)	0.009 (0.009)	0.177 (0.049)	1.015 (0.251)

AVERAGE TIPPER STRIKE ON FILE = 111.3

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.190 (0.003)	73.2 (0.8)	26.5 (1.1)	0.011 (0.003)	0.070 (0.034)	1.331 (0.174)
3	4.635	0.198 (0.005)	75.9 (0.9)	7.8 (1.4)	0.014 (0.003)	0.223 (0.040)	2.164 (0.470)
4	6.486	0.205 (0.005)	71.4 (0.9)	0.8 (1.4)	0.036 (0.003)	0.347 (0.047)	5.287 (1.588)
5	9.062	0.219 (0.003)	71.0 (0.7)	-10.8 (0.9)	0.043 (0.002)	0.085 (0.019)	3.357 (0.493)
6	12.648	0.187 (0.003)	64.3 (0.9)	-16.5 (1.1)	0.053 (0.002)	0.108 (0.018)	4.793 (0.826)
7	17.561	0.187 (0.004)	55.2 (1.3)	-20.9 (1.1)	0.070 (0.003)	0.094 (0.016)	6.977 (1.672)
8	24.381	0.175 (0.003)	55.0 (1.2)	-31.5 (1.1)	0.062 (0.003)	0.136 (0.009)	8.693 (1.807)
9	33.945	0.133 (0.006)	-8.0 (2.6)	13.8 (2.5)	0.043 (0.005)	0.119 (0.005)	12.724 (2.083)
10	46.984	0.108 (0.005)	8.7 (1.3)	9.2 (2.6)	0.009 (0.002)	0.132 (0.007)	68.456 (88.785)
11	64.506	0.111 (0.005)	44.4 (2.0)	-47.6 (2.8)	0.024 (0.003)	0.067 (0.012)	7.892 (2.213)
12	89.811	0.065 (0.005)	113.8 (28.2)	-116.7 (16.9)	0.042 (0.006)	0.149 (0.013)	14.201 (8.442)
13	129.012	0.063 (0.005)	137.7 (5.5)	-141.7 (4.2)	0.001 (0.006)	0.122 (0.020)	5.919 (1.509)
14	186.956	0.077 (0.009)	155.0 (8.3)	-154.5 (6.9)	0.024 (0.009)	0.119 (0.030)	8.275 (4.645)
15	256.000	0.189 (0.028)	177.2 (5.6)	-153.4 (8.5)	0.004 (0.019)	0.257 (0.049)	2.795 (0.954)
16	341.333	0.227 (0.038)	180.0 (7.0)	-154.4 (9.6)	0.019 (0.027)	0.252 (0.076)	3.048 (1.147)
17	512.000	0.206 (0.052)	198.4 (13.0)	-161.9 (14.4)	0.046 (0.041)	0.036 (0.091)	2.068 (1.017)

AVERAGE TIPPER STRIKE ON FILE = 92.1

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 5, PASS D

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	5.46E-03	6.09E-03	2.98E-05	5.36E-05	1.53E-07
3	4.635	6.10E-03	1.31E-02	6.54E-05	7.57E-05	4.59E-07
4	6.486	1.69E-02	3.41E-02	1.50E-04	2.46E-04	1.30E-06
5	9.062	4.75E-02	8.69E-02	4.45E-04	7.29E-04	3.48E-06
6	12.648	6.84E-02	1.47E-01	9.93E-04	1.22E-03	6.08E-06
7	17.561	2.49E-01	4.43E-01	3.35E-03	5.60E-03	3.90E-05
8	24.381	2.36E+00	4.85E+00	4.81E-02	6.26E-02	4.35E-04
9	33.945	3.53E+01	5.07E+01	4.97E-01	1.27E+00	1.30E-02
10	46.984	5.23E+01	5.18E+01	8.31E-01	3.14E+00	1.18E-02
11	64.506	2.22E+01	3.03E+01	8.19E-01	1.85E+00	2.53E-03
12	89.811	3.38E+01	7.05E+01	3.51E+00	4.74E+00	4.91E-03
13	129.012	3.77E+01	7.35E+01	6.98E+00	9.30E+00	1.75E-02
14	186.956	6.14E+01	1.05E+02	1.67E+01	2.92E+01	6.33E-02
15	256.000	7.07E+01	1.64E+02	3.47E+01	5.88E+01	1.87E-01
16	341.333	6.35E+01	2.06E+02	6.50E+01	8.90E+01	3.27E-01
17	512.000	8.53E+01	4.25E+02	2.13E+02	1.84E+02	1.13E+00

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
2.84E-03	1.13E-03	9.09E-06	4.29E-06	9.53E-07
1.99E-03	6.65E-04	3.23E-05	1.75E-05	1.84E-06
2.28E-03	8.33E-04	6.74E-05	3.84E-05	4.44E-06
4.44E-03	8.56E-04	1.07E-04	5.92E-05	1.22E-05
1.02E-02	1.28E-03	1.93E-04	8.93E-05	2.61E-05
1.81E-02	1.33E-03	3.87E-04	1.58E-04	9.82E-05
4.52E-02	2.20E-02	6.80E-04	3.58E-04	1.12E-04
1.75E-01	1.18E-01	8.64E-04	6.35E-04	4.23E-03
2.51E-01	8.73E-02	1.46E-03	3.13E-04	4.43E-03
5.30E-01	2.57E-02	3.49E-03	-3.70E-05	1.27E-03
9.20E-01	-8.84E-02	-2.83E-03	4.11E-02	4.05E-03
2.84E+00	-2.42E-02	1.66E-02	2.74E-02	1.44E-02
6.99E+00	1.17E+00	9.90E-02	-4.67E-01	6.38E-02
1.86E+01	1.04E+00	1.38E+00	-3.07E+00	1.78E-01
3.46E+01	1.83E+00	5.13E+00	-1.01E+01	2.91E-01
5.32E+01	-1.44E+01	1.06E+01	2.88E+00	8.50E-01

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	5.43E-04	1.08E-03	1.41E-04	8.67E-06	1.49E-06
3	4.635	9.71E-04	2.09E-03	2.09E-04	1.89E-05	2.49E-06
4	6.486	2.66E-03	4.75E-03	9.24E-04	6.27E-05	7.66E-06
5	9.062	8.10E-03	1.34E-02	1.56E-03	1.97E-04	3.15E-05
6	12.648	1.57E-02	2.11E-02	2.73E-03	6.31E-04	4.16E-05
7	17.561	5.12E-02	6.32E-02	8.75E-03	3.17E-03	2.19E-04
8	24.381	5.84E-01	6.40E-01	8.89E-02	4.25E-02	2.52E-03
9	33.945	4.63E+00	7.37E+00	1.60E+00	4.58E-01	2.03E-02
10	46.984	4.87E+00	7.80E+00	3.08E+00	1.33E+00	1.11E-02
11	64.506	2.61E+00	4.61E+00	2.18E+00	7.57E-01	1.46E-02
12	89.811	7.27E+00	9.79E+00	6.48E+00	2.25E+00	2.75E-02
13	129.012	7.58E+00	1.09E+01	1.21E+01	5.23E+00	3.29E-02
14	186.956	1.01E+01	1.70E+01	3.54E+01	1.45E+01	9.78E-02
15	256.000	2.30E+01	1.91E+01	6.96E+01	2.36E+01	5.80E-01
16	341.333	3.43E+01	2.18E+01	1.23E+02	4.70E+01	1.03E+00
17	512.000	5.50E+01	8.06E+01	8.11E+02	1.00E+02	1.62E+00

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
6.81E-03	5.49E-03	-4.58E-05	8.36E-06	1.22E-06
5.33E-03	3.79E-03	-4.50E-05	1.09E-05	1.48E-06
4.83E-03	5.04E-03	-4.68E-04	7.71E-06	2.81E-06
7.81E-03	7.02E-03	-2.29E-04	8.80E-05	6.99E-06
1.34E-02	1.19E-02	-6.21E-04	2.14E-04	1.69E-05
2.35E-02	1.98E-02	-1.44E-03	6.85E-04	5.09E-05
5.35E-02	3.06E-02	-3.67E-03	1.16E-03	2.10E-04
1.02E-01	6.74E-02	-9.23E-03	5.25E-03	7.63E-03
2.25E-01	8.94E-02	-2.90E-02	1.09E-02	5.11E-03
3.62E-01	1.22E-01	-1.12E-01	4.03E-02	4.69E-03
7.93E-01	2.04E-01	-3.25E-01	1.68E-01	1.29E-02
1.64E+00	3.16E-01	-9.12E-01	4.87E-01	3.96E-02
4.29E+00	3.21E-01	-3.07E+00	1.94E+00	1.93E-01
8.32E+00	6.94E-01	-6.18E+00	4.25E+00	6.77E-01
1.39E+01	1.65E+00	-2.30E+01	1.65E+01	2.21E+00
5.41E+01	-1.67E+00	-1.57E+02	1.06E+02	1.54E+01

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 5, PASS D

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.105	51.1	23.	-39.1	83.	162.1	0.191	55.9	4.10E+02	-39.8	1.31E+02	165.9
3	4.635	0.282	49.3	8.8	-47.3	1.11E+02	164.5	0.187	56.2	2.69E+02	-41.5	1.54E+02	166.8
4	6.486	0.270	49.6	9.8	-43.0	1.59E+02	164.0	0.207	53.3	1.83E+02	-37.1	1.89E+02	164.5
5	9.062	0.181	52.9	32.	-40.4	2.23E+02	160.7	0.146	58.2	1.29E+02	-38.8	2.55E+02	160.5
6	12.648	0.181	54.3	51.	-40.2	2.93E+02	156.5	0.152	55.0	1.45E+02	-39.0	3.36E+02	156.9
7	17.561	0.187	55.7	67.	-40.2	3.71E+02	150.7	0.162	57.5	1.22E+02	-38.9	4.09E+02	150.9
8	24.381	0.162	57.6	93.	-44.1	4.32E+02	144.6	0.153	57.4	1.15E+02	-43.8	4.46E+02	145.0
9	33.945	0.171	58.1	1.02E+02	-49.0	4.58E+02	138.2	0.174	58.1	1.06E+02	-49.1	4.61E+02	138.5
10	46.984	0.155	60.1	92.	-50.8	4.18E+02	132.1	0.159	60.3	96.	-50.9	4.20E+02	132.4
11	64.506	0.162	60.1	89.	-55.2	3.67E+02	126.5	0.177	59.8	1.06E+02	-55.5	3.66E+02	127.2
12	89.811	0.220	63.1	71.	-49.4	2.97E+02	124.4	0.236	62.3	91.	-49.7	2.94E+02	125.4
13	129.012	0.209	62.1	74.	-54.0	2.46E+02	126.6	0.225	60.3	91.	-54.0	2.46E+02	126.6
14	186.956	0.216	63.2	56.	-55.1	2.13E+02	126.5	0.236	61.8	73.	-55.1	2.13E+02	126.6
15	256.000	0.186	65.0	49.	-60.6	2.02E+02	130.7	0.231	62.3	82.	-60.7	1.99E+02	131.5
16	341.333	0.178	66.8	44.	-56.4	2.18E+02	132.3	0.198	60.8	85.	-55.9	2.30E+02	131.9
17	512.000	0.183	70.3	35.	-62.8	2.10E+02	132.9	0.158	60.2	92.	-61.2	2.46E+02	132.8

AVERAGE ROTATION ANGLE = 238.7 — AVERAGE ROTATION ANGLE = 238.7

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.320	179.8	22.	-24.1	2.3	156.5	0.116	55.1	1.15E+04	-29.5	2.07E+02	161.0
3	4.635	0.350	178.0	26.	-23.8	2.2	152.9	0.303	-31.0	1.20E+02	-5.5	9.38E+03	133.8
4	6.486	0.295	171.7	31.	-23.8	1.6	124.7	0.546	-26.5	1.24E+02	16.4	6.69E+03	108.0
5	9.062	0.192	173.9	44.	-21.9	3.0	140.0	0.445	-30.3	68.	-0.6	1.31E+03	131.1
6	12.648	0.192	171.9	52.	-26.1	4.8	123.7	0.339	-24.9	82.	-20.8	7.45E+02	117.6
7	17.561	0.214	170.0	63.	-30.2	4.3	116.3	0.480	-30.6	1.19E+02	-30.1	3.82E+02	107.2
8	24.381	0.143	171.2	75.	-33.2	4.0	121.9	0.362	-46.3	80.	-29.8	1.67E+02	118.6
9	33.945	0.113	172.7	86.	-38.0	4.7	131.9	0.136	-2.5	1.01E+02	-38.2	10.	134.0
10	46.984	0.119	174.1	82.	-43.9	4.2	132.4	0.171	0.9	1.07E+02	-44.7	9.4	136.3
11	64.506	0.076	169.2	68.	-52.5	3.3	110.4	0.248	12.9	1.35E+02	-62.8	26.	121.3
12	89.811	0.107	170.8	61.	-53.3	2.3	116.2	0.303	22.8	1.76E+02	-61.3	34.	126.2
13	129.012	0.057	170.2	50.	-51.0	3.3	140.7	0.143	22.2	87.	-37.1	20.	125.8
14	186.956	0.081	169.2	38.	-51.4	3.4	134.2	0.155	22.6	1.01E+02	-38.7	17.	121.0
15	256.000	0.096	180.5	44.	-40.0	4.0	126.8	0.286	25.9	2.25E+02	-35.1	19.	125.0
16	341.333	0.162	189.4	33.	-33.1	5.7	113.0	0.316	29.4	1.53E+02	-33.6	18.	106.9
17	512.000	0.566	197.3	19.	-39.9	6.7	102.1	0.585	31.6	1.29E+02	-52.0	11.	85.9

AVERAGE ROTATION ANGLE = 175.6 — AVERAGE ROTATION ANGLE = 182.0

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 07 GLS-08 GLS, BAND 5, PASS D

		PREDICTED COHERENCIES						LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES (WITH RESPECT TO LOCAL UNROTATED AXES)								
		LOCAL SITE			REMOTE SITE											
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	3.311	0.78	0.82	0.36	0.21	0.39	0.74	0.23	0.02	0.07	0.44	0.47	0.73	0.11	0.82	0.92
3	4.635	0.79	0.86	0.52	0.35	0.57	0.78	0.46	0.10	0.13	0.69	0.44	0.73	0.16	0.78	0.87
4	6.486	0.88	0.90	0.55	0.55	0.61	0.85	0.69	0.14	0.14	0.87	0.51	0.76	0.28	0.79	0.90
5	9.062	0.93	0.94	0.52	0.66	0.78	0.90	0.71	0.13	0.21	0.94	0.43	0.73	0.33	0.85	0.94
6	12.648	0.91	0.95	0.44	0.68	0.81	0.83	0.62	0.11	0.17	0.95	0.19	0.56	0.35	0.86	0.94
7	17.561	0.96	0.97	0.52	0.78	0.86	0.89	0.70	0.25	0.34	0.98	0.43	0.61	0.45	0.87	0.96
8	24.381	0.99	0.99	0.89	0.95	0.95	0.96	0.87	0.58	0.63	1.00	0.75	0.81	0.88	0.96	0.99
9	33.945	1.00	1.00	0.87	0.98	0.93	0.85	0.89	0.70	0.84	1.00	0.70	0.85	0.86	0.96	1.00
10	46.984	1.00	1.00	0.85	0.97	0.91	0.82	0.86	0.68	0.83	1.00	0.69	0.82	0.40	0.93	1.00
11	64.506	0.99	1.00	0.82	0.90	0.92	0.86	0.82	0.47	0.64	1.00	0.61	0.75	0.66	0.94	0.99
12	89.811	0.98	1.00	0.74	0.91	0.95	0.80	0.82	0.46	0.58	1.00	0.66	0.77	0.64	0.96	0.99
13	129.012	0.96	1.00	0.74	0.84	0.95	0.59	0.48	0.05	0.52	1.00	0.05	0.42	0.52	0.92	0.98
14	186.956	0.95	1.00	0.73	0.73	0.94	0.47	0.48	0.05	0.49	1.00	0.03	0.40	0.50	0.86	0.98
15	256.000	0.92	1.00	0.77	0.69	0.89	0.50	0.53	0.35	0.23	1.00	0.17	0.52	0.65	0.79	0.95
16	341.333	0.85	0.99	0.77	0.62	0.88	0.32	0.30	0.46	0.16	0.99	0.30	0.22	0.63	0.70	0.92
17	512.000	0.77	0.99	0.78	0.51	0.92	0.12	0.24	0.31	0.22	0.99	0.33	0.26	0.48	0.55	0.85

WOODWARD-CLYDE CONSULTANTS

GLASS MOUNTAIN, CA.

RESULTS FROM CROSSPOWER FILE: 0106C2.BCV
RECORDING COMPLETED: 13:49:50 06-Sep-81

SETUP 01 GLS-06 GLS, BAND 2, PASS B

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 200.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 48 DATA SEGMENTS, 10.24 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	158.9 (3.2)	136. (6.1)	-71.2 (1.3)	71.1 (4.0)	111.1 (1.8)
4	0.033	162.6 (7.1)	113. (4.8)	-71.5 (1.4)	77.0 (4.6)	105.6 (1.6)
5	0.046	161.6 (2.0)	94.5 (2.2)	-71.4 (0.7)	59.5 (1.8)	105.5 (0.9)
6	0.064	165.7 (2.1)	79.2 (1.8)	-69.6 (0.6)	50.7 (1.5)	107.7 (0.9)
7	0.089	162.1 (1.5)	74.9 (1.6)	-71.5 (0.6)	42.1 (1.1)	105.5 (0.7)
8	0.126	161.5 (0.9)	60.3 (0.93)	-68.3 (0.4)	31.4 (0.43)	108.8 (0.4)
9	0.177	167.2 (1.9)	52.7 (1.8)	-68.4 (1.0)	28.9 (0.63)	109.0 (0.6)
10	0.250	162.0 (2.2)	43.0 (1.7)	-66.5 (1.2)	20.5 (0.70)	111.2 (1.0)
11	0.351	166.2 (4.3)	31.4 (1.4)	-60.0 (1.8)	16.2 (0.67)	115.1 (1.3)
12	0.493	160.0 (3.2)	25.6 (1.3)	-62.1 (1.4)	12.2 (0.62)	118.6 (1.5)
13	0.689	157.8 (3.5)	22.5 (1.2)	-60.0 (1.6)	9.70 (0.70)	125.5 (2.1)
14	0.985	172.8 (4.0)	25.5 (2.0)	-58.0 (2.4)	11.3 (0.66)	126.7 (1.6)

AVERAGE ROTATION ANGLE ON FILE = 343.2
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	112.3 (1.4)	30.6 (0.37)	-71.8 (0.3)	66.3 (3.5)	99.8 (1.5)
4	0.033	114.5 (0.8)	27.4 (0.17)	-73.6 (0.2)	54.3 (0.88)	103.2 (0.5)
5	0.046	115.7 (0.8)	22.0 (0.17)	-73.4 (0.2)	45.7 (0.76)	103.8 (0.5)
6	0.064	115.5 (0.8)	17.1 (0.12)	-73.3 (0.2)	33.9 (0.56)	108.9 (0.5)
7	0.089	110.7 (1.0)	15.4 (0.19)	-70.7 (0.4)	31.8 (0.63)	111.3 (0.6)
8	0.126	113.8 (1.0)	12.1 (0.15)	-67.7 (0.4)	25.4 (0.52)	116.8 (0.6)
9	0.177	122.4 (3.3)	10.4 (0.49)	-70.8 (1.7)	23.4 (1.6)	125.6 (1.8)
10	0.250	116.6 (7.0)	10.2 (0.70)	-67.8 (2.6)	20.1 (2.4)	124.0 (3.3)
11	0.351	109.7 (9.4)	9.08 (0.80)	-66.6 (5.1)	25.0 (3.6)	121.1 (4.9)
12	0.493	110.2 (5.3)	8.96 (0.83)	-56.0 (2.7)	26.9 (4.8)	127.7 (5.1)
13	0.689	119.3 (6.5)	7.70 (0.97)	-59.1 (3.4)	20.6 (2.7)	132.2 (4.0)
14	0.985	110.0 (10.2)	8.69 (1.8)	-52.8 (6.7)	25.7 (3.5)	146.4 (5.0)

AVERAGE ROTATION ANGLE ON FILE = 294.2
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 2, PASS B

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.119 (0.015)	-47.2 (17.0)	-168.3 (7.6)	0.036 (0.030)	0.064 (0.019)	0.476 (0.122)
4	0.033	0.117 (0.007)	-85.2 (7.3)	-171.7 (3.4)	0.026 (0.014)	0.012 (0.012)	0.338 (0.251)
5	0.046	0.127 (0.006)	-74.1 (6.7)	-171.3 (2.6)	0.028 (0.014)	0.023 (0.011)	0.332 (0.073)
6	0.064	0.109 (0.005)	-68.6 (7.0)	180.0 (2.7)	0.015 (0.013)	0.026 (0.011)	0.153 (0.074)
7	0.089	0.122 (0.007)	-82.1 (6.3)	-166.9 (3.3)	0.014 (0.013)	0.020 (0.009)	0.293 (0.055)
8	0.126	0.122 (0.006)	-89.4 (4.7)	-179.1 (2.9)	0.016 (0.010)	0.019 (0.005)	0.308 (0.035)
9	0.177	0.139 (0.010)	-87.4 (9.2)	-175.3 (4.2)	0.038 (0.020)	0.008 (0.009)	0.124 (0.065)
10	0.250	0.148 (0.011)	-82.1 (9.5)	170.7 (4.1)	0.000 (0.024)	0.025 (0.012)	0.322 (0.081)
11	0.351	0.162 (0.010)	-64.5 (8.1)	168.2 (3.6)	0.027 (0.022)	0.033 (0.012)	0.573 (0.106)
12	0.493	0.113 (0.009)	-74.0 (11.7)	156.6 (4.3)	0.005 (0.023)	0.008 (0.014)	0.368 (0.126)
13	0.689	0.156 (0.018)	-118.2 (15.8)	132.4 (8.3)	0.083 (0.018)	0.012 (0.017)	0.453 (0.148)
14	0.985	0.114 (0.009)	-70.8 (10.4)	153.2 (4.3)	0.003 (0.021)	0.031 (0.020)	0.224 (0.136)

AVERAGE TIPPER STRIKE ON FILE = -78.6

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.142 (0.014)	39.1 (2.2)	-152.5 (5.7)	0.006 (0.005)	0.124 (0.010)	2.068 (0.263)
4	0.033	0.124 (0.006)	44.7 (1.6)	-164.0 (2.9)	0.018 (0.003)	0.110 (0.004)	2.250 (0.143)
5	0.046	0.113 (0.007)	47.0 (2.1)	-169.7 (3.6)	0.016 (0.004)	0.108 (0.005)	2.634 (0.218)
6	0.064	0.145 (0.006)	38.0 (1.0)	-164.9 (2.4)	0.018 (0.002)	0.116 (0.004)	2.710 (0.213)
7	0.089	0.153 (0.005)	36.1 (1.3)	-170.1 (2.0)	0.022 (0.003)	0.138 (0.006)	1.728 (0.125)
8	0.126	0.139 (0.004)	32.9 (0.9)	-169.0 (1.6)	0.010 (0.002)	0.118 (0.006)	2.051 (0.165)
9	0.177	0.171 (0.010)	27.3 (1.5)	-164.3 (3.4)	0.004 (0.004)	0.128 (0.019)	3.199 (1.086)
10	0.250	0.199 (0.014)	23.3 (1.9)	-178.5 (4.1)	0.011 (0.006)	0.178 (0.031)	2.068 (0.956)
11	0.351	0.147 (0.011)	40.3 (2.7)	-163.1 (4.1)	0.017 (0.007)	0.200 (0.038)	1.257 (0.394)
12	0.493	0.202 (0.011)	35.7 (1.7)	-161.4 (3.2)	0.005 (0.006)	0.198 (0.046)	1.724 (0.722)
13	0.689	0.223 (0.013)	35.3 (1.7)	-160.5 (3.3)	0.003 (0.007)	0.210 (0.051)	3.434 (2.641)
14	0.985	0.208 (0.014)	34.0 (2.2)	-150.5 (3.8)	0.019 (0.008)	0.428 (0.063)	1.249 (0.399)

AVERAGE TIPPER STRIKE ON FILE = 36.1

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 2, PASS B

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	3.38E-02	3.61E-02	2.01E-06	1.18E-06	6.35E-08
4	0.033	9.17E-03	4.01E-02	3.28E-06	5.15E-07	6.14E-08
5	0.046	9.47E-03	1.09E-02	1.63E-06	8.31E-07	8.60E-08
6	0.064	7.24E-03	7.03E-03	1.79E-06	1.09E-06	5.90E-08
7	0.089	3.27E-03	3.14E-03	1.27E-06	7.48E-07	4.18E-08
8	0.126	4.78E-03	4.48E-03	3.36E-06	1.96E-06	5.66E-08
9	0.177	1.14E-03	1.59E-03	1.92E-06	7.62E-07	4.36E-08
10	0.250	6.18E-04	6.31E-04	1.41E-06	6.88E-07	3.88E-08
11	0.351	4.77E-04	5.29E-04	2.23E-06	9.40E-07	6.24E-08
12	0.493	4.10E-04	5.03E-04	3.71E-06	1.46E-06	5.57E-08
13	0.689	4.11E-04	4.88E-04	6.06E-06	2.23E-06	9.59E-08
14	0.985	4.94E-04	5.10E-04	9.29E-06	3.69E-06	1.35E-07

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
5.55E-03	1.21E-02	2.33E-06	1.35E-06	1.89E-06
6.03E-02	8.75E-02	-4.86E-07	1.09E-06	9.90E-07
4.04E-04	3.41E-04	1.93E-06	5.71E-07	7.09E-07
2.64E-04	4.35E-04	1.73E-06	5.49E-07	6.11E-07
1.20E-04	1.10E-04	9.33E-07	3.93E-07	5.29E-07
1.04E-04	9.11E-05	3.26E-07	3.48E-07	4.94E-07
7.87E-05	7.68E-05	3.21E-07	3.37E-07	4.55E-07
9.60E-05	7.83E-05	2.65E-07	3.30E-07	4.80E-07
1.20E-04	9.62E-05	2.41E-07	3.68E-07	4.16E-07
1.27E-04	1.03E-04	2.82E-07	3.86E-07	4.58E-07
1.48E-04	1.22E-04	3.07E-07	3.83E-07	5.24E-07
2.56E-04	2.14E-04	6.23E-07	5.60E-07	6.13E-07

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	1.22E-02	5.29E-03	7.38E-07	1.50E-06	1.62E-08
4	0.033	6.81E-03	2.95E-03	6.38E-07	1.31E-06	1.03E-08
5	0.046	4.51E-03	1.68E-03	6.59E-07	1.48E-06	1.21E-08
6	0.064	2.86E-03	1.38E-03	9.14E-07	1.73E-06	1.28E-08
7	0.089	1.32E-03	8.44E-04	6.70E-07	1.26E-06	1.36E-08
8	0.126	1.94E-03	1.26E-03	1.77E-06	3.39E-06	2.43E-08
9	0.177	7.23E-04	2.70E-04	6.70E-07	1.94E-06	1.66E-08
10	0.250	3.34E-04	1.56E-04	5.83E-07	1.34E-06	1.76E-08
11	0.351	3.18E-04	1.95E-04	7.86E-07	1.95E-06	2.15E-08
12	0.493	3.57E-04	1.69E-04	1.19E-06	2.91E-06	4.26E-08
13	0.689	4.17E-04	1.18E-04	1.86E-06	4.69E-06	8.07E-08
14	0.985	4.54E-04	2.88E-04	2.96E-06	6.81E-06	1.34E-07

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
6.88E-04	4.09E-04	1.93E-06	5.36E-07	4.44E-07
1.58E-04	1.42E-04	2.39E-07	5.11E-08	1.06E-07
8.88E-05	1.30E-04	1.84E-07	8.80E-08	1.06E-07
1.09E-04	1.45E-04	1.49E-07	1.64E-08	7.29E-08
1.66E-04	2.20E-04	1.40E-07	9.88E-09	6.37E-08
2.07E-04	3.76E-04	1.29E-07	1.76E-08	6.32E-08
4.04E-04	9.84E-04	1.35E-07	4.04E-08	1.01E-07
3.89E-04	1.35E-03	2.46E-07	4.03E-08	1.39E-07
3.38E-04	1.83E-03	2.41E-07	2.65E-08	9.85E-08
7.19E-04	1.61E-03	2.30E-07	5.26E-09	9.54E-08
6.00E-04	8.34E-04	3.94E-07	-6.18E-08	1.51E-07
1.20E-03	9.47E-04	9.36E-07	1.77E-07	2.96E-07

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 2, PASS B

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.090	133.8	34.	-71.3	5.0	106.5	0.121	213.4	7.95E+02	-72.9	1.05E+02	108.2
4	0.033	0.313	192.3	85.	-30.4	73.	97.8	0.126	121.3	88.	-73.4	7.50E+03	136.7
5	0.046	0.192	147.2	38.	-72.2	5.2	107.4	0.042	177.2	1.19E+02	-69.7	69.	104.1
6	0.064	0.161	149.8	38.	-69.1	6.0	106.4	0.062	195.8	1.11E+02	-69.6	62.	107.6
7	0.089	0.067	151.4	33.	-71.3	11.	106.1	0.023	169.6	84.	-70.8	47.	105.6
8	0.126	0.065	143.1	41.	-69.2	21.	109.1	0.037	167.7	66.	-68.6	35.	108.5
9	0.177	0.078	122.2	26.	-69.0	12.	111.2	0.034	187.1	76.	-67.7	34.	109.5
10	0.250	0.064	127.2	21.	-69.0	9.3	111.9	0.041	194.1	93.	-67.4	29.	110.2
11	0.351	0.087	124.6	19.	-67.1	8.0	118.8	0.080	197.0	1.05E+02	-60.2	23.	111.7
12	0.493	0.039	132.4	16.	-61.9	7.5	123.6	0.062	197.8	1.09E+02	-56.1	19.	117.9
13	0.689	0.056	139.2	16.	-60.1	7.0	124.2	0.106	199.6	1.39E+02	-58.1	16.	121.9
14	0.985	0.066	154.2	17.	-54.6	8.8	126.4	0.127	201.0	1.79E+02	-56.6	17.	128.6

AVERAGE ROTATION ANGLE = 323.1
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 365.1

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.042	91.1	20.	-71.4	1.4	101.2	0.121	112.7	33.	-72.4	83.	102.0
4	0.033	0.067	155.9	17.	-77.8	33.	105.9	0.121	112.8	29.	-74.1	60.	102.2
5	0.046	0.069	144.5	15.	-76.6	29.	105.9	0.127	111.1	24.	-74.1	51.	103.4
6	0.064	0.091	137.3	15.	-74.2	24.	109.0	0.132	109.9	19.	-72.5	41.	107.5
7	0.089	0.115	130.6	13.	-72.6	23.	111.8	0.140	104.2	20.	-70.6	49.	110.3
8	0.126	0.114	123.3	12.	-69.9	21.	118.1	0.169	102.2	16.	-64.0	47.	114.2
9	0.177	0.110	133.2	8.4	-69.7	16.	123.9	0.289	87.4	27.	-55.0	4.77E+02	116.4
10	0.250	0.134	146.9	6.5	-69.4	12.	126.2	0.327	86.3	35.	-61.9	1.73E+03	116.6
11	0.351	0.145	131.1	7.9	-70.1	15.	129.0	0.390	78.6	14.	-60.6	2.53E+03	114.4
12	0.493	0.146	126.7	8.1	-57.3	17.	130.1	0.269	95.2	85.	-61.3	2.67E+03	127.2
13	0.689	0.147	143.5	5.6	-46.2	16.	131.6	0.401	85.9	41.	-55.6	9.52E+02	139.9
14	0.985	0.253	119.0	7.5	-54.7	19.	145.2	0.473	160.3	5.50E+02	-43.4	1.04E+02	117.6

AVERAGE ROTATION ANGLE = 311.9
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 283.9

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 2, PASS B

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.023	0.63	0.60	0.19	0.82	0.41	0.13
4	0.033	0.31	0.61	0.30	0.97	0.78	0.30
5	0.046	0.76	0.67	0.39	0.96	0.82	0.36
6	0.064	0.80	0.69	0.33	0.98	0.86	0.37
7	0.089	0.80	0.75	0.30	0.94	0.80	0.39
8	0.126	0.91	0.95	0.32	0.95	0.86	0.52
9	0.177	0.81	0.90	0.29	0.79	0.44	0.36
10	0.250	0.77	0.87	0.26	0.67	0.26	0.37
11	0.351	0.77	0.87	0.33	0.69	0.28	0.42
12	0.493	0.78	0.88	0.32	0.57	0.29	0.53
13	0.689	0.80	0.87	0.36	0.65	0.35	0.58
14	0.985	0.76	0.81	0.40	0.50	0.46	0.55

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.79	0.84	0.63	0.35	0.57	0.35	0.02	0.25	0.42
0.42	0.37	0.31	0.14	0.70	0.62	0.03	0.40	0.47
0.86	0.97	0.67	0.34	0.65	0.68	0.03	0.40	0.51
0.86	0.96	0.65	0.36	0.71	0.75	0.04	0.44	0.54
0.79	0.93	0.46	0.18	0.75	0.74	0.04	0.33	0.38
0.80	0.94	0.60	0.47	0.95	0.89	0.13	0.58	0.61
0.37	0.79	0.44	0.17	0.91	0.76	0.09	0.50	0.51
0.25	0.64	0.36	0.08	0.90	0.72	0.06	0.41	0.44
0.20	0.64	0.37	0.08	0.94	0.77	0.12	0.46	0.46
0.21	0.51	0.33	0.06	0.95	0.83	0.10	0.54	0.53
0.15	0.57	0.38	0.03	0.96	0.87	0.15	0.56	0.58
0.31	0.43	0.29	0.09	0.95	0.88	0.13	0.50	0.52

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 0106C3.EDB
RECORDING COMPLETED: 20:05:52 06-Sep-81

SETUP 01 GLS-06 GLS, BAND 3, PASS E

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 10.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 54 DATA SEGMENTS, 102.40 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	167.9 (0.9)	24.8 (0.23)	-63.2 (0.3)	13.6 (0.16)	118.6 (0.4)
4	0.649	166.5 (0.8)	22.1 (0.20)	-62.0 (0.3)	11.6 (0.17)	122.8 (0.4)
5	0.906	166.6 (0.9)	20.3 (0.20)	-58.2 (0.3)	11.2 (0.19)	131.5 (0.5)
6	1.265	168.4 (1.3)	18.4 (0.24)	-55.9 (0.4)	11.4 (0.26)	136.1 (0.6)
7	1.756	179.4 (2.3)	16.2 (0.36)	-52.7 (0.7)	13.1 (0.29)	139.0 (0.5)
8	2.438	168.2 (4.7)	18.5 (0.58)	-42.9 (1.2)	12.2 (0.47)	140.4 (1.2)
9	3.395	164.1 (13.0)	17.0 (1.1)	-40.9 (2.9)	12.7 (1.3)	148.4 (1.9)
10	4.698	147.7 (16.7)	24.5 (2.2)	-34.2 (3.7)	14.1 (1.4)	138.8 (5.7)
11	6.451	117.6 (18.1)	25.3 (2.7)	-30.3 (1.9)	20.6 (4.1)	136.6 (4.5)
12	8.981	136.4 (8.6)	36.8 (2.7)	-24.1 (2.2)	21.3 (2.5)	152.5 (3.3)

AVERAGE ROTATION ANGLE ON FILE = 338.3
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	73.7 (0.8)	8.63 (0.18)	-6.3 (0.2)	12.6 (0.26)	130.6 (0.4)
4	0.649	42.8 (1.7)	17.5 (0.39)	-21.1 (0.9)	6.08 (0.26)	133.6 (1.0)
5	0.906	34.6 (0.6)	22.2 (0.34)	-24.8 (0.5)	5.75 (0.11)	139.7 (0.6)
6	1.265	33.7 (0.7)	23.6 (0.54)	-26.8 (0.7)	5.62 (0.13)	144.0 (0.7)
7	1.756	31.9 (0.8)	29.2 (0.93)	-27.7 (0.9)	6.01 (0.18)	148.1 (0.9)
8	2.438	25.7 (1.4)	34.4 (3.3)	-32.2 (2.8)	5.61 (0.47)	151.7 (2.4)
9	3.395	27.4 (2.2)	36.8 (3.6)	-35.4 (2.9)	7.41 (0.50)	156.1 (1.9)
10	4.698	18.9 (3.0)	42.8 (5.5)	-16.8 (3.8)	9.03 (0.87)	150.5 (3.1)
11	6.451	5.2 (2.3)	62.2 (10.)	-20.5 (4.7)	5.37 (1.1)	148.2 (5.7)
12	8.981	6.1 (4.2)	52.2 (10.)	-27.5 (5.5)	8.93 (1.7)	140.7 (5.5)

AVERAGE ROTATION ANGLE ON FILE = 210.0
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 3, PASS E

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.145 (0.004)	-86.0 (1.9)	152.1 (1.7)	0.017 (0.005)	0.032 (0.004)	0.182 (0.029)
4	0.649	0.138 (0.004)	-77.6 (2.0)	152.2 (1.5)	0.002 (0.005)	0.032 (0.004)	0.168 (0.028)
5	0.906	0.119 (0.003)	-68.6 (2.8)	136.9 (1.5)	0.014 (0.006)	0.024 (0.004)	0.126 (0.031)
6	1.265	0.112 (0.005)	-85.8 (3.1)	116.0 (2.5)	0.024 (0.005)	0.023 (0.005)	0.213 (0.044)
7	1.756	0.092 (0.004)	-78.6 (4.1)	112.5 (2.7)	0.002 (0.007)	0.040 (0.007)	0.500 (0.075)
8	2.438	0.089 (0.006)	-93.5 (4.9)	93.8 (4.5)	0.016 (0.007)	0.030 (0.012)	0.446 (0.131)
9	3.395	0.097 (0.011)	-101.7 (6.1)	95.9 (6.5)	0.013 (0.010)	0.082 (0.023)	0.688 (0.262)
10	4.698	0.096 (0.011)	-110.3 (6.1)	79.3 (6.8)	0.007 (0.010)	0.053 (0.025)	0.996 (0.284)
11	6.451	0.108 (0.014)	-102.5 (21.6)	24.7 (9.1)	0.061 (0.015)	0.100 (0.037)	1.423 (0.745)
12	8.981	0.081 (0.008)	-67.0 (13.7)	57.4 (5.9)	0.010 (0.019)	0.142 (0.037)	2.319 (1.880)

AVERAGE TIPPER STRIKE ON FILE = -87.2

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.185 (0.002)	26.8 (0.9)	-151.6 (0.7)	0.075 (0.002)	0.151 (0.005)	0.727 (0.014)
4	0.649	0.204 (0.002)	33.7 (0.7)	-147.9 (0.7)	0.069 (0.002)	0.162 (0.005)	1.171 (0.026)
5	0.906	0.212 (0.003)	34.9 (0.6)	-155.9 (0.9)	0.049 (0.002)	0.161 (0.006)	2.095 (0.072)
6	1.265	0.225 (0.004)	36.3 (0.5)	-161.8 (1.1)	0.036 (0.002)	0.137 (0.009)	4.182 (0.379)
7	1.756	0.235 (0.006)	36.7 (0.6)	-159.4 (1.5)	0.040 (0.002)	0.156 (0.013)	7.265 (1.471)
8	2.438	0.273 (0.011)	35.7 (0.8)	-177.9 (2.2)	0.016 (0.003)	0.215 (0.034)	2.968 (0.470)
9	3.395	0.276 (0.019)	38.5 (1.3)	-159.0 (4.1)	0.053 (0.005)	0.149 (0.033)	2.621 (0.530)
10	4.698	0.178 (0.024)	37.1 (2.9)	177.5 (7.6)	0.036 (0.007)	0.097 (0.049)	1.547 (0.332)
11	6.451	0.271 (0.030)	35.0 (2.5)	-175.3 (6.4)	0.044 (0.106)	0.224 (0.058)	0.588 (0.110)
12	8.981	0.229 (0.030)	35.0 (4.0)	165.9 (7.6)	0.048 (0.013)	0.242 (0.072)	0.630 (0.203)

AVERAGE TIPPER STRIKE ON FILE = 35.0

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 3, PASS E

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	6.20E-04	1.93E-04	1.35E-06	2.26E-06	4.11E-08
4	0.649	6.64E-04	1.94E-04	2.19E-06	3.72E-06	7.32E-08
5	0.906	6.61E-04	2.16E-04	3.50E-06	5.69E-06	9.77E-08
6	1.265	6.38E-04	2.61E-04	5.59E-06	8.49E-06	1.06E-07
7	1.756	6.23E-04	3.37E-04	9.11E-06	1.31E-05	1.34E-07
8	2.438	5.15E-04	3.25E-04	1.16E-05	1.39E-05	1.16E-07
9	3.395	4.53E-04	4.07E-04	1.84E-05	1.84E-05	1.55E-07
10	4.698	4.73E-04	4.20E-04	2.38E-05	1.84E-05	1.59E-07
11	6.451	4.60E-04	5.72E-04	3.25E-05	2.19E-05	3.21E-07
12	8.981	8.07E-04	7.44E-04	5.05E-05	3.27E-05	2.81E-07

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
3.66E-05	4.34E-05	2.06E-07	4.00E-07	3.55E-07
2.97E-05	4.48E-05	2.16E-07	4.08E-07	3.57E-07
3.23E-05	4.53E-05	2.40E-07	4.39E-07	3.96E-07
4.22E-05	6.19E-05	2.81E-07	5.24E-07	4.50E-07
3.92E-05	4.03E-05	4.74E-07	7.73E-07	4.64E-07
5.31E-05	4.99E-05	1.26E-06	2.40E-06	5.41E-07
8.24E-05	6.83E-05	1.55E-06	6.17E-06	7.70E-07
1.04E-04	1.12E-04	5.71E-06	1.24E-05	1.30E-06
1.64E-04	1.26E-04	6.04E-06	2.67E-05	1.90E-06
2.37E-04	2.59E-04	1.07E-05	4.47E-05	3.66E-06

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	1.19E-04	2.40E-04	2.07E-06	1.58E-06	3.52E-08
4	0.649	1.16E-04	2.68E-04	3.41E-06	1.81E-06	5.45E-08
5	0.906	1.21E-04	3.12E-04	5.44E-06	2.41E-06	8.06E-08
6	1.265	1.16E-04	3.19E-04	8.48E-06	3.46E-06	1.11E-07
7	1.756	1.35E-04	3.56E-04	1.24E-05	5.52E-06	1.48E-07
8	2.438	1.10E-04	3.78E-04	1.45E-05	7.00E-06	1.90E-07
9	3.395	1.16E-04	3.83E-04	1.79E-05	1.03E-05	1.77E-07
10	4.698	1.13E-04	4.38E-04	1.82E-05	1.42E-05	2.27E-07
11	6.451	1.08E-04	6.04E-04	1.98E-05	2.00E-05	5.82E-07
12	8.981	1.65E-04	9.99E-04	3.87E-05	3.10E-05	6.82E-07

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
2.28E-05	1.00E-04	1.29E-07	3.48E-08	7.54E-08
2.16E-05	9.70E-05	1.29E-07	2.07E-08	7.92E-08
2.04E-05	1.09E-04	1.27E-07	2.29E-08	1.05E-07
3.67E-05	1.68E-04	1.36E-07	5.21E-08	1.45E-07
5.39E-05	2.21E-04	1.26E-07	1.26E-07	2.23E-07
7.77E-05	1.17E-03	3.15E-07	2.57E-07	4.45E-07
1.20E-04	4.15E-04	8.68E-07	1.20E-06	8.50E-07
2.09E-04	5.93E-04	8.67E-07	6.51E-07	1.42E-06
3.46E-04	9.15E-04	5.17E-06	1.34E-06	2.48E-06
8.77E-04	1.64E-03	3.25E-06	8.67E-06	5.26E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 3, PASS E

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.088	146.6	17.	-63.7	7.8	118.8	0.026	206.9	41.	-61.7	21.	116.8
4	0.649	0.076	150.5	17.	-60.9	7.7	122.6	0.028	208.4	37.	-59.7	19.	121.5
5	0.906	0.060	153.8	17.	-57.8	8.2	129.9	0.030	209.4	36.	-55.0	17.	127.1
6	1.265	0.053	152.1	16.	-54.4	8.4	134.9	0.037	127.7	17.	-50.4	51.	130.5
7	1.756	0.043	138.2	14.	-47.0	8.4	133.2	0.077	212.1	37.	-49.9	16.	136.3
8	2.438	0.099	216.3	5.0	-43.9	13.	140.0	0.057	212.1	62.	-45.4	17.	141.1
9	3.395	0.220	198.7	2.2	-28.7	14.	143.6	0.112	211.0	1.24E+02	-31.5	18.	145.6
10	4.698	0.251	203.3	2.5	-36.7	13.	145.9	0.136	208.3	1.05E+02	-43.4	25.	147.7
11	6.451	0.382	185.1	1.8	-59.2	19.	148.6	0.120	113.6	30.	-30.0	1.51E+02	128.5
12	8.981	0.483	97.4	23.	-25.0	1.8	150.8	0.180	120.3	43.	-25.0	1.65E+02	157.9

AVERAGE ROTATION ANGLE = 344.2 — AVERAGE ROTATION ANGLE = 363.0

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.127	72.5	8.1	-6.9	10.	130.8	0.225	75.9	12.	-6.4	27.	132.0
4	0.649	0.146	49.4	15.	-19.1	6.5	132.1	0.232	36.4	31.	-22.5	10.	132.5
5	0.906	0.148	35.5	20.	-24.6	5.7	140.1	0.215	29.3	36.	-24.1	9.4	137.6
6	1.265	0.128	33.6	22.	-27.1	5.6	144.7	0.202	28.3	53.	-25.7	11.	141.3
7	1.756	0.163	30.4	26.	-28.0	5.8	147.4	0.237	27.1	83.	-26.3	11.	143.8
8	2.438	0.201	22.0	25.	-29.1	5.4	150.3	0.539	14.7	6.72E+02	-22.9	7.0	116.4
9	3.395	0.141	9.3	18.	-26.9	5.6	149.2	0.238	25.9	2.67E+02	-28.6	20.	148.2
10	4.698	0.064	7.0	26.	-15.1	7.2	149.0	0.073	21.0	2.77E+02	-12.5	64.	145.3
11	6.451	0.047	-9.5	24.	-15.3	7.1	135.4	0.365	0.2	4.22E+02	-8.3	1.78E+02	128.6
12	8.981	0.135	-9.6	35.	-18.5	5.9	120.9	0.534	-14.6	5.53E+02	-6.5	8.63E+02	120.3

AVERAGE ROTATION ANGLE = 204.1 — AVERAGE ROTATION ANGLE = 204.4

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 3, PASS E

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.464	0.90	0.84	0.31	0.90	0.78	0.54
4	0.649	0.93	0.86	0.41	0.91	0.77	0.62
5	0.906	0.94	0.88	0.44	0.92	0.77	0.65
6	1.265	0.94	0.88	0.43	0.86	0.73	0.64
7	1.756	0.94	0.92	0.47	0.83	0.69	0.62
8	2.438	0.88	0.89	0.40	0.73	0.42	0.47
9	3.395	0.80	0.89	0.40	0.62	0.59	0.28
10	4.698	0.69	0.81	0.28	0.53	0.60	0.37
11	6.451	0.58	0.82	0.33	0.46	0.50	0.40
12	8.981	0.61	0.78	0.21	0.32	0.58	0.28

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
3	0.77	0.80	0.42	0.23	0.92	0.90	0.03	0.53	0.48
4	0.78	0.79	0.43	0.28	0.94	0.93	0.04	0.60	0.52
5	0.79	0.79	0.43	0.34	0.96	0.95	0.11	0.65	0.59
6	0.75	0.72	0.41	0.38	0.97	0.96	0.08	0.71	0.67
7	0.74	0.74	0.48	0.44	0.96	0.96	0.15	0.78	0.75
8	0.45	0.67	0.42	0.29	0.94	0.90	0.16	0.75	0.71
9	0.61	0.61	0.42	0.43	0.91	0.85	0.14	0.78	0.70
10	0.57	0.50	0.29	0.39	0.89	0.73	0.08	0.65	0.55
11	0.44	0.40	0.26	0.35	0.89	0.60	0.08	0.60	0.45
12	0.52	0.37	0.20	0.32	0.88	0.60	0.02	0.54	0.35

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 0106C5.DBZ
RECORDING COMPLETED: 18:49:16 06-Sep-81

SETUP 01 GLS-06 GLS, BAND 5, PASS D

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 26 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES		XY PHASE(Z)	YX ROTATED APP RES		YX PHASE(Z)
2	3.311	158.6 (7.0)	19.8	(0.63)	-34.4 (0.9)	14.0	(1.1)	146.4 (2.2)
3	4.635	184.9 (16.9)	21.2	(3.7)	-37.2 (3.8)	19.6	(1.8)	155.4 (2.2)
4	6.486	148.3 (9.5)	29.0	(2.6)	-19.1 (3.1)	18.8	(6.2)	138.5 (8.3)
5	9.062	128.1 (7.4)	28.2	(1.7)	-24.2 (1.7)	20.6	(3.6)	144.4 (5.0)
6	12.648	141.5 (3.0)	45.8	(1.1)	-29.1 (0.7)	27.2	(1.3)	153.2 (1.3)
7	17.561	144.4 (0.6)	54.3	(0.45)	-33.3 (0.2)	29.9	(0.26)	148.2 (0.3)
8	24.381	140.8 (0.4)	60.3	(0.33)	-37.5 (0.2)	33.6	(0.17)	144.5 (0.1)
9	33.945	135.6 (0.3)	69.5	(0.34)	-42.1 (0.1)	35.2	(0.18)	140.1 (0.2)
10	46.984	138.5 (0.5)	58.9	(0.38)	-50.0 (0.2)	35.5	(0.35)	135.4 (0.3)
11	64.506	137.4 (1.0)	51.0	(0.40)	-53.7 (0.2)	35.9	(0.43)	132.1 (0.4)
12	89.811	138.0 (2.1)	43.6	(0.52)	-56.1 (0.3)	33.0	(0.49)	127.3 (0.5)
13	129.012	128.3 (5.0)	37.1	(0.83)	-56.7 (0.6)	27.8	(1.2)	130.6 (1.5)
14	186.956	120.3 (4.4)	28.5	(0.86)	-57.8 (0.8)	21.2	(1.5)	133.4 (2.2)
15	256.000	101.5 (13.9)	24.5	(2.1)	-55.8 (1.1)	22.0	(3.6)	136.4 (2.7)
16	341.333	58.1 (6.0)	16.2	(1.2)	-50.8 (2.0)	30.7	(2.0)	137.4 (1.9)
17	512.000	49.3 (5.3)	12.5	(1.9)	-41.1 (4.4)	33.4	(1.9)	136.1 (1.7)

AVERAGE ROTATION ANGLE ON FILE = 308.4
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES		XY PHASE(Z)	YX ROTATED APP RES		YX PHASE(Z)
2	3.311	120.4 (1.4)	6.35	(0.29)	-27.2 (1.3)	35.8	(2.2)	138.6 (1.8)
3	4.635	107.6 (4.1)	10.5	(0.97)	-35.5 (4.3)	53.4	(7.2)	161.3 (4.7)
4	6.486	116.2 (3.3)	10.6	(1.4)	-16.0 (3.6)	69.6	(16.)	141.7 (6.6)
5	9.062	117.3 (4.8)	8.94	(1.5)	-4.5 (4.6)	37.5	(6.8)	140.2 (5.5)
6	12.648	99.5 (1.8)	13.4	(0.81)	-37.3 (1.9)	120.	(15.)	146.4 (3.8)
7	17.561	92.9 (1.7)	16.0	(0.70)	-35.5 (1.4)	82.7	(4.1)	149.4 (1.5)
8	24.381	99.8 (1.2)	18.1	(0.67)	-40.9 (1.1)	96.0	(2.4)	143.7 (0.7)
9	33.945	93.3 (0.6)	21.3	(0.30)	-46.5 (0.4)	105.	(2.8)	140.1 (0.8)
10	46.984	98.1 (0.4)	18.8	(0.19)	-53.1 (0.3)	98.8	(3.4)	134.3 (1.0)
11	64.506	100.9 (0.6)	16.3	(0.26)	-54.9 (0.4)	88.1	(3.6)	133.2 (1.2)
12	89.811	102.3 (1.0)	14.3	(0.44)	-57.9 (0.9)	78.3	(3.4)	124.3 (1.2)
13	129.012	101.8 (1.4)	10.9	(0.43)	-56.6 (1.2)	79.4	(4.0)	122.3 (1.5)
14	186.956	96.4 (1.8)	11.0	(0.65)	-58.3 (1.7)	57.7	(3.3)	122.9 (1.7)
15	256.000	90.7 (1.8)	11.6	(0.95)	-61.5 (2.3)	70.6	(4.6)	126.3 (1.9)
16	341.333	97.6 (1.8)	7.46	(0.97)	-48.3 (3.8)	69.4	(5.7)	128.2 (2.4)
17	512.000	97.0 (2.7)	7.51	(1.2)	-47.4 (4.6)	62.9	(6.0)	134.6 (2.8)

AVERAGE ROTATION ANGLE ON FILE = 282.0
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 5, PASS D

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.084 (0.003)	-90.4 (4.0)	83.4 (2.4)	0.016 (0.006)	0.022 (0.017)	0.421 (0.286)
3	4.635	0.079 (0.008)	-94.7 (9.1)	63.4 (5.6)	0.008 (0.012)	0.130 (0.034)	0.703 (0.591)
4	6.486	0.053 (0.008)	-63.9 (31.4)	63.8 (8.4)	0.008 (0.028)	0.079 (0.056)	0.954 (0.505)
5	9.062	0.105 (0.010)	-88.2 (18.0)	12.0 (10.3)	0.059 (0.013)	0.097 (0.039)	8.338 (18.139)
6	12.648	0.080 (0.005)	-116.4 (6.0)	4.9 (3.4)	0.016 (0.008)	0.075 (0.013)	1.518 (0.328)
7	17.561	0.067 (0.003)	-81.8 (2.6)	-11.0 (2.3)	0.009 (0.003)	0.053 (0.003)	1.244 (0.057)
8	24.381	0.075 (0.001)	-85.3 (0.8)	10.2 (0.9)	0.016 (0.001)	0.058 (0.002)	1.628 (0.052)
9	33.945	0.170 (0.002)	-65.4 (1.0)	5.2 (0.7)	0.035 (0.003)	0.054 (0.002)	2.562 (0.076)
10	46.984	0.112 (0.003)	-103.3 (4.5)	-52.8 (1.7)	0.010 (0.009)	0.071 (0.003)	1.916 (0.075)
11	64.506	0.055 (0.001)	-94.3 (3.3)	-31.3 (0.9)	0.008 (0.003)	0.088 (0.004)	1.999 (0.160)
12	89.811	0.066 (0.002)	-70.1 (5.5)	-11.3 (3.1)	0.035 (0.003)	0.099 (0.005)	1.832 (0.280)
13	129.012	0.069 (0.004)	-56.3 (10.1)	12.2 (5.8)	0.040 (0.004)	0.094 (0.009)	1.702 (0.337)
14	186.956	0.072 (0.005)	-71.9 (30.4)	-2.0 (25.4)	0.047 (0.006)	0.128 (0.016)	2.330 (0.711)
15	256.000	0.080 (0.005)	-48.0 (3.4)	-11.6 (3.8)	0.018 (0.004)	0.123 (0.020)	0.980 (0.281)
16	341.333	0.114 (0.007)	-41.3 (2.3)	-9.2 (3.4)	0.024 (0.004)	0.108 (0.031)	0.956 (0.403)
17	512.000	0.139 (0.007)	-38.3 (2.3)	-20.6 (3.0)	0.025 (0.005)	0.006 (0.036)	1.820 (0.792)

AVERAGE TIPPER STRIKE ON FILE = -75.6

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.260 (0.018)	36.5 (1.3)	170.4 (4.1)	0.010 (0.006)	0.255 (0.021)	3.733 (0.648)
3	4.635	0.489 (0.059)	28.1 (2.1)	-176.9 (6.9)	0.017 (0.018)	0.047 (0.038)	1.218 (0.199)
4	6.486	0.502 (0.120)	40.5 (4.9)	165.7 (13.7)	0.084 (0.036)	0.192 (0.057)	2.691 (0.887)
5	9.062	0.361 (0.051)	15.3 (19.5)	14.9 (8.7)	0.203 (0.039)	0.298 (0.057)	1.823 (0.452)
6	12.648	0.387 (0.047)	68.6 (8.7)	140.7 (7.0)	0.043 (0.058)	0.147 (0.024)	0.823 (0.094)
7	17.561	0.175 (0.024)	29.6 (12.5)	167.3 (7.8)	0.055 (0.031)	0.172 (0.020)	0.546 (0.068)
8	24.381	0.217 (0.019)	54.0 (6.9)	157.9 (5.1)	0.036 (0.025)	0.072 (0.015)	0.834 (0.066)
9	33.945	0.325 (0.014)	78.3 (4.0)	166.0 (2.5)	0.127 (0.016)	0.084 (0.008)	0.504 (0.025)
10	46.984	0.314 (0.020)	49.3 (3.4)	118.1 (3.8)	0.038 (0.018)	0.035 (0.006)	0.732 (0.024)
11	64.506	0.143 (0.017)	58.6 (8.7)	128.0 (7.0)	0.009 (0.022)	0.072 (0.008)	0.893 (0.039)
12	89.811	0.198 (0.033)	34.1 (6.9)	126.3 (9.6)	0.008 (0.024)	0.100 (0.013)	0.986 (0.066)
13	129.012	0.152 (0.033)	-30.3 (41.3)	39.3 (13.5)	0.092 (0.025)	0.076 (0.021)	0.951 (0.089)
14	186.956	0.162 (0.031)	-45.3 (16.3)	-48.1 (12.8)	0.071 (0.027)	0.014 (0.024)	0.648 (0.088)
15	256.000	0.177 (0.042)	-39.7 (10.4)	-25.5 (13.7)	0.011 (0.032)	0.090 (0.026)	0.396 (0.072)
16	341.333	0.216 (0.037)	-35.1 (5.5)	-16.1 (9.9)	0.022 (0.020)	0.082 (0.034)	0.714 (0.091)
17	512.000	0.225 (0.030)	-28.5 (7.4)	-10.0 (7.5)	0.083 (0.019)	0.127 (0.045)	0.689 (0.132)

AVERAGE TIPPER STRIKE ON FILE = 19.6

SETUP 01 CLS-06 CLS, BAND 5, PASS D

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	8.17E-04	7.97E-04	3.55E-05	2.62E-05	3.21E-07
3	4.635	9.74E-04	9.94E-04	5.57E-05	3.86E-05	5.33E-07
4	6.486	1.39E-03	1.68E-03	9.22E-05	5.83E-05	4.48E-07
5	9.062	3.40E-03	3.93E-03	3.14E-04	1.94E-04	3.19E-06
6	12.648	4.75E-02	1.13E-01	8.88E-03	2.05E-03	5.21E-05
7	17.561	3.01E-01	3.28E-01	3.38E-02	2.19E-02	1.51E-04
8	24.381	1.65E+00	1.33E+00	1.75E-01	1.72E-01	7.03E-04
9	33.945	4.39E+00	7.33E+00	1.07E+00	4.50E-01	2.45E-02
10	46.984	8.03E+00	3.11E+01	6.89E+00	8.26E-01	8.23E-02
11	64.506	4.74E+00	2.16E+01	7.11E+00	7.72E-01	2.18E-02
12	89.811	2.89E+00	1.49E+01	7.68E+00	7.84E-01	2.48E-02
13	129.012	3.48E+00	2.31E+01	2.03E+01	1.18E+00	5.73E-02
14	186.956	2.01E+00	1.66E+01	2.72E+01	1.78E+00	8.68E-02
15	256.000	3.57E+00	1.92E+01	4.50E+01	6.56E+00	1.30E-01
16	341.333	7.69E+00	3.61E+01	1.36E+02	1.86E+01	5.81E-01
17	512.000	2.36E+01	7.49E+01	4.44E+02	6.54E+01	3.60E+00

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
5.19E-04	1.53E-03	9.17E-06	5.33E-06	1.27E-06
6.11E-04	1.49E-03	2.03E-05	1.03E-05	1.94E-06
6.84E-04	1.27E-03	3.61E-05	1.61E-05	3.90E-06
1.16E-03	1.38E-03	6.75E-05	1.32E-05	5.70E-06
1.29E-03	1.17E-03	1.92E-04	7.47E-05	2.68E-05
4.40E-03	4.87E-03	7.92E-05	2.79E-05	1.70E-04
6.50E-03	5.54E-03	7.79E-04	2.92E-04	1.75E-04
1.92E-02	2.09E-02	1.34E-03	7.80E-04	3.65E-03
2.65E-02	5.35E-02	4.41E-03	5.24E-04	2.58E-02
1.95E-02	3.71E-02	3.88E-03	3.85E-03	2.42E-03
4.04E-02	3.42E-02	7.51E-03	2.73E-03	3.03E-03
8.20E-02	7.99E-02	1.77E-02	9.03E-03	6.30E-03
2.24E-01	2.41E-01	3.33E-02	-4.97E-02	1.41E-02
5.18E-01	4.30E-01	5.82E-02	6.68E-03	2.80E-02
1.72E+00	2.03E+00	5.14E-02	-4.19E-02	9.75E-02
5.86E+00	7.19E+00	-5.03E-01	2.68E+00	4.36E-01

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	3.19E-04	7.04E-04	3.01E-05	2.10E-05	1.43E-06
3	4.635	3.08E-04	9.28E-04	3.39E-05	2.56E-05	1.50E-05
4	6.486	3.56E-04	3.35E-03	9.63E-05	2.39E-05	1.23E-04
5	9.062	1.24E-03	1.47E-04	1.02E-04	2.64E-04	5.33E-04
6	12.648	4.21E-02	6.91E-02	2.29E-03	6.31E-03	2.56E-04
7	17.561	1.94E-01	6.59E-01	2.65E-02	2.45E-02	5.11E-04
8	24.381	1.03E+00	3.89E+00	1.91E-01	1.21E-01	4.56E-03
9	33.945	2.83E+00	7.07E+00	4.77E-01	7.34E-01	6.02E-02
10	46.984	9.69E+00	6.39E+00	1.00E+00	4.61E+00	2.31E-01
11	64.506	6.82E+00	3.84E+00	9.26E-01	4.88E+00	7.31E-02
12	89.811	5.37E+00	2.87E+00	9.67E-01	5.56E+00	8.38E-02
13	129.012	7.36E+00	2.17E+00	1.52E+00	1.47E+01	1.77E-01
14	186.956	6.62E+00	3.27E+00	2.40E+00	1.93E+01	2.19E-01
15	256.000	7.92E+00	1.06E+01	7.53E+00	3.19E+01	4.15E-01
16	341.333	1.84E+01	2.16E+01	1.90E+01	9.94E+01	1.23E+00
17	512.000	3.27E+01	4.01E+01	7.56E+01	3.26E+02	7.17E+00

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
8.20E-04	1.69E-03	3.59E-05	1.67E-05	9.27E-06
8.65E-04	2.22E-03	1.45E-04	7.72E-05	2.19E-05
1.23E-03	8.41E-03	9.46E-04	5.65E-04	1.71E-04
2.02E-03	4.46E-02	4.63E-03	2.68E-03	1.69E-03
3.19E-03	1.07E-01	1.36E-02	7.45E-03	1.15E-02
8.53E-03	2.05E-01	2.96E-02	1.45E-02	3.16E-02
1.57E-02	3.02E-01	4.50E-02	2.24E-02	7.89E-02
3.15E-02	4.80E-01	5.96E-02	2.19E-02	1.32E-01
7.47E-02	5.99E-01	6.12E-02	2.40E-02	2.51E-01
1.02E-01	4.58E-01	8.05E-02	2.55E-02	2.23E-01
2.13E-01	5.52E-01	4.08E-02	4.50E-02	4.65E-01
3.69E-01	5.73E-01	1.55E-03	7.48E-02	4.62E-01
6.87E-01	5.35E-01	2.44E-02	1.13E-01	7.00E-01
1.07E+00	8.82E-01	2.45E-01	4.62E-01	1.83E+00
2.85E+00	1.75E+00	1.58E+00	1.76E+00	2.92E+00
1.06E+01	9.16E+00	2.17E+00	1.56E+01	7.79E+00

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS, BAND 5, PASS D

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.049	132.6	17.	-33.2	3.0	141.2	0.276	133.7	23.	-26.9	9.35E+02	140.3
3	4.635	0.082	131.7	20.	-29.4	1.6	144.7	0.275	131.0	25.	-22.5	1.07E+03	143.5
4	6.486	0.072	222.0	4.3	-30.1	26.	152.2	0.156	216.5	2.66E+02	-31.0	37.	152.8
5	9.062	0.091	136.7	33.	-25.8	8.4	150.7	0.149	114.1	41.	-22.0	77.	148.4
6	12.640	0.054	136.0	45.	-28.3	23.	151.6	0.075	150.5	49.	-29.1	31.	152.3
7	17.561	0.050	143.7	55.	-33.1	30.	148.3	0.047	144.1	56.	-33.1	31.	148.4
8	24.381	0.061	141.1	60.	-37.4	33.	144.4	0.060	140.7	61.	-37.4	34.	144.4
9	33.945	0.054	135.5	69.	-42.0	35.	140.0	0.053	135.8	70.	-42.0	36.	140.0
10	46.984	0.065	138.3	60.	-50.1	35.	135.5	0.070	139.4	60.	-50.2	36.	135.6
11	64.506	0.080	137.3	51.	-53.6	35.	131.6	0.084	139.6	52.	-53.5	36.	131.5
12	89.811	0.093	136.8	44.	-56.2	32.	127.5	0.099	142.8	45.	-56.0	34.	127.3
13	129.012	0.085	131.7	37.	-56.5	27.	128.9	0.115	170.6	43.	-52.4	30.	124.5
14	186.956	0.129	125.1	29.	-57.6	22.	131.7	0.187	95.8	25.	-58.3	38.	131.1
15	256.000	0.114	94.9	24.	-55.6	23	135.9	0.155	86.3	23.	-55.5	34.	135.4
16	341.333	0.114	58.9	16.	-51.2	30.	137.6	0.197	79.2	19.	-50.6	45.	137.1
17	512.000	0.014	47.5	12.	-44.1	32.	135.9	0.163	87.7	22.	-46.2	60.	136.8

AVERAGE ROTATION ANGLE = 308.1 — AVERAGE ROTATION ANGLE = 311.7

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.397	48.9	3.6	-50.8	2.2	158.5	0.389	108.2	1.00E+02	-57.0	5.84E+02	146.0
3	4.635	0.705	125.9	1.2	-19.2	0.86	132.8	0.449	110.0	1.39E+02	-59.9	1.26E+03	154.7
4	6.486	1.046	116.8	0.38	32.7	1.1	141.3	0.636	95.9	3.18E+02	-62.5	1.14E+03	151.2
5	9.062	1.257	99.7	0.22	-40.2	6.61E-02	58.1	0.603	84.7	28.	-45.4	2.87E+04	-35.1
6	12.640	0.682	150.2	2.7	-4.8	6.0	142.6	0.252	89.1	18.	-52.5	7.29E+02	181.2
7	17.561	0.470	120.0	5.4	-14.0	28.	138.2	0.204	76.7	24.	-37.5	1.73E+02	153.3
8	24.381	0.222	108.5	9.3	-37.7	69.	142.1	0.086	90.4	25.	-42.7	1.18E+02	144.3
9	33.945	0.104	94.7	20.	-46.5	82.	139.1	0.074	91.8	22.	-47.0	1.21E+02	140.1
10	46.984	0.043	98.4	19.	-53.1	78.	133.9	0.019	96.5	19.	-53.6	1.22E+02	134.5
11	64.506	0.078	102.2	16.	-55.0	69.	133.2	0.050	98.3	17.	-54.9	1.07E+02	133.4
12	89.811	0.077	101.5	14.	-57.7	68.	124.1	0.054	96.2	17.	-57.1	1.03E+02	123.6
13	129.012	0.040	99.4	11.	-57.4	73.	121.9	0.034	93.2	14.	-58.0	1.13E+02	122.6
14	186.956	0.045	93.6	11.	-58.3	53.	120.4	0.081	87.6	15.	-57.9	75.	120.1
15	256.000	0.104	90.0	11.	-61.7	65	124.7	0.113	85.9	16.	-61.9	83.	124.9
16	341.333	0.072	98.0	7.5	-49.1	58.	126.4	0.032	91.4	15.	-49.9	81.	126.9
17	512.000	0.049	92.4	7.9	-47.0	52.	133.3	0.025	85.0	19.	-46.6	87.	132.6

AVERAGE ROTATION ANGLE = 282.5 — AVERAGE ROTATION ANGLE = 272.6

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 01 GLS-06 GLS. BAND 5, PASS D

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	3.311	0.72	0.53	0.49	0.36	0.34	0.34
3	4.635	0.72	0.51	0.54	0.20	0.21	0.50
4	6.486	0.76	0.65	0.40	0.09	0.20	0.53
5	9.062	0.86	0.78	0.66	0.15	0.05	0.50
6	12.648	0.98	0.98	0.83	0.61	0.25	0.31
7	17.561	0.99	0.99	0.71	0.82	0.64	0.08
8	24.381	1.00	1.00	0.91	0.94	0.88	0.18
9	33.945	1.00	1.00	0.93	0.98	0.92	0.54
10	46.984	1.00	1.00	0.87	0.99	0.97	0.69
11	64.506	1.00	1.00	0.95	0.99	0.96	0.50
12	89.811	0.99	1.00	0.94	0.97	0.95	0.38
13	129.012	0.99	1.00	0.95	0.97	1.28	0.53
14	186.956	0.96	0.99	0.93	0.95	1.02	0.48
15	256.000	0.93	0.99	0.91	0.93	0.98	0.42
16	341.333	0.90	0.97	0.92	0.92	0.96	0.52
17	512.000	0.88	0.96	0.94	0.83	0.90	0.66

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.38	0.32	0.25	0.18	0.68	0.58	0.05	0.38	0.47
3	0.44	0.34	0.26	0.20	0.48	0.39	0.02	0.29	0.34
4	0.30	0.42	0.20	0.15	0.26	0.23	0.05	0.14	0.18
5	0.33	0.56	0.32	0.16	0.28	0.23	0.05	0.06	0.14
6	0.56	0.92	0.50	0.33	0.67	0.35	0.18	0.28	0.29
7	0.81	0.90	0.53	0.39	0.79	0.66	0.15	0.23	0.30
8	0.94	0.91	0.71	0.55	0.92	0.89	0.22	0.44	0.52
9	0.91	0.93	0.35	0.34	0.98	0.94	0.53	0.28	0.28
10	0.84	0.98	0.73	0.48	1.00	0.97	0.76	0.67	0.65
11	0.77	0.97	0.62	0.25	1.00	0.95	0.47	0.56	0.54
12	0.67	0.76	0.53	0.09	1.00	0.95	0.30	0.43	0.44
13	0.55	0.96	0.74	0.17	1.00	0.96	0.50	0.68	0.64
14	0.52	0.94	0.50	0.24	1.00	0.95	0.47	0.31	0.23
15	0.72	0.92	0.24	0.25	1.00	0.95	0.43	0.08	0.11
16	0.62	0.88	0.10	0.49	0.99	0.95	0.51	0.25	0.27
17	0.68	0.79	0.29	0.12	0.99	0.95	0.69	0.20	0.25

WOODWARD-CLYDE CONSULTANTS

GLASS MOUNTAIN, CA.

RESULTS FROM CROSSPOWER FILE: 0214C2.BDK
RECORDING COMPLETED: 16:09:25 07-Sep-81

SETUP 02 GLS-14 GLS, BAND 2, PASS B

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 200.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 63 DATA SEGMENTS, 10.24 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	159.5 (38.3)	145. (22.)	-77.3 (3.7)	164. (21.)	109.3 (2.1)
4	0.033	170.5 (3.3)	111. (3.8)	-70.2 (1.2)	160. (3.5)	104.8 (0.6)
5	0.046	169.7 (2.6)	79.3 (5.2)	-75.3 (1.9)	142. (2.6)	105.3 (0.6)
6	0.064	164.8 (3.2)	81.3 (2.9)	-75.1 (1.0)	109. (1.6)	107.0 (0.4)
7	0.089	161.4 (3.8)	78.1 (2.1)	-74.6 (0.8)	100. (1.6)	104.6 (0.5)
8	0.126	151.6 (1.7)	53.5 (0.86)	-76.7 (0.5)	75.7 (0.90)	106.8 (0.3)
9	0.177	148.9 (4.4)	43.8 (1.3)	-73.5 (0.8)	59.9 (1.6)	106.6 (0.8)
10	0.250	157.5 (4.6)	31.4 (1.3)	-71.2 (1.3)	47.5 (1.7)	107.9 (1.0)
11	0.351	169.1 (7.7)	22.0 (1.8)	-72.3 (2.3)	32.1 (1.4)	106.8 (1.3)
12	0.493	145.1 (6.6)	18.9 (0.99)	-65.8 (1.4)	29.8 (2.0)	110.5 (2.0)
13	0.689	150.1 (31.6)	14.2 (4.0)	-59.7 (5.3)	21.7 (2.8)	110.2 (6.9)
14	0.985	148.9 (5.3)	10.1 (1.2)	-52.8 (3.2)	29.4 (3.3)	118.5 (3.3)

AVERAGE ROTATION ANGLE ON FILE = 158.1

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	15.1 (3.9)	228. (13.)	-39.7 (1.4)	209. (9.2)	109.8 (0.5)
4	0.033	31.5 (4.1)	136. (7.0)	-57.0 (1.0)	206. (4.9)	109.7 (0.5)
5	0.046	32.4 (2.4)	94.2 (2.5)	-67.2 (0.8)	161. (2.0)	109.4 (0.4)
6	0.064	28.3 (1.3)	76.9 (1.0)	-67.4 (0.4)	120. (0.69)	110.1 (0.2)
7	0.089	27.8 (1.1)	62.4 (1.0)	-70.0 (0.5)	111. (0.68)	110.4 (0.2)
8	0.126	19.3 (0.9)	49.1 (0.68)	-66.0 (0.4)	82.2 (0.51)	112.8 (0.2)
9	0.177	25.7 (2.3)	44.2 (2.9)	-69.5 (1.9)	70.7 (0.63)	115.1 (0.3)
10	0.250	19.1 (6.8)	41.4 (7.2)	-54.4 (5.1)	55.5 (0.97)	119.5 (0.5)
11	0.351	14.0 (3.1)	29.7 (2.0)	-56.7 (1.9)	49.1 (0.76)	124.8 (0.5)
12	0.493	14.6 (3.7)	26.6 (2.1)	-58.0 (2.4)	44.8 (0.93)	130.5 (0.5)
13	0.689	22.5 (2.9)	17.4 (2.3)	-46.2 (3.9)	41.6 (0.75)	138.1 (0.5)
14	0.985	23.2 (2.4)	16.3 (3.0)	-22.0 (5.2)	49.9 (1.0)	144.5 (0.6)

AVERAGE ROTATION ANGLE ON FILE = 202.8
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 2, PASS B

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.209 (0.034)	5.6 (7.3)	143.8 (9.6)	0.056 (0.022)	0.079 (0.024)	0.959 (0.522)
4	0.033	0.142 (0.019)	78.3 (7.6)	16.7 (7.5)	0.037 (0.016)	0.058 (0.011)	1.584 (0.329)
5	0.046	0.104 (0.009)	118.1 (11.8)	4.7 (5.1)	0.027 (0.019)	0.089 (0.018)	1.616 (0.304)
6	0.064	0.115 (0.009)	108.5 (9.6)	0.9 (4.4)	0.011 (0.019)	0.057 (0.010)	1.171 (0.264)
7	0.089	0.121 (0.018)	85.9 (13.0)	-16.5 (8.4)	0.043 (0.021)	0.038 (0.009)	0.936 (0.218)
8	0.126	0.150 (0.011)	104.8 (7.5)	6.7 (4.3)	0.039 (0.018)	0.038 (0.005)	0.427 (0.070)
9	0.177	0.177 (0.016)	111.6 (13.7)	-14.7 (5.3)	0.050 (0.037)	0.019 (0.011)	0.350 (0.164)
10	0.250	0.182 (0.042)	64.8 (10.2)	-22.3 (13.3)	0.031 (0.030)	0.041 (0.014)	0.735 (0.219)
11	0.351	0.173 (0.036)	-15.8 (13.2)	151.9 (11.9)	0.005 (0.040)	0.044 (0.019)	1.512 (0.779)
12	0.493	0.106 (0.023)	-42.1 (31.3)	128.7 (11.9)	0.016 (0.056)	0.033 (0.021)	0.204 (0.237)
13	0.689	0.217 (0.044)	-129.6 (12.8)	86.8 (19.7)	0.099 (0.020)	0.048 (0.038)	0.856 (0.389)
14	0.985	0.204 (0.047)	-118.7 (8.3)	112.4 (13.3)	0.005 (0.029)	0.085 (0.035)	0.337 (0.201)

AVERAGE TIPPER STRIKE ON FILE = 30.9

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.294 (0.031)	-22.0 (6.5)	173.6 (5.9)	0.103 (0.024)	0.103 (0.025)	0.915 (0.132)
4	0.033	0.188 (0.008)	-78.8 (7.3)	-168.5 (2.4)	0.049 (0.021)	0.055 (0.013)	1.454 (0.192)
5	0.046	0.184 (0.006)	-65.6 (5.8)	-171.6 (2.0)	0.058 (0.016)	0.040 (0.011)	1.965 (0.277)
6	0.064	0.177 (0.003)	-63.4 (2.7)	-177.8 (0.8)	0.031 (0.008)	0.046 (0.006)	2.228 (0.266)
7	0.089	0.171 (0.003)	-58.5 (2.7)	-177.3 (1.0)	0.034 (0.007)	0.054 (0.006)	2.005 (0.178)
8	0.126	0.180 (0.003)	-59.5 (1.6)	176.2 (0.8)	0.042 (0.005)	0.061 (0.004)	1.135 (0.068)
9	0.177	0.157 (0.004)	-53.2 (4.0)	176.0 (1.6)	0.036 (0.010)	0.029 (0.009)	1.826 (0.343)
10	0.250	0.179 (0.008)	-50.4 (7.7)	177.0 (4.5)	0.091 (0.013)	0.015 (0.020)	1.099 (0.449)
11	0.351	0.171 (0.011)	-17.2 (4.5)	-169.1 (3.7)	0.049 (0.011)	0.045 (0.012)	0.787 (0.174)
12	0.493	0.135 (0.008)	-36.7 (6.9)	-175.5 (3.5)	0.025 (0.015)	0.060 (0.015)	0.852 (0.172)
13	0.689	0.175 (0.014)	-16.9 (5.0)	-167.2 (4.6)	0.017 (0.015)	0.018 (0.020)	1.385 (0.273)
14	0.985	0.234 (0.022)	-7.2 (4.3)	-175.8 (5.3)	0.009 (0.017)	0.032 (0.024)	1.506 (0.275)

AVERAGE TIPPER STRIKE ON FILE = -44.1

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 2, PASS B

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	6.94E-02	1.84E-02	4.91E-07	2.39E-06	1.49E-07
4	0.033	4.29E-02	5.76E-02	2.59E-06	2.58E-06	6.40E-08
5	0.046	2.24E-02	7.25E-03	4.94E-07	1.94E-06	3.41E-08
6	0.064	1.42E-02	5.15E-03	6.32E-07	1.97E-06	3.17E-08
7	0.089	6.81E-03	2.50E-03	4.45E-07	1.45E-06	1.97E-08
8	0.126	5.68E-03	3.17E-03	1.07E-06	2.57E-06	5.37E-08
9	0.177	2.29E-03	8.94E-04	5.11E-07	1.79E-06	5.50E-08
10	0.250	1.11E-03	3.83E-04	3.96E-07	1.60E-06	1.67E-08
11	0.351	9.79E-04	2.58E-04	5.58E-07	2.62E-06	5.41E-08
12	0.493	8.62E-04	2.56E-04	8.15E-07	4.41E-06	4.58E-08
13	0.689	8.61E-04	2.21E-04	1.28E-06	7.03E-06	9.57E-08
14	0.985	6.50E-04	3.03E-04	1.93E-06	1.11E-05	1.16E-07

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
3.64E-02	4.73E-02	1.98E-06	1.39E-05	6.37E-06
2.64E-02	5.33E-04	1.46E-06	1.64E-06	3.10E-06
2.58E-03	3.28E-03	8.38E-07	1.06E-05	2.19E-06
1.40E-03	1.84E-03	3.57E-07	2.45E-06	1.88E-06
3.28E-04	3.73E-04	1.96E-07	8.71E-07	1.74E-06
1.61E-04	2.08E-04	1.70E-07	5.89E-07	1.65E-06
2.07E-04	2.22E-04	1.47E-07	5.42E-07	1.60E-06
1.47E-04	2.04E-04	1.51E-07	4.78E-07	1.72E-06
2.42E-04	3.53E-04	1.47E-07	4.76E-07	1.67E-06
2.03E-04	1.68E-04	2.20E-07	4.12E-07	1.75E-06
5.09E-04	2.56E-04	2.85E-07	4.40E-07	1.53E-06
3.05E-04	3.32E-04	4.81E-07	3.93E-07	1.67E-06

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	2.89E-02	4.83E-02	1.27E-06	3.69E-07	2.70E-08
4	0.033	1.49E-02	2.62E-02	1.02E-06	3.68E-07	3.73E-08
5	0.046	1.03E-02	2.01E-02	1.28E-06	5.30E-07	5.00E-08
6	0.064	6.61E-03	1.36E-02	1.57E-06	6.77E-07	6.23E-08
7	0.089	3.38E-03	6.67E-03	1.15E-06	5.67E-07	4.23E-08
8	0.126	3.16E-03	6.22E-03	2.02E-06	1.13E-06	8.39E-08
9	0.177	1.09E-03	2.68E-03	1.38E-06	5.75E-07	4.06E-08
10	0.250	6.09E-04	1.27E-03	1.16E-06	5.80E-07	3.61E-08
11	0.351	5.59E-04	1.16E-03	1.68E-06	9.45E-07	3.67E-08
12	0.493	5.69E-04	1.27E-03	2.87E-06	1.51E-06	5.26E-08
13	0.689	6.12E-04	1.31E-03	4.27E-06	2.52E-06	8.90E-08
14	0.985	7.21E-04	1.64E-03	6.38E-06	3.66E-06	1.41E-07

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
2.53E-04	8.92E-04	6.74E-07	7.89E-08	3.26E-07
2.50E-04	2.96E-04	1.70E-07	1.84E-08	1.06E-07
2.80E-04	4.64E-05	1.43E-07	3.35E-09	8.22E-08
1.27E-04	9.71E-05	1.22E-07	9.18E-09	6.95E-08
1.59E-04	6.06E-05	1.20E-07	9.36E-09	6.58E-08
2.29E-04	9.76E-05	1.12E-07	9.13E-09	6.59E-08
7.48E-04	1.31E-04	1.05E-07	3.25E-08	6.55E-08
2.47E-03	1.92E-04	1.14E-07	3.79E-08	7.23E-08
1.46E-04	8.22E-05	1.13E-07	5.53E-08	8.99E-08
1.18E-04	7.98E-05	1.06E-07	1.40E-07	1.01E-07
1.78E-04	1.45E-04	1.55E-07	3.18E-07	1.62E-07
2.27E-04	2.09E-04	2.28E-07	7.41E-07	3.07E-07

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 2, PASS B

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.785	180.3	0.59	130.7	79.	110.6	0.300	109.5	1.04E+02	-86.6	1.35E+04	128.5
4	0.033	0.295	121.7	36.	-71.5	72.	91.7	0.196	186.3	2.02E+02	-88.3	1.16E+02	106.1
5	0.046	0.771	174.5	0.73	148.9	1.07E+02	109.7	0.081	204.2	5.17E+02	-68.7	1.19E+02	104.3
6	0.064	0.455	175.6	3.3	-98.3	78.	107.8	0.048	201.2	3.60E+02	-83.7	98.	107.2
7	0.089	0.228	177.3	12.	-75.0	68.	105.6	0.040	206.2	1.70E+02	-73.3	91.	104.3
8	0.126	0.106	166.5	27.	-74.6	58.	105.5	0.039	132.2	60.	-75.4	92.	105.6
9	0.177	0.148	177.8	12.	-70.2	43.	106.1	0.081	112.2	51.	-74.0	1.82E+02	109.1
10	0.250	0.127	182.0	9.2	-67.9	30.	107.2	0.094	114.4	41.	-73.9	2.52E+02	112.8
11	0.351	0.141	184.3	8.5	-72.9	25.	108.6	0.124	114.4	32.	-71.3	6.37E+02	107.3
12	0.493	0.068	186.8	8.9	-73.4	20	111.7	0.204	200.5	3.42E+02	-75.0	22.	113.7
13	0.689	0.068	105.6	17.	-58.7	7.8	110.1	0.401	104.4	12.	-61.1	8.18E+02	112.1
14	0.985	0.060	172.7	8.9	-59.9	15.	122.7	0.241	112.5	16.	-57.6	7.31E+02	118.1

AVERAGE ROTATION ANGLE = 167.1

AVERAGE ROTATION ANGLE = 149.8

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.389	-32.0	2.58E+02	-52.5	9.1	105.0	0.050	-1.7	2.68E+02	-46.0	1.87E+02	106.4
4	0.033	0.119	57.2	56.	-71.6	2.16E+02	116.7	0.054	-2.9	1.95E+02	-59.6	1.69E+02	105.5
5	0.046	0.057	49.4	63.	-70.1	1.60E+02	111.1	0.059	27.6	1.18E+02	-66.8	1.60E+02	108.1
6	0.064	0.032	44.3	57.	-69.1	1.17E+02	110.9	0.047	30.2	87.	-68.0	1.22E+02	109.9
7	0.089	0.053	43.3	44.	-70.7	1.06E+02	111.1	0.037	35.4	89.	-69.9	1.13E+02	110.6
8	0.126	0.038	30.2	45.	-67.6	76.	113.4	0.059	12.1	74.	-66.9	84.	112.5
9	0.177	0.072	35.7	28.	-68.0	66.	115.7	0.099	17.1	7.40E+02	-67.6	71.	115.9
10	0.250	0.062	39.7	24.	-56.6	51.	121.1	0.260	16.7	1.07E+04	-55.1	32.	116.4
11	0.351	0.021	27.2	19.	-59.1	44.	124.5	0.038	31.0	2.15E+02	-59.1	50.	124.6
12	0.493	0.095	14.0	17.	-61.5	42.	130.8	0.055	32.8	1.68E+02	-61.3	45.	131.2
13	0.689	0.112	16.4	9.1	-45.1	40.	138.0	0.065	34.6	3.87E+02	-45.4	43.	138.9
14	0.985	0.211	13.6	5.2	-38.4	51.	143.3	0.120	35.7	6.58E+02	-39.8	50.	145.6

AVERAGE ROTATION ANGLE = 208.3

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 202.4

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 2, PASS B

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.023	0.31	0.24	0.11	0.92	0.59	0.22
4	0.033	0.61	0.82	0.18	0.97	0.89	0.47
5	0.046	0.41	0.55	0.18	0.98	0.92	0.59
6	0.064	0.66	0.69	0.11	0.98	0.96	0.67
7	0.089	0.78	0.78	0.10	0.97	0.95	0.61
8	0.126	0.89	0.90	0.17	0.96	0.97	0.74
9	0.177	0.84	0.79	0.16	0.75	0.94	0.61
10	0.250	0.83	0.69	0.08	0.43	0.89	0.55
11	0.351	0.83	0.58	0.16	0.87	0.94	0.50
12	0.493	0.86	0.69	0.15	0.88	0.95	0.54
13	0.689	0.77	0.62	0.21	0.84	0.92	0.51
14	0.985	0.81	0.62	0.21	0.82	0.91	0.42

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
3	0.21	0.39	0.81	0.33	0.29	0.16	0.02	0.25	0.33
4	0.13	0.27	0.70	0.28	0.18	0.17	0.02	0.24	0.60
5	0.13	0.61	0.94	0.60	0.40	0.06	0.05	0.48	0.37
6	0.12	0.62	0.94	0.66	0.56	0.10	0.08	0.64	0.64
7	0.13	0.65	0.96	0.67	0.54	0.06	0.06	0.64	0.75
8	0.37	0.67	0.96	0.80	0.60	0.36	0.12	0.81	0.87
9	0.12	0.70	0.94	0.40	0.66	0.11	0.09	0.65	0.85
10	0.05	0.56	0.85	0.16	0.59	0.05	0.06	0.58	0.84
11	0.08	0.50	0.89	0.32	0.63	0.11	0.10	0.52	0.89
12	0.07	0.63	0.88	0.38	0.68	0.18	0.04	0.53	0.93
13	0.06	0.56	0.79	0.28	0.68	0.19	0.17	0.47	0.94
14	0.14	0.57	0.81	0.25	0.69	0.20	0.17	0.47	0.94

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 021453.CCG
RECORDING COMPLETED: 18:07:27 07-Sep-81

SETUP 02 GLS-14 GLS, BAND 3, PASS C

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 10.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 132 DATA SEGMENTS, 102.40 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	154.5 (0.9)	18.8 (0.15)	-70.0 (0.2)	28.5 (0.22)	111.8 (0.2)
4	0.649	155.0 (1.2)	15.4 (0.15)	-63.9 (0.3)	23.6 (0.21)	115.2 (0.3)
5	0.906	153.3 (1.3)	12.6 (0.17)	-56.5 (0.4)	21.4 (0.25)	118.7 (0.4)
6	1.265	151.9 (1.7)	12.3 (0.20)	-47.4 (0.4)	20.1 (0.37)	123.9 (0.6)
7	1.756	155.3 (2.7)	11.2 (0.49)	-38.0 (1.2)	19.4 (0.61)	124.2 (0.9)
8	2.438	150.7 (3.1)	14.1 (0.42)	-32.8 (0.7)	18.3 (0.82)	128.6 (1.4)
9	3.395	158.5 (4.4)	17.0 (0.59)	-26.7 (1.0)	17.1 (0.85)	138.1 (1.4)
10	4.698	140.5 (2.8)	22.0 (0.58)	-23.5 (0.7)	16.0 (1.7)	124.1 (3.1)
11	6.451	146.8 (2.4)	27.7 (0.58)	-21.9 (0.6)	18.1 (1.1)	138.0 (1.7)
12	8.981	146.7 (1.5)	36.7 (0.63)	-22.7 (0.5)	18.8 (0.85)	140.7 (1.2)

AVERAGE ROTATION ANGLE ON FILE = 151.3

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	18.7 (0.6)	24.4 (0.33)	-54.6 (0.4)	41.9 (0.17)	130.5 (0.1)
4	0.649	16.1 (0.7)	24.3 (0.39)	-48.8 (0.5)	43.4 (0.23)	136.1 (0.2)
5	0.906	22.3 (0.8)	22.3 (0.44)	-46.2 (0.7)	46.8 (0.27)	142.3 (0.2)
6	1.265	30.4 (1.5)	26.1 (0.86)	-45.4 (1.0)	53.4 (0.52)	148.5 (0.3)
7	1.756	32.7 (1.2)	27.1 (1.1)	-40.6 (1.3)	62.6 (0.54)	154.7 (0.3)
8	2.438	38.4 (1.1)	23.0 (1.4)	-40.7 (1.8)	77.9 (0.70)	157.7 (0.3)
9	3.395	39.9 (2.1)	31.9 (2.6)	-31.8 (2.6)	97.9 (1.0)	159.9 (0.5)
10	4.698	46.1 (2.3)	47.3 (5.5)	-45.5 (3.3)	122. (1.7)	162.7 (0.6)
11	6.451	42.7 (1.0)	31.5 (2.3)	-37.8 (2.2)	165. (1.9)	161.5 (0.4)
12	8.981	44.1 (0.7)	37.7 (1.6)	-35.7 (1.2)	200. (2.6)	160.2 (0.4)

AVERAGE ROTATION ANGLE ON FILE = 213.2
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 3, PASS C

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.098 (0.007)	-107.2 (4.5)	172.2 (4.0)	0.036 (0.005)	0.037 (0.003)	0.566 (0.042)
4	0.649	0.102 (0.007)	-104.5 (3.7)	169.7 (3.8)	0.030 (0.005)	0.034 (0.004)	0.585 (0.053)
5	0.906	0.115 (0.006)	-94.6 (3.0)	137.3 (3.2)	0.002 (0.006)	0.035 (0.005)	0.544 (0.054)
6	1.265	0.098 (0.007)	-96.2 (3.9)	127.7 (4.2)	0.017 (0.006)	0.027 (0.007)	0.458 (0.070)
7	1.756	0.075 (0.008)	-97.8 (4.7)	98.0 (5.9)	0.002 (0.006)	0.059 (0.020)	0.596 (0.127)
8	2.438	0.055 (0.005)	-72.6 (9.3)	82.9 (5.3)	0.005 (0.009)	0.001 (0.014)	0.447 (0.118)
9	3.395	0.069 (0.009)	-95.6 (6.0)	54.9 (7.2)	0.001 (0.007)	0.051 (0.016)	0.756 (0.241)
10	4.698	0.041 (0.009)	-183.6 (15.3)	-93.6 (13.9)	0.009 (0.010)	0.089 (0.026)	0.049 (0.097)
11	6.451	0.047 (0.004)	-258.6 (7.4)	-97.6 (5.3)	0.004 (0.006)	0.031 (0.015)	0.243 (0.089)
12	8.981	0.034 (0.003)	-226.7 (13.1)	-118.9 (7.0)	0.017 (0.004)	0.016 (0.012)	0.267 (0.055)

AVERAGE TIPPER STRIKE ON FILE =-133.7

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.157 (0.002)	-22.6 (0.9)	-173.5 (0.6)	0.032 (0.002)	0.059 (0.003)	1.089 (0.043)
4	0.649	0.156 (0.002)	-21.7 (0.9)	-174.0 (0.6)	0.013 (0.002)	0.059 (0.003)	0.926 (0.039)
5	0.906	0.158 (0.002)	-28.0 (1.1)	-174.1 (0.6)	0.006 (0.003)	0.065 (0.004)	1.247 (0.045)
6	1.265	0.169 (0.003)	-28.1 (1.9)	-173.8 (0.9)	0.019 (0.005)	0.075 (0.005)	1.415 (0.067)
7	1.756	0.193 (0.003)	-39.4 (2.7)	-171.0 (1.1)	0.066 (0.007)	0.032 (0.007)	1.927 (0.127)
8	2.438	0.216 (0.005)	-33.1 (3.4)	178.2 (1.5)	0.067 (0.011)	0.029 (0.011)	2.889 (0.295)
9	3.395	0.210 (0.004)	-37.7 (4.3)	-179.8 (1.2)	0.018 (0.015)	0.081 (0.015)	2.041 (0.234)
10	4.698	0.240 (0.011)	-39.0 (7.8)	176.1 (2.9)	0.074 (0.028)	0.051 (0.026)	3.084 (0.762)
11	6.451	0.234 (0.005)	-52.9 (3.8)	166.3 (1.2)	0.022 (0.015)	0.038 (0.015)	4.507 (0.709)
12	8.981	0.213 (0.005)	-48.0 (2.8)	156.7 (1.4)	0.055 (0.009)	0.052 (0.010)	6.869 (1.128)

AVERAGE TIPPER STRIKE ON FILE = -35.0

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 3, PASS C

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	5.85E-04	2.10E-04	6.86E-07	2.74E-06	1.25E-08
4	0.649	5.94E-04	1.80E-04	9.79E-07	4.72E-06	2.15E-08
5	0.906	6.33E-04	1.71E-04	1.41E-06	8.52E-06	5.90E-08
6	1.265	7.24E-04	1.51E-04	1.83E-06	1.41E-05	6.28E-08
7	1.756	7.93E-04	1.46E-04	2.32E-06	2.36E-05	5.45E-08
8	2.438	1.09E-03	1.56E-04	3.60E-06	3.62E-05	9.32E-08
9	3.395	1.57E-03	1.79E-04	6.66E-06	6.29E-05	1.62E-07
10	4.698	2.12E-03	1.74E-04	8.53E-06	9.03E-05	9.74E-08
11	6.451	6.70E-03	6.04E-04	3.95E-05	3.18E-04	4.89E-07
12	8.981	1.71E-02	2.26E-03	2.04E-04	8.39E-04	8.33E-07

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.06E-04	8.62E-05	2.18E-07	4.84E-07	1.60E-06
1.43E-04	9.37E-05	2.15E-07	4.52E-07	1.59E-06
2.13E-04	1.34E-04	2.92E-07	4.94E-07	1.70E-06
2.28E-04	1.93E-04	4.78E-07	6.77E-07	1.74E-06
1.40E-03	3.02E-04	8.89E-07	9.19E-07	1.80E-06
5.42E-04	4.79E-04	2.17E-06	1.38E-06	1.95E-06
5.34E-04	5.85E-04	6.30E-06	5.68E-06	3.21E-06
7.08E-04	8.42E-04	1.17E-05	1.58E-05	3.28E-06
9.39E-04	1.03E-03	1.33E-05	1.48E-05	4.13E-06
1.50E-03	1.94E-03	2.73E-05	4.10E-05	7.05E-06

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	4.74E-04	6.56E-04	1.49E-06	1.30E-06	3.92E-08
4	0.649	5.27E-04	7.55E-04	2.26E-06	2.12E-06	6.49E-08
5	0.906	7.11E-04	9.63E-04	3.64E-06	3.81E-06	1.26E-07
6	1.265	1.00E-03	1.31E-03	5.88E-06	6.15E-06	2.08E-07
7	1.756	1.44E-03	1.77E-03	9.13E-06	1.04E-05	4.83E-07
8	2.438	2.10E-03	2.30E-03	1.43E-05	1.51E-05	9.20E-07
9	3.395	3.38E-03	3.67E-03	2.37E-05	2.78E-05	1.62E-06
10	4.698	4.71E-03	4.41E-03	3.40E-05	3.88E-05	2.60E-06
11	6.451	1.63E-02	1.51E-02	1.27E-04	1.42E-04	1.11E-05
12	8.981	4.36E-02	2.87E-02	2.68E-04	5.12E-04	2.31E-05

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
1.62E-04	1.01E-04	1.30E-07	5.98E-08	9.77E-08
1.86E-04	1.08E-04	1.44E-07	1.01E-07	1.21E-07
1.76E-04	1.19E-04	2.07E-07	1.74E-07	1.80E-07
2.07E-04	1.60E-04	5.07E-07	5.54E-07	4.24E-07
2.42E-04	2.31E-04	6.94E-07	9.45E-07	6.22E-07
2.86E-04	2.99E-04	1.02E-06	1.79E-06	1.12E-06
3.95E-04	4.70E-04	1.72E-06	2.96E-06	1.92E-06
5.06E-04	7.86E-04	3.82E-06	6.27E-06	3.88E-06
9.16E-04	1.28E-03	8.81E-06	1.29E-05	9.14E-06
1.68E-03	2.41E-03	2.03E-05	2.60E-05	2.07E-05

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 3, PASS C

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.060	176.8	11.	-70.6	18.	112.1	0.083	114.7	24.	-67.9	76.	109.5
4	0.649	0.048	174.4	12.	-64.1	17.	115.8	0.139	112.9	20.	-62.2	81.	114.2
5	0.906	0.042	170.1	10.	-57.8	16.	120.0	0.213	113.3	17.	-54.3	1.13E+02	117.7
6	1.265	0.030	177.0	9.3	-50.1	14.	126.3	0.272	115.4	14.	-47.8	1.91E+02	125.0
7	1.756	0.040	156.5	9.5	-38.9	11.	125.1	0.602	193.5	6.15E+02	-46.8	12.	126.7
8	2.438	0.052	138.5	14.	-34.2	6.4	126.9	0.396	116.5	11.	-40.7	7.17E+02	131.9
9	3.395	0.094	124.9	15.	-31.0	3.8	137.8	0.308	120.6	17.	-28.8	4.65E+02	139.0
10	4.698	0.355	123.0	19.	-23.4	2.3	117.7	0.363	120.4	15.	-22.8	1.11E+03	130.6
11	6.451	0.093	138.9	25.	-22.5	9.9	135.1	0.249	118.4	23.	-27.1	2.04E+02	139.4
12	8.981	0.037	143.9	33.	-22.1	14.	140.9	0.150	125.2	36.	-26.0	76.	144.7

AVERAGE ROTATION ANGLE = 152.4

AVERAGE ROTATION ANGLE = 125.1

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.028	28.4	20.	-54.7	36.	130.4	0.008	35.4	1.56E+02	-54.6	45.	130.3
4	0.649	0.044	23.2	20.	-50.6	38.	136.8	0.020	36.4	1.76E+02	-51.4	45.	137.6
5	0.906	0.061	25.1	19.	-46.4	42.	142.6	0.013	41.3	1.74E+02	-48.2	47.	144.5
6	1.265	0.056	30.7	20.	-46.3	45.	149.0	0.012	42.0	2.70E+02	-47.4	54.	150.6
7	1.756	0.048	31.1	17.	-40.2	55.	154.4	0.013	43.6	4.41E+02	-41.4	63.	156.1
8	2.438	0.055	34.3	17.	-44.2	67.	157.0	0.030	42.6	5.33E+02	-44.3	82.	157.9
9	3.395	0.075	36.2	24.	-37.8	85.	159.1	0.002	45.6	6.13E+02	-38.8	1.02E+02	160.8
10	4.698	0.058	39.3	21.	-36.9	99.	161.3	0.116	47.8	1.14E+03	-38.1	1.34E+02	164.0
11	6.451	0.015	40.8	23.	-36.7	1.44E+02	161.2	0.083	50.3	3.88E+02	-37.3	1.72E+02	162.2
12	8.981	0.071	46.0	34.	-37.4	1.76E+02	159.9	0.051	39.0	1.26E+02	-37.5	2.15E+02	159.7

AVERAGE ROTATION ANGLE = 213.5

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 222.4

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 3, PASS C

PREDICTED COHERENCIES

WINDOW	PERIOD	LOCAL SITE EXCOH	LOCAL SITE EYCOH	LOCAL SITE HZCOH	REMOTE SITE EXCOH	REMOTE SITE EYCOH	REMOTE SITE HZCOH
3	0.464	0.85	0.73	0.08	0.84	0.89	0.49
4	0.649	0.86	0.74	0.11	0.84	0.90	0.55
5	0.906	0.84	0.68	0.17	0.88	0.91	0.59
6	1.265	0.85	0.59	0.18	0.87	0.89	0.48
7	1.756	0.59	0.50	0.16	0.89	0.89	0.58
8	2.438	0.80	0.40	0.22	0.89	0.87	0.58
9	3.395	0.83	0.36	0.25	0.90	0.87	0.58
10	4.698	0.80	0.29	0.15	0.89	0.82	0.51
11	6.451	0.91	0.53	0.31	0.94	0.87	0.66
12	8.981	0.94	0.69	0.32	0.95	0.87	0.65

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.33	0.43	0.89	0.47	0.38	0.34	0.04	0.65	0.88
0.30	0.42	0.86	0.43	0.39	0.39	0.05	0.65	0.92
0.31	0.40	0.84	0.37	0.38	0.48	0.09	0.61	0.93
0.33	0.35	0.85	0.28	0.37	0.51	0.13	0.52	0.93
0.25	0.34	0.58	0.23	0.33	0.57	0.11	0.47	0.94
0.40	0.28	0.80	0.16	0.34	0.56	0.17	0.41	0.93
0.40	0.20	0.85	0.13	0.23	0.58	0.13	0.36	0.91
0.49	0.20	0.84	0.17	0.22	0.54	0.11	0.28	0.87
0.60	0.24	0.93	0.32	0.32	0.55	0.21	0.53	0.94
0.73	0.24	0.94	0.54	0.17	0.67	0.23	0.82	0.92

WOODWARD-CLYDE CONSULTANTS

GLASS MOUNTAIN, CA.

RESULTS FROM CROSSPOWER FILE: 0214C5.EBN
RECORDING COMPLETED: 21:34:46 07-Sep-81

SETUP 02 GLS-14 GLS, BAND 5, PASS E

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 14 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	153.0 (4.6)	18.7 (0.73)	-29.2 (1.0)	15.5 (1.1)	131.9 (2.0)
3	4.635	144.2 (2.0)	21.4 (0.61)	-19.7 (0.8)	13.6 (1.4)	119.6 (2.9)
4	6.486	141.5 (2.1)	27.2 (0.42)	-22.1 (0.5)	15.0 (1.1)	139.7 (2.0)
5	9.062	146.2 (1.3)	36.7 (0.69)	-21.1 (0.5)	18.2 (0.74)	140.7 (1.2)
6	12.648	139.6 (0.8)	49.4 (0.83)	-24.0 (0.5)	17.5 (0.53)	141.4 (0.8)
7	17.561	142.9 (0.6)	60.7 (0.78)	-26.3 (0.4)	20.7 (0.46)	142.7 (0.6)
8	24.381	144.5 (0.9)	71.3 (1.6)	-32.8 (0.6)	23.3 (0.68)	138.6 (0.8)
9	33.945	141.7 (0.7)	81.1 (1.1)	-36.6 (0.4)	23.0 (0.65)	133.3 (0.8)
10	46.984	140.5 (1.0)	77.5 (1.1)	-42.1 (0.5)	24.5 (0.79)	134.5 (0.9)
11	64.506	138.3 (1.0)	66.2 (1.2)	-50.1 (0.5)	20.5 (0.70)	127.0 (1.0)
12	89.811	146.4 (0.9)	64.2 (0.98)	-53.0 (0.4)	19.3 (0.67)	127.0 (1.0)
13	129.012	147.6 (0.6)	57.3 (0.83)	-54.1 (0.4)	17.7 (0.34)	124.7 (0.6)
14	186.956	149.3 (0.8)	45.0 (0.81)	-51.6 (0.5)	14.5 (0.39)	121.2 (0.8)
15	256.000	152.9 (2.1)	41.4 (1.9)	-49.7 (1.4)	15.5 (0.89)	122.0 (1.6)
16	341.333	149.3 (1.4)	39.3 (1.7)	-43.3 (1.2)	11.2 (0.51)	124.4 (1.3)
17	512.000	149.7 (2.5)	50.0 (4.1)	-49.2 (2.4)	14.9 (0.96)	128.9 (1.9)

AVERAGE ROTATION ANGLE ON FILE = 145.5

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	38.9 (2.1)	35.3 (3.9)	-46.2 (3.2)	102. (1.9)	160.8 (0.5)
3	4.635	43.3 (2.4)	33.8 (4.0)	-34.5 (3.4)	123. (1.9)	160.6 (0.5)
4	6.486	43.0 (1.1)	35.5 (2.0)	-38.3 (1.6)	161. (1.6)	161.8 (0.3)
5	9.062	45.5 (0.6)	39.8 (1.3)	-36.8 (0.9)	205. (2.3)	158.8 (0.3)
6	12.648	43.5 (0.3)	44.2 (0.88)	-36.8 (0.6)	273. (3.2)	157.1 (0.3)
7	17.561	43.5 (0.3)	50.7 (0.76)	-38.3 (0.4)	325. (3.3)	151.5 (0.3)
8	24.381	43.9 (0.4)	52.9 (1.1)	-41.4 (0.6)	364. (6.2)	146.4 (0.5)
9	33.945	43.8 (0.3)	53.9 (0.90)	-45.4 (0.5)	424. (4.1)	139.3 (0.3)
10	46.984	41.9 (0.5)	58.3 (1.4)	-51.7 (0.7)	389. (4.1)	133.4 (0.3)
11	64.506	44.1 (0.5)	52.6 (1.3)	-53.3 (0.7)	345. (5.1)	126.9 (0.4)
12	89.811	44.8 (0.3)	47.8 (1.0)	-56.9 (0.6)	290. (2.5)	123.3 (0.2)
13	129.012	44.2 (0.3)	38.1 (0.59)	-57.0 (0.4)	245. (2.6)	123.4 (0.3)
14	186.956	45.5 (0.3)	32.9 (0.62)	-56.5 (0.5)	198. (2.1)	124.8 (0.3)
15	256.000	43.9 (0.8)	28.8 (1.0)	-54.6 (1.1)	173. (4.7)	125.7 (0.8)
16	341.333	48.6 (0.8)	24.7 (1.6)	-56.7 (1.9)	171. (4.4)	132.8 (0.7)
17	512.000	52.1 (2.1)	35.3 (5.3)	-53.6 (4.3)	223. (15.)	131.4 (1.9)

AVERAGE ROTATION ANGLE ON FILE = 224.4
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 5, PASS E

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.067 (0.015)	-127.6 (7.9)	87.4 (17.0)	0.023 (0.005)	0.028 (0.026)	0.503 (0.194)
3	4.635	0.060 (0.016)	-109.8 (9.4)	59.0 (16.4)	0.011 (0.009)	0.060 (0.025)	0.147 (0.071)
4	6.486	0.050 (0.005)	-65.1 (11.8)	86.9 (5.4)	0.005 (0.010)	0.055 (0.013)	0.178 (0.073)
5	9.062	0.065 (0.005)	-77.9 (5.1)	57.7 (4.0)	0.007 (0.006)	0.032 (0.010)	0.223 (0.048)
6	12.648	0.071 (0.004)	-59.6 (3.1)	42.2 (3.0)	0.006 (0.004)	0.049 (0.007)	0.068 (0.028)
7	17.561	0.080 (0.002)	-45.2 (2.0)	32.9 (1.7)	0.008 (0.003)	0.058 (0.006)	0.158 (0.021)
8	24.381	0.066 (0.004)	-50.2 (3.0)	25.9 (3.2)	0.006 (0.003)	0.015 (0.009)	0.178 (0.032)
9	33.945	0.122 (0.003)	-32.1 (1.8)	22.9 (1.2)	0.036 (0.003)	0.047 (0.007)	0.183 (0.023)
10	46.984	0.098 (0.003)	-35.3 (2.8)	-10.1 (1.8)	0.022 (0.004)	0.081 (0.008)	0.260 (0.032)
11	64.506	0.054 (0.002)	-86.4 (5.1)	-6.6 (2.5)	0.004 (0.005)	0.051 (0.007)	0.116 (0.035)
12	89.811	0.048 (0.003)	-58.2 (5.7)	1.8 (3.3)	0.018 (0.004)	0.071 (0.006)	0.298 (0.033)
13	129.012	0.054 (0.003)	-47.6 (3.7)	7.6 (2.9)	0.020 (0.002)	0.067 (0.006)	0.339 (0.021)
14	186.956	0.069 (0.003)	-31.8 (2.4)	22.6 (2.1)	0.023 (0.002)	0.072 (0.008)	0.407 (0.029)
15	256.000	0.078 (0.006)	-20.3 (5.2)	28.1 (4.5)	0.012 (0.007)	0.073 (0.019)	0.506 (0.086)
16	341.333	0.100 (0.007)	-17.7 (3.4)	24.7 (4.1)	0.008 (0.006)	0.089 (0.015)	0.352 (0.055)
17	512.000	0.059 (0.011)	-7.2 (6.0)	-6.0 (10.3)	0.007 (0.006)	0.019 (0.024)	0.354 (0.099)

AVERAGE TIPPER STRIKE ON FILE = -54.5

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.222 (0.006)	-52.1 (5.7)	177.9 (1.6)	0.034 (0.021)	0.047 (0.025)	7.970 (4.541)
3	4.635	0.245 (0.013)	-64.7 (7.3)	174.6 (3.3)	0.085 (0.025)	0.050 (0.027)	4.641 (1.775)
4	6.486	0.237 (0.004)	-40.5 (3.6)	162.8 (1.0)	0.020 (0.015)	0.043 (0.015)	5.615 (1.209)
5	9.062	0.226 (0.004)	-42.3 (2.1)	155.1 (1.1)	0.051 (0.008)	0.059 (0.008)	4.778 (0.456)
6	12.648	0.191 (0.004)	-58.5 (1.7)	147.3 (1.3)	0.052 (0.005)	0.043 (0.005)	7.654 (0.706)
7	17.561	0.169 (0.003)	-50.8 (1.7)	127.4 (1.2)	0.060 (0.004)	0.040 (0.005)	8.054 (0.656)
8	24.381	0.164 (0.005)	-59.2 (2.7)	127.6 (2.0)	0.058 (0.006)	0.024 (0.007)	6.946 (0.681)
9	33.945	0.179 (0.005)	-25.2 (2.3)	75.3 (2.0)	0.053 (0.006)	0.011 (0.005)	6.282 (0.453)
10	46.984	0.100 (0.007)	-4.6 (5.1)	42.3 (4.6)	0.041 (0.005)	0.021 (0.008)	8.914 (1.395)
11	64.506	0.089 (0.006)	-41.6 (4.9)	85.9 (4.0)	0.002 (0.008)	0.004 (0.007)	6.285 (0.703)
12	89.811	0.085 (0.004)	-31.5 (3.5)	81.3 (3.0)	0.003 (0.005)	0.032 (0.005)	5.801 (0.367)
13	129.012	0.083 (0.004)	-32.7 (3.1)	70.0 (3.1)	0.007 (0.005)	0.029 (0.004)	5.161 (0.279)
14	186.956	0.096 (0.004)	-21.8 (2.5)	49.7 (2.6)	0.008 (0.004)	0.027 (0.004)	4.334 (0.211)
15	256.000	0.121 (0.009)	-11.3 (5.2)	39.1 (4.1)	0.031 (0.010)	0.044 (0.011)	4.378 (0.508)
16	341.333	0.134 (0.008)	-8.8 (2.7)	21.2 (3.6)	0.020 (0.006)	0.013 (0.014)	3.043 (0.277)
17	512.000	0.098 (0.014)	-0.8 (4.6)	-23.9 (8.4)	0.009 (0.008)	0.026 (0.037)	2.226 (0.434)

AVERAGE TIPPER STRIKE ON FILE = -34.1

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 5, PASS E

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	8.02E-04	7.24E-05	3.19E-06	2.88E-05	7.19E-09
3	4.635	1.28E-03	8.51E-05	5.88E-06	5.62E-05	2.66E-07
4	6.486	6.19E-03	5.22E-04	3.89E-05	2.95E-04	7.73E-07
5	9.062	1.15E-02	2.30E-03	2.28E-04	5.74E-04	2.76E-06
6	12.648	2.62E-02	1.02E-02	1.48E-03	1.32E-03	8.00E-06
7	17.561	1.92E-01	6.54E-02	9.52E-03	1.10E-02	6.51E-05
8	24.381	5.59E-01	2.97E-01	5.86E-02	4.07E-02	1.70E-04
9	33.945	1.50E+00	2.98E-01	7.38E-02	1.28E-01	1.21E-03
10	46.984	3.37E+00	4.90E-01	1.56E-01	4.08E-01	2.91E-03
11	64.506	3.32E+00	8.51E-01	5.05E-01	6.13E-01	2.55E-03
12	89.811	6.28E+00	1.39E+00	1.16E+00	1.80E+00	3.16E-03
13	129.012	8.13E+00	3.36E+00	4.34E+00	3.73E+00	1.03E-02
14	186.956	2.08E+01	9.29E+00	2.34E+01	1.73E+01	1.05E-01
15	256.000	1.57E+01	6.61E+00	2.17E+01	1.96E+01	1.59E-01
16	341.333	1.94E+01	5.25E+00	3.40E+01	3.51E+01	2.86E-01
17	512.000	2.97E+01	2.12E+01	1.51E+02	6.76E+01	1.82E-01

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
6.52E-04	2.71E-04	5.90E-06	2.61E-06	2.96E-06
5.69E-04	4.89E-04	1.98E-05	6.48E-06	6.32E-06
8.74E-04	9.71E-04	3.71E-05	7.52E-06	1.03E-05
1.33E-03	1.62E-03	8.04E-05	2.45E-05	1.93E-05
1.89E-03	2.53E-03	1.55E-04	5.23E-05	3.13E-05
4.20E-03	3.95E-03	2.08E-04	5.81E-05	4.76E-05
7.83E-03	8.40E-03	3.40E-04	1.23E-04	9.26E-05
1.68E-02	1.19E-02	8.71E-04	3.64E-04	2.39E-04
2.29E-02	1.20E-02	8.13E-04	2.58E-04	4.51E-04
2.43E-02	1.79E-02	2.12E-03	3.60E-04	8.36E-04
3.58E-02	4.96E-02	9.02E-03	-2.07E-04	1.66E-03
6.14E-02	5.50E-02	1.03E-02	3.66E-03	5.02E-03
1.47E-01	1.80E-01	9.13E-02	7.22E-03	1.40E-02
3.18E-01	2.90E-01	-1.32E-04	1.33E-02	3.85E-02
3.91E-01	1.97E-01	8.25E-02	2.93E-02	8.52E-02
2.13E+00	1.46E+00	6.68E-01	4.78E-01	3.44E-01

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	1.53E-03	1.57E-03	9.00E-06	1.29E-05	7.11E-07
3	4.635	2.90E-03	2.88E-03	2.06E-05	2.60E-05	1.47E-06
4	6.486	1.35E-02	1.39E-02	1.20E-04	1.19E-04	1.06E-05
5	9.062	2.71E-02	2.58E-02	3.05E-04	2.93E-04	1.91E-05
6	12.648	6.37E-02	7.57E-02	1.35E-03	8.42E-04	4.14E-05
7	17.561	4.87E-01	4.87E-01	9.72E-03	6.32E-03	3.44E-04
8	24.381	1.44E+00	1.73E+00	5.29E-02	2.44E-02	1.68E-03
9	33.945	3.69E+00	3.57E+00	9.67E-02	6.81E-02	3.84E-03
10	46.984	8.09E+00	9.02E+00	3.27E-01	1.78E-01	3.07E-03
11	64.506	7.48E+00	1.16E+01	7.97E-01	2.27E-01	4.71E-03
12	89.811	1.51E+01	1.78E+01	1.83E+00	8.91E-01	1.09E-02
13	129.012	2.16E+01	1.62E+01	3.39E+00	3.55E+00	2.43E-02
14	186.956	5.97E+01	4.59E+01	1.84E+01	1.72E+01	1.47E-01
15	256.000	4.37E+01	2.81E+01	1.58E+01	2.02E+01	2.21E-01
16	341.333	4.99E+01	5.15E+01	4.42E+01	2.03E+01	3.75E-01
17	512.000	8.04E+01	1.19E+02	1.63E+02	4.36E+01	4.19E-01

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
5.33E-04	4.36E-04	1.27E-06	2.00E-06	1.28E-06
4.21E-04	4.91E-04	1.92E-06	4.70E-06	2.61E-06
5.06E-04	7.65E-04	6.32E-06	1.02E-05	6.08E-06
9.70E-04	1.31E-03	6.36E-06	2.64E-05	1.28E-05
1.70E-03	2.29E-03	1.27E-05	3.76E-05	2.84E-05
3.02E-03	5.10E-03	4.00E-05	1.08E-04	5.94E-05
6.92E-03	1.21E-02	1.09E-04	2.04E-04	1.56E-04
1.31E-02	1.41E-02	3.17E-04	4.15E-04	6.74E-04
1.89E-02	3.13E-02	3.61E-04	7.21E-04	1.03E-03
2.16E-02	1.98E-02	1.57E-03	1.82E-03	2.09E-03
2.06E-02	2.32E-02	2.70E-03	3.12E-03	3.34E-03
3.68E-02	3.06E-02	9.83E-03	1.32E-02	1.33E-02
1.51E-01	1.15E-01	4.69E-02	2.68E-02	3.66E-02
2.39E-01	2.11E-01	-3.24E-03	4.28E-02	6.43E-02
3.76E-01	6.19E-01	2.54E-02	2.54E-02	8.31E-02
5.23E+00	1.48E+01	-1.25E+00	-3.94E-01	5.27E-01

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 5, PASS E

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.115	134.7	16.	-32.2	1.8	116.6	0.334	122.6	49.	-22.8	3.96E+02	115.5
3	4.635	0.120	131.0	18.	-23.8	0.53	109.4	0.376	124.7	37.	-9.5	9.36E+02	112.0
4	6.486	0.086	134.2	26.	-22.9	3.9	129.1	0.213	120.3	26.	-24.1	2.05E+02	132.4
5	9.062	0.049	140.1	33.	-20.8	9.9	138.2	0.090	108.4	32.	-26.2	70.	145.3
6	12.648	0.041	137.2	46.	-23.9	14.	141.3	0.032	150.1	61.	-24.6	27.	142.1
7	17.561	0.063	142.4	60.	-26.5	20.	142.2	0.023	148.1	66.	-28.0	25.	143.9
8	24.381	0.017	143.9	69.	-33.2	23.	138.0	0.070	152.7	85.	-36.6	30.	141.6
9	33.945	0.045	142.0	80.	-36.9	22.	133.5	0.024	145.8	86.	-37.7	27.	134.5
10	46.984	0.078	140.7	78.	-42.3	24.	134.4	0.056	145.8	83.	-42.5	29.	134.9
11	64.506	0.051	138.1	66.	-50.2	20.	126.7	0.035	143.7	72.	-50.8	24.	127.4
12	89.811	0.073	146.0	64.	-52.9	19.	127.2	0.058	149.9	68.	-53.2	22.	127.6
13	129.012	0.067	147.8	57.	-54.1	18.	124.6	0.065	148.5	58.	-54.0	18.	124.5
14	186.956	0.072	149.3	45.	-51.7	14.	121.1	0.074	150.4	46.	-51.4	15.	120.8
15	256.000	0.074	153.0	41.	-49.7	15.	121.9	0.086	154.9	44.	-49.0	17.	121.2
16	341.333	0.091	149.2	39.	-43.4	11.	124.4	0.082	151.0	42.	-43.1	12.	124.2
17	512.000	0.021	149.7	49.	-48.7	15.	129.3	0.022	153.3	61.	-48.9	17.	129.5

AVERAGE ROTATION ANGLE = 142.5

AVERAGE ROTATION ANGLE = 141.9

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.113	35.8	15.	-45.0	82.	158.1	0.130	-47.6	1.34E+02	-17.7	1.38E+03	132.9
3	4.635	0.091	32.8	17.	-33.1	1.04E+02	157.9	0.041	47.7	6.06E+02	-36.2	1.41E+02	161.3
4	6.486	0.031	37.8	25.	-36.9	1.45E+02	161.3	0.057	51.1	1.48E+02	-37.9	1.62E+02	162.7
5	9.062	0.038	42.4	35.	-34.9	1.85E+02	158.3	0.054	47.4	78.	-35.6	2.12E+02	158.8
6	12.648	0.035	42.4	44.	-37.3	2.50E+02	157.0	0.034	43.9	57.	-37.3	2.80E+02	157.0
7	17.561	0.049	42.6	50.	-38.7	3.12E+02	151.7	0.032	43.0	56.	-38.7	3.28E+02	151.6
8	24.381	0.046	43.1	51.	-41.3	3.38E+02	146.4	0.016	43.9	60.	-41.8	3.79E+02	146.9
9	33.945	0.014	43.6	53.	-45.3	4.16E+02	139.3	0.010	43.9	57.	-45.4	4.29E+02	139.4
10	46.984	0.028	41.3	57.	-51.4	3.83E+02	133.5	0.037	41.6	64.	-51.6	3.93E+02	133.7
11	64.506	0.011	43.8	51.	-53.0	3.40E+02	126.8	0.006	44.9	56.	-53.1	3.52E+02	127.0
12	89.811	0.035	44.7	47.	-57.0	2.89E+02	123.3	0.033	45.0	50.	-56.9	2.90E+02	123.2
13	129.012	0.029	44.2	38.	-57.0	2.42E+02	123.3	0.029	44.2	39.	-57.0	2.45E+02	123.3
14	186.956	0.027	45.6	33.	-56.4	1.98E+02	124.9	0.027	45.6	33.	-56.4	1.99E+02	124.9
15	256.000	0.041	43.8	29.	-54.4	1.72E+02	125.7	0.042	43.8	30.	-54.4	1.75E+02	125.7
16	341.333	0.014	48.7	25.	-56.8	1.70E+02	132.7	0.020	49.1	28.	-57.0	1.73E+02	132.9
17	512.000	0.016	52.2	36.	-53.1	2.25E+02	130.9	0.076	54.0	62.	-51.0	2.44E+02	128.5

AVERAGE ROTATION ANGLE = 222.8

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

AVERAGE ROTATION ANGLE = 220.1

WOODWARD-CLYDE CONSULTANTS

SETUP 02 GLS-14 GLS, BAND 5, PASS E

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	3.311	0.71	0.28	0.32	0.81	0.80	0.50
3	4.635	0.78	0.19	0.47	0.87	0.84	0.50
4	6.486	0.92	0.44	0.29	0.95	0.88	0.74
5	9.062	0.93	0.66	0.42	0.95	0.90	0.72
6	12.648	0.95	0.85	0.46	0.96	0.94	0.74
7	17.561	0.99	0.96	0.76	0.99	0.95	0.91
8	24.381	0.99	0.98	0.81	0.99	0.96	0.95
9	33.945	0.99	0.98	0.91	1.00	0.95	0.92
10	46.984	1.00	0.99	0.93	1.00	0.96	0.87
11	64.506	1.00	0.99	0.87	1.00	0.96	0.83
12	89.811	1.00	0.98	0.81	1.00	0.96	0.88
13	129.012	1.00	0.99	0.83	1.00	0.99	0.81
14	186.956	1.00	0.99	0.94	1.00	1.00	0.89
15	256.000	0.99	0.98	0.90	1.00	1.00	0.88
16	341.333	0.99	0.98	0.89	0.99	0.96	0.91
17	512.000	0.96	0.97	0.60	0.97	0.93	0.66

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.26	0.09	0.69	0.13	0.19	0.58	0.05	0.37	0.89
3	0.41	0.15	0.81	0.13	0.20	0.54	0.06	0.32	0.89
4	0.62	0.28	0.92	0.25	0.30	0.48	0.22	0.41	0.95
5	0.57	0.16	0.93	0.50	0.31	0.40	0.22	0.71	0.93
6	0.44	0.34	0.94	0.70	0.48	0.19	0.34	0.90	0.89
7	0.79	0.69	0.98	0.88	0.70	0.63	0.66	0.94	0.96
8	0.92	0.91	0.98	0.96	0.93	0.89	0.75	0.99	0.98
9	0.86	0.75	0.99	0.87	0.76	0.71	0.83	0.94	0.98
10	0.89	0.86	0.99	0.88	0.86	0.76	0.77	0.93	0.99
11	0.77	0.86	0.99	0.82	0.89	0.72	0.70	0.96	0.98
12	0.80	0.74	0.99	0.86	0.78	0.62	0.70	0.93	0.98
13	0.71	0.11	0.95	0.88	0.29	0.42	0.59	0.95	0.91
14	0.70	0.17	0.95	0.87	0.42	0.44	0.77	0.96	0.91
15	0.82	0.43	0.95	0.89	0.54	0.66	0.79	0.97	0.94
16	0.61	0.34	0.97	0.68	0.61	0.14	0.76	0.93	0.95
17	0.27	0.50	0.95	0.74	0.75	0.25	0.66	0.97	0.92

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 0403C2.DCV
RECORDING COMPLETED: 19:30:51 08-Sep-81

SETUP 04 GLS-03 GLS, BAND 2, PASS D

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 200.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 48 DATA SEGMENTS, 10.24 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	50.8 (14.9)	123. (12.)	-84.9 (3.8)	197. (8.4)	105.6 (2.0)
4	0.033	13.4 (6.9)	203. (14.)	-79.7 (2.0)	173. (13.)	107.7 (2.0)
5	0.046	17.8 (4.2)	170. (12.)	-82.5 (1.9)	147. (10.)	111.0 (2.0)
6	0.064	-3.4 (6.3)	148. (7.1)	-76.0 (1.5)	104. (6.1)	104.1 (1.9)
7	0.089	-3.8 (8.3)	105. (4.9)	-78.3 (1.2)	93.6 (5.8)	108.3 (1.6)
8	0.126	-2.5 (2.6)	98.5 (2.5)	-77.7 (0.8)	64.2 (2.3)	106.7 (1.1)
9	0.177	-6.9 (6.5)	71.4 (2.2)	-73.8 (0.9)	57.3 (2.9)	104.1 (1.4)
10	0.250	6.6 (11.2)	57.0 (1.7)	-77.3 (1.2)	45.3 (2.5)	102.9 (2.0)
11	0.351	1.7 (3.8)	47.5 (1.2)	-73.3 (0.7)	32.9 (1.4)	104.6 (1.3)
12	0.493	-14.0 (8.4)	33.5 (0.91)	-71.5 (0.8)	27.5 (1.3)	110.7 (1.3)
13	0.689	3.0 (10.8)	29.8 (1.5)	-72.5 (1.5)	22.3 (0.88)	108.2 (1.2)
14	0.985	-33.2 (5.3)	27.6 (1.3)	-69.3 (1.7)	15.1 (1.4)	113.3 (3.1)

AVERAGE ROTATION ANGLE ON FILE = 182.4
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	62.2 (1.6)	521. (9.9)	-51.0 (0.6)	126. (12.)	107.6 (2.6)
4	0.033	61.6 (1.2)	386. (5.3)	-65.4 (0.4)	161. (6.9)	101.3 (1.2)
5	0.046	62.4 (1.5)	259. (3.6)	-70.0 (0.4)	140. (4.2)	101.7 (0.9)
6	0.064	58.4 (1.5)	176. (2.2)	-71.1 (0.4)	110. (3.0)	101.4 (0.8)
7	0.089	61.3 (2.1)	155. (2.4)	-73.4 (0.4)	98.5 (2.8)	102.7 (0.9)
8	0.126	58.0 (1.7)	105. (1.3)	-73.1 (0.3)	75.8 (1.3)	104.6 (0.5)
9	0.177	58.3 (2.4)	93.2 (2.1)	-73.7 (0.6)	60.8 (2.0)	104.7 (0.9)
10	0.250	64.2 (3.7)	74.7 (3.0)	-69.8 (1.2)	49.8 (2.1)	109.6 (1.2)
11	0.351	64.4 (3.5)	54.0 (2.0)	-70.4 (1.1)	37.4 (1.2)	106.8 (1.0)
12	0.493	64.2 (4.4)	43.0 (1.9)	-72.7 (1.3)	31.0 (0.96)	108.0 (0.9)
13	0.689	60.5 (5.8)	35.2 (1.8)	-73.3 (1.7)	25.4 (0.97)	110.6 (1.2)
14	0.985	72.2 (24.1)	31.1 (3.4)	-75.3 (3.4)	25.7 (3.1)	111.9 (2.7)

AVERAGE ROTATION ANGLE ON FILE = 242.3
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 2, PASS D

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.352 (0.139)	58.8 (4.5)	87.7 (23.1)	0.033 (0.023)	0.161 (0.063)	2.068 (1.852)
4	0.033	0.185 (0.076)	69.4 (11.0)	156.7 (23.7)	0.038 (0.029)	0.108 (0.031)	0.562 (0.277)
5	0.046	0.123 (0.055)	45.3 (17.0)	-12.5 (25.3)	0.039 (0.024)	0.147 (0.032)	0.728 (0.213)
6	0.064	0.036 (0.059)	60.9 (39.5)	-83.1 (98.7)	0.005 (0.023)	0.052 (0.025)	0.335 (0.199)
7	0.089	0.181 (0.066)	61.5 (8.9)	107.4 (20.9)	0.008 (0.028)	0.101 (0.021)	0.383 (0.258)
8	0.126	0.110 (0.039)	72.1 (16.3)	-32.7 (21.3)	0.032 (0.024)	0.061 (0.013)	0.241 (0.088)
9	0.177	0.158 (0.074)	52.8 (11.4)	21.2 (26.6)	0.002 (0.032)	0.103 (0.016)	0.247 (0.241)
10	0.250	0.187 (0.077)	79.2 (20.2)	46.7 (26.9)	0.067 (0.043)	0.067 (0.015)	0.586 (0.286)
11	0.351	0.280 (0.061)	47.9 (8.1)	13.0 (12.4)	0.017 (0.039)	0.062 (0.012)	0.167 (0.129)
12	0.493	0.071 (0.051)	97.1 (26.5)	16.6 (41.1)	0.011 (0.030)	0.107 (0.016)	0.535 (0.374)
13	0.689	0.191 (0.045)	46.9 (12.0)	-61.1 (15.0)	0.052 (0.033)	0.059 (0.026)	0.241 (0.363)
14	0.985	0.090 (0.044)	86.8 (27.4)	24.7 (27.4)	0.039 (0.019)	0.216 (0.034)	1.762 (0.568)

AVERAGE TIPPER STRIKE ON FILE = 64.9

4

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.517 (0.150)	22.2 (11.1)	-166.7 (16.6)	0.108 (0.088)	0.043 (0.021)	0.111 (0.056)
4	0.033	0.143 (0.052)	-8.9 (15.6)	-13.3 (20.9)	0.011 (0.038)	0.039 (0.011)	0.057 (0.041)
5	0.046	0.088 (0.026)	-4.4 (15.6)	6.5 (17.2)	0.009 (0.023)	0.031 (0.009)	0.083 (0.051)
6	0.064	0.102 (0.015)	-37.1 (16.5)	-1.3 (9.7)	0.047 (0.017)	0.051 (0.008)	0.062 (0.053)
7	0.089	0.073 (0.016)	-14.4 (12.7)	30.1 (12.6)	0.022 (0.013)	0.032 (0.008)	0.205 (0.069)
8	0.126	0.075 (0.009)	-1.2 (5.3)	30.5 (6.9)	0.019 (0.006)	0.033 (0.005)	0.087 (0.061)
9	0.177	0.073 (0.014)	-23.6 (11.9)	22.1 (10.8)	0.026 (0.011)	0.032 (0.010)	0.067 (0.082)
10	0.250	0.029 (0.016)	-13.6 (44.7)	34.1 (34.2)	0.013 (0.012)	0.048 (0.017)	0.247 (0.127)
11	0.351	0.089 (0.012)	-10.5 (6.5)	13.8 (7.5)	0.021 (0.009)	0.028 (0.014)	0.213 (0.122)
12	0.493	0.081 (0.011)	6.9 (4.8)	18.8 (7.9)	0.014 (0.006)	0.035 (0.015)	0.259 (0.149)
13	0.689	0.058 (0.010)	-6.0 (7.2)	18.8 (9.5)	0.010 (0.007)	0.066 (0.017)	0.401 (0.170)
14	0.985	0.042 (0.007)	-90.2 (36.4)	-45.7 (9.3)	0.024 (0.010)	0.090 (0.027)	0.840 (0.378)

AVERAGE TIPPER STRIKE ON FILE = -15.1

3

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 2, PASS D

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	1.32E-02	4.49E-02	9.56E-07	4.63E-07	1.02E-08
4	0.033	6.35E-03	1.92E-02	5.54E-07	2.92E-07	6.11E-08
5	0.046	3.89E-03	1.10E-02	5.33E-07	2.94E-07	1.56E-08
6	0.064	2.45E-03	7.08E-03	5.82E-07	3.22E-07	5.05E-09
7	0.089	1.26E-03	3.40E-03	5.42E-07	2.85E-07	9.48E-09
8	0.126	1.46E-03	4.05E-03	1.03E-06	5.99E-07	1.44E-08
9	0.177	5.66E-04	1.59E-03	7.25E-07	3.99E-07	4.86E-09
10	0.250	2.54E-04	9.45E-04	7.95E-07	3.18E-07	1.55E-08
11	0.351	2.55E-04	8.63E-04	1.26E-06	5.95E-07	5.40E-08
12	0.493	2.54E-04	1.16E-03	3.32E-06	9.53E-07	4.98E-09
13	0.689	2.26E-04	1.30E-03	5.95E-06	1.51E-06	1.24E-07
14	0.985	1.93E-04	1.71E-03	1.27E-05	2.34E-06	2.50E-08

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.76E-04	2.03E-03	6.03E-06	3.79E-06	1.32E-05
-3.70E-04	2.20E-04	2.43E-06	2.09E-06	6.33E-06
1.15E-05	-9.35E-05	3.46E-06	2.73E-06	4.65E-06
6.74E-06	1.09E-04	1.44E-06	1.49E-06	3.93E-06
-5.95E-06	3.98E-05	8.09E-07	1.09E-06	3.84E-06
5.72E-06	4.62E-05	5.72E-07	7.96E-07	3.24E-06
-8.61E-07	8.10E-06	3.77E-07	5.76E-07	3.58E-06
5.07E-06	5.62E-06	2.46E-07	4.45E-07	3.32E-06
5.73E-06	9.02E-06	2.85E-07	4.52E-07	3.28E-06
5.52E-06	9.50E-06	9.26E-07	5.00E-07	3.31E-06
5.32E-06	1.03E-05	3.03E-06	5.00E-07	3.37E-06
1.09E-05	4.17E-05	5.92E-06	4.75E-07	3.72E-06

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	2.87E-02	1.00E-02	3.36E-07	2.56E-07	1.75E-08
4	0.033	1.43E-02	5.41E-03	2.28E-07	2.30E-07	1.32E-09
5	0.046	8.63E-03	3.71E-03	2.43E-07	2.95E-07	7.25E-10
6	0.064	6.13E-03	2.28E-03	2.88E-07	4.27E-07	2.43E-09
7	0.089	2.83E-03	1.35E-03	2.54E-07	3.21E-07	1.05E-09
8	0.126	3.19E-03	1.83E-03	6.35E-07	7.50E-07	2.41E-09
9	0.177	1.43E-03	6.20E-04	3.80E-07	5.33E-07	1.42E-09
10	0.250	7.27E-04	4.69E-04	4.92E-07	4.59E-07	3.13E-10
11	0.351	5.65E-04	4.69E-04	8.73E-07	7.42E-07	4.58E-09
12	0.493	6.44E-04	6.61E-04	2.13E-06	1.39E-06	5.99E-09
13	0.689	6.55E-04	7.46E-04	4.04E-06	2.49E-06	7.32E-09
14	0.985	9.85E-04	1.11E-03	8.23E-06	5.16E-06	1.31E-08

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
1.05E-03	2.61E-03	1.82E-06	3.60E-08	9.63E-06
3.73E-04	3.41E-04	2.14E-07	1.04E-08	8.69E-07
3.90E-04	5.26E-05	1.26E-07	2.87E-09	2.68E-07
2.06E-04	4.96E-05	1.14E-07	6.50E-09	1.43E-07
1.34E-04	2.40E-05	1.09E-07	9.20E-09	1.01E-07
1.88E-04	2.89E-05	1.08E-07	2.02E-09	8.30E-08
1.66E-04	3.74E-05	1.06E-07	7.69E-09	8.23E-08
2.02E-04	6.75E-05	1.01E-07	9.86E-09	8.26E-08
1.82E-04	5.94E-05	1.04E-07	5.56E-09	7.94E-08
1.95E-04	6.94E-05	1.15E-07	2.04E-08	9.20E-08
1.91E-04	8.65E-05	6.31E-08	1.83E-08	9.53E-08
3.52E-04	2.34E-04	-1.81E-07	-3.45E-08	1.24E-07

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 2, PASS D

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.454	107.5	2.1	-53.3	7.1	89.8	0.065	91.9	1.52E+02	-74.8	2.29E+02	105.2
4	0.033	0.269	11.0	12.	-82.0	1.7	115.7	0.010	12.0	2.48E+02	-76.7	1.40E+02	105.5
5	0.046	0.596	24.9	20.	-92.1	2.4	139.9	0.142	20.8	1.63E+02	-77.9	1.51E+02	110.0
6	0.064	0.406	14.2	28.	-83.9	2.9	125.6	0.043	-3.0	1.54E+02	-75.5	1.03E+02	104.9
7	0.089	0.269	13.1	31.	-81.2	3.1	116.5	0.081	5.4	1.10E+02	-76.8	90.	106.5
8	0.126	0.119	9.9	50.	-74.9	10.	103.1	0.051	-2.4	1.01E+02	-77.4	64.	106.1
9	0.177	0.053	-5.7	33.	-76.2	6.8	105.3	0.089	-7.2	72.	-75.3	56.	104.2
10	0.250	0.109	-4.0	34.	-78.3	5.7	105.8	0.078	20.9	58.	-78.7	47.	105.7
11	0.351	0.049	-5.7	31.	-73.6	9.0	104.1	0.066	1.0	48.	-73.1	35.	104.0
12	0.493	0.158	-19.7	21.	-71.0	10.	108.0	0.099	-2.4	34.	-72.0	29.	109.9
13	0.689	0.157	-43.9	15.	-70.3	9.4	103.5	0.034	15.7	31.	-74.3	23.	108.5
14	0.985	0.369	43.0	4.9	-63.7	20.	109.5	0.154	-25.9	28.	-68.5	19.	112.7

AVERAGE ROTATION ANGLE = 192.0 — AVERAGE ROTATION ANGLE = 190.6

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.317	71.4	4.21E+02	-51.7	0.52	75.1	0.073	53.6	5.77E+02	-51.6	2.62E+02	101.3
4	0.033	0.154	69.5	3.72E+02	-64.2	22.	97.6	0.027	60.1	4.13E+02	-64.4	1.81E+02	99.0
5	0.046	0.066	67.8	2.60E+02	-70.7	47.	99.8	0.023	60.6	2.87E+02	-71.0	1.47E+02	100.2
6	0.064	0.051	67.8	1.75E+02	-72.2	40.	101.1	0.033	58.3	1.92E+02	-71.9	1.13E+02	100.9
7	0.089	0.053	67.7	1.49E+02	-73.7	39.	103.7	0.008	59.2	1.73E+02	-74.0	1.00E+02	104.0
8	0.126	0.021	65.7	1.05E+02	-73.4	49.	105.0	0.022	57.8	1.21E+02	-72.8	77.	104.4
9	0.177	0.030	67.2	91.	-74.0	31.	106.2	0.009	56.1	1.20E+02	-74.4	67.	106.7
10	0.250	0.009	69.2	73.	-70.6	29.	108.3	0.064	63.5	1.29E+02	-72.2	62.	109.8
11	0.351	0.026	70.5	52.	-68.7	27.	106.3	0.043	63.1	97.	-69.2	45.	106.9
12	0.493	0.025	67.6	42.	-73.1	27.	109.5	0.039	59.9	81.	-73.8	36.	110.2
13	0.689	0.062	67.5	35.	-72.5	23.	111.1	0.083	55.2	70.	-72.9	30.	111.7
14	0.985	0.062	89.3	34.	-72.4	24.	109.3	0.061	57.0	78.	-75.1	37.	112.3

