

GLO2700-3

UNIVERSITY OF UTAH
RESEARCH INSTITUTE
EARTH SCIENCE LAB.

SCHLUMBERGER

SIMULTANEOUS
**COMPENSATED NEUTRON-
FORMATION DENSITY**

COMPANY ANSCHUTZ CORPORATION	
WELL FEDERAL 60-13 NO. 1	
FIELD WILDCAT	
COUNTY Owyhee	STATE IDAHO
SE/SW	
Other Services: TES/OIL-COMP BHC	
Ferment Datum: GL	Elev.: 2740
Log Measured From: KB	Elev. K.B. 2751
Drilling Measured From: KB	D.F. GL 2740

DATE	8/17/74
Run No.	ONE
Depth-Driller	11,125
Depth-Logger	11,122
Blm. Log Interval	11,120
Top Log Interval	4090
Casing-Driller	9-5/8 @ 4109
Casing-Logger	4108
Bit Size	7-7/8
Type Fluid in Hole	FGM
Dens.	8.6
pH	
Fluid Loss	11 6.4 ml
Source of Sample	CIRC.
Pr. @ Meas. Temp.	1.38 @ 122F
Rmf. @ Meas. Temp.	2.32 @ 65 F
Rmc. @ Meas. Temp.	2.0 @ 122 F
Source: Rmf	M C
Rm. @ BHT	
Circulation Stopped	21 HOURS
Logger on Bottom	
Equip. Location	7710 R. S.
Recorded By	PARKS
Witnessed By Mr.	MULLER

Reproduced By
Electrical Log Services
MIDLAND, TEXAS 79701



REFERENCE K 7871F

35 COMPLETION RECORD

SPUD DATE

COMP DATE

DST RECORD

API NO.

CASING RECORD

PERFORATING RECORD

ACID FRAC SHOT

IP

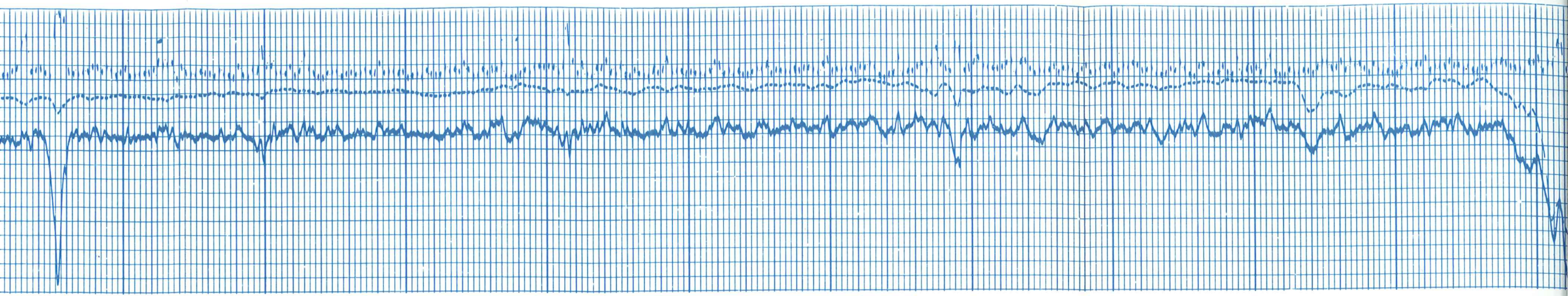
GOR

TP

REMARKS:

REPRODUCTION FOR RESALE PROHIBITED

RUN NO. ONE	SCALE CHANGES	Scale Up Hole	Scale Down Hole
Service Order No. 81287	Type-Log	Depth	
Fluid Level			
Salinity: PPM-CL			
Speed: F.P.M.			
EQUIPMENT DATA			
Dens. Pencil			303



