



Bergvesenet rapport nr 6996	Intern Journal nr	Internt arkiv nr	Rapport lokalisering	Gradering
Kommer fra arkiv Grong Gruber AS	Ekstern rapport nr Inst. for gruvedrift	Oversendt fra Grong Gruber a.s.	Fortrolig pga	Fortrolig fra dato
Tittel Rapport vedrørende avviksmåling i borhull 13/83,14/83, 15/83, 16/83 og 17/83 ved Borvatnet og D32, D47-56 på Jomafjell, utført i okt 1983 for Grong Gruber A/S				
Forfatter Ludvigsen, Erik Tokle, Viktor		Dato År nov 1983	Bedrift (Oppdragsgiver og/eller oppdragstaker) Grong Gruber AS	
Kommune Røyrvik	Fylke Nord-Trøndelag	Bergdistrikt	1: 50 000 kartblad 19241	1: 250 000 kartblad Grong
Fagområde Boring	Dokument type	Forekomster (forekomst, gruvefelt, undersøkelsesfelt) Jomaforekomsten Borvasselv skjerp		
Råstoffgruppe Malm/metall	Råstofftype Cu,Zn,			
Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse Avviksmåling utført i 16 borhull, hvorav 5 prospekteringshull i Borvassfeltet. Utført med Eastman Multiple Shot Survey Instrument type DT Avviket var i prospekteringshullene: for delta X= 12 til 51 meter og for hullene i gruvefeltet 20 til 57 meter,				

R A P P O R T

vedrørende

AVVIKSMÅLING I BORHULL

13/83, 14/83, 15/83, 16/83 og 17/83 ved Borvatn
og
D32, D47, D48, D49, D50, D51, D52, D53, D54, D55
og D56 på Jomafjell

utført i oktober 1983

for

GRONG GRUBER A/S



Erik Ludvigsen
dr.ing.



Viktor Tokle
tekniker

Trondheim, november 1983

MÅLING AV BORHULL

Avviksmålingene er utført med Eastman Multiple Shot Survey instrument type DT. Med dette instrumentet bestemmes hullets retning i hvert målepunkt ved hjelp av et kompass og fallet ved hjelp av et klinometer.

I tabells form er avviksvinkelen i hvert målepunkt forskjellen mellom avviksvinkelen i to etterfølgende målepunkter, avviket i akseretningene og totalavviket ført opp. Totalavviket er definert som lengden av vektoren fra hullbunnen, slik den er bestemt ved avviksmålingene, til bunnen av hullet om det ikke hadde vært avvik.

Avviket i bunnen av hullene i akseretningene er satt opp i tabell 1.

Er det utført korreksjoner på grunn av magnetiske forstyrrelser, er dette vist i en oversikt over målt retning. Hvert målepunkt med en * er korrigert.

På grunnlag av en referanse retning, er de målte retningene overført til det aktuelle koordinatsystem. For å komme over i dette systemet er det innført en addisjonskonstant. (-.600). I tabells form er for hvert målepunkt, måledataene og de beregnede koordinatene i det aktuelle system oppsatt. I vedlegg er hullbanene opptegnet i projeksjonen x-y, x-z og yz.

Tabell 1. Avviket i bunnen av hullene.

Hull nr.	Dyp	Δx	Δy	Δz	$\Delta_{tot.}$	Anm.
13/83	167	12.3	8.4	0	14.9	Borvatn
14/83	210	25.8	5.3	2.9	26.5	"
15/83	312	40.9	3.0	5.2	41.3	"
16/83	253	35.0	1.8	4.3	35.3	"
17/83	255	50.5	22.5	4.5	55.4	"
	Σ 1197	$\approx 28\%$				
D32	300	45.6	12.5	5.2	47.6	Jomafjell
D47	270	19.7	8.8	1.2	21.6	"
D48	280	52.1	8.8	6.2	53.2	"
D49	262	21.6	3.8	1.4	22.0	"
D50	270	44.7	18.4	3.0	48.4	"
D51	275	46.3	8.0	5.0	47.3	"
D52	260	28.2	9.0	2.3	29.7	"
D53	285	57.0	4.0	7.1	57.5	"
D54	305	54.7	4.2	6.7	55.3	"
D55	250	33.3	22.1	4.4	40.2	"
D56	340	41.6	24.0	4.4	48.3	"

Σ 3097 m $\approx 72\%$

Totalt 4294 m

1197 + 300 1500 for prospektering

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 13/83
 ---DATE.....: 5.10.83

DEVIATION ANGLE.(GRD)

DEVIATION.

DEPTH	DEV.ANGLE	DIF.	DX	DY	DZ	TOT.DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
5.00	.76	*	.00	.03	.01	.03	2
10.00	.41	-.36	.02	.10	.02	.10	3
20.00	1.83	1.42	.18	.35	.05	.39	4
30.00	.59	-1.24	.47	.65	.07	.80	5
40.00	.80	.21	.82	.94	.07	1.25	6
50.00	.98	.18	1.21	1.34	.10	1.81	7
60.00	1.37	.40	1.69	1.78	.11	2.46	8
70.00	.45	-.92	2.28	2.22	.11	3.19	9
80.00	.80	.34	2.95	2.72	.11	4.01	10
90.00	.01	-.79	3.66	3.25	.11	4.90	11
100.00	1.19	1.19	4.46	3.83	.11	5.88	12
110.00	.80	-.40	5.40	4.48	.11	7.01	13
120.00	.01	-.79	6.40	5.15	.11	8.21	14
130.00	1.18	1.18	7.48	5.79	.08	9.46	15
140.00	.67	-.52	8.62	6.44	.05	10.76	16
150.00	1.21	.54	9.82	7.18	.05	12.16	17
160.00	1.36	.15	11.19	7.91	.01	13.70	18
167.00	.76	-.80	12.25	8.40	.03	14.85	19

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 13/83
 ---DATE.....: 5.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S

13/83

MEASURED DATA					COMPUTED DATA				

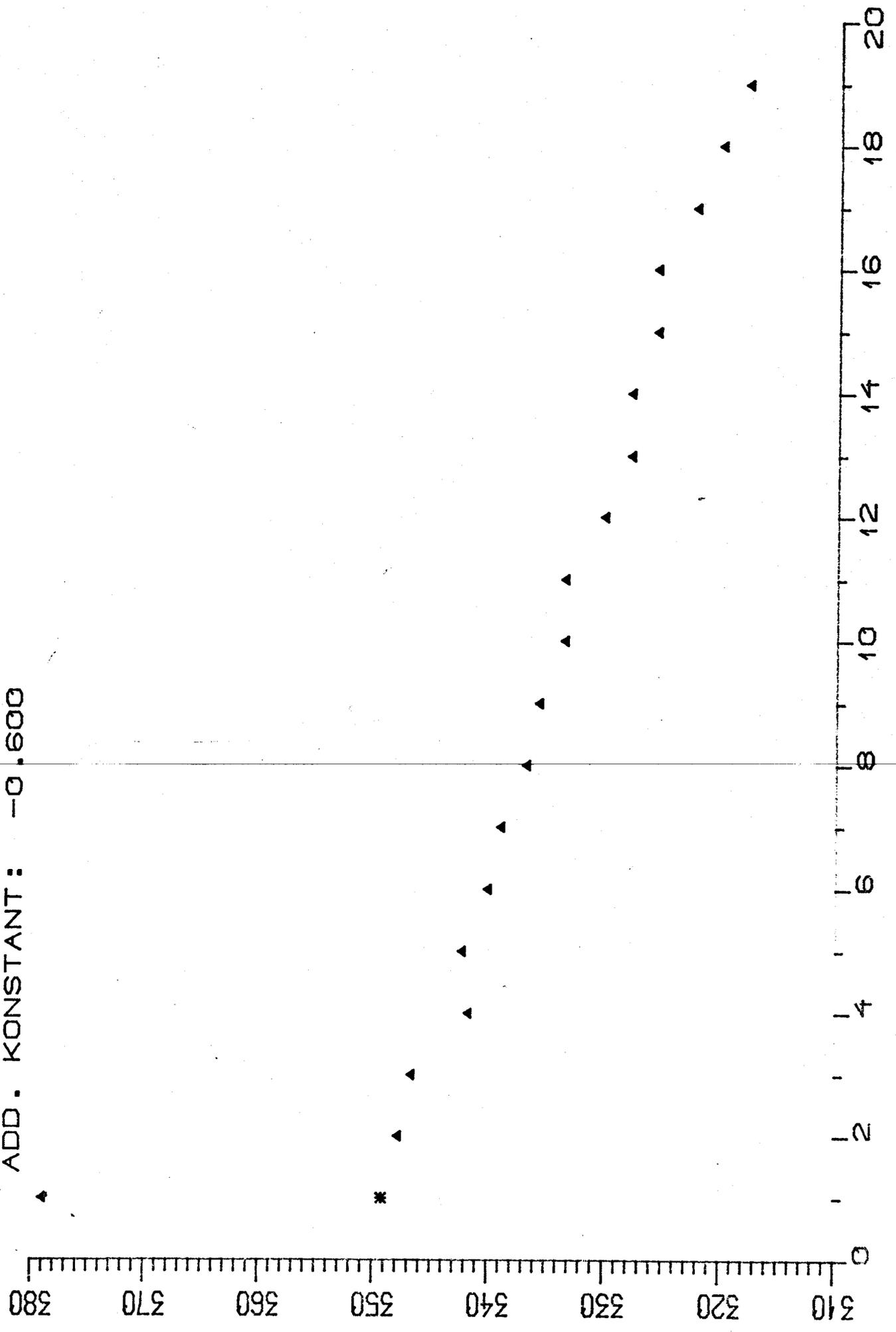
I	I	I	I	I	I	I	I	I	I
DEPTH	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD				

(M)	360 DEG	400 GRD	(M)	(M)	(M)				

0.	21.0	348.62	761409.00	23742.00	650.00				
5.	21.5	347.18	761410.23	23740.68	645.34				
10.	21.5	346.07	761411.45	23739.31	640.69				
20.	21.5	341.07	761413.77	23736.48	631.38				
30.	21.0	341.62	761415.95	23733.59	622.06				
40.	21.0	339.40	761418.08	23730.71	612.73				
50.	21.8	338.29	761420.16	23727.72	603.42				
60.	20.8	336.07	761422.16	23724.69	594.10				
70.	21.0	334.96	761424.08	23721.66	584.76				
80.	21.0	332.73	761425.86	23718.57	575.42				
90.	21.0	332.73	761427.62	23715.45	566.09				
100.	21.0	329.40	761429.30	23712.29	556.75				
110.	21.0	327.18	761430.84	23709.05	547.41				
120.	21.0	327.18	761432.31	23705.79	538.08				
130.	20.2	324.96	761433.71	23702.57	528.72	-9.3			
140.	20.8	324.96	761435.05	23699.33	519.35	-9.2			
150.	21.0	321.62	761436.32	23696.00	510.01	-9.3			
160.	20.0	319.40	761437.43	23692.68	500.64				
167.	20.0	317.18	761438.10	23690.38	494.06				
			170	38.62	89.30	491.28			
			180	39.81	86.03	481.92			
			184.3	40.32	84.60	477.60			

GRONG GRUBER A/S

BORHULL NR : 13/83
MÅLEDATO : 5.10.83
ADD. KONSTANT : -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 14/83
 ---DATE.....: 5.10.83

DEVIATION ANGLE.(GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POIN
.00	*	*	.00	.00	.00	.00	1
5.00	.52	*	.02	.01	.00	.02	2
10.00	.54	.01	.07	.05	.00	.09	3
20.00	1.35	.82	.30	.18	.02	.35	4
30.00	1.63	.27	.75	.40	.05	.85	5
40.00	2.04	.41	1.45	.63	.13	1.58	6
50.00	.93	-1.11	2.35	.78	.27	2.49	7
60.00	.92	-.01	3.40	.91	.44	3.55	8
70.00	.66	-.26	4.55	1.00	.64	4.71	9
80.00	1.18	.52	5.84	1.06	.86	6.00	10
90.00	.01	-1.17	7.23	1.10	1.10	7.39	11
100.00	.01	.00	8.61	1.14	1.34	8.79	12
110.00	.01	.00	9.99	1.19	1.58	10.19	13
120.00	.01	.00	11.38	1.23	1.82	11.58	14
130.00	.89	.88	12.80	1.33	2.04	13.03	15
140.00	.66	-.23	14.22	1.52	2.24	14.47	16
150.00	1.09	.42	15.68	1.76	2.42	15.96	17
160.00	.67	-.42	17.24	2.08	2.59	17.56	18
170.00	.67	.01	18.84	2.49	2.73	19.20	19
180.00	1.18	.51	20.46	3.03	2.83	20.88	20
190.00	.98	-.20	22.15	3.71	2.87	22.64	21
200.00	.69	-.29	23.92	4.49	2.89	24.51	22
210.00	.42	-.28	25.75	5.32	2.89	26.45	23

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 14/83
 ---DATE.....: 5.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S

14/83

I*****									
I MEASURED DATA					I COMPUTED DATA				
I-----									
I	MEASURED I	I	I	I	I	I	I	I	I
I	DEPTH	I INCLINATION	I AZIMUTH	I X-KOORD	I Y-KOORD	I Z-KOORD			
I-----									
I	(M)	I 360 DEG	I 400 GRD	I (M)	I (M)	I (M)			
I*****									
0.		22.0	344.44	761302.00	23911.00	650.00			
5.		22.0	343.05	761303.19	23909.55	645.36			
10.		22.0	341.62	761304.34	23908.08	640.73			
20.		21.5	338.29	761306.51	23905.08	631.44			
30.		21.5	333.84	761308.47	23901.99	622.14			
40.		20.0	330.51	761310.18	23898.89	612.78			
50.		19.5	328.29	761311.68	23895.87	603.37			
60.		19.0	326.07	761313.04	23892.87	593.93			
70.		18.5	324.96	761314.29	23889.91	584.46			
80.		18.0	321.62	761315.41	23886.99	574.96			
90.		18.0	321.62	761316.43	23884.07	565.45			
100.		18.0	321.62	761317.45	23881.16	555.94			
110.		18.0	321.62	761318.48	23878.25	546.43			
120.		18.0	321.62	761319.50	23875.33	536.92			
130.		18.5	319.40	761320.48	23872.36	527.43			
140.		19.0	320.51	761321.47	23869.30	517.96			
150.		19.0	317.18	761322.41	23866.19	508.50			
160.		19.5	316.07	761323.26	23863.01	499.06			
170.		20.0	314.96	761324.07	23859.73	489.65			
180.		21.0	313.84	761324.85	23856.31	480.28			
190.		21.5	311.62	761325.57	23852.76	470.96			
200.		22.0	310.51	761326.20	23849.11	461.67			
210.		22.0	309.40	761326.78	23845.41	452.40			
				220	27.38	41.78	443.11		
				230	27.58	38.15	433.82		
				240	28.58	34.52	424.56		
				245.7	28.52	32.45	419.23		

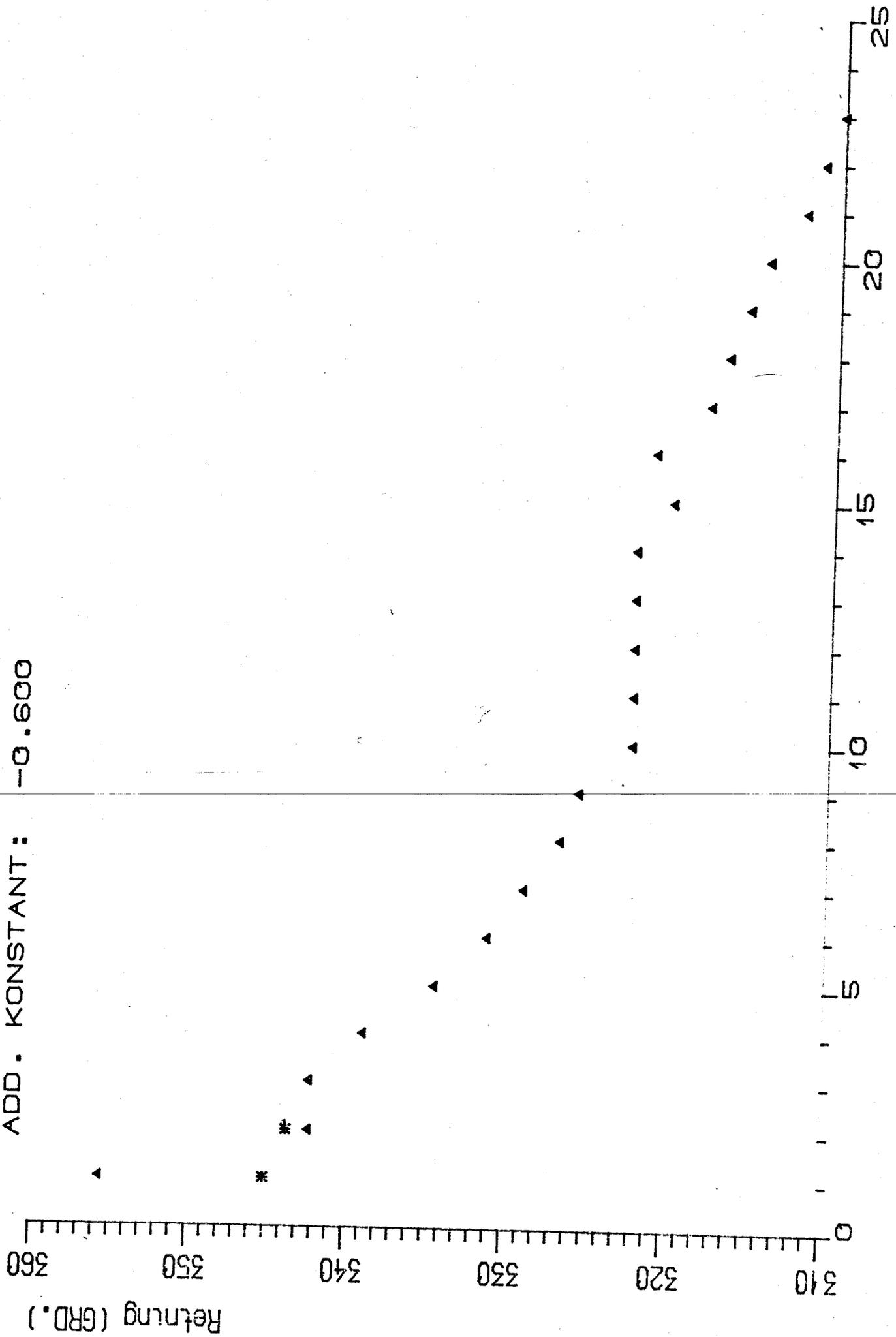
0.72
 0.63
 0.58
 3.55
 3.65
 3.70
 9.3
 9.2
 9.7

GRONG GRUBER A/S

BORHULL NR : 14/83

MÅLEDATO : 5.10.83

ADD. KONSTANT : -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 15/83
 ---DATE.....: 5.10.83

DEVIATION ANGLE (GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
5.00	.04	*	.01	.00	.00	.01	2
10.00	1.52	1.48	.06	.03	.00	.07	3
20.00	1.52	.00	.38	.22	.00	.44	4
30.00	1.14	-.38	.89	.49	.00	1.02	5
40.00	1.61	.47	1.53	.91	.03	1.78	6
50.00	.01	-1.60	2.23	1.44	.09	2.66	7
60.00	1.18	1.17	2.99	1.91	.12	3.55	8
70.00	1.65	.47	3.74	2.19	.09	4.34	9
80.00	1.47	-.18	4.39	2.26	.00	4.94	10
90.00	3.46	2.00	5.05	1.96	.19	5.42	11
100.00	3.48	.02	6.01	1.34	.49	6.17	12
110.00	1.91	-1.57	7.33	.75	.82	7.41	13
120.00	1.88	-.03	8.89	.29	1.13	8.97	14
130.00	1.08	-.81	10.68	.15	1.43	10.78	15
140.00	.81	-.27	12.61	.58	1.74	12.74	16
150.00	1.69	.88	14.62	1.14	2.08	14.81	17
160.00	3.29	1.60	16.46	2.00	2.48	16.77	18
170.00	1.55	-1.74	18.00	3.03	2.91	18.48	19
180.00	2.23	.68	19.36	3.87	3.29	20.01	20
190.00	.75	-1.48	20.60	4.52	3.63	21.40	21
200.00	.77	.01	21.74	5.11	3.94	22.88	22
210.00	2.99	2.22	23.02	5.55	4.23	24.06	23
220.00	.01	-2.98	24.49	5.84	4.49	25.58	24
230.00	4.30	4.29	26.30	6.13	4.76	27.42	25
240.00	1.90	-2.41	28.52	6.28	4.99	29.62	26
250.00	1.70	-.20	30.81	6.20	5.14	31.85	27
260.00	.01	-1.69	33.10	5.98	5.25	34.05	28
270.00	6.07	6.07	34.93	5.69	5.35	35.79	29
280.00	.35	-5.71	36.32	5.33	5.40	37.10	30
290.00	3.53	3.17	37.60	4.70	5.37	38.47	31
300.00	.99	-2.54	39.27	3.87	5.26	39.81	32
310.00	.98	-.01	40.63	3.13	5.19	41.08	33
312.00	.01	-.97	40.89	3.00	5.18	41.33	34

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 15/83
 ---DATE.....: 5.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S 15/83

I*****

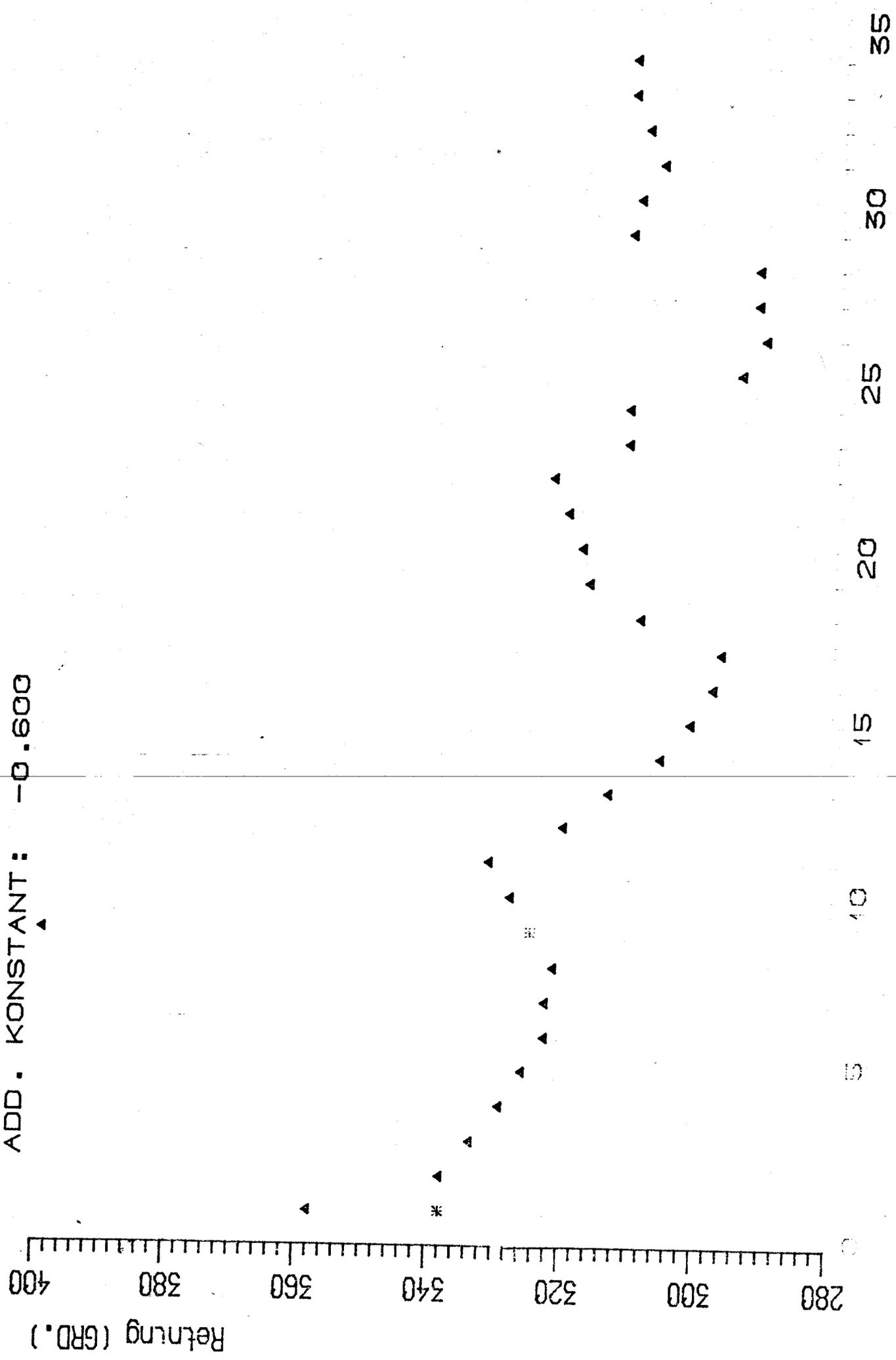
MEASURED DATA				COMPUTED DATA			
I MEASURED I	I INCLINATION I	I AZIMUTH I	I X-KOORD I	I Y-KOORD I	I Z-KOORD I		
I (M) I	I 360 DEG I	I 400 GRD I	I (M) I	I (M) I	I (M) I		
I 0.	I 20.0	I 337.30	I 761218.00	I 24033.00	I 655.00		
I 5.	I 20.0	I 337.18	I 761218.94	I 24031.57	I 650.30		
I 10.	I 20.0	I 332.73	I 761219.83	I 24030.12	I 645.60		
I 20.	I 20.0	I 328.29	I 761221.40	I 24027.08	I 636.21		
I 30.	I 20.0	I 324.96	I 761222.78	I 24033.96	I 626.81		
I 40.	I 21.0	I 321.62	I 761224.03	I 24020.69	I 617.44		
I 50.	I 21.0	I 321.62	I 761225.22	I 24017.31	I 608.11		
I 60.	I 20.0	I 320.51	I 761226.35	I 24014.00	I 598.74		
I 70.	I 19.0	I 324.16	I 761227.49	I 24010.86	I 589.31		
I 80.	I 18.0	I 327.18	I 761228.73	I 24007.95	I 579.83		
I 90.	I 15.0	I 330.51	I 761229.97	I 24005.39	I 570.24		
I 100.	I 13.0	I 319.40	I 761230.90	I 24003.17	I 560.54		
I 110.	I 14.0	I 312.73	I 761231.47	I 24000.91	I 550.81		
I 120.	I 14.0	I 304.96	I 761231.80	I 23998.52	I 541.11		
I 130.	I 14.0	I 300.51	I 761231.90	I 23996.10	I 531.41		
I 140.	I 14.0	I 297.18	I 761231.86	I 23993.69	I 521.70		
I 150.	I 12.5	I 296.07	I 761231.74	I 23991.40	I 511.97		
I 160.	I 10.5	I 308.29	I 761231.79	I 23989.41	I 502.17		
I 170.	I 11.0	I 316.07	I 761232.14	I 23987.59	I 492.35		
I 180.	I 13.0	I 317.18	I 761232.67	I 23985.58	I 482.56		
I 190.	I 13.5	I 319.40	I 761233.32	I 23983.38	I 472.83		
I 200.	I 14.0	I 321.62	I 761234.07	I 23981.13	I 463.12		
I 210.	I 15.0	I 310.51	I 761234.68	I 23978.71	I 453.43		
I 220.	I 15.0	I 310.51	I 761235.10	I 23976.16	I 443.78		
I 230.	I 15.0	I 293.84	I 761235.19	I 23973.59	I 434.11		
I 240.	I 16.5	I 290.51	I 761234.86	I 23970.90	I 424.49		
I 250.	I 18.0	I 291.62	I 761234.45	I 23967.96	I 414.94		
I 260.	I 18.0	I 291.62	I 761234.05	I 23964.90	I 405.43		
I 270.	I 19.0	I 310.51	I 761234.12	I 23961.76	I 395.84		
I 280.	I 19.0	I 309.40	I 761234.62	I 23958.54	I 386.48		
I 290.	I 22.0	I 306.07	I 761235.03	I 23955.07	I 377.12		
I 300.	I 21.5	I 308.29	I 761235.45	I 23951.39	I 367.83		
I 310.	I 21.0	I 310.51	I 761235.98	I 23947.80	I 358.51		
I 312.	I 21.0	I 310.51	I 761236.09	I 23947.10	I 356.64		

320.4 36.47 44.09 48.81

Handwritten notes: 0.4, 0.4, 0.47, 0.53, 3.47, 3.69, 3.58, 3.54, 9.32, 9.29, 9.32

GRONG GRUBER A/S

BORHULL NR : 15/83
MÅLEDATO : 5.10.83
ADD. KONSTANT : -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 16/83
 ---DATE.....: 5.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S 16/83

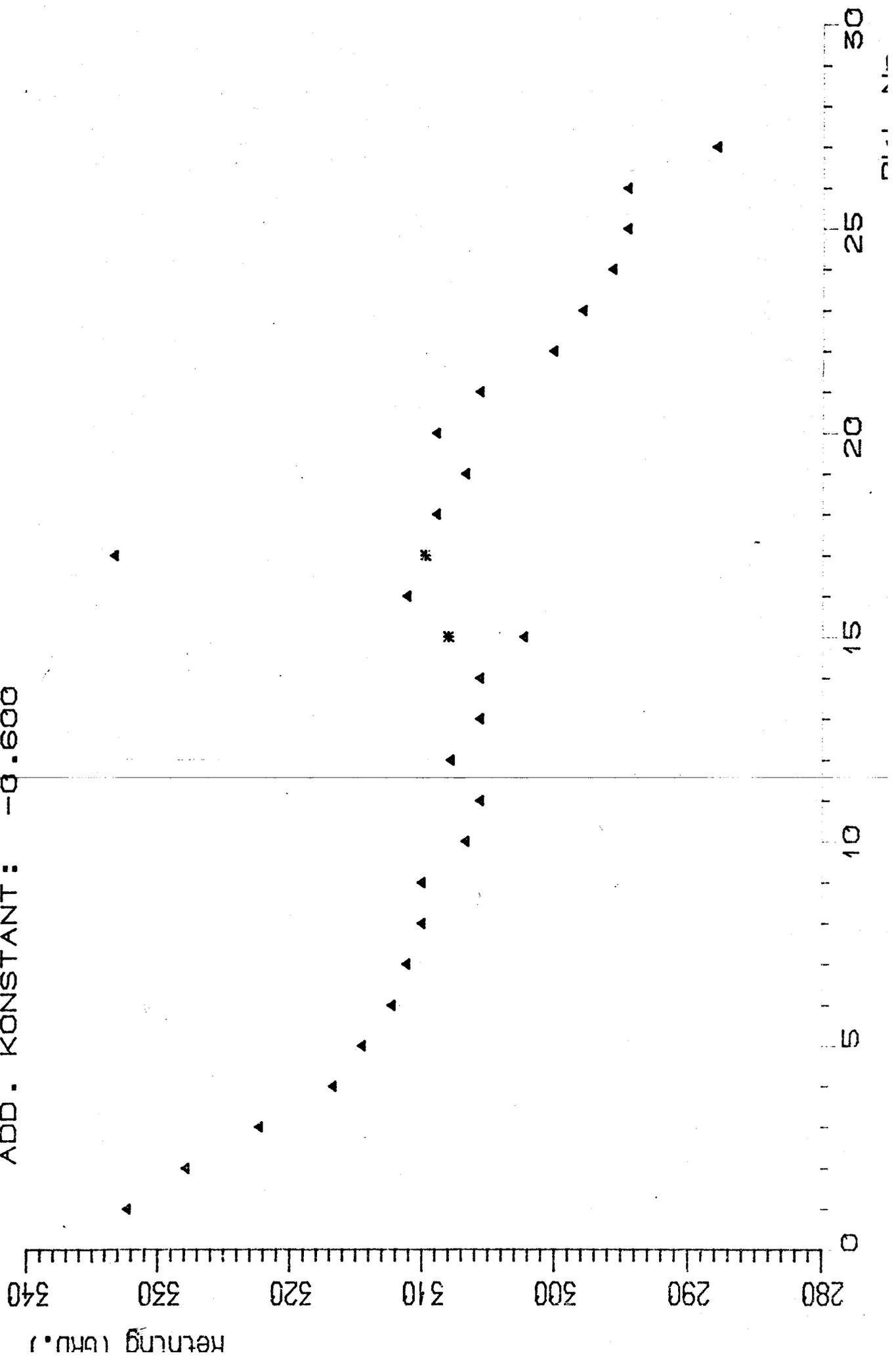
I*****
 I MEASURED DATA I COMPUTED DATA
 I-----
 I MEASURED I I I I I I
 I DEPTH I INCLINATION I AZIMUTH I X-KOORD I Y-KOORD I Z-KOORD
 I-----
 I (M) I 360 DEG 400 GRD I (M) I (M) I (M)
 I*****

I	I	I	I	I	I	I
DEPTH	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD	
(M)	360 DEG	400 GRD	(M)	(M)	(M)	
0.	22.0	331.62	761348.00	24004.00	665.00	
10.	21.5	327.18	761349.65	24000.69	655.71	
20.	21.0	321.62	761351.00	23997.33	646.39	
30.	21.0	316.07	761352.04	23993.90	637.05	
40.	21.0	313.84	761352.87	23990.42	627.72	
50.	21.0	311.62	761353.58	23986.91	618.38	
60.	20.5	310.51	761354.19	23983.42	609.03	
70.	20.0	309.40	761354.73	23980.00	599.65	
80.	18.5	309.40	761355.21	23976.74	590.21	
90.	18.0	306.07	761355.59	23973.63	580.71	
100.	18.0	304.96	761355.85	23970.55	571.20	
110.	18.0	307.18	761356.14	23967.48	561.69	
120.	17.5	304.96	761356.43	23964.44	552.17	
130.	17.0	304.96	761356.66	23961.49	542.62	
140.	17.0	307.45	761356.94	23958.58	533.05	
150.	17.0	310.51	761357.34	23955.68	523.49	
160.	17.0	309.21	761357.79	23952.79	513.93	
170.	16.5	308.29	761358.18	23949.94	504.35	
180.	17.0	306.07	761358.50	23947.08	494.77	
190.	18.0	308.29	761358.84	23944.09	485.24	
200.	18.0	304.96	761359.16	23941.02	475.73	
210.	19.0	299.40	761359.24	23937.85	466.24	
220.	20.0	297.18	761359.17	23934.51	456.82	-9.4
230.	21.0	294.96	761358.93	23931.02	447.45	9.3
240.	22.0	293.84	761358.54	23927.37	438.15	9.7
250.	22.0	293.84	761358.28	23923.64	428.87	9.2
253.	23.0	287.18	761358.12	23922.51	426.10	2.1

230 57.29 12.57 401.00
 295 56.96 08.88 391.71
 300 56.63 05.19 82.42
 310 56.30 01.50 73.13
 63.84

GRONG GRUBER A/S

BORHULL NR : 16/83
MÅLEDATO : 5.10.83
ADD. KONSTANT : -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 17/83
 ---DATE.....: 5.10.83

DEVIATION ANGLE.(GRD) DEVIATION.

DEPTH	DEV.ANGLE	DIF.	DX	DY	DZ	TOT.DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
5.00	1.11	*	.02	.04	.02	.05	2
10.00	1.18	.07	.10	.13	.06	.18	3
20.00	3.80	2.62	.59	.25	.19	.66	4
30.00	2.58	-1.21	1.48	.09	.29	1.51	5
40.00	1.97	-.61	2.64	.31	.32	2.68	6
50.00	1.69	-.28	3.98	.91	.29	4.10	7
60.00	2.03	.34	5.55	1.55	.25	5.77	8
70.00	1.11	-.92	7.26	2.20	.22	7.59	9
80.00	3.04	1.93	9.20	2.94	.16	9.65	10
90.00	.87	-2.17	11.30	3.68	.09	11.88	11
100.00	1.04	.17	13.27	4.46	.01	14.00	12
110.00	1.11	.07	15.16	5.36	.13	16.08	13
120.00	.56	-.55	17.05	6.38	.32	18.21	14
130.00	.56	.00	18.95	7.40	.51	20.35	15
140.00	1.20	.64	20.88	8.30	.65	22.48	16
150.00	.63	-.56	22.88	9.09	.73	24.53	17
160.00	.85	.22	24.94	9.79	.78	26.80	18
170.00	1.70	.85	27.08	10.57	.87	29.08	19
180.00	.45	-1.25	29.29	11.47	1.00	31.47	20
190.00	3.41	2.96	31.80	12.41	1.17	34.15	21
200.00	2.22	-1.18	34.59	13.56	1.46	37.18	22
210.00	1.12	-1.11	37.41	14.94	1.86	40.32	23
220.00	1.13	.02	40.26	16.47	2.34	43.56	24
230.00	.01	-1.12	43.14	18.07	2.87	46.86	25
240.00	1.11	1.10	46.04	19.75	3.44	50.21	26
250.00	1.11	.00	48.96	21.57	4.09	53.66	27
255.00	.80	-.31	50.45	22.54	4.45	55.44	28

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 17/83
 ---DATE.....: 5.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S

17/83

I*****

MEASURED DATA				COMPUTED DATA			
MEASURED I	I	I	I	I	I	I	I
DEPTH	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD		
(M)	360 DEG	400 GRD	(M)	(M)	(M)		

I*****

0.	22.0	335.96	761409.00	23921.00	670.00		
5.	21.0	336.07	761409.98	23919.45	665.35		
10.	20.0	334.96	761410.90	23917.97	660.66		
20.	20.0	323.84	761412.41	23914.92	651.26		
30.	21.0	317.18	761413.52	23911.60	641.90		
40.	22.0	312.73	761414.36	23908.04	632.59		
50.	23.0	309.40	761415.02	23904.27	623.35		
60.	22.0	304.96	761415.45	23900.47	614.11		
70.	23.0	304.96	761415.74	23896.65	604.88		
80.	23.0	297.18	761415.80	23892.75	595.67		
90.	23.0	299.40	761415.70	23888.85	586.46		
100.	23.5	301.62	761415.73	23884.90	577.28		
110.	24.5	301.62	761415.84	23880.83	568.14		
120.	25.0	301.84	761415.95	23876.65	559.06		
130.	24.5	301.62	761416.05	23872.46	549.95		
140.	23.5	300.51	761416.12	23868.40	540.84		
150.	23.0	299.73	761416.13	23864.45	531.85		
160.	22.5	298.07	761416.06	23860.58	522.43		
170.	24.0	297.18	761415.92	23856.64	513.24		
180.	24.0	296.07	761415.71	23852.58	504.11		
190.	25.0	288.29	761415.20	23848.47	495.01		
200.	27.0	288.51	761414.41	23844.16	486.02		
210.	28.0	288.73	761413.59	23839.62	477.15	287	
220.	29.0	288.29	761412.74	23834.92	468.36	8.79	
230.	29.0	288.29	761411.88	23830.16	459.82	8.74	
240.	30.0	288.29	761410.96	23825.32	450.91	8.71	
250.	31.0	288.29	761410.04	23820.33	442.30	8.61	
255.	31.5	287.18	761409.55	23817.78	438.02	28	

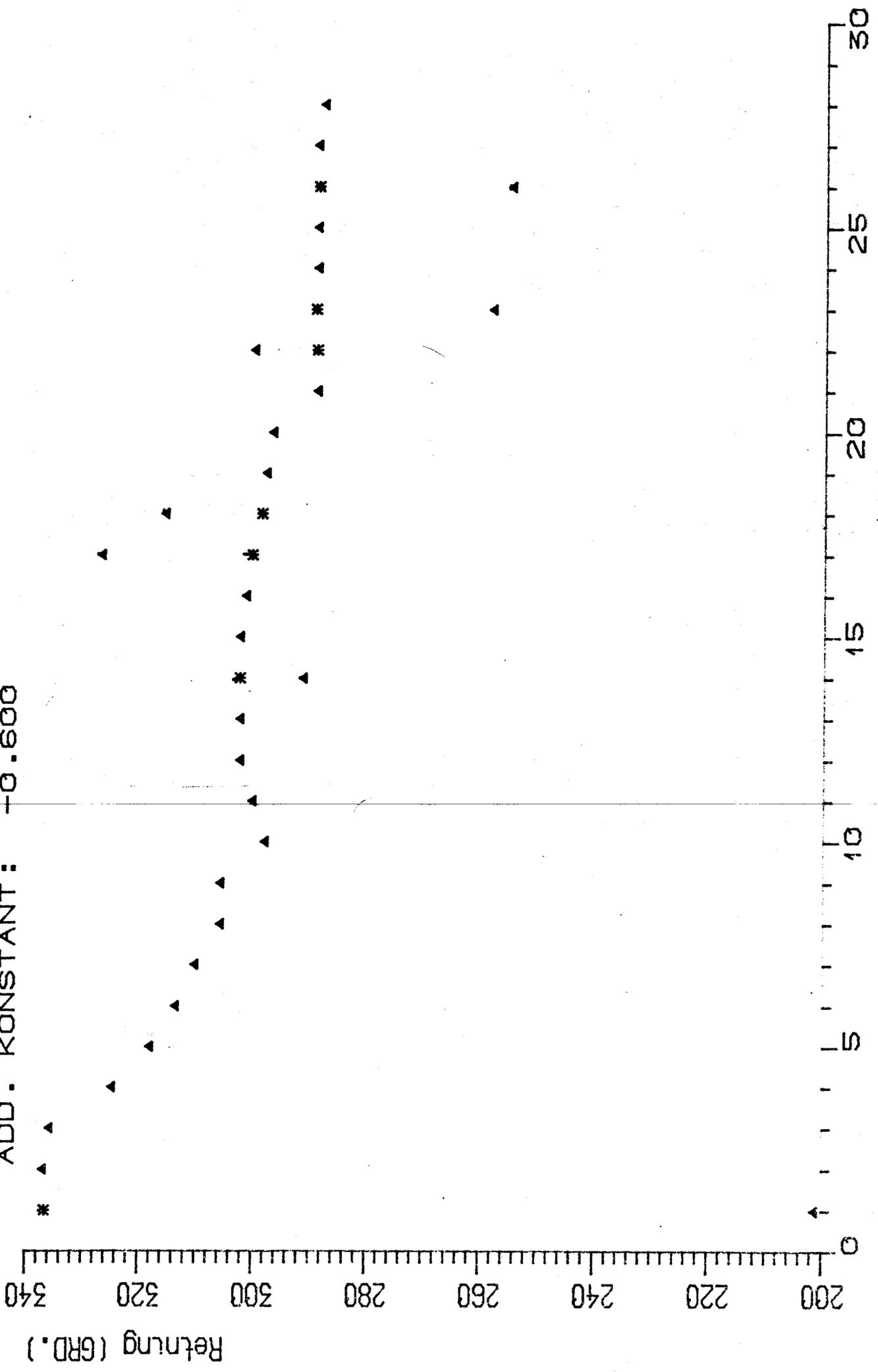
260 409.13 15.61 433.61
 266.8 408.97 14.72 432.05

ØRONG GRUBER A/S

BORHULL NR : 17/83

MÅLEDATO : 5.10.83

ADD. KONSTANT : -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D32
 ---DATE.....: 6.10.83

DEVIATION ANGLE.(GRD)

DEVIATION.