AVERAGE ROTATION ANGLE = 250.1 — AVERAGE ROTATION ANGLE = 238.7

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 2, PASS D

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.023	0.33	0.36	0.01	0.92	0.36	0.01
4	0.033	0.36	0.42	0.15	0.97	0.69	0.02
5	0.046	0.32	0.37	0.17	0.97	0.80	0.03
6	0.064	0.42	0.52	0.08	0.98	0.82	0.10
7	0.089	0.45	0.62	0.04	0.96	0.82	0.09
8	0.126	0.65	0.79	0.07	0.97	0.91	0.15
9	0.177	0.62	0.81	0.02	0.94	0.85	0.10
10	0.250	0.62	0.87	0.06	0.88	0.85	0.06
11	0.351	0.73	0.90	0.11	0.87	0.89	0.22
12	0.493	0.79	0.88	0.06	0.87	0.93	0.24
13	0.689	0.85	0.81	0.21	0.88	0.94	0.25
14	0.985	0.87	0.83	0.12	0.86	0.92	0.30

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.95	0.96	0.61	0.68	0.18	0.14	0.01	0.09	0.09
0.97	0.98	0.60	0.67	0.34	0.26	0.03	0.17	0.17
0.98	0.99	0.53	0.60	0.32	0.27	0.02	0.12	0.16
0.98	0.99	0.59	0.67	0.49	0.38	0.03	0.26	0.23
0.97	0.99	0.45	0.53	0.57	0.41	0.02	0.22	0.22
0.97	0.99	0.44	0.52	0.77	0.63	0.00	0.33	0.29
0.94	0.96	0.50	0.57	0.76	0.59	0.05	0.33	0.34
0.88	0.91	0.39	0.49	0.82	0.60	0.06	0.31	0.32
0.87	0.92	0.29	0.34	0.87	0.72	0.01	0.24	0.28
0.87	0.93	0.20	0.31	0.87	0.77	0.06	0.12	0.25
0.85	0.93	0.19	0.27	0.81	0.83	0.06	0.13	0.27
0.77	0.91	0.19	0.42	0.82	0.88	0.03	0.12	0.38

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 0403C3.CDE
RECORDING COMPLETED: 18:40:02 08-Sep-81

SETUP 04 GLS-03 GLS, BAND 3, PASS C

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 10.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 57 DATA SEGMENTS, 102.40 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	81.2 (4.1)	27.0 (0.38)	-74.7 (0.5)	32.7 (0.44)	108.1 (0.4)
4	0.649	100.1 (1.6)	21.8 (0.33)	-74.3 (0.4)	31.4 (0.53)	108.1 (0.5)
5	0.906	90.1 (2.3)	17.1 (0.27)	-71.0 (0.5)	24.6 (0.45)	110.5 (0.5)
6	1.265	101.0 (3.0)	13.9 (0.27)	-68.0 (0.6)	17.8 (0.47)	115.2 (0.8)
7	1.756	90.6 (4.5)	10.7 (0.28)	-63.6 (0.8)	14.3 (0.40)	120.2 (0.9)
8	2.438	104.4 (4.5)	9.42 (0.33)	-54.4 (1.1)	13.4 (0.68)	122.9 (1.5)
9	3.395	107.5 (4.8)	9.26 (0.38)	-44.3 (1.2)	11.0 (0.69)	126.4 (1.8)
10	4.698	120.1 (4.9)	11.3 (0.45)	-38.4 (1.1)	8.77 (0.66)	130.3 (2.1)
11	6.451	145.4 (16.3)	14.1 (0.44)	-35.2 (2.1)	10.5 (0.36)	143.3 (2.8)
12	8.981	132.1 (1.8)	17.8 (0.16)	-28.9 (0.3)	13.4 (0.17)	143.6 (0.4)

AVERAGE ROTATION ANGLE ON FILE = 287.2
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	63.4 (1.5)	49.2 (0.74)	-68.3 (0.4)	32.5 (0.47)	108.3 (0.4)
4	0.649	65.3 (1.4)	43.6 (0.73)	-68.1 (0.5)	24.9 (0.48)	107.3 (0.6)
5	0.906	67.2 (3.2)	31.8 (0.66)	-68.0 (0.6)	22.9 (0.55)	108.7 (0.7)
6	1.265	81.3 (5.4)	24.5 (0.47)	-65.3 (0.5)	19.1 (0.70)	112.6 (1.1)
7	1.756	75.5 (4.4)	20.1 (0.60)	-62.8 (0.8)	13.2 (0.73)	112.8 (1.6)
8	2.438	61.2 (16.6)	16.1 (0.75)	-55.4 (2.2)	12.3 (0.99)	122.5 (2.9)
9	3.395	76.6 (12.4)	14.5 (0.64)	-51.4 (1.4)	10.4 (1.1)	129.4 (3.4)
10	4.698	54.4 (10.1)	14.3 (0.90)	-38.5 (1.8)	12.7 (1.3)	131.1 (2.5)
11	6.451	60.9 (2.1)	18.4 (0.53)	-32.9 (0.8)	7.96 (0.55)	133.5 (2.0)
12	8.981	64.0 (0.5)	22.2 (0.17)	-29.7 (0.2)	9.72 (0.11)	138.7 (0.3)

AVERAGE ROTATION ANGLE ON FILE = 247.0
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 3, PASS C

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.084 (0.011)	116.3 (10.1)	39.0 (7.7)	0.011 (0.014)	0.084 (0.006)	0.546 (0.123)
4	0.649	0.114 (0.016)	74.5 (3.7)	-3.4 (8.0)	0.001 (0.007)	0.041 (0.007)	0.370 (0.061)
5	0.906	0.148 (0.014)	86.7 (3.6)	0.8 (5.3)	0.023 (0.009)	0.067 (0.008)	0.188 (0.078)
6	1.265	0.100 (0.013)	86.1 (5.2)	-35.5 (7.5)	0.017 (0.008)	0.065 (0.010)	0.410 (0.120)
7	1.756	0.100 (0.013)	85.0 (4.4)	-78.9 (7.4)	0.013 (0.007)	0.090 (0.013)	0.270 (0.145)
8	2.438	0.090 (0.011)	103.0 (7.5)	-54.2 (7.3)	0.014 (0.011)	0.065 (0.018)	0.590 (0.190)
9	3.395	0.084 (0.013)	52.0 (5.3)	-10.8 (8.6)	0.024 (0.005)	0.103 (0.021)	0.708 (0.247)
10	4.698	0.056 (0.011)	73.1 (6.7)	-53.3 (10.9)	0.007 (0.006)	0.175 (0.021)	1.468 (0.391)
11	6.451	0.060 (0.005)	82.6 (4.6)	-97.8 (5.2)	0.009 (0.005)	0.124 (0.013)	1.180 (0.299)
12	8.981	0.050 (0.001)	123.4 (4.6)	-137.9 (1.6)	0.027 (0.002)	0.102 (0.004)	1.591 (0.098)

AVERAGE TIPPER STRIKE ON FILE = 88.3

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.071 (0.003)	-0.7 (1.7)	23.9 (2.8)	0.020 (0.002)	0.019 (0.006)	0.121 (0.054)
4	0.649	0.060 (0.003)	-8.4 (2.1)	3.7 (3.2)	0.017 (0.002)	0.024 (0.007)	0.203 (0.051)
5	0.906	0.063 (0.004)	-4.2 (2.0)	8.8 (3.3)	0.017 (0.002)	0.012 (0.009)	0.352 (0.110)
6	1.265	0.069 (0.004)	-11.1 (2.9)	-2.7 (3.2)	0.027 (0.002)	0.058 (0.012)	0.918 (0.347)
7	1.756	0.083 (0.006)	-2.6 (2.8)	10.1 (3.8)	0.029 (0.002)	0.006 (0.017)	0.606 (0.208)
8	2.438	0.097 (0.008)	14.1 (2.3)	15.2 (4.6)	0.015 (0.004)	0.026 (0.025)	0.578 (0.387)
9	3.395	0.101 (0.010)	5.2 (4.3)	-25.1 (5.8)	0.038 (0.004)	0.010 (0.032)	0.710 (0.532)
10	4.698	0.083 (0.008)	22.0 (4.2)	15.8 (5.8)	0.003 (0.006)	0.026 (0.028)	0.432 (0.310)
11	6.451	0.090 (0.006)	19.3 (3.2)	-7.3 (3.9)	0.001 (0.005)	0.086 (0.018)	0.076 (0.072)
12	8.981	0.077 (0.002)	15.4 (1.2)	-23.6 (1.8)	0.007 (0.002)	0.031 (0.004)	0.158 (0.016)

AVERAGE TIPPER STRIKE ON FILE = 4.9

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 3, PASS C

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	3.66E-04	1.20E-03	3.16E-06	1.46E-06	2.10E-08
4	0.649	3.18E-04	1.16E-03	4.81E-06	2.17E-06	2.08E-08
5	0.906	3.26E-04	1.19E-03	8.36E-06	3.97E-06	8.41E-08
6	1.265	3.32E-04	1.02E-03	1.40E-05	7.12E-06	6.95E-08
7	1.756	2.44E-04	9.26E-04	2.10E-05	9.36E-06	8.12E-08
8	2.438	2.35E-04	7.35E-04	2.69E-05	1.46E-05	1.30E-07
9	3.395	2.93E-04	8.19E-04	4.86E-05	2.60E-05	2.94E-07
10	4.698	5.68E-04	1.17E-03	8.38E-05	5.91E-05	1.78E-07
11	6.451	2.77E-03	4.13E-03	3.20E-04	3.35E-04	1.32E-06
12	8.981	1.30E-01	2.85E-01	2.55E-02	1.69E-02	7.66E-05

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
7.39E-05	4.36E-04	3.28E-07	4.64E-07	3.57E-06
7.22E-05	4.01E-04	2.99E-07	4.23E-07	3.34E-06
7.11E-05	4.34E-04	4.98E-07	4.86E-07	3.82E-06
7.46E-05	4.20E-04	7.80E-07	7.71E-07	3.94E-06
8.51E-05	4.03E-04	1.31E-06	1.32E-06	3.48E-06
9.05E-05	4.18E-04	6.88E-06	2.58E-06	4.07E-06
9.60E-05	4.44E-04	1.13E-05	6.08E-06	4.06E-06
1.07E-04	4.61E-04	3.09E-05	8.63E-06	5.40E-06
1.24E-04	5.48E-04	5.54E-05	1.58E-05	6.06E-06
8.80E-04	1.74E-03	2.06E-04	3.29E-05	3.07E-05

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	1.22E-03	5.34E-04	1.52E-06	2.25E-06	4.25E-09
4	0.649	1.17E-03	4.65E-04	2.30E-06	3.44E-06	4.96E-09
5	0.906	1.11E-03	5.05E-04	3.97E-06	6.17E-06	9.19E-09
6	1.265	1.13E-03	4.65E-04	6.13E-06	1.10E-05	2.21E-08
7	1.756	8.90E-04	3.97E-04	9.44E-06	1.51E-05	3.99E-08
8	2.438	7.67E-04	3.14E-04	1.25E-05	2.26E-05	3.95E-08
9	3.395	8.94E-04	3.47E-04	2.04E-05	4.10E-05	1.16E-07
10	4.698	1.42E-03	5.32E-04	4.01E-05	9.00E-05	2.22E-07
11	6.451	6.02E-03	1.11E-03	1.65E-04	4.06E-04	1.64E-06
12	8.981	3.02E-01	6.85E-02	1.24E-02	2.36E-02	5.96E-05

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
5.99E-04	1.74E-04	1.33E-07	3.11E-08	1.12E-07
5.71E-04	2.21E-04	1.12E-07	3.72E-08	1.28E-07
6.11E-04	2.90E-04	1.56E-07	1.47E-07	1.94E-07
6.55E-04	3.58E-04	2.01E-07	2.02E-07	2.71E-07
6.42E-04	4.38E-04	2.65E-07	4.76E-07	4.71E-07
7.19E-04	5.22E-04	5.09E-07	1.38E-06	7.40E-07
7.76E-04	6.63E-04	1.90E-06	4.40E-06	1.58E-06
9.09E-04	7.52E-04	5.86E-07	5.47E-06	2.21E-06
1.04E-03	9.19E-04	-2.38E-06	9.95E-06	5.80E-06
2.85E-03	1.57E-03	2.05E-06	3.13E-05	4.62E-05

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 3, PASS C

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.073	73.2	11.	-74.8	27.	108.3	0.024	96.3	37.	-74.0	66.	107.6
4	0.649	0.030	82.2	12.	-74.5	27.	107.7	0.018	102.2	31.	-74.0	62.	107.2
5	0.906	0.082	75.5	11.	-71.4	21.	110.5	0.016	99.2	24.	-70.6	51.	109.9
6	1.265	0.077	73.2	9.0	-67.7	15.	114.6	0.047	105.4	19.	-68.5	44.	115.2
7	1.756	0.113	71.5	6.3	-62.8	13.	119.5	0.027	104.0	19.	-62.4	34.	118.5
8	2.438	0.196	51.3	3.4	-52.5	9.1	123.5	0.042	107.0	17.	-54.9	40.	124.4
9	3.395	0.163	142.4	8.0	-47.2	2.8	129.6	0.047	109.4	14.	-46.3	34.	129.1
10	4.698	0.272	125.9	9.5	-38.4	2.7	128.2	0.048	90.2	14.	-42.4	25.	134.9
11	6.451	0.175	129.1	13.	-32.5	6.0	141.5	0.075	82.7	12.	-33.5	19.	142.8
12	8.981	0.106	131.9	18.	-28.8	13.	143.5	0.102	131.8	18.	-28.9	14.	143.6

AVERAGE ROTATION ANGLE = 275.6 — AVERAGE ROTATION ANGLE = 282.8

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.020	66.0	49.	-68.6	25.	107.7	0.130	40.9	1.55E+02	-66.9	55.	104.9
4	0.649	0.014	68.4	42.	-68.7	21.	107.9	0.144	34.3	1.54E+02	-67.0	56.	105.0
5	0.906	0.010	74.5	30.	-68.1	20.	107.9	0.118	23.4	1.61E+02	-69.3	50.	108.3
6	1.265	0.045	79.3	24.	-65.8	17.	112.3	0.090	103.8	48.	-67.4	1.61E+02	113.7
7	1.756	0.016	80.2	19.	-63.1	12.	113.9	0.153	100.9	46.	-65.4	2.20E+02	115.6
8	2.438	0.055	84.1	14.	-57.5	9.8	119.9	0.005	94.2	50.	-58.3	2.24E+02	120.6
9	3.395	0.056	94.8	12.	-52.8	6.7	130.3	0.025	88.8	44.	-52.1	2.59E+02	129.3
10	4.698	0.048	45.5	11.	-38.1	13.	128.4	0.128	82.9	38.	-42.3	1.26E+02	132.2
11	6.451	0.077	63.1	18.	-33.2	8.0	132.6	0.058	64.3	26.	-33.9	35.	133.0
12	8.981	0.032	64.0	22.	-29.7	9.7	138.6	0.032	63.3	23.	-29.7	10.	138.6

AVERAGE ROTATION ANGLE = 252.0 — AVERAGE ROTATION ANGLE = 249.7

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 3, PASS C

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.464	0.78	0.82	0.07	0.81	0.83	0.18
4	0.649	0.82	0.84	0.08	0.82	0.81	0.18
5	0.906	0.85	0.83	0.14	0.79	0.78	0.20
6	1.265	0.85	0.82	0.13	0.79	0.74	0.27
7	1.756	0.80	0.81	0.14	0.75	0.68	0.26
8	2.438	0.76	0.71	0.15	0.70	0.60	0.16
9	3.395	0.75	0.73	0.32	0.70	0.56	0.21
10	4.698	0.85	0.74	0.18	0.76	0.64	0.25
11	6.451	0.95	0.88	0.44	0.91	0.75	0.44
12	8.981	1.00	0.99	0.85	0.99	0.99	0.75

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.73	0.73	0.36	0.52	0.94	0.84	0.01	0.47	0.52
0.73	0.72	0.37	0.55	0.96	0.89	0.02	0.52	0.57
0.72	0.70	0.36	0.57	0.96	0.92	0.04	0.53	0.59
0.72	0.66	0.34	0.61	0.96	0.93	0.03	0.58	0.64
0.68	0.60	0.28	0.60	0.96	0.91	0.01	0.56	0.61
0.67	0.51	0.22	0.57	0.88	0.87	0.03	0.49	0.61
0.65	0.51	0.24	0.58	0.87	0.84	0.04	0.50	0.60
0.73	0.60	0.34	0.58	0.84	0.89	0.06	0.47	0.59
0.90	0.81	0.59	0.70	0.92	0.96	0.17	0.52	0.60
0.99	0.99	0.68	0.75	1.00	1.00	0.49	0.56	0.61

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA RESULTS FROM CROSSPOWER FILE. 040305.EDA
RECORDING COMPLETED: 03:39:06 09-Sep-81

SETUP 04 GLS-03 GLS, BAND 5, PASS E

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 53 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	76.9 (5.6)	8.54 (0.77)	-41.8 (2.5)	11.9 (0.46)	130.4 (1.2)
3	4.635	83.9 (6.9)	9.52 (0.38)	-37.9 (1.4)	12.8 (0.27)	139.1 (1.0)
4	6.486	110.6 (3.0)	12.3 (0.27)	-33.5 (0.5)	12.7 (0.23)	137.5 (0.4)
5	9.062	118.1 (3.0)	15.6 (0.26)	-29.0 (0.4)	13.3 (0.28)	142.5 (0.5)
6	12.648	130.2 (1.5)	21.0 (0.15)	-29.6 (0.2)	16.3 (0.21)	143.5 (0.4)
7	17.561	127.2 (1.1)	25.3 (0.10)	-31.0 (0.2)	17.8 (0.16)	142.7 (0.3)
8	24.381	124.9 (0.7)	28.6 (0.12)	-34.9 (0.1)	18.9 (0.15)	139.5 (0.2)
9	33.945	124.0 (1.1)	31.4 (0.13)	-39.3 (0.2)	21.6 (0.16)	136.4 (0.3)
10	46.984	124.6 (0.8)	32.1 (0.12)	-45.3 (0.2)	20.3 (0.16)	131.7 (0.3)
11	64.506	112.4 (0.6)	31.0 (0.14)	-48.4 (0.2)	19.8 (0.12)	126.4 (0.2)
12	89.811	108.5 (0.5)	28.5 (0.12)	-52.0 (0.1)	17.1 (9.62E-02)	123.8 (0.2)
13	129.012	108.8 (0.9)	22.6 (0.17)	-53.6 (0.2)	14.5 (0.10)	123.2 (0.2)
14	186.956	110.9 (1.1)	20.8 (0.30)	-55.1 (0.4)	11.9 (0.14)	126.0 (0.4)
15	256.000	98.0 (2.5)	17.7 (0.46)	-52.9 (0.8)	10.8 (0.25)	129.1 (0.7)
16	341.333	106.3 (3.0)	18.0 (0.47)	-50.1 (0.8)	11.5 (0.35)	134.2 (0.9)
17	512.000	110.7 (6.5)	18.4 (0.59)	-46.7 (0.9)	12.6 (0.90)	131.3 (2.1)

AVERAGE ROTATION ANGLE ON FILE = 291.0
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	66.3 (4.6)	14.7 (0.87)	-50.8 (1.7)	13.1 (1.3)	105.0 (2.9)
3	4.635	60.1 (2.9)	15.5 (0.61)	-41.7 (1.1)	7.83 (0.48)	131.6 (1.8)
4	6.486	64.8 (1.5)	18.5 (0.50)	-35.4 (0.8)	8.16 (0.28)	134.6 (1.0)
5	9.062	62.4 (1.1)	23.7 (0.48)	-31.2 (0.6)	9.21 (0.31)	135.2 (1.0)
6	12.648	62.6 (0.7)	26.2 (0.30)	-30.2 (0.3)	10.7 (0.23)	137.5 (0.6)
7	17.561	61.4 (0.4)	33.7 (0.20)	-32.3 (0.2)	12.0 (0.16)	139.3 (0.4)
8	24.381	59.4 (0.4)	37.9 (0.22)	-34.9 (0.2)	12.4 (0.18)	135.7 (0.4)
9	33.945	61.0 (0.4)	42.3 (0.27)	-40.5 (0.2)	13.7 (0.16)	134.3 (0.4)
10	46.984	57.3 (0.4)	42.4 (0.30)	-44.4 (0.2)	12.6 (0.19)	129.5 (0.5)
11	64.506	56.3 (0.4)	41.9 (0.37)	-49.9 (0.3)	12.6 (0.16)	127.7 (0.4)
12	89.811	55.7 (0.5)	39.9 (0.32)	-53.2 (0.2)	11.1 (0.17)	122.8 (0.5)
13	129.012	53.8 (0.8)	30.9 (0.51)	-53.8 (0.5)	8.95 (0.19)	121.8 (0.7)
14	186.956	56.0 (1.4)	27.2 (0.95)	-49.4 (1.0)	8.12 (0.30)	127.9 (1.1)
15	256.000	51.1 (2.7)	23.5 (1.5)	-55.6 (1.9)	7.01 (0.66)	128.9 (2.7)
16	341.333	50.7 (3.2)	21.4 (1.5)	-50.1 (2.1)	6.89 (0.64)	131.5 (2.7)
17	512.000	38.0 (6.3)	22.3 (1.8)	-44.0 (2.8)	8.50 (1.4)	144.0 (5.6)

AVERAGE ROTATION ANGLE ON FILE = 237.3
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 5, PASS E

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.176 (0.087)	59.7 (13.4)	-28.1 (28.3)	0.026 (0.038)	0.088 (0.022)	0.526 (0.232)
3	4.635	0.119 (0.052)	24.4 (18.2)	-169.4 (25.1)	0.015 (0.036)	0.057 (0.010)	0.661 (0.148)
4	6.486	0.149 (0.034)	32.4 (30.7)	131.9 (17.3)	0.081 (0.032)	0.057 (0.006)	0.914 (0.127)
5	9.062	0.083 (0.036)	38.1 (38.3)	-177.5 (24.8)	0.039 (0.030)	0.116 (0.005)	1.221 (0.132)
6	12.648	0.103 (0.027)	12.0 (11.2)	57.5 (15.2)	0.010 (0.020)	0.099 (0.003)	1.819 (0.131)
7	17.561	0.088 (0.012)	-22.8 (12.1)	46.9 (8.0)	0.016 (0.018)	0.110 (0.002)	1.522 (0.057)
8	24.381	0.054 (0.016)	62.0 (30.9)	169.6 (16.2)	0.028 (0.012)	0.114 (0.002)	1.692 (0.064)
9	33.945	0.050 (0.012)	-18.9 (20.5)	6.0 (13.9)	0.019 (0.013)	0.120 (0.002)	1.320 (0.041)
10	46.984	0.130 (0.016)	10.4 (9.9)	-69.0 (11.0)	0.059 (0.012)	0.118 (0.002)	1.542 (0.052)
11	64.506	0.067 (0.013)	81.0 (17.5)	86.7 (18.8)	0.031 (0.011)	0.136 (0.002)	0.995 (0.028)
12	89.811	0.024 (0.012)	0.6 (23.2)	-133.5 (32.2)	0.008 (0.007)	0.159 (0.002)	0.794 (0.025)
13	129.012	0.031 (0.014)	-28.1 (34.2)	-65.7 (39.5)	0.014 (0.010)	0.169 (0.003)	0.820 (0.039)
14	186.956	0.065 (0.019)	-8.2 (20.6)	61.9 (21.7)	0.024 (0.016)	0.167 (0.005)	0.910 (0.061)
15	256.000	0.164 (0.041)	25.7 (9.4)	67.1 (14.5)	0.007 (0.027)	0.215 (0.010)	0.328 (0.093)
16	341.333	0.144 (0.040)	27.7 (9.5)	85.8 (16.0)	0.010 (0.024)	0.211 (0.012)	0.681 (0.133)
17	512.000	0.244 (0.064)	32.3 (6.1)	164.3 (15.0)	0.041 (0.022)	0.207 (0.023)	0.882 (0.395)

AVERAGE TIPPER STRIKE ON FILE = 20.5

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.098 (0.010)	32.5 (5.7)	12.4 (5.8)	0.018 (0.009)	0.046 (0.036)	0.233 (0.168)
3	4.635	0.095 (0.005)	30.4 (2.9)	0.3 (3.0)	0.026 (0.004)	0.016 (0.020)	0.027 (0.101)
4	6.486	0.090 (0.003)	31.2 (2.1)	-12.9 (2.1)	0.027 (0.003)	0.042 (0.011)	0.304 (0.050)
5	9.062	0.086 (0.003)	44.1 (3.0)	-30.4 (2.2)	0.011 (0.004)	0.024 (0.009)	0.231 (0.038)
6	12.648	0.070 (0.002)	50.3 (3.4)	-40.1 (2.0)	0.021 (0.003)	0.041 (0.006)	0.196 (0.025)
7	17.561	0.065 (0.002)	50.8 (2.4)	-47.5 (1.4)	0.016 (0.002)	0.035 (0.004)	0.190 (0.014)
8	24.381	0.068 (0.002)	68.8 (2.7)	-71.4 (1.6)	0.024 (0.003)	0.026 (0.004)	0.129 (0.012)
9	33.945	0.093 (0.002)	109.6 (3.8)	-125.6 (2.2)	0.055 (0.002)	0.033 (0.003)	0.189 (0.013)
10	46.984	0.080 (0.002)	134.7 (12.1)	170.5 (8.3)	0.053 (0.002)	0.051 (0.004)	0.210 (0.014)
11	64.506	0.065 (0.002)	80.7 (2.9)	-130.6 (1.9)	0.027 (0.002)	0.024 (0.004)	0.185 (0.013)
12	89.811	0.074 (0.002)	80.0 (1.8)	-118.8 (1.7)	0.013 (0.002)	0.065 (0.004)	0.255 (0.016)
13	129.012	0.094 (0.004)	91.5 (1.6)	-139.8 (2.5)	0.017 (0.002)	0.090 (0.006)	0.279 (0.028)
14	186.956	0.087 (0.006)	100.0 (3.0)	-154.3 (4.0)	0.010 (0.004)	0.084 (0.013)	0.197 (0.049)
15	256.000	0.097 (0.010)	93.4 (6.3)	-152.2 (5.9)	0.009 (0.011)	0.067 (0.032)	0.337 (0.104)
16	341.333	0.127 (0.011)	102.2 (5.2)	-166.4 (5.2)	0.006 (0.012)	0.104 (0.036)	0.342 (0.125)
17	512.000	0.192 (0.023)	111.5 (5.4)	170.4 (6.8)	0.014 (0.018)	0.240 (0.063)	0.973 (0.336)

AVERAGE TIPPER STRIKE ON FILE = 75.7

SETUP 04 GLS-03 GLS, BAND 5, PASS E

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	2.36E-04	4.37E-04	2.23E-05	1.87E-05	1.35E-07
3	4.635	6.34E-04	1.10E-03	7.63E-05	6.17E-05	6.24E-07
4	6.486	1.89E-03	3.29E-03	3.09E-04	2.10E-04	3.72E-06
5	9.062	6.24E-03	5.68E-03	6.02E-04	8.21E-04	3.76E-06
6	12.648	3.61E-02	3.54E-02	3.85E-03	5.25E-03	3.57E-05
7	17.561	2.92E-01	3.50E-01	4.15E-02	4.94E-02	5.21E-04
8	24.381	7.91E-01	7.64E-01	1.16E-01	1.60E-01	2.06E-04
9	33.945	1.76E+00	1.60E+00	3.19E-01	4.43E-01	1.31E-03
10	46.984	2.80E+00	2.41E+00	6.71E-01	9.38E-01	1.40E-02
11	64.506	4.68E+00	4.75E+00	2.32E+00	2.13E+00	9.30E-03
12	89.811	2.03E+01	5.91E+00	4.14E+00	1.37E+01	2.69E-03
13	129.012	1.82E+01	4.44E+00	7.53E+00	2.15E+01	1.04E-02
14	186.956	1.03E+01	4.67E+00	1.36E+01	1.98E+01	3.72E-02
15	256.000	1.00E+01	6.26E+00	2.33E+01	3.14E+01	1.64E-01
16	341.333	1.79E+01	1.44E+01	6.35E+01	7.69E+01	3.68E-01
17	512.000	6.43E+01	5.10E+01	2.63E+02	4.30E+02	1.29E+00

LOCAL SITE, NOISE

WINDOW	EX	EY	HX	HY	HZ
2	3.00E-03	1.57E-03	1.26E-05	1.51E-05	7.65E-04
3	1.77E-03	1.09E-03	2.41E-05	2.29E-05	1.52E-03
4	1.81E-03	1.13E-03	4.91E-05	4.40E-05	3.14E-03
5	1.93E-03	1.18E-03	9.96E-05	7.73E-05	6.23E-03
6	2.37E-03	1.43E-03	2.01E-04	1.37E-04	1.29E-02
7	3.86E-03	2.40E-03	4.12E-04	3.56E-04	2.41E-02
8	6.70E-03	4.57E-03	8.05E-04	8.57E-04	4.77E-02
9	9.79E-03	6.52E-03	1.91E-03	1.52E-03	8.52E-02
10	1.59E-02	6.55E-03	3.43E-03	3.26E-03	1.86E-01
11	1.90E-02	7.72E-03	7.14E-03	1.00E-02	3.46E-01
12	3.73E-02	8.41E-03	1.53E-02	3.41E-02	5.89E-01
13	5.42E-02	1.27E-02	3.51E-02	8.62E-02	1.15E+00
14	1.27E-01	1.87E-02	1.23E-01	1.77E-01	2.20E+00
15	1.30E-01	1.35E-01	-1.61E-01	6.83E-01	5.12E+00
16	5.25E-01	2.46E-01	4.57E-01	4.95E-01	1.04E+01
17	2.65E+00	1.86E+00	1.17E+00	1.03E+00	3.43E+01

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	4.85E-04	3.19E-04	1.81E-05	2.01E-05	1.43E-07
3	4.635	1.14E-03	5.46E-04	6.47E-05	6.78E-05	4.76E-07
4	6.486	3.11E-03	1.76E-03	2.70E-04	2.08E-04	1.34E-06
5	9.062	9.46E-03	2.94E-03	5.78E-04	7.10E-04	5.84E-06
6	12.648	5.49E-02	1.11E-02	2.61E-03	5.25E-03	2.57E-05
7	17.561	5.72E-01	6.20E-02	1.87E-02	5.75E-02	2.47E-04
8	24.381	1.40E+00	1.46E-01	5.97E-02	1.75E-01	9.07E-04
9	33.945	2.93E+00	4.02E-01	2.07E-01	4.52E-01	3.93E-03
10	46.984	4.68E+00	5.14E-01	3.90E-01	9.99E-01	5.56E-03
11	64.506	7.36E+00	1.58E+00	1.64E+00	2.26E+00	1.01E-02
12	89.811	2.50E+01	3.44E+00	5.34E+00	1.10E+01	4.34E-02
13	129.012	1.84E+01	4.79E+00	1.35E+01	1.42E+01	6.09E-02
14	186.956	1.15E+01	3.74E+00	1.75E+01	1.49E+01	6.66E-02
15	256.000	1.27E+01	3.63E+00	2.54E+01	2.82E+01	1.90E-01
16	341.333	2.39E+01	6.70E+00	6.40E+01	7.79E+01	8.51E-01
17	512.000	1.03E+02	1.38E+01	1.39E+02	4.99E+02	5.46E+00

REMOTE SITE, NOISE

WINDOW	EX	EY	HX	HY	HZ
2	5.53E-03	3.36E-03	5.99E-07	4.40E-06	9.75E-06
3	4.82E-03	2.92E-03	-1.13E-05	4.57E-06	1.01E-05
4	5.52E-03	3.98E-03	-2.55E-05	8.20E-06	1.99E-05
5	6.72E-03	5.45E-03	-5.73E-05	1.69E-05	6.30E-05
6	9.83E-03	7.69E-03	-1.22E-04	3.66E-05	1.68E-04
7	1.58E-02	1.11E-02	-2.65E-04	1.26E-04	3.82E-04
8	2.39E-02	1.92E-02	-8.39E-04	3.24E-04	8.35E-04
9	4.64E-02	3.08E-02	-2.25E-03	1.27E-03	1.90E-03
10	7.52E-02	4.46E-02	-5.72E-03	2.38E-03	3.59E-03
11	1.39E-01	8.07E-02	-1.82E-02	9.31E-03	8.97E-03
12	2.79E-01	1.50E-01	-6.29E-02	2.36E-02	2.40E-02
13	5.06E-01	2.48E-01	-1.91E-01	1.22E-01	6.99E-02
14	1.21E+00	4.82E-01	-2.92E-01	3.00E-01	1.60E-01
15	2.44E+00	9.23E-01	-7.70E-01	1.91E+00	4.76E-01
16	5.48E+00	1.66E+00	3.14E-01	5.46E+00	1.41E+00
17	1.88E+01	3.77E+00	5.36E+01	1.77E+01	8.15E+00

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-02 GLS, BAND 5, PASS E

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.056	57.7	0.88	-45.4	6.5	131.4	0.276	66.0	5.39E+03	-44.5	1.87E+02	123.9
3	4.635	0.078	55.9	3.1	-40.1	8.7	141.7	0.171	69.2	2.25E+02	-38.7	45.	139.5
4	6.486	0.081	55.8	7.3	-39.7	10.	143.7	0.088	92.7	47.	-34.8	24.	139.7
5	9.062	0.131	125.6	14.	-29.5	8.8	142.8	0.134	112.5	25.	-27.6	23.	142.3
6	12.648	0.102	132.3	20	-29.7	14	143.6	0.105	122.3	23.	-29.0	20.	143.2
7	17.561	0.114	129.5	25.	-31.3	16.	142.8	0.113	122.8	26.	-30.5	19.	142.2
8	24.381	0.113	127.3	29.	-35.3	18.	139.8	0.113	124.0	29.	-34.8	20.	139.5
9	33.945	0.121	125.7	31.	-39.5	21.	136.7	0.121	123.2	32.	-39.1	22.	136.3
10	46.984	0.119	125.5	32.	-45.4	20.	131.8	0.120	123.2	32.	-45.1	21.	131.4
11	64.506	0.136	113.2	31.	-48.5	20.	126.5	0.137	111.8	31.	-48.3	20.	126.3
12	89.811	0.158	108.9	28.	-52.0	17	123.8	0.160	108.3	29.	-52.0	17.	123.7
13	129.012	0.168	109.1	22.	-53.7	14.	123.3	0.168	109.0	23.	-53.6	15.	123.2
14	186.956	0.169	110.7	20.	-55.2	12.	125.9	0.169	110.0	21.	-55.1	12.	125.8
15	256.000	0.197	101.5	17.	-52.8	11.	128.9	0.203	97.2	18.	-52.8	12.	129.0
16	341.333	0.214	106.5	18.	-50.0	11.	134.0	0.217	103.9	19.	-50.0	12.	134.0
17	512.000	0.210	108.9	18.	-46.4	12.	133.5	0.214	98.2	20.	-46.5	15.	133.5

AVERAGE ROTATION ANGLE = 285.9 — AVERAGE ROTATION ANGLE = 285.9

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.771	33.3	2.6	-55.5	23.	141.0	0.568	23.6	2.08E+03	-29.1	9.09E+02	145.8
3	4.635	0.297	21.6	7.8	-43.0	16.	137.7	0.253	23.3	4.67E+02	-38.4	3.05E+02	137.2
4	6.486	0.132	78.5	17.	-37.8	9.2	136.1	0.147	59.0	1.38E+02	-37.1	96.	134.2
5	9.062	0.075	68.1	23.	-33.5	11.	134.5	0.145	22.4	43.	-34.3	1.15E+02	134.8
6	12.648	0.076	65.0	26.	-30.5	12.	136.1	0.126	101.9	45	-38.5	22.	144.3
7	17.561	0.053	62.2	33.	-32.5	12.	138.2	0.081	68.3	36.	-34.2	17.	139.6
8	24.381	0.043	59.6	37.	-35.1	13.	134.7	0.059	64.3	39.	-36.6	17.	136.1
9	33.945	0.048	61.7	42.	-40.8	14.	133.4	0.052	65.8	44.	-42.0	16.	134.5
10	46.984	0.064	57.9	42.	-44.5	13.	128.1	0.049	61.6	44.	-45.6	15.	129.2
11	64.506	0.029	57.1	41.	-49.9	13.	126.9	0.019	59.3	43.	-50.3	14.	127.4
12	89.811	0.066	56.8	40.	-53.3	11.	122.0	0.056	60.1	42.	-53.5	13.	122.4
13	129.012	0.081	56.2	32.	-54.0	9.4	120.5	0.048	62.6	37	-53.8	11.	120.6
14	186.956	0.058	62.0	28.	-48.5	8.7	123.0	0.012	70.5	39	-47.2	10.	121.8
15	256.000	0.137	67.8	23.	-53.1	7.8	118.3	0.132	76.2	35.	-53.4	9.3	117.3
16	341.333	0.182	70.3	21.	-47.6	7.3	118.9	0.142	77.0	33.	-48.2	8.6	117.8
17	512.000	0.199	72.9	25.	-40.4	6.1	114.4	0.162	79.3	35.	-39.6	8.7	111.6

AVERAGE ROTATION ANGLE = 239.4 — AVERAGE ROTATION ANGLE = 240.9

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 04 GLS-03 GLS, BAND 5, PASS E

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	3.311	0.20	0.38	0.01	0.26	0.34	0.11
3	4.635	0.44	0.62	0.02	0.42	0.44	0.21
4	6.486	0.65	0.80	0.03	0.59	0.58	0.24
5	9.062	0.83	0.85	0.02	0.76	0.63	0.29
6	12.648	0.96	0.96	0.05	0.92	0.79	0.37
7	17.561	0.99	0.99	0.15	0.99	0.93	0.63
8	24.381	0.99	0.99	0.07	0.99	0.95	0.72
9	33.945	1.00	1.00	0.12	0.99	0.97	0.82
10	46.984	1.00	1.00	0.26	0.99	0.97	0.77
11	64.506	1.00	1.00	0.15	0.99	0.98	0.72
12	89.811	1.00	1.00	0.07	0.99	0.98	0.80
13	129.012	1.00	1.00	0.10	0.98	0.98	0.67
14	186.956	0.99	0.99	0.11	0.94	0.96	0.49
15	256.000	0.98	0.99	0.10	0.88	0.92	0.48
16	341.333	0.98	0.99	0.13	0.86	0.93	0.54
17	512.000	0.98	0.98	0.10	0.87	0.90	0.48

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.16	0.19	0.06	0.28	0.69	0.68	0.02	0.40	0.39
3	0.30	0.34	0.12	0.35	0.83	0.80	0.04	0.34	0.38
4	0.50	0.52	0.14	0.33	0.91	0.88	0.03	0.13	0.19
5	0.73	0.57	0.27	0.43	0.90	0.94	0.04	0.25	0.27
6	0.92	0.80	0.45	0.60	0.96	0.98	0.04	0.34	0.39
7	0.98	0.96	0.75	0.82	0.99	0.99	0.04	0.64	0.67
8	0.99	0.97	0.78	0.83	0.99	1.00	0.02	0.67	0.68
9	0.99	0.97	0.72	0.77	1.00	0.99	0.09	0.56	0.59
10	0.99	0.97	0.73	0.77	0.99	0.99	0.16	0.53	0.56
11	0.99	0.97	0.49	0.59	1.00	0.99	0.13	0.25	0.30
12	1.00	0.95	0.58	0.59	0.99	1.00	0.07	0.14	0.18
13	0.99	0.88	0.30	0.24	0.98	0.99	0.11	0.29	0.25
14	0.98	0.82	0.24	0.27	0.96	0.98	0.05	0.21	0.21
15	0.97	0.72	0.35	0.50	0.92	0.93	0.08	0.24	0.32
16	0.97	0.74	0.39	0.58	0.90	0.93	0.22	0.31	0.34
17	0.98	0.81	0.64	0.77	0.85	0.94	0.20	0.64	0.56

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 1005C2.BEG
RECORDING COMPLETED: 13:39:53 09-Sep-81

SETUP 10 GLS-05 GLS, BAND 2, PASS B

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 200.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 85 DATA SEGMENTS, 10.24 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	81.0 (5.8)	141. (4.4)	-72.8 (0.9)	201. (15.)	110.2 (2.2)
4	0.033	100.8 (5.1)	141. (3.0)	-72.6 (0.6)	212. (27.)	103.2 (3.7)
5	0.046	92.7 (2.3)	123. (1.5)	-74.0 (0.4)	217. (20.)	108.9 (2.6)
6	0.064	83.8 (4.0)	91.2 (1.3)	-73.5 (0.4)	145. (12.)	109.2 (2.5)
7	0.089	98.7 (4.4)	86.4 (2.7)	-73.8 (0.6)	131. (22.)	87.7 (4.8)
8	0.126	85.4 (2.1)	60.7 (0.61)	-74.5 (0.3)	86.2 (2.5)	104.9 (0.8)
9	0.177	98.5 (5.3)	53.4 (0.71)	-75.0 (0.4)	71.6 (4.7)	103.6 (2.0)
10	0.250	72.3 (14.8)	39.3 (1.5)	-72.3 (1.8)	48.9 (3.3)	105.4 (2.0)
11	0.351	69.5 (16.9)	30.7 (1.5)	-75.2 (2.0)	36.2 (2.9)	109.5 (1.8)
12	0.493	101.3 (6.5)	24.3 (0.52)	-69.7 (0.7)	35.0 (2.7)	108.8 (2.4)
13	0.689	80.9 (4.4)	17.3 (0.72)	-66.3 (1.2)	28.7 (1.8)	111.6 (1.9)
14	0.985	36.1 (10.9)	17.6 (1.3)	-68.4 (2.1)	17.4 (0.58)	118.6 (0.9)

AVERAGE ROTATION ANGLE ON FILE = 83.4

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.023	110.9 (0.5)	407. (1.5)	-55.3 (0.1)	141. (12.)	93.1 (2.4)
4	0.033	108.9 (1.3)	300. (2.1)	-67.0 (0.2)	134. (15.)	97.4 (3.4)
5	0.046	108.5 (2.1)	211. (1.5)	-73.7 (0.2)	122. (10.)	94.4 (2.5)
6	0.064	107.0 (1.9)	135. (0.73)	-75.2 (0.2)	80.0 (5.9)	96.0 (2.1)
7	0.089	107.5 (7.3)	111. (1.5)	-74.9 (0.7)	68.0 (8.7)	107.5 (4.1)
8	0.126	99.8 (1.9)	77.6 (0.84)	-75.1 (0.3)	51.7 (1.4)	99.9 (0.8)
9	0.177	96.3 (3.6)	63.3 (1.3)	-73.9 (0.6)	37.8 (2.4)	100.5 (1.8)
10	0.250	93.3 (20.1)	50.7 (3.0)	-74.9 (3.5)	33.4 (2.8)	102.8 (5.1)
11	0.351	130.1 (17.9)	39.2 (2.2)	-75.4 (4.3)	22.1 (2.8)	112.5 (6.1)
12	0.493	109.5 (8.5)	35.1 (1.7)	-74.2 (1.6)	17.5 (1.3)	110.2 (2.4)
13	0.689	99.8 (6.6)	32.3 (2.2)	-69.4 (2.2)	13.3 (1.0)	119.8 (2.6)
14	0.985	80.5 (4.2)	37.1 (3.6)	-56.1 (3.3)	10.2 (1.7)	106.1 (6.0)

AVERAGE ROTATION ANGLE ON FILE = 104.3

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 2, PASS B

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.540 (0.169)	23.7 (2.7)	-43.9 (18.0)	0.021 (0.024)	0.027 (0.015)	0.408 (0.236)
4	0.033	0.708 (0.197)	27.2 (4.2)	-170.3 (15.9)	0.128 (0.033)	0.025 (0.021)	1.853 (0.789)
5	0.046	0.526 (0.213)	19.6 (7.4)	-10.6 (23.2)	0.112 (0.041)	0.038 (0.012)	1.012 (0.161)
6	0.064	0.089 (0.149)	59.2 (90.8)	-2.7 (95.7)	0.015 (0.132)	0.011 (0.012)	0.554 (0.167)
7	0.089	1.279 (0.316)	20.2 (5.9)	-38.2 (14.6)	0.272 (0.100)	0.047 (0.022)	1.355 (0.307)
8	0.126	1.649 (0.210)	16.4 (3.6)	-74.6 (8.2)	0.408 (0.076)	0.039 (0.006)	0.607 (0.097)
9	0.177	1.173 (0.689)	31.0 (12.8)	153.9 (34.0)	0.208 (0.216)	0.021 (0.012)	1.440 (0.482)
10	0.250	2.312 (1.125)	-1.5 (12.7)	158.3 (27.9)	0.012 (0.509)	0.008 (0.016)	0.527 (0.379)
11	0.351	1.865 (1.500)	8.2 (23.4)	-105.3 (55.4)	0.559 (0.433)	0.043 (0.018)	0.571 (0.399)
12	0.493	2.863 (1.634)	14.0 (9.1)	90.2 (33.4)	0.294 (0.415)	0.045 (0.017)	1.669 (0.701)
13	0.689	6.176 (1.478)	30.9 (6.0)	105.0 (14.9)	1.267 (0.517)	0.072 (0.018)	0.411 (0.176)
14	0.985	5.114 (1.541)	44.1 (11.0)	-107.3 (18.7)	1.070 (0.851)	0.028 (0.019)	2.141 (1.906)

AVERAGE TIPPER STRIKE ON FILE = 24.4

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.023	0.222 (0.014)	-122.0 (2.4)	-163.8 (3.7)	0.032 (0.009)	0.024 (0.006)	0.064 (0.017)
4	0.033	0.224 (0.022)	-128.5 (2.6)	174.0 (5.5)	0.022 (0.010)	0.014 (0.010)	0.158 (0.046)
5	0.046	0.228 (0.014)	-128.9 (2.0)	-174.0 (3.6)	0.003 (0.008)	0.036 (0.009)	0.365 (0.065)
6	0.064	0.184 (0.012)	-126.0 (2.4)	179.7 (3.7)	0.002 (0.008)	0.023 (0.010)	0.115 (0.067)
7	0.089	0.237 (0.023)	-136.7 (2.6)	-169.3 (5.7)	0.008 (0.011)	0.055 (0.024)	0.403 (0.216)
8	0.126	0.230 (0.005)	-133.4 (0.7)	179.4 (1.3)	0.004 (0.003)	0.043 (0.007)	0.374 (0.075)
9	0.177	0.227 (0.012)	-135.3 (1.5)	-175.0 (3.0)	0.014 (0.006)	0.036 (0.017)	0.520 (0.157)
10	0.250	0.246 (0.016)	-133.9 (1.7)	177.5 (3.8)	0.007 (0.007)	0.040 (0.028)	0.900 (0.341)
11	0.351	0.214 (0.015)	-130.6 (2.0)	166.3 (4.1)	0.005 (0.007)	0.163 (0.043)	0.954 (0.343)
12	0.493	0.194 (0.013)	-129.9 (2.3)	166.9 (4.0)	0.016 (0.008)	0.063 (0.050)	0.219 (0.282)
13	0.689	0.209 (0.012)	-127.6 (2.2)	147.0 (3.4)	0.015 (0.008)	0.092 (0.055)	0.416 (0.250)
14	0.985	0.230 (0.014)	-131.7 (2.1)	142.7 (3.5)	0.005 (0.009)	0.271 (0.065)	1.462 (0.355)

AVERAGE TIPPER STRIKE ON FILE =-130.4

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 2, PASS B

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	4.27E-02	5.27E-02	1.29E-06	1.43E-06	1.55E-07
4	0.033	2.08E-02	1.76E-02	7.22E-07	9.72E-07	2.35E-07
5	0.046	1.40E-02	1.46E-02	8.14E-07	1.04E-06	6.69E-08
6	0.064	1.12E-02	1.17E-02	1.14E-06	1.62E-06	1.16E-08
7	0.089	3.93E-03	4.36E-03	6.58E-07	8.57E-07	1.17E-06
8	0.126	7.78E-03	7.53E-03	2.52E-06	3.13E-06	2.29E-06
9	0.177	2.13E-03	1.67E-03	9.84E-07	1.41E-06	1.31E-07
10	0.250	8.11E-04	7.94E-04	8.35E-07	1.05E-06	5.34E-07
11	0.351	6.12E-04	5.55E-04	1.09E-06	1.47E-06	7.28E-07
12	0.493	5.52E-04	4.94E-04	1.85E-06	2.18E-06	4.78E-06
13	0.689	4.91E-04	4.13E-04	2.47E-06	3.69E-06	3.43E-05
14	0.985	4.82E-04	3.35E-04	3.87E-06	5.53E-06	5.89E-05

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
7.73E-03	8.88E-03	3.98E-06	2.00E-06	6.53E-05
9.82E-03	2.07E-02	4.83E-06	2.01E-06	5.27E-05
5.11E-04	2.74E-05	2.96E-06	8.77E-07	7.05E-05
5.19E-04	4.88E-04	5.33E-06	1.12E-06	1.02E-04
1.21E-04	1.52E-05	8.71E-06	1.50E-06	1.42E-04
7.24E-05	1.21E-04	9.23E-07	4.57E-07	1.94E-04
3.55E-05	1.01E-04	5.65E-07	3.97E-07	3.21E-04
2.28E-05	9.30E-05	3.81E-07	3.79E-07	4.89E-04
2.07E-05	7.05E-05	3.19E-07	3.79E-07	7.67E-04
4.95E-05	7.21E-05	3.58E-07	4.42E-07	1.16E-03
8.19E-05	9.45E-05	3.61E-07	4.54E-07	1.55E-03
4.40E-05	1.14E-04	2.33E-07	4.73E-07	2.43E-03

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.023	5.53E-02	7.27E-03	2.45E-07	6.30E-07	1.33E-08
4	0.033	2.87E-02	3.78E-03	1.92E-07	6.25E-07	9.17E-09
5	0.046	1.90E-02	2.93E-03	2.24E-07	8.27E-07	1.56E-08
6	0.064	1.50E-02	2.25E-03	3.65E-07	1.43E-06	2.13E-08
7	0.089	4.94E-03	1.16E-03	3.11E-07	8.10E-07	1.63E-08
8	0.126	9.76E-03	1.68E-03	8.55E-07	3.31E-06	5.82E-08
9	0.177	2.66E-03	3.08E-04	2.76E-07	1.54E-06	2.22E-08
10	0.250	1.16E-03	1.47E-04	2.17E-07	1.21E-06	1.62E-08
11	0.351	9.57E-04	8.42E-05	2.80E-07	1.71E-06	2.09E-08
12	0.493	1.00E-03	7.88E-05	4.48E-07	2.83E-06	3.54E-08
13	0.689	9.03E-04	6.91E-05	7.12E-07	3.96E-06	6.18E-08
14	0.985	9.95E-04	6.61E-05	9.64E-07	6.16E-06	1.03E-07

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
1.96E-03	1.73E-04	1.68E-06	2.52E-08	1.95E-07
1.45E-03	9.33E-05	7.86E-07	1.88E-08	9.67E-08
1.40E-03	-1.45E-04	6.88E-07	1.84E-08	8.10E-08
1.00E-03	3.46E-05	5.95E-07	2.51E-08	7.07E-08
1.34E-03	3.16E-05	5.71E-07	1.90E-08	6.31E-08
1.17E-03	3.29E-05	5.33E-07	4.08E-08	6.34E-08
8.76E-04	2.74E-05	5.61E-07	2.04E-08	6.87E-08
9.02E-04	2.78E-05	5.56E-07	2.44E-08	7.65E-08
1.07E-03	3.98E-05	5.64E-07	2.94E-08	7.82E-08
1.33E-03	2.62E-05	6.00E-07	5.18E-08	9.98E-08
1.42E-03	2.50E-05	5.68E-07	2.28E-07	1.28E-07
1.77E-03	3.88E-05	7.74E-07	3.65E-07	2.05E-07

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 2, PASS B

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.201	108.7	61.	-73.0	0.83	108.8	0.028	54.6	1.76E+02	-73.2	2.51E+02	106.8
4	0.033	0.380	105.4	53.	-85.2	0.24	149.0	0.188	50.9	2.22E+02	-76.2	6.91E+02	104.2
5	0.046	0.221	103.0	81.	-73.7	0.66	105.9	0.027	87.9	1.33E+02	-73.9	1.94E+02	106.8
6	0.064	0.275	101.5	74.	-74.7	0.27	113.9	0.032	78.4	98.	-73.3	1.56E+02	107.3
7	0.089	0.271	99.3	53.	-74.7	4.36E-02	99.7	0.038	92.0	89.	-74.1	1.28E+02	96.6
8	0.126	0.105	107.9	56.	-75.7	15.	105.7	0.037	86.2	62.	-73.9	91.	103.4
9	0.177	0.075	107.4	42.	-74.8	5.7	105.8	0.032	95.5	55.	-74.4	94.	105.0
10	0.250	0.020	115.3	31.	-74.6	5.3	101.1	0.069	90.9	40.	-75.5	85.	101.9
11	0.351	0.020	117.0	25.	-71.5	5.8	104.9	0.051	93.3	31.	-72.0	71.	105.4
12	0.493	0.055	28.8	6.4	-70.3	21.	111.1	0.068	105.4	27.	-69.6	82.	110.1
13	0.689	0.061	124.3	18.	-65.3	8.0	108.4	0.038	102.4	24.	-66.3	84.	109.6
14	0.985	0.044	121.9	16.	-61.2	9.6	117.0	0.110	95.9	19.	-64.1	71.	119.5

AVERAGE ROTATION ANGLE = 103.4

AVERAGE ROTATION ANGLE = 86.1

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.023	0.058	112.0	3.77E+02	-55.4	2.0	96.3	0.005	108.4	4.42E+02	-55.6	1.49E+02	96.5
4	0.033	0.061	112.0	2.83E+02	-67.5	4.3	94.1	0.008	107.5	3.35E+02	-67.8	1.39E+02	94.2
5	0.046	0.028	110.5	2.01E+02	-73.7	6.9	96.1	0.008	105.1	2.45E+02	-73.9	1.09E+02	96.2
6	0.064	0.030	110.6	1.30E+02	-75.6	11.	98.1	0.019	104.4	1.55E+02	-75.5	82.	98.0
7	0.089	0.040	110.6	1.04E+02	-75.4	8.3	98.3	0.029	105.5	1.80E+02	-75.3	69.	98.1
8	0.126	0.042	109.9	73.	-75.0	16.	101.2	0.093	101.6	1.00E+02	-73.9	55.	100.1
9	0.177	0.055	108.1	60.	-73.6	4.0	100.0	0.078	107.4	1.11E+02	-73.1	47.	99.2
10	0.250	0.019	111.6	46.	-71.4	2.6	106.6	0.025	105.4	1.53E+02	-71.2	49.	106.3
11	0.351	0.007	110.3	38.	-72.4	2.2	108.4	0.165	110.5	1.79E+02	-71.3	48.	107.9
12	0.493	0.056	113.5	34.	-75.4	3.0	108.3	0.106	108.7	1.91E+02	-75.9	31.	108.8
13	0.689	0.064	113.0	28.	-68.0	4.1	113.4	0.018	110.1	2.08E+02	-67.9	25.	113.6
14	0.985	0.164	98.8	29.	-62.9	3.6	119.2	0.162	119.5	2.62E+02	-67.2	33.	126.7

AVERAGE ROTATION ANGLE = 110.1

AVERAGE ROTATION ANGLE = 107.8

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 2, PASS B

		PREDICTED COHERENCIES						LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES (WITH RESPECT TO LOCAL UNROTATED AXES)								
		LOCAL SITE			REMOTE SITE											
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
3	0.023	0.58	0.45	0.02	0.96	0.35	0.11	0.75	0.57	0.91	0.89	0.11	0.33	0.01	0.32	0.28
4	0.033	0.44	0.22	0.02	0.96	0.43	0.14	0.65	0.49	0.79	0.76	0.12	0.35	0.00	0.31	0.31
5	0.046	0.68	0.41	0.01	0.95	0.50	0.24	0.77	0.56	0.95	0.94	0.17	0.47	0.02	0.38	0.49
6	0.064	0.72	0.39	0.01	0.96	0.61	0.38	0.76	0.55	0.95	0.93	0.17	0.53	0.02	0.37	0.60
7	0.089	0.53	0.25	0.03	0.87	0.59	0.27	0.63	0.37	0.90	0.87	0.08	0.35	0.02	0.22	0.43
8	0.126	0.93	0.83	0.08	0.94	0.77	0.58	0.77	0.62	0.95	0.93	0.50	0.71	0.03	0.81	0.83
9	0.177	0.86	0.75	0.01	0.86	0.55	0.34	0.74	0.57	0.89	0.83	0.42	0.66	0.03	0.71	0.72
10	0.250	0.84	0.78	0.01	0.74	0.48	0.25	0.63	0.48	0.77	0.72	0.39	0.61	0.04	0.73	0.65
11	0.351	0.87	0.83	0.04	0.67	0.47	0.32	0.59	0.48	0.69	0.65	0.46	0.69	0.05	0.79	0.71
12	0.493	0.87	0.84	0.05	0.65	0.56	0.43	0.57	0.46	0.66	0.62	0.55	0.71	0.07	0.85	0.79
13	0.689	0.88	0.83	0.11	0.60	0.64	0.49	0.54	0.39	0.62	0.52	0.55	0.74	0.09	0.89	0.85
14	0.985	0.92	0.84	0.13	0.57	0.60	0.48	0.52	0.37	0.61	0.48	0.60	0.75	0.13	0.91	0.87

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 100553.DE
RECORDING COMPLETED: 17:51:03 09-Sep-81

SETUP 10 GLS-05 GLS, BAND 3, PASS D

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 10.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 67 DATA SEGMENTS, 102.40 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	92.3 (2.2)	23.9 (0.18)	-69.6 (0.2)	29.1 (0.30)	110.0 (0.3)
4	0.649	93.8 (1.7)	19.2 (0.14)	-67.2 (0.2)	23.9 (0.23)	112.2 (0.3)
5	0.906	95.9 (1.8)	16.1 (0.12)	-62.5 (0.2)	19.8 (0.20)	118.4 (0.3)
6	1.265	101.6 (2.7)	13.9 (0.14)	-56.7 (0.4)	18.2 (0.25)	123.3 (0.5)
7	1.756	114.8 (3.3)	13.4 (0.14)	-47.2 (0.4)	17.4 (0.31)	129.9 (0.6)
8	2.438	74.6 (6.6)	14.1 (0.80)	-49.7 (1.6)	18.0 (1.3)	141.6 (1.7)
9	3.395	61.6 (3.0)	3.56 (1.4)	-27.0 (11.2)	21.2 (1.0)	145.9 (1.5)
10	4.698	65.4 (2.7)	11.6 (0.64)	-39.9 (1.6)	22.1 (0.96)	154.8 (1.2)
11	6.451	72.3 (2.2)	17.2 (0.45)	-34.7 (0.8)	31.1 (0.81)	150.8 (0.8)
12	8.981	69.3 (1.7)	20.2 (0.32)	-31.8 (0.5)	38.2 (0.78)	150.8 (0.7)

AVERAGE ROTATION ANGLE ON FILE = 84.1

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
3	0.464	96.6 (1.4)	57.8 (2.3)	-65.9 (1.2)	15.2 (0.42)	111.2 (0.8)
4	0.649	105.6 (1.7)	54.2 (2.2)	-67.1 (1.2)	13.7 (0.28)	111.5 (0.7)
5	0.906	100.6 (1.8)	46.2 (2.3)	-66.5 (1.5)	10.8 (0.31)	117.5 (0.8)
6	1.265	91.6 (2.1)	40.2 (2.8)	-52.3 (2.1)	9.28 (0.44)	118.8 (1.8)
7	1.756	90.6 (1.7)	48.4 (3.5)	-47.6 (2.1)	7.76 (0.52)	129.0 (2.0)
8	2.438	96.1 (3.0)	35.4 (3.0)	-50.2 (2.4)	9.18 (0.59)	128.5 (1.8)
9	3.395	115.5 (6.1)	28.0 (2.7)	-47.6 (2.8)	10.1 (0.76)	138.3 (2.2)
10	4.698	107.8 (7.0)	27.0 (3.0)	-35.4 (3.3)	10.6 (0.76)	145.7 (2.3)
11	6.451	97.7 (11.7)	27.3 (3.5)	-38.5 (4.9)	14.6 (1.1)	150.8 (3.5)
12	8.981	99.0 (7.8)	25.7 (1.8)	-30.4 (2.3)	17.4 (0.56)	149.9 (1.3)

AVERAGE ROTATION ANGLE ON FILE = 100.1

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 3, PASS D

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.123 (0.014)	62.4 (4.9)	-75.0 (6.7)	0.004 (0.011)	0.010 (0.003)	0.989 (0.127)
4	0.649	0.211 (0.014)	34.9 (2.3)	-17.4 (3.8)	0.054 (0.006)	0.016 (0.003)	1.091 (0.126)
5	0.906	0.159 (0.013)	37.1 (2.6)	-14.7 (4.7)	0.037 (0.006)	0.013 (0.003)	1.257 (0.155)
6	1.265	0.179 (0.013)	40.9 (1.8)	-39.1 (4.0)	0.000 (0.006)	0.029 (0.004)	1.459 (0.182)
7	1.756	0.183 (0.012)	38.2 (2.2)	-35.5 (4.0)	0.047 (0.005)	0.003 (0.005)	1.910 (0.307)
8	2.438	0.112 (0.012)	69.4 (6.0)	-98.8 (7.4)	0.036 (0.009)	0.024 (0.022)	0.434 (0.197)
9	3.395	0.094 (0.011)	77.2 (10.8)	-83.7 (11.1)	0.041 (0.011)	0.305 (0.055)	0.349 (0.111)
10	4.698	0.131 (0.011)	75.8 (4.8)	-123.1 (4.8)	0.023 (0.010)	0.041 (0.018)	0.221 (0.094)
11	6.451	0.110 (0.008)	85.0 (3.3)	-139.6 (4.0)	0.012 (0.006)	0.038 (0.011)	0.277 (0.071)
12	8.981	0.136 (0.008)	87.7 (3.1)	-151.7 (3.2)	0.020 (0.007)	0.020 (0.007)	0.389 (0.050)

AVERAGE TIPPER STRIKE ON FILE = 60.9

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
3	0.464	0.244 (0.003)	-130.9 (0.4)	160.3 (0.7)	0.007 (0.002)	0.127 (0.018)	0.508 (0.062)
4	0.649	0.216 (0.003)	-128.8 (0.5)	148.9 (0.8)	0.007 (0.002)	0.062 (0.020)	0.239 (0.059)
5	0.906	0.195 (0.003)	-129.1 (0.5)	138.0 (1.0)	0.000 (0.002)	0.060 (0.023)	0.343 (0.069)
6	1.265	0.190 (0.004)	-124.5 (0.7)	128.3 (1.2)	0.002 (0.002)	0.197 (0.029)	0.781 (0.100)
7	1.756	0.176 (0.006)	-119.6 (1.1)	106.8 (1.9)	0.007 (0.004)	0.223 (0.031)	0.809 (0.096)
8	2.438	0.181 (0.007)	-122.2 (1.3)	94.6 (2.3)	0.004 (0.004)	0.128 (0.038)	0.531 (0.132)
9	3.395	0.141 (0.009)	-110.9 (2.8)	80.8 (3.9)	0.031 (0.006)	0.140 (0.053)	0.195 (0.223)
10	4.698	0.188 (0.009)	-114.2 (2.1)	47.2 (2.9)	0.002 (0.007)	0.015 (0.053)	0.247 (0.233)
11	6.451	0.145 (0.008)	-109.9 (2.5)	48.7 (3.3)	0.007 (0.006)	0.024 (0.032)	0.783 (0.243)
12	8.981	0.141 (0.006)	-109.1 (2.2)	19.9 (2.3)	0.021 (0.005)	0.075 (0.020)	0.583 (0.250)

AVERAGE TIPPER STRIKE ON FILE =-119.9

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 3, PASS D

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	4.89E-04	7.57E-04	2.58E-06	1.90E-06	1.83E-08
4	0.649	4.47E-04	6.93E-04	4.08E-06	3.00E-06	8.05E-08
5	0.906	4.50E-04	7.32E-04	7.33E-06	5.07E-06	7.47E-08
6	1.265	4.03E-04	7.86E-04	1.26E-05	7.15E-06	1.07E-07
7	1.756	4.40E-04	8.37E-04	1.96E-05	1.16E-05	2.33E-07
8	2.438	4.70E-04	1.08E-03	3.13E-05	1.69E-05	2.33E-07
9	3.395	3.71E-04	1.14E-03	4.04E-05	2.53E-05	2.68E-07
10	4.698	5.47E-04	1.57E-03	6.77E-05	4.12E-05	9.18E-07
11	6.451	1.25E-03	4.71E-03	1.95E-04	9.40E-05	1.48E-06
12	8.981	5.84E-03	1.72E-02	7.80E-04	5.40E-04	1.20E-05

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
2.66E-05	2.20E-05	3.09E-07	4.11E-07	3.43E-06
2.73E-05	2.69E-05	2.76E-07	3.97E-07	3.22E-06
2.62E-05	2.82E-05	3.16E-07	4.39E-07	3.48E-06
5.45E-05	5.94E-05	4.20E-07	5.33E-07	3.42E-06
4.80E-05	7.44E-05	4.49E-07	6.26E-07	3.34E-06
5.83E-04	1.46E-03	4.16E-07	1.10E-06	4.05E-06
4.86E-03	1.02E-03	2.45E-06	-1.08E-06	4.29E-06
3.49E-04	5.94E-04	5.16E-06	2.44E-06	5.61E-06
2.07E-04	7.06E-04	6.97E-06	3.61E-06	7.40E-06
2.71E-04	1.15E-03	2.22E-05	7.83E-06	3.24E-05

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
3	0.464	1.36E-03	2.07E-04	1.18E-06	2.50E-06	6.18E-08
4	0.649	1.61E-03	1.94E-04	1.89E-06	3.90E-06	7.96E-08
5	0.906	1.63E-03	1.84E-04	3.14E-06	6.98E-06	1.08E-07
6	1.265	1.41E-03	2.03E-04	5.06E-06	1.08E-05	1.51E-07
7	1.756	1.80E-03	2.06E-04	7.64E-06	1.74E-05	1.81E-07
8	2.438	1.71E-03	2.15E-04	1.04E-05	2.77E-05	3.43E-07
9	3.395	1.68E-03	2.48E-04	1.68E-05	3.80E-05	4.86E-07
10	4.698	1.82E-03	3.38E-04	3.01E-05	6.38E-05	1.29E-06
11	6.451	2.39E-03	1.63E-03	1.41E-04	1.17E-04	2.05E-06
12	8.981	7.08E-03	6.30E-03	6.11E-04	5.08E-04	9.66E-06

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
8.12E-03	1.19E-04	8.93E-07	4.25E-08	1.12E-07
7.71E-03	1.19E-04	9.91E-07	1.33E-07	1.42E-07
8.40E-03	1.34E-04	1.32E-06	3.40E-07	2.36E-07
8.99E-03	1.61E-04	1.76E-06	5.83E-07	4.06E-07
9.04E-03	2.30E-04	3.24E-06	1.93E-06	9.33E-07
7.89E-03	3.12E-04	4.94E-06	1.71E-06	1.47E-06
8.84E-03	4.16E-04	7.82E-06	3.00E-06	2.72E-06
9.28E-03	4.96E-04	1.58E-05	9.36E-06	4.39E-06
9.74E-03	5.85E-04	2.35E-05	1.44E-05	8.75E-06
9.22E-03	8.68E-04	4.99E-05	3.31E-05	1.70E-05

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 3, PASS D

LEAST SQUARES IMPEDANCE PARAMETERS

LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.024	50.6	14.	-70.1	22.	109.4	0.008	104.9	26.	-70.0	33.	109.2
4	0.649	0.022	59.3	14.	-67.6	19.	113.0	0.016	105.0	21.	-67.1	28.	112.5
5	0.906	0.022	66.1	13.	-63.0	17.	118.3	0.019	105.5	18.	-62.6	23.	118.0
6	1.265	0.036	72.4	12.	-58.3	15.	125.4	0.032	116.9	17.	-55.9	25.	122.9
7	1.756	0.006	78.2	12.	-50.6	15.	133.0	0.019	114.8	16.	-48.1	24.	130.5
8	2.438	0.057	75.7	11.	-46.9	18.	141.5	0.224	108.9	42.	-48.3	3.14E+02	139.5
9	3.395	0.190	55.3	4.6	-47.4	17.	146.3	0.302	53.7	1.12E+04	-52.8	55.	169.4
10	4.698	0.051	53.1	9.9	-42.2	18.	153.5	0.033	26.1	73.	-38.2	29.	150.1
11	6.451	0.035	72.0	16.	-34.1	29.	150.2	0.037	73.7	23.	-34.2	41.	150.2
12	8.981	0.031	68.1	19.	-32.0	36.	150.6	0.006	68.7	22.	-32.0	44.	150.6

AVERAGE ROTATION ANGLE = 65.1

AVERAGE ROTATION ANGLE = 87.8

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
3	0.464	0.106	106.9	51.	-66.8	4.9	110.8	0.390	95.9	3.22E+03	-69.1	21.	138.2
4	0.649	0.085	107.0	52.	-67.3	5.5	112.3	0.362	96.2	2.43E+03	-69.4	19.	134.1
5	0.906	0.075	104.7	41.	-67.4	5.2	119.2	0.378	94.7	2.25E+03	-69.0	15.	139.8
6	1.265	0.190	99.1	34.	-54.8	5.1	119.4	0.480	91.9	3.01E+03	-58.3	7.6	166.3
7	1.756	0.207	99.4	33.	-48.1	3.9	129.2	0.569	88.5	2.46E+03	-53.0	20.	190.5
8	2.438	0.180	101.5	31.	-48.6	3.8	129.1	0.602	85.1	2.01E+03	-56.0	30.	185.5
9	3.395	0.192	111.9	25.	-45.1	4.7	139.5	0.405	89.2	2.50E+03	-51.8	40.	163.5
10	4.698	0.106	105.4	22.	-35.2	4.2	142.9	0.393	89.9	1.53E+03	-40.4	32.	159.9
11	6.451	0.015	97.5	21.	-40.0	11.	148.8	0.253	100.7	8.49E+02	-42.0	27.	158.0
12	8.981	0.096	92.9	23.	-29.5	14.	150.1	0.174	103.6	1.55E+02	-28.7	23.	151.7

AVERAGE ROTATION ANGLE = 102.6

AVERAGE ROTATION ANGLE = 93.6

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 3, PASS D

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
3	0.464	0.88	0.93	0.06	0.37	0.60	0.47
4	0.649	0.91	0.95	0.14	0.41	0.63	0.52
5	0.906	0.93	0.96	0.14	0.39	0.63	0.50
6	1.265	0.90	0.95	0.16	0.36	0.64	0.48
7	1.756	0.92	0.95	0.24	0.38	0.57	0.35
8	2.438	0.65	0.65	0.22	0.41	0.53	0.41
9	3.395	0.26	0.70	0.24	0.38	0.51	0.43
10	4.698	0.76	0.82	0.39	0.38	0.51	0.47
11	6.451	0.91	0.92	0.41	0.42	0.80	0.45
12	8.981	0.97	0.96	0.52	0.64	0.90	0.61

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.33	0.17	0.39	0.39	0.20	0.49	0.04	0.86	0.72
0.35	0.22	0.40	0.44	0.21	0.53	0.07	0.89	0.78
0.36	0.22	0.40	0.42	0.23	0.59	0.07	0.92	0.81
0.33	0.17	0.36	0.37	0.23	0.59	0.07	0.92	0.82
0.38	0.18	0.40	0.38	0.26	0.63	0.07	0.91	0.80
0.27	0.12	0.27	0.28	0.33	0.63	0.13	0.90	0.83
0.10	0.17	0.09	0.34	0.25	0.60	0.11	0.87	0.80
0.31	0.18	0.33	0.43	0.21	0.57	0.16	0.85	0.82
0.20	0.09	0.48	0.50	0.26	0.26	0.13	0.89	0.86
0.37	0.30	0.72	0.70	0.37	0.38	0.31	0.93	0.92

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 1005C5.CBL
RECORDING COMPLETED: 17:19:36 09-Sep-81

SETUP 10 GLS-05 GLS, BAND 5, PASS C

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 12 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	73.6 (7.8)	8.59 (2.6)	-45.6 (9.6)	27.1 (4.0)	145.4 (4.2)
3	4.635	74.8 (7.4)	7.55 (1.8)	-39.0 (7.1)	23.4 (3.8)	143.5 (4.7)
4	6.486	53.2 (4.8)	9.48 (1.8)	-32.2 (5.4)	31.0 (2.2)	161.7 (2.2)
5	9.062	61.9 (1.5)	19.5 (0.56)	-32.3 (0.8)	42.5 (0.90)	157.3 (0.6)
6	12.648	36.4 (1.5)	27.3 (0.50)	-36.4 (0.6)	41.4 (0.37)	155.7 (0.2)
7	17.561	63.9 (0.4)	26.4 (0.14)	-34.4 (0.2)	60.7 (0.49)	148.9 (0.2)
8	24.381	59.8 (0.7)	33.1 (0.22)	-35.5 (0.2)	62.0 (0.72)	144.9 (0.3)
9	33.945	50.9 (0.9)	34.4 (0.37)	-40.7 (0.3)	74.2 (0.95)	140.0 (0.4)
10	46.984	53.1 (1.2)	33.4 (0.38)	-43.6 (0.4)	68.3 (0.89)	133.8 (0.4)
11	64.506	58.7 (2.6)	36.4 (0.59)	-48.8 (0.5)	64.1 (1.8)	126.5 (0.8)
12	89.811	68.8 (3.7)	32.8 (0.33)	-53.6 (0.3)	53.0 (3.5)	126.0 (1.9)
13	129.012	47.7 (5.6)	25.9 (1.0)	-55.6 (1.1)	41.9 (2.8)	125.2 (1.9)
14	186.956	66.6 (4.3)	22.9 (0.34)	-54.8 (0.5)	39.2 (5.6)	132.0 (4.2)
15	256.000	40.2 (10.5)	16.8 (1.9)	-51.3 (3.9)	34.0 (6.8)	119.7 (5.5)
16	341.333	75.8 (10.3)	20.5 (1.4)	-52.8 (2.0)	31.9 (9.1)	134.7 (8.2)
17	512.000	92.6 (15.9)	18.8 (2.5)	-57.1 (4.9)	38.1 (14.)	131.4 (10.0)

AVERAGE ROTATION ANGLE ON FILE = 61.1

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	139.0 (19.1)	26.0 (4.2)	-40.5 (6.6)	10.4 (5.3)	148.7 (15.2)
3	4.635	113.3 (13.5)	38.8 (6.4)	-20.4 (4.2)	17.4 (4.2)	130.8 (7.6)
4	6.486	105.3 (9.6)	45.5 (7.1)	-25.2 (4.5)	14.8 (2.3)	150.9 (4.4)
5	9.062	116.5 (4.1)	36.9 (2.5)	-26.8 (2.0)	18.3 (0.64)	148.9 (1.3)
6	12.648	98.6 (1.6)	35.8 (0.67)	-27.5 (0.5)	18.3 (0.29)	147.6 (0.5)
7	17.561	121.8 (0.8)	37.8 (0.42)	-33.4 (0.3)	23.9 (0.15)	147.3 (0.2)
8	24.381	108.5 (0.6)	44.0 (0.46)	-35.5 (0.3)	25.9 (0.16)	143.4 (0.2)
9	33.945	110.9 (0.5)	53.3 (0.50)	-42.2 (0.3)	26.5 (0.26)	141.1 (0.3)
10	46.984	111.3 (0.7)	46.9 (0.35)	-48.2 (0.2)	26.4 (0.26)	137.2 (0.3)
11	64.506	116.3 (1.7)	45.2 (0.49)	-53.4 (0.3)	29.8 (0.55)	132.2 (0.6)
12	89.811	105.6 (1.8)	41.4 (0.60)	-55.3 (0.4)	25.1 (0.68)	128.1 (0.8)
13	129.012	97.3 (2.3)	32.6 (0.43)	-57.1 (0.4)	23.1 (0.82)	129.7 (1.0)
14	186.956	74.3 (5.5)	24.7 (0.27)	-56.3 (0.4)	19.4 (1.6)	128.1 (2.3)
15	256.000	74.2 (4.3)	20.9 (0.76)	-56.3 (1.1)	10.6 (2.1)	140.5 (5.7)
16	341.333	67.7 (4.0)	21.5 (1.5)	-53.3 (1.9)	6.11 (2.4)	163.9 (11.2)
17	512.000	43.2 (21.0)	22.0 (3.3)	-41.9 (4.8)	16.4 (5.2)	129.4 (8.0)

AVERAGE ROTATION ANGLE ON FILE = 100.2

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 5, PASS C

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.103 (0.021)	134.7 (30.4)	-127.4 (11.0)	0.014 (0.053)	0.294 (0.076)	0.253 (0.264)
3	4.635	0.201 (0.084)	77.6 (24.7)	-130.0 (24.3)	0.025 (0.084)	0.195 (0.069)	0.273 (0.252)
4	6.486	0.403 (0.167)	11.4 (16.8)	70.8 (27.4)	0.112 (0.092)	0.050 (0.049)	0.678 (0.237)
5	9.062	0.211 (0.043)	-69.4 (17.8)	7.2 (12.0)	0.086 (0.044)	0.036 (0.011)	0.303 (0.057)
6	12.648	0.155 (0.010)	-50.1 (10.0)	-16.5 (3.5)	0.009 (0.027)	0.120 (0.007)	2.200 (0.278)
7	17.561	0.157 (0.010)	-77.0 (3.7)	-17.8 (3.7)	0.036 (0.009)	0.027 (0.003)	0.224 (0.015)
8	24.381	0.101 (0.013)	-81.0 (4.4)	-7.5 (7.2)	0.004 (0.008)	0.026 (0.004)	0.398 (0.026)
9	33.945	0.270 (0.013)	-80.9 (3.1)	-12.8 (2.9)	0.077 (0.012)	0.063 (0.006)	0.802 (0.046)
10	46.984	0.204 (0.012)	-59.5 (7.4)	-31.1 (3.1)	0.075 (0.020)	0.039 (0.007)	0.694 (0.058)
11	64.506	0.147 (0.019)	-65.8 (15.3)	-44.4 (7.1)	0.040 (0.034)	0.064 (0.012)	0.416 (0.108)
12	89.811	0.139 (0.026)	-87.2 (24.2)	-48.6 (10.9)	0.064 (0.037)	0.033 (0.015)	0.134 (0.126)
13	129.012	0.159 (0.037)	-5.7 (7.8)	57.1 (13.5)	0.015 (0.021)	0.141 (0.017)	0.984 (0.370)
14	186.956	0.155 (0.036)	37.7 (28.5)	99.8 (23.9)	0.074 (0.044)	0.082 (0.019)	0.277 (0.141)
15	256.000	0.113 (0.047)	85.1 (55.6)	156.5 (24.0)	0.046 (0.078)	0.169 (0.050)	1.648 (1.287)
16	341.333	0.126 (0.053)	70.8 (52.4)	147.9 (24.0)	0.012 (0.114)	0.311 (0.068)	0.271 (0.362)
17	512.000	0.197 (0.068)	120.7 (34.0)	134.0 (20.5)	0.075 (0.085)	0.158 (0.094)	1.004 (0.967)

AVERAGE TIPPER STRIKE ON FILE = -2.4

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.131 (0.018)	-100.9 (8.2)	64.3 (7.8)	0.011 (0.019)	0.318 (0.143)	1.271 (0.941)
3	4.635	0.137 (0.031)	-125.2 (8.6)	81.7 (14.6)	0.032 (0.017)	0.118 (0.133)	0.279 (0.448)
4	6.486	0.185 (0.020)	-102.7 (7.2)	36.4 (6.5)	0.050 (0.020)	0.065 (0.088)	0.167 (0.346)
5	9.062	0.166 (0.006)	-66.9 (2.0)	2.4 (2.2)	0.005 (0.006)	0.027 (0.018)	0.404 (0.134)
6	12.648	0.164 (0.002)	-62.7 (1.6)	-12.2 (0.6)	0.005 (0.005)	0.114 (0.009)	0.497 (0.061)
7	17.561	0.173 (0.003)	-77.6 (0.9)	-19.7 (1.1)	0.004 (0.003)	0.045 (0.003)	0.462 (0.033)
8	24.381	0.096 (0.003)	-85.7 (0.9)	-10.7 (1.5)	0.010 (0.002)	0.044 (0.003)	0.131 (0.021)
9	33.945	0.281 (0.005)	-77.1 (1.1)	-10.1 (0.9)	0.097 (0.004)	0.064 (0.003)	0.050 (0.019)
10	46.984	0.241 (0.006)	-60.6 (3.9)	-36.6 (1.3)	0.124 (0.009)	0.065 (0.004)	0.147 (0.024)
11	64.506	0.101 (0.003)	-76.4 (2.7)	-45.4 (1.7)	0.006 (0.005)	0.075 (0.006)	0.422 (0.054)
12	89.811	0.093 (0.004)	-80.7 (4.4)	-31.9 (2.2)	0.035 (0.005)	0.084 (0.007)	0.206 (0.063)
13	129.012	0.105 (0.003)	-39.2 (5.2)	7.1 (2.6)	0.060 (0.003)	0.084 (0.007)	0.499 (0.095)
14	186.956	0.125 (0.007)	-29.0 (3.3)	28.7 (3.3)	0.055 (0.003)	0.161 (0.010)	2.157 (0.878)
15	256.000	0.118 (0.012)	-25.6 (8.4)	35.0 (6.2)	0.059 (0.006)	0.123 (0.031)	2.341 (0.846)
16	341.333	0.139 (0.014)	-40.0 (8.7)	4.1 (5.7)	0.064 (0.011)	0.370 (0.068)	3.912 (2.057)
17	512.000	0.170 (0.016)	-33.2 (3.8)	6.7 (5.5)	0.033 (0.010)	0.272 (0.092)	1.039 (1.128)

AVERAGE TIPPER STRIKE ON FILE = -67.7

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 5, PASS C

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	5.90E-04	1.21E-03	3.78E-05	2.81E-05	6.14E-07
3	4.635	3.67E-04	1.20E-03	5.38E-05	3.28E-05	1.51E-06
4	6.486	7.92E-04	2.35E-03	9.84E-05	6.79E-05	5.67E-07
5	9.062	8.47E-03	4.85E-02	2.01E-03	7.71E-04	8.58E-05
6	12.648	6.49E-01	1.93E+00	9.39E-02	6.00E-02	3.37E-03
7	17.561	1.09E+00	3.29E+00	1.93E-01	1.44E-01	3.71E-03
8	24.381	2.94E+00	9.53E+00	7.72E-01	4.44E-01	3.51E-03
9	33.945	3.40E+00	1.33E+01	1.31E+00	5.91E-01	4.61E-02
10	46.984	8.71E+00	2.75E+01	3.48E+00	2.16E+00	2.00E-01
11	64.506	4.63E+00	1.25E+01	2.40E+00	1.59E+00	6.20E-02
12	89.811	6.29E+00	6.09E+00	2.07E+00	3.47E+00	7.56E-02
13	129.012	1.35E+01	1.07E+01	5.43E+00	1.30E+01	1.32E-01
14	186.956	2.64E+01	7.86E+00	6.88E+00	4.36E+01	8.06E-01
15	256.000	2.11E+01	1.36E+01	1.47E+01	5.93E+01	8.15E-01
16	341.333	2.48E+01	2.08E+01	2.09E+01	9.35E+01	1.41E+00
17	512.000	6.37E+01	3.53E+01	7.20E+01	3.68E+02	8.27E+00

LOCAL SITE, NOISE

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	9.45E-03	6.33E-03	1.35E-05	8.59E-06	4.99E-05
3	4.635	2.39E-03	3.37E-03	3.33E-05	1.33E-05	1.69E-04
4	6.486	2.04E-03	3.50E-03	2.37E-05	4.77E-06	9.50E-04
5	9.062	1.86E-03	6.06E-03	6.52E-05	3.05E-05	2.87E-03
6	12.648	3.31E-03	2.65E-02	1.94E-04	7.82E-05	6.85E-03
7	17.561	6.96E-03	5.02E-02	2.05E-04	1.09E-04	1.49E-02
8	24.381	1.13E-02	1.26E-01	6.46E-04	2.31E-04	2.89E-02
9	33.945	1.59E-02	2.55E-01	2.36E-04	1.69E-04	5.64E-02
10	46.984	1.77E-02	3.12E-01	2.81E-03	5.25E-04	1.29E-01
11	64.506	2.52E-02	5.27E-01	1.78E-03	-5.46E-04	2.28E-01
12	89.811	2.38E-02	1.09E+00	1.48E-02	1.05E-03	4.03E-01
13	129.012	5.55E-02	1.80E+00	4.94E-02	-3.34E-05	8.54E-01
14	186.956	1.06E-01	3.36E+00	8.97E-02	1.59E-02	1.74E+00
15	256.000	2.85E-01	5.10E+00	-7.16E-02	1.05E-01	2.92E+00
16	341.333	8.14E-01	4.99E+00	4.97E-02	3.10E-02	6.96E+00
17	512.000	4.90E+00	2.96E+01	3.16E+00	-5.54E-01	1.96E+01

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	1.46E-03	2.22E-04	1.15E-05	3.39E-05	7.56E-07
3	4.635	2.33E-03	1.81E-04	8.83E-06	5.98E-05	7.32E-07
4	6.486	2.81E-03	4.65E-04	3.91E-05	8.35E-05	3.93E-06
5	9.062	1.91E-02	1.52E-02	1.43E-03	9.61E-04	3.36E-05
6	12.648	1.33E+00	2.04E-01	2.09E-02	1.04E-01	2.87E-03
7	17.561	1.34E+00	1.32E+00	1.89E-01	1.27E-01	3.83E-03
8	24.381	2.62E+00	4.78E+00	8.95E-01	2.74E-01	2.47E-03
9	33.945	5.61E+00	3.89E+00	9.46E-01	7.39E-01	4.01E-02
10	46.984	1.69E+01	4.10E+00	1.36E+00	3.54E+00	2.30E-01
11	64.506	8.80E+00	2.14E+00	8.83E-01	2.58E+00	2.54E-02
12	89.811	8.14E+00	2.07E+00	1.56E+00	3.50E+00	3.18E-02
13	129.012	1.56E+01	4.83E+00	5.98E+00	1.16E+01	1.18E-01
14	186.956	2.26E+01	9.94E+00	2.11E+01	2.88E+01	2.82E-01
15	256.000	2.01E+01	8.27E+00	2.80E+01	4.49E+01	5.44E-01
16	341.333	2.67E+01	5.47E+00	3.07E+01	8.18E+01	1.25E+00
17	512.000	6.71E+01	1.53E+01	1.20E+02	3.08E+02	4.29E+00

REMOTE SITE, NOISE

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	3.14E-02	3.39E-03	1.37E-05	1.87E-05	1.04E-05
3	4.635	3.13E-02	2.79E-03	3.61E-05	1.07E-05	1.75E-05
4	6.486	3.08E-02	3.11E-03	5.13E-05	3.86E-05	2.98E-05
5	9.062	3.07E-02	3.45E-03	8.06E-05	1.20E-04	6.07E-05
6	12.648	3.69E-02	4.74E-03	1.67E-04	1.58E-04	2.26E-04
7	17.561	4.31E-02	7.77E-03	3.83E-04	1.84E-04	1.30E-03
8	24.381	3.41E-02	1.96E-02	9.00E-04	3.60E-04	1.06E-03
9	33.945	4.43E-02	2.61E-02	2.33E-03	9.71E-04	6.10E-03
10	46.984	6.01E-02	1.58E-02	2.90E-03	6.18E-04	2.52E-02
11	64.506	5.73E-02	2.59E-02	6.15E-03	1.47E-03	5.06E-03
12	89.811	6.78E-02	4.74E-02	1.30E-02	8.52E-03	8.28E-03
13	129.012	9.30E-02	1.38E-01	2.12E-02	7.18E-03	1.04E-02
14	186.956	2.22E-01	2.87E-01	3.72E-02	2.13E-02	3.52E-02
15	256.000	5.62E-01	5.69E-01	1.23E-01	-4.02E-02	8.06E-02
16	341.333	1.44E+00	1.08E+00	1.62E-01	1.52E-01	1.52E-01
17	512.000	1.04E+01	4.54E+00	-8.37E-02	-2.72E-01	6.42E-01

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 5, PASS C

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.096	37.2	3.1	-60.0	13.	152.5	0.246	40.6	2.50E+04	-59.4	6.36E+02	159.0
3	4.635	0.237	32.6	1.4	-33.7	10.	152.2	0.296	35.8	3.22E+03	-28.4	2.28E+02	150.2
4	6.486	0.125	37.7	8.1	-27.0	21.	158.6	0.149	117.4	1.40E+02	-25.1	5.38E+02	157.2
5	9.062	0.055	58.9	18.	-33.4	40.	157.4	0.066	66.9	33.	-32.0	58.	156.0
6	12.648	0.124	36.6	26.	-36.3	41.	155.9	0.064	50.7	31.	-34.0	46.	154.0
7	17.561	0.027	63.8	26.	-34.3	61.	148.8	0.028	63.8	27.	-34.4	63.	148.8
8	24.381	0.027	59.8	33.	-35.6	62.	145.0	0.027	59.6	33.	-35.4	64.	144.9
9	33.945	0.063	50.9	34.	-40.7	74.	140.0	0.064	52.1	35.	-40.5	77.	139.8
10	46.984	0.039	52.8	33.	-43.5	68.	133.7	0.028	56.1	34.	-44.0	71.	134.1
11	64.506	0.061	59.1	37.	-48.7	64.	126.6	0.053	66.6	38.	-49.0	73.	127.0
12	89.811	0.027	69.2	33.	-53.7	52.	126.8	0.054	74.3	33.	-53.7	79.	127.0
13	129.012	0.142	46.4	26.	-55.2	41.	125.5	0.109	64.9	28.	-56.6	64.	126.9
14	186.956	0.082	66.0	23.	-54.7	38.	131.9	0.062	67.2	23.	-54.9	89.	132.1
15	256.000	0.171	41.7	17.	-51.8	34.	120.4	0.111	64.1	19.	-56.2	1.00E+02	125.0
16	341.333	0.312	73.1	20.	-52.3	32.	132.2	0.167	72.7	22.	-50.8	99.	127.6
17	512.000	0.181	105.0	20.	-60.3	32.	130.7	0.125	71.1	20.	-46.9	2.73E+02	118.2

AVERAGE ROTATION ANGLE = 55.7 — AVERAGE ROTATION ANGLE = 64.0

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.615	141.2	13.	-46.1	0.71	159.9	0.454	78.9	8.24E+04	-57.7	1.56E+03	174.5
3	4.635	0.137	121.2	28.	-34.8	0.37	159.6	0.902	159.2	1.81E+03	100.6	1.14E+05	146.8
4	6.486	0.104	115.8	21.	-16.2	2.8	144.7	0.409	81.1	1.45E+04	-25.9	1.43E+02	161.5
5	9.062	0.023	125.7	28.	-26.5	15.	148.7	0.277	92.8	5.41E+02	-31.3	27.	160.5
6	12.648	0.116	99.8	35.	-27.3	18.	147.2	0.175	85.7	46.	-30.0	19.	151.4
7	17.561	0.045	121.6	38.	-33.4	24.	147.2	0.046	119.7	40.	-33.5	24.	147.3
8	24.381	0.044	108.2	44.	-35.4	26.	143.4	0.042	107.9	46.	-35.3	26.	143.3
9	33.945	0.065	111.0	53.	-42.1	26.	141.1	0.065	110.6	54.	-42.1	27.	141.2
10	46.984	0.066	111.4	47.	-48.2	26.	137.2	0.067	111.2	47.	-48.2	27.	137.1
11	64.506	0.075	116.5	45.	-53.4	29.	132.4	0.074	116.9	46.	-53.5	31.	132.4
12	89.811	0.082	105.0	41.	-55.3	25.	128.2	0.080	108.1	42.	-55.3	27.	128.2
13	129.012	0.086	97.7	33.	-57.1	23.	129.3	0.085	99.3	33.	-57.0	25.	129.1
14	186.956	0.161	73.6	25.	-56.3	19.	128.1	0.155	85.3	25.	-56.5	26.	128.1
15	256.000	0.121	74.8	21.	-56.3	11.	139.4	0.079	76.3	22.	-56.0	23.	138.1
16	341.333	0.377	67.8	21.	-53.5	6.0	165.3	0.100	80.7	22.	-50.7	48.	153.2
17	512.000	0.234	40.2	21.	-43.8	19.	130.3	0.121	74.1	23.	-46.0	52.	134.8

AVERAGE ROTATION ANGLE = 102.0 — AVERAGE ROTATION ANGLE = 99.2

WOODWARD-CLYDE CONSULTANTS

SETUP 10 GLS-05 GLS, BAND 5, PASS C

PREDICTED COHERENCIES

WINDOW	PERIOD	LOCAL SITE EXCOH	LOCAL SITE EYCOH	LOCAL SITE HZCOH	REMOTE SITE EXCOH	REMOTE SITE EYCOH	REMOTE SITE HZCOH
2	3.311	0.22	0.32	0.10	0.18	0.16	0.36
3	4.635	0.32	0.39	0.08	0.25	0.13	0.20
4	6.486	0.50	0.57	0.04	0.24	0.24	0.40
5	9.062	0.89	0.93	0.17	0.58	0.88	0.63
6	12.648	1.00	0.99	0.57	0.99	0.99	0.96
7	17.561	1.00	0.99	0.45	0.98	1.00	0.87
8	24.381	1.00	0.99	0.33	0.99	1.00	0.84
9	33.945	1.00	0.99	0.67	1.00	1.00	0.93
10	46.984	1.00	0.99	0.78	1.00	1.00	0.95
11	64.506	1.00	0.98	0.46	1.00	0.99	0.91
12	89.811	1.00	0.92	0.40	0.99	0.98	0.89
13	129.012	1.00	0.92	0.37	1.00	0.98	0.96
14	186.956	1.00	0.83	0.57	1.00	0.98	0.94
15	256.000	0.99	0.85	0.47	0.99	0.96	0.93
16	341.333	0.98	0.90	0.41	0.97	0.91	0.94
17	512.000	0.96	0.72	0.54	0.93	0.87	0.93

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.08	0.08	0.06	0.13	0.36	0.61	0.02	0.76	0.64
3	0.21	0.07	0.21	0.14	0.28	0.56	0.03	0.65	0.57
4	0.25	0.12	0.23	0.25	0.21	0.47	0.03	0.69	0.60
5	0.45	0.22	0.55	0.73	0.52	0.51	0.14	0.95	0.86
6	0.94	0.85	0.96	0.98	0.83	0.93	0.58	1.00	0.98
7	0.26	0.24	0.95	0.96	0.34	0.10	0.47	0.99	0.95
8	0.52	0.68	0.97	0.97	0.73	0.56	0.31	0.99	0.97
9	0.60	0.41	0.95	0.98	0.49	0.48	0.64	0.99	0.94
10	0.83	0.61	0.97	0.98	0.57	0.75	0.80	1.00	0.96
11	0.76	0.45	0.97	0.96	0.40	0.70	0.45	0.99	0.96
12	0.73	0.27	0.98	0.84	0.29	0.61	0.39	0.97	0.98
13	0.72	0.48	0.99	0.90	0.39	0.62	0.29	0.98	0.99
14	0.74	0.26	0.99	0.75	0.31	0.55	0.56	0.92	1.00
15	0.80	0.60	0.98	0.77	0.57	0.70	0.46	0.97	0.99
16	0.87	0.73	0.98	0.83	0.66	0.81	0.36	0.97	1.00
17	0.77	0.58	0.98	0.70	0.62	0.80	0.44	0.97	0.99

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 0915C1.BFC
RECORDING COMPLETED: 07:02:46 10-Sep-81

SETUP 09 GLS-15 GLS, BAND 1, PASS B

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 120.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 2048 AVERAGE OF 107 DATA SEGMENTS, 17.07 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	0.028	45.6 (1.7)	303. (9.4)	-73.2 (0.9)	195. (1.7)	109.1 (0.3)
3	0.039	46.0 (2.5)	267. (10.)	-70.4 (1.1)	180. (1.7)	105.9 (0.3)
4	0.054	43.7 (1.2)	257. (5.0)	-73.5 (0.6)	156. (1.4)	104.2 (0.3)
5	0.076	49.7 (1.0)	209. (3.3)	-75.5 (0.5)	123. (0.86)	104.2 (0.2)
6	0.106	40.2 (1.4)	146. (3.4)	-73.4 (0.7)	89.4 (0.88)	104.2 (0.3)
7	0.149	49.7 (1.5)	123. (2.7)	-75.9 (0.6)	78.0 (0.66)	104.1 (0.2)
8	0.210	42.0 (2.3)	101. (5.0)	-75.5 (1.4)	60.8 (0.99)	104.8 (0.5)
9	0.296	52.0 (2.8)	76.0 (3.5)	-75.3 (1.3)	42.6 (0.83)	104.8 (0.6)
10	0.416	46.6 (2.4)	60.8 (2.4)	-73.1 (1.1)	34.6 (0.62)	105.6 (0.5)
11	0.585	50.2 (2.2)	46.2 (1.8)	-72.8 (1.1)	26.6 (0.44)	106.9 (0.5)
12	0.821	43.4 (2.2)	40.6 (1.9)	-68.8 (1.4)	21.9 (0.36)	107.5 (0.5)
13	1.148	39.3 (2.5)	28.5 (1.4)	-68.1 (1.4)	16.7 (0.28)	111.6 (0.5)
14	1.642	45.6 (2.6)	26.0 (1.7)	-61.3 (1.9)	13.1 (0.25)	115.1 (0.6)
15	2.463	27.7 (4.8)	21.6 (2.1)	-57.2 (3.0)	10.8 (0.42)	129.5 (1.5)
16	3.816	5.5 (10.6)	16.9 (3.3)	-52.3 (4.9)	13.0 (1.5)	146.7 (2.6)
17	5.689	147.7 (8.6)	11.4 (2.6)	-53.4 (6.4)	21.1 (3.9)	152.8 (5.3)
18	8.533	149.9 (34.6)	25.4 (16.)	-46.6 (9.3)	30.7 (12.)	157.9 (5.1)

AVERAGE ROTATION ANGLE ON FILE = 54.4

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	0.028	103.4 (0.9)	482. (3.2)	-57.0 (0.2)	346. (12.)	103.4 (0.9)
3	0.039	112.1 (1.6)	360. (2.5)	-68.3 (0.2)	275. (11.)	99.4 (1.0)
4	0.054	157.0 (4.2)	290. (2.7)	-77.7 (0.6)	221. (3.1)	105.5 (0.5)
5	0.076	155.3 (2.5)	207. (1.6)	-77.1 (0.3)	169. (1.1)	103.6 (0.2)
6	0.106	167.2 (1.3)	149. (2.2)	-76.6 (0.4)	106. (0.65)	105.6 (0.2)
7	0.149	166.7 (1.7)	125. (1.7)	-76.3 (0.4)	94.4 (0.57)	104.5 (0.2)
8	0.210	167.0 (3.0)	97.5 (3.2)	-76.6 (1.0)	70.9 (0.79)	106.6 (0.3)
9	0.296	166.1 (4.1)	72.2 (2.4)	-70.7 (1.0)	52.9 (0.62)	109.7 (0.4)
10	0.416	167.6 (2.2)	57.6 (1.6)	-71.5 (0.8)	41.1 (0.40)	110.3 (0.3)
11	0.585	164.3 (2.6)	43.9 (0.87)	-69.4 (0.6)	33.3 (0.43)	112.2 (0.4)
12	0.821	161.5 (2.9)	36.1 (0.75)	-64.8 (0.6)	25.6 (0.39)	117.1 (0.5)
13	1.148	173.1 (4.0)	30.6 (0.91)	-61.4 (0.8)	23.6 (0.45)	124.2 (0.6)
14	1.642	165.9 (4.4)	27.5 (0.99)	-55.1 (1.0)	20.4 (0.55)	129.0 (0.8)
15	2.463	171.3 (22.7)	29.8 (4.6)	-51.5 (3.6)	23.2 (3.5)	138.2 (2.8)
16	3.816	173.2 (14.4)	40.2 (6.3)	-40.2 (6.0)	24.5 (1.9)	146.1 (3.4)
17	5.689	178.1 (18.3)	49.2 (22.)	-4.0 (14.4)	27.7 (5.8)	155.3 (4.2)
18	8.533	206.5 (15.5)	53.0 (11.)	-21.5 (4.2)	21.2 (14)	130.9 (21.3)

AVERAGE ROTATION ANGLE ON FILE = 342.1
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 09 GLS-15 GLS, BAND 1, PASS B

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.062 (0.008)	10.3 (3.2)	18.2 (7.3)	0.008 (0.003)	0.138 (0.006)	0.334 (0.059)
3	0.039	0.079 (0.008)	5.5 (2.9)	20.6 (5.7)	0.004 (0.004)	0.113 (0.007)	0.283 (0.089)
4	0.054	0.081 (0.005)	11.5 (2.1)	17.9 (3.5)	0.006 (0.003)	0.139 (0.005)	0.200 (0.041)
5	0.076	0.087 (0.004)	14.2 (1.7)	10.0 (2.6)	0.003 (0.003)	0.127 (0.004)	0.354 (0.038)
6	0.106	0.090 (0.006)	8.9 (2.3)	-6.2 (3.8)	0.003 (0.004)	0.138 (0.006)	0.098 (0.049)
7	0.149	0.056 (0.006)	10.6 (3.2)	-10.5 (5.7)	0.006 (0.003)	0.107 (0.005)	0.363 (0.057)
8	0.210	0.115 (0.013)	12.9 (2.5)	0.6 (6.3)	0.016 (0.005)	0.139 (0.011)	0.116 (0.081)
9	0.296	0.082 (0.012)	17.3 (3.9)	-17.3 (8.6)	0.000 (0.008)	0.123 (0.012)	0.496 (0.110)
10	0.416	0.058 (0.009)	38.7 (13.2)	-4.2 (9.3)	0.024 (0.008)	0.113 (0.011)	0.258 (0.088)
11	0.585	0.061 (0.008)	53.4 (7.3)	-30.1 (7.9)	0.008 (0.007)	0.125 (0.010)	0.373 (0.088)
12	0.821	0.085 (0.009)	31.0 (4.6)	-15.6 (6.4)	0.005 (0.007)	0.156 (0.011)	0.271 (0.074)
13	1.148	0.074 (0.008)	12.4 (6.4)	-4.3 (6.4)	0.022 (0.007)	0.119 (0.011)	0.161 (0.086)
14	1.642	0.091 (0.009)	15.3 (7.6)	-22.6 (5.7)	0.039 (0.007)	0.136 (0.013)	0.350 (0.086)
15	2.463	0.115 (0.012)	42.4 (12.0)	-49.1 (8.7)	0.062 (0.008)	0.155 (0.020)	0.611 (0.160)
16	3.816	0.099 (0.021)	80.3 (29.3)	-127.6 (12.2)	0.046 (0.032)	0.182 (0.046)	1.727 (0.985)
17	5.689	0.227 (0.047)	104.7 (21.5)	-147.1 (11.4)	0.063 (0.074)	0.084 (0.080)	0.712 (0.453)
18	8.533	0.211 (0.103)	131.3 (18.1)	-163.0 (27.9)	0.021 (0.065)	0.143 (0.102)	0.949 (0.651)

AVERAGE TIPPER STRIKE ON FILE = 35.3

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	0.028	0.063 (0.006)	-120.7 (3.0)	-129.4 (5.2)	0.012 (0.003)	0.042 (0.006)	0.311 (0.029)
3	0.039	0.096 (0.007)	-130.4 (2.2)	-157.4 (4.4)	0.007 (0.004)	0.043 (0.005)	0.642 (0.050)
4	0.054	0.067 (0.003)	-125.0 (2.2)	-161.3 (2.9)	0.004 (0.011)	0.029 (0.003)	1.192 (0.092)
5	0.076	0.073 (0.003)	-132.4 (1.6)	-165.8 (2.1)	0.011 (0.002)	0.037 (0.002)	1.564 (0.166)
6	0.106	0.060 (0.004)	-128.9 (3.2)	-167.6 (3.5)	0.008 (0.003)	0.040 (0.003)	1.018 (0.091)
7	0.149	0.076 (0.004)	-128.3 (2.1)	-178.7 (2.7)	0.005 (0.003)	0.041 (0.003)	1.051 (0.111)
8	0.210	0.093 (0.009)	-137.8 (3.2)	166.5 (5.7)	0.000 (0.005)	0.031 (0.005)	1.035 (0.214)
9	0.296	0.053 (0.007)	-112.5 (9.4)	164.7 (7.3)	0.009 (0.008)	0.026 (0.005)	1.076 (0.225)
10	0.416	0.076 (0.006)	-131.3 (4.9)	153.8 (4.8)	0.015 (0.006)	0.042 (0.005)	0.991 (0.150)
11	0.585	0.086 (0.006)	-111.1 (3.6)	134.1 (3.8)	0.008 (0.005)	0.034 (0.006)	1.251 (0.236)
12	0.821	0.099 (0.006)	-113.6 (3.0)	117.3 (3.8)	0.009 (0.005)	0.028 (0.007)	1.398 (0.237)
13	1.148	0.095 (0.006)	-106.7 (3.2)	101.6 (3.7)	0.003 (0.005)	0.015 (0.008)	0.787 (0.141)
14	1.642	0.121 (0.008)	-114.1 (2.5)	89.0 (3.7)	0.008 (0.005)	0.015 (0.014)	1.114 (0.329)
15	2.463	0.179 (0.010)	-106.5 (2.8)	74.8 (3.3)	0.000 (0.009)	0.035 (0.026)	0.947 (0.310)
16	3.816	0.177 (0.009)	-99.7 (6.1)	53.2 (2.9)	0.014 (0.019)	0.056 (0.042)	0.835 (0.395)
17	5.689	0.267 (0.021)	-119.1 (9.5)	24.7 (4.3)	0.078 (0.038)	0.218 (0.121)	0.537 (0.676)
18	8.533	0.231 (0.011)	-99.2 (6.8)	18.9 (2.8)	0.002 (0.028)	0.318 (0.102)	0.704 (0.671)

AVERAGE TIPPER STRIKE ON FILE =-118.7

WOODWARD-CLYDE CONSULTANTS

SETUP 09 GLS-15 GLS. BAND 1, PASS B

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	2.13E-02	3.01E-02	7.99E-07	4.01E-07	2.49E-09
3	0.039	1.11E-02	1.69E-02	6.59E-07	3.53E-07	1.81E-08
4	0.054	1.26E-02	1.17E-02	7.49E-07	5.51E-07	4.30E-09
5	0.076	1.08E-02	1.01E-02	1.11E-06	8.25E-07	5.33E-09
6	0.106	4.12E-03	3.29E-03	7.19E-07	6.41E-07	3.25E-09
7	0.149	3.37E-03	4.41E-03	1.51E-06	8.50E-07	2.59E-09
8	0.210	8.52E-04	1.29E-03	7.88E-07	4.08E-07	2.95E-09
9	0.296	5.46E-04	7.00E-04	8.20E-07	4.64E-07	2.87E-09
10	0.416	5.37E-04	4.31E-04	9.18E-07	7.83E-07	1.38E-09
11	0.585	4.02E-04	3.40E-04	1.40E-06	1.03E-06	2.64E-09
12	0.821	2.99E-04	3.00E-04	2.16E-06	1.25E-06	3.17E-09
13	1.148	2.33E-04	2.66E-04	3.61E-06	1.91E-06	1.13E-08
14	1.642	1.72E-04	2.17E-04	5.34E-06	2.16E-06	1.53E-08
15	2.463	1.33E-04	1.93E-04	8.17E-06	3.33E-06	6.23E-08
16	3.816	2.17E-04	2.45E-04	1.30E-05	1.20E-05	1.65E-07
17	5.689	6.04E-04	5.01E-04	3.61E-05	3.32E-05	6.75E-07
18	8.533	6.71E-03	2.61E-03	1.70E-04	3.98E-04	7.68E-06

LOCAL SITE, NOISE

EX	EY	HX	HY	HZ
1.08E-04	9.14E-04	4.57E-07	2.35E-06	5.33E-07
1.57E-03	1.43E-03	5.52E-07	4.09E-06	5.22E-07
-1.29E-05	1.95E-04	4.83E-07	1.63E-06	3.30E-07
4.31E-05	9.42E-05	3.08E-07	1.43E-06	2.70E-07
1.20E-05	2.70E-05	2.60E-07	1.26E-06	2.50E-07
6.18E-05	3.13E-05	2.47E-07	1.24E-06	2.38E-07
5.15E-06	9.81E-06	2.60E-07	1.22E-06	2.41E-07
1.18E-05	9.97E-06	2.63E-07	1.28E-06	2.43E-07
3.37E-06	7.00E-06	2.66E-07	1.31E-06	2.75E-07
1.94E-05	4.18E-06	3.20E-07	1.48E-06	2.80E-07
8.42E-06	6.62E-06	3.17E-07	1.69E-06	2.67E-07
3.99E-06	9.17E-06	3.81E-07	2.20E-06	2.71E-07
1.67E-05	1.47E-05	4.88E-07	3.41E-06	3.31E-07
2.08E-05	2.98E-05	2.36E-06	7.22E-06	6.05E-07
2.97E-05	6.58E-05	2.29E-05	3.00E-05	4.37E-06
8.69E-05	8.79E-05	8.73E-05	9.48E-05	2.43E-05
2.73E-04	2.38E-04	7.48E-04	6.69E-04	2.78E-04

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	0.028	2.60E-02	2.06E-02	3.10E-07	3.01E-07	1.01E-09
3	0.039	1.68E-02	1.16E-02	2.95E-07	3.78E-07	2.12E-09
4	0.054	1.21E-02	1.07E-02	4.48E-07	5.26E-07	2.40E-09
5	0.076	1.10E-02	8.33E-03	6.60E-07	9.18E-07	4.07E-09
6	0.106	3.68E-03	3.08E-03	4.77E-07	7.08E-07	2.32E-09
7	0.149	4.73E-03	2.53E-03	6.17E-07	1.41E-06	5.49E-09
8	0.210	1.42E-03	5.70E-04	2.53E-07	7.98E-07	3.03E-09
9	0.296	7.88E-04	3.51E-04	3.06E-07	8.36E-07	2.40E-09
10	0.416	5.00E-04	3.63E-04	5.78E-07	9.62E-07	4.89E-09
11	0.585	3.51E-04	3.61E-04	1.01E-06	1.15E-06	9.30E-09
12	0.821	2.84E-04	3.16E-04	1.54E-06	1.67E-06	1.32E-08
13	1.148	2.64E-04	2.85E-04	2.16E-06	2.51E-06	2.08E-08
14	1.642	2.23E-04	2.61E-04	3.21E-06	3.36E-06	4.16E-08
15	2.463	2.35E-04	2.41E-04	3.92E-06	5.28E-06	1.27E-07
16	3.816	5.06E-04	3.02E-04	5.78E-06	1.56E-05	4.59E-07
17	5.689	9.63E-04	5.98E-04	1.34E-05	3.62E-05	2.07E-06
18	8.533	5.65E-03	5.34E-03	2.11E-04	2.69E-04	1.92E-05

REMOTE SITE, NOISE

EX	EY	HX	HY	HZ
5.83E-04	6.21E-05	1.07E-06	7.72E-08	1.23E-07
2.26E-04	3.75E-04	4.43E-07	2.80E-08	8.80E-08
1.44E-04	-8.60E-05	3.49E-07	2.01E-08	7.38E-08
5.45E-05	5.66E-05	2.98E-07	1.74E-08	6.92E-08
3.11E-05	-8.49E-06	2.94E-07	1.44E-08	6.78E-08
2.77E-05	5.31E-05	2.67E-07	1.65E-08	6.53E-08
1.08E-05	4.54E-06	2.78E-07	1.59E-08	6.73E-08
1.37E-05	1.19E-05	2.73E-07	1.19E-08	6.92E-08
9.91E-06	4.59E-06	2.78E-07	1.65E-08	6.90E-08
1.20E-05	2.06E-05	2.35E-07	1.42E-08	7.54E-08
1.67E-05	1.57E-05	2.78E-07	6.21E-09	8.48E-08
2.27E-05	1.70E-05	3.28E-07	2.55E-08	9.21E-08
4.73E-05	4.93E-05	3.44E-07	-7.04E-09	1.27E-07
8.45E-05	9.88E-05	5.91E-07	2.42E-07	1.67E-07
2.21E-04	1.56E-04	8.66E-07	-3.48E-07	3.03E-07
8.91E-04	7.36E-04	1.01E-06	7.25E-07	4.48E-07
3.77E-03	3.37E-03	-5.57E-06	6.56E-06	1.82E-06

WOODWARD-CLYDE CONSULTANTS

SETUP 09 GLS-15 GLS. BAND 1. PASS B

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.046	38.0	6.1	-70.9	83.	110.0	0.129	46.6	3.05E+02	-70.6	2.09E+02	109.5
3	0.039	0.074	27.8	1.0	-59.8	74.	107.7	0.283	13.9	4.28E+02	-59.5	1.82E+02	103.1
4	0.054	0.062	33.4	15.	-73.0	61.	104.8	0.133	45.6	2.56E+02	-72.7	1.61E+02	104.7
5	0.076	0.037	27.0	24.	-75.3	84.	104.9	0.126	49.3	2.10E+02	-74.8	1.26E+02	104.2
6	0.106	0.065	28.8	14.	-75.4	51.	107.0	0.136	41.1	1.46E+02	-73.5	90.	104.6
7	0.149	0.141	26.4	15.	-79.9	63.	107.2	0.112	47.6	1.28E+02	-76.3	79.	104.3
8	0.210	0.092	26.6	3.4	-76.2	39.	103.9	0.135	41.7	1.03E+02	-75.6	62.	104.0
9	0.296	0.095	25.9	3.3	-71.4	29.	104.6	0.119	51.1	79.	-72.0	44.	104.6
10	0.416	0.114	22.6	6.2	-70.5	24.	103.7	0.113	46.8	62.	-73.5	36.	106.7
11	0.585	0.165	32.5	7.1	-70.8	18	104.5	0.138	46.6	50	-71.5	27.	106.7
12	0.821	0.171	41.2	6.5	-69.2	17.	106.6	0.154	42.8	43.	-68.0	23.	107.7
13	1.148	0.135	39.6	5.6	-68.0	14.	110.8	0.121	43.7	30.	-67.2	18.	111.5
14	1.642	0.166	41.6	3.7	-61.3	11.	115.0	0.142	49.3	32.	-59.9	15.	114.9
15	2.463	0.246	35.6	1.8	-57.5	7.1	126.1	0.181	41.6	29.	-54.3	14.	127.7
16	3.816	0.415	1.1	0.54	-65.6	3.5	142.8	0.162	173.6	22.	-62.1	20.	147.8
17	5.689	0.535	166.3	0.38	-55.1	2.6	151.0	0.062	151.4	14.	-56.2	27.	153.2
18	8.533	0.216	149.7	0.21	-42.3	4.3	159.8	0.046	152.1	25.	-37.4	32.	159.2

AVERAGE ROTATION ANGLE = 44.9 — AVERAGE ROTATION ANGLE = 63.8

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	0.028	0.163	108.2	3.13E+02	-58.2	15.	100.7	0.049	105.9	5.08E+02	-58.2	3.40E+02	100.9
3	0.039	0.102	107.9	3.05E+02	-68.3	43.	99.9	0.035	108.5	3.64E+02	-68.7	3.00E+02	100.3
4	0.054	0.036	106.8	2.35E+02	-73.3	80.	99.7	0.032	146.2	2.94E+02	-77.1	2.18E+02	103.6
5	0.076	0.036	197.7	90.	-79.2	1.77E+02	104.7	0.037	155.6	2.11E+02	-77.6	1.69E+02	103.1
6	0.106	0.024	195.3	52.	-76.4	1.08E+02	105.2	0.037	165.8	1.48E+02	-76.8	1.07E+02	105.5
7	0.149	0.068	201.5	54.	-75.6	99.	104.3	0.034	168.8	1.30E+02	-76.2	96.	104.7
8	0.210	0.049	195.9	21.	-75.3	73	106.0	0.032	166.6	99.	-75.7	72.	106.3
9	0.296	0.028	194.8	19.	-72.7	55.	108.0	0.026	167.5	77.	-72.9	55.	108.3
10	0.416	0.027	196.4	24.	-71.2	42.	109.6	0.037	162.9	61.	-71.6	42.	110.1
11	0.585	0.044	208.0	26	-70.6	35.	112.4	0.022	167.6	49.	-69.9	36.	111.8
12	0.821	0.043	130.8	30.	-64.8	22.	116.2	0.039	158.2	41.	-65.0	28.	116.5
13	1.148	0.019	146.5	25.	-60.7	21	122.1	0.024	162.0	36.	-61.1	26.	122.6
14	1.642	0.030	144.3	24.	-54.5	19	128.1	0.028	153.1	43.	-54.7	25.	128.3
15	2.463	0.035	157.7	24.	-49.7	19.	136.4	0.073	160.4	69	-49.3	30.	135.8
16	3.816	0.014	156.1	34.	-41.4	24.	143.1	0.097	156.7	1.29E+02	-41.5	30.	143.3
17	5.689	0.051	160.4	48.	-15.7	30.	150.1	0.254	153.5	8.87E+02	-12.3	42.	140.4
18	8.533	0.128	208.5	49.	-27.6	30.	137.1	0.103	146.1	9.85E+02	-40.4	45.	150.5

AVERAGE ROTATION ANGLE = 345.7 — AVERAGE ROTATION ANGLE = 333.3

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 09 GLS-15 GLS, BAND 1, PASS B

PREDICTED COHERENCIES

WINDOW	PERIOD	LOCAL SITE EXCOH	LOCAL SITE EYCOH	LOCAL SITE HZCOH	REMOTE SITE EXCOH	REMOTE SITE EYCOH	REMOTE SITE HZCOH
2	0.028	0.38	0.77	0.04	0.88	0.48	0.05
3	0.037	0.25	0.75	0.42	0.96	0.61	0.10
4	0.054	0.50	0.77	0.08	0.98	0.75	0.16
5	0.076	0.60	0.88	0.08	0.99	0.82	0.21
6	0.106	0.57	0.85	0.06	0.99	0.78	0.17
7	0.147	0.63	0.92	0.07	0.99	0.83	0.26
8	0.210	0.47	0.86	0.05	0.99	0.69	0.15
9	0.296	0.50	0.86	0.06	0.98	0.71	0.19
10	0.416	0.60	0.87	0.03	0.98	0.81	0.23
11	0.585	0.63	0.89	0.06	0.98	0.87	0.33
12	0.821	0.64	0.92	0.06	0.97	0.89	0.34
13	1.148	0.67	0.94	0.14	0.95	0.90	0.43
14	1.642	0.59	0.92	0.15	0.91	0.87	0.50
15	2.463	0.49	0.84	0.24	0.84	0.78	0.61
16	3.816	0.42	0.58	0.17	0.84	0.75	0.77
17	5.689	0.48	0.56	0.18	0.71	0.56	0.85
18	8.533	0.57	0.44	0.20	0.76	0.77	0.95

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
0.37	0.69	0.78	0.86	0.30	0.08	0.00	0.37	0.22
0.33	0.71	0.81	0.85	0.41	0.06	0.00	0.46	0.22
0.41	0.67	0.86	0.80	0.40	0.14	0.03	0.52	0.42
0.36	0.71	0.88	0.79	0.51	0.17	0.02	0.65	0.52
0.41	0.70	0.89	0.76	0.52	0.16	0.02	0.58	0.51
0.36	0.80	0.88	0.86	0.68	0.17	0.01	0.74	0.55
0.06	0.83	0.87	0.86	0.65	0.03	0.01	0.62	0.44
0.14	0.81	0.88	0.82	0.63	0.06	0.02	0.63	0.44
0.38	0.74	0.90	0.74	0.57	0.18	0.03	0.60	0.54
0.54	0.64	0.86	0.79	0.48	0.28	0.07	0.73	0.56
0.54	0.60	0.81	0.81	0.50	0.29	0.09	0.79	0.57
0.53	0.60	0.79	0.80	0.55	0.30	0.05	0.83	0.58
0.50	0.56	0.72	0.75	0.50	0.29	0.13	0.84	0.52
0.36	0.57	0.70	0.65	0.55	0.15	0.22	0.79	0.49
0.10	0.73	0.81	0.54	0.48	0.08	0.19	0.51	0.50
0.12	0.80	0.90	0.35	0.46	0.15	0.26	0.38	0.47
0.29	0.83	0.96	0.14	0.38	0.31	0.14	0.10	0.60

WOODWARD-CLYDE CONSULTANTS GLASS MOUNTAIN, CA. RESULTS FROM CROSSPOWER FILE: 0915S5.ACA
RECORDING COMPLETED: 05:53:52 10-Sep-81

SETUP 09 GLS-15 GLS, BAND 5, PASS A

REFERENCE AZIMUTHS: SITE 1 0.0 SITE 2 0.0
SAMPLING FREQUENCY 1.000 HZ, NUMBER OF POINTS PER FFT SEGMENT 1024 AVERAGE OF 22 DATA SEGMENTS, 1024.00 SEC EACH

REFERENCED IMPEDANCE ESTIMATES (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	42.3 (8.2)	18.1 (1.9)	-53.0 (4.5)	7.82 (0.60)	131.4 (4.0)
3	4.635	68.3 (6.0)	19.8 (1.9)	-39.2 (2.6)	10.8 (0.79)	132.3 (2.1)
4	6.486	58.7 (8.9)	22.3 (2.2)	-34.6 (2.7)	11.5 (1.2)	138.7 (3.4)
5	9.062	60.3 (5.4)	25.7 (1.1)	-28.4 (1.3)	14.7 (0.80)	150.1 (1.6)
6	12.648	58.4 (1.8)	30.6 (0.66)	-32.6 (0.6)	15.9 (0.34)	145.0 (0.6)
7	17.561	59.5 (1.4)	37.6 (0.55)	-32.4 (0.4)	18.0 (0.33)	138.4 (0.6)
8	24.381	67.2 (1.1)	43.0 (0.45)	-33.0 (0.3)	20.8 (0.30)	137.6 (0.4)
9	33.945	60.6 (1.2)	51.0 (1.1)	-38.0 (0.6)	23.1 (0.33)	132.7 (0.4)
10	46.984	58.4 (1.3)	46.1 (1.4)	-43.3 (0.8)	20.4 (0.28)	128.8 (0.4)
11	64.506	56.2 (1.7)	53.4 (2.9)	-49.9 (1.5)	18.2 (0.36)	125.5 (0.6)
12	89.811	58.7 (1.8)	52.0 (2.5)	-54.4 (1.4)	16.7 (0.33)	123.4 (0.7)
13	129.012	57.4 (1.4)	40.4 (1.1)	-53.3 (0.8)	12.8 (0.25)	121.4 (0.6)
14	186.956	58.2 (1.3)	36.0 (1.0)	-56.8 (0.8)	10.7 (0.23)	124.7 (0.6)
15	256.000	49.9 (1.0)	30.4 (0.84)	-51.5 (0.8)	10.4 (0.23)	127.7 (0.6)
16	341.333	55.3 (1.2)	32.0 (1.2)	-47.0 (1.1)	9.91 (0.35)	131.5 (1.0)
17	512.000	55.7 (1.3)	30.7 (1.4)	-41.8 (1.3)	8.46 (0.44)	135.9 (1.5)

AVERAGE ROTATION ANGLE ON FILE = 57.8

REMOTE SITE

WINDOW	PERIOD	ROTATION ANGLE	XY ROTATED APP RES	XY PHASE(Z)	YX ROTATED APP RES	YX PHASE(Z)
2	3.311	130.4 (6.7)	24.5 (1.3)	-41.0 (1.3)	19.1 (2.0)	152.6 (2.9)
3	4.635	93.0 (6.0)	26.3 (1.2)	-41.1 (1.5)	38.4 (3.9)	151.4 (2.7)
4	6.486	75.3 (7.5)	30.2 (1.3)	-34.2 (1.1)	44.0 (4.5)	153.9 (3.2)
5	9.062	72.2 (4.3)	35.7 (0.31)	-31.2 (0.3)	44.7 (1.5)	151.0 (1.0)
6	12.648	88.5 (1.2)	40.5 (0.17)	-33.6 (0.1)	50.0 (0.37)	150.4 (0.2)
7	17.561	55.4 (1.3)	48.1 (0.23)	-31.8 (0.2)	59.2 (0.58)	142.1 (0.3)
8	24.381	50.2 (1.0)	54.2 (0.25)	-33.9 (0.1)	69.1 (0.64)	137.7 (0.3)
9	33.945	41.6 (1.6)	62.6 (0.70)	-38.3 (0.3)	68.5 (0.76)	132.8 (0.3)
10	46.984	29.1 (1.2)	58.1 (0.81)	-35.2 (0.4)	58.9 (0.63)	129.3 (0.3)
11	64.506	24.5 (1.6)	70.9 (1.4)	-41.2 (0.5)	53.2 (0.70)	125.3 (0.4)
12	89.811	16.3 (3.2)	61.8 (2.2)	-36.6 (1.0)	45.8 (1.0)	122.7 (0.4)
13	129.012	13.7 (2.6)	62.6 (2.3)	-36.9 (1.1)	37.5 (0.53)	121.6 (0.4)
14	186.956	15.2 (1.8)	86.8 (5.8)	-30.2 (2.0)	31.3 (0.58)	121.8 (0.5)
15	256.000	17.1 (1.9)	103. (8.5)	-38.1 (2.4)	26.9 (0.50)	126.3 (0.6)
16	341.333	23.1 (2.1)	67.5 (4.1)	-36.0 (1.8)	26.6 (1.0)	130.2 (1.1)
17	512.000	25.6 (3.7)	43.8 (2.6)	-33.7 (1.8)	25.3 (1.1)	135.0 (1.2)

AVERAGE ROTATION ANGLE ON FILE = 228.2
LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 09 GLS-15 GLS, BAND 5, PASS A

REFERENCED TIPPER ESTIMATES, SKEWNESS AND ELLIPTICITY (PROBABLE ERRORS, 50% CONFIDENCE LEVEL)

LOCAL SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.074 (0.035)	124.7 (57.9)	-119.5 (28.8)	0.024 (0.061)	0.132 (0.032)	0.660 (0.164)
3	4.635	0.092 (0.017)	86.2 (19.6)	-116.9 (11.0)	0.024 (0.028)	0.035 (0.033)	1.507 (0.676)
4	6.486	0.115 (0.026)	126.9 (20.4)	-153.8 (13.0)	0.050 (0.025)	0.141 (0.049)	0.794 (0.444)
5	9.062	0.157 (0.012)	91.3 (9.9)	-156.7 (4.3)	0.058 (0.021)	0.044 (0.023)	0.863 (0.308)
6	12.648	0.092 (0.009)	109.5 (20.2)	151.9 (7.4)	0.055 (0.010)	0.121 (0.010)	0.752 (0.098)
7	17.561	0.117 (0.008)	103.7 (9.4)	-152.3 (4.0)	0.061 (0.009)	0.131 (0.009)	0.821 (0.077)
8	24.381	0.155 (0.005)	99.7 (2.3)	175.6 (2.0)	0.020 (0.006)	0.076 (0.008)	1.390 (0.109)
9	33.945	0.136 (0.006)	76.7 (4.1)	154.6 (2.4)	0.031 (0.009)	0.114 (0.008)	0.878 (0.075)
10	46.984	0.112 (0.008)	112.0 (4.0)	173.0 (4.3)	0.002 (0.008)	0.128 (0.009)	0.749 (0.070)
11	64.506	0.112 (0.015)	79.9 (5.4)	155.1 (7.6)	0.002 (0.010)	0.137 (0.015)	0.636 (0.081)
12	89.811	0.087 (0.015)	93.3 (6.8)	174.4 (9.7)	0.019 (0.009)	0.155 (0.017)	0.794 (0.089)
13	129.012	0.088 (0.013)	110.2 (5.6)	-170.4 (8.6)	0.020 (0.007)	0.139 (0.014)	0.708 (0.068)
14	186.956	0.123 (0.007)	105.1 (3.5)	-174.8 (3.1)	0.029 (0.007)	0.146 (0.013)	0.751 (0.066)
15	256.000	0.143 (0.009)	104.5 (4.1)	177.2 (3.6)	0.022 (0.010)	0.215 (0.009)	0.372 (0.039)
16	341.333	0.116 (0.005)	118.5 (3.3)	-174.4 (2.6)	0.003 (0.007)	0.200 (0.013)	0.594 (0.058)
17	512.000	0.127 (0.005)	144.9 (2.8)	175.2 (2.5)	0.009 (0.006)	0.243 (0.018)	0.611 (0.062)

AVERAGE TIPPER STRIKE ON FILE = 105.4

REMOTE SITE

WINDOW	PERIOD	MAGNITUDE	STRIKE	PHASE	MIN TX	SKEWNESS	ELLIPTICITY
2	3.311	0.194 (0.007)	-105.8 (2.4)	54.2 (2.2)	0.023 (0.008)	0.024 (0.026)	1.589 (0.677)
3	4.635	0.209 (0.008)	-105.0 (2.6)	44.3 (2.2)	0.008 (0.009)	0.071 (0.022)	0.437 (0.190)
4	6.486	0.218 (0.006)	-113.4 (3.4)	37.1 (1.5)	0.002 (0.013)	0.065 (0.022)	1.124 (0.444)
5	9.062	0.269 (0.002)	-94.0 (1.1)	16.0 (0.4)	0.026 (0.005)	0.069 (0.007)	1.340 (0.331)
6	12.648	0.271 (0.001)	-94.6 (0.5)	4.8 (0.3)	0.015 (0.002)	0.036 (0.002)	0.619 (0.038)
7	17.561	0.276 (0.001)	-106.5 (0.5)	-5.6 (0.2)	0.025 (0.002)	0.046 (0.003)	3.556 (0.509)
8	24.381	0.314 (0.002)	-96.1 (0.4)	-9.5 (0.3)	0.011 (0.002)	0.031 (0.003)	5.871 (1.265)
9	33.945	0.312 (0.002)	-88.2 (0.7)	-20.4 (0.5)	0.007 (0.004)	0.024 (0.003)	1.664 (0.167)
10	46.984	0.253 (0.002)	-92.5 (0.5)	-29.4 (0.5)	0.001 (0.002)	0.039 (0.005)	0.810 (0.062)
11	64.506	0.181 (0.003)	-101.9 (0.7)	-29.2 (1.0)	0.027 (0.002)	0.026 (0.008)	0.555 (0.074)
12	89.811	0.140 (0.003)	-103.5 (1.4)	-26.3 (1.4)	0.045 (0.003)	0.059 (0.019)	0.409 (0.102)
13	129.012	0.139 (0.004)	-100.8 (2.6)	-22.1 (1.5)	0.066 (0.004)	0.074 (0.020)	0.202 (0.089)
14	186.956	0.128 (0.004)	-103.8 (4.7)	-24.7 (2.1)	0.067 (0.005)	0.104 (0.019)	0.359 (0.057)
15	256.000	0.156 (0.005)	-55.8 (5.0)	8.1 (2.9)	0.085 (0.006)	0.044 (0.023)	0.293 (0.070)
16	341.333	0.163 (0.005)	-65.2 (3.3)	-0.8 (2.0)	0.068 (0.006)	0.029 (0.019)	0.522 (0.086)
17	512.000	0.179 (0.006)	-41.4 (2.3)	2.2 (1.8)	0.035 (0.007)	0.072 (0.016)	0.705 (0.139)

AVERAGE TIPPER STRIKE ON FILE = -91.8

WOODWARD-CLYDE CONSULTANTS

SETUP 09 GLS-15 GLS, BAND 5, PASS A

SPECTRAL SIGNAL AND NOISE POWER DENSITIES

LOCAL SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	1.34E-04	1.66E-04	1.21E-05	5.25E-06	1.79E-07
3	4.635	2.89E-04	4.17E-04	2.83E-05	1.38E-05	3.37E-06
4	6.486	1.40E-03	9.55E-04	6.67E-05	8.96E-05	1.29E-05
5	9.062	1.55E-02	8.57E-03	7.87E-04	1.09E-03	1.02E-04
6	12.648	1.53E-01	9.20E-02	9.95E-03	1.36E-02	1.97E-04
7	17.561	1.70E+00	6.65E-01	7.94E-02	1.62E-01	2.70E-03
8	24.381	9.97E+00	2.40E+00	3.09E-01	1.18E+00	1.79E-02
9	33.945	5.55E+00	4.32E+00	9.57E-01	7.93E-01	1.84E-02
10	46.984	5.74E+00	2.40E+00	1.10E+00	1.21E+00	1.48E-02
11	64.506	2.90E+00	1.01E+00	8.15E-01	7.90E-01	9.00E-03
12	89.811	5.63E+00	1.01E+00	1.22E+00	2.27E+00	1.18E-02
13	129.012	2.24E+01	2.79E+00	4.66E+00	1.59E+01	5.58E-02
14	186.956	2.60E+01	8.02E+00	1.75E+01	2.85E+01	3.14E-01
15	256.000	4.94E+01	2.26E+01	1.00E+02	8.17E+01	1.85E+00
16	341.333	9.21E+01	5.74E+01	3.59E+02	2.10E+02	4.55E+00
17	512.000	2.40E+02	2.66E+02	1.96E+03	9.39E+02	2.43E+01

LOCAL SITE, NOISE

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	4.48E-04	2.60E-04	2.67E-05	3.59E-05	6.29E-05
3	4.635	3.15E-04	2.07E-04	7.59E-05	1.44E-04	3.67E-05
4	6.486	3.13E-04	2.45E-04	2.64E-04	6.78E-04	1.10E-04
5	9.062	4.81E-04	3.21E-04	6.97E-04	1.96E-03	4.93E-04
6	12.648	9.63E-04	8.69E-04	1.58E-03	4.44E-03	1.82E-03
7	17.561	7.18E-03	3.14E-03	2.71E-03	8.47E-03	4.38E-03
8	24.381	2.02E-02	9.97E-03	3.66E-03	1.70E-02	6.74E-03
9	33.945	1.02E-02	1.02E-02	5.45E-03	3.30E-02	1.20E-02
10	46.984	7.09E-03	4.95E-03	1.11E-02	6.36E-02	2.07E-02
11	64.506	1.60E-02	9.70E-03	2.38E-02	1.24E-01	3.74E-02
12	89.811	3.16E-02	3.69E-03	3.98E-02	2.26E-01	6.77E-02
13	129.012	9.13E-02	1.46E-02	8.26E-02	4.22E-01	1.96E-01
14	186.956	2.33E-01	3.41E-02	1.38E-01	7.58E-01	1.70E-01
15	256.000	1.10E-01	1.28E-01	8.06E-01	1.04E+00	7.43E-01
16	341.333	-2.89E-01	1.38E+00	2.01E+00	6.50E+00	7.74E-01
17	512.000	3.86E+00	5.82E+00	5.21E+00	1.55E+01	2.24E+00

REMOTE SITE, SIGNAL

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	3.15E-04	1.47E-04	4.45E-06	9.69E-06	3.03E-07
3	4.635	6.37E-04	3.40E-04	8.15E-06	2.32E-05	8.86E-07
4	6.486	1.94E-03	1.15E-03	4.55E-05	7.92E-05	4.66E-06
5	9.062	1.94E-02	1.07E-02	5.21E-04	9.23E-04	7.75E-05
6	12.648	1.81E-01	1.31E-01	7.23E-03	1.11E-02	9.43E-04
7	17.561	1.58E+00	1.22E+00	8.16E-02	1.11E-01	1.16E-02
8	24.381	6.83E+00	8.28E+00	6.93E-01	6.02E-01	8.56E-02
9	33.945	7.60E+00	4.87E+00	4.45E-01	8.77E-01	8.76E-02
10	46.984	3.71E+00	8.84E+00	1.25E+00	7.14E-01	5.41E-02
11	64.506	1.38E+00	5.23E+00	9.37E-01	3.77E-01	1.90E-02
12	89.811	1.70E+00	8.77E+00	2.60E+00	6.37E-01	2.96E-02
13	129.012	7.26E+00	2.94E+01	1.23E+01	4.39E+00	1.78E-01
14	186.956	1.64E+01	2.95E+01	1.16E+01	1.70E+01	2.22E-01
15	256.000	3.20E+01	8.48E+01	4.34E+01	5.95E+01	1.32E+00
16	341.333	7.64E+01	1.67E+02	1.87E+02	1.98E+02	6.73E+00
17	512.000	4.18E+02	2.52E+02	6.50E+02	1.61E+03	4.84E+01

REMOTE SITE, NOISE

WINDOW	PERIOD	EX	EY	HX	HY	HZ
2	3.311	4.11E-04	2.95E-04	6.10E-06	1.34E-07	5.07E-07
3	4.635	2.71E-04	1.79E-04	9.86E-06	7.15E-07	6.67E-07
4	6.486	3.00E-04	1.80E-04	2.09E-05	2.12E-06	1.15E-06
5	9.062	5.00E-04	3.92E-04	5.05E-05	2.69E-06	4.71E-06
6	12.648	1.32E-03	1.55E-03	4.29E-05	1.16E-05	4.57E-05
7	17.561	6.65E-03	6.89E-03	5.00E-04	-8.27E-05	1.48E-04
8	24.381	2.10E-02	1.91E-02	2.05E-03	-2.15E-04	5.87E-04
9	33.945	1.78E-02	1.26E-02	6.20E-03	-1.04E-04	1.82E-03
10	46.984	8.97E-03	1.05E-02	1.43E-02	2.98E-07	1.10E-03
11	64.506	1.01E-02	2.94E-02	1.64E-02	9.71E-04	7.46E-04
12	89.811	1.71E-02	4.75E-02	2.10E-01	2.48E-03	2.14E-03
13	129.012	3.35E-02	1.38E-01	8.53E-01	6.16E-03	9.72E-03
14	186.956	8.64E-02	4.62E-01	2.19E+00	2.57E-02	3.77E-02
15	256.000	3.01E-01	-2.28E-01	6.63E+00	-4.98E-02	7.94E-02
16	341.333	1.87E+00	6.33E-01	1.28E+01	-1.23E-01	4.22E-01
17	512.000	9.63E+00	5.26E+00	2.97E+01	-7.08E-01	2.35E+00

WOODWARD-CLYDE CONSULTANTS

SETUP 09 GLS-15 GLS, BAND 5, PASS A

LEAST SQUARES IMPEDANCE PARAMETERS — LEAST SQUARES ADMITTANCE PARAMETERS

LOCAL SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.127	49.6	0.25	-44.7	1.1	126.6	0.181	33.1	3.98E+02	-47.5	52.	128.4
3	4.635	0.232	31.7	9.57E-02	-31.7	1.1	135.4	0.082	41.6	91.	-34.8	28.	135.7
4	6.486	0.353	97.6	1.0	-41.0	6.99E-02	159.0	0.177	106.1	25.	-32.9	43.	143.2
5	9.062	0.262	93.2	8.2	-25.8	0.59	144.6	0.041	59.0	27.	-27.5	17.	149.8
6	12.648	0.040	81.5	20.	-32.0	8.4	144.8	0.121	58.3	31.	-32.6	16.	145.0
7	17.561	0.123	71.8	32.	-29.8	14.	136.9	0.132	59.2	38.	-32.5	18.	138.9
8	24.381	0.071	70.8	41.	-31.9	19.	136.6	0.073	67.7	43.	-33.0	21.	137.4
9	33.945	0.075	71.7	42.	-36.6	21.	132.1	0.111	60.8	51.	-38.0	23.	132.9
10	46.984	0.142	64.9	36.	-41.3	19.	127.5	0.129	58.7	46.	-43.4	21.	128.5
11	64.506	0.173	51.4	31.	-48.7	16.	126.5	0.134	56.9	55.	-49.5	18.	125.6
12	89.811	0.187	52.2	37.	-53.1	16.	122.3	0.156	58.8	53.	-54.4	17.	123.3
13	129.012	0.150	55.9	37.	-53.1	12.	121.3	0.142	57.3	41.	-53.4	13.	121.5
14	186.956	0.154	57.6	34.	-56.6	11.	124.7	0.155	57.1	36.	-56.5	11.	124.6
15	256.000	0.217	50.2	30.	-51.7	10.	127.5	0.216	50.4	31.	-51.7	10.	127.6
16	341.333	0.200	56.0	30.	-47.4	9.8	131.2	0.200	56.6	32.	-47.3	10.	131.1
17	512.000	0.238	56.7	29.	-41.8	8.4	135.6	0.242	56.1	32.	-41.7	8.9	135.0

AVERAGE ROTATION ANGLE = 63.3 — AVERAGE ROTATION ANGLE = 58.6

REMOTE SITE

WINDOW	PERIOD	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)	SKEWNESS	ROT. ANGLE	RHOXY	PHASE(ZXY)	RHOYX	PHASE(ZYX)
2	3.311	0.029	102.4	21.	-38.4	4.2	134.1	0.031	89.1	1.12E+02	-38.2	1.86E+02	133.7
3	4.635	0.055	105.3	24.	-36.9	7.7	149.0	0.044	104.2	52.	-36.9	90.	149.2
4	6.486	0.084	92.9	30.	-34.3	12.	150.1	0.047	61.6	37.	-33.0	70.	148.5
5	9.062	0.033	108.4	38.	-30.2	32.	149.5	0.048	68.7	37.	-30.9	51.	150.2
6	12.648	0.033	86.2	40.	-33.4	50.	150.1	0.034	84.8	41.	-33.3	52.	150.0
7	17.561	0.040	49.9	48.	-31.2	57.	141.4	0.045	55.4	49.	-31.7	60.	141.9
8	24.381	0.033	49.5	54.	-33.6	68.	137.4	0.029	50.7	54.	-33.8	71.	137.6
9	33.945	0.023	40.9	60.	-37.5	66.	132.1	0.023	42.5	63.	-38.2	69.	132.8
10	46.984	0.043	30.9	56.	-34.5	58.	128.8	0.038	28.6	59.	-35.2	59.	129.4
11	64.506	0.023	26.3	68.	-41.2	53.	125.4	0.035	23.2	72.	-41.7	55.	125.8
12	89.811	0.048	18.2	53.	-36.6	45.	122.9	0.068	14.7	62.	-36.6	47.	122.9
13	129.012	0.050	20.4	53.	-37.3	36.	121.9	0.067	14.4	63.	-37.1	38.	121.6
14	186.956	0.134	13.1	59.	-30.5	32.	121.6	0.101	15.8	89.	-30.7	32.	121.9
15	256.000	0.057	15.9	76.	-37.6	27.	126.1	0.050	17.0	1.02E+02	-37.7	27.	126.3
16	341.333	0.027	24.0	58.	-34.6	27.	129.9	0.028	23.0	67.	-34.9	28.	130.2
17	512.000	0.071	26.3	39.	-33.3	25.	134.9	0.074	25.3	46.	-33.4	27.	134.9

AVERAGE ROTATION ANGLE = 230.7 — AVERAGE ROTATION ANGLE = 224.9

LISTING CORRECTED TO 0 THRU 180 DEGREE RANGE

WOODWARD-CLYDE CONSULTANTS

SETUP 09 GLS-15 GLS, BAND 5, PASS A

PREDICTED COHERENCIES

		LOCAL SITE			REMOTE SITE		
WINDOW	PERIOD	EXCOH	EYCOH	HZCOH	EXCOH	EYCOH	HZCOH
2	3.311	0.17	0.33	0.25	0.65	0.39	0.54
3	4.635	0.21	0.41	0.51	0.82	0.54	0.72
4	6.486	0.30	0.43	0.70	0.92	0.68	0.86
5	9.062	0.60	0.74	0.54	0.99	0.91	0.97
6	12.648	0.86	0.93	0.41	1.00	0.99	0.98
7	17.561	0.97	0.98	0.63	1.00	0.99	0.99
8	24.381	0.99	0.99	0.86	1.00	0.99	1.00
9	33.945	0.98	0.99	0.79	1.00	0.99	0.99
10	46.984	0.97	0.99	0.67	1.00	0.99	0.99
11	64.506	0.92	0.96	0.48	1.00	0.99	0.97
12	89.811	0.95	0.95	0.42	0.99	0.96	0.96
13	129.012	0.98	0.98	0.49	1.00	0.96	0.96
14	186.956	0.98	0.99	0.81	1.00	0.91	0.90
15	256.000	0.99	0.99	0.85	0.99	0.93	0.95
16	341.333	0.99	0.99	0.92	0.99	0.96	0.96
17	512.000	0.98	0.99	0.95	0.99	0.97	0.97

LOCAL CHANNEL - REMOTE CHANNEL COHERENCIES
(WITH RESPECT TO LOCAL UNROTATED AXES)

WINDOW	EXLEXR	EYLEYR	EXLEYR	EYLEXR	HXLHXR	HYLHYR	HZLHZR	HXLHYR	HYLHXR
2	0.08	0.36	0.25	0.30	0.38	0.02	0.04	0.35	0.30
3	0.06	0.55	0.47	0.55	0.38	0.03	0.06	0.38	0.23
4	0.28	0.73	0.81	0.47	0.33	0.11	0.07	0.26	0.32
5	0.31	0.86	0.96	0.47	0.60	0.22	0.23	0.35	0.57
6	0.31	0.82	0.96	0.52	0.65	0.27	0.23	0.63	0.84
7	0.77	0.93	0.99	0.70	0.86	0.71	0.60	0.69	0.97
8	0.88	0.94	1.00	0.74	0.87	0.88	0.83	0.73	0.99
9	0.82	0.94	0.98	0.89	0.91	0.78	0.76	0.91	0.96
10	0.88	0.81	0.98	0.86	0.82	0.83	0.58	0.90	0.95
11	0.84	0.53	0.96	0.74	0.62	0.76	0.40	0.89	0.87
12	0.86	0.32	0.98	0.48	0.41	0.77	0.31	0.83	0.90
13	0.88	0.58	0.99	0.25	0.40	0.80	0.43	0.73	0.94
14	0.69	0.73	0.98	0.33	0.50	0.44	0.72	0.80	0.87
15	0.68	0.47	0.95	0.62	0.47	0.39	0.77	0.92	0.80
16	0.63	0.50	0.94	0.72	0.56	0.44	0.90	0.93	0.81
17	0.43	0.85	0.95	0.79	0.82	0.37	0.95	0.92	0.92

APPENDIX VII. PLOT SETUP SUMMARIES

APPENDIX VII
PLOT SETUP SUMMARIES

The plot files are set up from the computer data listings based on several operator decisions for each station. A setup description from these plot files includes a header consisting of identification and editing decisions made by operator, a listing of curve fit resistivities, and a listing of inversion data:

The five-cycle period range to be displayed may be shifted. Points may be deleted (xy or yx set, or both) from each band for plotting, either because of unreasonable values or errors, or because they could force an unrealistic polynomial curve fit. The principal axes from band to band are arbitrary and xy data may have to be switched with yx data when combining two or more bands. When this is done, rotation will be shifted by a $\pm 90°$ ambiguity, and phases will be switched and shifted by 180°. Tipper strike and phase may also need to be shifted from band to band by their 180° ambiguity to be continuous. The total rotation angle and/or tipper strike angle across all bands may again be shifted by 180°, to allow values to fall within a plot range of -180° to +180°.