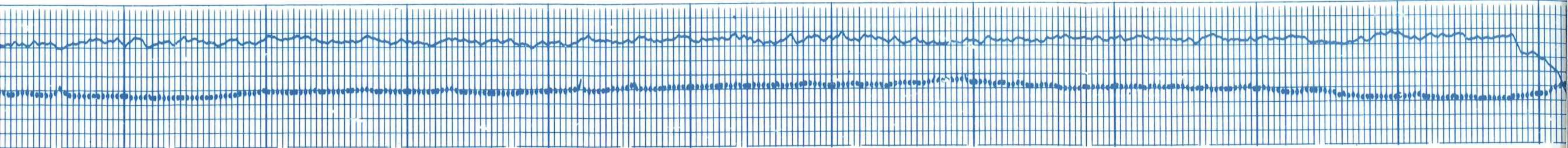
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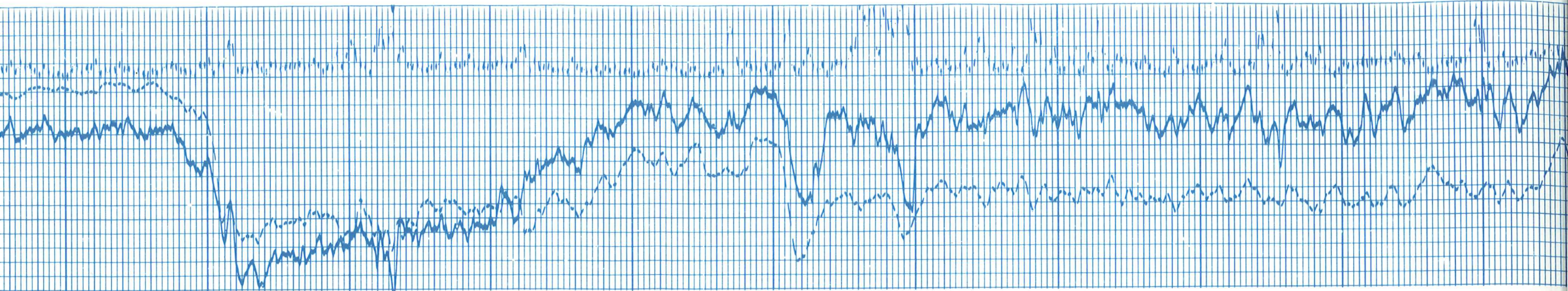
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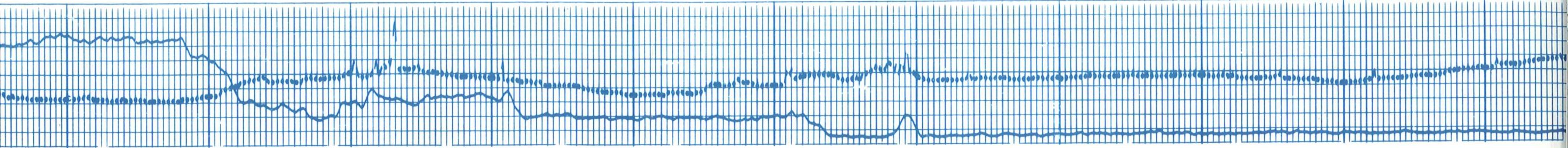
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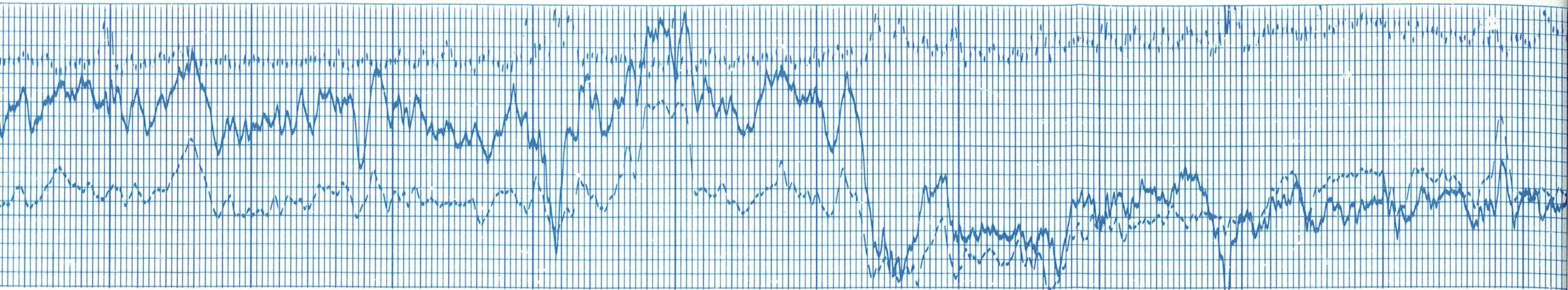
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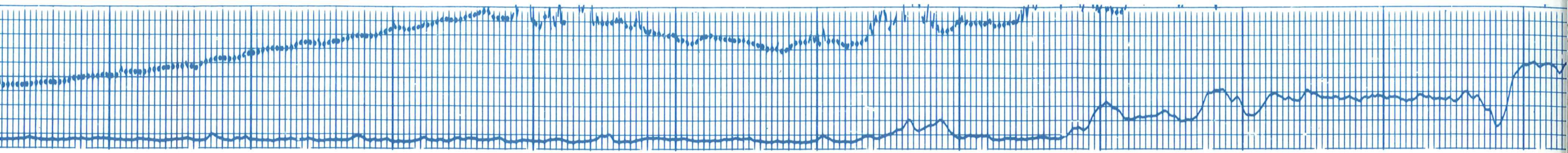
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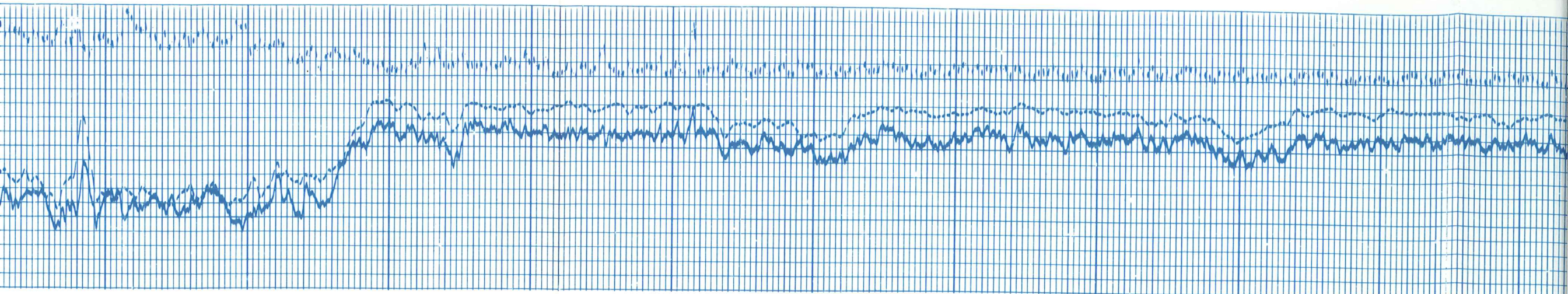
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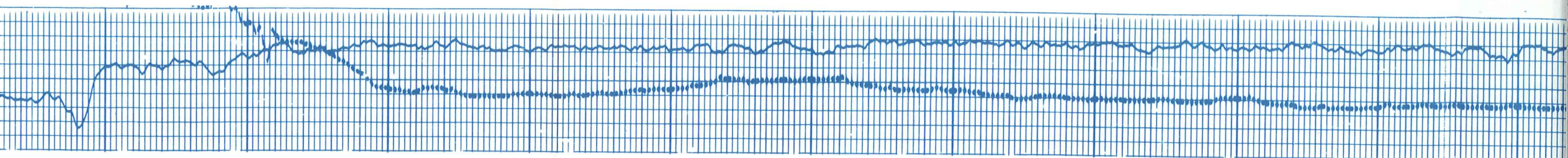
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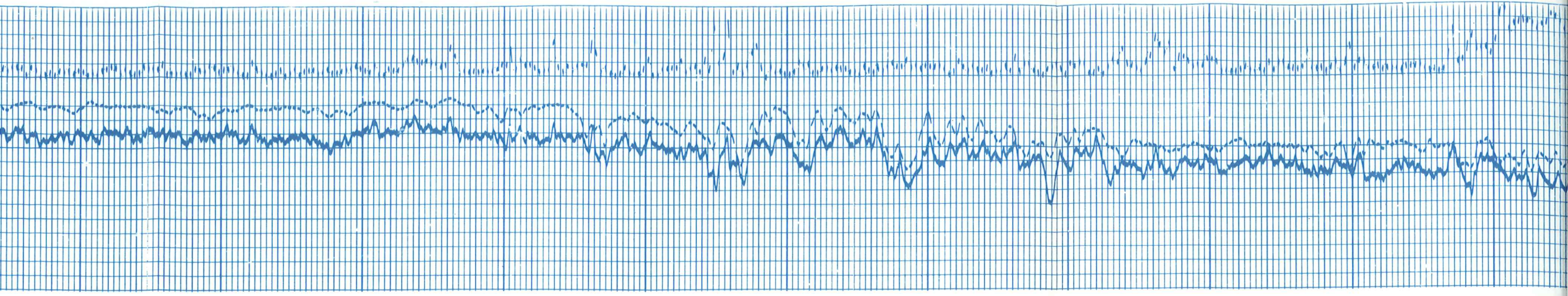
