SITE INFORMATION

Site Name	Ewecote
Area	Trench 1
Context No	104, 124-127
Description	Furnace feature
Latitude (+ve N)	54.32
Longitude (+ve E)	-1.13
Magnetic Var	-3.35
Date Sampled	15/7/2003

MAGNETIC MEASUREMENTS

Sample no.	NRM			Field	After partial demag			Pilot?	Comments
	D	I	Int		D	I	Int		
	degs.	*degs.*	*mA m^{-1}*	*mT*	*degs.*	*degs.*	*mA m^{-1}*	*Y/N*	
1	1.00	62.60	97.10	5	1.50	61.90	97.99		x10 atten.
2	23.70	54.50	54.69	5	13.40	58.80	52.72		x10 atten.
3	351.70	53.90	27.74	5	354.20	57.60	26.57	Y	x10 atten.
4	340.20	28.90	28.29	5	344.10	30.00	28.41		x10 atten.
5	351.70	29.00	39.83	5	349.10	32.10	39.04		x10 atten.
6	50.00	9.70	10.84	5	51.50	2.10	10.64	Y	x10 atten.
7	8.50	-31.20	26.77	5	7.90	-32.50	26.38		x10 atten.
8	10.10	20.40	11.68	5	14.60	1.30	11.46		x10 atten.
9	4.40	40.50	0.72	5	5.40	3.60	0.61	Y	x10 atten.
10	24.30	57.00	1.26	5	15.20	57.60	1.23		x10 atten.

STATISTICS FOR NRM

Sample no.	NRM				
	D	I	x	y	z
	degs.	*degs.*			
1	1.00	62.60	0.46013	0.00803	0.88782
2	23.70	54.50	0.53173	0.23341	0.81412
3	351.70	53.90	0.58302	-0.08505	0.80799
4	340.20	28.90	0.82371	-0.29655	0.48328
5	351.70	29.00	0.86546	-0.12626	0.48481
6	50.00	9.70	0.63360	0.75509	0.16849
7	8.50	-31.20	0.84597	0.12643	-0.51803
8	10.10	20.40	0.92276	0.16437	0.34857
9	4.40	40.50	0.75816	0.05834	0.64945
10	24.30	57.00	0.49639	0.22413	0.83867

Number =	10
Sum x =	6.92092
Sum y =	1.06194
Sum z =	4.96517
R =	8.58369
x bar =	0.80629
y bar =	0.12372
z bar =	0.57844
Mean Dec =	8.72
Mean Inc =	35.34
Alpha95 =	20.80

STATISTICS FOR PARTIAL DEMAGNETISATION

Sample no.	Demagnetisation				
	D	I	x	y	z
	degs.	*degs.*			
1	1.50	61.90	0.47085	0.01233	0.88213
2	13.40	58.80	0.50392	0.12005	0.85536
3	354.20	57.60	0.53308	-0.05415	0.84433
4					
5					
6					
7					
8					
9					
10	15.20	57.60	0.51708	0.14049	0.84433

Number =	4		
Sum x =	2.02494		
Sum y =	0.21872		
Sum z =	3.42615		
R =	3.98581		
x bar =	0.50804		
y bar =	0.05487		
z bar =	0.85959		
Mean Dec =	6.16		
Mean Inc =	59.27		
Alpha95 =	6.33	**Alpha68 =**	3.29

CORRECTIONS

Mean Dec =	6.16
Mean Inc =	59.27

Correction for magnetic variation

Mean Dec =	2.81
Mean Inc =	59.27

Correction to Meriden (CVP)

Uncorrected Dec =	2.81
Uncorrected Inc =	59.27
Latitude =	54.32
Longitude =	-1.13
Kai =	49.93
Latitude of pole=	75.62
Beta1 =	8.71
Longitude of pole =	170.16
Geomag colat =	51.83
Corrected Inc=	57.54
Beta 2 =	8.22
Corrected Dec=	2.59

