



BHC
Acoustilog

FILE NO. 541

COMPANY E. G. & G. IDAHO INC.

GL02630

WELL R. R. G. I. #7

FIELD RAFT RIVER GEOTHERMAL

COUNTY CASSIA STATE IDAHO

LOCATION:

SEC 23 TWP 15S RGE 26E

Other Services
DIFF. TEMP
DIFL
CNLOG
CDLC

Permanent Datum G.L. Elev. 4855
Log Measured from K.B. 16 Ft. Above Permanent Datum
Drilling Measured from K.B.

Elevations:
KB 4871
DF 4870
GL 4855

Date	7/23/78	7/31/78		
Run No.	ONE	TWO		
Depth—Driller	2050	3858		
Depth—Logger	2055	3802		
Bottom Logged Interval	2046	3793		
Top Logged Interval	160	2050		
Casing—Driller	20" @150 13 3/8@ 2044	@	@	@
Casing—Logger	160	2050		
Bit Size	17 1/2"	12 1/4"		
Type Fluid in Hole	FRESH GEL	WATER		
	@	@	@	@
Density and Viscosity	9.1 39			
pH and Fluid Loss	10.5 16.4cc	cc	cc	cc
Source of Sample	FLOWLINE	FLOWLINE		
Rm @ Meas. Temp.	2.76@ 70 °F	4.60@ 92 °F	@ °F	@ °F
Rmf @ Meas. Temp.	2.49@ 70 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	3.01@ 72 °F	@ °F	@ °F	@ °F
Source of Rmf and Rmc	MEAS MEAS			
Rm @ BHT	1.53@ 126 °F	@ °F	@ °F	@ °F
Time Since Circ.	4 HRS			
Max. Rec. Temp. Deg. F.	126 °F	°F	°F	°F
Equip. No. and Location	6159 RSVT	6159 RSVT		
Recorded By	PERESSINI	PERESSINI - TORGERSON		
Witnessed By	GOLDMAN	PRESTWICH		

THIS HEADING AND LOG CONFORMS TO API RECOMMENDED STANDARD PRACTICE RP-31

REMARKS

FOLD HERE → 178

Equipment Used

Series No.	1603	1603
Run No.	ONE	TWO
S.O.	87800	87804
Tool No.		
Elec. No.		
Panel No.	33217	33217

Changes in Mud Type or Additional Samples

Type Log

Scale Changes

Scale Down Hole

Date	Sample No.	Depth-Driller	Type Fluid in Hole	Dens.	Visc.	pH	Fluid Loss	Source of Sample	Rm @ Meas. Temp.	Rmf @ Meas. Temp.	Rmc @ Meas. Temp.	Source Rmf Rmc	Rm @ BHT	Rmf @ BHT	Rmc @ BHT
							cc		@ °F	@ °F	@ °F		@ °F	@ °F	@ °F
							cc		@ °F	@ °F	@ °F		@ °F	@ °F	@ °F

Equipment Data

Run No.	Tool Type	Pad Type	Tool Position	Other
ONE	BHC 1603		CENT.	
TWO	1603 BHC		CENT.	
TWO	1306 GR		CENT.	
TWO	626 CAL		CENT.	

G/R

Tension Curve
500 LBS/CD

API UNITS
0 150 300

DEPTH

ACOUSTILOG

T₁—R₁—R₂—T₂

SANDSTONE POROSITY—%

V_{ma} = 18000 V_f = 5.300

SPECIFIC ACOUSTIC TIME

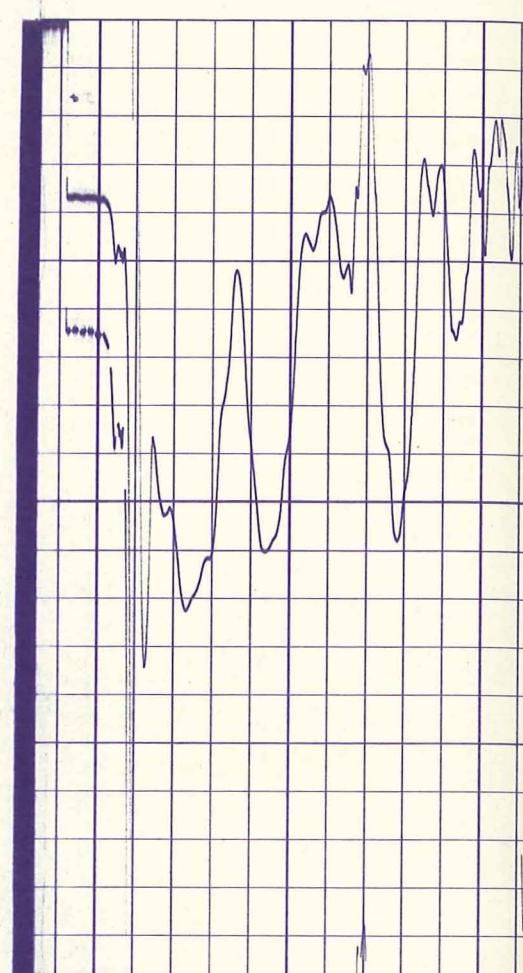
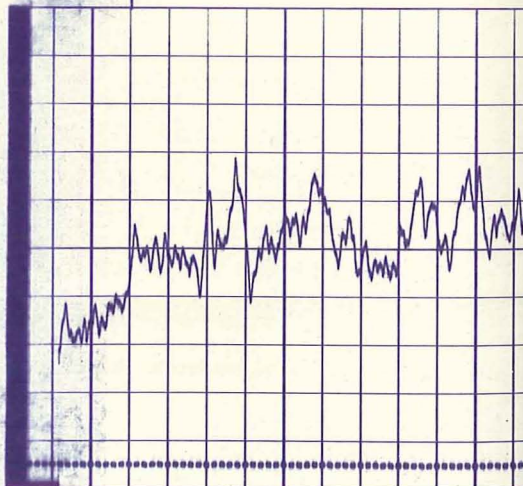
Micro Seconds Per Foot

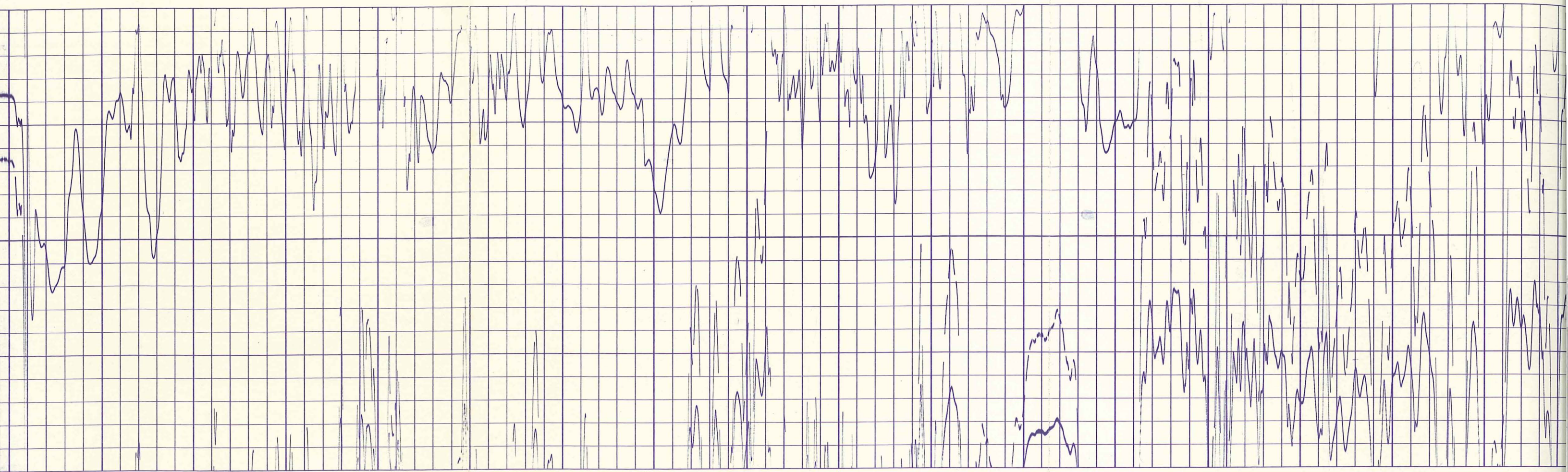
30 20 10 0 -10
140 40

Run 1

Casing

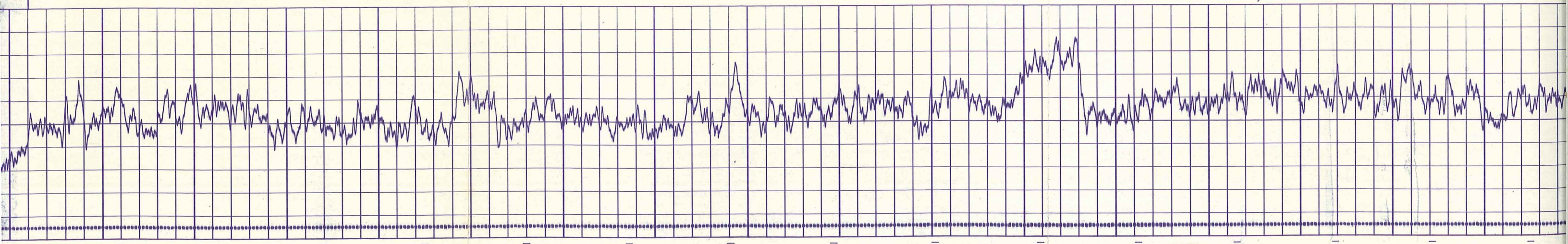
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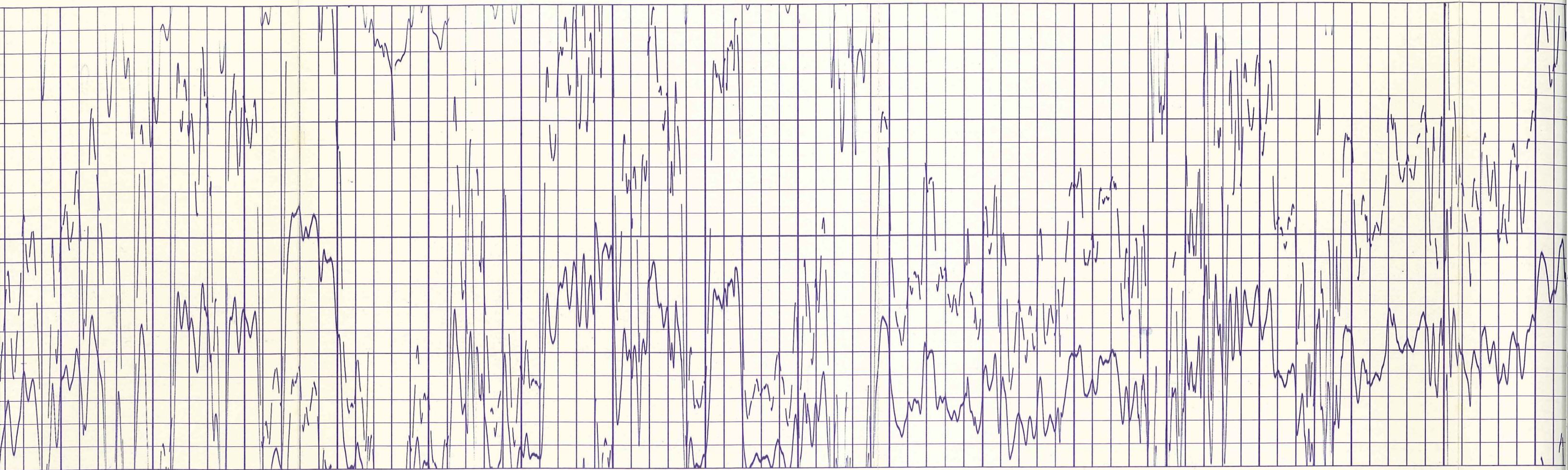




