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FIRST PROGRESS REPORT ON THE FOLLOW-UP OF AEROMAGNETIC ANOMALIES RAPID RIVER E.L. 1/79 NORTH WEST TASMANIA AUGUST 1982 TO AUGUST 1983

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1. SUMMARY

Initial ground follow-up of nine aeromagnetic anomalies defined by the 1982 Rapid River - Atlas aeromagnetic survey resulted in the dismissal of six as being of no further interest. The remaining three could not be adequately explained. These have been recommended for further evaluation through the establishment of grids over them.

Regional stream sediment geochemistry has not delineated any anomalies of interest although only a limited amount has been done.

The continuation of the follow-up reconnaissance surveying of magnetic anomalies and regional geochemical sampling is recommended.

2. INTRODUCTION

Rapid River E.L. 1/79 is held in Joint Venture with Geopeko. It lies approximately 15 kilometres to the north of the township of Savage River and comprises 365 square kilometres (Plan TASh 842). Access to the E.L. is extremely limited. The Savage River - Port Latta iron pipeline bisects the area whilst forestry operations provide limited access along the northern boundary. Vegetation is very dense consisting mainly of Myrtle rain forest. Button grass plains and low ti tree cover approximately 2% of the area.

The E.L. was surveyed with aeromagnetic and radiometrics in February of 1982. Survey specifications and gross qualitative interpretation of this survey is presented in Flis, 1982.

This report describes the ground follow-up work conducted during the summer of 1982/83. Exploration consisted primarily of soil and stream geochemistry, lithology identification, magnetic susceptibility measurements and, where possible and appropriate, ground magnetics. Nine of the twenty chosen anomalies were visited.

3. CONCLUSIONS

Follow-up reconnaissance surveys have resulted in the disqualification of six anomalies for future work. CLEARWATER, LYONS RIVER, RAPEND NORTH, and SAVAGE RIVER NORTH were found to be caused by Tertiary basalts. DOLSOW and SAVTREN were found to be caused by dolerite and amphibolite respectively. These are both considered as being non-prospective at this stage. LATLONG, RAPID EAST and WRIDGE could not be explained. Each are located in siltstones or shales with seemingly non-anomalous metal concentrations; problems in soil sampling may negate this conclusion.

'Regional' stream geochemistry also has not delineated any obvious anomalies. However, once enough samples have been collected to provide a statistical background level for each lithology in this area the data will be re-evaluated.

4. RECOMMENDATIONS

1. Grids to be established over LATLONG, RAPID EAST, AND WRIDGE to allow ground magnetic and bedrock geochemistry surveys to be carried out.
2. Access tracks to be cut into RAPID, RAPEND SOUTH, RAPEND WEST, RAPEND EAST, TRAPID NORTH, RAPEND, RAPEND WEST, ARTHUR and SEDGE (in that order of priority) to allow reconnaissance ground magnetic and geochemical surveys to be undertaken.

3. Continuation of ad hoc regional geochemical sampling programme and treatment of data statistically.

4. Full examination and interpretation of all digital image data (radiometrics, magnetics and Landsat), and

5. Appraisal of prospectiveness of Cambrian dolerites and amphibolites within the E.L.

5. GENERAL

The general geology of the E.L. is covered in FLIS, 1982. A more detailed, but localised, geological description can be found in McNeil, 1960 and Gee, 1971.

No concerted effort has been made to map the E.L. to date as the main thrust of all field work is aimed at magnetic anomaly follow-up.

5.1 Aeromagnetic Survey

An aeromagnetic/radiometric survey was conducted over the E.L. in February of 1982. Survey specifications are repeated here for completeness sake:

Line Spacing	250 metres
Line Direction	East-West
Sensor Height	100 metres
Magnetometer Noise	1 nanoTesla
Crystal Volume	16,780 c.c.
Contractor	Austirex Int. Ltd.

5.2 Magnetic Modelling

Aeromagnetic anomalies selected for ground follow-up (Plan TASh 1436) were modelled using inversion techniques prior to field work commencing.

All modelling was carried out by MAGMOD, a CRAE magnetic inversion programme. Anomalies were inverted to three basic models: the tabular body (2D dyke with infinite depth extent), the ribbon body (2D dyke with limited depth extent and width less than depth of burial), and the horizontal ribbon (to simulate Tertiary basalts). Table 1 lists the "most probable" parameters for the causitive bodies derived from these inversions whilst Appendix 1 contains the abridged programme outputs.

The inverted model parameters were used to provide a rough priority guide to anomaly follow-up and to disqualify anomalies with undesirable characteristics.

5.3 Tertiary Basalt Magnetic Properties

Two orientated samples of Tertiary Basalts collected from the pipeline road were sent to the C.S.I.R.O. for remanence measurements. These were needed to assist in the interpretation of the modelling results. The following was obtained:

AMG CO-ORDS		k(cgs)	J(nT)	Q
352825mE	5418750mN	0.00072	178.0	4.0
353325mE	5420225mN	0.00114	405.0	5.7

The direction of the remanent magnetisation was found to be almost parallel to the earth's present magnetic field. This would therefore mean that the apparent (effective) induced magnetisation would be the product of the magnetic susceptibility (k) and the Koenigsberger ratio (Q).

5.4 Stream Sediment Geochemistry

A systematic stream sediment sampling survey was not attempted because of the restricted access within the area.

However, all drainage channels encountered during the follow-up surveys were sampled and the -80 fraction analysed for Cu,Pb,Zn,Ag,Sn,W,Fe,Mn,As, Ba and, in some cases,Ni and Co.

Because of the relatively small sample population, the results have not been statistically treated; all anomalies recognised have only been "eyeballed" with consideration given to the background levels indicated by the regional stream sediment study of N.W.Tasmania (Weir, 1982). All stream sediment data is being stored on computer as it is collected for subsequent statistical analysis.

6. AEROMAGNETIC ANOMALY FOLLOW-UP RESULTS

Initial follow-up procedures involved interpretation of aerial photography and Landsat imagery, plus compilation of the previously known geology of the area. This resulted in a guide to the probable distribution of Tertiary basalts and orientation and position of interesting lineaments (Plan TASh 1469). Tertiary basalt cover was interpreted to be greater than previously suspected from the aeromagnetic interpretation (FLIS, 1982), and accounts for most of the magnetic responses in the E.L.

Follow-up consisted of:

a) Satisfaction that the anomaly was not basalt-caused (by modelling and plotting onto photo-interpretation map),
b) Lithology identification,
c) Soil and rock chip sampling,
d) Ground magnetometry,
e) Magnetic susceptibility measurements, and
f) General geologic mapping.

Ground magnetometry was not done over basalt covered areas.

Access to the anomalies was principly by blazed trail off the pipeline road or, where possible, by helicopter. Helicopter follow-up was confined to the anomalies occuring on, or adjacent to, button grass plains and low ti tree stands. Approximately 18 kilometres of tracks were cut. A description of all anomalies ground checked follows:

6.1 Arthur

Anomaly not as yet field checked. The response is probably due to basalts (from photo-interpretation and modelling).

6.2 Clearwater

Field checking located Tertiary basalts (0.0002 - 0.0008 c.g.s.) at the site of this anomaly.

6.3 Dolsow

Field checking located a medium grained basic igneous rock (0.0002 - 0.0004 c.g.s.) at the anomaly's site. Thin section studies confirmed the rock to be fresh dolerite. This is regarded as being the source of the anomaly. Sample numbers 988558 to 561 were collected. No anomalous metal values were recorded.
(actually, Tertiary basalt - see TCR 87/2340

6.4 Dolwest CQ468286

The Dolwest anomaly was picked as a "type" anomaly for the Cambrian dolerite dykes which occur in the west of the E.L. There is no economic significance attached to them at this stage.

6.5 Latlong CQ468226

No obvious source for the anomaly was found during field checking.

The dominant lithology in the target area is a siltstone (0.0001 c.g.s.). Stream sediments and soil samples were taken; analyses revealed up to 1400 ppm Ba in soils and 40 ppm Sn in rock samples. No anomalous base metal values were detected (Sample numbers 988497 to 551). The cause of the magnetic anomaly remains unknown.

6.6 Lyons River

This anomaly was followed up along the Lyons River where large amounts of Tertiary Basalt scree and float was found. Whilst the site of the anomaly was not actually visited these observations, photo-interpretation and the local topography strongly suggest the anomaly is basalt-caused. Stream sediment samples taken on the Lyons River indicated no anomalous metal values, however, a sample from a tributary of the River contained 87 ppm Pb and requires further examination (sample numbers 989901 to 905).

T.M.Porter carried out investigations of a copper occurence reported within the general area (1972). It was concluded that mineralisation was a continuation of the Keith River Sulphide Horizon and had no potential as a major deposit.

6.7 Rapend

Anomaly not as yet field checked. An airborne E.M. (A.E.M.) anomaly (NEALE, 1974) is approximately coincident with it. The response is probably due to basalts (from modelling results).

6.8 Rapend North CQ604273

Field checking discovered Tertiary basalts (0.0003 - 0.0006 c.g.s.) to be the cause of the anomaly.

6.9 Rapend South

Anomaly not as yet field checked.

6.10 Rapend East

Anomaly not as yet field checked. The response lies on the edge of a basalt covered area and so could possibly be caused by it. The anomaly's priority is therefore reduced.

6.11 Rapend West

Attempts to cut an access track into this anomaly have been hampered by dense horizontal bush. The response lies close to a prominent lineament visible on aerial photography. An A.E.M. anomaly is coincident with it. The possibility of it being basalt caused cannot be ruled out by modelling.

6.12 Rapid

Anomaly not as yet field checked. An A.E.M. response is approximately coincident with it.

6.13 Rapid East

The area of the anomaly is covered with lag gravels. Soil sampling revealed pyritic shale units beneath the gravels. No anomalous metal values were detected; however, due to the gravels the results are subject to error (sample numbers 988489 to 496). Further bedrock sampling is required. A reconnaissance ground magnetic profile (Plan TASh 1467) confirmed the location of the anomaly. Whilst the profile is not long enough to be confidently diagnostic it nonetheless indicates a near surface source. No explanation for the magnetic anomaly was found.

6.14 Rapid West

Anomaly not as yet field checked. An A.E.M. response is approximately coincident with it. The response is probably basalt caused.

6.15 Savage River North

Field checking revealed Tertiary basalts (0.0002 - 0.0006 c.g.s.) to be the cause of this anomaly (sample numbers 988502 and 503).

6.16 Savtren

Field checking found laterite (0.0001 - 0.0002 c.g.s.) phyllite (0.0002 - 0.0006 c.g.s.), and very weathered massive amphibolite or dolerite (0.0003 - 0.0016 c.g.s.). No anomalous metal concentrations were detected in samples of any of these lithologies (sample numbers 988462 to 467).

In view of these observations and the modelling it is considered that the anomaly is caused by a magnetic dolerite dyke or amphibolite body hosted within phyllites of the PreCambrian Whyte Schists. No further work is recommended.

6.17 Sedge

Anomaly not as yet field checked. Photo-interpretation and modelling suggests the anomaly is most probably basalt caused.

6.18 Trapid

Anomaly not as yet field checked. The response is a large feature (4 km. strike length) and is probably caused by an amphibolite or dolerite dyke. Follow-up priority is low.

6.19 Trapid North

Anomaly not as yet field checked. Photo-interpretation indicates the anomaly resides at the southern end of a ?lithologically controlled sinuous ridge. A series of fractures, orthoganal to strike and parallel to a major NE-SW feature to the south, are coincident with it. Whilst modelling suggests a possible basalt source the anomaly is not well fitted.

6.20 Wridge

Initial follow-up has revealed the magnetic anomaly to reside over a moderately thin (50 metres) black shale horizon forming a low topographic ridge. A line of soil samples returned maximum metal values of 105 ppm Cu and 45 ppm Zn. Mn values were anomalously low (20 ppm). Sample numbers 988481 to 488.

7. DISCUSSION

The priority rating of magnetic anomalies by modelling has had mixed results. Two of the anomalies modelled as being probably due to basalts (RAPID EAST AND WRIDGE) were found to have no basalts associated with them. Three other anomalies (CLEARWATER, RAPEND NORTH, and SAVAGE RIVER NORTH) modelled as probably not being due to basalts have basalts located on them. Even so, the modelled magnetic susceptibility of the latter three generally agree with the actual values obtained for the two basalt samples of section 5.3 (In situ susceptibility measurements tend to be an order of magnitude lower than the modelled susceptibilities. This is probably due to the more weathered nature of outcropping basalts, the ambiguity in the modelled parameter, and the fact that the meter used does not measure the remanent componant of the sample's susceptibility).

It would seem that whilst models can provide some idea as to the cause of the anomalies, all must be field checked eventually.

A major concern in the follow-up of these anomalies is the possibility that the source is sub-basaltic. An example is CLEARWATER which is consistantly modelled at a depth of 150 metres and a susceptibility of 0.128 c.g.s. (35% equivalent magnetite by volume). Both parameters are inconsistant with basalts at surface. The only way of evaluating the anomaly is by wildcat drilling through the basalt cover.

8. REFERENCES

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9. LOCATION

Burnie 1:250 000 Sk55-3

10. KEYWORDS

Geophysics-aeromagnetics, magnetic susceptibility, ground magnetics, photo-interpretation, radiometrics, Whyte Schists, Arthur Lineament, Geochemistry-soil, drainage.

11. LIST OF PLANS

Plan No.	Title	Scale
TASh 842	Locality Plan, Rapid River E.L. 1/79	1:2 000 000
TASh 1436	Rapid River E.L.1/79 Total Magnetic Intensity Showing Selected Magnetic Anomalies.	1:50 000
TASh 1467	Rapid River E.L.1/79 Rapid East Aeromagnetic Anomaly Reconnaissance Gnd. Magnetic Traverse.	1:10 000
TASh 1469	Rapid River E.L. 1/79 Aerial Photo. and Landsat Interpretation of Basalt and Lineament Distribution.	1:50 000
TASh 1470	Rapid River E.L.1/79 Sample Locations.	1:50 000

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Table 1: Anomaly Model Parameters

13. LIST OF APPENDICES

Appendix I Inversion Modelling of Aeromagnetic Anomalies.

Appendix II Geochemical Assay Ledgers.

TABLE 1 ANOMALY MODEL PARAMETERS

Name	Fit	Mag	Depth	Dip	Width	Dep Ext	Comments
ARTHUR	.0875	1.013*	345	0	-	45	Prob. Bas.
CLEARWATER	.1601	0.751*	152	31W	-	944	
DOLSOW	.0932	.0017	28	60W	192	565	Poss. Dol.
DOLWEST	.0504	.0003	40	70W	150	534	Prob. Dol.
LATLONG	.0507	.0002	0	38E	118	-	
LYONS RIVER	.0244	.0004	39	18W	750	-	Prob. Bas.
RAPEND	.0719	.0156*	17	17W	-	454	Prob. Bas.
RAPEND NTH	.0485	-.0019	30	62E	168	405	
RAPEND STH	.1143	.0002	0	40W	98	-	
RAPEND E	.3207	.0401*	34	0	-	136	Prob. Bas.
RAPEND W	.0554	.0461*	67	81W	-	>2000	
RAPID	.0317	.0020	141	31W	82	-	
RAPID E	.0474	.0320*	61	19E	-		Prob. Bas.
RAPID W	.0481	.0754*	163	0	-	221	Poss. Bas.
SAVAGE R NTH	.1136	.0013	0	12W	78	1993	Prob. Bas.
SAVTREN	.1286	.0736	98	84W	20	>2000	
SEDGE	.1187	.8685*	95	0	-	351	Poss. Bas.
TRAPID	.0582	.5955*	297	69W	-	>2000	
TRAPID NTH	.1064	.0027	0	3W	268	-	Poss. Bas.
WRIDGE	.0361	.0346*	47	5E	-	165	Prob. Bas.

NOTES
* Mag = Magnetic Susceptibility x Width

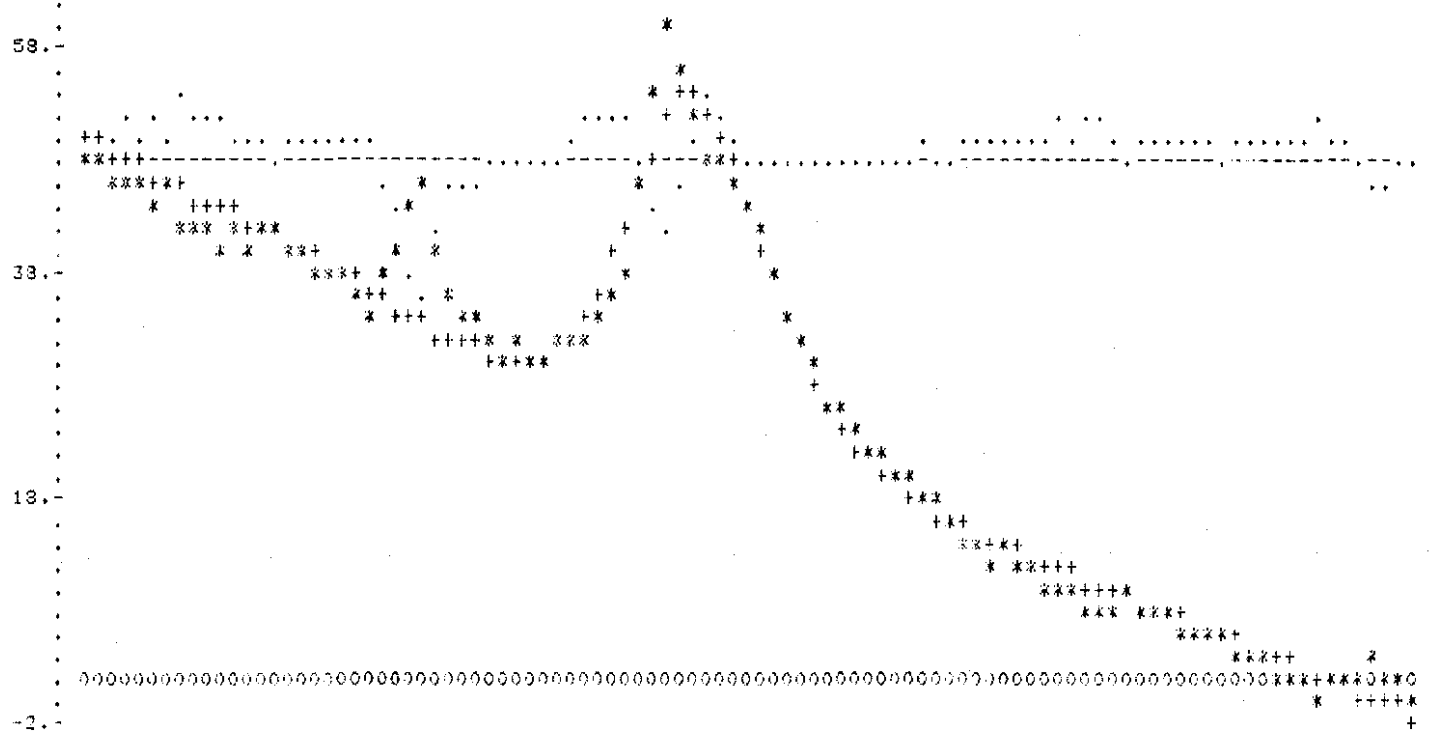
Where the TABULAR and RIBBON models gave near identical results and fits both the "WIDTH" and "DEPTH EXTENT" parameters are quoted. The other parameters are averaged from the two fits.

