LONG ISLAND LIGHTING COMPANY
SHOREHAM NUCLEAR POWER STATION
P.O. BOX 618, NORTH COUNTRY ROAD • WADING RIVER, N.Y. 11792

JOHN D. LEONARD, JR.
VICE PRESIDENT - NUCLEAR OPERATIONS

August 22, 1984

SNRC-1074

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Integrated Electrical Test Data
Shoreham Nuclear Power Station - Unit 1
Docket No. 50-322

Dear Mr. Denton:

Enclosed please find the following documents related to the recently conducted Integrated Electrical Test (IET) at Shoreham:

a) The introductory section of the Integrated Electrical Test Procedure (IET)

b) Load curves for each of the four twenty (20) minute test steps conducted during the Integrated Electrical Test

c) Summary data sheets showing voltage and KW during the one (1) minute steady state peak load period for each of the four test steps.

d) Marked up FSAR Tables

Test results are presently undergoing review for approval by Quality Assurance and the Joint Test Group and as such the results have not been approved.

As your staff is aware, the current SNPS FSAR Tables, including the proposed changes outlined in our letter SNRC-1065, are based on design data. The enclosures in this letter represent a summation of the actual loads experienced during a LOOP/LOCA simulation for the integrated electrical test. It should be noted that these loads can be considered representative since operating plant conditions have been simulated to the maximum extent possible.

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PDR ADOCK 05000322
A PDR

The enclosed documents are provided for Staff information in understanding the objectives of the IET and documenting the actual diesel loads, specifically those experienced during the IET.

In providing the introductory portion of the test procedure, the purpose of the IET is outlined. Four test steps are conducted in the IET as follows:

a) One step in which all three diesels are loaded during a LOOP/LOCA event.

b) Three steps in which one diesel is placed in "lockout" and the remaining two diesels are subjected to a LOOP/LOCA event. In each test, a different engine is placed in "lockout" so that all engine combinations are tested.

Load curves for each of the diesels showing the load profile during the steps described above are incl ²d. In addition, tabulated data during the one (1) minute steady state peak load period is enclosed.

The primary purpose of the IET is to ensure emergency bus separation and proper loading of the diesel buses during a LOOP/LOCA event, therefore equipment loads were not actually measured, but rather, verification that the equipment had started as required, was of more concern. As such, enclosed is a marked up FSAR table identifying equipment which was known to be near the tabulated value as opposed to equipment that was known to be connected to the bus but whose load was not exactly determinable.

Should you require any further clarification of this information, please do not hesitate to contact us.

Very truly yours,

J. L. Smith for

J. D. Leonard, Jr.
Vice President - Nuclear Operations

BEG:ck

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ATTACHMENT I

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1.0 OBJECTIVE

The objective of the Integrated Electrical Test is to verify the existence of independence among redundant onsite power sources and their load groups. Various equipment configurations, as listed below, will be utilized to demonstrate independence during Plant response to the Loss of Coolant Accident (LOCA) with and without a Loss of Offsite Power (LOOSP). Plant equipment will be aligned for each test to demonstrate maximum response to each event while attempting to adhere to normal system lineups. Equipment response will be verified using Control Room Indication.

Test 1 - Simulated loss of coolant accident (LOCA) with offsite power available. This will demonstrate diesels start without load shedding and with the automatic initiation of Emergency Core Cooling Systems by HIGH DRYWELL PRESSURE accident signal.

SECTION 8.2 Test 2 - Loss of offsite power (LOOSP) with simultaneous simulated Loss of Coolant Accident (LOCA). This will demonstrate load shedding, diesel automatic start, bus reenergization, and sequencing of the bus loading initiated by concurrent bus undervoltage and LOW LOW LOW reactor water level accident signal.

SECTION 8.3 Test 3 - With orange emergency DC battery system and associated emergency AC diesel generator out of service, initiate simultaneously simulated LOCA and LOOSP conditions. This demonstrates separation of the orange DC and 103 emergency bus from the red and blue DC buses and the 101 and 102 emergency AC buses.

SECTION 8.4 Test 4 - With blue emergency DC battery system and associated emergency AC diesel generator out of service, initiate simultaneously simulated LOCA and LOOSP conditions. This demonstrates separation of the blue DC and 102 emergency bus from the red and orange DC buses and the 101 and 103 emergency AC buses.

SECTION 8.5 Test 5 - With the red emergency DC battery system and associated emergency AC diesel generator out of service, initiate simultaneously simulated LOCA and LOOSP conditions. This demonstrates separations of the red DC and 101 emergency bus from the blue and orange DC buses and the 102 and 103 emergency DC buses.

JTG APPROVED JUL 26 1984

* LOADS ENERGIZED DURING INTEGRATED ELECTRICAL TEST

+ LOADS ENERGIZED BUT CYCLING OR ACTUAL LOAD VARYING

TABLE 8.3.1-1

EMERGENCY DIESEL GENERATOR SYSTEM
REQUIRED LOADS AND MAXIMUM COINCIDENT DEMAND

Function	Nameplate Rating (Hp)	Total Plant Number	Number Required: Design Basis Loss of Coolant Accident 0-10 Min	Number Required: Design Basis Loss of Coolant Accident 10 Min on	Number Required: Loss of Offsite Power (Hot Standby)	Maximum Coincident Demand (Kilowatt) DG-101	Maximum Coincident Demand (Kilowatt) DG-102	Maximum Coincident Demand (Kilowatt) DG-103
* Core Spray Pump	1250	2	1 **	1	-	998	998	-
* Residual Heat Removal Pump	1250	4	2 **	1	1	999	999	1998 **
* Service Water Pump	450	4	2	2	3 ***	358	358	240 358
+ RBSVS and CRAC Water Chiller	282	4	2	2	2	235	235	470 **
* RBSVS and CRAC Water Chiller Lube Oil Pump	.25	4	2	2	2	0.2	0.2	0.4 **
* RBSVS Chiller Circ. Water Pump	75	4	2	2	2	60	60	120 **
* RBSVS Chiller Cond. Water	20	4	2	2	2	16	16	32 **
* RBSVS Unit Cooler	30	8	4	4	4	96	96	-
* RBSVS Exhaust Fan	100	3	2	2	2	82.5	82.5	82.5
* Reactor Building Exhaust Booster Fan	7.5	2	1	1	1	6	6	-
* RBSVS Filter Reheat Coil	6.6 kW	2	1	1	1	6.6	6.6	-
* RBCLCW Circ. Pump	100	3	2	2	2	80	80	80 (4)
+ Diesel Generator Air Compressor	10	6	-	-	-	12	12	12
+ Diesel Generator Fuel Oil Transfer Pump	5	6	2	2	2	0.4	0.1	0.4
~~Diesel Generator Jacket Water Heater~~	36 kW	6	-	-	-	72 ***	72 ***	72 ***
~~Diesel Generator Jacket Water Keep Warm Pump~~	2.5 kW	3	-	-	-	2.5 ***	2.5 ***	2.5 ***
~~Diesel Generator Lube Oil Heater~~	20 kW	3	-	-	-	20 ***	20 ***	20 ***
~~Diesel Generator Before & After Lube Oil Pump~~	5	3	-	-	-	4 ***	4 ***	4 ***
~~Diesel Generator Heater~~	4.2 kW	3	-	-	-	4.2 ***	4.2 ***	4.2 ***
+ Battery Charger (125 V)	60 kVa ***	3	2	2	2	20	25	17
+ 120 V ac Instrument Power	100 kVa DG 101 100 kVa DG 102 50 kVa DG 103	3	2	2	2	80	80	40
~~480 V Nonemergency Equip.~~	6.5 kVa	-	-	4 ***	-	-		52 **
+ Diesel Generator Room Vent Supply Fan C	20	3	2	2	2	16	16	16
* Battery Room Vent Supply Fan	2	3	2	2	2	1.6	1.6	1.6
* Control Room Air Conditioning Unit	40	2	1	1	1	33.9	33.9	
* Control Room Vent Booster Fan	7.5	2	1	1	1	6.0	6.0	

TABLE 8.3.1-1 (CONT'D)

Function	Nameplate Rating (Hp)	Number Required: Total Plant Number	Number Required: Design Basis Loss of Coolant Accident 0-10 Min	Number Required: Design Basis Loss of Coolant Accident 10 Min on	Number Required: Loss of Offsite Power (Hot Standby)	Maximum Coincident Demand (Kilowatt) DG-101	Maximum Coincident Demand (Kilowatt) DG-102	Maximum Coincident Demand (Kilowatt) DG-103
* Emergency Switchgear, Relay & Computer Rooms Air Conditioning Unit	40	2	1	1	1	33.9	33.9	-
~~TSC Air Conditioning Unit~~	40 kW	1	-	1	1	-	-	40 (*),(**)
~~TSC Air Cooled Condenser~~	30 kW	1	-	1	1	-	-	30 (*),(**)
* Emergency Switchgear, Relay & Computer Rooms Exhaust Fan	10	2	1	1	1	8.0	8.0	-
* RBSVS Chiller Room Exhaust Fan	3	2	1	1	1	2.4	2.4	-
* Screenwell Exhaust Fan	10	2	1	1	1	8.0	8.0	-
Screenwell Interposing Relay Panel	1 kVa	1	1	1	1	-	0.8	-
* MCC Room Ventilation	75	2	1	1	1	0.5	0.5	-
* LPCI M G Set Room Ventilation	3	4	2	2	2	2.4	2.4	4.8
* Unit Cooler MCC OB1 Room	1.5	1	1	1	1	-	1.2	-
Spent Fuel Pool Cooling Water Pump	30	2	1	1	1	21 (16)	24 (11)	-
+ Loop Level Pump (CS, RHR, ~~HPCI, RCIC~~)	7.5	4	4	2	4	12.0	12.0	-
~~Atmospheric Cont. - Hyd Recombiner~~	109 kW	2	-	1	-	109 (*)	109 (*)	-
~~MSIV LCS Heaters~~	6.6 kW	4	-	-	-	-	26.4 (*)	-
~~MSIV LCS Blowers~~	4.4	3	-	-	-	7 (*)	3.5 (*)	-
+ Radiation Monitoring	1	10	-	-	-	4.8	3.2	-
~~Lighting (Equivalent kW)~~	407.2 kW	-	-	-	X (*)	180 (*)	-	227.2 (*)
* Fence Security Lighting	60 kW	-	-	-	X (*)	34	-	26
~~Reactor Protection System M G Set (*)~~	25	2	-	-	2	20 (**)	20 (**)	-
~~Reactor Protection System Backup Transformer~~	25 kVa	1	-	-	1	-	-	20 (*)
~~Battery Charger 124 V~~	3 kVa	4	-	-	-	2.4 (*)	2.4 (*)	-
+ Uninterruptible Power (Vital Bus) (*)	37.5 kVa	1	1	1	1	-	-	30
* Uninterruptible Power (Security & Communications) (*)	20 kVa	1	1	1	1	-	-	16
+ Battery Charger (Security and Communication)	20 kVa (**)	1	-	-	-	-	-	4
* Uninterruptible Power (Computer Bus) (*)	20 kVa	1	1	1	1	16		
~~Control Rod Drive Pump (*)~~	250	2	-	-	1	206.1 (*)	206.1 (*)	-
~~Drywell Cooling System Fan (*)~~	25	8	-	-	4	80 (*)	80 (*)	-

TABLE 8.3.1-1 (CONT'D)

Function	Nameplate Rating (Hp)	Total Plant Number	Number Required: Design Basis Loss of Coolant Accident 0-10 Min	Number Required: Design Basis Loss of Coolant Accident 10 Min on	Number Required: Loss of Offsite Power (Hot Standby)	Maximum Coincident Demand (Kilowatt): DG-101	Maximum Coincident Demand (Kilowatt): DG-102	Maximum Coincident Demand (Kilowatt): DG-103
~~Primary Containment Air Cooler Subfeed~~	2 kVa	2	-	-	1	1.6 (1)	1.6 (1)	-
~~Reactor Water Cleanup Booting Pump~~ (3)	60	2	-	-	1		48 (1)	48 (1)
~~Suppression Pool Pump Back Pump~~	25	1	-	-	-	20 (1)	-	-
~~Main Turbine Turning Gear~~ (1)	60	1	-	-	1	-	-	48 (1)
~~Main Turbine Piggyback Turning Gear Drive~~	0.5	1	-	-	1	-	-	0.4 (1)
~~Main Turbine Turning Gear Oil Pump~~ (3)	40	1	-	-	1	-	-	32 (1)
~~Main Turbine Bearing Lift Pump~~ (3)	5	7	-	-	7	8 (1)	8 (1)	12 (1)
~~Feedwater Turbine Turning Gear~~ (1)	1.5	2	-	-	2	1.2 (1)	1.2 (1)	-
~~Feedwater Turbine Turning Gear Oil Pump~~ (3)	10	2	-	-	2	8 (1)	8 (1)	-
~~Off-EHC Control Transformer~~	1.5 kVa	2	-	-	2	1.2 (1)	1.2 (1)	
~~Standby Liquid Control Pump~~	40	2	-	-	-	32 (1)	32 (1)	-
~~Standby Liquid Control Main Heater~~ (1)	10 kW	1	-	-	-	-	10 (1)	-
~~Standby Liquid Control Mixing Heater~~ (3)	45 kW	1	-	-	-	45 (1)		
~~Standby Liquid Control Heat Tracing~~	3 kVa	2	-	-	-	3 (1)	3 (1)	-
* Heat Tracing Transformer	25 kVa	2	1	1	2	20	20	-
* 480 V M-G Set	200 (1)(3)	4	2	2	2	160	160	214
~~Refueling Jib Crane~~	3.25	2	-	-	-	2.5 (1)	2.5 (1)	-
~~Refueling Platform Assembly~~	3.5	1	-	-	-	2.8 (1)	-	-
* Motor Operated Valves	-	-	X (1)	-	-	19.7	18.3	0.7
* Nonoperating MOV's (1)(3)	-	-	-	-	-	95.9	75.3	-
		DG-101	DG-102	DG-103				
Total Connectable Loads				4,557		4381.3	4147.8	4489.7
Minus Note 11 Loads				- 0		- 95.9	- 75.3	- 0
Minus Note 8 Loads				4055.1		4285.4	4072.5	4489.7
Minus Note 10 Loads				- 431.6		- 507.8	- 428.0	- 439.6
Minus Note 9 Loads				3611.1		3687.6	3644.5	4064.7
Minus Note 13 Loads				- 0		- 20.0	- 20.0	- 0
Total kW (60 seconds approx)				3611.1		3667.6	3624.5	4064.7
Minus Operating MOV's				- 18.3		- 116.0	- 138.9	- 70.0
				3592.8		3551.6	3485.6	3994.7
				- 102.7		- 102.7	- 102.7	- 102.7
				3490.1		3448.9	3382.9	3891.4
				- 0.7		- 19.7	- 18.3	- 0.7

TABLE 8.3.1-1 (CONT'D)

	DG-101	DG-102	DG-103			
Total kW (Prior to 10 minutes)	3733.2	3388.6	3442.7	3409.2	3364.6	3880.7
Minus Note 4 Loads	-0	-0	-1310.2	- 0	- 0	-1310.2
Plus Note 14 Loads	0	0	150.0	0	0	70.0
Total kW (After 10 minutes)	3733.2	3388.6	2282.5	3409.2	3364.6	2640.5

NOTES:

(*) Maximum coincident demand shown occurs during the 0-10 minute period after a design basis loss of coolant accident (LOCA).

(**) Kilowatt loads given are from manufacturer's data for the CS, RHR, service water pumps, motor-generator sets, RBSVS chiller units, and all motors greater than 100 Hp.

(***) On loss of offsite power, it is necessary to go to a cold shutdown condition if DG-103 does not start, since the three required service water pumps will not be available. Note that only two service water pumps are required for a design basis LOCA condition. (Only one pump is connected automatically to DG-103, the other may be connected manually only.)

(****) Two units are started on DG-103. One unit is shut down when it is determined which section of the system will be used.

(*****) These nonclass 1E components are not required for a safe shutdown. Loading indicated for various modes of operation is desirable, although not essential. All remaining components are Class 1E.

(******) Minimum safe shutdown requirements for a suction line break. Actual pump requirements depend on break location (see Section 6.3.3).

(*******) X indicates load required

(1) These loads are tripped intentionally (automatically) on a LOCA.

(2) These loads are not normally operating and receive no automatic start signal after a LOCA.

(3) These nonsafety related loads have seal-in type control circuits that drop out on a loss of offsite power prior to connecting to the diesel generators.

(4) These MOV's are connected to their respective diesel buses but do not operate upon a LOCA.

(5) The load to be carried by the M-G Sets consist of certain motor-operated valves. On Unit 103, one set operates at full load and one set operates unloaded.

(6) These loads are automatically tripped when diesel generator starts.

(7) These loads are prevented from starting until 10 minutes after a LOCA signal.

(8) Loads imposed by battery chargers are based on the dc loading of the battery chargers.

(9) [illegible]

8.2

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I.E.T. STEP 8.2 8/15/84
FILE #0009
RUN #  1
DATE   8/15/84
TIME @ START OF RUN   2:12:58: 10
BEGINNING AT 269.00 SECS. FROM START OF RUN