A summary of these operator decisions is printed out as a header to each plot set. From the given cross-power input files for each band, an output plot data file is created for the base station and the remote station. Each band/pass is described and number of points deleted is shown, then the deleted points, if any, are listed by band ID, set, and window (e.g., 22.14 means band 2, set 2 or yx set, window 14 was deleted). If xy and yx sets were switched, a notification is printed of which band, and which direction the rotation ambiguity was shifted ($\pm$ 90°). A notification will also be printed for Tipper strike and phase shifts within bands, or for overall plot range shifts. Finally, line directions and azimuth correction (usually so true north reference) are given.

When the apparent resistivity plot is run, it puts a copy of the curve fit values back into the plot file. These values for the xy and yx sets are listed band by band with the associated periods. A zero implies no resistivity value exists at that point, either due to a deletion or because there were less points in a given band. A period (window) may also be skipped entirely if both resistivity points were deleted. Therefore, this list gives curve fit values only at the periods from which the curve was defined, even though the fit values are continuous.

When the Bostick inversion (magnitude or phase) is run, it puts a copy of the inverted 'true' resistivities and 'penetration' depths back into the plot file. These values for the xy and yx sets are listed with the associated periods. The data have been inverted from the fit apparent resistivity curve and are continuous. A zero means no data exists which appears to represent these depths.

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FITS XY,YX= 8 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT COMMENT= PLOT FILE=010601GLS CROSSPOWER INPUT FILES=0106C2BCV 0106C3EDB 0106C5DBZ

GLASS MOUNTAIN, CA. STA. 01 GLS, USED STA. 06 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=07-OCT-81 TIME=00:00:00
1...BAND ID= 2, PASS B, WITH 48 STACKED SEGMENTS.--XY SET HAS 11 POINTS, PLUS 1 DELETED.--YX SET HAS 12 POINTS, PLUS 0 DELETED.
2...BAND ID= 3, PASS E, WITH 54 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS D, WITH 26 STACKED SEGMENTS.--XY SET HAS 14 POINTS, PLUS 2 DELETED.--YX SET HAS 14 POINTS, PLUS 2 DELETED.

ROTATION INDICATOR IROTAT = -2 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 21.14,52.03,51.05,53.15,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=350, EY= 80, HX=350, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-350 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	1.42E+02	7.32E+01	4.64E-01	2.67E+01	1.39E+01	3.31E+00	1.96E+01	1.36E+01			
3.26E-02	1.05E+02	7.05E+01	6.49E-01	2.17E+01	1.22E+01	4.64E+00	2.33E+01	0.00E-01			
4.56E-02	9.11E+01	6.28E+01	9.06E-01	1.86E+01	1.13E+01	6.49E+00	2.86E+01	1.86E+01			
6.39E-02	8.29E+01	5.26E+01	1.26E+00	1.70E+01	1.10E+01	9.06E+00	0.00E-01	2.20E+01			
8.95E-02	7.45E+01	4.21E+01	1.76E+00	1.68E+01	1.14E+01	1.26E+01	4.37E+01	2.59E+01			
1.26E-01	6.41E+01	3.28E+01	2.44E+00	1.77E+01	1.22E+01	1.76E+01	5.19E+01	2.98E+01			
1.77E-01	5.25E+01	2.54E+01	3.39E+00	1.99E+01	1.37E+01	2.44E+01	5.84E+01	3.33E+01			
2.50E-01	4.15E+01	1.99E+01	4.70E+00	2.34E+01	1.58E+01	3.39E+01	6.15E+01	3.56E+01			
3.51E-01	3.24E+01	1.61E+01	6.45E+00	2.85E+01	1.85E+01	4.70E+01	6.00E+01	3.63E+01			
4.93E-01	2.57E+01	1.35E+01	8.98E+00	3.53E+01	2.19E+01	6.45E+01	5.46E+01	3.51E+01			
6.89E-01	2.11E+01	1.20E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	4.65E+01	3.22E+01			
9.85E-01	0.00E-01	1.12E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	3.74E+01	2.76E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	3.00E+01	2.25E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	2.66E+01	1.56E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	3.56E+01	1.27E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
6.55E-01	1.07E+02	5.34E-01	7.09E+01	1.37E+00	7.01E+00	1.04E+00	6.88E+00	1.00E+01	1.43E+02	7.63E+00	6.83E+01
7.13E-01	4.23E+01	5.93E-01	2.71E+01	1.50E+00	9.29E+00	1.17E+00	8.85E+00	1.25E+01	1.11E+02	9.44E+00	6.13E+01
7.96E-01	4.65E+01	6.42E-01	1.54E+01	1.69E+00	1.31E+01	1.36E+00	1.18E+01	1.51E+01	7.87E+01	1.15E+01	5.11E+01
8.88E-01	3.77E+01	6.80E-01	8.90E+00	1.96E+00	1.94E+01	1.62E+00	1.61E+01	1.78E+01	5.15E+01	1.37E+01	3.97E+01
9.76E-01	2.54E+01	7.11E-01	5.63E+00	2.36E+00	3.06E+01	1.96E+00	2.25E+01	2.01E+01	3.12E+01	1.59E+01	2.90E+01
1.05E+00	1.55E+01	7.39E-01	4.23E+00	2.91E+00	4.99E+01	2.42E+00	3.13E+01	2.21E+01	1.80E+01	1.80E+01	1.99E+01
1.11E+00	9.32E+00	7.70E-01	3.86E+00	3.68E+00	8.15E+01	3.02E+00	4.26E+01	2.37E+01	1.12E+01	2.00E+01	1.30E+01
1.16E+00	6.33E+00	8.09E-01	4.05E+00	4.72E+00	1.23E+02	3.81E+00	5.49E+01	2.51E+01	9.03E+00	2.17E+01	8.39E+00
1.22E+00	5.40E+00	8.61E-01	4.62E+00	6.10E+00	1.57E+02	4.82E+00	6.50E+01	2.69E+01	1.09E+01	2.32E+01	5.65E+00
1.28E+00	5.74E+00	9.34E-01	5.53E+00	7.87E+00	1.64E+02	6.09E+00	6.98E+01	2.97E+01	1.26E+01	2.47E+01	4.29E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=021402GLS CROSSPOWERS INPUT FILES=0214C2BDK 0214S3CCG 0214C5EBN

GLASS MOUNTAIN, CA. STA. 02 GLS, USED STA. 14 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 2, PASS B, WITH 63 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 0 DELETED.--YX SET HAS 11 POINTS, PLUS 1 DELETED.
2...BAND ID= 3, PASS C, WITH 132 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS E, WITH 14 STACKED SEGMENTS.--XY SET HAS 15 POINTS, PLUS 1 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 22.14,51.17,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=140, EY=230, HX=140, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-140 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	1.47E+02	1.62E+02	4.64E-01	1.84E+01	2.99E+01	3.31E+00	1.65E+01	1.61E+01			
3.26E-02	1.03E+02	1.61E+02	6.49E-01	1.45E+01	2.49E+01	4.64E+00	2.13E+01	1.62E+01			
4.56E-02	8.90E+01	1.43E+02	9.06E-01	1.24E+01	2.13E+01	6.49E+00	2.84E+01	1.68E+01			
6.39E-02	8.02E+01	1.18E+02	1.26E+00	1.17E+01	1.89E+01	9.06E+00	3.80E+01	1.79E+01			
8.95E-02	7.00E+01	9.43E+01	1.76E+00	1.21E+01	1.73E+01	1.26E+01	4.94E+01	1.92E+01			
1.26E-01	5.71E+01	7.35E+01	2.44E+00	1.37E+01	1.64E+01	1.76E+01	6.11E+01	2.06E+01			
1.77E-01	4.35E+01	5.70E+01	3.39E+00	1.68E+01	1.61E+01	2.44E+01	7.09E+01	2.18E+01			
2.50E-01	3.19E+01	4.46E+01	4.70E+00	2.15E+01	1.62E+01	3.39E+01	7.63E+01	2.27E+01			
3.51E-01	2.33E+01	3.55E+01	6.45E+00	2.83E+01	1.68E+01	4.70E+01	7.63E+01	2.27E+01			
4.93E-01	1.75E+01	2.89E+01	8.98E+00	3.77E+01	1.78E+01	6.45E+01	7.16E+01	2.19E+01			
6.89E-01	1.40E+01	2.42E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	6.37E+01	2.02E+01			
9.85E-01	1.21E+01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	5.44E+01	1.76E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	4.63E+01	1.50E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	4.17E+01	1.33E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	3.91E+01	1.26E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	0.00E-01	1.45E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
6.50E-01	1.05E+02	8.06E-01	1.62E+02	1.12E+00	4.43E+00	1.46E+00	8.34E+00	1.08E+01	2.35E+02	6.39E+00	3.07E+01
7.05E-01	3.91E+01	8.96E-01	5.92E+01	1.22E+00	7.10E+00	1.60E+00	9.01E+00	1.37E+01	1.64E+02	7.70E+00	3.02E+01
7.85E-01	4.09E+01	9.64E-01	3.21E+01	1.40E+00	1.18E+01	1.77E+00	9.98E+00	1.68E+01	1.12E+02	9.20E+00	2.74E+01
8.66E-01	2.82E+01	1.02E+00	1.90E+01	1.67E+00	2.11E+01	1.99E+00	1.13E+01	1.99E+01	7.53E+01	1.08E+01	2.29E+01
9.32E-01	1.46E+01	1.06E+00	1.27E+01	2.08E+00	4.16E+01	2.26E+00	1.32E+01	2.29E+01	4.95E+01	1.26E+01	1.77E+01
9.75E-01	6.05E+00	1.11E+00	9.78E+00	2.67E+00	9.01E+01	2.62E+00	1.56E+01	2.55E+01	3.31E+01	1.43E+01	1.29E+01
9.98E-01	3.11E+00	1.15E+00	8.43E+00	3.52E+00	2.03E+02	3.08E+00	1.86E+01	2.80E+01	2.41E+01	1.59E+01	9.13E+00
1.02E+00	2.39E+00	1.21E+00	7.88E+00	4.69E+00	3.40E+02	3.65E+00	2.21E+01	3.05E+01	2.06E+01	1.74E+01	6.85E+00
1.05E+00	1.83E+00	1.28E+00	7.76E+00	6.28E+00	4.25E+02	4.38E+00	2.58E+01	3.34E+01	1.88E+01	1.90E+01	6.21E+00
1.05E+00	1.93E+00	1.36E+00	7.93E+00	8.32E+00	3.29E+02	5.29E+00	2.90E+01	0.00E-01	0.00E-01	2.09E+01	6.02E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FITS XY,YX= 8 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT COMMENT= PLOT FILE=040303GLS CROSSPOWER INPUT FILES=0403C2DCV 0403C3CDE 0403C5EDA

GLASS MOUNTAIN, CA. STA. 03 GLS, USED STA. 04 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=07-OCT-81 TIME=00:00:00
1... BAND ID= 2, PASS D, WITH 48 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 0 DELETED.--YX SET HAS 11 POINTS, PLUS 1 DELETED.
2... BAND ID= 3, PASS C, WITH 57 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 9 POINTS, PLUS 1 DELETED.
3... BAND ID= 5, PASS E, WITH 53 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 15 POINTS, PLUS 1 DELETED.

ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 22.03,32.10,52.02,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=240, EY=330, HX=240, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-240 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	5.63E+02	0.00E-01	4.64E-01	4.74E+01	3.30E+01	3.31E+00	1.68E+01	0.00E-01			
3.26E-02	3.46E+02	1.63E+02	6.49E-01	3.67E+01	2.62E+01	4.64E+00	1.70E+01	9.64E+00			
4.56E-02	2.43E+02	1.37E+02	9.06E-01	2.88E+01	2.08E+01	6.49E+00	1.83E+01	9.34E+00			
6.39E-02	1.86E+02	1.13E+02	1.26E+00	2.33E+01	1.67E+01	9.06E+00	2.08E+01	9.50E+00			
8.95E-02	1.49E+02	9.31E+01	1.76E+00	1.97E+01	1.38E+01	1.26E+01	2.47E+01	1.00E+01			
1.26E-01	1.20E+02	7.61E+01	2.44E+00	1.76E+01	1.17E+01	1.76E+01	2.97E+01	1.08E+01			
1.77E-01	9.59E+01	6.18E+01	3.39E+00	1.68E+01	1.04E+01	2.44E+01	3.54E+01	1.18E+01			
2.50E-01	7.56E+01	4.98E+01	4.70E+00	1.70E+01	0.00E-01	3.39E+01	4.10E+01	1.26E+01			
3.51E-01	5.87E+01	3.98E+01	6.45E+00	1.82E+01	9.34E+00	4.70E+01	4.47E+01	1.30E+01			
4.93E-01	4.53E+01	3.16E+01	8.98E+00	2.07E+01	9.49E+00	6.45E+01	4.51E+01	1.28E+01			
6.89E-01	3.51E+01	2.51E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	4.17E+01	1.17E+01			
9.85E-01	2.72E+01	1.97E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	3.47E+01	9.87E+00			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	2.67E+01	7.93E+00			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	2.17E+01	6.76E+00			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	1.95E+01	6.47E+00			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	2.39E+01	8.85E+00			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO	(M,OHM-M) YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO	(M,OHM-M) YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO	(M,OHM-M) YX-DEPTH	YX-RHO
1.20E+00	3.57E+02	8.85E-01	1.39E+02	1.76E+00	5.30E+00	1.57E+00	4.01E+00	7.55E+00	9.86E+01	5.72E+00	1.89E+01
1.23E+00	2.22E+01	9.47E-01	3.17E+01	1.84E+00	5.61E+00	1.66E+00	3.93E+00	9.61E+00	1.07E+02	6.93E+00	1.81E+01
1.26E+00	1.71E+01	1.01E+00	2.54E+01	1.95E+00	6.54E+00	1.77E+00	4.17E+00	1.21E+01	9.49E+01	8.28E+00	1.50E+01
1.27E+00	2.05E+01	1.08E+00	2.06E+01	2.11E+00	8.16E+00	1.93E+00	4.73E+00	1.49E+01	7.18E+01	9.67E+00	1.08E+01
1.35E+00	2.91E+01	1.15E+00	1.64E+01	2.35E+00	1.07E+01	2.13E+00	5.63E+00	1.79E+01	4.74E+01	1.10E+01	6.93E+00
1.43E+00	2.25E+01	1.22E+00	1.26E+01	2.68E+00	1.49E+01	2.40E+00	6.98E+00	2.05E+01	2.73E+01	1.21E+01	4.10E+00
1.50E+00	1.59E+01	1.29E+00	9.53E+00	3.14E+00	2.17E+01	2.76E+00	8.91E+00	2.27E+01	1.40E+01	1.30E+01	2.57E+00
1.57E+00	1.07E+01	1.36E+00	7.14E+00	3.80E+00	3.30E+01	3.25E+00	1.15E+01	2.42E+01	6.89E+00	1.39E+01	2.36E+00
1.63E+00	7.45E+00	1.42E+00	5.49E+00	4.70E+00	5.10E+01	3.89E+00	1.46E+01	2.53E+01	4.88E+00	1.51E+01	2.43E+00
1.69E+00	5.80E+00	1.49E+00	4.50E+00	5.92E+00	7.53E+01	4.71E+00	1.75E+01	2.67E+01	4.45E+00	8.60E+00	3.04E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FITS XY,YX= 8 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT COMMENT= PLOT FILE=040304GLS CROSSPOWER INPUT FILES=0403C2DCV 0403C3CDE 0403C5EDA

GLASS MOUNTAIN, CA. STA. 04 GLS, USED STA. 03 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=05-OCT-81 TIME=00:00:00
1...BAND ID= 2, PASS D, WITH 48 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 0 DELETED.--YX SET HAS 11 POINTS, PLUS 1 DELETED.
2...BAND ID= 3, PASS C, WITH 57 STACKED SEGMENTS.--XY SET HAS 9 POINTS, PLUS 1 DELETED.--YX SET HAS 9 POINTS, PLUS 1 DELETED.
3...BAND ID= 5, PASS E, WITH 53 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

BAND 2 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY 90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 21.03,31.10,32.12,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=270, EY= 0, HX=270, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-270 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	2.14E+02	0.00E-01	4.64E-01	2.70E+01	3.68E+01	3.31E+00	1.00E+01	1.25E+01			
3.26E-02	1.59E+02	2.11E+02	6.49E-01	2.03E+01	2.82E+01	4.64E+00	1.06E+01	1.23E+01			
4.56E-02	1.30E+02	1.64E+02	9.06E-01	1.58E+01	2.20E+01	6.49E+00	1.20E+01	1.28E+01			
6.39E-02	1.10E+02	1.36E+02	1.26E+00	1.28E+01	1.77E+01	9.06E+00	1.43E+01	1.39E+01			
8.95E-02	9.24E+01	1.14E+02	1.76E+00	1.10E+01	1.50E+01	1.26E+01	1.75E+01	1.54E+01			
1.26E-01	7.58E+01	9.45E+01	2.44E+00	1.02E+01	1.33E+01	1.76E+01	2.17E+01	1.72E+01			
1.77E-01	6.00E+01	7.62E+01	3.39E+00	1.00E+01	1.25E+01	2.44E+01	2.63E+01	1.89E+01			
2.50E-01	4.59E+01	5.97E+01	4.70E+00	0.00E-01	1.24E+01	3.39E+01	3.06E+01	2.02E+01			
3.51E-01	3.44E+01	4.59E+01	6.45E+00	1.20E+01	1.28E+01	4.70E+01	3.33E+01	2.06E+01			
4.93E-01	2.56E+01	3.50E+01	8.98E+00	1.42E+01	0.00E-01	6.45E+01	3.35E+01	1.98E+01			
6.89E-01	1.94E+01	2.69E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	3.08E+01	1.79E+01			
9.85E-01	1.49E+01	2.08E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	2.57E+01	1.51E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	2.01E+01	1.24E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	1.68E+01	1.08E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	1.56E+01	1.04E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	2.01E+01	1.32E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
8.06E-01	1.62E+02	9.69E-01	1.67E+02	1.31E+00	2.35E+00	1.61E+00	4.15E+00	6.43E+00	9.00E+01	7.24E+00	3.23E+01
8.55E-01	3.70E+01	1.03E+00	4.09E+01	1.36E+00	3.00E+00	1.71E+00	4.93E+00	8.27E+00	8.94E+01	8.78E+00	2.81E+01
9.23E-01	3.79E+01	1.12E+00	3.68E+01	1.45E+00	3.99E+00	1.85E+00	6.09E+00	1.05E+01	7.37E+01	1.04E+01	2.18E+01
9.98E-01	3.07E+01	1.20E+00	2.78E+01	1.58E+00	5.45E+00	2.06E+00	7.77E+00	1.29E+01	5.31E+01	1.21E+01	1.53E+01
1.07E+00	2.10E+01	1.28E+00	1.86E+01	1.78E+00	7.75E+00	2.34E+00	1.02E+01	1.54E+01	3.42E+01	1.36E+01	9.88E+00
1.13E+00	1.26E+01	1.34E+00	1.16E+01	2.07E+00	1.16E+01	2.72E+00	1.36E+01	1.77E+01	1.98E+01	1.50E+01	6.22E+00
1.18E+00	6.91E+00	1.40E+00	7.14E+00	2.49E+00	1.82E+01	3.24E+00	1.82E+01	1.95E+01	1.04E+01	1.61E+01	4.39E+00
1.22E+00	3.74E+00	1.44E+00	4.79E+00	3.07E+00	2.97E+01	3.92E+00	2.38E+01	2.08E+01	5.75E+00	1.73E+01	4.32E+00
1.25E+00	2.60E+00	1.49E+00	3.84E+00	3.88E+00	4.83E+01	4.80E+00	2.93E+01	2.20E+01	4.72E+00	1.90E+01	4.51E+00
1.27E+00	2.00E+00	1.54E+00	3.74E+00	4.98E+00	7.22E+01	5.91E+00	3.27E+01	2.35E+01	4.60E+00	8.01E+00	3.51E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=100505GLS CROSSPOWERS INPUT FILES=1005C2BEG 1005S3DE 1005C5CBL

GLASS MOUNTAIN, CA. STA. 05 GLS, USED STA. 10 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 2, PASS B, WITH 85 STACKED SEGMENTS. --XY SET HAS 8 POINTS, PLUS 4 DELETED. --YX SET HAS 12 POINTS, PLUS 0 DELETED.
2...BAND ID= 3, PASS D, WITH 67 STACKED SEGMENTS. --XY SET HAS 10 POINTS, PLUS 0 DELETED. --YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS C, WITH 12 STACKED SEGMENTS. --XY SET HAS 13 POINTS, PLUS 3 DELETED. --YX SET HAS 12 POINTS, PLUS 4 DELETED.

TIP STRIKE INDICATOR ISTRIK = 1 IMPLIES TIPPER STRIKE RANGE MOVED BY ISTRIK*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 21.11,21.12,21.13,21.14,52.02,53.03,51.04,51.05,52.15,52.16,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=110, EY=200, HX=110, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-110 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	4.10E+02	1.50E+02	4.64E-01	5.25E+01	1.66E+01	3.31E+00	2.98E+01	0.00E-01			
3.26E-02	3.04E+02	1.24E+02	6.49E-01	4.86E+01	1.30E+01	6.49E+00	0.00E-01	1.37E+01			
4.56E-02	2.04E+02	1.07E+02	9.06E-01	4.43E+01	1.08E+01	9.06E+00	0.00E-01	1.65E+01			
6.39E-02	1.38E+02	8.96E+01	1.26E+00	3.99E+01	9.57E+00	1.26E+01	3.18E+01	1.98E+01			
8.95E-02	1.00E+02	7.21E+01	1.76E+00	3.58E+01	9.16E+00	1.76E+01	3.59E+01	2.31E+01			
1.26E-01	7.91E+01	5.50E+01	2.44E+00	3.23E+01	9.39E+00	2.44E+01	4.10E+01	2.61E+01			
1.77E-01	6.72E+01	4.04E+01	3.39E+00	2.96E+01	1.02E+01	3.39E+01	4.62E+01	2.81E+01			
2.50E-01	6.03E+01	2.91E+01	4.70E+00	2.82E+01	1.17E+01	4.70E+01	4.95E+01	2.86E+01			
3.51E-01	0.00E-01	2.11E+01	6.45E+00	2.80E+01	1.37E+01	6.45E+01	4.92E+01	2.77E+01			
4.93E-01	0.00E-01	1.58E+01	8.98E+00	2.91E+01	1.64E+01	8.98E+01	4.43E+01	2.56E+01			
6.89E-01	0.00E-01	1.25E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	3.47E+01	2.25E+01			
9.85E-01	0.00E-01	1.04E+01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	2.46E+01	1.94E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	1.86E+01	0.00E-01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	1.62E+01	0.00E-01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	2.27E+01	1.65E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
1.12E+00	3.13E+02	7.11E-01	1.26E+02	2.07E+00	2.77E+01	1.05E+00	1.95E+00	8.37E+00	7.59E+01	6.70E+00	5.89E+01
1.15E+00	1.95E+01	7.74E-01	3.88E+01	2.31E+00	2.33E+01	1.13E+00	4.35E+00	1.04E+01	9.05E+01	8.34E+00	5.14E+01
1.17E+00	1.50E+01	8.37E-01	2.71E+01	2.57E+00	1.99E+01	1.26E+00	6.18E+00	1.29E+01	8.94E+01	1.02E+01	4.16E+01
1.20E+00	1.15E+01	8.90E-01	1.50E+01	2.85E+00	1.81E+01	1.45E+00	8.96E+00	1.58E+01	7.14E+01	1.21E+01	3.17E+01
1.23E+00	8.81E+00	9.26E-01	6.78E+00	3.17E+00	1.79E+01	1.72E+00	1.34E+01	1.87E+01	4.66E+01	1.41E+01	2.31E+01
1.26E+00	6.76E+00	9.48E-01	3.83E+00	3.56E+00	1.95E+01	2.09E+00	2.03E+01	2.13E+01	2.44E+01	1.60E+01	1.65E+01
1.29E+00	1.76E+01	9.70E-01	2.94E+00	4.06E+00	2.32E+01	2.60E+00	3.05E+01	2.31E+01	9.53E+00	1.79E+01	1.20E+01
1.44E+00	3.53E+01	9.93E-01	2.26E+00	4.72E+00	2.99E+01	3.28E+00	4.31E+01	2.37E+01	2.54E+00	1.97E+01	9.52E+00
1.63E+00	3.51E+01	1.02E+00	1.73E+00	5.60E+00	4.09E+01	4.17E+00	5.48E+01	2.42E+01	1.95E+00	2.16E+01	8.83E+00
1.84E+00	3.21E+01	1.04E+00	1.33E+00	6.79E+00	5.67E+01	5.31E+00	6.07E+01	2.46E+01	1.95E+00	2.40E+01	8.42E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FITS XY,YX= 8 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT COMMENT= PLOT FILE=010606GLS CROSSPOWER INPUT FILES=0106C2BCV 0106C3EDB 0106C5DBZ

GLASS MOUNTAIN, CA. STA. 06 GLS, USED STA. 01 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=05-OCT-81 TIME=00:00:00
1...BAND ID= 2, PASS B, WITH 48 STACKED SEGMENTS.--XY SET HAS 11 POINTS, PLUS 1 DELETED.--YX SET HAS 12 POINTS, PLUS 0 DELETED.
2...BAND ID= 3, PASS E, WITH 54 STACKED SEGMENTS.--XY SET HAS 8 POINTS, PLUS 2 DELETED.--YX SET HAS 9 POINTS, PLUS 1 DELETED.
3...BAND ID= 5, PASS D, WITH 26 STACKED SEGMENTS.--XY SET HAS 15 POINTS, PLUS 1 DELETED.--YX SET HAS 13 POINTS, PLUS 3 DELETED.

BAND 3 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY 90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
ROTATION INDICATOR IROTAT = -2 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 21.14,33.03,32.11,52.05,52.06,52.14,51.15,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=260, EY=350, HX=260, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-260 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	3.25E+01	6.84E+01	6.49E-01	6.46E+00	2.11E+01	3.31E+00	7.12E+00	3.95E+01			
3.26E-02	2.49E+01	5.25E+01	9.06E-01	6.00E+00	2.25E+01	4.64E+00	8.27E+00	4.77E+01			
4.56E-02	2.08E+01	4.28E+01	1.26E+00	5.84E+00	2.50E+01	6.49E+00	9.83E+00	5.72E+01			
6.39E-02	1.79E+01	3.60E+01	1.76E+00	5.98E+00	2.86E+01	9.06E+00	1.18E+01	0.00E-01			
8.95E-02	1.56E+01	3.09E+01	2.44E+00	6.41E+00	3.35E+01	1.26E+01	1.40E+01	0.00E-01			
1.26E-01	1.34E+01	2.70E+01	3.39E+00	7.19E+00	4.01E+01	1.76E+01	1.62E+01	8.66E+01			
1.77E-01	1.13E+01	2.40E+01	4.70E+00	8.32E+00	4.80E+01	2.44E+01	1.79E+01	9.28E+01			
2.50E-01	9.57E+00	2.20E+01	6.45E+00	0.00E-01	5.70E+01	3.39E+01	1.88E+01	9.59E+01			
3.51E-01	8.14E+00	2.09E+01	8.98E+00	1.17E+01	6.73E+01	4.70E+01	1.86E+01	9.53E+01			
4.93E-01	7.08E+00	2.07E+01	0.00E-01	0.00E-01	0.00E-01	6.45E+01	1.73E+01	9.20E+01			
6.89E-01	6.36E+00	2.13E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	1.51E+01	8.66E+01			
9.85E-01	0.00E-01	2.30E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	1.22E+01	7.97E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	9.67E+00	0.00E-01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	0.00E-01	6.88E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	7.31E+00	6.62E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	7.69E+00	6.48E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
3.19E-01	2.53E+01	4.64E-01	5.35E+01	7.54E-01	3.81E+00	1.39E+00	2.98E+01	5.61E+00	3.73E+01	1.31E+01	1.57E+02
3.42E-01	7.08E+00	4.91E-01	1.18E+01	8.55E-01	4.66E+00	1.68E+00	4.03E+01	6.93E+00	3.14E+01	1.59E+01	1.35E+02
3.73E-01	7.34E+00	5.29E-01	1.25E+01	9.91E-01	6.04E+00	2.07E+00	5.58E+01	8.38E+00	2.42E+01	1.89E+01	1.13E+02
4.08E-01	6.52E+00	5.74E-01	1.25E+01	1.17E+00	8.21E+00	2.58E+00	7.76E+01	9.86E+00	1.71E+01	2.22E+01	9.21E+01
4.45E-01	5.36E+00	6.29E-01	1.24E+01	1.42E+00	1.16E+01	3.25E+00	1.06E+02	1.13E+01	1.11E+01	2.57E+01	7.51E+01
4.83E-01	4.33E+00	6.94E-01	1.27E+01	1.75E+00	1.66E+01	4.13E+00	1.37E+02	1.25E+01	6.79E+00	2.93E+01	6.22E+01
5.23E-01	3.61E+00	7.74E-01	1.36E+01	2.19E+00	2.34E+01	5.26E+00	1.64E+02	1.35E+01	4.07E+00	3.32E+01	5.34E+01
5.67E-01	3.22E+00	8.75E-01	1.54E+01	2.77E+00	3.12E+01	6.69E+00	1.81E+02	1.44E+01	2.71E+00	3.73E+01	4.86E+01
6.16E-01	3.13E+00	1.00E+00	1.83E+01	3.53E+00	3.75E+01	8.46E+00	1.84E+02	1.52E+01	2.41E+00	4.21E+01	4.76E+01
6.77E-01	3.33E+00	1.17E+00	2.28E+01	4.47E+00	3.98E+01	1.06E+01	1.74E+02	1.63E+01	2.29E+00	4.78E+01	4.67E+01

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FITS XY,YX= 8 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT COMMENT= PLOT FILE=070807GLS CROSSPOWER INPUT FILES=0708C2CDC 0708S3BEF 0708C5DBR

GLASS MOUNTAIN, CA. STA. 07 GLS, USED STA. 08 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=07-OCT-81 TIME=00:00:00
1...BAND ID= 2, PASS C, WITH 55 STACKED SEGMENTS.--XY SET HAS 11 POINTS, PLUS 1 DELETED.--YX SET HAS 10 POINTS, PLUS 2 DELETED.
2...BAND ID= 3, PASS B, WITH 176 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS D, WITH 18 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

BAND 2 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY -90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
BAND 3 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY 90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
BAND 5 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY 90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
ROTATION INDICATOR IROTAT = -2 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 21.03,22.04,21.14,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=270, EY= 0, HX=270, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-270 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	8.17E+01	0.00E-01	4.64E-01	4.74E+01	4.97E+01	3.31E+00	1.18E+02	5.94E+01			
3.26E-02	0.00E-01	1.01E+02	6.49E-01	5.03E+01	4.87E+01	4.64E+00	1.53E+02	6.49E+01			
4.56E-02	6.33E+01	9.04E+01	9.06E-01	5.56E+01	4.88E+01	6.49E+00	1.99E+02	7.13E+01			
6.39E-02	5.80E+01	8.07E+01	1.26E+00	6.41E+01	4.99E+01	9.06E+00	2.54E+02	7.83E+01			
8.95E-02	5.39E+01	7.21E+01	1.76E+00	7.66E+01	5.21E+01	1.26E+01	3.15E+02	8.54E+01			
1.26E-01	5.05E+01	6.48E+01	2.44E+00	9.47E+01	5.54E+01	1.76E+01	3.73E+02	9.16E+01			
1.77E-01	4.80E+01	5.89E+01	3.39E+00	1.20E+02	5.97E+01	2.44E+01	4.17E+02	9.60E+01			
2.50E-01	4.66E+01	5.45E+01	4.70E+00	1.55E+02	6.51E+01	3.39E+01	4.36E+02	9.76E+01			
3.51E-01	4.64E+01	5.14E+01	6.45E+00	1.98E+02	7.12E+01	4.70E+01	4.23E+02	9.55E+01			
4.93E-01	4.78E+01	4.95E+01	8.98E+00	2.53E+02	7.82E+01	6.45E+01	3.83E+02	9.00E+01			
6.89E-01	5.11E+01	4.87E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	3.26E+02	8.09E+01			
9.85E-01	5.74E+01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	2.61E+02	6.88E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	2.09E+02	5.61E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	1.85E+02	4.68E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	1.86E+02	4.02E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	2.59E+02	3.53E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
5.35E-01	7.12E+01	7.16E-01	9.12E+01	2.16E+00	9.04E+01	2.49E+00	5.47E+01	2.69E+01	1.01E+03	1.64E+01	1.21E+02
5.93E-01	3.47E+01	7.94E-01	4.07E+01	2.65E+00	1.30E+02	2.95E+00	6.32E+01	3.35E+01	7.57E+02	1.94E+01	1.03E+02
6.65E-01	3.57E+01	8.81E-01	3.74E+01	3.32E+00	1.98E+02	3.52E+00	7.36E+01	4.04E+01	5.34E+02	2.26E+01	8.19E+01
7.50E-01	3.57E+01	9.79E-01	3.56E+01	4.23E+00	3.17E+02	4.24E+00	8.60E+01	4.72E+01	3.50E+02	2.58E+01	6.12E+01
8.49E-01	3.57E+01	1.09E+00	3.51E+01	5.47E+00	5.19E+02	5.13E+00	1.00E+02	5.33E+01	2.14E+02	2.90E+01	4.32E+01
9.67E-01	3.67E+01	1.23E+00	3.58E+01	7.16E+00	8.29E+02	6.25E+00	1.14E+02	5.85E+01	1.25E+02	3.19E+01	2.93E+01
1.11E+00	3.92E+01	1.39E+00	3.71E+01	9.43E+00	1.19E+03	7.63E+00	1.27E+02	6.27E+01	7.69E+01	3.45E+01	1.99E+01
1.28E+00	4.42E+01	1.59E+00	3.95E+01	1.24E+01	1.43E+03	9.31E+00	1.36E+02	6.64E+01	6.10E+01	3.69E+01	1.49E+01
1.50E+00	5.27E+01	1.83E+00	4.32E+01	1.63E+01	1.43E+03	1.13E+01	1.39E+02	7.09E+01	7.43E+01	3.94E+01	1.22E+01
1.76E+00	6.69E+01	2.12E+00	4.82E+01	2.11E+01	1.25E+03	1.37E+01	1.33E+02	7.83E+01	8.64E+01	7.74E+00	2.88E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FITS XY,YX= 8 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT COMMENT= PLOT FILE=070808GLS CROSSPOWER INPUT FILES=0708C2CDC 0708S3BEF 0708C5DBR

GLASS MOUNTAIN, CA STA. 08 GLS, USED STA. 07 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=05-OCT-81 TIME=00:00:00
1...BAND ID= 2, PASS C, WITH 55 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 0 DELETED.--YX SET HAS 12 POINTS, PLUS 0 DELETED.
2...BAND ID= 3, PASS B, WITH 176 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 9 POINTS, PLUS 1 DELETED.
3...BAND ID= 5, PASS D, WITH 18 STACKED SEGMENTS.--XY SET HAS 14 POINTS, PLUS 2 DELETED.--YX SET HAS 14 POINTS, PLUS 2 DELETED.

ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 32.09,52.04,51.15,53.16,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=220, EY=310, HX=220, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-220 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	4.71E+01	1.75E+01	4.64E-01	1.17E+01	2.51E+00	3.31E+00	2.33E+01	2.11E+00			
3.26E-02	4.62E+01	1.36E+01	6.49E-01	1.15E+01	2.18E+00	4.64E+00	2.98E+01	2.37E+00			
4.56E-02	4.07E+01	1.08E+01	9.06E-01	1.20E+01	1.98E+00	6.49E+00	3.82E+01	0.00E-01			
6.39E-02	3.34E+01	8.71E+00	1.26E+00	1.34E+01	1.88E+00	9.06E+00	4.84E+01	3.16E+00			
8.95E-02	2.65E+01	6.98E+00	1.76E+00	1.56E+01	1.88E+00	1.26E+01	5.96E+01	3.63E+00			
1.26E-01	2.09E+01	5.56E+00	2.44E+00	1.89E+01	1.96E+00	1.76E+01	7.02E+01	4.09E+00			
1.77E-01	1.68E+01	4.42E+00	3.39E+00	2.37E+01	0.00E-01	2.44E+01	7.87E+01	4.45E+00			
2.50E-01	1.40E+01	3.55E+00	4.70E+00	3.01E+01	2.38E+00	3.39E+01	8.32E+01	4.62E+00			
3.51E-01	1.24E+01	2.90E+00	6.45E+00	3.81E+01	2.72E+00	4.70E+01	8.26E+01	4.56E+00			
4.93E-01	1.16E+01	2.44E+00	8.98E+00	4.81E+01	3.14E+00	6.45E+01	7.77E+01	4.28E+00			
6.89E-01	1.15E+01	2.14E+00	0.00E-01	0.00E-01	0.00E-01	8.98E+01	6.94E+01	3.83E+00			
9.85E-01	1.23E+01	1.95E+00	0.00E-01	0.00E-01	0.00E-01	1.29E+02	5.93E+01	3.29E+00			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	5.09E+01	2.86E+00			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	0.00E-01	2.70E+00			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	6.51E+01	4.22E+00			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
4.32E-01	4.65E+01	2.36E-01	1.38E+01	1.02E+00	1.41E+01	4.37E-01	1.09E+00	1.17E+01	1.85E+02	2.83E+00	7.98E+00
4.78E-01	1.58E+01	2.48E-01	2.28E+00	1.23E+00	2.10E+01	4.90E-01	1.32E+00	1.45E+01	1.47E+02	3.46E+00	6.96E+00
5.13E-01	8.51E+00	2.62E-01	1.94E+00	1.51E+00	3.29E+01	5.61E-01	1.67E+00	1.76E+01	1.10E+02	4.16E+00	5.58E+00
5.40E-01	5.36E+00	2.76E-01	1.54E+00	1.91E+00	5.34E+01	6.57E-01	2.18E+00	2.07E+01	7.87E+01	4.88E+00	4.17E+00
5.68E-01	4.26E+00	2.91E-01	1.21E+00	2.44E+00	8.76E+01	7.84E-01	2.92E+00	2.38E+01	5.41E+01	5.58E+00	2.95E+00
5.95E-01	4.20E+00	3.06E-01	9.93E-01	3.18E+00	1.38E+02	9.53E-01	3.94E+00	2.66E+01	3.69E+01	6.25E+00	2.06E+00
6.34E-01	4.73E+00	3.23E-01	8.72E-01	4.16E+00	1.96E+02	1.17E+00	5.25E+00	2.93E+01	2.69E+01	6.88E+00	1.54E+00
6.89E-01	5.76E+00	3.42E-01	8.32E-01	5.46E+00	2.37E+02	1.46E+00	6.67E+00	3.19E+01	2.33E+01	7.53E+00	1.38E+00
7.65E-01	7.39E+00	3.66E-01	8.56E-01	7.12E+00	2.43E+02	1.83E+00	7.83E+00	3.51E+01	2.68E+01	8.31E+00	1.68E+00
8.72E-01	9.96E+00	3.97E-01	9.40E-01	9.19E+00	2.21E+02	2.29E+00	8.32E+00	3.96E+01	3.05E+01	9.49E+00	2.00E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=0915090LS CROSSPOWERS INPUT FILES=0915C1BFC 0915S5ACA

GLASS MOUNTAIN, CA. STA. 09 GLS, USED STA. 15 GLS AS REF AND RECORDED OVER 2 PASS BANDS PLOT DATE=01-OCT-81 TIME=02:10:58
1...BAND ID= 1, PASS B, WITH 107 STACKED SEGMENTS.--XY SET HAS 17 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 1 DELETED.
2...BAND ID= 5, PASS A, WITH 22 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 12.18,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX= 40, EY=130, HX= 40, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)= -40 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.76E-02	3.09E+02	2.06E+02	3.31E+00	2.07E+01	1.16E+01						
3.87E-02	2.72E+02	1.70E+02	4.64E+00	2.10E+01	1.19E+01						
5.43E-02	2.35E+02	1.45E+02	6.49E+00	2.26E+01	1.27E+01						
7.61E-02	1.97E+02	1.22E+02	9.06E+00	2.54E+01	1.40E+01						
1.06E-01	1.62E+02	1.00E+02	1.26E+01	2.96E+01	1.57E+01						
1.49E-01	1.30E+02	7.95E+01	1.76E+01	3.50E+01	1.75E+01						
2.10E-01	1.01E+02	6.08E+01	2.44E+01	4.11E+01	1.92E+01						
2.96E-01	7.78E+01	4.54E+01	3.39E+01	4.72E+01	2.03E+01						
4.16E-01	5.94E+01	3.37E+01	4.70E+01	5.16E+01	2.04E+01						
5.85E-01	4.57E+01	2.53E+01	6.45E+01	5.30E+01	1.93E+01						
8.21E-01	3.59E+01	1.96E+01	8.98E+01	5.07E+01	1.73E+01						
1.15E+00	2.91E+01	1.59E+01	1.29E+02	4.44E+01	1.43E+01						
1.64E+00	2.44E+01	1.34E+01	1.87E+02	3.64E+01	1.15E+01						
2.46E+00	2.15E+01	1.20E+01	2.56E+02	3.08E+01	9.60E+00						
3.82E+00	2.07E+01	1.17E+01	3.41E+02	2.82E+01	8.65E+00						
5.69E+00	2.18E+01	1.23E+01	5.12E+02	3.25E+01	9.13E+00						
8.53E+00	2.48E+01	0.00E-01	0.00E-01	0.00E-01	0.00E-01						

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
1.15E+00	2.75E+02	9.07E-01	1.72E+02	1.94E+00	7.18E+00	1.43E+00	3.61E+00	9.37E+00	1.09E+02	6.58E+00	3.28E+01
1.25E+00	8.78E+01	9.83E-01	5.15E+01	2.06E+00	8.25E+00	1.52E+00	4.55E+00	1.18E+01	1.09E+02	8.01E+00	2.92E+01
1.35E+00	6.30E+01	1.06E+00	3.98E+01	2.23E+00	9.98E+00	1.65E+00	5.81E+00	1.47E+01	9.44E+01	9.56E+00	2.33E+01
1.45E+00	4.31E+01	1.14E+00	2.62E+01	2.46E+00	1.26E+01	1.83E+00	7.55E+00	1.78E+01	7.19E+01	1.12E+01	1.69E+01
1.53E+00	2.83E+01	1.20E+00	1.53E+01	2.79E+00	1.67E+01	2.09E+00	1.00E+01	2.11E+01	4.89E+01	1.27E+01	1.11E+01
1.61E+00	1.82E+01	1.25E+00	8.24E+00	3.25E+00	2.31E+01	2.44E+00	1.34E+01	2.40E+01	3.03E+01	1.40E+01	6.91E+00
1.67E+00	1.20E+01	1.29E+00	4.50E+00	3.87E+00	3.30E+01	2.91E+00	1.81E+01	2.66E+01	1.80E+01	1.52E+01	4.27E+00
1.73E+00	8.60E+00	1.32E+00	3.33E+00	4.73E+00	4.82E+01	3.54E+00	2.37E+01	2.87E+01	1.18E+01	1.61E+01	3.09E+00
1.79E+00	7.07E+00	1.35E+00	2.56E+00	5.88E+00	6.91E+01	4.34E+00	2.92E+01	3.07E+01	1.14E+01	1.72E+01	3.20E+00
1.85E+00	6.73E+00	1.38E+00	2.71E+00	7.41E+00	9.23E+01	5.36E+00	3.27E+01	3.37E+01	1.20E+01	1.87E+01	3.38E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=100510GLS CROSSPOWERS INPUT FILES=1005C2BEG 1005S3DE 1005C5CBL

GLASS MOUNTAIN, CA. STA. 10 GLS, USED STA. 05 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 2, PASS B, WITH 85 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 0 DELETED.--YX SET HAS 12 POINTS, PLUS 0 DELETED.
2...BAND ID= 3, PASS D, WITH 67 STACKED SEGMENTS.--XY SET HAS 9 POINTS, PLUS 1 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS C, WITH 12 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 4 DELETED.--YX SET HAS 14 POINTS, PLUS 2 DELETED.

DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 31.09,53.02,51.03,51.04,51.15,52.17,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX= 70, EY=160, HX= 70, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)= -70 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	1.47E+02	2.07E+02	4.64E-01	2.41E+01	2.84E+01	4.64E+00	0.00E-01	2.45E+01			
3.26E-02	1.32E+02	2.09E+02	6.49E-01	1.94E+01	2.27E+01	6.49E+00	0.00E-01	3.02E+01			
4.56E-02	1.17E+02	1.93E+02	9.06E-01	1.64E+01	1.93E+01	9.06E+00	2.07E+01	3.77E+01			
6.39E-02	1.01E+02	1.63E+02	1.26E+00	1.46E+01	1.77E+01	1.26E+01	2.42E+01	4.67E+01			
8.95E-02	8.33E+01	1.28E+02	1.76E+00	1.37E+01	1.75E+01	1.76E+01	2.79E+01	5.62E+01			
1.26E-01	6.61E+01	9.48E+01	2.44E+00	1.37E+01	1.85E+01	2.44E+01	3.15E+01	6.45E+01			
1.77E-01	5.09E+01	6.81E+01	3.39E+00	0.00E-01	2.09E+01	3.39E+01	3.41E+01	6.94E+01			
2.50E-01	3.87E+01	4.88E+01	4.70E+00	1.57E+01	2.47E+01	4.70E+01	3.52E+01	6.93E+01			
3.51E-01	2.96E+01	3.57E+01	6.45E+00	1.78E+01	3.00E+01	6.45E+01	3.45E+01	6.43E+01			
4.93E-01	2.31E+01	2.72E+01	8.98E+00	2.06E+01	3.74E+01	8.98E+01	3.20E+01	5.56E+01			
6.89E-01	1.88E+01	2.19E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	2.79E+01	4.50E+01			
9.85E-01	1.58E+01	1.88E+01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	2.36E+01	3.62E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	0.00E-01	3.24E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	1.89E+01	3.33E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	1.95E+01	0.00E-01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
7.31E-01	1.33E+02	9.18E-01	2.10E+02	1.29E+00	5.51E+00	1.39E+00	4.51E+00	7.38E+00	6.60E+01	1.04E+01	1.74E+02
8.10E-01	5.32E+01	1.04E+00	9.77E+01	1.40E+00	6.84E+00	1.52E+00	9.61E+00	9.16E+00	6.19E+01	1.31E+01	1.39E+02
8.86E-01	3.67E+01	1.13E+00	4.79E+01	1.56E+00	8.77E+00	1.72E+00	1.39E+01	1.12E+01	5.28E+01	1.60E+01	1.01E+02
9.52E-01	2.29E+01	1.19E+00	2.02E+01	1.77E+00	1.16E+01	2.00E+00	2.09E+01	1.34E+01	4.15E+01	1.90E+01	6.75E+01
1.01E+00	1.35E+01	1.22E+00	8.61E+00	2.07E+00	1.58E+01	2.41E+00	3.28E+01	1.57E+01	3.05E+01	2.17E+01	4.14E+01
1.05E+00	7.96E+00	1.25E+00	6.61E+00	2.47E+00	2.21E+01	2.98E+00	5.34E+01	1.79E+01	2.13E+01	2.41E+01	2.40E+01
1.09E+00	5.22E+00	1.28E+00	5.08E+00	3.02E+00	3.09E+01	3.77E+00	8.71E+01	2.00E+01	1.46E+01	2.59E+01	1.44E+01
1.12E+00	4.19E+00	1.31E+00	3.90E+00	3.74E+00	4.21E+01	4.85E+00	1.34E+02	2.19E+01	1.05E+01	2.76E+01	1.11E+01
1.16E+00	4.12E+00	1.34E+00	2.99E+00	4.68E+00	5.40E+01	6.28E+00	1.77E+02	2.38E+01	8.92E+00	2.95E+01	9.98E+00
1.21E+00	4.62E+00	1.37E+00	2.30E+00	5.88E+00	6.31E+01	8.13E+00	1.92E+02	2.60E+01	8.19E+00	8.01E+00	2.65E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=111211GLS CROSSPOWERS INPUT FILES=1112C1BET 1112C5DCG

GLASS MOUNTAIN, CA. STA. 11 GLS, USED STA. 12 GLS AS REF AND RECORDED OVER 2 PASS BANDS PLOT DATE=01-OCT-81 TIME=00:59:50
1...BAND ID= 1, PASS B, WITH 98 STACKED SEGMENTS.--XY SET HAS 15 POINTS, PLUS 2 DELETED.--YX SET HAS 17 POINTS, PLUS 0 DELETED.
2...BAND ID= 5, PASS D, WITH 33 STACKED SEGMENTS.--XY SET HAS 15 POINTS, PLUS 1 DELETED.--YX SET HAS 14 POINTS, PLUS 2 DELETED.

BAND 1 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY 90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 12.14,12.15,52.16,53.17,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=170, EY=260, HX=170, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-170 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.76E-02	4.83E+01	2.66E+01	3.31E+00	2.07E+01	6.83E+00						
3.87E-02	4.29E+01	2.39E+01	4.64E+00	2.60E+01	7.85E+00						
5.43E-02	3.56E+01	1.91E+01	6.49E+00	3.31E+01	9.01E+00						
7.61E-02	2.87E+01	1.45E+01	9.06E+00	4.24E+01	1.02E+01						
1.06E-01	2.30E+01	1.09E+01	1.26E+01	5.36E+01	1.14E+01						
1.49E-01	1.88E+01	8.39E+00	1.76E+01	6.59E+01	1.23E+01						
2.10E-01	1.57E+01	6.71E+00	2.44E+01	7.77E+01	1.27E+01						
2.96E-01	1.37E+01	5.65E+00	3.39E+01	8.68E+01	1.26E+01						
4.16E-01	1.25E+01	5.04E+00	4.70E+01	9.07E+01	1.19E+01						
5.85E-01	1.19E+01	4.76E+00	6.45E+01	8.88E+01	1.08E+01						
8.21E-01	1.20E+01	4.73E+00	8.98E+01	8.15E+01	9.44E+00						
1.15E+00	1.28E+01	4.92E+00	1.29E+02	7.02E+01	7.95E+00						
1.64E+00	0.00E-01	5.34E+00	1.87E+02	5.96E+01	6.82E+00						
2.46E+00	0.00E-01	6.10E+00	2.56E+02	5.47E+01	6.44E+00						
3.82E+00	2.27E+01	7.24E+00	3.41E+02	5.66E+01	0.00E-01						
5.69E+00	3.01E+01	8.55E+00	0.00E-01	0.00E-01	0.00E-01						
8.53E+00	4.06E+01	1.00E+01	0.00E-01	0.00E-01	0.00E-01						

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
4.55E-01	4.34E+01	3.40E-01	2.42E+01	1.14E+00	1.52E+01	7.13E-01	5.37E+00	1.29E+01	2.26E+02	5.47E+00	1.64E+01
4.89E-01	9.66E+00	3.60E-01	3.21E+00	1.37E+00	2.14E+01	8.49E-01	7.00E+00	1.62E+01	1.80E+02	6.47E+00	1.32E+01
5.18E-01	6.56E+00	3.71E-01	1.46E+00	1.68E+00	3.15E+01	1.03E+00	9.13E+00	1.98E+01	1.34E+02	7.50E+00	9.92E+00
5.47E-01	5.39E+00	3.80E-01	1.11E+00	2.10E+00	4.84E+01	1.26E+00	1.18E+01	2.36E+01	9.37E+01	8.52E+00	7.10E+00
5.80E-01	5.16E+00	3.92E-01	1.26E+00	2.68E+00	7.64E+01	1.56E+00	1.47E+01	2.72E+01	6.20E+01	9.48E+00	4.97E+00
6.21E-01	5.46E+00	4.09E-01	1.59E+00	3.46E+00	1.20E+02	1.94E+00	1.77E+01	3.05E+01	4.03E+01	1.04E+01	3.60E+00
6.74E-01	6.14E+00	4.37E-01	2.02E+00	4.51E+00	1.80E+02	2.42E+00	2.00E+01	3.34E+01	2.86E+01	1.13E+01	2.90E+00
7.46E-01	7.23E+00	4.77E-01	2.55E+00	5.91E+00	2.39E+02	3.01E+00	2.12E+01	3.64E+01	2.35E+01	8.30E+00	2.89E+00
8.41E-01	8.87E+00	5.34E-01	3.23E+00	7.73E+00	2.70E+02	3.71E+00	2.09E+01	0.00E-01	0.00E-01	8.60E+00	2.74E+00
9.68E-01	1.14E+01	6.10E-01	4.14E+00	1.01E+01	2.61E+02	4.54E+00	1.92E+01	0.00E-01	0.00E-01	8.85E+00	2.58E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=111212GLS CROSSPOWERS INPUT FILES=1112C1EDO 1112C5DCG

GLASS MOUNTAIN, CA. STA. 12 GLS, USED STA. 11 GLS AS REF AND RECORDED OVER 2 PASS BANDS PLOT DATE=01-OCT-81 TIME=01:30:42
1...BAND ID= 1, PASS E, WITH 67 STACKED SEGMENTS.--XY SET HAS 17 POINTS, PLUS 0 DELETED.--YX SET HAS 17 POINTS, PLUS 0 DELETED.
2...BAND ID= 5, PASS D, WITH 33 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

BAND 5 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY 90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
ROTATION INDICATOR IROTAT = -2 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=200, EY=290, HX=200, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-200 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.76E-02	4.07E+01	2.79E+01	3.31E+00	3.57E+01	1.52E+01						
3.87E-02	3.58E+01	3.20E+01	4.64E+00	4.49E+01	1.67E+01						
5.43E-02	3.31E+01	2.96E+01	6.49E+00	5.77E+01	1.83E+01						
7.61E-02	3.11E+01	2.47E+01	9.06E+00	7.43E+01	2.01E+01						
1.06E-01	2.91E+01	1.99E+01	1.26E+01	9.44E+01	2.18E+01						
1.49E-01	2.71E+01	1.63E+01	1.76E+01	1.16E+02	2.33E+01						
2.10E-01	2.51E+01	1.39E+01	2.44E+01	1.36E+02	2.45E+01						
2.96E-01	2.33E+01	1.24E+01	3.39E+01	1.50E+02	2.49E+01						
4.16E-01	2.20E+01	1.16E+01	4.70E+01	1.54E+02	2.45E+01						
5.85E-01	2.13E+01	1.14E+01	6.45E+01	1.48E+02	2.30E+01						
8.21E-01	2.14E+01	1.15E+01	8.98E+01	1.33E+02	2.07E+01						
1.15E+00	2.25E+01	1.20E+01	1.29E+02	1.11E+02	1.76E+01						
1.64E+00	2.49E+01	1.28E+01	1.87E+02	9.06E+01	1.46E+01						
2.46E+00	3.00E+01	1.41E+01	2.56E+02	7.92E+01	1.27E+01						
3.82E+00	3.92E+01	1.58E+01	3.41E+02	7.64E+01	1.20E+01						
5.69E+00	5.22E+01	1.77E+01	5.12E+02	9.46E+01	1.41E+01						
8.53E+00	7.10E+01	1.98E+01	0.00E-01	0.00E-01	0.00E-01						

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
4.15E-01	3.60E+01	3.91E-01	3.20E+01	1.52E+00	2.58E+01	1.11E+00	1.39E+01	1.71E+01	3.84E+02	7.55E+00	3.27E+01
4.67E-01	2.15E+01	4.44E-01	1.49E+01	1.82E+00	3.52E+01	1.33E+00	1.65E+01	2.14E+01	2.94E+02	9.00E+00	2.90E+01
5.30E-01	2.16E+01	4.80E-01	7.20E+00	2.22E+00	5.14E+01	1.60E+00	1.92E+01	2.61E+01	2.11E+02	1.06E+01	2.41E+01
6.01E-01	2.01E+01	5.09E-01	4.97E+00	2.77E+00	8.01E+01	1.93E+00	2.21E+01	3.08E+01	1.41E+02	1.22E+01	1.86E+01
6.81E-01	1.81E+01	5.40E-01	4.75E+00	3.52E+00	1.31E+02	2.35E+00	2.51E+01	3.51E+01	8.91E+01	1.38E+01	1.34E+01
7.68E-01	1.65E+01	5.81E-01	5.36E+00	4.54E+00	2.16E+02	2.86E+00	2.81E+01	3.89E+01	5.47E+01	1.54E+01	9.18E+00
8.67E-01	1.57E+01	6.37E-01	6.42E+00	5.94E+00	3.38E+02	3.49E+00	3.09E+01	4.21E+01	3.60E+01	1.68E+01	6.43E+00
9.81E-01	1.59E+01	7.13E-01	7.82E+00	7.81E+00	4.57E+02	4.25E+00	3.32E+01	4.52E+01	3.04E+01	1.81E+01	5.22E+00
1.12E+00	1.73E+01	8.14E-01	9.55E+00	1.02E+01	5.04E+02	5.18E+00	3.46E+01	4.89E+01	3.81E+01	1.96E+01	5.78E+00
1.29E+00	2.03E+01	9.45E-01	1.16E+01	1.33E+01	4.66E+02	6.27E+00	3.45E+01	5.50E+01	4.60E+01	2.19E+01	6.49E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=131813GLS CROSSPOWERS INPUT FILES=1318C2CDD 1318S3BE 1318C5DCK

GLASS MOUNTAIN, CA. STA. 13 GLS, USED STA. 18 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 2, PASS C, WITH 56 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 0 DELETED.--YX SET HAS 11 POINTS, PLUS 1 DELETED.
2...BAND ID= 3, PASS B, WITH 113 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 9 POINTS, PLUS 1 DELETED.
3...BAND ID= 5, PASS D, WITH 37 STACKED SEGMENTS.--XY SET HAS 15 POINTS, PLUS 1 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

ROTATION INDICATOR IROTAT = -2 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
BAND 3 HAD ITS TIPPER STRIKE, PHASE SHIFTED BY 180. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
BAND 5 HAD ITS TIPPER STRIKE, PHASE SHIFTED BY-180. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 22.14,32.12,51.02,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=340, EY= 70, HX=340, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-340 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	1.28E+02	2.06E+02	4.64E-01	1.60E+01	3.07E+01	3.31E+00	0.00E-01	1.64E+01			
3.26E-02	8.91E+01	1.71E+02	6.49E-01	1.22E+01	2.45E+01	4.64E+00	8.92E+00	1.78E+01			
4.56E-02	7.35E+01	1.47E+02	9.06E-01	9.74E+00	2.03E+01	6.49E+00	1.06E+01	2.02E+01			
6.39E-02	6.43E+01	1.25E+02	1.26E+00	8.29E+00	1.77E+01	9.06E+00	1.29E+01	2.34E+01			
8.95E-02	5.58E+01	1.04E+02	1.76E+00	7.60E+00	1.63E+01	1.26E+01	1.58E+01	2.75E+01			
1.26E-01	4.64E+01	8.34E+01	2.44E+00	7.50E+00	1.60E+01	1.76E+01	1.89E+01	3.19E+01			
1.77E-01	3.65E+01	6.49E+01	3.39E+00	7.96E+00	1.65E+01	2.44E+01	2.19E+01	3.62E+01			
2.50E-01	2.76E+01	4.96E+01	4.70E+00	8.97E+00	1.79E+01	3.39E+01	2.39E+01	3.96E+01			
3.51E-01	2.04E+01	3.79E+01	6.45E+00	1.05E+01	2.01E+01	4.70E+01	2.44E+01	4.11E+01			
4.93E-01	1.52E+01	2.94E+01	8.98E+00	1.28E+01	0.00E-01	6.45E+01	2.33E+01	4.03E+01			
6.89E-01	1.17E+01	2.36E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	2.08E+01	3.72E+01			
9.85E-01	9.29E+00	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	1.74E+01	3.22E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	1.44E+01	2.67E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	1.28E+01	2.30E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	1.26E+01	2.09E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	1.59E+01	2.16E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
6.04E-01	9.09E+01	8.34E-01	1.73E+02	1.01E+00	2.00E+00	1.44E+00	6.01E+00	6.04E+00	5.86E+01	7.88E+00	7.91E+01
6.42E-01	2.46E+01	9.07E-01	5.54E+01	1.07E+00	2.81E+00	1.55E+00	7.36E+00	7.61E+00	5.00E+01	9.82E+00	7.50E+01
7.04E-01	2.82E+01	9.86E-01	4.40E+01	1.17E+00	3.99E+00	1.71E+00	9.35E+00	9.37E+00	3.84E+01	1.20E+01	6.40E+01
7.73E-01	2.24E+01	1.06E+00	3.04E+01	1.32E+00	5.81E+00	1.93E+00	1.23E+01	1.12E+01	2.70E+01	1.45E+01	4.99E+01
8.37E-01	1.40E+01	1.13E+00	1.91E+01	1.53E+00	8.81E+00	2.24E+00	1.68E+01	1.30E+01	1.76E+01	1.70E+01	3.59E+01
8.86E-01	7.40E+00	1.18E+00	1.15E+01	1.84E+00	1.39E+01	2.66E+00	2.35E+01	1.46E+01	1.11E+01	1.94E+01	2.42E+01
9.20E-01	3.49E+00	1.23E+00	7.32E+00	2.28E+00	2.23E+01	3.22E+00	3.32E+01	1.60E+01	7.07E+00	2.15E+01	1.59E+01
9.41E-01	2.03E+00	1.27E+00	5.39E+00	2.88E+00	3.50E+01	3.98E+00	4.64E+01	1.72E+01	5.37E+00	2.35E+01	1.09E+01
9.64E-01	1.56E+00	1.31E+00	4.87E+00	3.68E+00	4.96E+01	4.98E+00	6.13E+01	1.86E+01	5.68E+00	2.53E+01	8.99E+00
9.78E-01	1.28E+00	1.37E+00	5.17E+00	4.73E+00	5.93E+01	6.27E+00	7.39E+01	2.06E+01	6.10E+00	2.75E+01	8.14E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=021414GLS CROSSPOWERS INPUT FILES=0214C2BDK 0214S3CCG 0214C5EBN

GLASS MOUNTAIN, CA. STA. 14 GLS, USED STA. 02 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 2, PASS B, WITH 63 STACKED SEGMENTS.--XY SET HAS 9 POINTS, PLUS 3 DELETED.--YX SET HAS 12 POINTS, PLUS 0 DELETED.
2...BAND ID= 3, PASS C, WITH 132 STACKED SEGMENTS.--XY SET HAS 9 POINTS, PLUS 1 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS E, WITH 14 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 21.03,21.13,21.14,31.10,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=175, EY=265, HX=175, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-175 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	0.00E-01	2.13E+02	4.64E-01	2.79E+01	4.53E+01	3.31E+00	2.77E+01	9.50E+01			
3.26E-02	1.30E+02	1.94E+02	6.49E-01	2.57E+01	4.45E+01	4.64E+00	3.08E+01	1.24E+02			
4.56E-02	1.00E+02	1.64E+02	9.06E-01	2.44E+01	4.67E+01	6.49E+00	3.48E+01	1.64E+02			
6.39E-02	7.83E+01	1.33E+02	1.26E+00	2.41E+01	5.21E+01	9.06E+00	3.97E+01	2.14E+02			
8.95E-02	6.21E+01	1.05E+02	1.76E+00	2.45E+01	6.14E+01	1.26E+01	4.50E+01	2.70E+02			
1.26E-01	5.02E+01	8.23E+01	2.44E+00	2.58E+01	7.57E+01	1.76E+01	5.01E+01	3.25E+02			
1.77E-01	4.14E+01	6.60E+01	3.39E+00	2.79E+01	9.68E+01	2.44E+01	5.43E+01	3.68E+02			
2.50E-01	3.50E+01	5.50E+01	4.70E+00	0.00E-01	1.26E+02	3.39E+01	5.64E+01	3.90E+02			
3.51E-01	3.05E+01	4.82E+01	6.45E+00	3.48E+01	1.63E+02	4.70E+01	5.57E+01	3.83E+02			
4.93E-01	2.74E+01	4.50E+01	8.98E+00	3.95E+01	2.12E+02	6.45E+01	5.23E+01	3.52E+02			
6.89E-01	0.00E-01	4.47E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	4.64E+01	3.02E+02			
9.85E-01	0.00E-01	4.77E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	3.88E+01	2.45E+02			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	3.19E+01	1.97E+02			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	2.80E+01	1.73E+02			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	2.71E+01	1.70E+02			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	3.41E+01	2.24E+02			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
7.59E-01	1.02E+02	8.87E-01	1.96E+02	1.75E+00	2.12E+01	2.01E+00	5.47E+01	1.23E+01	8.18E+01	2.50E+01	9.88E+02
7.90E-01	1.32E+01	9.63E-01	5.00E+01	2.04E+00	2.55E+01	2.42E+00	8.36E+01	1.47E+01	6.66E+01	3.13E+01	7.35E+02
8.28E-01	1.29E+01	1.02E+00	2.93E+01	2.41E+00	3.15E+01	2.99E+00	1.36E+02	1.73E+01	4.99E+01	3.81E+01	5.17E+02
8.75E-01	1.28E+01	1.07E+00	1.98E+01	2.89E+00	3.97E+01	3.79E+00	2.36E+02	1.97E+01	3.46E+01	4.48E+01	3.42E+02
9.34E-01	1.29E+01	1.12E+00	1.63E+01	3.51E+00	5.04E+01	4.89E+00	4.27E+02	2.20E+01	2.27E+01	5.09E+01	2.12E+02
1.01E+00	1.31E+01	1.18E+00	1.62E+01	4.31E+00	6.33E+01	6.42E+00	7.64E+02	2.40E+01	1.50E+01	5.62E+01	1.26E+02
1.10E+00	1.37E+01	1.26E+00	1.82E+01	5.33E+00	7.70E+01	8.50E+00	1.22E+03	2.59E+01	1.14E+01	6.05E+01	7.77E+01
1.21E+00	1.46E+01	1.36E+00	2.20E+01	6.62E+00	8.85E+01	1.13E+01	1.53E+03	2.79E+01	1.19E+01	6.43E+01	5.99E+01
1.35E+00	1.61E+01	1.51E+00	2.82E+01	8.21E+00	9.42E+01	1.49E+01	1.50E+03	3.07E+01	1.26E+01	6.88E+01	6.82E+01
1.52E+00	1.82E+01	1.72E+00	3.81E+01	1.01E+01	9.18E+01	1.95E+01	1.26E+03	0.00E-01	0.00E-01	7.57E+01	7.64E+01

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=091515GLS CROSSPOWERS INPUT FILES=0915C1BFC 0915S5ACA

GLASS MOUNTAIN, CA. STA. 15 GLS, USED STA. 09 GLS AS REF AND RECORDED OVER 2 PASS BANDS PLOT DATE=01-OCT-81 TIME=02:42:52
1...BAND ID= 1, PASS B, WITH 107 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 1 DELETED.--YX SET HAS 17 POINTS, PLUS 0 DELETED.
2...BAND ID= 5, PASS A, WITH 22 STACKED SEGMENTS.--XY SET HAS 15 POINTS, PLUS 1 DELETED.--YX SET HAS 15 POINTS, PLUS 1 DELETED.

BAND 1 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY -90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 12.18,52.02,51.15,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=280, EY= 10, HX=280, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-280 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.76E-02	3.62E+02	4.94E+02	3.31E+00	2.40E+01	0.00E-01						
3.87E-02	2.62E+02	3.50E+02	4.64E+00	2.68E+01	3.84E+01						
5.43E-02	2.06E+02	2.70E+02	6.49E+00	3.07E+01	4.41E+01						
7.61E-02	1.63E+02	2.13E+02	9.06E+00	3.55E+01	5.06E+01						
1.06E-01	1.26E+02	1.66E+02	1.26E+01	4.09E+01	5.71E+01						
1.49E-01	9.52E+01	1.26E+02	1.76E+01	4.64E+01	6.22E+01						
2.10E-01	7.04E+01	9.44E+01	2.44E+01	5.19E+01	6.47E+01						
2.96E-01	5.20E+01	7.05E+01	3.39E+01	5.71E+01	6.39E+01						
4.16E-01	3.93E+01	5.38E+01	4.70E+01	6.16E+01	5.99E+01						
5.85E-01	3.10E+01	4.27E+01	6.45E+01	6.56E+01	5.36E+01						
8.21E-01	2.59E+01	3.59E+01	8.98E+01	6.94E+01	4.59E+01						
1.15E+00	2.31E+01	3.22E+01	1.29E+02	7.29E+01	3.80E+01						
1.64E+00	2.20E+01	3.07E+01	1.87E+02	7.48E+01	3.14E+01						
2.46E+00	2.25E+01	3.18E+01	2.56E+02	0.00E-01	2.75E+01						
3.82E+00	2.51E+01	3.58E+01	3.41E+02	6.59E+01	2.56E+01						
5.69E+00	2.91E+01	4.17E+01	5.12E+02	4.49E+01	2.56E+01						
8.53E+00	0.00E-01	4.94E+01	0.00E-01	0.00E-01	0.00E-01						

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
1.13E+00	2.68E+02	1.31E+00	3.58E+02	1.66E+00	1.05E+01	1.95E+00	1.50E+01	1.07E+01	1.00E+02	1.23E+01	8.67E+01
1.18E+00	3.57E+01	1.35E+00	4.09E+01	1.84E+00	1.41E+01	2.17E+00	2.02E+01	1.32E+01	9.89E+01	1.46E+01	6.65E+01
1.24E+00	2.89E+01	1.42E+00	3.68E+01	2.10E+00	1.93E+01	2.48E+00	2.79E+01	1.61E+01	9.67E+01	1.69E+01	4.77E+01
1.29E+00	1.77E+01	1.48E+00	2.47E+01	2.46E+00	2.67E+01	2.92E+00	3.93E+01	1.95E+01	9.53E+01	1.91E+01	3.27E+01
1.33E+00	9.34E+00	1.53E+00	1.46E+01	2.95E+00	3.71E+01	3.51E+00	5.52E+01	2.35E+01	9.48E+01	2.11E+01	2.19E+01
1.36E+00	6.62E+00	1.57E+00	8.89E+00	3.60E+00	5.07E+01	4.30E+00	7.56E+01	2.81E+01	9.47E+01	2.29E+01	1.53E+01
1.39E+00	5.08E+00	1.60E+00	6.90E+00	4.46E+00	6.63E+01	5.34E+00	9.67E+01	3.36E+01	9.15E+01	2.46E+01	1.21E+01
1.42E+00	3.90E+00	1.64E+00	7.20E+00	5.56E+00	8.11E+01	6.66E+00	1.11E+02	3.98E+01	8.00E+01	2.65E+01	1.13E+01
1.46E+00	5.00E+00	1.70E+00	8.82E+00	6.95E+00	9.23E+01	8.28E+00	1.14E+02	4.64E+01	5.66E+01	2.89E+01	1.28E+01
1.53E+00	7.85E+00	1.80E+00	1.14E+01	8.66E+00	9.83E+01	1.02E+01	1.04E+02	5.22E+01	4.14E+01	3.21E+01	1.36E+01

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=161716GLS CROSSPOWERS INPUT FILES=1617S1AAE 1617C3HDQ 1617C5ICF

GLASS MOUNTAIN, CA. STA. 16 GLS, USED STA. 17 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 1, PASS A, WITH 38 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 5 DELETED.--YX SET HAS 11 POINTS, PLUS 6 DELETED.
2...BAND ID= 3, PASS H, WITH 69 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 9 POINTS, PLUS 1 DELETED.
3...BAND ID= 5, PASS I, WITH 32 STACKED SEGMENTS.--XY SET HAS 15 POINTS, PLUS 1 DELETED.--YX SET HAS 15 POINTS, PLUS 1 DELETED.

BAND 1 HAD ITS TIPPER STRIKE, PHASE SHIFTED BY 180. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
BAND 5 HAD ITS TIPPER STRIKE, PHASE SHIFTED BY 180. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 12.13,13.14,13.15,13.16,13.17,13.18,32.08,53.07,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=100, EY=190, HX=100, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-100 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.76E-02	2.38E+02	9.84E+01	4.64E-01	5.75E+01	2.17E+01	3.31E+00	1.35E+02	1.59E+01			
3.87E-02	2.08E+02	7.87E+01	6.49E-01	5.80E+01	1.96E+01	4.64E+00	1.78E+02	1.63E+01			
5.43E-02	1.71E+02	6.28E+01	9.06E-01	6.24E+01	1.80E+01	6.49E+00	2.33E+02	1.71E+01			
7.61E-02	1.37E+02	5.06E+01	1.26E+00	7.12E+01	1.68E+01	9.06E+00	3.01E+02	1.83E+01			
1.06E-01	1.08E+02	4.16E+01	1.76E+00	8.54E+01	1.61E+01	1.26E+01	3.75E+02	1.97E+01			
1.49E-01	8.72E+01	3.48E+01	2.44E+00	1.07E+02	0.00E-01	2.44E+01	4.98E+02	2.27E+01			
2.10E-01	7.24E+01	2.96E+01	3.39E+00	1.38E+02	1.59E+01	3.39E+01	5.22E+02	2.38E+01			
2.96E-01	6.30E+01	2.56E+01	4.70E+00	1.80E+02	1.63E+01	4.70E+01	5.11E+02	2.41E+01			
4.16E-01	5.82E+01	2.25E+01	6.45E+00	2.32E+02	1.71E+01	6.45E+01	4.72E+02	2.35E+01			
5.85E-01	5.75E+01	2.01E+01	8.98E+00	2.99E+02	1.82E+01	8.98E+01	4.12E+02	2.18E+01			
8.21E-01	6.06E+01	1.84E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	3.42E+02	1.91E+01			
1.15E+00	6.81E+01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	2.85E+02	1.60E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	2.58E+02	1.38E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	2.59E+02	1.26E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	3.35E+02	1.30E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
1.00E+00	2.11E+02	6.19E-01	8.01E+01	2.56E+00	1.07E+02	1.40E+00	1.13E+01	3.33E+01	1.04E+03	7.23E+00	3.32E+01
1.07E+00	4.31E+01	6.51E-01	1.34E+01	3.16E+00	1.73E+02	1.58E+00	1.19E+01	4.08E+01	7.66E+02	8.70E+00	3.16E+01
1.13E+00	2.81E+01	6.88E-01	1.24E+01	4.00E+00	2.98E+02	1.81E+00	1.29E+01	4.84E+01	5.35E+02	1.04E+01	2.78E+01
1.19E+00	2.22E+01	7.32E-01	1.19E+01	5.17E+00	5.34E+02	2.08E+00	1.43E+01	5.58E+01	3.55E+02	1.22E+01	2.25E+01
1.25E+00	2.13E+01	7.85E-01	1.16E+01	6.77E+00	9.47E+02	2.43E+00	1.64E+01	6.26E+01	2.29E+02	1.40E+01	1.68E+01
1.33E+00	2.35E+01	8.49E-01	1.13E+01	8.96E+00	1.50E+03	2.86E+00	1.90E+01	6.85E+01	1.51E+02	1.58E+01	1.18E+01
1.45E+00	2.82E+01	9.25E-01	1.11E+01	1.19E+01	1.91E+03	3.40E+00	2.23E+01	7.40E+01	1.14E+02	1.74E+01	8.17E+00
1.60E+00	3.61E+01	1.01E+00	1.09E+01	1.57E+01	1.93E+03	4.08E+00	2.59E+01	7.98E+01	1.13E+02	1.90E+01	6.07E+00
1.82E+00	4.87E+01	1.12E+00	1.09E+01	2.06E+01	1.68E+03	4.93E+00	2.95E+01	8.77E+01	1.57E+02	2.05E+01	5.68E+00
2.13E+00	6.99E+01	1.25E+00	1.09E+01	2.65E+01	1.35E+03	5.97E+00	3.23E+01	1.01E+02	2.01E+02	2.26E+01	5.63E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=161717GLS CROSSPOWERS INPUT FILES=1617S1AAE 1617C3HDG 1617C5ICF

GLASS MOUNTAIN, CA. STA. 17 GLS, USED STA. 16 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 1, PASS A, WITH 38 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 5 DELETED.--YX SET HAS 11 POINTS, PLUS 6 DELETED.
2...BAND ID= 3, PASS H, WITH 69 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS I, WITH 32 STACKED SEGMENTS.--XY SET HAS 15 POINTS, PLUS 1 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 12.13,13.14,13.15,13.16,13.17,13.18,51.07,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=125, EY=215, HX=125, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-125 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.76E-02	1.44E+02	1.58E+02	4.64E-01	2.21E+01	5.42E+01	3.31E+00	2.66E+01	2.76E+01			
3.87E-02	1.13E+02	1.83E+02	6.49E-01	1.81E+01	4.64E+01	4.64E+00	3.60E+01	2.67E+01			
5.43E-02	9.97E+01	1.74E+02	9.06E-01	1.62E+01	4.03E+01	6.49E+00	4.97E+01	2.66E+01			
7.61E-02	8.80E+01	1.50E+02	1.26E+00	1.60E+01	3.56E+01	9.06E+00	6.76E+01	2.73E+01			
1.06E-01	7.38E+01	1.24E+02	1.76E+00	1.76E+01	3.19E+01	1.26E+01	8.82E+01	2.88E+01			
1.49E-01	5.80E+01	1.01E+02	2.44E+00	2.10E+01	2.93E+01	1.76E+01	0.00E-01	3.09E+01			
2.10E-01	4.33E+01	8.24E+01	3.39E+00	2.71E+01	2.75E+01	2.44E+01	1.21E+02	3.33E+01			
2.96E-01	3.18E+01	6.81E+01	4.70E+00	3.64E+01	2.67E+01	3.39E+01	1.25E+02	3.55E+01			
4.16E-01	2.39E+01	5.71E+01	6.45E+00	4.94E+01	2.66E+01	4.70E+01	1.19E+02	3.68E+01			
5.85E-01	1.90E+01	4.86E+01	8.98E+00	6.71E+01	2.73E+01	6.45E+01	1.07E+02	3.65E+01			
8.21E-01	1.66E+01	4.20E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	9.13E+01	3.43E+01			
1.15E+00	1.59E+01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	7.68E+01	2.99E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	6.73E+01	2.44E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	6.48E+01	2.05E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	6.77E+01	1.83E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	8.20E+01	1.97E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
7.40E-01	1.14E+02	9.33E-01	1.82E+02	1.33E+00	1.01E+01	2.11E+00	1.74E+01	1.64E+01	2.73E+02	8.71E+00	4.95E+01
8.13E-01	4.66E+01	1.07E+00	1.07E+02	1.53E+00	1.74E+01	2.32E+00	1.70E+01	2.01E+01	1.75E+02	1.05E+01	5.10E+01
9.00E-01	3.78E+01	1.18E+00	5.55E+01	1.84E+00	3.31E+01	2.57E+00	1.72E+01	2.36E+01	1.10E+02	1.27E+01	4.74E+01
9.76E-01	2.19E+01	1.27E+00	3.52E+01	2.31E+00	7.19E+01	2.87E+00	1.80E+01	2.69E+01	6.79E+01	1.50E+01	3.93E+01
1.03E+00	1.01E+01	1.35E+00	2.69E+01	3.00E+00	1.86E+02	3.24E+00	1.96E+01	2.97E+01	4.38E+01	1.75E+01	2.89E+01
1.06E+00	4.08E+00	1.43E+00	2.33E+01	4.00E+00	3.88E+02	3.71E+00	2.22E+01	3.23E+01	3.26E+01	1.98E+01	1.90E+01
1.09E+00	3.10E+00	1.53E+00	2.15E+01	5.33E+00	5.05E+02	4.29E+00	2.60E+01	3.50E+01	3.06E+01	2.18E+01	1.18E+01
1.11E+00	2.38E+00	1.64E+00	2.02E+01	7.11E+00	6.58E+02	5.04E+00	3.11E+01	3.84E+01	3.70E+01	2.35E+01	7.65E+00
1.14E+00	3.25E+00	1.78E+00	1.91E+01	9.48E+00	8.57E+02	6.00E+00	3.74E+01	4.34E+01	5.58E+01	2.51E+01	6.76E+00
1.20E+00	6.21E+00	1.93E+00	1.81E+01	1.29E+01	6.86E+02	7.20E+00	4.41E+01	5.12E+01	7.42E+01	2.73E+01	6.74E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=131818GLS CROSSPOWERS INPUT FILES=1318C2CDD 1318S3BE 1318C5DCK

GLASS MOUNTAIN, CA. STA. 18 GLS, USED STA. 13 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 2, PASS C, WITH 56 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 2 DELETED.--YX SET HAS 12 POINTS, PLUS 0 DELETED.
2...BAND ID= 3, PASS B, WITH 113 STACKED SEGMENTS.--XY SET HAS 7 POINTS, PLUS 3 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS D, WITH 37 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

BAND 3 HAD ITS TIPPER STRIKE, PHASE SHIFTED BY-180. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 21.13,21.14,31.06,31.11,31.12,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX= 40, EY=130, HX= 40, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)= -40 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	1.47E+02	9.36E+01	4.64E-01	3.41E+01	3.13E+01	3.31E+00	1.65E+01	1.58E+01			
3.26E-02	1.34E+02	9.88E+01	6.49E-01	2.72E+01	2.39E+01	4.64E+00	1.71E+01	1.80E+01			
4.56E-02	1.25E+02	1.05E+02	9.06E-01	2.23E+01	1.92E+01	6.49E+00	1.84E+01	2.15E+01			
6.39E-02	1.15E+02	1.07E+02	1.26E+00	0.00E-01	1.64E+01	9.06E+00	2.02E+01	2.64E+01			
8.95E-02	1.01E+02	1.01E+02	1.76E+00	1.74E+01	1.51E+01	1.26E+01	2.23E+01	3.26E+01			
1.26E-01	8.53E+01	8.78E+01	2.44E+00	1.65E+01	1.50E+01	1.76E+01	2.44E+01	3.95E+01			
1.77E-01	6.88E+01	7.05E+01	3.39E+00	1.65E+01	1.60E+01	2.44E+01	2.62E+01	4.58E+01			
2.50E-01	5.39E+01	5.37E+01	4.70E+00	1.72E+01	1.81E+01	3.39E+01	2.71E+01	5.00E+01			
3.51E-01	4.18E+01	3.99E+01	6.45E+00	0.00E-01	2.14E+01	4.70E+01	2.68E+01	5.07E+01			
4.93E-01	3.27E+01	2.98E+01	8.98E+00	0.00E-01	2.63E+01	6.45E+01	2.55E+01	4.76E+01			
6.89E-01	0.00E-01	2.29E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	2.31E+01	4.13E+01			
9.85E-01	0.00E-01	1.83E+01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	1.98E+01	3.32E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	1.67E+01	2.62E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	1.46E+01	2.25E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	1.36E+01	2.18E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	1.41E+01	2.88E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
7.35E-01	1.34E+02	6.28E-01	9.82E+01	1.52E+00	6.33E+00	1.42E+00	4.06E+00	6.95E+00	4.06E+01	8.71E+00	1.29E+02
8.32E-01	8.06E+01	7.57E-01	1.40E+02	1.63E+00	7.37E+00	1.51E+00	5.70E+00	8.42E+00	3.76E+01	1.10E+01	1.07E+02
9.37E-01	6.52E+01	8.97E-01	1.06E+02	1.78E+00	8.93E+00	1.65E+00	8.10E+00	1.01E+01	3.20E+01	1.36E+01	7.95E+01
1.04E+00	4.58E+01	1.03E+00	6.64E+01	1.99E+00	1.11E+01	1.86E+00	1.19E+01	1.18E+01	2.53E+01	1.62E+01	5.34E+01
1.13E+00	2.93E+01	1.14E+00	3.63E+01	2.27E+00	1.42E+01	2.17E+00	1.81E+01	1.36E+01	1.87E+01	1.86E+01	3.27E+01
1.21E+00	1.78E+01	1.23E+00	1.76E+01	2.65E+00	1.84E+01	2.61E+00	2.90E+01	1.53E+01	1.32E+01	2.07E+01	1.85E+01
1.27E+00	1.10E+01	1.28E+00	7.88E+00	3.16E+00	2.38E+01	3.24E+00	4.75E+01	1.69E+01	9.35E+00	2.24E+01	1.03E+01
1.33E+00	7.45E+00	1.31E+00	3.93E+00	3.81E+00	3.00E+01	4.10E+00	7.61E+01	1.84E+01	7.13E+00	2.37E+01	7.02E+00
1.38E+00	6.03E+00	1.34E+00	3.02E+00	4.65E+00	3.59E+01	5.27E+00	1.10E+02	2.00E+01	6.46E+00	2.51E+01	7.56E+00
1.44E+00	5.82E+00	1.37E+00	2.86E+00	5.69E+00	3.99E+01	6.79E+00	1.32E+02	2.20E+01	6.12E+00	2.73E+01	8.28E+00

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=192019GLS CROSSPOWERS INPUT FILES=1920C1ADE 1920C5BCV

GLASS MOUNTAIN, CA. STA. 19 GLS, USED STA. 20 GLS AS REF AND RECORDED OVER 2 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 1, PASS A, WITH 57 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 1 DELETED.--YX SET HAS 17 POINTS, PLUS 0 DELETED.
2...BAND ID= 5, PASS B, WITH 48 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

BAND 5 HAD ITS TIPPER STRIKE, PHASE SHIFTED BY 180. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 11.18,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX= 0, EY= 90, HX= 0, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)= 0 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.76E-02	5.56E+02	4.33E+02	3.31E+00	3.46E+01	2.75E+01						
3.87E-02	4.22E+02	3.39E+02	4.64E+00	3.94E+01	3.05E+01						
5.43E-02	3.46E+02	2.76E+02	6.49E+00	4.68E+01	3.51E+01						
7.61E-02	2.85E+02	2.22E+02	9.06E+00	5.66E+01	4.09E+01						
1.06E-01	2.28E+02	1.75E+02	1.26E+01	6.85E+01	4.75E+01						
1.49E-01	1.75E+02	1.33E+02	1.76E+01	8.10E+01	5.38E+01						
2.10E-01	1.29E+02	9.86E+01	2.44E+01	9.25E+01	5.86E+01						
2.96E-01	9.33E+01	7.24E+01	3.39E+01	1.01E+02	6.06E+01						
4.16E-01	6.81E+01	5.39E+01	4.70E+01	1.04E+02	5.88E+01						
5.85E-01	5.14E+01	4.15E+01	6.45E+01	1.03E+02	5.39E+01						
8.21E-01	4.10E+01	3.35E+01	8.98E+01	9.60E+01	4.65E+01						
1.15E+00	3.50E+01	2.88E+01	1.29E+02	8.63E+01	3.78E+01						
1.64E+00	3.21E+01	2.64E+01	1.87E+02	7.66E+01	3.04E+01						
2.46E+00	3.23E+01	2.62E+01	2.56E+02	7.07E+01	2.63E+01						
3.82E+00	3.63E+01	2.86E+01	3.41E+02	6.85E+01	2.48E+01						
5.69E+00	4.36E+01	3.31E+01	5.12E+02	7.28E+01	2.88E+01						
8.53E+00	0.00E-01	3.98E+01	0.00E-01	0.00E-01	0.00E-01						

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
1.43E+00	4.29E+02	1.28E+00	3.45E+02	2.08E+00	8.66E+00	1.88E+00	1.04E+01	1.42E+01	2.12E+02	1.15E+01	1.00E+02
1.52E+00	9.47E+01	1.36E+00	6.67E+01	2.26E+00	1.66E+01	2.05E+00	1.40E+01	1.76E+01	1.78E+02	1.40E+01	8.00E+01
1.63E+00	7.55E+01	1.44E+00	4.85E+01	2.54E+00	2.40E+01	2.31E+00	1.91E+01	2.14E+01	1.40E+02	1.65E+01	5.80E+01
1.73E+00	4.51E+01	1.52E+00	2.88E+01	2.95E+00	3.58E+01	2.66E+00	2.69E+01	2.53E+01	1.05E+02	1.89E+01	3.88E+01
1.80E+00	2.15E+01	1.57E+00	1.49E+01	3.53E+00	5.49E+01	3.16E+00	3.86E+01	2.92E+01	7.77E+01	2.11E+01	2.44E+01
1.84E+00	1.21E+01	1.61E+00	9.23E+00	4.34E+00	8.54E+01	3.85E+00	5.55E+01	3.31E+01	5.81E+01	2.30E+01	1.51E+01
1.88E+00	9.30E+00	1.64E+00	7.08E+00	5.45E+00	1.30E+02	4.76E+00	7.71E+01	3.70E+01	4.62E+01	2.46E+01	1.03E+01
1.93E+00	7.14E+00	1.68E+00	5.44E+00	6.93E+00	1.80E+02	5.96E+00	9.91E+01	4.10E+01	4.18E+01	2.62E+01	9.04E+00
1.97E+00	5.48E+00	1.70E+00	4.41E+00	8.86E+00	2.20E+02	7.48E+00	1.13E+02	4.58E+01	4.56E+01	2.82E+01	1.15E+01
2.02E+00	4.76E+00	1.77E+00	7.77E+00	1.13E+01	2.30E+02	9.35E+00	1.14E+02	5.22E+01	4.92E+01	3.15E+01	1.35E+01

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=192020GLS CROSSPOWERS INPUT FILES=1920C1ADE 1920C5BCV

GLASS MOUNTAIN, CA. STA. 20 GLS, USED STA. 19 GLS AS REF AND RECORDED OVER 2 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 1, PASS A, WITH 57 STACKED SEGMENTS.--XY SET HAS 14 POINTS, PLUS 3 DELETED.--YX SET HAS 15 POINTS, PLUS 2 DELETED.
2...BAND ID= 5, PASS B, WITH 48 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

BAND 5 HAD ITS XY AND YX DATA SETS SWITCHED, PHASES SHIFTED BY 180. AND ROTATION BY -90. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 11.16,13.17,13.18,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX= 40, EY=130, HX= 40, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)= -40 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.76E-02	2.00E+02	7.02E+01	3.31E+00	2.70E+01	1.00E+01						
3.87E-02	1.89E+02	6.74E+01	4.64E+00	3.16E+01	1.18E+01						
5.43E-02	1.72E+02	6.51E+01	6.49E+00	3.82E+01	1.41E+01						
7.61E-02	1.47E+02	5.94E+01	9.06E+00	4.65E+01	1.68E+01						
1.06E-01	1.18E+02	5.02E+01	1.26E+01	5.64E+01	1.95E+01						
1.49E-01	9.12E+01	3.94E+01	1.76E+01	6.64E+01	2.17E+01						
2.10E-01	6.83E+01	2.93E+01	2.44E+01	7.52E+01	2.28E+01						
2.96E-01	5.09E+01	2.13E+01	3.39E+01	8.10E+01	2.26E+01						
4.16E-01	3.88E+01	1.57E+01	4.70E+01	8.23E+01	2.12E+01						
5.85E-01	3.10E+01	1.21E+01	6.45E+01	7.90E+01	1.90E+01						
8.21E-01	2.62E+01	9.92E+00	8.98E+01	7.18E+01	1.64E+01						
1.15E+00	2.37E+01	8.81E+00	1.29E+02	6.18E+01	1.39E+01						
1.64E+00	2.30E+01	8.50E+00	1.87E+02	5.20E+01	1.22E+01						
2.46E+00	2.45E+01	9.05E+00	2.56E+02	4.57E+01	1.14E+01						
3.82E+00	0.00E-01	1.07E+01	3.41E+02	4.24E+01	1.15E+01						
0.00E-01	0.00E-01	0.00E-01	5.12E+02	4.37E+01	1.30E+01						

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
9.54E-01	1.90E+02	5.68E-01	6.75E+01	1.67E+00	1.17E+01	1.02E+00	3.76E+00	1.29E+01	1.64E+02	7.30E+00	3.31E+01
1.07E+00	8.43E+01	6.54E-01	4.75E+01	1.86E+00	1.62E+01	1.14E+00	5.57E+00	1.59E+01	1.34E+02	8.69E+00	2.44E+01
1.17E+00	4.92E+01	7.38E-01	3.06E+01	2.15E+00	2.33E+01	1.30E+00	8.40E+00	1.91E+01	1.02E+02	1.01E+01	1.70E+01
1.24E+00	2.56E+01	8.05E-01	1.58E+01	2.55E+00	3.47E+01	1.55E+00	1.30E+01	2.24E+01	7.31E+01	1.14E+01	1.16E+01
1.30E+00	1.26E+01	8.51E-01	6.77E+00	3.10E+00	5.31E+01	1.89E+00	2.02E+01	2.56E+01	5.03E+01	1.25E+01	8.05E+00
1.33E+00	6.67E+00	8.71E-01	2.71E+00	3.87E+00	8.17E+01	2.36E+00	3.04E+01	2.86E+01	3.44E+01	1.37E+01	6.24E+00
1.36E+00	4.88E+00	8.91E-01	2.08E+00	4.90E+00	1.20E+02	2.99E+00	4.14E+01	3.14E+01	2.47E+01	1.49E+01	5.72E+00
1.40E+00	5.17E+00	9.12E-01	1.60E+00	6.27E+00	1.60E+02	3.80E+00	4.84E+01	3.41E+01	2.05E+01	1.64E+01	6.35E+00
1.45E+00	6.53E+00	9.34E-01	1.23E+00	8.04E+00	1.85E+02	4.80E+00	4.82E+01	3.72E+01	2.14E+01	1.84E+01	8.47E+00
1.53E+00	8.64E+00	9.55E-01	2.02E+00	1.02E+01	1.85E+02	5.98E+00	4.20E+01	4.13E+01	2.23E+01	2.13E+01	1.03E+01

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=212221GLS CROSSPOWERS INPUT FILES=2122C2ACZ 2122R3ECZ 2122C5DBJ

GLASS MOUNTAIN, CA. STA. 21 GLS, USED STA. 22 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 2, PASS A, WITH 52 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 2 DELETED.--YX SET HAS 10 POINTS, PLUS 2 DELETED.
2...BAND ID= 3, PASS E, WITH 52 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS D, WITH 10 STACKED SEGMENTS.--XY SET HAS 16 POINTS, PLUS 0 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

ROTATION INDICATOR IROTAT = -1 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 23.12,23.13,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=270, EY= 0, HX=270, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-270 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	3.79E+02	2.60E+02	4.64E-01	8.36E+01	5.63E+01	3.31E+00	1.88E+02	6.62E+01			
3.26E-02	3.22E+02	2.22E+02	6.49E-01	8.56E+01	5.33E+01	4.64E+00	2.38E+02	7.40E+01			
4.56E-02	2.60E+02	1.82E+02	9.06E-01	9.25E+01	5.25E+01	6.49E+00	3.02E+02	8.32E+01			
6.39E-02	2.05E+02	1.47E+02	1.26E+00	1.05E+02	5.35E+01	9.06E+00	3.75E+02	9.33E+01			
8.95E-02	1.61E+02	1.19E+02	1.76E+00	1.25E+02	5.62E+01	1.26E+01	4.52E+02	1.03E+02			
1.26E-01	1.29E+02	9.65E+01	2.44E+00	1.52E+02	6.06E+01	1.76E+01	5.22E+02	1.11E+02			
1.77E-01	1.07E+02	8.01E+01	3.39E+00	1.91E+02	6.67E+01	2.44E+01	5.72E+02	1.17E+02			
2.50E-01	9.32E+01	6.84E+01	4.70E+00	2.41E+02	7.44E+01	3.39E+01	5.92E+02	1.18E+02			
3.51E-01	8.57E+01	6.05E+01	6.45E+00	3.00E+02	8.31E+01	4.70E+01	5.77E+02	1.14E+02			
9.85E-01	9.52E+01	5.26E+01	8.98E+00	3.73E+02	9.30E+01	6.45E+01	5.31E+02	1.06E+02			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	4.63E+02	9.52E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	3.81E+02	8.17E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	3.07E+02	6.93E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	2.63E+02	6.20E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	2.42E+02	5.92E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	2.56E+02	6.62E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
1.15E+00	3.27E+02	9.51E-01	2.25E+02	2.80E+00	1.30E+02	2.18E+00	4.56E+01	3.19E+01	1.18E+03	1.49E+01	1.69E+02
1.21E+00	5.49E+01	1.02E+00	4.68E+01	3.41E+00	1.93E+02	2.54E+00	5.52E+01	3.93E+01	9.34E+02	1.79E+01	1.48E+02
1.27E+00	3.73E+01	1.08E+00	3.44E+01	4.25E+00	2.98E+02	3.01E+00	6.80E+01	4.71E+01	6.96E+02	2.11E+01	1.22E+02
1.33E+00	3.12E+01	1.14E+00	2.85E+01	5.39E+00	4.69E+02	3.60E+00	8.43E+01	5.50E+01	4.89E+02	2.45E+01	9.45E+01
1.40E+00	3.12E+01	1.21E+00	2.62E+01	6.94E+00	7.27E+02	4.36E+00	1.04E+02	6.25E+01	3.25E+02	2.79E+01	7.01E+01
1.49E+00	3.48E+01	1.29E+00	2.60E+01	9.02E+00	1.06E+03	5.33E+00	1.27E+02	6.93E+01	2.09E+02	3.12E+01	5.08E+01
1.61E+00	4.13E+01	1.39E+00	2.73E+01	1.18E+01	1.38E+03	6.56E+00	1.50E+02	7.51E+01	1.36E+02	3.43E+01	3.76E+01
1.79E+00	5.15E+01	1.52E+00	2.97E+01	1.53E+01	1.56E+03	8.10E+00	1.70E+02	8.04E+01	9.94E+01	3.74E+01	3.06E+01
2.02E+00	6.70E+01	1.69E+00	3.33E+01	1.99E+01	1.55E+03	9.98E+00	1.81E+02	8.59E+01	9.33E+01	4.09E+01	3.01E+01
2.35E+00	9.12E+01	1.91E+00	3.85E+01	2.54E+01	1.40E+03	1.22E+01	1.80E+02	9.31E+01	9.07E+01	4.53E+01	3.02E+01

WCC-MT1 DATA COLLECTION AND PLOT EDITING INFORMATION. NOTE--64% REDUCTION OF FIELD PLOTS WILL PRODUCE 11 BY 8.5 INCH COPY.
MTCURV= K&E 3 BY 5 CYCLE LOG-LOG GRAPH. MTAXIS=ROTATION, SKEW ONLY IF XY &YX DATA. MTINVR=INPUT POINTS DERIVED FROM FIT CURVE.
1ST SCALE EXP=-2 MAXIMUM ORDER CURVE FIT= 8 RHO SCALE DIV(0=SEARCH)= 0 NO.PTS FIT(0=ALL,1=W/O 10%)= 1
PLOT DATA FILE=212222GLS CROSSPOWERS INPUT FILES=2122C2ACZ 2122R3ECZ 2122C5DBJ

GLASS MOUNTAIN, CA. STA. 22 GLS, USED STA. 21 GLS AS REF AND RECORDED OVER 3 PASS BANDS PLOT DATE=28-SEP-81 TIME=00:00:00
1...BAND ID= 2, PASS A, WITH 52 STACKED SEGMENTS.--XY SET HAS 12 POINTS, PLUS 0 DELETED.--YX SET HAS 11 POINTS, PLUS 1 DELETED.
2...BAND ID= 3, PASS E, WITH 52 STACKED SEGMENTS.--XY SET HAS 10 POINTS, PLUS 0 DELETED.--YX SET HAS 10 POINTS, PLUS 0 DELETED.
3...BAND ID= 5, PASS D, WITH 10 STACKED SEGMENTS.--XY SET HAS 14 POINTS, PLUS 2 DELETED.--YX SET HAS 16 POINTS, PLUS 0 DELETED.

ROTATION INDICATOR IROTAT = -2 IMPLIES ROTATION ANGLE RANGE MOVED BY IROTAT*180 DEGREES TO FIT INTO +OR-180 DEGREE PLOT RANGE.
BAND 3 HAD ITS TIPPER STRIKE, PHASE SHIFTED BY 180. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
BAND 5 HAD ITS TIPPER STRIKE, PHASE SHIFTED BY 180. DEG., TO CONFORM TO OTHER BANDS REFERENCE.
DELETED POINTS:BAND,(1=XY,2=YX,3=BOTH).WINDOW = 22.14,51.16,51.17,
LINE AZIMUTHS(USUALLY FROM TRUE N): EX=300, EY= 30, HX=300, HY=HX+90 DEG. CORRECTION(USUALLY SO HX=N)=-300 DEG(+ CLOCKWISE FROM HX)

LEAST SQUARES CURVE FITTED VALUES FOR TENSOR APPARENT RESISTIVITIES, ROTATED ALONG COMMON PRINCIPAL AXIS FROM BAND TO BAND.

1ST BAND			2ND BAND			3RD BAND			4TH BAND		
PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)	PERD(SEC)	XY-RHO	YX-RHO(OHM-M)
2.32E-02	1.95E+02	2.35E+02	4.64E-01	4.11E+01	6.39E+01	3.31E+00	3.60E+01	7.43E+01			
3.26E-02	2.01E+02	2.60E+02	6.49E-01	3.60E+01	5.76E+01	4.64E+00	4.02E+01	8.77E+01			
4.56E-02	1.82E+02	2.51E+02	9.06E-01	3.30E+01	5.49E+01	6.49E+00	4.56E+01	1.05E+02			
6.39E-02	1.52E+02	2.20E+02	1.26E+00	3.17E+01	5.54E+01	9.06E+00	5.20E+01	1.25E+02			
8.95E-02	1.21E+02	1.80E+02	1.76E+00	3.19E+01	5.89E+01	1.26E+01	5.85E+01	1.46E+02			
1.26E-01	9.46E+01	1.42E+02	2.44E+00	3.34E+01	6.53E+01	1.76E+01	6.41E+01	1.66E+02			
1.77E-01	7.35E+01	1.11E+02	3.39E+00	3.62E+01	7.52E+01	2.44E+01	6.73E+01	1.81E+02			
2.50E-01	5.81E+01	8.82E+01	4.70E+00	4.04E+01	8.84E+01	3.39E+01	6.71E+01	1.89E+02			
3.51E-01	4.73E+01	7.25E+01	6.45E+00	4.55E+01	1.04E+02	4.70E+01	6.32E+01	1.87E+02			
4.93E-01	4.00E+01	6.25E+01	8.98E+00	5.18E+01	1.24E+02	6.45E+01	5.64E+01	1.77E+02			
6.89E-01	3.53E+01	5.69E+01	0.00E-01	0.00E-01	0.00E-01	8.98E+01	4.80E+01	1.59E+02			
9.85E-01	3.26E+01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.29E+02	3.96E+01	1.36E+02			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	1.87E+02	3.43E+01	1.13E+02			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	2.56E+02	3.47E+01	9.83E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	3.41E+02	0.00E-01	8.98E+01			
0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	0.00E-01	5.12E+02	0.00E-01	8.92E+01			

BOSTICK INVERSION OF TENSOR PRINCIPAL AXES CURVE FIT MAGNITUDE DATA, TO *PENETRATION* DEPTHS AND *TRUE* RESISTIVITIES.

XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO	XY-DEPTH	XY-RHO (M,OHM-M)	YX-DEPTH	YX-RHO
9.00E-01	2.02E+02	1.02E+00	2.59E+02	1.78E+00	1.93E+01	2.26E+00	3.94E+01	1.13E+01	1.04E+02	1.80E+01	3.42E+02
1.01E+00	8.48E+01	1.18E+00	1.68E+02	2.00E+00	2.36E+01	2.60E+00	5.25E+01	1.36E+01	8.54E+01	2.21E+01	2.91E+02
1.09E+00	4.37E+01	1.31E+00	8.72E+01	2.31E+00	2.97E+01	3.06E+00	7.22E+01	1.60E+01	6.39E+01	2.66E+01	2.32E+02
1.16E+00	2.46E+01	1.40E+00	4.70E+01	2.71E+00	3.83E+01	3.69E+00	1.02E+02	1.84E+01	4.39E+01	3.12E+01	1.75E+02
1.21E+00	1.63E+01	1.48E+00	2.84E+01	3.24E+00	5.01E+01	4.53E+00	1.45E+02	2.05E+01	2.84E+01	3.58E+01	1.26E+02
1.26E+00	1.30E+01	1.54E+00	2.11E+01	3.93E+00	6.56E+01	5.66E+00	2.03E+02	2.24E+01	1.85E+01	4.02E+01	8.73E+01
1.31E+00	1.23E+01	1.62E+00	1.95E+01	4.84E+00	8.38E+01	7.14E+00	2.70E+02	2.41E+01	1.41E+01	4.43E+01	6.12E+01
1.38E+00	1.28E+01	1.71E+00	2.11E+01	5.99E+00	1.01E+02	9.06E+00	3.32E+02	2.60E+01	1.22E+01	4.82E+01	4.62E+01
1.48E+00	1.42E+01	1.83E+00	2.48E+01	7.44E+00	1.13E+02	1.15E+01	3.70E+02	0.00E-01	0.00E-01	5.22E+01	4.09E+01
1.61E+00	1.63E+01	2.01E+00	3.06E+01	9.20E+00	1.14E+02	1.45E+01	3.72E+02	0.00E-01	0.00E-01	5.69E+01	3.80E+01

APPENDIX VIII.

A. TENSOR APPARENT RESISTIVITY CURVES
B. COHERENCY, PHASE, ROTATION, SKEWNESS GRAPHS
C. TIPPER GRAPHS
D. TELLURIC SIGNAL AND NOISE POWER SPECTRA
E. MAGNETIC SIGNAL AND NOISE POWER SPECTRA
F. BOSTICK DEPTH INVERSION

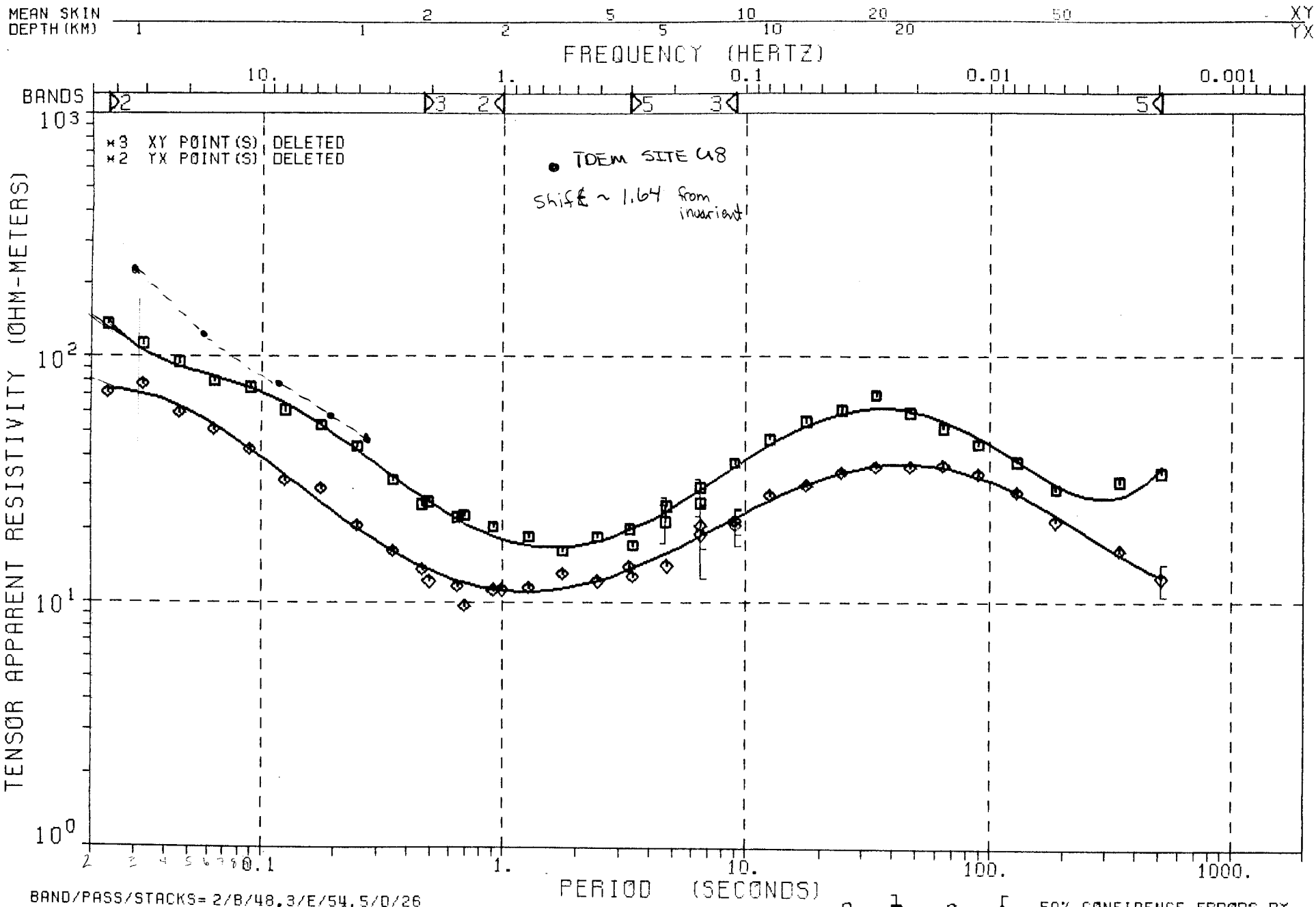
APPENDIX VIIIA
TENSOR APPARENT RESISTIVITY CURVES

The tensor apparent resistivity plot is scaled to 3 by 5 cycle log-log graph paper. All points within the frame are plotted with a 50, 75, or 95% confidence error as indicated, unless the error bar length does not exceed the symbol height. If a poor point has been deleted (to avoid curve distortion), a warning will be printed. If an accepted point lies outside the frame, the plot may optionally be expanded to n by 5 such that all points are displayed. The fit curve is a least squares polynomial that may optionally vary from third to eighth order, either through all points or depending on the lowest order which passes through at least 90 percent of the error bars. The determination of xy or yx principal sets is arbitrary, but remains fixed within a band once chosen; the operator may switch sets in a band for plotting, to assure continuity of a curve set over all bands.

Several frequency bands are predetermined and numbered according to the range they occupy, as defined in the bands strip (if range extends beyond scale, only one limit will be shown). The numbers assigned to a given band or frequency range change, depending on the particular sounding combinations of a job, but will remain fixed over any given survey. Typical combinations are bands 2, 3, 6 for 500-second soundings (noisy conditions), or bands 1, 7 for 1000-second soundings (quiet areas). Different attempts to record in a given band are distinguished by a pass letter, each pass consisting of a number of stacked or averaged segments.

The mean skin depth, calculated from depth = $0.5 \sqrt{\rho T}$ at each data point, is smoothed by a fourth order polynomial fit, then printed for each resistivity set at progressive depths over the relevant frequency or period.

- A station identification is limited to two alphanumeric characters, following a job or survey description (limited to 20 characters). The reference station identification is also given (note that whether the base or remote of a recording set-up is the reference depends on which station is being plotted). The given date is the date the plot was generated, rather than when the data were recorded.

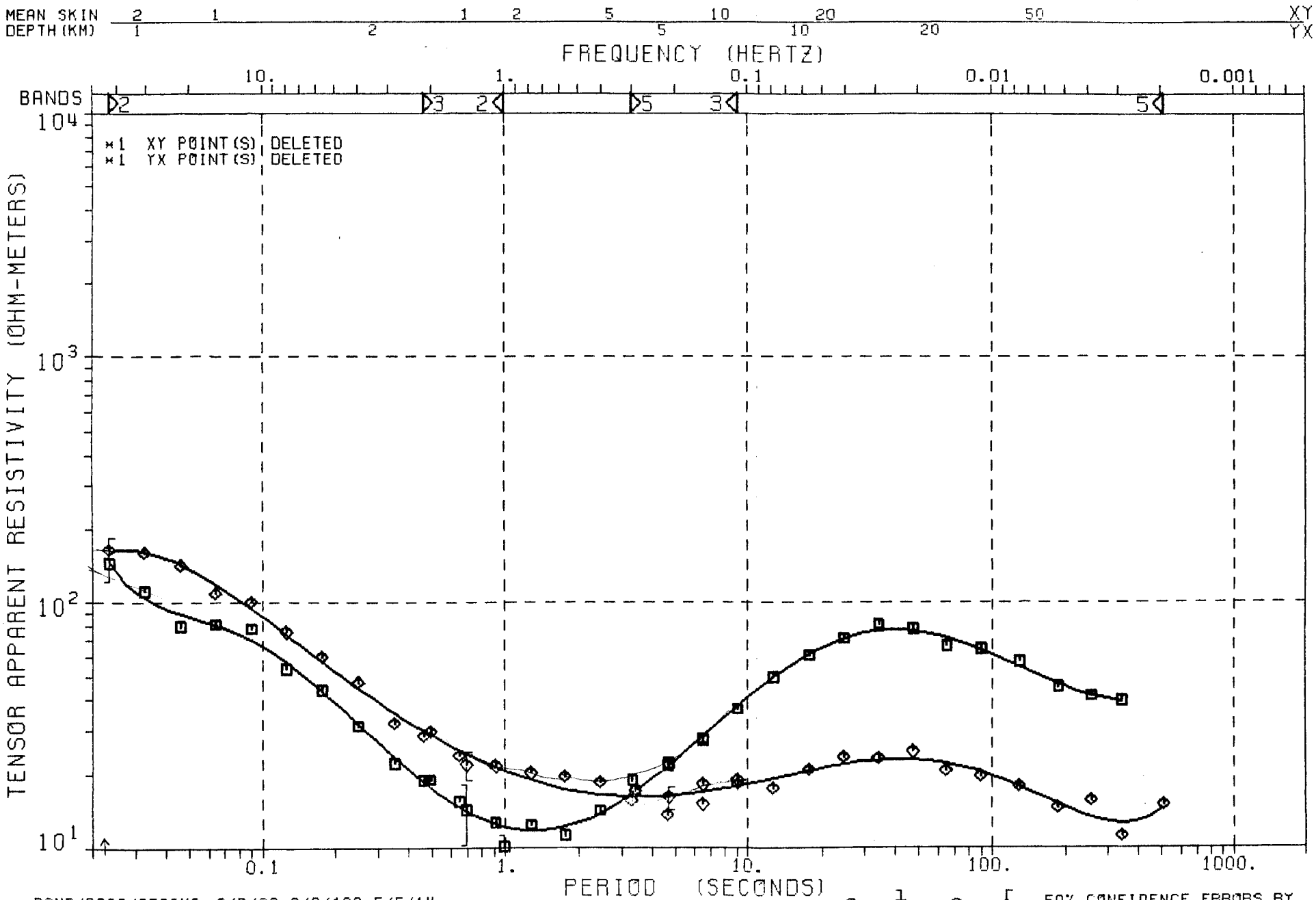


BAND/PASS/STACKS= 2/B/48,3/E/54,5/D/26

$\rho_{XY}=$ $\rho_{YX}=$ 50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 06

GLASS MOUNTAIN, CA.m --STA.01

05-OCT-81 WOODWARD-CLYDE CONSULTANTS

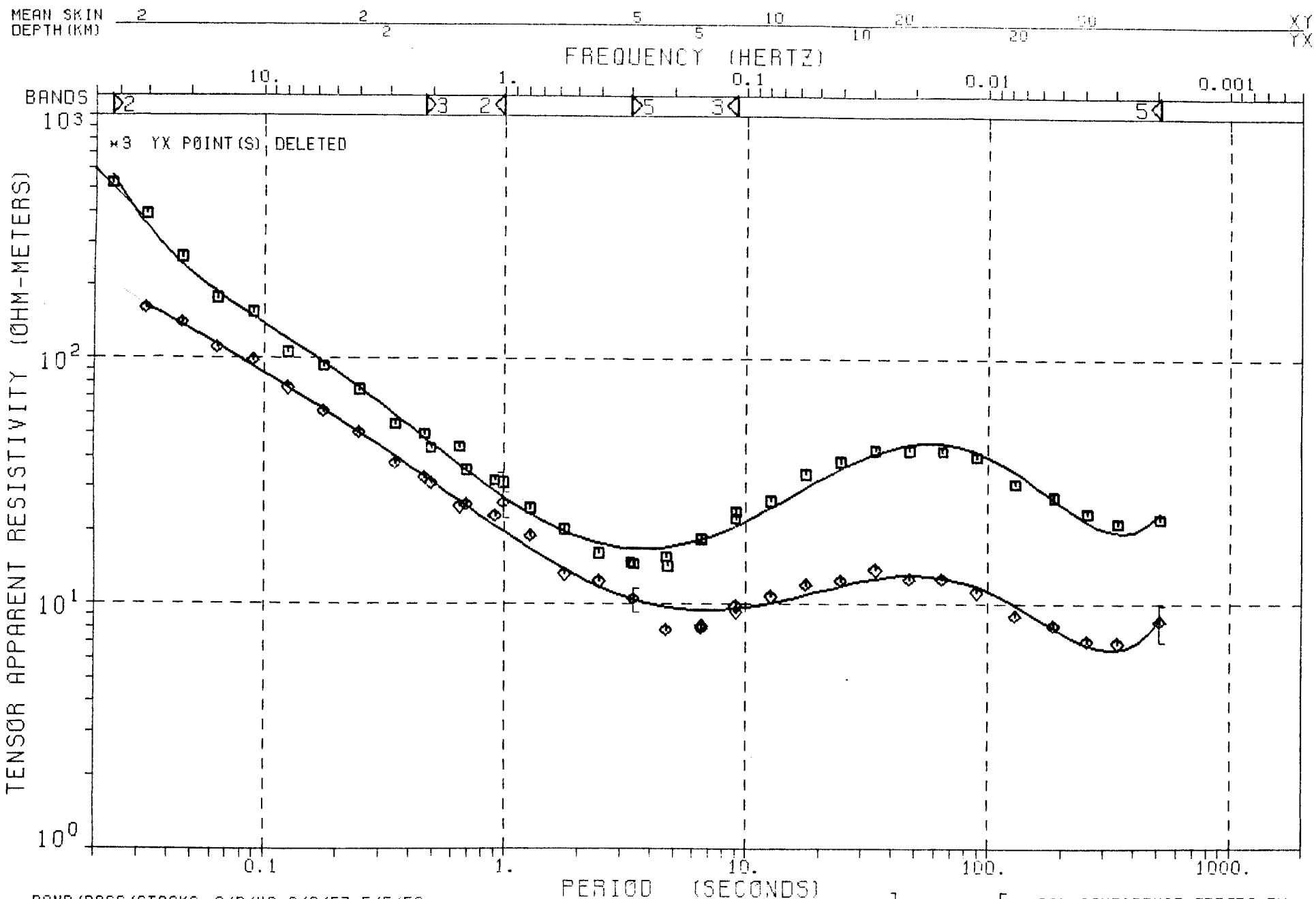


BAND/PASS/STACKS= 2/B/63, 3/C/132, 5/E/14

ρ_{XY}= ρ_{YX}= 50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 14

GLASS MOUNTAIN, CA.m --STA.02

28-SEP-81 WOODWARD-CLYDE CONSULTANTS

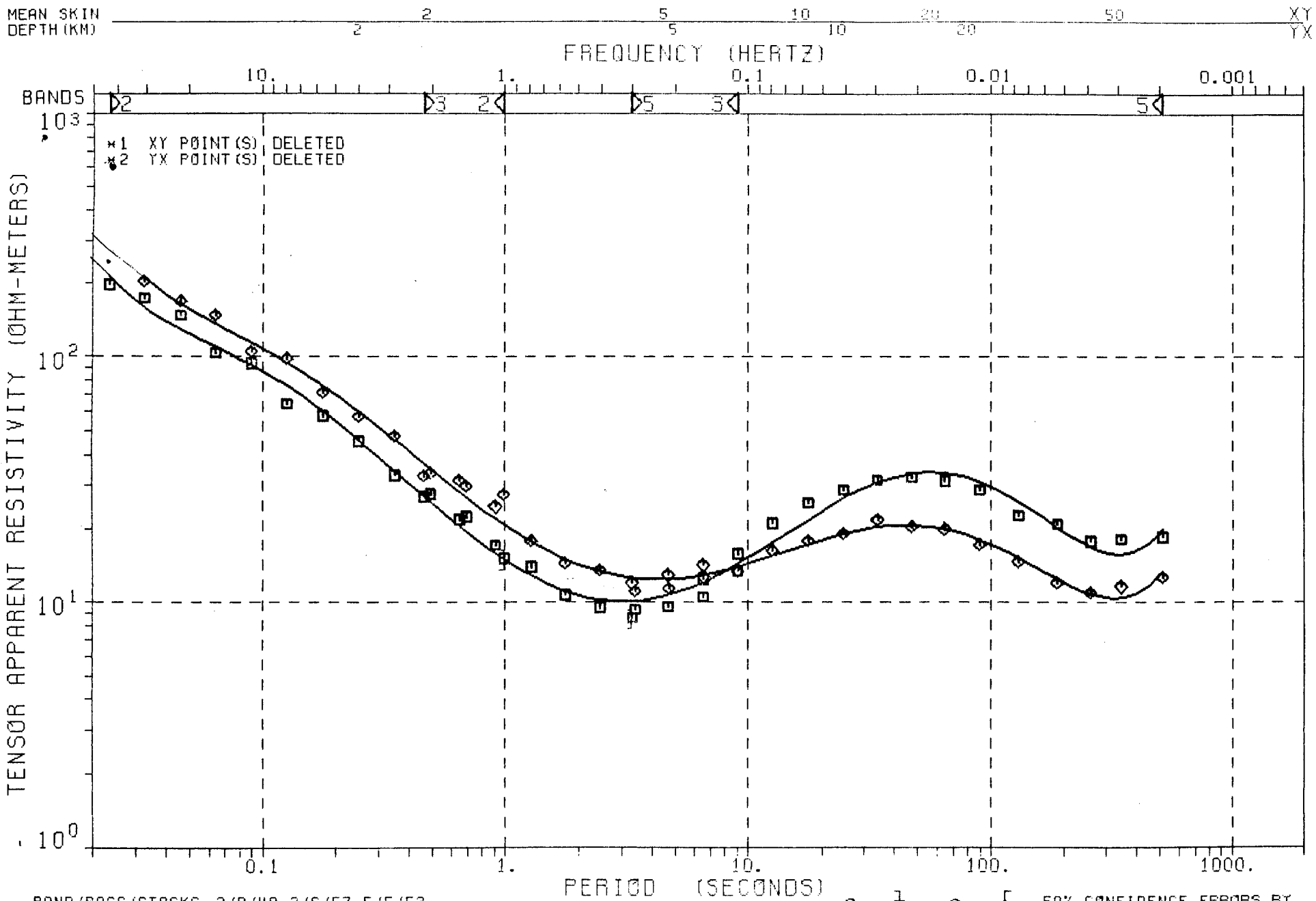


BAND/PASS/STACKS= 2/D/48,3/C/57,5/E/53

$\rho_{XY}=$ $\rho_{YX}=$ 50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 04

GLASS MOUNTAIN, CA.m --STA.03

05-OCT-81 WOODWARD-CLYDE CONSULTANTS

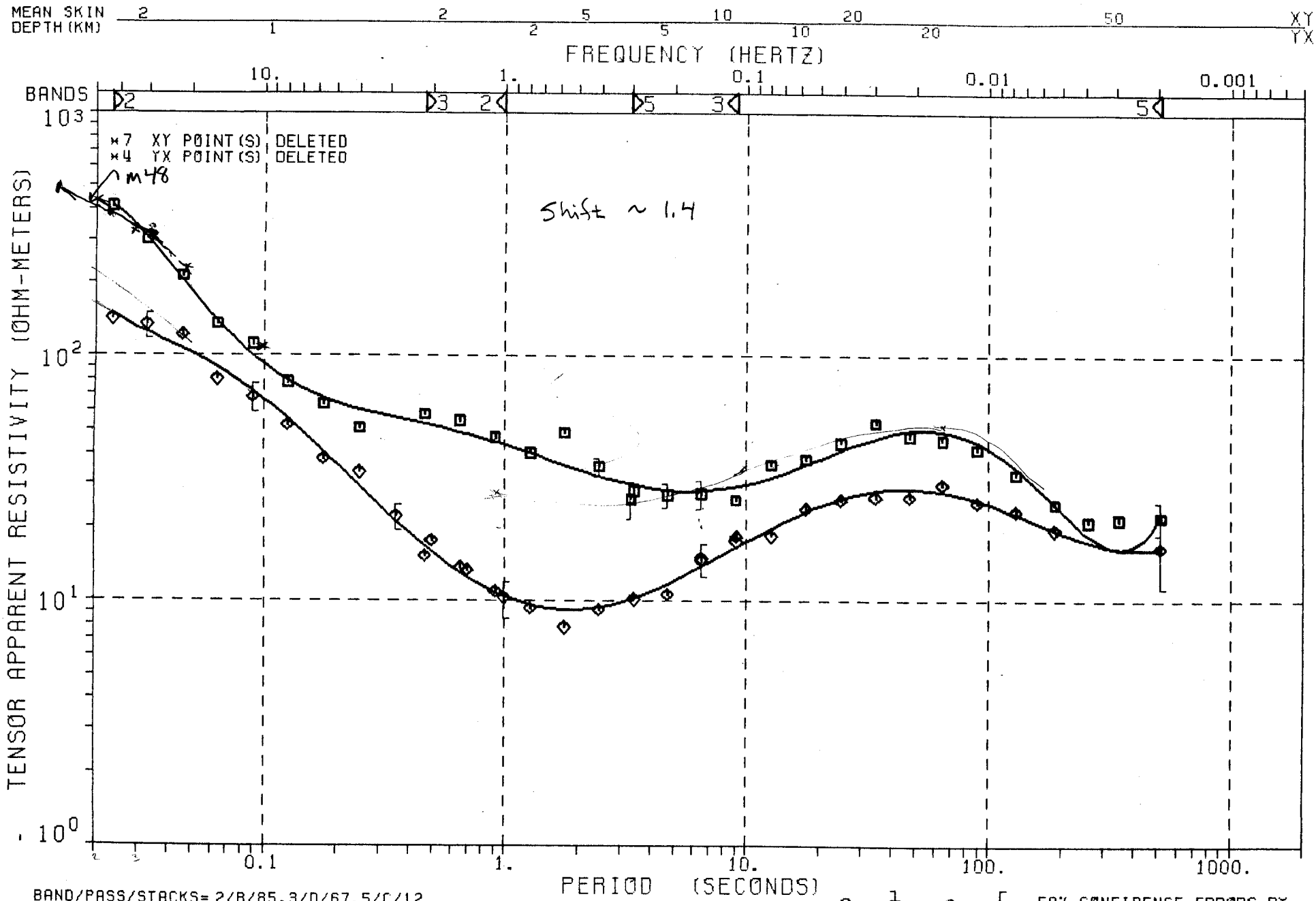


BAND/PASS/STACKS= 2/D/48, 3/C/57, 5/E/53

$\rho_{XY}=$ $\rho_{YX}=$ 50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 03

GLASS MOUNTAIN, CA.m --STA.04

05-OCT-81 WOODWARD-CLYDE CONSULTANTS

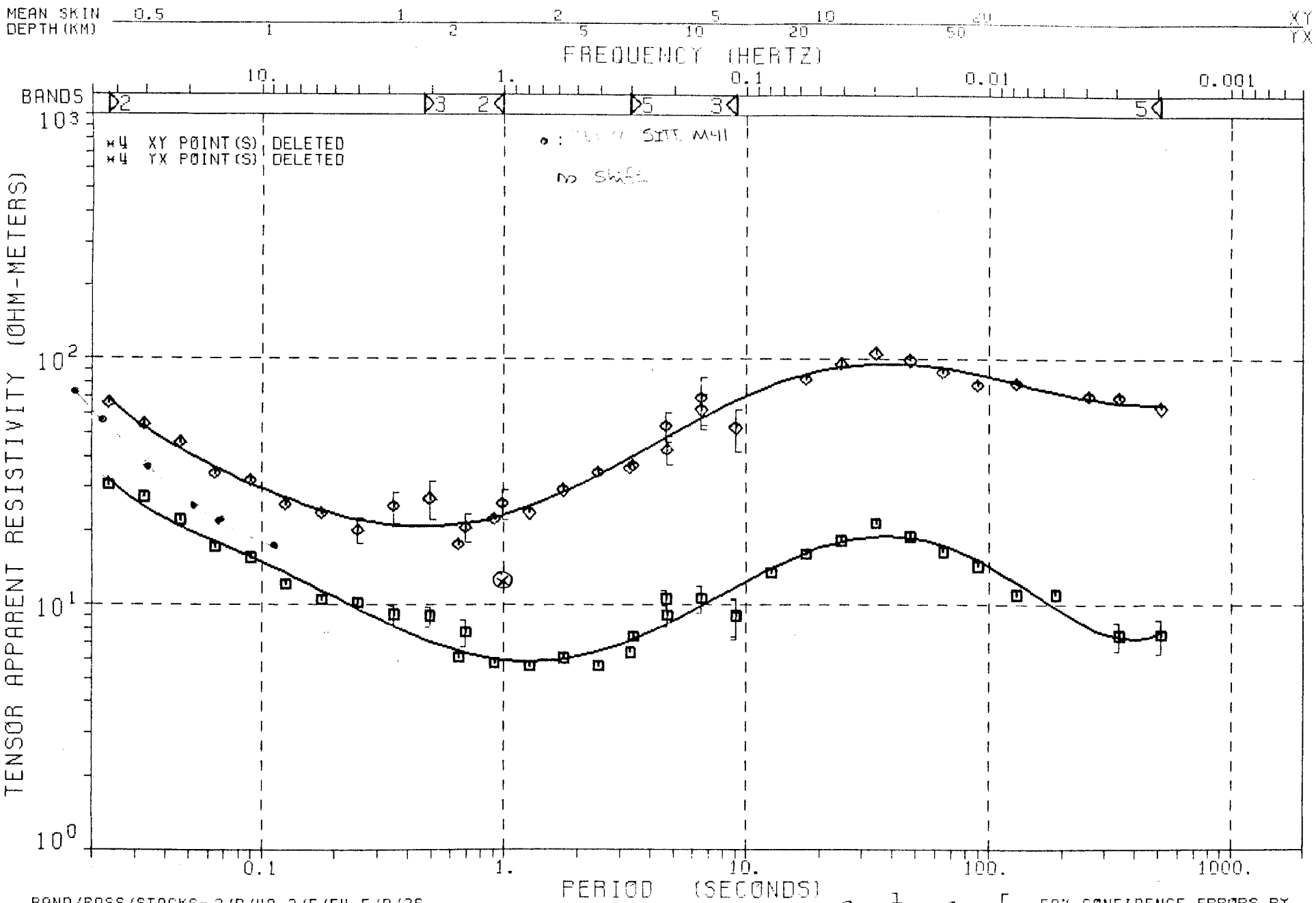


BAND/PASS/STACKS= 2/B/85,3/D/67,5/C/12

$\rho_{XY}=$ $\rho_{YX}=$ 50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 10

GLASS MOUNTAIN, CA.m --STA.05

28-SEP-81 WOODWARD-CLYDE CONSULTANTS

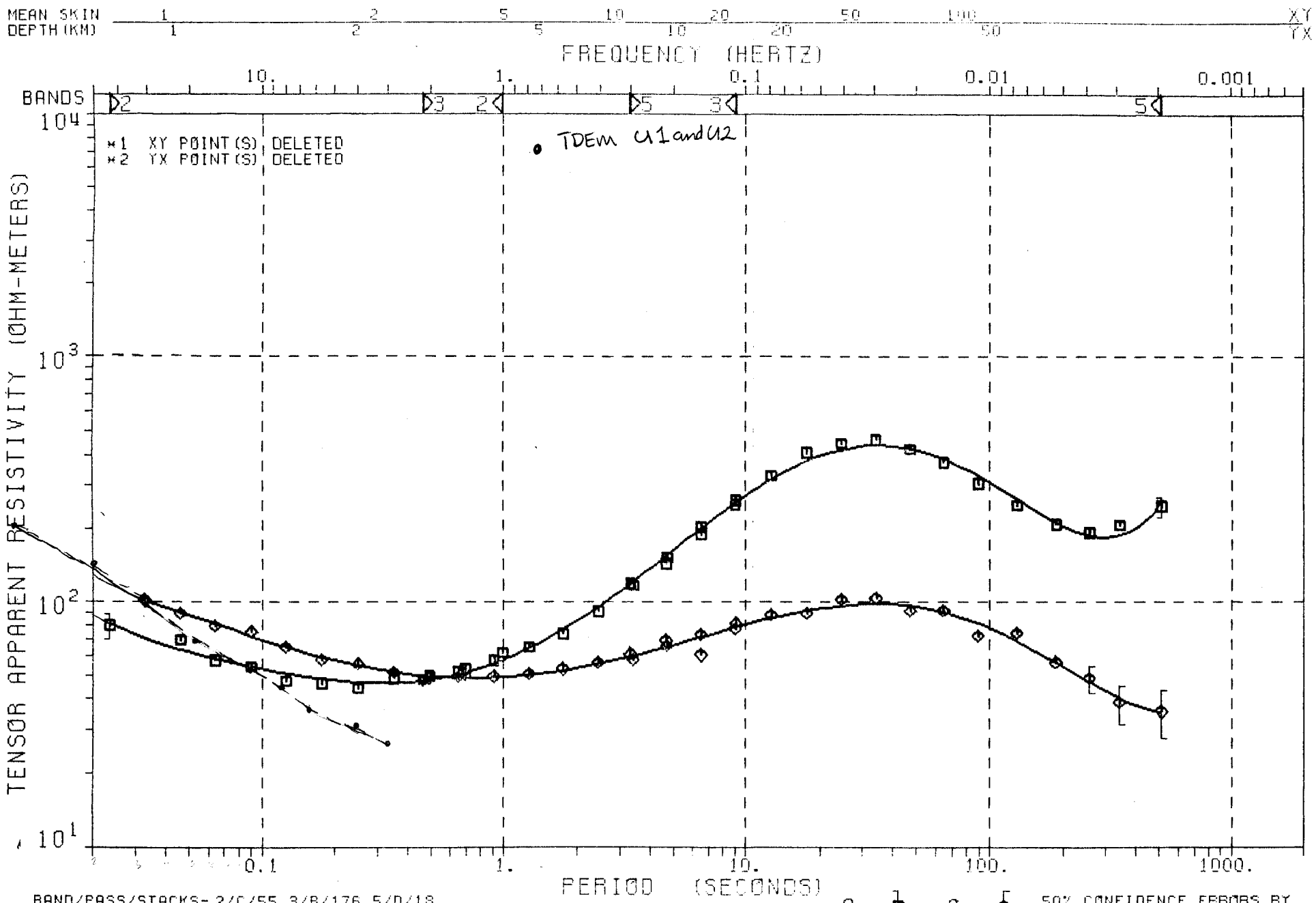


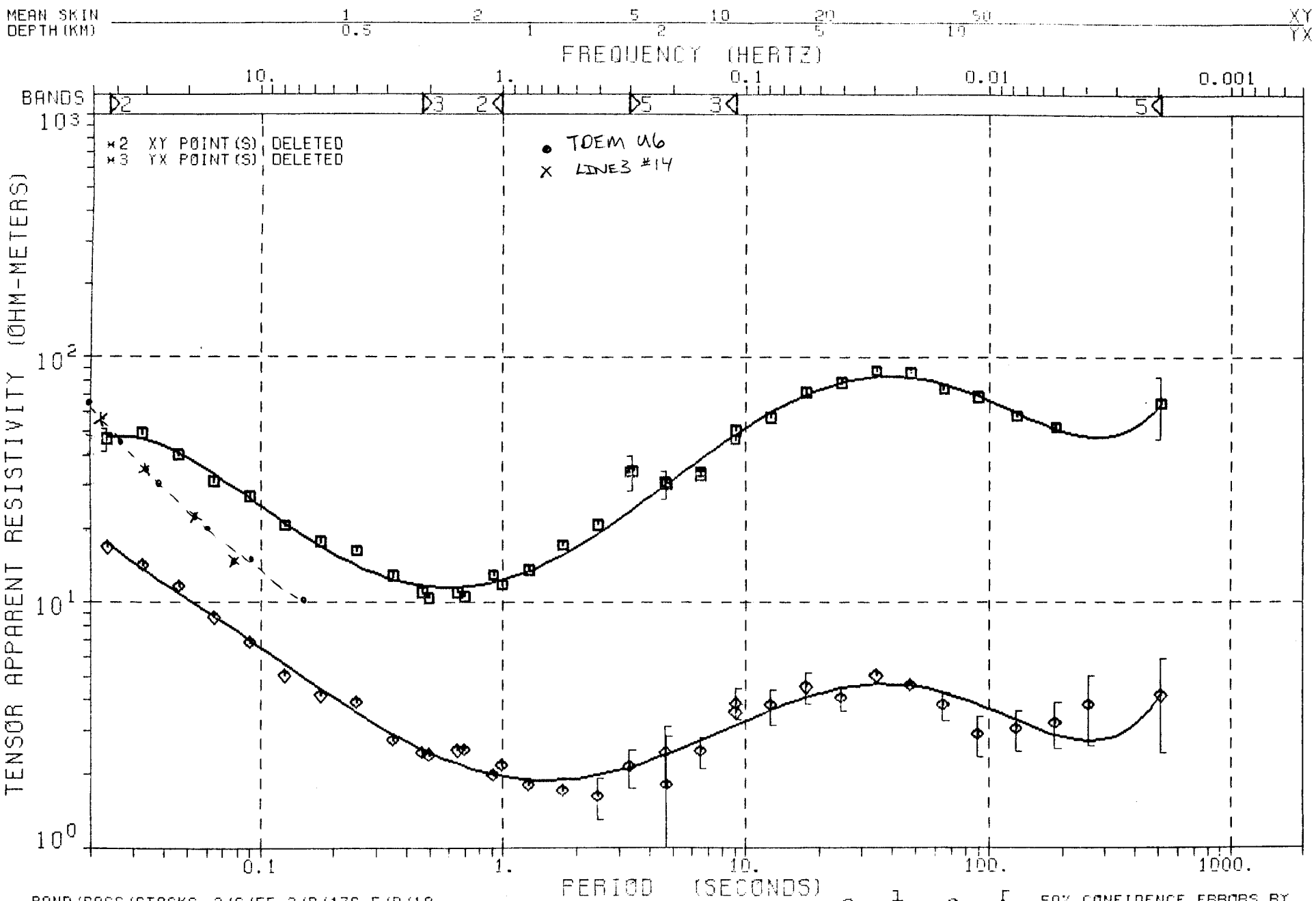
BAND/PASS/STACKS= 2/B/48,3/E/54,5/D/26

$\rho_{XY}=$ $\rho_{YX}=$ 50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 01