APPENDIX I

INVERSION MODELLING OF AEROMAGNETIC ANOMALIES

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	7.058E+03	0.0E-01	0.0E-01	6.334E+01	5.0E+00	0.0E-01
DIP	2	0.000E-01	0.0E-01	5.0E+00	0.000E-01	1.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	2.707E+01	5.0E+00	0.0E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-1.050E-02	5.0E-02	0.0E-01
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-2.659E+02	5.0E+00	0.0E-01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	3.474E+01	5.0E+00	0.0E-01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	4.453E+02	1.2E+01	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.360E+02	0.0E-01	0.0E-01	1.360E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	3.579E+01	0.0E-01	0.0E-01	-3.579E+01	0.0E-01	0.0E-01



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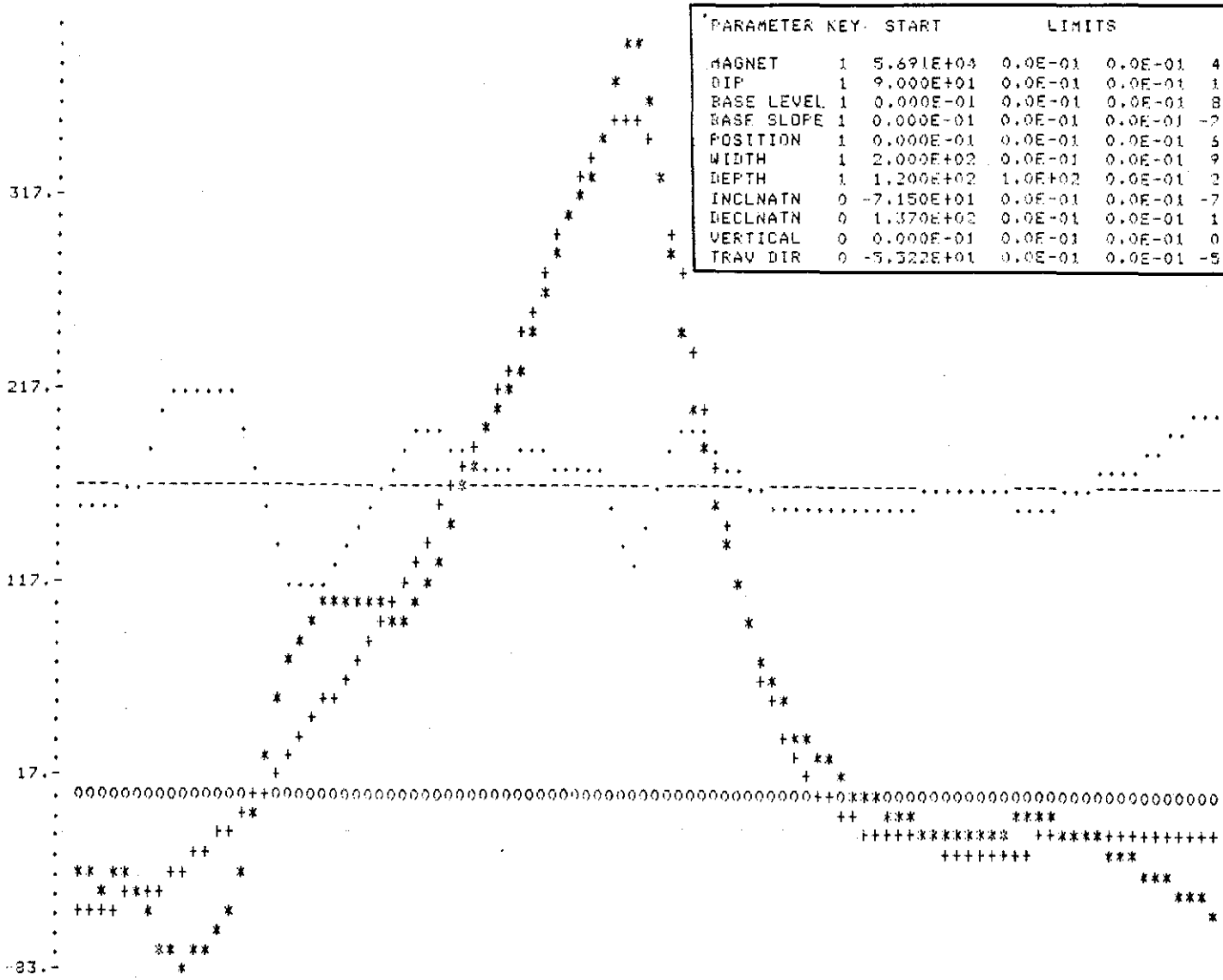
5230019

MAGMOD PLOT OF FIT 1



PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	5.691E+04	0.0E-01	0.0E-01	4.695E+04	5.0E+00	5.0E+03
DIP	1	9.000E+01	0.0E-01	0.0E-01	1.571E+02	2.0E+00	5.5E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	8.169E+00	5.0E+00	1.3E+01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-2.207E-03	5.0E-02	1.3E-02
POSITION	1	0.000E-01	0.0E-01	0.0E-01	5.128E+01	5.0E+00	5.0E+01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	9.445E+02	5.0E+00	1.4E+02
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	3.297E+02	1.2E+01	2.9E+01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.370E+02	0.0E-01	0.0E-01	1.370E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-5.522E+01	0.0E-01	0.0E-01	-5.522E+01	0.0E-01	0.0E-01

MODEL RIBBON TITLE CLEAR2

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523020

MAGMOD PLOT OF FIT 1

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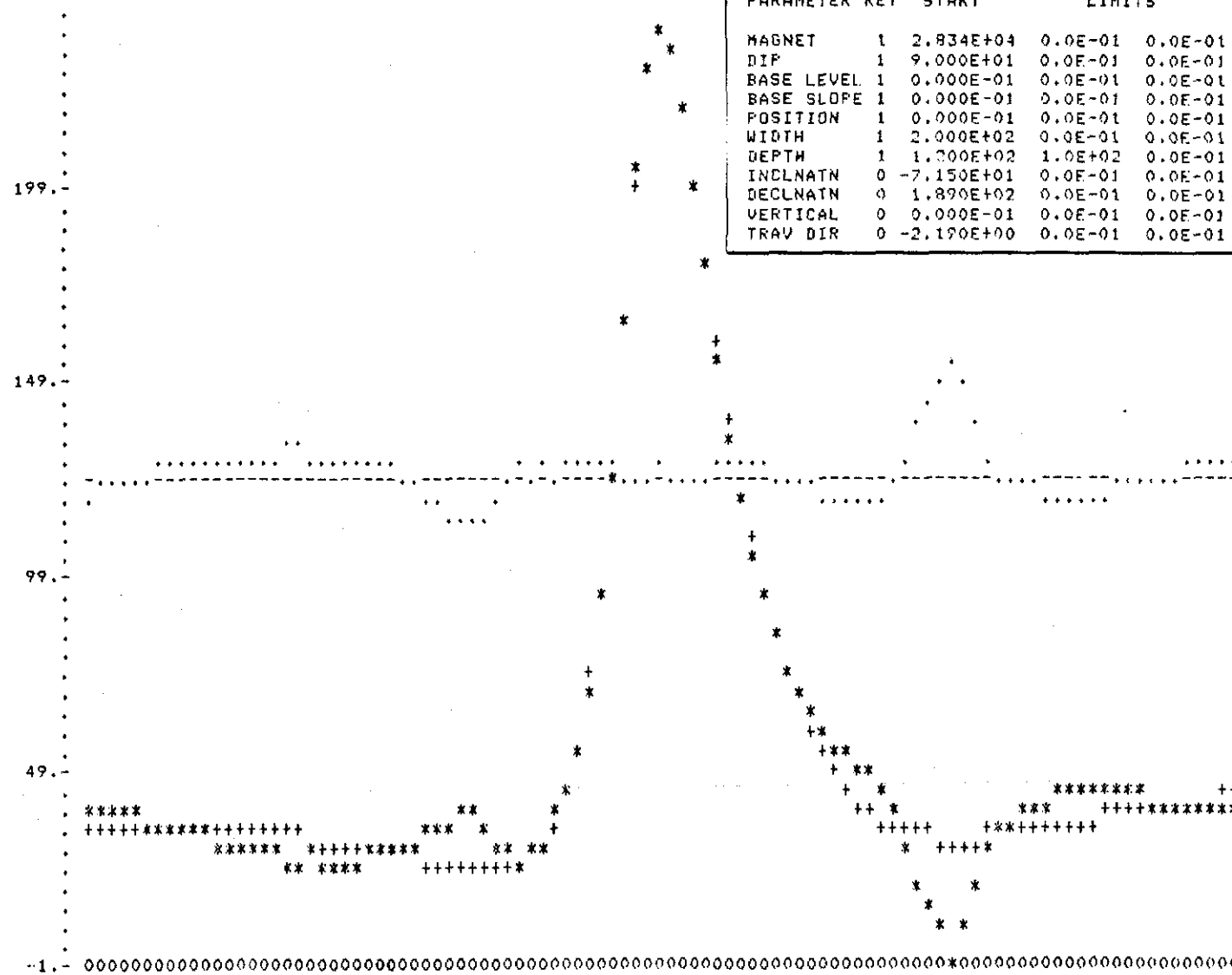
MAGNET	1	2.834E+04	0.0E-01	0.0E-01	2.024E+04	5.0E+00	1.7E+03
DIP	1	9.000E+01	0.0E-01	0.0E-01	4.880E+01	2.0E+00	5.7E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	4.437E+01	5.0E+00	4.4E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	3.110E-03	5.0E-02	5.1E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-3.766E+01	5.0E+00	1.4E+01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	5.647E+02	5.0E+00	1.0E+02
DEPTH	1	1.300E+02	1.0E+02	0.0E-01	1.537E+02	1.2E+01	1.4E+01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.890E+02	0.0E-01	0.0E-01	1.890E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-2.190E+00	0.0E-01	0.0E-01	-2.190E+00	0.0E-01	0.0E-01



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MAGMOD PLOT OF FIT 1

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DIP	1	9.000E+01	0.0E-01	0.0E-01	1.069E+02	2.0E+00	2.4E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	-1.987E+01	5.0E+00	4.7E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	1.888E-03	5.0E-02	1.1E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	2.173E+01	5.0E+00	8.3E+00
HALF WIDTH	1	5.000E+01	0.0E-01	0.0E-01	7.474E+01	5.0E+00	3.1E+00
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.262E+02	1.2E+01	7.9E+00
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.740E+02	0.0E-01	0.0E-01	1.740E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
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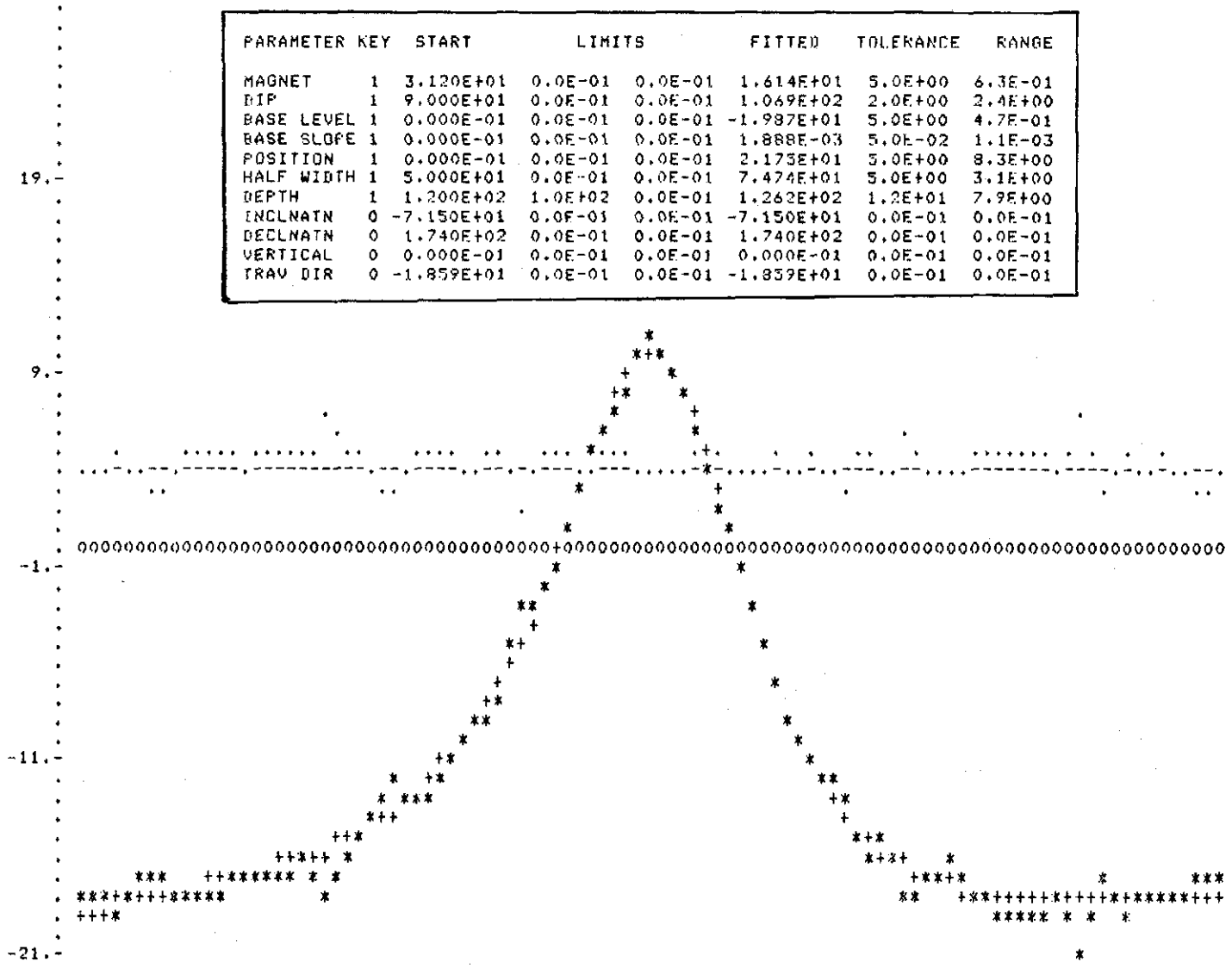

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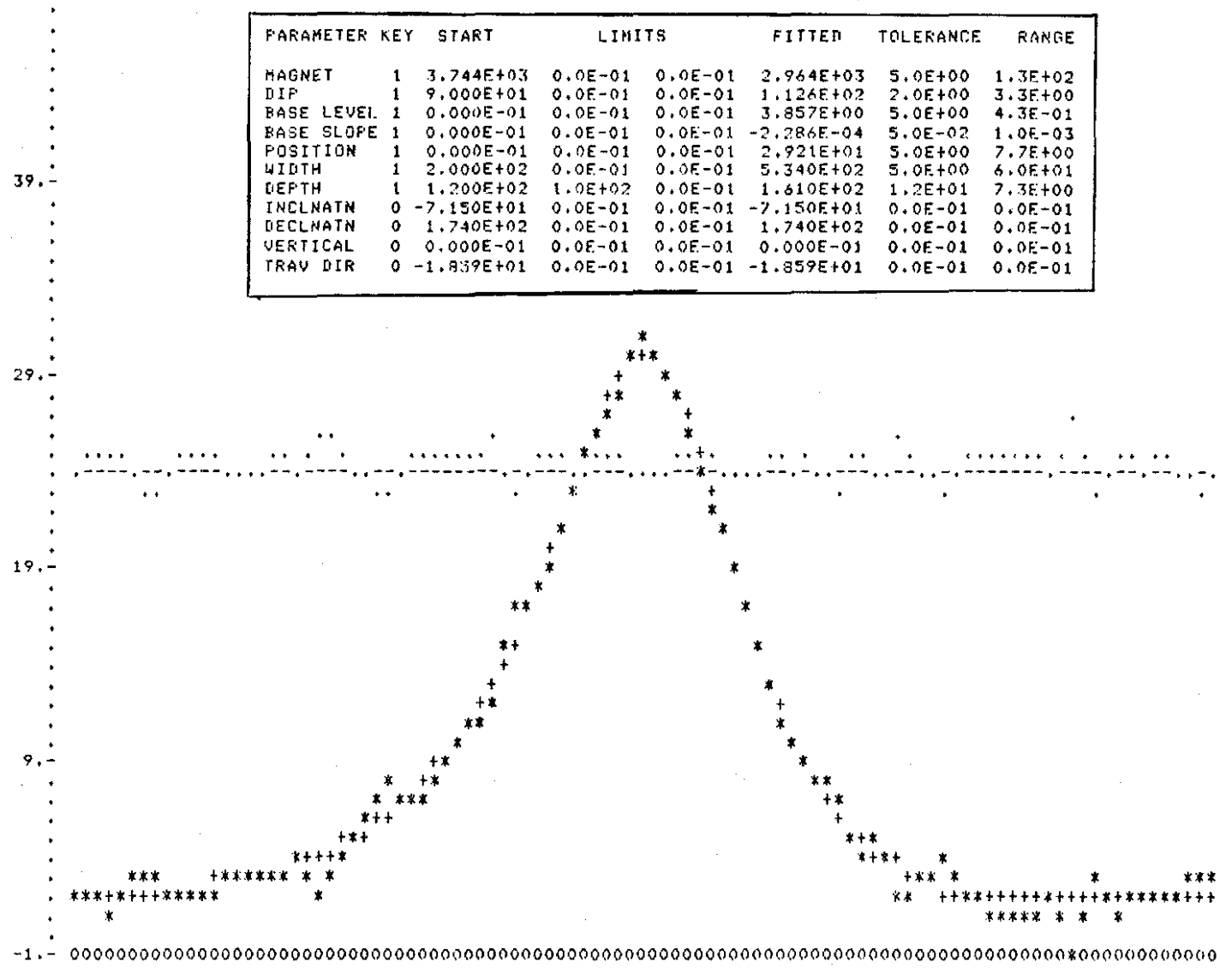
MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	3.744E+03	0.0E-01	0.0E-01	2.964E+03	5.0E+00	1.3E+02
DIP	1	9.000E+01	0.0E-01	0.0E-01	1.126E+02	2.0E+00	3.3E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	3.857E+00	5.0E+00	4.3E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-2.286E-04	5.0E-02	1.0E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	2.921E+01	5.0E+00	7.7E+00
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	5.340E+02	5.0E+00	6.0E+01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.610E+02	1.2E+01	7.3E+00
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.740E+02	0.0E-01	0.0E-01	1.740E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-1.859E+01	0.0E-01	0.0E-01	-1.859E+01	0.0E-01	0.0E-01



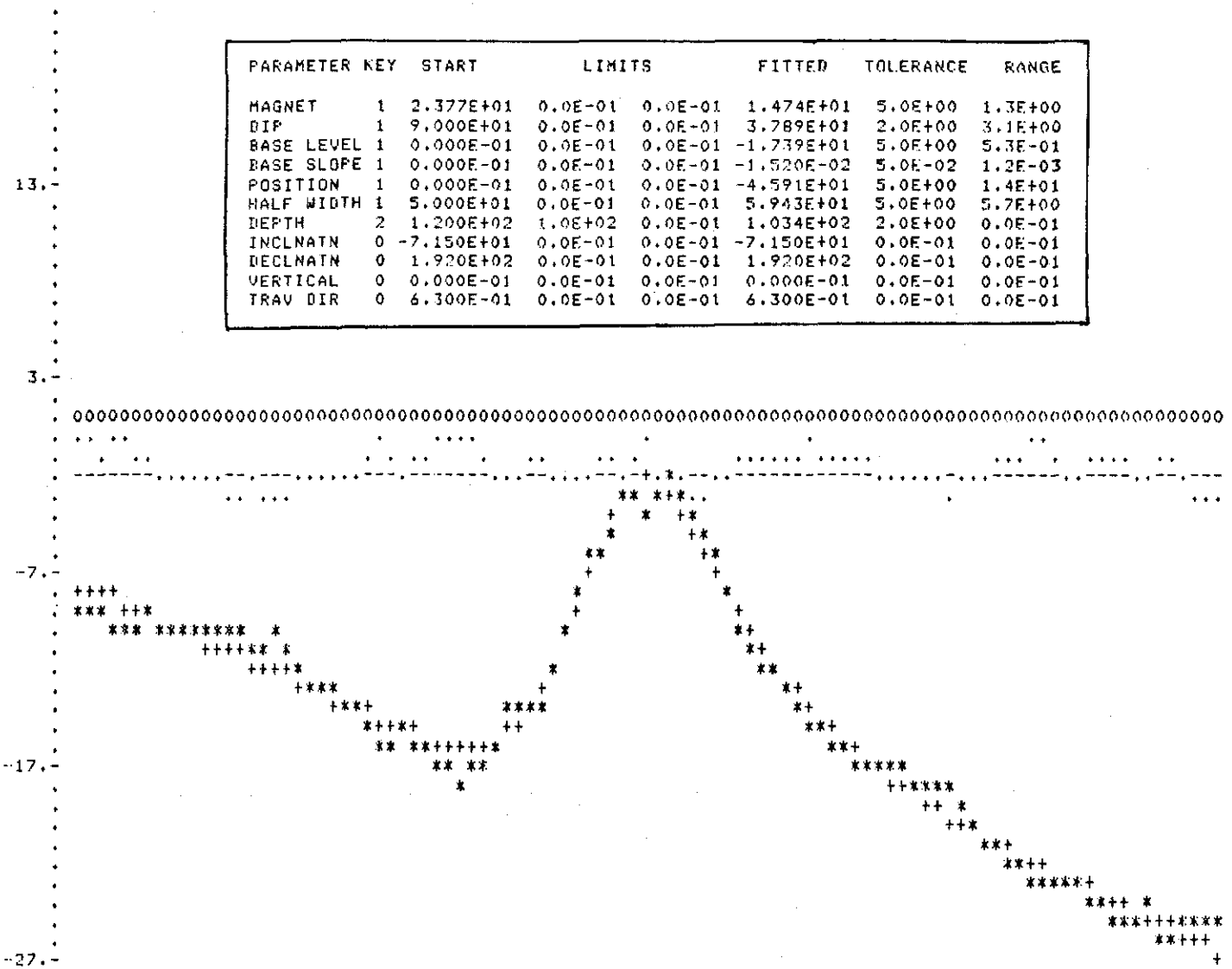
MODEL RIBBON TITLE DOLWEST2

NUMBER OF STATIONS 99 MAX AMPLITUDE 31. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0570 PARFIT FLAG 2 ERROR CURVE DATUM 24.140