DEPTH	DEV.ANGLE	DIF.	DX	DY	DZ	TOT.DEV.	POINT
0.00	*	*	.00	.00	.00	.00	1
5.00	1.67	*	.06	.00	.00	.06	2
10.00	.57	-1.10	.17	.01	.00	.17	3
20.00	.10	-.47	.34	.04	.00	.35	4
30.00	1.11	1.01	.43	.06	.00	.43	5
40.00	1.67	.56	.56	.09	.00	.56	6
50.00	.56	-1.10	.85	.16	.01	.87	7
60.00	.63	.09	1.23	.28	.02	1.26	8
70.00	.79	.13	1.69	.44	.03	1.75	9
80.00	.98	.20	2.30	.61	.05	2.38	10
90.00	1.12	.14	3.07	.76	.08	3.16	11
100.00	1.13	.01	4.01	.96	.13	4.12	12
110.00	1.02	-.11	5.10	1.16	.19	5.23	13
120.00	.35	-.67	6.28	1.36	.26	6.43	14
130.00	1.11	.76	7.57	1.59	.35	7.74	15
140.00	.19	-.92	8.95	1.84	.45	9.14	16
150.00	1.30	1.10	10.40	2.15	.56	10.63	17
160.00	1.24	-.06	12.00	2.52	.69	12.29	18
170.00	1.18	-.06	13.78	2.92	.86	14.11	19
180.00	1.51	.33	15.73	3.43	1.07	16.14	20
190.00	1.14	-.37	17.86	4.04	1.32	18.36	21
200.00	1.91	.77	20.20	4.76	1.62	20.51	22
210.00	.01	-1.90	22.67	5.54	1.96	23.42	23
220.00	.37	.36	25.16	6.30	2.31	26.04	24
230.00	.11	-.25	27.68	7.05	2.66	28.68	25
240.00	.78	.67	30.26	7.82	3.03	31.40	26
250.00	.11	-.67	32.91	8.60	3.42	34.19	27
260.00	.33	.22	35.56	9.41	3.81	36.98	28
270.00	.94	.61	38.13	10.20	4.19	39.69	29
280.00	.37	-.57	40.62	10.96	4.52	42.31	30
290.00	.33	-.03	43.11	11.75	4.87	44.55	31
300.00	.94	.11	45.61	12.52	5.22	47.38	32

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D32
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S

D32

I*****
 I MEASURED DATA I COMPUTED DATA
 I-----

I MEASURED I	I	I	I	I	I	I
I DEPTH	I INCLINATION	I AZIMUTH	I X-KOORD	I Y-KOORD	I Z-KOORD	I
I (M)	I 360 DEG	I 400 GRD	I (M)	I (M)	I (M)	I
0.	.0	199.40	94949.82	31199.70	615.51	
5.	1.5	198.01	94949.76	31199.70	610.51	
10.	1.0	192.26	94949.65	31199.71	605.51	
20.	1.0	186.70	94949.48	31199.73	595.51	
30.	.0	183.92	94949.39	31199.75	585.51	
40.	1.5	182.73	94949.27	31199.79	575.51	
50.	2.0	186.07	94948.97	31199.86	565.52	
60.	2.5	177.18	94948.60	31199.97	555.53	
70.	3.2	179.40	94948.13	31200.14	545.54	
80.	4.0	186.07	94947.52	31200.30	535.56	
90.	5.0	188.29	94946.75	31200.46	525.59	
100.	6.0	186.07	94945.82	31200.65	515.64	
110.	6.8	190.51	94944.72	31200.85	505.70	
120.	7.0	188.29	94943.54	31201.05	495.77	
130.	8.0	188.29	94942.25	31201.29	485.86	
140.	8.1	189.40	94940.88	31201.53	475.95	
150.	9.0	183.84	94939.43	31201.85	466.07	
160.	10.0	187.18	94937.82	31202.22	456.20	
170.	11.0	184.96	94936.04	31202.61	446.37	
180.	12.3	182.73	94934.09	31203.12	436.58	
190.	13.3	181.62	94931.96	31203.74	426.83	
200.	15.0	180.51	94929.62	31204.45	417.13	
210.	15.0	180.51	94927.16	31205.23	407.47	
220.	15.2	181.62	94924.67	31206.00	397.82	
230.	15.3	181.62	94922.14	31206.74	388.17	
240.	15.0	181.62	94919.56	31207.51	378.54	
250.	16.1	181.62	94916.91	31208.30	368.93	
260.	16.0	180.51	94914.27	31209.11	359.32	
270.	15.2	181.62	94911.70	31209.90	349.69	
280.	15.0	180.51	94909.21	31210.66	340.03	-9.66
290.	15.3	180.51	94906.71	31211.45	330.38	-9.65
300.	15.0	181.62	94904.22	31212.21	320.73	-9.65

302,40

403.62

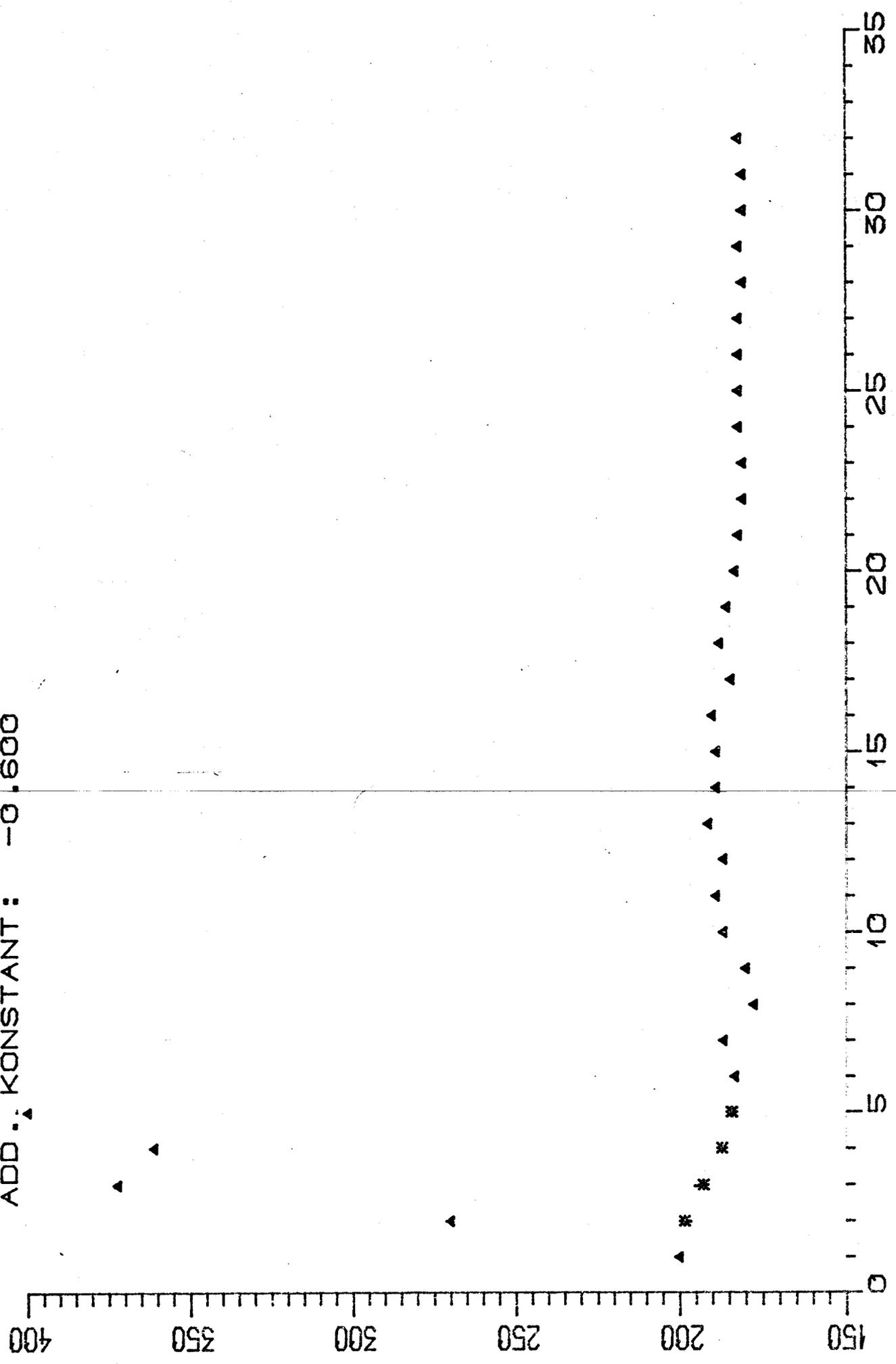
212,34

18,41

0,72
0,71
0,76
x 0,72
-9.66
-9.65
-9.65
x 9.65

GRÖNG GRUBER A/S

BORHULL NR : D32
MÅLEDATO : 6.10.83
ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GROND GRUBER A/S
 ---HOLE NO.....: D47
 ---DATE.....: 6.10.83

DEVIATION ANGLE.(GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	.00	*	.00	.00	.00	.00	2
20.00	.22	.22	.01	.01	.00	.02	3
30.00	.01	-.21	.04	.04	.00	.05	4
40.00	1.78	1.77	.16	.16	.00	.23	5
50.00	.24	-1.54	.40	.39	.01	.56	6
60.00	.05	-.19	.66	.62	.01	.90	7
70.00	.23	.18	.94	.83	.02	1.25	8
80.00	.27	.04	1.24	1.01	.03	1.59	9
90.00	.16	-.12	1.55	1.16	.03	1.93	10
100.00	.57	.42	1.91	1.30	.04	2.32	11
110.00	.56	-.01	2.36	1.48	.05	2.78	12
120.00	1.11	.56	2.93	1.71	.07	3.39	13
130.00	.58	-.53	3.60	2.00	.10	4.12	14
140.00	.83	.25	4.36	2.37	.13	4.97	15
150.00	.90	.07	5.22	2.83	.18	5.94	16
160.00	.33	-.56	6.16	3.35	.24	7.02	17
170.00	.33	.00	7.15	3.86	.30	8.13	18
180.00	.42	.09	8.20	4.36	.37	9.29	19
190.00	.13	-.29	9.28	4.84	.44	10.47	20
200.00	.36	.23	10.39	5.31	.51	11.68	21
210.00	.57	.21	11.53	5.79	.59	12.96	22
220.00	.00	-.57	12.80	6.28	.68	14.28	23
230.00	.58	.58	14.07	6.79	.78	15.64	24
240.00	.65	.08	15.42	7.31	.88	17.08	25
250.00	.16	-.49	16.80	7.82	.99	18.56	26
260.00	.47	.31	18.22	8.32	1.10	20.06	27
270.00	.17	-.30	19.67	8.82	1.22	21.59	28

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D47
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D47

I*****
 I MEASURED DATA I COMPUTED DATA

I-----
 I MEASURED I I I I I I
 I DEPTH I INCLINATION I AZINUTH I X-KOORD I Y-KOORD I Z-KOORD
 I-----
 I (M) I 360 DEG 400 GRD I (M) I (M) I (M)

I*****

DEPTH (M)	INCLINATION (DEG)	AZINUTH (GRD)	X-KOORD (M)	Y-KOORD (M)	Z-KOORD (M)
0.	.0	149.16	94850.31	31399.09	605.70
10.	.0	149.24	94850.31	31399.09	595.70
20.	.2	148.77	94850.29	31399.11	585.70
30.	.2	149.40	94850.27	31399.13	575.70
40.	1.8	150.51	94850.15	31399.25	565.70
50.	2.0	153.45	94849.91	31399.48	555.70
60.	2.0	154.96	94849.64	31399.71	545.71
70.	2.0	161.62	94849.37	31399.92	535.72
80.	2.0	169.40	94849.07	31400.10	525.72
90.	2.0	173.84	94848.76	31400.25	515.73
100.	2.5	177.18	94848.39	31400.40	505.74
110.	3.0	176.07	94847.95	31400.57	495.75
120.	4.0	174.96	94847.38	31400.80	485.77
130.	4.5	172.73	94846.70	31401.10	475.79
140.	5.2	169.40	94845.94	31401.47	465.83
150.	6.0	168.29	94845.08	31401.93	455.88
160.	6.3	168.29	94844.14	31402.44	445.93
170.	6.5	170.51	94843.15	31402.95	436.00
180.	6.8	172.73	94842.11	31403.45	426.06
190.	6.8	173.84	94841.03	31403.94	416.13
200.	7.1	174.96	94839.92	31404.41	406.21
210.	7.6	176.07	94838.73	31404.89	396.29
220.	7.6	176.07	94837.50	31405.37	386.36
230.	8.1	174.96	94836.34	31405.89	376.47
240.	8.5	176.29	94834.87	31406.40	366.55
250.	8.5	177.18	94833.50	31406.91	356.59
260.	8.8	179.40	94832.08	31407.41	346.60
270.	8.8	178.29	94830.64	31407.91	336.92

1.32
 1.42
 1.44
 x 1.82
 0.57
 0.50
 0.50
 x 0.50
 9.89
 9.80
 9.8
 x 9.8

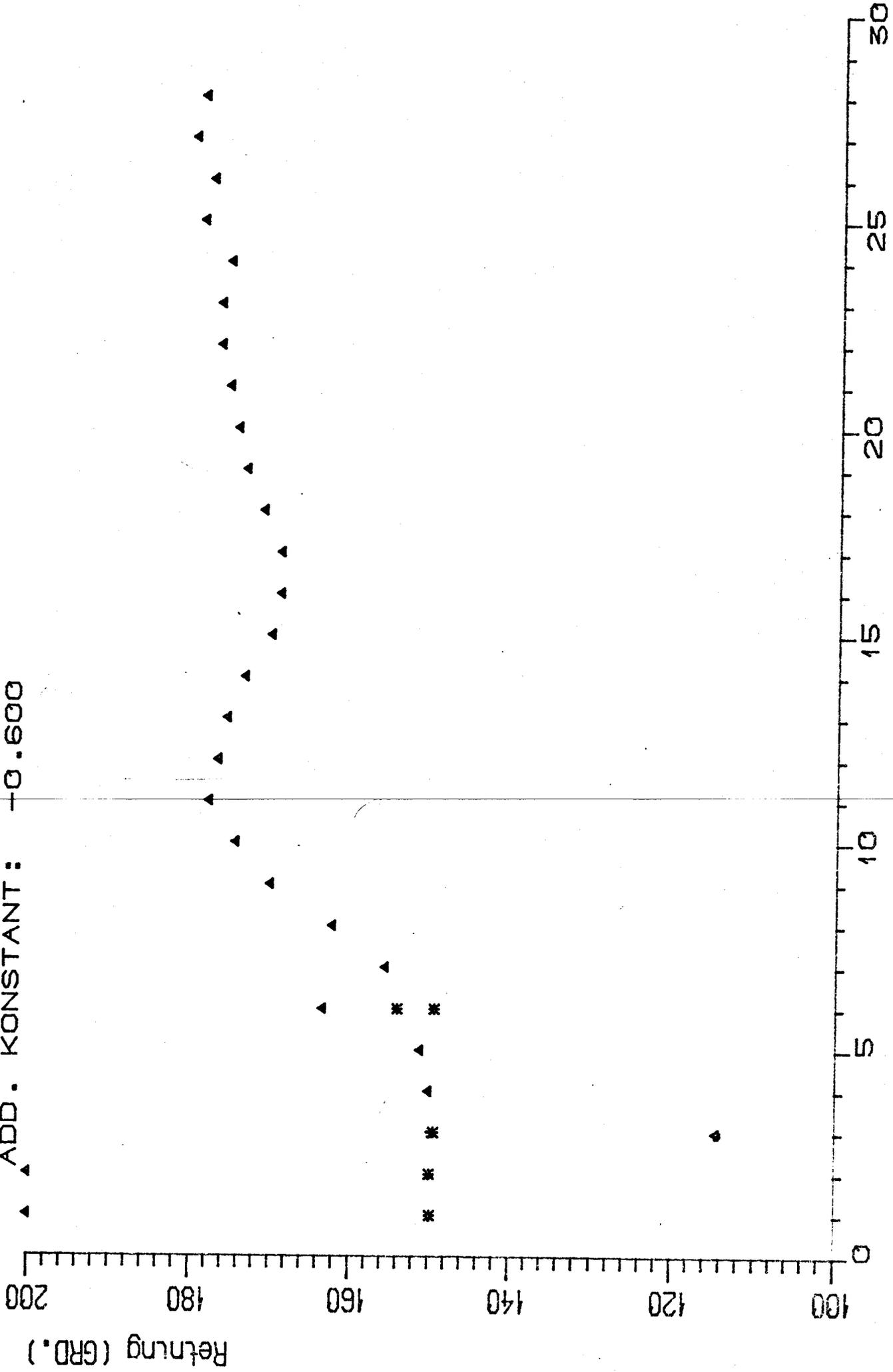
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GRONG GRUBER A/S

BORHULL NR : D47

MÅLEDATO : 6.10.83

ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D48
 ---DATE.....: 8.10.83

DEVIATION ANGLE.(GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
5.00	.22	*	.01	.01	.00	.01	2
10.00	.62	.40	.00	.03	.00	.03	3
20.00	1.68	1.06	.20	.12	.00	.23	4
30.00	.46	-1.22	.54	.24	.01	.59	5
40.00	1.69	1.23	1.05	.34	.02	1.10	6
50.00	1.50	-.19	1.80	.43	.05	1.85	7
60.00	1.13	-.37	2.75	.52	.10	2.80	8
70.00	.90	-.23	3.83	.70	.16	3.90	9
80.00	1.56	.65	5.08	.95	.24	5.17	10
90.00	1.11	-.44	6.53	1.24	.35	6.65	11
100.00	.89	-.22	8.13	1.57	.48	8.29	12
110.00	1.39	.50	9.89	1.96	.65	10.10	13
120.00	1.11	-.28	11.83	2.42	.85	12.10	14
130.00	.60	-.51	13.89	2.90	1.08	14.23	15
140.00	.56	-.05	16.05	3.37	1.32	16.45	16
150.00	.56	.00	18.29	3.87	1.59	18.76	17
160.00	.56	.00	20.61	4.38	1.88	21.15	18
170.00	.27	-.29	22.97	4.88	2.17	23.59	19
180.00	.55	.28	25.36	5.32	2.47	26.03	20
190.00	1.00	.45	27.84	5.74	2.79	28.56	21
200.00	.31	-.69	30.40	6.14	3.14	31.17	22
210.00	.44	.14	33.01	6.53	3.49	33.83	23
220.00	.45	.00	35.68	6.90	3.86	36.55	24
230.00	.22	-.23	38.40	7.26	4.24	39.31	25
240.00	.01	-.21	41.13	7.61	4.65	42.08	26
250.00	.61	.60	43.87	7.92	5.02	44.86	27
260.00	.31	-.31	46.61	8.21	5.41	47.63	28
270.00	.01	-.30	49.35	8.52	5.79	50.41	29
280.00	.01	.00	52.09	8.83	6.18	53.19	30

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D48
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S

D48

I*****
 I MEASURED DATA I COMPUTED DATA

I MEASURED I I I I I I
 I DEPTH I INCLINATION I AZIMUTH I X-KOORD I Y-KOORD I Z-KOORD

I-----
 I (M) I 360 DEG 400 GRD I (M) I (M) I (M)
 I*****

(M)	I	360 DEG 400 GRD	I	(M)	I	(M)	I	(M)
0.	.0	399.40		94801.65		31452.62		602.89
5.	.2	347.18		94801.65		31452.62		597.90
10.	.5	240.51		94801.64		31452.60		592.90
20.	2.0	227.18		94801.45		31452.50		582.90
30.	2.2	216.07		94801.11		31452.38		572.90
40.	3.7	210.51		94800.60		31452.28		562.92
50.	5.0	204.96		94799.85		31452.19		552.95
60.	6.0	207.18		94798.90		31452.10		542.99
70.	6.6	212.73		94797.81		31451.93		533.05
80.	8.0	212.73		94796.57		31451.67		523.13
90.	9.0	212.73		94795.12		31451.38		513.24
100.	9.8	212.73		94793.52		31451.06		503.38
110.	11.0	214.96		94791.76		31450.66		493.54
120.	12.0	214.96		94789.82		31450.20		483.74
130.	12.5	213.84		94787.75		31449.73		473.97
140.	13.0	213.84		94785.60		31449.25		464.22
150.	13.5	213.84		94783.36		31448.75		454.48
160.	14.0	213.84		94781.04		31448.24		444.77
170.	14.0	212.73		94778.67		31447.74		435.07
180.	14.1	210.51		94776.29		31447.30		425.37
190.	15.0	210.51		94773.81		31446.89		415.69
200.	15.1	209.40		94771.25		31446.48		406.03
210.	15.5	209.40		94768.64		31446.10		396.39
220.	15.8	208.29		94765.97		31445.72		386.76
230.	16.0	208.29		94763.25		31445.37		377.14
240.	16.0	208.29		94760.52		31445.01		367.53
250.	16.0	206.07		94757.78		31444.70		357.91
260.	16.0	207.18		94755.04	2.74	31444.41	0.29	348.30
270.	16.0	207.18		94752.30	2.74	31444.10	0.31	338.69
280.	16.0	207.18		94749.56	2.74	31443.79	0.31	329.08

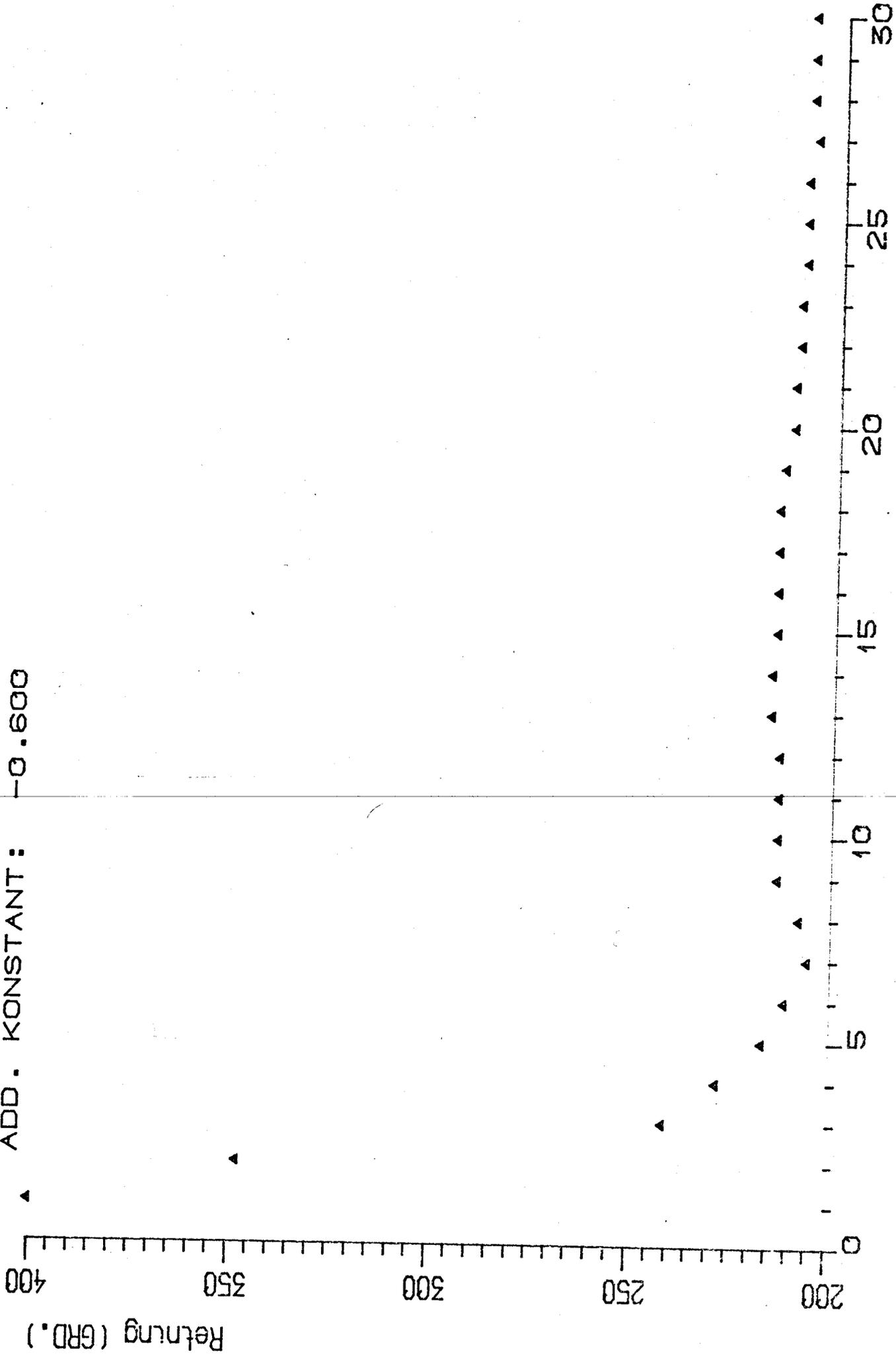
287.4 747.53 443.57 321.97

GRONG GRUBER A/S

BORHULL NR : D48

MÅLEDATO : 6.10.83

ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D49
 ---DATE.....: 6.10.83

DEVIATION ANGLE (GRD)		DEVIATION.						

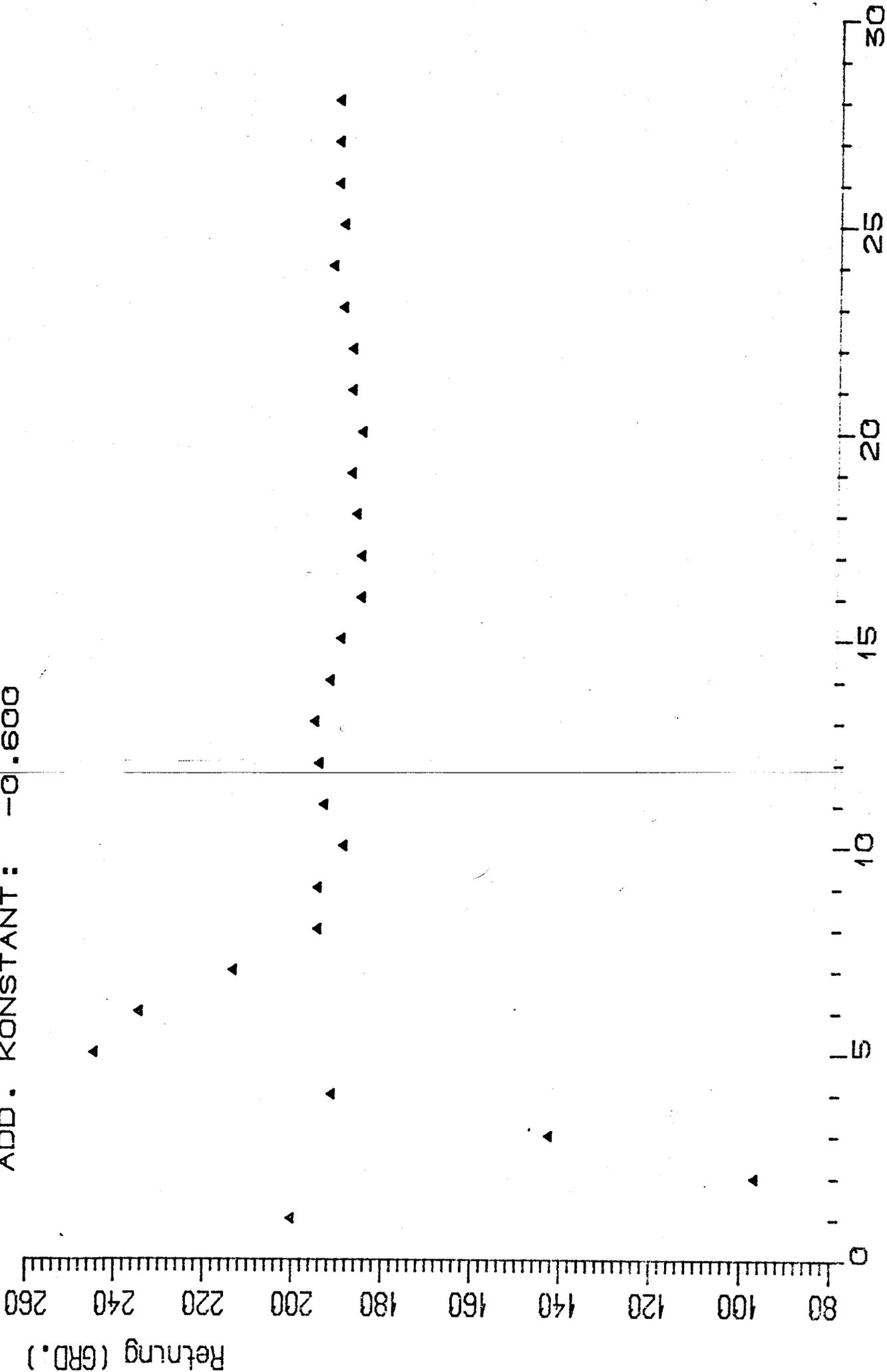
DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT	
.00	*	*	.00	.00	.00	.00	1	
10.00	.11	*	.00	.01	.00	.01	2	
20.00	.16	.05	.01	.03	.00	.03	3	
30.00	.17	.01	.04	.05	.00	.06	4	
40.00	.17	.00	.06	.04	.00	.08	5	
50.00	.11	-.06	.08	.03	.00	.09	6	
60.00	.35	.24	.14	.01	.00	.14	7	
70.00	1.48	1.12	.34	.02	.00	.34	8	
80.00	.22	-1.26	.67	.05	.01	.67	9	
90.00	1.25	1.02	1.11	.12	.02	1.11	10	
100.00	.51	-.73	1.67	.20	.03	1.69	11	
110.00	.55	.05	2.33	.27	.06	2.34	12	
120.00	.89	.33	3.09	.34	.09	3.11	13	
130.00	.36	-.53	3.94	.43	.12	3.96	14	
140.00	.91	.55	4.87	.57	.17	4.90	15	
150.00	.91	.00	5.92	.78	.22	5.97	16	
160.00	.56	-.36	7.06	1.06	.29	7.14	17	
170.00	.26	-.29	8.26	1.34	.37	8.38	18	
180.00	.47	.21	9.52	1.61	.45	9.67	19	
190.00	.45	-.02	10.84	1.90	.54	11.01	20	
200.00	.46	.01	12.20	2.20	.64	12.42	21	
210.00	.67	.21	13.65	2.50	.75	13.90	22	
220.00	.56	-.10	15.19	2.78	.88	15.46	23	
230.00	.48	-.08	16.74	3.02	1.00	17.04	24	
240.00	.34	-.14	18.27	3.25	1.12	18.59	25	
250.00	.37	.03	19.77	3.49	1.24	20.12	26	
260.00	.44	.07	21.29	3.71	1.36	21.65	27	
262.00	.01	-.44	21.59	3.76	1.38	21.96	28	

GRONG GRUBER A/S

BORHULL NR : D49

MÅLEDATO : 6.10.83

ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D50
 ---DATE.....: 6.10.83

DEVIATION ANGLE.(GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	1.72	*	.13	.04	.00	.14	2
20.00	1.78	.05	.51	.04	.02	.52	3
30.00	.81	-.97	1.08	.01	.07	1.09	4
40.00	1.57	.76	1.82	.14	.13	1.83	5
50.00	.44	-1.13	2.66	.29	.21	2.69	6
60.00	.75	.31	3.54	.46	.28	3.58	7
70.00	1.47	.72	4.53	.75	.38	4.61	8
80.00	.92	-.55	5.66	1.15	.51	5.80	9
90.00	.92	-.01	6.86	1.64	.64	7.08	10
100.00	1.14	.23	8.16	2.18	.79	8.48	11
110.00	1.14	.00	9.62	2.78	.93	10.05	12
120.00	.87	-.28	11.21	3.46	1.09	11.78	13
130.00	.24	-.62	12.67	4.18	1.24	13.59	14
140.00	1.99	1.75	14.72	4.91	1.38	15.57	15
150.00	.46	-1.53	16.63	5.63	1.50	17.67	16
160.00	.69	.23	18.67	6.36	1.62	19.79	17
170.00	.92	.23	20.75	7.17	1.74	22.02	18
180.00	1.17	.24	22.95	8.10	1.87	24.41	19
190.00	.22	-.94	25.21	9.08	1.99	26.87	20
200.00	.26	.03	27.51	10.06	2.11	29.37	21
210.00	.11	-.15	29.83	11.04	2.23	31.89	22
220.00	.32	.21	32.16	12.04	2.35	34.42	23
230.00	1.15	.83	34.55	13.14	2.47	37.04	24
240.00	.69	-.46	37.03	14.34	2.59	39.79	25
250.00	.00	-.69	39.54	15.59	2.72	42.59	26
260.00	1.47	1.47	42.07	16.95	2.85	45.45	27
270.00	.56	-.91	44.66	18.40	2.98	48.40	28

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D50
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D50

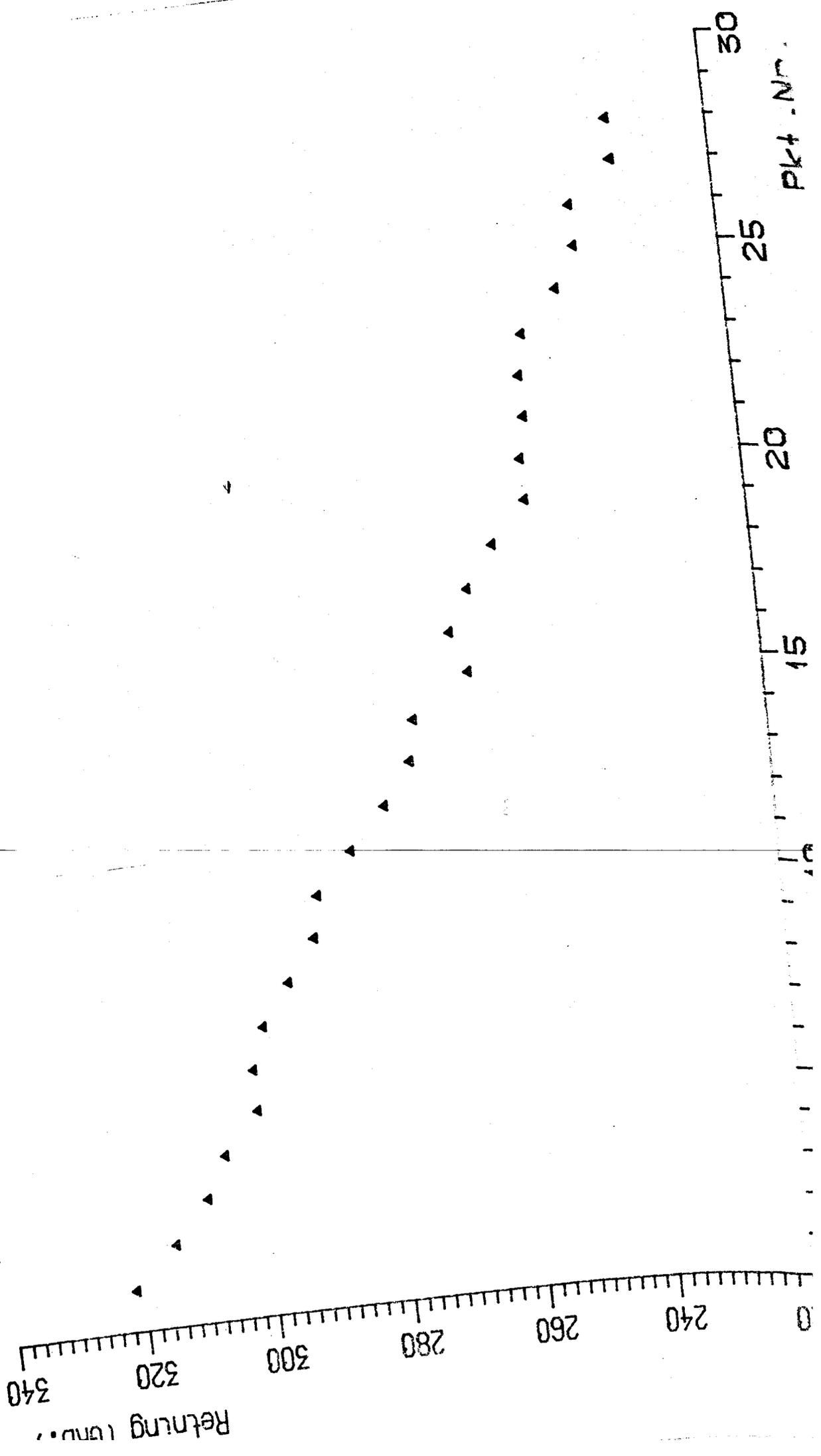
I*****
 I MEASURED DATA I COMPUTED DATA

I-----
 I MEASURED I I I I I I
 I DEPTH I INCLINATION I AZIMUTH I X-KOORD I Y-KOORD I Z-KOORD
 I-----
 I (M) I 360 DEG 400 GRD I (M) I (M) I (M)

I	I	I	I	I	I	I
I	I	I	I	I	I	I
I	I	I	I	I	I	I
0.	15.0	320.51	94950.21	31399.85	600.58	
10.	15.0	313.84	94950.90	31397.36	590.92	
20.	14.0	308.29	94951.33	31394.90	581.24	
30.	13.9	304.96	94951.58	31392.50	571.53	
40.	13.1	299.40	94951.66	31390.17	561.81	
50.	13.5	299.40	94951.64	31387.87	552.08	
60.	13.0	297.18	94951.58	31385.58	542.34	
70.	12.0	292.73	94951.41	31383.43	532.58	
80.	12.0	288.29	94951.11	31381.37	522.80	
90.	11.2	287.18	94950.72	31379.40	513.00	
100.	11.5	281.62	94950.24	31377.49	503.20	
110.	11.2	276.07	94949.60	31375.63	493.39	
120.	11.1	271.62	94948.83	31373.86	483.58	
130.	11.2	270.51	94947.98	31372.12	473.77	
140.	12.0	261.62	94946.96	31370.40	463.97	
150.	12.0	263.84	94945.81	31368.66	454.19	
160.	12.0	260.51	94944.65	31366.94	444.41	
170.	12.0	256.07	94943.38	31365.30	434.63	
180.	11.8	250.51	94942.01	31363.76	424.84	
190.	12.0	250.51	94940.56	31362.30	415.06	
200.	12.1	249.40	94939.08	31360.82	405.28	
210.	12.2	249.40	94937.58	31359.35	395.50	
220.	12.0	248.29	94936.07	31357.89	385.73	
230.	12.0	242.73	94934.50	31356.53	375.94	
240.	12.0	239.40	94932.84	31355.28	366.16	
250.	12.0	239.40	94931.15	31354.07	356.38	-9.7
260.	11.5	232.73	94929.44	31352.96	346.59	-9.7
270.	12.0	232.73	94927.67	31351.98	336.80	-9.7
			\bar{x} 1.72		\bar{x} 1.10	\bar{x} 9.7

GRONG GRUBER A.V.S

BORHULL NR : 6.10.83
MÅLEDATO : -0.600
ADD. KONSTANT:



DEVIATION CALCULATION.