Casing

0200 0300 0400 0500 0600 0700 0800 0900





0900

1000

1100

1200

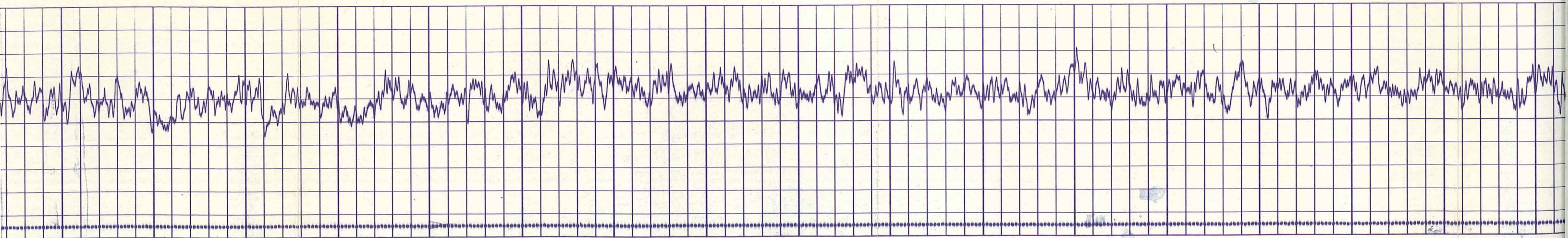
1300

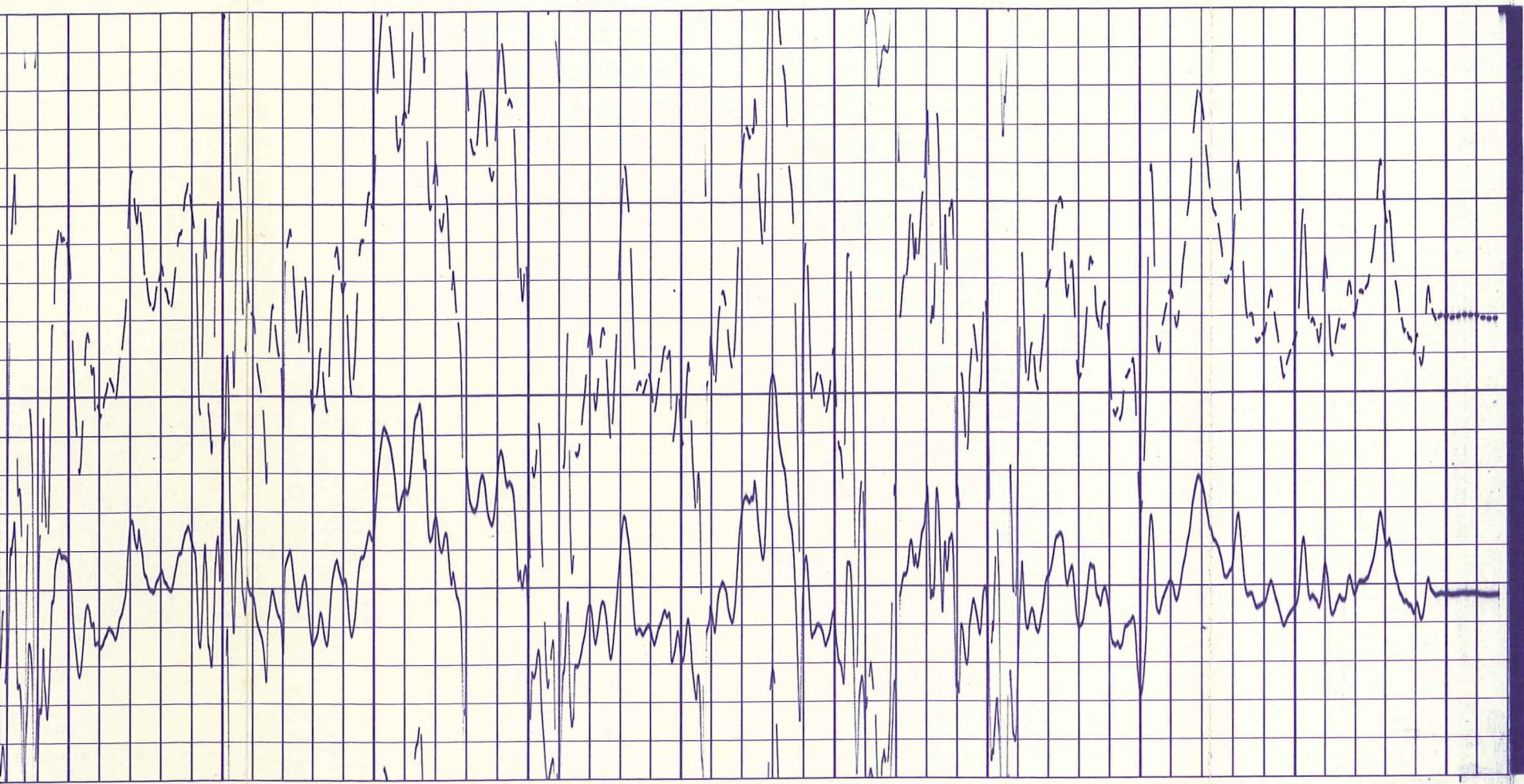
1400

1500

1600

1700

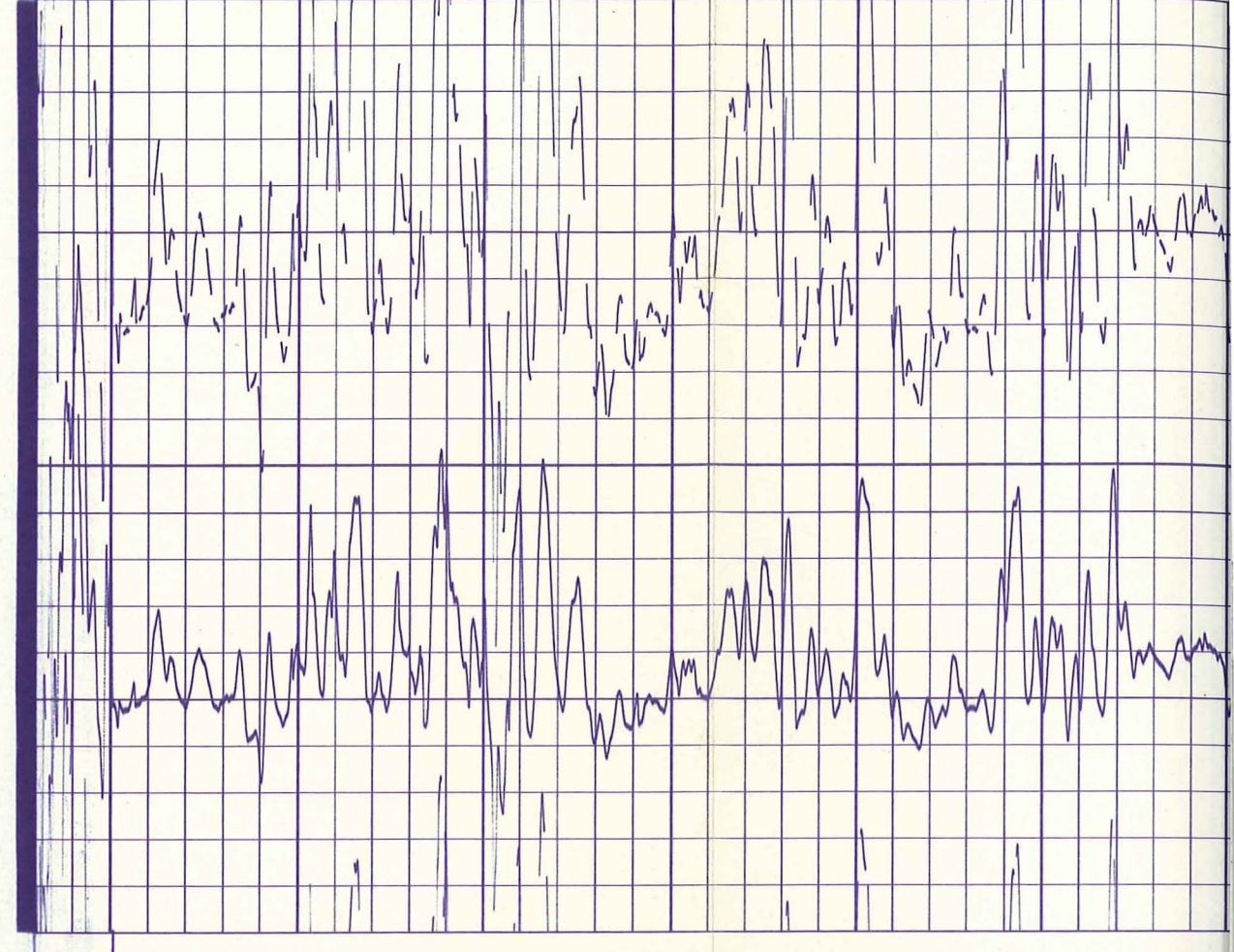




1600 1700 1800 1900 2000

Run 1

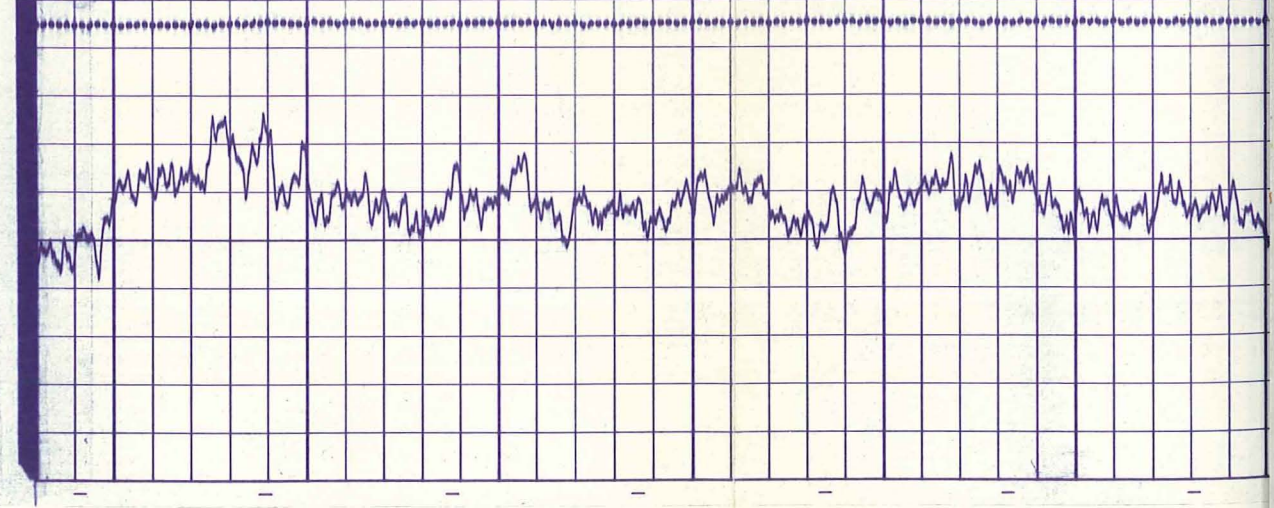
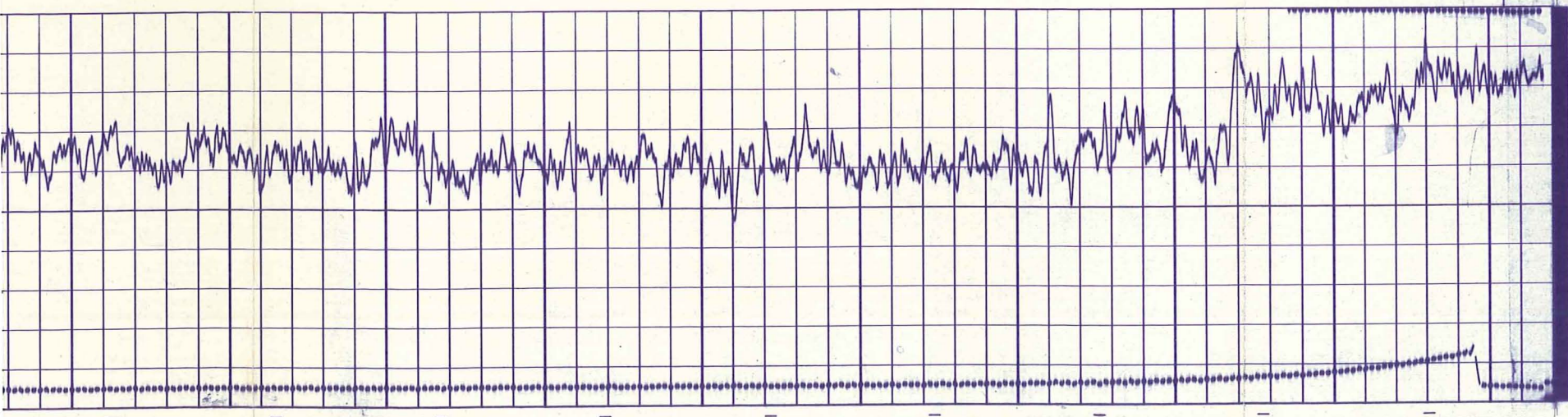
Log T. D.

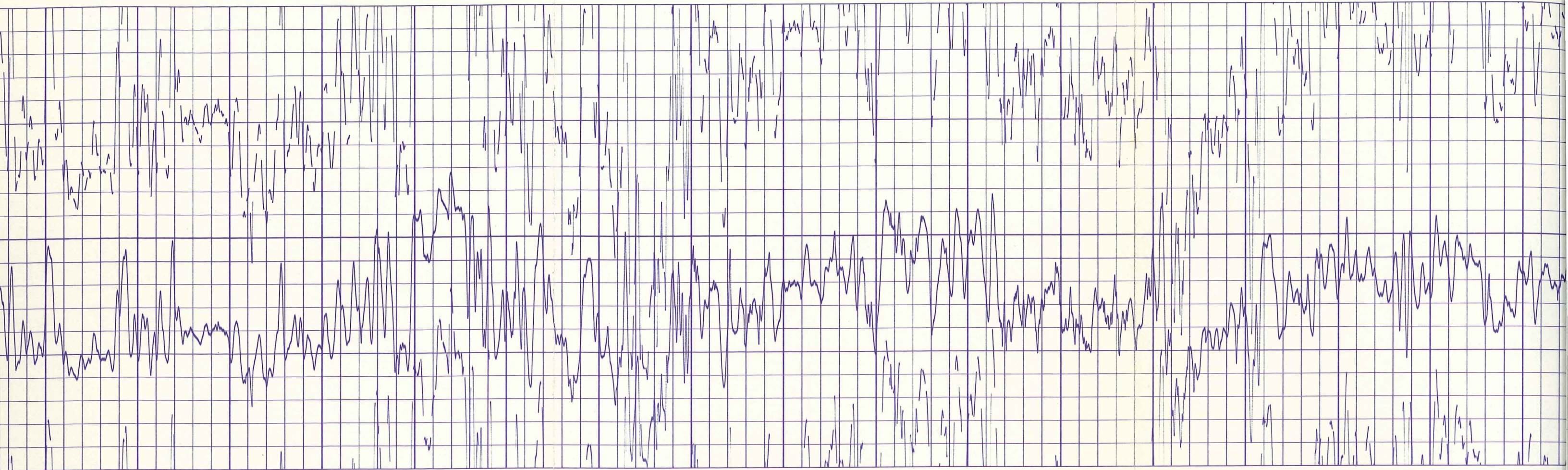


Casing

Run 2

2100 2200 2300





2300

2400

2500

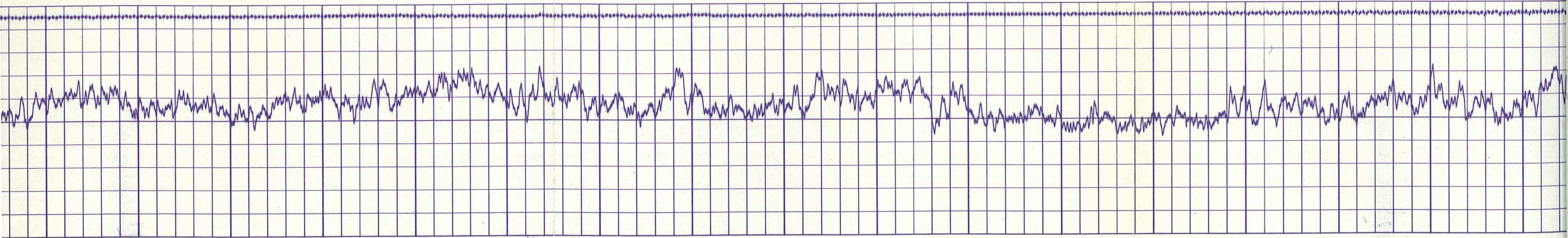
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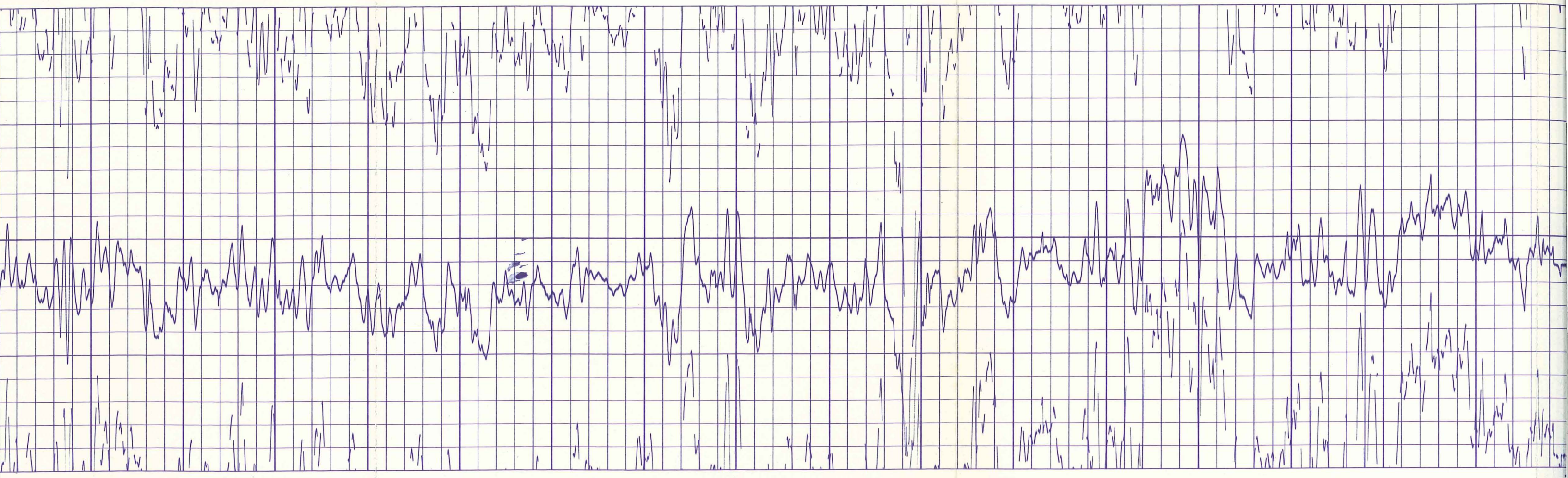
2700

2800

2900

3000





3000

3100

3200

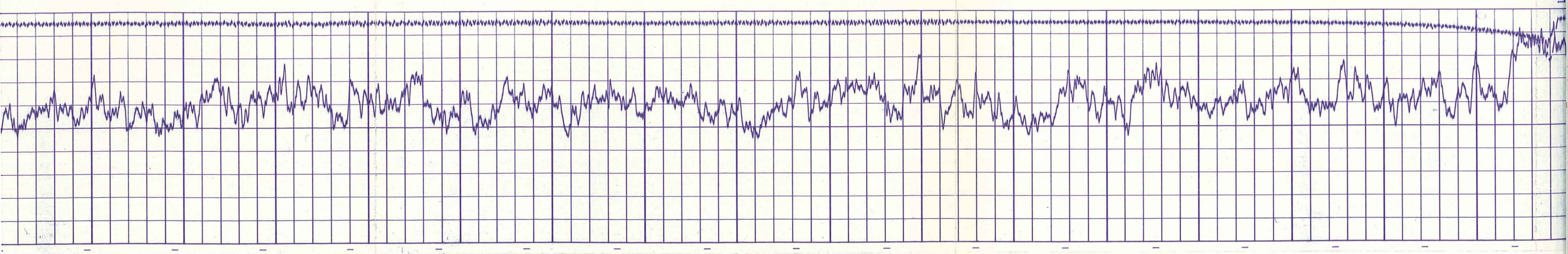
3300

3400

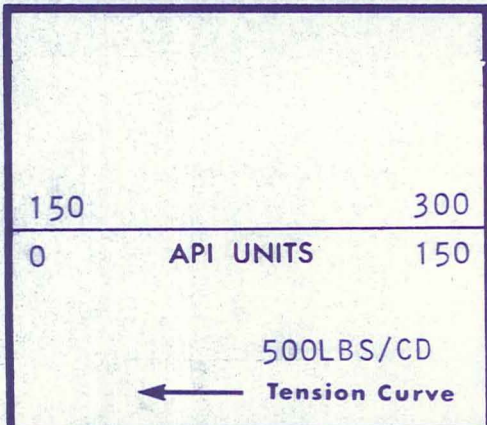
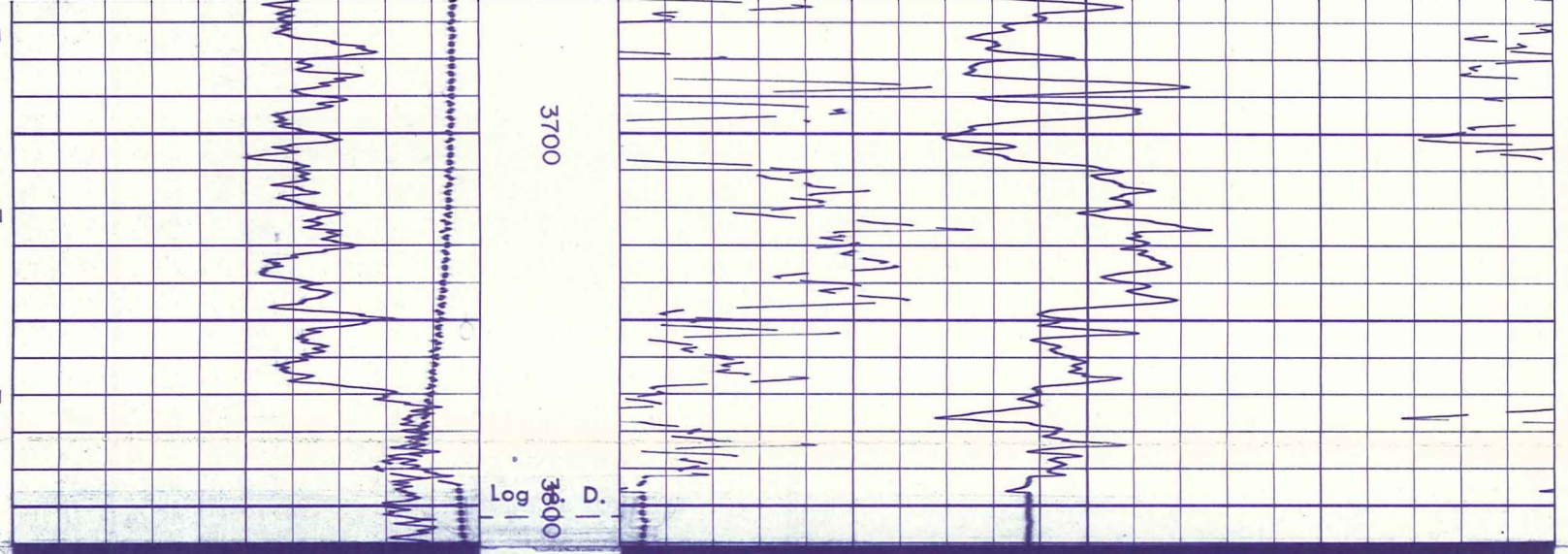
3500

3600

3700



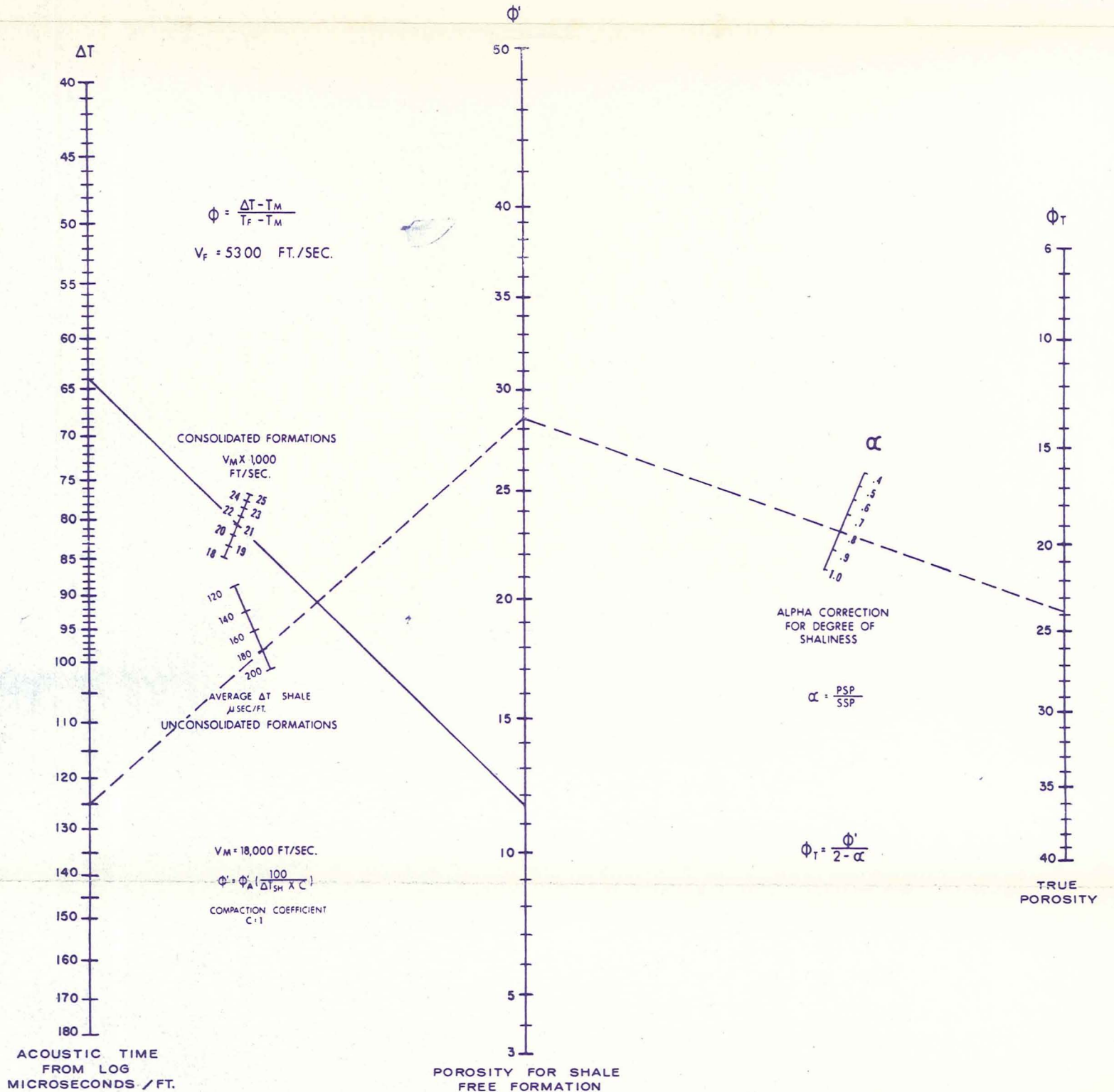
D.
36
Log



G/R	DEPTH	ACOUSTILOG $T_1 \frac{4}{R_1} \frac{2}{R_2} \frac{4}{T_2}$
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Company	E. G. & G. IDAHO INC.	Drillers T.D.	3858
Well	R.R.G.I. #7	Log F.R.	3793
Field	RAFT RIVER GEOTHERMAL	Log T.D.	3802
County	CASSIA	Elevations:	
State	IDAHO	K.B.	4871
		D.F.	4870
		G.L.	4855

POROSITY DETERMINATION FROM ACOUSTILOG



130
140
150
160
170
180

ACOUSTIC TIME
FROM LOG
MICROSECONDS / FT.