523023

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	2.377E+01	0.0E-01	0.0E-01	1.474E+01	5.0E+00	1.3E+00
DIP	1	9.000E+01	0.0E-01	0.0E-01	3.789E+01	2.0E+00	3.1E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	-1.739E+01	5.0E+00	5.3E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-1.520E-02	5.0E-02	1.2E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-4.591E+01	5.0E+00	1.4E+01
HALF WIDTH	1	5.000E+01	0.0E-01	0.0E-01	5.943E+01	5.0E+00	5.7E+00
DEPTH	2	1.200E+02	1.0E+02	0.0E-01	1.034E+02	2.0E+00	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.920E+02	0.0E-01	0.0E-01	1.920E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	6.300E-01	0.0E-01	0.0E-01	6.300E-01	0.0E-01	0.0E-01

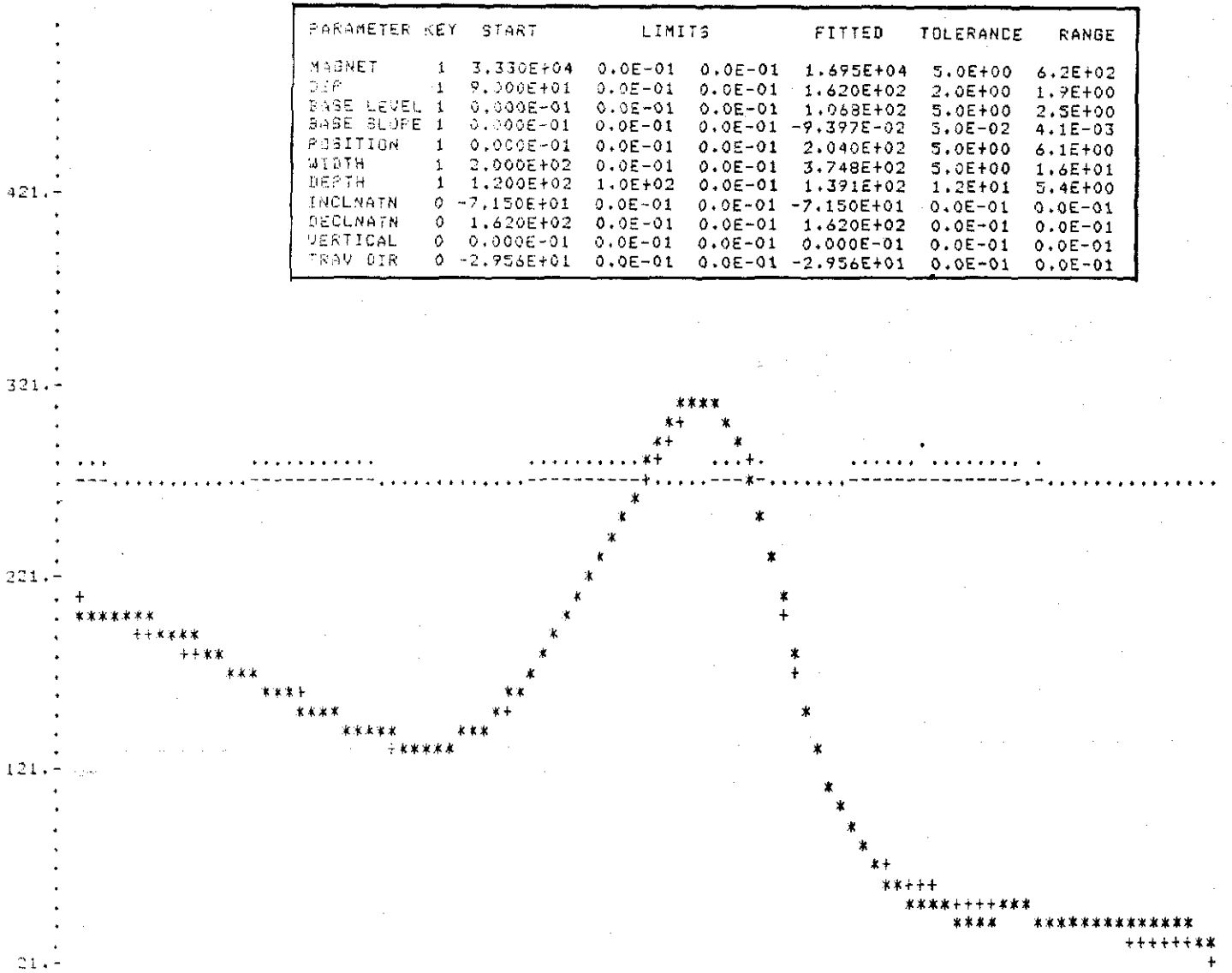


MODEL TABULAR TITLE LATLONGO

NUMBER OF STATIONS 99 MAX AMPLITUDE 24. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0507 PARFIT FLAG 2 ERROR CURVE DATUM -2.318

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	3.330E+04	0.0E-01	0.0E-01	1.695E+04	5.0E+00	6.2E+02
DIP	1	9.300E+01	0.0E-01	0.0E-01	1.620E+02	2.0E+00	1.9E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	1.068E+02	5.0E+00	2.5E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-9.397E-02	5.0E-02	4.1E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	2.040E+02	5.0E+00	6.1E+00
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	3.748E+02	5.0E+00	1.6E+01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.391E+02	1.2E+01	5.4E+00
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.620E+02	0.0E-01	0.0E-01	1.620E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-2.956E+01	0.0E-01	0.0E-01	-2.956E+01	0.0E-01	0.0E-01

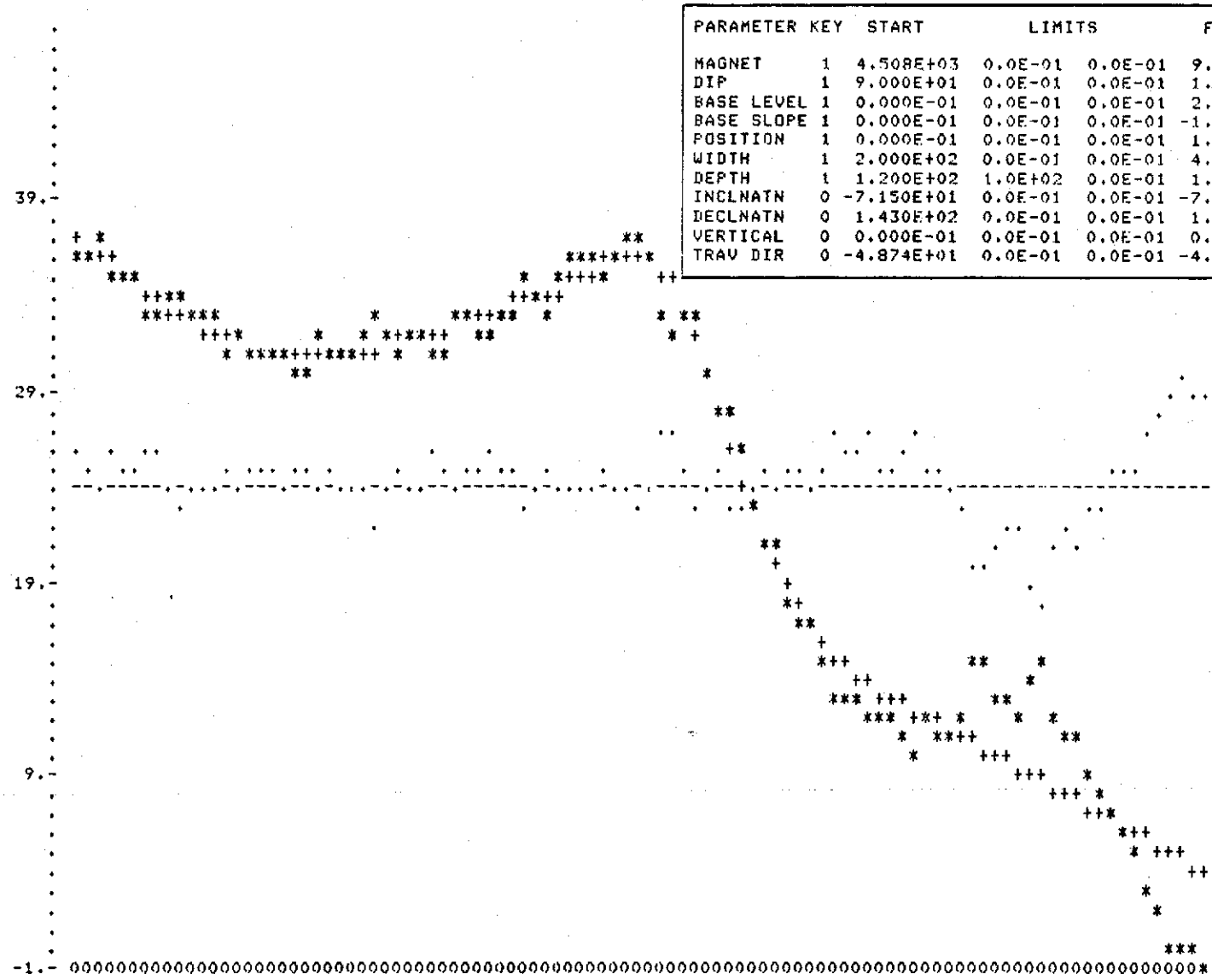


MODEL RIBBON TITLE LYONSR2

NUMBER OF STATIONS 99 MAX AMPLITUDE 287. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 10. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0244 PARFIT FLAG 2 ERROR CURVE DATUM 271.368

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	4.508E+03	0.0E-01	0.0E-01	9.726E+02	5.0E+00	2.1E+02
DIP	1	9.000E+01	0.0E-01	0.0E-01	1.628E+02	2.0E+00	1.0E+01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	2.020E+01	5.0E+00	1.2E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-1.758E-02	5.0E-02	2.1E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	1.031E+02	5.0E+00	3.9E+01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	4.461E+02	5.0E+00	1.1E+02
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.169E+02	5.0E+00	3.1E+01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.430E+02	0.0E-01	0.0E-01	1.430E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-4.874E+01	0.0E-01	0.0E-01	-4.874E+01	0.0E-01	0.0E-01



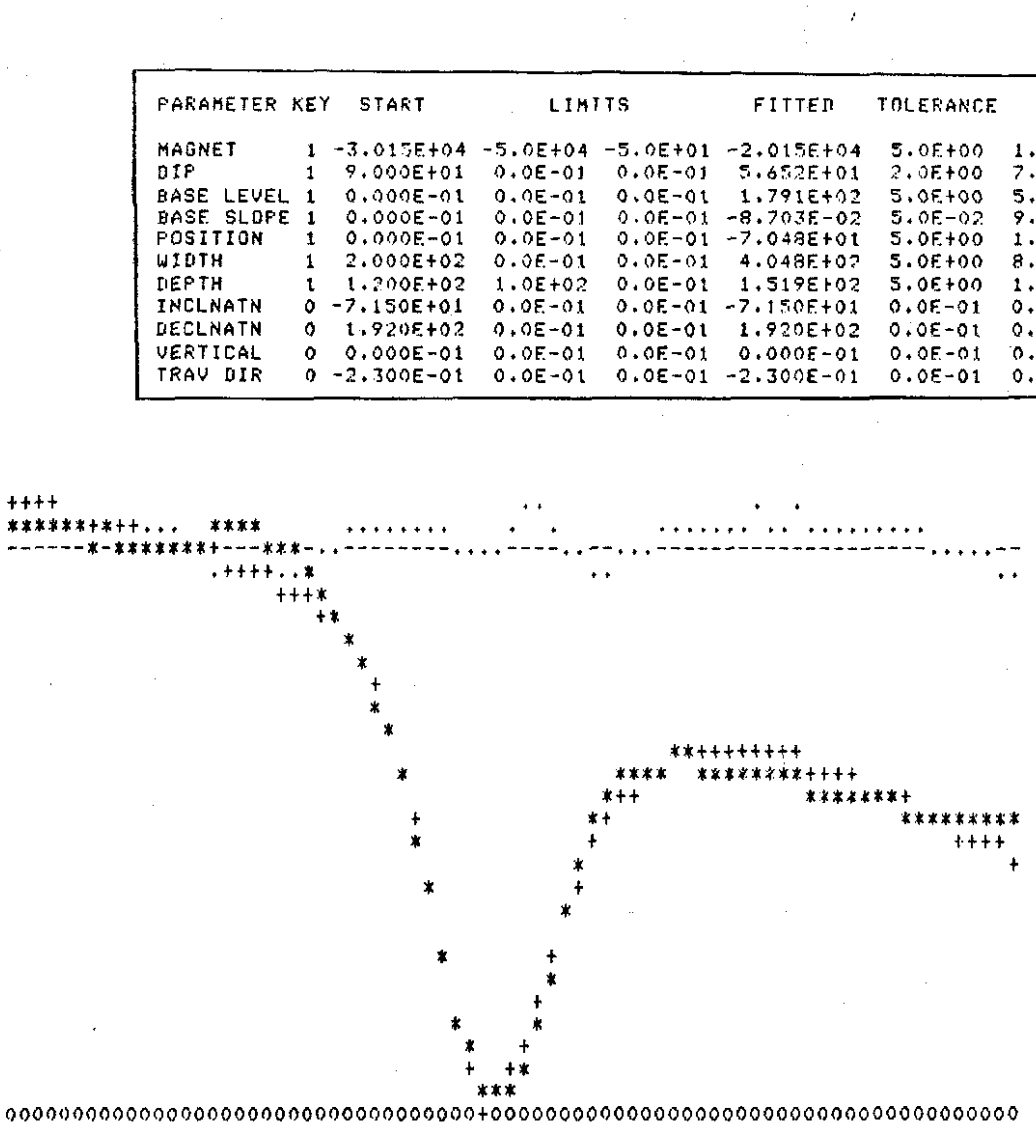
MODEL RIBBON TITLE RAFEND2

NUMBER OF STATIONS 99 MAX AMPLITUDE 38. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...X*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0719 PARFIT FLAG 2 ERROR CURVE DATUM 24.260

523026

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	-3.015E+04	-5.0E+04	-5.0E+01	-2.015E+04	5.0E+00	1.9E+03
DIP	1	9.000E+01	0.0E-01	0.0E-01	5.652E+01	2.0E+00	7.1E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	1.791E+02	5.0E+00	5.3E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-8.703E-02	5.0E-02	9.8E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-7.048E+01	5.0E+00	1.4E+01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	4.048E+02	5.0E+00	8.0E+01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.519E+02	5.0E+00	1.4E+01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.920E+02	0.0E-01	0.0E-01	1.920E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-2.300E-01	0.0E-01	0.0E-01	-2.300E-01	0.0E-01	0.0E-01

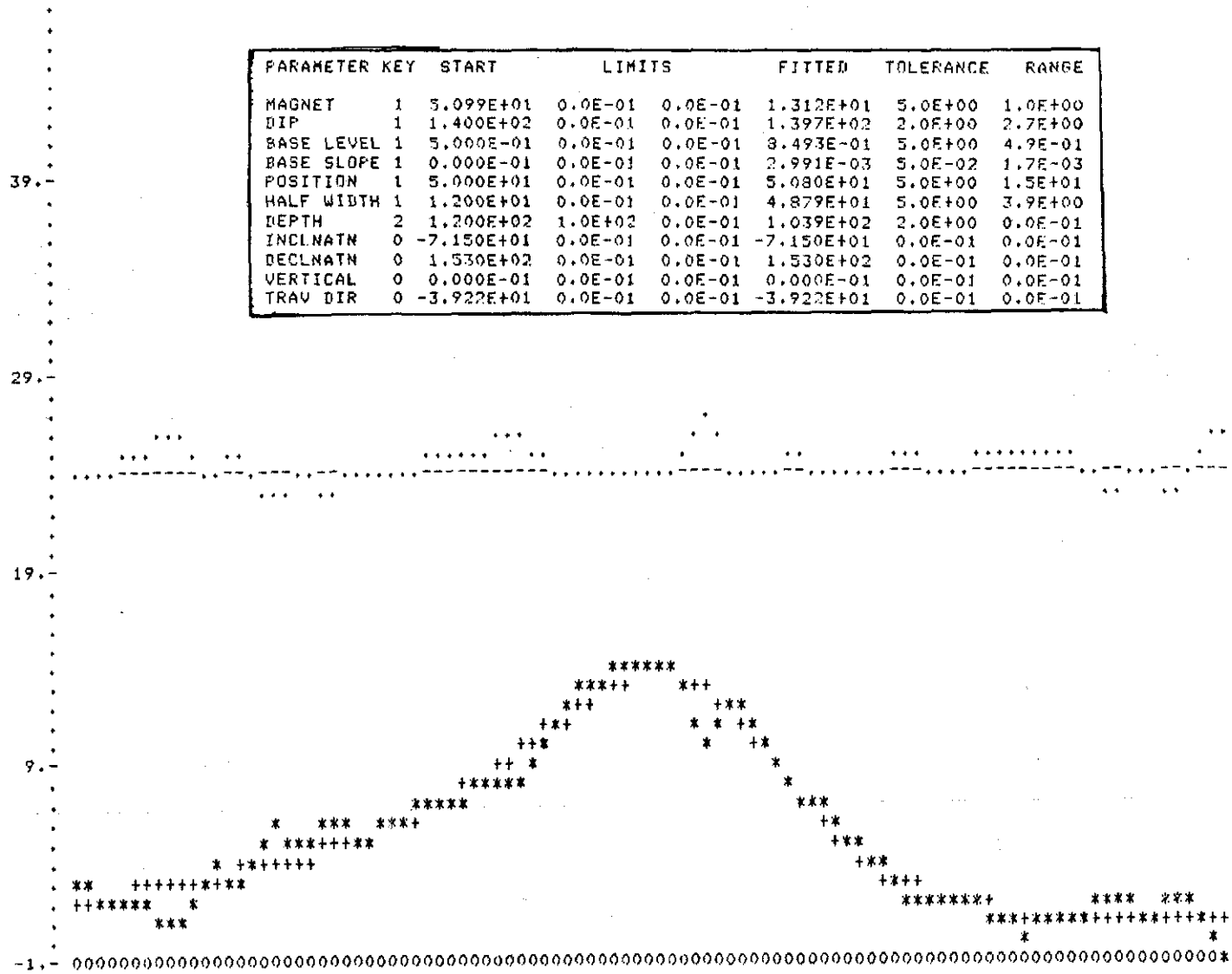


MODEL RIBBON TITLE RAPENDN2

NUMBER OF STATIONS 75 MAX AMPLITUDE 267. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 10. GAMMAS PER LINE.
FIELD DATA CURVE...%%% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0485 PARFIT FLAG 2 ERROR CURVE DATUM 247.135

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	5.099E+01	0.0E-01	0.0E-01	1.312E+01	5.0E+00	1.0E+00
DIP	1	1.400E+02	0.0E-01	0.0E-01	1.397E+02	2.0E+00	2.7E+00
BASE LEVEL	1	5.000E-01	0.0E-01	0.0E-01	8.493E-01	5.0E+00	4.9E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	2.991E-03	5.0E-02	1.7E-03
POSITION	1	5.000E+01	0.0E-01	0.0E-01	5.080E+01	5.0E+00	1.5E+01
HALF WIDTH	1	1.200E+01	0.0E-01	0.0E-01	4.879E+01	5.0E+00	3.9E+00
DEPTH	2	1.200E+02	1.0E+02	0.0E-01	1.039E+02	2.0E+00	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.530E+02	0.0E-01	0.0E-01	1.530E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-3.922E+01	0.0E-01	0.0E-01	-3.922E+01	0.0E-01	0.0E-01

