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EXPLORATION LICENCE 5/63
COMSTAFF J.V., N.W. TASMANIA
REPORT ON EXPLORATION
IN AREA 3 FOR THE YEAR ENDED
30TH JUNE, 1988.

CONTENTS

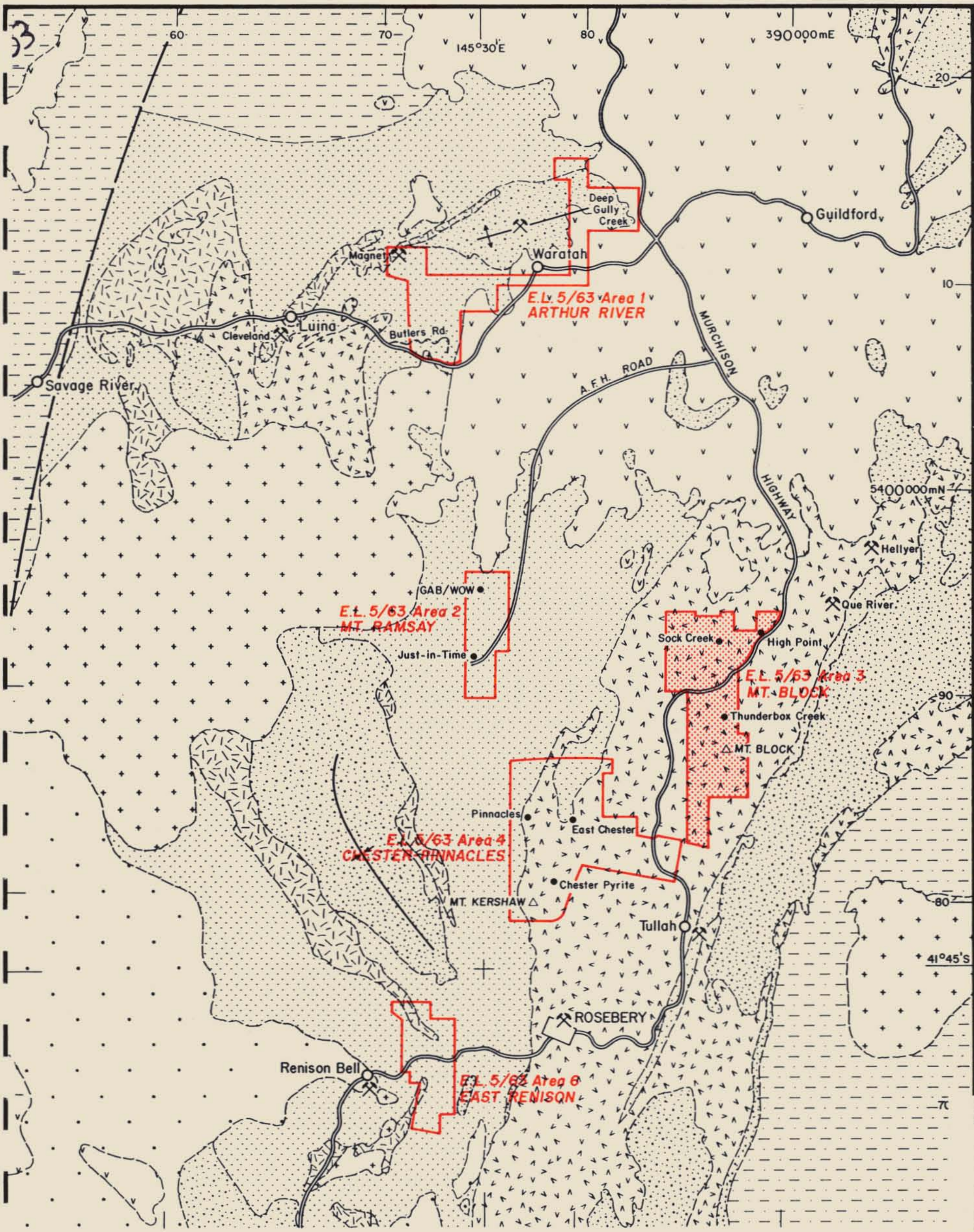
0C~

FIGURES

TABLES

APPENDICES

03



TERTIARY
- Basalt

DEVONIAN
- Granite, porphyry

ORDOVICIAN - SILURIAN
- Conglomerate, limestone

CAMBRIAN ?
- Ultramafite

CAMBRIAN
- Sediments with minor volcanics
- Volcanics and intrusives

PRECAMBRIAN
- Unmetamorphosed sediments
- Metamorphosed sediments

Area to be relinquished

Area of extension application

0 5 10 15 20 km

Centre MELBOURNE	THE BROKEN HILL PROPRIETARY CO. LTD. BHP - COMSTAFF J.V., TAS.	Fig.1	Project Nº B56
Date 1 - 6 - 88	REGIONAL GEOLOGY AND PROJECT LOCATION		Drawing Nº A4-2763

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1. INTRODUCTION

This report describes the results of exploration activity in the period July 1987 to June 1988 carried out by BHP Minerals Ltd. on behalf of the Comstaff Joint Venture in Area 3 of Exploration Licence 5/63 (Figure 1). An extension of tenure is sought over this portion of the EL, comprising approximately 31.5 square kilometres. The purpose in seeking to extend tenure over Area 3 is to further investigate several significant discoveries made in the 1987-88 period.

A companion report has already been submitted to the Department of Mines covering exploration in the remainder of EL 5/63 which is to be relinquished on 30th June, 1988.

2. GROUND TENURE

Exploration Licence 5/63 (covering some 4947 sq. km.) was granted to Mt. Costigan Mines Ltd. in 1963 and transferred to Comstaff Pty. Ltd. in 1964. The Comstaff Joint Venture was formed in 1977 between Comstaff Pty. Ltd. and Preussag Australia Pty. Ltd. In late 1985 BHP Minerals Ltd. farmed in to the Comstaff Joint Venture and has carried out all exploration work on EL 5/63 since that time.

Numerous alterations have been made to the boundaries of EL 5/63 since 1963, usually by way of reductions in area in compliance with Department of Mines regulations such that the tenement comprised some 126 sq. km. at the commencement of the present reporting period. A recent change in the status of an adjacent tenement resulted in an alteration to the boundary of Area 3 of EL 5/63 to improve conformity with the AMG. This led to an increase in the area of EL 5/63 (Area 3) of approximately 3.5 sq. km. in May, 1988.

The Licence is due for relinquishment on 30th June, 1988 with the exception of Area 3 over which an extension of tenure is sought. This portion of EL 5/63 comprises some 31.5 sq. km. and is the subject of this report. A separate report covering the relinquished Areas has previously been submitted to the Mines Department.

3. SUMMARY OF EXPLORATION RESULTS FOR AREA 3 JULY 1987 - JUNE 1988.

Exploration by BHP has resulted in the discovery of significant base metal and/or gold mineralization at three main prospect areas within Area 3 of EL 5/63 during the 1987-88 period.

At High Point (Figure 1) extensive diamond drilling has encountered promising Zn-Pb-Cu-Ag-Au mineralization associated with strong hydrothermal alteration within mafic volcaniclastic rocks and lavas similar to those in the Que River-Hellyer systems to the east.

Exploration at the Sock Creek South Prospect some 1.5 km southwest of Sock Creek has also resulted in the discovery of significant Zn-Pb-Cu mineralization in favourable lithologies. In addition, diamond drilling in this area encountered basalt or basaltic andesite lava and this has important implications for regional geology and overall exploration potential of the western Dundas Group.

At Tullabardine Gorge in the southern portion of Area 3, a helicopter-supported diamond drilling program led to the discovery of minor Zn-Pb sulfide mineralization in a dacite-rhyolite lava, tuff and epiclastic sequence within which several significant TEM anomalies remain to be drill tested.

4. UTEM SURVEY

The UTEM III transient electromagnetic technique was chosen as the most efficient and comprehensive method of testing the potential of Area 3 for volcanogenic massive base metal sulfide deposits, to a depth of at least 200m. A program was designed to survey the entire region of Area 3, EL 5/63. This program was carried out by Lamontagne Geophysics Ltd. during the period September-December 1987.

4.1 Survey Parameters

The 1987 UTEM program involved surveying 150 line kilometres from 16 loops: MB01-13, PM01-02 and PM07. Readings were taken every 50m (with some 25m infill in noisy regions) along lines spaced 200 m apart. The vertical component was read at all stations. A transmitter frequency of 26.23 Hz was used to read 10 data channels, except in the case of loop MB01 where a transmitting frequency of 25.14 Hz was preferred. Generally data were collected outside loops. Data were only collected inside loops in the vicinity of the powerline. In this case the loops were positioned symmetrically about the powerline. Loop sizes varied from a minimum of 1000m x 1000m to a maximum of 1000m x 2000m, with the majority being in the order of 1000m x 1500m. Locations of loops and lines surveyed are presented in Figure 2.

Data are presented in Appendix 1 in the form of continuously normalised plots showing channels 5-10 on the top axis, 2-5 on the central axis and channel 1 on the lower axis. An explanation of symbols and the delay times represented by each channel is presented in Table 1.

4.2 Discussion of Results

In addition to our interpretation, J. MacNae of Lamontagne Geophysics was commissioned to complete a relatively detailed first-pass interpretation of the data. MacNae's interpretation is presented in Figure 2. In addition to identifying many linear conductive trends, corresponding to various lithologies and contacts, he identified six zones which reflected relatively higher conductivities. These zones are labelled D, E, F, G, H and J in Figure 2.

His interpretation of these six conductive zones is summarised as follows:

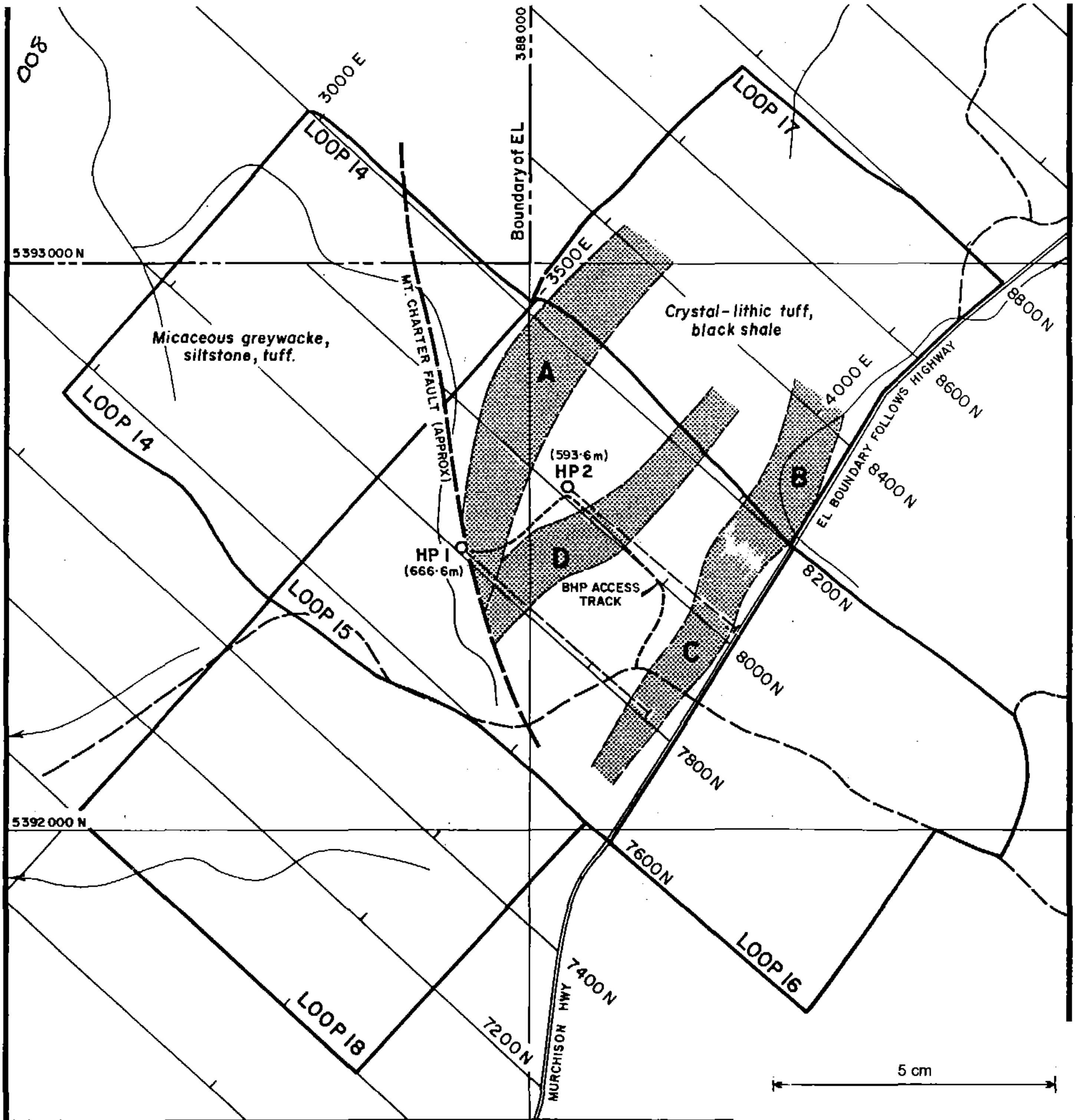
Zone D - a current gathering anomaly that covers a wide zone. This zone appears more conductive than other conductive zones in the region. On line 4000N at 6960E the conductor appears to be at a depth of 40m. On line 3800N at 6875E the conductor should be at, or near, the surface.

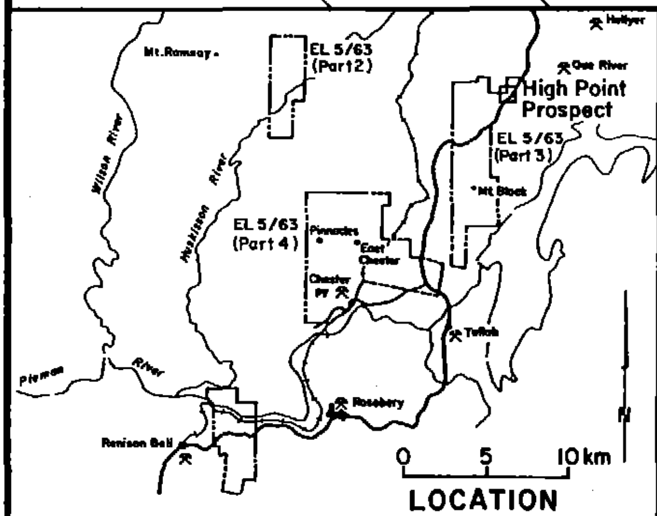
Zone E - Another current gathering anomaly similar to Zone D. The anomaly is best developed on line 4200N at 6625E. At this point a depth to the conductor of 50-100m is estimated.

Zone F - A series of zones attributed to noise from the nearby powerline. No further work is recommended.

Zone G - A shallow large amplitude response which should outcrop.

Zone H - A complex zone consisting of responses from two conductors located within a region of generally elevated background response compared to the remainder of Area 3.





LEGEND

A UTEM anomaly

UTEM traverse

Diamond drill hole

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Fig. 3

Scale 1:10000

0 200 400 600 metres

Centre Melbourne	THE BROKEN HILL PROPRIETARY CO. LTD. EL 5/63, (Part 3), COMSTAFF JV, TASMANIA	Project Nº B56
Date May '88	UTEM FOLLOW-UP & DRILLING AT HIGH POINT PROSPECT	Drawing Nº A4-2764

Zone J - A zone displaying late time variations attributed to near surface polarization. A somewhat undersampled slowly decaying response at 5800E on line 8500N is attributed to a confined horizontal conductor. The conductor is very conductive with a depth to the top of less than 20m.

From MacNae's interpretation five zones were chosen for immediate follow up. These were (in order of priority) H, J, G, D and E. Zone H, also known as the High Point prospect, was followed up immediately using UTEM. Zone J (Tullabardine prospect), Zone D and Zone E were followed up using Sirotem. Zone G (Sock Creek South) was followed up using a combination of Sirotem and dipole-dipole Induced Polarisation.

5. FOLLOW UP OF UTEM PROGRAM

5.1 High Point Prospect

5.1.1 UTEM Detailing Survey

A UTEM III transient electromagnetic survey was conducted over the southern portion of anomalous zone H, known as the High Point prospect (Figure 2).

Approximately 7 line kilometres were surveyed using three new loops, each of which was approximately 600 x 600 m. Measurements were taken every 50 m. The line spacing was 200m except in the case of loop MB14 where line spacing was closed down to 100m. A transmitting frequency of 26.23 Hz was employed to record both x and z components using 10 data channels. Locations of loops and lines surveyed and the resulting UTEM interpretation are presented in Figure 3.

Data are presented in Appendix 1 in the form of plots showing channels 5-10 on the top axis, 2-5 on the central axis and channel 1 on the lower axis. An explanation of symbols and the delay times represented by each channel is presented in Table 1. Vertical component plots are continuously normalised. Horizontal X component plots are point normalised at the position indicated by the arrow on the plots.

This data set was also interpreted by James MacNae of Lamontagne Geophysics. The following comments are a summary of his interpretation.

General observations to arise from interpretation of the data included the identification of two different conductive regions. The region covered by Zone H in Figure 2 is the most conductive region in Area 3. There is a sharp break at the southern margin of this zone, south west of which the ground is significantly less conductive. This sharp break corresponds to the inferred position of the Mt. Charter Fault. To the south east of Zone H, in the region covered by loops 5 and 6 the ground is also significantly less conductive.

Within the highly conductive zone H four conductive zones have been identified (Figure 3). Zone A has been interpreted as a formational conductor with an estimated dip to the west of 50 to 80°. Zone B has very similar characteristics to Zone A and has also been interpreted as a formational conductor with a dip estimated to lie between 80°E and 80°W. Both A and C converge to the south but appear to be faulted off at approximately 7400N. Both A and C appear to be near surface features. Zone B is a more conductive section of Zone C. This increased conductivity may only be an apparent increase due to current gathering from the conductive zone to the north-west.

Zone D was identified as the most interesting feature. This response may only be seen after careful examination of the data. Interpretation is difficult because this subtle feature is superimposed on the responses of Zone A, B and C and the conductive half space response. The conductance of Zone D is estimated to be greater than three times that of Zones A and C. A depth to the top of Zone D of 50 to 70m is estimated. A negligible response on loop 15 indicates a probable near vertical dip.

5.1.2 Geology

Geological traversing and rock chip sampling were carried out over the zones of anomalous conductivity on lines 7600N to 8200N (Fig. 3). This was aimed at locating any surface expression of the bodies responsible for the UTEM anomalies. Another objective was to define the position of the Mt. Charter Fault. This structure was believed to be important on the basis of cross sections that were constructed in an attempt to place the UTEM conductors in a geological context at depth. The results of our mapping along with structural considerations suggested that the High Point anomalous zone is underlain at approximately 500 m depth by rocks which are time stratigraphic equivalents of the Que River and/or Hellyer mineralized horizons and these rocks are bounded to the west by the Mt. Charter Fault which is sub-vertical. Earlier geological mapping by the Department of Mines was extremely valuable in guiding this conceptual approach to the deep geology and structure (Komyshan, 1986).

Despite extremely poor exposure, our mapping substantiated the work of Komyshan (op. cit.) and fairly accurately defined the position of the Mt. Charter Fault (MCF) which separates micaceous greywackes on the west from a mixed volcano-sedimentary sequence to the east (Fig. 3). Gently west-dipping cleaved pyritic shale (Que River Shale) along the Murchison Highway is apparently overlain by rhyolitic tuff in the general area of the UTEM anomalies. The rhyolites are sparsely pyritic quartz-feldspar crystal lithic tuffs with local black shale matrix and shale fragments. Dark grey vitric tuffs and tuffaceous shales with minor pyrite interfinger with these coarse grained rhyolites. Rock chip assaying revealed little encouragement with the exception of some highly deformed pyritic shale within the MCF which has elevated Pb and Zn (Appendix 4). Alteration is restricted to patchy chloritization and sericitization of the rhyolites especially in the vicinity of the fault. There is no obvious ? relationship between observable geology and the UTEM features, especially in terms of structure, with the exception of a possible correspondence between conductor A and a segment or splay of the MCF (Fig. 3).

5.1.3 <u>Diamond Drilling</u>

Two diamond holes were drilled at High Point for a total of 1260 m (Fig. 3). Both were initially targeted at the central UTEM anomaly D and were designed to intersect the causative conductor at between 100 and 125 m depth. Diamond drillhole HP1 was drilled on line 7800N and was based on a presumed moderate westerly dip (Figs. 3 and 4). The hole was probably collared within the broad zone of strong deformation which constitutes the MCF and the uppermost 180 m or so comprises intensely cleaved, disrupted and veined rocks of diverse lithology (see Fig. 4 and Appendix 5 for a detailed log). The major fault break is possibly at approximately 80 m downhole. West of this point the geology comprises conspicuously micaceous sandstone and greywacke with lesser black shale. East (downhole) of this break the sediments are quartzofeldspathic sandstone and these are accompanied by a range of volcanic breccias. The breccias are succeeded downhole by a highly deformed black, partly graphitic shale which has uphole facing and is possibly the Que River Shale. Both upper and lower contacts of the shale are faulted so true thickness is unknown. Pyrite is present throughout and is bedded in some intervals. Veins and disseminations of sphalerite and galena are conspicuous in the upper section of the shale. In general terms this unit corresponds with the modelled postion of the source of UTEM anomaly D so it is felt that the shale intercept at least qualitatively accounts for this response.

The black shale is followed downhole by mafic volcaniclastic rocks and it is on this basis that the drillhole was continued to considerable depth to test the geological model which suggested a possible major mineralized position at about 500 m depth (i.e. approximately 600 m downhole). The hole traversed some 450 m of variably altered basaltic and andesitic volcaniclastics and lavas before termination at 666.6 m. These rocks include mafic lava breccias, hyaloclastite and polymict epiclastics together with massive amygdaloidal lava and rare thin siltstone intervals. Alteration is ubiquitous and varies from weak to locally intense. The major minerals in the alteration assemblage are carbonate, pyrite, fuchsite, sericite, silica, albite and chlorite. Veins, disseminations, patches and clots of Zn-Pb-Cu sulfide and rare pyrrhotite occur throughout the mafic volcanics in both weakly and strongly altered intervals. A complete list of assayed intervals is included in Appendix 6 and a summary is shown in Figure 4. The best intersections are 1 m @ 1.25% Zn at 181.5 - 182.5 m, 2 m @ 3.8 g/t Au at 269 - 271 m and 6.65 m @ 0.32% Pb, 0.55% Zn at 409 - 415.65 m. The accompanying Cu and Ag values are disappointingly low but it is of major significance that the interval from 375 to 630 m represents 255 m @ >0.2% Zn. The hole was terminated (mainly due to time constraints) in sparsely quartz-phyric and abundantly feldspar-phyric volcaniclastics with only weak base metal mineralization; it was felt that this geology could represent a footwall position.

Diamond drillhole HP2 was collared on line 8000N, some 200 m to the northeast and was also initially designed to test UTEM conductor D at 100-125 m depth. This hole has only very recently been completed and neither a detailed log nor assay results are available at the time of writing. However, the major results may be summarized as follows (see Appendix 5). The upper section comprises 366 m of quartz-feldspar crystal lithic tuff with interbedded shale units up to 58 m thick. This is followed downhole by some 211 m of mixed shale (135 m) and basalt (76 m). The shale is typically dark grey or black and is variably pyritic and locally graphitic. The basalt is present mainly as intrusives, probably both sills and dykes, but some extrusives are possible. Both basalt and shale are cut by sphalerite veins, notably at about 460-470 m downhole.

The shale is followed downwards by basaltic pyroclastics similar to those intersected in the lower two thirds of HP1. The basalts are locally peperitic and show widespread fuchsite and carbonate alteration with some zones of strong silicification and pyritization. Both galena and sphalerite are sparsely disseminated throughout the basalt intersection. The hole was terminated at 593.6 m, close to the boundary of the tenement. There is no obvious explanation for the relatively shallow UTEM anomaly.

Orientation measurements performed on well bedded shale units at several intervals in HP2 demonstrate that the sequence is fairly flat lying in this area but has a northerly plunge of approximately 20°. This information has been combined with the core angles observed in HP1 to construct the drill section illustrated in Figure 4. A section for HP2 awaits detailed logging of the core. In terms of true depth there is a difference between HP1 and HP2 of some 235 m in depth to top of the mafic pyroclastics.

Taking topography into account the difference is about 190 m. Assuming a northeasterly plunge of 20° over the 225 m distance between the drillholes, a fault with apparent net vertical displacement in the order of 100 m is required to match the 2 drill sections. This downthrow is to the northeast. Additional diamond drilling is required to clarify the structure in this area.

5.1.4 Downhole TEM Surveys

A downhole transient electromagnetic survey program using Sirotem II equipment was planned for the High Point prospect. This program involved two stages. The first stage involved surveying DDH HP1. The second stage involved the surveying of DDH HP2, in conjunction with a surface sirotem survey over both drill holes.

The first stage of the program was conducted during May 1988. DDH HP1 was surveyed from the same loops used for the detailed UTEM survey at High Point; MB14, MB15 and MB16. These large loops were preferred because the surface data and the data from DDH HP2 could be gathered from the same loops. This would enable a direct comparison of the data. Inversion modelling incorporating all three data sets could also be performed if the same loops were used in all phases of the survey program.

The primary aim of the downhole EM (DHEM) surveys was to determine whether there were any offhole conductors which could represent massive developments of the base metal sulfide mineralization intersected in HP1 and HP2.

Data within HP1 were gathered at 5m intervals, over a total distance of 650m, from each of the three loops MB14, MB15 and MB16. Sixteen early time and sixteen standard time channels were recorded at each station. The data is presented in the form of log-linear plots in Appendix 3. An explanation of the delay times represented by each channel is presented in Table 2.

The profiles read from loops 15 and 16 show a large broad negative anomaly which becomes positive near the top and the bottom of the drill hole. The profile read from loop 14 shows a broad positive response similar to that expected from a conductive half space. Modelling of these data suggests that a large flat lying plate, with a conductivity thickness in the order of 15 siemens would be the most likely causative body. A plate-like conductor at a depth of approximately 290m, lying north of HP1 gives a reasonable match to the field data but a similar plate lying south of HP1 would also give a reasonable solution. In order to resolve this problem it is planned to survey HP1 from loops MB17 and MB18 (Figure 3) during the second phase of the program. This information in addition to the data gathered both on the surface and in HP2 will allow a more complete interpretation.

The second phase of the program involved surveying DDH HP2 from loops MB14, MB15, MB16, MB17 and MB18 (Fig. 3). A station spacing of 10m was chosen, with 16 channels of early time data and sixteen channels of standard time data to be collected at each station. In addition to this downhole program a surface program was also planned. This surface program involved surveying lines 7800N and 8000N from 3500E to the Murchison Highway, using loops MB14, MB15 and MB16. X and Z components were to be measured from loops MB14 and MB15, with X, Y and Z being measured from loop MB16. Sixteen early time and 16 standard time channels were to be recorded at stations 50 m apart.

Work on the second phase of the DHEM program began on 9th June and is currently in progress. No data are available at this early stage.

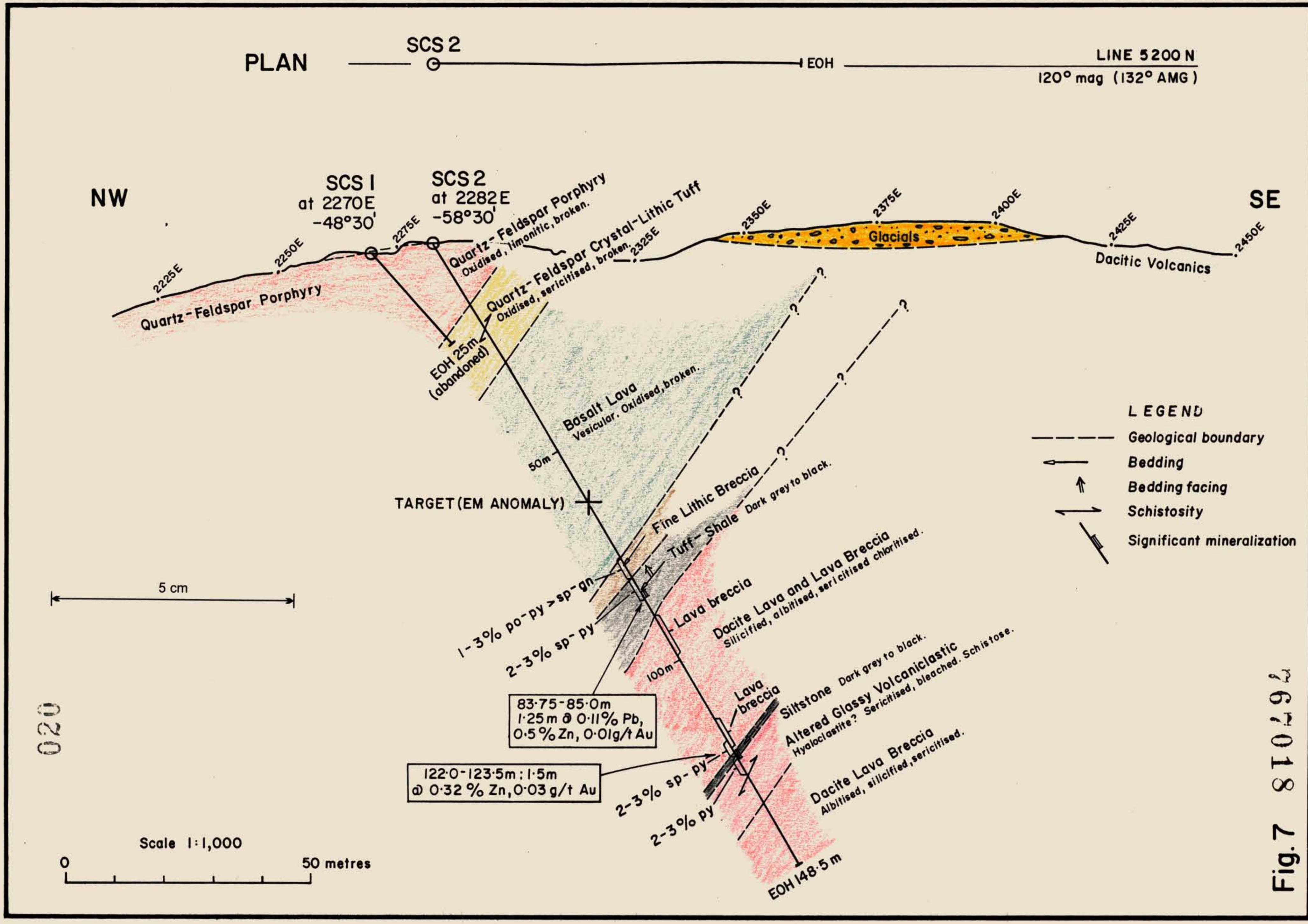


Fig. 7

THE BROKEN HILL PROPRIETARY CO. LTD.
E.L.5/63 (PART 3) COMSTAFF J.V., TAS.
SOCK CREEK SOUTH PROSPECT
SECTION THROUGH DDHs SCS 1 and 2 (LINE 5200 N)

Project Nº	B56
Drawing Nº	A4-2762
Centre	Melbourne
Date	June '88

5.2 Sock Creek South Prospect

5.2.1 Sirotem Surface Survey

A fixed loop Sirotem II transient electromagnetic survey was conducted over UTEM anomaly G during March 1988. Two 300m x 600m loops were used to survey a total of 3 line kilometres. Readings were taken every 25m along lines 100m apart. Vertical and horizontal X components were read at all stations, with 18 early time channels being recorded. Readings were taken both inside and outside the loops. Locations of loops and surveyed lines are presented in Figure 5. The data are presented in the form of log-linear profiles in Appendix 2.

The Sirotem survey confirmed the presence of the conductor identified by the UTEM survey. The Sirotem anomaly was, however, of reversed sign. Conventional interpretation techniques would suggest the causative body would therefore have to lie above the surface. A complex interaction of "loop effect", topographic effects (the loops are located across deep valleys adjacent to the anomaly position) and/or an Induced Polarisation response by the conductor provide the only possible explanations.

If we ignore the problem of reversed sign and interpret the anomaly on the basis of amplitude, wavelength and decay characteristics the following interpretation may be made:

(I) The anomaly strikes grid north-south, centred at 2315E.

(II) The anomaly wavelength becomes larger to the south, implying that the causative body plunges to the south.

(III) A depth to the top of the conductor of 25m is estimated on line 5200N, increasing to 50m on line 5000N.

(IV) The symmetrical nature of the anomaly on line 5200N implies a near vertical dip. As the anomaly trends to the south it becomes assymetric implying a possible eastern dip.

5.2.2 Dipole-Dipole Induced Polarisation Survey

A 50m time domain dipole-dipole Induced Polarisation survey was conducted over UTEM anomaly G during April 1988. One seven electrode spread was read on line 5200N using a Huntec Mk 4 receiver in conjunction with a Phoenix 3Kva transmitter. Reading were taken to the n=4 level using a 2s on/2s off transmitted wave form. The data are presented in the form of a pseudo section in Figure 6.

The data show a "pants-leg" chargeability high centred at 2325E. This anomaly is open at the surface implying a shallow moderately chargeable zone which outcrops and has a depth extent of less that 20m.

The resisitivity data show a very similar "pants leg" low. The interpreted causative body lies in the same position as that interpreted for the chargeability anomaly.

Thus the Induced Polarisation data suggest an outcropping zone of moderate chargeability and relatively low resistivity. This zone has a depth extent of less than 20m and is centred at approximately 2325E. This corresponds to a topographic low reflecting a zone of weathered basalt, as revealed by subsequent diamond drilling (see below). The basalt has been weathered to a clay-Mn oxide mixture near the surface and this may well explain the IP anomaly.

5.2.3 Geology

The UTEM, Sirotem and IP anomalies are very closely coincident and their position on the ground is marked by a distinct gully. This feature is a zone of no exposure, with resistant porphyry to the west and glacial sediments overlying dacite lavas to the east (Fig. 7). No mineralization is evident in these rocks at the surface and only very rare pyrite was noted along several traverses. The western porphyry is massive and is both quartz and feldspar-phyric but it is unclear whether this unit is intrusive or extrusive.

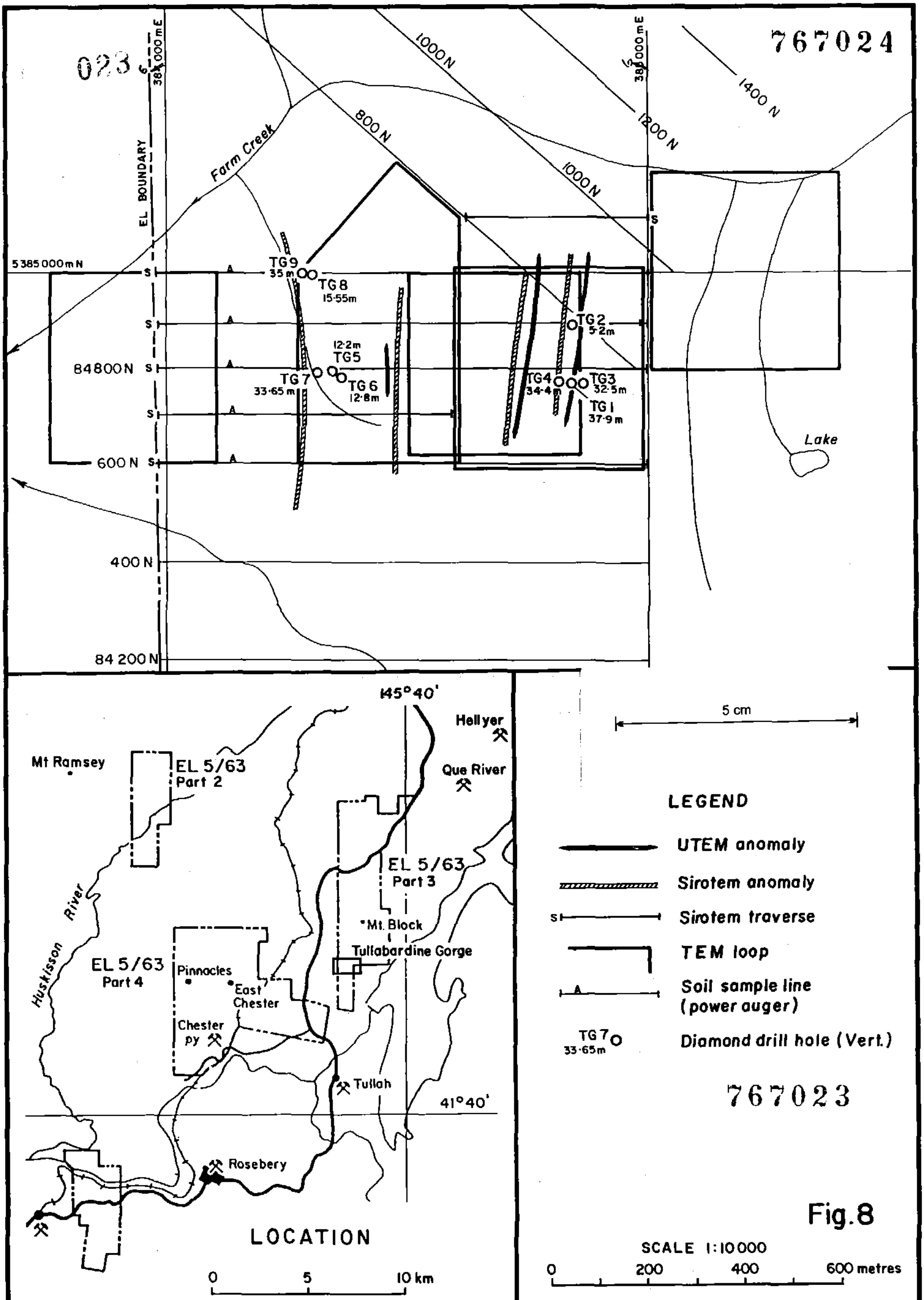
5.2.4 Diamond Drilling

Detailed modelling of the problematical Sirotem data suggested a deeper target than the IP response and also predicted that the conductive source broadened and plugned towards the southwest. Given the paucity of surface geological information it was decided to test this zone with 2 inclined drillholes 200 m apart along the strike of the conductor. Drillhole SCS1 was collared at 2270E to test the anomaly at 50 m depth on line 5200N but was abandoned at 25 m due to exceptionally poor ground conditions. The re-drill (SCS2) was collared at 2282E on the same line and tested the anomalous zone to a depth of 148.5 m (downhole). As can be seen from Figure 7, this hole confirmed the moderate northwesterly dip recognised in the regional mapping of Komyshan (1986). Sedimentary facing is also in this direction.

The drillhole passed through an upper section of weakly sericitized and weathered quartz-feldspar porphyry and crystal-lithic tuff, approximately 30 m thick. These rocks overlie a homogeneous amygdaloidal basalt some 50 m thick which is strongly fractured and locally weathered to a manganese oxide-clay assemblage. The basalt is succeeded downhole by lithic breccias and tuffaceous shales which contain up to 3% sphalerite, pyrite, pyrrhotite and galena as disseminations, in veins and in fine laminations. The best assay from this zone is 1.25 m @ 0.11% Pb, 0.5% Zn and 0.01 g/t Au at 83.75 to 85.0 m (Fig. 7). The sediments are underlain by moderately altered dacitic lava and lava breccia which in turn overlies a thin dark grey siltstone unit with disseminated sphalerite and pyrite. The lower part of this interval returned 1.5 m @ 0.32% Zn, 0.03 g/t Au but is underlain by essentially unmineralized lava breccia in which the hole was terminated. A summary drill log of SCS2 is included in Appendix 5.

Drillhole SCS3 was drilled for 178.5 m to test the southwesterly continuation of the conductive zone. A final drill section is not yet available but a summary log is included in Appendix 5 together with a synthesis of the assay results. This hole encountered a similar sequence but with thicker and more strongly mineralized intervals. The best intercept is 1 m @ 2.55% Zn, 0.03% Pb and 0.02 g/t Au at 126-127 m within a 12.5 m zone of 0.68% Zn, 0.02% Pb, 0.02 g/t Au and 1.1 g/t Ag (122-134.5 m). The best silver result is 11.5 g/t over 1 m at 105.5-106.5 m and this is accompanied by the highest Pb value of 0.1%. A similar relatively Ag rich zone occurs between 136 and 140 m, averaging about 6 g/t. Barium values are typically in the range 0.1 to 0.15% over the zinc-rich intervals.

The initial impression from the drilling is that the mineralized section thickens and plunges to the southwest and it is in this direction that the surface TEM anomalies are open.



Centre Melbourne	THE BROKEN HILL PROPRIETARY CO. LTD. EL 5/63 (Part 3) COMSTAFF JV, TASMANIA TULLABARDINE GORGE SIROTEM FOLLOW-UP OF UTEM ANOMALIES & DRILLING	Project Nº B 56
Date June '88		Drawing Nº A4-2770

5.2.5 Downhole Sirotem Survey

A downhole transient electromagnetic survey, using Sirotem II equipment, was conducted in May 1988. Both DDH SCS2 and DDH SCS3 were surveyed from the same two loops used for the surface sirotem survey (Figure 5). appendix Data within the drillholes were gathered at 5 m intervals, over a total surveyed length of 140 m in SCS2 and 175 m in SCS3. Sixteen early time channels and sixteen standard time channels were recorded at each measuring station. The data are presented in Appendix 3 in the form of log-linear profiles. Explanation of the delay times represented by each channel is presented in table 2.

Interpretation of these data is still in progress. At this early stage it is apparent that a downhole anomaly is present in both holes which corresponds approximately to the sulfide intersections. The interpretation is complicated by the evident influence of probe self response. Modelling is currently underway in order to remove the probe self response and allow the downhole anomaly corresponding to the sulfides to be more accurately characterised.

5.3 Tullabardine Gorge Prospect

5.3.1 Sirotem Surface Surveys

In order to follow up UTEM Zone J a fixed loop Sirotem II transient electromagnetic survey was conducted during March 1988. Initially two loops (East and West) were planned, to read a total of 2 line kilometres (Fig. 8).

Eighteen channels of early time data were recorded for both X and Z components at 25 m intervals. Where necessary 18 channels of standard time data were recorded. The western loop was used to read lines 85000N (85600E to 86000E) and 84800N (85600E to

86000E). The eastern loop was used to read lines 85100N (85600E to 86000E), 85000N (85600E to 86000E) and 84900N (85600E to 86000E). During the program encouraging geochemical results to the west of the survey resulted in the coverage along line 84800N from the western loop being extended such that the interval 85100 to 86000E was surveyed from the western loop. For the same reason the central loop was positioned and line 84800N was resurveyed from 85100E to 86000E.

Re-examination of the UTEM data highlighted a subtle feature in close proximity to a weak Sirotem anomaly and an interesting base metal geochemical anomaly. Loops New West and New East were then positioned to allow a detailed survey of the western region, using the same survey parameters used in the first phase of the program.

The data are presented in Appendix 2 in the form of log-linear profiles. Explanations of the delay times represented by each channel are presented in Table 2.

The Sirotem survey confirmed the presence of the UTEM conductors classed as zone J. The survey also confirmed the presence of the subtler UTEM anomaly to the west.

The most interesting targets to arise from detailed interpretation of the data were:

i) line 85000N at 85820E - the strongest UTEM anomaly and a Sirotem anomaly are coincident. Sirotem indicates a depth to the target of > 40 m, with some suggestion of an easterly dip.

ii) line 84800N at 85520E - a small UTEM anomaly and a substantial reversed-sign Sirotem anomaly are coincident. The Sirotem anomaly has a width of 150 m implying either a target depth of 75 m or a near surface distribution of polarisable material 150 m wide. The time constant of the decay is 1.7 msec which is highly significant (c.f. Hellyer, 3 msec).

(iii) line 84800N at 85490E - a coincident UTEM and Sirotem anomaly. The UTEM data indicate a deep target at a depth > 90 m. The Sirotem anomaly is of reversed sign and indicates a target depth of > 50 m.

iv) line 84700N at 85250E - a subtle Sirotem anomaly with a strike length of at least 500 m. The anomaly is strongest on lines 84950N and 85000N at 85260E and 85240E respectively. This anomaly is interpreted to represent a lithological contact.

5.3.2 <u>Geology</u>

The initial interpretation of the UTEM data suggested that anomaly J was highly conductive and at very shallow depth so it was hoped that geological traversing might encounter some surface expression of this feature, especially in view of the very rugged topography. Extensive field checking showed that the geology at Tullabardine is considerably more complex that portrayed in published maps (c.f. Corbett & McNeill, 1986). Rather than being underlain by intrusive quartz-feldspar porphyry, the anomalous zone comprises a sequence of quartz and quartz-feldspar phyric lavas, lava breccias, tuffs and tuffaceous sediments.

The volcanics and sediments display variable alteration which is only locally moderate to strong. Pyrite rarely exceeds 5% and is accompanied by sericite, albite, silica and more rarely chlorite. Pyrrhotite is present in several samples and weak disseminated sphalerite and galena are present in both altered lava and tuff. Extensive rock chip sampling returned only weakly elevated base metal values (Appendix 4). No obvious source for the shallow TEM anomalies was observed during the fieldwork.

5.3.3 Power Auger Geochemical Sampling

A power auger weathered bedrock sampling program was carried out at 25 m intervals along several lines at Tullabardine (Fig. 8). The aim was to test for a geochemical response associated with the zone of shallow conductors and also to define the distribution of the weak Zn-Pb mineralization encountered in outcrop and in float. This work was seriously hampered by patchy distribution of glacials and large erratic blocks on the steep slopes but overall the "wacker" was effective in providing reasonable samples of weathered bedrock. Initially the auger results outlined a zone of 350 m at the western end of line 84800N within which Pb and Ag values were conspicuously anomalous (Pb up to 1250 ppm). Resampling and re-assaying of this zoned showed that the anomaly was spurious and was the result of serious laboratory contamination. The spurious anomaly did have the merit, however, of focusing attention more closely on the UTEM data for this western zone and this led to the recognition of a subtle conductor which was subsequently confirmed with Sirotem.

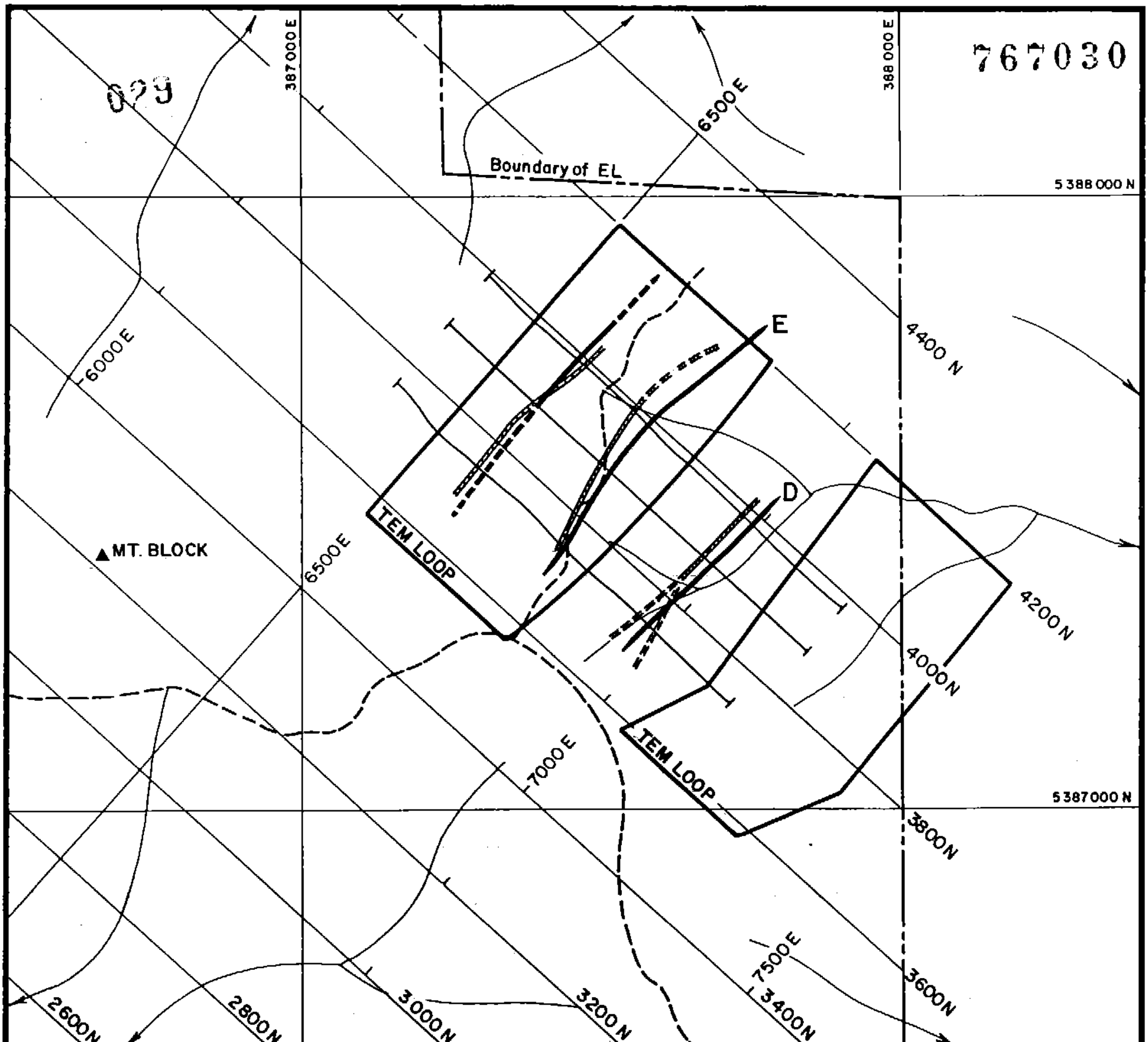
With the exception of some spot highs, the auger geochemical results were similar to the disappointing rock chip results and did not indicate any systematic anomalism related to the UTEM/Sirotem anomalies.

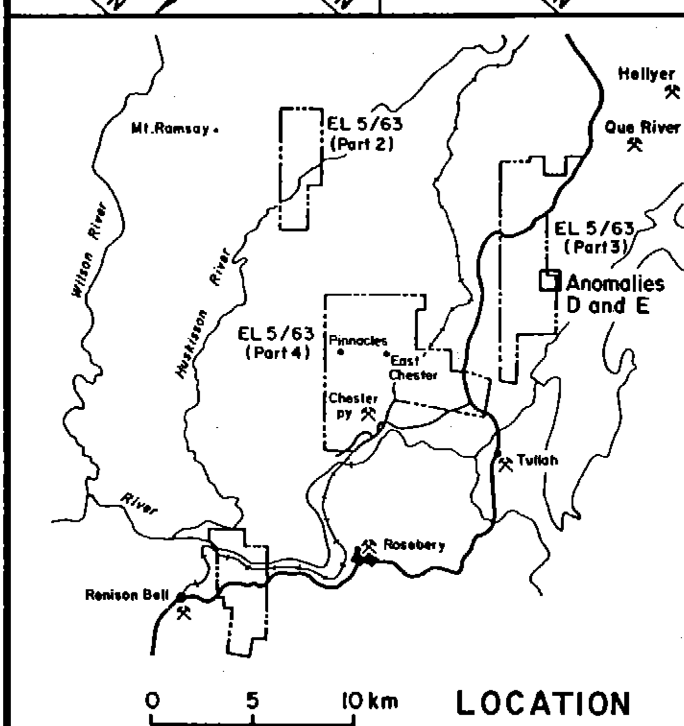
5.3.4 Diamond Drilling

A diamond drilling program was initially designed to test the source of UTEM anomaly J which was modelled to be within 20 m of the surface. In view of the shallow depth to target and the extreme difficulty of working with a conventional rig in this area, it was decided to employ a man-portable modified winkie rig to drill several vertical diamond holes as a first pass test of the UTEM anomaly. This equipment required substantial helicopter support. A total of 9 DDH was drilled for some 220 m at the locations shown in Figure 8. These holes were sited to test the UTEM anomaly, (spurious) geochemical anomaly and the Sirotem anomalies that had been defined up to the time the drilling equipment became unavailable.

There has been insufficient time to fully document all of the drilling results but summary logs for diamond drillholes TG1-5 are included in Appendix 5 and drill sections for TG1, 3 and 4 on line 84800N are illustrated in Figure 9. The lighweight rig was successful in penetrating up to 39.7 m (TG1) with good core recovery. With the exception of weak sphalerite-galena mineralization in TGI and within a fault in TG9, the drilling results were generally disappointing and failed to explain the UTEM or Sirotem anomalies. Subsequent detailed modelling of the TEM data indicated that the conductive sources are probably at considerably greater depth than was initially estimated so that a conventional large drill rig will be required to adequately test the possible depth range of these targets. The drilling results have proved useful, however, insofar as they have greatly improved our understanding of the geology and it has been shown that moderate alteration, minor base metal mineralization and previously unrecognised faults are present in the vicinity of the significant, untested TEM anomalies.

Downhole TEM surveys were not feasible at Tullabardine owing to the narrow diameter of the drillcasing used with the lightweight rig.





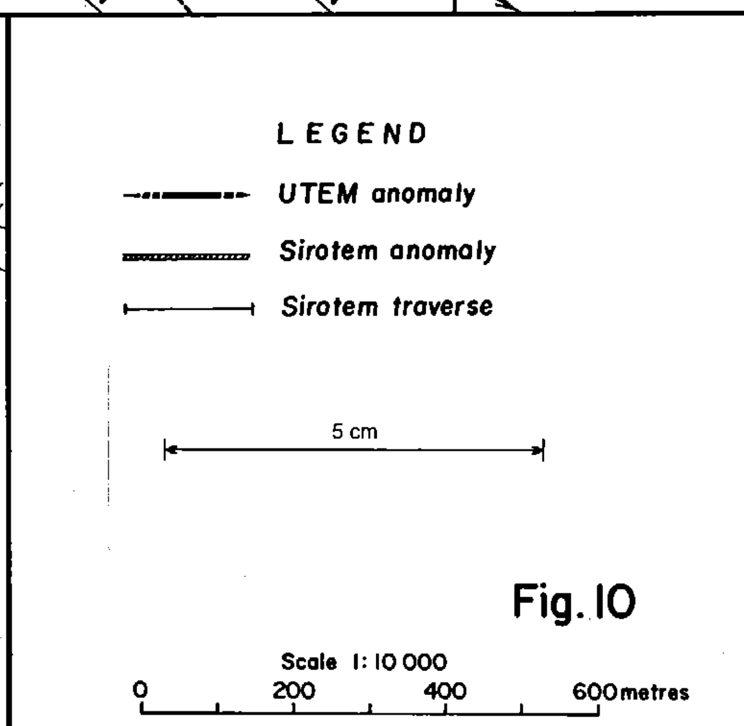
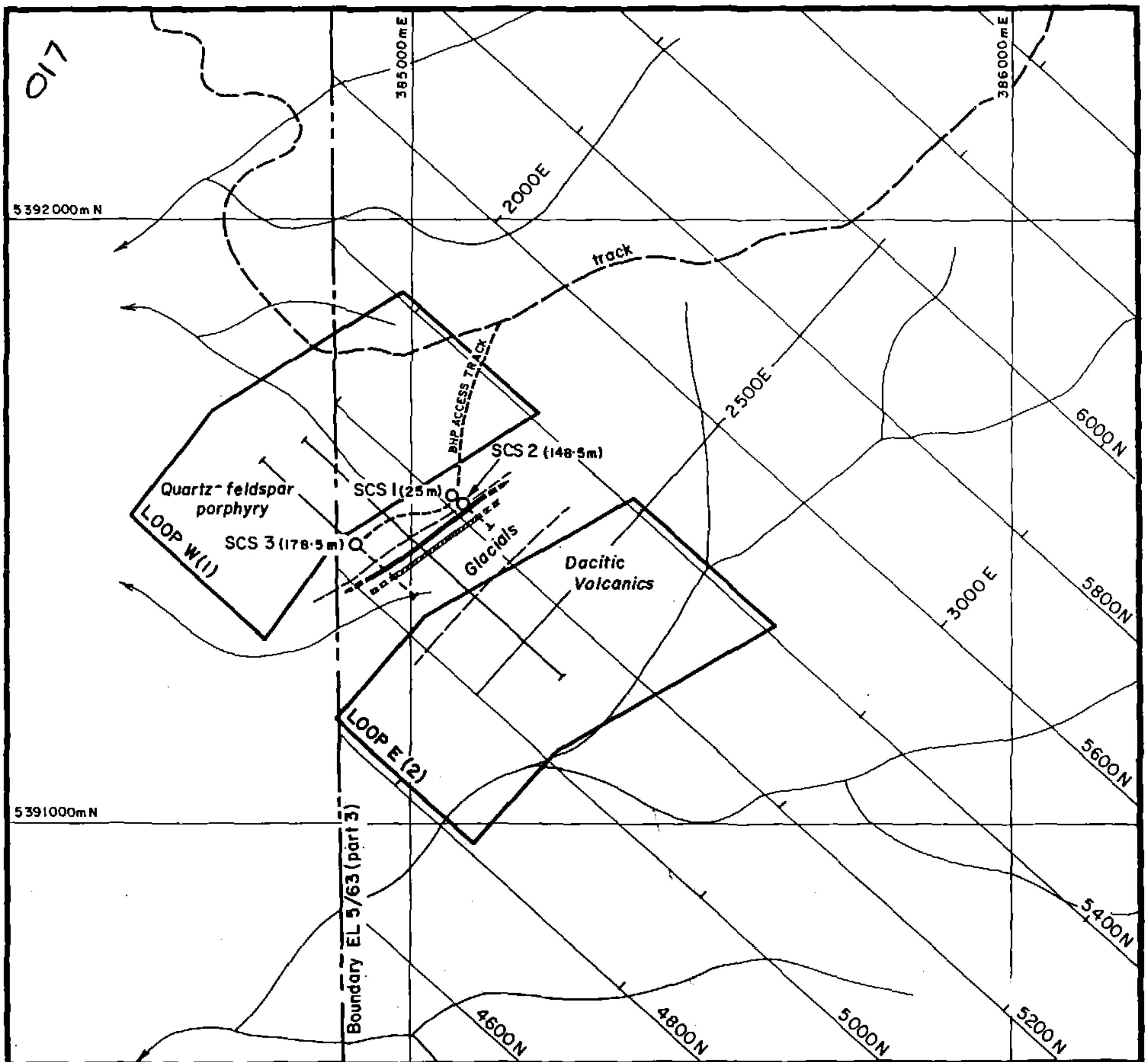
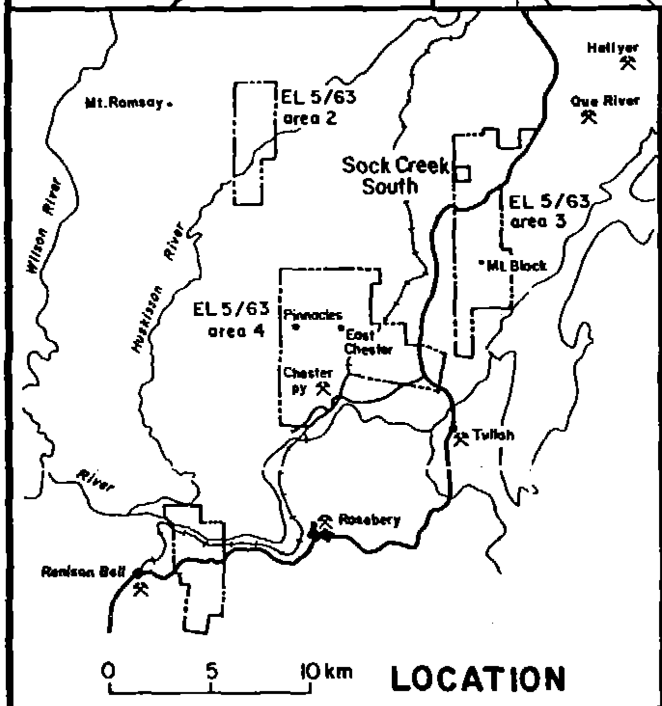


Fig. 10

Centre: Melbourne	THE BROKEN HILL PROPRIETARY CO. LTD. EL 5/63 (Part 3) COMSTAFF JV, TASMANIA.	Project Nº: B 56
Date: May '88	SIROTEM FOLLOW-UP OVER UTEM ANOMALIES D & E	Drawing Nº: A4-2768

017





LOCATION

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LEGEND

UTEM anomaly
Sirotem anomaly
Sirotem traverse
Diamond drill hole
Inferred geological boundary

5 cm

Fig. 5

Scale 1:10 000
0 200 400 600 800 metres

Centre Melbourne	THE BROKEN HILL PROPRIETARY CO. LTD. EL 5/63 (Part3), COMSTAFF J.V., TASMANIA.	Project Nº B56
Date June '88	SOCK CREEK SOUTH UTEM ANOMALY SIROTEM FOLLOW-UP & DRILLING	Drawing Nº A4-2767

030 5.4 Mt. Block East - UTEM Anomalies D & E

5.4.1 Sirotem Surface Survey

A fixed loop Sirotem II transient electromagnetic survey was conducted over UTEM anomalies D and E during March 1988. A total of 4.7 line kilometres of data were collected from two 300 m x 600 m loops. Readings were taken both inside and outside loops, along lines 100 m apart using a station spacing of 25 m. Vertical and horizontal components were read at all stations, with 18 early time channels being recorded. Locations of loops and lines surveyed are presented in Figure 10. Data are presented in the form of log-linear profiles in Appendix 2, with the delay times represented by each channel presented in Table 2.

The Sirotem survey confirmed the presence of the UTEM conductors D and E. A lower priority UTEM anomaly further to the west was also visible in the Sirotem data. Anomalies D and E are very faint Sirotem anomalies and probably represent lithological contacts/minor faults which gave larger responses in the UTEM data due to increased current channelling generated by the larger UTEM loops. The strongest Sirotem anomaly coincides with the UTEM anomaly to the west. The Sirotem data show a reversed-sign anomaly when "illuminated" from the west but exhibit a conventional anomaly when illuminated from the east. Depth to top of the conductor is 30-60 m.

5.4.2 Geology

There is very little outcrop in the exact anomaly locations on any of the lines but the adjacent outcrops to east and west of both anomalies D and E are generally pink or green feldspar-porphyritic dacitic lavas or welded ignimbrites. These are typically strongly albitized and silicified with slight chloritization. Thin veinlets of pyrite are present but rare.

Anomaly D is probably due to a large fault exposed in the side of the track on line 3600N in the approximate anomaly position. This is represented by a 10m wide zone of strong schistosity, dislocation, quartz veining and dolerite dikes. The fault is also marked by a distinct gully which parallels the anomaly trend.

Anomaly E lies in a locally level area between outcrops of silicified dacite and could represent a lithological contact or fault between two similar lava units or within a slightly variable unit.

The geological conclusions are substantially in agreement with the geophysical interpretations and no further work was considered for this area.

6. CONCLUSIONS AND RECOMMENDATIONS

It is concluded that large hydrothermal alteration and base metal mineralizing systems have been identified at High Point (along with gold) and Sock Creek South while a range of features suggests that a similar system may be present at depth in the Tullabardine area. Several characteristics of the known mineralization point to considerable potential for substantial massive base metal mineralization in each of the prospect areas.

It is recommended that the High Point, Sock Creek South and Tullabardine Gorge prospects be further investigated by diamond drilling (minimum of 2700 m) and downhole TEM surveys with a view to directly testing for economic mineralization.

7. ENVIRONMENTAL REHABILITATION

Exploration activities relevant to rehabilitation included construction of access tracks and drill pads using a D6 bulldozer and also the clearing of vegetation for a single helipad. It is envisaged that each of these sites will be subject to similar activity in the coming term so no final

032 rehabilitation work has been completed to date. However, the following points summarize some of the efforts that have been made to minimise environmental disturbance and to facilitate eventual rehabilitation.

All bulldozing operations were strictly kept to a minimum and topsoil was rolled aside to allow for eventual replacement by excavator. Adequate drainage was constructed on all bulldozed tracks and these were maintained throughout the period of extensive track usage. Drillpad construction was restricted to the minimum area necessary for the operation of Lonyear 38 rigs and support equipment. Drilling muds were recycled in all cases and drill sump effluent was effectively filtered using hay bales at the HPI site. All tracks, drillsites and the helipad were completely cleared of equipment and any litter on termination of the field operation.

REFERENCES

Corbett, K.D. & McNeill, A.W. (1986) Geology of the Rosebery - Mt. Block Area. Mt. Read Volcanics Project, Map 2. Department of Mines, Tasmania.

Komyshan, P. (1986) Geology of the Mt. Charter - Hellyer Area. Mt. Read Volcanics Project, Map. 1. Department of Mines, Tasmania.

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TABLE 1
UTEM DATA PLOTTING SPECIFICATIONS

		NOMINAL TIME WINDOWS (for a base frequency of 26.23Hz)		
SYMBOL	CHANNEL NUMBER	START (ms)	CENTRE (ms)	END (ms)
◇	10	.018	.027	.036
△	9	.036	.054	.072
⧖	8	.072	.108	.144
7	7	.144	.216	.288
∡	6	.288	.432	.576
≤	5	.576	.864	1.152
□	4	1.152	1.73	2.304
\	3	2.304	3.46	4.608
/	2	4.608	6.91	9.216
|	1	9.216	13.82	18.43

All channels are plotted as :

$$\frac{\text{Channel - reference}}{\text{base}} \times 100\%$$

For continuously normalised plots:

reference = primary (for channel 1)
= channel 1 (for all other channels)

base = primary field (total) at reading station

For point normalised plots:

reference = primary (for channell)
= channel 1 (for all other channels)

base = primary field (total) at reference station marked with symbol ***>

TABLE 2
SIROTEM MK II
NOMINAL DATA WINDOWS

	EARLY TIME				STANDARD TIME		
CHANNEL	START (MS)	MIDDLE (MS)	END (MS)	CHANNEL	START (MS)	MIDDLE (MS)	END (MS)
1	0.025	0.049	0.074	1	0.315	0.487	0.659
2	0.074	0.098	0.123	2	0.707	0.879	1.051
3	0.123	0.147	0.172	3	1.099	1.271	1.443
4	0.172	0.196	0.221	4	1.491	1.663	1.835
5	0.221	0.245	0.270	5	1.883	2.055	2.227
6	0.270	0.319	0.368	6	2.275	2.643	3.011
7	0.368	0.417	0.466	7	3.059	3.427	3.795
8	0.466	0.515	0.564	8	3.843	4.211	4.579
9	0.564	0.613	0.662	9	4.627	4.995	5.363
10	0.662	0.711	0.760	10	5.411	5.779	6.147
11	0.760	0.858	0.956	11	6.195	6.955	7.715
12	0.956	1.054	1.152	12	7.763	8.523	9.283
13	1.152	1.250	1.348	13	9.331	10.091	10.851
14	1.348	1.446	1.544	14	10.899	11.659	12.419
15	1.544	1.642	1.740	15	12.467	13.227	13.987
16	1.740	1.936	2.132	16	14.035	15.579	17.123
17	2.132	2.328	2.524	17	17.171	18.715	20.259
18	2.524	2.720	2.916	18	20.307	21.851	23.395
19	2.916	3.112	3.308	19	23.443	24.987	26.531
20	3.308	3.504	3.700	20	26.579	28.123	29.667
21	3.700	4.092	4.484	21	29.715	32.827	35.939
22	4.484	4.876	5.268	22	35.987	39.099	42.211
23	5.268	5.660	6.052	23	42.259	45.371	48.483
24	6.052	6.444	6.836	24	48.531	51.643	54.755
25	6.836	7.228	7.620	25	54.803	57.915	61.027
26	7.620	8.404	9.188	26	61.075	67.323	73.571
27	9.188	9.972	10.756	27	73.619	79.867	86.115
28	10.756	11.540	12.324	28	86.163	92.411	98.659
29	12.324	13.108	13.892	29	98.707	104.955	111.203
30	13.892	14.676	15.460	30	111.251	117.499	123.747
31	15.460	17.028	18.596	31	123.795	136.315	148.835
32	18.596	20.164	21.732	32	148.883	161.403	173.923

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<u>APPENDIX 1</u>

UTEM Profiles

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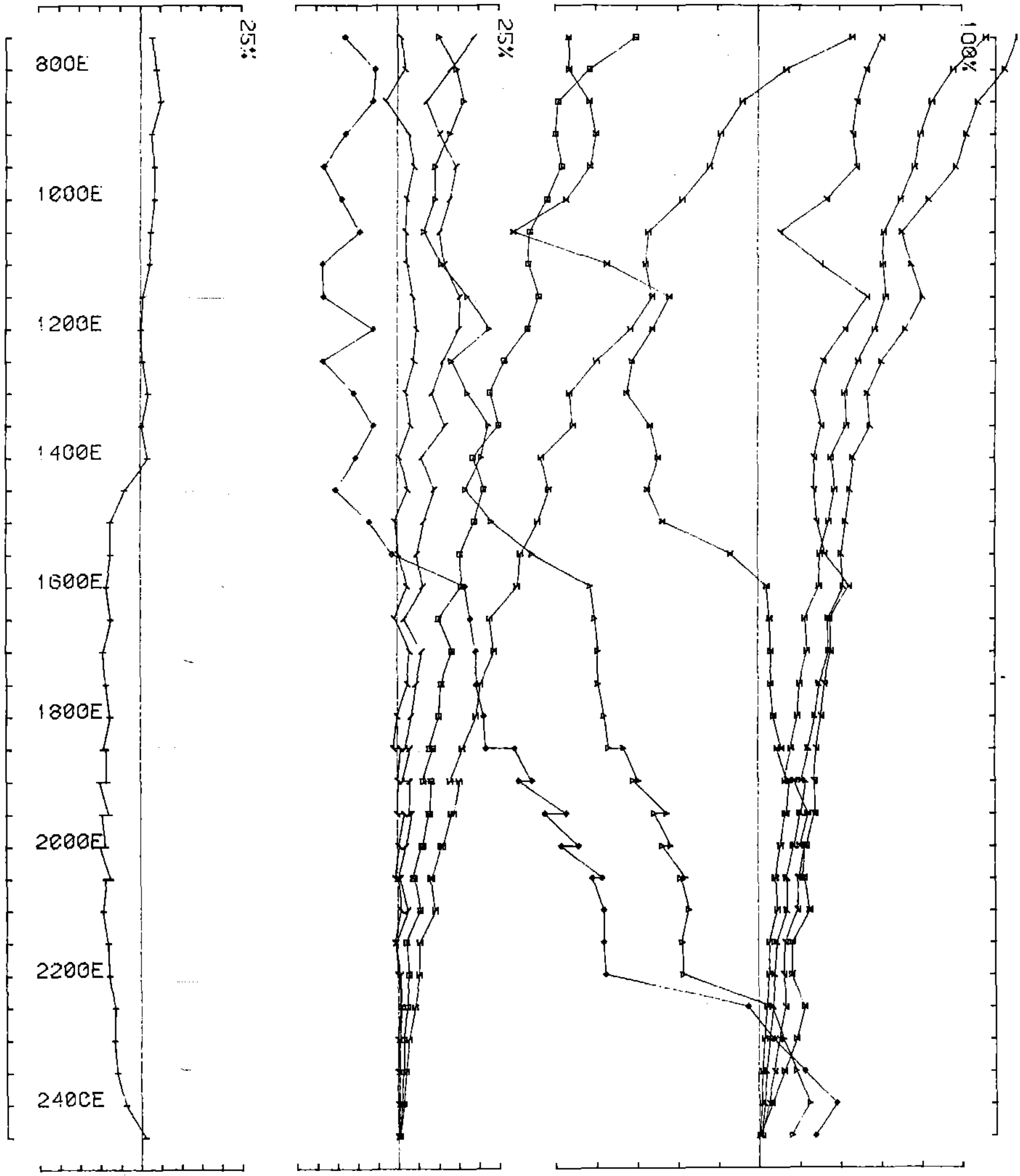

UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 25.137 **REDUCED X-SCALE***

loop no 1 line 6600N component Hz secondary field Ch 1 contin. norm.

5 cm

038

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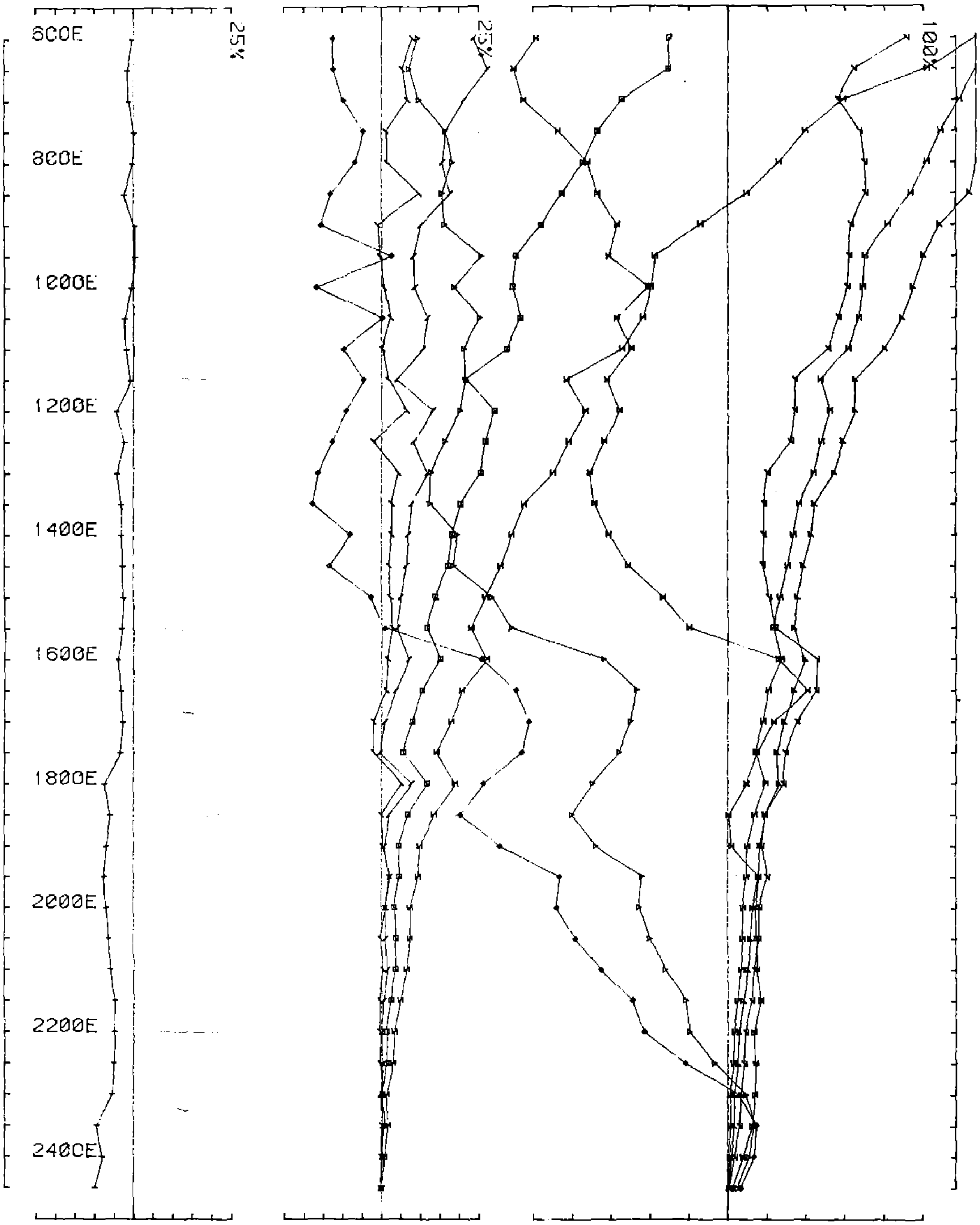

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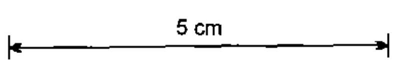

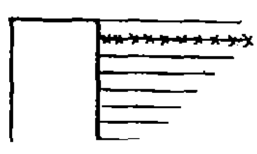

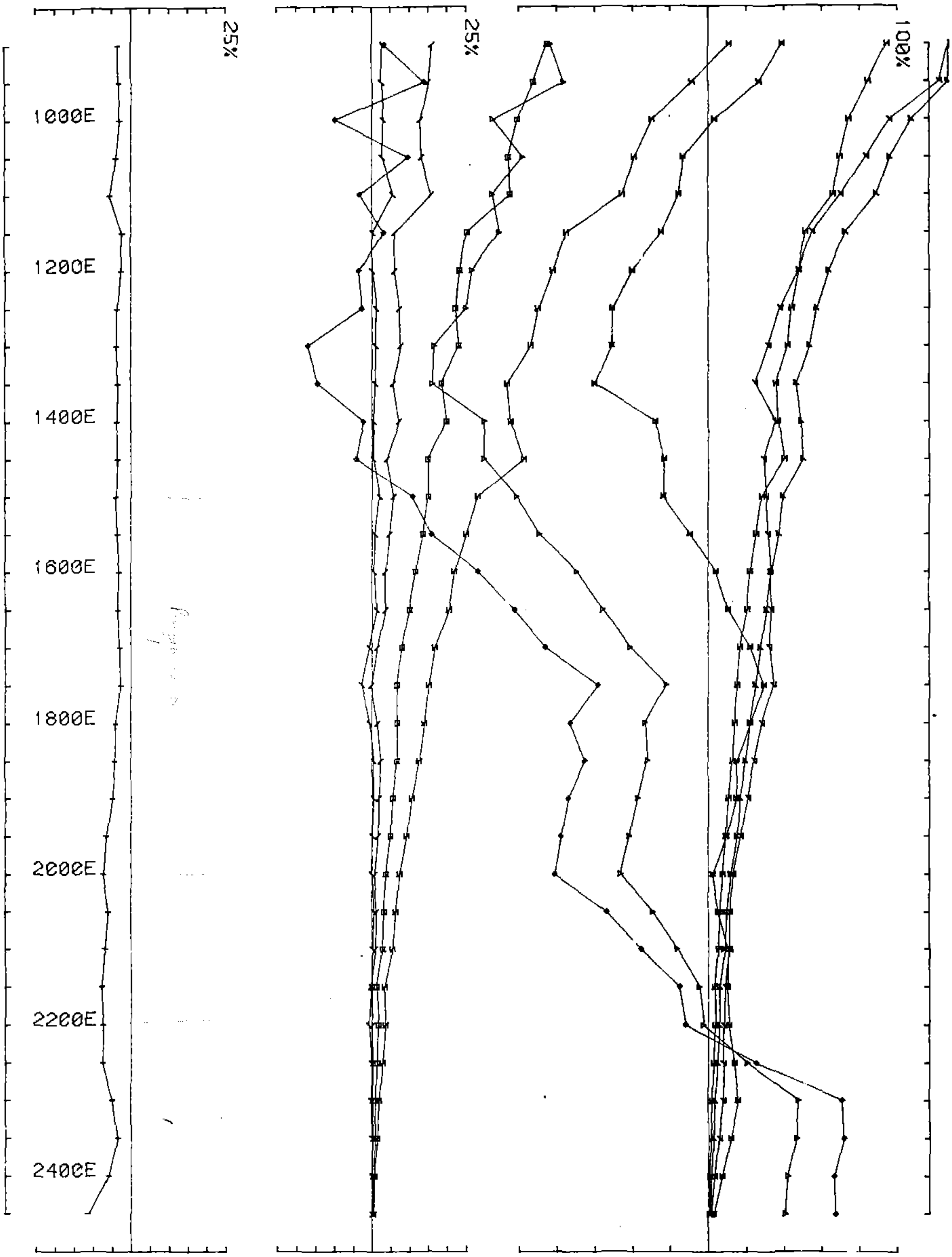

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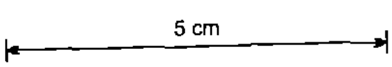

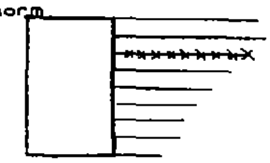

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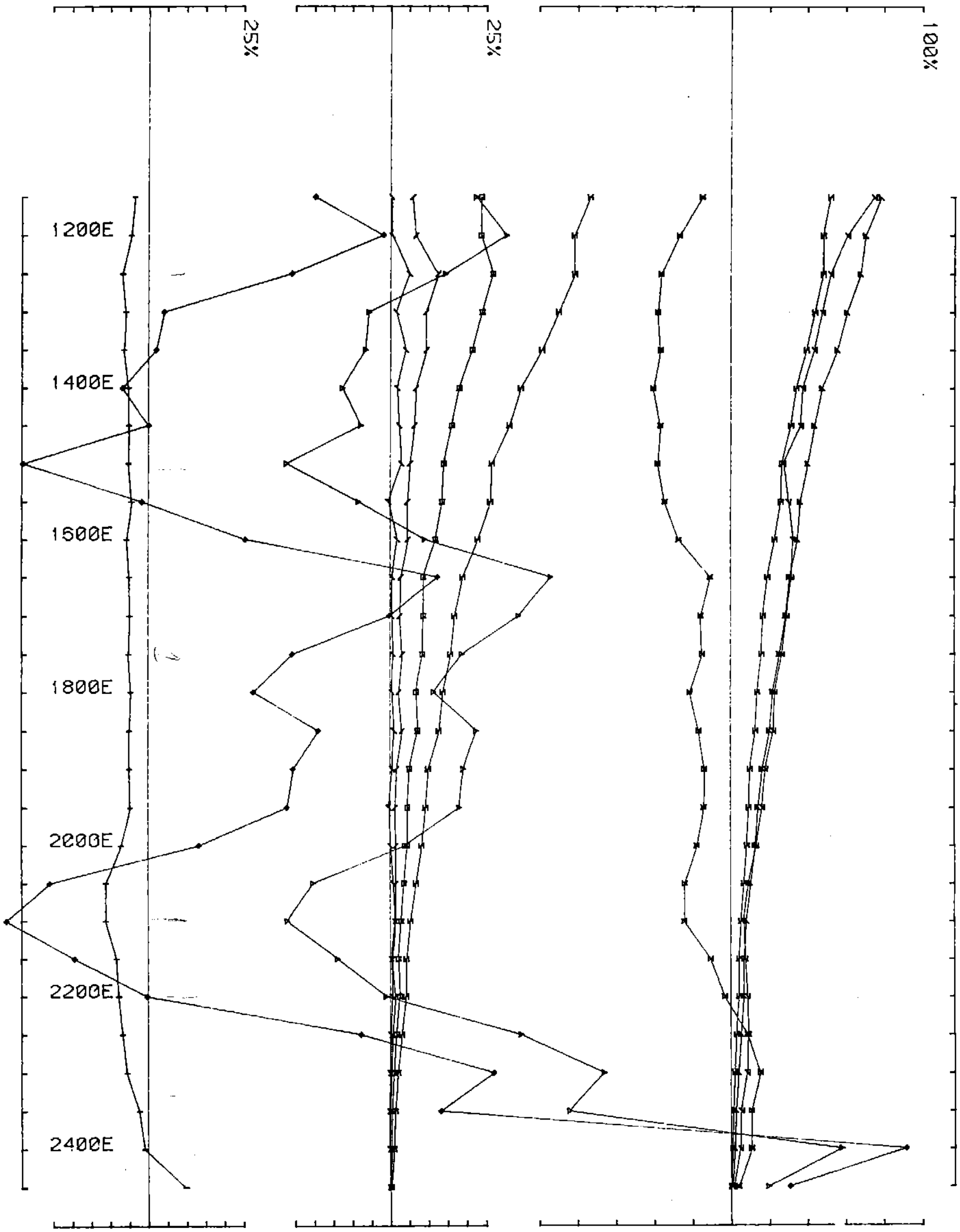

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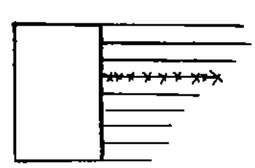

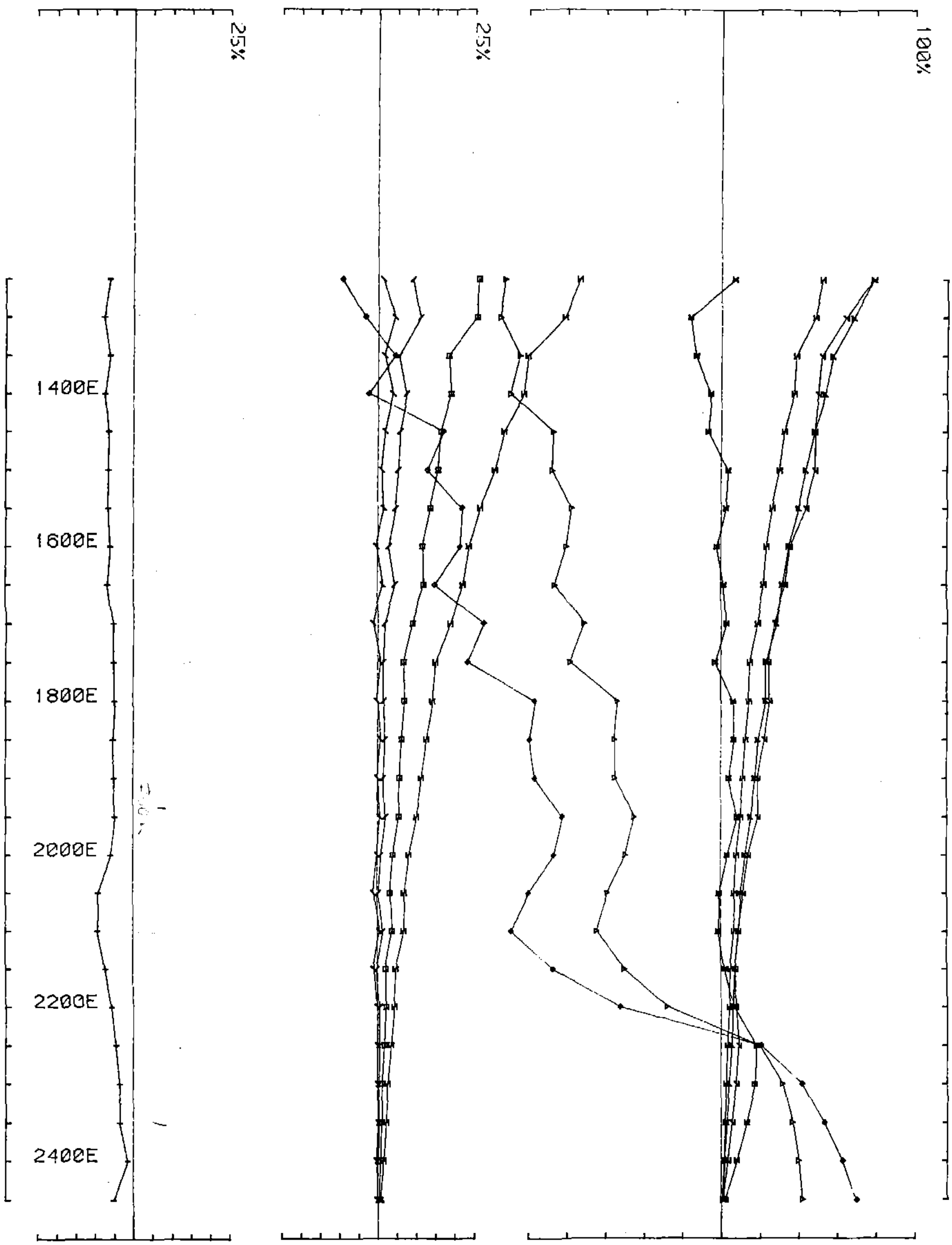

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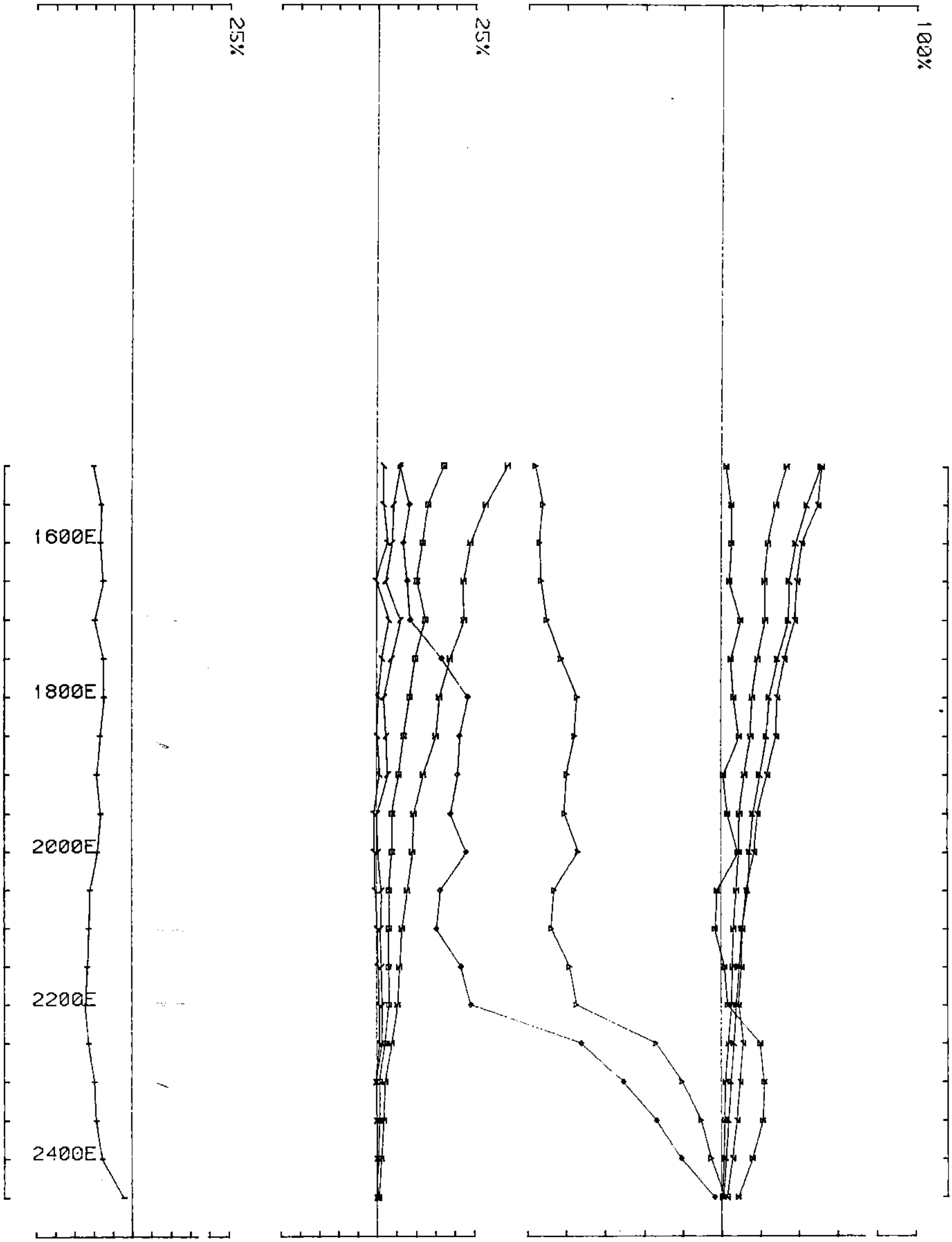

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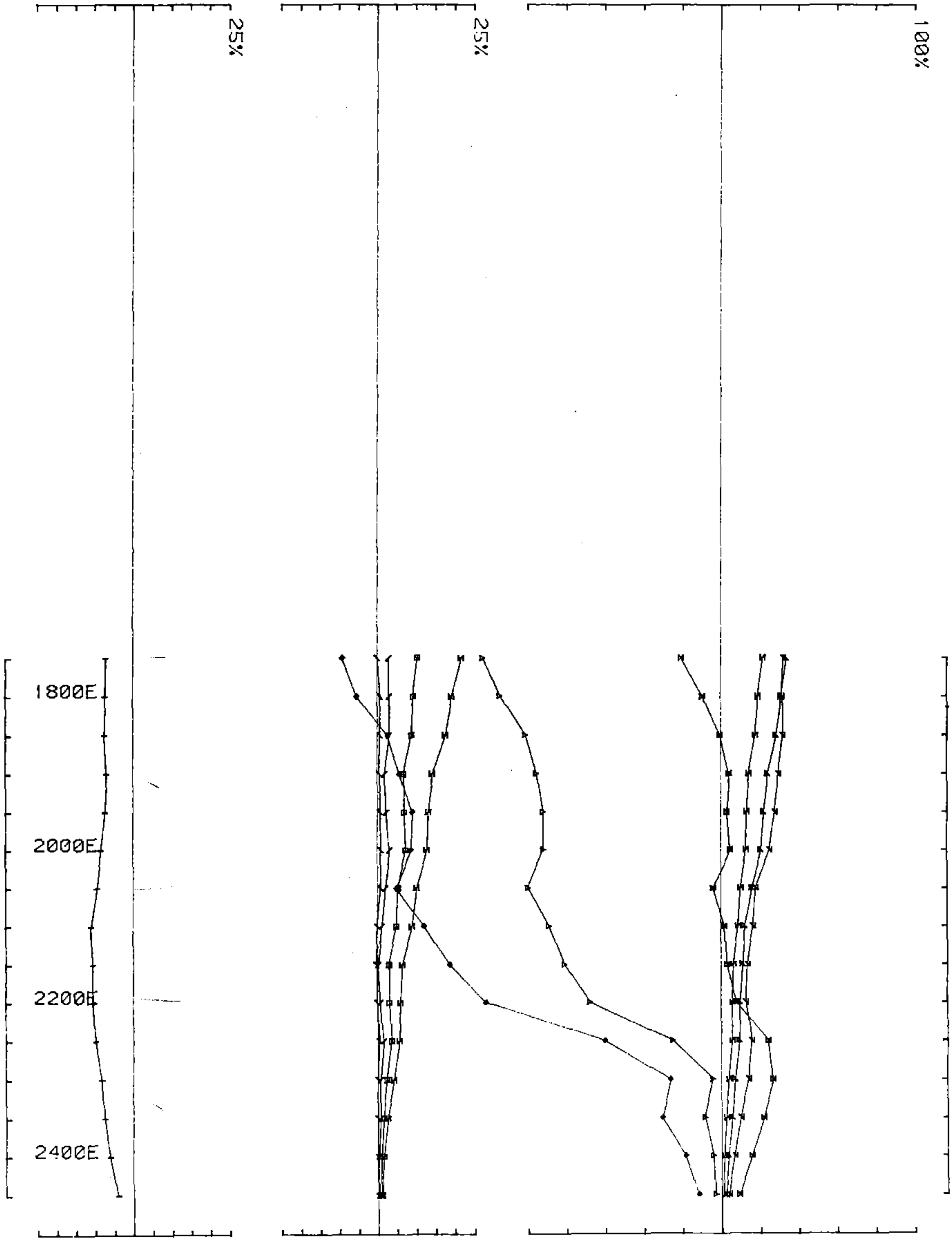

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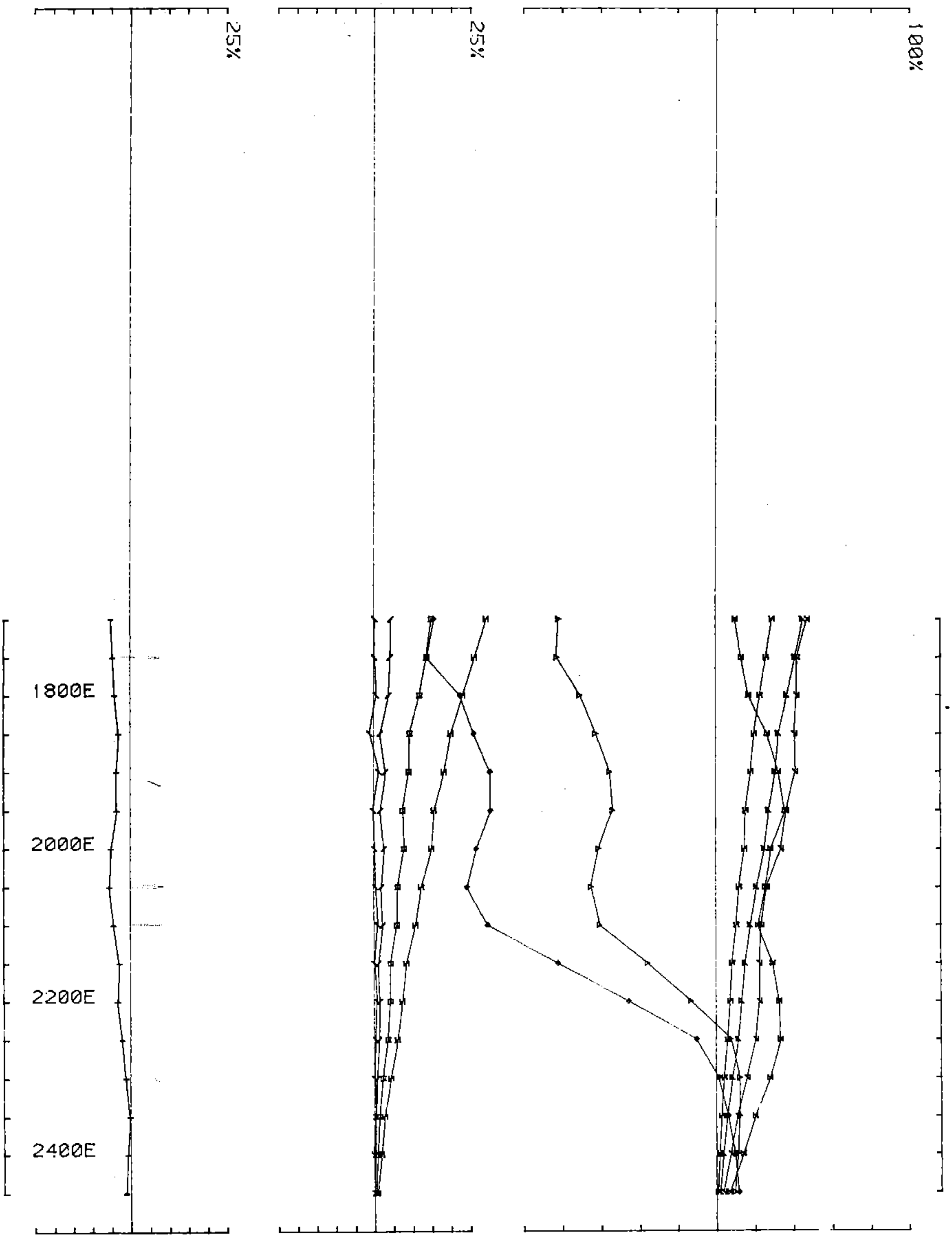

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767047

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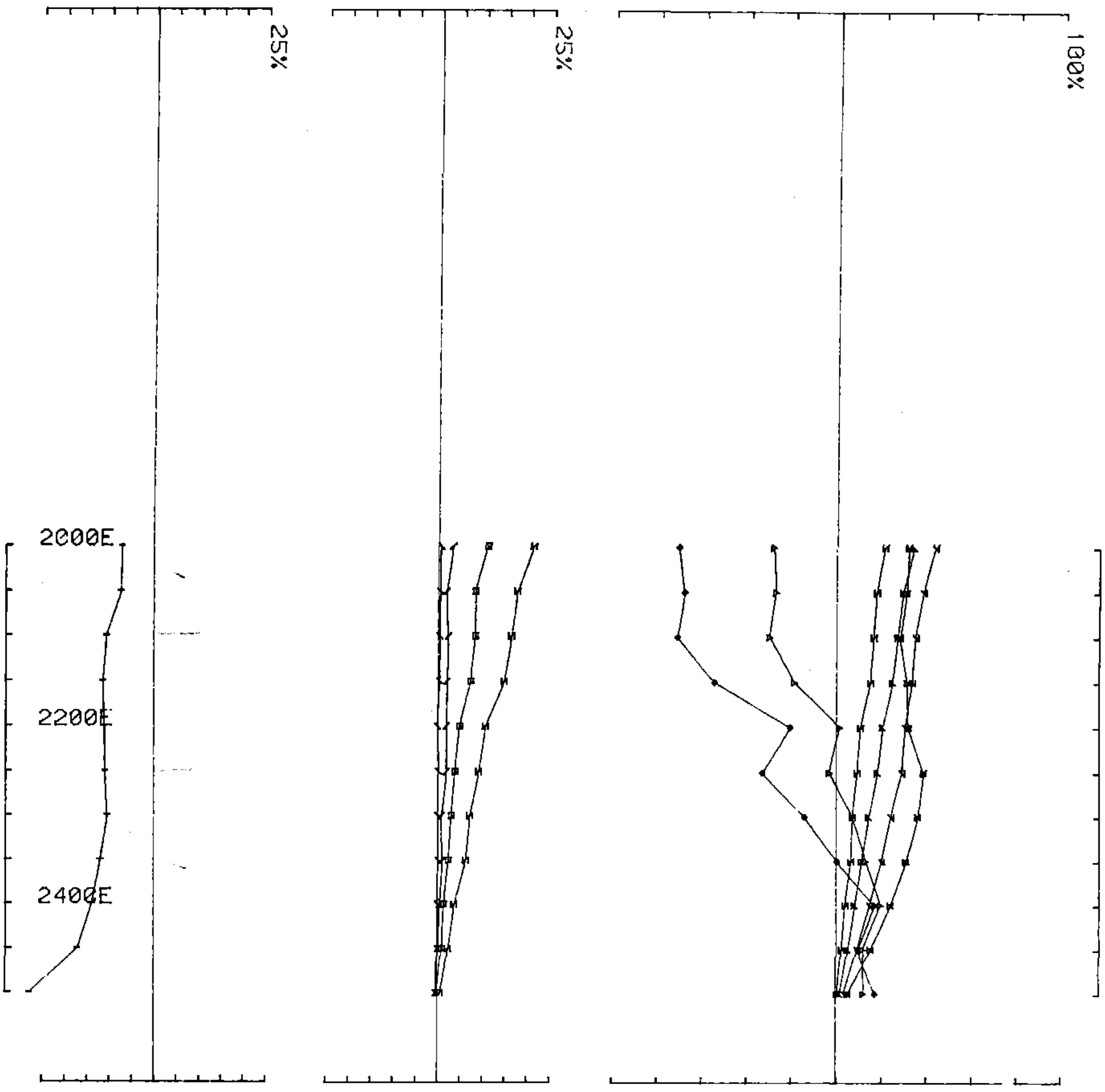

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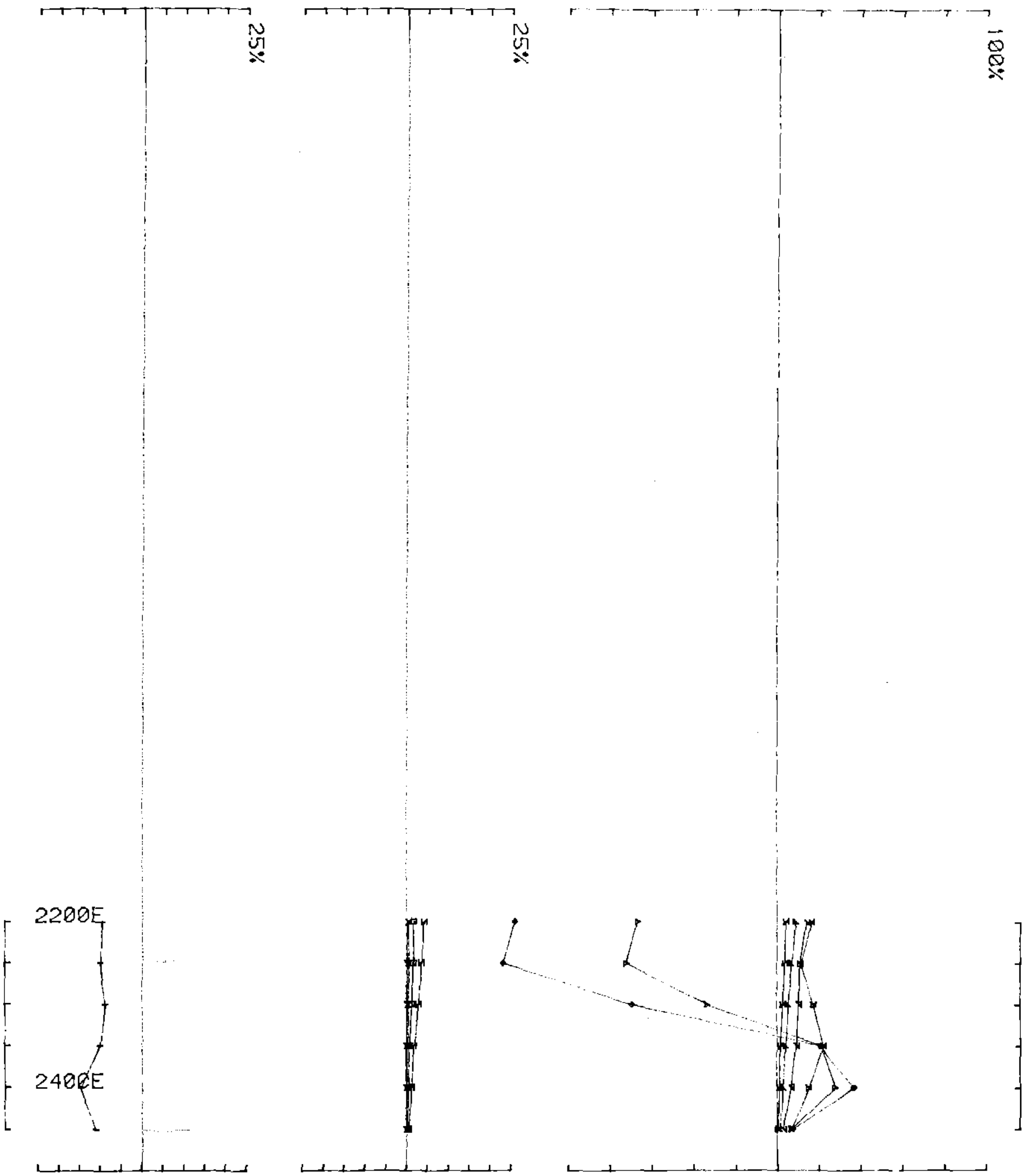
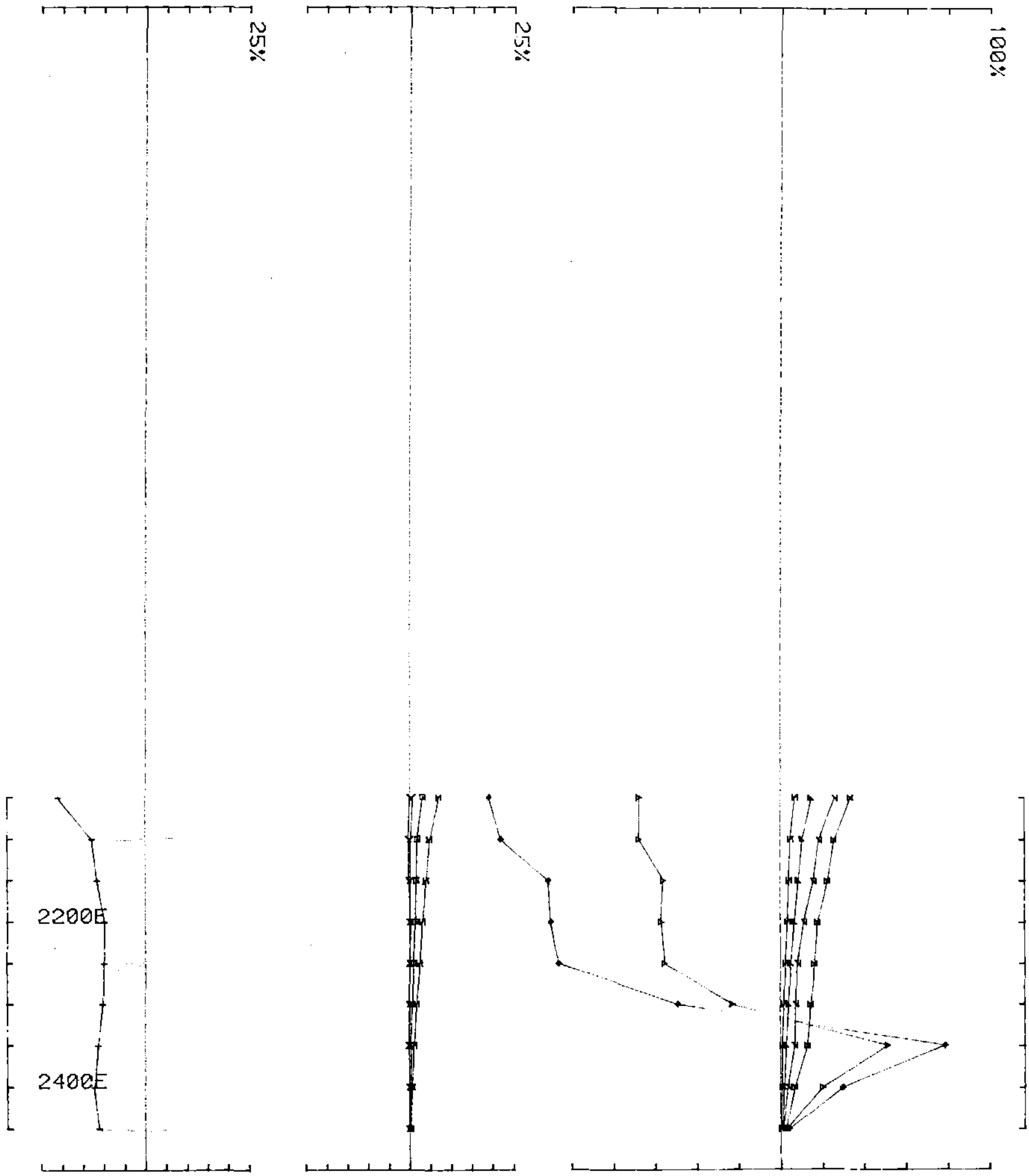


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 2 line 5000N component Hz secondary field Ch 1 contin. norm.

MB 02



UTEM SURVEY at MOUNT BLOCK for B H P
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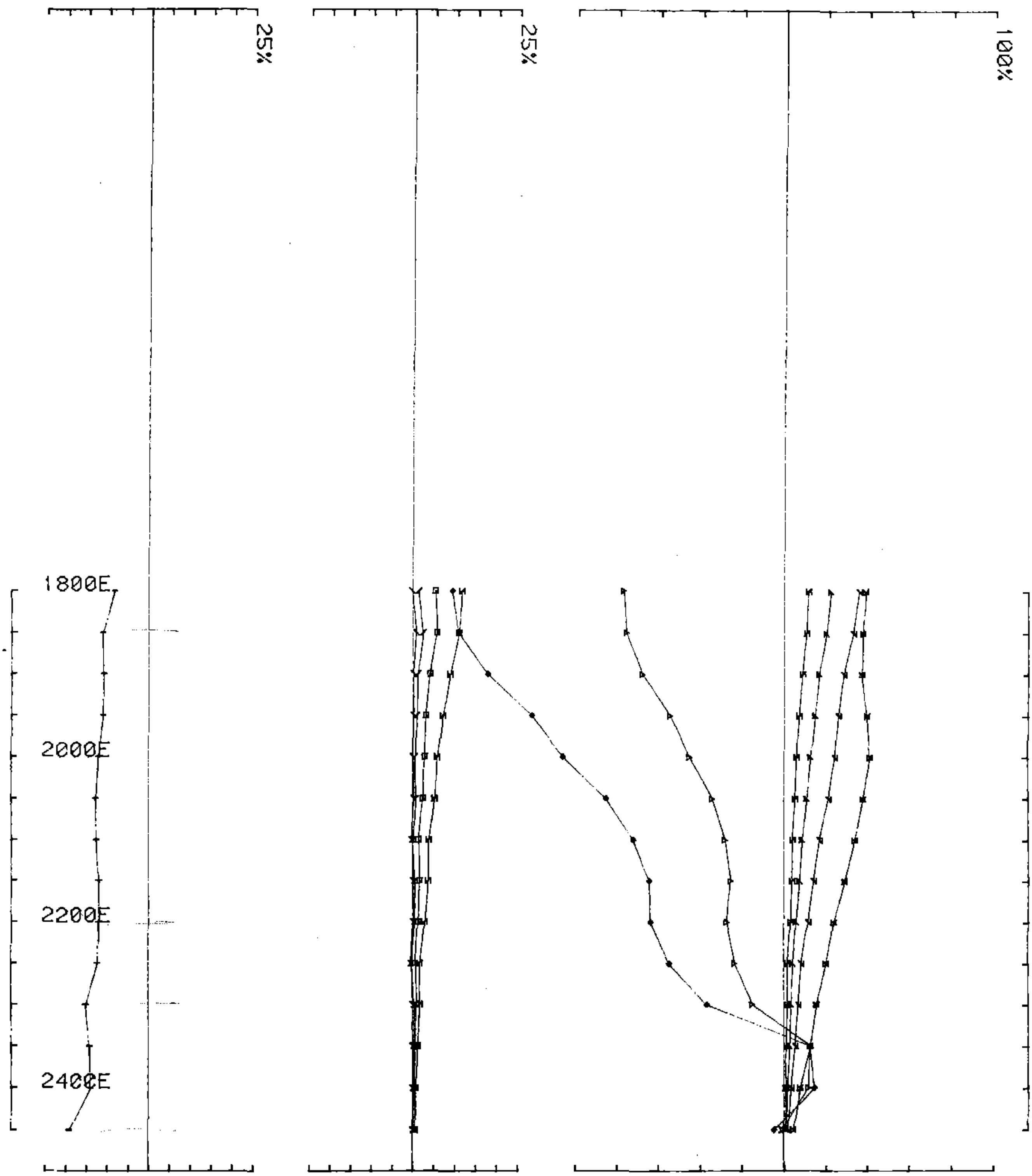
MB 02

048

767050



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230 Using CAL53

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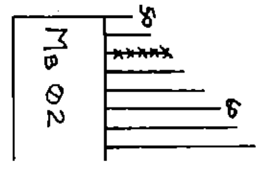
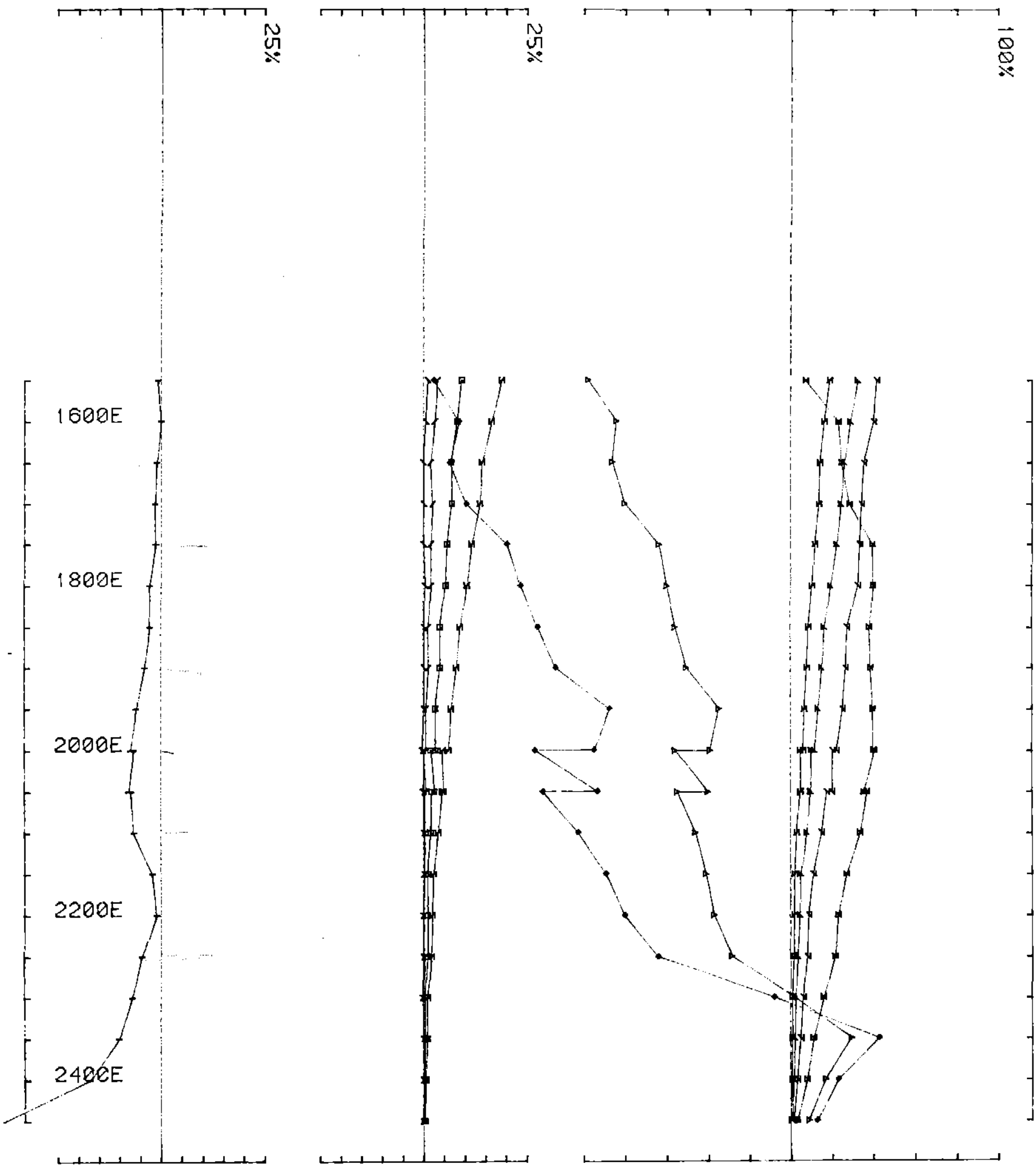
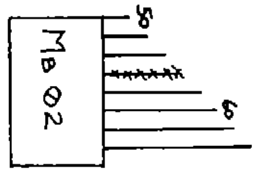




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 2 line 5600N component Hz secondary field Ch 1 contin. norm.



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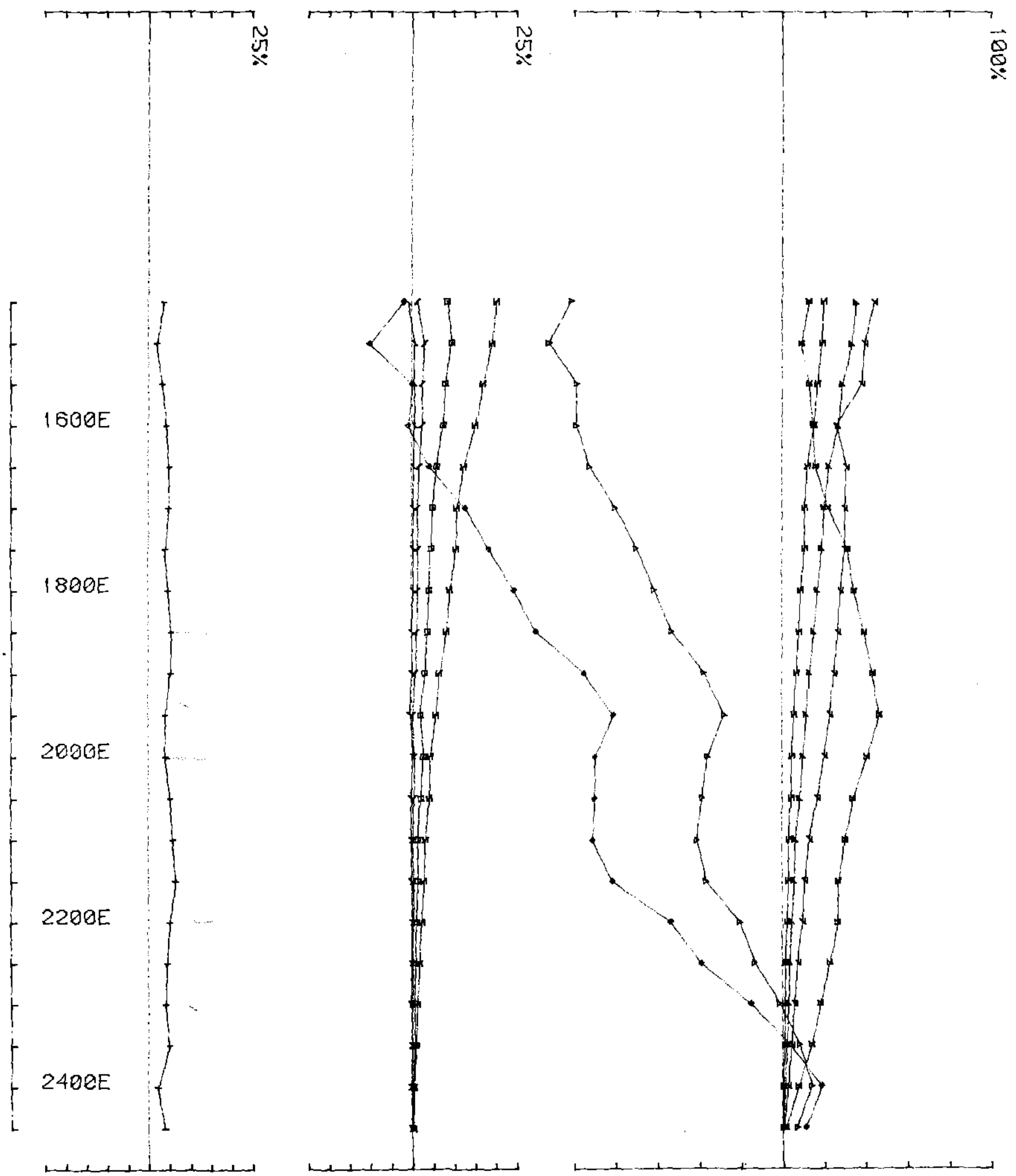
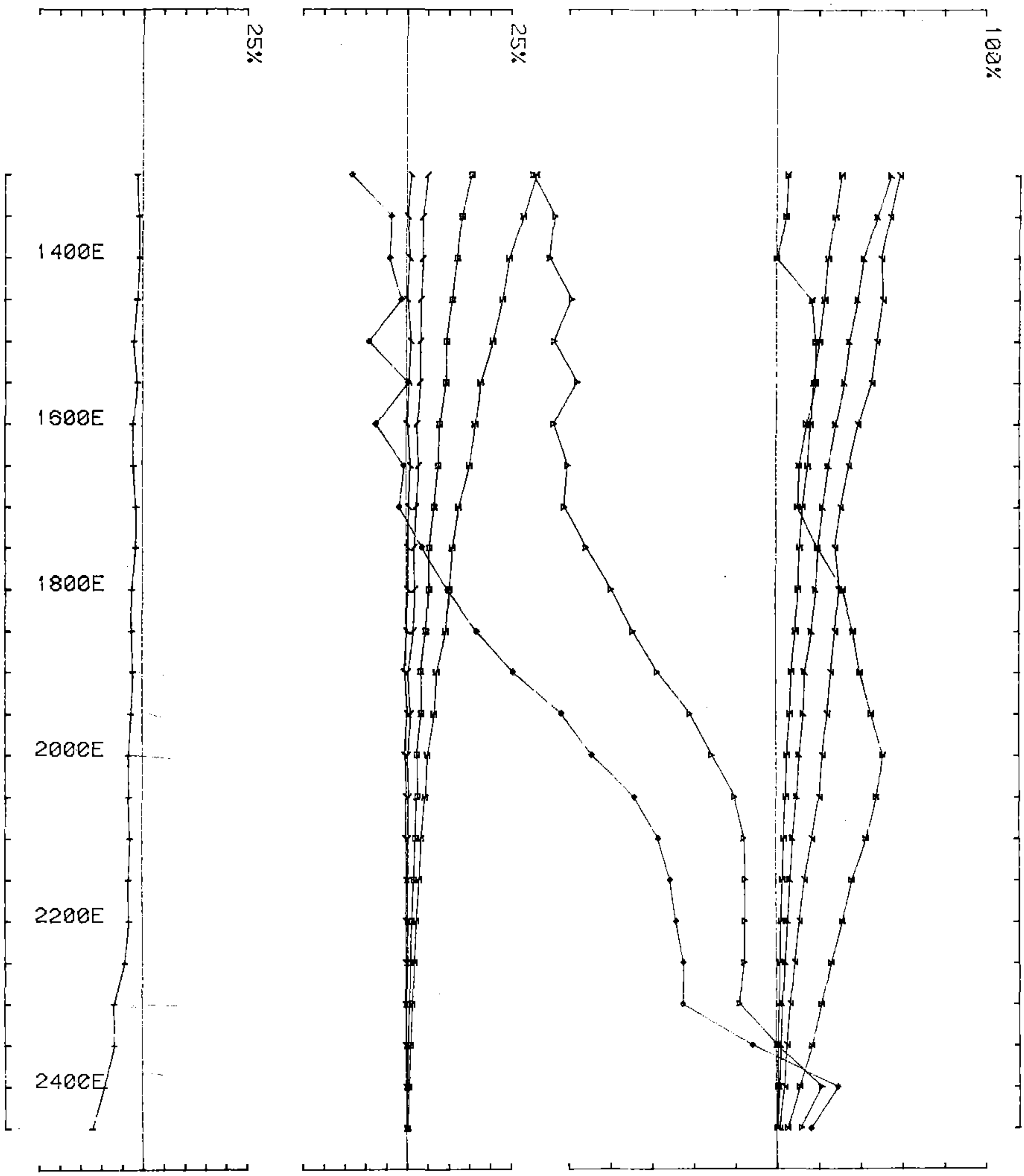


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 2 line 5800N component Hz secondary field Ch 1 contin. norm.

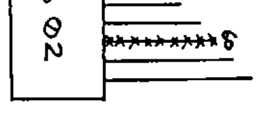
MB 02

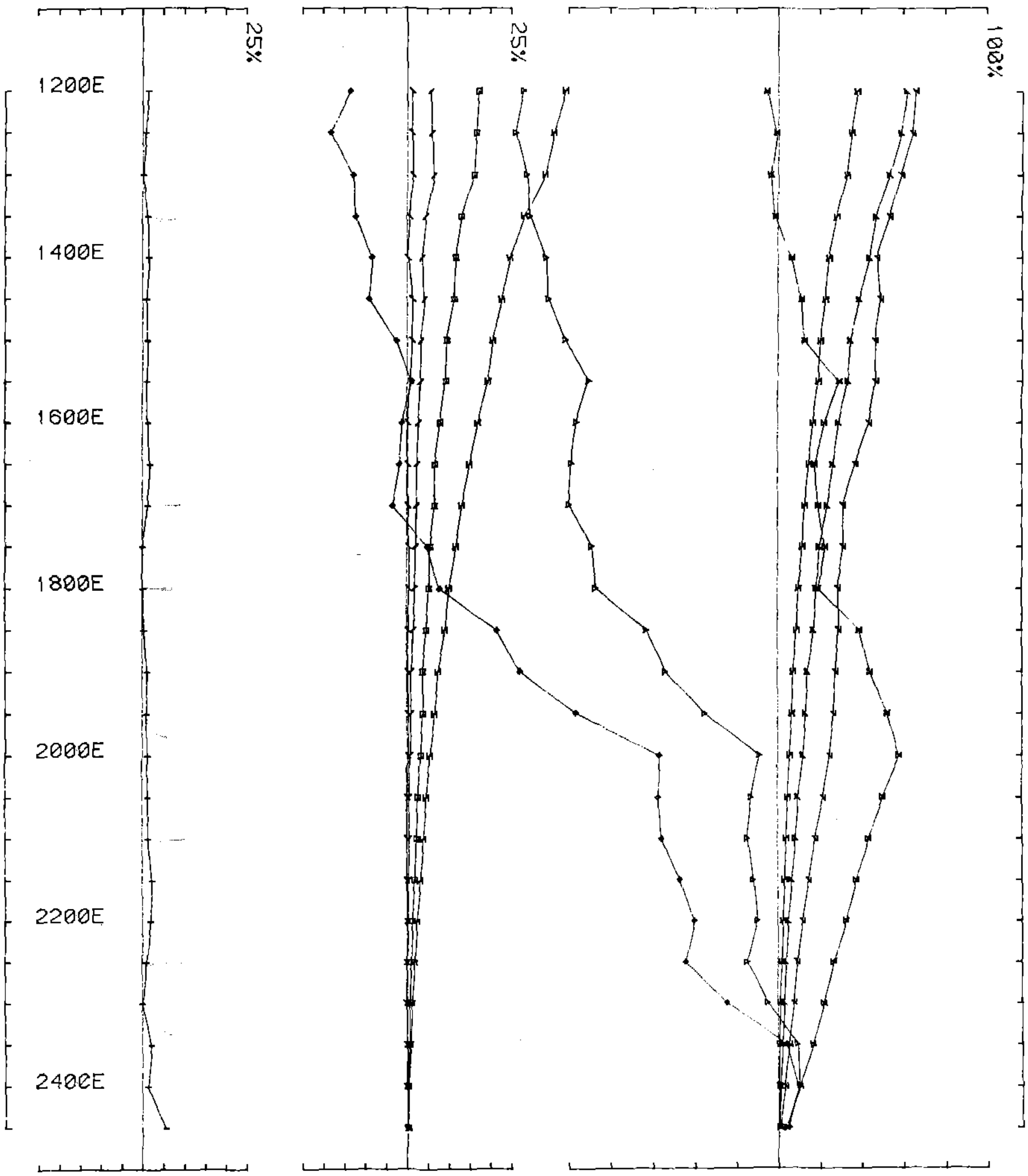


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 2 line 6000N component Hz secondary field Ch 1 contin. norm.





UTEM SURVEY at MOUNT BLOCK for B H P

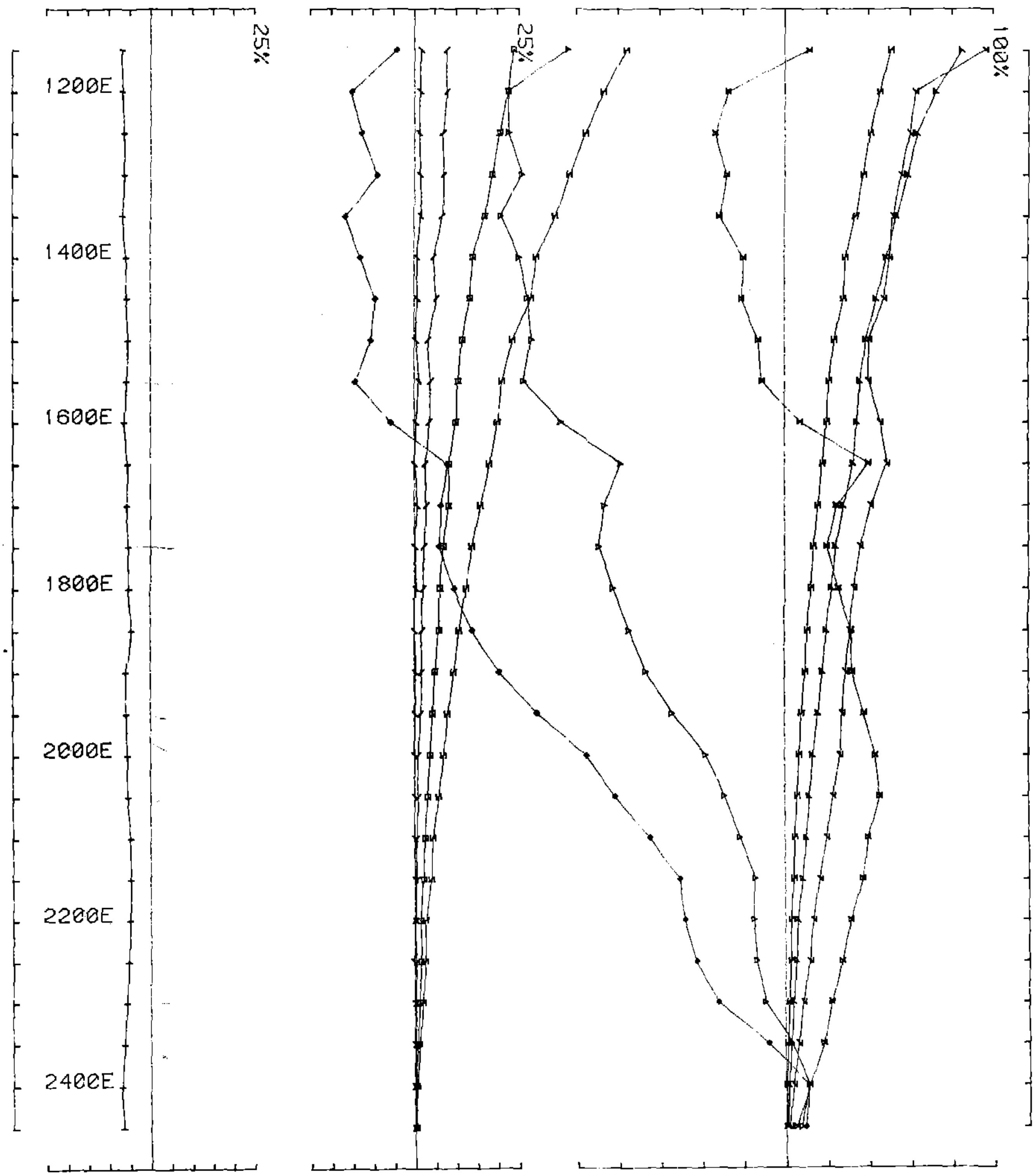
conducted by HU PO job 8722 base freq (hz) 26.230

loop no 2 line 6200N component Hz secondary field Ch 1 contin. norm.

Mb 02

053

767055



UTEM SURVEY at MOUNT BLOCK for B H P

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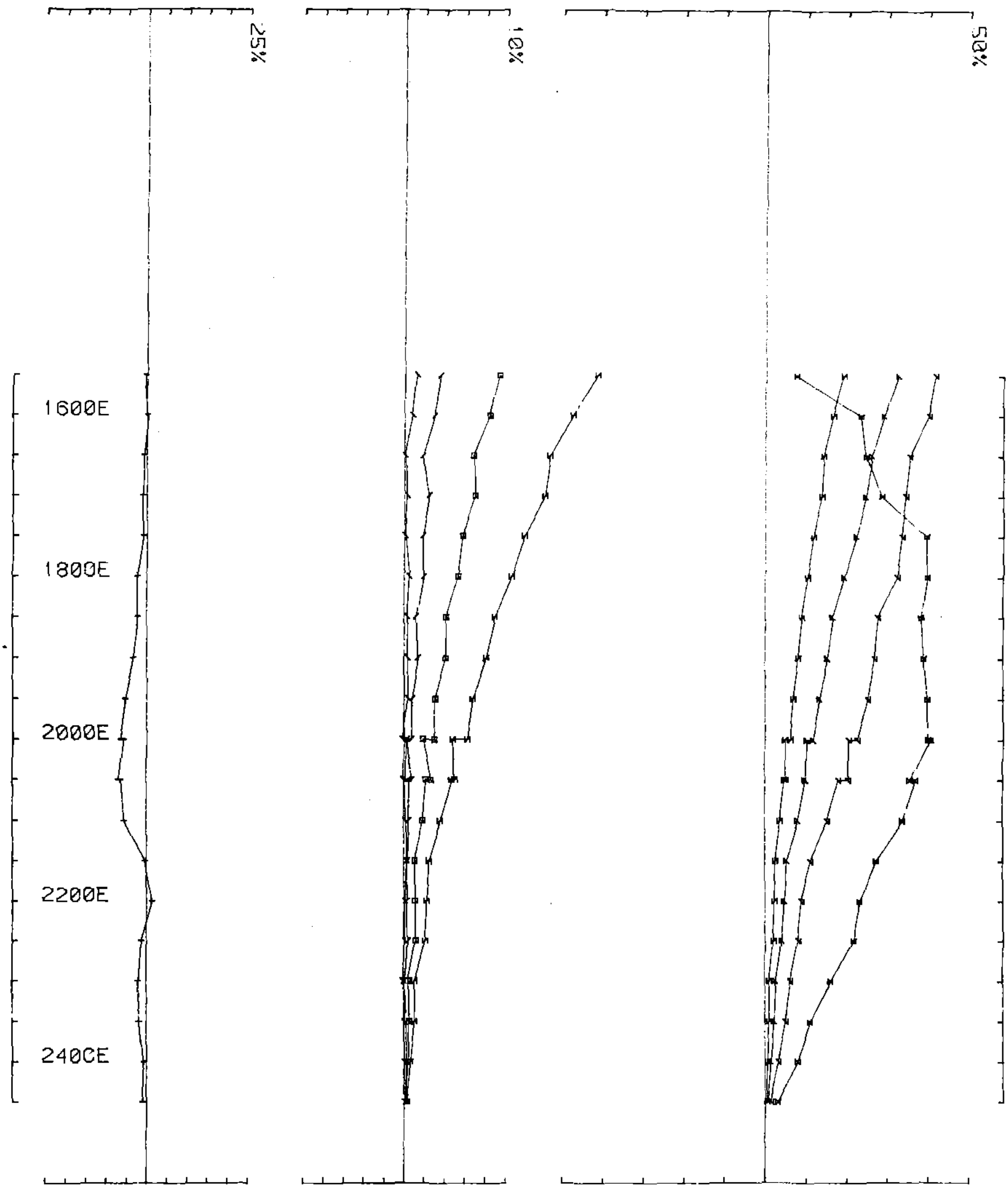
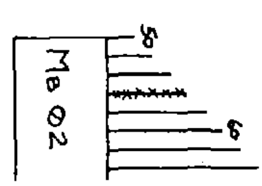
MB 02

767056

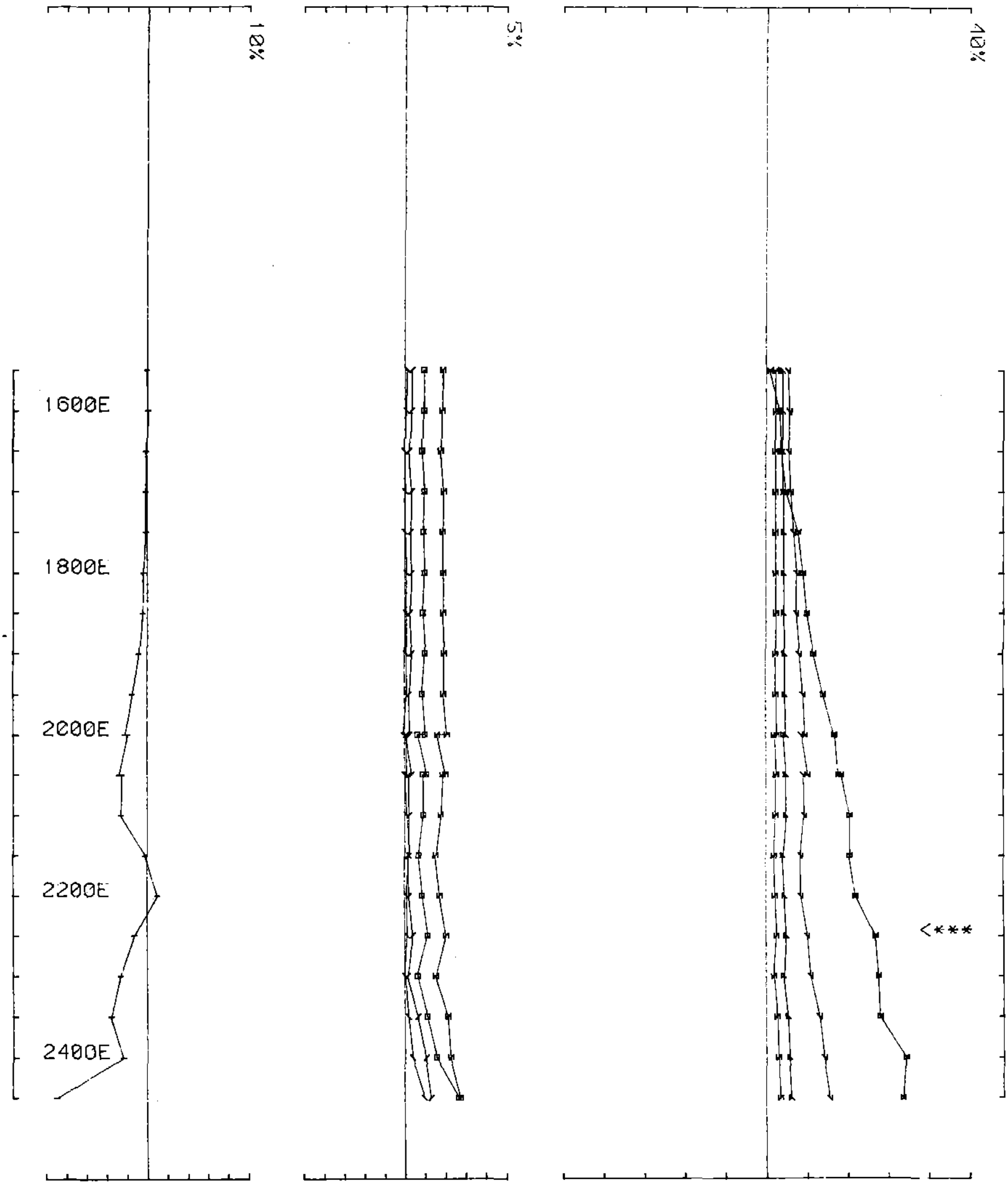
054



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO job 8722 base freq (hz) 25.230 EXPANDED SCALES
loop no 2 line 5600N component Hz secondary field Ch 1 contin. norm.

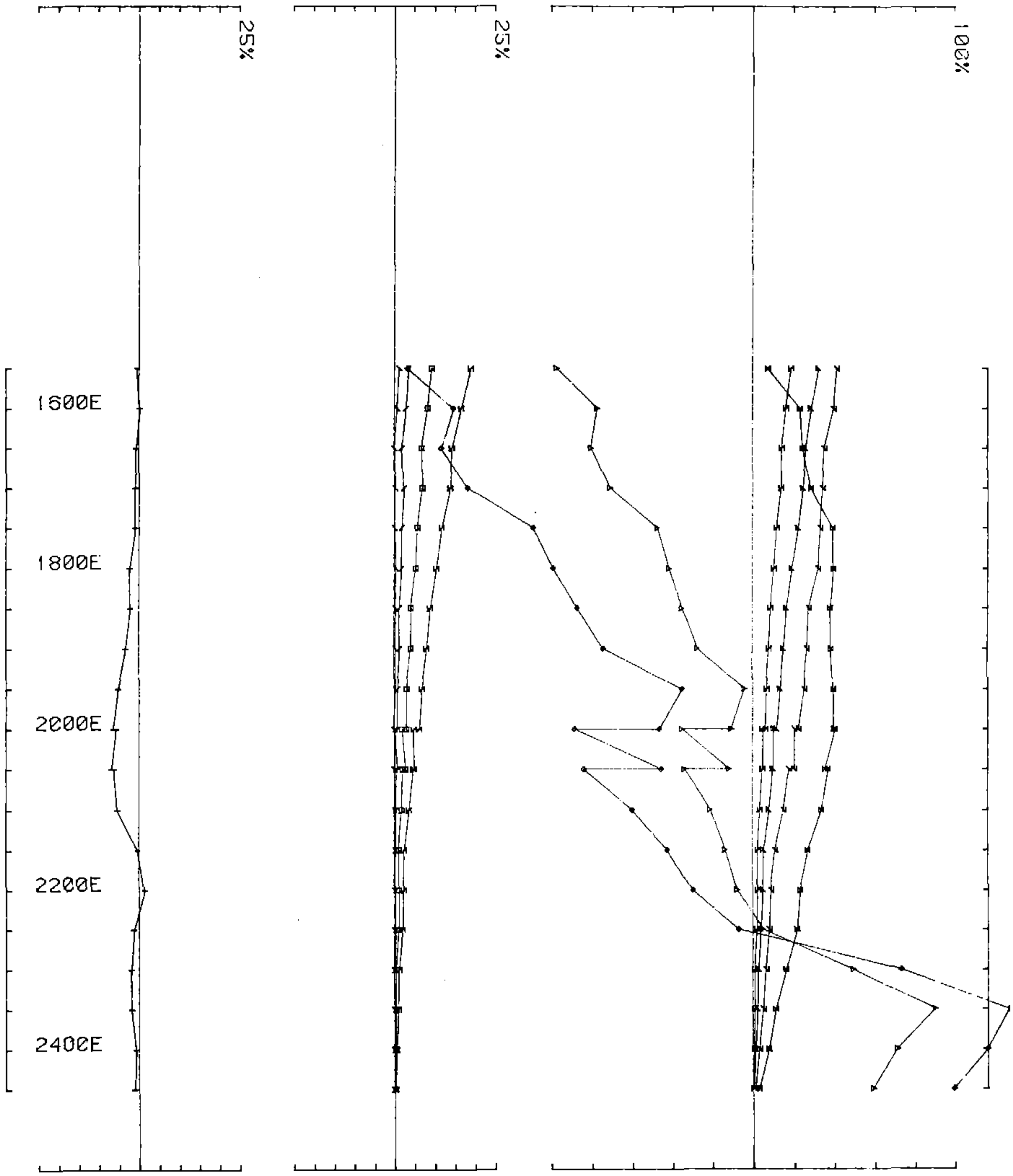


055



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO job 8722 base freq (hz) 28.230 RX 8
loop no 2 line 5600N component Hz secondary field Ch 1 point norm.

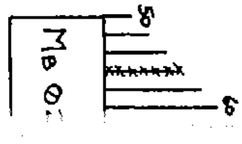
Mb 02



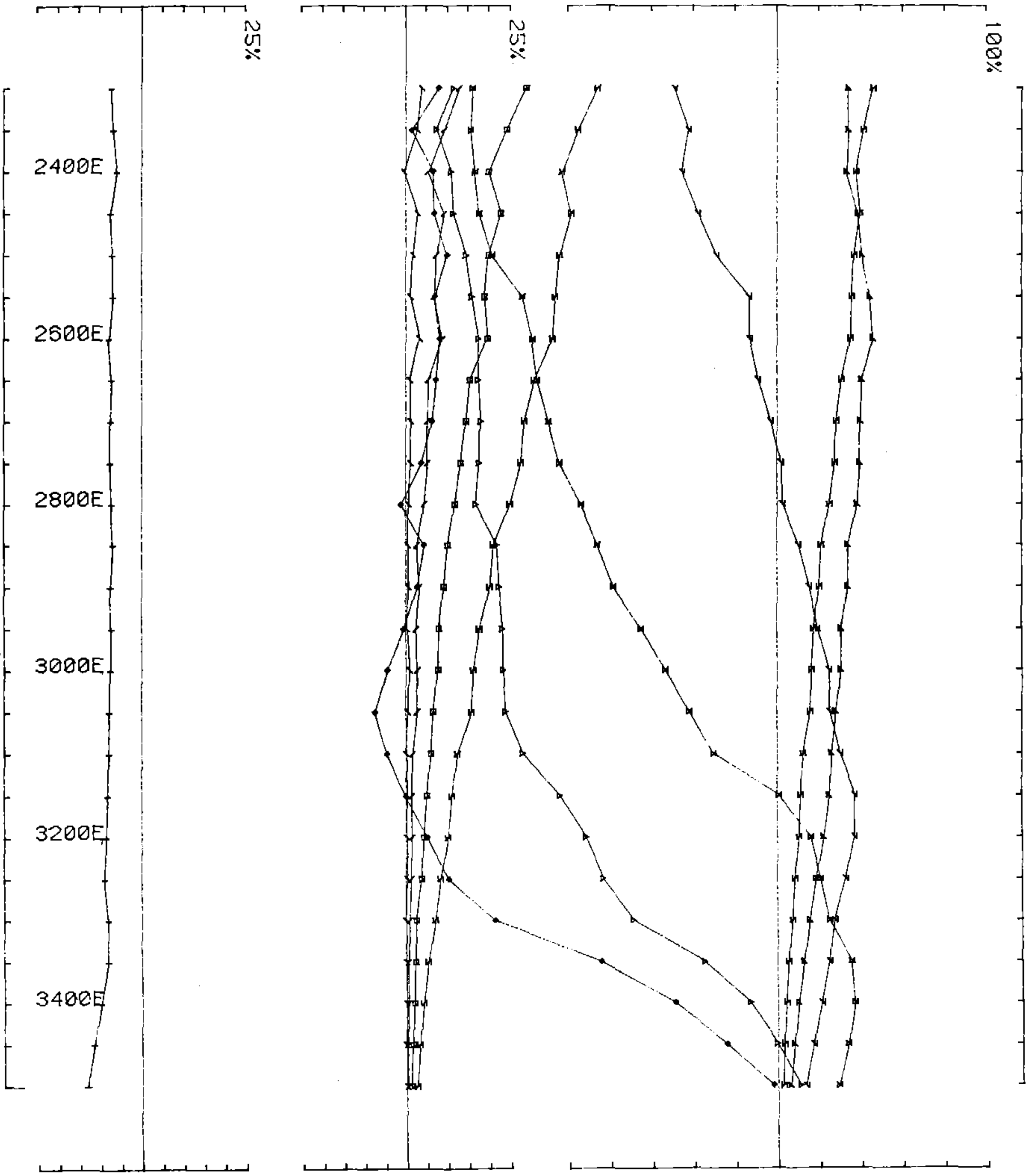
UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 28.230 RX 8

loop no 2 line 5800N component Hz secondary field Ch 1 contin. norm.