FINAL RESULT

Corrected Dec=	2.59
Corrected Inc =	57.54
Alpha95 =	6.33

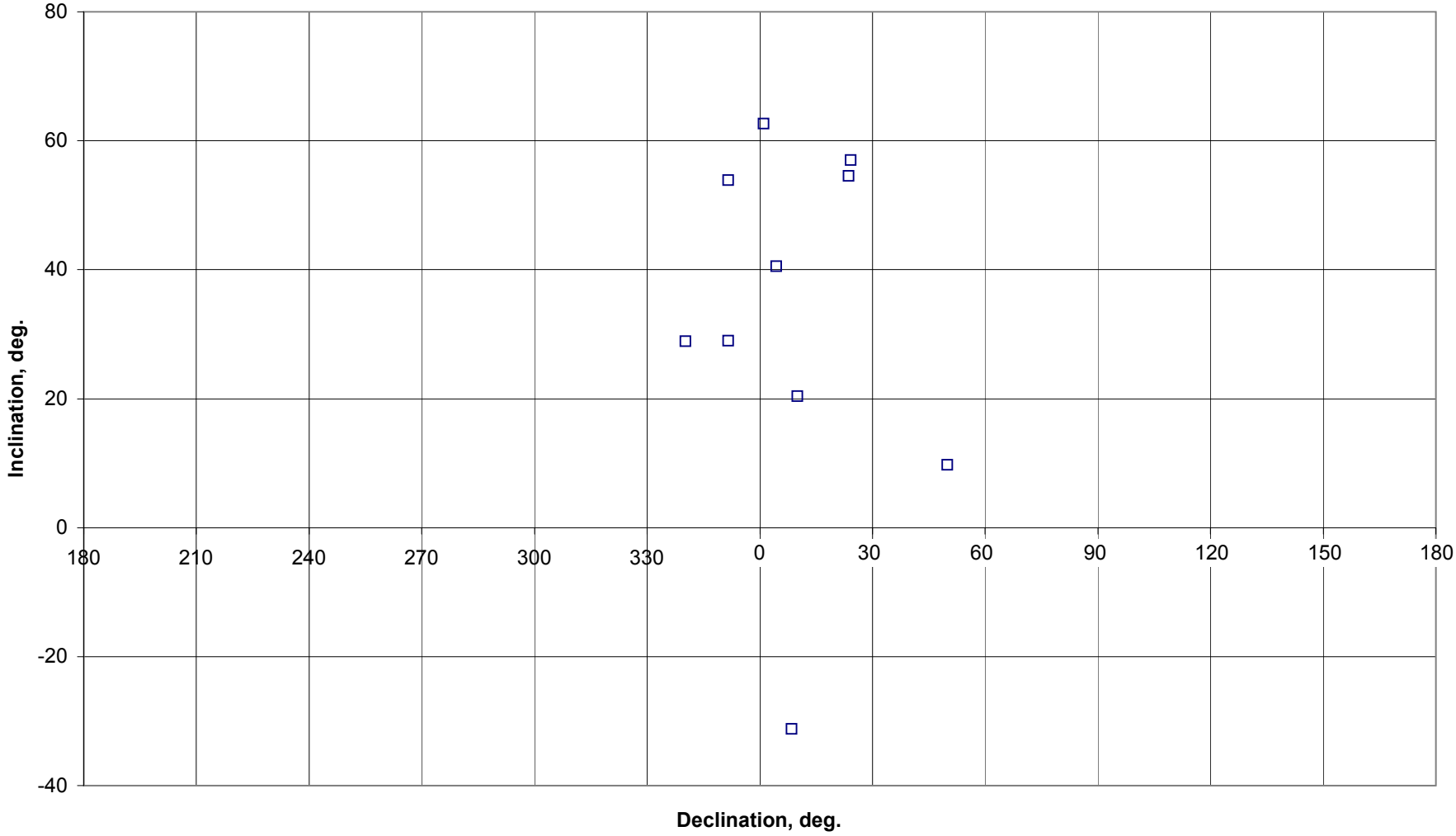
ERROR BARS

Alpha95		**Alpha68**	
δDec = ±	11.80	**δDec = ±**	6.12
δInc = ±	6.33	**δInc = ±**	3.29

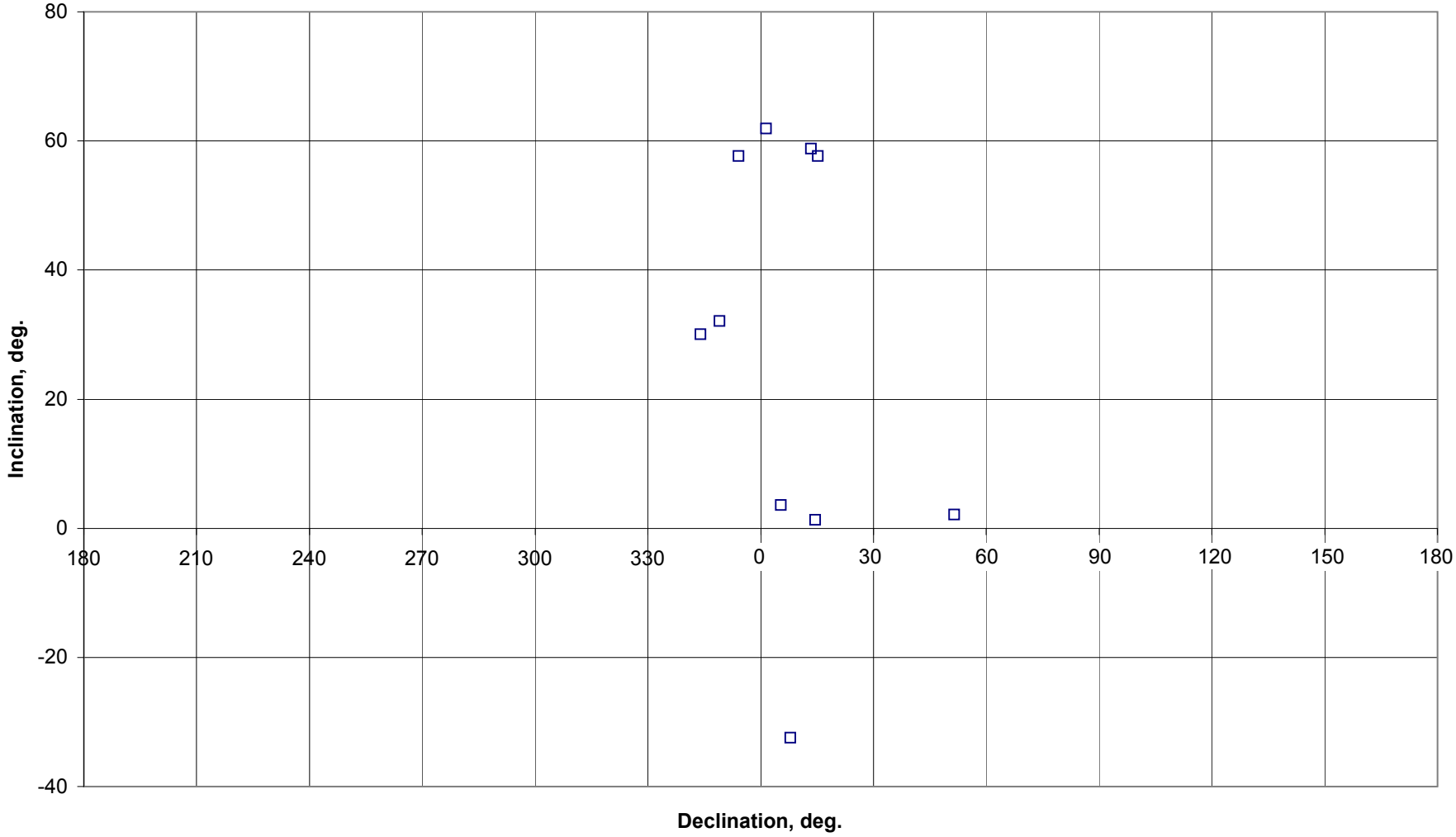
SUMMARY OF PARTIAL DEMAGNETISATION STATISTICAL RESULTS

Demag Field *mT*	No. of samples	Samples removed	Alpha95 ± *degs.*	Mean Corrected Dec *degs.*	Mean Corrected Inc *degs.*
0	10		20.80	5.02	32.41
	9	7	16.68	5.06	39.12
	8	6,7	13.47	-1.68	41.86
	5	4,5,6,7,8	11.09	5.15	52.42
5	10		23.65	4.81	26.16
	9	7	21.29	4.90	32.92
	6	6,7,8,9	14.04	-6.23	48.25
	5	4,6,7,8,9	14.77	-3.84	52.00
	4	4,5,6,7,8,9	**6.33**	**2.59**	**57.54**
7.5	10		24.58	6.24	27.03
	9	7	22.11	6.53	33.98
	6	6,7,8,9	14.99	-3.90	49.72
	4	4,5,6,7,8,9	8.89	7.77	58.49
10	10		26.59	3.47	23.90
	9	7	25.20	3.40	30.89
	6	6,7,8,9	15.17	-7.46	49.37
	4	4,5,6,7,8,9	9.47	1.42	59.29