---NAME.....: GRONG GRUSER A/S
 ---HOLE NO.....: D51
 ---DATE.....: 6.10.83

DEVIATION ANGLE (GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	1.11	*	.08	.02	.00	.09	2
20.00	1.11	.00	.34	.09	.00	.35	3
30.00	.89	-.22	.74	.21	.01	.77	4
40.00	1.22	.34	1.30	.36	.03	1.35	5
50.00	.13	-1.09	1.97	.52	.05	2.04	6
60.00	1.11	.98	2.73	.71	.08	2.82	7
70.00	1.16	.04	3.67	.93	.13	3.78	8
80.00	1.12	-.04	4.77	1.16	.20	4.92	9
90.00	1.15	.03	6.05	1.42	.28	6.22	10
100.00	.37	-.78	7.44	1.70	.38	7.64	11
110.00	.78	.41	8.91	2.00	.50	9.15	12
120.00	1.11	.33	10.53	2.33	.63	10.80	13
130.00	.30	-.82	12.24	2.69	.79	12.56	14
140.00	1.50	1.21	14.07	3.13	.97	14.45	15
150.00	.56	-.95	16.04	3.65	1.18	16.49	16
160.00	.32	-.23	18.08	4.15	1.40	18.60	17
170.00	.58	.28	20.16	4.62	1.63	20.75	18
180.00	.01	-.57	22.28	5.05	1.87	22.93	19
190.00	.74	.73	24.45	5.45	2.11	25.14	20
200.00	.11	-.63	26.68	5.83	2.37	27.41	21
210.00	1.00	.89	28.99	6.22	2.65	29.77	22
220.00	1.24	.24	31.46	6.59	2.97	32.28	23
230.00	.89	-.35	34.10	6.93	3.33	34.95	24
240.00	.38	-.51	36.82	7.27	3.71	37.71	25
250.00	.31	-.07	39.56	7.56	4.10	40.48	26
260.00	.38	.07	42.28	7.80	4.48	43.23	27
270.00	.69	.31	44.98	7.97	4.85	45.93	28
275.00	.63	-.05	46.33	8.04	5.04	47.29	29

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D51
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D51

I*****

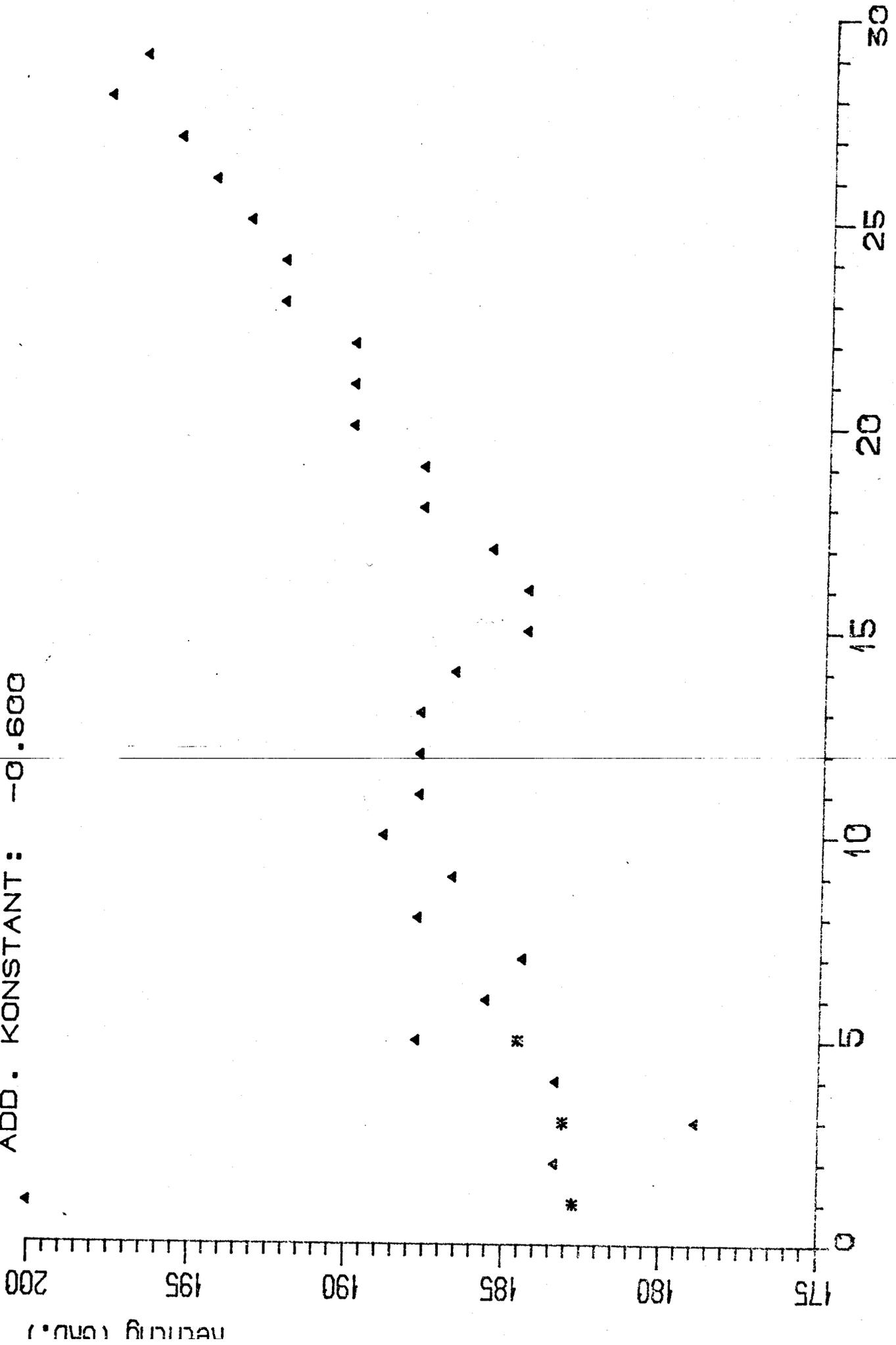
MEASURED DATA				COMPUTED DATA			
MEASURED I	I	I	I	I	I	I	I
DEPTH	I INCLINATION	I AZIMUTH	I X-KOORD	I Y-KOORD	I Z-KOORD		

I	(M)	I	360 DEG	400 GRD	I	(M)	I	(M)	I	(M)
0.		.0		182.14		94803.28		31402.73		604.04
10.		1.0		182.73		94803.19		31402.75		594.04
20.		2.0		182.50		94802.94		31402.82		584.04
30.		2.8		182.73		94802.54		31402.93		574.05
40.		3.9		183.96		94801.97		31403.08		564.07
50.		4.0		184.96		94801.31		31403.25		554.09
60.		5.0		183.84		94800.55		31403.44		544.12
70.		6.0		187.18		94799.61		31403.65		534.17
80.		7.0		186.07		94798.51		31403.89		524.23
90.		8.0		188.29		94797.23		31404.15		514.32
100.		8.3		187.18		94795.84		31404.42		504.42
110.		9.0		187.18		94794.36		31404.72		494.53
120.		10.0		187.18		94792.75		31405.05		484.67
130.		10.2		186.07		94791.03		31405.42		474.83
140.		11.5		183.84		94789.20		31405.86		465.01
150.		12.0		183.84		94787.23		31406.37		455.22
160.		12.2		184.96		94785.20		31406.88		445.44
170.		12.5		187.18		94783.11		31407.34		435.67
180.		12.5		187.18		94780.99		31407.76		425.91
190.		13.0		189.40		94778.82		31408.18		416.15
200.		13.1		189.40		94776.60		31408.55		406.41
210.		14.0		189.40		94774.29		31408.94		396.69
220.		15.0		191.62		94771.81		31409.31		387.01
230.		15.8		191.62		94769.18		31409.66		377.37
240.		16.0		192.73		94766.46		31410.00		367.75
250.		16.0		193.84		94763.72		31410.29	0.29	358.14
260.		15.8		194.96		94760.99		31410.53	0.24	348.52
270.		15.5		197.18		94758.30		31410.67	0.16	338.89
275.		16.0		196.07		94756.95		31410.77	0.16	334.08

280 755.54 31410.85 329.27
 281.2 94755.26 31410.87

GRONG GRUBER A/S

BORHULL NR : D51
MÅLEDATO : 6.10.83
ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 052
 ---DATE.....: 6.10.83

DEVIATION ANGLE (GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
5.00	.22	*	.00	.01	.00	.01	2
10.00	.01	-.21	.01	.02	.00	.03	3
20.00	.02	.00	.03	.05	.00	.06	4
30.00	.11	.10	.06	.08	.00	.10	5
40.00	.79	.67	.14	.16	.00	.21	6
50.00	1.11	.33	.34	.33	.00	.47	7
60.00	1.14	.02	.69	.59	.01	.91	8
70.00	1.13	-.01	1.20	.93	.03	1.52	9
80.00	.69	-.44	1.84	1.30	.06	2.25	10
90.00	.56	-.13	2.58	1.68	.09	3.07	11
100.00	.56	.00	3.39	2.09	.14	3.99	12
110.00	1.52	.96	4.36	2.55	.19	5.05	13
120.00	1.19	-.33	5.53	3.02	.28	6.31	14
130.00	1.12	-.07	6.89	3.52	.38	7.75	15
140.00	.28	-.84	8.35	4.02	.50	9.28	16
150.00	.52	.24	9.85	4.48	.62	10.84	17
160.00	.35	-.17	11.36	4.87	.75	12.38	18
170.00	.22	-.13	12.90	5.24	.87	13.95	19
180.00	.64	.41	14.49	5.58	1.01	15.56	20
190.00	.50	-.14	16.13	5.92	1.15	17.22	21
200.00	.40	-.10	17.90	6.26	1.29	18.92	22
210.00	.11	-.28	19.50	6.58	1.44	20.63	23
220.00	.50	.39	21.21	6.93	1.60	22.37	24
230.00	.00	-.50	22.92	7.33	1.75	24.12	25
240.00	.50	.50	24.62	7.76	1.91	25.89	26
250.00	1.35	.85	26.37	8.33	2.08	27.73	27
260.00	.00	-1.35	28.16	9.00	2.26	29.65	28

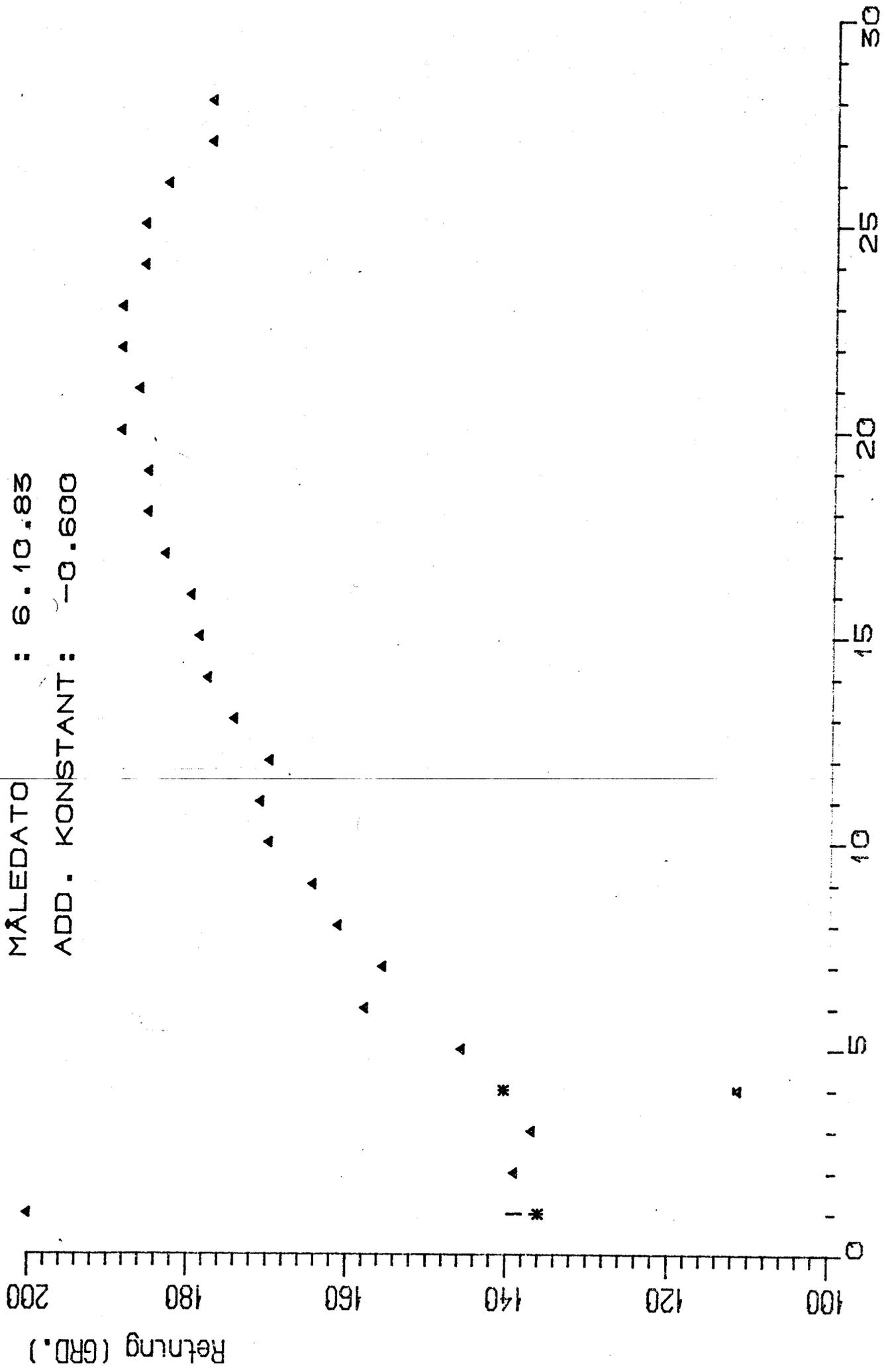
GRONG GRUBER A/S

BORHULL NR

ULL NR : D52

MÅLEDATO : 6.10.83

ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D53
 ---DATE.....: 6.10.83

DEVIATION ANGLE.(GRD)

DEVIATION.

DEPTH	DEV.ANGLE	DIF.	DX	DY	DZ	TOT.DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	.55	*	.04	.00	.00	.04	2
20.00	1.11	.56	.22	.01	.00	.22	3
30.00	1.44	.33	.59	.03	.01	.59	4
40.00	.56	-.88	1.12	.05	.02	1.12	5
50.00	1.05	.50	1.77	.10	.04	1.78	6
60.00	2.01	.95	2.65	.19	.05	2.67	7
70.00	1.71	-.30	3.83	.31	.15	3.84	8
80.00	1.45	-.26	5.23	.49	.26	5.26	9
90.00	.48	-.98	6.79	.65	.38	6.85	10
100.00	1.79	1.31	8.52	.80	.53	8.57	11
110.00	1.24	-.55	10.48	.94	.73	10.55	12
120.00	.78	-.46	12.60	1.07	.95	12.68	13
130.00	1.00	.22	14.85	1.21	1.21	14.95	14
140.00	1.67	.67	17.31	1.36	1.52	17.43	15
150.00	.63	-1.04	19.93	1.55	1.87	20.08	16
120.00	3.23	2.61	12.67	1.03	.97	12.74	17
130.00	1.00	-2.23	14.92	1.17	1.33	15.02	18
140.00	1.67	.67	17.38	1.32	1.54	17.49	19
150.00	.63	-1.04	20.00	1.50	1.89	20.14	20
160.00	.55	-.07	22.70	1.72	2.27	22.88	21
170.00	.31	-.25	25.45	1.91	2.65	25.66	22
180.00	.56	.25	28.16	2.08	3.03	28.40	23
190.00	.56	.00	30.87	2.25	3.40	31.14	24
200.00	.31	-.25	33.62	2.39	3.79	33.92	25
210.00	1.28	.97	36.46	2.57	4.20	36.79	26
220.00	.00	-1.28	39.37	2.80	4.64	39.74	27
230.00	.39	.39	42.27	3.01	5.07	42.68	28
240.00	.89	.50	45.09	3.18	5.48	45.53	29
250.00	.01	-.88	47.84	3.35	5.87	48.31	30
260.00	1.11	1.10	50.50	3.52	6.23	51.01	31
270.00	.29	-.82	53.09	3.70	6.57	53.82	32
280.00	.29	.00	55.66	3.93	6.91	56.23	33
285.00	.29	.00	58.95	4.04	7.08	57.53	34

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D53
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S

D53

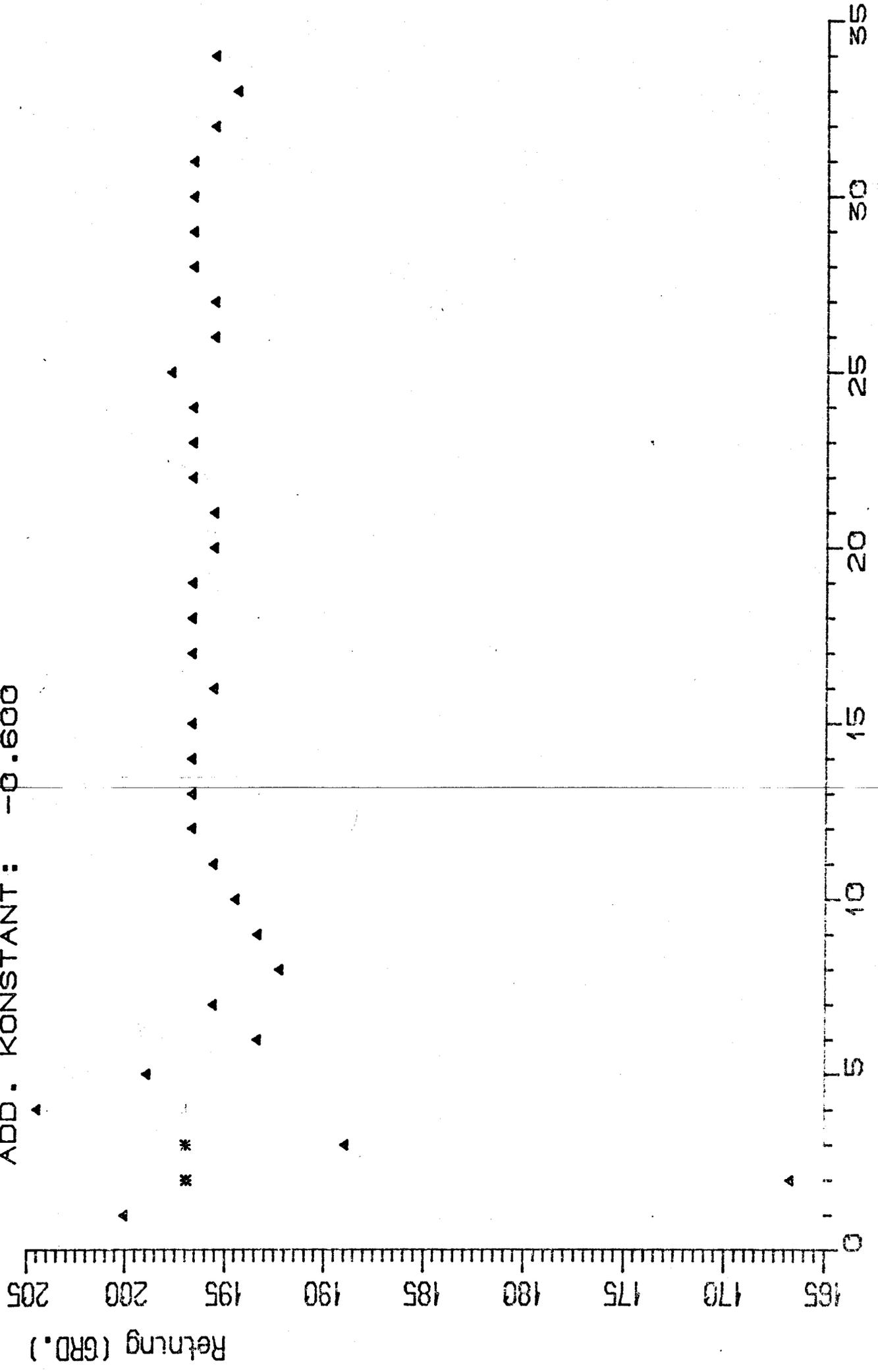
I*****

MEASURED DATA				COMPUTED DATA			
MEASURED	INCLINATION	AZIMUTH	X-KOORD	Y-KOORD	Z-KOORD		
DEPTH	360 DEG	400 GRD	(M)	(M)	(M)		
0.	0	199.40	94998.93	31299.55	609.97		
10.	0.5	196.34	94998.88	31299.55	599.97		
20.	1.5	196.37	94998.71	31299.56	589.97		
30.	2.8	196.37	94998.33	31299.58	579.98		
40.	3.3	198.29	94997.80	31299.60	570.00		
50.	4.2	192.73	94997.15	31299.65	560.02		
60.	6.0	194.96	94996.27	31299.74	550.06		
70.	7.5	191.62	94995.10	31299.86	540.13		
80.	8.8	192.73	94993.69	31300.03	530.23		
90.	9.2	193.84	94992.14	31300.20	520.35		
100.	10.8	194.96	94990.41	31300.35	510.50		
110.	11.9	196.07	94988.45	31300.49	500.70		
120.	12.6	196.07	94986.33	31300.62	490.93		
130.	13.5	196.07	94984.09	31300.76	481.19		
140.	15.0	196.07	94981.62	31300.91	471.49		
150.	15.5	194.96	94979.00	31301.10	461.85		
160.	12.6	196.07	94986.26	31300.58	490.93		
170.	13.5	196.07	94984.01	31300.72	481.20		
180.	15.0	196.07	94981.55	31300.87	471.51		
190.	15.5	194.96	94978.93	31301.05	461.86		
200.	16.0	194.96	94976.22	31301.27	452.24		
210.	16.0	196.07	94973.47	31301.46	442.63		
220.	15.5	196.07	94970.76	31301.63	433.00		
230.	16.0	196.07	94968.06	31301.80	423.38		
240.	16.0	197.18	94965.30	31301.94	413.76		
250.	17.0	194.96	94962.47	31302.12	404.16		
260.	17.0	194.96	94959.56	31302.35	394.61		
270.	16.8	196.07	94956.66	31302.56	385.05		
280.	16.0	196.07	94953.84	31302.73	375.45		
290.	16.0	196.07	94951.09	31302.90	365.84		
300.	15.0	196.07	94948.33	31303.06	356.22		
310.	15.0	194.96	94945.54	31303.25	346.54		
320.	15.0	193.84	94943.26	31303.47	336.89		
330.	15.0	194.96	94941.89	31303.59	327.06		

287,50 94941,33 31303,64 329,65

GRONG GRUBER A/S

BORHULL NR : D53
MÅLEDATO : 6.10.83
ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D54
 ---DATE.....: 6.10.83

DEVIATION ANGLE (GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
0.00	*	*	0.00	0.00	0.00	0.00	1
10.00	0.00	*	0.00	0.00	0.00	0.00	2
20.00	0.00	0.00	0.00	0.00	0.00	0.00	3
30.00	0.00	0.00	0.00	0.00	0.00	0.00	4
40.00	1.67	1.67	.13	.02	0.00	.13	5
50.00	.78	-.88	.45	.06	.01	.45	6
60.00	.71	-.08	.88	.13	.02	.89	7
70.00	.35	-.38	1.38	.23	.03	1.40	8
80.00	1.23	.88	2.01	.34	.05	2.04	9
90.00	1.57	.34	2.85	.50	.09	2.89	10
100.00	.50	-1.07	3.85	.65	.14	3.90	11
110.00	2.00	1.51	5.04	.81	.21	5.11	12
120.00	2.50	.49	6.57	1.00	.33	6.66	13
130.00	1.18	-1.31	8.39	1.14	.50	8.48	14
140.00	1.68	.50	10.42	1.28	.71	10.52	15
150.00	.61	-1.07	12.62	1.43	.96	12.74	16
160.00	.55	-.06	14.88	1.61	1.22	15.02	17
170.00	1.03	.48	17.23	1.81	1.50	17.39	18
180.00	1.04	0.00	19.73	2.03	1.82	19.82	19
190.00	.01	-1.03	22.31	2.27	2.16	22.53	20
200.00	1.07	1.06	24.95	2.57	2.52	25.20	21
210.00	.38	-.69	27.67	2.90	2.90	27.97	22
220.00	.61	.24	30.41	3.17	3.29	30.75	23
230.00	1.28	.67	33.24	3.34	3.70	33.61	24
240.00	.32	-.95	36.16	3.44	4.14	36.56	25
250.00	.22	-.10	39.10	3.51	4.58	39.53	26
260.00	.69	.47	42.04	3.64	5.02	42.49	27
270.00	.40	-.30	44.97	3.79	5.46	45.46	28
280.00	.84	.45	47.87	3.89	5.89	48.39	29
290.00	.64	-.21	50.67	3.98	6.29	51.31	30
300.00	.56	-.08	53.68	4.10	6.67	53.95	31
305.00	.63	.08	54.73	4.15	6.86	55.32	32

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D54
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D54

I*****
 I MEASURED DATA I COMPUTED DATA
 I-----

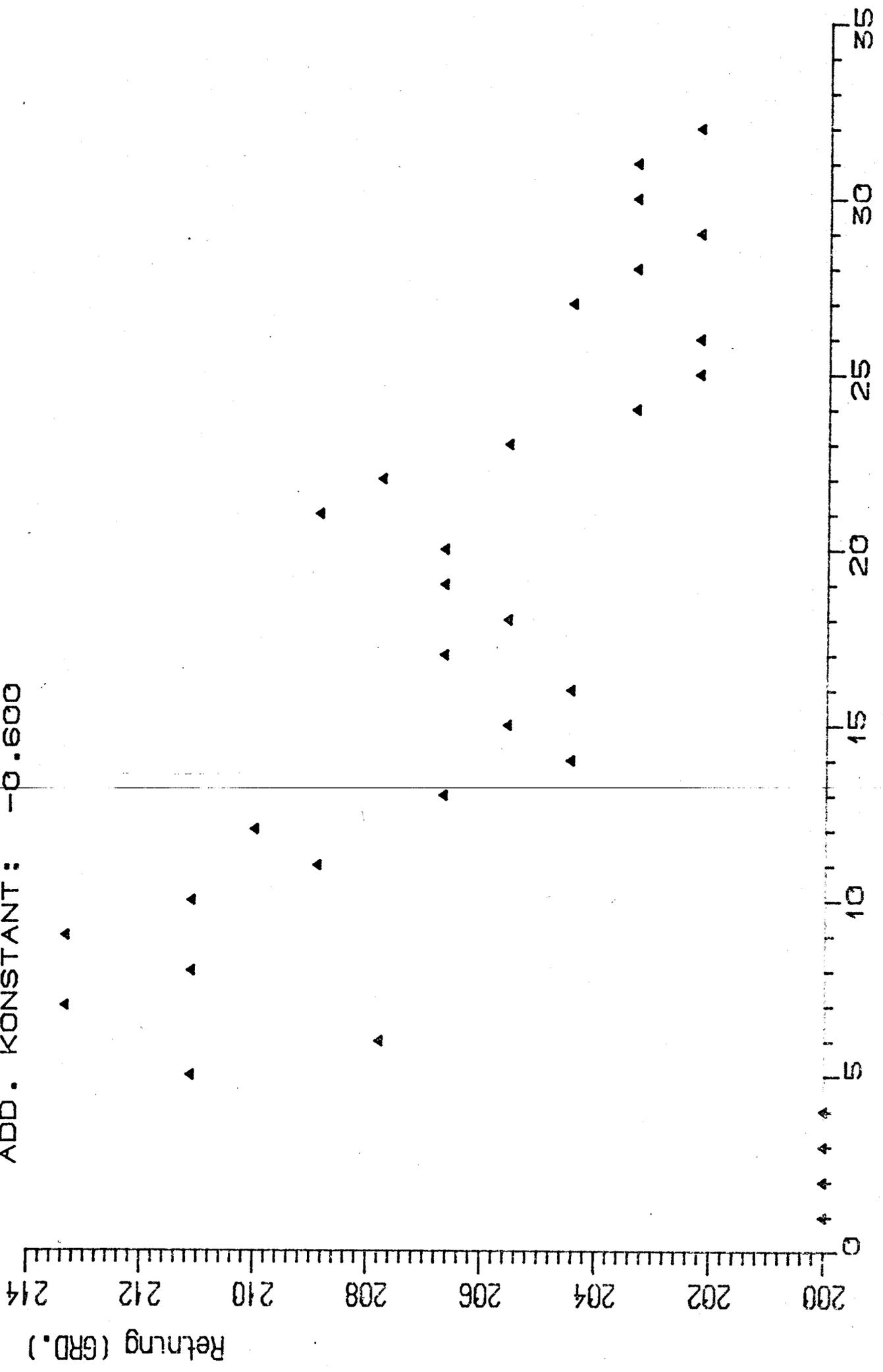
I	MEASURED I	I	I	I	I	I	I
I	DEPTH	I	INCLINATION	I	AZIMUTH	I	X-KOORD
I	(M)	I	360 DEG	I	400 GRD	I	(M)
I		I		I		I	(M)
I	0.	I	.0	I	199.40	I	94950.24
I	10.	I	.0	I	199.40	I	94950.24
I	20.	I	.0	I	199.40	I	94950.24
I	30.	I	.0	I	199.40	I	94950.24
I	40.	I	1.5	I	210.51	I	94950.11
I	50.	I	2.2	I	207.18	I	94949.79
I	60.	I	2.8	I	212.73	I	94949.36
I	70.	I	3.1	I	210.51	I	94948.86
I	80.	I	4.2	I	212.73	I	94948.23
I	90.	I	5.6	I	210.51	I	94947.39
I	100.	I	6.0	I	208.29	I	94946.39
I	110.	I	7.8	I	209.40	I	94945.20
I	120.	I	10.0	I	206.07	I	94943.67
I	130.	I	11.0	I	203.84	I	94941.85
I	140.	I	12.5	I	204.96	I	94939.82
I	150.	I	13.0	I	203.84	I	94937.62
I	160.	I	13.2	I	206.07	I	94935.36
I	170.	I	14.1	I	204.96	I	94933.01
I	180.	I	15.0	I	206.07	I	94930.51
I	190.	I	15.0	I	206.07	I	94927.93
I	200.	I	15.8	I	208.29	I	94925.29
I	210.	I	16.0	I	207.18	I	94922.58
I	220.	I	16.0	I	204.96	I	94919.83
I	230.	I	17.0	I	202.73	I	94917.00
I	240.	I	17.0	I	201.62	I	94914.08
I	250.	I	17.2	I	201.62	I	94911.14
I	260.	I	17.0	I	203.84	I	94908.20
I	270.	I	17.2	I	202.73	I	94905.27
I	280.	I	16.5	I	201.62	I	94902.37
I	290.	I	16.0	I	202.73	I	94899.57
I	300.	I	15.5	I	202.73	I	94896.86
I	305.	I	16.0	I	201.62	I	94895.51

290
 280
 271
 2.71
 0.10
 0.09
 0.12
 0.10
 9.57
 9.60
 9.61
 9.62

310.70 94893.96 31245.77 312.80

RONG GRUBER A/S

BORHULL NR : D54
MÅLEDATO : 6.10.83
ADD. KONSTANT: -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D55
 ---DATE.....: 6.10.83

DEVIATION ANGLE (GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	.00	*	.00	.00	.00	.00	2
20.00	.00	.00	.00	.00	.00	.00	3
30.00	1.11	1.11	.09	.01	.00	.09	4
40.00	1.11	.00	.35	.03	.00	.35	5
50.00	1.57	.46	.78	.16	.01	.79	6
60.00	1.44	-.13	1.40	.41	.04	1.46	7
70.00	1.21	-.23	2.18	.79	.08	2.32	8
80.00	1.11	-.10	3.11	1.27	.13	3.36	9
90.00	.78	-.33	4.16	1.83	.20	4.55	10
100.00	.91	.13	5.32	2.47	.29	5.87	11
110.00	1.16	.25	6.59	3.22	.40	7.35	12
120.00	.77	-.39	7.94	4.10	.53	8.95	13
130.00	1.25	.48	9.34	5.12	.68	10.67	14
140.00	1.46	.21	10.86	6.31	.87	12.58	15
150.00	1.21	-.25	12.55	7.61	1.10	14.72	16
160.00	.22	-.99	14.34	8.94	1.35	16.95	17
170.00	1.14	.97	16.23	10.31	1.63	19.30	18
180.00	.56	-.59	18.23	11.74	1.94	21.77	19
190.00	.67	.07	20.32	13.20	2.27	24.34	20
200.00	.56	-.07	22.48	14.69	2.62	26.99	21
210.00	.44	-.11	24.65	16.21	2.98	29.65	22
220.00	.22	-.22	26.77	17.73	3.32	32.28	23
230.00	.29	.07	28.89	19.21	3.66	34.89	24
240.00	.37	.08	31.05	20.67	4.01	37.51	25
250.00	.88	.51	33.26	22.06	4.35	40.15	26

DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: D55
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S D55

MEASURED DATA				COMPUTED DATA			
DEPTH (M)	INCLINATION (360 DEG)	AZIMUTH (400 GRD)	X-KOORD (M)	Y-KOORD (M)	Z-KOORD (M)		
0.	.0	199.40	94950.40	30750.70	645.20		

10.	.0	199.40	94950.40	30750.70	635.20
20.	.0	199.40	94950.40	30750.70	625.20
30.	1.0	193.84	94950.31	30750.71	615.20
40.	2.0	193.84	94950.05	30750.73	605.20
50.	3.2	174.96	94949.62	30750.86	595.21
60.	4.5	174.96	94949.00	30751.11	585.23
70.	5.5	169.40	94948.21	30751.49	575.27
80.	6.5	169.40	94947.29	30751.97	565.33
90.	7.2	166.65	94946.23	30752.53	555.40
100.	8.0	167.18	94945.03	30753.17	545.49
110.	9.0	164.96	94943.80	30753.92	535.60
120.	9.5	161.62	94942.48	30754.80	525.73
130.	10.5	158.29	94941.08	30755.82	515.88
140.	11.6	157.18	94939.54	30757.01	506.07
150.	12.6	159.40	94937.85	30758.31	496.30
160.	13.0	159.40	94936.05	30759.64	486.55
170.	14.0	160.51	94934.17	30761.01	476.82
180.	14.5	160.51	94932.15	30762.44	467.13
190.	15.0	161.62	94930.08	30763.90	457.46
200.	15.5	161.62	94927.91	30765.39	447.81
210.	15.2	160.51	94925.75	30766.91	438.17
220.	15.0	160.51	94923.63	30768.43	428.52
230.	15.0	161.62	94921.51	30769.91	418.83
240.	15.2	162.73	94919.35	30771.37	409.20
250.	15.1	166.07	94917.14	30772.78	399.55

260 - 2.26
 270 - 2.31
 x 2.31

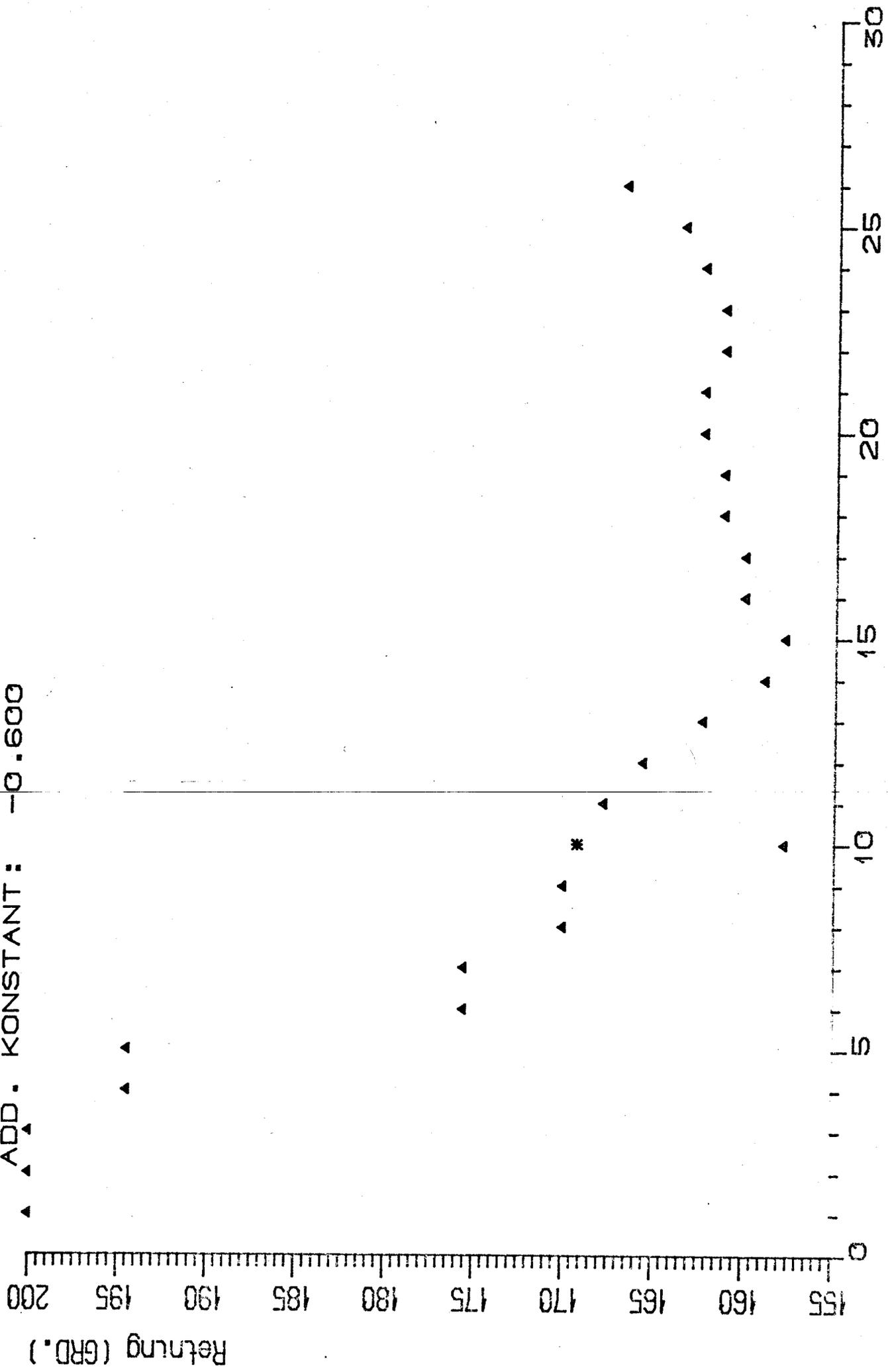
270	912.52	30775.54	380.23
280	910.21	76.93	370.57
290	907.90	78.32	360.91
300	905.59	79.71	351.25
305.50	94944.32	30780.42	345.94

GRONG GRUBER A/S

BORHULL NR : D55

MÅLEDATO : 6.10.83

ADD. KONSTANT : -0.600



DEVIATION CALCULATION.