GLASS MOUNTAIN, CA.m --STA.06

05-OCT-81 WOODWARD-CLYDE CONSULTANTS

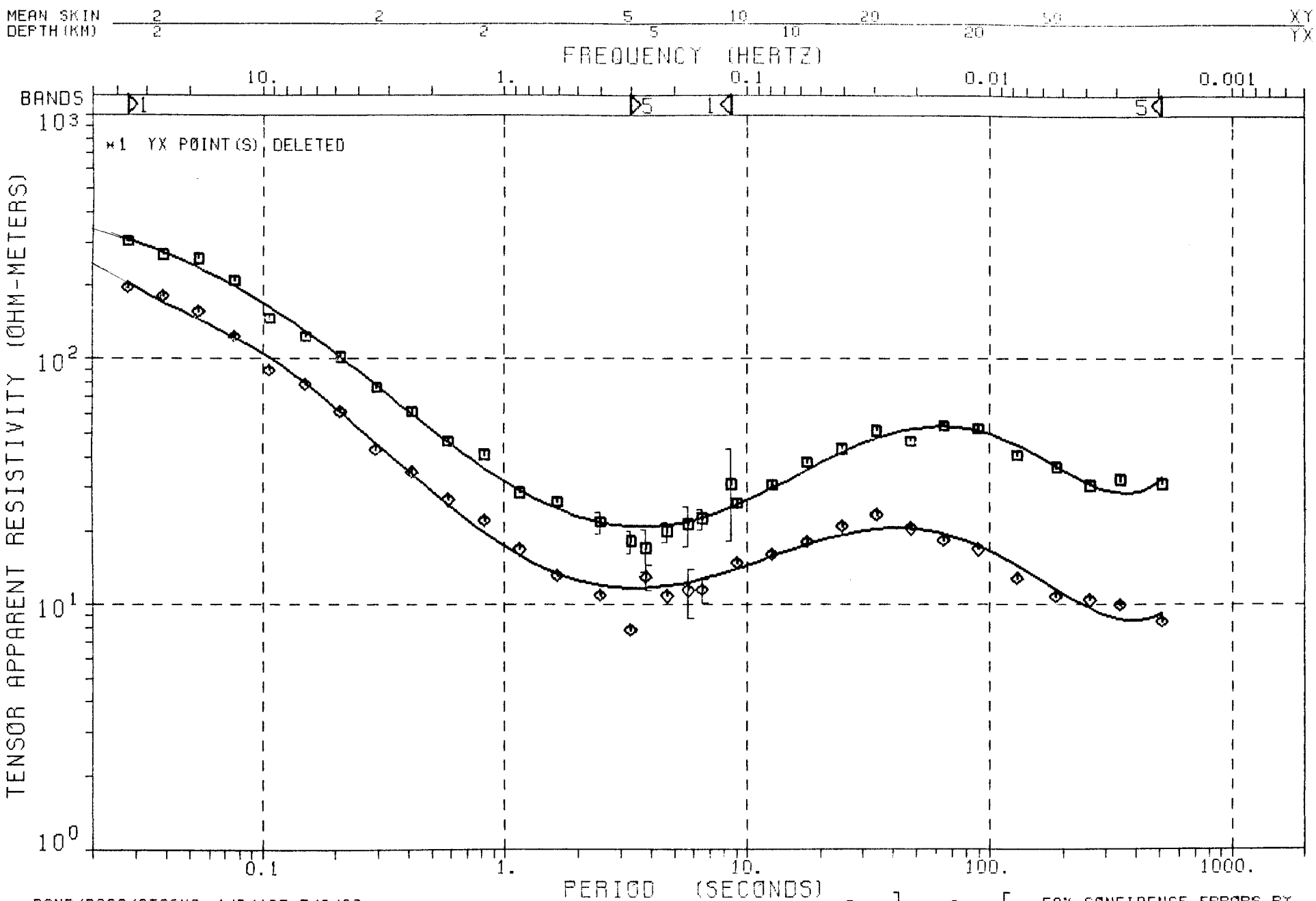

MEAN SKIN DEPTH (KM)
1 2 5 10 20 50 100
1 2 5 10 20 50
XY
YX
FREQUENCY (HERTZ)
10. 1. 0.1 0.01 0.001
BANDS
2 3 2 5 3 5
TDEM U1 and U2
*1 XY POINT(S) DELETED
*2 YX POINT(S) DELETED
TENSOR APPARENT RESISTIVITY (OHM-METERS)
10^4
10^3
10^2
10^1
0.1 1. 10. 100. 1000.
PERIOD (SECONDS)
BAND/PASS/STACKS= 2/C/55, 3/B/176, 5/D/18
ρ_{XY}= ρ_{YX}=
50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 08
GLASS MOUNTAIN, CA.m --STA.07
05-OCT-81
WOODWARD-CLYDE CONSULTANTS



BAND/PASS/STACKS= 2/C/55,3/B/176,5/D/18

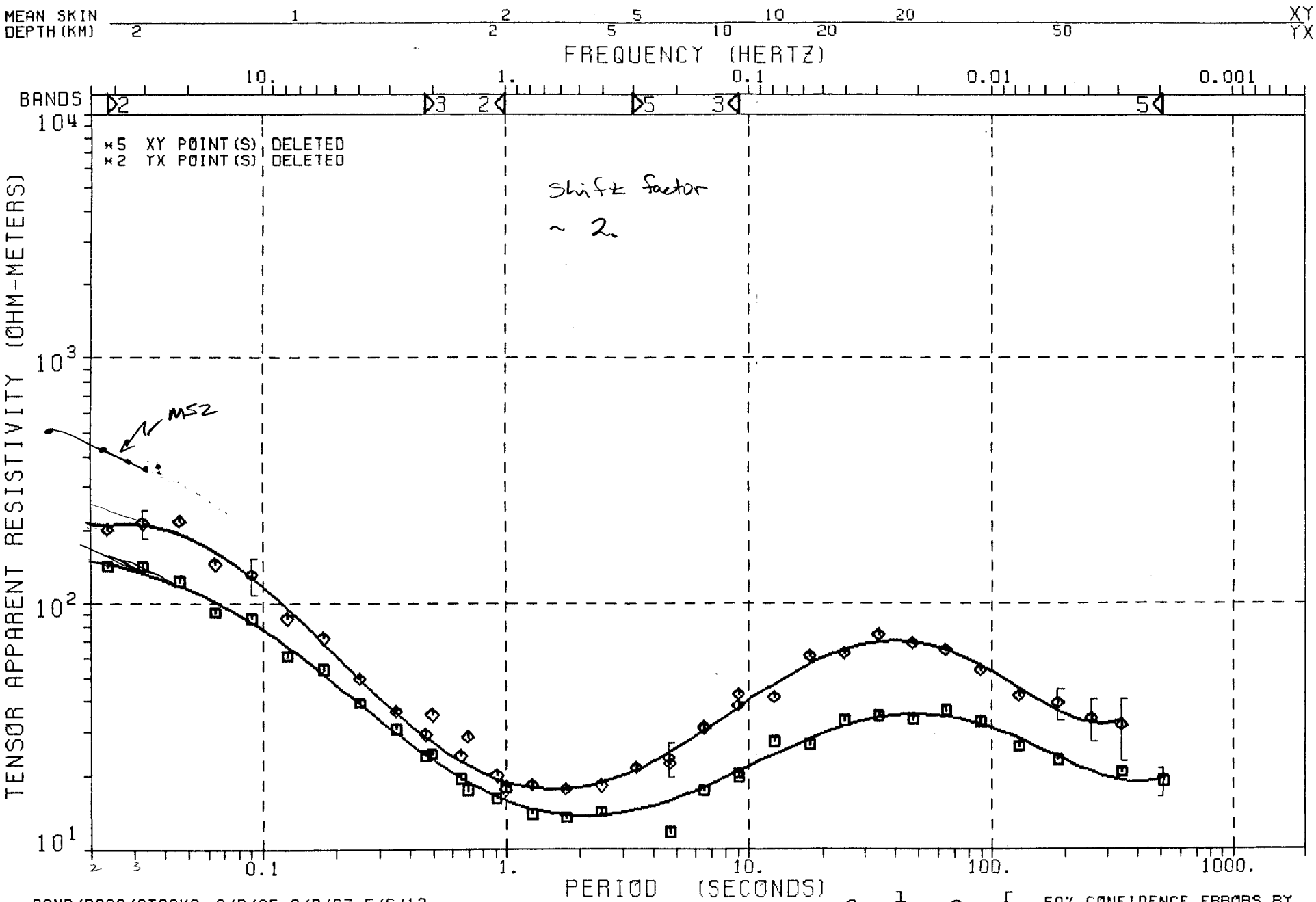
GLASS MOUNTAIN, CA.m --STA.08

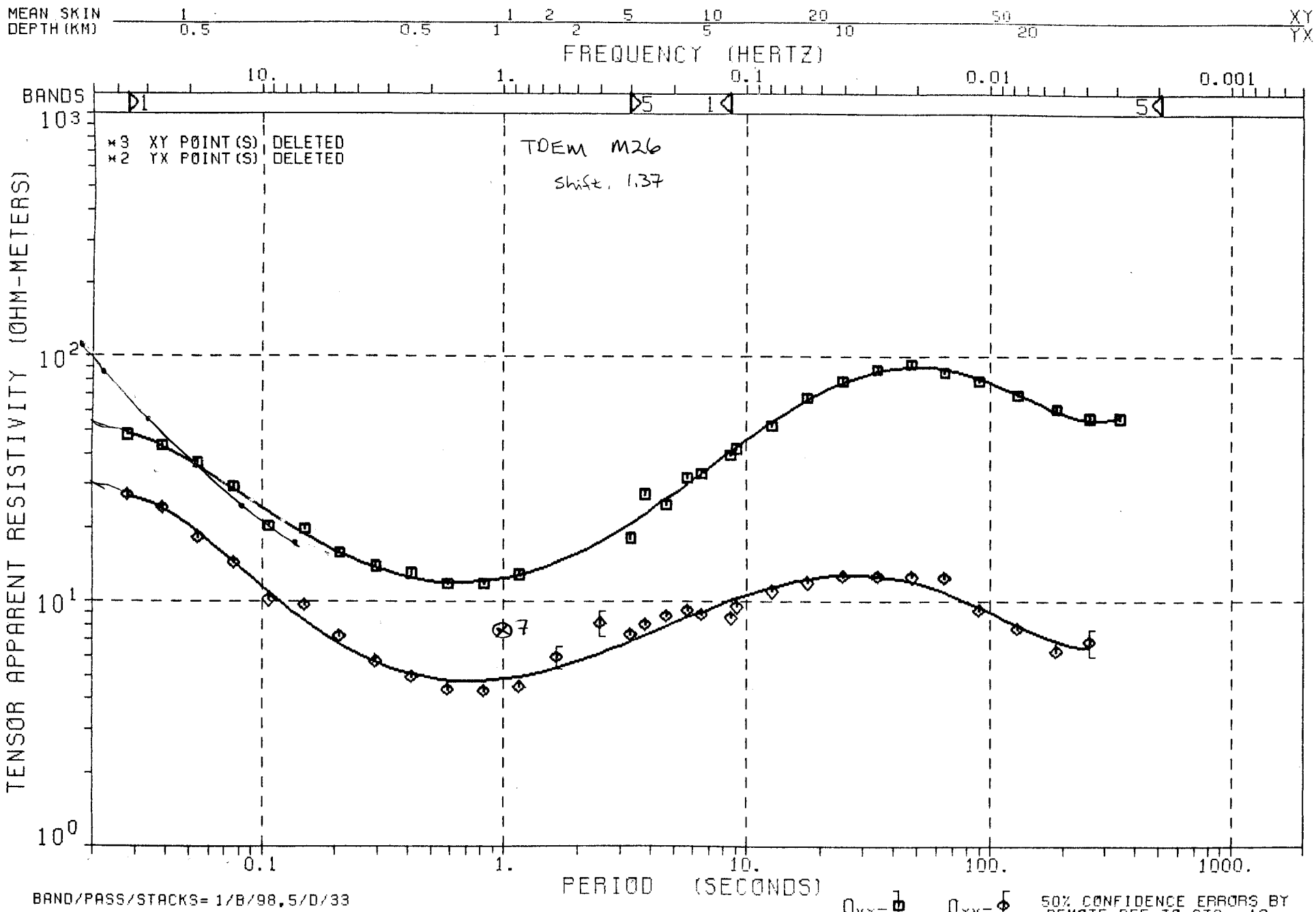
05-OCT-81 WOODWARD-CLYDE CONSULTANTS

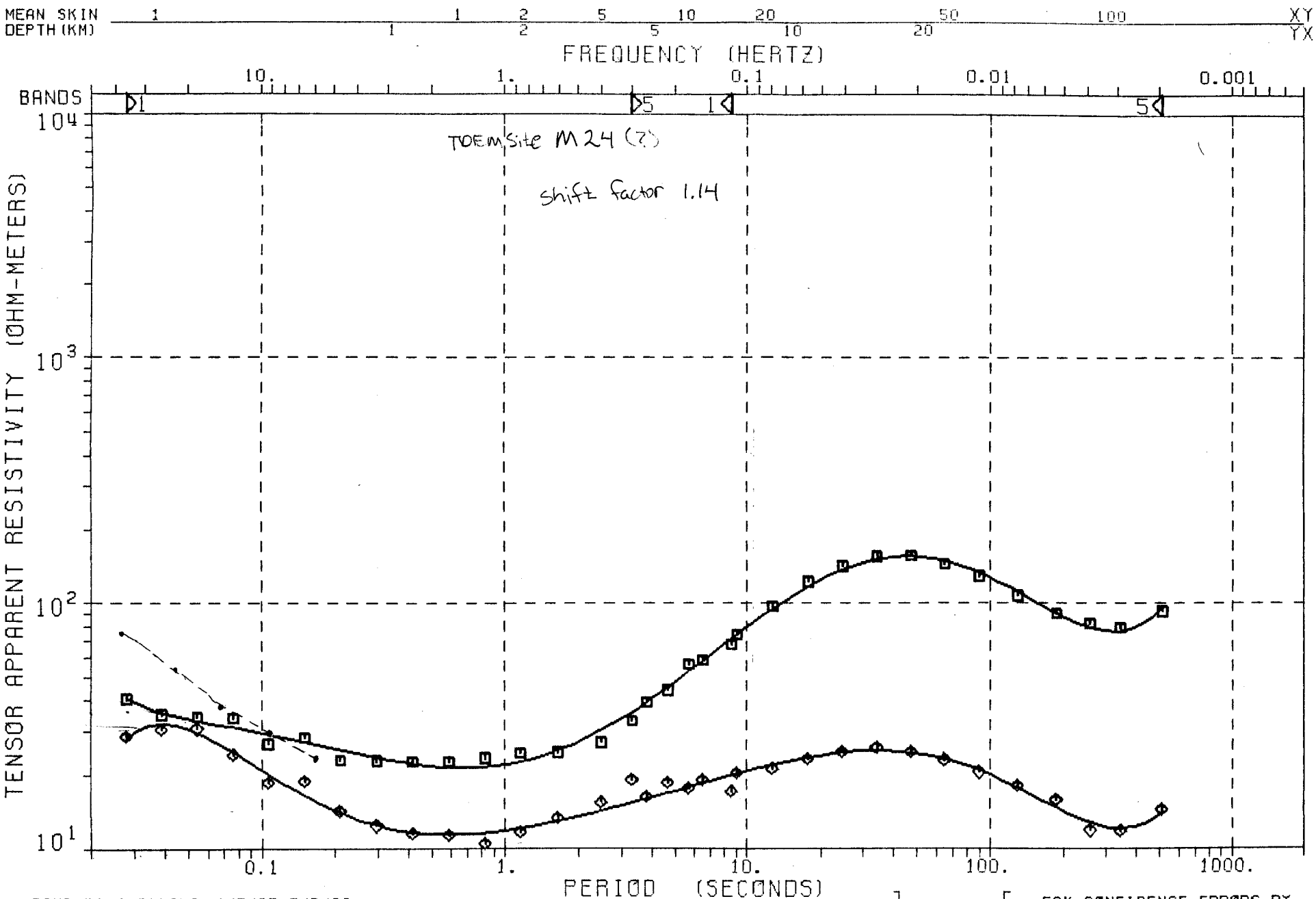


GLASS MOUNTAIN. CA.m --STA.09

01-OCT-81 WOODWARD-CLYDE CONSULTANTS


MEAN SKIN DEPTH (KM)
XY
YX
FREQUENCY (HERTZ)
BANDS
×5 XY POINT(S) DELETED
×2 YX POINT(S) DELETED
Shift factor
~ 2.
MS2
TENSOR APPARENT RESISTIVITY (OHM-METERS)
PERIOD (SECONDS)
BAND/PASS/STACKS= 2/B/85,3/D/67,5/C/12
50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 05
GLASS MOUNTAIN, CA.m --STA.10
28-SEP-81
WOODWARD-CLYDE CONSULTANTS

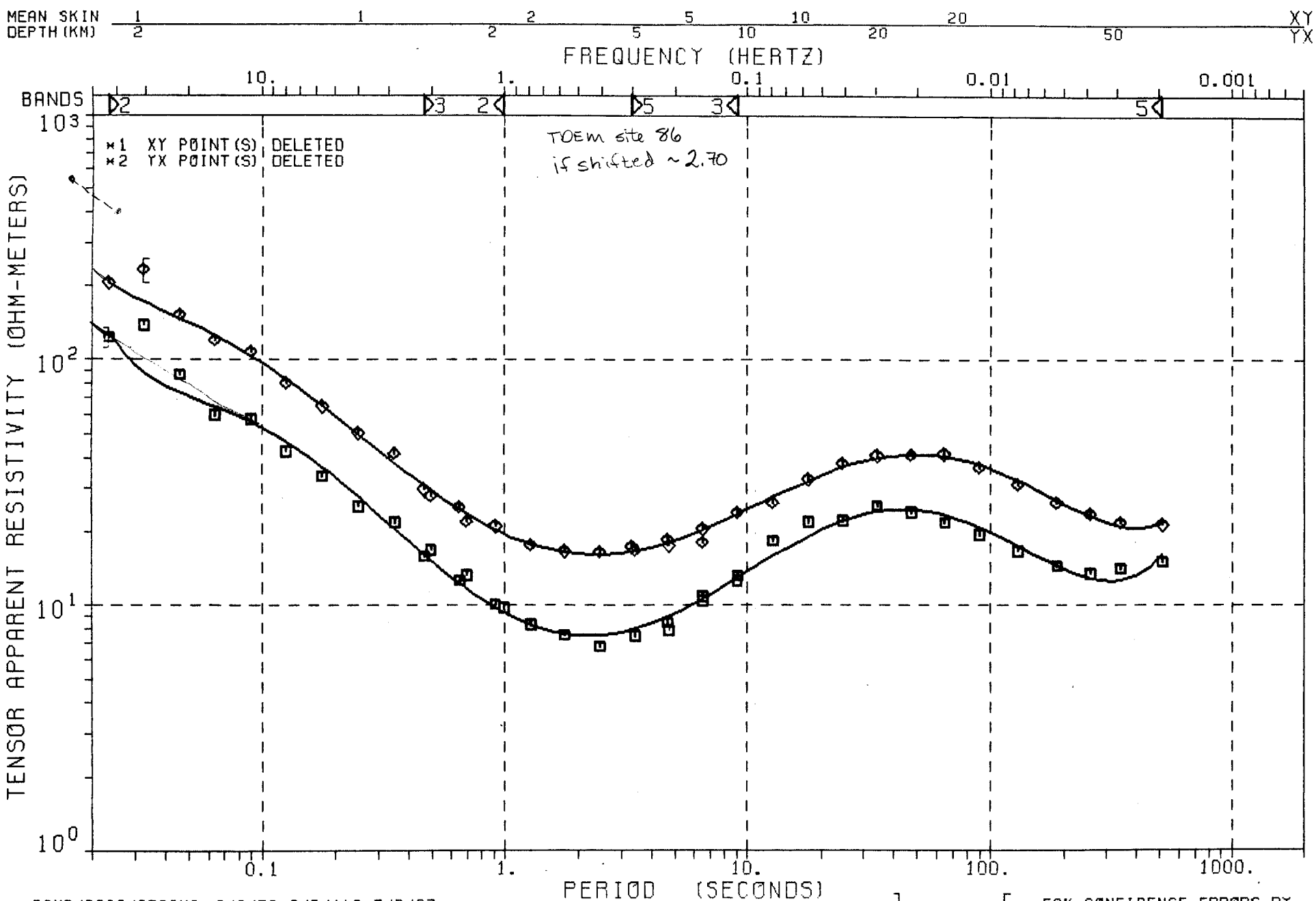

MEAN SKIN DEPTH (KM)
FREQUENCY (HERTZ)
BANDS
TENSOR APPARENT RESISTIVITY (OHM-METERS)
PERIOD (SECONDS)
XY
YX
*3 XY POINT(S) DELETED
*2 YX POINT(S) DELETED
TDEM M26
Shift, 1.37
BAND/PASS/STACKS= 1/B/98,5/D/33
50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 12
GLASS MOUNTAIN. CA.m --STA.11
01-OCT-81
WOODWARD-CLYDE CONSULTANTS

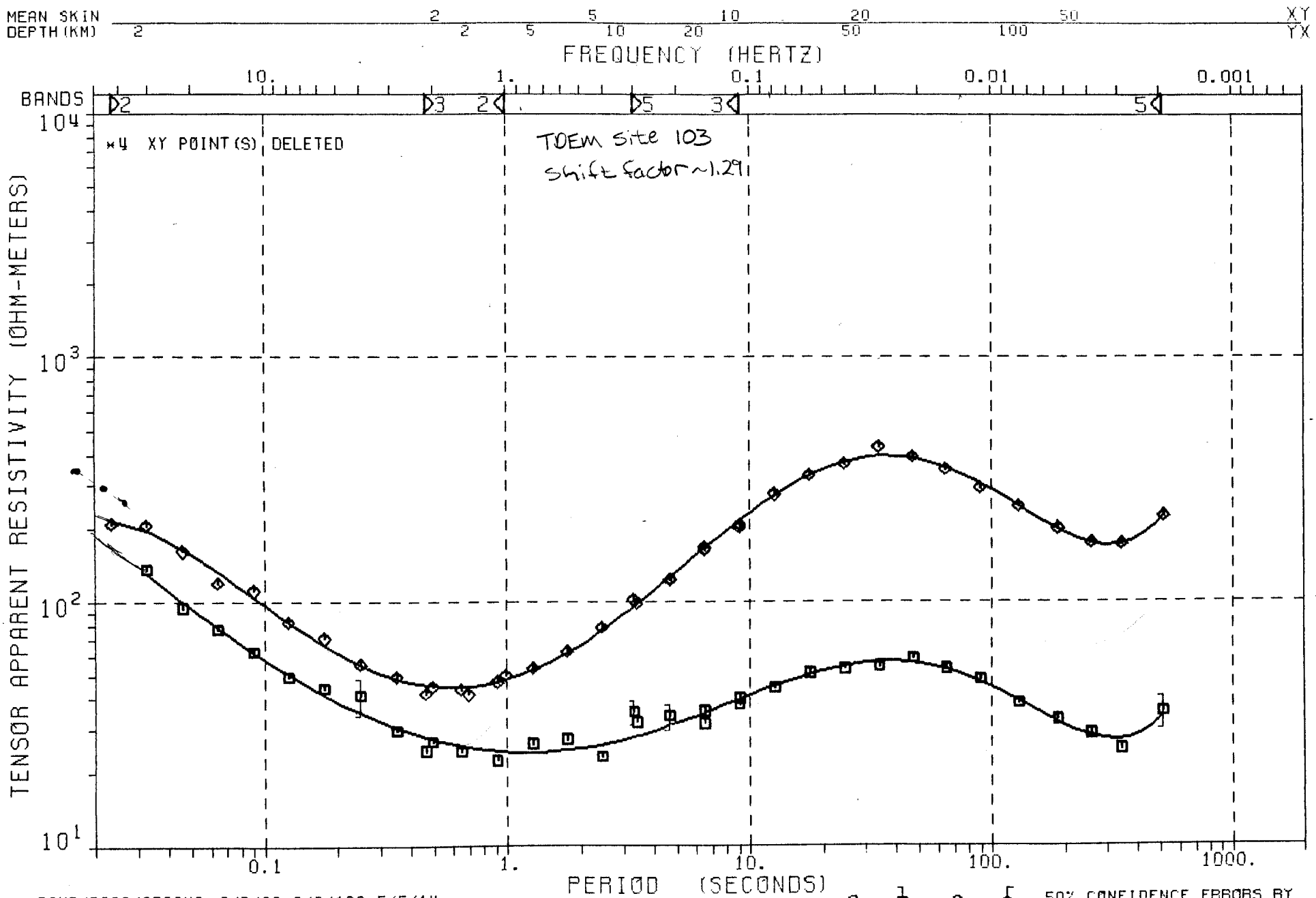


BAND/PASS/STACKS= 1/E/67,5/D/33

GLASS MOUNTAIN. CA.m --STA.12

01-OCT-81 WOODWARD-CLYDE CONSULTANTS


MEAN SKIN DEPTH (KM)
1 1 2 5 10 20 XY
2 2 5 10 20 50 YX
FREQUENCY (HERTZ)
10. 1. 0.1 0.01 0.001
BANDS
2 3 2 5 3 5
TOEm site 86
is shifted ~2.70
×1 XY POINT(S) DELETED
×2 YX POINT(S) DELETED
TENSOR APPARENT RESISTIVITY (OHM-METERS)
10^3
10^2
10^1
10^0
0.1 1. 10. 100. 1000.
PERIOD (SECONDS)
BAND/PASS/STACKS= 2/C/56,3/B/113,5/D/37
ρXY=
ρYX=
50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 18
GLASS MOUNTAIN, CA.m --STA.13
28-SEP-81
WOODWARD-CLYDE CONSULTANTS

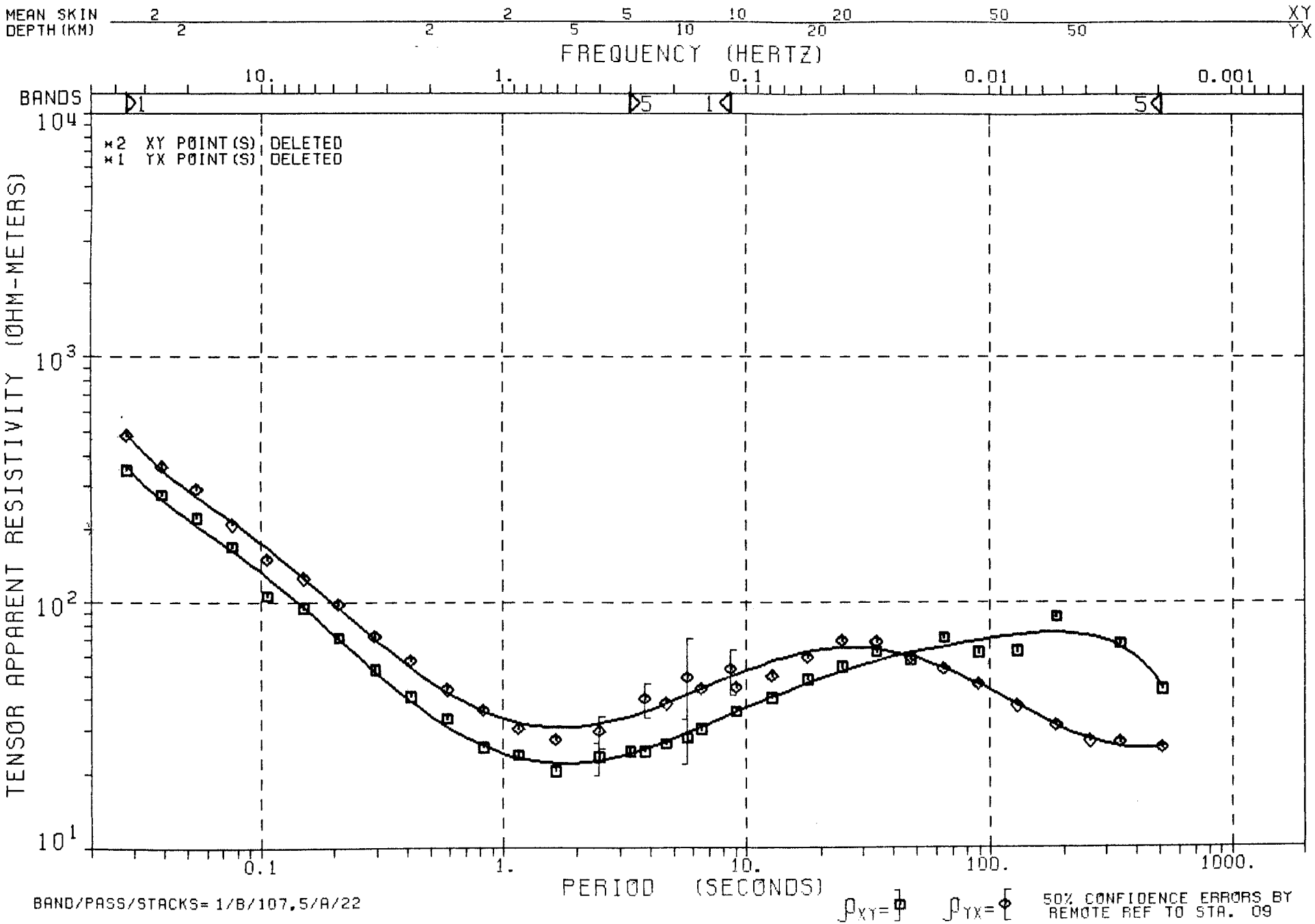


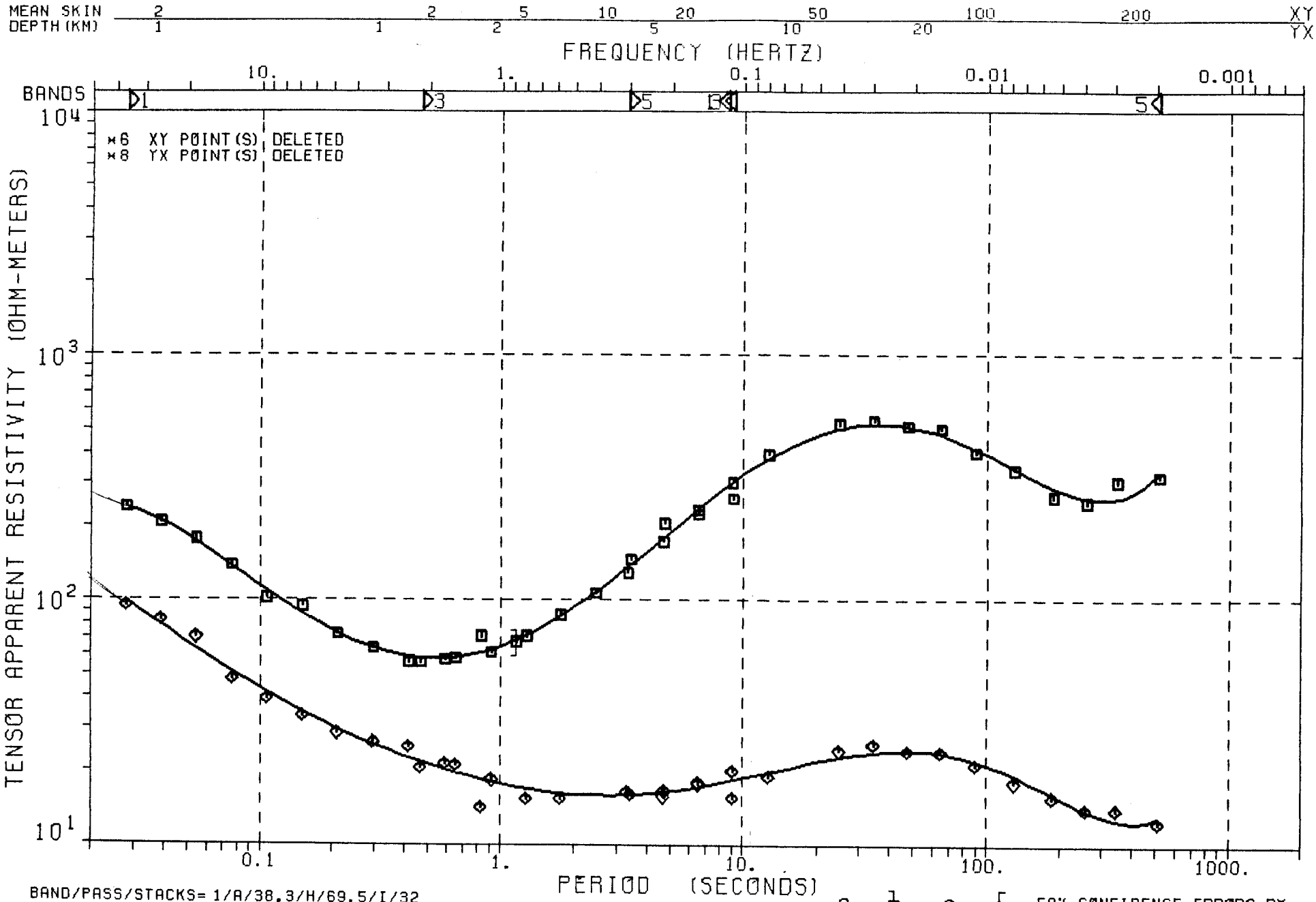
BAND/PASS/STACKS= 2/B/63,3/C/132,5/E/14

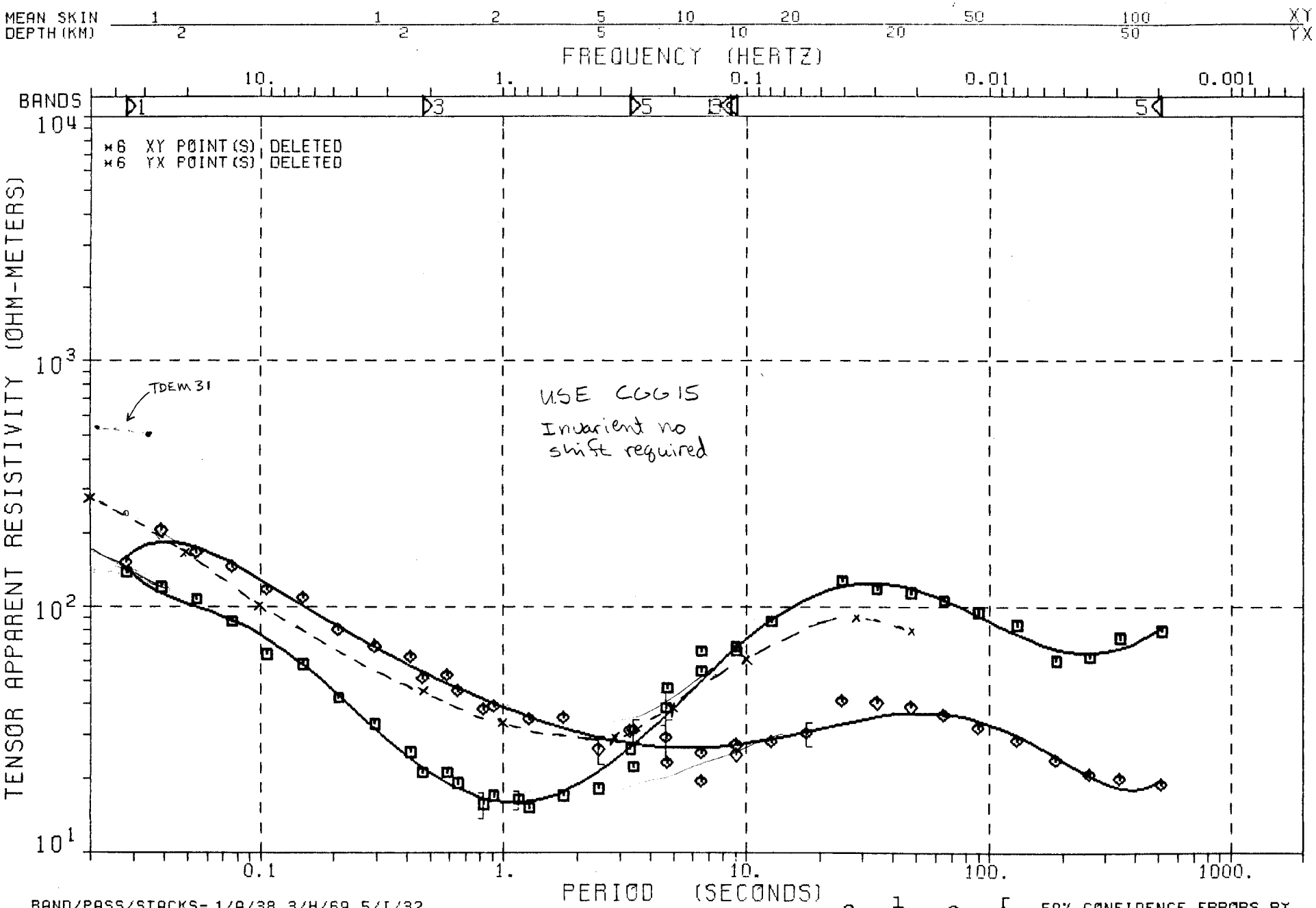
50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 02

GLASS MOUNTAIN, CA.m --STA.14

28-SEP-81 WOODWARD-CLYDE CONSULTANTS

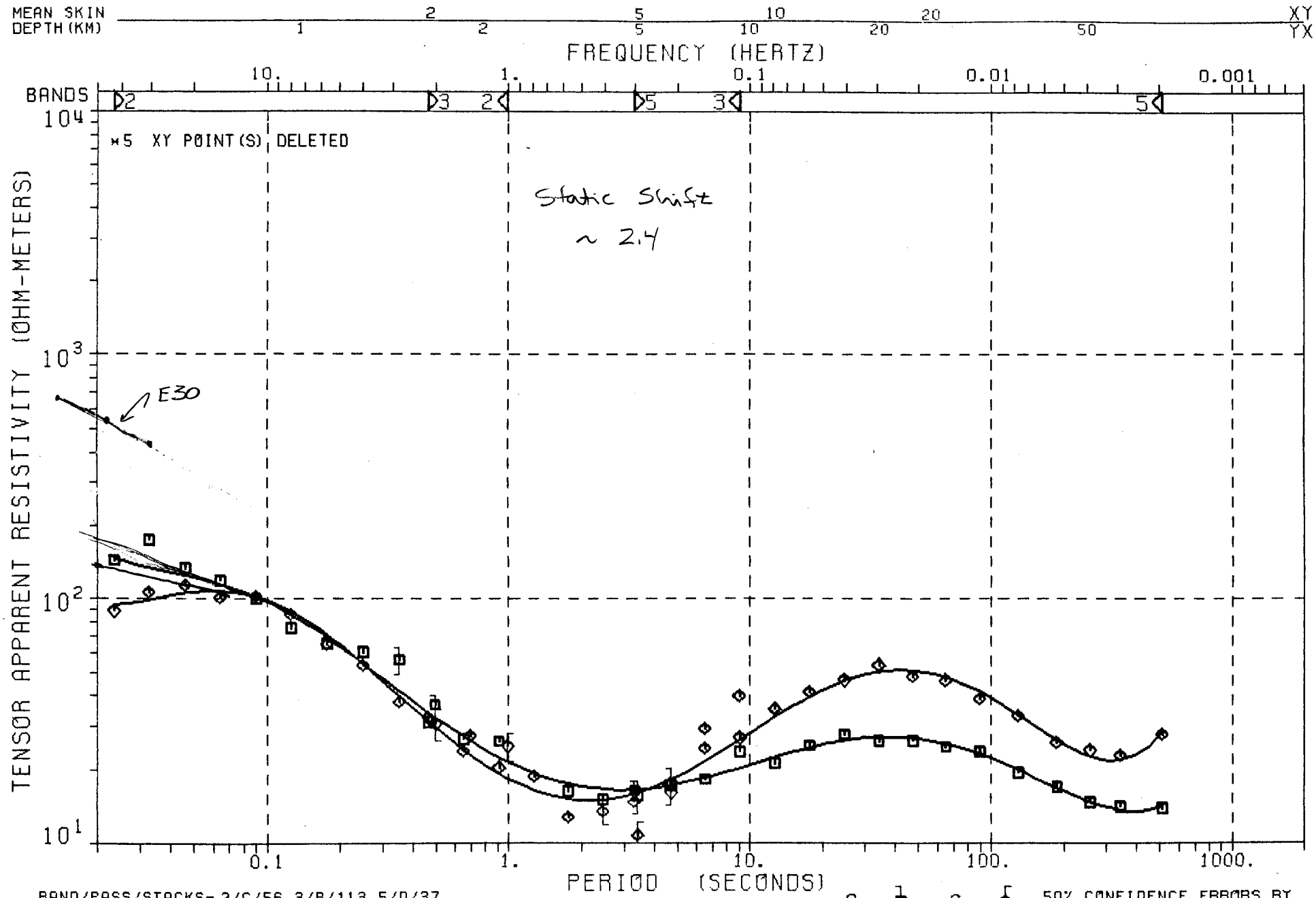

MEAN SKIN DEPTH (KM)
XY
YX
FREQUENCY (HERTZ)
BANDS
×2 XY POINT(S) DELETED
×1 YX POINT(S) DELETED
TENSOR APPARENT RESISTIVITY (OHM-METERS)
PERIOD (SECONDS)
BAND/PASS/STACKS= 1/B/107,5/A/22
ρXY=
ρYX=
50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 09
GLASS MOUNTAIN, CA.m --STA.15
01-OCT-81
WOODWARD-CLYDE CONSULTANTS


MEAN SKIN DEPTH (KM)
2 1 2 5 10 20 50 100 200
1 2 5 10 20
XY
YX
FREQUENCY (HERTZ)
10. 1. 0.1 0.01 0.001
BANDS
1 3 5 5
×6 XY POINT(S) DELETED
×8 YX POINT(S) DELETED
TENSOR APPARENT RESISTIVITY (OHM-METERS)
10^4
10^3
10^2
10^1
0.1 1. 10. 100. 1000.
PERIOD (SECONDS)
BAND/PASS/STACKS= 1/A/38,3/H/69,5/I/32
ρXY=
ρYX=
50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 17
GLASS MOUNTAIN, CA.m --STA.16
28-SEP-81
WOODWARD-CLYDE CONSULTANTS



GLASS MOUNTAIN, CA.m --STA.17

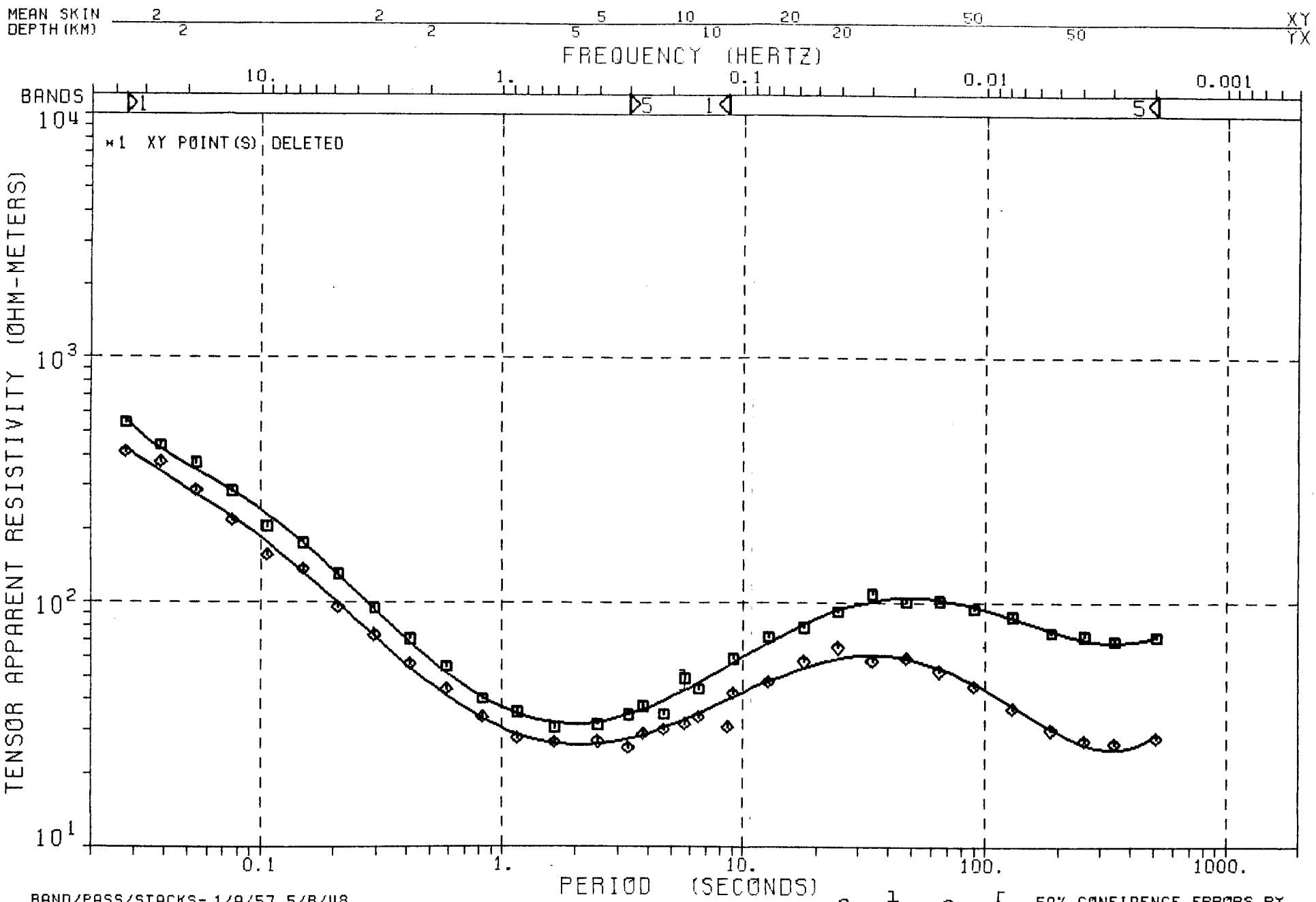
28-SEP-81 WOODWARD-CLYDE CONSULTANTS



BAND/PASS/STACKS= 2/C/56,3/B/113,5/D/37

GLASS MOUNTAIN, CA.m--STA.18

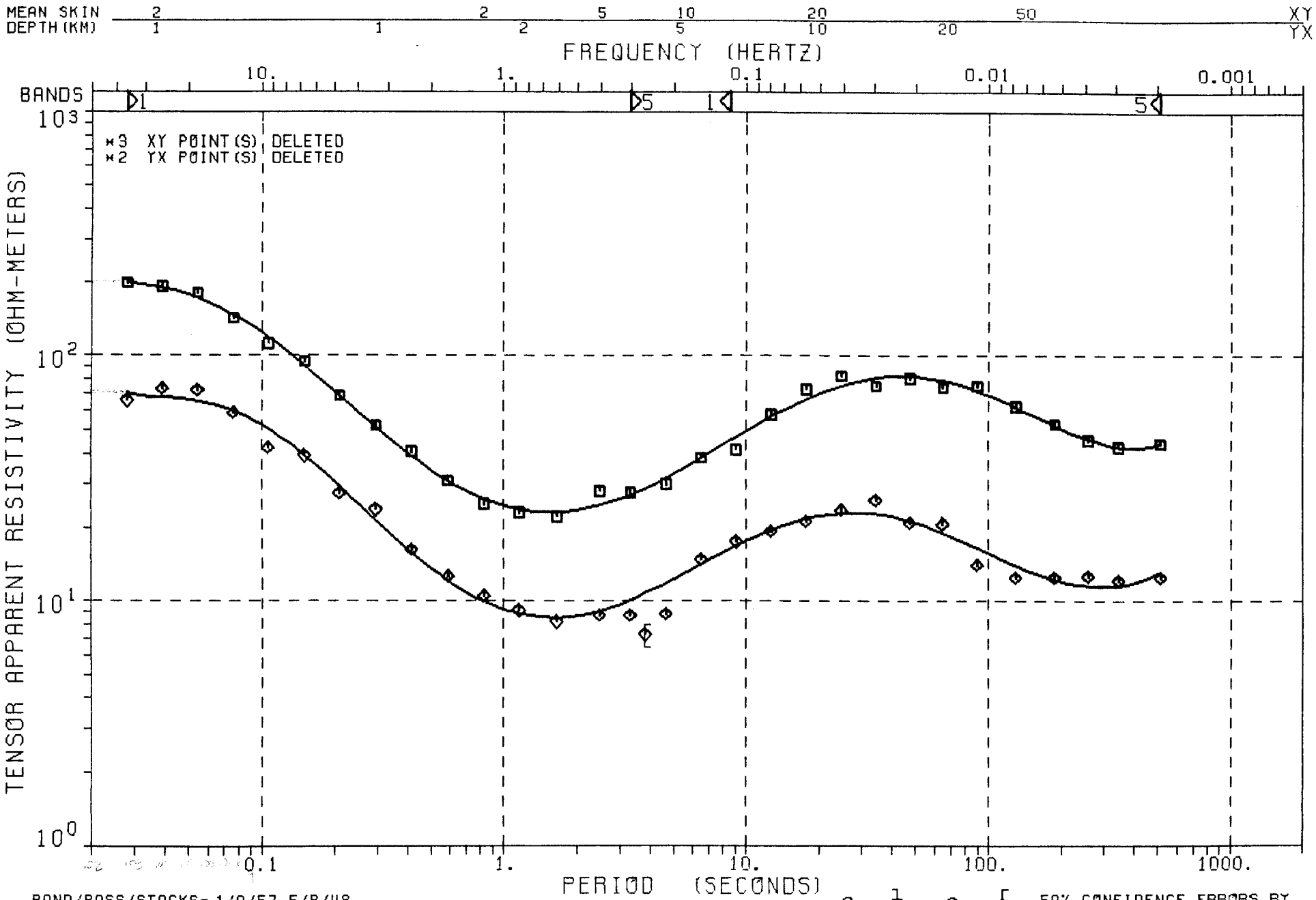
28-SEP-81 WOODWARD-CLYDE CONSULTANTS



BAND/PASS/STACKS= 1/A/57,5/B/48

GLASS MOUNTAIN, CA.,m --STA.19

28-SEP-81 WOODWARD-CLYDE CONSULTANTS

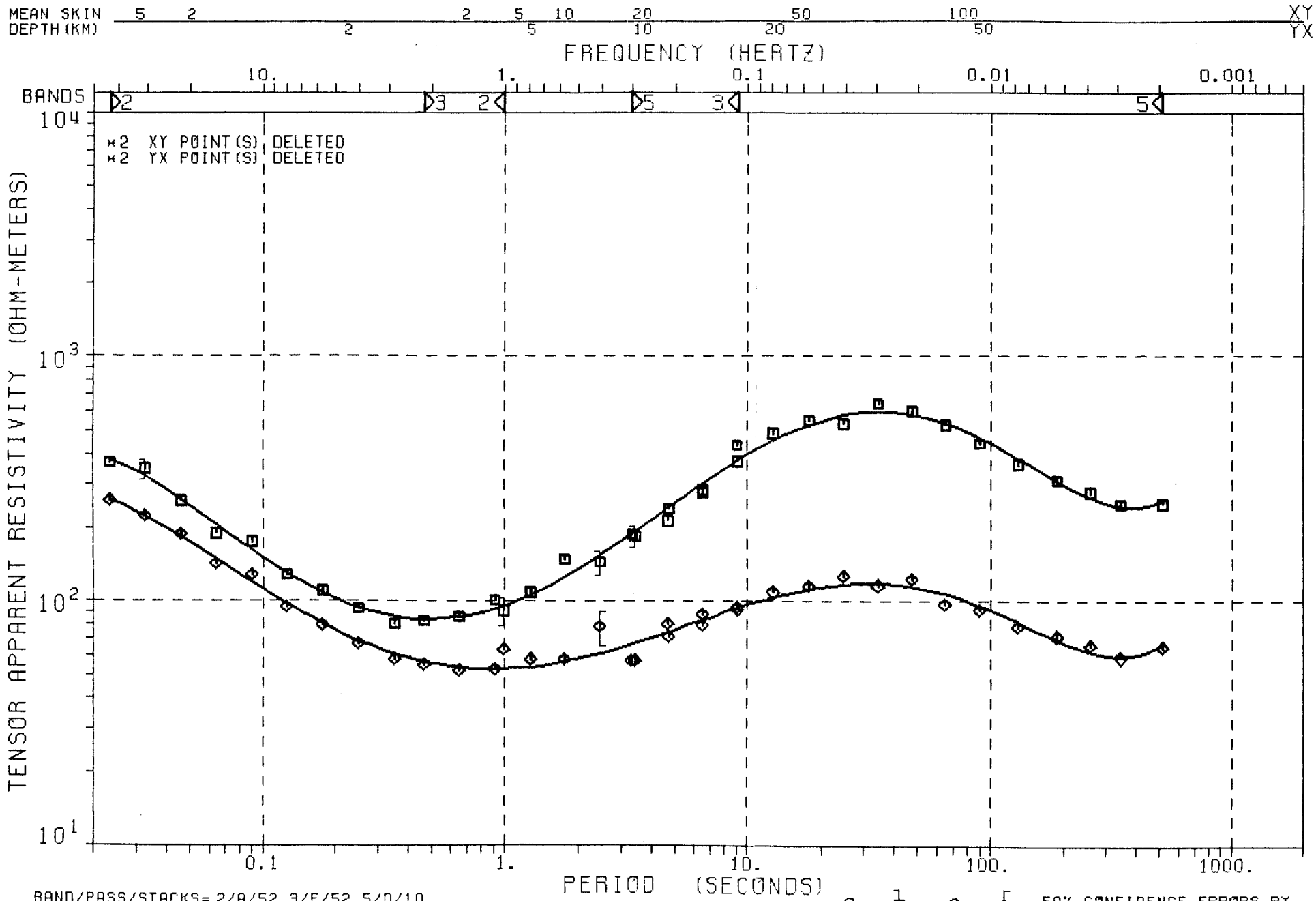


BAND/PASS/STACKS= 1/A/57,5/B/48

$\rho_{XY}=$ ⊕ $\rho_{YX}=$ ⊕ 50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 19

GLASS MOUNTAIN, CA.$_m$--STA.20

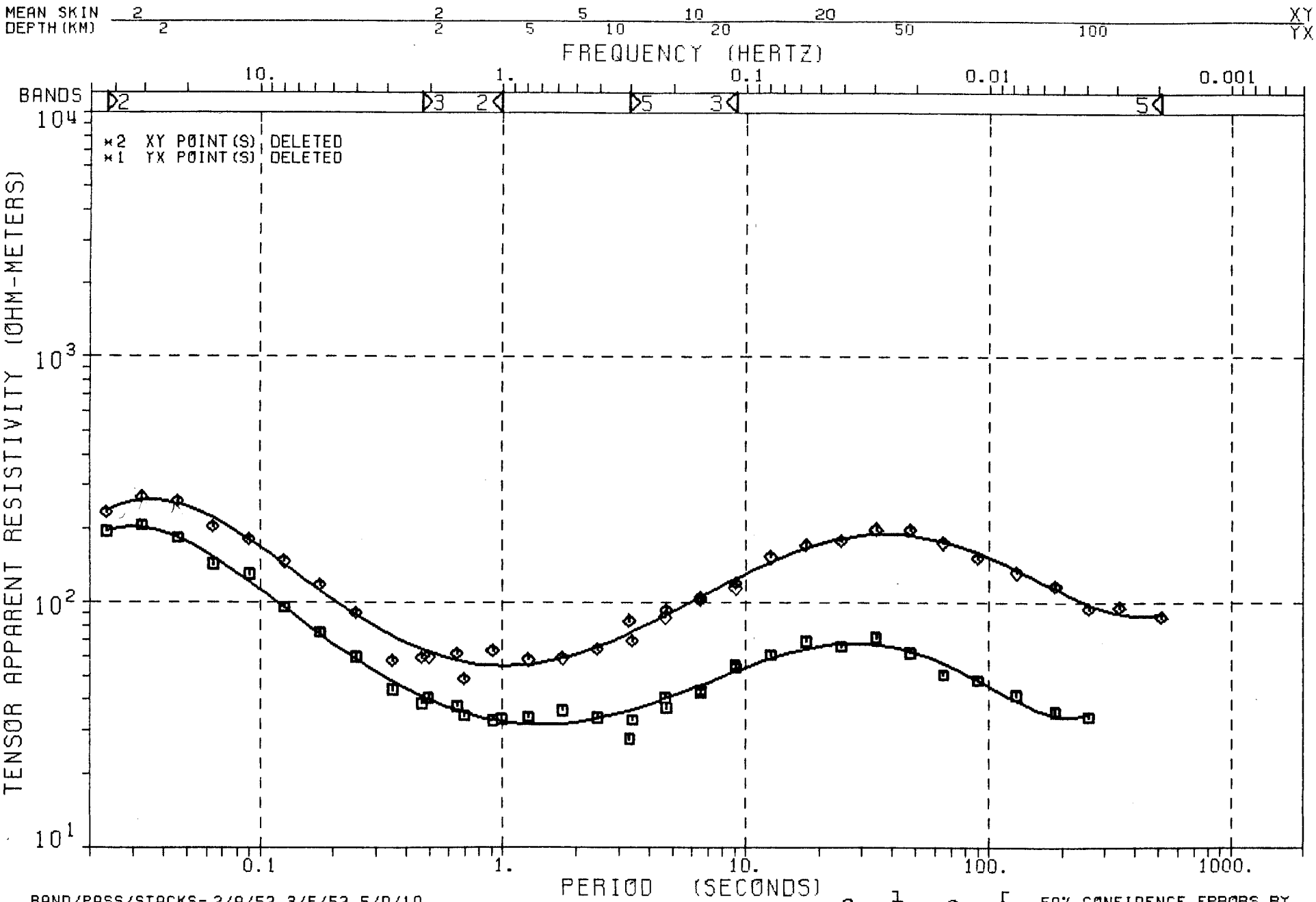
28-SEP-81 WOODWARD-CLYDE CONSULTANTS



BAND/PASS/STACKS= 2/A/52,3/E/52,5/D/10

GLASS MOUNTAIN, CA.m --STA.21

28-SEP-81 WOODWARD-CLYDE CONSULTANTS



BAND/PASS/STACKS= 2/A/52,3/E/52,5/D/10

$\rho_{XY}=$ $\rho_{YX}=$ 50% CONFIDENCE ERRORS BY REMOTE REF TO STA. 21

GLASS MOUNTAIN, CA.$_m$ --STA.22

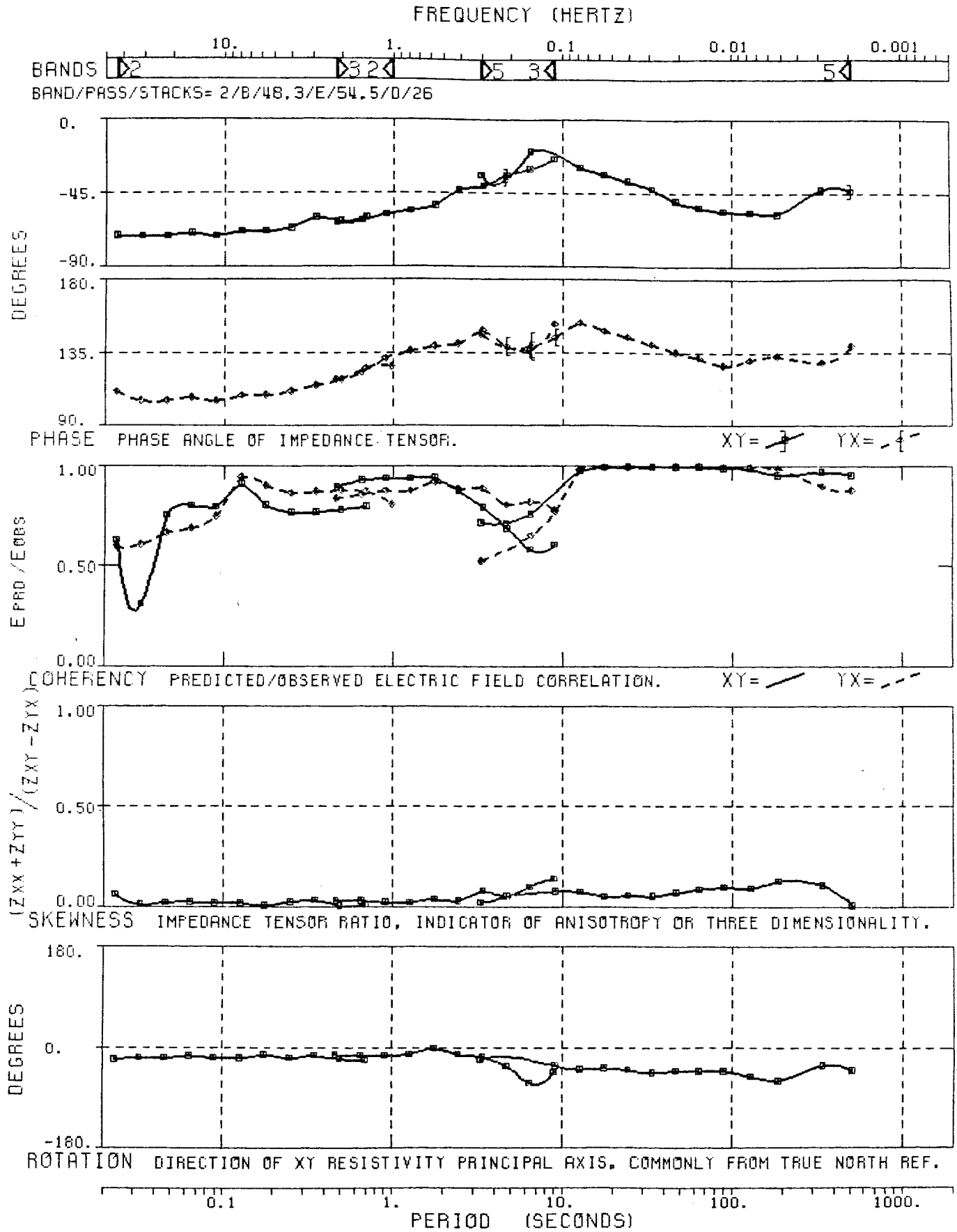
28-SEP-81 WOODWARD-CLYDE CONSULTANTS

APPENDIX VIIIB

COHERENCY, PHASE, ROTATION, SKEWNESS GRAPHS

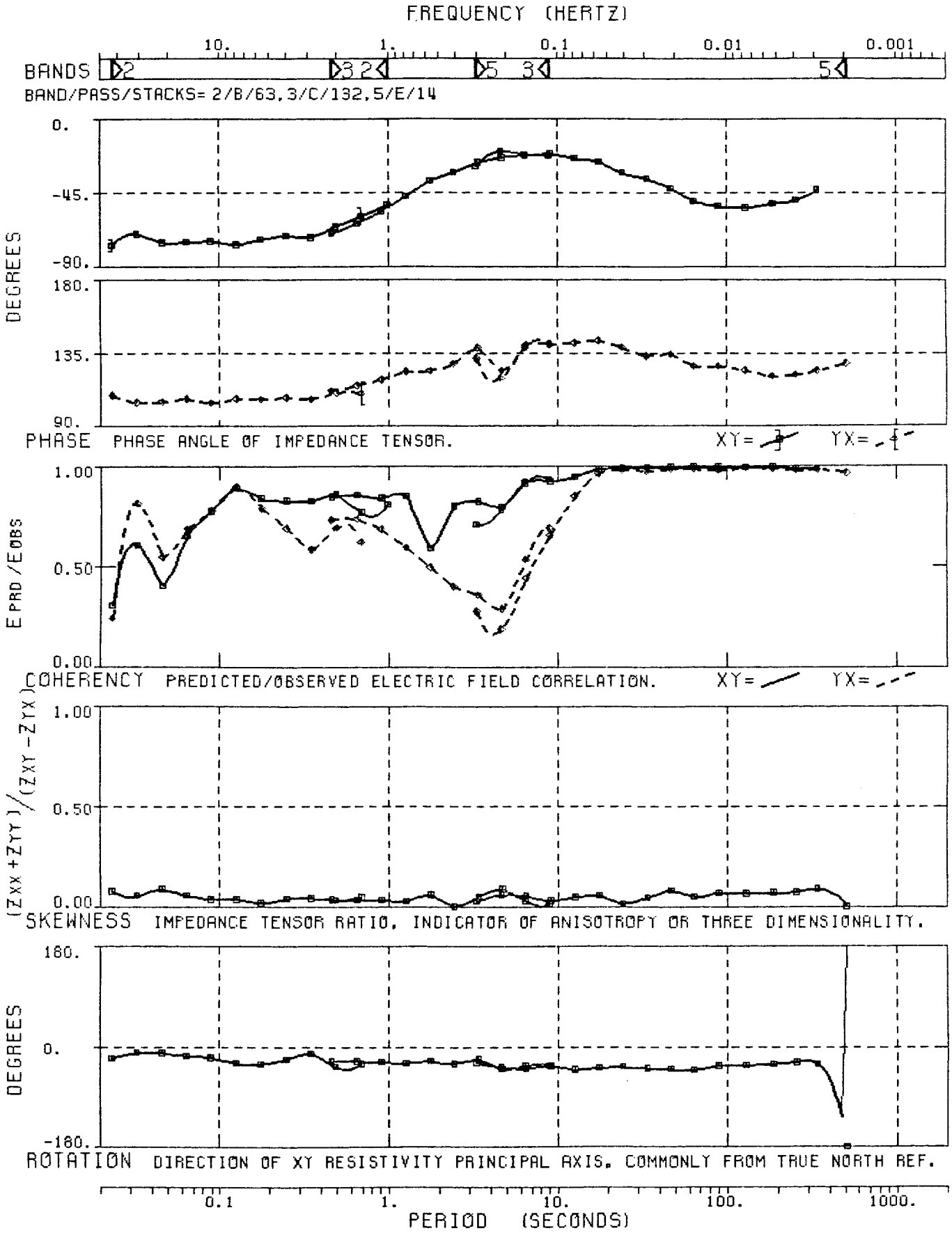
The impedance phase angle is also graphed independently for each set, and if the resistivity sets were switched in a band, phase has been shifted by 180 degrees. Fifty, 75 or 95% confidence error bars are shown for phase, as specified for the resistivity plot, unless they do not exceed symbol height. Four impedance related parameters are graphed in one plot. Ordinary impedance (unreferenced) coherencies are plotted for each principal set. Skewness is cut off at 1.0 on the basis of experience, assuming that this magnitude implies such poorly defined principal axes that two-dimensional model calculations become invalid. Rotation is the angle from H_x to one of the principal axes (the xy set unless shifted by operator for band-to-band continuity), usually corrected to a true north reference (i.e., if H_x direction is measured with respect to true north, correction = minus H_x). It is taken positive clockwise, and has a 90-degree ambiguity (that is, whether rotation represents the parallel or perpendicular set in undefined, and it may be shifted $\pm$ 90 degrees for plots by the operator when resistivity axes are shifted). A 90-degree mismatch of rotation between bands is the best indicator that resistivities need to be switched for one band. Rotation may further be slipped by 180 degrees over all bands in order to display a curve within the plot range of -180 to +180 degrees. Neither rotation nor skew is calculated if impedance is not accepted for both xy and yx at a point. All of these curves are fit by an exact interpolator that uses overlapping polynomial curve segments to pass through each point. Each curve is plotted as a separate section for each band. Finally, if phase or rotation exceed scale limits, they will wrap around (continue from the other border). The wrapped segment can be recognized by the fact that only the shifted curve is plotted; points outside range are not shifted and not shown.

A station identification is limited to two alphanumeric characters, following a job or survey description (limited to 20 characters). The reference station identification is also given (note that whether the base or remote of a recording set-up is the reference depends on which station is being plotted). The given date is the date the plot was generated, rather than when the data were recorded.



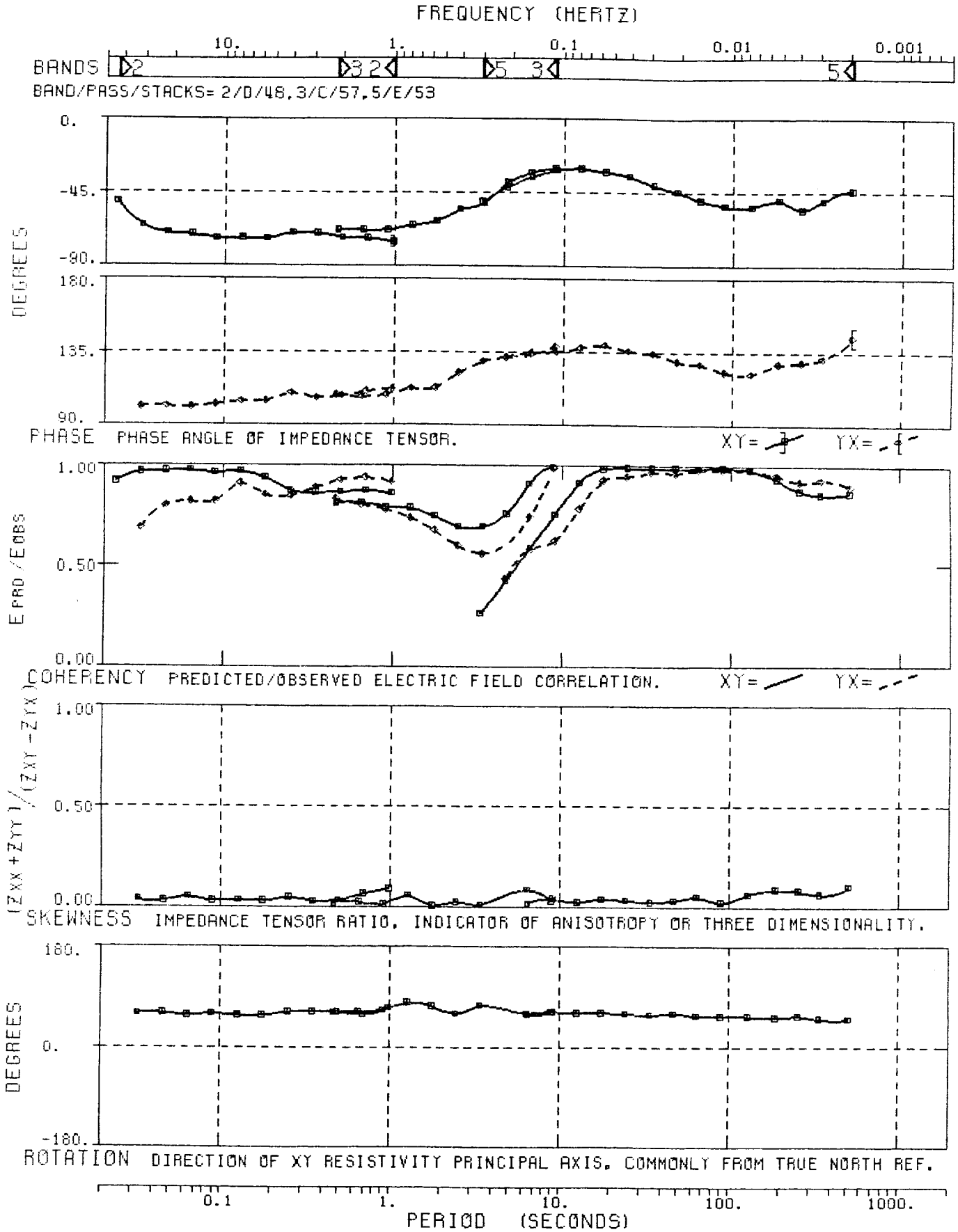
AZIMUTH(DEG): EX=350,EY=80,HX=350,HX TO REF=-350 ERRORS BY REMOTE REF TO STA.06

GLASS MOUNTAIN, CA.□--STA.01 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



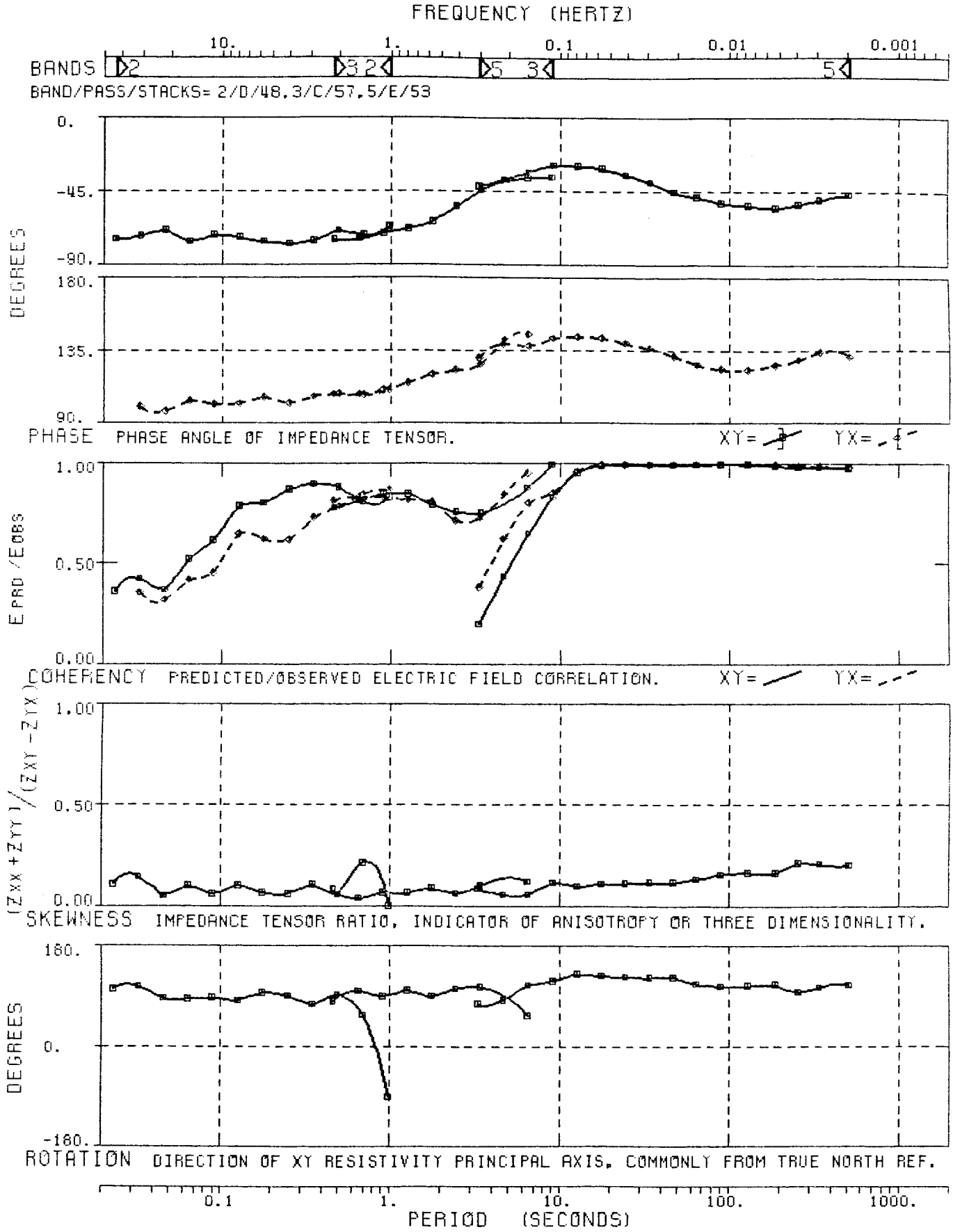
AZIMUTH (DEG) : EX=140,EY=230,HX=140,HX TO REF=-140 ERRORS BY REMOTE REF TO STA. 14

GLASS MOUNTAIN, CA. --STA.02 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



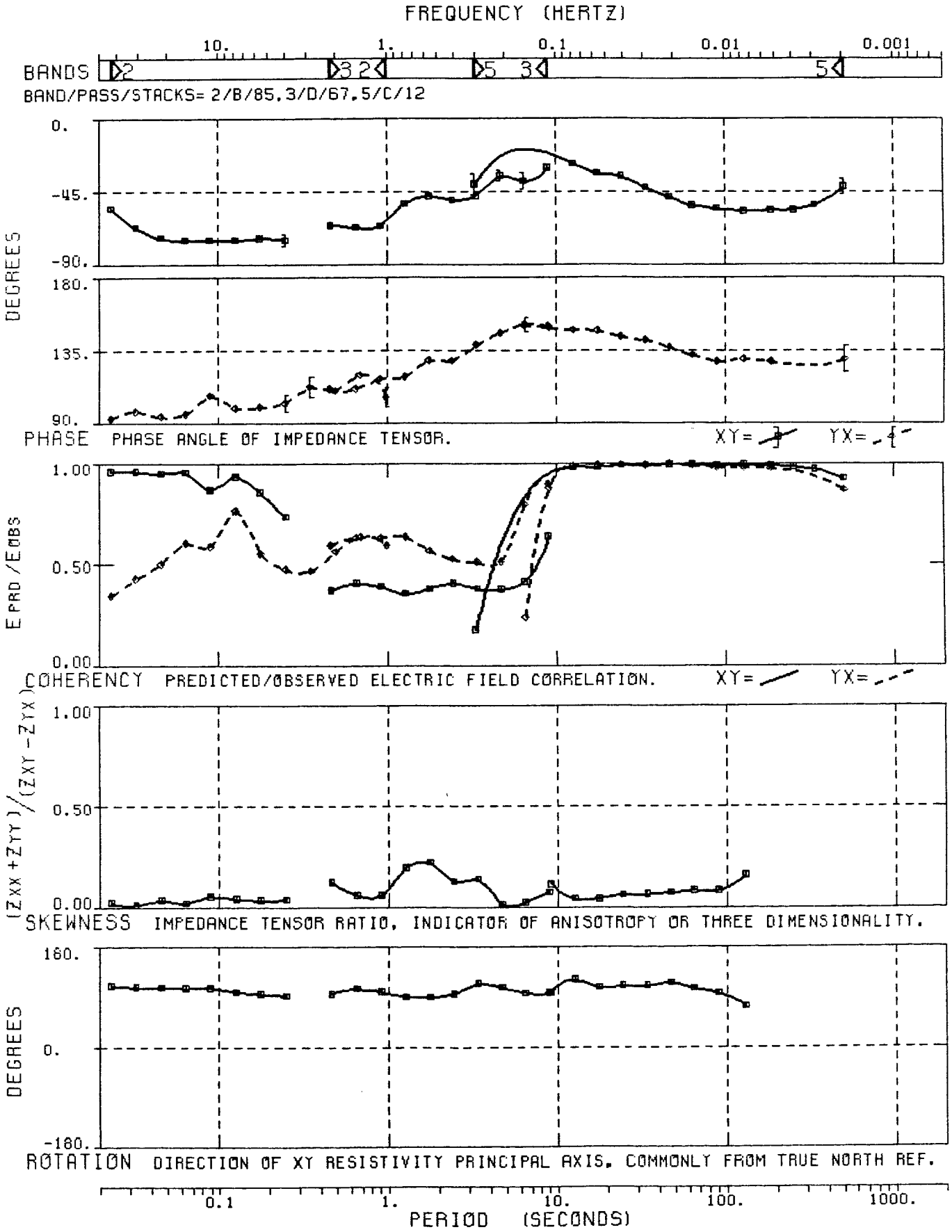
AZIMUTH (DEG) : EX=240,EY=330,HX=240,HX TO REF=-240 ERRORS BY REMOTE REF TO STA. 04

GLASS MOUNTAIN, CA.□--STA.03 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



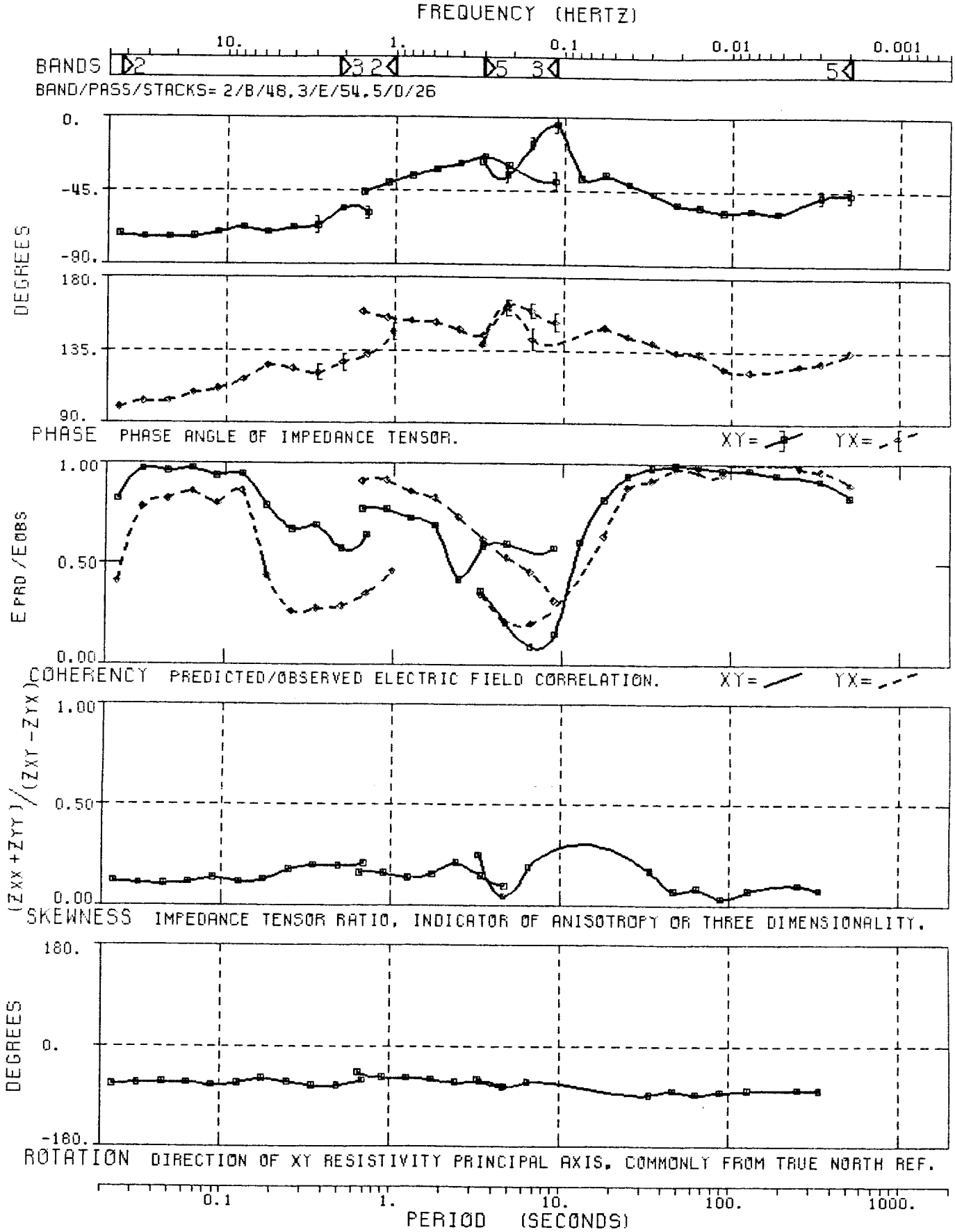
AZIMUTH (DEG) : EX=270, EY=0, HX=270, HX TO REF=-270 ERRORS BY REMOTE REF TO STA. 03

GLASS MOUNTAIN, CA. --STA.04 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



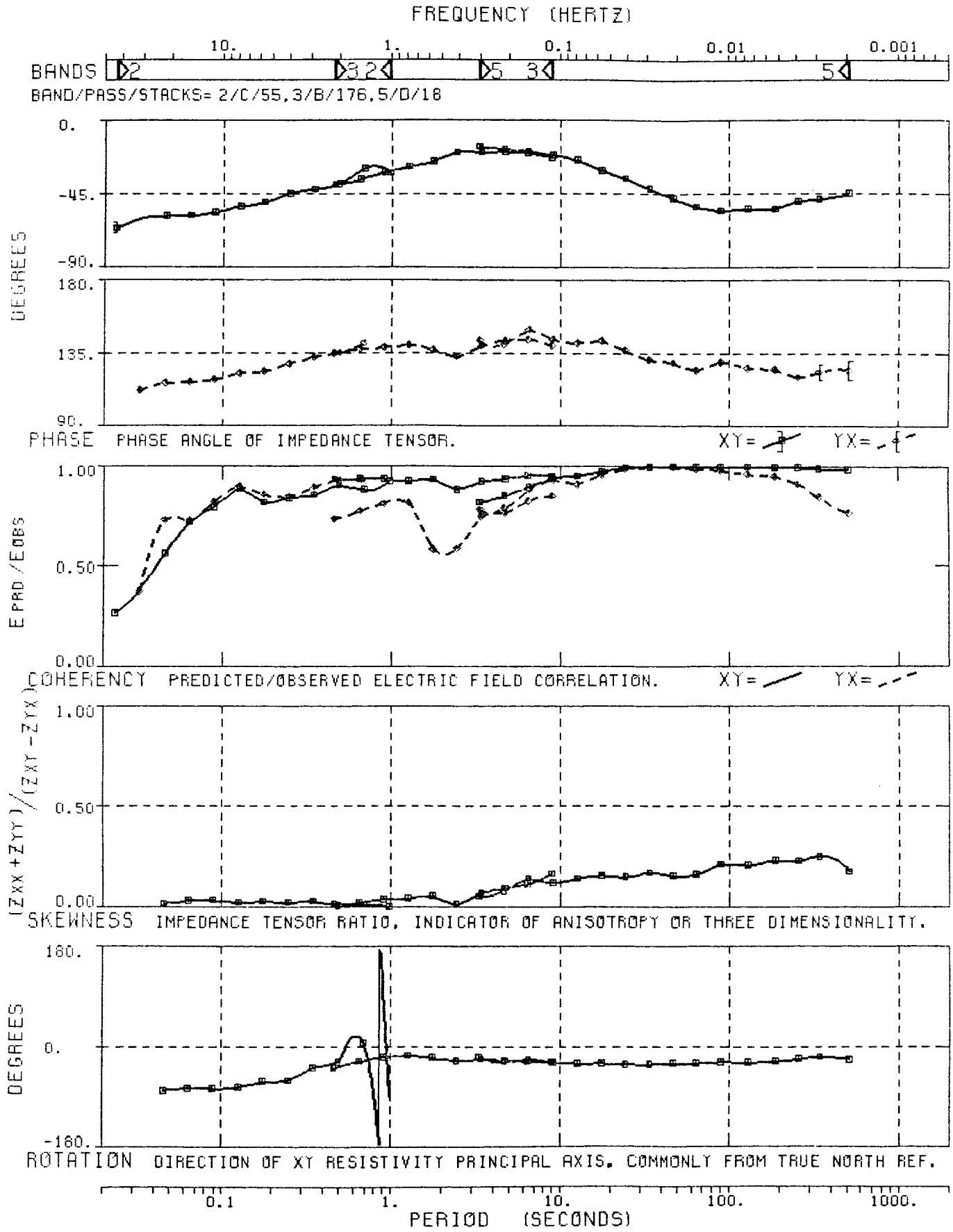
AZIMUTH (DEG) : EX=110, EY=200, HX=110, HX TO REF=-110 ERRORS BY REMOTE REF TO STA. 10

GLASS MOUNTAIN, CA. --STA.05 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



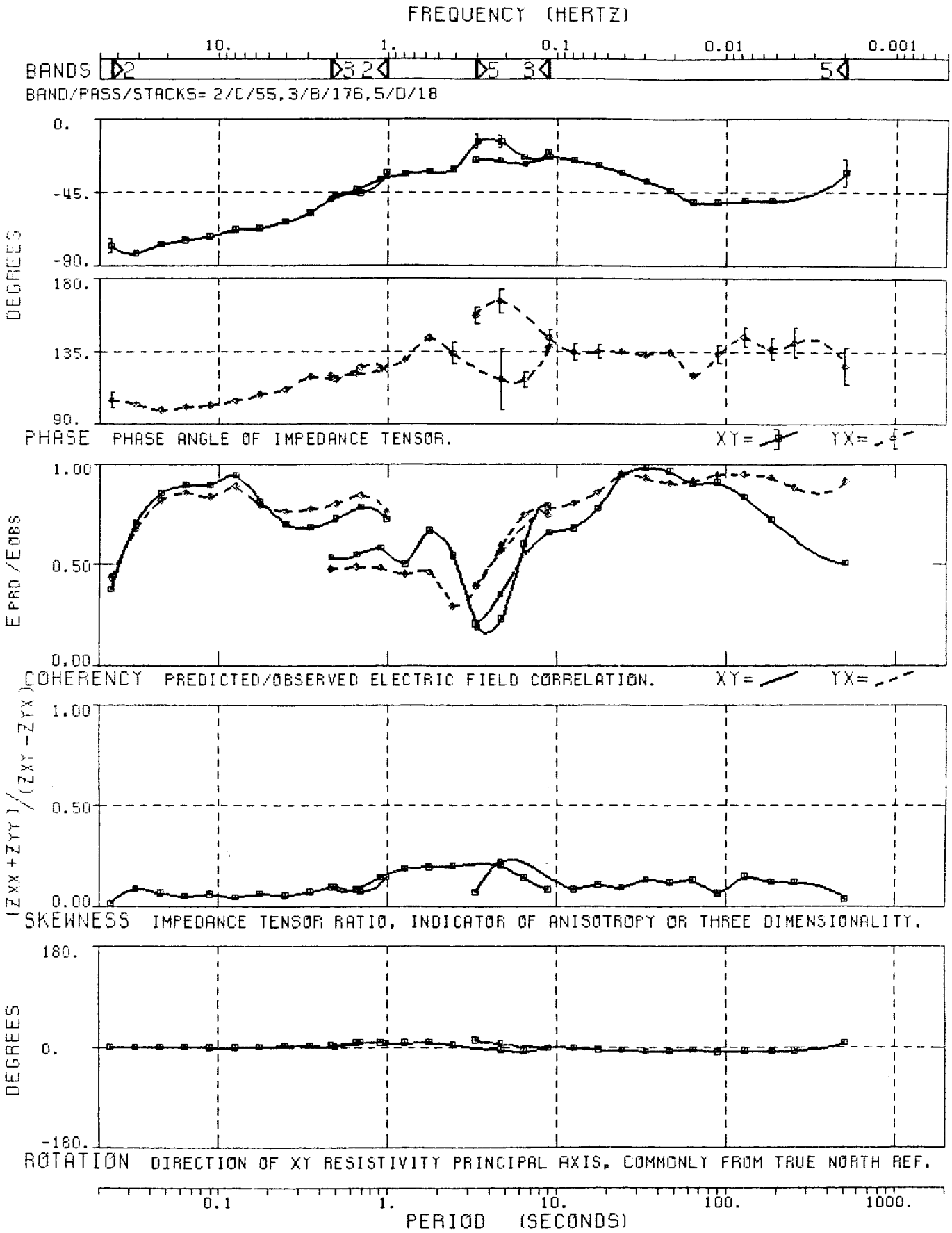
AZIMUTH (DEG) : EX=260, EY=350, HX=260, HX TO REF=-260 ERRORS BY REMOTE REF TO STA. 01

GLASS MOUNTAIN, CA. -- STA. 06 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



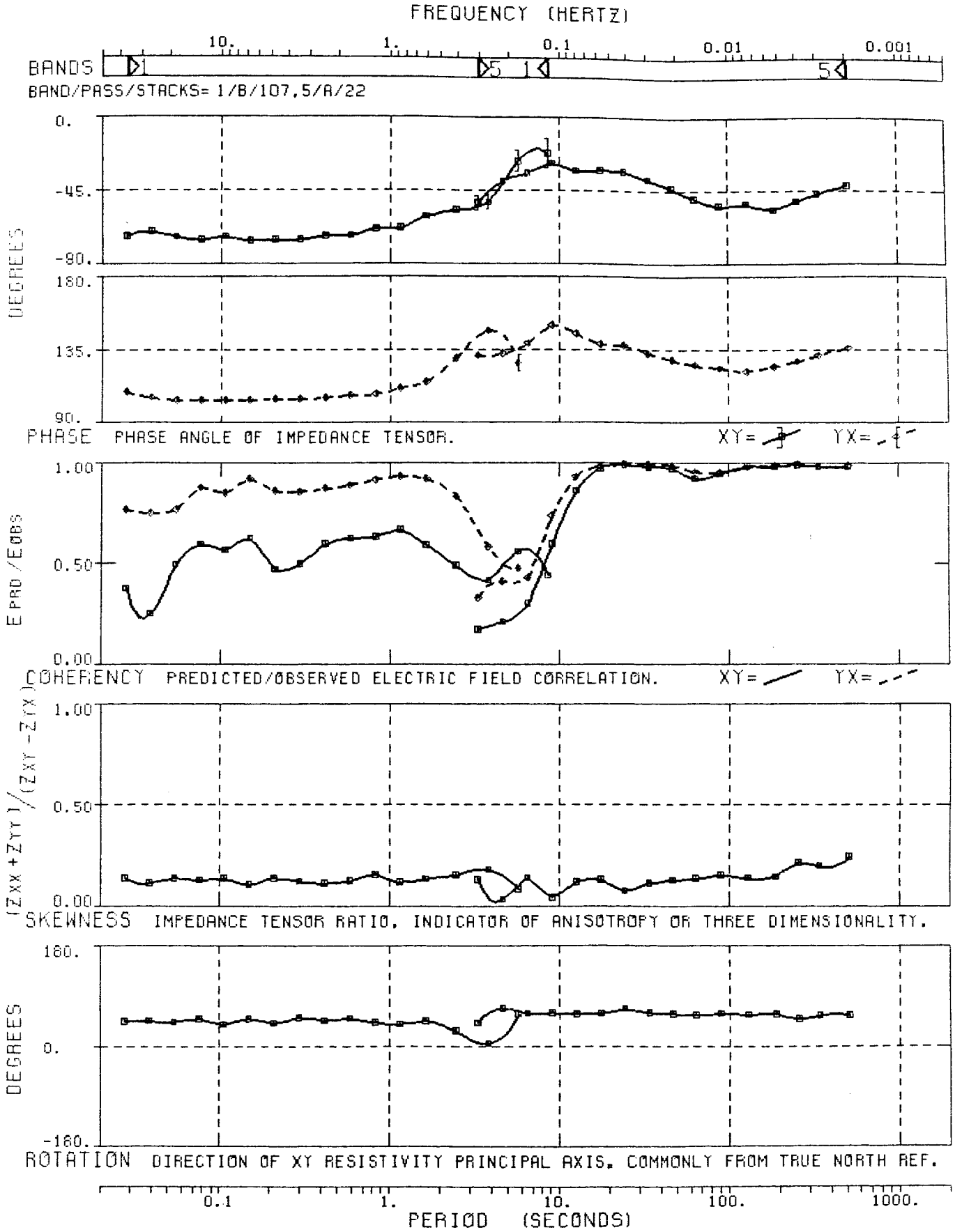
AZIMUTH (DEG) : EX=270, EY=0, HX=270, HX TO REF=-270 ERRORS BY REMOTE REF TO STA. 08

GLASS MOUNTAIN, CA. --STA.07 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



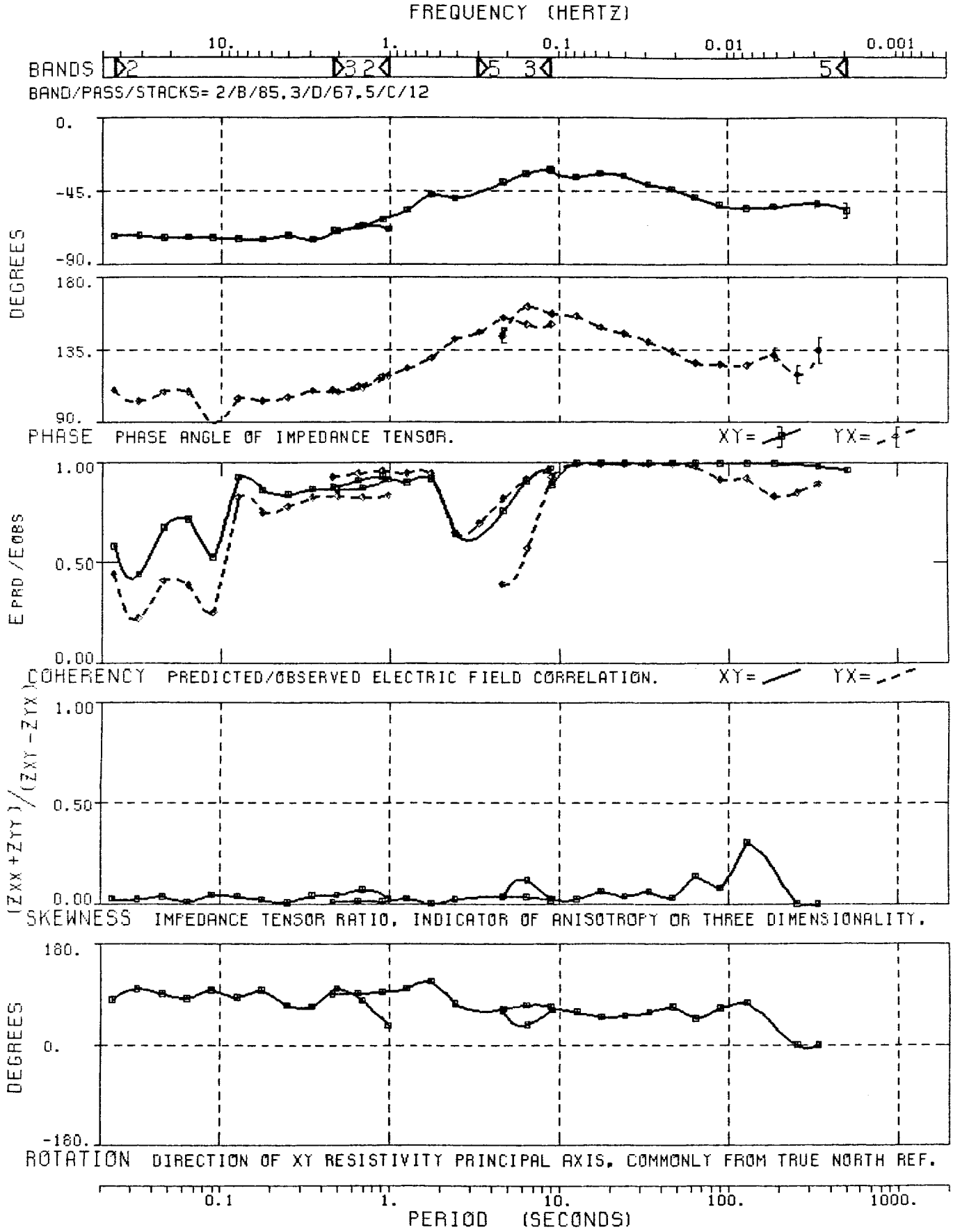
AZIMUTH (DEG) : EX=220, EY=310, HX=220, HX TO REF=-220 ERRORS BY REMOTE REF TO STA. 07

GLASS MOUNTAIN, CA. -- STA. 08 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



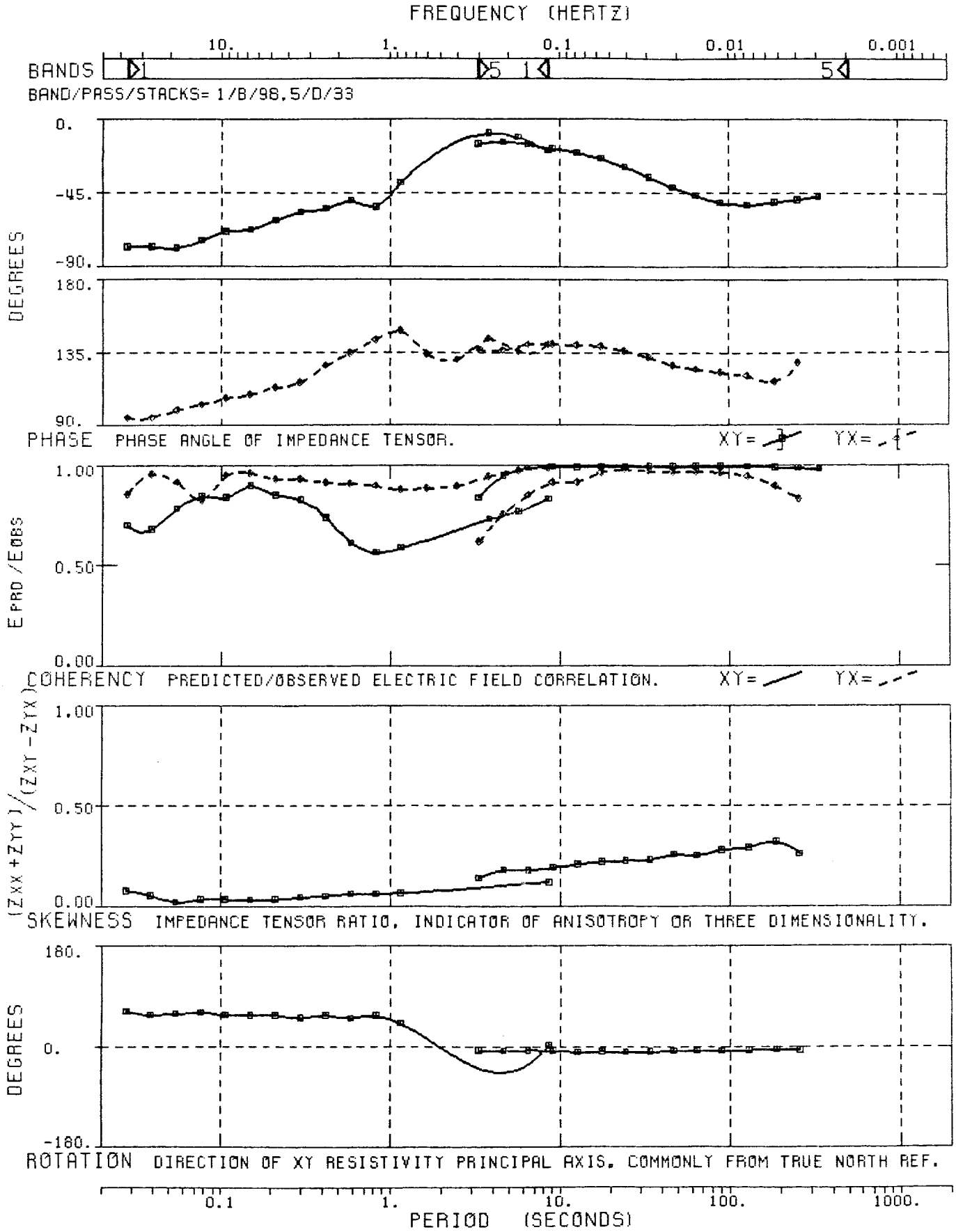
AZIMUTH (DEG): EX=40, EY=130, HX=40, HX TO REF=-40 ERRORS BY REMOTE REF TO STA. 15

GLASS MOUNTAIN, CA. --STA.09 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



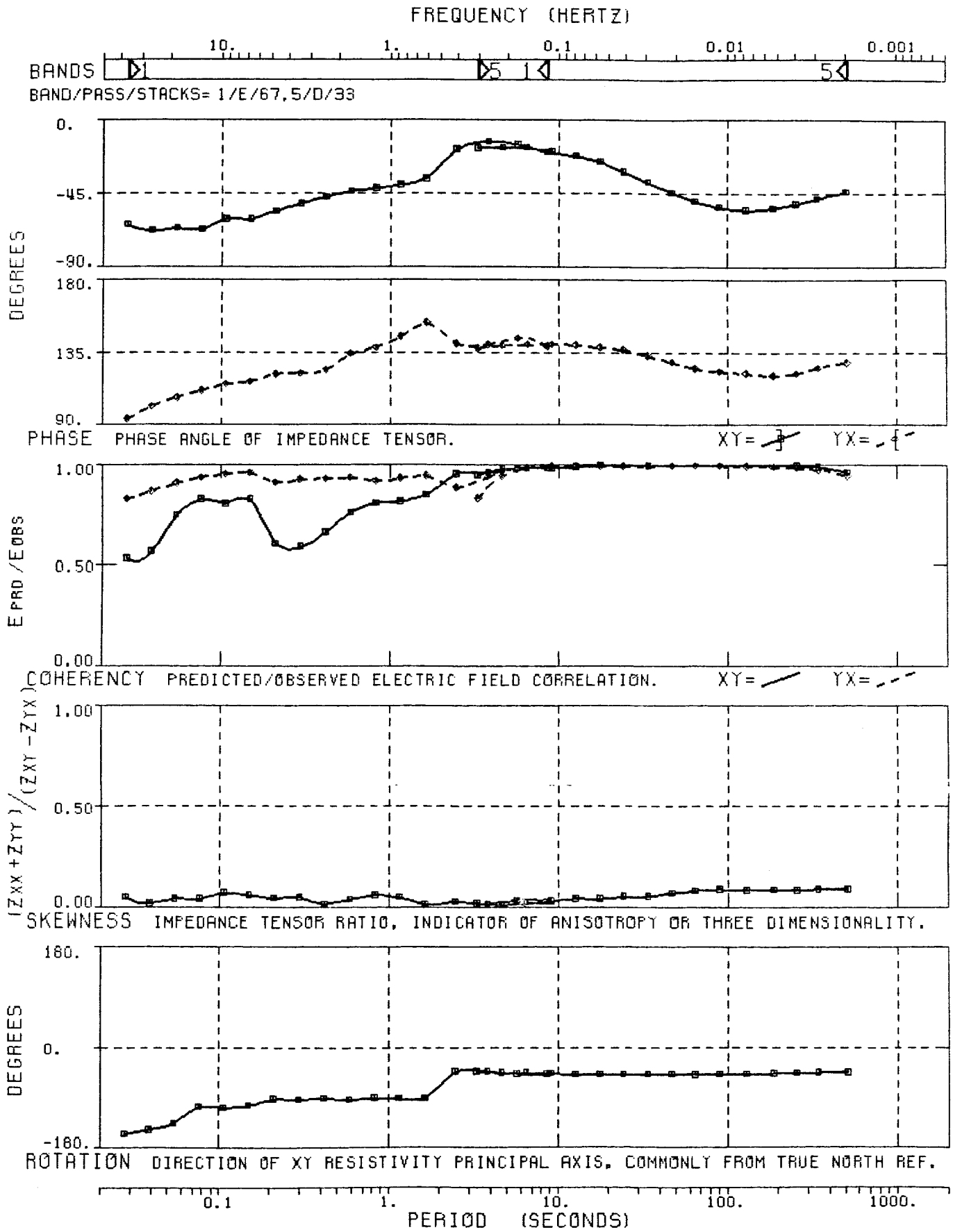
AZIMUTH (DEG) : EX=70, EY=160, HX=70, HX TO REF=-70 ERRORS BY REMOTE REF TO STA. 05

GLASS MOUNTAIN, CA. -- STA. 10 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



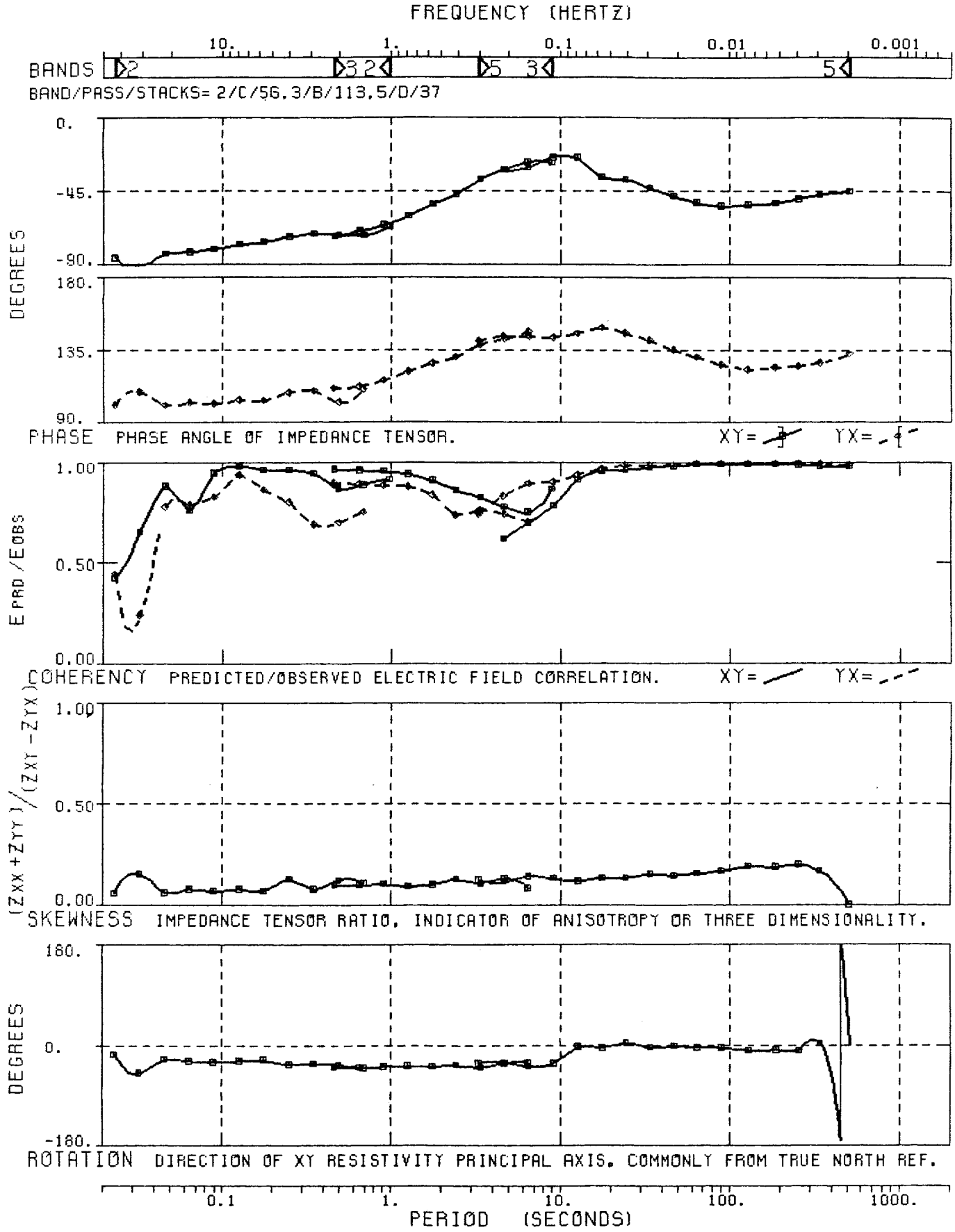
AZIMUTH (DEG): EX=170, EY=260, HX=170, HX TO REF=-170 ERRORS BY REMOTE REF TO STA. 12

GLASS MOUNTAIN, CA. --STA.11 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



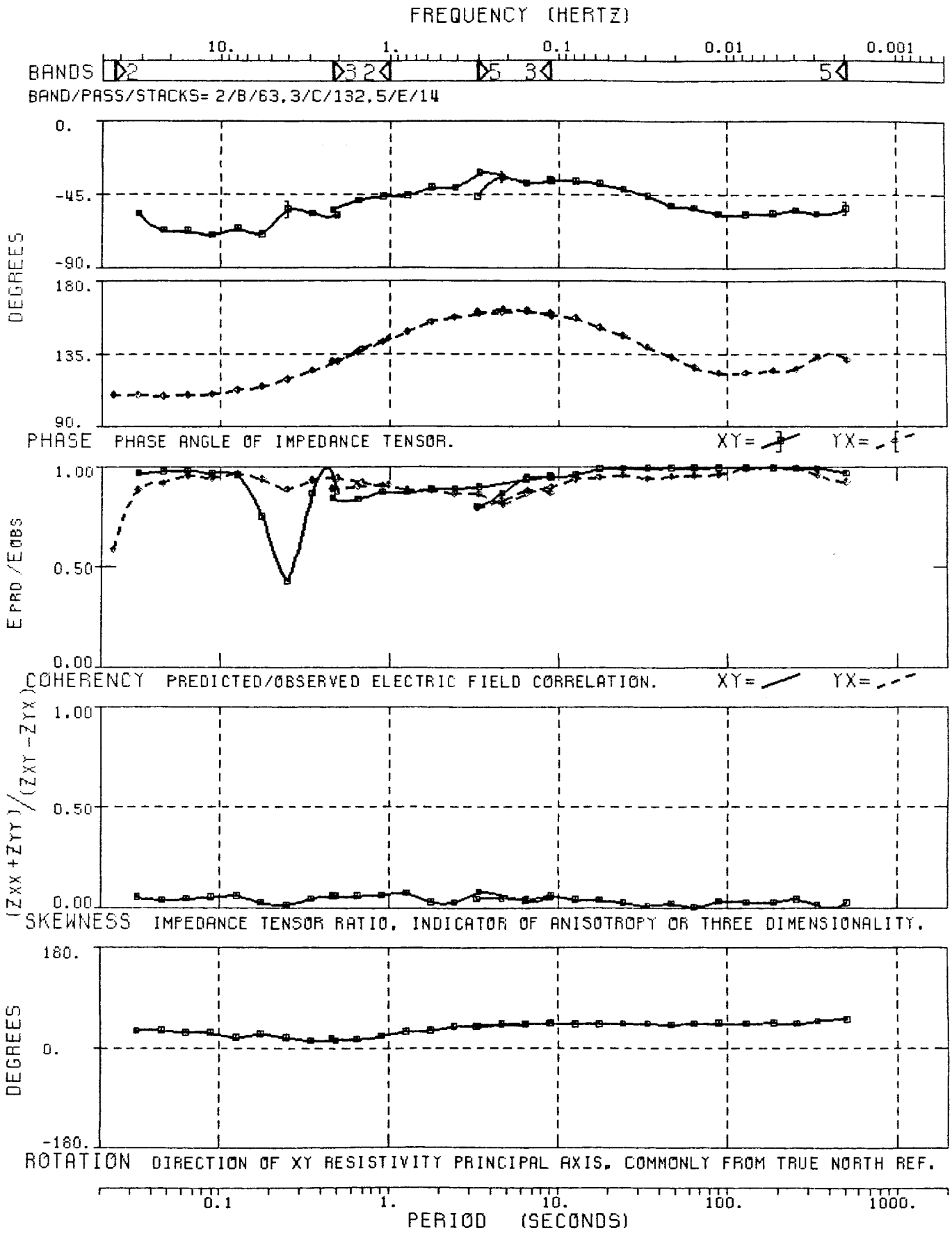
AZIMUTH (DEG) : EX=200,EY=290,HX=200,HX TO REF=-200 ERRORS BY REMOTE REF TO STA. 11

GLASS MOUNTAIN, CA.□--STA.12 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



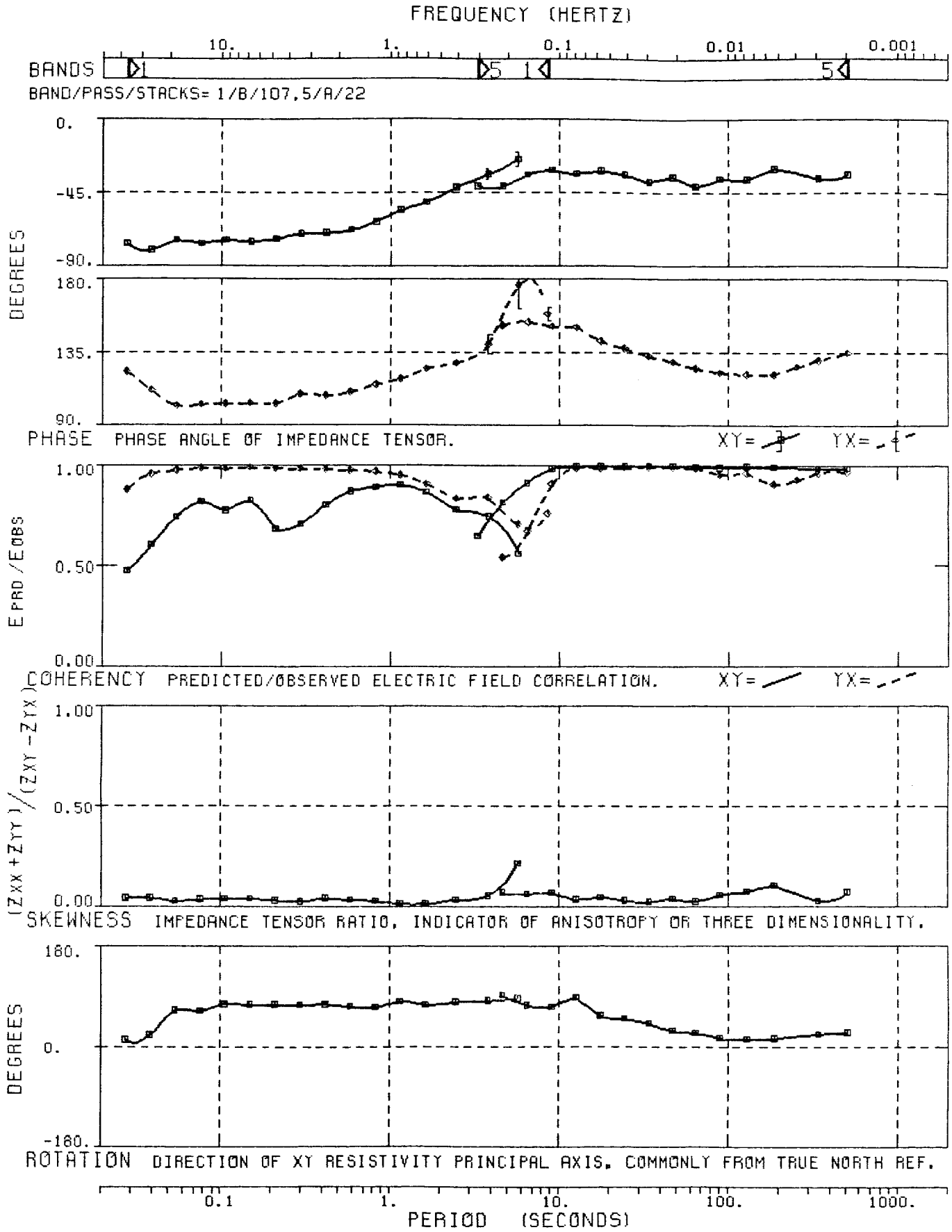
AZIMUTH (DEG) : EX=340,EY=70,HX=340,HX TO REF=-340 ERRORS BY REMOTE REF TO STA. 18

GLASS MOUNTAIN, CA.□ --STA.13 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



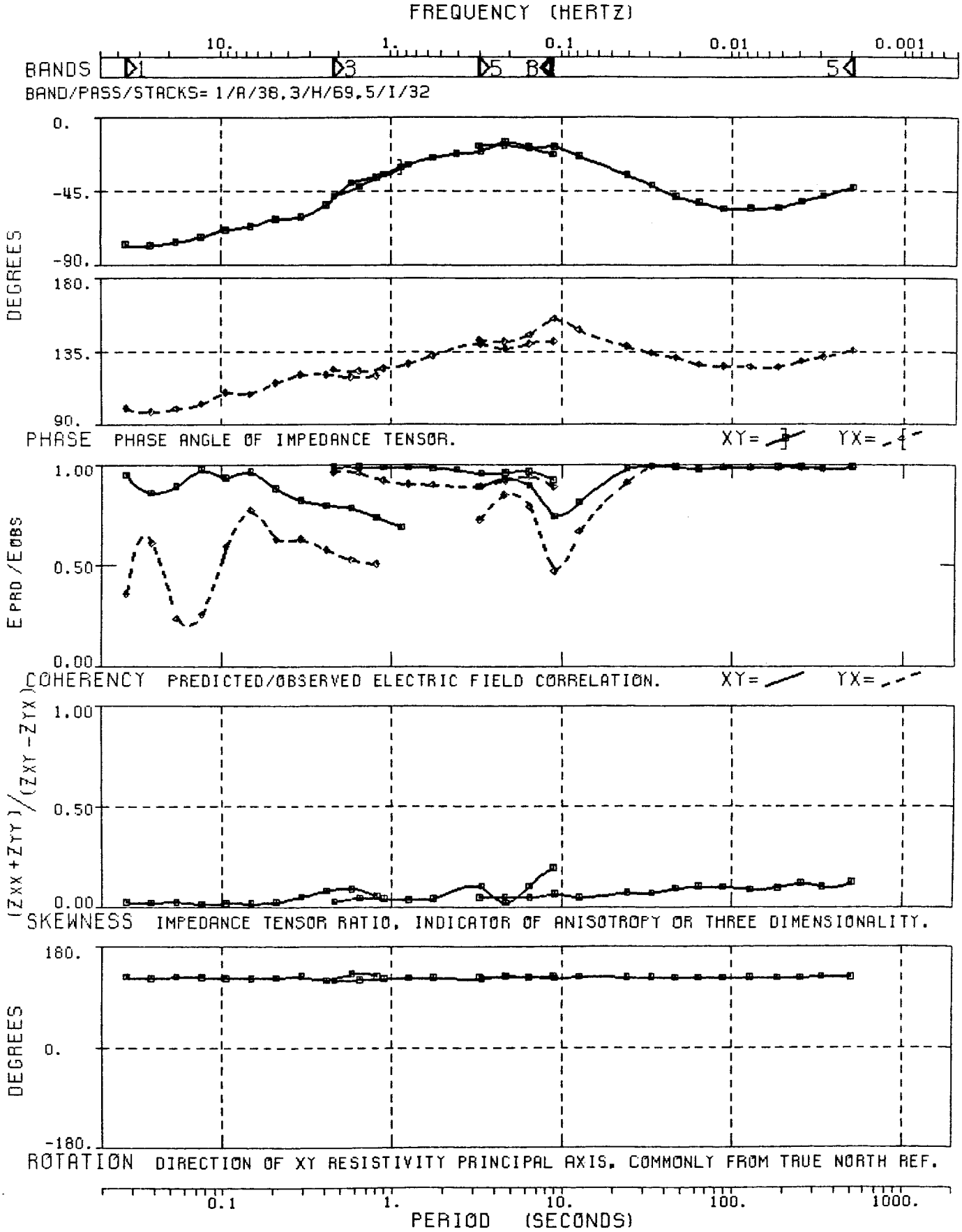
AZIMUTH (DEG) : EX=175,EY=265,HX=175,HX TO REF=-175 ERRORS BY REMOTE REF TO STA. 02

GLASS MOUNTAIN, CA. --STA.14 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



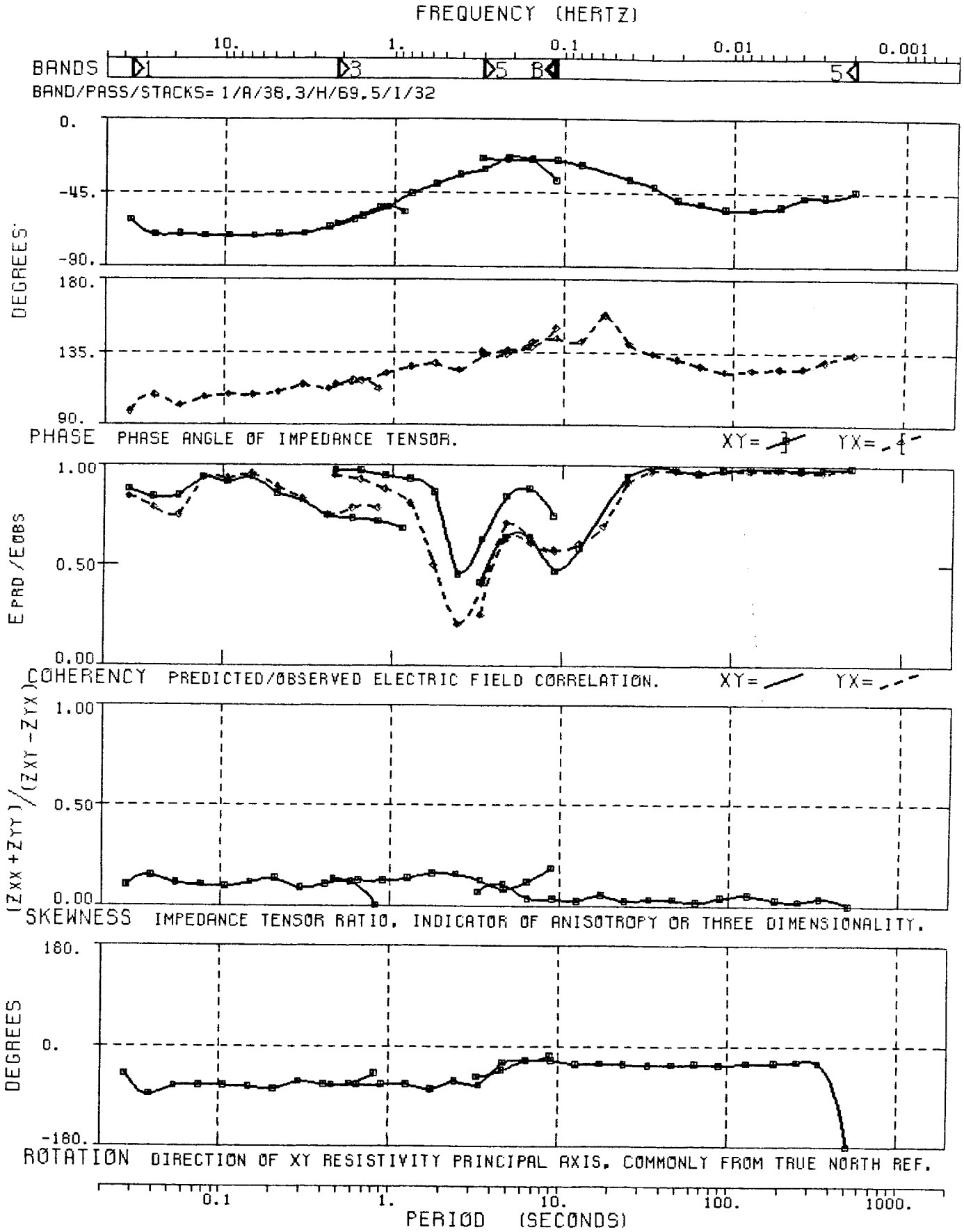
AZIMUTH (DEG) : EX=280,EY=10,HX=280,HX TO REF=-280 ERRORS BY REMOTE REF TO STA.09

GLASS MOUNTAIN, CA. --STA.15 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



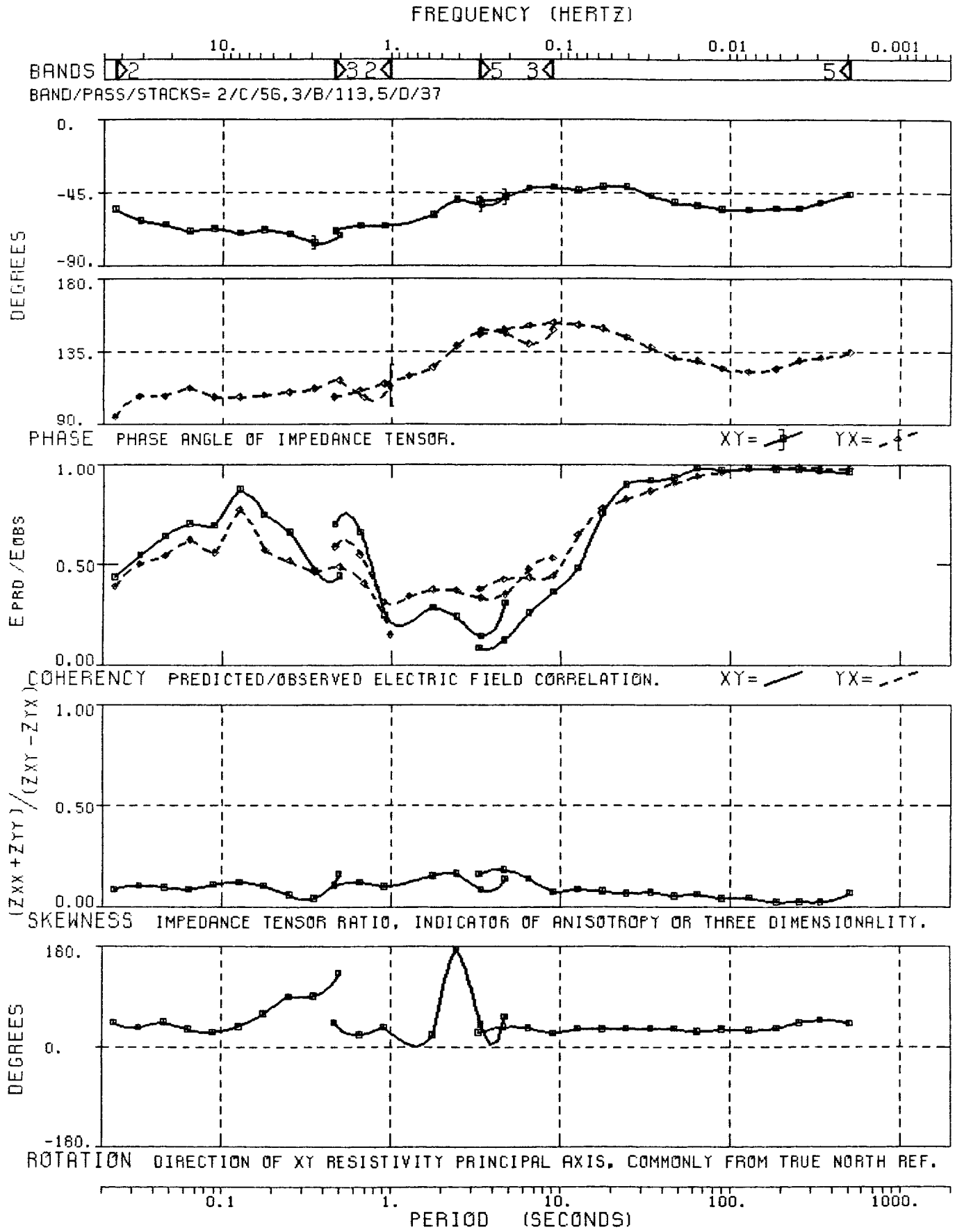
AZIMUTH (DEG) : EX=100,EY=190,HX=100,HX TO REF=-100 ERRORS BY REMOTE REF TO STA. 17

GLASS MOUNTAIN, CA. --STA.16 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



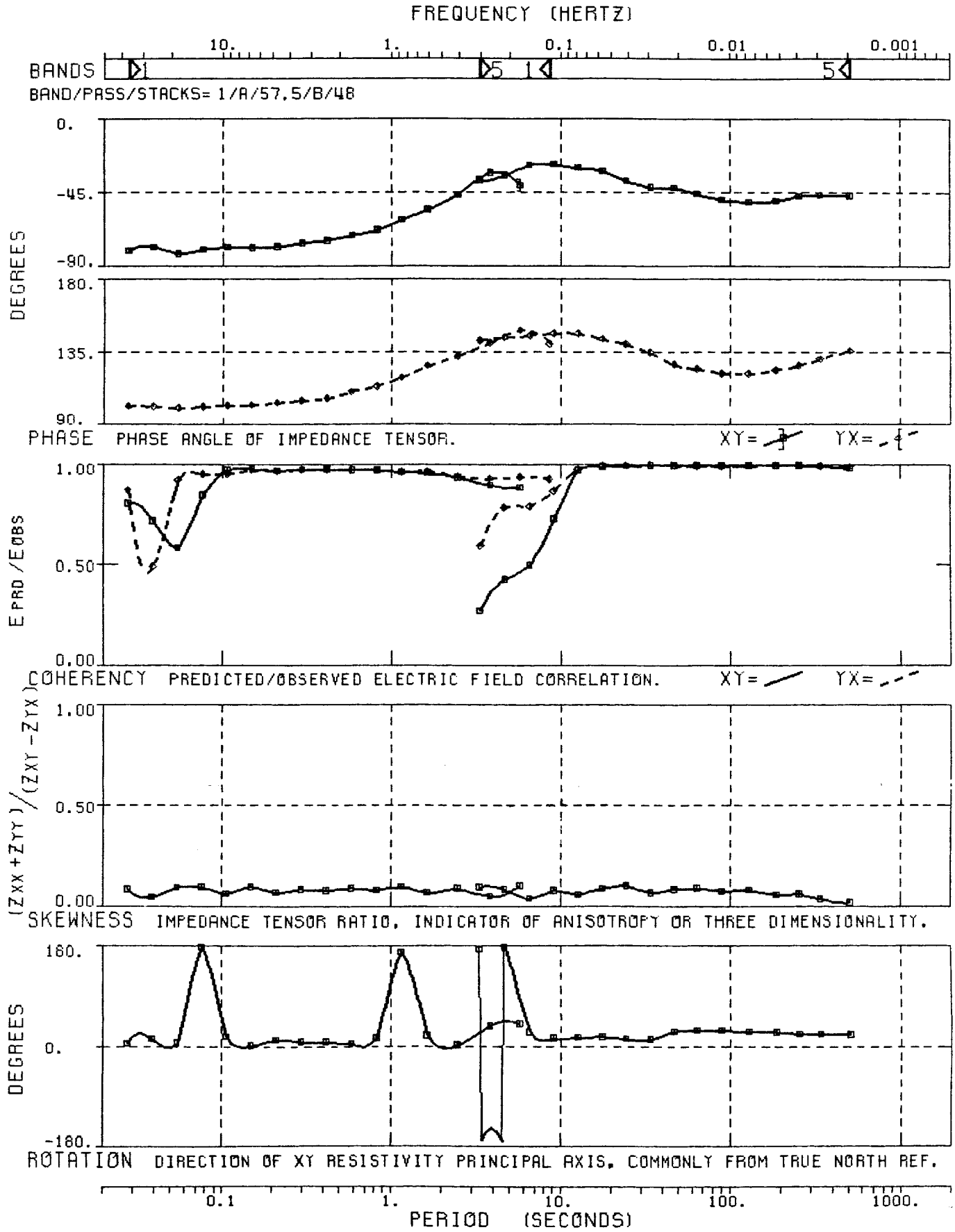
AZIMUTH (DEG) : EX=125,EY=215,HX=125,HX TO REF=-125 ERRORS BY REMOTE REF TO STA. 16

GLASS MOUNTAIN, CA. --STA.17 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



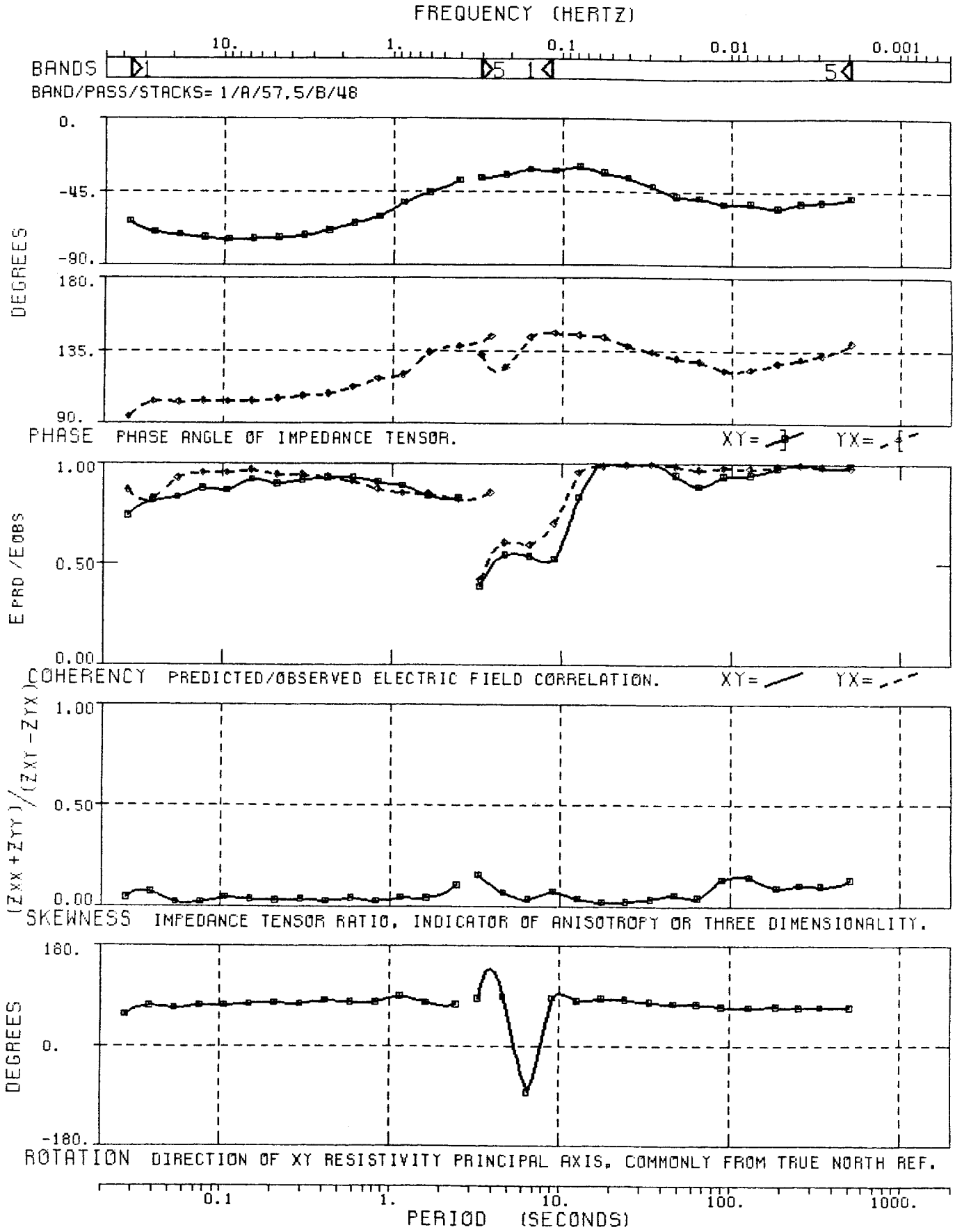
AZIMUTH (DEG) : EX=40,EY=130,HX=40,HX TO REF=-40 ERRORS BY REMOTE REF TO STA. 13

GLASS MOUNTAIN, CA. --STA.18 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



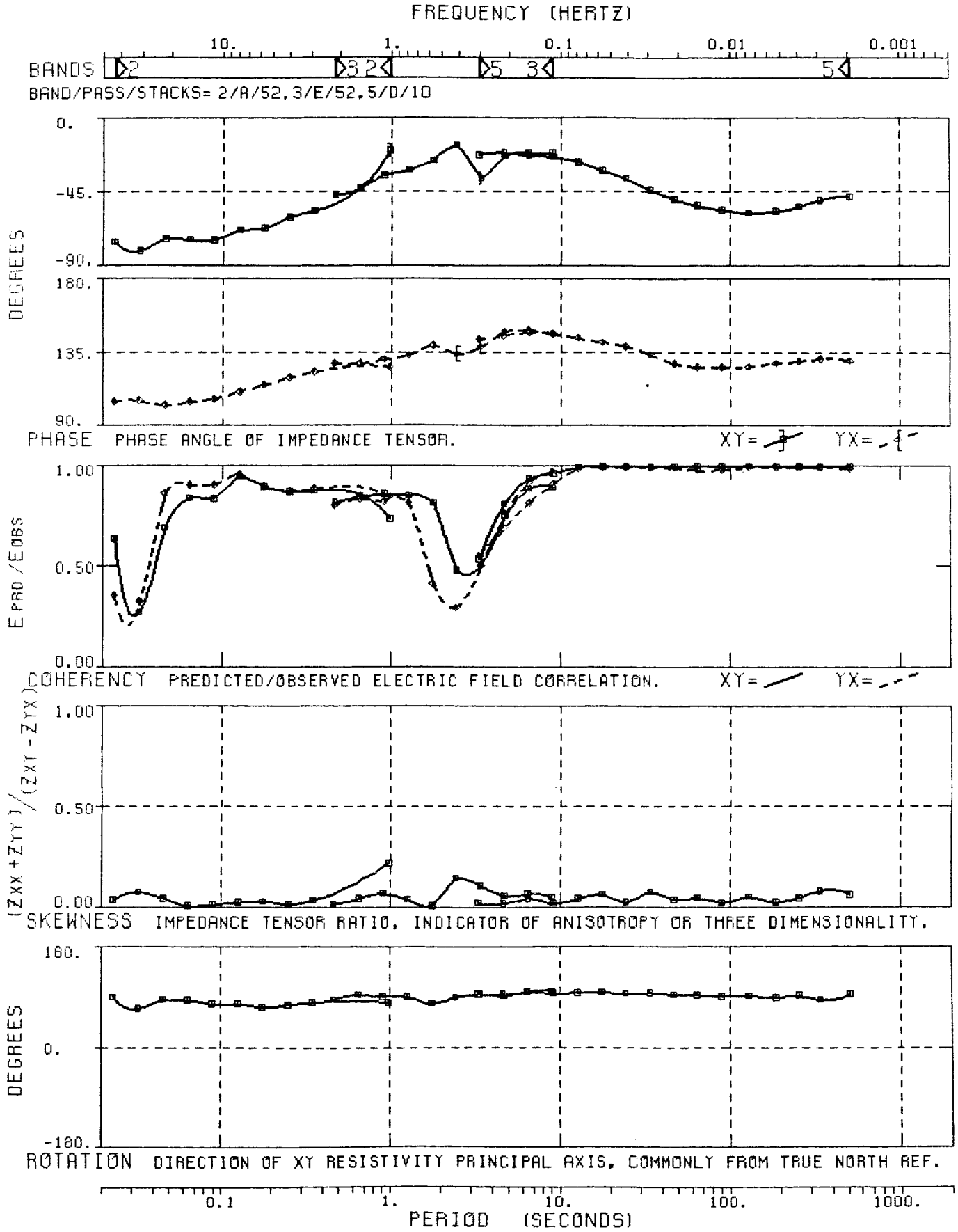
AZIMUTH (DEG) : EX=0,EY=90,HX=0,HX TO REF=0 ERRORS BY REMOTE REF TO STA. 20

GLASS MOUNTAIN, CA. --STA.19 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



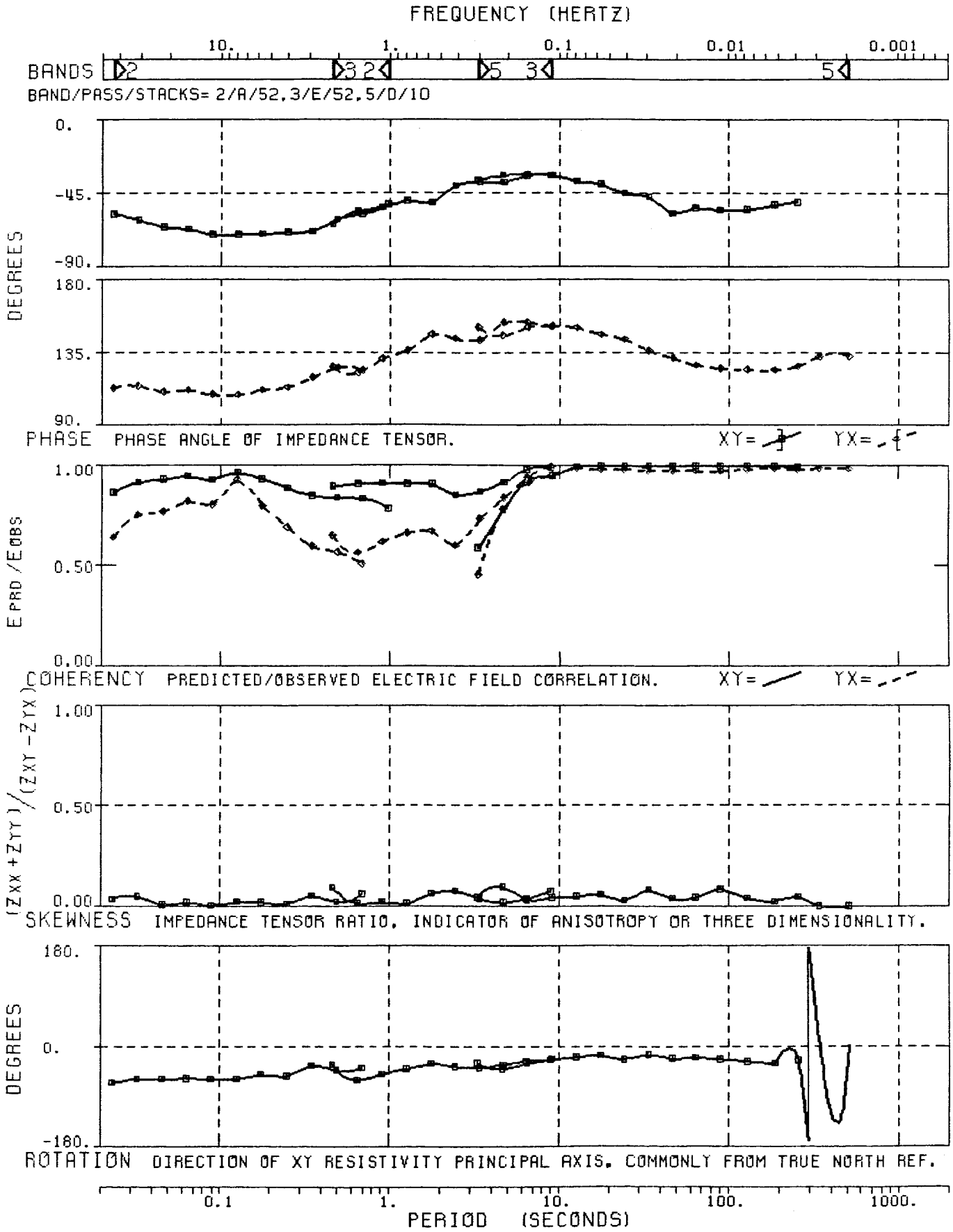
AZIMUTH (DEG) : EX=40, EY=130, HX=40, HX TO REF=-40 ERRORS BY REMOTE REF TO STA. 19

GLASS MOUNTAIN, CA. --STA.20 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



AZIMUTH (DEG) : EX=270, EY=0, HX=270, HX TO REF=-270 ERRORS BY REMOTE REF TO STA. 22

GLASS MOUNTAIN, CA. --STA.21 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



AZIMUTH (DEG) : EX=300, EY=30, HX=300, HX TO REF=-300 ERRORS BY REMOTE REF TO STA. 21

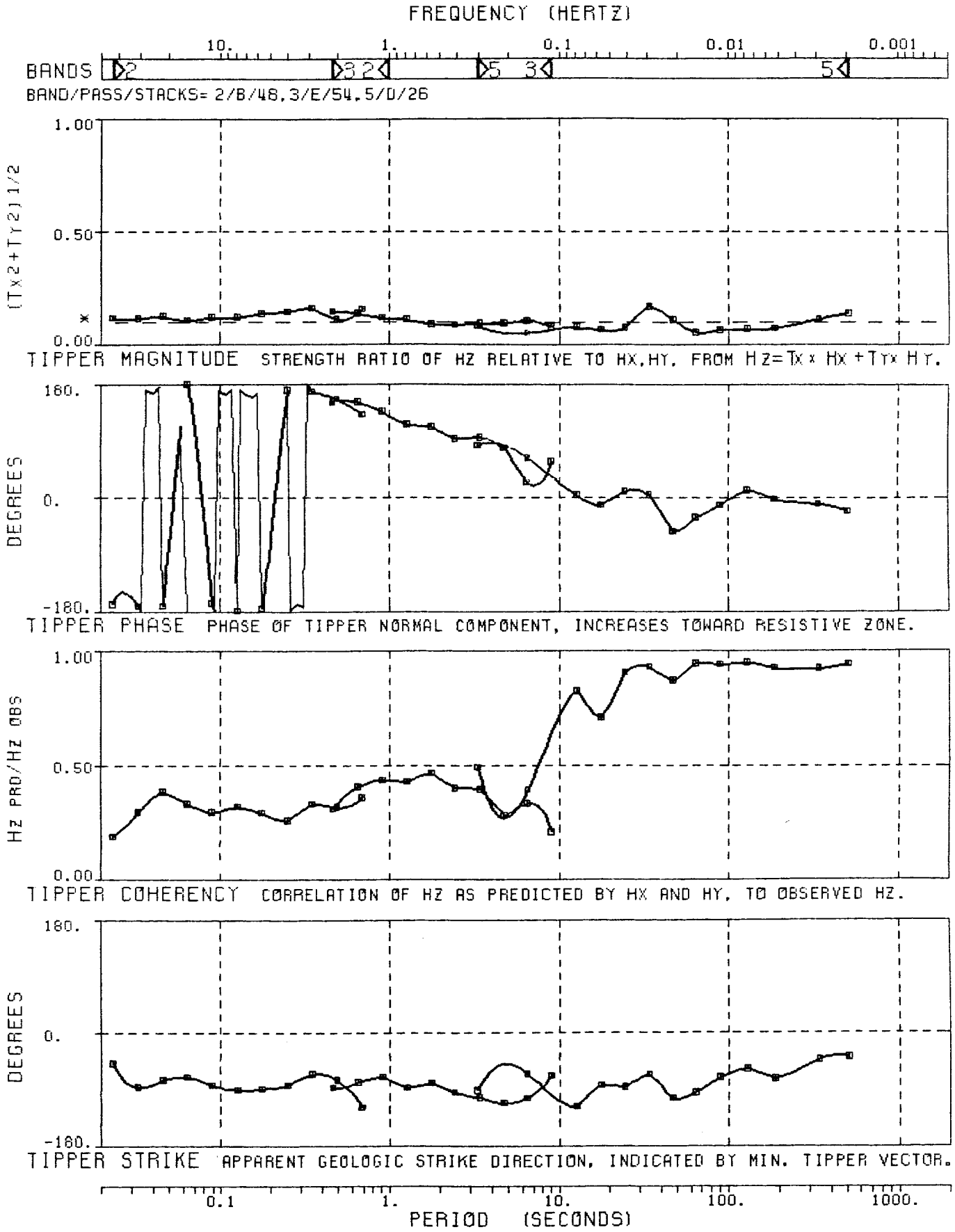
GLASS MOUNTAIN, CA. -- STA. 22 28-SEP-81 WOODWARD-CLYDE CONSULTANTS

APPENDIX VIIIC
TIPPER GRAPHS (Tipper Strike w/R to true N. ref)

Four tipper (vertical magnetic) related parameters are graphed in one plot. Tipper magnitude, tipper phase, tipper coherency, and tipper strike curves are all fit by an exact interpolator to pass through each point, and as a separate section for each band. Because these parameters rely on data in both directions, points are shown only when both principal impedance sets are accepted. Tipper strike may be flipped by 180° over all bands in order to display a curve within the plot range of -180° to +180°. Tipper strike and tipper phase both wrap around, or are shown continuing at the opposite border when they extend outside the scale range. They have an ambiguity of 180°, and may also be shifted by 180° within a band, for band to band continuity.