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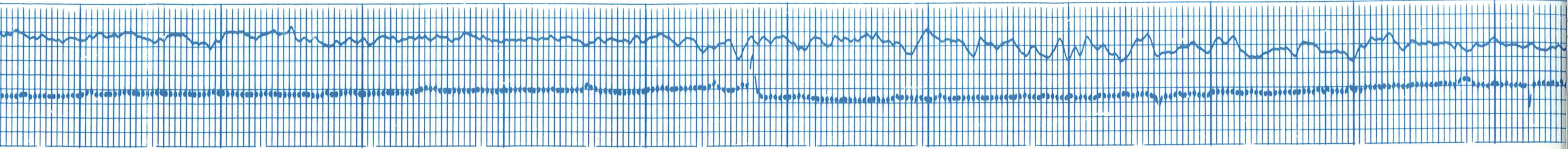
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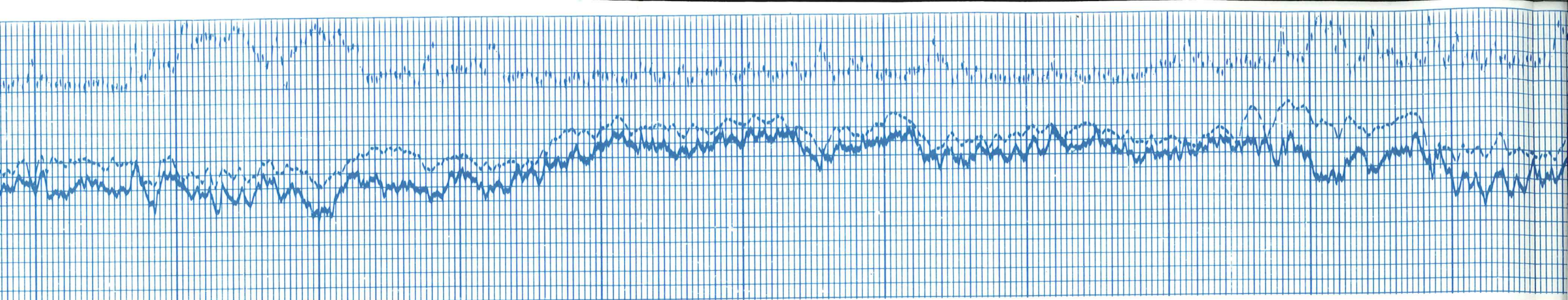
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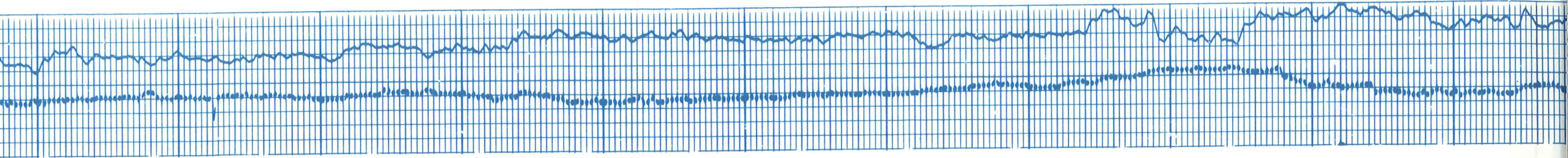
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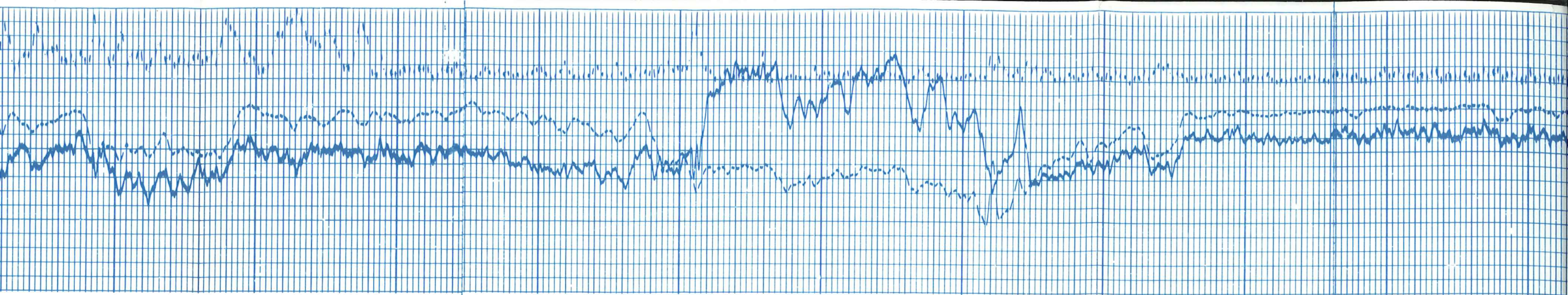
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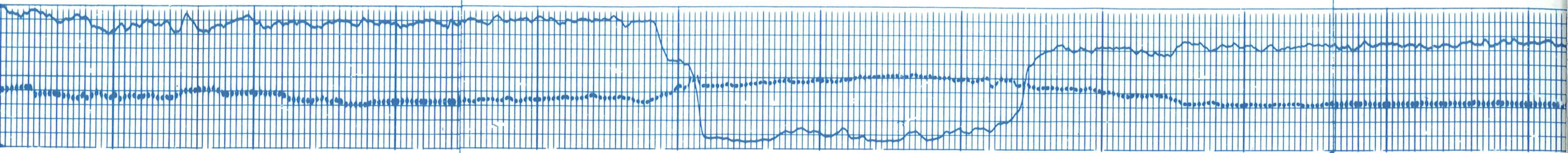
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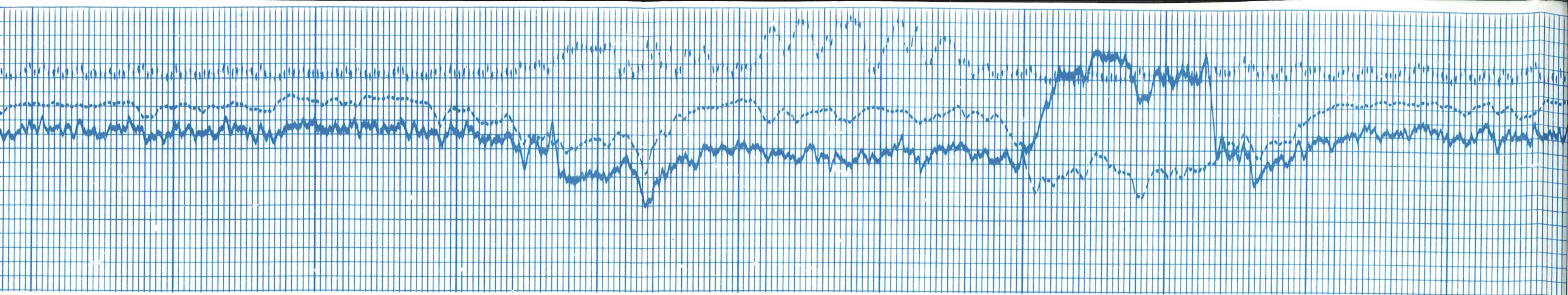
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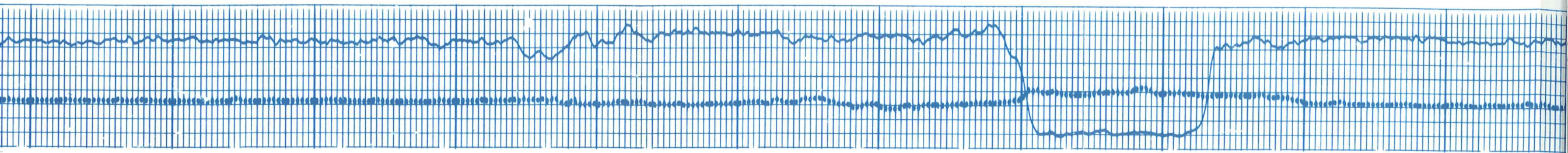