CHAN#   208 CHAN#   209 CHAN#   210 CHAN#   211 CHAN#   212
DG101VLT    DG101KW     DG102VLT    DG102KW     DG103VLT    DG103KW
VAC         KW          VAC         KW          VAC         KW
RELATIVE TIME . . . 0           0           0           0
   4048.311    2522.165    4154.740    2797.031    4238.256    2859.954
   4050.792    2819.112    4156.982    2797.831    4233.974    2871.264
   4046.231    2819.112    4150.073    2794.781    4239.864    2868.994
   4044.521    2832.105    4155.365    2794.781    4230.256    2865.841
   4048.511    2824.461    4154.211    2797.069    4230.256    2866.864
   4049.802    2824.451    4154.311    2797.851    4233.074    2860.994
   4046.081    2821.403    4156.533    2797.871    4231.383    2868.261
   4050.911    2822.165    4156.032    2797.851    4233.310    2872.642
   4046.801    2824.451    4156.422    2794.741    4237.642    2872.847
RELATIVE TIME . . . 0           0           0           0
   4048.248    2825.213    4156.822    2794.781    4240.147    2865.561
   4046.231    2824.451    4154.834    2794.811    4242.947    2865.311
   4049.311    2824.451    4153.754    2797.801    4233.152    2865.264
   4045.802    2822.165    4155.738    2794.811    4236.356    2868.364
   4047.291    2821.403    4156.422    2794.851    4237.647    2869.731
   4048.231    2819.112    4156.933    2797.739    4237.647    2868.231
   4042.248    2824.451    4156.333    2797.741    4233.382    2865.176
   4042.248    2821.401    4155.022    2794.811    4235.965    2862.187
   4045.881    2827.213    4155.745    2794.781    4233.317    2859.231
   4042.271    2824.165    4154.211    2791.739    4237.623    2860.864
RELATIVE TIME . . . 0           0           0           0
   4042.248    2824.165    4153.388    2791.861    4237.623    2865.231
   4044.321    2822.537    4156.597    2793.638    4242.263    2860.364
   4042.761    2824.451    4155.745    2793.638    4242.856    2859.231
   4044.521    2824.451    4154.211    2791.641    4238.574    2865.598
   4043.351    2825.213    4156.822    2796.620    4232.365    2865.176
   4042.240    2821.403    4154.733    2796.620    4231.101    2865.176
   4042.240    2822.165    4156.235    2796.620    4233.074    2862.341
   4042.240    2822.165    4153.822    2799.618    4235.961    2858.364
   4038.563    2825.213    4154.211    2796.841    4237.943    2860.687
   4041.679    2825.213    4154.211    2794.861    4237.254    2862.125
RELATIVE TIME . . . 0           0           0           0
   4041.921    2825.213    4155.822    2797.817    4237.241    2862.125
   4041.311    2824.111    4154.211    2796.911    4237.883    2858.364
   4046.801    2821.403    4155.822    2796.633    4240.574    2859.564
   4044.321    2822.165    4155.028    2796.861    4238.247    2862.341
   4041.679    2825.213    4156.433    2796.861    4237.883    2862.867
   4042.240    2822.165    4154.211    2794.861    4238.365    2862.341
   4041.679    2825.213    4155.283    2797.620    4233.101    2862.176