When tipper magnitude and coherency rise sufficiently high, tipper strike may reliably be used to determine parallel and perpendicular impedance components. If tipper strike agrees with the rotation angle (or is 180° out), then the xy components to which rotation refers are along the strike axis (parallel). If there is a 90° difference between rotation and tipper strike, the xy components are along the perpendicular direction.

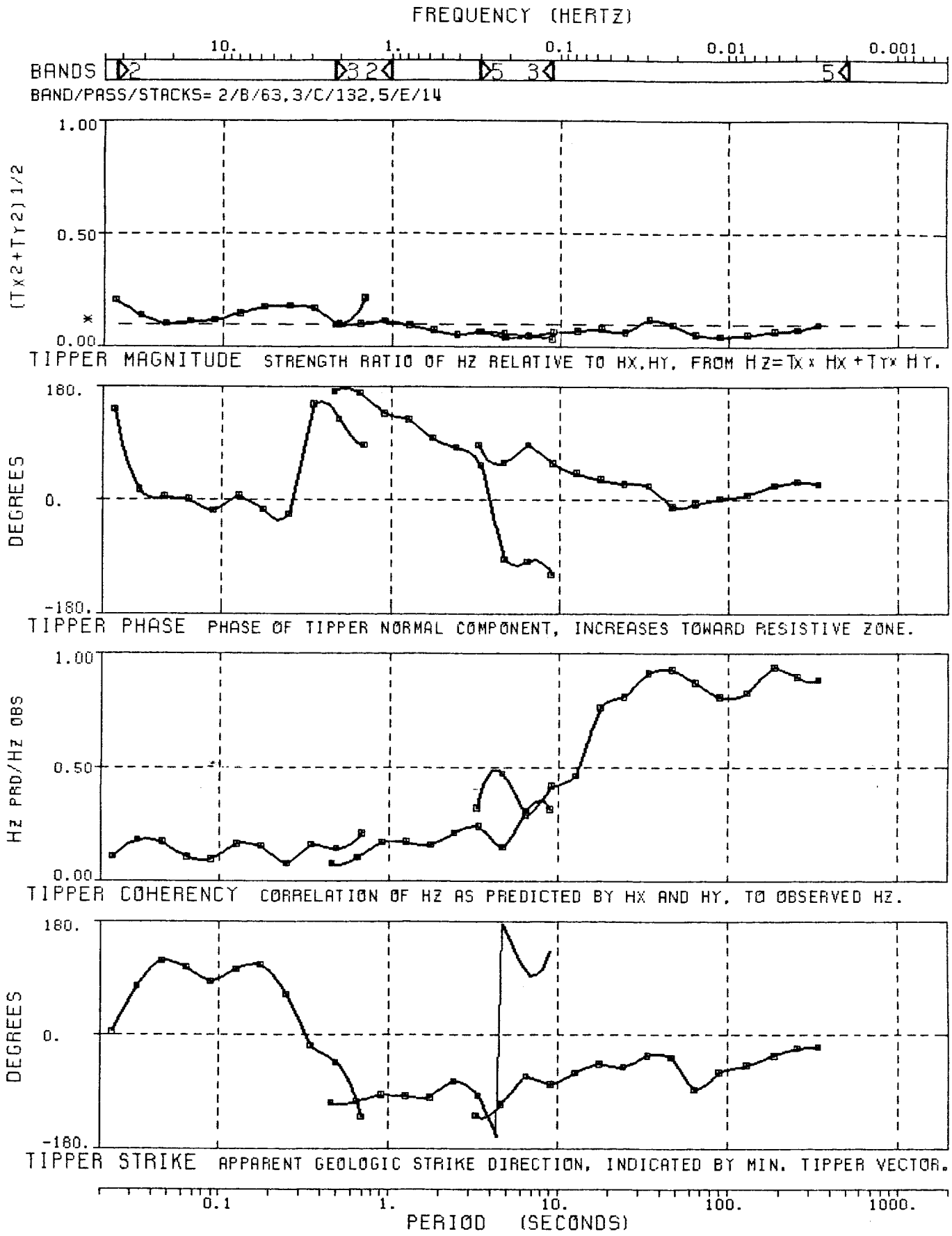
A station identification is limited to two alphanumeric characters, following a job or survey description (limited to 20 characters). The reference station identification is also given (note that whether the base or remote of a recording setup is the reference depends on which station is being plotted). The given date is the date the plot was generated, rather than when the data were recorded.



REMOTE REF TO STA.06

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

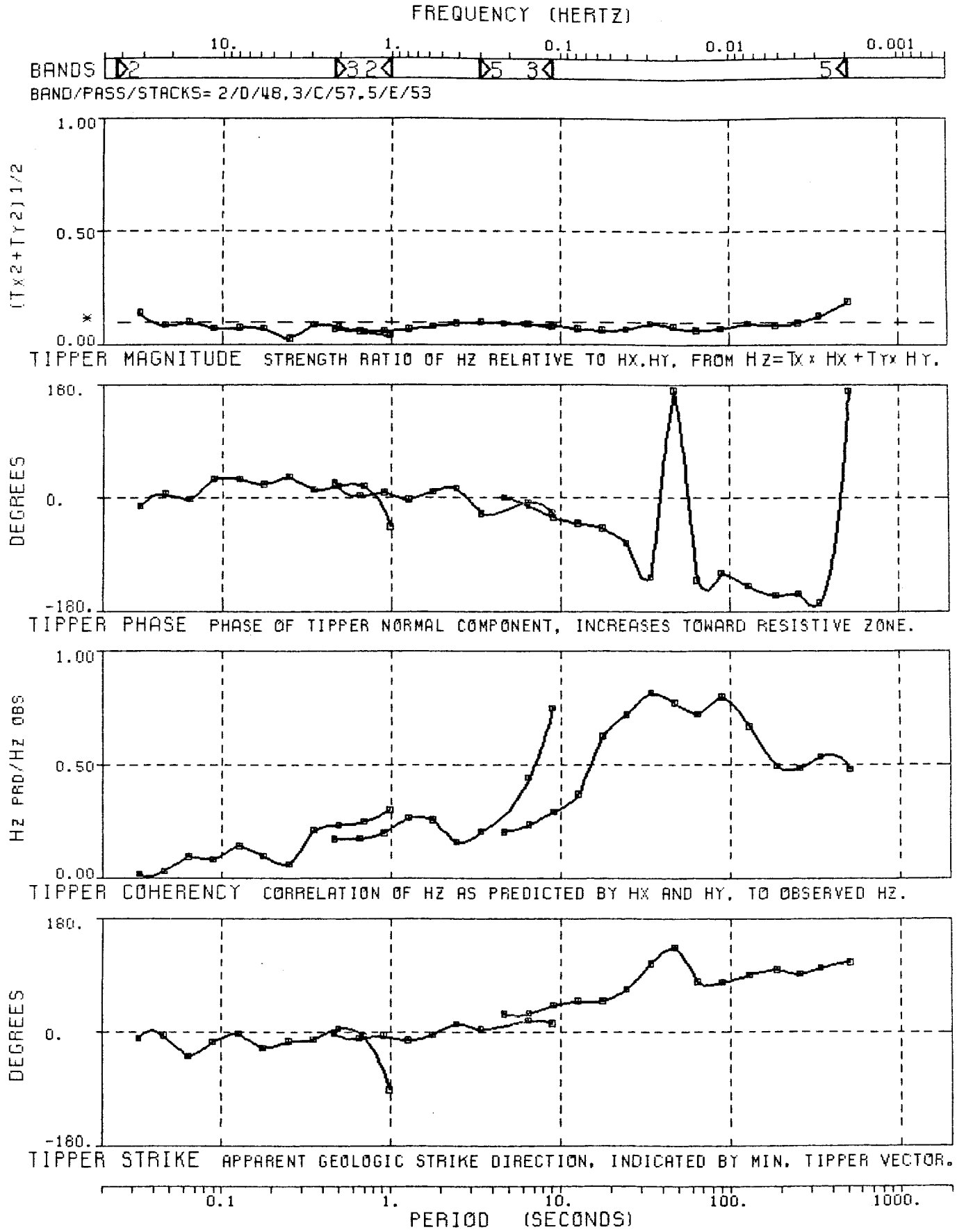
GLASS MOUNTAIN, CA.□--STA.01 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 14

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE,
LITTLE MEANING TO PHASE & STRIKE.

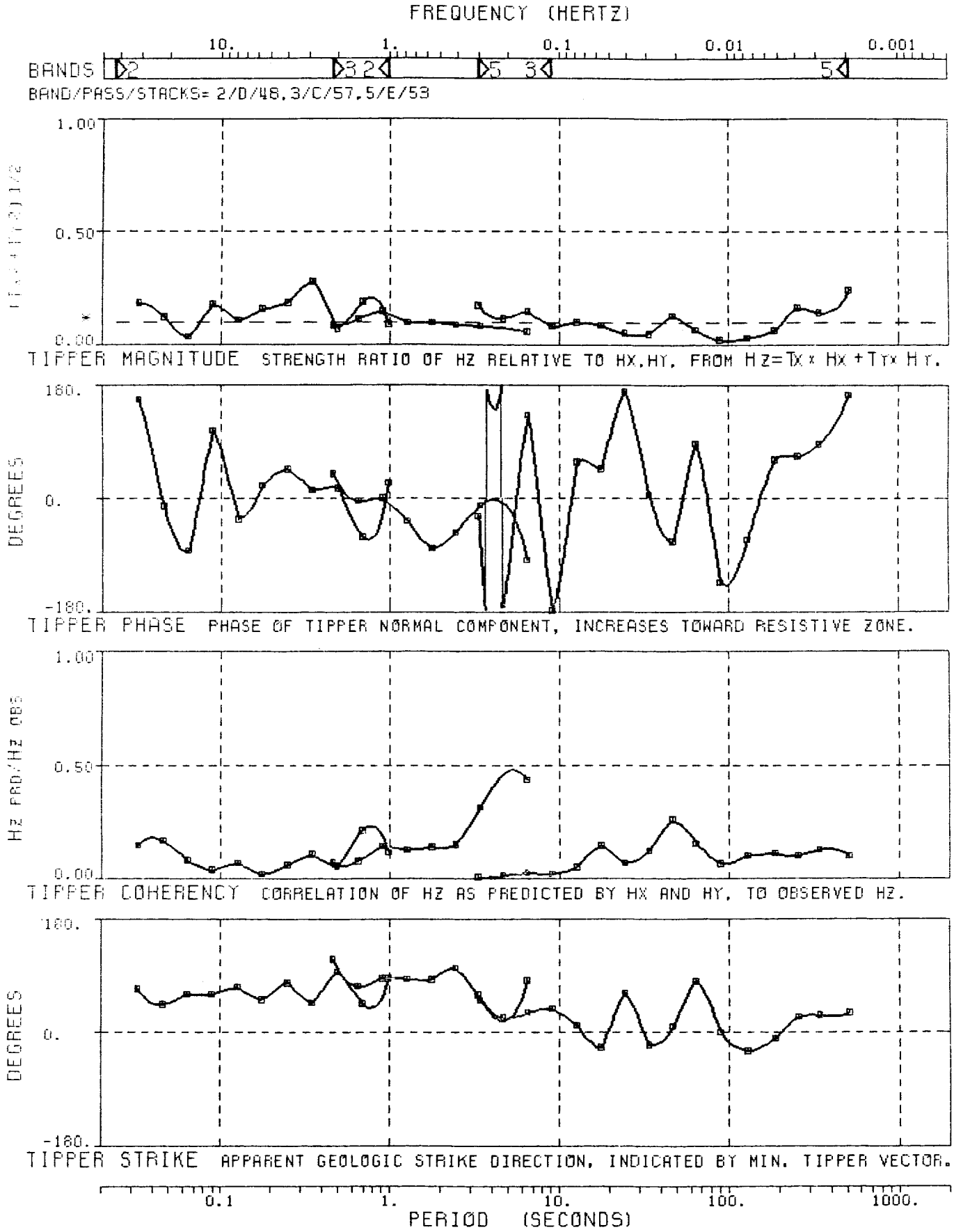
GLASS MOUNTAIN, CA.□--STA.02 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 04

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE,
LITTLE MEANING TO PHASE & STRIKE.

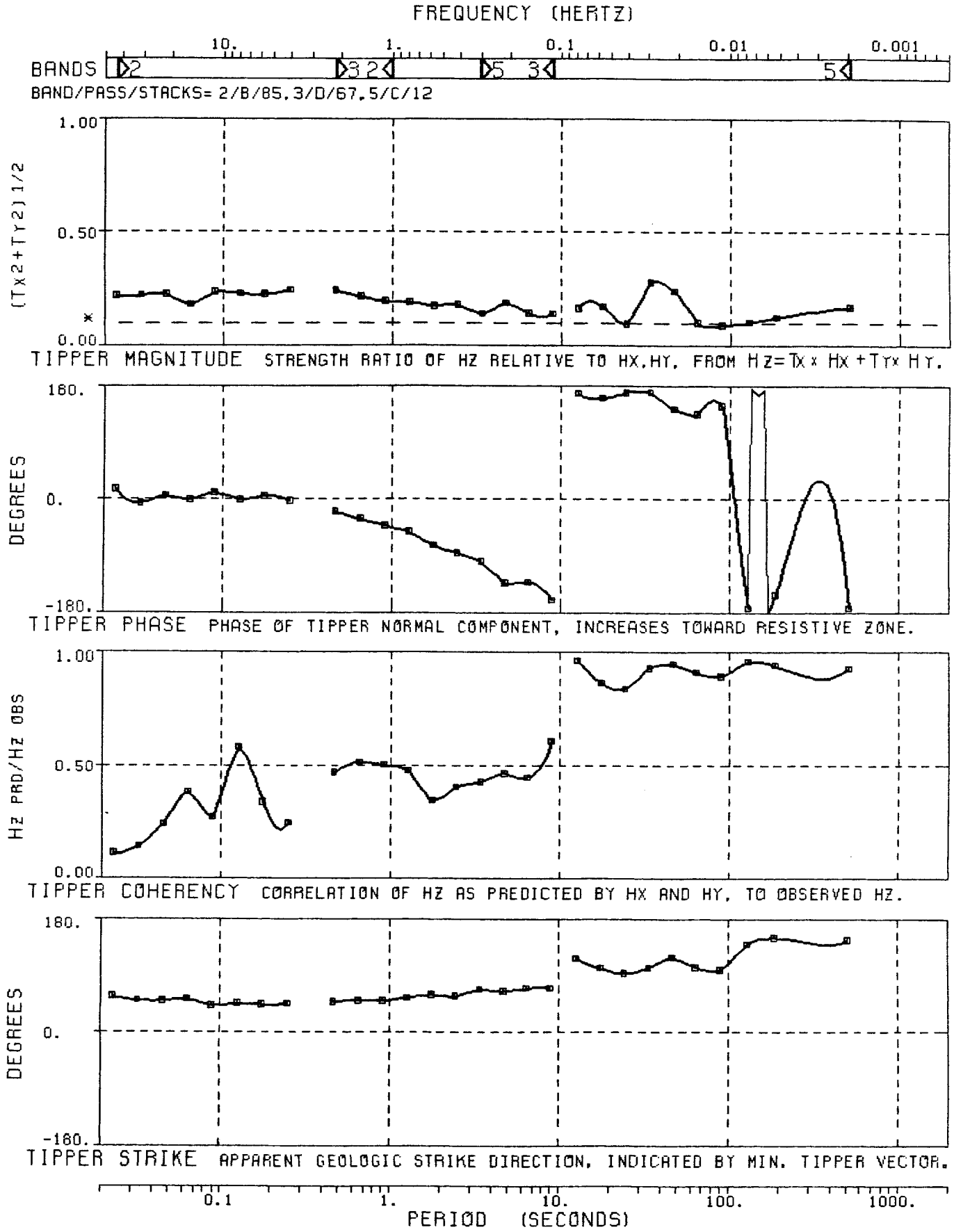
GLASS MOUNTAIN, CA. -- STA.03 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 03

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

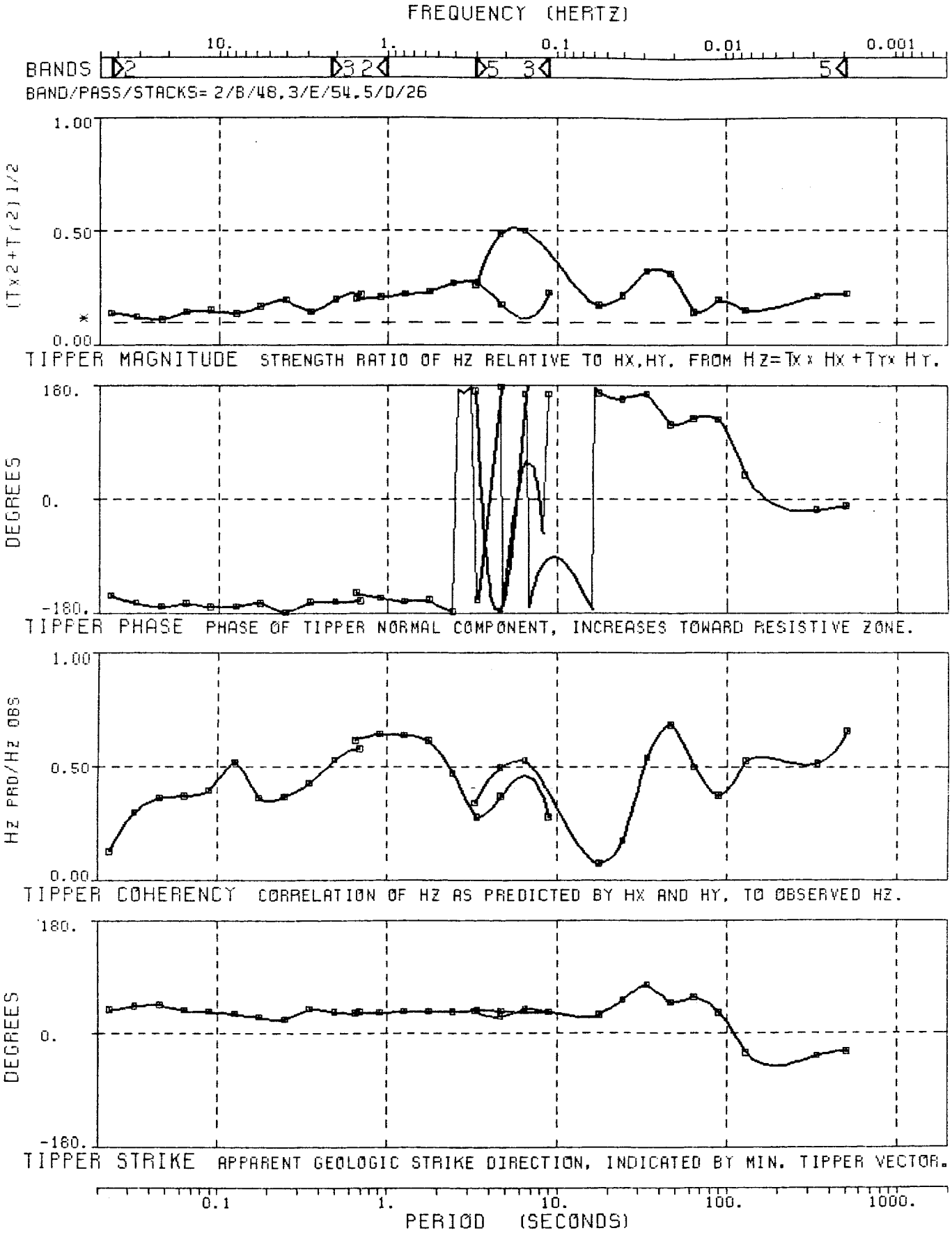
GLASS MOUNTAIN, CA.□--STA.04 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 10

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

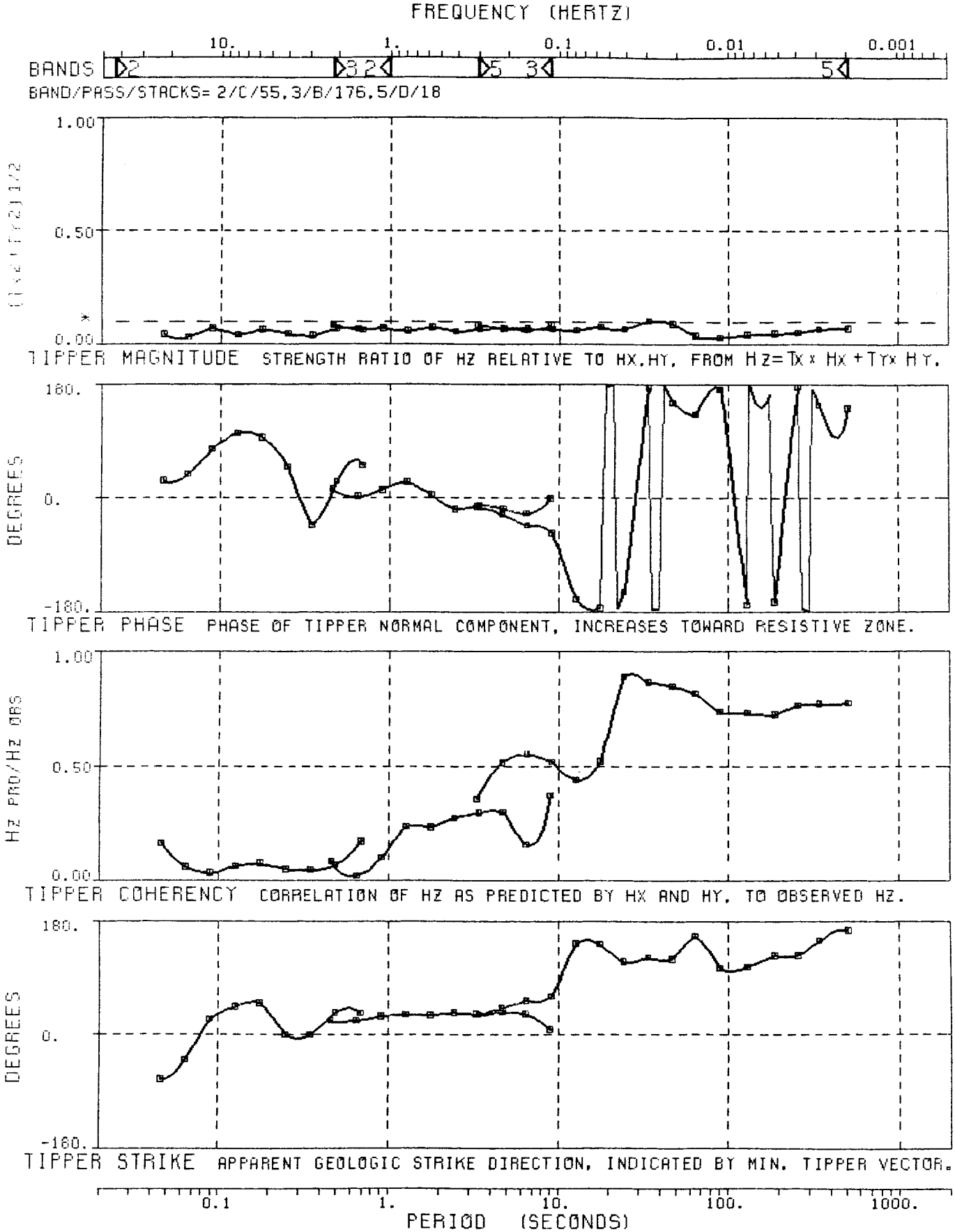
GLASS MOUNTAIN, CA.□--STA.05 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 01

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

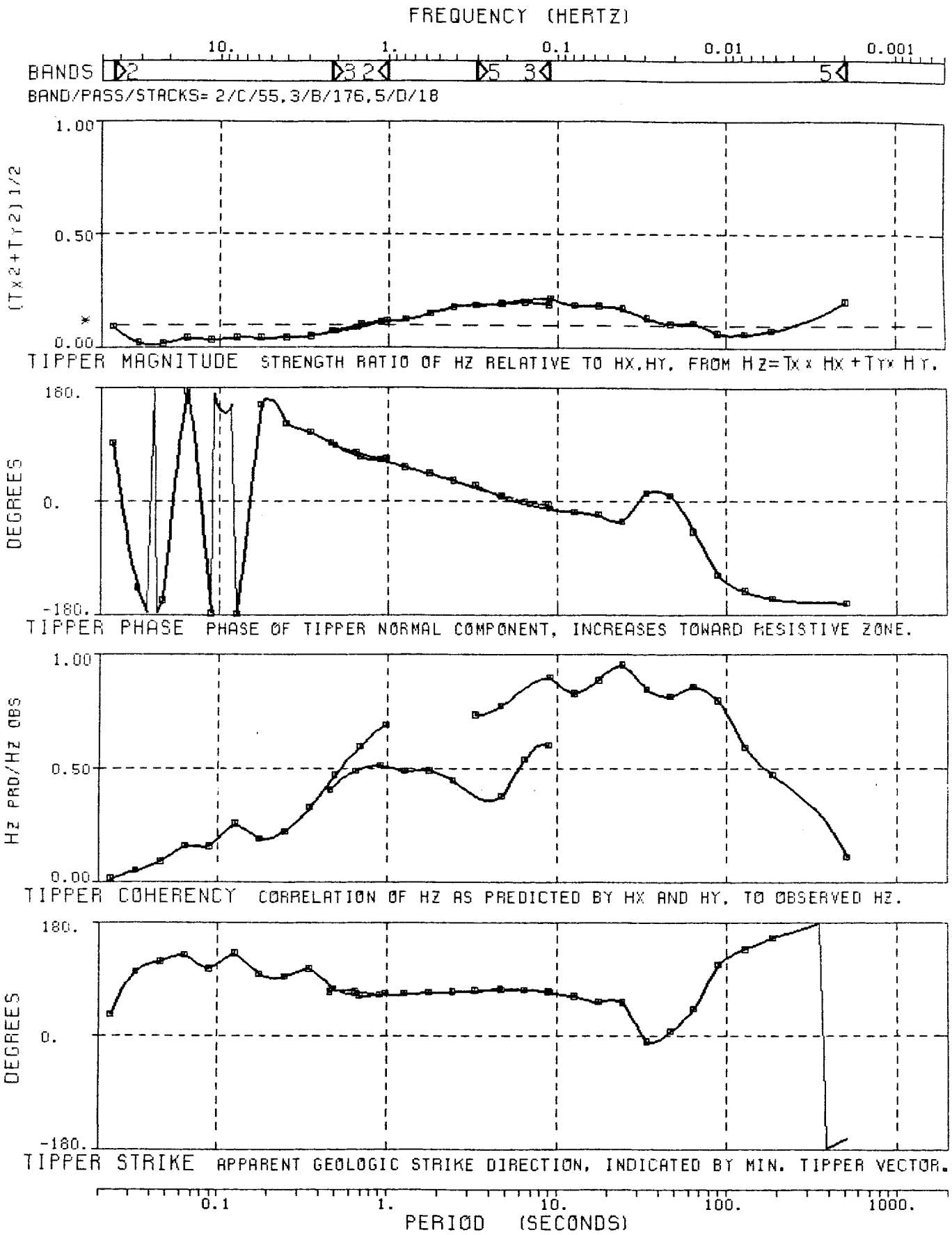
GLASS MOUNTAIN, CA. --STA.06 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 08

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE,
LITTLE MEANING TO PHASE & STRIKE.

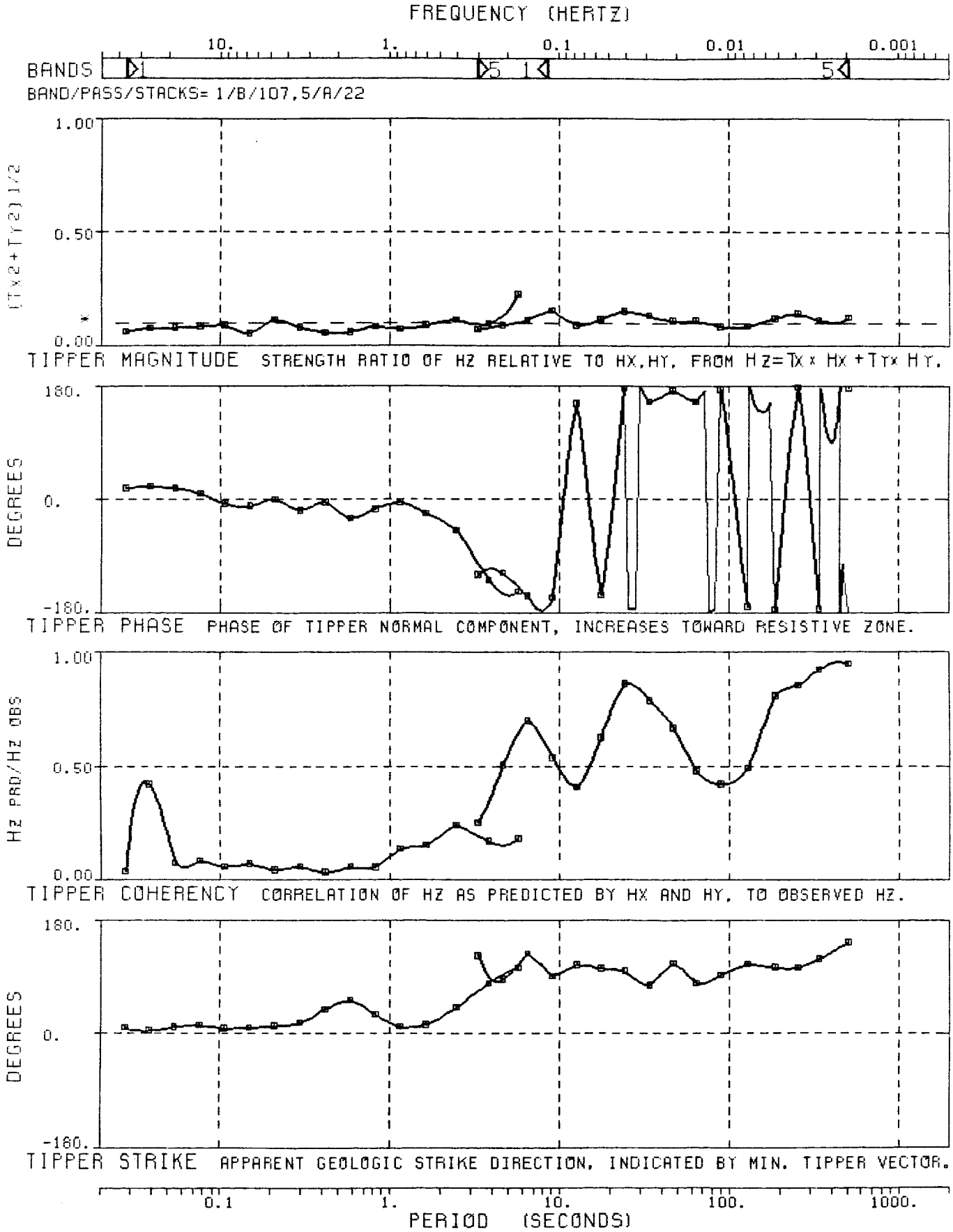
GLASS MOUNTAIN, CA.□--STA.07 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 07

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

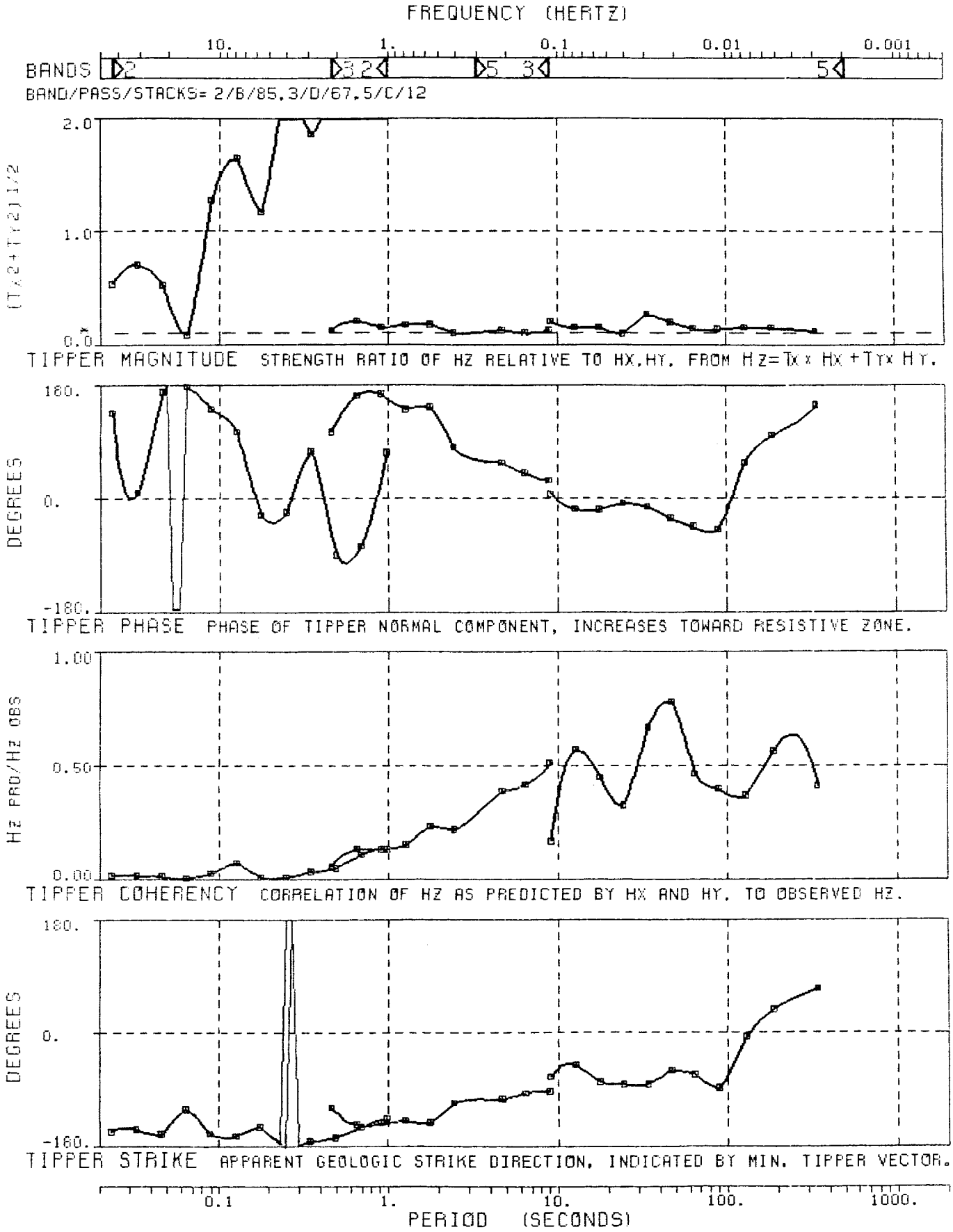
GLASS MOUNTAIN, CA. --STA.08 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 15

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

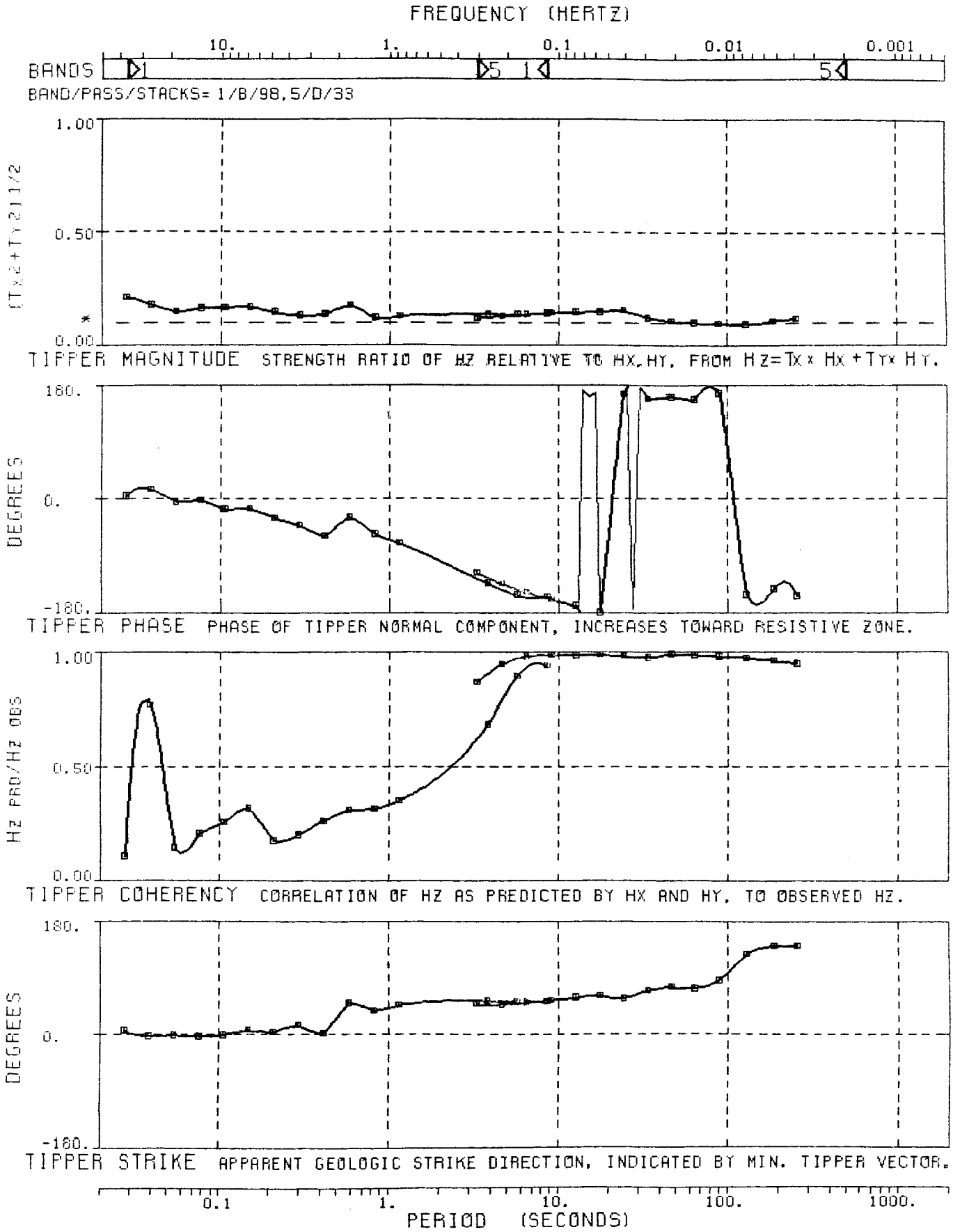
GLASS MOUNTAIN, CA.□ --STA.09 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 05

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

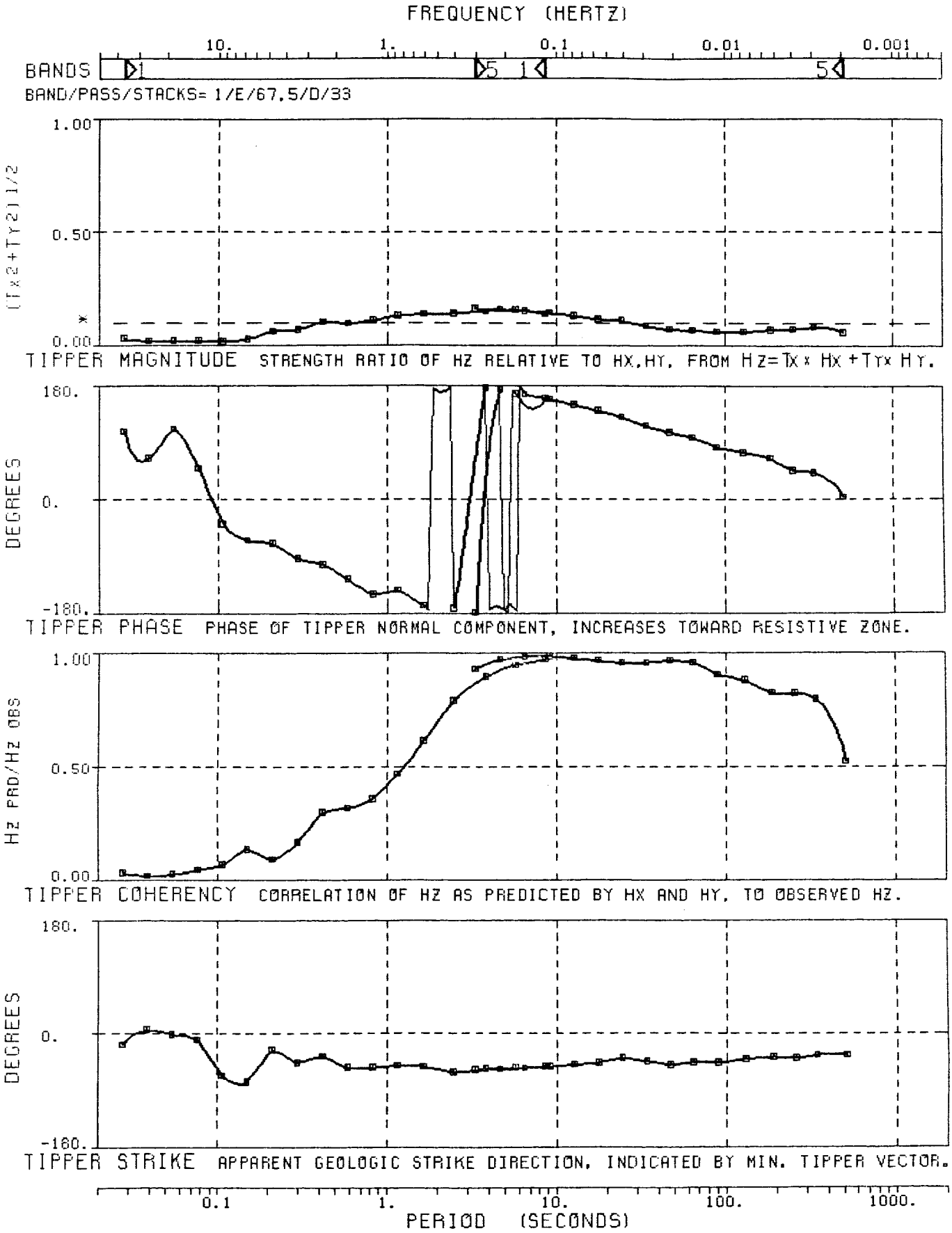
GLASS MOUNTAIN, CA.□ --STA.10 07-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 12

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

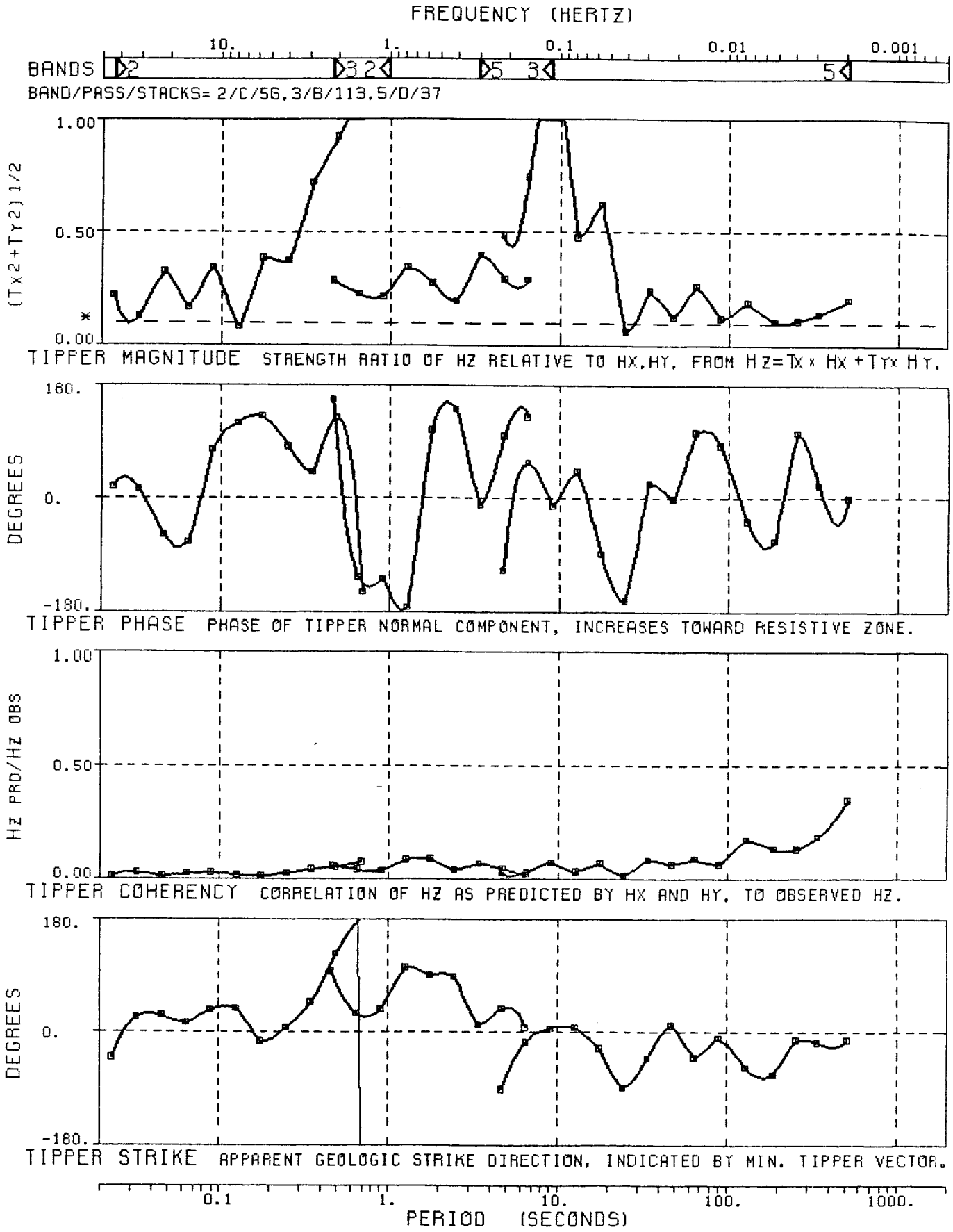
GLASS MOUNTAIN, CA.□--STA.11 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 11

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

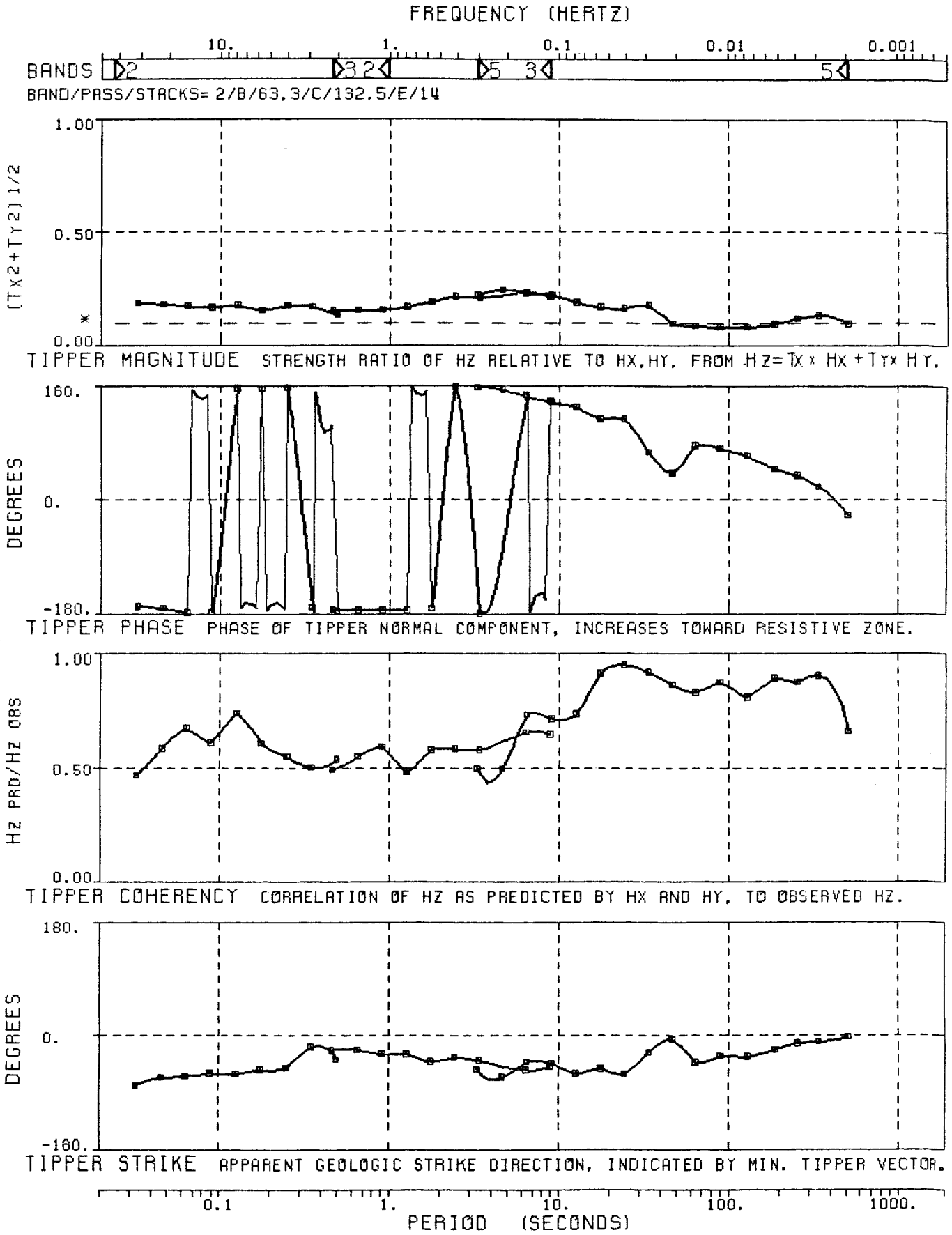
GLASS MOUNTAIN, CA.□--STA.12 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 18

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

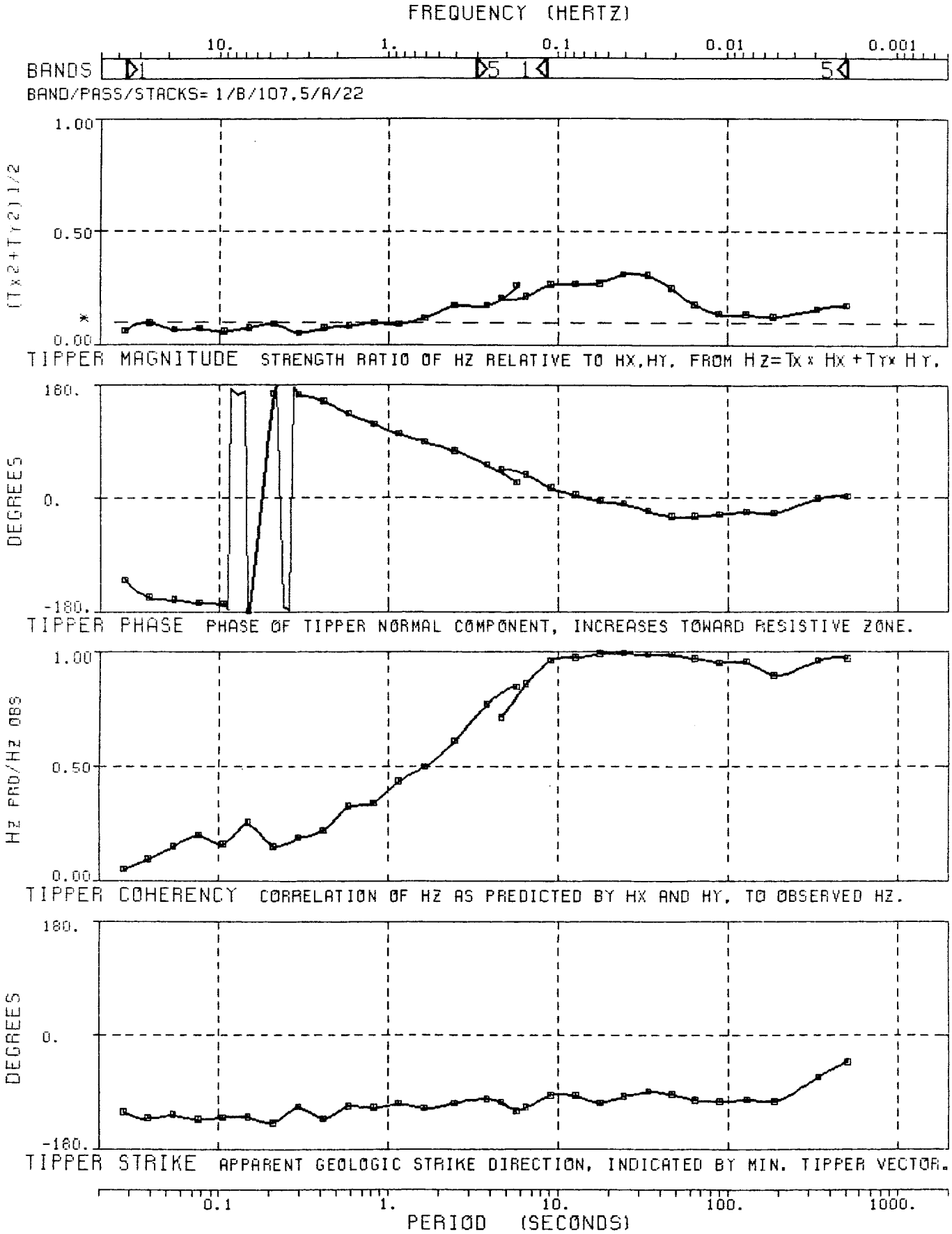
GLASS MOUNTAIN, CA.□--STA.13 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 02

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

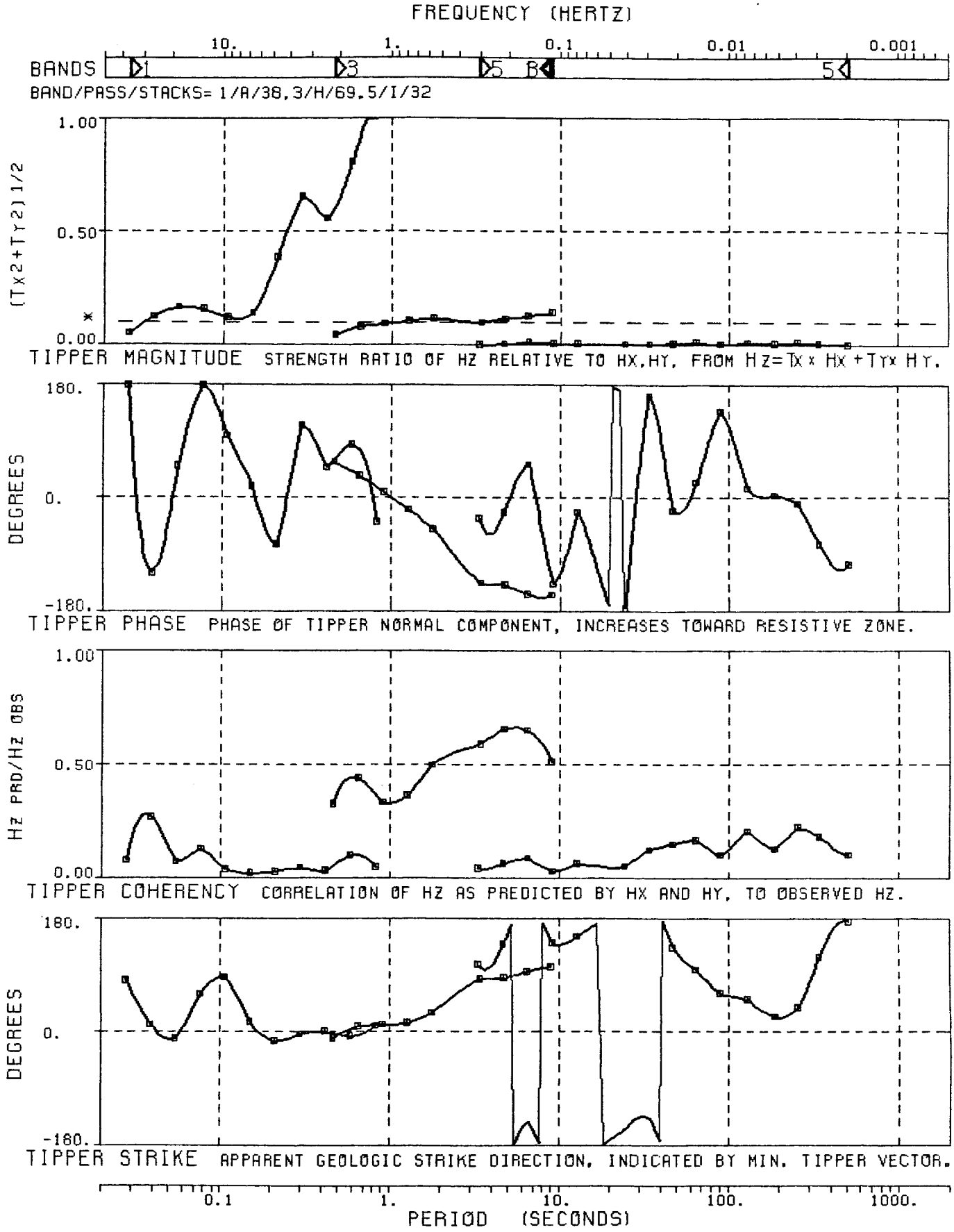
GLASS MOUNTAIN, CA.□--STA.14 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 09

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

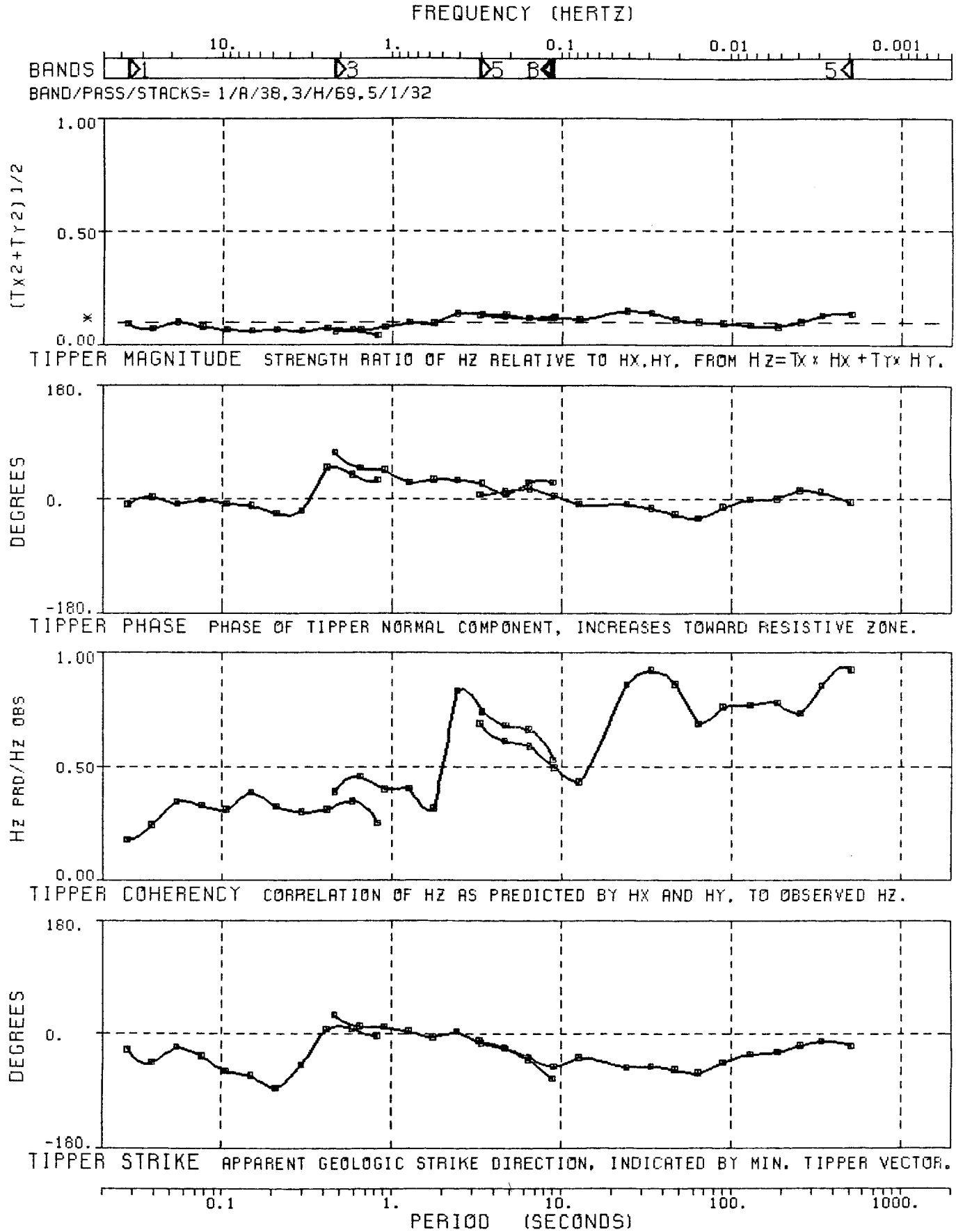
GLASS MOUNTAIN, CA.□--STA.15 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 17

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE,
LITTLE MEANING TO PHASE & STRIKE.

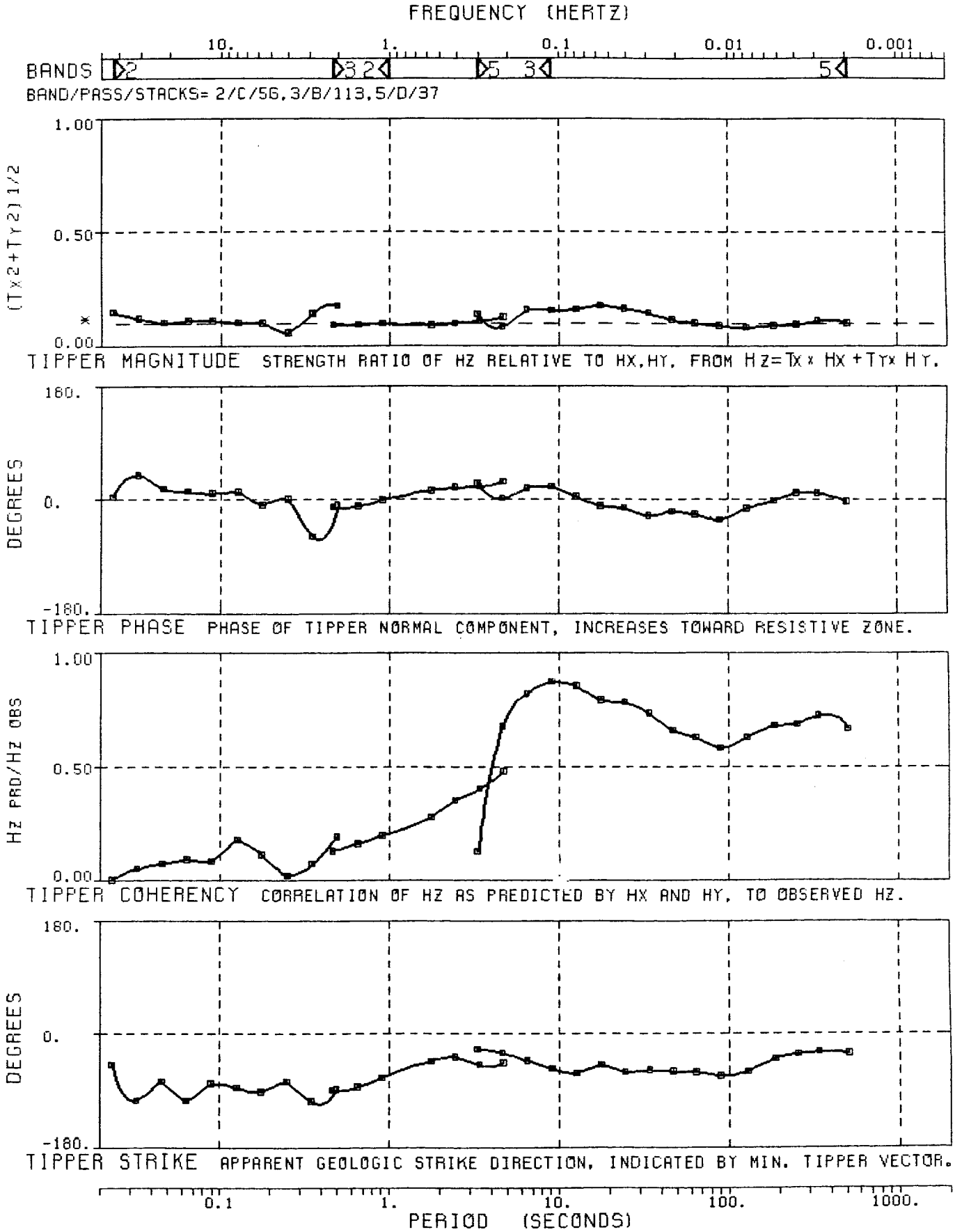
GLASS MOUNTAIN, CA.□ --STA.16 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 16

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

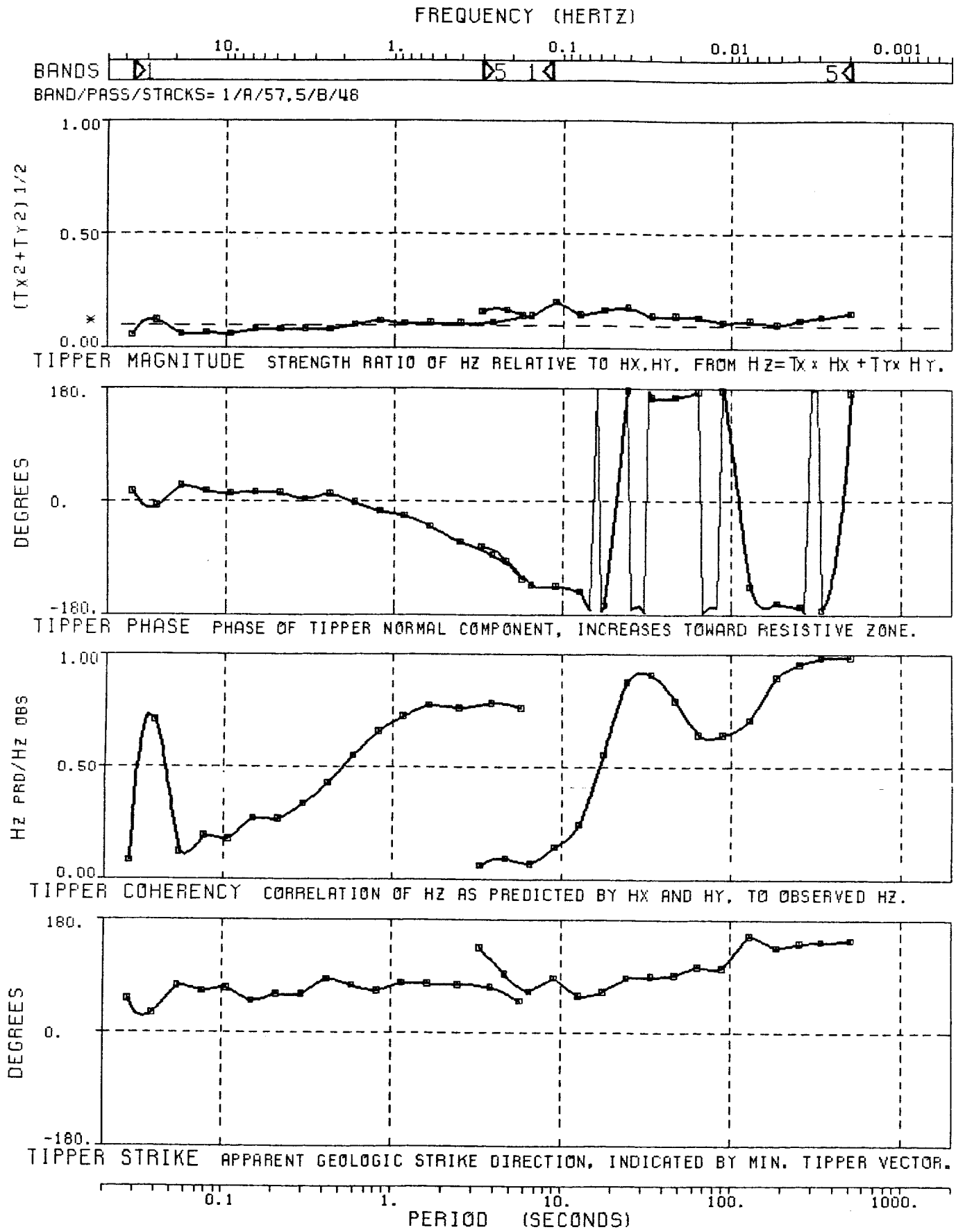
GLASS MOUNTAIN, CA.□--STA.17 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 13

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

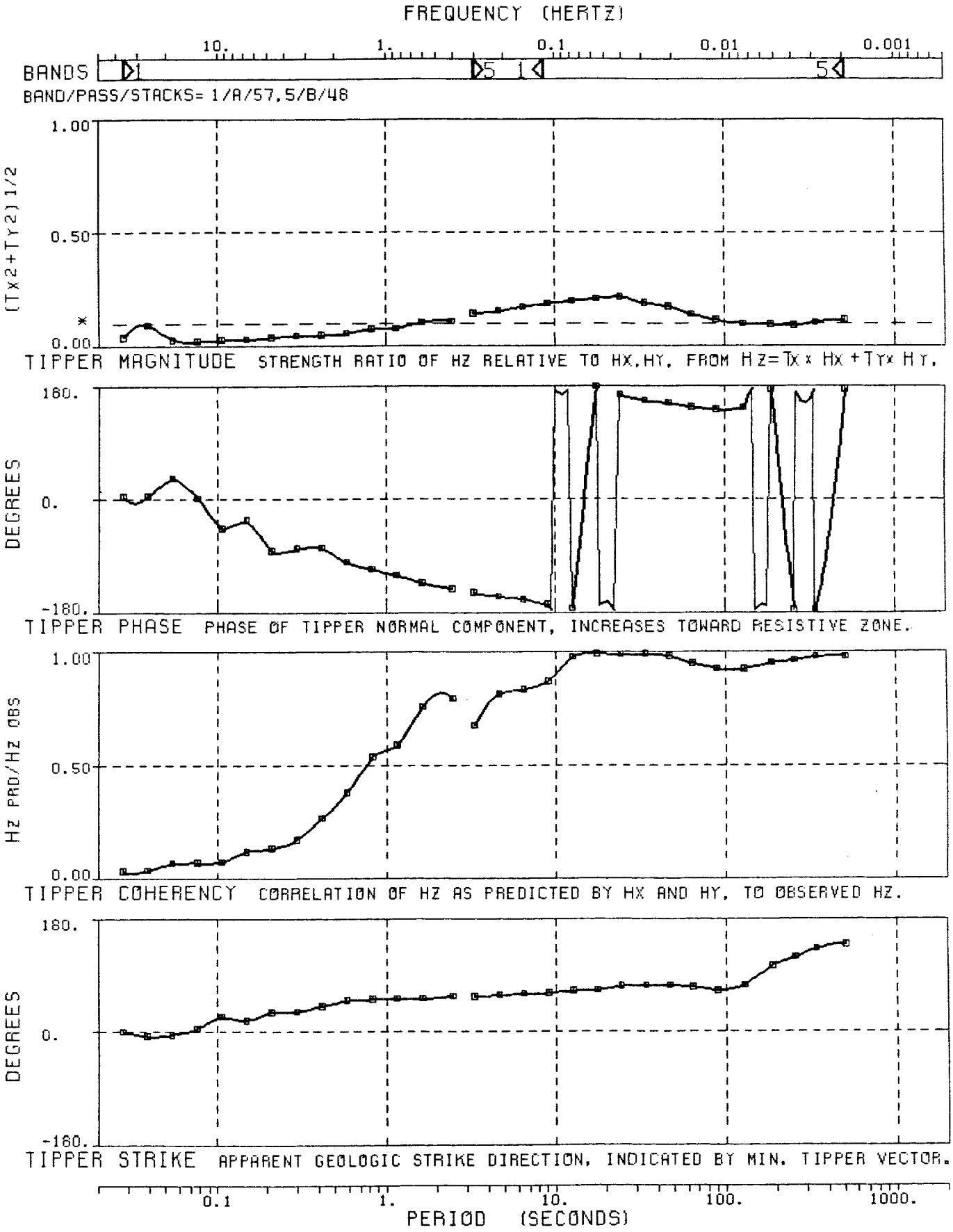
GLASS MOUNTAIN, CA.□ --STA.18 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 20

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE,
LITTLE MEANING TO PHASE & STRIKE.

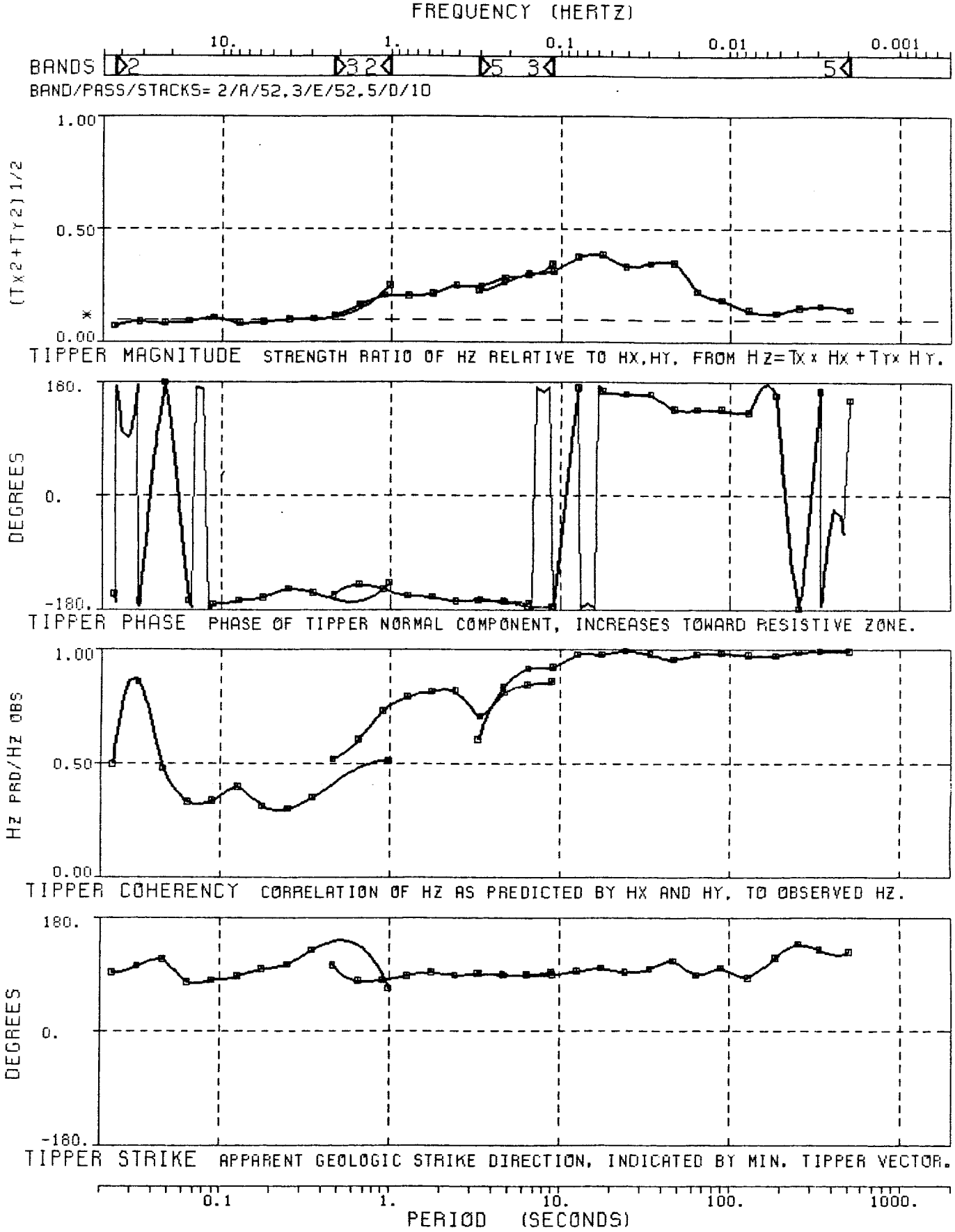
GLASS MOUNTAIN, CA.□--STA.19 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 19

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

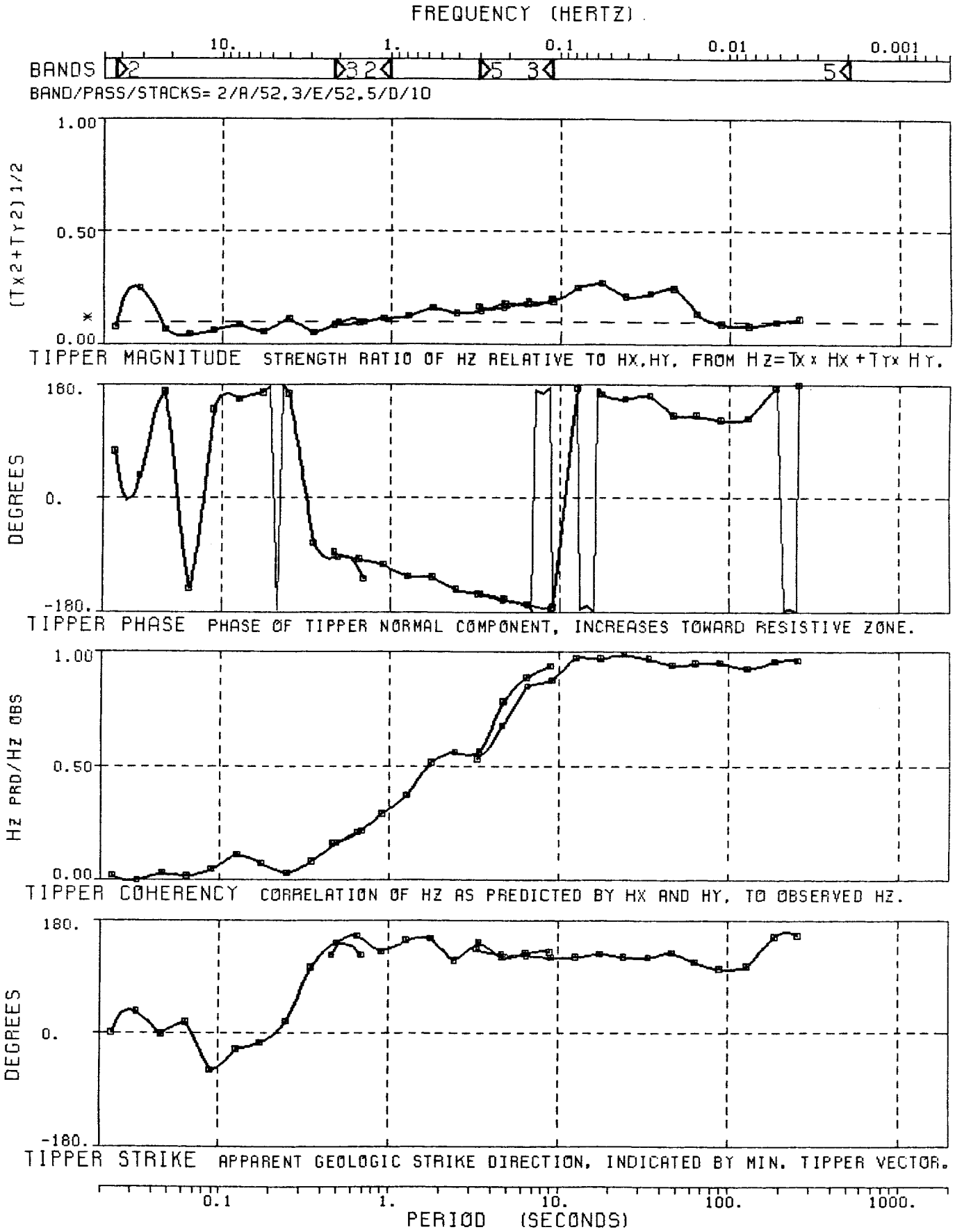
GLASS MOUNTAIN, CA.□ --STA.20 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 22

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

GLASS MOUNTAIN, CA.□--STA.21 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 21

*MAGNITUDE < 0.1 ⇒ 1-D STRUCTURE, LITTLE MEANING TO PHASE & STRIKE.

GLASS MOUNTAIN, CA.□--STA.22 28-SEP-81 WOODWARD-CLYDE CONSULTANTS

APPENDIX VIIID
TELLURIC SIGNAL AND NOISE POWER SPECTRA

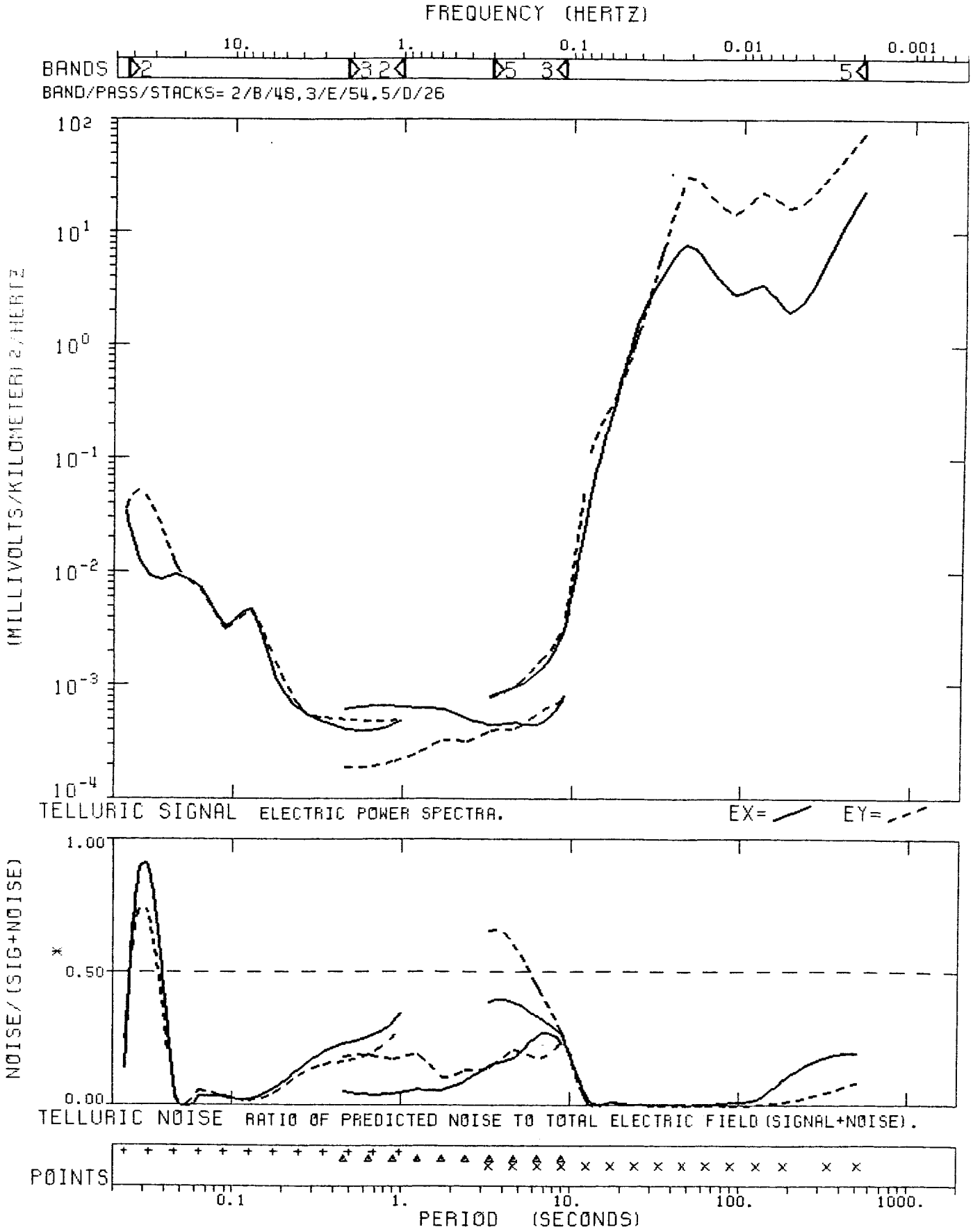
Telluric power spectral plots begin with a band strip showing a logarithmic frequency scale in hertz and the frequency range for each recording filter band used (up to five). The band identification number at the limit of each band is arbitrary, depending on how bands are set up for a job, but will always be between 1 and 9, with the larger numbers used for longer periods. For each band identification number, there will be a band description line giving an alphabetic band pass identifier, and the number of stacks or averaged 2048-point data segments in the pass. A pass is a given attempt to record a band, which may have started over several times because of gain setting changes, poor signal quality, or equipment failure.

Signal curves are plotted band-by-band, with a solid line for the x telluric direction and a dashed line for the y telluric direction. The scale is logarithmic in $(mV/km)^2/Hz$, and is automatically scaled to the minimum and maximum decade that will display all the data.

The telluric noise is recorded as the ration of referenced noise (uncorrelated to remote signal) to the total input signal plus noise. It is also plotted band-by-band as a solid or dashed line for x or y directions. When a curve exceeds the reference line at 0.5, than the apparent noise is greater than the apparent signal. Of course, if enough segments have been stacked, even very little relative signal can give good results.

The data point symbols are not plotted along the curves, because of the confusion which would result from so much overlapped plotting. Instead, each is shown in a points strip along the period scale in seconds, with a different symbol for each band. Only those points within the scale range, for which either xy or yx impedances were accepted as good data points, will be plotted. The logarithmic period range is limited to five decades, usually from 0.02 to 2000 seconds.

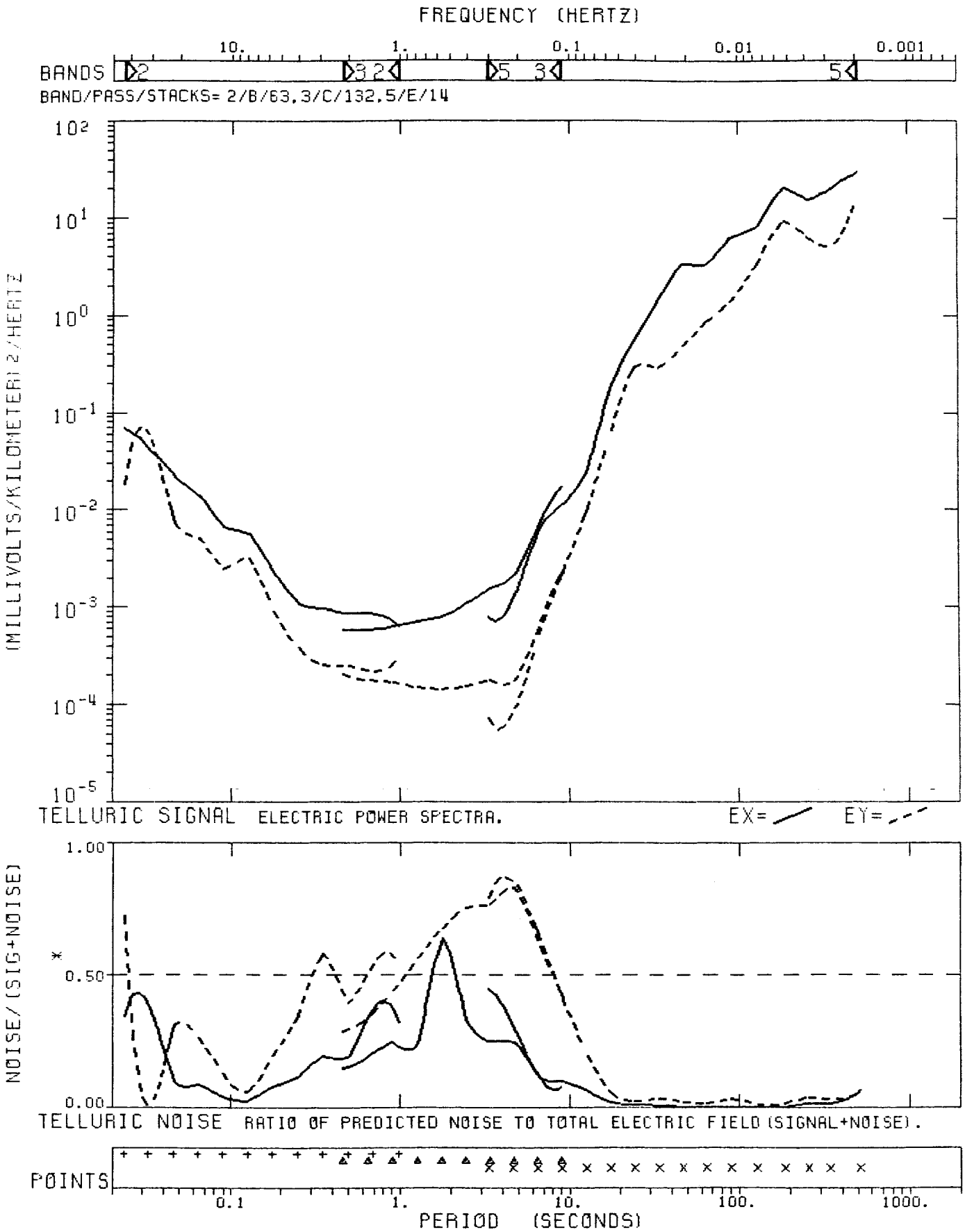
A station identification is limited to two alphanumeric characters, following a job or survey description (limited to 20 characters). The reference station identification is also given (note that whether the base or remote of a recording set-up is the reference depends on which station is being plotted). The given date is the date the plot was generated, rather than when the data were recorded.



REMOTE REF TO STA. 06

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

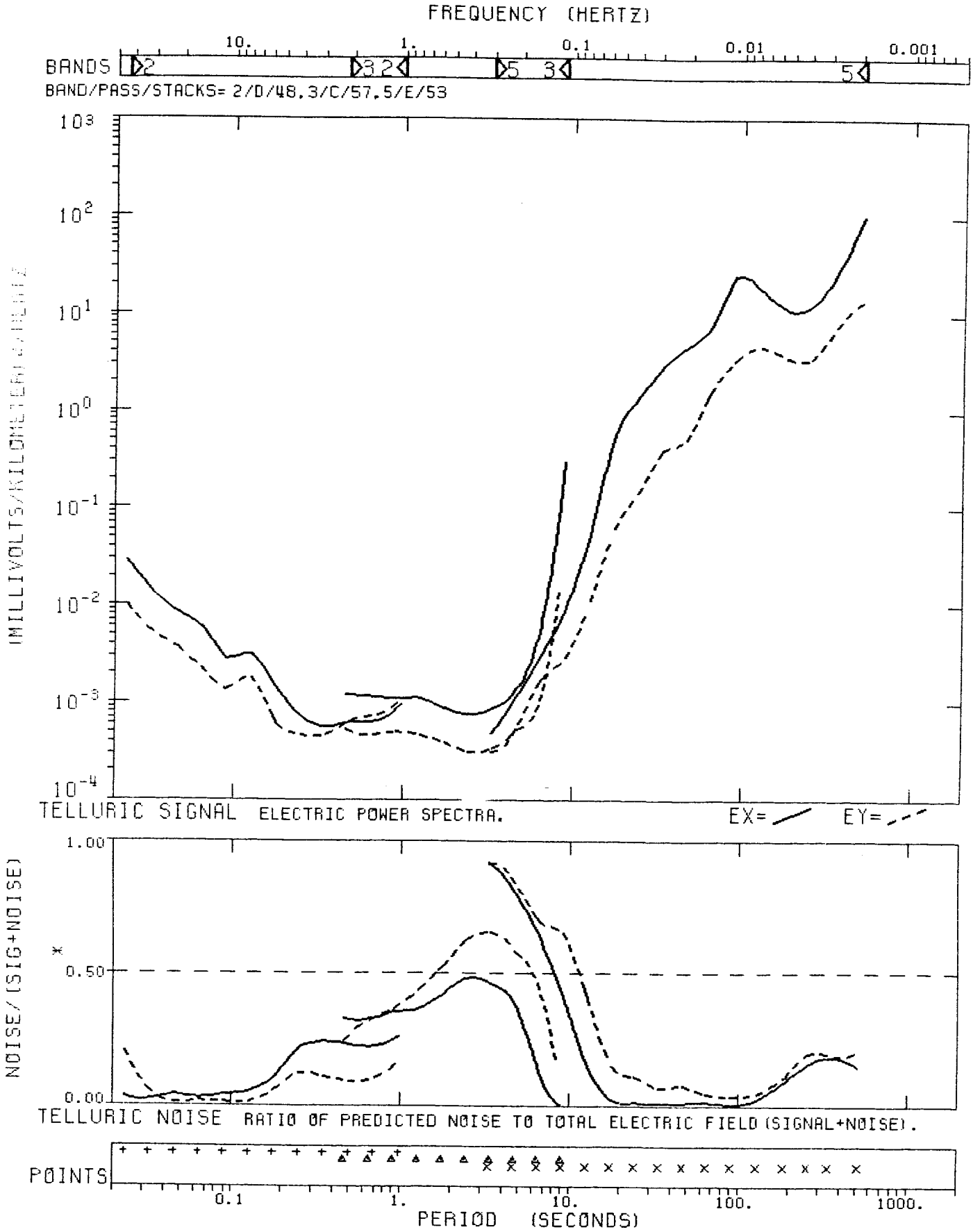
GLASS MOUNTAIN, CA.□ --STA.01 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 14

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

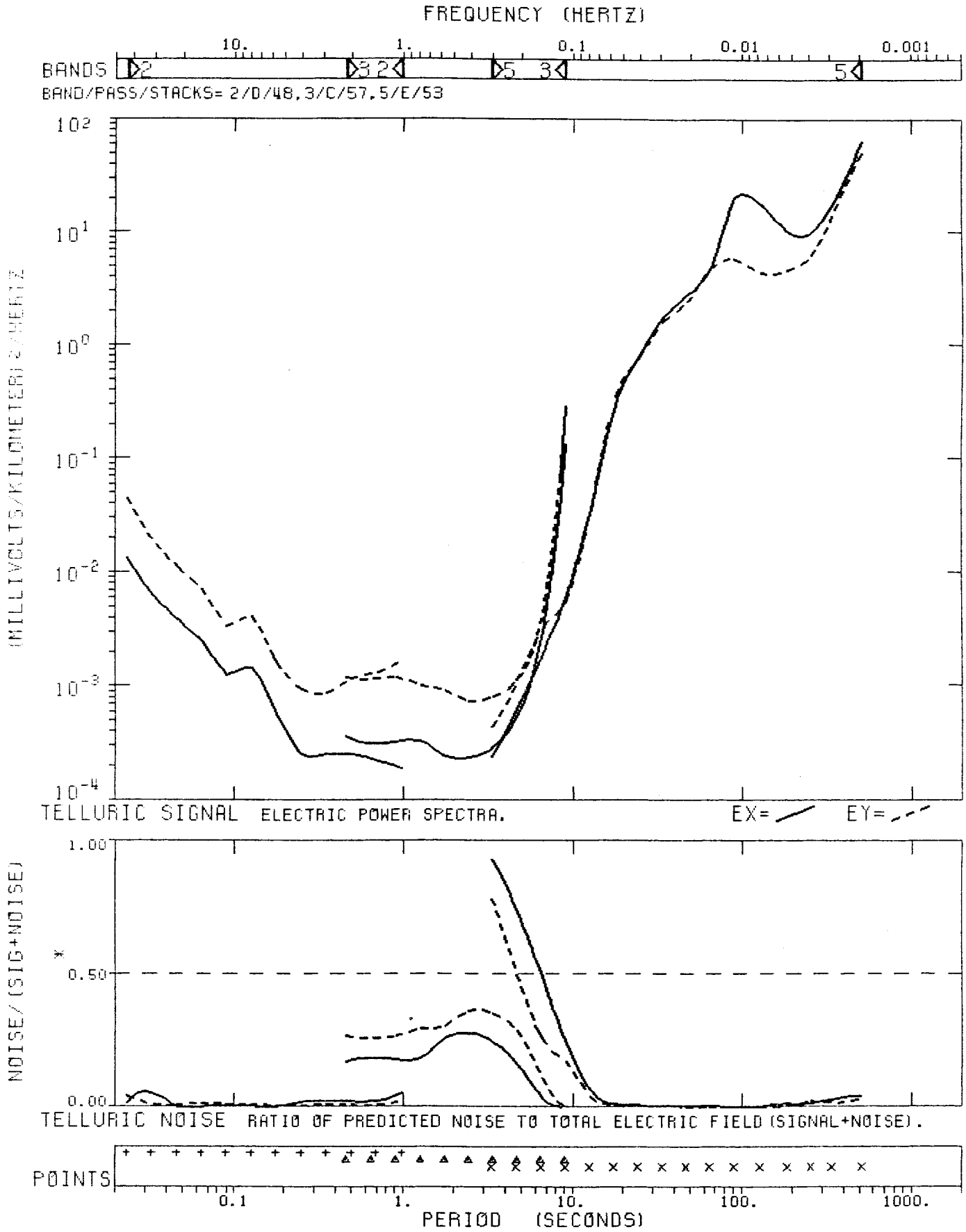
GLASS MOUNTAIN, CA.$_{\square}$--STA.02 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 04

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

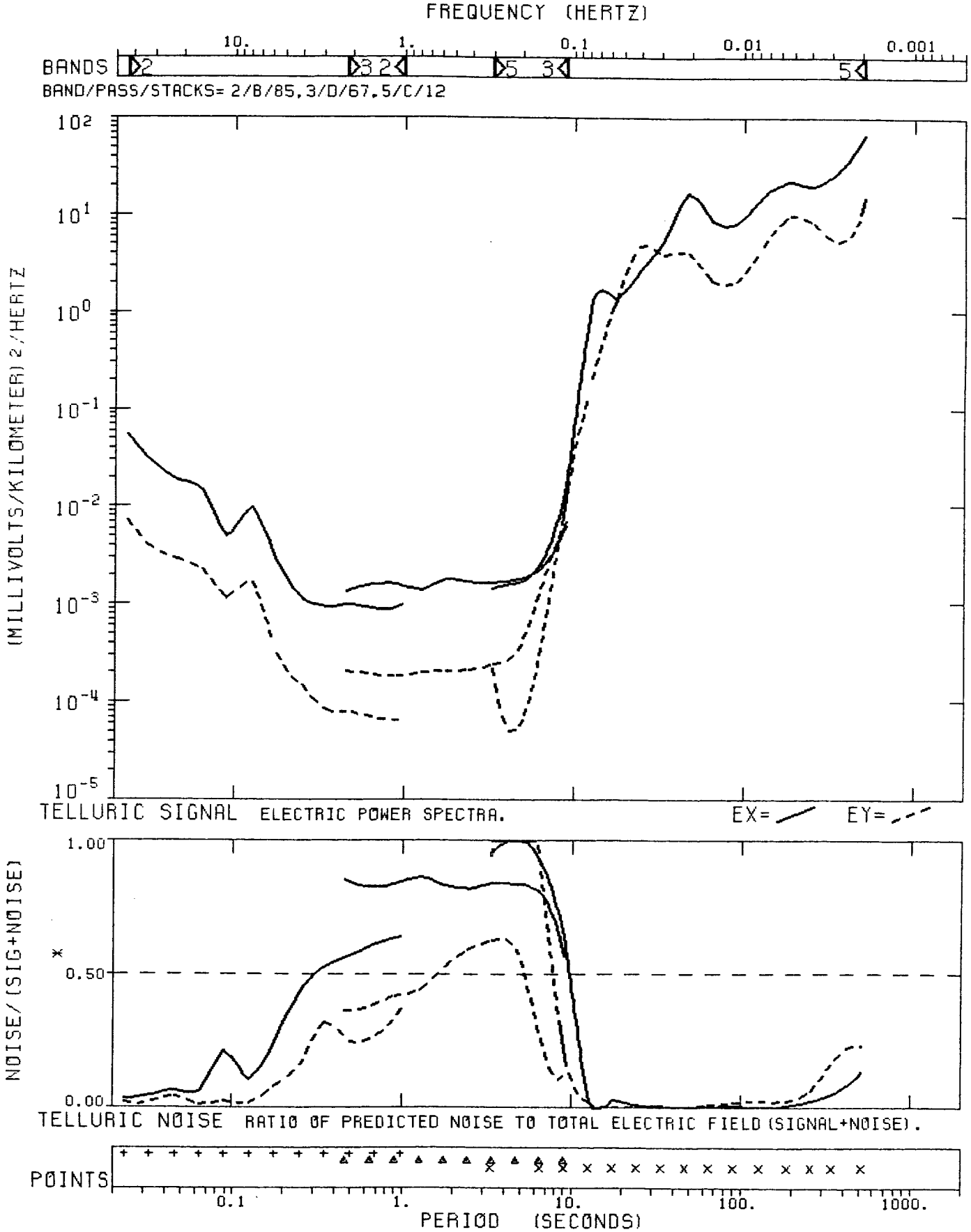
GLASS MOUNTAIN, CA. -- STA. 03 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 03

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

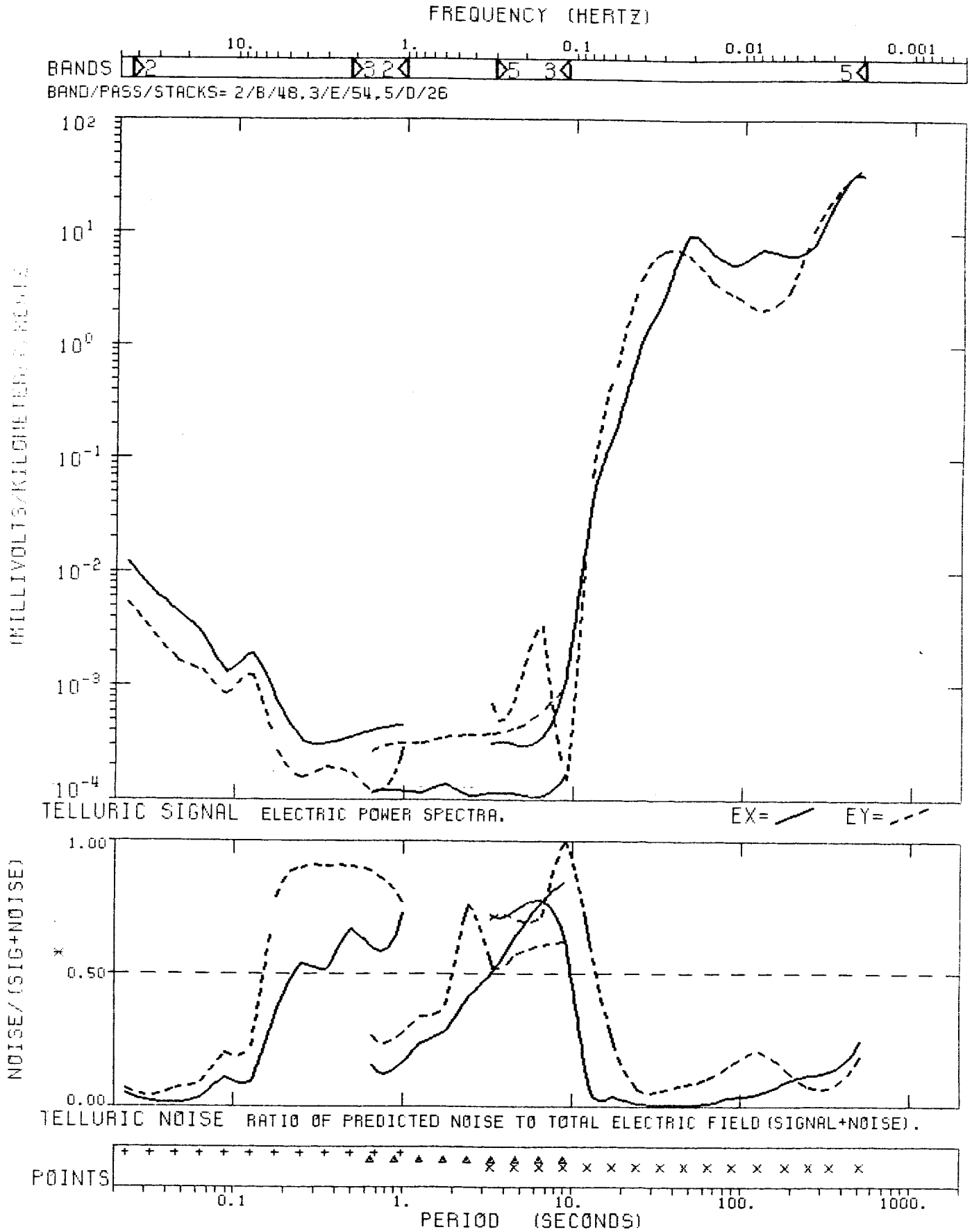
GLASS MOUNTAIN, CA.□--STA.04 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 10

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

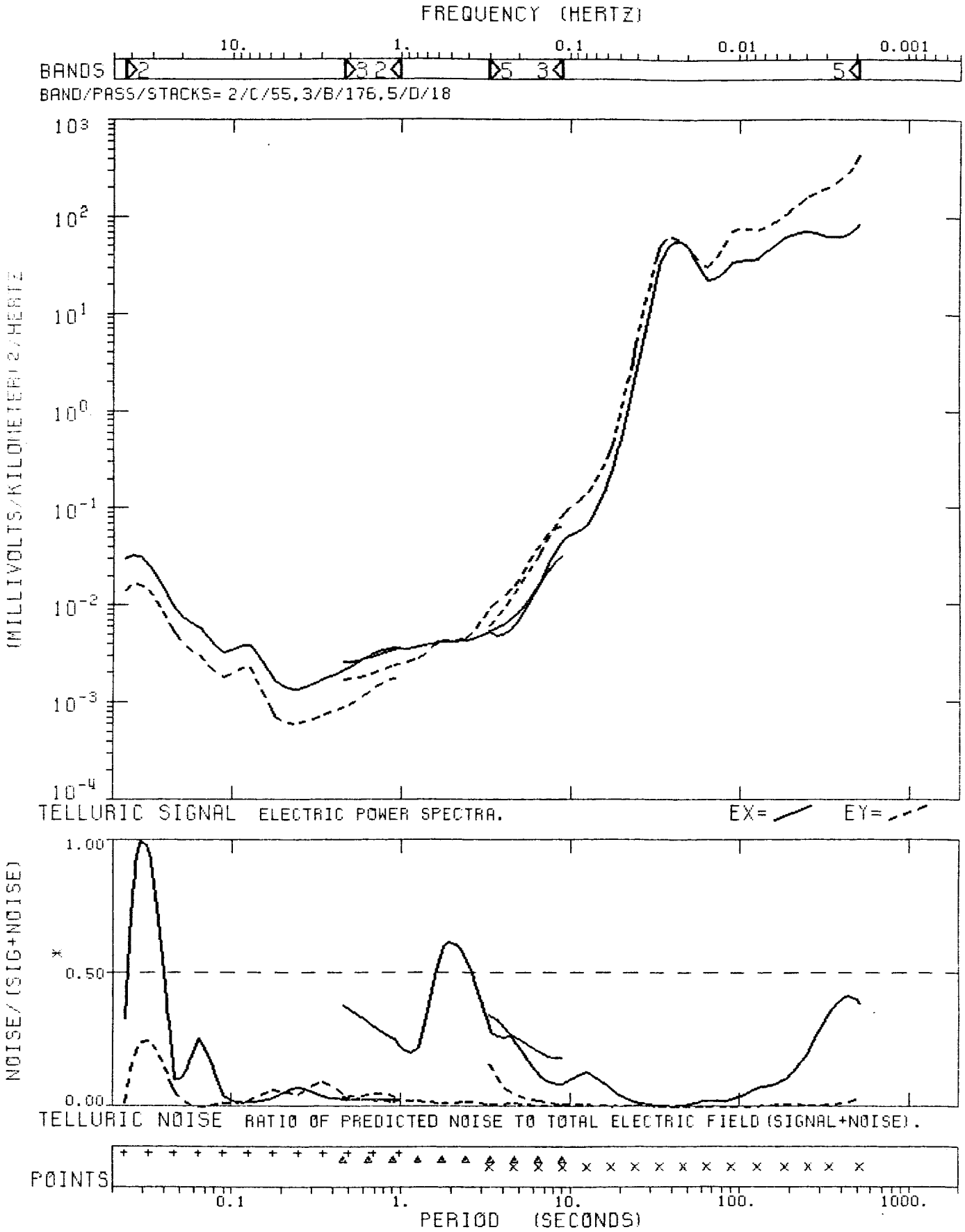
GLASS MOUNTAIN, CA.□--STA.05 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 01

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

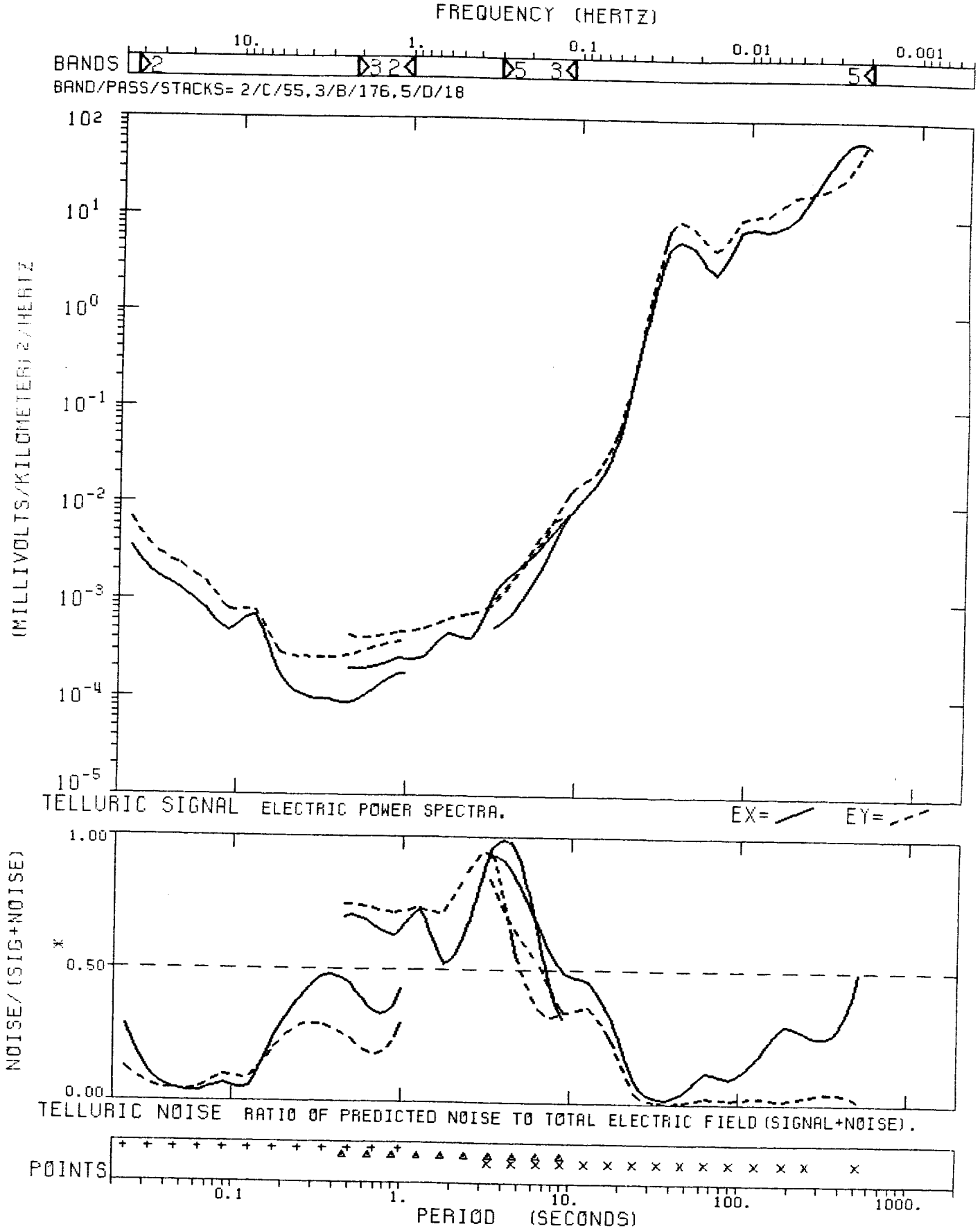
GLASS MOUNTAIN, CA. -- STA. 06 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 08

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

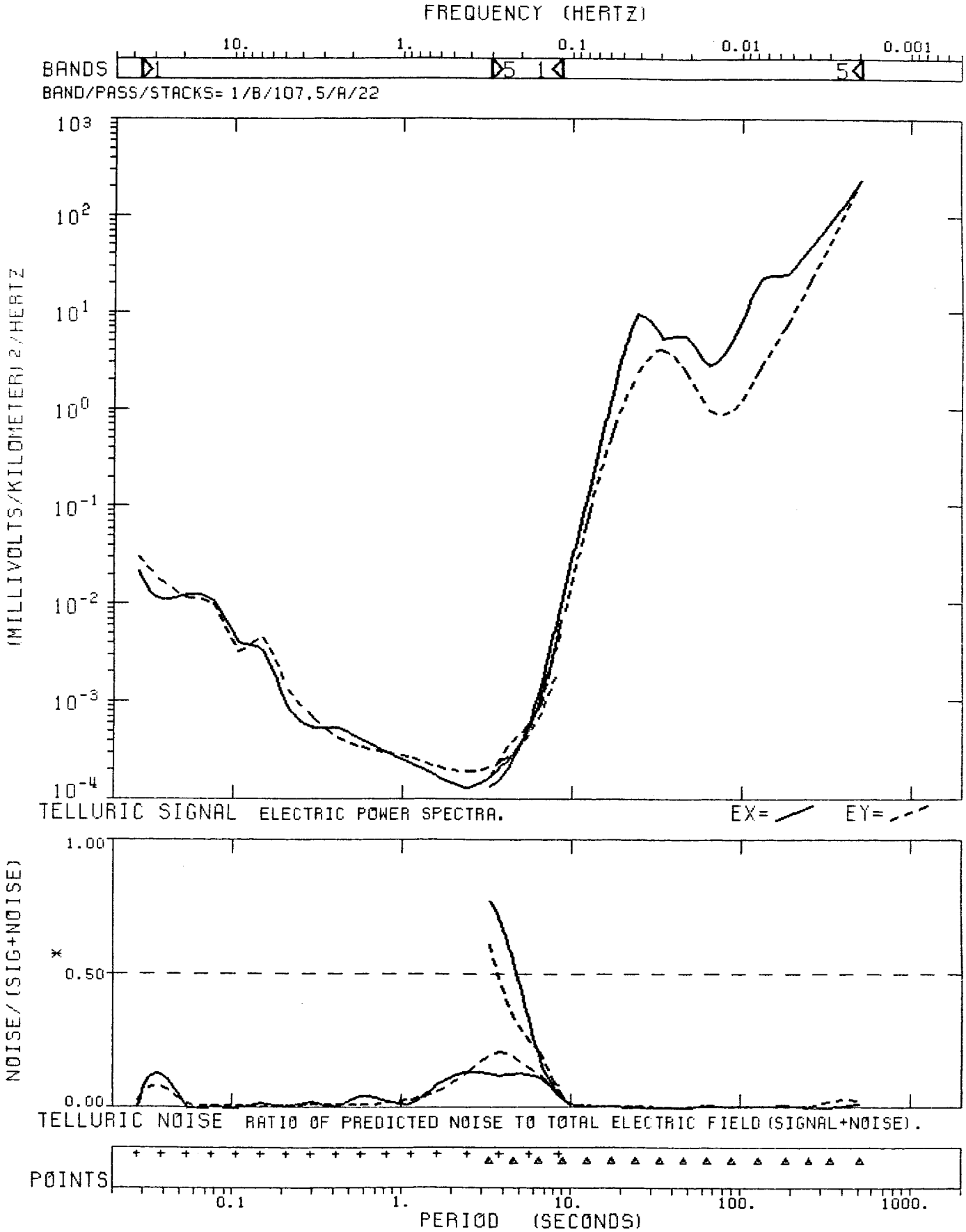
GLASS MOUNTAIN, CA. -- STA. 07 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 07

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

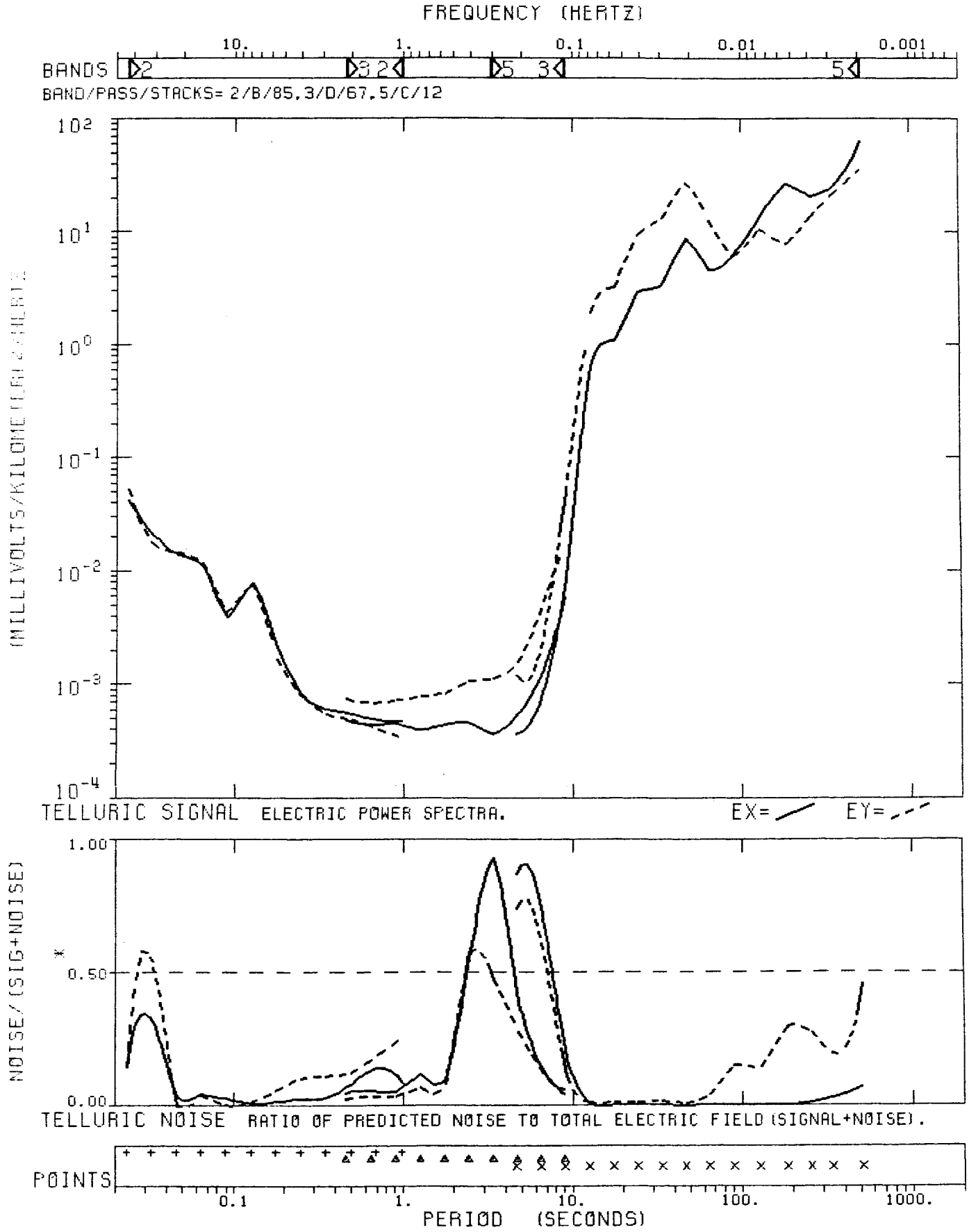
GLASS MOUNTAIN, CA. --STA.08 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 15

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

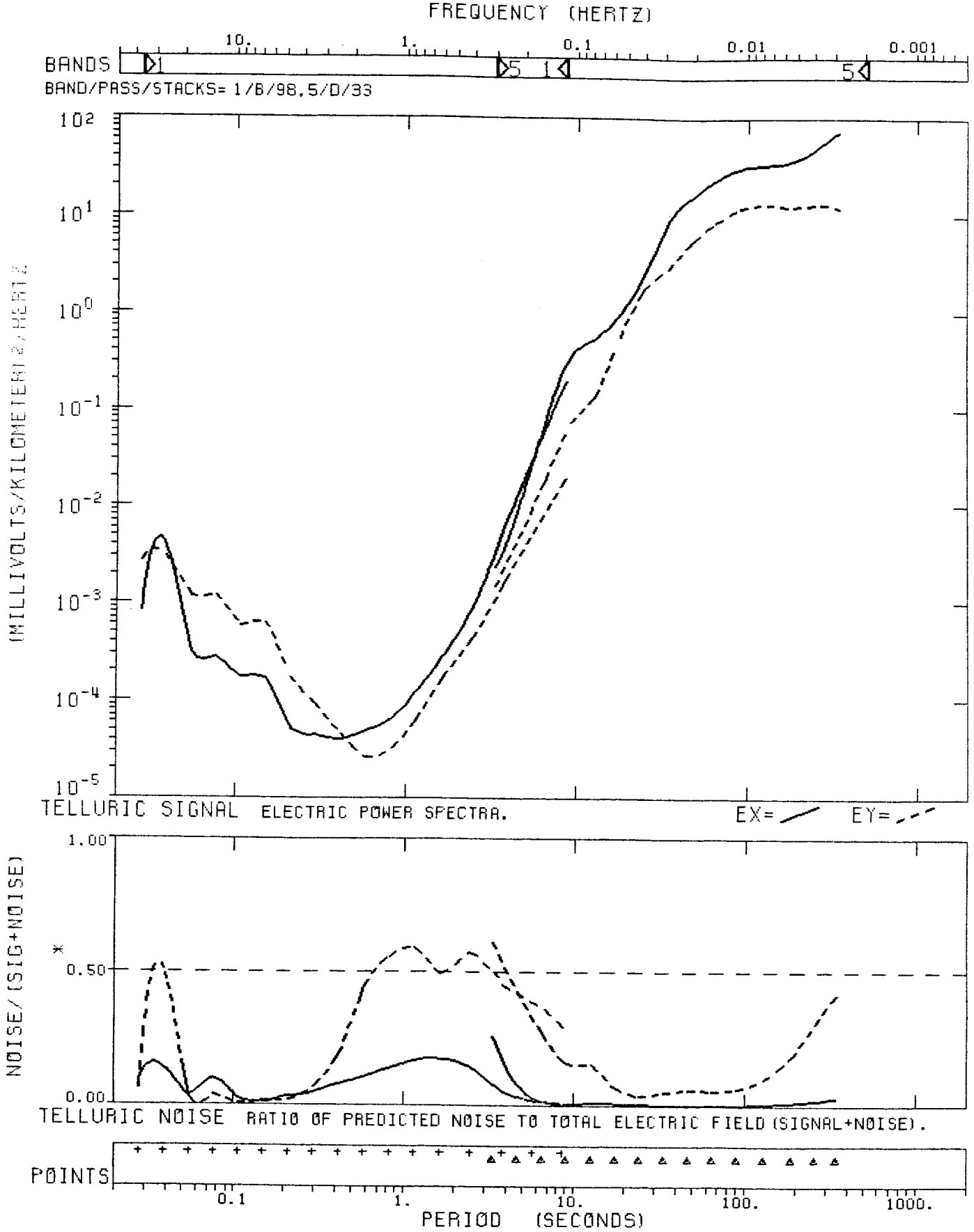
GLASS MOUNTAIN, CA.□--STA.09 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 05

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

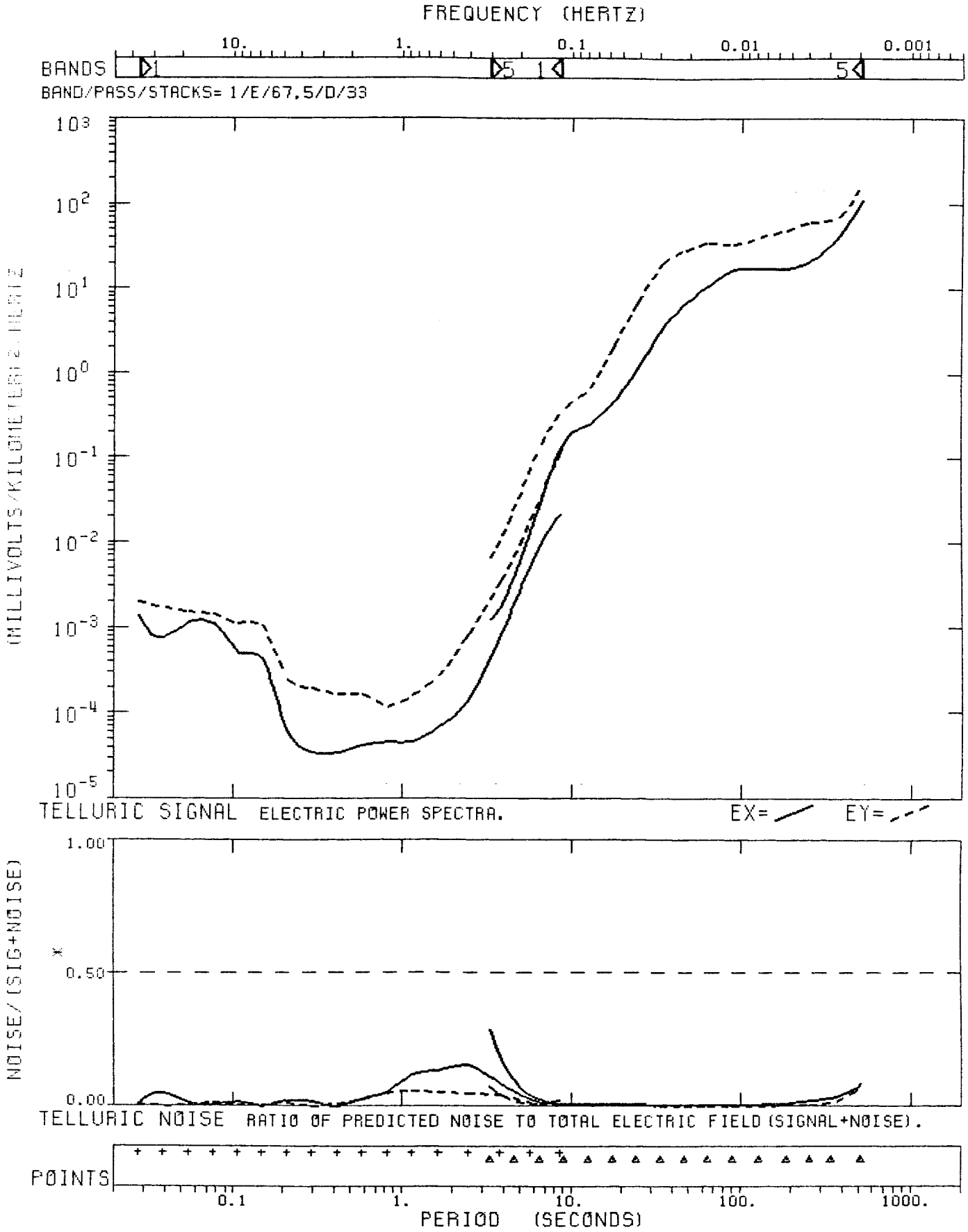
GLASS MOUNTAIN, CA.□--STA.10 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 12

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

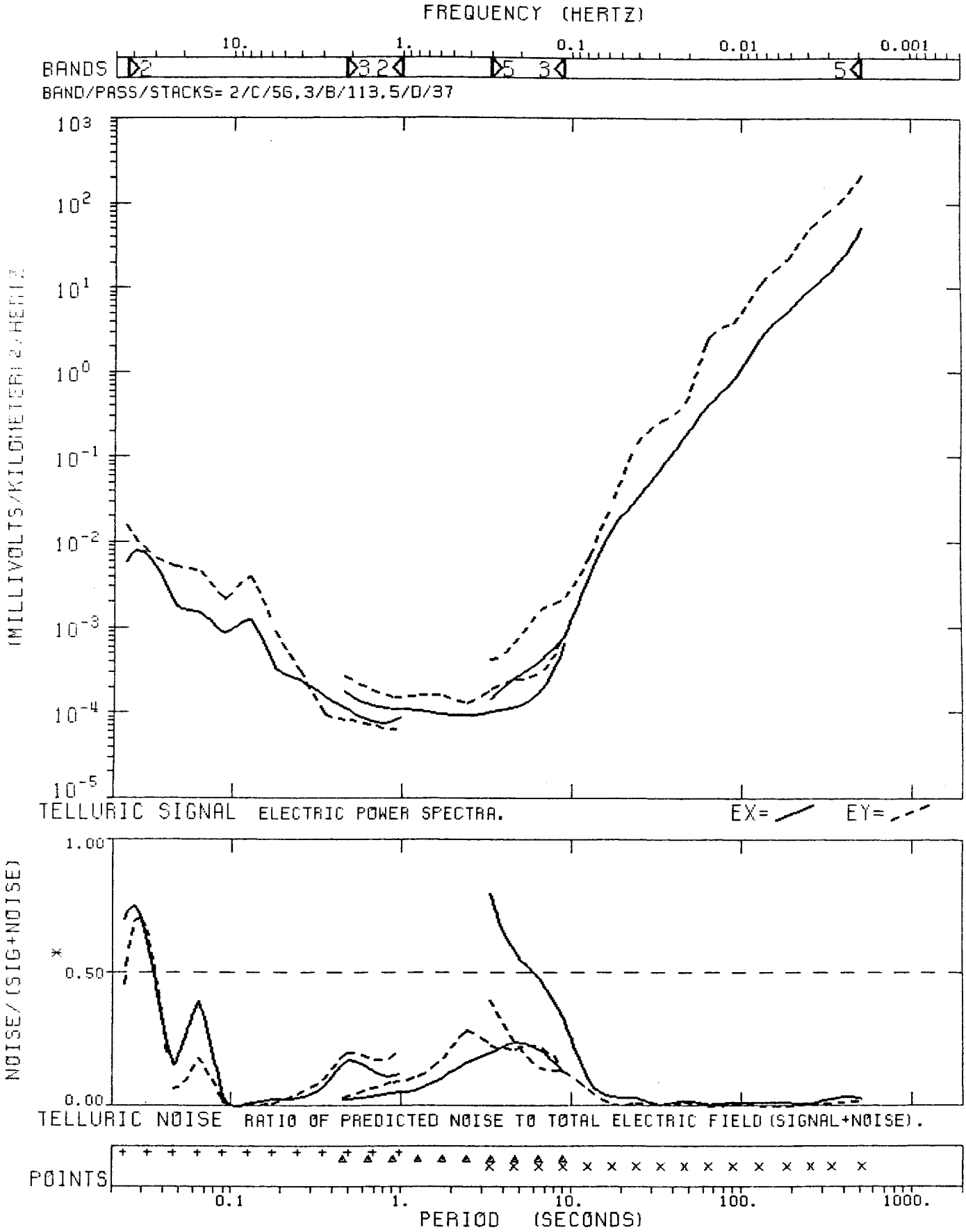
GLASS MOUNTAIN, CA.□--STA.11 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 11