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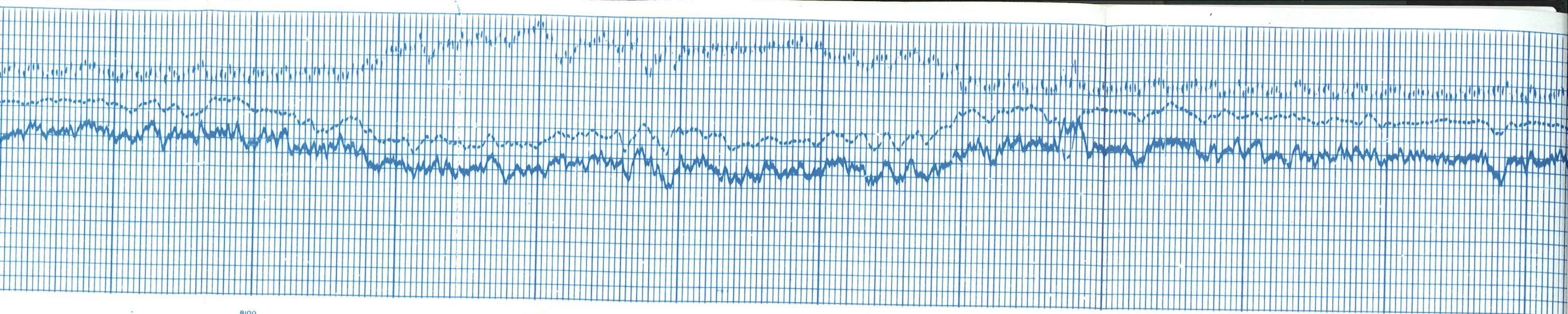
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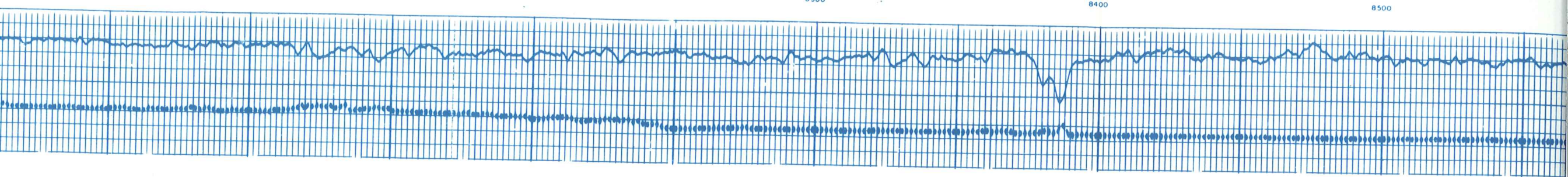
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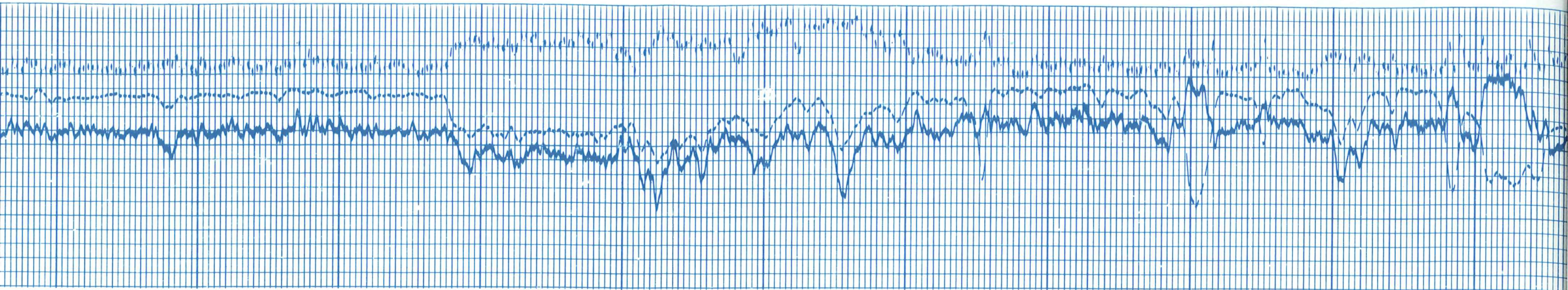
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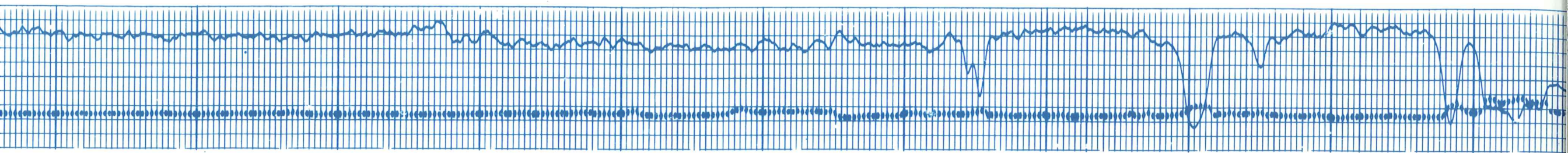
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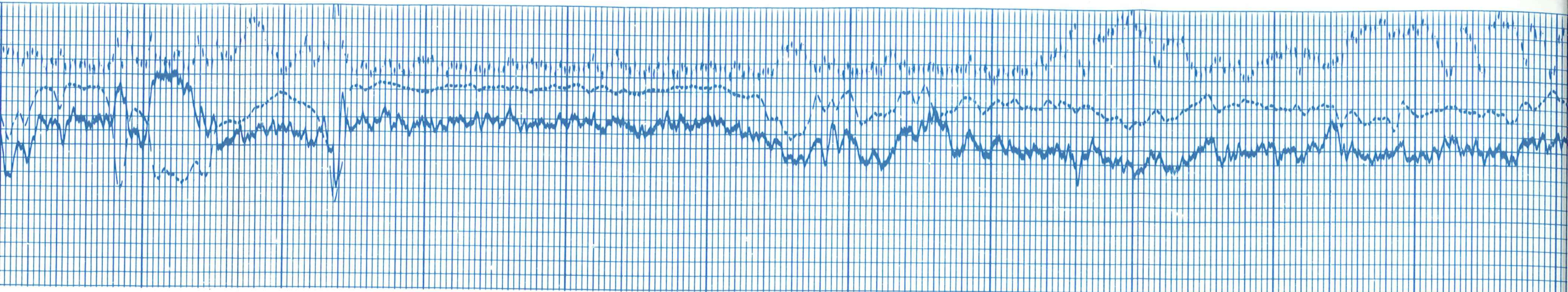
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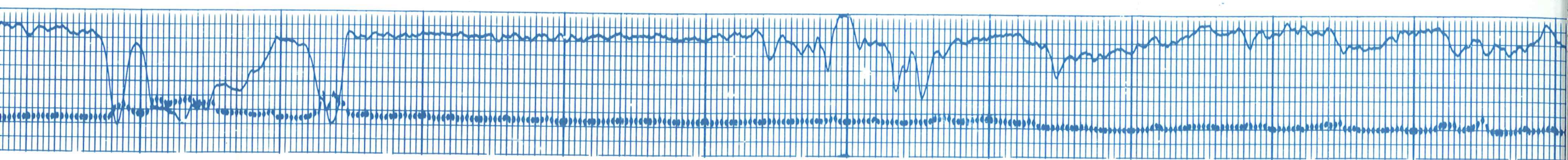
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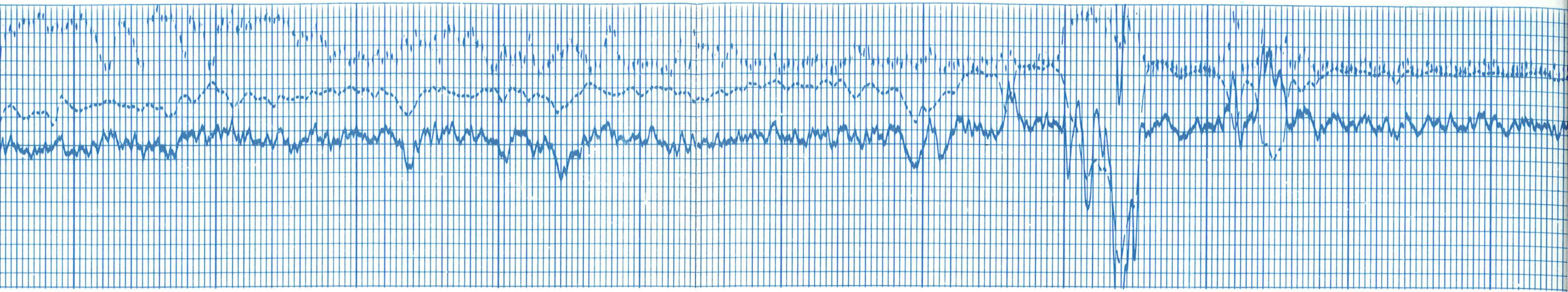