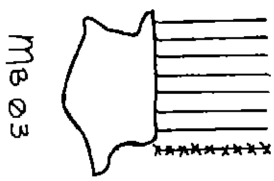
057

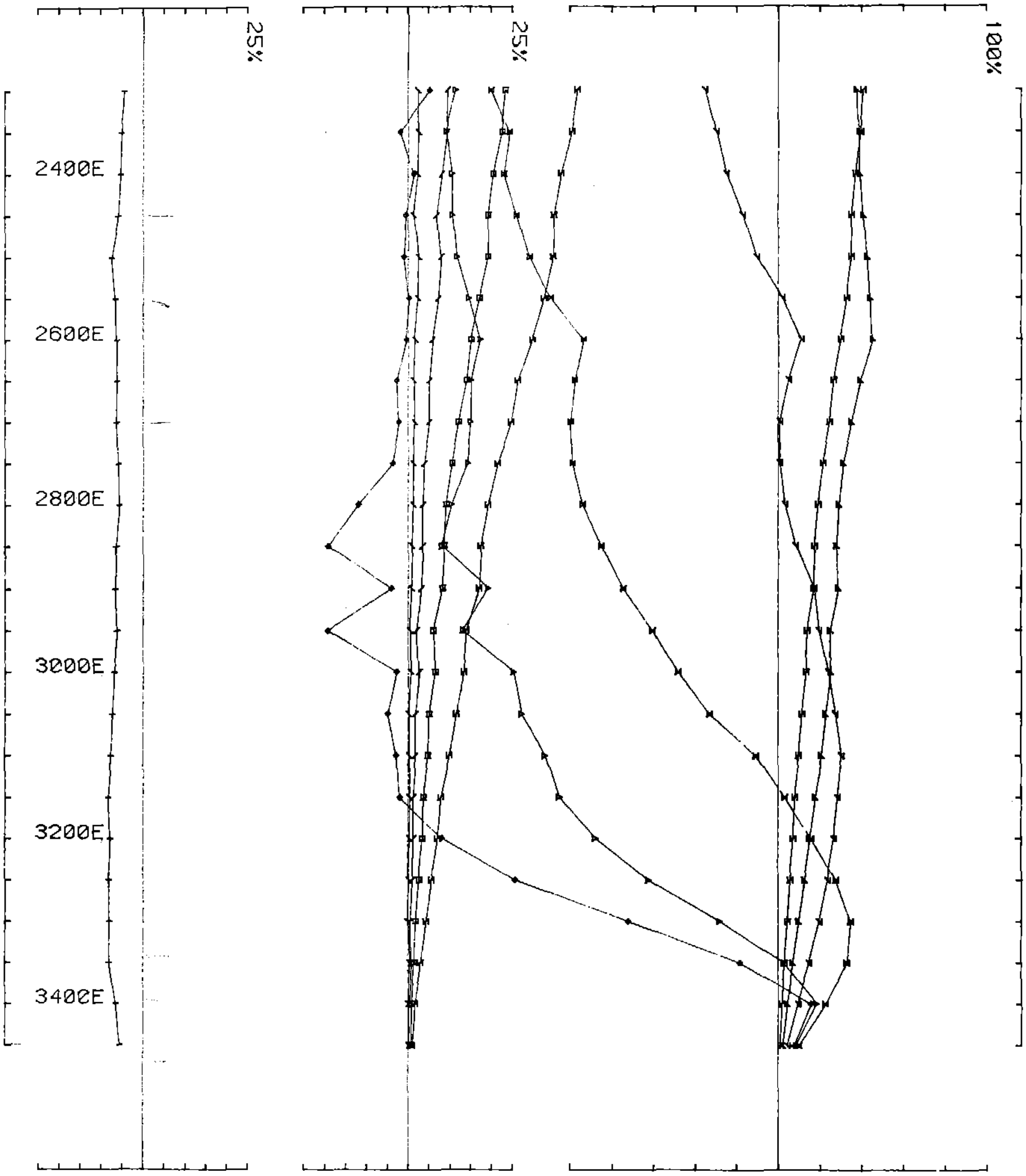


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 3 line 7600N component Hz secondary field Ch 1 contin. norm.

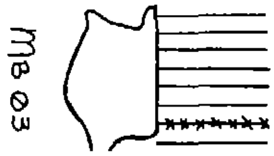


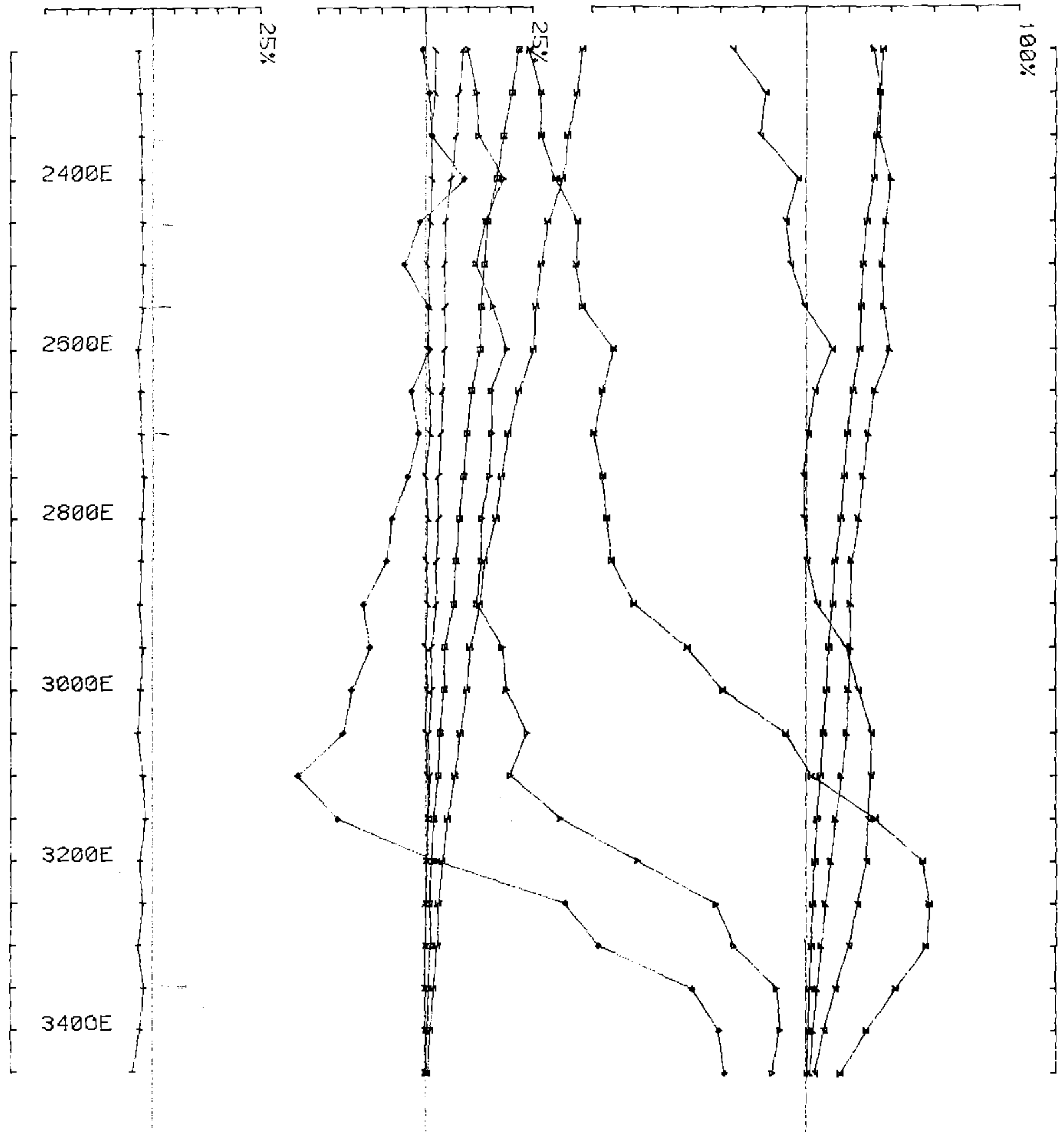


UTEM SURVEY at MOUNT BLOCK for B H P

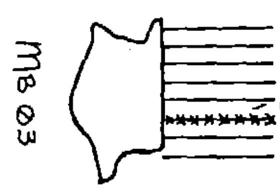
conducted by HU PO job 8722 base freq (hz) 26.230

loop no 3 line 7400N component Hz secondary field Ch 1 contin. norm.



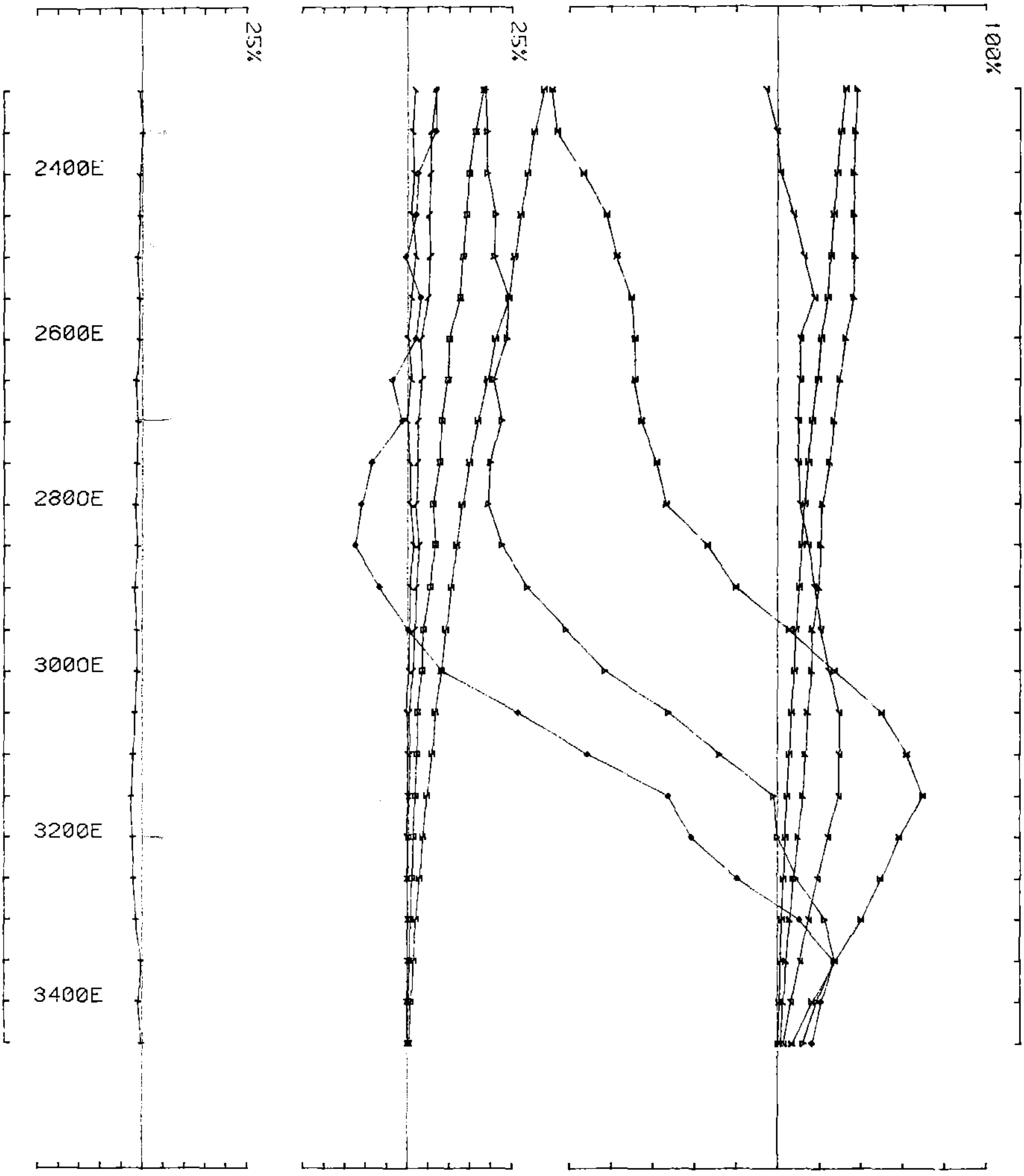


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO job 8722 base freq (hz) 26.230
loop no 3 line 7200N component Hz secondary field Ch 1 contin. norm.

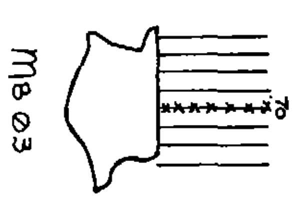


060

767062



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO job 8722 base freq (hz) 26.230
loop no 3 line 7000N component Hz secondary field Ch 1 contin. norm.



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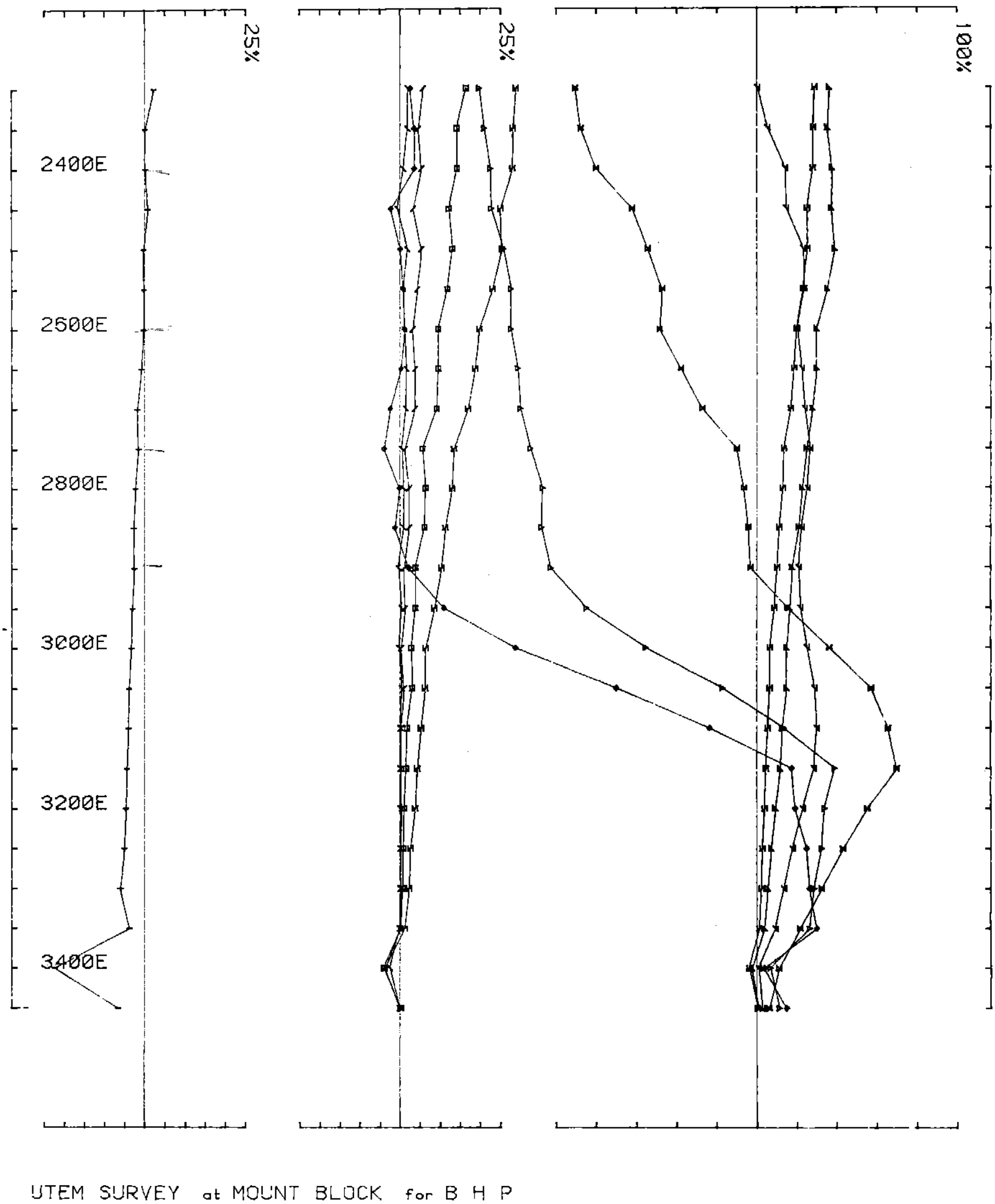
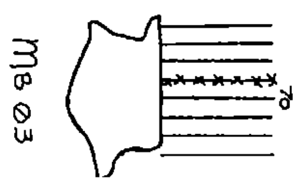
767063



UTEM SURVEY at MOUNT BLOCK for B H P

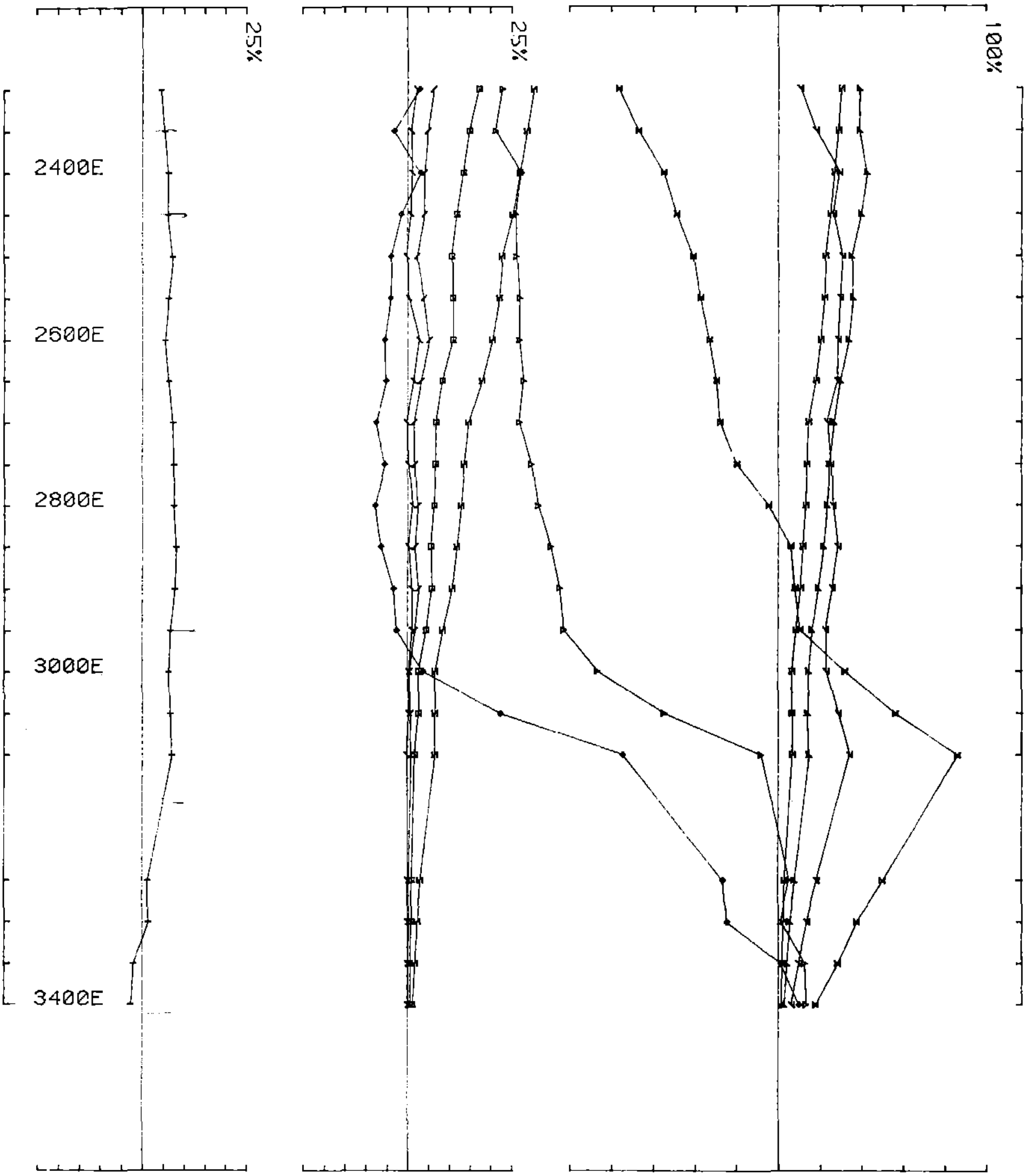
conducted by HU PO job 8722 base freq (hz) 26.230

loop no 3 line 6800N component Hz secondary field Ch 1 contin. norm.



062

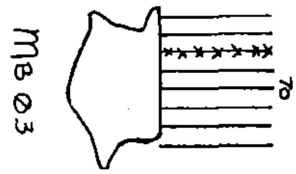
767064



UTEM SURVEY at MOUNT BLOCK for B H P

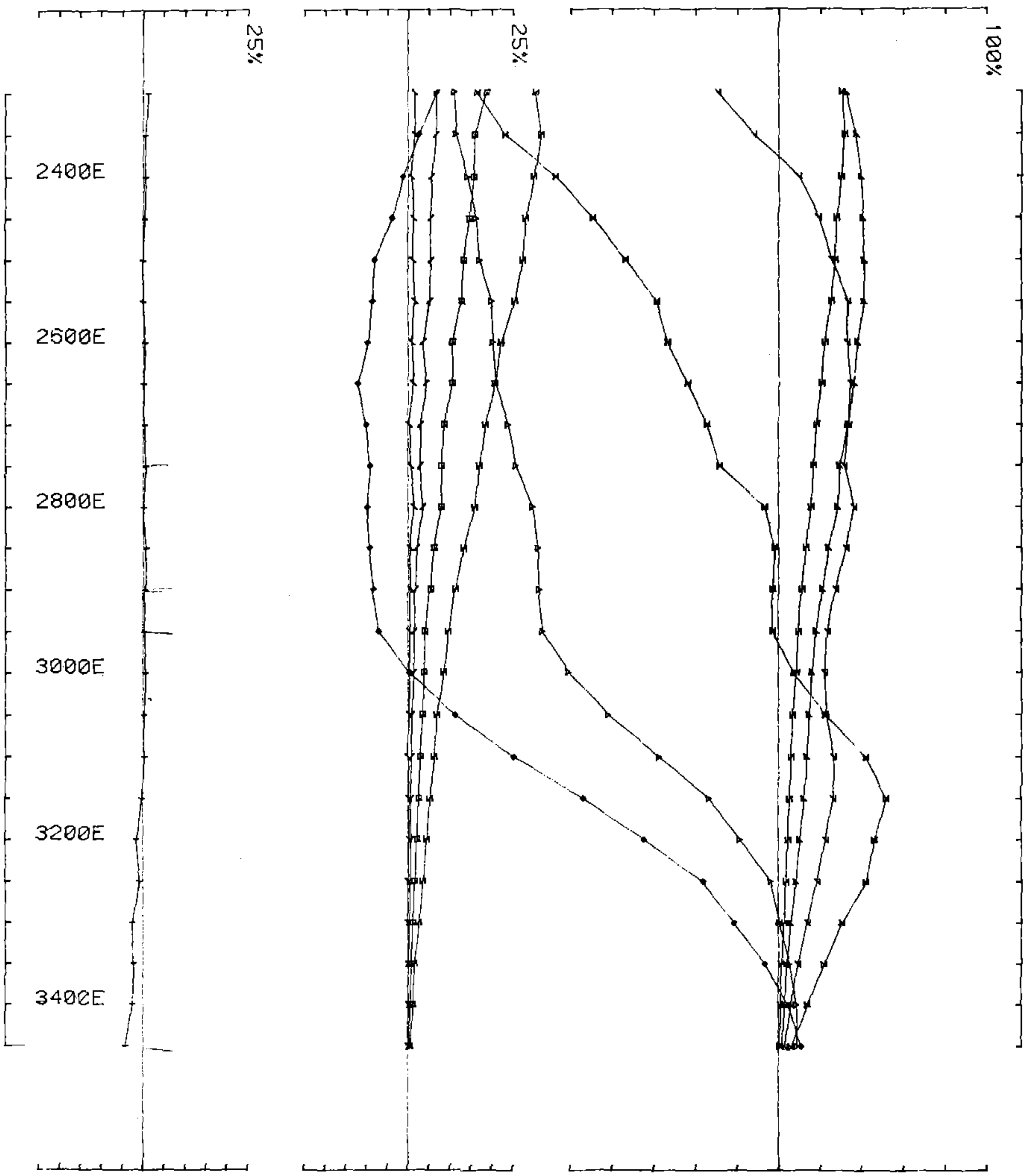
conducted by HU PO job 8722 base freq (hz) 26.230

loop no 3 line 6600N component Hz secondary field Ch 1 contin. norm.



767065

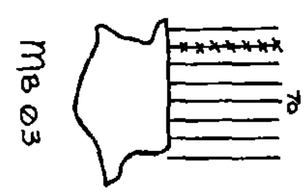
063



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 3 line 6400N component Hz secondary field Ch 1 contin. norm.



064

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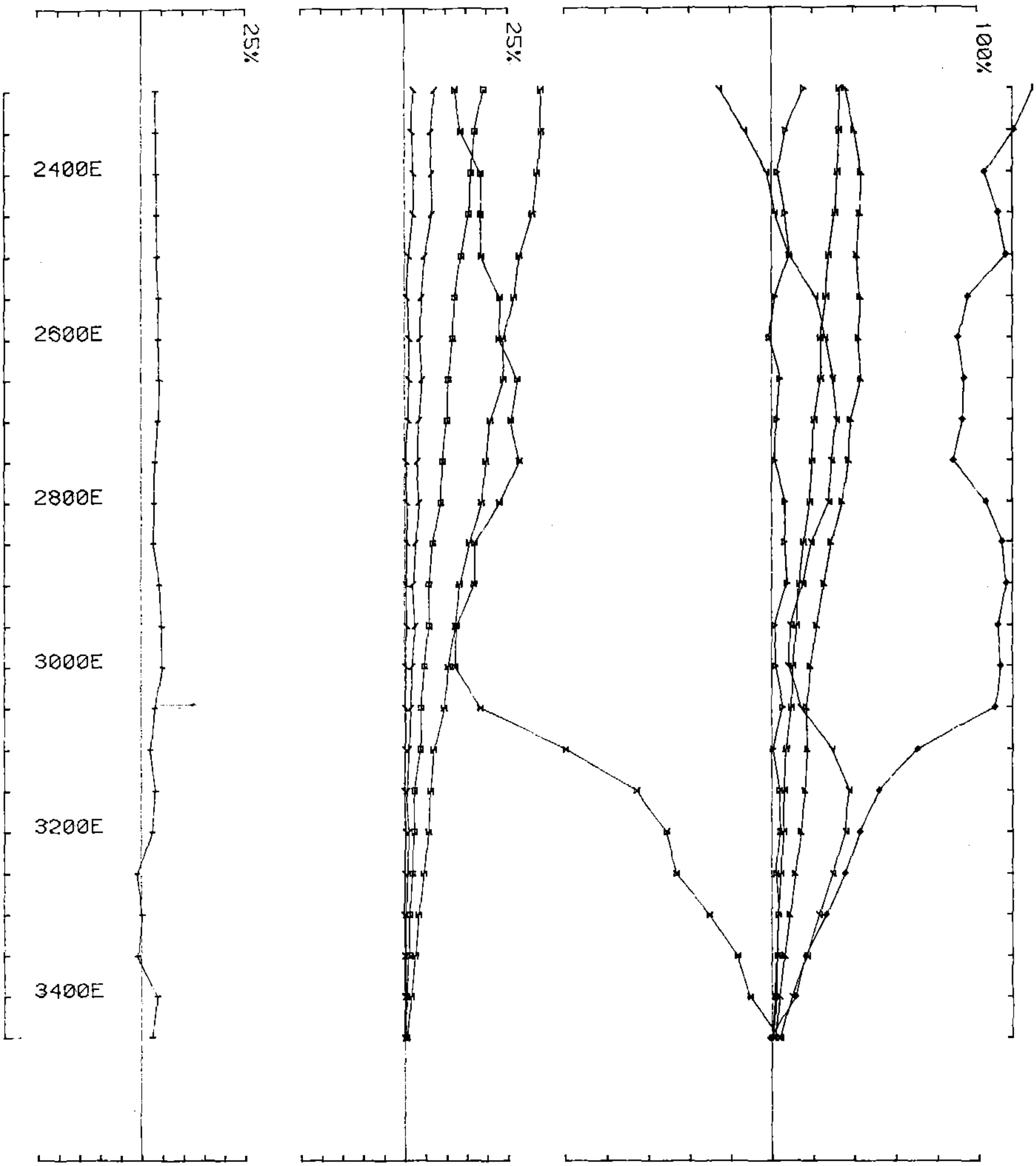
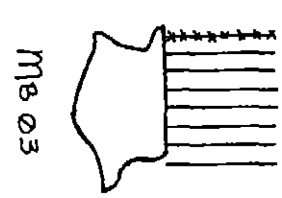


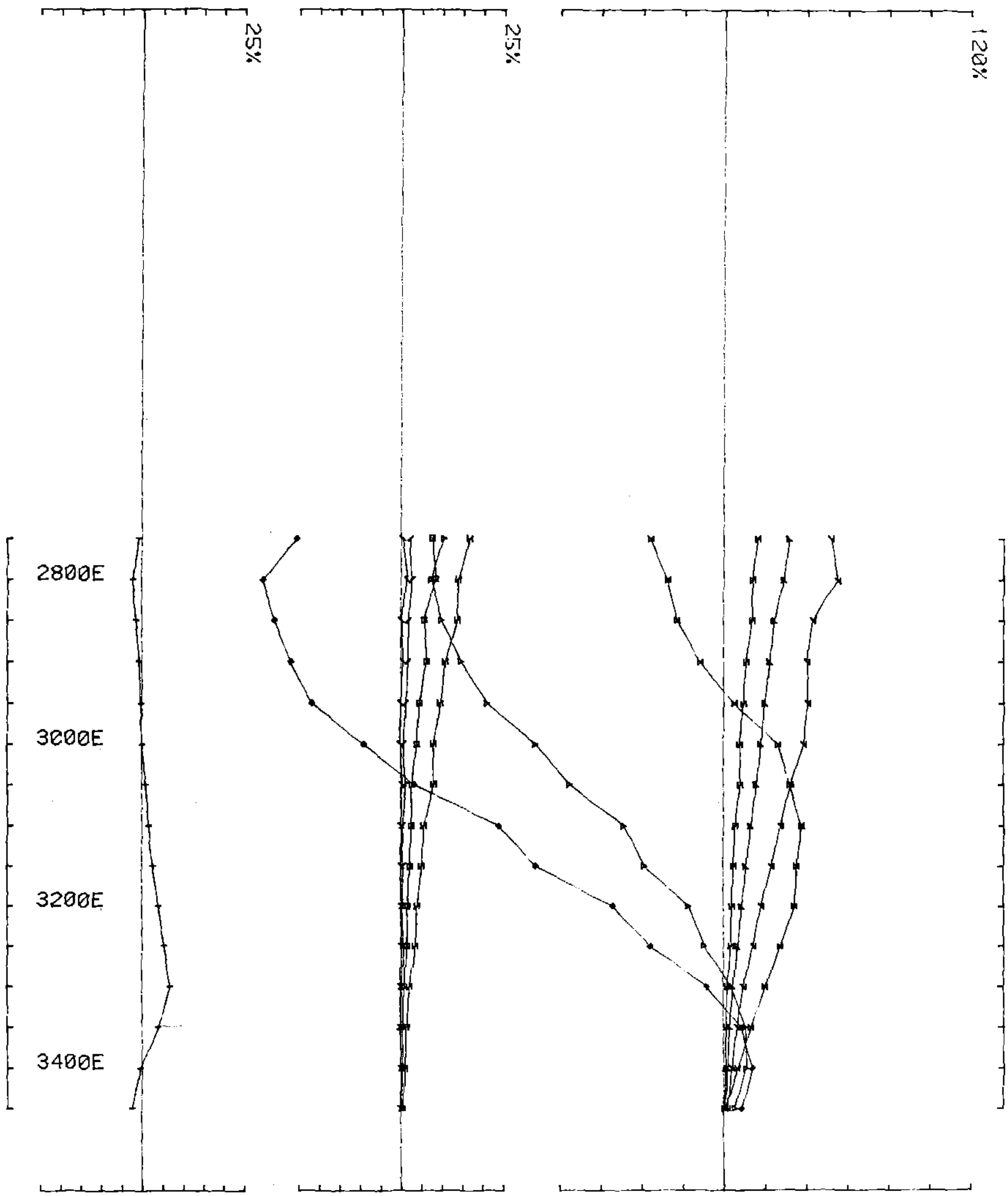
UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 3 line 6200N component Hz secondary field Ch 1 contin. norm.



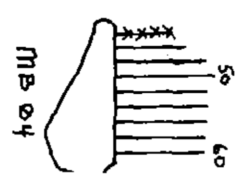
065 767067

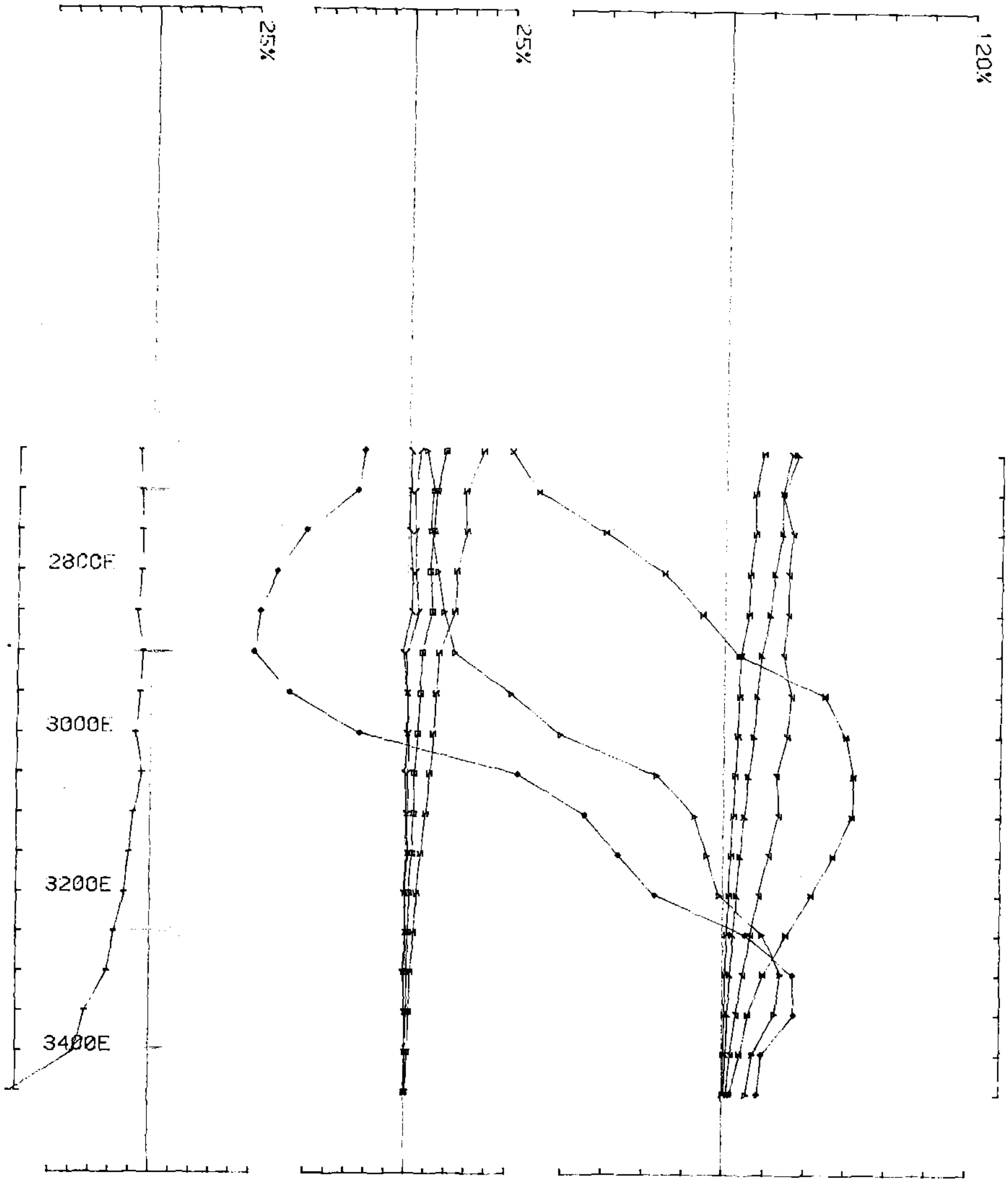


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PD DL job 8722 base freq (hz) 28.230

loop no 4 line 4400N component Hz secondary field Ch 1 contin. norm.

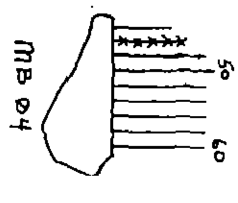


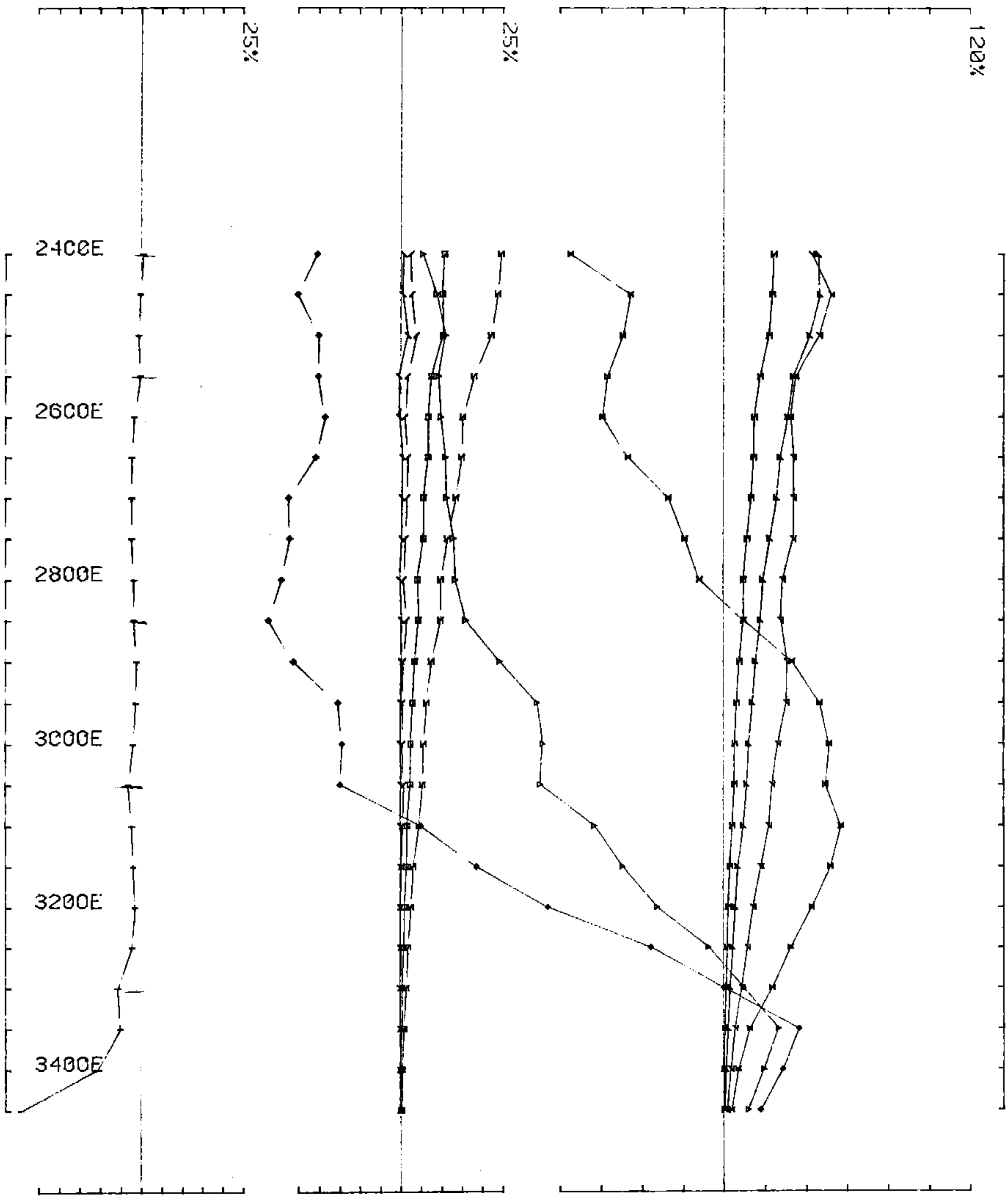


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 23.230

loop no 4 line 4600N component Hz secondary field Ch 1 contin. norm.



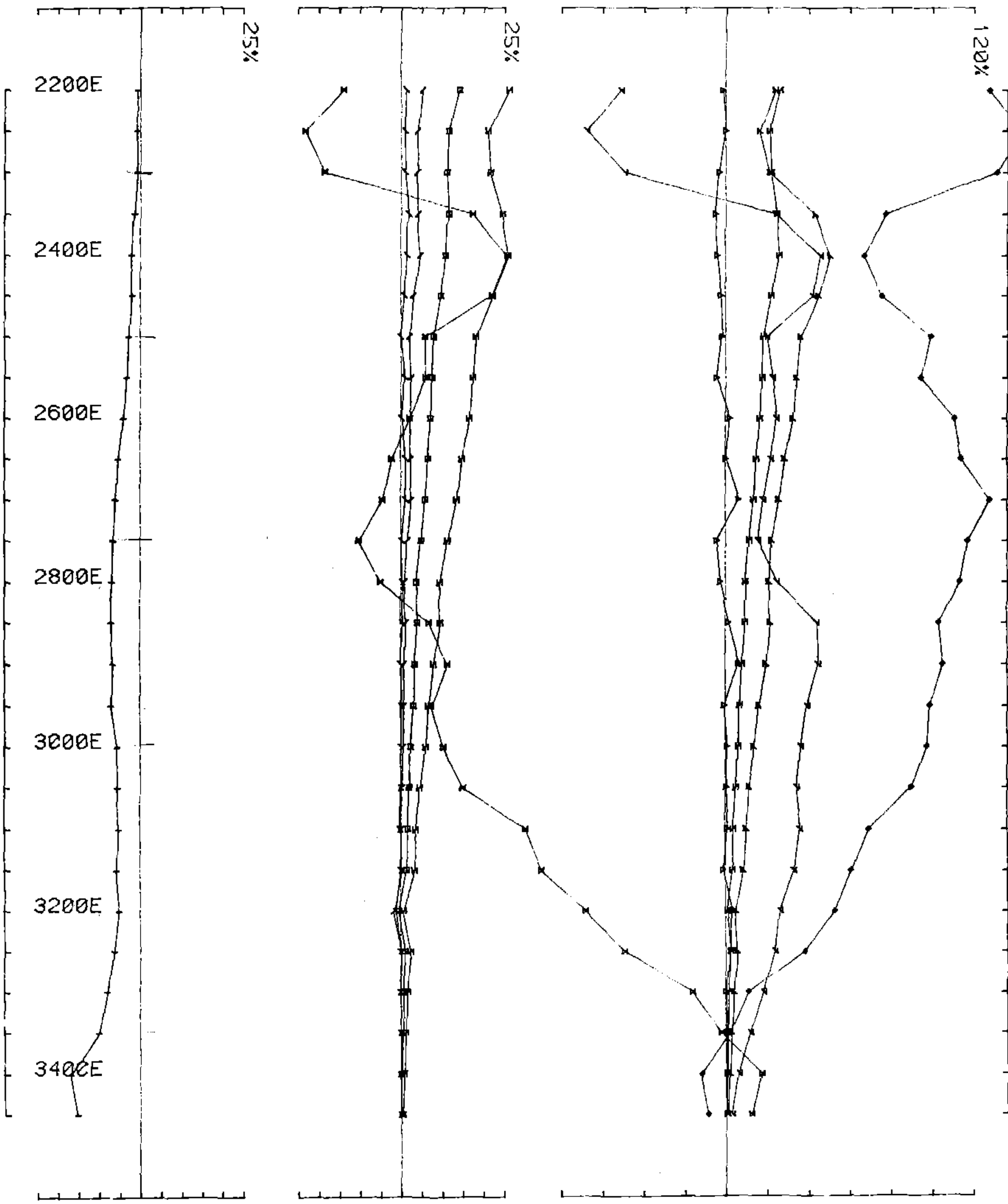


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PC DL job 8722 base freq (hz) 26.230
loop no 4 line 4800N component Hz secondary field Ch 1 contin. norm.

MB 04

767070

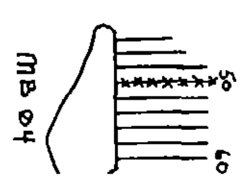
068



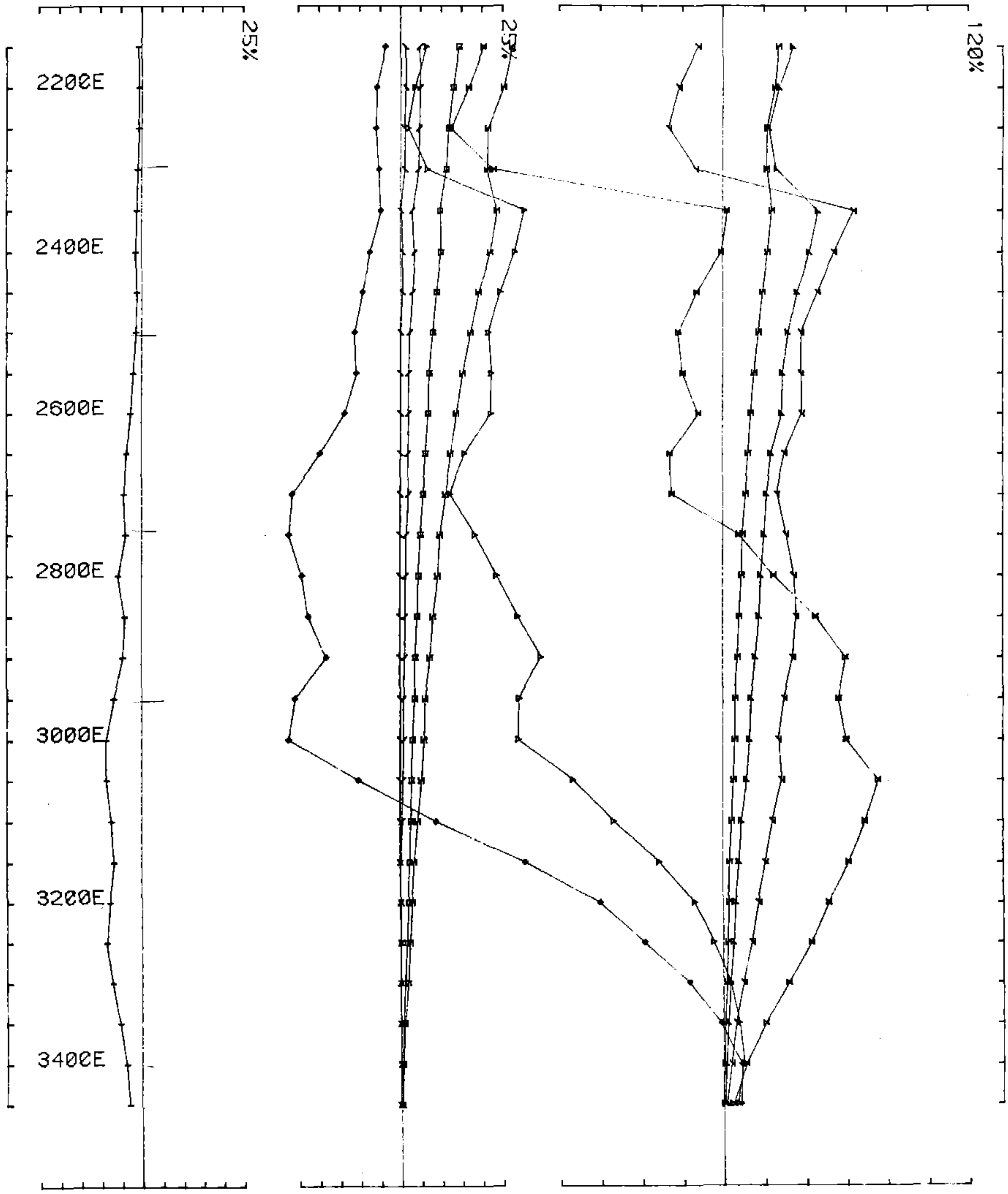
UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 4 line 5000N component Hz secondary field Ch 1 contin. norm.



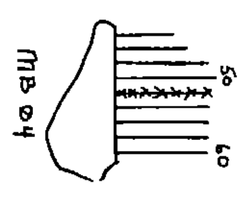
069

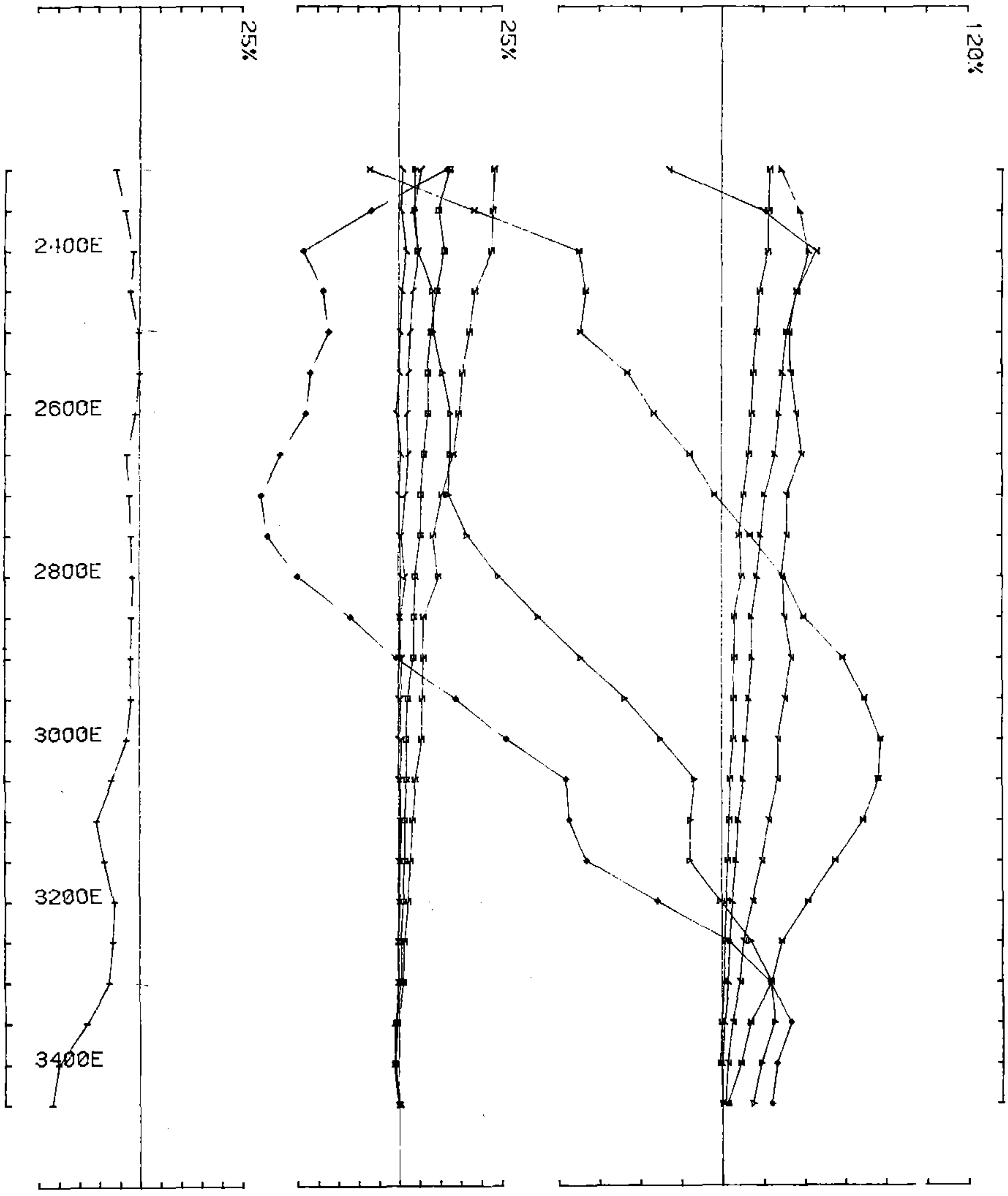


UTEM SURVEY at MOUNT BLOCK for B H P

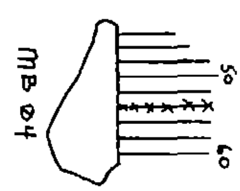
conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 4 line 5200N component Hz secondary field Ch 1 contin. norm.





UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 4 line 5400M component Hz secondary field Ch 1 contin. norm.



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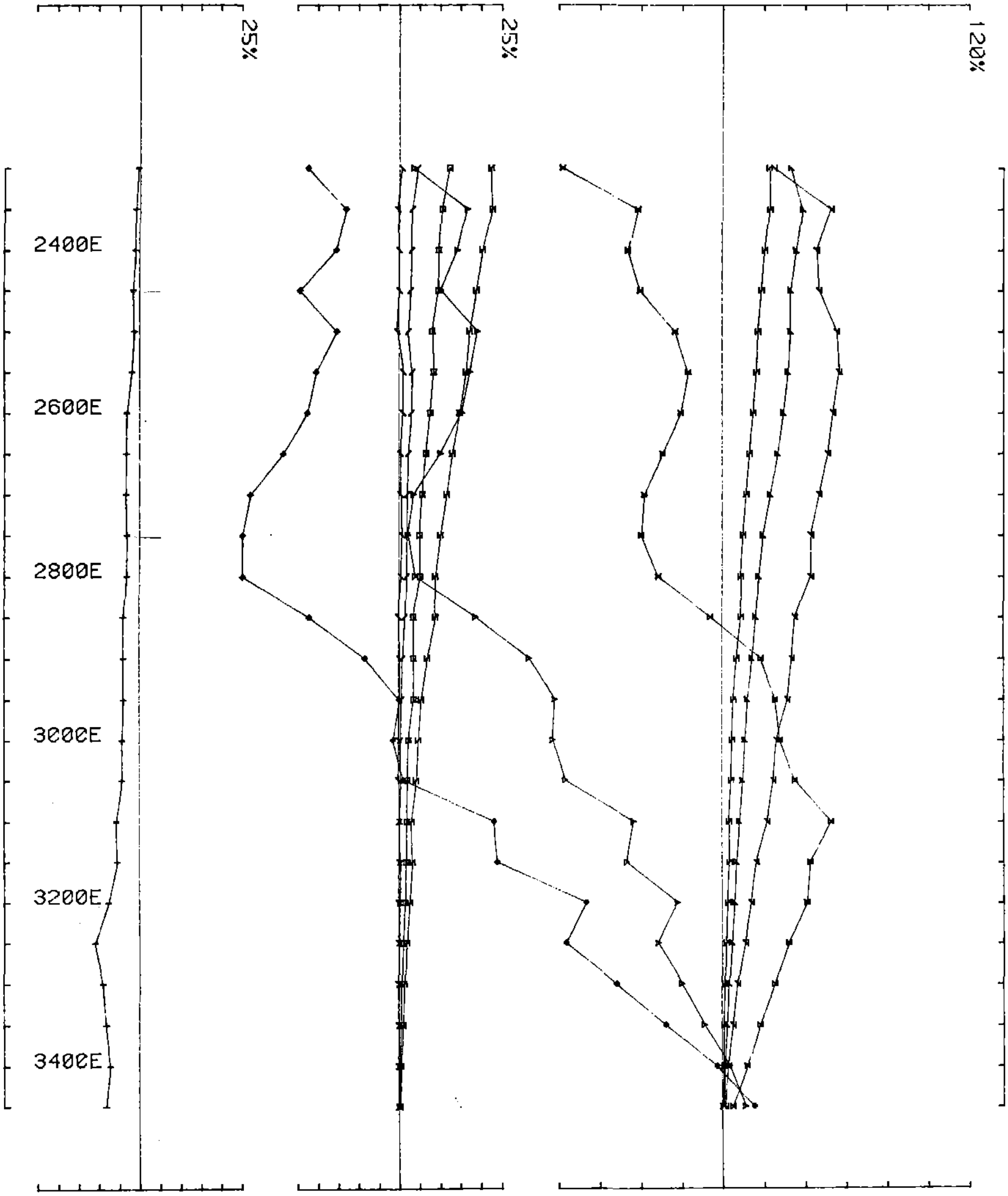
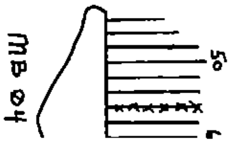


UTEM SURVEY at MOUNT BLOCK for B H P

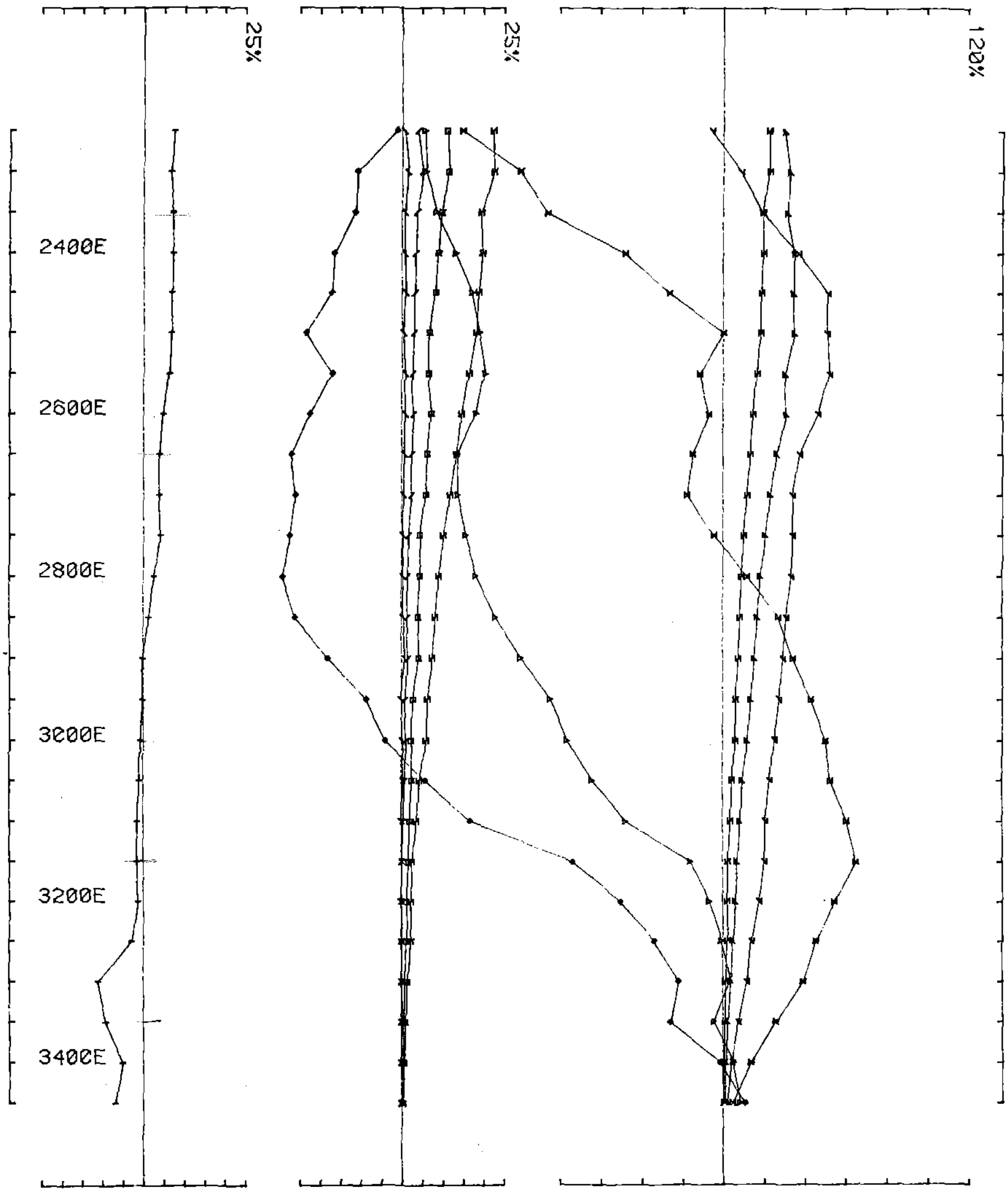
conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 4 line 5600N component Hz secondary field Ch 1 contin. norm.



072

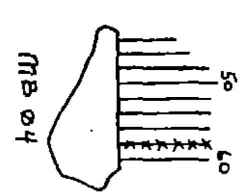
767074



UTEM SURVEY at MOUNT BLOCK for B H P

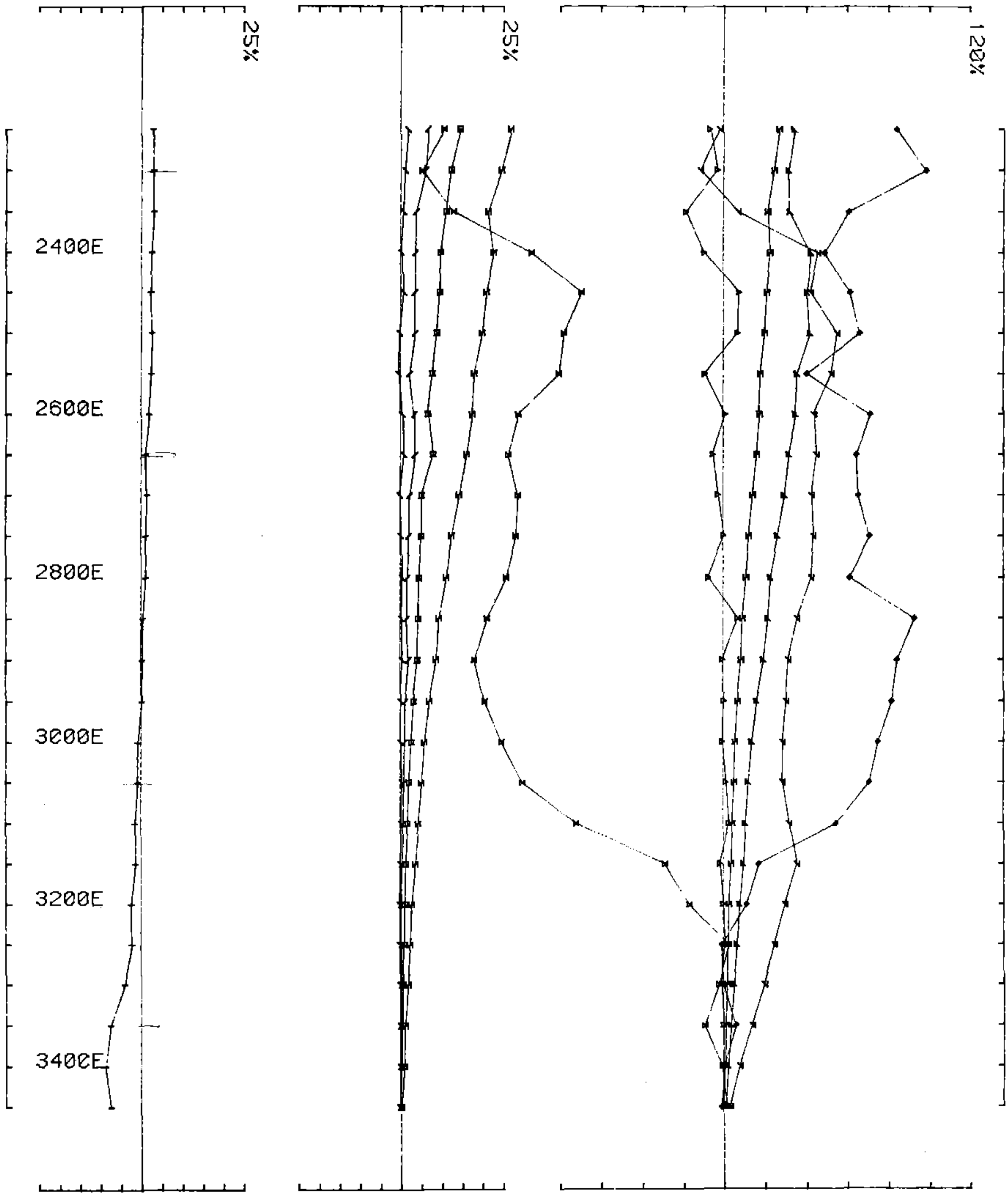
conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 4 line 5800N component Hz secondary field Ch 1 contin. norm.



767075

073



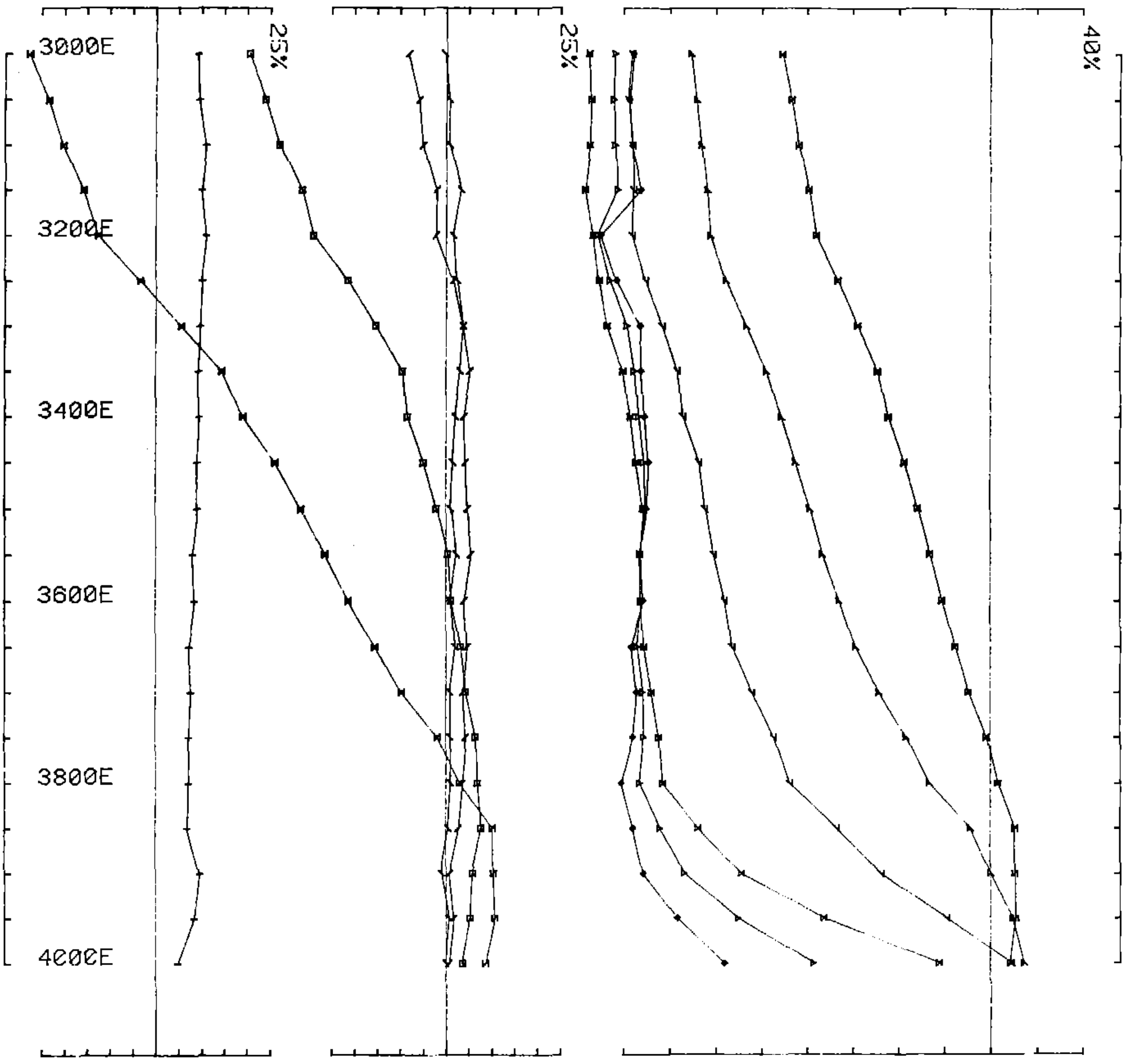
UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 4 line 6000N component Hz secondary field Ch 1 contin. norm.

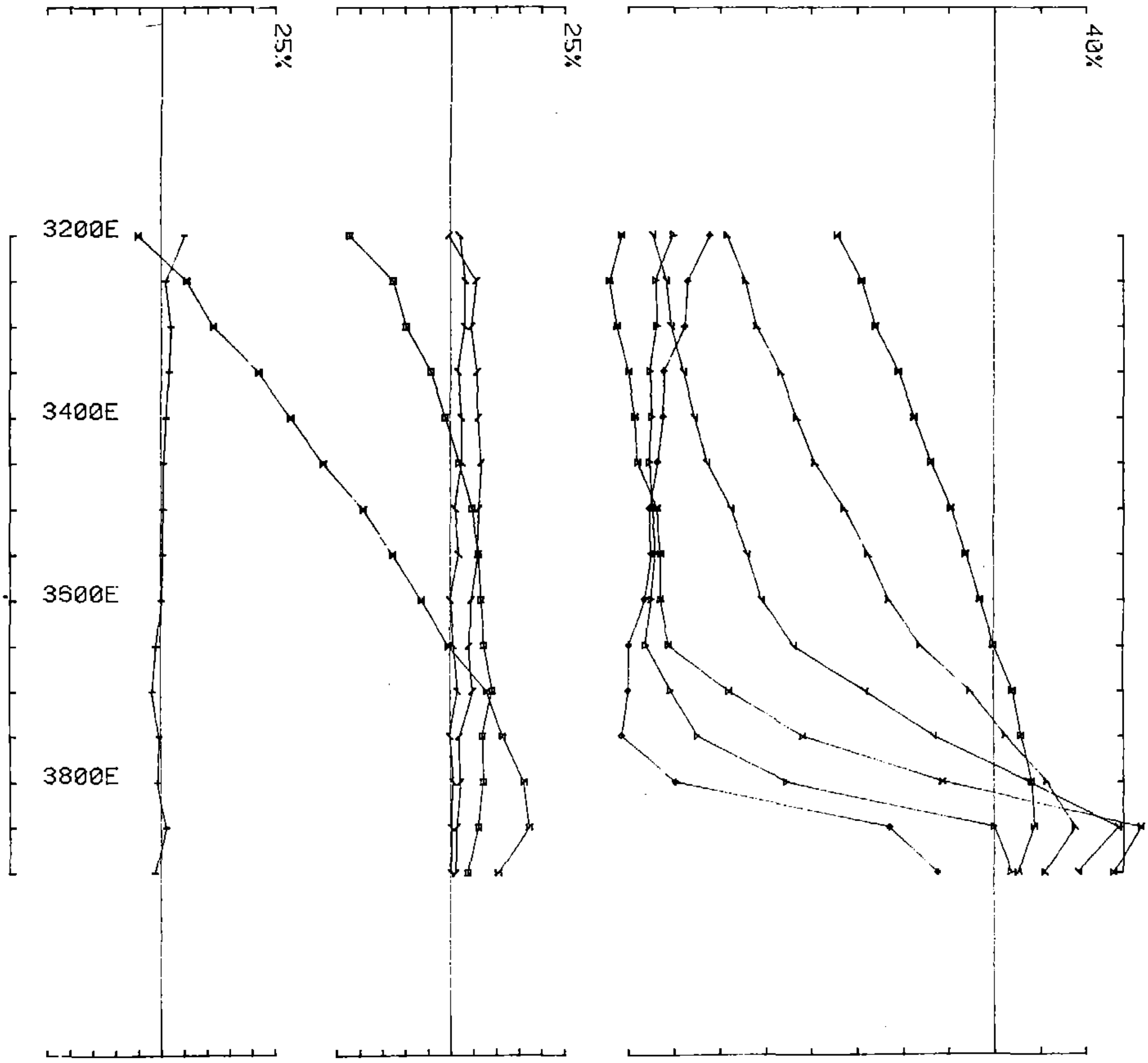
MB 04

767076



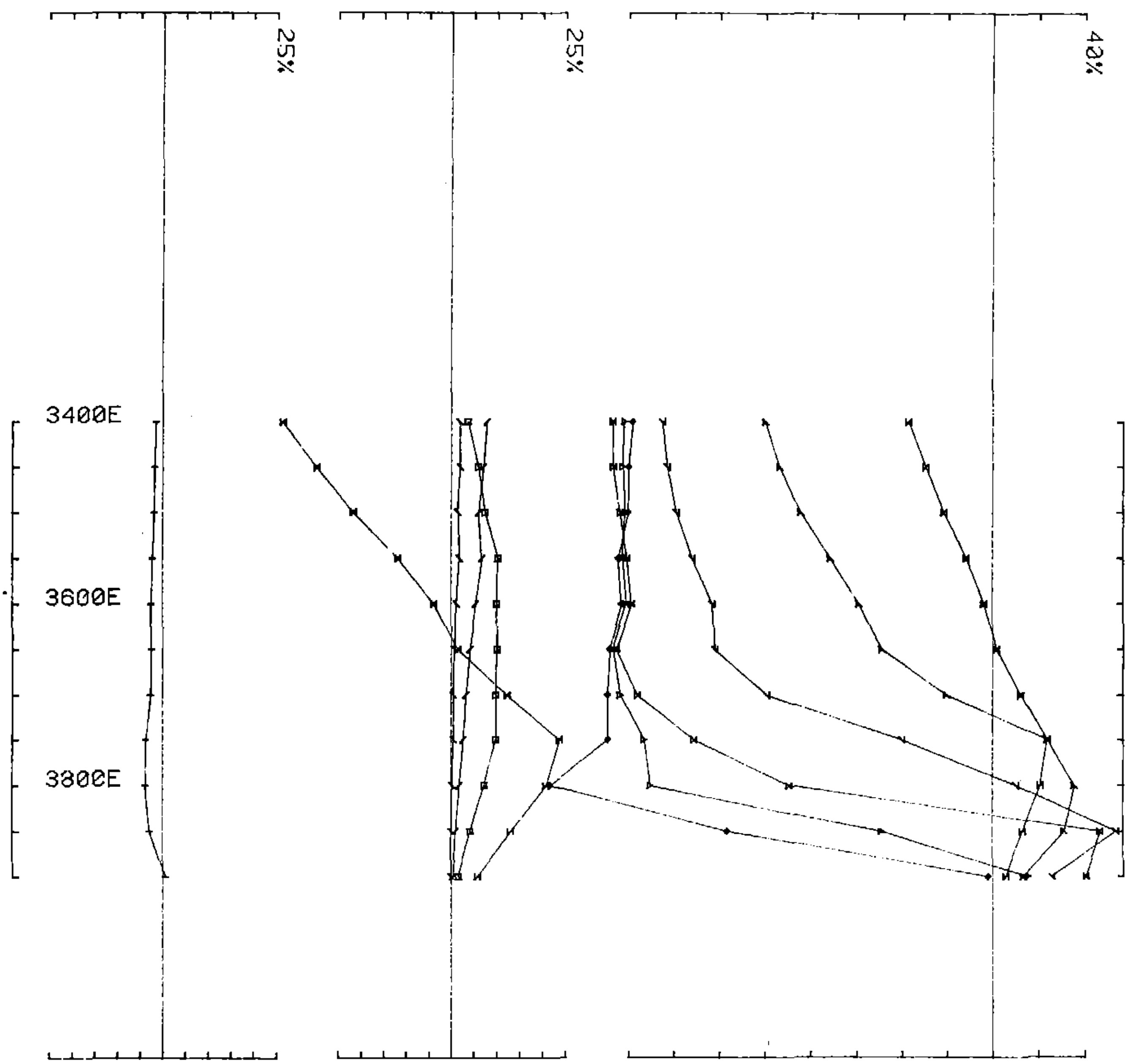
UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO job 8722 base freq (hz) 26.230
loop no 5 line 9200N component Hz secondary field Ch 1 contin. norm.

767077



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO job 8722 base freq (hz) 26.230
loop no 5 line 9400N component Hz secondary field Ch 1 contin. norm.

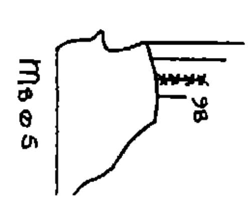
767078



UTEM SURVEY at MOUNT BLOCK for B H P

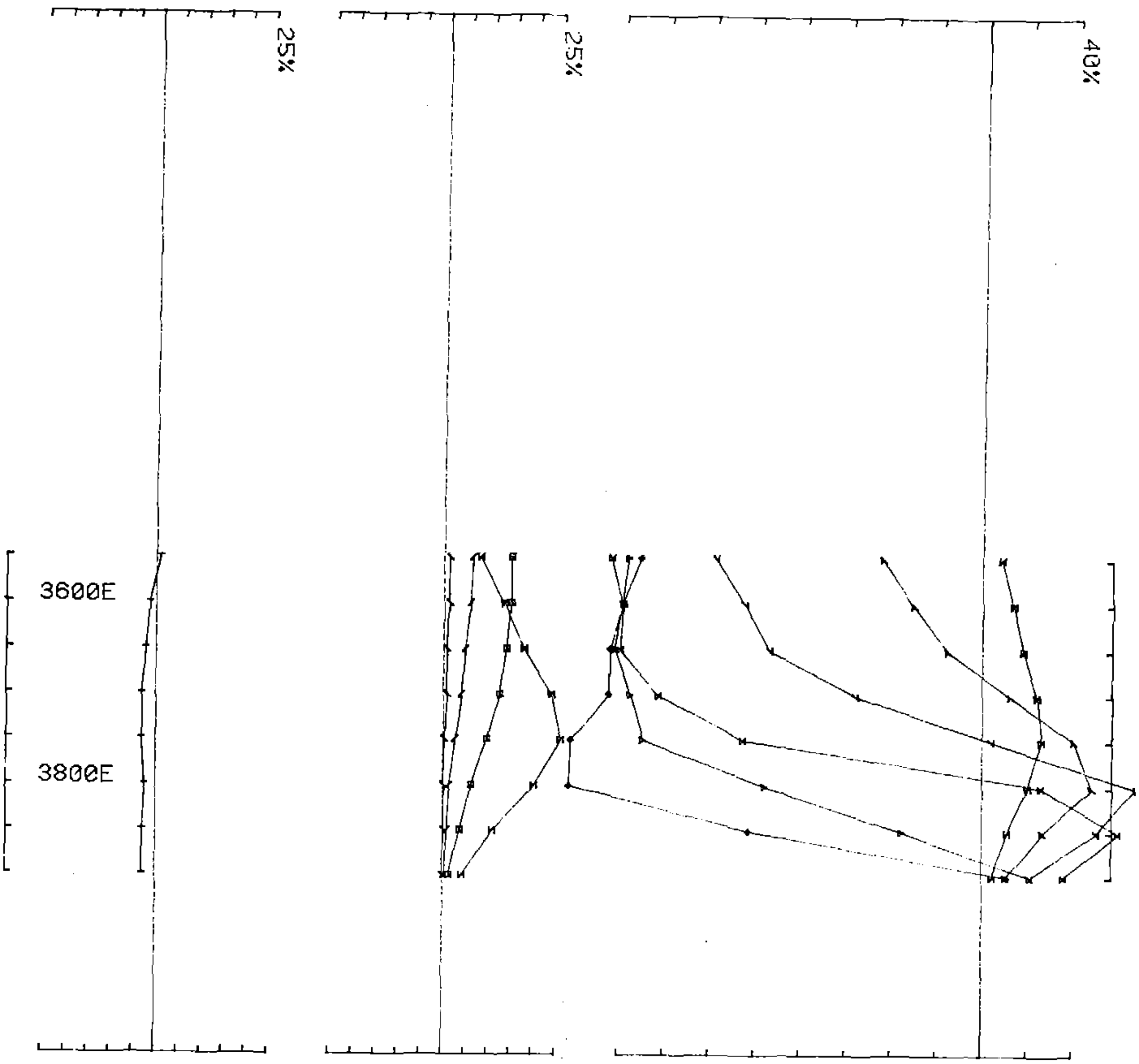
conducted by HU PO job 8722 base freq (hz) 26.230

loop no 5 line 9600N component Hz secondary field Ch 1 contin. norm.



077

767079

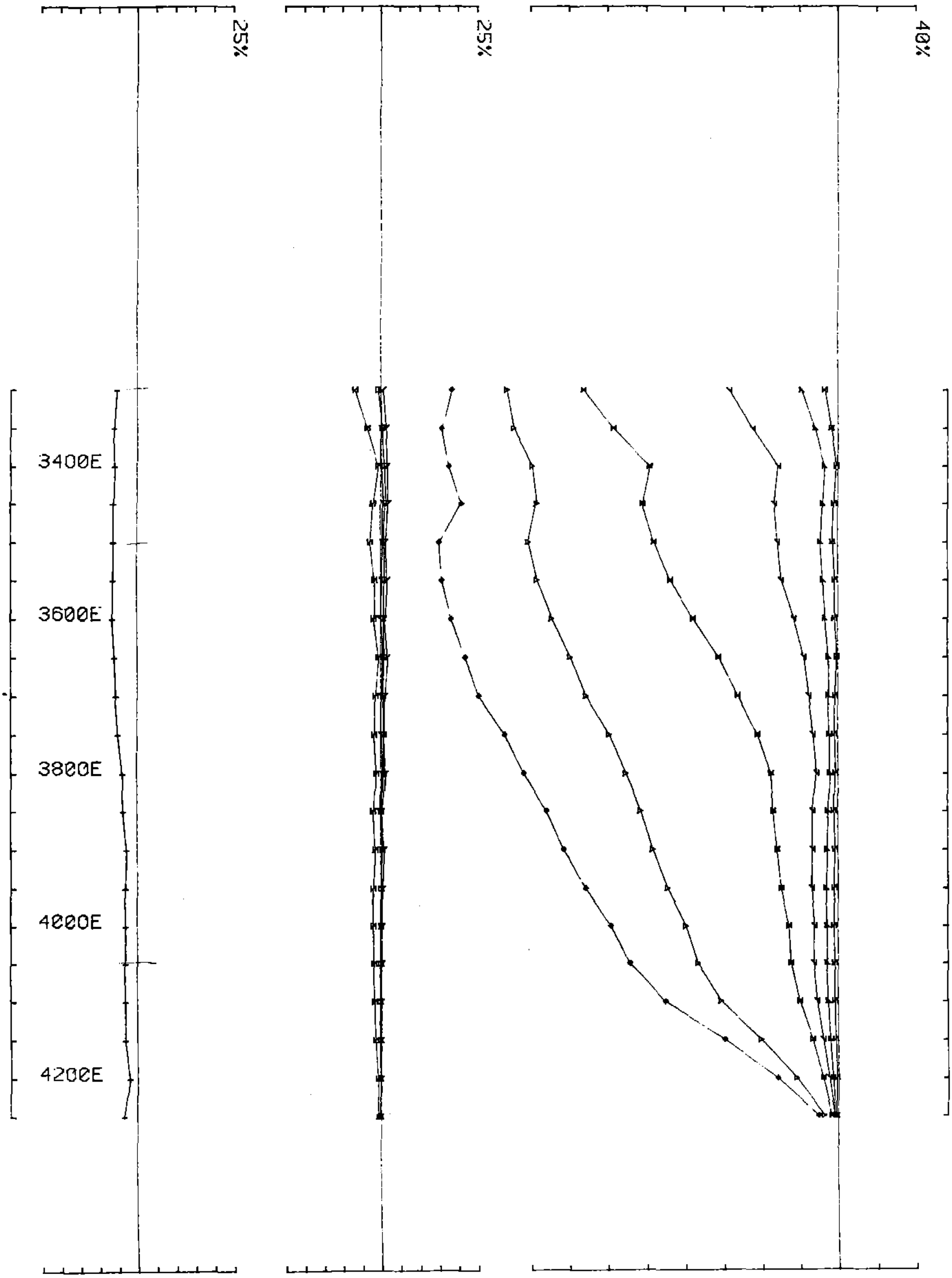


UTEM SURVEY at MOUNT BLOCK for B H P

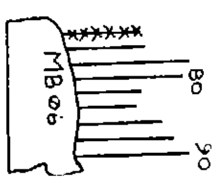
conducted by HU PO job 8722 base freq (hz) 26.230

loop no 5 line 9800N component Hz secondary field Ch 1 contin. norm.

078

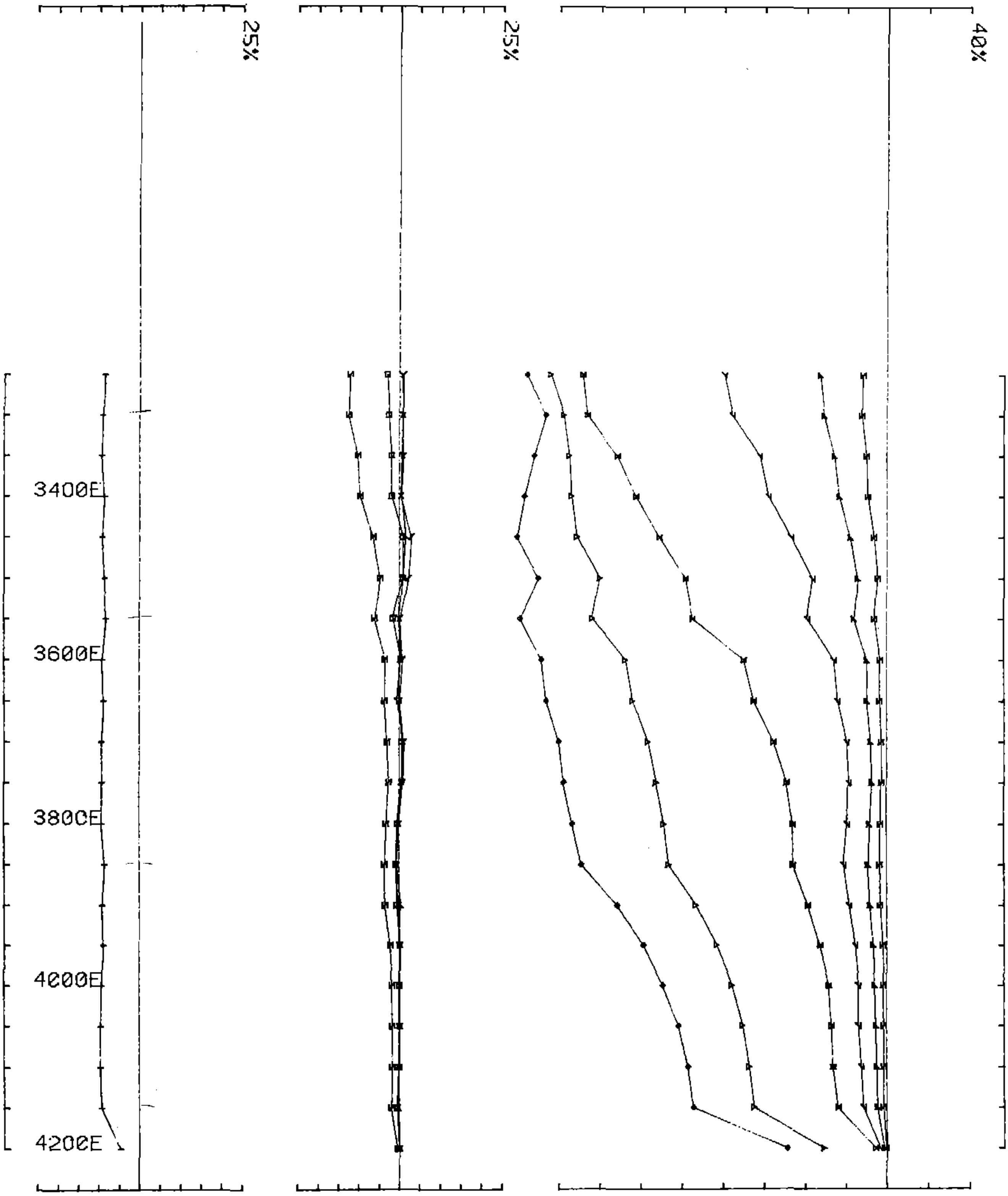


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 23.230
loop no 5 line 7400N component Hz secondary field Ch 1 contin. norm.



767081

079



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 28.230

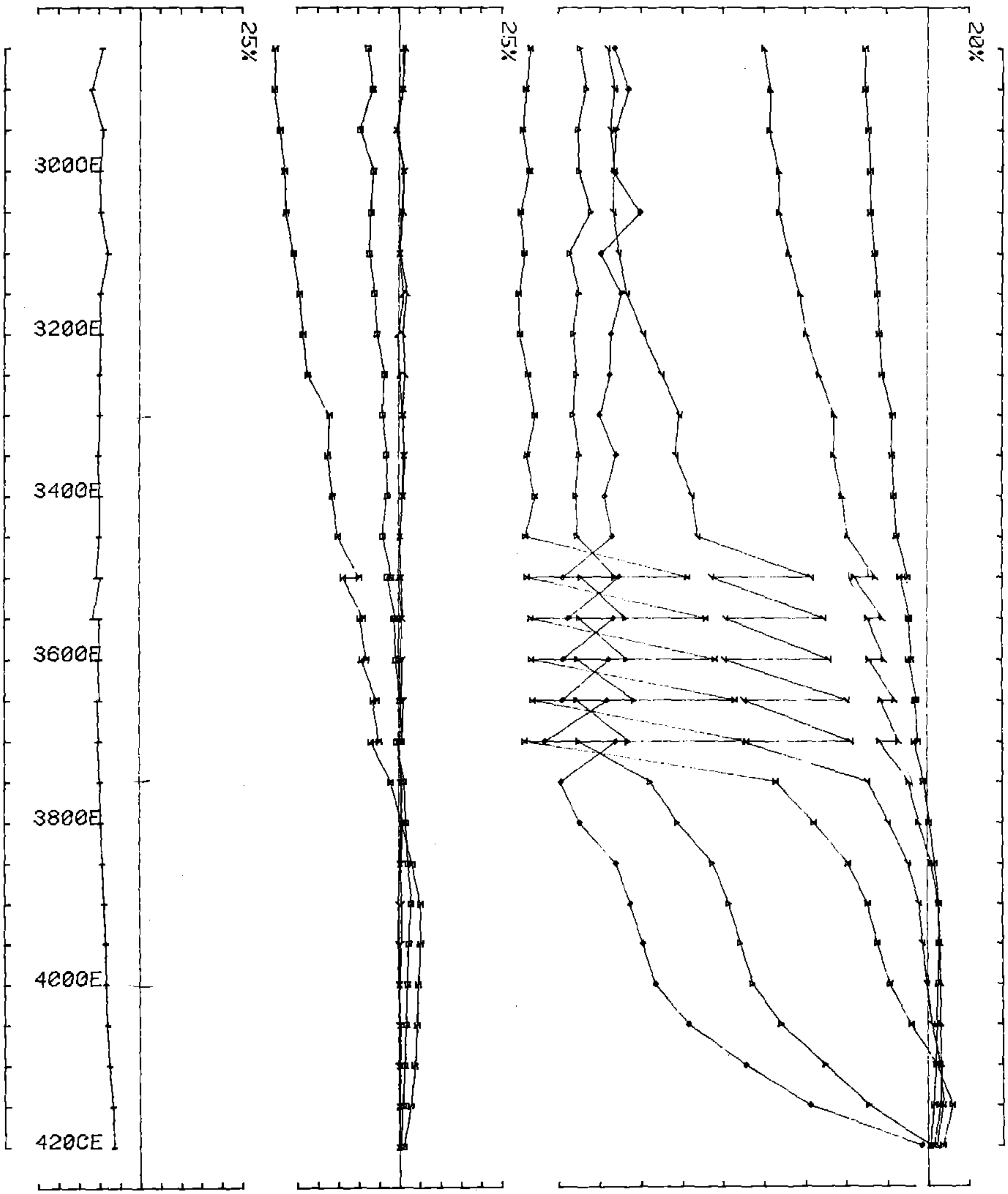
loop no 5 line 7600N component Hz secondary field Ch 1 contin. norm.

MB 06

80

767082

080

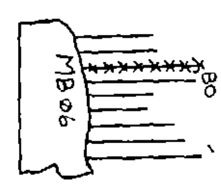


UTEM SURVEY at MOUNT BLOCK for B H P

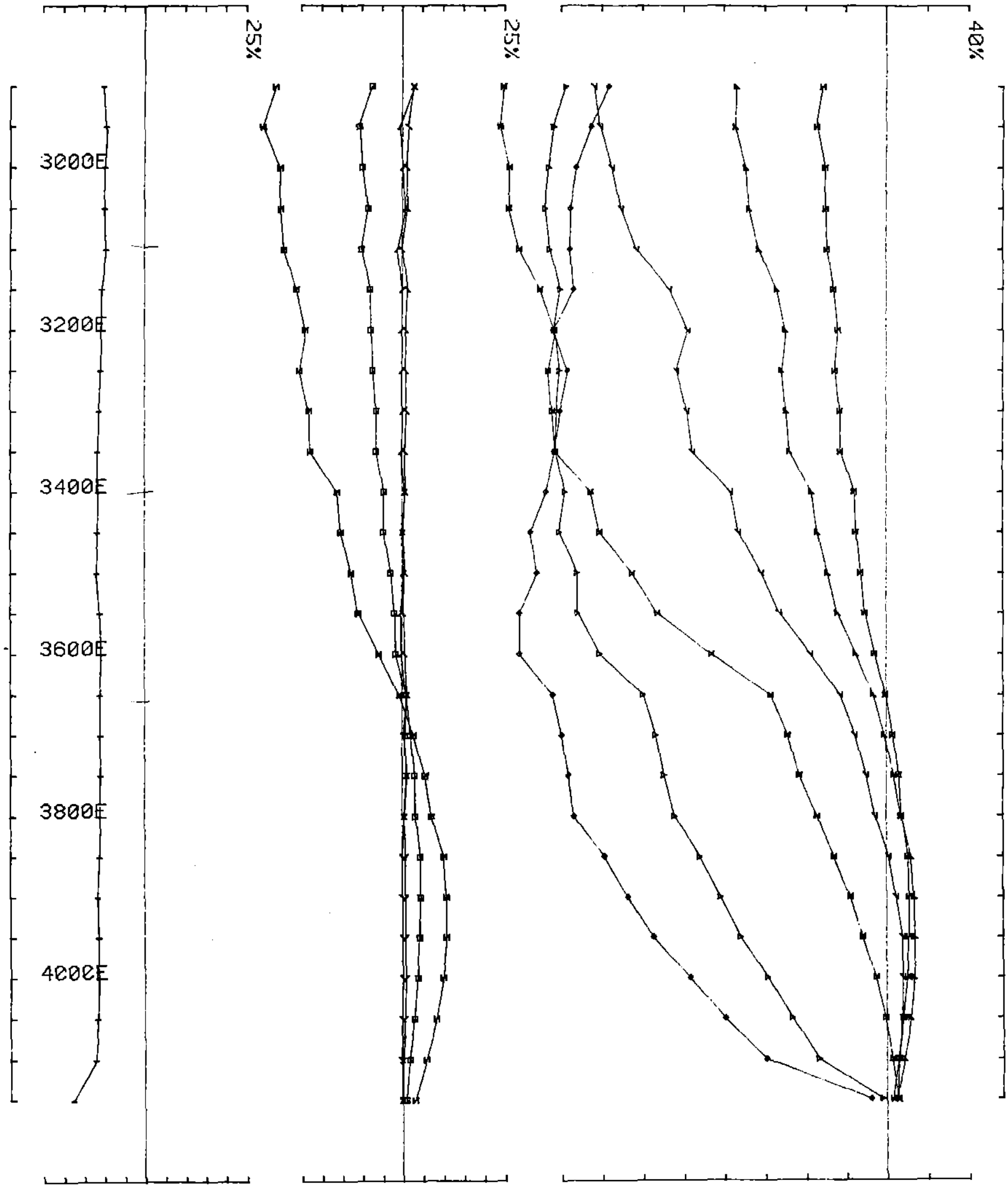
conducted by HU PO DL job 8722 base freq (hz) 26.230 ** SPLICED DATA ***

loop no 6 line 780CN component Hz secondary field Ch 1 contin. norm.

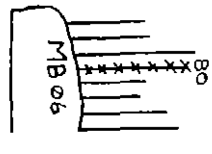
SL6L78C3



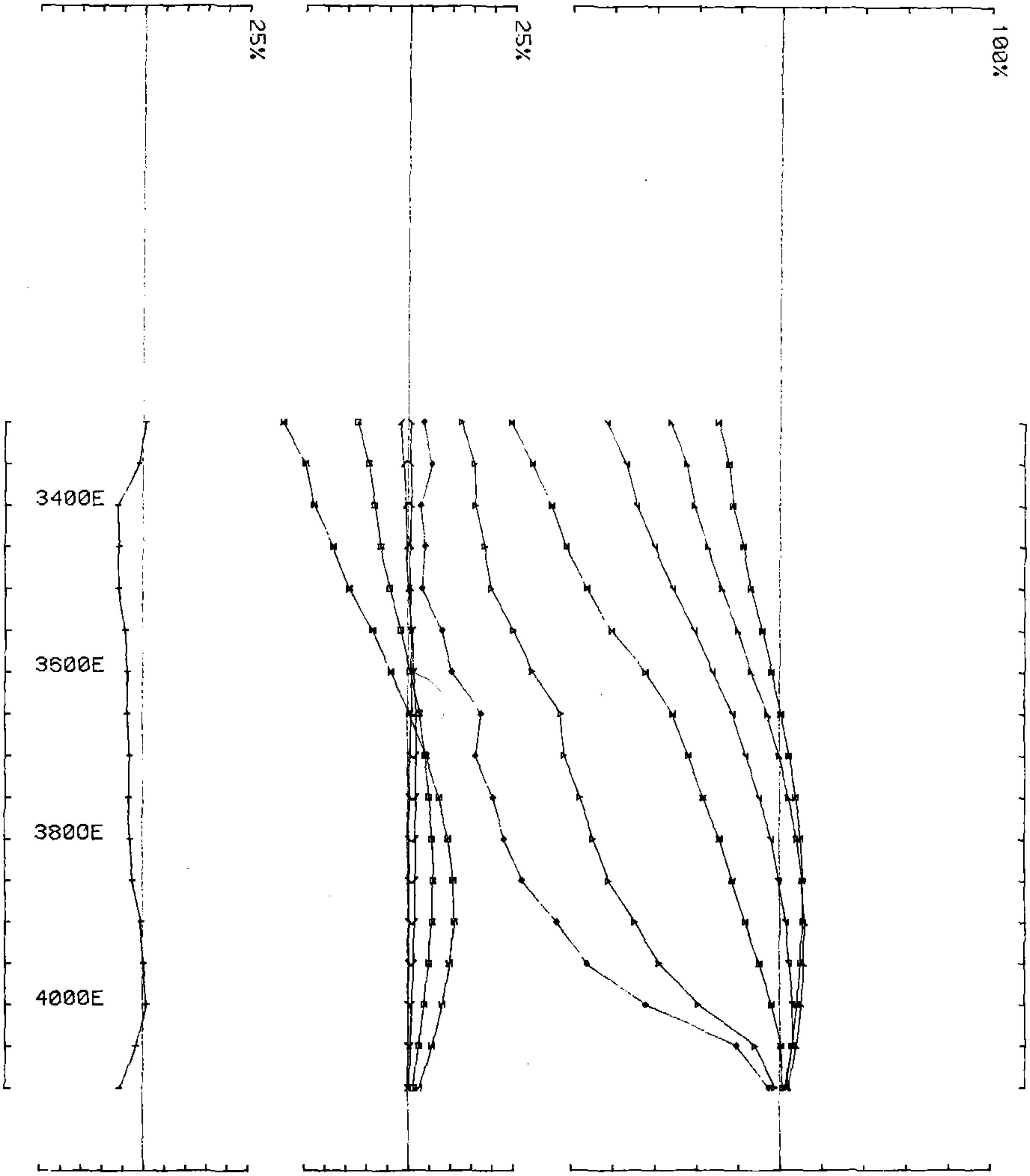
081



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 6 line 8000N component Hz secondary field Ch 1 contin. norm.



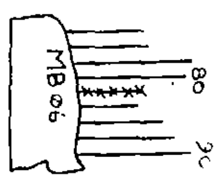
767084

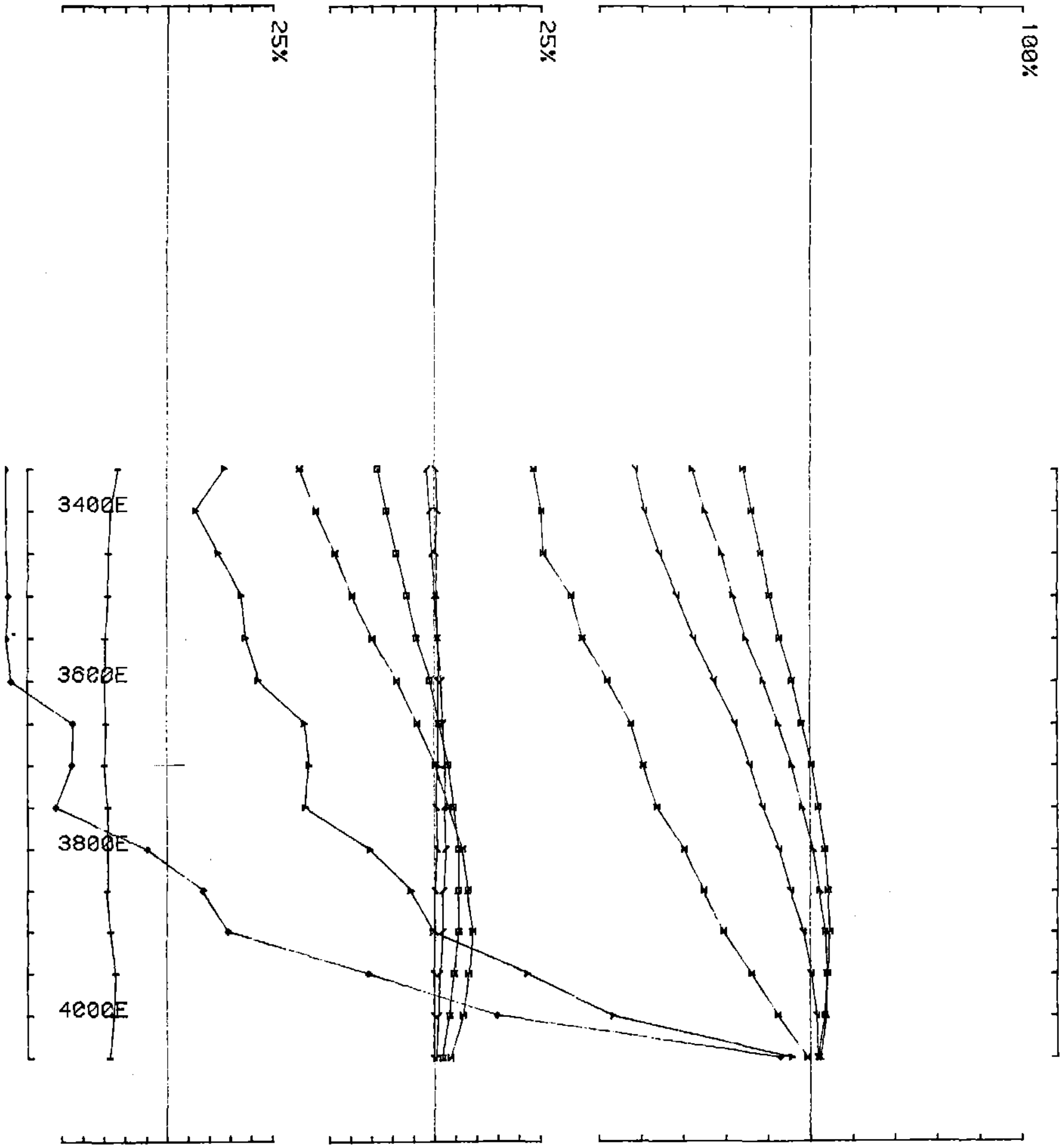


UTEM SURVEY at MOUNT BLOCK for B H P

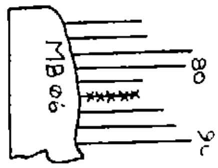
conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 6 line 8200N component Hz secondary field Ch 1 contin. norm.



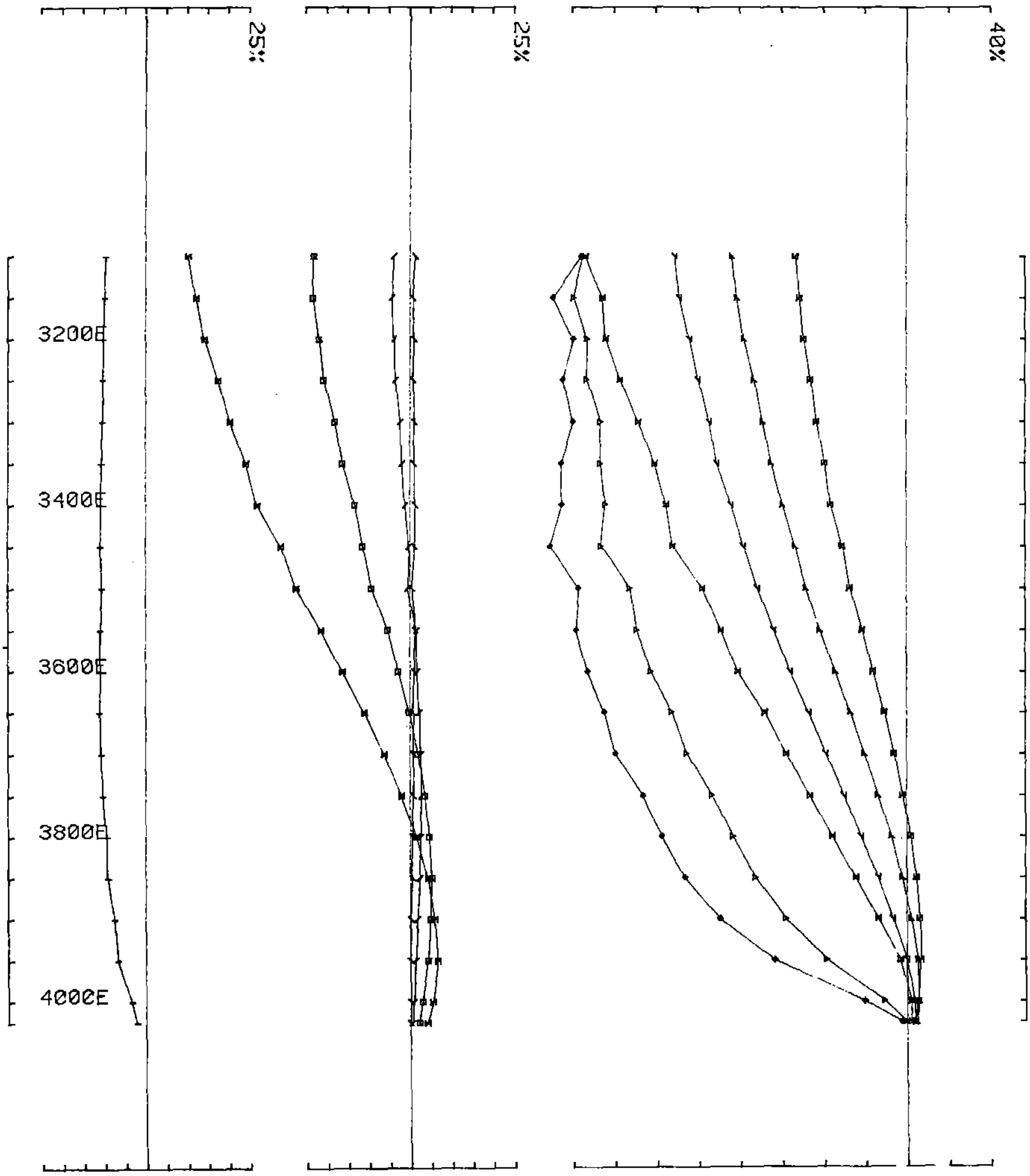


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 8 line 8400N component Hz secondary field Ch 1 contin. norm.



767086

084



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

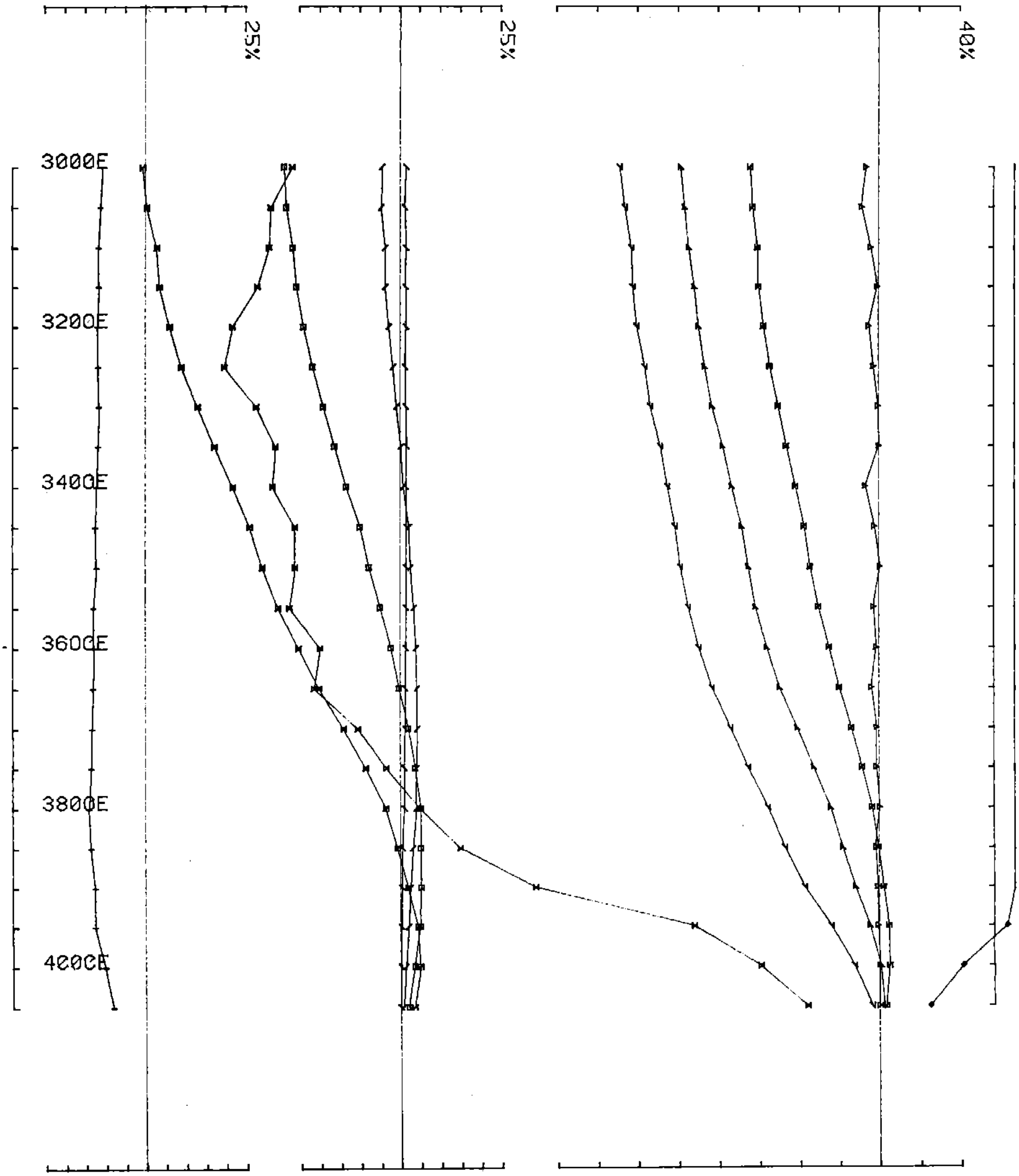
loop no 6 line 8600N component Hz secondary field Ch 1 contin. norm.

MB 06

80

767087

085



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230 *** CAL 89 ***

loop no 6 line 8800N component Hz secondary field Ch 1 contin. norm.

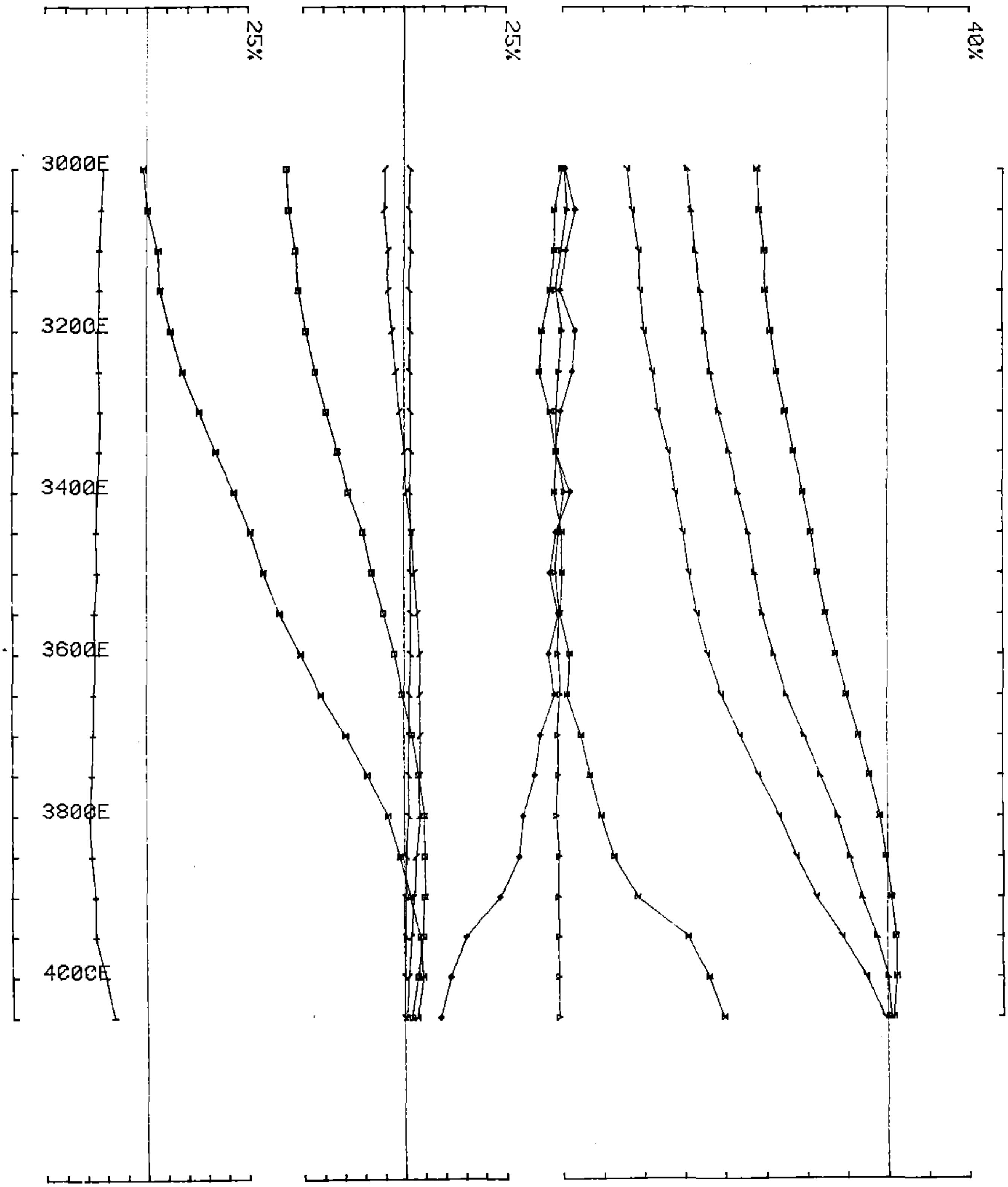
MB 06

80

90

767088

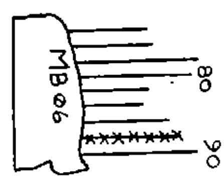
086

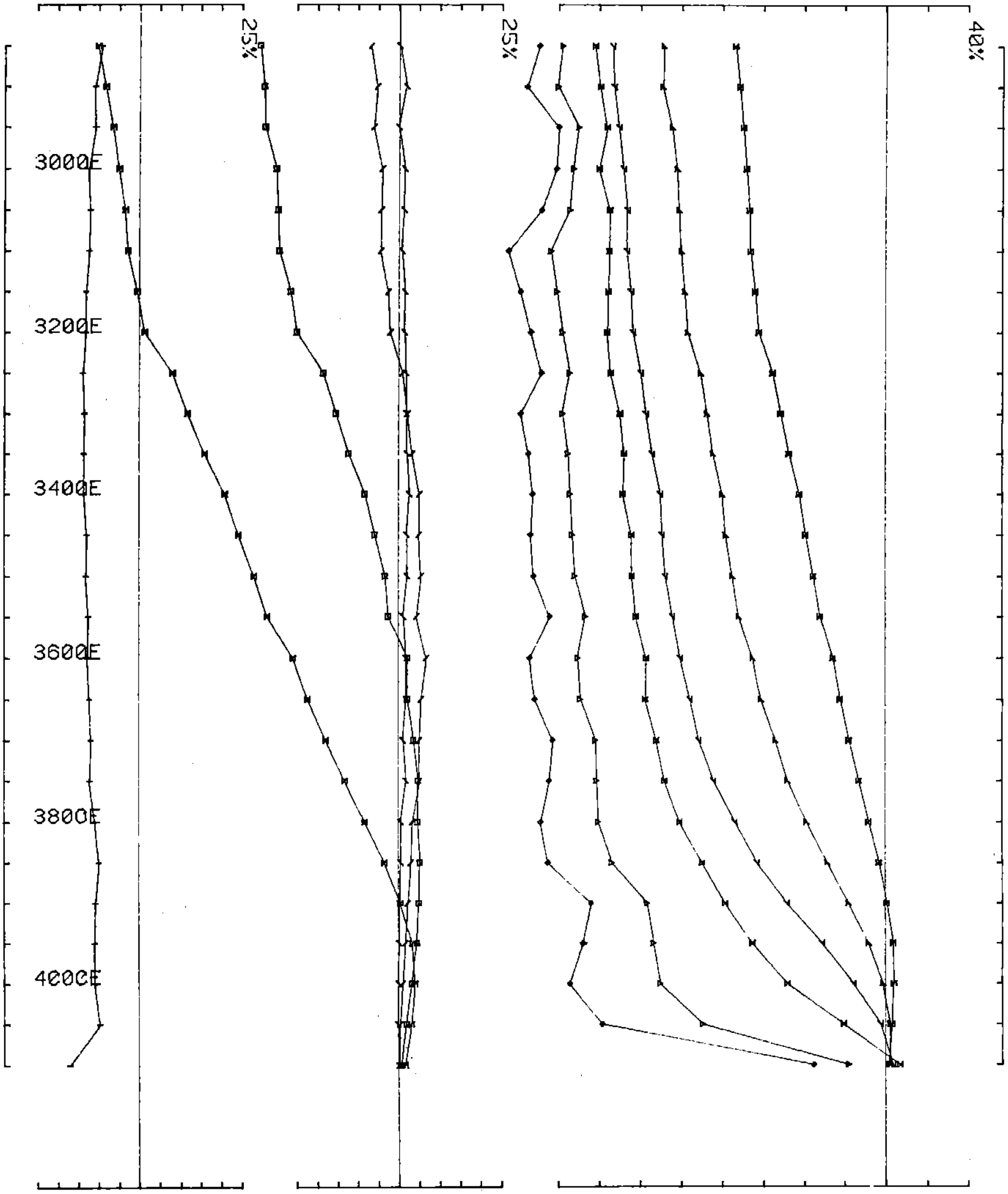


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230 *** CAL 87 ***

loop no 6 line 8800N component Hz secondary field Ch 1 contin. norm.

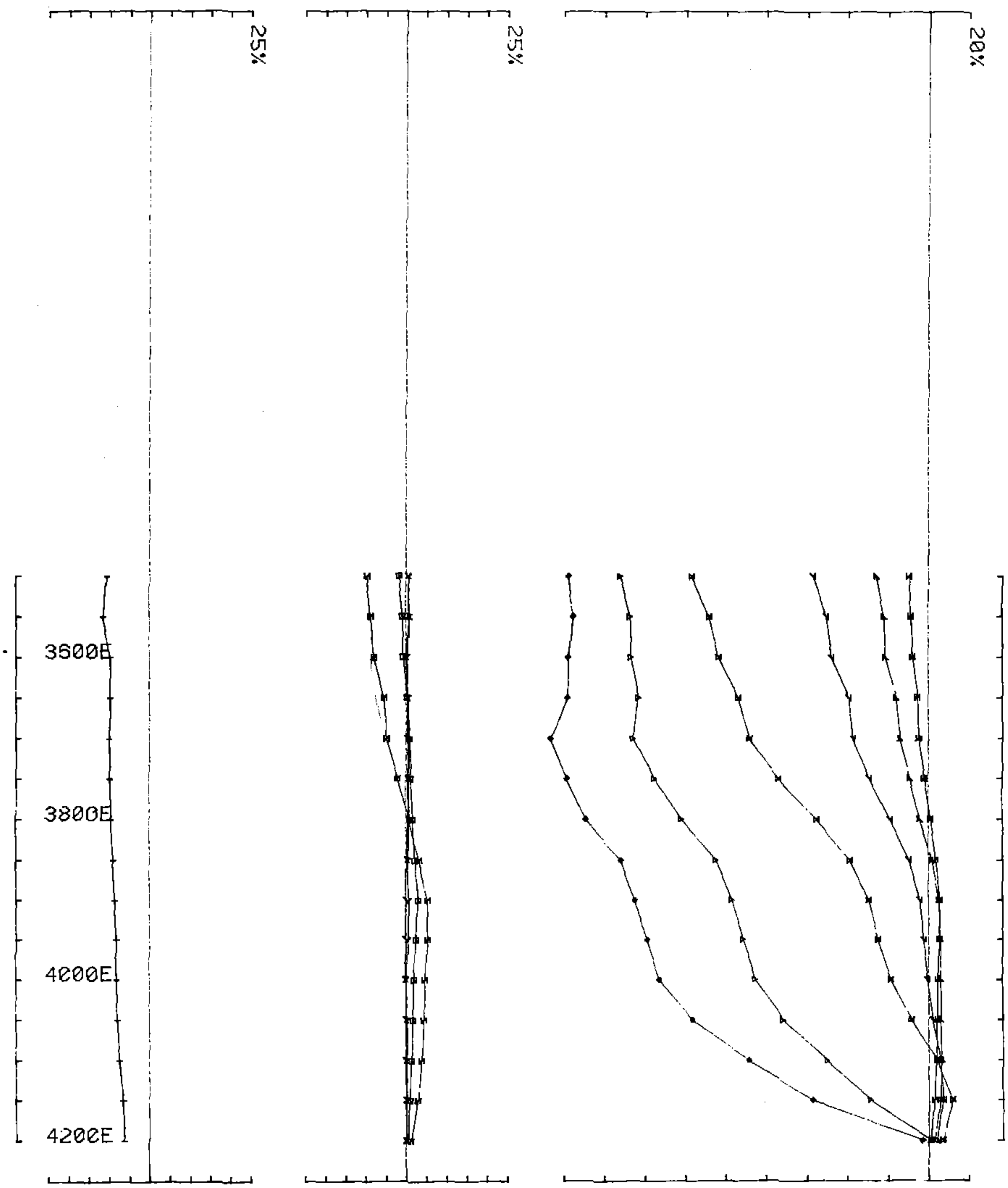




UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 6 line 9000N component Hz secondary field Ch 1 contin. norm.

088

767090

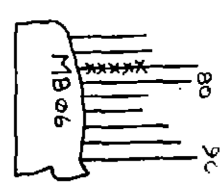


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 28.230 *** HALF-LINE DATA ***

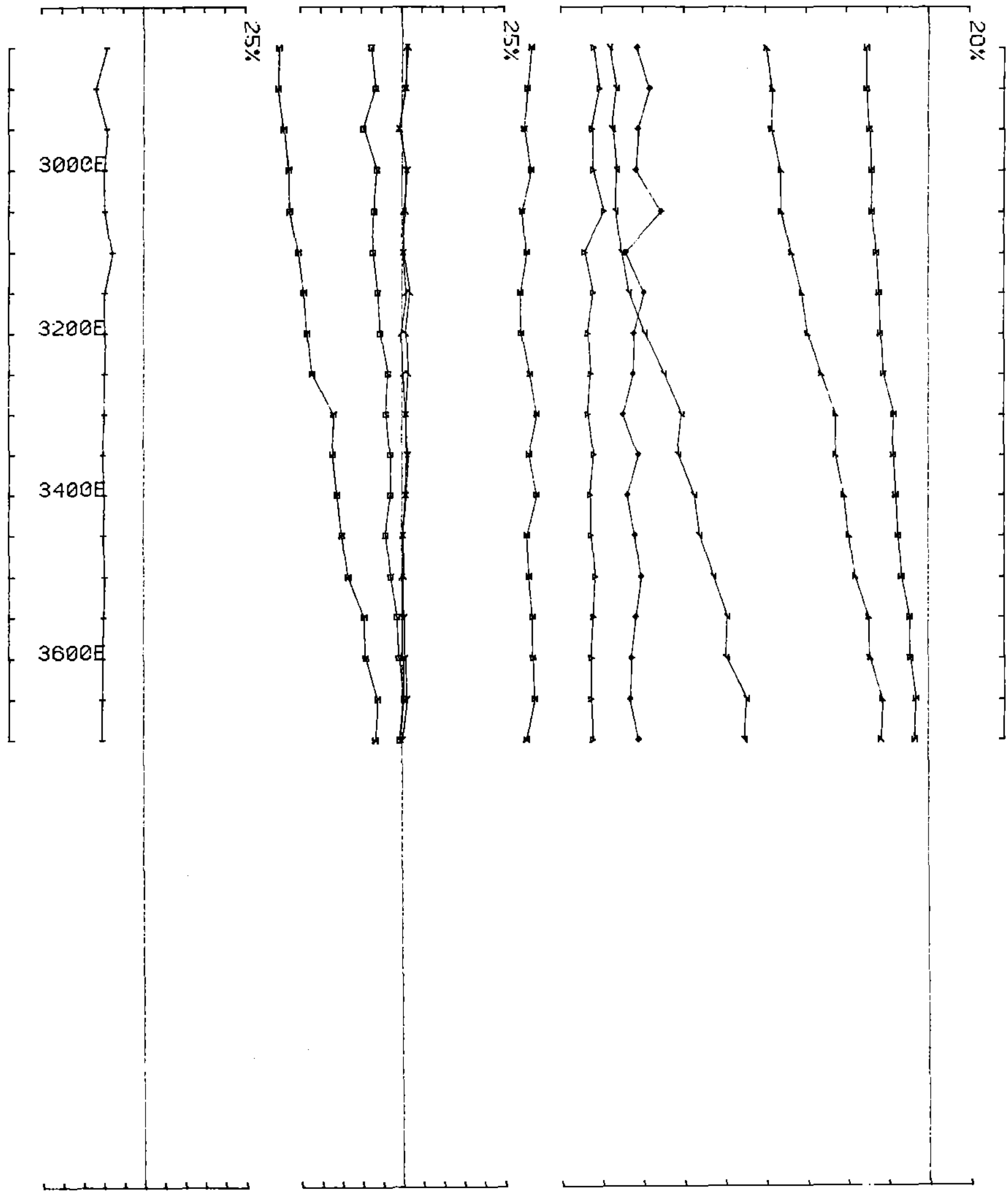
loop no 8 line 7800N component Hz secondary field Ch ! contin. norm.

L6L78C3A



089

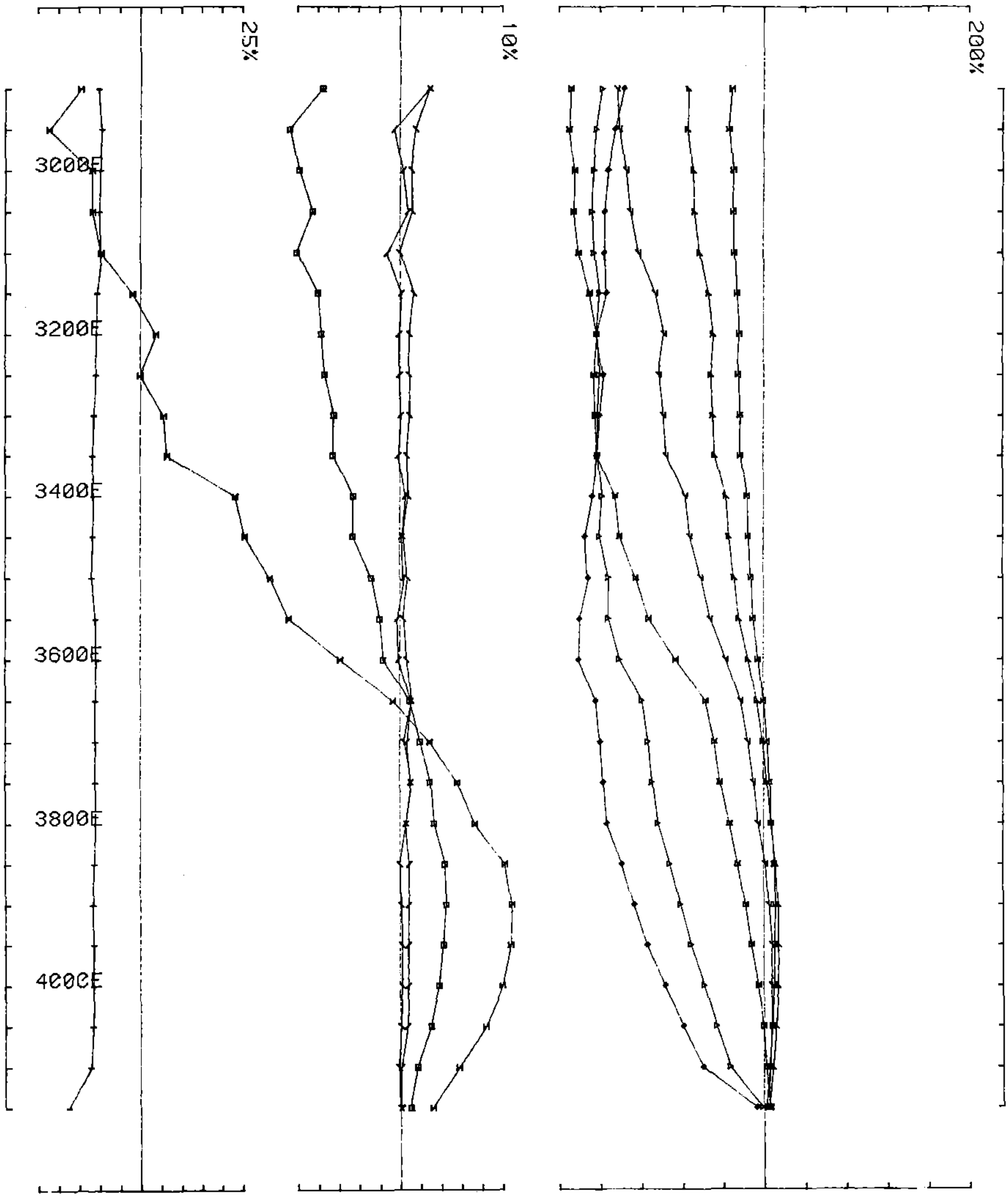
767091



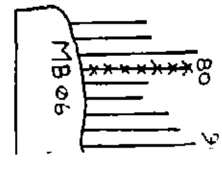
UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 28.230 **** HALF=LINE DATA ***
loop no 6 line 780CN component Hz secondary field Ch 1 contin. norm.

L6L78C3

MB06



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230 ** EXPANDED SCALE ***
loop no 6 line 8000N component Hz secondary field Ch 1 contin. norm.



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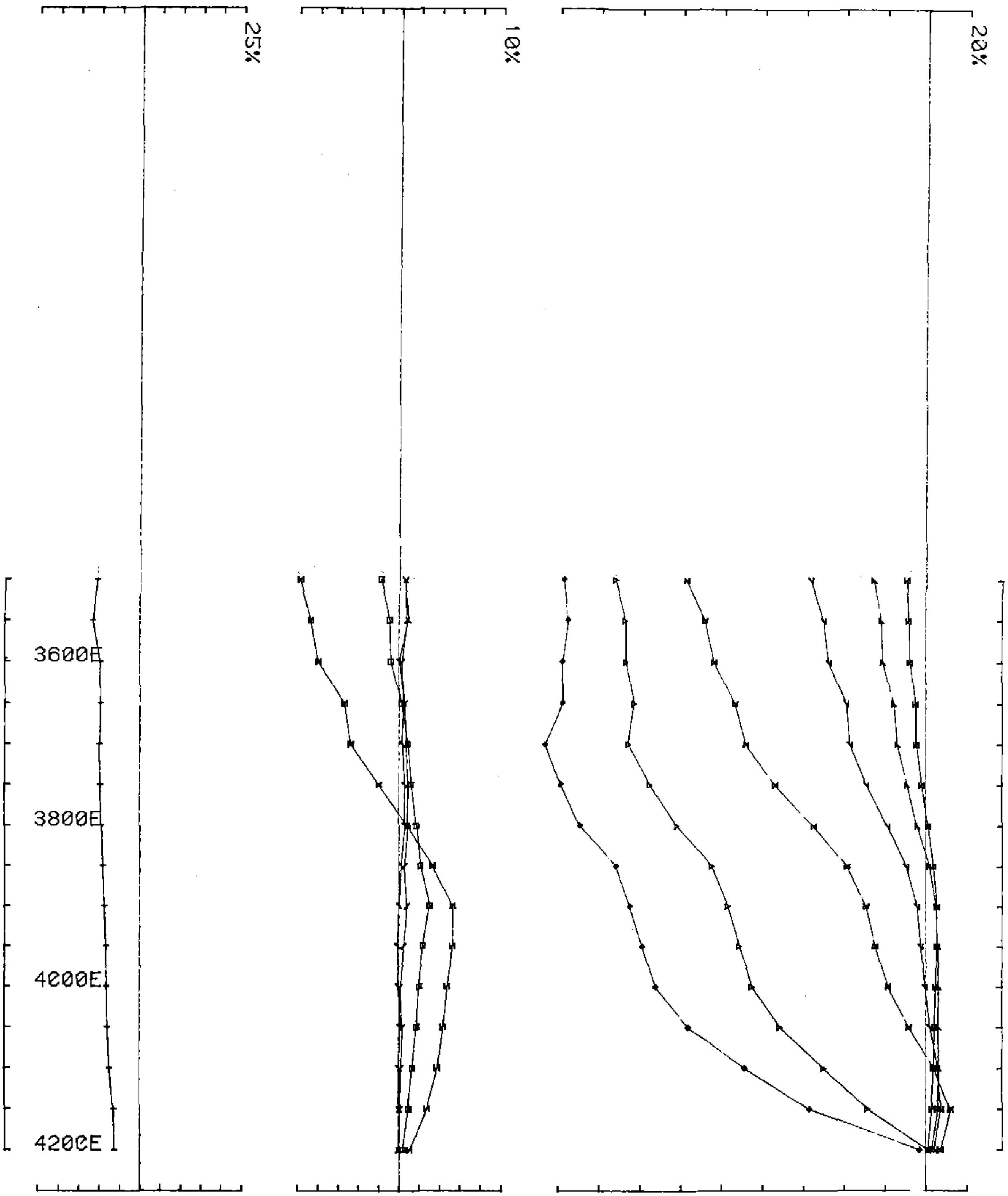


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230 ** EXPANDED SCALE ***

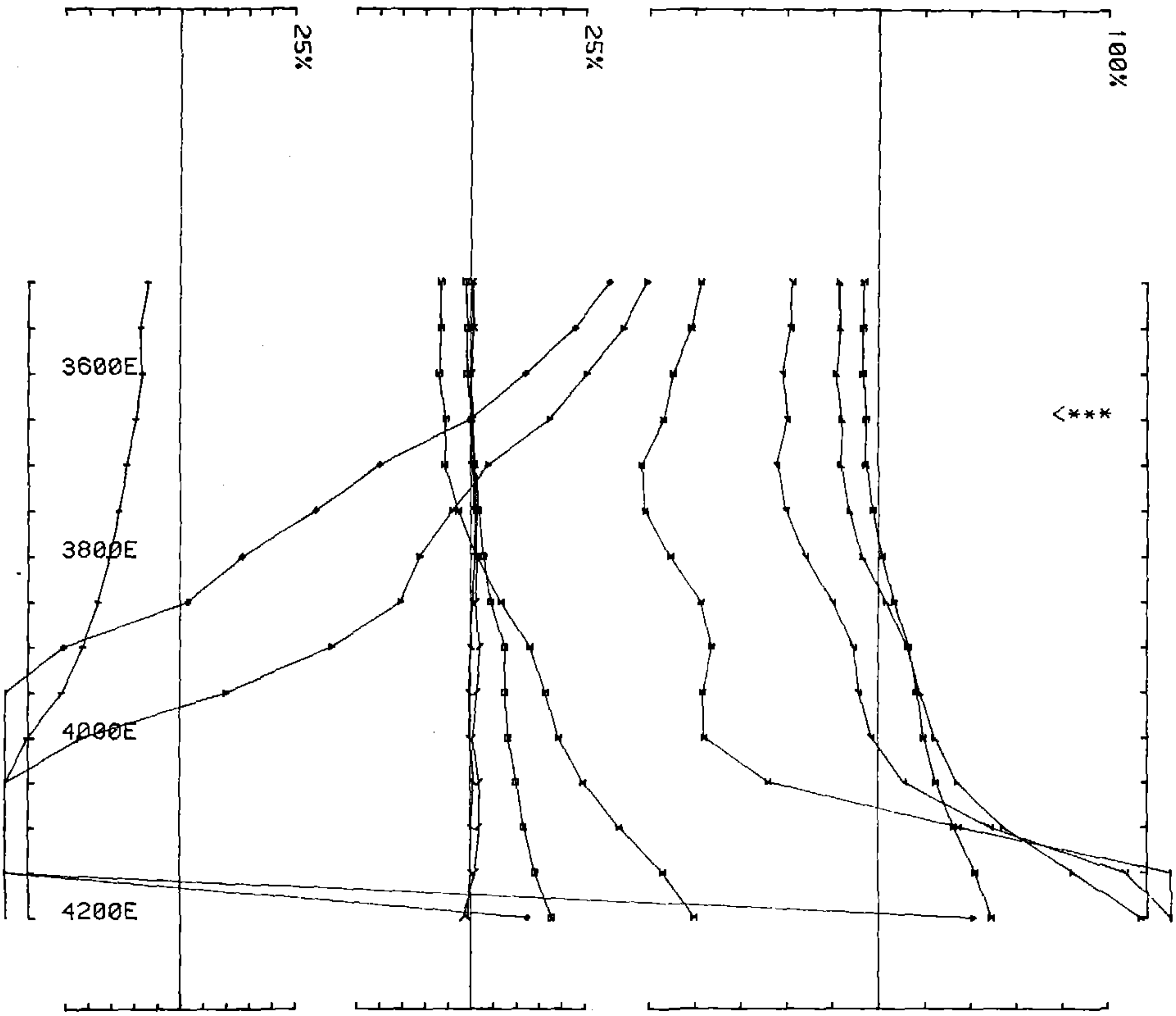
loop no 6 line 7800N component Hz secondary field Ch 1 contin. norm.

MB06

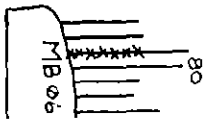
80

(092

767094



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 6 line 7800N component Hz secondary field Ch I point norm.



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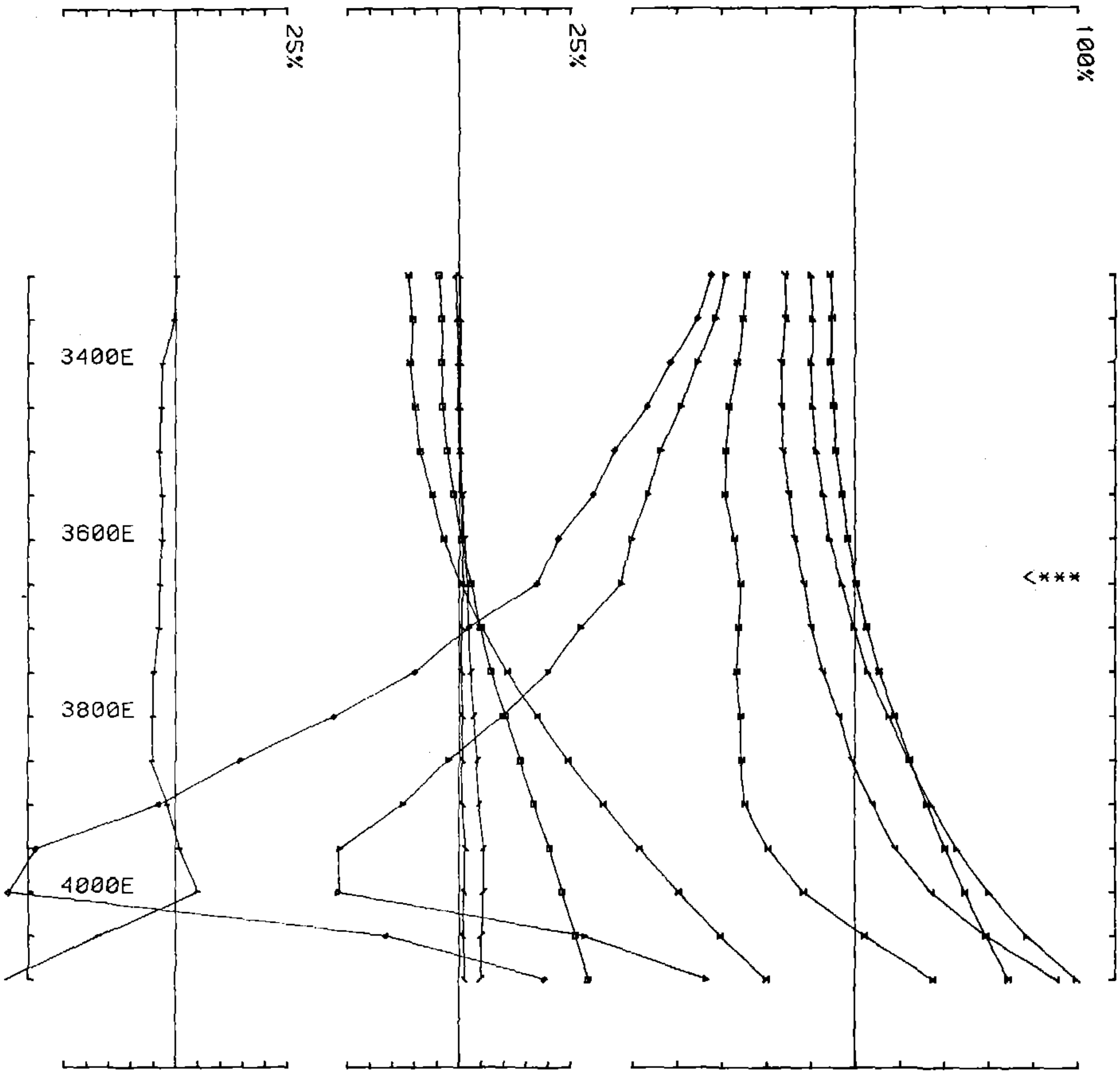
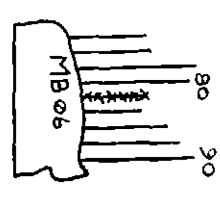


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 6 line 8200N component Hz secondary field Ch 1 point norm.



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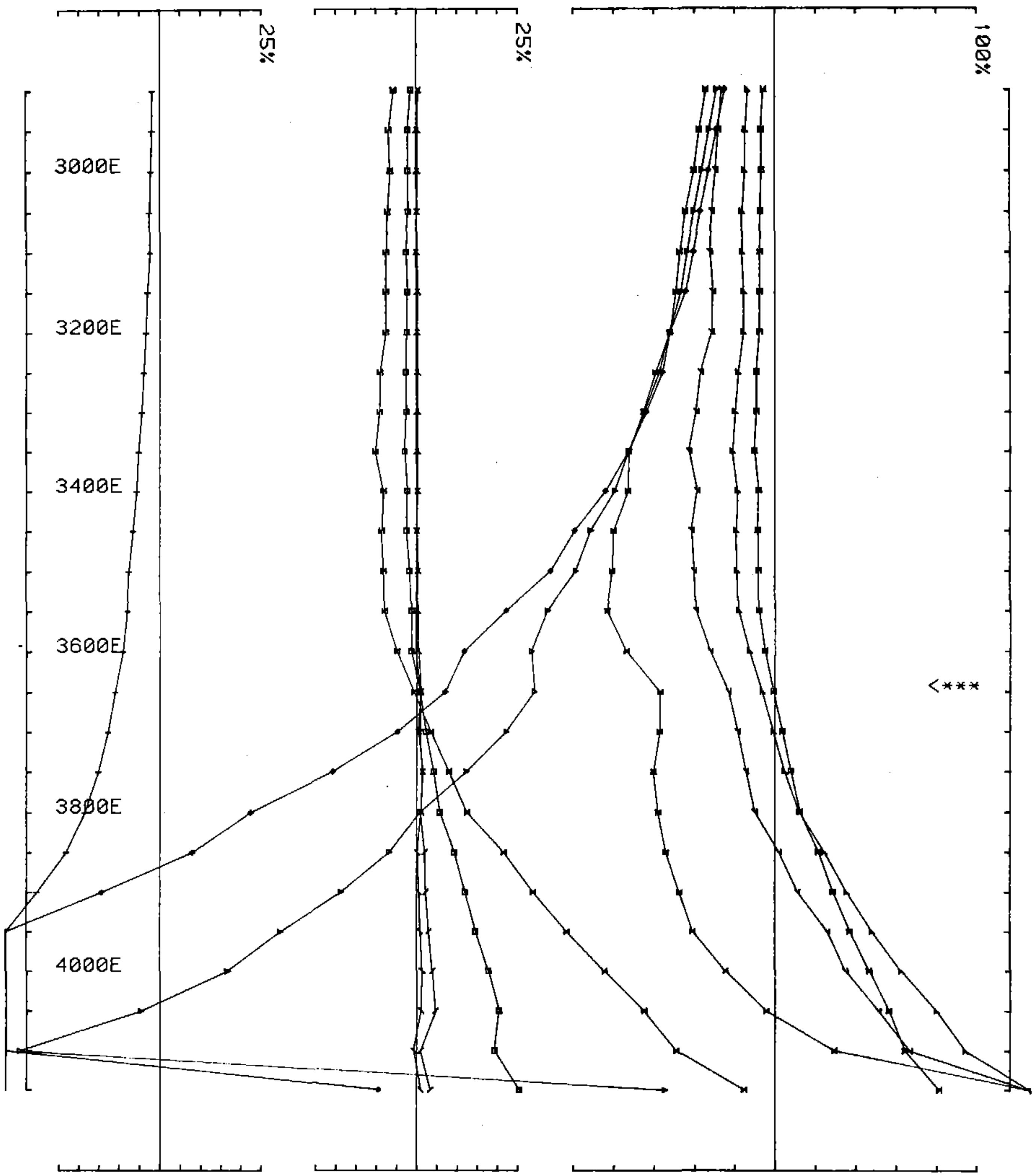
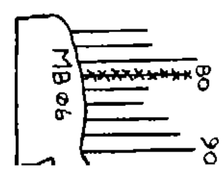


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 6 line 8000N component Hz secondary field Ch 1 point norm.