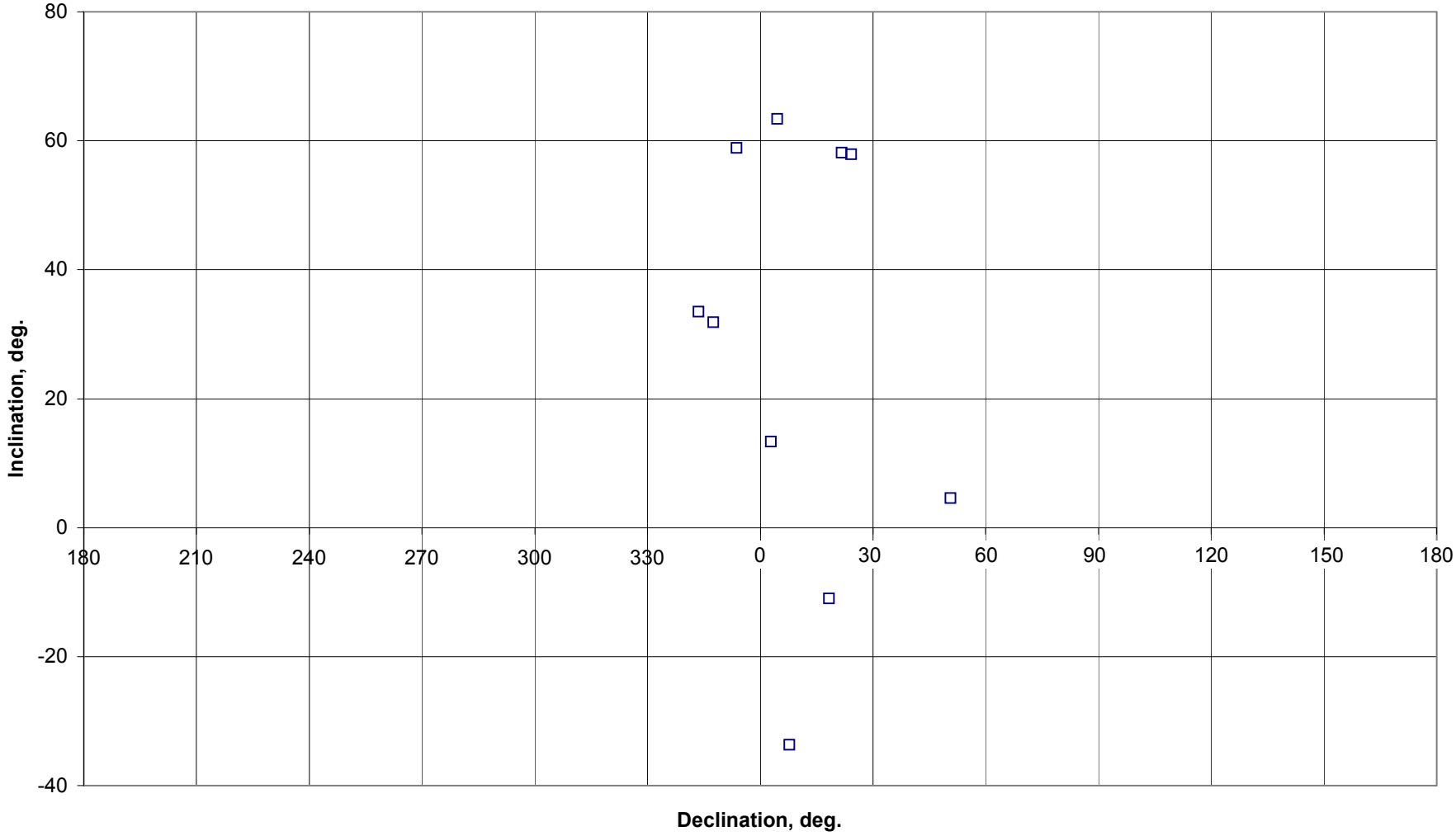
INITIAL SAMPLE SCATTER



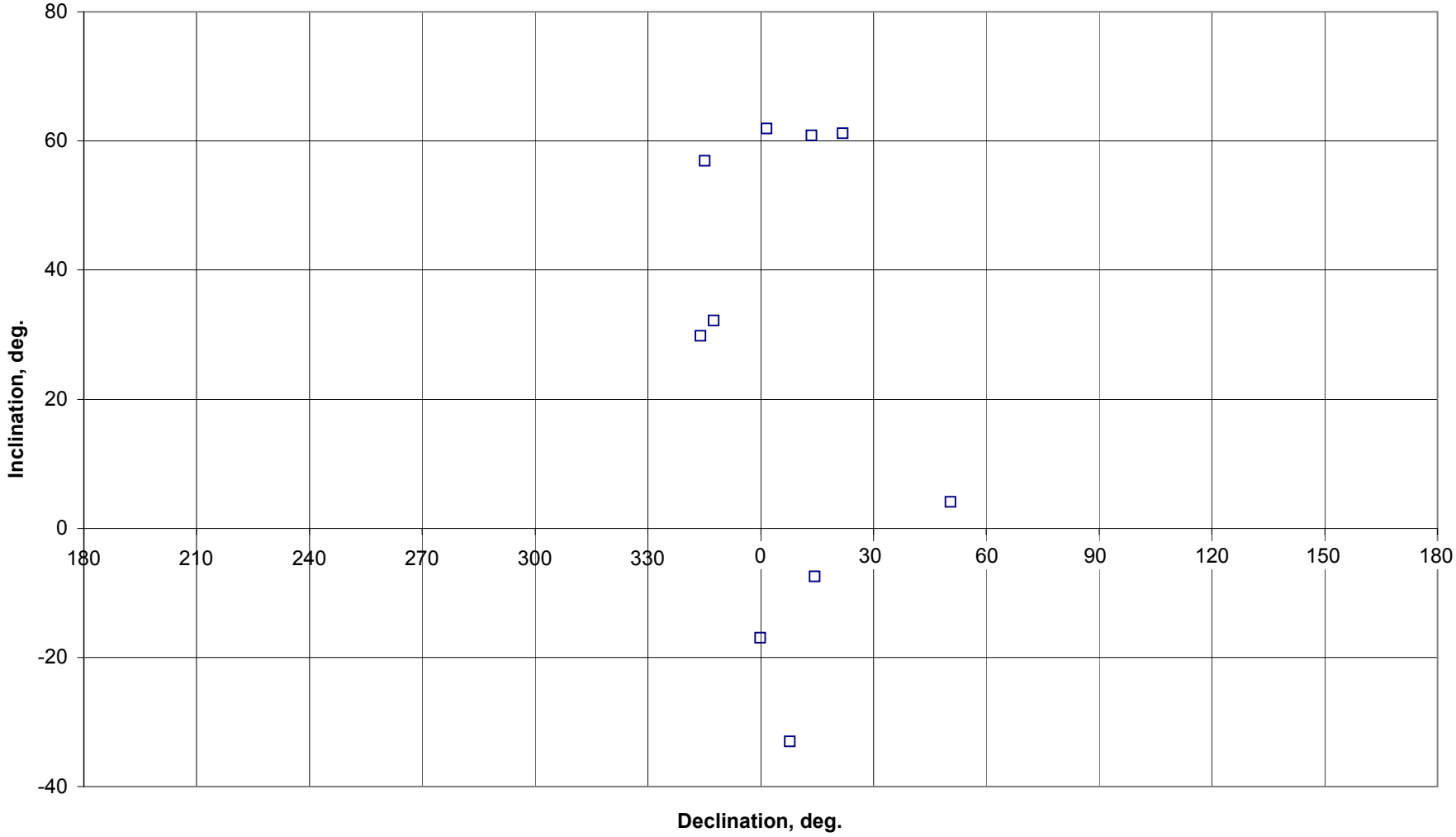
5mT DEMAGNETISED SAMPLE SCATTER



7.5mT DEMAGNETISED SAMPLE SCATTER



10mT DEMAGNETISED SAMPLE SCATTER



PILOT STEPPED A.F. DEMAGNETISATION MEASUREMENTS

Sample No. 3

Demag Step	NRM						
	Intensity	Normalised	Co-ordinates			Dec.	Inc.
mT	*mA m^{-1}*	intensity	X	Y	Z	*degs.*	*degs.*
0.0	27.37	1.00	14.72	-1.76	23.00	353.20	57.20
2.5	26.68	0.97	13.07	-1.56	23.21	353.20	60.40
5.0	26.57	0.97	14.18	-1.43	22.42	354.20	57.60
7.5	25.66	0.94	13.20	-1.43	21.96	353.80	58.90
10.0	22.36	0.82	11.79	-3.14	18.73	345.10	56.90
15.0	14.91	0.54	7.45	-2.54	12.66	341.20	58.10
20.0	8.53	0.31	4.93	-1.14	6.86	346.90	53.60
30.0	5.01	0.18	2.73	-0.80	4.13	343.70	55.50
40.0	3.98	0.15	2.14	-0.69	3.29	342.10	55.60