---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 56D
 ---DATE.....: 6.10.83

DEVIATION ANGLE.(GRD)

DEVIATION.

DEPTH	DEV. ANGLE	DIF.	DX	DY	DZ	TOT. DEV.	POINT
.00	*	*	.00	.00	.00	.00	1
10.00	.00	*	.00	.00	.00	.00	2
20.00	.22	.22	.01	.01	.00	.02	3
30.00	.33	.11	.06	.05	.00	.08	4
40.00	1.89	1.55	.23	.21	.00	.31	5
50.00	.02	-1.87	.52	.47	.01	.70	6
60.00	.89	.87	.86	.77	.02	1.15	7
70.00	1.12	.23	1.32	1.16	.04	1.76	8
80.00	.23	-.89	1.87	1.62	.07	2.47	9
90.00	.89	.66	2.50	2.12	.10	3.28	10
100.00	.30	-.59	3.20	2.66	.14	4.16	11
110.00	1.05	.75	3.97	3.27	.19	5.15	12
120.00	.61	-.45	4.83	3.91	.24	6.22	13
130.00	1.03	.43	5.79	4.55	.31	7.37	14
140.00	1.12	.09	6.92	5.25	.40	8.69	15
150.00	.69	-.43	8.17	6.00	.51	10.15	16
160.00	.37	-.31	9.50	6.77	.63	11.68	17
170.00	.37	-.01	10.88	7.52	.75	13.25	18
180.00	.80	.43	12.34	8.27	.89	14.88	19
190.00	.38	-.41	13.89	9.03	1.04	16.60	20
200.00	.44	.06	15.51	9.80	1.20	18.38	21
210.00	.39	-.03	17.17	10.61	1.37	20.23	22
220.00	.46	.08	18.87	11.43	1.55	22.12	23
230.00	.22	-.25	20.62	12.22	1.74	24.04	24
240.00	.22	-.01	22.38	13.05	1.93	25.98	25
250.00	.70	.49	24.19	13.89	2.13	27.97	26
260.00	.57	-.13	26.05	14.78	2.34	30.05	27
270.00	.26	-.31	27.93	15.74	2.57	32.16	28
280.00	.82	.56	29.83	16.77	2.81	34.34	29
290.00	.33	-.49	31.76	17.86	3.06	36.58	30
300.00	1.91	1.58	33.76	19.08	3.33	38.93	31
310.00	.54	-1.37	35.78	20.42	3.63	41.36	32
320.00	.55	.04	37.83	21.87	3.92	43.77	33
330.00	1.22	.64	39.79	22.88	4.19	46.09	34
340.00	1.04	-.16	41.63	23.99	4.43	48.25	35

DEVIATION CALCULATION

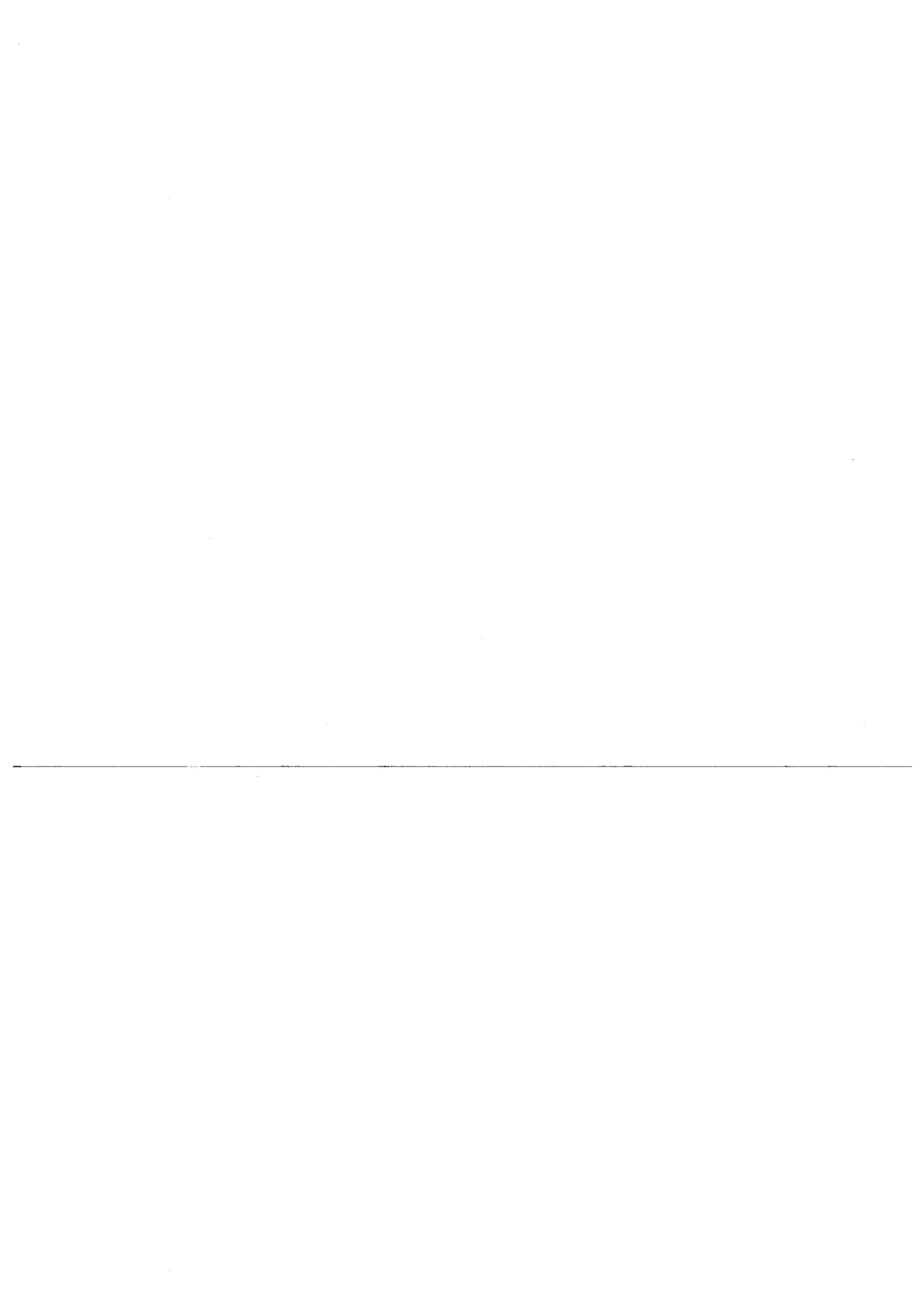
---NAME.....: GRONG GRUBER A/S
 ---HOLE NO.....: 56D
 ---DATE.....: 6.10.83
 ---CALCULATION METHOD: CORD ANGLE

GRONG GRUBER A/S 56D

MEASURED DATA					COMPUTED DATA					
MEASURED	I	I	I	I	I	I	I	I	I	
DEPTH	I	INCLINATION	I	AZIMUTH	I	X-KOORD	I	Y-KOORD	I	Z-KOORD
(M)	I	360 DEG	I	400 GRD	I	(M)	I	(M)	I	(M)

0.		.0		150.54		94746.00		30750.00		645.00
10.		.0		150.50		94746.00		30750.00		635.00
20.		.2		149.40		94745.99		30750.01		625.00
30.		.5		154.96		94745.94		30750.05		615.00
40.		2.2		153.11		94745.77		30750.21		605.00
50.		2.2		153.64		94745.48		30750.47		595.01
60.		3.0		153.84		94745.14		30750.77		585.02
70.		4.0		155.92		94744.68		30751.16		575.04
80.		4.2		158.78		94744.13		30751.62		565.07
90.		5.0		157.18		94743.50		30752.12		555.10
100.		5.2		159.40		94742.80		30752.66		545.14
110.		6.1		156.07		94742.03		30753.27		535.19
120.		6.2		161.62		94741.17		30753.91		525.24
130.		7.1		163.86		94740.21		30754.55		515.31
140.		8.1		164.96		94739.08		30755.25		505.40
150.		8.7		166.07		94737.83		30756.00		495.51
160.		9.0		167.18		94736.50		30756.77		485.63
170.		9.1		169.40		94735.12		30757.52		475.75
180.		9.8		170.51		94733.66		30758.27		465.89
190.		10.1		171.62		94732.11		30759.03		456.04
200.		10.5		171.62		94730.49		30759.80		446.20
210.		10.8		170.51		94728.83		30760.61		436.37
220.		11.0		172.73		94727.13		30761.43		426.55
230.		11.2		172.73		94725.38		30762.22		416.74
240.		11.2		171.62		94723.62		30763.05		406.93
250.		11.2		172.73		94721.81		30763.85		397.13
260.		12.1		170.51		94719.95		30764.72		387.34
270.		12.2		169.40		94718.07		30765.74		377.57
280.		12.8		167.18		94716.17		30766.77		367.81
290.		13.0		168.29		94714.22		30767.86		358.06
300.		14.0		161.82		94712.24		30769.08		348.33
310.		14.0		163.84		94710.22		30770.42		338.62
320.		13.8		166.07		94708.17		30771.87		328.92
330.		12.8		163.84		94706.21		30772.88		319.24
340.		12.1		167.18		94704.37		30773.99		309.58

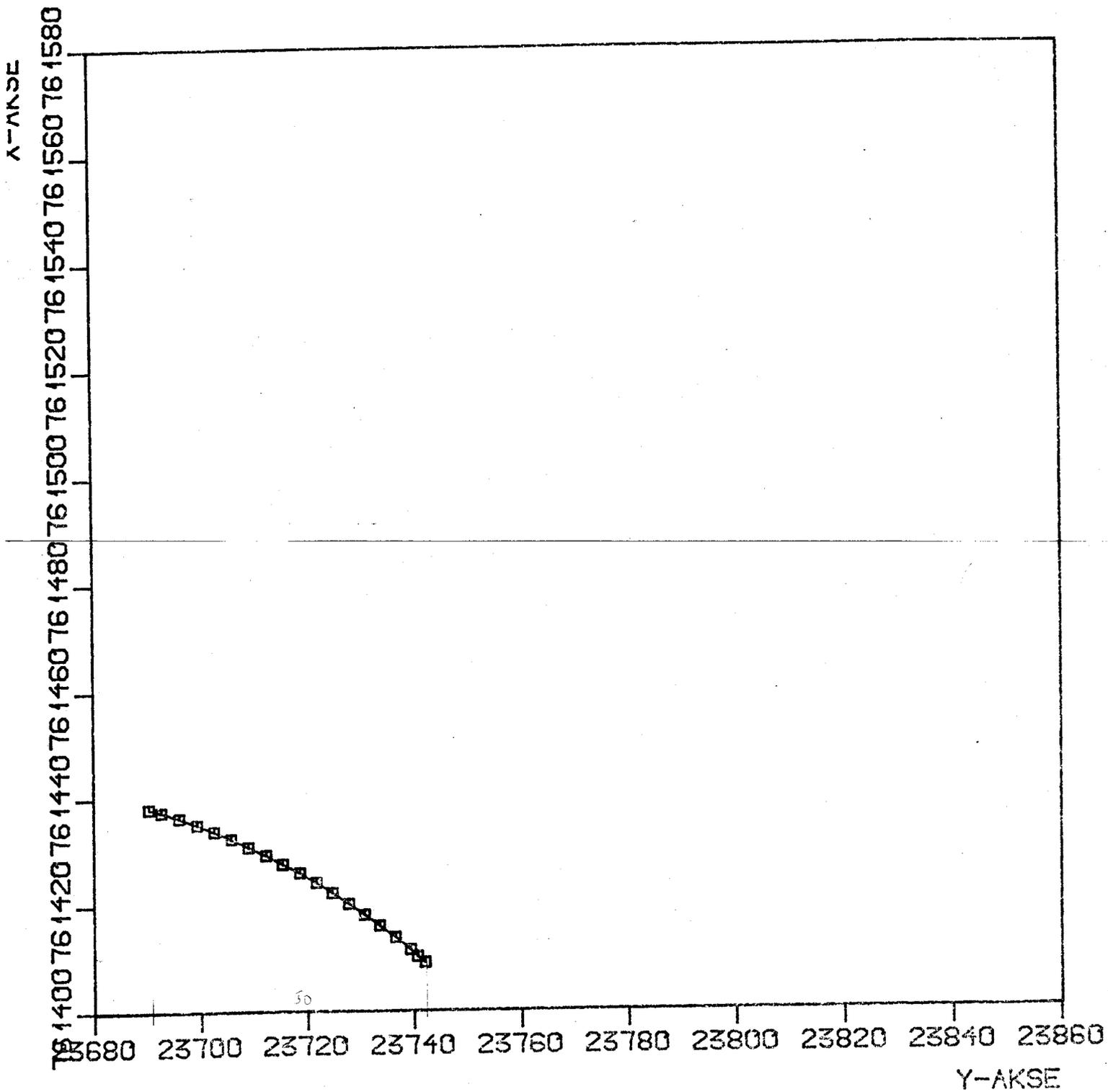
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 9.75
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VEDLEGG

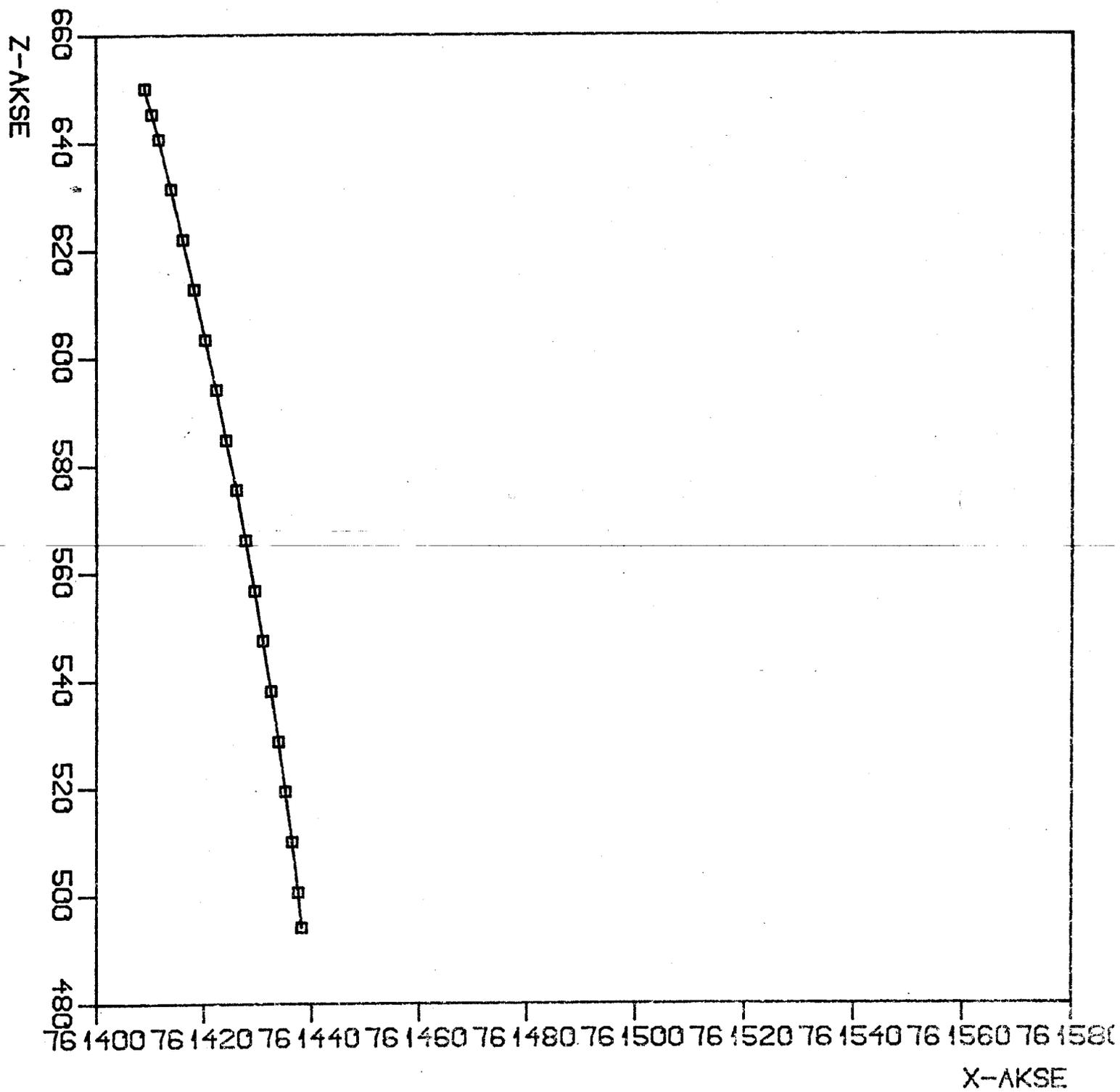
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BORHULL : 13/83



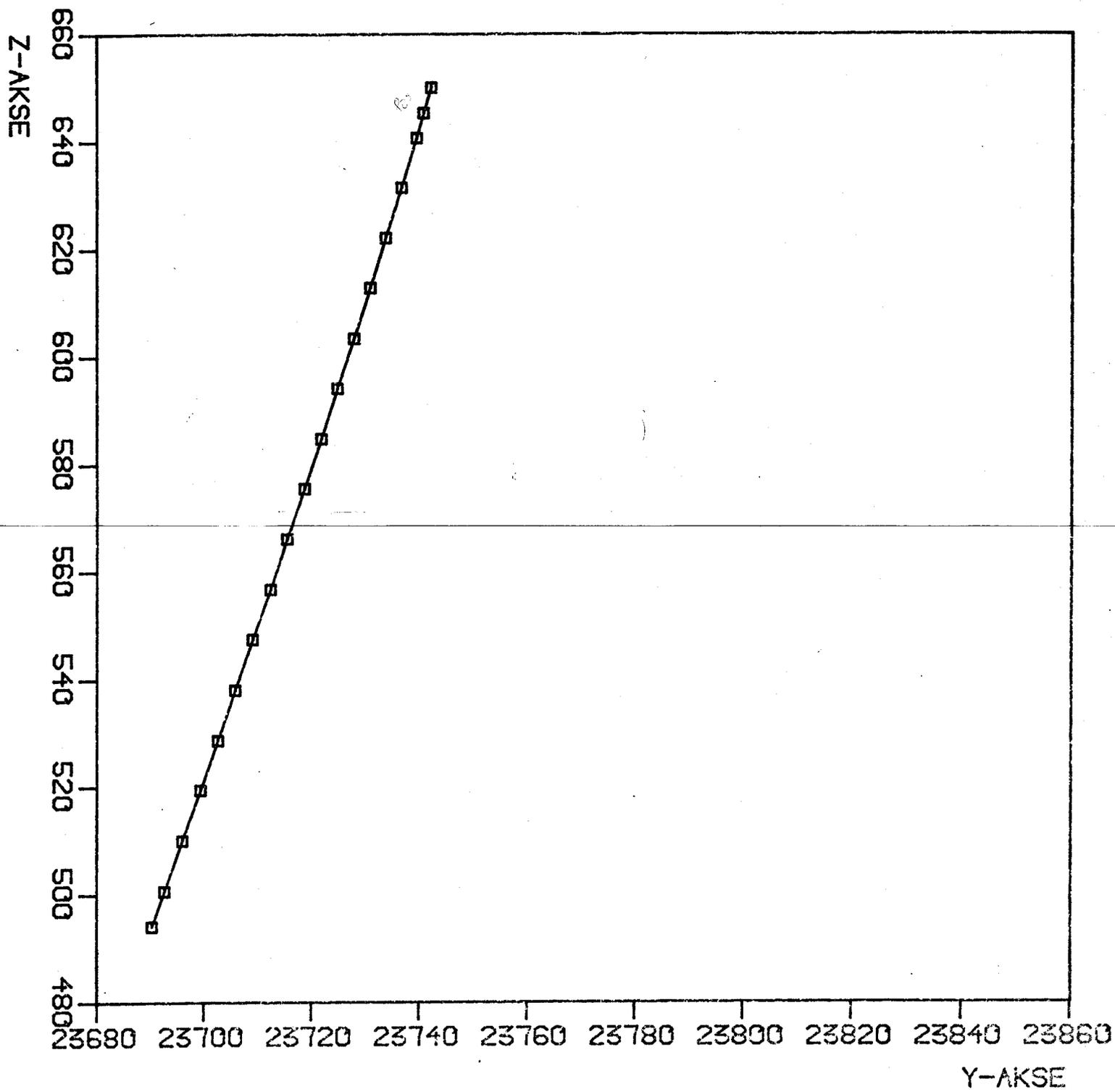
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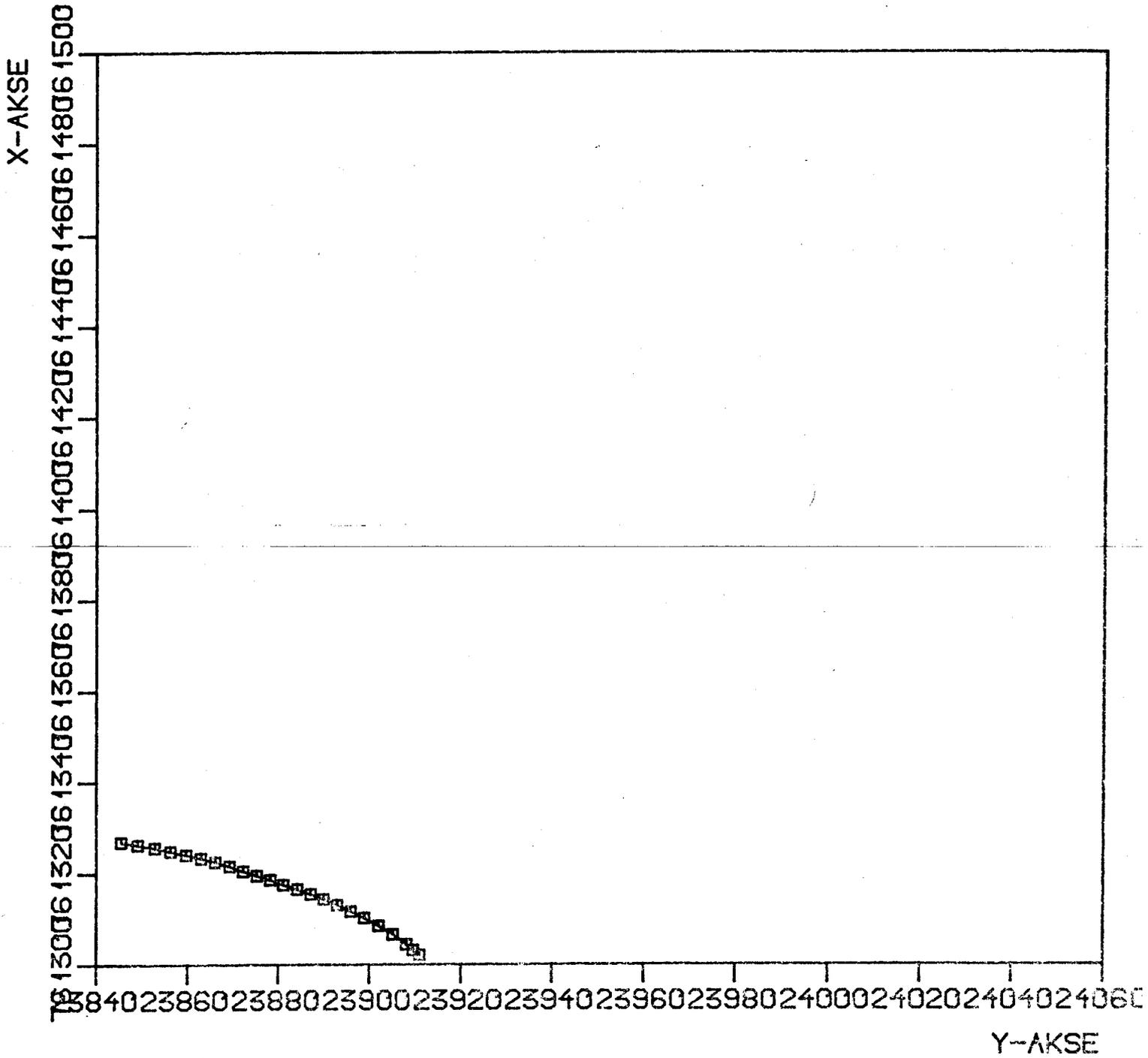
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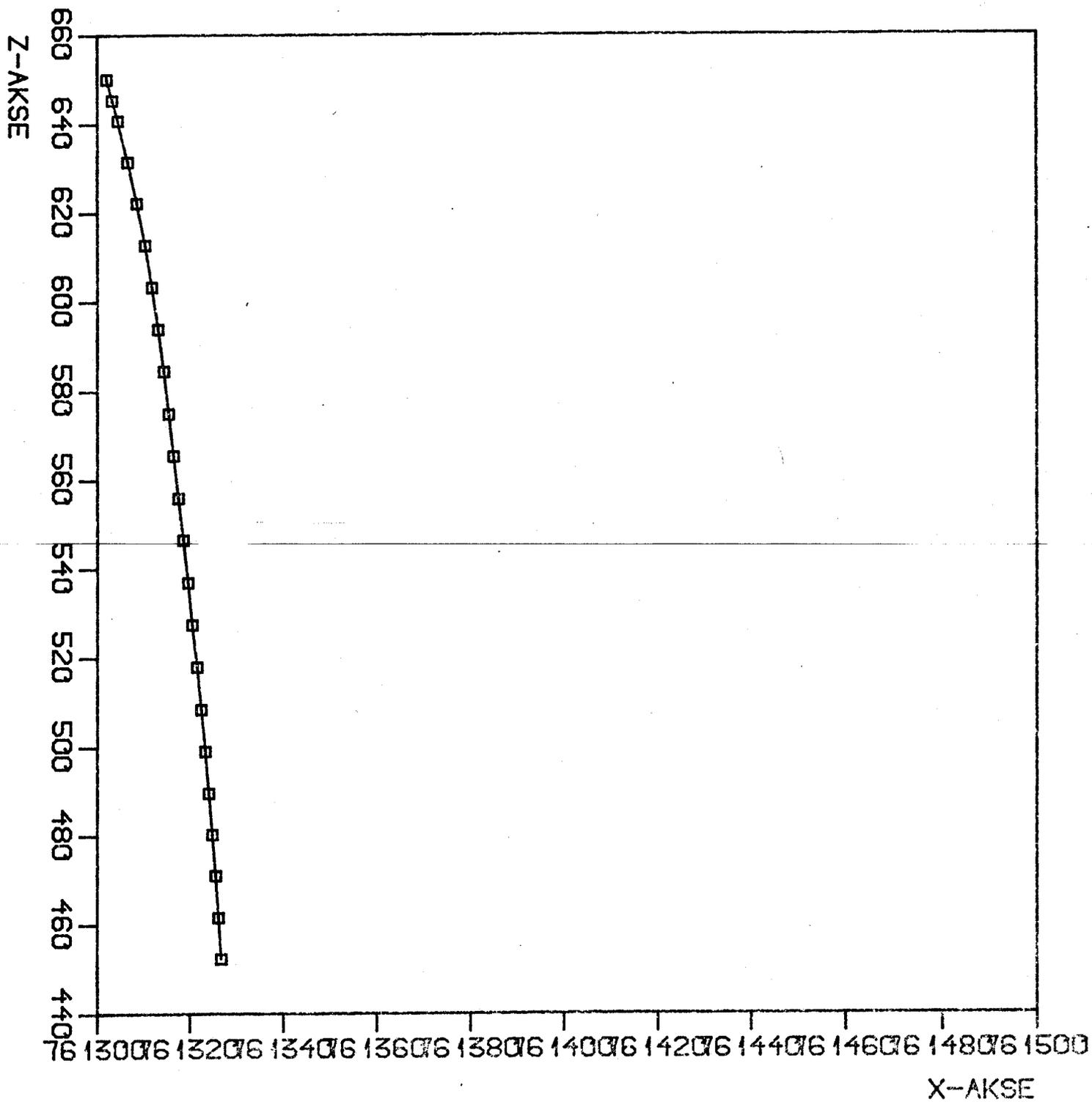
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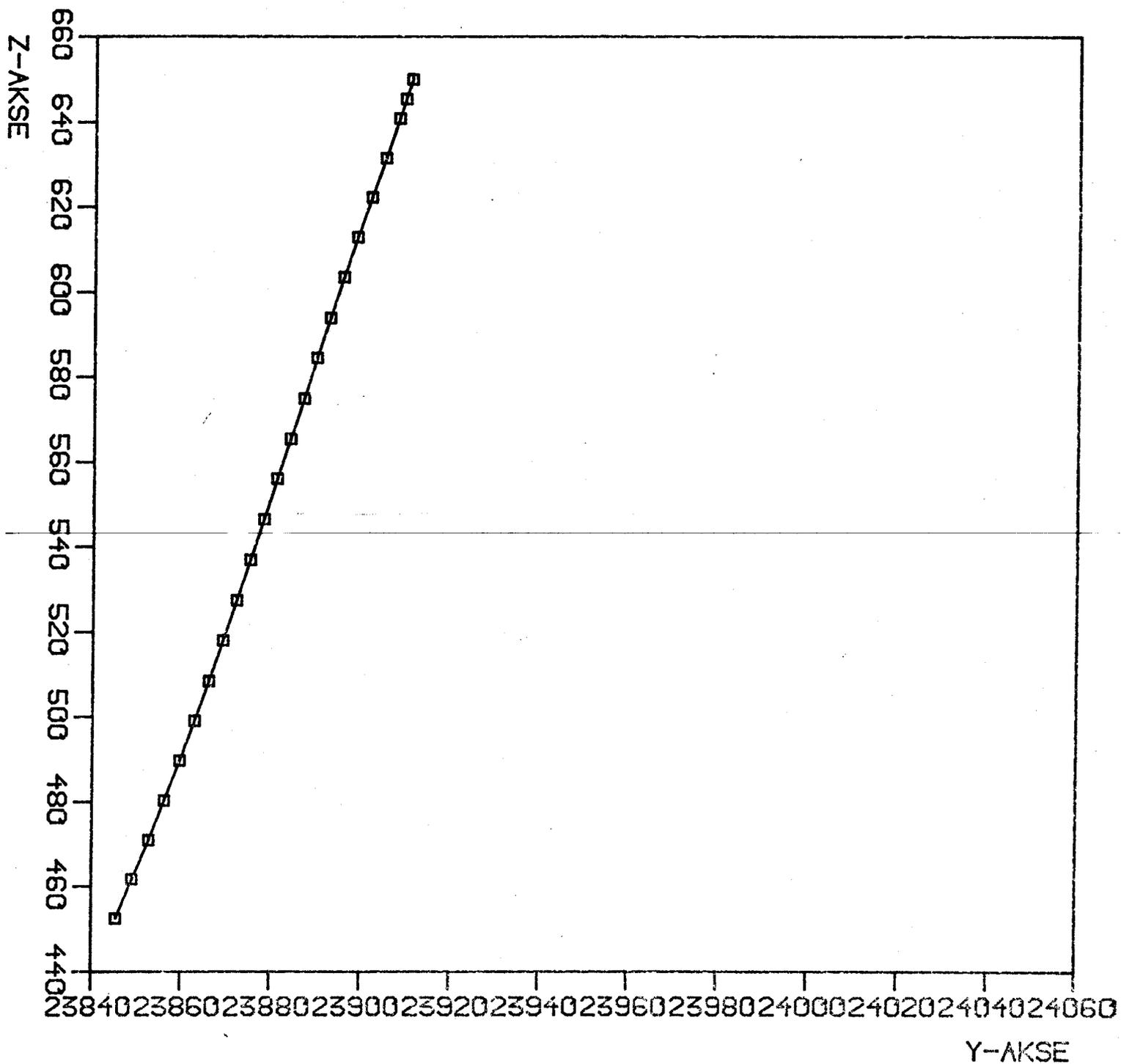
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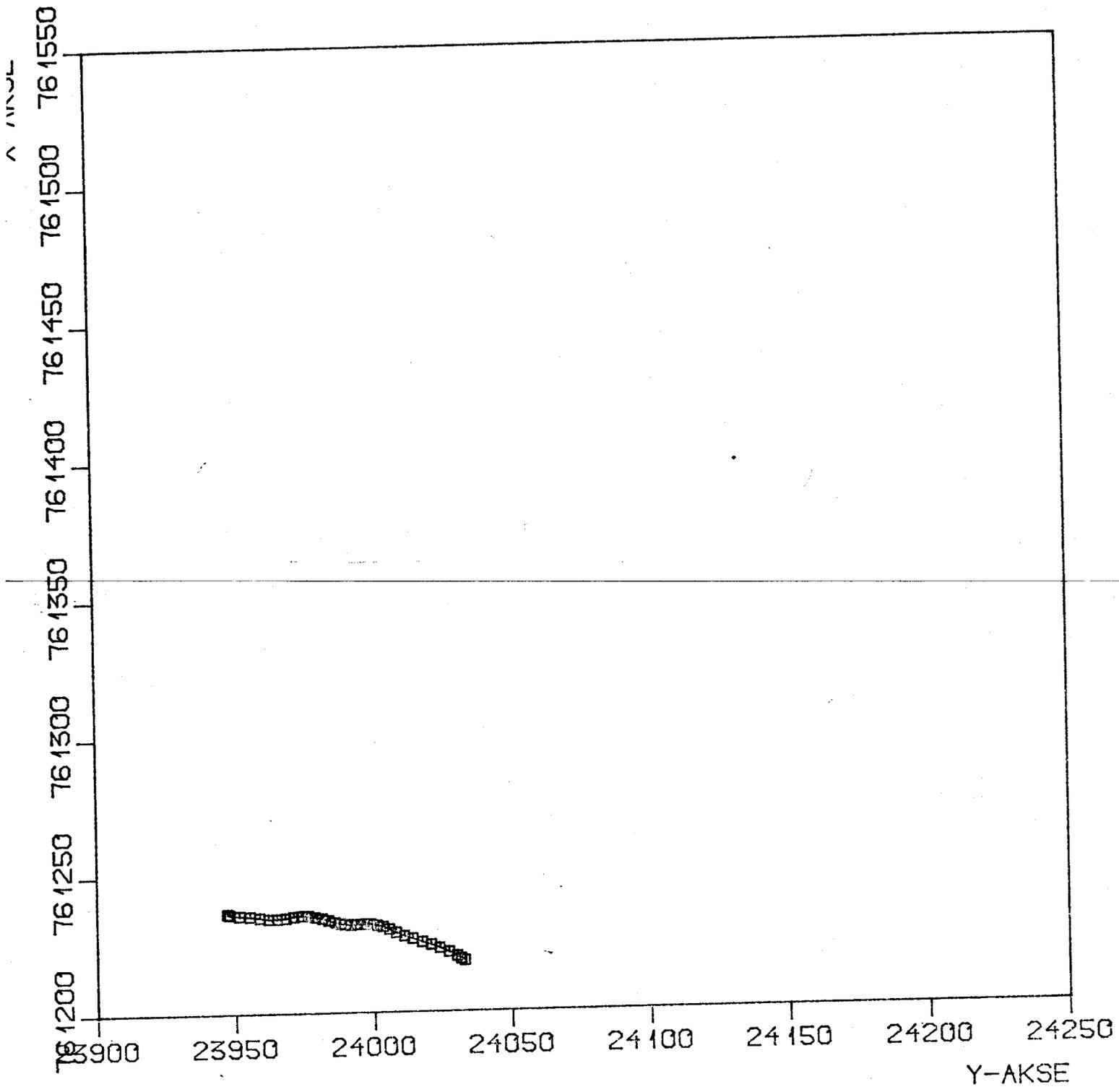
GRONG GRUBER A/S