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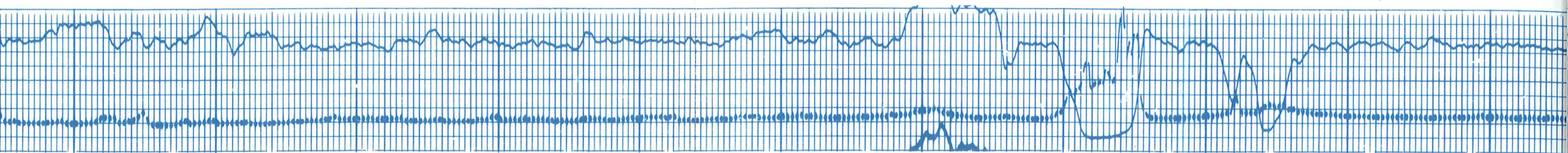
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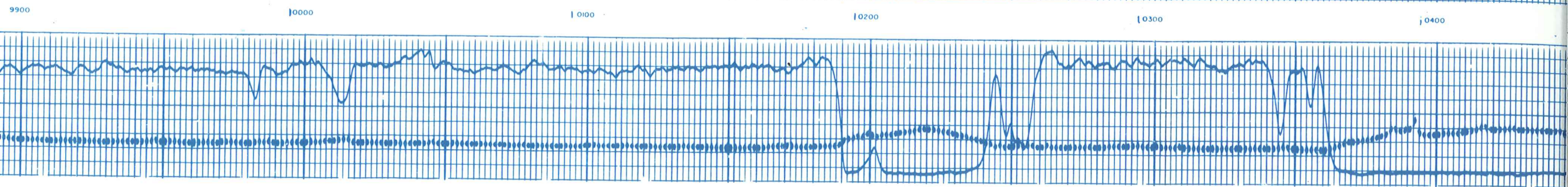
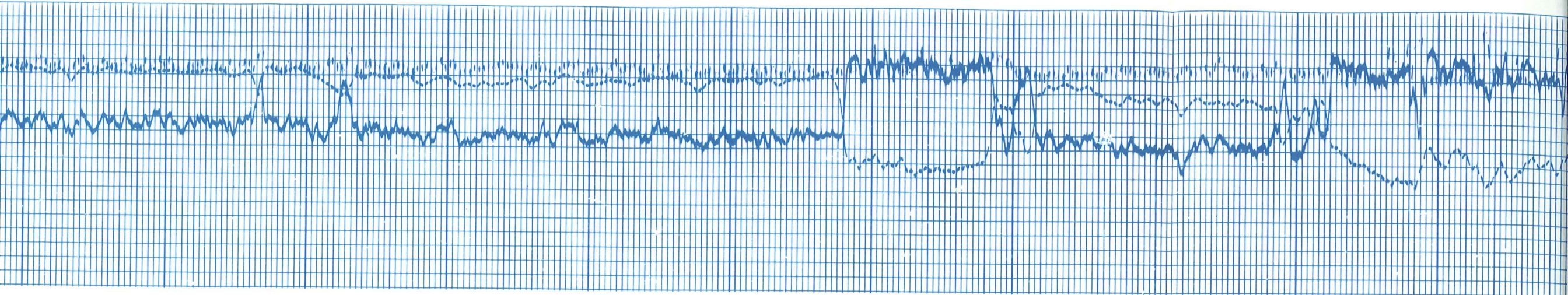
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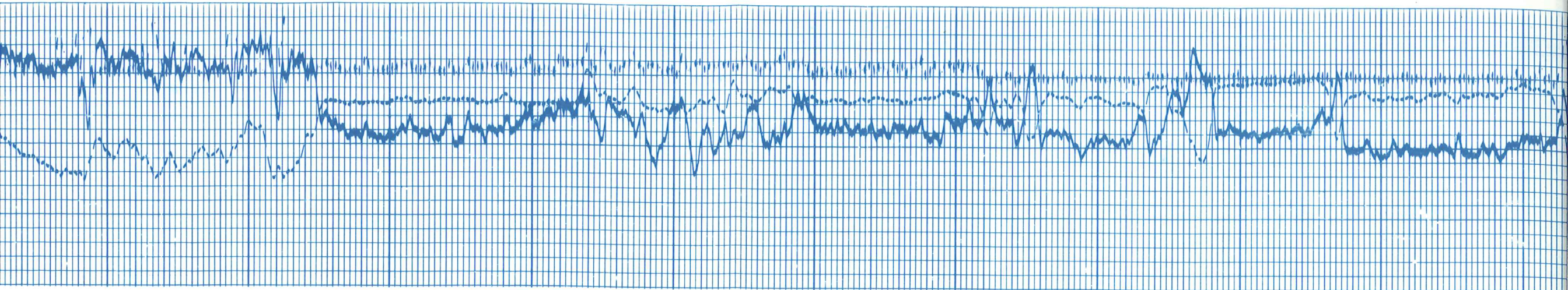
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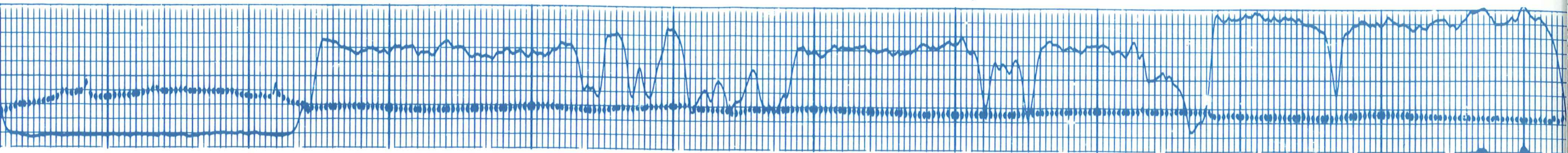
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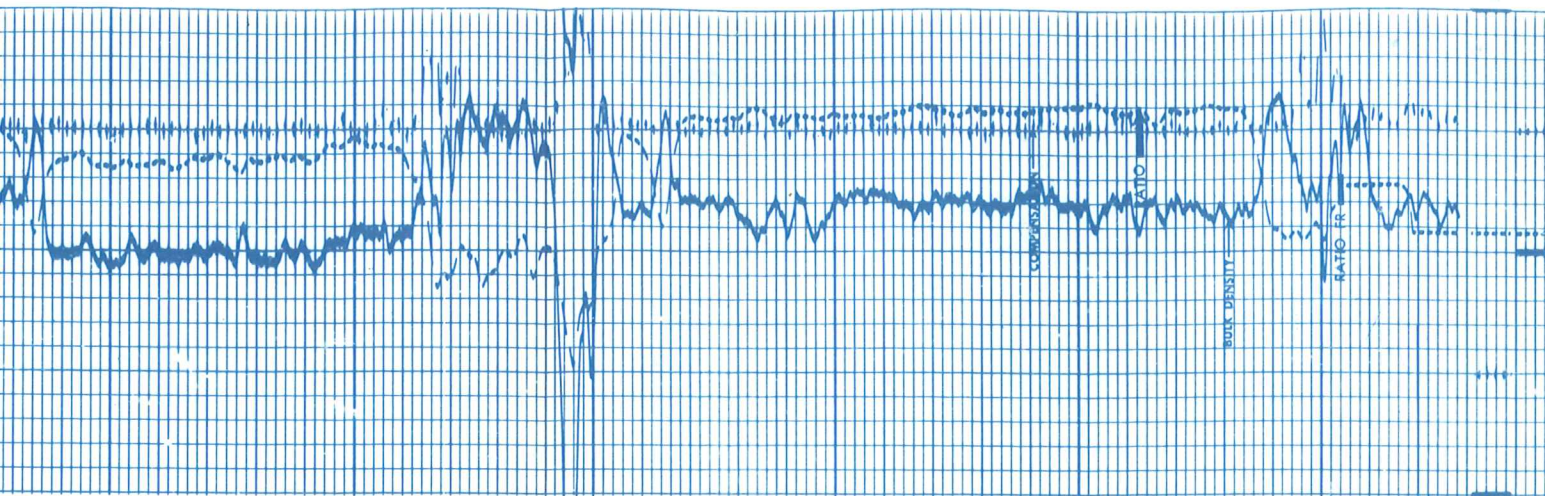
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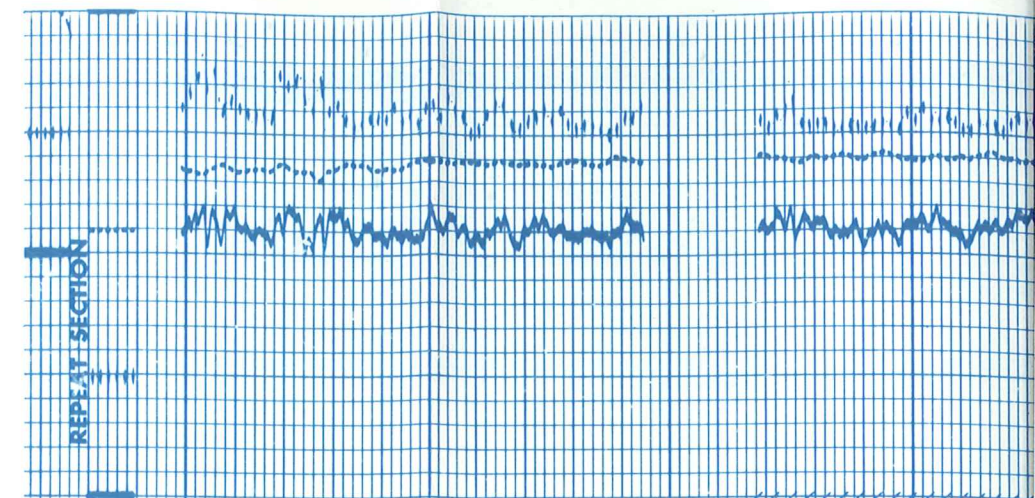
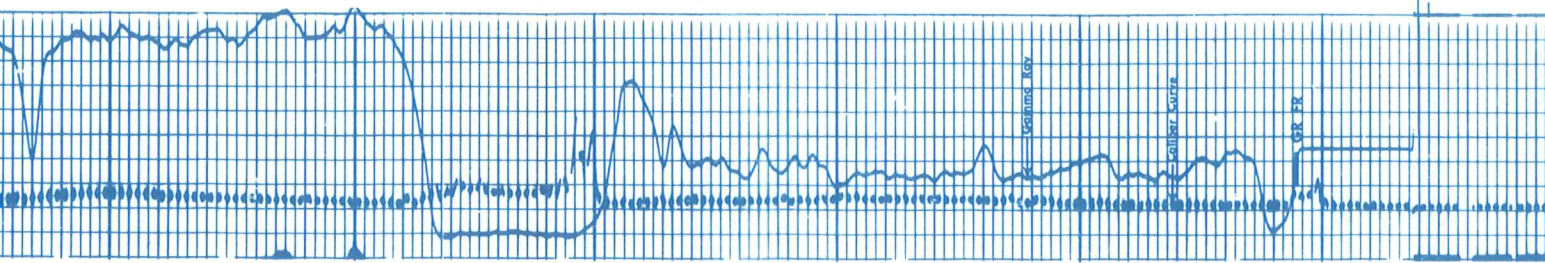