60.0	3.55	0.13	2.01	-0.71	2.84	340.60	53.10
80.0	3.05	0.11	1.96	-0.66	2.24	341.40	47.20
100.0	2.85	0.10	1.44	-0.43	2.42	343.40	58.10

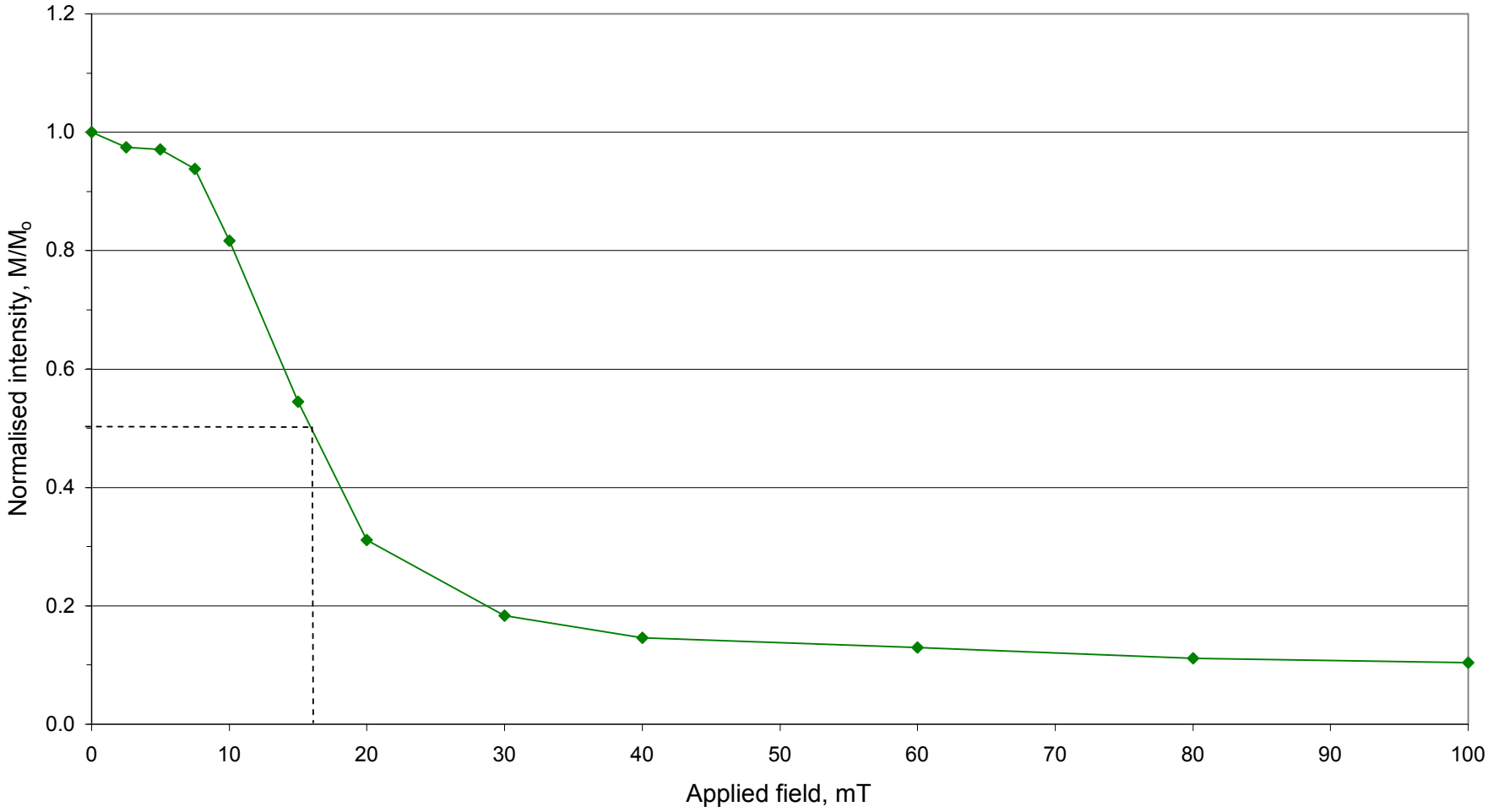
Sample No. 6

Demag Step	NRM						
	Intensity	Normalised	Co-ordinates			Dec.	Inc.
mT	*mA m^{-1}*	intensity	X	Y	Z	*degs.*	*degs.*
0.0	104.98	1.00	66.15	80.95	9.66	50.70	5.30
2.5	107.27	1.02	67.12	83.19	9.12	51.10	4.90
5.0	106.42	1.01	66.26	83.18	3.93	51.50	2.10
7.5	101.29	0.96	64.00	78.09	8.11	50.70	4.60
10.0	86.93	0.83	55.04	67.00	6.23	50.60	4.10
15.0	50.60	0.48	34.38	36.87	4.38	47.00	5.00
20.0	19.89	0.19	14.14	13.95	0.94	44.60	2.70
30.0	2.71	0.03	2.03	1.71	0.57	40.10	12.20
40.0	0.86	0.01	0.77	0.39	0.11	26.80	7.40
60.0	0.42	0.00	0.30	0.08	0.28	15.70	42.50
80.0	0.34	0.00	0.32	0.08	0.07	14.40	11.70
100.0	0.34	0.00	0.18	0.08	0.28	25.30	55.00