BORHULL : 14/83



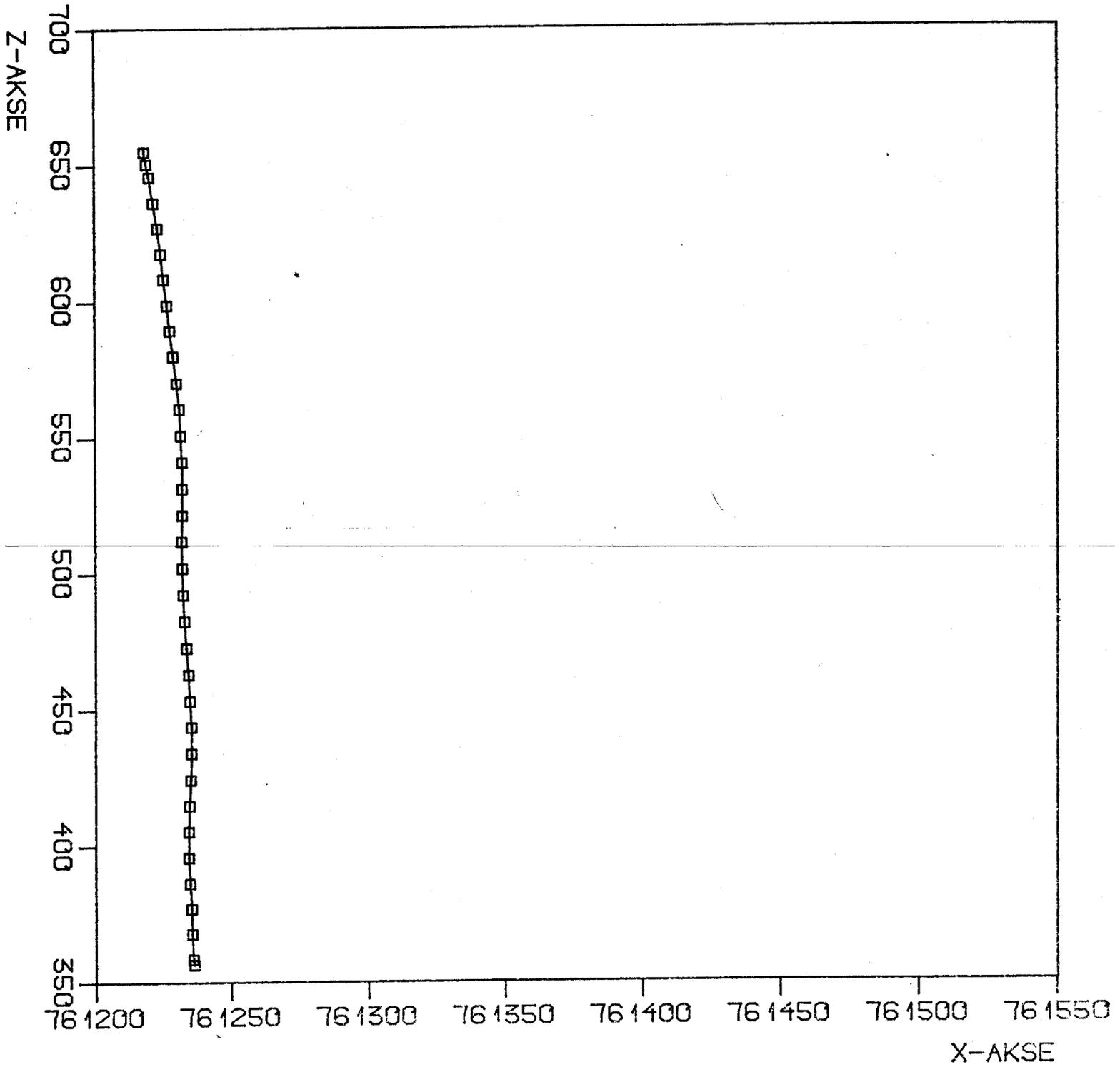
GRONG GRUBER A/S

BORHULL : 15/83



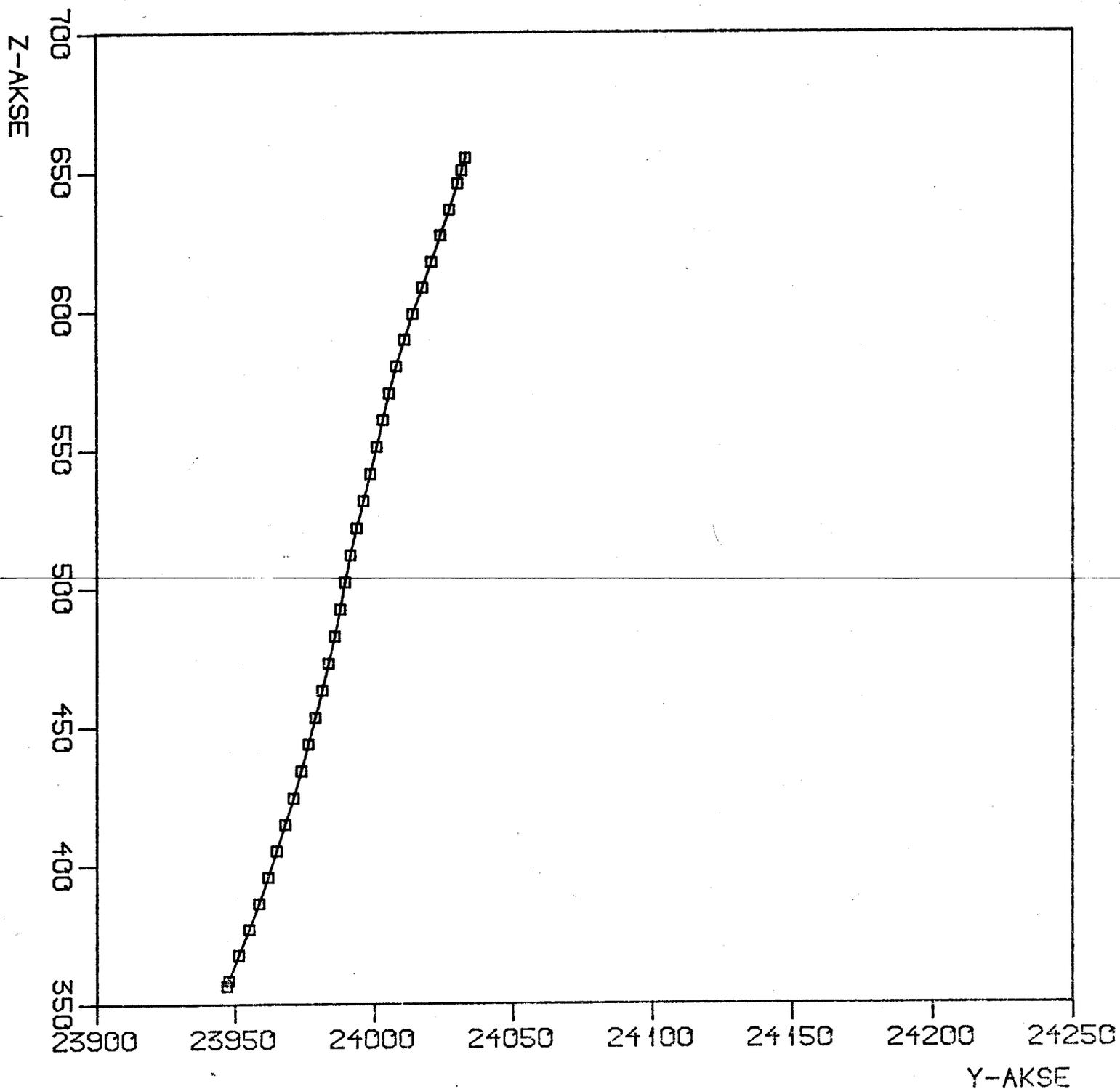
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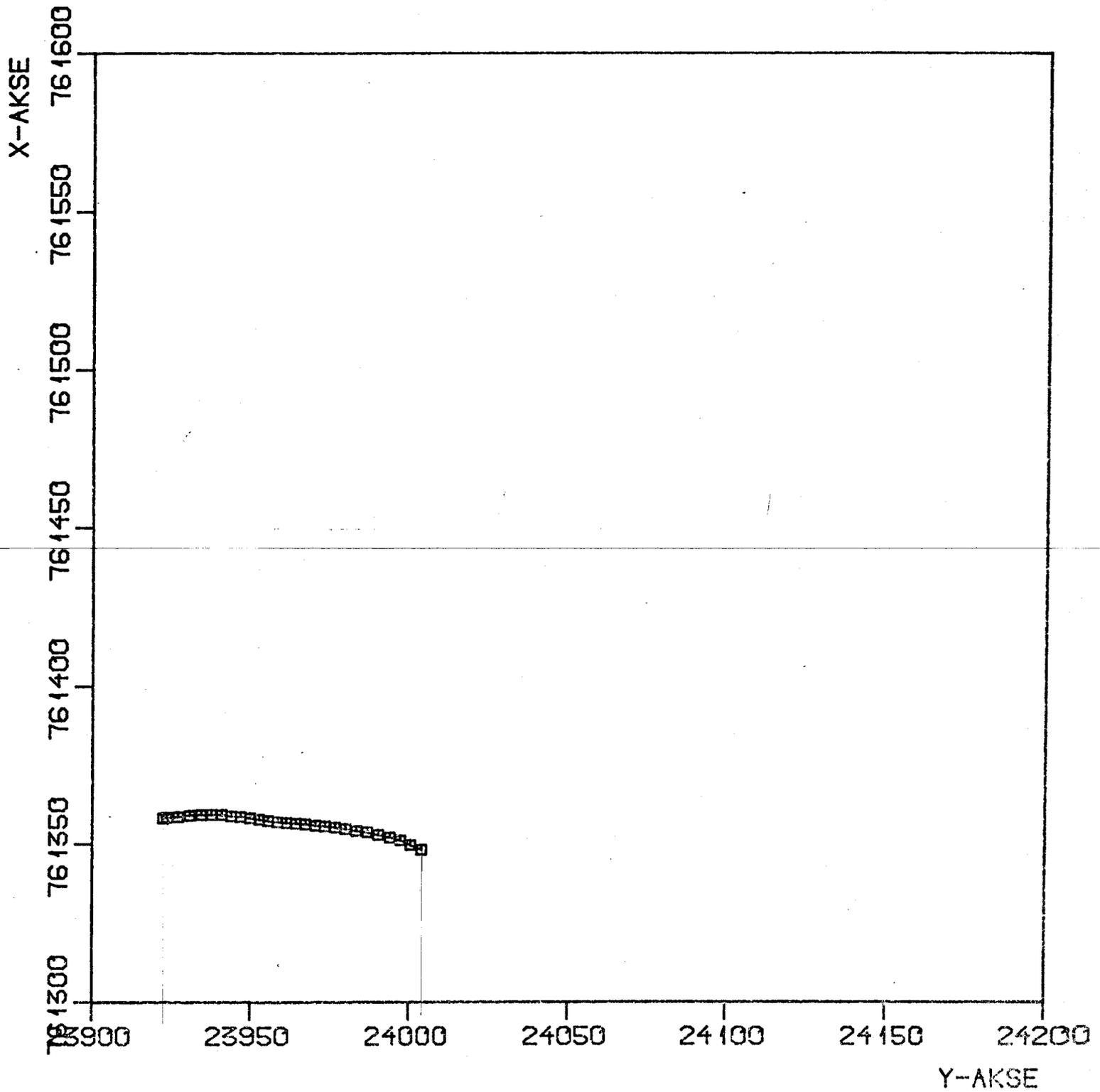
GRONG GRUBER A/S

BORHULL : 15/83



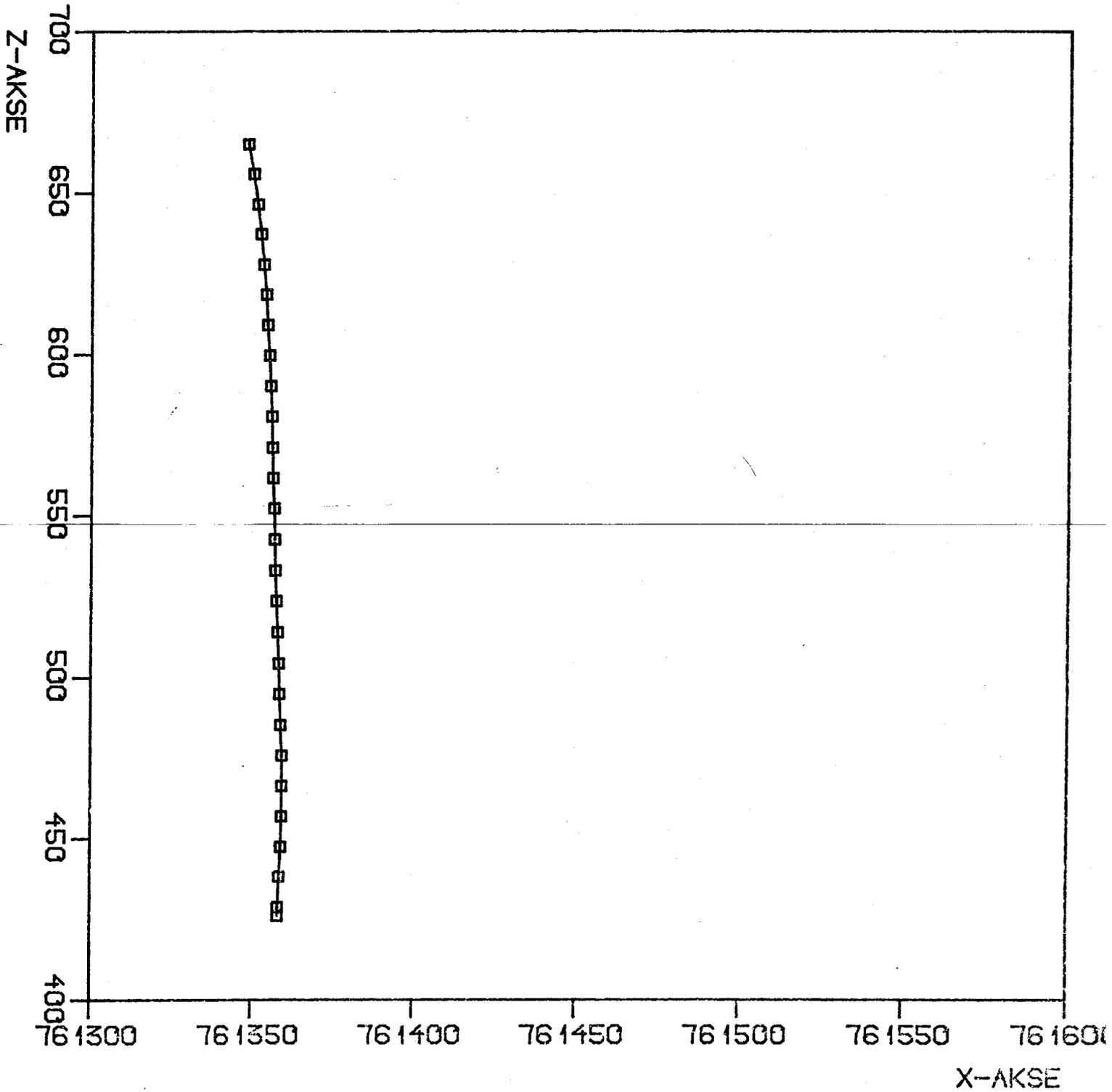
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BORHULL : 16/83



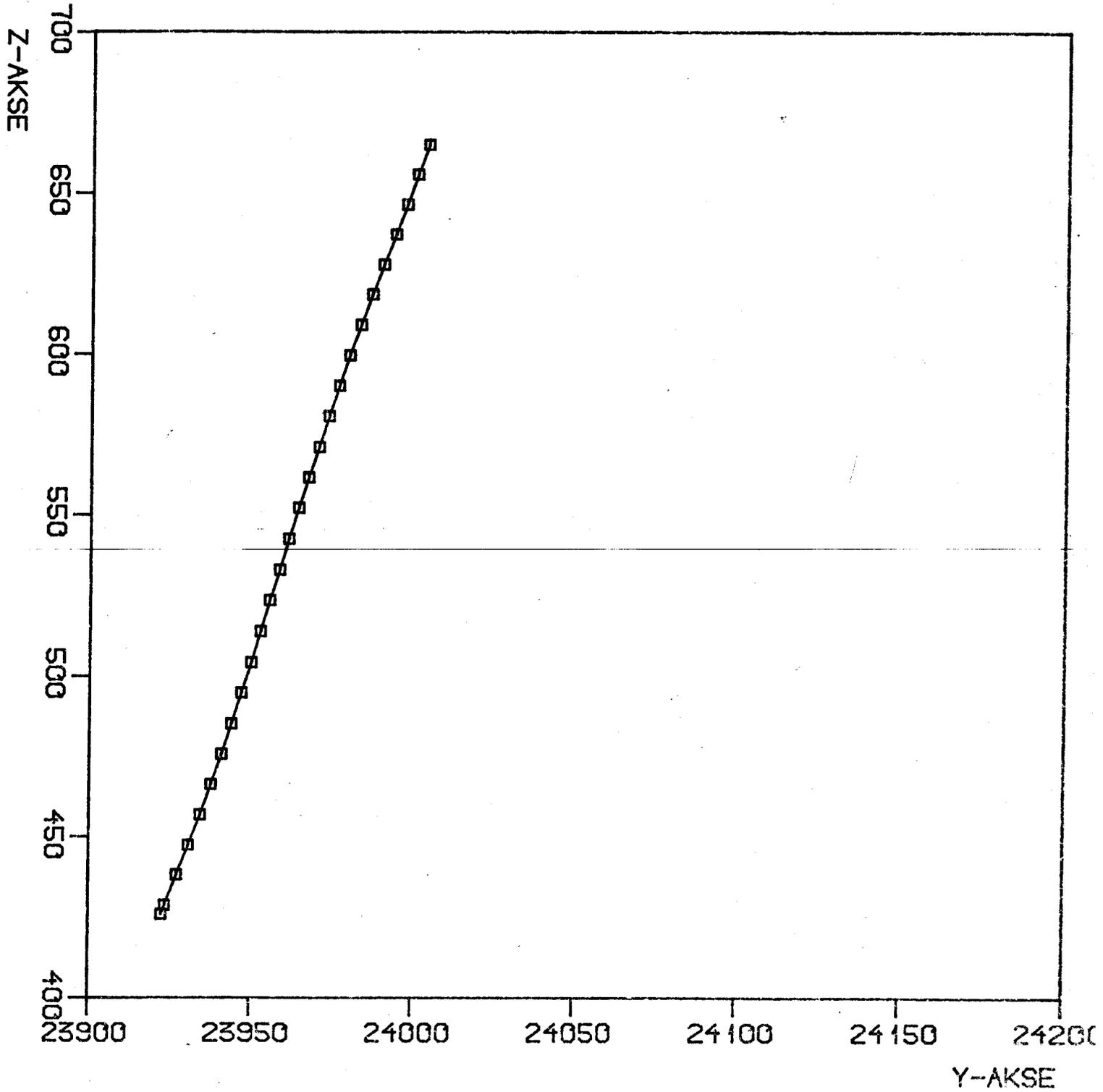
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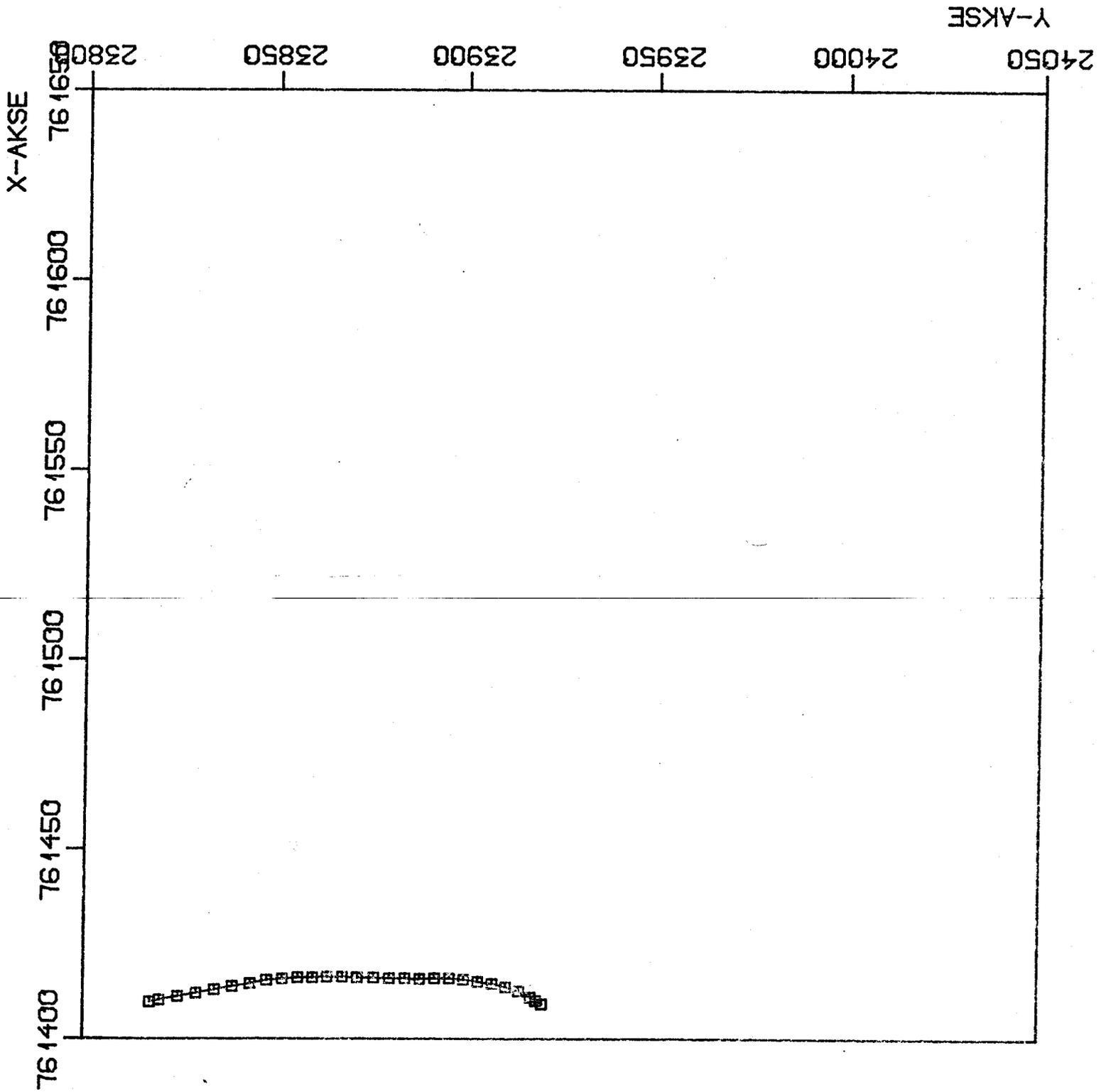
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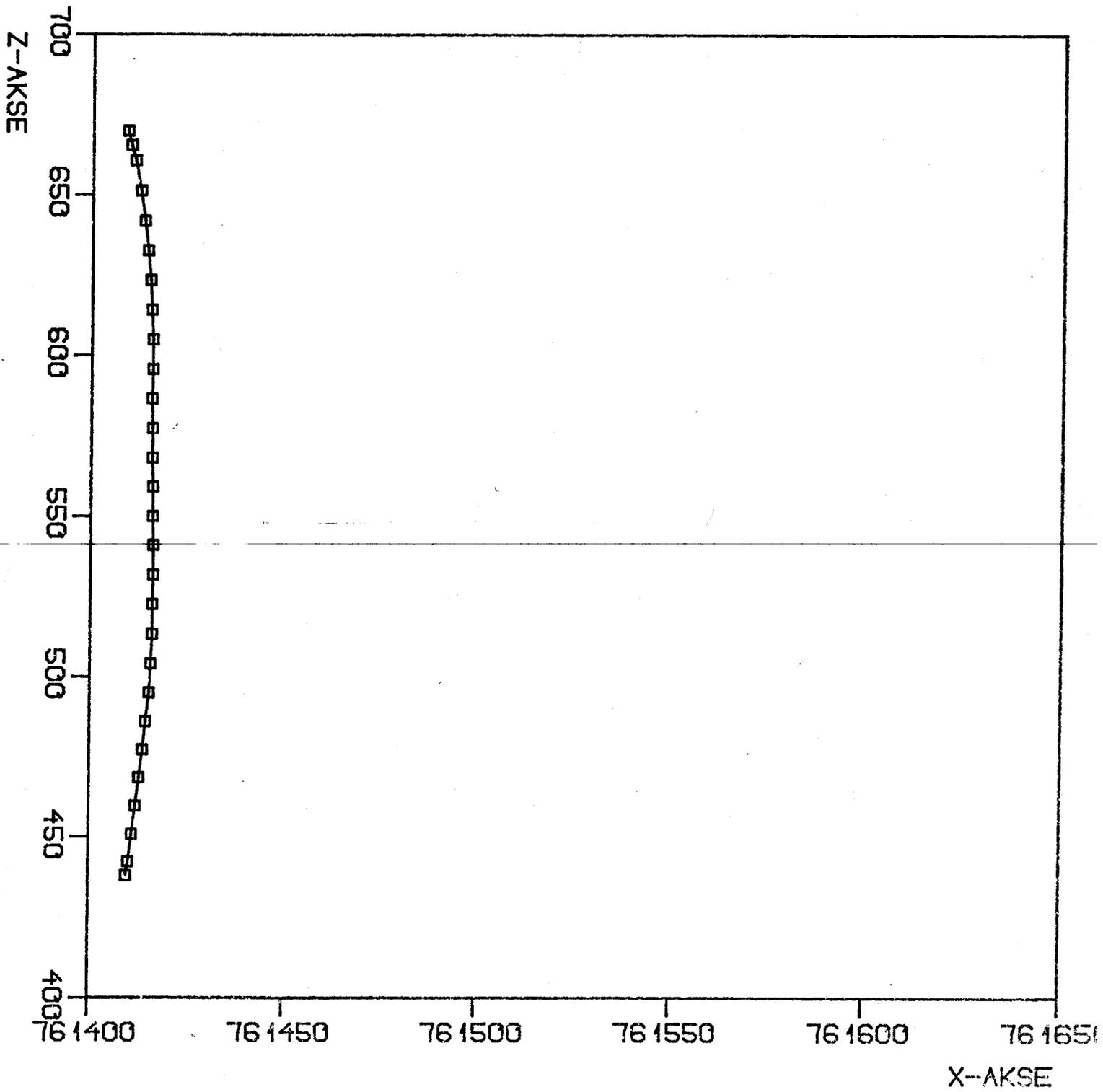
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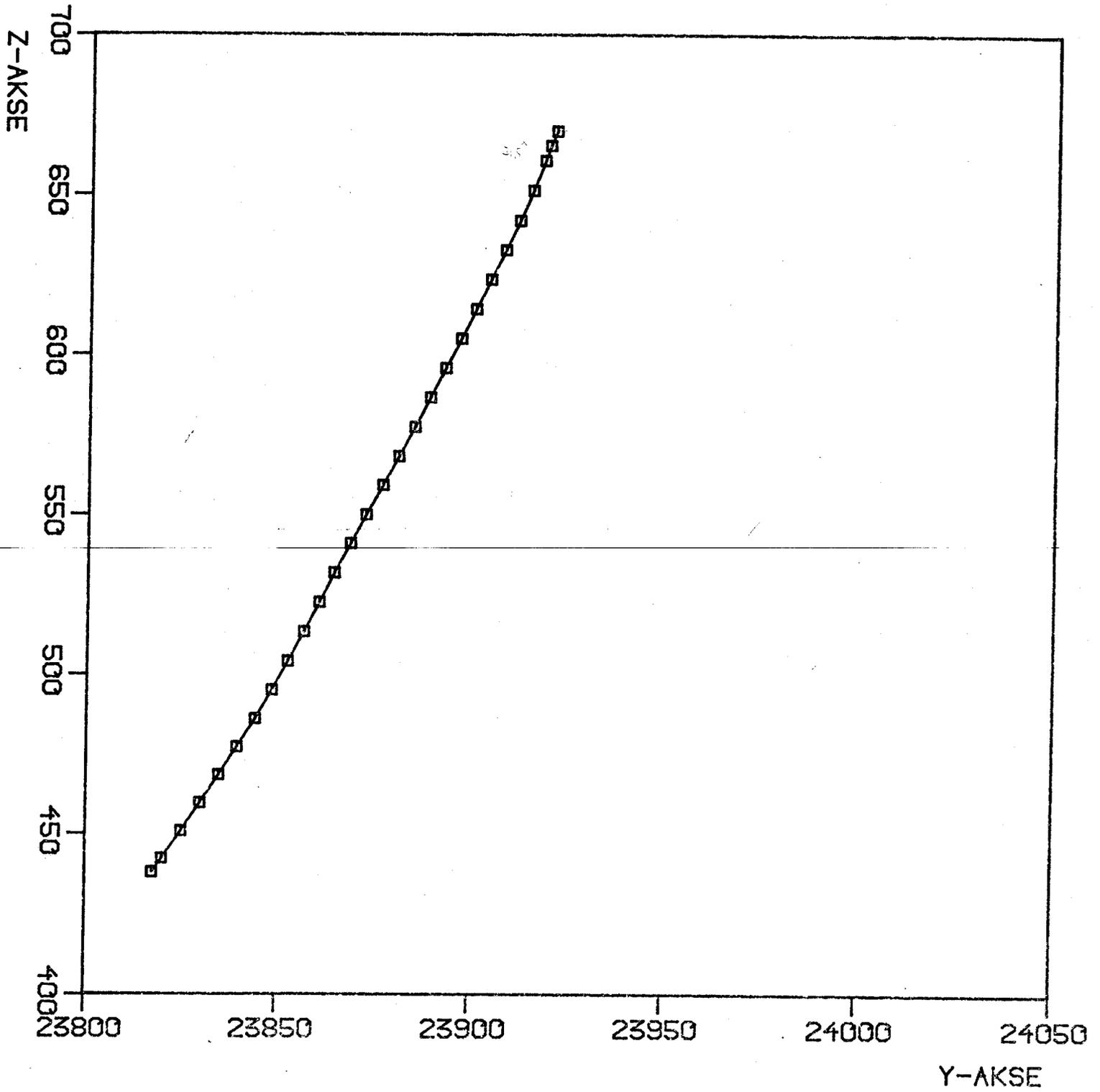
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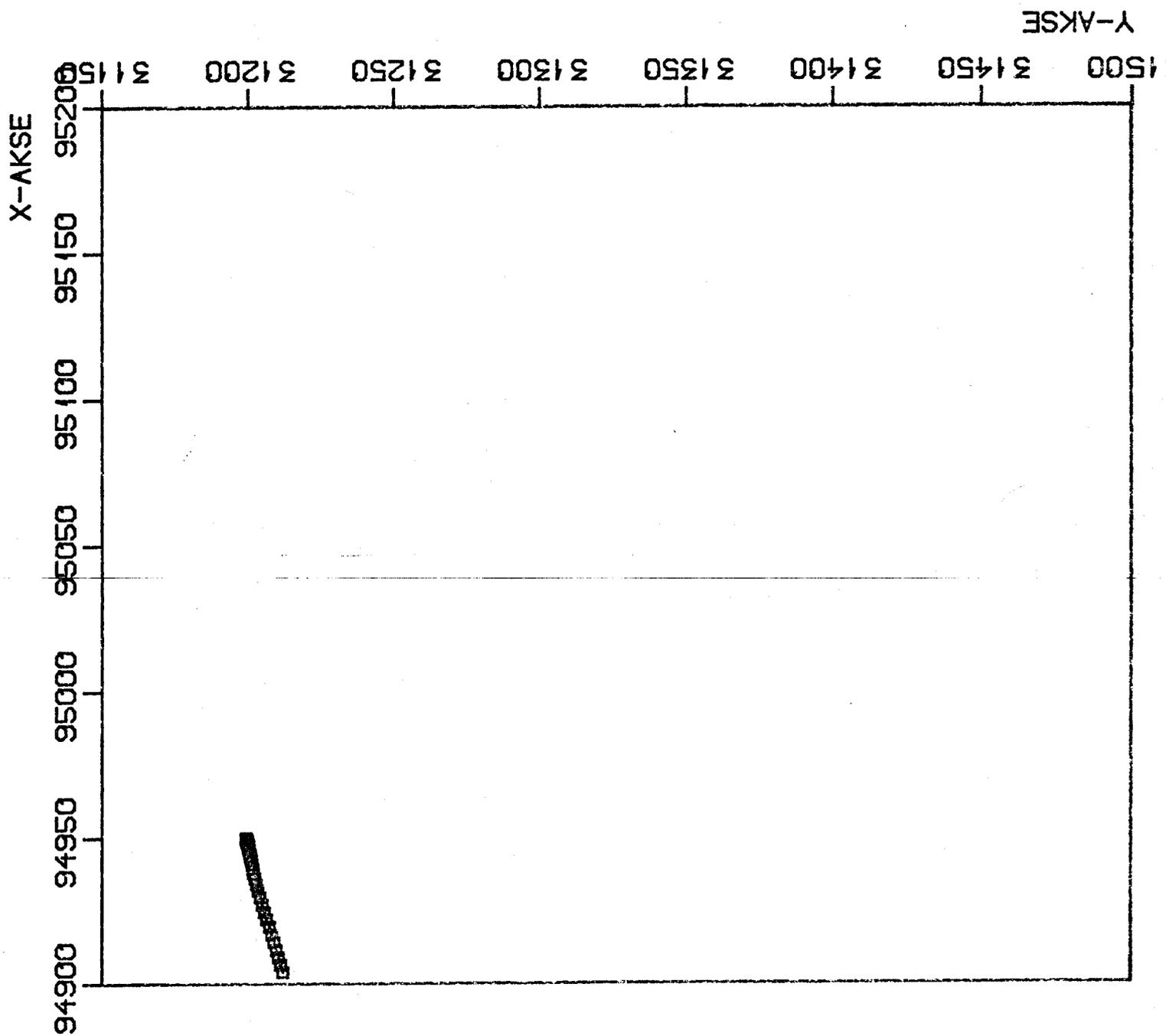
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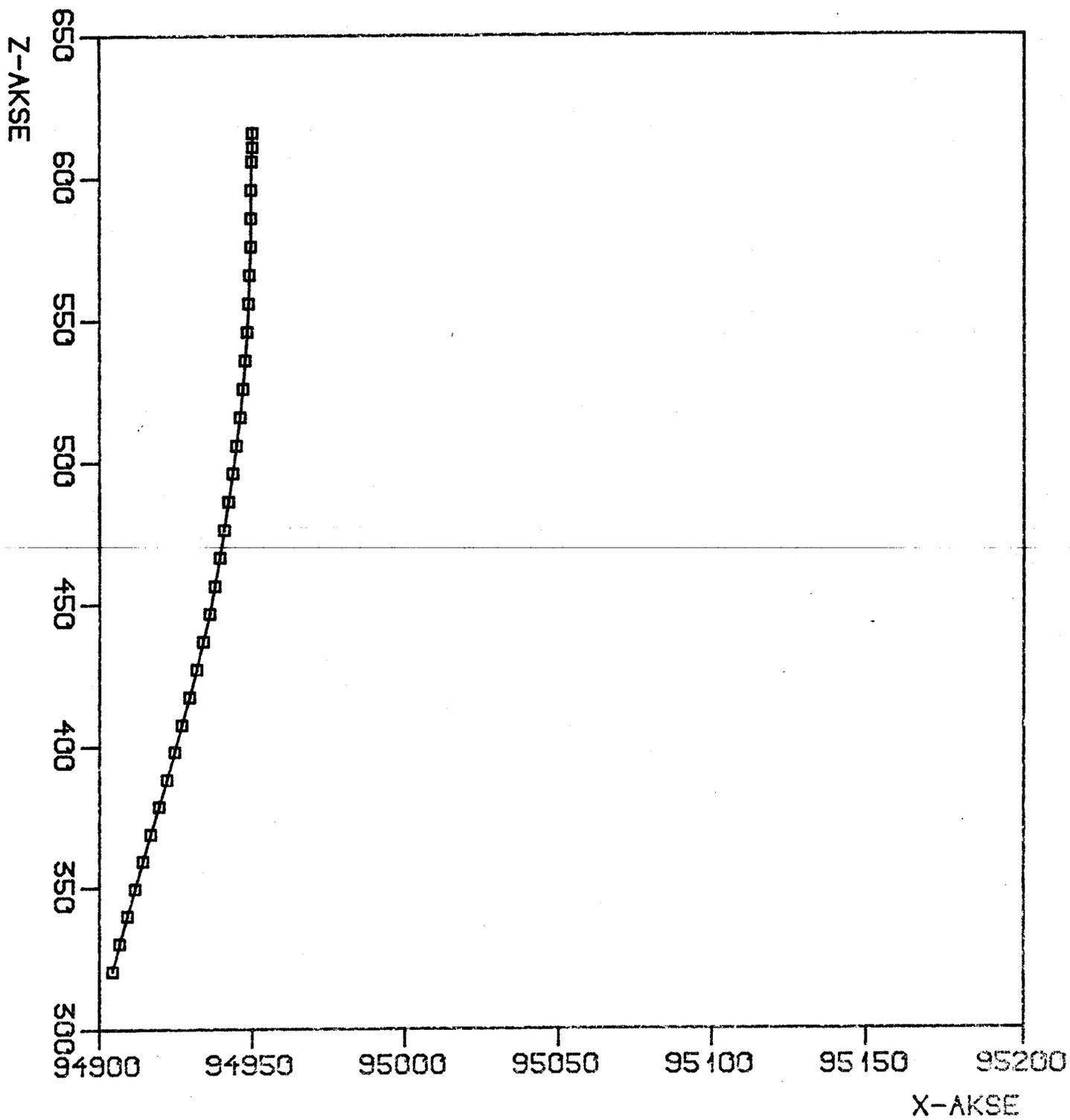
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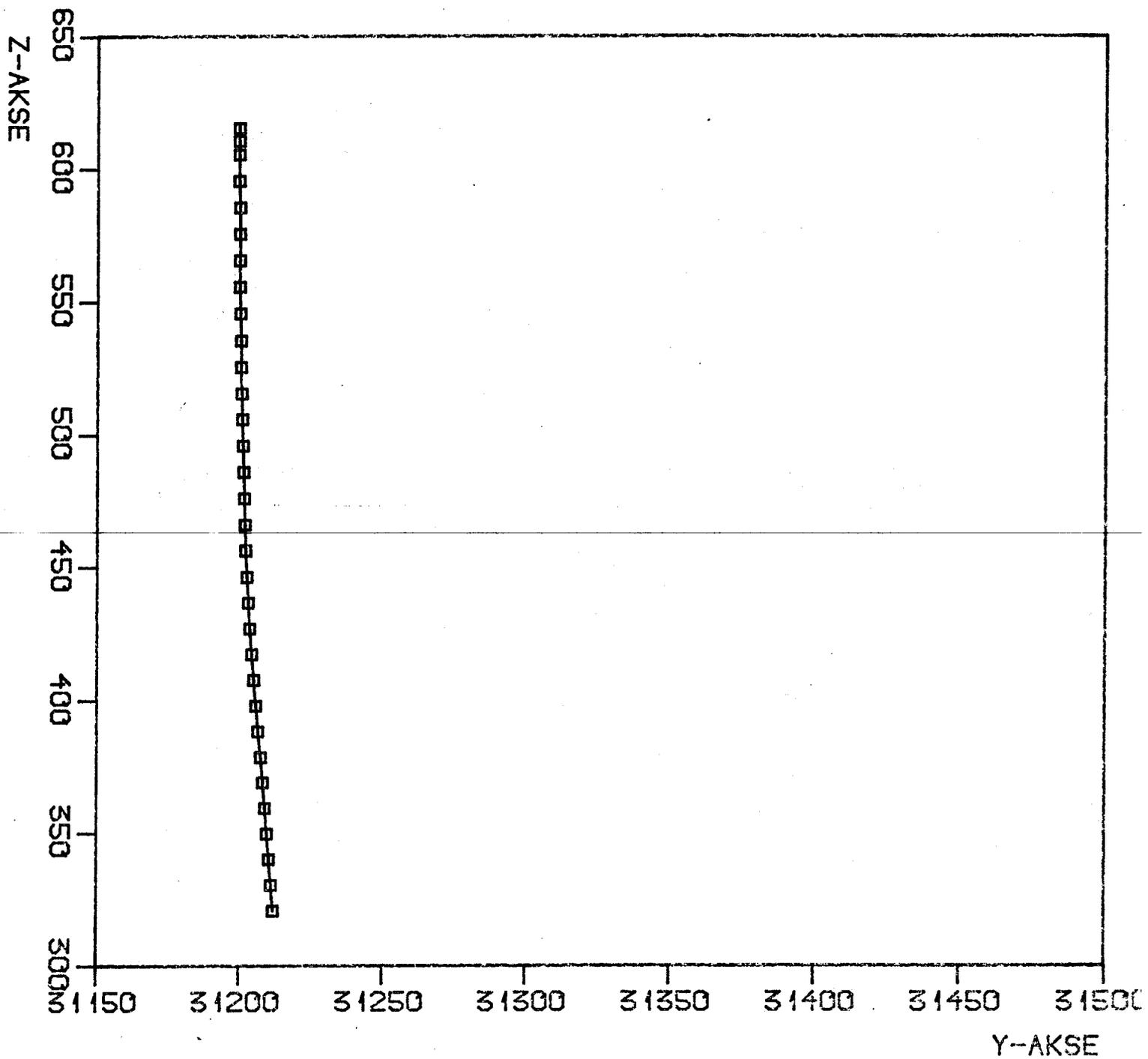
GRONG GRUBER A/S