$V_M = 18,000 \text{ FT/SEC.}$
 $\Phi = \Phi_A \left(\frac{100}{\Delta t_{SH} \lambda C} \right)$
 COMPACTION COEFFICIENT
 C-1

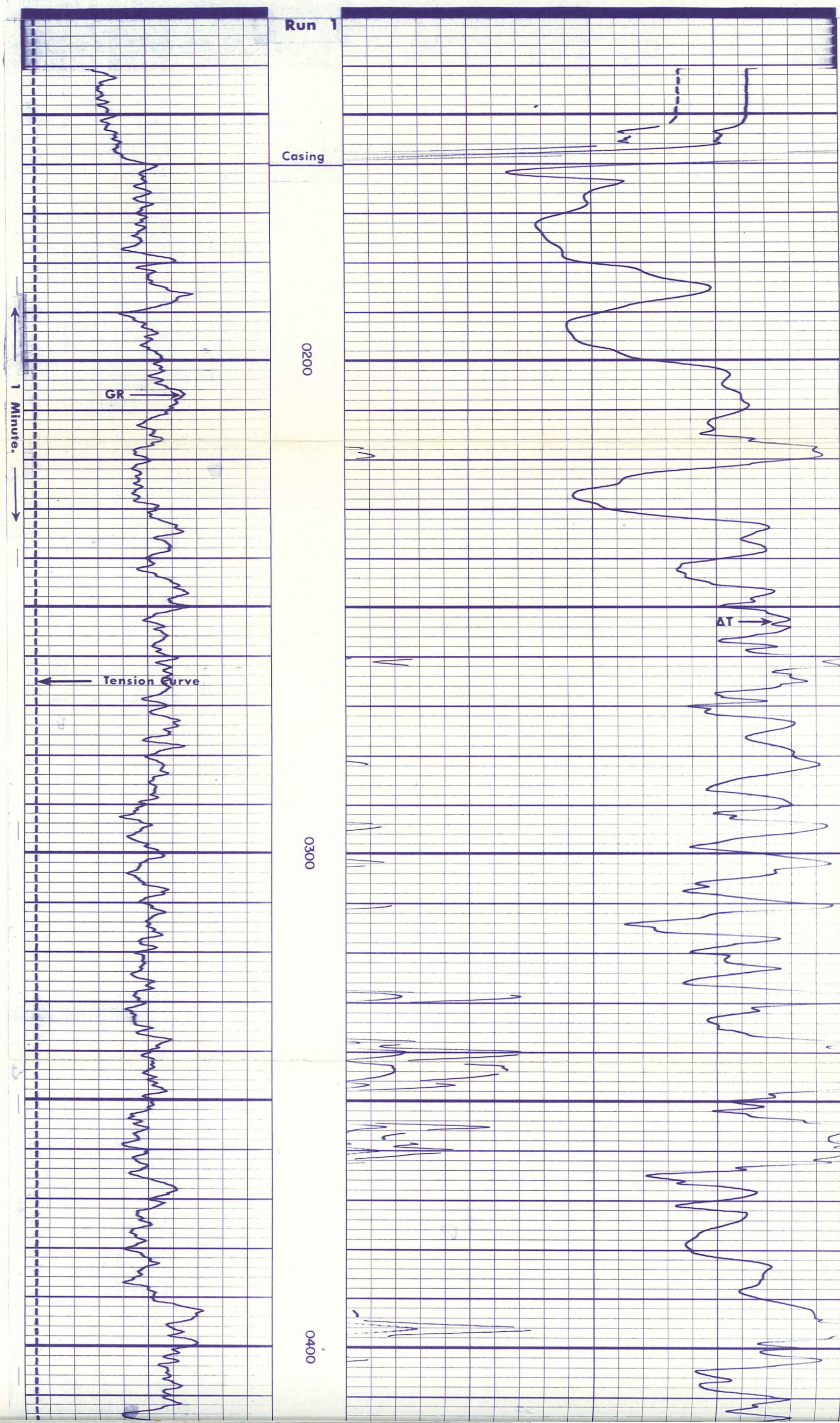
10
5
3

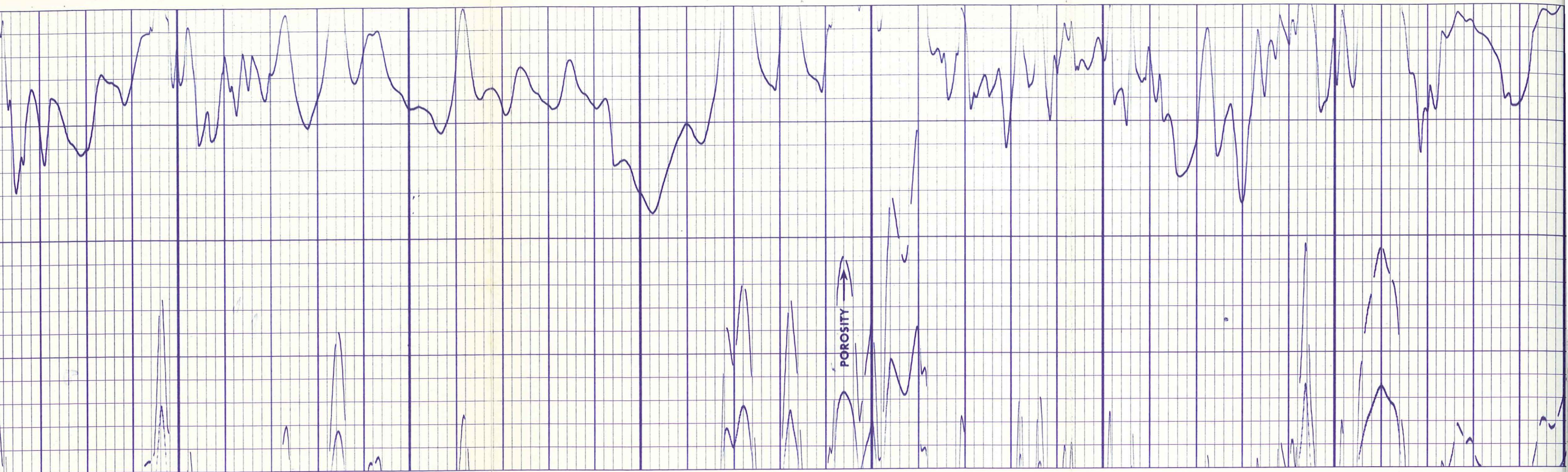
POROSITY FOR SHALE
FREE FORMATION

$$\Phi_1 = \frac{\Phi'}{2 - \alpha}$$

35
40

TRUE
POROSITY



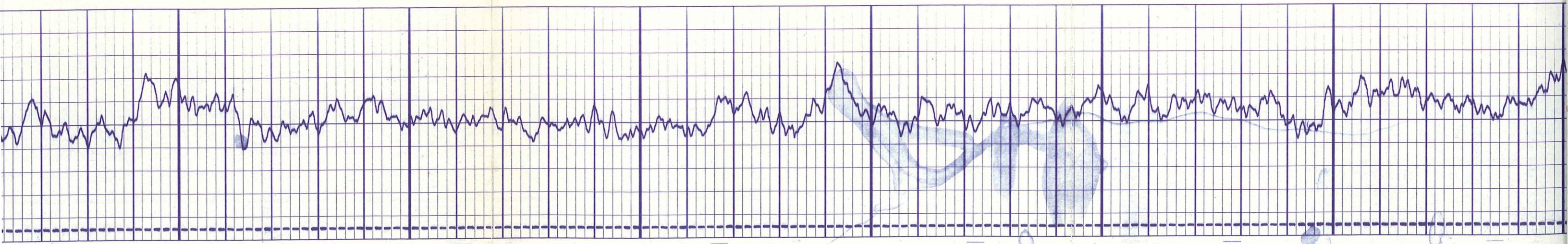


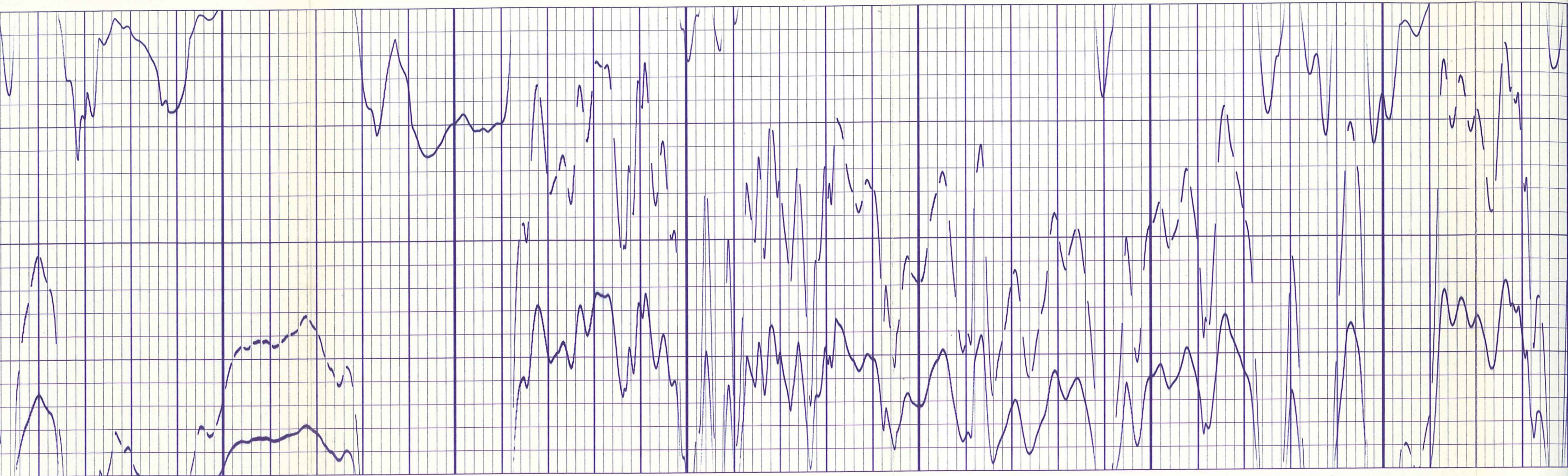
0400

0500

0600

0700

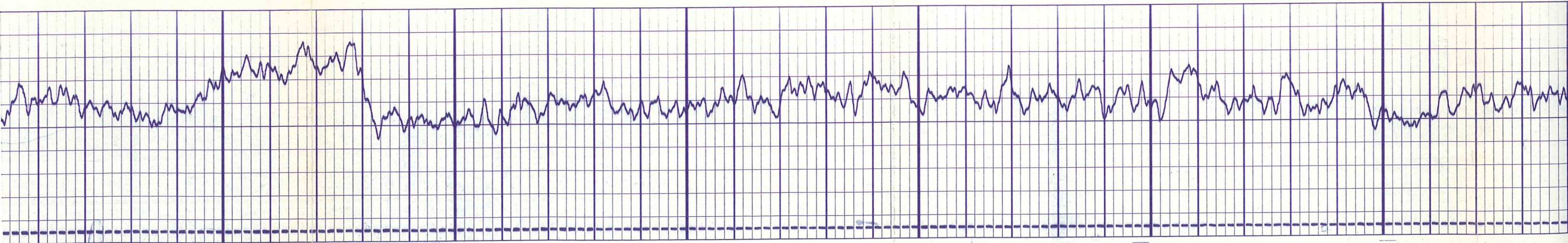


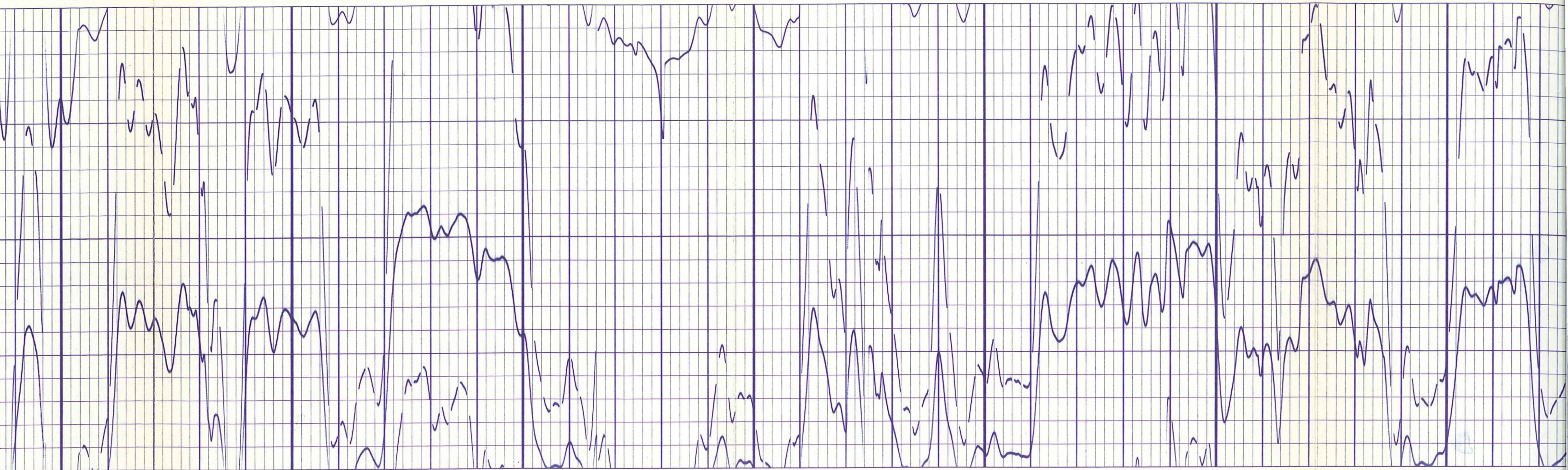


0700