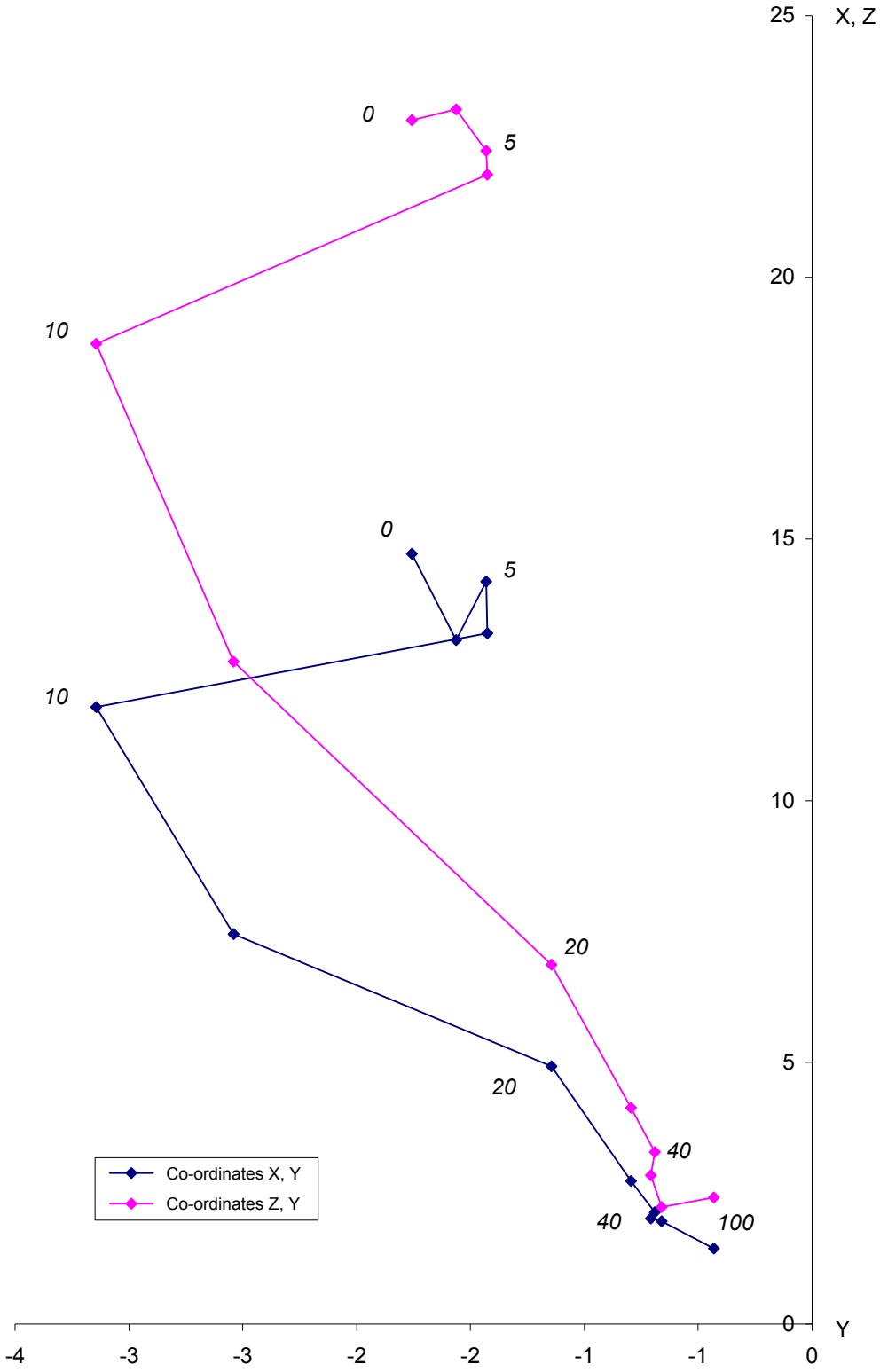
Sample No. **9**

Demag Step	NRM						
	Intensity	Normalised	Co-ordinates			Dec.	Inc.
mT	*mA m^{-1}*	intensity	X	Y	Z	*degs.*	*degs.*
0.0	6.53	1.00	5.08	0.22	4.10	2.50	38.80
2.5	8.96	1.37	5.72	0.28	6.90	2.80	50.30
5.0	6.12	0.94	6.09	0.58	0.39	5.40	3.60
7.5	6.91	1.06	6.72	0.34	1.59	2.90	13.30
10.0	6.21	0.95	0.58	0.00	-0.18	359.90	-17.00
15.0	0.49	0.08	0.47	0.01	-0.15	1.20	-17.30
20.0	0.53	0.08	0.51	-0.04	0.12	355.30	12.70
30.0	0.50	0.08	0.48	-0.01	-0.12	358.50	-14.30
40.0	0.47	0.07	0.46	0.07	0.04	8.10	4.40
60.0	0.43	0.07	0.32	0.11	-0.26	19.00	-38.00
80.0	0.44	0.07	0.32	0.13	-0.28	21.70	-39.40
100.0	0.36	0.06	0.33	0.14	0.07	22.90	11.60