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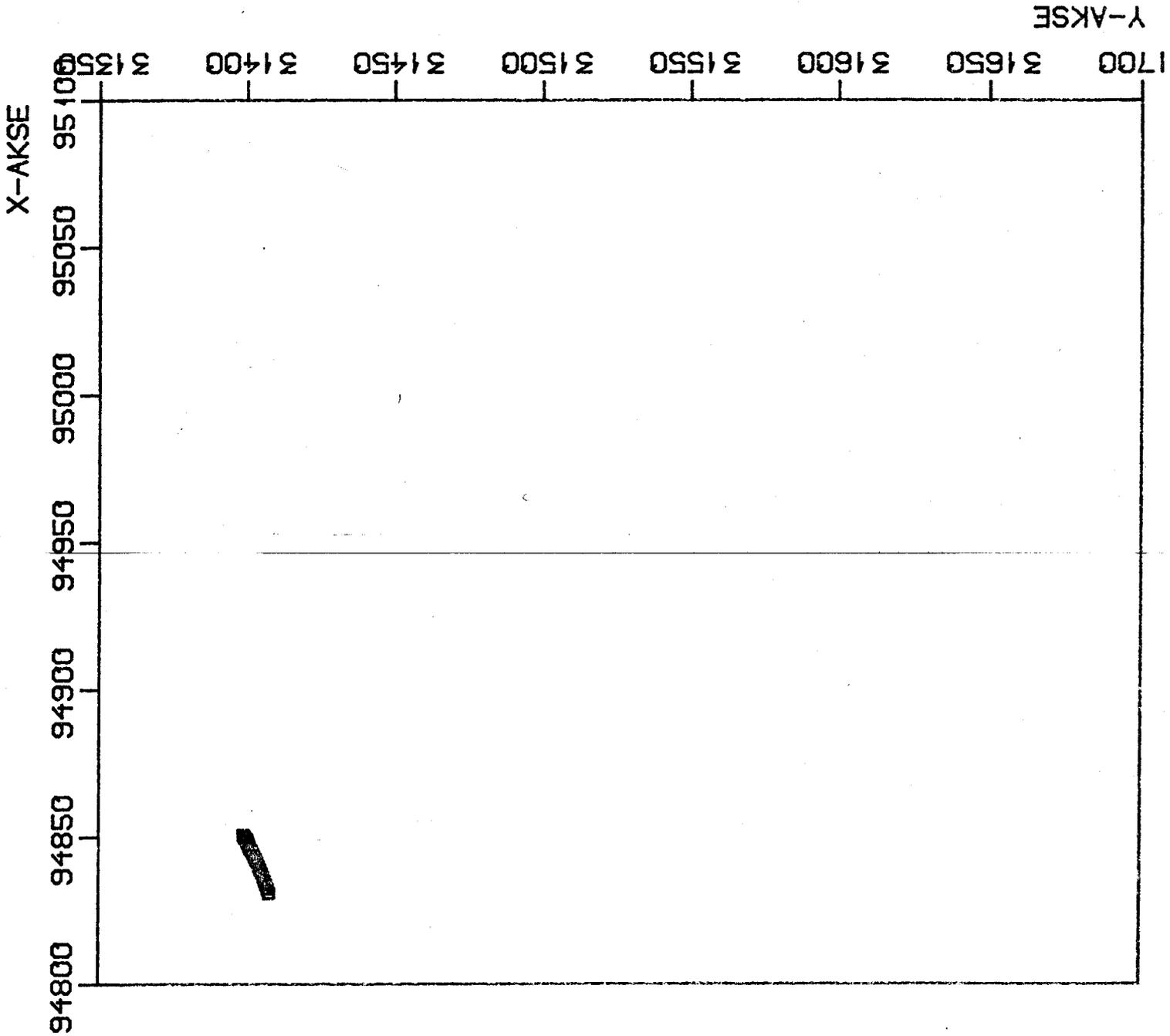
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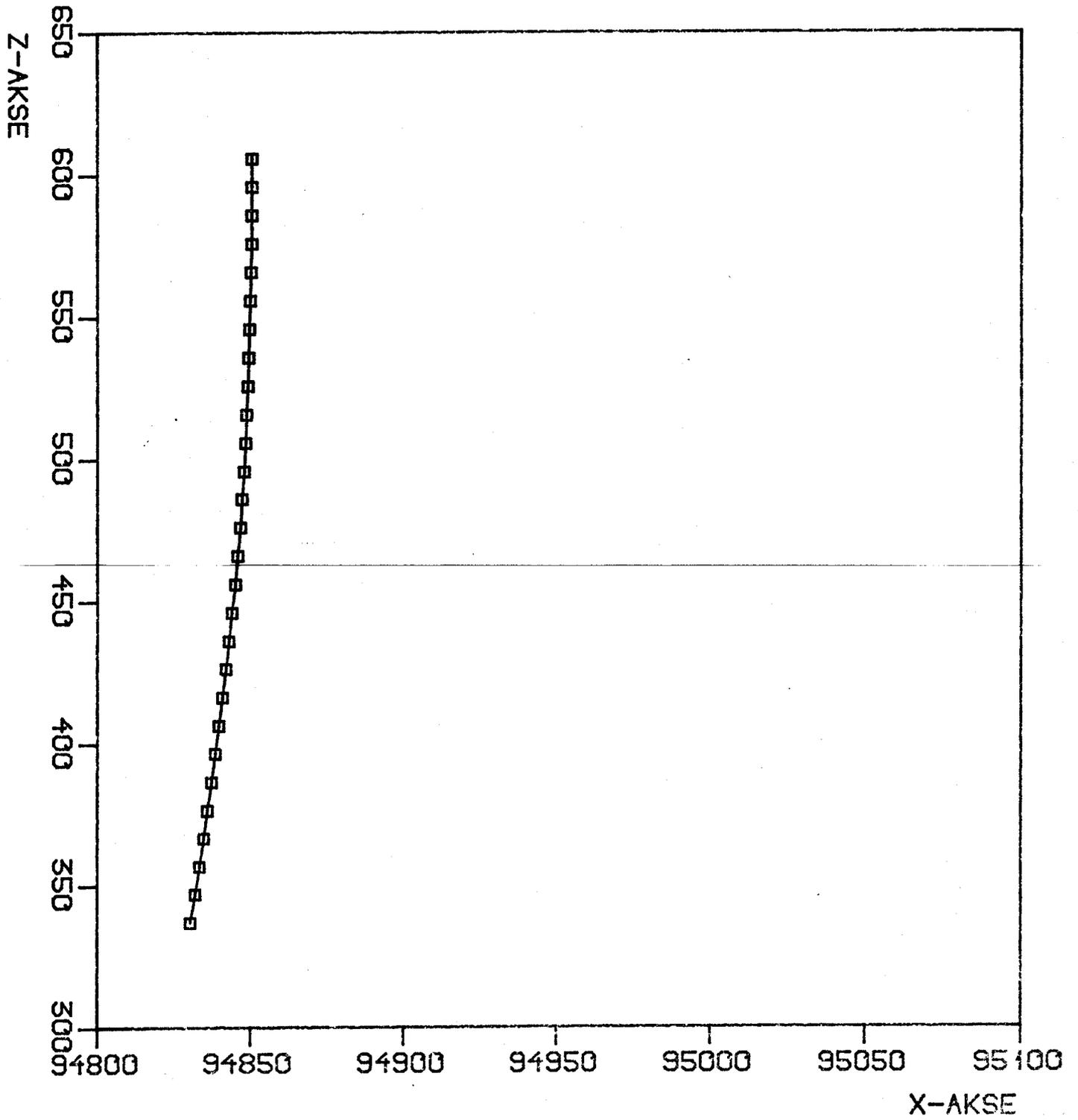
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BORHULL : D47



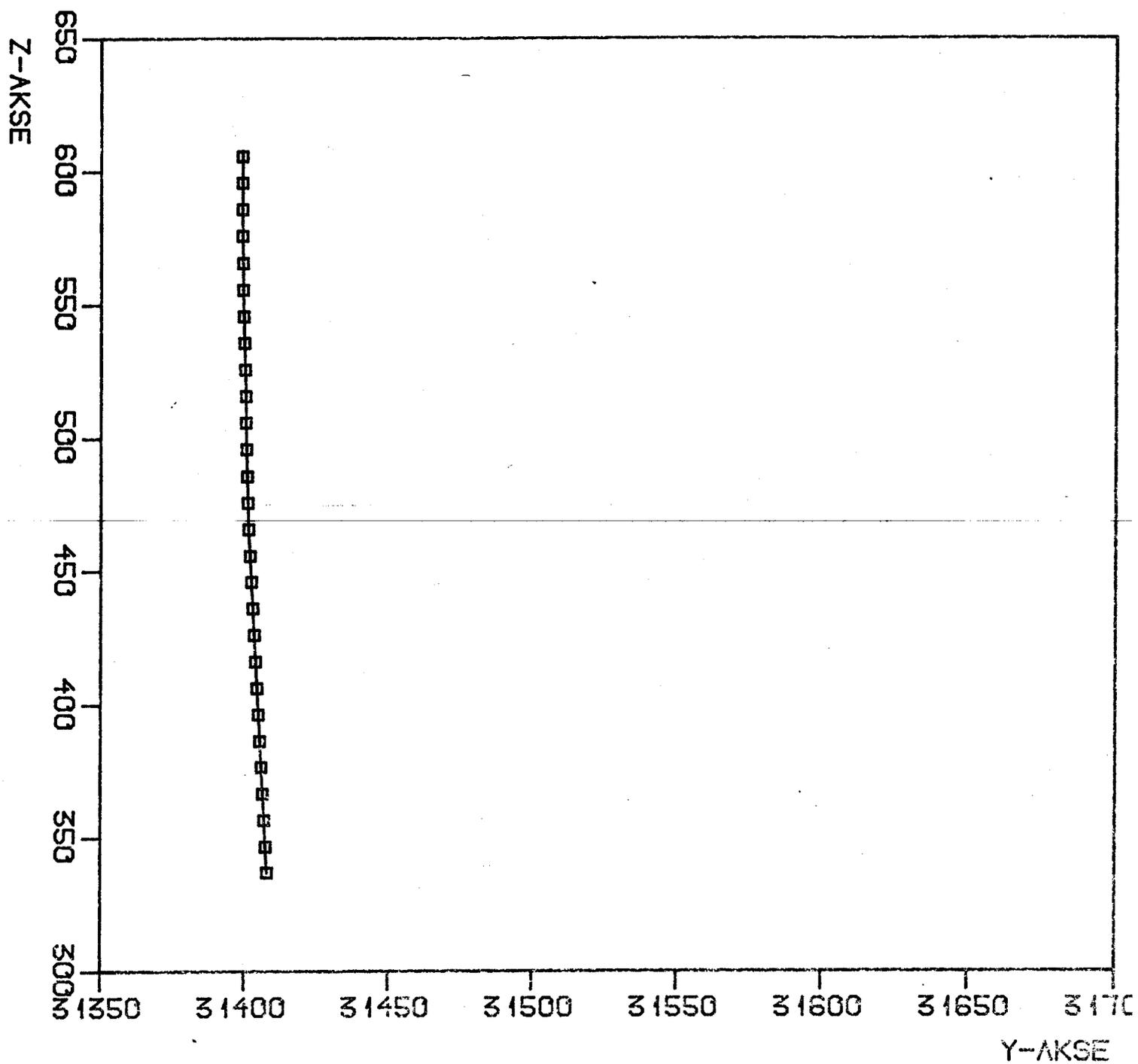
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BORHULL : D47



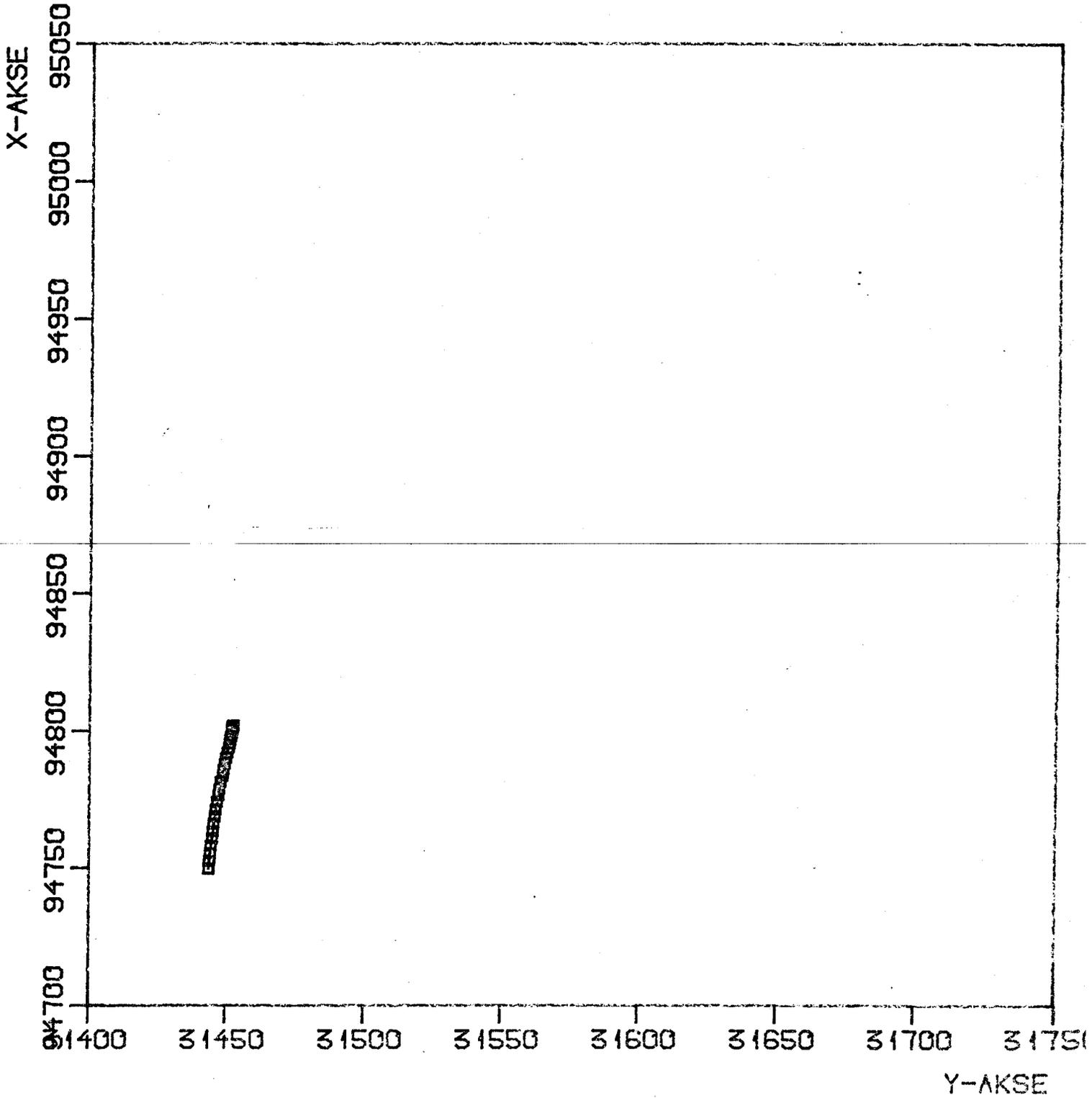
GRONG GRUBER A/S

BORHULL : D47



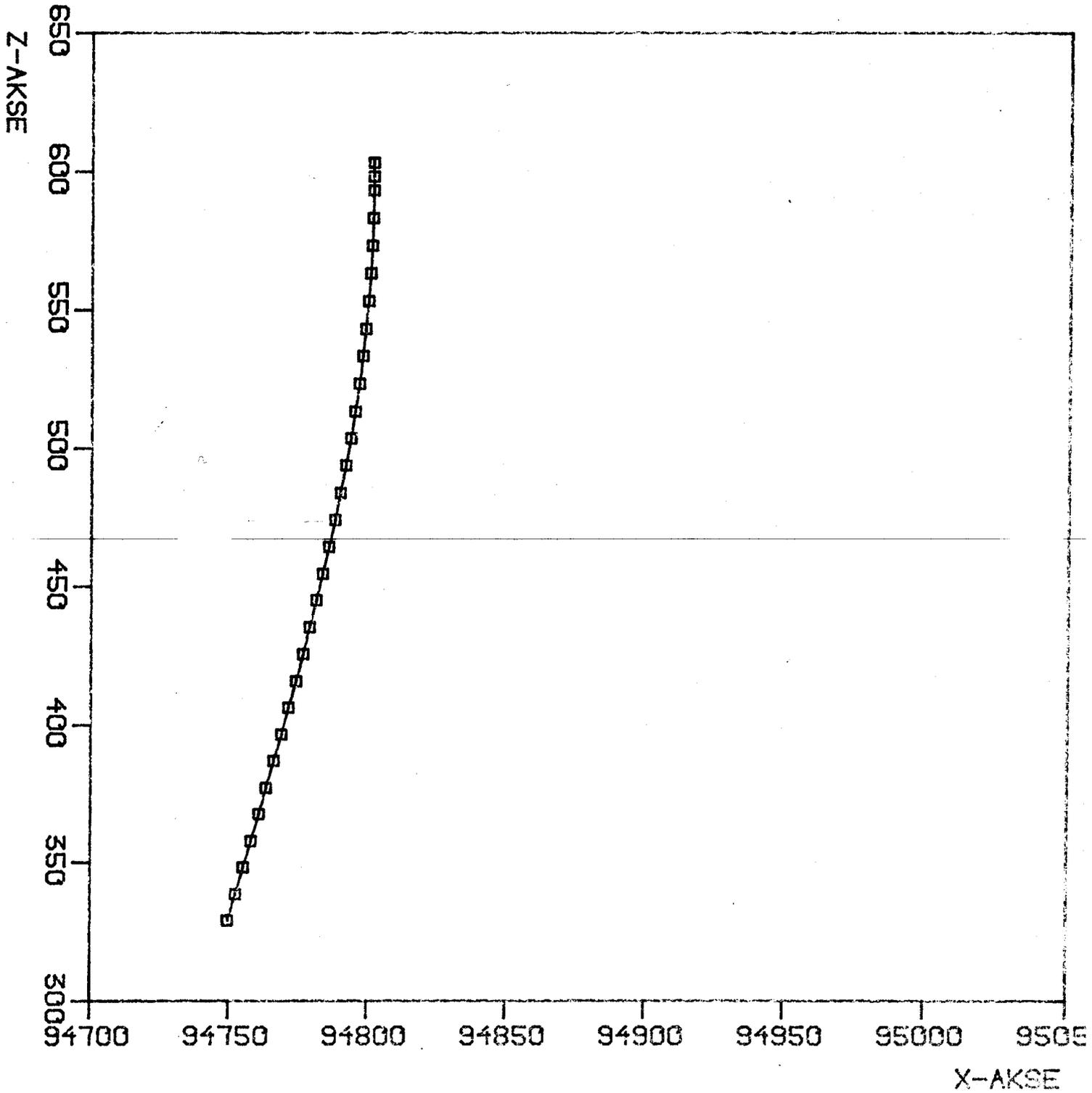
GRONG GRUBER A/S

BORHULL : D48



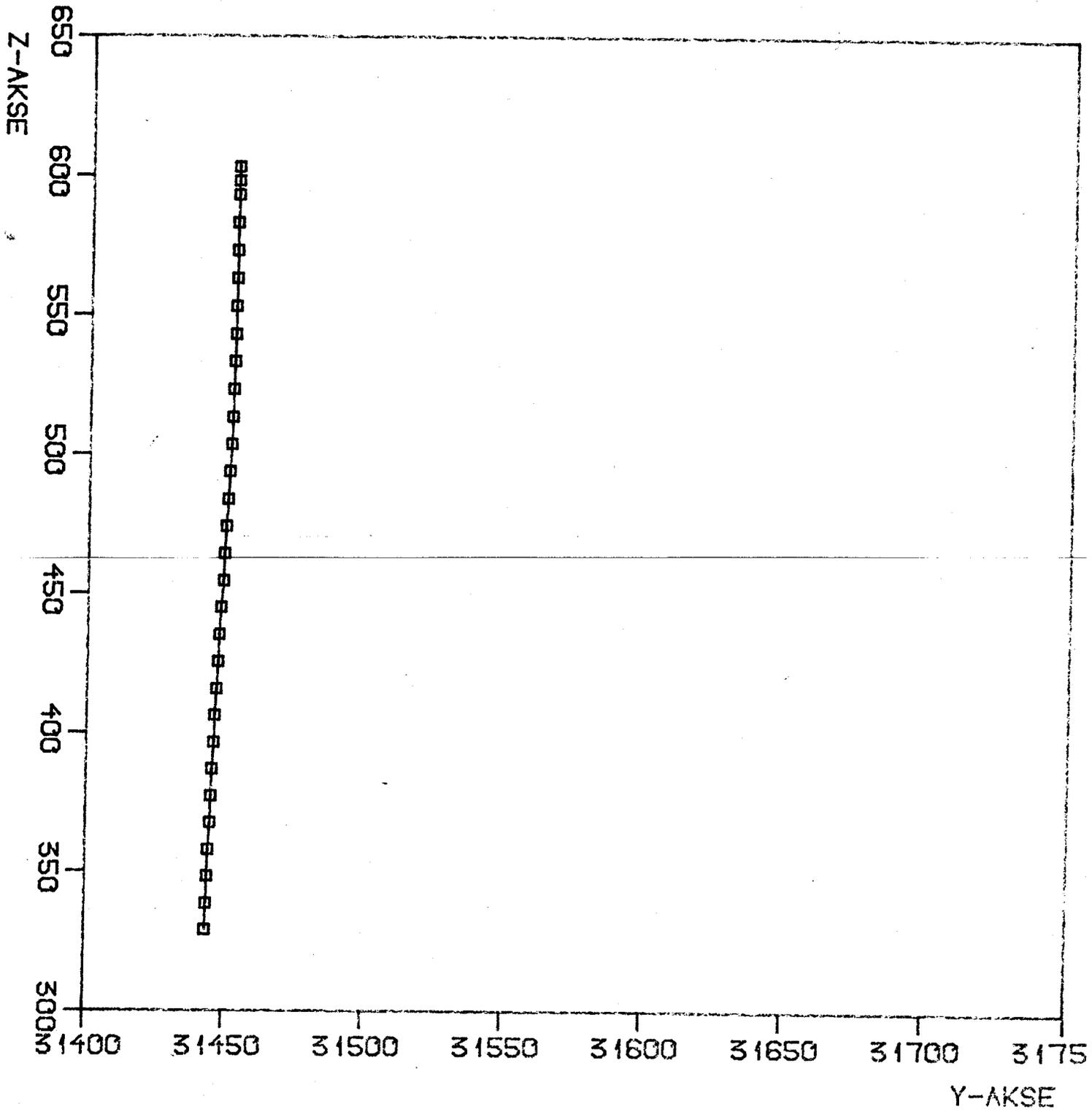
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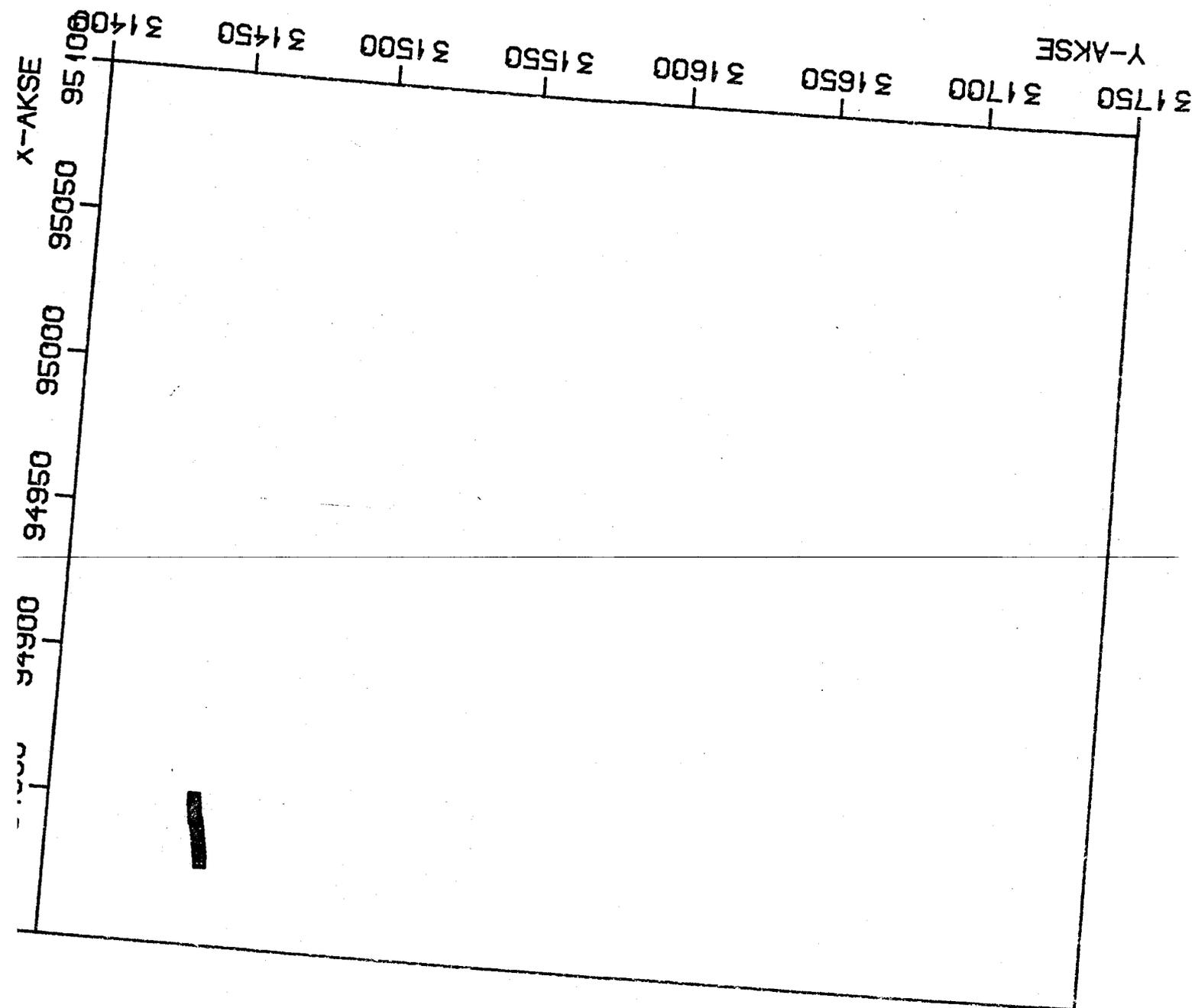
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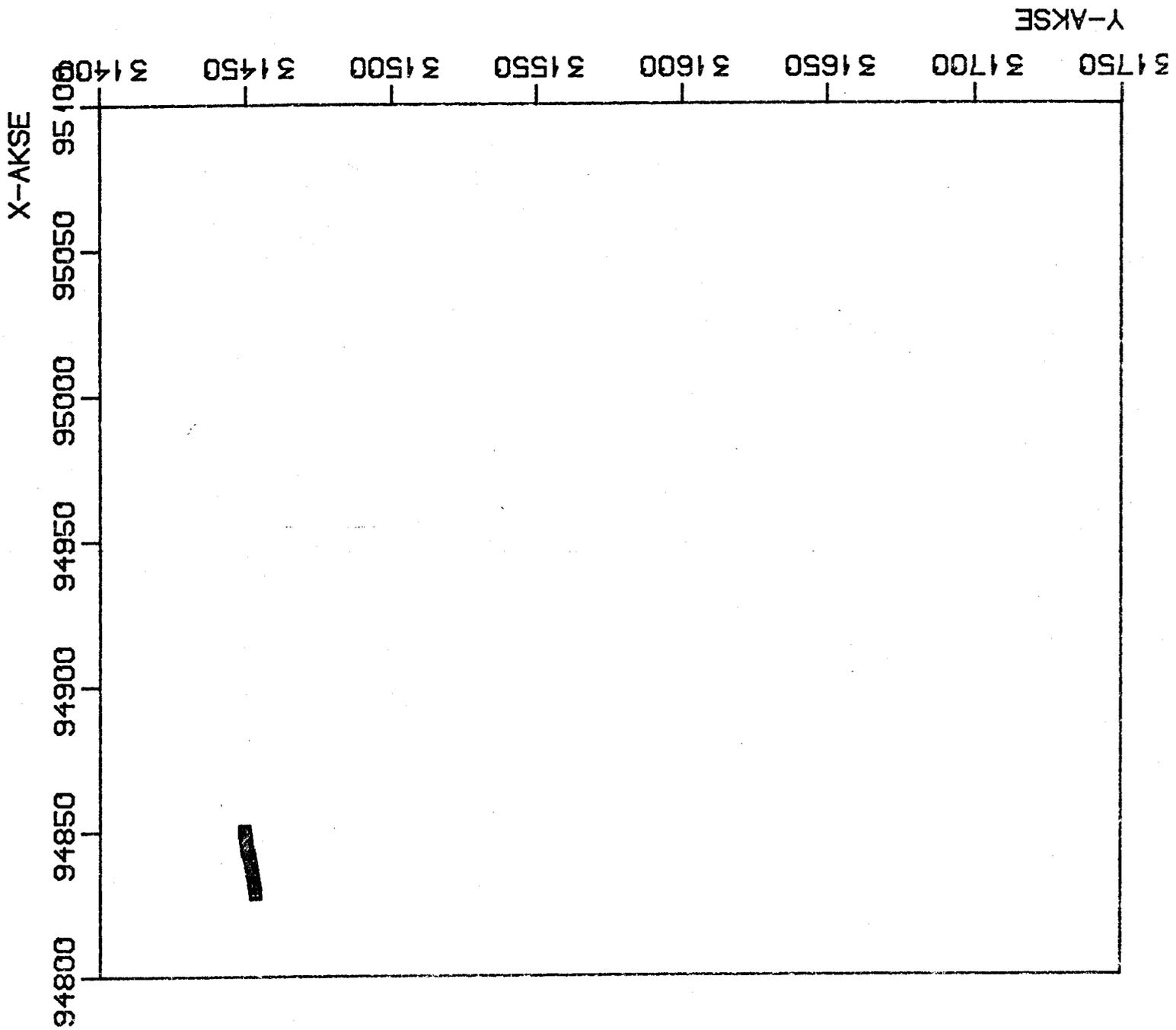
GRONG GRUBER A/S

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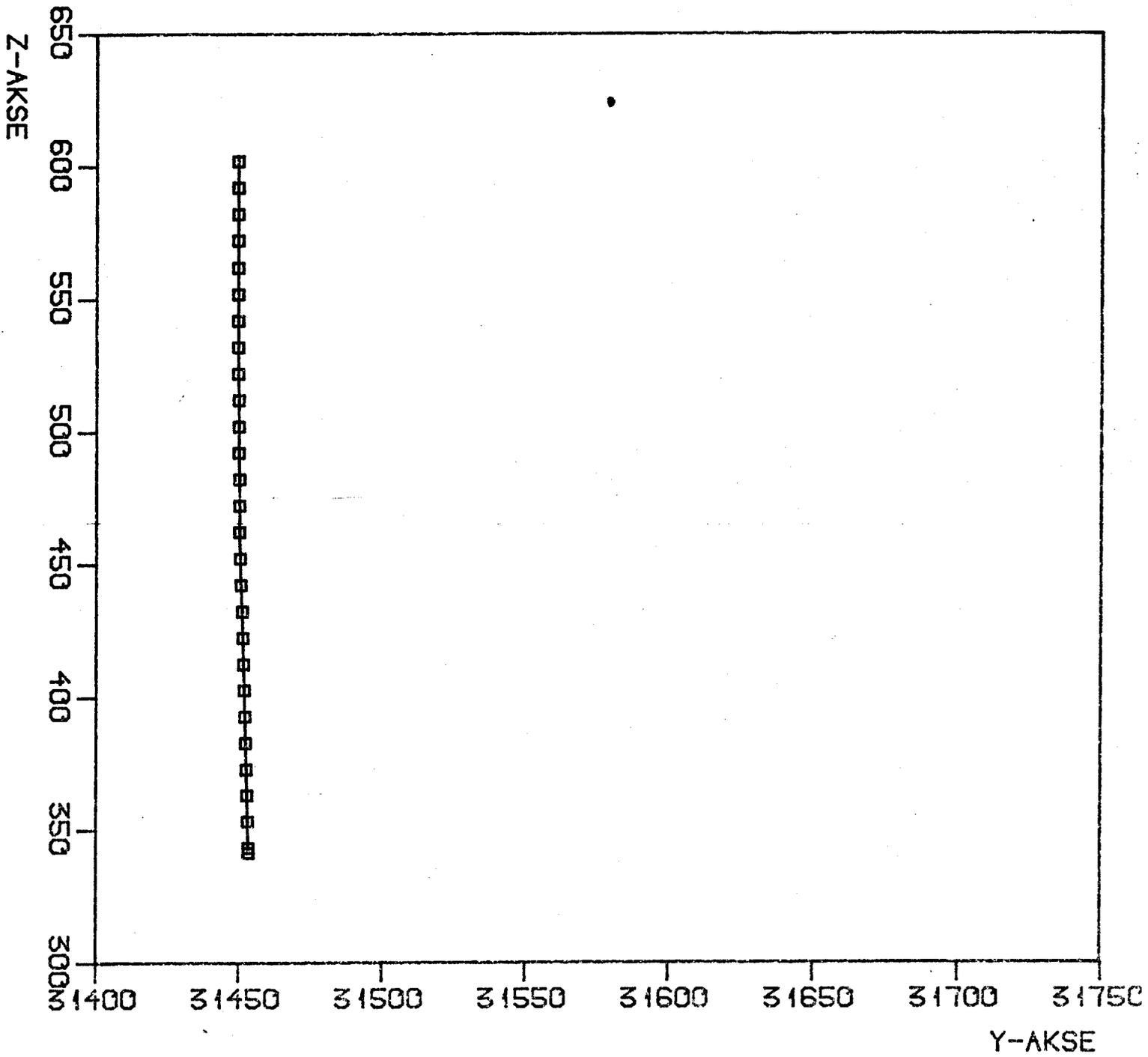
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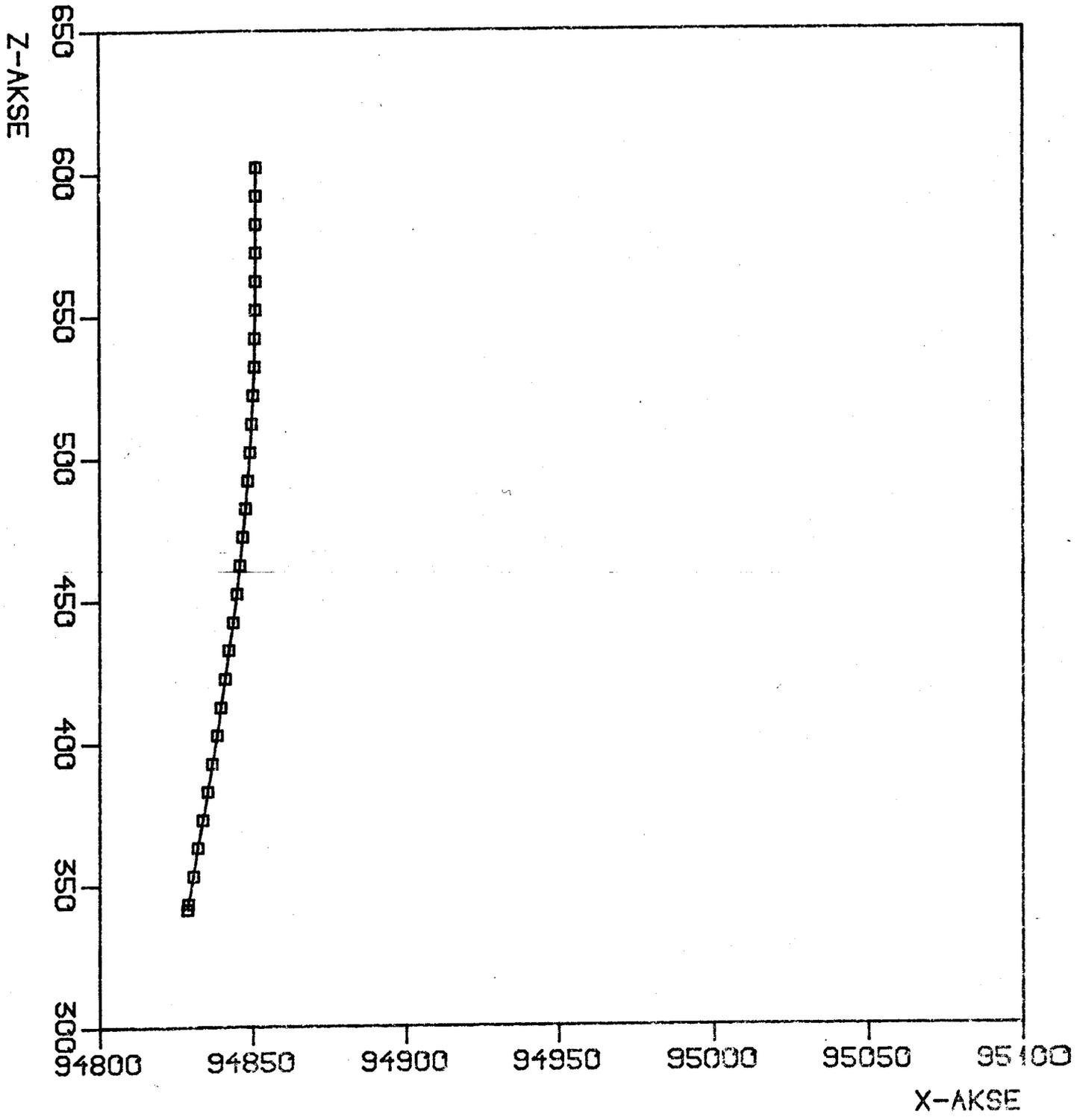
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BORHULL : D49