   4042.248    2822.165    4153.845    2794.862    4235.101    2860.176
   4045.968    2821.403    4156.822    2797.840    4238.365    2862.341
```

8.2

8.2

8.2

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8.2

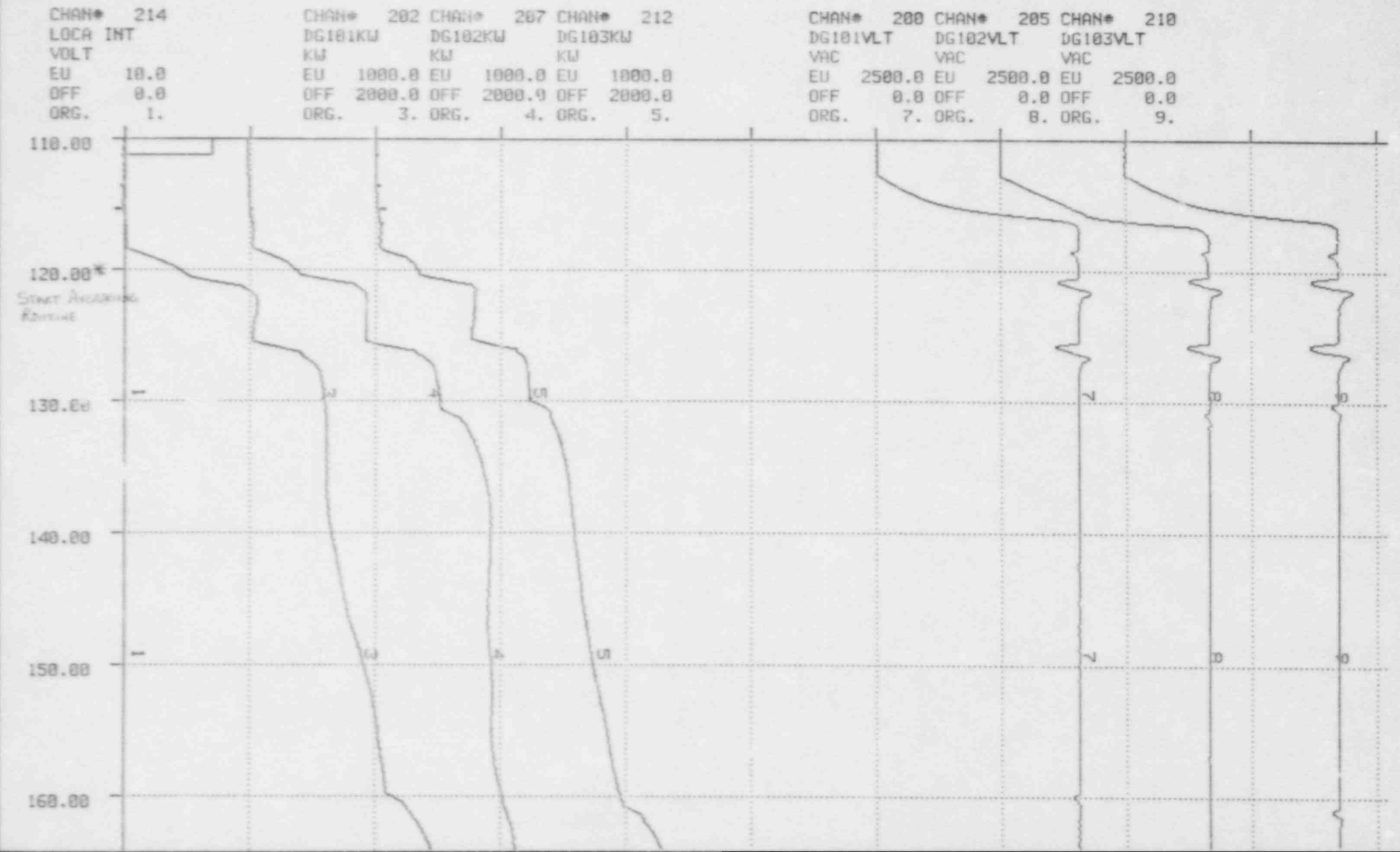
8.2

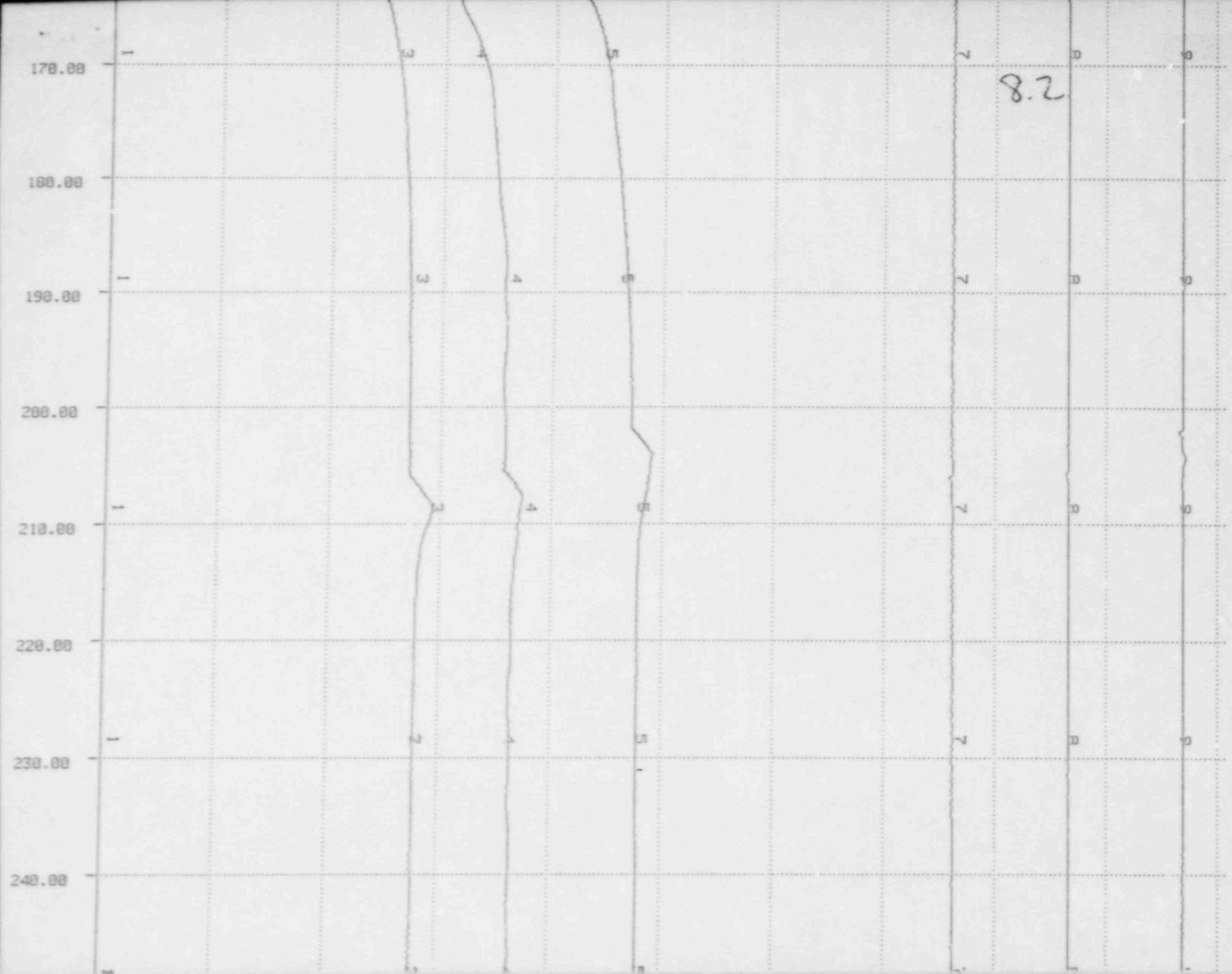
8.2

8.2

OFF-LINE PLOT
I.E.T. STEP 8.2 8/15/84
FILE #[illegible]
RUN # 1
DATE 8/15/84
TIME @ START OF RUN 2:12:50: 10
BEGINNING AT 110.00 SECS. FROM START OF RUN

10.000SEC./GRID LINE

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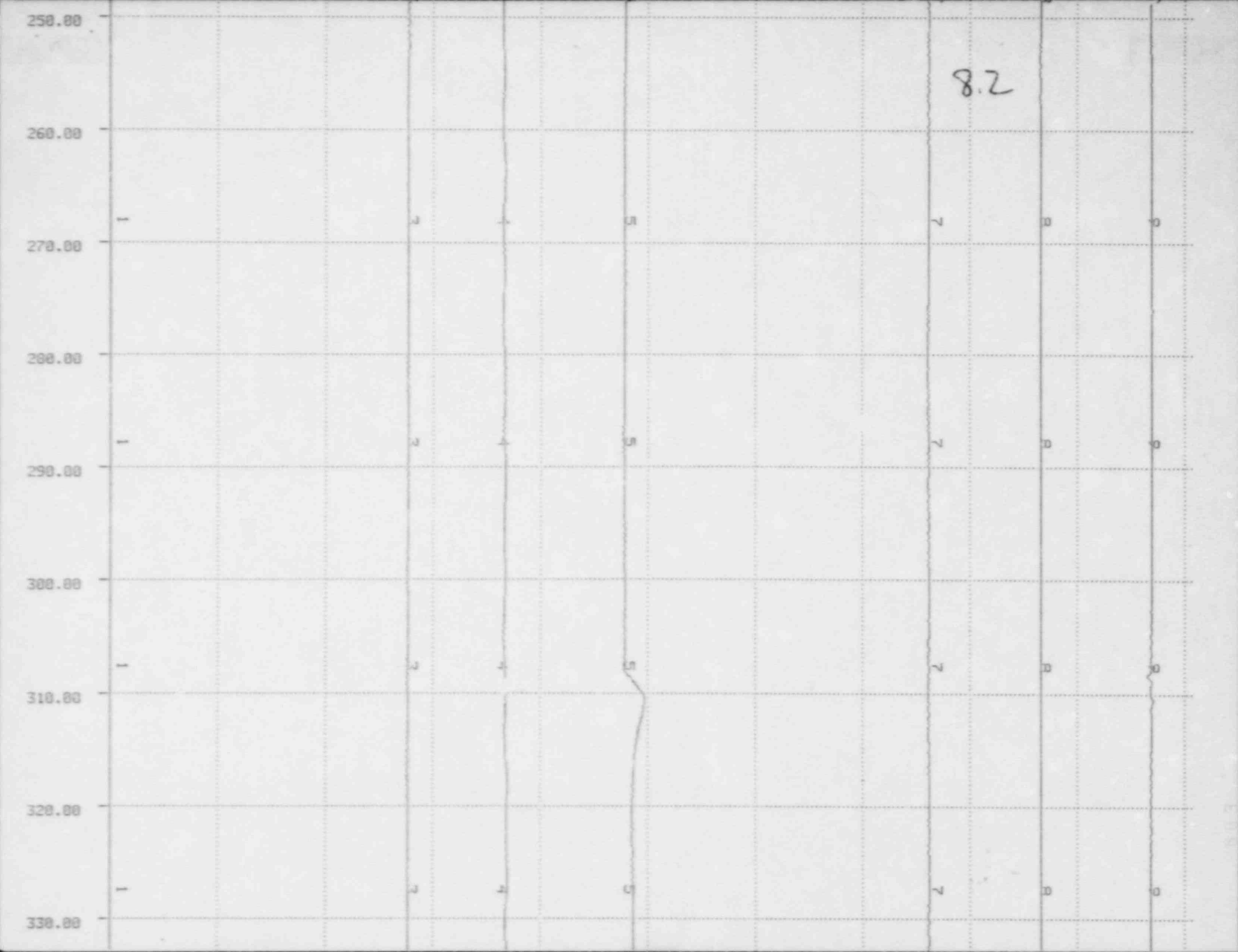
210.00
220.00
230.00
240.00
8.2


8.2
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280.00
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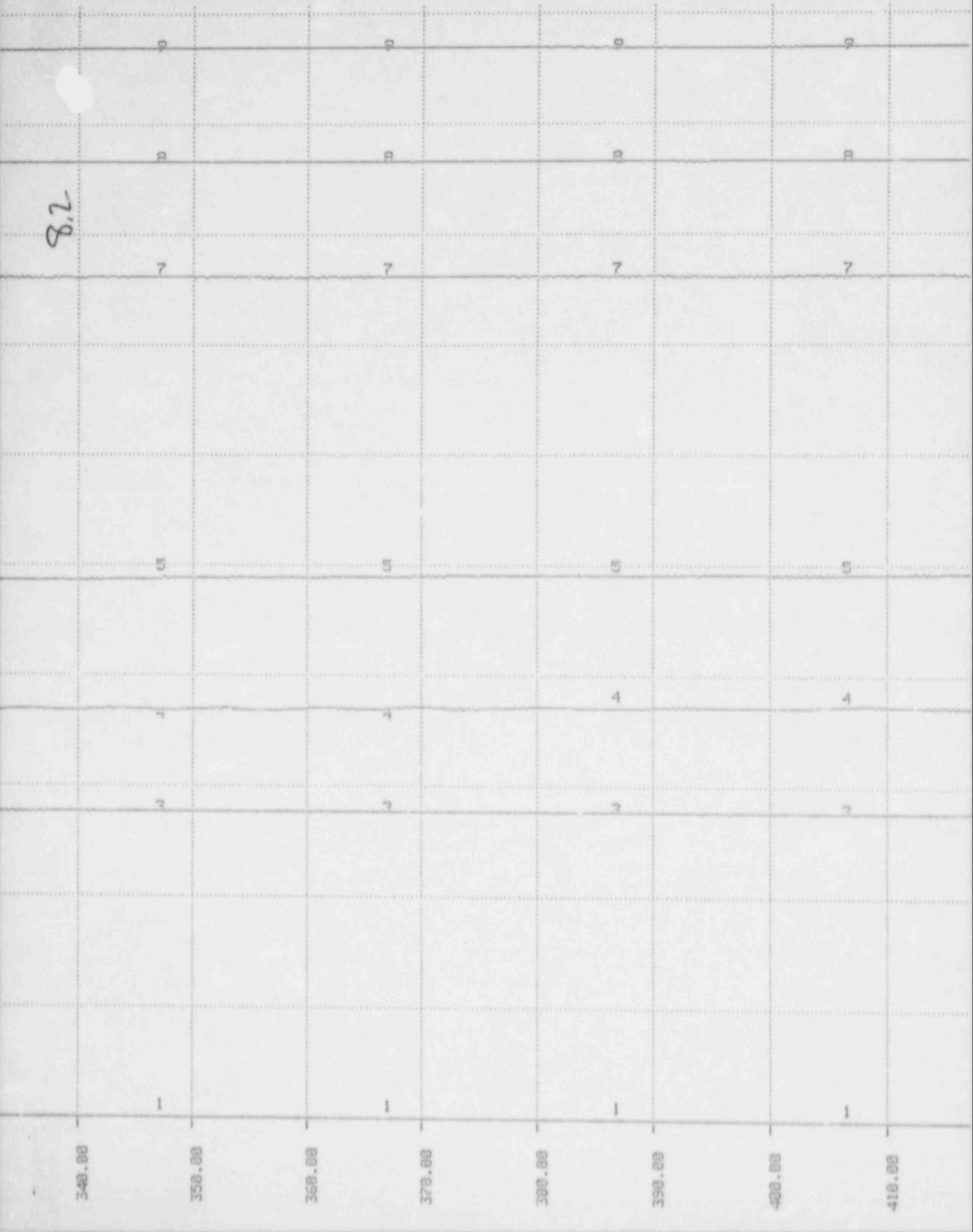
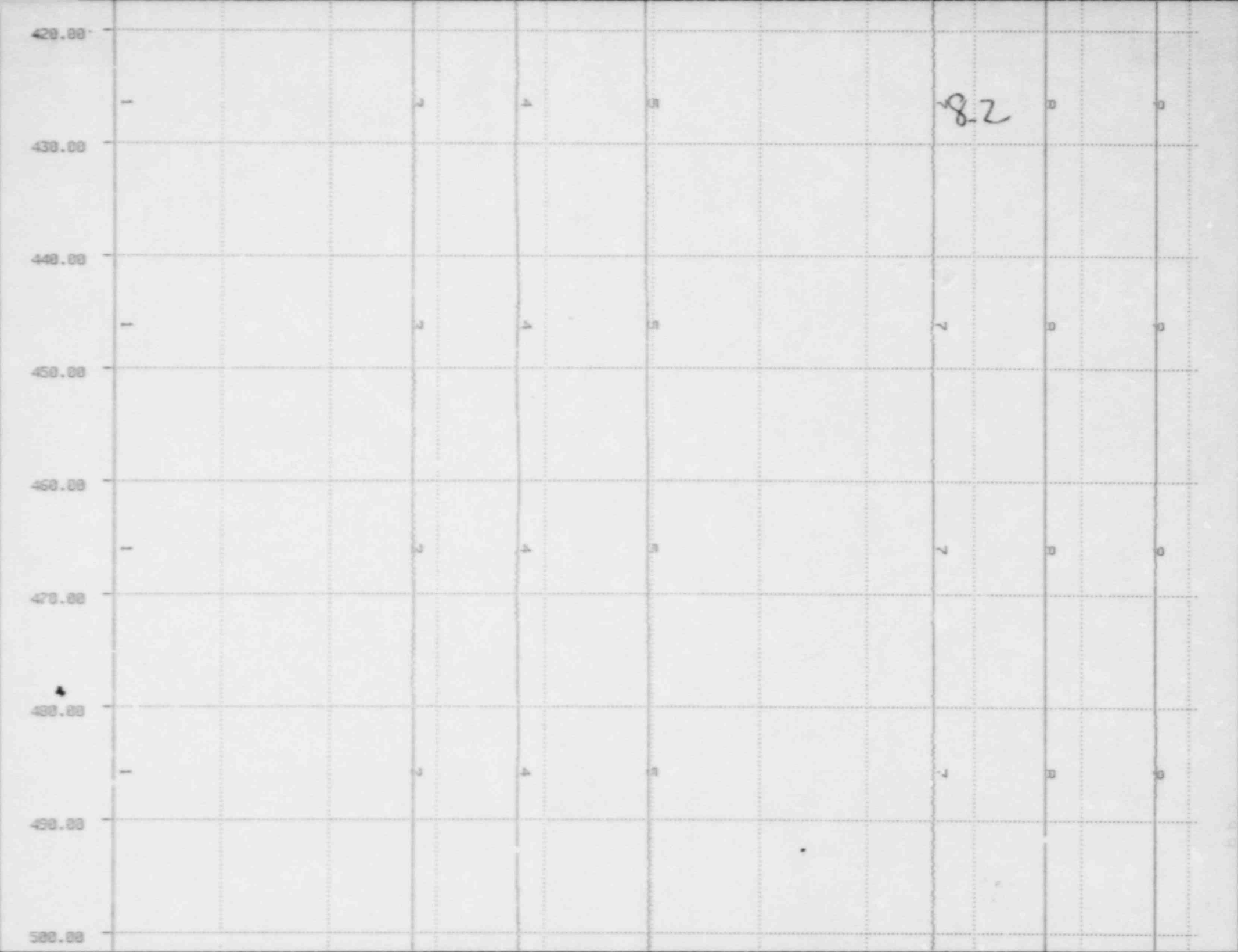
320.00
330.00

8.2

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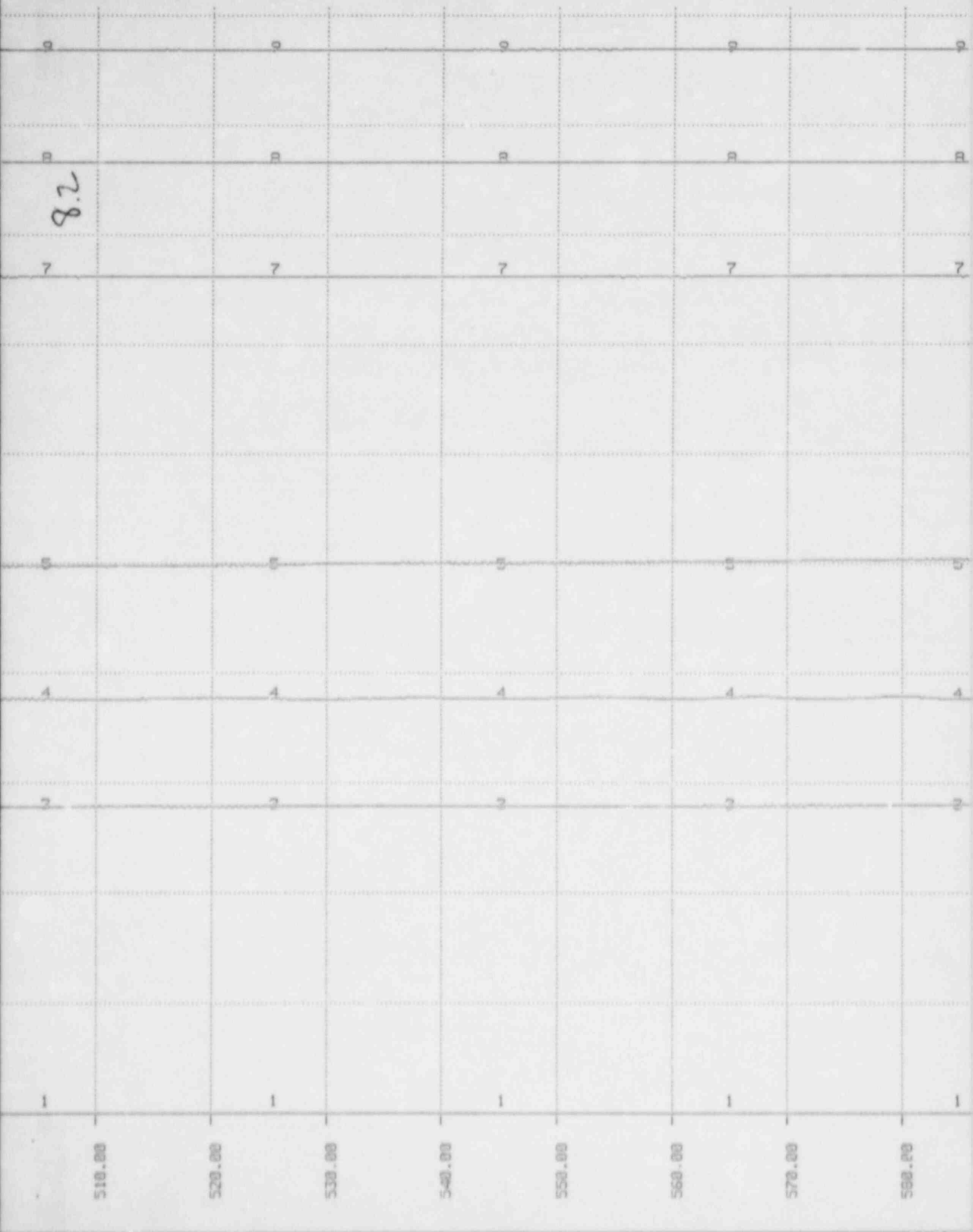
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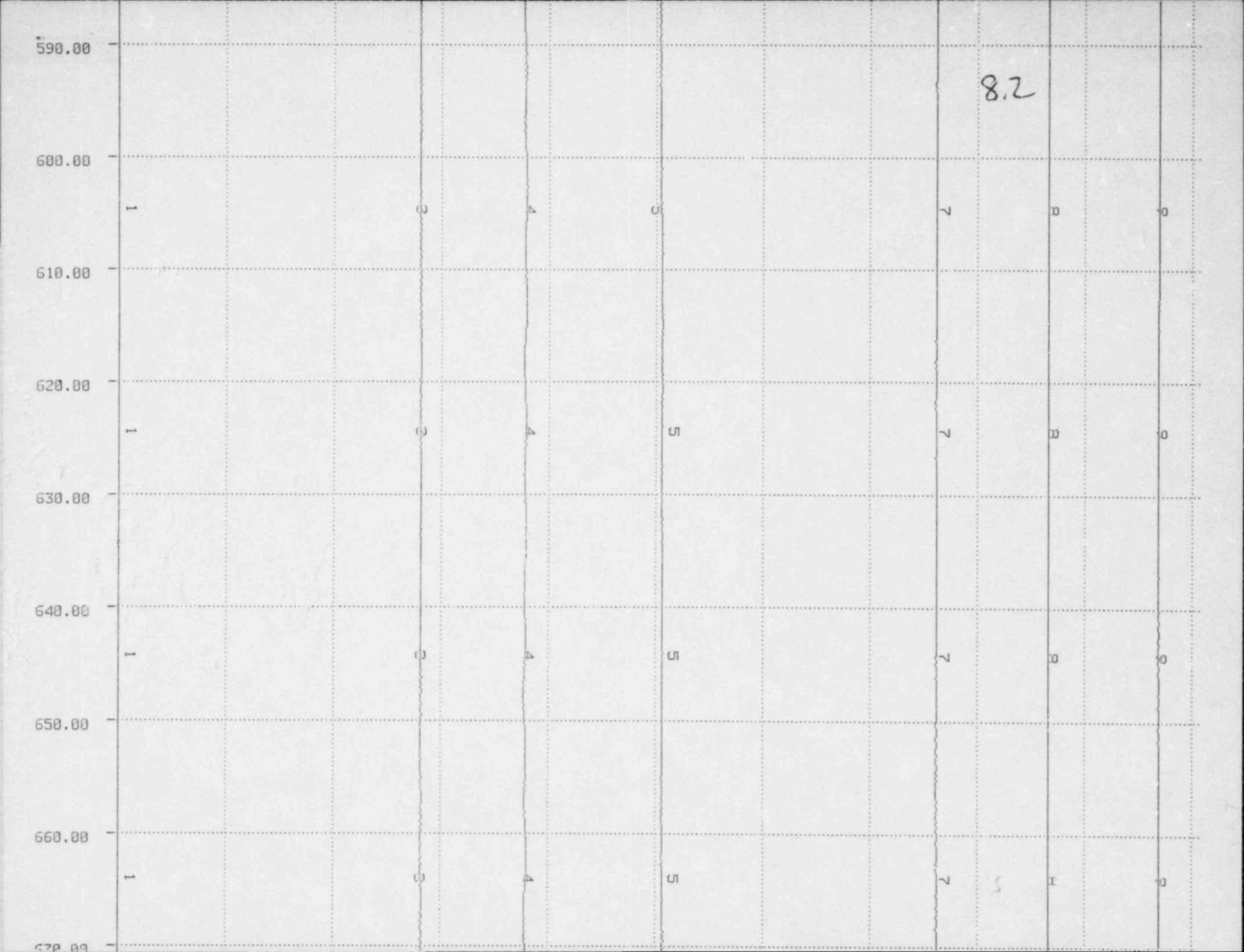
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8.2

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700.00

START DIGITAL PRINTOUT

710.00

720.00

730.00

740.00

750.00

760.00

STOP DIGITAL 1 0 4 5 7 8.2 0 0

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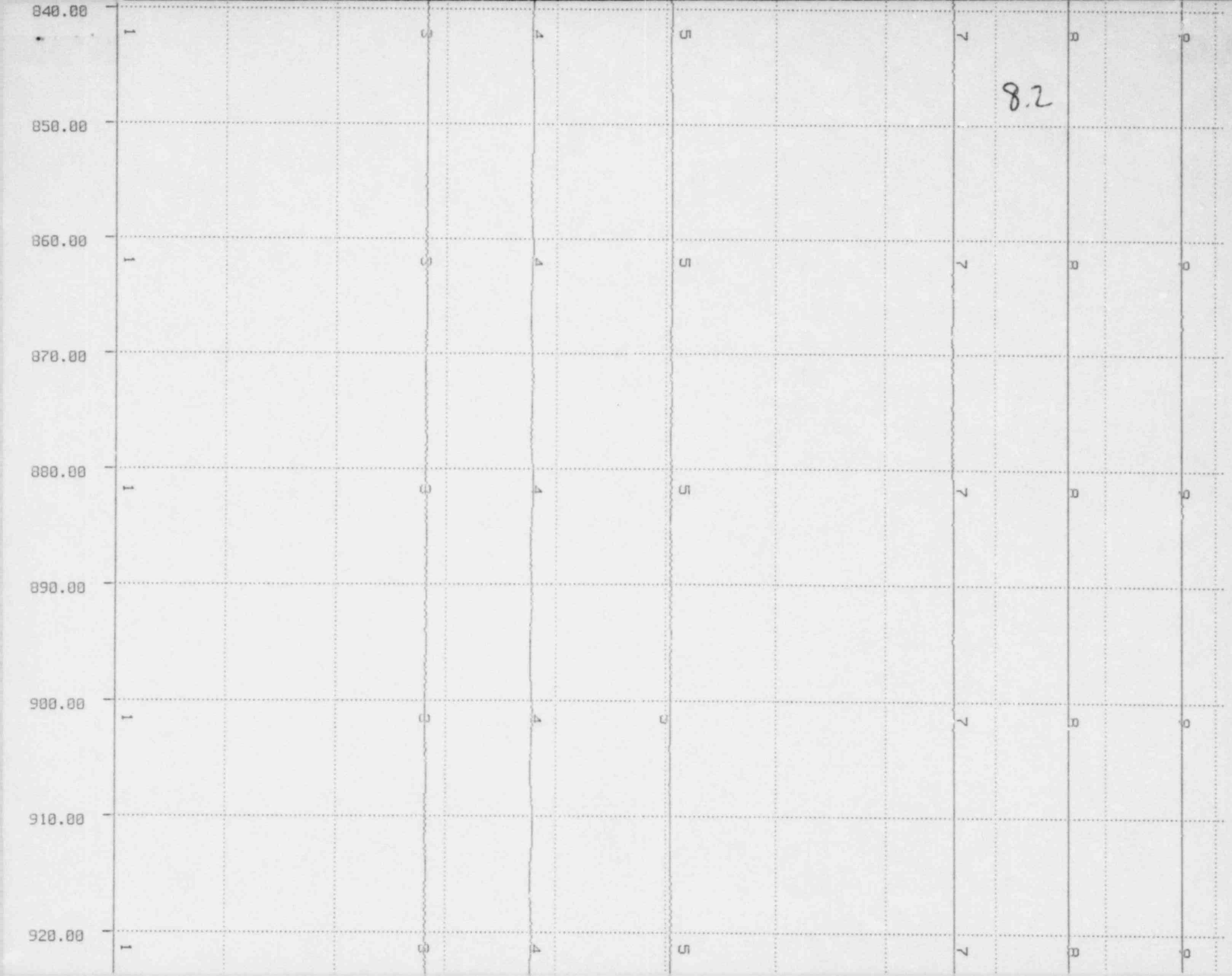
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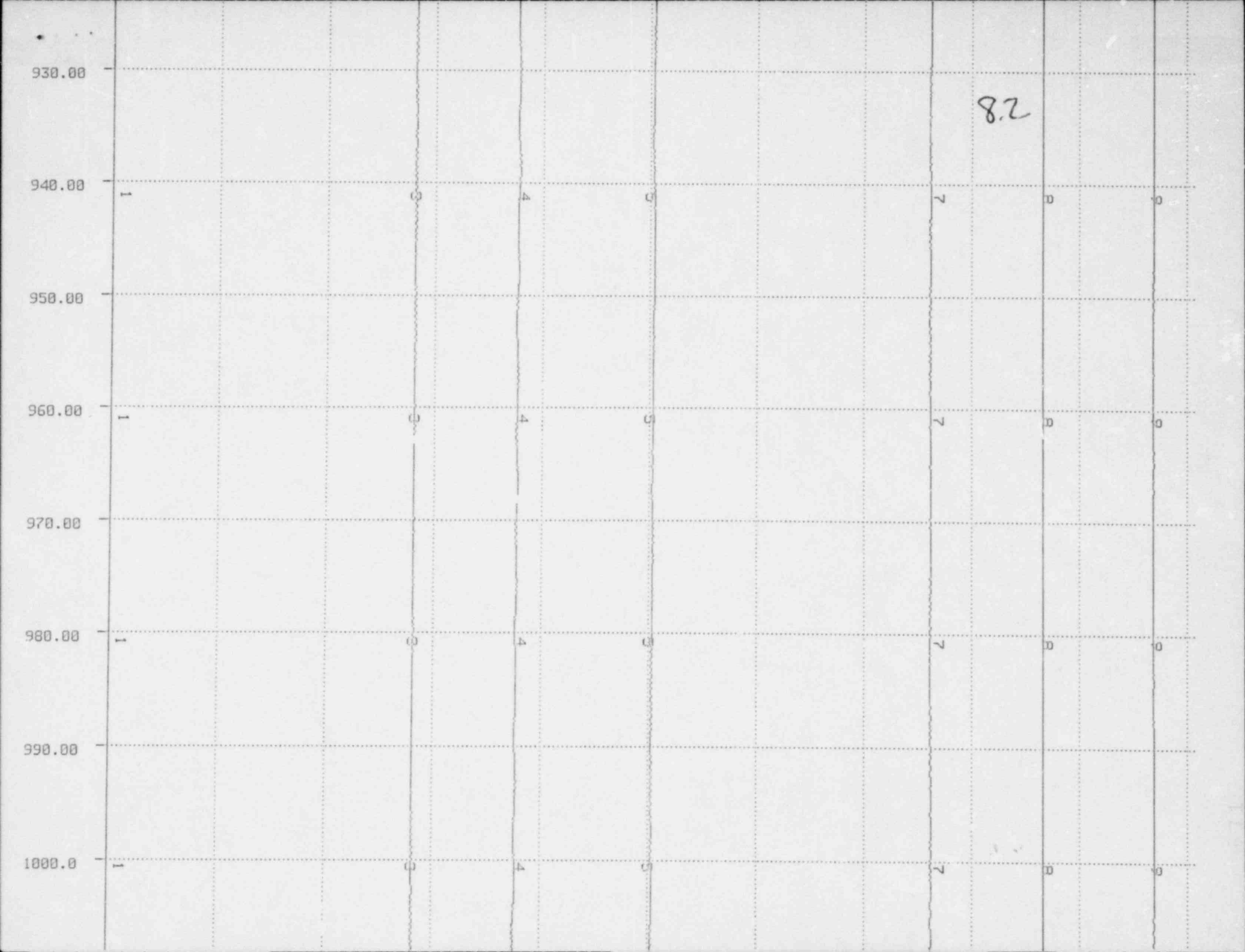
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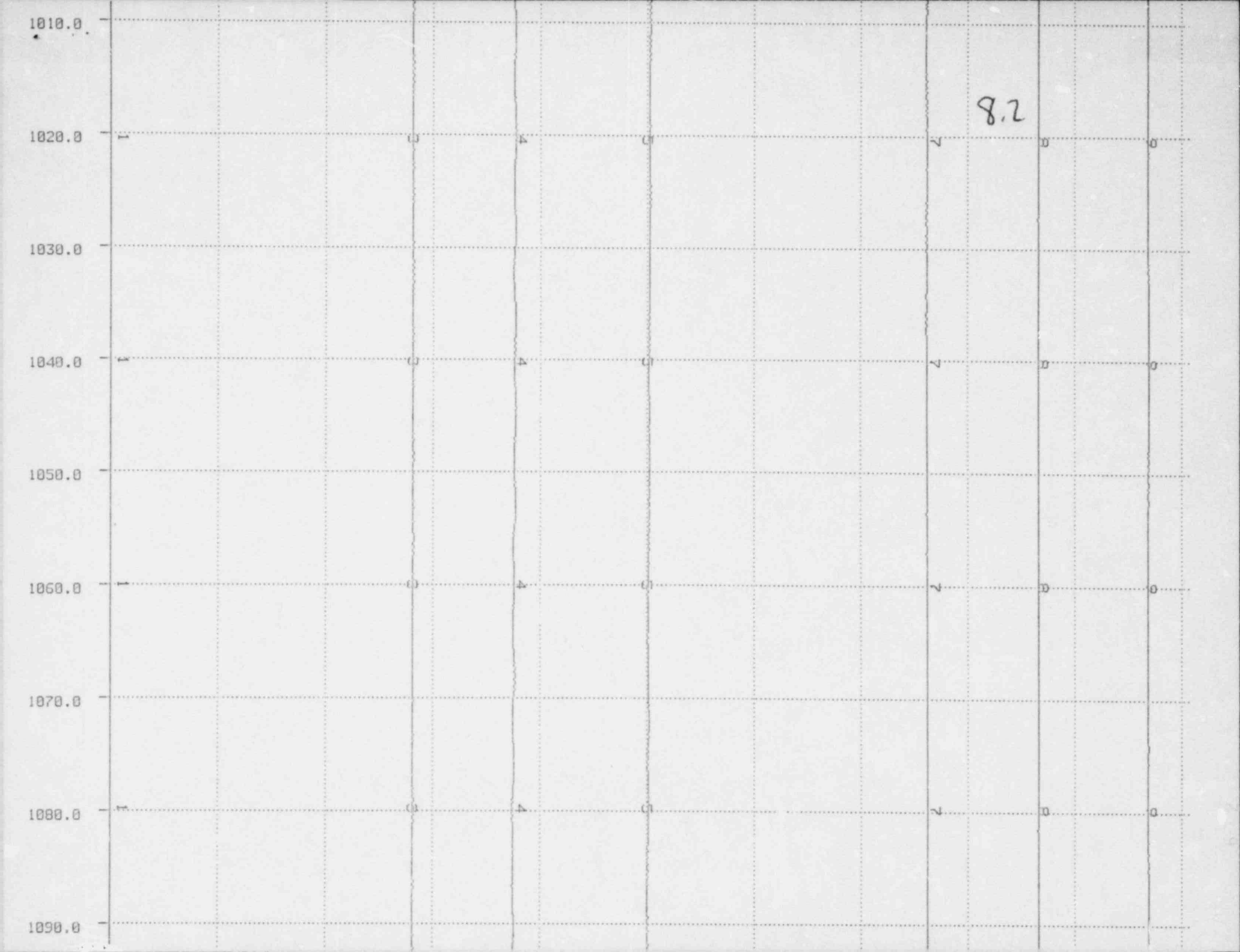
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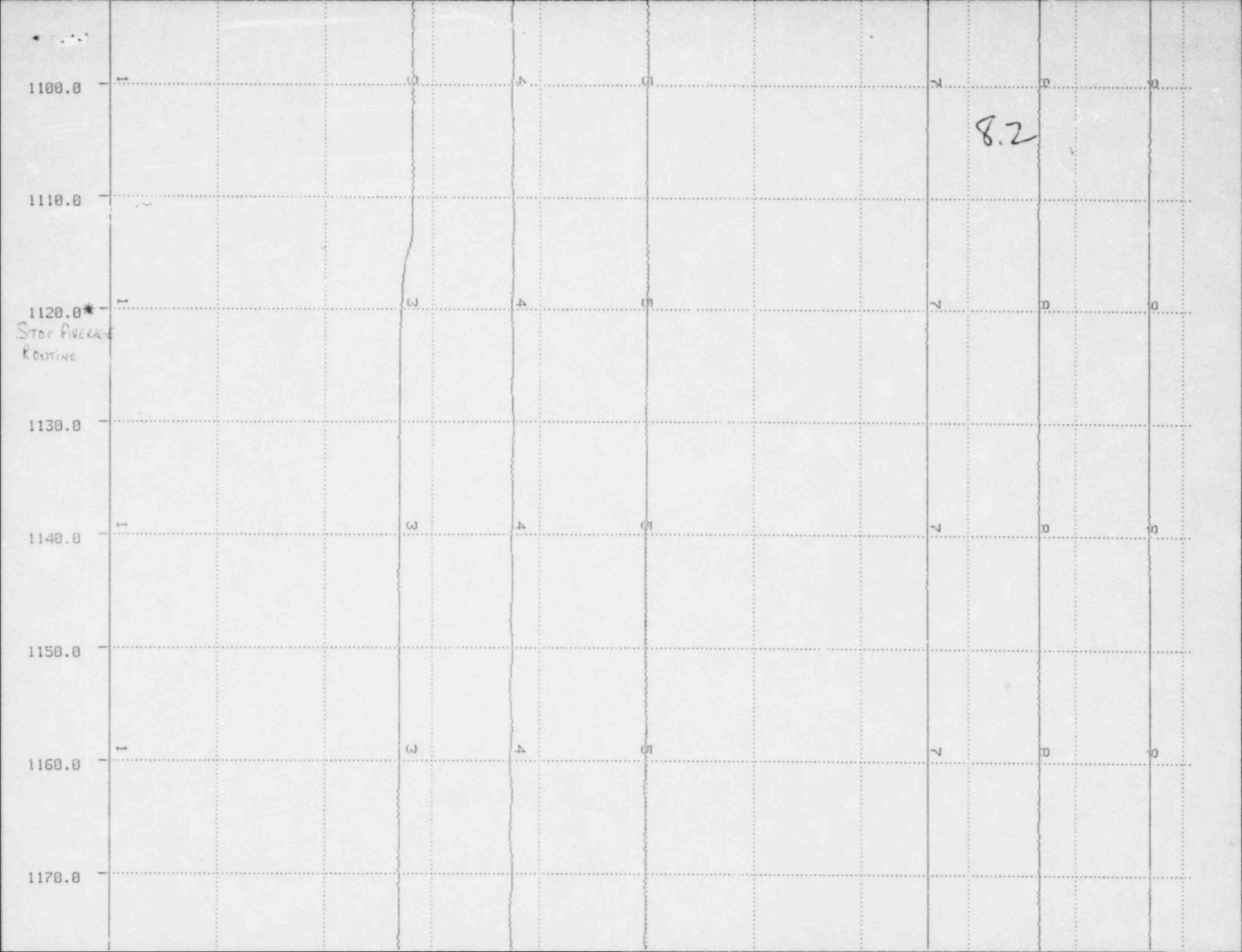
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ROUTINE
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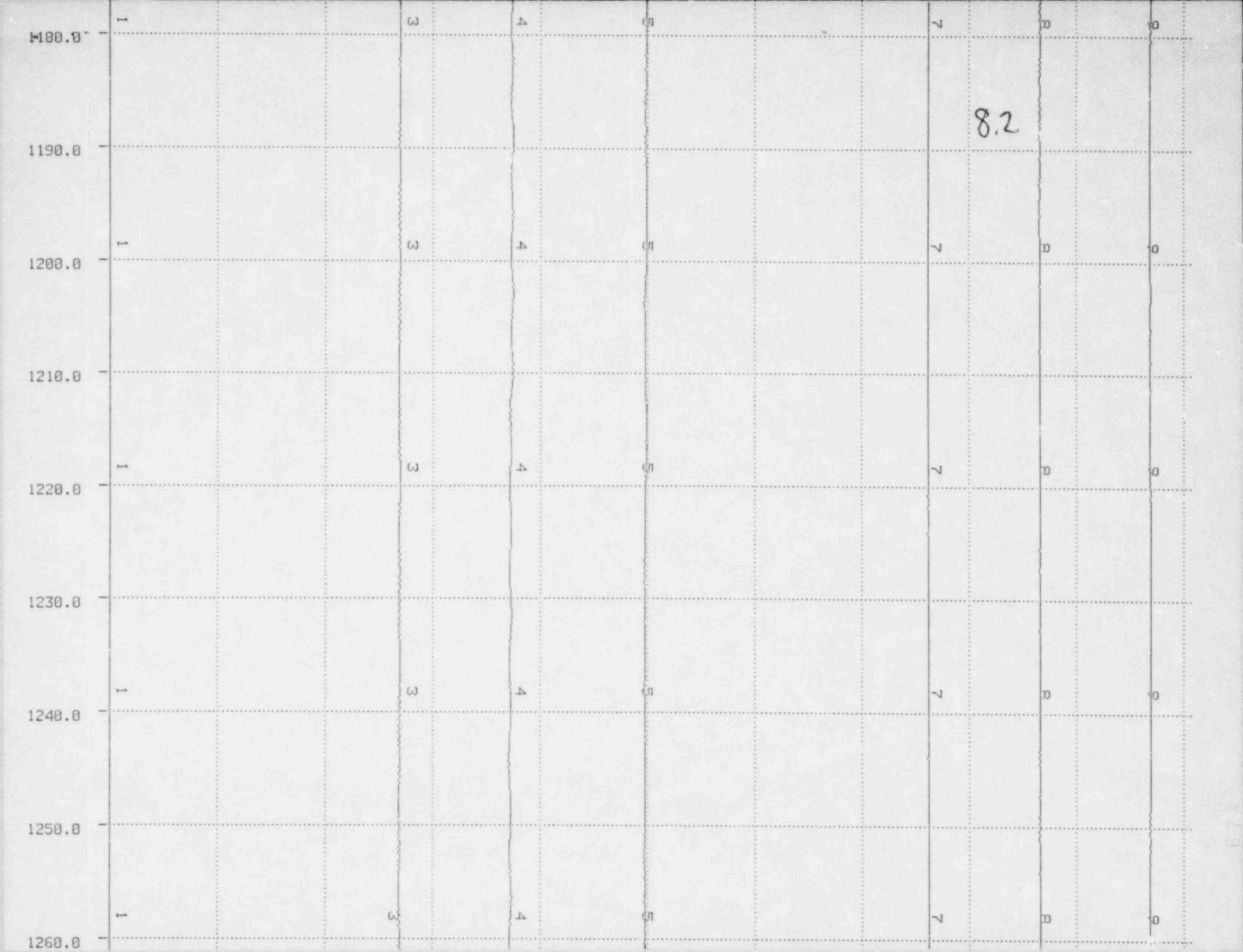
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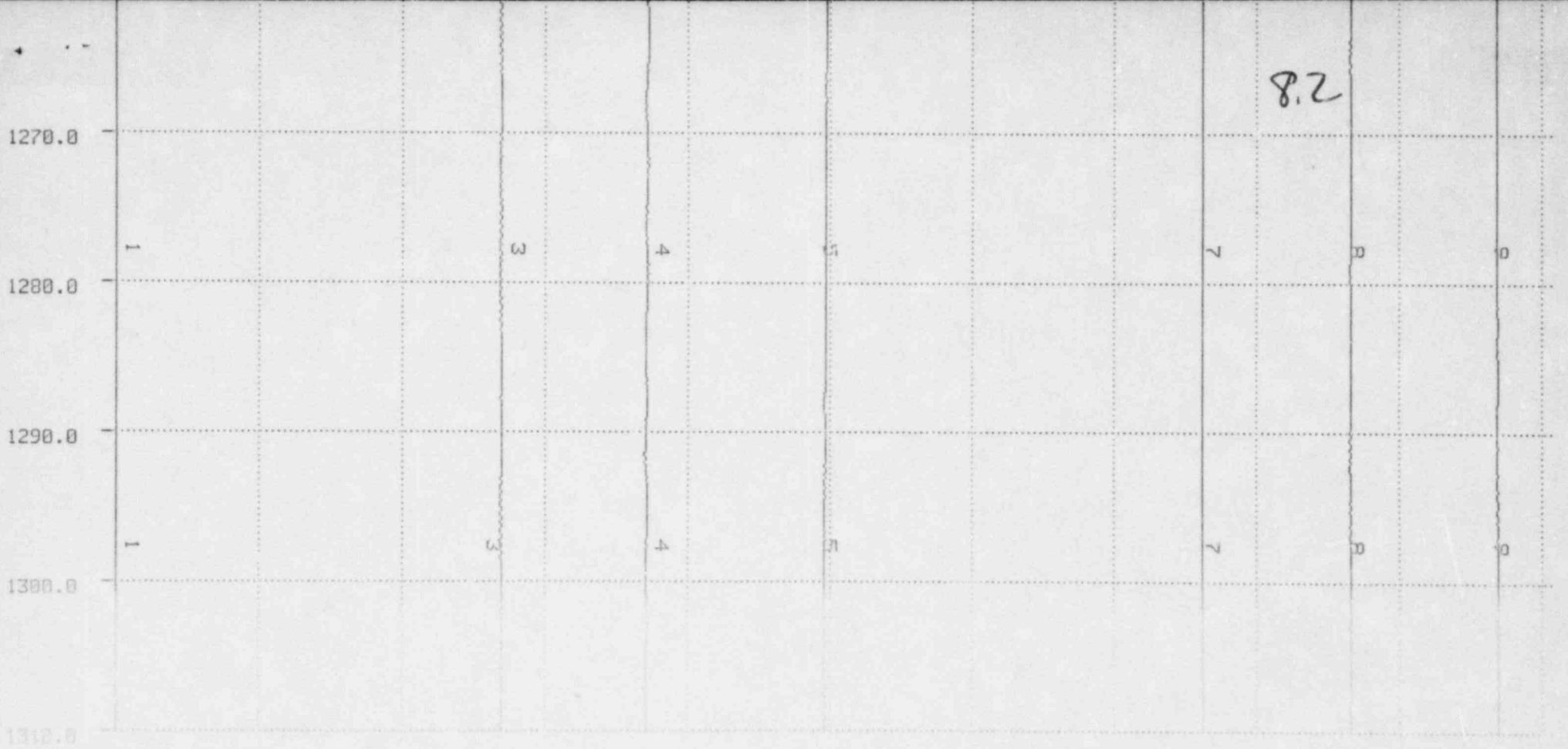
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8.3

I.E.T. STEP 8.3 8/15/84
FILE #9999
RUN # 1
DATE 8/15/84
TIME @ START OF RUN 2:24:27: 10
BEGINNING AT 100.00 SECS. FROM START OF RUN

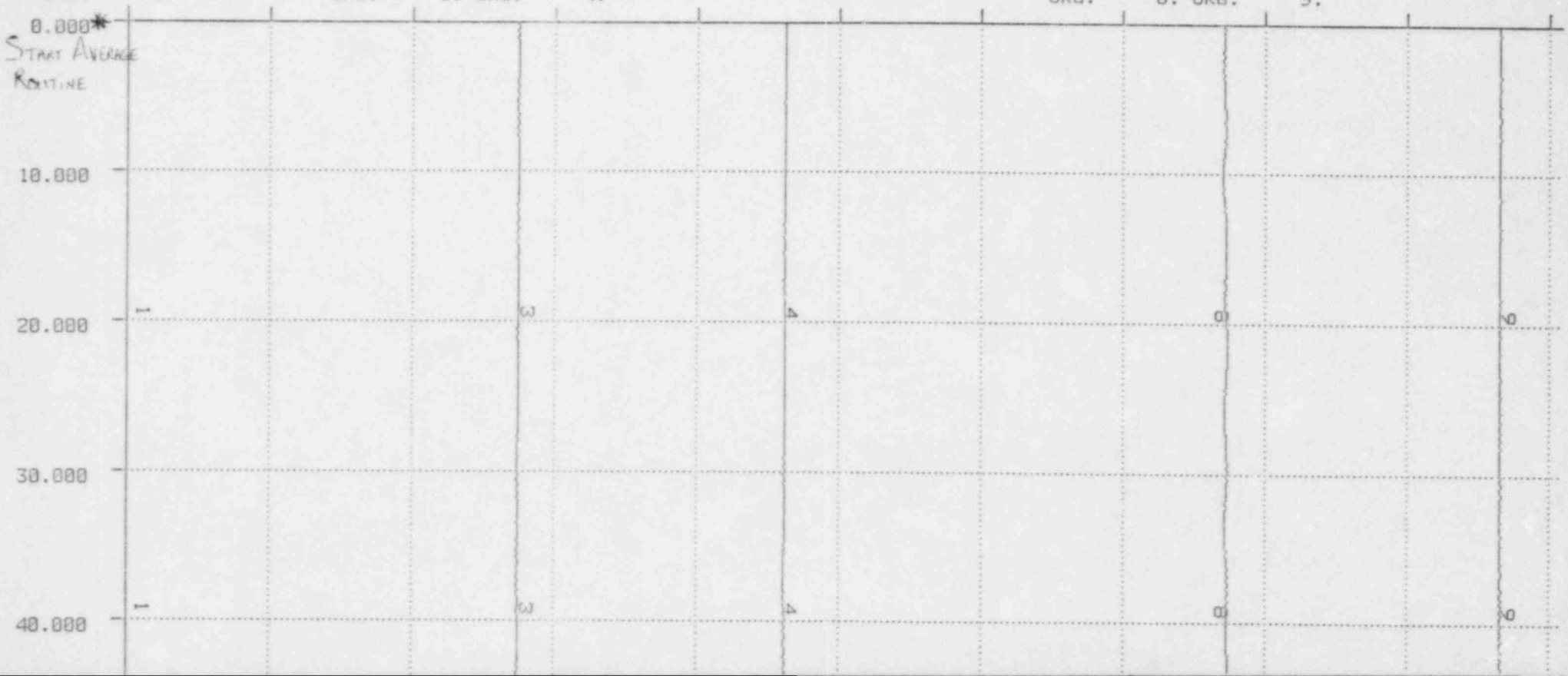
CHAN# 200	CHAN# 202	CHAN# 205	CHAN# 207
DG101VLT	DG101KW	DG102VLT	DG102KW
VAC	KW	VAC	KW
RELATIVE TIME . . . 0	0	0	0
4044.521	2621.000	4142.099	2750.177
4039.968	2623.206	4146.894	2757.414
4042.240	2624.047	4142.099	2755.126
4042.240	2626.333	4142.329	2757.414
4046.231	2623.206	4147.099	2761.227
4044.521	2623.206	4145.102	2761.227
4042.951	2621.000	4142.329	2750.177
4039.398	2623.206	4146.894	2755.126
4041.670	2624.047	4142.329	2755.126
RELATIVE TIME . . . 0	0	1	0
4042.240	2626.333	4140.047	2750.177
4042.240	2627.095	4145.102	2757.414
4046.231	2626.333	4142.099	2750.177
4044.521	2621.000	4144.611	2752.876
4039.968	2623.206	4146.894	2751.313
4041.670	2627.095	4142.329	2751.313
4039.968	2627.095	4142.099	2755.126
4039.968	2624.047	4145.102	2755.126
4039.398	2623.206	4144.611	2754.364
4039.968	2624.047	4147.464	2751.313
RELATIVE TIME . . . 0	0	1	999
4042.240	2624.047	4142.329	2749.025
4041.670	2627.095	4142.099	2749.025