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

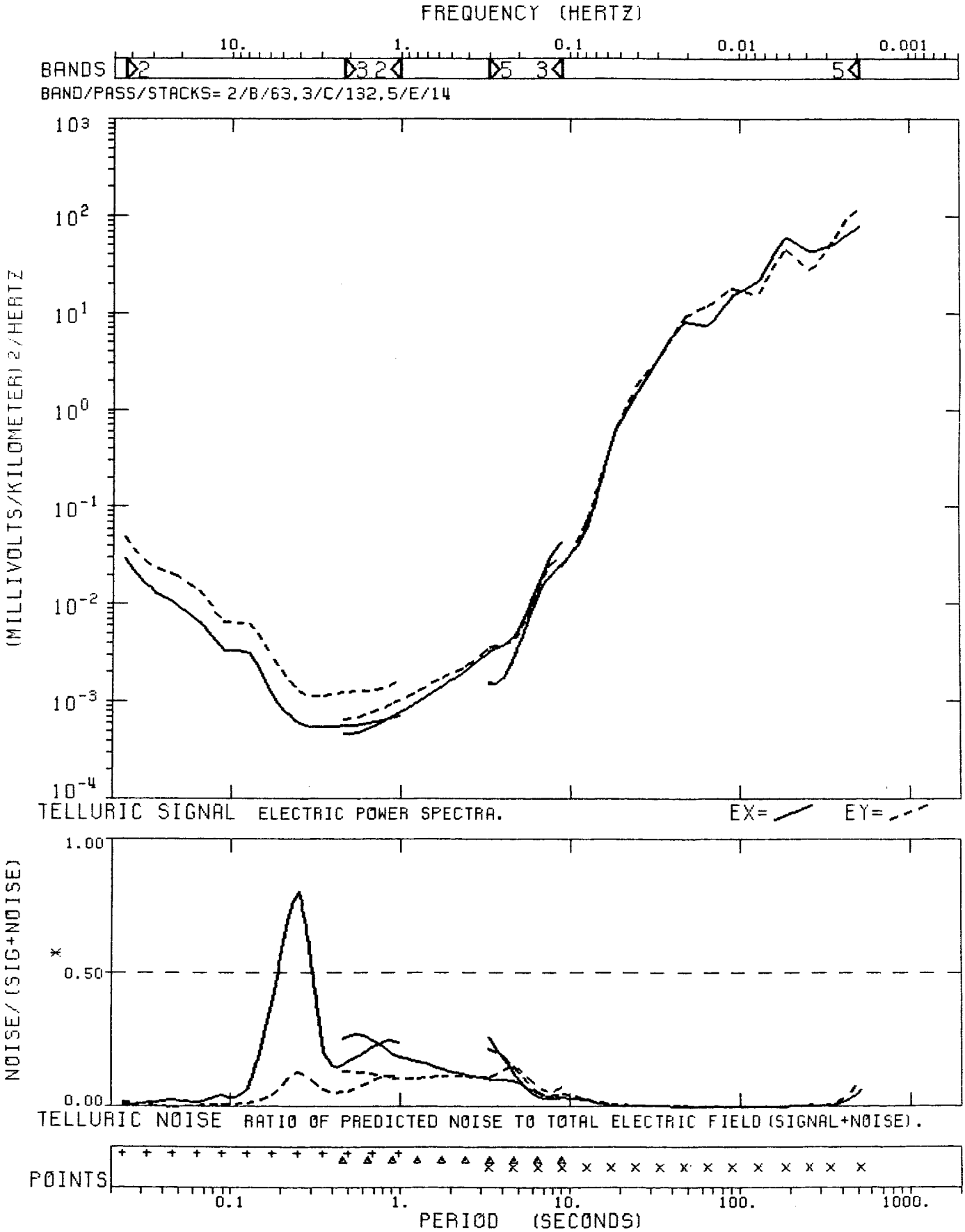
GLASS MOUNTAIN, CA. -- STA. 12 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 18

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

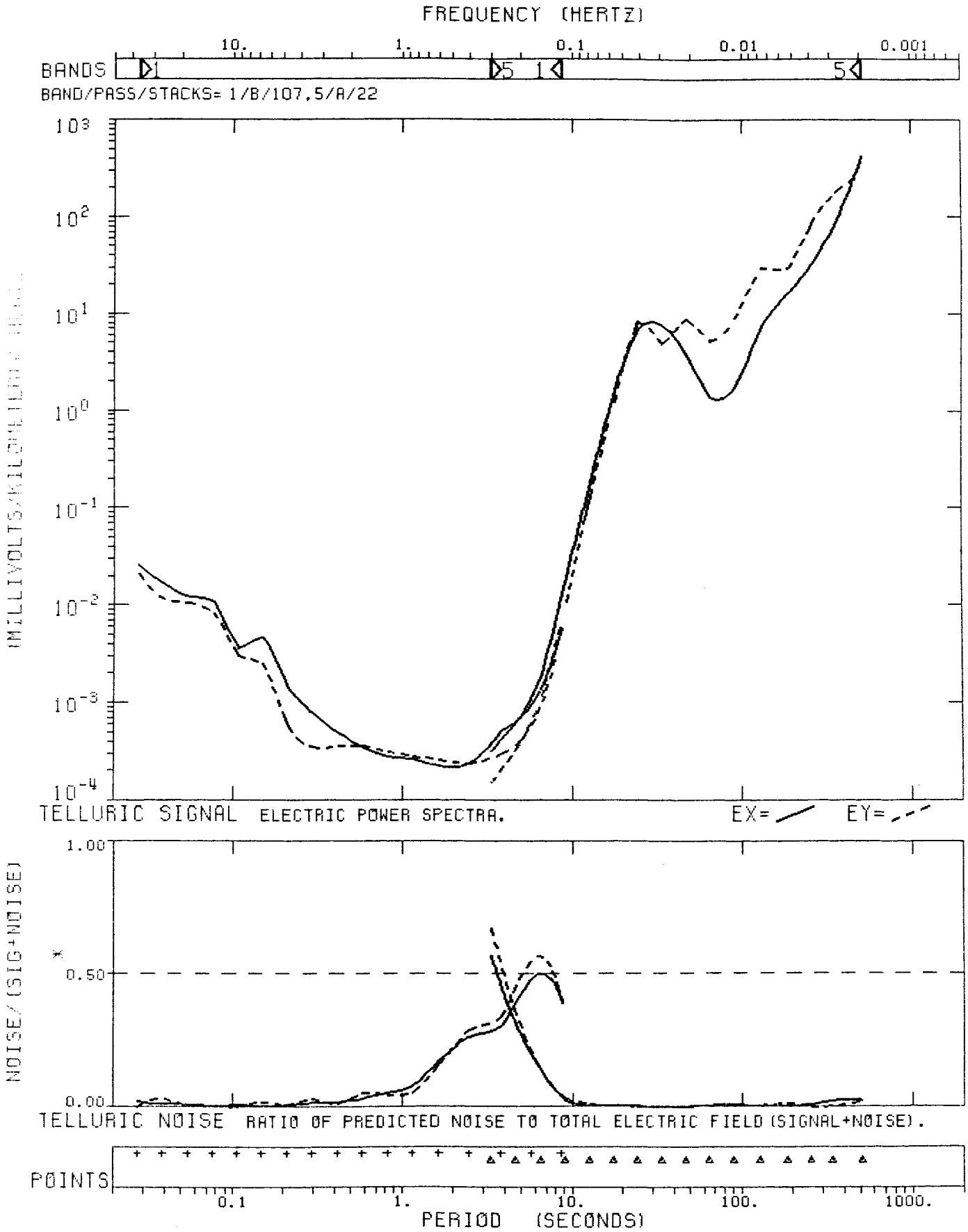
GLASS MOUNTAIN, CA.□ --STA.13 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 02

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

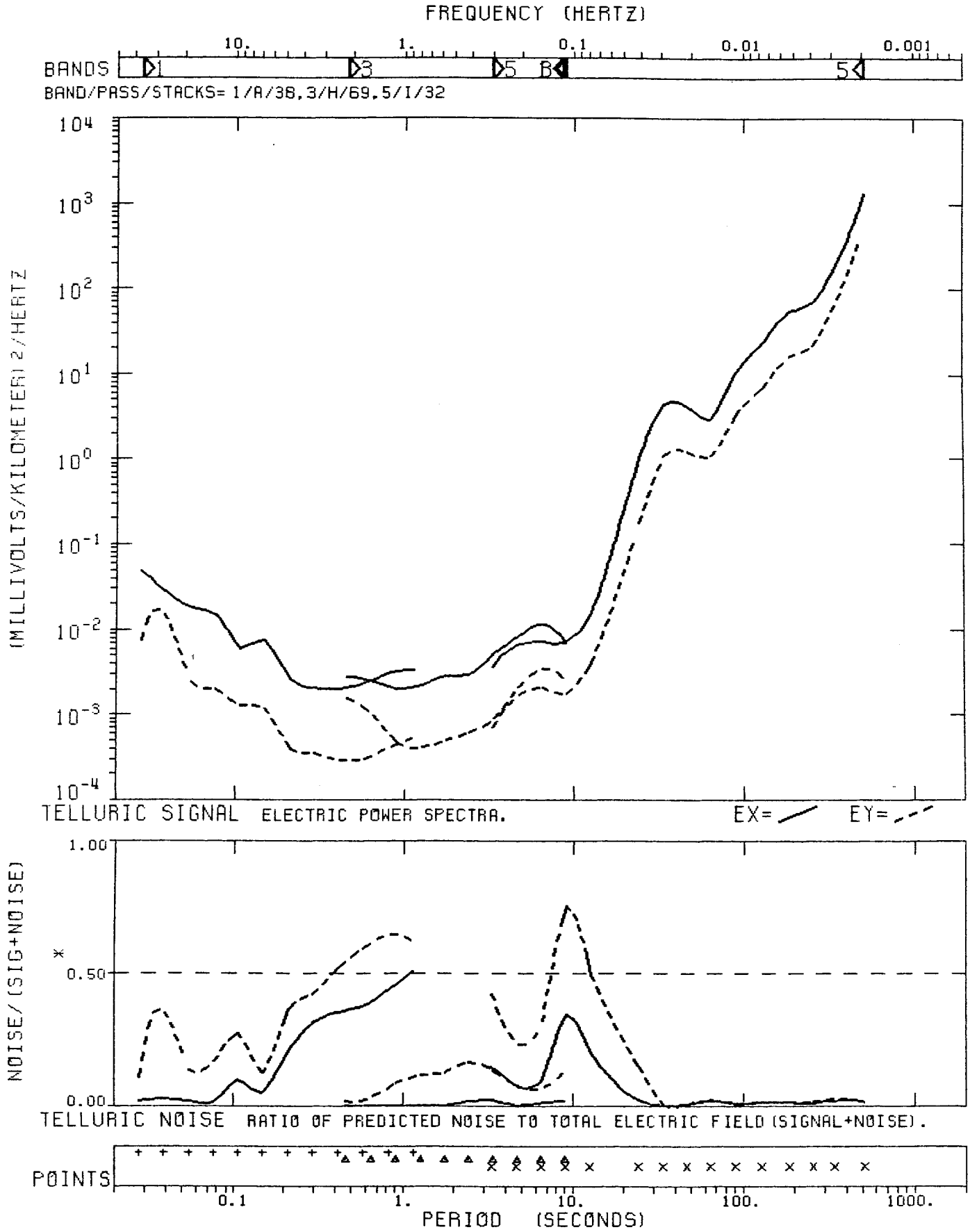
GLASS MOUNTAIN, CA.□--STA.14 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 09

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

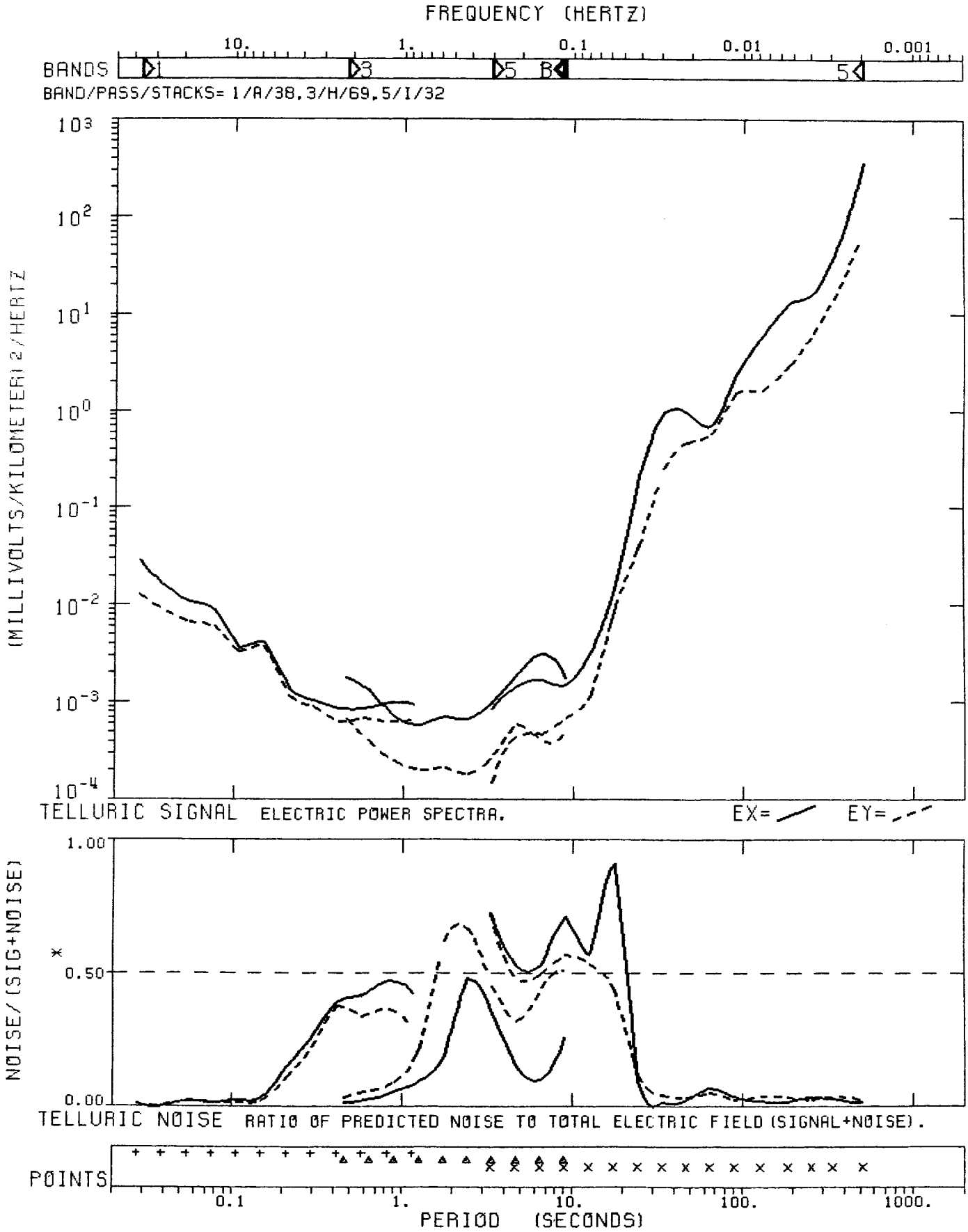
GLASS MOUNTAIN, CA.□ --STA.15 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 17

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

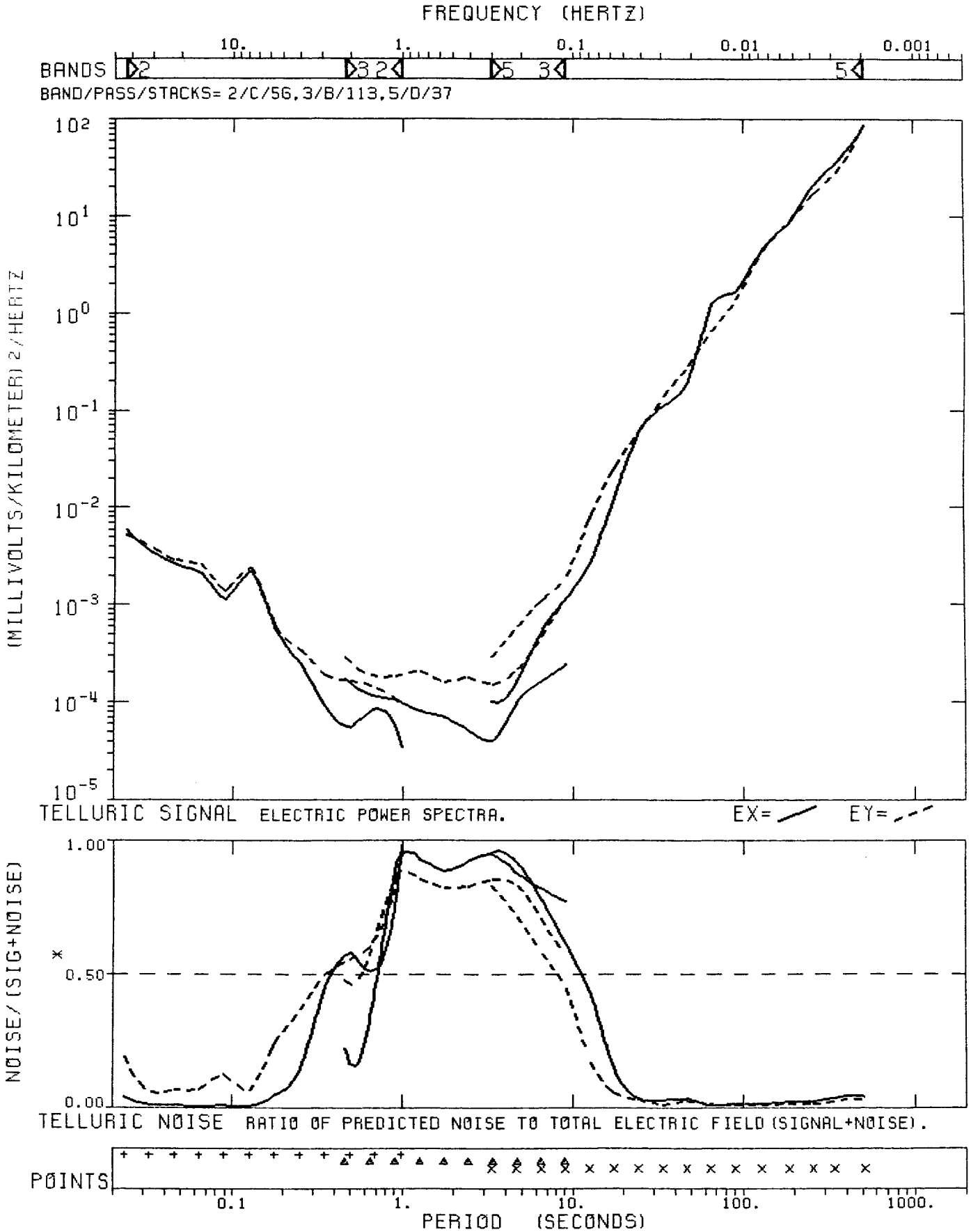
GLASS MOUNTAIN, CA.□--STA.16 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 16

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

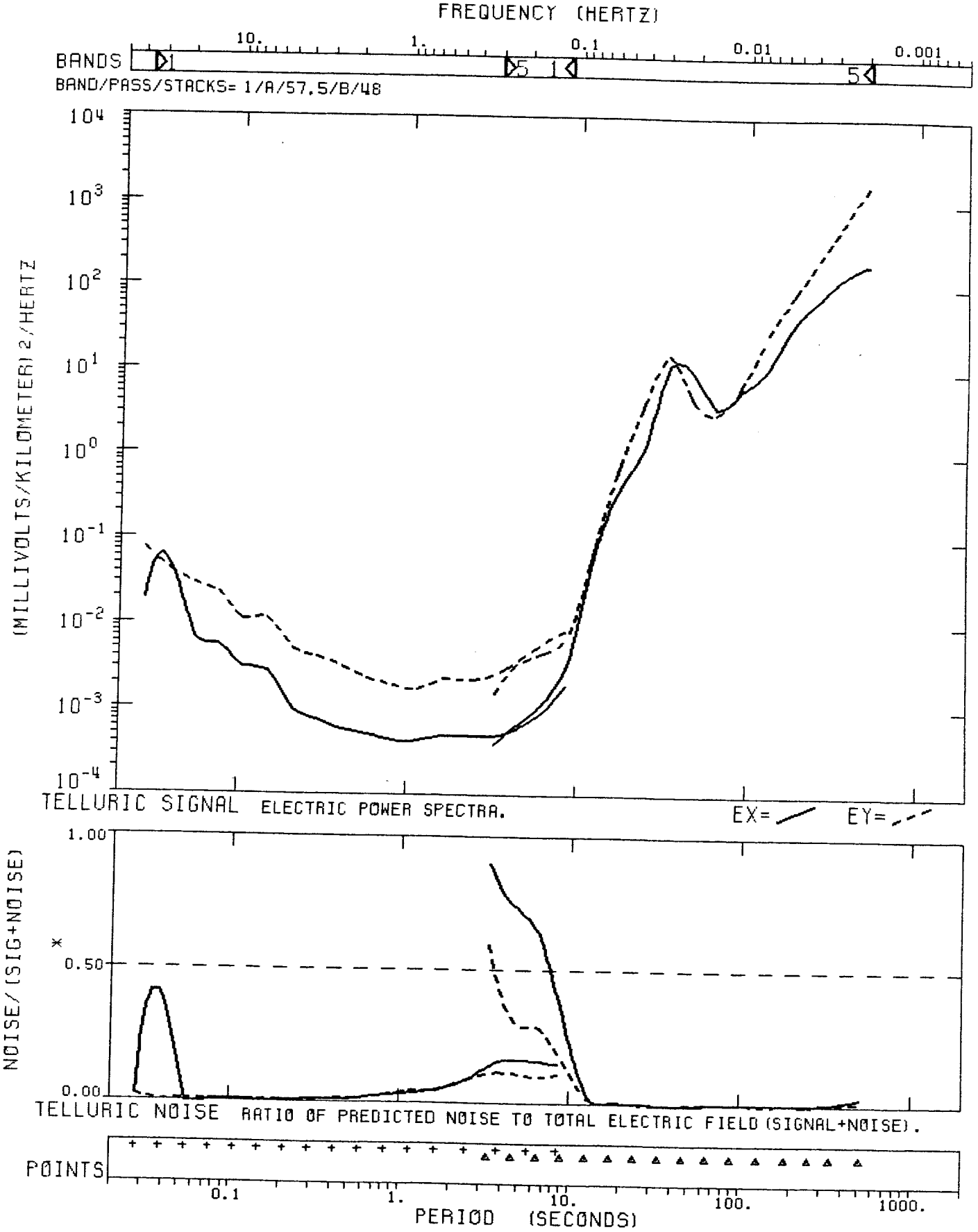
GLASS MOUNTAIN, CA.□--STA.17 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 13

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

GLASS MOUNTAIN, CA.□--STA.18 28-SEP-81 WOODWARD-CLYDE CONSULTANTS

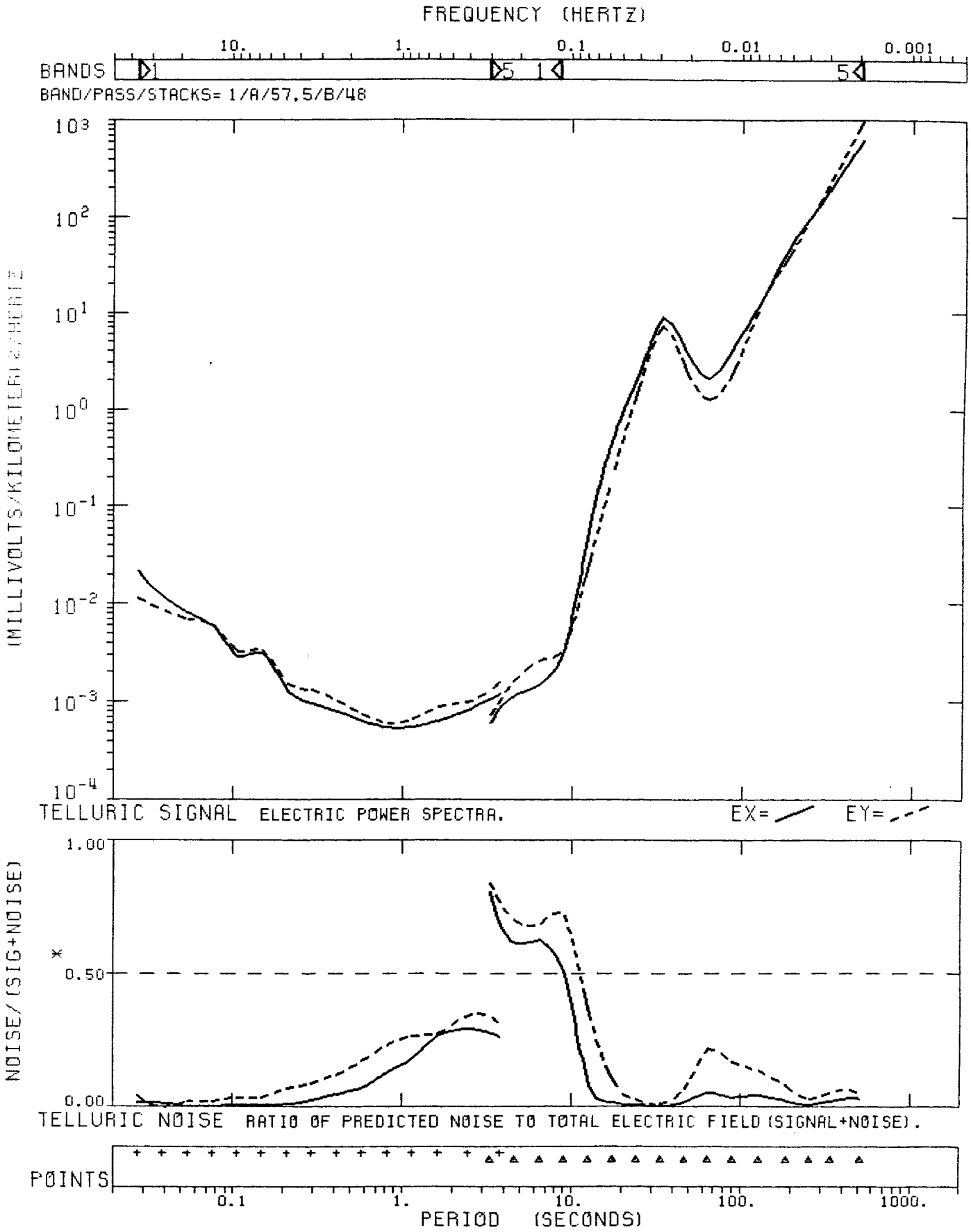


REMOTE REF TO STA. 20

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

GLASS MOUNTAIN, CA. -- STA. 19

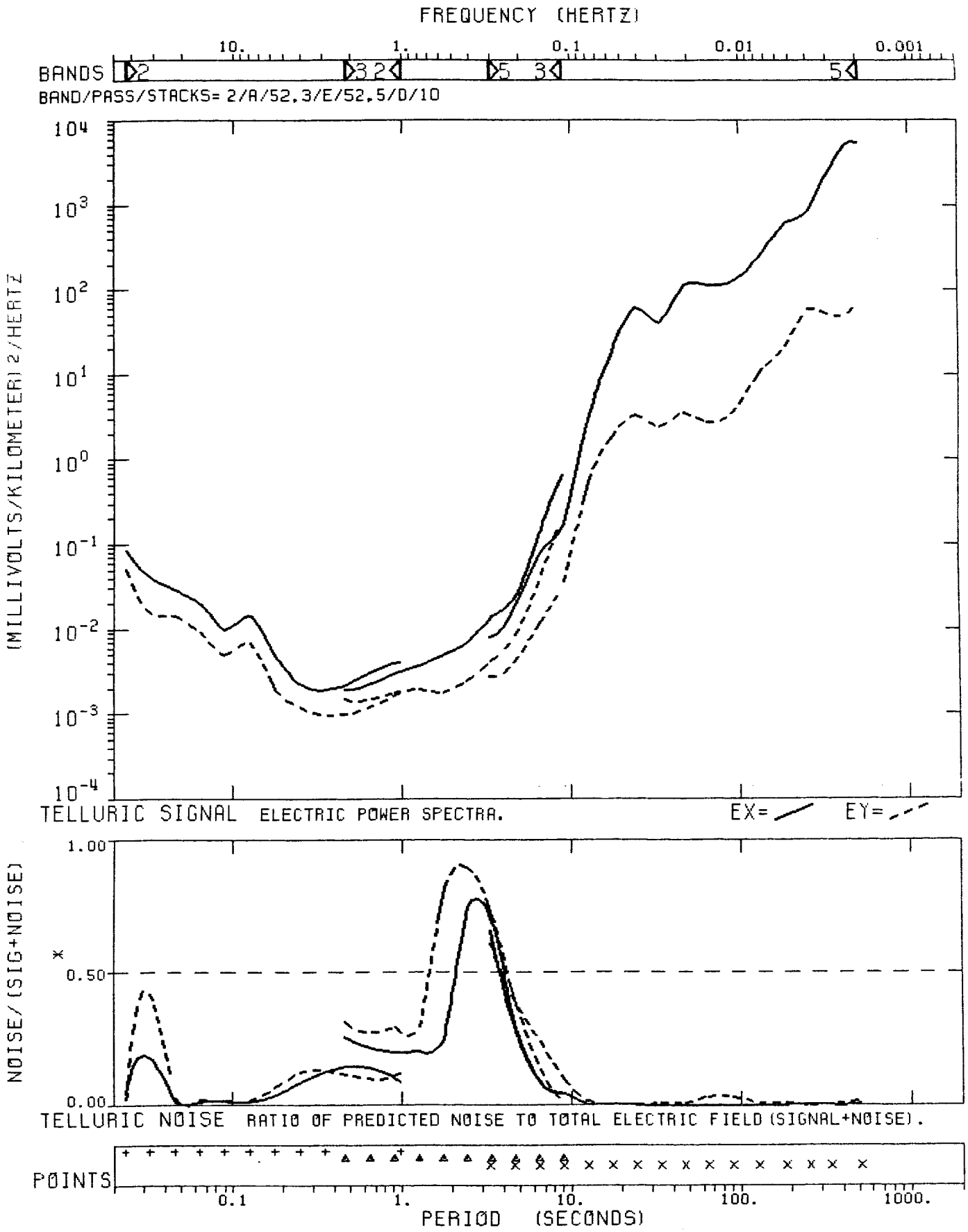
28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 19

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

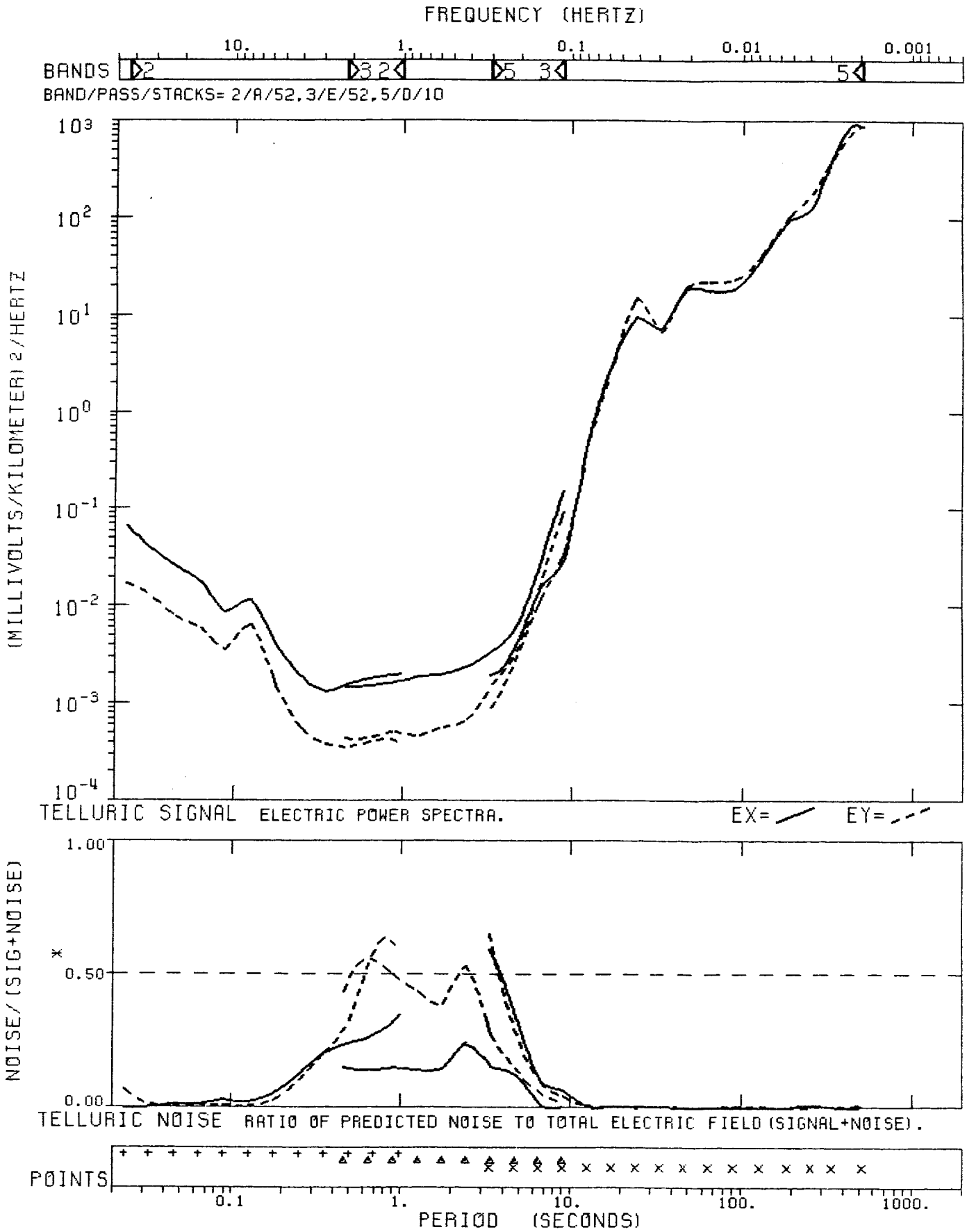
GLASS MOUNTAIN, CA.□--STA.20 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 22

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

GLASS MOUNTAIN, CA.□ --STA.21 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 21

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

GLASS MOUNTAIN, CA.□--STA.22 28-SEP-81 WOODWARD-CLYDE CONSULTANTS

APPENDIX VIIIE
MAGNETIC SIGNAL AND NOISE POWER SPECTRA

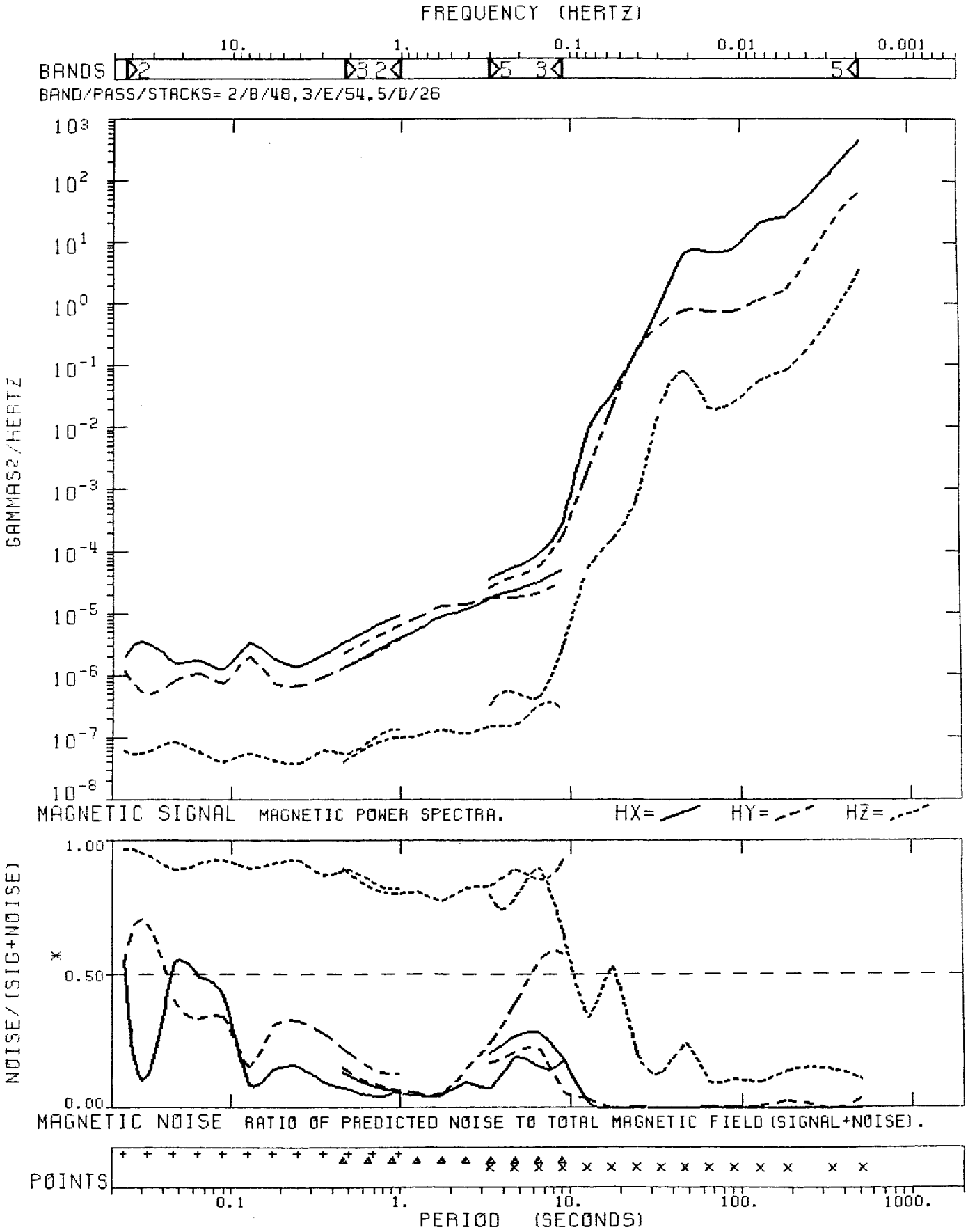
Magnetic power spectral plots begin with a band strip showing a logarithmic frequency scale in hertz, and the frequency range for each recording filter band used (up to five). The band identification number at the limit of each band is arbitrary, depending on how bands are set up for a job, but will always be between 1 and 9, with the larger numbers used for longer periods. For each band identification number, a band description line gives an alphabetic band pass identifier, and the number of stacks or averaged 2048-point data segments in the pass. A pass is a given attempt to record a band, which may have been started over several times because of gain setting changes, poor signal quality, or equipment failure.

Signal curves are plotted band-by-band, with a solid line for the x magnetic direction, a dashed line for the y magnetic direction, and a dotted line for the z magnetic direction. The scale is logarithmic in γ^2/Hz, and is automatically scaled to the minimum and maximum decade that will display all the data.

The magnetic noise is recorded as the ratio of referenced noise (uncorrelated to remote signal) to the total input signal plus noise. It is also plotted band-by-band as a solid, dashed, or dotted line for x, y, or z directions. When a curve exceeds the reference line at 0.5, it indicates the apparent noise is greater than the apparent signal. Of course, if enough segments have been stacked, even very little relative signal can give good results.

The data point symbols are not plotted along the curves, because of the confusion which would result from so much overlapped plotting. Instead, each is shown in a points strip along the period scale in seconds, with a different symbol for each band. Only those points within the scale range, for which either xy or yx impedances were accepted as good data points, will be plotted. The logarithmic period range is limited to five decades, usually from 0.02 to 2000 seconds.

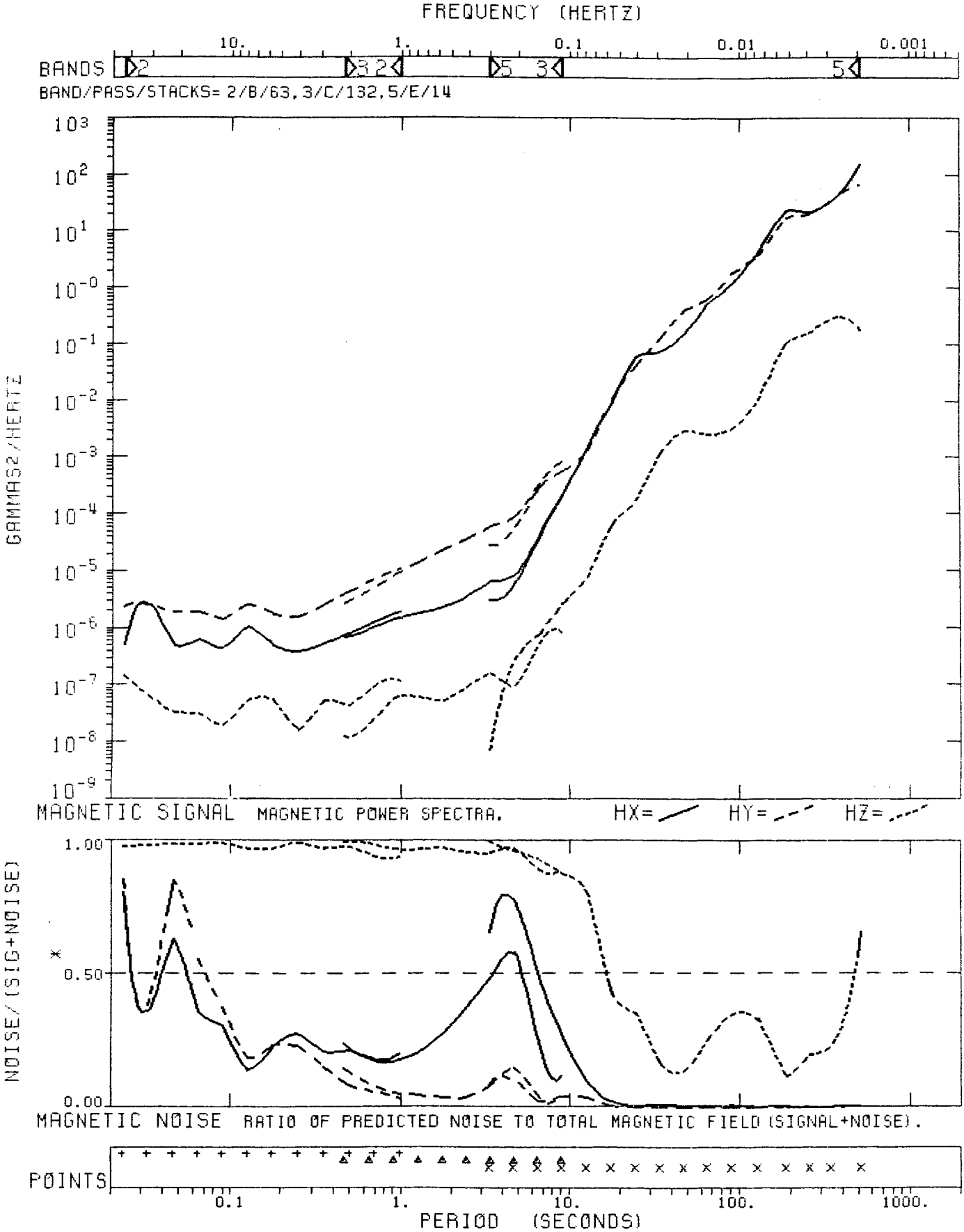
A station identification is limited to two alphanumeric characters, following a job or survey description (limited to 20 characters). The reference station identification is also given (note that whether the base or remote of a recording set-up is the reference depends on which station is being plotted). The given date is the date the plot was generated, rather than when the data were recorded.



REMOTE REF TO STA. 06

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

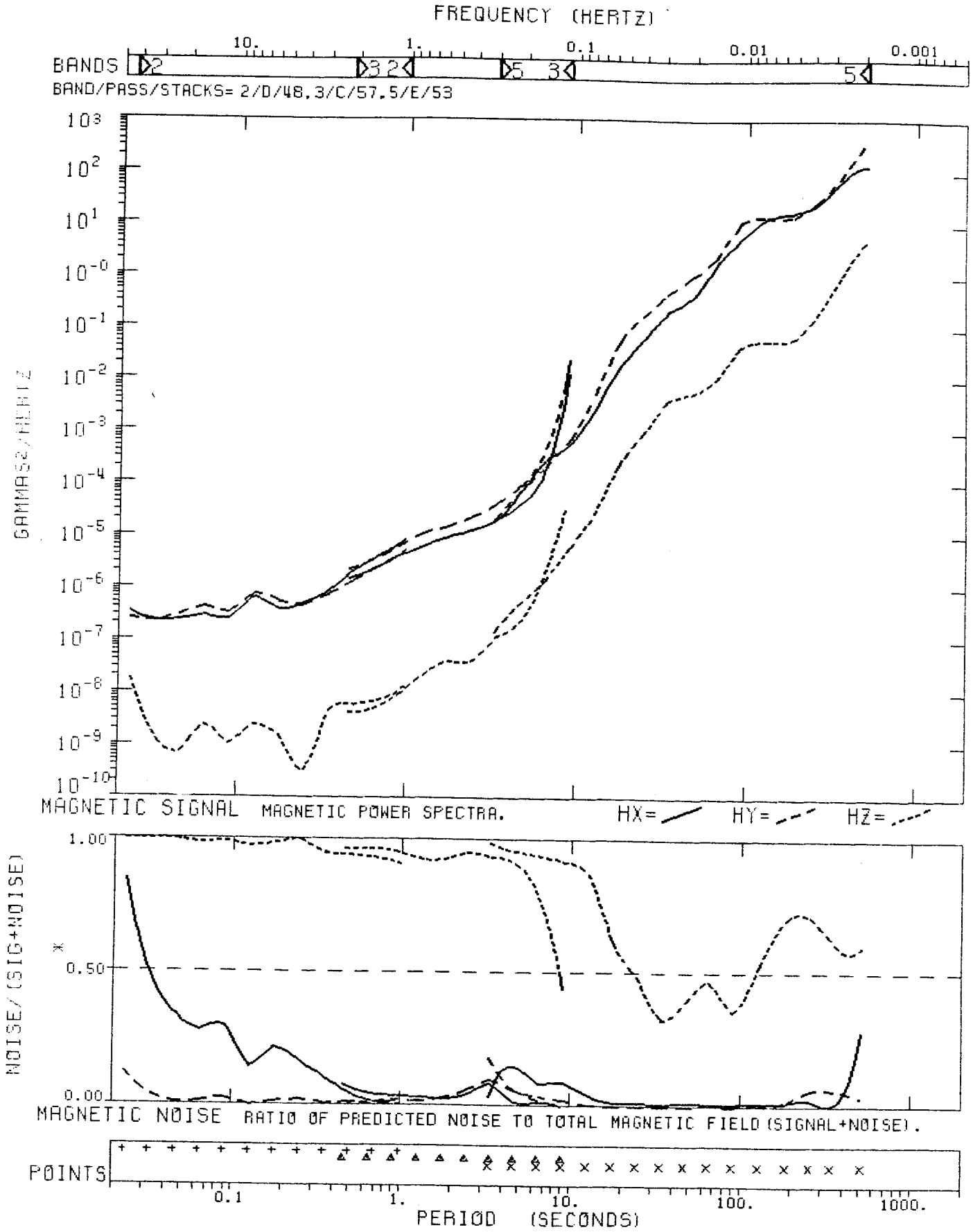
GLASS MOUNTAIN, CA.□ --STA.01 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 14

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

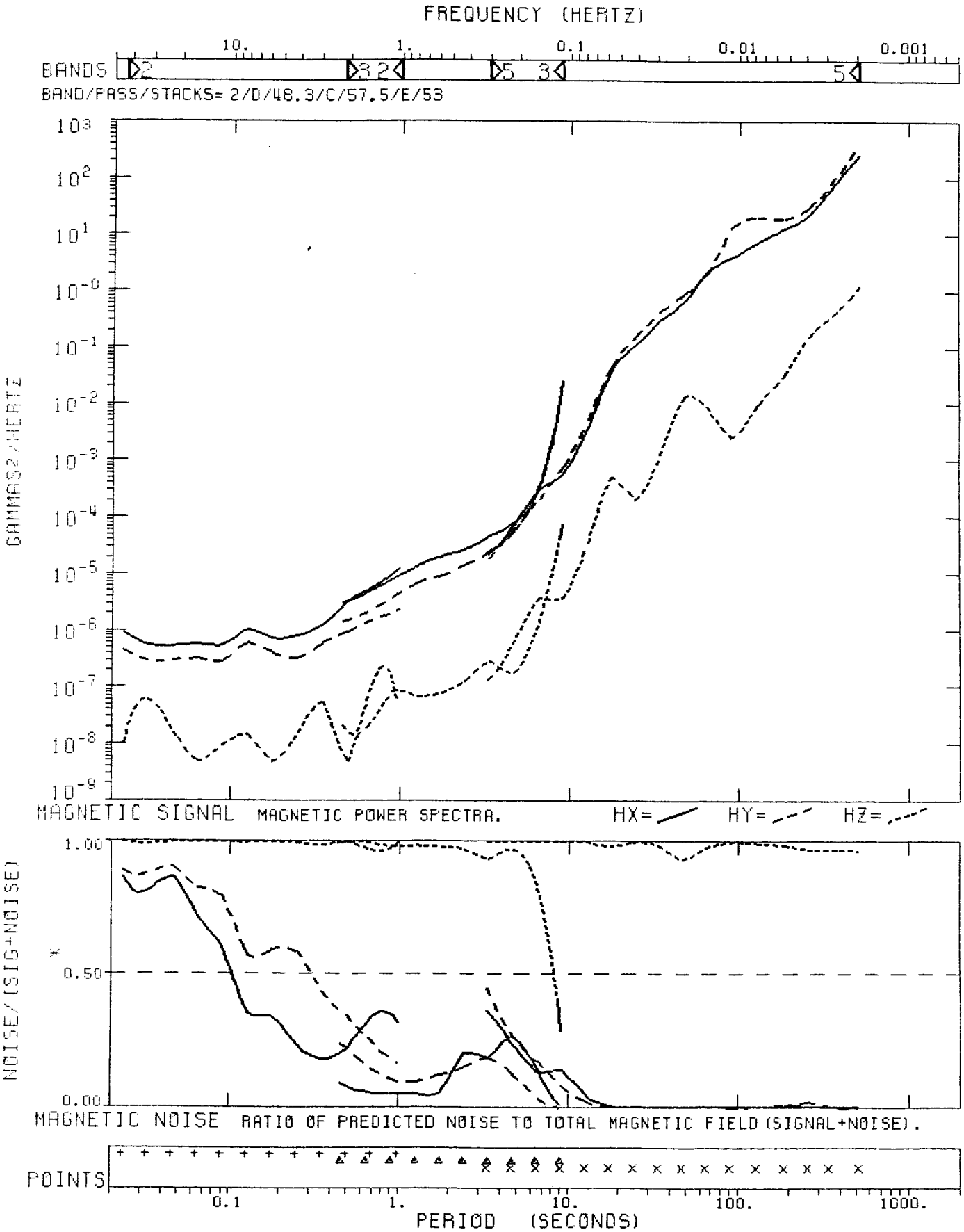
GLASS MOUNTAIN, CA.□--STA.02 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 04

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

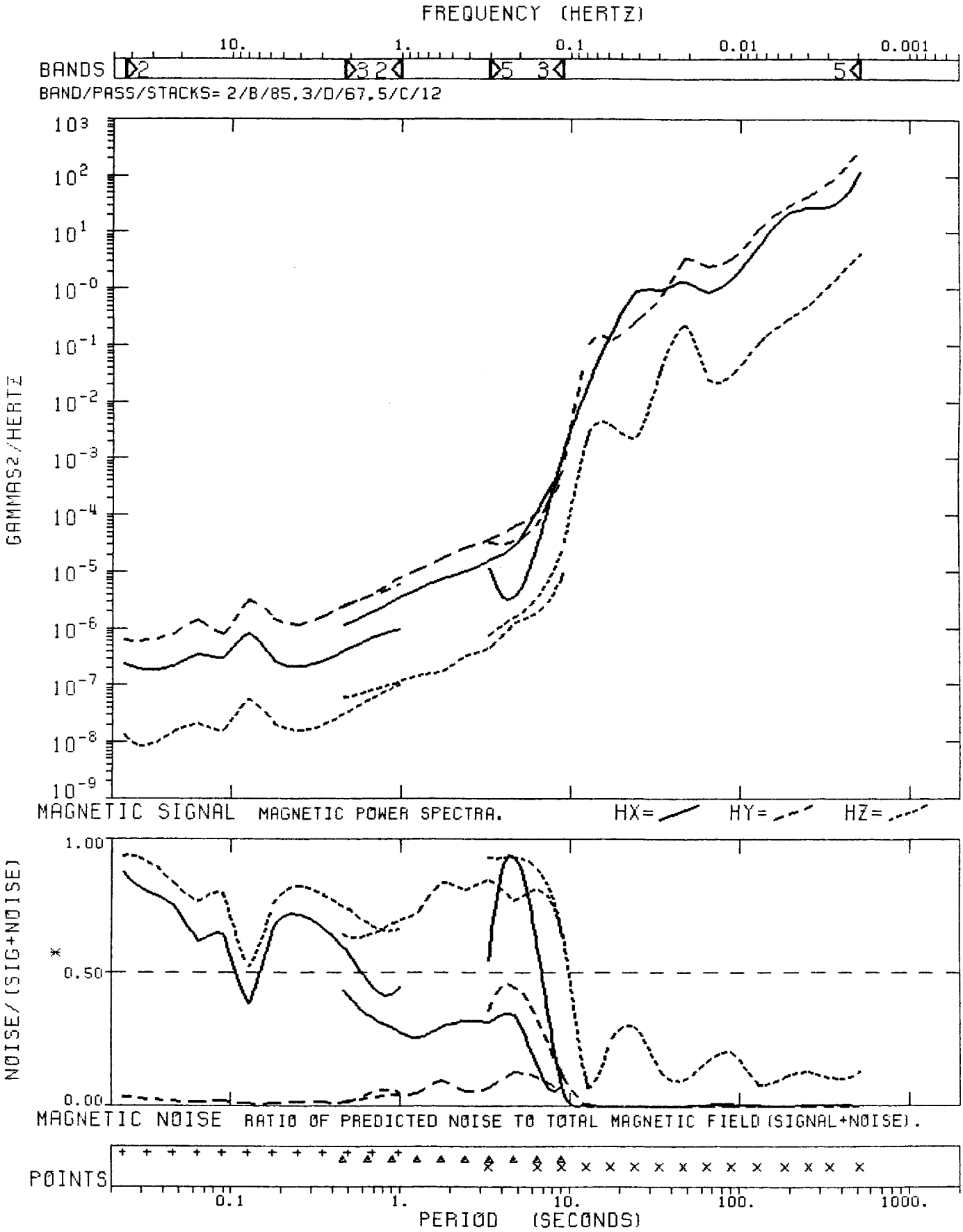
GLASS MOUNTAIN, CA. --STA.03 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 03

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

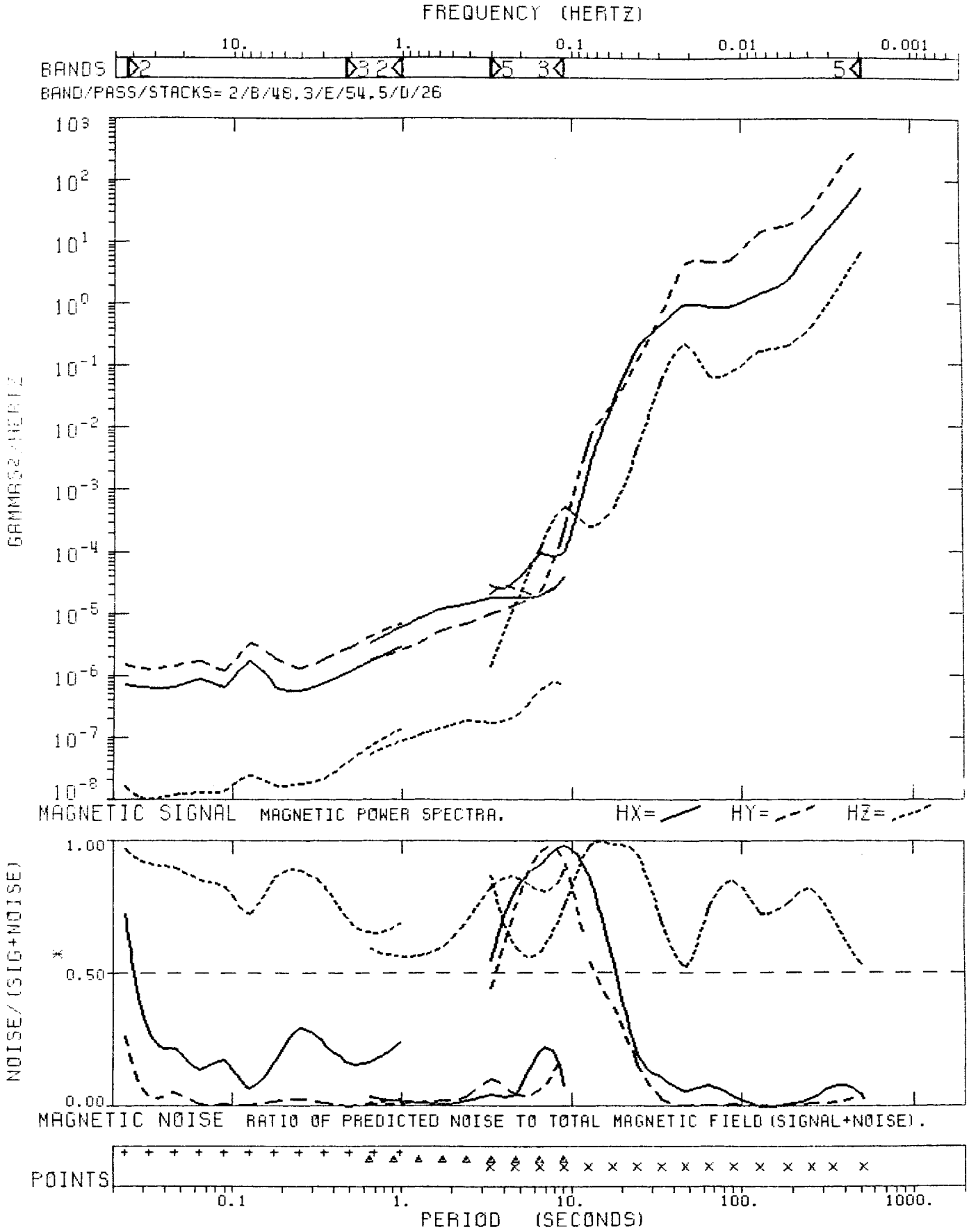
GLASS MOUNTAIN, CA. --STA.04 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 10

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

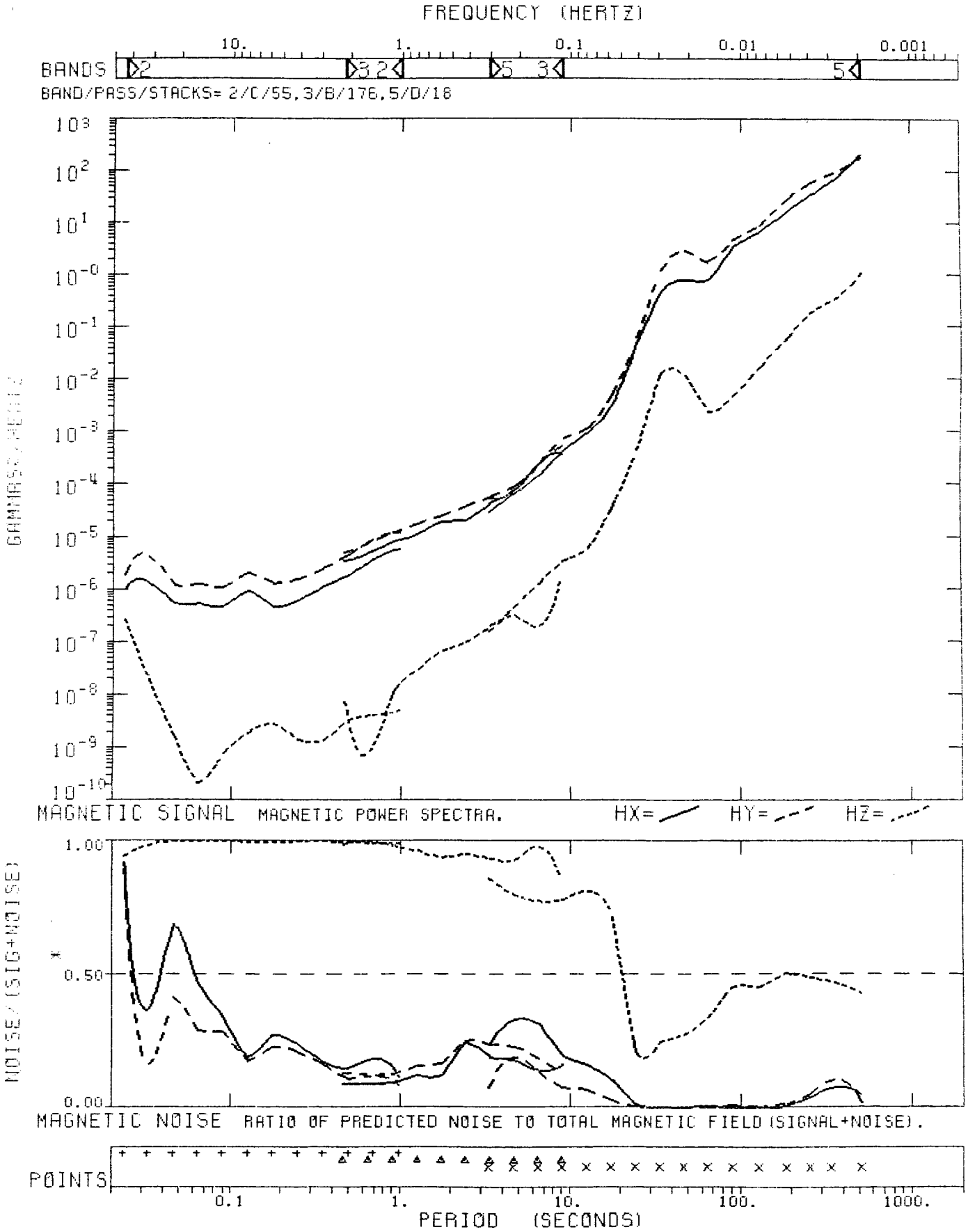
GLASS MOUNTAIN, CA. --STA.05 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 01

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

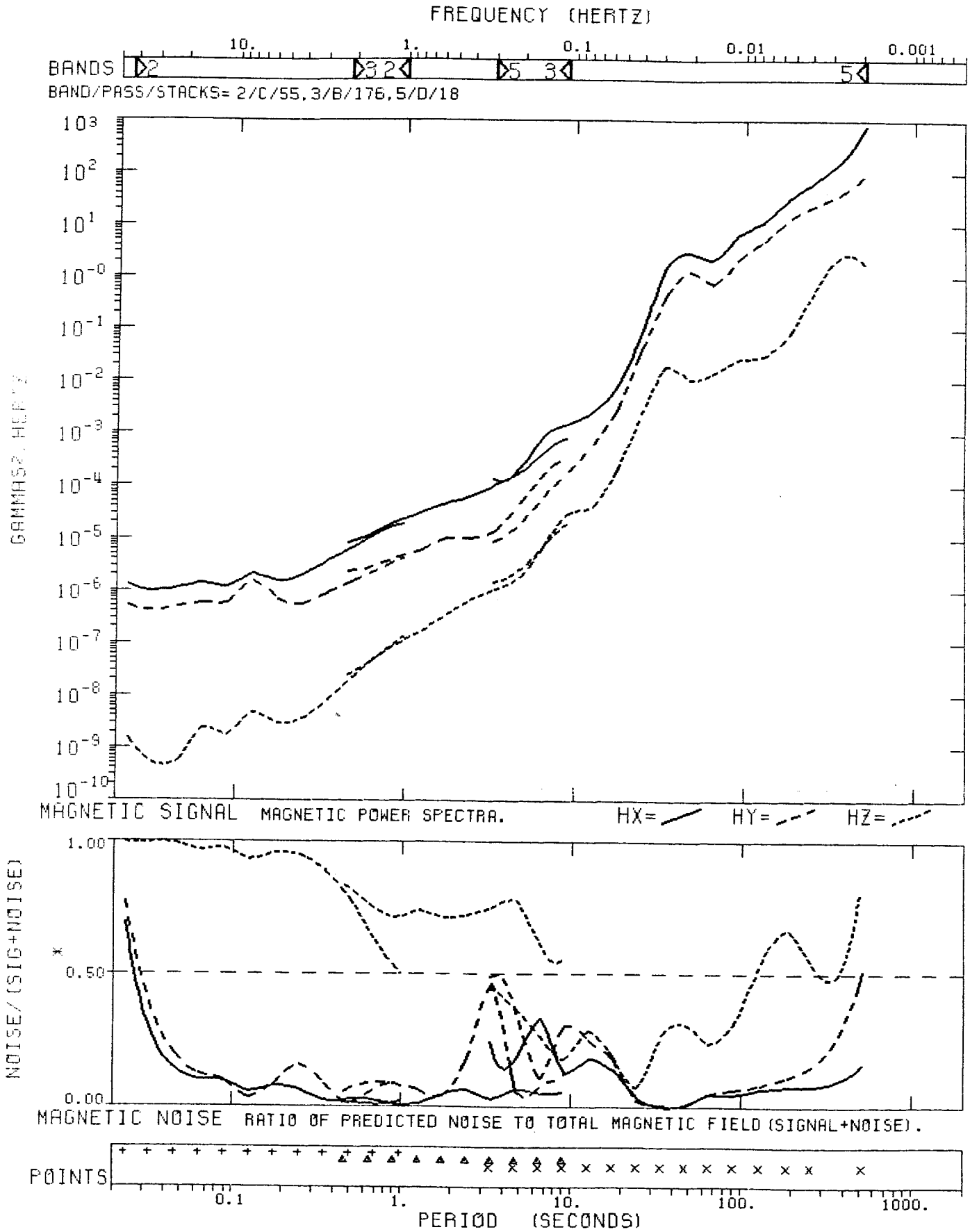
GLASS MOUNTAIN, CA. --STA.06 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 08

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

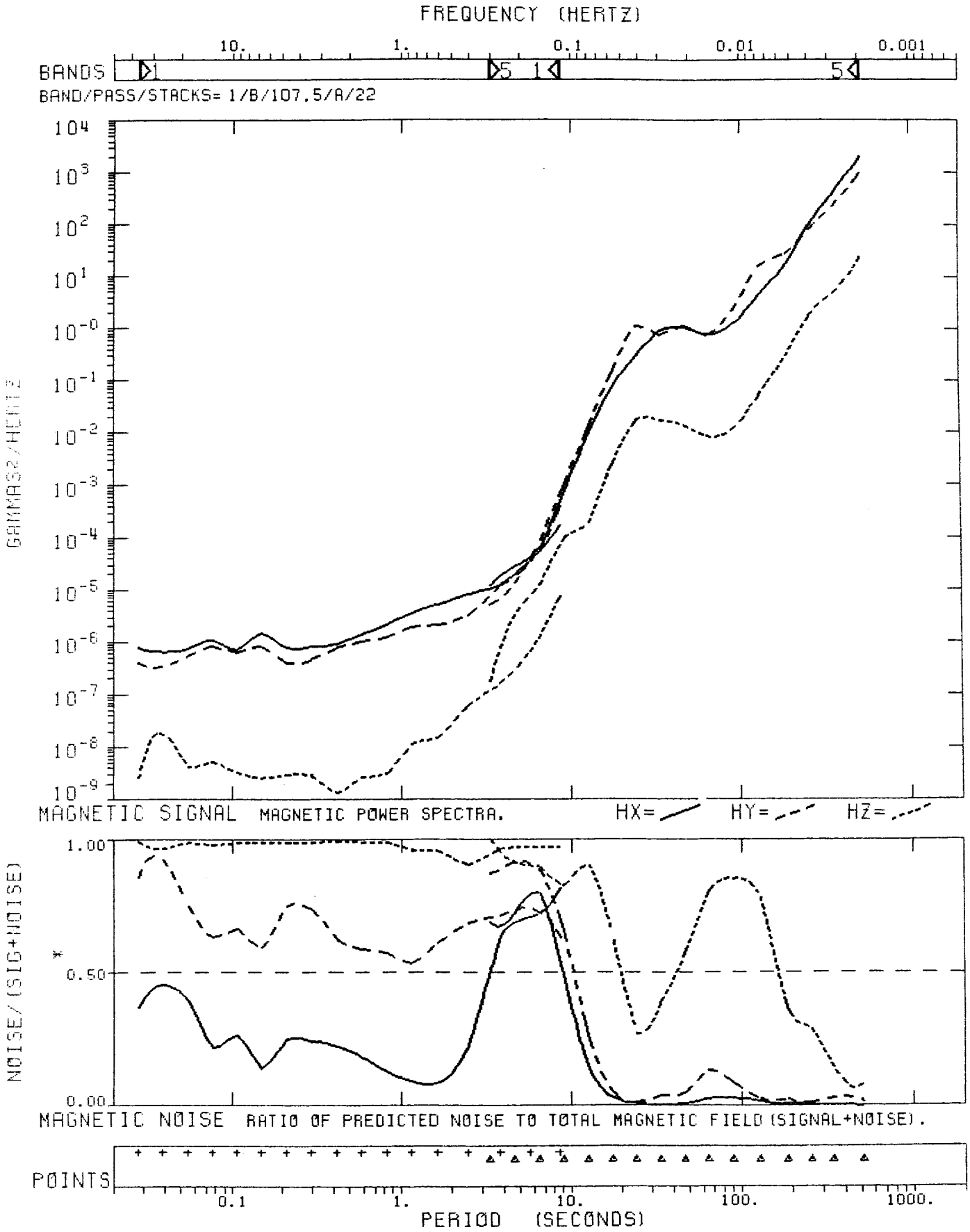
GLASS MOUNTAIN, CA. --STA.07 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 07

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

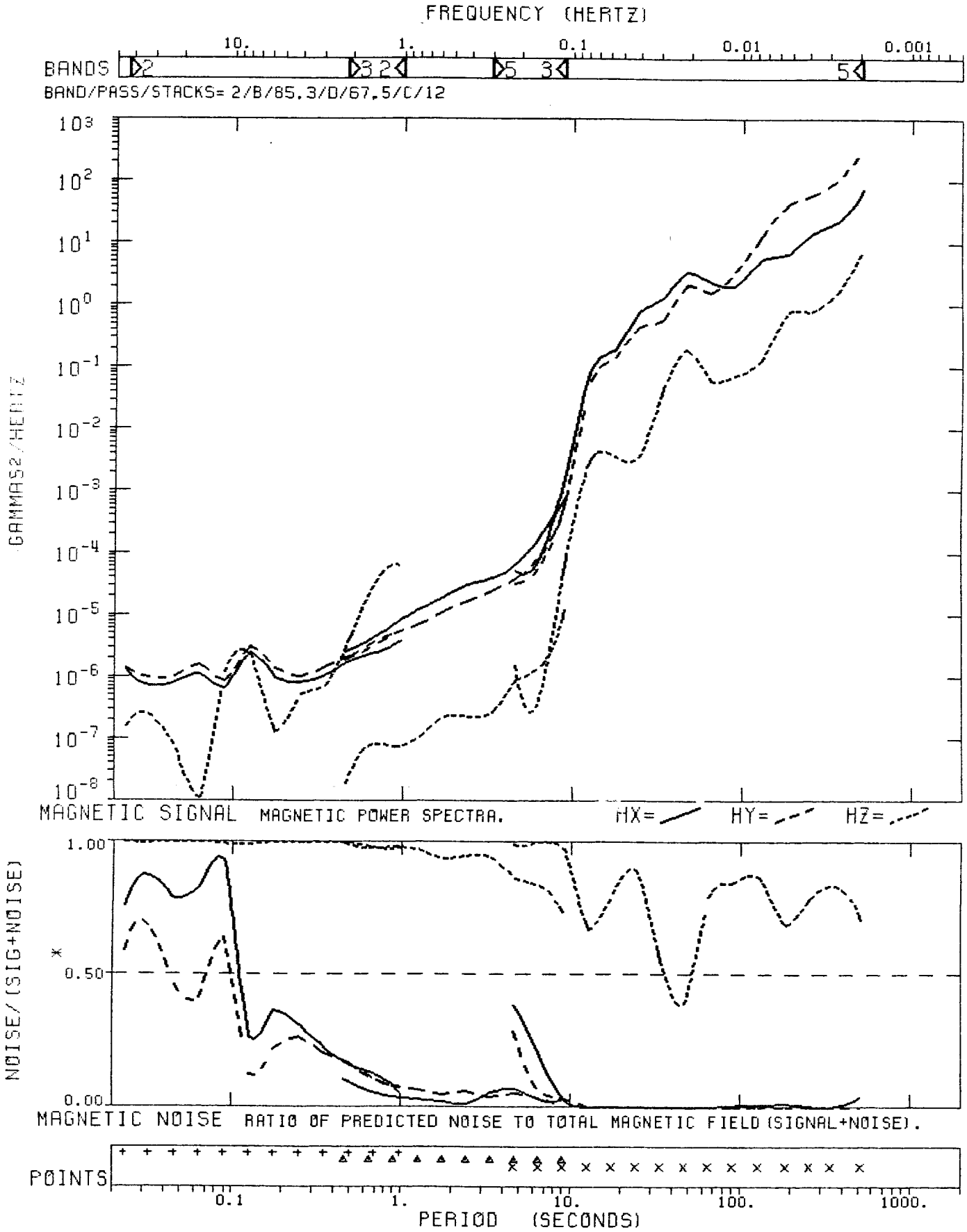
GLASS MOUNTAIN, CA.□ --STA.08 04-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 15

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

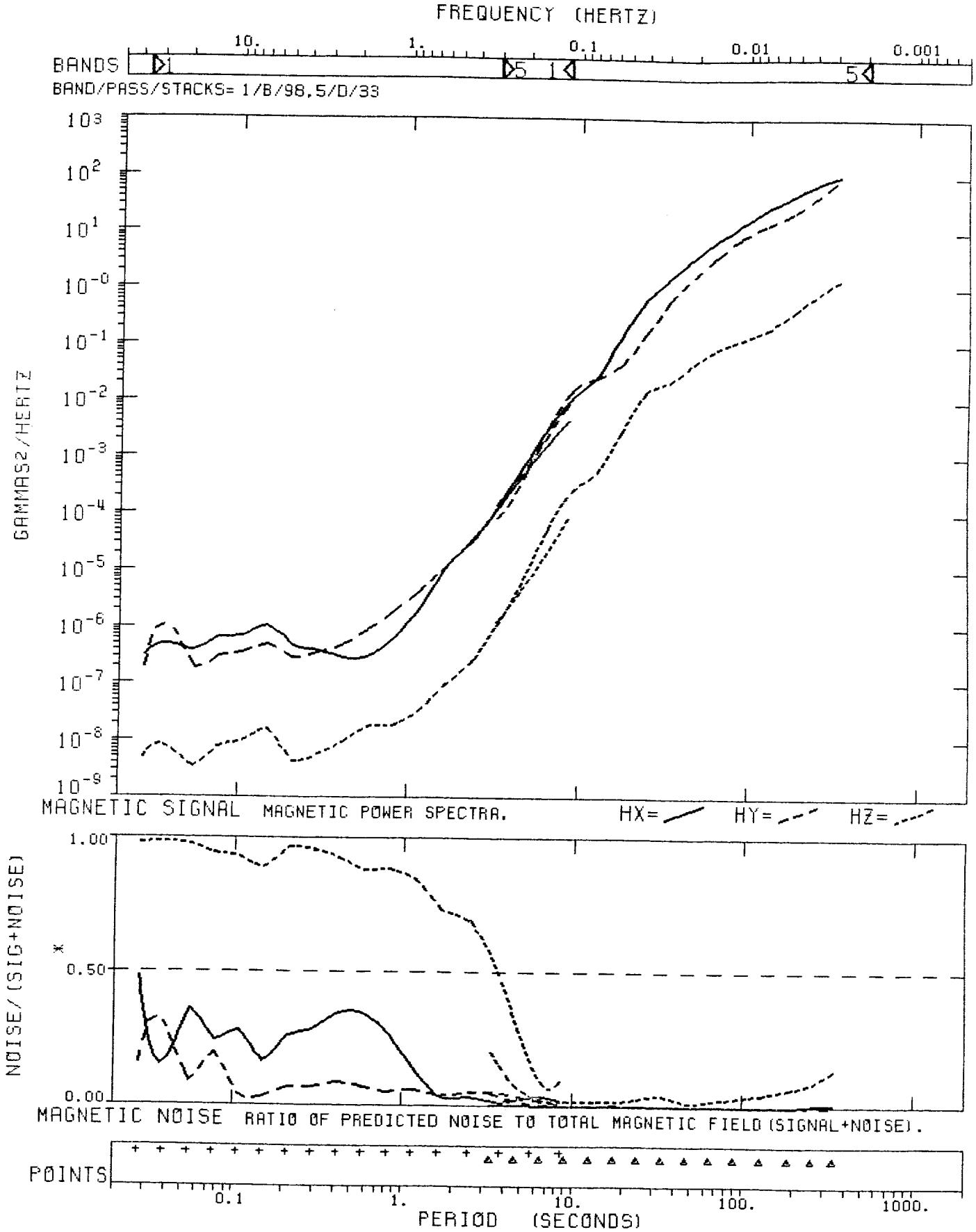
GLASS MOUNTAIN, CA.□ --STA.09 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 05

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

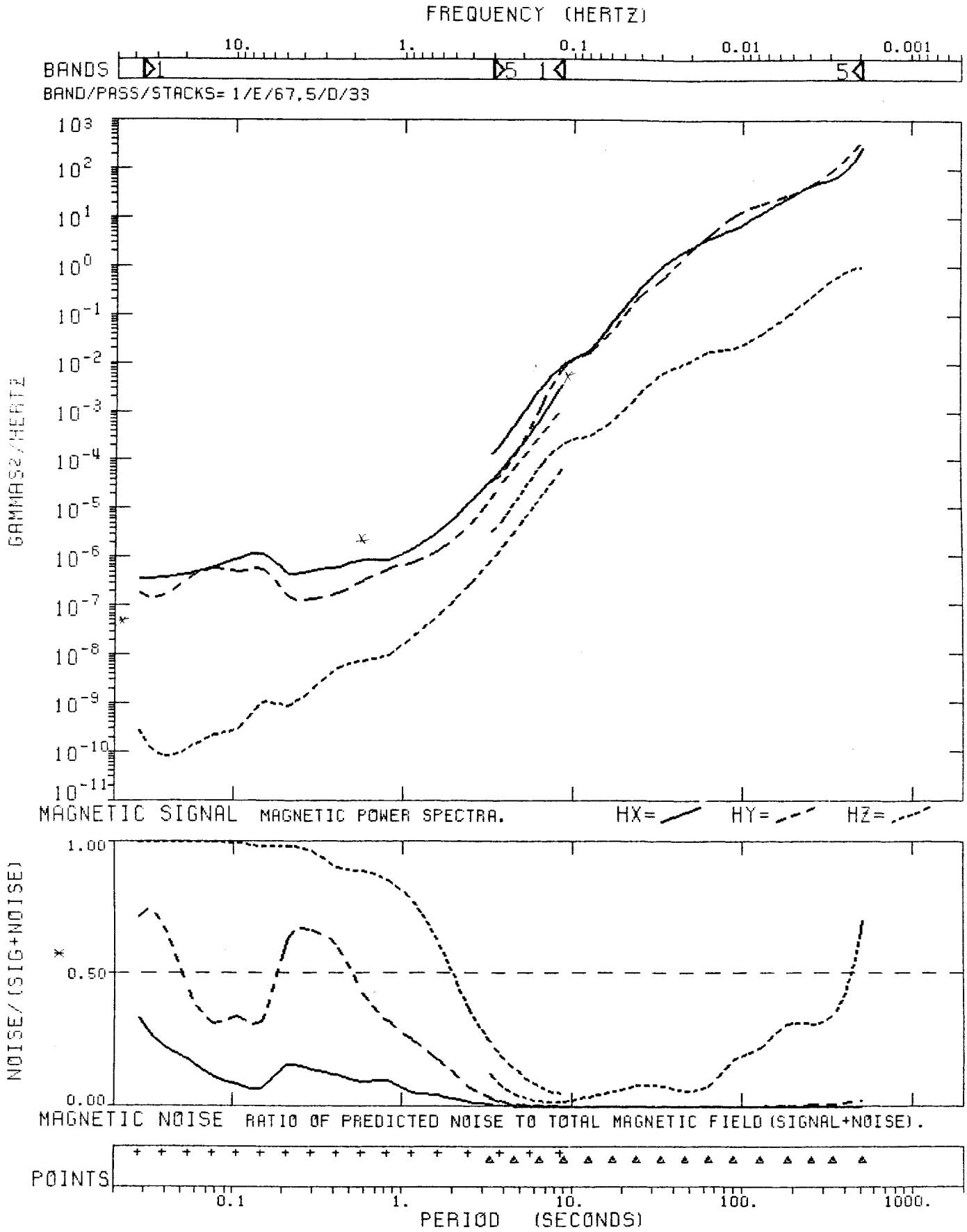
GLASS MOUNTAIN, CA. --STA.10 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 12

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

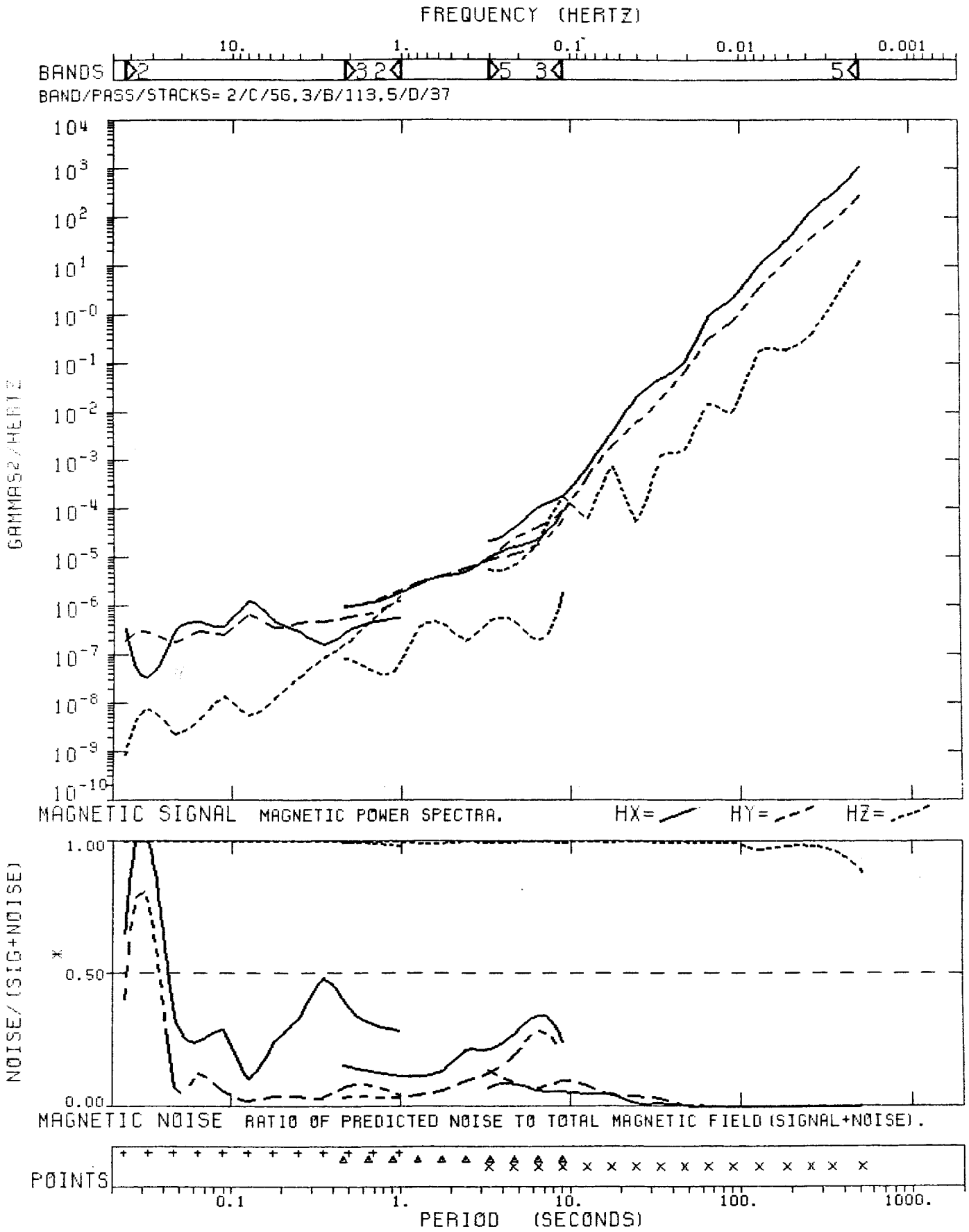
GLASS MOUNTAIN, CA. -- STA. 11 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 11

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

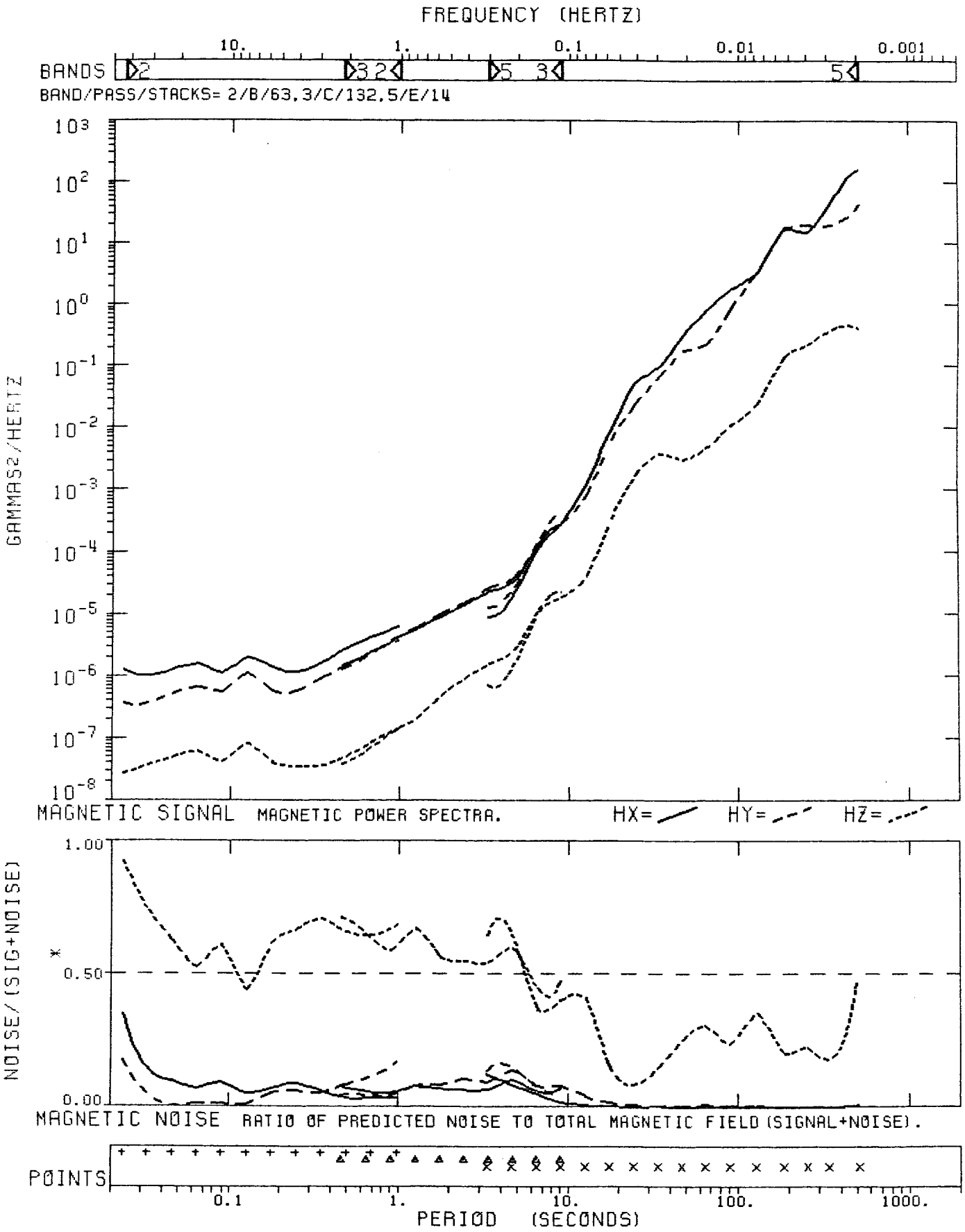
GLASS MOUNTAIN, CA.□--STA.12 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 18

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

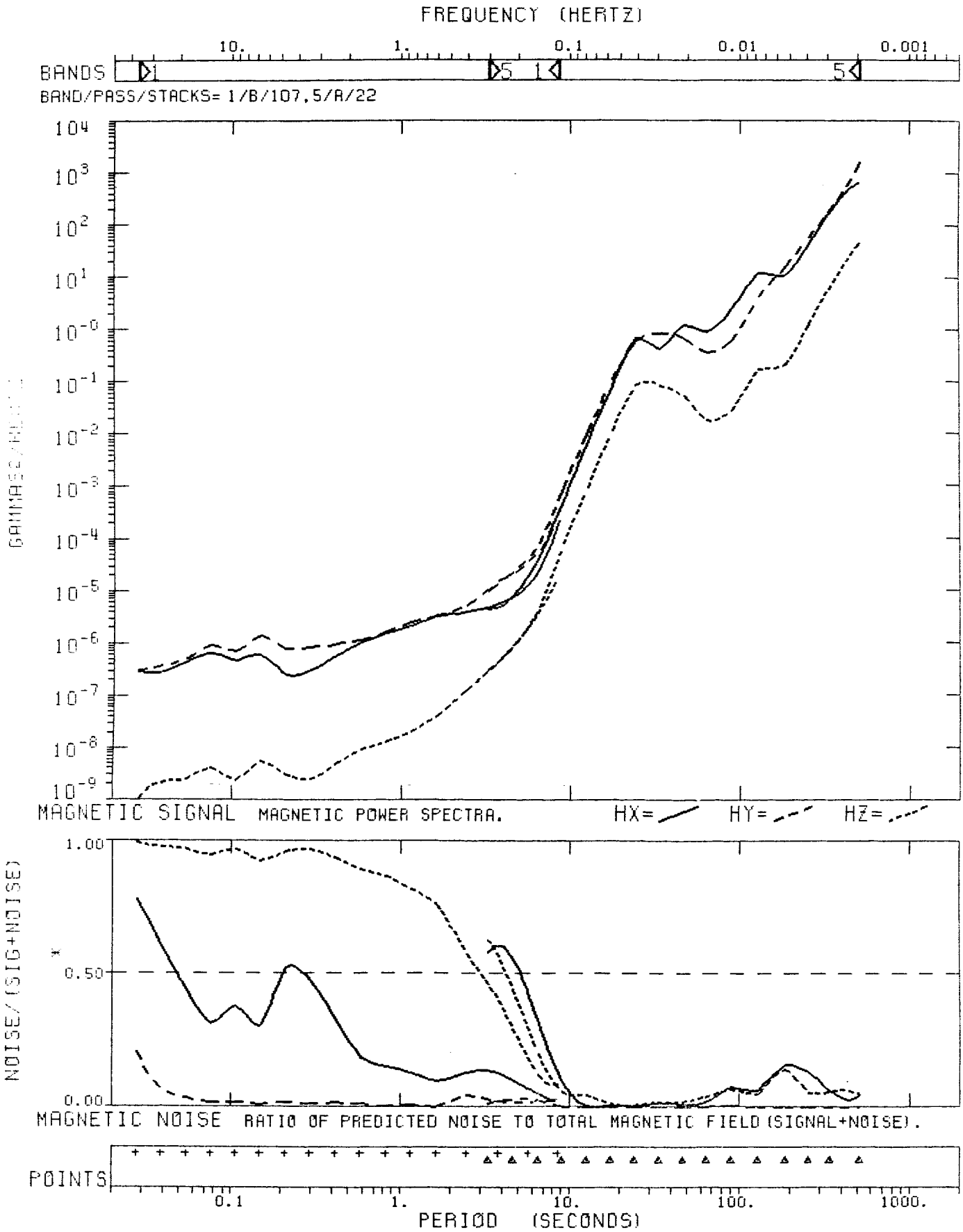
GLASS MOUNTAIN, CA. --STA.13 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 02

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

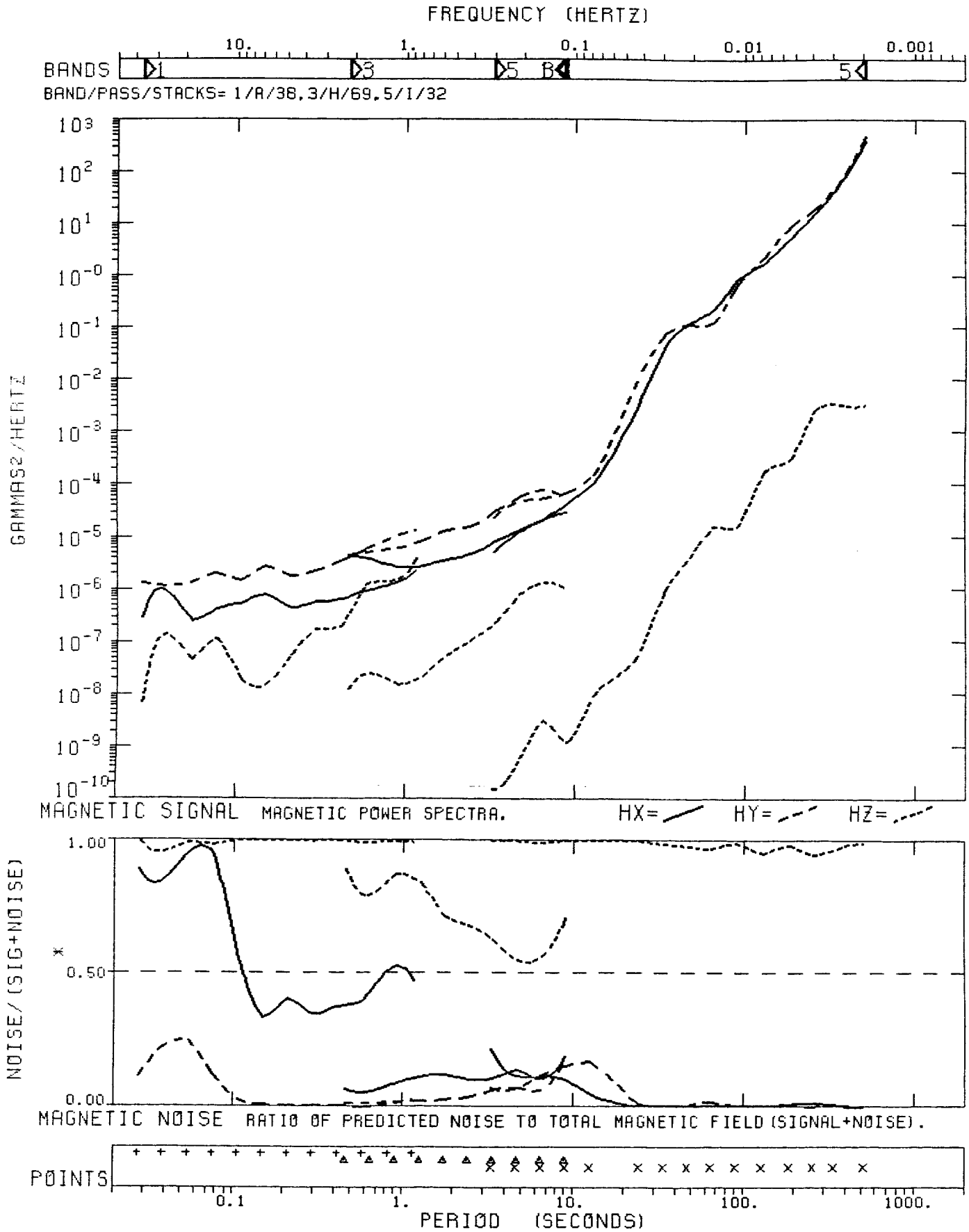
GLASS MOUNTAIN, CA. --STA.14 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 09

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

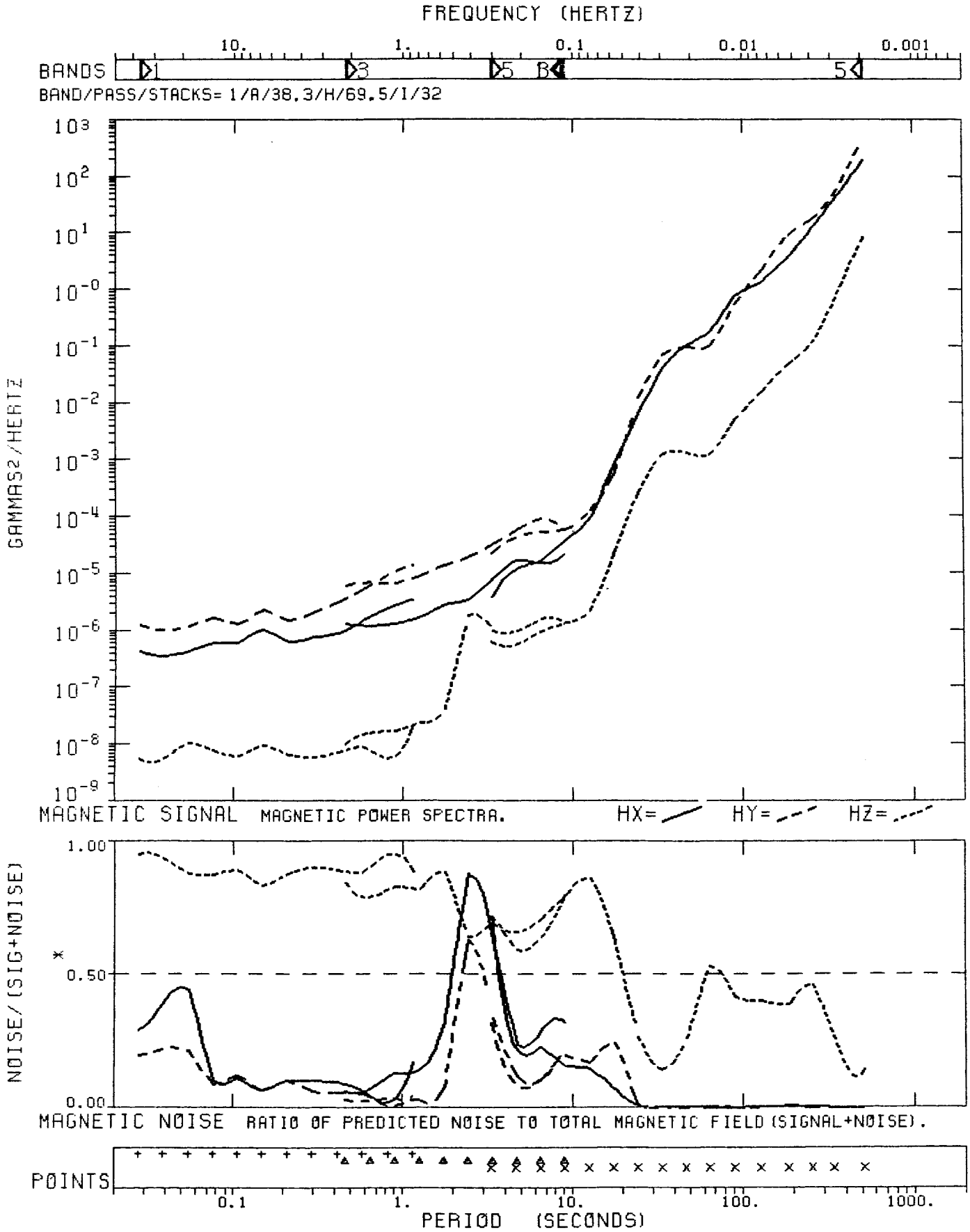
GLASS MOUNTAIN, CA. --STA.15 01-OCT-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 17

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

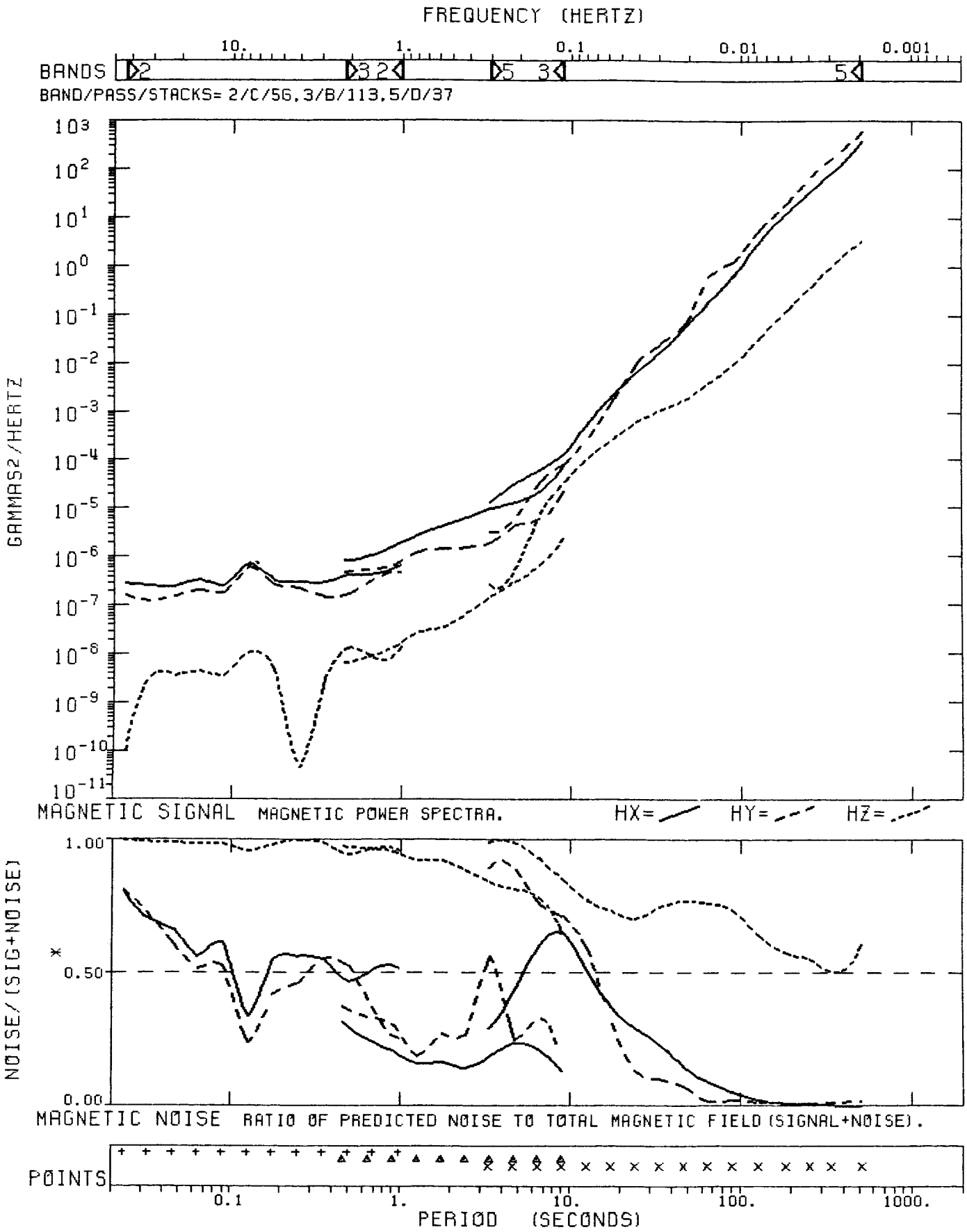
GLASS MOUNTAIN, CA. -- STA. 16 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 16

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

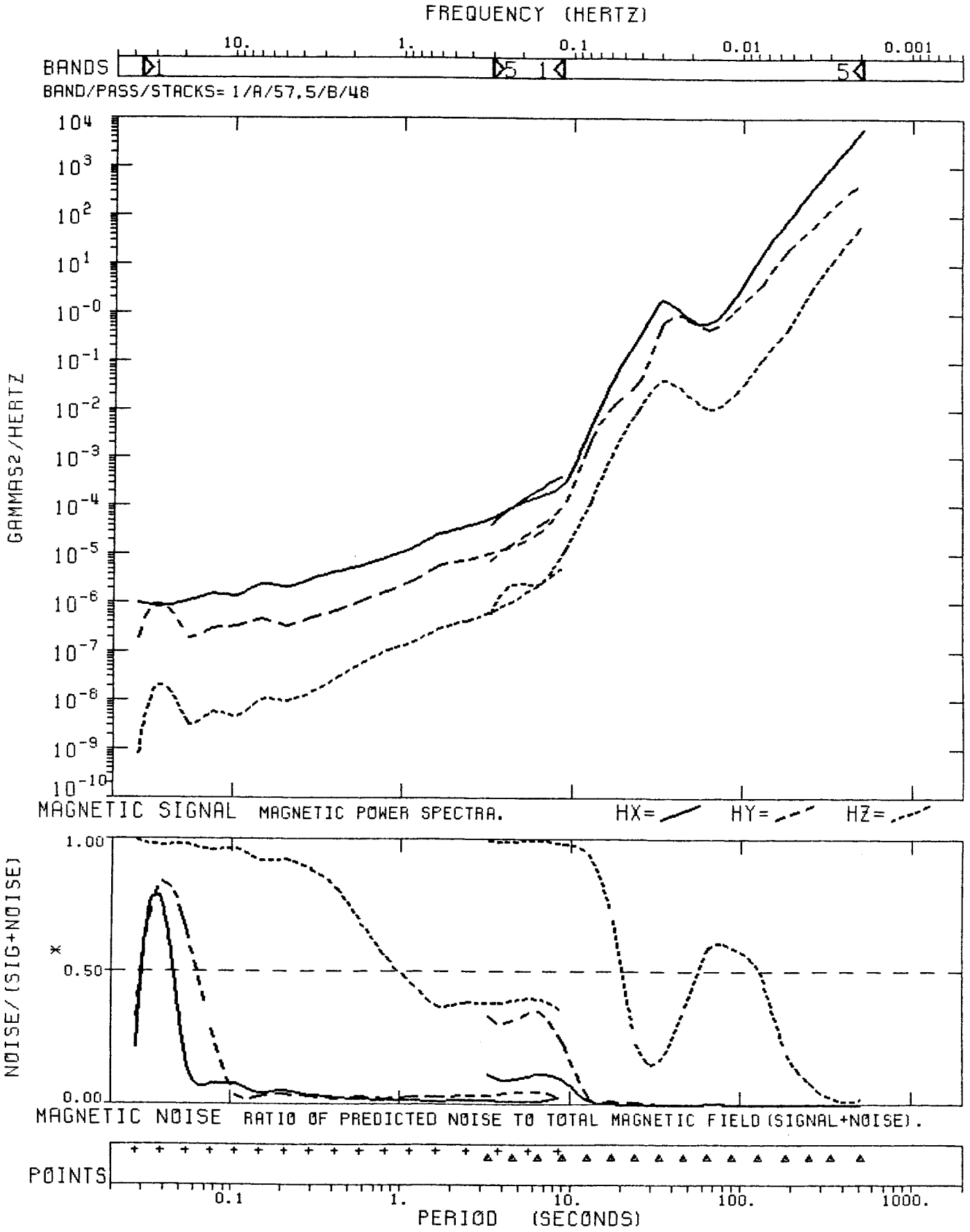
GLASS MOUNTAIN, CA.□--STA.17 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 13

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

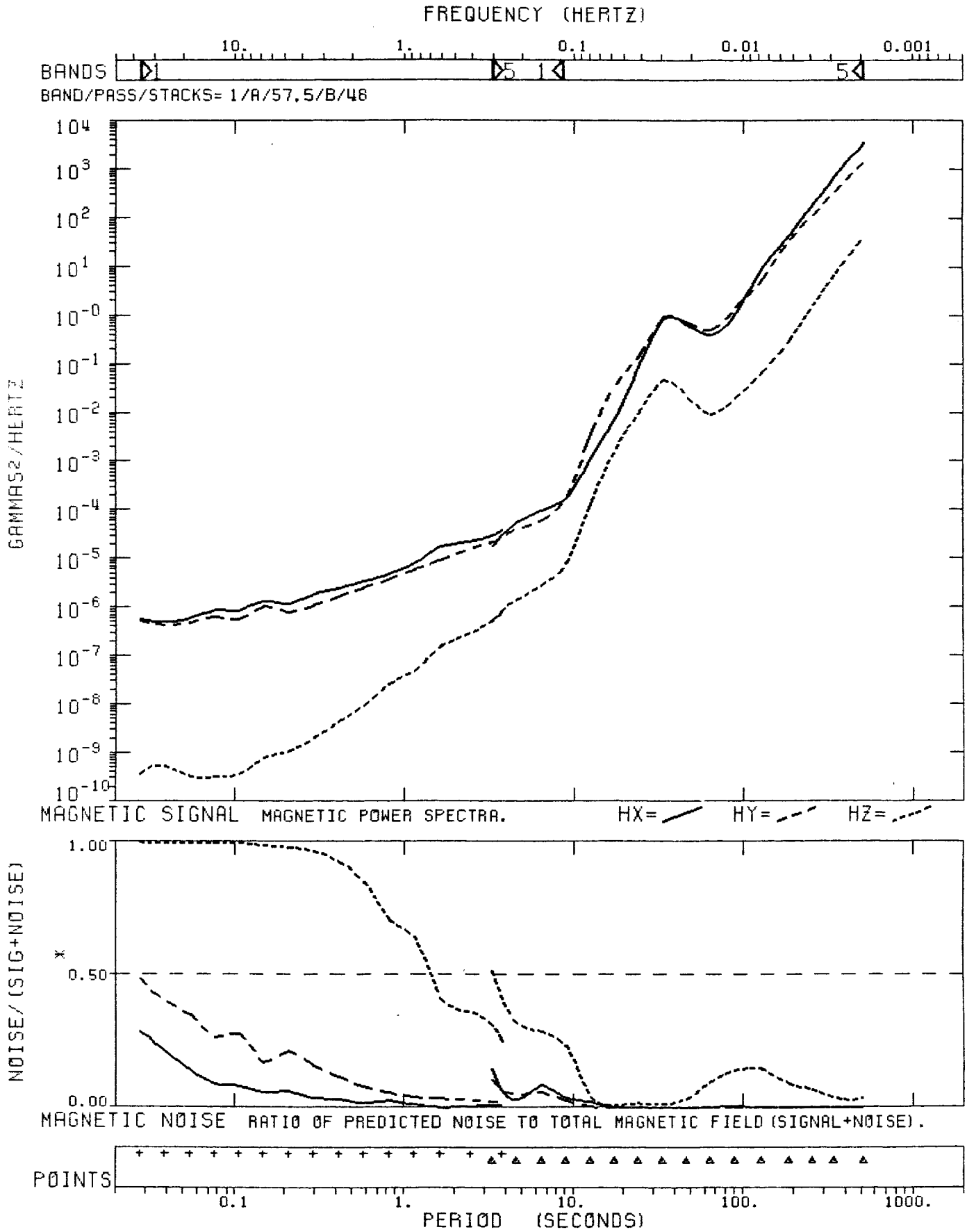
GLASS MOUNTAIN, CA. --STA.18 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 20

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

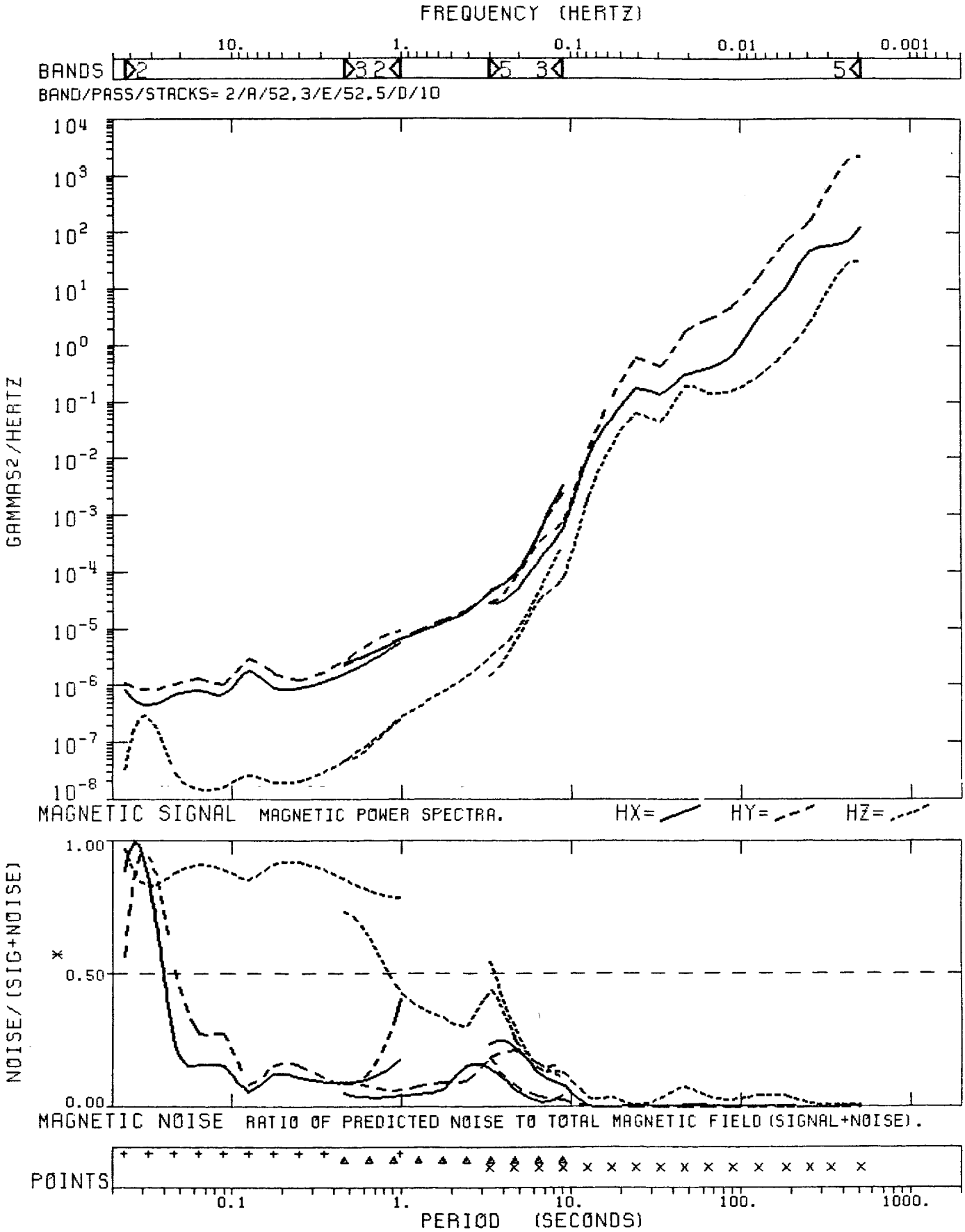
GLASS MOUNTAIN, CA. --STA.19 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 19

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

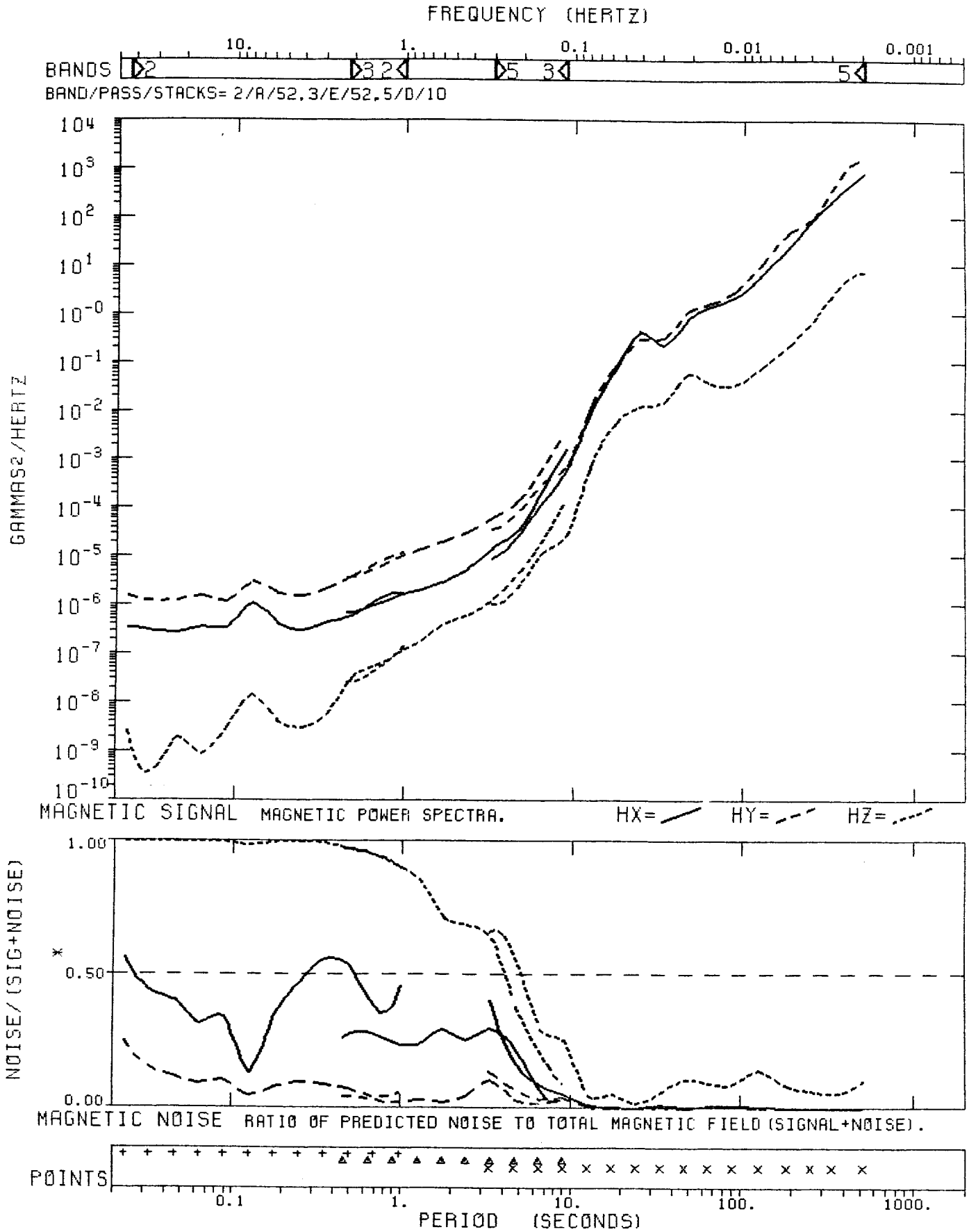
GLASS MOUNTAIN, CA. --STA.20 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 22

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

GLASS MOUNTAIN, CA. --STA.21 28-SEP-81 WOODWARD-CLYDE CONSULTANTS



REMOTE REF TO STA. 21

*PREDICTED NOISE RATIO ABOVE 0.5 IMPLIES NOISE EXCEEDS SIGNAL.

GLASS MOUNTAIN, CA. --STA.22 28-SEP-81 WOODWARD-CLYDE CONSULTANTS

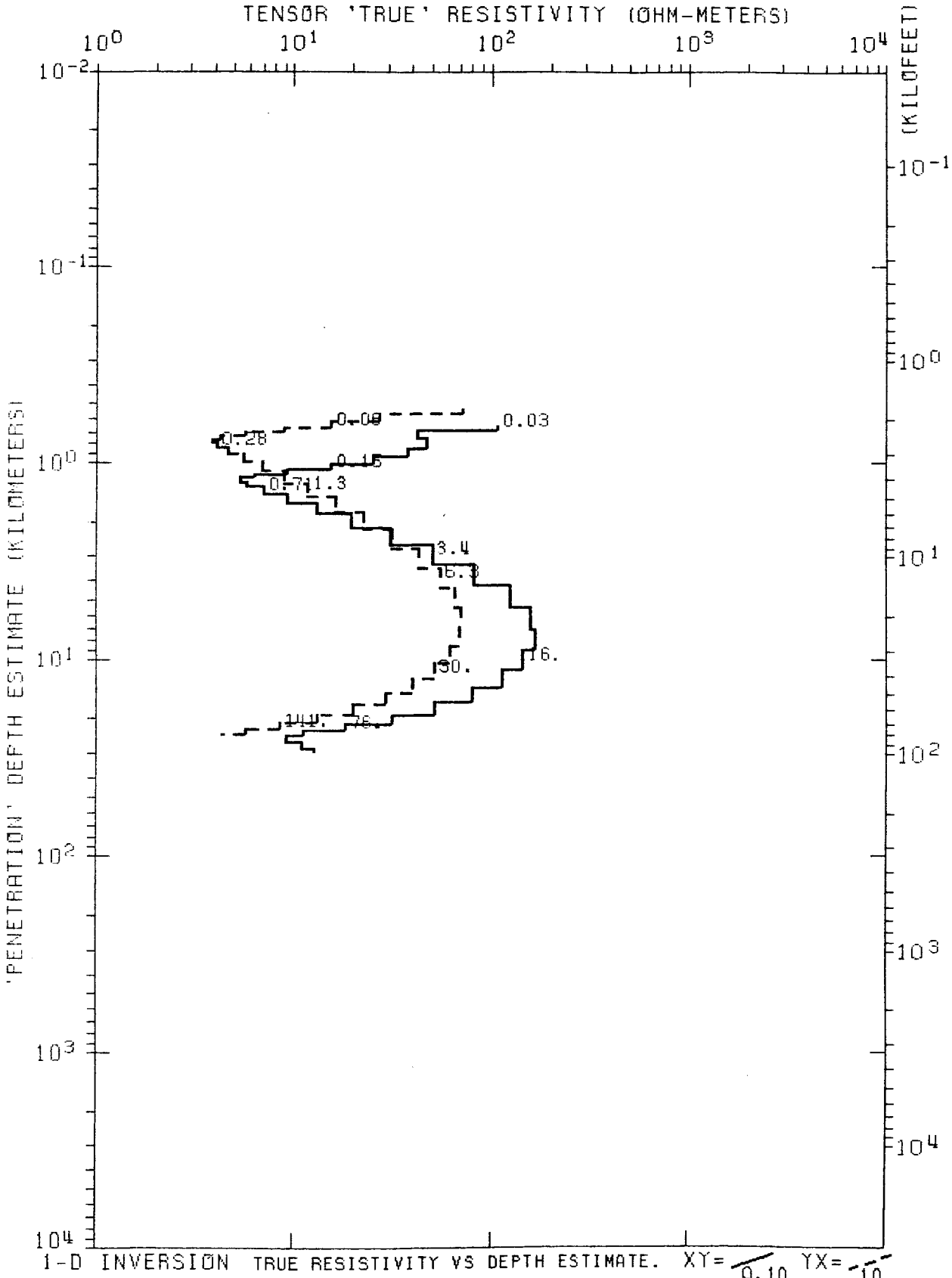
APPENDIX VIIIF
BOSTICK DEPTH INVERSION

Depth inversion plots are a simple graph of the 'true' resistivity as estimated by Bostick's apparent resistivity slope algorithm, versus the 'penetration' depth estimated by $D = 0.3 \sqrt{\rho T}$. Both scales are logarithmic. Resistivity is in ohm-meters, and will be scaled over 4 or 5 decades. Depth is in kilometers, and will be scaled over 6 decades. These limitations result in a square grid plot that can be easily compared, because the ranges of inversion data over a survey area will not be consistent or predictable.

Both magnitude and phase inversions are possible, where the phase data is first converted to apparent resistivities via a Hilbert transform. The magnitude inversion is generally supplied unless other arrangements have been made, or unless magnitude inversions appear questionable.

A solid step-curve is plotted from xy impedances, and a dashed curve from yx impedances. Each step corresponds to an interval from which the slope was taken, at a central period. The period and apparent resistivity used for the inversion are taken from the fit curves of Appendix VIII A, but the end of this curve is not used. At regular intervals this period at which the corresponding resistivity and depth were computed is listed alongside the related step. The inversion data are only a coarse estimate, and it sometimes happens that the computed depth does not increase continuously with period. In this case the plotted data pairs will have been ordered according to the depth estimate prior to plotting.

A station identification is limited to two alphanumeric characters, following a job or survey description (limited to 20 characters). The reference station identification is also given (note that whether the base or remote of a recording setup is the reference depends on which station is being plotted). The given date is the date the plot was generated, rather than when the data were recorded.