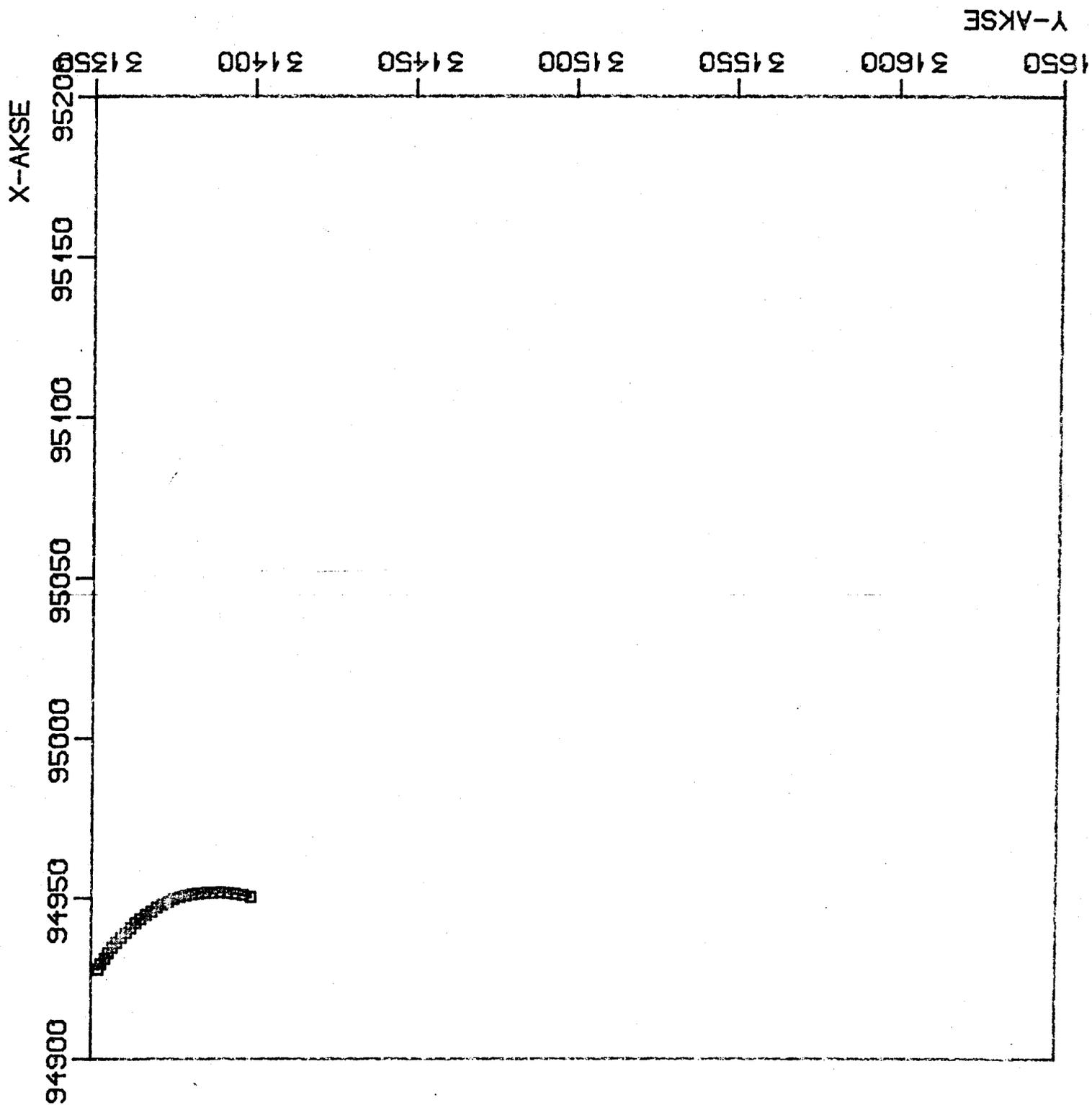
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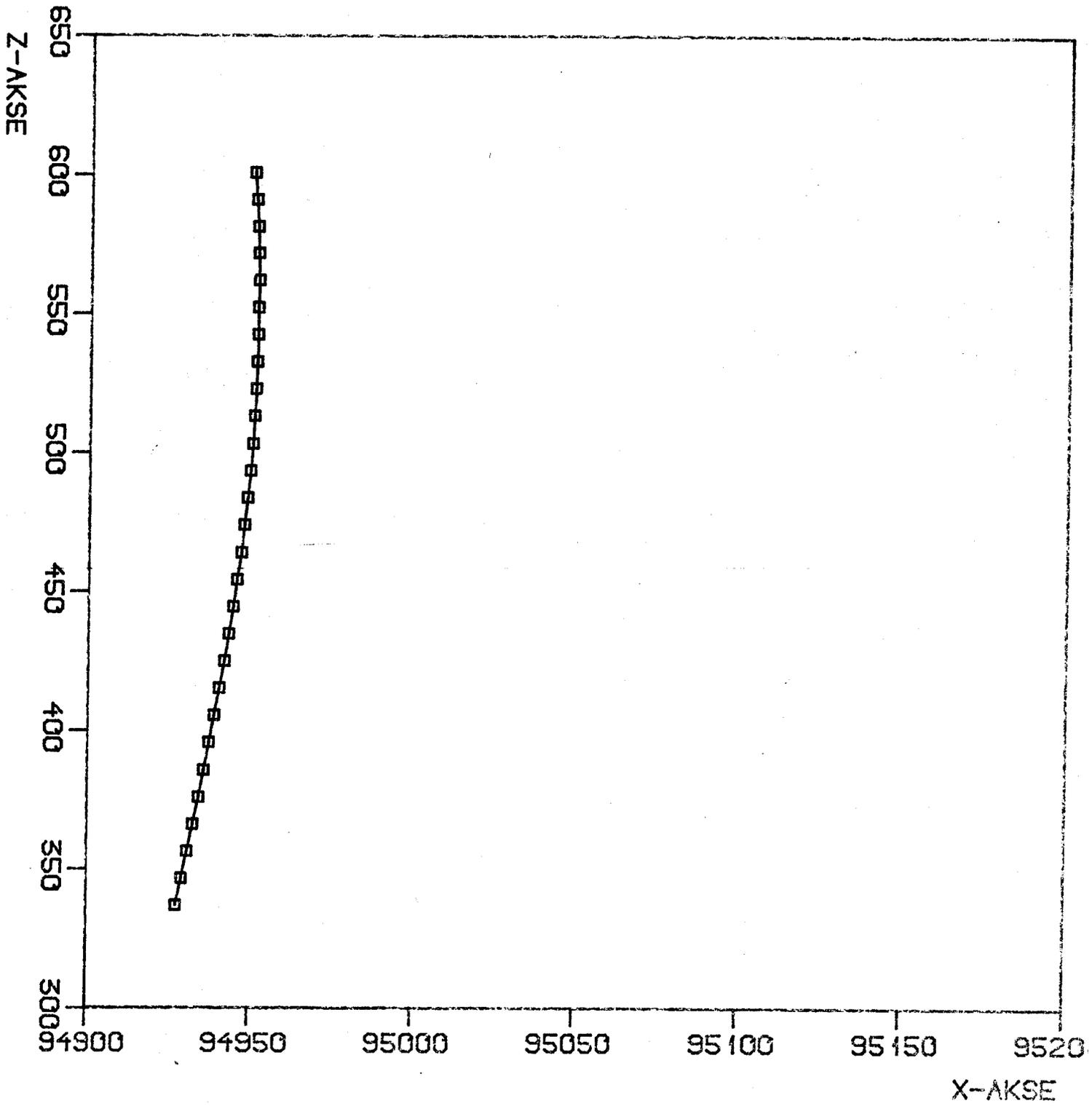
GRONG GRUBER A/S

BORHULL : D50



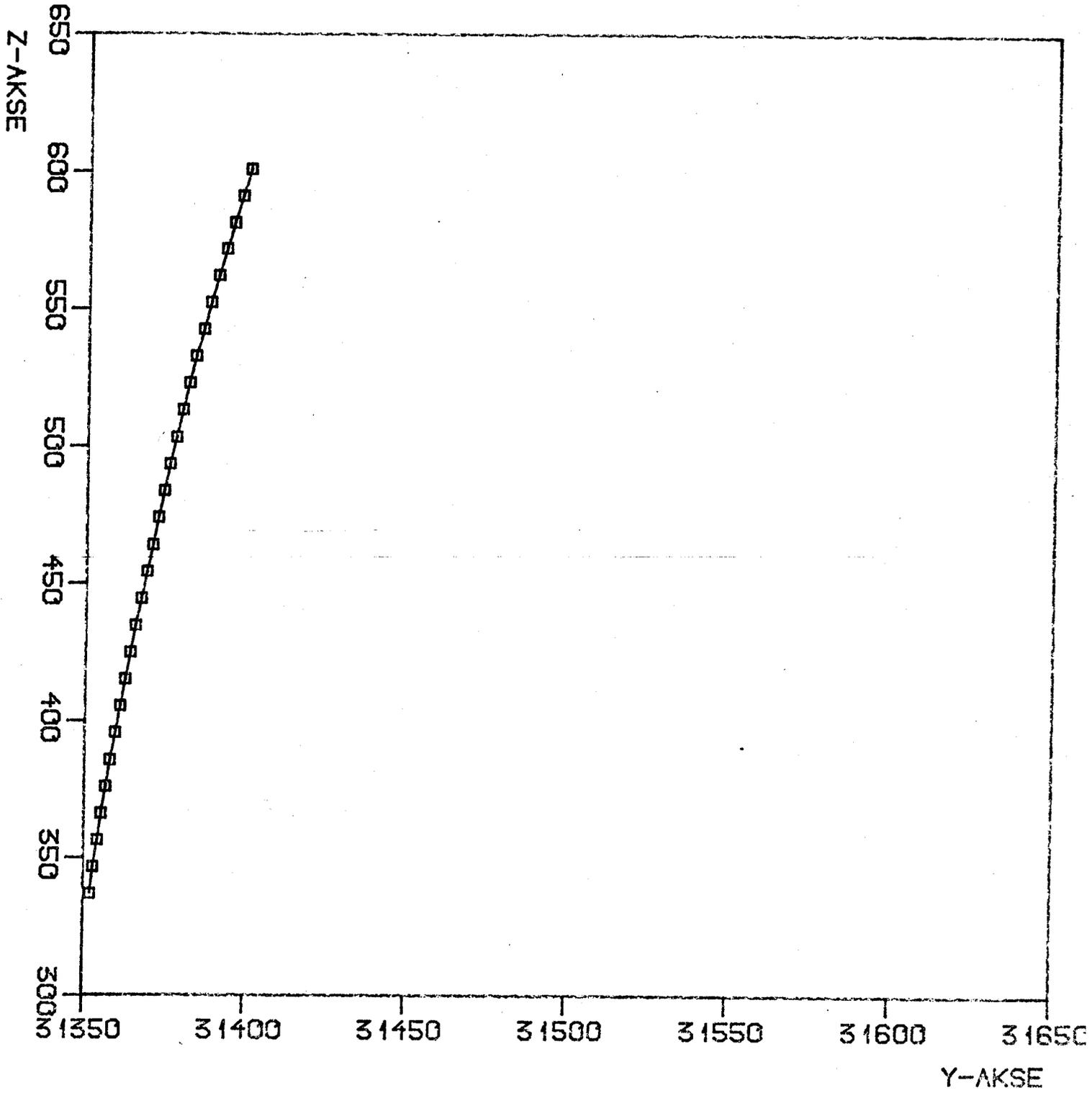
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BORHULL : D50



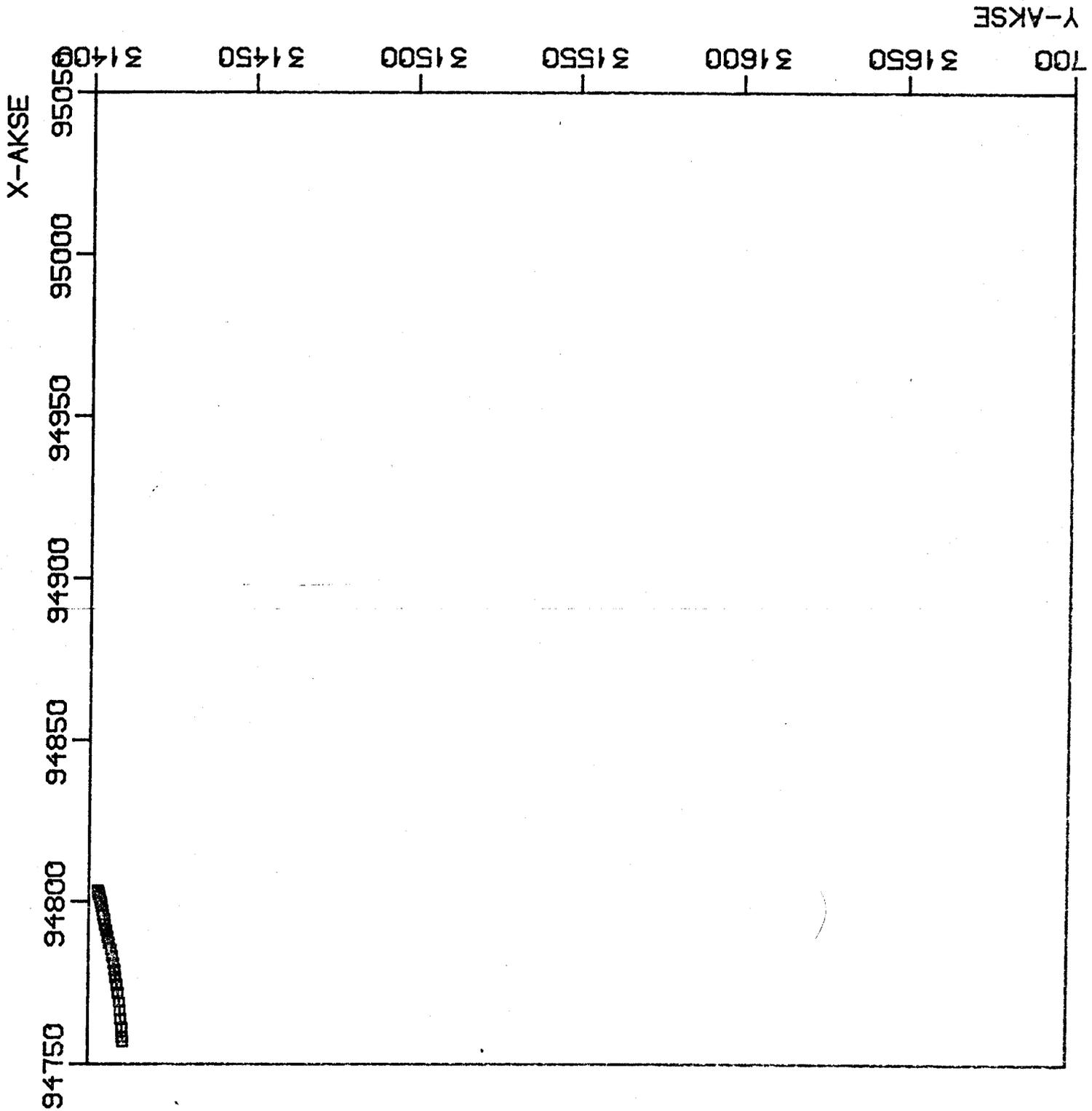
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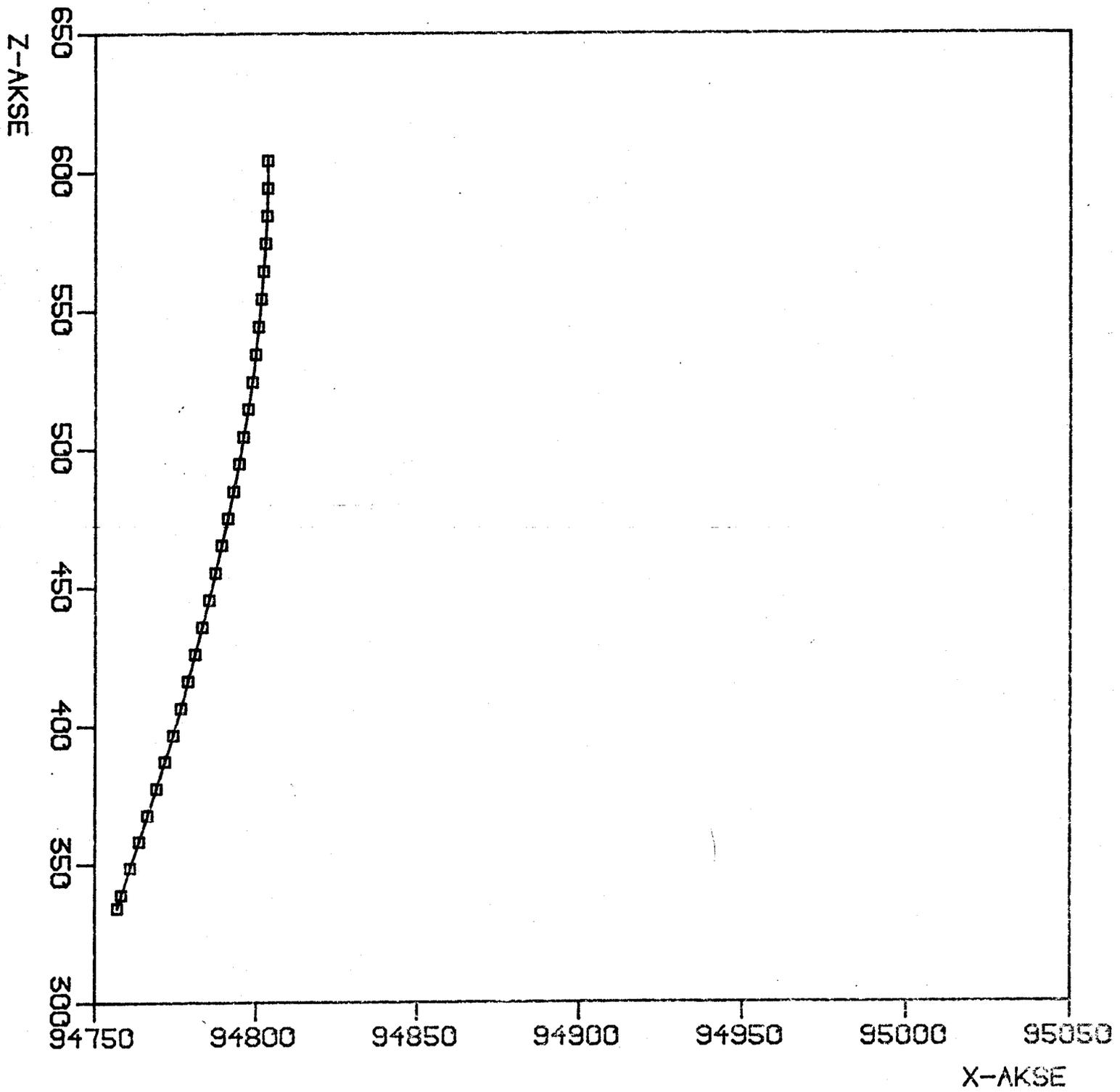
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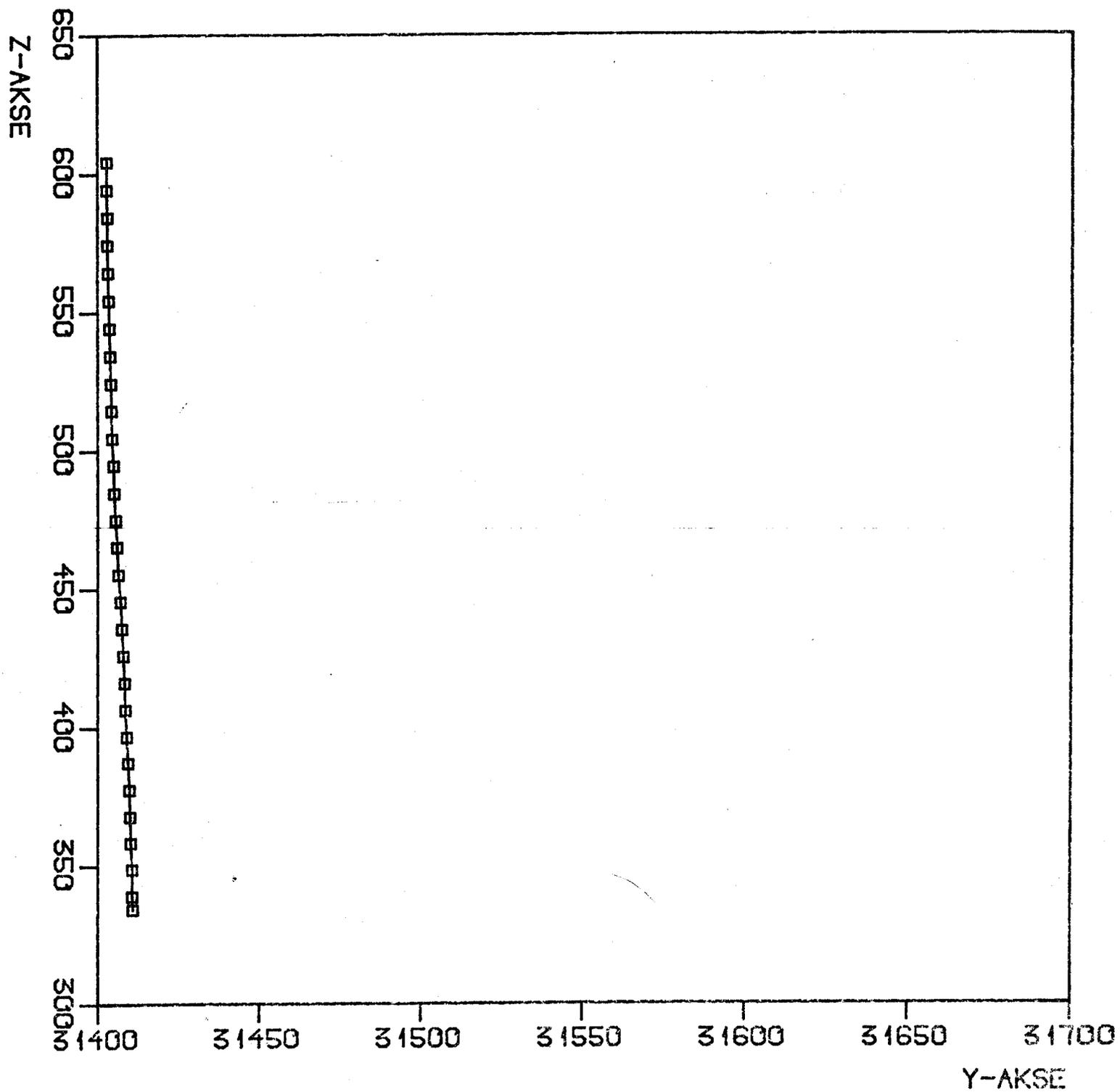
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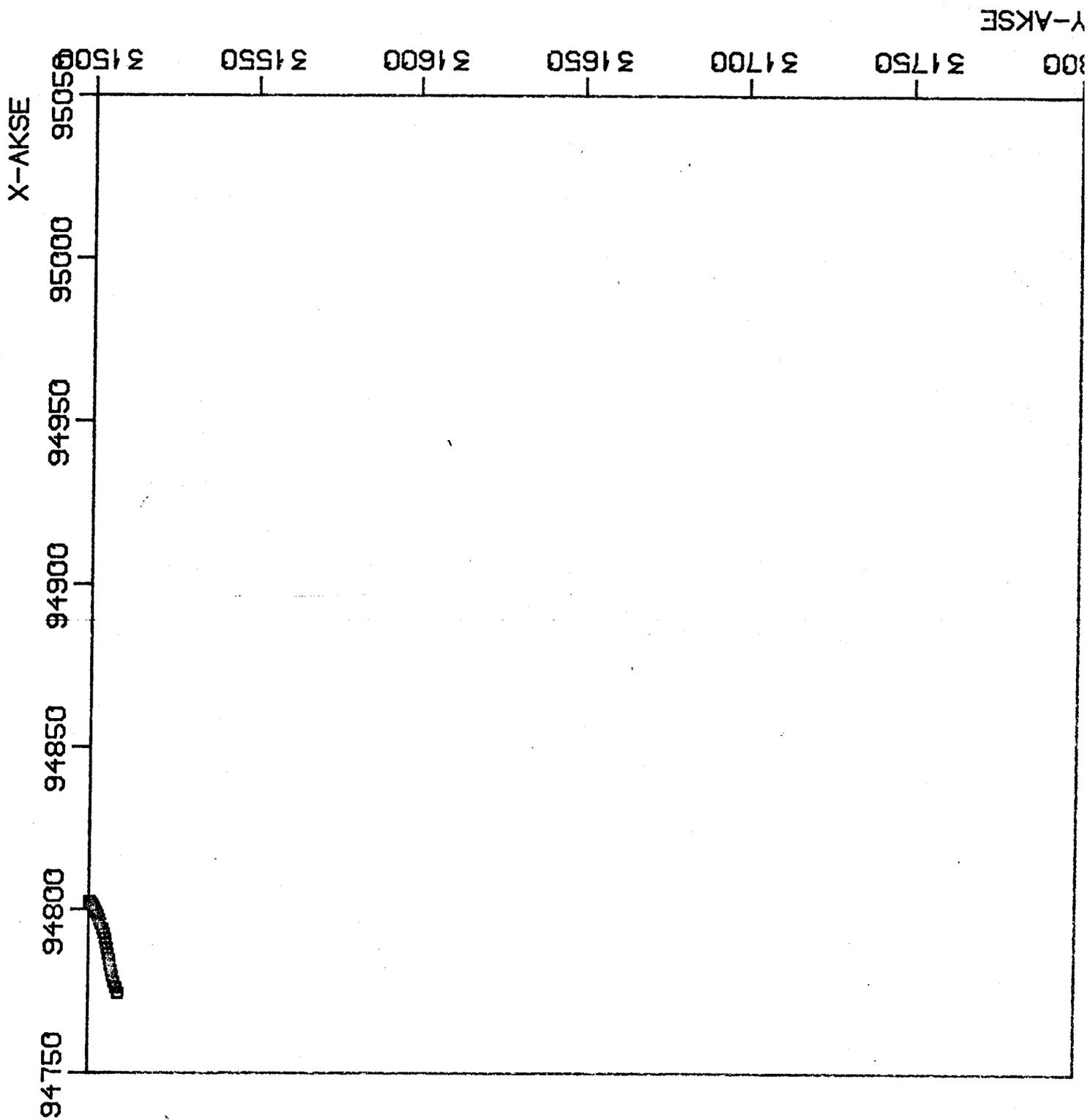
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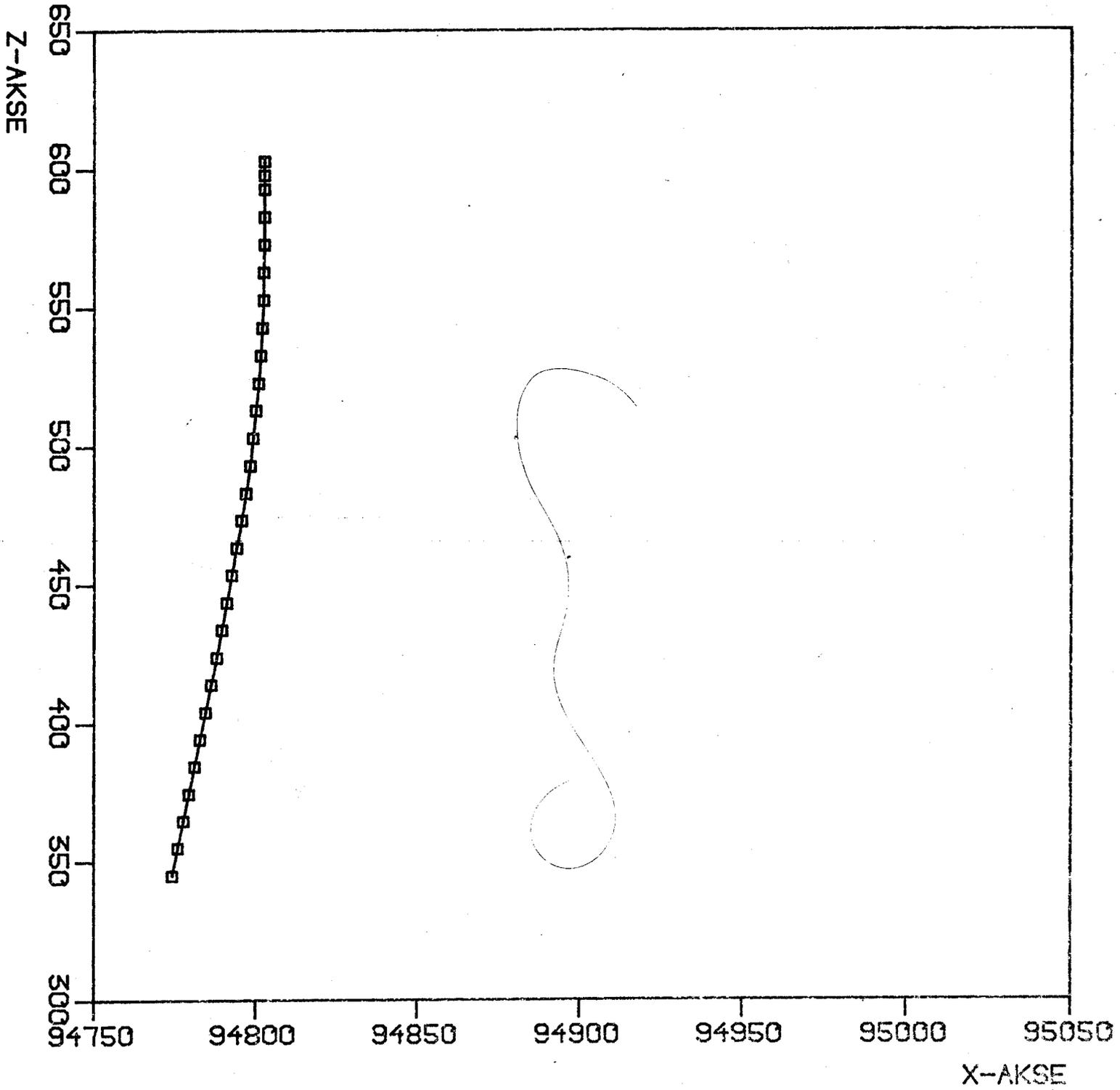
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BORHULL : D52