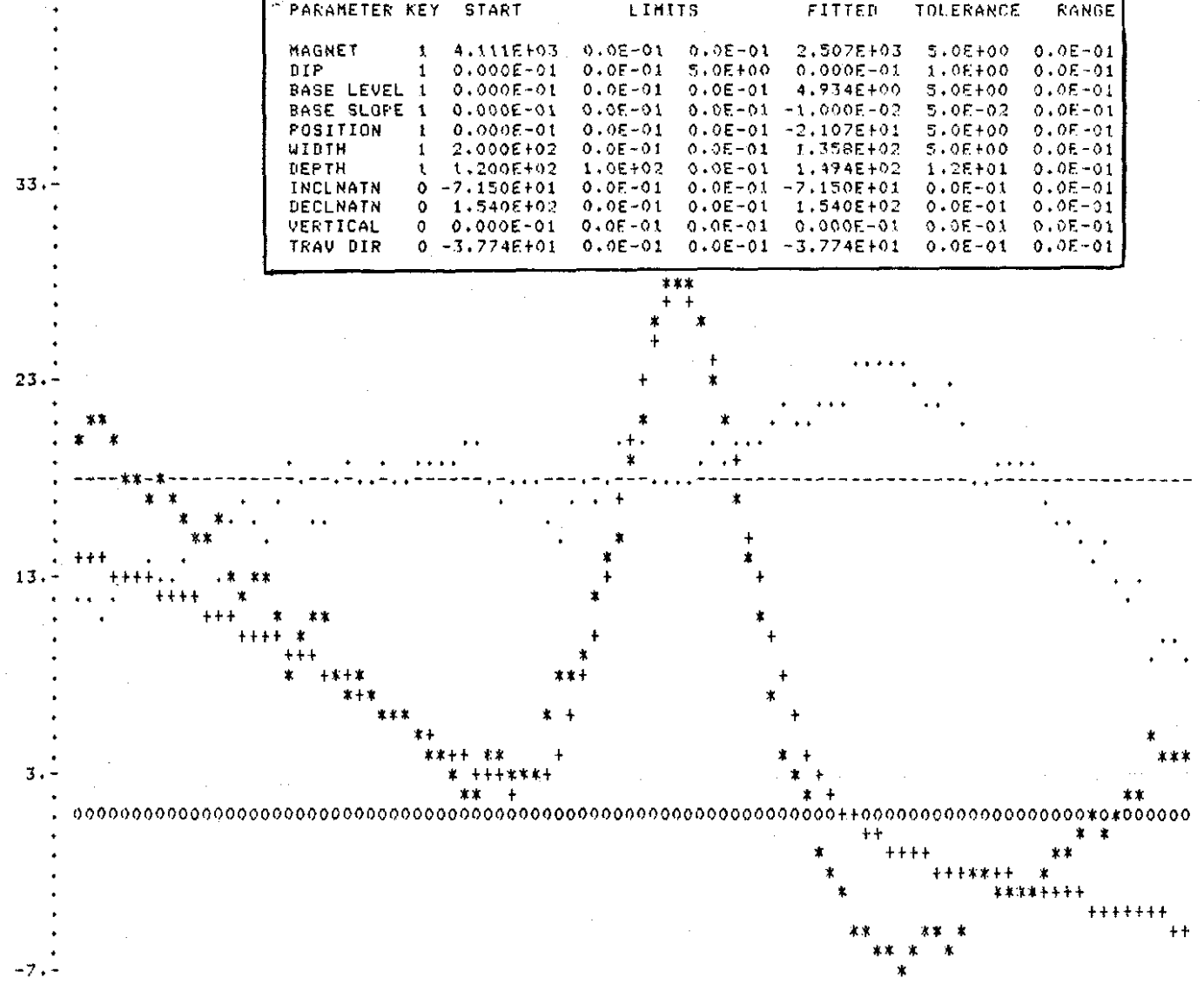


MODEL TABULAR TITLE RAFENDSO

NUMBER OF STATIONS 99 MAX AMPLITUDE 15. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .1143 PARFIT FLAG 2 ERROR CURVE DATUM 24.260

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	4.111E+03	0.0E-01	0.0E-01	2.507E+03	5.0E+00	0.0E-01
DIP	1	0.000E-01	0.0E-01	5.0E+00	0.000E-01	1.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	4.934E+00	5.0E+00	0.0E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-1.000E-02	5.0E-02	0.0E-01
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-2.107E+01	5.0E+00	0.0E-01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	1.358E+02	5.0E+00	0.0E-01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.494E+02	1.2E+01	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.540E+02	0.0E-01	0.0E-01	1.540E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-3.774E+01	0.0E-01	0.0E-01	-3.774E+01	0.0E-01	0.0E-01

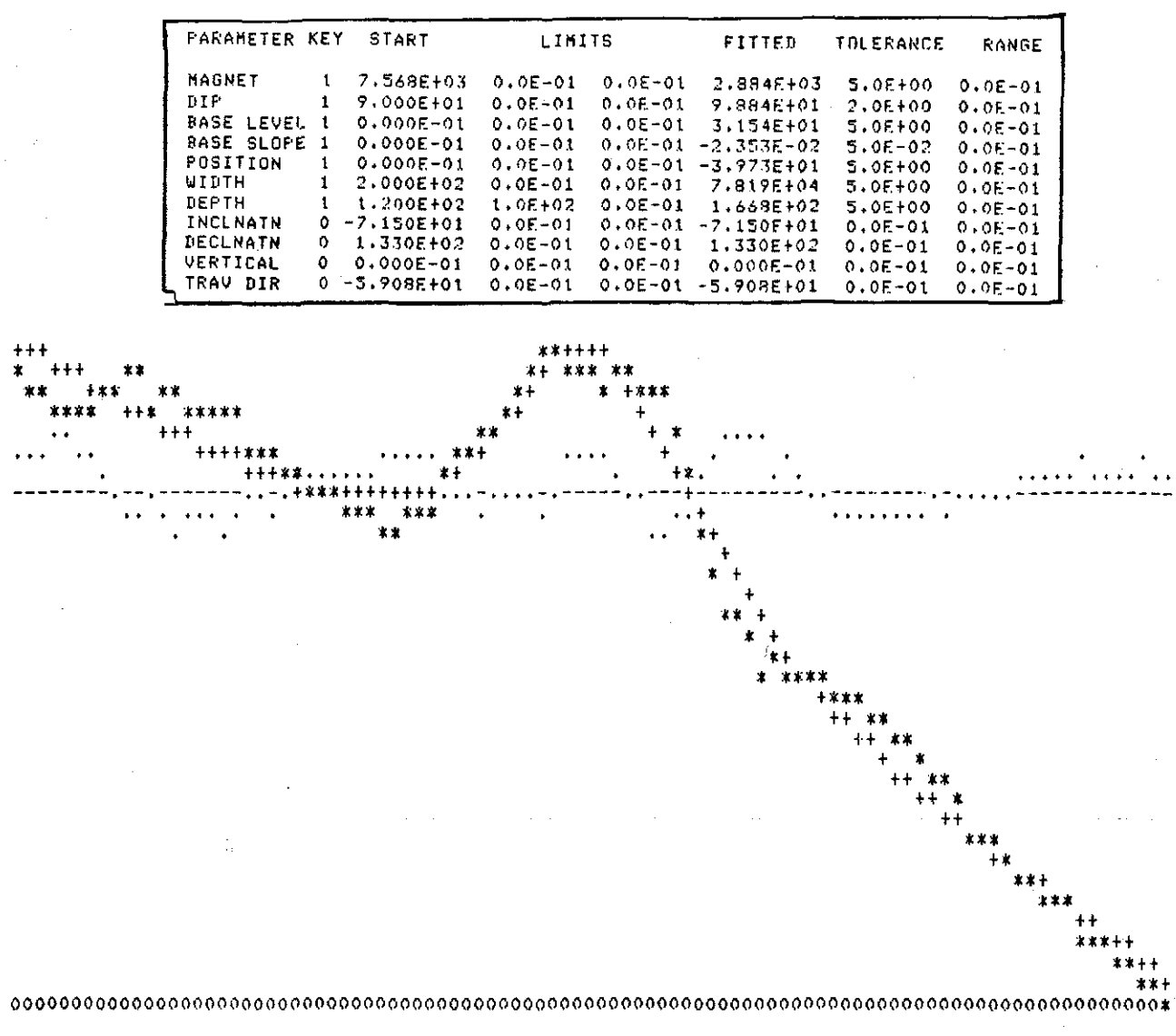


MODEL RIBBON TITLE RAPENDES

NUMBER OF STATIONS 95 MAX AMPLITUDE 34. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .3207 PARFIT FLAG -1 ERROR CURVE DATUM 17.670

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	7.568E+03	0.0E-01	0.0E-01	2.884E+03	5.0E+00	0.0E-01
DIP	1	9.000E+01	0.0E-01	0.0E-01	9.884E+01	2.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	3.154E+01	5.0E+00	0.0E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-2.353E-02	5.0E-02	0.0E-01
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-3.973E+01	5.0E+00	0.0E-01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	7.819E+04	5.0E+00	0.0E-01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.668E+02	5.0E+00	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.330E+02	0.0E-01	0.0E-01	1.330E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-5.908E+01	0.0E-01	0.0E-01	-5.908E+01	0.0E-01	0.0E-01



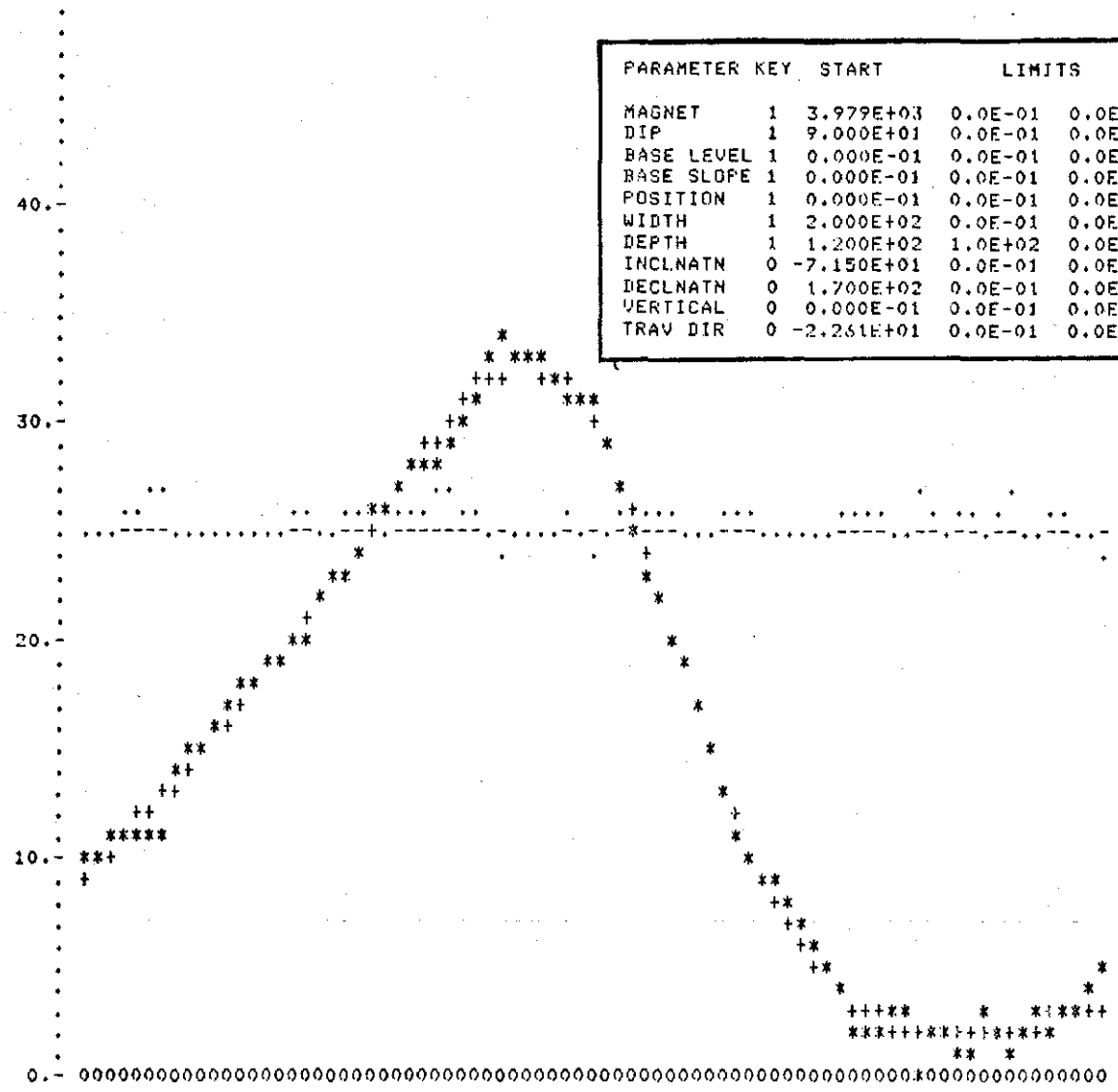
MODEL RIBBON TITLE RAPENDW2

NUMBER OF STATIONS 95 MAX AMPLITUDE 64. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 2. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0554 PARFIT FLAG -1 ERROR CURVE DATUM 49.270

523030

MAGMOD PLOT OF FIT 1

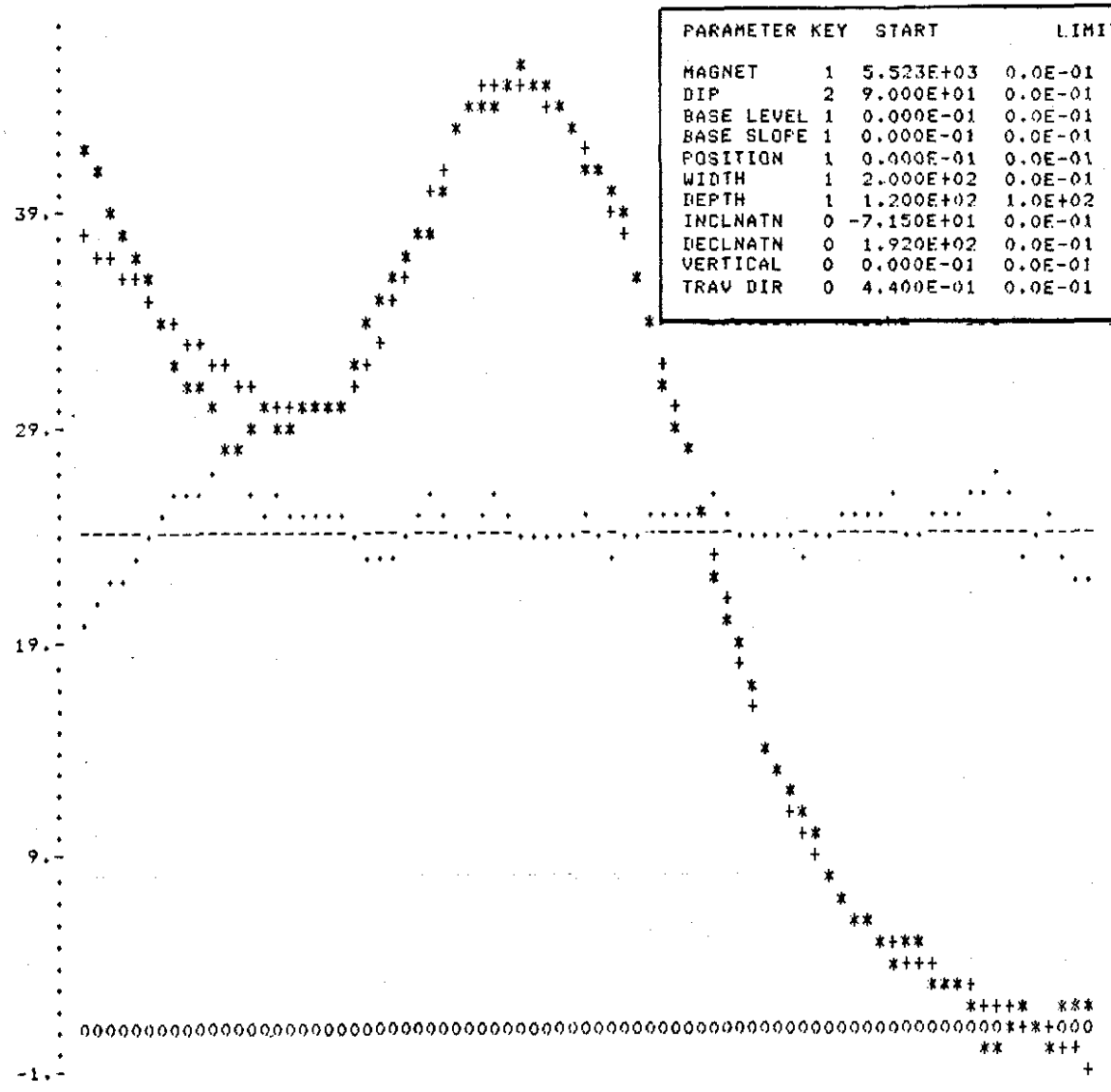
PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	3.979E+03	0.0E-01	0.0E-01	5.280E+03	5.0E+00	0.0E-01
DIP	1	9.000E+01	0.0E-01	0.0E-01	1.494E+02	2.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	2.367E+00	5.0E+00	0.0E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	1.419E-02	5.0E-02	0.0E-01
POSITION	1	0.000E-01	0.0E-01	0.0E-01	3.478E+01	5.0E+00	0.0E-01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	2.229E+04	5.0E+00	0.0E-01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	2.460E+02	5.0E+00	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.700E+02	0.0E-01	0.0E-01	1.700E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-2.261E+01	0.0E-01	0.0E-01	-2.261E+01	0.0E-01	0.0E-01



MODEL RIBBON TITLE RAPIDM2

NUMBER OF STATIONS 79 MAX AMPLITUDE 33. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0347 PARFIT FLAG -1 ERROR CURVE DATUM 24.760

MAGMOD PLOT OF FIT 1



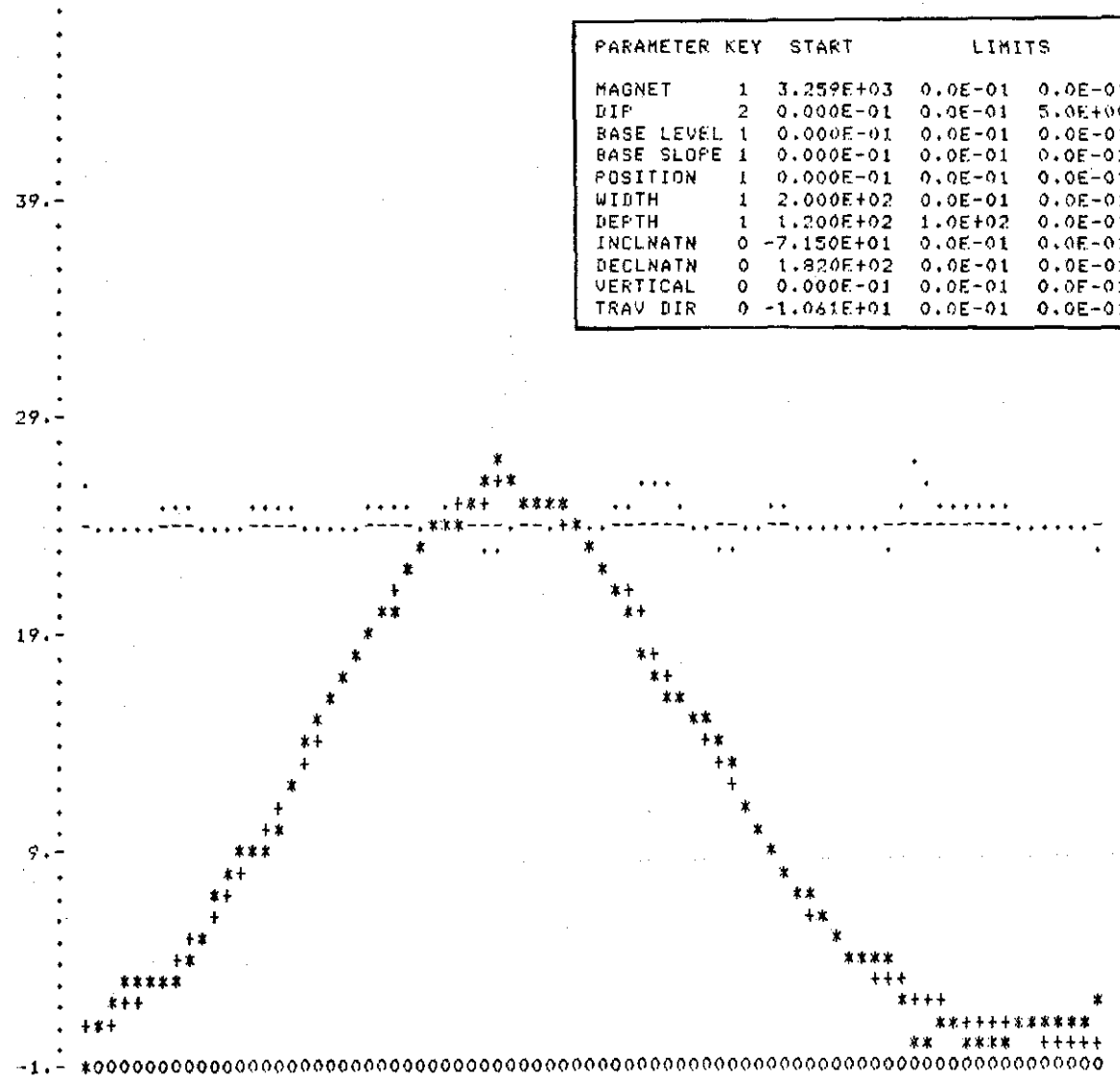
PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	5.523E+03	0.0E-01	0.0E-01	2.003E+03	5.0E+00	1.7E+02
DIP	2	9.000E+01	0.0E-01	0.0E-01	3.874E+00	2.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	2.699E+01	5.0E+00	3.7E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-3.252E-02	5.0E-02	8.6E-01
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-1.841E+02	5.0E+00	2.2E-03
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	3.438E+02	5.0E+00	1.2E+01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.606E+02	5.0E+00	2.3E+01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.920E+02	0.0E-01	0.0E-01	1.920E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	4.400E-01	0.0E-01	0.0E-01	4.400E-01	0.0E-01	0.0E-01