0800

0900

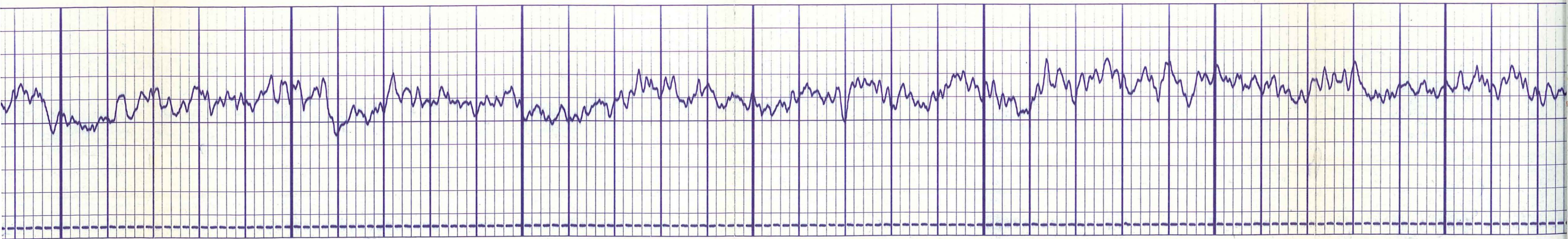


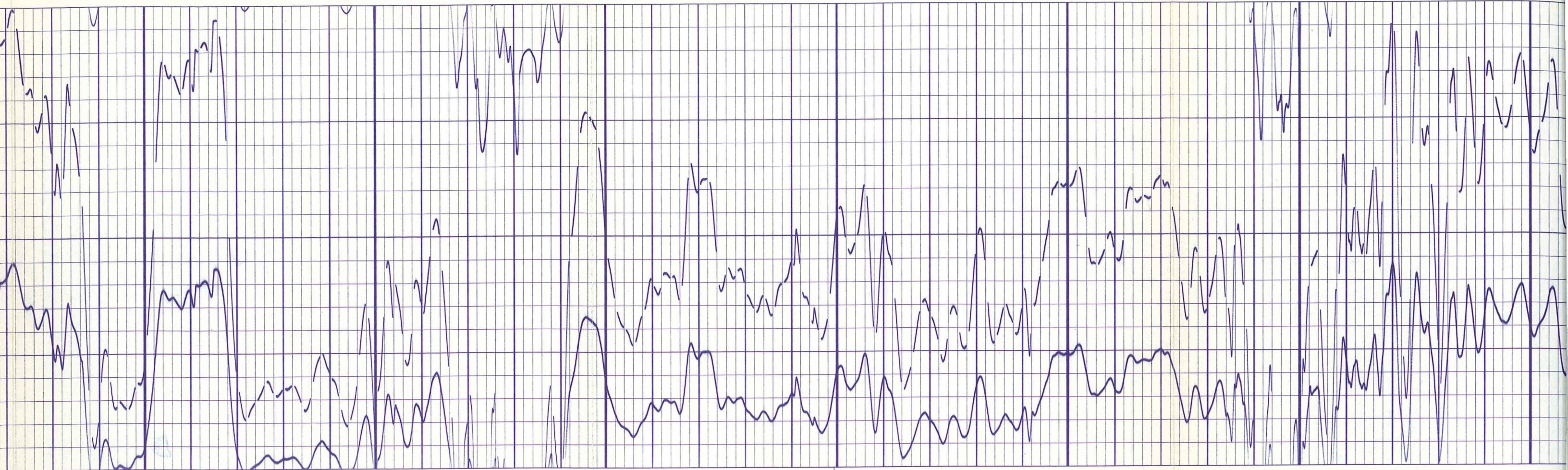


1000

1100

1200

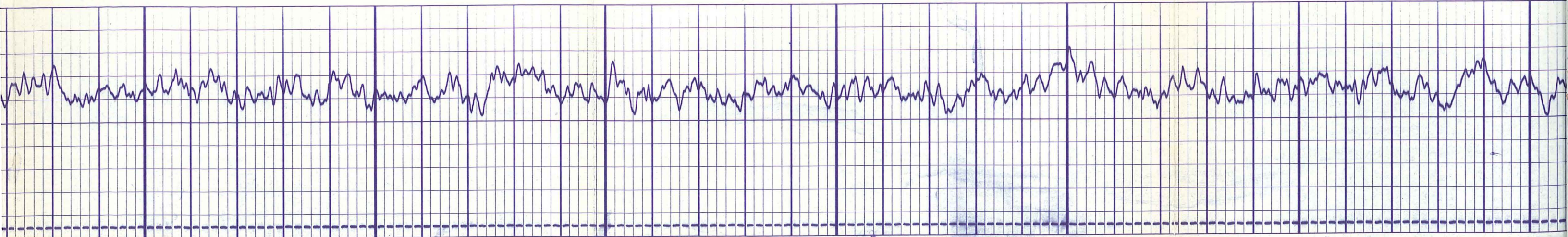


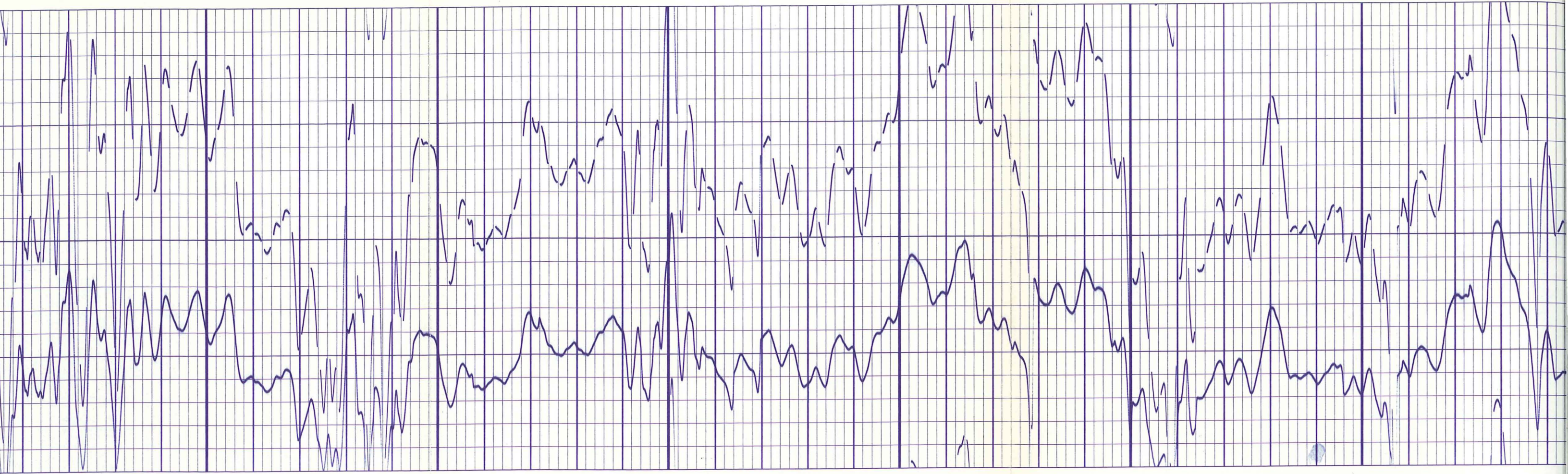


1300

1400

1500

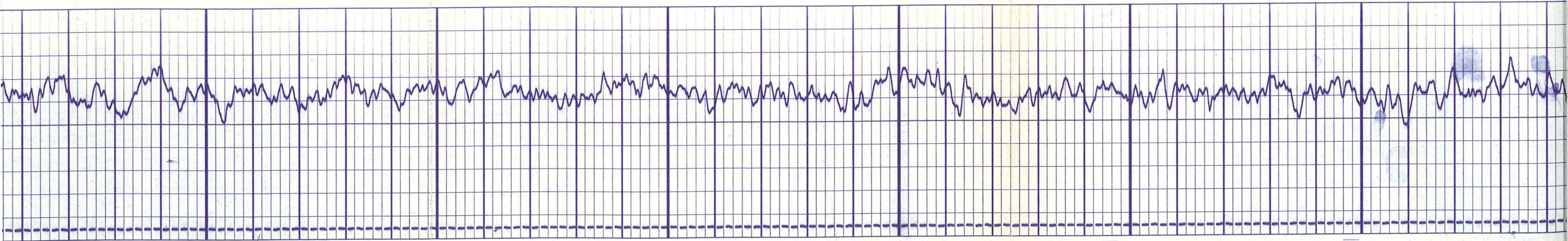


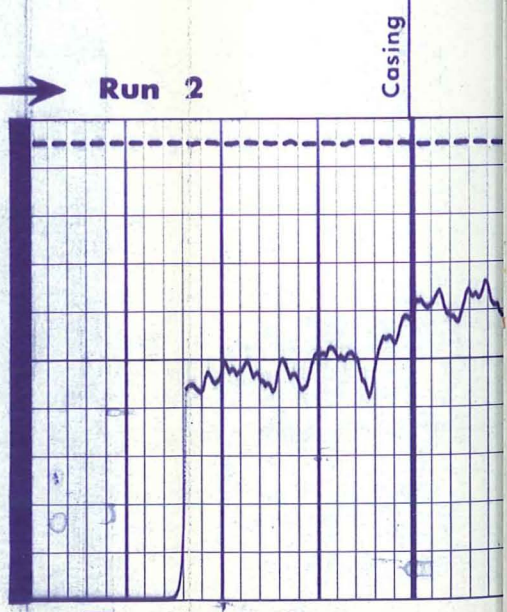
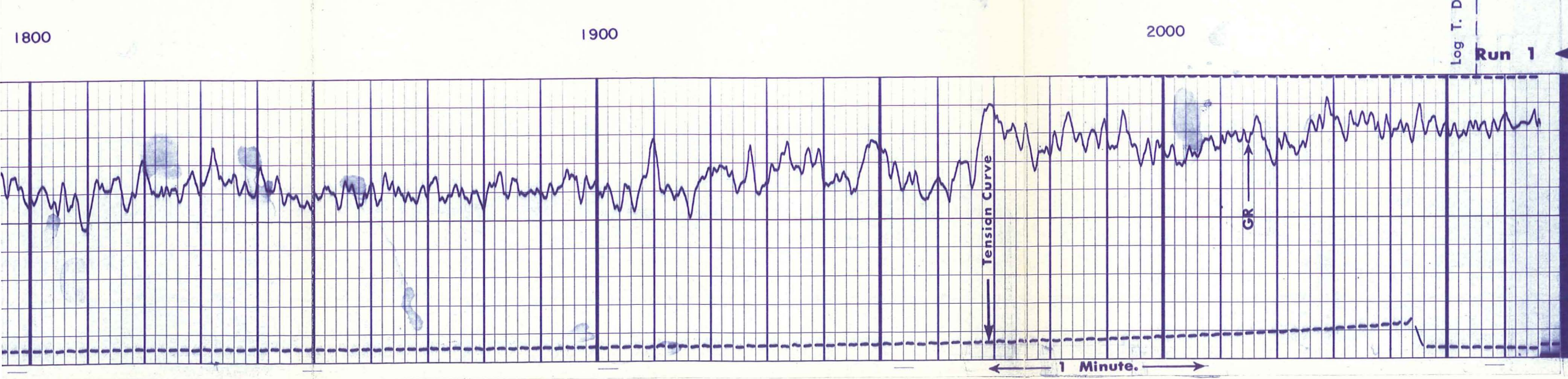
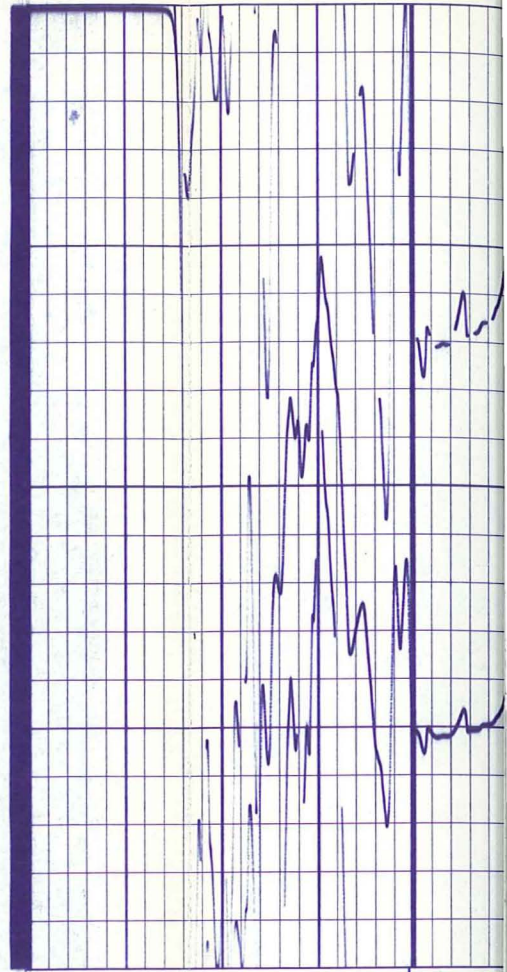
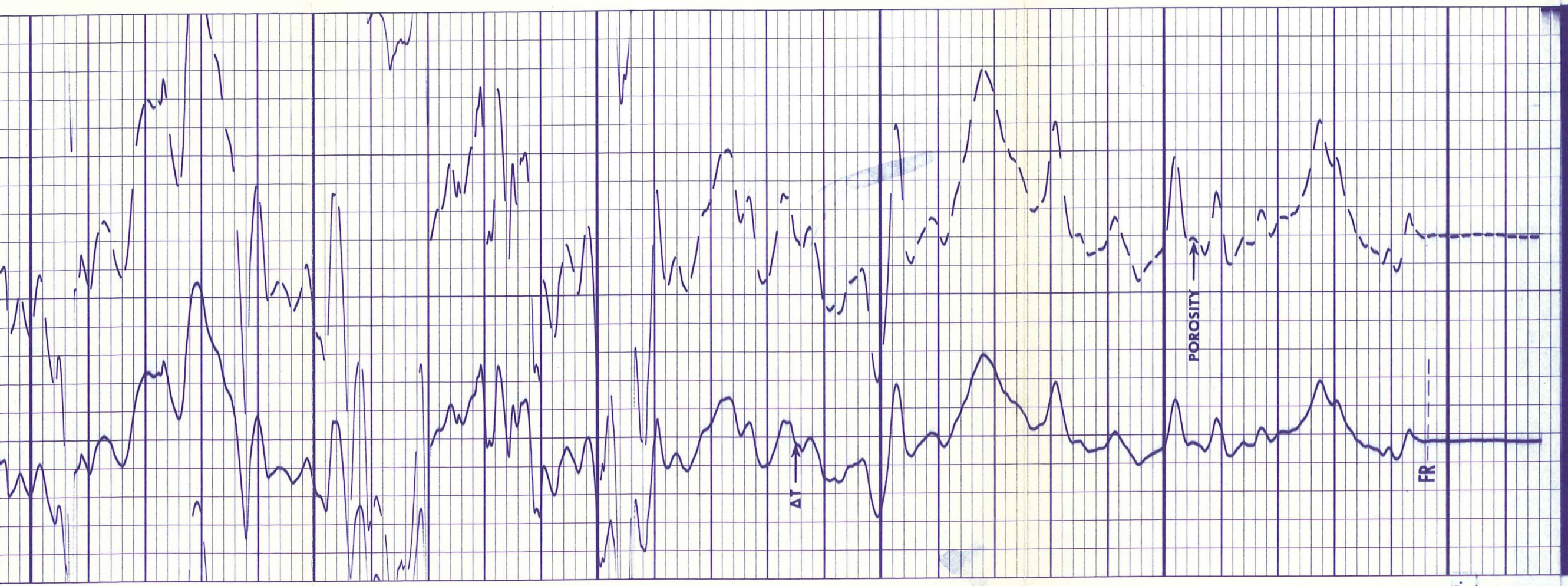


1600

1700

1800





1800

1900

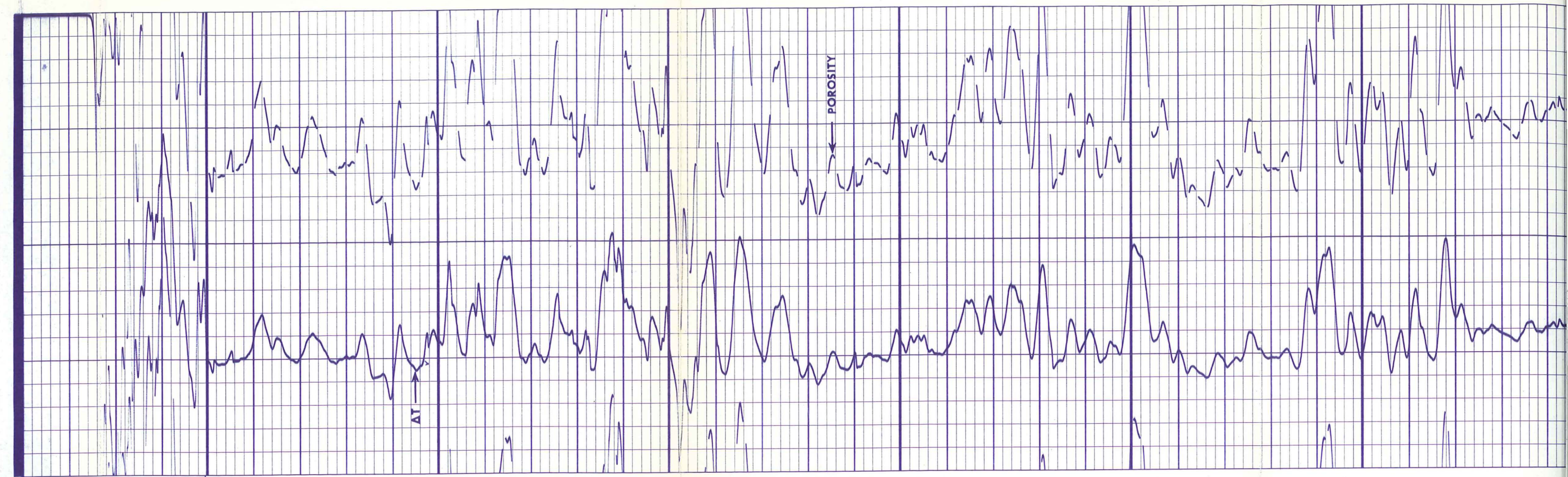
2000

Log T. D.