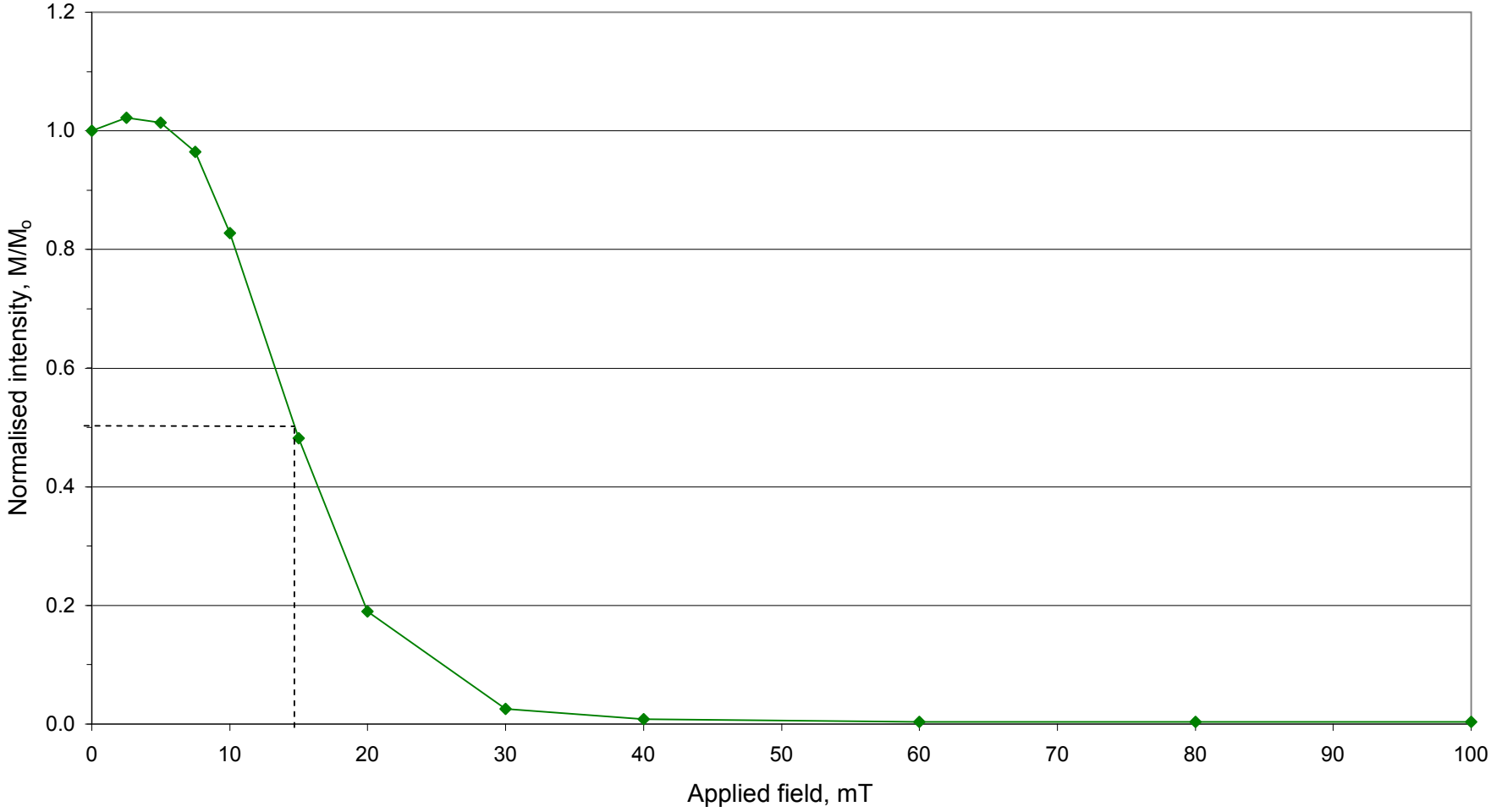
EWECOTE TRENCH 1 - SAMPLE POINT 3 DEMAGNETISATION: INTENSITY SPECTRUM



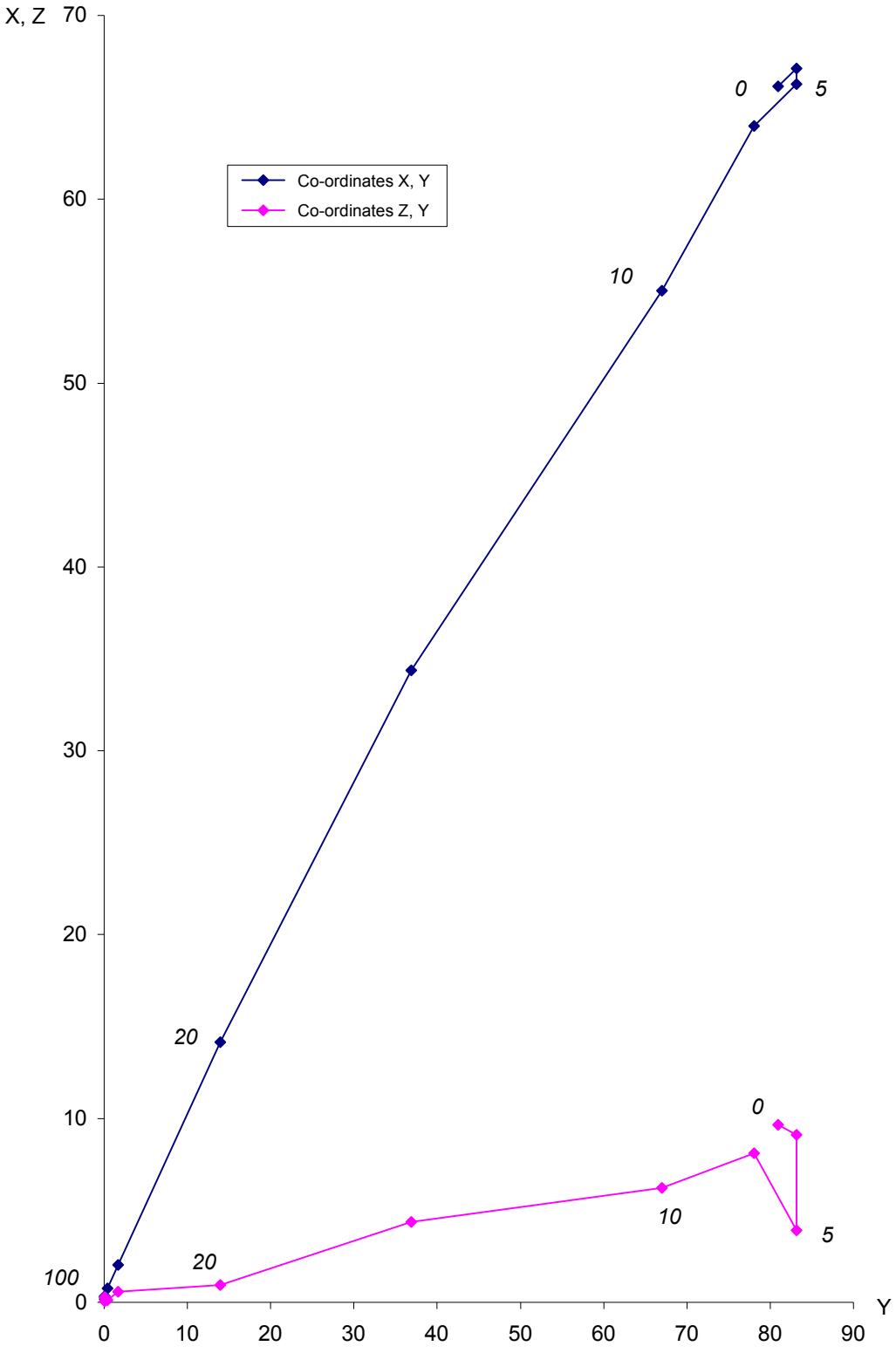
EWECOTE TRENCH 1 - SAMPLE POINT 3 - ZIJDERVELD PLOT