MODEL RIBBON TITLE RAPIDE2

NUMBER OF STATIONS 79 MAX AMPLITUDE 46. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0474 PARFIT FLAG 2 ERROR CURVE DATUM 23.941

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	3.259E+03	0.0E-01	0.0E-01	4.711E+03	5.0E+00	1.6E+02
DIP	2	0.000E-01	0.0E-01	5.0E+00	0.000E-01	1.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	2.163E+00	5.0E+00	2.9E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	2.480E-03	5.0E-02	4.3E-01
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-1.747E+02	5.0E+00	1.5E-03
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	2.211E+02	5.0E+00	5.9E+00
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	2.629E+02	1.2E+01	7.1E+00
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.820E+02	0.0E-01	0.0E-01	1.820E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-1.061E+01	0.0E-01	0.0E-01	-1.061E+01	0.0E-01	0.0E-01

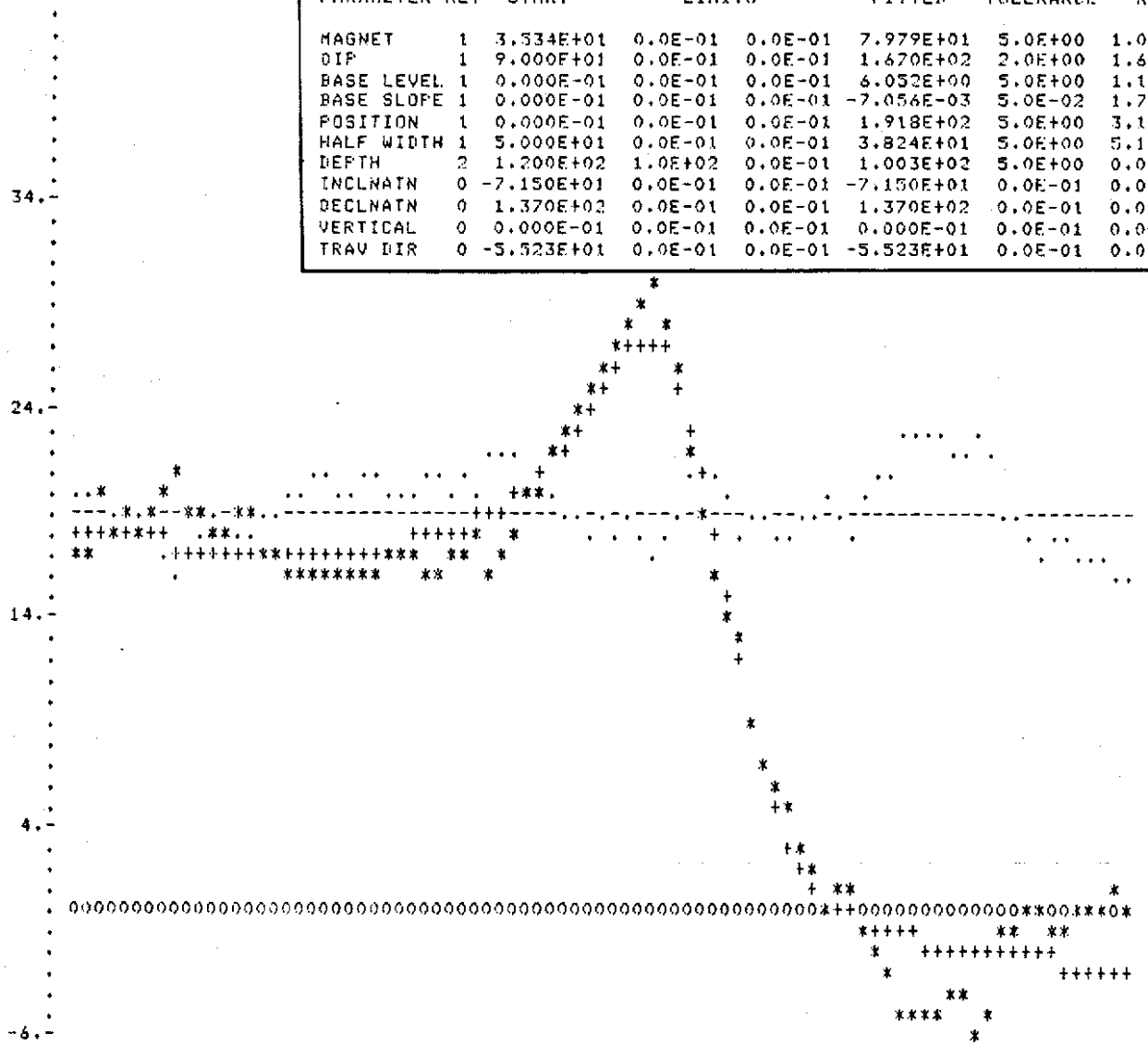


MODEL RIBBON TITLE RAPIDW5

NUMBER OF STATIONS 79 MAX AMPLITUDE 27. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0481 PARFIT FLAG 2 ERROR CURVE DATUM 24.370

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	3.534E+01	0.0E-01	0.0E-01	7.979E+01	5.0E+00	1.0E+01
DIP	1	9.000E+01	0.0E-01	0.0E-01	1.670E+02	2.0E+00	1.6E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	6.052E+00	5.0E+00	1.1E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-7.056E-03	5.0E-02	1.7E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	1.918E+02	5.0E+00	3.1E+01
HALF WIDTH	1	5.000E+01	0.0E-01	0.0E-01	3.824E+01	5.0E+00	5.1E+00
DEPTH	2	1.200E+02	1.0E+02	0.0E-01	1.003E+02	5.0E+00	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.370E+02	0.0E-01	0.0E-01	1.370E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-5.523E+01	0.0E-01	0.0E-01	-5.523E+01	0.0E-01	0.0E-01

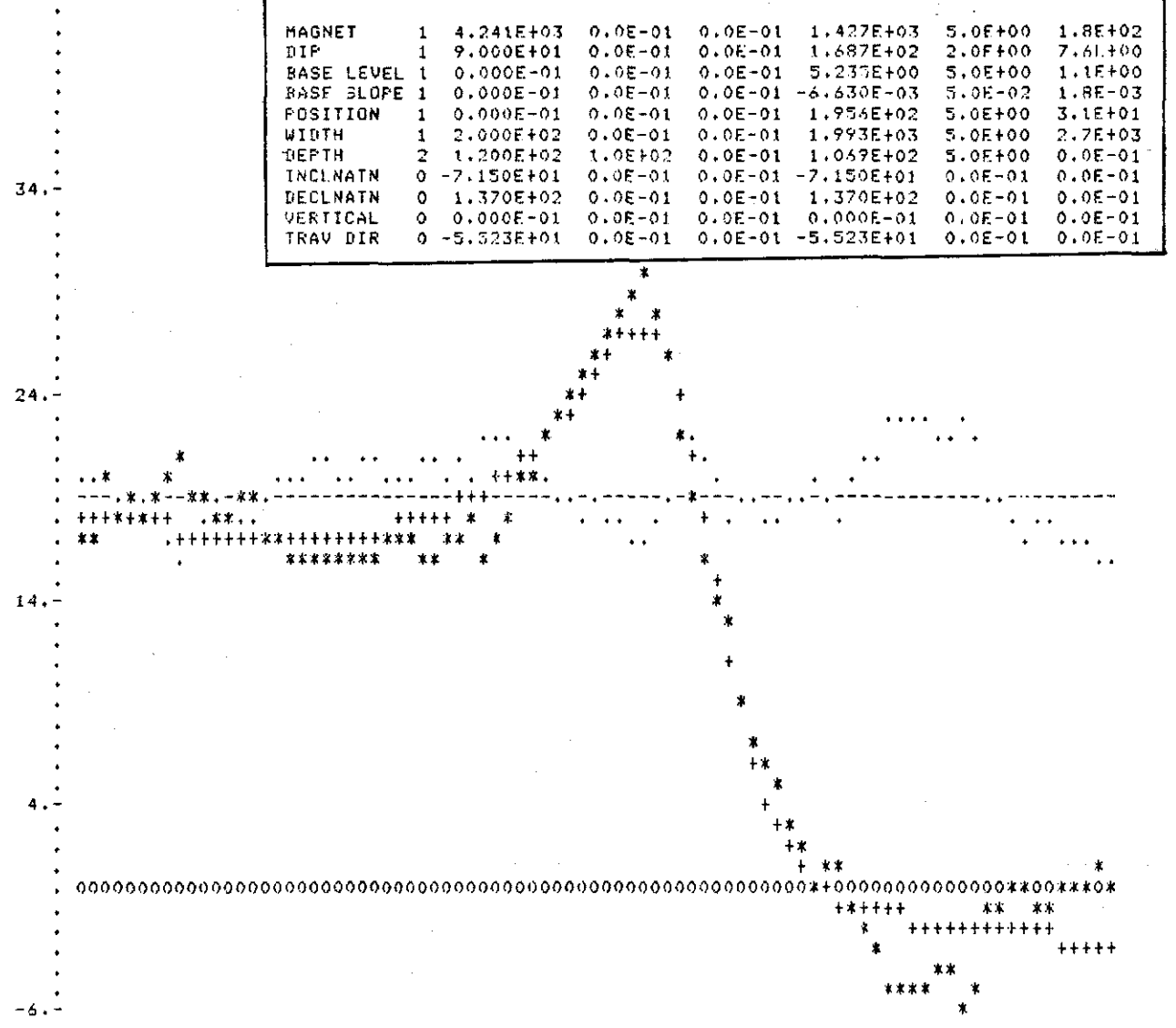


MODEL TABULAR TITLE SAVAGERNO

NUMBER OF STATIONS 85 MAX AMPLITUDE 35. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .1136 PARFIT FLAG 2 ERROR CURVE DATUM 19.200

AGMOD PLOT OF FIT 1

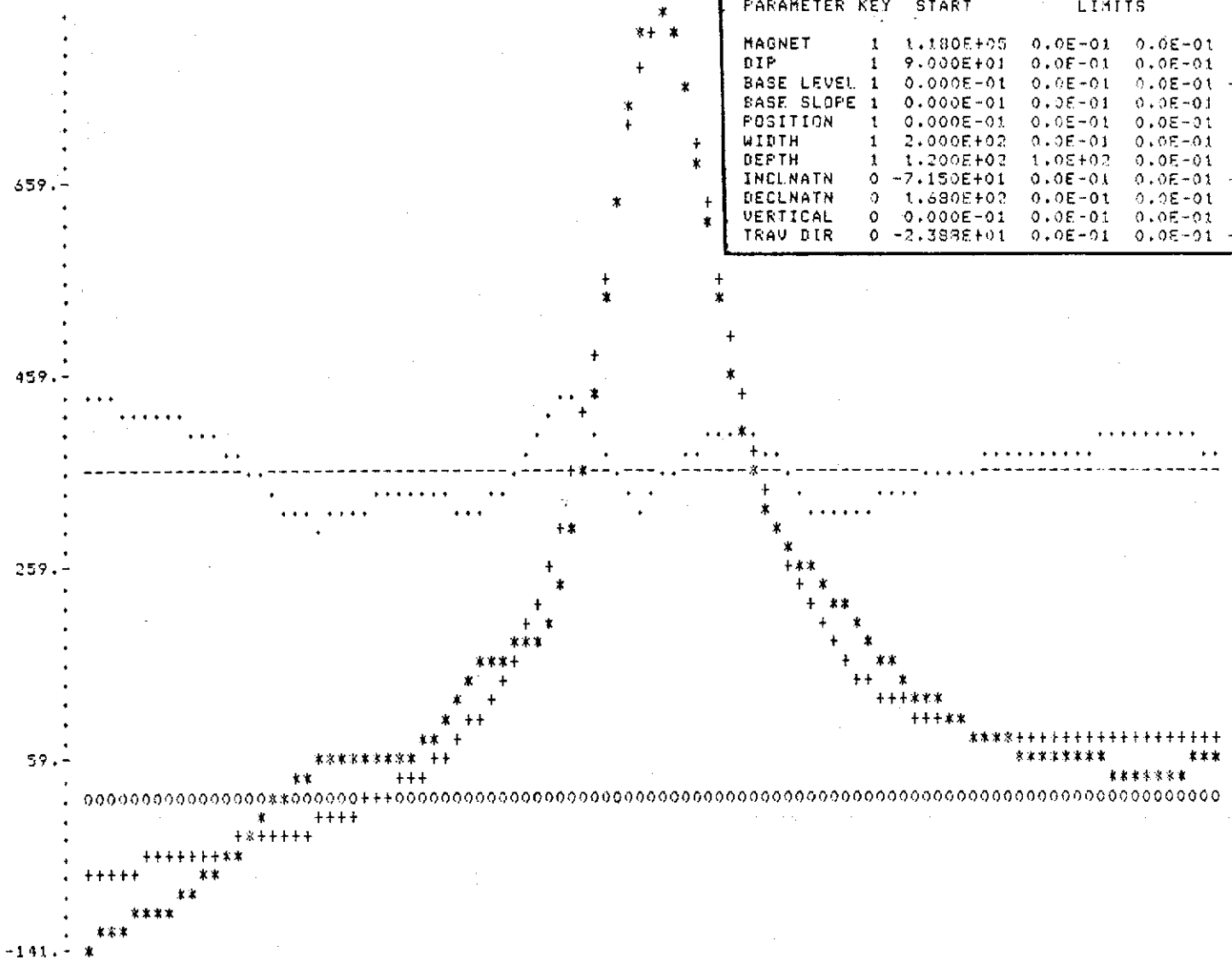
PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	4.241E+03	0.0E-01	0.0E-01	1.427E+03	5.0E+00	1.8E+02
DIP	1	9.000E+01	0.0E-01	0.0E-01	1.687E+02	2.0E+00	7.6E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	5.237E+00	5.0E+00	1.1E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-6.630E-03	5.0E-02	1.8E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	1.956E+02	5.0E+00	3.1E+01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	1.993E+03	5.0E+00	2.7E+03
DEPTH	2	1.200E+02	1.0E+02	0.0E-01	1.069E+02	5.0E+00	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.370E+02	0.0E-01	0.0E-01	1.370E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-5.523E+01	0.0E-01	0.0E-01	-5.523E+01	0.0E-01	0.0E-01



JDEL RIBBON TITLE SAVAGERN2

JMBER OF STATIONS 85 MAX AMPLITUDE 35. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
ELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
ORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .1152 PARFIT FLAG 2 ERROR CURVE DATUM 19.200

MAGMOD PLOT OF FIT 1



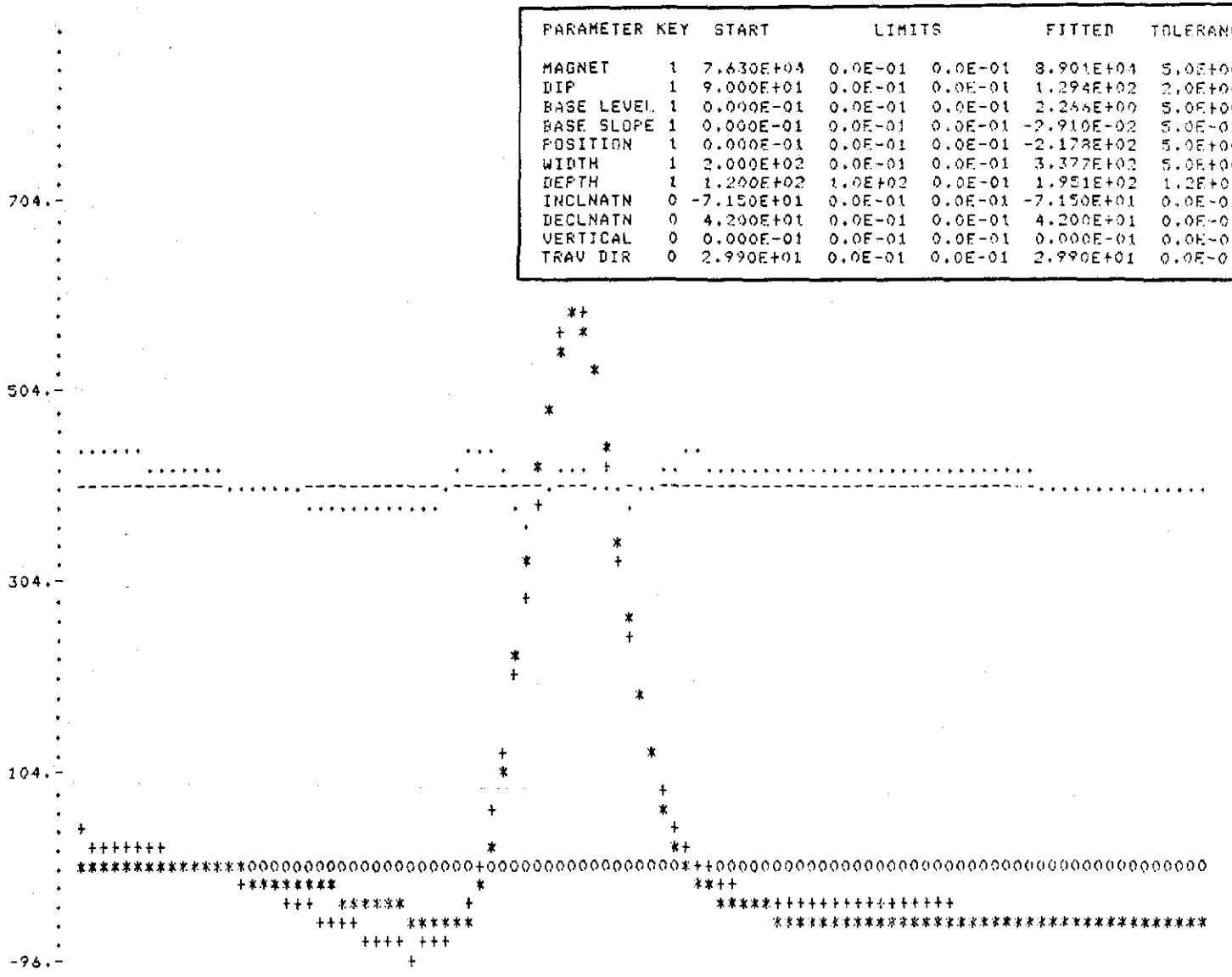
PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	1.180E+05	0.0E-01	0.0E-01	9.202E+04	5.0E+00	0.0E-01
DIP	1	9.000E+01	0.0E-01	0.0E-01	9.606E+01	2.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	-1.950E+01	5.0E+00	0.0E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	4.287E-02	5.0E-02	0.0E-01
POSITION	1	0.000E-01	0.0E-01	0.0E-01	2.282E+01	5.0E+00	0.0E-01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	3.121E+03	5.0E+00	0.0E-01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.978E+02	1.2E+01	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.680E+02	0.0E-01	0.0E-01	1.680E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-2.388E+01	0.0E-01	0.0E-01	-2.388E+01	0.0E-01	0.0E-01