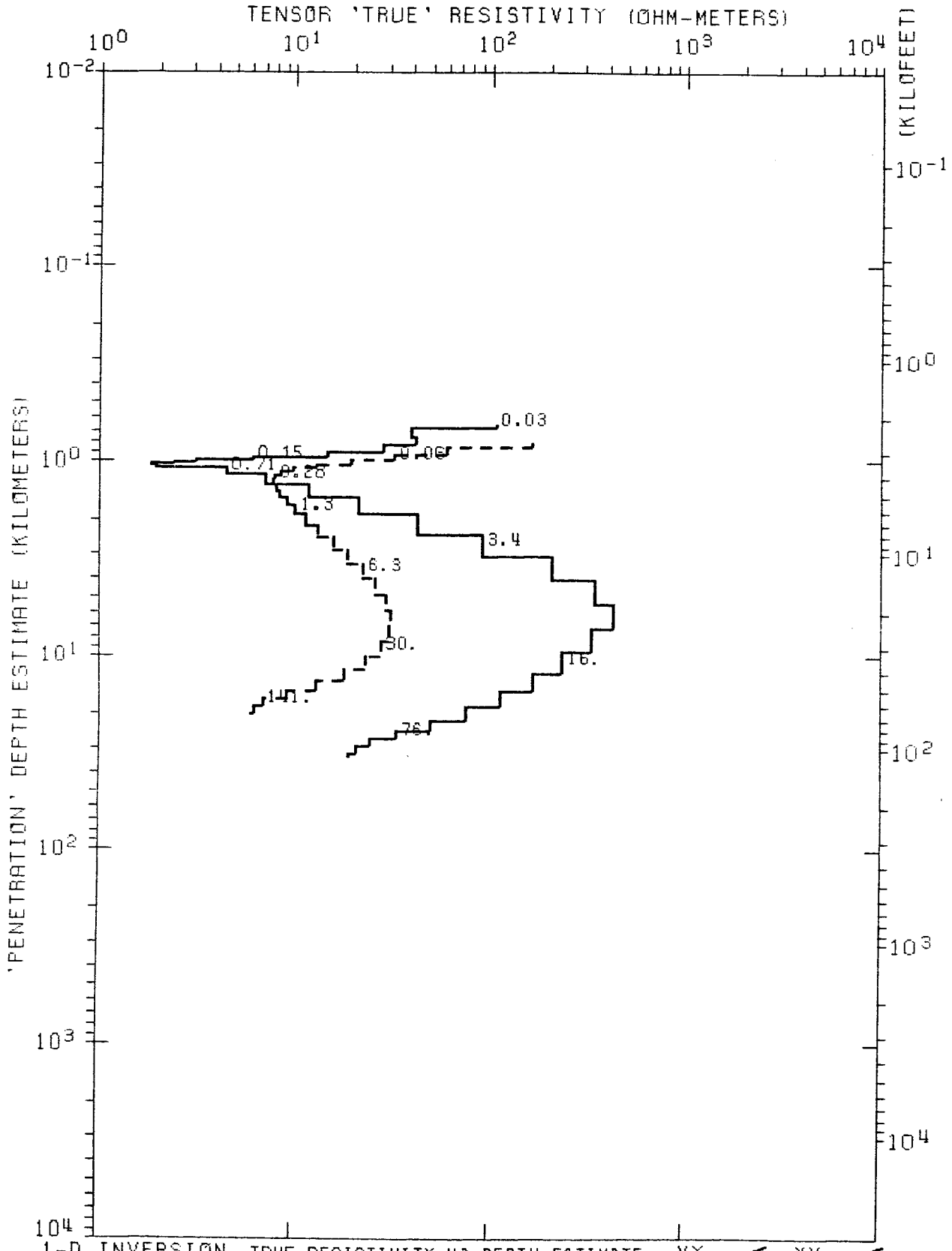
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/B/48,3/E/54,5/D/26
REMOTE REF TO STA.06 05-OCT-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.01

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

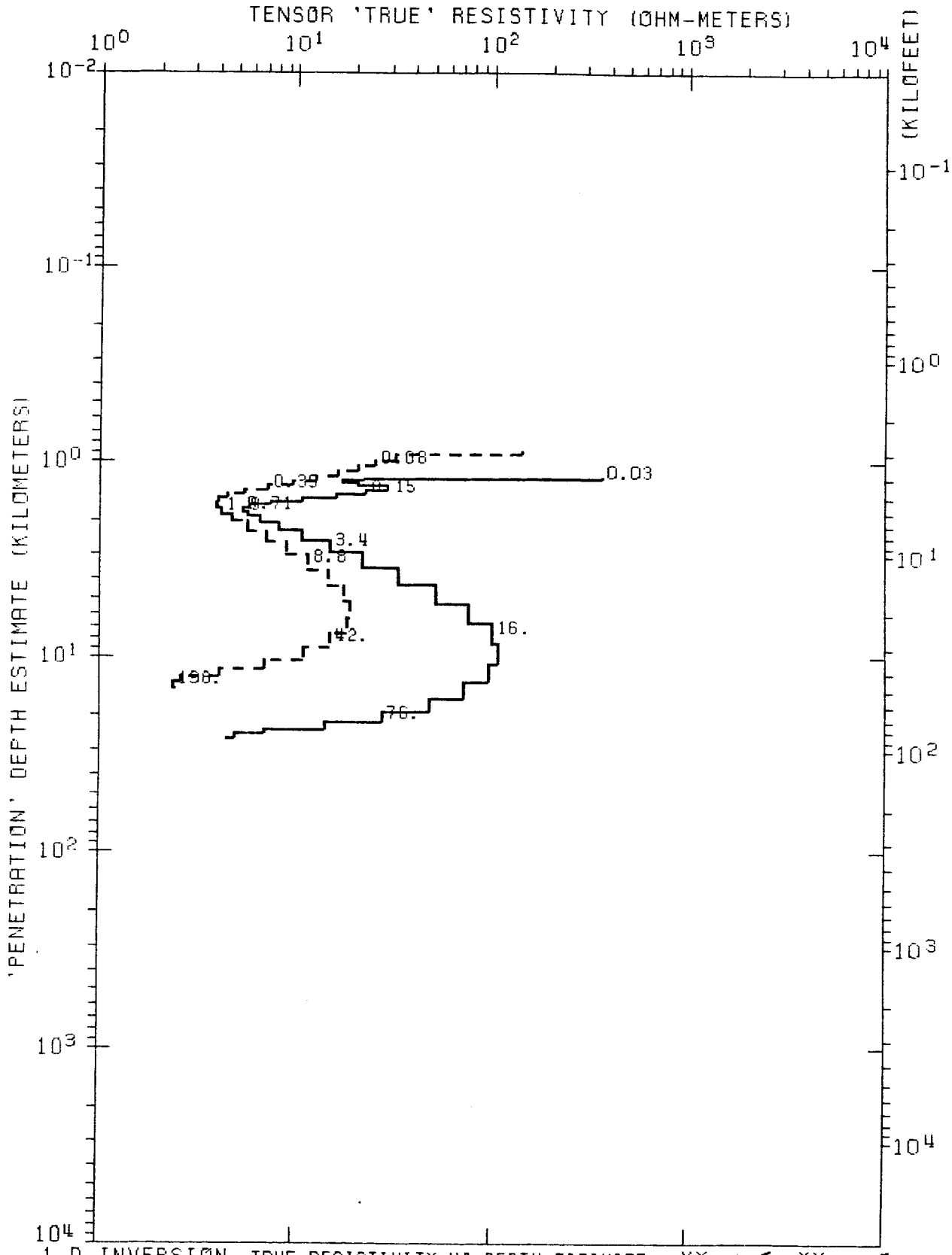
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/B/63,3/C/132,5/E/14
REMOTE REF TO STA.14 28-SEP-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA.□ --STA.02

WOODWARD-CLYDE CONSULTANTS



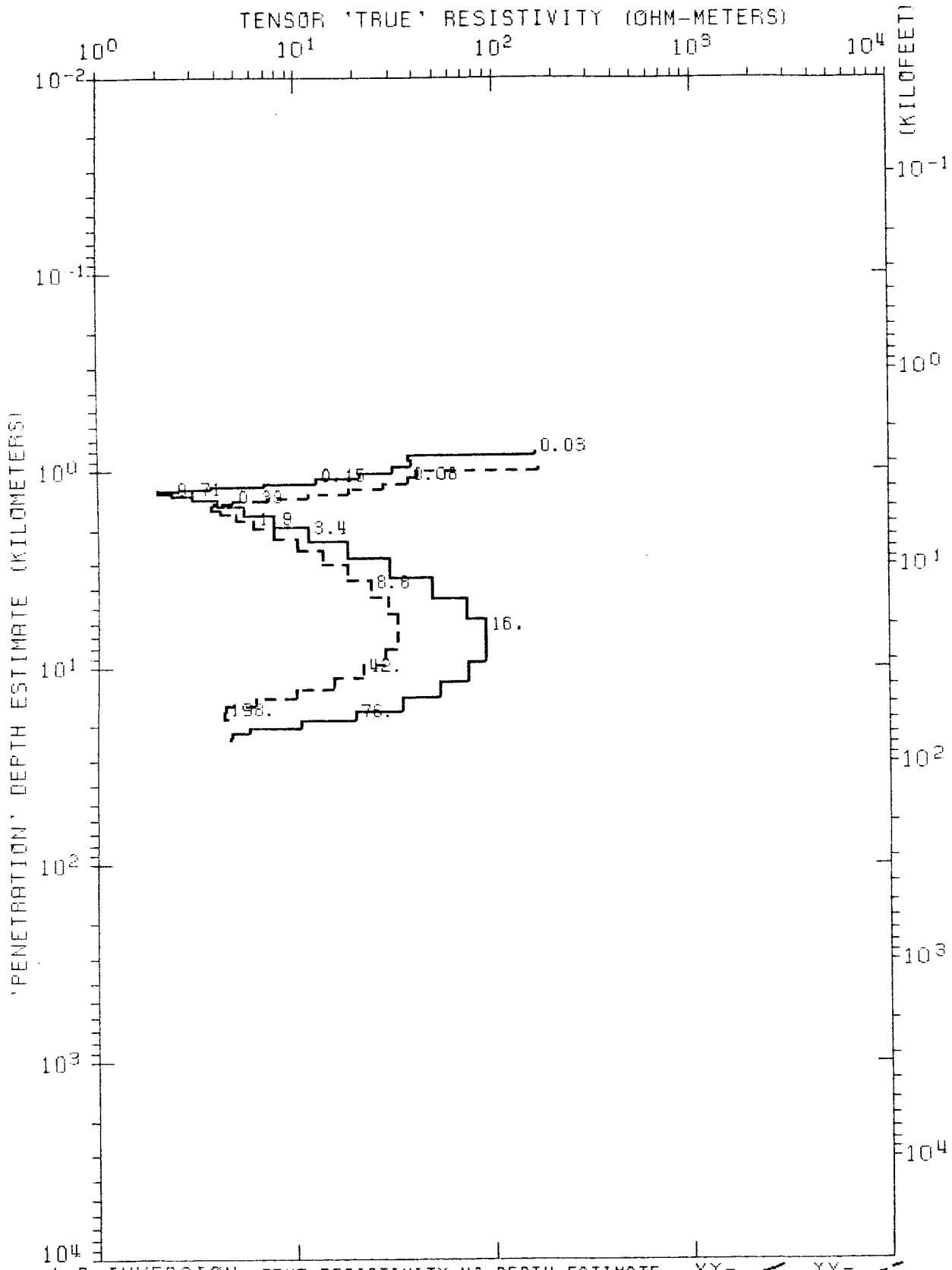
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/D/48,3/C/57,5/E/53
REMOTE REF TO STA.04 05-OCT-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.03

WOODWARD-CLYDE CONSULTANTS



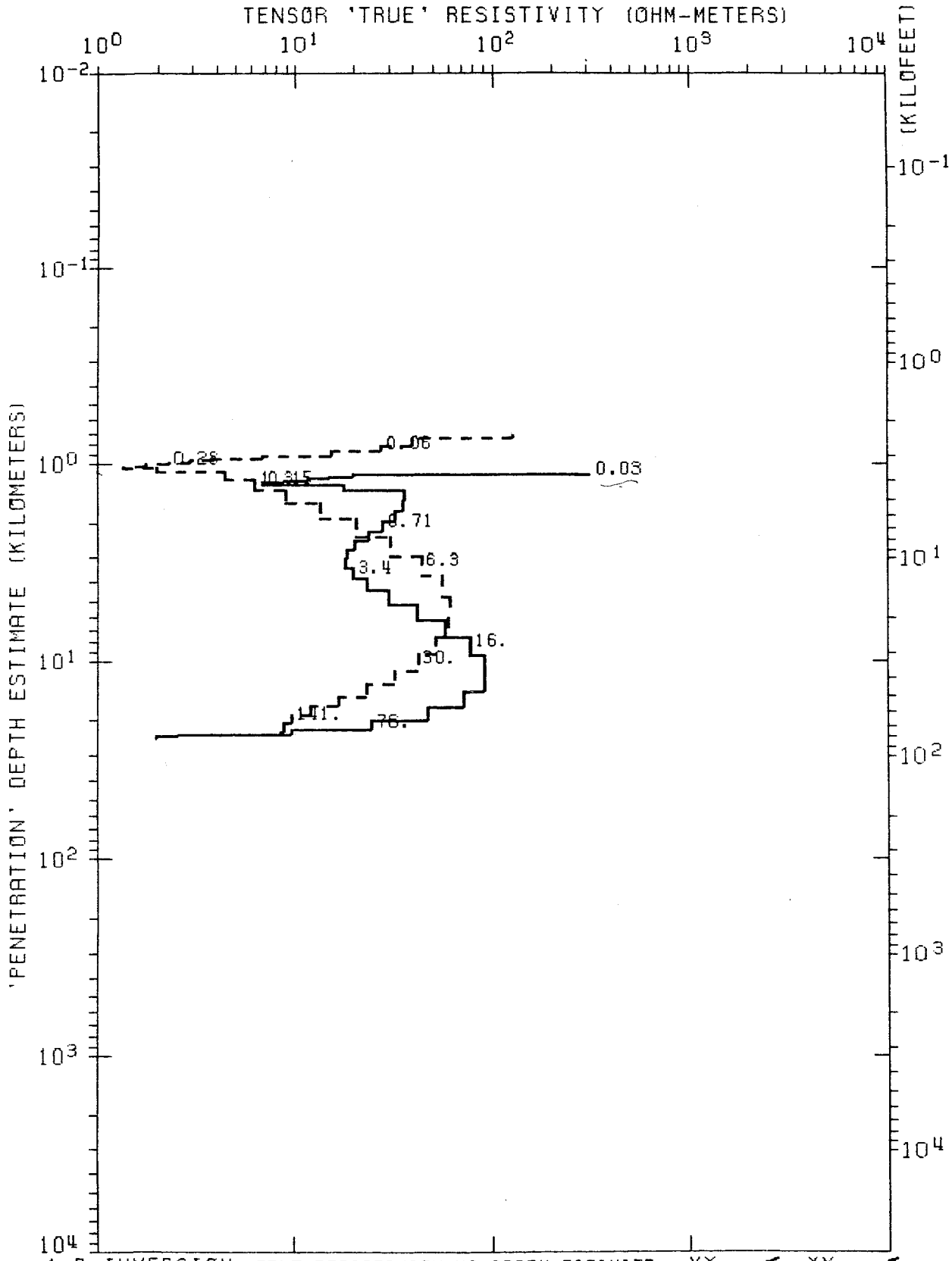
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/D/48,3/C/57,5/E/53
REMOTE REF TO STA.03 05-OCT-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA.□--STA.04

WOODWARD-CLYDE CONSULTANTS



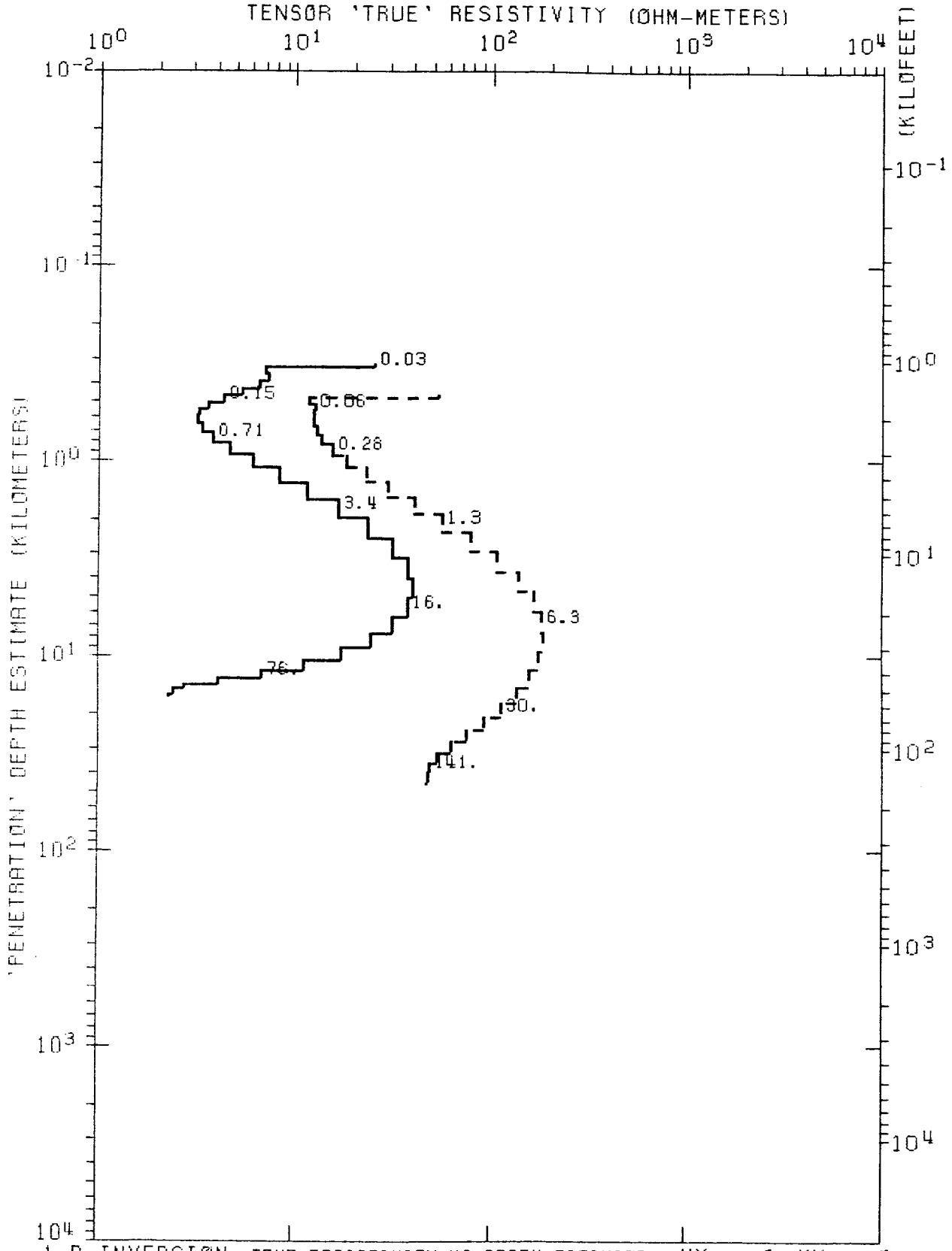
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/B/85.3/D/67.5/C/12
REMOTE REF TO STA.10 28-SEP-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.05

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/B/48,3/E/54,5/D/26

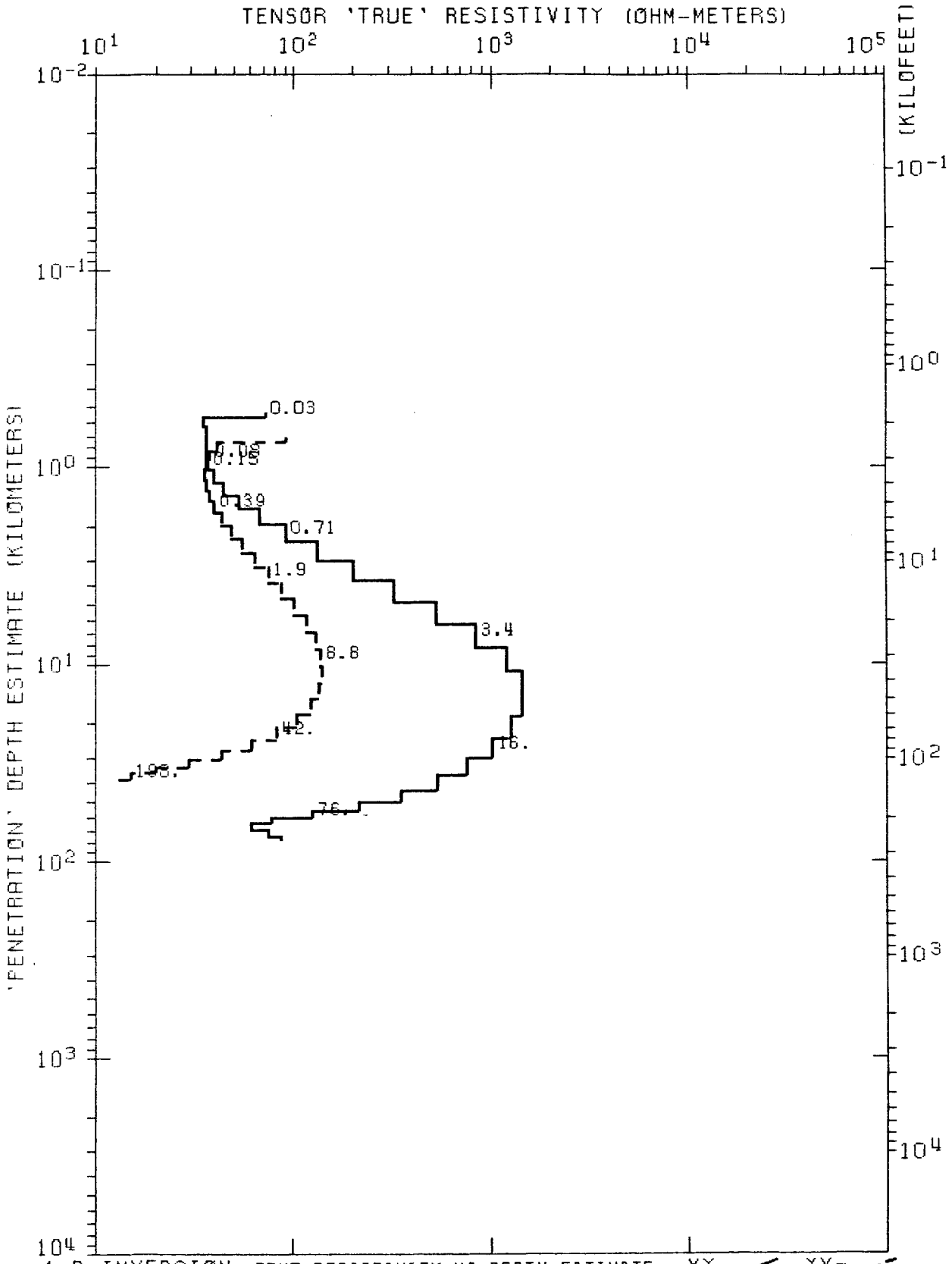
REMOTE REF TO STA.01 05-OCT-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.06

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/C/55, 3/B/176, 5/D/18

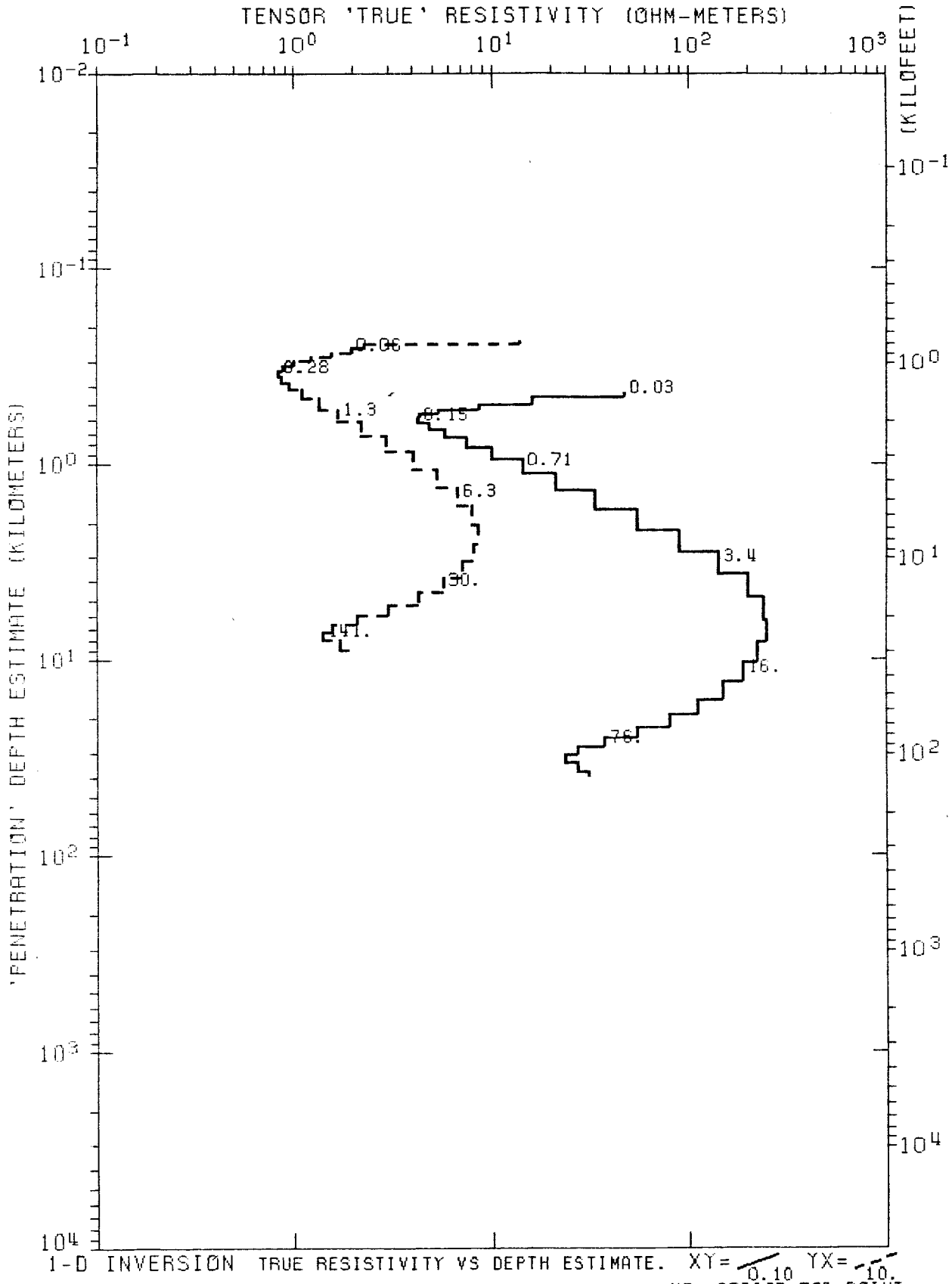
REMOTE REF TO STA.08 05-OCT-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.07

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/C/55,3/B/176,5/D/18

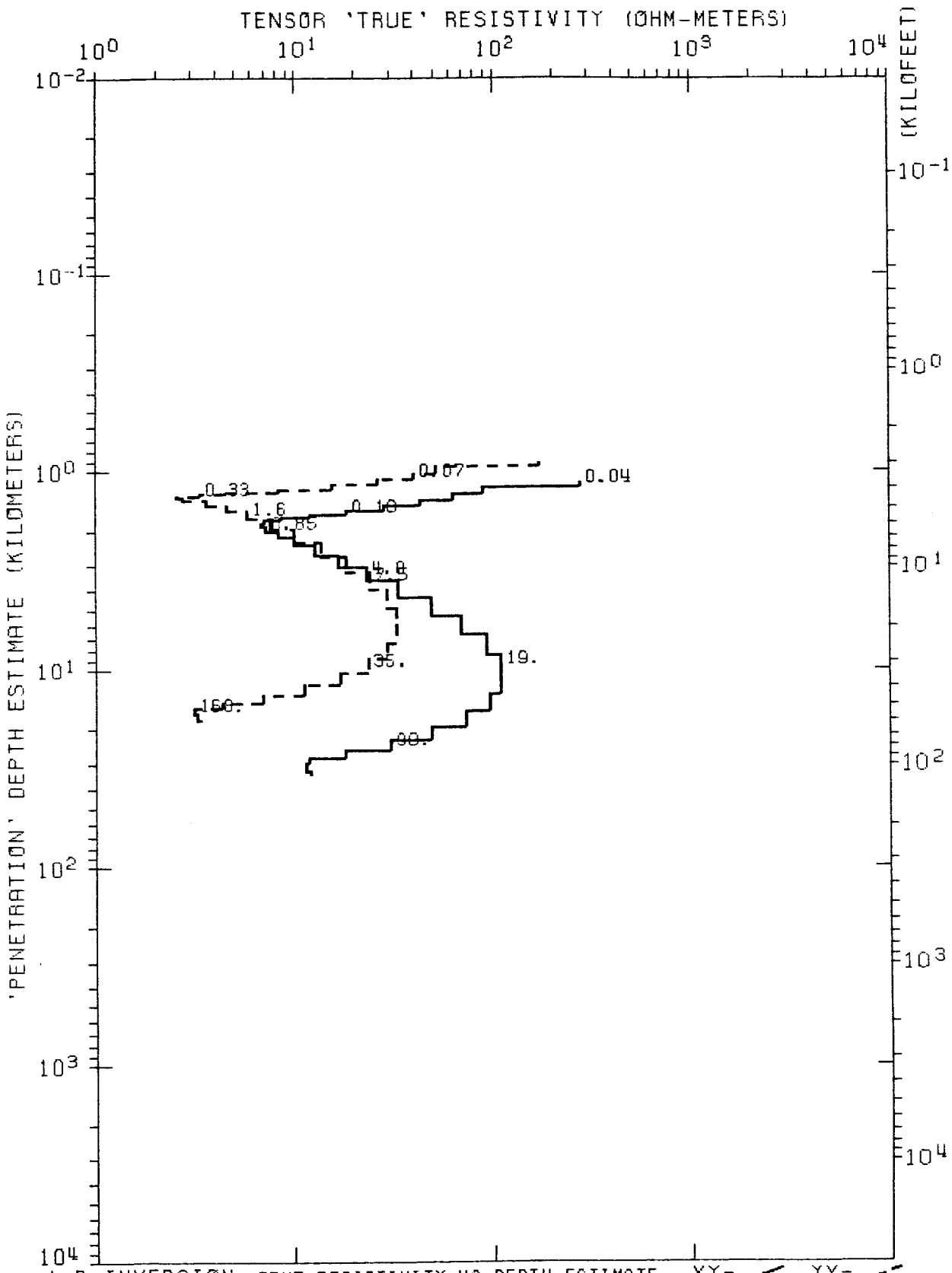
REMOTE REF TO STA.07 05-OCT-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA.□ --STA.08

WOODWARD-CLYDE CONSULTANTS



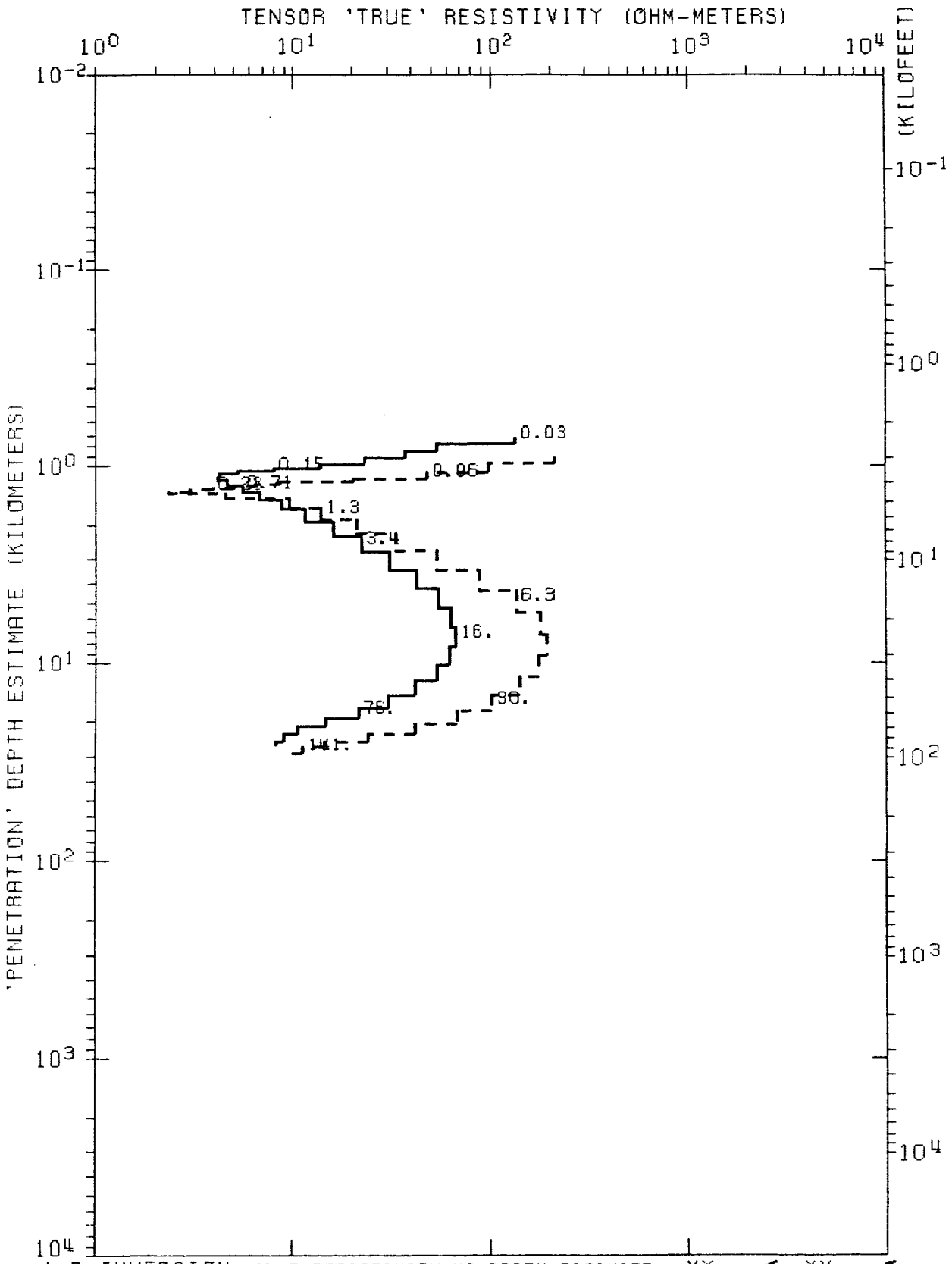
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 1/B/107.5/A/22
REMOTE REF TO STA.15 01-OCT-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. -- STA.09

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/B/85,3/D/67,5/C/12

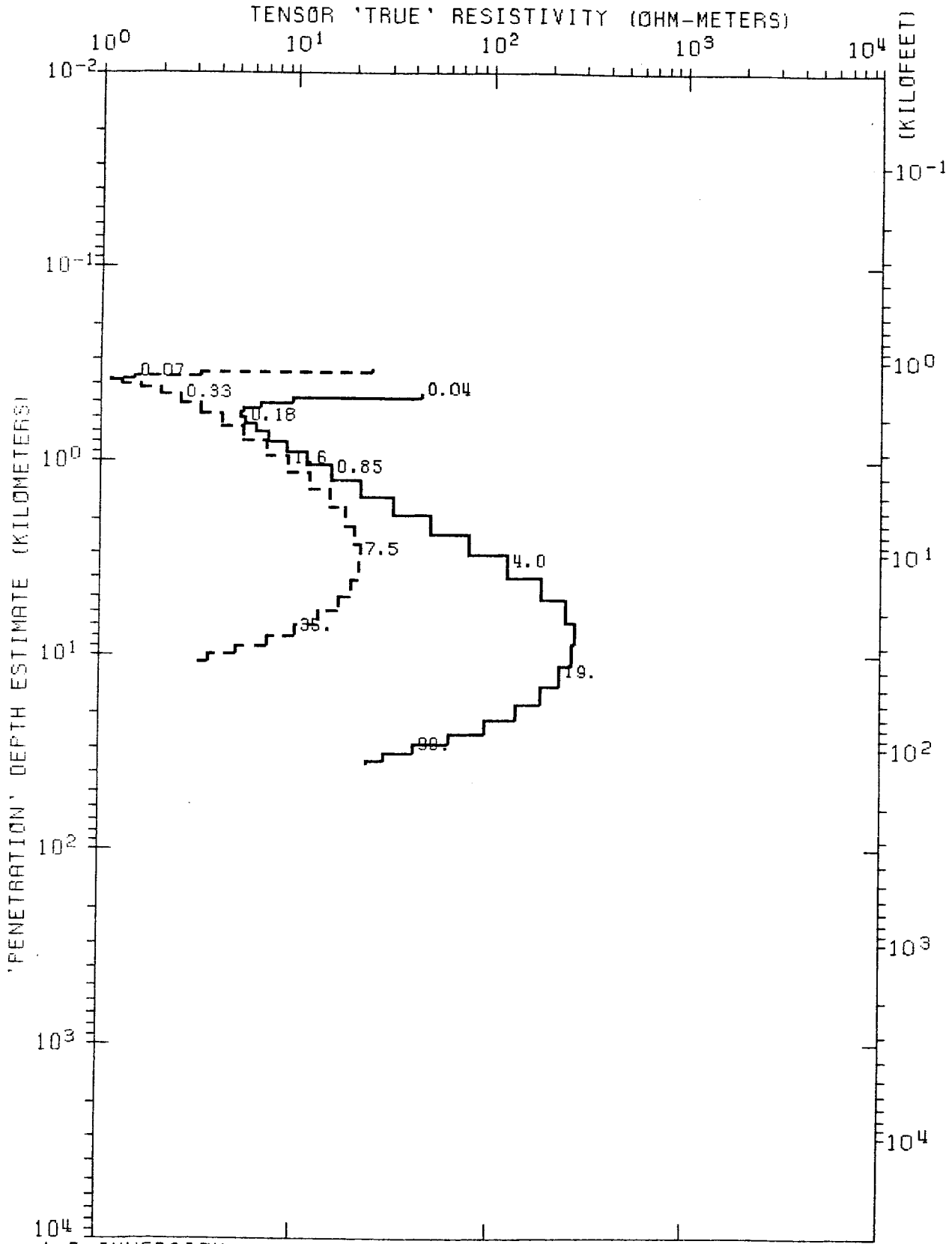
REMOTE REF TO STA.05 28-SEP-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.10

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 1/B/98,5/D/33

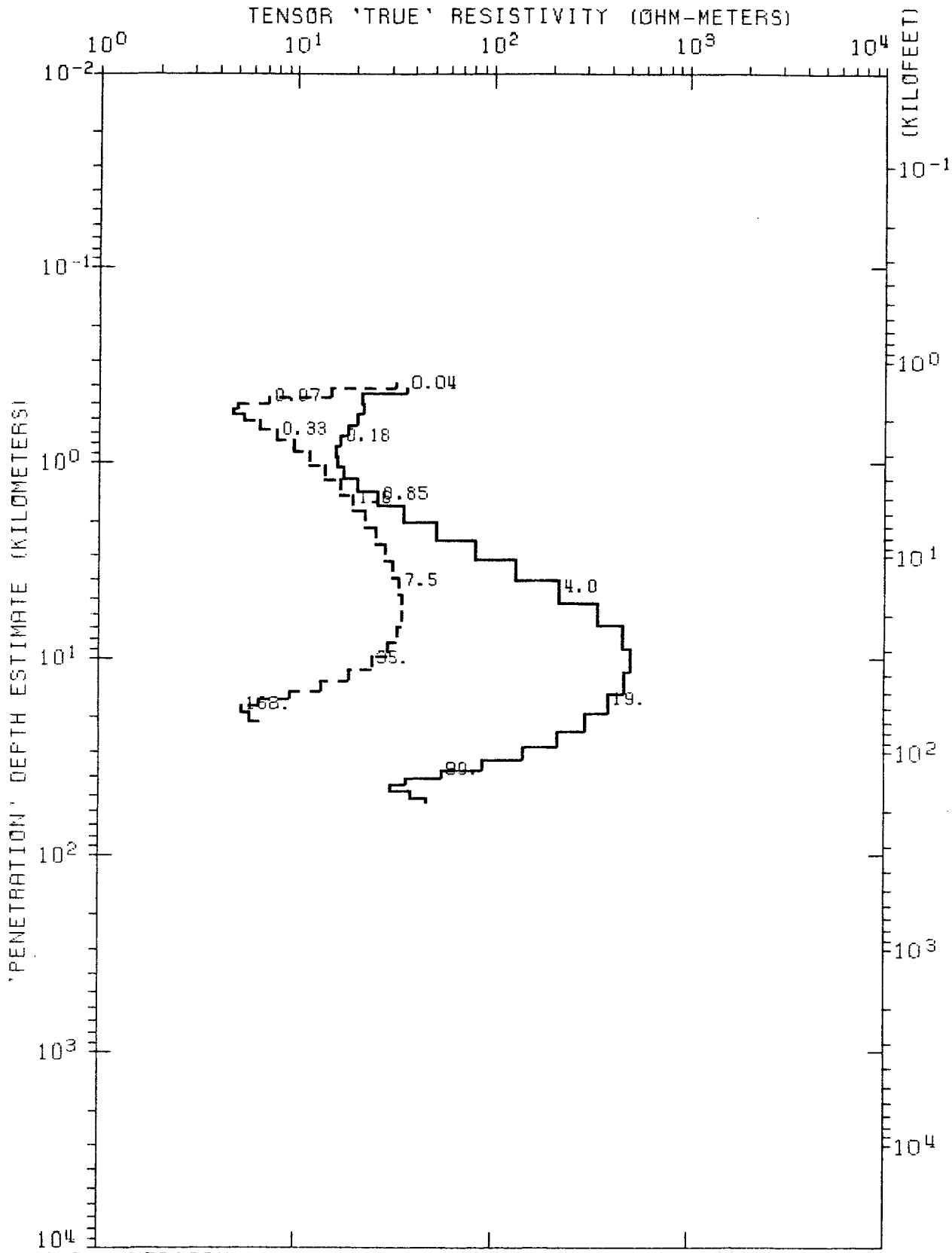
REMOTE REF TO STA.12 01-OCT-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.11

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 1/E/67.5/D/33

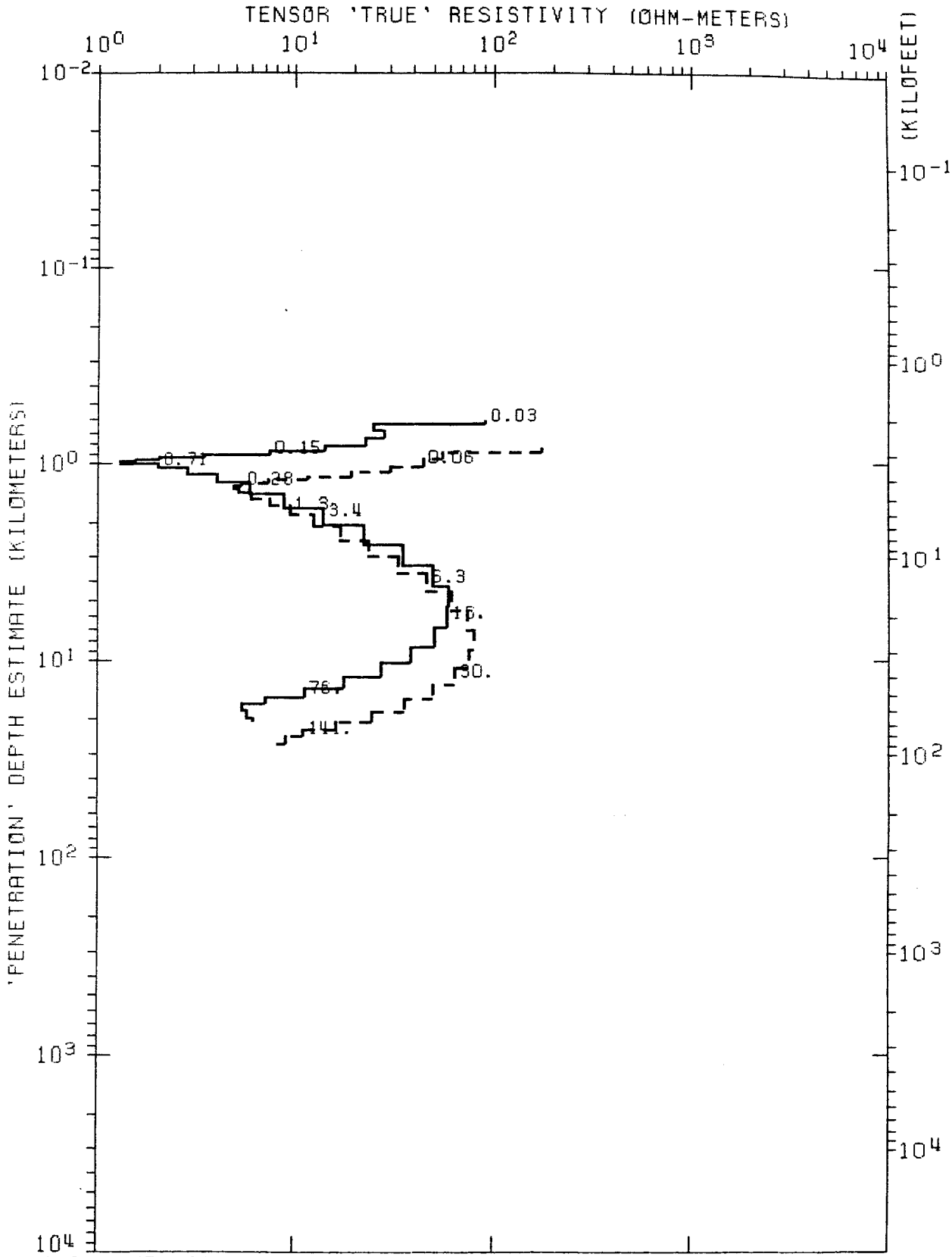
REMOTE REF TO STA.11 01-OCT-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.12

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/C/56,3/B/113,5/D/37

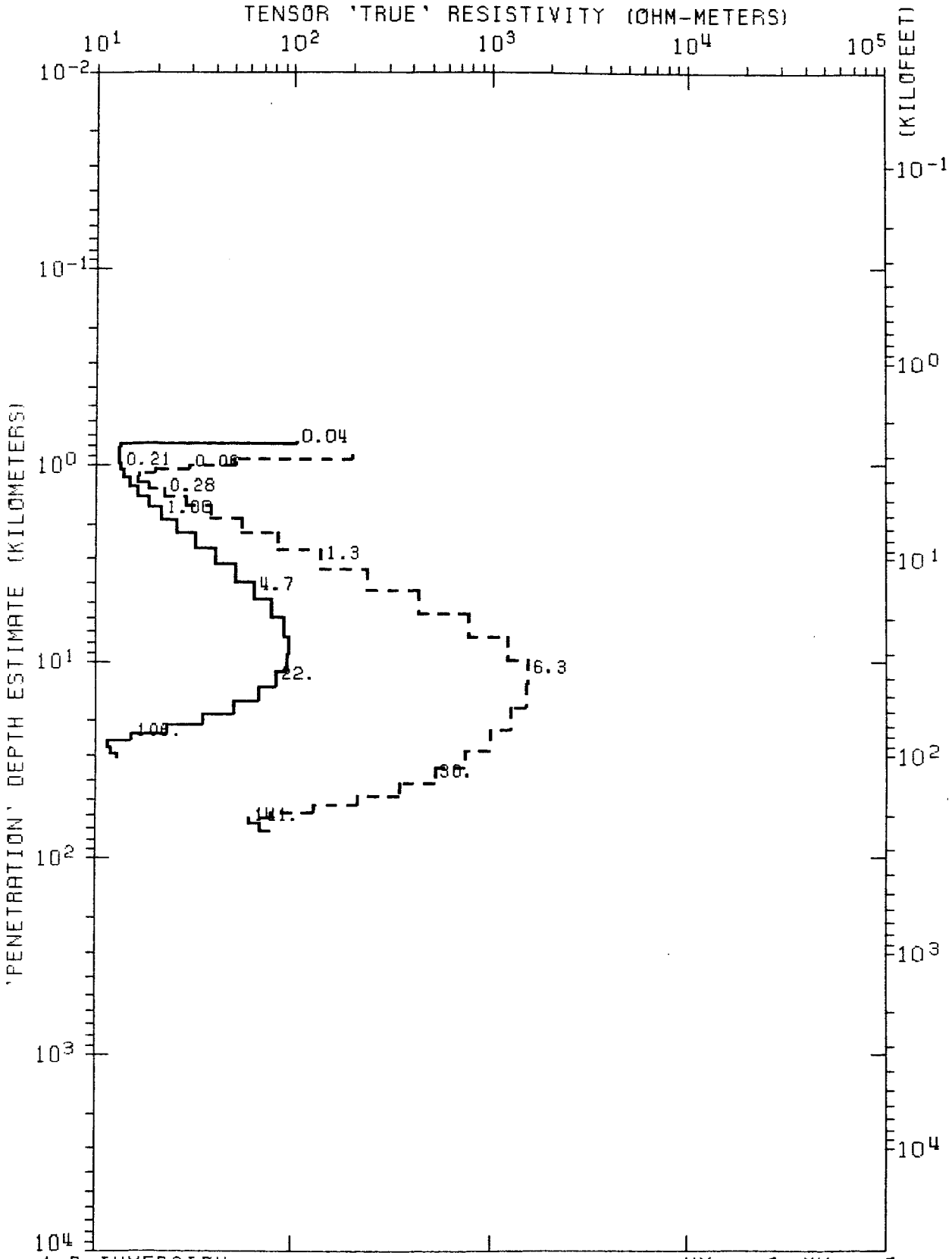
REMOTE REF TO STA.18 28-SEP-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.13

WOODWARD-CLYDE CONSULTANTS



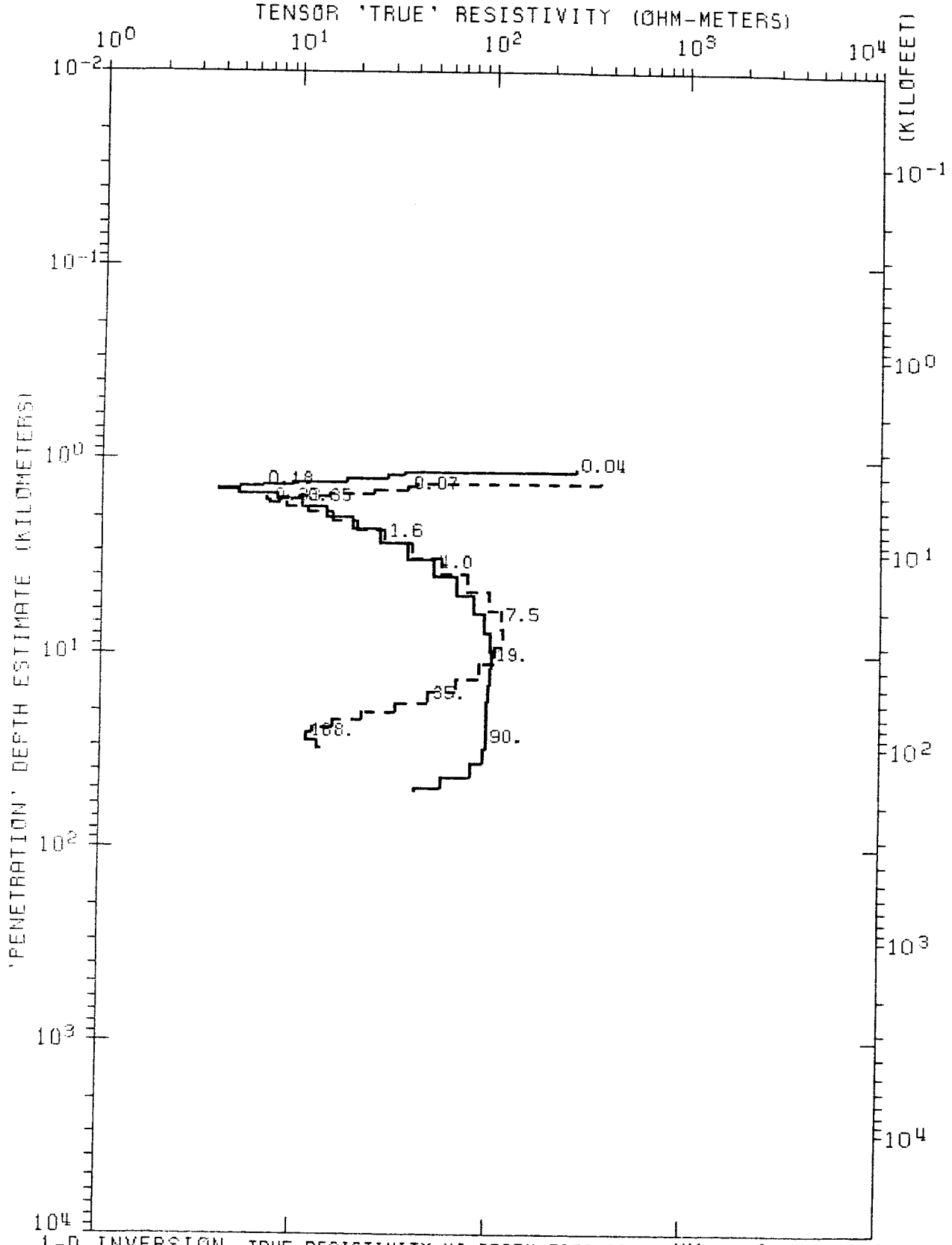
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/B/63, 3/C/132, 5/E/14
REMOTE REF TO STA.02 28-SEP-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.14

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 1/B/107.5/A/22

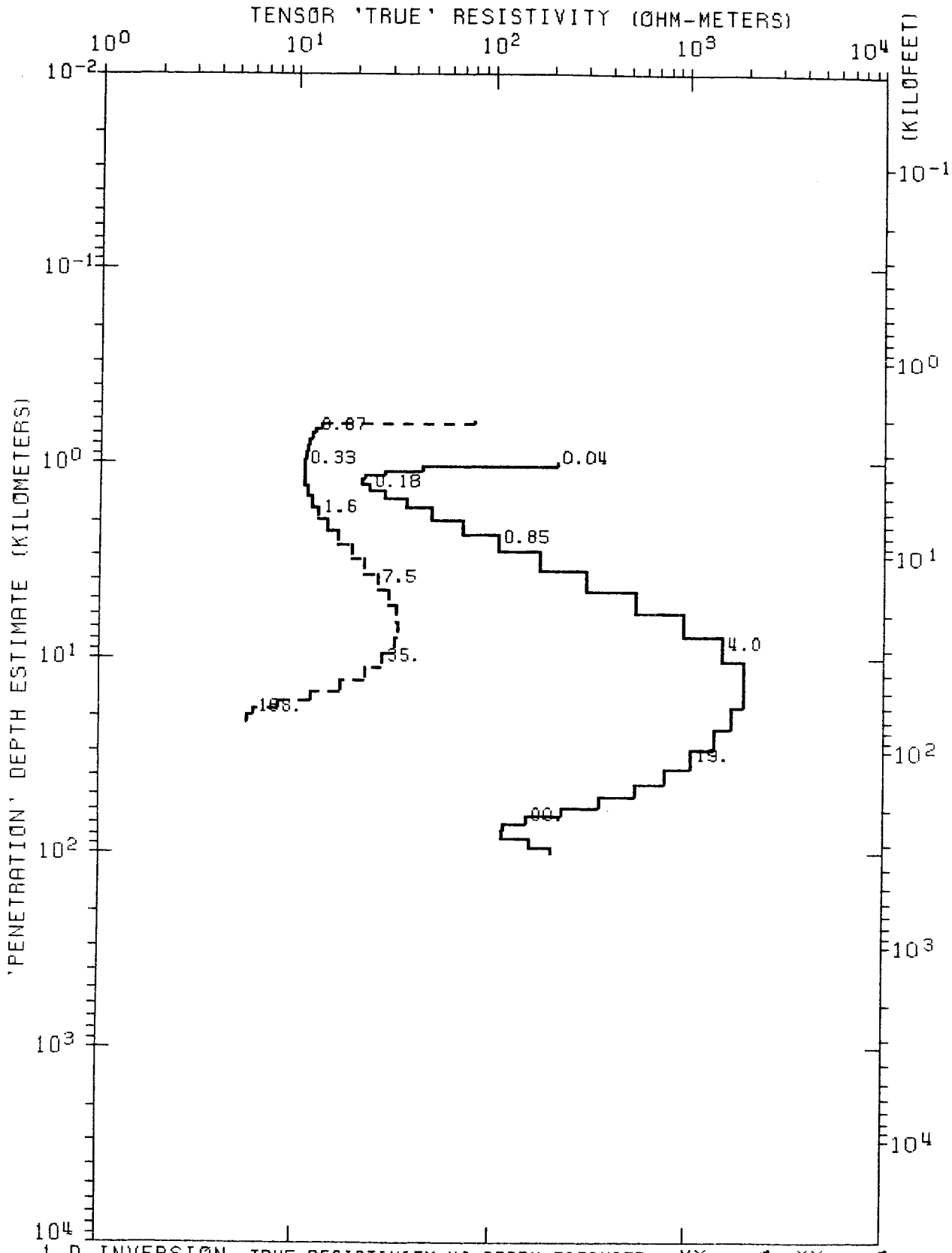
REMOTE REF TO STA.09 01-OCT-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. -- STA.15

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 1/A/38,3/H/69,5/I/32

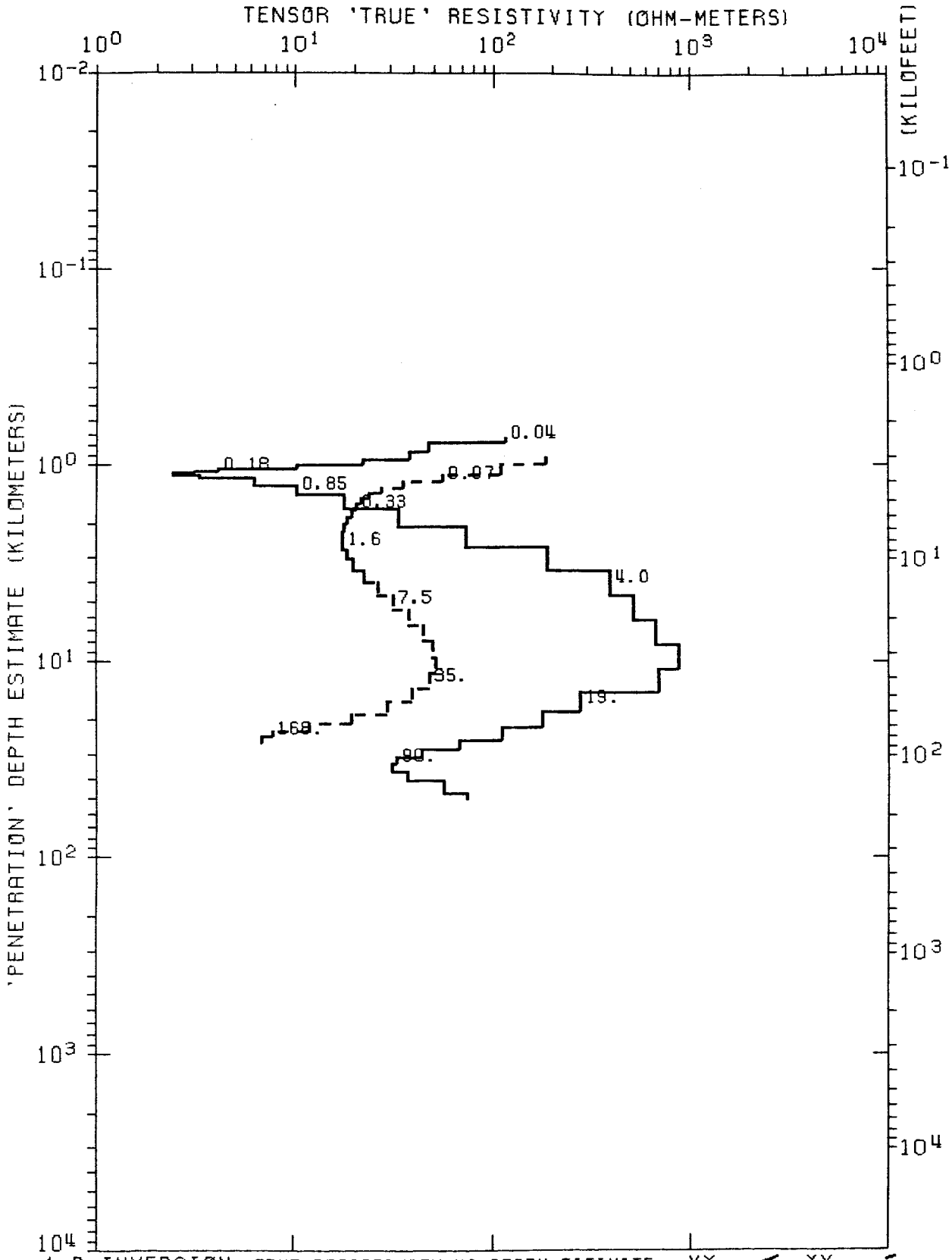
REMOTE REF TO STA.17 28-SEP-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. -- STA.16

WOODWARD-CLYDE CONSULTANTS



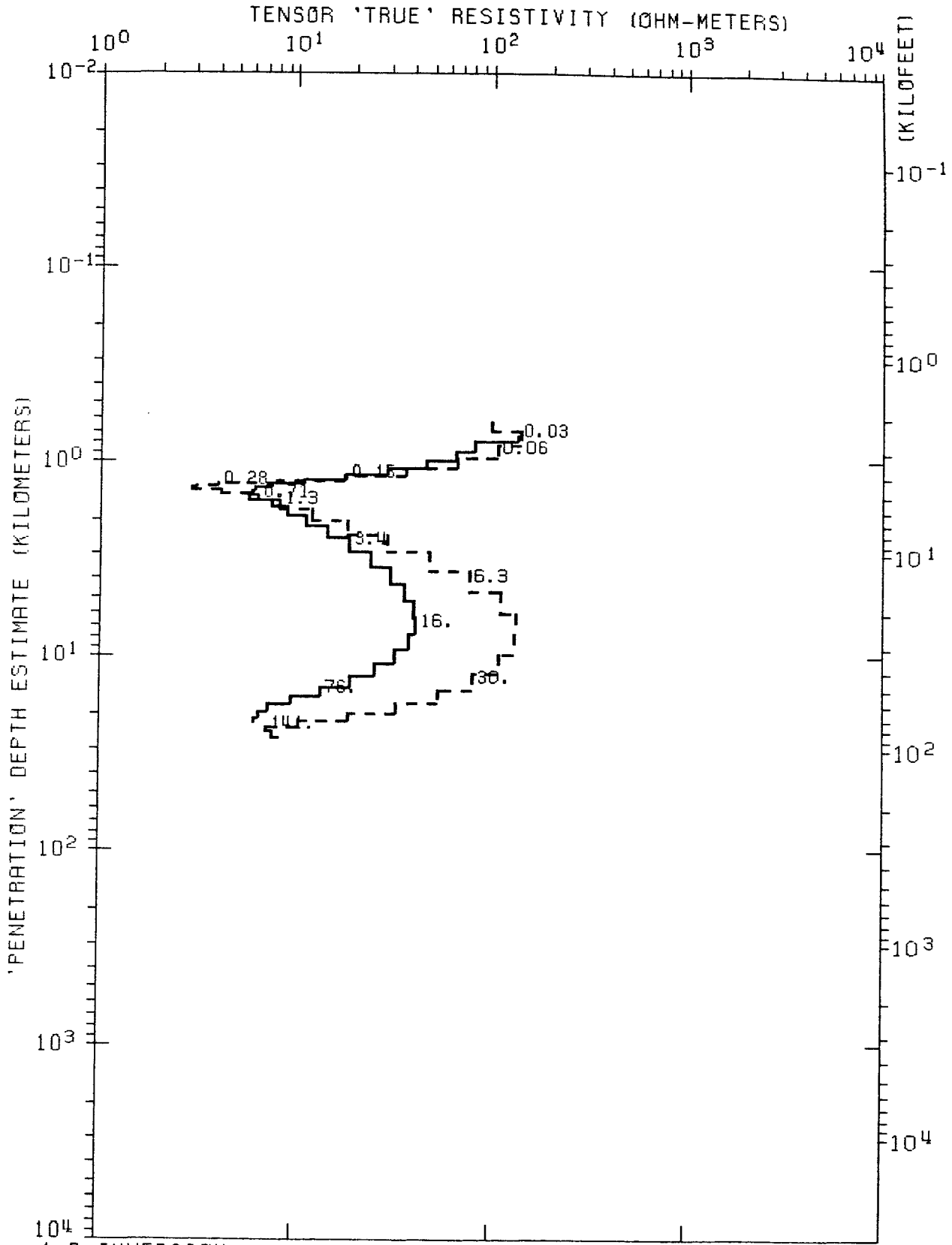
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 1/A/38,3/H/69,5/I/32
REMOTE REF TO STA.16 28-SEP-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.17

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/C/56,3/B/113,5/D/37

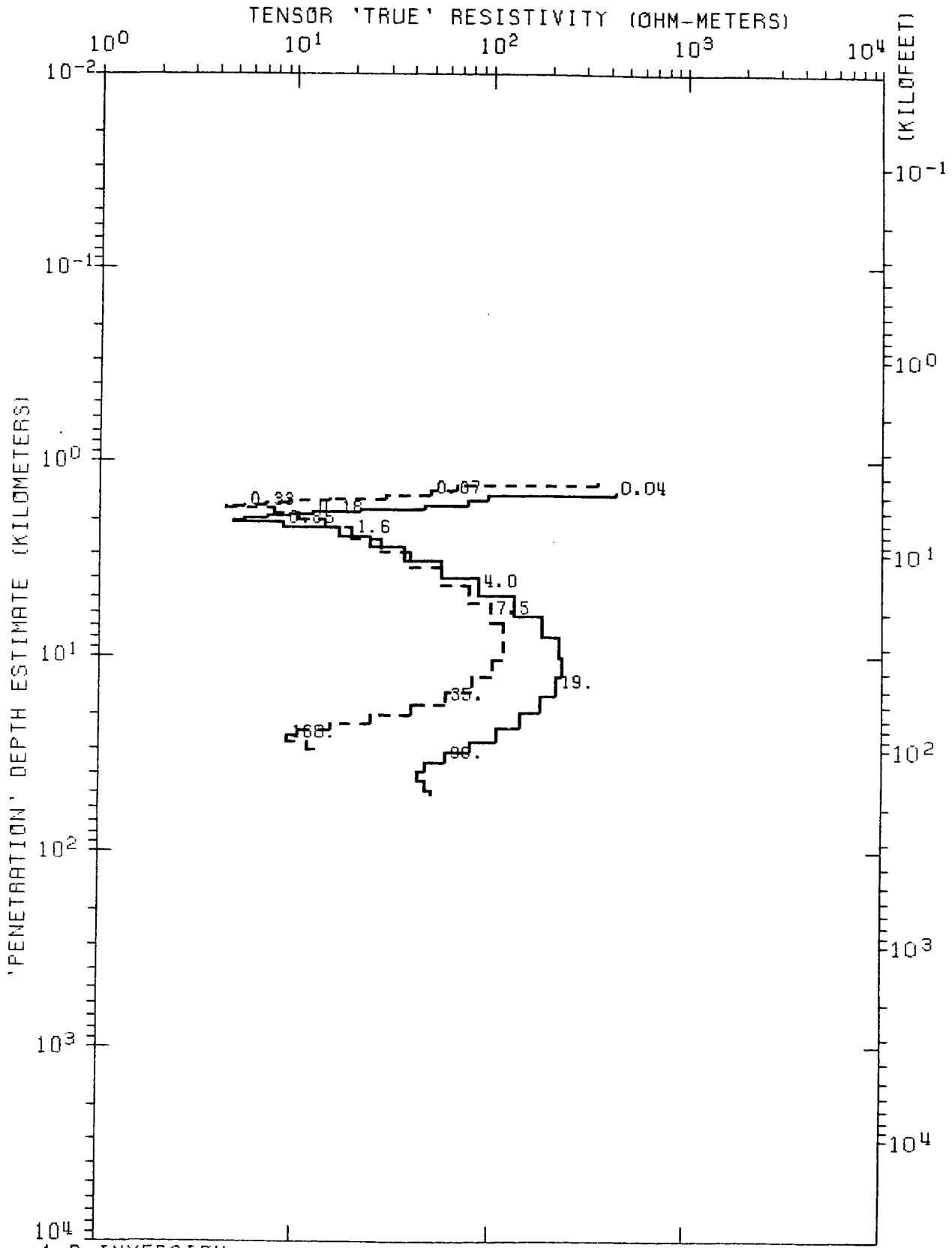
REMOTE REF TO STA.13 28-SEP-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.18

WOODWARD-CLYDE CONSULTANTS



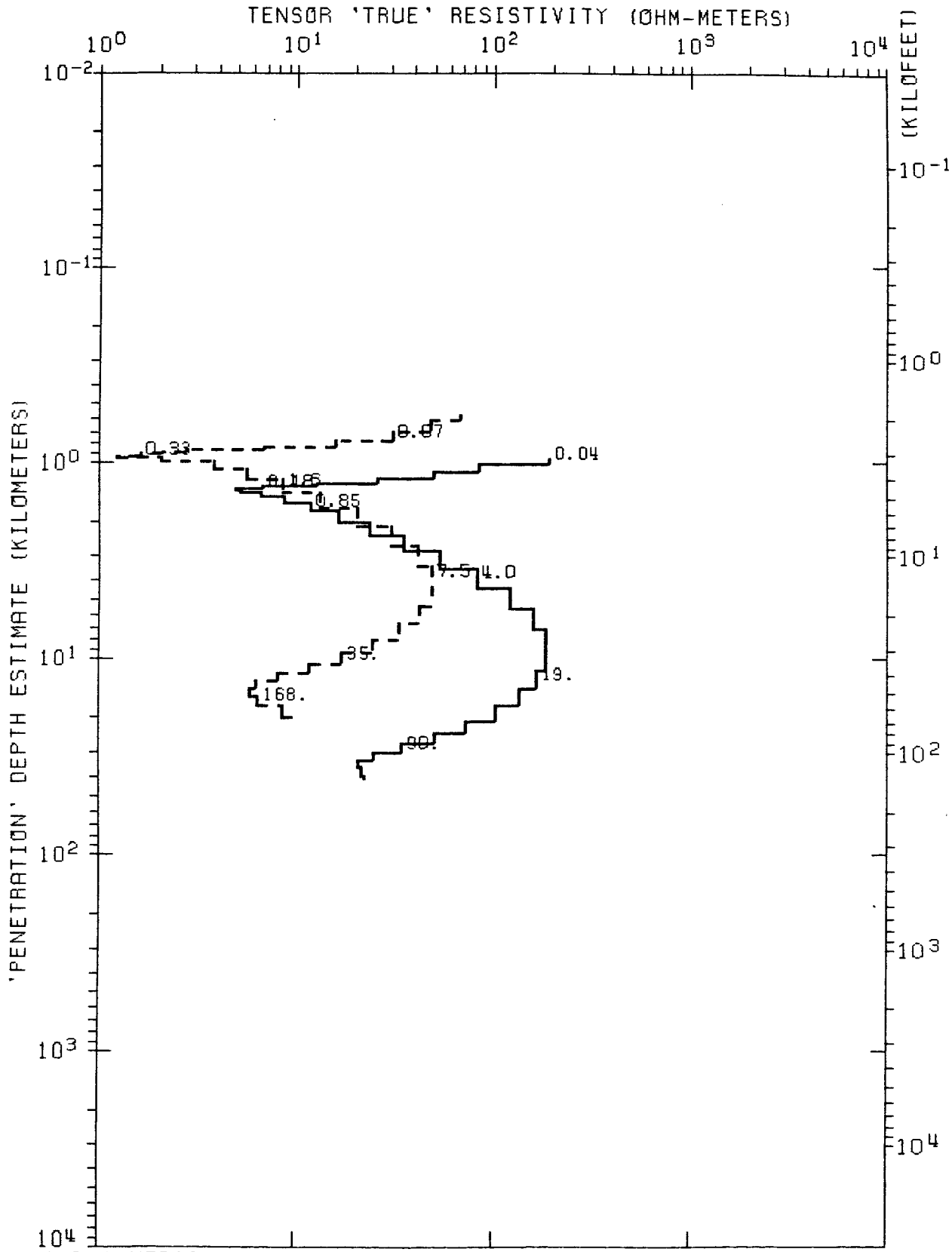
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 1/A/57.5/B/48
REMOTE REF TO STA.20 28-SEP-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. --STA.19

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.

NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 1/A/57.5/B/48

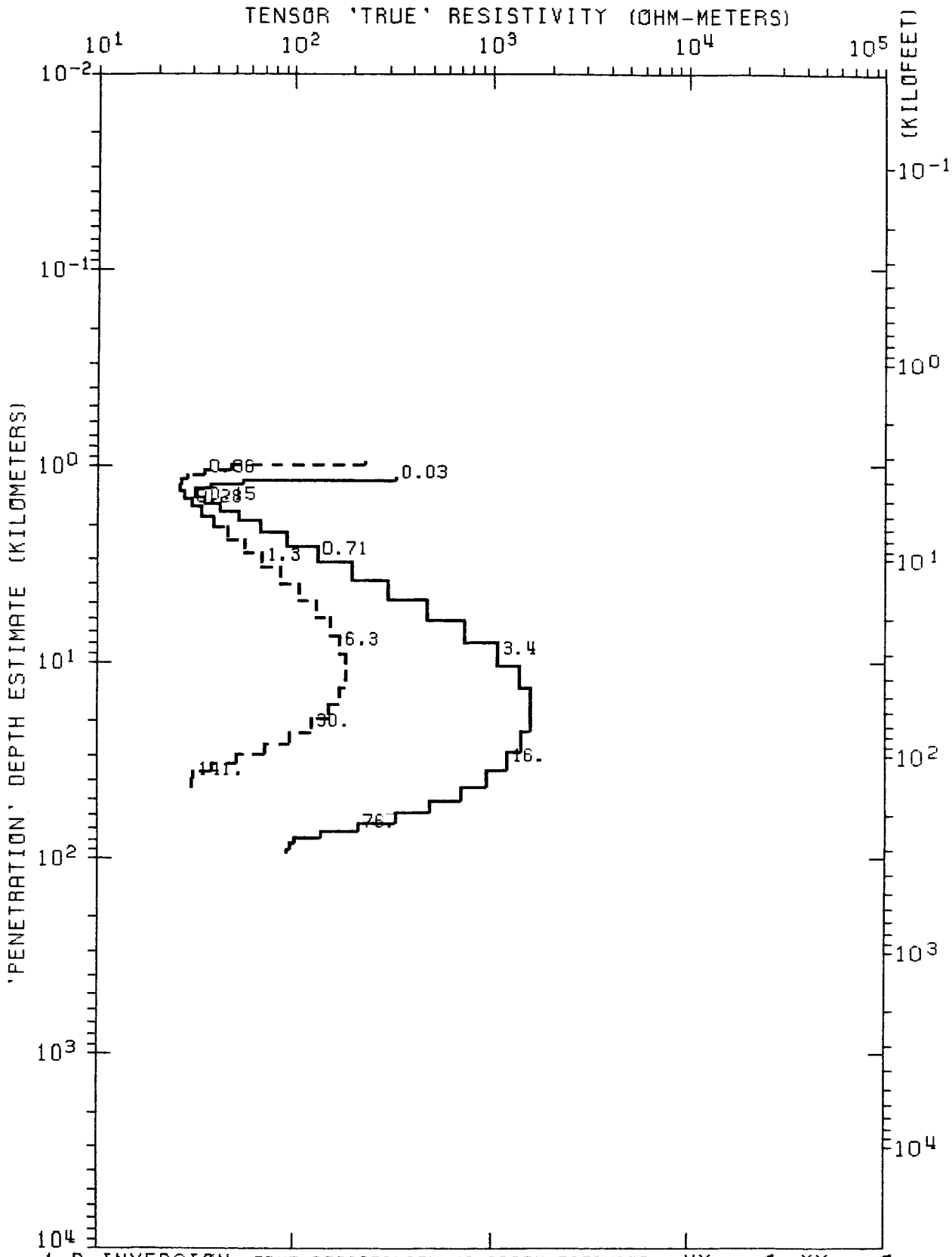
REMOTE REF TO STA.19 28-SEP-81

BOSTICK'S ALGORITHM USED

MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. -- STA.20

WOODWARD-CLYDE CONSULTANTS



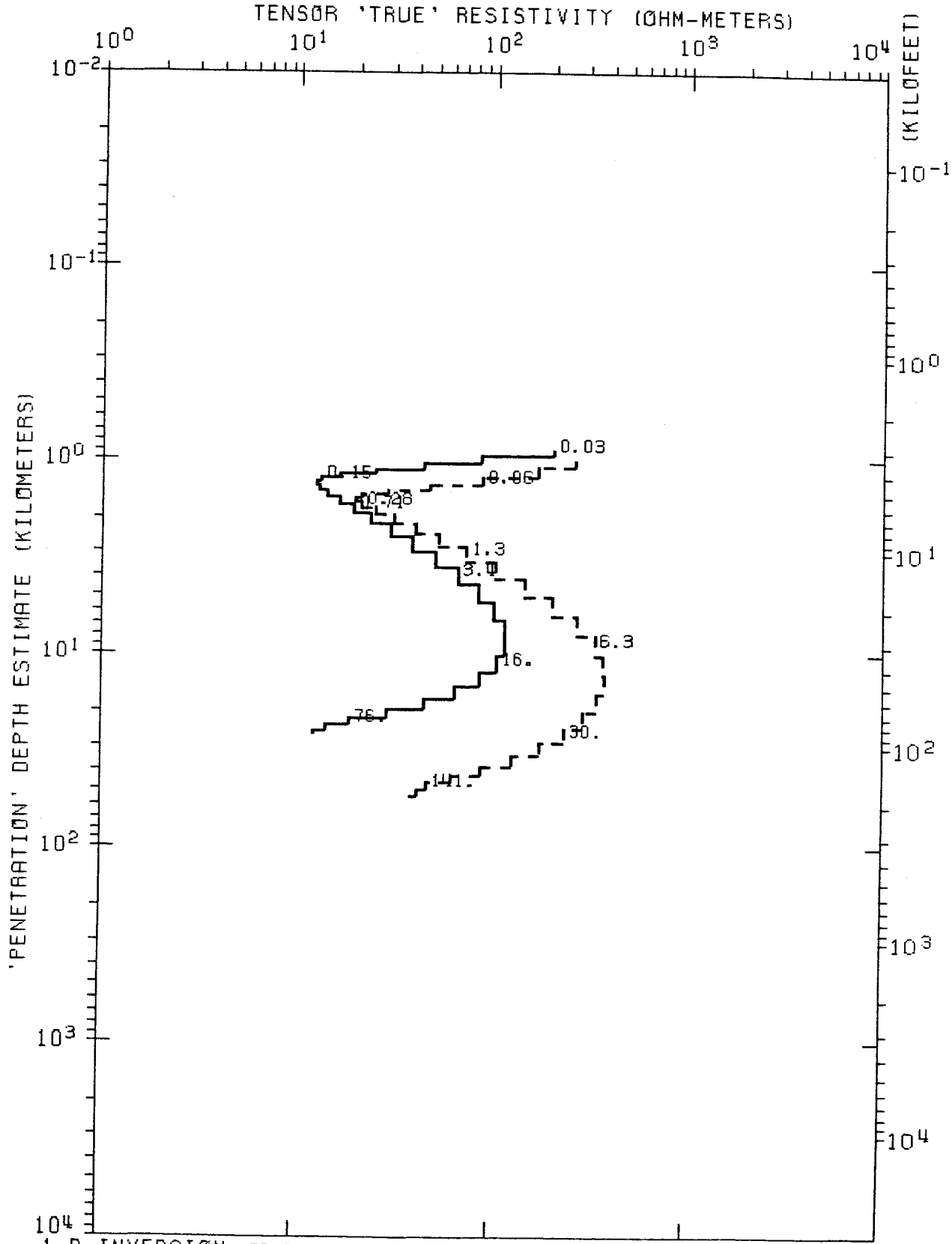
1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/A/52,3/E/52,5/D/10
REMOTE REF TO STA.22 28-SEP-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. -- STA.21

WOODWARD-CLYDE CONSULTANTS



1-D INVERSION TRUE RESISTIVITY VS DEPTH ESTIMATE. XY= 0.10 YX= 10.
NO.=PERIOD FOR POINT

BAND/PASS/STACKS= 2/A/52,3/E/52,5/D/10
REMOTE REF TO STA.21 28-SEP-81

BOSTICK'S ALGORITHM USED
MAGNITUDE INVERSION

GLASS MOUNTAIN, CA. -- STA.22

WOODWARD-CLYDE CONSULTANTS

APPENDIX IX. RAW DATA TAPES

APPENDIX IX
RAW DATA TAPES

A description of the tape storage format for the digitized incoming analog signal is provided, along with an unpacking or reading program designed to run on a 36-bit Univac computer system. A copy of each base station tape log from the field (which includes remote station parameters) is included. These records are cross-referenced on the analog signal strip charts.

MAGNETIC TAPE STORAGE OF DIGITIZED INPUT DATA

The ten input channels (five local and five remote) are pre-filtered and band-limited before digitization. The digitizing unit samples the input analog signals at an externally controlled sampling rate, performs analog to twelve-bit digital conversion and multiplexes the ten digital channels and two spare channels serially. The digital data are stored on nine-track magnetic tape. Each nine-bit byte consists of eight data bits and a parity bit. The operator can manually generate START FILE and hardware END OF FILE commands. The beginning record of each file on the tape consists of a five-word header containing the following information: local station number, remote station number, band number, scan rate (in cps) and number of channels multiplexed. Following the record are the digitized data. Each record represents a dump to the tape drive memory buffer. The memory capacity is 16K bits (16K = 16384), that is, capacity is 1356 twelve-bit words per record or 113 scans of twelve input channels per record.

The digitizer generates a twelve-bit data word. Each byte of the data tape stores eight bits.

A twelve-word scan is stored on eighteen input bytes of tape, each data word stores on 1-1/2 tape bytes. The tape drive has

two 16K memories. While one is being filled, the other is writing on tape (dumping). The system continuously dumps 16K records separated by hardware end-of-record marks until the operator manually terminates the file by generating an end-of-file. The operator can then begin a new file (after making necessary filter setting and scan rate changes) or terminate data collection by generating an end-of-information command on the tape (two hardware end-of-files).

This tape, as generated in the field, must be read by a main frame computer for further data processing. It is generally maintained only as a backup in case of computer failure, or for problems and questions with respect to a given data set. Normally it is passed on to the client (one per station) without any processing.

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mountain, CA. CLIENT: UNOCAL DATE: 30 AUG 81

SETUP: 19 B/ 20 R– GLS (3LTR CODE) OPER: JJ CREW: YC, DD, SD, A

TELEMETRY: Shorted Noise ✓, Hilo ✓, Triangle ✓, Signal Corr. OK; REPEATERS? NO

STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)	0	90	↕		0	90	40	130	↕		40	130
DIP (Deg)					+1	0					0	0
LENGTH (m)					150	150					150	150
CONTACT (Ohmm)					10.7K	20.4K					15.4K	16.9K
SELF POT (mV)	Bucked to 0? Yes ✓ No ___						Bucked to 0? Yes ✓ No ___				-99.8	143.3

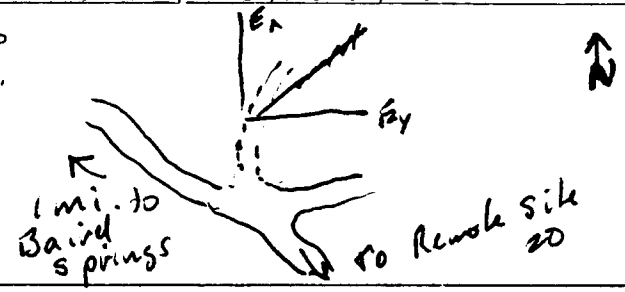
MAGNETOMETER: Probe SN 306, Dewar SN ___; 98 %

LOCATION: T43N, R1E, SW 1/4 Sec 14
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 307, Dewar SN ___; 98 %

T43N, R2E
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER: Sensitivity X1 ___
Filter All off ___
Slew Medium ___
0.16 Hz PREWHITE: E-Chan All out ___
H-Chan All in ___
PREAMPLIFIER: Notch All in ___
Filter All 0.001 ___

STATION COMMENTS (geology, culture, etc):
• High Contact Resistance @ 19B
~~Electrode Cont. Res. at~~
~~amp gain at board~~ ~~remote~~ ~~Remote~~
~~incorrectly Hy was typed in 100.5/6/100~~

BAND PASS SETTINGS

BAND NO: 1 ITHACO FILTER: Low .125 Hz To High 40 Hz

TAPE ID: TAPE A GLS EQUIVALENT DISKS: Set– 01, Act – 01

ITC ACQUISITION: Tape Header 119 (BASE) 210 (REMOTE) 1 (BAND), No. Chan 12, Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	1K	500 ~~1K~~	1K		2K	2K	1K	1K	1K		2K	2K

FILE: 1 START: 22:06 STOP: 22:12 REC: 275 COMMENT: Good signal!												
FILTER GN(Db)	20	20	30		10	10	20	20	30		10	10
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: 19 B/ 20 R– GLS (3LTR CODE) DATE: 30 AUG 81 OPER: JV

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low DC Hz To High .305

TAPE ID: Tape A GLS EQUIVALENT DISKS: Set– 01, Act – 01

ITC ACQUISITION: Tape Header 19 (BASE) 210 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min, Sens 200 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	1K	100	1K		2K	2K	1K	1K	1K		2K	2K
FILE: 2 START: 06:04 STOP: 06:40 REC: 211 COMMENT: Good Data												
FILTER GN(Db)	0	10	10		0	0	0	0	10		0	0
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: _____ B/ _____ R– _____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: _____ ITHACO FILTER: Low _____ Hz To High _____ Hz

TAPE ID: _____ EQUIVALENT DISKS: Set– _____, Act – _____

ITC ACQUISITION: Tape Header _____ (BASE) _____ (REMOTE) _____ (BAND), No. Chan _____, Scan Rate _____ Hz

STRIP CHART: Speed _____ mm/ _____, Sens _____ mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mt., CA CLIENT: UNION DATE: 8/31/81

SETUP: 16 B/ 17 R- GLS (3LTR CODE) OPER: YC CREW: JJ, SD, BD, A

TELEMETRY: Shorted Noise ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? ___

STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)	100	190	↓		~~40~~ 20	190 ~~130~~	125	215	↓		125	215
DIP (Deg)					-1	-1					-2	0
LENGTH (m)					150	150					150	150
CONTACT (Ohmm)					13.4K	26.0K					19.4	8.3
SELF POT (mV)	Bucked to 0? Yes ✓ No ___				847	750	Bucked to 0? Yes ✓ No ___				-77.3	-124.3

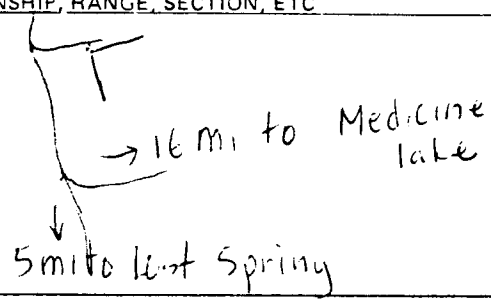
MAGNETOMETER: Probe SN 306, Dewar SN ___; ___ %

LOCATION: T43N R2E sec 22 SE QTR
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 307, Dewar SN ___; ___ %

T43N, R2E, sec 25 SW QTR
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1	
	Filter	All off	
	Slew	Medium	
0.16 Hz PREWHITE:	E-Chan	All out	
	H-Chan	All in	
PREAMPLIFIER:	Notch	All in	
	Filter	All 0.001	

STATION COMMENTS (geology, culture, etc):

BAND PASS SETTINGS

BAND NO: 1 ITHACO FILTER: Low .125 Hz To High 40 Hz

TAPE ID: TAPE A GLS EQUIVALENT DISKS: Set- 01, Act - 01

ITC ACQUISITION: Tape Header 116 (BASE) 117 (REMOTE) 1 (BAND), No. Chan 12, Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	1K	1K	1K		2K	2K	1K	1K	1K		2K	2K
FILE: 3 START: 15:30 STOP: 15:35 REC: 225 COMMENT: Noisy on freq btwn .125-1 ft												
FILTER GN(Db)	20	10	30		10	20	20	20	30		20	20
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: ~~14~~ 16 B/ 17 R– GLS (3LTR CODE) DATE: 8/31/81 OPER: YC

BAND PASS SETTINGS

BAND NO: 3 ITHACO FILTER: Low .1 Hz To High 2

TAPE ID: TAPE A GLS EQUIVALENT DISKS: Set– 01, Act – 02

ITC ACQUISITION: Tape Header 116 (BASE) 117 (REMOTE) 3 (BAND), No. Chan 12, Scan Rate 10 Hz

STRIP CHART: Speed 1 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	1K	1K	1K		2K	2K	1K	1K	1K		2K	2K
FILE: A START: 16:00 STOP: 16:30 REC: 55 COMMENT: Ey's Both on B, Rvery noisy												
FILTER GN(Db)	30	20	40		30	40	30	20	30		30	40
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: 16 B/ 17 R– GLS (3LTR CODE) DATE: 8/31/81 OPER: YC

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low Out Hz To High .315 Hz

TAPE ID: TAPE A GLS EQUIVALENT DISKS: Set– 01, Act – 02

ITC ACQUISITION: Tape Header 116 (BASE) 117 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	1K	1K	1K		2K	2K	1K	1K	1K		2K	2
FILE: 5 START: 16:45 STOP: 18:55 REC: 70 COMMENT: Lacking long ice at Base												
FILTER GN(Db)	20	10	20		20	20	10	10	20		10	20
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):
I am not calling Remote Crews back from preping, although I could use higher Pre Amp Gains, due to exceptionally confusing & perplexing roads that they have to

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mountain, CA CLIENT: UNION DATE: 9/1/81
SETUP: 11 B/ 12 R- GLS (3LTR CODE) OPER: VC CREW: JI, SD, BD, A
TELEMETRY: Shorted Noise ✓, Hilo ✓, Triangle ✓, Signal Corr. ✓; REPEATERS? YES-1

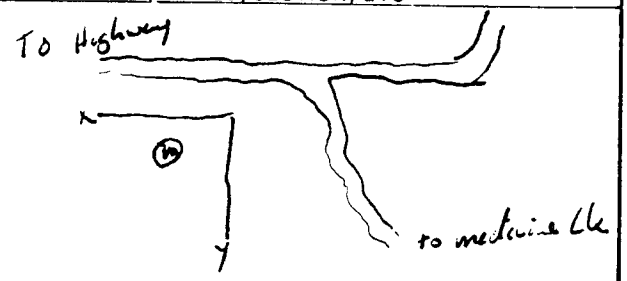
STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)	170	260	↓		170	260	200	290	↓		200	290
DIP (Deg)					+2	0					0	0
LENGTH (m)					150	100					150	150
CONTACT (Ohmm)					18.5K	31.0K					22.6K	17.3K
SELF POT (mV)	Bucked to 0? Yes ___ No ___				0	0	Bucked to 0? Yes ✓ No ___				11.2	-21.4

MAGNETOMETER: Probe SN 306, Dewar SN ___; 85 %
LOCATION: T43N-R3E Sec 5 S CNTR
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 307, Dewar SN ___; ___ %
T43N R3E Sec 10 SW QTR
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER: Sensitivity X1
Filter All off
Slew Medium
0.16 Hz PREWHITE: E-Chan All out
H-Chan All in
PREAMPLIFIER: Notch All in
Filter All 0.001

STATION COMMENTS (geology, culture, etc):
Continued contact resistance problems, Extensive engineering of ground pot holes and 5 to 10 gal. of water produced these final values

BAND PASS SETTINGS

BAND NO: 1 ITHACO FILTER: Low .125 Hz To High 40 Hz
TAPE ID: Tape A GLS EQUIVALENT DISKS: Set- 01, Act - 03
ITC ACQUISITION: Tape Header 111 (BASE) 112 (REMOTE) 1 (BAND), No. Chan 12, Scan Rate 200 Hz
STRIP CHART: Speed 5 mm/ sec, Sens 200 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	2K	1K	2K		5K	5K	2K	2K	2K		5K	5K
FILE: 6 START: 00:41 STOP: 00:48 REC: 350 COMMENT:												
FILTER GN(Db)	10	0	20		10	10	10	10	20		10	10
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: 11 B/ 12 R– GLS (3LTR CODE) DATE: 25EP81 OPER: J. Johnston

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low DC Hz To High .315 Hz

TAPE ID: TAPE A GLS EQUIVALENT DISKS: Set– 01, Act – 03

ITC ACQUISITION: Tape Header 111 (BASE) 112 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min, Sens 200 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	500	2K		5K	5K	2K	2K	2K		5K	5K

FILE: 7 START: 01:23 STOP: 06:50 REC: 174 COMMENT: Good data												
FILTER GN(Db)	0	0	10		0	0	0	0	10		0	0
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: _____ B/ _____ R– _____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: _____ ITHACO FILTER: Low _____ Hz To High _____ Hz

TAPE ID: _____ EQUIVALENT DISKS: Set– _____, Act – _____

ITC ACQUISITION: Tape Header 1 (BASE) 1 (REMOTE) _____ (BAND), No. Chan _____, Scan Rate _____ Hz

STRIP CHART: Speed _____ mm/ _____, Sens _____ mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN												

FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mountain CA CLIENT: UNION DATE: 2 SEP 81

SETUP: 13 B/ 18 R- GLS (3LTR CODE) OPER: JJ CREW: BD, YC, A, ____

TELEMETRY: Shorted Noise ✓, Hilo ✓, Triangle ✓, Signal Corr. ✓; REPEATERS? YES, 1

STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
ANGLE (Deg)	340	70	↓		340	70	40	130	↓		40	130
DIP (Deg)					0	+1					0	0
LENGTH (m)					150	150					150	150
CONTACT (Ohmm)					18K	25K					30K	30K
SELF POT (mV)	Bucked to 0? Yes ✓ No ____				✓	✓	Bucked to 0? Yes ✓ No ____					

MAGNETOMETER: Probe SN 306, Dewar SN ____; 80 %

LOCATION: T43N R3E SW 1/4 SEC 25
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 307, Dewar SN ____; 80 %

T42N R3E NW 1/4 Sec 6
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP
(Map updates, Triangulation data, Etc.):

MAGNETOMETER: Sensitivity X1 ____
Filter All off ____
Slew Medium ____
0.16 Hz PREWHITE: E-Chan All out ____
H-Chan All in ____
PREAMPLIFIER: Notch All in ____
Filter All 0.001 ____

STATION COMMENTS (geology, culture, etc):

BAND PASS SETTINGS

BAND NO: 3 ITHACO FILTER: Low .1 Hz To High 2 Hz

TAPE ID: TAPE A GLS EQUIVALENT DISKS: Set- 01, Act - 08

ITC ACQUISITION: Tape Header 113 (BASE) 118 (REMOTE) 3 (BAND), No. Chan 12, Scan Rate 10 Hz

STRIP CHART: Speed 25 mm/ min, Sens 500 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	2K	2K	2K		5K	5K	2K	2K	2K		5K	5K

FILE: 8 START: 22:10 STOP: ~~117~~ 23:00 REC: 117 COMMENT: marginal												
FILTER GN(Db)	20	10	20		30	40	20	20	30		30	30
FILE: 3/~~4~~ 3 START: 06:15 STOP: 06:55 REC: 102 COMMENT:												
FILTER GN(Db)	20	10	30		30	30	20	20	30		30	30
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: 13 B/ 18 R- GLS (3LTR CODE) DATE: 25SEP81 OPER: Johnston

BAND PASS SETTINGS

BAND NO: 2 ITHACO FILTER: Low 1 Hz To High 40 Hz

TAPE ID: TAPE B GLS EQUIVALENT DISKS: Set- 01, Act - 08

ITC ACQUISITION: Tape Header 113 (BASE) 118 (REMOTE) 2 (BAND), No. Chan 12, Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/sec, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	2K	2K		5K	5K	2K	2K	2K		5K	5K
FILE: 1 START: 23:45 STOP: 23:50 REC: 410 COMMENT:												
FILTER GN(Db)	20	10	10		10	10	20	20	20		10	10
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: 13 B/ 18 R- GLS (3LTR CODE) DATE: 35EP81 OPER: Johnston

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low DC Hz To High .315 Hz

TAPE ID: TAPE B GLS EQUIVALENT DISKS: Set- 01, Act - 05

ITC ACQUISITION: Tape Header 113 (BASE) 118 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/sec, Sens 200 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	500	2K		5K	5K	2K	2K	2K		5K	5K
FILE: 2 START: 00:25 STOP: 05:45 REC: 173 COMMENT: Good data												
FILTER GN(Db)	0	0	0		0	0	0	0	0		0	0
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mt. CA CLIENT: UNION DATE: 9/4/81
SETUP: 21 B/ 22 R- GLS (3LTR CODE) OPER: YC CREW: JJ, BD, AL,
TELEMETRY: Shorted Noise ✓, Hilo ✓, Triangle ✓, Signal Corr. ✓; REPEATERS? NO

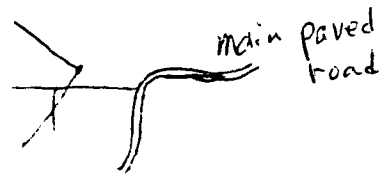
STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)					270	0					300	030
DIP (Deg)					0	0					0	0
LENGTH (m)					150	150					150	150
CONTACT (Ohmm)					9.8K	3.8K					6K	132K
SELF POT (mV)	Bucked to 0? Yes ✓ No ___				—	—	Bucked to 0? Yes ✓ No ___				+8.7	+5.4

MAGNETOMETER: Probe SN 306, Dewar SN ___; ___ %
LOCATION: T42N - R2E Sec 8 Nctr
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 307, Dewar SN ___; ___ %
T42N R2E Sec 22 E ctr
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER: Sensitivity X1
Filter All off
Slew Medium
0.16 Hz PREWHITE: E-Chan All out
H-Chan All in
PREAMPLIFIER: Notch All in
Filter All 0.001

STATION COMMENTS (geology, culture, etc):
Still getting polarized contact resistance

BAND PASS SETTINGS

BAND NO: 2 ITHACO FILTER: Low ___ Hz To High 40 Hz
TAPE ID: TAPE B GLS EQUIVALENT DISKS: Set- 01, Act - 06
ITC ACQUISITION: Tape Header 211 (BASE) 212 (REMOTE) 1 (BAND), No. Chan 12, Scan Rate 200 Hz
STRIP CHART: Speed 5 mm/sec, Sens ~~500~~ 50, 500 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy (500)	BASE Hz	BASE ITC/DA	BASE Ex (1K)	BASE Ey (2K)	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	2K	~~1K~~	2K		~~5K~~	~~5K~~	1K	1K	1K		2K	2K

FILE: 3 START: 15:00 STOP: 15:09 REC: 200 COMMENT:												
FILTER GN(Db)	0	0	0		0	0	20	20	20		10	10
FILE: 5 START: 15:05 STOP: 15:09 REC: 200 COMMENT: Good Data												
FILTER GN(Db)	0	0	0		0	0	20	20	20		10	10
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):
Sensitivity — 50 mV/div at Base

MT/1 SETUP LOG, CONTINUED

SETUP: _____ B/ ____ R– ____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: 3 ITHACO FILTER: Low .01 Hz To High 2 Hz

TAPE ID: TAPE B 6LS EQUIVALENT DISKS: Set– 01, Act – 06

ITC ACQUISITION: Tape Header 211 (BASE) 212 (REMOTE) 3 (BAND), No. Chan 12, Scan Rate 10 Hz

STRIP CHART: Speed 1 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	2K	2K		5K	5K	1K	1K	1K		2K	2K
FILE: 6 START: 16:10 STOP: 16:25 REC: 95 COMMENT:												
FILTER GN(Db)	20	0	20		10	20	20	10	20		20	20
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc): Pre Amp Gains used to record were incorrect; they were 500, 100, 100, 1000, 2000 instead of 2K & 5K.

SETUP: _____ B/ ____ R– ____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low out Hz To High .315 Hz

TAPE ID: TAPE B 6LS EQUIVALENT DISKS: Set– 01, Act – 07

ITC ACQUISITION: Tape Header 211 (BASE) 212 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	2K	2K		5K	5K	1K	1K	1K		2K	2K
FILE: 7 START: 17:00 STOP: 17:50 REC: 46 COMMENT: Good Data												
FILTER GN(Db)	0	0	0		0	0	0	0	10		10	0
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mountain, CA CLIENT: UNION DATE: 5SEP81
SETUP: 07 B/ 08 R- GLS (3LTR CODE) OPER: JJ CREW: YC, BD, AL,
TELEMETRY: Shorted Noise ✓, Hilo ✓, Triangle ✓, Signal Corr. OK; REPEATERS? NO

STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)	270	0	↓		270	0	210	310			220	310
DIP (Deg)					+1	0					0	1
LENGTH (m)					150	150					150	150
CONTACT (Ohmm)					25 K	23 K					4.3	20
SELF POT. (mV)	Bucked to 0? Yes ✓ No				—	—	Bucked to 0? Yes ✓ No				-204mv	232mv ✓

MAGNETOMETER: Probe SN 307, Dewar SN ____; ~65 %
LOCATION: T43N, R3E SW 1/4 Sec 1
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 306, Dewar SN ____; ____ %
T43N R4E SW 1/4 Sec 8
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP
(Map updates, Triangulation data, Etc.):

MAGNETOMETER:	Sensitivity	X1	
	Filter	All off	
	Slew	Medium	
0.16 Hz PREWHITE:	E-Chan	All out	
	H-Chan	All in	
PREAMPLIFIER:	Notch	All in	
	Filter	All 0.001	

STATION COMMENTS (geology, culture, etc):

BAND PASS SETTINGS

BAND NO: 3 ITHACO FILTER: Low .1 Hz To High 2 Hz
TAPE ID: TAPE B GLS EQUIVALENT DISKS: Set- 01, Act - 07
ITC ACQUISITION: Tape Header 017 (BASE) 018 (REMOTE) 3 (BAND), No. Chan 12, Scan Rate 20 Hz
STRIP CHART: Speed 25 mm/ min, Sens 500 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	1K	1K	1K		2K	2K	500	500	1K		2K	2K
FILE: 8 START: 16:35 STOP: 17:50 REC: 205 COMMENT: Remote data weak												
FILTER GN(Db)	20	20	30		20	20	20	10	30		30	30
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: 07 B/ 09 R- GLS (3LTR CODE) DATE: 5SEP81 OPER: Johnston

BAND PASS SETTINGS

BAND NO: 2 ITHACO FILTER: Low 1 Hz To High 40 Hz

TAPE ID: TAPE B GLS EQUIVALENT DISKS: Set- 01, Act - 08

ITC ACQUISITION: Tape Header 017 (BASE) 018 (REMOTE) 2 (BAND), No. Chan 12 (was set 3), Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	1K	1K	1K		2K	2K	500	500	1K		2K	2K
FILE: 9 START: 19:22 STOP: 18:27 REC: 350 COMMENT:												
FILTER GN(Db)	20	20	30		10	20	20	10	30		20	20
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: 07 B/ 09 R- GLS (3LTR CODE) DATE: 5SEP81 OPER: Johnston

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low DC Hz To High .315 Hz

TAPE ID: TAPE B, GLS EQUIVALENT DISKS: Set- 01, Act - 08

ITC ACQUISITION: Tape Header 017 (BASE) 019 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min, Sens 200 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	1K	1K	1K		2K	2K	500	500	1K		2K	2K
FILE: 10 START: 19:00 STOP: 21:40 REC: 86 COMMENT:												
FILTER GN(Db)	0	0	10		0	0	0	0	10		0	0
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mountain, CA CLIENT: Union DATE: 9/6/81

SETUP: 01 B/ 06 R- GLS (3LTR CODE) OPER: YC CREW: JJ, AL, BD,

TELEMETRY: Shorted Noise ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? ___

STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx (500)	REMOTE Hy (1K)	REMOTE Hz (2K)	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)					350	80					260	350
DIP (Deg)					-1	0					0	-1
LENGTH (m)					150	150					140	150
CONTACT (Ohmm)					32K	30K					46K	48K
SELF POT (mV)	Bucked to 0? Yes ✓ No ___				—	—	Bucked to 0? Yes ✓ No ___				6.9	106

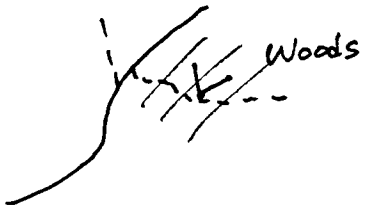
MAGNETOMETER: Probe SN 307, Dewar SN ___; ___ %

LOCATION: T44NR3E Sec 23 NE QTR
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 306, Dewar SN ___; ___ %

T44NR3E Sec 34 NW QTR
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER: Sensitivity X1 ___
Filter All off ___
Slew Medium ___
0.16 Hz PREWHITE: E-Chan All out ___
H-Chan All in ___
PREAMPLIFIER: Notch All in ___
Filter All 0.001 ___

STATION COMMENTS (geology, culture, etc):
Fractures on the rocks noted. (Quite Big ones)

BAND PASS SETTINGS

BAND NO: 2 ITHACO FILTER: Low 1 Hz To High 40 Hz

TAPE ID: TAPE ~~B~~ C GLS EQUIVALENT DISKS: Set– 01, Act – ~~08~~ 09

ITC ACQUISITION: Tape Header 01 (BASE) 016 (REMOTE) 2 (BAND), No. Chan 12, Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	2K	2K	2K		5K	5K	500	500	1K		2K	2K
FILE: 10 START: 13:40 STOP: 13:47 REC: 250 COMMENT:												
FILTER GN(Db)	10	20	20		10	10	20	10	20		20	20
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: _____ B/ ____ R– ____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: 3 ITHACO FILTER: Low .01 Hz To High 2 Hz

TAPE ID: TAPE C GLS EQUIVALENT DISKS: Set– 02 Act – 04

ITC ACQUISITION: Tape Header 011 (BASE) 016 (REMOTE) 3 (BAND), No. Chan 12, Scan Rate 10 Hz

STRIP CHART: Speed 1 mm/ sec, Sens 500 mV/div, Base 100 mV/div Remote with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	2K	2K		5K	5K	500	500	1K		2K	2K
FILE: 2 START: 14:05 STOP: 14:30 REC: 67 COMMENT: 100mV/div sensitivity – Bad Data												
FILTER GN(Db)	20	20	20		30	30	20	0	20		20	20
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: _____ B/ ____ R– ____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low out Hz To High .315 Hz

TAPE ID: TAPE C GLS EQUIVALENT DISKS: Set– 02, Act – NC

ITC ACQUISITION: Tape Header 011 (BASE) 016 (REMOTE) 05 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	2K	2K		5K	5K	500	500	1K		2K	2K
FILE: 3 START: 15:00 STOP: 16:30 REC: 50 COMMENT:												
FILTER GN(Db)	0	0	10		10	0	10	0	10		10	10
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mountain CLIENT: 9/7/81 DATE: _____

SETUP: 02 B/ 14 R- GLS (3LTR CODE) OPER: _____ CREW: ____, ____, ____, ____

TELEMETRY: Shorted Noise ✓, Hilo ✓, Triangle ✓, Signal Corr. ____; REPEATERS? NO

STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)					140	230					175	265
DIP (Deg)					0	3					0	0
LENGTH (m)					150	145					140	150
CONTACT (Ohmm)					25K	26K					60K	56K
SELF POT.(mV)	Bucked to 0 ? Yes ✓ No ____				—	—	Bucked to 0 ? Yes ✓ No ____				-12.1	-30.6

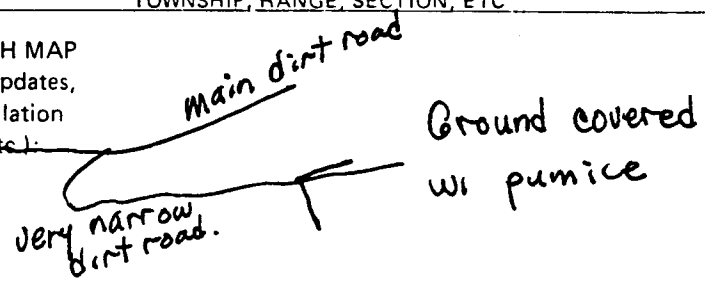
MAGNETOMETER: Probe SN 307, Dewar SN _____; 45 %

LOCATION: T44N-R4E Sec 20 S CTR
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 306, Dewar SN _____; _____ %

T44N R4E Sec 27 SE QTR
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER: Sensitivity X1 _____
Filter All off _____
Slew Medium _____
0.16 Hz PREWHITE: E-Chan All out _____
H-Chan All in _____
PREAMPLIFIER: Notch All in _____
Filter All 0.001 _____

STATION COMMENTS (geology, culture, etc):

BAND PASS SETTINGS

BAND NO: 2 ITHACO FILTER: Low 1 Hz To High 40 Hz

TAPE ID: TAPE C GLS EQUIVALENT DISKS: Set- 02, Act - 10

ITC ACQUISITION: Tape Header 012 (BASE) 14 (REMOTE) 2 (BAND), No. Chan 12, Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	2K	2K	2K		5K	5K	1K	1K	1K		2K	2K
FILE: 4 START: 15:40 STOP: 15:45 REC: 120 COMMENT: Bad Filter setting												
FILTER GN(Db)	20	10	10		0	10	20	10	30		30	20
FILE: 5 START: 15:50 STOP: 15:53 REC: 200 COMMENT:												
FILTER GN(Db)	20	10	10		0	10	20	10	20		20	10
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: _____ B/ ____ R– ____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: 3 ITHACO FILTER: Low .1 Hz To High 2 Hz

TAPE ID: TAPE C EQUIVALENT DISKS: Set– 02, Act – 11

ITC ACQUISITION: Tape Header 012 (BASE) 14 (REMOTE) 3 (BAND), No. Chan 12, Scan Rate 10 Hz

STRIP CHART: Speed 1 mm/sec, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	2K	2K		5K	5K	1K	1K	1K		2K	2K
FILE: 6 START: 16:30 STOP: 17:00 REC: 70 COMMENT:												
FILTER GN(Db)	20	20	20		20	30	20	10	30		30	30
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: 02 B/ 14 R– GLS (3LTR CODE) DATE: 9/7/81 OPER: YC

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low out Hz To High .315 Hz

TAPE ID: TAPE C GLS EQUIVALENT DISKS: Set– 02, Act – 11

ITC ACQUISITION: Tape Header 012 (BASE) 14 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/min, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	2K	2K	2K		5K	5K	1K	1K	1K		2K	2K
FILE: 7 START: 18:30 STOP: 21:00 REC: 74 COMMENT: Good Data												
FILTER GN(Db)	10	10	20		0	10	10	0	20		10	10
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mountain CA CLIENT: UNION DATE: 8SEP81
SETUP: 04 B/ 03 R- GLS (3LTR CODE) OPER: JS CREW: YC, MM, AL, ____
TELEMETRY: Shorted Noise ✓, Hilo ✓, Triangle ✓, Signal Corr. ✓; REPEATERS? 1

STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)	240	330	↓		240	330	270	0	↓		270	0
DIP (Deg)					0	0					0	0
LENGTH (m)					150	150					150	150
CONTACT (Ohmm)					2.8K	3.0K					1.9K	1.7K
SELF POT (mV)	Bucked to 0? Yes ____ No ____						Bucked to 0? Yes ✓ No ____				-31.0	-23.1

MAGNETOMETER: Probe SN 307, Dewar SN ____; 35 %
LOCATION: T44N, R2E SE1/4 Sec13
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 306, Dewar SN ____; 45 %
T44N, R2E SW1/4 Sec2
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):

MAGNETOMETER: Sensitivity X1
Filter All off
Slew Medium
0.16 Hz PREWHITE: E-Chan All out
H-Chan All in
PREAMPLIFIER: Notch All in
Filter All 0.001

STATION COMMENTS (geology, culture, etc):

BAND PASS SETTINGS

BAND NO: 3 ITHACO FILTER: Low .1 Hz To High 2 Hz
TAPE ID: TAPE C GLS EQUIVALENT DISKS: Set- 02, Act - 12
ITC ACQUISITION: Tape Header ~~04~~ 03 ~~03~~ / ~~013~~ ~~014~~ 3 (BASE / REMOTE / BAND), No. Chan 12, Scan Rate 10 Hz
STRIP CHART: Speed 25 mm/min, Sens 500 mV/div, with VCO Sens 20 V p-p
Should have been 04 03

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	500	500	1000		2000	2000	500	500	1000		2000	2000
FILE: 8 START: 17:35 STOP: 18:42 REC: 169 COMMENT: Good Data												
FILTER GN(Db)	20	20	30		30	30	20	10	30		30	30
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: 04 B/ 03 R- GLS (3LTR CODE) DATE: 8 SEP 80 OPER: Johnston

BAND PASS SETTINGS

BAND NO: 2 ITHACO FILTER: Low 1 Hz To High 40 Hz

TAPE ID: TAPE C GLS EQUIVALENT DISKS: Set- 02, Act - 13

ITC ACQUISITION: Tape Header 014 (BASE) 013 (REMOTE) 2 (BAND), No. Chan 12, Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	500	500	1K		2K	2K	500	500	1K		2K	2K
FILE: 9 START: 19:10 STOP: 19:5 REC: 360 COMMENT:												
FILTER GN(Db)	20	30	20		20	20	30	20	30		20	20
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: 04 B/ 03 R- GLS (3LTR CODE) DATE: 8 SEP 80 OPER: Johnston

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low D.C. Hz To High .315 Hz

TAPE ID: TAPE G GLS EQUIVALENT DISKS: Set- 02, Act - 13

ITC ACQUISITION: Tape Header 014 (BASE) 013 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min, Sens 200 (except HyR) mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	500	500	1K		2K	2K	500	500	1K		2K	2K
FILE: 10 START: 20:45 STOP: 04:00 REC: 225 COMMENT:												
FILTER GN(Db)	0	0	0		0	0	0	0	10		0	0
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mtn. CA CLIENT: Union DATE: 9 Sept 81

SETUP: 10 B/ 05 R- GLS (3LTR CODE) OPER: MFM CREW: IJ, YC, AL, ____

TELEMETRY: Shorted Noise ✓, Hilo ✓, Triangle ✓, Signal Corr. ✓; REPEATERS? No

STATION SETTINGS

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE Gnd	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE Gnd	REMOTE Ex	REMOTE Ey
RESET/SHAKE												
ANGLE (Deg)	70	160	↓		70	160	110	200	↓		110	200
DIP (Deg)					0	+2					0	0
LENGTH (m)					150	145					150	150
CONTACT (Ohmm)					17.4K	16.4K					16.2K	16.0K
SELF POT (mV)	Bucked to 0? Yes ✓ No ____						Bucked to 0? Yes ✓ No ____				8.87	16.0

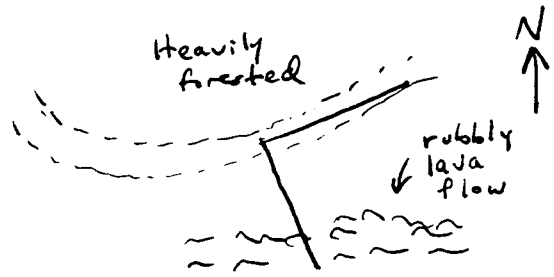
MAGNETOMETER: Probe SN 307, Dewar SN ____; 30 %

LOCATION: T44N R2E sec 36 NE ¼
TOWNSHIP, RANGE, SECTION, ETC

Probe SN 306, Dewar SN ____; 43 %

T44N R3E Sec 29 NW ¼
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER: Sensitivity X1 ____
Filter All off ____
Slew Medium ____
0.16 Hz PREWHITE: E-Chan All out ____
H-Chan All in ____
PREAMPLIFIER: Notch All in ____
Filter All 0.001 ____

STATION COMMENTS (geology, culture, etc):

BAND PASS SETTINGS

BAND NO: 3 ITHACO FILTER: Low .1 Hz To High 2 Hz

TAPE ID: Tape C GLS EQUIVALENT DISKS: Set- 02, Act - 13

ITC ACQUISITION: Tape Header 110 (BASE) 015 (REMOTE) 3 (BAND), No. Chan 12, Scan Rate 10 Hz

STRIP CHART: Speed 25 mm/ min, Sens 500 mV/div, with VCO Sens 20 V p-p

CHANNEL	BASE Hx	BASE Hy	BASE Hz	BASE ITC/DA	BASE Ex	BASE Ey	REMOTE Hx	REMOTE Hy	REMOTE Hz	REMOTE SPARE	REMOTE Ex	REMOTE Ey
PRE-AMP GN	500	500	1K		2K	2K	500	500	1K		2K	2K
FILE: 11 START: 11:30 STOP: 12:40 REC: 186 COMMENT: Fair data @ remote / Base = good												
FILTER GN(Db)	30	30	30		30	30	30	10	30		30	30
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: 10 B/ 05 R- GLS (3LTR CODE) DATE: 9Sept81 OPER: MFM

BAND PASS SETTINGS

BAND NO: 2 ITHACO FILTER: Low | Hz To High 40 Hz

TAPE ID: Tape C, GLS EQUIVALENT DISKS: Set- 02, Act - 14

ITC ACQUISITION: Tape Header 110 (BASE) 015 (REMOTE) 2 (BAND), No. Chan 12, Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/ sec, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	500	500	1000		2000	2000	500	500	1000		2000	2000
FILE: 12 START: 13:15 STOP: 13:20 REC: 320 COMMENT: OK data												
FILTER GN(Db)	20	30	0		20	20	30	20	20		10	20
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: 10 B/ 05 R- GLS (3LTR CODE) DATE: 9 Sept81 OPER: MFM

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low OUT Hz To High 0.315 Hz

TAPE ID: TAPE C, GLS EQUIVALENT DISKS: Set- 02, Act - 14

ITC ACQUISITION: Tape Header 110 (BASE) 015 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min, Sens 500 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	500	500	1000		2K	2K	500	500	1K		2K	2K
FILE: 13 START: 14:15 STOP: 17:25 REC: 101 COMMENT: Good data												
FILTER GN(Db)	0	0	10		0	0	0	0	10		0	0
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 STATION SETUP LOG

SURVEY AREA: Glass Mtn CA CLIENT: Union DATE: 9 Sept 81

SETUP: 09 B/ 15 R- GLS (3LTR CODE) OPER: _____ CREW: ____, ____, ____, ____

TELEMETRY: Shorted Noise ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? _____

STATION SETTINGS

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE												
ANGLE (Deg)	40	130			40	130	280	10			280	10
DIP (Deg)					0	-2					0	0
LENGTH (m)					150	140					150	150
CONTACT (Ohmm)					3.9K	12.4K					26K	30K
SELF POT (mV)	Bucked to 0? Yes ✓ No ___						Bucked to 0? Yes ✓ No ___					

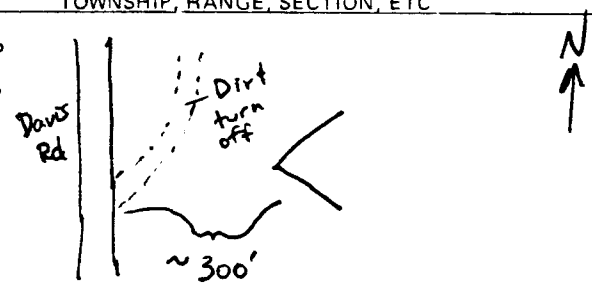
MAGNETOMETER: Probe SN _____, Dewar SN _____; _____ %

LOCATION: NW 1/4 sec 27 T44NR2E
TOWNSHIP, RANGE, SECTION, ETC

Probe SN _____, Dewar SN _____; _____ %

SE 1/4 Sec 8 T43NR2E
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1
	Filter	All off
	Slew	Medium
0.16 Hz PREWHITE:	E-Chan	All out
	H-Chan	All in
PREAMPLIFIER:	Notch	All in
	Filter	All 0.001

STATION COMMENTS (geology, culture, etc):

BAND PASS SETTINGS

BAND NO: 5 ITHACO FILTER: Low OUT Hz To High 0.315 Hz

TAPE ID: TAPE D, GLS EQUIVALENT DISKS: Set- 02, Act - 15

ITC ACQUISITION: Tape Header 019 (BASE) 115 (REMOTE) 5 (BAND), No. Chan 12, Scan Rate 1 Hz

STRIP CHART: Speed 5 mm/ min, Sens 200 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	500	500	1K		2K	2K	500	500	1K		2K	2K

FILE: 1 START: 03:15 STOP: 5:30 REC: 70 COMMENT:												
FILTER GN(Db)	10	10	10		10	10	10	0	10		10	10

FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

MT/1 SETUP LOG, CONTINUED

SETUP: _____ B/ ____ R– ____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: 1 ITHACO FILTER: Low .125 Hz To High 40 Hz

TAPE ID: TAPE D, GLS EQUIVALENT DISKS: Set– 02, Act – 16

ITC ACQUISITION: Tape Header 09 (BASE) 15 (REMOTE) 1 (BAND), No. Chan 12, Scan Rate 200 Hz

STRIP CHART: Speed 5 mm/ sec, Sens 200 mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN	500	500	1K		2K	2K	500	500	1K		2K	2K
FILE: 2 START: 6:15 STOP: 6:25 REC: 310 COMMENT:												
FILTER GN(Db)	20	20	20		10	10	20	10	20		10	10
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

SETUP: _____ B/ ____ R– ____ (3LTR CODE) DATE: _____ OPER: _____

BAND PASS SETTINGS

BAND NO: _____ ITHACO FILTER: Low _____ Hz To High _____ Hz

TAPE ID: _____ EQUIVALENT DISKS: Set– ____, Act – ____

ITC ACQUISITION: Tape Header 1 (BASE) 1 (REMOTE) ____ (BAND), No. Chan ____, Scan Rate ____ Hz

STRIP CHART: Speed ____ mm/ ____, Sens ____ mV/div, with VCO Sens 20 V p-p

	BASE						REMOTE					
CHANNEL	Hx	Hy	Hz	ITC/DA	Ex	Ey	Hx	Hy	Hz	SPARE	Ex	Ey
PRE-AMP GN												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												
FILE: START: STOP: REC: COMMENT:												
FILTER GN(Db)												

PASS COMMENTS (noise, weather, etc):

WCC-MT/1 REMOTE STATION LOG

SURVEY AREA: GLASS MOUNTAIN CLIENT: UNICN DATE: Aug. 30 198

SETUP: Remote 20 Base 19 3-Letter Code _____ CREW: AL, YC, BD

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? _____

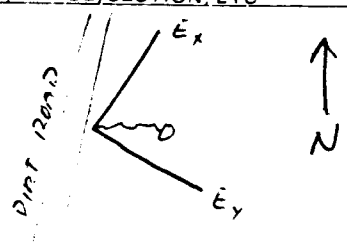
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE					~~142~~	~~130~~
ANGLE (Deg)					40	130
DIP (Deg)					0	0
LENGTH (m)					150	150
CONTACT (Ohmm)				15.4	~~20.5~~	16.9
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				~~-62~~ -99.8	-143.3

MAGNETOMETER: Probe SN ____, Dewar SN ____; ____ %

LOCATION: T43N - R2E NC SEC
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1	
	Filter	All off	
	Slew	Medium	
0.16 Hz PREWHITE:	E-Chan	All out	
	H-Chan	All in	
PRE AMPLIFIER:	Notch	All in	
	Filter	All 0.001	

STATION COMMENTS (geology, culture, etc):

Gains H's 1K
E's 2K
DRY MINERAL SOIL, PINE FOREST

SURVEY AREA: Glass Mountain CLIENT: UNICN DATE: Aug 31

SETUP: Remote 17 Base 16 3-Letter Code _____ CREW: YC, BD, ____

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? _____

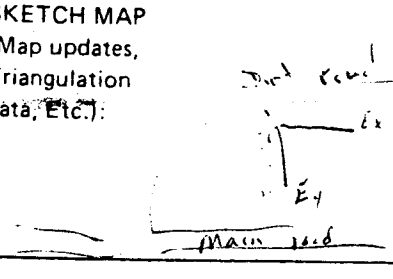
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE						
ANGLE (Deg)					125	215
DIP (Deg)					0	-2
LENGTH (m)					150	150
CONTACT (Ohmm)					19.4	8.3
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				-77.3	-124.3

MAGNETOMETER: Probe SN ____, Dewar SN ____; ____ %

LOCATION: _____
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1	
	Filter	All off	
	Slew	Medium	
0.16 Hz PREWHITE:	E-Chan	All out	
	H-Chan	All in	
PRE AMPLIFIER:	Notch	All in	
	Filter	All 0.001	

STATION COMMENTS (geology, culture, etc):

Battery voltage +13.1 -13.4
+26.4 -26.7

Gains H's
E's

WCC-MT/1 REMOTE STATION LOG

SURVEY AREA: GLASS MOUNTAIN CLIENT: UNION DATE: SEPT 1 1981

SETUP: Remote 12 Base 11 3-Letter Code _____ CREW: AL, BD, SD

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___ ; REPEATERS? ONE

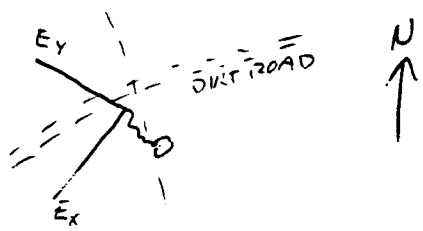
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE						
ANGLE (Deg)					200	290
DIP (Deg)					Ø	Ø
LENGTH (m)					150	150
CONTACT (Ohmm)					23.6	17.3
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				11.2	-21.4

MAGNETOMETER: Probe SN ___, Dewar SN ___ ; ___ %

LOCATION: T43N - R3E SEC 16 NE ¼
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1
	Filter	All off
	Slew	Medium
0.16 Hz PREWHITE:	E-Chan	All out
	H-Chan	All in
PRE AMPLIFIER:	Notch	All in
	Filter	All 0.001

STATION COMMENTS (geology, culture, etc):

REPEATER ON "LITTLE MT. HOFFMAN

SURVEY AREA: Glass Mountain CLIENT: UNION DATE: 9/2/81

SETUP: Remote 18 Base 13 3-Letter Code GLS CREW: YC, AL, ___

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___ ; REPEATERS? ONE

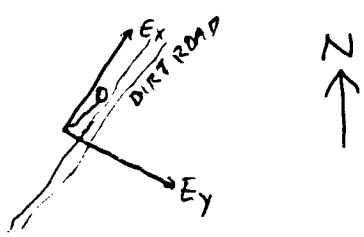
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE						
ANGLE (Deg)					40	130
DIP (Deg)					0	0
LENGTH (m)					150	150
CONTACT (Ohmm) (K)					25/35	20/48
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				-40	117

MAGNETOMETER: Probe SN ___, Dewar SN ___ ; 80 %

LOCATION: T42N R3E NO SEC
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1
	Filter	All off
	Slew	Medium
0.16 Hz PREWHITE:	E-Chan	All out
	H-Chan	All in
PRE AMPLIFIER:	Notch	All in
	Filter	All 0.001

STATION COMMENTS (geology, culture, etc):

REPEATER ON "SIX SHOOTER BUTTE"

WCC-MT/1 REMOTE STATION LOG

SURVEY AREA: GLASS MOUNTAIN CLIENT: UNION DATE: SEP. 3 81

SETUP: Remote 22 Base 21 3-Letter Code _____ CREW: AL, BD, ____

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? _____

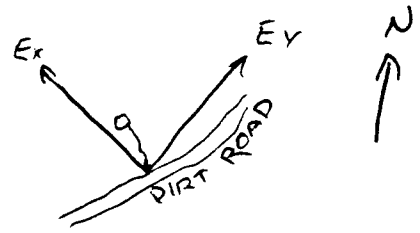
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE		-				
ANGLE (Deg)					300	30
DIP (Deg)					Ø	Ø
LENGTH (m)					150	150
CONTACT (Ohmm)					6.0	13.2
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				8.7	54.5

MAGNETOMETER: Probe SN ____, Dewar SN ____; ____ %

LOCATION: T42N R2E SEC 22 EAST CENTRAL
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1
	Filter	All off
	Slew	Medium
0.16 Hz PREWHITE:	E-Chan	All out
	H-Chan	All in
PRE AMPLIFIER:	Notch	All in
	Filter	All 0.001

STATION COMMENTS (geology, culture, etc):

SURVEY AREA: Glass Mountain CLIENT: Union DATE: Sep 5, 81

SETUP: Remote 8 Base 7 3-Letter Code GLS CREW: YC, AL, ____

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? NO

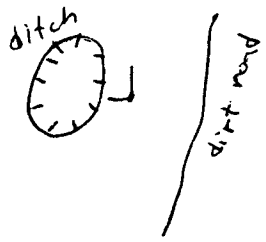
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE						
ANGLE (Deg)					220	310
DIP (Deg)					0	1
LENGTH (m)					150	150
CONTACT (Ohmm)					4.3/47.2	20/80 (K)
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				+204	-232

MAGNETOMETER: Probe SN 06, Dewar SN ____; ____ %

LOCATION: T43N R4E SEC 8 SW ¼
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1
	Filter	All off
	Slew	Medium
0.16 Hz PREWHITE:	E-Chan	All out
	H-Chan	All in
PRE AMPLIFIER:	Notch	All in
	Filter	All 0.001

STATION COMMENTS (geology, culture, etc):

WCC-MT/1 REMOTE STATION LOG

SURVEY AREA: Glass Mtn CLIENT: Union DATE: 6 Sept 81

SETUP: Remote 6 Base 1 3-Letter Code _____ CREW: AL, BD, MM

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? _____

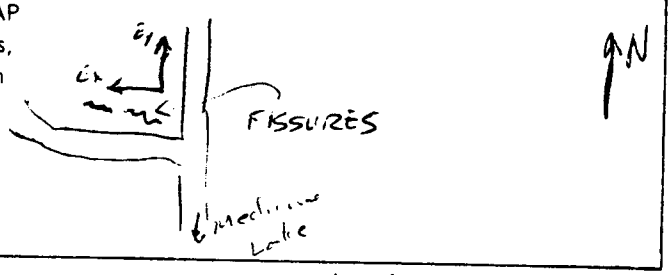
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE						
ANGLE (Deg)	140				260	350
DIP (Deg)					0	-1
LENGTH (m)					140	150
CONTACT (Ohmm)					46K	48K
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				+6.9	+106

MAGNETOMETER: Probe SN ___, Dewar SN ___; ___ %

LOCATION: T44 R3E sec 34 NW 1/4
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER: Sensitivity X1; Filter All off; Slew Medium

0.16 Hz PREWHITE: E-Chan All out; H-Chan All in

PRE AMPLIFIER: Notch All in; Filter All 0.001

STATION COMMENTS (geology, culture, etc):

Gains 500 Hx - Hy
1000 Hz
2000 Ex - Ey
station near intersection of two main roads
large fissures in ground trending E-W

Fw-3'c - Sta 1.

SURVEY AREA: GLASS MOUNTAIN CLIENT: UNION DATE: 7 SEPT 81

SETUP: Remote 14 Base 02 3-Letter Code GLS CREW: AL, MM, ___

TELEMETRY: Shorted Input ✓, Hilo ✓, Triangle ✓, Signal Corr. ___; REPEATERS? NONE

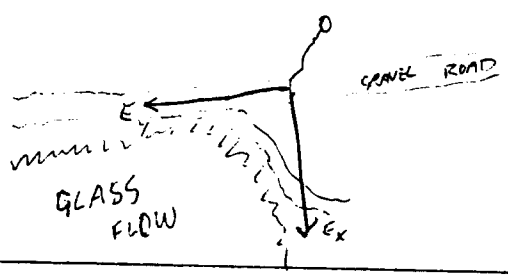
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE						
ANGLE (Deg)					175	265
DIP (Deg)					0	0
LENGTH (m)					140	150
CONTACT (Ohmm)					60.5	56.0
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				-12.1	-30.6

MAGNETOMETER: Probe SN ___, Dewar SN ___; ___ %

LOCATION: T44N R4E sec 26 SW 1/4
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER: Sensitivity X1 ✓; Filter All off ✓; Slew Medium ✓

0.16 Hz PREWHITE: E-Chan All out; H-Chan All in

PRE AMPLIFIER: Notch All in; Filter All 0.001

STATION COMMENTS (geology, culture, etc):

GAINS 1K H's
2K E's

STATION IN AREA OF THICK PUMICE DEPOSITS, CONSEQUENTLY CONTACT RESISTANCE IS HIGH

WCC-MT/1 REMOTE STATION LOG

SURVEY AREA: Glass Mtn. CA CLIENT: Union DATE: 8 Sept 81

SETUP: Remote 03 Base 04 3-Letter Code GLS CREW: YC, AL, MM

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? ___

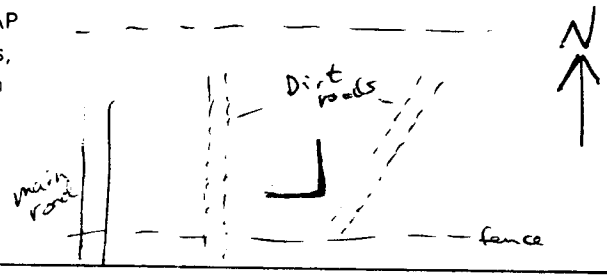
REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE						
ANGLE (Deg)	270	0			270	0
DIP (Deg)					0	0
LENGTH (m)					150	150
CONTACT (Ohmm)					1.95K	1.74K
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				-31.0	-23.1

MAGNETOMETER: Probe SN ___, Dewar SN ___; 78 %

LOCATION: T44N R2E sec 2 SW 1/4
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):



MAGNETOMETER:	Sensitivity	X1
	Filter	All off
	Slew	Medium
0.16 Hz PREWHITE:	E-Chan	All out
	H-Chan	All in
PRE AMPLIFIER:	Notch	All in
	Filter	All 0.001

STATION COMMENTS (geology, culture, etc):

Gains

SURVEY AREA: Glass Mt., CA CLIENT: Union DATE: 9/8/81

SETUP: Remote 05 Base 10 3-Letter Code GLS CREW: YC, AL, ___

TELEMETRY: Shorted Input ___, Hilo ___, Triangle ___, Signal Corr. ___; REPEATERS? ___

REMOTE

CHANNEL	Hx	Hy	Hz	Gnd	Ex	Ey
RESET/SHAKE						
ANGLE (Deg)					110	200
DIP (Deg)					0	0
LENGTH (m)					150	150
CONTACT (Ohmm)					16.2K	16.0K
SELF POT. (mV)	Bucked to 0 ? Yes ✓ No ___				3.87	16.0

MAGNETOMETER: Probe SN ___, Dewar SN ___; 43 %

LOCATION: T44N R3E Sec 29 NW QTR
TOWNSHIP, RANGE, SECTION, ETC

SKETCH MAP (Map updates, Triangulation data, Etc.):

MAGNETOMETER:	Sensitivity	X1
	Filter	All off
	Slew	Medium
0.16 Hz PREWHITE:	E-Chan	All out
	H-Chan	All in
PRE AMPLIFIER:	Notch	All in
	Filter	All 0.001

STATION COMMENTS (geology, culture, etc):

```
      COMPILER (FLD=ABS)
C PROGRAM MTDIG2
C WOODWARD CLYDE CONSULTANTS      SAN FRANCISCO, CA
C MAGNETOTELLURICS      GEOPHYSICS GROUP
C FILE1  INPUT 12 BIT WORD (ITC)
C FILE2  OUTPUT 36 BIT WORD (UNIVAC)
C ORIGIONAL PROGRAM MTDIG WRITTEN BY I.K. REDDY JULY, 1977
C      COMPATABLE WITH 60 BIT CDC SYSTEM
C VERSION MTDIG2 WRITTEN BY CARY HILLEBRAND NOVEMBER, 1979
C   COMPATABLE WITH 36 BIT UNIVAC SYSTEM
C ROUTINE UNPACKS FIELD TAPES TO UNIVAC TAPES
C SLICES 36 BIT SEGMENT FROM INPUT TAPE,REFERMS TO THREE DATA WORDS,
C EACH ONE REPRESENTING ONE 12 BIT VALUE
C SUBROUTINES REQUIRED
C RREAD, SKIPFL, WROUT
C SYSTEM LIBRARY FUNCTIONS REQUIRED
C FLD (ACCESS VARIABLE LENGTH BYTES WITHIN 36 BIT COMPUTER WORD)
C REFERENCE  UNIVAC 1100 SERIES FORTRAN 5 (4.3.2 PG 4-8)
C NTRAN (I/O PARELLEL PROCESSING)
C REFERENCE  UNIVAC 1100 SERIES FORTRAN 5 LIBRARY (PG. 4-35)
C READFT (READ FOREIGN TAPE  WITHOUT 1108 WORDS PER RECORD)
C REFERENCE  ISD EXEC.8 USER'S GUIDE (5.5 PG. 59)
C IMPORTANT! READFT MUST BE MAPPED WITH IN ISD.A.READFT
      INTEGER WRDLTH,WORD(456)
      DIMENSION OUTOUT(1366)
      DIMENSION HD(5),RATE(9)
C
      DATA RATE/500.,200.,100.,50.,10.,5.,1.,0.5,0.1/
C CONST IS NORMALIZATION FACTOR
C INPUT WORD  12 BITS=20 VOLTS FULL SCALE
      DATA OCT/0777777774000/
      CONST=20.0*(1.0/(2.0**12))
C
C
C
   25 CONTINUE
      READ=0.0
C NESKIP IS NO. OF FILES TO SKIP INITIALLY
C NFILED IS TOTAL NUMBER OF FILES TO UNPACK
C NRECD IS MAXIMUM NO. OF RECORDS PER FILE
      READ(5,15,END=997) NESKIP,NFILED,NRECD
   15 FORMAT()
      IF(NESKIP.EQ.1000)GO TO 997
      IF(NESKIP.EQ.0)GO TO 39
C SUBROUTINE SKIPFL SKIPS NESKIP RECORDS
      CALL SKIPFL(1,NESKIP,0)
   39 CONTINUE
C
C PROCESS NFILED CONSECUTIVE FILES FROM INPUT TAPE
      DO 31 JFL = 1,NFILED
      PRINT 14,JFL
   14 FORMAT(/40X,*  F I L E =*,I3/)
C
C PROCESS UP TO NRECD RECORDS FROM FILE JFL
      DO 33 JRD = 1,NRECD
      CALL RREAD(WORD,WRDLTH,IEOF)
C     NOTE THAT IEOF  IS AN INDICATOR THAT AN EOF MARK WAS ENCOUNTERED
C
```

```
C       IEOF=1 MEANS AN EOF MARK WASFOUND.
C IF FIRST RECORD CONTAINS EOF, TERMINATE
        IF(IEOF.EQ.1) GO TO 995
C IF JRD=2, LOOK FOR HEADER                                                  25
        IF(JRD.EQ.1) GO TO 35
C IF JRD NOT EQUAL 1, DECODE DATA
        GO TO 36
C IF HEADER PRESENT, WRDLTH EQUALS TWO                                       25
   35 IF(WRDLTH .EQ. 2) GO TO 38
C IF WRDLTH * 1, HEADER IS NOT PRESENT. MUST READ IN EXTERNAL HEADER
        READ 50,HEAD,IP1,IP2,IP3,SCAN,ICHAN
   50 FORMAT(A6,3I5,F6.2,I5)
C IF DATA CARD LABELED HEADER, DECODE HEADER INFO AND CONTINUE
C       IF NOT, PROGRAM TERMINATES
        IF(HEAD.EQ.6HHEADER)GO TO 52
C WRDLTH IS NO. OF WORDS IN RECORD
C JFL IS FILE COUNTER
C JRD IS RECORD COUNTER                                                      25
        PRINT 23,JFL,JRD,WRDLTH
   23 FORMAT (10X,' FIRST RECORD IS NOT A HEADER','FILE=',I3,' RECORD=',
      .I5,'  WORD LENGTH=',I6/)
        GO TO 997
   38 CONTINUE
C
C        IF IS HEADER.DECODE.
        I1=0                                                                 25
        FLD(32,4,I1)=FLD(4,4,WORD(1))
        I2=0                                                                 25
        FLD(32,4,I2)=FLD(12,4,WORD(1))
        IP1=10*I1+I2
        I1=0                                                                 25
        FLD(32,4,I1)=FLD(20,4,WORD(1))
        I2=0                                                                 25
        FLD(32,4,I2)=FLD(28,4,WORD(1))
        IP2=10*I1+I2
        IP3=0                                                                25
        FLD(32,4,IP3)=FLD(0,4,WORD(2))
        ISCAN=0                                                              25
        FLD(32,4,ISCAN)=FLD(8,4,WORD(2))
        IF(ISCAN.LT.1.OR.ISCAN.GT.8) ISCAN=9
        ICHAN=0                                                              25
        FLD(35,1,ICHAN)=FLD(19,1,WORD(2))
        ICHAN1=0                                                             25
        FLD(32,4,ICHAN1)=FLD(24,4,WORD(2))
        SCAN=RATE(ISCAN)
C ICHAN IS NO. OF INPUT CHANNELS
        ICHAN=12
   52 IREC=1
C WRITE EXTERNAL HEADER                                                      25
        PRINT 22,IREC,IP1,IP2,IP3,SCAN,ICHAN
   22 FORMAT( /20X,'HEADER INFORMATION RECORD=',I5/20X,'IP1=',I2,        '
      . IP2=',I3,'  IP3=',I3,'  SCAN RATE=',F6.2,' SCANS/SEC','  NUMBER )
      .F CHANNELS=',I3/)                                                     25
C HEADER DATA                                                                25
C HD(1)    LOCAL STATION NUMBER                                              25
C HD(2)    REMOTE STATION NUMBER                                             25
C HD(3)    BAND NUMBER
```

```
C HD(4)    SCAN RATE (SCANS/SECOND)                                          25
C HD(5)    NUMBER OF CHANNELS MULTIPLEXED                                    25
      HD(1) = FLOAT(IP1)
      HD(2) = FLOAT(IP2)
      HD(3) = FLOAT(IP3)
      HD(4) = SCAN                                                           25
      HD(5) = FLOAT(ICHAN)
C       WRITE HEADER INFO. ON TAPE 2.                                        25
      WRITE (2) (HD(II),II=1,5)
C
C IF HEAD=0, RECORD CONTAINED HEADER INFO. READ IN NEXT RECORD
      IF(HEAD.EQ.0.0)GO TO 33
      HEAD=0.0
C
   36 CONTINUE
C       DECODE THE DATA
C       TEST  THE NUMBER OF CHANNELS ARE EVEN OR ODD                         25
C IF JCHAN = 1, ODD NUMBER OF CHANNELS
      JCHAN = 0
      ICHAN2 = ICHAN/2
      IF(ICHAN  . NE. ICHAN2*2)  JCHAN=1
C       NUMBER OF WORDS IN EACH RECORD
C (MEMORY OF KENNEDY UNIT IS 16K BITS)                                       25
C 16K=16384                                                                  25
C IWR=113 FOR 12 CHANNEL INPUT
C IWR IS NO. OF SCANS PER RECORD
      IWR=16384/(12*ICHAN)
C NWR IS NO. OF WORDS PER RECORD                                             25
C NWR=1356 FOR 12 CHANNEL INPUT
      NWR=IWR*ICHAN
      IST = 0
      IDATA=0
      ICT = 0                                                                25
      ISB = 24
      IB = 12
      IW = 1
      I = 1                                                                  25
C IB=NO. OF BITS IN SLICE (12)                                               25
C ISB=NO. OF BITS PER WORD -12 (48)                                          25
C ICT IS WORD COUNTER                                                        25
C IW IS SLICE COUNTER                                                        25
C IST IS BIT NO. OF BEGINNING SLICE
  103 CONTINUE
      ICT = ICT+1
       IF(ICT.GT.WRDLTH) GO TO 106
   10 CONTINUE                                                               25
C READ 3 SLICES OF 12 BITS FROM 32 BIT WORD                                  25
      FLD(ISB,IB,IDATA)=FLD(IST,IB,WORD(ICT))                                25
C     CONVERT DATA TO 1'S COMPLEMENT FORMAT. EACH TWELVE BIT WORD EXPANDED   25
C     TO 36 BIT UNIVAC COMPATABLE WORD TO BE WRITTEN ON OUTPUT TAPE.         27
      IF (IDATA.GE.2048) IDATA=(OR(IDATA,OCT))                               27
        OUTPUT(IW) = IDATA*CONST
      IDATA = 0
      IW = IW+1
      IF(IW.GT.NWR) GO TO 106
      IST = IST+IB
      I = I+1
```

```
      IF(I.GT.ICHAN .AND. JCHAN.EQ.1) IST = IST+4
      IF(I.GT.ICHAN) I=1
      ISP = 24
      IB = 12
C READ NEXT SLICE
      IF(IST.LE.24) GO TO 10
      IF(IST.LT.36) GO TO 107
      IST = IST-36
C AFTER THIRD SLICE, RESET IST AND READ NEXT WORD
      GO TO 103
C
  107 CONTINUE
      IBP = 36-IST
      FLD(24,IBP,IDATA)=FLD(IST,IBP,WORD(ICT))
      IB = 12-IBP
      ISP = 24-IBP
      IST = 0
      GO TO 103
C
  106 CONTINUE
      CALL WROUT(2,OUTOUT,NWR,JRD)
      PRINT 24,JFL,JRD,NWR
   24 FORMAT(45X,* FILE=*,I4,* RECORDS=*,I5,*  WORDS=*,I5)
   33 CONTINUE
C
   44 CONTINUE
      ENDFILE 2
      GO TO 25
  996 IF(JRD.EQ.1) GO TO 995
      PRINT 19,JRD
   19 FORMAT(//40X,* E.O.F.  AT RECORD=*,I5/)
      GO TO 30
  995 PRINT 20,JRD
   20 FORMAT(//40X,* FIRST RECORD IS AN E.O.F*,I5/)
      GO TO 997
   30 CONTINUE
      ENDFILE 2
   31 CONTINUE
      GO TO 25
  997 STOP
      END
```

.NEW

```
1.      IN MAIN
2.      IN NTAB
3.      IN ISD.A.READFT
```

```
1.      NTARS,1,90
2.      CLEAR 1,2,3,4
3.      END
```

```
      SUBROUTINE RREAD(WORD,WRDLTH,IEOF)
C SUBROUTINE READS ONE RECORD OF DATA
      INTEGER FILE(20)/*1
C DATA RECORD  455 THIRTY-SIX BIT WORDS
C WORD  INPUT 36 BIT COMPUTER WORD ARRAY
C WRDLTH  NUMBER OF WORDS IN RECORD
C IEOF  END OF FILE MARKER (IF E.O.F. THEN IEOF=1)
      INTEGER WORD(9,5)
      INTEGER WRDLTH
      DATA NREC/0/
      DATA NFILE /0/
      IEOF =0
C READ IN ONE RECORD OF DATA
C     CALL NTRAN(9,2,456,WORD,L,22)
      CALL READF(IFILE,456,WORD(1),L,WRDLTH,IAFC)
C IF DEVICE ERROR, TERMINATE PROGRAM
      IF(L.EQ.1) GO TO 2
      IF(L. EQ.4) GO TO 1
      IF(L.GT.0) GO TO 3
C     IF(L .LE.-3) GO TO 3
C IF END OF FILE ENCOUNTERED, SET IEOF TO 1
C     IF(L .EQ. -2) GO TO 2
C   1 WRDLTH =L
    1 NREC=NREC+1
      IF(NREC.EQ.1) WRDLTH=2
      IF(WRDLTH.GT.1) WRDLTH=455
      PRINT 20,NREC,WRDLTH
      RETURN
    2 WRDLTH =0
      IEOF=1
      NFILE=NFILE+1
      PRINT 21,NFILE
      NREC=0
      RETURN
    3 PRINT 22,NREC,NFILE
      PRINT 3000,L
      IEOF=-1
      WRDLTH=L
   20 FORMAT(* NREC=*,I5,*  WORD LENGTH=*,I5)
   21 FORMAT(1X,*END OF FILE =*,I3)
   22 FORMAT(1X,*PARITY ERROR IN NREC= *,I5,*NFILE= *,I5)
 3000 FORMAT(* *** NTRAN ERROR **** L.TAT =*,I5)
      STOP
      END
```

```
      SUBROUTINE SKIPFL(NUNIT,NFSKIP,NRSKIP)
C     FILE AND RECORD SKIP ROUTINE  FOR DIGITAL DATA MASTER TAPE(SCOPE
C     3.4) READY 4/15/77., NUNIT= UNIT NUMBER,NFSKIP= FILE MARKS TO BE
C     SKIPPED, NRSKIP= RECORDS TO BE SKIPPED. RECORD ARE ASSUMED TO BE WRITTEN                    1
C      IN COMPATABLE FORMAT TO READ USING NTRAN.
C      READS FIRST FIVE WORDS OF RECORD
C
      DIMENSION RD(5)
    3 FORMAT(/15X,*PARITY ERROR*,*FILE=*,I3,*  RECORD=*,I5)
    2 FORMAT(/15X,*FILE SKIPPED=*,I3,5X,*RECORDS=*,I5)
   13 FORMAT(/15X,*PARITY ERROR RECORD=*,I5)
   14 FORMAT(/15X,*E.O.F. ENCOUNTERED AT RECORD=*,I5)                                             1
C
C SKIP NFSKIP FILES
      IF(NFSKIP.EQ.0) GO TO 20
      DO 1 JF = 1,NFSKIP
      NR = 0
   10 CONTINUE                                                                                    2
      NR = NR+1                                                                                   2
      CALL NTRAN(NUNIT,2,5,RD,L,22)                                                              .NEW
      IF(L .EQ. -2) GO TO 6                                                                      ..-1
      IF(L .LE. -3) GO TO 7
    7 PRINT 3,JF,NR
    5 GO TO 10
    6 CONTINUE
      PRINT 2,JF,NR
    1 CONTINUE                                                                                    1
   20 CONTINUE
C        SKIP NRSKIP DATA RECORDS IN FILE NFSKIP+1
      IF(NRSKIP.EQ.0) GO TO 24                                                                    2
      DO 21 JR = 1,NRSKIP                                                                         1
      CALL NTRAN(NUNIT,2,5,RD,L,22)                                                               2
C IF EOF ENCOUNTERED IN RECORD, TERMINATE PROGRAM                                                .NEW
      IF(L .EQ. -2) GO TO 25                                                                     ..-1
      IF(L .LE. -3) GO TO 27
   27 PRINT 13,JR
   21 CONTINUE
      GO TO 24
   26 PRINT 14,JR
      CALL EXIT
   24 RETURN
      END
```

```
      SUBROUTINE WROUT(NUNIT,WORD,NW,JW)                                1
C      WRITES ONE RECORD OF LENGTH NW(36 BIT WORDS) ON UNIT=NUNIT
      DIMENSION WORD(1)
   11 FORMAT(/40X,* PARITY ERROR ON WRITE UNIT AT RECORD=*,I5/)         *NEW
C                                                                      **-1
      WRITE(2) (WORD(I),I=1,NW)
C ******************
C PRINTOUT OPTION FOR TEST TAPE
C IF COMPLETE PRINTOUT OF DIGITIZER RESULTS IS DESIRED, REMOVE THE
C FOLLOWING GO TO CARD.....CAUTION..THIS PRINTOUT WILL GENERATE
C A HELL OF A LOT OF PAPER
      GO TO 197
      PRINT 35,(WORD(I),I=1,NW)
   35 FORMAT(12F7.2)
C ***********************                                               2
  197 CONTINUE                                                          1
C IF PARITY ERROR ENCOUNTERED, TERMINATE PROGRAM                        1
      IF(L .LE. -3) GO TO 3
      RETURN
    3 PRINT 11,JW
      STOP
      END
```

APPENDIX X. FLOPPY DISK FILES

APPENDIX X
FLOPPY DISK FILES

The accepted floppy disk data files have been copied over to a standard format disk, readable on a DEC system with single-sided, single-density RX-01 format capability. Setup files, cross-power files, result files and plot files are included.

A directory to each disk supplied gives the file names, size and data. File naming conventions are as follows:

All data file names have a six-character root and up to a three-character suffix, where the first two digits are a base station number and the second two digits are a remote station number, at each setup.

A permanent or setup file (nonvariable information entered by operator for each pass) contains a P, band number, and pass letter, e.g., 1921P4.B = base 19, remote 21, permanent file, band 4, pass B.

An individual segment cross-power file contains an I, band number, pass letter, and ordered segment ID (note A never used), e.g., 1921I4.BBE = individual file, band 4, pass B, 5th (E) accepted segment of this pass.

A cumulative cross-power file (sum of all individual normalized cross-power files up to that point) contains a C, and is otherwise identical to the latest individual file, e.g., 1921C4.BBE.

A summed cross-power file (nomalized cumulative cross-power files, as from two passes, added together or with an individual subtracted, by the operator to improve quality) contains an S and the pass letters of its source, e.g., 1921S4.AB = 1921C4.ABT + 1921C4.BBE.

A recalculated cross-power file (shuffled channels or renormalized by new setups to correct an operator error) contains an R, and is otherwise identical to the original, e.g., 1921C4.CBX goes to 1921R4.CBX.

A band result file (as created for the printout to each accepted band data set) contains a B, band number, and job identification, e.g., for Zuni it might be 1921B4.ZUN.

A plot data file (result files edited by the operator and combined over bands, then stored by station) contains the local or base station number for the relevant station, and job identification e.g., 1921B4.ZUN and 1921B6.ZUN go to 192119.ZUN and 192121.ZUN.