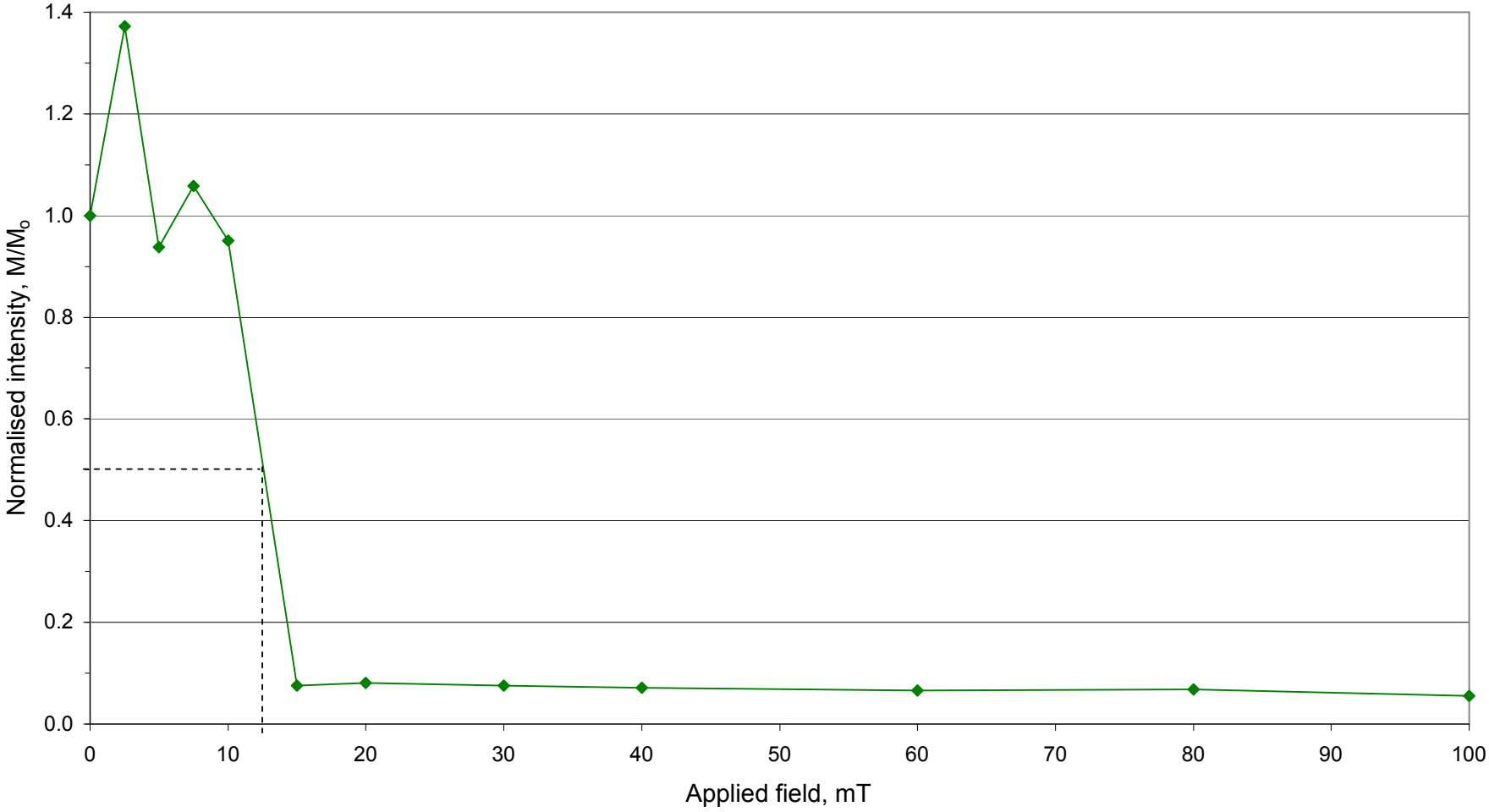
EWECOTE TRENCH 1 - SAMPLE POINT 6 DEMAGNETISATION: INTENSITY SPECTRUM



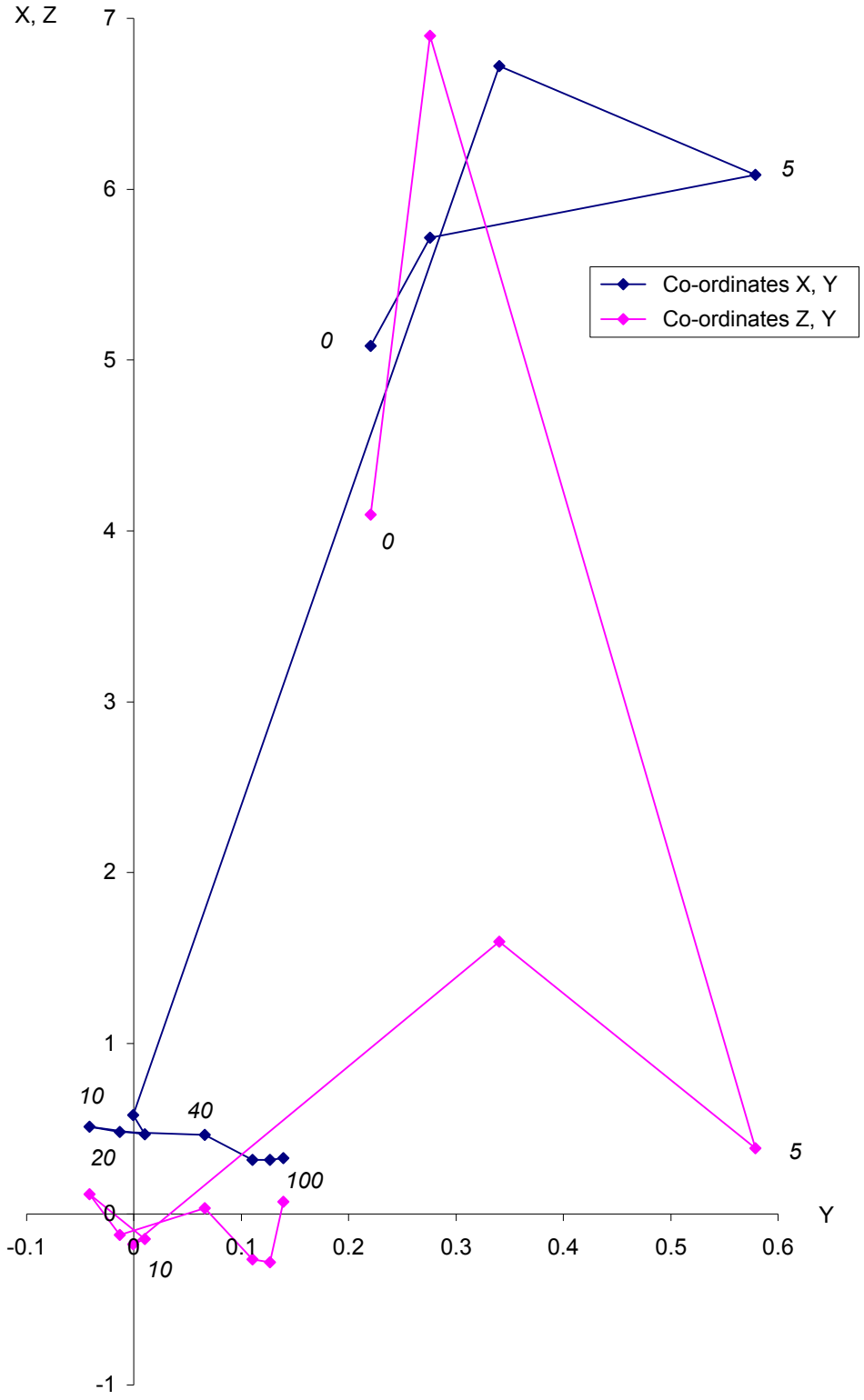
EWECOTE TRENCH 1 - SAMPLE POINT 6 - ZIJDERVELD PLOT