Run 1

Run 2

Casing



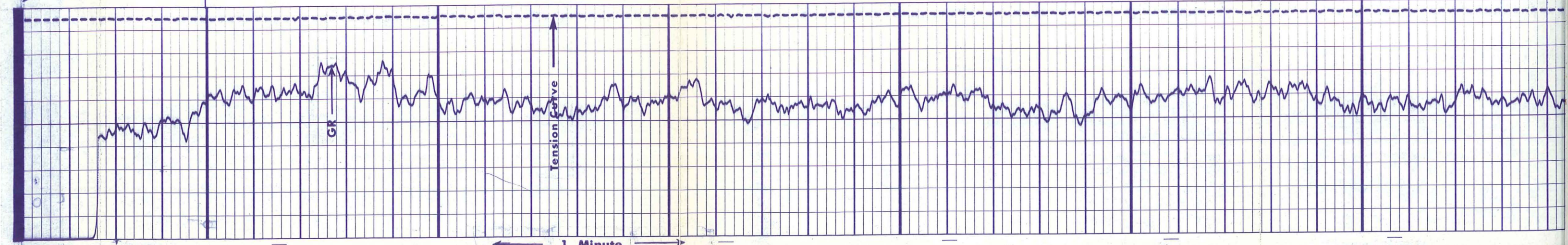
2100

2200

2300

Run 2

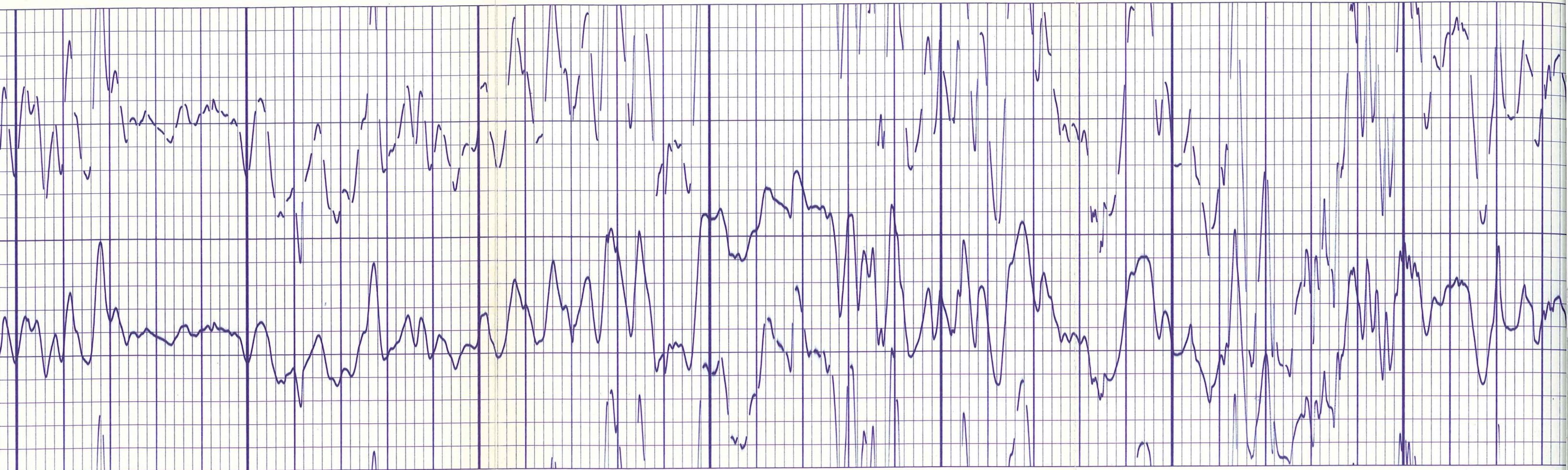
Casing



GR

Tension Curve

1 Minute.

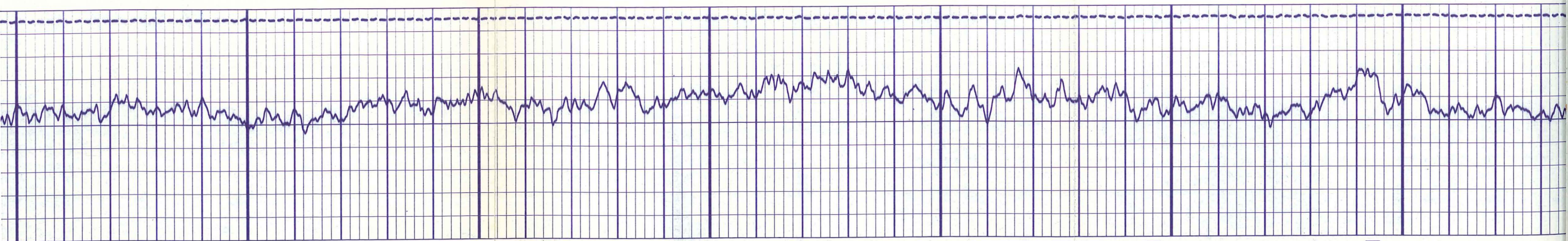


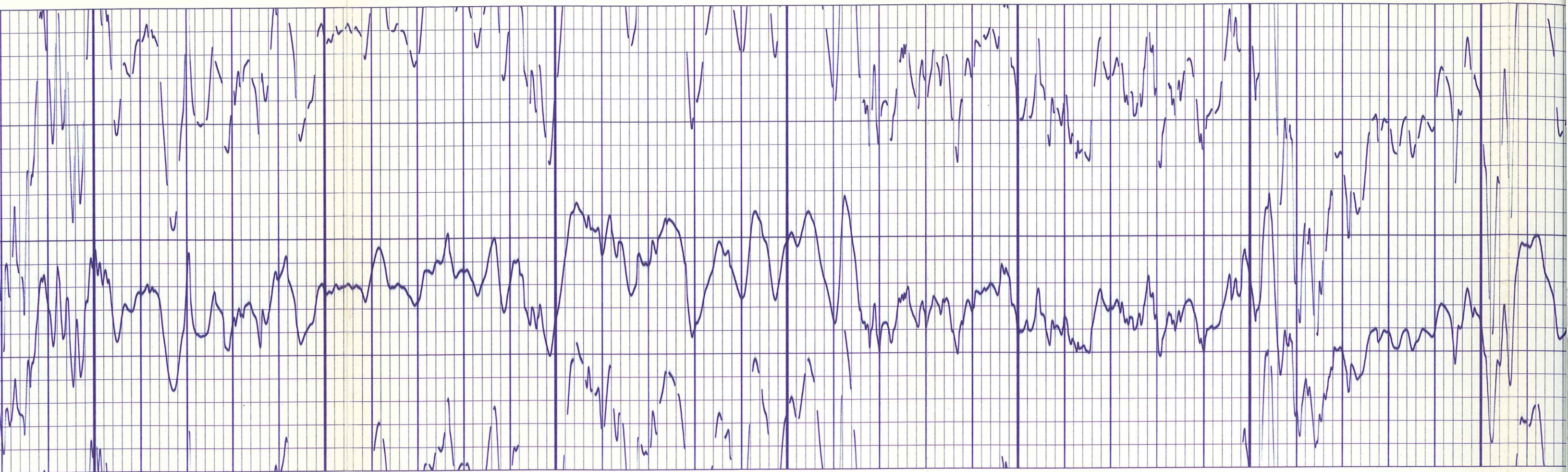
2300

2400

2500

2600



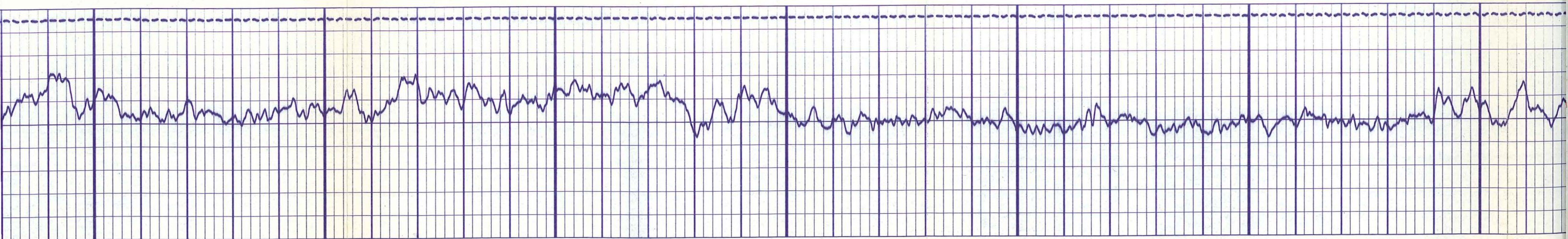


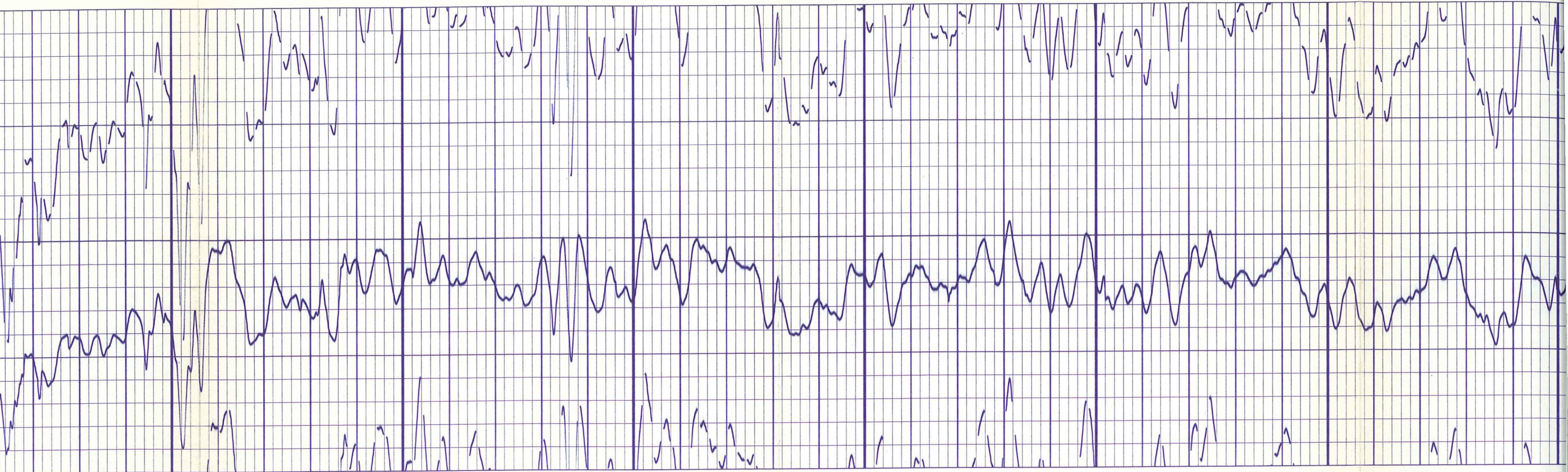
2600

2700

2800

2900



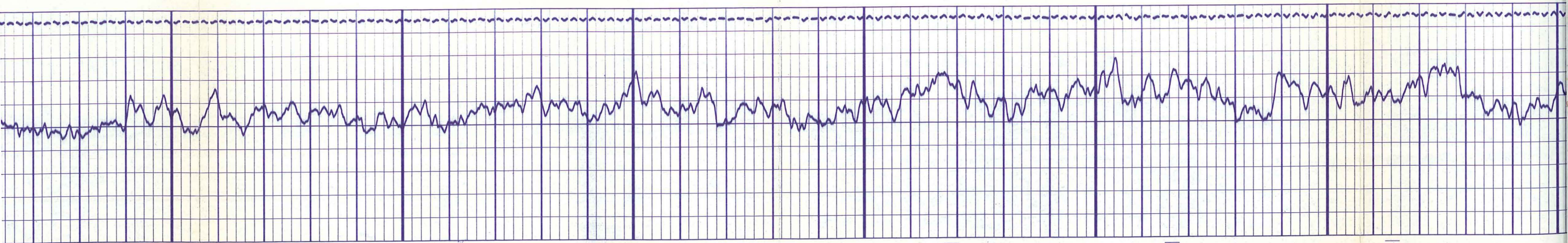


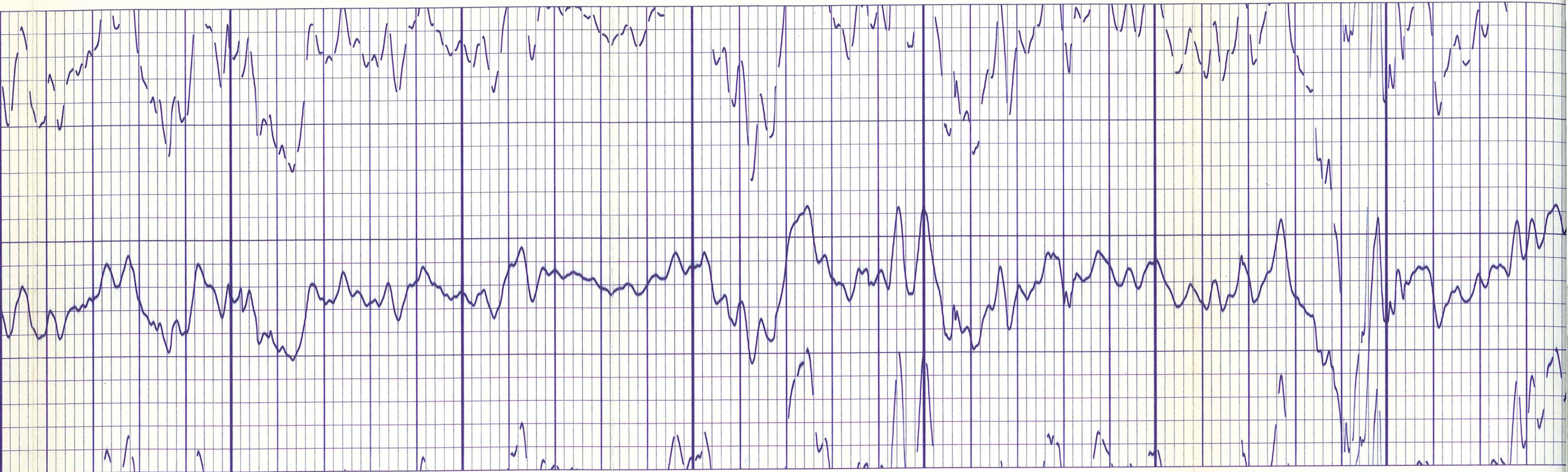
2900

3000

3100

3200

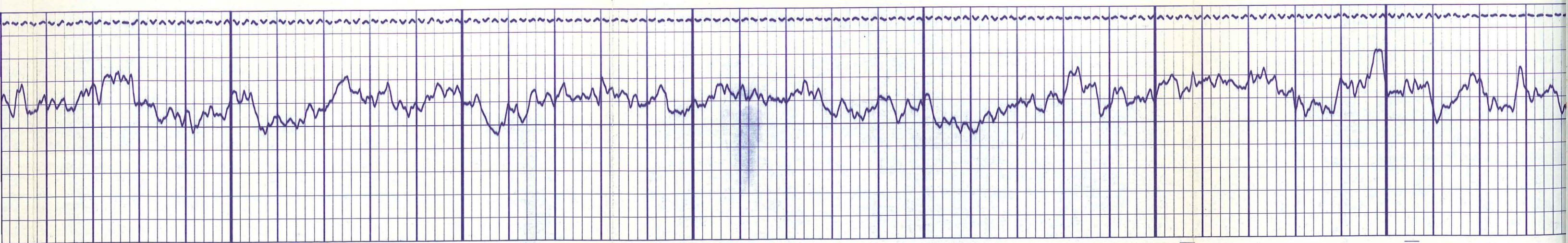


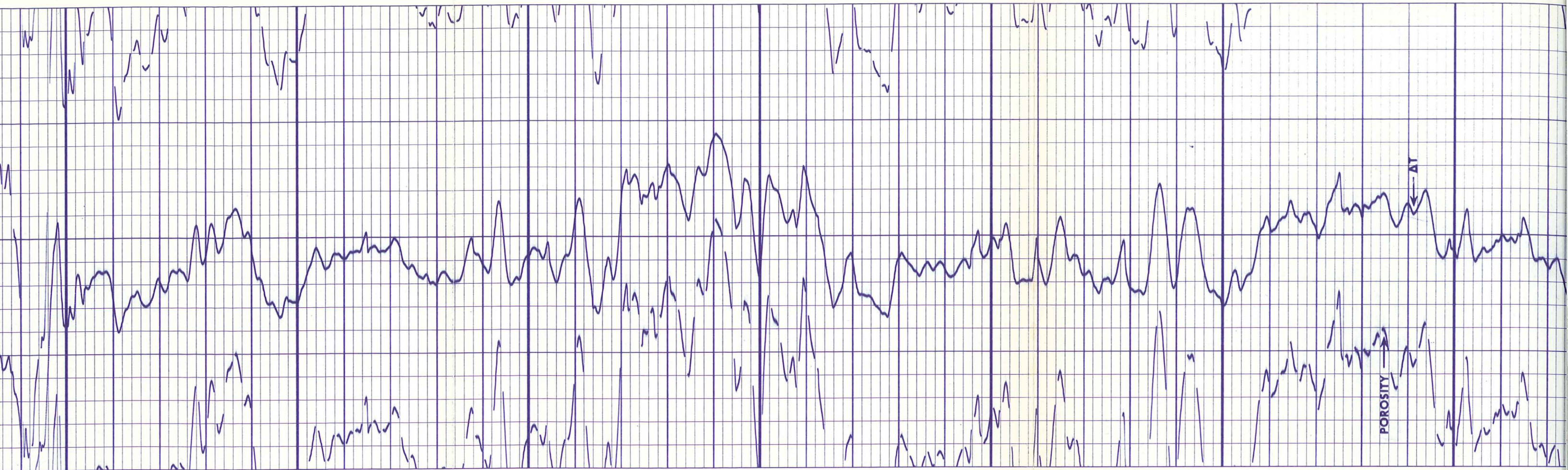


3200

3300

3400

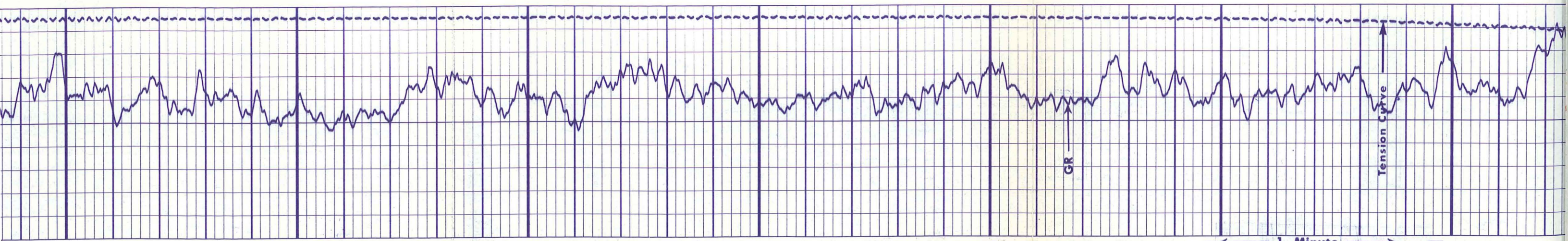




3500

3600

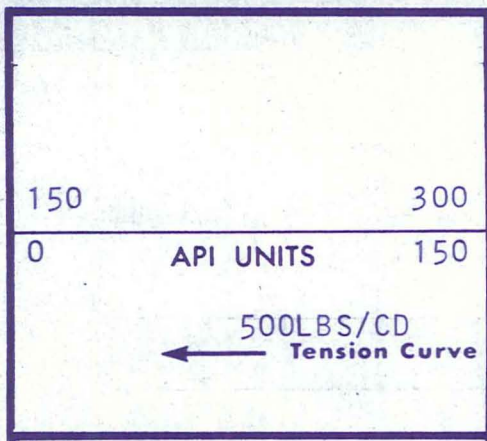
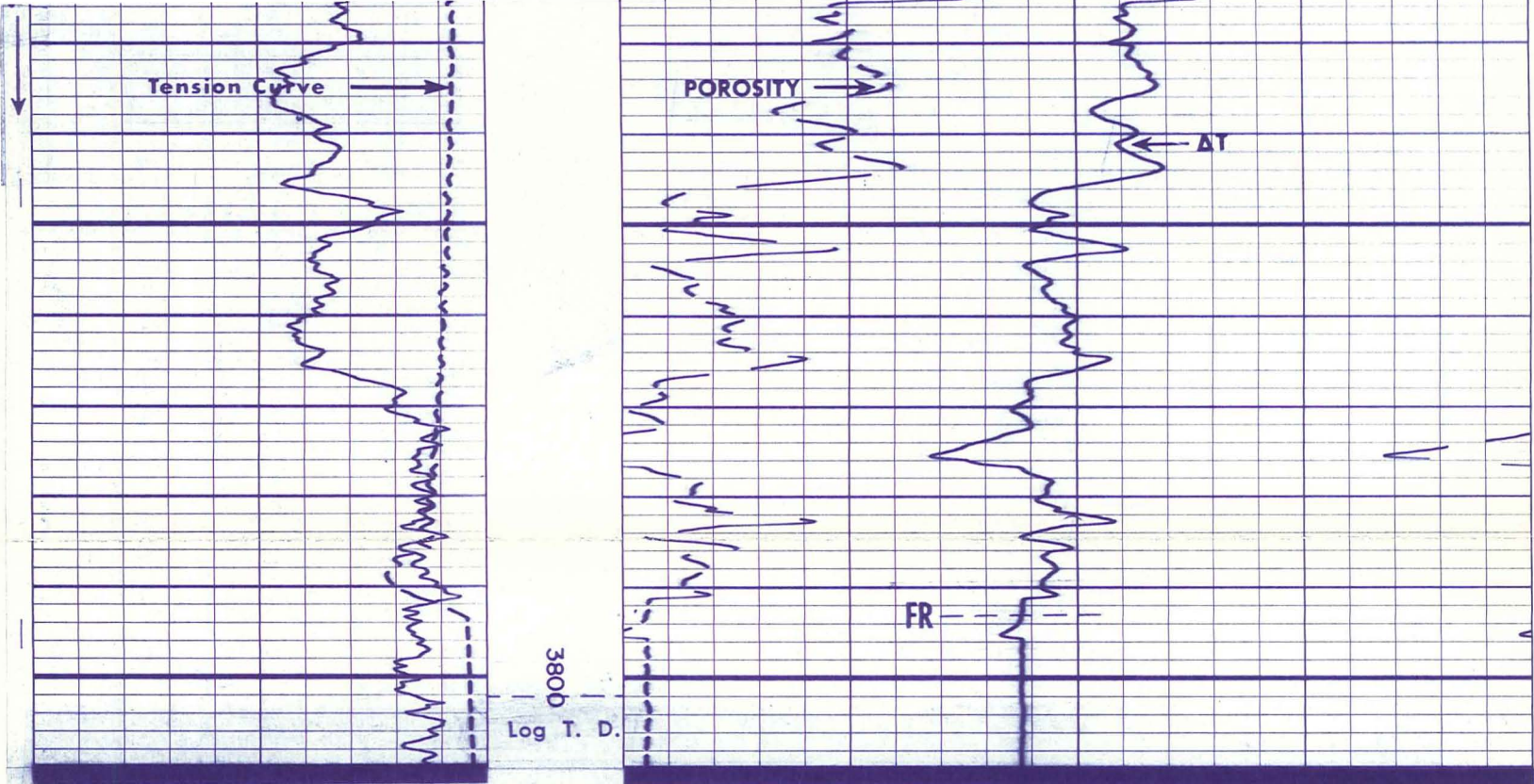
3700



GR

Tension Curve

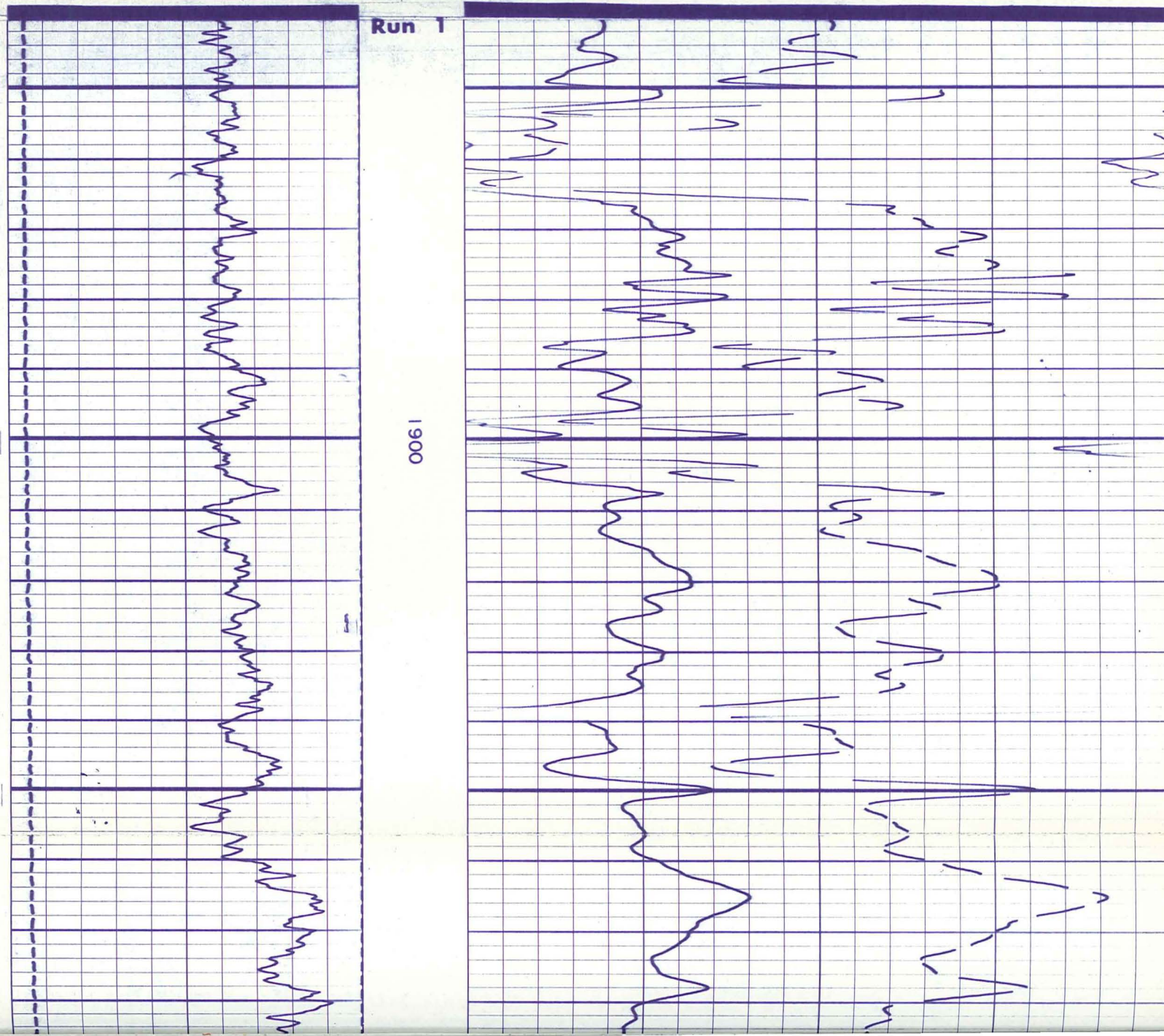
1 Minute



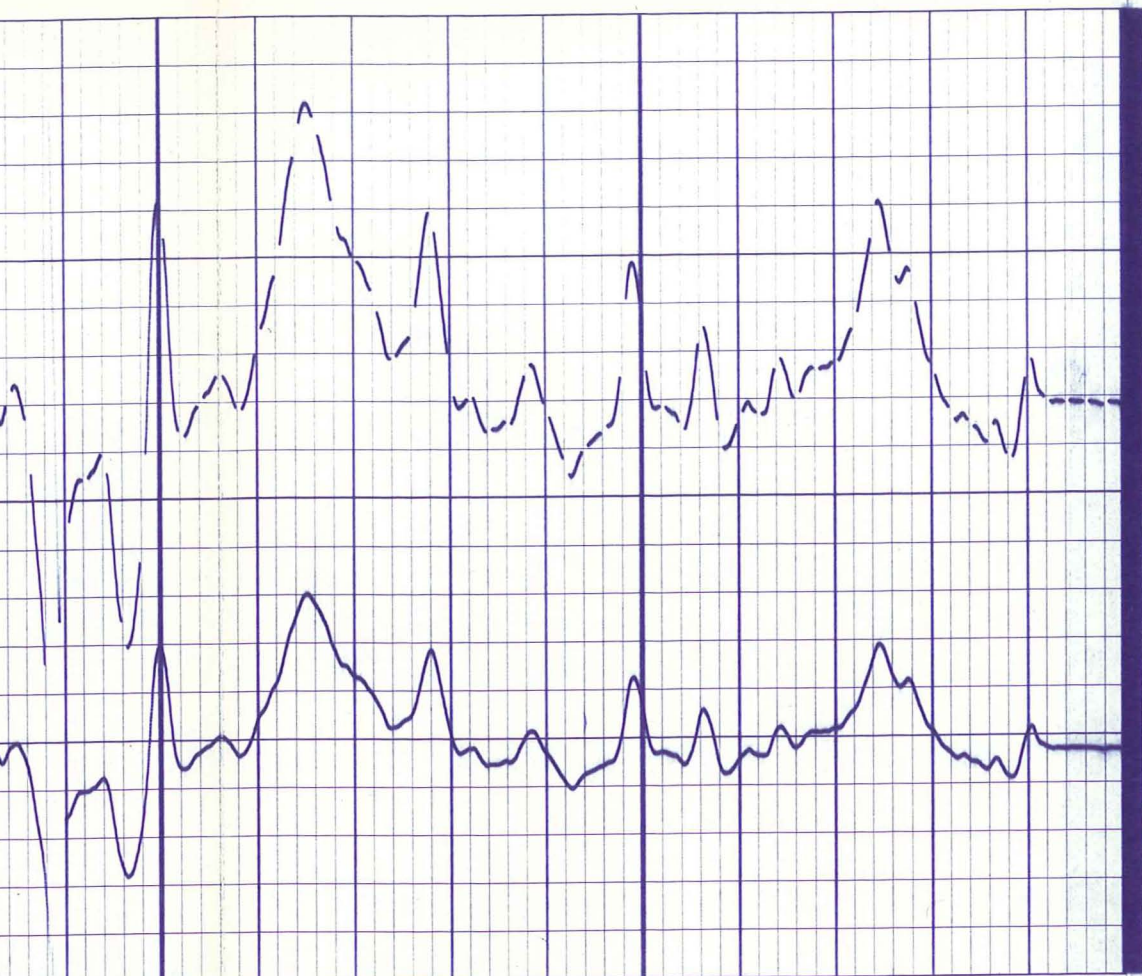
G/R	DEPTH	ACOUSTILOG $T_1 \frac{4}{R_1} \frac{2}{R_2} \frac{4}{T_2}$
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Company	E. G. & G. IDAHO INC.	Drillers T.D.	3858
Well	R.R.G.I. #7	Log F.R.	3793
Field	RAFT RIVER GEOTHERMAL	Log T.D.	3802
County	CASSIA	Elevations:	
State	IDAHO	K.B.	4871
		D.F.	4870
		G.L.	4855