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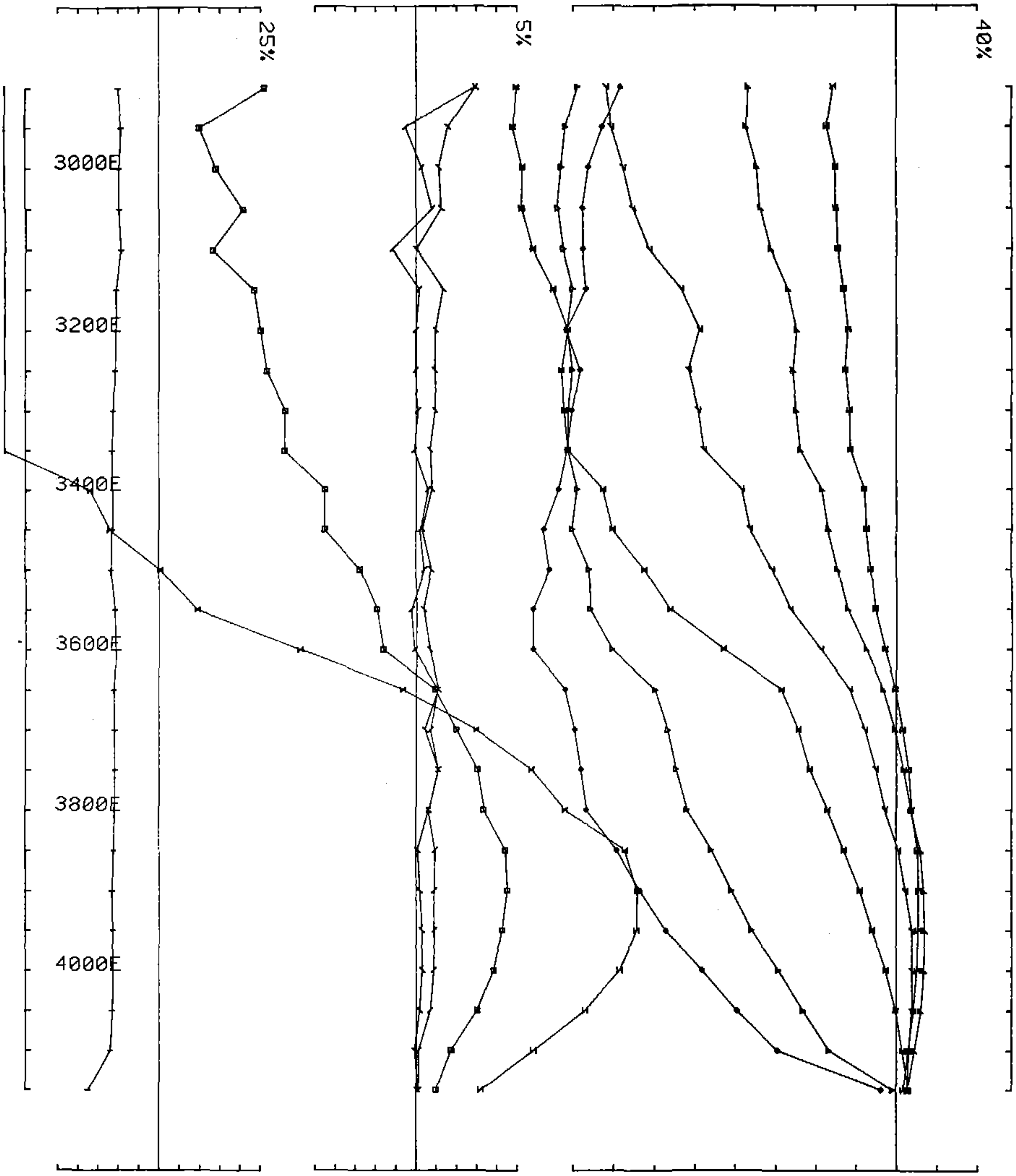
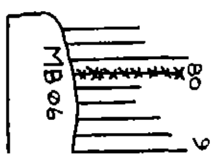


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230 ** EXPANDED SCALE ***

loop no 6 line 8000N component Hz secondary field Ch 1 contin. norm.



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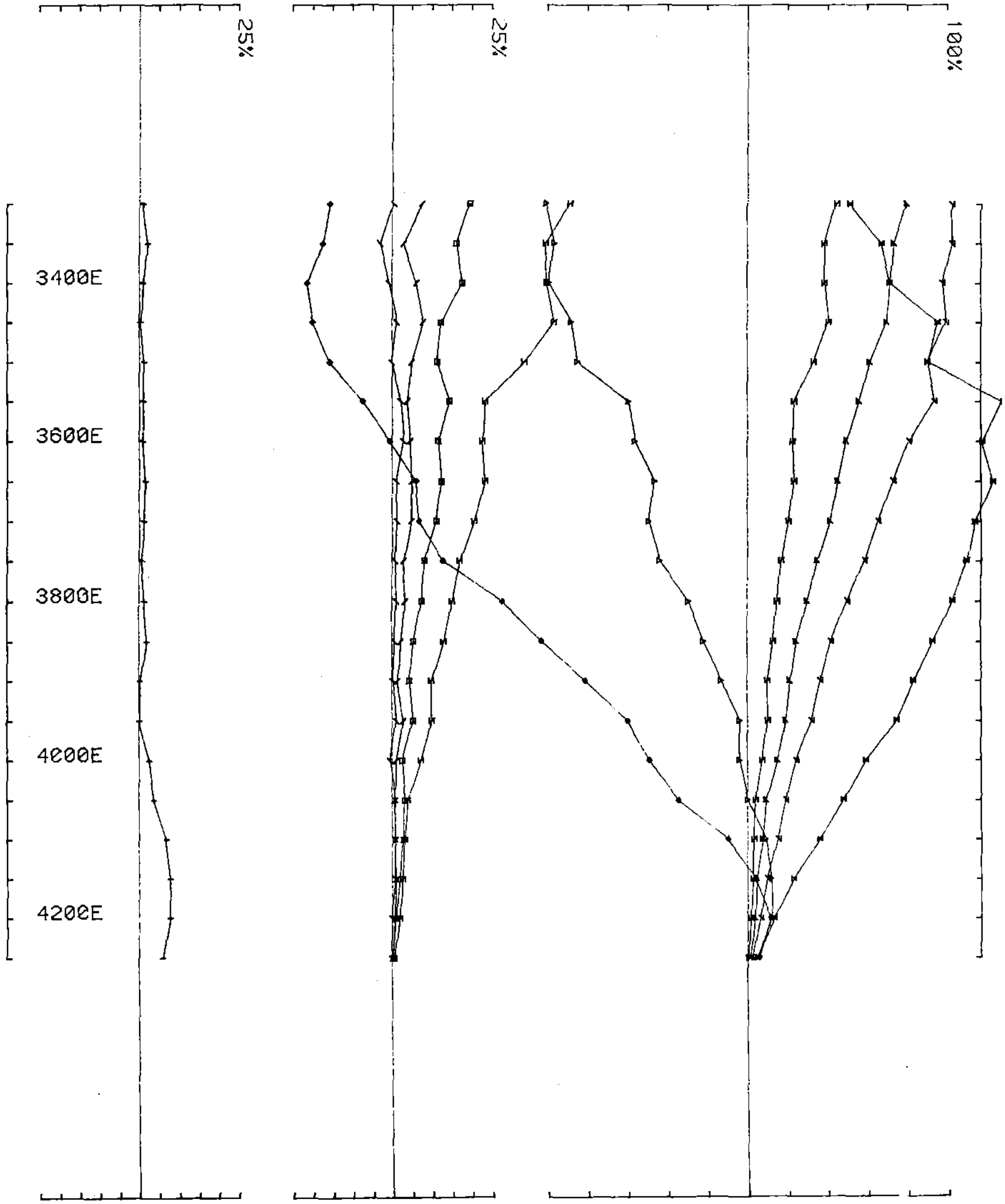
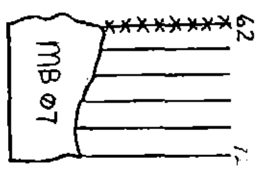


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO job 8722 base freq (hz) 26.230
loop no 7 line 6200N component Hz secondary field Ch 1 contin. norm.



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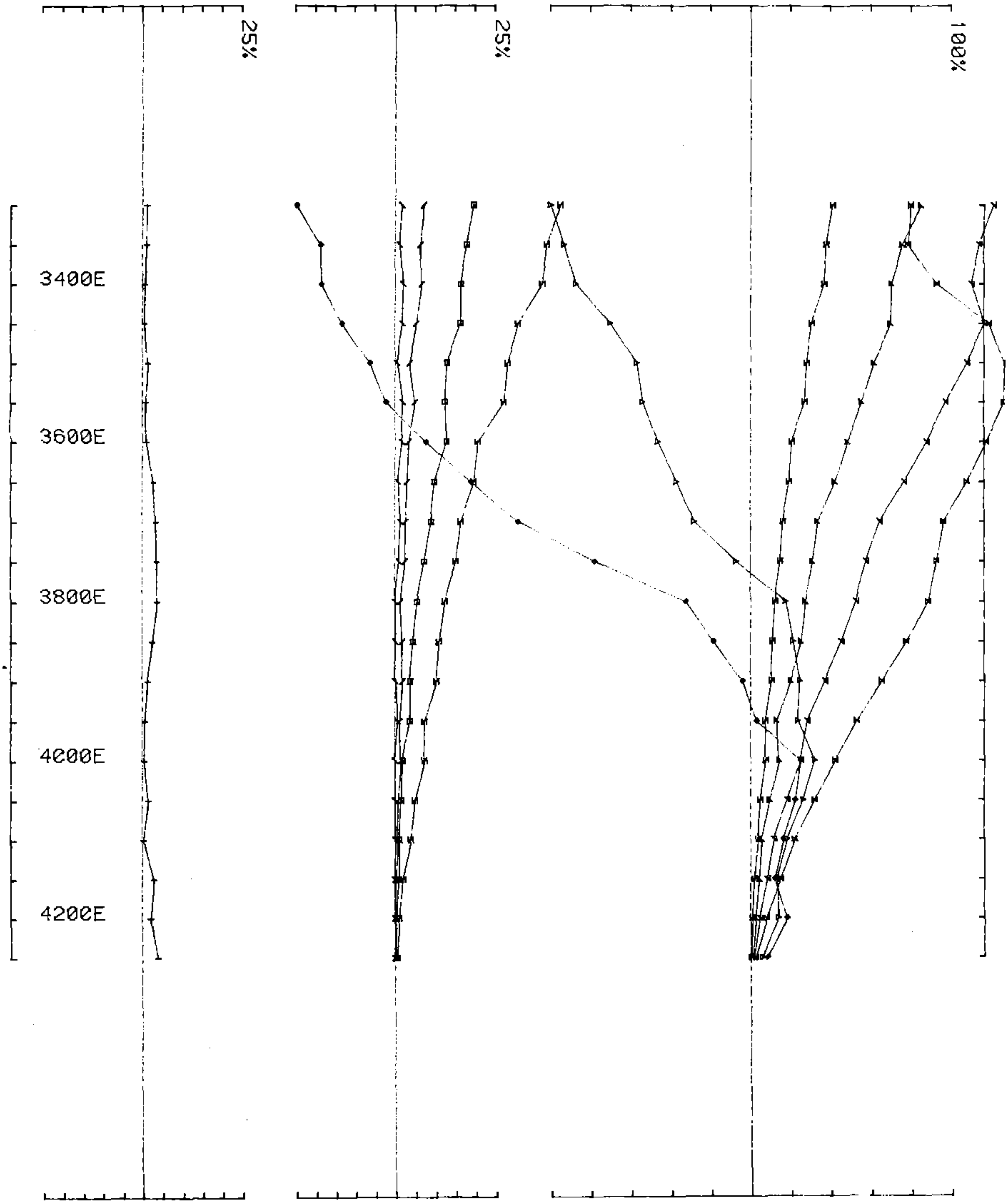
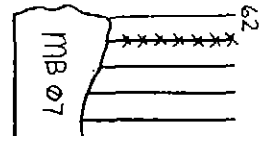


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 25.230

loop no 7 line 6400N component Hz secondary field Ch 1 contin. norm.



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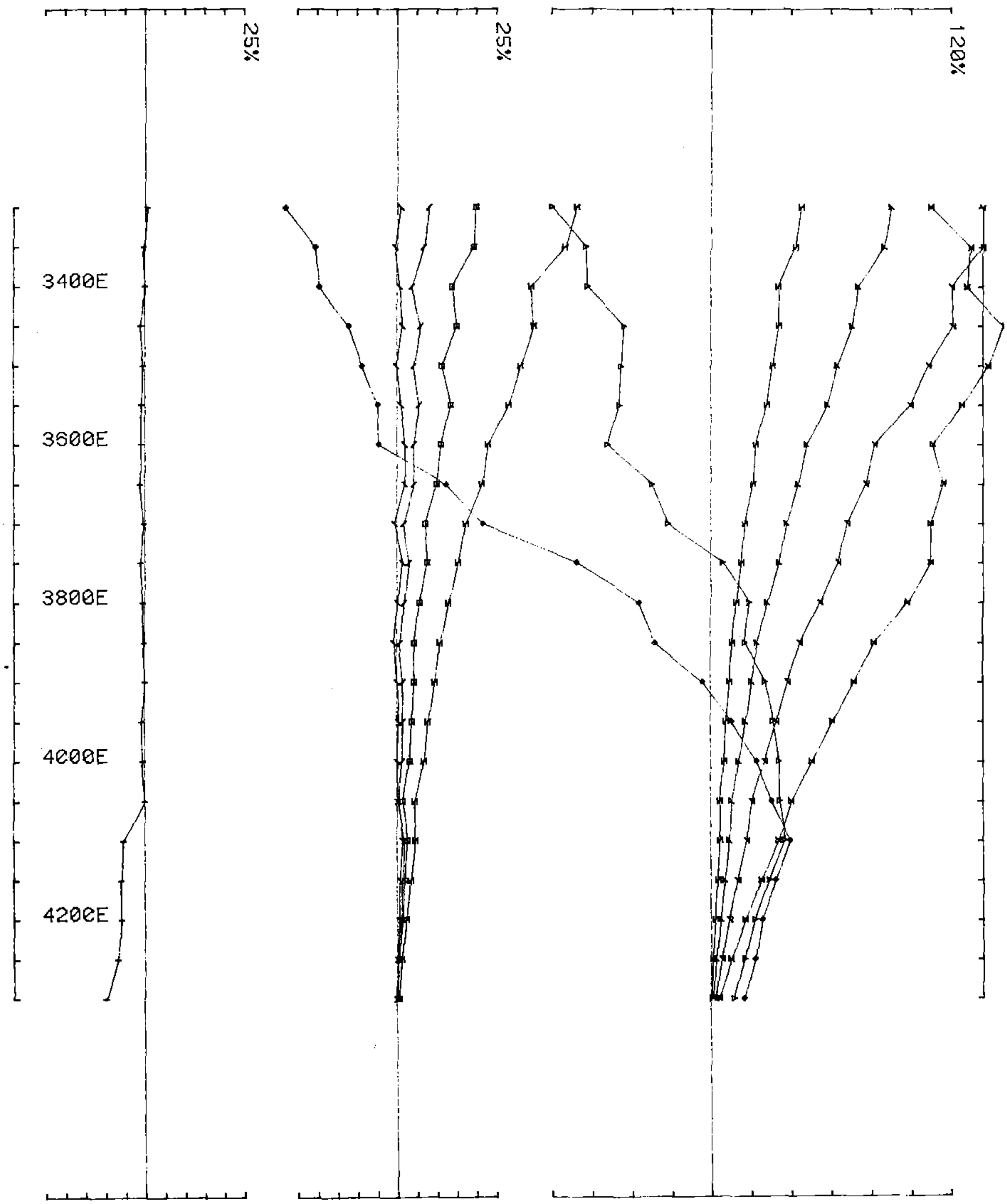
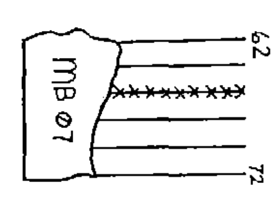


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 7 line 6600N component Hz secondary field Ch 1 contin. norm.



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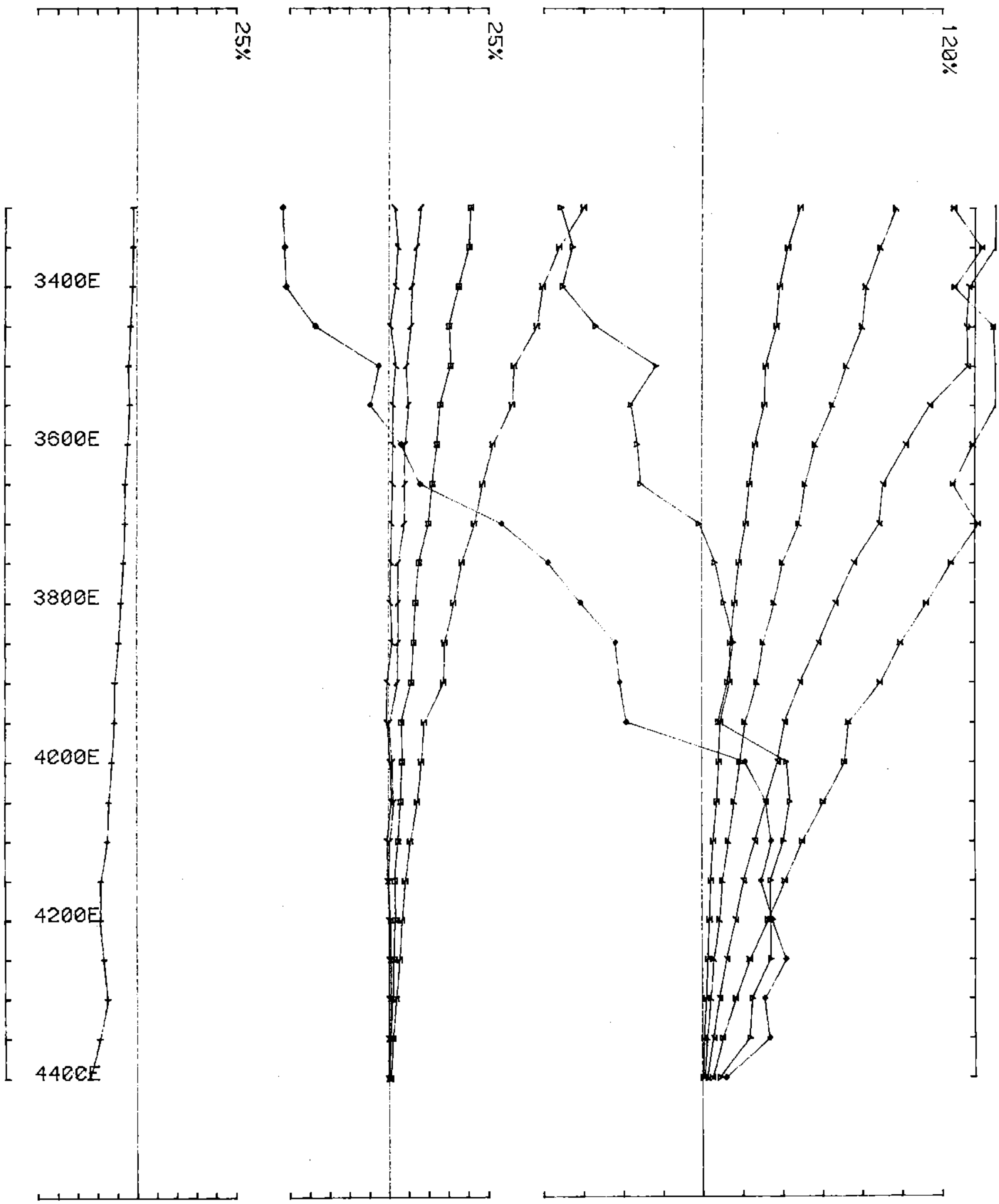
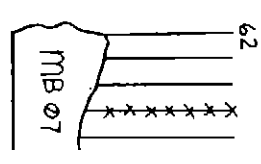


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 7 line 6800N component Hz secondary field Ch 1 contin. norm.



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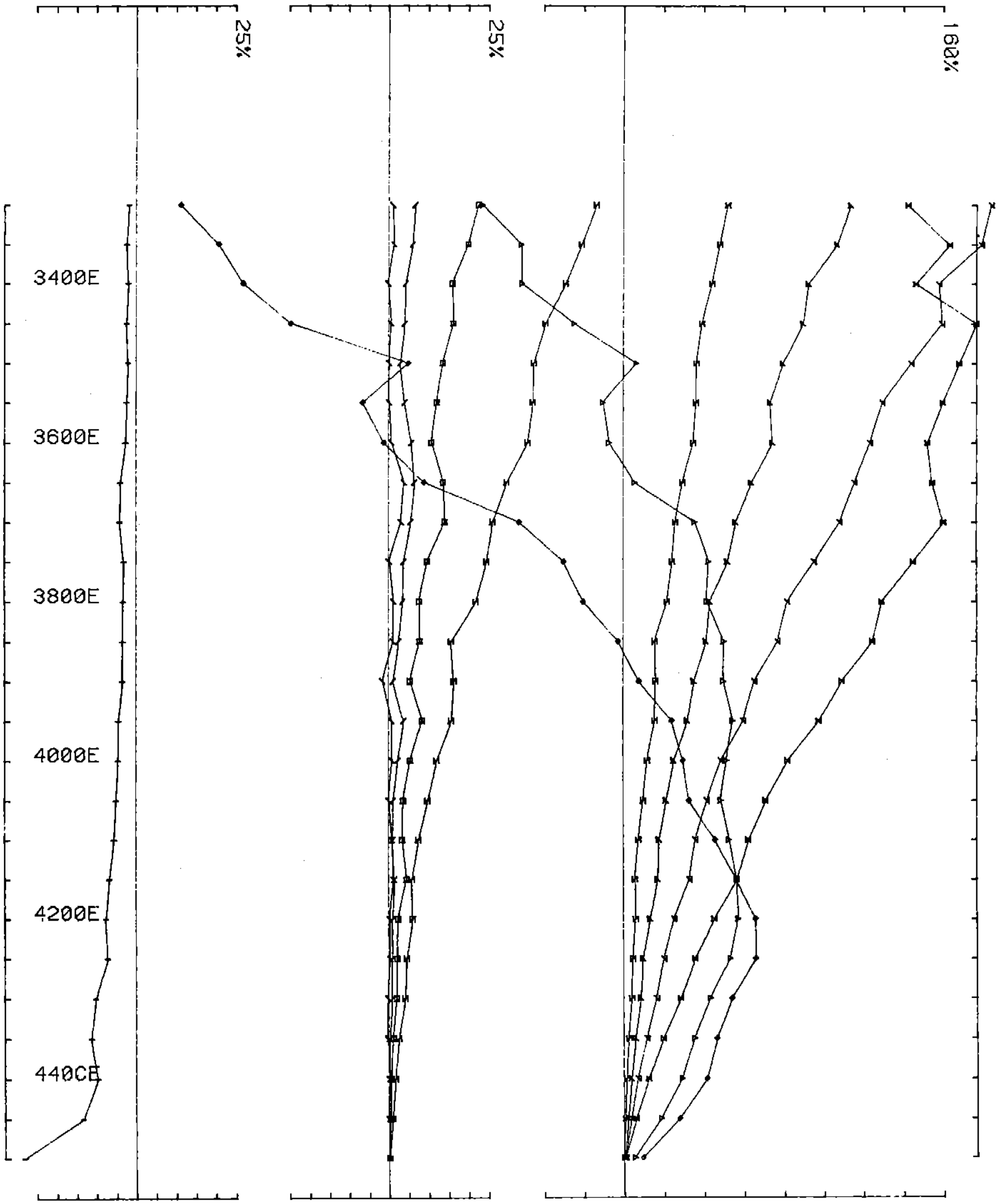


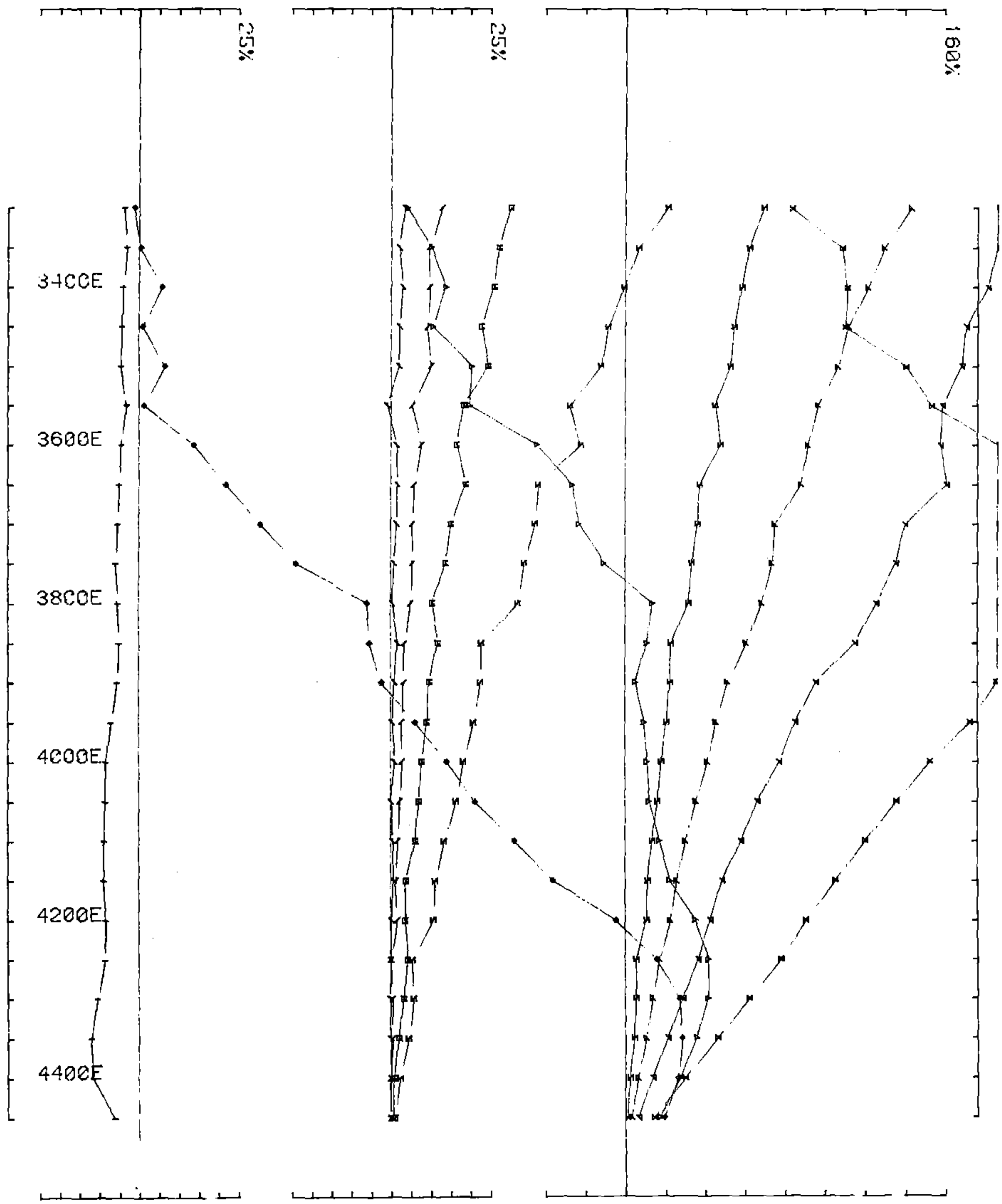
UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO job 8722 base freq (hz) 26.230

loop no 7 line 7000N component Hz secondary field Ch 1 contin. norm.

MB 07

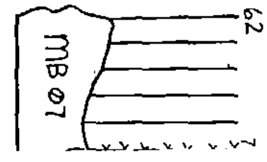
62



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PD job 8722 base freq (hz) 25.230

loop no 7 line 7200N component Hz secondary field Ch 1 contin. norm.



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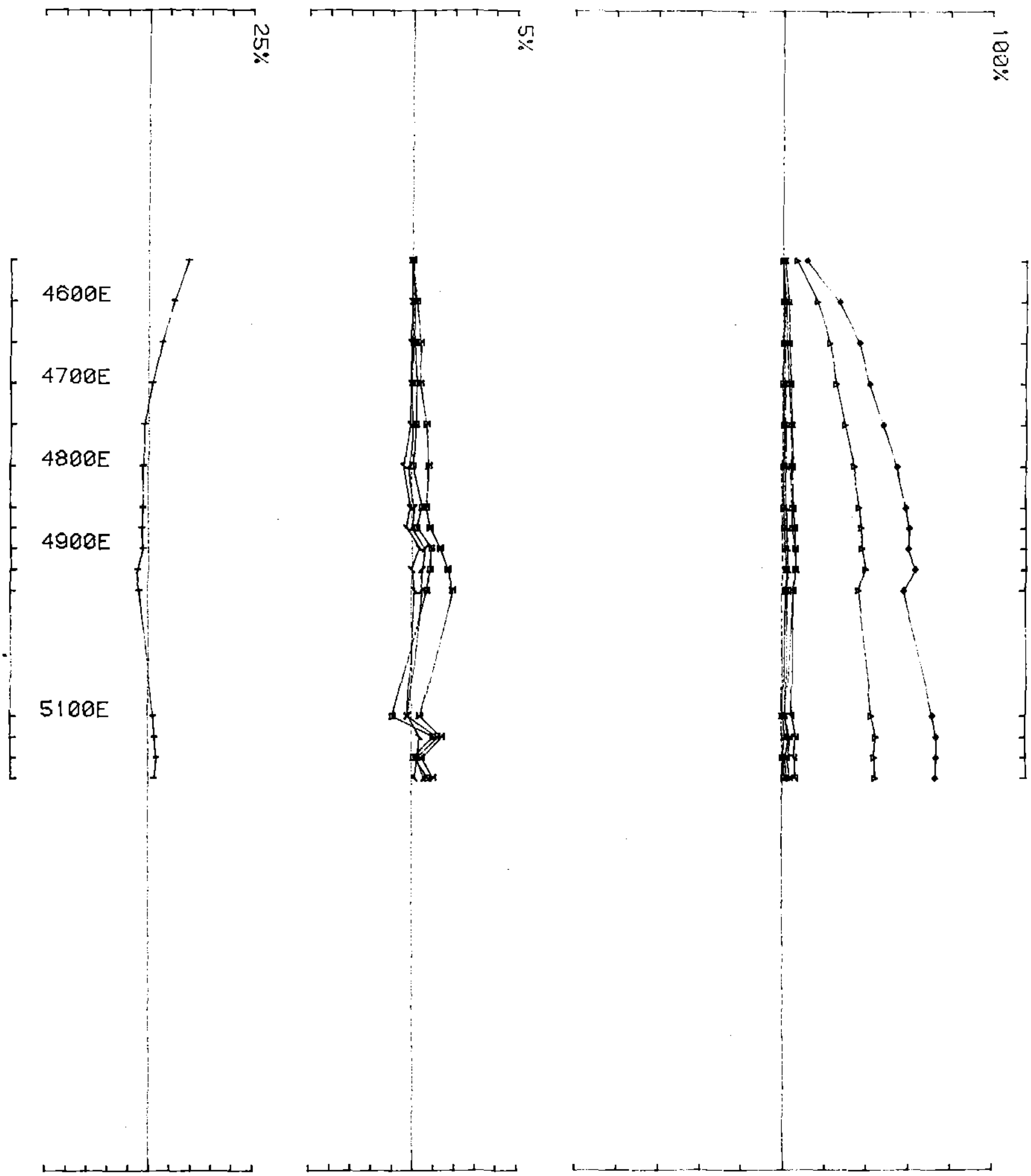
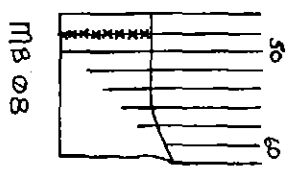


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 8 line 4800N component Hz secondary field Ch I contin. norm.



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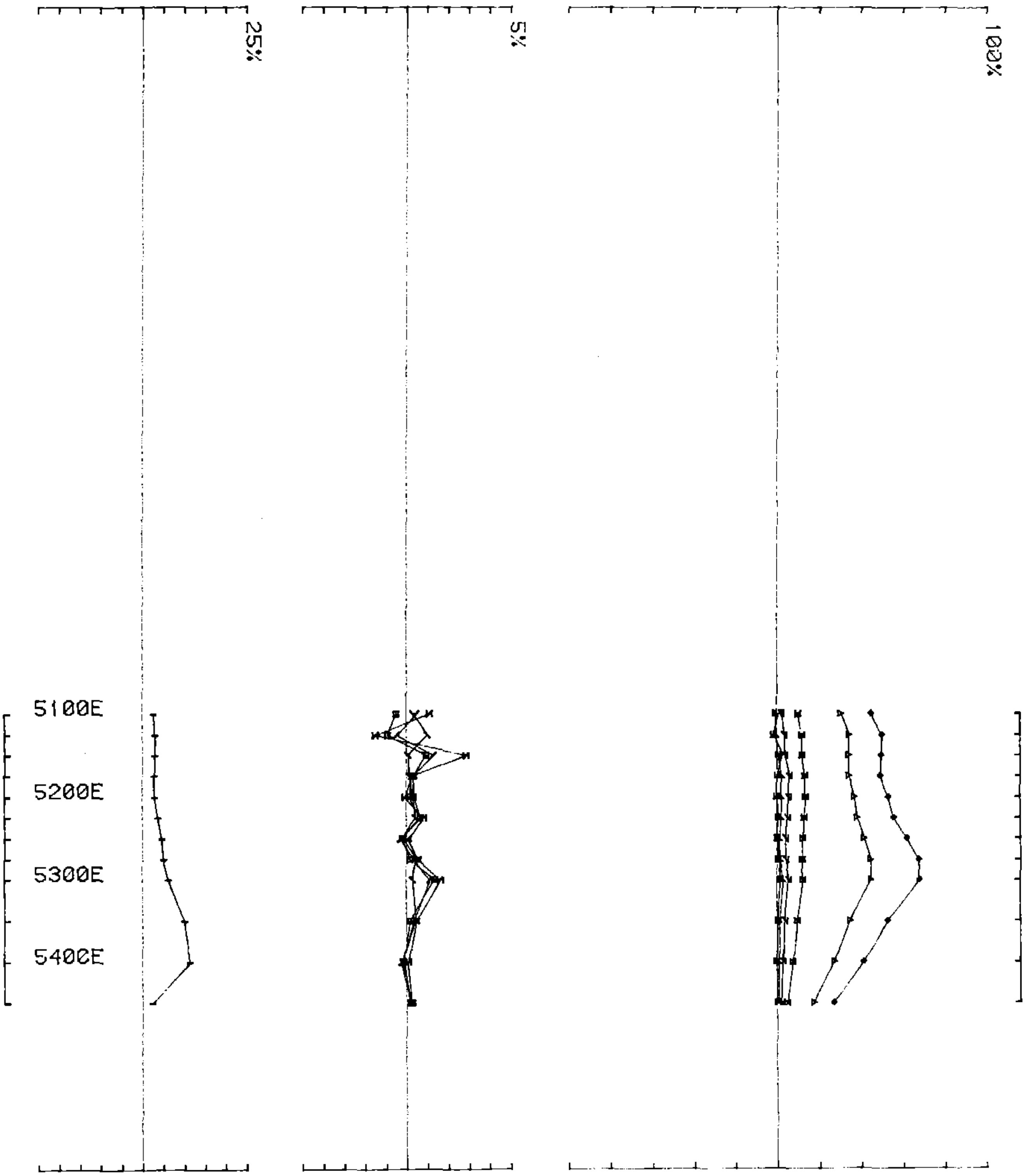
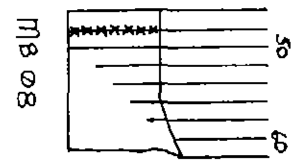


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 25.230
loop no 8 line 4800N component Hz secondary field Ch 1 contin. norm.



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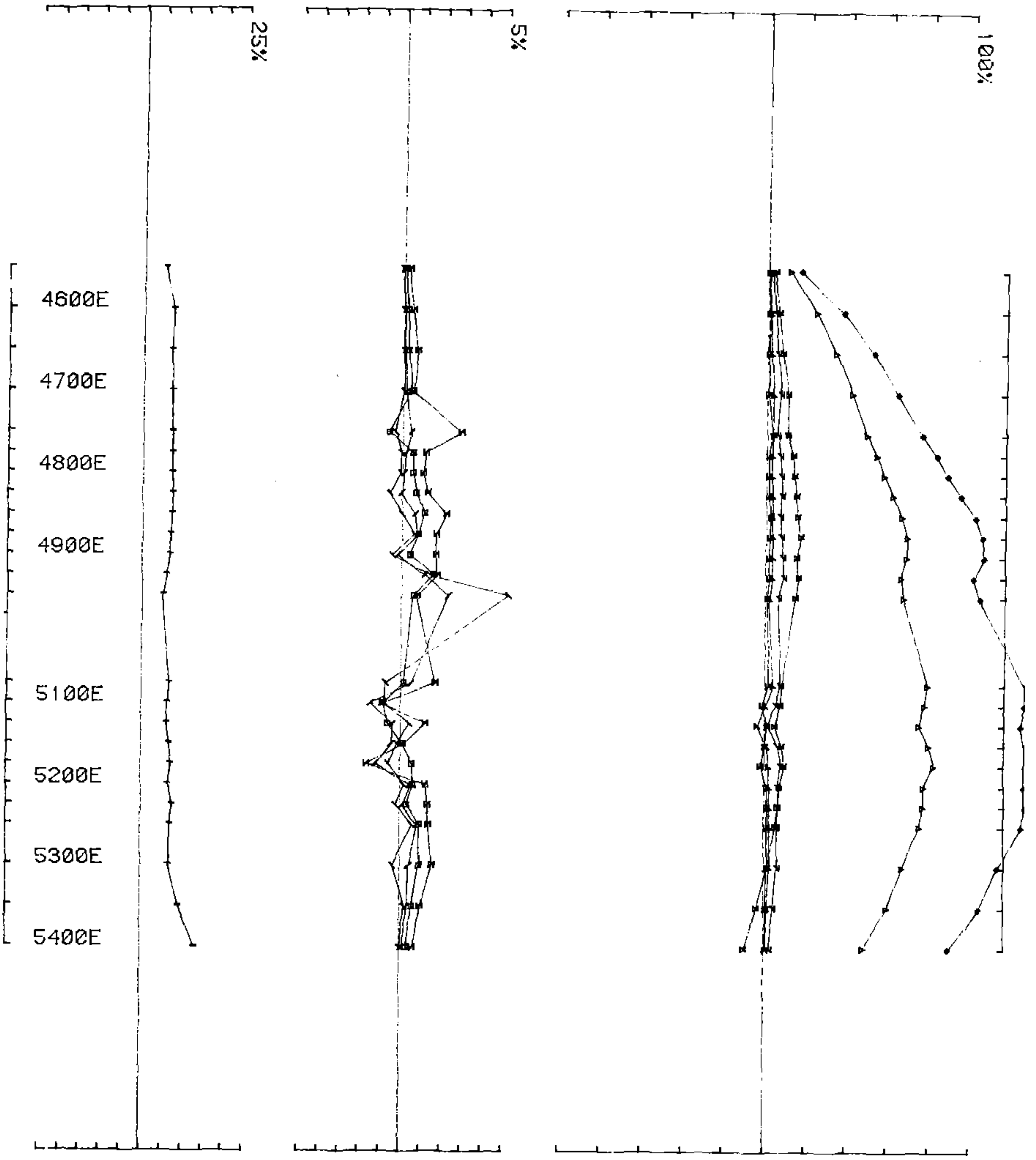
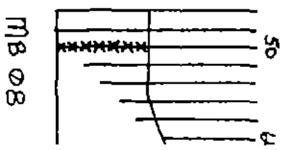


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 8 line 5000N component Hz secondary field Ch 1 contin. norm.



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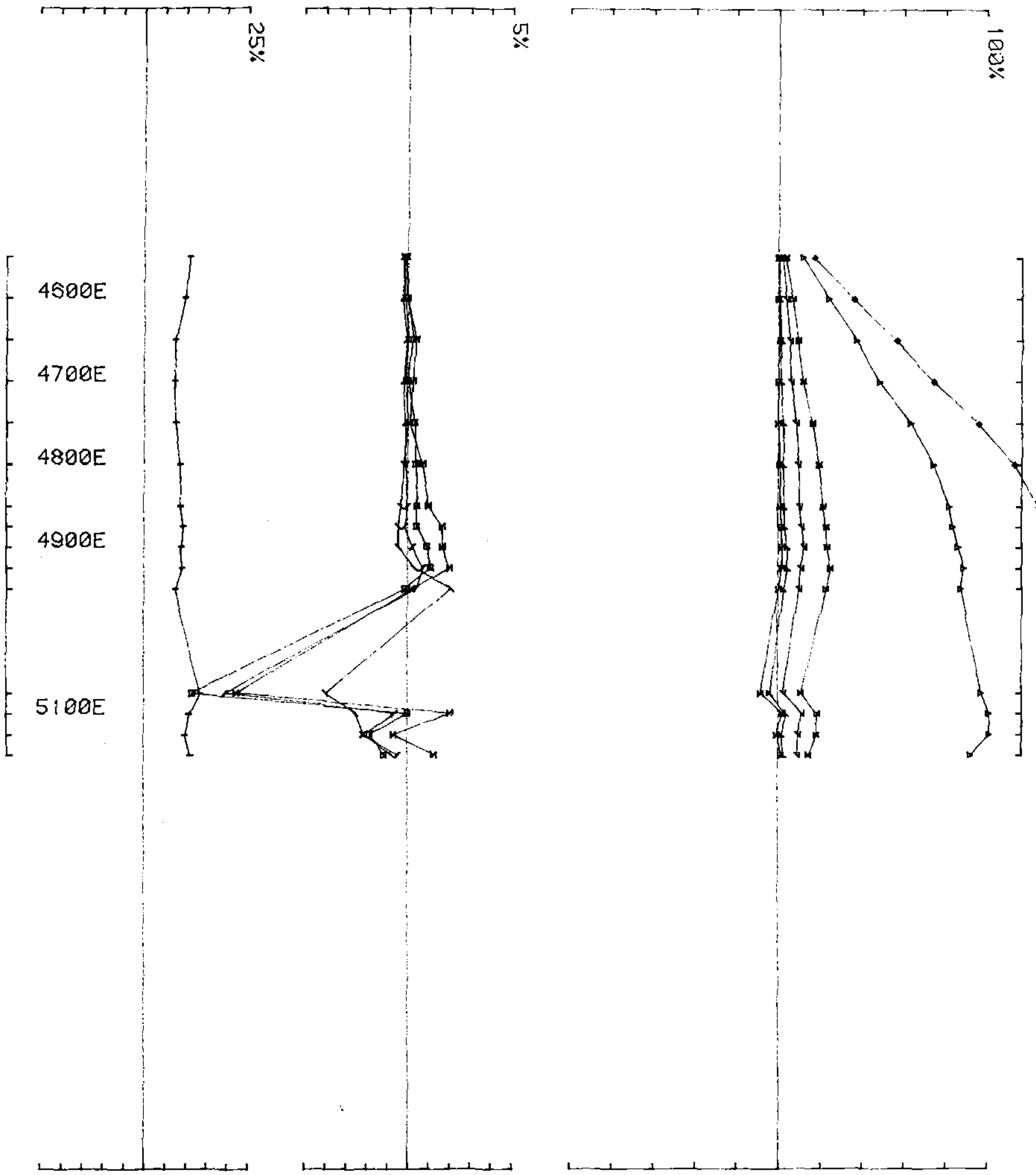
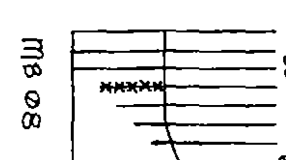


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 8 line 5200N component Hz secondary field Ch 1 contin. norm.



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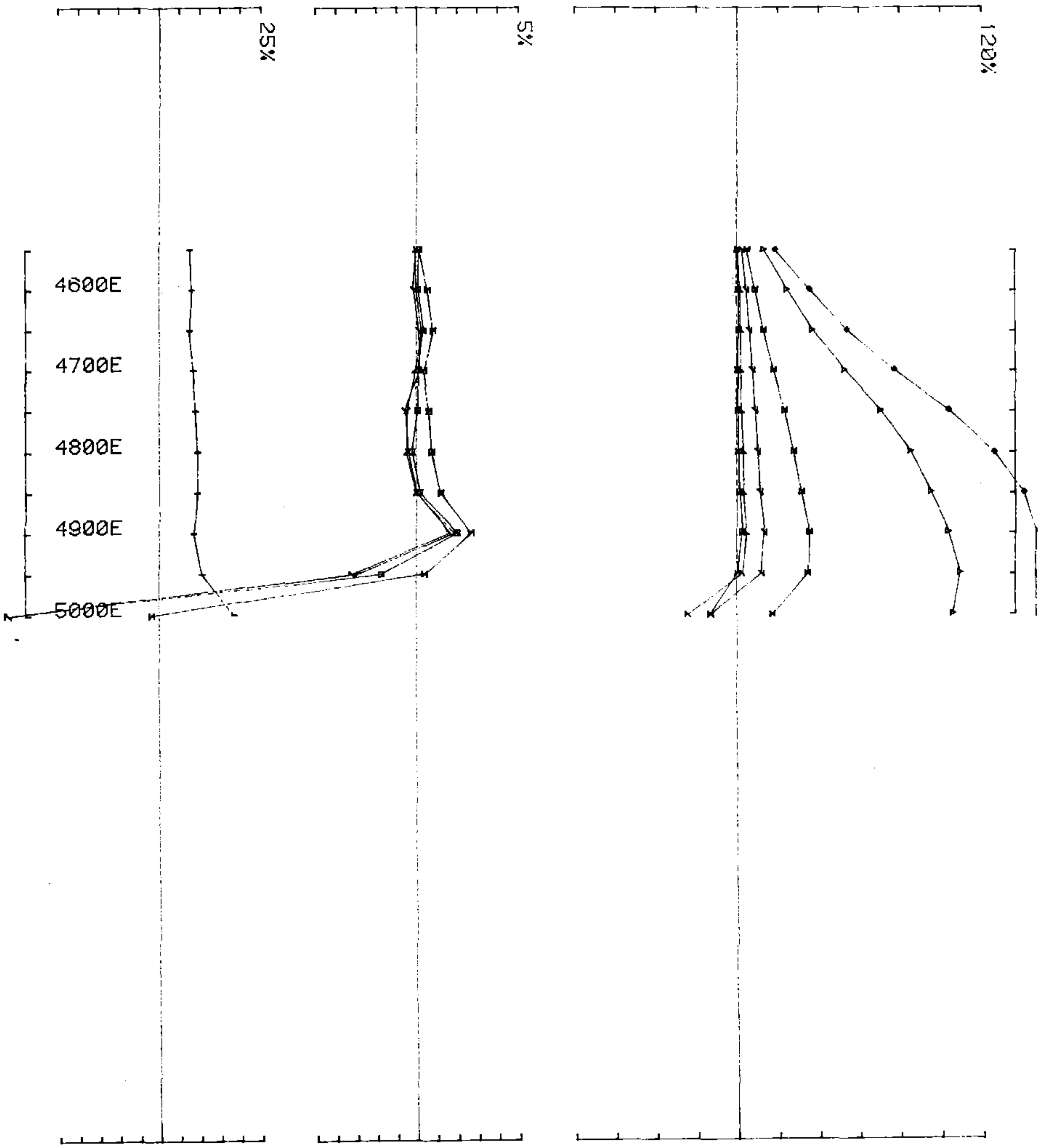
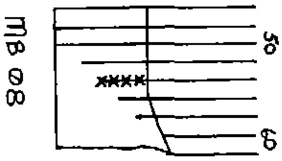


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 8 line 5400N component Hz secondary field Ch 1 contin. norm.



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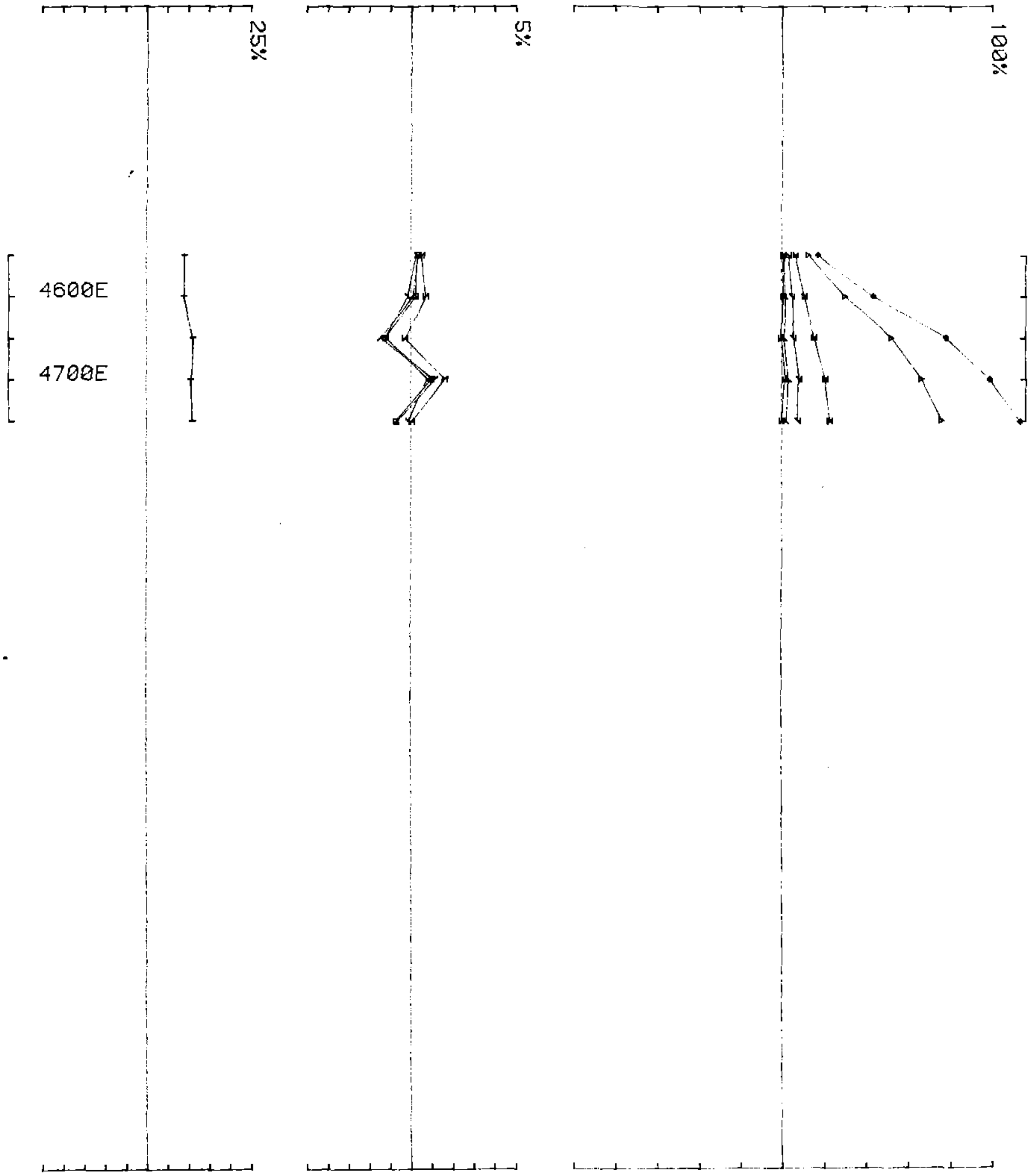
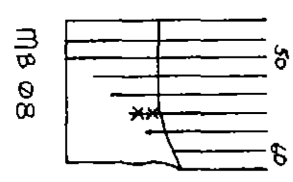
107



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 8 line 5600N component Hz secondary field Ch 1 contin. norm.



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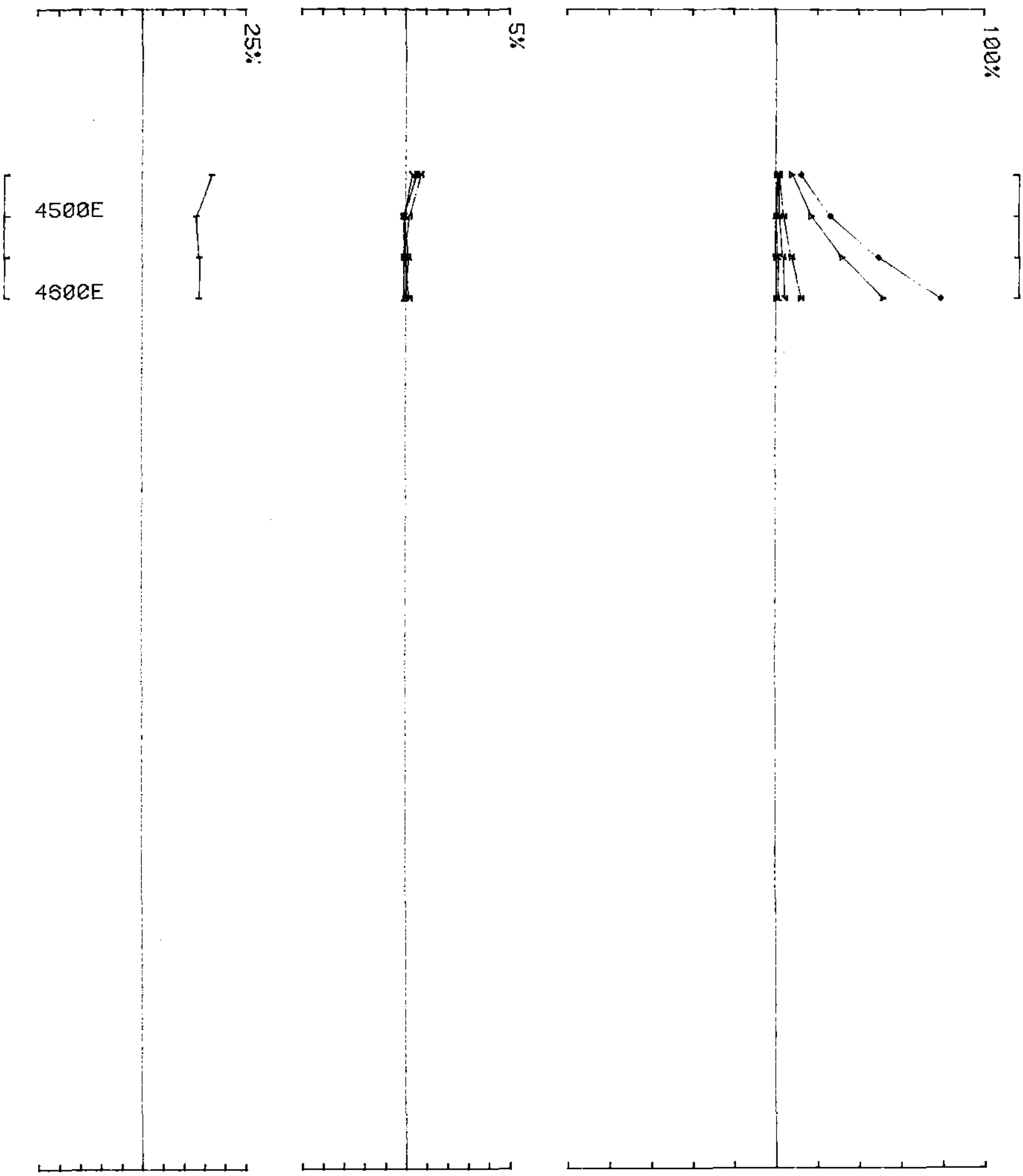
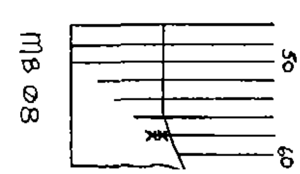


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 8 line 5800N component Hz secondary field Ch 1 contin. norm.



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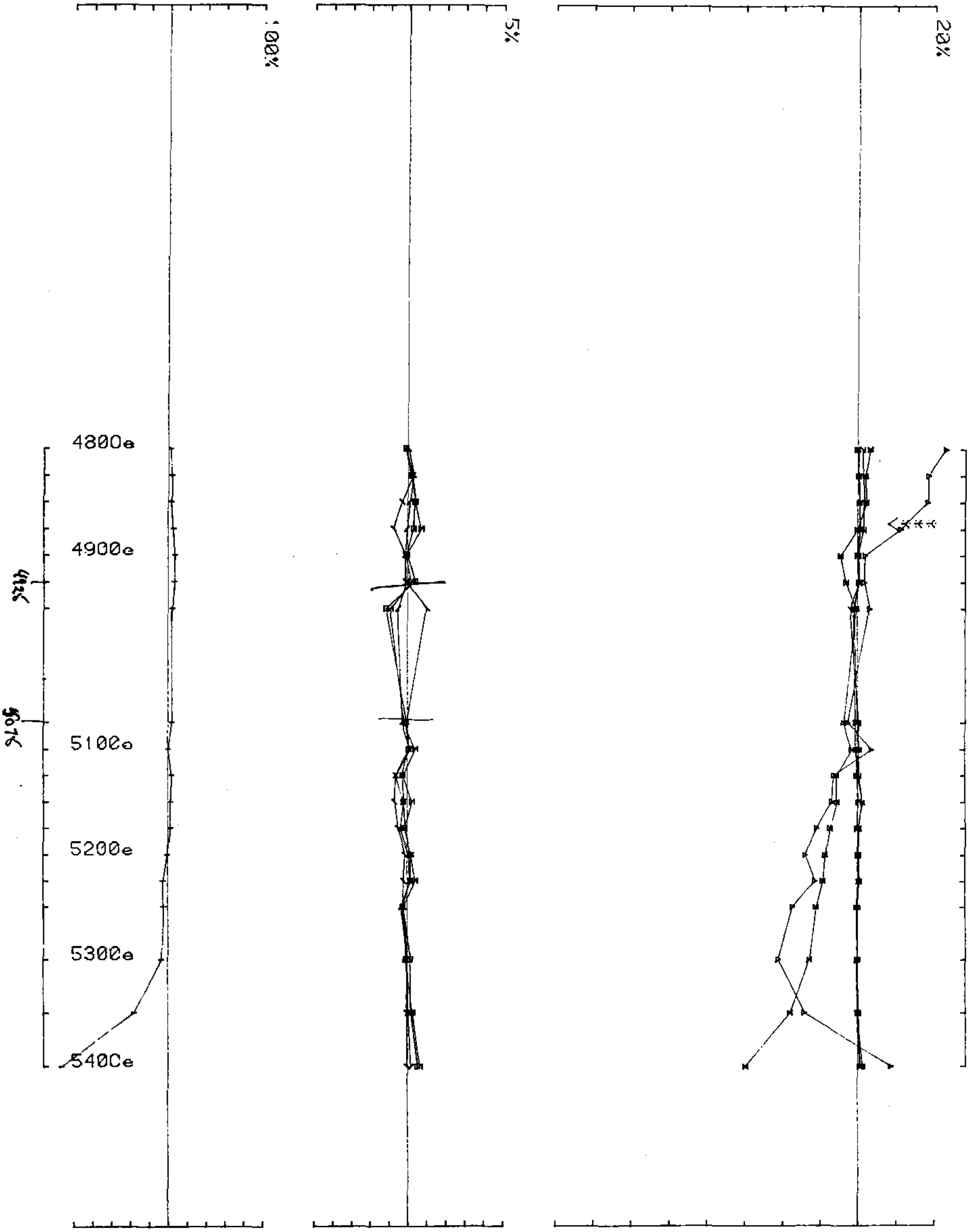
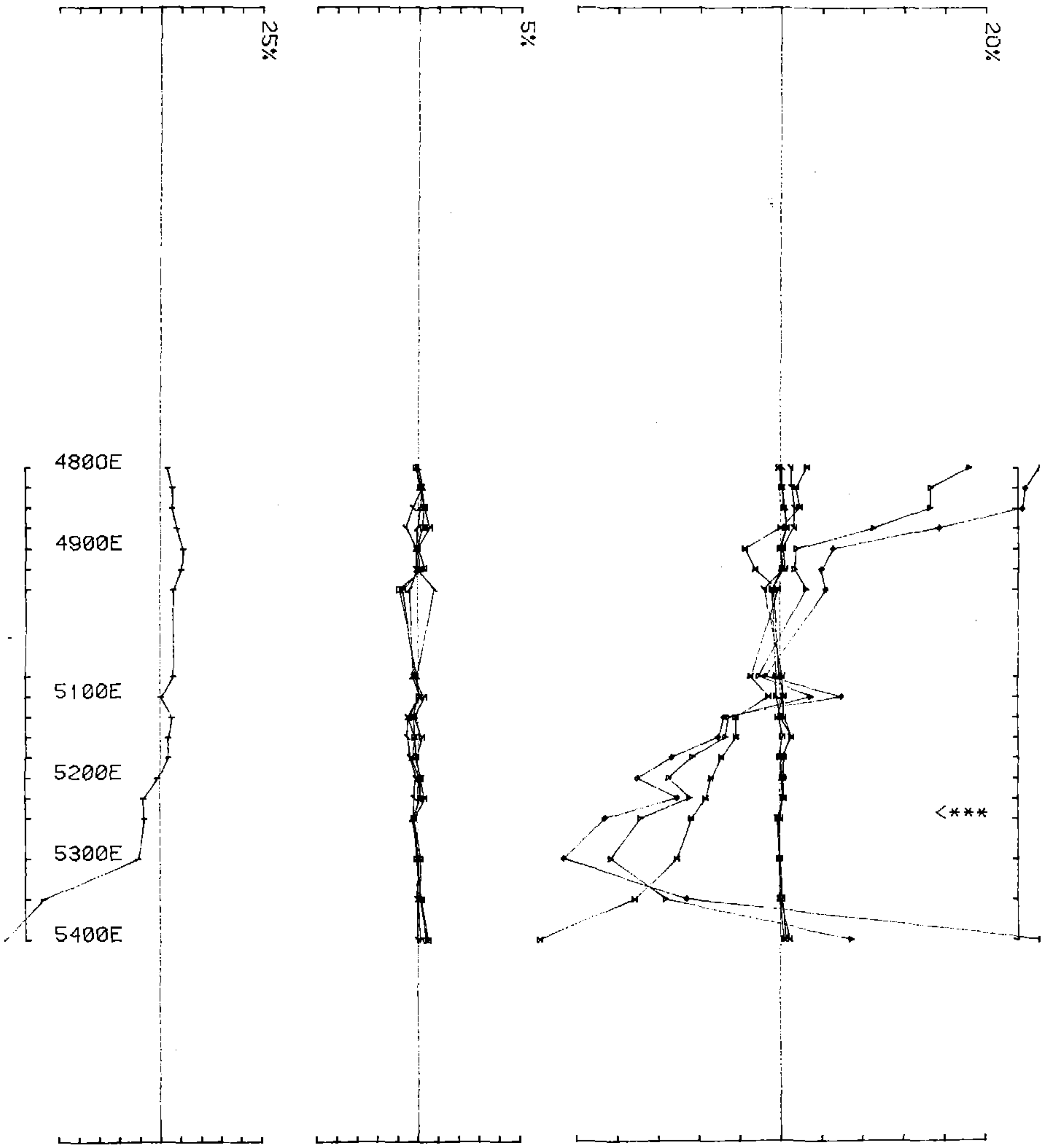
767111



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230 ** HORIZONTAL COMP ***

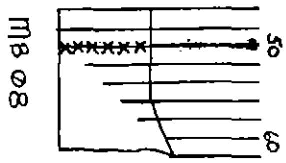
loop no 8 line 5000n component Hx secondary field Ch 1 point norm.



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HJ PO DL job 8722 base freq (hz) 25.230 **HORIZONTALCOMPONENT**

loop no 8 line 5000N component Hx secondary field Ch 1 point norm.



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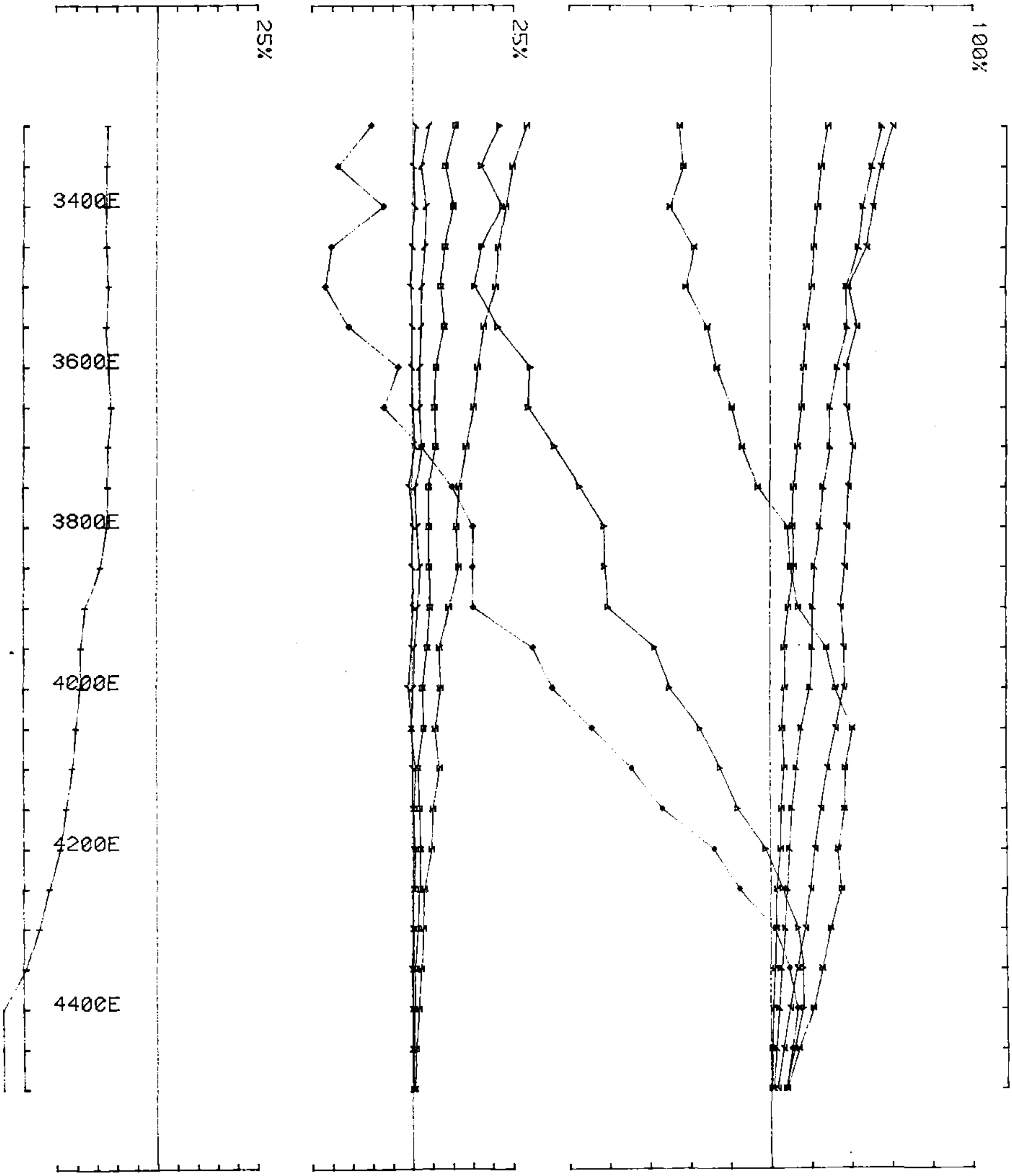
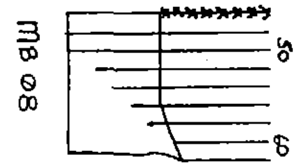
111

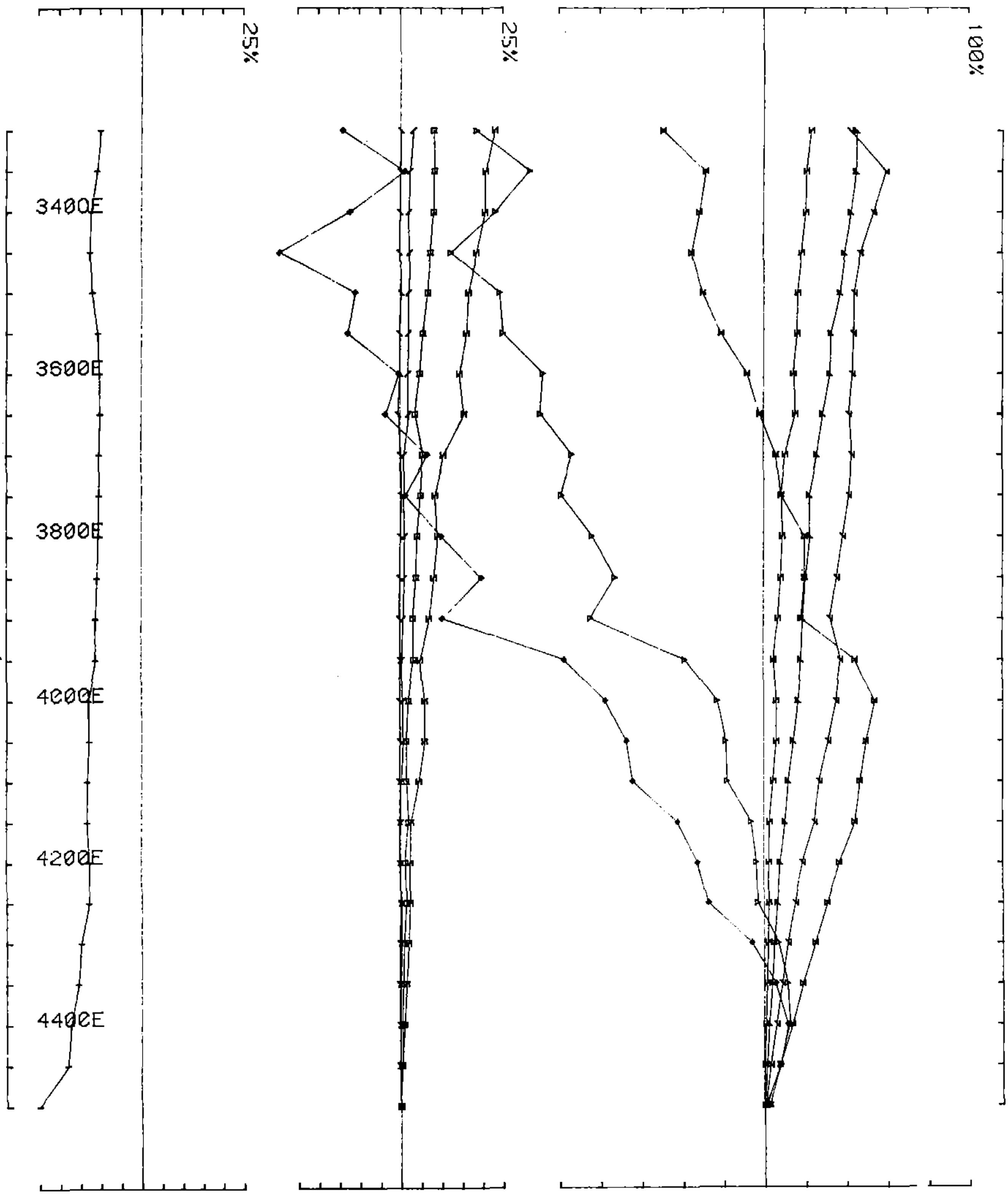


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 8 line 4600N component Hz secondary field Ch 1 contin. norm.

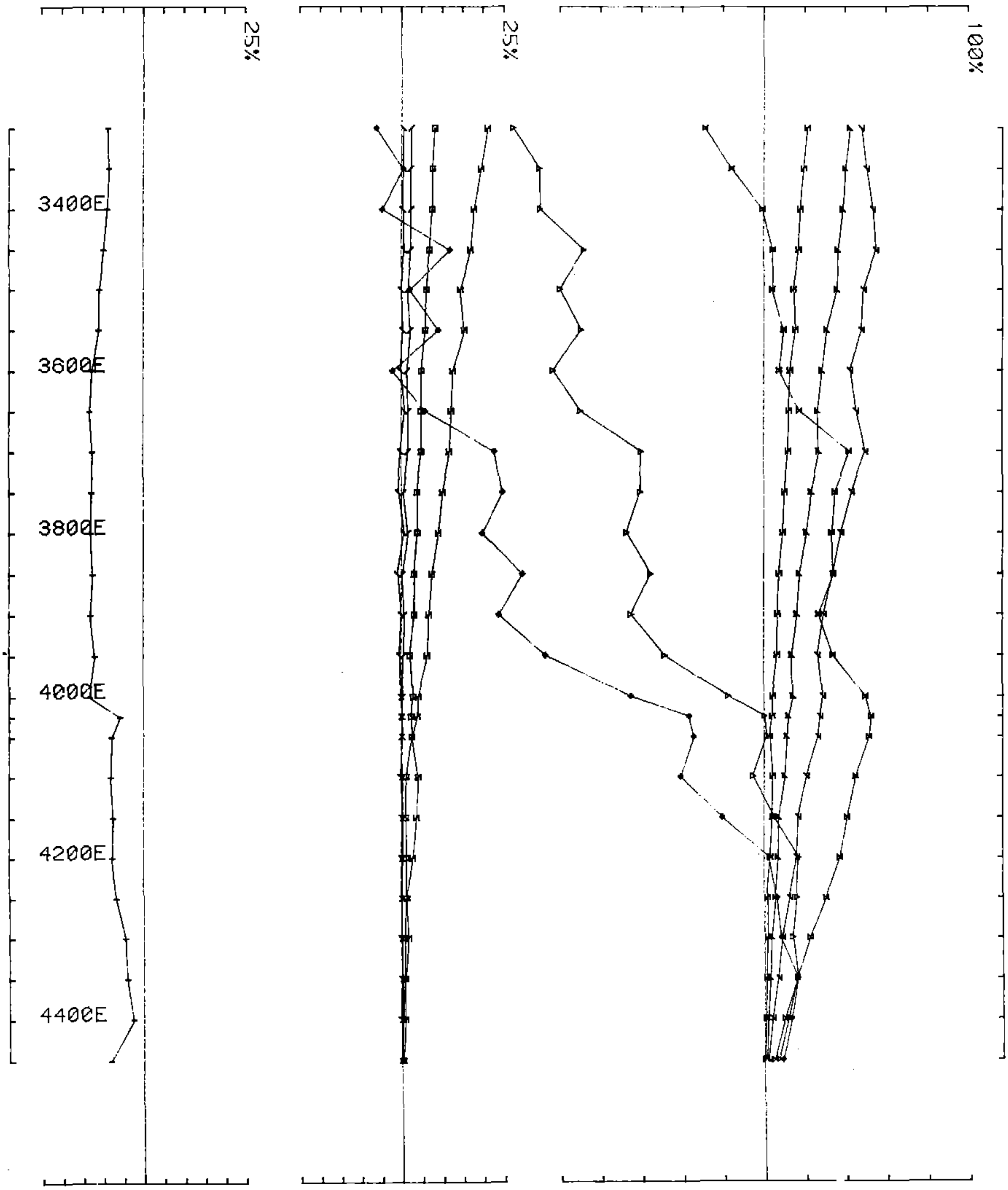




UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 8 line 4800N component Hz secondary field Ch 1 contin. norm.

MB 08

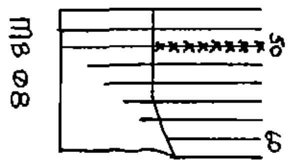
767115



UTEM SURVEY at MOUNT BLOCK for B H P

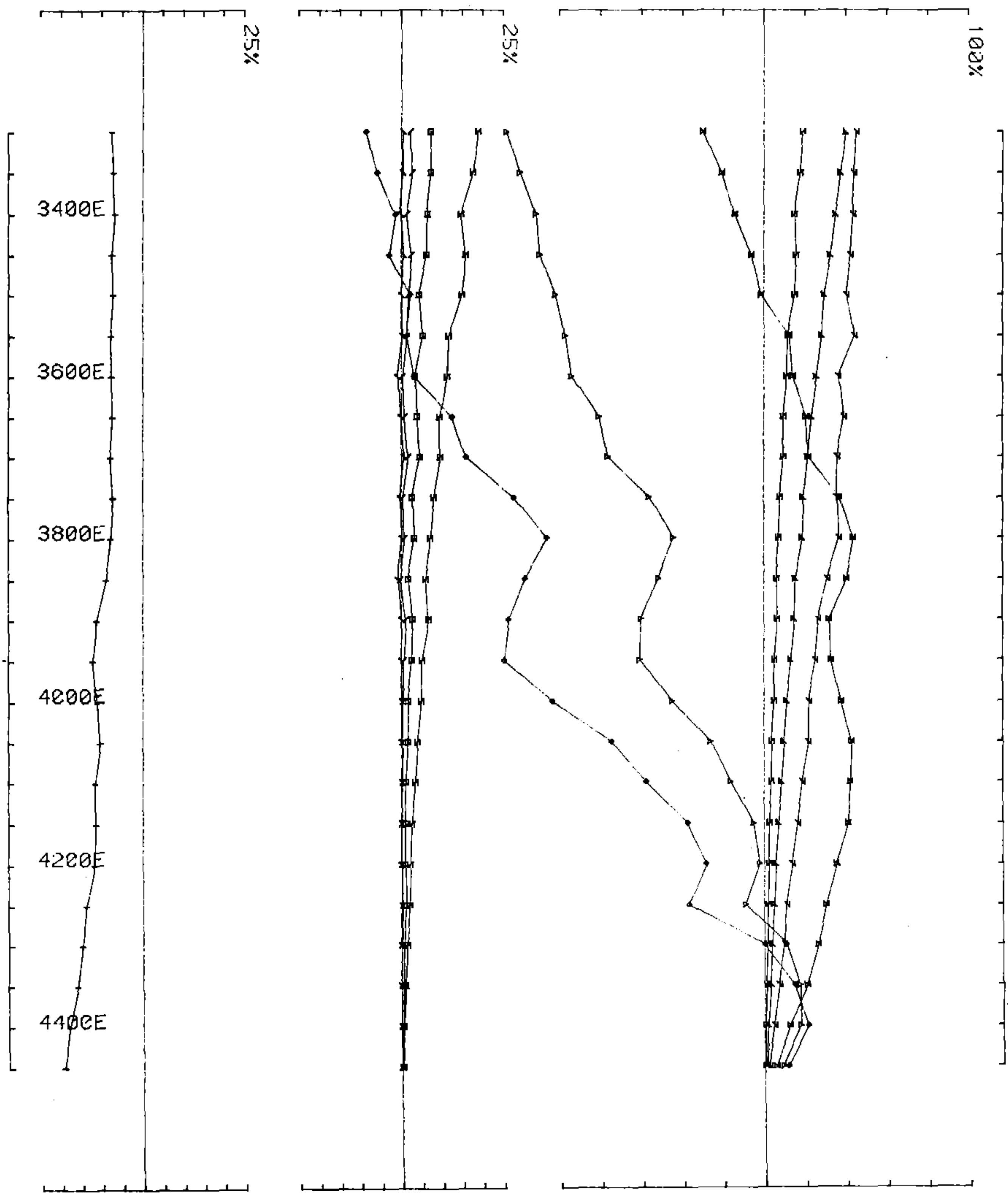
conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 8 line 5000N component Hz secondary field Ch 1 contin. norm.



114

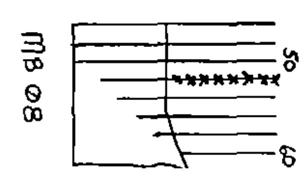
767116



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PJ DL job 8722 base freq (hz) 26.230

loop no 8 line 5200N component Hz secondary field Ch 1 contin. norm.



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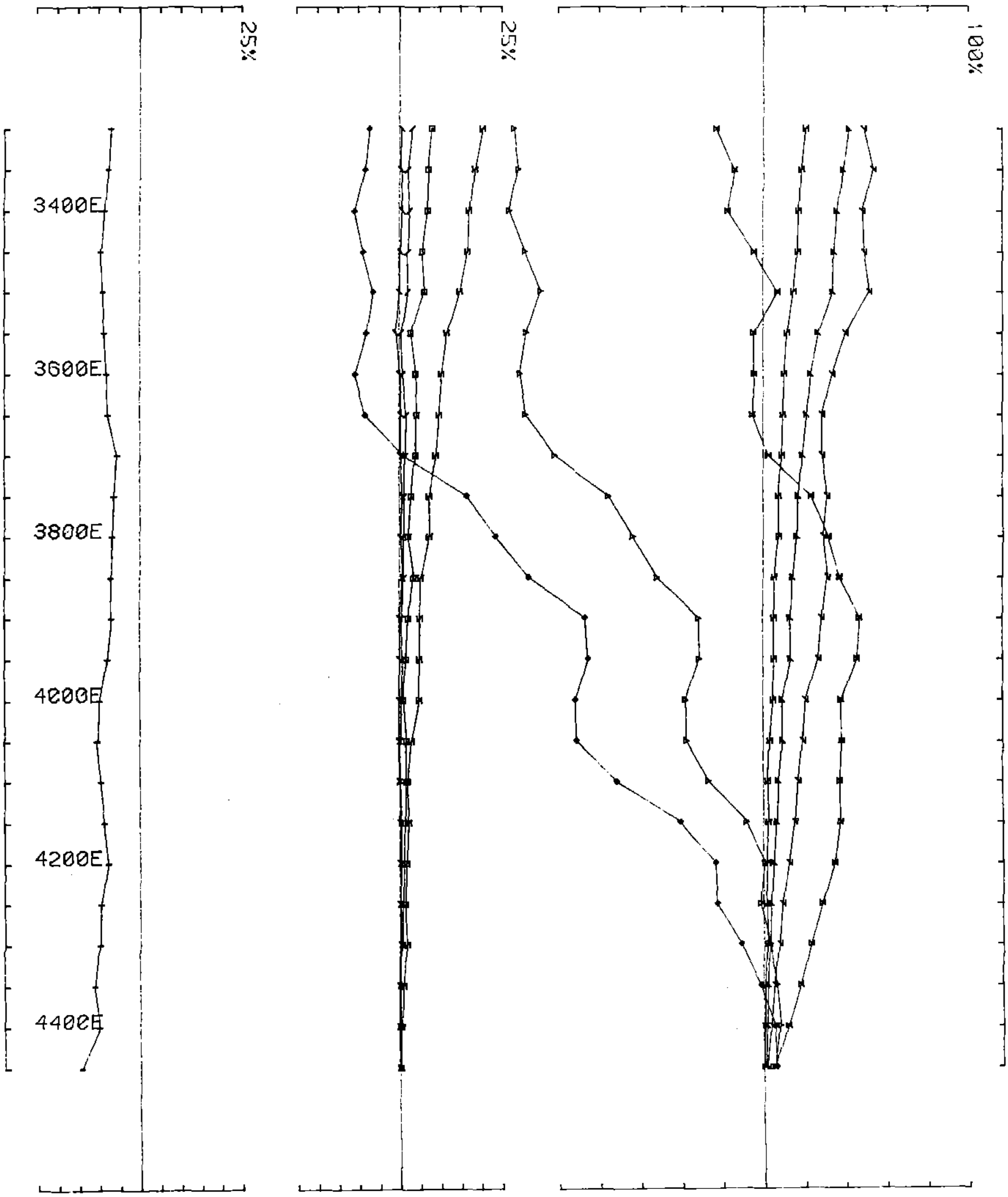
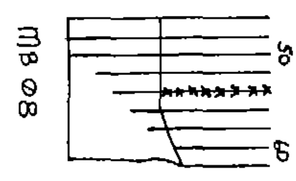


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 25.230
loop no 8 line 5400N component Hz secondary field Ch 1 contin. norm.



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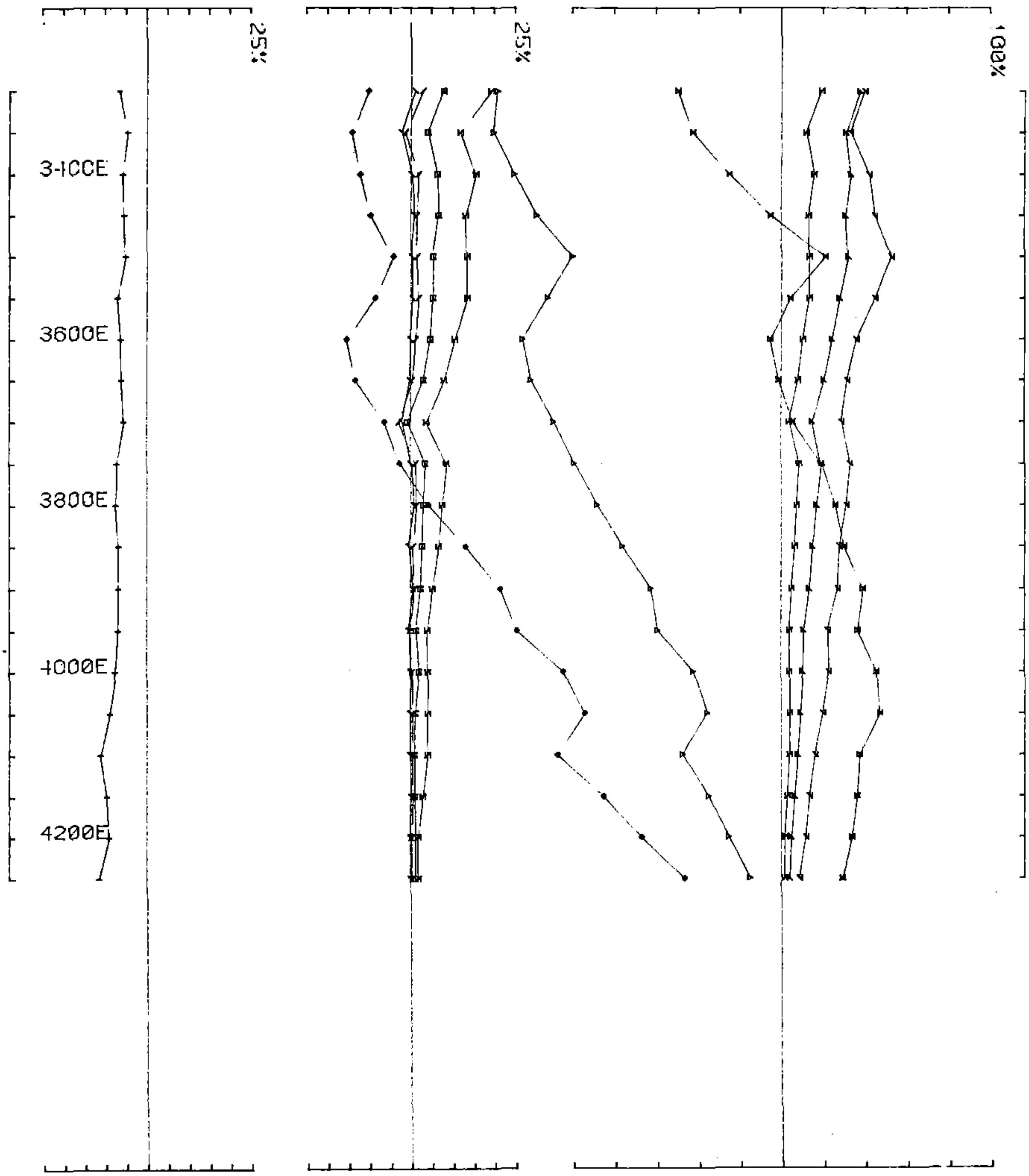
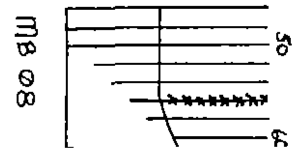
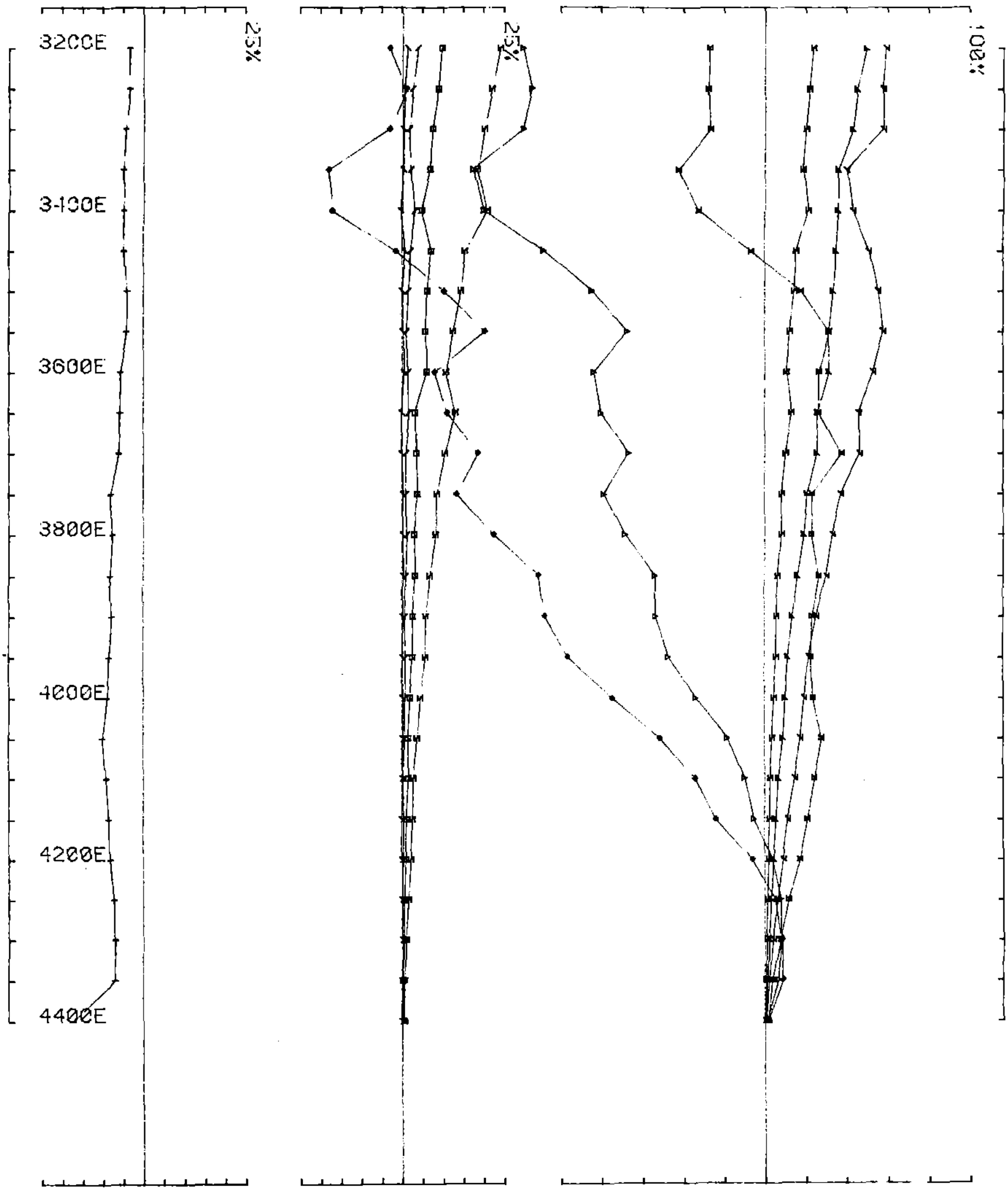
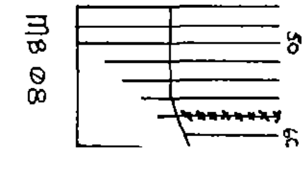


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 8 line 5600N component Hz secondary field Ch 1 contin. norm.

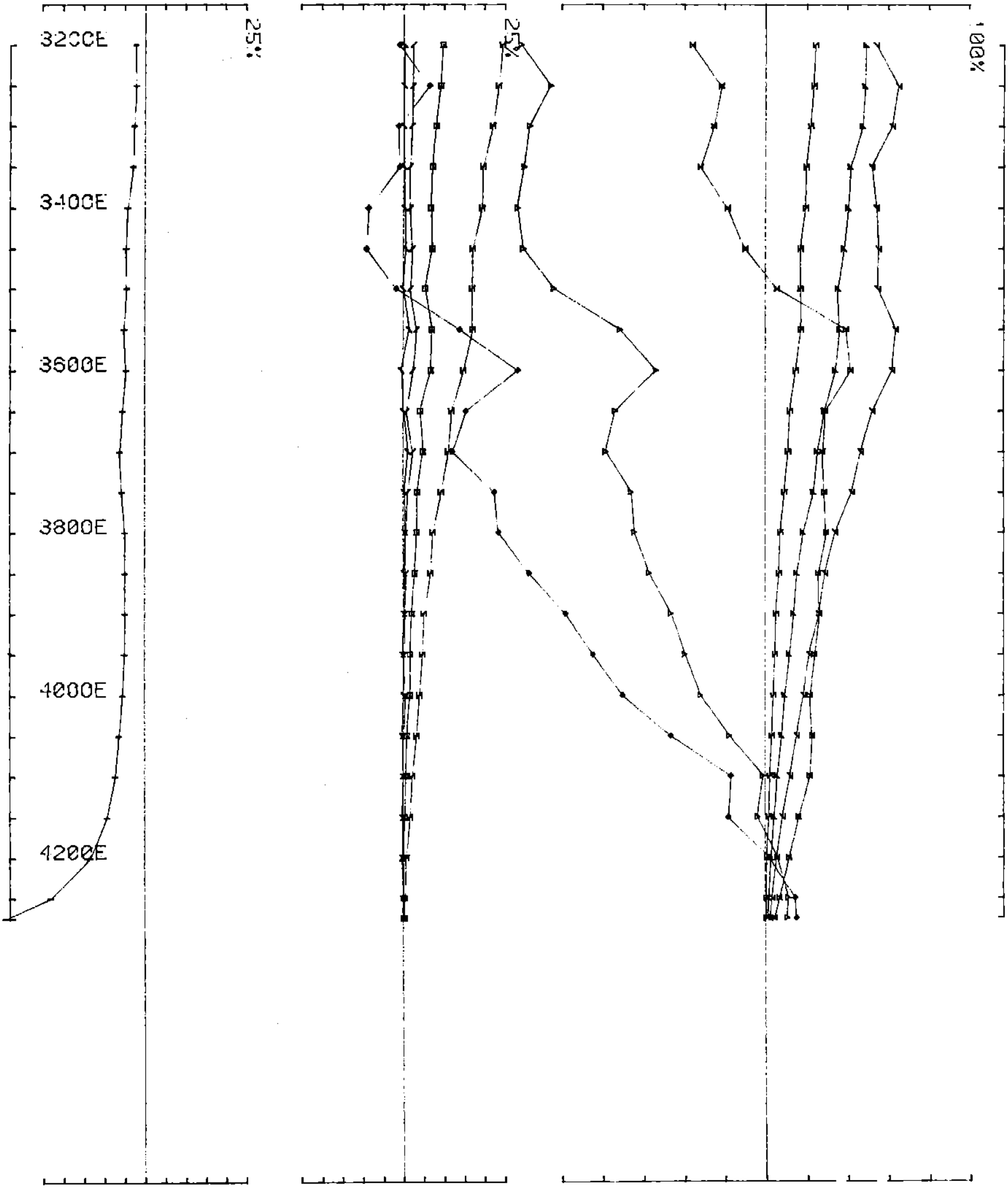




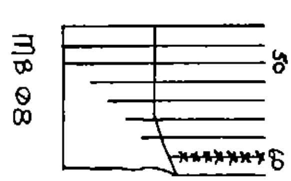
UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 28.230
loop no 8 line 5800N component Hz secondary field Ch 1 contin. norm.



767120



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 8 line 6000N component Hz secondary field Ch 1 contin. norm.



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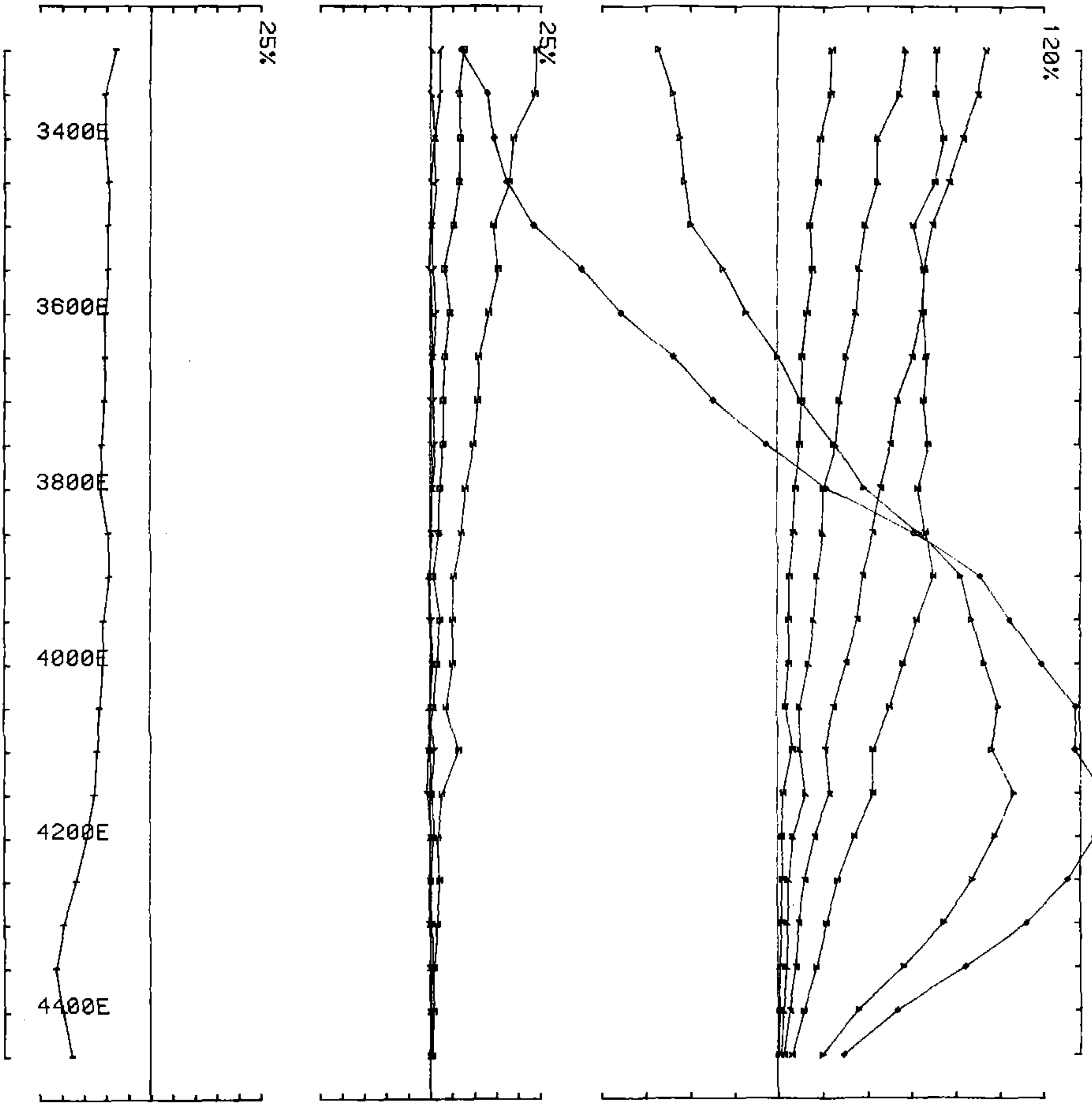
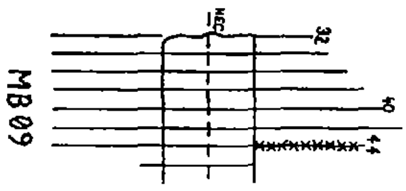


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 4400N component Hz secondary field Ch 1 contin. norm.



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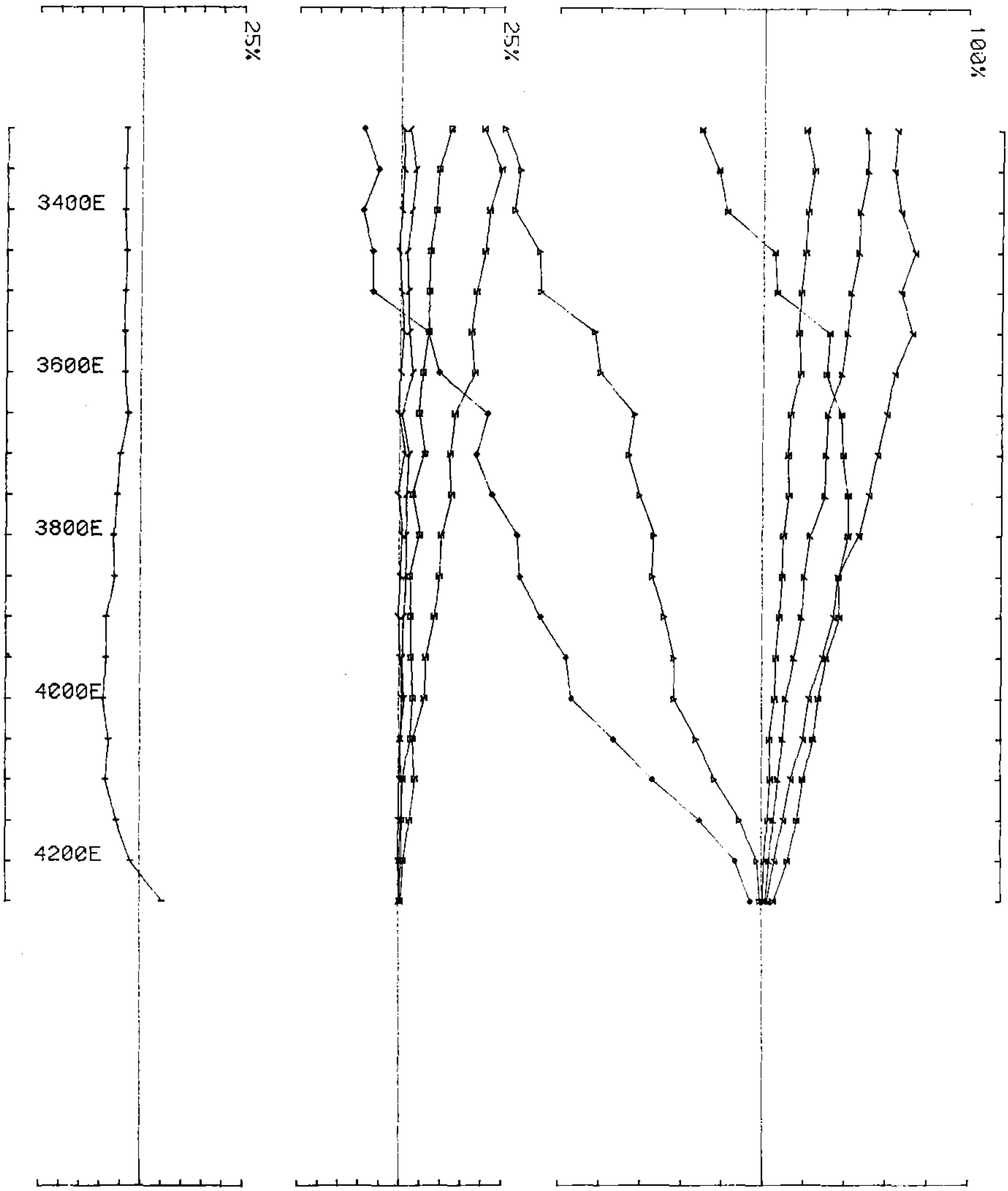
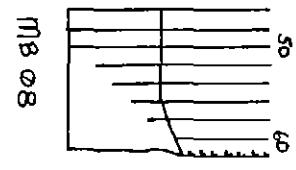
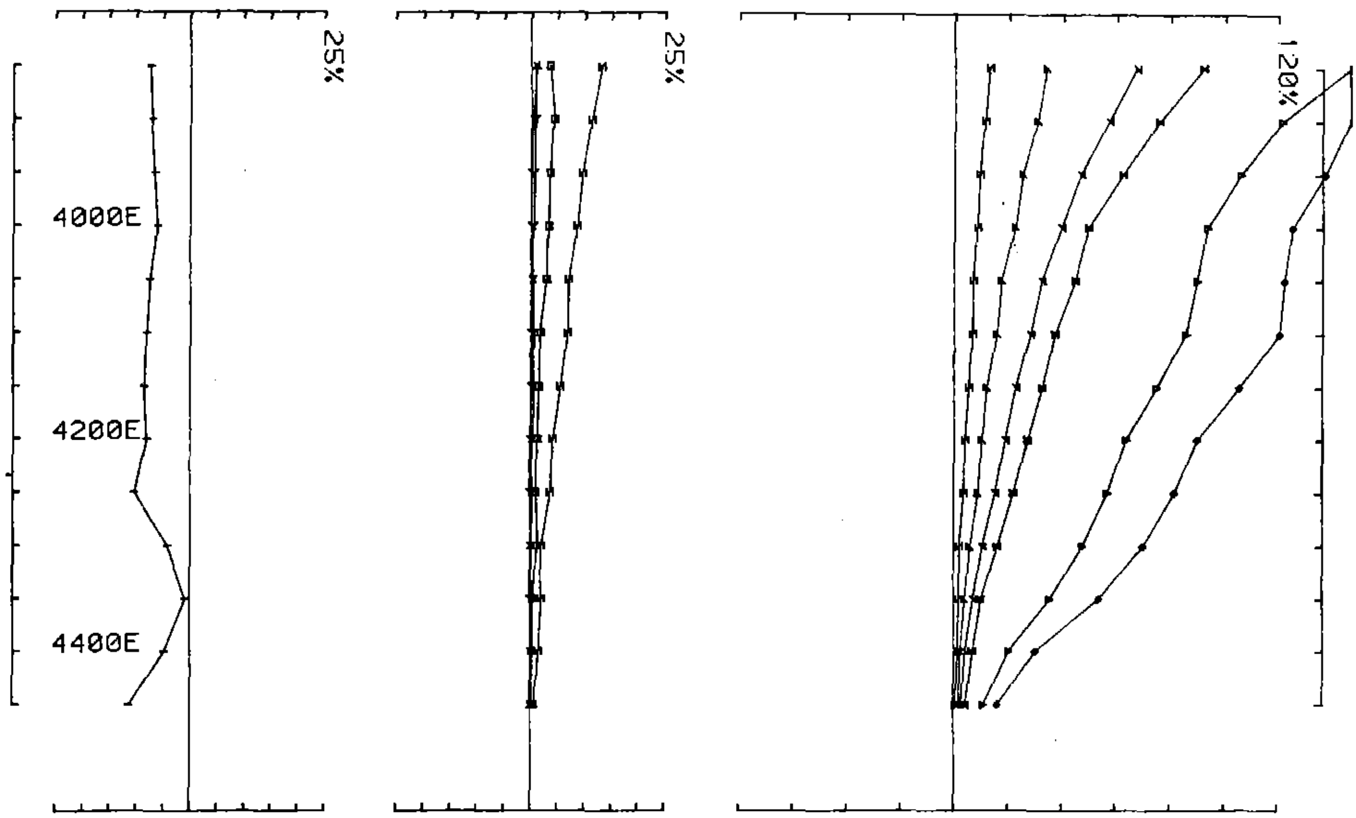


UTEM SURVEY at MOUNT BLOCK for B H P

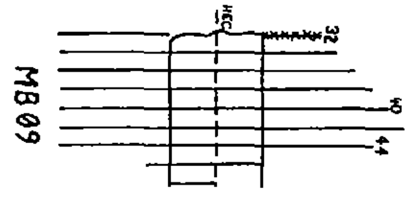
conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 8 line 6200N component Hz secondary field Ch 1 contin. norm.





UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 3200N component Hz secondary field Ch I contin. norm.



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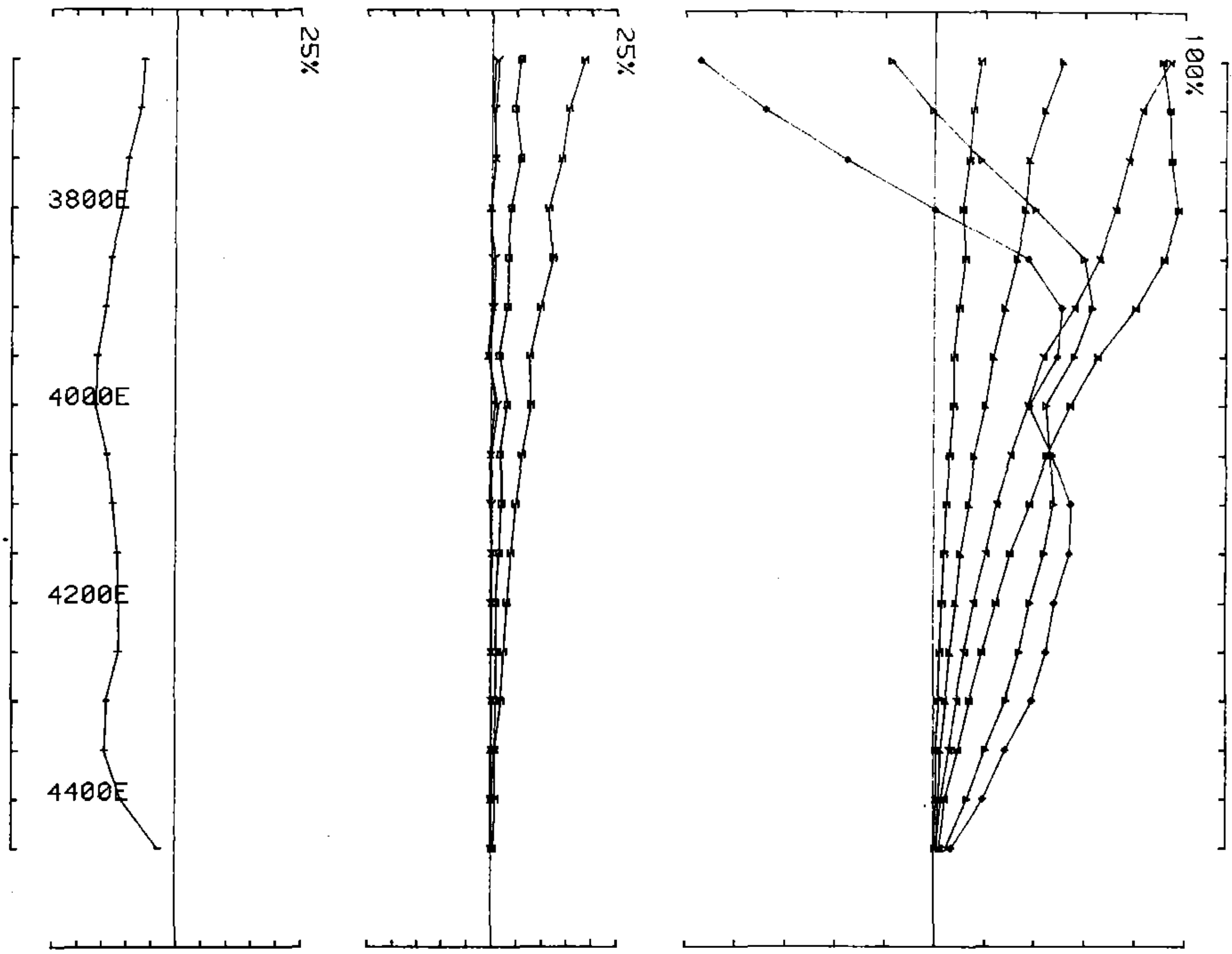
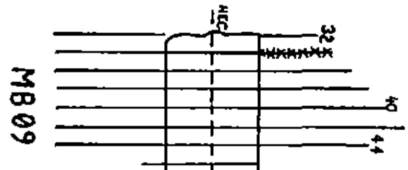


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3400N component Hz secondary field Ch I contin. norm.



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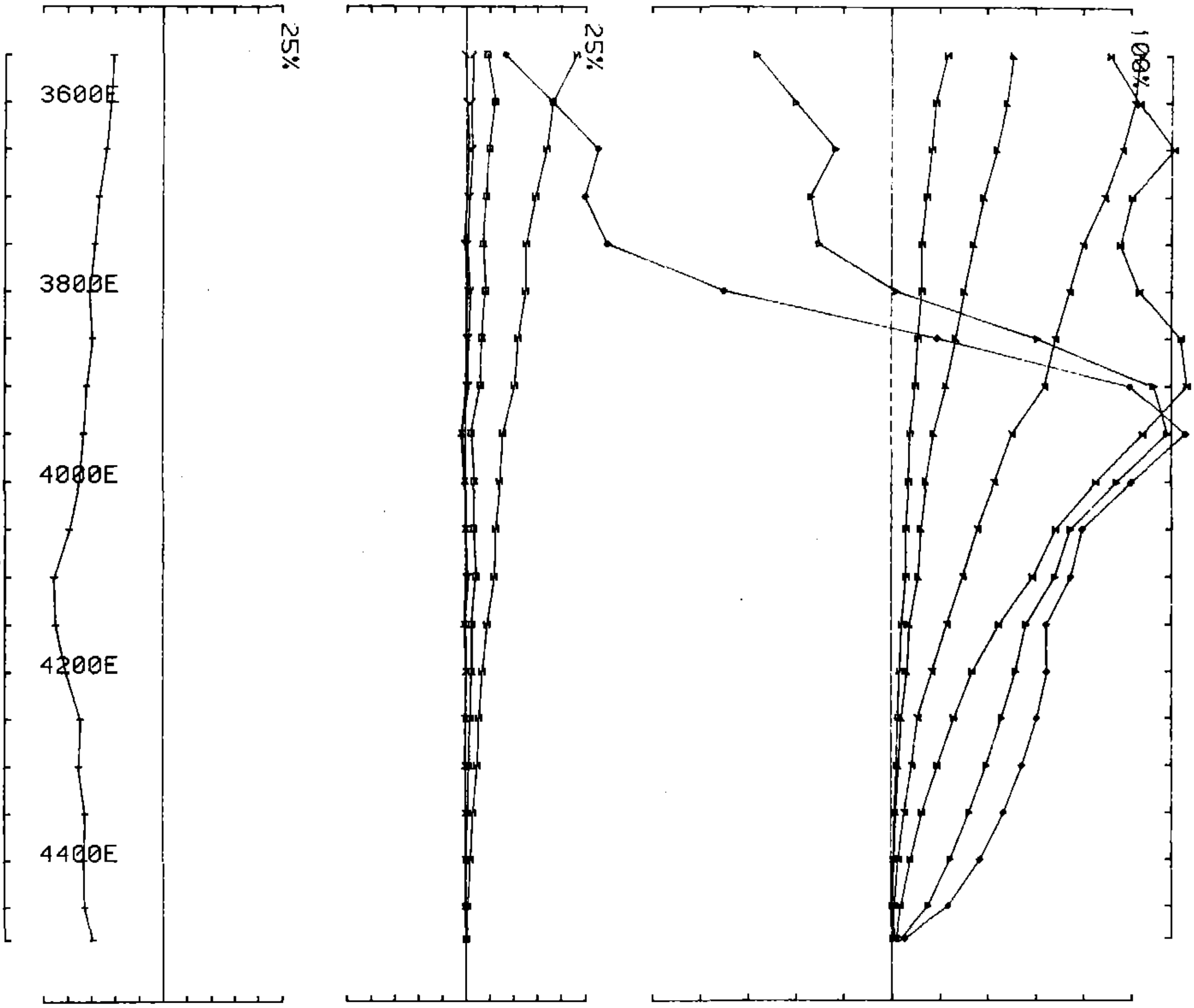
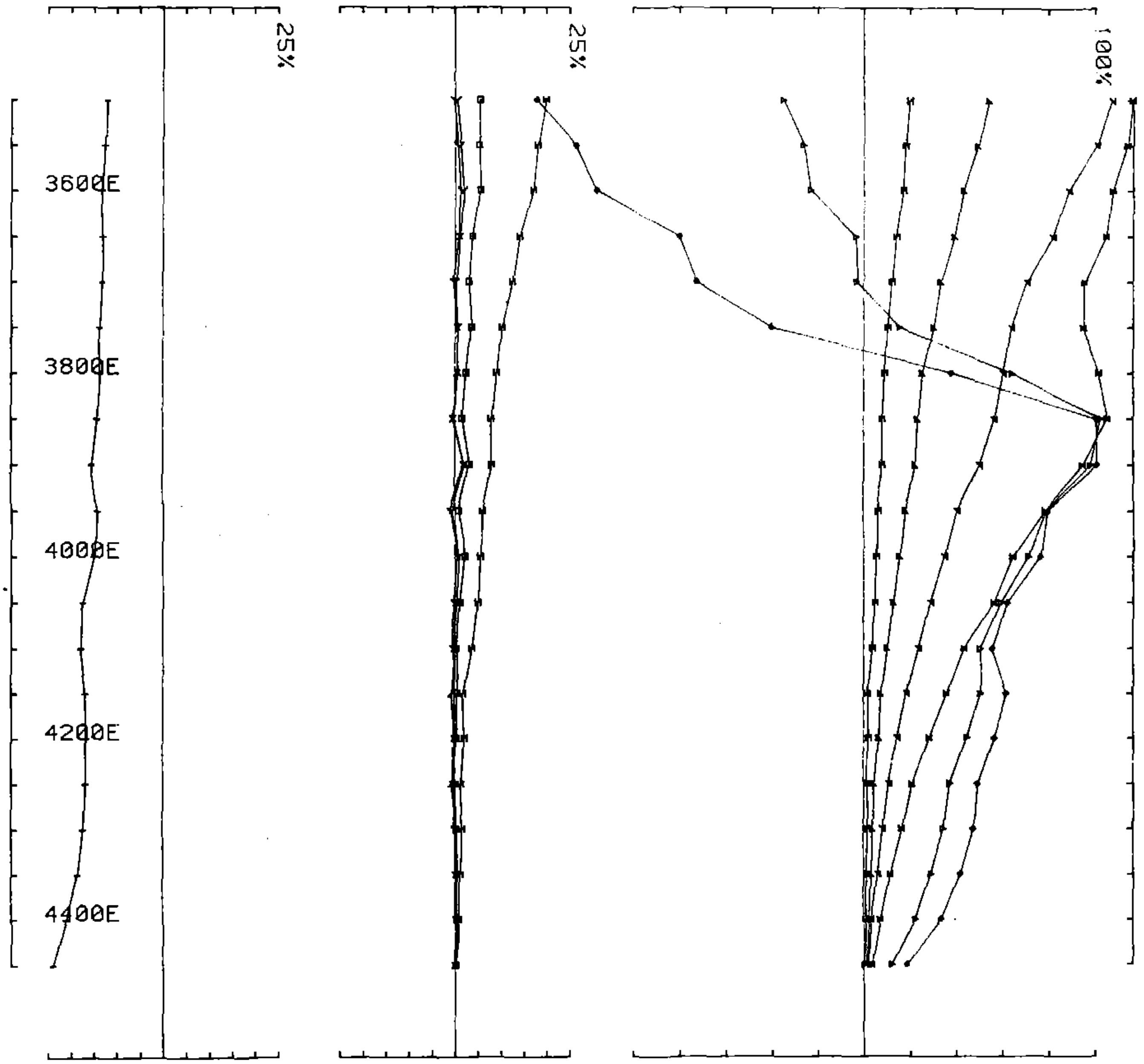


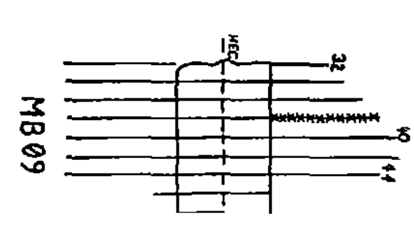
UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3600N component Hz secondary field Ch 1 contin. norm.

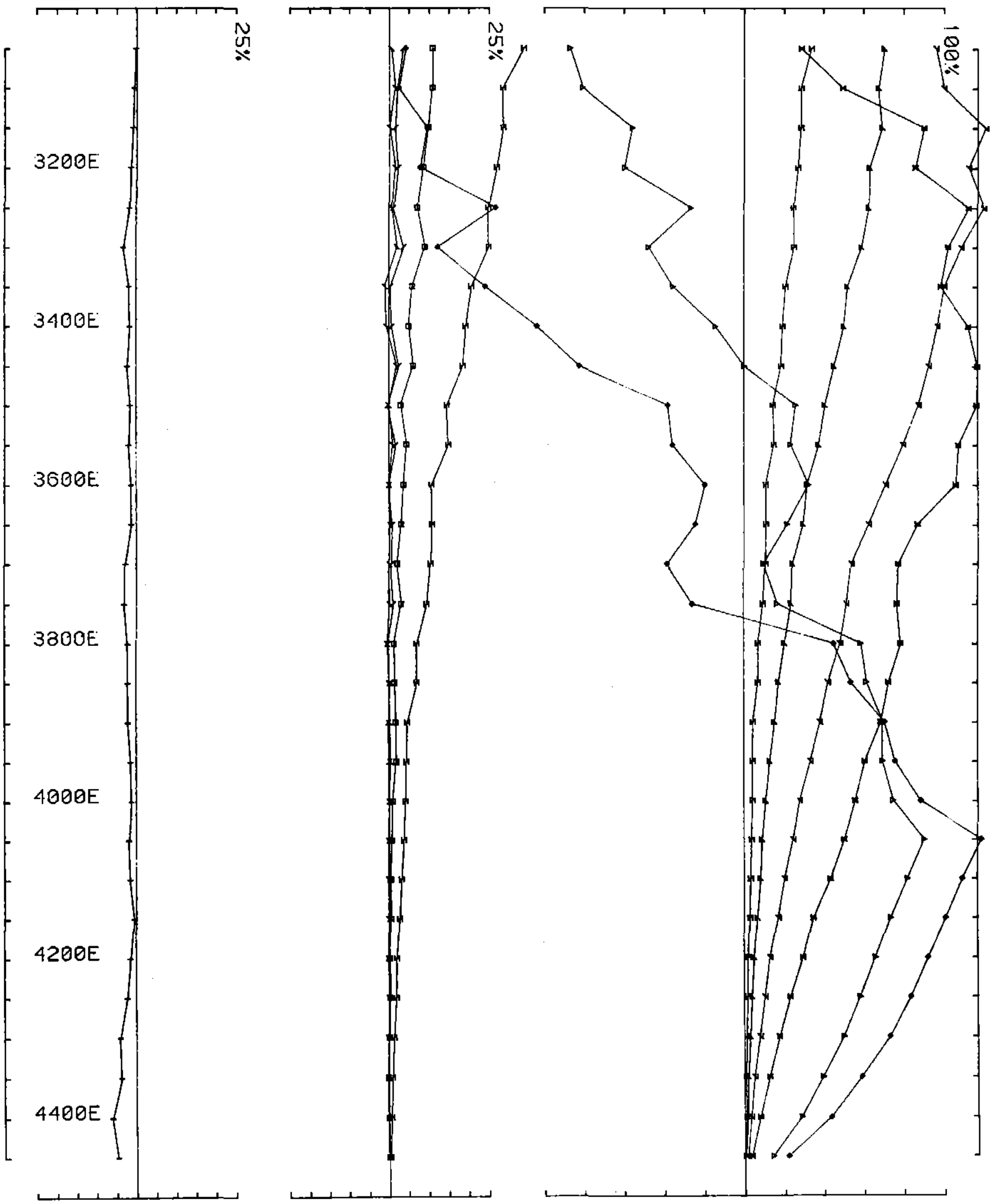


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 3800N component Hz secondary field Ch 1 contin. norm.

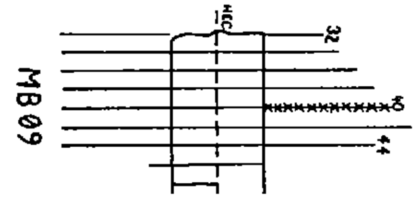


124

767126



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 4000N component Hz secondary field Ch 1 contin. norm.



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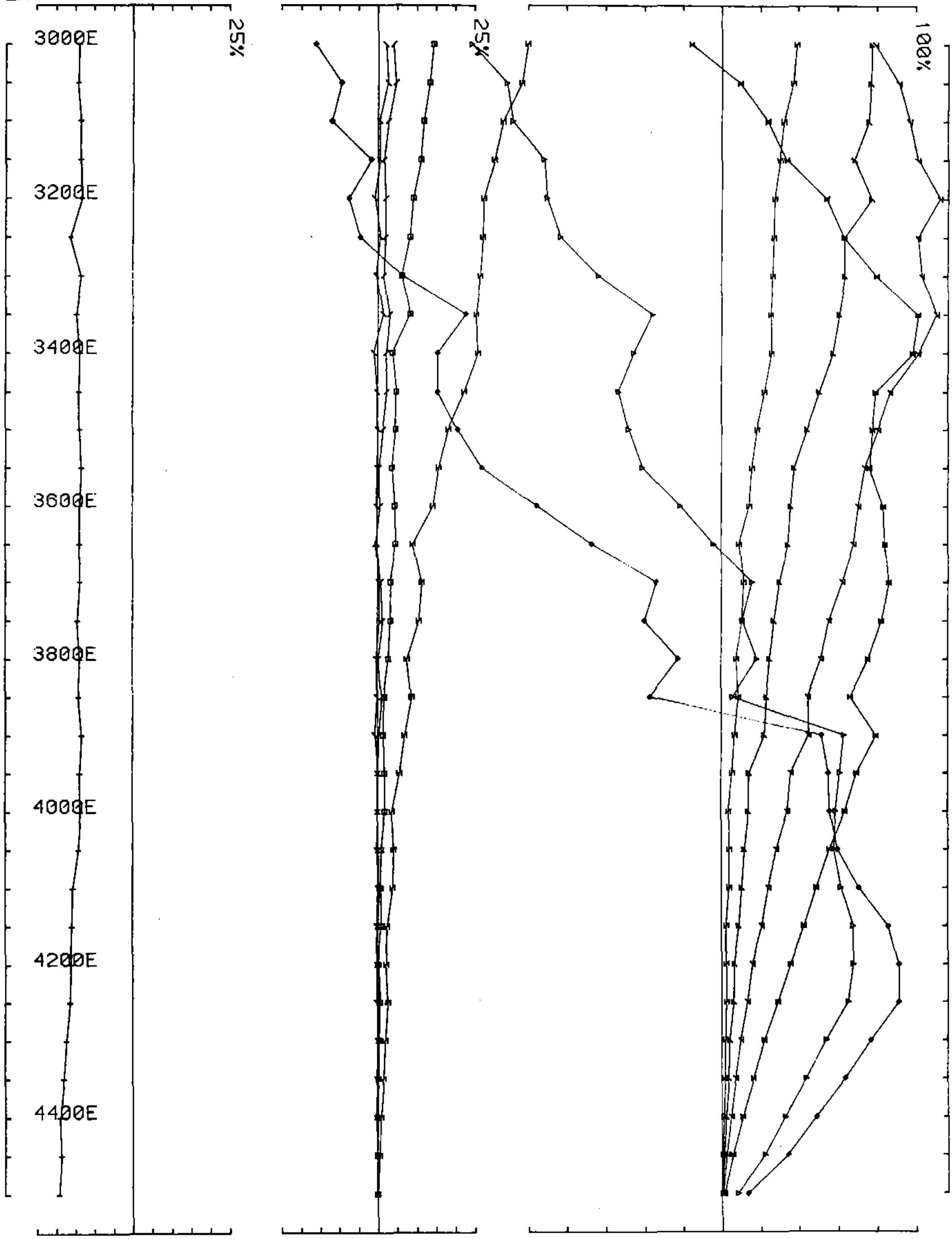
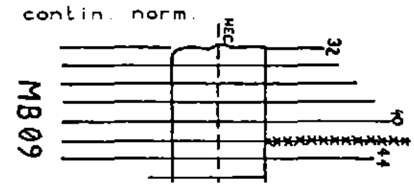
125



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 4200N component Hz secondary field Ch 1 contin. norm.



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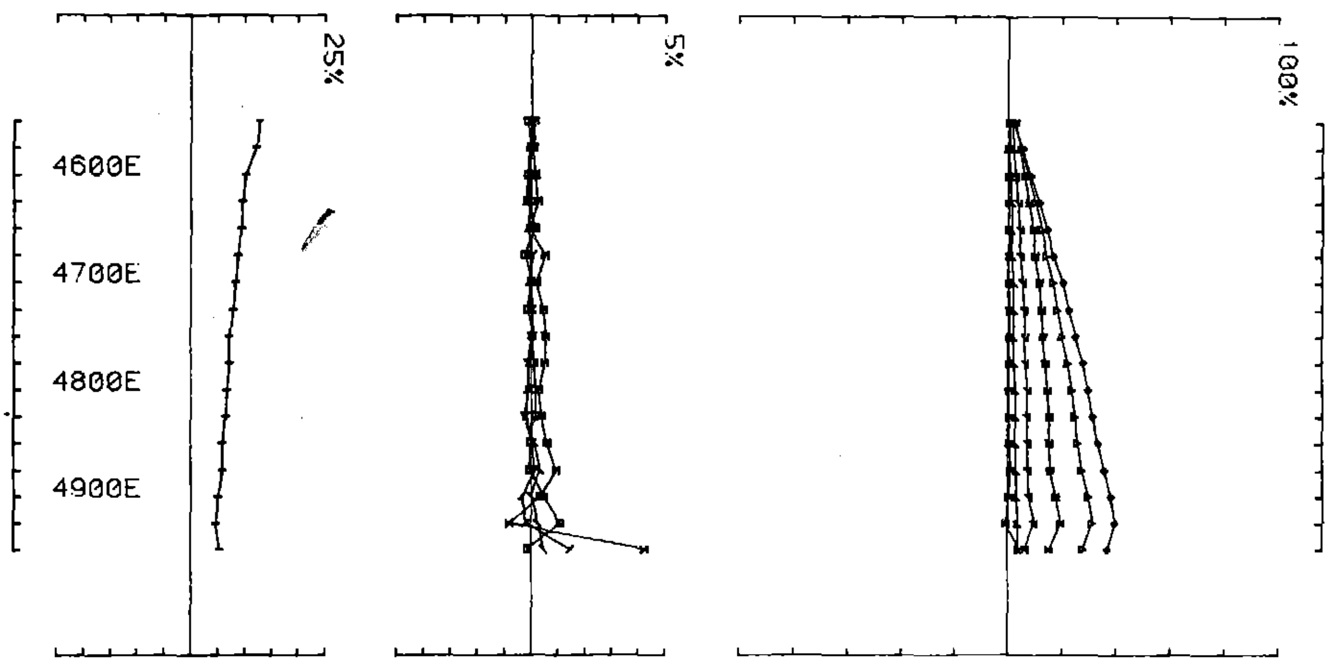
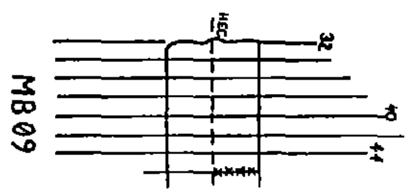


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 4600N component Hz secondary field Ch 1 contin. norm.



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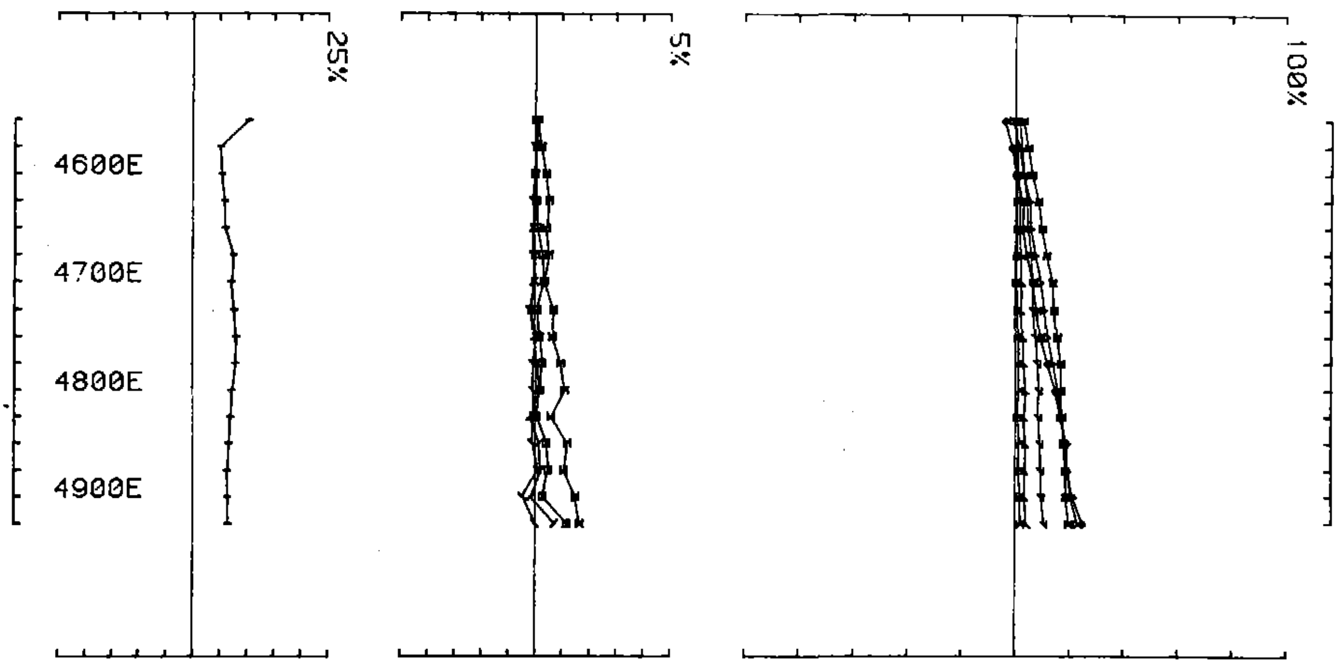
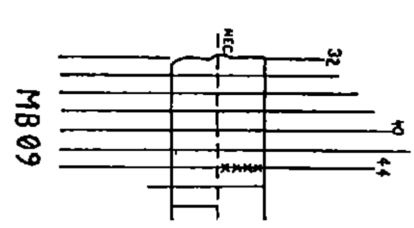


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 4400N component Hz secondary field Ch 1 contin. norm.



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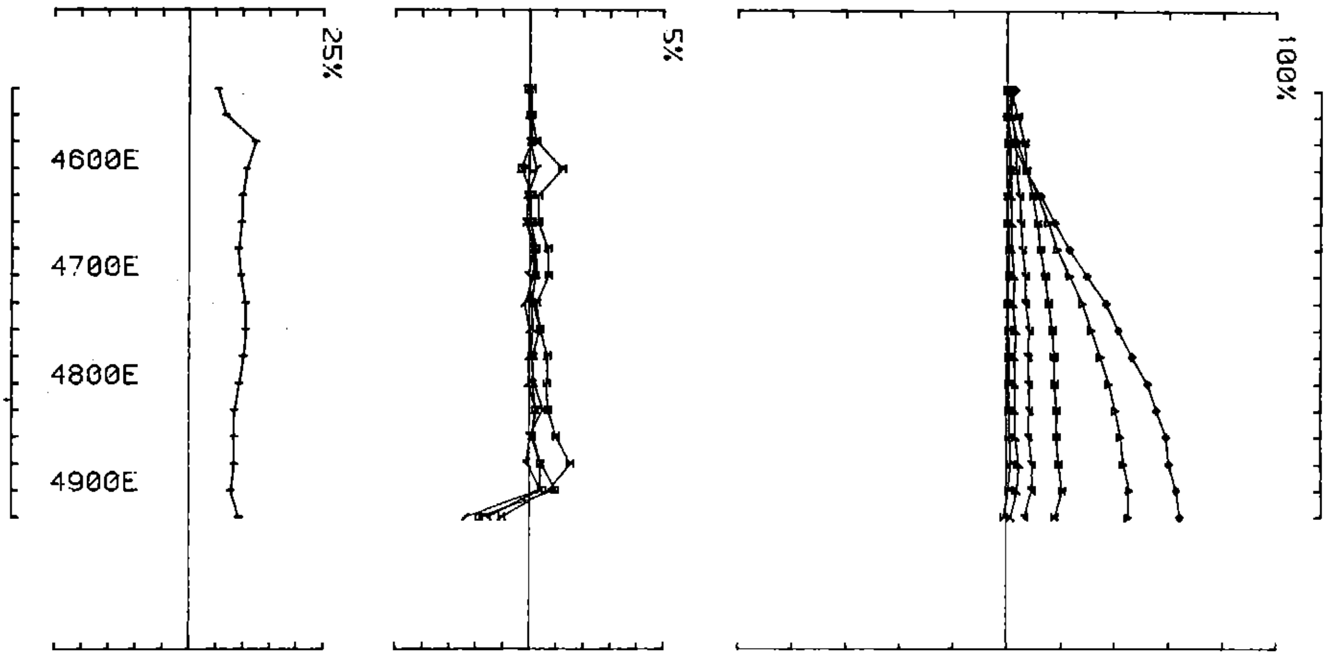
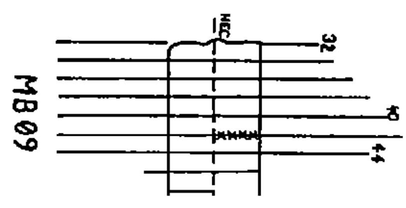


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 4200N component Hz secondary field Ch 1 contin. norm.



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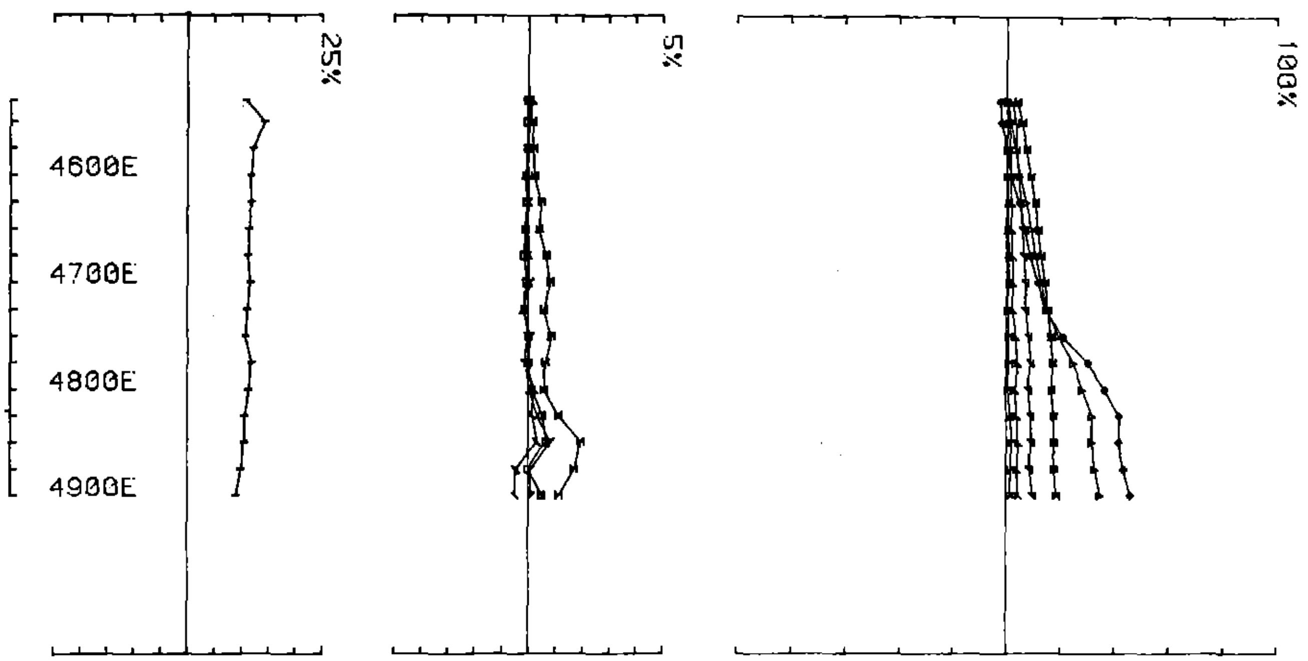
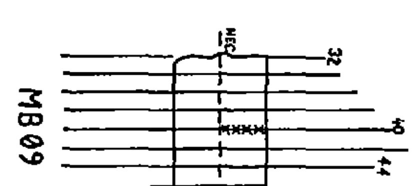


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 4000N component Hz secondary field Ch 1 contin. norm.



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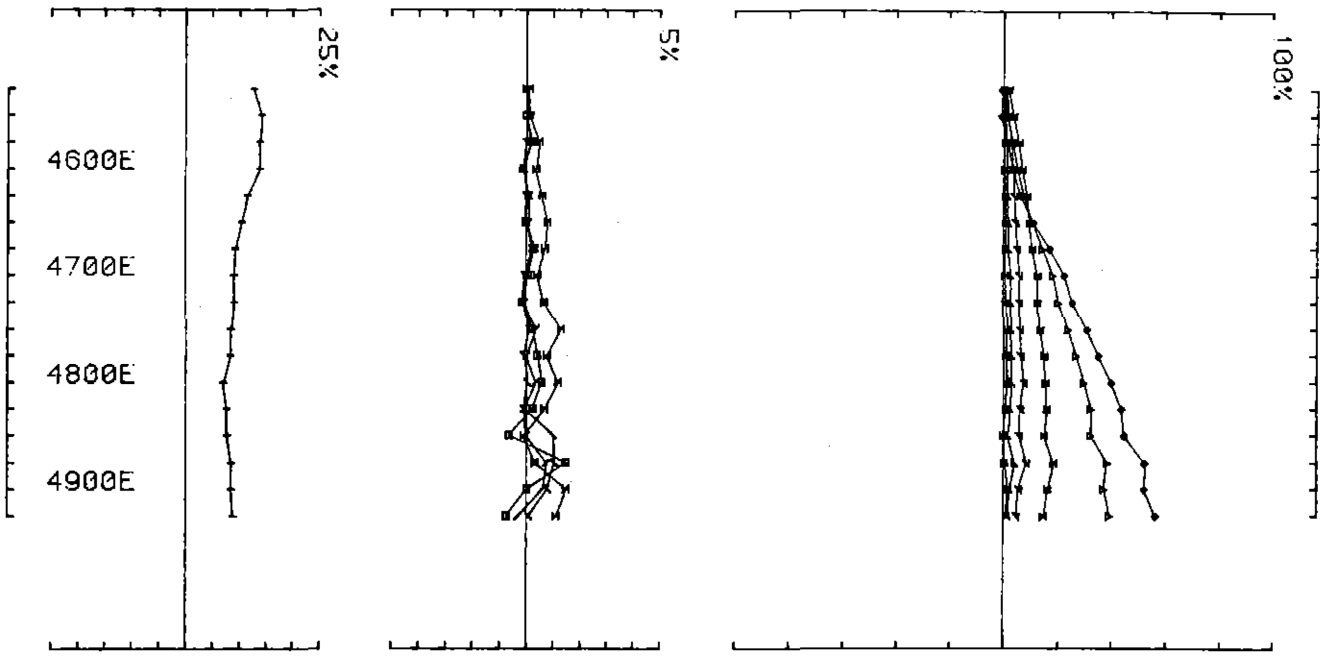
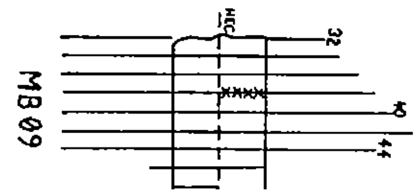


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3800N component Hz secondary field Ch 1 contin. norm.



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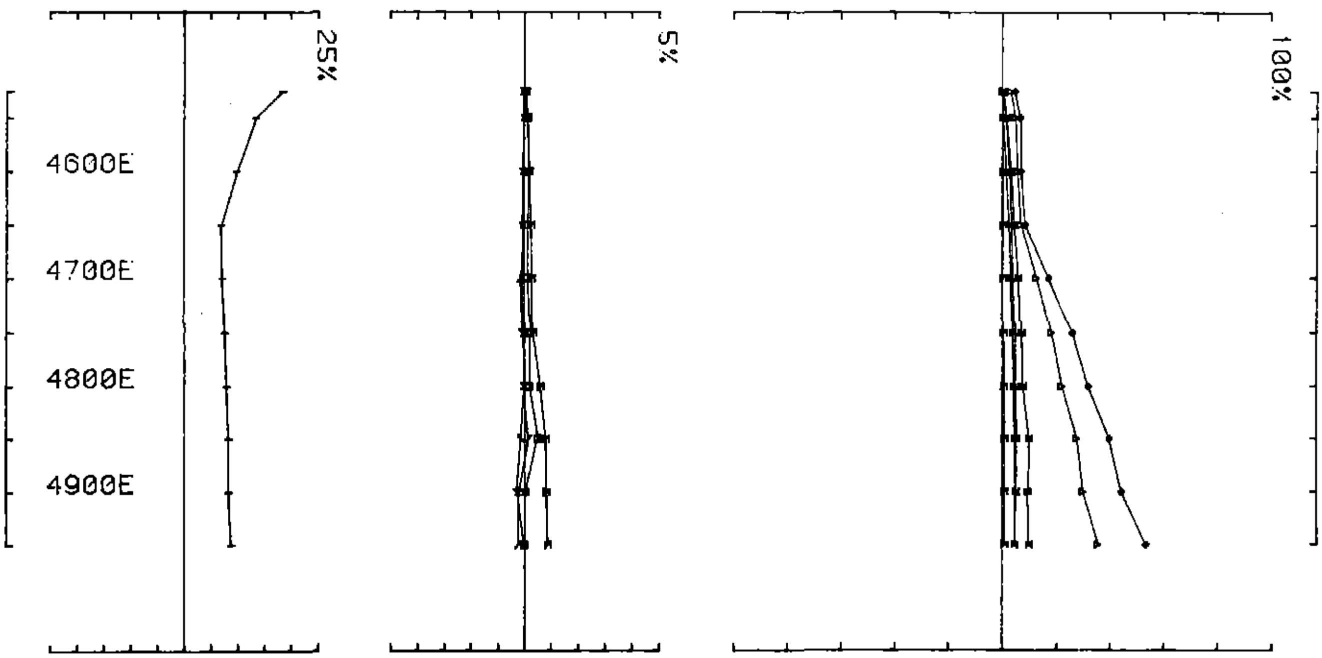
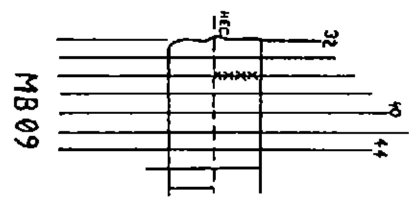


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3600N component Hz secondary field Ch 1 contin. norm.