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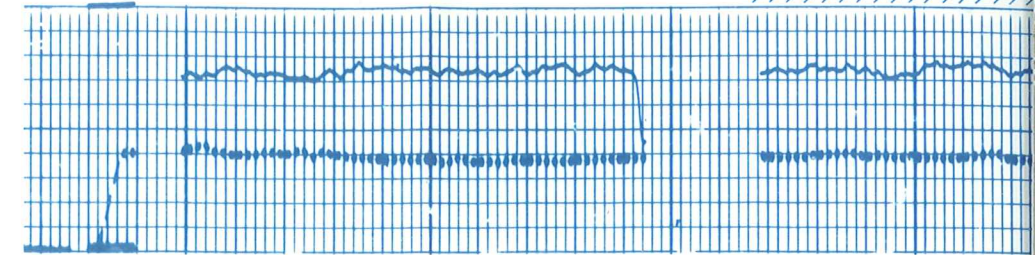
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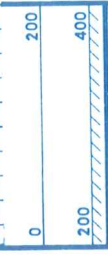
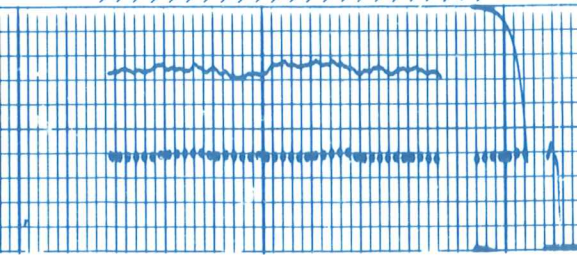
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MEMORIZER OUT — CURVES INVALID