REPEAT SECTION



FORM 923191 A

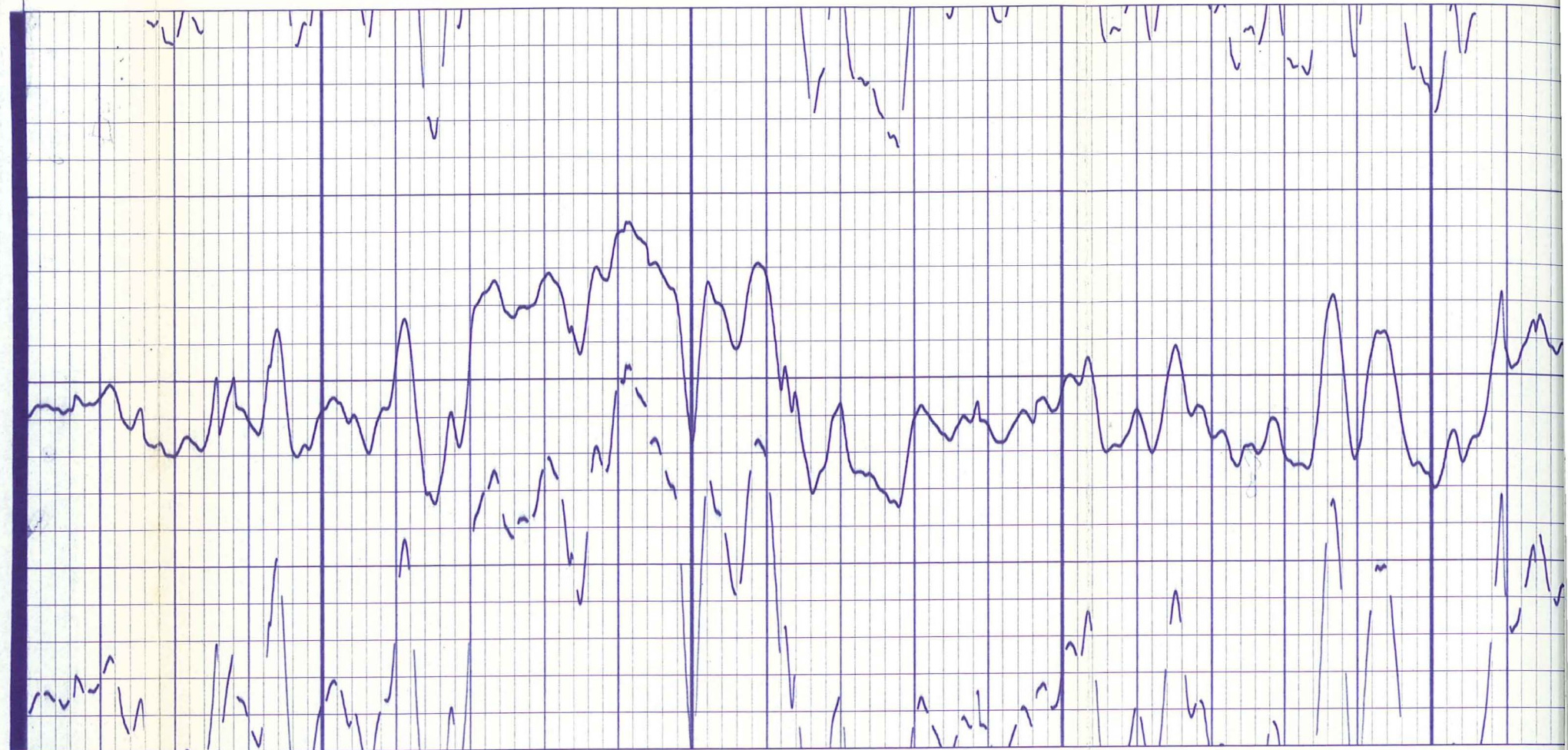


2000

Run 1

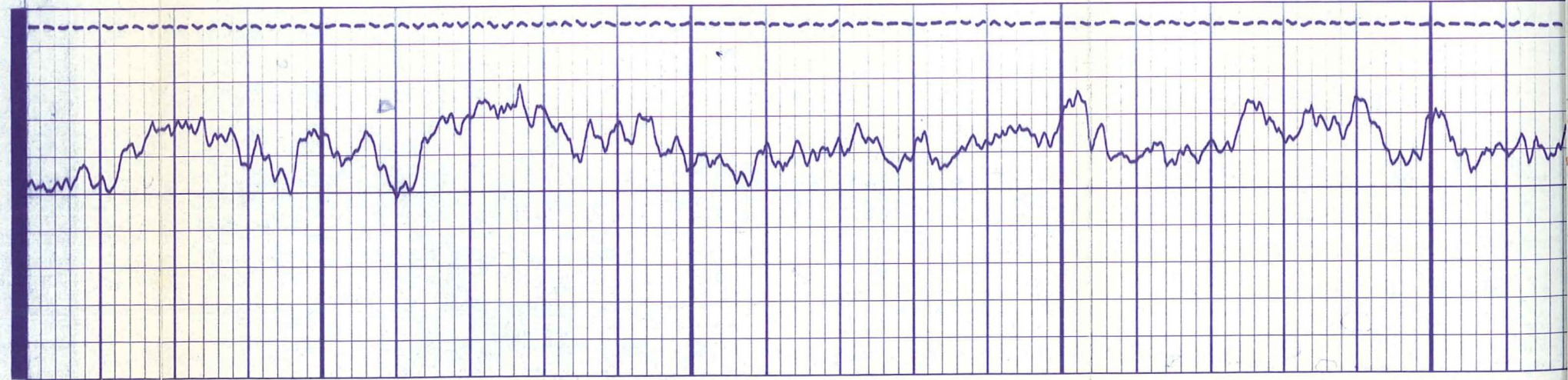
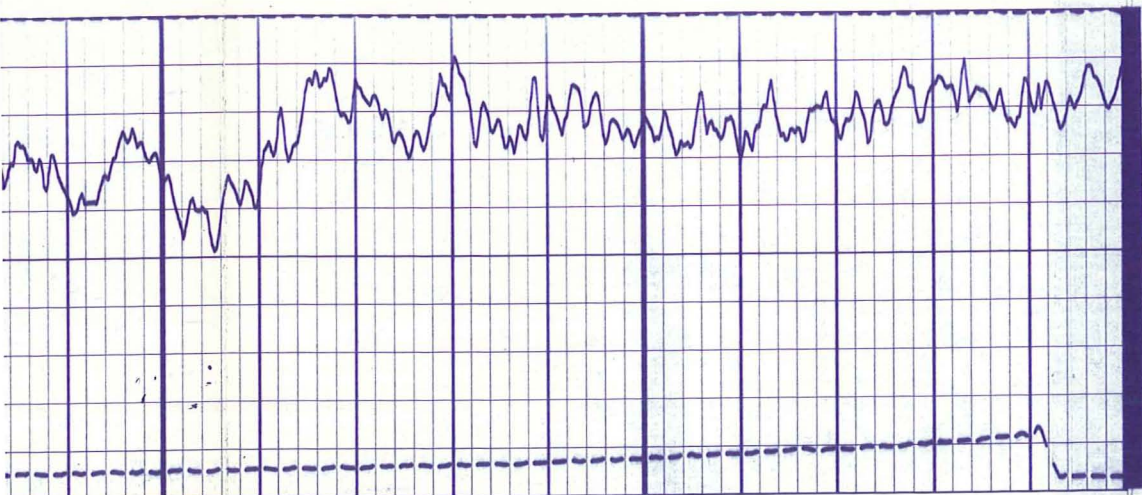


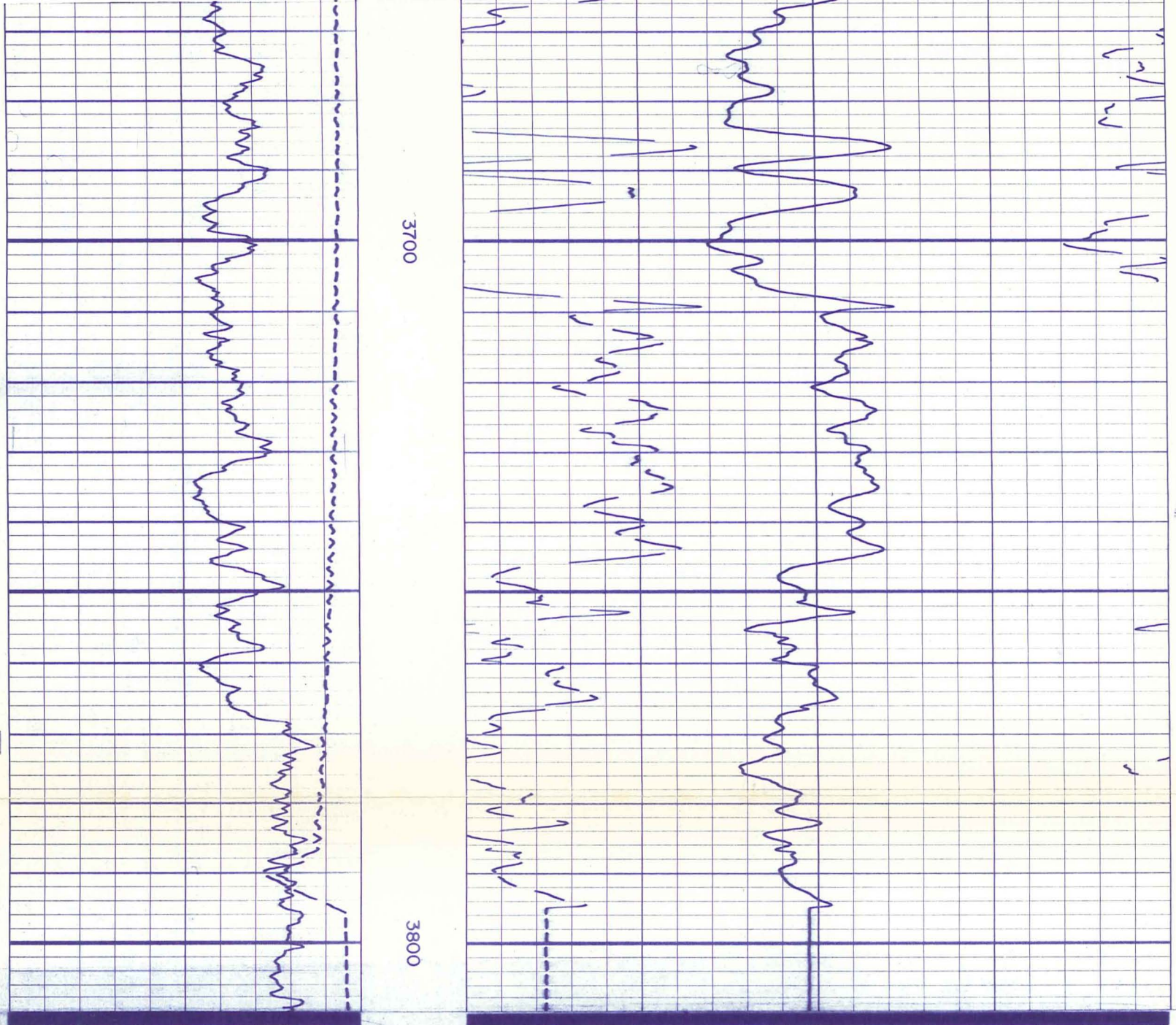
Run 2



3600

3700



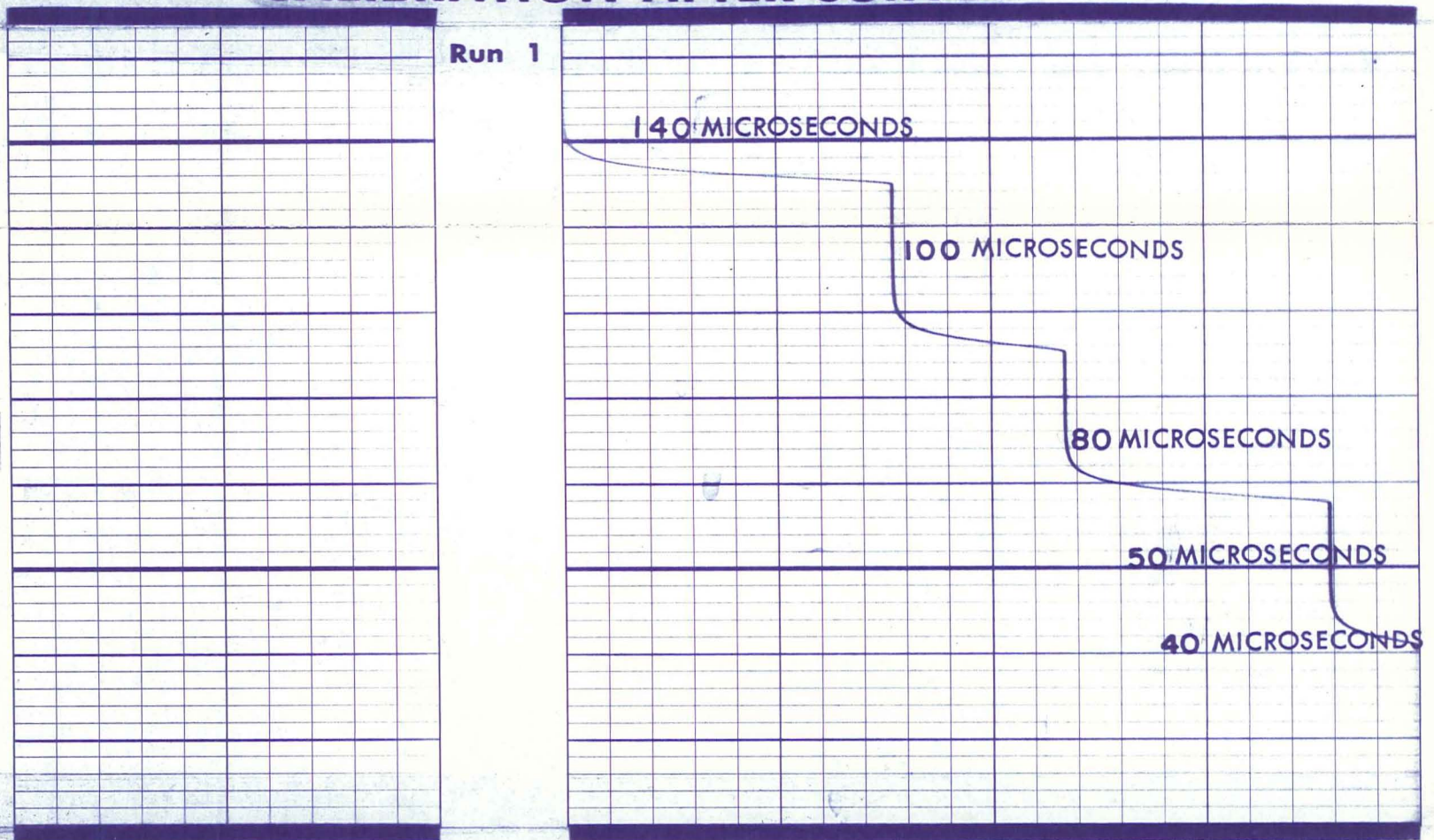


CALIBRATION

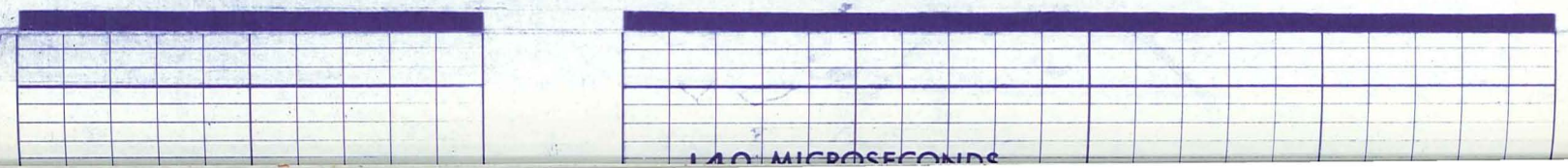
BHC ACOUSTILOG

925282 BHC

CALIBRATION AFTER SURVEY

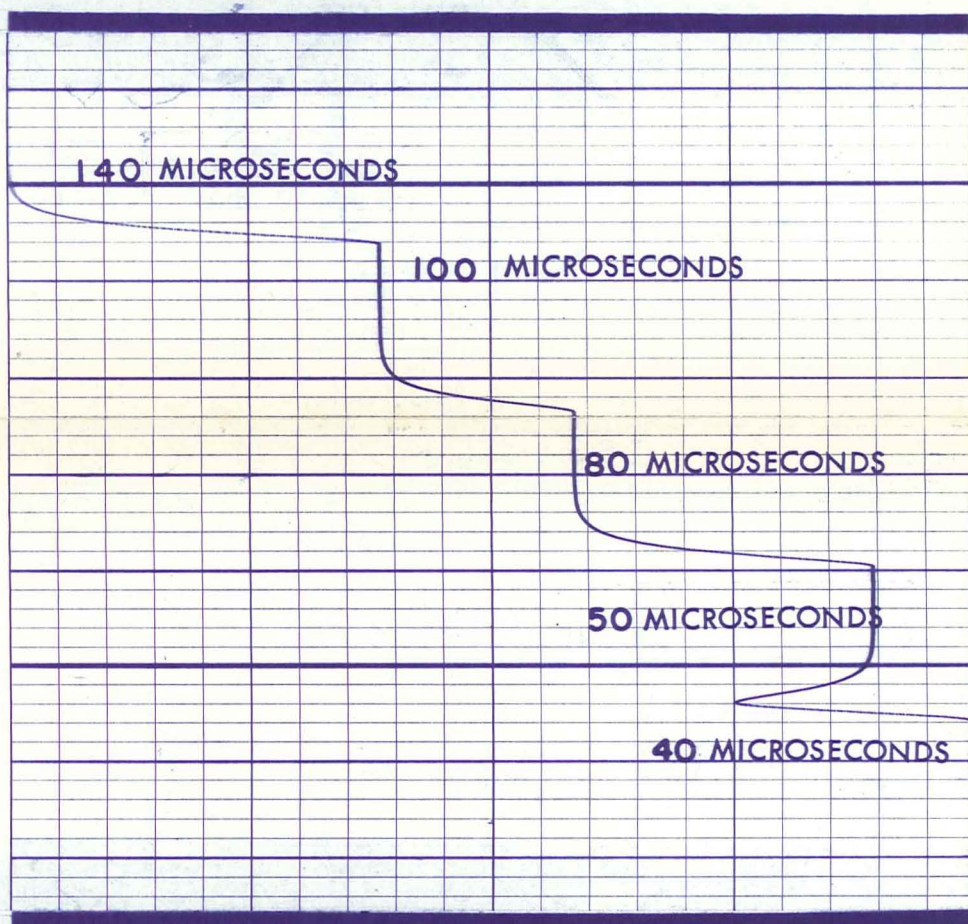
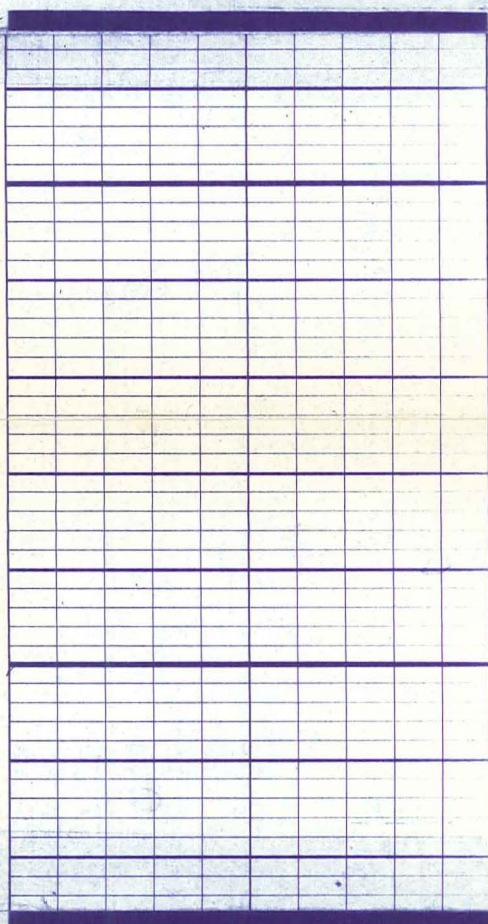