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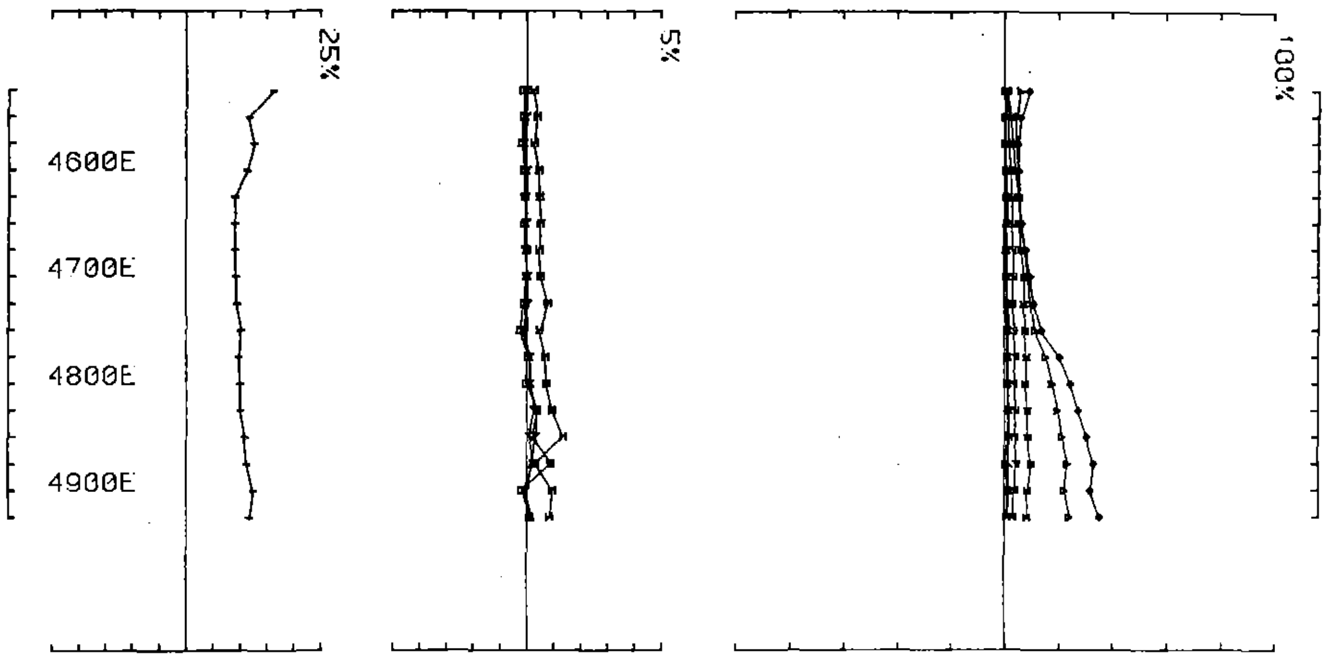
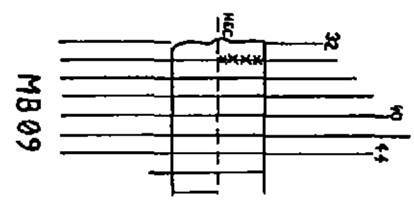


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3400N component Hz secondary field Ch 1 contin. norm.



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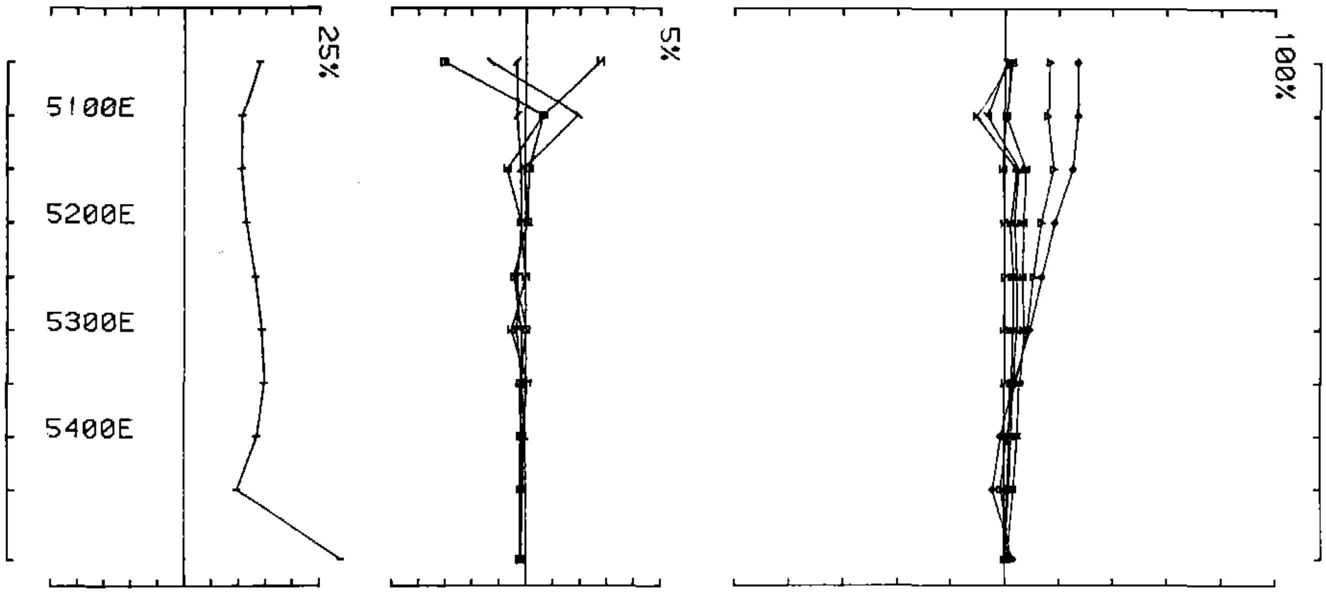
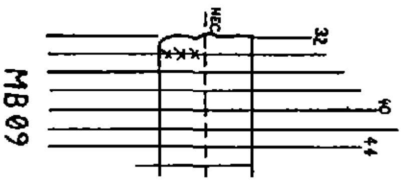
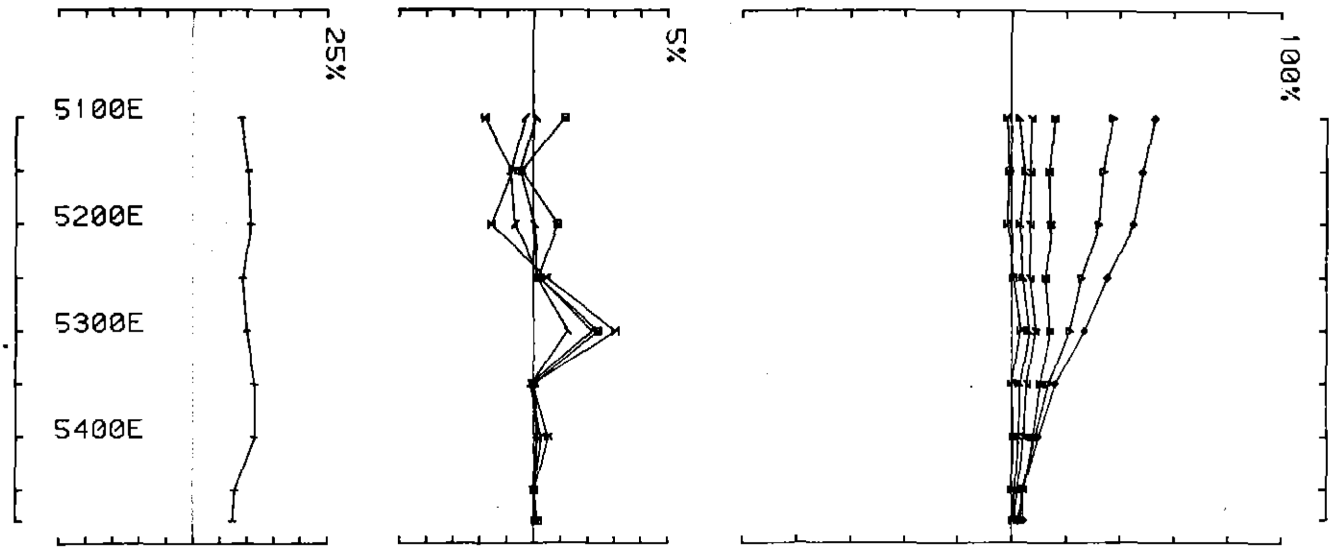


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3400N component Hz secondary field Ch 1 contin. norm.

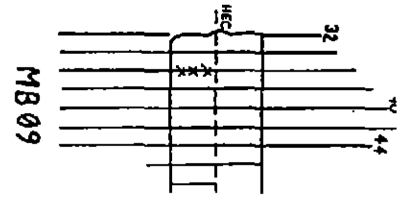




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3600N component Hz secondary field Ch 1 contin. norm.



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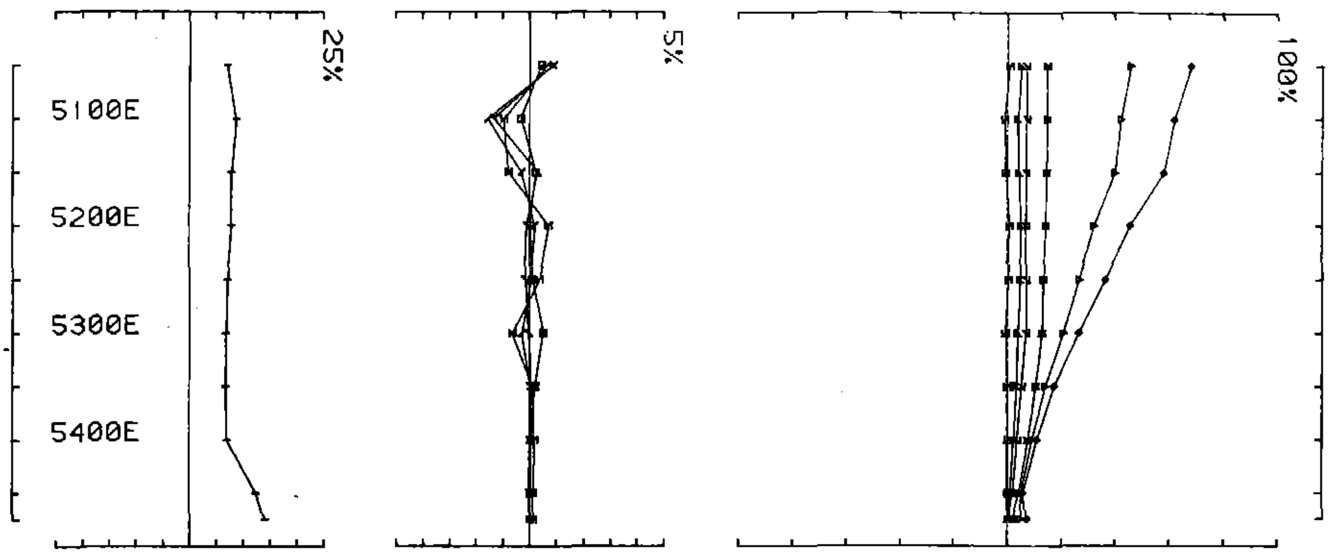
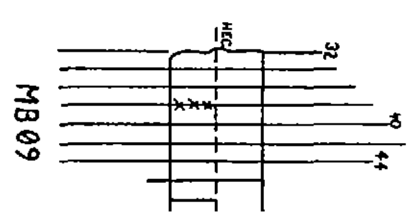


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3800N component Hz secondary field Ch 1 contin. norm.



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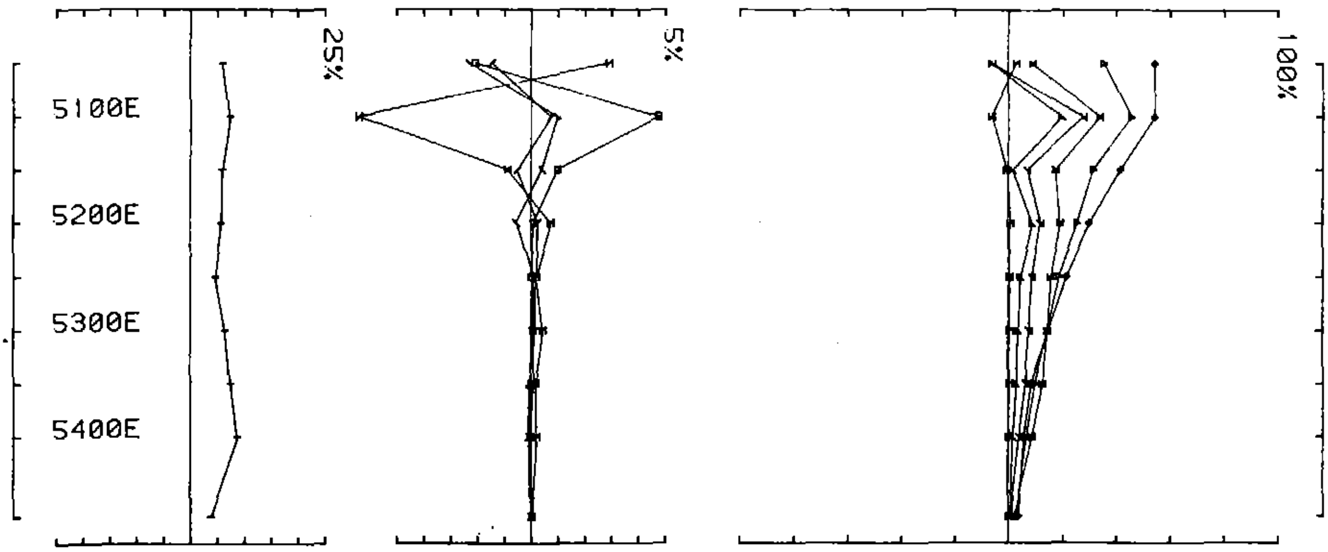
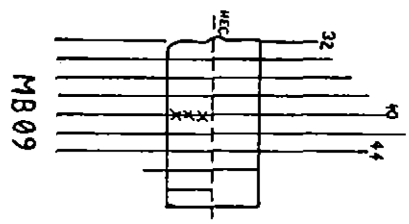


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 4000N component Hz secondary field Ch 1 contin. norm.



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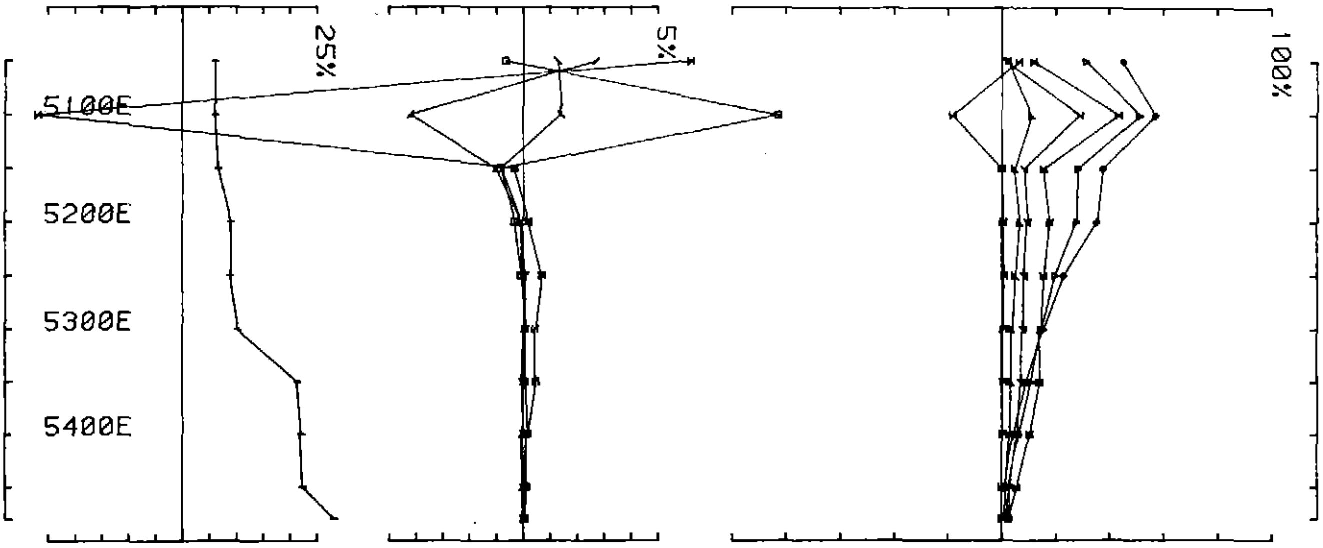
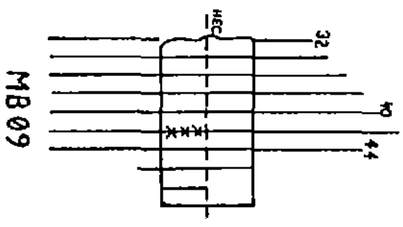
138

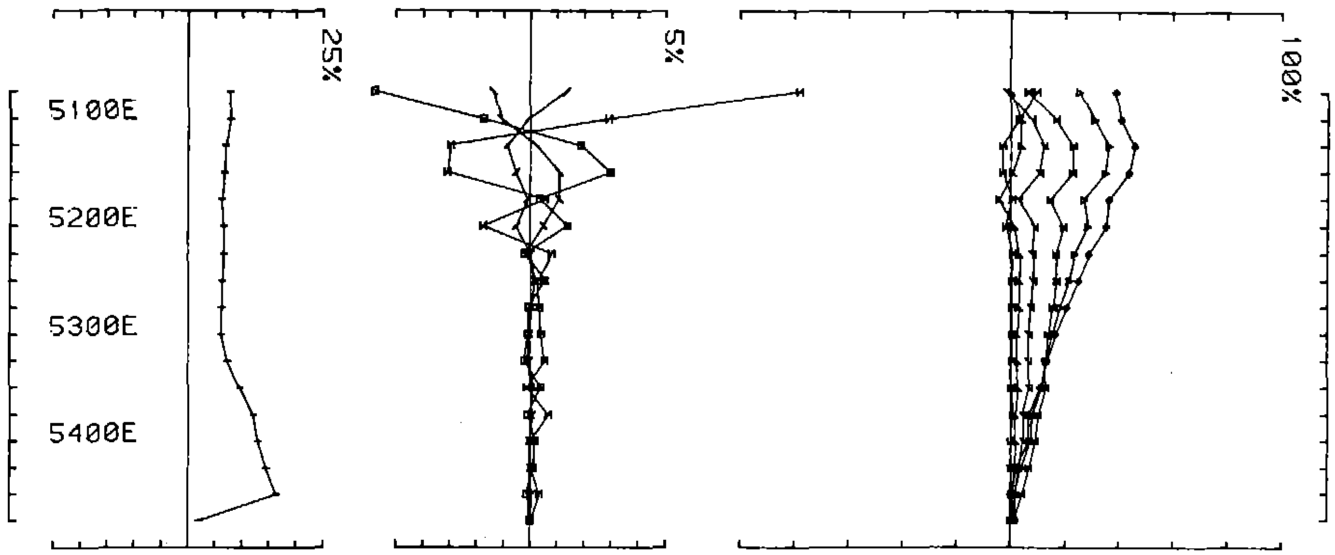


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 4200N component Hz secondary field Ch 1 contin. norm.

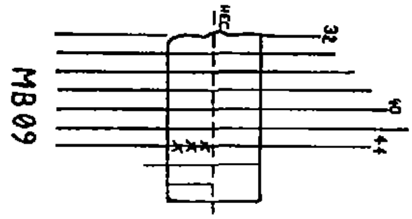




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 4400N component Hz secondary field Ch 1 contin. norm.



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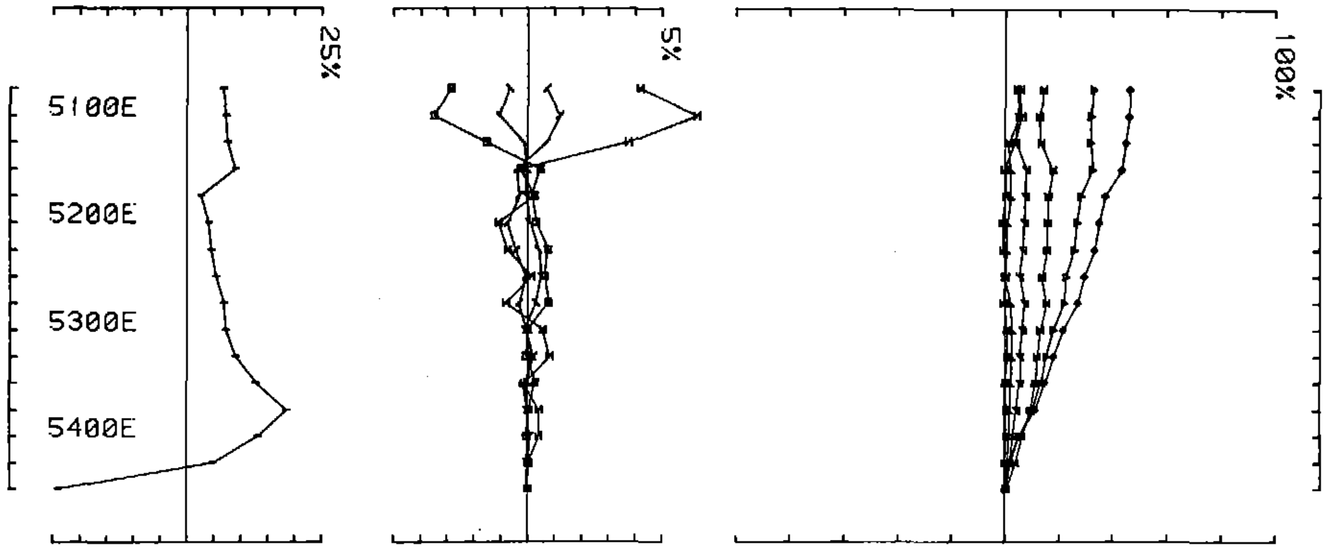
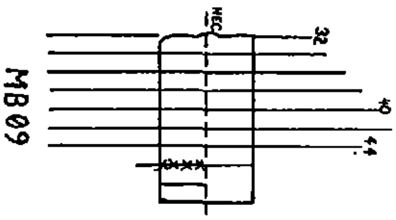
767141



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 4600N component Hz secondary field Ch I contin. norm.



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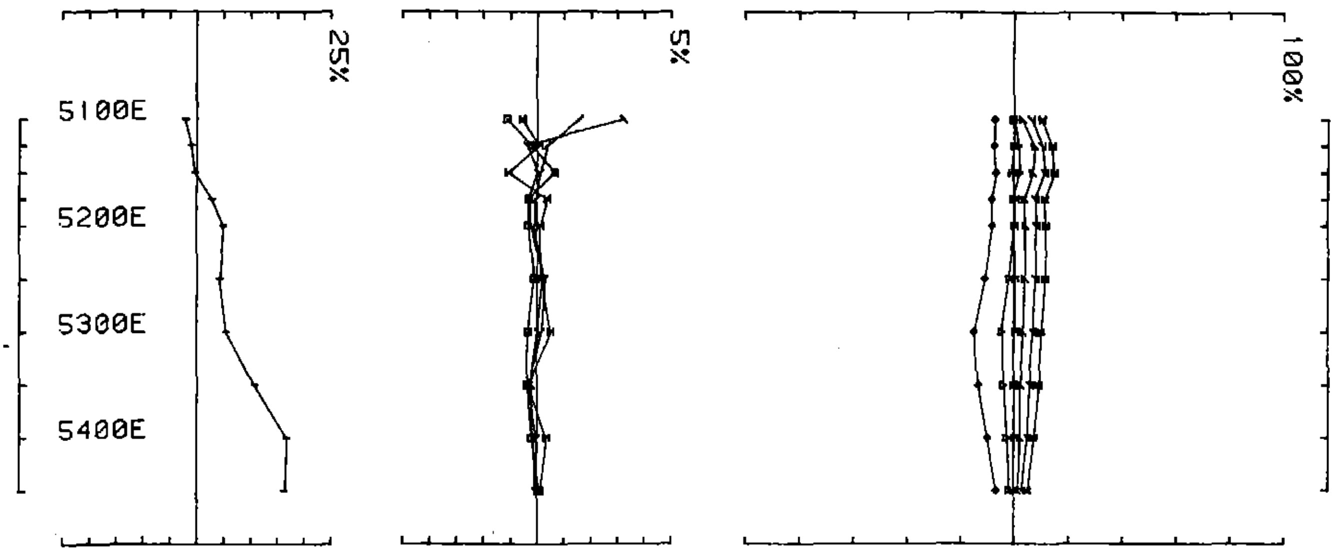
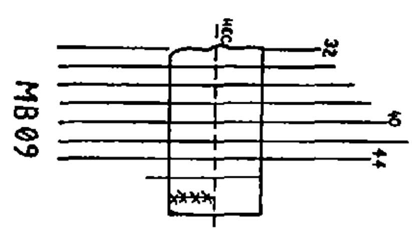
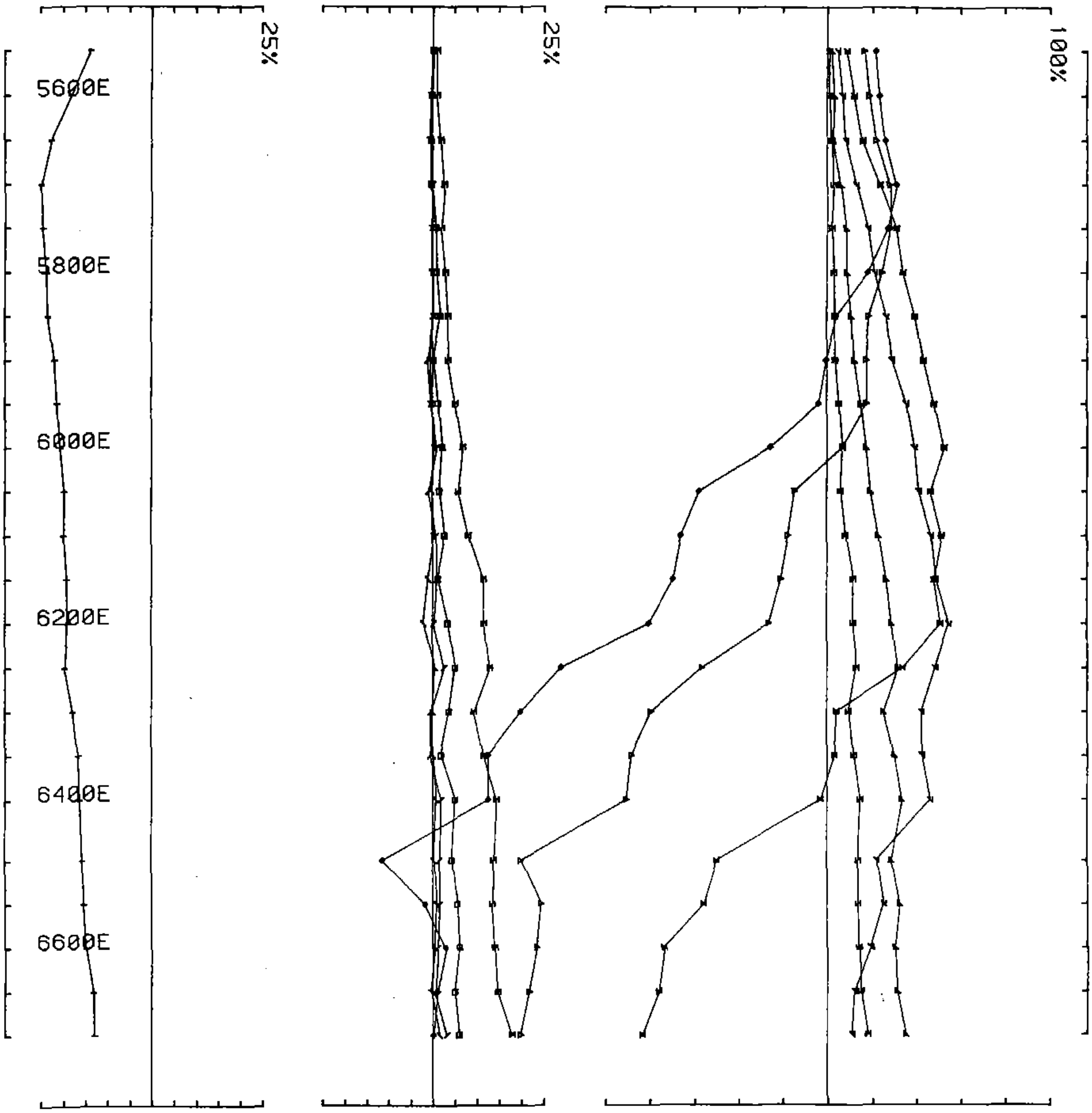


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26 230

loop no 9 line 4800N component Hz secondary field Ch 1 contin. norm.

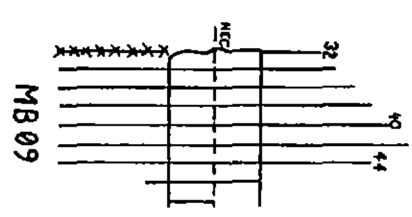




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3200N component Hz secondary field Ch 1 contin. norm.



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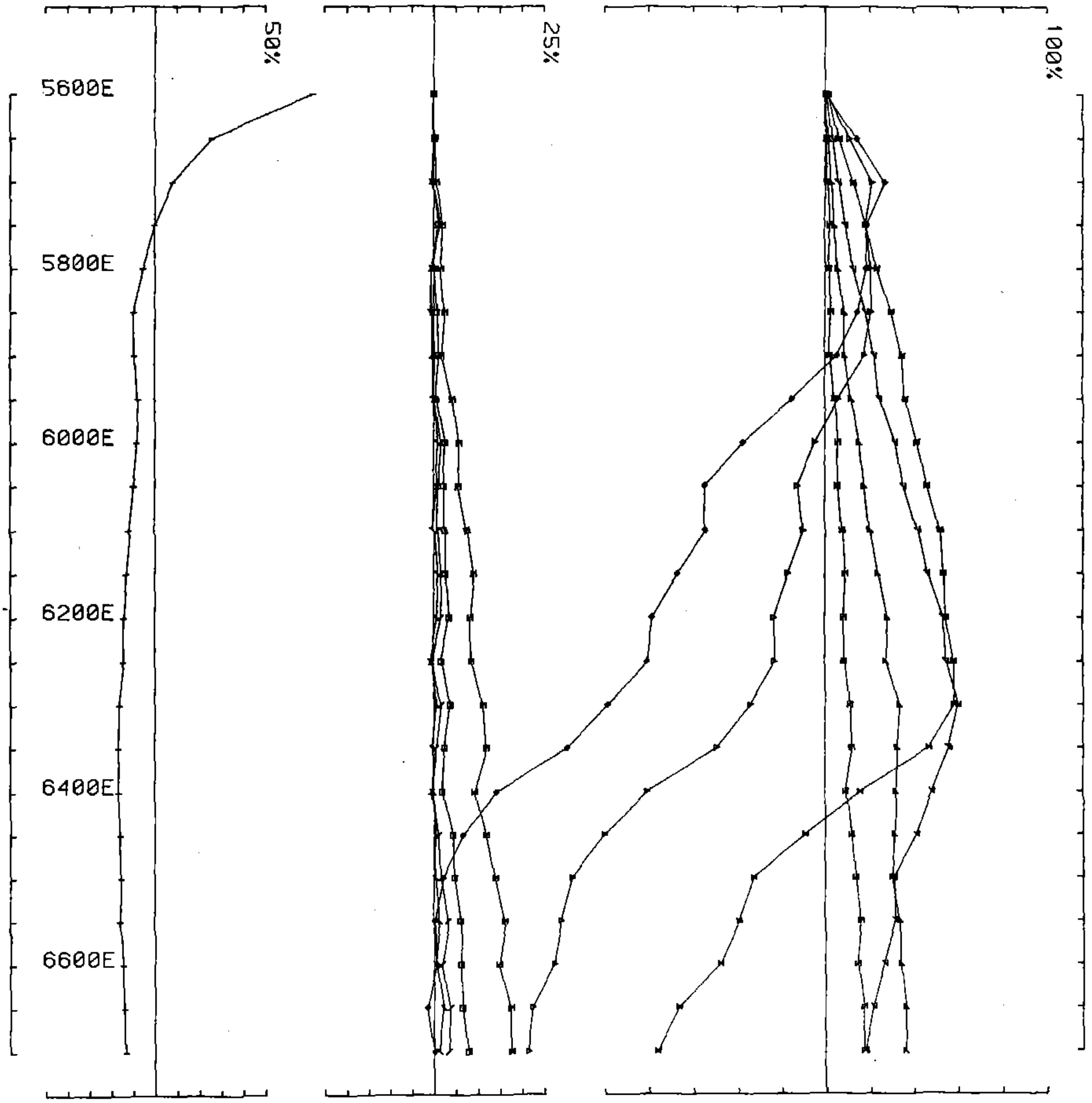
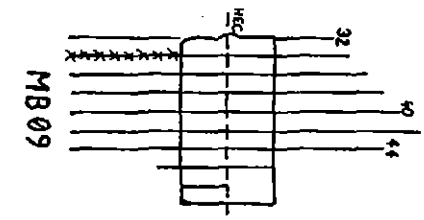


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230 ** REDUCED CH 1 **
loop no 9 line 3400N component Hz secondary field Ch 1 contin. norm.



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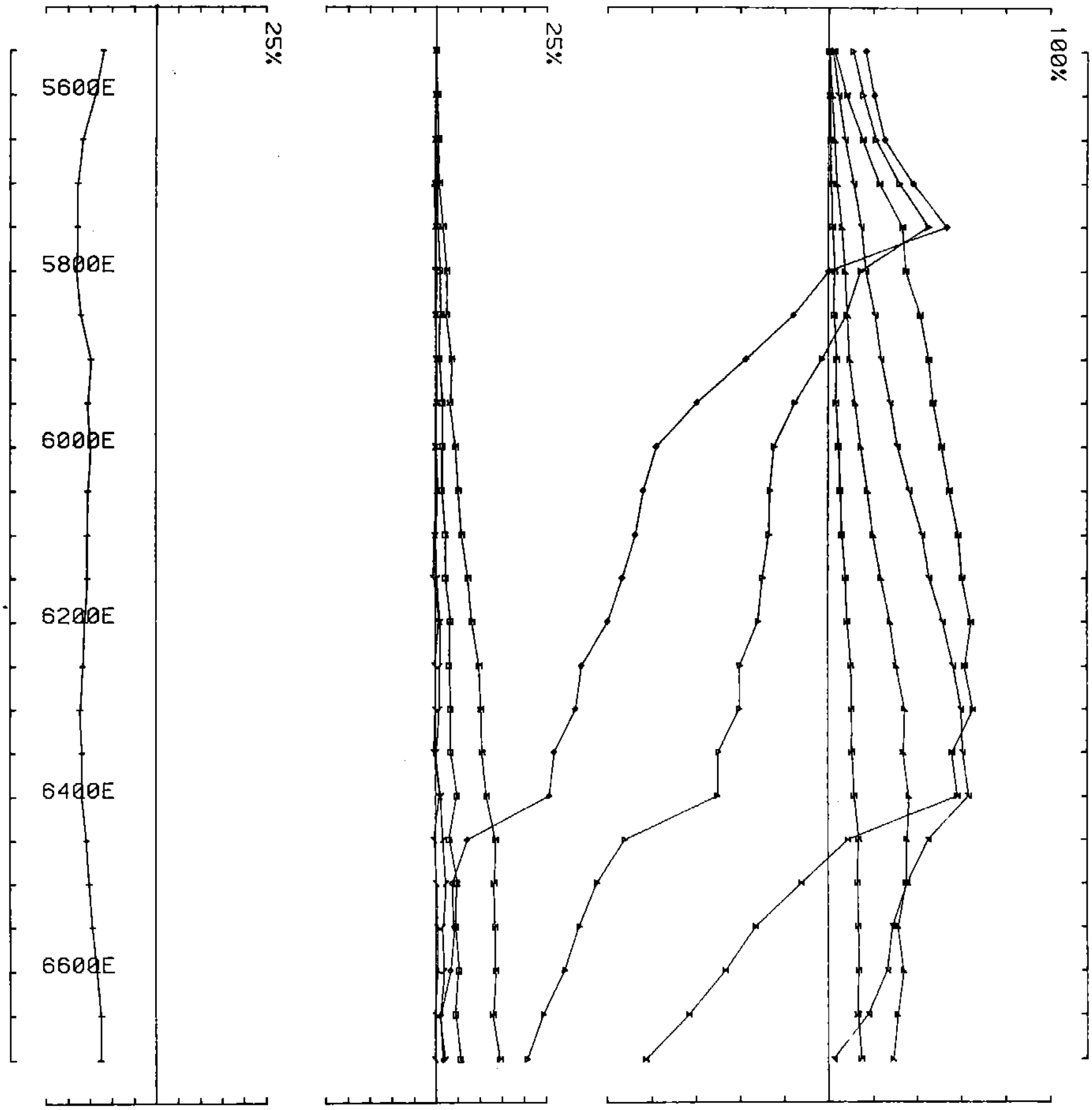
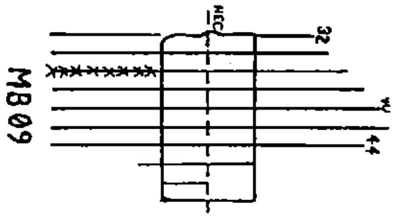


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3600N component Hz secondary field Ch 1 contin. norm.



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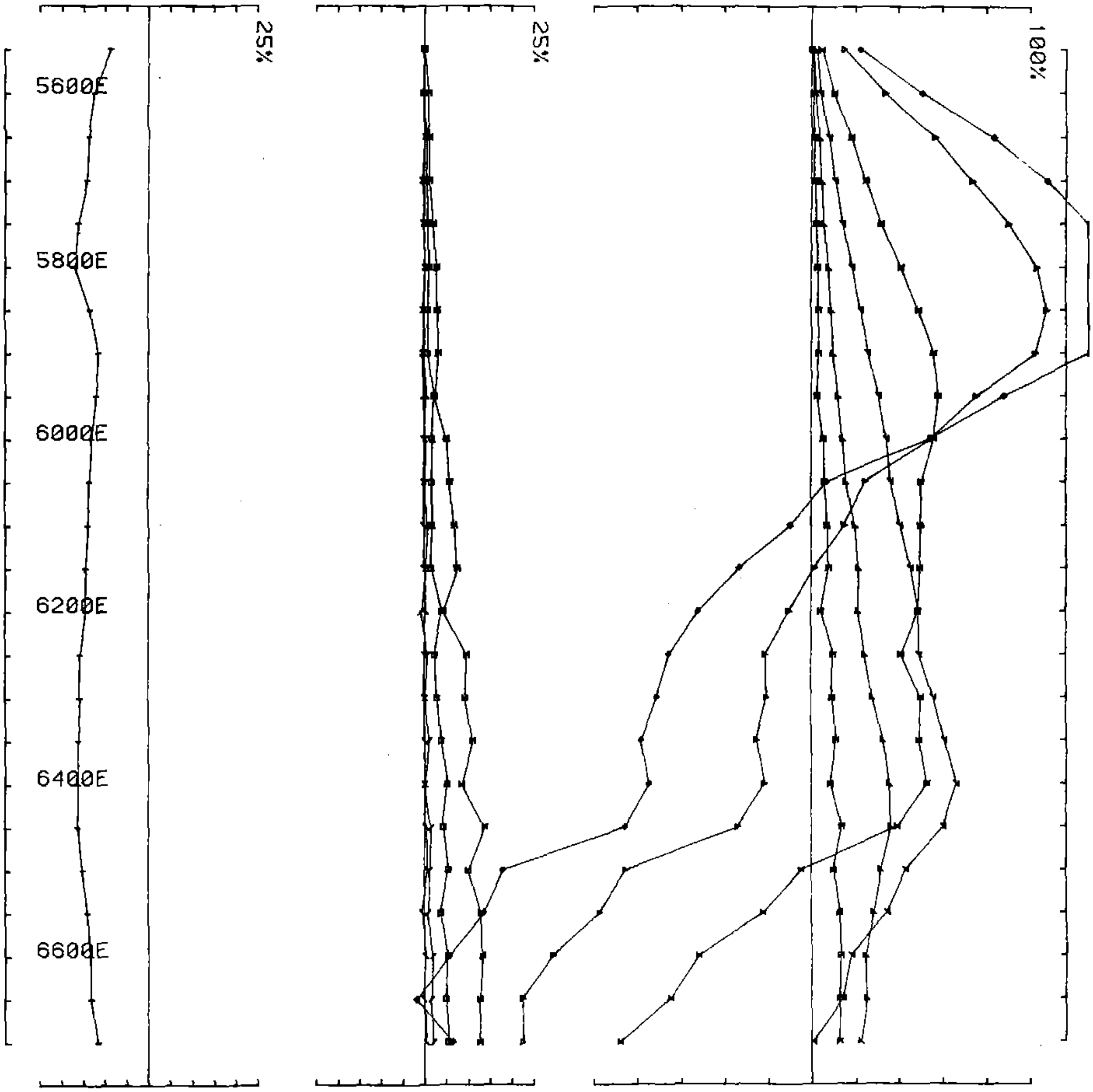
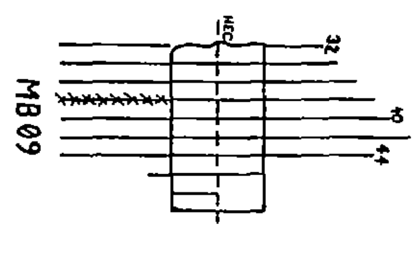


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 3800N component Hz secondary field Ch I contin. norm.



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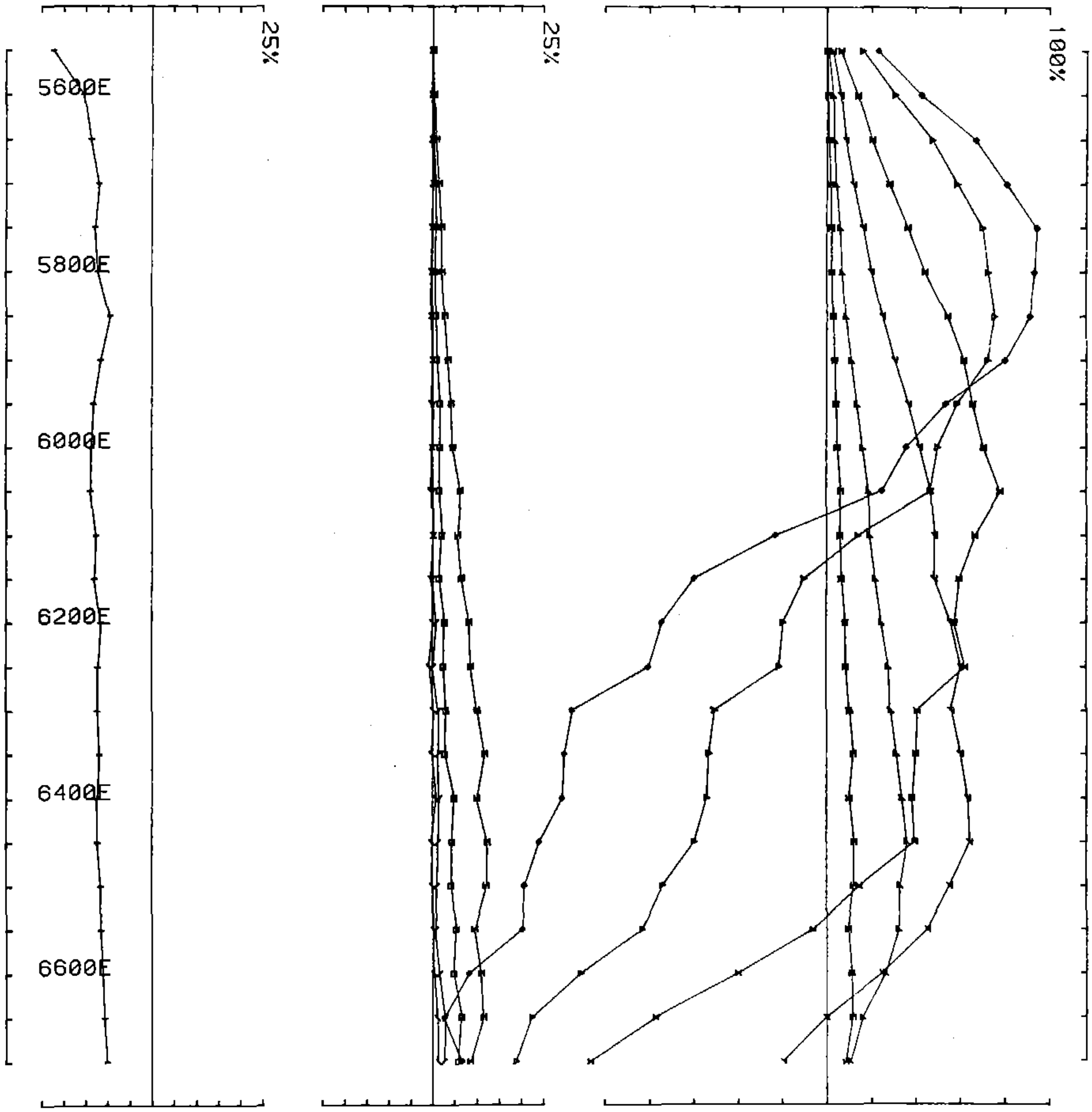
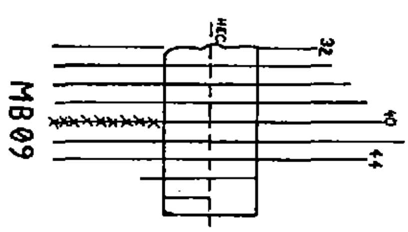
767147



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 4000N component Hz secondary field Ch I contin. norm.



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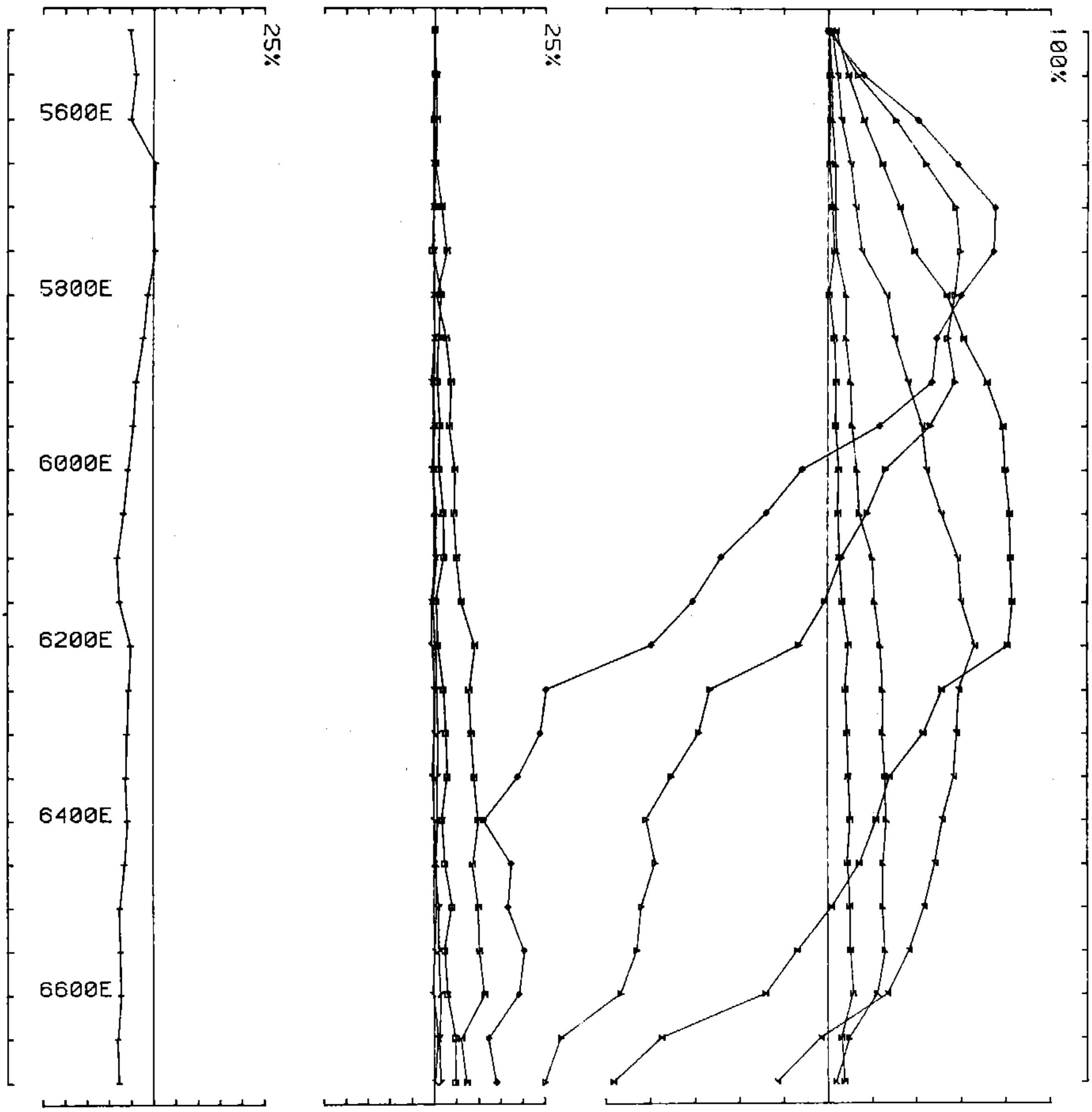
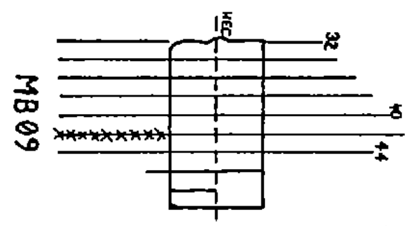


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 9 line 4200N component Hz secondary field Ch 1 contin. norm.



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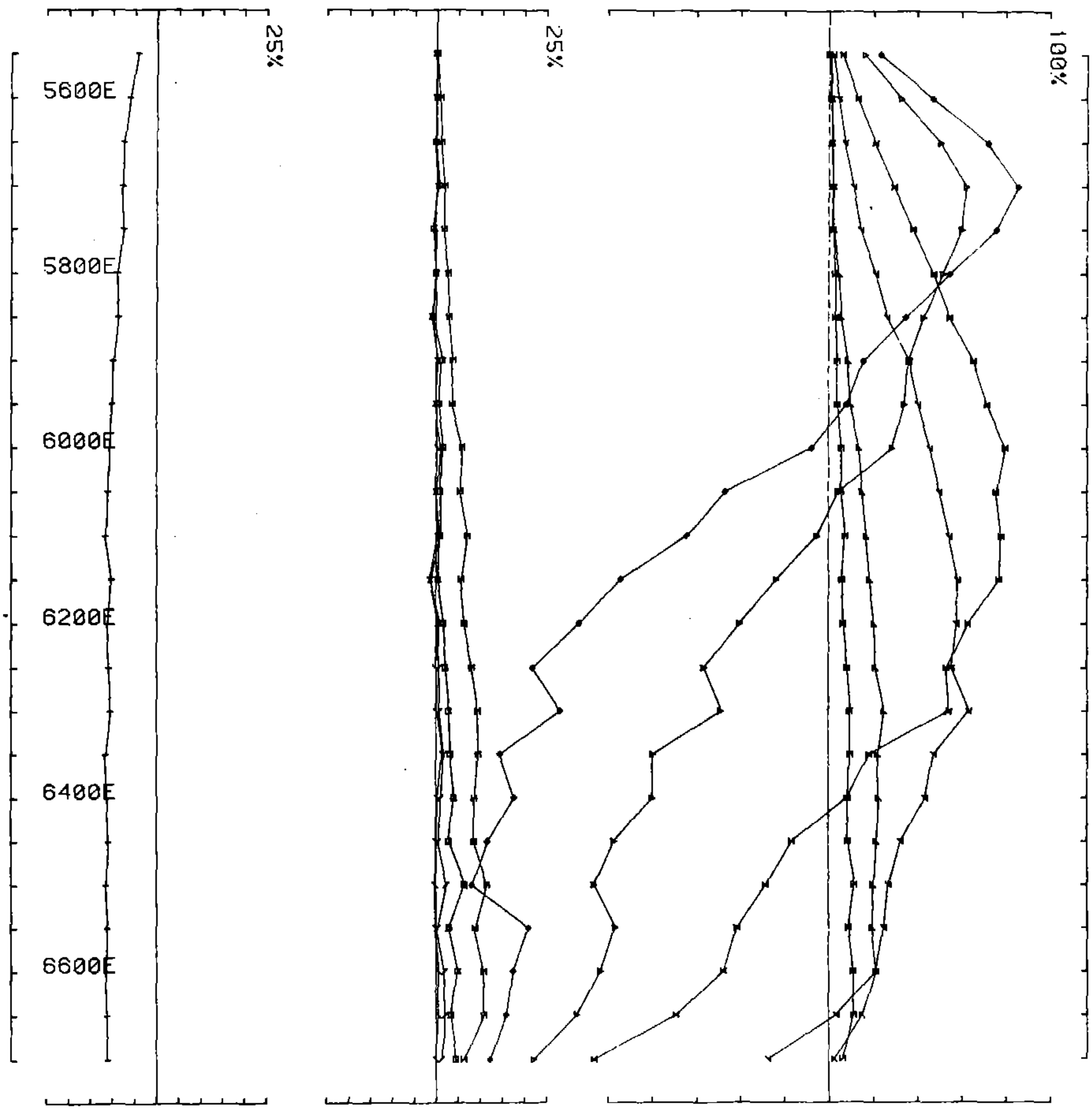
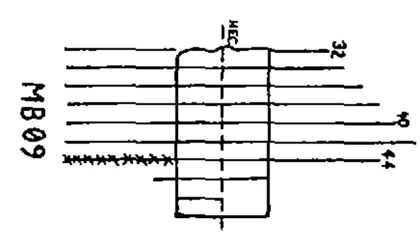


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 4400N component Hz secondary field Ch 1 contin. norm.



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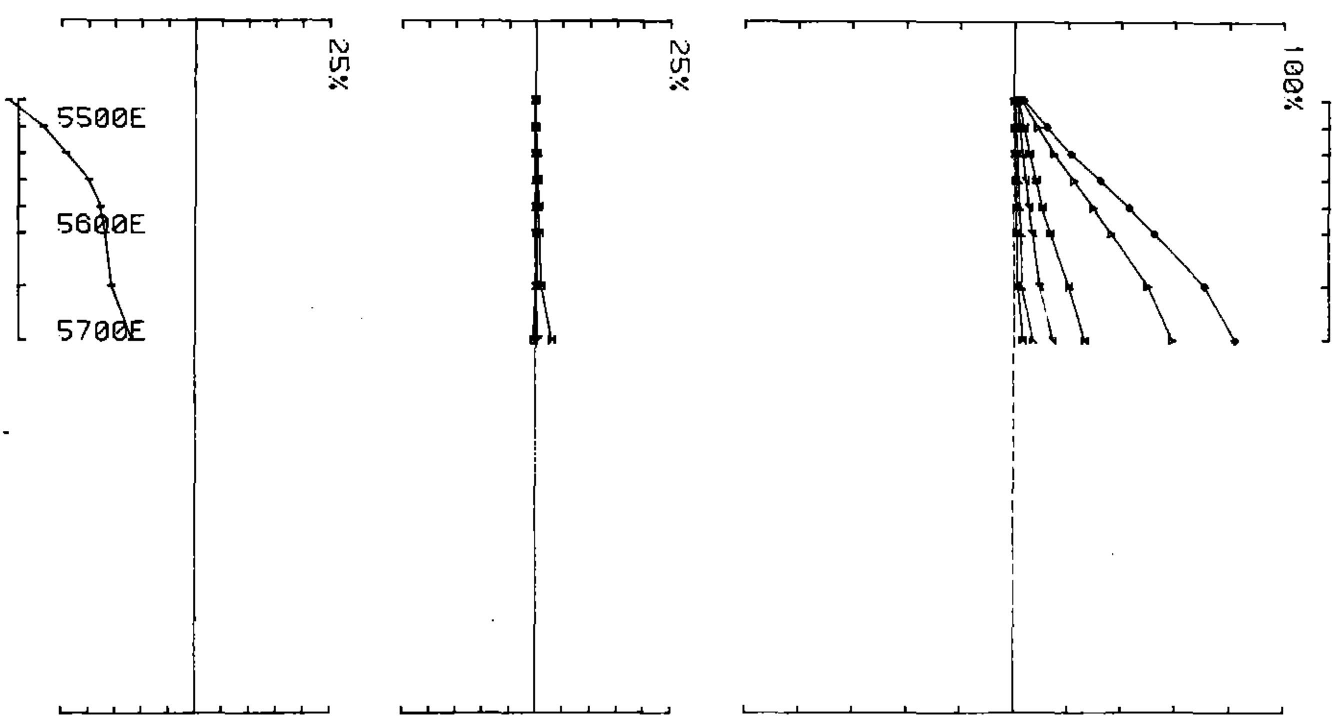
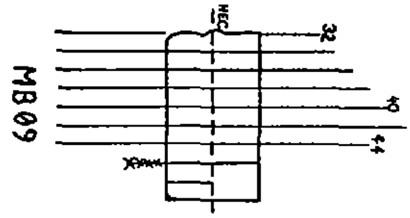


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 9 line 4600N component Hz secondary field Ch I contin. norm.



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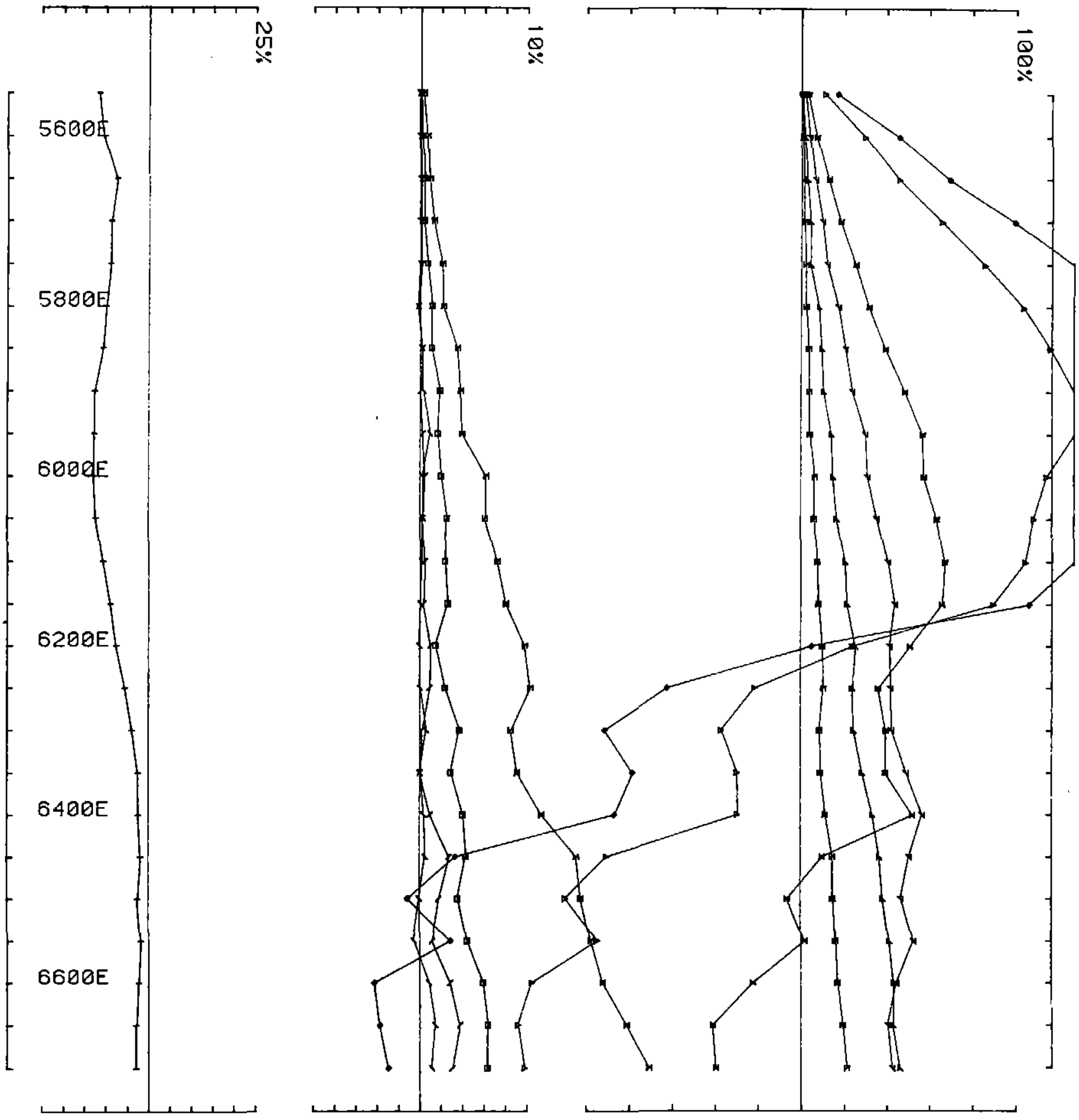
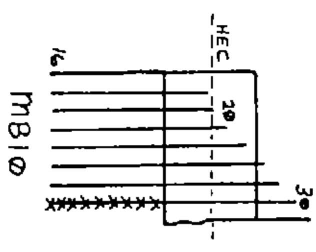
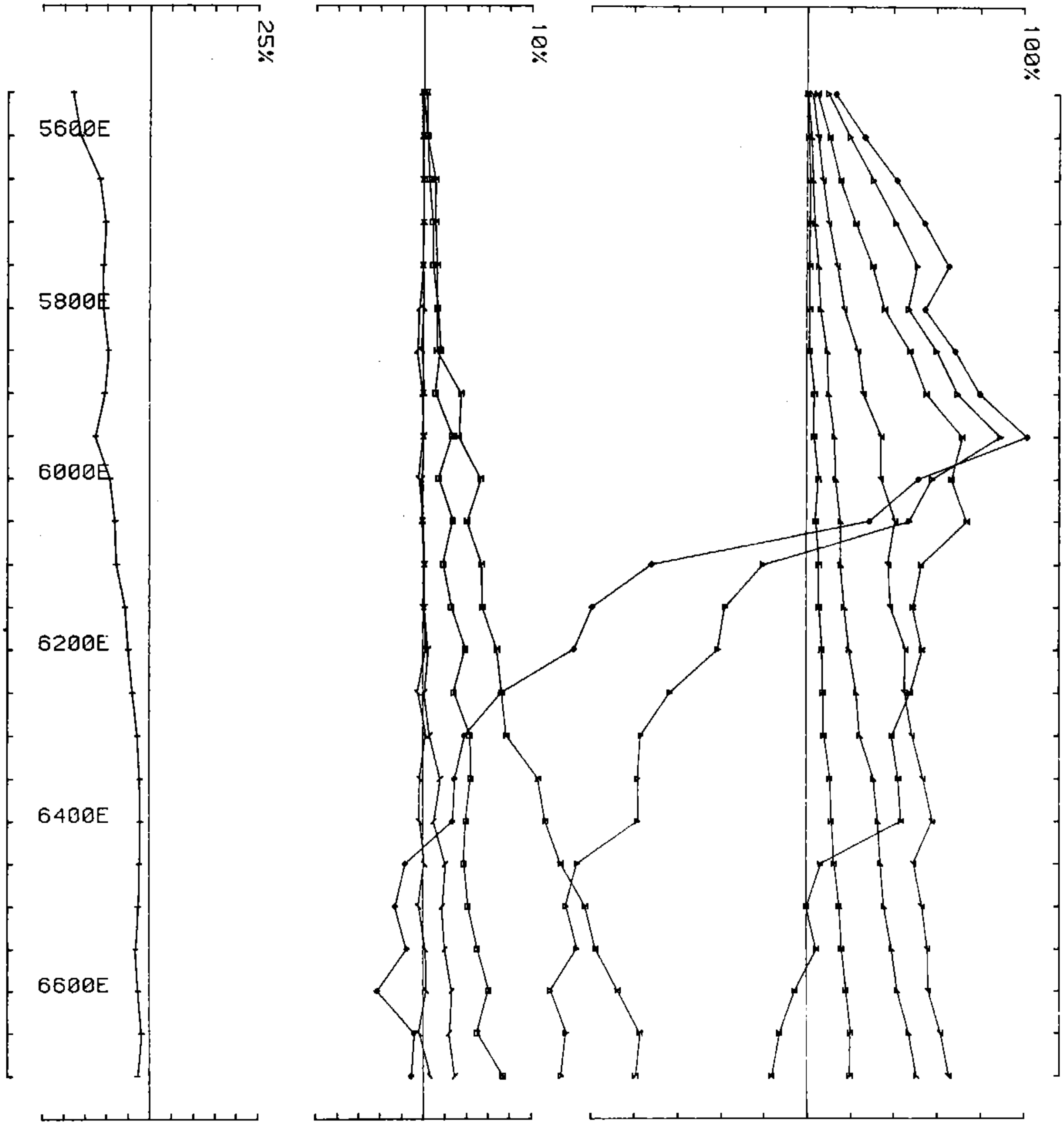


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 3000N component Hz secondary field Ch 1 contin. norm.





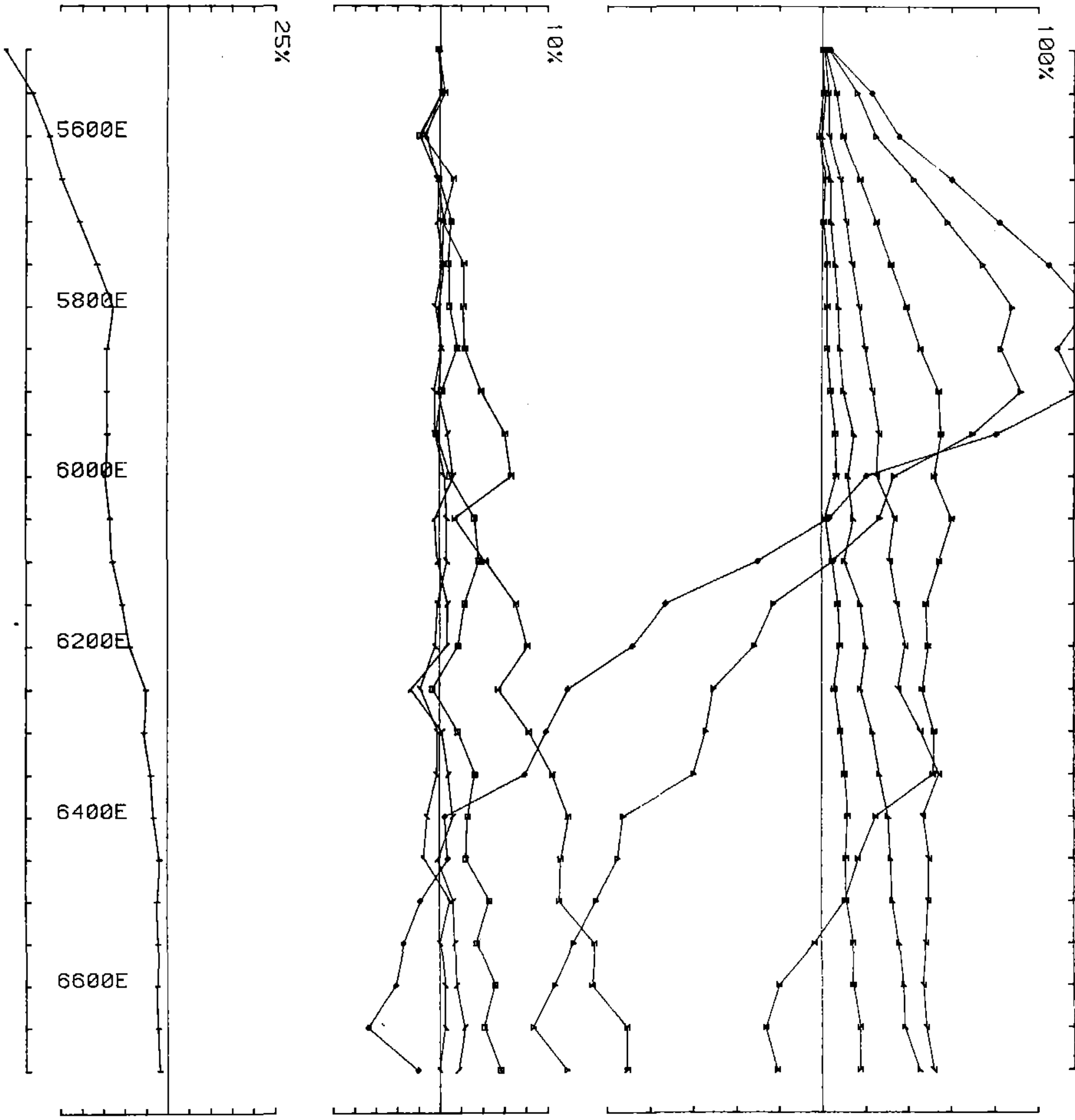
UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 2800N component Hz secondary field Ch I contin. norm.

152

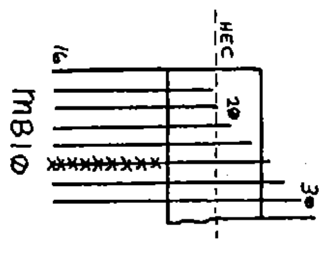
767153



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 2600N component Hz secondary field Ch 1 contin. norm.



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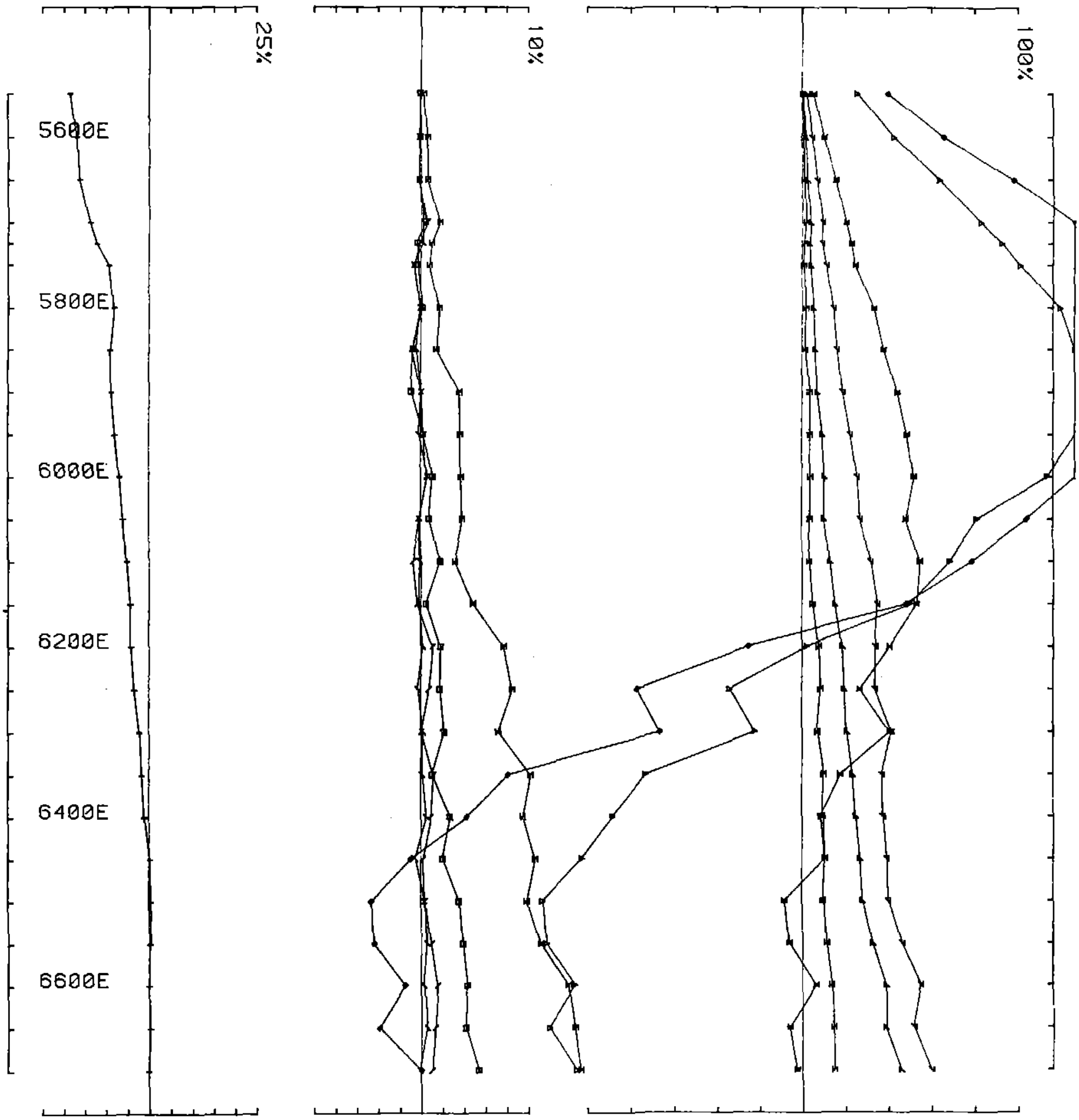
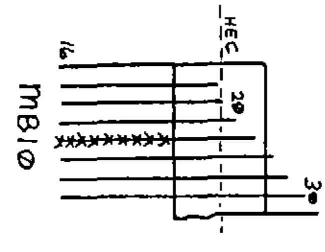


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 2400N component Hz secondary field Ch 1 contin. norm.



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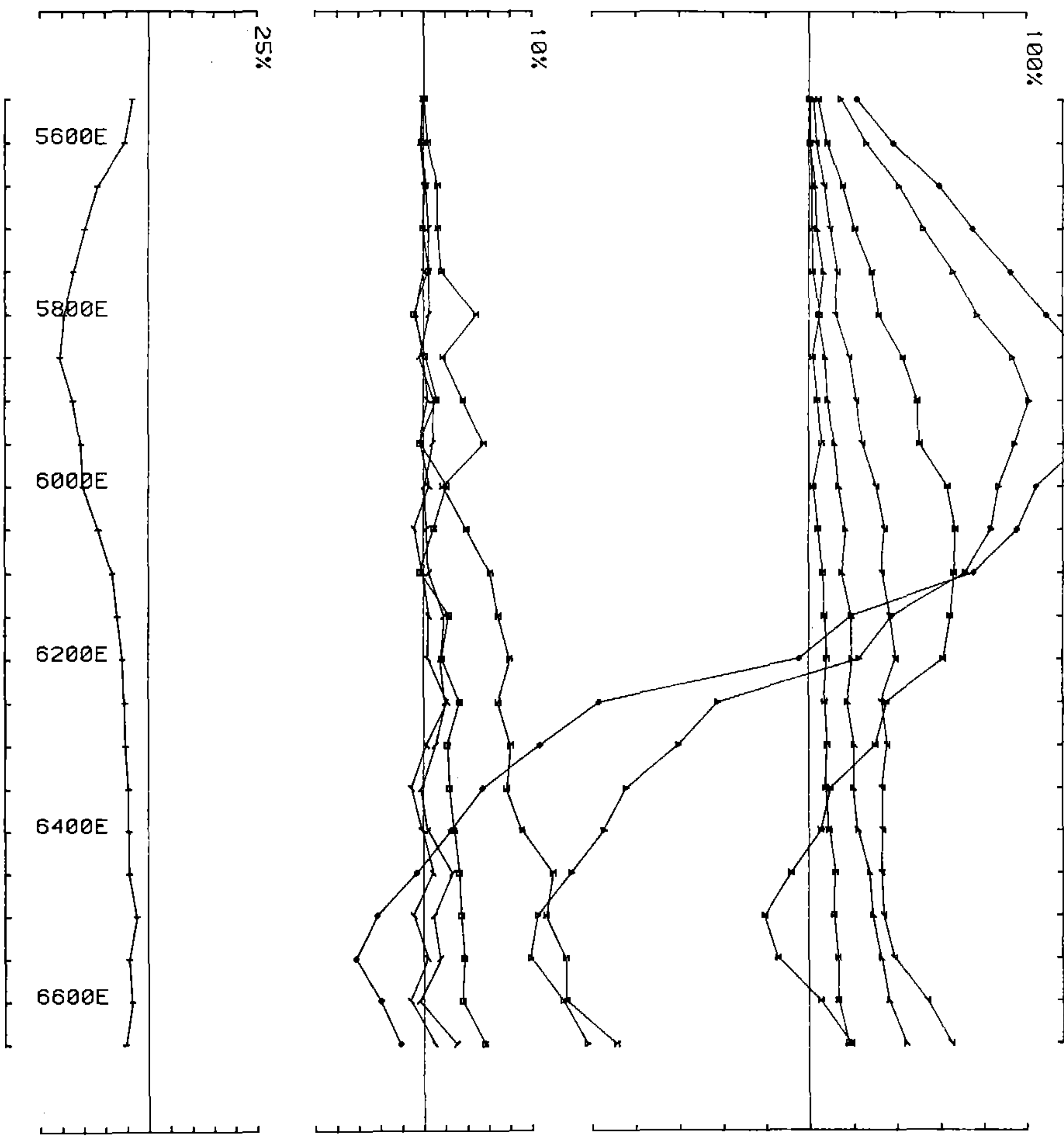
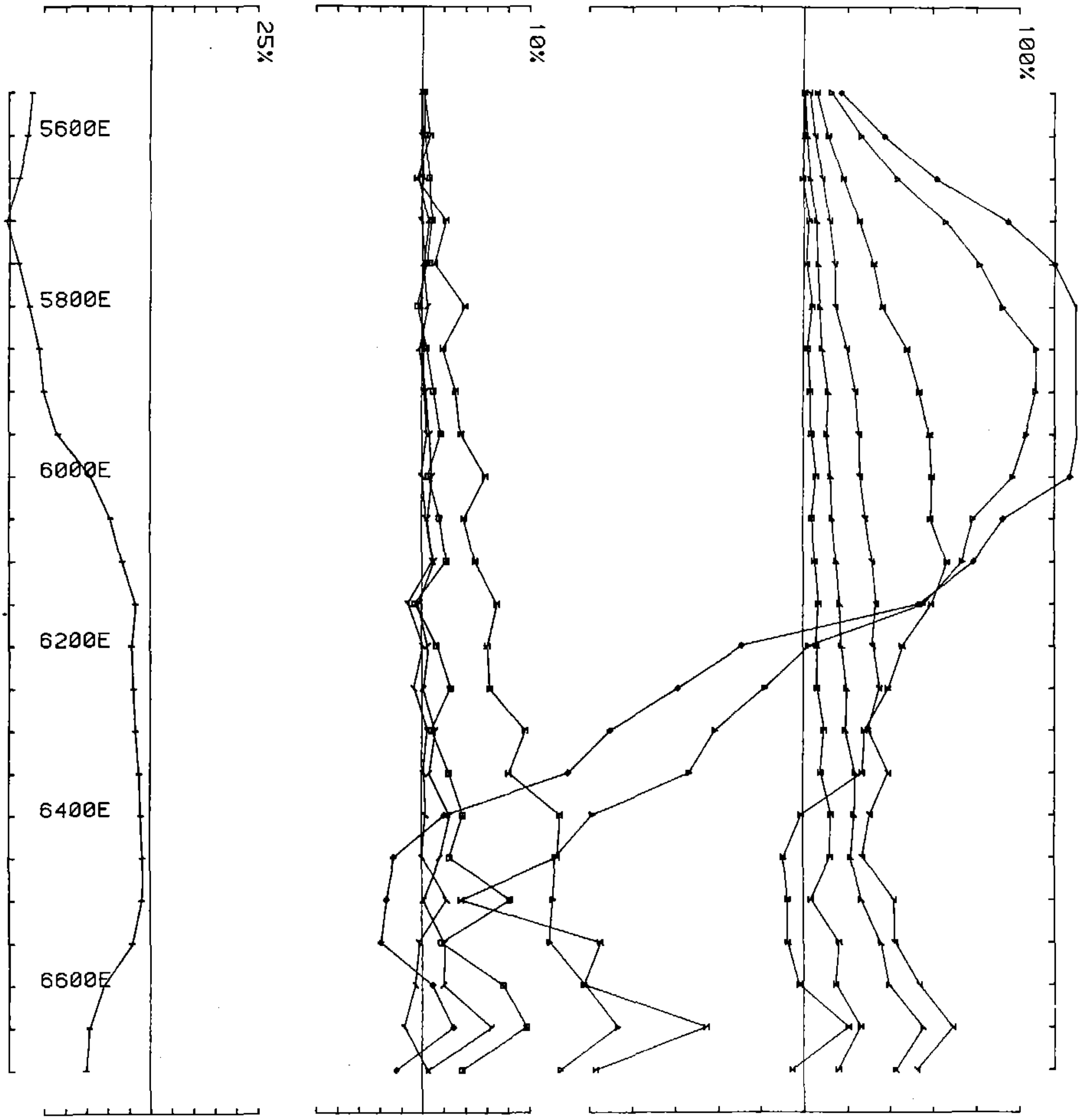
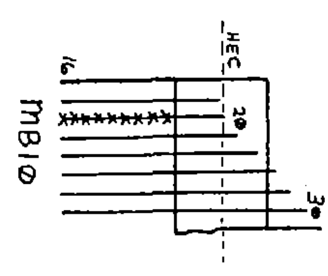
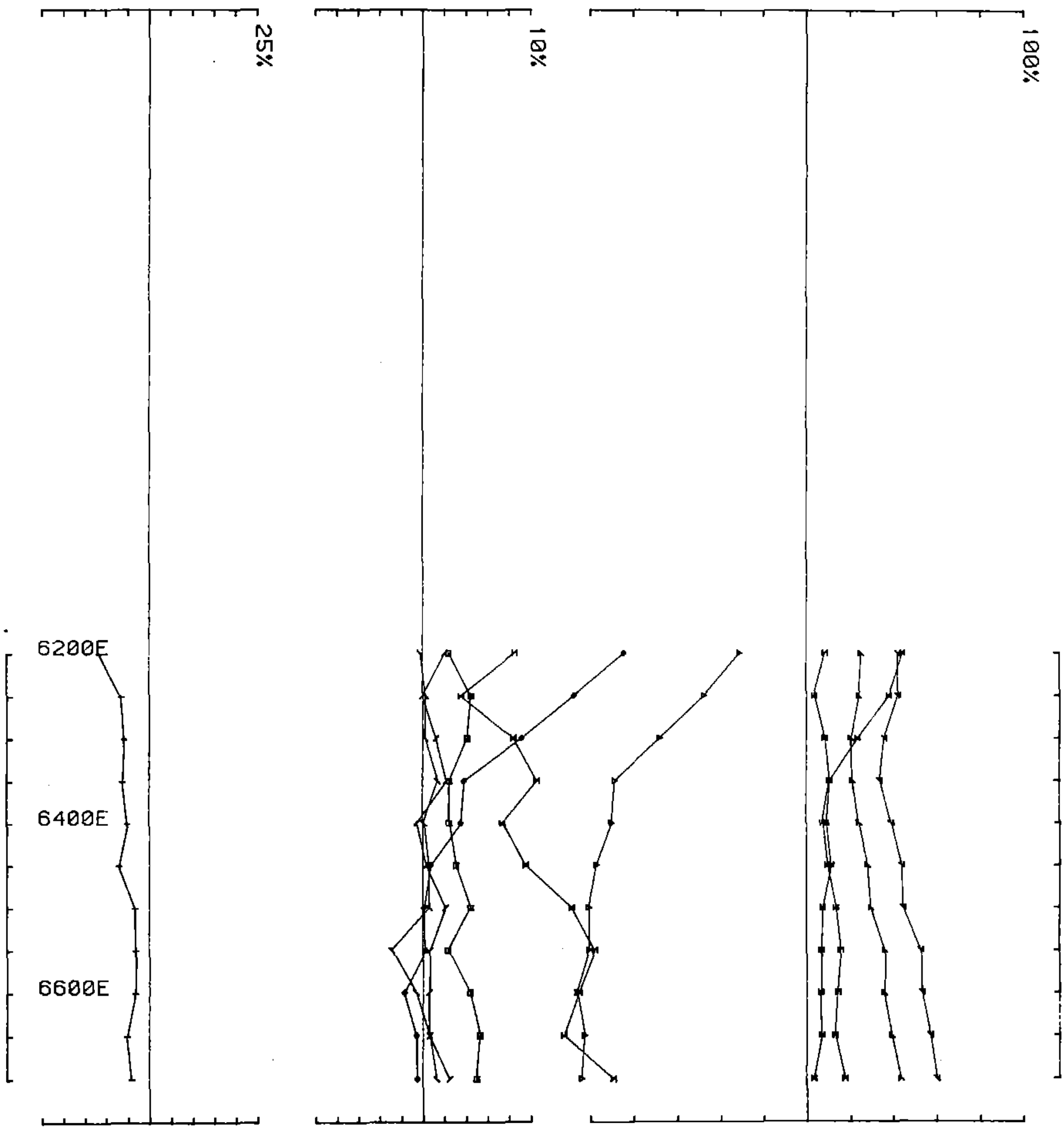


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 2200N component Hz secondary field Ch I contin. norm.



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 2000N component Hz secondary field Ch 1 contin. norm.

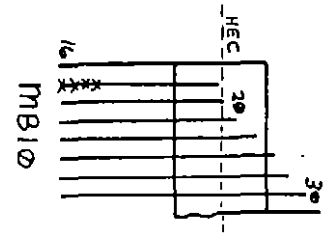


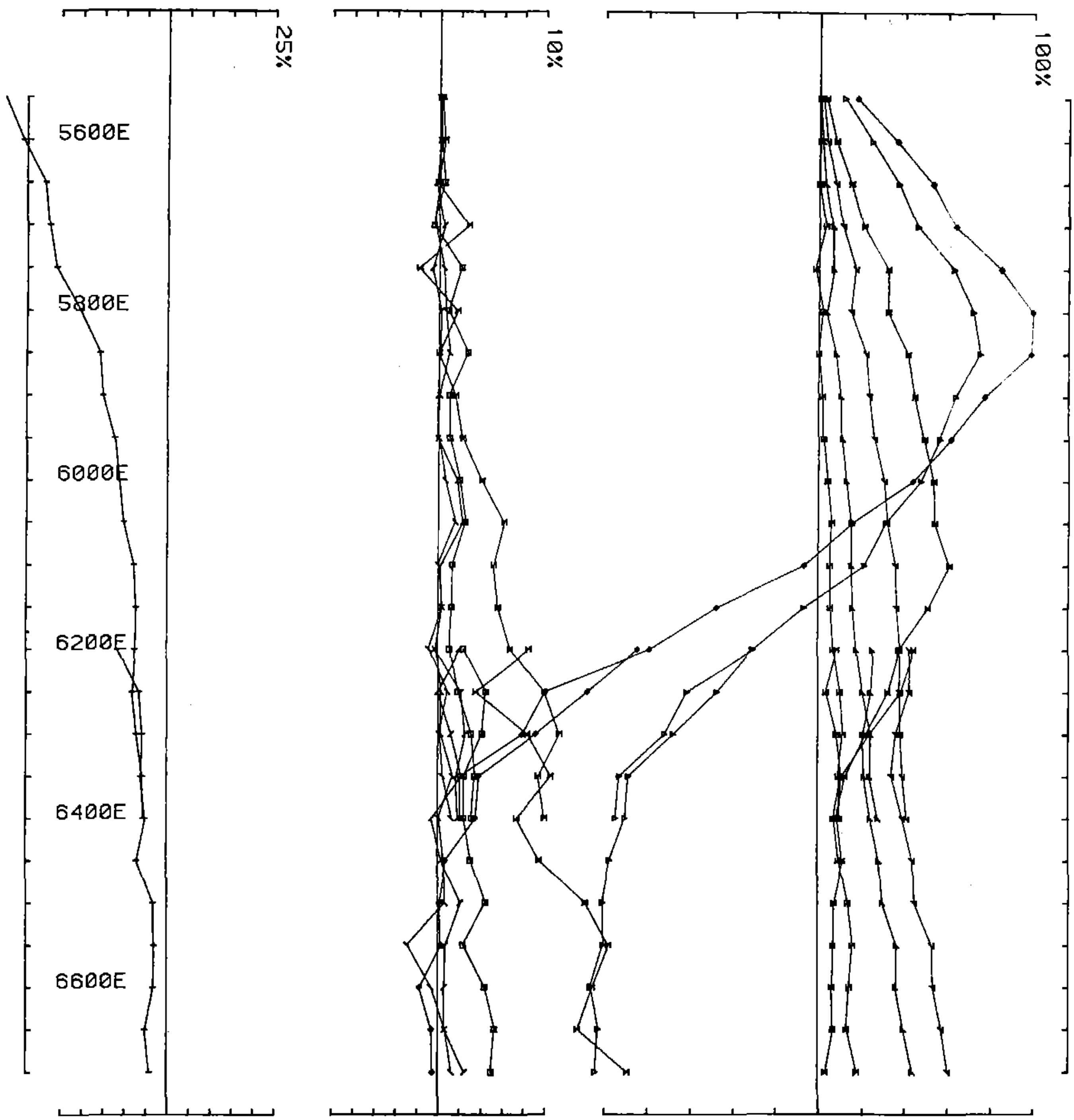


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 1800N component Hz secondary field Ch 1 contin. norm.

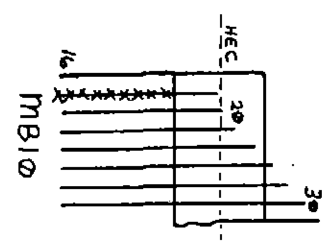




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 1800N component Hz secondary field Ch 1 contin. norm.



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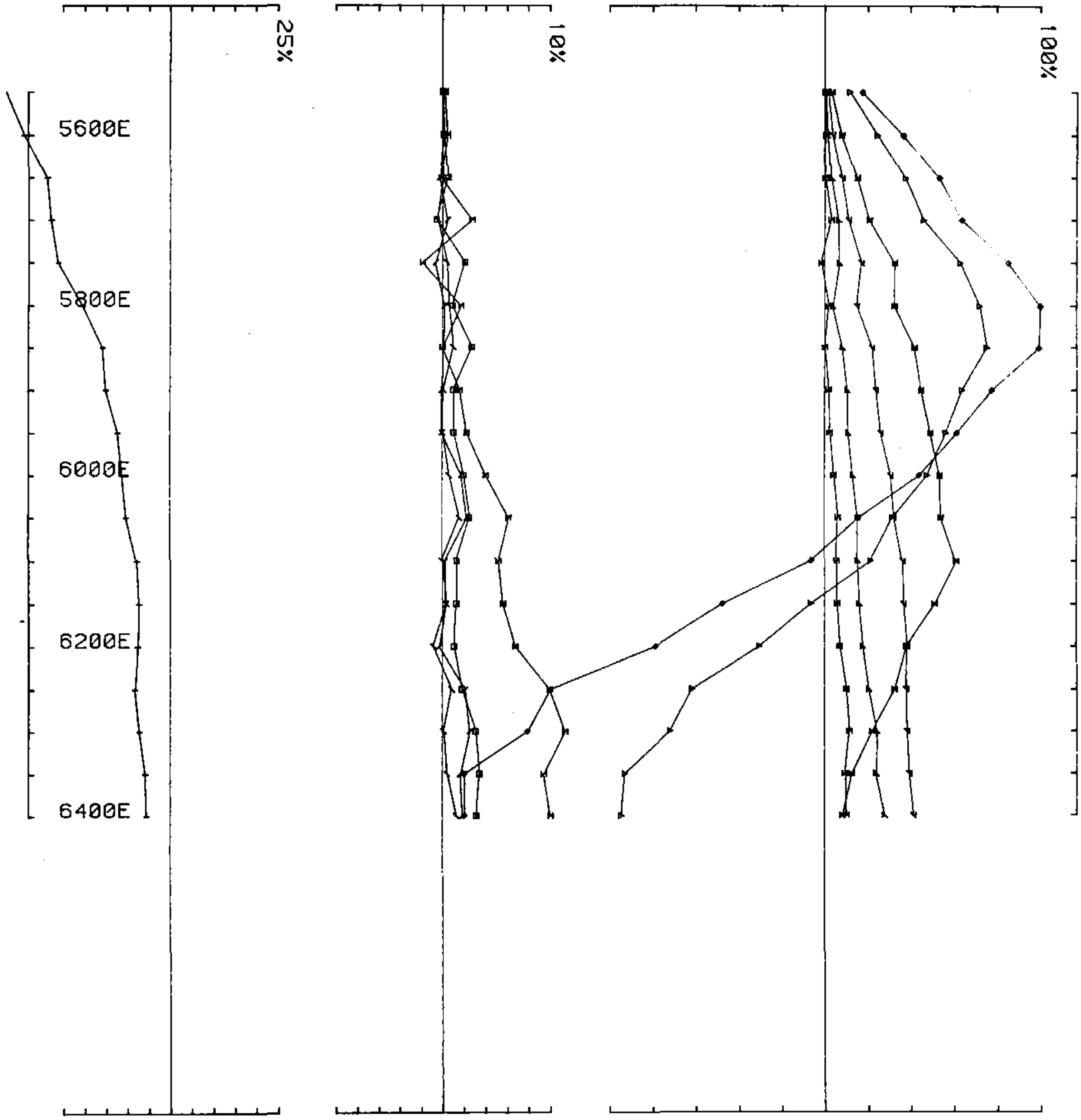
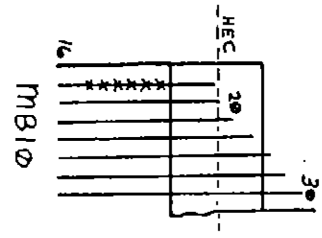


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 1800N component Hz secondary field Ch 1 contin. norm.



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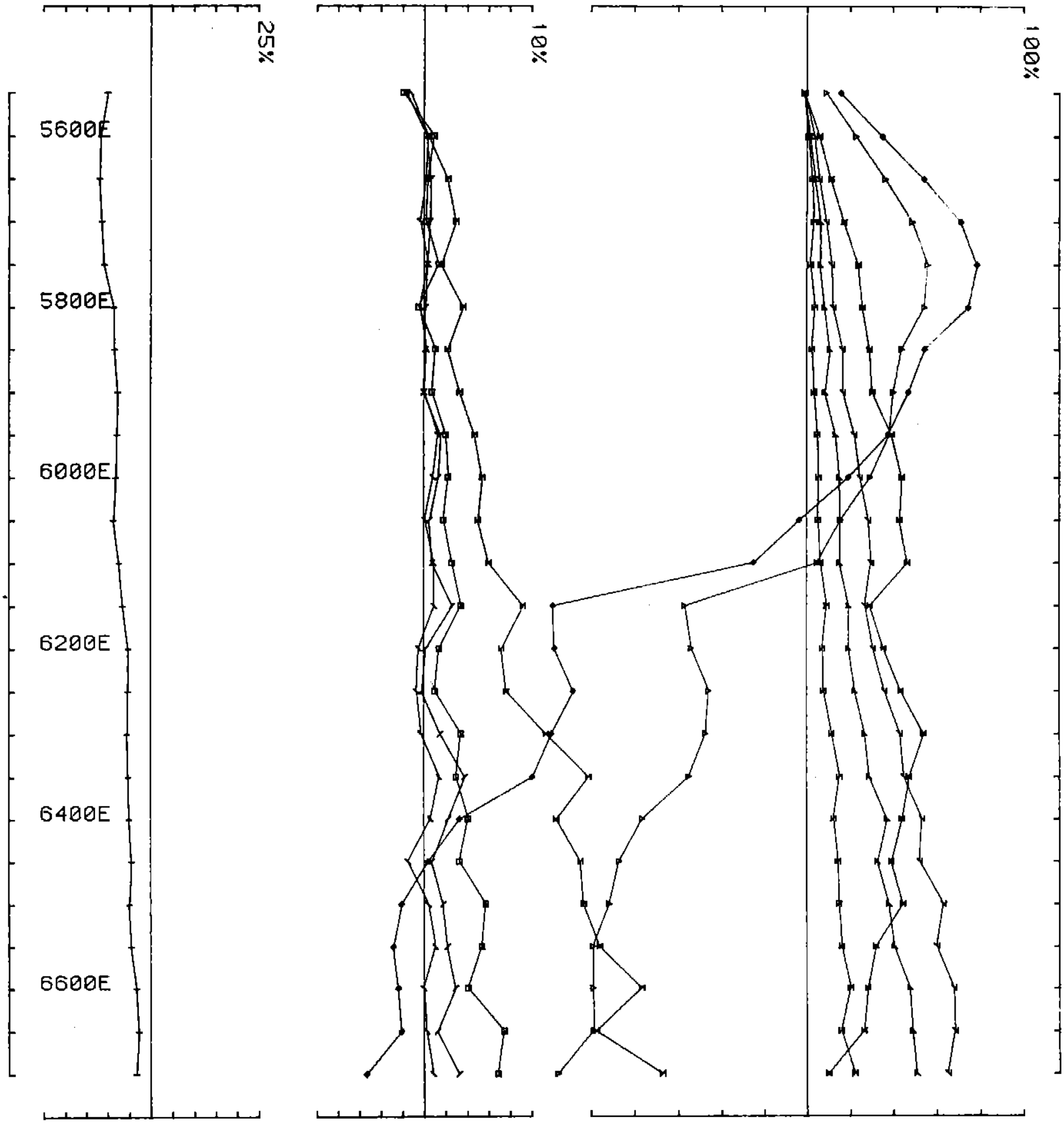
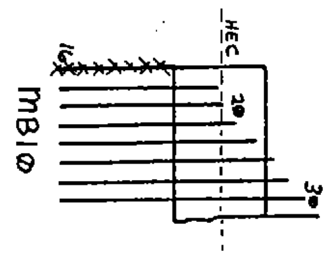


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 1600N component Hz secondary field Ch 1 contin. norm.



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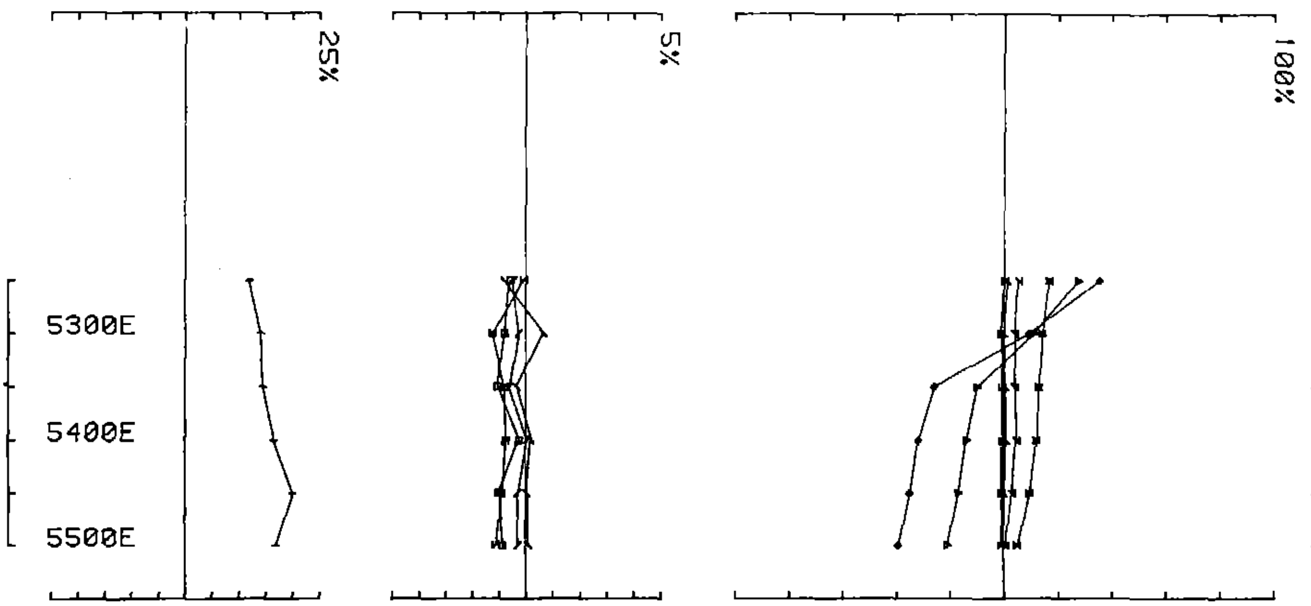
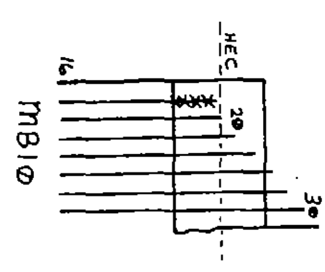


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO Job 8722 base freq (hz) 26.230
loop no 10 line 1800N component Hz secondary field Ch 1 contin. norm.



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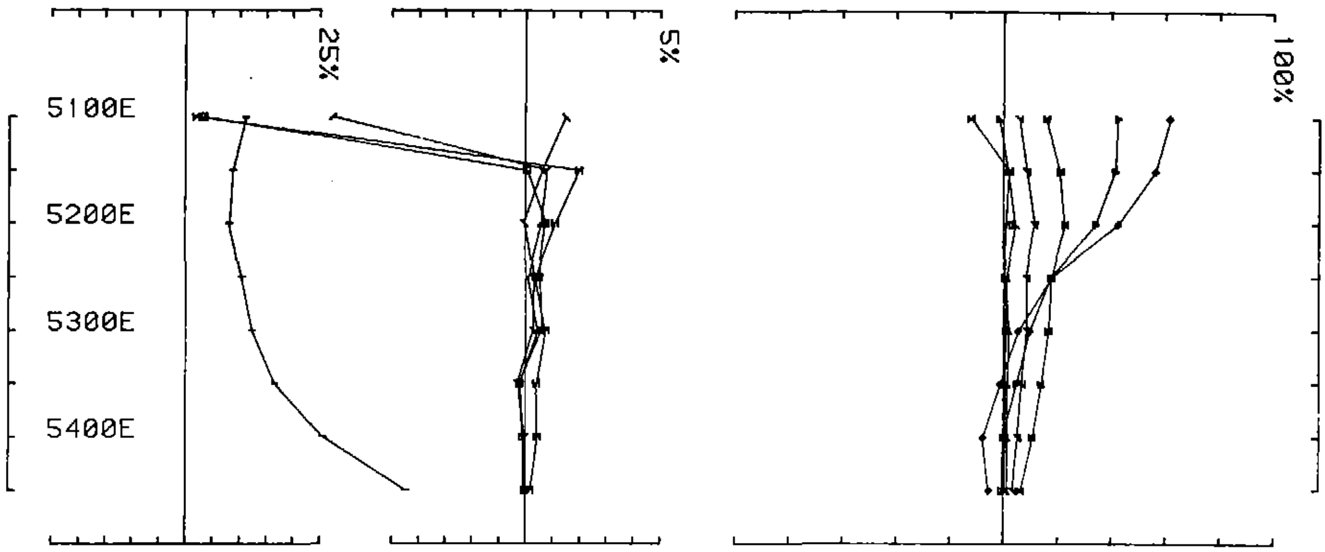
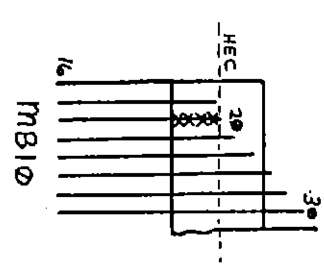


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 2000N component Hz secondary field Ch 1 contin. norm.



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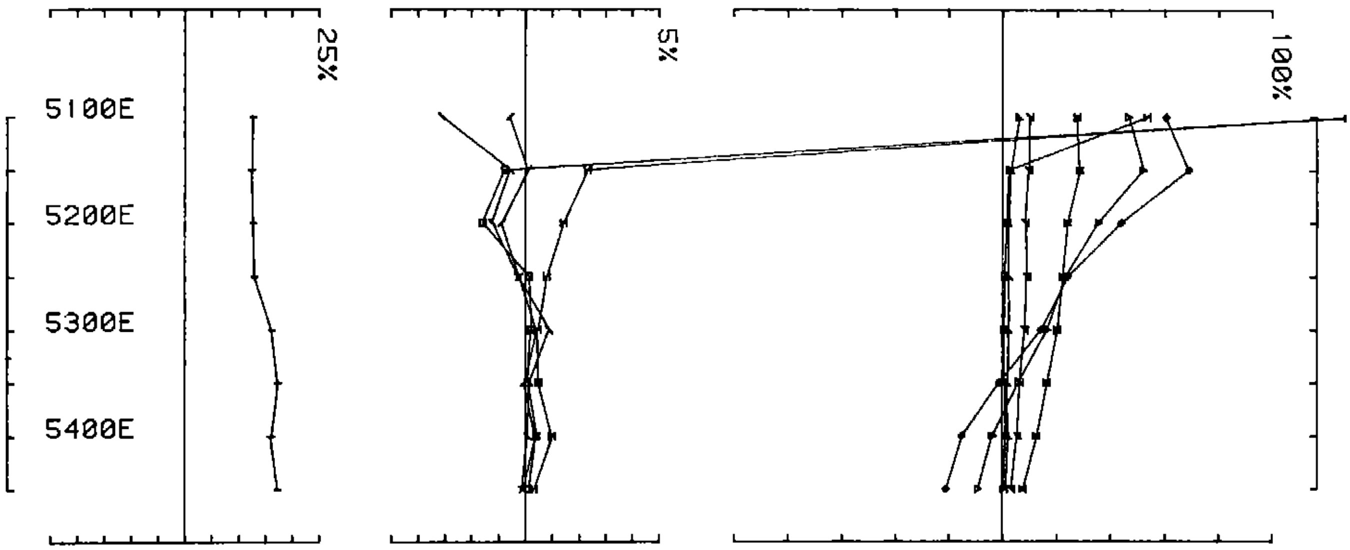
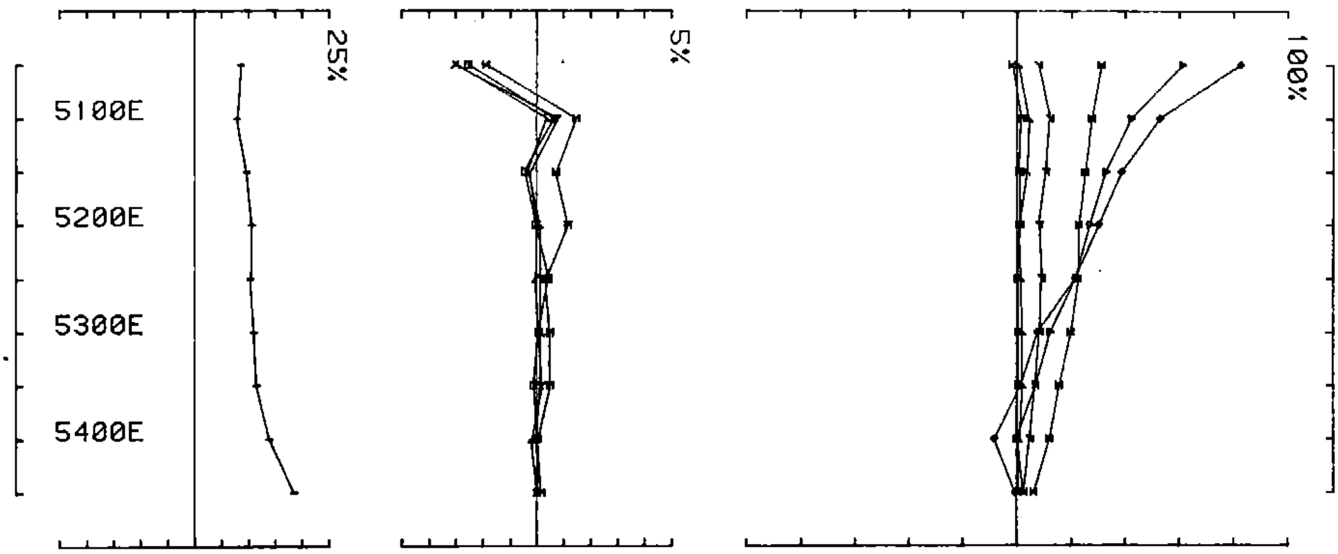


UTEM SURVEY at MOUNT BLOCK for B H P

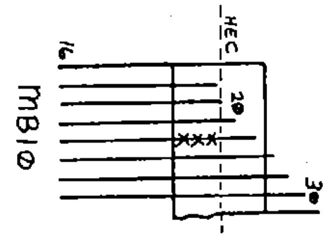
conducted by HU PM PO job 8722 base freq (hz) 26.230

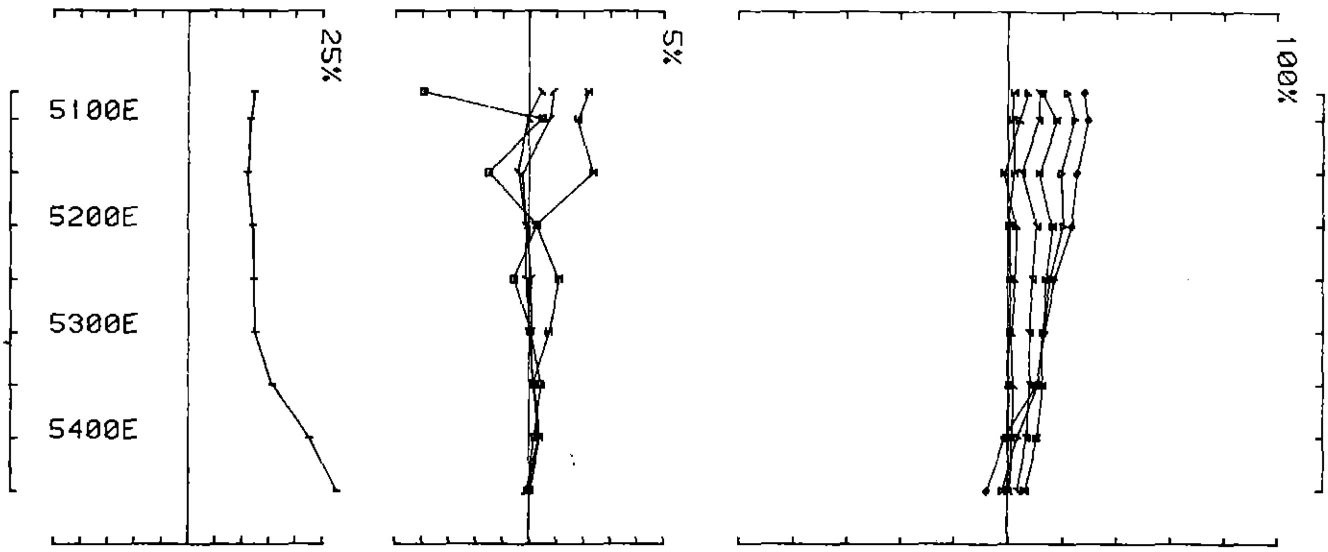
loop no 10 line 2200N component Hz secondary field Ch 1 contin. norm.

MB10



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 2400N component Hz secondary field Ch 1 contin. norm.

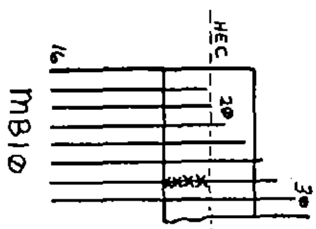




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO Job 8722 base freq (hz) 26.230

loop no 10 line 2800N component Hz secondary field Ch 1 contin. norm.



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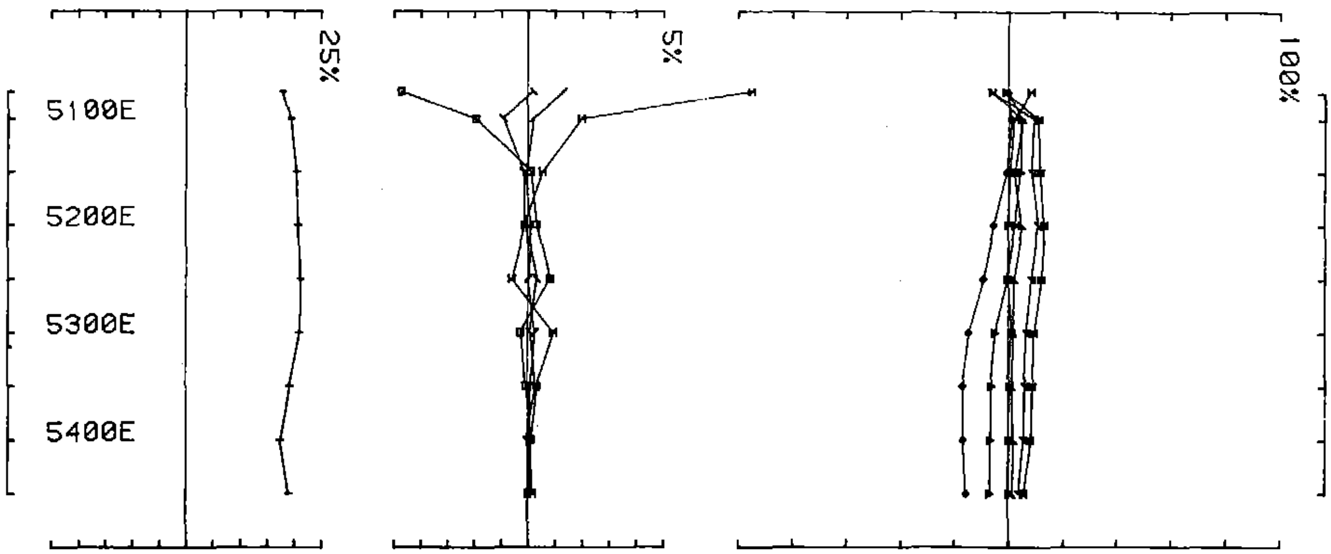
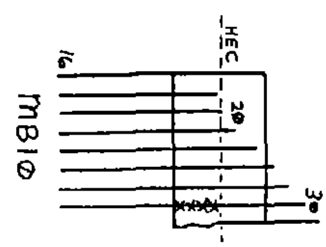


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 3000N component Hz secondary field Ch 1 contin. norm.



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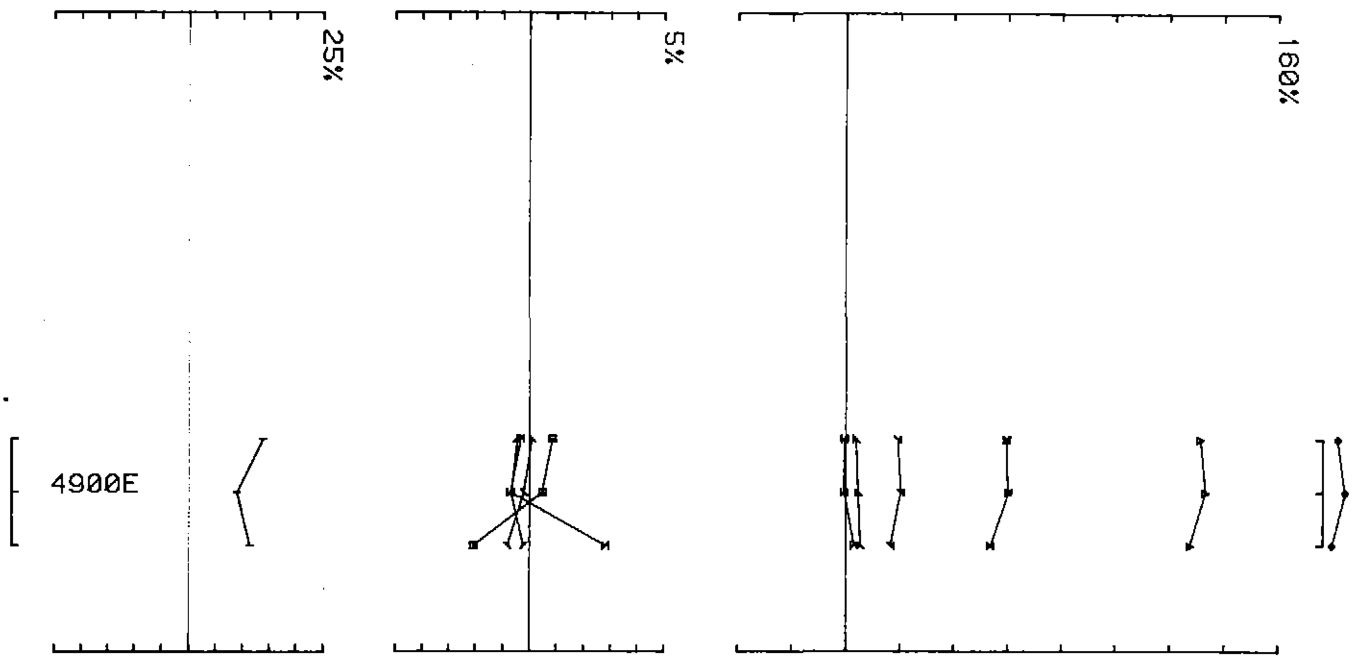
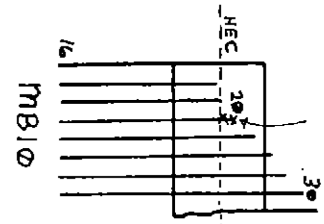


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 2200N component Hz secondary field Ch 1 contin. norm.



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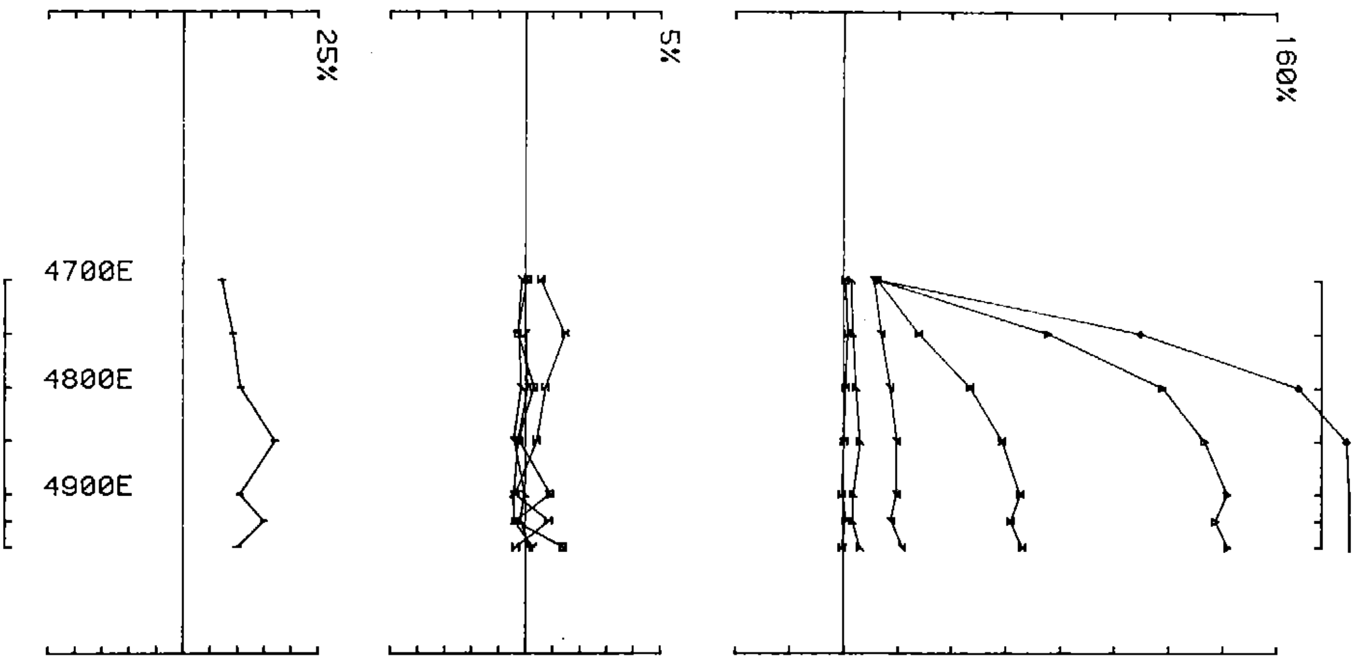
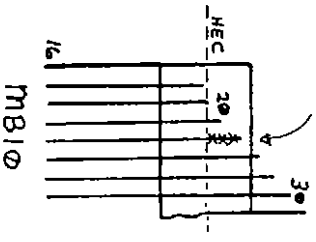


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 2400N component Hz secondary field Ch 1 contin. norm.



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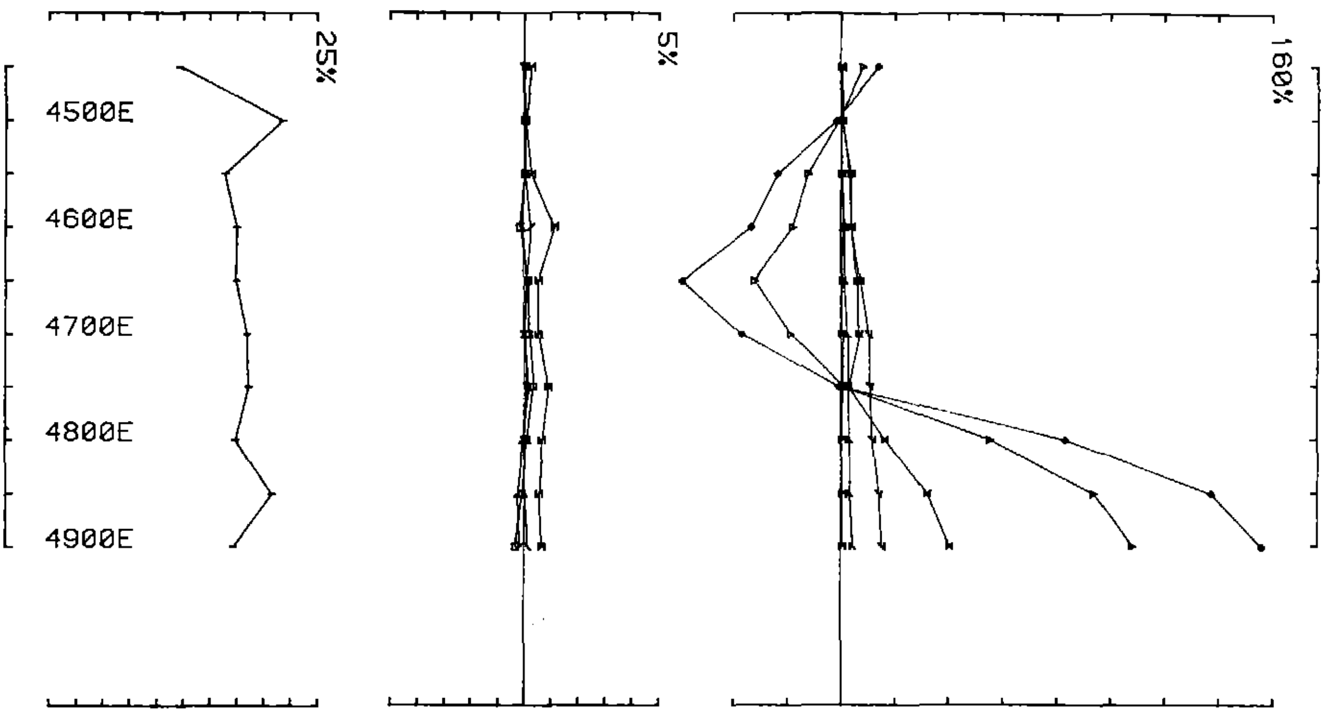
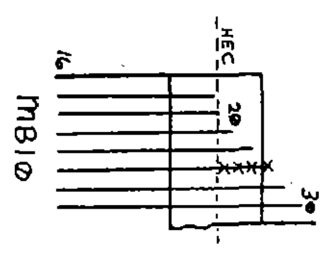
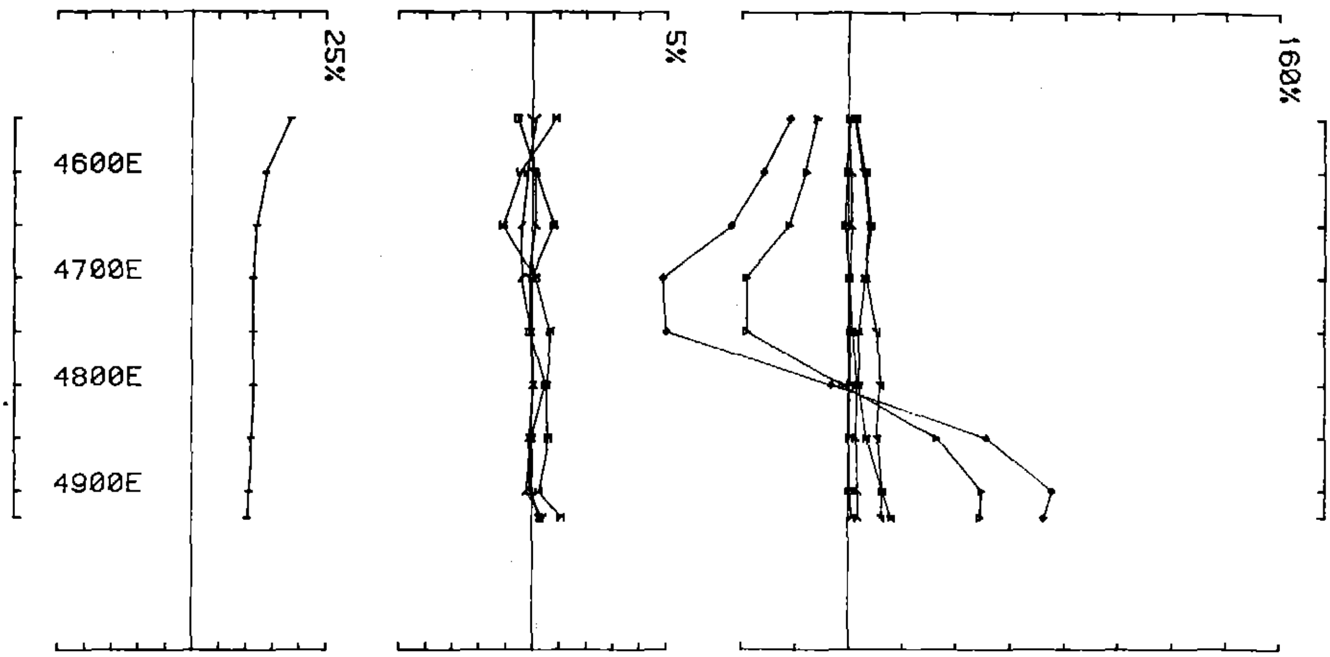


UTEM SURVEY at MOUNT BLOCK for B H P

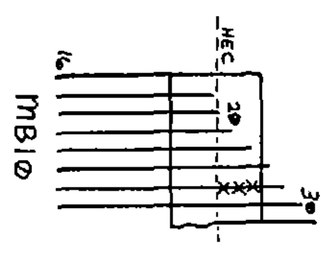
conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10 line 2600N component Hz secondary field Ch 1 contin. norm.





UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 2800N component Hz secondary field Ch 1 contin. norm.



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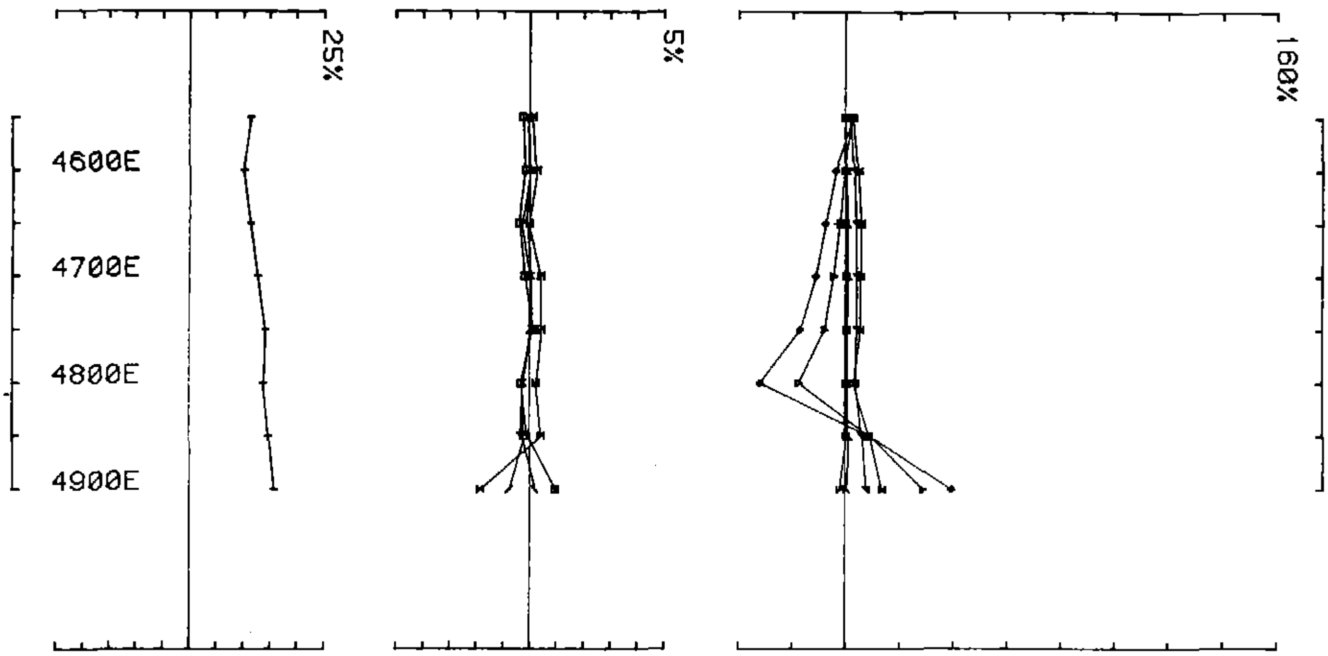
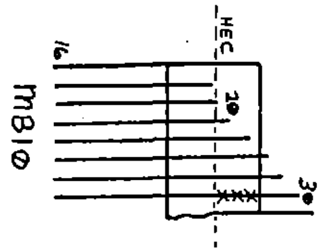


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 3000N component Hz secondary field Ch 1 contin. norm. .



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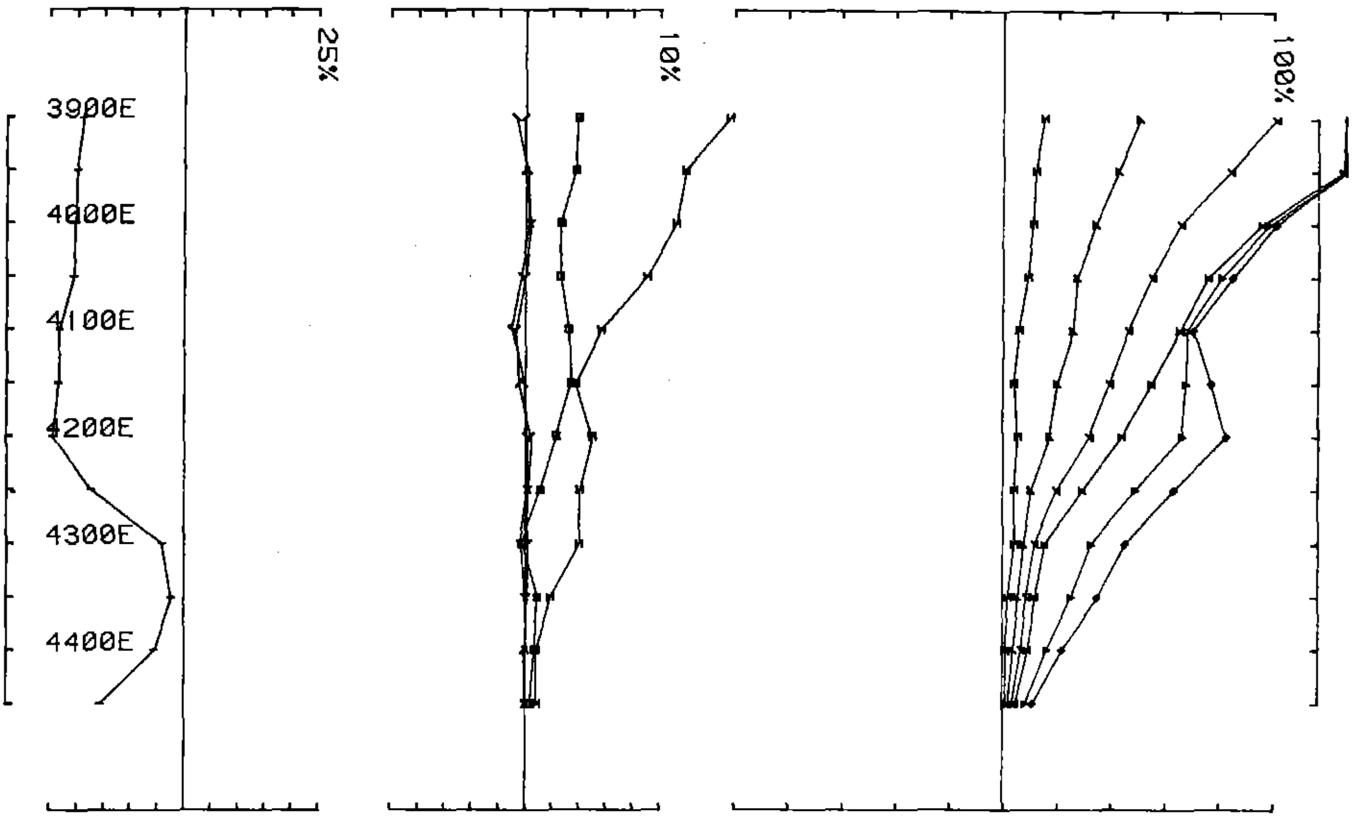
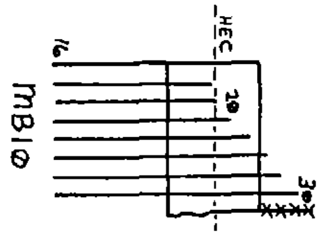


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 3200N component Hz secondary field Ch 1 contin. norm.



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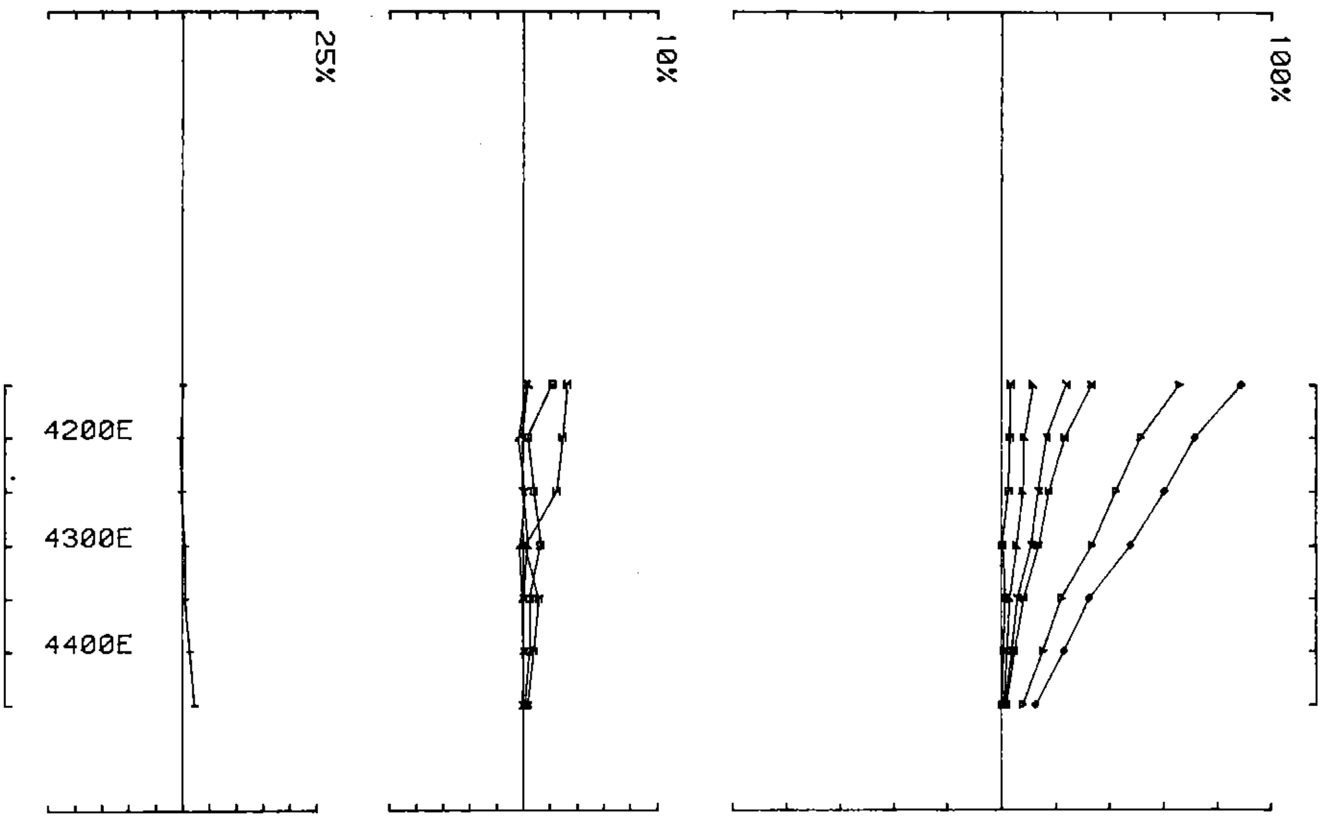
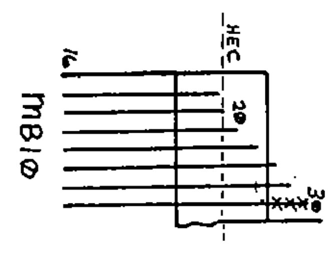
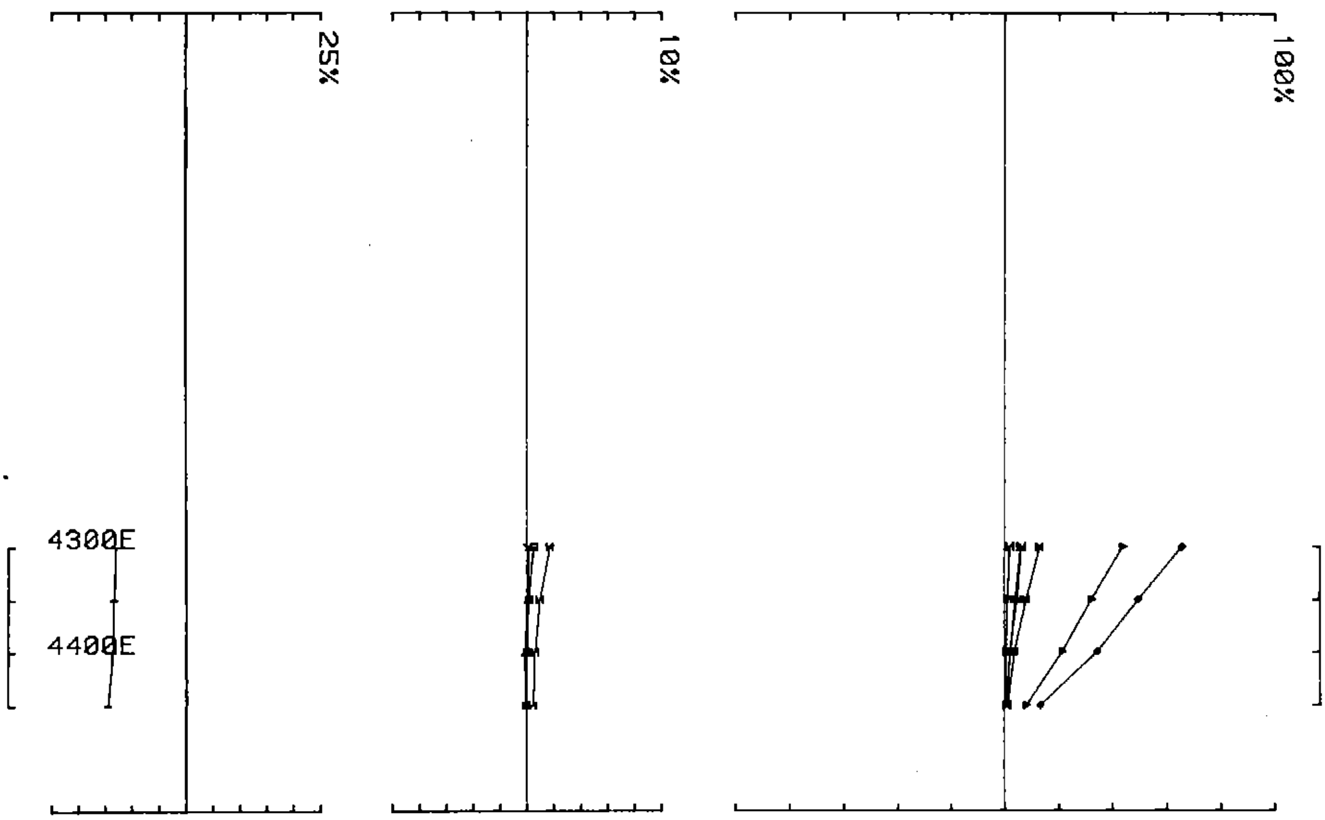
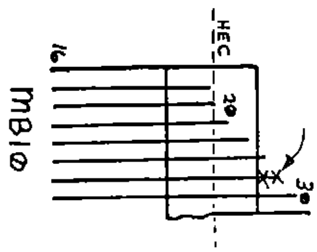


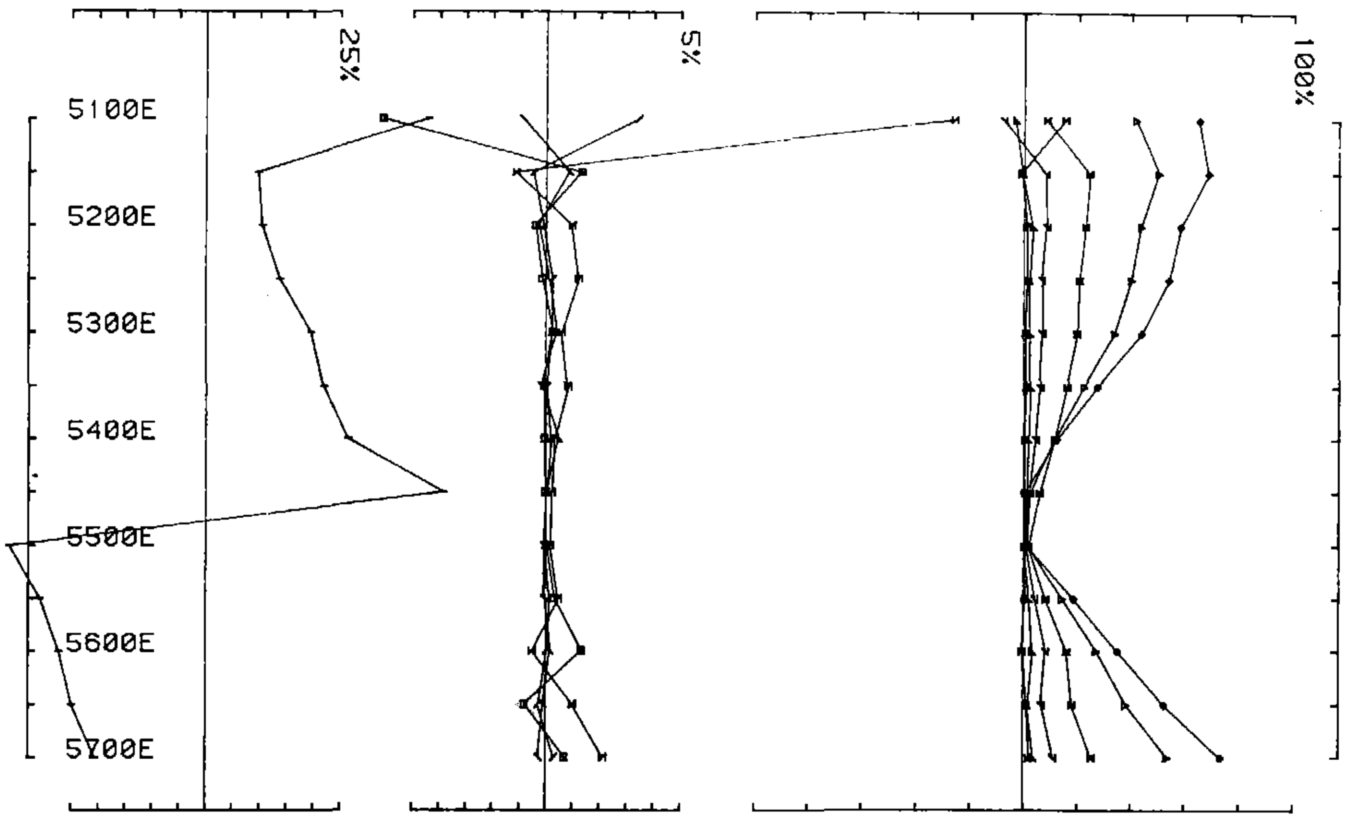
UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 3000N component Hz secondary field Ch I contin. norm.



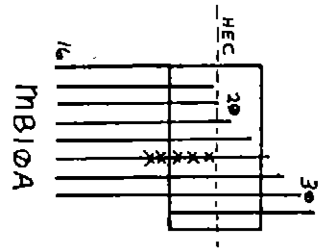


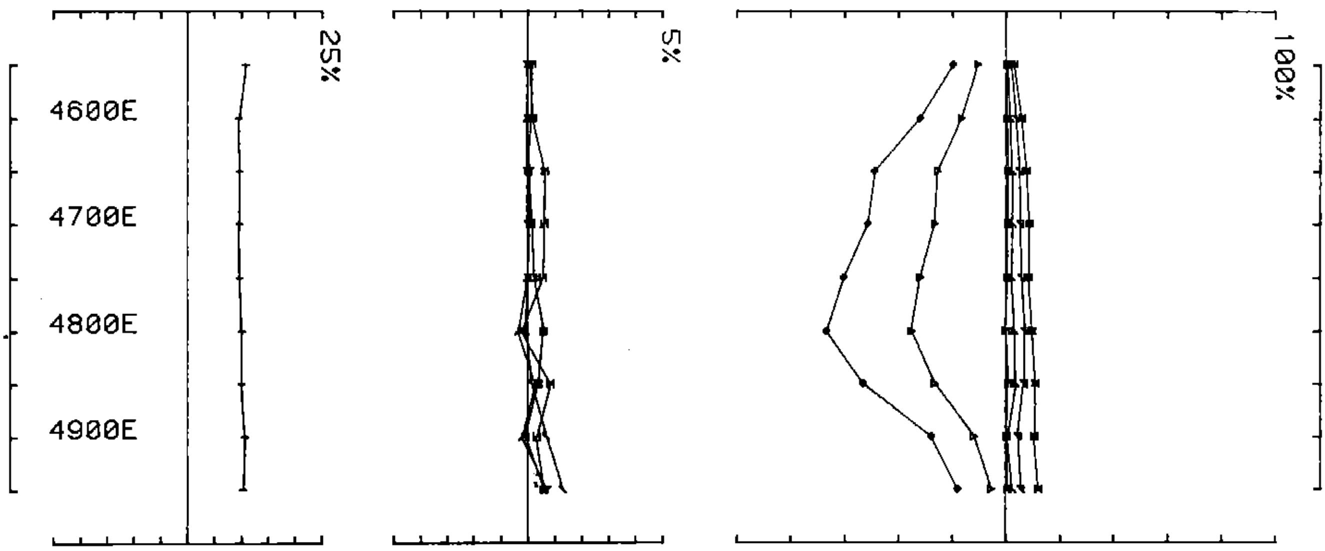
UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10 line 2800N component Hz secondary field Ch 1 contin. norm.





UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PM PO job 8722 base freq (hz) 26.230
loop no 10A line 2600N component Hz secondary field Ch 1 contin. norm.

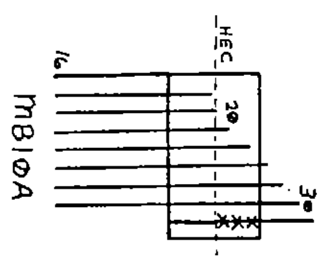




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10A line 3200N component Hz secondary field Ch 1 contin. norm.



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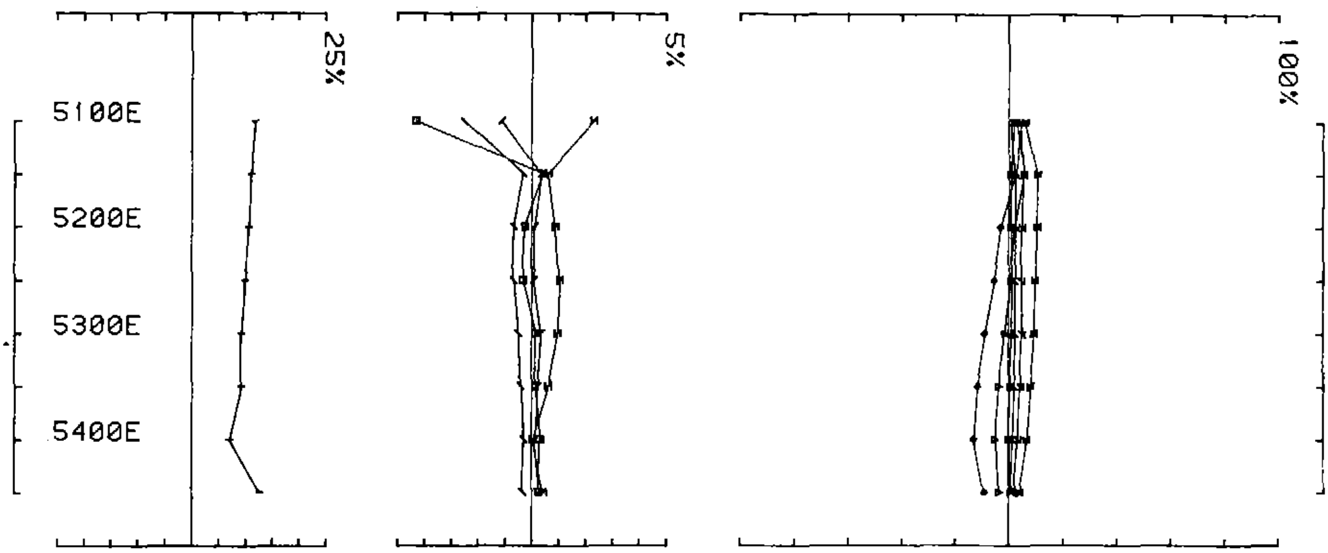
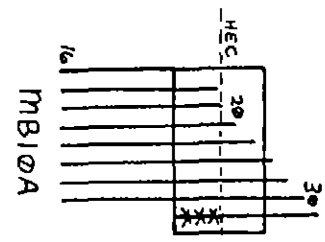


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PM PO job 8722 base freq (hz) 26.230

loop no 10A line 3200N component Hz secondary field Ch I contin. norm.