DUEL RIBBON TITLE SAVTREN2

UMBER OF STATIONS 99 MAX AMPLITUDE 983. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 20. GAMMAS PER LINE.
IELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
ORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .1266 PARFIT FLAG -1 ERROR CURVE DATUM 358.870

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	7.630E+04	0.0E-01	0.0E-01	8.901E+04	5.0E+00	6.8E+03
DIP	1	9.000E+01	0.0E-01	0.0E-01	1.294E+02	2.0E+00	6.7E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	2.246E+00	5.0E+00	1.2E+01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-2.910E-02	5.0E-02	9.9E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-2.178E+02	5.0E+00	1.5E+01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	3.377E+02	5.0E+00	4.5E+01
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.951E+02	1.2E+01	1.3E+01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	4.200E+01	0.0E-01	0.0E-01	4.200E+01	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	2.990E+01	0.0E-01	0.0E-01	2.990E+01	0.0E-01	0.0E-01

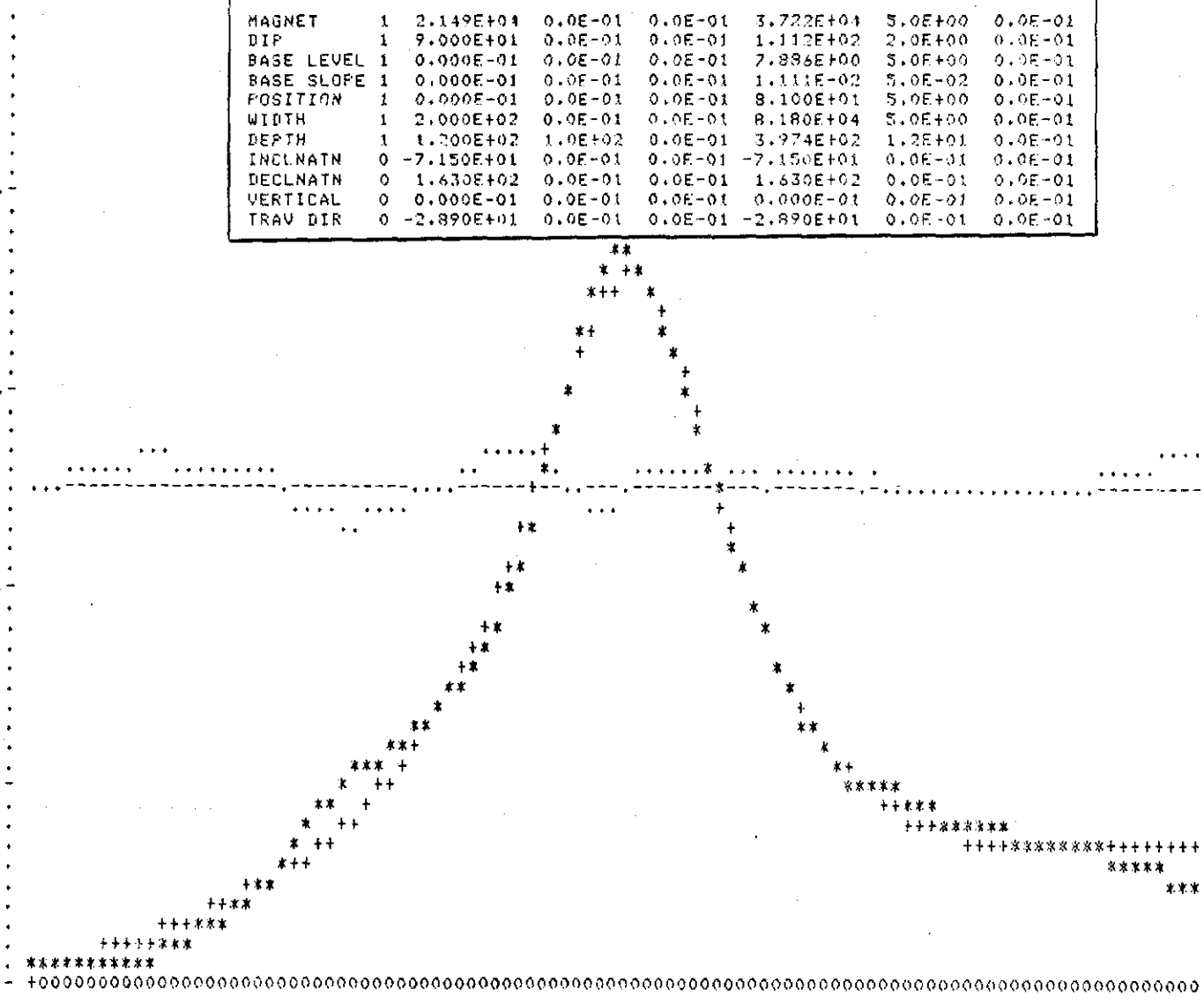


MODEL RIBBON TITLE SEDGE2

NUMBER OF STATIONS 99 MAX AMPLITUDE 678. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 20. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .1187 PARFIT FLAG 2 ERROR CURVE DATUM 403.512

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	2.149E+04	0.0E-01	0.0E-01	3.722E+04	5.0E+00	0.0E-01
DIP	1	9.000E+01	0.0E-01	0.0E-01	1.112E+02	2.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	7.886E+00	5.0E+00	0.0E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	1.111E-02	5.0E-02	0.0E-01
POSITION	1	0.000E-01	0.0E-01	0.0E-01	8.100E+01	5.0E+00	0.0E-01
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	8.180E+04	5.0E+00	0.0E-01
DEPTH	1	1.300E+02	1.0E+02	0.0E-01	3.974E+02	1.2E+01	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.630E+02	0.0E-01	0.0E-01	1.630E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-2.890E+01	0.0E-01	0.0E-01	-2.890E+01	0.0E-01	0.0E-01

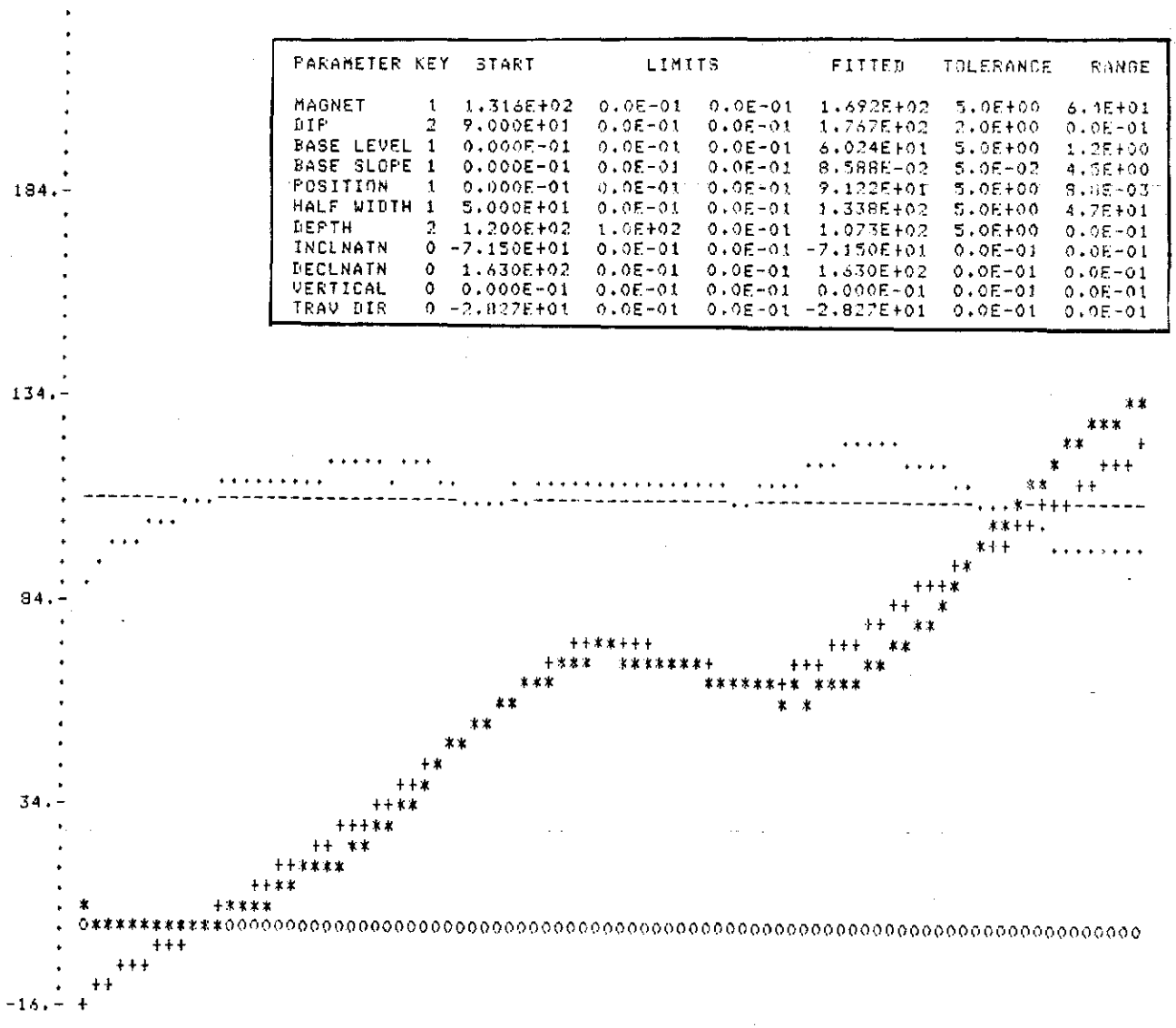


MODEL RIBBON TITLE TRAPID2

NUMBER OF STATIONS 99 MAX AMPLITUDE 180. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 5. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0582 PARFIT FLAG -1 ERROR CURVE DATUM 123.679

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	1.316E+02	0.0E-01	0.0E-01	1.692E+02	5.0E+00	6.1E+01
DIP	2	9.000E+01	0.0E-01	0.0E-01	1.767E+02	2.0E+00	0.0E-01
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	6.024E+01	5.0E+00	1.2E+00
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	8.588E-02	5.0E-02	4.6E+00
POSITION	1	0.000E-01	0.0E-01	0.0E-01	9.122E+01	5.0E+00	8.8E-03
HALF WIDTH	1	5.000E+01	0.0E-01	0.0E-01	1.338E+02	5.0E+00	4.7E+01
DEPTH	2	1.200E+02	1.0E+02	0.0E-01	1.073E+02	5.0E+00	0.0E-01
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.630E+02	0.0E-01	0.0E-01	1.630E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-2.827E+01	0.0E-01	0.0E-01	-2.827E+01	0.0E-01	0.0E-01

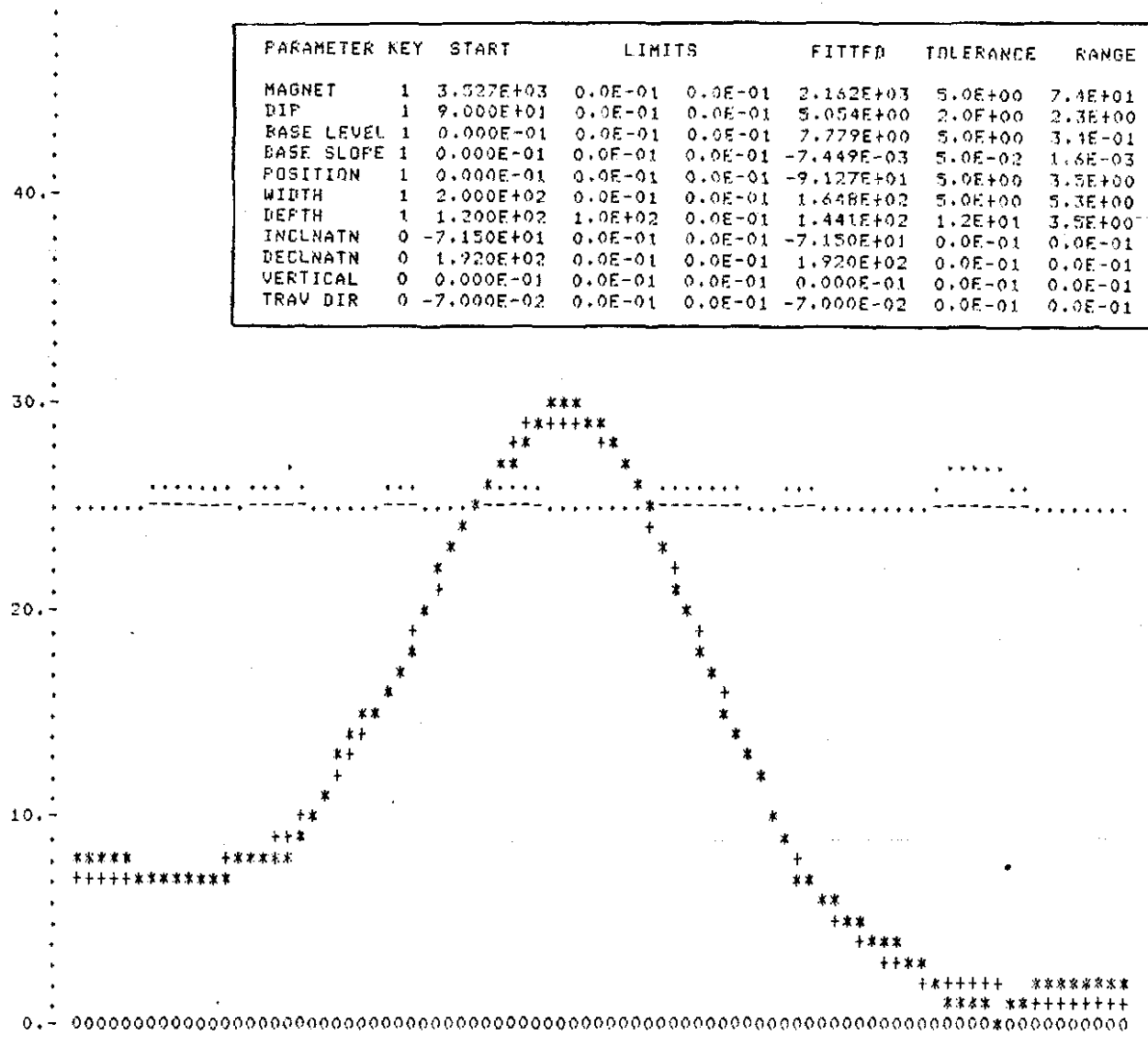


MODEL TABULAR TITLE TRAPIDNO

NUMBER OF STATIONS 87 MAX AMPLITUDE 150. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 3. GAMMAS PER LINE.
FIELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
NORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .1064 PARFIT FLAG 2 ERROR CURVE DATUM 109.066

MAGMOD PLOT OF FIT 1

PARAMETER	KEY	START	LIMITS		FITTED	TOLERANCE	RANGE
MAGNET	1	3.527E+03	0.0E-01	0.0E-01	2.162E+03	5.0E+00	7.4E+01
DIP	1	9.000E+01	0.0E-01	0.0E-01	5.054E+00	2.0E+00	2.3E+00
BASE LEVEL	1	0.000E-01	0.0E-01	0.0E-01	7.779E+00	5.0E+00	3.1E-01
BASE SLOPE	1	0.000E-01	0.0E-01	0.0E-01	-7.449E-03	5.0E-02	1.6E-03
POSITION	1	0.000E-01	0.0E-01	0.0E-01	-9.127E+01	5.0E+00	3.5E+00
WIDTH	1	2.000E+02	0.0E-01	0.0E-01	1.648E+02	5.0E+00	5.3E+00
DEPTH	1	1.200E+02	1.0E+02	0.0E-01	1.441E+02	1.2E+01	3.5E+00
INCLNATN	0	-7.150E+01	0.0E-01	0.0E-01	-7.150E+01	0.0E-01	0.0E-01
DECLNATN	0	1.920E+02	0.0E-01	0.0E-01	1.920E+02	0.0E-01	0.0E-01
VERTICAL	0	0.000E-01	0.0E-01	0.0E-01	0.000E-01	0.0E-01	0.0E-01
TRAV DIR	0	-7.000E-02	0.0E-01	0.0E-01	-7.000E-02	0.0E-01	0.0E-01



ODEL RIBBON TITLE WRIDGE2

UMBER OF STATIONS 85 MAX AMPLITUDE 29. X INCREMENT 1 COLUMNS PER STATION. Y INCREMENT OF 1. GAMMAS PER LINE.
IELD DATA CURVE...%*% FITTED CURVE...%+% ERROR CURVE...%.%
ORMALIZED WEIGHTED STANDARD DEVIATION OF FIT .0364 PARFIT FLAG 2 ERROR CURVE DATUM 25.160

APPENDIX II

GEOCHEMICAL ASSAY LEDGERS

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGER

Tenement name RAPID RIVER EL 1179 No. ..... Sample numbers 988424 - 988425 Collected by I.M. Clemmow Sheet no. 1

Area / Prospect CLEARWATER MAG ANOMALY Date 14-3-83

Map / Photo reference ..... Analysed by Analabs DPO no. 39327

A 02143

Sample No.	Type	ss channel **						Carbon	Metal content ppm or %										Grid ref	Geological Observations
	ss * oc f s	fl	wi	al	co	ca	pH		Cu	Pb	Zn	Ag	Mo W	Mn	Au	Fe% / As	Co / Ni	Sn / Ba		
		o/c sample type ***																		
		s sample type ****																		
188424	s/s	Mod.	0.5m	50%	50%			+80#	15	10	65	x	x	295		3.15 / x	30 / 50	5 / 170	✓	Grab sample from riffle. Creek flows E to N.
								-80#	20	15	85	x	x	605		3.25 / 110	45 / 65	40 / 110	✓	Float in creek: 60% Vein qz. 20% Basalt (0.2-0.8 cgo) 15% qz-sericite schist (prob of sed. orig. 5% Light grey, slightly schistose argillite Minor Mn staining, Fe on goeqz frags.
188425	c/s	Mod	15m	70%	30%			+80#	10	5	55	x	x	400		4.10 / x	35 / 70	6 / 170	✓	Grab sample from riffle in intermittent channel of broad "braided" creek. Float 70% Basalt (0.4-0.8 cgo) 25% Vein qz 5% Light grey qz. tex (f.-m.gr. well sorted, hard, and mi grey qz-arenite (fine qzite) tex well sorted, f.-m.-gr.
								-80#	10	10	80	x	x	635		5.00 / x	60 / 75	5 / 90	✓	

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. Sample numbers 188558 - 560 - 561 Collected by I.M. Clementson Sheet no. 1

Area / Prospect DOLSAU AEROMAG ANOMALY Date 21-4-83

Map / Photo reference Analysed by ANALABS / FANDER DPO no 30330

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type ***	s sample type ****	Carbon	Cu	Pb	Zn	Ag	Mo W	Mn	Au	Fe% Ni	As Co	Sn Ba	Grid ref	Geological Observations
188558	f	g/s									PETROLOGY: fresh porphyritic basalt, vesicular, dolerite											Dk grey-black, massive, med. grained cryptocalline rock. Prob a diorite, coarse basalt or possibly unfoliated amphibolite 0.2-0.4 $\times 10^{-3}$ cgs.
188559	f	g/s									65	10	100	X		800		5.55/155	X/50	44/159		As above
																						As above
188560	f	g/s									55	5	100	0.5		930		6.09/150	X/55	X/154		(All collected off flatcam at anomaly site)
188561	s/s	g/s									5	5	15	X	X	40		0.35/5	X/5	X/172	✓	Small creek (1m) draining off the anomaly a east f.t. Qz-granule.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LODGER

Tenement name RAPID RIVER EL 1179 No. Sample numbers 988498-449, 988551-554 Collected by I.M. Clementson Sheet no. 1

Area / Prospect LATLONG AEROMAG ANOMALY Date 20-4-83

Map / Photo reference TRAVERSE E-W ACROSS ANOMALY (HELI-RECCE) Analysed by Analabs DPO no. 30330