CALIBRATION BEFORE SURVEY

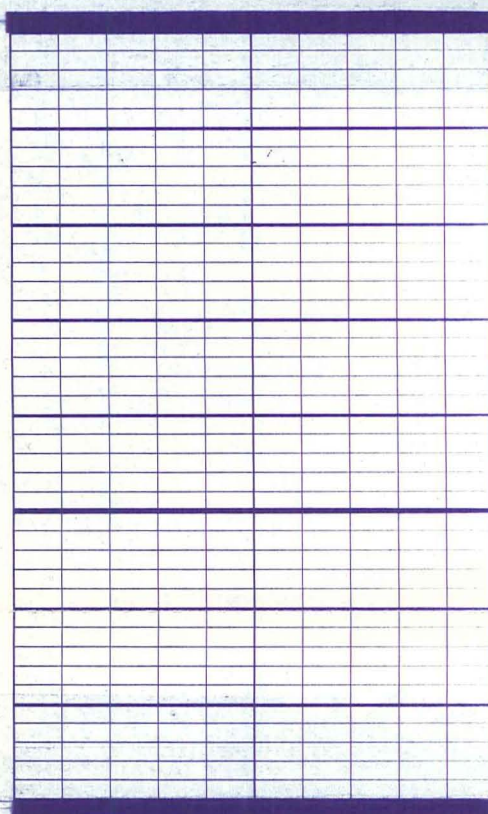


40 MICROSECONDS

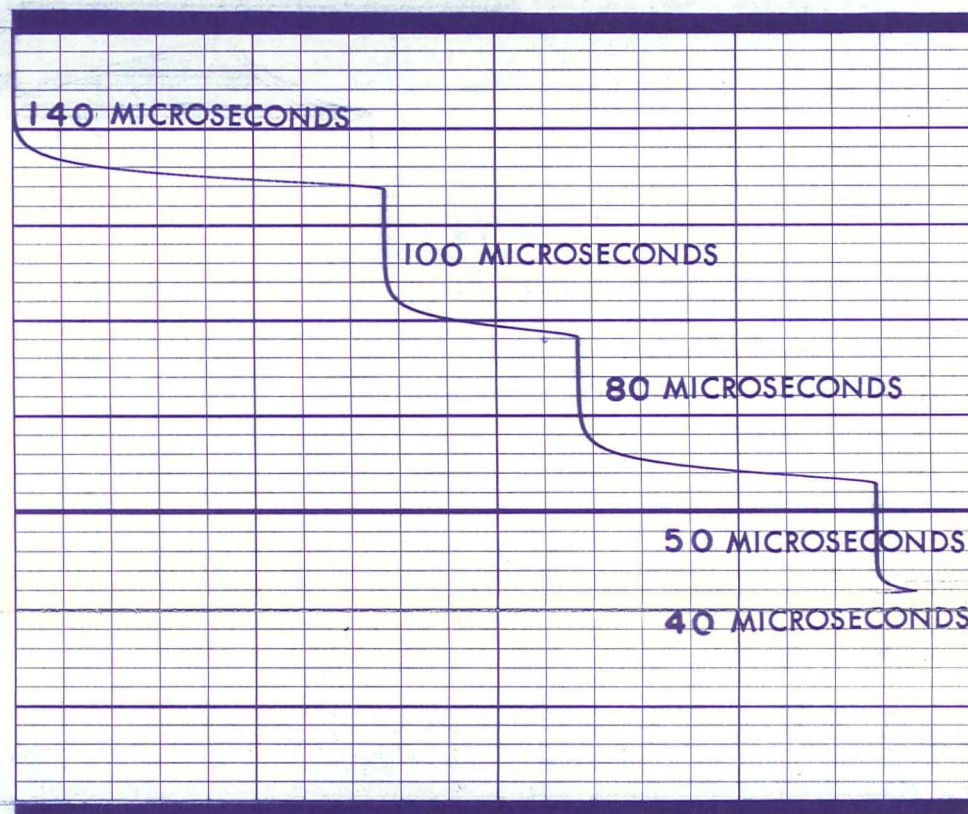
CALIBRATION BEFORE SURVEY



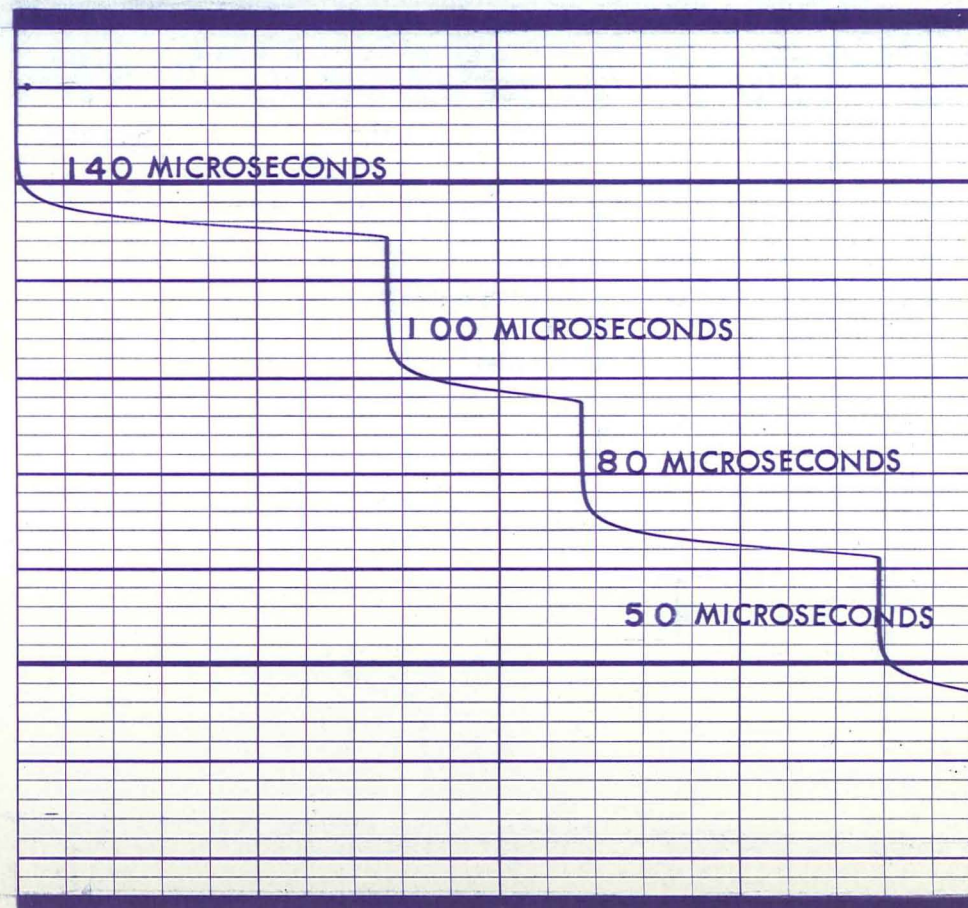
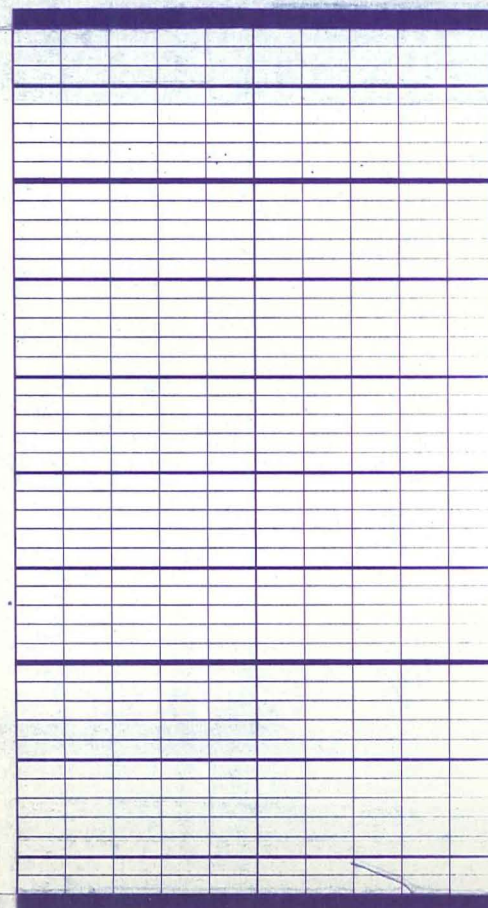
CALIBRATION AFTER SURVEY



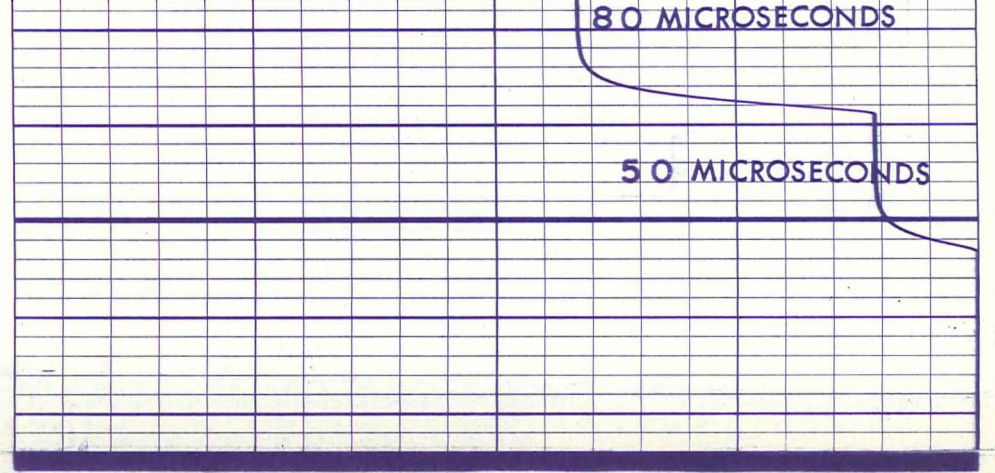
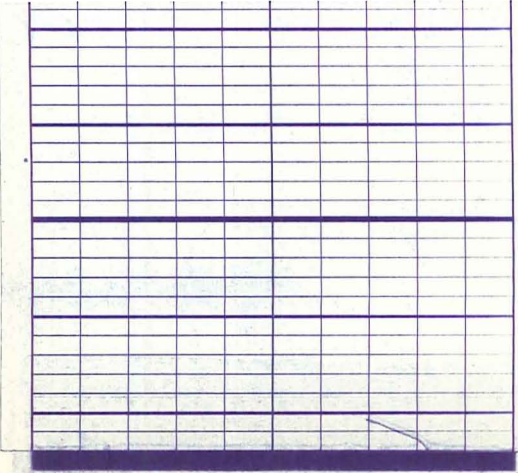
Run 2



CALIBRATION BEFORE SURVEY



CALIBRATION



CALIBRATION

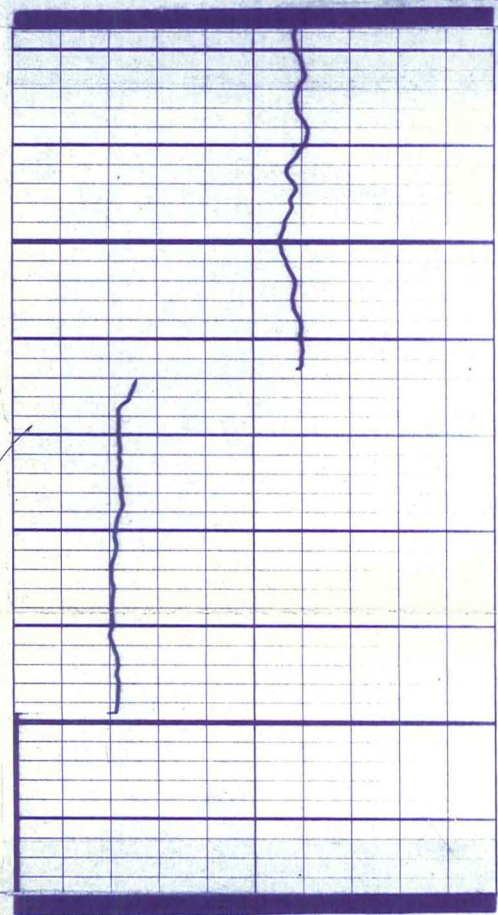
GAMMA RAY

1. MECHANICAL ZERO
2. PANEL—LOW
3. PANEL—HIGH
4. COUNT RATE METER
5. BACKGROUND READING
6. GAMMA RAY—HIGH

API UNITS OF CALIB. STD.	185
SENSITIVITY READING	200
MULTIPLIER	X1
ZERO SUPPRESSION	0
TIME CONSTANT	1
MEASURED CHART DIVISIONS	3.8