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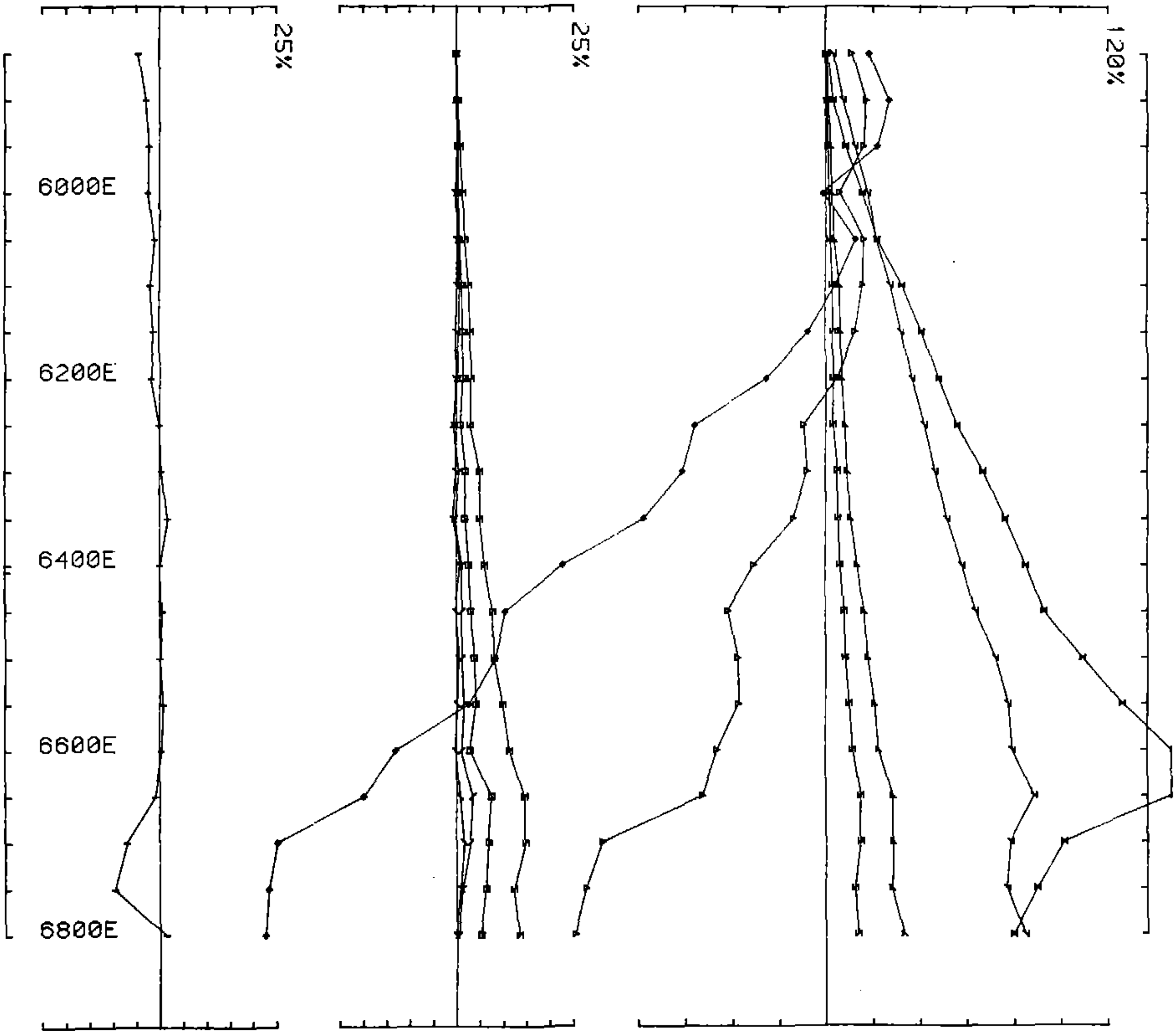
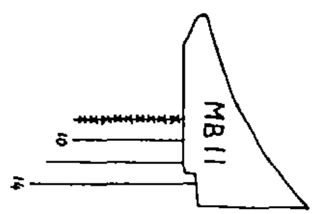


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 11 line 800N component Hz secondary field Ch 1 contin. norm.



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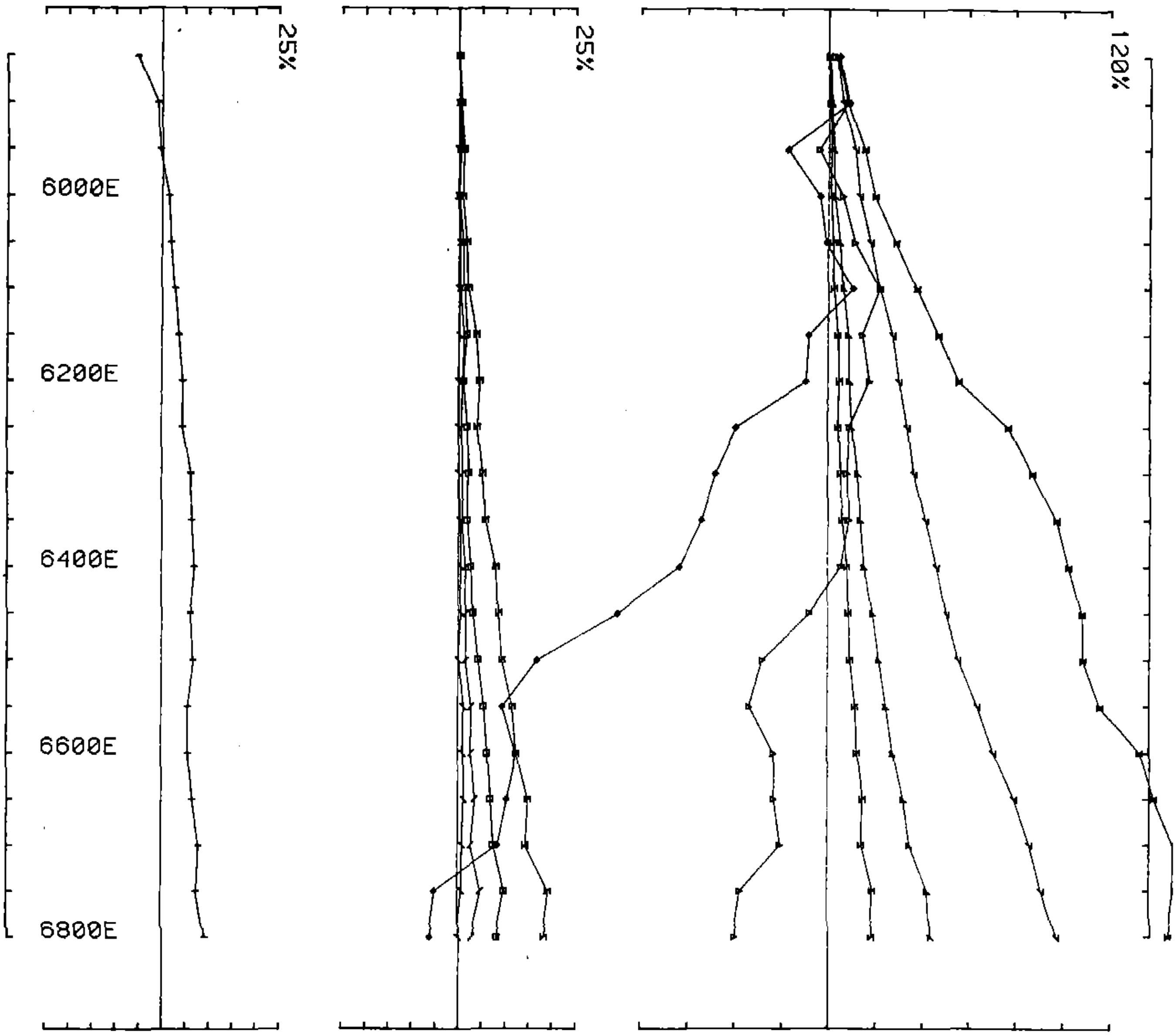
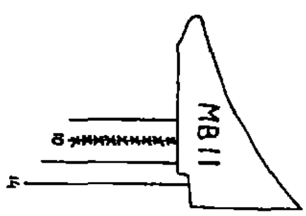
178

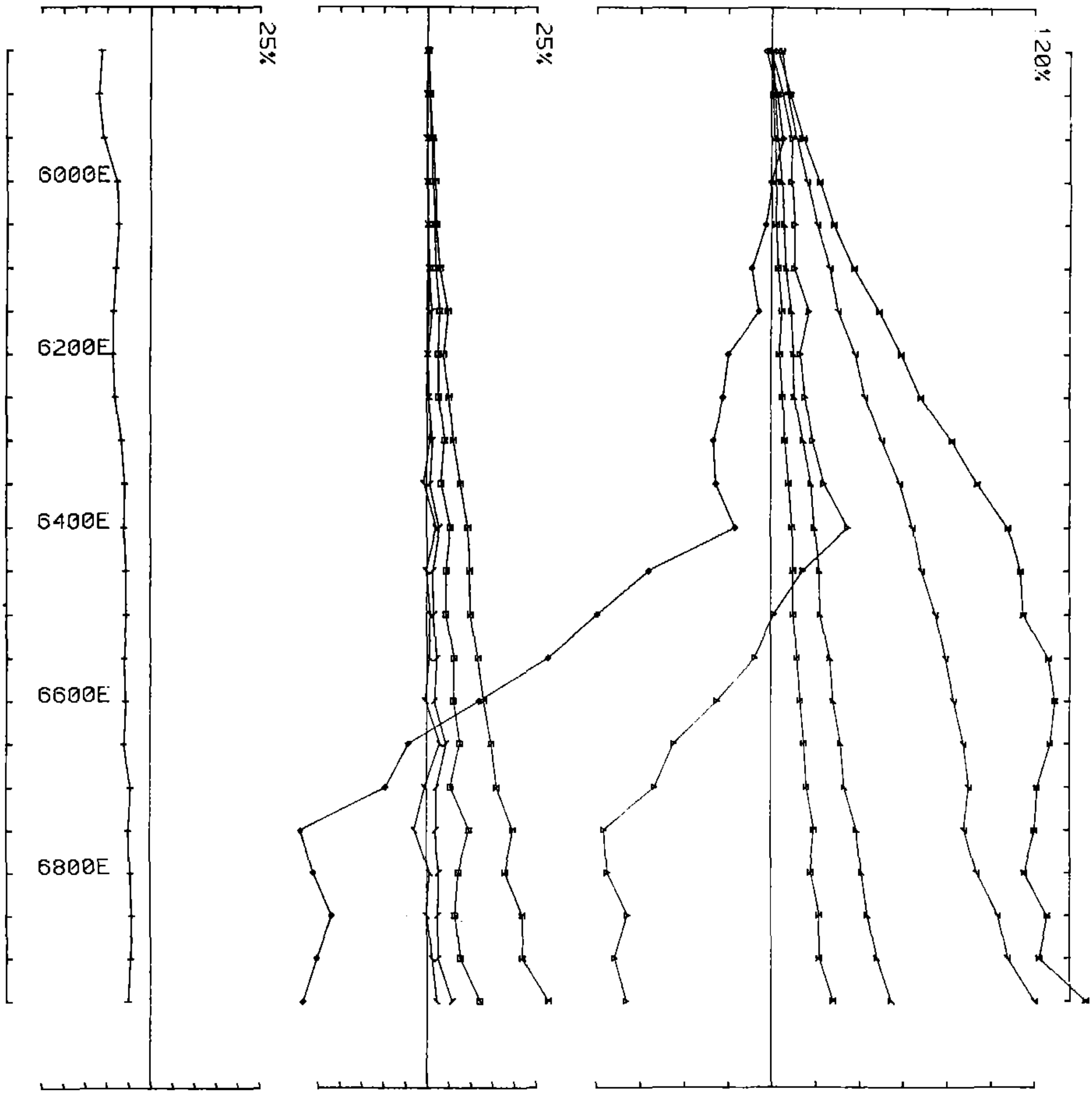


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 11 line 1000N component Hz secondary field Ch 1 contin. norm.

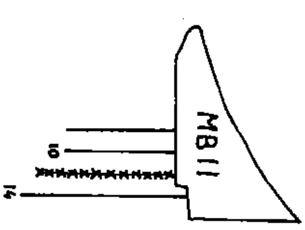


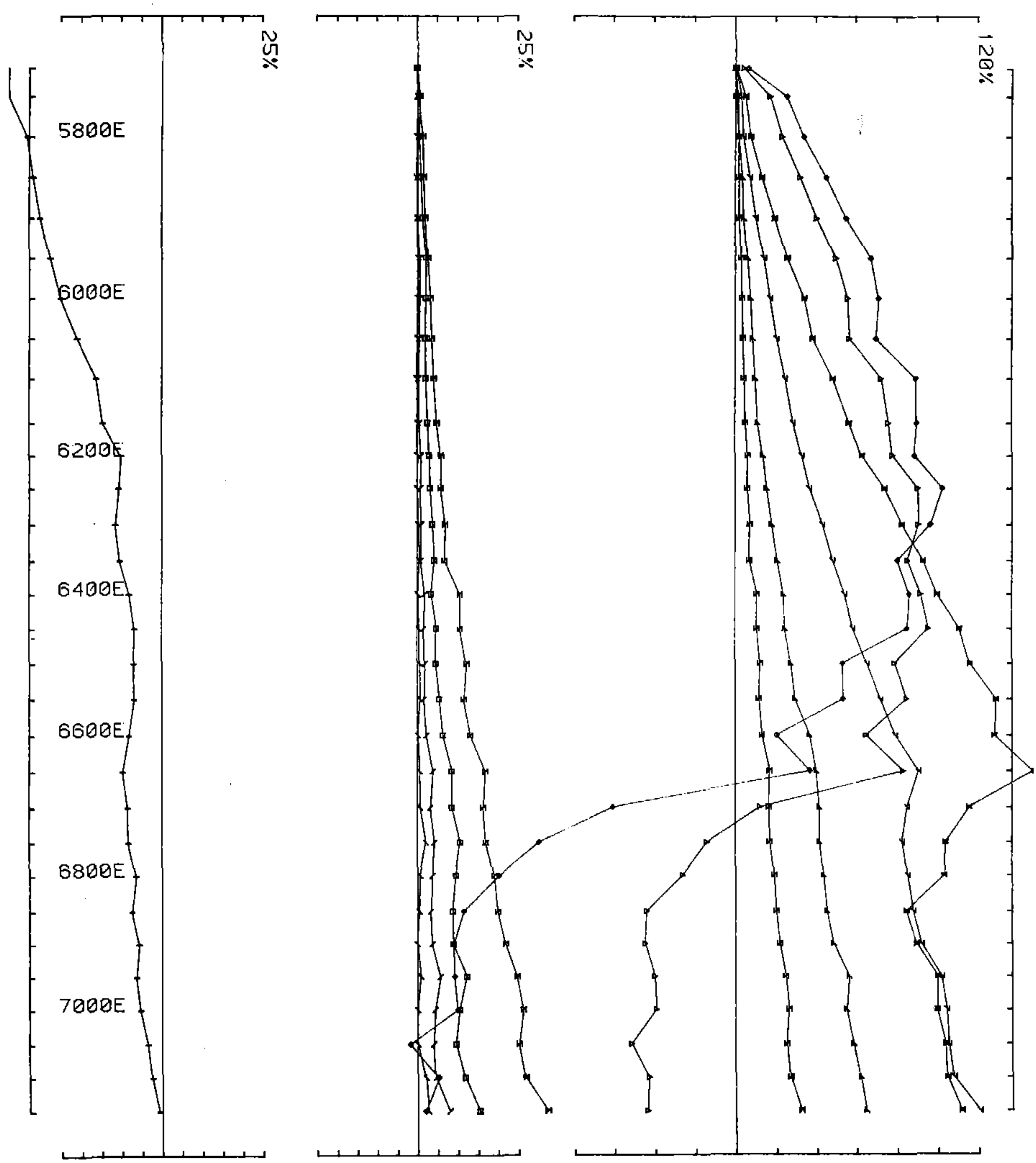


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 11 line 1200N component Hz secondary field Ch 1 contin. norm.

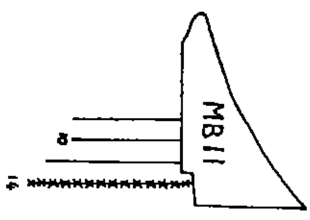




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 11 line 1400N component Hz secondary field Ch 1 contin. norm.



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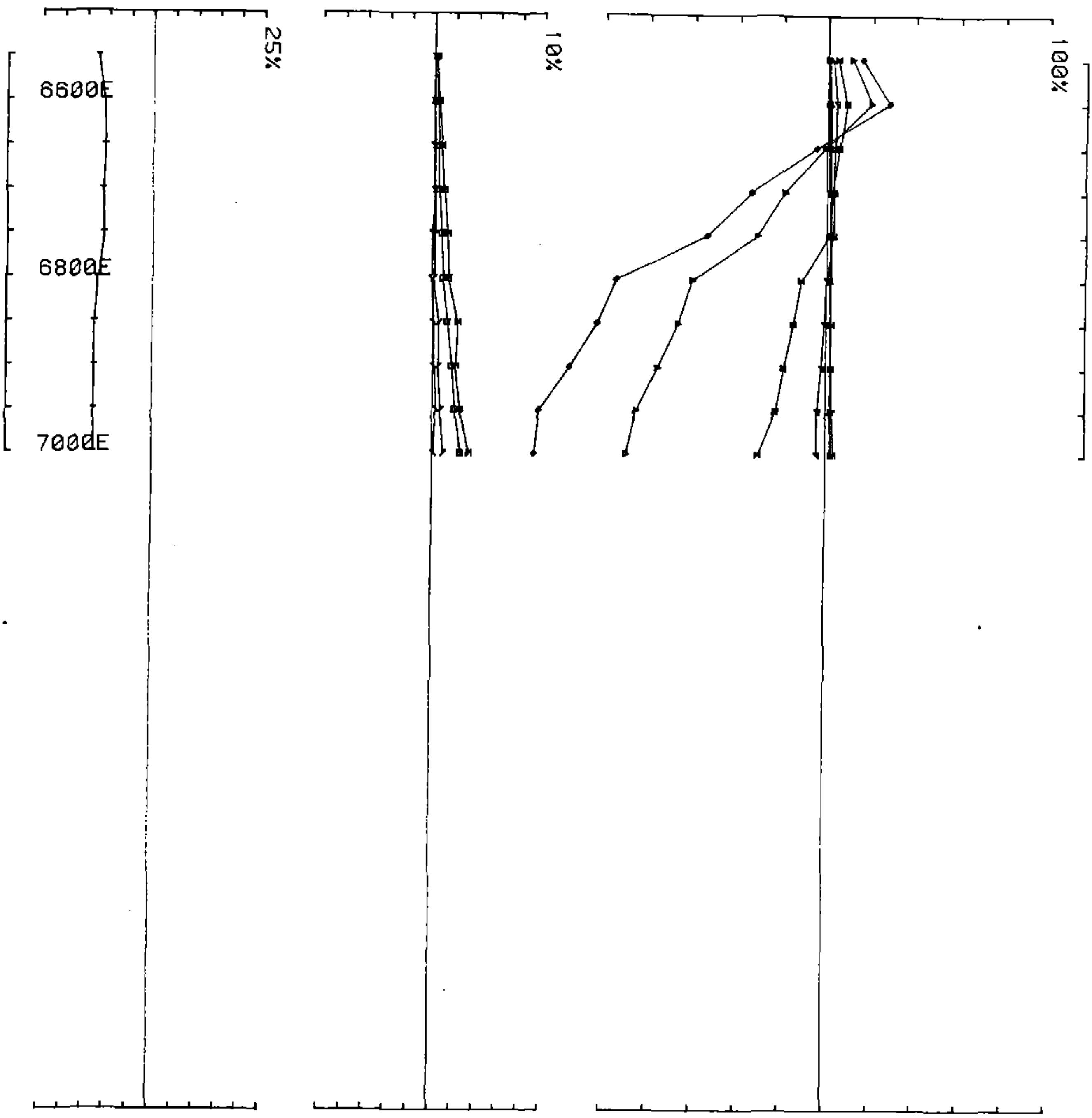
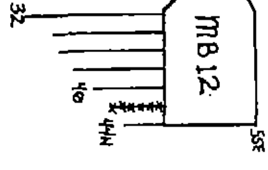


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO PM job 8722 base freq (hz) 26.230
loop no 12 line 4200N component Hz secondary field Ch 1 contin. norm.



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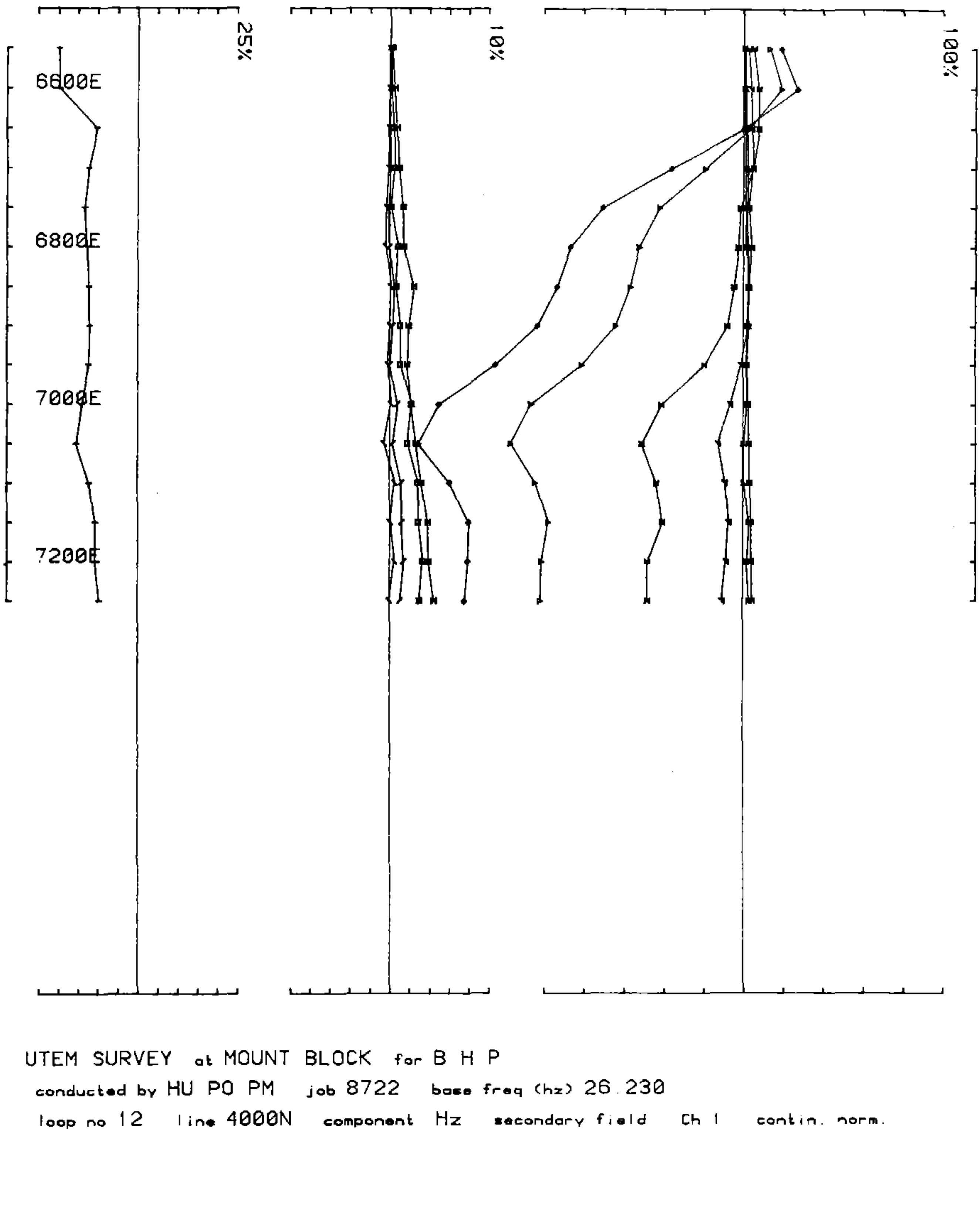
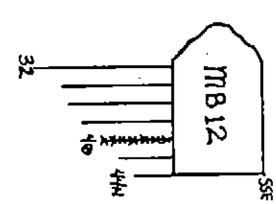
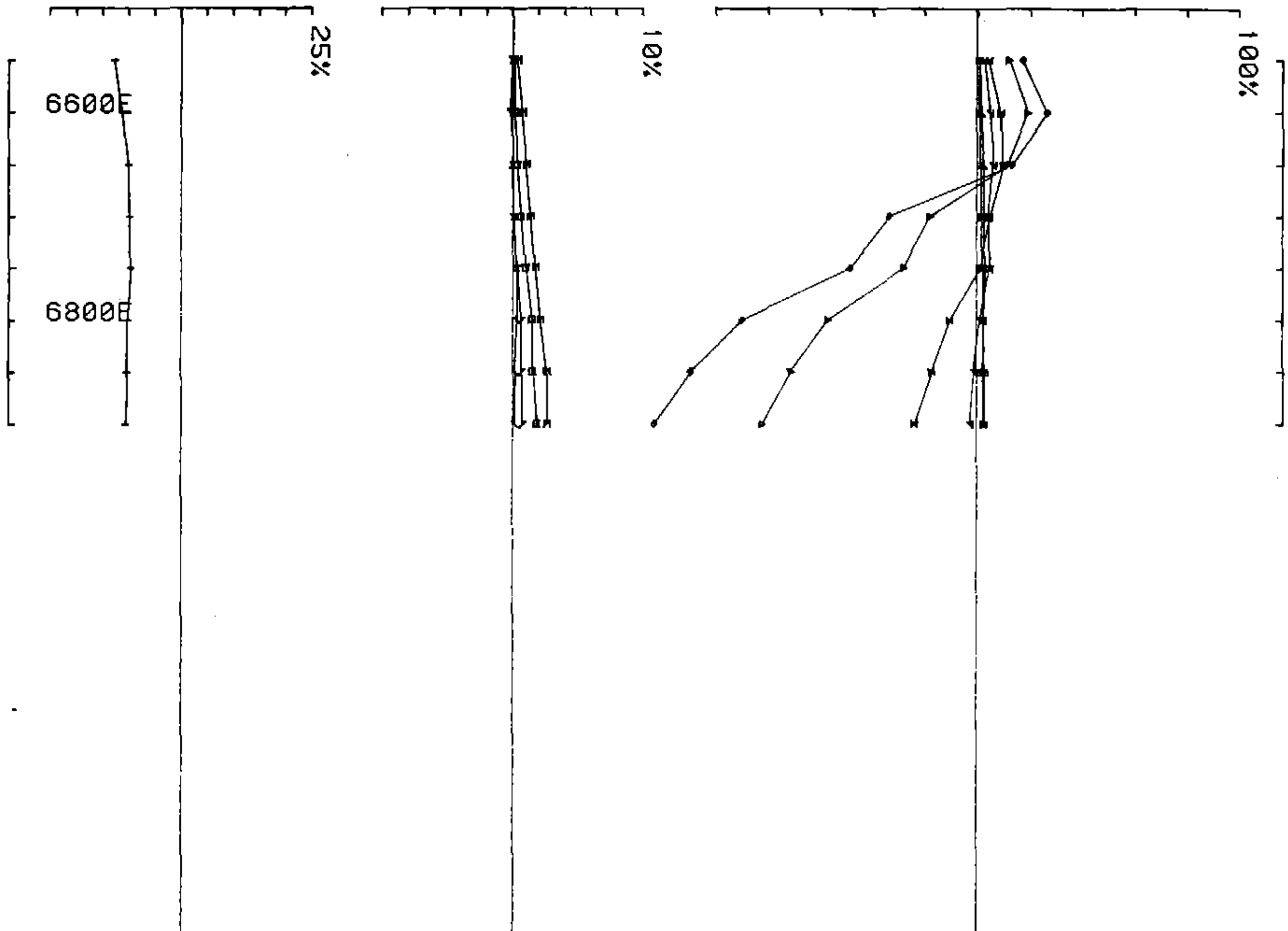
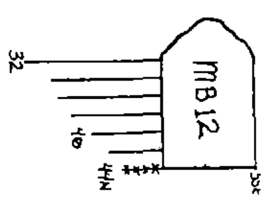


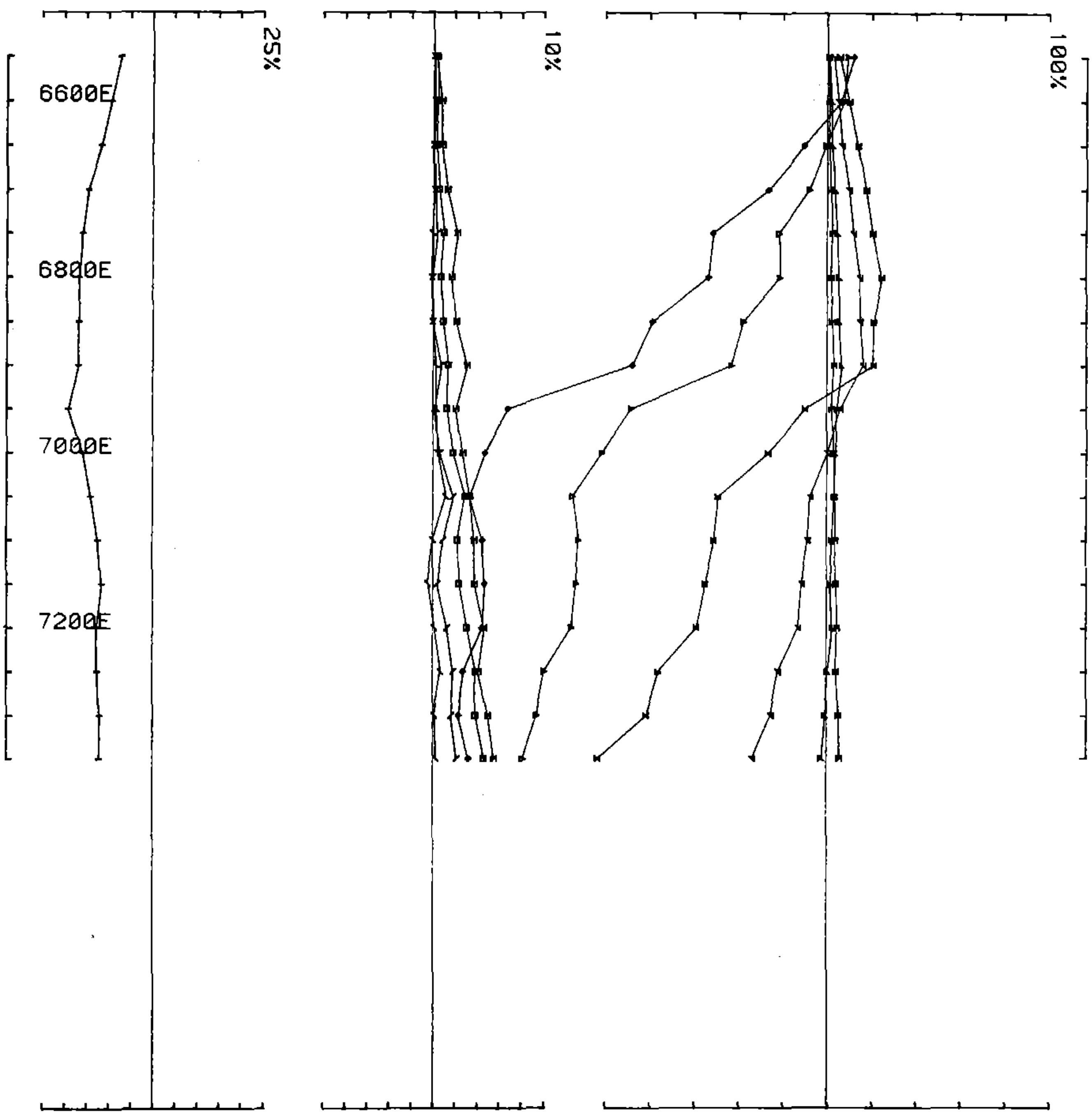
UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO PM job 8722 base freq (hz) 26.230
loop no 12 line 4000N component Hz secondary field Ch 1 contin. norm.





UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO PM job 8722 base freq (hz) 26.230
loop no 12 line 4400N component Hz secondary field Ch 1 contin. norm.

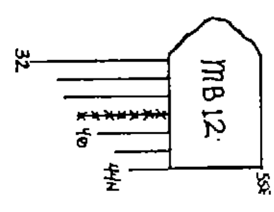




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO PM job 8722 base freq (hz) 26.230

loop no 12 line 3800N component Hz secondary field Ch 1 contin. norm.



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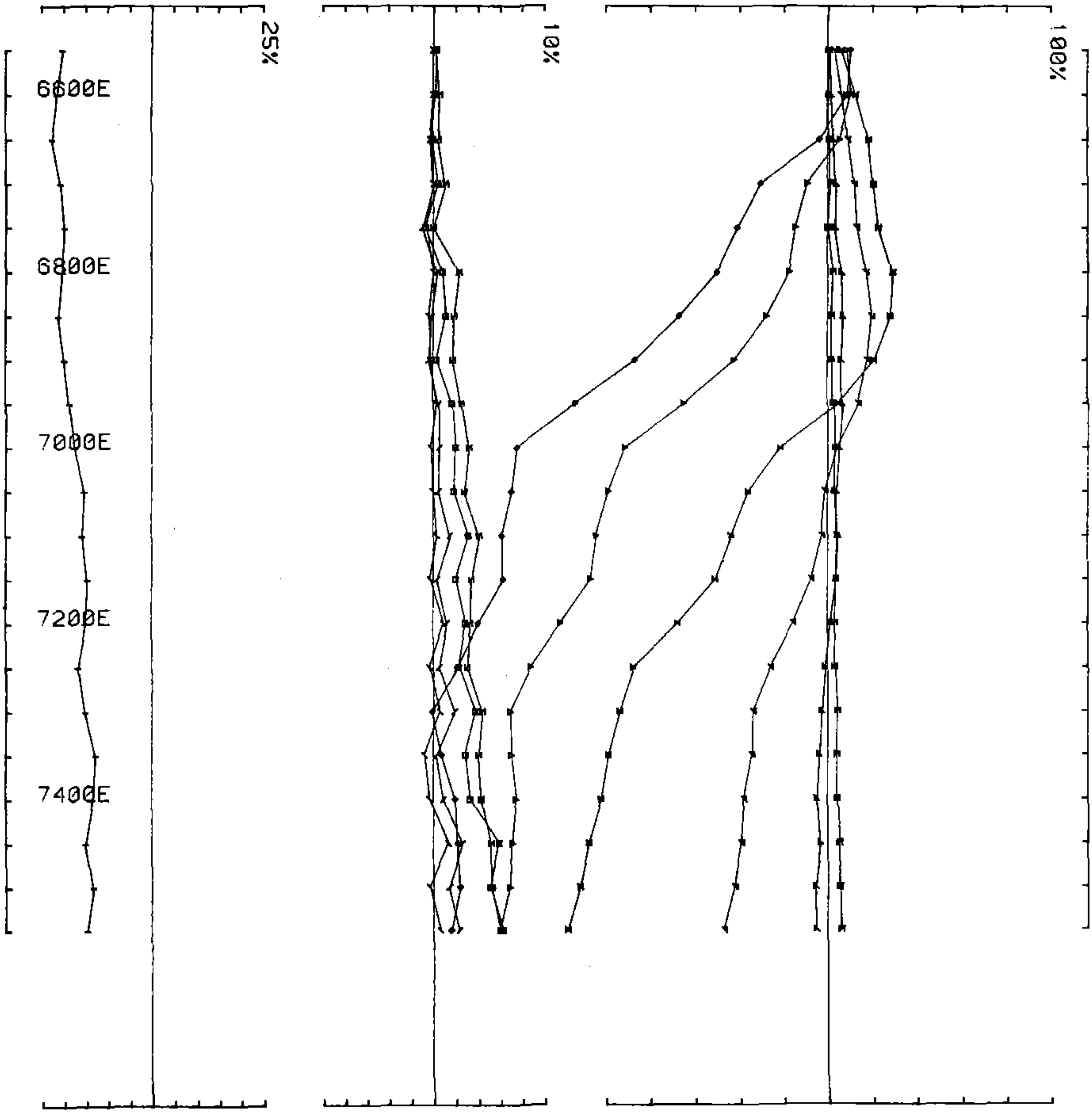
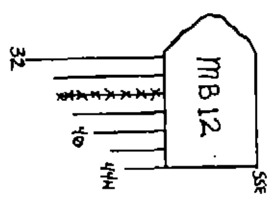


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO PM job 8722 base freq (hz) 26.230

loop no 12 line 3600N component Hz secondary field Ch 1 contin. norm.



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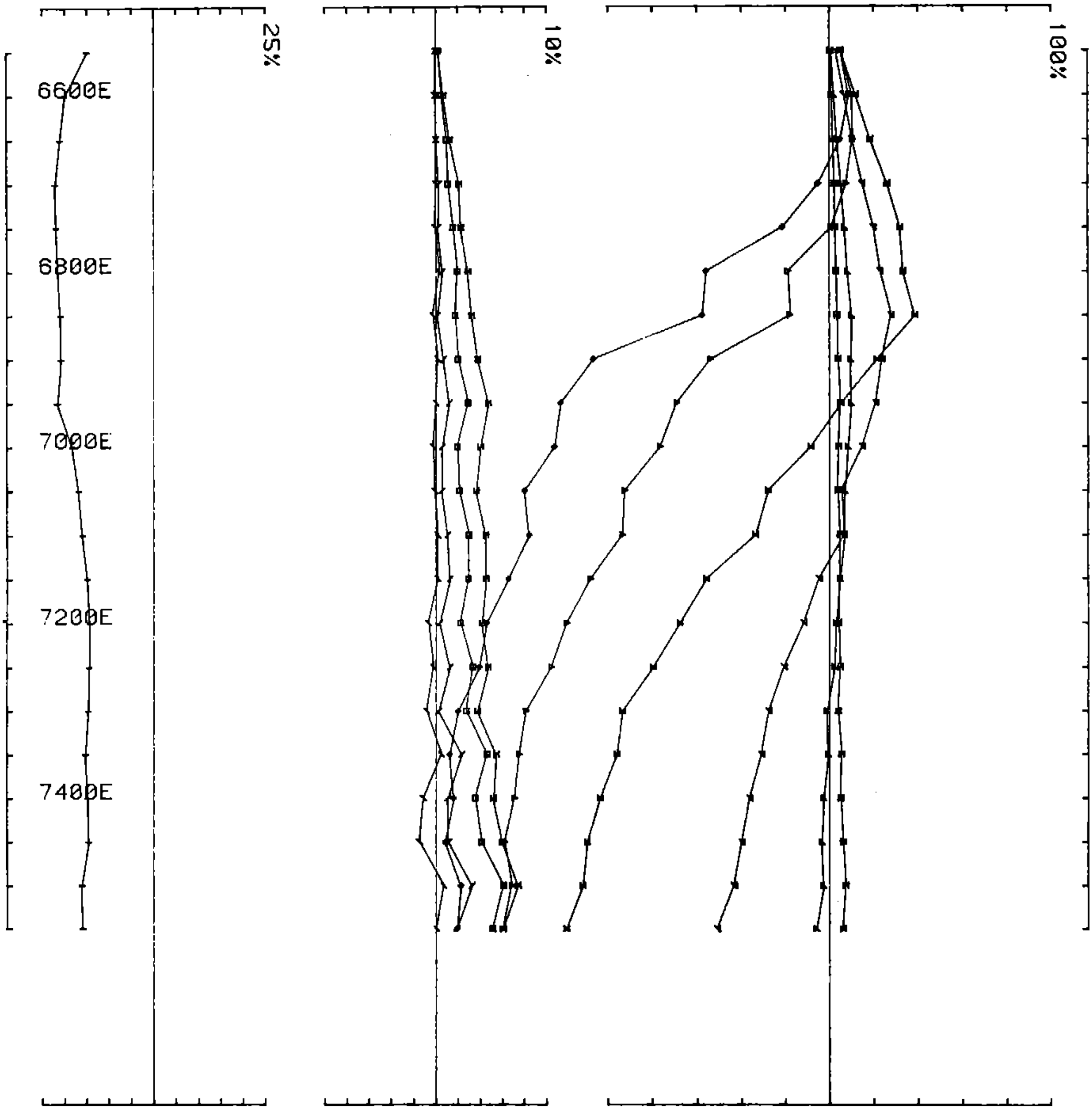
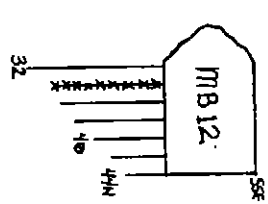


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO PM job 8722 base freq (hz) 26.230
loop no 12 line 3400N component Hz secondary field Ch 1 contin. norm.



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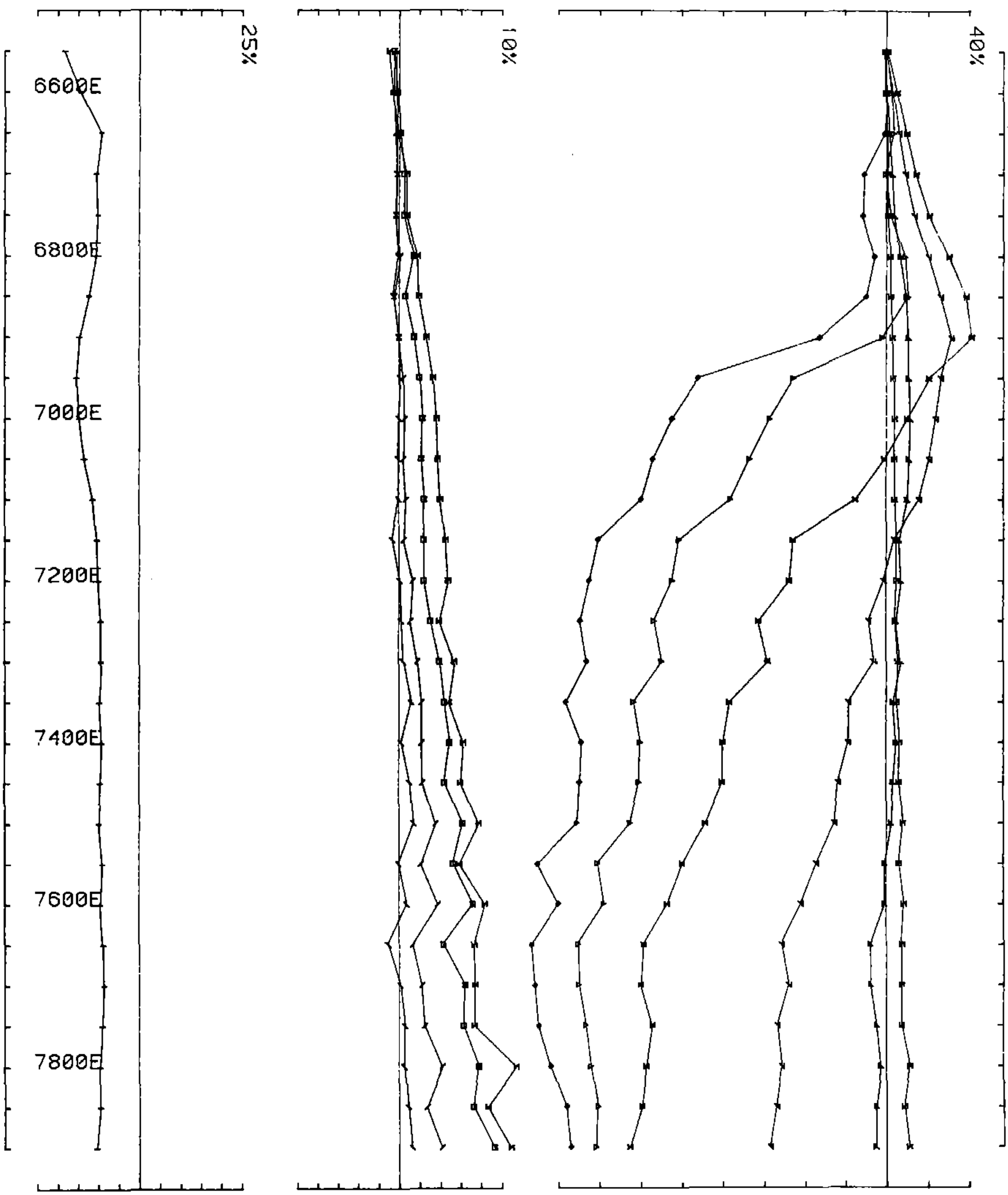
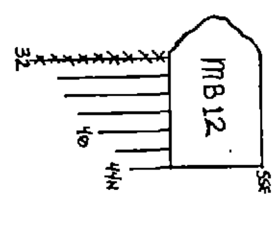
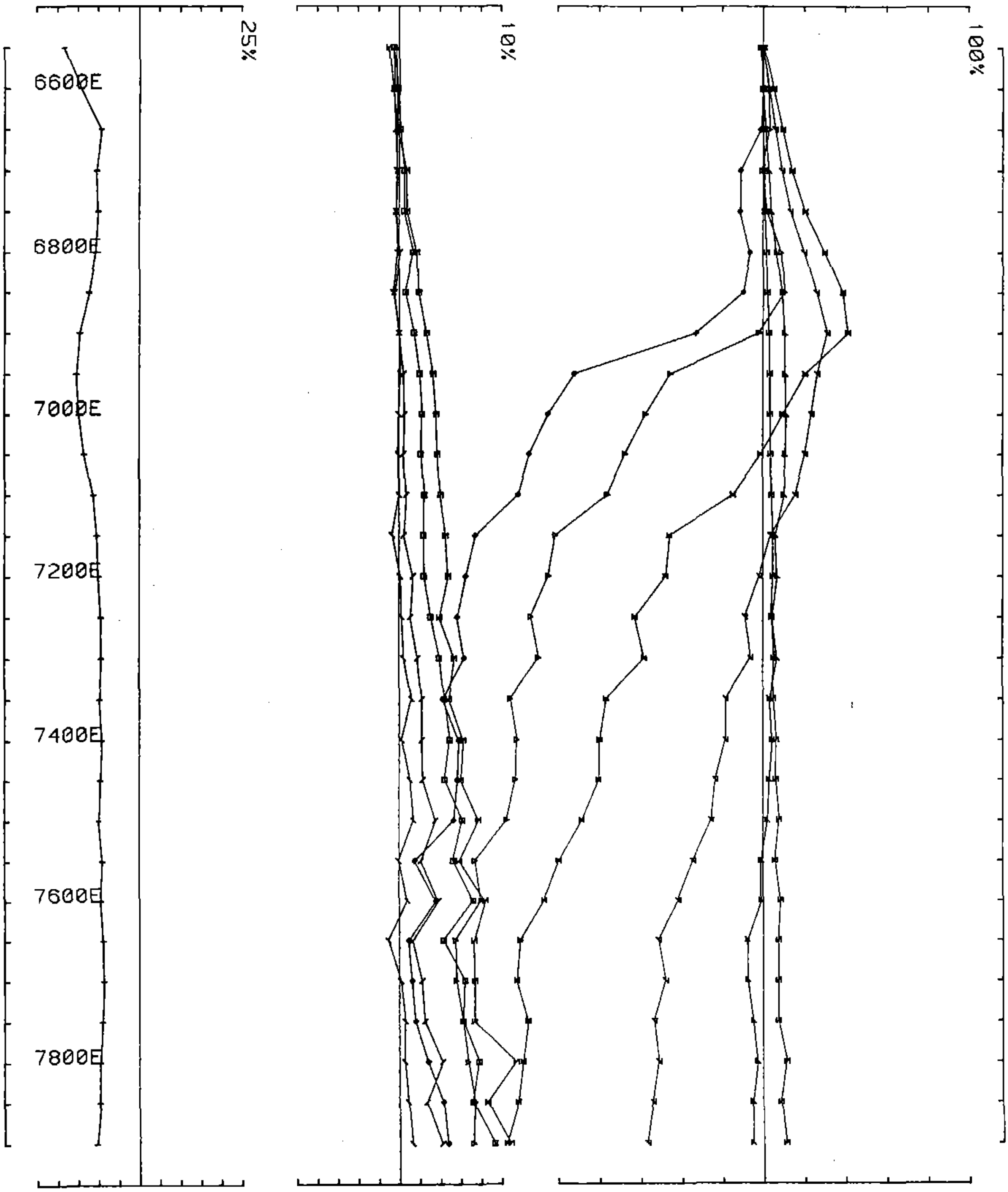


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO PM job 8722 base freq (hz) 26.230

loop no 12 line 3200N component Hz secondary field Ch 1 contin. norm.

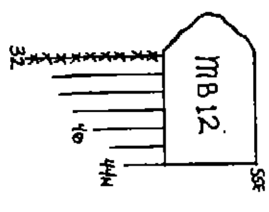




UTEM SURVEY at MOUNT BLOCK for B H P

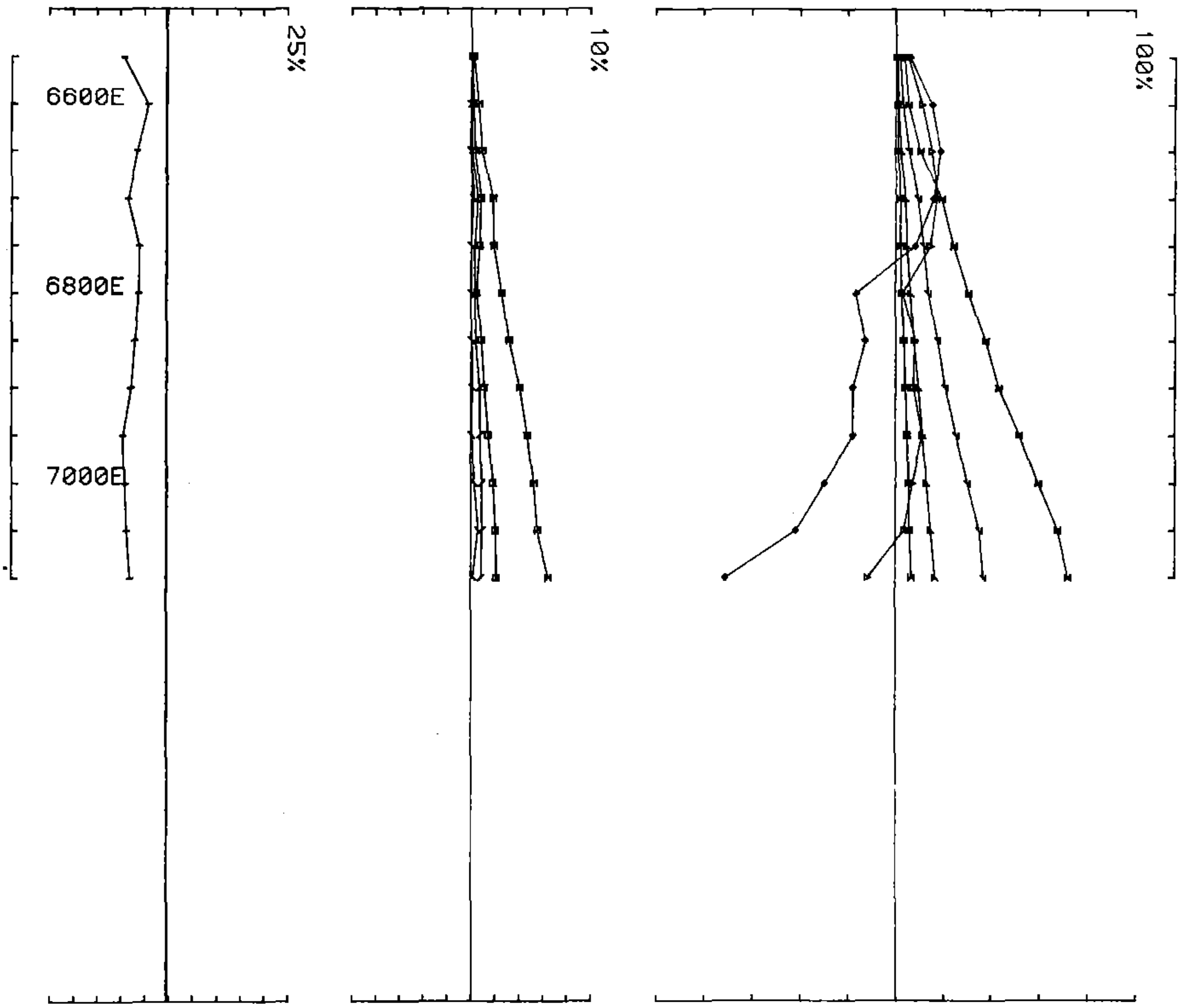
conducted by HU PO PM job 8722 base freq (hz) 26.230

loop no 12 line 3200N component Hz secondary field Ch 1 contin. norm.



189

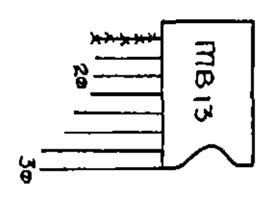
767190

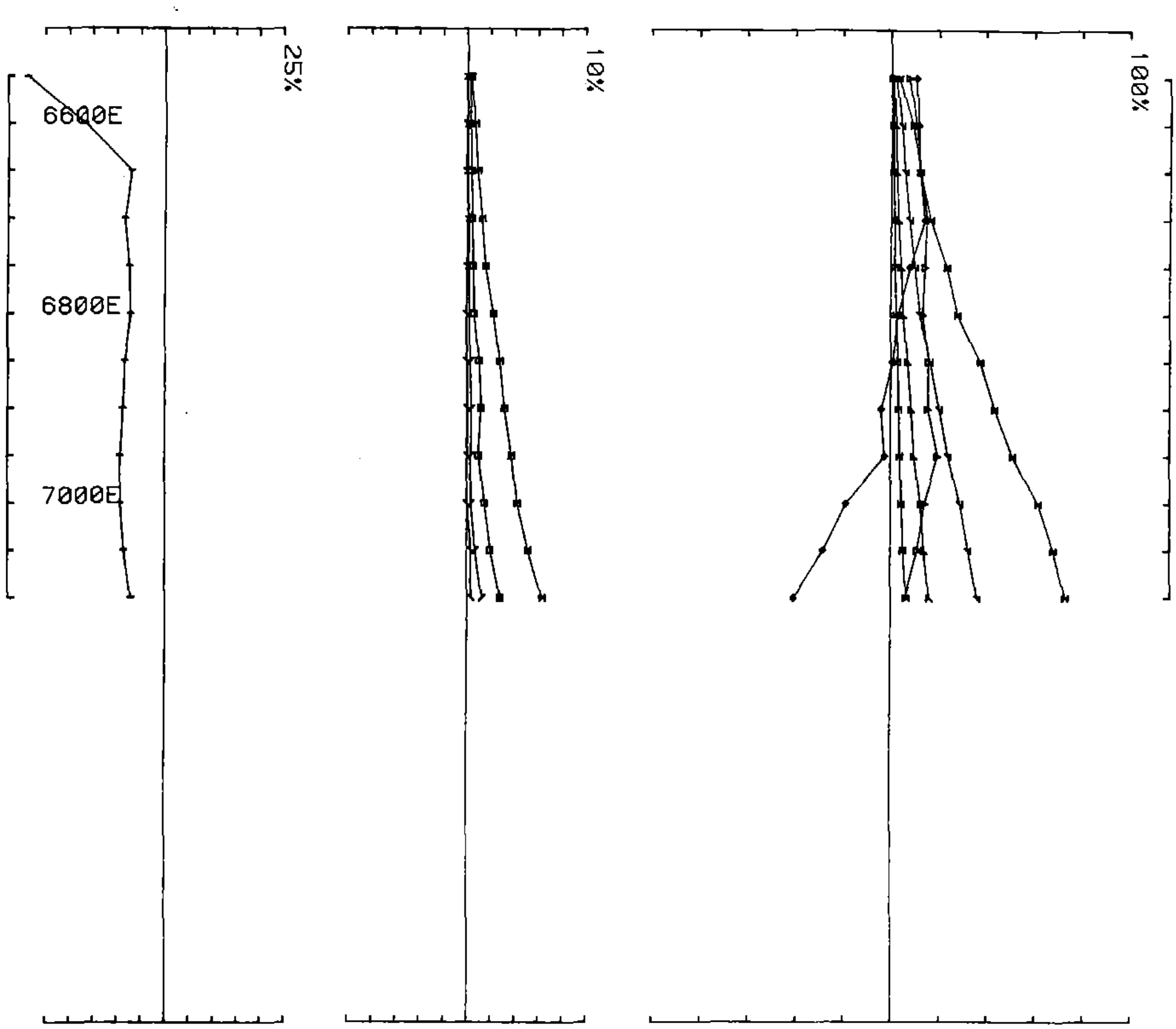


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 13 line 1600N component Hz secondary field Ch 1 contin. norm.

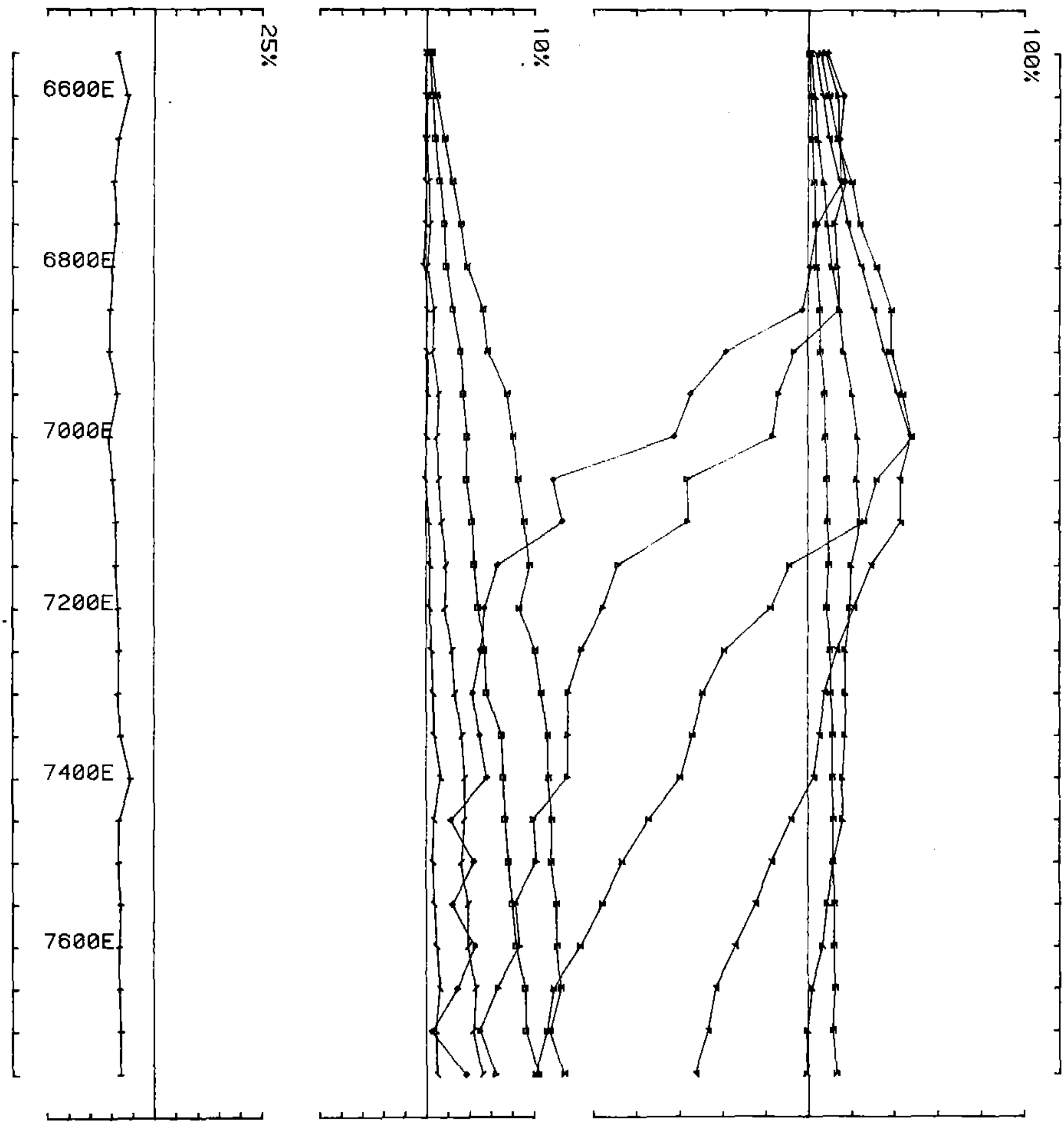




UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 13 line 1800N component Hz secondary field Ch 1 contin. norm.

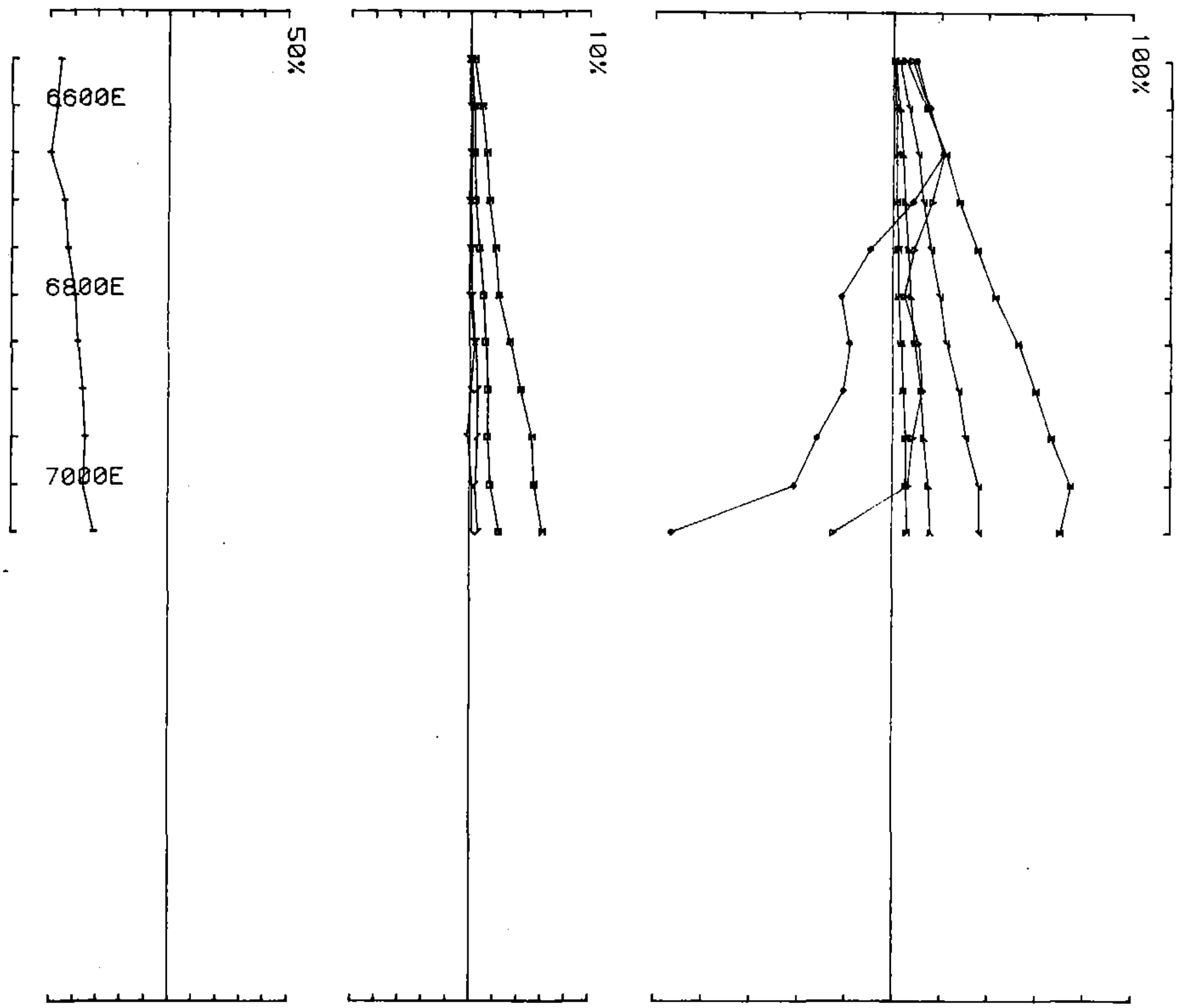
MB13

767192



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL Job 8722 base freq (hz) 26.230
loop no 13 line 3000N component Hz secondary field Ch 1 contin. norm.

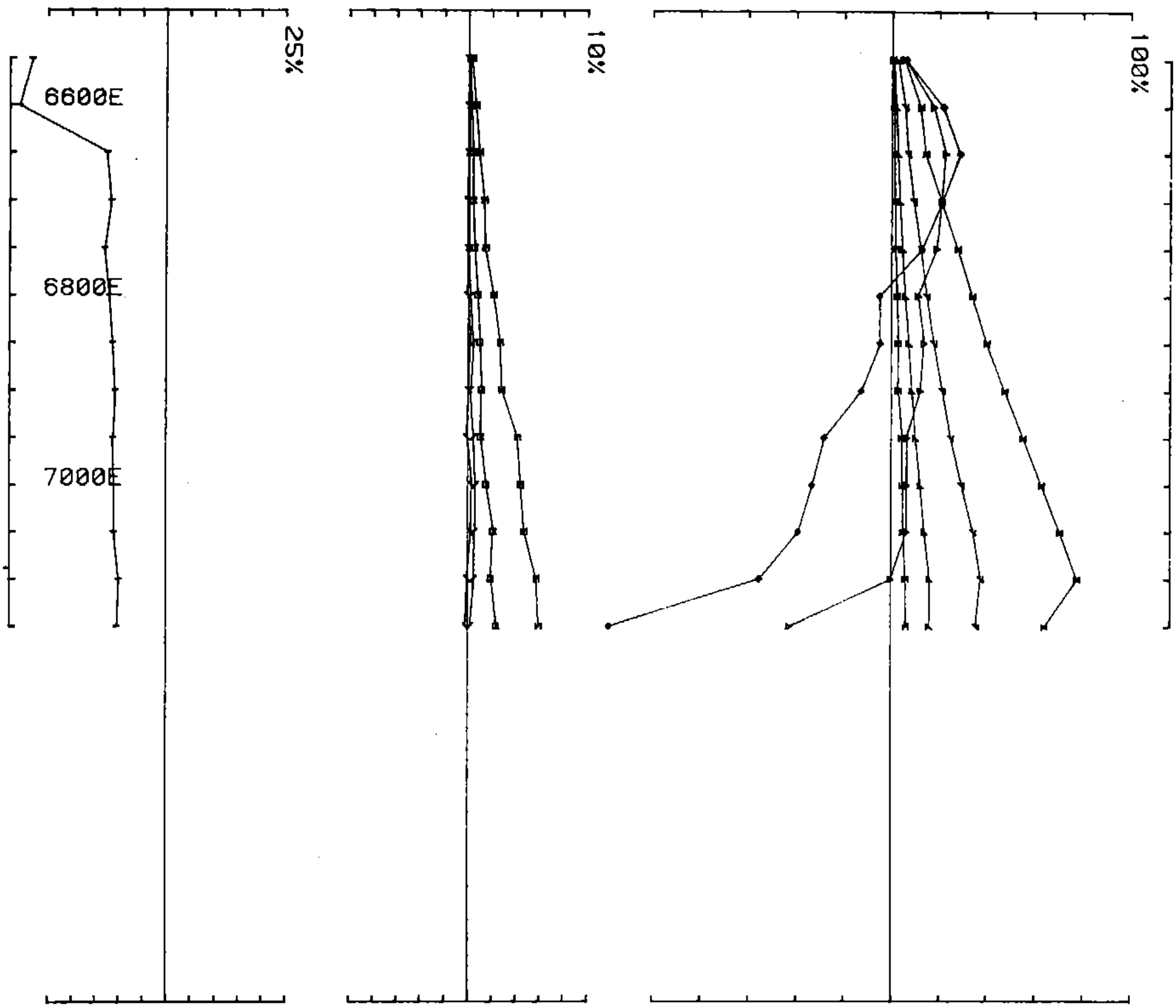
MB13



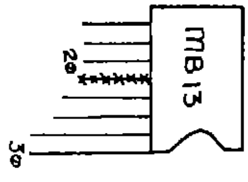
UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230 ** REDUCED CH 1 **
loop no 13 line 2000N component Hz secondary field Ch 1 contin. norm.

MB13

767194



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 13 line 2200N component Hz secondary field Ch 1 contin. norm.



194

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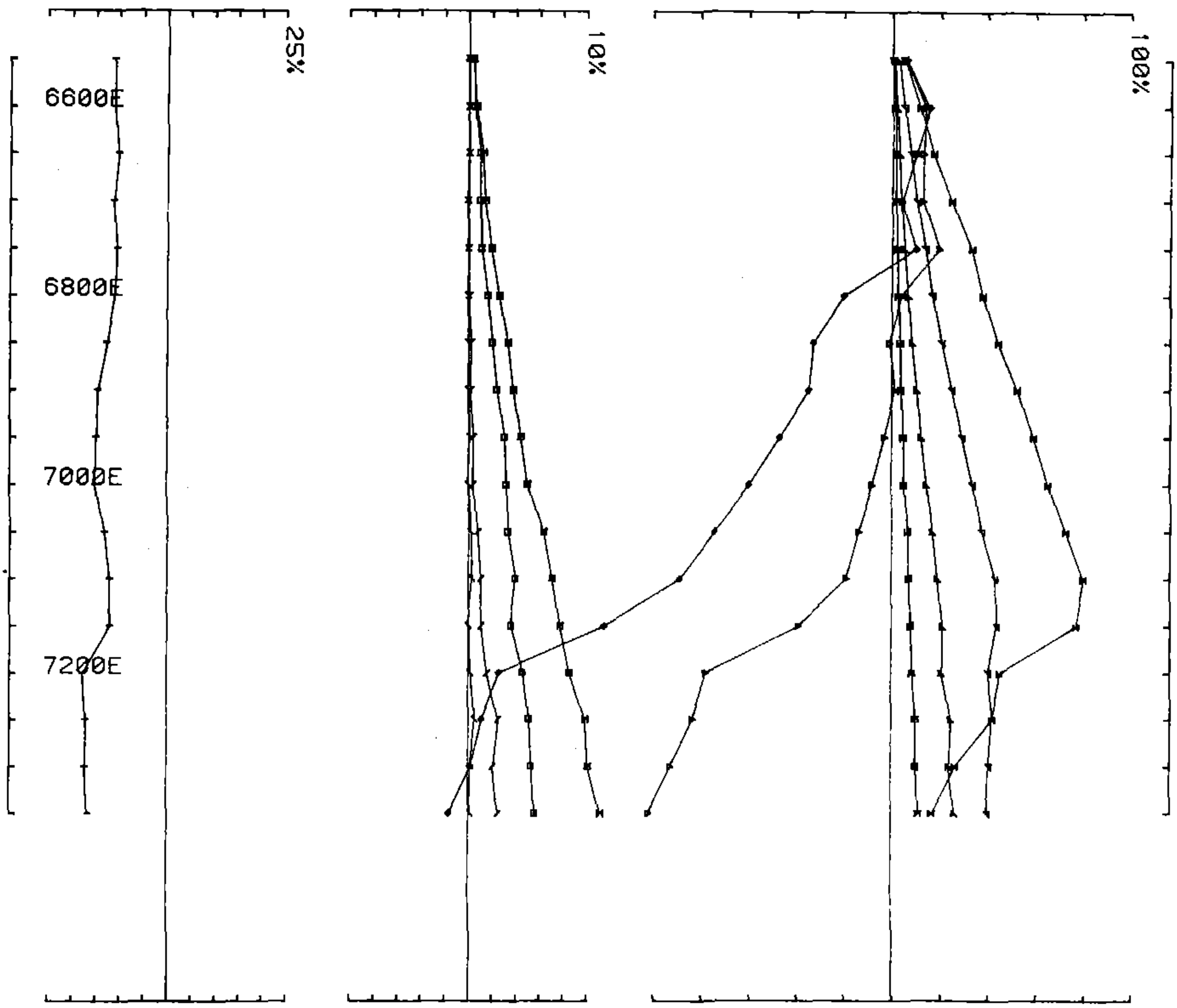
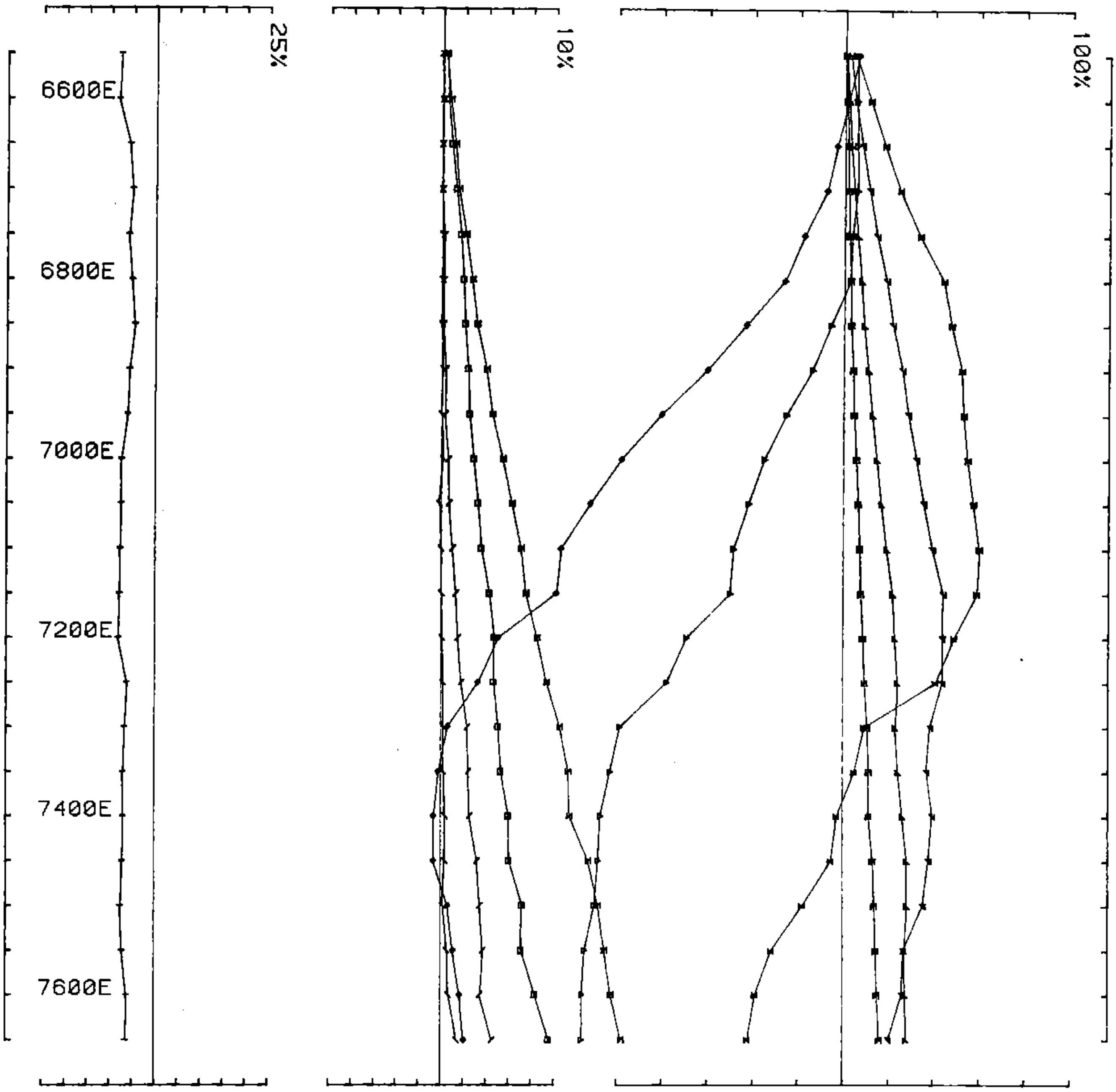


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 13 line 2400N component Hz secondary field Ch 1 contin. norm.

MB13

195

767196



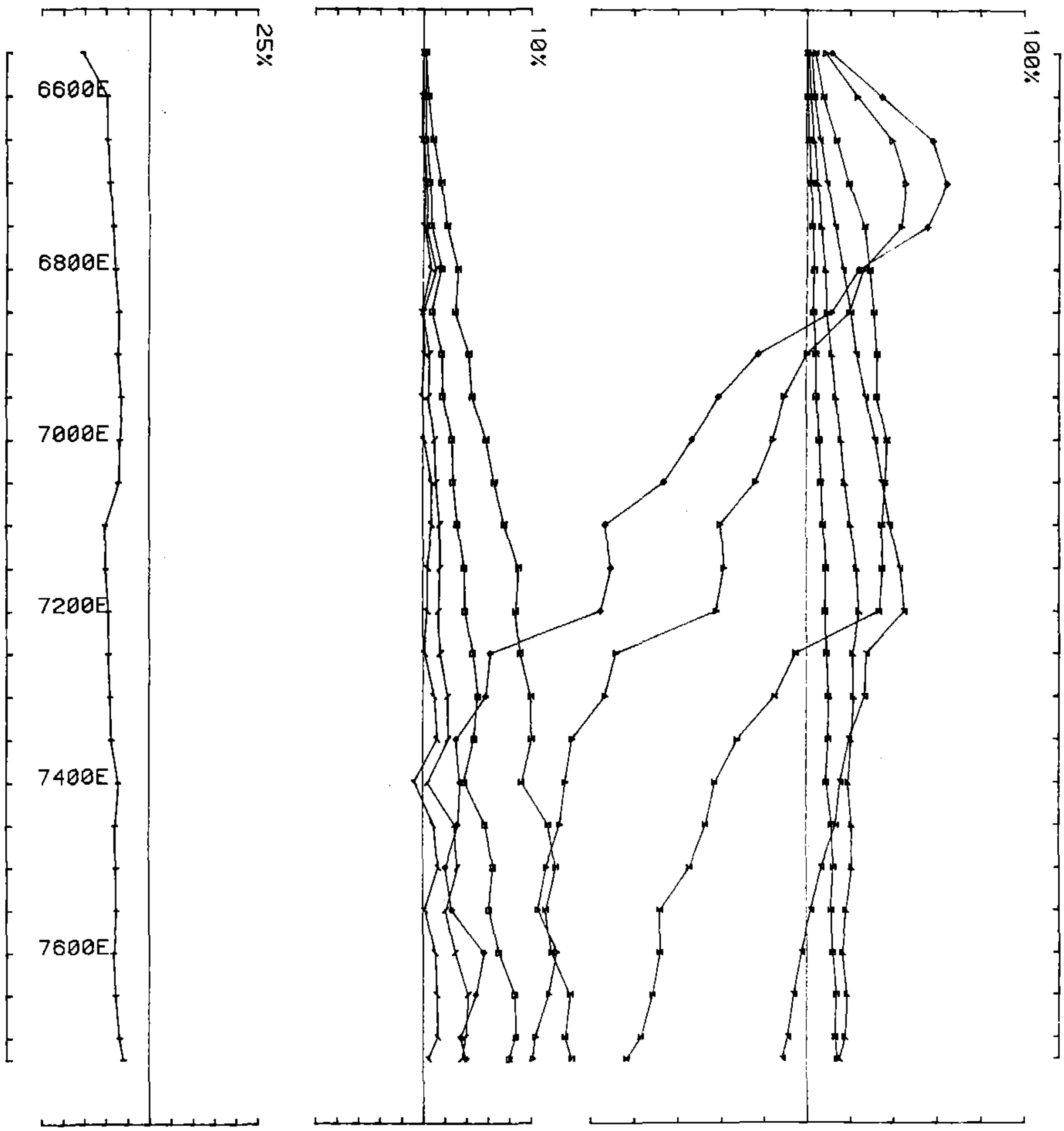
UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO DL job 8722 base freq (hz) 26.230

loop no 13 line 2600N component Hz secondary field Ch 1 contin. norm.

MB13

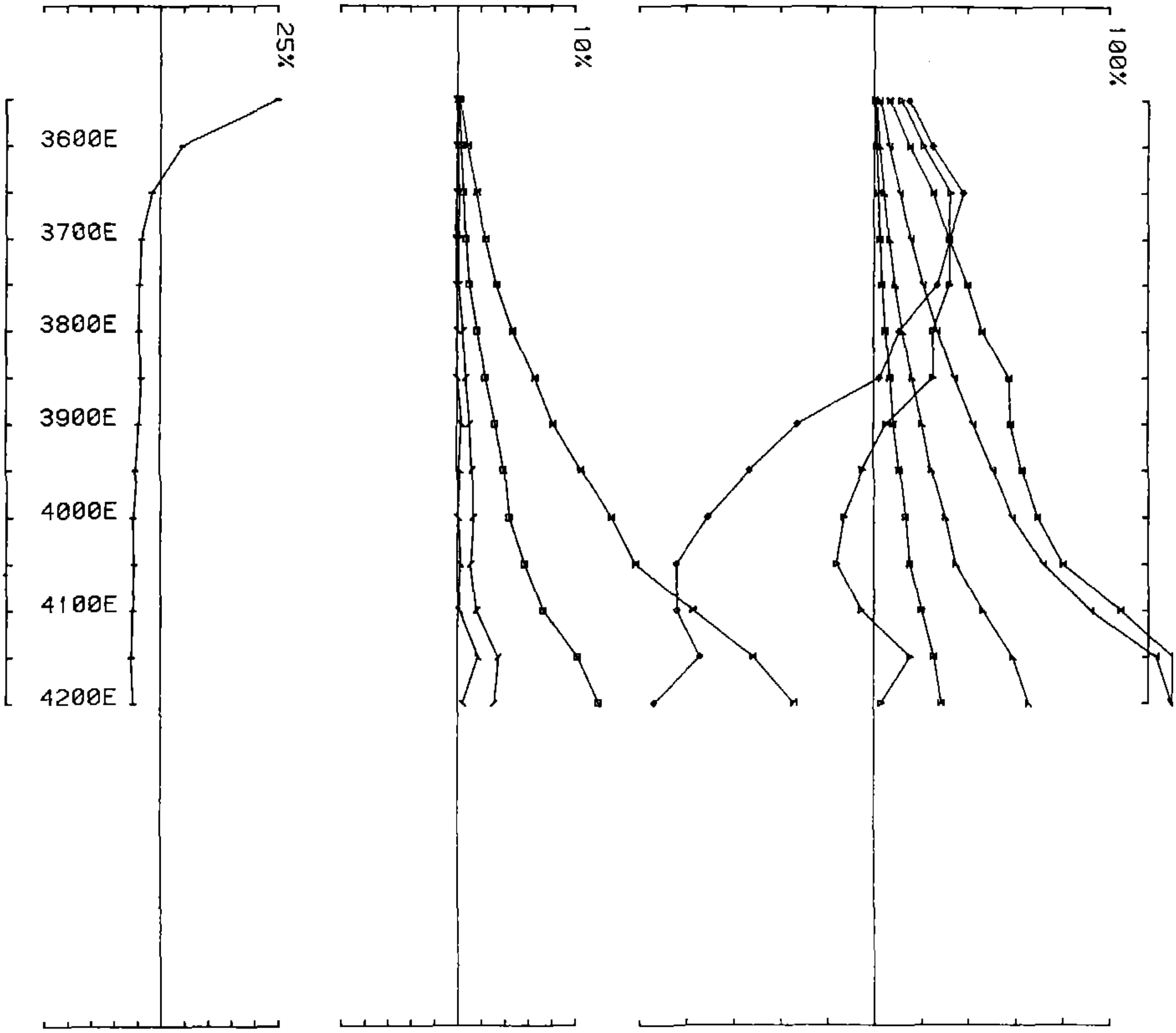
767197



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO DL job 8722 base freq (hz) 26.230
loop no 13 line 2800N component Hz secondary field Ch 1 contin. norm.

MB13

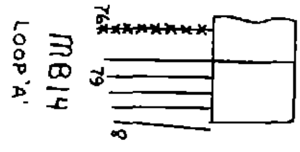
767198

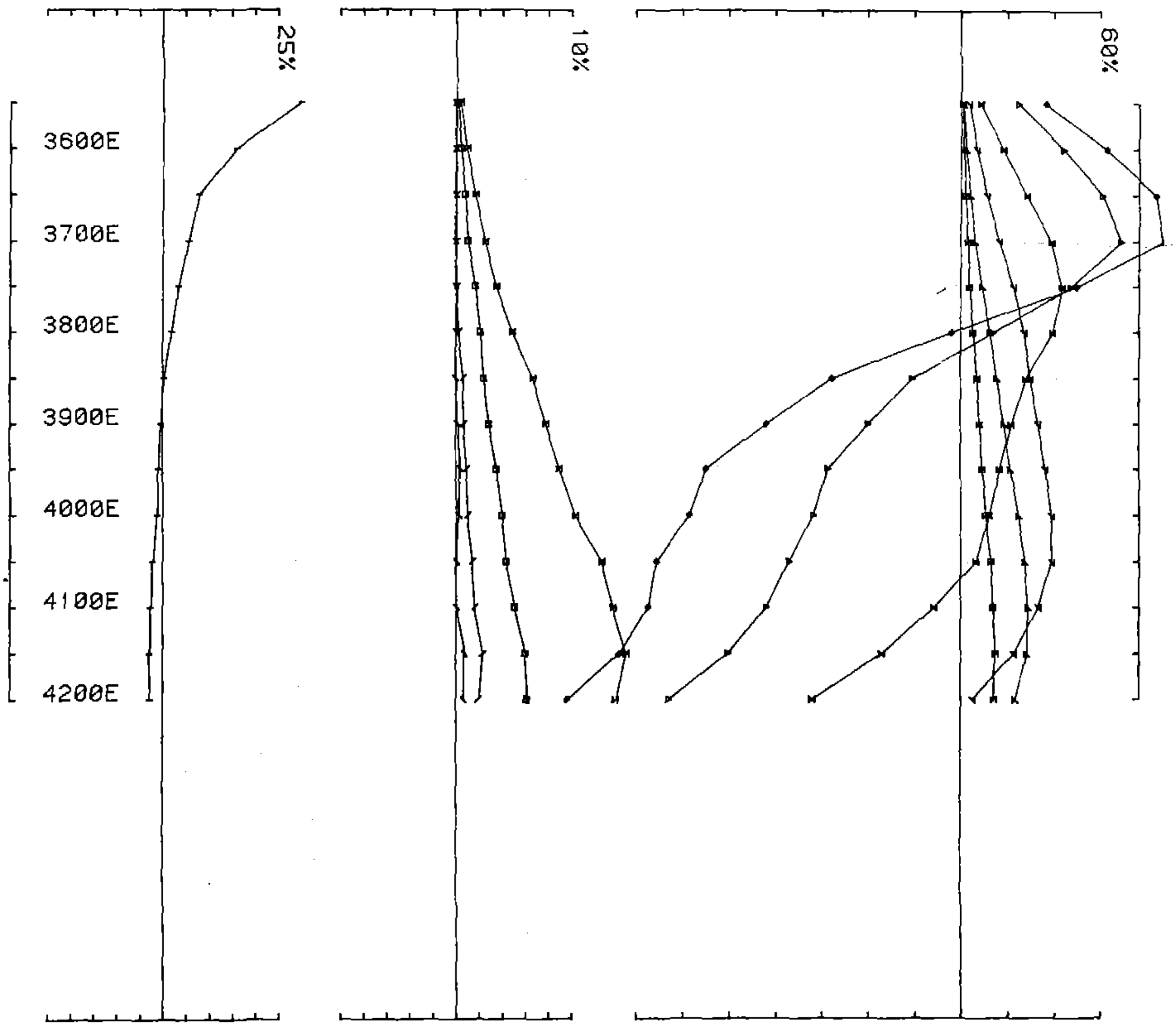


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU DL PO job 8722 base freq (hz) 26.230

loop no 14 line 7600N component Hz secondary field Ch 1 contin. norm.

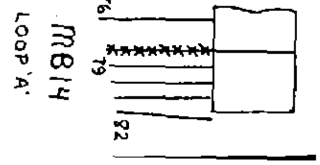




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU DL PO job 8722 base freq (hz) 26.230

loop no 14 line 7800N component Hz secondary field Ch 1 contin. norm.



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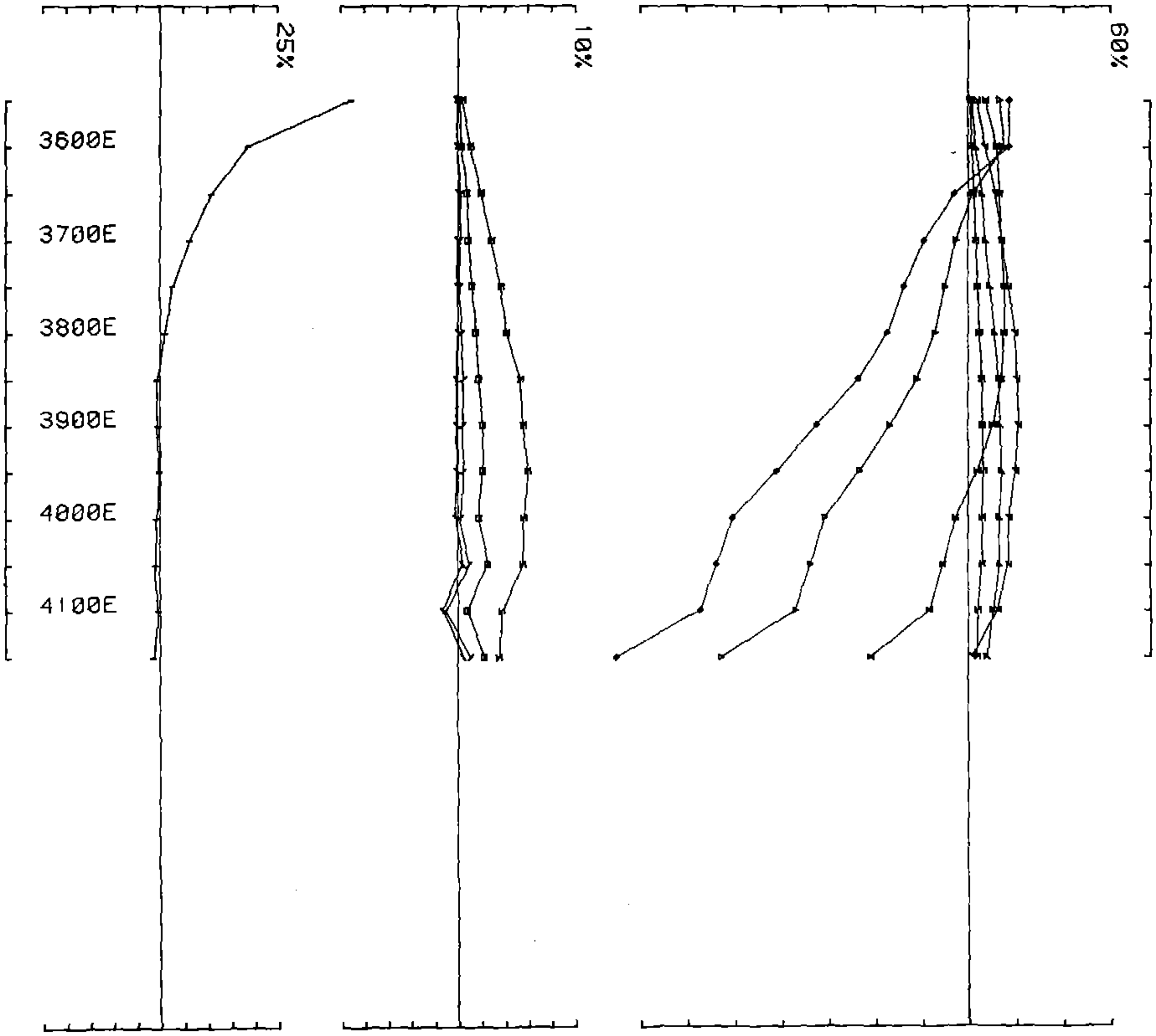
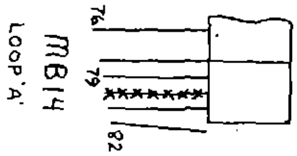
199



UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU DL PO job 8722 base freq (hz) 26.230

loop no 14 line 8000N component Hz secondary field Ch 1 contin. norm.



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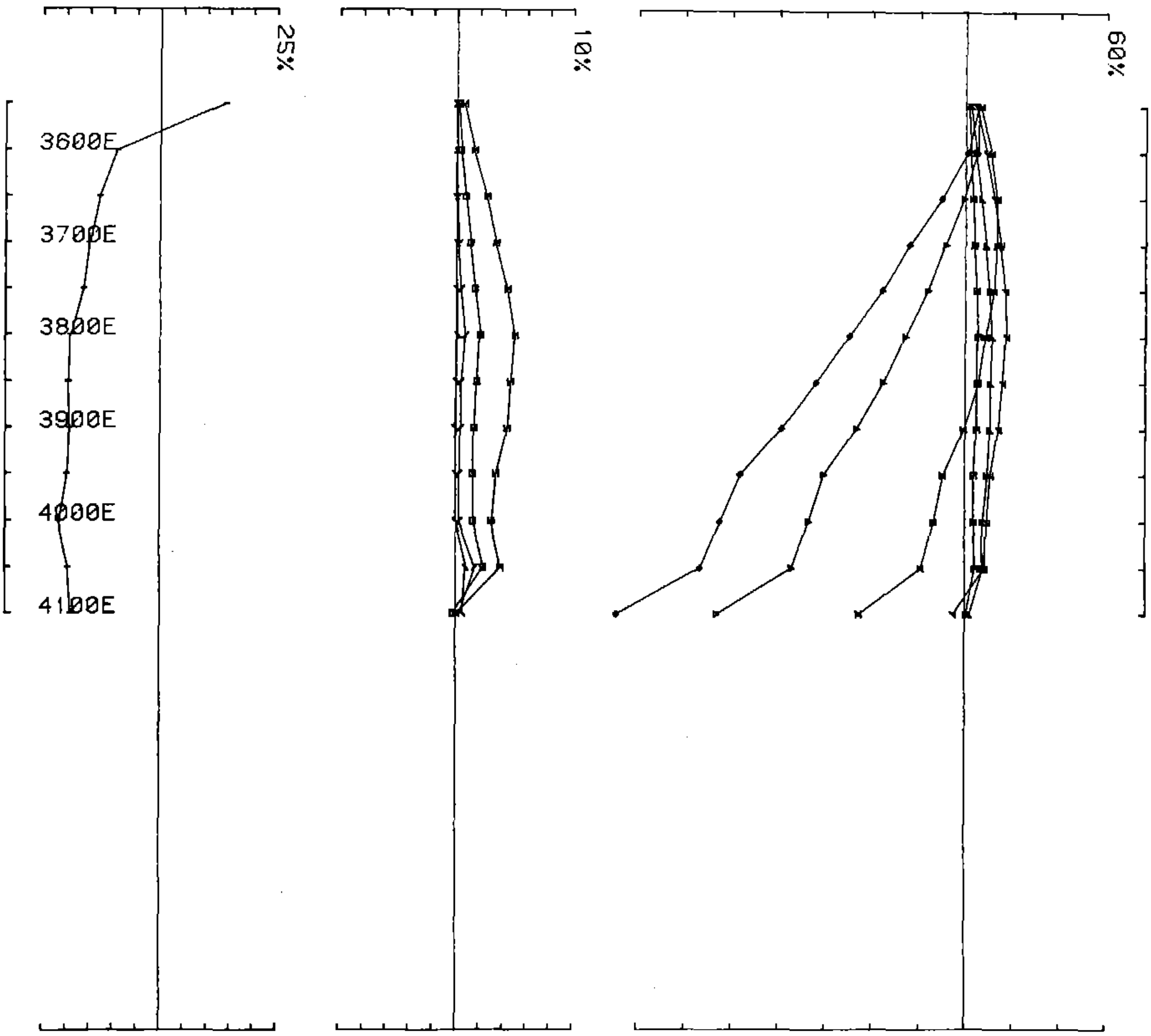
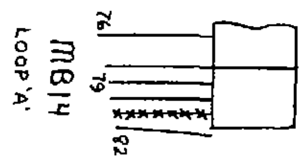


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU DL PO job 8722 base freq (hz) 26.230

loop no 14 line 8100N component Hz secondary field Ch 1 contin. norm.



201

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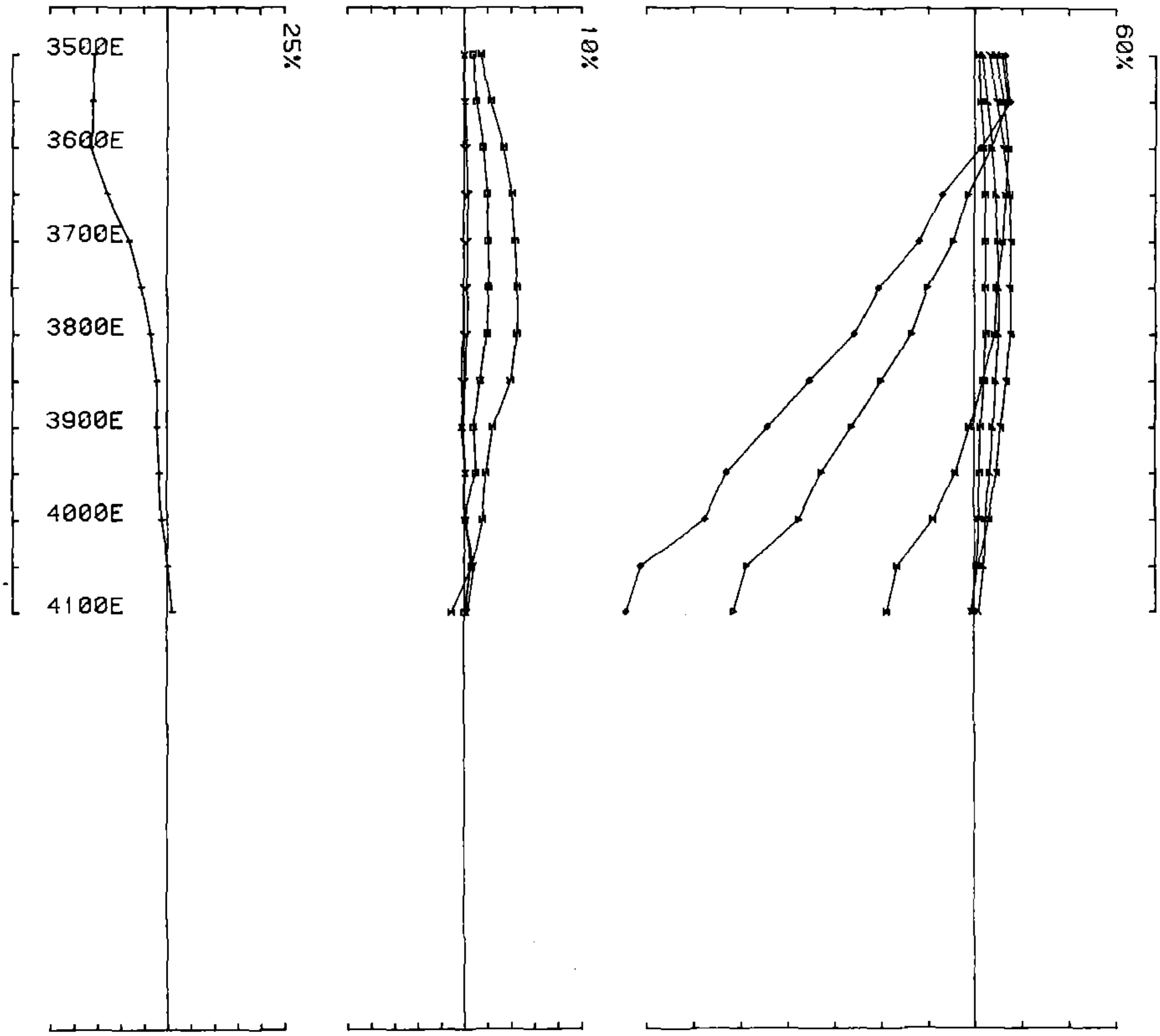
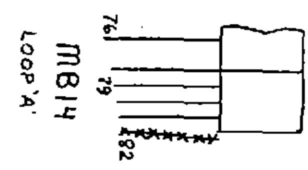


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU DL PO job 8722 base freq (hz) 26.230
loop no 14 line 8200N component Hz secondary field Ch 1 contin. norm.



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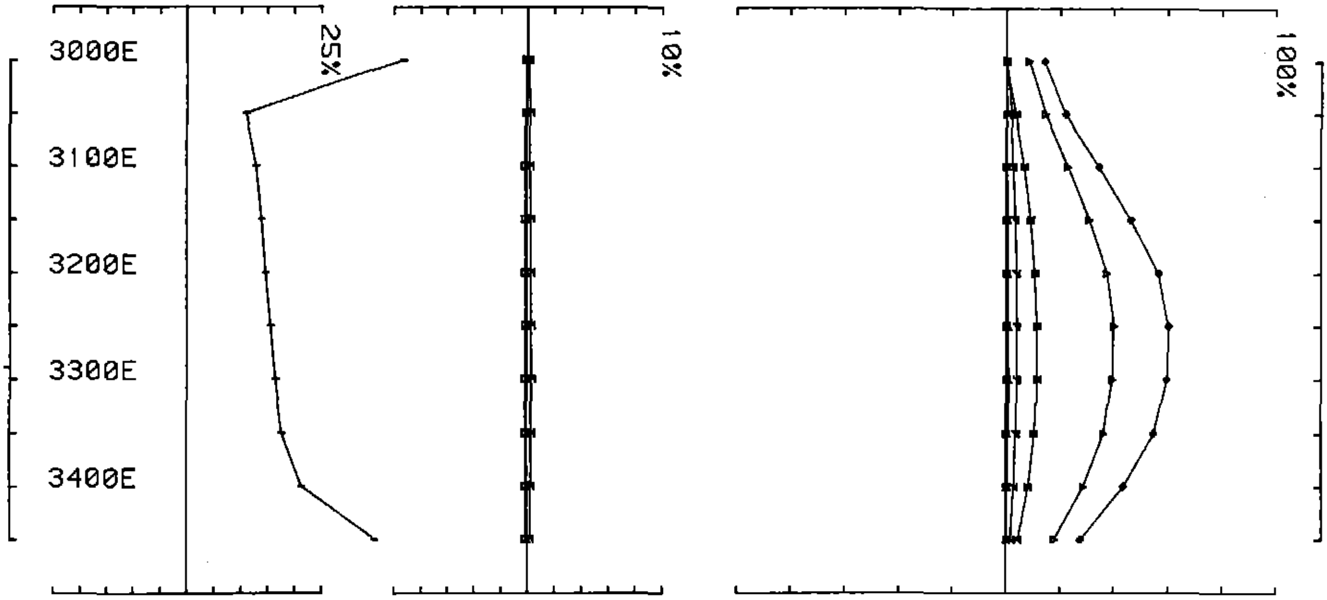
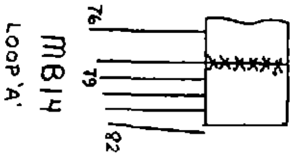


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU DL PO job 8722 base freq (hz) 26.230

loop no 14 line 7800N component Hz secondary field Ch 1 contin. norm.



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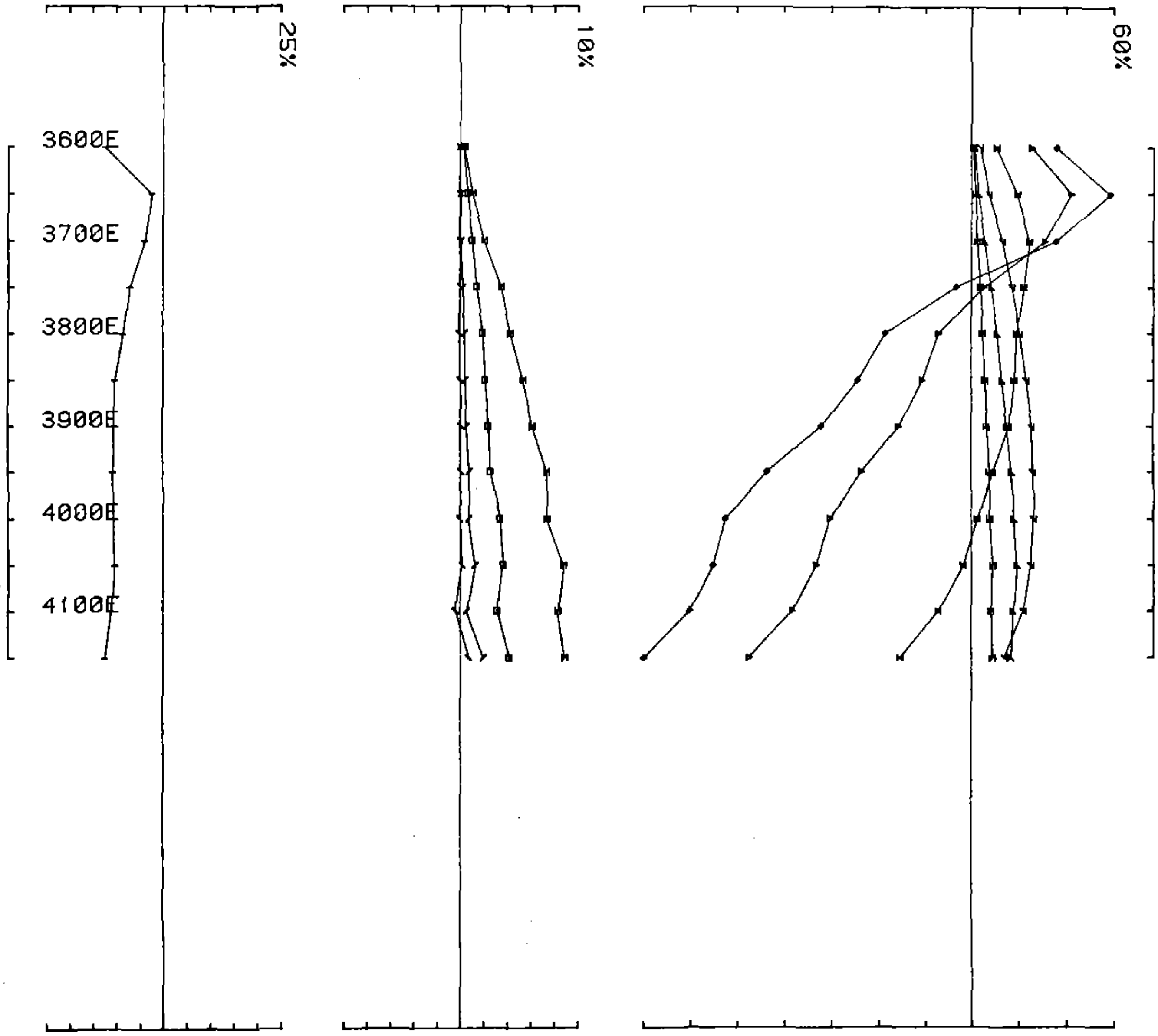
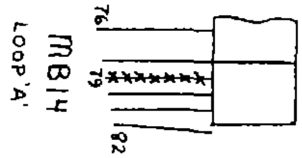


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU DL PO job 8722 base freq (hz) 26.230

loop no 14A line 7900N component Hz secondary field Ch 1 contin. norm.



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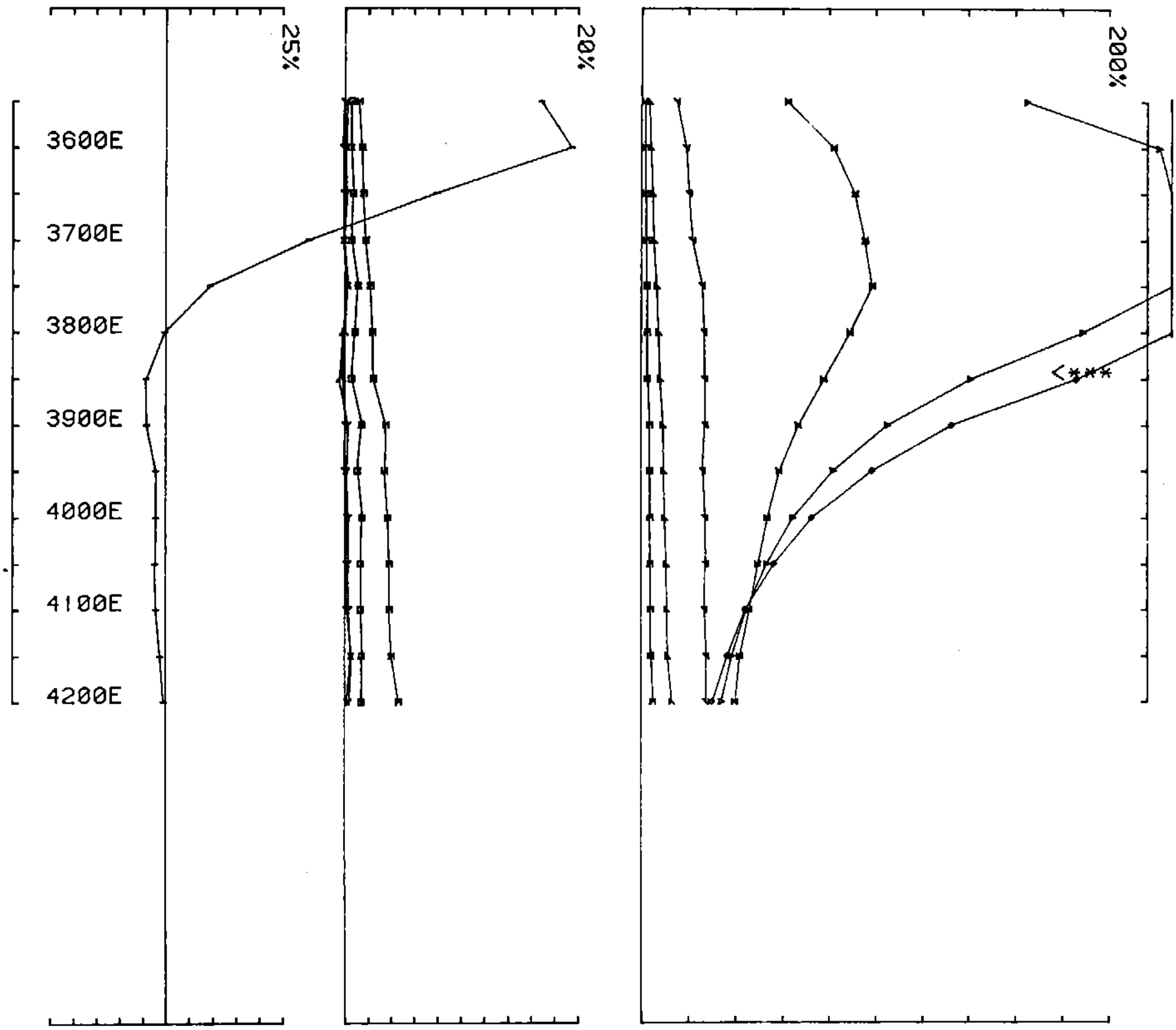
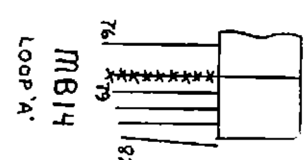


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU DL PO job 8722 base freq (hz) 26.230 ** INVERTED ***
loop no 14 line 7800N component Hx secondary field Ch 1 point norm.



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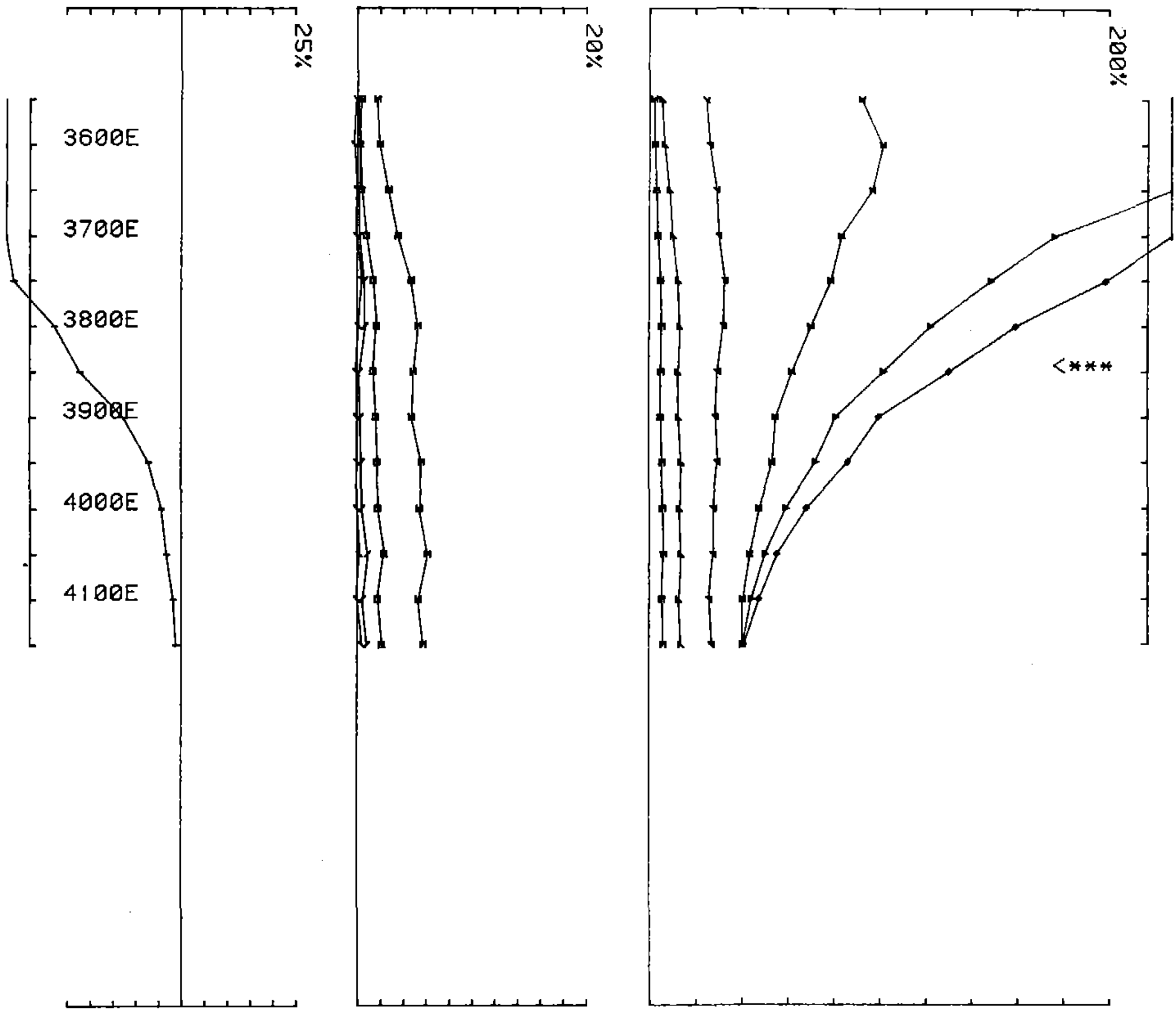
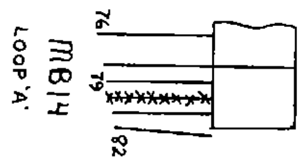
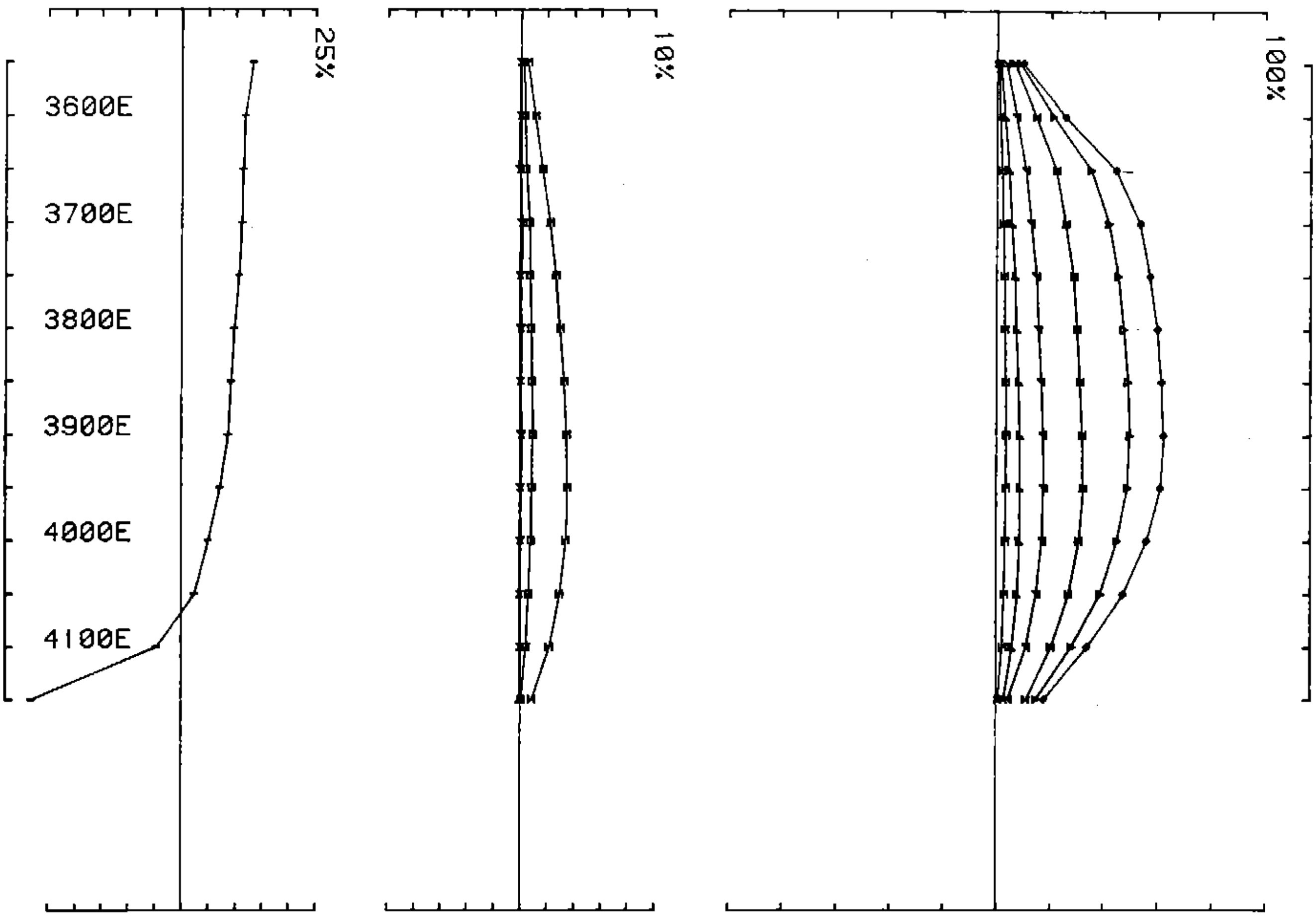
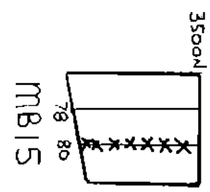


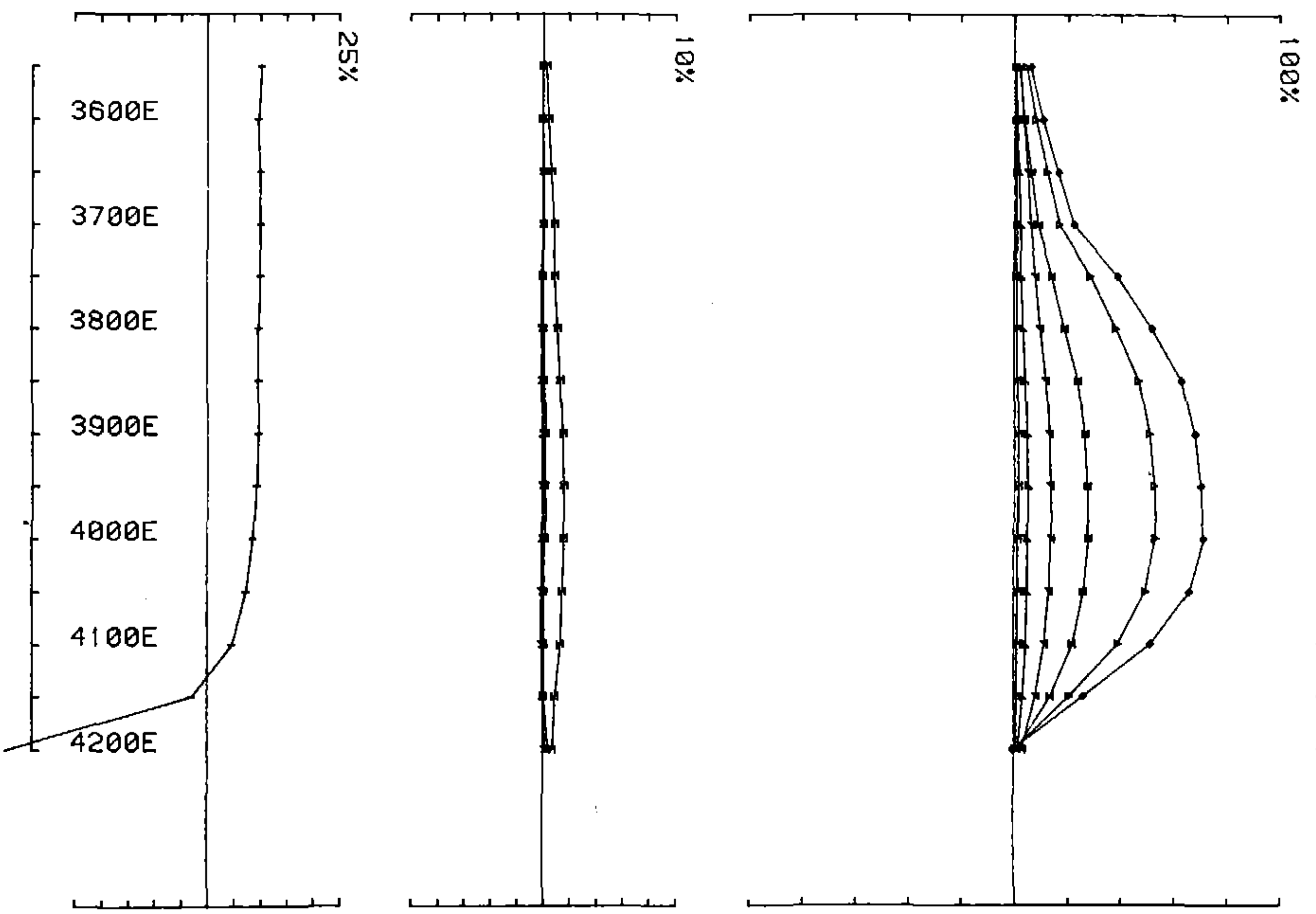
UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU DL PO job 8722 base freq (hz) 26.230 ** INVERTED ***
loop no 14 line 8000N component Hx secondary field Ch 1 point norm.





UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO PM job 8722 base freq (hz) 26.230
loop no 15 line 8000N component Hz secondary field Ch 1 contin. norm.

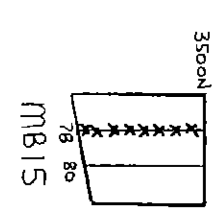




UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO PM job 8722 base freq (hz) 26.230

loop no 15 line 7800N component Hz secondary field Ch 1 contin. norm.



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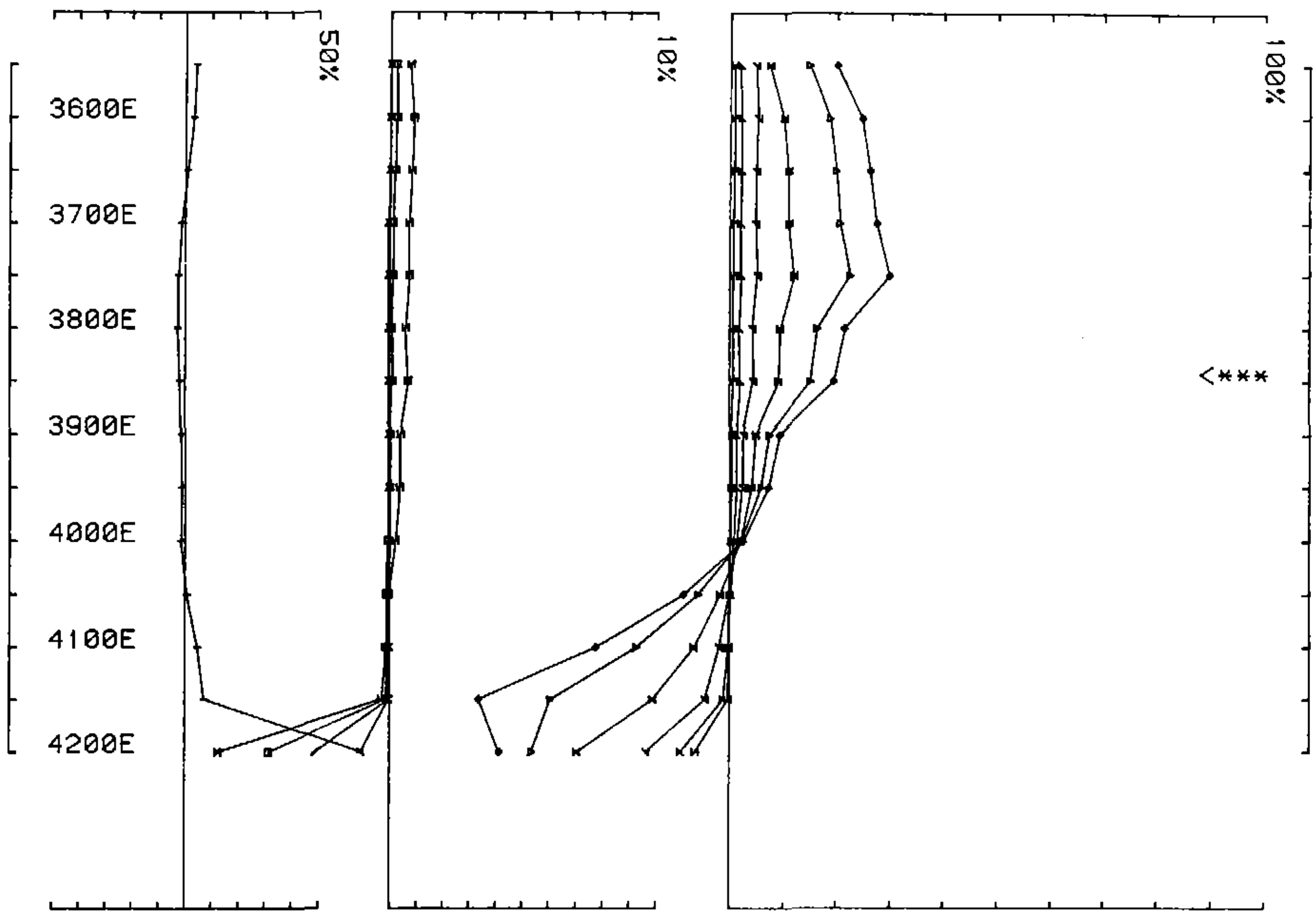
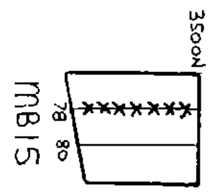


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO PM job 8722 base freq (hz) 26.230
loop no 15 line 7800N component Hx secondary field Ch 1 point norm.



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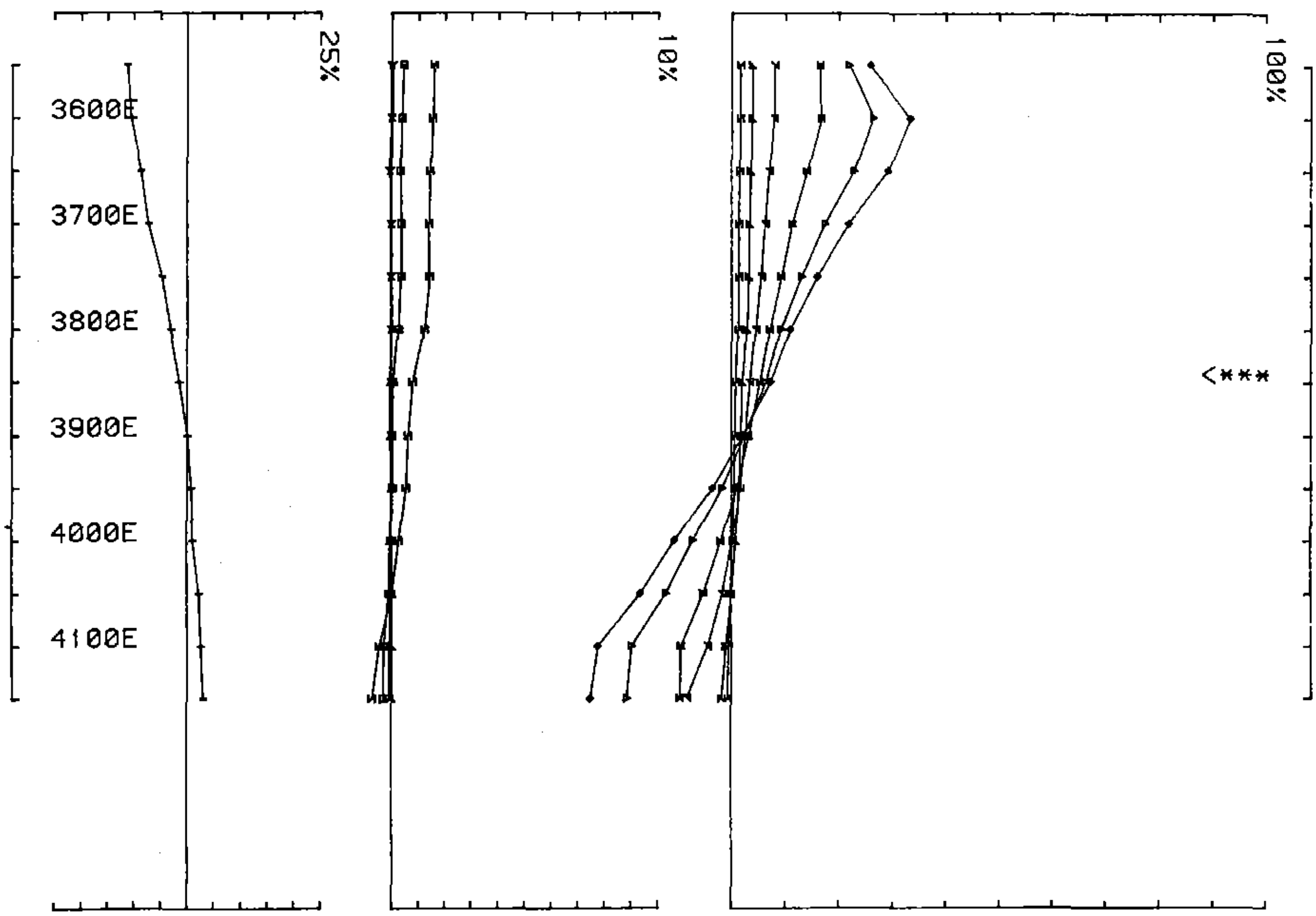
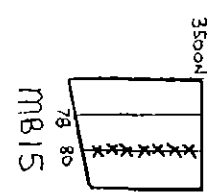


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO PM job 8722 base freq (hz) 26.230

loop no 15 line 8000N component Hx secondary field Ch 1 point norm.



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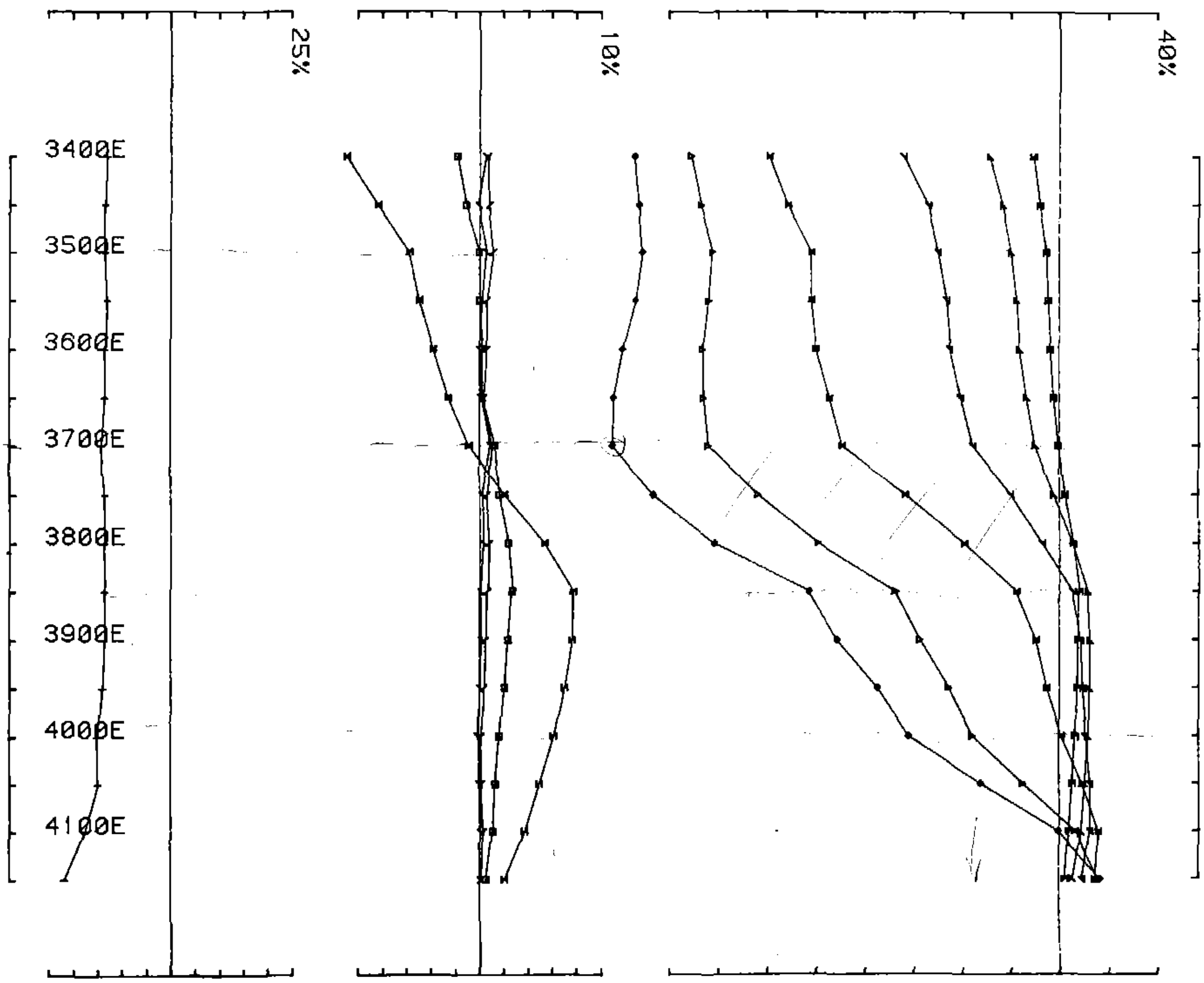
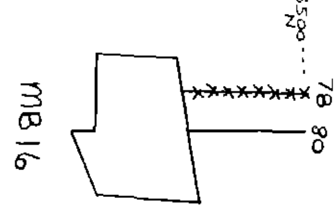


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO PM job 8722 base freq (hz) 26.230

loop no 16 line 7800N component Hz secondary field Ch 1 contin. norm.



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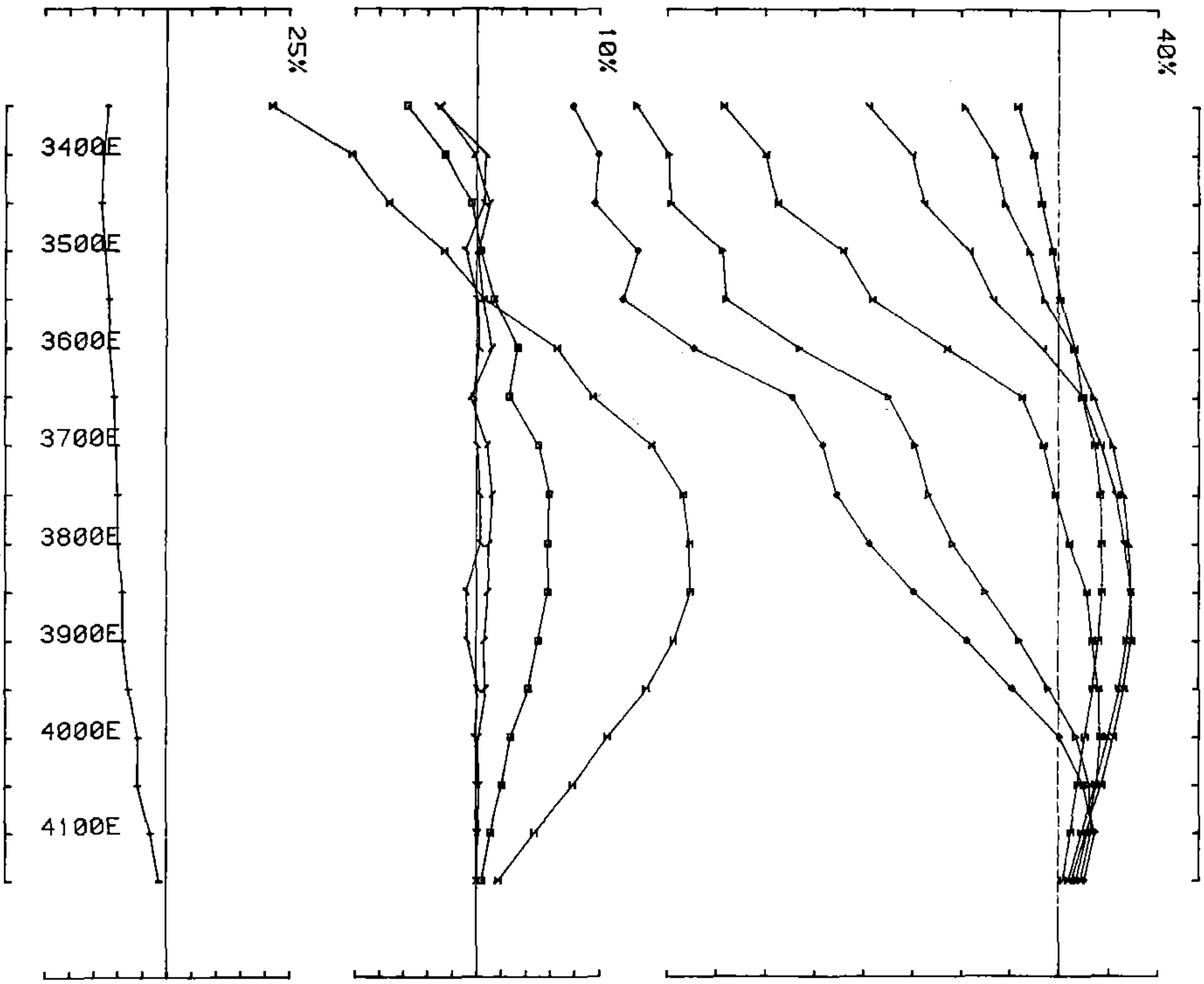
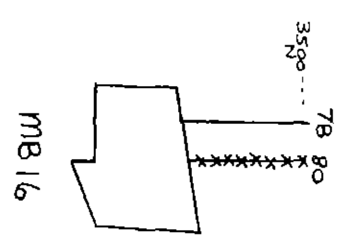


UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO PM job 8722 base freq (hz) 26.230
loop no 16 line 8000N component Hz secondary field Ch 1 contin. norm.



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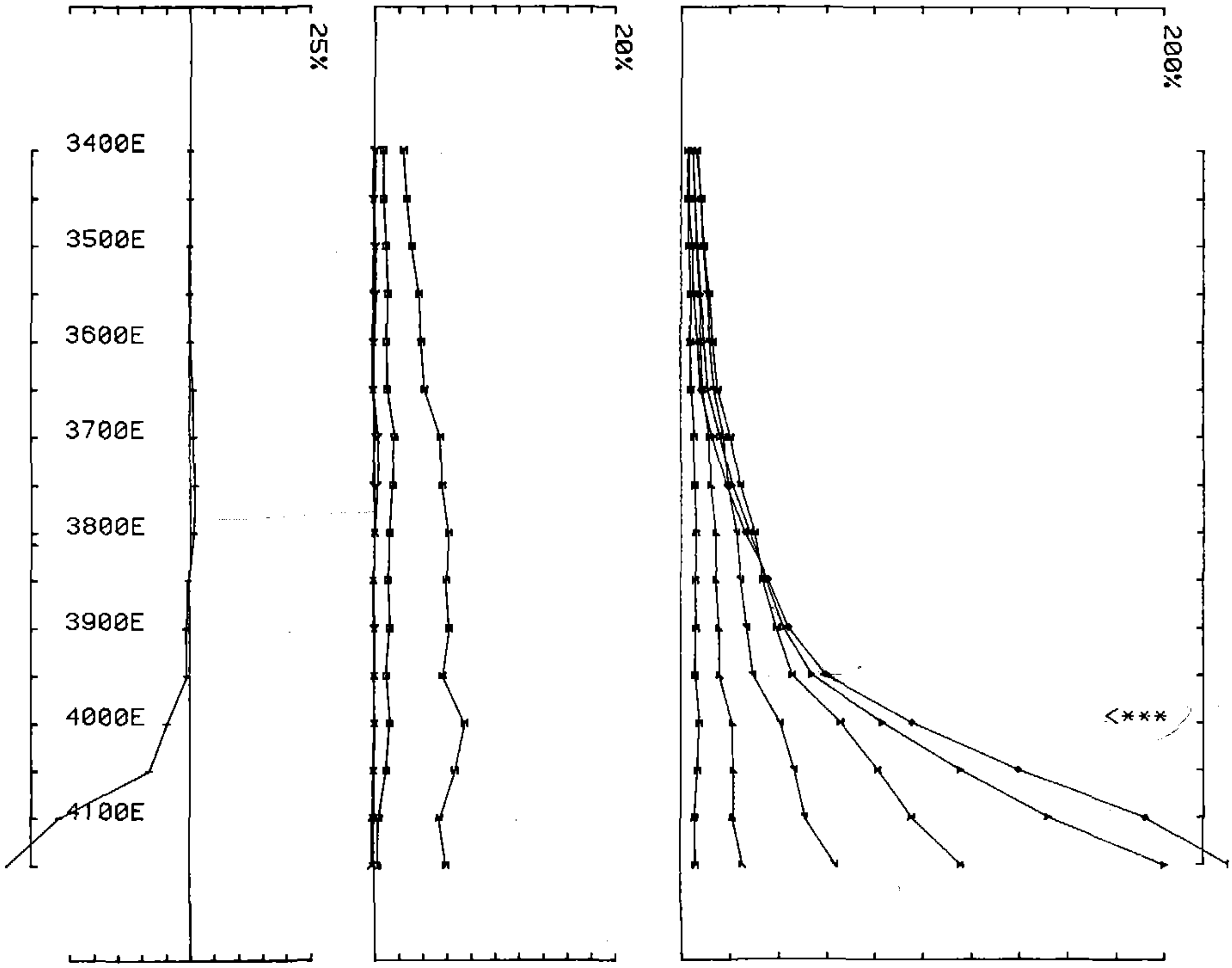
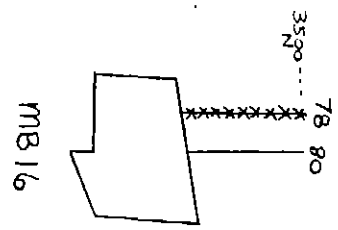


UTEM SURVEY at MOUNT BLOCK for B H P

conducted by HU PO PM job 8722 base freq (hz) 26.230

loop no 16 line 7800N component Hx secondary field Ch I point norm.



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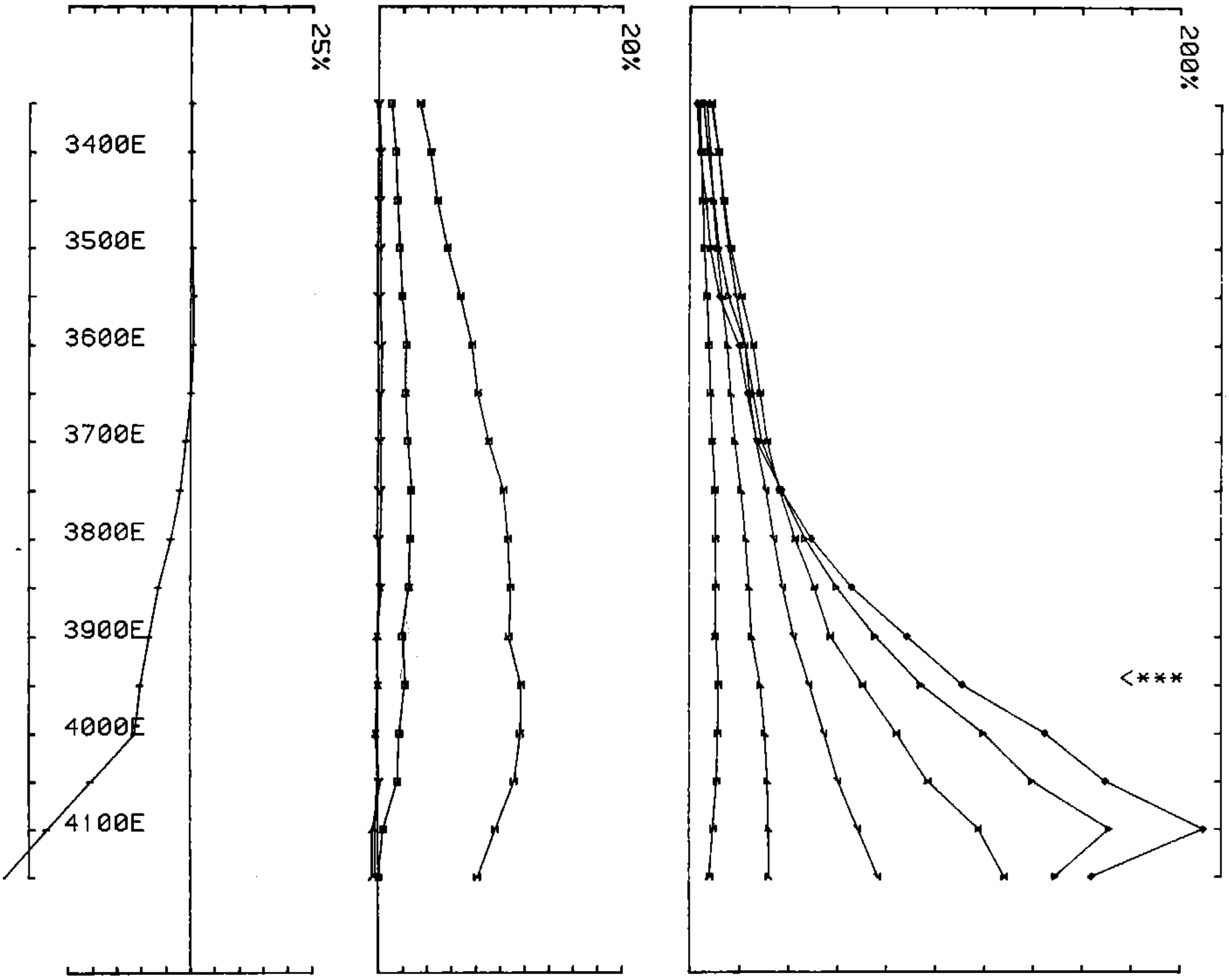
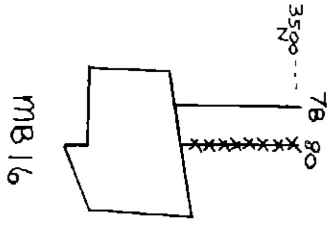
767214



UTEM SURVEY at MOUNT BLOCK for B H P
conducted by HU PO PM job 8722 base freq (hz) 26.230
loop no 16 line 8000N component Hx secondary field Ch 1 point norm.