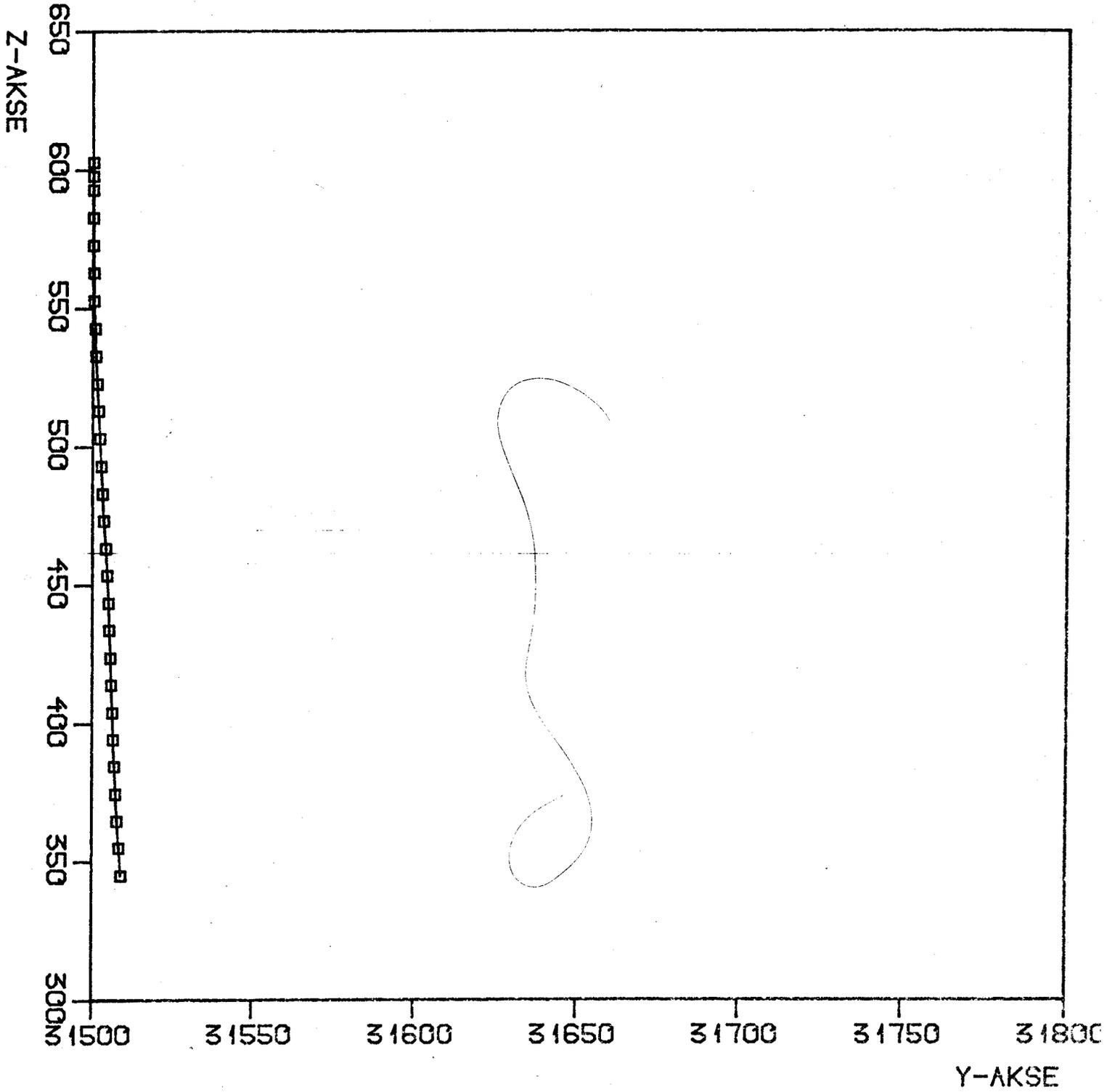
GRONG GRUBER A/S

BORHULL : D52



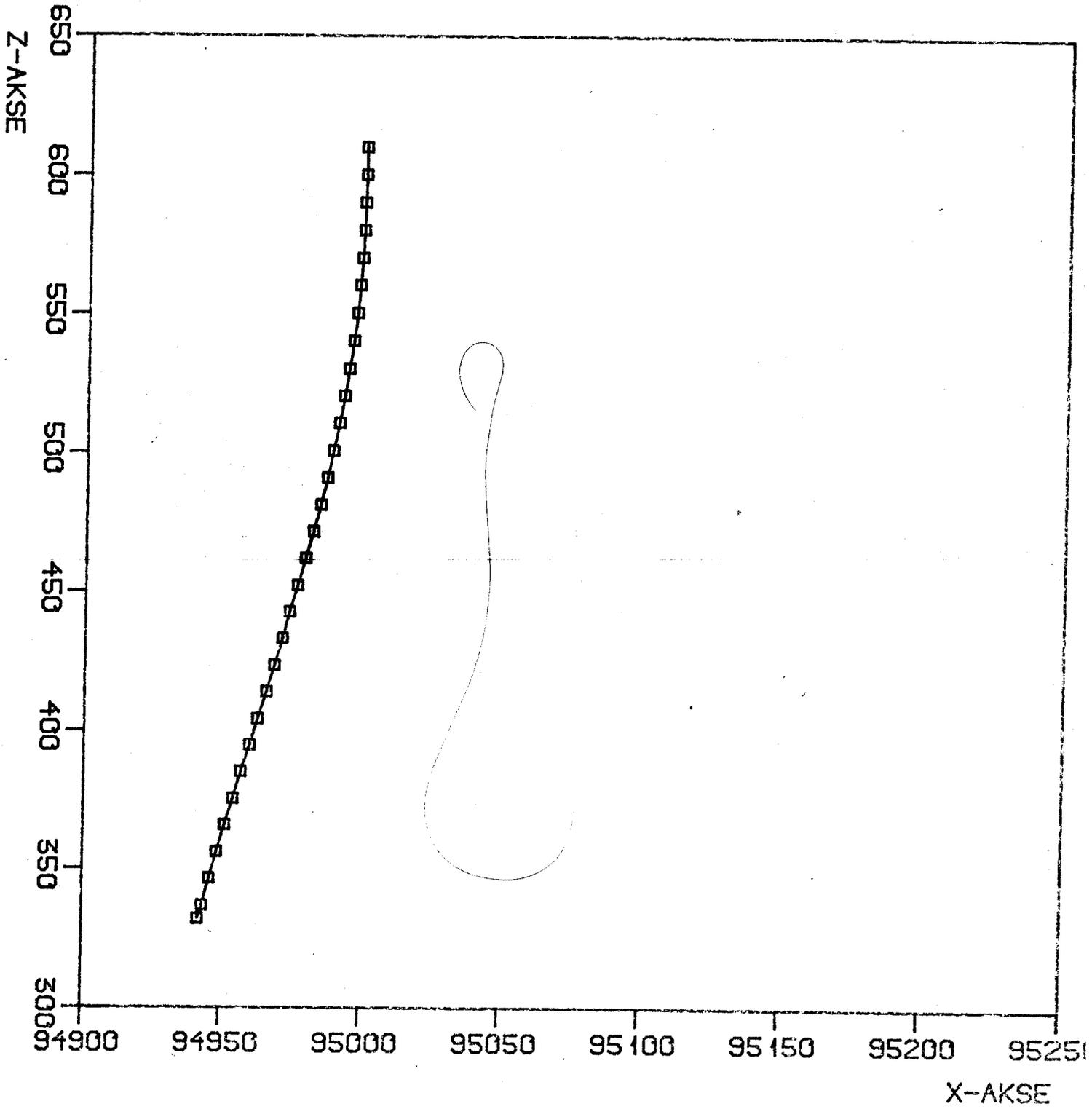
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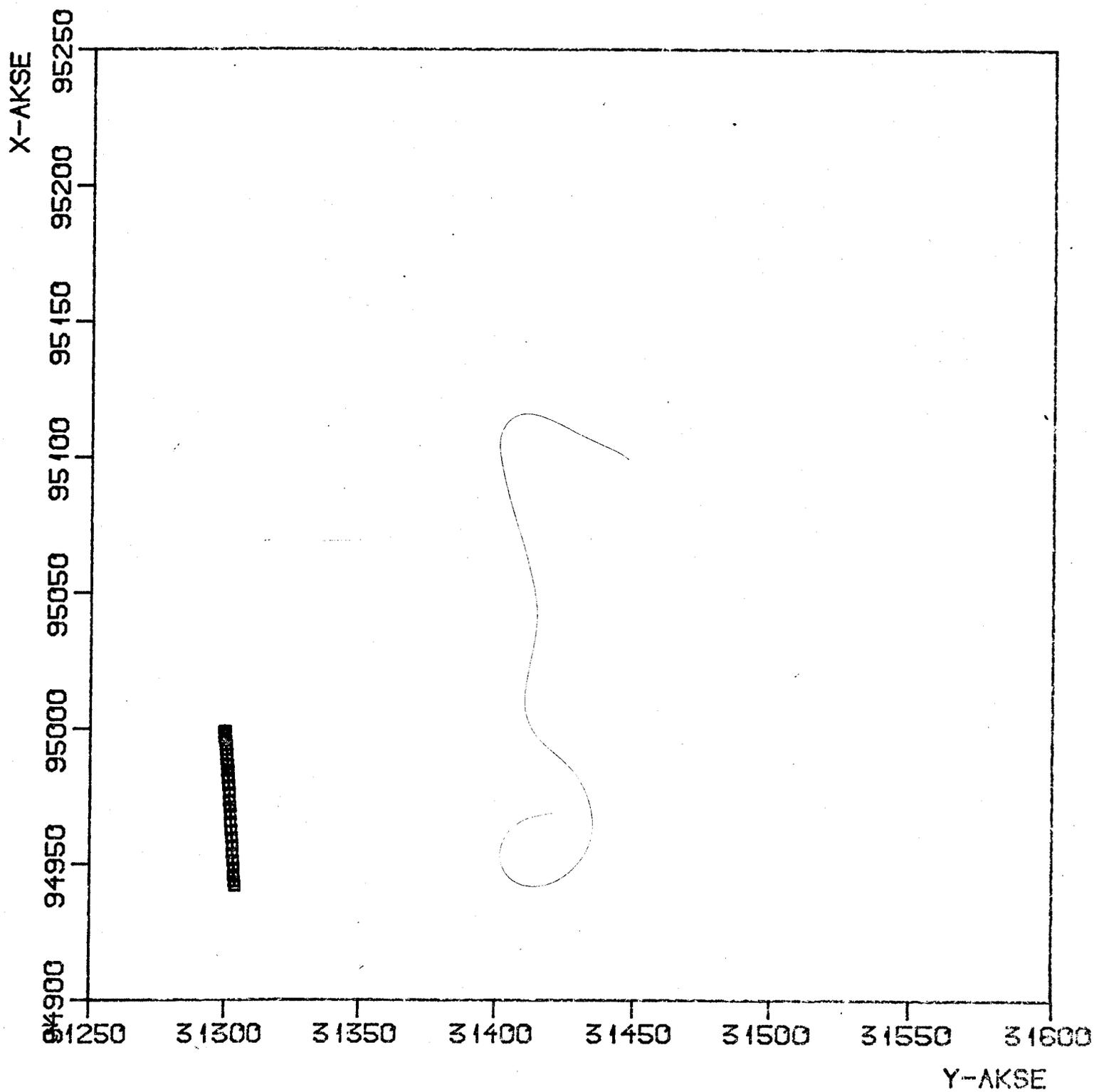
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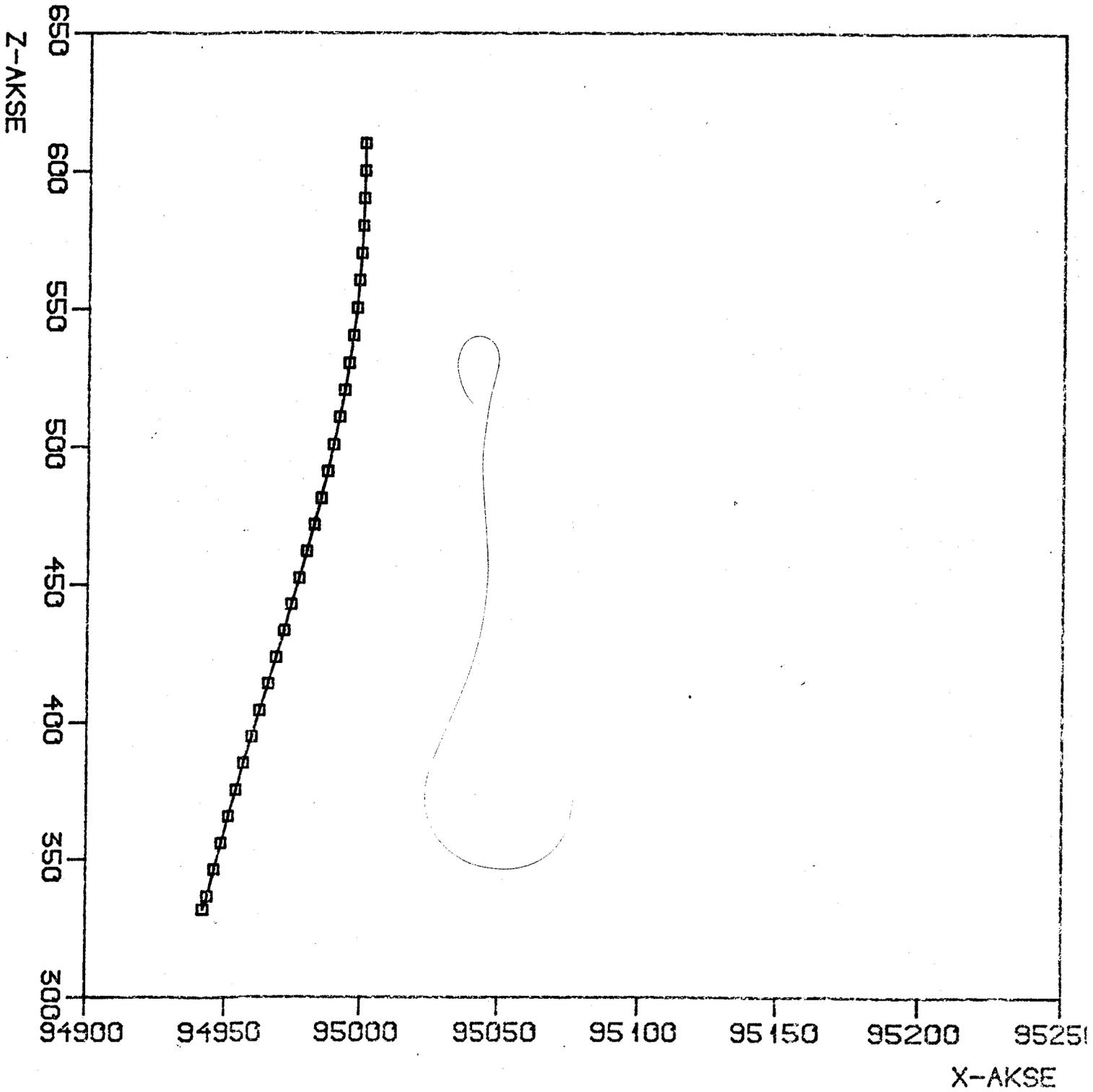
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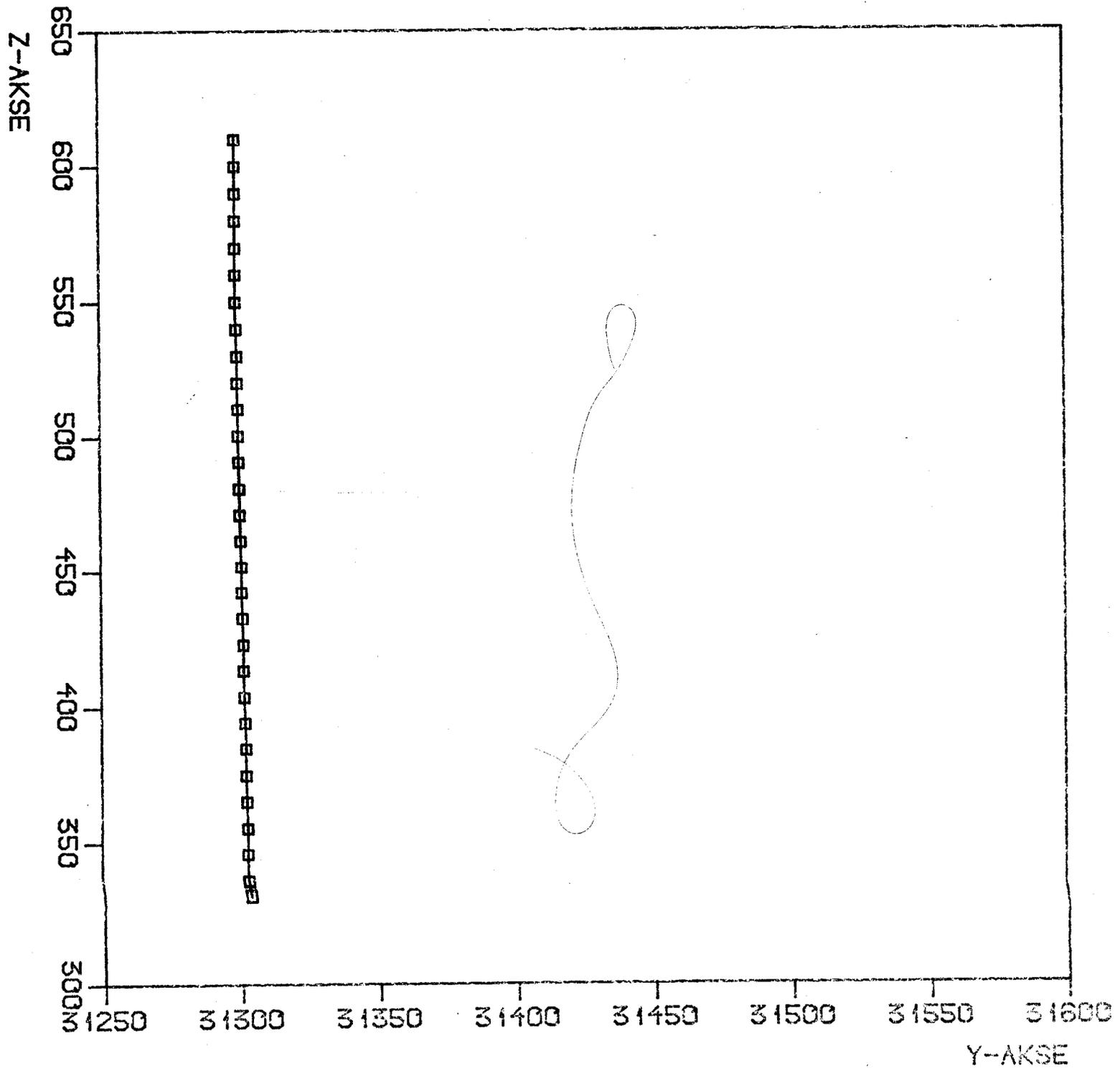
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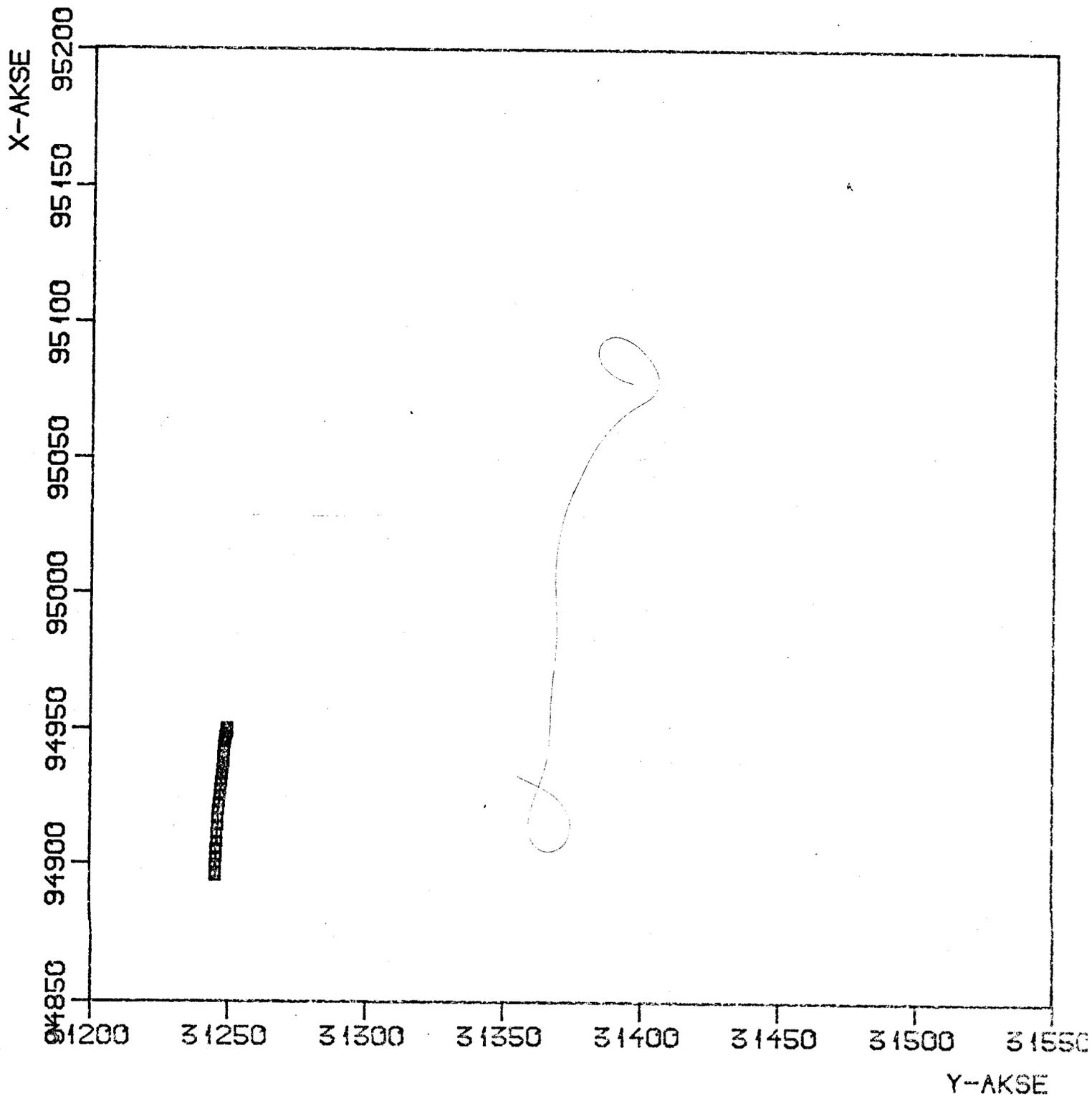
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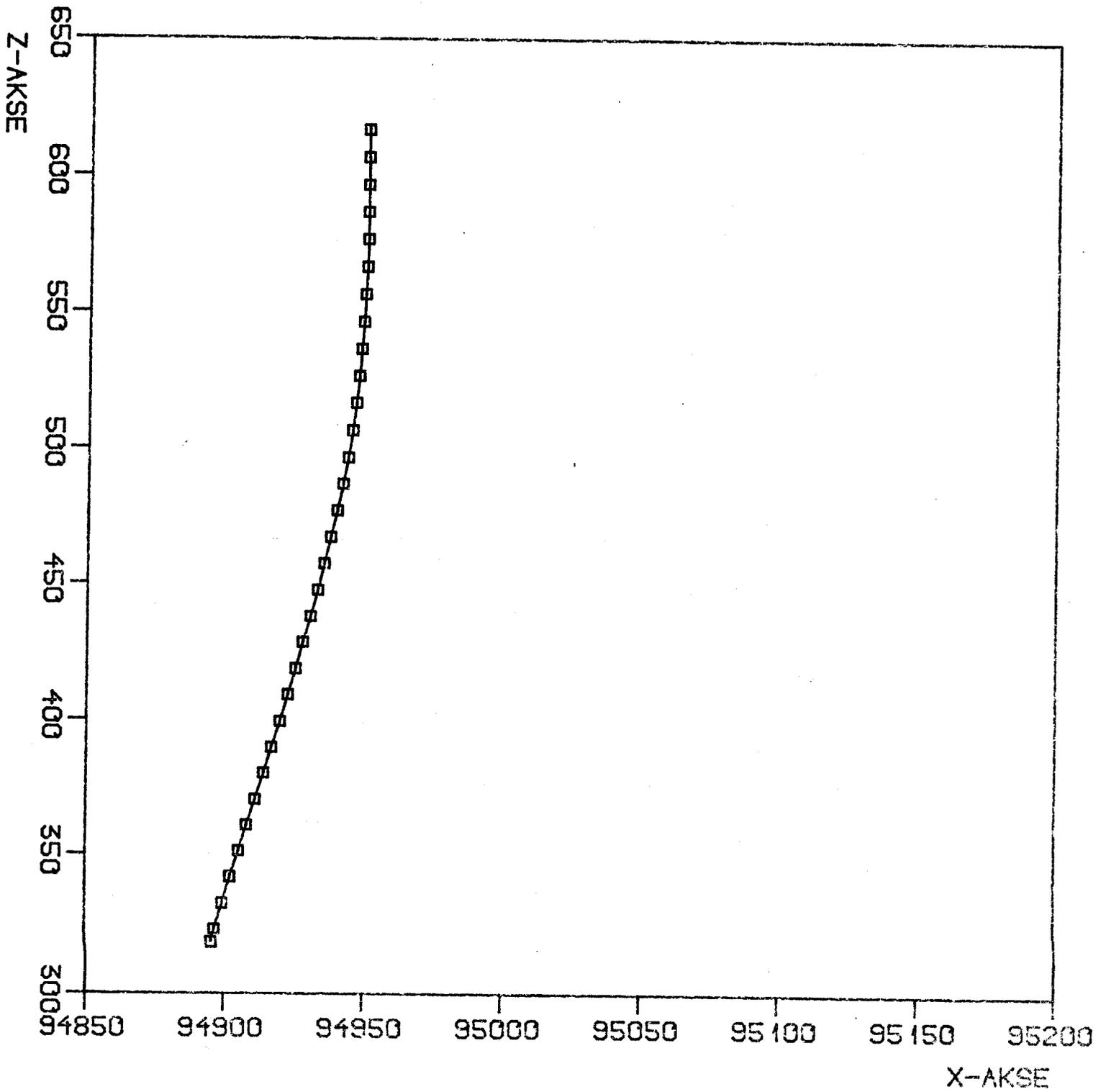
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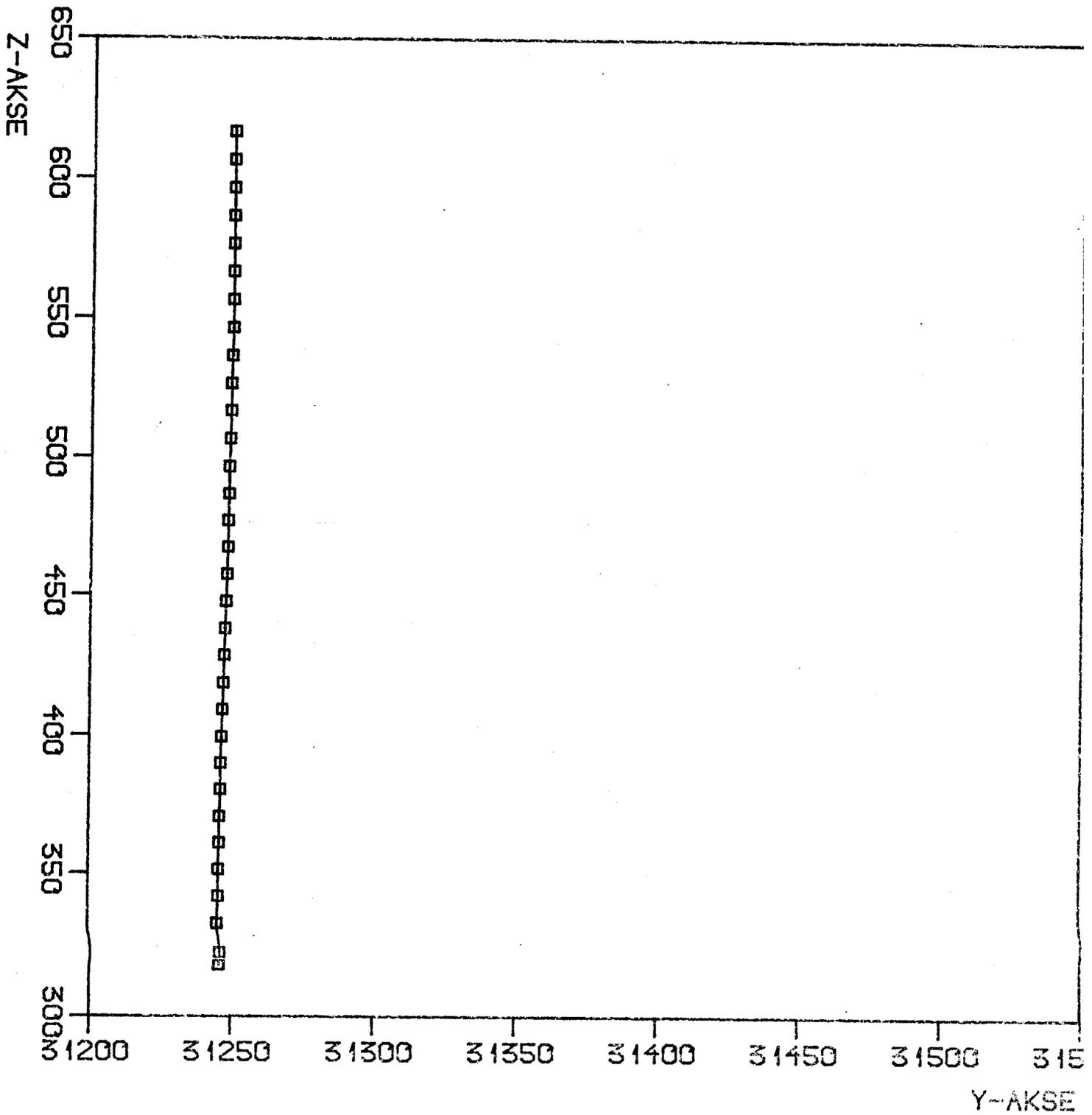
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BORHULL : D54



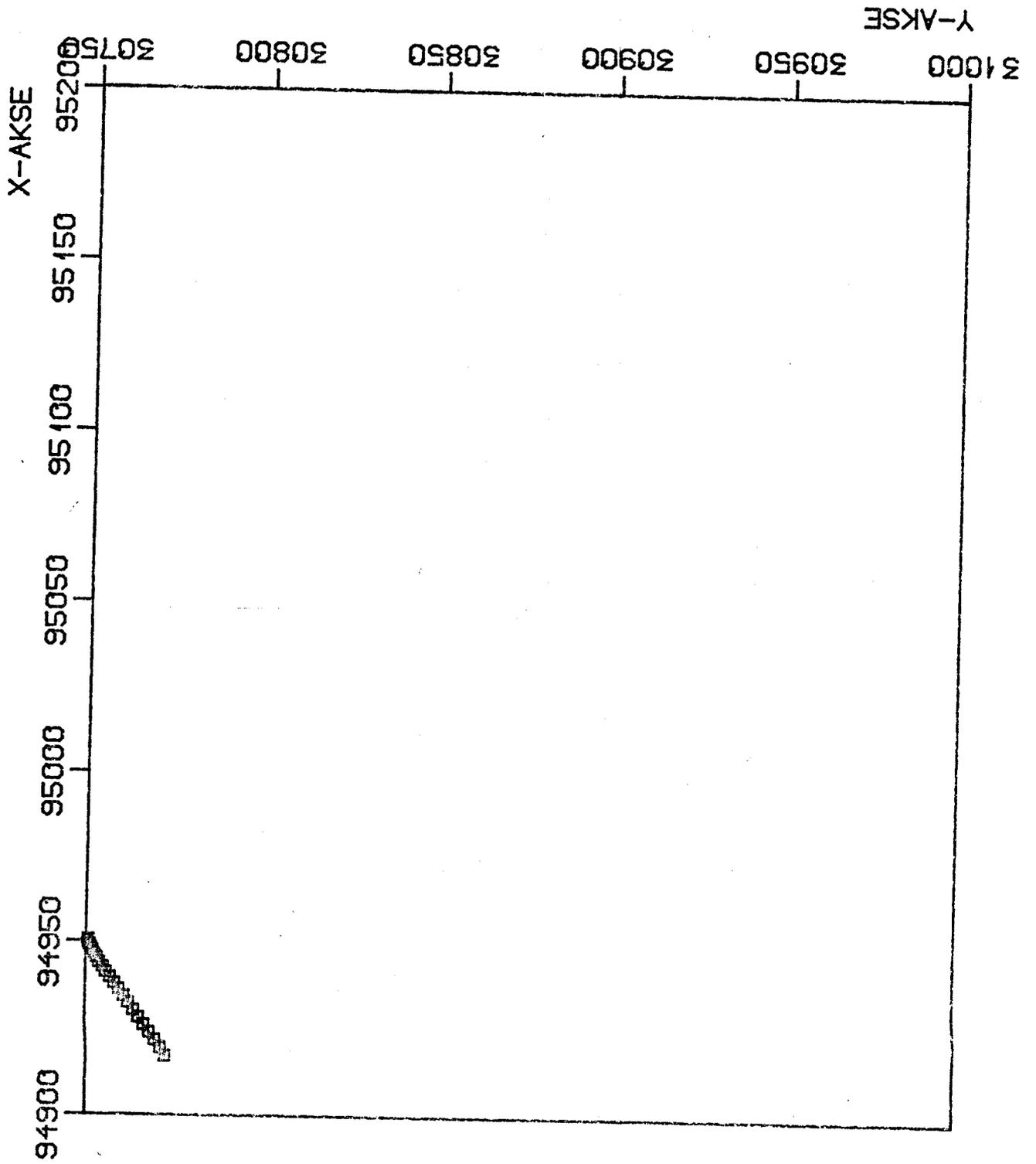
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BORHULL : D54



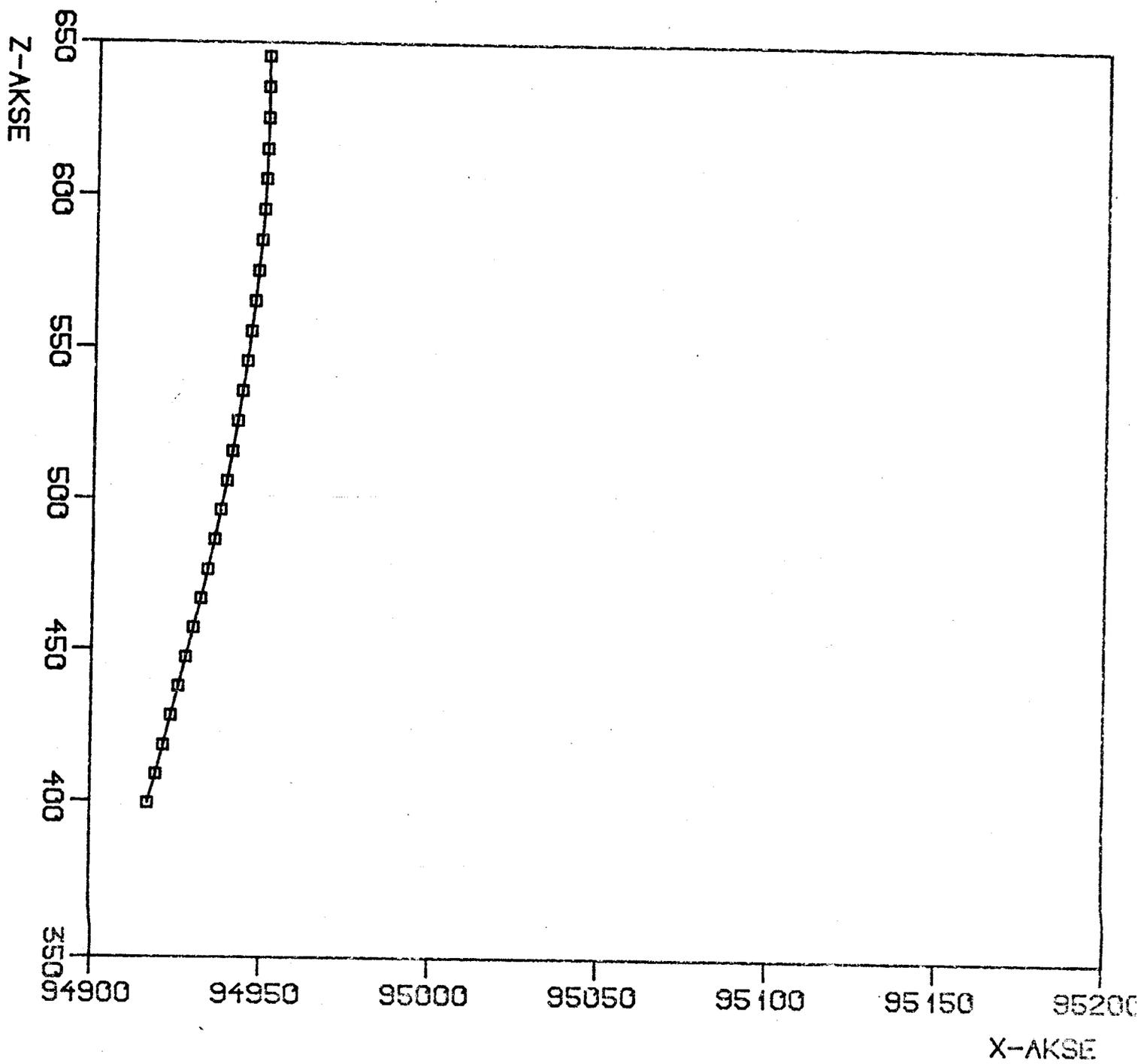
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BORHULL : D55



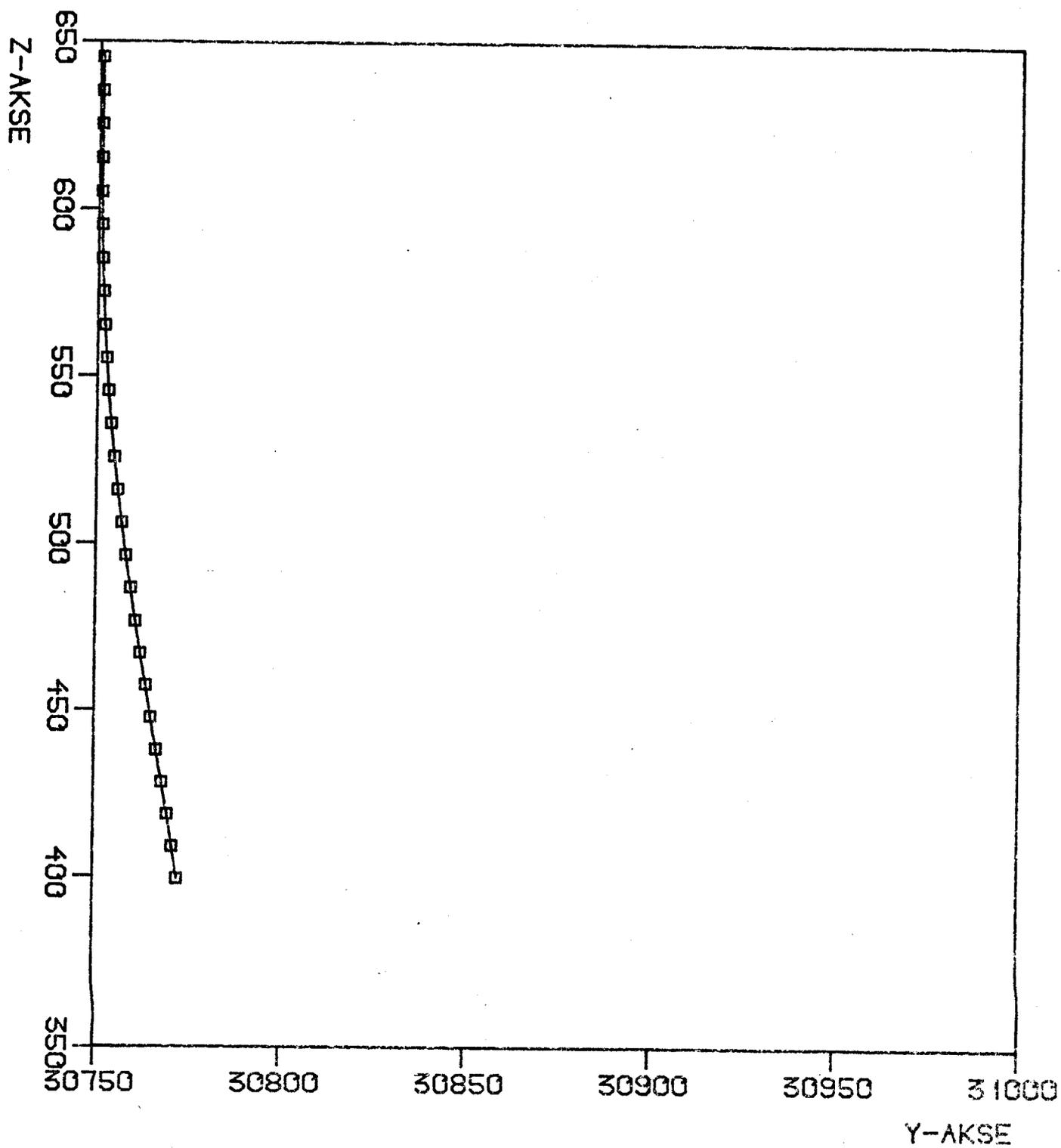
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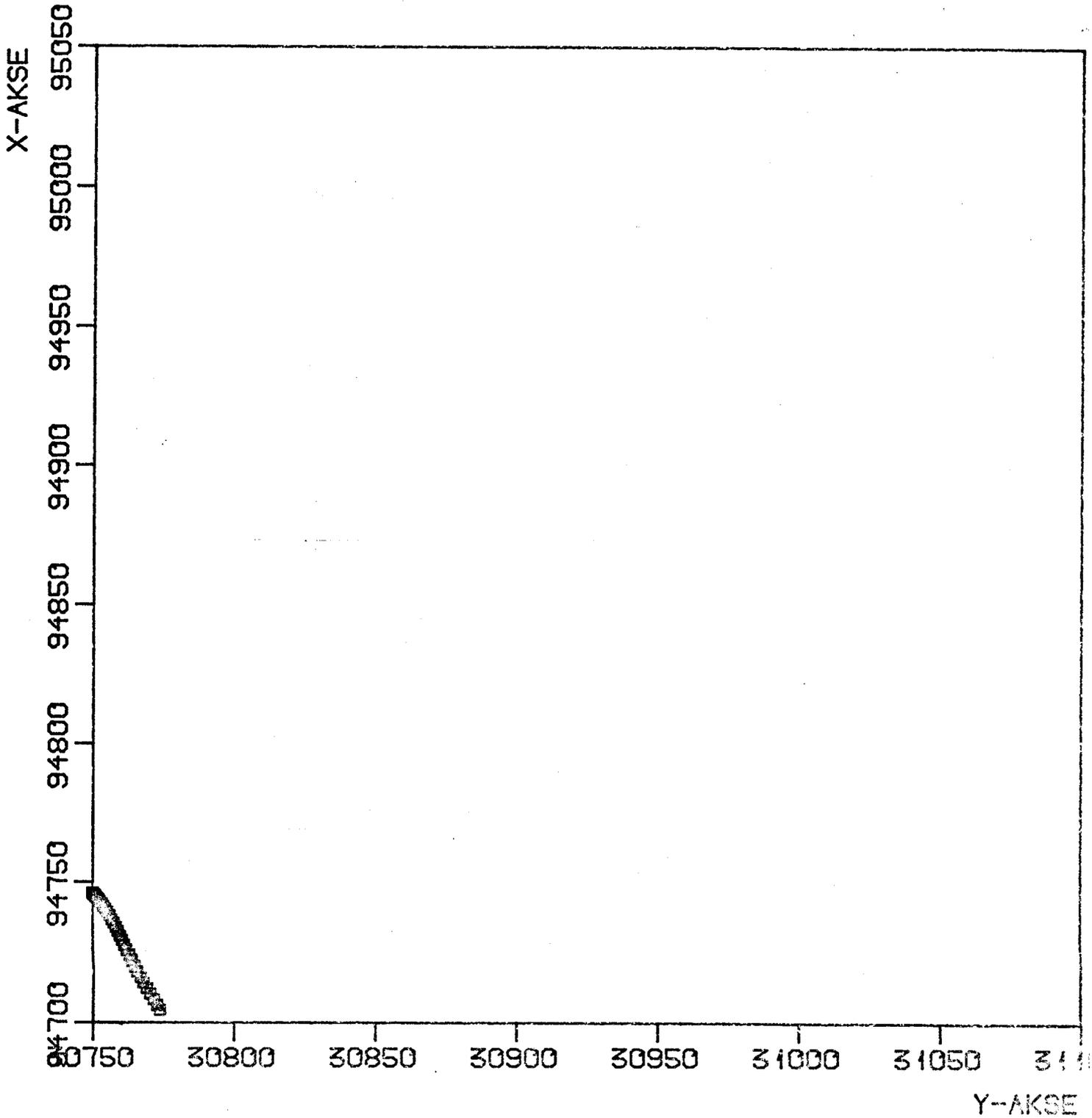
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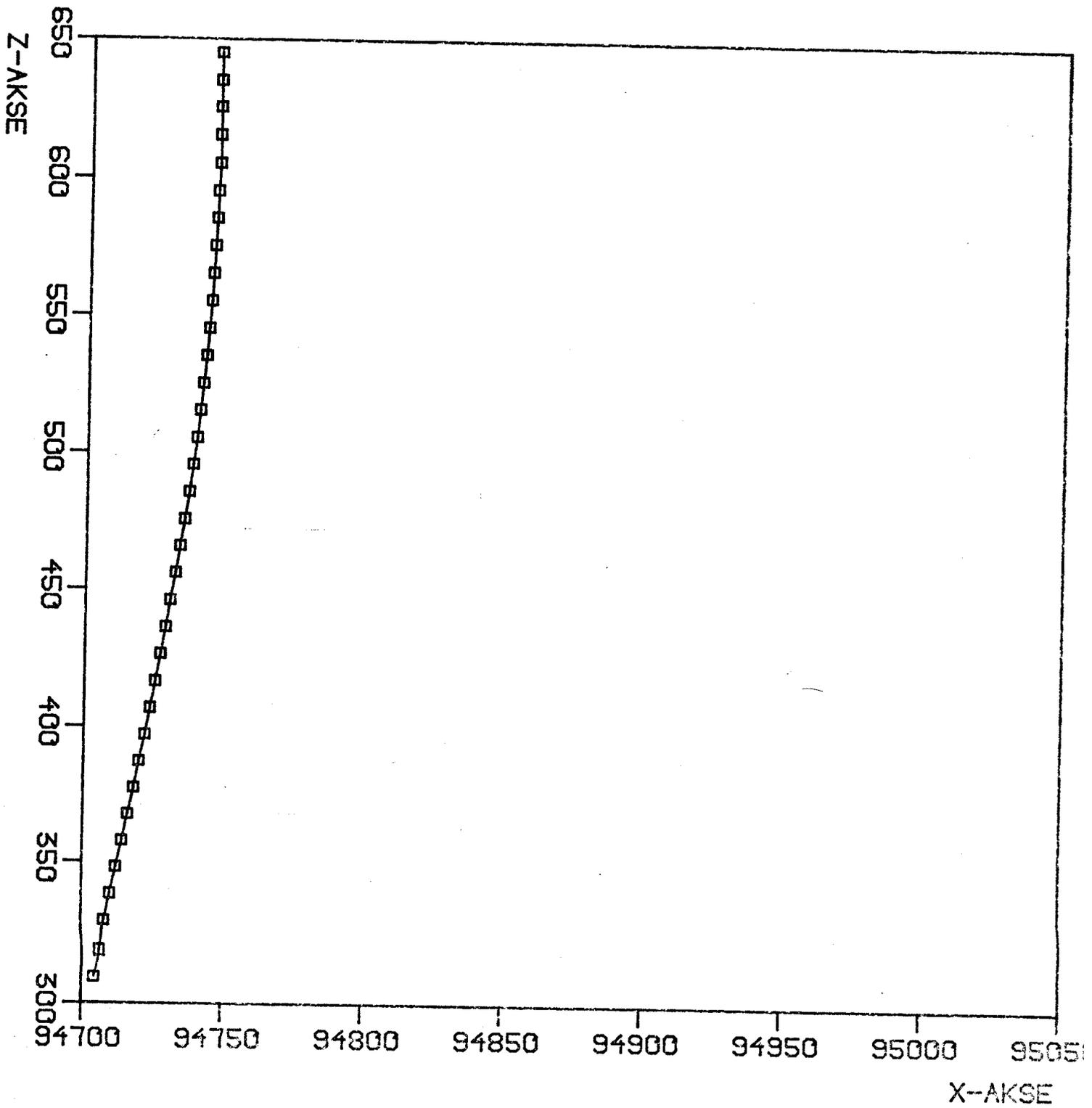
GRONG GRUBER A/S

BORHULL : 56D



GRONG GRUBER A/S

BORHULL : 56D



GRONG GRUBER A/S

BORHULL : 56D