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type *** s sample type ****	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo W	Mn	Au	Fe% / Ni	Ag / Co	Sn / Ba	Grid ref	Geological Observations
188498	f	g/s								25	x	35	x		290		2.20/40	x/15	5/803		East edge of anomaly (200m W of button grass) - lt green-grey, non-fissile mudstone. Micro-faulting visible
188499	o/c	y/s								25	x	120	x		50		3.25/35	x/25	40/690		In S→N flowing creek at anomaly. lt green-grey mudstone - siltstone. Vertical, strike 355° Mag. 0.1×10^{-3} cgs
188498	ss	g/s								5	10	35	x	x	115		0.4%/10	x/10	3/310	✓	Ck as above. In wide. Trickle.
188551	s	A	0.3	C						x	x	15	x		30		0.45/5	x/5	x/640		50m west of Ck. Weath grey-green silty mudstone.
188552	f	g/s								x	x	15	x		45		0.57/x	x/5	x/765		75m west of Ck. Cream weath. silt.
188553	s	A	0.4	C						20	10	40	x		20		1.00/10	x/10	8/1500		75m west of Ck. Weath. lt buff-ochre shale/silty mudstone.
188554	s	A	0.3	C						5	x	15	x		30		.67/5	x/5	x/609		25m west of Ck. As above.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name: RAPID River E.L. 1/79 No. Sample numbers: 989901 – 989907, 989913 – 989916 Collected by: M.F. FLIS Sheet no.: 1

Area / Prospect: Lyons River Date: 22-2-1983

Map / Photo reference: Analysed by: ANALABS – COOKE DPO no.: 30223

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type ***	s sample type ****	Carbon	Cu	Pb	Zn	Ag	Mo	Mn	Au	Co/Ni	Sn	W/Ba	Grid ref	Geological Observations
989901	f										65	85	245	x		1100		75/200	7	x/330		Tertiary Basalt float off "Lyons River"
																						A-mag area
989902	ss	minor ch. 2-3m wide. High flow rate. Good trap site									21	87	180	0.4		460		17/34	3	x/180	✓	silty-sand
989903	ss	Lyons R. – 4-5m wide. High flow rate. Poor trap.									21	28	85	0.3		330		18/40	5	x/180	✓	〃
989904	f										15	5	105	x		190		20/125	x	x/140		Sericitic/chloritic shales
989905	o/c										30	110	90	x		190		20/125	3	x/180		Sericitic silty sandstone
989906	ss	Lyons R.									20	18	56	0.1		245		13/27	x	x/150	✓	S/S, shale, basalt gravels
989907	ss/s	clay bank on Lyons R.									20	15	47	0.1		165		14/34	5	x/220		
989913	f	pyritic, jointed siltstone									25	5	20	0.5		25		45/40	6	x/140		Lyons R / B.A. Ch area.
989914	f	Tertiary basalt									60	5	150	x		1050		75/110	x	x/280		〃 〃 〃
989915	f	ferruginous silt/sandstone									135	35	105	x		265		70/60	3	x/30		〃 〃 〃
989916	f	ferruginous silt/sandstone									75	x	165	x		725		55/60	8	x/x		〃 〃 〃

* Sample type ss = stream sediment oc = outcrop f = float s = soil

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID R. EL 1179 No. ..... Sample numbers 988433 - 988440 Collected by I.M. Clementson Sheet no. .....

Area / Prospect RAPID NORTH AEROMAG. ANOMALY. Date 14-4-83

Map / Photo reference Scale 1:2500, lines 5000N and 5425E. Analysed by Analabs DPO no. 30327

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type *** / s sample type ****	Carbon	Cu	Pb	Zn	Ag	Mo	Mn	As	Co/Ni	Fe% /As	Sn/Ba	Grid ref	Geological Observations
988433	f	g/s								70	x	80	x		1400		40/250	11.5/x	9/120	Creek, approx 1000m SE of pipeline. Limonitic material, prob. high wealth basalt.
988436	ss	o	1.5	70%	30%		All basalt			25	5	165	x		420		-/215	6.19/x	✓	5000N 5118E	Drycreek, all basalt float.
988437	s	A	1.2	B						90	5	140	x		310		-/230	100/x		5000N 5250E	Ochre, sticky clay Ex basalt
988438	ss	o	1.5	70%	30%				+80#	40	x	110	x		440		55/225	9.15/x	10/110 ✓		
									-80#	45	5	145	x		520		55/230	7.25/x	15/95 ✓	5000N 5275E	Drycreek, 100% basalt float. Drainage to north.
988439	s	A	1.0	B						90	5	120	x		1250		-/230	12.5/x		5000N 5350E	Ochre clay, ex basalt.
988440	s	A	0.9	B						105	x	205	x		490		-/390	11.5/100		5425E 4650N	Ochre clay, ex basalt.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state interval & length)

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. ..... Sample numbers 988582 Collected by I.M. Clementson Sheet no. 1

Area / Prospect ..... Date May 83

Map / Photo reference ACCESS TRACK TO RAPEND ANOMALIES Analysed by ..... DPO no. 56333

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Co	Ni	As	Fe %	Mn/Ba	W/Sn	Grid ref	Geological Observations
		o/c sample type *** / s sample type ****																		
188582	s/s	gs							7	2	18	x	4	10	x	0.28	13/18	x/x/	359500E 5487150N	Flows N→S. 1/2m wide. Float all qz.
988583	s/s	gs							3	1	8	x	3	6	x	0.17	9/16	x/x/	359350E 5487300N	Flows SSE→NNW 1m wide. Float all qz

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LEDGER

Tenement name Rapid River EL 1179 No. .... Sample numbers 988468-988473 Collected by I.M. Clemens... Sheet no. 1

Area / Prospect Rapend West Access Date........

Map / Photo reference Sample stations are metres upstream on access creek. Analysed by Analabs DPO no. 30328

A 02143

Sample No.	Type (ss* / oc / f / s)	ss channel ** fl	wi	al	co	ca	pH	Carbon	Cu	Pb	Zn	Ag	~~Mo~~ W	Mn	Au	Fe %/Ni	Co/As	Sn/Ba	Grid ref	Geological Observations
988468	ss	gs					✓	-80#	15	x	50	x	x	175		1.75/80	35/x	x/179	1620mS	Very small creek draining approx
							✓	+80#	5	x	25	x	x	125		1.25/50	20/x	x/93		locality of Rapend North. Basalt float
988469	ss	gs					✓	-80#	x	x	15	x	x	55		0.77/15	10/x	x/78	1700mS	Prominent creek draining from east into
							✓	+80#	x	x	5	x	x	30		0.45/5	5/x	3/59		main creek. Abundant qz, sericite schist
																				phyllite float plus some basalt
988470	o/c	gs							15	10	145	x		785		5.60/30	30/100	x/176	1720mS	Slightly foliated phyllite/schist
																				Grey ferruginous. 0.0-0.1 cgs x 10^{-3}
988471	ss	gs					✓	-80#	x	x	5	x	x	20		0.73/5	10/x	x/58	1900mS	Main creek. Abundant o/c of grey schists
								+80#	x	x	x	x	x	20		0.24/5	5/x	x/52		and phyllites. Well foliated. Strike
																				N-S.
988472	ss	gs					✓	-80#	5	x	10	x	x	65		0.79/15	15/x	x/70	2200mS	Main creek. As above.
							✓	+80#	x	x	5	x	x	25		0.83/x	10/x	x/52		
988473	o/c	gs							5	10	50	x		115		1.60/15	15/x	x/243	2200mS	Pelitic schist or phyllite.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state le... th)

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. ..... Sample numbers ..... Collected by J. HORAN Sheet no. 1

Area / Prospect RAPID AEROMAG ANOMALY Date 19-4-83

Map / Photo reference TRAVERSE FROM BUTTON-GRASS EAST OF ANOMALY Analysed by ANALABS DPO no. 30830

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type *** / s sample type ****	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo	Mn	Au	Fe% / Ni	Mo / Co	Sn / Ga	Grid ref	Geological Observations
	SS																				Approx 230m from drop site on button grass. Large fragments of vein qz in creek.
988569	SS									25	10	60	x	x	190		1.25/10	x/10		✓	Approx 500m from drop site. Float of qz. and ? weathered schist in small creek
988568	SS									15	25	70	x	x	300		1.95/15	x/10		✓	Approx 1000m from drop site. V. large (8-10m wide) creek with float of qz, shales and silts. (? Rapid River or Roy Creek?) Float of black shale-slate & ? weath g'wacke / tuff or dolerite.
988501	S	A	0.75	B						20	15	30	x		75		2.35/10	x/10	x/464		Approx 1100m from drop site.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LODGER

Tenement name RAPID RIVER EL 1179 No. ..... Sample numbers 988489 - 988496 Collected by I.M. Clementson Sheet no. 1

Area / Prospect RAPID EAST / AEROMAG ANOMALY Date 20-4-83

Map / Photo reference RECCY LINE (Mag. E-W) Analysed by Analabs DPO no 30330

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type ***	s sample type ****	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo	Mn	Au	Fe% / Ni	Mo / Co	Sn / Ba	Grid ref	Geological Observations
188489	S	A	0.9	C							15	x	15	x		15		0.14 / 5	x / 10	x / 410	5100E	Dk grey/blue clay, ex shale or mudstone
490	S	Replicate									15	5	10	x		10		0.13 / 5	x / 5	x / 382	"	"
188491	S	A	0.7	C							25	15	30	x		20		0.4 / 10	x / 10	x / 777	5125E	M. dgrey weathered shale / mudstone.
492	S	Replicate									5	10	30	x		30		0.60 / 10	x / 10	x / 778	"	"
188493	S	A	0.7	C							10	5	10	x		40		0.35 / 5	x / 5	x / 328	5150E	M. blk/dgrey-green-ochre weathered shale
494	S	Replicate									20	x	20	x		60		0.49 / 10	x / 10	x / 340	"	"
188495	S	A	1.0	C							x	x	10	x		50		0.66 / 10	x / 10	x / 166	4975E	LL ochre-brown weathered shale / mudstone
496	S	Replicate									x	x	10	x		55		0.57 / 5	x / 5	x / 136	"	"

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. ..... Sample numbers 988549-550/580-581 Collected by I.M. Clemenson Sheet no. 1

Area / Prospect ..... Date 19-May-83

Map / Photo reference Big grass ridge on creek to "Rapid Ck" Analysed by ..... DPO no 30383

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type ***	s sample type ****	Carbon	Metal content ppm or % Cu	Pb	Zn	Fe%	Mn	Ni	Co	Ag/As	Ba	U/Sn	Grid ref	Geological Observations
988549	s/s	gs								✓	14	4	22	0.73	105	15	7	x/x	x	x/3	357600E 5436450N	Ck 6m wide, strong flow. Float all qz/qz.te
988550	f	gs									40	x	5	1.15	165	645	10	x/x	x	x/x	357200E 5436000N	White, fine-med grained slightly schistose PE qz.te 0.0-0.1x10-3 c
988580	o/c	gs									5	x	70	2.55	65	40	20	x/x	523	x/x	357600E 5437000N	Vertical, N-S striking qz zone schist
988581	o/c	gs									10	x	40	0.81	45	70	10	x/x	60	x/x	357350E 5436750N	"

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. ..... Sample numbers ..... Collected by J. HORNE Sheet no. 1

Area / Prospect "SAVAGE RIVER NORTH" Aero mag. Anomaly Date 20-4-83

Map / Photo reference Traverse from button grass s.w. of Anomaly. Analysed by ANALABS DPO no. 30330

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type *** / s sample type ****	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo W	Mn	Au	Fe% / Ni	As / Co	Sn / Ba	Grid ref	Geological Observations
988502	S	A	1.10	B						35	x	100	x		240		6.40 / 90	x / 30	x / 291		Approx 750m NE of drop site and
988503	S	A	1.40	B						40	5	105	x		290		6.15 / 80	x / 35	x / 470		approx position of anomaly. Yellow-brown clays below and ex-basalt. Basalt float at site.
988571	SS									25	10	80	0.5	x	815		3.30 / 75	x / 40	7 / 198	✓	Approx 450m NE of drop site. Ck 2-3m wide with fine qz gravel & ? basic igneous float.
988572	SS									10	10	25	0.5	x	160		0.90 / 15	x / 5	7 / 77	✓	Ck (flowing N→S) some 950m NE of drop site and probably draining the anomaly (named Boiled Eggo Au) Little Big Fruit Creek) Qz gravels & ? serpentinite? float
988573	SS									5	x	20	x	x	100		0.41 / 20	x / 10	x / 43	✓	75m S of above
988574	SS									10	30	75	0.5	x	260		1.5 / 40	x / 10	10 / 148	✓	75m S of above.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. ..... Sample numbers 988461-988467 Collected by I.M. Clamerton Sheet no. 2 of 2

Area / Prospect SANTREN AEROMAG ANOMALY Date 14-4-83

Map / Photo reference ..... Analysed by Analabs DPO no. 30327

A 02143

Sample No.	Type	ss channel **						Carbon	Metal content ppm or %										Grid ref	Geological Observations
	ss * oc f s	fl	wi	al	co	ca	pH		Cu	Pb	Zn	Ag	Mo W	Mn	Au	Fe% / As	Co / Ni	Sn / Ba		
		o/c sample type ***																		
		s sample type ****																		
988461	SS	0.5	2.0					✓	10	10	25	x	x	80		0.75 / x	/ 45		150 mW of creek at hill at SANTREN	E → W flowing muddy creek. Much silt & organic matter
988462	F	gs							110	10	235	x	x	3.2%	x	15.5% / x	480 / 240	x / 730	200 mW of creek at hill at SANTREN	Laterite or gossan. Mn rich, no visible bands pan has worked 0.1-0.2×10⁻³ cgs
988463	F	gs							40	10	205	x	x	1900		8.85 / 100	110 / 135	x / 250	..	High weathered buff clay. V. soft. Slightly ferruginous 0.3-0.7×10⁻³ cgs
988464	F	gs							170	10	105	x	x	2600		6.75 / x	90 / 75	x / 55	..	Lateritic weathered variant of 463. Looks sedimentary
988465	F	gs							345	x	160	x	x	1500	x	6.65 / 100	125 / 255	x / 210	..	Phyllite: grey, argillic, schistose rock with 92 segregations 0.2-0.6×10⁻³ cgs
988466	F	gs							125	5	305	x		3.35%		16.5 / x	430 / 235	x / 950	..	Repeat of 988462
988467	F	gs							160	x	100	x	x	685		12.0 / x	70 / 115	x / 170	..	Highly weathered reddish. Soft, massive. 1.6×10⁻³ cgs.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** Outcrop sample description ...

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. ..... Sample numbers ..... Collected by I.M. Clementson Sheet no. 1

Area / Prospect SAVTREEN MAG. ANOMALY Date 6-3-83

Map / Photo reference LITTLE DONALDSON R. + TRIBUTARIES Analysed by ..... DPO no. 30327

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type *** / s sample type ****	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo / W	Mn	Au	Fe% / As	Co / Ni	Sn / Ba	Grid ref	Geological Observations
88426	o/c	gs								40	45	135	x	X	130		6.15/x	30/65	10/710	300mN of Ionile peak on Pipeline Road.	Por PE mudstone. Mid grey, very soft, cleaved.
188427	o/c	gs								35	25	125	x	X	805		4.90/x	45/200	9/600	600mW of Pipeline & Trib of L.Don R.	Lt grey shale-mudstone with well rounded clasts (dropstones?) to 2cm. Dip 70° NE. Strike 320°m. Prob. Perm
188428	o/c	gs								10	x	10	x		360	x	1.25/x	10/410	x/80	200mW of Pipeline & Trib of L.Don R.	Banded chert from with chert-shale horizon Assay for gold.
																				LITTLE DONALDSON RIVER. (Distance on from confluence)	
188429	f	gs								5	x	10	x		260		2.35/x	15/200	x/180	893mN	Coarse gritty tuff. Platy black mineral present, metallic. Not mag. or spec.
188430	f	gs								5	x	15	x	x	195		2.60/x	20/135	7/250	893mN	Slightly silicified siltstone well banded. Minor Fe oxides on joints
188431	s/s	gs						/	+80#	10	x	40	x	x	280		2.30/x	20/45	19/140	1450mN	Creek 3m wide - 6m wide. Grab samples only. Dilution prob. v. great. Float dominantly basalt, qz. lite and argillite
								/	-80#	25	5	125	x	x	605		0.35/x	35/75	15/100		
188432	s/s	gs						/	+80#	10	10	70	x	x	320		2.55/x	20/40	15/160	900mN	
								/	-80#	30	5	75	x	x	715		3.45/100	35/10	19/95		

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

523055

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LEDGER

Tenement name RAPID RIVER EL 1179 No. .... Sample numbers 988441 - 988450 988461 - 988467 Collected by I.M. Clementson Sheet no. 1 of 2

Area / Prospect SAUTREN AEROMAG ANOMALY Date 14-4-83

Map / Photo reference TRAVERSE WEST FROM PIPELINE TO SAUTREN. Analysed by Analabs DPO no. 30827

A 02143

Sample No.	Type (ss / oc / f / s)	fl	wi	al	co	ca	pH	Carbon	Cu	Pb	Zn	Ag	~~Mo~~ W	Mn	Au	Fe%/As	Co/Ni	Sn/Ba	Grid ref	Geological Observations
		ss channel **							Metal content ppm or %											
		o/c sample type ***																		
		s sample type ****																		
88441	SS	0	1.0				/	+80#	<5	x	185	x	x	610		6.55/x	55/155	5/290	Ck draining W into L	Ella Donaldson River. Float 50% basalt
							/	-80#	15	5	160	x	x	405		3.80/x	40/115	9/230		50% qz te
88442	SS	0	1.0						120	x	90	x	x	875		6.45/x	55/100	5/40	Ck 100m W of L.D.R.	Float of greenish weathered silt, ? slightly tuffaceous
88443	SS	0.5	2.0				/	+80#	75	10	105	x	x	2800		7.85/100	65/95	4/95	Ck 300m W of LDR	Float of greenish weathered silts
							/	-80#	45	5	65	x	x	1350		5.30/x	30/55	7/150		
88444	F								30	x	100	x		915		6.90/x	55/110	x/95	"	Silt, weathered. Traces Fe ox. [illegible] ?ZnS
88445	F								65	x	140	x		525		8.85/x	80/140	4/170	"	Weathered, foliated ?? tuff
88446	S								60	10	95	x		635		6.35/x	-/115		Crest of hillock SAUTREN	Soil from tree root
88447	F								85	5	160	x		665		7.65/x	65/215	5/740	"	Weathered lithic tuff, clasts visible
188448	F								80	5	145	x		990		7.30/x	65/175	5/740	"	" " " " "
88449	SS						/	+80#	75	5	105	x	x	2600		7.40/x	60/100	x/85		Repeat of 988443
							/	-80#	45	x	70	x	x	1400		4.90/x	35/65	8/170		
88450	o/c	cc	1.0m						65	20	130	x		760		7.15/x	50/95	9/710	200m N of crest of hill at Sautren	Sheared, cleaved lithic tuff

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

523056

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 179 No. ..... Sample numbers 988481-988488 Collected by I.M. Clementson / M. Fine Sheet no. 1

Area / Prospect WRIDGE AEROMAG ANOMALY Date 19-APRIL-1983

Map / Photo reference RECCE LINE (IMAGE-IN OVER APPROX CENTRE OF ANOMALY) Analysed by Analabs DPO no. 30330

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type *** / s sample type ****	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo	Mn	Au	Fe% / Ni	As / Co	Sn / Ba	Grid ref ? 500N	Geological Observations
88481	S	A	0.5	B-C						5	15	15	x		10		0.43 / S	x / S	x / 562	075mE	Dk grey-black weathered ? shale or other argillite. Slight green staining - ? weathered pyrite.
88482	S	A	0.6	B-C						5	15	10	x		10		0.38 / S	x / S	x / 622	050mE	Light grey clay, obviously shale / argillite derived.
88483	S	A	0.6	B						5	25	10	x		10		0.20 / 10	x / S	x / 403	025mE	LL grey greeny (talcose ?) clay much as above.
88484	S	A	0.5	-						5	10	15	x		15		0.335 / S	x / S	x / 275	000mE	In small drainage feature off the ridge. Very wet sticky mid brown clays
88485	S	A	0.4	B-C						10	15	15	x		10		1.55 / S	x / S	x / 557	100mE	Black clay / fragments black shale + ? weathered pyrite.
88486	S	A	0.7	B-C						10	10	25	x		10		1.95 / 10	x / 10	x / 486	125mE	Mottled ochre-light buff brown clay
88487	S	A	0.8	B						10	x	20	x		20		0.45 / 10	x / S	x / 466	150mE	Buff-cream fine, talcose ?, clay
88488	S	A	0.5	B						105	x	45	x		20		0.45 / 10	x / S	x / 638	175mE	Similar to above.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