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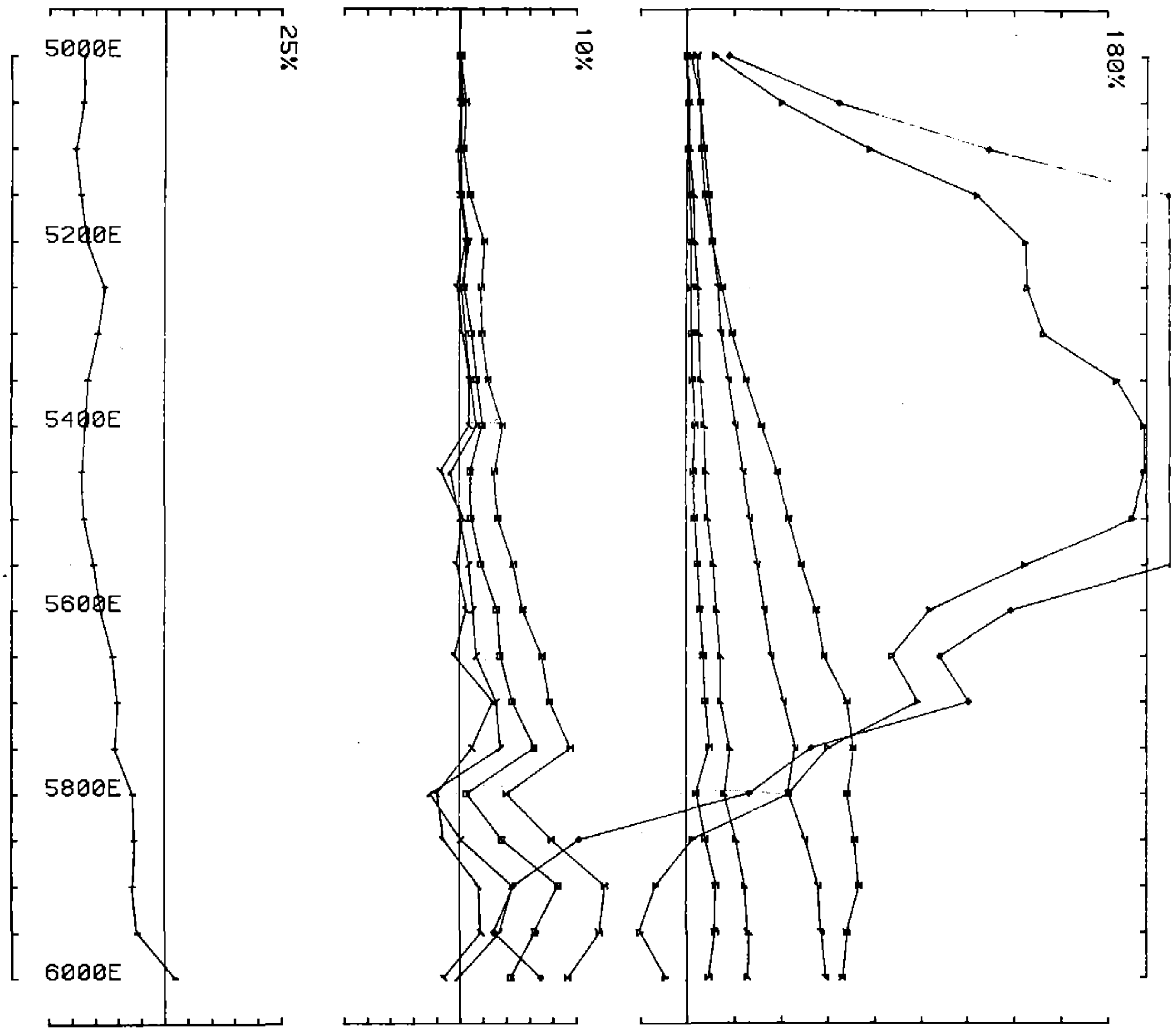
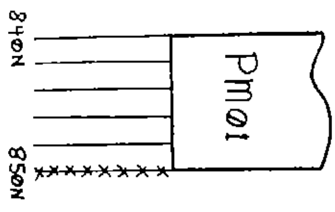


UTEM SURVEY at PIEMAN for B H P

conducted by HU PM PO job 8723 base freq (hz) 26.230

loop no 1 line 85000N component Hz secondary field Ch 1 contin. norm.



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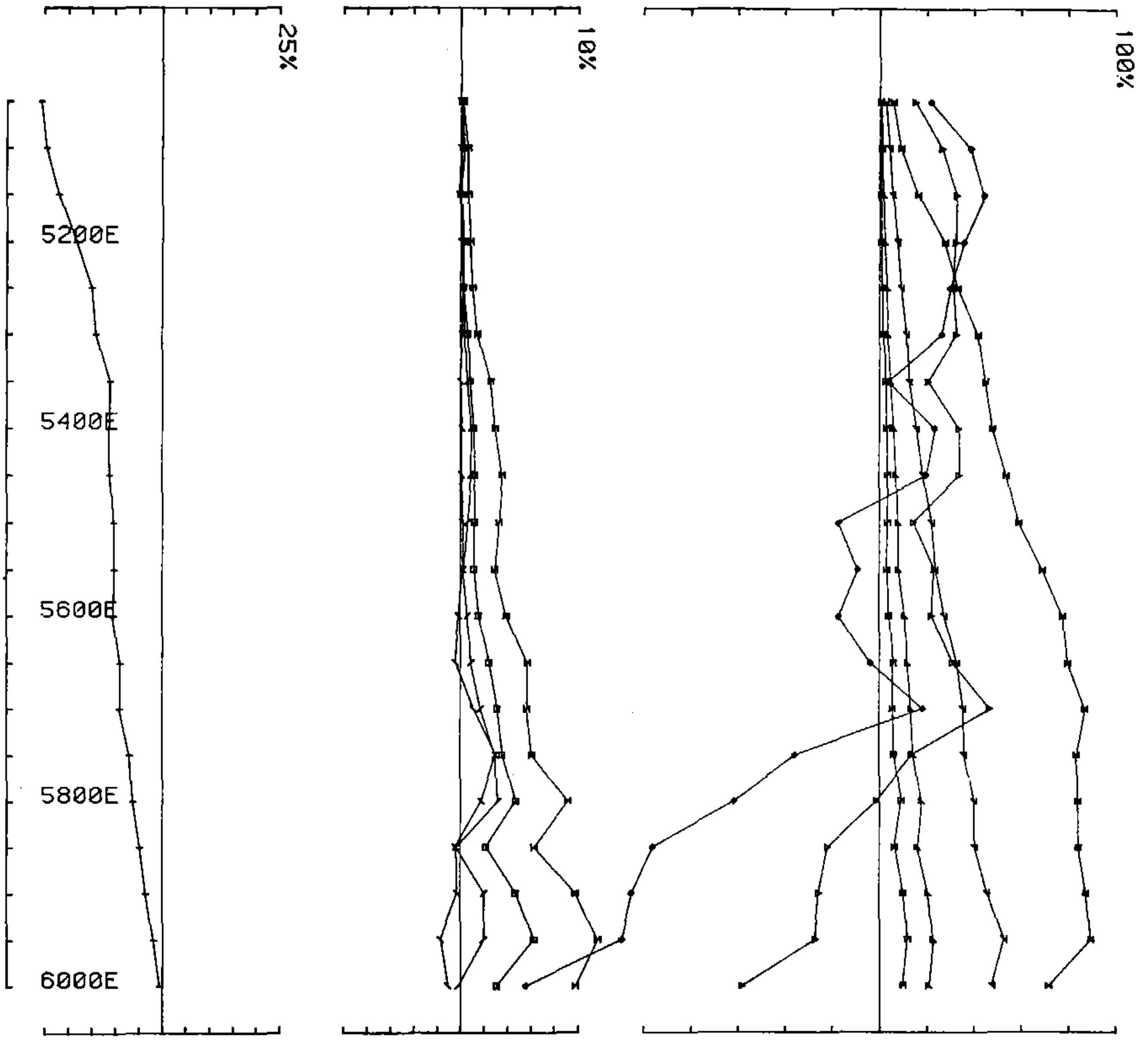
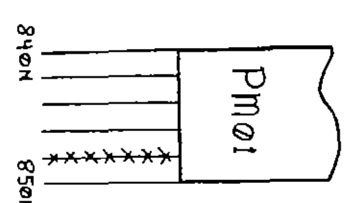
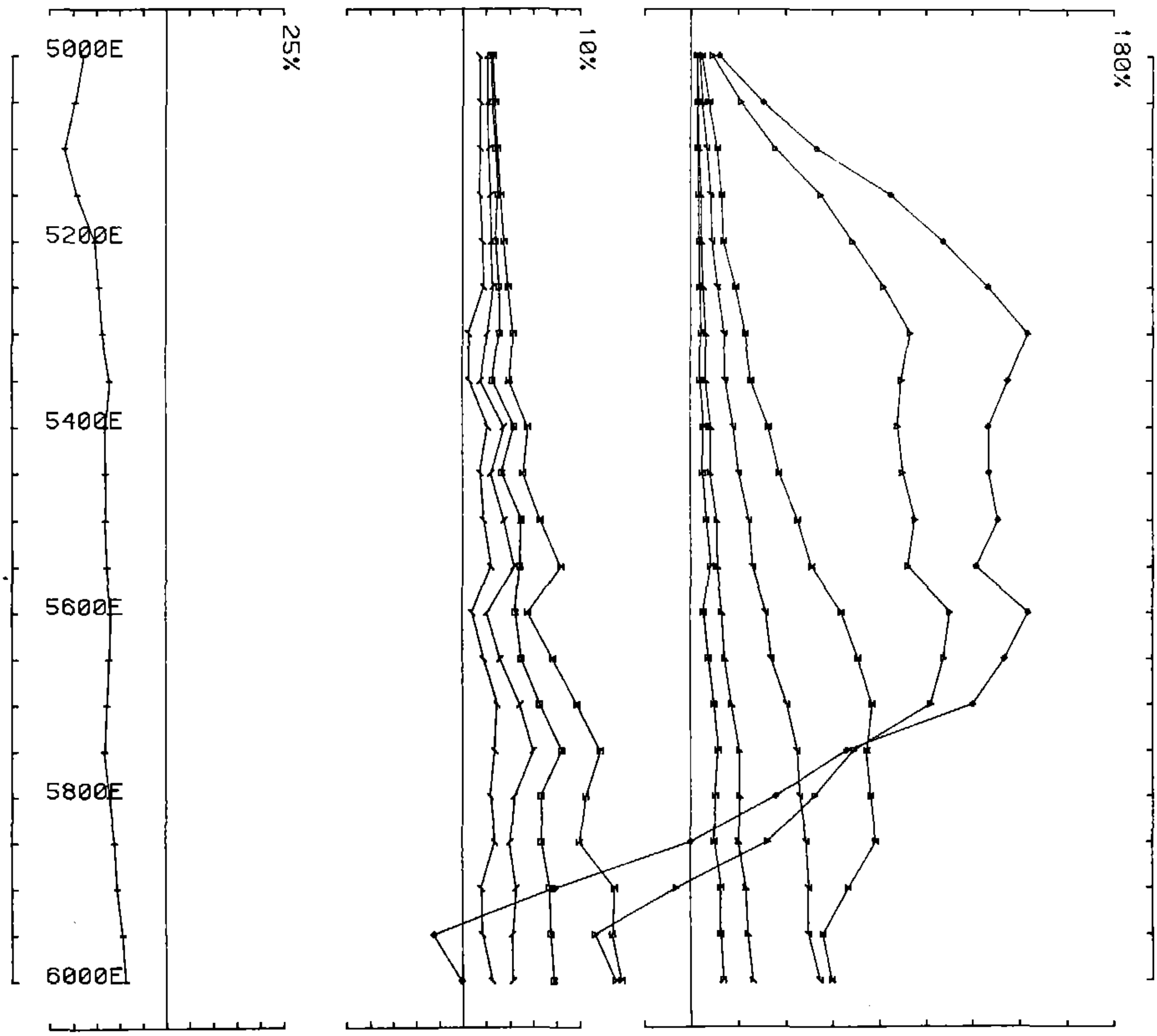


UTEM SURVEY at PIEMAN for B H P
conducted by HU PM PO job 8723 base freq (hz) 26.230
loop no 1 line 84800N component Hz secondary field Ch 1 contin. norm.



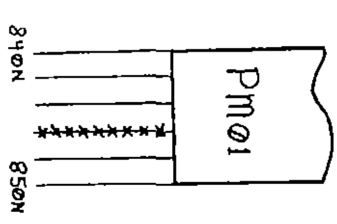
767217



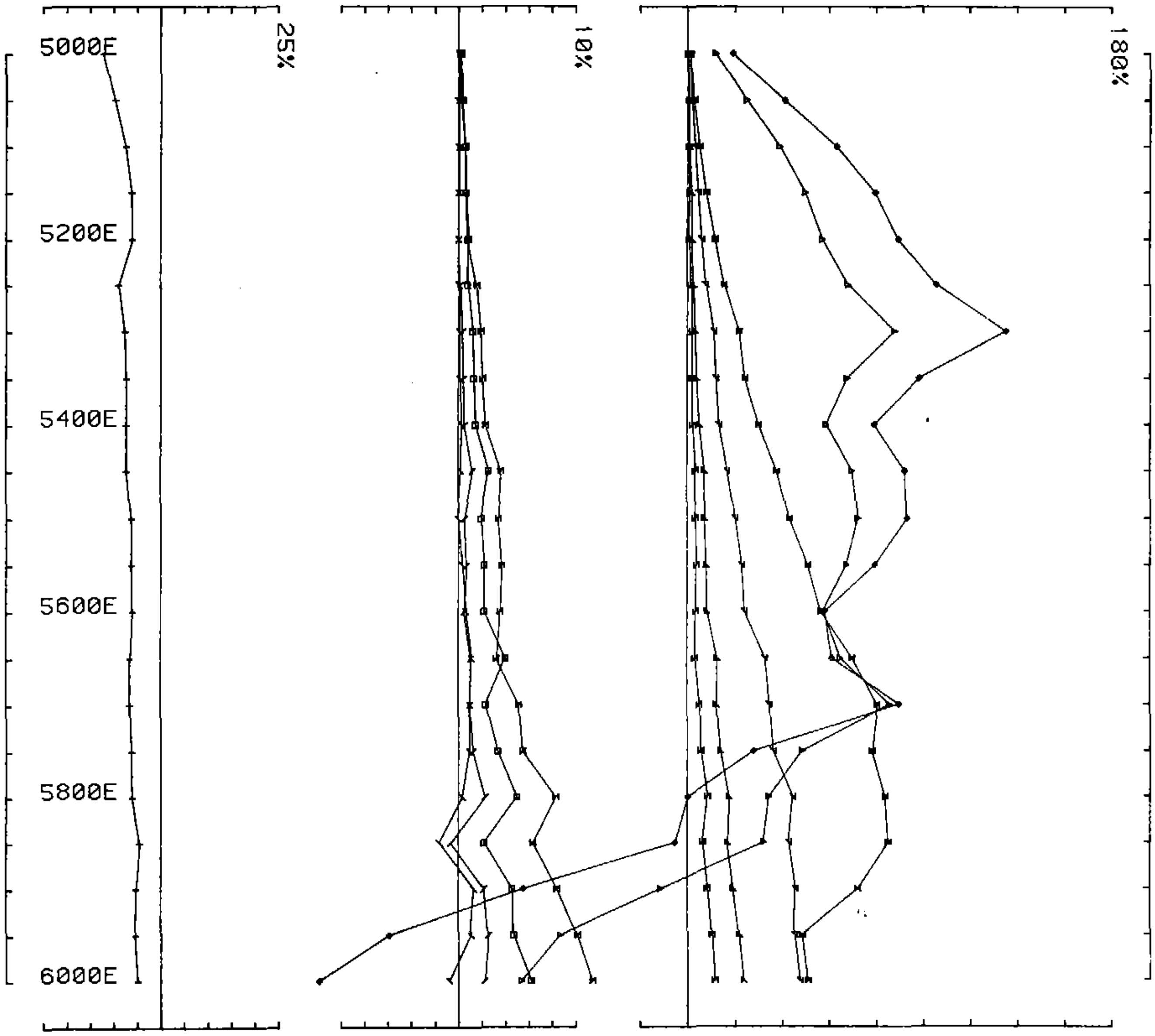
UTEM SURVEY at PIEMAN for B H P

conducted by HU PM PO job 8723 base freq (hz) 26.230

loop no 1 line 84600N component Hz secondary field Ch 1 contin. norm.



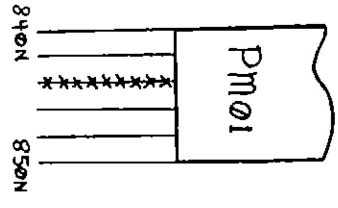
767218

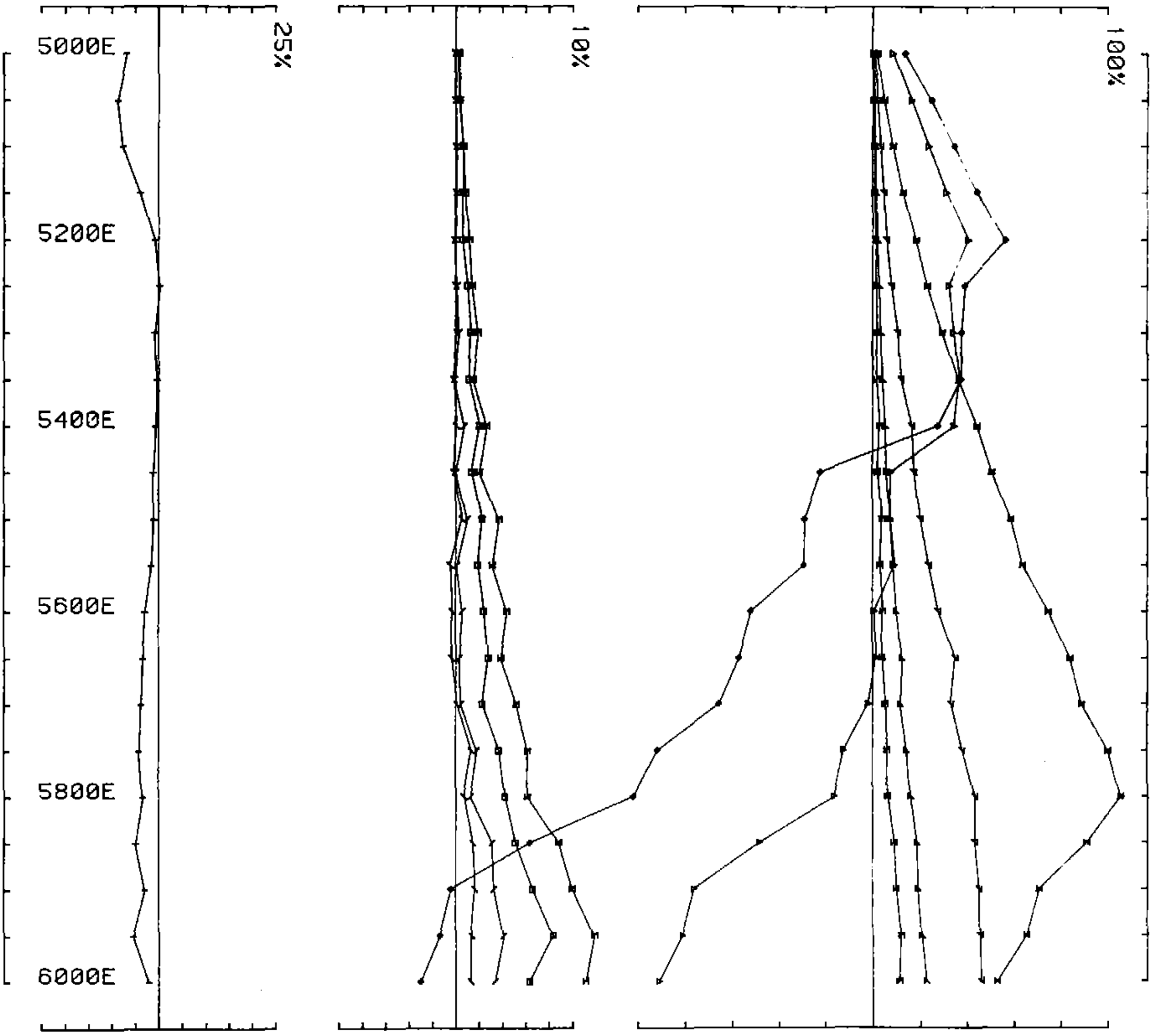


UTEM SURVEY at PIEMAN for B H P

conducted by HU PM PO job 8723 base freq (hz) 26.230

loop no 1 line 84400N component Hz secondary field Ch 1 contin. norm.





UTEM SURVEY at PIEMAN for B H P
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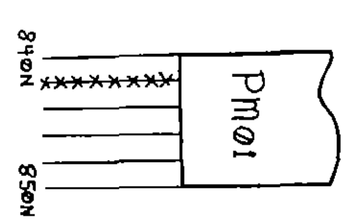
loop no 1 line 84200N component Hz secondary field Ch 1 contin. norm.



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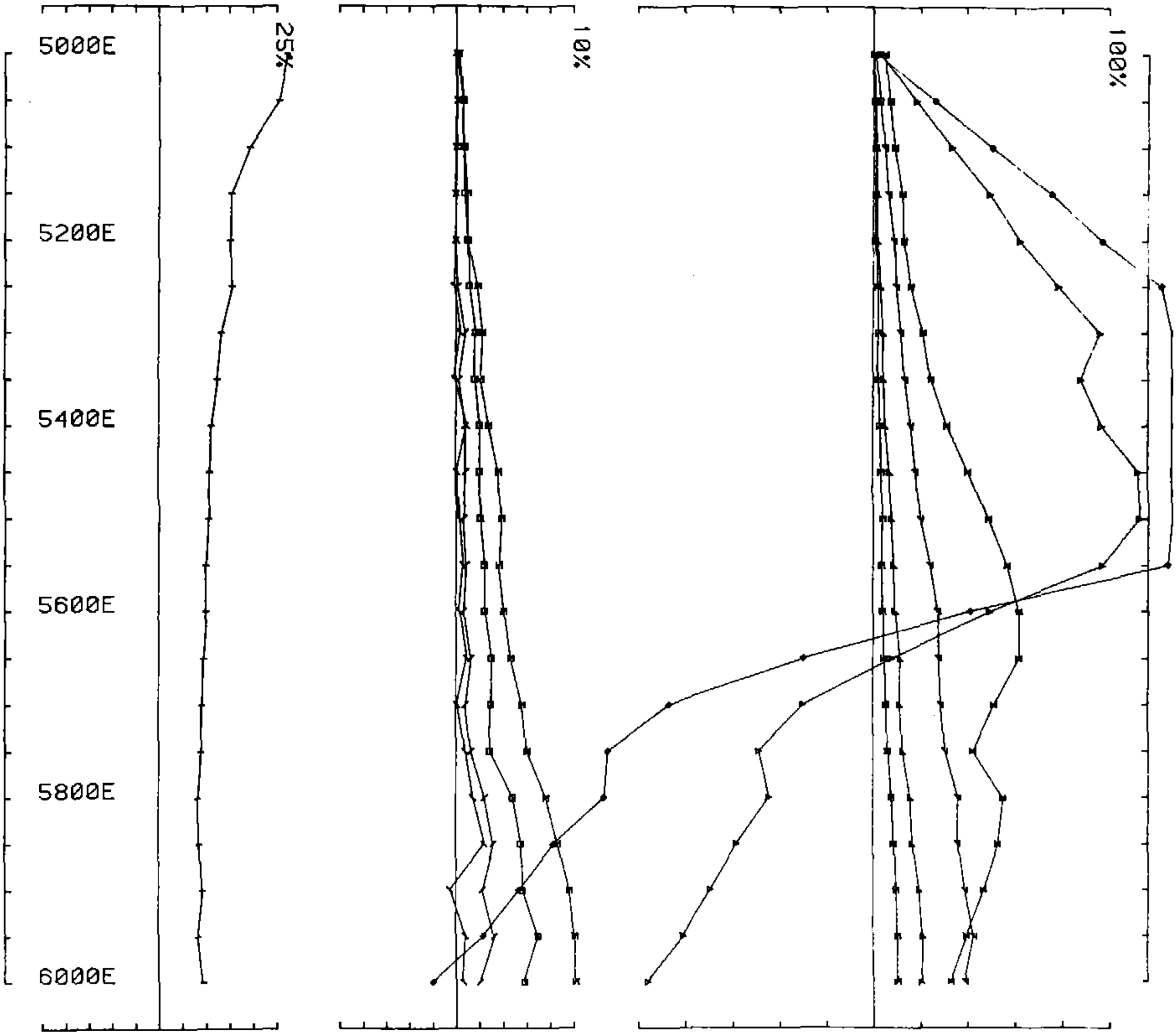
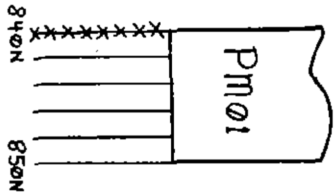
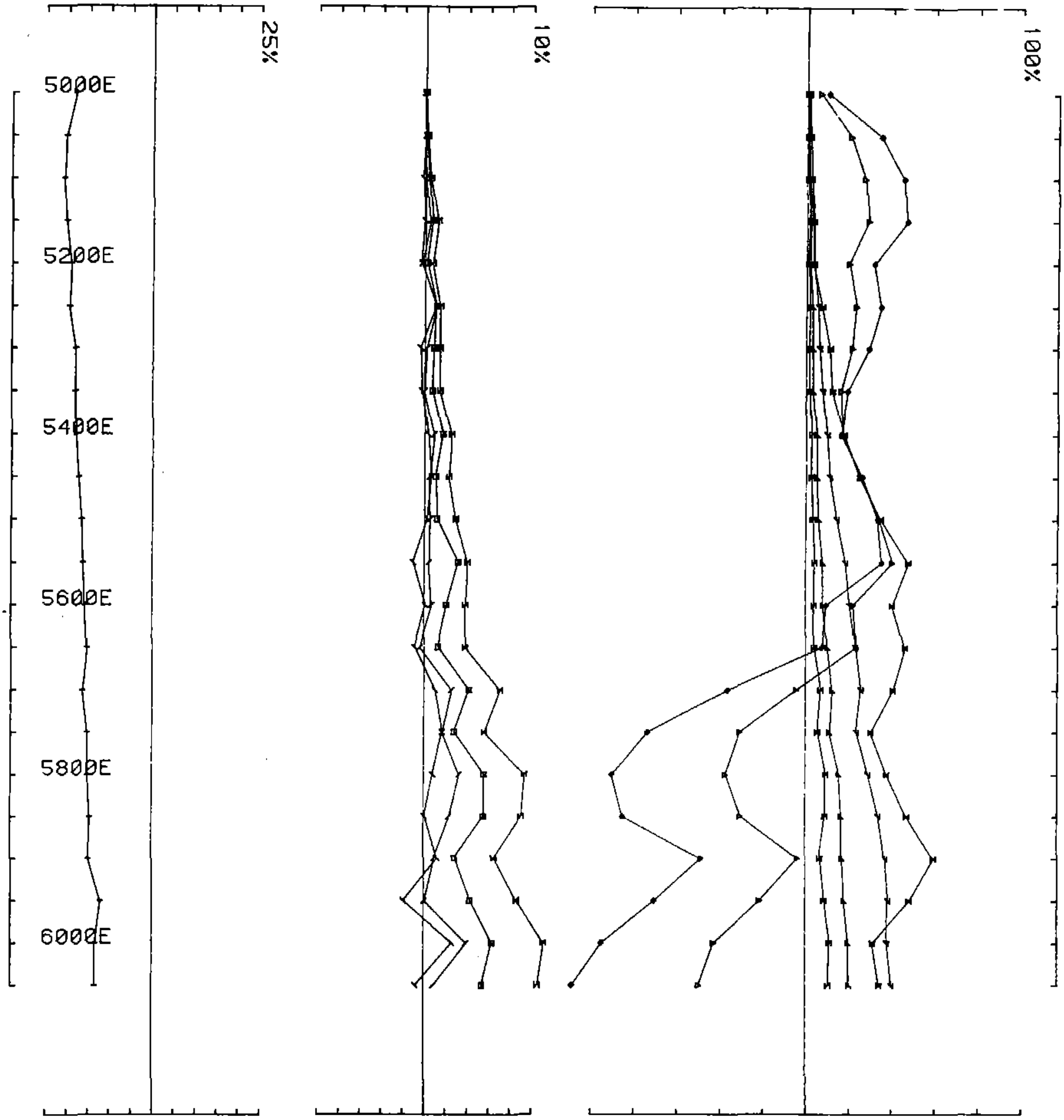


UTEM SURVEY at PIEMAN for B H P
conducted by HU PM PO job 8723 base freq (hz) 26.230
loop no 1 line 84000N component Hz secondary field Ch I contin. norm.

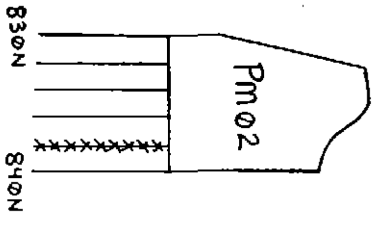




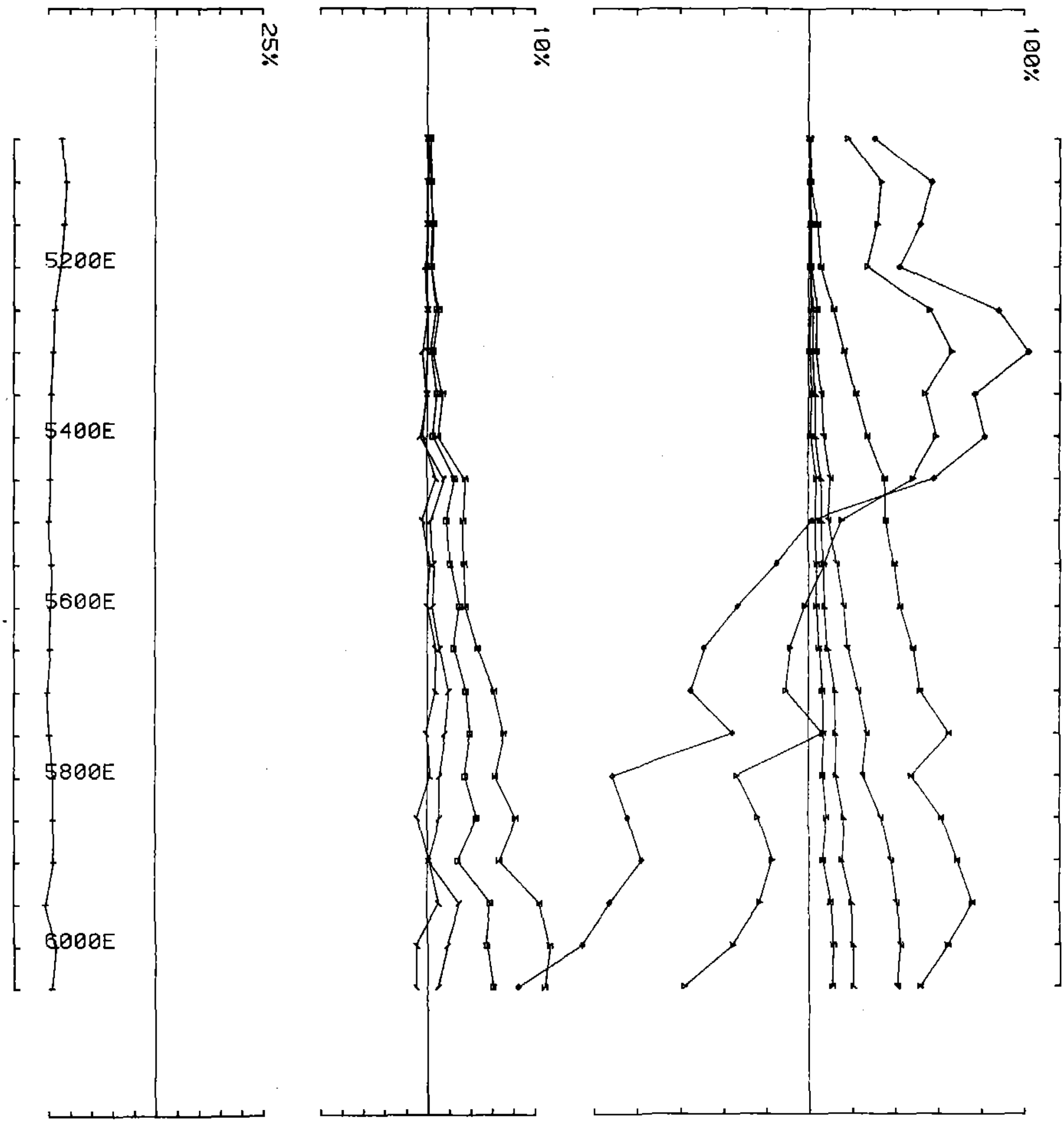
UTEM SURVEY at PIEMAN for B H P

conducted by HU PO PM job 8723 base freq (hz) 26.230

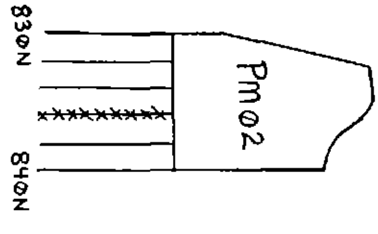
loop no 2 line 83800N component Hz secondary field Ch 1 contin. norm.



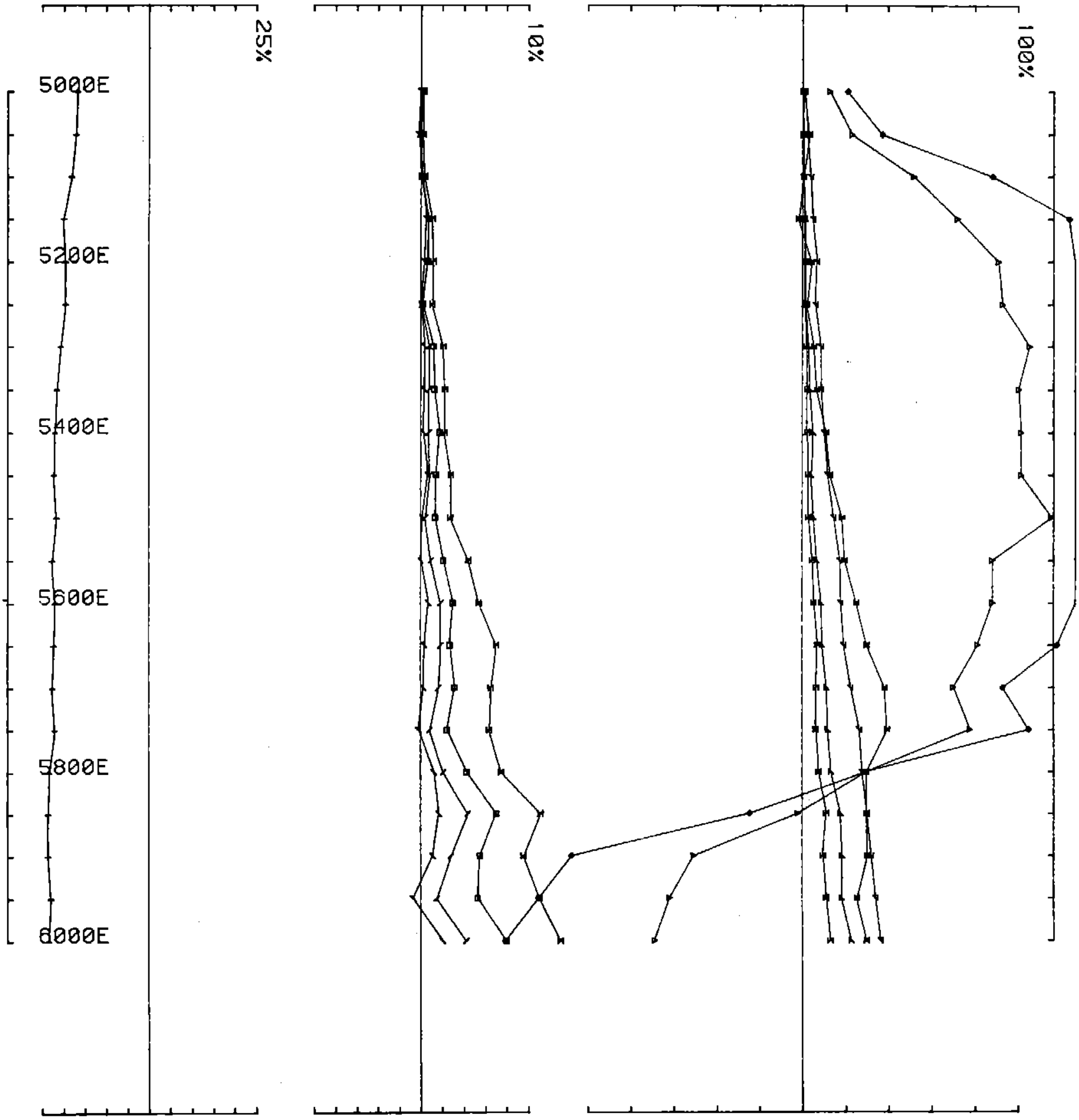
221 767222



UTEM SURVEY at PIEMAN for B H P
conducted by HU PO PM job 8723 base freq (hz) 26.230
loop no 2 line 83600N component Hz secondary field Ch 1 contin. norm.



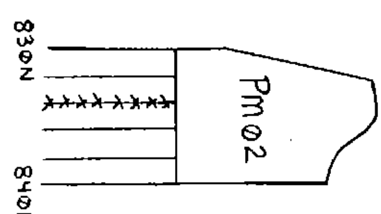
767223



UTEM SURVEY at PIEMAN for B H P

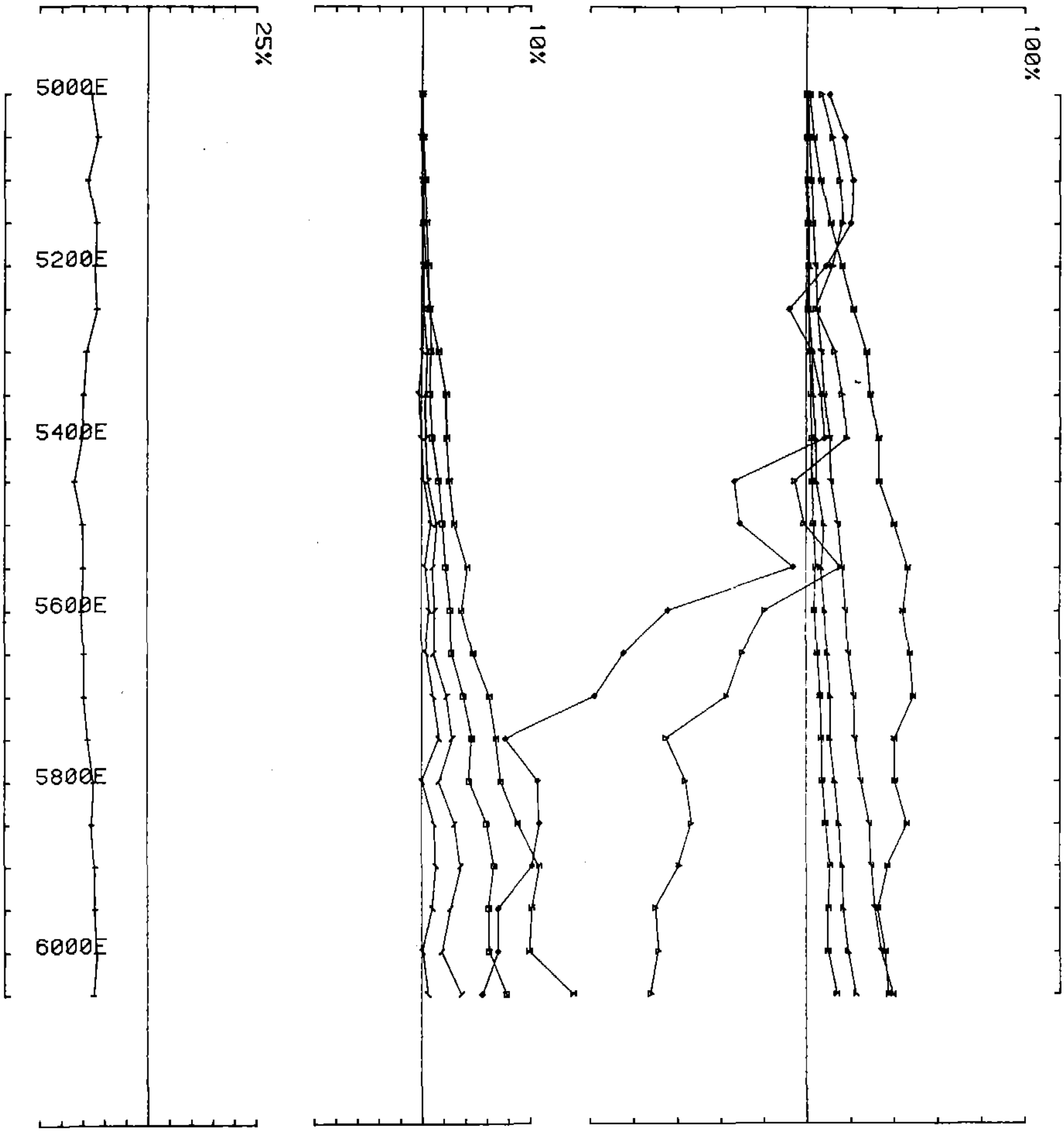
conducted by HU PO PM job 8723 base freq (hz) 26.230

loop no 2 line 83400N component Hz secondary field Ch I contin. norm.

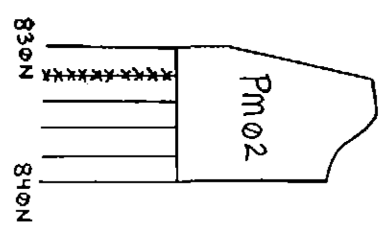


2·3

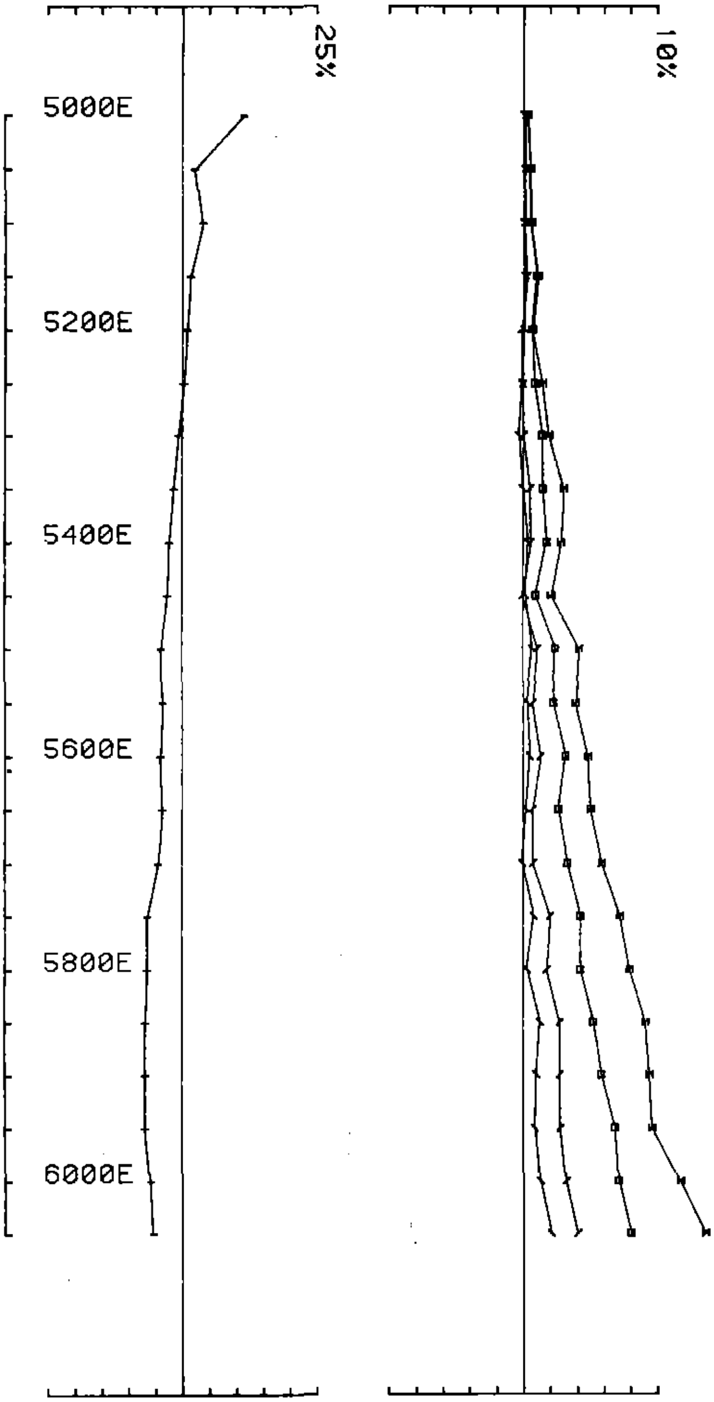
767224



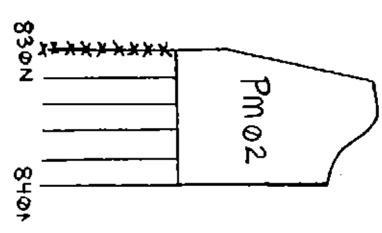
UTEM SURVEY at PIEMAN for B H P
conducted by HU PO PM job 8723 base freq (hz) 26.230
loop no 2 line 83200N component Hz secondary field Ch I contin. norm.



767225

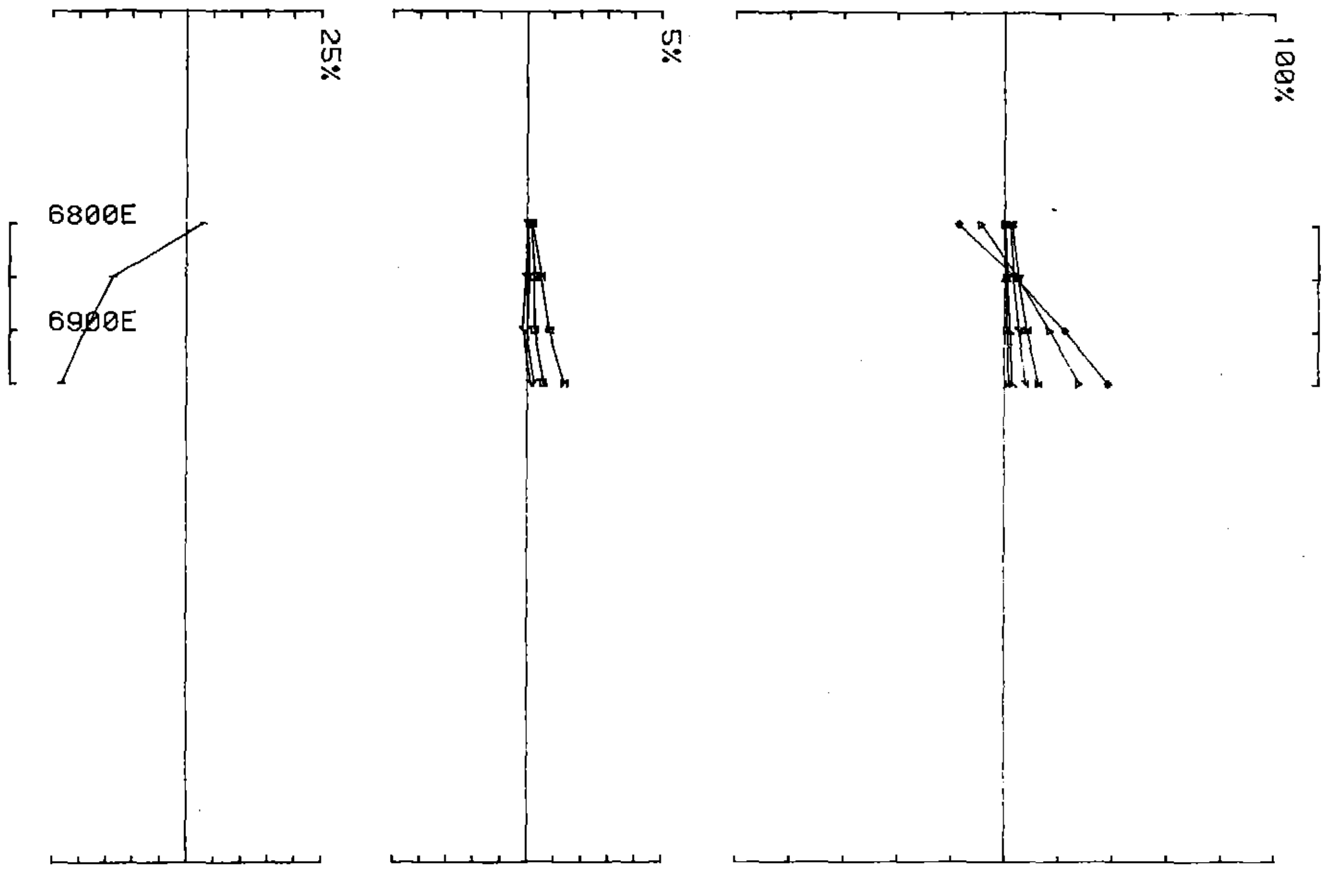


UTEM SURVEY at PIEMAN for B H P
conducted by HU PO PM job 8723 base freq (hz) 26.230
loop no 2 line 83000N component Hz secondary field Ch 1 contin. norm.



2[illegible]5

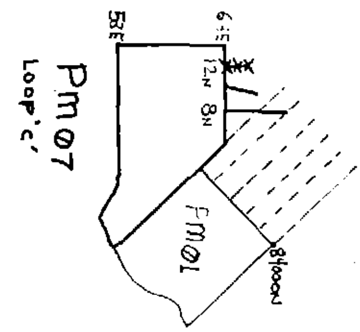
767226

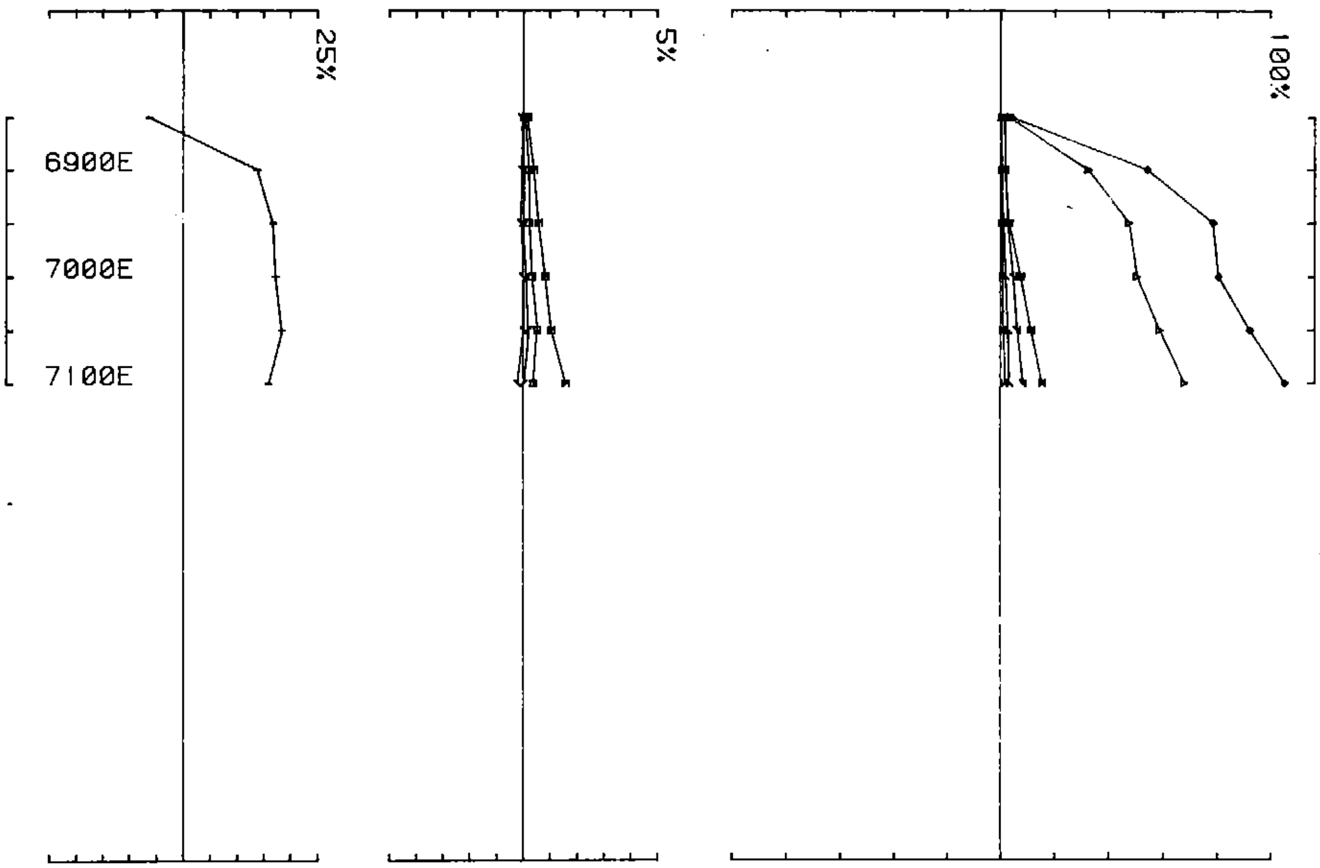


UTEM SURVEY at PIEMAN for B H P

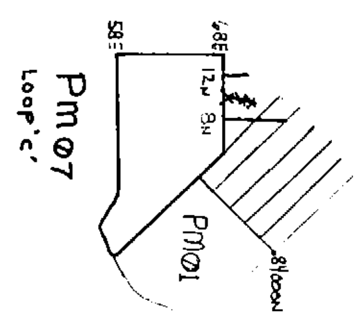
conducted by HU job 8723 base freq (hz) 26.230 ** LOOP "C" **

loop no 7 line 1200N component Hz secondary field Ch 1 contin. norm.



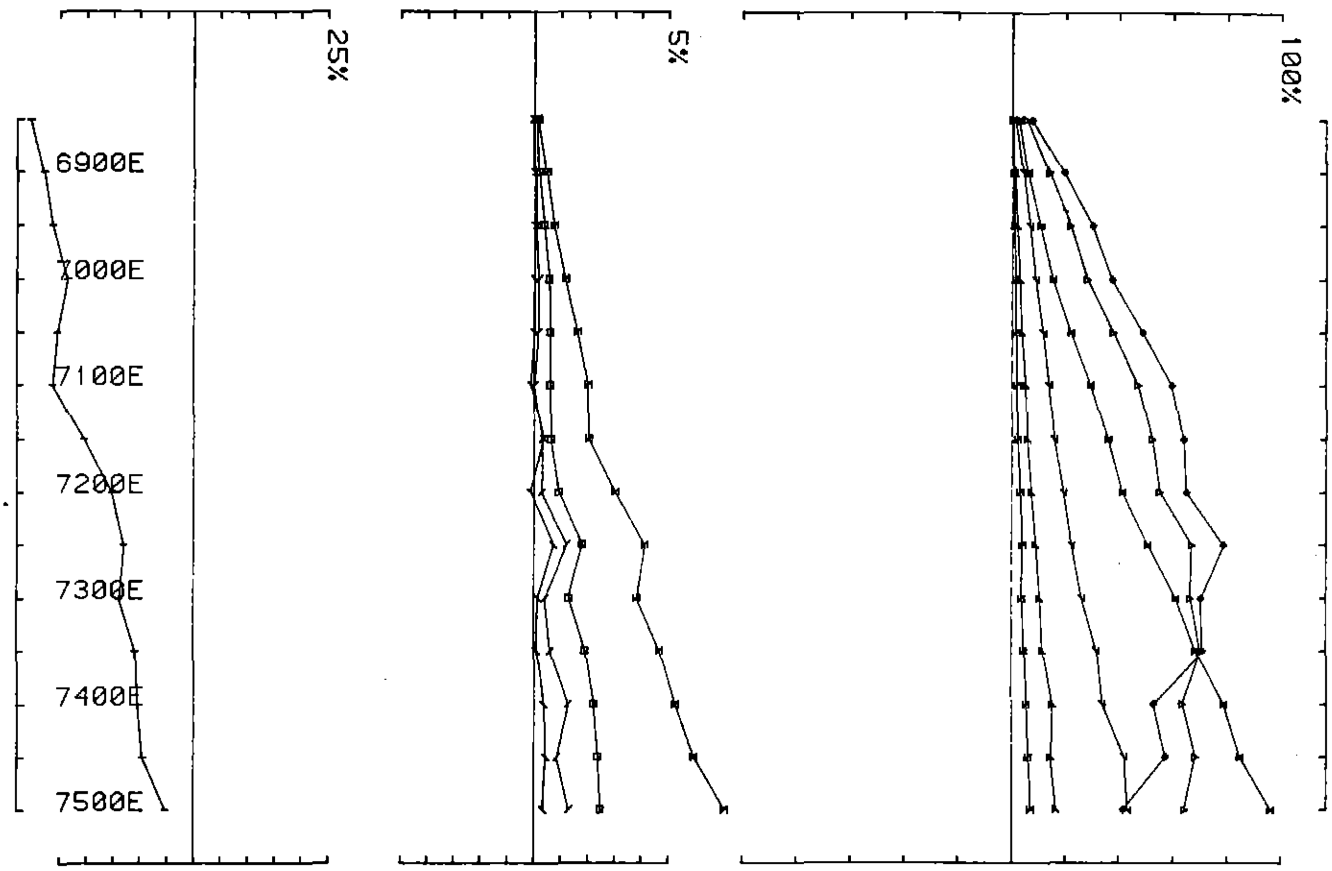


UTEM SURVEY at PIEMAN for B H P
conducted by HU job 8723 base freq (hz) 26.230 ** LOOP "C" **
loop no 7 line 1000N component Hz secondary field Ch 1 contin. norm.



2?7

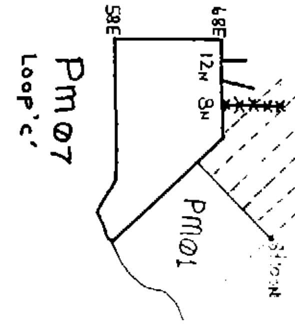
767228



UTEM SURVEY at PIEMAN for B H P

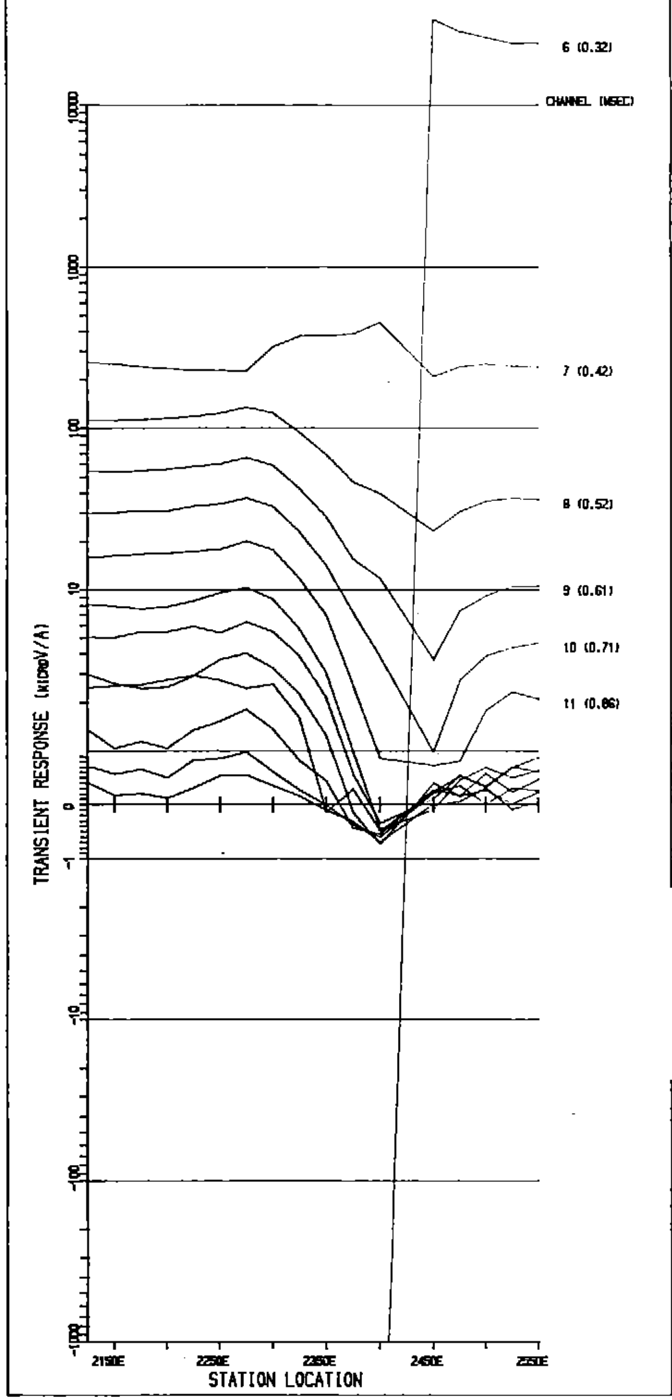
conducted by HU job 8723 base freq (hz) 26.230 ** LOOP "C" **

loop no 7 line 800N component Hz secondary field Ch 1 contin. norm.



APPENDIX 2

Sirotem Surface Survey Profiles



SURVEY SPECIFICATIONS

SURVEY DATE	: MARCH 1989
CONFIGURATION	: 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT.	: 50 METRES
NO. OF STACKS	: 1024
TRANSMITTER	: MEDIUM POWER
RECEIVER	: SIROTEM II S/N 1236
CURRENT	: 10.4 AMPS
OPERATOR	: P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE	- 1:5000
VERTICAL SCALE	- LOGARITHMIC 3CM. PER DECADE LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA

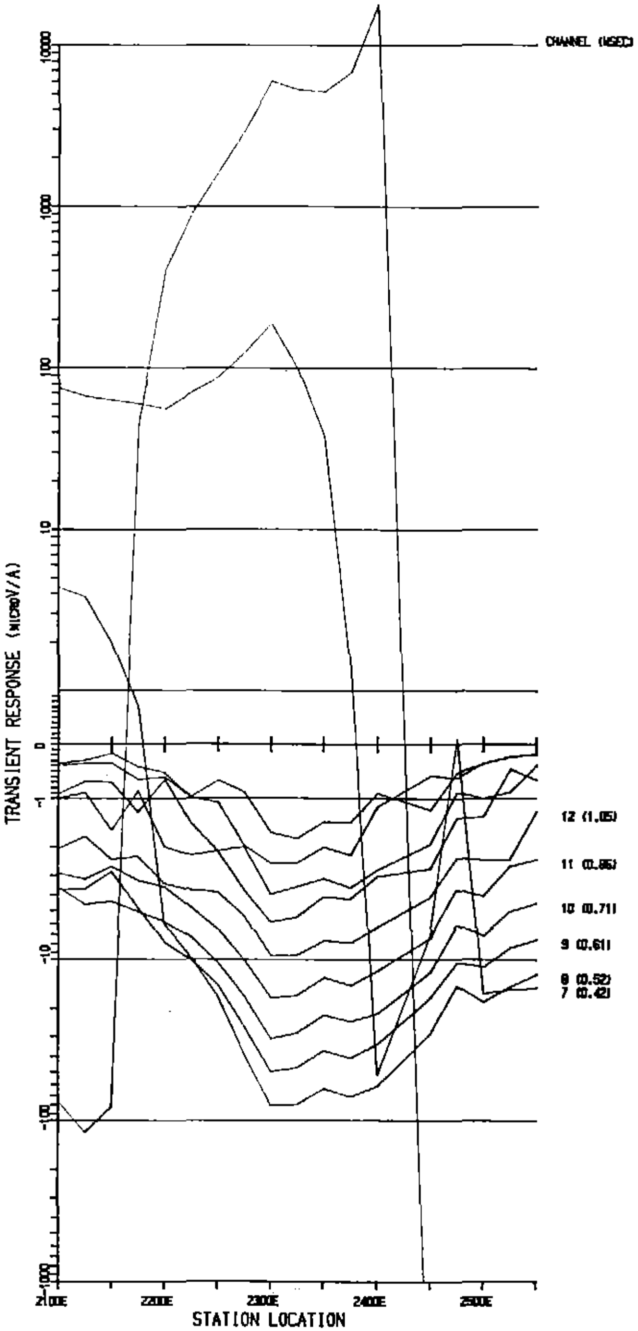
ANOMALY G

SIROTEM PROFILE

LINE 5000N Z EAST LOOP

SCALE - 1:5000

767230



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 8.2 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

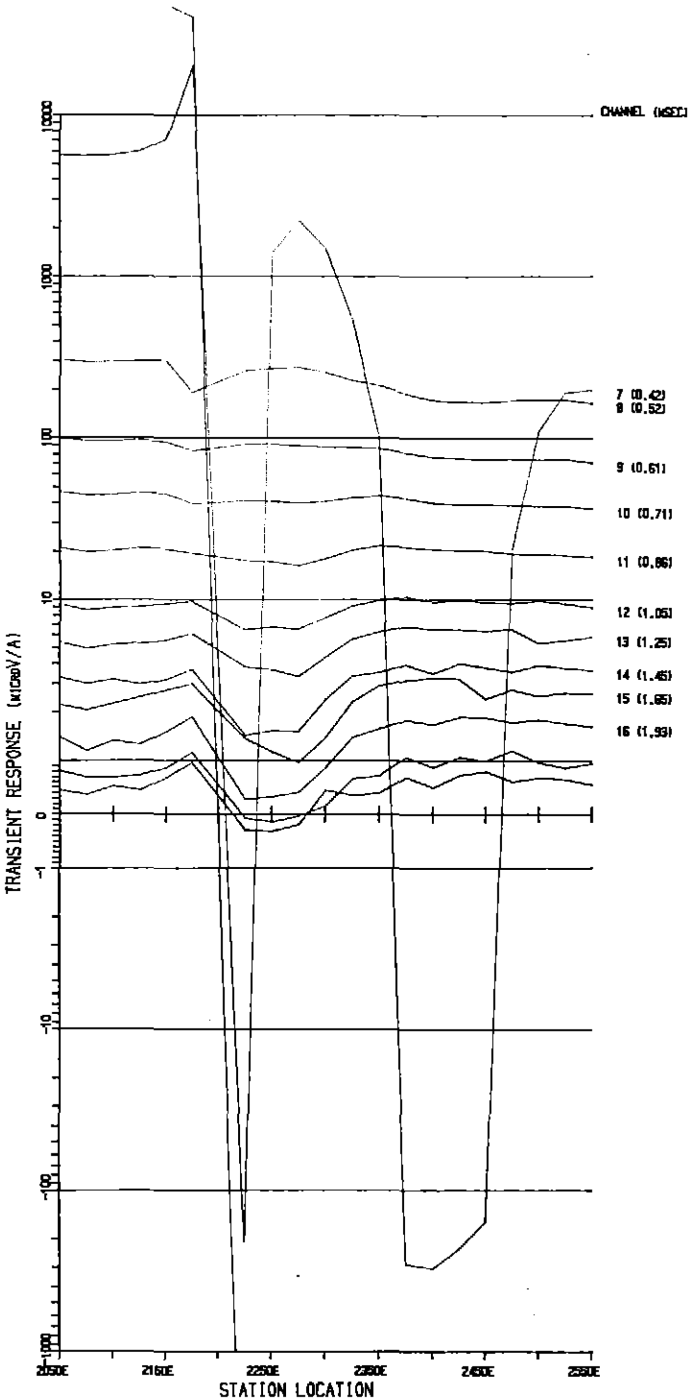
BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5000N X EAST LOOP

SCALE - 1:5000

230

767231



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVU) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.4 AMPS

OPERATOR : P McSKINNING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

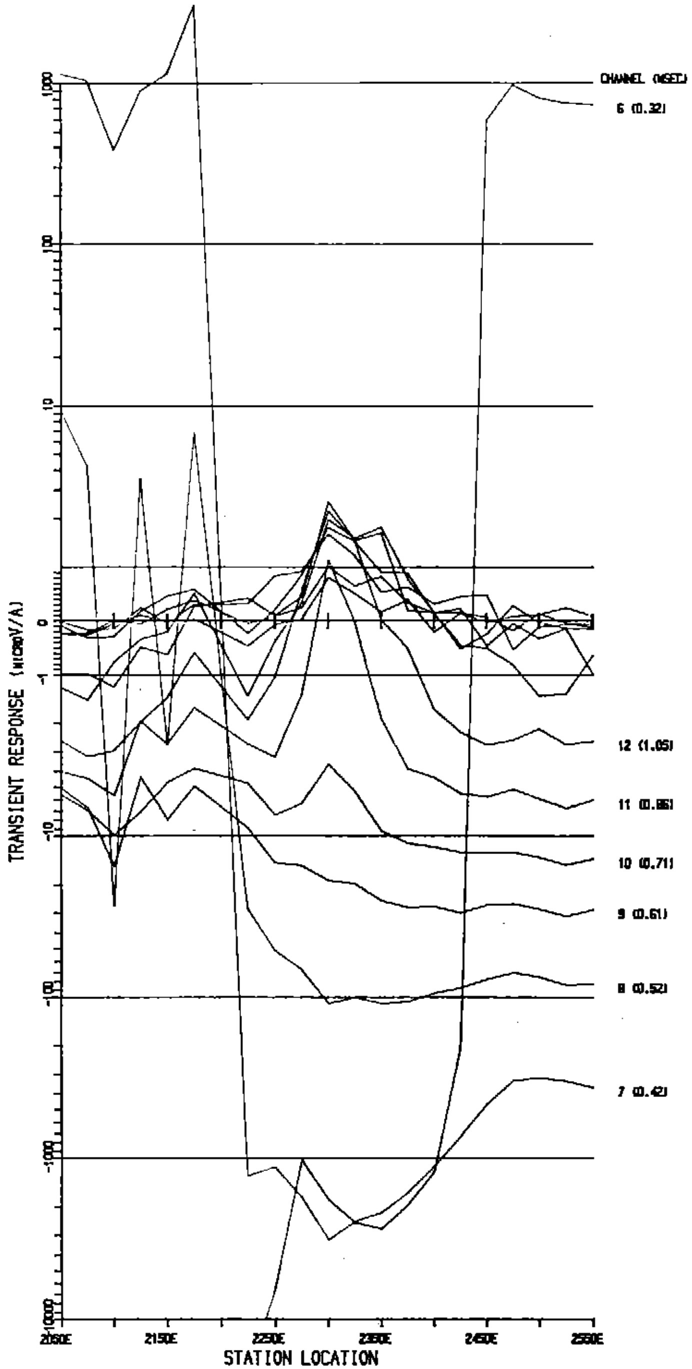
BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5000N Z WEST LOOP

SCALE - 1:5000

231

767232



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.4 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

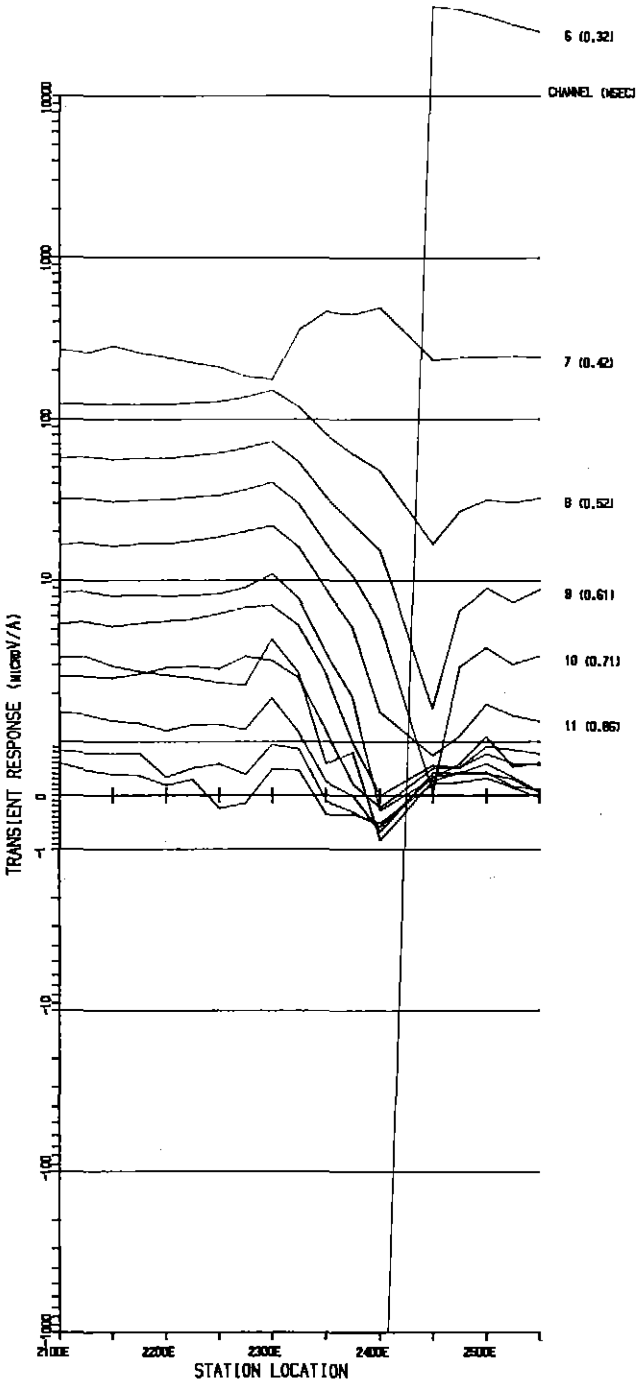
5 cm

BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5000N X WEST LOOP

SCALE - 1:5000

767233



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 8.2 AMPS

OPERATOR : P McSKIMMING

5 cm

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

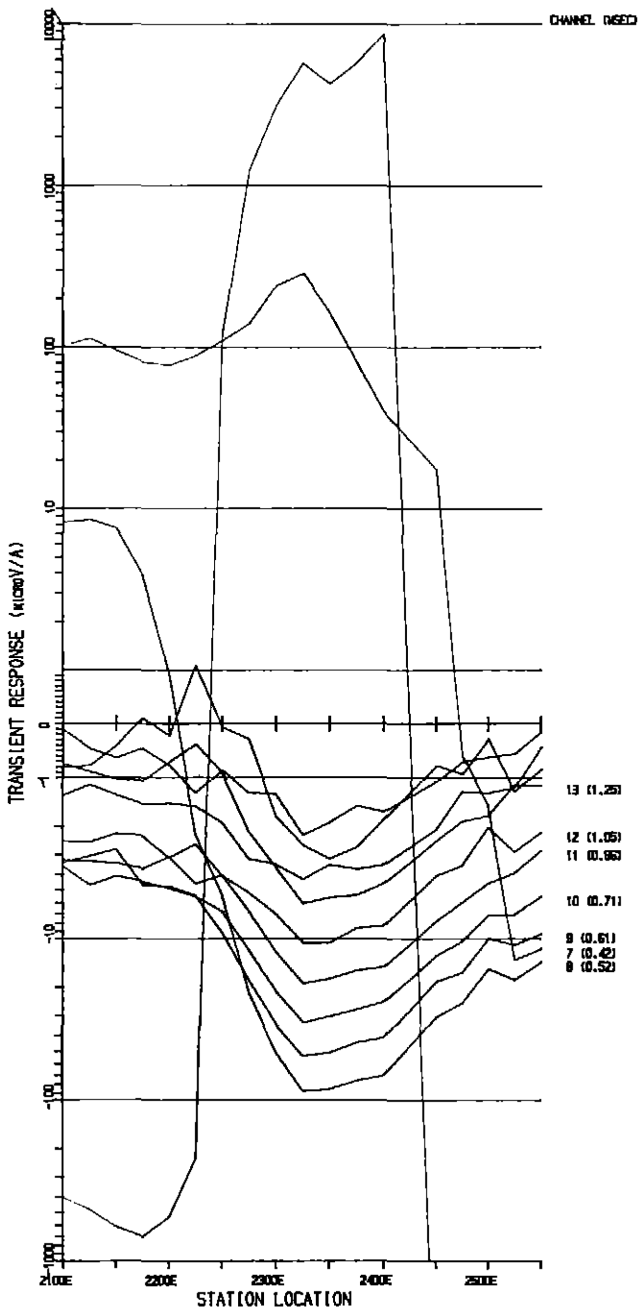
NOT FINAL
SYNCH DRIFT ALONG THIS LINE
OF -47 μsec BETWEEN
2550E & 2125E

BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5050N Z EAST LOOP

SCALE - 1:5000

767234



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 8.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

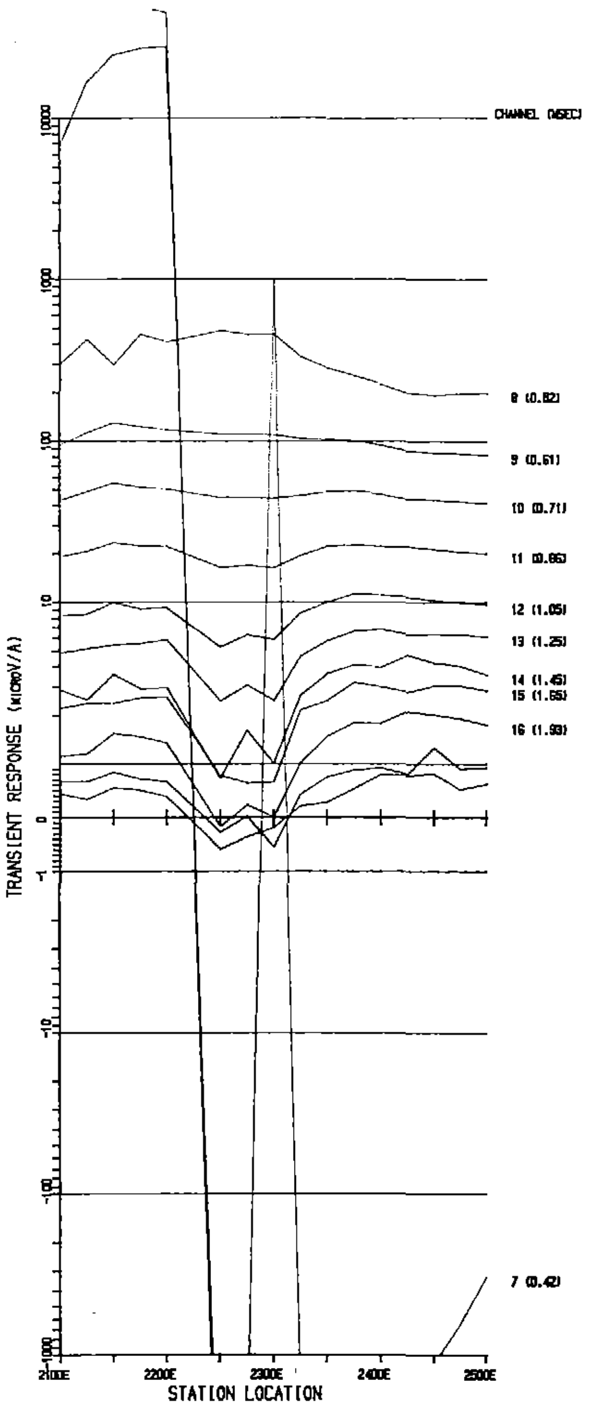
5 cm

BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5050N X EAST LOOP

SCALE - 1:5000

767235



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.4 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

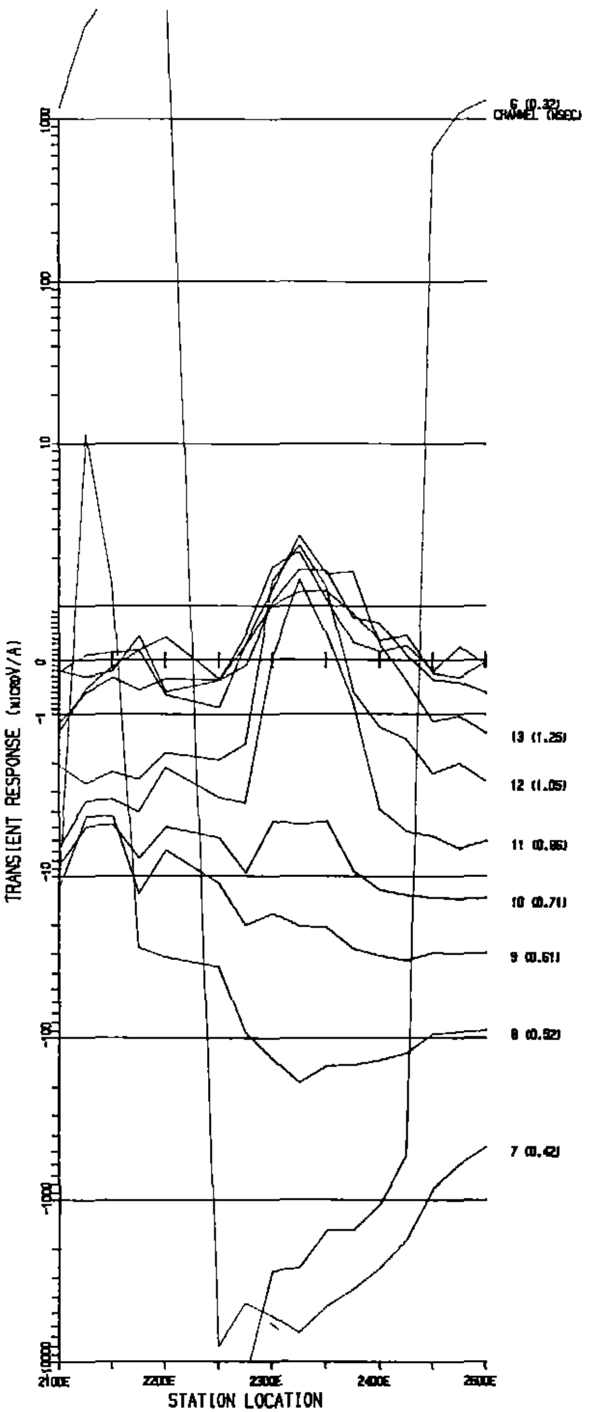
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5050N Z WEST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1989
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.4 AMPS
OPERATOR : P McSKIMMING

NOT FINAL
SYNCH DRIFT AS NOTED ON
Z PLOT

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

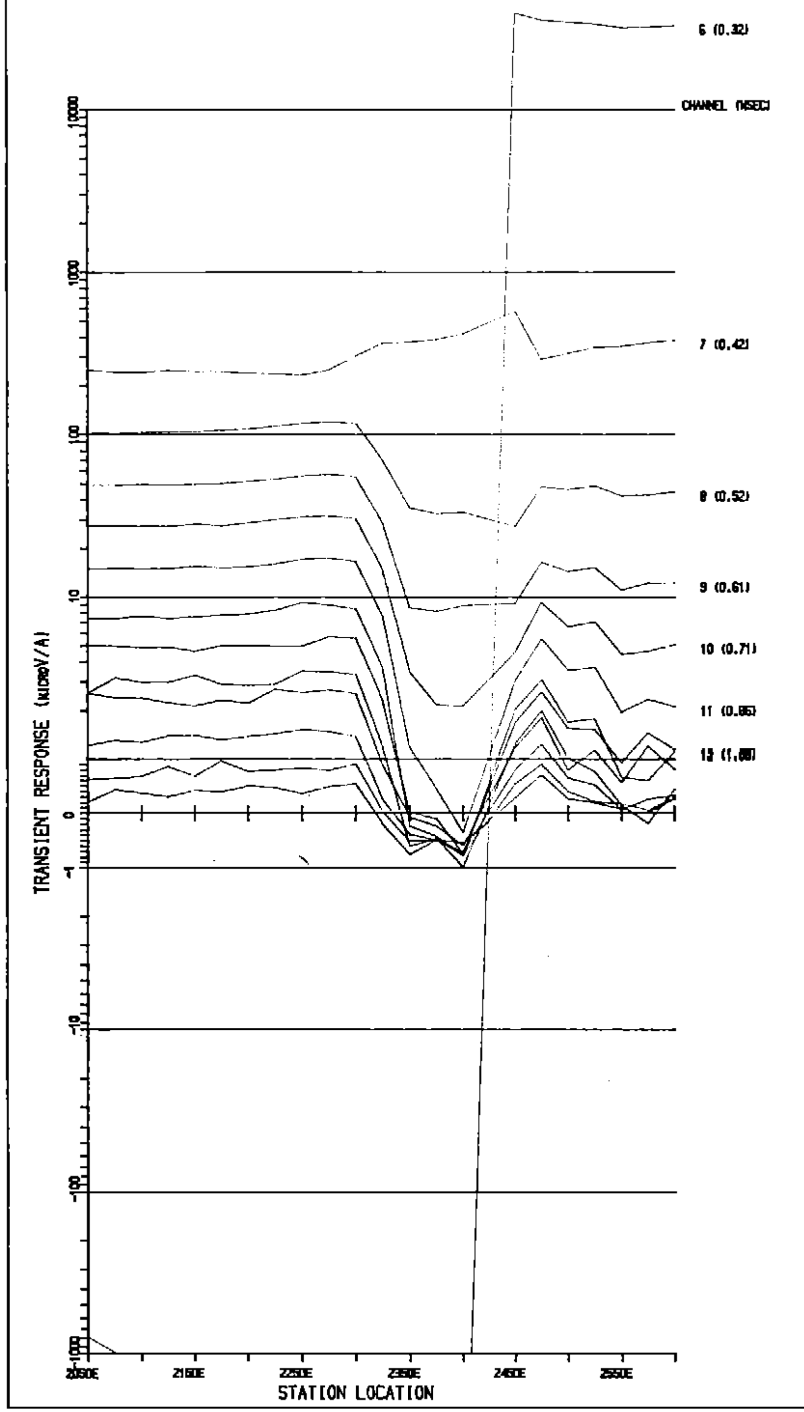
BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5050N X WEST LOOP

SCALE - 1:5000

236

767237



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 8,2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA

ANOMALY G

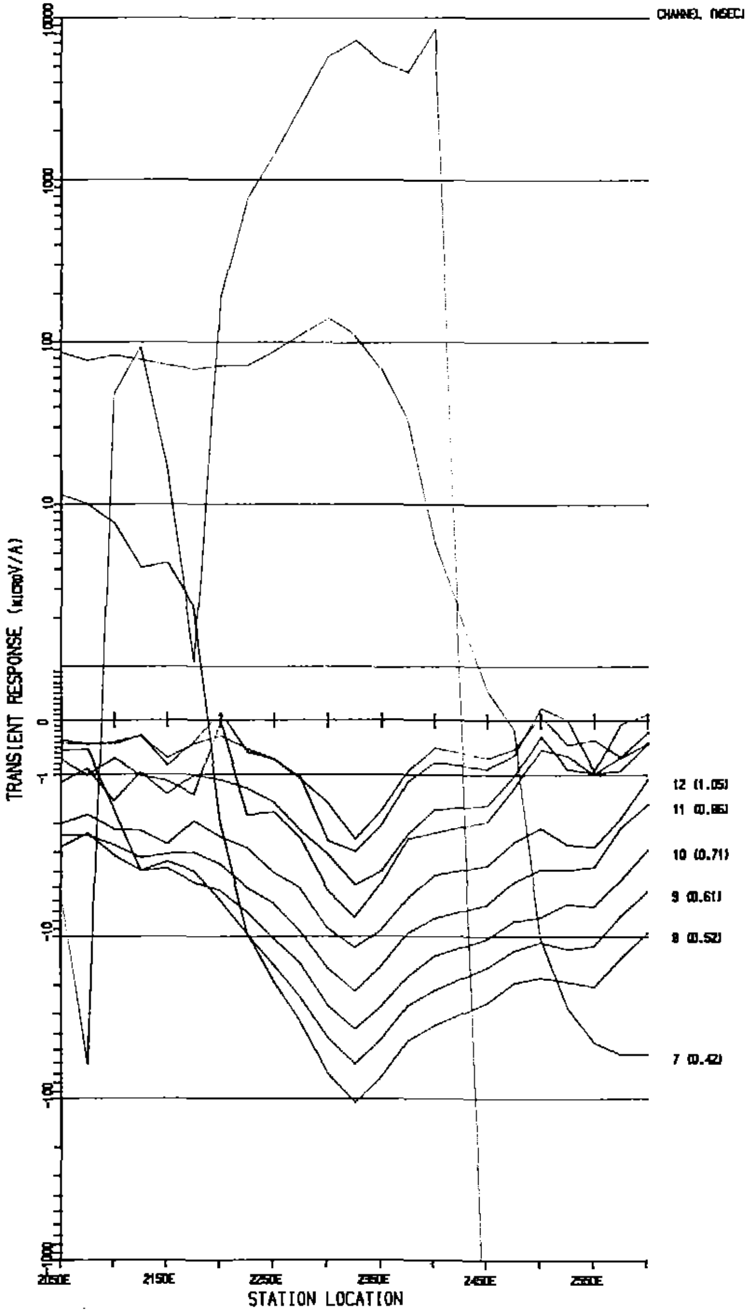
SIROTEM PROFILE

LINE 5200N Z EAST LOOP

SCALE - 1:5000

237

767238



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 8.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
5CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

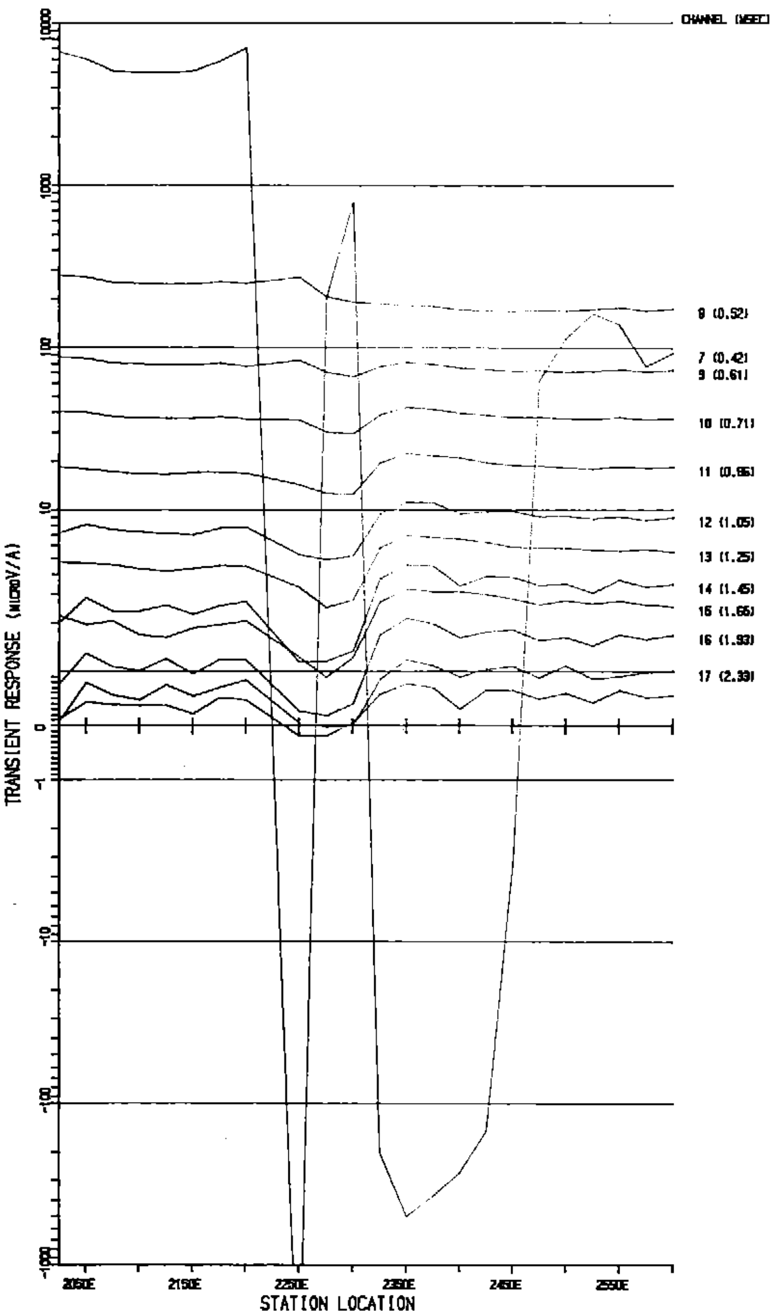
BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5200N X EAST LOOP

SCALE - 1:5000

238

767239



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 800M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.4 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

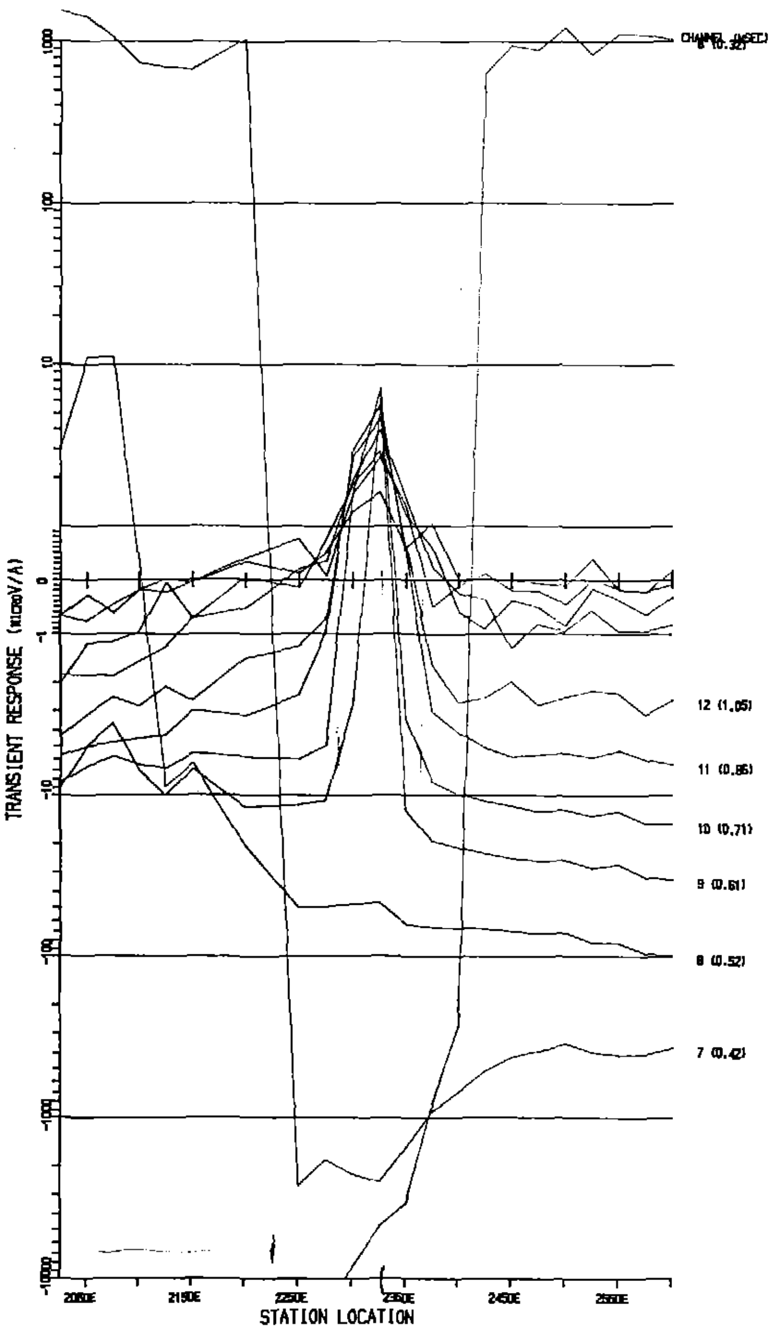
BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5200N Z WEST LOOP

SCALE - 1:5000

219

767240



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.4 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

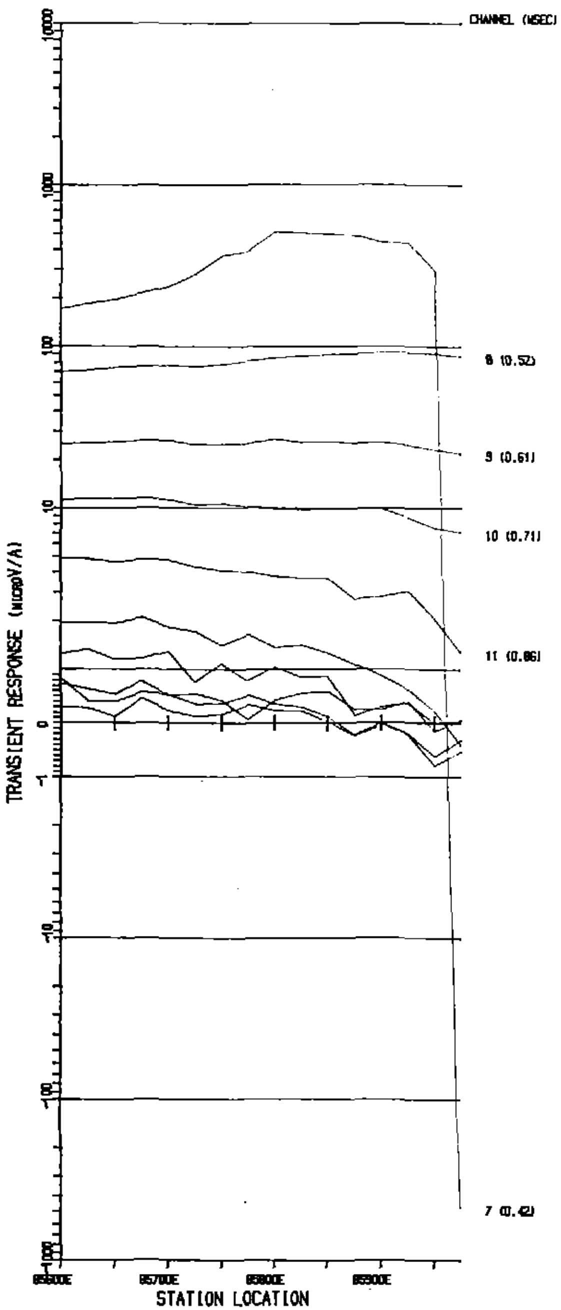
BHP EXPLORATION

TASMANIA
ANOMALY G
SIROTEM PROFILE
LINE 5200N X WEST LOOP

SCALE - 1:5000

240

767241



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.3 AMPS
OPERATOR : P McSKINNING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

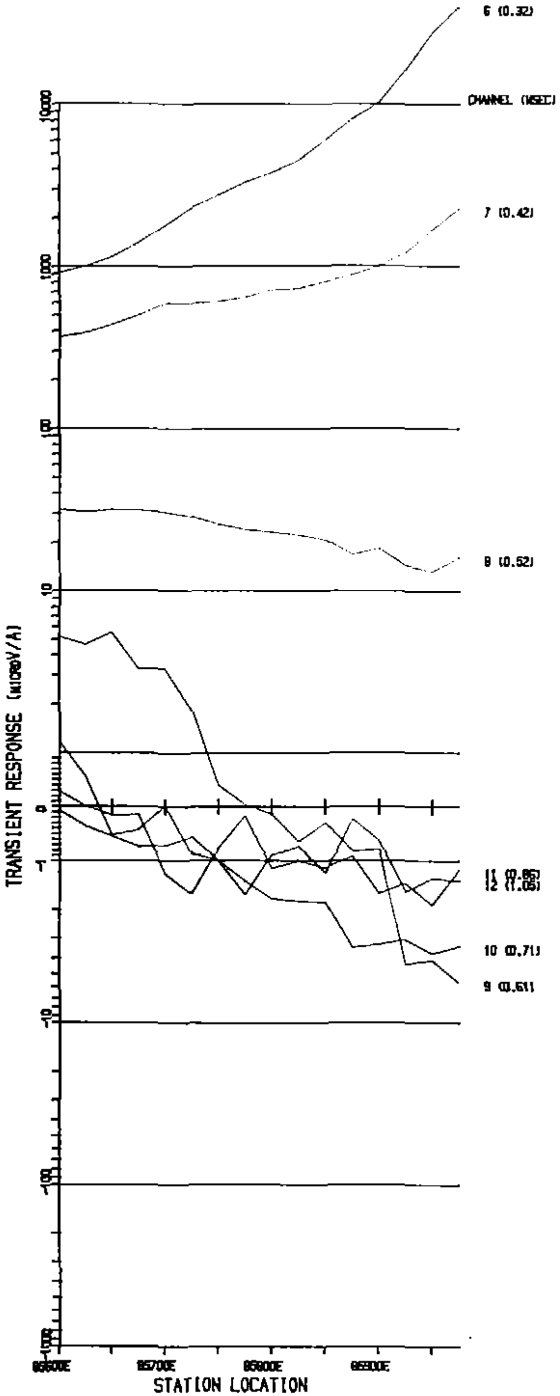
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84900N Z EAST LOOP

SCALE - 1:5000

241

76242



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.3 AMPS
OPERATOR : P McSKINNING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

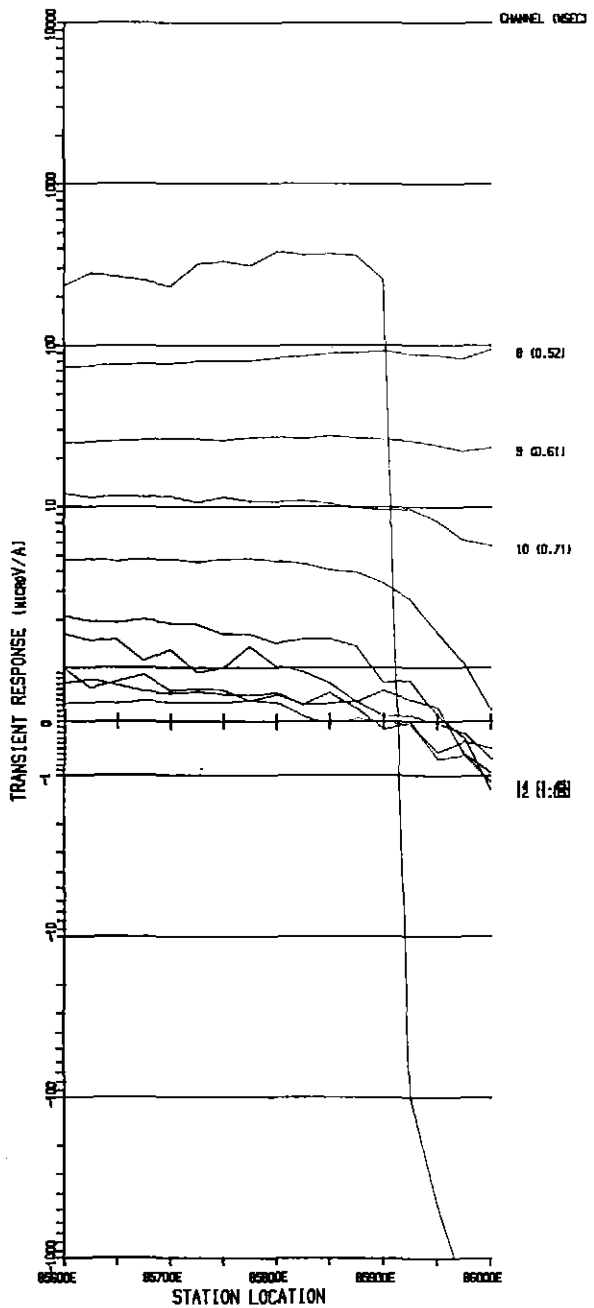
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84900N X EAST LOOP

SCALE - 1:5000

242

767243



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RYE) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.3 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA

TULLABARDINE GORGE

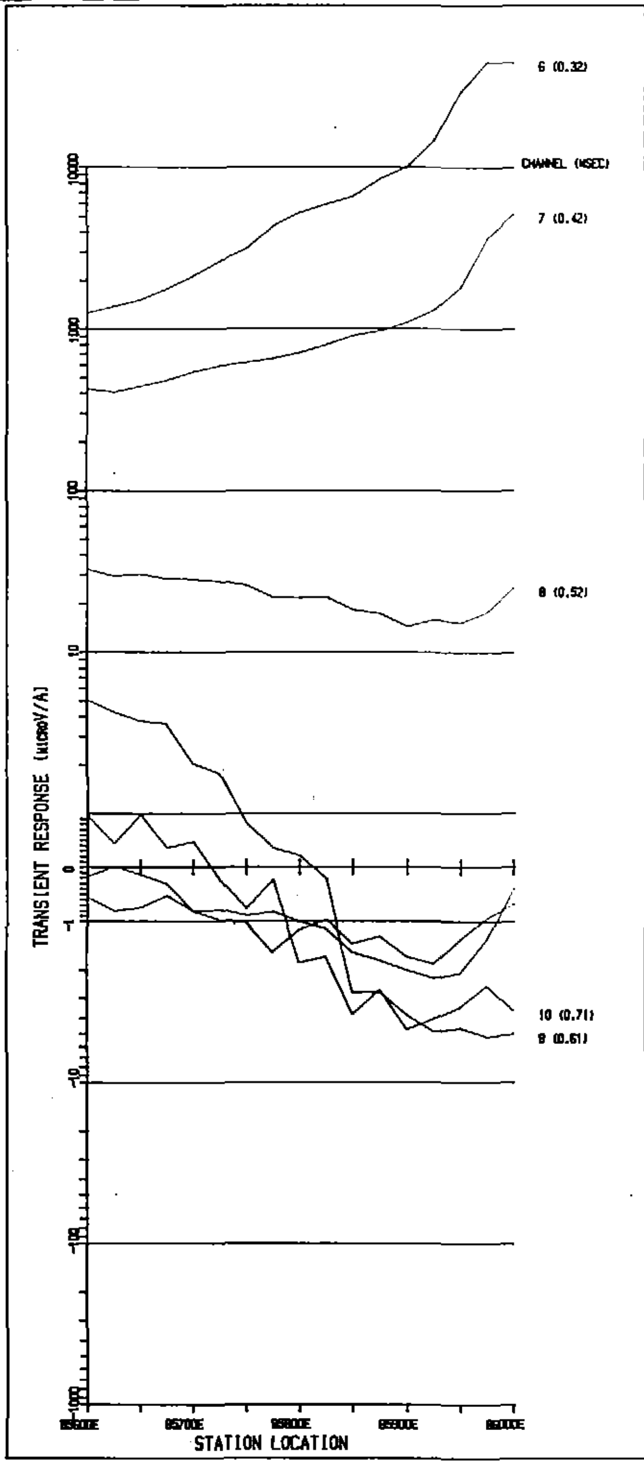
SIROTEM PROFILE

LINE 85000N Z EAST LOOP

SCALE - 1:5000

243

767244



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RYR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.3 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

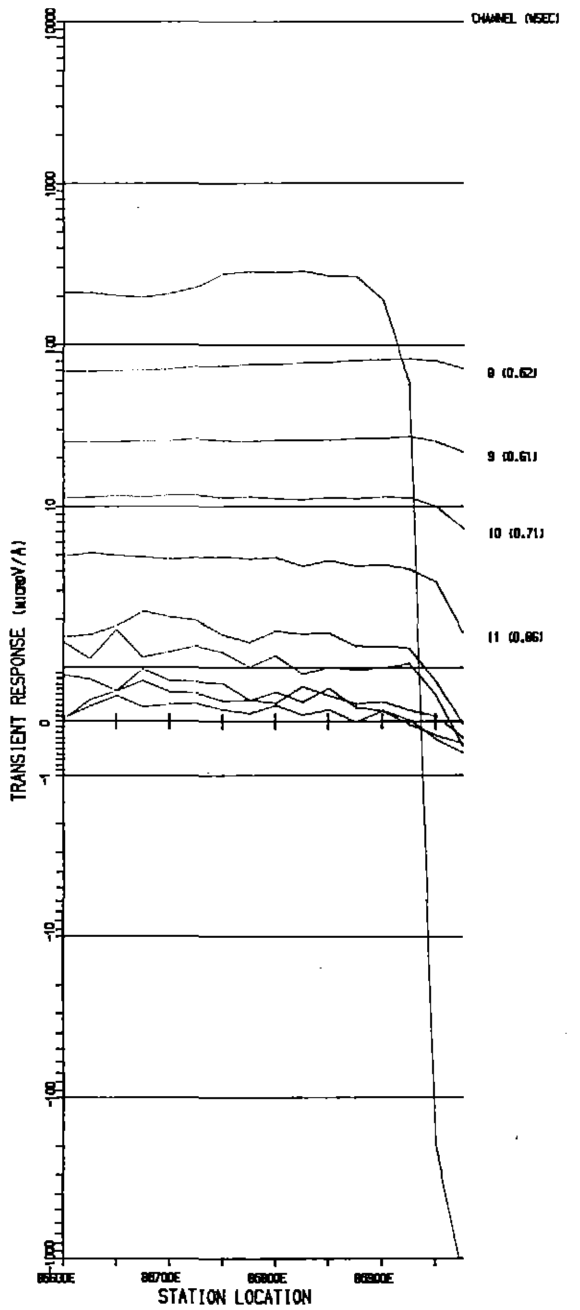
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85000N X EAST LOOP

SCALE - 1:5000

244

767245



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.3 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

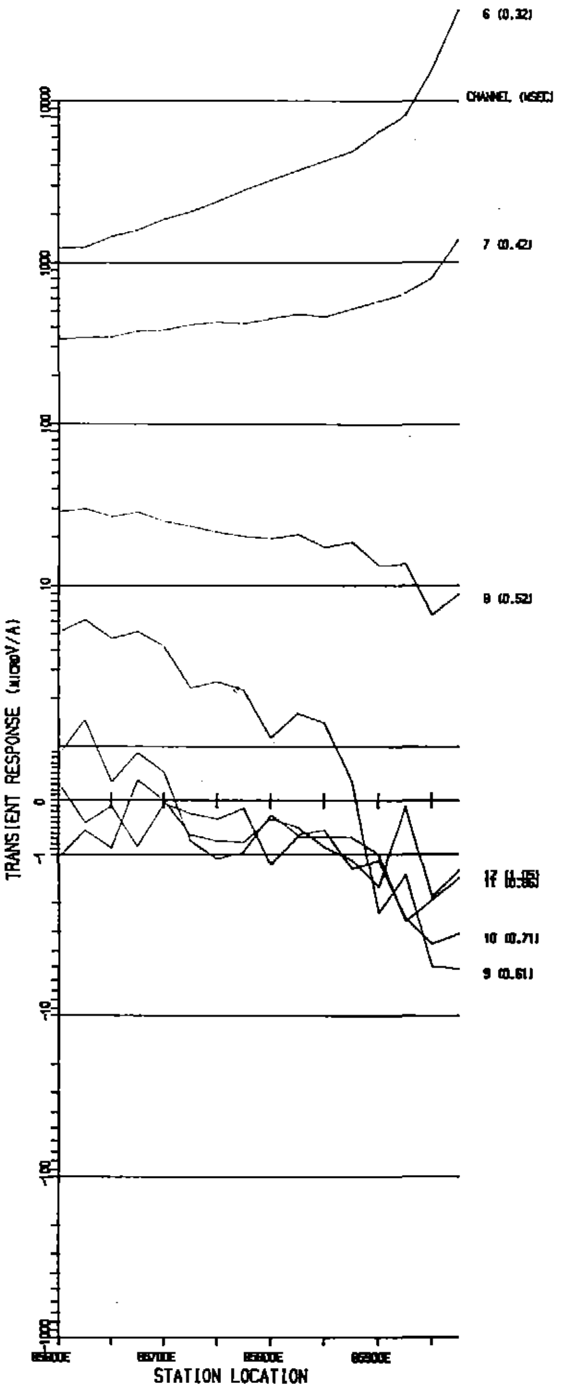
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85100N Z EAST LOOP

SCALE - 1:5000

245

767246



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RYR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.3 AMPS

OPERATOR : P McSKINNING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

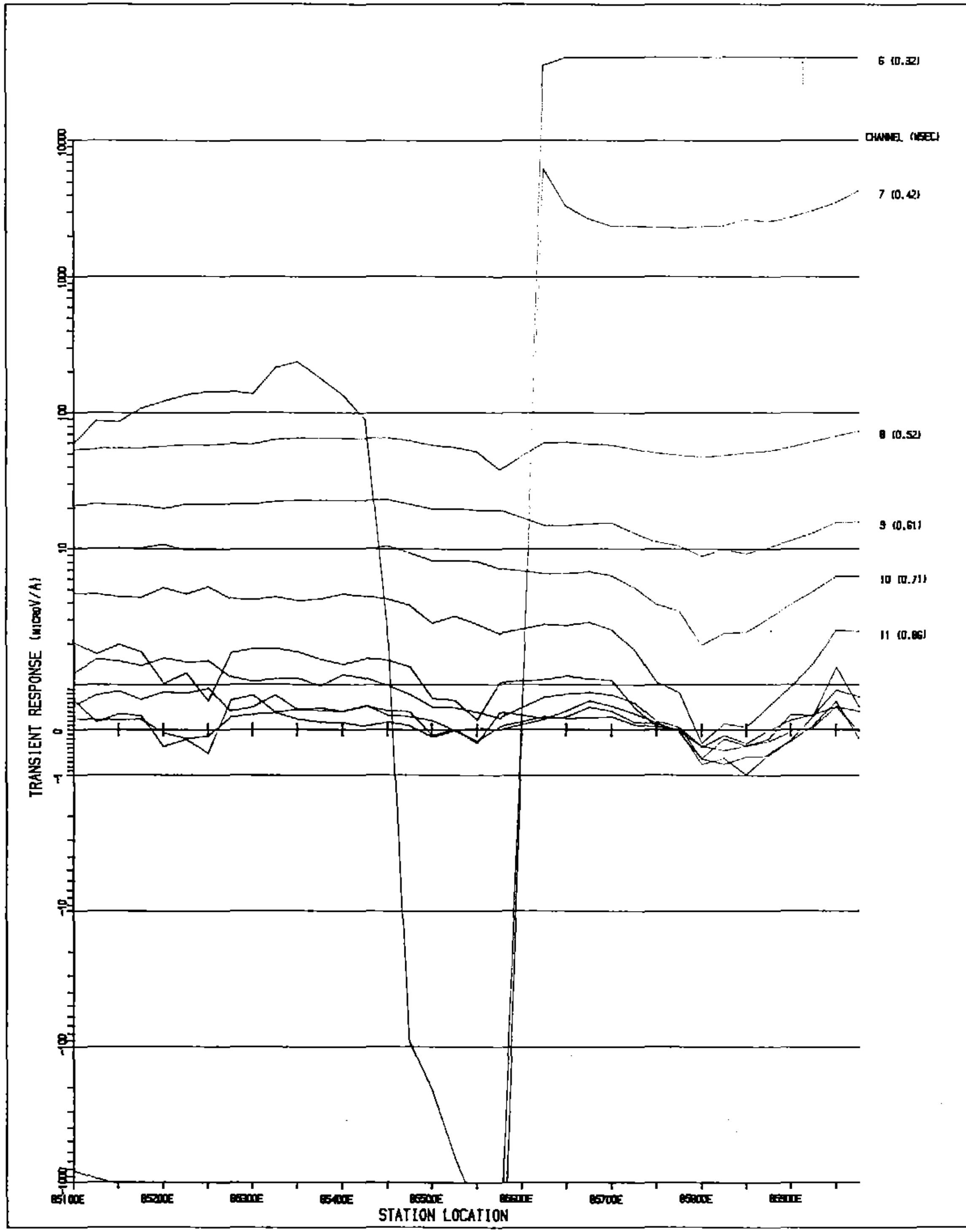
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85100N X EAST LOOP

SCALE - 1:5000

247

240



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.5 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

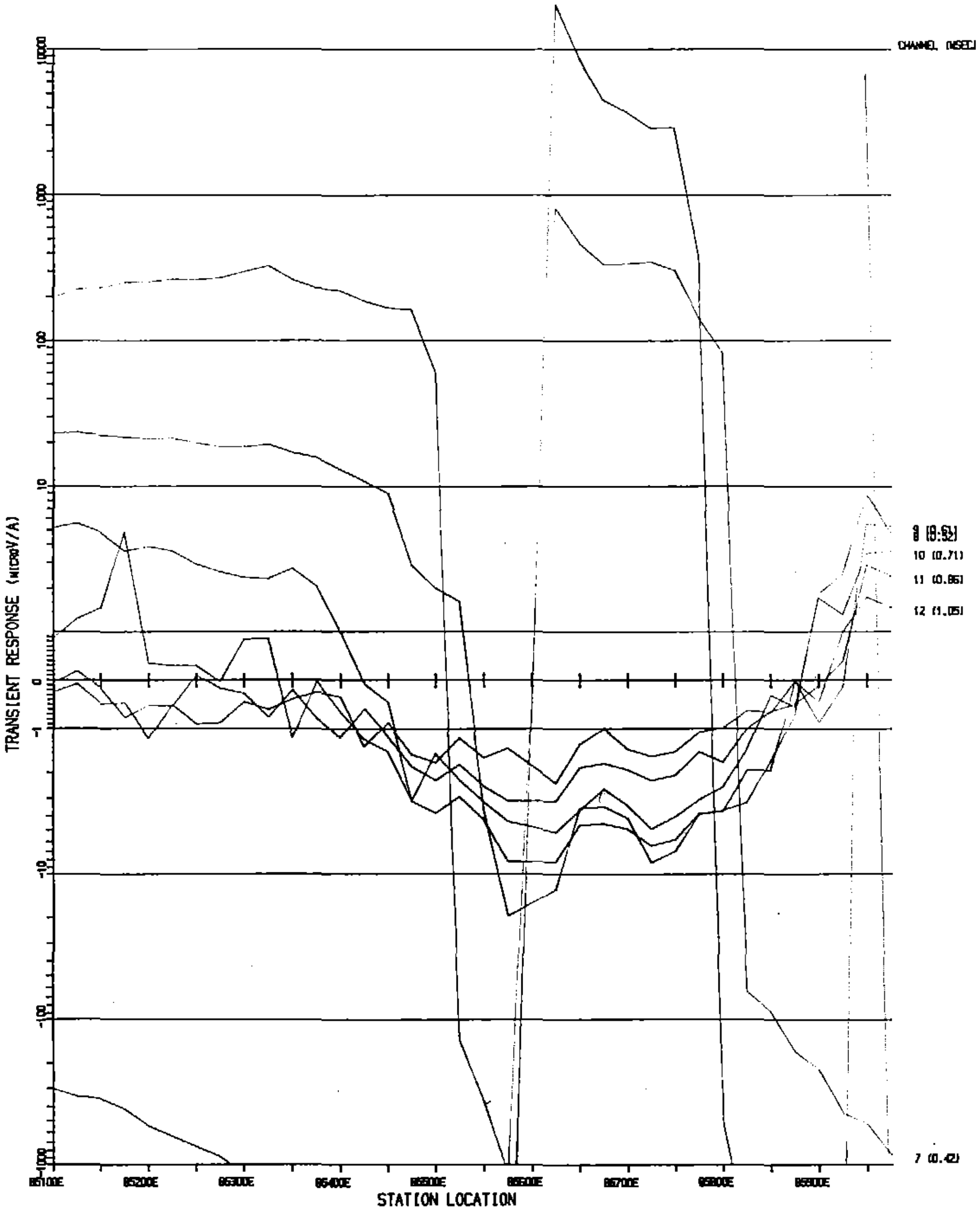
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84800N Z CENTRE LOOP

SCALE - 1:5000

767248



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1989
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.5 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

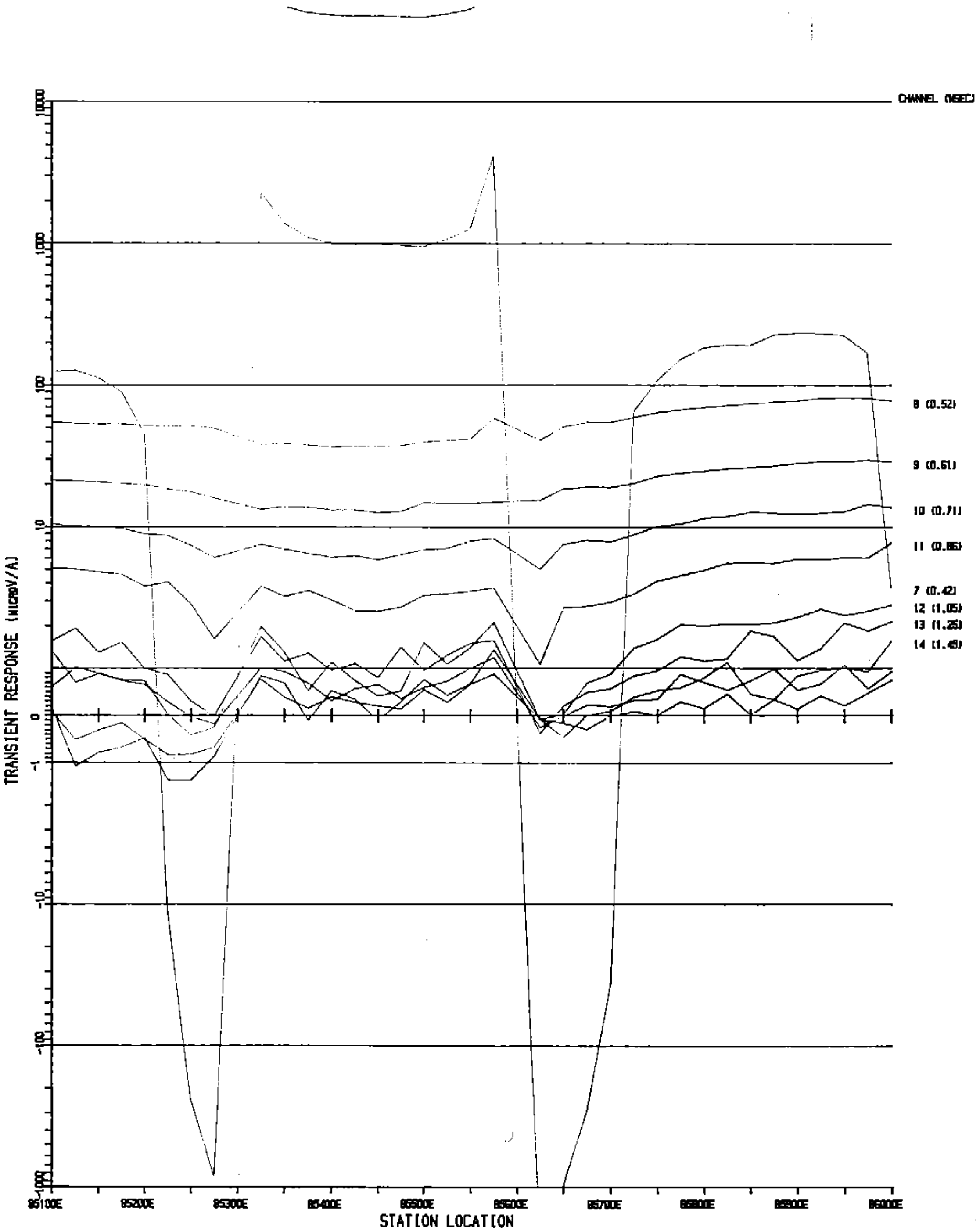
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84800N X CENTRE LOOP

SCALE - 1:5000

248

767249



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 9.4 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

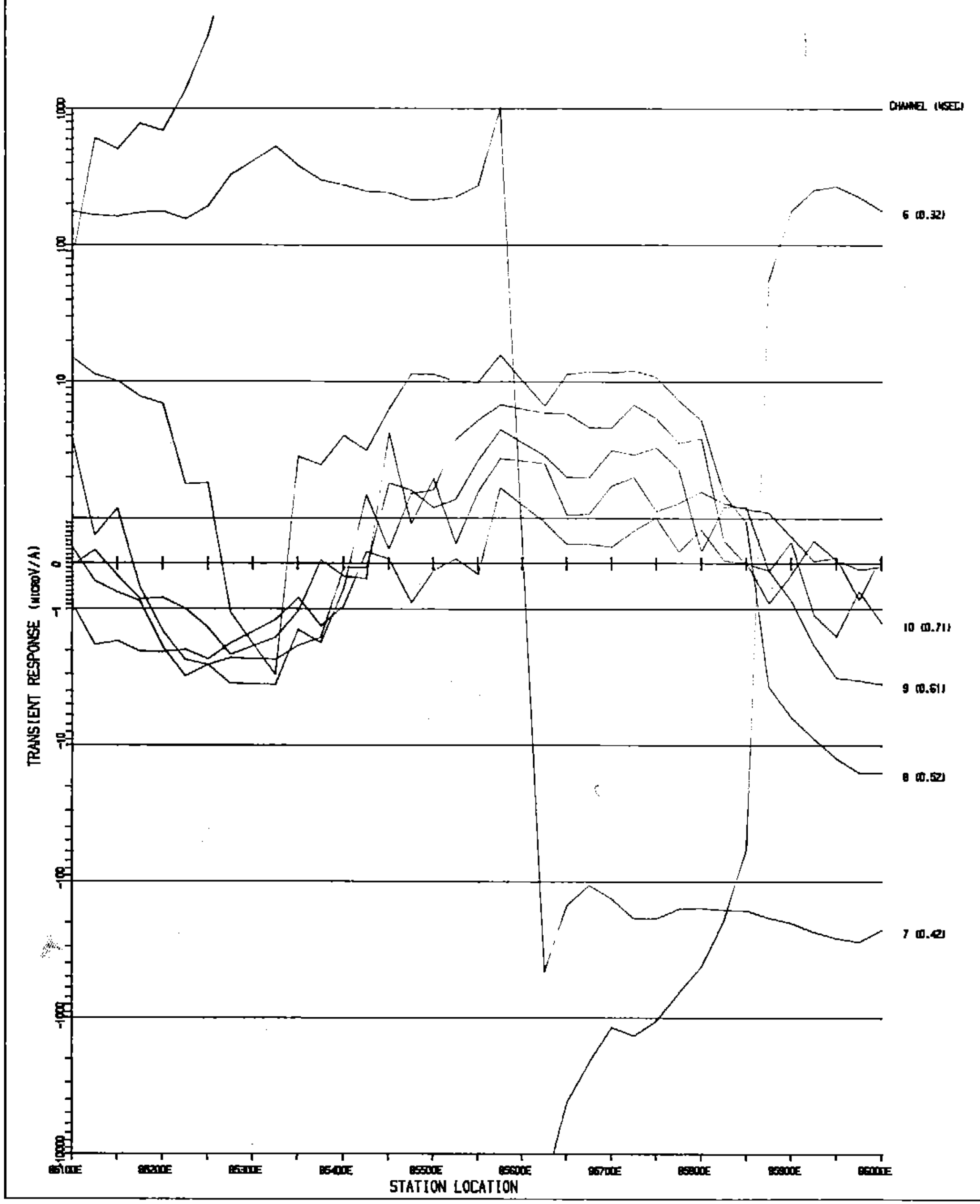
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84800N Z WEST LOOP

SCALE - 1:5000

243

767250



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 9.4 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

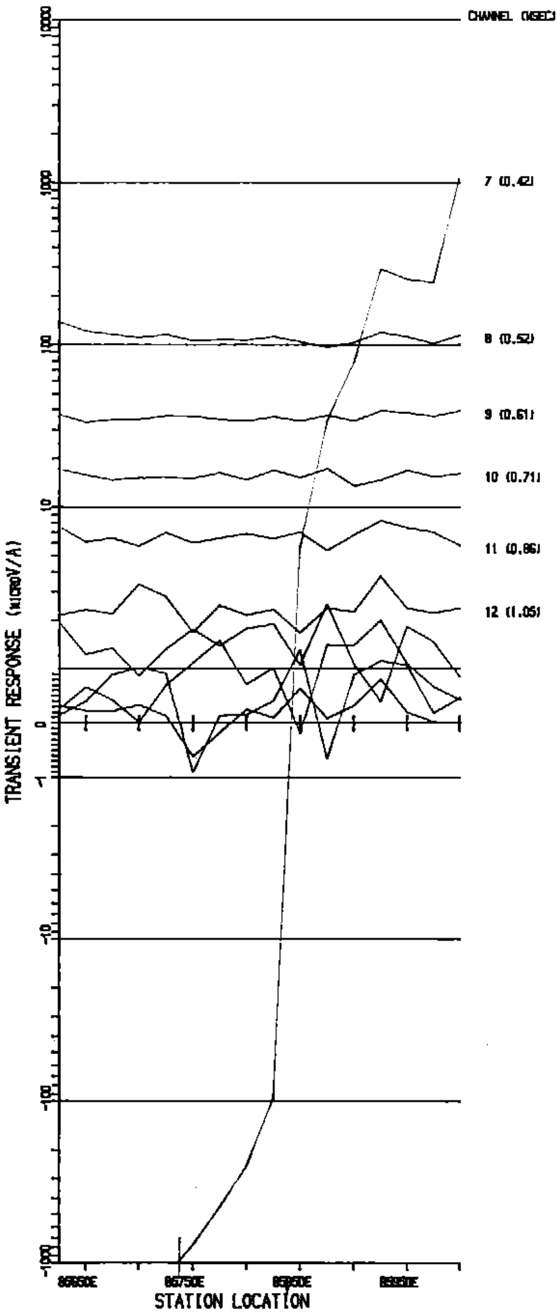
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84800N X WEST LOOP

SCALE - 1:5000

250

767251



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, (URAN MODE (RVU) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 9.4 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA

TULLABARDINE GORGE

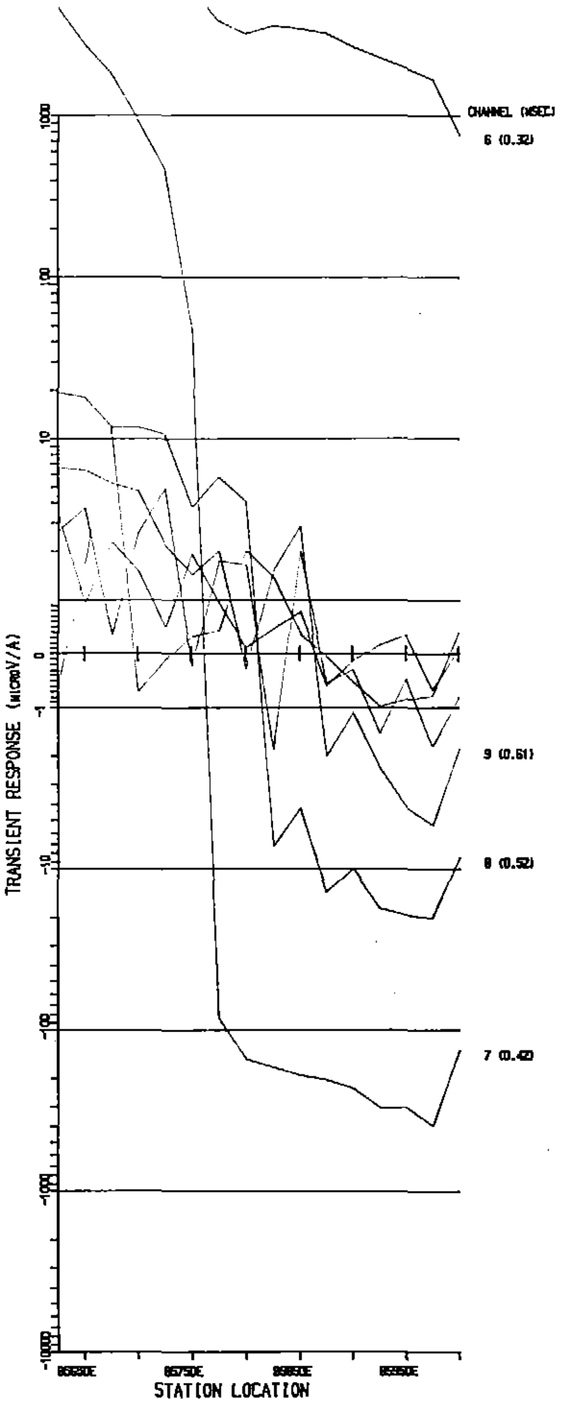
SIROTEM PROFILE

LINE 85000N Z WEST LOOP

SCALE - 1:5000

251

767252



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1989
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 9.4 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
2CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

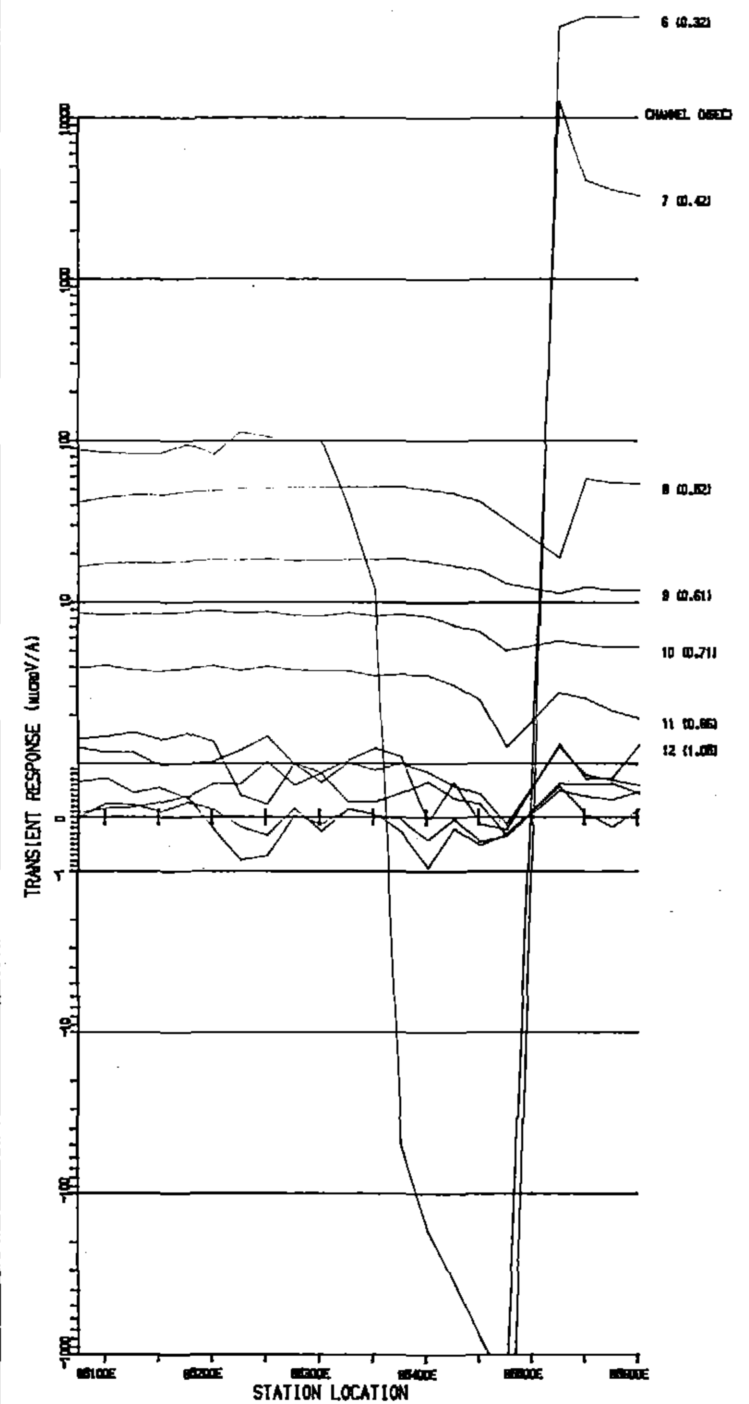
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85000N X WEST LOOP

SCALE - 1:5000

252

767253



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (MRO) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.0 AMPS
OPERATOR : P McGKIMMING

PLOT SPECIFICATIONS

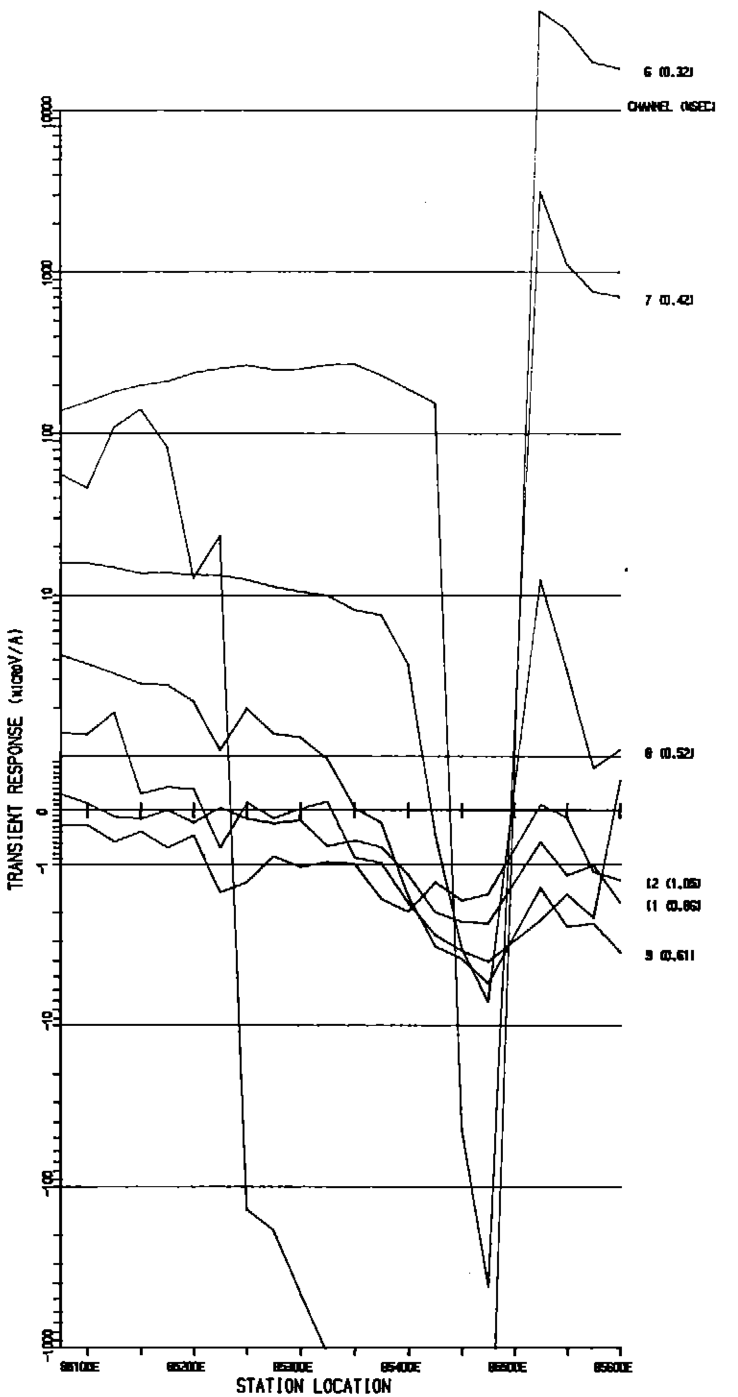
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84700N Z NEW EAST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.0 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

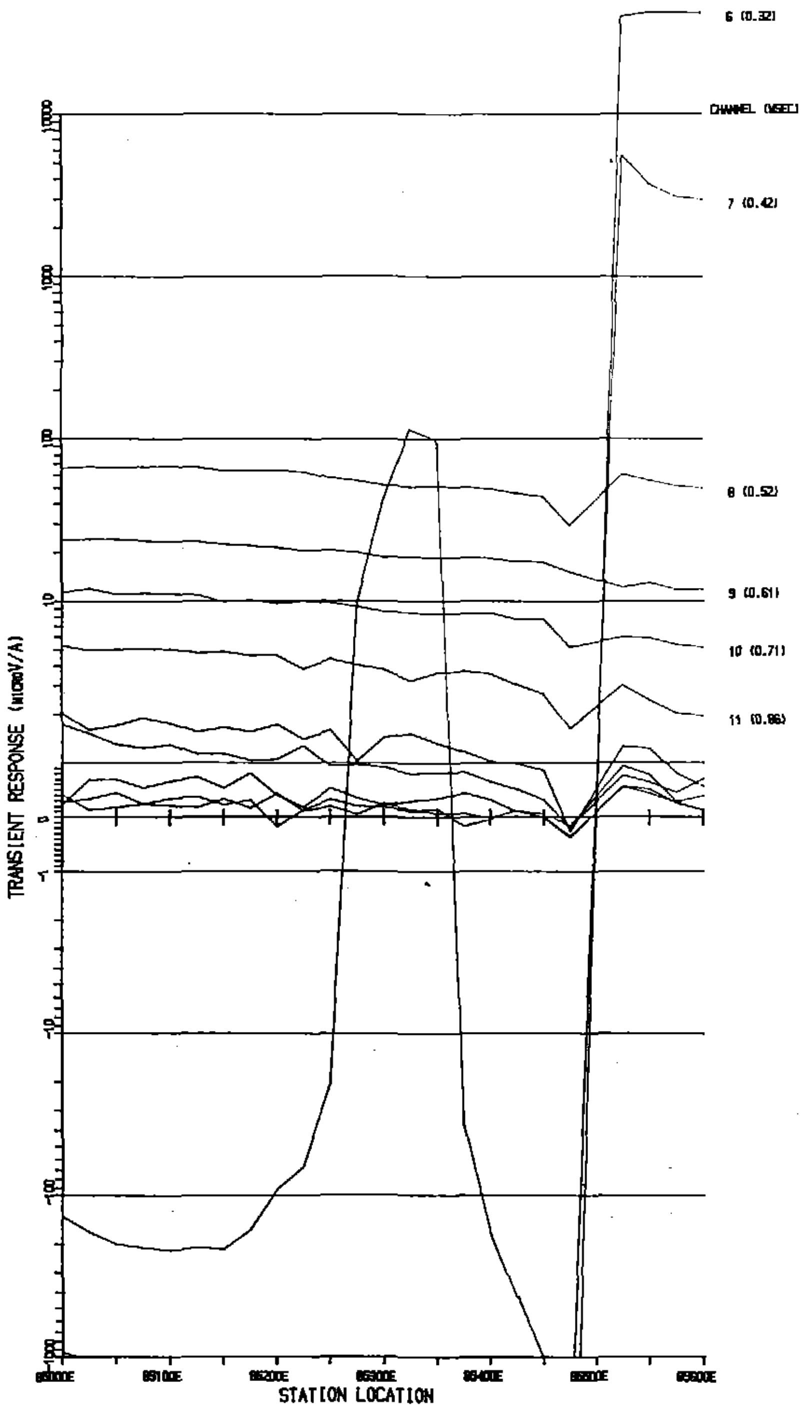
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84700N X NEW EAST LOOP

SCALE - 1:5000

767255



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.0 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

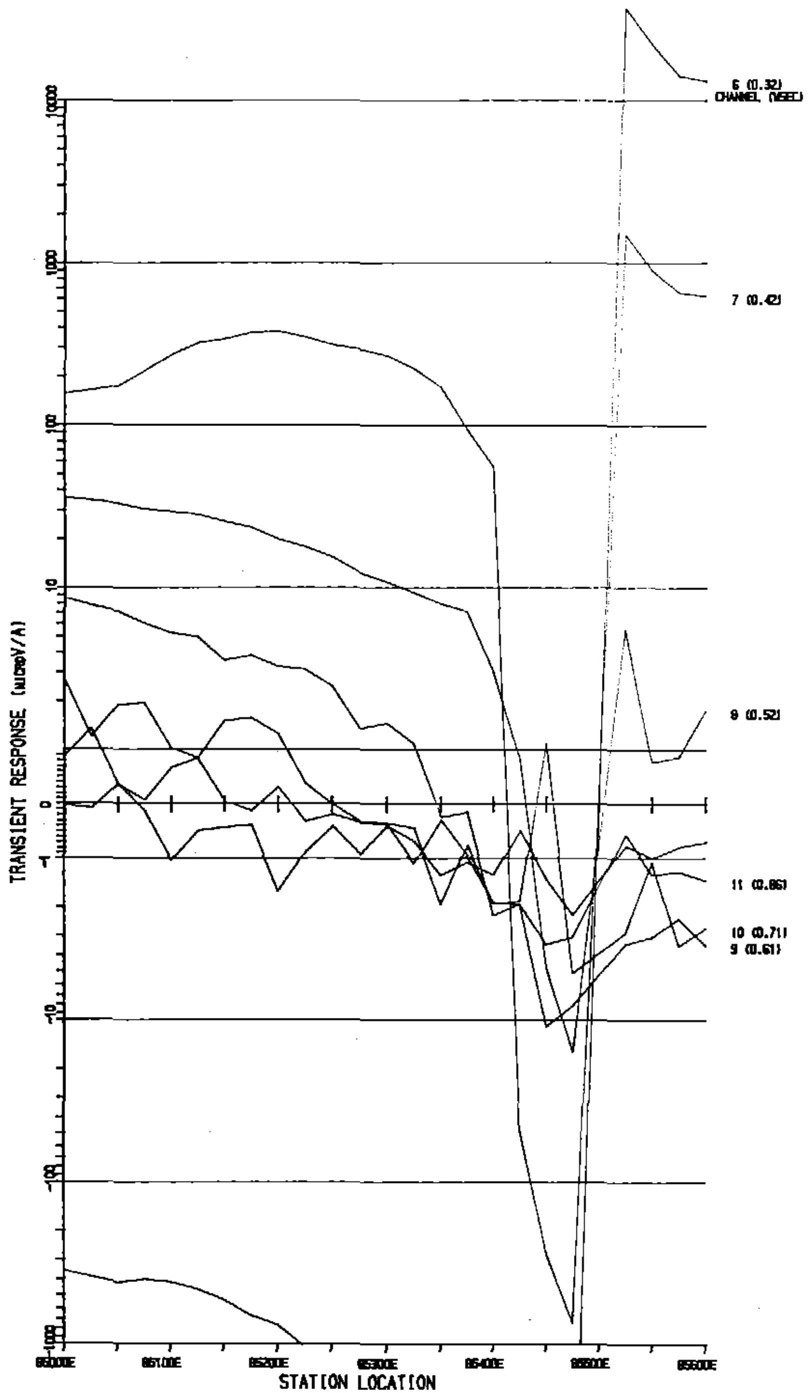
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84800N Z NEW EAST LOOP

SCALE - 1:5000

767256



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.0 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