925275 GR

CALIBRATION AFTER SURVEY



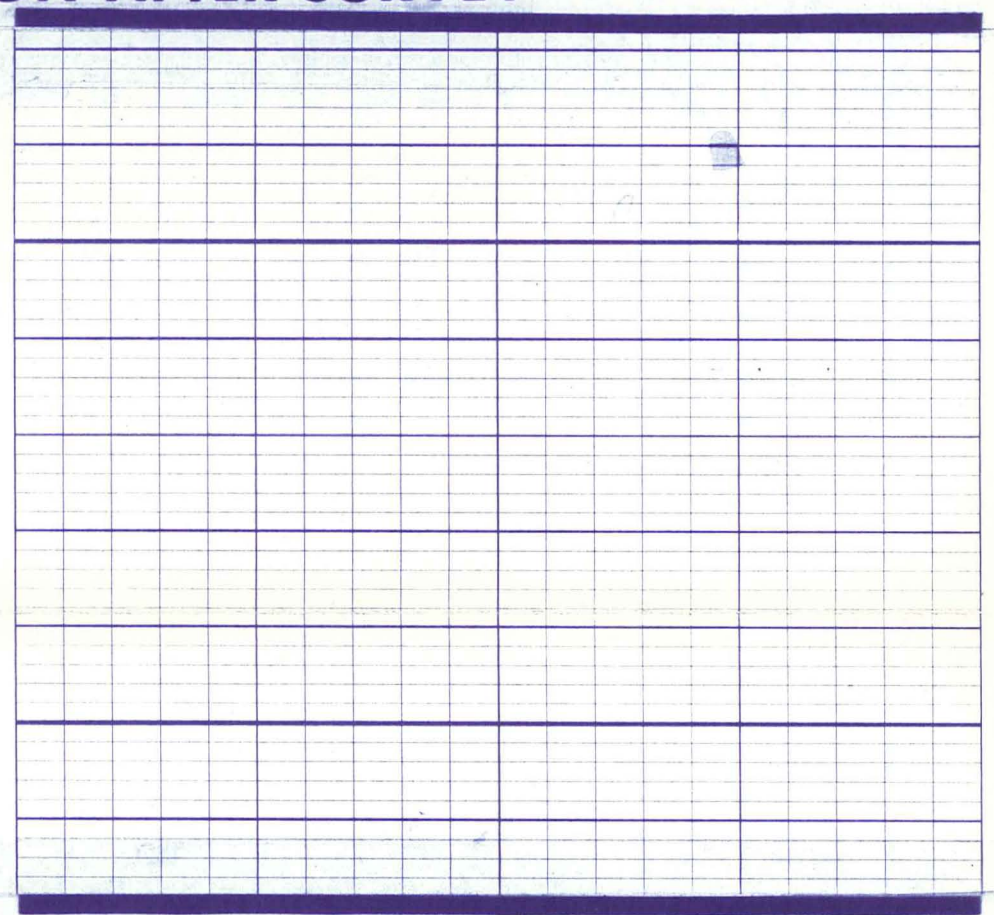
Run 1

6

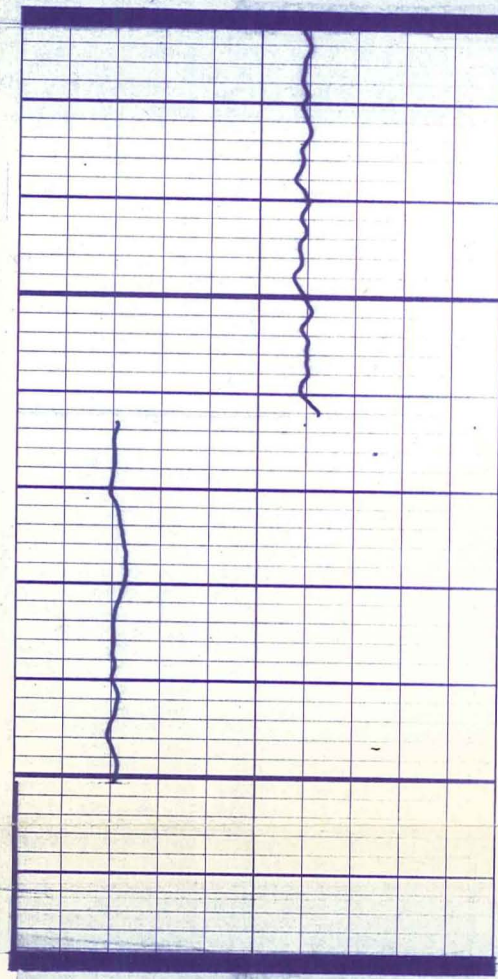
5

2

1



CALIBRATION BEFORE SURVEY

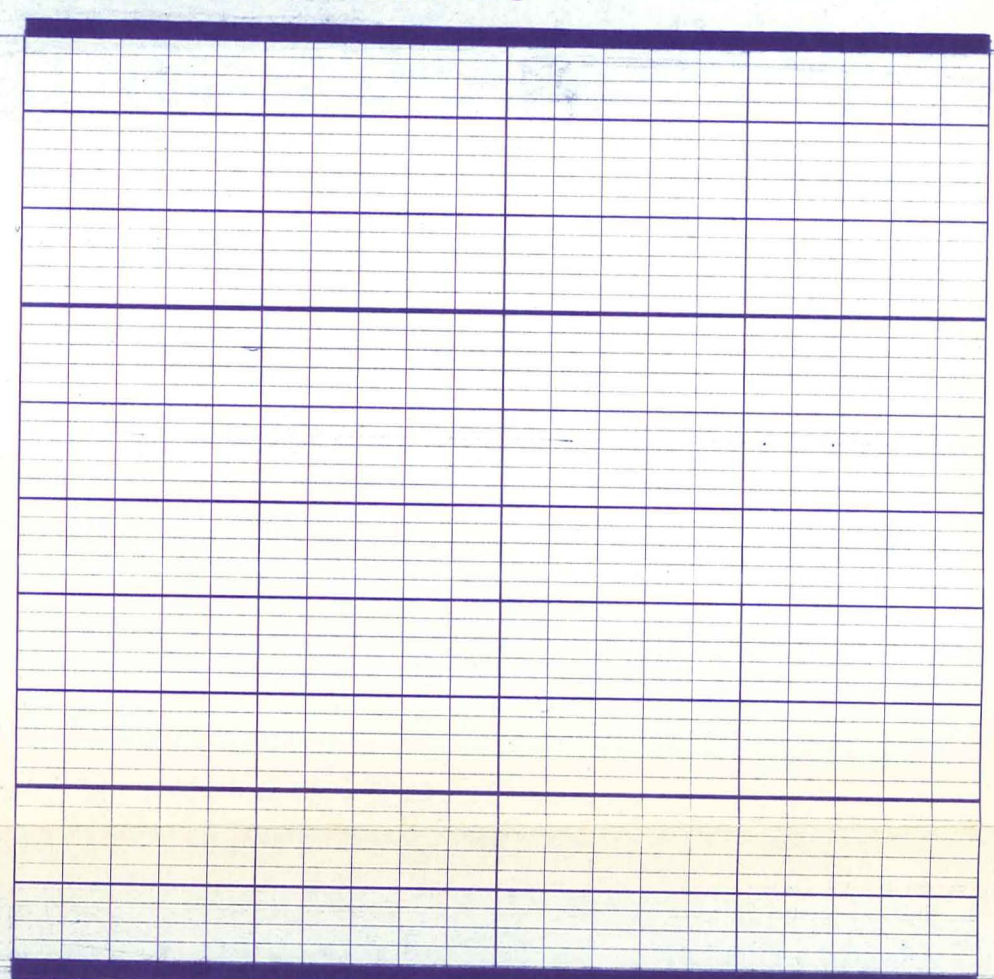


6

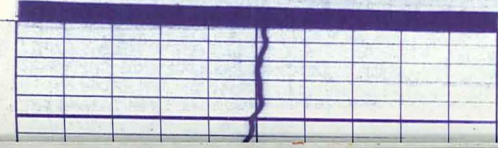
5

2

1

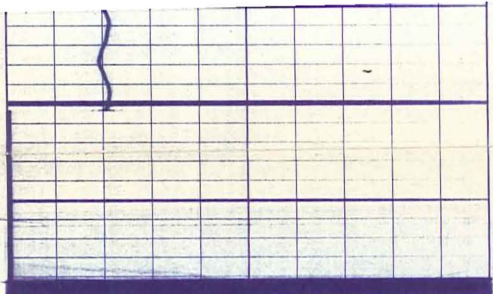


CALIBRATION AFTER SURVEY



Run 2

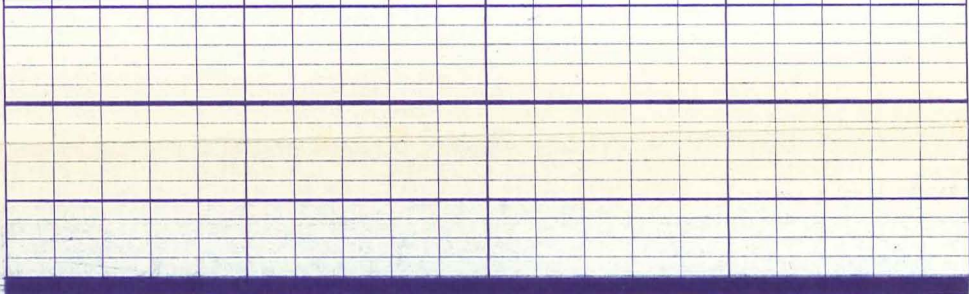




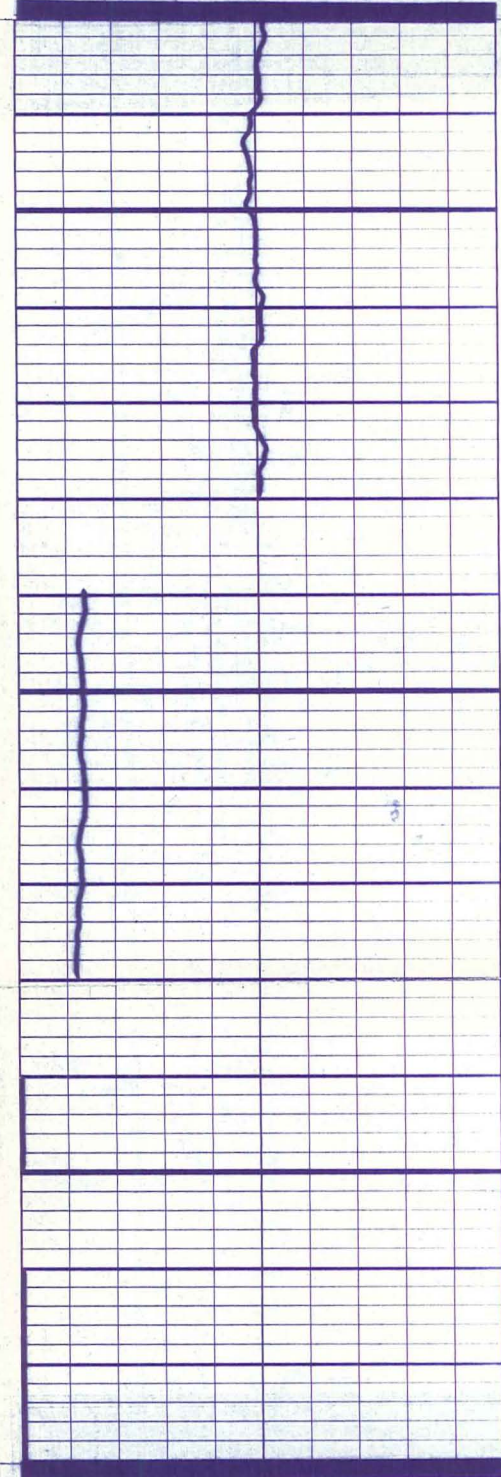
5

2

1



CALIBRATION AFTER SURVEY



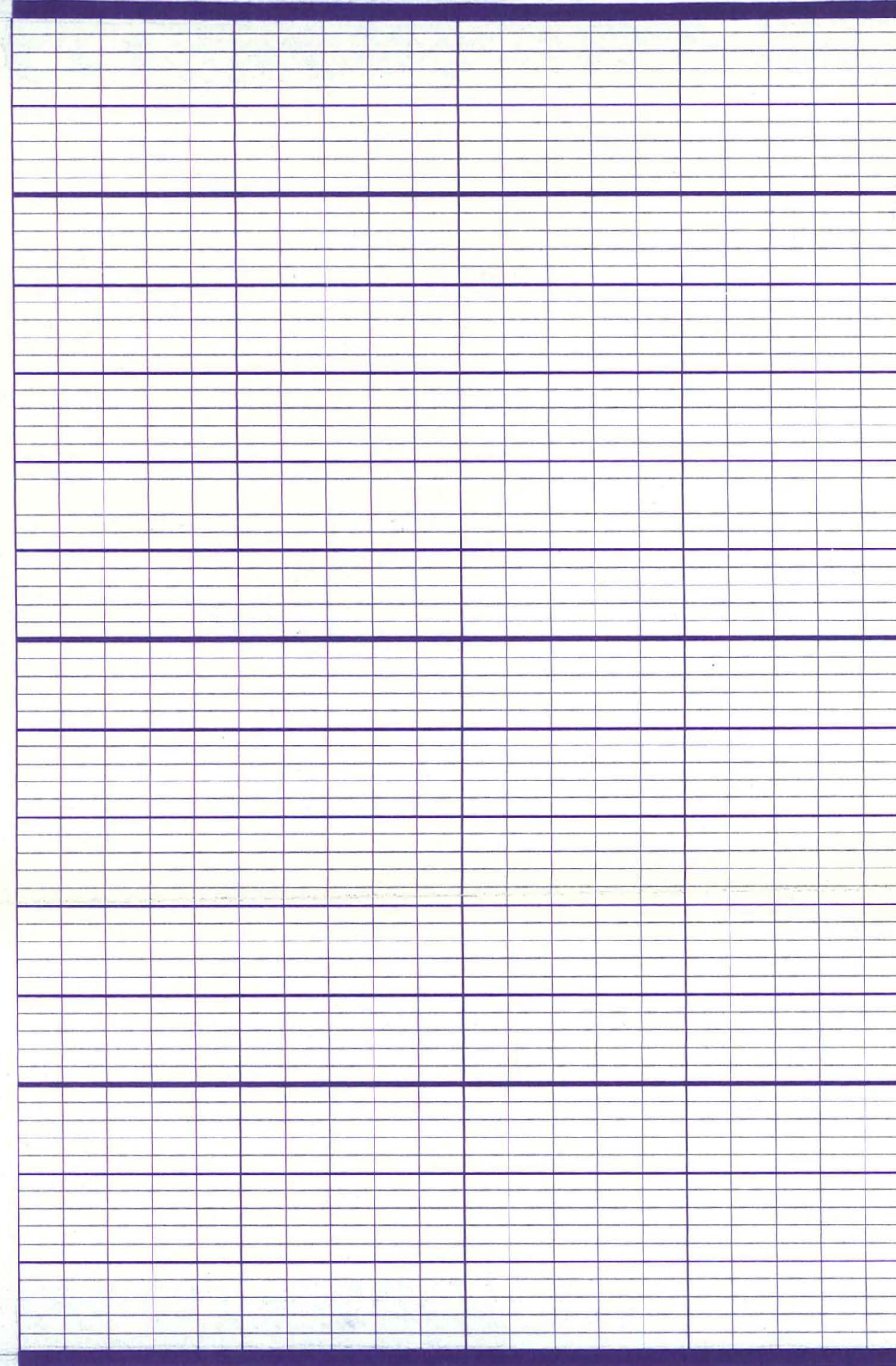
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6

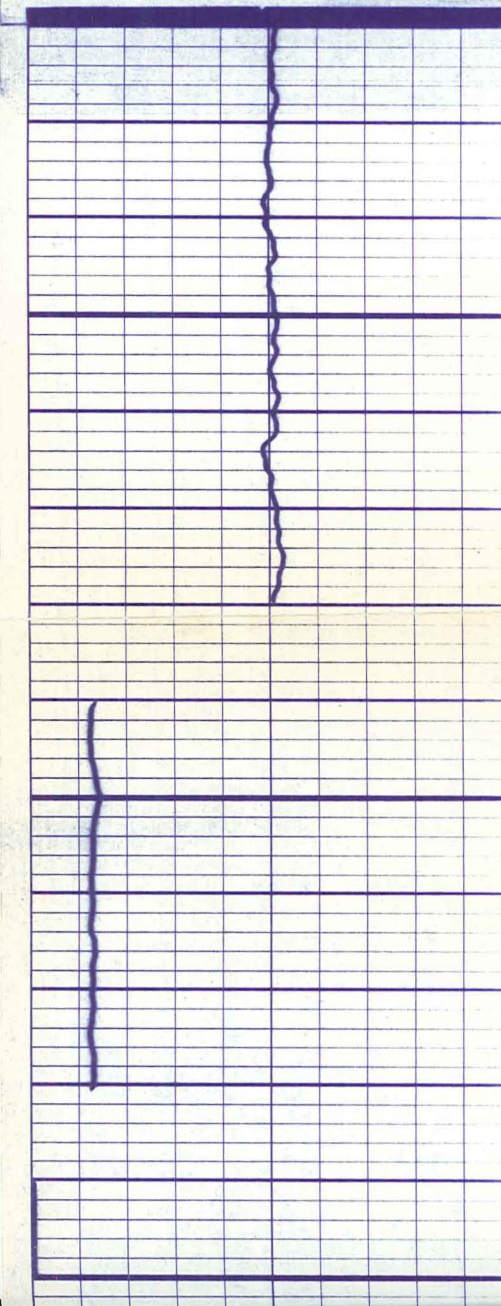
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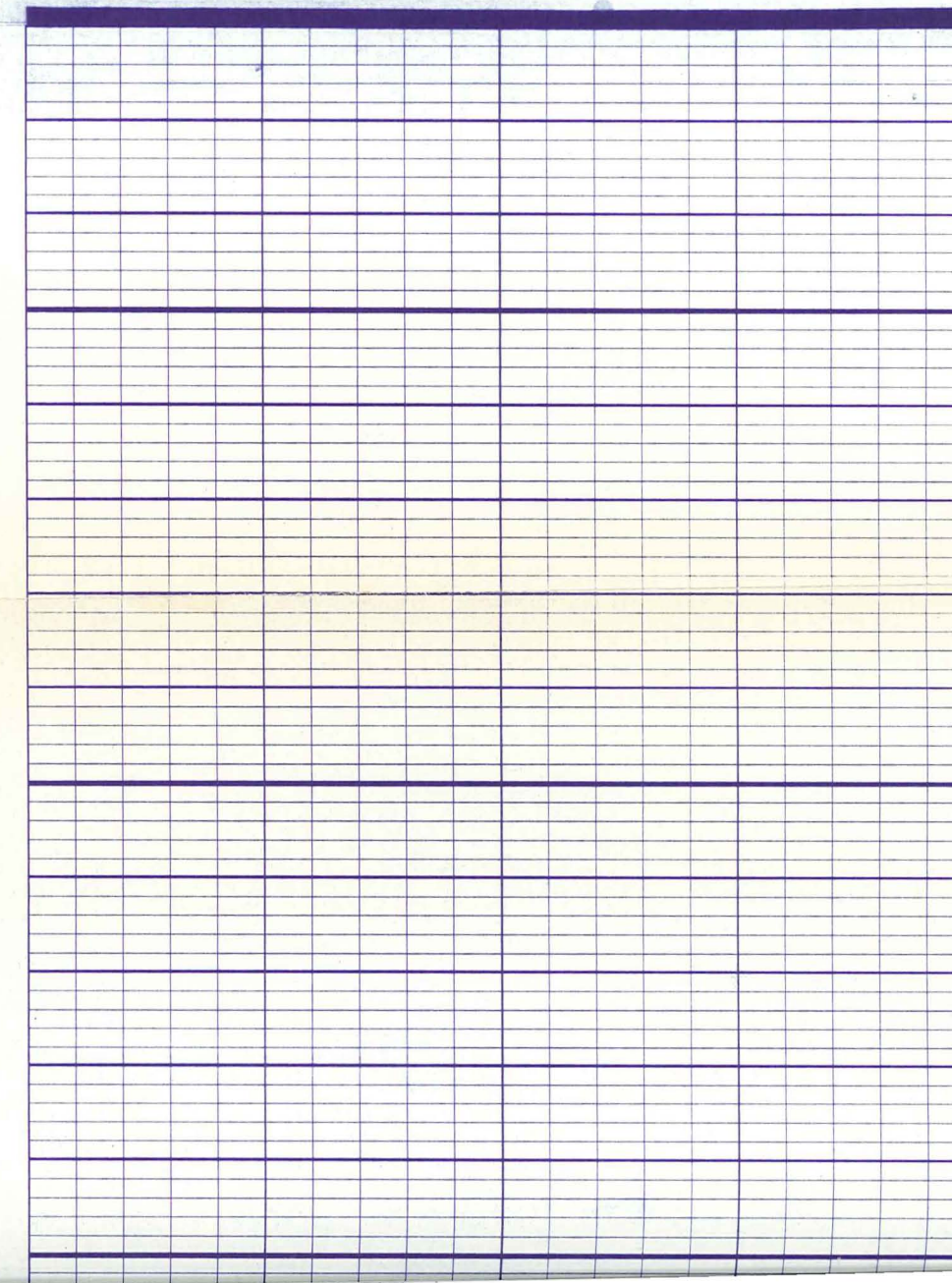


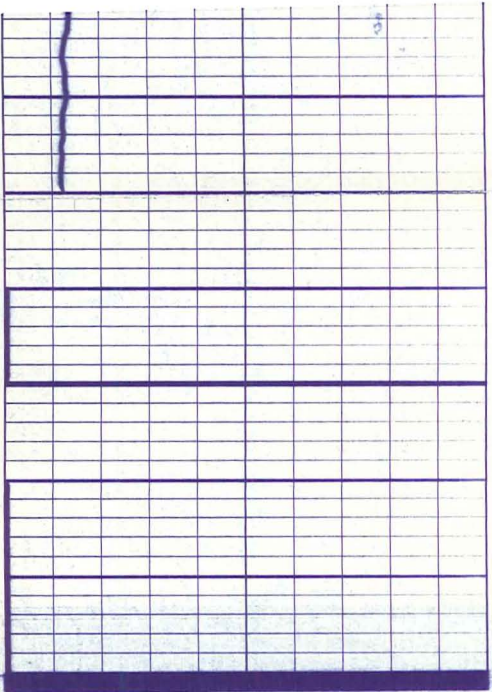
CALIBRATION BEFORE SURVEY



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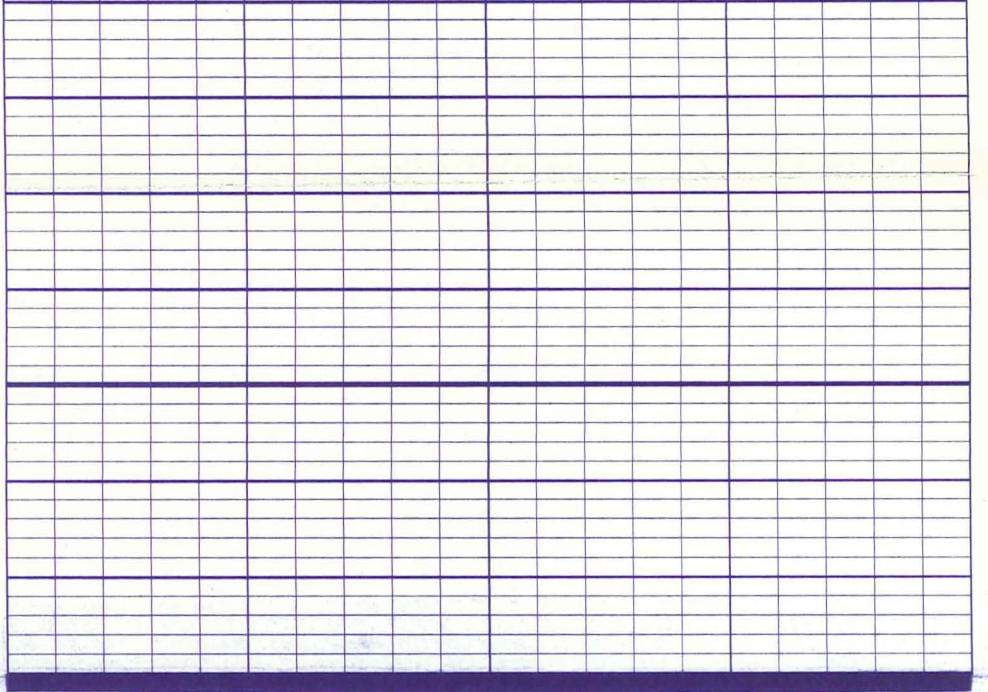
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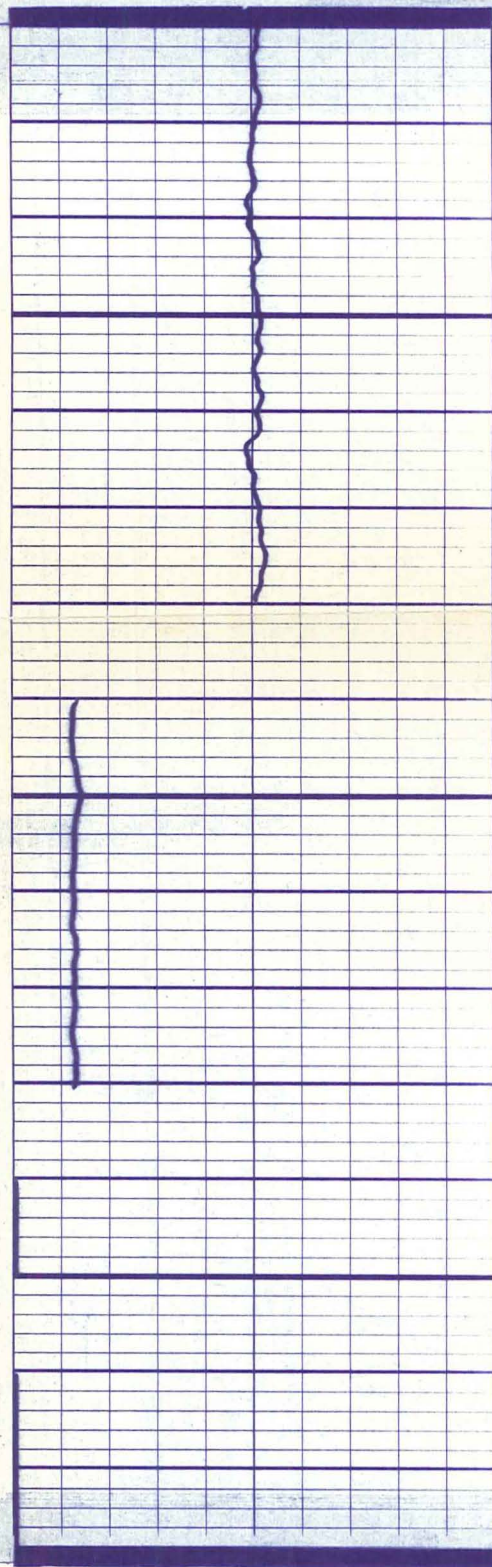


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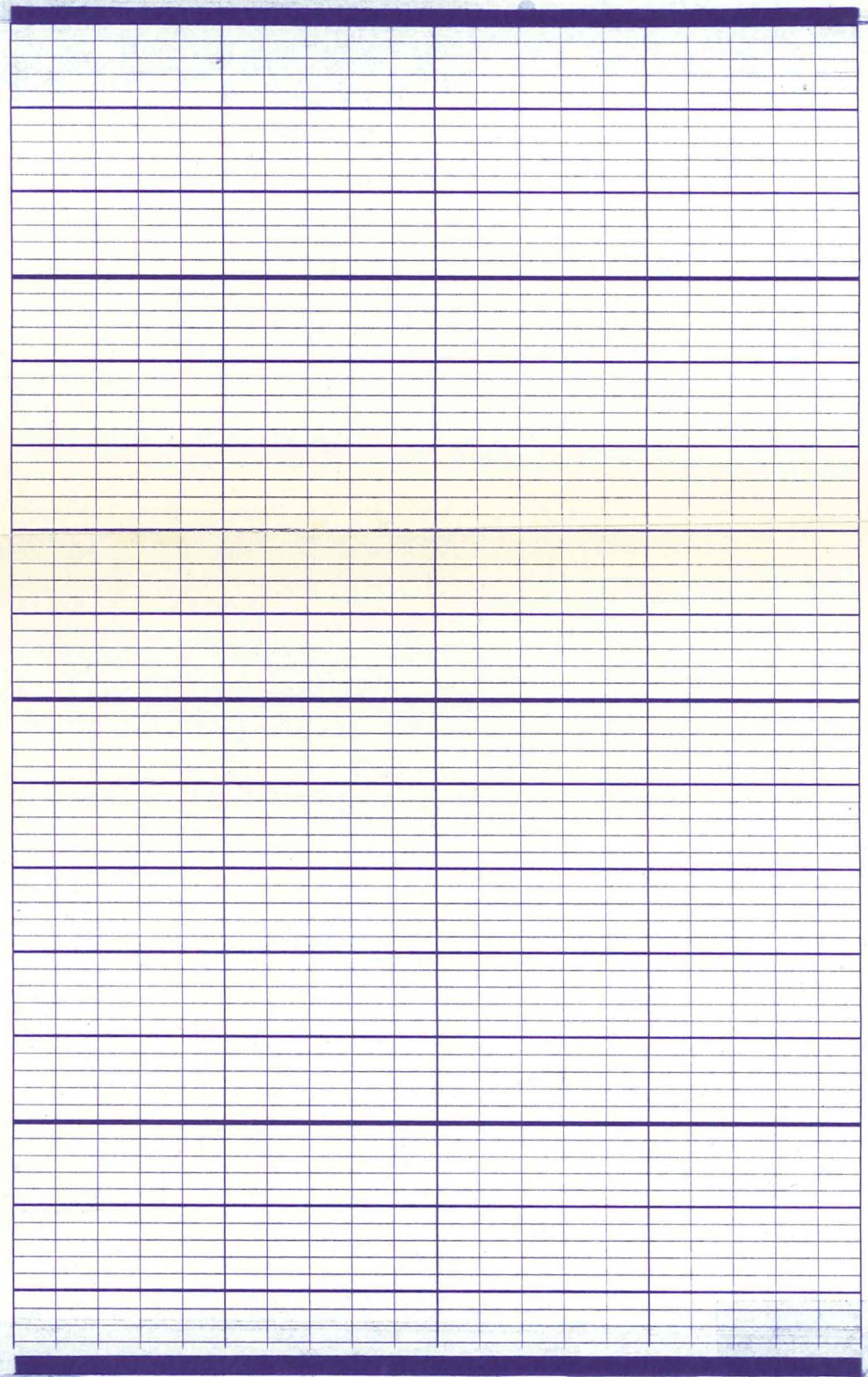
CALIBRATION BEFORE SURVEY



6

5

1



FILE_CAB_15_DRAWER_2