4044.521	2629.381	4140.047	2751.313
4044.521	2626.333	4145.102	2752.876
4046.231	2624.047	4144.611	2749.025
4046.081	2624.047	4144.611	2749.025
4039.968	2626.333	4145.102	2749.025
4041.670	2626.333	4145.102	2749.075
4044.521	2627.095	4140.047	2749.263
4044.521	2627.095	4144.611	2749.263
RELATIVE TIME . . . 0	0	1	999
4046.081	2624.047	4142.099	2749.263
4046.231	2623.206	4142.099	2749.212
4042.240	2626.333	4145.102	2749.212
4042.240	2627.095	4144.611	2749.025
4042.240	2630.144	4140.047	2749.075
4046.231	2626.333	4142.099	2749.263
4046.231	2627.095	4142.329	2749.075
4042.240	2624.047	4147.464	2742.839
4044.521	2624.047	4142.099	2742.162

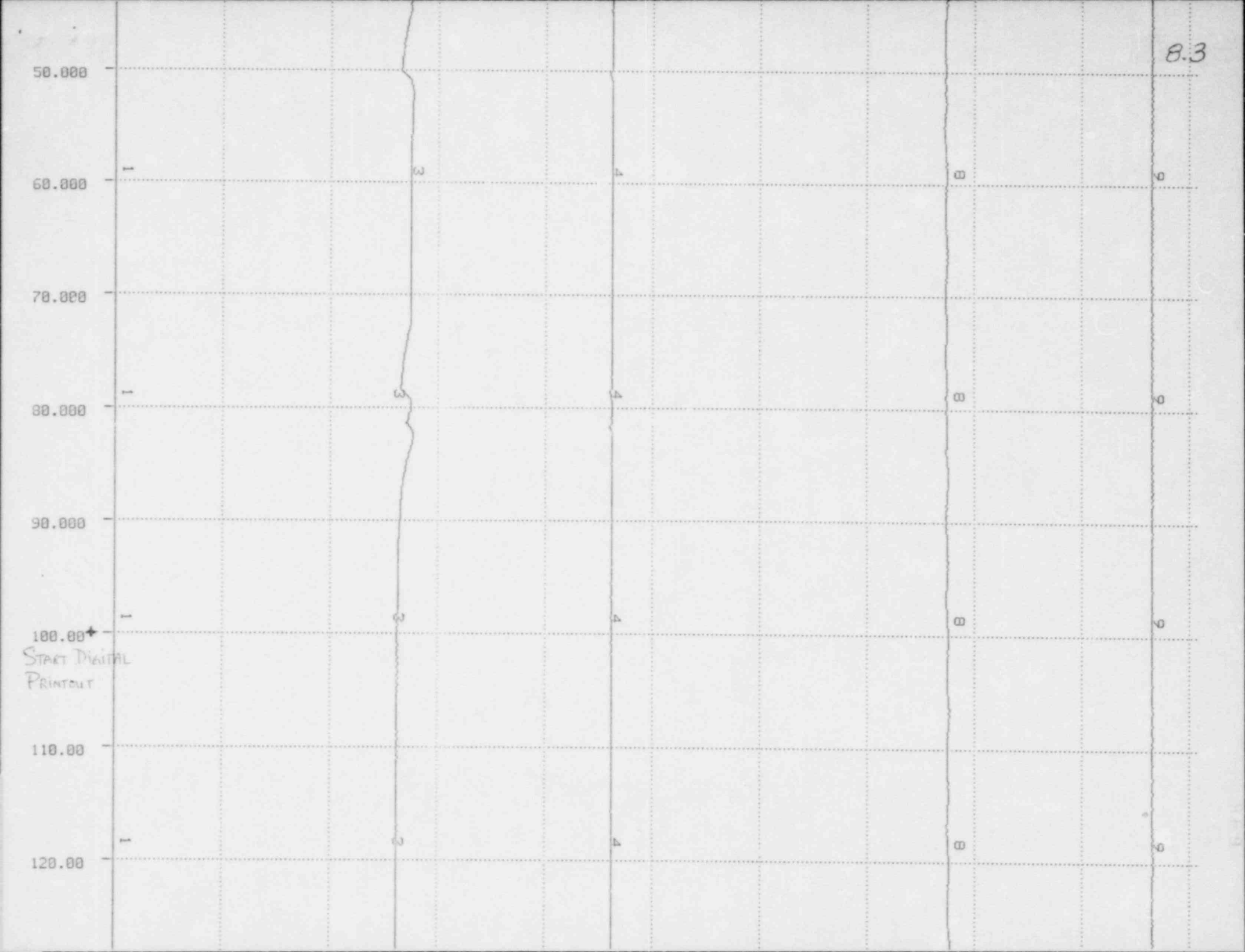
8.3

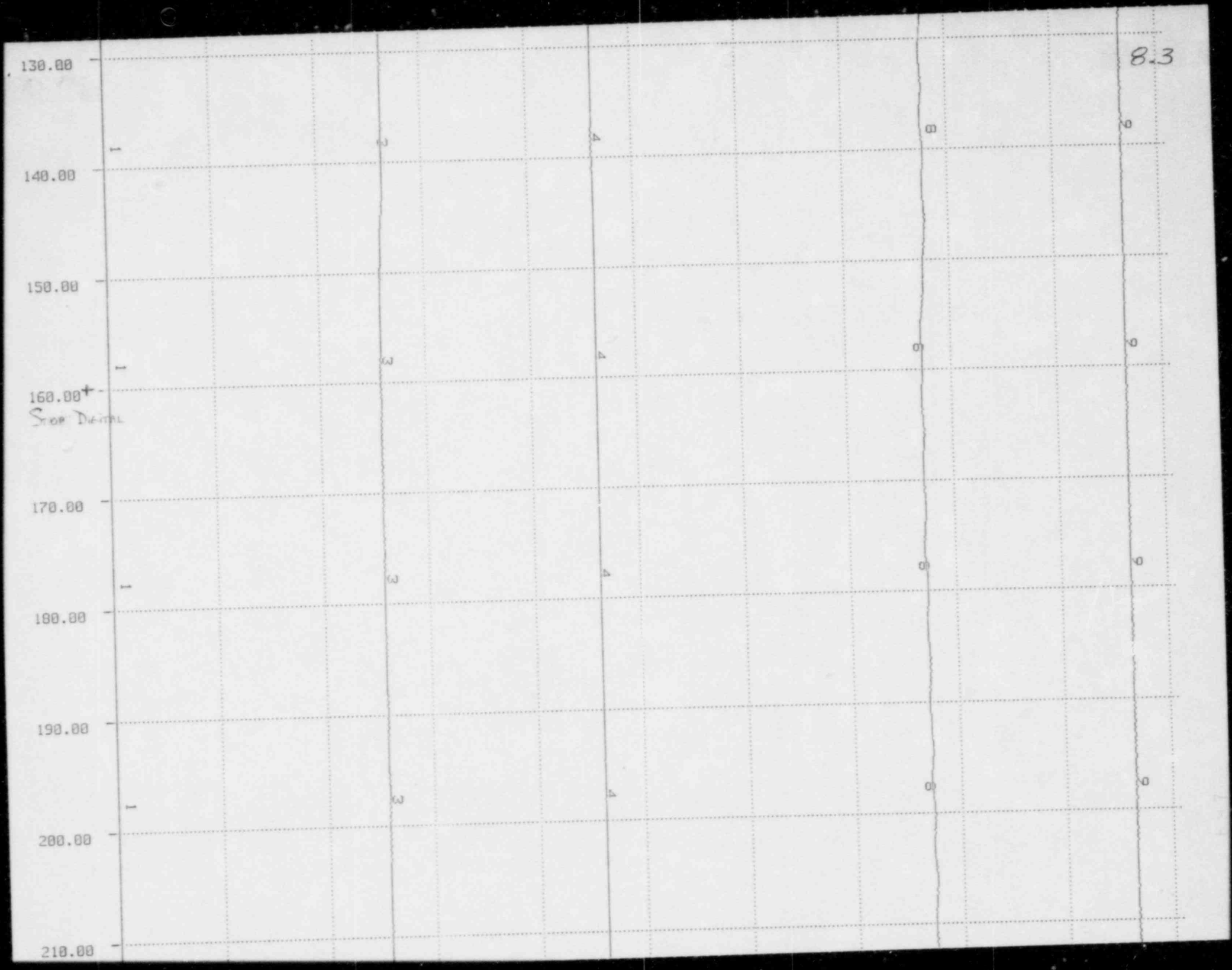
O F F - L I N E P L O T
I.S.T. STEP 8.3 8/16/84
FILE # 1
RUN # 1
DATE 8/16/84
TIME @ START OF RUN 2:24:27: 18
BEGINNING AT 0.00 SECS. FROM START OF RUN

10.000SEC./GRID LINE

CHAN# 214	CHAN# 202	CHAN# 200	CHAN# 207	CHAN# 205
LOCA INT	DG101KW	DG101VLT	DG102KW	DG102VLT
VOLT	KW	VAC	KW	VAC
EU 10.0	EU 1000.0	EU 2500.0	EU 1000.0	EU 2500.0
OFF 0.0	OFF 2000.0	OFF 0.0	OFF 2000.0	OFF 0.0
ORG. 1.	ORG. 3.	ORG. 4.	ORG. 8.	ORG. 9.




8.3
50.000
60.000
70.000
80.000
90.000
100.00
START DIGITAL
PRINTOUT
110.00
120.00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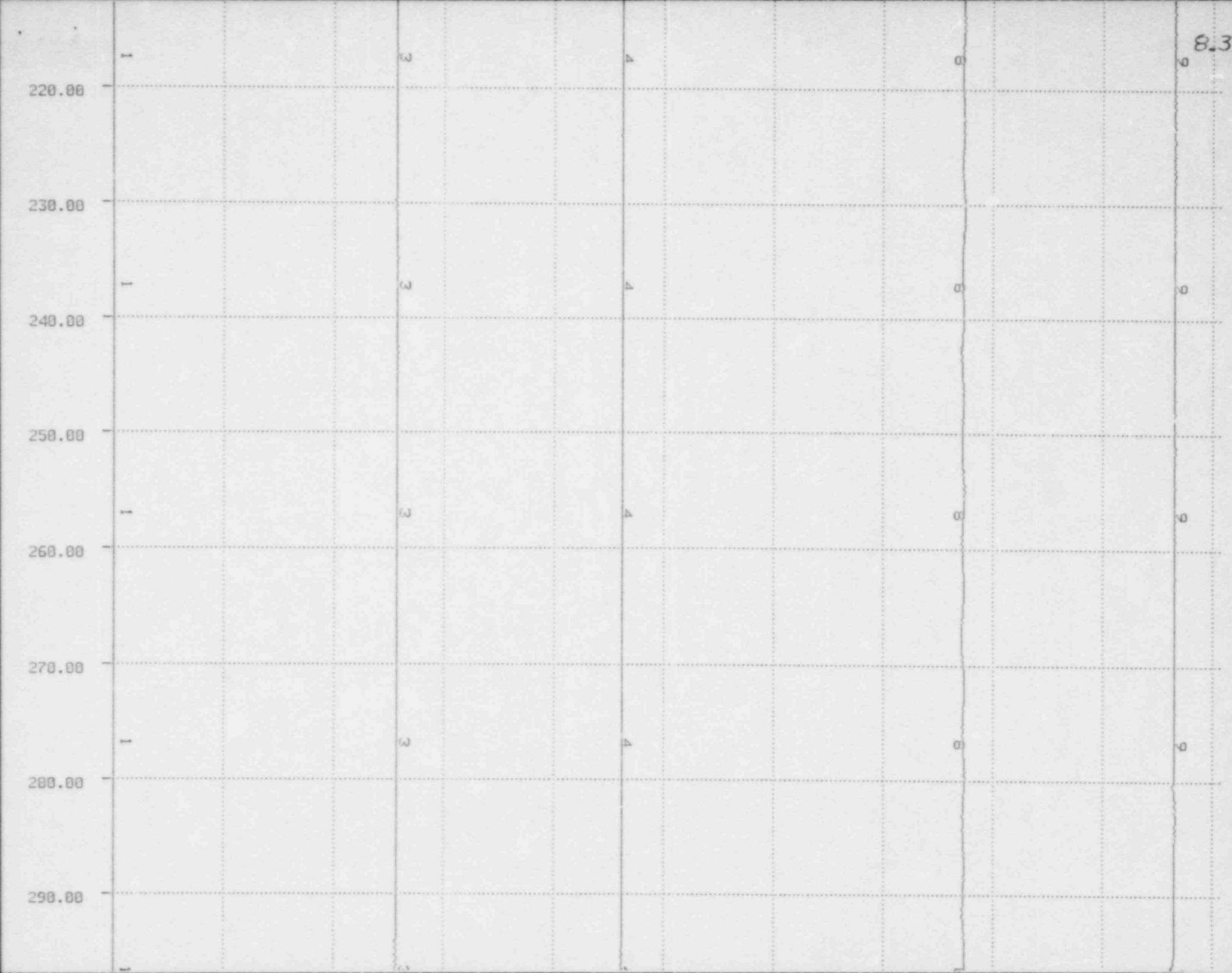
190.00
200.00
210.00
STOP DIGITAL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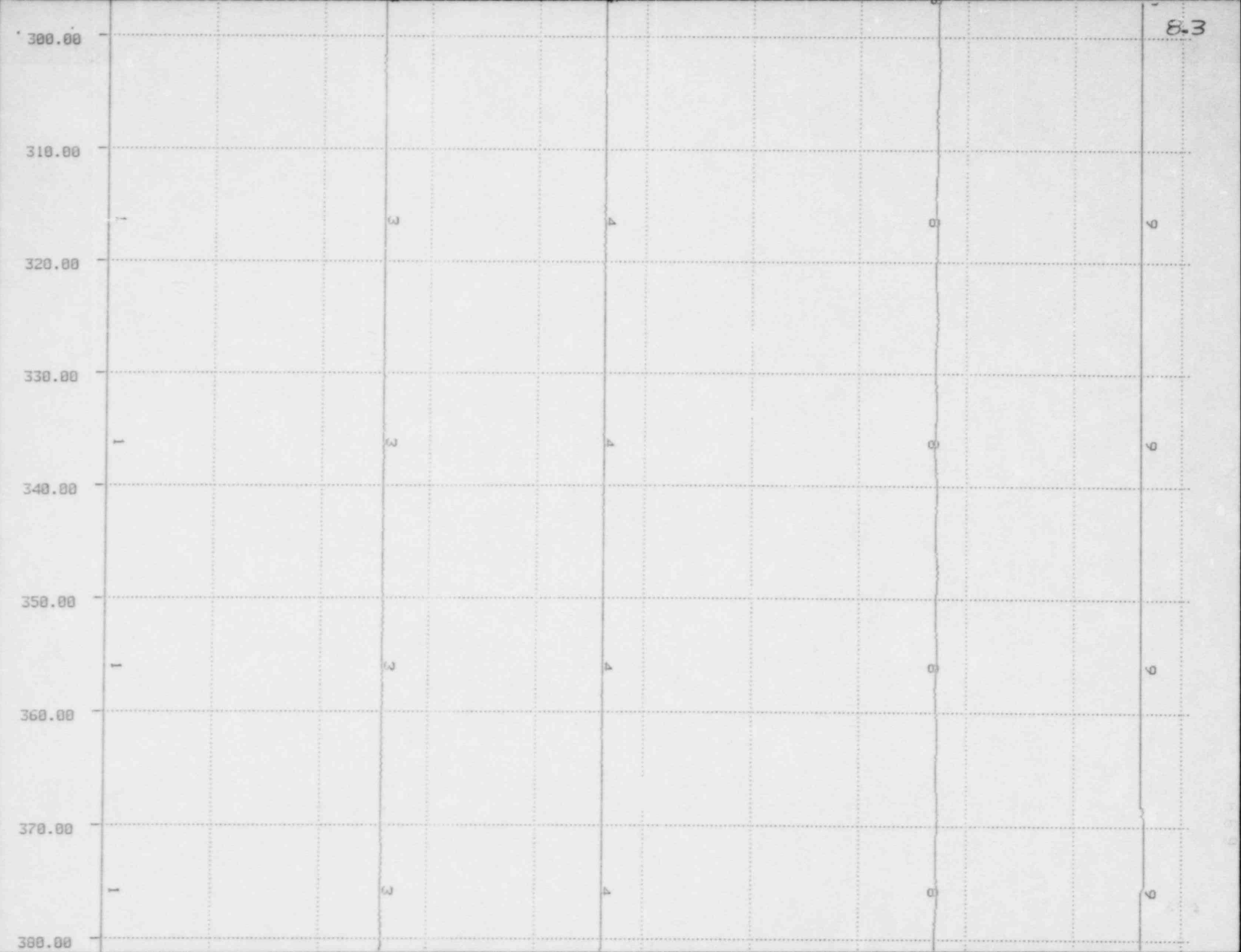
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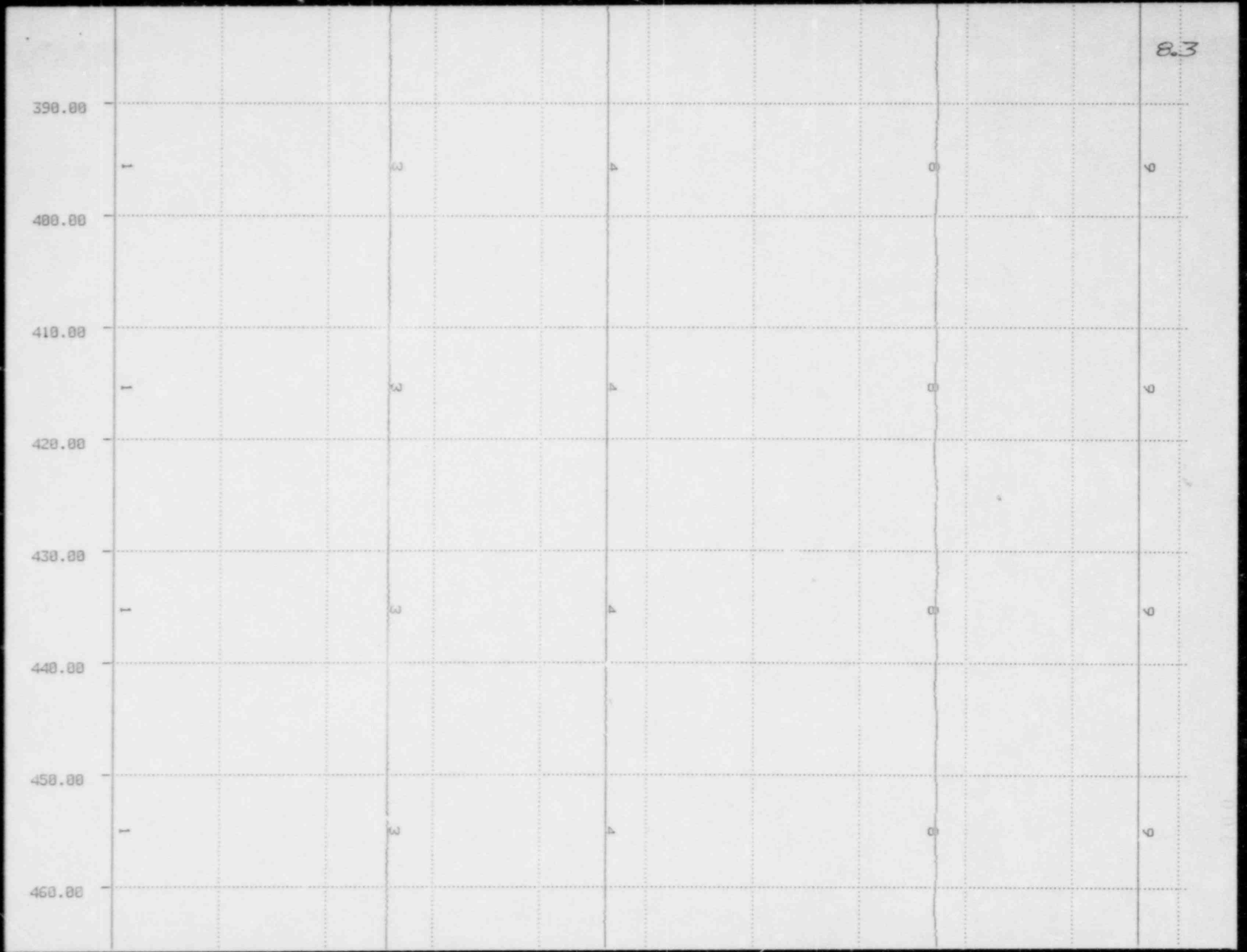
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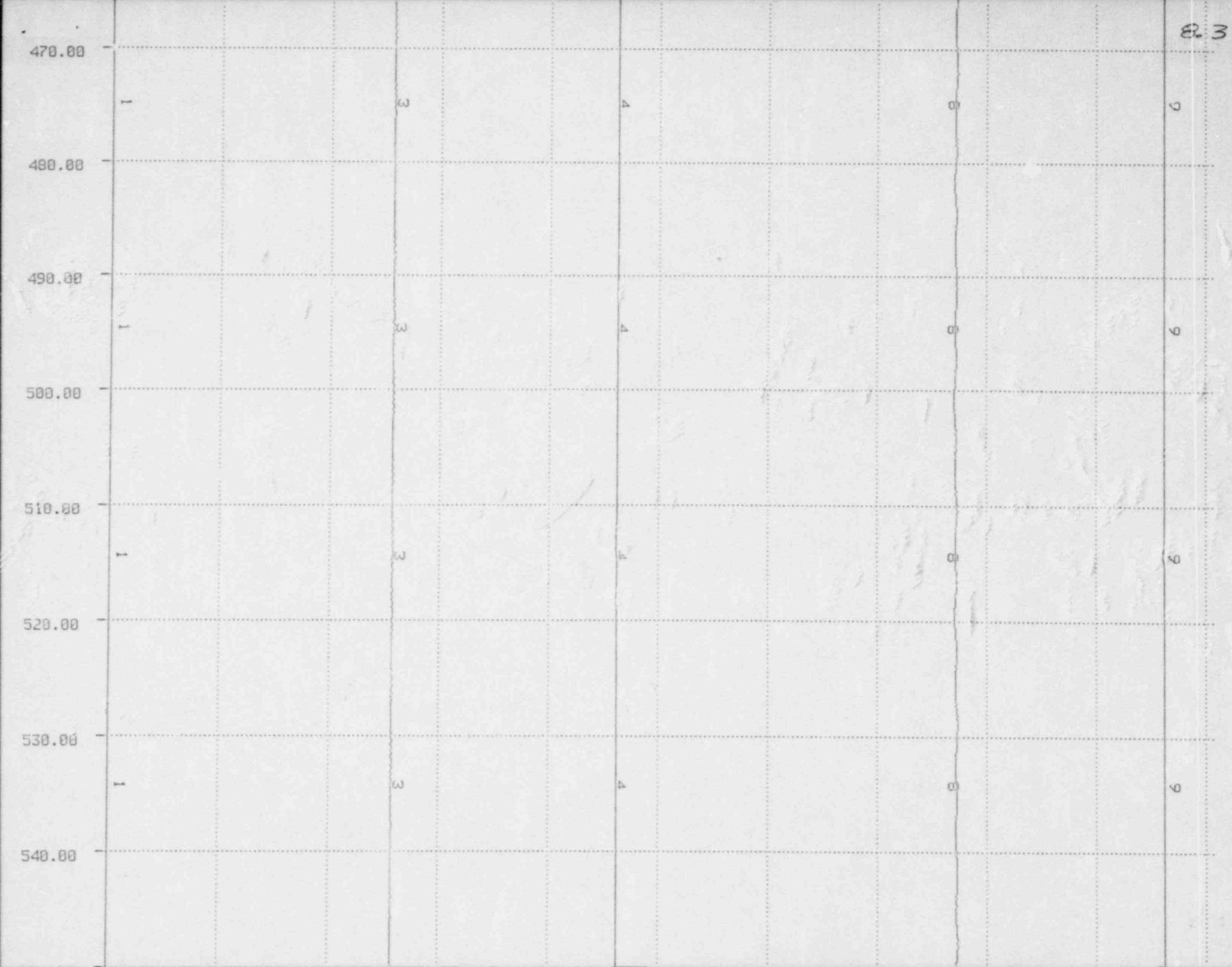
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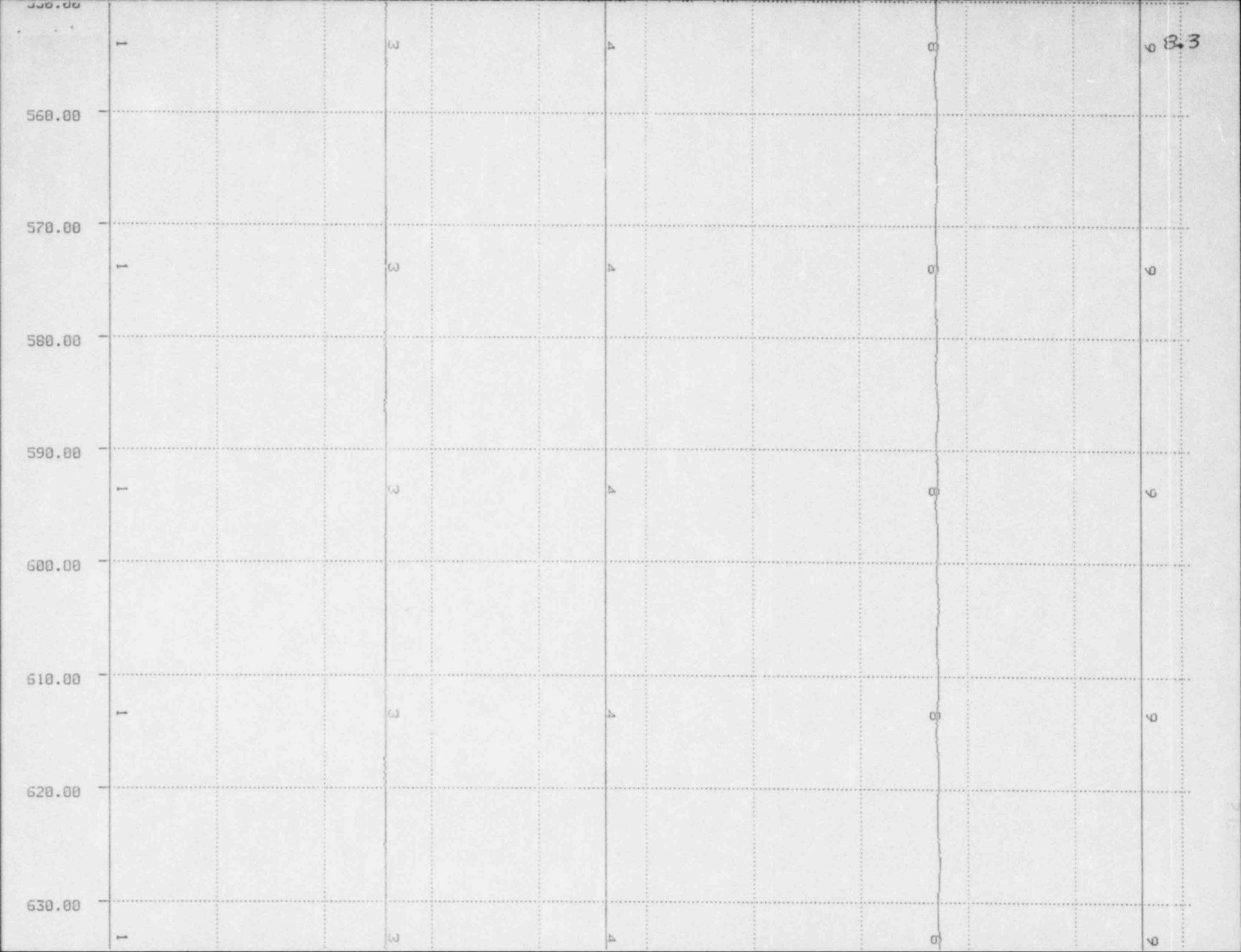
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670.00

680.00

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710.00

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730.00

740.00

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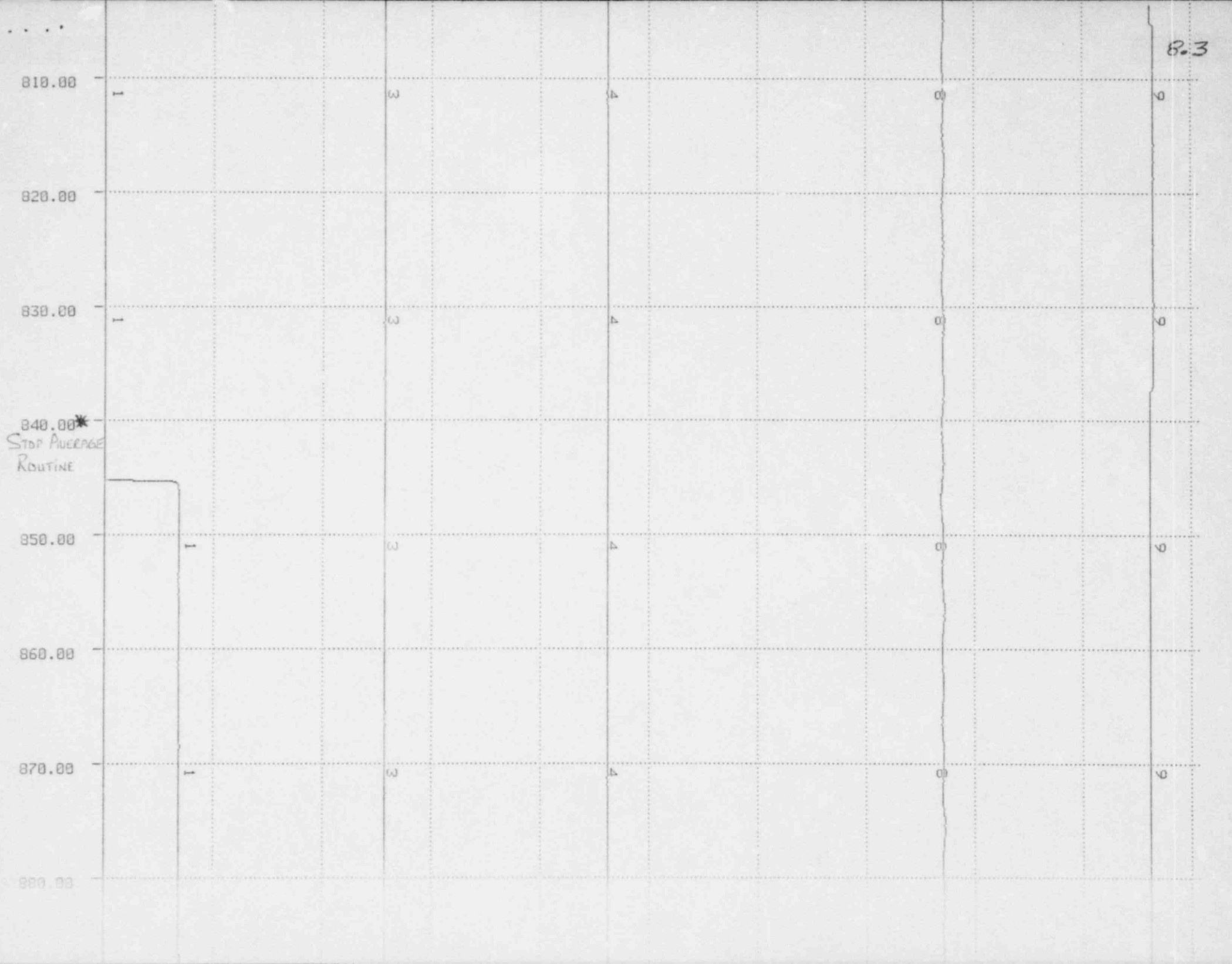
1 3 4 6 9

1 3 4 6 9

1 3 4 6 9


810.00
820.00
830.00
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850.00
860.00
870.00
STOP PULSAGE
ROUTINE

I.E.T. STEP 8.4 8/15/84
FILE #9999
RUN # 2
DATE 8/15/84
TIME @ START OF RUN 4:47:47: 18
BEGINNING AT1200.00 DECS. FROM START OF RUN

Step 8.4

CHAN# 200	CHAN# 202	CHAN# 210	CHAN# 212
DG101VLT	DG101KW	DG103VLT	DG103KW
VAC	KW	VAC	KW

RELATIVE TIME . . .	0	0	0	0
4042.240	2800.067	4171.242	2802.175	
4042.240	2808.030	4174.106	2805.229	
4044.521	2797.702	4175.824	2806.991	
4043.951	2800.067	4176.397	2802.938	
4046.231	2808.030	4176.397	2802.938	
4046.001	2800.067	4173.533	2802.175	
4046.001	2797.020	4171.015	2805.228	
4041.670	2797.702	4171.015	2805.991	
4043.951	2797.702	4171.015	2805.228	

RELATIVE TIME . . .	0	0	1	0
4043.951	2800.067	4173.533	2802.175	
4044.521	2800.067	4174.106	2879.030	
4046.001	2808.030	4173.533	2802.938	
4044.521	2808.030	4174.106	2802.938	
4046.231	2797.020	4175.824	2805.228	
4043.951	2797.702	4175.824	2802.175	