A program is supplied to read each cross-power file in case one wishes to recalculate parameters according to his own scheme, and a program to read plot data files in case one wishes to input data directly to a model. Again it must be pointed out that these files can conveniently be dumped only with a DEC system, because they are written in binary.

```
 Volume ID: FINAL-01 GLS
 Owner    : WCCMT1 UNION
1920P1. A       12 30-Aug-81      1920C1. ADE     16 30-Aug-81
1920P5. B       12 30-Aug-81      1920C5. BCV     15 30-Aug-81
192019. GLS     39 28-Sep-81      1920B1. GLS     19 27-Sep-81
1920B5. GLS     18 27-Sep-81      192020. GLS     39 28-Sep-81
1617C1. EBH     16 31-Aug-81      1617S1. AAE     16 31-Aug-81
1617P3. H       12 31-Aug-81      1617P1. A       12 31-Aug-81
1617C3. HDQ     15 31-Aug-81      1617C1. ACD     16 31-Aug-81
1617P5. I       12   -BAD-        1617C5. ICF     15   -BAD-
1617B5. GLS     18   -BAD-        1617B1. GLS     19   -BAD-
1617B3. GLS     12   -BAD-        161716. GLS     39 28-Sep-81
161717. GLS     39 28-Sep-81
 21 Files, 411 Blocks
 69 Free blocks
```

```
 Volume ID: FINAL-02 GLS
 Owner    : WCCMT1 UNION
1112P1. B       12 01-Sep-81      1112C1. BET     16 02-Sep-81
1112C5. DCG     15 02-Sep-81      1112P1. E       12 02-Sep-81
1112C1. EDO     16 02-Sep-81      1112P5. D       12 02-Sep-81
1112L1. GLS     19 27-Sep-81      1112R1. GLS     19 27-Sep-81
1112B5. GLS     18 01-Oct-81      111211. GLS     39 01-Oct-81
111212. GLS     39 01-Oct-81      1318P3. B       12 02-Sep-81
1318C3. BCZ     15 02-Sep-81      1318P2. C       12 02-Sep-81
1318C2. CDD     16 02-Sep-81      1318P5. D       12 03-Sep-81
1318C5. DCK     15 03-Sep-81      1318S3. BE      15 03-Sep-81
1318B3. GLS     12 27-Sep-81      131813. GLS     39 28-Sep-81
1318B2. GLS     14 27-Sep-81      1318B5. GLS     18 27-Sep-81
131818. GLS     39 28-Sep-81      1318C3. EDI     15 03-Sep-81
 24 Files, 451 Blocks
 29 Free blocks
```

```
 Volume ID: FINAL-03 GLS
 Owner    : WCCMT1 UNION
2122P2. A       12 04-Sep-81      2122C2. ACZ     16 04-Sep-81
2122P5. D       12 05-Sep-81      2122P3. E       12 05-Sep-81
2122C5. DBJ     15 05-Sep-81      2122R3. ECZ     15 01-Oct-81
212222. GLS     39 28-Sep-81      2122B3. GLS     12 27-Sep-81
2122B2. GLS     14 27-Sep-81      2122B5. GLS     18 27-Sep-81
212221. GLS     39 28-Sep-81      0708C3. ECJ     15 05-Sep-81
0708B3. GLS     12 05-Sep-81      0708C5. DBR     15 05-Sep-81
0708P3. B       12 05-Sep-81      0708C3. FDH     15 05-Sep-81
0708S3. BEF     15 05-Sep-81      0708B2. GLS     14 06-Sep-81
0708B5. GLS     18 06-Sep-81      0708C3. BEB     15 05-Sep-81
0708P2. C       12 05-Sep-81      0708C2. CDC     16 05-Sep-81
0708P5. D       12 05-Sep-81      070807. GLS     39 04-Oct-81
070808. GLS     39 04-Oct-81
 25 Files, 453 Blocks
 27 Free blocks
```

```
 Volume ID: FINAL-04 GLS
 Owner    : WCCMT1 UNION
0106P5. D       12 06-Sep-81        0106C5. DBZ     15 06-Sep-81
0106P3. E       12 06-Sep-81        0106B5. GLS     18 06-Sep-81
0106C3. EDB     15 06-Sep-81        0106B3. GLS     12 06-Sep-81
0106P2. B       12 06-Sep-81        0106C2. BCV     16 06-Sep-81
010601. GLS     39 04-Oct-81        010606. GLS     39 04-Oct-81
0106B2. GLS     14 06-Sep-81        0214P2. B       12 07-Sep-81
0214P3. C       12 07-Sep-81        0214C2. BDK     16 07-Sep-81
0214C3. CEA     15 07-Sep-81        0214P5. E       12 07-Sep-81
0214C5. EBN     15 07-Sep-81        0214C3. GDA     15 07-Sep-81
0214B5. GLS     18 07-Sep-81        0214B3. GLS     12 07-Sep-81
0214S3. CCG     15 07-Sep-81        0214B2. GLS     14 26-Sep-81
021402. GLS     39 28-Sep-81        021414. GLS     39 28-Sep-81
 24 Files, 438 Blocks
 42 Free blocks
```

```
 Volume ID: FINAL-05 GLS
 Owner    : WCCMT1 UNION
040303. GLS     39 04-Oct-81        040304. GLS     39 04-Oct-81
0403P3. C       12 08-Sep-81        0403C3. CDE     15 08-Sep-81
0403P2. D       12 08-Sep-81        0403C2. DCV     16 08-Sep-81
0403P5. E       12 08-Sep-81        0403C5. EDA     15 08-Sep-81
0403B3. GLS     12 27-Sep-81        0403B2. GLS     14 27-Sep-81
0403B5. GLS     18 27-Sep-81        1005P2. B       12 09-Sep-81
100505. GLS     39 28-Sep-81        1005B3. GLS     12 26-Sep-81
100510. GLS     39 28-Sep-81        1005P5. C       12 09-Sep-81
1005P3. D       12 09-Sep-81        1005C5. CBL     15 09-Sep-81
1005C3. DBI     15 09-Sep-81        1005C3. EDF     15 09-Sep-81
1005B5. GLS     18 09-Sep-81        1005L2. GLS     14 10-Sep-81
1005S3. DE      15 26-Sep-81        1005C2. BEG     16 26-Sep-81
1005B2. GLS     14 26-Sep-81
 25 Files, 452 Blocks
 28 Free blocks
```

```
 Volume ID: FINAL-06 GLS
 Owner    : WCCMT1 UNION
0915P5.A       12 10-Sep-81      0915C5.ABR     15 10-Sep-81
0915P1.B       12 10-Sep-81      0915C1.BFC     16 10-Sep-81
0915B1.GLS     19 10-Sep-81      0915C5.CBD     15 10-Sep-81
0915S5.ACA     15 10-Sep-81      0915B5.GLS     18 10-Sep-81
091509.GLS     39 01-Oct-81      091515.GLS     39 01-Oct-81
 10 Files, 200 Blocks
 280 Free blocks
```

```
0001        PROGRAM DUMPLT
      C
      C..THIS PROGRAM DUMPS THE REQUESTED PLOT DATA FILE AS EDITED AND WRITTEN
      C  BY PROGRAM REFILE.  A DIFFERENT DATA FILE WILL HAVE BEEN CREATED
      C  FOR EACH STATION, CONSISTING OF 39 BLOCKS.  THE FIRST BLOCK(BLOCK 0)
      C  CONTAINS IDENTIFICATION AND SETUP INFORMATION.  BLOCKS 1 THROUGH 28
      C  EACH CONTAIN A VARIABLE, WRITTEN AS A 20 BY 5 ARRAY, FOR UP TO
      C  20 WINDOWS(OR CENTER PERIODS) IN UP TO 5 BANDS.  BLOCKS 29 THROUGH 37
      C  ARE FILLED IN FROM THE PLOT PROGRAMS, WITH BLOCKS 38 AND 39 RESERVED
      C  FOR FUTURE USE(UNFILLED BLOCKS PRESENTLY HOLD DATA FOUND IN BLOCK 27).
      C
      C..WRITTEN BY R GOSS, DEC 79, TO READ FROM A DEC WRITTEN FILE.
      C  MODIFIED TO DUMP ALL INFO FROM LATER PLOT RIVISIONS UP TO AND INCLUDING
      C   ADDED BLOCKS IN PLOT FILE, R GOSS, 24-FEB-81.
      C*********************************************************************
      C    IBLOCK 0 CONTAINS
      C     AN ALPHANUMERIC SITE OR SURVEY DESCRIPTION,
      C     STATION ALPHANUMERIC IDENTIFICATION,
      C     THE REMOTE REFERENCE STATION ALPHANUMERIC IDENTIFICATION,
      C     THE NUMBER OF BANDS,
      C     A NUMERIC BAND IDENTIFIER, PER BAND.
      C     THE NUMBER OF CENTER PERIODS USED, BY XY OR YX, PER BAND,
      C     THE NUMBER OF DIFFERENT/DISTINCT PERIODS IN BOTH XY AND YX, PER BAND.
      C     THE NUMBER OF RECORDED PERIODS, USED OR NOT, PER BAND.
      C     THE ALPHABETIC IDENTIFIER OF PASS TO BAND BEING SHOWN.
      C     THE NUMBER OF STACKED TRANSFORMS IN EACH BAND/PASS,
      C     THE NUMBER OF POINTS(IF ANY) DELETED FOR XY OR YX PER BAND.
      C     THE (INTEGERIZED) AZIMUTHAL BEARING FOR EX, EY, AND HX,
      C     THE AZIMUTHAL CORRECTION FOR ANOTHER REFERENCE(FROM HX).
      C     AN INDICATOR FOR SWITCHED AND SHIFTED XY/YX SETS, PER BAND
      C     (0 IMPLIES NONE, +OR-1 IMPLIES SWITCH FOR NCENTR,NDELET,PERIOD,RHO,
      C     COHER,PHASE(+OR-180), -1 IMPLIES ROTATION-90, +1 IMPLIES ROTATION+90).
      C     THE EXPONENT TO THE FIRST PERIOD ON GRAPHS(EXP OF MANTISSA 2).
      C     THE OUTPUT FILENAME, AND UP TO 5 INPUT(XPOWER) FILES FOR BANDS USED.
      C     THE DELETED WINDOW NUMBERS WITHIN BANDS FOR XY AND/OR YX.
      C     THE NUMBER OF KILLED OR UNACCEPTED POINTS IN THE DELETE LIST.
      C     A PLUS OR MINUS ROTATION RANGE MOVE INDICATOR.
      C     A PLUS OR MINUS TIPPER STRIKE RANGE MOVE INDICATOR.
      C     THE CONFIDENCE LIMIT SELECTED.
      C     AN INDICATOR FOR SHIFTED TIPPER STRIKE, BY BAND.
      C     THE MAXIMUM ORDER OF POLYNOMIAL FOR RHO CURVE FIT.
      C
      C    BLOCK 1 CONTAINS
      C     ALL OF THE CHOSEN XY CENTER PERIODS IN SECONDS,
      C     MINIMUM AND MAXIMUM XY CENTER PERIOD PER BAND.
      C    BLOCK 2 CONTAINS
      C     THE COMBINED AND AVERAGED XY RESISTIVITIES IN OHM-M AT EACH PERIOD,
      C     THE MINIMUM AND MAXIMUM XY RESISTIVITY IN EACH BAND.
      C    BLOCK 3 CONTAINS
      C     THE COMBINED AND AVERAGED XY ERROR ESTIMATES IN OHM-M AT EACH PERIOD.
      C    BLOCK 4 CONTAINS SAME AS BLOCK 1 FOR YX PERIODS.
      C    BLOCK 5 CONTAINS SAME AS BLOCK 2 FOR YX RESISTIVITIES.
      C    BLOCK 6 CONTAINS SAME AS BLOCK 3 FOR YX ERROR ESTIMATES.
      C
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C     BLOCK 7 CONTAINS
C      THE COMBINED XY ORDINARY MULTIPLE COHERENCY RATIOS.
C     BLOCK 8 CONTAINS SAME AS BLOCK 7 FOR YX COHERENCIES.
C     BLOCK 9 CONTAINS
C      THE COMBINED XY PHASES IN DEGREES AT EACH PERIOD.
C     BLOCK 10 CONTAINS
C      THE COMBINED XY PHASE ERROR ESTIMATES IN DEGREES AT EACH PERIOD.
C     BLOCK 11 CONTAINS SAME AS BLOCK 9 FOR YX PHASES.
C     BLOCK 12 CONTAINS SAME AS BLOCK 10 FOR YX PHASE ERRORS.
C     BLOCK 13 CONTAINS
C      THE COMBINED ROTATION(AS CORRECTED) IN DEGREES AT EACH PERIOD
C      WHICH HAS BOTH XY AND YX DATA.
C     BLOCK 14 CONTAINS
C      THE COMBINED SKEW IN DEGREES AT EACH PERIOD WHICH HAS BOTH XY
C      AND YX DATA.
C
C     BLOCK 15 CONTAINS
C      THE COMBINED TIPPER MAGNITUDE RATIO AT EACH PERIOD WHICH HAS BOTH
C      XY AND YX DATA.
C     BLOCK 16 CONTAINS
C      THE COMBINED TIPPER COHERENCY RATIOS AT EACH PERIOD WHICH HAS BOTH
C      XY AND YX DATA.
C     BLOCK 17 CONTAINS
C      THE COMBINED TIPPER STRIKE(AS CORRECTED) IN DEGREES AT EACH PERIOD
C      WHICH HAS BOTH XY AND YX DATA.
C     BLOCK 18 CONTAINS
C      THE COMBINED TIPPER PHASE IN DEGREES AT EACH PERIOD WHICH HAS BOTH
C      XY AND YX DATA.
C
C     BLOCK 19 CONTAINS
C      THE COMBINED EX SIGNAL POWER IN (MV/KM)**2/HERTZ AT EACH PERIOD
C      WHICH HAS EITHER XY OR YX DATA.
C      THE MINIMUM AND MAXIMUM EX SIGNAL FOR EACH BAND.
C     BLOCK 20 CONTAINS
C      THE COMBINED EX NOISE POWER IN (MV/KM)**2/HERTZ AT EACH PERIOD
C      WHICH HAS EITHER XY OR YX DATA.
C     BLOCK 21 CONTAINS SAME AS BLOCK 19 FOR EY SIGNAL.
C     BLOCK 22 CONTAINS SAME AS BLOCK 20 FOR EY NOISE.
C
C     BLOCK 23 CONTAINS
C      THE COMBINED HX SIGNAL POWER IN GAMMAS**2/HERTZ AT EACH PERIOD
C      WHICH HAS EITHER XY OR YX DATA.
C      THE MINIMUM AND MAXIMUM HX SIGNAL FOR EACH BAND.
C     BLOCK 24 CONTAINS
C      THE COMBINED HX NOISE POWER IN GAMMAS**2/HERTZ AT EACH PERIOD
C      WHICH HAS EITHER XY OR YX DATA.
C     BLOCK 25 CONTAINS SAME AS BLOCK 23 FOR HY SIGNAL.
C     BLOCK 26 CONTAINS SAME AS BLOCK 24 FOR HY NOISE.
C     BLOCK 27 CONTAINS SAME AS BLOCK 23 FOR HZ SIGNAL.
C     BLOCK 28 CONTAINS SAME AS BLOCK 24 FOR HZ NOISE.
C   BLOCKS TO BE FILLED FROM PLOT PROGRAMS:
C    BLOCKS 29 AND 30 WRITTEN INTO WHEN RHO PLOT PROGRAM RUN.
C     BLOCK 29 FOR WRITING XY RHO CURVE FIT VALUES IN(OHM-M).
C     BLOCK 30 FOR WRITING YX RHO CURVE FIT VALUES IN(OHM-M).
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C   BLOCKS 31 AND 32 WRITTEN INTO WHEN RHO INVERSION PLOT PROGRAM RUN.
C     BLOCK 31 FOR WRITING INVERTED XY RHO/DEPTH DATA IN(OHM-M,KM).
C     BLOCK 32 FOR WRITING INVERTED YX RHO/DEPTH DATA IN(OHM-M,KM).
C   BLOCKS 33 AND 34 RESERVED FOR YX NEW PHASE PLOT PROGRAM.
C     BLOCK 33(WILL BE) XY PHASE CURVE FIT VALUES.
C     BLOCK 34(WILL BE) YX PHASE CURVE FIT VALUES.
C   BLOCKS 35 AND 36 RESERVED FOR NEW PHASE INVERSION PLOT PROGRAM.
C     BLOCK 35(WILL BE) XY PHASE INVERTED DATA.
C     BLOCK 36(WILL BE) YX PHASE INVERTED DATA.
C   BLOCKS 37 AND 38 RESERVED FOR FUTURE NEEDS.
C
C..SUBROUTINES REQUIRED--
C     RT-11 SYSTEM FUNCTIONS ICSI,IGETC,LOOKUP,IREADW.
C     RT-11 SYSTEM SUBROUTINES CLOSEC,PRINT.
C*********************************************************************
```

```
      C--DECODE THE VARIABLES FROM THE BLOCK BEING READ IN, TO SIMPLIFY
      C  MODIFICATION FOR ANY DESIRED OUTPUT FORMAT.------------------------
0002        DIMENSION IBLOKO(214)
0003        DIMENSION NAME(10),NSTA(4),NREMOT(4),NBAND(5),NCENTR(5,2),
           1  NDIFFP(5),NRECRP(5),NPASS(5),NSTACK(5),NDELET(5,2),IAZMTH(3),
           2  NSHIFT(5),NFILES(5,5),MFILE(5),NDELST(100),NSTIP(5)
0004        EQUIVALENCE                          !  to decode ID block 0 locations.
           1  (IBLOKO(1),NAME(1)),               !  20 character name,A2 format.
           2  (IBLOKO(11),NSTA(1)),               !  8 char station being plotted(A2).
           3  (IBLOKO(15),NREMOT(1)),             !  8 char remote ref station(A2).
           4  (IBLOKO(19),NBANDS),                !  number of bands recorded.
           5  (IBLOKO(20),NBAND(1))               !  band no. identifier,by band.
0005        EQUIVALENCE
           6  (IBLOKO(25),NCENTR(1,1)),           !  center periods for xy,yx by band.
           7  (IBLOKO(35),NDIFFP(1)),             !  diff prds either xy or yx by band.
           8  (IBLOKO(40),NRECRP(1)),             !  total recorded periods(no del).
           9  (IBLOKO(45),NPASS(1)),              !  alpha pass identifer by band.
           A  (IBLOKO(50),NSTACK(1))              !  number of stacks summed by band.
0006        EQUIVALENCE
           1  (IBLOKO(55),NDELET(1,1)),           !  no. of xy,yx pts deleted by band.
           2  (IBLOKO(65),IAZMTH(1)),             !  integerized azimuth of Ex,Ey,Hx.
           3  (IBLOKO(68),IAZCOR),                !  corr to another ref(from Hx).
           4  (IBLOKO(69),NSHIFT(1)),             !  phase shift & xy/yx switch by band.
           5  (IBLOKO(74),NEXP)          !  exponent of 1st prd(default=-2).
0007        EQUIVALENCE
           6  (IBLOKO(75),NFILES(1,1)),           !  10 char Xpwr filenames by band,A2.
           7  (IBLOKO(100),MFILE(1)),             !  10 char data filename,A2 fmt.
           8  (IBLOKO(105),NDELST(1)),            !  deleted window numbers list.
           9  (IBLOKO(205),KILLPT),               !  no. of deleted windows in list.
           B  (IBLOKO(206),IROTAT)                !  rotation range move indicator.
0008        EQUIVALENCE
           1  (IBLOKO(207),ISTRIK),               !  tipper strike range move indic.
           2  (IBLOKO(208),IMK),                  !  confidence limit.
           3  (IBLOKO(209),NSTIP(1)),             !  tipper rotation by band.
           4  (IBLOKO(214),MAXORD)                !  max order of rho curve fit.
0009        DIMENSION BLOCK1(110),BLOCK2(110),BLOCK3(100),BLOCK4(110),
           1  BLOCK5(110),BLOCK6(100)
0010        DIMENSION XYPERD(20,5),XYPLIM(5,2),XYRHO(20,5),XYRLIM(5,2),
           1  XYRERR(20,5),YXPERD(20,5),YXPLIM(5,2),YXRHO(20,5),YXRLIM(5,2),
           2  YXRERR(20,5)
0011        EQUIVALENCE
           1  (BLOCK1(1),XYPERD(1,1)),            !  xy periods by band.
           2  (BLOCK1(101),XYPLIM(1,1)),          !  xy period min,max by band.
           3  (BLOCK2(1),XYRHO(1,1)),             !  xy resistivities by band.
           4  (BLOCK2(101),XYRLIM(1,1)),          !  xy rho min,max by band.
           5  (BLOCK3(1),XYRERR(1,1)),            !  xy rho error estimates by band.
           6  (BLOCK4(1),YXPERD(1,1)),            !  yx periods by band.
           7  (BLOCK4(101),YXPLIM(1,1)),          !  yx period min,max by band.
           8  (BLOCK5(1),YXRHO(1,1)),             !  yx resistivities by band.
           9  (BLOCK5(101),YXRLIM(1,1)),          !  yx rho min,max by band.
           A  (BLOCK6(1),YXRERR(1,1))             !  yx rho error estimates by band.
0012        DIMENSION BLOCK7(100),BLOCK8(100),BLOCK9(100),BLOK10(100),
           1  BLOK11(100),BLOK12(100),BLOK13(100),BLOK14(100)
0013        DIMENSION XYCOH(20,5),YXCOH(20,5),XYFASE(20,5),XYFERR(20,5),
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          1  YXFASE(20,5),YXFERR(20,5),ROTATE(20,5),SKEW(20,5)
0014       EQUIVALENCE
          1  (BLOCK7(1),XYCOH(1,1)),              !  xy ordinary coherency by band.
          2  (BLOCK8(1),YXCOH(1,1)),              !  yx ordinary coherency by band.
          3  (BLOCK9(1),XYFASE(1,1)),             !  xy impedance phase by band.
          4  (BLOK10(1),XYFERR(1,1)),             !  xy impedance phase error by band.
          5  (BLOK11(1),YXFASE(1,1)),             !  yx impedance phase by band.
          6  (BLOK12(1),YXFERR(1,1)),             !  yx impedance phase error by band.
          7  (BLOK13(1),ROTATE(1,1)),             !  impedance axis rotation by band.
          8  (BLOK14(1),SKEW(1,1))                !  impedance skew ratio by band.
0015       DIMENSION BLOK15(100),BLOK16(100),BLOK17(100),BLOK18(100)
0016       DIMENSION TIMAG(20,5),TICOH(20,5),TISTRI(20,5),TIFASE(20,5)
0017       EQUIVALENCE
          1  (BLOK15(1),TIMAG(1,1)),              !  tipper magnitude by band.
          2  (BLOK16(1),TICOH(1,1)),              !  tipper coherency by band.
          3  (BLOK17(1),TISTRI(1,1)),             !  tipper strike by band.
          4  (BLOK18(1),TIFASE(1,1))              !  tipper phase by band.
0018       DIMENSION BLOK19(110),BLOK20(100),BLOK21(110),BLOK22(100)
0019       DIMENSION EXSIG(20,5),EXLIM(5,2),EXNOI(20,5),EYSIG(20,5),
          1  EYLIM(5,2),EYNOI(20,5)
0020       EQUIVALENCE
          1  (BLOK19(1),EXSIG(1,1)),              !  ex electric signal power by band.
          2  (BLOK19(101),EXLIM(1,1)),            !  ex signal min,max by band.
          3  (BLOK20(1),EXNOI(1,1)),              !  ex electric noise power by band.
          4  (BLOK21(1),EYSIG(1,1)),              !  ey electric signal power by band.
          5  (BLOK21(101),EYLIM(1,1)),            !  ey signal min,max by band.
          6  (BLOK22(1),EYNOI(1,1))               !  ey electric noise power by band.
0021       DIMENSION BLOK23(110),BLOK24(100),BLOK25(110),BLOK26(100),
          1  BLOK27(110),BLOK28(100)
0022       DIMENSION HXSIG(20,5),HXLIM(5,2),HXNOI(20,5),HYSIG(20,5),
          1  HYLIM(5,2),HYNOI(20,5),HZSIG(20,5),HZLIM(5,2),HZNOI(20,5)
0023       EQUIVALENCE
          1  (BLOK23(1),HXSIG(1,1)),              !  hx magnetic signal power by band.
          2  (BLOK23(101),HXLIM(1,1)),            !  hx signal min,max by band.
          3  (BLOK24(1),HXNOI(1,1)),              !  hx magnetic noise power by band.
          4  (BLOK25(1),HYSIG(1,1)),              !  hy magnetic signal power by band.
          5  (BLOK25(101),HYLIM(1,1)),            !  hy signal min,max by band.
          6  (BLOK26(1),HYNOI(1,1)),              !  hy magnetic noise power by band.
          7  (BLOK27(1),HZSIG(1,1)),              !  hz magnetic signal power by band.
          8  (BLOK27(101),HZLIM(1,1)),            !  hz signal min,max by band.
          9  (BLOK28(1),HZNOI(1,1))               !  hz magnetic noise power by band.
     C  RESERVE BLOCKS TO WRITE INTO FROM PLOTS.
0024       DIMENSION BLOK29(110),BLOK30(110),BLOK31(110),BLOK32(110),
          1  BLOK33(110),BLOK34(110),BLOK35(110),BLOK36(110),
          2  BLOK37(110),BLOK38(110)
0025       DIMENSION XYRFIT(100),XYREXT(5,2),YXRFIT(100),YXREXT(5,2),
          1  XYTRO1(50),XYTEX1(2),XYDEP1(50),XYDEX1(2),
          2  YXTRO1(50),YXTEX1(2),YXDEP1(50),YXDEX1(2)
0026       EQUIVALENCE
          1  (BLOK29(1),XYRFIT(1)),               !  xy rho curve fit values by band.
          2  (BLOK29(101),XYREXT(1,1)),           !  xy rho curve fit extremes by band.
          3  (BLOK30(1),YXRFIT(1)),               !  yx rho curve fit values by band.
          4  (BLOK30(101),YXREXT(1,1)),           !  yx rho curve fit extremes by band.
          5  (BLOK31(1),XYTRO1(1)),               !  xy true rho,magnitude inversion.
```

```
     6  (BLOK31(51),XYTEX1(1)),            !  xy true rho,mag invr extremes.
     7  (BLOK31(56),XYDEP1(1)),            !  xy depths,magnitude inversion.
     8  (BLOK31(106),XYDEX1(1)),   !  xy depths,mag invr extremes.
     9  (BLOK32(1),YXTRO1(1)),             !  yx true rho,magnitude inversion.
     A  (BLOK32(51),YXTEX1(1)),            !  yx true rho,mag invr extremes.
     1  (BLOK32(56),YXDEP1(1)),            !  yx depths,magnitude inversion.
     2  (BLOK32(106),YXDEX1(1))            !  yx depths,mag invr extremes.
C  BLOCKS 33 THRU 36 WILL BE SIMILAR FOR PHASE DATA WHEN COMPLETED.
C  BLOCKS 37 AND 38 ARE RESERVED FOR FUTURE NEEDS.
C  BLOCKS 33 THRU 38 PRESENTLY DUPLICATE BLOCK 27.
C
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```
      C--INITIALIZE AND REQUEST THE FILE TO BE READ.
0027        DIMENSION ISPEC(39)
0028        DOUBLE PRECISION FILNAM
0029        DATA FILNAM/12RDATDATDATDAT/
0030        ICHAN=IGETC(0)
0031  10    CONTINUE
0032        CALL PRINT('PLOT DATA FILE NAME?')
0033        ISTAT=ICSI(ISPEC,FILNAM,,,0)
0034        CALL CLOSEC(ICHAN)
0035        ISTAT=LOOKUP(ICHAN,ISPEC(16))
0036        IF(ISTAT.LE.0) GO TO 10
      C
      C  READ THE IDENTIFICATION PARAMETERS FROM 205 WORDS OF BLOCK 0 INTO THE
      C  PROPER ARRAYS.
0038        IERROR=IREADW(214,IBLOK0,0,ICHAN)
0039        IF(IERROR.LE.0) STOP 'BLOCK 0 FAILURE'
0041        WRITE(6,200) (IBLOK0(I), I=1,74), ((NFILES(J,K), J=1,5),
           1  K=1,NBANDS)
0042        WRITE(6,21) (MFILE(L), L=1,5)
0043        IF(KILLPT.NE.0) WRITE(6,22) (NDELST(M), M=1,KILLPT)
0045        IF(KILLPT.EQ.0) CALL PRINT('NO POINTS IN DELETE LIST')
0047        WRITE(6,23) (IBLOK0(N), N=205,214)
0048  200   FORMAT(/1H1,'NAME=',10A2,5X,'STA=',4A2,5X,'REMOTE=',4A2,
           1  /1X,'NBANDS=',I5,5X,'BAND=',5I5,
           2  /1X,'XCENTP=',5I5,5X,'YCENTP=',5I5,5X,'DIFFP=',5I5,5X,'RECRDP=',
           3  5I5,/1X,'PASS=',5(2X,A1),5X,'STACKS=',5I5,5X,'XDELETE=',5I5,5X,
           4  'YDELETE=',5I5,/1X,'AZIM=',3I5,5X,'AZCOR=',I5,5X,'SHIFT=',5I5,
           5  5X,'NEXP=',I3,/1X,'XPWR FILES=',5(1X,4A2,A1))
0049  21    FORMAT(1X,'  PLOT FILE=',4A2,A1)
0050  22    FORMAT(1X,'DELETE LIST=',20I5,4(/13X,20I5))
0051  23    FORMAT(1X,'KILLPT=',I5,5X,'IROTAT=',I3,5X,'ISTRIK=',I3,5X,
           1  'CONF LIMIT=',I3,5X,'NSHIFT TIPPER=',5I5,5X,'MAXORD=',I2)
      C
      C  READ THE XY PERIODS AND THEIR MINIMA AND MAXIMA FROM THE 110 VALUES
      C  OF BLOCK 1(NOTE 1 REAL VALUE=2 WORDS).
0052        IERROR=IREADW(220,BLOCK1,1,ICHAN)
0053        IF(IERROR.LE.0) STOP 'BLOCK 1 FAILURE'
0055        WRITE(6,201)
0056  201   FORMAT(/1X,'BLOCK  1 = XY PERIODS BY BAND, MINIMA AND MAXIMA')
0057        WRITE(6,290) (BLOCK1(I), I=1,110)
0058  290   FORMAT(5(/2X,10E10.2,/5X,10E10.2),/10X,10E10.2)
      C
      C  READ THE XY RESISTIVITIES AND THEIR MIN AND MAX FROM THE 110 VALUES
      C  OF BLOCK 2.
0059        IERROR=IREADW(220,BLOCK2,2,ICHAN)
0060        IF(IERROR.LE.0) STOP 'BLOCK 2 FAILURE'
0062        WRITE(6,202)
0063  202   FORMAT(/1X,'BLOCK  2 = XY RESISTIVITIES BY BAND, MINIMA AND',
           1  ' MAXIMA')
0064        WRITE(6,290) (BLOCK2(I), I=1,110)
      C
      C  READ THE XY RESISTIVITY ERROR ESTIMATES FROM THE 100 VALUES OF BLOCK 3.
0065        IERROR=IREADW(200,BLOCK3,3,ICHAN)
0066        IF(IERROR.LE.0) STOP 'BLOCK 3 FAILURE'
```

```
0068          WRITE(6,203)
0069   203    FORMAT(/1X,'BLOCK  3 = XY RESISTIVITY ERRORS BY BAND')
0070          WRITE(6,295) (BLOCK3(I), I=1,100)
0071   295    FORMAT(5(/2X,10E10.2,/5X,10E10.2))
       C
       C  READ THE YX PERIODS AND THEIR MINIMA AND MAXIMA FROM THE 110 VALUES
       C  OF BLOCK 4.
0072          IERROR=IREADW(220,BLOCK4,4,ICHAN)
0073          IF(IERROR.LE.0) STOP 'BLOCK 4 FAILURE'
0075          WRITE(6,204)
0076   204    FORMAT(/1X,'BLOCK  4 = YX PERIODS BY BAND, MINIMA AND MAXIMA')
0077          WRITE(6,290) (BLOCK4(I), I=1,110)
       C
       C  READ THE YX RESISTIVITIES AND THEIR MIN AND MAX FROM THE 110 VALUES
       C  OF BLOCK 5.
0078          IERROR=IREADW(220,BLOCK5,5,ICHAN)
0079          IF(IERROR.LE.0) STOP 'BLOCK 5 FAILURE'
0081          WRITE(6,205)
0082   205    FORMAT(/1X,'BLOCK  5 = YX RESISTIVITIES BY BAND, MINIMA AND',
             1  ' MAXIMA')
0083          WRITE(6,290) (BLOCK5(I), I=1,110)
       C
       C  READ THE YX RESISTIVITY ERROR ESTIMATES FROM THE 100 VALUES OF BLOCK 6.
0084          IERROR=IREADW(200,BLOCK6,6,ICHAN)
0085          IF(IERROR.LE.0) STOP 'BLOCK 6 FAILURE'
0087          WRITE(6,206)
0088   206    FORMAT(/1X,'BLOCK  6 = YX RESISTIVITY ERRORS BY BAND')
0089          WRITE(6,295) (BLOCK6(I), I=1,100)
       C
       C  READ THE XY ORDINARY COHERENCIES FROM THE 100 VALUES OF BLOCK 7.
0090          IERROR=IREADW(200,BLOCK7,7,ICHAN)
0091          IF(IERROR.LE.0) STOP 'BLOCK 7 FAILURE'
0093          WRITE(6,207)
0094   207    FORMAT(/1X,'BLOCK  7 = XY COHERENCIES BY BAND')
0095          WRITE(6,295) (BLOCK7(I), I=1,100)
       C
       C  READ THE YX ORDINARY COHERENCIES FROM THE 100 VALUES OF BLOCK 8.
0096          IERROR=IREADW(200,BLOCK8,8,ICHAN)
0097          IF(IERROR.LE.0) STOP 'BLOCK 8 FAILURE'
0099          WRITE(6,208)
0100   208    FORMAT(/1X,'BLOCK  8 = YX COHERENCIES BY BAND')
0101          WRITE(6,295) (BLOCK8(I), I=1,100)
       C
       C  READ THE XY IMPEDENCE PHASE FROM THE 100 VALUES OF BLOCK 9.
0102          IERROR=IREADW(200,BLOCK9,9,ICHAN)
0103          IF(IERROR.LE.0) STOP 'BLOCK 9 FAILURE'
0105          WRITE(6,209)
0106   209    FORMAT(/1X,'BLOCK  9 = XY PHASE ANGLE BY BAND')
0107          WRITE(6,295) (BLOCK9(I), I=1,100)
       C
       C  READ THE XY PHASE ERROR ESTIMATES FROM THE 100 VALUES OF BLOCK 10.
0108          IERROR=IREADW(200,BLOK10,10,ICHAN)
0109          IF(IERROR.LE.0) STOP 'BLOCK 10 FAILURE'
0111          WRITE(6,210)
```

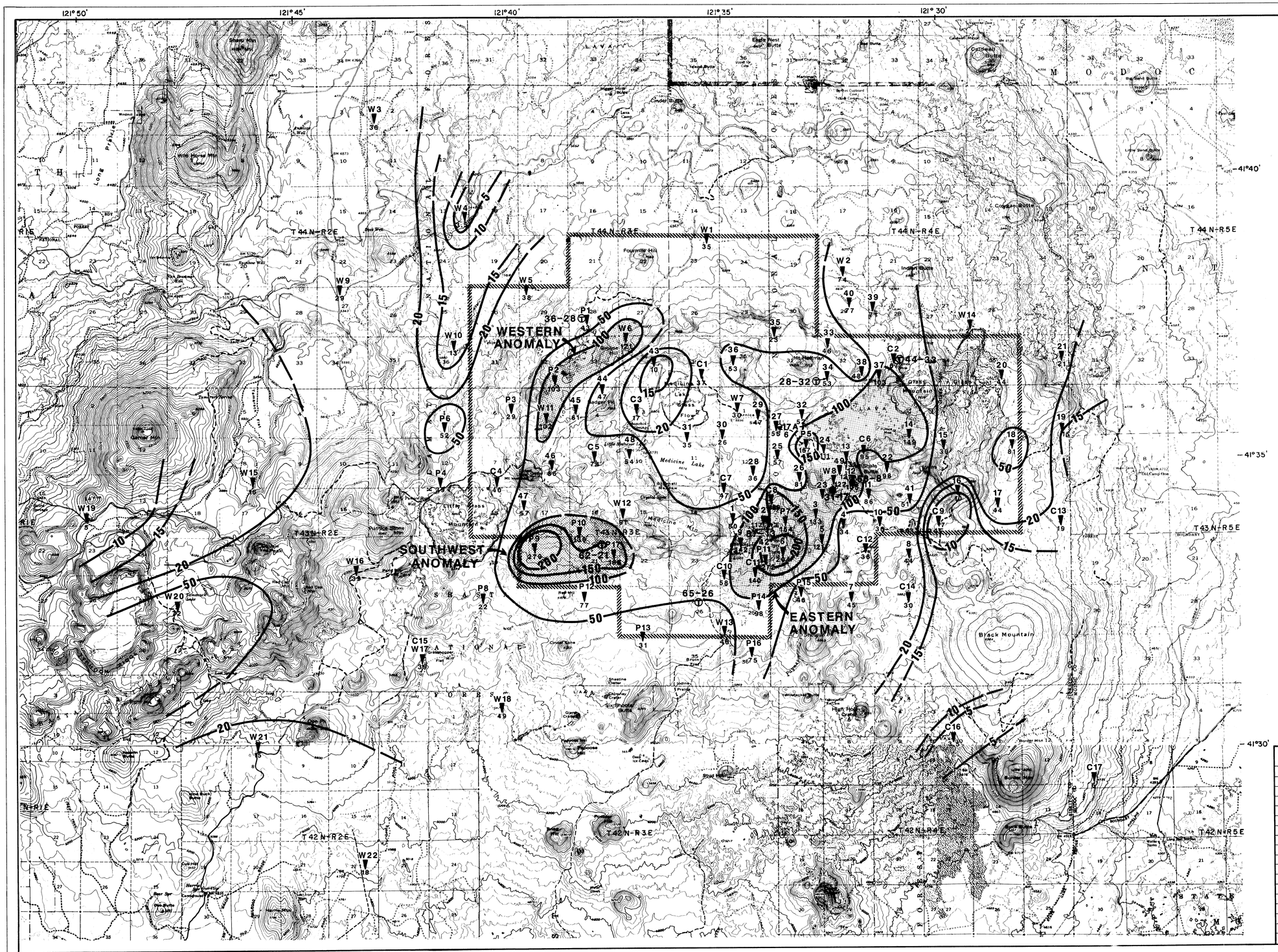
```
0112  210   FORMAT(/1X,'BLOCK 10 = XY PHASE ERRORS BY BAND')
0113        WRITE(6,295) (BLOK10(I), I=1,100)
      C
      C  READ THE YX IMPEDENCE PHASE FROM THE 100 VALUES OF BLOCK 11.
0114        IERROR=IREADW(200,BLOK11,11,ICHAN)
0115        IF(IERROR.LE.0) STOP 'BLOCK 11 FAILURE'
0117        WRITE(6,211)
0118  211   FORMAT(/1X,'BLOCK 11 = YX PHASE ANGLE BY BAND')
0119        WRITE(6,295) (BLOK11(I), I=1,100)
      C
      C  READ THE YX PHASE ERROR ESTIMATES FROM THE 100 VALUES OF BLOCK 12.
0120        IERROR=IREADW(200,BLOK12,12,ICHAN)
0121        IF(IERROR.LE.0) STOP 'BLOCK 12 FAILURE'
0123        WRITE(6,212)
0124  212   FORMAT(/1X,'BLOCK 12 = YX PHASE ERRORS BY BAND')
0125        WRITE(6,295) (BLOK12(I), I=1,100)
      C
      C..NOTE: ROTATION,SKEW,TIPPER MAGNITUDE,COHERENCY,STRIKE,PHASE ARE ALL
      C        IN STORAGE LOCATIONS WITH RESPECT TO XY PERIODS.  IF XY AND YX
      C        PERIODS WERE SWITCHED FOR A BAND, SHOULD BE SWITCHED BACK FOR
      C        COMPARISON OR REJECTED VALUES(-10**7) MAY BE WITH WRONG SET.
      C.....
      C  READ THE AXES ROTATION ANGLE(CORRECTED) FROM THE 100 VALUES OF BLOCK 13.
0126        IERROR=IREADW(200,BLOK13,13,ICHAN)
0127        IF(IERROR.LE.0) STOP 'BLOCK 13 FAILURE'
0129        WRITE(6,213)
0130  213   FORMAT(/1X,'BLOCK 13 = ROTATION ANGLE(CORRECTED) BY BAND')
0131        WRITE(6,295) (BLOK13(I), I=1,100)
      C
      C  READ THE PRINCIPAL AXIS SKEWNESS RATIO FROM THE 100 VALUES OF BLOCK 14.
0132        IERROR=IREADW(200,BLOK14,14,ICHAN)
0133        IF(IERROR.LE.0) STOP 'BLOCK 14 FAILURE'
0135        WRITE(6,214)
0136  214   FORMAT(/1X,'BLOCK 14 = SKEWNESS RATIO BY BAND')
0137        WRITE(6,295) (BLOK14(I), I=1,100)
      C
      C  READ THE TIPPER MAGNITUDE FROM THE 100 VALUES OF BLOCK 15.
0138        IERROR=IREADW(200,BLOK15,15,ICHAN)
0139        IF(IERROR.LE.0) STOP 'BLOCK 15 FAILURE'
0141        WRITE(6,215)
0142  215   FORMAT(/1X,'BLOCK 15 = TIPPER MAGNITUDE BY BAND')
0143        WRITE(6,295) (BLOK15(I), I=1,100)
      C
      C  READ THE TIPPER COHERENCY FROM THE 100 VALUES OF BLOCK 16.
0144        IERROR=IREADW(200,BLOK16,16,ICHAN)
0145        IF(IERROR.LE.0) STOP 'BLOCK 16 FAILURE'
0147        WRITE(6,216)
0148  216   FORMAT(/1X,'BLOCK 16 = TIPPER COHERENCY BY BAND')
0149        WRITE(6,295) (BLOK16(I), I=1,100)
      C
      C  READ THE TIPPER STRIKE ANGLE(CORRECTED) FROM THE 100 VALUES OF BLOCK 17.
0150        IERROR=IREADW(200,BLOK17,17,ICHAN)
0151        IF(IERROR.LE.0) STOP 'BLOCK 17 FAILURE'
0153        WRITE(6,217)
```

```
0154  217   FORMAT(/1X,'BLOCK 17 = TIPPER STRIKE ANGLE(CORRECTED) BY BAND')
0155        WRITE(6,295) (BLOK17(I), I=1,100)
      C
      C  READ THE TIPPER PHASE ANGLE FROM THE 100 VALUES OF BLOCK 18.
0156        IERROR=IREADW(200,BLOK18,18,ICHAN)
0157        IF(IERROR.LE.0) STOP 'BLOCK 18 FAILURE'
0159        WRITE(6,218)
0160  218   FORMAT(/1X,'BLOCK 18 = TIPPER PHASE ANGLE BY BAND')
0161        WRITE(6,295) (BLOK18(I), I=1,100)
      C
      C..NOTE: THERE IS A SIGNAL OR NOISE VALUE STORED IF EITHER XY OR YX DATA
      C        WAS ACCEPTED; THAT IS, THESE VALUES MUST BE MATCHED TO
      C        CONSECUTIVE PERIODS FROM BOTH XY AND YX PERIOD SETS.
      C.....
      C  READ THE X ELECTRIC SIGNAL, MIN AND MAX FROM THE 110 VALUES OF BLOCK 19.
0162        IERROR=IREADW(220,BLOK19,19,ICHAN)
0163        IF(IERROR.LE.0) STOP 'BLOCK 19 FAILURE'
0165        WRITE(6,219)
0166  219   FORMAT(/1X,'BLOCK 19 = X ELECTRIC SIGNAL BY BAND, MINIMA AND',
           1  ' MAXIMA')
0167        WRITE(6,290) (BLOK19(I), I=1,110)
      C
      C  READ THE X ELECTRIC NOISE FROM THE 100 VALUES OF BLOCK 20.
0168        IERROR=IREADW(200,BLOK20,20,ICHAN)
0169        IF(IERROR.LE.0) STOP 'BLOCK 20 FAILURE'
0171        WRITE(6,220)
0172  220   FORMAT(/1X,'BLOCK 20 = X ELECTRIC NOISE BY BAND')
0173        WRITE(6,295) (BLOK20(I), I=1,100)
      C
      C  READ THE Y ELECTRIC SIGNAL, MIN AND MAX FROM THE 110 VALUES OF BLOCK 21.
0174        IERROR=IREADW(220,BLOK21,21,ICHAN)
0175        IF(IERROR.LE.0) STOP 'BLOCK 21 FAILURE'
0177        WRITE(6,221)
0178  221   FORMAT(/1X,'BLOCK 21 = Y ELECTRIC SIGNAL BY BAND, MINIMA AND',
           1  ' MAXIMA')
0179        WRITE(6,290) (BLOK21(I), I=1,110)
      C
      C  READ THE Y ELECTRIC NOISE FROM THE 100 VALUES OF BLOCK 22.
0180        IERROR=IREADW(200,BLOK22,22,ICHAN)
0181        IF(IERROR.LE.0) STOP 'BLOCK 22 FAILURE'
0183        WRITE(6,222)
0184  222   FORMAT(/1X,'BLOCK 22 = Y ELECTRIC NOISE BY BAND')
0185        WRITE(6,295) (BLOK22(I), I=1,100)
      C
      C  READ THE X MAGNETIC SIGNAL, MIN AND MAX FROM THE 110 VALUES OF BLOCK 23.
0186        IERROR=IREADW(220,BLOK23,23,ICHAN)
0187        IF(IERROR.LE.0) STOP 'BLOCK 23 FAILURE'
0189        WRITE(6,223)
0190  223   FORMAT(/1X,'BLOCK 23 = X MAGNETIC SIGNAL BY BAND, MINIMA AND',
           1  ' MAXIMA')
0191        WRITE(6,290) (BLOK23(I), I=1,110)
      C
      C  READ THE X MAGNETIC NOISE FROM THE 100 VALUES OF BLOCK 24.
0192        IERROR=IREADW(200,BLOK24,24,ICHAN)
```

```
0193          IF(IERROR.LE.0) STOP 'BLOCK 24 FAILURE'
0195          WRITE(6,224)
0196   224    FORMAT(/1X,'BLOCK 24 = X MAGNETIC NOISE BY BAND')
0197          WRITE(6,295) (BLOK24(I), I=1,100)
       C
       C  READ THE Y MAGNETIC SIGNAL, MIN AND MAX FROM THE 110 VALUES OF BLOCK 25.
0198          IERROR=IREADW(220,BLOK25,25,ICHAN)
0199          IF(IERROR.LE.0) STOP 'BLOCK 25 FAILURE'
0201          WRITE(6,225)
0202   225    FORMAT(/1X,'BLOCK 25 = Y MAGNETIC SIGNAL BY BAND, MINIMA AND',
             1  ' MAXIMA')
0203          WRITE(6,290) (BLOK25(I), I=1,110)
       C
       C  READ THE Y MAGNETIC NOISE FROM THE 100 VALUES OF BLOCK 26.
0204          IERROR=IREADW(200,BLOK26,26,ICHAN)
0205          IF(IERROR.LE.0) STOP 'BLOCK 26 FAILURE'
0207          WRITE(6,226)
0208   226    FORMAT(/1X,'BLOCK 26 = Y MAGNETIC NOISE BY BAND')
0209          WRITE(6,295) (BLOK26(I), I=1,100)
       C
       C  READ THE Z MAGNETIC SIGNAL, MIN AND MAX FROM THE 110 VALUES OF BLOCK 27.
0210          IERROR=IREADW(220,BLOK27,27,ICHAN)
0211          IF(IERROR.LE.0) STOP 'BLOCK 27 FAILURE'
0213          WRITE(6,227)
0214   227    FORMAT(/1X,'BLOCK 27 = Z MAGNETIC SIGNAL BY BAND, MINIMA AND',
             1  ' MAXIMA')
0215          WRITE(6,290) (BLOK27(I), I=1,110)
       C
       C  READ THE Z MAGNETIC NOISE FROM THE 100 VALUES OF BLOCK 28.
0216          IERROR=IREADW(200,BLOK28,28,ICHAN)
0217          IF(IERROR.LE.0) STOP 'BLOCK 28 FAILURE'
0219          WRITE(6,228)
0220   228    FORMAT(/1X,'BLOCK 28 = Z MAGNETIC NOISE BY BAND')
0221          WRITE(6,295) (BLOK28(I), I=1,100)
       C
       C..NOTE:  THE FOLLOWING BLOCKS 29 THRU 38 ARE FILLED IN FROM CURVE FIT VALUES,
       C  WHEN THE VARIOUS PLOTS ARE RUN.  IF NONE HAVE BEEN RUN YET, THE BLOCKS ARE
       C  TEMPORARILY LOADED WITH THE DATA OF BLOCK 27.  IF SEVERAL ATTEMPTS FOR A
       C  (RHO OR INVERSION) PLOT ARE MADE, THE ACCEPTED ATTEMPT SHOULD BE RUN AS THE
       C  LAST PLOT ATTEMPT.
       C.....
       C  READ THE XY RHO CURVE FIT VALUES, MIN AND MAX FROM 110 VALUES OF BLOCK 29.
0222          IERROR=IREADW(220,BLOK29,29,ICHAN)
0223          IF(IERROR.LE.0) STOP 'BLOCK 29 FAILURE'
0225          WRITE(6,229)
0226   229    FORMAT(/1X,'BLOCK 29=XY RHO CURVE FIT, MINIMA AND MAXIMA')
0227          WRITE (6,290) (BLOK29(I), I=1,110)
       C
       C  READ THE YX RHO CURVE FIT VALUES, MIN AND MAX FROM 110 VALUES OF BLOCK 30.
0228          IERROR=IREADW(220,BLOK30,30,ICHAN)
0229          IF(IERROR.LE.0) STOP 'BLOCK 30 FAILURE'
0231          WRITE (6,230)
0232   230    FORMAT(/1X,'BLOCK 30=YX RHO CURVE FIT, MINIMA AND MAXIMA')
0233          WRITE(6,290) (BLOK30(I), I=1,110)
```

```
      C
      C  READ THE XY MAGNITUDE INVERSION 'TRUE' RHO, MIN AND MAX,
      C  AND DEPTHS, MIN AND MAX, FROM 110 VALUES OF BLOCK 31.
0234        IERROR=IREADW(220,BLOK31,31,ICHAN)
0235        IF(IERROR.LE.0) STOP 'BLOCK 31 FAILURE'
0237        WRITE(6,231)
0238  231   FORMAT(/1X,'BLOCK 31=TRUE RHO,MIN AND MAX, DEPTH,MIN AND MAX, ',
           1  'BY XY MAG INVERSION')
0239        WRITE(6,297) (BLOK31(I), I=1,110)
0240  297   FORMAT(2(/2X,10E10.2,4(/5X,10E10.2),/10X,5E10.2))
      C
      C  READ THE YX MAGNITUDE INVERSION 'TRUE' RHO, MIN AND MAX,
      C  AND DEPTHS, MIN AND MAX, FROM 110 VALUES OF BLOCK 32.
0241        IERROR=IREADW(220,BLOK32,32,ICHAN)
0242        IF(IERROR.LE.0) STOP 'BLOCK 32 FAILURE'
0244        WRITE(6,232)
0245  232   FORMAT(/1X,'BLOCK 32=TRUE RHO,MIN AND MAX, DEPTH,MIN AND MAX, ',
           1  'BY YX MAG INVERSION')
0246        WRITE(6,297) (BLOK32(I), I=1,110)
      C
      C  READ THE XY PHASE CURVE FIT VALUES,MIN AND MAX FROM 110 VALUES OF BLOCK 33.
0247        IERROR=IREADW(220,BLOK33,33,ICHAN)
0248        IF(IERROR.LE.0) STOP 'BLOCK 33 FAILURE'
0250        WRITE(6,233)
0251  233   FORMAT(/1X,'BLOCK 33=XY PHASE CURVE FIT, MINIMA AND MAXIMA')
0252        WRITE(6,290) (BLOK33(I), I=1,110)
      C
      C  READ THE YX PHASE CURVE FIT VALUES,MIN AND MAX FROM 110 VALUES OF BLOCK 34.
0253        IERROR=IREADW(220,BLOK34,34,ICHAN)
0254        IF(IERROR.LE.0) STOP 'BLOCK 34 FAILURE'
0256        WRITE(6,234)
0257  234   FORMAT(/1X,'BLOCK 34=YX PHASE CURVE FIT, MINIMA AND MAXIMA')
0258        WRITE(6,290) (BLOK34(I), I=1,110)
      C
      C  READ THE XY PHASE INVERSION 'TRUE' RHO, MIN AND MAX,
      C  AND DEPTHS, MIN AND MAX, FROM 110 VALUES OF BLOCK 35.
0259        IERROR=IREADW(220,BLOK35,35,ICHAN)
0260        WRITE(6,235)
0261  235   FORMAT(/1X,'BLOCK 35=TRUE RHO,MIN AND MAX, AND DEPTHS, ',
           1  'MIN AND MAX, BY XY PHASE INVERSION')
0262        WRITE(6,297) (BLOK35(I), I=1,110)
      C
      C  READ THE YX PHASE INVERSION 'TRUE' RHO, MIN AND MAX,
      C  AND DEPTHS, MIN AND MAX, FROM 110 VALUES OF BLOCK 36
0263        IERROR=IREADW(220,BLOK36,36,ICHAN)
0264        WRITE(6,236)
0265  236   FORMAT(/1X,'BLOCK 36=TRUE RHO,MIN AND MAX, AND DEPTHS, ',
           1  'MIN AND MAX, BY YX PHASE INVERSION')
0266        WRITE(6,297) (BLOK36(I), I=1,110)
      C
      C  READ THE RESERVED BLOCK 37.
0267        IERROR=IREADW(220,BLOK37,37,ICHAN)
0268        IF(IERROR.LE.0) STOP 'BLOCK 37 FAILURE'
0270        WRITE(6,237)
```

```
0271  237   FORMAT(/1X,'BLOCK 37 RESERVED FOR FUTURE USE,CONTENTS=BLOCK 27')
0272        WRITE(6,290) (BLOK37(I), I=1,110)
      C
      C  READ THE RESERVED BLOCK 38.
0273        IERROR=IREADW(220,BLOK38,38,ICHAN)
0274        IF(IERROR.LE.0) STOP 'BLOCK 38 FAILURE'
0276        WRITE(6,238)
0277  238   FORMAT(/1X,'BLOCK 38 RESERVED FOR FUTURE USE,CONTENTS=BLOCK 27')
0278        WRITE(6,290) (BLOK38(I), I=1,110)
      C
      C**********************VARIABLE DEFINITIONS******************************
      C  BLOCK1  real array(110)      xy periods in up to 20 pts by 5 bands,min,max.
      C  BLO...  ...(110 or 100)      ...other data variables, with or wo min,max.
      C  BLOK28  real array(100)      hx noise spectra, up to 20 pts by 5 bands.
      C  BLOK29  real array(110)      xy rho curve fit values,20 pts by 5 bands.
      C  BLO...  ..........(110)      ...other plot written variables,rho and invr.
      C  BLOK37  real array(110)      reserved for future plot write needs.
      C  FILNAM  double precision     plot data name to be read; entered by oper.
      C  IBLOKO  integer array(205)   identification and plot setup parameters.
      C  ICHAN   integer              RT-11channel indicator for disk location.
      C  IERROR  integer              RT-11 error indicator returned by read.
      C  ISPEC   integer array(39)    operator-specified filename indicator.
      C  ISTAT   integer              RT-11 status indicator for file lookup.
      C**********************END PROGRAM DUMPLT*******************************
0279        CALL EXIT
0280        END
```



1 1/2 0 1 2 MILES

SCALE 1:62,500

REVISED	
	UNOCAL
	UNOCAL CORPORATION–GEOTHERMAL DIVISION
	GLASS MOUNTAIN PROSPECT
	TOTAL CONDUCTANCE TO A DEPTH OF 5000 FEET
	(HIGH VALUES DELINEATE AREAS WITH LOW RESISTIVITIES)
	MT STATIONS
	W2 : WOODWARD-CLYDE, 1981
	C2 : CGG, 1982
	P2 : PHOENIX, 1986
	2 : PHOENIX, 1989
	Plate 3
	UCA07.3308 6/90
	SISKIYOU & MODOC COUNTIES, CALIFORNIA
	SCALE 1:62,500 G.A.N. OCTOBER, 1989

APPENDIX X:
Glass Mountain gravity map

Attachment XXIII

CEC-500-2007-XXX-ATXXIII

Glass Mountain gravity map

This document is an attachment to a report funded by the California Energy Commission's Geothermal Resource Development Account (GRDA) Program. The GRDA Program did not fund this document, but the authors of the GRDA funded report have attached it as a supporting document.

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Dec 1985

TO: G. Nordquist
FM: D. Wheeler

RE: Glass Mountain gravity map

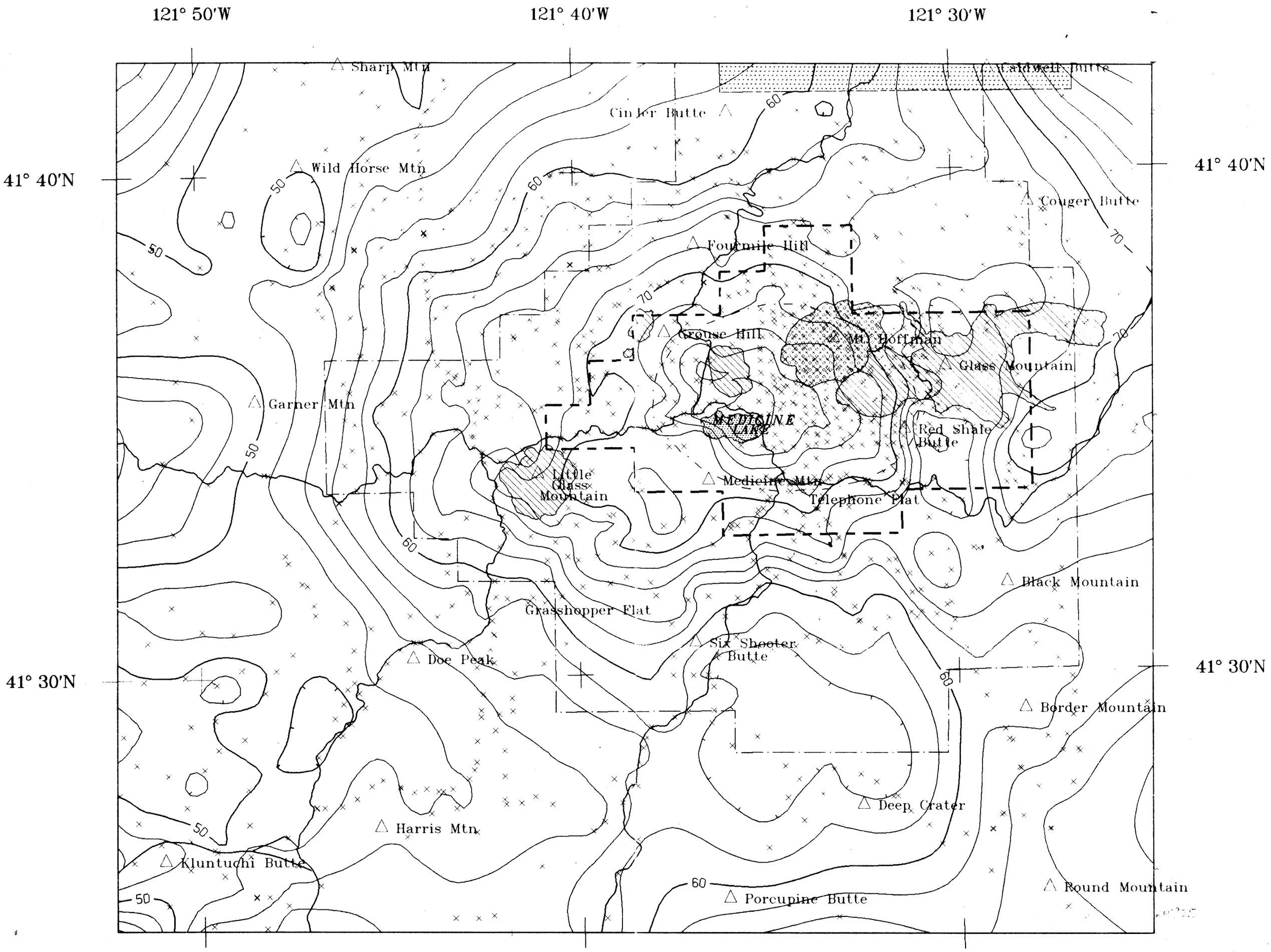
The map has three sources of data.

BRW (1984) report to Santa Fe/Occidental
391 stations

Summit Engineering (1983) report to Union Oil
373 stations

Finn and Spydell (1982) USGS OFR 82-1080
74 stations

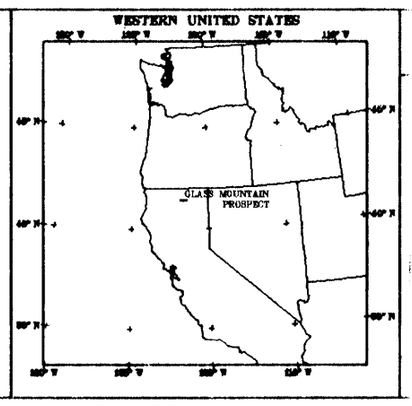
UCA



union 76

0 1 2 3

SCALE IN MILES



Legend

× GRAVITY LOCATION
△ MOUNTAIN
RHYOLITE DOME
GLASS FLOW
LAVA BEDS NAT'L MONUMENT
UNIT AREA
ASSUMED CALDERA RING FRACTURE
KGRA BOUNDARY
MAJOR ROAD

Union Oil Company of California
Geothermal Division

GLASS MOUNTAIN

COMPLETE BOUGUER GRAVITY

PREPARED BY	DATE	SCALE	CONTOUR INTERVAL
DEB WHEELER	NOV 21, 1985	1:125,000	2 MGAL
GRID SIZE	REDUCTION DENSITY		
.25 INCH	2.45 G/CC		Plate 1

UCA07,3805

Doc. #3495b

EXPRESS 17:42 NOV 21, 1985

OXY

OCCIDENTAL GEOTHERMAL, INC

5000 Stockdale Highway Bakersfield California 93309

(805) 395 80 0

November 20, 1984

Mr Michael L Shoaff
Union Oil Company
P O Box 6854
Santa Rosa, California

RE: Glass Mountain Unit
O G I 1984 Gravity Data
18-108-G 7

Dear Mike:

Enclosed please find a copy of Oxy's 1984 gravity survey This information is strictly confidential and proprietary and submitted in accordance with the unit agreements

Please signify receipt by signing and returning one copy of this letter

Yours very truly,

T K Linscott
Land Manager

Received this 27th day
of November 1984

By Michael L Shoaff

TKL:sml

cc: JFA

0159j-0A

MEDICINE LAKE CALIFORNIA

GRAVITY SURVEY

SUMMER 1984

CONFIDENTIAL

BRW GEOTECHNICAL, INC.

Brian Watterson

Paul Larry Brown

BRW

Geotechnical Inc.

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Arvada, CO 80002
(303) 431-7358
(303) 423-7390

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LIST OF PLATES

Plate	Title
3.1	Station Location and Simple Bouguer Values

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1 0 0 INTRODUCTION

The vicinity near Medicine Lake California, on the Modoc Plateau in Northermost California contains an area of potential geothermal interest Structural information and depth interpretation are essential in geothermal resource exploration

Gravity is acceleration The average gravitational attraction at the earth's surface is approximately 980,000 milligals The simple bouguer anomaly is the observed gravitational attraction with the theoretical geoid attraction removed Corrections due to the distance change from the station elevation to the datum elevation (commonly sea level) are also applied These corrections are the bouguer slab and free air correction The complete bouguer anomaly is the simple bouguer anomaly with the effect of terrain removed The resultant gravity anomaly is a measure of the density and structural distributions of the local and regional subsurface An interpretation would be initiated by removal of regional anomaly patterns to produce a local anomaly map which is then interpreted in terms of local density and structural distribution

BRW GEOTECHNICAL, INC was contracted by OCCIDENTAL GEOTHERMAL, INC to design and conduct a supplemental gravity survey centered about Medicine Lake This survey supplements an existing OCCIDENTAL gravity survey entitled: "MEDICINE LAKE, CALIFORNIA GRAVITY SURVEY, FALL 1983" ; SUMMIT ENGINEERING; FALL 1983

The supplemental survey was conducted in early July through early August of 1984 Approximately stations were occupied in the vicinity of Medicine Lake This report consists of a field procedure section, a data analysis section and a conclusion section with recommendations

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2 0 0 FIELD PROCEDURES

The two factors survey control and precise measurement of gravitational attraction are necessary to produce a quality gravity survey

2 1 0 SURVEY CONTROL

The surveying was conducted with a Topcon total station meter The main priority in gravity surveying is the determination of station elevation however a precise station location is important in the representation and determination of the gravity field. Station locations were determined and plotted in the field by means of topographic control in conjunction with measured distances When topographic control was not adequate horizontal angles were measured from known positions Horizontal angle control with measured distances were then used to plot station positions This second method was primarily used in the Medicine Lake area These methods produced locations with precisions of ± 75 feet 75 feet on the available 7 5 minute or 1 24 000 scale base map corresponds to ± 0 03 of an inch

Elevation was measured and calculated by a differential altitude method Changes in elevation are measured between each turning point or instrument location and stadia locations or rod positions Elevation changes are accumulated and referenced to a known elevation to produce specific elevations

All vertical angles were measured with a precision of ± 3 seconds of arc and were repeated with an inverted theodolite The horizontal distances are precise to ± 0 5 feet The station elevation precisions were determined by surveying from a known elevation to another known elevation This was accomplished by using U S G S bench marks in the area or by closing a loop onto a previously determined elevation The determined precisions were approximately ± 0 25 feet per mile of profile Considerations of rod locations errors in staking stations and occupation by the gravity meter operator produce a ± 1 foot error in specific station elevation This is a conservative estimate and represents virtually all station elevations

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2 2 0 GRAVIMETRY

The gravitational attraction was measured by means of the LaCoste & Romberg, Inc model D gravity meter #D-66 The LaCoste & Romberg instrument is a thermally compensated low linear drift meter capable of precisions of ± 0 02 milligals in normal field use

Station gravity measurements are conducted by occupying an initial base station, followed by measurements of several separate stations, and concluded by reoccupation of the initial base station These "loops" are completed within 3 hours, with the majority in the 2 hour range The two error sorces; instrument drift and tidal gravity, can be assumed to be linear, during a 3 hour loop, and arithmetically removed

All gravity meters are subject to tares or instabilities due to unavoidable "nondelicate" handling or "seeming magic" These tares are detected by base station misties larger than 0 1 of a meter division or 0 1 milligal Typical base misties or drifts were on the order of 0 05 milligals A tare would necessitate a repeat of the loop During the course of BRW Geotechnical's survey two tares were detected and these loops were then repeated

The absolute gravity was determined by occupying a station of known gravity value The station used was a previous master base, station 54, from the Medicine Lake gravity survey of Fall 1983 The absolute value observed is 979763 06 milligals

2 3 0 GRAVITY SURVEY PRECISIONS

The latitude precision; elevation precision, and meter precision deterine the bouguer gravity value precision A ± 75 foot error in plan coordinates produces approximately a ± 0 02 milligal error A ± 1 foot error in elevation produces a ± 0 06 milligal error, and the observed gravity measurement error is ± 0 04 milligals At a 95% confidence level, assuming a normal error distribution, the bouguer gravity value error is ± 0 08 milligals This error analysis of course, assumes no sources of precision in the correction terms such as free air, bouguer slab, and theoretical terms

The accuracy of the bouguer values are inherently unknown and are primarily geologic in nature Examples of these are the accuracy of the earth s shape, assumption of bouguer density accuracy of elevation control, etc

3 0 0 DATA A LYSIS

The simple bouguer gravity is defined as follows

$$SBA = OG + FAC - THG - BC - CC$$

The complete bouguer is defined as follows

$$CBA = SBA + TC$$

OG is the observed gravity value FAC is the free air correction and is defined by

$$FAC = (0\ 09411549 - 0\ 000137789\ \sin^2 \phi)h - 0\ 067 \times 10^{-8}\ h^2$$

Where ϕ is the station latitude and h is station elevation - datum elevation

THG is the theoretical gravity and is defined as follows

$$THG = 979031\ 84558\ (1 + 0\ 00527889\ \sin^2 \phi + 0\ 000023462\ \sin^4 \phi)$$

BC is the bouguer correction due to an infinite slab and is defined by

$$BC = 0\ 012774\ (\sigma)h$$

where σ = density in gm/cc

CC is the curvature correction to the bouguer slab and is defined by

$$CC = h(0\ 0001671 + h(-1\ 229 \times 10^{-8} + h(4\ 67 \times 10^{-16})))$$

TC is the terrain correction and is based on tabulated attraction values versus horizontal distance segments and elevation difference segments The terrain correction specifics for Medicine Lake are discussed in the following subsections

The typical values used in the Medicine Lake survey are listed below

σ = 2 67

Datum elevation = 0 0 sea level

h ≅ 6800 ft

OG ≅ 979 750 milligals

FAC ≅ 640 milligals

THG ≅ 980 310 milligals

BC ≅ 230 milligals

CC ≅ 56 milligals

→ TC ≅ 0 5 milligals (discussed in next subsection)

Typical simple bouguer value = -157 milligals

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3 1.0 GRAVITY DATA

Approximately BRW stations were occupied in the Medicine Lake area These are listed in Table 3 1 and are plotted on plate 3 1 All values are in milligals

Table 3 2 lists the terrain corrections done for the BRW data The terrain correction charts used were Hayford & Bowie modified terrain correction charts The elevations of zones C_1, C_2, D_1, and D_2 surrounding each station were picked and the resulting elevation differences produced corrections in milligals Zone C_1 is a ring with the inner boundary at $\simeq$ 240 ft and an outer boundary at $\simeq$ 480 ft Zone C_2 ranges from $\simeq$ 480 ft to $\simeq$ 765 ft C_1 and C_2 are composed of four equal area segments Zone D_1 and D_2 range from $\simeq$ 765 ft to $\simeq$ 1250 ft and from $\simeq$ 1250 ft to $\simeq$ 1930 ft respectively, and contain 12 equal area segments

Included are terrain corrections for the area within C_1 These were picked in the field and are Hammar correction zone B and C Hammar B ranges from 6 56 ft to 54 6 ft with four segments Hammar C ranges from 54 6 ft to 175 ft with six segments A mismatch of 65 ft from the outer ring of Hammar C to the inner ring of zone C is thought to be insignificant

Most of the field picked Hammar terrain corrections were kept to zero by judicious choices of station locations in the field The combination of these terrain corrections are added to the simple bouguer anomaly, however to produce a significant correction in the Medicine Lake area, terrain corrections out to a distance of tens of miles must be applied A complete terrain analysis was beyond the scope of this survey and shall not be considered further

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4 0 0 CONCLUSIONS AND RECOMMENDATIONS

Approximately BRW gravity stations were added to the existing gravity stations in the area The supplemental stations completed the gravitational survey information in the Medicine Lake area More detailing and expansion in the peripheral areas are indicated only if prospective drilling or developmental projects are anticipated in those areas

Stations 688, 716, 765, and 842 were surveyed and occupied, however, due to unfavorable results they have been eliminated from both presentation and future consideration Several stations are repeats of stations from the previous gravity survey in 1983 Only those stations that were judged to be more representative of the gravity field are displayed and reported The previous stations 258, 394, 430, 431, 421, 423, 424, 425, and 426 should be eliminated from the combined data base and not considered further

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TABLE 3 1 GRAVITY DATA

sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
500	979760 86	-980312 11	41 59956	121 48640	6571 4	618 04	2 67	-224 13	- 57	-157 90
501	979769 87	-980312 30	41 60168	121 48220	6452 8	606 89	2 67	-220 08	- 57	-156 19
502	979772 35	-980312 47	41 60365	121 47880	6412 1	603 06	2 67	-218 70	- 57	-156 32
503	979788 01	-980312.81	41 60735	121 47500	6173 5	580 62	2 67	-210 56	- 56	-155 30
504	979804 09	-980311 64	41 59433	121 47070	5934 2	558 12	2 67	-202 40	- 56	-152 38

sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
510	979828 41	-980309 53	41 57082	121 46960	5552 5	522 21	2 67	-189 38	- 55	-148 83
511	979821 38	-980309 31	41 56842	121 47660	5655 2	531 88	2.67	-192 88	- 55	-149 49
512	979811 52	-980309 08	41 56580	121.47650	5792 1	544 75	2 67	-197 55	- 56	-150 90
513	979811 40	-980308 78	41 56246	121 47760	5797 7	545 28	2.67	-197 74	-.56	-150 39
514	979815 57	-980308 78	41 56252	121 47370	5735 5	539 43	2 67	-195 62	- 55	-149 95
515	979818 64	-980308 58	41 56034	121 46900	5698 7	535 97	2 67	-194 36	- 55	-148 89
525	979776 02	-980313 51	41 61517	121.48460	6332 6	595 59	2 67	-215 98	- 57	-158.45
526	979770 03	-980313 26	41 61242	121.48520	6422 7	604 05	2 67	-219 05	- 57	-158 80
527	979804 65	-980313 70	41 61727	121 48060	5946 6	559 28	2.67	-202 82	- 56	-153 14
646	979802 59	-980313 02	41 60968	121 47010	5965 9	561 10	2 67	-203 48	- 56	-153 36
647	979784 23	-980312 15	41 60002	121 47340	6235 0	586 40	2 67	-212 65	- 56	-154 73
648	979791 35	-980311 97	41 59803	121 47170	6130 2	576 55	2 67	-209 08	- 56	-153 72
689	979772 16	-980307 58	41 54918	121 55600	6406 3	602 52	2.67	-218.50	- 57	-151 97
692	979766 88	-980308 09	41 55480	121 54720	6495 1	610 86	2.67	-221 52	- 57	-152 43

sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
700	979757 15	-980308 94	41 56434	121 57770	6737 2	633 63	2 67	-229 78	- 57	-148 51
701	979755 75	-980308 89	41 56373	121 57050	6727 4	632 71	2 67	-229 45	- 57	-150 45
702	979756 69	-980308 88	41 56360	121 56750	6714 4	631 50	2 67	-229 01	- 57	-150 26
703	979749 33	-980309 00	41 56496	121 55500	6829 2	642 29	2 67	-232 92	- 57	-150 87
704	979749 97	-980308 94	41 56427	121 55070	6834 2	642 76	2 67	-233 09	- 57	-149 86
705	979749 55	-980308 80	41 56271	121 53950	6803 8	639 90	2 67	-232 06	- 57	-151 97
706	979751 47	-980308 78	41 56256	121 53760	6765 4	636 29	2.67	-230 74	- 57	-152 34
707	979750 15	-980308 81	41 56280	121 52360	6765 5	636 30	2 67	-230 75	- 57	-153.67
708	979750 45	-980308 68	41 56139	121 51410	6655 7	625 97	2 67	-227 00	- 57	-159 83
709	979750 56	-980308 89	41 56379	121 50950	6657 3	626 12	2 67	-227 06	- 57	-159 84
711	979748 20	-980308 45	41 55887	121 53060	6776 2	637 30	2 67	-231 11	- 57	-154 63
712	979749 93	-980308 79	41 56259	121 52070	6727 0	632 67	2.67	-229 43	- 57	-156 18
715	979726 07	-980307 71	41 55055	121 53650	6960 0	654 59	2.67	-237 38	- 57	-164 99
717	979756 24	-980315 01	41 63185	121 56590	6791 6	638 75	2 67	-231 64	- 57	-152 23
725	979743 30	-980312 86	41 60793	121 62520	7037 1	661 83	2 67	-240 01	- 57	-148 31
726	979732 81	-980312 37	41 60250	121 62810	7155 3	672 95	2 67	-244 04	- 57	-151 22
727	979736 81	-980312 03	41 59866	121 63290	7093 5	667 15	2.67	-241 94	- 57	-150 57
728	979739 93	-980311 77	41 59585	121 63870	7017 6	660 01	2.67	-239 35	- 57	-151 75
729	979740 16	-980311 67	41 59470	121 64660	6968 5	655 39	2.67	-237 67	- 57	-154 36

sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
730	979749 13	-980 61	41 59403	121 65550	6880 6	647	2 67	-234 67	- 57	-150 60
745	979735 29	-980310 93	41.58649	121.65030	7035.4	661 68	2.67	-239 95	-.57	-154 48
746	979738 50	-980311 26	41.59008	121 65230	6983.7	656 81	2.67	-238.19	- 57	-154.70
764	979763 45	-980307 39	41 54704	121 56960	6542 2	615 29	2 67	-223 13	- 57	-152 35
766	979754 84	-980307 58	41 54914	121 59630	6648 7	625 31	2.67	-226 76	- 57	-154 76
767	979745 61	-980308 30	41 55712	121 58280	6853 3	644 55	2.67	-233 74	- 57	-152.45
768	979751 47	-980307 91	41.55282	121.58760	6724 8	632 47	2.67	-229 36	- 57	-153 89
769	979756 87	-980307 66	41.55007	121.59030	6627 1	623 28	2 67	-226 03	- 57	-154 11
771	979755 49	-980307 51	41.54832	121 59930	6656.4	626 03	2.67	-227 03	- 57	-153 58
772	979753 05	-980307 61	41.54944	121 59880	6693 7	629 55	2.67	-228.30	-.57	-153.88
803	979765 40	-980308 66	41.56116	121 63830	6601 1	620 83	2.67	-225.14	-.57	-148 14
804	979760 96	-980308 93	41 56418	121 63960	6665 3	626 87	2.67	-227 33	-.57	-148.99
805	979764 35	-980308 73	41 56196	121.64230	6612.0	621 86	2.67	-225.51	-.57	-148 60
809	979746 31	-980310 43	41 58093	121 61930	6839 1	643.22	2.67	-233.26	- 57	-154 73

this output is stored on disk b:s800 dat

sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
810	979746 78	-980310 05	41 57663	121 61650	6862 0	645 38	2 67	-234 04	- 57	-152 50
814	979744 13	-980313 60	41 61619	121.61660	7020 1	660 24	2.67	-239 43	- 57	-149 23
818	979706 86	-980313 99	41 62051	121 60180	7497 8	705 16	2.67	-255 72	- 56	-158 25
819	979734 89	-980314 10	41 62178	121 59790	7184 3	675 69	2 67	-245.03	- 57	-149 13

this output is stored on disk b:s810 dat

sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
820	979729 56	-980314 39	41 62498	121 59810	7201 1	677 26	2.67	-245 60	- 57	-153.74
821	979725 35	-980314 48	41 62593	121 59380	7247 1	681.59	2.67	-247 17	- 57	-155 27
822	979730 50	-980314 54	41 62662	121 58980	7178 4	675.13	2.67	-244 83	- 57	-154 30
823	979743 87	-980314 84	41 63002	121.58950	6993 3	657 72	2 67	-238 52	- 57	-152.34
824	979750 76	-980315 07	41.63259	121 59120	6886.3	647 66	2.67	-234 87	- 57	-152.09
827	979702 56	-980313 37	41.61359	121.55620	7606 7	715.41	2.67	-259 44	- 56	-155.40
828	979704 19	-980314 02	41.62085	121 56580	7541 6	709 28	2.67	-257.22	-.56	-158.33
829	979701.09	-980314 01	41 62074	121.56130	7569 4	711 89	2.67	-258.16	-.56	-159.75

sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
830	979691 60	-980314 13	41 62206	121.56440	7662 0	720 61	2.67	-261 32	- 56	-163 80
831	979706 87	-980313 35	41 61340	121.56120	7557 3	710 76	2.67	-257 75	- 56	-154 03
832	979706 28	-980313 62	41 61638	121 56240	7551 1	710 18	2 67	-257 54	- 56	-155 26
833	979705 64	-980313 82	41.61860	121.56140	7532.3	708 41	2.67	-256 90	- 56	-157 23
834	979722.08	-980314 38	41 62483	121.56050	7244.1	681 30	2 67	-247 07	- 57	-158 63
835	979736 68	-980314 69	41 62833	121.55920	7036 7	661 80	2.67	-240 00	- 57	-156 78
836	979754 48	-980314 96	41 63133	121 55690	6780 6	637 71	2 67	-231 26	- 57	-154 60
837	979772 27	-980315 34	41 63553	121.55610	6497 0	611 04	2.67	-221 59	- 57	-154 18
838	979776 80	-980315 63	41 63875	121 55450	6420 2	603 82	2 67	-218 97	- 57	-154 55
839	979756 76	-980314 93	41 63103	121 55220	6740 9	633 98	2.67	-229.91	- 57	-154 67

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sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
840	979760 06	-980314 69	41 62835	121 54980	6700 7	630 20	2 67	-228 54	- 57	-153 54
845	979758 40	-980315 58	41 63823	121 57940	6743 5	634 22	2.67	-230 00	- 57	-153 53
846	979752 75	-980315 28	41 63488	121 57990	6847 5	644 01	2.67	-233 54	- 57	-152 63
847	979749 29	-980315 05	41 63229	121 57840	6915 1	650 37	2.67	-235 85	- 57	-151 81
848	979740 85	-980314 71	41 62848	121 57820	7040.5	662 16	2 67	-240 13	- 57	-152.39
849	979747 30	-980314 69	41 62829	121 57260	6936 2	652.35	2.67	-236.57	- 57	-152 17

this output is stored on disk b:s840 dat

sta	observed	theoretical	lat	long	elev	free a	den	bougc	cc	simple b
850	979751 38	-980314 66	41 62797	121 56660	6880 1	647 07	2.67	-234 66	- 57	-151 43
851	979764 75	-980315 30	41 63505	121 56460	6647 6	625 21	2 67	-226 73	- 57	-152 63
852	979772 93	-980315 74	41 64000	121 56520	6505 8	611 87	2 67	-221 89	- 57	-153 40
387	979709 41	-980313 86	41 61904	121 55050	7450 7	700 74	2 67	-254 12	- 56	-158 39

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TABLE 3 2 TERRAIN CORRECTIONS

Hundredths of milligals

D2 not included in summation of TCI. This is part of Zone F to be calc as TCO.

STATION	H1	H2	C1	C2	D1	D2
500	5	20	11	11	5	9
501	0	0	3	3	4	5
502	0	0	0	1	1	7
503	0	0	6	10	12	12
504	0	0	6	7	17	21
STATION	H1	H2	C1	C2	D1	D2
510	0	0	0	2	5	6
511	0	0	14	11	9	15
512	0	0	1	3	2	4
513	0	0	4	6	8	9
514	3	6	8	7	5	7
515	0	0	3	5	4	5
525	7	14	7	16	25	29
526	2	6	18	28	23	25
527	7	14	27	24	18	15
646	1	4	3	8	10	13
647	4	5	7	13	15	13
648	2	3	3	2	13	14
689	0	0	0	0	0	2
692	0	3	0	4	1	3
STATION	H1	H2	C1	C2	D1	D2
700	0	1	0	0	1	1
701	2	2	0	2	2	2
702	1	0	0	3	1	2
703	2	3	5	6	3	1
704	0	2	0	0	1	3
705	2	4	10	7	5	3
706	8	10	7	10	4	1
707	0	0	7	6	5	8
708	7	14	30	32	20	21
709	6	6	49	61	75	54
711	0	0	3	4	0	0
712	5	14	11	10	9	14
715	0	0	12	20	25	33
717	1	4	2	7	7	9
725	0	0	0	0	0	0
726	0	2	3	3	8	11
727	0	0	4	5	3	3
728	0	0	0	0	0	1
729	0	4	0	3	2	1

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STATION	H1	H2	C1	C2	D1	D2
730	0	0	1	3	0	1
745	0	0	0	0	0	1
746	0	0	0	0	0	0
764	0	0	0	0	0	1
766	0	0	6	10	9	4
767	0	2	7	5	7	15
768	6	16	2	6	11	18
769	0	3	1	3	3	8
771	0	0	2	3	3	2
772	2	5	7	3	2	3
803	0	0	0	0	1	2
804	6	7	1	3	0	5
805	0	0	0	0	0	0
809	0	0	15	7	5	5
810	0	0	2	4	2	6
814	1	5	14	13	4	7
818	16	16	27	34	38	40
819	0	0	0	8	20	26

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STATION	H1	H2	C1	C2	D1	D2
820	6	14	17	10	6	12
821	0	0	13	17	12	21
822	3	8	31	26	27	34
823	0	0	3	2	5	14
824	0	0	1	5	4	8
827	0	0	0	0	1	0
828	7	8	11	6	4	13
829	1	7	12	15	11	13

these terrains are stored on disk b:t820 dat

STATION	H1	H2	C1	C2	D1	D2
830	0	0	19	37	12	16
831	0	0	0	0	0	0
832	0	0	0	0	0	0
833	0	5	2	0	0	1
834	4	8	19	30	29	35
835	3	7	16	19	17	25
836	9	7	11	12	13	17
837	0	0	1	3	5	10
838	0	0	2	2	2	5
839	5	8	8	16	23	15

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STATION	H1	H2	C1	C2	D1	D2
840	4	4	10	16	15	16
845	3	8	3	8	14	8
846	3	3	0	3	4	7
847	2	4	2	2	4	5
848	0	3	7	7	12	23
849	2	5	18	23	17	29

these terrains are stored on disk b:t840 dat

STATION	H1	H2	C1	C2	D1	D2
850	2	4	0	0	7	30
851	0	0	3	5	6	9
852	4	6	8	9	19	15
387	2	3	23	18	24	28

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MEDICINE LAKE, CALIFORNIA

GRAVITY SURVEY

Fall 1983

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MEDICINE LAKE CALIFORNIA

GRAVITY SURVEY

FALL 1983

Summit Engineering Inc

Paul Larry Brown

Brian A Watterson

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1 0 0 INTRODUCTION

The vicinity near Medicine Lake California on the Modoc Plateau in northernmost California contains an area of potential geothermal interest Structural information and depth interpretation are essential in geothermal resource exploration

Gravity is acceleration The average gravitational attraction at the earth's surface is approximately 980,000 milligals The simple bouguer anomaly is the observed gravitational attraction with the theoretical geoid attraction removed Corrections due to the distance change from the station elevation to the datum elevation (commonly sea level) are also applied These corrections are the bouguer slab and the free air correction The complete bouguer anomaly is the simple bouguer anomaly with the effect of terrain removed The resultant gravity anomaly is a measure of the density and structural distributions of the local and regional subsurface An interpretation would be initiated by removal of regional anomaly patterns to produce a local anomaly map which is then interpreted in terms of local density and structural distribution

Summit Engineering Inc was contracted by Occidental Geothermal Inc to design and conduct a gravity survey centered about Medicine Lake gravity stations were collected within the Medicine Lake vicinity during the period July 15 through November 31 1983 The resultant report consists of a field procedure section a data analysis section and a conclusion section with recommendations

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2 0 0 FIELD PROCEDURES

The two factors survey control and precise measurement of gravitational attraction are necessary to produce a quality gravity survey

2 1 0 SURVEY CONTROL

The surveying was conducted with a Topcon total station meter The main priority in gravity surveying is the determination of station elevation however a precise station location is important in the representation and determination of the gravity field Station locations were determined and plotted in the field by means of topographic control in conjunction with measured distances When topographic control was not adequate horizontal angles were measured from known positions Horizontal angle control with measured distances were then used to plot station positions This second method was primarily used in the Medicine Lake area These methods produced locations with precisions of ± 75 feet 75 feet on the available 7 5 minute or 1 24 000 scale base map corresponds to ± 0 03 of an inch

Elevation was measured and calculated by a differential altitude method Changes in elevation are measured between each turning point or instrument location and stadia locations or rod positions Elevation changes are accumulated and referenced to a known elevation to produce specific elevations

All vertical angles were measured with a precision of ± 3 seconds of arc and were repeated with an inverted theodolite The horizontal distances are precise to ± 0 5 feet The station elevation precisions were determined by surveying from a known elevation to another known elevation This was accomplished by using U S G S bench marks in the area or by closing a loop onto a previously determined elevation The determined precisions were approximately ± 0 25 feet per mile of profile Considerations of rod locations errors in staking stations and occupation by the gravity meter operator produce a ± 1 foot error in specific station elevation This is a conservative estimate and represents virtually all station elevations

2 2 0 GRAVIMETRY

The gravitational attraction was measured by means of the LaCoste & Romberg, Inc model G gravity meter #G-229 or #G-368 The LaCoste & Romberg instrument is a thermally compensated low linear drift meter capable of precisions of ± 0 02 milligals in normal field use

Station gravity measurements are conducted by occupying an initial base station followed by measurements of several separate stations, and concluded by reoccupation of the initial base station These "loops" are completed within 3 hours, with the majority in the 2 hour range The two error sources instrument drift and the tidal gravity, can be assumed to be linear, during a 3 hour loop, and arithmetically removed

All gravity meters are subject to tares or instabilities due to unavoidable "nondelicate" handling or "seeming magic" These tares are detected

by base station misties larger than 0 1 of a meter division or 0 1 milligal Typical base misties or drifts were on the order of 0 05 milligals A tare would necessitate a repeat of the loop During the course of Summit Engineering's survey five tares were detected and these loops were repeated

The absolute gravity was determined by occupying a station of known gravity value The absolute value is 979981 9100 milligals Observed gravity values were determined to be precise to ± 0 04 milligals

2 3 0 GRAVITY SURVEY PRECISIONS

The latitude precision; elevation precision, and meter precision deterine the bouguer gravity value precision A ± 75 foot error in plan coordinates produces approximately a ± 0 02 milligal error A ± 1 foot error in elevation produces a ± 0 06 milligal error, and the observed gravity measurement error is ± 0 04 milligals At a 95% confidence level, assuming a normal error distribution, the bouguer gravity value error is ± 0 08 milligals This error analysis of course, assumes no sources of precision in the correction terms such as free air, bouguer slab, and theoretical terms

The accuracy of the bouguer values are inherently unknown and are primarily geologic in nature Examples of these are the accuracy of the earth's shape, assumption of bouguer density, accuracy of elevation control, etc

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3 0 0 DATA ANALYSIS

The simple bouguer gravity is defined as follows

$$SBA = OG + FAC - THG - BC - CC$$

The complete bouguer is defined as follows

$$CBA = SBA + TC$$

OG is the observed gravity value FAC is the free air correction and is defined by

$$FAC = (0\ 09411549 - 0\ 000137789\ \sin^2 \phi)h - 0\ 067 \times 10^{-8}\ h^2$$

Where ϕ is the station latitude and h is station elevation - datum elevation

THG is the theoretical gravity and is defined as follows

$$THG = 979031\ 84558\ (1 + 0\ 00527889\ \sin^2 \phi + 0\ 000023462\ \sin^4 \phi)$$

BC is the bouguer correction due to an infinite slab and is defined by

$$BC = 0\ 012774\ (\sigma)h$$

where σ = density in gm/cc

CC is the curvature correction to the bouguer slab and is defined by

$$CC = h(0\ 0001671 + h(-1\ 229 \times 10^{-8} + h(4\ 67 \times 10^{-16})))$$

TC is the terrain correction and is based on tabulated attraction values versus horizontal distance segments and elevation difference segments

The typical values used in the Medicine Lake survey are listed below

σ = 2 67

Datum elevation = 0 0 "sea level"

h ≅ 6800 ft

OG ≅ 979 750 milligals

FAC ≅ 640 milligals

THG ≅ 980 310 milligals

BC ≅ 230 milligals

CC ≅ 56 milligals

Typical simple bouguer value = -157 milligals

STA	OB(MG)	LAT	LONG	ELE(FT)	FAC(MG)	BC(MG)	THG(MG)	SBA(MG)
20	829 27	5790	4722	5570 4	523 90	189 98	310 26	-147 62
21	806 95	5808	4788	5850 1	550 2	199 52	310 42	-153 34
22								
23	772 65	5809	4876	6350 3	597 24	216 58	310 43	-157 67
24	755 63	5806	4921	6588 8	619 67	224 72	310 40	-160 37
25	748 22	5830	4950	6726 5	632 72	229 45	310 62	-159 70
26	979730 30 41	5865 121	4982	6968 8	655 41	237 68	980310 90	-163 43
27	726 43	5866	5026	7059 6	663 95	121 50	310 81	-161 90
28	727 18	5852	5059	7067 1	664 66	241 03	310 81	-160 56
29	728 39	5872	5093	7065 5	664 51	240 98	310 99	-159 63
30	725 17	5886	5140	7088 7	666 69	241 77	311 12	-161 59
31	726 15	5890	5178	7080 6	665 93	241 49	311 15	-161 13
32	731 07	5888	5225	7071 3	665 05	241 17	311 14	-156 75
33	734 66	5849	5262	7026 9	660 88	239 66	310 79	-155 47
34	740 51	5844	5319	6992 6	657 65	238 49	310 74	-151 64
35	746 72	5830	5368	6919 3	650 76	235 99	310 62	-149 69
36	749 04	5830	5415	6911 4	650 01	235 72	310 62	-147 84
37	749 33	5834	5452	6914 0	650 26	235 81	310 65	-147 43
38	751 55	5872	5481	6880 6	647 12	234 67	310 99	-147 56
39	758 81	5876	5530	6786 5	638 27	231 46	311 03	-145 97
40	759 97	5901	5565	6768 1	636 54	230 83	311 25	-146 14
41	762 56	5907	5616	6744 4	634 31	230 02	311 31	-145 03
42	764 84	5921	5658	6717 3	631 76	229 10	311 43	-144 49
43	764 99	5956	5695	6716 6	631 69	229 08	311 75	-144 71
44	766 76	5949	5747	6702 0	630 32	228 58	311 68	-143 75
45	767 50	5950	5790	6694 5	629 61	228 32	311 69	-143 46
46	764 98	5929	5821	6742 4	634 12	229 96	311 50	-142 92
47	766 05	5902	5858	6735 2	633 44	229 71	311 26	-142 04
48	765 96	5858	5898	6737 1	633 62	229 77	311 14	-141 89
49	767 83	5881	5944	6699 7	630 10	228 50	311 07	-142 20
50	768 63	5881	5996	6687 1	628 92	228 07	311 07	-142 15
51	979762 49 41	5896 121	6037	6704 0	630 51	228 65	980311 21	-147 41
52	768 09	5895	6076	6687 5	629 20	228 20	311 20	-142 80
53	767 94	5870	6106	6689 2	629 12	228 14	310 97	-142 63
54	763 06	5861	6139	6712 3	631 29	228 93	310 89	-146 03
55	761 26	5864	6189	6741 1	634 00	229 91	310 92	-146 14
56	755 81	5849	6242	6803 2	639 84	232 03	310 79	-147 73
57	749 76	5830	6282	6887 0	647 72	234 89	310 62	-148 59
58	743 37	5809	6323	6958 4	654 40	237 32	310 43	-150 50
59	740 06	5818	6365	6986 1	657 04	238 27	310 51	-152 24
60	740 86	5816	6414	6985 8	657 01	238 56	310 42	-151 18
61	741 19	5808	6448	6985 8	657 01	238 56	310 42	-151 04
62	738 23	5805	6494	7000 8	658 42	238 77	310 39	-153 07
63	737 75	5808	6547	6962 0	654 77	237 45	310 42	-155 90
64	750 11	5805	6615	6783 6	637 97	231 36	310 39	-154 21
65	761 89	5797	6663	6627 5	623 31	226 04	310 32	-151 71
66	766 55	5780	6700	6554 3	616 43	223 54	310 18	-152 29
67	769 28	5789	6738	6496 4	610 98	221 57	310 25	-152 11
68	770 23	5795	6783	6461 4	607 69	220 37	310 30	-153 31
73	762 15	5898	6132	6746 2	634 48	230 08	311 23	-145 24
74	746 85	6117	6039	6972 4	655 75	148 96	313 19	-148 96
75	738 74	6118	6122	7080 3	665 90	241 48	313 20	-150 61

76		747	84		6170		6222	6953	4	653	96	237	15		313	67 -149 58
77		743	50		6105		6232	7027	4	660	92	239	68		313	09 -148 90
78		757	09		6041		6131	6864	4	645	59	234	12		312	51 -144 51
79		760	06		5974		6131	6813	7	640	82	232	39		311	91 -143 90
80		755	97		5826		6229	6806	0	640	10	232	13		310	58 -147 19
81		766	13		5927		5698	6710	2	631	09	228	86		311	49 -143 68
82		765	37		5895		5709	6713	9	631	44	228	98		311	20 -143 93
83		767	07		5931		5758	6701	9	630	31	228	57		311	52 -143 28
84		766	32		5973		5761	6703	7	630	48	228	64		311	90 -144 30
85		756	52		5970		5690	6823	5	641	75	232	72		311	87 -146 89
86		763	15		5986		5794	6753	6	635	17	230	34		312	02 -144 59
87		766	88		5970		5789	6702	5	630	37	228	59		311	87 -143 78
88		751	91		5958		5660	6886	8	647	20	234	88		311	77 -147 60
89		763	13		5882		5657	6735	8	633	51	229	73		311	08 -144 74
90		762	58		5858		5654	6744	8	634	35	230	04		310	87 -144 54
91		757	97		5824		5654	6793	5	638	93	231	70		310	56 -145 92
92		758	70		5821		5618	6774	5	637	14	231	05		310	53 -146 31
93		751	55		5819		5562	6895	6	648	53	235	18		310	52 -146 18
94		750	34		5792		5557	6901	9	649	12	235	40		310	27 -146 77
95		753	20		5787		5606	6815	3	640	98	232	44		310	29 -149 06
96		755	25		5794		5652	6828	1	642	18	232	88		310	29 -146 31
97		753	65		5801		5691	6867	7	645	90	234	23		310	39 -145 60
98		754	88		5827		5717	6853	8	644	60	233	75		310	59 -145 43
99		752	82		5826		5761	6875	4	646	63	234	49		310	58 -146 19
100		759	59		5874		5764	6799	9	639	53	231	92		310	86 -144 22
101	979760	34	41	5853	121	5714	6780	1	637	67	231	24	980310	82	-144	62
102		766	25		5830		5795	6713	8	631	43	228	98		311	82 -143 38
103		764	44		5891		5793	6765	1	636	26	230	73		311	16 -141 76
104		762	28		5891		5752	6769	4	636	66	230	88		311	16 -143 66
105		763	75		5935		5621	6727	5	632	72	229	45		311	56 -145 10
106		749	67		5959		5625	6908	7	649	76	235	93		311	77 -148 54
107		755	66		5961		5563	6831	5	642	50	232	99		311	79 -147 19
108		760	44		5935		5566	6764	0	636	15	230	69		311	56 -146 22
109		760	12		5882		5616	6777	6	637	43	231	19		311	08 -145 25
110		759	85		5883		5567	6772	5	636	95	230	98		311	09 -145 83
111		752	85		5843		5517	6876	8	646	76	234	54		310	73 -146 23
112		754	31		5810		5504	6845	8	643	84	233	48		310	44 -146 33
113		757	04		5860		5564	6823	3	641	73	232	71		310	88 -145 39
114		758	42		5860		5605	6789	3	638	53	231	55		310	88 -146 05
115		752	86		5758		5611	6853	3	644	55	233	74		309	97 -146 86
116		732	06		5752		5645	7113	3	669	00	242	61		309	91 -152 02
117		748	72		5763		5561	6925	4	651	32	236	20		310	01 -146 72
118		754	58		5685		5656	6754	1	635	22	230	35		309	31 -150 43
119		754	44		5749		5712	6855	5	644	76	233	81		309	89 -145 07
120		762	68		5585		5587	6588	7	619	67	224	71		308	41 -151 34
121		751	58		5536		5750	6744	8	634	35	230	04		307	97 -152 65
122		753	28		5602		5728	6775	7	637	26	231	09		308	57 -149 68
123		748	93		5603		5669	6815	9	641	03	232	46		308	58 -151 64
124		760	06		5521		5672	6617	0	622	34	225	68		307	84 -151.69
125		721	70		5607		5851	7195	5	676	73	245	41		308	61 -156 15
126		759	78		5670		5760	6719	2	631	94	229	16		309	18 -147 19
127		755	66		5748		5796	6809	8	640	46	232	25		309	88 -146 58
128		755	96		5790		5789	6833	8	642	72	233	07		310	26 -145 21
129		760	58		5823		5801	6791	5	638	74	231	63		310	55 -143 42
130		762	39		5853		5854	6768	0	636	53	230	83		310	82 -143 29
131		767	43		5827		5849	6686	6	628	87	228	05		310	59 -142 90
132		766	00		5755		5940	6696	0	629	76	228	37		309	94 -143 12
133		765	26		5792		5851	6711	2	631	19	228	89		310	27 -143 18
134		763	21		5756		5850	6719	2	631	94	229	16		309	95 -144 53
135		743	15		5653		5833	6940	8	652	78	236	72		308	83 -150 20

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136	756	96	5736		5749	6812	1	640	67	232	33		309	77	-145	03
137	756	90	5764		5763	6825	9	641	97	232	80		310	02	-144	51
138	749	68	5547		5848	6777	7	637	44	231	16		308	07	-152	67
139	761	45	5860		5814	6786	5	638	27	231	46		310	88	-143	19
140	763	86	5965		6063	6759	5	635	73	230	54		311	83	-143	34
141	750	80	6039		6052	6937	4	652	46	236	61		312	49	-146	40
142	758	06	5903		6227	6779	8	637	64	231	23		311	27	-147	37
143	761	95	5997		5806	6772	9	636	99	231	00		312	12	-144	79
144	762	68	5996		5847	6769	4	636	66	230	88		312	46	-144	22
145	751	24	6035		5802	6935	4	652	27	236	54		312	46	-146	00
146	758	75	6037		5846	6834	0	642	73	233	08		312	47	-144	63
147	767	75	5960		5848	6688	2	629	03	228	11		311	78	-143	66
148	763	95	5980		5902	6758	8	635	66	230	51		311	96	-143	51
149	758	18	6037		5920	6948	2	644	08	233	57		312	47	-144	30
150	738	24	6112		5927	7106	7	668	38	242	38		313	15	-149	42
152	979696	49	41	6198	121	5789	7663	0	720	70	261	35	980313	92	-158	64
153	755	44	6071		5848	6881	4	647	19	234	70		312	78	-145	41
154	749	27	6061		5795	6962	3	654	80	237	46		312	69	-146	64
155	723	02	6066		5742	7304	2	686	95	249	12		312	73	-152	94
156	722	37	6115		5698	7317	9	688	24	249	58		313	18	-152	70
157	719	83	6150		5694	7351	2	691	38	250	72		313	49	-153	57
158	709	43	6188		5694	7496	0	704	99	255	66		313	83	-155	62
159	704	17	6188		5744	7577	9	712	69	258	45		313	83	-155	97
160	701	44	6207		5841	7610	8	715	79	259	57		314	00	-156	91
161	721	23	6161		5836	7339	8	690	30	250	33		313	59	-152	97
162	717	69	6159		5784	7380	4	694	12	251	72		313	57	-154	03
163	727	10	6147		5738	7249	8	681	84	247	26		313	46	-152	35
164	747	78	6110		5757	6933	2	652	06	236	46		313	13	-150	31
165	745	05	6119		5797	7011	6	659	44	239	14		313	21	-148	12
166	742	06	6114		5835	7051	8	663	22	240	51		313	17	-148	96
167	756	46	5961		6237	6830	4	642	40	232	96		311	79	-146	45
168	747	96	6039		6236	6962	4	654	81	237	46		312	49	-147	74
169	738	86	5746		5456	7025	8	660	78	239	62		309	86	-150	41
170	743	38	5749		5501	6978	5	656	32	238	01		309	89	-148	76
171																
172	757	52	5771		5492	6774	1	637	10	231	04		310	08	-147	07
173	741	32	5788		5460	7010	0	659	29	239	08		310	24	-149	28
174	740	74	5797		5419	7008	6	659	15	239	03		310	32	-150	02
175	741	73	5753		5410	6990	3	657	43	238	41		309	92	-149	73
176	742	39	5757		5347	6982	9	656	74	238	16		309	96	-149	56
177	730	12	5749		5297	7093	1	667	11	241	92		309	89	-155	14
178	741	16	5780		5304	6969	9	655	52	237	71		310	17	-151	77
179	737	36	5819		5330	7032	4	661	39	239	85		310	52	-152	17
180	743	67	5791		5359	6960	3	654	61	237	39		310	26	-149	93
181	740	24	5664		5261	6939	9	652	69	236	69		309	12	-153	44
182	749	16	5594		5268	6761	4	635	91	230	60		308	50	-154	60
183	740	54	5663		5317	6935	9	652	32	236	55		309	12	-153	37
184	705	66	5747		5164	7382	2	694	29	251	78		309	87	-162	25
185	696	27	5754		5125	7494	7	704	87	255	61		309	93	-164	96
186	675	36	5786		5173	7774	2	731	16	265	15		310	22	-169	40
187	667	22	5790		5063	7903	0	743	27	269	54		310	26	-169	86
188	667	69	5810		5226	7847	9	738	09	267	66		310	44	-172	87
189	670	33	5780		5226	7814	3	734	93	266	51		310	17	-171	97
190	686	37	5792		5262	7628	9	717	49	260	19		310	27	-167	16
191	703	86	5757		5270	7446	1	700	34	253	96		309	96	-160	32
192	704	15	5747		5232	7406	8	696	60	252	62		309	87	-162	29
193	689	25	5746		5077	7542	5	709	37	257	24		309	86	-167	15
194	686	43	5817		5263	7631	8	717	76	260	29		310	50	-167	15
195	681	65	5824		5222	7681	3	722	42	261	98		310	56	-169	02
196	690	80	5818		5174	7588	9	713	73	258	83		310	51	-165	36
197	699	77	5817		5110	7463	1	701	90	254	54		310	50	-163	92
200	688	04	5783		5117	7605	3	715	27	259	39		310	19	-166	83

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201	979726	36	41	5907	121	5107	7108	7	668	57	242	45	311	31	-159	39
202	727	05		5884		5067	7090	9	666	89	241	84	311	10	-159	56
203	728	33		5929		5107	7093	4	667	14	241	94	311	50	-158	52
204	728	24		5921		5076	7096	5	667	42	242	03	311	42	-158	36
205	719	75		5958		5067	7218	4	678	89	246	19	311	77	-159	88
206																
207	709	84		5989		5071	7361	7	692	36	251	08	312	04	-161	48
208	713	01		5990		5112	7323	2	688	74	249	76	312	05	-160	62
209	731	93		5971		5167	7065	6	664	51	240	98	311	88	-156	98
210	733	12		5967		5214	7072	3	665	15	241	21	311	85	-155	35
211	733	84		5912		5171	7037	5	661	87	240	02	311	35	-156	22
212	734	51		5943		5205	7056	2	663	63	240	96	311	63	-154	71
213	729	70		5792		4990	6973	4	655	84	237	83	310	27	-163	12
214	717	42		5735		4939	7077	4	665	63	241	38	309	76	-168	66
215																
216	729	28		5942		4987	7049	7	663	02	240	44	311	62	-160	32
217	693	78		5852		5189	7524	2	707	64	256	62	310	81	-166	56
218	744	58		5881		5469	6967	5	655	29	237	80	311	07	-149	40
219	746	29		5895		5501	6946	4	653	30	236	91	311	20	-149	08
220	742	39		5904		5460	7011	2	659	40	239	12	311	28	-149	17
221																
222	738	58		5960		5398	7063	4	664	31	240	90	311	78	-150	36
223																
224																
225																
226																
227	741	11		5863		5419	7014	2	659	68	239	23	310	91	-149	90
228	754	05		5843		5414	6843	4	643	62	233	40	310	73	-147	02
229	738	62		5899		5350	7054	8	663	50	240	61	311	23	-150	28
230	741	01		5853		5350	7011	4	659	42	239	31	310	82	-150	08
231	736	85		5909		5305	7061	2	664	10	240	83	311	32	-151	77
232																
233																
234	751	26		5967		5517	6888	8	647	89	234	95	311	85	-148	21
235	747	70		5969		5472	6938	6	652	57	236	65	311	86	-148	80
236	749	51		5933		5513	6906	3	649	53	235	55	311	54	-148	61
237	736	27		6004		5458	7102	2	667	96	242	23	312	18	-150	74
238	719	48		6074		5423	7333	1	689	67	250	10	312	81	-154	32
239	723	32		6069		5371	7261	4	682	93	247	66	312	81	-154	73
240	725	27		6109		5322	7191	7	676	37	245	28	313	12	-157	32
241	732	02		6117		5270	7066	7	664	62	241	02	313	19	-158	14
242	727	37		6073		5268	7139	7	671	48	243	51	312	80	-158	01
243	728	59		6068		5332	7159	4	673	34	244	18	312	75	-155	57
244	734	22		6147		5326	7049	8	663	03	240	44	313	46	-157	21
245																
246	722	58		6113		5367	7270	0	683	74	247	95	313	16	-155	35
247	719	02		6105		5418	7333	1	689	67	250	10	313	09	-155	06
248	712	24		6149		5416	7401	9	696	14	256	95	313	48	-158	11
249	714	65		6183		5414	7363	1	692	49	251	13	313	79	-158	32
250	711	81		6179		5462	7395	6	695	55	252	23	313	75	-159	19

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251	979709	87	41	6150	121	5462	7473	0	702	83	254	87	980313	49	-156	23
252	714	27		6116		5466	7428	9	698	68	253	37	313	18	-154	16
253	721	00		6070		5462	7325	6	688	97	249	85	312	77	-153	21
265	793	36		6477		5729	6191	1	582	27	211	15	316	43	-152	60
266	784	45		6422		5651	6297	3	592	26	214	77	315	93	-154	56
267	778	97		6397		5542	6385	3	600	53	217	78	315	71	-154	54
268	797	55		6504		5650	6118	9	575	48	208	69	316	67	-152	89
269	795	95		6464		5552	6141	2	577	58	209	45	316	31	-152	69
270	803	21		6472		5475	6023	1	566	47	205	49	316	38	-152	67
278	746	39		6186		5176	6868	0	645	93	234	24	313	81	-156	30
279	736	21		6145		5173	7019	3	660	16	239	40	313	44	-157	04
280	739	64		6102		5166	6939	9	652	01	236	69	313	06	-157	98
281	738	82		6074		5169	6950	0	653	64	237	04	312	81	-157	84
282	725	78		6045		5171	7129	2	670	50	243	15	312	55	-159	98
283	721	18		6042		5139	7195	1	676	69	245	40	312	52	-160	60
284	713	56		6039		5119	7296	5	686	23	248	85	312	49	-162	12
285	716	30		6059		5125	7255	6	682	38	247	46	312	67	-162	01
286	719	49		6079		5116	7208	2	677	93	245	84	312	85	-161	84
287	726	16		6041		5464	7251	0	681	95	247	30	312	51	-152	27
288	724	91		6039		5510	7287	6	685	39	248	55	312	49	-151	30
289	723	66		6038		5551	7321	2	688	55	249	70	312	48	-150	53
290	721	68		6039		5652	7340	6	690	38	250	36	312	49	-151	35
291	720	84		6039		5608	7361	0	692	30	251	05	312	49	-150	97
292	714	96		6078		5651	7450	8	700	74	254	12	312	84	-151	82
293	710	81		6113		5652	7499	3	705	30	255	77	312	16	-153	37
294	718	21		6076		5696	7400	2	695	95	252	39	312	82	-151	58
295	729	83		6039		5740	7209	2	678	02	245	88	312	49	-151	08
296	724	00		6039		5702	7294	6	686	05	248	79	312	49	-151	79
297	733	85		6000		5685	7148	8	672	34	243	82	312	14	-150	33
298	730	44		6002		5647	7212	2	678	30	245	98	312	16	-149	95
299	727	93		6002		5599	7245	9	681	47	247	13	312	16	-150	45
300	724	05		6003		5553	7293	7	685	97	248	76	312	17	-151	47
301	979727	48	41	6011	121	5506	7239	1	680	83	246	90	980312	24	-151	39
302	728	65		6040		5410	7208	3	677	94	245	85	312	50	-152	33
303	745	31		5999		5408	6966	0	655	15	237	58	313	13	-149	82
304	736	95		6005		5363	7072	8	665	19	241	22	312	19	-151	83
305	738	94		5987		5367	7054	4	663	46	240	60	312	03	-150	79
306	732	76		6006		5310	7122	3	669	85	242	91	312	20	-153	07
307	734	77		6009		5271	7073	8	665	29	241	36	312	22	-153	99
308	733	44		5984		5284	7089	3	666	74	241	79	312	00	-154	16
309	733	52		6009		5227	7049	7	663	02	240	44	312	22	-156	68
310	728	22		6008		5182	7108	6	668	56	242	45	312	21	-158	44
311	735	86		6039		5222	7007	0	659	00	238	98	312	49	-157	17
312	731	11		6039		5258	7115	3	669	19	242	67	312	49	-155	43
313	732	15		6041		5315	7136	9	671	22	243	41	312	51	-153	11
314	676	20		6105		5531	7915	0	744	40	269	95	313	09	-162	98
315	676	21		6107		5526	7913	0	744	21	269	86	313	10	-163	11
316																
317	703	86		6076		5503	7573	2	712	25	258	29	317	90	-155	56

319	723	69	6173	5137	7120	5	669	68	242	85	313	74	-163	79
320	733	90	6114	5129	7023	7	661	57	239	55	313	17	-158	80
321	726	42	6122	5086	7111	4	668	82	242	54	313	24	-161	10
322	717	00	6128	5049	7201	7	677	31	245	02	313	29	-165	15
323	720	10	6145	5059	7153	3	672	76	243	97	313	14	-165	12
324	727	40	6175	5059	7029	5	661	12	239	75	313	79	-165	51
325	735	32	6170	5095	6964	9	655	04	237	54	313	67	-161	41
326	736	48	6144	5113	6980	1	656	47	238	06	313	44	-159	11
327	731	95	6109	5218	7062	1	664	18	240	86	313	12	-158	40
328	730	12	6081	5221	7077	0	665	59	241	37	312	87	-159	09
329	745	97	6185	5220	6897	5	648	71	235	25	313	80	-154	93
330	743	35	6182	5311	6835	2	652	25	236	53	313	78	-155	27
331	734	05	6186	5336	7064	1	664	37	240	93	313	81	-156	88
332														
333														
334	751	07	6172	5271	6835	7	642	89	233	14	313	69	-153	43
335	738	12	6139	5214	6989	2	657	33	238	37	313	39	-156	88
336	741	17	6136	5258	6969	2	655	45	237	69	313	36	-155	00
369	789	96	6390	5465	6238	2	586	70	212	76	315	65	-152	31
370	754	71	6079	5849	6889	3	647	93	234	97	312	85	-145	73
375	705	62	6124	5508	7542	5	709	36	257	24	313	26	-156	07
376	703	24	6150	5500	7547	3	709	82	257	41	313	49	-158	40
377														
378	701	64	6189	5547	7596	1	714	41	259	07	313	84	-157	42
379														
380	706	84	5785	6571	7309	0	687	41	249	28	310	21	-165	80
388	702	32	6152	5556	7590	0	713	83	258	86	313	51	-156	77
389	697	44	6106	5556	7664	0	720	79	261	39	313	09	-156	81
390														
391	770	64	5545	5620	6476	0	609	07	149	78	308	06	-142	44
417	759	81	5633	5640	6700	6	630	19	228	53	308	85	-147	94
418														
419														
420	753	04	6039	6075	6906	6	649	56	235	56	312	49	-146	01
421	757	30	5629	5674	6714	4	631	49	229	00	308	81	-149	59
422	757	03	5632	5581	6745	7	634	43	230	07	308	84	-148	01
423	749	50	5644	5550	6829	2	642	28	232	92	308	94	-150	64
424	750	14	5636	5506	6834	2	642	75	233	09	308	87	-149	63
425	751	41	5618	5377	6765	5	636	29	230	74	308	71	-152	31
426	750	00	5623	5236	6765	5	636	29	230	74	308	76	-153	77
427														
428														
429														
430	756	35	5630	5707	6727	3	632	70	229	44	308	82	-149	77
431	757	19	5637	5777	6737	1	633	62	229	77	308	88	-148	41
432	741	46	5706	5301	6940	5	652	75	236	71	309	50	-152	56
433	737	73	5714	5257	6981	5	656	61	238	11	309	57	-153	91
434	727	33	5919	5112	7105	0	668	22	242	32	311	41	-158	75

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452	761	18	5971	6111	6805	0	640	01	235	50	311	88	-143 35
453													
454	748	59	5816	6608	6812	6	640	72	232	35	310	49	-154 10
455	746	22	5846	6623	6820	2	641	44	232	61	310	76	-156 28
456	752	98	5876	6613	6783	2	637	96	231	35	311	03	-152 01
457	755	46	5898	6614	6759	6	635	74	230	54	311	23	-151 14
458													
459													
460	754	36	5967	6605	6783	3	637	97	231	35	311	85	-151 44
461	755	69	5989	6588	6758	7	635	65	230	51	312	04	-151 78
462													
463	747	81	5997	6532	6901	0	649	03	235	36	312	12	-151 20
464	747	67	5981	6531	6870	7	646	19	234	33	311	97	-153 02

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IRIS LUTZ
JAN 1 0 198

Medicine Lake Terrain Corrections Occidental II

C_1 = 240 - 480 ft , C_2 = 480 → 765 ft , D_1 = 765 - 1250 , D_2 = 1250 → 1530
+Hammer A+B

Hammer Zone E = 558 - 1280 ft

1) Skip D_2 in summation of TCI
2) ~~when~~ Calculate TCO starting from zone F ~~in~~

STN	TCI (to 1250 ft)
500	0 52
501	0 10
502	0 02
503	0.28
504	0 30
~~50~~	
510	0 70
511	0.34
512	0 06
513	0 15
514	0 34
515	0 12
525	0 69
526	1 46
527	0 90
646	0 26
647	0 44
648	0 23
689	0 0
692	0 07
700	0.02
701	0.08
702	0 05

703	0 19
704	0 03
705	0 28
706	0 39
707	0 18
708	1 03
709	3 00
711	0 07
712	0.47
715	0 ~~27~~ 57
717	0.21
725	0 0
726	0 16
727	0 12
728	0 0
729	0 09
730	0 04
~~731~~	
745	0 0
746	0 0
764	0 0
766	0 25
767	0 21
768	0 41
769	0.10
771	0 08
772	0 19

STN	TCI (→1250ft)
803	0 01
804	0 17
805	0 0
809	0 27
810	0 08
814	0 37
818	0 32
819	
820	0 28
821	0 53
822	0 71
823	0 10
824	0 10
827	0 01
828	0 36
829	0 46
830	0 68
831	0 ~~68~~ 0
832	0
833	0 07
834	0 90
835	0 62
8 6	0 52
837	0 09
838	0 06
839	0 60
840	0 49

STN	TCI
845	0 36 ~~35 49~~
846	0 13
847	0 14
848	0 43
849	0.65
850	0 13
851	0 14
852	0 46
387	0 70

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GEOTHERMAL
GEOLOGY DEPARTMENT

UNITED STATES DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY

California
~~Shasta~~
Geophysics
Gravity data
FILE SEQ

Principal facts for seventy-four gravity stations in the northern California Cascade Mountains

ALEX SCHRIEDER
JUN 1 1983

by

Carol Finn

and

D R Spydell

Open File Report 82-1080

1982

This report is preliminary and has not been reviewed for conformity with U S Geological Survey editorial standards

Principal facts for seventy-four gravity stations in the northern California Cascade Mountains

by

Carol Finn

Explanation of the headings of the accompanying table of principal facts are as follows.

STATION IDENTIFICATION — Station numbers preceeded by the letters sh or sha are on or at the base of Mt Shasta The prefixes mh and dav refer to gravity profiles on Medicine Lake Volcano All stations were taken with LaCoste and Romberg[1] gravity meter G-550 For a complete description of the gravity reduction procedures currently in use by the U S Geological Survey (USGS) for defining the corrections and anomalies, see Cordell and others (1982)

LATITUDE AND LONGITUDE — Values listed are in degrees and minutes to the nearest one hundredth of a minute These positions were surveyed in with a laser theodolyte for all stations except for sh01-sh11 To obtain these postions, gravity stations were transferred from U S Forest Service and USGS aerial photographs to USGS 1:62,500 topographic quadrangle maps and then were digitized

[1]Use of tradenames is for descriptive purposes only and does not imply endorsement by the U S Geological Survey

ELEVATION	Elevations are in feet to the nearest tenth All elevations were surveyed in with a laser theodolyte and are accurate to the nearest tenth of a foot except for stations sh01-sh11 These elevations were read on a Kern[1] PG2 stereo plotter from USGS aerial photographs Several elevation readings were taken for each station and averaged to obtain the station elevation. Errors associated with this method are: (1) errors in the setup of the photogrammetric model, (2) possible errors in benchmark or spot-elevation values, (3) the difference between our reading of benchmarks and the actual value; about 10-15 feet, and (4) the scatter of elevation data collected for each gravity station about some mean value, assumed to be the real station elevation These errors were not evaluated due to a lack of information for analysis
OBSERVED GRAVITY	Values are to the nearest hundredth of a milligal All stations are relative to IGSN-71 (Morelli, 1974) tied to a base at Klamath Falls, Oregon, having observed gravity equal to 979981 91 mgals except for stations sha01-sha17 These are relative to Menlo Park base station "A" which has a value of 979944 34 (Morelli, 1974)
THEORETICAL GRAVITY	Values were calculated using the Geodetic Reference System 1967 (International Association

of Geodesy, 1971)

TERRAIN CORRECTIONS

Most of the stations were corrected for terrain by computer from the station to 166 7 km (Richard Godson, unpublished program , U S. Geological Survey), implementing the procedure of Plouff (1977). Some of the inner zone (Hammer zones D-F, Hammer, 1939) terrain corrections were done by template Although the density used in these corrections was 2 2 g/cm^3, the value in the terrain correction column is for 2 67 g/cm^3 This density was obtained by a modified Nettleton profiling technique described in Finn and Williams (1982)

FREE-AIR ANOMALY

Free-air anomaly values are in milligals The free-air correction was obtained by the following calculation: observed gravity - theoretical gravity - free-air anomaly = free-air correction

COMPLETE BOUGUER ANOMALY

Complete Bouguer anomaly values are in milligals using densities of 2 2 and 2 43 g/cm^3

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Finn, Carol, and Williams, D L , 1982, Gravity evidence for a shallow intrusion under Medicine Lake Volcano in northern California: Geology, v 10, p 503-507

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International Association of Geodesy, 1971, Geodetic reference system 1967: International Association of Geodesy Special Publication no 3 (Bureau Central Association International Geodesie, Paris), 116 p.

Morelli, C , ed , 1974, The International Gravity Standardization Net 1971: International Association of Geodesy Special Publication no 4, 194 p

Plouff, Donald, 1977, Preliminary documentation for a Fortran program to compute gravity-terrain corrections based on topography digitized on a geographic grid: U S Geological Survey Open-File Report 77-535, 45 p

BOUGUER GRAVITY DATA

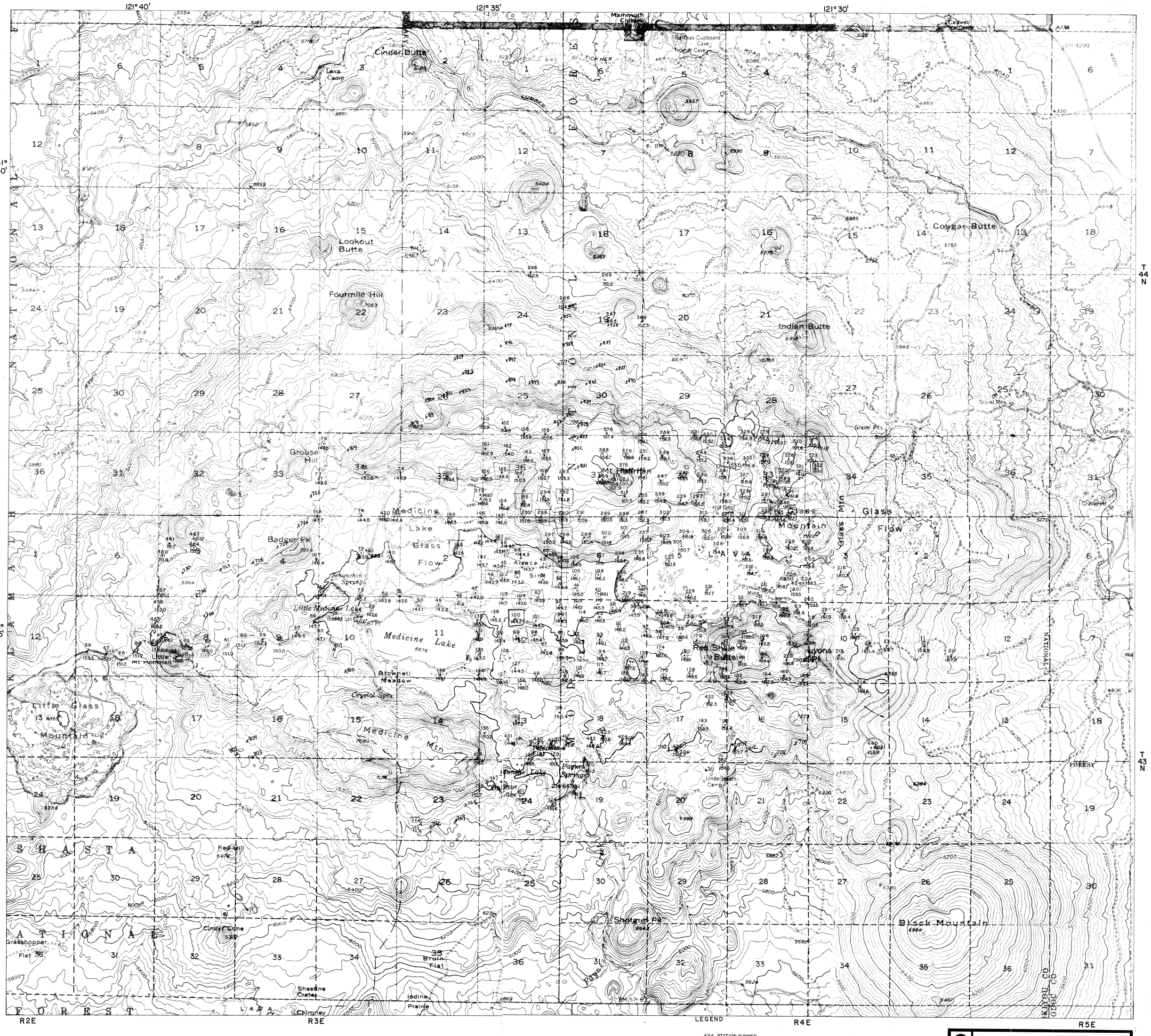
shasta gravity
collected summer 1981
Meter ID: g-550 Date: 06/15/82

STATION IDENTIFICATION proj sta-id	LOCATIONS LATITUDE deg	min	LONGITUDE deg	min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.20	d2=2.43	SPEC FIELDS
shasta:sh01	41	26.35	-122	6.20	6405.0	ca	979751.09	980297.67	5.10	-180.00	-1.25	0.00	55.56	-120.58	-139 00	
shasta:sh02	41	27.48	-122	6.75	6344.0	ca	979747 54	980299.37	4.14	-178.29	-1.24	0.00	44.59	-130.80	-149 14	
shasta:sh03	41	26.80	-122	7 30	6765.0	ca	979724.42	980298.34	5.88	-190.12	-1.25	0 00	62.05	-123.44	-142.83	
shasta:sh04	41	26.65	-122	7 90	7012.0	ca	979707.55	980298.13	7 17	-197.06	-1.25	0.00	68.61	-122.53	-142.52	
shasta:sh05	41	26.10	-122	8.00	7388.0	ca	979681 45	980297.30	9.05	-207.63	-1.24	0.00	78.66	-121.16	-142.05	
shasta:sh06	41	26.65	-122	7.80	7004.0	ca	979708.14	980298.13	7.07	-196.84	-1.25	0.00	68.45	-122.57	-142.54	
shasta:sh07	41	27.50	-122	6.70	6717.0	ca	979730.40	980299.39	9.09	-188.77	-1.25	0.00	62.47	-118.47	-137.38	
shasta:sh08	41	24.80	-122	7.08	7100.0	ca	979711.27	980295.35	8.31	-199.53	-1.25	0.00	83.37	-109.11	-129.23	
shasta:sh09	41	28.90	-122	10.50	5670.0	ca	979818.55	980301.49	6.77	-159.35	-1.22	0.00	50.13	-103.66	-119.73	
shasta:sh10	41	27.85	-122	10.00	7093.0	ca	979704.30	980299 91	8.28	-199.34	-1.25	0 00	71.17	-121.21	-141.33	
shasta:sh11	41	29.65	-122	10.80	4831.0	ca	979798.87	980302.61	21.35	-135.77	-1 15	0.00	-49.52	-165.09	-177 17	
shasta:sha01	41	21.69	122	10.93	8404.0	ca	979611 71	980298.70	25.02	-236.18	-1 18	0.00	110.97	-101.38	-123.58	
shasta:sha02	41	23.66	122	9.32	9111 0	ca	979555.62	980293.65	27 99	-256.05	-1.11	0.00	118.34	-110.82	-134.78	
shasta:sha03	41	24.65	122	8.65	8595.0	ca	979592.52	980295.13	17.25	-241.55	-1 16	0.00	105.30	-120.17	-143.74	
shasta:sha04	41	27 19	122	11.65	8799.0	ca	979578.45	980298.93	28.32	-247.28	-1.14	0.00	106.59	-113.51	-136.52	
shasta:sha05	41	25.80	122	14.78	8593.0	ca	979600.71	980296.85	21.85	-241.49	-1.16	0.00	111.57	-109.23	-132.31	
shasta:sha06	41	24.23	122	14.89	9084.0	ca	979562.89	980294.50	32.26	-255.29	-1.11	0.00	122.23	-101 91	-125.35	
shasta:sha07	41	22.28	122	12.34	9222.0	ca	979550.31	980291.59	34.85	-259.17	-1.09	0.00	125.53	-99.89	-123.45	
shasta:sha08	41	23.26	122	11.36	11107.0	ca	979413.25	980293.05	49.22	-312.14	-0.75	0.00	164.04	-99.64	-127.21	
shasta:sha09	41	24.06	122	10.12	10536.0	ca	979456.07	980294.25	37.49	-296.10	-0.87	0.00	152.04	-107 44	-134.57	
shasta:sha10	41	24.57	122	10.59	11171.0	ca	979408.66	980295.01	44.31	-313.94	-0.73	0.00	163.50	-106.86	-135.13	
shasta:sha11	41	25.02	122	10.91	11634.0	ca	979372.43	980295.69	48.99	-326.95	-0.62	0.00	170.07	-108.51	-137.63	
shasta:sha12	41	24.89	122	12.23	12386.0	ca	979315.00	980295.49	61.57	-348.09	-0.41	0.00	183.44	-103.48	-133.48	
shasta:sha13	41	24.12	122	11.93	13186.0	ca	979246.08	980294.34	75.11	-370.57	-0.15	0.00	190 78	-104.83	-135.73	
shasta:sha14	41	24.56	122	11.62	14157.0	ca	979151.83	980294.99	110.43	-397.86	0.21	0.00	187.02	-100.20	-130.22	
shasta:sha15	41	24.50	122	13.52	12001.9	ca	979336.81	980294.91	64.02	-337.29	-0.52	0.00	169 78	-104.01	-132.63	
shasta:sha16	41	23.26	122	13.11	10450.0	ca	979465.52	980293.05	42.65	-293.68	-0.89	0.00	154.61	-97 31	-123.65	
shasta:sha17	41	22.34	122	13.12	8369.0	ca	979618.97	980291.67	18.74	-235.20	-1 18	0.00	113.97	-103.68	-126.43	
shasta:mh01	41	34.89	-121	39.65	6812.6	ca	979748.59	980310.45	3.35	-191 46	-1.25	0.00	78.58	-110.77	-130.57	
shasta:mh02	41	35.11	-121	39.75	6820.2	ca	979746.22	980310.78	3.50	-191.67	-1.25	0.00	76.59	-112.82	-132.63	
shasta:mh03	41	35.25	-121	39.68	6783.2	ca	979752.98	980310.99	3.07	-190.63	-1.25	0.00	79.67	-109 14	-128.88	
shasta:mh04	41	35.42	-121	39.71	6759.6	ca	979755.46	980311.25	3.03	-189.97	-1.25	0.00	79.68	-108.51	-128.18	
shasta:mh05	41	35.48	-121	39.87	6712.9	ca	979757 92	980311.34	2.93	-188.65	-1.25	0.00	77.66	-109.32	-128.87	
shasta:mh06	41	35.69	-121	39.89	6689.8	ca	979759.60	980311.65	2.93	-188.00	-1.25	0.00	76.85	-109.47	-128.95	
shasta:mh07	41	35.88	-121	39.95	6688.8	ca	979759.58	980311.94	3.14	-187 98	-1.25	0.00	76.45	-109.63	-129.09	
shasta:mh08	41	35.80	-121	39.60	6783.3	ca	979754.36	980311.81	3.18	-190.63	-1.25	0.00	80.23	-108.47	-128.20	
shasta:mh09	41	35.94	-121	39.52	6758.7	ca	979755.69	980312.02	3.18	-189.94	-1.25	0 00	79 04	-108.97	-128.63	
shasta:mh10	41	35.89	-121	39.19	6870.7	ca	979747.67	980311 95	3.32	-193.09	-1.25	0.00	81.62	-109 40	-129.37	
shasta:mh11	41	36.02	-121	39.15	6901.0	ca	979747.81	980312.15	3.53	-193.94	-1.25	0.00	84.41	-107.24	-127.28	
shasta:mh12	41	36.35	-121	39 50	6646.4	ca	979765.16	980312.64	3.34	-186.79	-1.25	0 00	77 35	-107.35	-126.66	

BOUGUER GRAVITY DATA

shasta gravity
collected summer 1981
Meter ID: g-550 Date: 06/15/82

STATION IDENTIFICATION proj ste-id	LOCATIONS LATITUDE deg min	LONGITUDE deg min	ELE (in ft)	ST	GRAVITY OBSERVED	THEORETICAL	CORRECTIONS TERRAIN	BOUGUER	CURV	SPECIAL	ANOMALIES FREE AIR	COMPLETE-BOUGUER d1=2.20	d2=2.43	SPEC FIELDS
shasta:mh13	41 36.60	-121 39 50	6532.2	ca	979769 95	980313.02	3.00	-183.58	-1.25	0.00	71 03	-110.79	-129.80	
shasta:mh14	41 36.74	-121 39 75	6468.0	ca	979773.49	980313.23	2.93	-181 77	-1.25	0.00	68.33	-111 76	-130.59	
shasta:dev01	41 41 70	-121 43.34	4779.4	ca	979873.07	980320.65	0.63	-134.32	-1 14	0.00	1 79	-133.04	-147 14	
shasta:dev02	41 41.48	-121 43.66	4787 1	ca	979872.22	980320.32	0.63	-134.53	-1.14	0.00	1.99	-133.06	-147 18	
shasta:dev03	41 41.25	-121 43.85	4775.8	ca	979871.31	980319 98	0.67	-134.22	-1 14	0.00	0.36	-134.32	-148.40	
shasta:dev04	41 41.00	-121 43.97	4794.7	ca	979871.43	980319.60	0.68	-134.75	-1 14	0.00	2.63	-132.57	-146.71	
shasta:dev05	41 40.77	-121 44.08	4841.2	ca	979870.68	980319.26	0.70	-136.05	-1 15	0.00	6.60	-129 90	-144.17	
shasta:dev06	41 40.49	-121 44.04	4878.5	ca	979868.46	980318.84	0.73	-137 10	-1 15	0.00	8.31	-129.22	-143.60	
shasta:dev07	41 40.24	-121 44.00	4880.3	ca	979865.70	980318.46	0.76	-137 15	-1 15	0.00	6.09	-131.45	-145.83	
shasta:dev08	41 39 99	-121 44.00	4908.8	ca	979865.12	980318.09	0.77	-137 95	-1 15	0.00	8.56	-129 77	-144.24	
shasta:dev09	41 39.72	-121 43.99	4924.4	ca	979863.84	980317.69	0.82	-138.39	-1 15	0.00	9 16	-129.57	-144.07	
shasta:dev10	41 39.37	-121 44.00	4983.5	ca	979864.73	980317.16	0.87	-140.05	-1 16	0.00	16.12	-124.22	-138.90	
shasta:dev11	41 39.12	-121 44.04	5009.2	ca	979861.08	980316.79	0.94	-140.77	-1 16	0.00	15.26	-125.74	-140.48	
shasta:dev12	41 38.82	-121 43.92	5051 9	ca	979859.29	980316.34	1 13	-141 97	-1 17	0.00	17 93	-124.08	-138.93	
shasta:dev13	41 38.46	-121 43.97	5203.4	ca	979856.45	980315.80	1.05	-146.23	-1 18	0.00	29.88	-116.48	-131.78	
shasta:dev14	41 38.21	-121 43.97	5252.1	ca	979846.69	980315.42	1 10	-147.60	-1 19	0.00	25.06	-122.63	-138.07	
shasta:dev15	41 37 90	-121 43.91	5304.7	ca	979844.13	980314.96	1.22	-149.08	-1 19	0.00	27 91	-121 14	-136.72	
shasta:dev16	41 37.67	-121 43.87	5336.4	ca	979842.02	980314.62	1.20	-149 97	-1 19	0.00	29 13	-120.83	-136.51	
shasta:dev17	41 37.35	-121 43.38	5390.6	ca	979840.42	980314.14	1.39	-151.49	-1.20	0.00	33.10	-118.20	-134.02	
shasta:dev18	41 37 14	-121 43.66	5460.9	ca	979837 59	980313.82	1.20	-153.47	-1.20	0.00	37 19	-116.28	-132.32	
shasta:dev19	41 36.91	-121 43.63	5536.8	ca	979833.18	980313.48	1.23	-155.60	-1.21	0.00	40.26	-115.33	-131.59	
shasta:dev20	41 36.74	-121 43.84	5596.2	ca	979823.86	980313.23	1.24	-157.27	-1.21	0.00	36.77	-120.47	-136.90	
shasta:dev21	41 36.47	-121 43.75	5604.4	ca	979823.56	980312.82	1.26	-157.50	-1.21	0.00	37.65	-119.80	-136.26	
shasta:dev22	41 36.21	-121 43.63	5614.8	ca	979823.37	980312.43	1.42	-157 79	-1.21	0.00	38.82	-118.77	-135.24	
shasta:dev23	41 36.12	-121 43.49	5642.2	ca	979820.43	980312.30	1.43	-158.56	-1.21	0.00	38.59	-119 75	-136.31	
shasta:dev24	41 36.06	-121 43.35	5661.5	ca	979821.62	980312.20	1.48	-159 11	-1.21	0.00	41.69	-117 15	-133.76	
shasta:dev25	41 36.00	-121 43.16	5708.8	ca	979817.84	980312.12	1.54	-160.44	-1.22	0.00	42.45	-117.67	-134.41	
shasta:dev26	41 35.83	-121 42.95	5788.5	ca	979813.54	980311.86	1.64	-162.68	-1.22	0.00	45.88	-116.37	-133.34	
shasta:dev27	41 35.48	-121 42.81	5904.7	ca	979804.95	980311.34	1 96	-165.94	-1.23	0.00	48.74	-116.47	-133.74	
shasta:dev28	41 35.26	-121 42.65	6008.4	ca	979797 72	980311.01	2.15	-168.86	-1.23	0.00	51.58	-116.35	-133.91	
shasta:dev29	41 35.04	-121 42.69	6122.1	ca	979790.09	980310.68	2.28	-172.05	-1.24	0.00	54.97	-116.03	-133.91	
shasta:dev30	41 34.78	-121 42.78	6268.7	ca	979781 14	980310.29	2.27	-176.17	-1.24	0.00	60 19	-114.95	-133.26	
shasta:dev31	41 34.57	-121 42.74	6387 9	ca	979775.33	980309 98	2.22	-179.52	-1.25	0.00	65.89	-112.65	-131.32	
shasta:dev32	41 34.47	-121 42.48	6397.6	ca	979773.15	980309.83	2.15	-179.79	-1.25	0.00	64.77	-114.12	-132.82	



LEGEND

424 STATION NUMBER
VALUE 150.5 MILLIGALS (NEGATIVE)

CONFIDENTIAL

N

SCALE 1 : 24,000

0 2000' 4000' 6000' 8000'
0 0.5 1.0 1.5 miles

OXY OCCIDENTAL GEOTHERMAL, INC.

MEDICINE LAKE HIGHLAND
(GLASS MTN. KGRA)
SISKIYOU & MODOC CO'S., CALIFORNIA

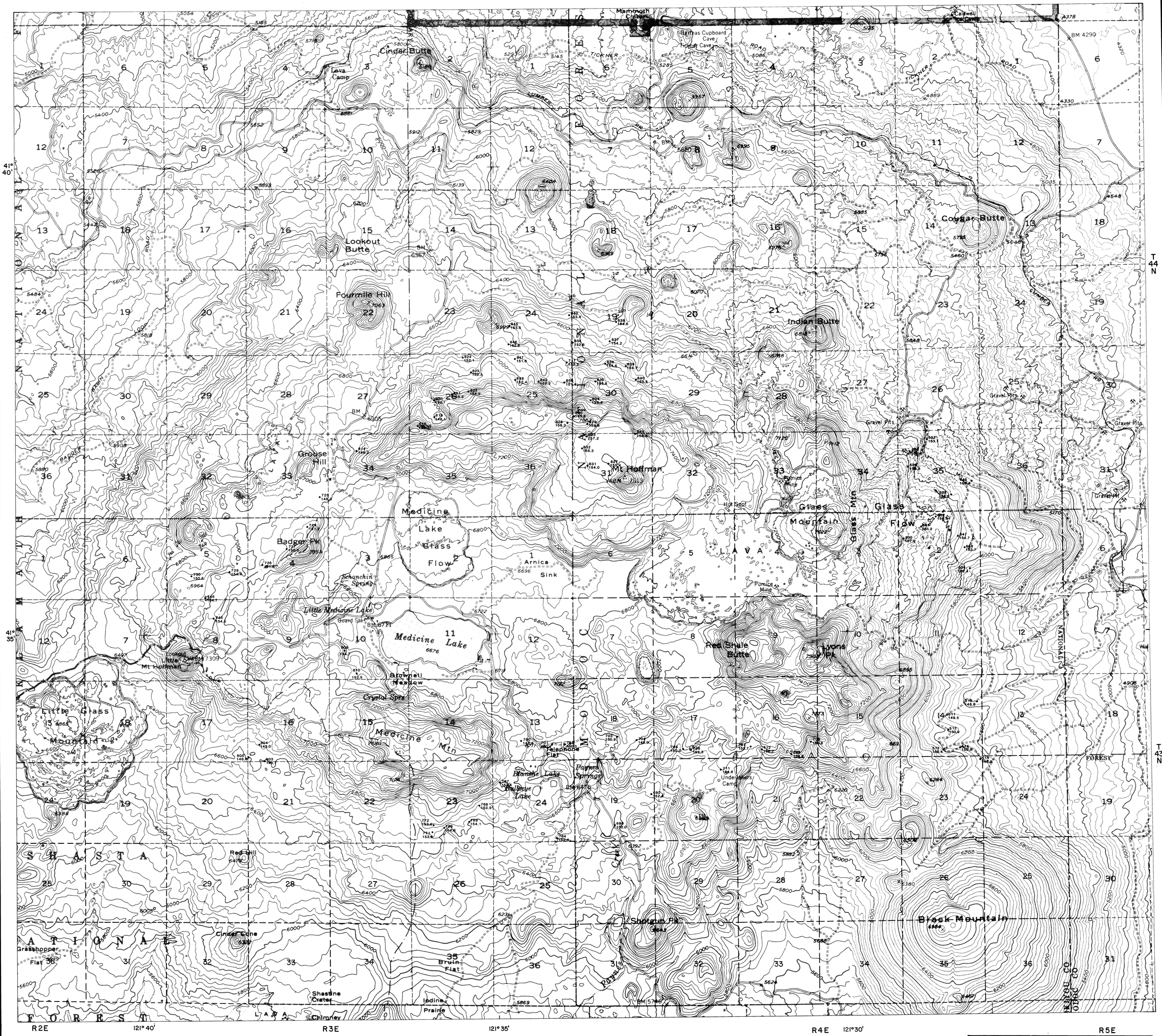
1983 GRAVITY SURVEY

Station Location & Value Map

CONFIDENTIAL

AUTHOR	REVISION DATE	FILE NO.
DATE	WELLS GEOL.	I-4
DRAFTSMAN	LAND SEIS.	

BASE L-2



N

SCALE 1 : 24,000

0 2000' 4000' 6000' 8000'

0 0.5 1.0 1.5 miles

OCCIDENTAL GEOTHERMAL, INC.

MEDICINE LAKE HIGHLAND

(GLASS MTN. KGRA)

SISKIYOU & MODOC CO'S., CALIFORNIA

CONFIDENTIAL

1984 GRAVITY SURVEY

● STATION No.
SIMPLE BOUGUER (Milligals negative)

AUTHOR	REVISION DATE	FILE NO.
DATE	WELLS GEOL.	
DRAFTSMAN	LAND SEIS.	

BASE L-2