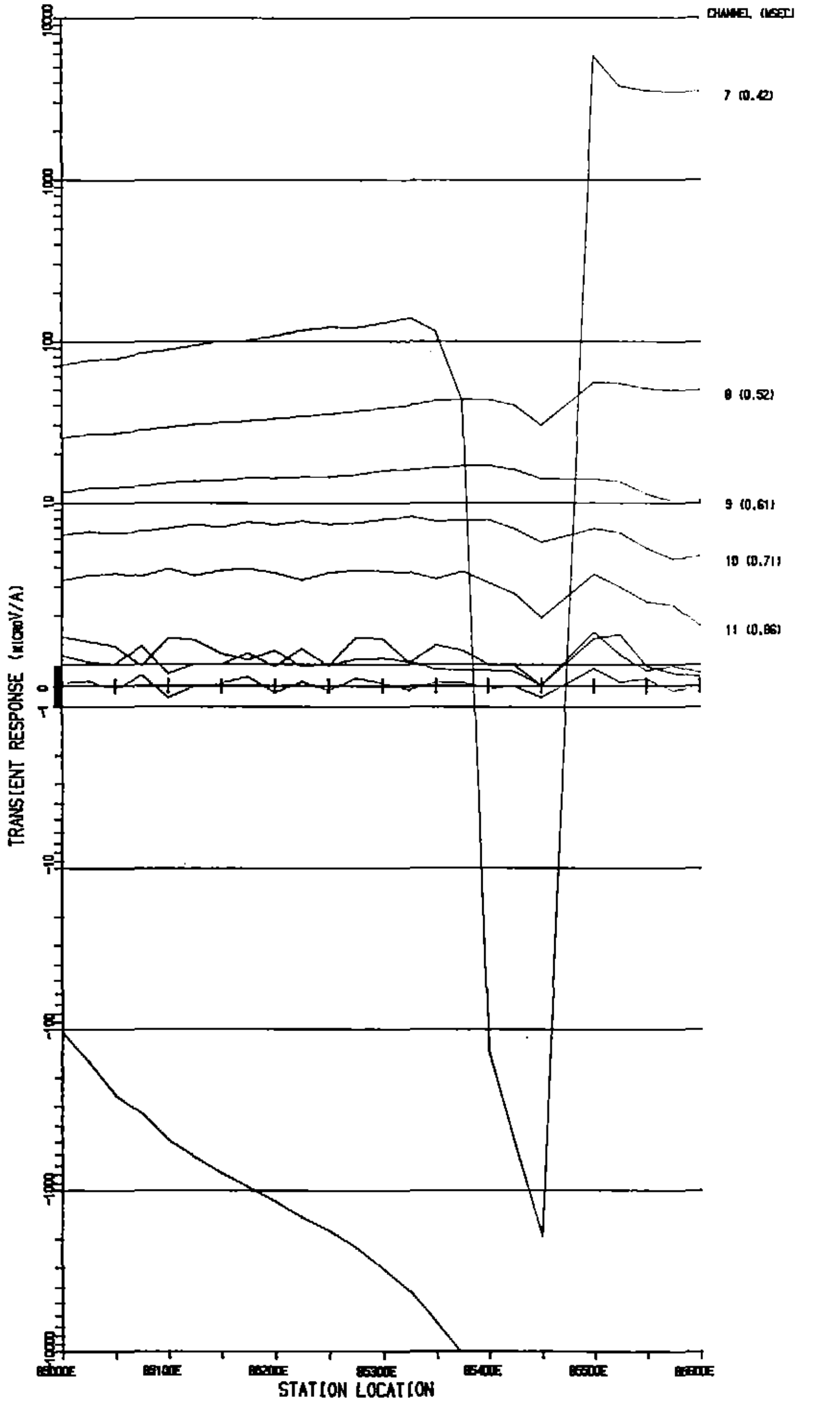
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84800N X NEW EAST LOOP

SCALE - 1:5000

256

767257



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1989
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.0 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

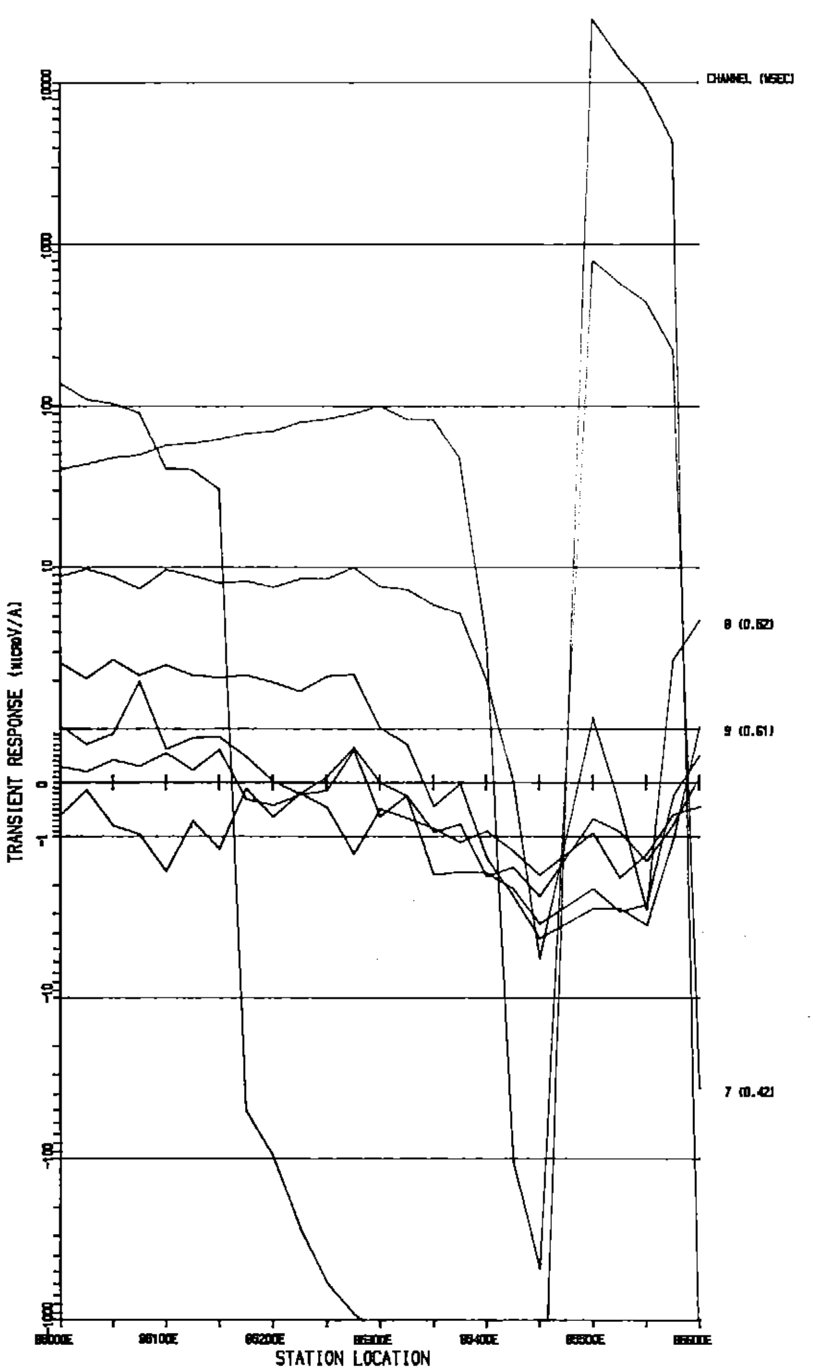
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84900N Z NEW EAST LOOP

SCALE - 1:5000

257

767258



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1989
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.0 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

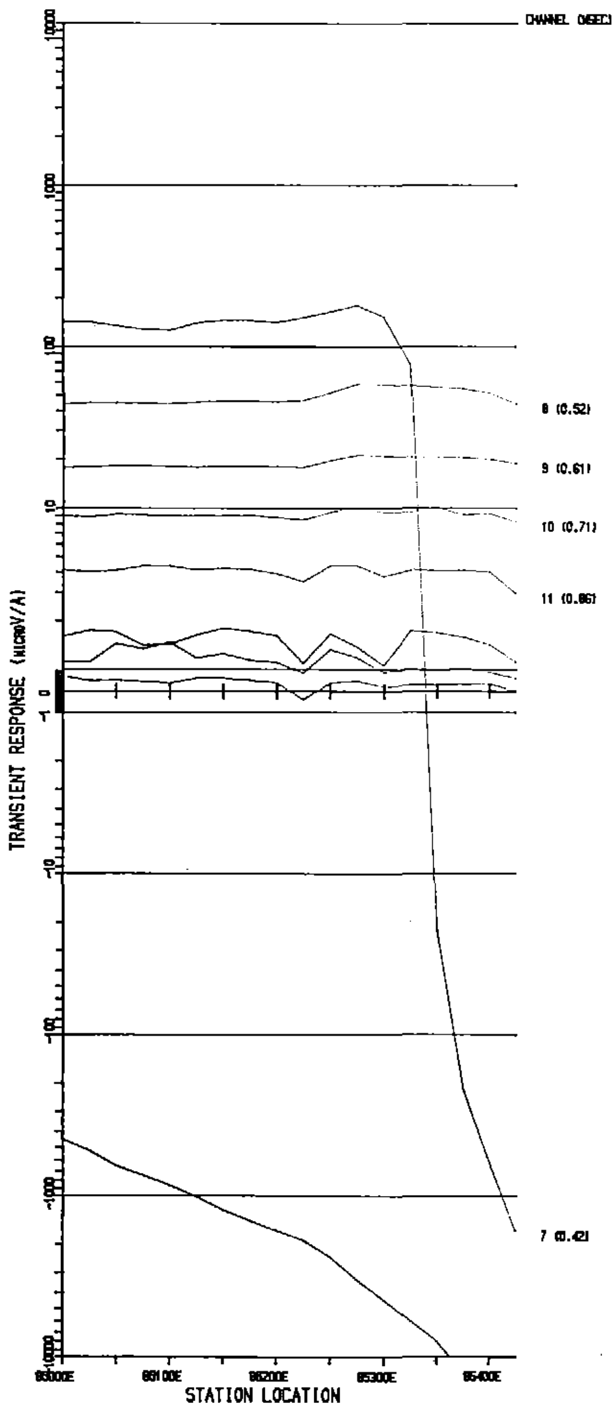
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84900N X NEW EAST LOOP

SCALE - 1:5000

258

767259



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.0 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

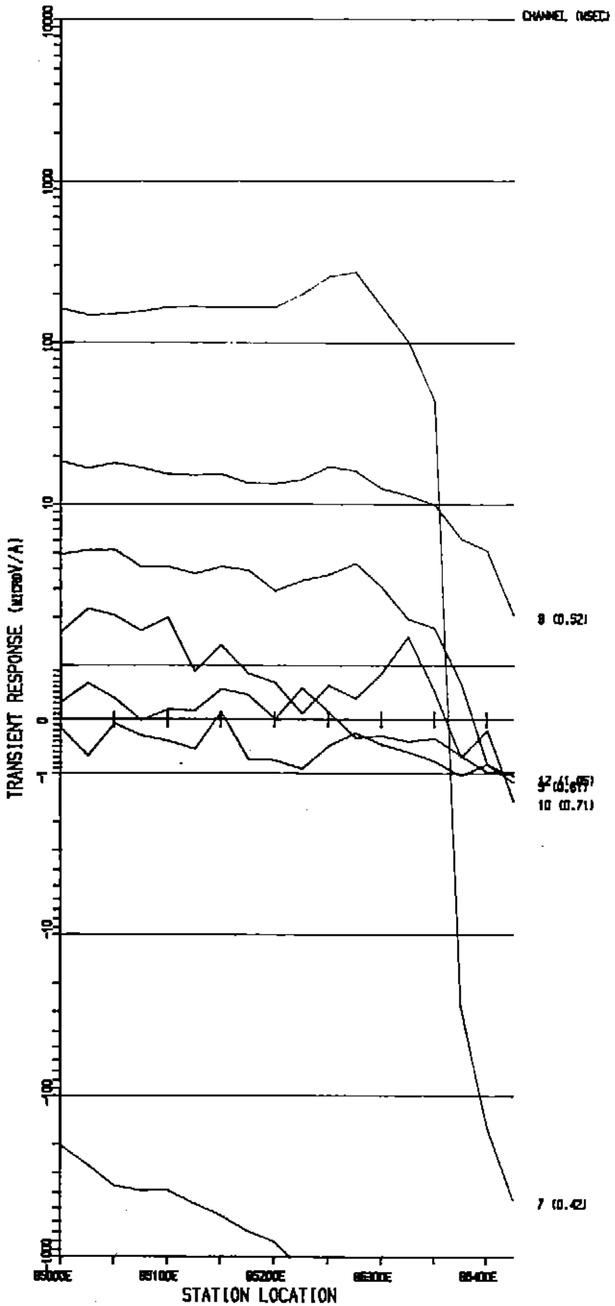
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85000N Z NEW EAST LOOP

SCALE - 1:5000

76/260



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 12.0 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

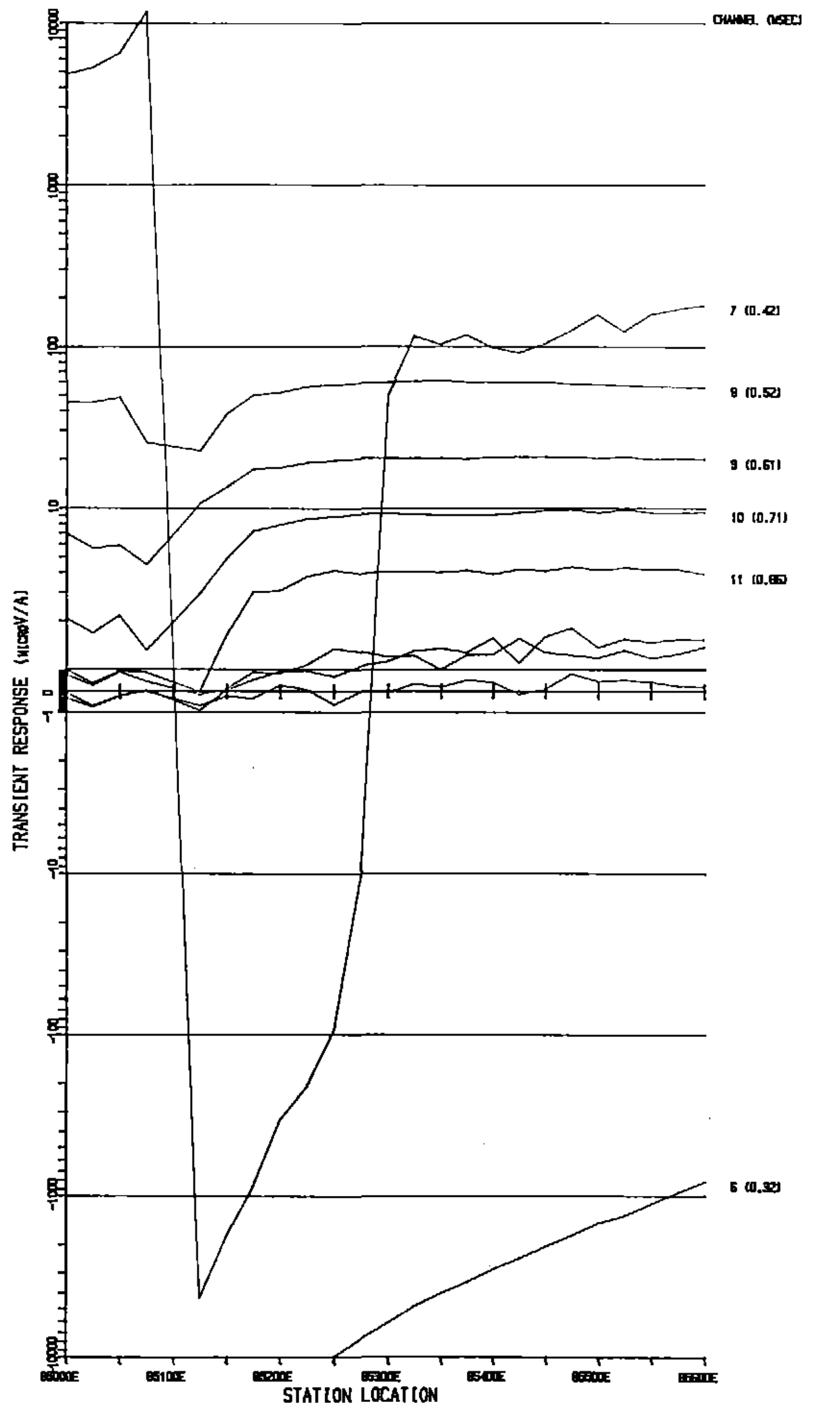
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85000N X NEW EAST LOOP

SCALE - 1:5000

260

767261



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVU) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

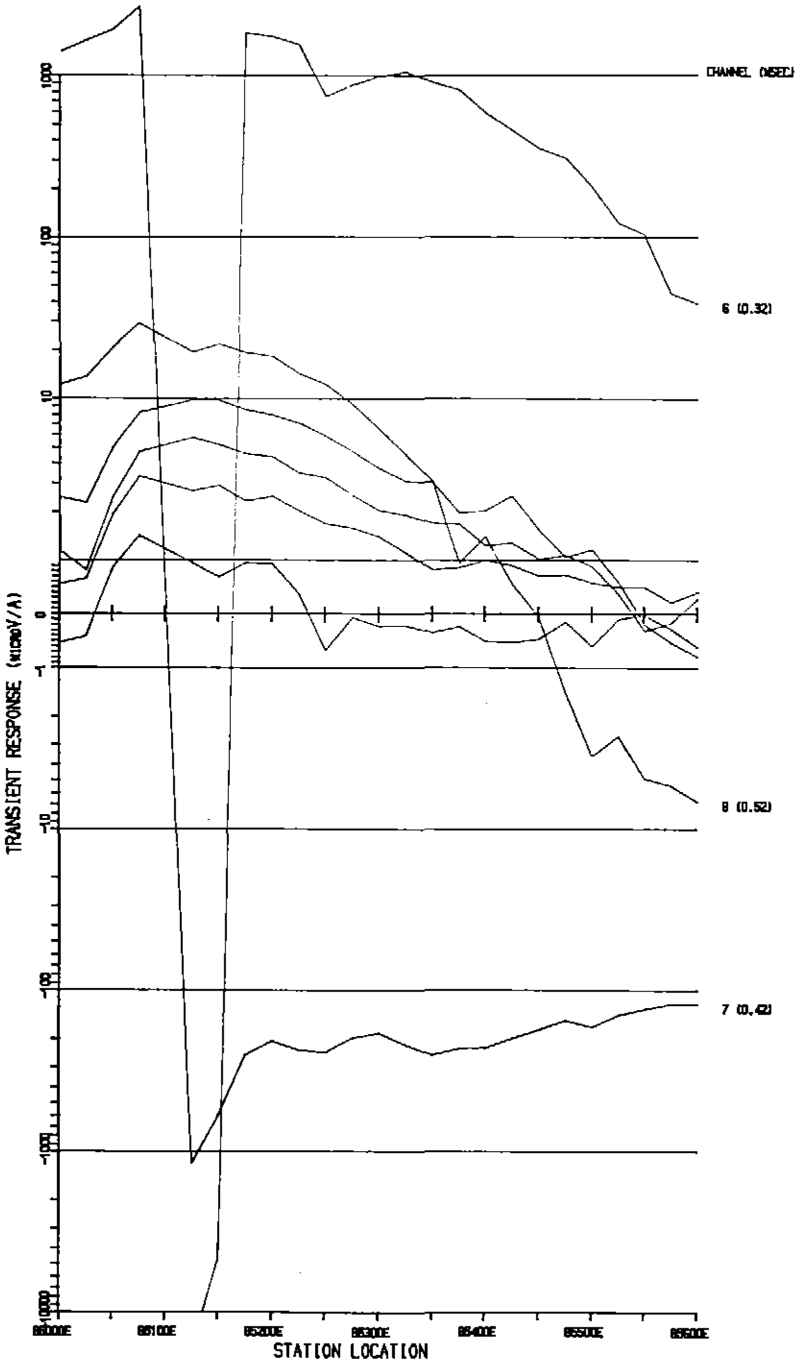
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84700N Z NEW WEST LOOP

SCALE - 1:5000

767262



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

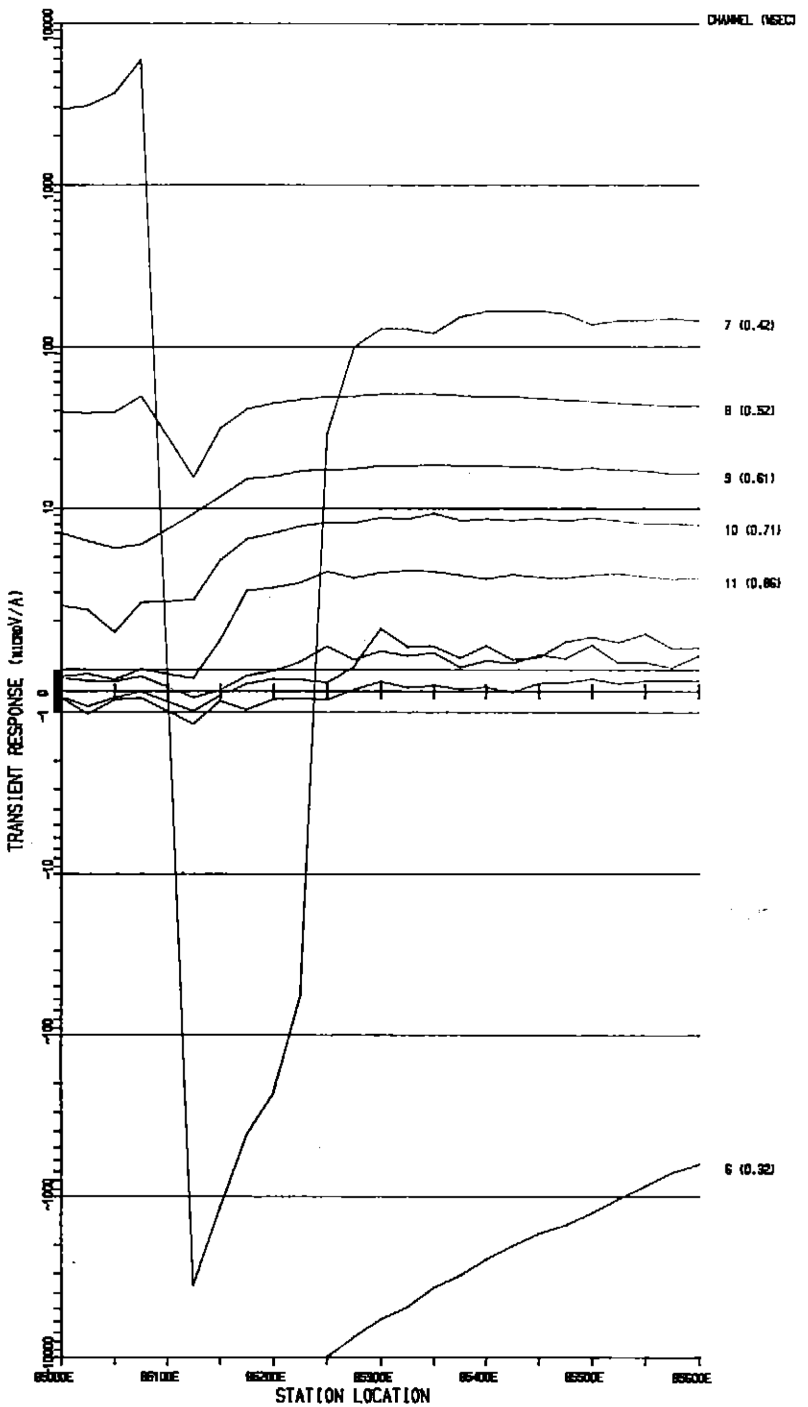
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84700N X NEW WEST LOOP

SCALE - 1:5000

767263



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVU) SURVEY
READING INT. : 80 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

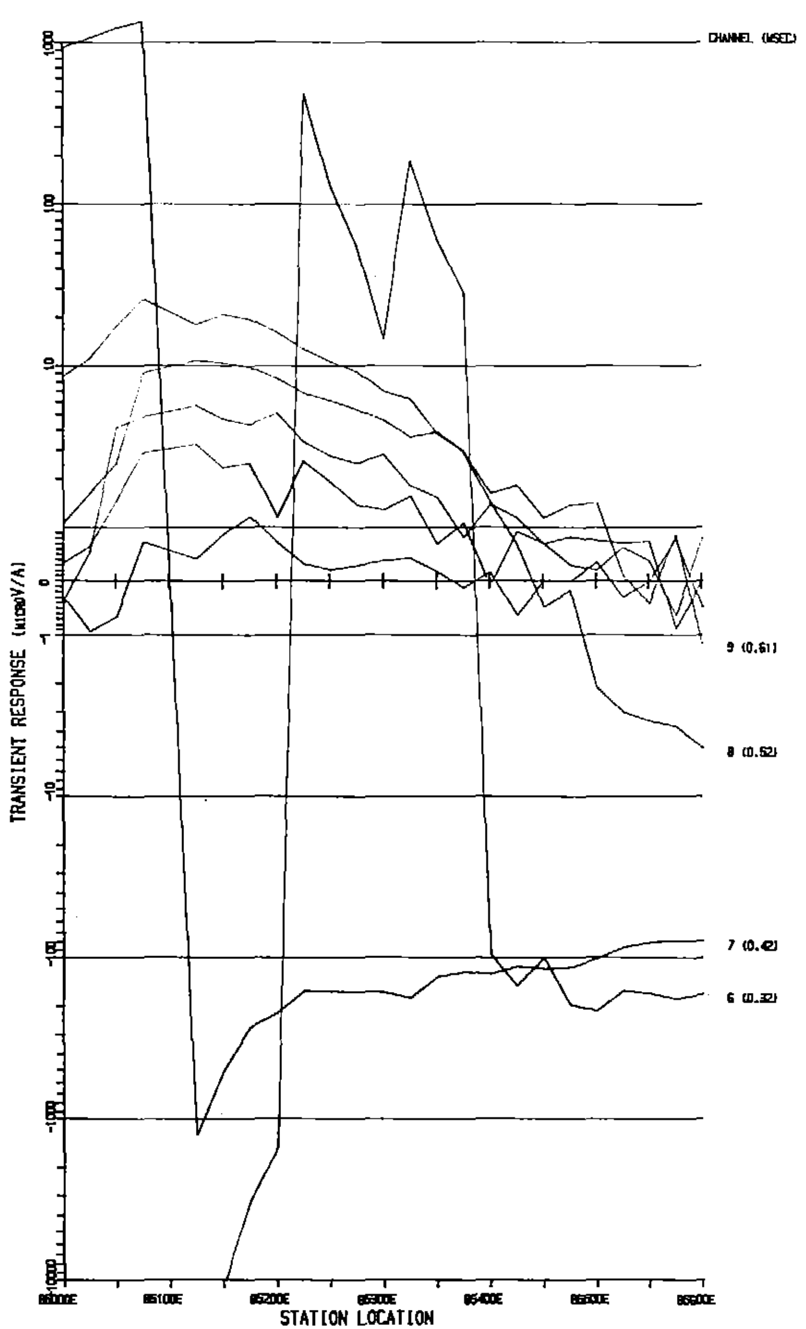
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84800N Z NEW WEST LOOP

SCALE - 1:5000

767264



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

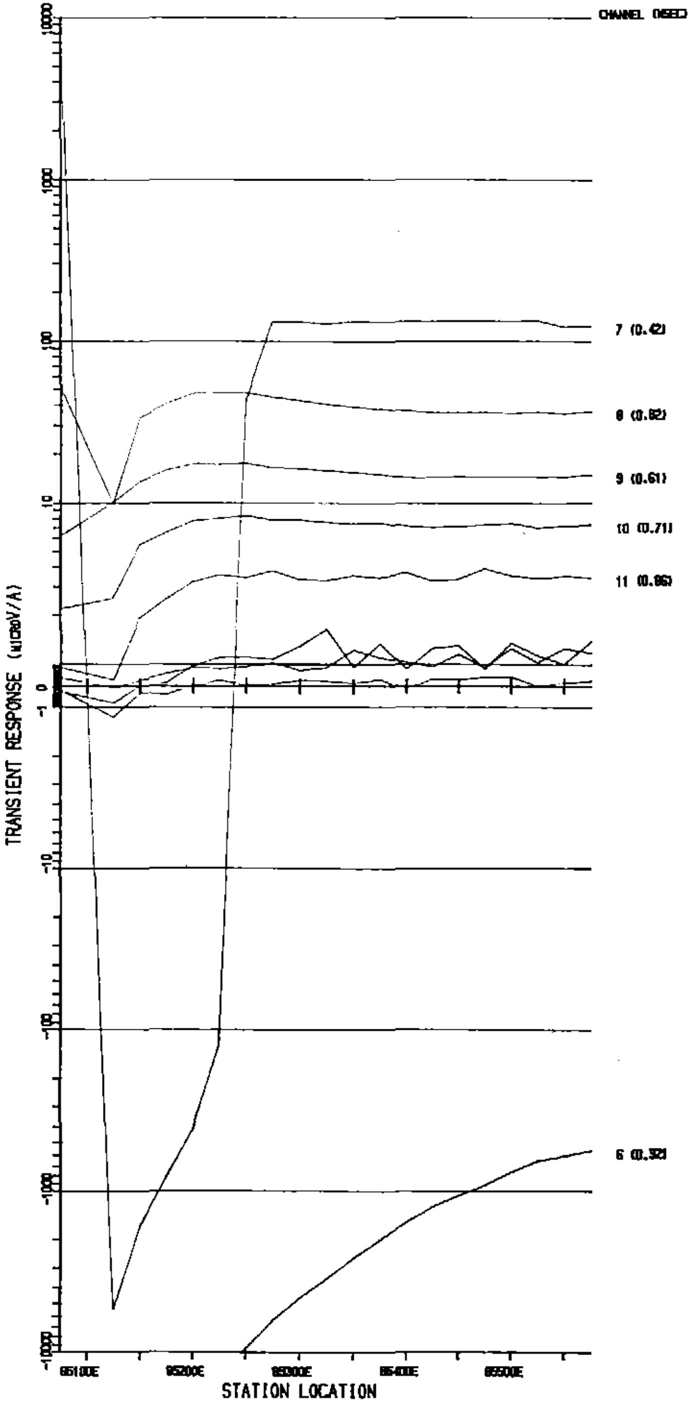
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84800N X NEW WEST LOOP

SCALE - 1:5000

767265



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, CURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

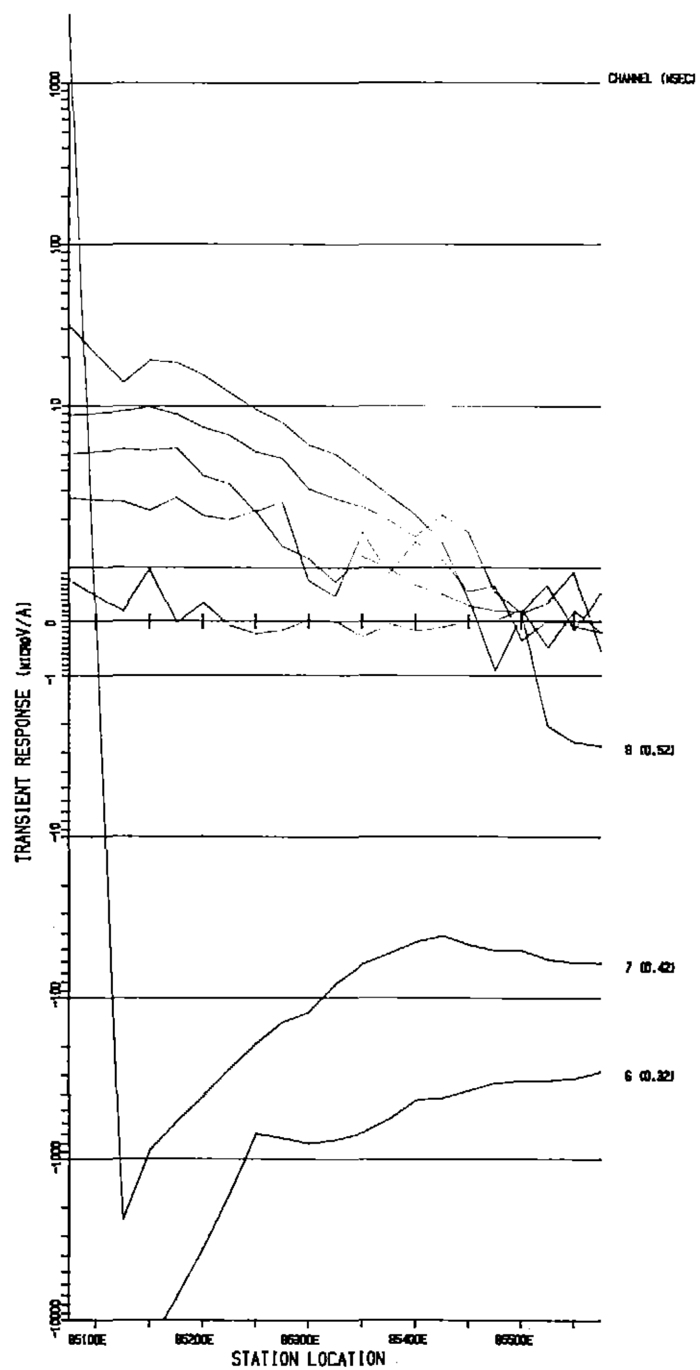
TASMANIA

TULLABARDINE GORGE

SIROTEM PROFILE

LINE 84887N Z NEW WEST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS
OPERATOR : P McSKINNING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

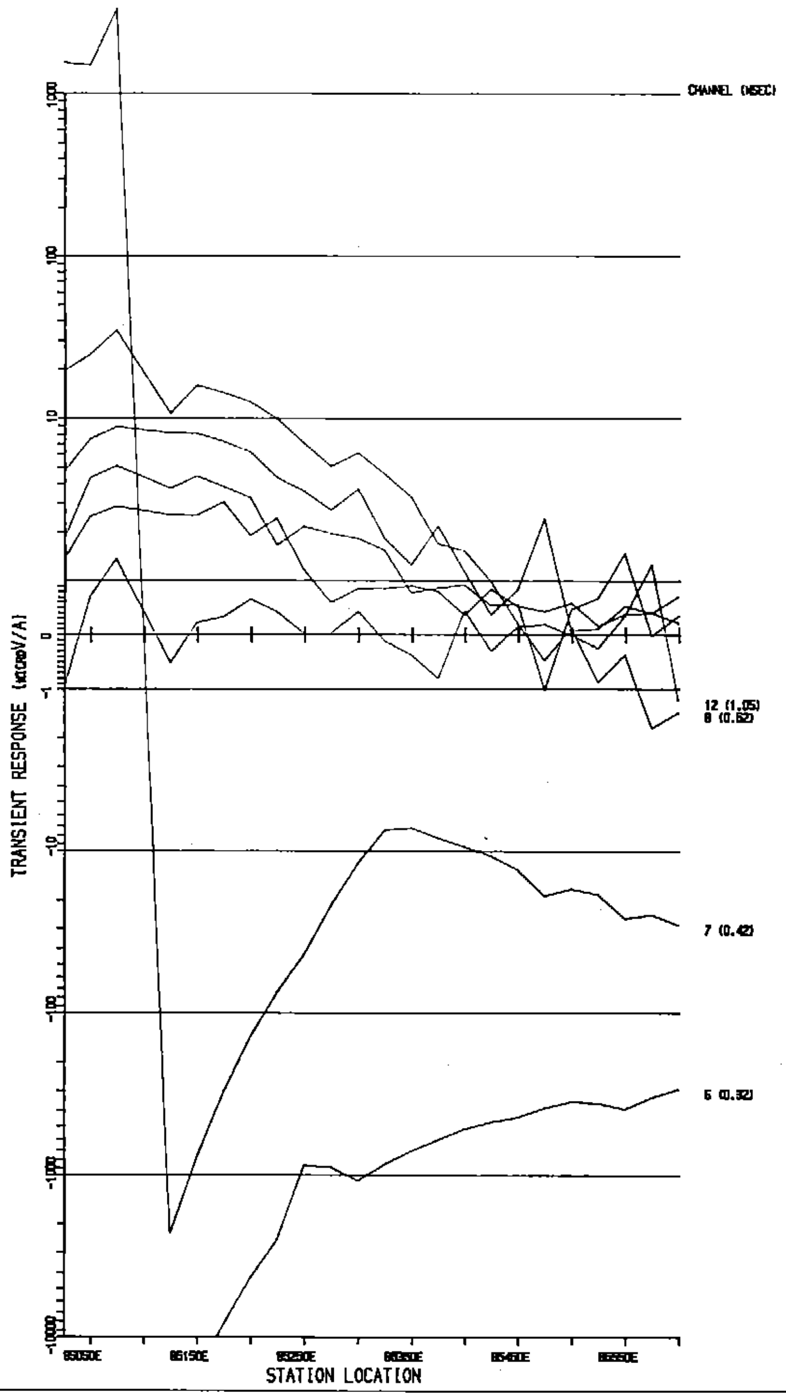
5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84887N X NEW WEST LOOP

SCALE - 1:5000

767267



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA

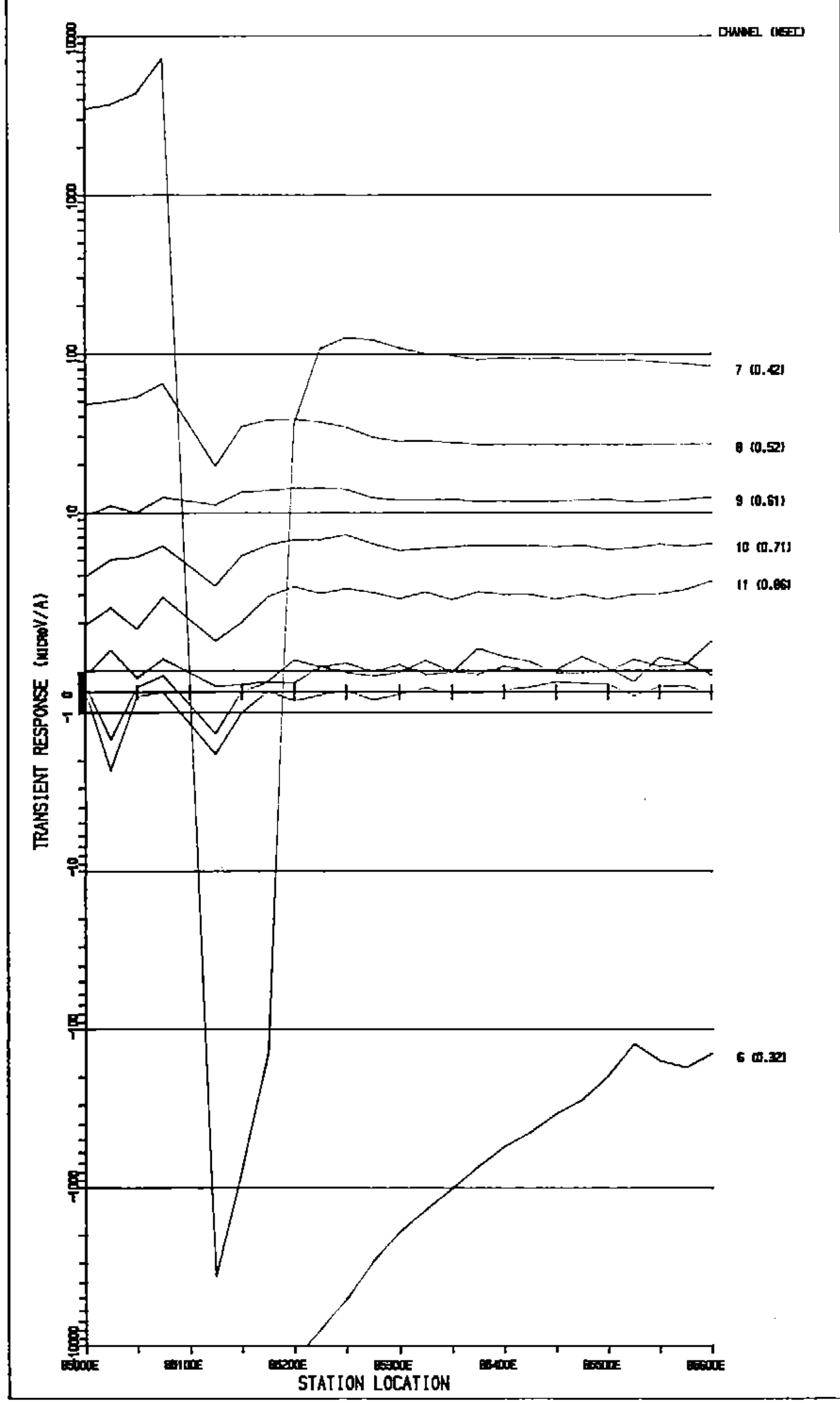
TULLABARDINE GORGE

SIROTEM PROFILE

LINE 84900N X NEW WEST LOOP

SCALE - 1:5000

767268



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1989
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1226
CURRENT : 11.7 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

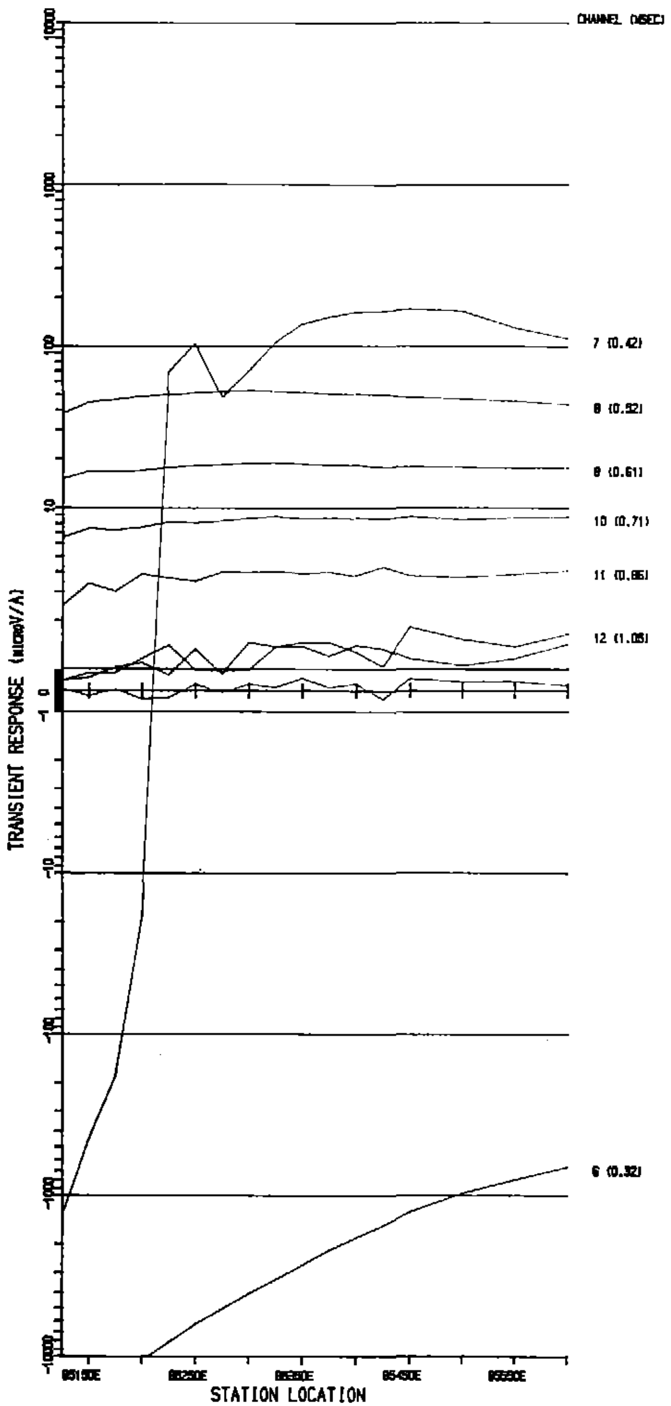
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
2CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 84900N Z NEW WEST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1988
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS
OPERATOR : P McSKINNING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
8CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

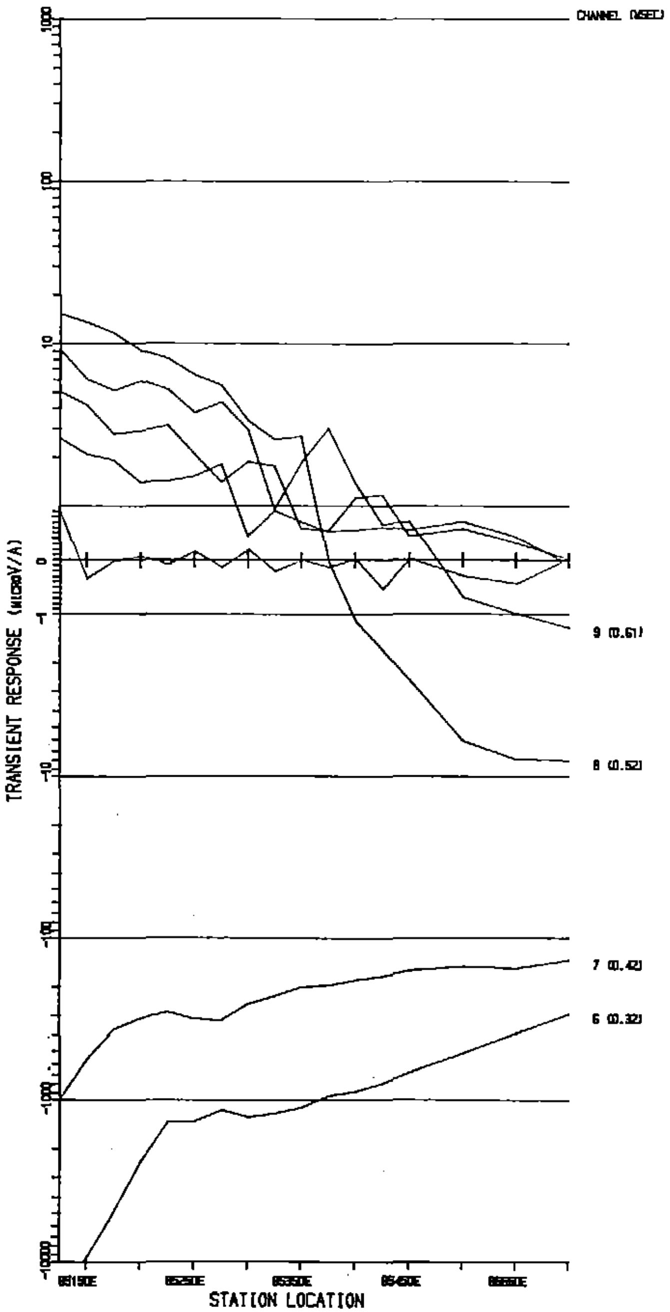
TASMANIA

TULLABARDINE GORGE

SIROTEM PROFILE

LINE 85000N Z NEW WEST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1989
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

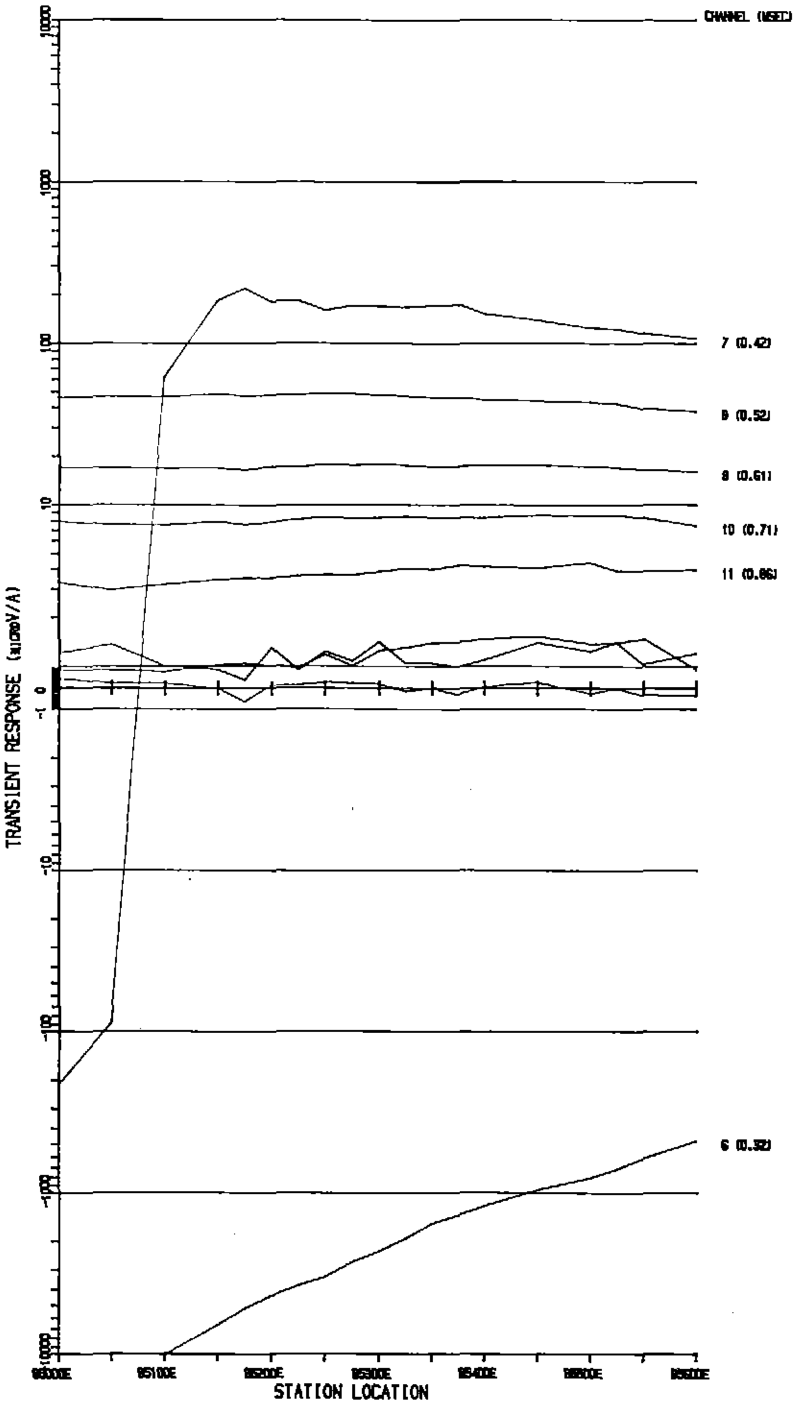
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85000N X NEW WEST LOOP

SCALE - 1:5000

270

767271



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1989
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 1024
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

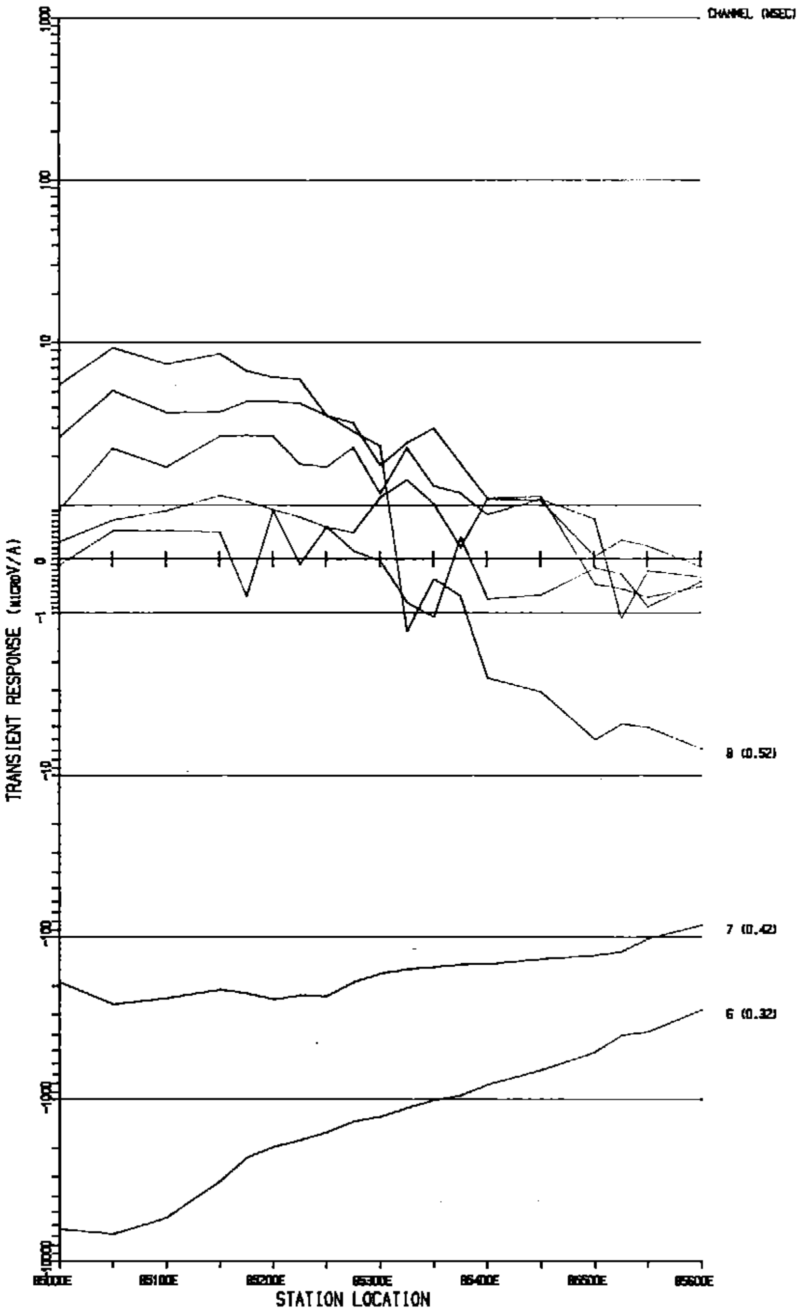
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85100N Z NEW WEST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : APRIL 1989
CONFIGURATION : 400M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 11.7 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

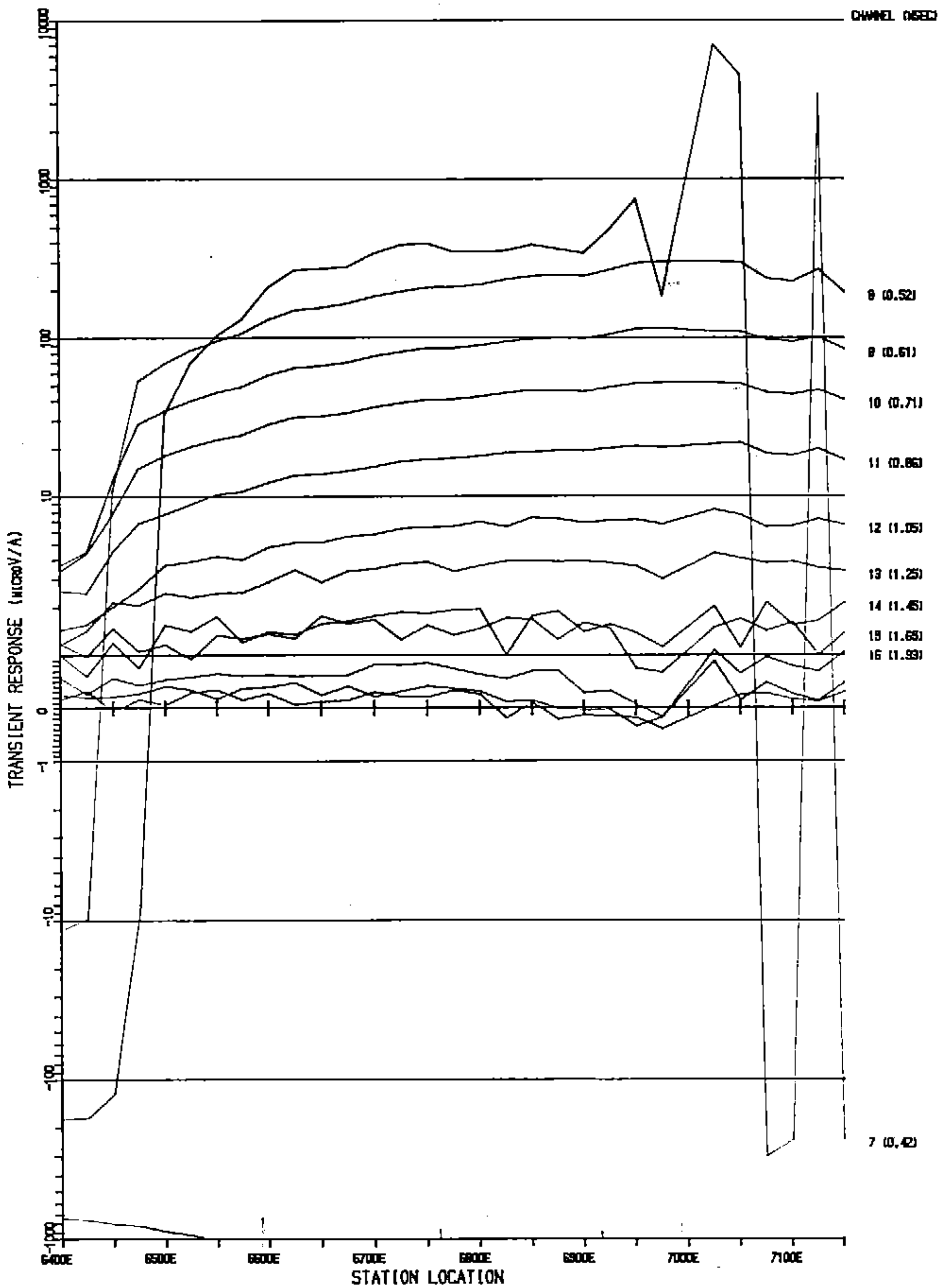
BHP EXPLORATION

TASMANIA
TULLABARDINE GORGE
SIROTEM PROFILE
LINE 85100N X NEW WEST LOOP

SCALE - 1:5000

272

767273



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 512
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 8.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

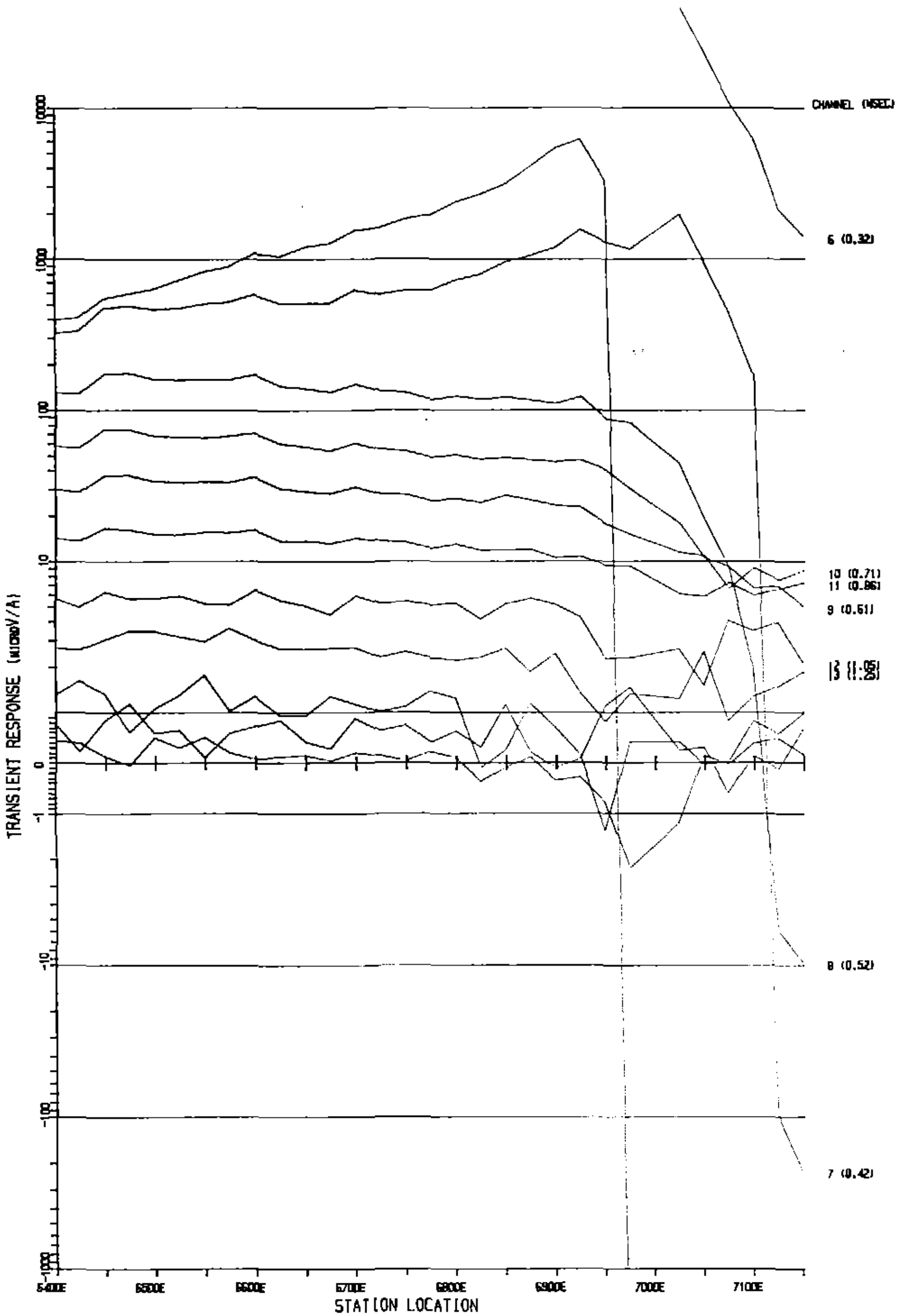
BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 3800N Z EAST LOOP

SCALE - 1:5000

273

767274



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 9.2 AMPS
OPERATOR : P McSKINNING

PLOT SPECIFICATIONS

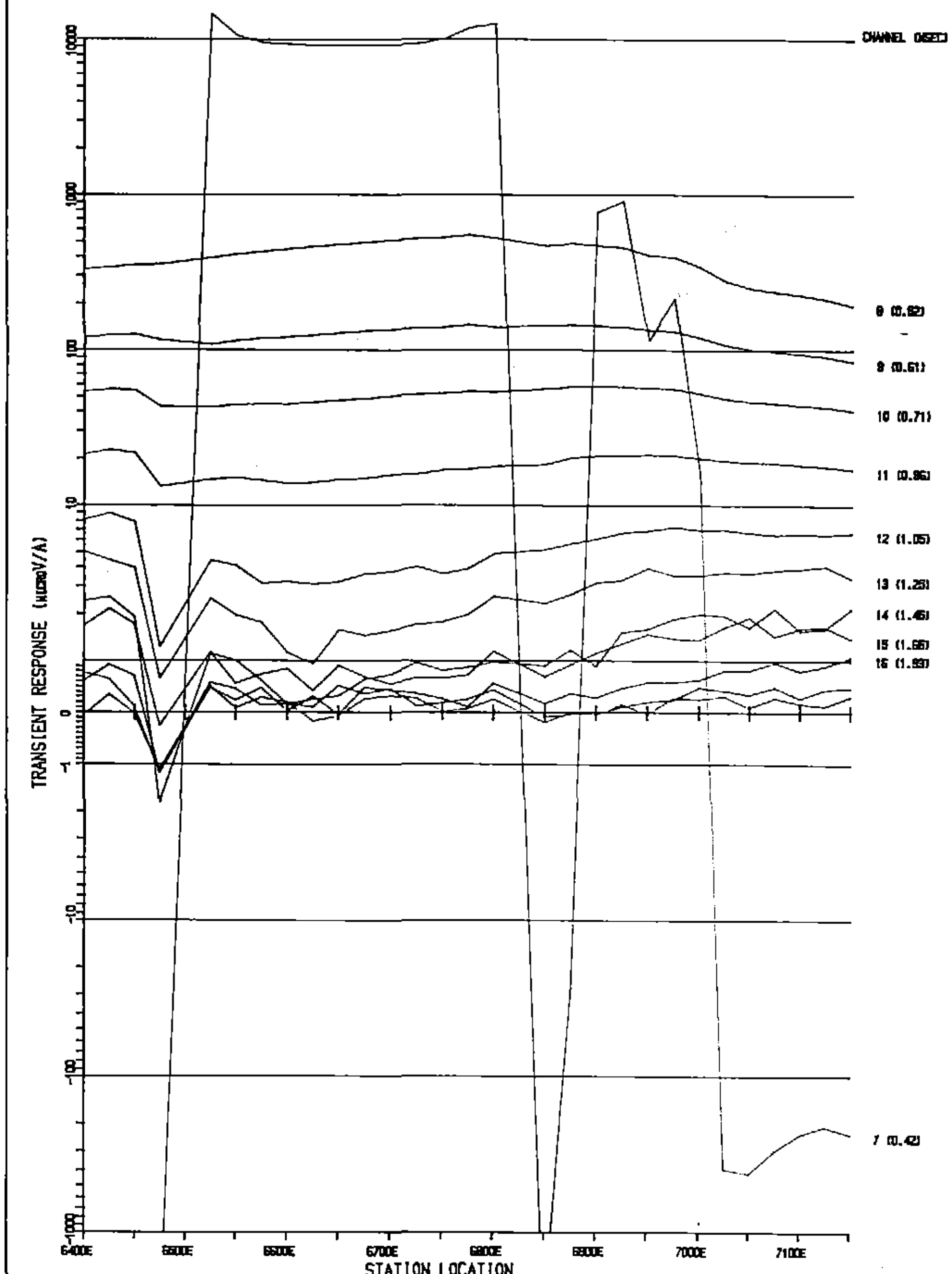
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 3800N X EAST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1989
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (Z/X) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 512
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.2 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

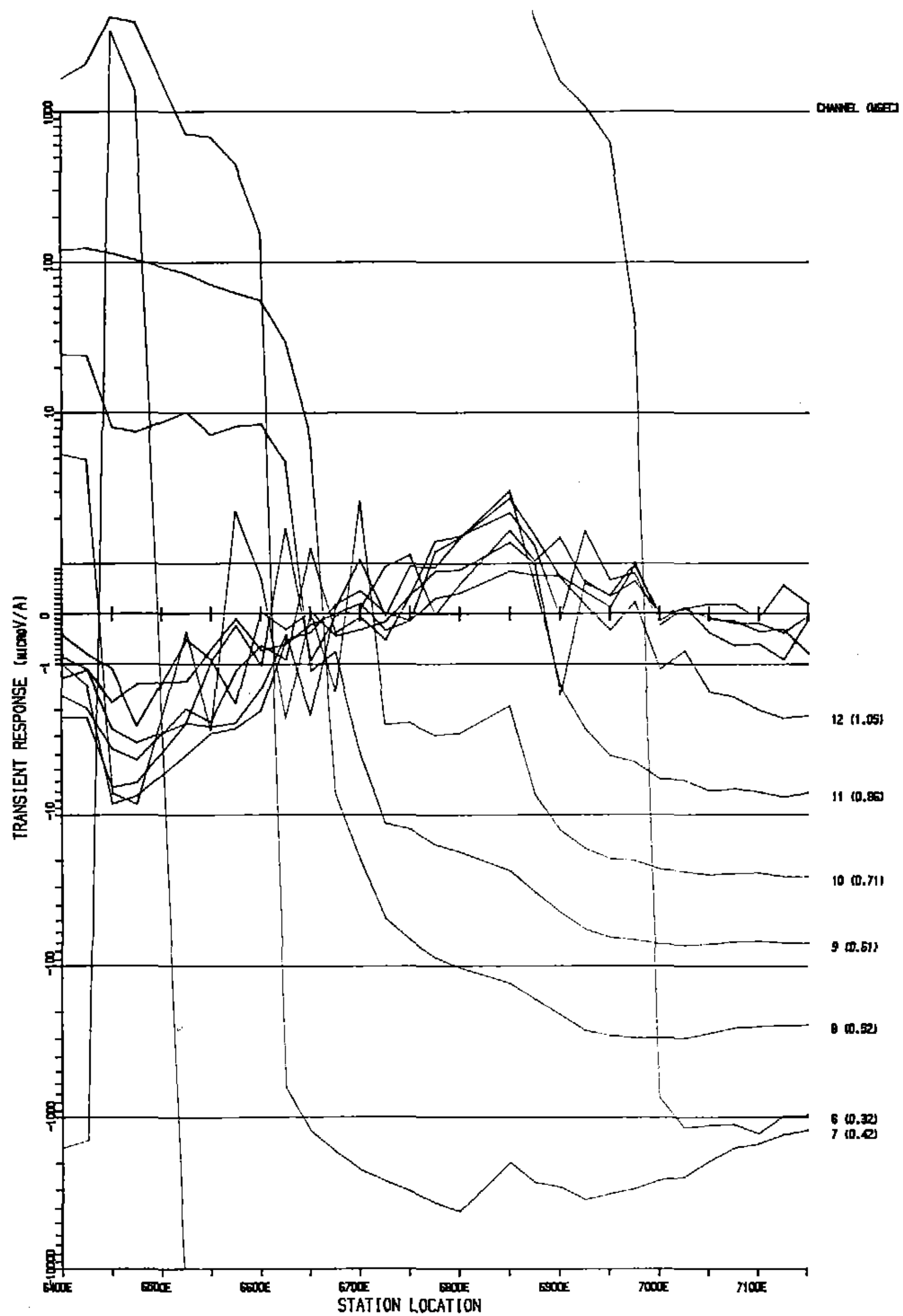
BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 3800N Z WEST LOOP

SCALE - 1:5000

275

76/276



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

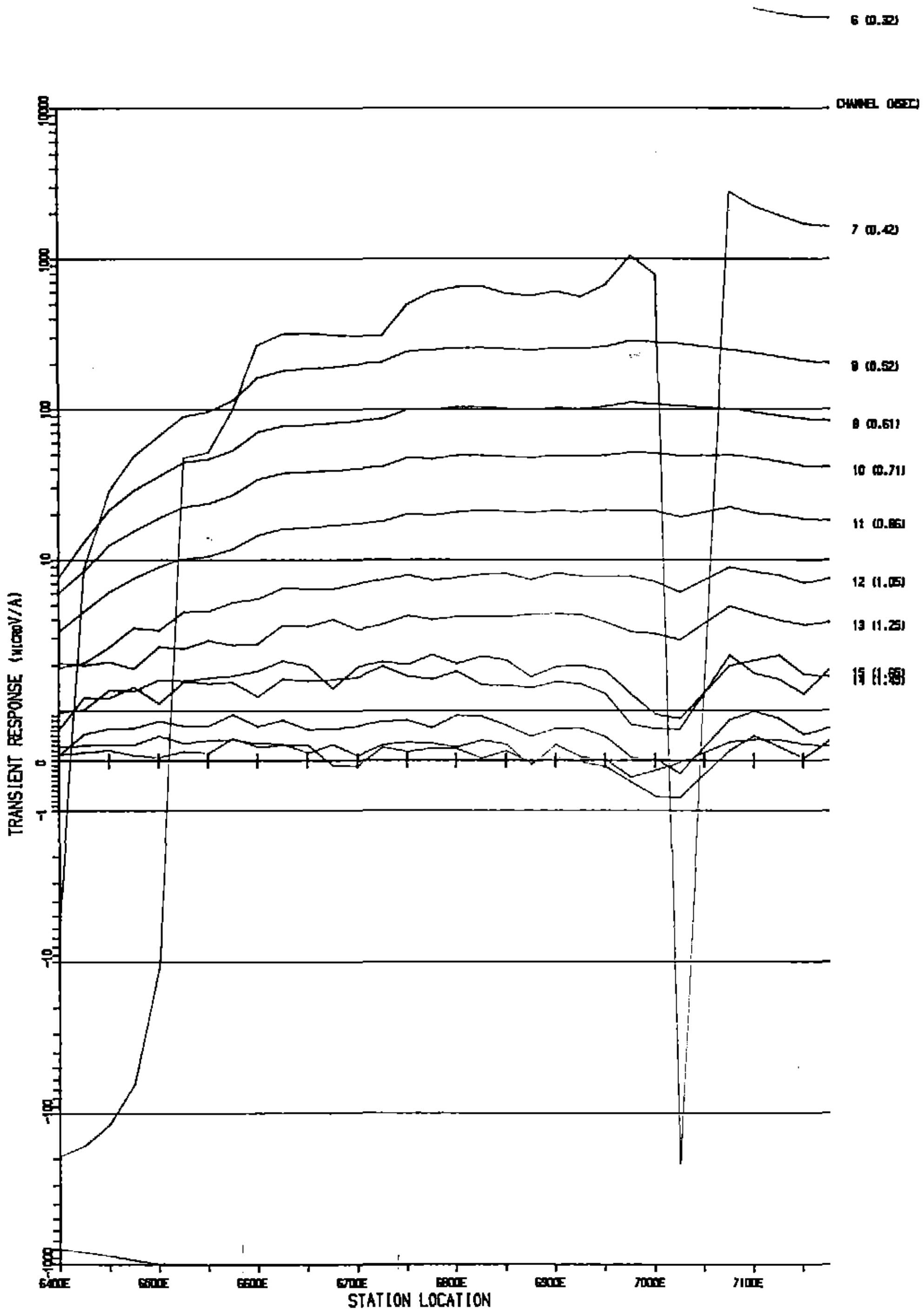
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 3800N X WEST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 812
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 8.2 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

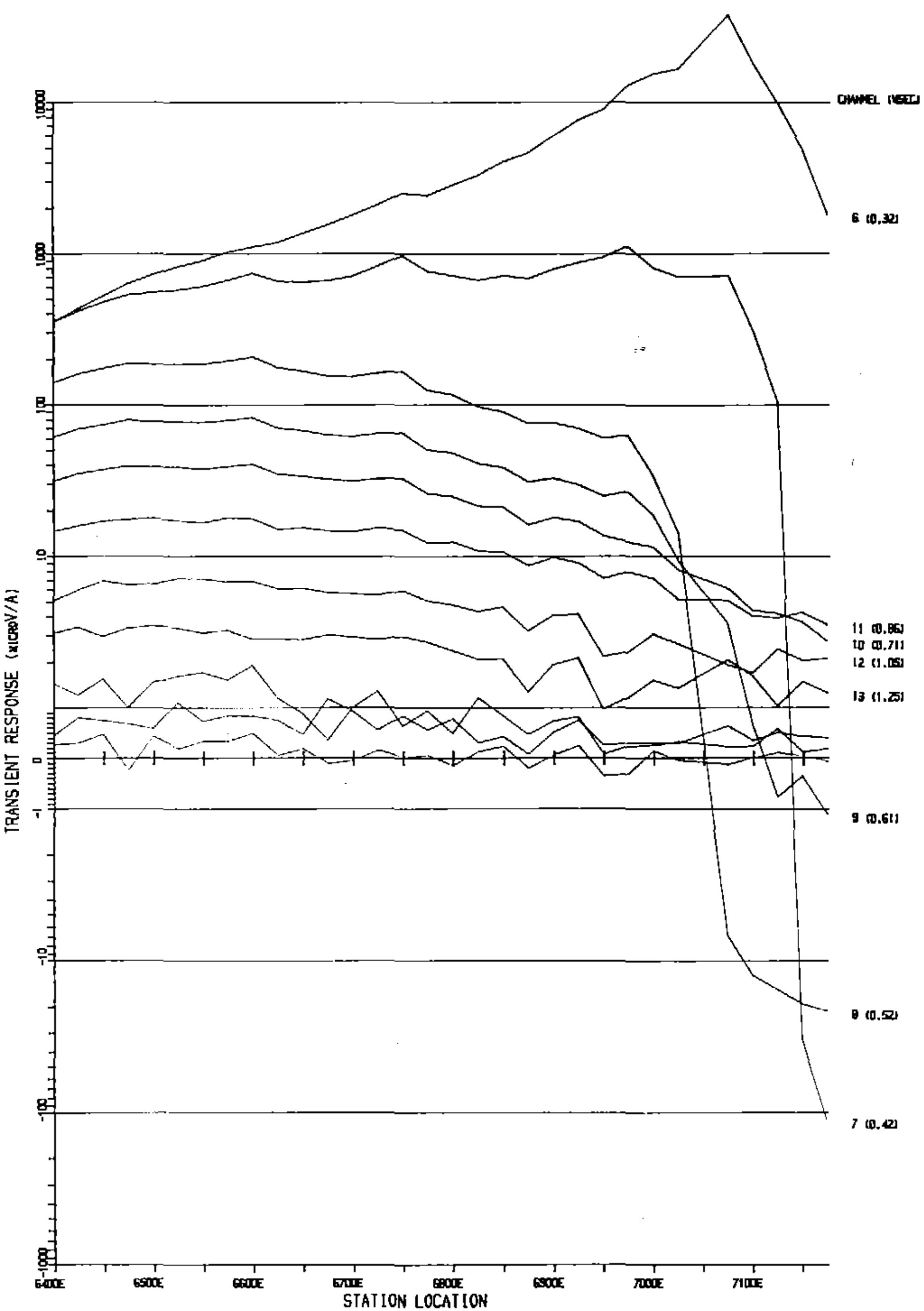
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 3900N Z EAST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVRU) SURVEY
READING INT. : 60 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 9.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

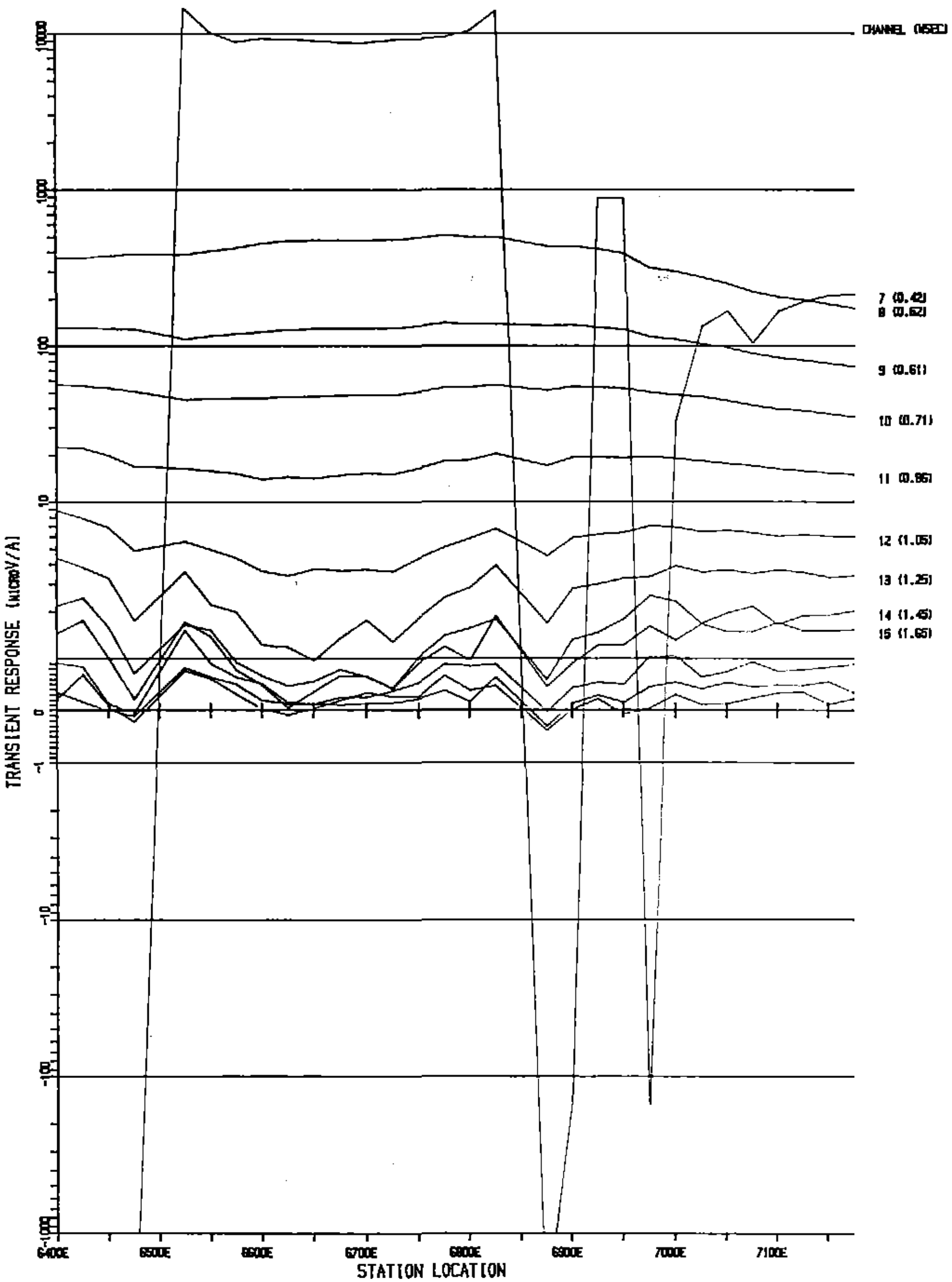
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 3900N X EAST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 512
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

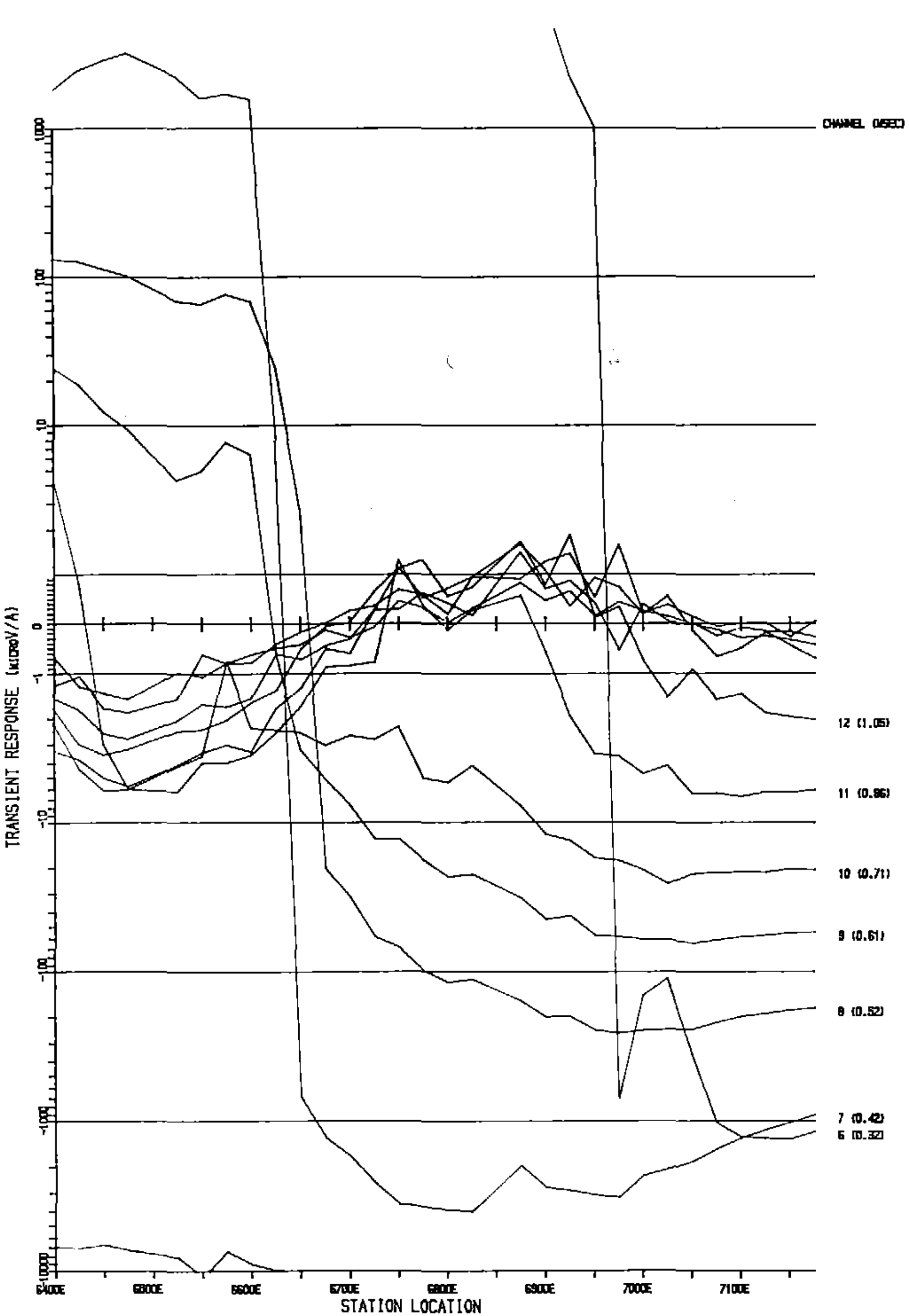
BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 3900N Z WEST LOOP

SCALE - 1:5000

279

767280



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

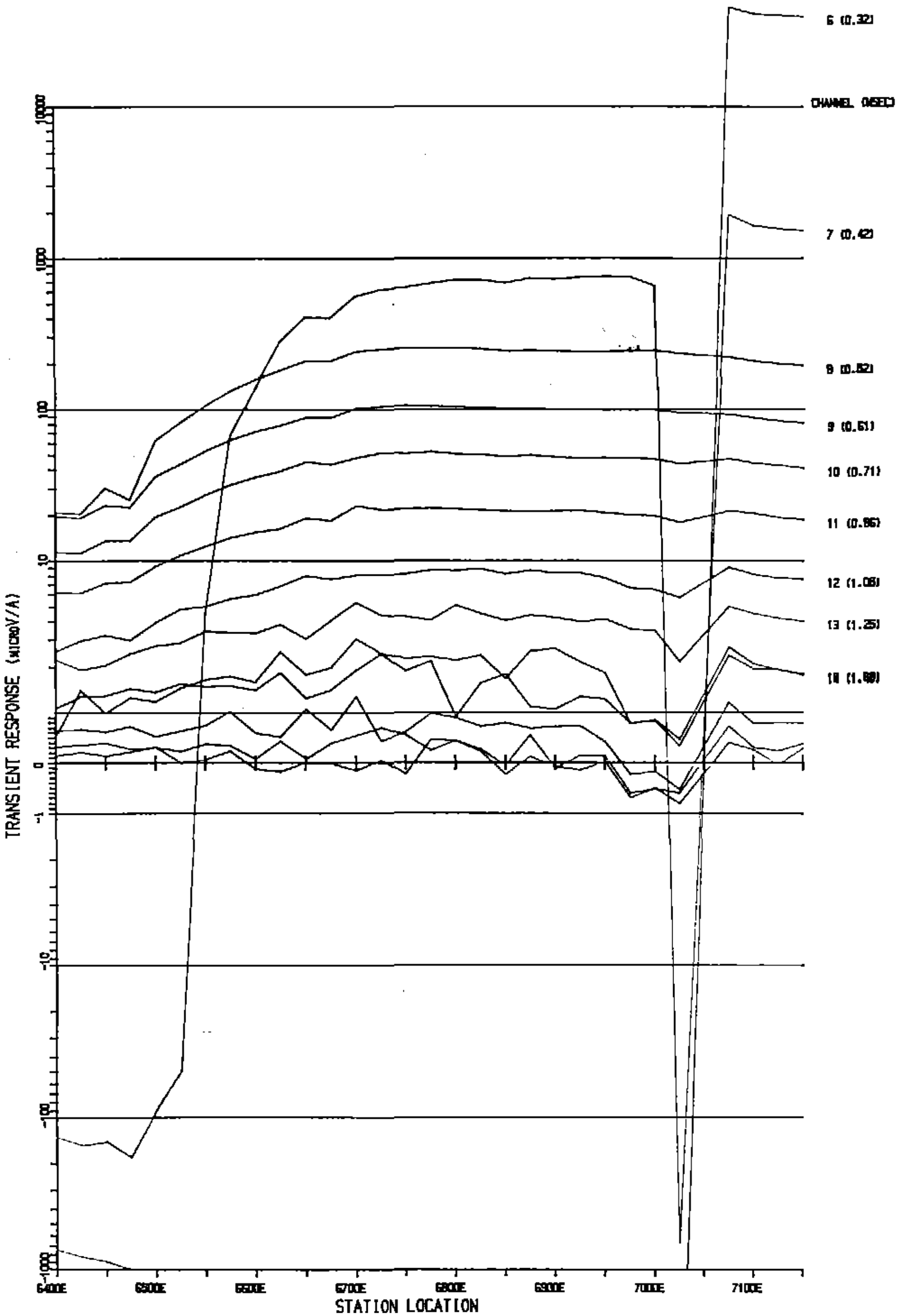
HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 3900N X WEST LOOP

SCALE - 1:5000



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 512
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 8.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

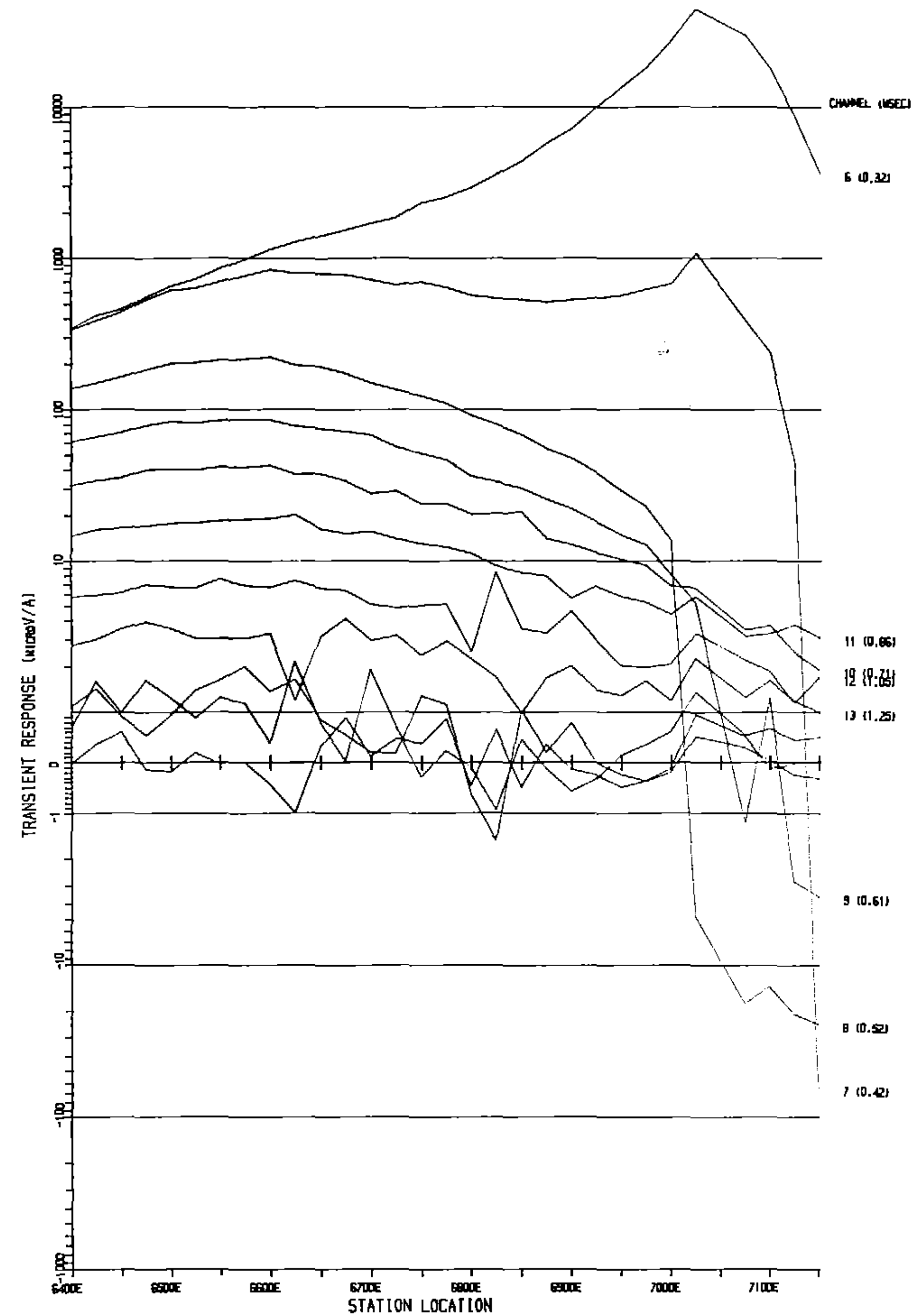
5 cm

BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 4000N Z EAST LOOP

SCALE - 1:5000

767282



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVRU) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 2048
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 9.2 AMPS

OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

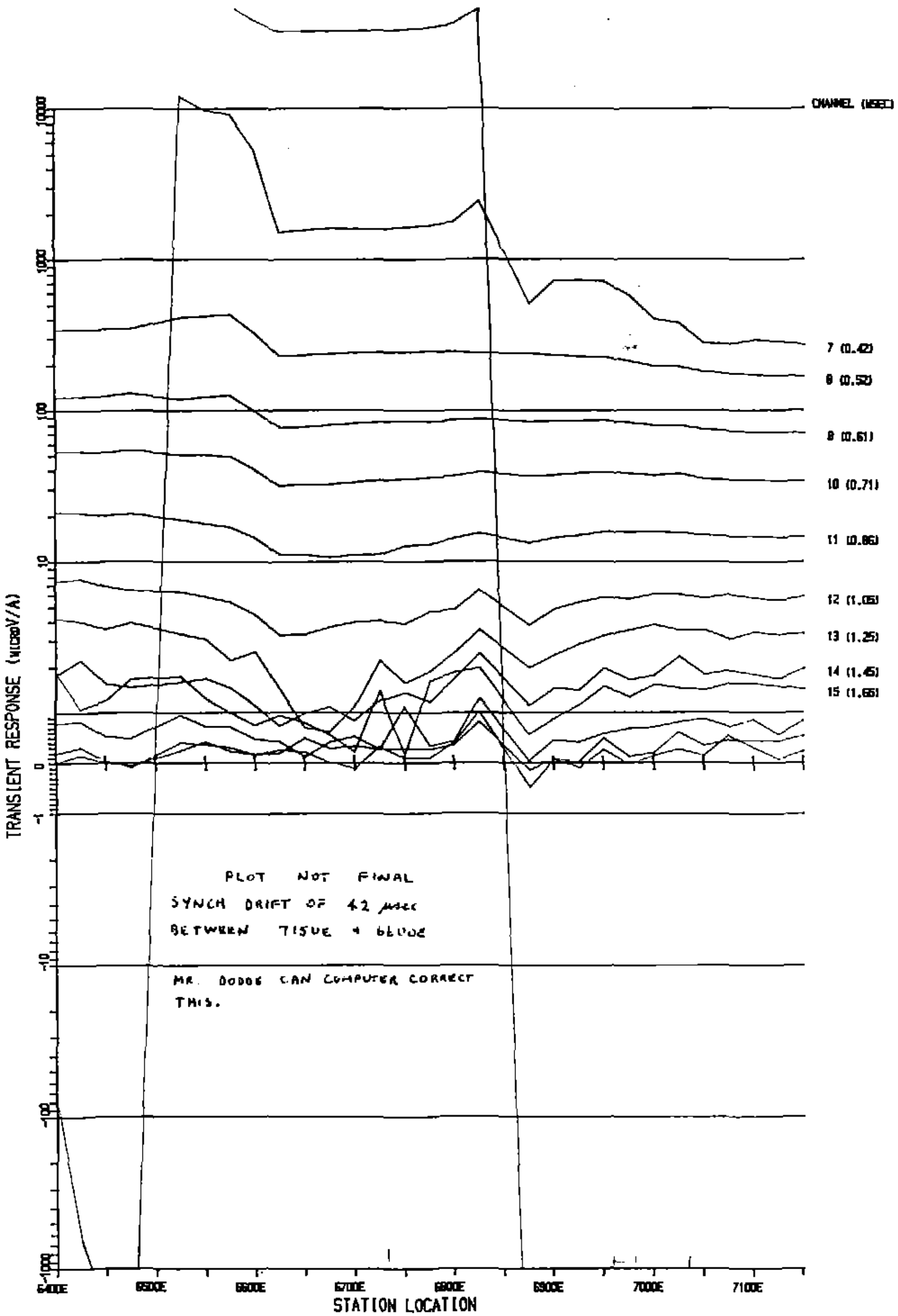
BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 4000N X EAST LOOP

SCALE - 1:5000

282

767283



SURVEY SPECIFICATIONS

SURVEY DATE : MARCH 1988
CONFIGURATION : 800M SQUARE TRANSMITTER LOOP,
TURAM MODE (RVR) SURVEY
READING INT. : 50 METRES
NO. OF STACKS : 512
TRANSMITTER : MEDIUM POWER
RECEIVER : SIROTEM II S/N 1236
CURRENT : 10.2 AMPS
OPERATOR : P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE - 1:5000
VERTICAL SCALE - LOGARITHMIC
3CM. PER DECADE
LINEAR BETWEEN -1 AND +1

5 cm

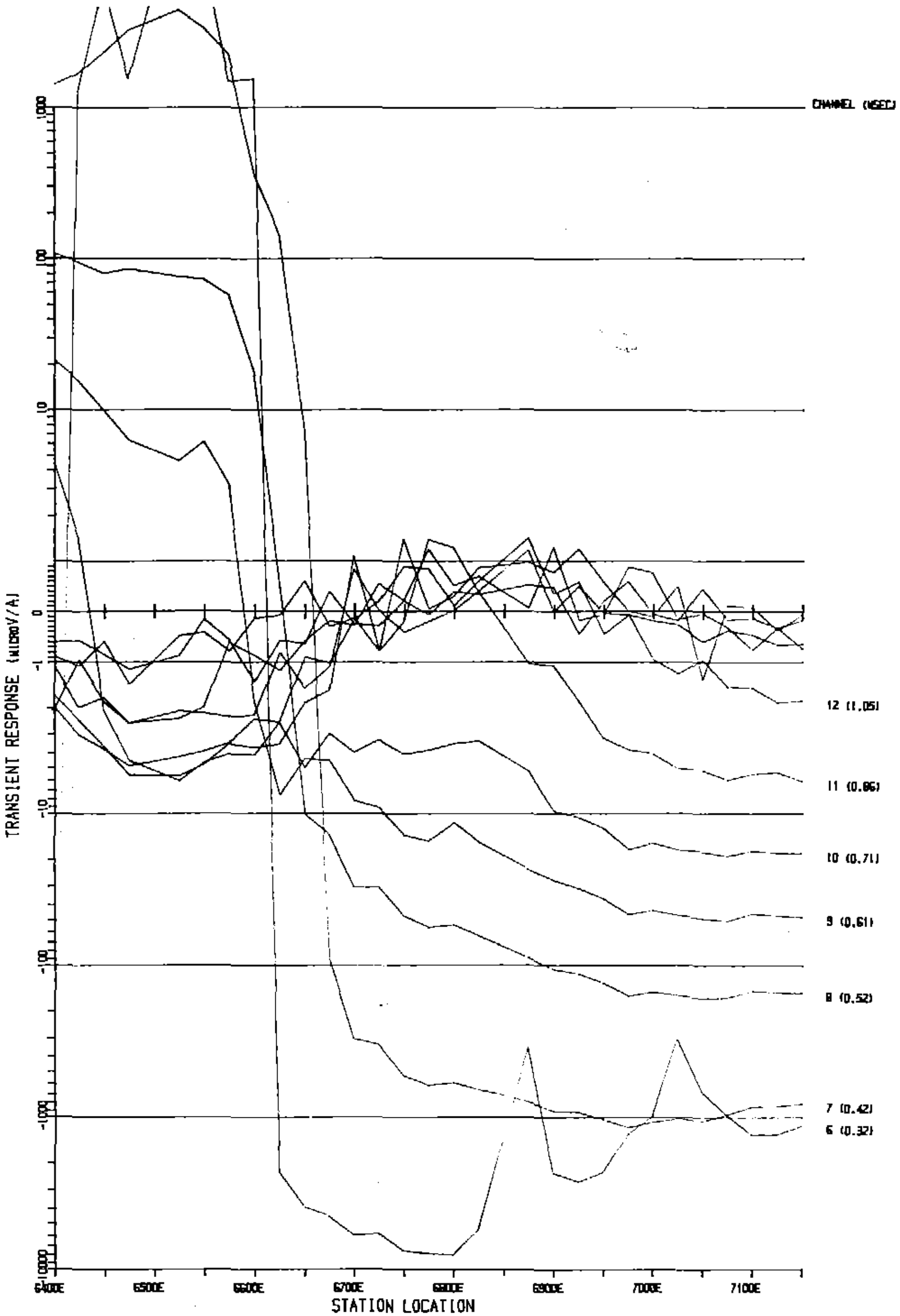
BHP EXPLORATION

TASMANIA
MOUNT BLOCK
SIROTEM PROFILE
LINE 4000N Z WEST LOOP

SCALE - 1:5000

283

767284



SURVEY SPECIFICATIONS

SURVEY DATE	:	MARCH 1988
CONFIGURATION	:	600M SQUARE TRANSMITTER LOOP, TURAM MODE (RVR) SURVEY
READING INT.	:	60 METRES
NO. OF STACKS	:	2048
TRANSMITTER	:	MEDIUM POWER
RECEIVER	:	SIROTEM II S/N 1236
CURRENT	:	10.2 AMPS
OPERATOR	:	P McSKIMMING

PLOT SPECIFICATIONS

HORIZONTAL SCALE	-	1:5000
VERTICAL SCALE	-	LOGARITHMIC 3CM. PER DECADE LINEAR BETWEEN -1 AND +1

5 cm

BHP EXPLORATION

TASMANIA

MOUNT BLOCK

SIROTEM PROFILE

LINE 4000N X WEST LOOP

SCALE - 1:5000

284

767285

APPENDIX 3

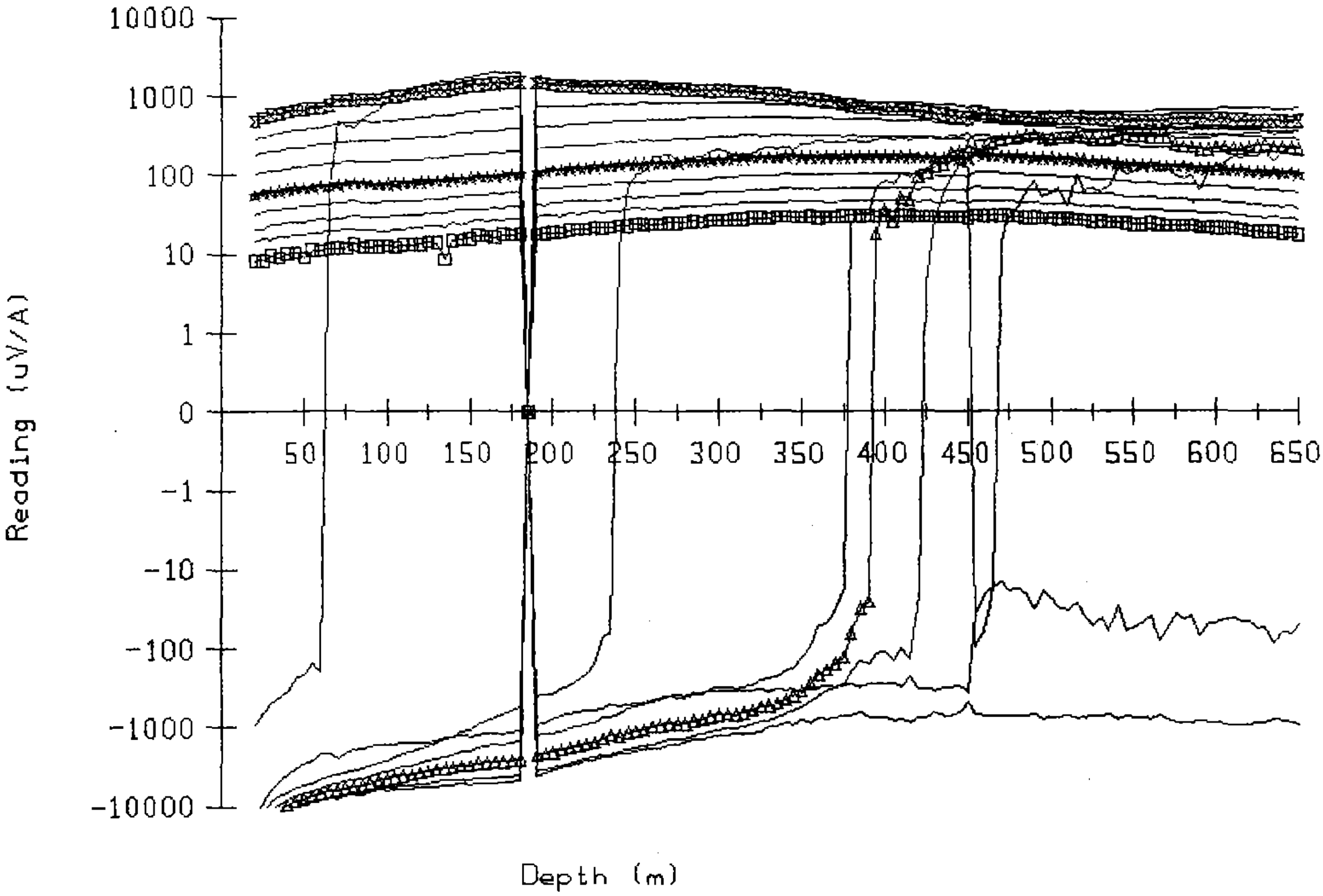
Sirotem Downhole Survey Profiles

767287

DOWNHOLE SIROTEM SURVEY

PROSPECT : High Point
DRILLHOLE : DDH HP1
LOOP NO. : LOOP 14

EARLY TIME
CHANNELS 1-16



PLOTTING SYMBOLS

△ Channel 4

⧗ Channel 8

☆ Channel 12

□ Channel 16

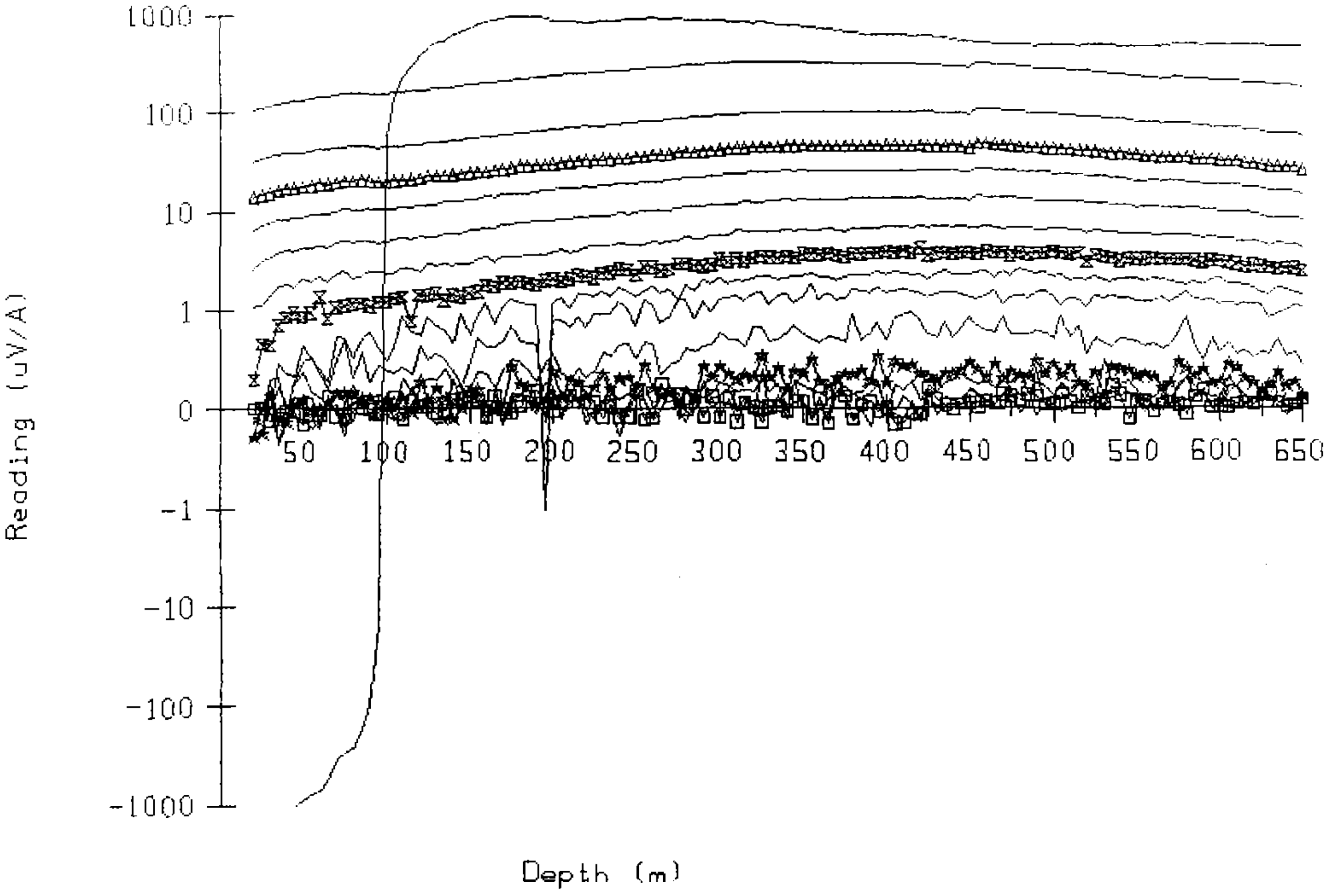
287

767288

DOWNHOLE SIROTEM SURVEY

PROSPECT : High Point
DRILLHOLE : DDH HP1
LOOP NO. : LOOP 14

STANDARD TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

⧗ Channel 8

☆ Channel 12

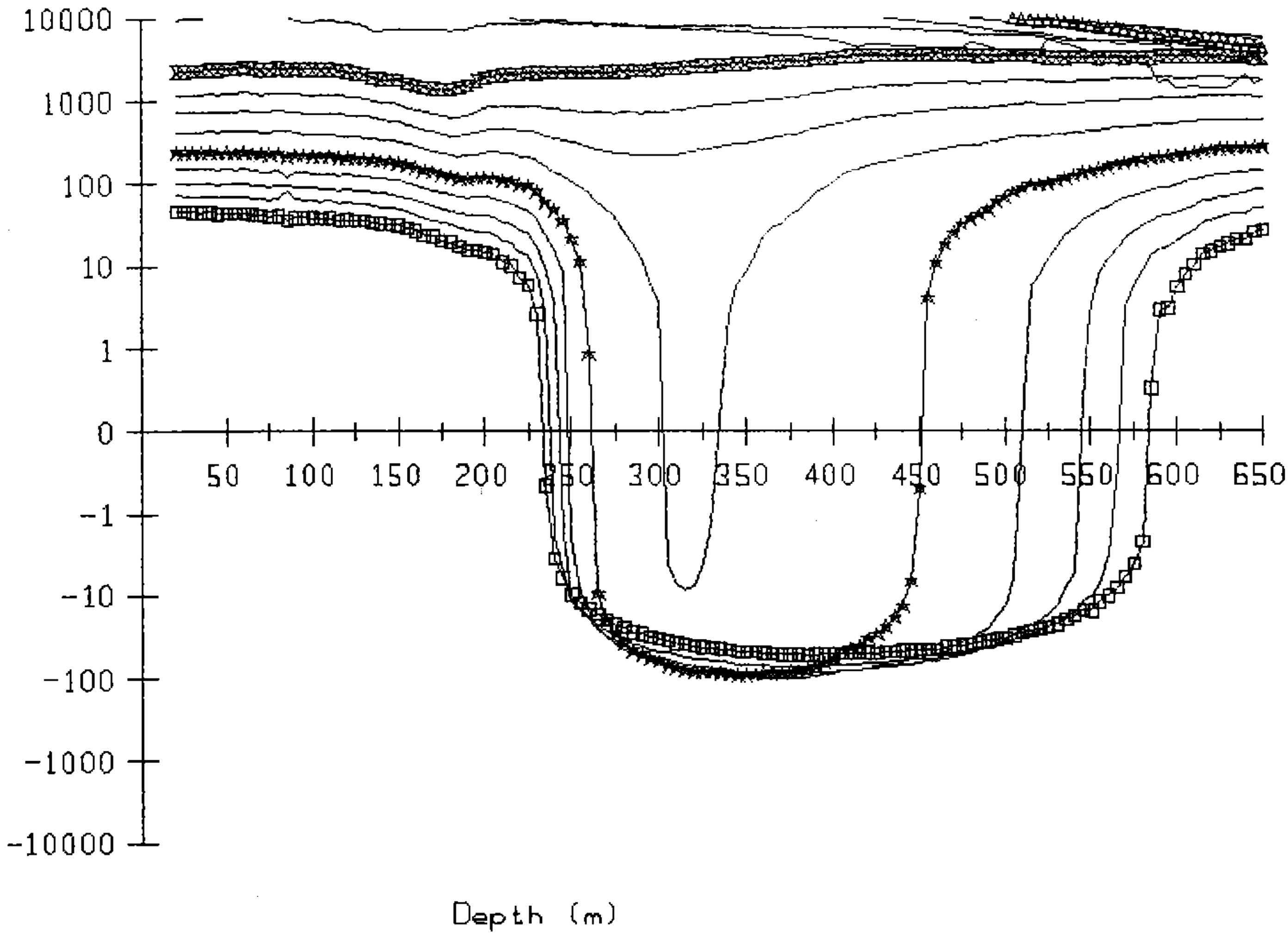
□ Channel 16

DOWNHOLE SIROTEM SURVEY

767289

PROSPECT : High Point
DRILLHOLE : DDH HP1
LOOP NO. : LOOP 15

EARLY TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

⧗ Channel 8

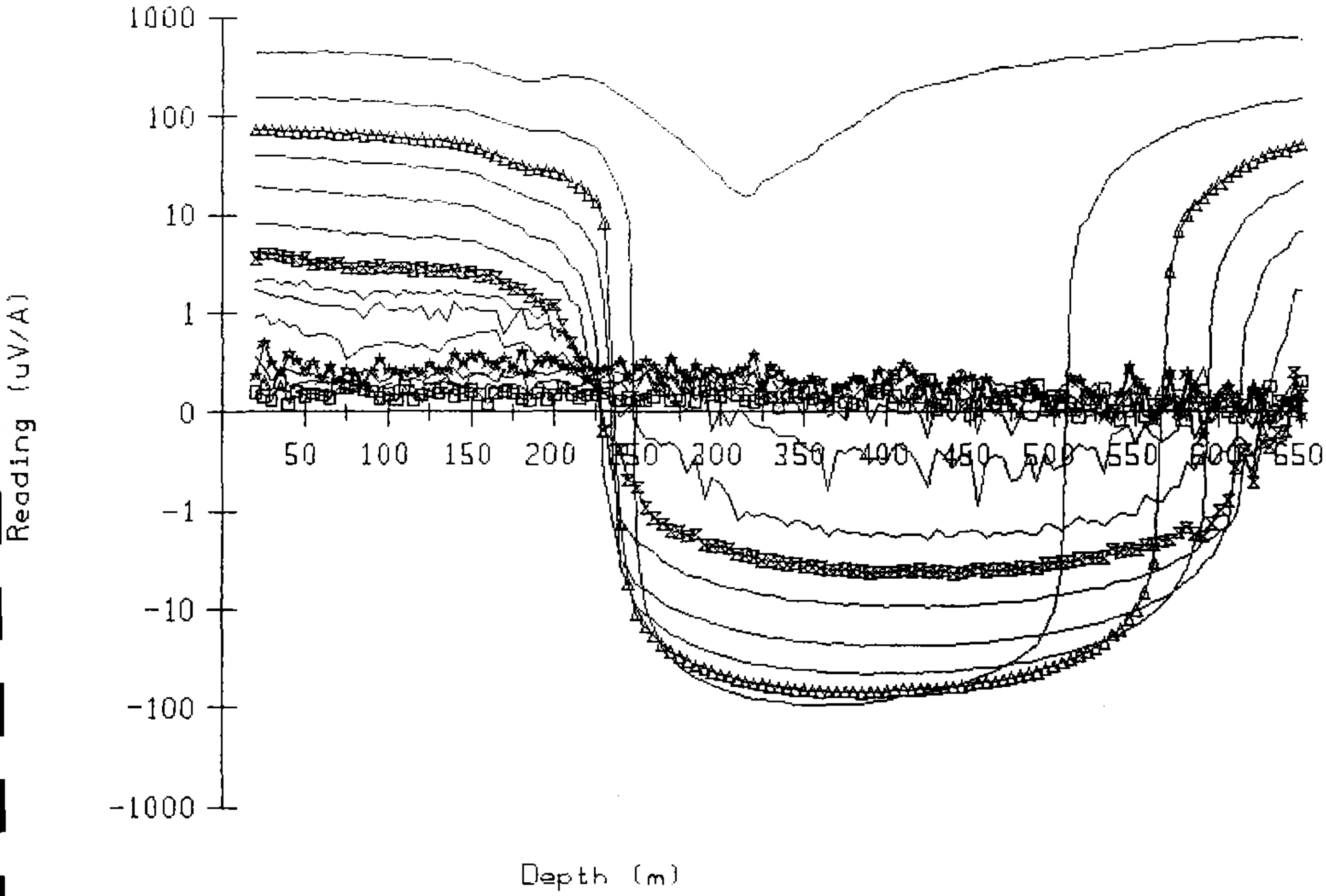
✱ Channel 12

□ Channel 16

DOWNHOLE SIROTEM SURVEY

PROSPECT : High Point
DRILLHOLE : DDH HP1
LOOP NO. : LOOP 15

STANDARD TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

⧗ Channel 8

✫ Channel 12

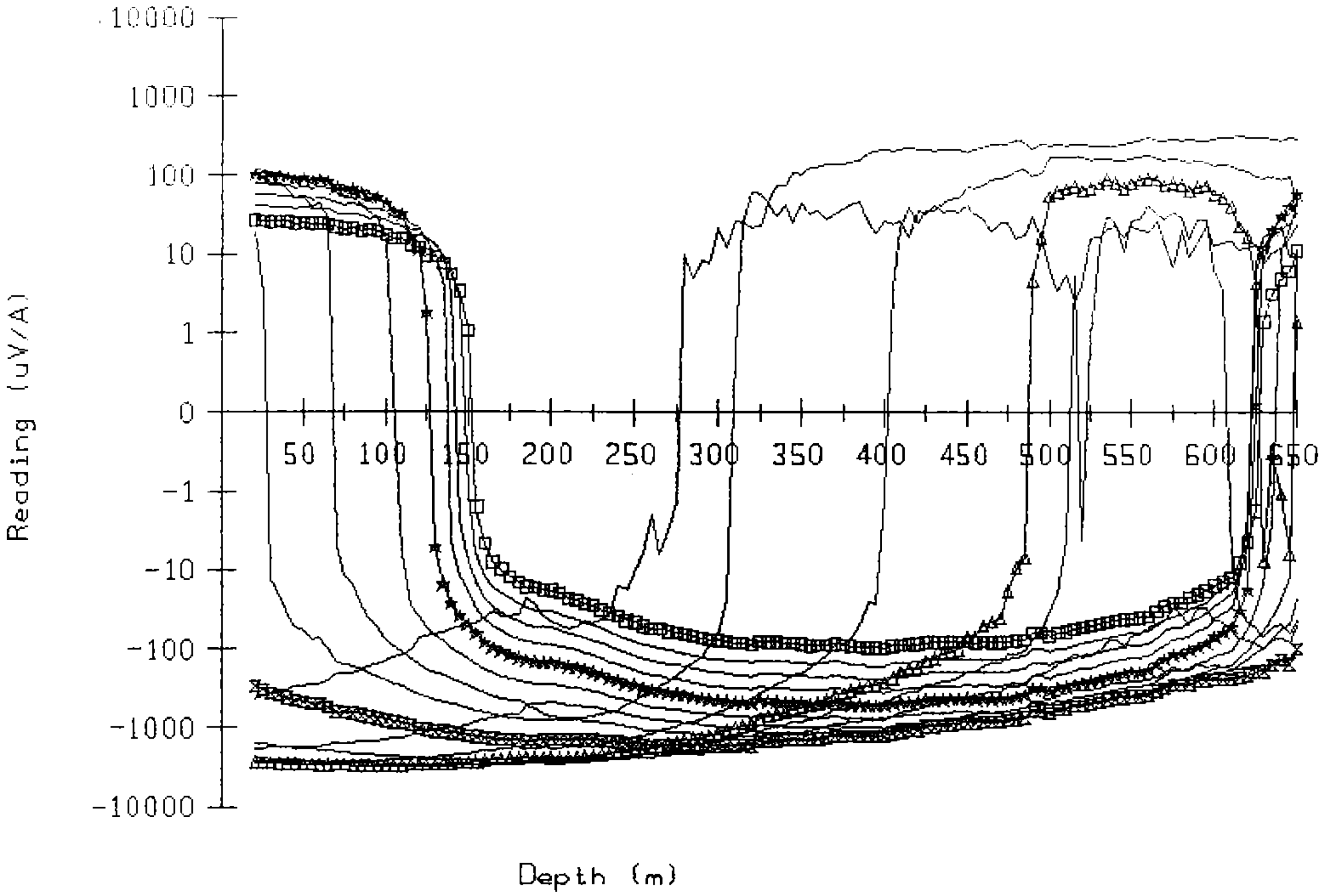
□ Channel 16

767291

DOWNHOLE SIROTEM SURVEY

PROSPECT : High Point
DRILLHOLE : DDH HP1
LOOP NO. : LOOP 16

EARLY TIME
CHANNELS 1-16



PLOTTING SYMBOLS

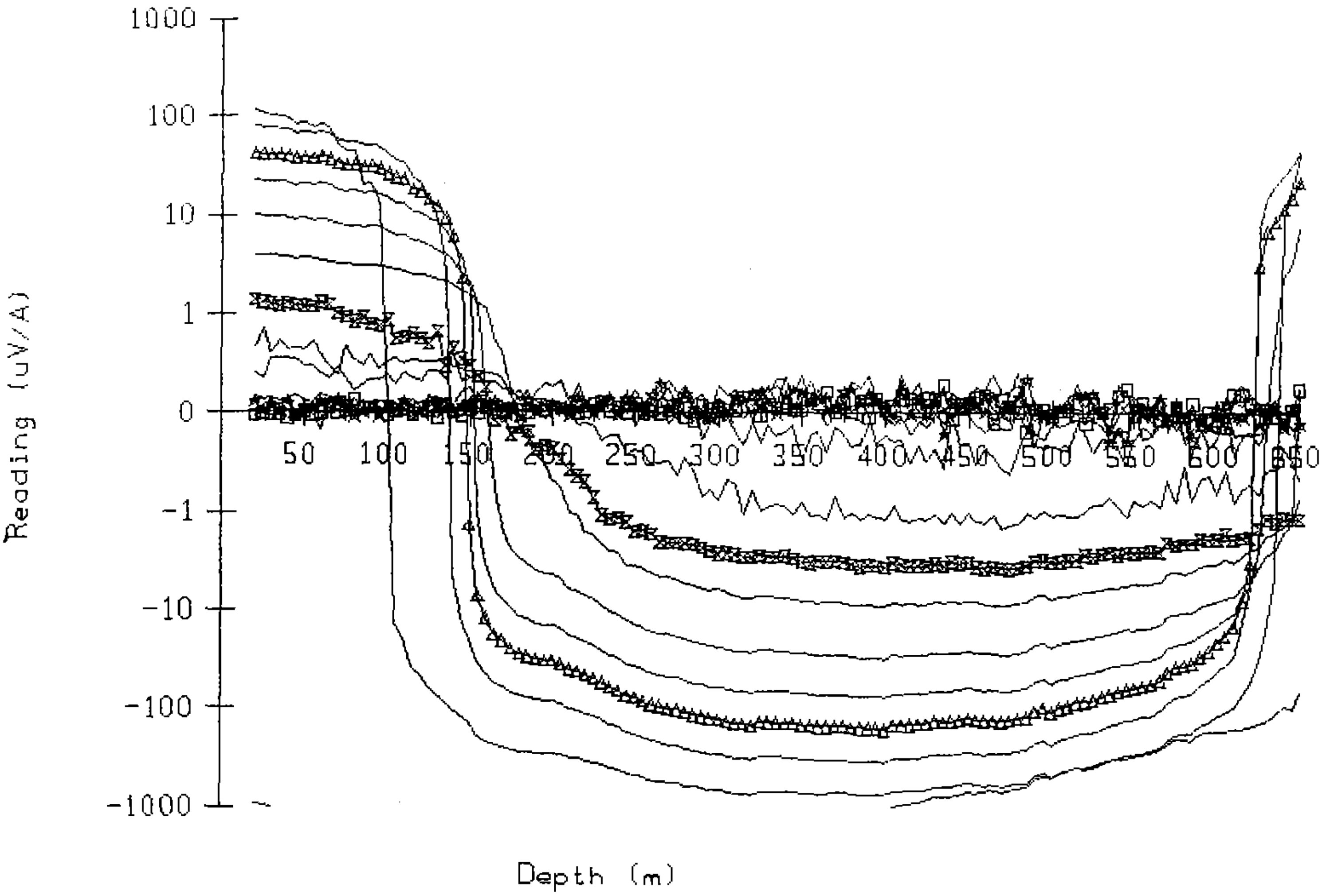
- Δ Channel 4
- X Channel 8
- ☆ Channel 12
- □ Channel 16

767292

DOWNHOLE SIROTEM SURVEY

PROSPECT : High Point
DRILLHOLE : DDH HP1
LOOP NO. : LOOP 16

STANDARD TIME
CHANNELS 1-16



PLOTTING SYMBOLS

△ Channel 4

⧖ Channel 8

☆ Channel 12

□ Channel 16

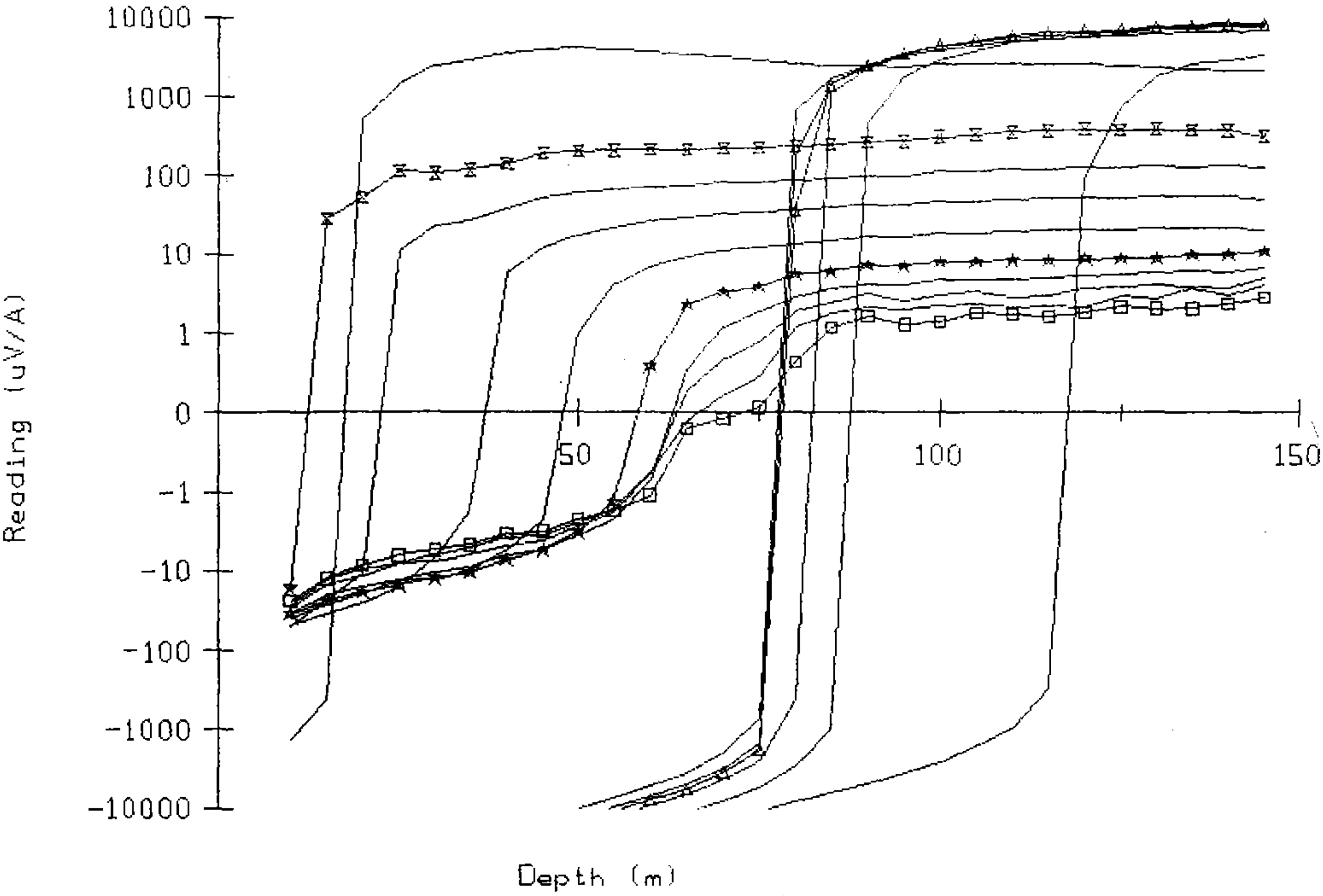
292

767293

DOWNHOLE SIROTEM SURVEY

PROSPECT : Sock Creek South
DRILLHOLE : DDH SCS2
LOOP NO. : LOOP 1

EARLY TIME
CHANNELS 1-16



PLOTTING SYMBOLS

△ Channel 4

⧗ Channel 8

★ Channel 12

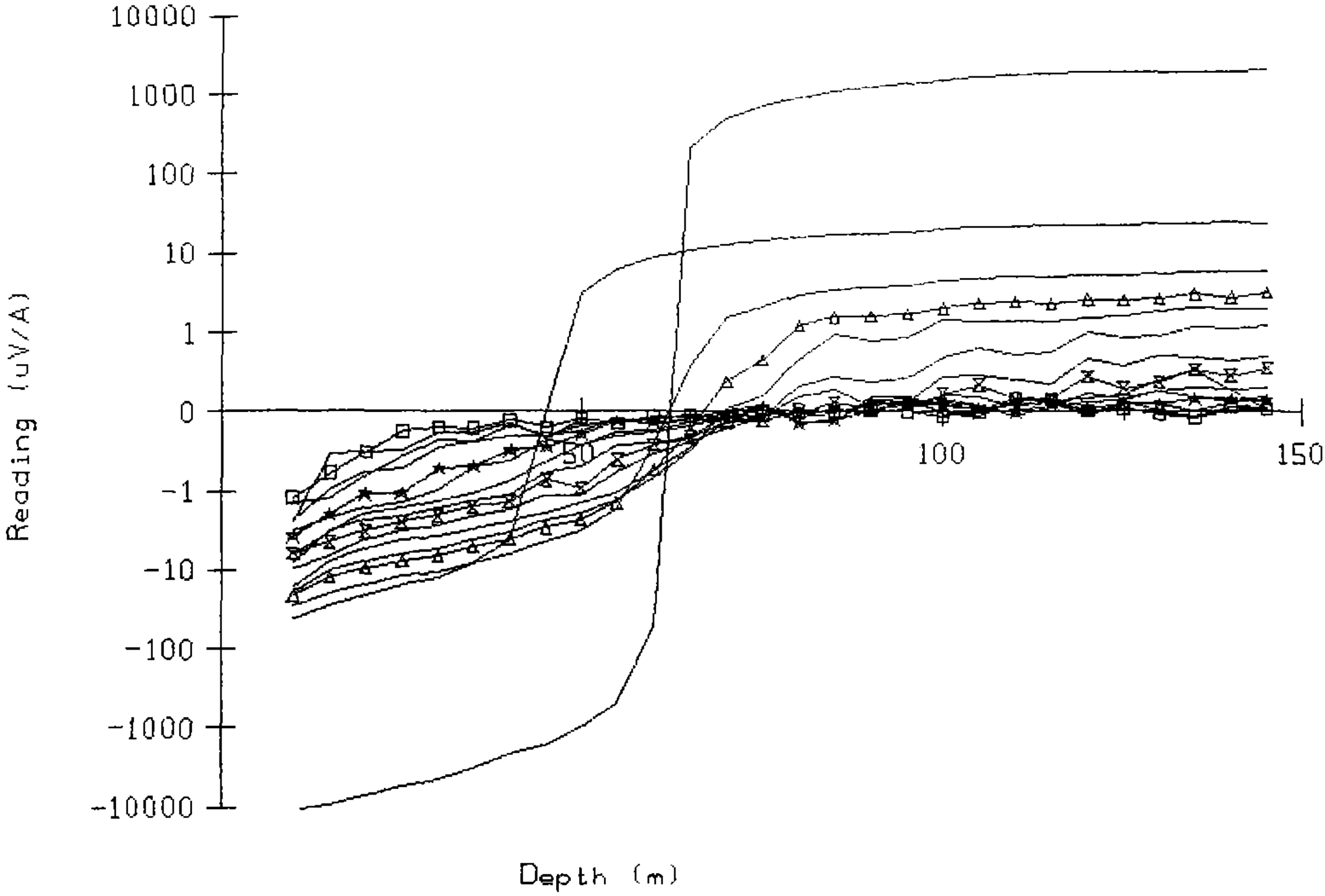
□ Channel 16

DOWNHOLE SIROTEM SURVEY

767294

PROSPECT : Sock Creek South
DRILLHOLE : DDH SCS2
LOOP NO. : LOOP 1

STANDARD TIME
CHANNELS 1-16



PLOTTING SYMBOLS

△ Channel 4

⧗ Channel 8

★ Channel 12

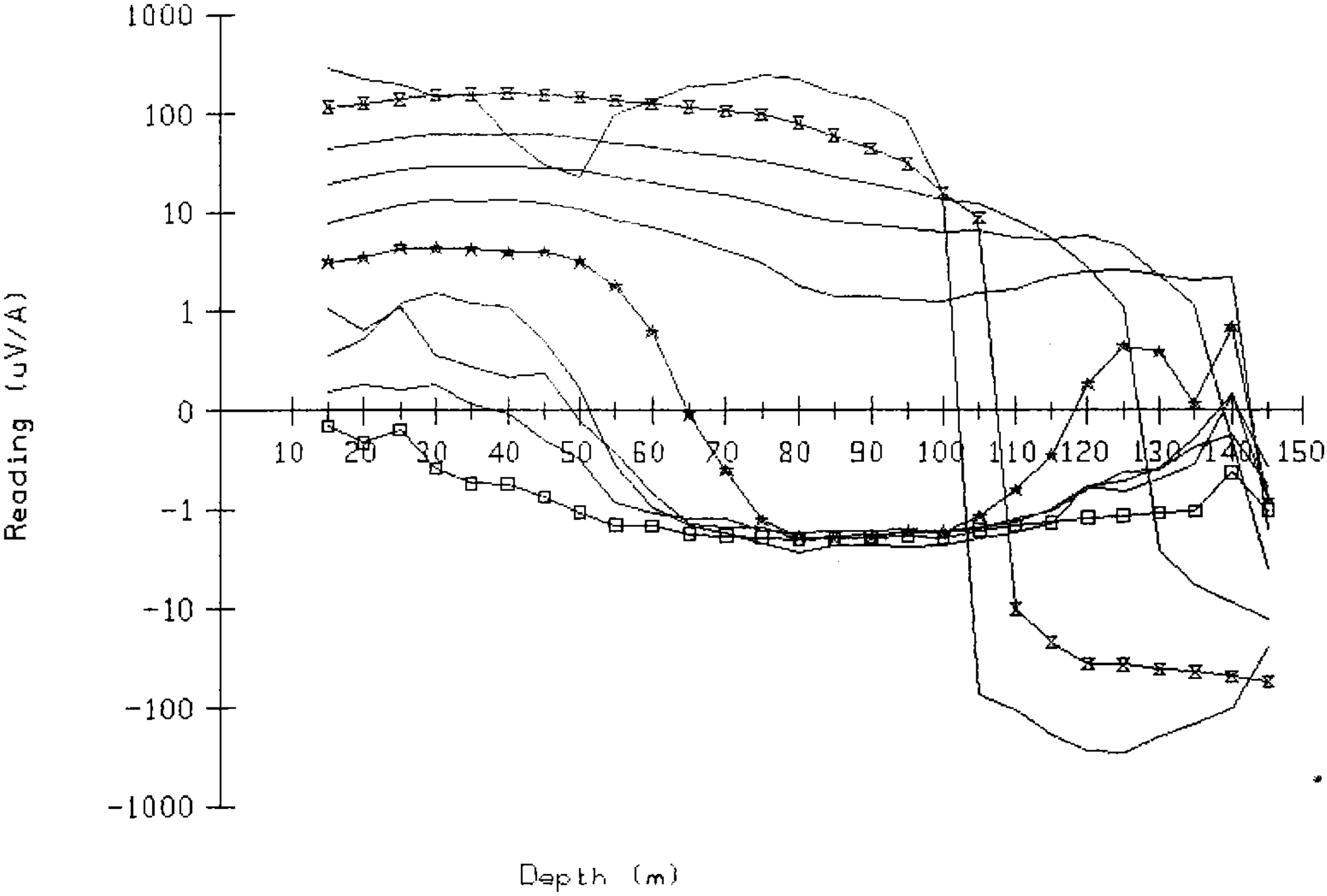
□ Channel 16

DOWNHOLE SIROTEM SURVEY

767295

PROSPECT : Sock Creek South
DRILLHOLE : DDH SCS2
LOOP NO. : LOOP 2

EARLY TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

X Channel 8

☆ Channel 12

□ Channel 16

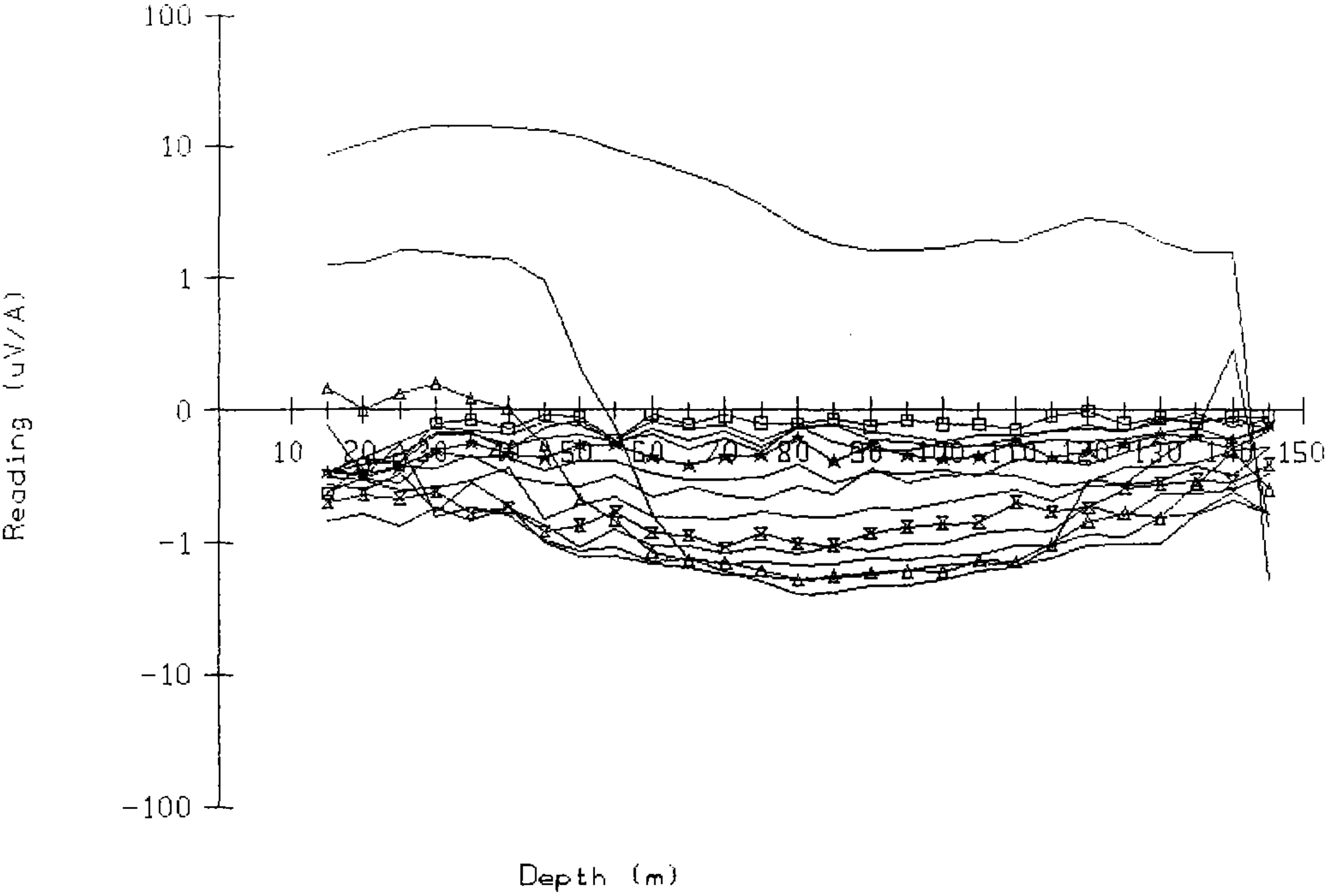
295

DOWNHOLE SIROTEM SURVEY

767296

PROSPECT : Sock Creek South
DRILLHOLE : DDH SCS2
LOOP NO. : LOOP 2

STANDARD TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

⧖ Channel 8

✯ Channel 12

□ Channel 16

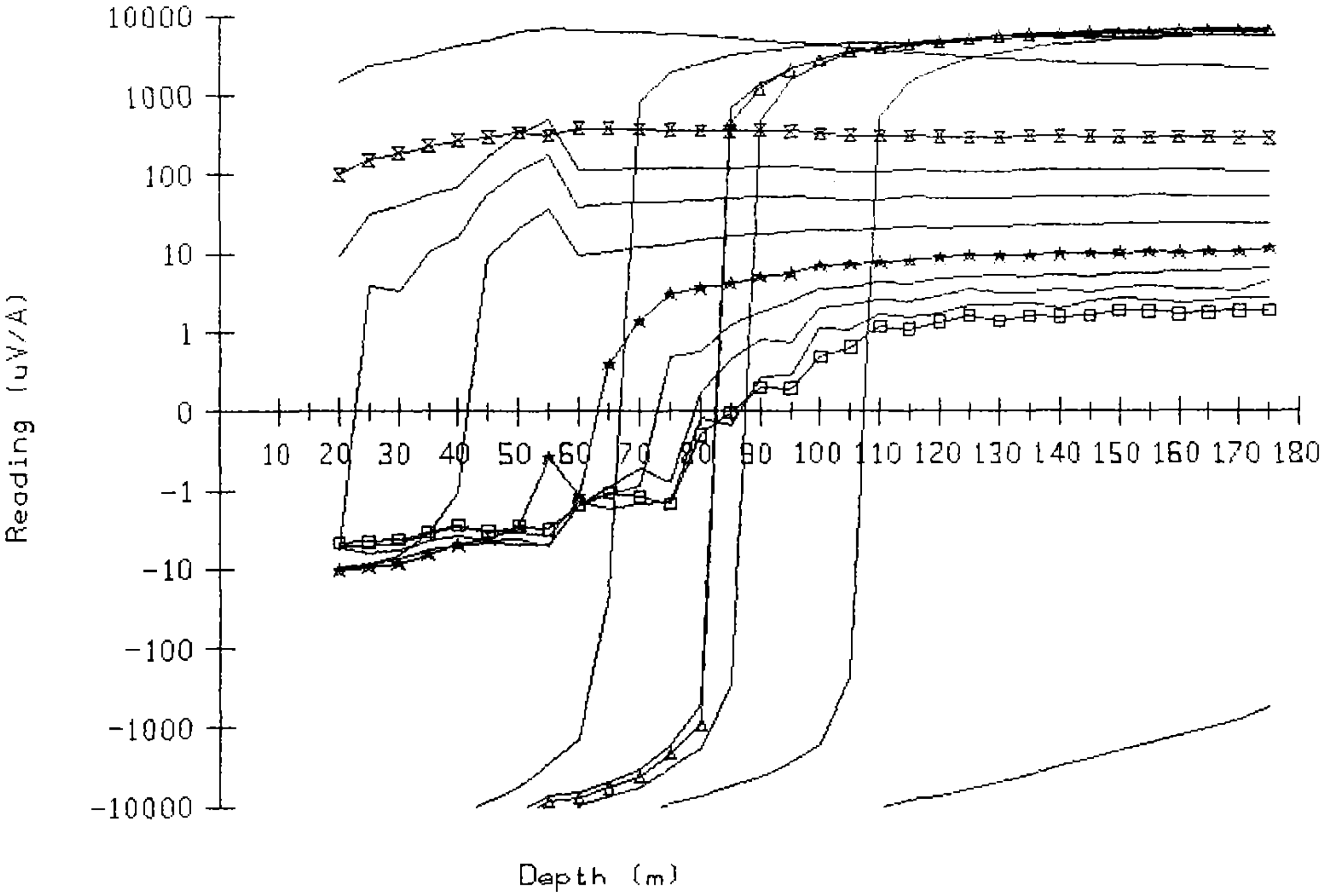
290

767297

DOWNHOLE SIROTEM SURVEY

PROSPECT : Sock Creek South
DRILLHOLE : DDH SCS3
LOOP NO. : LOOP 1

EARLY TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

X Channel 8

☆ Channel 12

□ Channel 16

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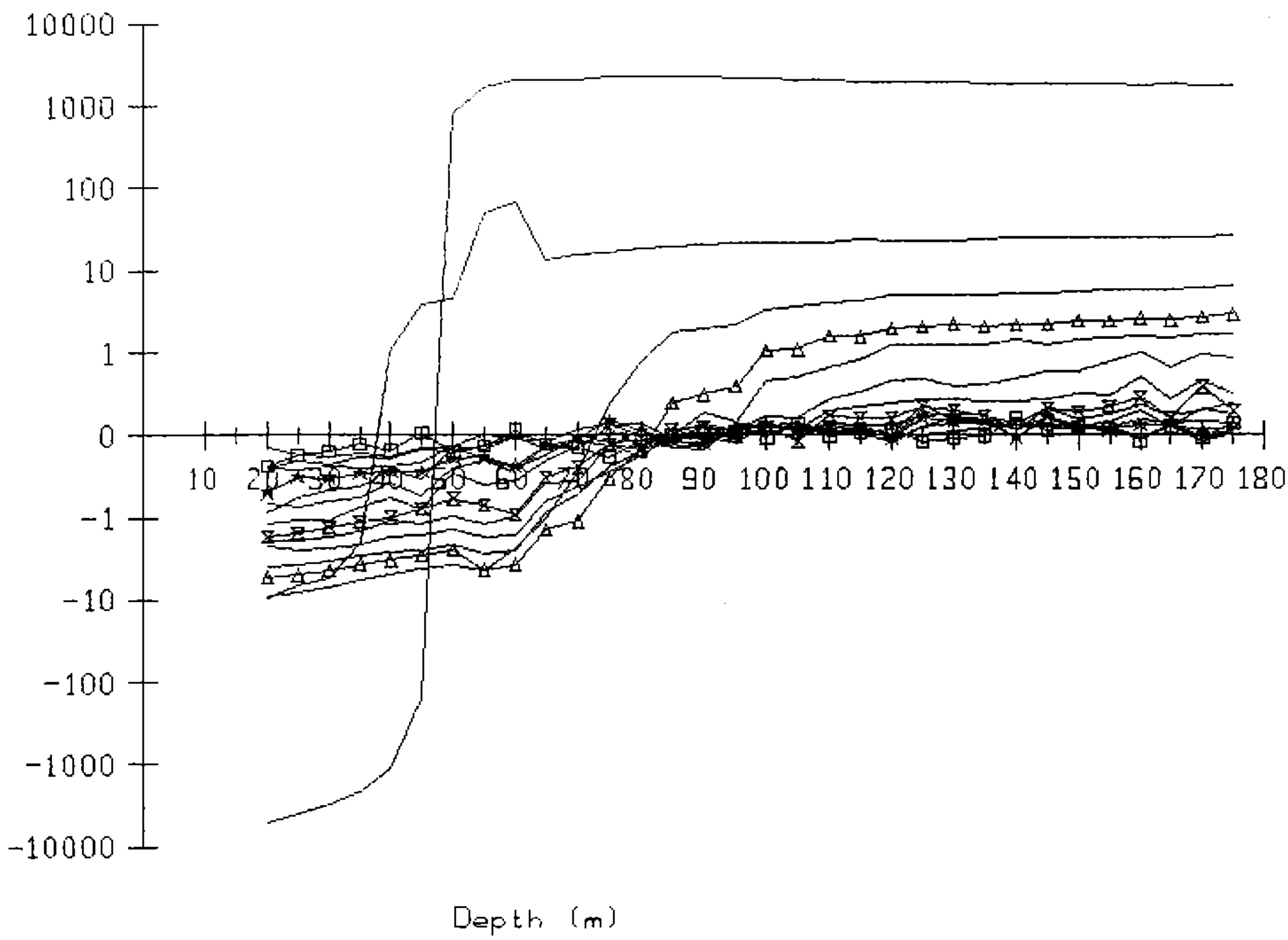
DOWNHOLE SIROTEM SURVEY

PROSPECT : Sock Creek South
DRILLHOLE : DDH SCS3
LOOP NO. : LOOP 1

STANDARD TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

X Channel 8

✱ Channel 12

□ Channel 16

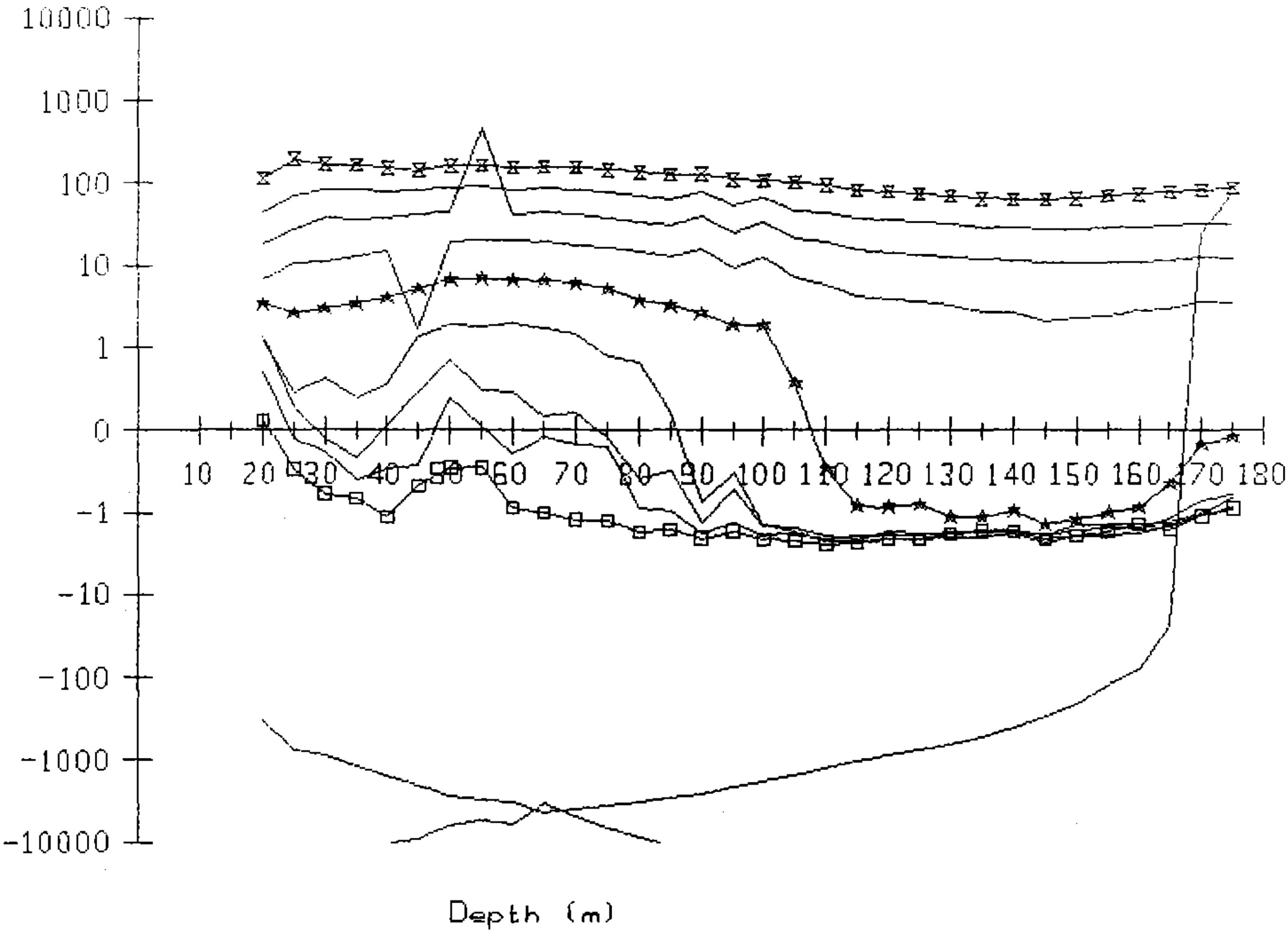
767299

298

DOWNHOLE SIROTEM SURVEY

PROSPECT : Sock Creek South
DRILLHOLE : DDH SCS3
LOOP NO. : LOOP 2

EARLY TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

⧗ Channel 8

☆ Channel 12

□ Channel 16

DOWNHOLE SIROTEM SURVEY

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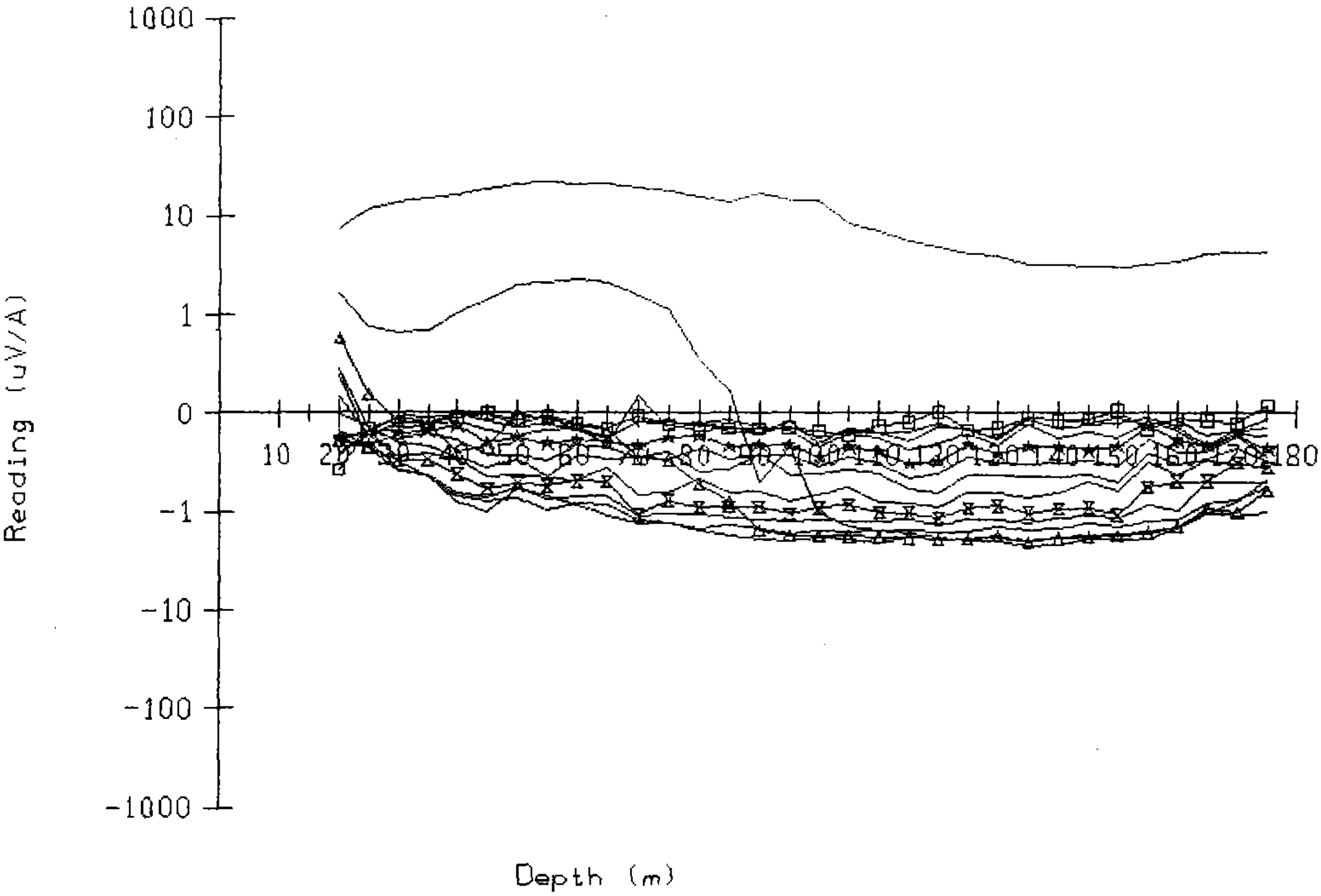
PROSPECT : Sock Creek South
DRILLHOLE : DDH SCS3
LOOP NO. : LOOP 2

STANDARD TIME
CHANNELS 1-16



PLOTTING SYMBOLS

Δ Channel 4

⧗ Channel 8

☆ Channel 12

□ Channel 16

APPENDIX 4

Rock Chip Sample Ledgers with Assay Results

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GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 1

TENEMENT EL 5/63

AREA/PROSPECT HIGH POINT SAMPLE No's. GEOLOGIST J.G. PURVIS DATE MARCH 1988

PLAN REFERENCE DESPATCH %N: 11170; 11171; ANALYSED BY ANALABS

Sample No.	LOCATION (LOCAL GRID)	Metal Content in ppm. Pb	Zn	Cu	Ag	Au	As		Geological observations
4401	7800N/3785E	<5	10	<5	<0.5	<.008	4		Float. Wkly limonite-stained vein qtz.
02	7800N/3810E	130	65	10	0.5	<.008	16		Float. Xtl-lithic tuff with limonite bxks.
03	7800N/3858E	40	390	10	1.0	<.008	200		-80 mesh soil. Limonite-impregnated
04	8000N/3527E	25	35	10	<0.5	<.008	32		-80 mesh stream sediment. Rock trap
4405	8000N/3705E	5	90	15	<0.5	0.008	7		o/c. Chloritic & wkly limonitic feld-qtz xtl tuff.
06	8000N/3715E	<5	150	5	<0.5	<.008	3		sub o/c. Dk grey shale. Minor limonite stains.
07	8000N/3869E	25	85	5	0.5	<.008	3		Float. Xtl-lithic tuff. Mod limonite stains.
4408	8000N/3962E	5	60	<5	<0.5	0.016	3		o/c. Feld-phyric volc c̄ minor limonite stains.
4423	7600N/3790E	95	165	15	1.5	<.008	34		o/c. Qtz-mica sst c̄ prominent lim stains
24	7600N/3790E	70	110	10	<0.5	<.008	19		o/c. Qtz sst, sl graphitic, c̄ minor py + gn?
4425	7600N/3790E	40	70	15	0.5	<.008	29		o/c. Qtz-feld-mica sst c̄ dissem py + gn?
26	7600N/3790E	190	185	20	<0.5	<.008	25		o/c. Vuggy qtz veins, limonitic.
27	7600N/3925E	50	75	30	1.0	<.008	46		o/c. Qtz-mica-lithic sst c̄ limonite bxks
28	7670N/3990E	835	900	70	1.5	0.014	40		o/c. Sheared black shale c̄ several % py.
29	On main hwy @ 7600N	45	150	35	1.0	0.015	37		o/c. Cherty grey shale c̄ py.
4430	On main hwy @ 7800N	165	65	85	1.0	<.008	60		o/c. Black shale c̄ 1-2% dissem py.
31	On main hwy @ 7500N	115	40	10	0.5	<.008	7		4m channel sample. Vuggy grey and
									black graphitic shales (Mt Charlotte Fault).
32	7600N/3815E	55	100	10	<0.5	<.008	15		Float. Altered limonite-stained breccia.
33	7810N/3500E	<5	5	10	<0.5	<.008	<1		o/c. Massive white qtz vein 0.5m wide.
34	8200N/3705E	25	70	5	0.5	<.008	1		o/c. Xtl-lithic tuff c̄ minor lim stains.
4435	8200N/3540E	45	230	5	<0.5	<.008	2		sub o/c. Silif xtl-lithic tuff c̄ prominent limoni[illegible]
36	8200N/3435E	105	70	5	<0.5	<.008	7		Float. Cherty siltst c̄ 1% dissem py.
37	8200N/3412E	15	35	10	<0.5	<.008	2		Sub o/c. Xtl-lithic tuff c̄ blk lithics. Minor lim
4438	8100N/3540E	<5	<5	5	<0.5	<.008	<1		Float. Vein qtz c̄ v. minor limonite stains

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GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 1

TENEMENT EL 5/63, COMSTAFF JV. 'WACKER' SAMPLING.