EWECOTE TRENCH 1 - SAMPLE POINT 9 DEMAGNETISATION: INTENSITY SPECTRUM



EWECOTE TRENCH 1- SAMPLE POINT 9 - ZIJDERVELD PLOT



STABILITY INDEX

Sample No. **3**

Demag Step	NRM				
	D	I	x	y	z
mT	*degs.*	*degs.*			
0.0	353.20	57.20	0.53790	-0.06414	0.84057
2.5	353.20	60.40	0.49047	-0.05848	0.86949
5.0	354.20	57.60	0.53308	-0.05415	0.84433
7.5	353.80	58.90	0.51351	-0.05579	0.85627
10.0	345.10	56.90	0.52774	-0.14042	0.83772
15.0	341.20	58.10	0.50025	-0.17030	0.84897
20.0	346.90	53.60	0.57798	-0.13450	0.80489
30.0	343.70	55.50	0.54364	-0.15897	0.82413
40.0	342.10	55.60	0.53762	-0.17365	0.82511
60.0	340.60	53.10	0.56633	-0.19944	0.79968
80.0	341.40	47.20	0.64395	-0.21671	0.73373
100.0	343.40	58.10	0.50641	-0.15097	0.84897

Sample No. **3**

Number	Range	S.I.	
3	5	4.0	
4	7.5	5.9	
5	10	4.0	
6	15	3.8	
7	20	4.1	
8	30	4.9	
9	40	5.6	
10	60	6.4	
11	80	5.9	
12	100	6.9	*

Number =	12		
Sum x =	6.47888		
Sum y =	-1.57751		
Sum z =	9.93387		
R =	11.96437		
x bar =	0.54151		
y bar =	-0.13185		
z bar =	0.83029		
		k =	309
Mean Dec =	-13.68	Theta63 =	4.61
Mean Inc =	56.13	Range =	100
Alpha95 =	2.47	**S.I. =**	6.9

Sample No. **6**

Demag Step	NRM				
	D	I	x	y	z
mT	*degs.*	*degs.*			
0.0	50.70	5.30	0.63067	0.77053	0.09237
2.5	51.10	4.90	0.62567	0.77540	0.08542
5.0	51.50	2.10	0.62210	0.78208	0.03664
7.5	50.70	4.60	0.63134	0.77135	0.08020
10.0	50.60	4.10	0.63311	0.77076	0.07150
15.0	47.00	5.00	0.67940	0.72857	0.08716
20.0	44.60	2.70	0.71124	0.70137	0.04711
30.0	40.10	12.20	0.74765	0.62958	0.21132
40.0	26.80	7.40	0.88515	0.44712	0.12880
60.0	15.70	42.50	0.70977	0.19951	0.67559
80.0	14.40	11.70	0.94846	0.24352	0.20279
100.0	25.30	55.00	0.51856	0.24512	0.81915

Sample No. **6**

Number	Range	S.I.	
3	5	4.0	
4	7.5	5.8	
5	10	7.6	*
6	15	6.1	
7	20	4.9	
8	30	3.4	
9	40	2.3	
10	60	1.5	
11	80	1.6	
12	100	1.5	

Number =	12		
Sum x =	8.34311		
Sum y =	7.06491		
Sum z =	2.53804		
R =	11.22329		
x bar =	0.74338		
y bar =	0.62949		
z bar =	0.22614		
		k =	14
Mean Dec =	40.26	Theta63 =	21.52
Mean Inc =	13.07	Range =	100
Alpha95 =	11.95	**S.I. =**	1.5

Sample No. **9**

Demag Step	NRM				
	D	I	x	y	z
mT	*degs.*	*degs.*			
0.0	2.50	38.80	0.77860	0.03399	0.62660
2.5	2.80	50.30	0.63801	0.03120	0.76940
5.0	5.40	3.60	0.99360	0.09392	0.06279
7.5	2.90	13.30	0.97193	0.04924	0.23005
10.0	359.90	-17.00	0.95630	-0.00167	-0.29237
15.0	1.20	-17.30	0.95455	0.02000	-0.29737
20.0	355.30	12.70	0.97225	-0.07993	0.21985
30.0	358.50	-14.30	0.96868	-0.02537	-0.24700
40.0	8.10	4.40	0.98711	0.14049	0.07672
60.0	19.00	-38.00	0.74508	0.25655	-0.61566
80.0	21.70	-39.40	0.71797	0.28572	-0.63473
100.0	22.90	11.60	0.90237	0.38118	0.20108

Sample No. **9**

Number	**Range**	**S.I.**	
3	5	0.3	
4	7.5	0.4	
5	10	0.4	
6	15	0.4	
7	20	0.6	
8	30	0.7	
9	40	0.8	
10	60	0.9	
11	80	1.0	
12	100	1.1	*

Number =	12
Sum x =	10.58645
Sum y =	1.18531
Sum z =	0.09935
R =	10.65306
x bar =	0.99375
y bar =	0.11126
z bar =	0.00933
Mean Dec =	6.39
Mean Inc =	0.53
Alpha95 =	16.17

k =	8
Theta63 =	28.34
Range =	100
S.I. =	1.1