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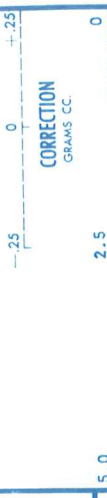
GAMMA RAY
API UNITS

CALIPER
HOLE DIAM. IN INCHES

DEPTH, FT



BULK DENSITY
GRAMS CC.



CORRECTION
GRAMS CC.

RATIO NEUTRON

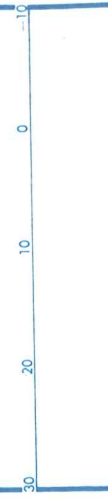
DETAIL LOG
5" = 100'

CALIPER
HOLE DIAM. IN INCHES

GAMMA RAY
API UNITS

DEPTH, FT

DENSITY POROSITY INDEX %
LIMESTONE MATRIX



NEUTRON POROSITY INDEX %
LIMESTONE MATRIX



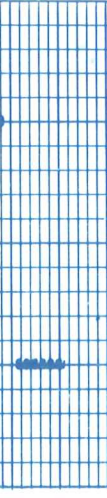
DEPTH, FT



CALIPER
HOLE DIAM. IN INCHES

GAMMA RAY
API UNITS

DEPTH, FT



BULK DENSITY
GRAMS CC.



CORRECTION
GRAMS CC.

RATIO NEUTRON

DETAIL LOG
5" = 100'

CALIPER
HOLE DIAM. IN INCHES

GAMMA RAY
API UNITS

DEPTH, FT

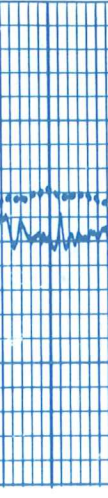
DENSITY POROSITY INDEX %
LIMESTONE MATRIX



NEUTRON POROSITY INDEX %
LIMESTONE MATRIX



BULK DENSITY
GRAMS CC.



CORRECTION
GRAMS CC.

RATIO NEUTRON

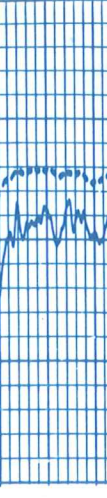
DETAIL LOG
5" = 100'