4039.350	2803.115	4176.397	2879.122	
4042.240	2803.077	4174.106	2879.006	
4046.001	2797.702	4171.042	2802.175	
4042.240	2797.702	4171.015	2802.938	

RELATIVE TIME . . .	0	0	1	999
4041.670	2797.020	4175.824	2802.175	
4043.951	2797.020	4176.397	2802.938	
4042.240	2797.702	4176.397	2879.006	
4039.350	2803.115	4176.397	2879.122	
4042.240	2808.030	4173.533	2802.938	
4039.960	2797.702	4173.533	2802.938	
4039.960	2797.702	4175.824	2802.175	
4041.951	2800.067	4173.533	2802.175	
4043.951	2800.067	4173.533	2879.006	
4044.521	2800.030	4174.106	2802.175	

RELATIVE TIME . . .	0	0	2	999
4043.951	2800.030	4175.824	2879.006	
4039.960	2797.020	4175.824	2802.938	
4039.960	2808.067	4176.000	2802.938	
4042.240	2800.067	4176.397	2802.938	
4044.521	2803.067	4175.824	2802.175	
4044.521	2803.115	4173.533	2802.938	
4046.231	2808.030	4171.015	2802.938	
4048.511	2794.733	4173.533	2805.991	
4046.231	2797.702	4175.824	2802.938	
4042.240	2803.115	4170.115	2879.006	

8.1

8.4

8.4

8.4

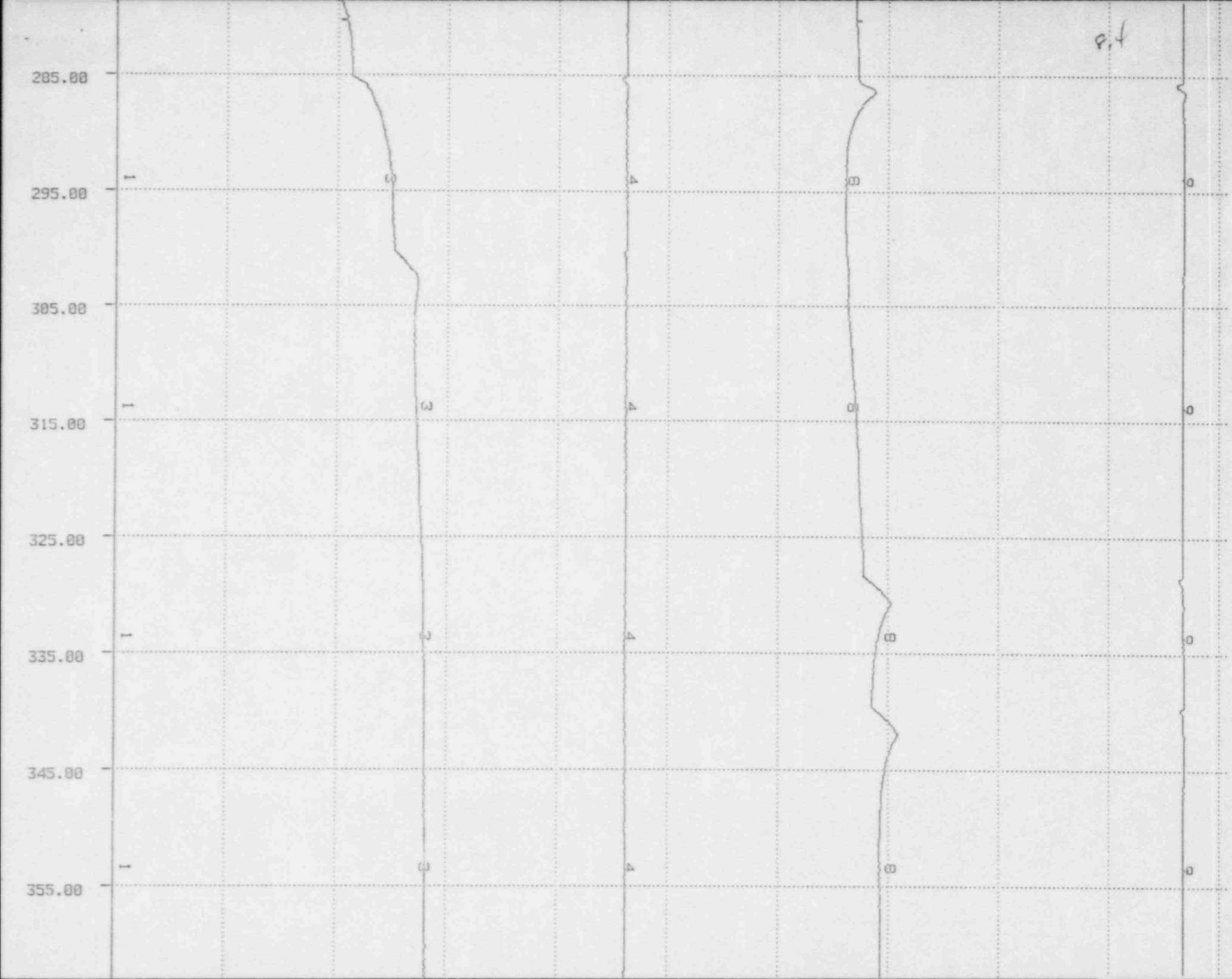
8.4

8.1

OFF-LINE PLOT
I.E.T. STEP 8.4 6/15/84
FILE # 2
RUN # 2
DATE 6/15/84
TIME @ START OF RUN 4:47:47: 10
BEGINNING AT 235.00 SECS. FROM START OF RUN

10.000SEC./GRID LINE

CHAN# 214	CHAN# 202	CHAN# 200	CHAN# 212	CHAN# 210
LOCA INT	DG101KW	DG101VLT	DG103KW	DG103VLT
VOLT	KW	VAC	KW	VAC
EU 10.0	EU 1000.0	EU 2500.0	EU 1000.0	EU 2500.0
OFF 0.0	OFF 2000.0	OFF 0.0	OFF 2000.0	OFF 0.0
ORG. 1.	ORG. 3.	ORG. 4.	ORG. 8.	ORG. 9.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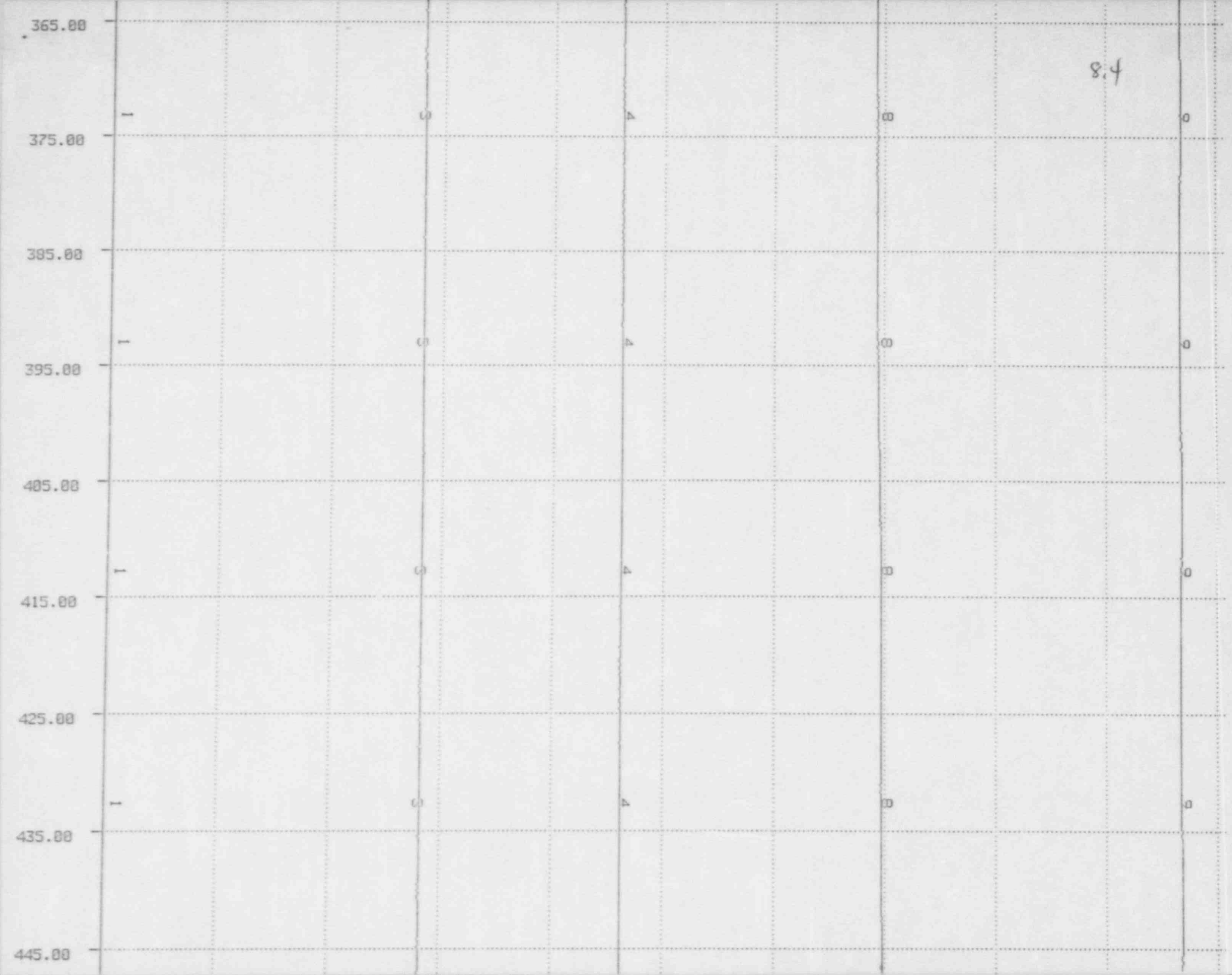
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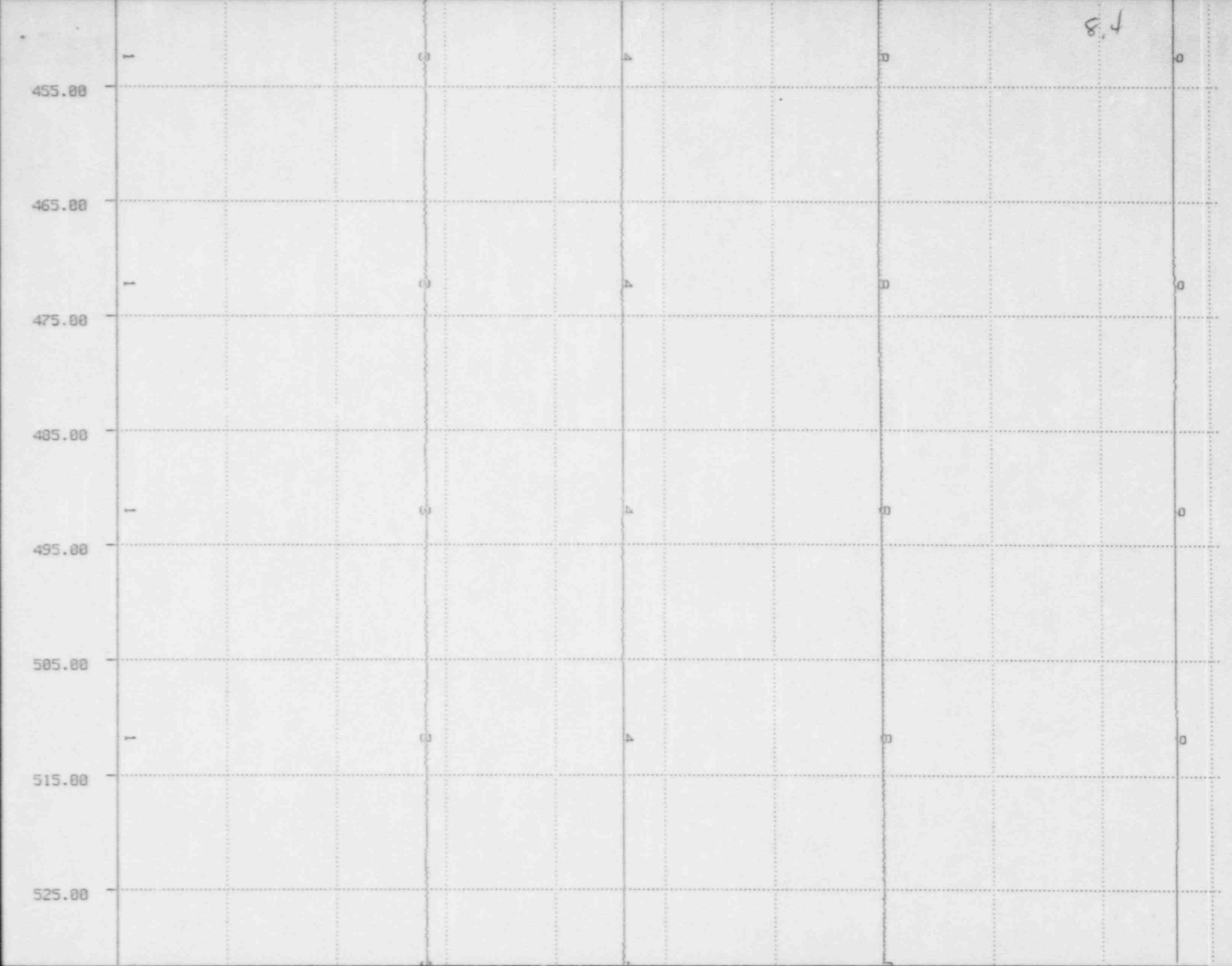
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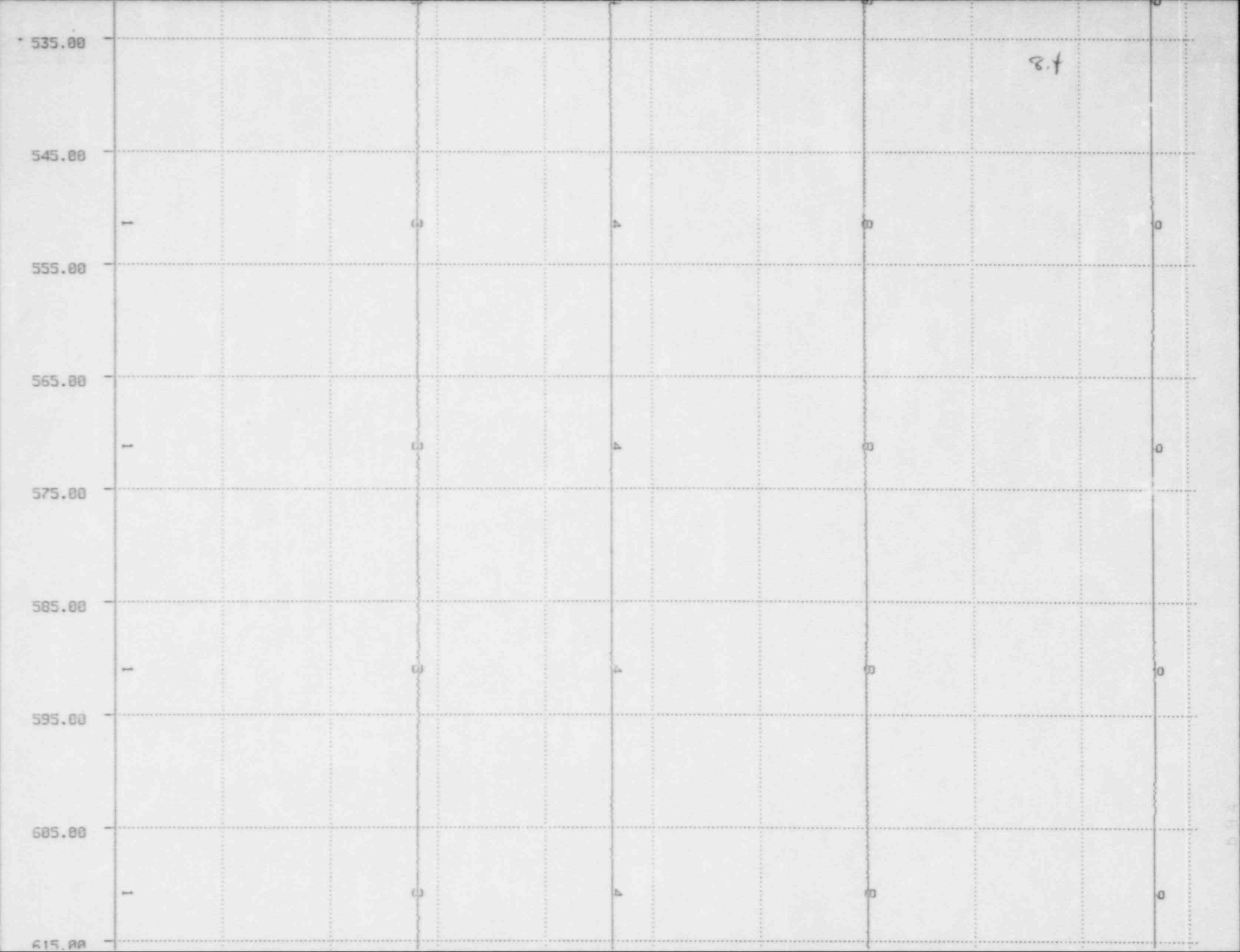
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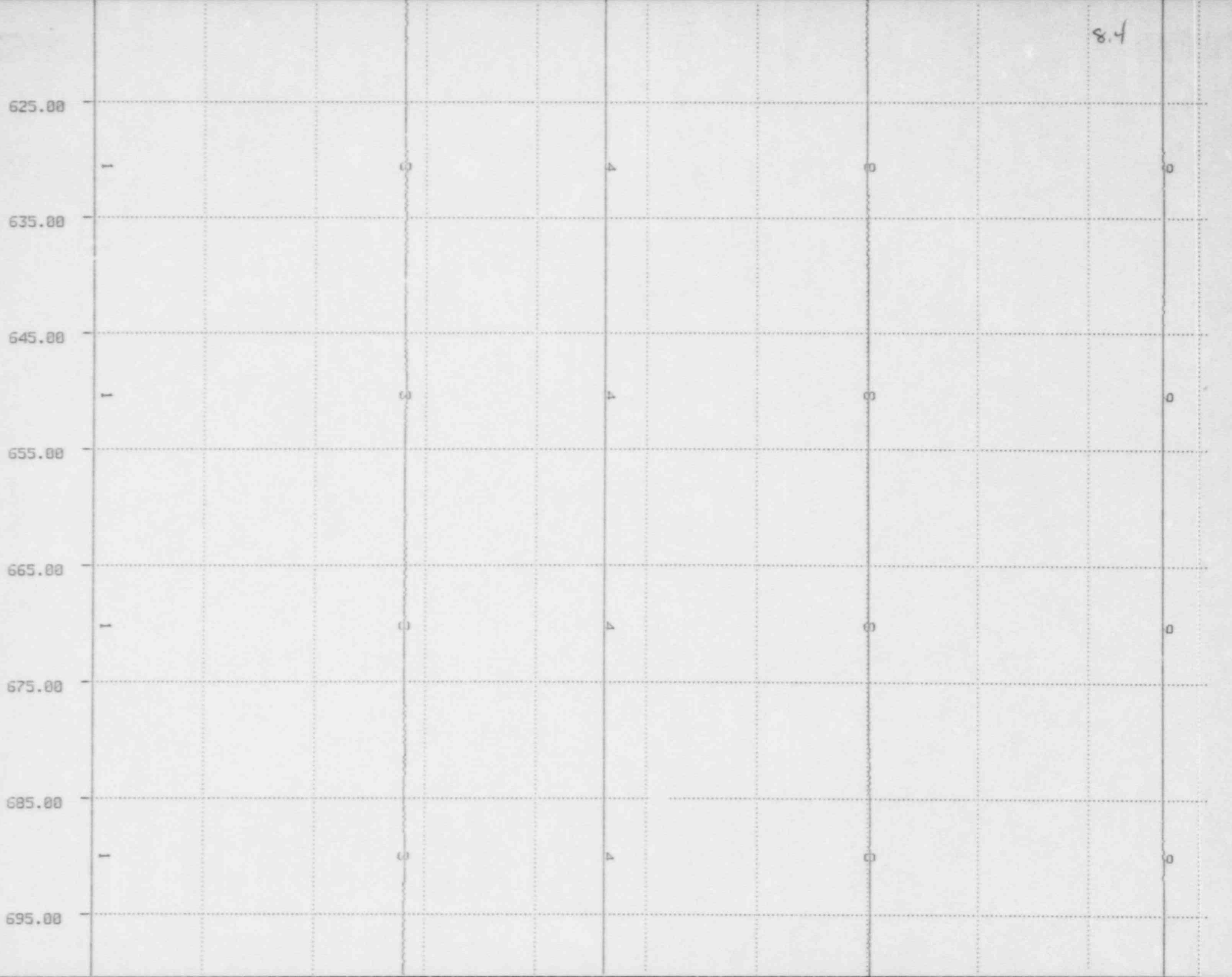
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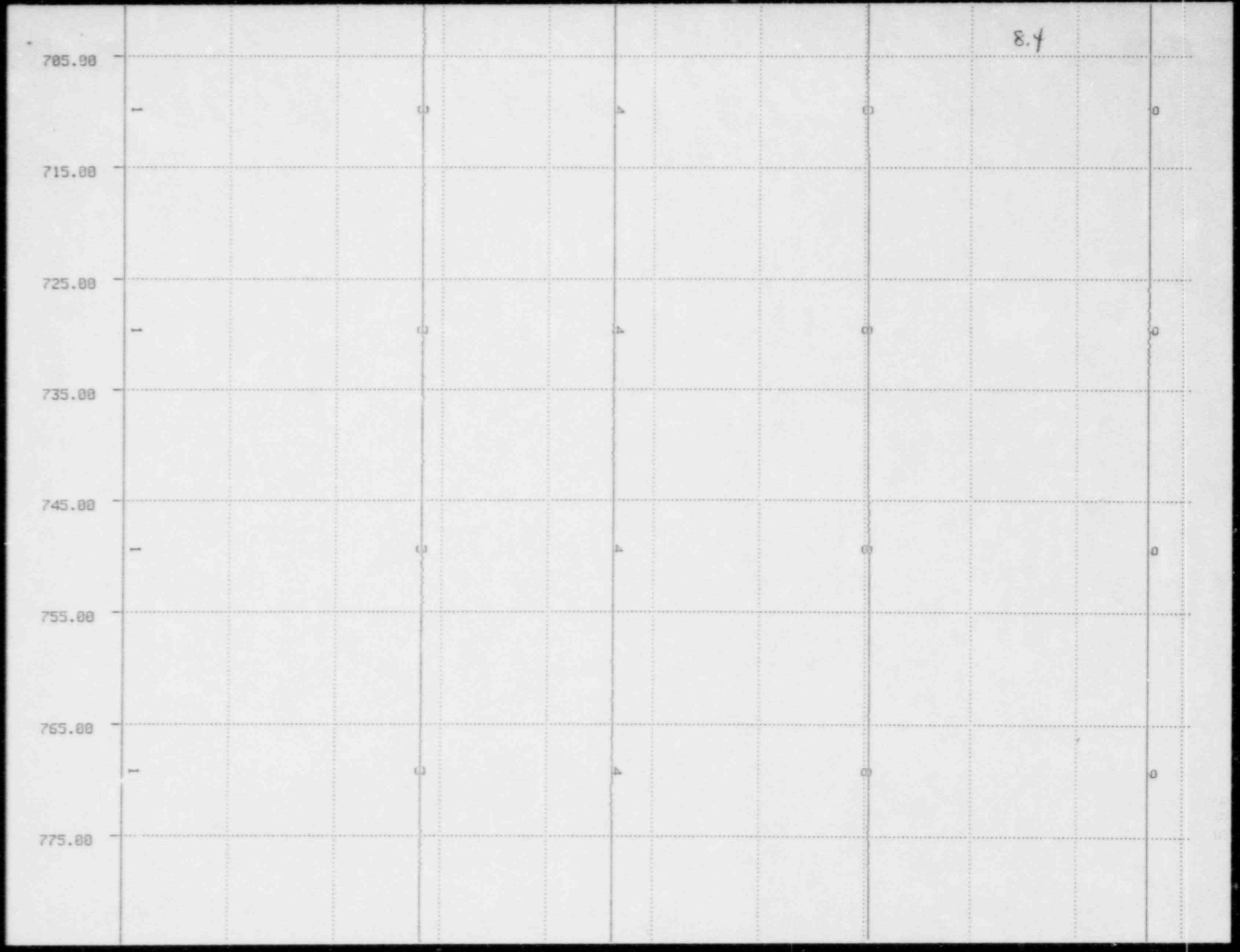
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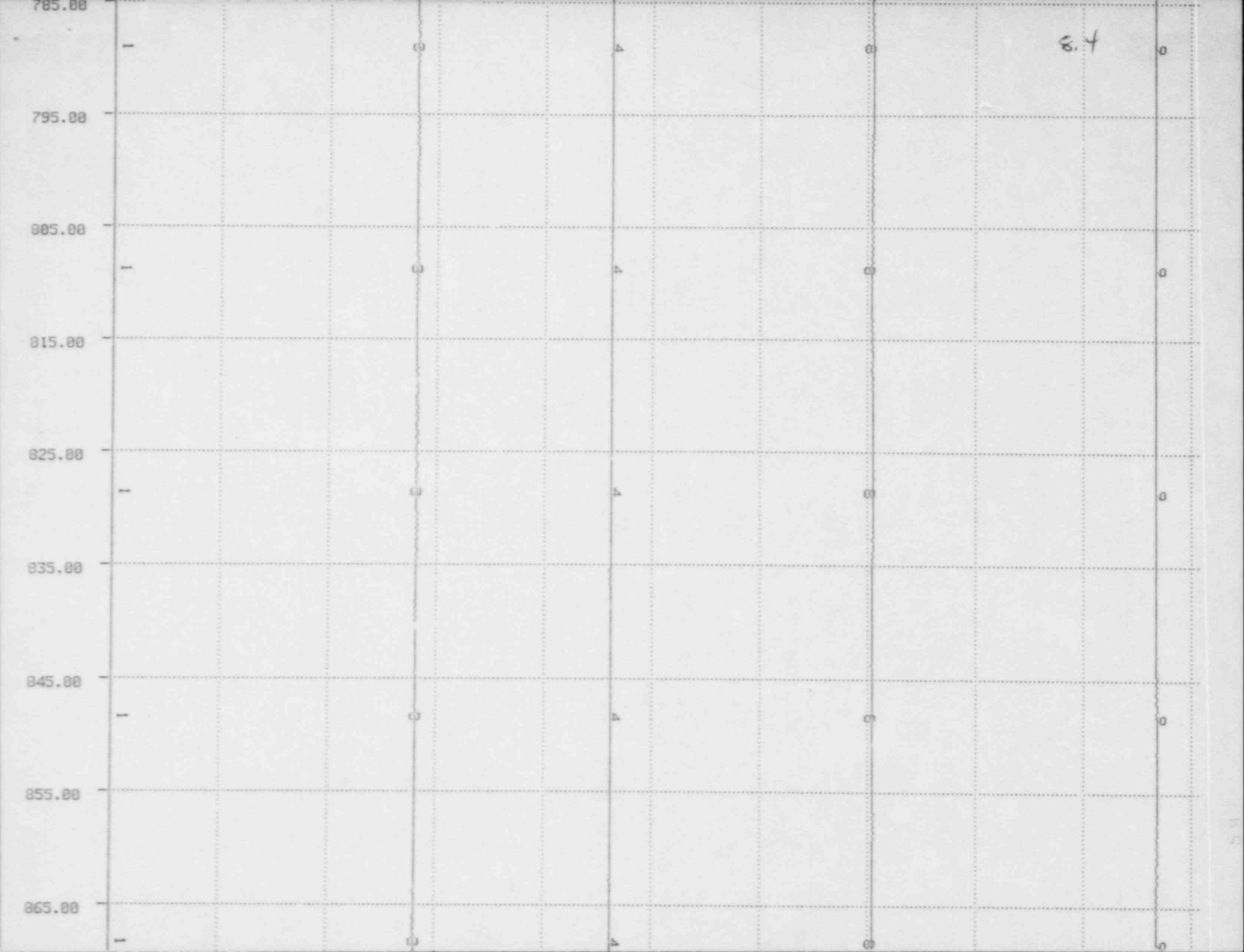
765.00
775.00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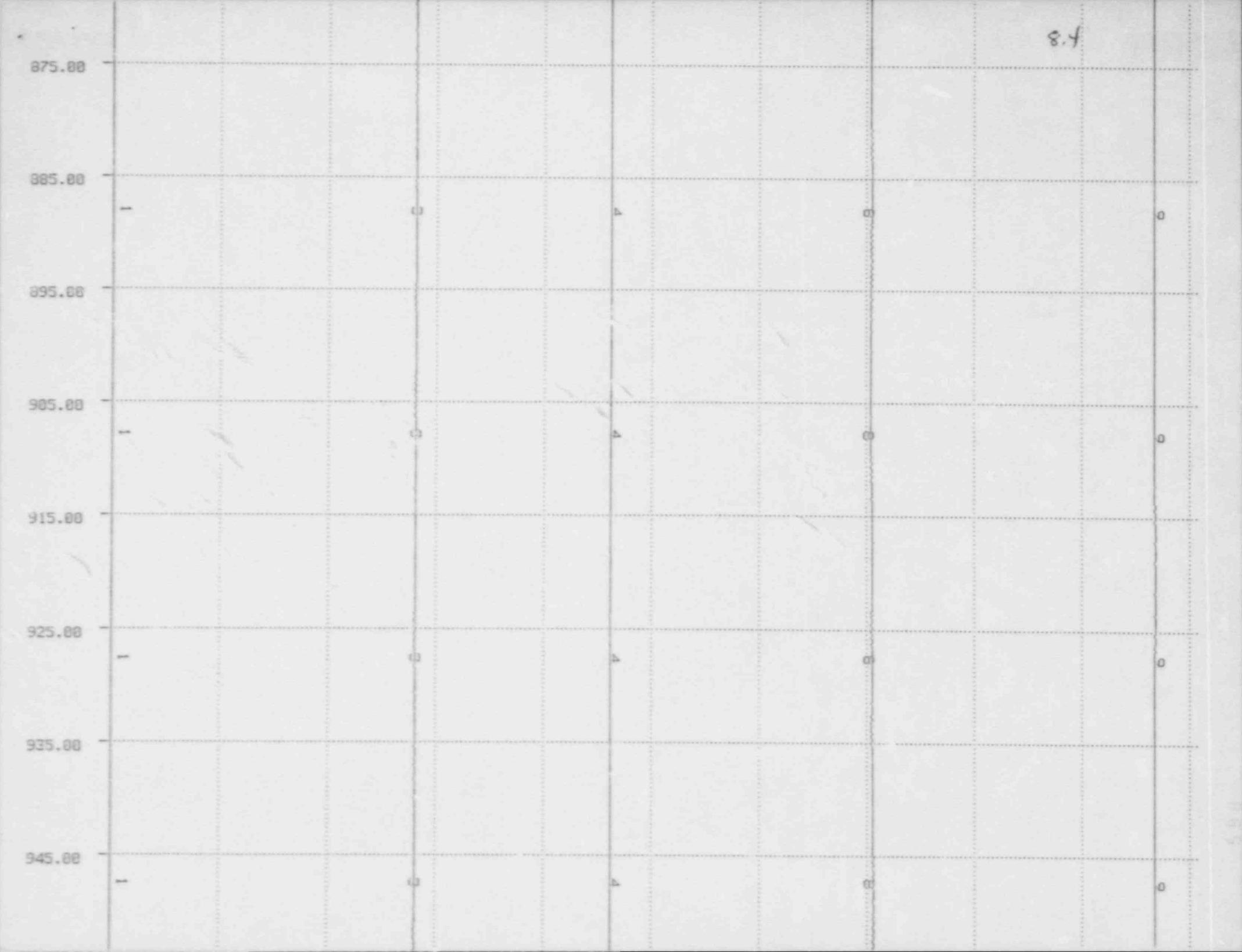
855.00
865.00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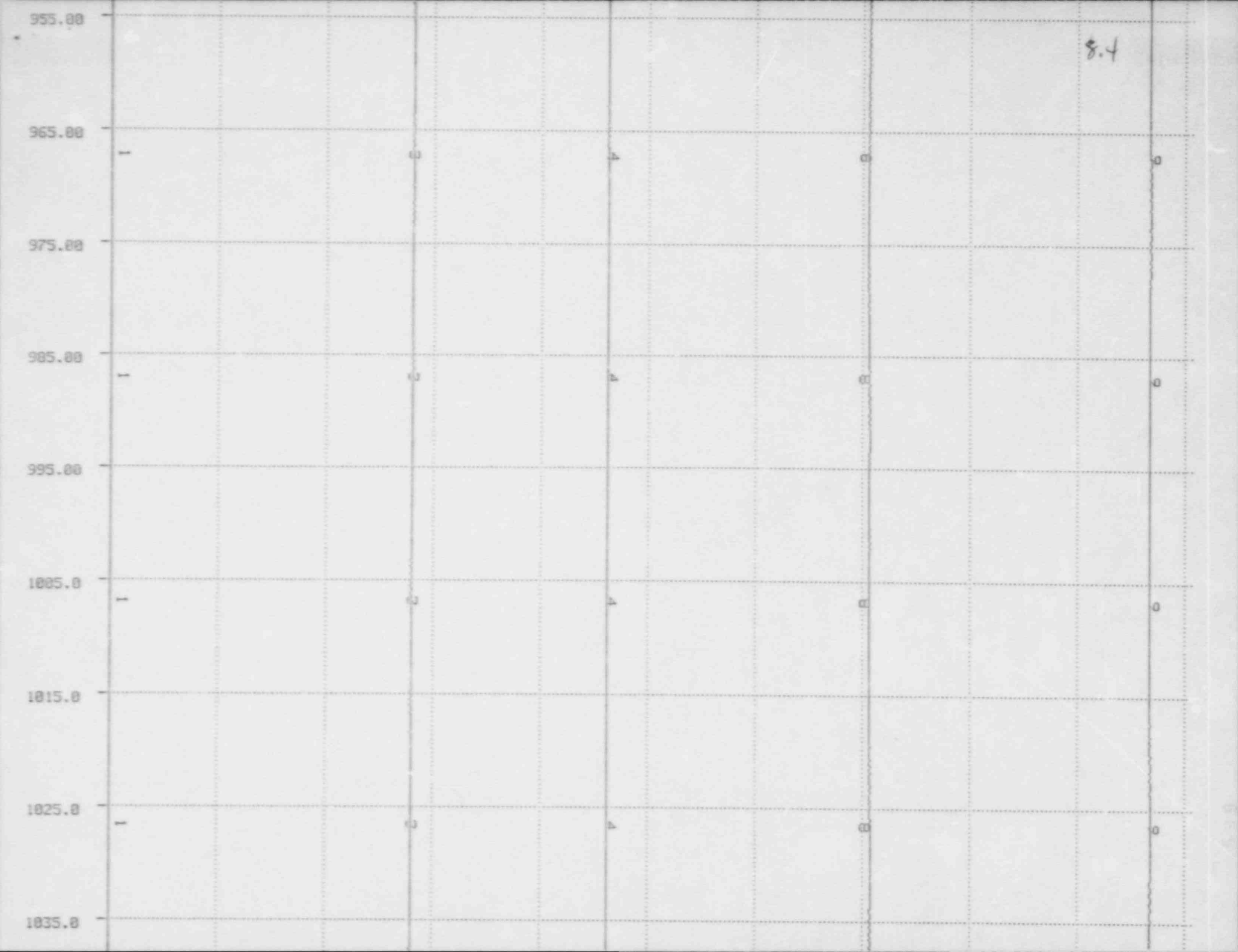
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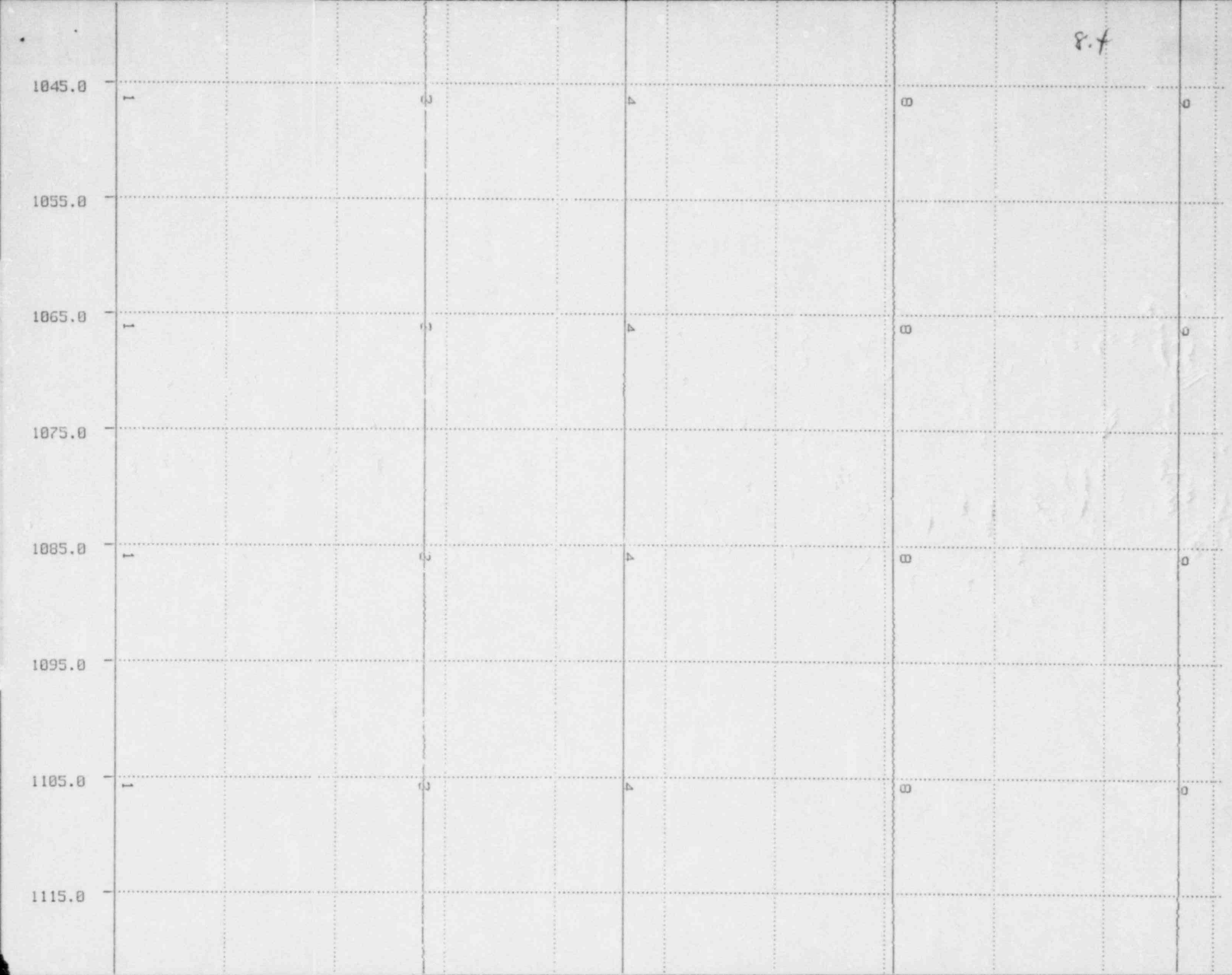
995.00
1005.0
1015.0
1025.0
1035.0
8.4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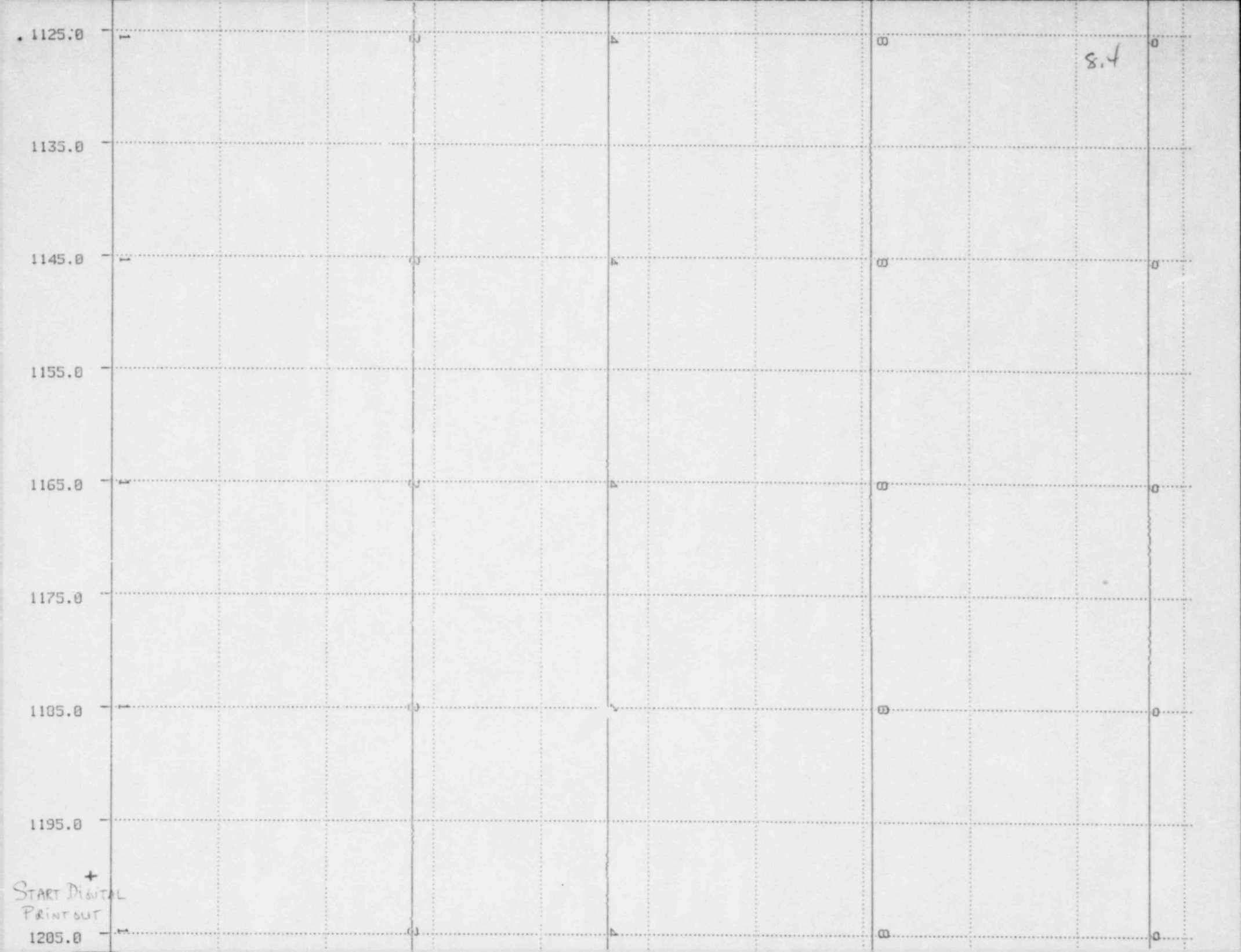
1055.0
1065.0
1075.0
1085.0
1095.0
1105.0
1115.0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8.4
1135.0
1145.0
1155.0
1165.0
1175.0
1185.0
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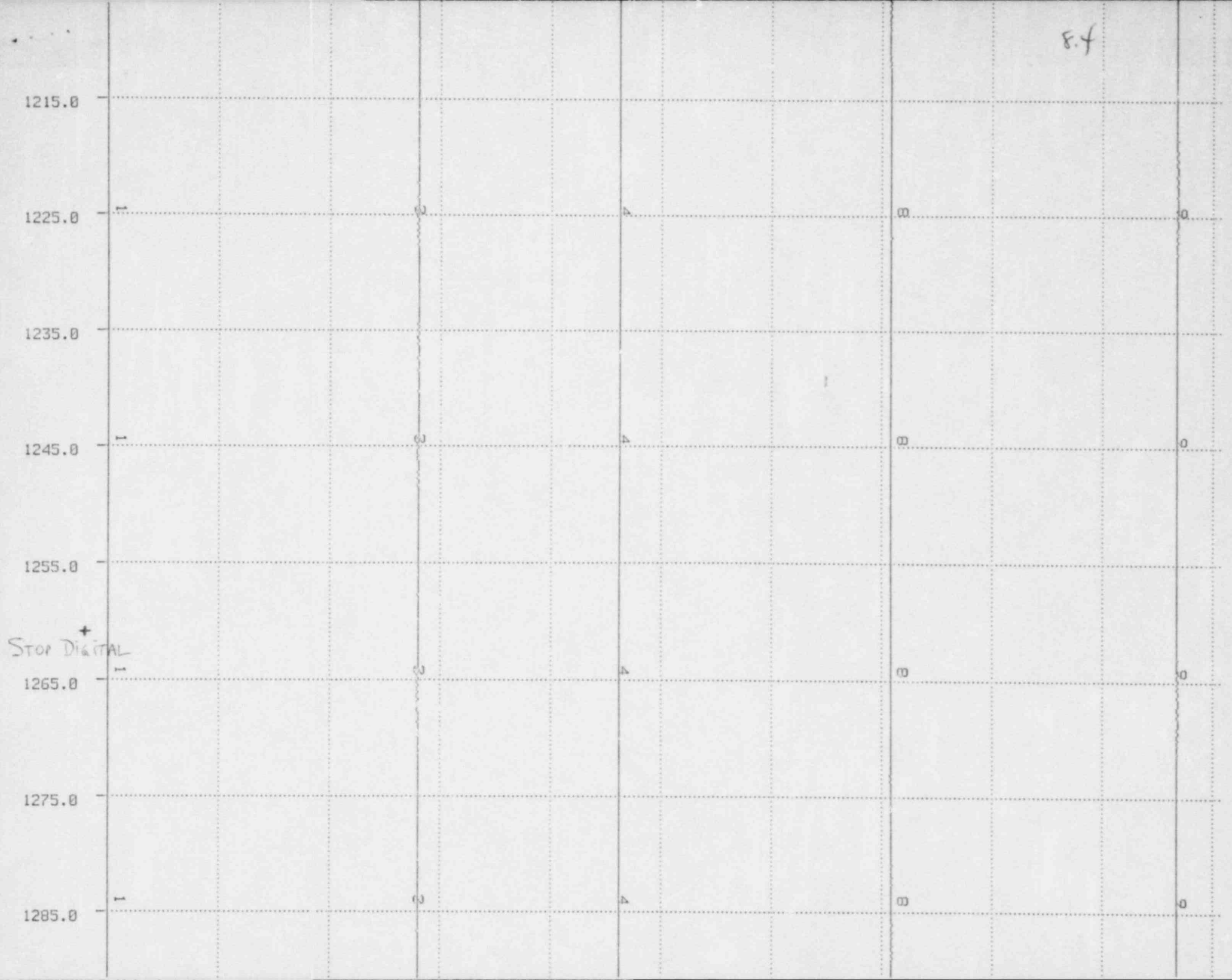
START DIGITAL PRINTOUT
1205.0

8.4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STOP DIGITAL
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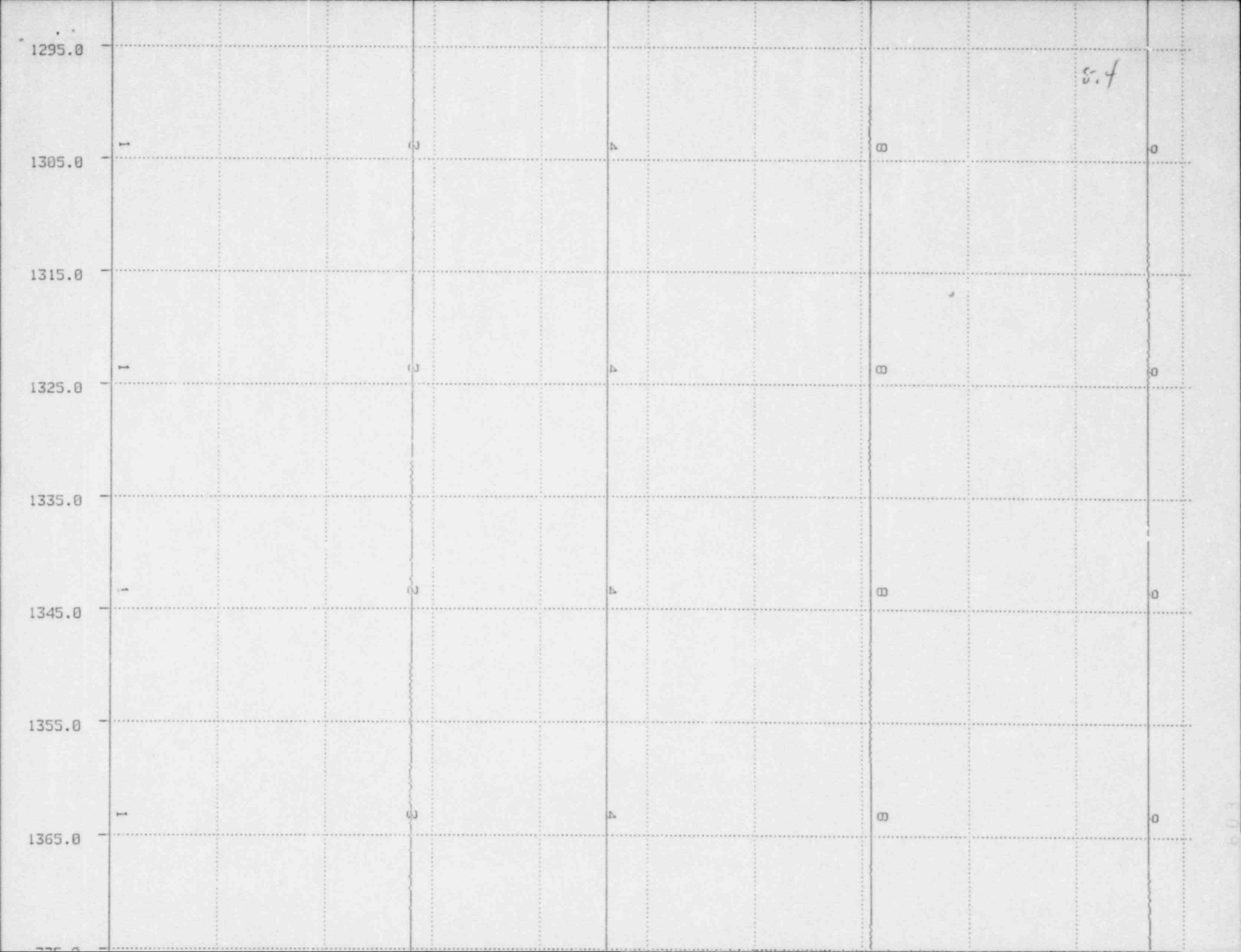
1275.0
1285.0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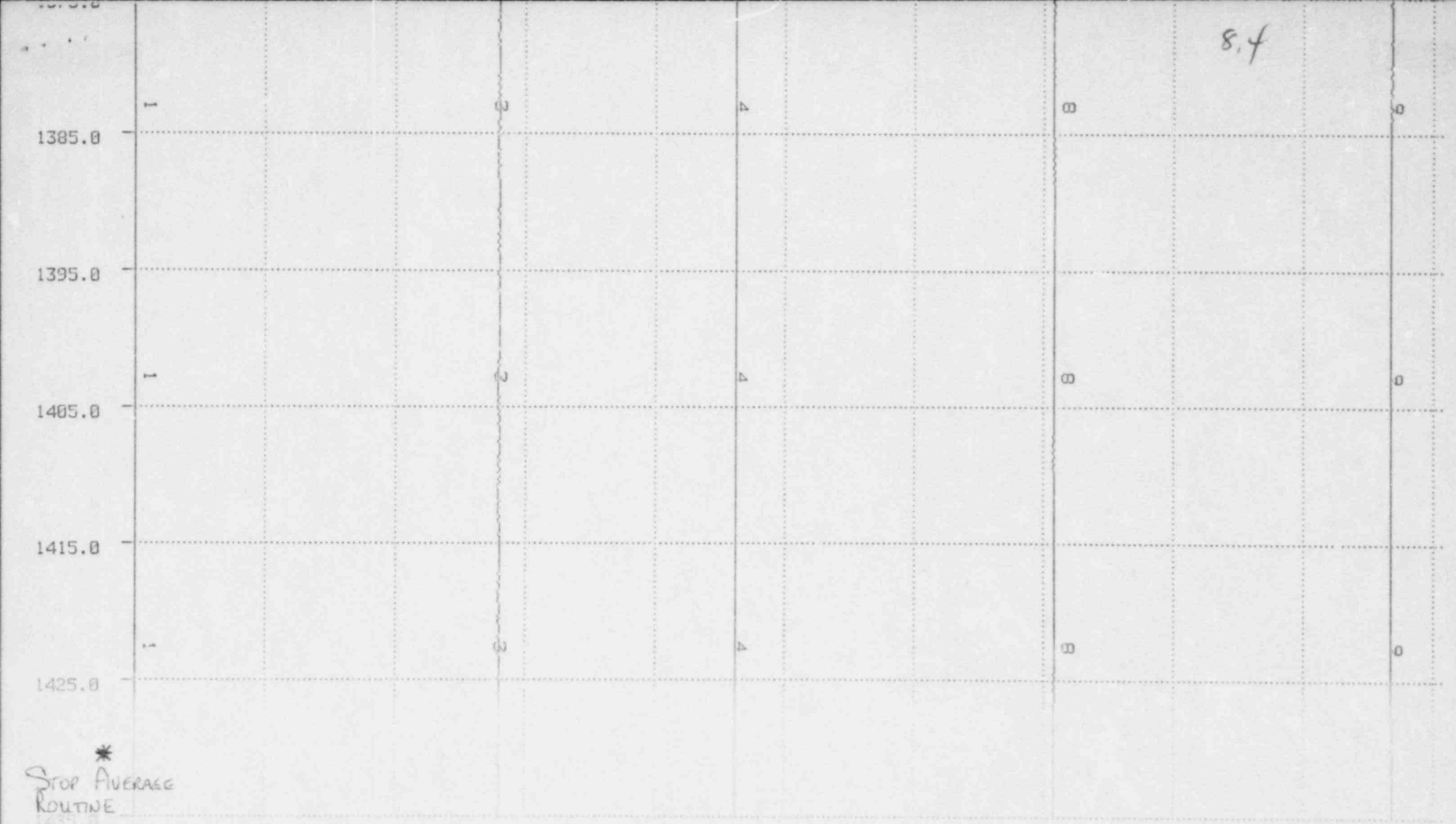
1355.0
1365.0

8.4



* STOP AVERAGE ROUTINE

8.5