AREA/PROSPECT TULLABARDINE GORGE SAMPLE No's. GEOLOGIST D.P. WINDRIM DATE JAN 1988

PLAN REFERENCE DESPATCH ORDER Nº 14851 ANALYSED BY ANALABS.

Sample No.	LOCAL GRID *	Pb	Zn	Cu	Ag	Au (30gm F.A.)	As	Ba	DEPTH OF SAMPLE.	Geological observations (By N. Pollok)
		Metal Content in ppm.								
9748	85000N/84950E	30	75	10	<0·5	AU	9	1060	2·9m.	Fresh bedrock.
9749	" /84975E	25	100	5	<0·5	<·008	11	751	2·6m.	Fresh bedrock.
9750	" /85000E	70	165	10	<0·5	unless stated	7	1260	13m	Light tan weathered rock - scree.
9751	" /85025E	20	70	10	<0·5		5	665	3·4m.	Light tan clays + rock frags.
9752	" /85050E	30	70	5	<0·5		7	973	2·7m.	Fresh blue-grey bedrock.
9753	" /85075E	35	95	10	<0·5		10	846	1·8m.	Tan + red brown weathered rock.
9754	" /85100E	20	40	70	<0·5		19	1010	2·6m.	Blue-grey fresh bedrock.
9755	" /85125E	30	60	10	<0·5		16	1040	2·4m.	Tan + grey fresh bedrock.
9756	" /85150E	45	75	15	<0·5		38	394	2m.	Light tan fresh bedrock.
9757	" /85175E	35	55	15	<0·5		15	581	2·4m.	Tan + brown weathered rock.
9758	" /85200E	25	60	10	<0·5		8	1150	3m.	Light cream/tan fresh rock.
9759	" /85225E	50	125	15	<0·5		33	403	2·8m.	Light cream weathered rock.
9760	" /85250E	20	135	5	<0·5		7	788	4·3m.	Light khaki-tan weathered rock.
9761	" /85275E	15	110	15	<0·5		4	144	1·2m.	Light tan fresh rock.
9762	" /85300E	30	65	10	<0·5		9	496	2·5m.	Off-white fresh rock.
9763	" /85325E	35	60	10	<0·5		7	496	1·9m.	" " " "
9764	" /85350E	30	60	10	<0·5		24	759	1·2m.	Light tan weathered rock.
9765	" /85375E	30	50	5	<0·5		14	412	1·8m.	Khaki-tan weathered rock.
9766	" /85400E	15	20	5	<0·5		8	321	1·4m.	Grey + light tan weathered rock.
9767	" /85425E	40	65	15	<0·5		18	621	1·6m.	" " " " "
9768	" /85450E	20	100	10	<0·5		11	617	1·0m.	Mottled tan + khaki-green weath rock.
9769	" /85475E	25	110	15	<0·5		15	322	1·0m.	" " " " "
9770	" /85500E	25	70	15	<0·5		5	584	1·2m.	" " " " " "
9771	" /85525E	15	70	10	<0·5		6	789	2·2m.	Tan, gritty weathered rock.
9772	" /85550E	15	50	5	<0·5	0.05	8	456	1·4m.	Floaters or bedrock?
9773	" /85575E	15	210	15	<0·5			902	3·2m.	Dark grey weath rock.
9774	" /85600E	20	90	10	<0·5			708	1·7m.	" " " "
9775	" /85625E	15	80	10	<0·5			778	1·2m.	Tan, gritty weathered rock.
9776	" /85650E	30	45	15	<0·5			299	1·6m.	Fawn + tan weathered rock.
9777	" /85675E	10	35	15	<0·5			343	1·0m.	" " " "
9778	" /85700E	20	35	5	<0·5			660	1·2m.	Light tan weathered rock.
9779	" /85725E	10	25	5	<0·5			840	1·5m.	Heavy scree cover - prob not bedrock.
9780	" /85775E	15	40	5	<0·5			1280	2·2m.	Light grey-green fresh rock (NB: No sample taken @ 85750)
9781	" /85800E	10	25	10	<0·5			1060	3·2m.	Light tan, gritty weathered rock.
9782	" /85850E	10	20	10	<0·5			613		Soil grab sample from roots of uprooted tree. (NB: No sample taken @ 85825)

* These eastings are 'new' co-ords used in first re-pegging attempt.

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GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 2

TENEMENT EL 5/63, COMSTAFF JV. 'WACKER' SAMPLING

AREA/PROSPECT TULLABARDINE GORGE SAMPLE No's. .... GEOLOGIST D.P. WINDRIM DATE JAN 1988

PLAN REFERENCE DESPATCH ORDER Nº 14851; ANALYSED BY ANALABS

Sample No.	LOCAL GRID	Pb	Zn	Cu	Ag	Au (30gm F.A.)	As	Ba	DEPTH OF SAMPLE	Geological observations (By N. Poltok)
		Metal Content in ppm.								
9783	85000N/85875E *	15	30	15	All	All	4	810	0.8m.	Heavy scree cover. Bedrock or floaters?
9784	" /85900E	5	20	5	<0.5 unless	<.008 unless	5	891	-	Rock chip across f/c.
9785	" /85925E	45	50	5	stated	stated.	6	891	2.4m.	Light tan, gritty weathered rock.
9786	" /85950E	20	25	5	↓	↓	3	611	1.4m.	Bedrock or scree?
9787	" /85975E	5	20	5			1	738	1.2m.	" " "
9788	" /86000E	<5	20	5		0.01	<1	817	0.8m.	" " "
9789	" /86025E	5	25	5			2	796	3.2m.	" " "
9790	" /86050E	5	35	5			3	869	1.4m.	Light tan gritty weathered rock.
	* These eastings are the 'new' co-ords used in the first re-pegging attempt.									
** Note:	The Pb, Zn, Ag values of samples 9811 – 9833 are from repeat analyses, due to spurious high Pb in initial results									
9791	84800N/86025E	<5	25	5			2	821	2.6m.	Tan + cream gritty weathered rock
9792	84800N/86000E	<5	50	5			4	781	3.0m.	Grey fresh rock?
9793	" /85975E	10	75	10			5	956	2.9m.	Tan + grey weathered rock.
9794	" /85950E	15	80	5	0.5		3	734	3.2m.	Light tan gritty weathered rock.
9795	" /85925E	5	55	5			4	871	2.4m.	" " " "
9796	" /85900E	25	80	20			8	543	1.7m.	" " " " "
9797	" /85875E	10	55	10			5	466	1.6m.	Light grey weathered rock.
9798	" /85850E	14	100	10			8	378	1.0m.	Tan + brown flecked weath. rock.
9799	" /85825E	10	40	10			4	442	1.6m.	Tan + brown weathered rock.
9800	" /85800E	20	95	10			6	418	1.3m.	Tan + khaki-grey weathered rock
9801	" /85775E	20	65	10			5	380	2.0m.	Cream + grey flecked weathered rock.
9802	" /85750E	25	35	5			2	345	3.2m.	Cream weathered rock.
9803	" /85725E	30	20	5			2	174	3.7m.	" " "
9804	" /85700E	15	175	5	0.5		1	645	1.4m.	" " "
9805	" /85675E	15	30	5			2	738	0.8m.	Tan + cream weathered rock.
9806	" /85650E	30	70	70			8	775	0.7m.	Cream fresh rock. Some overburden.
9807	" /85625E	30	110	125			8	767	1.8m.	Tan + grey sandy weath. rock c̄ limonite
9808	" /85600E	20	20	5			12	303	0.4m.	Heavy scree cover or bedrock??
9809	" /85575E	25	95	15			8	751	0.7m.	Dark khaki-green fresh rock.
9810	" /85550E	20	45	5	0.5		3	567	1.4m.	" " " "
9811	" /85525E	** 25	95 **	10			5	797	0.8m.	Bedrock or floaters??
9812	" /85500E	30	105	10			5	612	1.9m.	Tan flecked weath. rock c̄ grey pod.
9813	" /85475E	10	65	5			3	690	3.8m.	Grey + tan flecked weath. rock.
9814	" /85450E	15	70	10	1.5	0.06	3	813	1.8m.	Tan + light grey mottled weath. rock.
9815	" /85425E	20	90	5	1.0		5	819	1.6m.	Heavily cemented clays + rock frags.
9816	" /85425E	10	60	5	0.5		5	691	1.6m.	Repeat of above sample. Can't penetrate overburden.

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GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 3

TENEMENT EL 5/63, COMSTAFF JV. 'WACKER' SAMPLING.

AREA/PROSPECT TULLABARDINE GORGE SAMPLE No's. GEOLOGIST D.P. WINDRIM DATE Feb 1988

PLAN REFERENCE DESPATCH ORDER Nº 14851 ANALYSED BY ANALABS.

Sample No.	LOCAL GRID	Metal Content in ppm. Pb	Zn	Cu	Ag	Au (30gm F.A.)	As	Ba	DEPTH OF SAMPLE. Geological observations (By N. Poltek)
9817	84800N/85400E	5	75	5	2·5	All	11	1070	1·5m. Grey, green + tan, gritty weath rock.
9818	" /85375E	15	70	5	1·5	<·008 unless	8	536	1·6m. Khaki-green weathered rock.
9819	" /85350E	15	65	5	1·0	stated.	11	624	1·7m. " " " "
9820	" /85325E	15	80	10	1·5		3	773	4·0m. Tan + grey-green gritty weath rock.
9821	" /85300E	10	100	10	1·5		5	881	1·0m. Tan gritty weathered rock.
9822	" /85275E	10	70	10	1·0		4	720	0·9m. " " " "
9823	" /85250E	15	70	5	1·0		5	778	1·8m. Grey flecked weathered rock.
9824	" /85225E	30	115	15	1·5		5	525	1·5m. Khaki-green flecked weathered rock.
9825	" /85200E	35	130	5	1·0		9	503	1·0m. Limonitic brown + khaki-green w/roc
9826	" /85175E	40	105	10	<0·5		9	669	1·4m. " " " " "
9827	" /85150E	35	95	10	1·5		10	740	1·2m. " " " " "
9828	" /85125E	<5	55	<5	<0·5		1	186	1·3m. Grey weathered rock.
9829	" /85100E	5	65	5	0·5		2	561	1·5m. Floaters + gravels. Unable to penetrate.
9830	" /85075E	5	65	<5	1·0		3	619	1·2m. Tan + khaki flecked weath rock.
9831	" /85050E	5	10	<5	<0·5		1	172	1·2m. Grey gravels or bedrock?
9832	" /85025E	10	10	<5	<0·5		1	183	0·8m. " " " "
9833	" /85000E	5	65	<5	<0·5		3	217	1·0m. " " " "
9834	" /84975E	30	60	5	<0·5		6	682	1·5m. Tan weathered rock.
9835	" /84950E	<5	20	<5	<0·5		1	202	0·9m. " " "
9836	84600N/84950E	5	15	5	<0·5		1	418	0·7m. Grey fresh rock under glacials.
9837	" /84975E	<5	15	<5	<0·5		1	418	0·6m. " " " " "
9838	" /85000E	<5	35	5	<0·5		5	702	0·5m. As above, plus rock chip - 8/c?
9839	" /85025E	<5	10	<5	<0·5		1	208	0·7m. Grey fresh rock under glacials.
9840	" /85050E	20	35	10	<0·5		5	796	0·8m. Tan + brown fresh rock, under glacials
9841	" /85075E	15	15	5	<0·5		4	329	0·5m. Grey weathered rock, under glacials
9842	" /85100E	25	30	5	<0·5		7	511	0·7m. Tan + brown gritty weath rock, under gl
9843	" /85125E	60	55	10	<0·5		6	651	1·0m. Tan, gritty weathered rock.
9844	" /85150E	30	50	10	<0·5		9	655	1·2m. Tan + brown gritty weathered rock.
9845	" /85175E	50	425	10	<0·5		6	635	1·3m. Tan + cream gritty weathered rock.
9846	" /85200E	25	40	5	<0·5		9	737	1·4m. " " " " "
9847	" /85225E	40	40	10	<0·5		8	608	1·1m. Grey weathered rock?
9848	" /85250E	15	40	5	<0·5		3	706	1·0m. Fawn + grey weathered rock.
9849	" /85275E	15	45	5	<0·5		3	787	1·2m. Tan gritty weathered rock.
9850	" /85300E	15	245	5	<0·5		5	791	1·0m. Light tan gritty weath rock under glacials
9851	" /85325E	15	30	5	<0·5		1	922	1·2m. As above. Bedrock or floaters?
9852	" /85350E	20	30	5	<0·5		2	1170	2·3m. Pale grey-green weathered rock.

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GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 4

TENEMENT EL 5/63, COMSTAFF JV `WACKER' SAMPLING

AREA/PROSPECT TULLABARDINE GORGE SAMPLE No's. GEOLOGIST D.P. WINDRIM DATE FEB 1988.

PLAN REFERENCE DESPATCH ORDER Nº 14851 ANALYSED BY ANALABS

Sample No.	LOCAL GRID	Metal Content in ppm. Pb	Zn	Cu	Ag	Au	As	Ba	DEPTH OF SAMPLE. Geological observations (By N. Poltok)
9853	84600N/85375E	10	20	5	All <0.5	All <.008	2	668	1.3m. Tan + brown gritty weathered rock.
9854	" /85400E	35	40	10	unless stated	unless stated.	3	1180	2.2m. Olive green sandy weath rock.
9855	" /85425E	10	155	5			4	409	1.6m. Grey weath rock or floaters
9856	" /85450E	10	20	5			1	823	1.2m. Tan weath rock under glacial gravels
9857	" /85475E	15	20	5			2	703	1.4m. Tan flecked weathered rock.
9858	" /85500E	15	20	5			2	945	1.2m. Grey + tan gritty weath rock.
9859	" /85525E	5	15	5			2	879	0.8m. Light tan to cream gritty weath rock or floaters
9860	" /85550E	25	130	5			3	852	0.7m. As above.
9861	" /85580E	15	40	10			5	760	1.0m. As above.
9862	" /85600E	10	20	5			2	797	2.5m. Grey flecked weathered rock.
9863	" /85625E	15	40	5			2	707	1.6m. Grey flecked weathered rock.
9864	" /85650E	15	30	5			2	923	4.5m. Grey + light green gritty weath rock.
9865	" /85675E	20	75	10			8	884	2.8m. Blue-grey weathered rock.
9866	" /85700E	25	75	10			5	749	1.7m. Tan clays + rock frags - unable to penetrate
9867	" /85725E	25	80	10			10	630	6.2m. " " " " " " "
9868	" /85750E	25	100	10			14	741	2.9m. Grey fresh rock ?
9869	" /85775E	25	100	10			15	654	2.0m. Light grey-green fresh rock ?
9870	" /85800E	30	130	15			10	814	1.6m. Khaki-grey mottled weath rock ??
9871	" /85825E	25	85	15			8	734	2.4m. Tan + grey fresh rock or floaters ??
9872	" /85850E	25	135	10			9	685	2.5m. Khaki-green fresh rock.
9873	" /85875E	25	95	10			14	561	6.1m. Tan cemented clays + rock frags. Not bedrock
9874	" /85900E	30	130	15			11	495	1.5m. Soil. Unable to penetrate.
9875	" /85925E	20	135	15			9	505	1.5m. Above.
9876	" /85950E	15	85	10			6	710	3.8m. Tan/khaki weathered rock ?
9877	" /85975E	20	90	10			6	419	2.2m. Tan weathered rock ?
9878	" /86000E	20	85	10			8	768	4.5m. Khaki-green weathered rock ?
9879	800N/7450E	25	90	10			9	483	1.4m. Tan-brown gritty clays + rock frags.
9880	" /7425E	40	90	10			9	635	1.2m. Tan-grey weath rock?
9881	" /7400E	15	80	10			5	535	1.0m.
9882	" /7375E	20	45	10		0.04	5	559	1.6m. Creamy grey mottled weath rock ?
9883	" /7350E	15	70	5			4	610	1.4m. Mottled khaki-green weath rock ?
9884	" /7325E	20	60	10			7	814	1.8m. Mottled creamy-tan weath rock ?
9885	" /7300E	25	65	10			8	595	1.0m. Light tan flecked weath rock.
9886	" /7275E	20	55	5			8	857	1.4m. " " " " " ?
9887	" /7250E	10	15	5	0.5		1	416	2.2m. Cream weath rock c̄ tan staining.
9888	" /7225E	25	25	5	1.0		1	245	1.6m. As above.
9889	" /7200E	30	25	5			2	175	1.5m. Creamy weathered rock ?

767307

GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 1

TENEMENT 206 EL 5/63, COMSTAFF JV. 'WACKER' SAMPLING

AREA/PROSPECT TULLABARDINE GORGE SAMPLE No's. GEOLOGIST J.G. PURVIS DATE MARCH 198

PLAN REFERENCE DESPATCH Nº 11174. ANALYSED BY ANALABS.

Sample No.	LOCAL GRID	Metal Content in ppm. Pb	Zn	Cu	Ag	Au (30gm F.A.)	As	Sn / W	DEPTH OF SAMPLE. Geological observations (By N. Pollok)
9901	84900N/84950E	20	30	5	All <0.5	All <.008	8	<3 / <20	0.9m. Grey sandy soil + rock frags.
9902	" /84975E	5	5	5	unless stated	unless stated	1	<3 / <20	0.8m. " " " " " "
9903	" /85000E	10	5	5			1	4 / <20	1.0m. " " " " "
9904	" /85025E	<5	5	<5			1	3 / <20	0.8m. " " " " "
9905	" /85050E	5	5	<5	0.5		1	<3 / <20	1.0m. " " " " "
9906	" /85075E	<5	5	<5			1	<3 / <20	1.2m. " " " " "
9907	" /85100E	10	5	5			1	<3 / <20	1.0m. Grey-brown weath rock fragments.
9908	" /85125E	10	15	5			3	4 / <20	1.1m. " " " "
9909	" /85150E	<5	5	<5			1	3 / <20	0.8m. Light tan-grey weathered rock.
9910	" /85175E	10	5	<5			1	<3 / <20	1.0m. Grey-brown weathered rock?
9911	" /85200E	5	10	5			2	<3 / <20	0.9m. Tan, grey + brown weathered rock?
9912	" /85225E	10	20	5			3	<3 / <20	1.0m. Light green fresh rock.
9913	" /85250E	5	15	5			1	/	0.9m. " " " "
9914	" /85280E	5	10	5			<1	<3 / <20	1.4m. Bedrock or floaters? In floodplain of ck
9915	" /85300E	25	40	10	0.5		5	<3 / <20	1.8m. Tan clayey weath rock + green rock frags.
9916	" /85325E	20	40	10	0.5		6	6 / <20	1.5m. Tan-grey flecked weathered rock?
9917	" /85350E	25	30	5			7	3 / <20	1.6m. Tan + red-brown clays + rock frags.
9918	" /85375E	35	40	5		0.01	6	3 / <20	1.2m. Khaki-green fresh rock.
9919	" /85400E	40	10	5			3	5 / <20	1.6m. Light brown weathered rock.
9920	" /85425E	15	40	5			2	5 / <20	2.0m. Grey + khaki-green weath rock?
9921	" /85450E	10	30	5	0.5		1	<3 / <20	1.6m. Tan-grey weathered rock.
9922	" /85475E	15	10	5	0.5		4	5 / <20	0.8m. " " " "
9923	" /85500E	5	20	5			1	<3 / <20	1.0m. Grey fresh rock.
9924	" /85525E	40	70	10	0.5		10	6 / <20	1.0m. Fawn-grey weathered rock.
9925	" /85550E	25	35	10	0.5		6	9 / <20	1.2m. " " " "
9926	" /85575E	25	10	5	0.5		8	4 / <20	0.3m. Grey fresh rock.
9927	" /85600E	10	15	5			4	6 / <20	0.5m. " " "
9928	84700N/85600E	15	25	25	0.5		2	<3 / <20	1.2m. Light khaki-grey weathered rock.
9929	" /85575E	15	45	20			4	7 / <20	0.7m. Grey weathered rock.
9930	" /85550E	20	40	15			1	5 / <20	2.3m. Tan-grey weathered rock.
9931	" /85525E	10	15	5	0.5		2	8 / <20	1.4m. Grey weathered rock.
9932	" /85500E	20	25	5			3	7 / <20	1.4m. Tan-brown weathered rock.
9933	" /85475E	20	20	5			2	<3 / <20	2.6m. Tan gritty clays + rock frags. Near creek
9934	" /85450E	10	20	5			2	3 / <20	0.9m. Tan weathered rock.
9935	" /85425E	10	10	5			<1	9 / <20	1.6m. Creamy-grey flecked weathered rock.
9936	" /85400E	15	55	10			<1	<3 / <20	1.2m. Grey-green flecked weathered rock.

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GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 2

TENEMENT EL 5/63, COMSTAFF JV. 'WACKER' SAMPLING

AREA/PROSPECT TULLABARDINE GORGE SAMPLE No's. GEOLOGIST J.G. PURVIS DATE MARCH 1988

PLAN REFERENCE DESPATCH N° 11174 ANALYSED BY ANALABS

Sample No.	LOCAL GRID	Pb	Zn	Cu	Ag	Au (30gm F.A.)	As	Sn / W	DEPTH OF SAMPLE. Geological observations (By N. Pollok)
		Metal Content in ppm.							
9937	84700N/85375E	15	25	5	All <0.5	All <.008	<1	6 / <20	0.9m. Creamy-grey flecked weath rock.
9938	" /85350E	10	20	5	unless stated	unless stated.	<1	3 / <20	5.2m. Creamy clayey gritty weath rock. New ch
9939	" /85325E	15	25	10		0.008	<1	<3 / <20	1.3m. Blue-grey weathered rock.
9940	" /85300E	10	15	5		0.01	<1	<3 / <20	3.7m. Light grey sandy weathered rock?
9941	" /85275E	15	30	10			3	6 / <20	1.2m. Grey, pink + buff, cemented clays?
9942	" /85250E	10	10	5			<1	4 / <20	1.0m. Fawn-grey weathered rock??
9943	" /85225E	30	40	10			3	3 / <20	1.8m. Tan + grey weath rock or cemented clays?
9944	" /85200E	20	55	15			1	7 / <20	0.8m. Tan + grey cemented clays?
9945	" /85175E	10	15	<5			1	3 / <20	0.9m. Tan + brown weathered rock?
9946	" /85150E	50	35	5	0.5		6	<3 / <20	0.7m. Tan weathered rock?
9947	" /85125E	25	50	10			8	6 / <20	1.4m. " " "
9948	" /85100E	5	20	5			2	6 / <20	0.4m. Grey soil.
9949	" /85075E	5	5	5			4	3 / <20	0.6m. Light tan weathered rock.
9950	" /85050E	<5	15	5			3		0.4m. Light tan + grey fresh rock + soil.
9951	" /85025E	20	25	5			8	<3 / <20	Rock chip - o/c: Over 1m.
9952	" /85000E	10	40	10			5	<3 / <20	Rock chip + soils.
9953	" /84975E	30	60	15			10	6 / <20	Rock chip over 5m. (o/c)
9954	" /84950E	30	25	5			9	<3 / <20	Grab sample of soil from upturned tree roots.
The following samples were taken to repeat sampling over the spurious 'lead anomaly' zone on 84800N									
9955	84800N/85100E	25	50	10	0.5		7	4 / <20	1.4m. Khaki grey soil + rock fragments.
9956	" /85125E	<5	10	5			1	3 / <20	0.9m. Grey weathered rock.
9957	" /85150E	30	45	10		0.008	6		1.0m. Tan weathered rock.
9958	" /85175E	20	15	5			5	6 / <20	1.0m. Tan-brown weathered rock.
9959	" /85200E	20	30	5			7	4 / <20	1.2m. Tan-brown weath rock + yellow + orange clays
9960	" /85225E	20	40	20			5	<3 / <20	1.4m. Tan weathered rock.
9961	" /85250E	10	30	10			1	<3 / <20	2.2m. Pale green flecked weath rock.
9962	" /85275E	10	25	15			4	<3 / <20	1.0m. Light tan flecked weathered rock.
9963	" /85300E	20	35	10	0.5		1	<3 / <20	0.8m. Pale brown weathered rock.
9964	" /85325E	15	35	5			1	4 / <20	1.2m. Khaki-green gritty weathered rock.
9965	" /85350E	15	15	5			2	<3 / <20	1.6m. Khaki-grey, flecked weathered rock.
9966	" /85375E	15	35	5			3	<3 / <20	1.5m. Creamy-grey flecked weathered rock.
9967	" /85400E	15	40	5			3	<3 / <20	2.0m. Khaki-grey, flecked weathered rock.
9968	" /85425E	10	20	5			2	5 / <20	1.1m. Light tan flecked weathered rock.
9969	" /85450E	5	25	10			1	<3 / <20	1.4m. Pale grey-green flecked weath rock.
9970	" /85475E	10	20	15			5	6 / <20	3.8m. Light tan flecked weath rock.
9971	" /85500E	25	55	10			3	4 / <20	1.4m. Light yellow tan flecked weath rock

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GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 3

TENEMENT EL 5/63, COMSTAFF JV. 'WACKER' SAMPLING

AREA/PROSPECT TULLABARDINE GORGE SAMPLE No's. GEOLOGIST J.G. PURVIS DATE MARCH 1988

PLAN REFERENCE DESPATCH Nº 11174 ANALYSED BY ANALABS

Sample No.	LOCAL GRID	Metal Content in ppm. Pb	Zn	Cu	Ag	Au (30gm F.A.)	As	Sn / W	DEPTH OF SAMPLE. Geological observations (By N. Poltok)
9972	84800N/85525E	20	20	5	<0·5	<·008	6	/	1·2m. Tan gritty weathered rock ?
9973	" /85550E	15	40	5	<0·5	<·008	5	7 / <20	1·4m. Tan + brown gritty weathered rock.

767310

3 9

GEOCHEMICAL ROCK SAMPLING LEDGER

Page No. 1

TENEMENT EL 5/63 - COMSTAFF JV.

AREA/PROSPECT MT BLOCK SAMPLE No's. DESPATCH O/N 11170. GEOLOGIST J.G. PURVIS DATE FEB 1988

PLAN REFERENCE EXAMINATION OF UTEM ANOMALIES 'D' + 'E'. ANALYSED BY ANALABS

Sample No.	LOCAL GRID	Metal Content in ppm.							Geological observations
		Pb	Zn	Cu	Ag	Au	As		
4414	4080N/6675E	10	35	10	<0·5	<·008	2		o/c: Silif dacitic lava c̄ minor veinlets of py.
4415	4000N/6575E	15	15	<5	<0·5	<·008	6		o/c: Pldb dacite lava c̄ minor limonite bxwks
4416	4000N/7010E	<5	60	<5	<0·5	<·008	1		Float: Dacite lava (?) c̄ limonite bxwks.
4417	3600N/6870E	<5	10	<5	1·0	<·008	<1		o/c: 100mm qtz vein c̄ minor limonitic clay
4418	3600N/6900E	5		<5	<0·5	<·008	<1		10m chip: sheared + sericitic volcs c̄ limonite stains

APPENDIX 5

Diamond Drill Logs with Assay Summaries

HOLE NO.:	HP 1
STATE	: TASMANIA

DRILL CORE RECORD

PROJECT	EL 5/63
DESIGNED BY	D. WINDRIM
LOGGED BY	J.G. PURVIS
COMMENCED	22·2·88
COMPLETED	28·4·88

PURPOSE

TO TEST QUE RIVER VOLCANIC SEQUENCE ADJACENT TO MT CHARTER FAULT, AND UTEM ANOMALY CENTERED BENEATH 7800N/3800E.

LOG SUMMARY

SUMMARY LOG ONLY.

GENERAL COMMENTS

HOLE ENCOUNTERED WIDESPREAD DISSEMINATED SPHALERITE AND GALENA MINERALISATION IN PYRITISED MAFIC VOLCANICLASTIC

ASSAY SUMMARY

INTERVAL From	INTERVAL To	Pb	Zn	Ag	Au	Cu								COMMENTS
170·5	189m	200	4620	<1	<0·02	<100								GRAPHITIC SHALE.
375	630m	700	2100	<1	<0·02	<100								MAFIC VOLCANICLASTIC SEQUENCE.
incl:														
409	415·65m	3235	5495	<1	<0·02	<100								" " "
594·7	605·5m	1620	3035	<1	0·04	<100								" " "
269	271m	26	340	<1	3·8	<100								" " "

LOCATION

NORTHING	5392492
EASTING	387879
R.L.	655·8m
GRID	AMG
LENGTH	666·6m

HOLE CONDITION

SIZE

Hole Size	Depth
HW	35m
HQ	186m
NQ	594·7m
BQ	666·6m

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost
0	165m	

POOR GROUND CONDITION ZONES

From	To	Condition
0	215m	Highly broken with numerous shears and occassional major faults. Much core loss in places.

HOLE CONDITIONS AFTER COMPLETION

50m ID PVC CASING PLACED TO APPROX 654m.

3m STEEL STEMPIPE WITH CAP PLACED IN TOP OF HOLE.

HOLE RUNNING WATER.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type) = MAGNETIC

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D Sin Dip	VERTICAL R.L.	HORIZONTAL D Cos Dip	HORIZONTAL Prog Total
Collar	121°	-51°30'							
33m	122°30'	-52°30'							
59m	121°30'	-53°							
90m	119°30'	-53°15'							
128m	119°	-54°							
156m	117°30'	-54°30'							
198m	118°30'	-54°30'							
226m	119°30'	-54°							
263m	122°30'	-51°							
290m	122°15'	-50°40'							
330m	121°30'	-50°							
370m	122°30'	-49°							
398m	122°15'	-48°30'							
433m	122°30'	-48°							
463m	123°	-47°30'							
493m	122°30'	-47°15'							
534m	123°30'	-46°45'							
575m	123°	-46°							
620m	123°	-44°							
660m	123°	-42°30'							

312

PROJECT: HIGH POINT, EL5/63 DRILL CORE LOG AND ASSAY DATA HOLE NUMBER: HP 1 Page: 2

INTERVAL (m) From	To	RECOVERY m	%	DESCRIPTION	Sample No	From	To	Rec. %	ASSAY DATA
				SUMMARY LOG					ASSAY RESULTS SHOWN ON ATTACHED SHEETS.
0	16·6			QUARTZ-MICA SANDSTONE					
				Partly carbonaceous. Scattered clayey andesite clasts.					
				Highly broken with clayey faults.					
				Average pyrite content <1%, locally 2-3% in faults.					
16·6	58·4			BLACK SHALE					
				Partly graphitic. Highly broken with occ strong faults & shears.	DUNDAS GROUP SEDIMENTS.				
				16·6 – 24m: 1-3% py.					
				24 — 49m: 3-5% py. Dissem and on fractures. Some bedded.					
				49 — 58·4m: 2-3% py. Minor sp-gn.					
58·4	83·4			INTERBEDDED BLACK SHALE AND QUARTZ-MICA SANDSTONE					
				Both rock types carbonaceous and partly graphitic.					
				Badly broken by shearing and fracturing. Major fault @					
				63·4 – 65·6m with weathered mafic dyke. Numerous qtz veins.					
				1-2% py except: 70·8 — 78·5m: 5-7% py - most in thin massive beds.					
83·4	139·1			QUARTZO-FELDSPATHIC SANDSTONE WITH BANDS OF					
				ANDESITIC VOLCANIC BRECCIAS					
				Lesser shale.					
				MAJOR ZONES OF FAULT BRECCIA, esp 94·3 — 116m. This					
				faulting sub // to LCA. Rock highly broken and shattered.					
				All deformation probably caused by single major fault // LCA. ←	MT CHARTER FAULT.				
				Minor to 2% py, except: 99·9 – 103·1m: 3-5% py.					
				114·8 – 116m: 2-3% cp-py.					
139·1	156·0			BRECCIA WITH FELDSPAR CRYSTAL-LITHIC TUFF MATRIX	UPPER EPICLASTIC SEQUENCE ?				
				Sericitised andesitic volcanic clasts. Some black shale matrix.					
				Locally silicified. Broken in places.					
				1-2% py					
156·0	165·2			BRECCIA WITH GRAPHITIC SHALE MATRIX					
				Clasts of quartz-graphite-mica sandstone > andesitic lavas					
				and tuffs in matrix with deformed bedding.					

76313

PROJECT:

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: HP 1 Page: 3

Interval From	Interval To	Recovery m	Recovery %	Description	Assay data (Sample No / From / To / Rec. %)
				2-3% py.	
165.2	213			GRAPHITIC SHALE Brecciated. Abundant quartz ± sulphide veinlets 165.2 – 185.25m: 2-3% py, sp > gn. 188.6 – 198m: 5-7% py, mainly in thin semi-massive beds. 202.3 – 210m: 10% py, mainly bedded. Elsewhere 1-2% py.	QUE RIVER SHALE
213	281.4			MAFIC VOLCANICLASTICS Polymict breccias of variable character from hyaloclastites to slightly reworked epiclastics with tuff-sed or cherty matrix. Predominant clast type: partly amygdaloidal mafic lavas. Highly carbonatised, weak-mod chlor, local silif of matrix. 1-5% py, minor sp-gn. Mainly dissem.	QUE RIVER VOLCANICS
281.4	323.2			STRONGLY ALTERED ZONE IN MAFIC VOLCANICLASTICS Variable mafic breccias similar to unit above, with strong carbonate – sericite – talc (?) – fuchsite alteration. Frequent shears & broken zones. Major fault 320.5 – 322.5m. Minor to 1% py.	
323.2	332.65			QUARTZO-FELDSPATHIC SANDSTONE, SILTSTONE & SHALE Strongly calcareous, slightly carbonaceous. Scattered qtz-carb veins. Trace py.	
332.65	396.75			ANDESITIC VOLCANICLASTICS Feldspar-phyric mafic lava breccias, mainly hyaloclastitic, some peperite around 350m. Non-amygdaloidal and with sparse qtz phenocrysts, above 350m; sparsely amygdaloidal, with no qtz phenocrysts below this. Weak-mod carbonate-sericite-silica alteration. Minor to 1% py & sp to 367.3m. 1-3% py > sp 367.3 – 380.6m. 380.6 – 396.75m: 5% py > sp > gn, dissem conc in matrix & clast margins	

PROJECT: **DRILL CORE LOG AND ASSAY DATA** HOLE NUMBER: HP1 Page: 4

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No	From	To	Rec. %
396.75	399.1			BASALT LAVA Sparsely amygdaloidal. Highly carbonatised Minor py, sp, cp except at upper & lower margins: 10% py.				
399.1	415.65			MAFIC VOLCANICLASTICS WITH BLACK SHALE MATRIX Epiclastics. Polymict. Most clasts feld-phyric andesitic lavas. Mod carbonate-silica-sericite-chlorite alteration. 399.1–411.5m: 2-3% py. Some highly pyritic mafic clasts. 411.5–415.65m: 4% sp-py>gn. Commonly conc in clast margins.				
415.65	426.0			MAFIC VOLCANICLASTICS Hyaloclastites? Mafic lava clasts, generally sparsely feldspar-phyric, rarely amygdaloidal. Mod carbonatised and silicified. 3-5% py-sp>gn 421.25–426m. Elsewhere: 2% py.				
426.0	458.6			BRECCIATED ANDESITIC LAVAS Sparsely but persistently feldspar-phyric, sparsely amygdaloidal. Breccia matrix extensively invaded by silica ± sulphide net-veining. Patchy silica-albite-carbonate alteration. 438.2–457 m: 2-3% sp>py>gn. Dissem & stringers. Elsewhere 1-2% py>sp.				
458.6	470.35			ALTERED BASALTIC VOLCANICLASTICS IN BLACK SHALE MATRIX Polymict. Silica invasion of both matrix and clasts. Weakly deformed. Clasts are mod-strongly sericitised, carbonatised and bleached. Matrix locally strongly silicified or carbonatised. 3-5% py. Some clasts highly pyritised				
470.35	475.3			AMYGDALOIDAL BASALT LAVA Mod carbonatisation. Numerous tiny carb veinlets. 4% py, trace sp-cp.				
475.3	616.95			BASALTIC VOLCANICLASTICS Epiclastics and hyaloclastites				

HOLE NO.: SCS 2
STATE : TASMANIA

DRILL CORE RECORD

PROJECT	SOCK CREEK SOUTH
DESIGNED BY	J.G. PURVIS
LOGGED BY	J.G. PURVIS
COMMENCED	27.4.88
COMPLETED	4.5.88

PURPOSE

TO TEST UTEM/SIROTEM ANOMALY CENTERED 50m BENEATH 5200N/2315E.

LOG SUMMARY / GENERAL COMMENTS

QUARTZ-FELDSPAR PORPHYRY AND BASALT WERE INTERSECTED IN THE UPPER PART OF THE HOLE, WHICH THEN PASSED THROUGH WEAKLY-MINERALISED SEDIMENTS AND ENDED IN DACITIC LAVAS AND BRECCIAS. THE EM ANOMALY PLOTS WITHIN THE BASALT UNIT CLOSE TO THE CONTACT WITH WEAKLY-SULPHIDIC SEDIMENTS.

ASSAY SUMMARY

INTERVAL From	INTERVAL To	Cu	Pb	Zn	Ag	Au	As	Ba						COMMENTS
		BEST INTERSECTIONS:												
83.75	85.0	20	1120	4950	1.1	0.01	28	1280						BLACK TUFF-SHALE WITH DISSEMINATED SULPHIDES.
122.0	123.5	12	105	3150	0.2	0.03	28	290						BLACK SILTSTONE WITH 2-3% SULPHIDES.

LOCATION

NORTHING	5200m
EASTING	2282m
R.L.	
GRID	LOCAL
LENGTH	148.5m

HOLE CONDITION

SIZE

Hole Size	Depth
HW	6m
HQ	78.3m
NQ	148.5m

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost

POOR GROUND CONDITION ZONES

From	To	Condition
0	75.6m	GENERALLY BADLY BROKEN WITH CLAYEY ZONES.

HOLE CONDITIONS AFTER COMPLETION

50mm ID PLASTIC CASING FROM COLLAR TO BOTTOM OF HOLE.

3m STEEL STEM PIPE (HQ ROD) WITH CAP, PLACED IN TOP OF HOLE

SURVEY DATA (Note. Bearing type must be same as Project Grid Type) = MAGNETIC.

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D. Sin. Dip	VERTICAL R.L.	HORIZONTAL D. Cos. Dip	HORIZONTAL Prog. Total	SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D. Sin. Dip	VERTICAL R.L.	HORIZONTAL D. Cos. Dip	HORIZONTAL Prog. Total
Collar	120°M	-58°30'																	
31m	121°M	-59°30'																	
61m	119°M	-60°																	
91m	119°M	-60°																	
115m	120°30'M	-60°																	
145m	122°15'M	-60°																	

767316

PROJECT:

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: HP 1 Page: 5

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No	From	To	Rec. %
				Most clasts basaltic partly amygdaloidal lavas, rarely				
				sparsely feldspar-phyric (increasing with depth). Common				
				polymict zones containing tuffaceous clasts.				
				Breccia matrix extensively invaded by silica ± sulphides.				
				Mod-strong silica-carbonate-sericite-chlorite alteration				
				± albite-fuchsite and bleaching.				
				Variable sulphide content with py>sp-gn and po in places.				
				Zones of highly pyritised mafic clasts. Sulphs in both matrix & clasts.				
				Generally 3-5% py>sp>gn. Except: 538.5–547.8m 5-7% py				
				>sp>gn; 584.5–588.5m: 7% py>sp-gn.				
616.95	634.6			MILDLY DEFORMED MAFIC VOLCANICLASTICS				
				Epiclastics and hyaloclastites. Sparsely feldspar-phyric.				
				Minor shale and chert matrix.				
				Mod-strong carbonate-silica-albite alteration.				
				Minor to 2% py>sp, gn.				
634.6	666.6			FELDSPAR-PHYRIC ANDESITIC LAVA BRECCIAS.				
				Some 'pseudoclastic' partly deformed texture due to silic				
				domain alteration. Rare qtz phenocrysts. Mono-mict				
				Breccia matrix generally strongly altered, locally intensely,				
				with silica forming net-vein pattern through rock.				
				Mod sericitisation and albitisation locally.				
				Minor to 1% py-sp>po-gn.				
				END OF HOLE				

HOLE NO:	HP 2
STATE	TASMANIA

DRILL CORE RECORD

		PURPOSE
PROJECT	HIGH POINT, EL 5/83.	TO TEST UTEM ANOMALY CENTERED BENEATH 8000N/3900E, AND THE QUE RIVER VOLCANICS AT DEPTH.
DESIGNED BY	D.P. WINDRIM	
LOGGED BY	J.G. PURVIS	
COMMENCED		
COMPLETED		

LOG SUMMARY	SEE ATTACHED.
GENERAL COMMENTS	THE SEQUENCE OF CRYSTAL TUFF AND BLACK SHALE, OVERLYING THE VOLCANICS, WAS THICKER THAN ANTICIPATED.

ASSAY SUMMARY

INTERVAL From	INTERVAL To												COMMENTS
		NO ASSAY RESULTS YET RECEIVED											

LOCATION

NORTHING	5392594
EASTING	388074
R.L.	695.16m
GRID	AMG
LENGTH	593.6m

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HW	3m
HQ	39.5m
NQ	593.6m

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost

POOR GROUND CONDITION ZONES From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

50mm ID PVC CASING PLACED TO BOTTOM OF HOLE.

3m STEEL STEMPIPE WITH CAP, PLACED IN TOP OF HOLE.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type) = MAGNETIC.

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
Collar	120°M	-50°							
45m	122°M	-49°20'							
75m	121°30'M	-48°40'							
103m	122°15'M	-48°40'							
135m	123°30'M	-47°							
165m	125°M	-46°40'							
193m	125°M	-47°							
232m	125°30'M	-47°15'							
262m	126°40'M	-46°30'							
295m	127°30'M	-45°45'							
325m	127°30'M	-45°							
355m	127°45'M	-44°30'							

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
385m	128°30'M	-43°20'							
415m	128°30'M	-43°15'							
445m	129°M	-42°30'							
485m	127°30'M	-41°							
525m	126°M	-40°							
565m	125°30'M	-38°40'							
592m	127°15'M	-38°15'							

767318

PROJECT: HIGH POINT, EL 5/63. DRILL CORE LOG AND ASSAY DATA   HOLE NUMBER: HP 2   Page: 2

INTERVAL (m) From	To	RECOVERY m	%	DESCRIPTION	ASSAY DATA Sample No	From	To	Rec. %
				SUMMARY LOG				
0	159.1			FELDSPAR > QUARTZ CRYSTAL-LITHIC TUFF Increasing amount of black shale matrix with depth, esp below 150m. Several bands of shale up to 3m thick below 100m. Weak patchy sericitisation and silicification. Large fault 92-95m. Minor pyrite.				
159.1	219.0			BLACK SHALE Badly broken in places, by fracture set almost // LCA. Regularly bedded: core orientation measurement @ 167.1m shows bedding (49°/LCA) is flat with 25° northerly plunge. Second measurement @ 193m: 48°/LCA shows bedding flat with 15° northerly plunge. 1-3% pyrite.				
219.0	336.5			FELDSPAR >> QUARTZ CRYSTAL-LITHIC TUFF Generally with black shale matrix. Thin bands of black shale common. Weak patchy sericitisation and silicification. 1-2% pyrite.				
336.5	386.3			BLACK SHALE Partly graphitic. Regularly bedded. Core orientation measurement at 357.4m (68°/LCA) shows bedding dipping 24° to north-west with flat plunge. 1-5% dissem pyrite. Some in thin semi-massive beds.				
386.3	430.85			BASALT Probable dyke or sill. Massive and uniform-textured Minor amygdales at top and bottom contacts. Trace pyrite.				
430.85	463.1			BLACK SHALE Very uniform. Partly graphitic.				

PROJECT: HIGH POINT, EL 5/63 **DRILL CORE LOG AND ASSAY DATA** HOLE NUMBER: HP 2 Page: 3.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No	From	To	Rec. %
				Major fault 459·7 – 460·8m. Otherwise unbroken.				
				Ultra fi gr dissem py - some bedded. 1-5%. Trace sp-veinlets.				
463·1	504m			BASALT DYKES AND/OR SILLS IN HIGHLY GRAPHITIC SHALE				
				Massive amygdaloidal basalt intervals up to 20m (469·2 – 489·6m), in black graphitic shale.				
				Some evidence of bleaching and baking of shale on contact with basalt.				
				Common qtz-carb veins + veinlets, up to 0·9m thick.				
				Some xylline sp-gn-cp in these veins.				
				488 – 499·5m: 3-5% py, minor sp. Elsewhere minor py, sp, gn, cp.				
504	547·85			BLACK SHALE				
				Partly graphitic. Minor grey shale interbeds.				
				Broken zone 512–515m centered on major fault 513–514·5m.				
				504 – 512m: 3-5% py >> sp. Py commonly bedded. Sp in carb veinlets + patches.				
				512 – 515m: 1% py, minor sp.				
				515 – 547·85m: 3-5% py, gen bedded dissem. Rare sp.				
547·85	593·6			SILICIFIED AND ALTERED MAFIC VOLCANICLASTICS				
				Sparsely + finely feldspar-phyric mafic lava clasts to 700mm (some clearly pillow frags), partly amygdaloidal in generally siliceous matrix (largely silicification, but some pale grey chert also). Dk grey to black shaley matrix in places to 565m.				
				Silicification intense below 570m, accompanied by sericitisation, bleaching and albitisation.				
				Minor fuchsite in qtz-carb veins 552–554m.				
				547·85 – 557·5m: 5% py, dissem, conc in marginal areas of clasts. V minor sp.				
				557·5 – 593·6m: Minor to 2% py, po, sp, gn. Dissem.				
				END OF HOLE				

76320

PROJECT: SOCK CREEK SOUTH **DRILL CORE LOG AND ASSAY DATA** HOLE NUMBER: SCS 2 Page: 2

INTERVAL (m) From	To	RECOVERY m	%	DESCRIPTION	ASSAY DATA Sample No	From	To	Rec. %
0	6m		NIL	TRICONED — NO CORE				
6	14.7m	3.25	37	QUARTZ-FELDSPAR PORPHYRY Pale yellow to grey-green. Coarse grained. Qtz xyls to 7mm, felds to 3mm, in pale green sericitic matrix. Minor small hornblende xyls. Weakly sericitised. Mod-strongly oxidised with clayey broken zones and much core loss. Limonite on fractures.				
14.7	28.4m	11.8	86	QUARTZ-FELDSPAR CRYSTAL-LITHIC TUFF Pale red and yellow-brown. Strongly oxidised with clayey sections towards base. Down to 21.7m, a weak-mod sericitised and slightly schistose, fine grained xyl-lithic tuff, with angular sericitic tuffaceous clasts to 15mm, av <5mm, in sericitic matrix c̄ qtz + feld xyls. Schistosity 55°/LCA @ 21m. Below 21.7m non-schistose, coarser grained, with angular lithics to 30mm, av 5mm, in washed matrix of subrounded qtz + feld xyls - definitely epiclastic. Mod broken, badly below 25.5m, by fracts almost // LCA. Much Fe + Mn oxides on fractures.				
28.4	75.6m	40.65	86	BASALT LAVA Brown, soft, highly oxidised, clayey + broken to 48m. Below 48m green with abund brown Mn stains on fracts, partly oxidised + leached and very badly broken. Med gr. Massive. Porph xyls of pyroxene(?) to 2mm. Below 50m leached ovoid vesicles to 15mm, av 5-7mm, inc c̄ depth - quite abund in places. Weakly epidotised below 48m. Abund Mn ox and minor limonite on fracts throughout, also as veinlets ± qtz. Basal contact an irreg flow margin c̄ finely-amygdaloidal basalt				

1321

WS

PROJECT: SOCK CREEK SOUTH — DRILL CORE LOG AND ASSAY DATA — HOLE NUMBER: SCS 2 — Page: 3

ASSAY DATA (COMLABS – DESPATCH Nº 11184).

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No	From	To (m)	Rec. %	Cu	Pb	Zn	Ag	Au	As	Ba
				frags in silic matrix.											
75.6	79.9m	4.1	95	FINE LITHIC BRECCIA / SANDSTONE	7761	75.5	76.5	80	28	92	185	<0.1	0.04	38	1440
				Dark grey-green. Only sl broken.	7762	76.5	77.5	100	28	210	330	1.0	<.01	54	1120
				Abund f-gr vlc lithics (mainly tuffs and cherts), av <5mm	7763	77.5	78.5	85	38	380	980	1.2	0.01	44	1200
				to 25mm, in matrix of sandy lithics, feld xyls and tuff-	7764	78.5	79.5	85	38	1040	2150	1.3	<.01	44	1400
				sediment. Clasts have been stretched by mod schistose											
				deformation, and some appear to have been soft and											
				not lithified when emplaced. Schistosity 55°/LCA.											
				Weakly sericitised.											
				Bedded: 65°/LCA @ 77m; 70°/LCA @ 79.2m;											
				1-3% po-py > sp-gn. Trace cp. Some in veinlets, esp the sp-gn.											
				Basal contact irreg.											
79.9	89.55m	9.45	99	TUFF-SHALE	7765	79.5	81.0	100	16	680	1480	0.9	<.01	26	910
				Dark greenish-grey to black. F gr. Gen unbroken.	7766	81.0	82.5	93	24	550	1100	1.1	0.01	26	1360
				Weakly carbonaceous. Sericitic.	7767	82.5	83.75	100	50	280	340	1.2	0.01	44	1060
				Bedded (70°/LCA @ 81.5m; 70°/LCA @ 83.75m). Some irreg	7768	83.75	85.0	100	20	1120	4950	1.1	0.01	28	1280
				bedding due to soft-sed deformation. At 83.2m graded bedding	7769	85.0	86.5	100	10	150	910	<0.1	0.01	30	980
				indicates facing up-hole.	7770	86.5	88.0	100	12	105	1380	<0.1	<.01	14	440
				Minor siltstone and sandstone interbeds.	7771	88.0	89.55	100	7	80	280	1.2	0.03	16	950
				Below 85.5m intervals of feld xyl(± lithic tuff (often silif),											
				and zone 86.75–88.5m of silif feld xyl-lithic breccia											
				similar to unit below.											
				79.9–83.75m: 1–3% py-sp > gn. Trace cp. Py mainly as											
				ultra f gr dissem. Sp commonly in carb veinlets sub// to LCA.											
				83.75–85m: 3–5% sp > py. Trace cp, gn + po. Sp dissem +											
				in carbonate-sericite veinlets at all angles.											
				85–89.55m: 1-2% sp-py.											
				Basal contact irreg bedding 53°/LCA.											
89.55	122.0m	32.15	99	DACITIC LAVA BRECCIA AND FLOW-BANDED DACITIC LAVA	7772	89.55	91.0	100	13	56	1060	<0.1	0.02	10	450
				Dark greenish-grey and pale red, c̄ zones of creamy grey (lava)	7773	91.0	92.5	100	6	18	810	1.1	0.02	11	300
				Strongly silicified, with patchy strong albitisation, sericitisation	7774	92.5	94.0	100	11	10	860	<0.1	<.01	14	195
				and chloritisation. Gen unbroken.											
				Breccia (silif + alb), comprising angular, irreg + often diffuse											

76322

(3)

PROJECT: SOCK CREEK SOUTH

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: SCS 2 Page: 4

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No	From	To (m)	Rec %	Cu	Pb	Zn	Ag	Au	As	Ba
				feld-phyric lava clasts av 10-20mm, rarely + 50mm,											
				in siliceous matrix, extends to 99m where it grades into	7775	114·0	116·0	100	8	60	520	<0·1	0·02	13	400
				massive flow-banded dacite (silif, ble, ser).	7776	116·0	118·0	100	7	12	155	<0·1	<·01	15	240
				Lava contains euhedral white or pink felds av 2mm,	7777	118·0	120·0	100	9	56	290	<0·1	<·01	18	155
				and is flow banded. Clasts in breccia are identical.	7778	120·0	122·0	85	9	115	1720	<0·1	<·01	17	135
				At 114·3m lava passes abruptly back into lava breccia											
				with black shale matrix becoming inc common below 118m.											
				Some minor shale matrix from 89·55 – 91·5m also.											
				(Unit appears to be lava flow with autobrecciated margins).											
				At 102·3m flow banding 55°/LCA.											
				89·55 — 94m: 1% sp > py. Dec c̄ depth.											
				94 — 114·3m: Trace dissem + fracture-filling py > sp.											
				114·3 — 120m: 1–2% py > sp. Mainly in matrix of breccia.											
				120 — 122m: 2% sp > py. Inc c̄ depth. In both matrix + clasts.											
122·0	123·5m	1·5	100	SILTSTONE	7779	122·0	123·5	100	12	105	3150	0·2	0·03	28	290
				Dk grey to black. Unbroken.											
				Gen massive and uniform, fairly hard + silic.											
				Dk colour mostly chlorite with probably minor carbonaceous											
				matter. Mod chloritised.											
				Bedding 68°/LCA @ 122·5m.											
				Basal 300mm contains some interbedded material of											
				unit beneath.											
				2–3% sp, minor py. Dissem + veinlets ± qtz-carb.											
				Basal contact abrupt – bedding @ 65°/LCA.											
123·5	133·85m	10·35	100	ALTERED GLASSY VOLCANICLASTIC (HYALOCLASTITE?)											
				Pale limey green and orange.	7780	123·5	125·0	100	18	88	330	0·7	0·03	84	790
				Densely packed angular, irreg + stretched clasts and	7781	125·0	126·5	100	14	28	70	0·2	<·01	16	610
				shards of glass with characteristic fine wispy banding	7782	126·5	128·0	100	10	18	64	<0·1	0·01	15	850
				(pumice?), with lesser clasts of tuffs and lavas.	7783	128·0	129·5	100	12	20	80	0·1	0·01	14	660
				Glass frags are highly sericitised and bleached, lava	7784	129·5	131·0	100	12	42	155	0·2	0·01	17	750
				clasts albitised in places, esp 126·2 – 129·5m, and in	7785	131·0	132·5	100	14	14	40	0·1	0·01	15	660
				zones to 1m thick below this. Lava clasts av <10mm,	7786	132·5	134·0	100	15	70	210	<0·1	0·01	13	670
				max 80mm, of dacite composition, have marked internal											
				shattering suggestive of cold water quenching while hot.											

PROJECT: SOCK CREEK SOUTH DRILL CORE LOG AND ASSAY DATA HOLE NUMBER: SCS 2 Page: 5

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No	From	To	Rec. %
				Mod schistose deformation (40°/LCA @ 125.3m; 55°/LCA @ 128m).				
				Locally broken, esp above 126m and around fault @ 130.5m. Occ qtz-chlor veins.				
				123.5 – 127m: 2-3% py - mainly replacing small clasts				
				127 – 133.85m: 1% py, dec c depth.				
				Gradual change at base.				
133.85	148.5m	14.65	100	DACITE LAVA BRECCIA				
				Dk greenish-grey and orange. Unbroken.				
				Abund angular and irreg lava clasts (flow-banded, very glassy, sometimes feld-phyric) to 100mm, av 10-20 mm. Clasts at all angles - no clear orientation.				
				Matrix comprises densely packed glassy clasts and shards, and small lava frags, as in unit above (pale lime green, highly sericitic), matrix becomes much less abund with depth esp below 138m.				
				Lava clasts are albitised > silif-ser. Some silif of matrix at depth.				
				Fairly strong deformation of matrix.				
				No sulphides!				
				END OF HOLE				

767324

HOLE NO.: TG 1
STATE : TASMANIA

DRILL CORE RECORD

		PURPOSE
PROJECT	TULLABARDINE GORGE	TO TEST UTEM ANOMALY CENTERED AT 8480ON/8585OE
DESIGNED BY	D. WINDRIM	
LOGGED BY	J.G. PURVIS	
COMMENCED	12·2·88	
COMPLETED	29·2·88	

LOG SUMMARY / GENERAL COMMENTS

0 – 2·5m GLACIALS
2·5 – 6·1m TUFF. Almost unaltered. Up to 1% pyrite, trace sp-gn.
6·1 – 39·7m RHYO-DACITE LAVA. Silicified and albitised. No sulphides
NO OBVIOUS SOURCE FOR UTEM ANOMALY ENCOUNTERED.

ASSAY SUMMARY

INTERVAL From	INTERVAL To												COMMENTS
		NO SIGNIFICANT ASSAY VALUES (SAMPLED 2·5 – 10·65m).											

LOCATION

NORTHING	5384817
EASTING	385837
R.L.	587·75m
GRID	AMG
LENGTH	39·7m

HOLE CONDITION

SIZE Hole Size	Depth
BQ	39·7m

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost

POOR GROUND CONDITION ZONES

From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

1·5m 55mm PLASTIC STEM PIPE WITH CAP, LEFT IN TOP OF HOLE.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	Bearing	Dip	INTERVAL From	To	Distance	VERTICAL D.Sin.Dip	R.L.	HORIZONTAL D.Cos.Dip	Prog. Total	SURVEY Depth	Bearing	Dip	INTERVAL From	To	Distance	VERTICAL D.Sin.Dip	R.L.	HORIZONTAL D.Cos.Dip	Prog. Total
Collar		-90°																	

767325

PROJECT: TULLABARDINE GORGE — DRILL CORE LOG AND ASSAY DATA — HOLE NUMBER: TG 1 — Page: 2

INTERVAL		RECOVERY		DESCRIPTION	ASSAY DATA (ANALABS — DESPATCH Nº 11172).												
From	To	m	%		Sample No	From	To	Rec.%	Cu	Pb	Zn	Ag	Au	As	Bi	Mo	Sn
0	2.5m	NIL		TRICONED – NO CORE. Glacial overburden													
2.5	6.1m	3.45	96	TUFFACEOUS VOLCANICLASTIC.	4446	2.5	4.5m	97	15	20	85	<0.5	<.005	10	<5	6	6
				Creamy white and oxidised at top, pale grey-green at base.	4447	4.5	6.1m	94	25	30	105	<0.5	<.005	11	<5	5	8
				Fine sandy vitric + felsic tuff c̄ scattered angular lithics													
				av 1–2mm, rarely to 30mm, of rhyo-dacite lava + tuff,													
				feld > qtz xyls ~1–3mm, and occ frags of white													
				chalcedonic silica to 10mm.													
				Almost no banding or orientation of lithics except vague													
				clast lineation 35°/LCA @ 5.5m.													
				Very slight bleaching and sericitisation													
				Slightly broken and clayey c̄ minor leaching.													
				Minor dissem py – locally 1%. Trace sp-gn. Sulphides													
				only in unoxidised sections below 4.5m & limonite stains													
				above 4.5m. Some pyrite in massive clots to 4mm.													
				Basal contact 35°/LCA.													
6.1	39.7m	32.75	97	RHYO-DACITE LAVA.	4448	6.1	8.0	76	15	<5	60	0.5	<.005	3	<5	4	6
				Grey-green, to pale reddish-brown at depth.	4449	8.0	10.65	91	15	<5	45	<0.5	<.005	4	<5	5	3
				Hard, massive. Partially ox and broken to 10.5m													
				Qtz xyls to 5mm, av 2–3mm. More-abund feld xyls to													
				3mm, av 2mm, in vitric and silic matrix.													
				Flow banding (?) in lava 35°/LCA @ 28.5m + 34.2m.													
				To 10.65m lava is brecciated with heavily corroded													
				qtz xyls and reaction rims on felds. Matrix to breccia													
				comprises sericite – silica ± chlor, and sandy tuff in													
				places towards top of breccia zone.													
				Lava abruptly strongly silif and albitised below 24m													
				Weak carbonatisation of felds.													
				Minor limonite stains, esp on fracts. Rare dissem py to 24m.													
				END OF HOLE													

DRILL CORE RECORD

HOLE NO:	TG 2
STATE	: TASMANIA

		PURPOSE
PROJECT	TULLABARDINE GORGE	TO TEST UTEM ANOMALY ZONE MIDWAY BETWEEN LINES 84800N AND 85000N.
DESIGNED BY	D. WINDRIM	
LOGGED BY	J.G. PURVIS	
COMMENCED	1.3.88	
COMPLETED	8.3.88	

LOG SUMMARY	0 – 5.2m: RHYO-DACITE LAVA. Silicified and albitised. No sulphides.
GENERAL COMMENTS	HOLE ABANDONED WHEN LOCAL MAPPING INDICATED LAVA UNIT TO BE OF CONSIDERABLE THICKNESS.

ASSAY SUMMARY

INTERVAL From	INTERVAL To												COMMENTS
		NOT	SAMPLED.										

LOCATION

NORTHING	5384892
EASTING	385821
R.L.	560.4m
GRID	AMG
LENGTH	5.2m

HOLE CONDITION

SIZE

Hole Size	Depth
BQ	5.2m

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost

POOR GROUND CONDITION ZONES

From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

1.5m 55mm PLASTIC STEM PIPE WITH CAP, LEFT IN TOP OF HOLE.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog Total	SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog Total
Collar		-90°																	

PROJECT: TULLABARDINE GORGE **DRILL CORE LOG AND ASSAY DATA** HOLE NUMBER: TG 2 Page: 2

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No	From	To	Rec. %									
0	1·4m	NIL		TRICONED – NO CORE													
									NO	SAMPLES	TAKEN.						
1·4	5·2m	2·3m	61	RHYO-DACITE LAVA													
				Pale reddish-fawn.													
				Gen hard + massive. Some clayey zones where oxidised.													
				Euhedral and subhedral qtz phenocrysts to 4mm, av													
				2-3mm; lesser pale green sericitised felds av 1-2mm;													
				minor altered biotite flakes av 1mm. All in silic +													
				vitric fi gr groundmass.													
				Mod-strongly silif and albitised. Weakly sericitised.													
				Minor through-going veinlets at all angles, of qtz ± chlor													
				Minor Fe+Mn oxides on fractures. No sulphides.													
				END OF HOLE													

767328

HOLE NO.:	TG 3
STATE	: TASMANIA

DRILL CORE RECORD

PROJECT	TULLABARDINE GORGE	PURPOSE
DESIGNED BY	J.G. PURVIS	TO TEST UTEM ANOMALY CENTERED AT 84800N/85850E.
LOGGED BY	J.G. PURVIS	
COMMENCED	9.3.88	
COMPLETED	11.3.88	

LOG SUMMARY	HOLE ENTIRELY IN RHYO-DACITE LAVA DEVOID OF ANY SIGNIFICANT MINERALISATION.
GENERAL COMMENTS	SOURCE OF UTEM ANOMALY NOT EXPLAINED.

ASSAY SUMMARY

INTERVAL From	INTERVAL To												COMMENTS
		NO SIGNIFICANT SAMPLE VALUES.											

LOCATION

NORTHING	5384815
EASTING	385853
R.L.	587.3m
GRID	AMG
LENGTH	32.5m

HOLE CONDITION

SIZE Hole Size	SIZE Depth
BQ	32.5m

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost

POOR GROUND CONDITION ZONES From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

1.5m OF 55mm PVC STEMPIPE WITH CAP, PLACED IN TOP OF HOLE.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog. Total	SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog. Total
Collar		−90°																	

767329

PROJECT: TULLABARDINE GORGE **DRILL CORE LOG AND ASSAY DATA** HOLE NUMBER: TG 3 Page: 1

ASSAY DATA (ANALABS - DESPATCH Nº 11175).

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No	From	To	Rec. %	Cu	Pb	Zn	Ag	Au	As
0	1.0m	NIL		TRICONED - NO CORE IN GLACIAL OVERBURDEN.										
1.0	32.5m	29.65	94	RHYO-DACITE LAVA										
				To 7.3m pale yellow-brown, highly oxidised, clayey + broken.										
				Grey-green, hard, c̄ patchy oxidation mainly along										
				fractures, to 28.5m.										
				Below 28.5m pale reddish-brown, very hard, intensely	4477	14.0	16.0	100	25	25	80	1.0	<.008	3
				silif and albitised.	4478	16.0	18.0	100	25	15	70	0.5	<.008	2
				Uniform, massive. Qtz phenocrysts to 6mm, av 2-3mm,	4479	18.0	20.0	100	55	15	50	<0.5	<.008	4
				some euhedral, others sl corroded. Felds gen euhedral,	4480	20.0	22.0	100	20	20	45	<0.5	<.008	1
				av 1-2mm, often with altered reaction rims. Some										
				dark green altered biotite flakes av 1mm.										
				All in f/gr vitric and silic groundmass.										
				Gen. weakly sericitised and silif, with irreg patches										
				of stronger sericitisation-bleaching. Silif-alb intense below										
				28.5m. Minor chlorite in 'spots' 2-5mm across.										
				From 23.4 to 26.5m - breccia zone 15°/LCA with										
				feld + qtz xyls in lineated matrix.										
				Series of fracts almost // LCA to 7.3m.										
				Minor limonite stains to 7.3m. Trace py below this, incl										
				minor pyrite veins almost // LCA, 9.15 — 19.2m.										
				From 14.75 — 21m, irreg small lenses of greenish-grey										
				silif glassy (basaltic?) material, all almost // LCA and										
				slightly pyritic.										
				END OF HOLE										

HOLE NO: TG 4
STATE : TASMANIA

DRILL CORE RECORD

		PURPOSE
PROJECT	TULLABARDINE GORGE	TO TEST UTEM ANOMALY CENTERED AT 84800N/85850E.
DESIGNED BY	J.G. PURVIS	
LOGGED BY	J.G. PURVIS	
COMMENCED	11.3.88	
COMPLETED	15.3.88	

LOG SUMMARY / GENERAL COMMENTS:
0 – 2.5m: GLACIALS
2.5 – 5.0m: TUFF
5.0 – 16.45m: LAVA BRECCIA WITH TUFF MATRIX. Minor pyrite
16.45 – 21.0m: TUFF. Up to 1% pyrite.
21.0 – 34.4m: RHYO-DACITE LAVA.
NO OBVIOUS SOURCE FOR UTEM ANOMALY INTERSECTED.

ASSAY SUMMARY

INTERVAL From	INTERVAL To												COMMENTS
		NO SIGNIFICANT ASSAY VALUES.											

LOCATION

NORTHING	5384818
EASTING	385828
R.L.	587.5m
GRID	AMG
LENGTH	34.4m

HOLE CONDITION

SIZE

Hole Size	Depth
BQ	34.4m

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost

POOR GROUND CONDITION ZONES

From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

1.5m OF 55mm PVC STEMPIPE WITH CAP, PLACED IN TOP OF HOLE

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total	SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
Collar		-90°																	

783671

PROJECT: DRILL CORE LOG AND ASSAY DATA HOLE NUMBER: TG 4 Page: 2

ASSAY DATA (ANALABS – DESPATCH No 11173)

INTERVAL (m) From	To	RECOVERY m	%	DESCRIPTION	Sample No	From	To	Rec. %	Cu	Pb	Zn	Ag	Au	As	Mo	Sn	W	Bi
0	1.4m	NIL		TRICONED – NO CORE. IN GLACIAL OVERBURDEN.														
1.4	2.5m	0.25m	23	GLACIALS.														
				Dolerite, basic volcanics and dacite volcanic cobbles in brown														
				weakly cemented clay matrix.														
2.5	5.0m	0.6m	24	TUFFACEOUS VOLCANICLASTIC.	4466	2.5	5.0	24	5	80	25	<0.5	<.005	4	6	6	<20	<5
				Pale yellow. Highly oxidised and broken. Clayey.														
				Fi gr vitric rock with occ qtz xyls to 1mm (some rounded)														
				and occ lithic frags to 2mm (some rounded).														
				Thin qtz veinlets.														
				Basal contact irreg but almost // LCA.														
5.0	16.45m	9.35m	82	RHYO-DACITE LAVA BRECCIA WITH TUFF MATRIX.	4467	5.0	7.5	56	5	<5	25	<0.5	<.005	4	8	8	<20	<5
				Pale yellow at top, grey-green at base.	4468	7.5	10.0	68	5	10	25	<0.5	<.005	1	6	<3	<20	<5
				To 10m highly oxidised, clayey & broken. Below 8m	4469	10.0	12.5	90	5	10	40	<0.5	<.005	5	5	3	<20	<5
				oxidation mainly on fracts.	4470	12.5	15.0	96	5	10	55	<0.5	<.005	4	7	<3	<20	<5
				Rock comprises irreg blocks of rhyo-dacite lava with	4471	15.0	16.4	100	5	<5	55	<0.5	<.005	3	10	6	<20	<5
				proportionally minor matrix of sandy-textured tuffaceous														
				volcaniclastic showing indistinct bedding.														
				Lava: abund gen-euhedral qtz phenos to 4mm, av														
				2-3mm; feld phenos av <2mm (some pink, often c zoned														
				overgrowths); & biotite flakes av <2mm; in f gr vitric														
				groundmass.														
				Tuff: Green & silic where unox. Angular to sub-rounded														
				lithics to 10mm, av 2mm; & abund feld & qtz xyls av														
				<2mm. Gen sandy-text & sl washed, some fi gr vitric layers.														
				Tuff bands: 7.5–8.3m 10°/LCA; 11.55–11.7m 40°/LCA c														
				2% dissem py; 13–13.5m 47°/LCA. Other bedding –														
				35°/LCA @ 9.1m; 35°/LCA @ 11m; 40°/LCA @ 15m.														
				Mod limonite staining in places. Minor dissem py in tuff														
				– locally 1–2%. Almost no sulphides in lava.														
				Wk to mod alt, inc c depth: ser-chlor-ble c minor alb.														
16.45	21.0	4.55	100	VITRIC-LITHIC TUFFACEOUS VOLCANICLASTIC WITH														
				OCCASIONAL RHYO-DACITE LAVA BLOCKS TO 300MM														

767332

PROJECT: TULLABARDINE GORGE

DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: TG 4 Page: 3

INTERVAL (m)		RECOVERY		DESCRIPTION	ASSAY DATA (ANALABS)													
From	To	m	%		Sample No	From	To	Rec. %	Cu	Pb	Zn	Ag	Au	As	Mo	Sn	W	Bi
				Grey-green & brown.														
				Slightly oxidised c̄ limonite stains (strongest in lava blocks).														
				F/gr to coarsely sandy vitric tuff with abund tiny feld	4472	16·4	18·5	100	10	10	50	<0·5	<·005	7	8	4	<20	<5
				frags & lithics (subrounded to angular, av <2mm to	4473	18·5	21·0	100	10	30	65	<0·5	<·005	8	7	7	<20	<5
				15mm) of tuffs (some bedded, some cherty c̄ several %														
				py), and glass shards. Lava blocks have irreg margins.														
				Except for basal 1m rock is uniform & bland c̄														
				almost no evidence of reworking or banding (vague														
				clast lineation 23°/LCA @ 18·3m). Below 20m some														
				variations in grainsize - banding 20°/LCA.														
				Weakly sericitised and silicified (latter strong locally														
				with stringers of cherty silica)														
				Up to 1% py, some ultra f gr dissem.														
				Irreg basal contact 20°/LCA - tuff deposited on irreg														
				lava surface beneath.														
21·0	34·4	17·95	100	RHYO-DACITE LAVA.	4474	21·0	23·5	100	10	<5	55	<0·5	<·005	4	15	4	<20	<5
				Grey-green at top, pale pink at base. V hard at base.	4475	23·5	26·0	100	5	5	40	<0·5	<·005	2	10	<3	<20	<5
				Uniform-textured, with euhedral to anhedral phenocrysts	4476	26·0	28·5	100	10	5	60	<0·5	<·005	2	10	4	<20	<5
				of qtz (av 2mm, to 3mm, commonly corroded, always														
				fractured); feldspar (av 1-2mm, with altered rims),														
				and dark green alt mica (av 1-2mm); in f gr vitric														
				(now sericitic) groundmass.														
				Rock is silicified (inc to strong at base) with inc alb														
				below 28·5m. Also weak ser > chlor - ble alt.														
				Alt banding (after flow banding?) 45°/LCA @ 26m; 65°/LCA														
				@ 29m.														
				Minor to mod oxidation throughout, with limonite & MnOx														
				on fractures, and of leached clayey zones 23·7 - 25·5m;														
				28-29m; and 33-34·4m.														
				Rare py to 23m, then none.														
				END OF HOLE.														

HOLE NO: TG 5
STATE : TASMANIA

DRILL CORE RECORD

PROJECT	TULLABARDINE GORGE
DESIGNED BY	J.G.PURVIS
LOGGED BY	J.G.PURVIS
COMMENCED	16·3·88
COMPLETED	17·3·88

PURPOSE

TO TEST PB SOIL 'ANOMALY' CENTERED AT 84800N/85375E. (THIS 'ANOMALY' LATER FOUND TO BE SPURIOUS.)

LOG SUMMARY

GENERAL COMMENTS

0–2·0m: OVERBURDEN. Includes some glacials.
2–12·2m: RHYO-DACITE LAVA. Rare pyrite.

ASSAY SUMMARY

INTERVAL From	INTERVAL To													COMMENTS
		NO ASSAY RESULTS OF SIGNIFICANCE.												

LOCATION

NORTHING	5384798
EASTING	385347
R.L.	504·3m
GRID	AMG
LENGTH	12·2m

HOLE CONDITION

SIZE

Hole Size	Depth
BQ	12·2m

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost

POOR GROUND CONDITION ZONES

From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

1.5m OF 55mm PVC STEMPIPE WITH CAP, LEFT IN TOP OF HOLE

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total	SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
Collar		-90°																	

PROJECT: TULLABARDINE GORGE **DRILL CORE LOG AND ASSAY DATA** HOLE NUMBER: TG 5 Page: 2

INTERVAL (m)		RECOVERY		DESCRIPTION	ASSAY DATA (ANALABS — DESPATCH Nº 11173)														
From	To	m	%		Sample No	From	To	Rec. %	Cu	Pb	Zn	Ag	Au	As	Mo	Sn	W	Bi
0	2.0	NIL		TRICONED — NO CORE. Some glacial fragments @ 2m														
				- Owen Conglomerate and quartzite.														
2.0	12.2	9.0	88	RHYO-DACITE LAVA.	4461	2.0	4.0	65	5	20	25	<0.5	<.005	2	10	<3	120	<5
				Dark pinkish-brown. Pale yellow where oxidised.	4462	4.0	6.0	97	5	25	20	<0.5	<.005	1	15	3	<20	<5
				Qtz phenocrysts euhedral or broken, some sl corroded, to	4463	6.0	8.0	97	5	10	20	<0.5	<.005	<1	14	5	<20	<5
				4mm, av 2mm; lesser feld xyls av 1-2mm, green +	4464	8.0	10.0	95	5	15	25	<0.5	<.005	1	9	<3	<20	<5
				sericitised or pink + albitised; dark green alt mica (?)	4465	10.0	12.2	97	5	<5	15	<0.5	<.005	1	15	<3	<20	<5
				laths av 1mm; all in vitric and silic f gr groundmass.														
				Rock is strongly silif + alb below ox, also weakly ser.														
				Oxidised, leached and clayey to 3.8m, then at														
				intervals to 10m, esp 4.4–5.25m + 8.5–10m.														
				Shears: 25°/LCA @ 2.6–3.2m; 15°/LCA @ 9.05–9.35m.														
				Wk limonite stains on fracts at low angle to LCA.														
				Rare pyrite grains to 1mm below 6.5m.														
				END OF HOLE														

APPENDIX 6

Geochemical Data Sheets (Drilling)

3 6

ANALABS

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767337

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No	PAGE
	14.4.08.05305	20/04/88	B56	1 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	As	Au	AuChk	Extend in ledges
1	4477	25	25	80	1.0	3	<0.008	<0.008	✓
2	4478	25	15	70	0.5	2	<0.008	-	✓ TG3
3	4479	55	15	50	<0.5	4	<0.008	-	✓
4	4480	20	20	45	<0.5	1	<0.008	-	✓
5	4481	25	110	120	2.0	35	0.010	-	
6	4482	40	215	160	1.0	26	<0.008	-	
7	4483	60	285	140	1.0	23	<0.008	--	
8	4484	45	295	260	<0.5	28	0.012	-	
9	4485	50	80	165	1.0	<1	<0.008	--	
10	4486	90	155	245	1.5	27	<0.008	--	
11	4487	55	535	1150	0.5	42	0.010	-	
12	4488	85	445	1550	1.0	58	<0.008	--	
13	4489	110	200	955	1.0	180	<0.008	-	
14	4490	60	275	2650	1.0	40	<0.008	-	
15	4491	65	90	3800	1.0	42	<0.008	-	
	4492	75	65	320	2.0	55	<0.008	-	
17	4493	20	70	420	2.0	39	<0.008	-	
18	4494	20	60	1300	1.5	41	<0.008	-	
19	4495	15	60	520	1.0	31	<0.008	-	
20	4496	60	60	315	0.5	38	<0.008	-	
21	4497	65	280	680	1.5	23	<0.008	-	
22	4498	70	1100	3300	1.5	31	<0.008	-	
23	4499	60	1300	4850	2.0	27	<0.008	-	
24	4500	125	1000	2100	2.5	46	<0.008	-	START OF HP1 SAMPING
25	7429	100	1750	3350	2.5	30	<0.008	-	53.5 — 55m H

Results in ppm unless otherwise specified
~ = element present, but concentration too low to measure
X = element concentration is below detection limit
-- = element not determined

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337

767338

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	14.4.08.05305	20/04/88	B56	2 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	As	Au	AuChk	HP1 SAMPLING
1	7430	40	660	730	2.0	33	<0.008	-	55 — 56.5m
2	7431	35	385	310	2.5	33	<0.008	-	56.5 — 58m
3	7432	40	565	1300	2.0	37	<0.008	-	58 — 59.5m
4	7433	50	740	1900	2.5	31	<0.008	-	59.5 — 61m
5	7434	20	650	820	2.0	24	<0.008	-	61 — 62.5m
6	7435	40	535	1800	1.5	30	0.008	-	62.5 — 63.4m
7	7436	60	725	5350	2.0	48	<0.008	-	65.6 — 67m
8	7437	25	285	850	1.5	39	<0.008	-	67 — 68.5m
9	7438	25	550	1300	1.5	21	<0.008	-	68.5 — 70m
10	7439	15	270	1200	2.0	29	<0.008	-	70 — 71.5m
11	7440	60	70	1200	1.5	40	<0.008	-	71.5 — 72.5m
12	7441	25	45	2750	1.5	160	0.014	-	72.5 — 73.5m
13	7442	100	50	855	2.0	63	<0.008	-	73.5 — 74.5m
14	7443	110	440	3700	1.0	34	0.008	-	74.5 — 75.5m
15	7444	75	285	3400	2.0	40	<0.008	-	75.5 — 76.5m
16	7445	90	60	1550	1.0	39	<0.008	-	76.5 — 77.5m
17	7446	65	80	140	2.5	140	0.010	-	77.5 — 78.5m
18	7447	30	30	215	1.5	49	<0.008	-	78.5 — 80.0m
19	7448	30	40	160	1.5	35	<0.008	-	80 — 81.5m
20	7449	25	30	820	1.0	31	<0.008	-	81.5 — 83.0m
21	7450	30	20	1100	2.0	27	<0.008	-	83 — 84.5m
22									
23	DETECTION	5	5	5	0.5	1	0.008	0.008	
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	
25	METHOD	103	103	103	103	114	309	309	

Results in ppm unless otherwise specified
T = element present but concentration too low to measure
X = element concentration is below detection limit
- = element not determined

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3-8 767339

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ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	14.4.08.05342	26/04/88	B56	1 OF 2

TUBE No.	SAMPLE No. HP1	Cu	Cu	Pb	Zn	Ag	Ag	As	Au	AuChk
1	7451 94.3–95.5m	50	–	50	100	<0.5	–	18	0.008	<0.008
2	7452 95.5–96.5m	15	–	70	110	<0.5	–	33	<0.008	–
3	7453 96.5–97.5m	10	–	80	215	0.5	–	20	<0.008	–
4	7454 97.5–98.5m	135	–	65	90	<0.5	–	28	<0.008	–
5	7455 98.5–99.5m	20	–	80	110	0.5	–	57	0.009	–
6	7456 99.5–100.5m	15	–	70	225	<0.5	–	51	0.009	–
7	7457 100.5–101.15m	65	–	110	90	<0.5	–	57	0.012	–
8	7458 101.15–102.1m	10	–	45	100	<0.5	–	31	<0.008	–
9	7459 102.1–103.1m	25	–	110	125	<0.5	–	59	0.016	–
10	7460 103.1–104m	25	–	40	175	0.5	–	34	<0.008	–
11	7461 104–105m	15	–	35	215	<0.5	–	27	<0.008	–
12	7462 105–106m	20	–	20	290	<0.5	–	20	<0.008	–
13	7463 106–107m	10	–	35	230	<0.5	–	16	<0.008	–
14	7464 107–108m	10	–	85	100	<0.5	–	19	<0.008	–
15	7465 108–109m	10	–	80	220	<0.5	–	32	<0.008	–
	7466 109–110m	5	–	50	130	1.0	–	18	<0.008	–
17	7467 110–111m	15	–	85	70	<0.5	–	27	<0.008	–
18	7468 111–112m	355	–	40	70	<0.5	–	12	<0.008	–
19	7469 112–113m	440	–	25	95	<0.5	–	18	<0.008	–
20	7470 113–114m	–	2175	15	60	<0.5	–	14	<0.008	–
21	7471 114–115m	–	1075	25	100	<0.5	–	7	<0.008	–
22	7472 115–116m	–	10200	50	300	–	3	10	<0.008	–
23	7473 116–117m	130	–	15	60	<0.5	–	11	<0.008	–
24	7474 117–118m	–	1800	30	110	<0.5	–	13	<0.008	–
25	7475 118–119m	15	–	55	105	1.5	–	19	<0.008	–

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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767340

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	14.4.08.05342	26/04/88	B56	2 OF 2

TUBE No.	SAMPLE No. HP1	Cu	Cu	Pb	Zn	Ag	Ag	As	Au	AuChk
1	7476 119—120m	15	–	25	70	1.0	–	15	<0.008	–
2	7477 120—121m	10	–	10	80	<0.5	–	14	<0.008	–
3	7478 132.5—133.5m	5	–	35	80	1.5	–	14	<0.008	–
4	7479 133.5—134.5m	5	–	55	65	<0.5	–	15	<0.008	–
5	7480 134.5—135.5m	5	–	40	85	0.5	–	14	<0.008	<0.008
6	7481 135.5—136.5m	10	–	70	95	<0.5	–	22	<0.008	–
7	7482 136.5—137.5m	10	–	75	150	<0.5	–	31	<0.008	–
8 HP1	7483 137.5—138.5m	15	–	85	190	<0.5	–	31	<0.008	–
9	9974	10	–	45	110	<0.5	–	9	<0.008	–
10	9975	30	–	25	130	<0.5	–	3	<0.008	–
11	9976	20	–	60	45	1.0	–	9	<0.008	–
12	9977	10	–	75	85	1.5	–	2	<0.008	–
13										
14										
15										
17										
18										
19										
20										
21										
22										
23	DETECTION	5	25	5	5	0.5	2	1	0.008	0.008
24	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM
25	METHOD	101	104	101	101	101	104	114	309	309

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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341 767341

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	14.4.08.05374	03/05/88	B56	1 OF 2

TUBE No	SAMPLE No	Cu	Pb	Zn	Ag	As	Au	Ba	HP1	↓
1	7484	10	<5	100	0.5	16	<0.008	235	138·5 —	139·5m
2	7485	15	<5	105	1.0	7	<0.008	256	139·5 —	140·5m
3	7486	15	75	155	0.5	20	<0.008	351	140·5 —	141·5m
4	7487	25	35	400	0.5	31	0.025	452	141·5 —	142·5m
5	7488	75	80	180	<0.5	44	0.008	378	142·5 —	143·5m
6	7489	75	340	690	<0.5	23	<0.008	255	143·5 —	144·5m
7	7490	55	145	380	<0.5	24	0.025	213	144·5 —	145·5m
8	7491	75	20	3850	<0.5	19	<0.008	131	145·5 —	146·5m
9	7492	40	30	870	<0.5	18	<0.008	105	146·5 —	147·5m
10	7493	25	195	300	0.5	28	<0.008	181	147·5 —	148·5m
11	7494	15	35	210	0.5	17	<0.008	225	148·5 —	149·5m
12	7495	15	45	175	<0.5	25	<0.008	346	149·5 —	150·5m
13	7496	25	55	160	0.5	33	<0.008	359	150·5 —	151·5m
14	7497	140	125	550	1.0	59	<0.008	400	151·5 —	152·5m
15	7498	30	65	150	<0.5	38	<0.008	277	152·5 —	153·5m
[illegible]	7499	55	60	175	<0.5	25	<0.008	305	153·5 —	154·5m
17	7500	95	70	145	<0.5	46	<0.008	262	154·5 —	155·5m
18	7501	30	35	130	0.5	35	<0.008	526	155·5 —	156·5m
19	7502	70	135	600	0.5	73	<0.008	296	156·5 —	157·5m
20	7503	60	255	675	0.5	97	0.015	300	157·5 —	158·5m
21	7504	75	120	960	<0.5	54	<0.008	303	158·5 —	159·5m
22	7505	65	60	935	0.5	43	<0.008	360	159·5 —	160·5m
23	7506	85	55	245	0.5	40	<0.008	307	160·5 —	161·5m
24	7507	30	50	220	<0.5	22	0.015	466	161·5 —	162·5m
25	7508	40	30	350	0.5	31	0.025	337	162·5 —	163·5m

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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341

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767342

ANALYTICAL DATA

SAMPLE PREFIX	REPORT NUMBER	REPORT DATE	CLIENT ORDER No.	PAGE
	14.4.08.05374	03/05/88	B56	2 OF 2

TUBE No.	SAMPLE No.	Cu	Pb	Zn	Ag	As	Au	Ba		
1										
2										
3										
4										
5										
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21										
22	DETECTION	5	5	5	0.5	1	0.008	10		
23	UNITS	PPM	PPM	PPM	PPM	PPM	PPM	PPM		
24	METHOD	101	101	101	101	114	309	401		
25										

Results in ppm unless otherwise specified
T = element present; but concentration too low to measure
X = element concentration is below detection limit
— = element not determined

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342

Job: 8AD1611
O/N: B56 SHEET 1117B

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Ag	As	Ba	Au	↓ HP1 SAMPLING
7509	15	26	96	<1	26	330	<0.01	163.5 — 164.5m
7510	13	44	98	<1	28	320	<0.01	164.5 — 165.5m
7511	70	58	250	<1	30	350	0.01	165.5 — 166.5m
7512	72	94	250	<1	40	330	<0.01	166.5 — 167.5m
7513	86	76	110	1	74	440	0.02	167.5 — 168.5m
7514	66	70	105	1	68	370	<0.01	168.5 — 169.5m
7515	72	72	370	1	66	460	0.01	169.5 — 170.5m
7516	80	70	3000	1	60	440	0.01	170.5 — 171.5m
7517	50	92	3250	1	52	410	<0.01	171.5 — 172.5m
7518	58	150	2900	1	54	380	0.03	172.5 — 173.5m
7519	60	135	3600	<1	48	410	0.02	173.5 — 174.5m
7520	68	145	5500	1	64	460	<0.01	174.5 — 175.5m
7521	86	115	630	1	62	300	<0.01	175.5 — 176.5m
7522	74	290	2250	1	70	360	<0.01	176.5 — 177.5m
7523	88	430	8300	1	48	360	<0.01	177.5 — 178.5m
7524	105	390	9700	1	48	410	<0.01	178.5 — 179.5m
7525	54	430	8200	1	48	370	<0.01	179.5 — 180.5m
7526	52	360	6200	1	52	360	0.02	180.5 — 181.5m
7527	160	490	1.25%	<1	58	420	0.01	181.5 — 182.5m
7528	105	230	6100	1	56	470	0.01	182.5 — 183.5m
7529	135	125	3600	<1	38	370	<0.01	183.5 — 184.5m
7530	86	96	3450	<1	44	410	0.01	184.5 — 185.5m
7531	60	60	1300	<1	54	340	0.02	185.5 — 185.8m
7532	70	58	1660	<1	52	430	0.03	185.8 — 187m
7533	64	42	1960	<1	40	390	0.02	187 — 189m
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	AAS2	XRF1	XRF1	FA1	
UPPER SCHEME			AAS1C					

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343

Job: 8AD1611
O/N: B56 SHEET 1117B

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Ag	As	Ba	Au	HP1 ↓
7534	26	34	1420	<1	40	420	<0.01	189 – 191 m
7535	28	34	1380	<1	42	350	0.02	191 – 193 m
7536	18	38	250	<1	38	370	<0.01	193 – 195 m
7537	18	34	60	<1	62	460	0.01	195 – 197 m
7538	13	40	96	<1	64	420	0.01	197 – 199 m
7539	34	50	60	<1	60	480	0.02	199 – 201 m
7540	88	60	135	<1	58	340	<0.01	201 – 202 m
7541	190	54	180	<1	46	340	0.02	202 – 203 m
7542	150	52	94	<1	68	320	0.01	203 – 204 m
7543	42	32	160	<1	44	230	<0.01	204 – 205 m
7544	17	165	130	<1	44	340	0.03	205 – 206 m
7545	15	270	1260	<1	38	290	<0.01	206 – 207 m
7546	24	400	105	1	34	350	0.02	207 – 208 m
7547	24	330	270	<1	28	350	0.01	208 – 209 m
7548	20	280	430	<1	34	250	0.01	209 – 210 m
7549	32	230	290	<1	15	65	<0.01	210 – 211 m
7550	9	92	170	<1	22	105	<0.01	211 – 213 m
7551	8	22	125	<1	11	105	<0.01	213 – 215 m
7552	6	28	165	<1	12	45	0.01	215 – 217 m
7553	6	16	145	<1	12	55	<0.01	217 – 219 m
7554	12	12	135	<1	26	90	<0.01	219 – 221 m
7555	8	16	98	<1	36	220	0.01	221 – 223 m
7556	5	10	90	<1	22	95	0.01	223 – 225 m
7557	16	26	170	<1	58	55	<0.01	225 – 227 m
7558	26	26	200	<1	42	95	<0.01	227 – 229 m
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	AAS2	XRF1	XRF1	FA1	

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Analytical Laboratories (INC. IN W.A.)

344

Job: 8AD1611
O/N: B56 SHEET 1117B

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Ag	As	Ba	Au	HP1 ↓
7559	30	44	240	<1	40	70	<0.01	229 – 231 m.
7560	19	78	220	<1	18	75	<0.01	231 – 233 m.
7561	13	44	290	<1	22	80	<0.01	233 – 235 m.
7562	9	54	145	<1	26	110	<0.01	235 – 237 m.
7563	54	1120	4750	<1	<2	125	<0.01	237 – 239 m.
7564	64	2600	3800	<1	<2	140	0.01	239 – 241 m.
7565	22	770	1860	<1	<2	130	<0.01	241 – 243 m.
7566	18	270	2650	<1	17	180	<0.01	243 – 245 m.
7567	42	72	1620	<1	14	200	<0.01	245 – 247 m.
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	AAS2	XRF1	XRF1	FA1	

767346

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Job: 8AD1710
O/N: B56 11179

345

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ba	Au	Ag	HP 1 ↓
7571	44	26	340	38	180	[redacted]	0.1	269 - 271m
7572	24	<4	390	38	230	0.07	<0.1	271 - 273.2m
7574	42	4	46	18	390	0.09	<0.1	299 - 301 m
7575	13	4	46	28	390	0.02	<0.1	301 - 303 m
7576	7	18	66	100	400	0.06	<0.1	317 - 319m
7577	2	10	36	66	330	0.02	0.1	319 - 321 m
7582	28	36	1640	34	300	0.06	0.1	375 - 377m
7583	13	165	2050	14	710	0.04	<0.1	377 - 379 m
7584	20	105	3300	17	780	0.02	<0.1	379 - 380.6m
7585	16	56	3500	19	1120	0.04	0.2	380.6 - 382 m
7586	16	260	4300	4	880	<0.01	0.2	382 - 383m
7587	26	440	4550	12	1220	0.01	0.2	383 - 384 m
7588	50	270	3500	20	1140	0.04	0.3	384 - 385m
7589	24	470	3150	13	760	0.05	0.2	385 - 386.3m
7590	32	185	4450	26	450	0.02	0.3	386.3 - 387.8m
7591	16	58	2350	42	330	0.01	0.2	387.8 - 389 m
7592	12	140	2800	28	185	0.04	0.2	389 - 391m
7593	24	125	2700	20	270	0.07	0.2	391 - 393m
7594	34	84	4150	13	360	0.03	<0.1	393 - 395m
7595	135	500	2500	28	230	0.06	0.5	395 - 396.75m
7596	20	230	1720	24	240	<0.01	<0.1	396.75 - 399m
7597	9	46	320	48	440	0.03	0.2	399 - 401m
7598	62	110	2850	26	290	0.02	0.2	401 - 403m
7599	12	70	390	30	360	0.01	<0.1	403 - 405m
7600	32	46	260	46	410	0.01	0.2	405 - 407 m
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	XRF1	XRF1	FA1	AAS2A	

767347

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Job: 8AD1734
O/N: B56 11180

346

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	Ag	As	Ba	Au	HP1 ↓
7601	14	46	180	<1	58	410	<0.01	407 — 409m
7602	26	5000	6000	<1	<2	260	<0.01	409 — 411m
7603	58	3500	4200	<1	7	350	<0.01	411 — 412m
7604	13	3500	5800	<1	7	560	<0.01	412 — 413m
7605	18	2000	4300	<1	18	440	<0.01	413 — 414m
7606	52	1520	6200	<1	26	240	0.01	414 — 415·65m
7607	10	66	230	<1	17	30	<0.01	415·65 — 416·2m
7610	22	46	740	<1	40	165	<0.01	416·2 — 417·5m
7611	44	720	1860	<1	14	340	<0.01	417·5 — 419·5m
7612	140	1660	2950	<1	19	600	<0.01	419·5 — 421·5m
7613	170	1780	3700	<1	28	520	<0.01	421·5 — 423m
7615	24	1660	5200	<1	10	810	0.01	423 — 424·5m
7616	14	1440	3000	<1	6	710	<0.01	424·5 — 426m
7617	9	82	1820	<1	22	370	<0.01	426 — 427·5m
7618	52	100	1100	<1	10	680	<0.01	427·5 — 429m
7619	78	1120	1740	<1	3	1020	<0.01	429 — 430·5m
7620	12	770	2300	<1	<2	900	<0.01	430·5 — 432m
7621	14	480	2650	<1	24	240	<0.01	432 — 433·5m
7622	14	54	900	<1	22	370	<0.01	433·5 — 435m
7623	20	20	145	<1	15	460	<0.01	435 — 436·5m
7624	6	145	740	<1	11	590	<0.01	436·5 — 438m
7625	260	810	2850	<1	<2	1000	<0.01	438 — 439·6m.
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	AAS2	XRF1	XRF1	FA1	

767348

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347

Job: 8AD1760
O/N: B56 11181

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ba	Ag	Au	HP1 ↓
7626	70	790	2500	7	1120	0.1	0.01	439.6 — 441m
7628	44	380	1620	12	990	<0.1	<0.01	441 — 442.5m
7629	64	780	2300	<2	1460	0.2	<0.01	442.5 — 444m
7630	38	1080	2900	5	1880	0.2	<0.01	444 — 445.5m
7631	260	1500	4250	<2	980	0.8	<0.01	445.5 — 446.5m
7632	56	870	2550	3	1800	0.1	<0.01	446.5 — 447.5m
7633	36	670	1960	8	950	0.2	<0.01	447.5 — 449m
7634	26	620	330	10	750	0.3	<0.01	449 — 450.5m
7635	46	330	320	8	1860	0.3	0.01	450.5 — 452m
7636	150	2950	8200	<2	710	1.3	0.01	452 — 453m
7637	66	360	2900	10	1340	0.3	<0.01	453 — 454.5m
7638	8	30	1520	8	2350	<0.1	<0.01	454.5 — 456m
7639	44	830	3300	<2	880	0.4	<0.01	456 — 457.5m
7640	46	210	1100	20	410	0.4	<0.01	457.5 — 459m
7641	10	12	44	40	540	<0.1	<0.01	459 — 461m
7642	5	14	38	36	500	<0.1	<0.01	461 — 463m
7643	7	14	36	50	480	0.2	0.01	463 — 465m
7644	6	16	42	52	490	0.2	<0.01	465 — 467m
7645	4	14	46	46	600	0.4	<0.01	467 — 469m
7646	10	12	54	44	520	0.3	<0.01	469 — 470.35m
7647	50	36	640	20	260	0.3	<0.01	470.35 — 472.3m
7648	30	46	1280	24	290	0.5	<0.01	472.3 — 473.8m
7649	11	18	370	30	590	0.3	0.01	473.8 — 475.3m
7650	40	34	2800	20	370	0.5	<0.01	475.3 — 477m
7651	36	320	2600	15	230	2.7	0.01	477 — 478.5m.
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	XRF1	XRF1	AAS2A	FA1	

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Analytical Laboratories (INC. IN W.A.)

348

Job: 8AD1760
O/N: B56 11181

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ba	Ag	Au	HP1 ↓
7652	28	340	3350	17	480	0.6	0.02	478.5 — 480m
7653	38	1300	2200	<2	320	0.6	0.01	480 — 481.5m
7654	46	1600	2900	<2	680	1.0	0.04	481.5 — 483.5m
7655	42	700	1580	20	540	0.9	0.02	486.5 — 488.5m
7656	34	590	970	48	920	1.0	0.02	488.5 — 490.5m
7657	46	840	1660	6	1180	1.2	0.01	490.5 — 492.5m
7658	48	1220	2200	60	1280	1.2	0.01	492.5 — 494.5m
7659	44	980	2150	15	270	1.0	0.01	494.5 — 496.5m
7660	14	32	370	26	390	0.5	<0.01	496.5 — 498.5m
7661	28	36	2200	19	520	0.5	<0.01	498.5 — 500.5m
7662	36	1820	3150	4	820	1.0	<0.01	500.5 — 502m
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	XRF1	XRF1	AAS2A	FA1	

767350

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349

Job: 8AD1807
O/N: B56 11182

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ba	Ag	Au	HP1 ↓
7663	10	290	1780	24	690	0.3	0.05	502 – 503.5
7664	14	870	2100	4	1360	0.6	0.03	503.5 – 505m
7665	16	930	2950	6	1200	0.6	0.02	505 – 506.5m
7666	8	230	3500	10	610	0.2	0.02	506.5 – 507.5m
7667	10	720	1220	20	850	0.4	0.01	509.5 – 511m.
7668	10	830	2050	12	1640	0.5	0.01	511 – 512.5m
7669	12	92	1880	20	1420	0.4	0.01	512.5 – 514m
7670	16	710	1640	19	620	0.4	0.06	514 – 515.5m
7671	6	510	490	11	310	0.3	0.02	515.5 – 517m
7672	13	690	1060	15	330	0.2	0.01	517 – 518.5m
7673	8	830	1900	12	300	0.4	0.01	518.5 – 520m
7674	11	1080	1620	30	940	0.6	<0.01	520 – 521.5m
7675	9	1600	3100	5	780	0.7	0.01	521.5 – 523m
7676	17	380	2050	11	450	0.4	0.01	523 – 524.5m
7677	20	730	1660	15	960	0.6	<0.01	524.5 – 526m
7679	12	470	750	22	1800	0.6	<0.01	526 – 527.5m
7680	14	320	480	14	1480	0.5	0.01	527.5 – 529m
7681	12	200	310	30	2450	0.4	0.01	529 – 530.5m.
7682	15	195	610	19	1880	0.3	0.01	530.5 – 532m
7683	13	165	320	17	2450	0.4	<0.01	532 – 533.5m
7684	15	280	440	16	1020	0.4	<0.01	533.5 – 535m
7685	17	330	890	8	1560	0.4	<0.01	535 – 536.5m
7686	12	450	740	20	1160	0.5	<0.01	536.5 – 538.5m
7687	11	920	820	14	1700	0.6	0.03	538.5 – 540m
7688	11	1060	1680	10	1100	0.6	0.03	540 – 541m.
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	XRF1	XRF1	AAS2A	FA1	

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Analytical Laboratories (INC. IN WA)

350

Job: 8AD1807
O/N: B56 11182

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ba	Ag	Au	HP1 ↓
7689	15	1060	3400	11	980	0.5	0.02	541 – 542m
7690	14	200	4750	12	720	0.4	0.01	542 – 543m
7691	10	820	2500	9	460	0.4	0.01	543 – 545m
7692	12	1560	2750	8	480	0.7	0.01	545 – 546m
7693	11	76	2700	24	340	0.2	0.01	546 – 547m
7694	7	145	3650	15	680	0.3	0.01	547 – 547.8m
7695	12	32	2650	13	640	0.3	0.01	547.8 – 549.6m
7696	12	80	3450	10	490	0.3	<0.01	549.6 – 550.8m
7697	8	16	800	24	280	0.2	<0.01	550.8 – 552m
7698	5	16	175	38	310	0.1	<0.01	552 – 553.5m
7699	5	24	270	42	460	0.2	<0.01	553.5 – 555m
7700	11	820	2150	12	550	0.4	0.01	555 – 556.5m
7701	19	1220	4150	11	370	0.6	0.01	556.5 – 558m
7702	9	1040	1780	8	660	1.0	0.02	558 – 559.5m
7703	12	42	570	70	640	0.2	<0.01	559.5 – 561m
7704	7	1340	3050	14	990	0.7	0.04	561 – 562.5m
7705	20	1180	3100	17	1600	0.7	0.02	562.5 – 564m
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	XRF1	XRF1	AAS2A	FA1	

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351

Job: 8AD1838
O/N: B 56 Z 114300-3

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ba	Au	Ag	HP1 ↓
7706	84	2450	4550	10	1620	<0.01	1.2	564 – 565.5m
7707	84	2400	3700	<2	1380	0.01	1.3	565.5 – 567m
7708	26	1600	3300	<2	1960	0.01	0.9	567 – 568.5m
7709	56	2350	3400	<2	1560	0.01	0.9	568.5 – 569.5m
7710	16	340	2500	28	880	0.01	0.3	569.5 – 570.5m
7711	22	240	3350	15	870	0.01	0.1	570.5 – 571.5m
7712	17	1240	2600	5	1160	0.02	0.4	571.5 – 572.5m
7713	24	1380	2350	9	1460	0.03	0.5	572.5 – 574.5m.
7714	50	130	960	32	470	0.01	0.2	574.5 – 576.5m
7715	56	110	3600	30	210	0.01	0.2	576.5 – 578m
7716	58	670	3950	20	230	0.01	0.3	578 – 579.5m
7717	34	430	1780	28	360	0.04	0.3	579.5 – 581m
7718	48	370	1680	28	890	0.01	0.3	581 – 582.5m
7719	40	590	1660	18	1020	<0.01	0.5	582.5 – 584.5m
7720	46	2600	3600	11	2150	0.01	0.7	584.5 – 585.5m
7721	66	240	550	26	1420	<0.01	0.5	585.5 – 586.5m
7722	50	88	530	26	940	0.04	0.8	586.5 – 587.5m
7723	72	410	540	20	1840	0.03	0.4	587.5 – 588.5m
7724	36	360	1180	26	780	0.02	0.3	588.5 – 590m
7725	40	440	1000	13	2500	0.01	0.2	590 – 591.5m
7726	34	870	1300	13	2750	0.01	0.2	591.5 – 593m
7727	42	1280	1620	14	2350	0.01	0.5	593 – 594.7m
7728	32	1200	2550	26	2600	0.10	0.5	594.7 – 596m
7729	26	1240	1600	17	2600	0.01	0.4	596 – 597.5m
7730	46	1640	2000	<2	1460	0.13	0.4	597.5 – 599m
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	XRF1	XRF1	FA1	AAS2A	

767353

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352

Job: 8AD1838

O/N: B 56   Z 114300-3

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ba	Au	Ag	HP1 ↓
7731	58	2800	6500	3	920	0.01	0.5	599 – 600m
7732	74	1420	2700	13	1620	0.04	0.2	600 – 601m
7733	105	1360	2800	20	1360	<0.01	0.2	601 – 602.5m.
7734	140	1420	3300	17	920	0.01	0.4	602.5 – 603.8m.
7735	84	970	4350	64	660	0.01	0.5	603.8 – 605.5m.
7736	50	800	1840	20	1420	<0.01	0.3	605.5 – 607m.
7737	44	620	840	14	2300	<0.01	<0.1	607 – 609.25m.
7738	50	135	800	30	2000	<0.01	0.4	609.25 – 610.25m.
7739	42	1560	1840	17	1780	<0.01	0.3	610.25 – 612.5m.
7740	80	710	5200	15	620	0.01	0.1	612.5 – 614m.
7741	120	550	2750	24	460	<0.01	0.4	614 – 615.7m.
7742	38	62	430	78	470	0.01	0.3	615.7 – 616.95m.
7743	50	680	1740	11	270	0.04	0.4	616.95 – 619m.
7744	34	500	740	8	380	0.02	0.2	619 – 620.5m.
7745	38	690	920	15	1200	<0.01	0.6	620.5 – 622m.
7746	52	690	2300	30	850	0.01	0.3	622 – 624m.
7747	46	1280	3800	9	1160	<0.01	0.6	624 – 626m.
7748	58	1020	3050	12	720	<0.01	0.5	626 – 628m.
7749	58	520	1300	16	480	0.01	0.4	628 – 630m.
7750	50	240	350	18	980	<0.01	0.4	630 – 632m.
7751	54	400	430	19	620	0.02	0.5	632 – 634m.
7752	44	28	270	24	170	0.02	0.1	265 – 266m
7753	86	24	160	28	75	<0.01	<0.1	266 – 267m
7754	80	8	620	15	195	<0.01	<0.1	267 – 268m
7755	135	12	300	24	165	0.01	0.1	268 – 269m
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	XRF1	XRF1	FA1	AAS2A	

767354

CLASSIC COMLABS LTD

Analytical Laboratories (INC. IN W.A.)

3[illegible]

Job: 8AD1838

O/N: B 58 Z 114300-3

ANALYTICAL REPORT

SAMPLE	Cu	Pb	Zn	As	Ba	Au	Ag	HP1 ↓
7756	30	8	160	24	185	<0.01	<0.1	273.2 – 274.5m
7757	60	10	96	15	210	<0.01	<0.1	274.5 – 276m
7759	58	880	1620	12	1780	<0.01	0.5	657.7 – 659.8m
7760	42	300	2350	11	2300	<0.01	0.3	663 – 664.5m
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm	
SCHEME	AAS1	AAS1	AAS1	XRF1	XRF1	FA1	AAS2A	

APPENDIX 7

Petrology of Tullabardine Gorge Rock Samples

GENERAL COMMENTS

1. One of the samples (7412) is considered to be sparsely amygdaloidal, porphyritic rhyodacite lava. There are no clear indications of whether it was erupted on land or under water; certainly there are no unusual textural or mineralogical characteristics which might reflect contact with sea water.

2. Three samples (4454, 7402 and 7408) are regarded as relatively coarse acid tuffs. They are unwelded and may have developed on land or in water. They have no obvious epiclastic characteristics and one of them (4454) was richly pumiceous. Subjective impressions favour interpretation as subaerial, unwelded ashflows.

3. The other three samples have pyroclastic affinities, but are silty rocks which are interpreted to have been deposited after aqueous transporting and sorting.

   The sample which retains the most tuffaceous characteristics is 7427 : it is interpreted to be a tuffaceous turbidite, generated by reworking of rhyodacitic tuff.

   Sample 4453 shows a greater degree of sorting and is essentially a sandy vitroclastic siltstone.

   Sample 7418 is the most thoroughly sorted variant : it is regarded as vitroclastic siltstone and has no phenoclasts.

4. All of the samples show alteration of propylitic style, featuring chlorite, but with variable amounts of other propylitic minerals, such as epidote, sphene, calcite and sericite or illite.

5. Traces of sulphide were seen in several samples. It was mainly bronze and possibly pyrrhotite.

Sub f/c ⓐ 85000N/85633E, TULLABARDINE GORGE.

Sample Number : 4453 767357

Identification : Sandy vitroclastic siltstone, rich in K-feldspar as a devitrification product

Description :

The sample is a superficially weathered hand specimen of very hard, fine-grained, dark greenish grey rock with subconchoidal fracture.

A cobaltinitrite staining test revealed that the rock is rich in fine K-feldspar.

In thin section the sample displays silt and sand-sized subangular clasts of quartz and less commonly feldspar and acid volcanic rock (about 0.03 to 1mm) scattered through a finely microcrystalline matrix (0.01 to 0.02mm) of K-feldspar, quartz, chlorite, sericite and sphene. In a few places there are remnant textures suggestive of silt-sized, non-delicate, platy vitric shards.

Fine grains (less than 0.1mm) of a bronze, magnetic sulphide (presumably pyrrhotite) occur as disseminated grains, small aggregates and a few branching, dendritic veinlets. There are rare cubes of pyrite.

An approximate mode is :

10-15%	silt and sand grains of quartz
1-2%	silt and sand grains of plagioclase, some carbonated
rare	acid volcanic clasts
65-75%	very fine feldspar and quartz
6-8%	chlorite
4-6%	sericite
2-3%	sphene
0.2-0.3%	pyrrhotite
rare	pyrite

Comments and Interpretations :

This sample is interpreted to be an epiclastic rock, deposited by aqueous processes. It seems to have been a silty accumulation of broken vitric shards (all platy and no delicate shapes) contaminated with silt and sand-sized, reworked phenoclasts of quartz and very minor plagioclase. The source was rhyolitic or rhyodacitic. The textures do not seem consistent with directly tuffaceous deposition : the shards are too sorted and not delicate enough.

The formerly vitric components have devitrified to abundant K-feldspar, along with quartz, chlorite, sericite and sphene. Traces of pyrrhotite have developed as disseminated grains and veinlets. There are rare pyrite grains.

767358

351

Sub 9c 2 85000N/85620E , TULLABARDINE GORGE.

Sample Number : 4454

Identification : Dacitic, unwelded or poorly welded, pumice vitric crystal tuff

Description :

The sample is a lightly weathered hand specimen of very hard, greenish grey rock with textures of lithic tuffaceous or coarsely vitroclastic style. Variously dark chloritic or paler feldspathic, porphyritic clasts range up to about 10mm.

A cobaltinitrite staining test revealed that several of the clasts are potassic.

In thin section the sample displays unsorted, unwelded, tuffaceous textures involving porphyritic pumiceous and lithic or vitric clasts about 1 to 10mm in size, a few phenocalsts about 0.2 to 2mm, and a finely quartzofeldspathic matrix with faint ghosts of unwelded or poorly welded vitric clasts about 0.2 to 0.4mm long.

Many of the clasts have quite distinct filamentous pumiceous textures, but they have converted to chlorite and variable quartz, epidote, calcite and sphene; contained phenocrysts are sericitized, epidotized and carbonated plagioclase, quartz, opaque oxides incompletely altered to sphene, and chloritized mafic silicates. Other porphyritic clasts without pumiceous remnant textures are more feldspathic : some have ghosted perlitic cracks, consistent with former glass. The phenocrysts involve the same primary and alteration minerals as the phenocrysts. The finely vitroclastic matrix now consists mainly of feldspar and quartz finer than about 0.01mm.

In terms of original components the rock consisted of about :

65-75%	porphyritic pumiceous and vitric or lithic clasts
3-5%	phenoclast sof mainly plagioclase and quartz
20-30%	finely vitroclastic matrix

In terms of present mineralogy it involves about :

35-45%	feldspar (mainly plagioclase)
20-25%	quartz
12-18%	chlorite
10-12%	epidote
8-10%	sericite
1-3%	sphene and remnant oxides
0.3-0.5%	calcite

Comments and Interpretations :

This rock is regarded as lapilli tuff, or more specifically as dacitic unwelded or poorly welded, pumice vitric crystal tuff. Pyroclastic deposition on land or into water are both possible, although textures probably favour the terrestrial alternative : it seems likely that subaqueous deposition would have separated the pumice from the fine vitric shards.

The rock now shows devitrification and heavy propylitic alteration, but no sulphides.

767359

Rock float @ 800N/7382E , TULLABARDINE GORGE.

Sample Number : 7402

Identification : Slightly pyritic, intensely sericitized and chloritized, rhyodacitic or dacitic, unwelded vitric crystal tuff

Description :

The sample is a superficially weathered hand specimen of greenish grey rock with textures strongly suggestive of aligned formerly vitric shards, a fraction of a millimetre to several millimetres long.

A staining test revealed no K-feldspar.

In thin section the sample displays unwelded tuffaceous textures and pervasive chloritization and sericitization. Remnant textures are plainly consistent with former vitric shards and related pumiceous clasts (generally 0.5 to several millimetres long) and less abundant subhedral and broken phenoclasts (0.1 to 1.5mm). The shards are crudely aligned, but not welded.

The most common phenoclasts have tabular shapes of plagioclase style, but they are now pseudomorphed completely or almost completely by relatively coarse sericite. There are some quartz phenoclasts. Obvious thick grains of biotite have been completely altered to chlorite with leucoxene and less commonly some sericite. There are a few opaque oxide phenoclasts partly altered to sphene. Some formerly pumiceous or coarsely vitric clasts carry phenocrysts analogous to the phenoclasts. All former vitric components are now represented by sericite, chlorite, sphene/leucoxene and very fine quartz.

There are sparse disseminated cubes (0.1 to 0.2mm) of pyrite, some of it partly oxidized.

An approximate mode is :

3-4%	sericite pseudomorphs of plagioclase phenoclasts and phenocrysts
1-2%	biotite phenoclasts and phenocrysts pseudomorphed by chlorite-leucoxene$\pm$sericite
0.5-1%	quartz phenocalsts and phenocrysts
tr	oxide phenoclasts
40-50%	sericite, derived from glass
30-40%	quartz, derived from glass
10-15%	chlorite, derived from glass
2-3%	leucoxene/sphene, derived from glass
tr	pyrite

Comments and Interpretations :

The textures of this rock are plainly consistent with unwelded vitric crystal tuff and its phenoclast assemblage and devitrification products are consistent with rhyodacite or dacite.

2/...

There are no indications of any aqueous sorting or rounding, but the tuff is unwelded : therefore, deposition could have taken place on land or into still water.

The rock has been intensely sericitized and chloritized, apparently by hydrothermal processes. There are traces of disseminated pyrite.

767361

Sub O/c ~ 84800N/85650E , TULLABARDINE GORGE

Sample Number : 7408

Identification : Rhyodacitic, unwelded, lithic (or coarsely vitric) crystal tuff

Description :

The sample is a lightly weathered hand specimen, displaying porphyritic lithic clasts (about 2 to 13mm) and small phenoclasts set in a greenish grey, hard, fine-grained matrix.

A staining test revealed a moderate abundance of fine K-feldspar.

In thin section the porphyritic lithic clasts display numerous corroded phenocrysts (0.5 to 2mm) of quartz, moderately, finely sericitized and lightly carbonated plagioclase and chlorite-sphene pseudomorphs of biotite set in a granophyric groundmass, involving micrographic intergrowths of quartz and K-feldspar (about 0.1mm) set in a network of chlorite. The groundmass textures may be of devitrification origin.

The matrix between the porphyritic clasts involves broken phenoclasts (0.1 to 1mm) similar in primary and secondary mineralogy to the phenocrysts. They are set in a very finely crystalline (0.01mm) matrix of feldspars, quartz, chlorite, sphene and traces of sericite.

In terms of original components the rock involved about :

75-80%	coarse, abundantly porphyritic lithic or vitric clasts
15-20%	fine matrix components
5-7%	phenoclasts

In terms of present mineralogy the composition is about :

35-40%	plagioclase
30-35%	quartz
15-20%	orthoclase
10-12%	chlorite
3-4%	sericite
0.5-1%	sphene
0.1-0.3%	carbonate (a ferroan variety)

Comments and Interpretations :

This sample is interpreted to be a lapilli tuff, or more specifically a rhyodacitic, unwelded lithic (or coarsely vitric) crystal tuff. No vitric shards were recognised, but they may have existed in the fine matrix. The textures seem to be pyroclastic; deposition on land or in water are equally possible from the observed textures.

Moderate alteration is of propylitic style, involving chlorite, minor sericite (perhaps illite), sphene and carbonate. There are no sulphides.

381

767362

o/c ∂ 84790N/84950E, TULLABARDINE GORGE.

Sample Number : 7412

Identification : Sparsely amygdaloidal, porphyritic rhyodacite with chloritized and leucoxenized mafic minerals

Description :

The sample is a lightly weathered hand specimen of very hard rock, displaying small phenocrysts of orange pink feldspar and dark chloritized mafic minerals set in an olive grey to orange pink groundmass.

A cobaltinitrite staining test revealed abundant K-feldspar in the groundmass.

In thin section the sample displays porphyritic and glomeroporphyritic textures, involving subhedral phenocrysts and altered phenocrysts, about 0.2 to 2mm in size, set in a granophyric groundmass with plagioclase laths around 0.1mm and micrographic intergrowths of quartz and K-feldspar about 0.1 to 0.2mm in size.

The main phenocrysts are plagioclase, lightly flecked with sericite. Mafic phenocrysts are represented as chlorite pseudomorphs of inferred hornblende and leucoxene pseudomorphs of ilmenite or titaniferous magnetite. There are no quartz phenocrysts, but there are several ovoid amygdales of quartz, about 1mm long. The groundmass involves about equal proportions of quartz, orthoclase and plagioclase, along with minor fine chlorite, leucoxene and flecks of sericite.

An approximate mode is :

3-5%	plagioclase phenocrysts
2-3%	chlorite pseudomorphs of inferred hornblende phenocrysts
0.5-0.8%	leucoxene pseudomorphs of oxide phenocrysts
30-35%	groundmass orthoclase
25-30%	groundmass quartz
25-30%	groundmass plagioclase
4-6%	groundmass chlorite
1-2%	groundmass sericite
0.2-0.3%	groundmass leucoxene
0.1-0.2%	quartz amygdales

Comments and Interpretations :

This sample is confidently interpreted to represent porphyritic, sparsley amygdaloidal, rhyodacitic lava. Despite its acid composition it is devoid of quartz phenocrysts.

Primary mafic minerals, probably hornblende, have been completely chloritized and primary oxides have been completely leucoxenized. Only slight sericitization has affected the feldspars.

67363

3+2

Sample Number : 7418 d/c: D 84,355N/84,950E , TULLABARDINE GORGE.

Identification : Vitroclastic siltstone, rich in K-feldspar as a devitrification product

Description :

The sample is a superficially weathered hand specimen of very hard, fine-grained, dark greenish grey rock with subconchoidal fracture.

A staining test revealed abundant fine K-feldspar.

In thin section the sample displays well sorted, densely packed, clasts of mainly silt size (about 0.03 to 0.1mm). Numerous clasts are angular grains of quartz, but many others were non-delicate, platy probable vitric shards (now altered to K-feldspar, quartz, chlorite and sericite); small aggregates of sphene are also common.

There are a few branching, dendritic veinlets of bronze sulphide and some disseminated, similarly fine grains (less than about 0.03mm) and aggregates.

An approximate mode is :

12-18%	silt grains of quartz
65-75%	very finely quartzofeldspathic devitrification products
5-10%	sericite
4-6%	chlorite
2-3%	sphene
0.2-0.3%	bronze sulphide

Comments and Interpretations :

This rock is confidently interpreted to be a vitroclastic siltstone, generated by aqueous transport and deposition of detritus derived from rhyolitic or rhyodacitic tuffaceous sources.

It is considered not to be a tuff because it is too well sorted and carries no delicate vitric shards and no bombs or phenoclasts. The lack of laminations is also inconsistent with subaerial tuff or related dust.

The rock is finely sericitized, chloritized and rich in fine K-feldspar as a devitrification product. There are traces of very fine sulphide (possibly pyrrhotite) as disseminations and veinlets. There is a faint tectonic foliation in the sericite.

767364
Float @ 84,900N, 85,635E TULLABARDINE GORGE.

Sample Number : 7427

Identification : Tuffaceous turbidite

Description :

The sample is a superficially weathered hand specimen of hard, greenish grey rock, displaying small phenocalsts and porphyritic lithic clasts scattered through an apparently silty matrix.

A staining test revealed many silt and sand-sized potassic clasts and indicated a potassic groundmass in a porphyritic lithic clast which is about 4mm in size.

In thin section the phenoclasts are seen to be broken crystals about 0.05 to 1mm in size. ; Many of them are quartz but a few are plagioclase and K-feldspar (orthoclase and rare microcline). Many others of uncertain type (possibly plagioclase) are very finely epidotized or sericitized and some are carbonated. The few lithic clasts (up to 7mm) are chloritized, carbonated and sericitized porphyritic acid types. Fine grains of a bronze, but non-magnetic sulphide occur as aggregates replacing a few mineral clasts and phenocrysts. The major matrix consists of very fine (less than 0.01mm) feldspar, quartz and chlorite.

In terms of original components the rock contained about :

2-3%	porphyritic lithic or formerly vitric clasts
30-40%	mineral fragments
50-60%	silt-sized components

In terms of present mineralogy the rock contains about :

55-65%	feldspars and microcrystalline quartz
10-15%	epidote
10-15%	sericite
6-8%	chlorite
6-8%	identifiable quartz
1-2%	calcite
0.1-0.2%	bronze sulphide (possibly pyrrhotite)

Comments and Interpretations :

This rock appears to have been derived from rhyodacitic pyroclastic components, but its textures trend towards epiclastic. The major matrix has a distinctly silty to finely sandy appearance : probably the rock is a tuffaceous turbidite. In view of the size sorting and lack of delicate shapes in the phenoclasts it is thought that the tuff components were transported with the silt rather than dropped into a silty setting.

The rock now has a propylitic style of alteration and there are disseminated replacement aggregates of possible pyrrhotite present in trace amounts.

8350

Fig. 2

767365

88-2824

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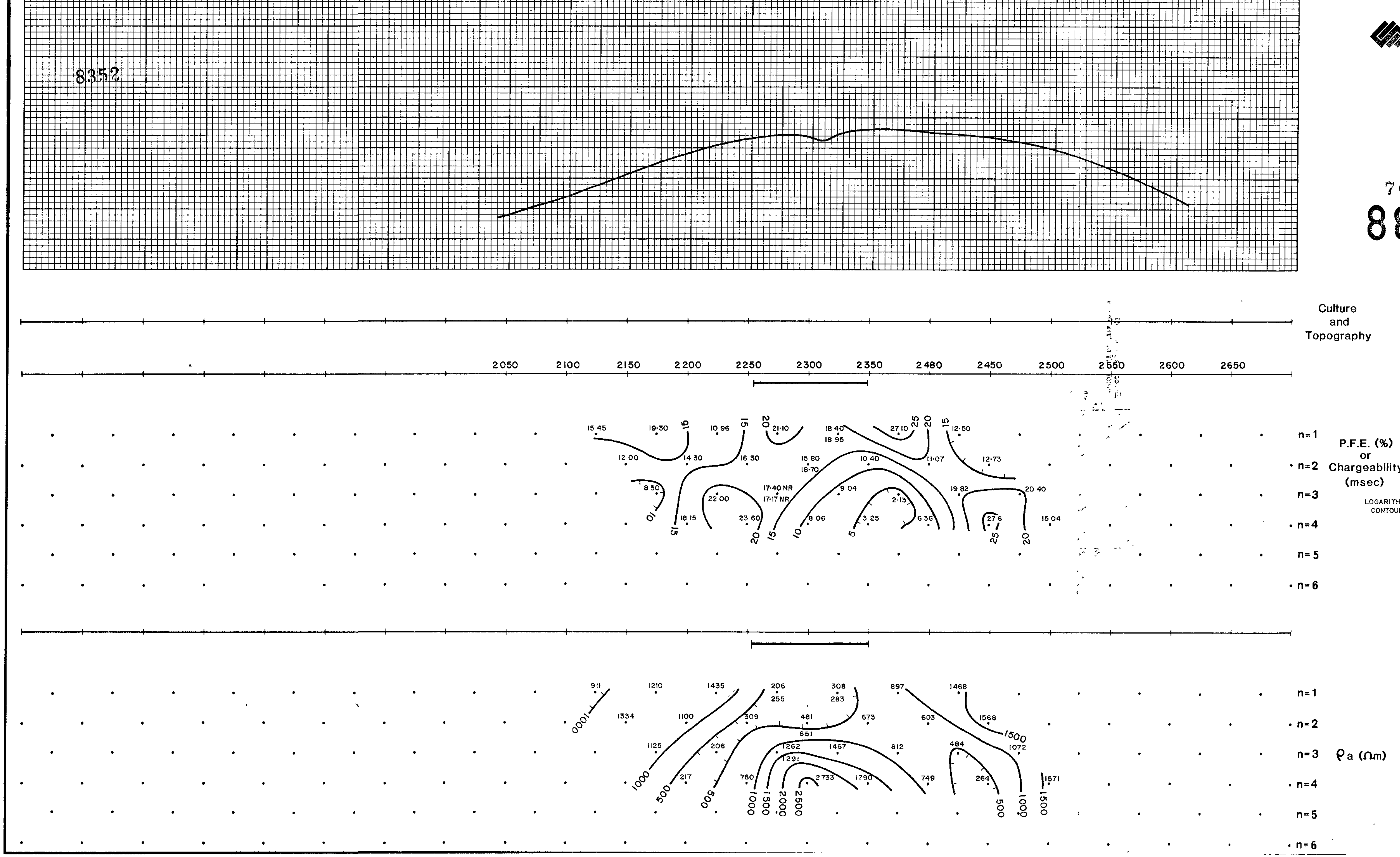
EXPLORATION DEPARTMENT

EL 5/63, AREAS 3 & 4, N.W. TASMANIA.
J.McNAE, LAMONTAGNE GEOPHYSICS
UTEM INTERPRETATION
1987 SURVEY

Drawn: T Kerr/J. McNae	Date: June 1988	Centre: Melbourne
Traced: M. Rosker/A. Veale	Project No. B56	Drawing No. A0-138
Checked:		
O.I.C.		

Revisions

8351
Magnetic North
PLAN
N.B. Grid line bears 120° mag West of 3550 E
GRID LINE (122° mag)
HP 1
(120° mag)
EOH 666·6 m
SECTION ALONG LINE 7800N
(Bearing 132° AMG)
NORTH - WEST
SOUTH - EAST
HP 1
(-51°30)
Small creek
Small creek
Vein qtz float
Yellow - brown soil
Grey soil - no rock float or o/c
Swampy creek
Track
UPPER EPICLASTIC SEQUENCE
DUNDAS GROUP SEDIMENTS
QUE RIVER SHALE
QUE RIVER VOLCANICS
QUARTZ-MICA SANDSTONE
Partly carbonaceous
DUNDAS GROUP SEDIMENTS
BLACK SHALE
Partly graphitic
MAJOR FAULT with clayey mafic dyke
BLACK SHALE AND QUARTZ-MICA SANDSTONE
Both rock types carbonaceous and partly graphitic
QUARTZO-FELDSPATHIC SANDSTONE WITH BANDS OF ANDESITIC VOLCANIC BRECCIAS
FAULT BRECCIA
with andesite and sediment clasts
BRECCIA WITH FELDSPAR-CRYSTAL, LITHIC TUFF MATRIX
BRECCIA WITH GRAPHITIC SHALE MATRIX
GRAPHITIC SHALE
UPPER EPICLASTIC SEQUENCE
QUE RIVER SHALE
QUE RIVER VOLCANICS
MAFIC VOLCANICLASTICS
STRONGLY ALTERED ZONE IN MAFIC VOLCANICLASTICS
QUARTZO-FELDSPATHIC SANDSTONE, SILTSTONE AND SHALE
ANDESITIC VOLCANICLASTICS
BASALT LAVA
MAFIC VOLCANICLASTICS WITH BLACK SHALE MATRIX
MAFIC VOLCANICLASTICS
BRECCIATED ANDESITIC LAVAS
ALTERED BASALTIC VOLCANICLASTICS IN BLACK SHALE MATRIX
AMYGDALOIDAL BASALT LAVA
BASALTIC VOLCANICLASTICS
MILDLY DEFORMED MAFIC VOLCANICLASTICS
FELDSPAR-PHYRIC ANDESITIC LAVA BRECCIAS
170·5 - 189m: 18·5m @ 0·46% Zn including 181·5 - 182·5m: 1m @ 1·25% Zn
237 - 245m: 8m @ 0·12% Pb, 0·33% Zn
269 - 271m: 2m @ 3·8 g/t Au, 0·03% Zn
409 - 415·65m: 6·65m @ 0·32% Pb, 0·56% Zn
419·5 - 426m: 6·5m @ 0·16% Pb, 0·37% Zn
452 - 457·5m: 5·5m @ 0·36% Zn
NOTE: 375 - 630m: 255m @ 0·07% Pb, 0·21% Zn
561 - 579·5m: 18·5m @ 0·12% Pb, 0·30% Zn, 0·02 g/t Au
594·7 - 605·5m: 10·8m @ 0·16% Pb, 0·30% Zn, 0·04 g/t Au
612·5 - 615·7m: 3·2m @ 0·39% Zn
most abundant Highly pyritic lava clasts
MT. CHARTER FAULT ZONE
Rocks in this zone highly sheared and broken with abundant quartz veins
EL 5/63 (PART 3)
HP 1
N.E.C. POWER LINE
MURCHISON
AMG N
Scale 1:50,000
0 1000 2000 metres
LOCATION
LEGEND
Fault
Geological contact
Bedding
Schistosity
Bedding facing
Significant mineralization
Significant sulphides (totalling over 2%)
ABBREVIATIONS
Alb. Albitisation
Ble Bleaching
Carb. Carbonatisation
Chlor. Chloritisation
Ser Sericitisation
Silif Silicification
SCALE 1:1,000
0 50 100 metres
Revisions:
BHP-Utah Minerals International
Asia Pacific Division - Exploration Department
E.L.5/63 (PART 3), COMSTAFF J.V., TAS.
HIGH POINT PROSPECT
SECTION THROUGH DDH HP1 (7800N)
Prepared G. Purvis/D. Windrim
Drawn A.R. Veale
Checked D. Windrim
Date June 1988
Project No B56
Centre MELBOURNE
Drawing No A1-2246
767366
Fig. 4
88-2824
5 cm



BHP-UTAH MINERALS INTERNATIONAL
ASIA-PACIFIC DIVISION EXPLORATION

INDUCED POLARIZATION AND RESISTIVITY SURVEY

Fig. 6

767367

88-2824

5 cm

I.P. Unit: Tx. PHOENIX Rx. HUNTEC MK IV

Freq. or Int. Period:

Date of Survey: 13-4-88

Resistivity Contour Interval:
Logarithmic 10 8 6

CONTOUR CHOICE

LOGARITHMIC CONTOURS 10	Intervals	10 13 16 20 25 32 40 50 63 79 100
8	"	10 13 18 24 32 42 56 75 100
6	"	10 15 20 30 50 75 100

Anomaly Strong Weak

Electrode Array: Dipole–Dipole

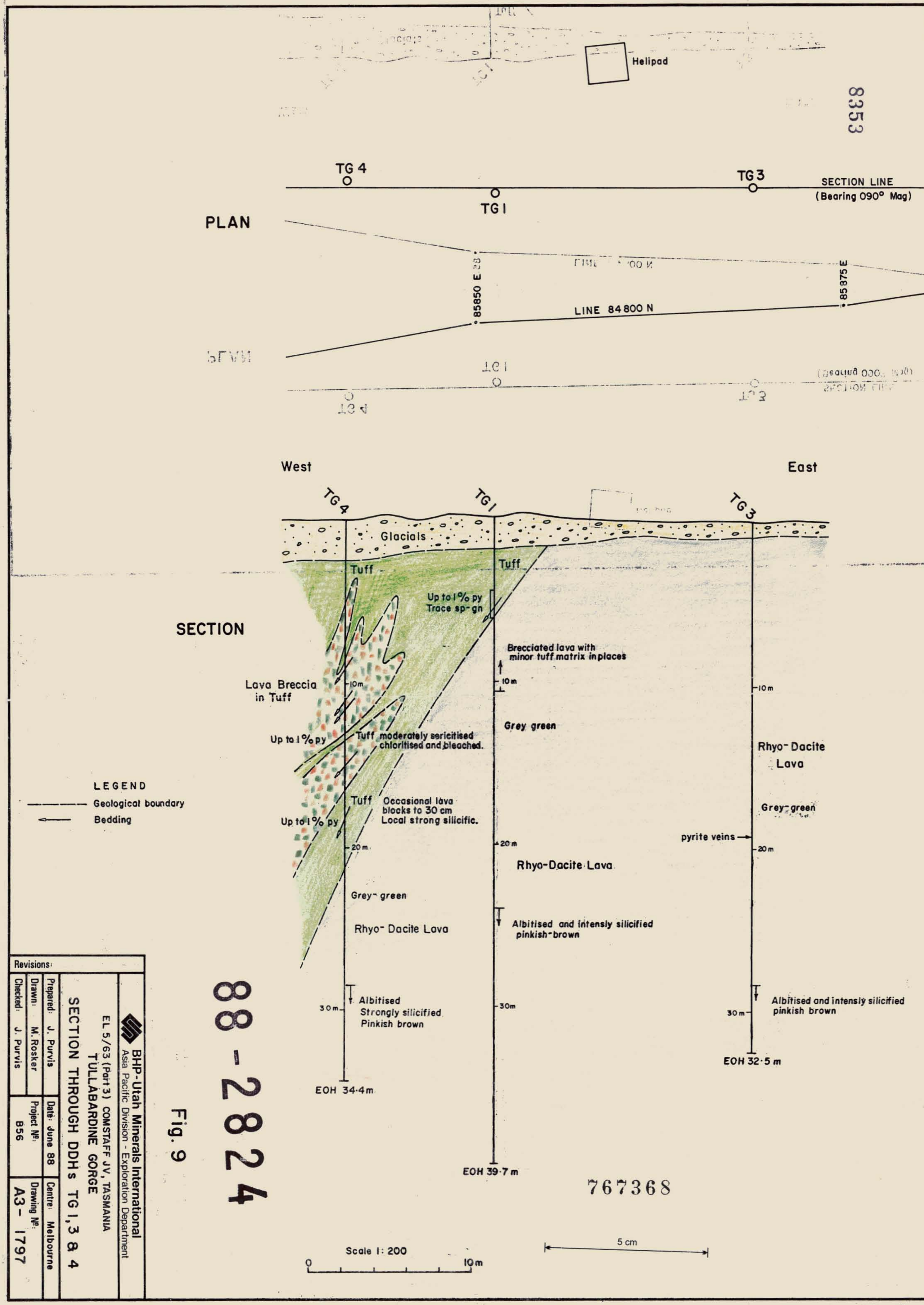
Dipole size: 50 m

PROJECT
(Tenement name and No): COMSTAFF JOINT VENTURE

Prospect: SOCK CREEK SOUTH

1 : 250000 Sheet and No:

LINE: 5200 N


Helipad
8353
PLAN
TG 4
TG 1
TG 3
SECTION LINE
(Bearing 090° Mag)
85850 E
85875 E
LINE 84800 N
SECTION
West
East
Glacials
Tuff
Up to 1% py
Trace sp-gn
Brecciated lava with minor tuff matrix inplaces
Lava Breccia in Tuff
Up to 1% py
Tuff moderately sericitised chloritised and bleached.
Grey green
Rhyo-Dacite Lava
Grey-green
Tuff
Occasional lava blocks to 30 cm
Local strong silicific.
Up to 1% py
pyrite veins
Rhyo-Dacite Lava
Grey-green
Rhyo-Dacite Lava
Albitised and intensly silicified pinkish-brown
Albitised
Strongly silicified
Pinkish brown
Albitised and intensly silicified pinkish brown
10m
20m
30m
EOH 34·4m
EOH 39·7m
EOH 32·5 m
LEGEND
Geological boundary
Bedding
Scale 1: 200
0
10m
5 cm
Fig. 9
88-2824
767368
BHP-Utah Minerals International
Asia Pacific Division - Exploration Department
EL 5/63 (Part 3) COMSTAFF JV, TASMANIA
TULLABARDINE GORGE
SECTION THROUGH DDHs TG 1,3 & 4
Revisions:
Prepared: J. Purvis
Drawn: M. Rosker
Checked: J. Purvis
Date: June 88
Project Nº: B56
Centre: Melbourne
Drawing Nº: A3-1797