523057

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name: Rapid River EL 1179 No. ..... Sample numbers: 988576 - 988579 Collected by: I.M. Clements on Sheet no. 1

Area / Prospect: Rapid Creek Date: 4-Jan-83

Map / Photo reference ..... Analysed by ..... DPO no. 30333

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	Carbon	Metal content ppm or % Cu	Pb	Zn	Fe%	Mn	Ni	Co	Ag	ppm/Ba	w/Sn	Grid ref	Geological Observations
		o/c sample type ***																		
		s sample type ****																		
988576	o/c	gs							40	35	40	4.2%	120	140	20	x	x/424	x/x		Cleaved, black mudstone / shale. Abundant coarse, euhedral pyrite, usually in seam overbinding stone. Sample is somewhat stained by 2° Fe oxides.
988577	o/c	gs							35	15	65	2.85	200	80	15	x	100/538	x/x		As above but, being less weathered and Fe oxide rich, is more typical of the facies.
988578	o/c	gs							55	15	50	1.15	120	105	15	x	x/493	20/x		"
988579	o/c	gs							45	x	90	2.30	220	150	20	x	100/617	x/3		As above but more intensely foliated, possibly on minor shear zone.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

523058

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. Sample numbers 988584 - 988586 Collected by I.M. Clementson Sheet no. 1

Area / Prospect PIPELINE ROAD Date May 83

Map / Photo reference Analysed by DPO no. 30333

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	Carbon	Metal content ppm or % Cu	Pb	Zn	Fe%	Mn	W	Co	Ag	As/Ba	Sb/Sn	Grid ref	Geological Observations
		o/c sample type ***																		
		s sample type ****																		
8584	oc	gs							45	x	15	0.44	55	255	10	x	x/379	x/x	35+850E 5+22650N	Dk brown-black carbonaceous phyllite V. steep foliation. Strikes N-S.
88585	oc	gs							55	x	115	4.40	430	125	40	x	x/431	x/x	35500E 5+23400N	Dk greenish grey phyllite, probably originally pyritic. Possibly originally a muddy greywacke. Foliation near vertical, strikes 030° mag
88586	oc	gs							265	20	370	8.20	1000	75	50	x	100/118	x/x	35510E 5+23900N	Greenish meta greywacke or tuffy. Fine-med. grained. Dips 40° to 130° mag. Cleavage almost vertical, strikes 030° mag. Possibly some thin interbeds of chert associates.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

523059

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. ..... Sample numbers 988391 - 988399 Collected by I.M. Clementson Sheet no. 1

Area / Prospect PIPE LINE ROAD S. SEDIMENTS Date 31-3-83

Map / Photo reference ARTHUR RIVER SHEET 7915 1:100 000 Analysed by ANALABS DPO no 30328

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type ***	s sample type ****	Carbon	Cu	Pb	Zn	Ag	Mo W	Mn	Au	Fe % / Ni	Co / As	Sn / Ba	Grid ref	Geological Observations
																						Stream location (order) north of Pineapple creek at its crossing with the Pipeline Road.
88391	Suspended dry sieved to -80#										35	5	75	x		1050		4.45 / 80	55 / x	x / 283	1st Ck N. of Pineapple Creek: major	
88392	gs						-80#				35	5	90	x	x	865		3.89 / 60	49 / x	x / 196	355 600E 5418000N	creek. Large flow. Riffle sed.
							+80 -40#				15	x	45	x		555		3.59 / 55	35 / x	x / 170	"	Float 80% basalt, 20% schist/phyl.te
88393	Panned concentrate										25	15	235	x	10	760		24.5 / 430	145 / x	12 / 585	"	Ab. Fe3O4 in pan conc + ? Au. ✓
88394	Suspended dry sieved -80#										50	20	100	0.5		1950		5.75 / 100	65 / x	x / 348	2nd Ck N. of Pineapple Ck: major creek	
88395	gs						-80#				30	5	95	x	x	900		4.49 / 95	50 / x	x / 235	352600E 5418200N	V. lge creek. Flow. Riffle sed.
							+80# -40#				20	x	45	x		475		2.55 / 60	30 / x	x / 35	"	Float 90% basalt 10% phyll.te/schist
88396	Panned concentrate										20	15	65	0.5	x	415		6.45 / 50	45 / x	47 / 141	"	Ab. Fe3O4 in pan conc. ✓
88397	Suspended dry sieved to -80#										10	15	25	x		110		1.95 / 30	15 / x	x / 137	3rd Ck N. of Pineapple Ck: small creek.	
88398							-80#				10	x	25	x	x	50		1.15 / 25	10 / x	x / 73	354500E 5421700N	Very abundant qz and schist/
							+40 +80#				x	x	5	x		35		0.44 / 5	5 / x	x / 35	"	phyllite float.
88399	Panned concentrate										25	x	20	x	x	80		1.25 / 30	15 / x	x / 152	"	V. low background mineral content in p.c. ✓

5 cm

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)

523060

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1/79 No. Sample numbers 988474 Collected by I.M. Clementson Sheet no. 1

Area / Prospect PIPELINE ROAD SAMPLING. Date 13-4-84

Map / Photo reference ARTHUR RIVER SHEET 7915 1:100 000 Analysed by Analabs DPO no. 30329

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo	Mn	Au	Fe% / Ni	Co / As	Sn / Ba	Grid ref	Geological Observations
988474	Suspended clay sample, sieved -80#								20	10	40	x		340		2.09/40	15/x	x/183	355000E 5423200N	Creek ± 0.5m wide. Strong flow. Float
88475	s/sediment						-80#		15	10	40	x	x	210		1.20/30	10/x	x/144	"	80% qz 20% phyllite and schist. o/c near site of qz one phyllite.
88476	Suspended clay sample						-80#		25	5	30	x		155		2.05/30	10/x	x/155	358000E 5423500N	Creek ± 1m wide. Strong flow. Float
88477	s/sediment						-80#		10	5	40	x	x	85		0.81/15	5/x	x/61	"	dominantly qz with schists, phyllite and some qzite
88478	o/c	qz							300	25	270	0.5	x	1850		8.95/80	65/x	x/140	"	o/c (Dip 45° to 100°m) of greenish (brown weathering) ?? tuff or greywacke. Medium grained, abundant euhedral magnetite grains throughout. V. high mag. susceptability - up to 6.8×10^{-3} SI
88479	Suspended clay sample						-80#		25	5	50	x		145		3.70/60	20/x	x/70	355400E 5423850N	Creek ± 1m wide. Strong flow. Basalt
88480	s/sediment					✓	-80#		20	10	85	x	x	190		5.05/30	20/x	25/63	"	o/c and block in creek. Minor phyllite and qzite float.
89900	o/c								PETROLOGY: magnetite-chlorite-plagioclase schist. Believed to be a metamorphosed intermediate to basic igneous rock, perhaps from a shear zone										355 000E 5423500N	Adjacent to 988478.

5 cm

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** O =

523061

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name RAPID RIVER EL 1179 No. ..... Sample numbers 988575 Collected by I.M. Clementson Sheet no. 1

Area / Prospect ML BERTHA Date 21-4-83

Map / Photo reference HELM - REGGT Analysed by ANALABS DPO no 30330

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo	Mn	Au	Fe % / Li	Co / Ag	Sn / Ba	Grid ref	Geological Observations
		o/c sample type ***																		
		s sample type ****																		
88575									10	5	5	x		30		0.67 / 5	5 / x	x / 10k	MLBertha	LL grey coarse grained meta qz:fe.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** Outcrop sample type gs = grab sample rc = rock chip (state interval & length) cs = channel sample (state length)

523062

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LODGER

Tenement name: MIN HOLDINGS No. ..... Sample numbers: 988422 Collected by: I.M. Clementson Sheet no. 1

Area / Prospect: PINNERS CREEK RUND Date: 23-2-83

Map / Photo reference: Adj to Lyons River Bridge Analysed by: Analabs / CMS DPO no: 30325/26

A 02143

Sample No.	Type ss * oc f s	ss channel ** fl	wi	al	co	ca	pH	o/c sample type ***	s sample type ****	Carbon	Metal content ppm or % Cu	Pb	Zn	Ag	Mo	Mn	Au	Co/Mn	Fe/Al	Sn/Co	Grid ref	Geological Observations
988422	o/c	g/s									265	30	225	x		1150		59/30	5.75/x	3/25	50mN 1Lm-2.	Dk grey green mafic (mafic-felsic) rock + traces cp. Granodioritic to diorite or possibly amphibolitic.
																						Petrology: Hornblende-epidote-feldspar schist, or epidote-amphibolite. Probably derived from basic igneous origin.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

523063

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LODGER

Tenement name: RAPID RIVER E.L. 1/79 No. Sample numbers: 989908 – Collected by: M. F. ELLIS Sheet no.: 1

Area / Prospect: Pinners Ck Date: 22-2-1983

Map / Photo reference: Analysed by: ANALABS – COOEE DPO no.: 30222

A 02143

Sample No.	Type	ss channel **						Carbon	Metal content ppm or %										Grid ref	Geological Observations
	ss * oc f s	fl	wi	al	co	ca	pH		Cu	Pb	Zn	Ag	Mo	Mn	Au	Co/Ni	Sn	W/Ba		
		o/c sample type ***																		
		s sample type ****																		
989908	ss	3-4m wide ck; good flow, site							35	21	184	0·2		1700		46/108	15	X/430	✓	Pinners ck. 15m upstream from bridge
989909	o/c	(@ 989908)							60	35	480	x		1800		50/165	7	X/830		very silty sample, good site
989910	ss	~150m SW of bridge							26	16	181	0·1		1300		45/121	x	X/360	✓	siltstone/mudstone, flat lying
																				" " sed., good topsite

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

*** O

523064

C.R.A. EXPLORATION . GEOCHEMICAL SAMPLE LOGGER

Tenement name: Hm. Holdings No. ..... Sample numbers: 989911 - 989912 Collected by: M. F. ELLIS Sheet no. 1

Area / Prospect: Lynas R. Date: 22-2-1983

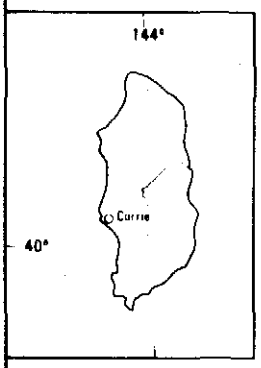
Map / Photo reference: ..... Analysed by: ANALABS - COOEE DPO no. 30232

A 02143

Sample No.	Type	ss channel **						Carbon	Metal content ppm or %										Grid ref	Geological Observations
	ss * / oc / f / s	fl	wi	al	co	ca	pH		Cu	Pb	Zn	Ag	Mo	Mn	Au	Co/Ni	Sn	W/Ba		
		o/c sample type ***																		
		s sample type ****																		
989911	o/c								200	35	125	x		875		40/35	3	x/75		Diorite - amphibolite? magnetite x-lab, pyrite, minor chalcopy & pyrrhotite 50m NW of bridge over Lynas River, Pimm Tr
989912	o/c								445	15	70	x		20		55/35	x	x/x		Keith River Gossan - siliceous, ferruginous, sandstone.

* Sample type ss = stream sediment oc = outcrop f = float s = soil

** Stream sed. sample description fl = flow m3/sec wi = width m al = alluvial co = colluvial ca = catchment km2

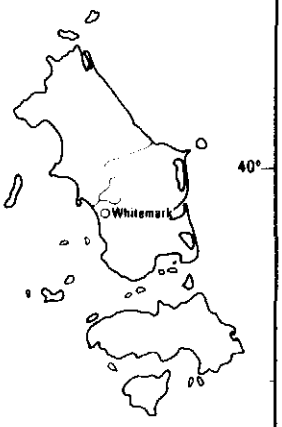


TASMANIA

Scale 1:2 000 000

0 50 100 Kilometres

5 cm



VICTORIA
TASMANIA

Smithton
Wynyard
Burnie
Ulverstone
Devonport
Beaconsfield
George Town
Scottsdale
St Helens
LAUNCESTON
Deloraine
St Marys
Bicheno
Campbell Town
Swansea
Rosebery
Zeehan
Queenstown
Strahan
Oatlands
Ouse
Hamilton
Orford
Triabunna
Strathgordon
New Norfolk
Sorell
HOBART
Huonville
Port Arthur

41°
42°
43°
44°
145°
146°
147°

83-2030

CRA EXPLORATION PTY. LIMITED	
LOCALITY PLAN	
RAPID RIVER E.L. 1/79	
REF. SKS5 - 3	
SCALE: 1 : 2 000000	DRAWN: R. T.
AUTHOR: M. F.	REPORT N°. 12276
Date: 30 - 8 - 1982	Plan NO. TASh 842

350 000 E

360 000 E

370 000 E

5 440 000 N

5 430 000 N

5 420 000 N

E.L. 4/83 P.

RAPID WEST

RAPID

RAPID EAST

TRAPID NORTH

TRAPID

ATBAS

ARTHUR

DOLWEST

WRIDGE

LATLONG

DOLSOW

SAVTREN

RAPEND NORTH

RAPEND

RAPEND WEST

RAPEND EAST

RAPEND SOUTH

CLEARWATER

SAVAGE RIVER NORTH

SEDGE

*** note ***
Flown and presented by AUSTIREX INTERNATIONAL LTD.

AIRBORNE SURVEY SPECIFICATIONS

AIRCRAFT	:	CESSNA 185E VH-KPF
MAGNETOMETER	:	VARIAN V85 PROTON PRECESSION UNIT RECORDING TO 0.1nT
SPECTROMETER	:	NUCLEAR ENTERPRISE 8424 16780 cc NaI(Tl) CRYSTAL. DIFFERENTIAL RECORDING Th, U, K AND TOTAL COUNT.
ACQUISITION	:	TO 9 TRACK MAGNETIC TAPE AND GARS 6 MULTI-CHANNEL CHART RECORDER.
FLIGHT PATH	:	VINTEN MARK IV 16mm
DETECTOR HEIGHT	:	100 METRES
FLIGHT LINE SPACING	:	250 METRES

523066

LEGEND

MAGNETIC CONTOUR INTERVAL - 5 NANOTESLA
GRID MESH - 90m X 90m
SEARCH RADIUS - 1000m

- 500 NANOTESLA CONTOUR
- 100 NANOTESLA CONTOUR
- 20 NANOTESLA CONTOUR
- 5 NANOTESLA CONTOUR

N

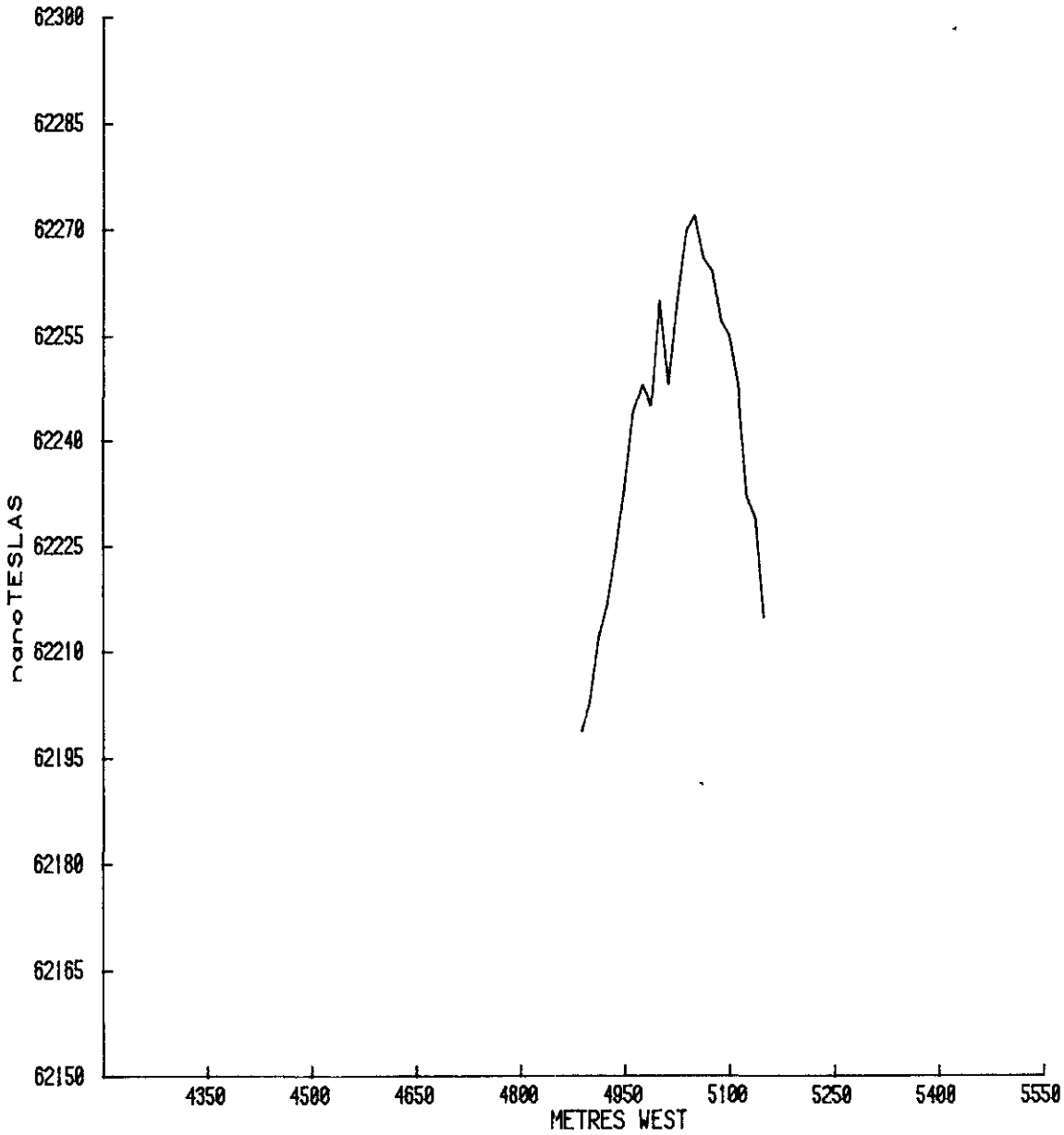
5 cm

83-2030

CRA EXPLORATION PTY. LIMITED

RAPID RIVER E.L. 1/79
TOTAL MAGNETIC INTENSITY
Showing Selected Magnetic Anomalies

Ref:	SK55 - 3		
Scale:	1 : 50 000	Drawn:	AUSTIREX R. T.
Author:	M. F. F.	Report No.	12276
Date:	30 - 6 - 1983	Plan No.	TASh 1436



523067

** NOTE **

Magnetometer. G-856, sensor staff mounted (2m).

Operator: M. Flis.

5 cm

83-2020

CRA EXPLORATION PTY. LIMITED

RAPID RIVER E.L. 1/79
RAPID EAST AEROMAGNETIC ANOMALY
RECONNAISSANCE GROUND MAGNETIC TRAVERSE

Ref	SK55 - 3		
Scale	1 10 000	Drawn	M FLIS
Author	M. FLIS	Report N°	12276
Date	16 - 8 - 1983	Plan N°	TASh 1467

5 cm

LEGEND

LINEAMENT

PROBABLE LINEAMENT

POSSIBLE LINEAMENT

ANOMALOUS CORRIDOOR

BASALT

CRA EXPLORATION PTY. LIMITED

RAPID RIVER E.L. 1/79
AERIAL PHOTO. & LANDSAT
INTERPRETATION OF BASALT &
LINEAMENT DISTRIBUTION

Ref:	SK55 - 3	83-2030	
Scale:	1 : 50.000	Drawn:	R. T.
Author:	I. M. C.	Report N°.	12276
Date:	17 - 8 - 1983	Plan N°.	TASh 1469

E 23068

CRA EXPLORATION PTY. LIMITED

RAPID RIVER E.L. 1/79

SAMPLE LOCATIONS

Ref:	SK55-3	83-2030	
Scale:	1 : 50.000	Drawn:	R. T.
Author:	I. M. C.	Report N°.	12276
Date:	19 - 8 - 1983	Plan N°.	TASh 1470

5 cm

LEGEND

- 988431 Stream Sediment Sample (location and number)
- × 988584 Rock Chip Sample (location and number)
- 988481 - 488 Line of Soil Samples (location and number range)

523069