```
I.E.T. STEP 8.5 8/17/84
FILE #0099
RUN #  2
DATE   8/17/84
TIME @ START OF RUN: 20:33:59: 10
BEGINNING AT 280.08 SECS. FROM START OF RUN


CHAN#   210 CHAN#   212
DG1B3VLT    DG1B3KW
VAC         KW
RELATIVE TIME . . . 0          0          0          0
    4210.198    2260.396
    4203.890    2266.187
    4218.198    2269.160
    4210.481    2266.187
    4212.481    2262.854
    4210.763    2263.854
    4203.898    2266.187
    4205.698    2266.190
    4210.654    2259.396
RELATIVE TIME . . . 0          0          1          0
    4213.854    2266.187
    4209.606    2262.291
    4216.198    2266.187
    4203.898    2266.187
    4208.098    2268.295
    4210.763    2260.396
    4206.181    2262.854
    4206.181    2267.291
    4209.009    2263.854
    4210.198    2266.187
RELATIVE TIME . . . 0          0          1        999
    4203.898    2265.187
    4210.198    2268.396
    4200.402    2266.344
    4207.099    2263.854
    4197.817    2263.344
    4197.817    2266.187
    4203.317    2269.168
    4206.181    2266.187
    4196.735    2263.854
    4197.817    2263.834
RELATIVE TIME . . . 0          0          2        999
    4196.726    2266.187
    4194.298    2266.187
    4196.726    2266.187
    4190.444    2262.187
    4195.152    2262.291
    4198.980    2265.344
    4192.435    2263.344
    4191.661    2265.344
    4198.735    2269.168
```

8.5

4185.562	2183.681			
4185.562	2188.417			
4185.562	2155.443			
RELATIVE TIME . . . 0		0	14	0
4192.435	2143.231			
4192.435	2131.020			
4191.061	2121.062			
4187.893	2110.414			
4189.570	2108.492			
4190.444	2089.044			
4190.144	2076.078			
4189.570	2066.911			
4189.570	2050.516			
4197.017	2052.411			
RELATIVE TIME . . . 0		0	15	0
4199.308	2043.252			
4197.017	2033.331			
4203.090	2024.172			
4198.735	2015.777			
4203.090	2013.724			
4201.826	2008.508			
4201.599	2000.518			
4207.099	1991.394			
4203.599	1984.426			
4207.099	1979.143			
RELATIVE TIME . . . 0		0	16	0
4201.599	1975.327			
4210.763	1972.274			
4208.472	1966.169			
4207.099	1957.774			
4207.099	1954.721			
4208.472	1948.615			
4212.401	1947.952			
4214.772	1945.563			
4217.863	1938.894			
4214.772	1932.588			
RELATIVE TIME . . . 0		0	17	0
4212.054	1926.402			
4206.191	1926.402			
4208.472	1921.148			
4210.190	1920.377			
4217.636	1915.834			
4218.763	1911.218			
4215.345	1908.169			
4207.099	1905.075			
4214.772	1905.113			
4208.472	1899.770			
RELATIVE TIME . . . 0		0	18	0
4207.099	1898.718			
4212.401	1893.665			
4212.401	1889.040			
4210.763	1888.612			
4212.401	1889.042			
4207.099	1884.576			

8.5

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I.E.T. STEP 8.5 8/17/84
FILE #9999
RUN # 2
DATE 8/17/84
TIME @ START OF RUN 20:33:59: 10
BEGINNING AT 4128.08 SECS. FROM START OF RUN

8.5

CHAN# 205	CHAN# 207
DG102VLT	DG102KW
VAC	KW
RELATIVE TIME . . . 0	0 0 0
4119.587	2919.882
4119.587	2919.838
4121.789	2916.794
4121.789	2912.981
4119.587	2913.744
4120.877	2913.741
4120.877	2918.832
4120.636	2912.784
4120.636	2910.694
RELATIVE TIME . . . 0	0 1 9
4126.354	2907.644
4121.789	2907.644
4120.877	2907.644
4119.587	2910.694
4121.789	2907.644
4124.642	2907.644
4126.924	2903.831
4119.587	2906.881
4120.877	2907.644
4126.924	2906.881
RELATIVE TIME . . . 0	0 1 999
4122.359	2906.881
4122.359	2904.593
4120.877	2901.543
4119.587	2903.831
4119.587	2907.644
4121.789	2909.931
4129.206	2907.644
4124.642	2906.881
4120.636	2906.881
4126.924	2907.644
RELATIVE TIME . . . 0	0 2 995
4119.587	2910.694
4120.877	2912.981
4126.924	2909.931
4122.359	2910.694
4120.636	2909.951
4126.924	2909.931
4126.354	2912.981
4122.359	2916.794
4122.359	2916.832

```
   4126.924    2913.744
RELATIVE TIME . . . 0          0          3          999
   4126.924    2913.744
   4119.587    2916.832
   4124.671    2916.794
   4126.924    2916.794
   4129.286    2916.794
   4129.286    2916.832
   4126.924    2916.794
   4126.354    2919.845
   4126.354    2919.802
   4126.924    2919.802
RELATIVE TIME . . . 0          0          3          9
   4126.354    2919.802
   4121.705    2916.794
   4121.789    2919.802
   4121.789    2919.845
   4120.877    2922.895
   4122.359    2922.132
   4122.389    2919.845
   4124.671    2919.945
   4126.354    2916.794
   4120.877    2919.802
RELATIVE TIME . . . 0          0          6          6
   4124.642    2919.802
   4122.359    2919.845
   4124.671    2916.832
   4120.636    2913.744
   4126.924    2913.744
   4128.354    2913.744
   4126.924    2916.794
   4126.924    2912.981
   4126.354    2919.694
   4119.587    2919.694
RELATIVE TIME . . . 0          6          7          0
   4117.755    2919.694
   4124.642    2919.694
   4121.789    2919.694
   4126.924    2989.931
   4129.286    2987.844
   4122.359    2984.593
   4121.789    2986.081
   4119.587    2985.881
   4119.587    2987.644
   4123.359    2986.881
RELATIVE TIME . . . 0          0          0          0
   4120.636    2984.593
   4126.924    2981.543
   4126.354    2984.593
   4119.587    2987.644
   4123.359    2987.644
   4129.286    2984.593
   4120.636    2983.831
   4126.354    2984.593
```

8.5

4126.354 2987.644
4120.077 2986.881
RELATIVE TIME . . . 0 11 9 8
4126.354 2987.644
4124.642 2989.931
4120.636 2984.503
4126.924 2986.881
4126.924 2987.644
4119.507 2913.744
4126.354 2912.981
4120.636 2912.981
4126.354 2912.981
4120.077 2913.744
RELATIVE TIME . . . 0 10 10 9
4126.354 2913.744
4126.354 2916.794
4126.354 2916.794
4122.289 2919.082
4126.924 2916.794
4120.077 2916.794
4120.077 2922.132
4124.642 2922.895
4121.789 2922.132
4121.789 2919.845
RELATIVE TIME . . . 0 9 11 8
4123.359 2919.082
4126.924 2919.845
4120.077 2922.132
4120.077 2925.183
4126.924 2922.895
4129.286 2919.845
4126.924 2919.845
4124.871 2919.845
4124.642 2922.132
4121.789 2925.183
RELATIVE TIME . . . 0 8 12 8
4129.286 2922.895
4120.636 2919.845
4126.924 2919.845
4120.077 2919.082
4124.642 2922.132
4126.354 2922.895
4124.871 2919.832
4120.636 2916.794
4126.924 2916.082
4120.077 2919.845
RELATIVE TIME . . . 0 8 13 8
4126.354 2916.754
4126.924 2916.832
4120.636 2916.832
4121.789 2913.744
4121.789 2913.744
4126.354 2913.744
4124.642 2913.744

```
    4124.642    2913.744
    4121.709    2916.794
    4129.286    2910.694
RELATIVE TIME . . . 0          1          14          9
    4126.924    2909.931
    4128.354    2910.694
    4124.642    2910.694
    4122.359    2913.744
    4128.636    2910.694
    4128.636    2907.644
    4126.354    2907.644
    4124.642    2910.694
    4126.354    2910.694
    4122.359    2913.744
RELATIVE TIME . . . 0          2          15          8
    4128.636    2909.931
    4129.286    2909.931
    4126.924    2907.644
    4121.709    2909.931
    4126.924    2913.744
    4120.077    2912.981
    4121.709    2913.744
    4126.924    2913.744
    4128.636    2913.744
    4126.924    2916.032
RELATIVE TIME . . . 0          3          16          0
    4119.587    2919.845
    4122.359    2919.043
    4124.071    2919.802
    4122.359    2919.802
    4126.324    2916.794
    4124.642    2922.895
    4126.924    2922.895
    4128.636    2920.103
    4124.071    2925.103
    4121.788    2922.132
RELATIVE TIME . . . 0          0          17          5
    4126.354    2925.103
    4126.924    2925.103
    4122.359    2928.233
    4121.709    2928.996
    4126.324    2935.945
    4128.077    2925.945
    4119.587    2928.996
    4128.077    2928.996
    4121.709    2928.996
    4128.636    2928.233
RELATIVE TIME . . . 0          0          15          5
    4124.642    2925.103
    4122.359    2925.103
    4121.709    2925.945
    4119.587    2928.233
    4128.077    2928.996
    4126.354    2925.945
```

4122.359 2923.103
4121.789 2922.132
4120.877 2925.945
4120.877 2925.183
RELATIVE TIME . . . 0 0 18 939
4124.871 2919.845
4129.206 2919.682
4120.636 2916.794
4121.789 2916.832
4119.587 2919.845
4122.359 2913.744
4126.924 2916.832
4124.642 2916.794
4126.924 2913.744
4120.636 2916.794
RELATIVE TIME . . . 0 0 19 939
4122.359 2916.832
4120.877 2916.832
4122.359 2913.744
4120.636 2920.931
4120.636 2918.694
4126.354 2912.981
4126.924 2909.931
4124.789 2916.794
4126.924 2913.744
4126.354 2912.981
RELATIVE TIME . . . 0 0 20 939
4122.359 2916.794
4126.924 2913.744
4126.354 2909.931
4120.877 2918.794
4126.354 2916.832
4120.636 2912.981
4120.636 2918.694
4129.206 2912.981
4126.924 2916.832
4126.924 2916.832
RELATIVE TIME . . . 0 0 21 939
4120.636 2916.794
4122.359 2919.945
4126.354 2912.981
4124.642 2916.794
4126.354 2919.845
4121.789 2919.845
4129.206 2919.682
4124.871 2919.845
4126.924 2916.832
4126.354 2919.845
RELATIVE TIME . . . 0 0 22 939
4121.789 2922.895
4119.587 2922.995
4126.354 2922.132
4122.359 2919.845
4120.636 2913.845

8.5

4121.709	2922.132			
4121.709	2925.183			
4126.924	2925.193			
4129.286	2922.895			
4128.636	2919.845			
RELATIVE TIME . . . 0		0	23	993
4126.354	2919.845			
4122.359	2919.882			
4117.795	2922.132			
4122.359	2922.895			
4124.642	2922.895			
4124.642	2919.845			
4122.359	2916.794			
4126.924	2919.082			
4126.354	2919.845			
4122.359	2919.082			
RELATIVE TIME . . . 0		0	24	992
4122.359	2916.794			
4126.924	2913.744			
4126.354	2912.981			
4126.924	2918.632			
4126.924	2916.832			
4121.709	2916.794			
4124.871	2913.744			
4129.286	2910.694			
4122.359	2909.931			
4119.587	2910.694			
RELATIVE TIME . . . 0		0	25	993
4126.877	2912.931			
4126.924	2910.694			
4124.642	2907.644			
4129.286	2906.601			
4126.924	2904.593			
4126.924	2907.644			
4126.924	2907.644			
4126.354	2907.644			
4120.636	2907.644			
4122.924	2904.593			
RELATIVE TIME . . . 0		0	25	993
4119.587	2904.593			
4122.359	2907.644			
4126.924	2906.001			
4122.359	2906.801			
4129.286	2906.801			
4121.783	2904.393			
4121.709	2906.001			
4120.877	2909.931			
4126.924	2910.694			
4120.077	2910.694			
RELATIVE TIME . . . 0		0	27	989
4122.359	2909.931			
4122.359	2910.694			
4121.709	2912.981			
4126.354	2913.744			

8.5

4126.924	2916.794			
4124.071	2916.032			
4129.206	2913.744			
4122.359	2913.744			
4120.077	2916.794			
4119.507	2919.845			
RELATIVE TIME . . . 0		0	28	999
4122.359	2922.132			
4121.789	2919.845			
4124.071	2919.032			
4121.789	2919.845			
4120.077	2922.132			
4120.077	2922.095			
4126.924	2922.095			
4126.924	2922.132			
4122.359	2919.845			
4121.789	2922.095			
RELATIVE TIME . . . 0		0	29	999
4126.354	2922.132			
4126.924	2925.183			
4124.071	2925.183			
4129.206	2919.845			
4129.206	2919.845			
4126.924	2919.845			
4124.071	2922.095			
4120.077	2922.132			
4126.924	2922.132			
4129.206	2919.832			
RELATIVE TIME . . . 0		0	30	999
4122.359	2916.794			
4126.924	2916.032			
4126.354	2916.794			
4126.354	2919.845			
4122.359	2919.845			
4122.359	2916.794			
4122.359	2916.032			
4126.354	2913.744			
4124.071	2916.794			
4126.354	2916.032			
RELATIVE TIME . . . 0		0	31	999
4128.636	2913.744			
4124.071	2912.981			
4122.359	2912.981			
4126.354	2909.931			
4124.642	2912.981			
4121.789	2912.981			
4126.924	2910.694			
4121.789	2910.694			
4126.924	2909.931			
4128.077	2910.694			
RELATIVE TIME . . . 0		0	32	999
4122.359	2913.744			
4126.924	2912.981			
4126.924	2912.981			

4126.924 2989.331
4121.789 2989.931
4120.677 2912.381
4124.642 2913.744
4124.871 2916.032
4126.924 2912.981
4128.535 2916.694
RELATIVE TIME . . . 0 0 33 529
4126.354 2913.744
4126.677 2916.794
4124.642 2916.794
4126.354 2919.043
4124.871 2919.982
4128.628 2919.982
4126.924 2919.645
4124.871 2919.845
4126.354 2922.809
4126.924 2925.193
RELATIVE TIME . . . 0 0 34 939
4129.286 2922.695
4122.359 2925.193
4121.789 2925.193
4126.924 2925.193
4120.677 2928.936
4120.677 2928.936
4121.789 2928.936
4126.924 2945.945
4128.636 2925.945
4126.354 2928.996
RELATIVE TIME . . . 0 35 993
4126.354 2931.284
4125.354 2932.846
4120.636 2928.233
4122.359 2928.233
4121.789 2928.233
4119.507 2931.284
4126.354 2931.284
4120.636 2931.284
4129.636 2925.945
4122.359 2928.996
RELATIVE TIME . . . 0 0 36 999
4120.677 2928.233
4126.924 2925.945
4126.924 2928.996
4128.636 2928.233
4126.924 2922.132
4120.677 2922.132
4128.677 2922.132
4120.677 2925.184
4120.677 2922.057
4122.359 2922.132
RELATIVE TIME . . . 0 0 37 989
4129.286 2916.794
4122.359 2916.794

8.5

4126.924	2913.744			
4119.507	2919.082			
4119.507	2919.045			
4126.354	2916.794			
4124.071	2916.794			
4126.924	2912.981			
4120.077	2913.744			
4122.359	2916.032			
RELATIVE TIME . . .	0	0	33	999
4126.354	2916.032			
4124.071	2916.794			
4122.359	2913.744			
4126.924	2910.694			
4119.507	2912.981			
4124.642	2913.744			
4126.354	2916.794			
4121.789	2916.794			
4129.206	2913.744			
4126.354	2910.694			
RELATIVE TIME . . .	0	0	39	999
4126.354	2913.744			
4124.642	2916.794			
4126.354	2916.794			
4126.354	2913.744			
4122.359	2913.744			
4120.077	2916.032			
4119.507	2916.794			
4126.354	2916.045			
4120.636	2919.045			
4129.206	2916.794			
RELATIVE TIME . . .	0	0	40	999
4122.359	2916.794			
4120.077	2919.082			
4124.071	2919.045			
4119.507	2922.132			
4126.354	2919.082			
4129.206	2919.045			
4121.789	2919.045			
4121.789	2919.045			
4121.789	2922.095			
4126.924	2922.095			
RELATIVE TIME . . .	0	0	41	999
4121.789	2925.103			
4129.206	2922.095			
4121.789	2919.045			
4119.507	2922.132			
4120.077	2922.095			
4121.789	2922.095			
4129.206	2922.132			
4124.071	2922.132			
4121.789	2919.045			
4124.071	2922.132			
RELATIVE TIME . . .	0	0	42	999
4121.789	2922.132			

8.5

8.5

4120.636	2922.132			
4122.359	2922.132			
4129.206	2919.882			
4120.636	2919.845			
4121.789	2925.183			
4124.071	2925.183			
4122.350	2922.132			
4122.359	2922.132			
4126.924	2919.845			
4126.354	2925.945			
RELATIVE TIME . . . 0		0	40	999
4122.359	2922.895			
4122.359	2920.183			
4124.642	2922.132			
4126.354	2925.183			
4122.359	2919.845			
4120.354	2918.682			
4120.354	2922.132			
4122.359	2922.132			
4129.206	2919.845			
4122.359	2918.632			
RELATIVE TIME . . . 0		0	49	999
4119.507	2918.845			
4126.924	2918.882			
4122.359	2919.882			
4129.206	2916.734			
4124.636	2912.981			
4121.789	2912.981			
4126.354	2909.931			
4126.354	2913.744			
4121.789	2913.744			
4124.071	2913.744			
RELATIVE TIME . . . 0		0	50	999
4124.642	2919.694			
4129.206	2918.694			
4126.924	2918.694			
4126.924	2909.931			
4121.789	2910.654			
4120.636	2907.644			
4125.206	2900.881			
4126.924	2904.593			
4120.077	2907.644			
4126.924	2918.694			
RELATIVE TIME . . . 0		0	51	999
4122.359	2909.931			
4124.642	2907.644			
4129.206	2900.881			
4121.789	2907.644			
4124.642	2909.931			
4126.924	2912.981			
4122.359	2912.981			
4122.359	2912.981			
4126.354	2909.931			
4126.354	2912.981			

RELATIVE TIME . . . 0 0 52 999

4120.677 2916.794
4121.709 2916.794
4126.354 2916.794
4122.359 2916.794
4122.359 2916.794
4126.354 2916.794
4120.677 2923.095
4126.354 2902.132
4129.206 2923.132
4130.910 2919.845

RELATIVE TIME . . . 0 0 53 999

4121.709 2922.132
4126.354 2922.095
4124.642 2922.095
4126.924 2925.103
4129.636 2922.095
4122.359 2922.132
4120.677 2919.048
4126.924 2922.132
4121.709 2925.095
4120.636 2922.095

RELATIVE TIME . . . 0 0 54 999

4122.359 2902.095
4126.924 2919.845
4126.924 2919.882
4122.359 2919.845
4120.677 2922.095
4126.354 2919.882
4129.636 2919.845
4129.206 2916.794
4120.636 2916.882
4119.587 2916.832

RELATIVE TIME . . . 0 0 55 999

4120.677 2916.794
4126.924 2916.794
4124.071 2912.901
4126.924 2907.644
4126.924 2909.931
4124.642 2905.931
4126.354 2918.694
4121.709 2910.634
4129.206 2904.593
4126.924 2904.593

RELATIVE TIME . . . 0 0 56 999

4122.359 2903.031
4126.924 2903.031
4121.709 2906.031
4122.359 2906.031
4126.924 2903.031
4121.709 2900.031
4126.354 2901.546
4126.354 2903.031
4120.677 2907.644

8.5

8.5

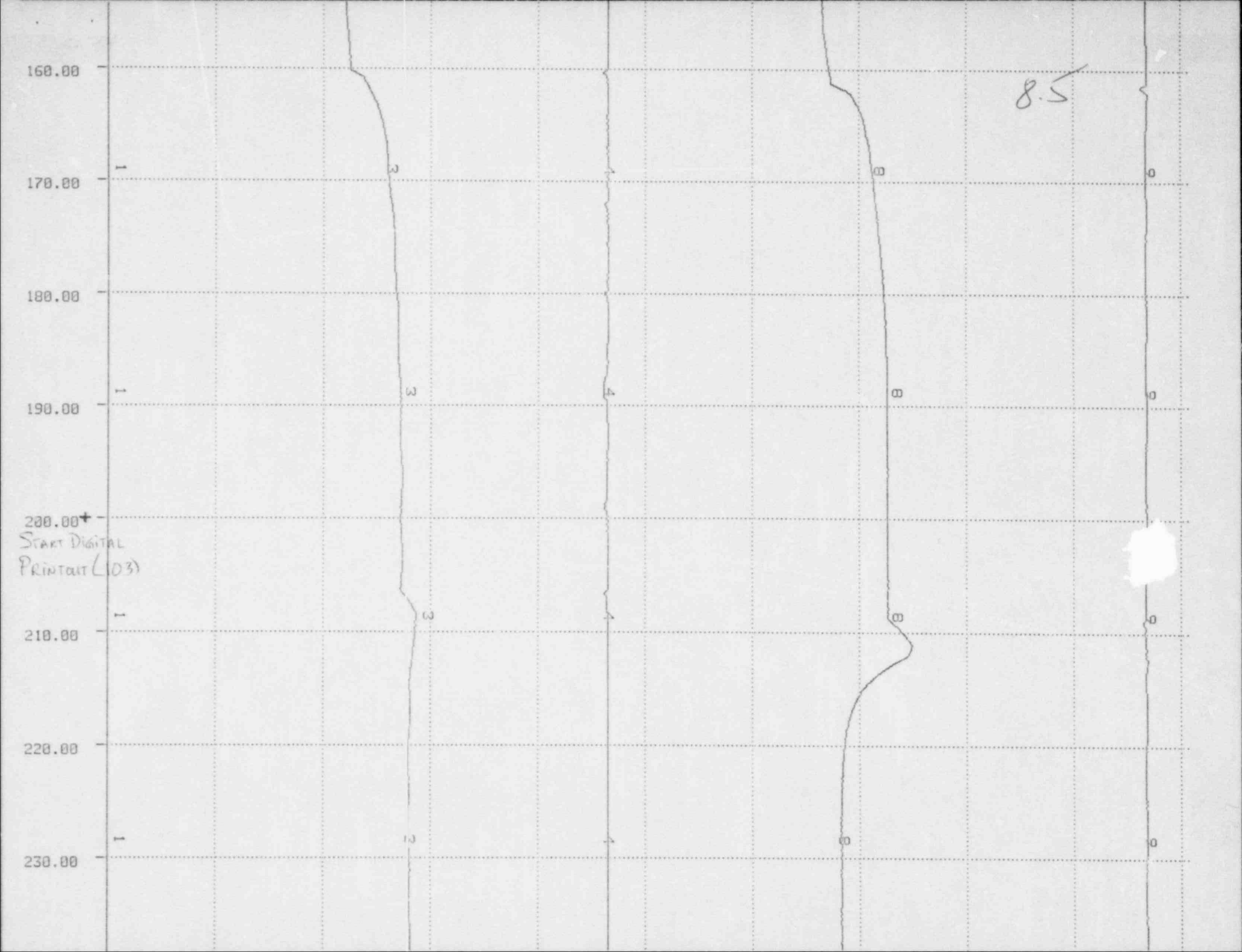
4122.359 2987.644
RELATIVE TIME . . . 0 0 57 999
4124.642 2983.831
4129.206 2984.593
4126.924 2561.543
4128.077 2987.644
4128.077 2987.644
4121.789 2986.881
4129.636 2984.593
4122.359 2983.831
4121.789 2986.881
4128.977 2987.644
RELATIVE TIME . . . 0 0 58 999
4121.789 2918.694
4123.206 2986.881
4121.789 2987.644
4122.359 2987.644
4124.642 2986.881
4119.587 2918.694
4126.924 2918.694
4124.642 2918.594
4128.636 2987.644
4122.359 2918.694
RELATIVE TIME . . . 0 0 59 999
4126.334 2918.694
4130.877 2912.581

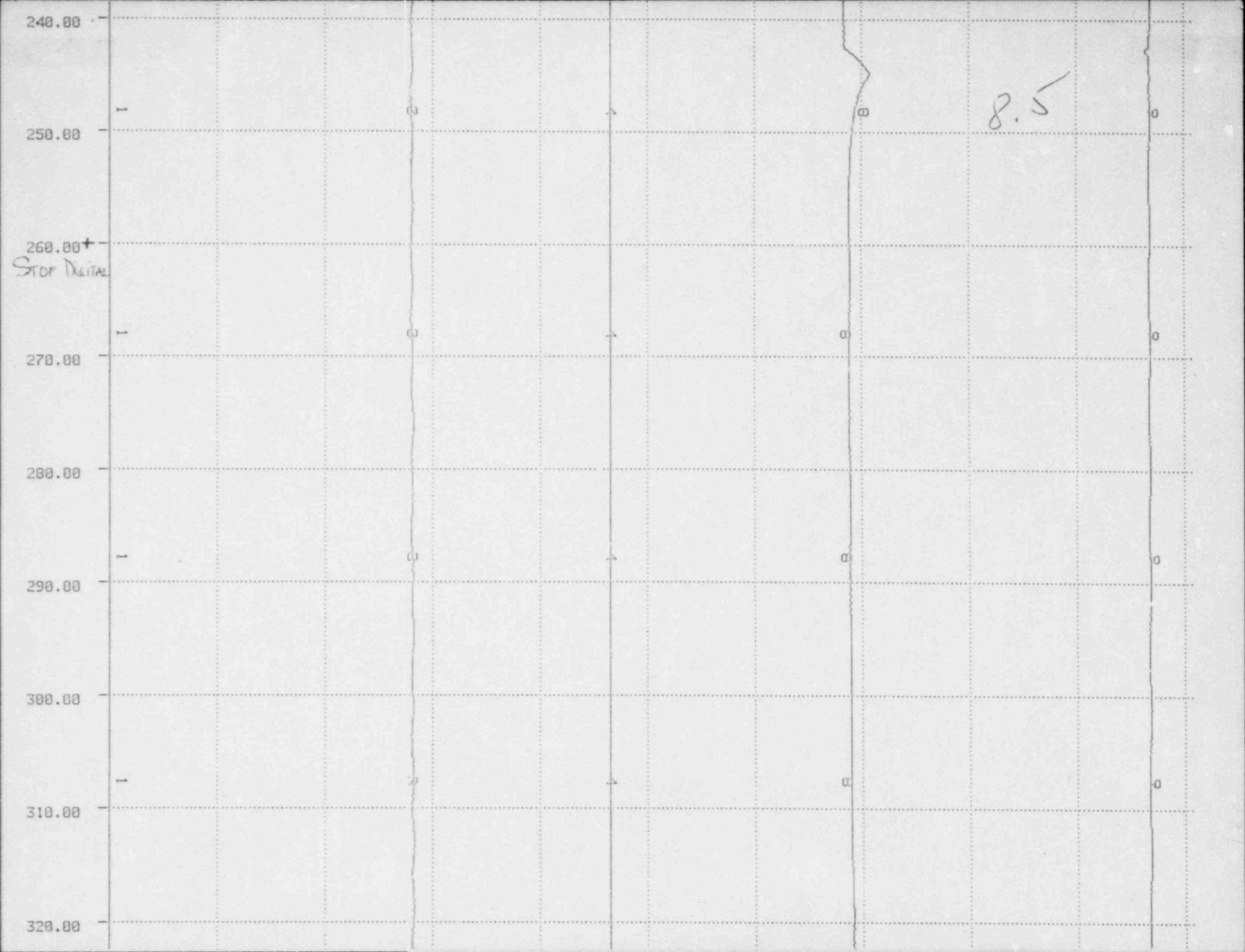
8.5

O F F - L I N E P L O T
I.E.T. STEP 0.5 9/17/84
FILE # 2
RUN # 2
DATE 9/17/84
TIME @ START OF RUN 20:33:50.10
BEGINNING AT 110.00 SECS. FROM START OF RUN

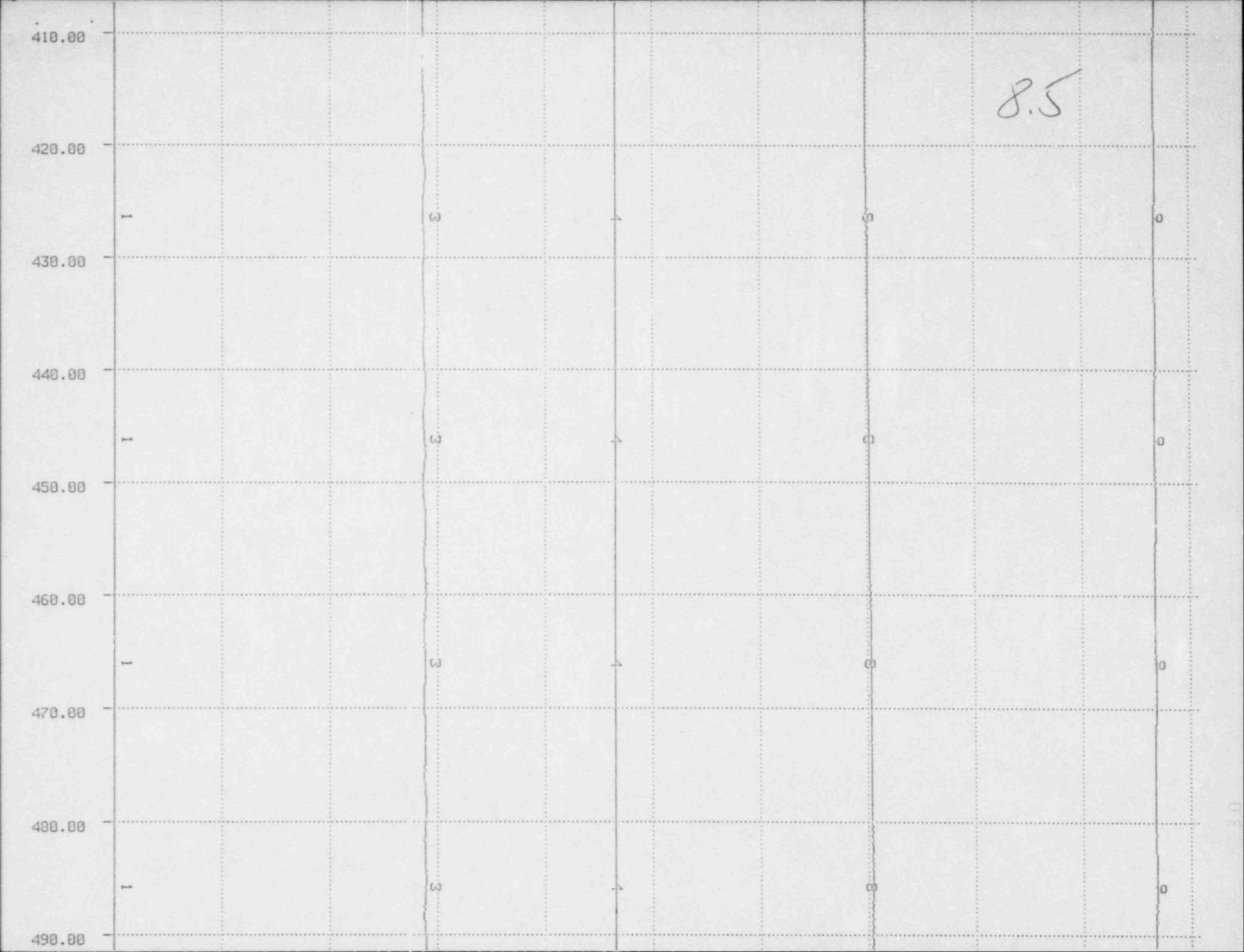
10.000SEC./GRID LINE

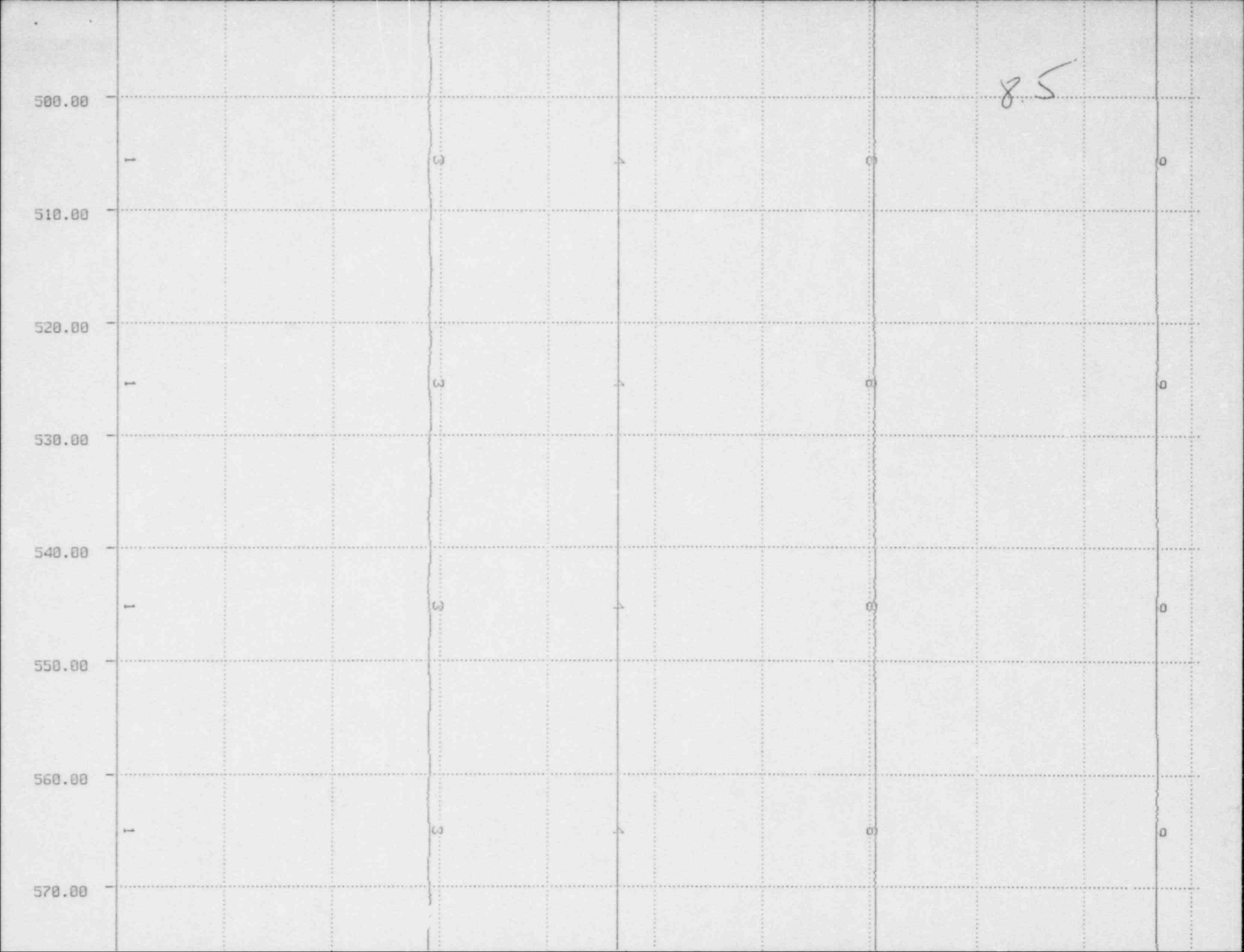
CHAN# 214	CHAN# 207	CHAN# 205	CHAN# 212	CHAN# 210
LOCA INT	DG102KW	DG102VLT	DG103KW	DG103VLT
VOLT	KW	VAC	KW	VAC
EU 10.0	EU 1000.0	EU 2500.0	EU 1000.0	EU 2500.0
OFF 0.0	OFF 2000.0	OFF 0.0	OFF 2000.0	OFF 0.0
ORG. 1.	ORG. 3.	ORG. 4.	ORG. 8.	ORG. 9.

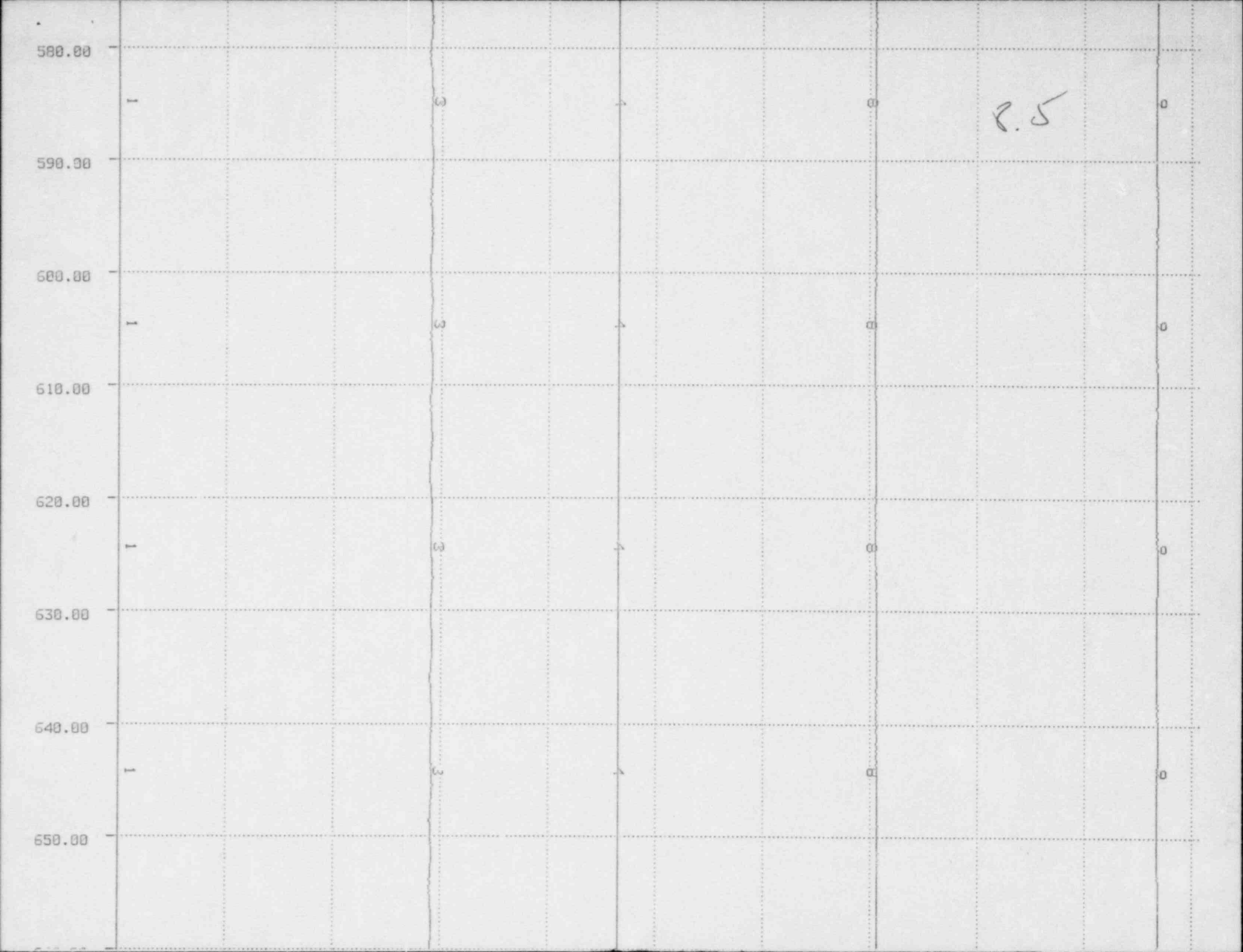

160.00
170.00
180.00
190.00
200.00
210.00
220.00
230.00
8.5
START DIGITAL
PRINTOUT (103)

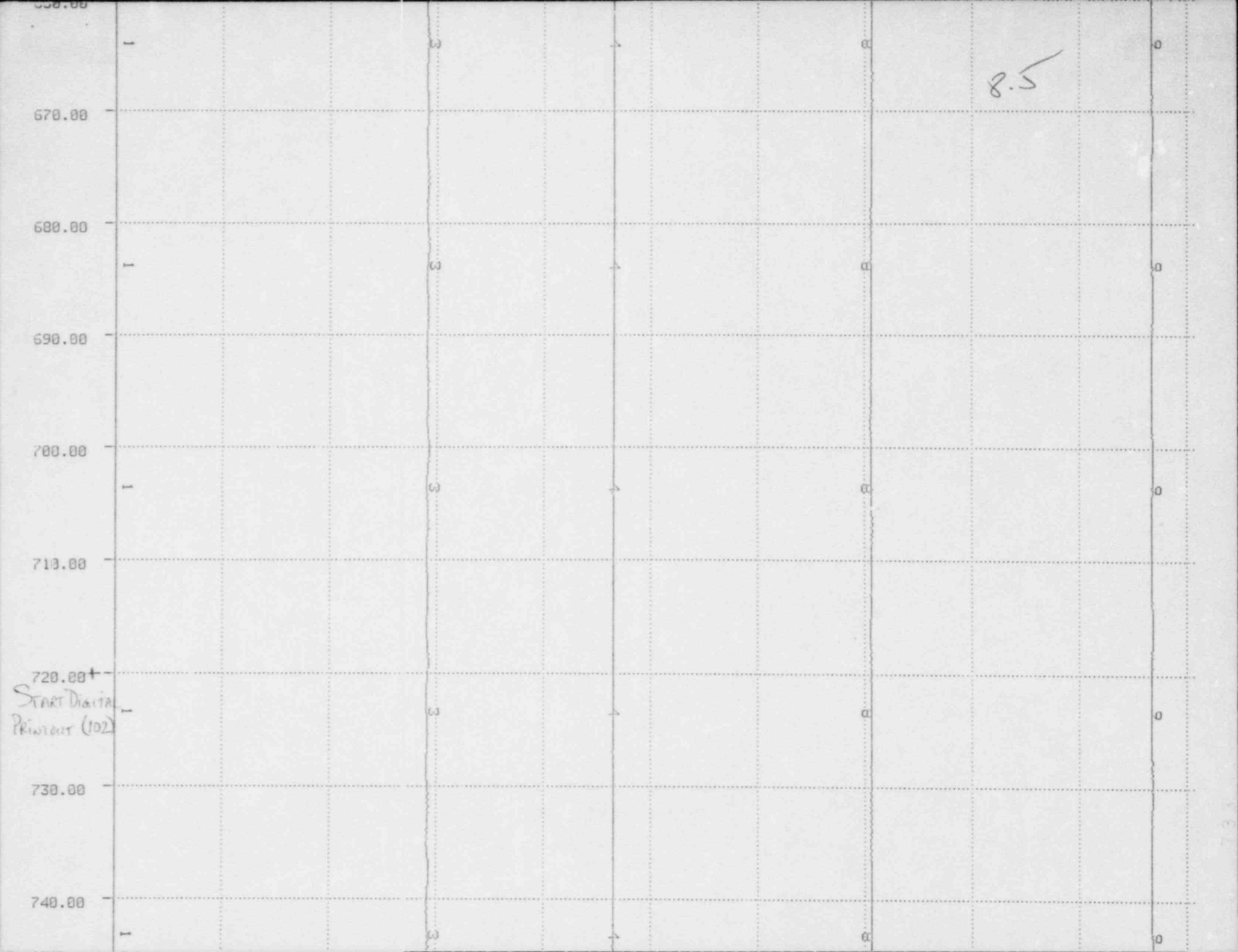

240.00
250.00
260.00
270.00
280.00
290.00
300.00
310.00
320.00
8.5
STOP DIGITAL

330.00
340.00
350.00
360.00
370.00
380.00
390.00
400.00
8.5


410.00
420.00
430.00
440.00
450.00
460.00
470.00
480.00
490.00
8.5

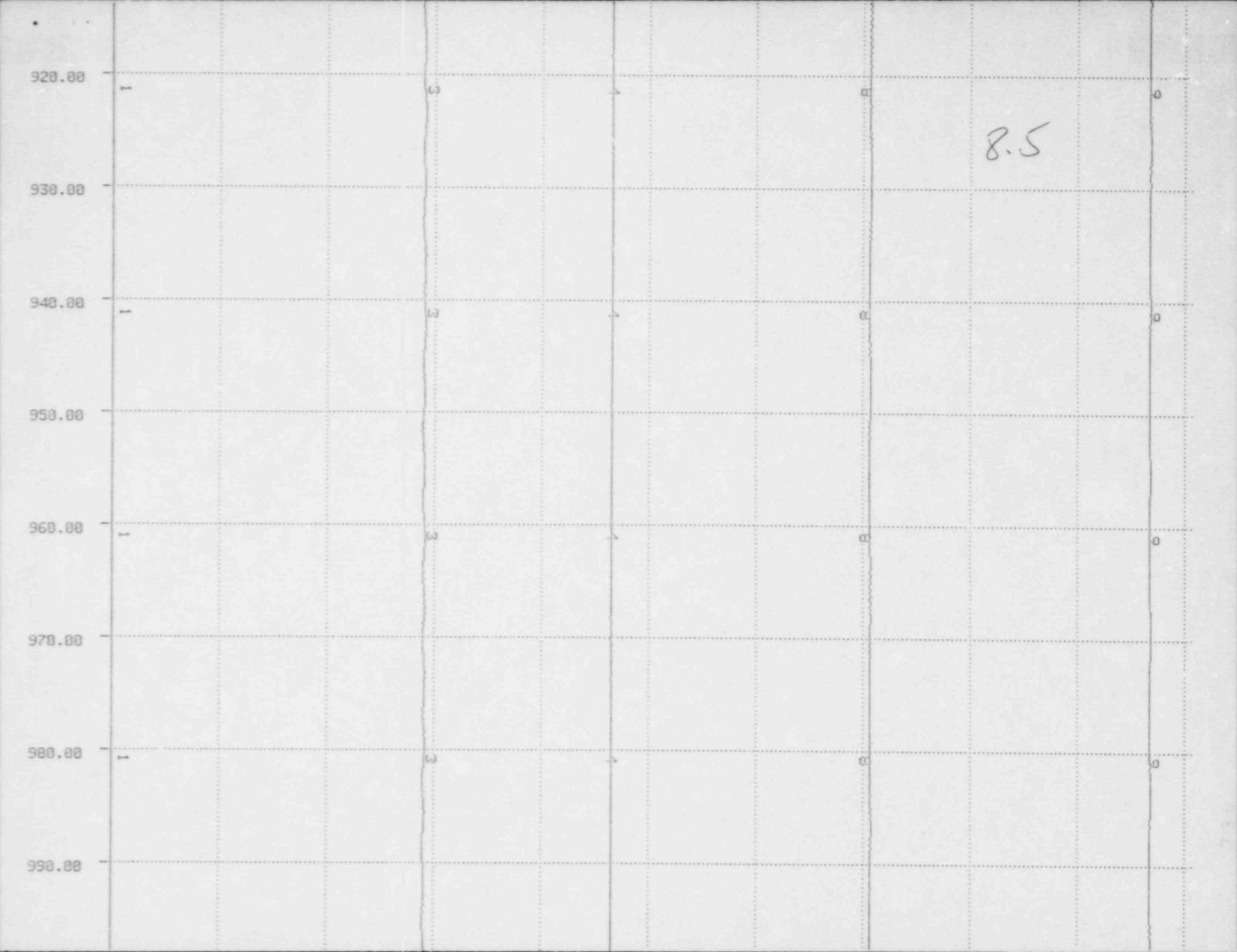

85
500.00
510.00
520.00
530.00
540.00
550.00
560.00
570.00

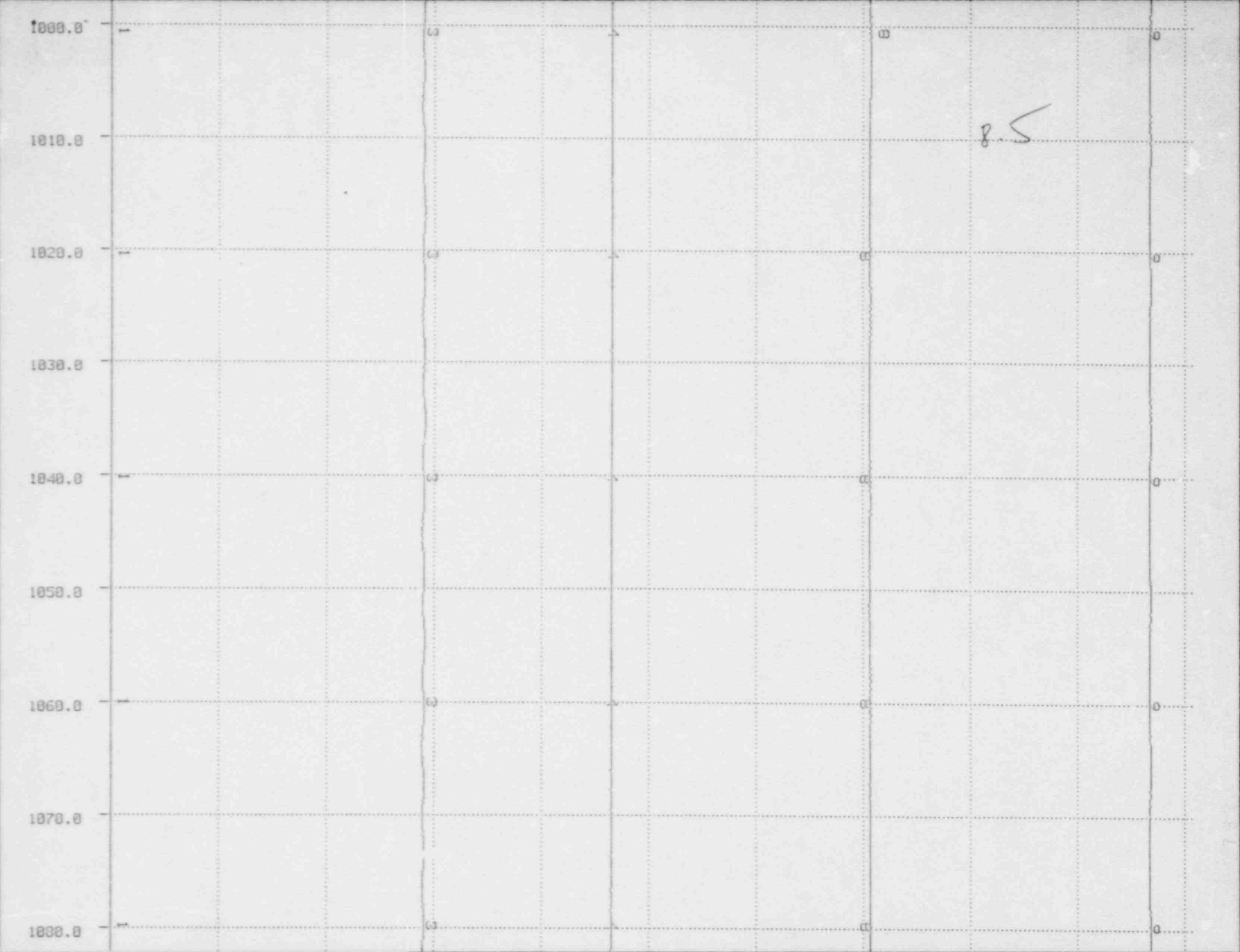

580.00
590.00
600.00
610.00
620.00
630.00
640.00
650.00
2.5

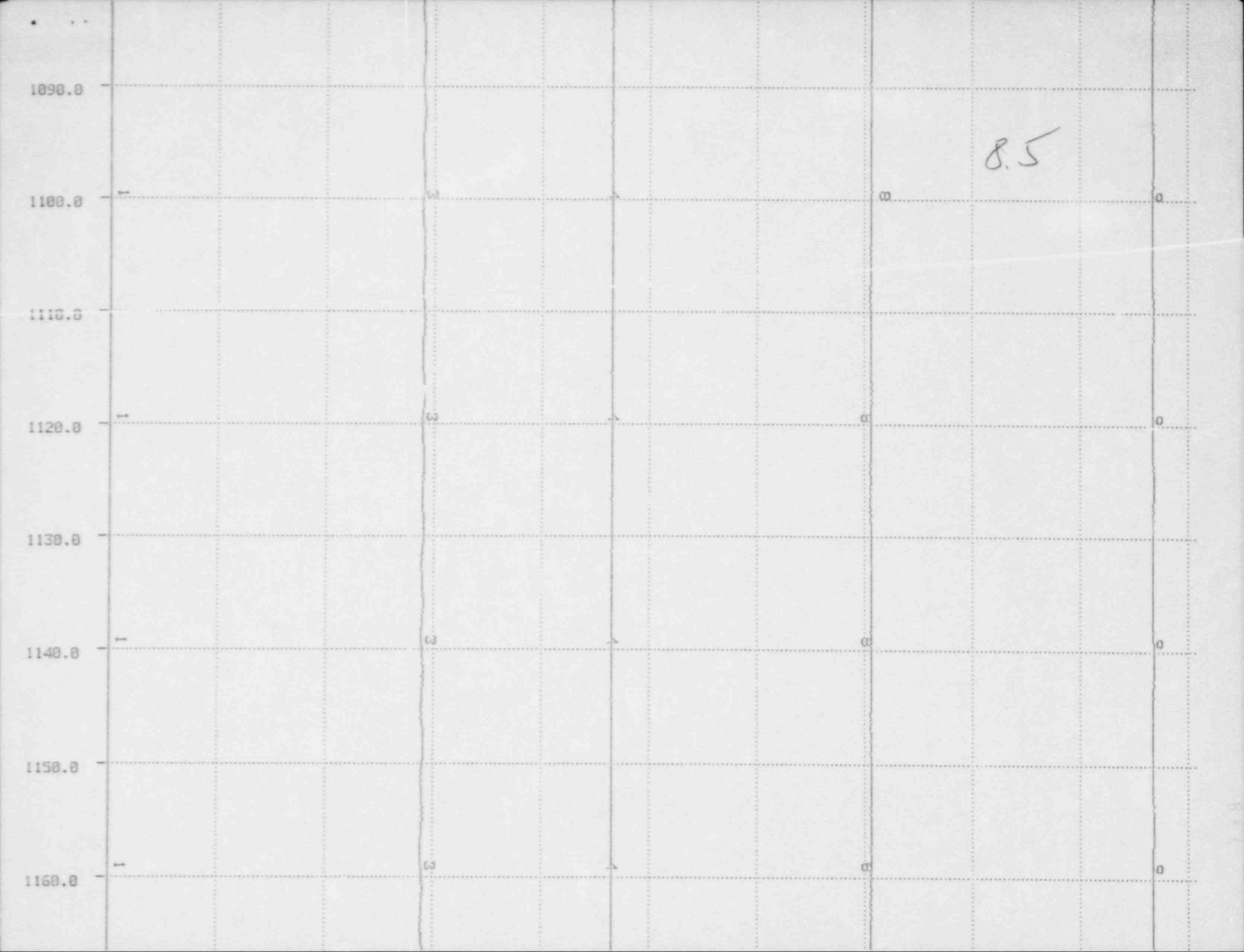

8.5
670.00
680.00
690.00
700.00
710.00
720.00
START DIGITAL PRINTOUT (102)
730.00
740.00

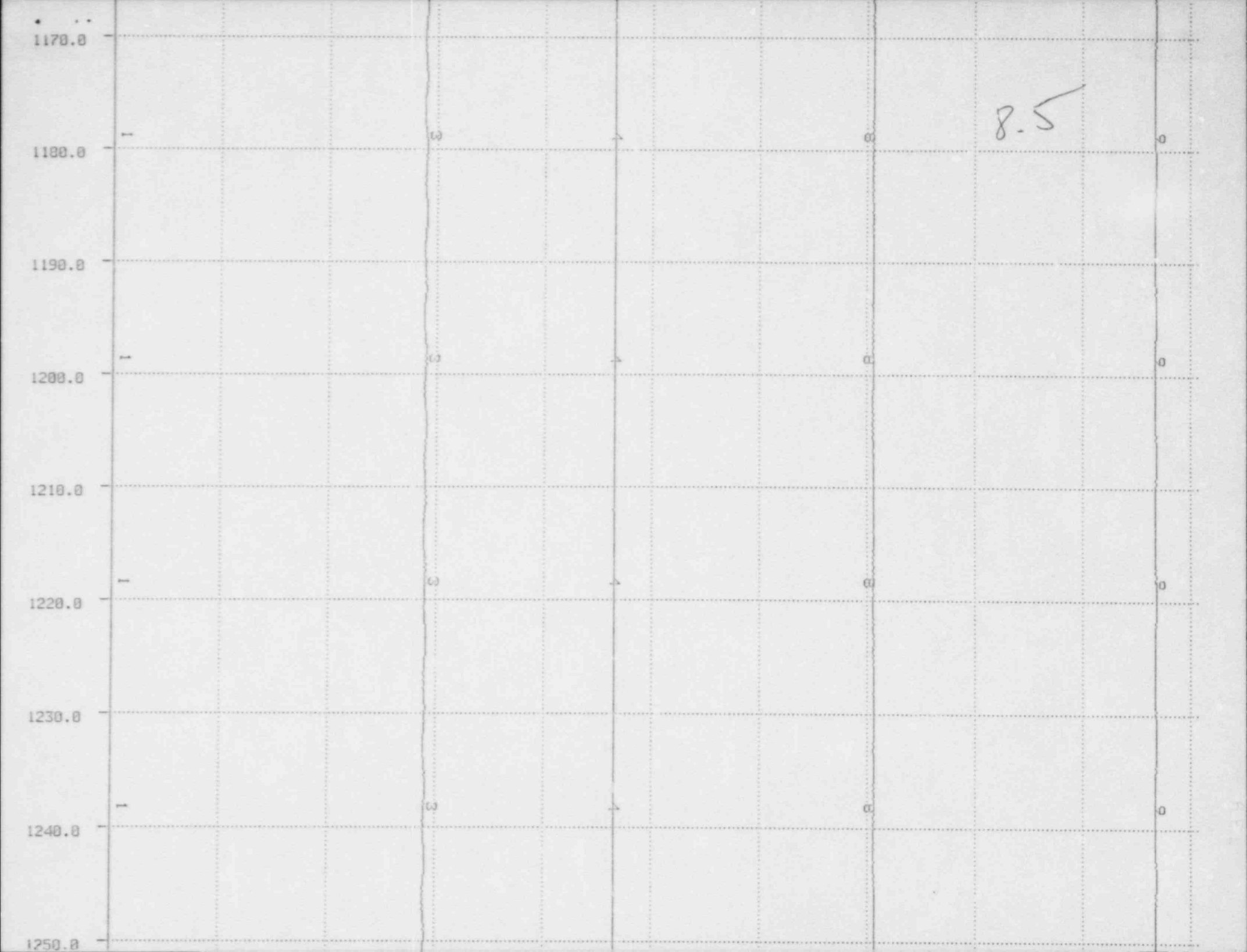
750.00
760.00
770.00
780.00
790.00
800.00
810.00
820.00
8.5
Stop Drilling

830.00
840.00
850.00
860.00
870.00
880.00
890.00
900.00
910.00
8.5


920.00
930.00
940.00
950.00
960.00
970.00
980.00
990.00
8.5


1000.0
1010.0
1020.0
1030.0
1040.0
1050.0
1060.0
1070.0
1080.0
8.5


1090.0
1100.0
1110.0
1120.0
1130.0
1140.0
1150.0
1160.0
8.5


1170.0
1180.0
1190.0
1200.0
1210.0
1220.0
1230.0
1240.0
1250.0
8.5

8.5

1260.0

1270.0

1280.0

1290.0

1300.0

STOP AVERAGE
ROUTINE