CALIPER
HOLE DIAM. IN INCHES

GAMMA RAY
API UNITS

DEPTH, FT

DENSITY POROSITY INDEX %
LIMESTONE MATRIX

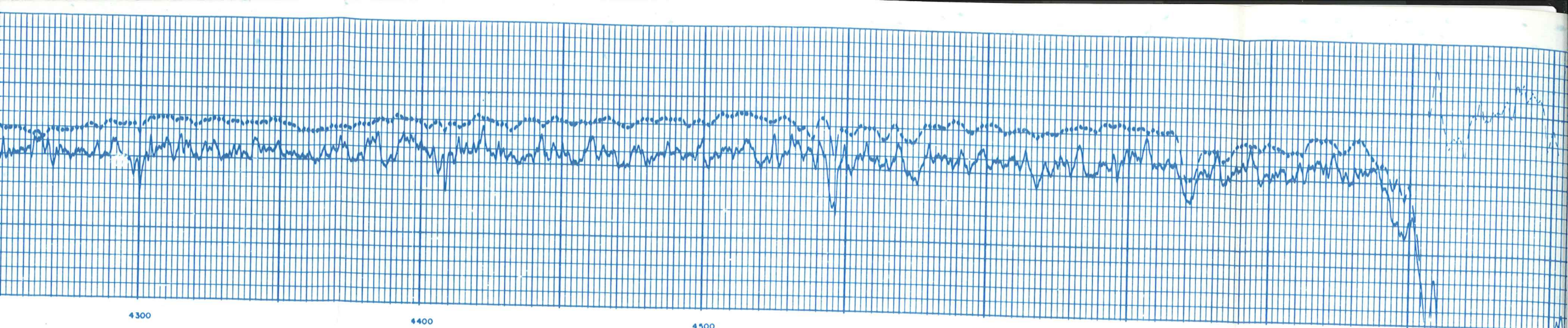


NEUTRON POROSITY INDEX %
LIMESTONE MATRIX

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Casting

4200

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4300

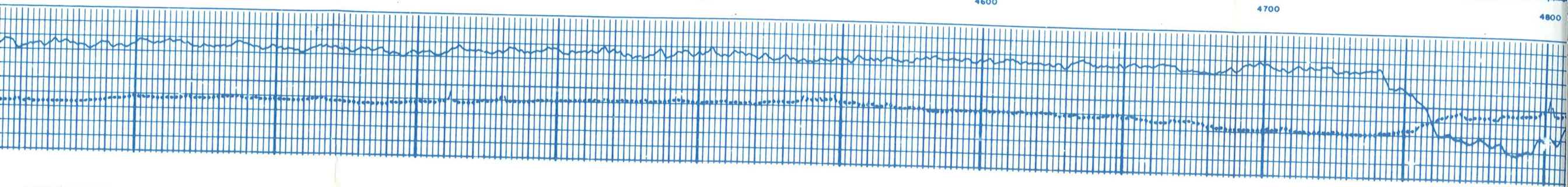
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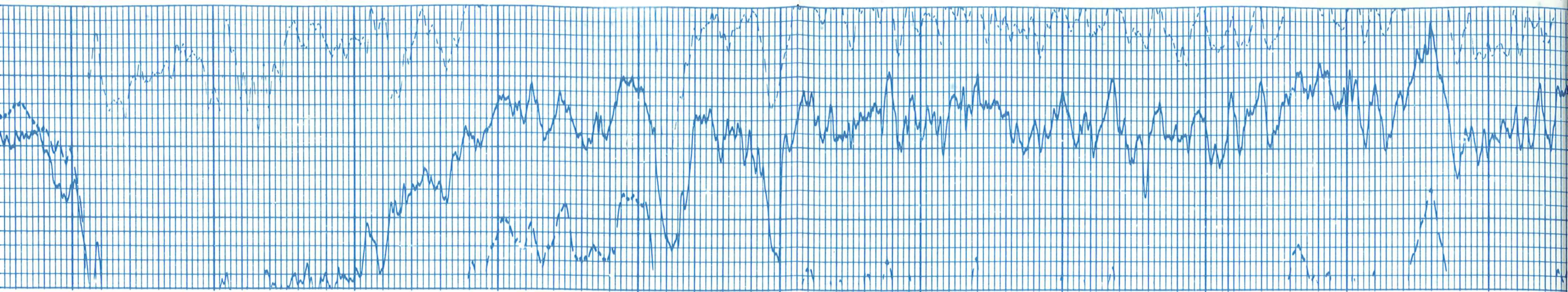
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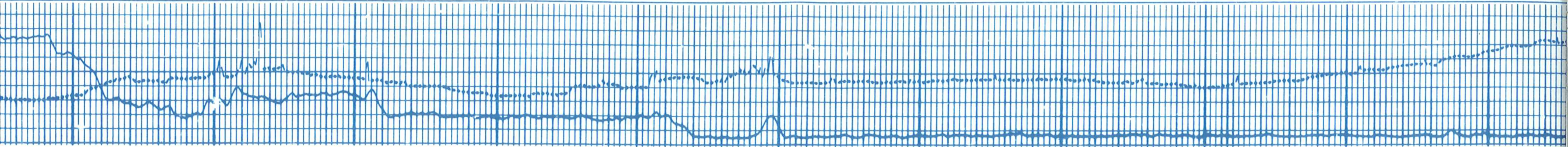
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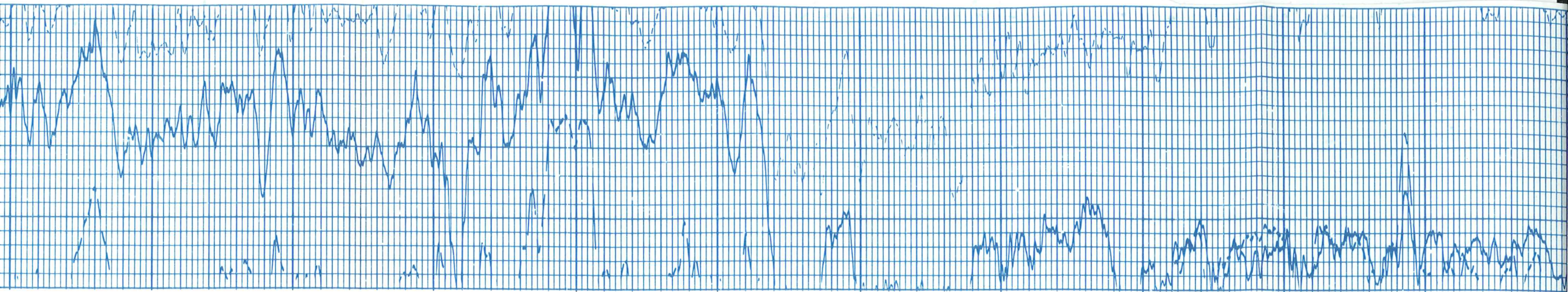
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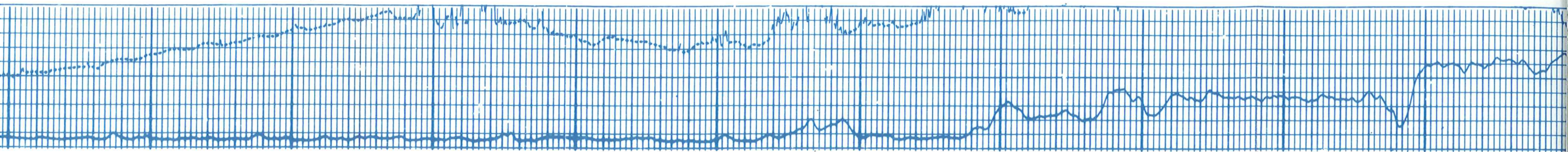
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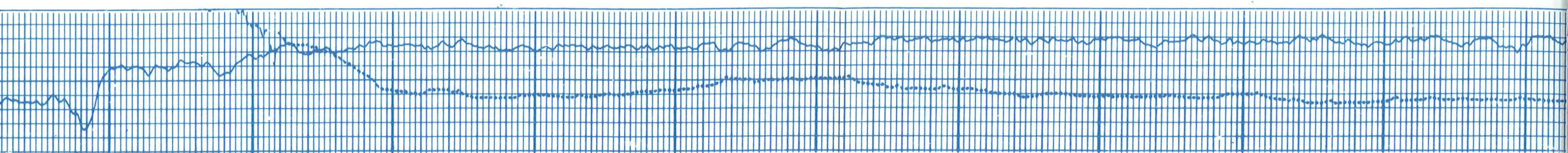
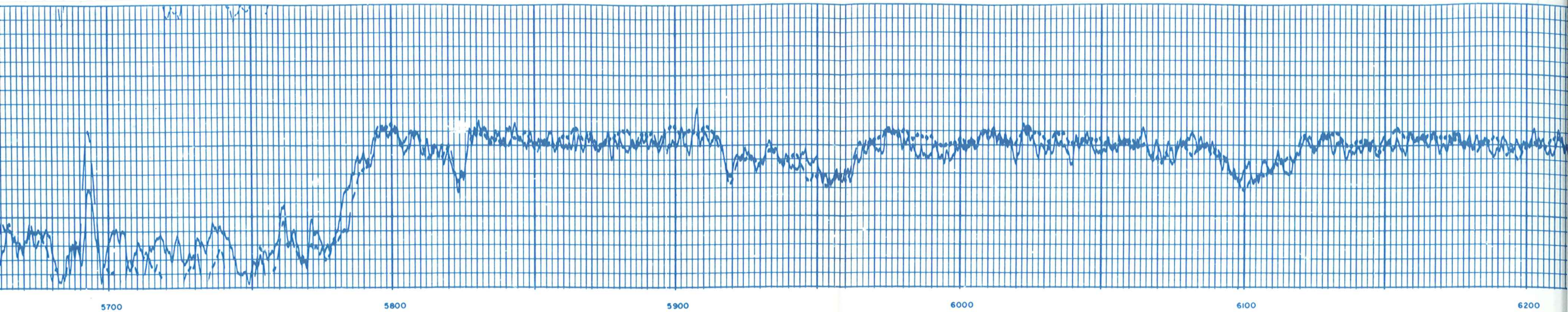
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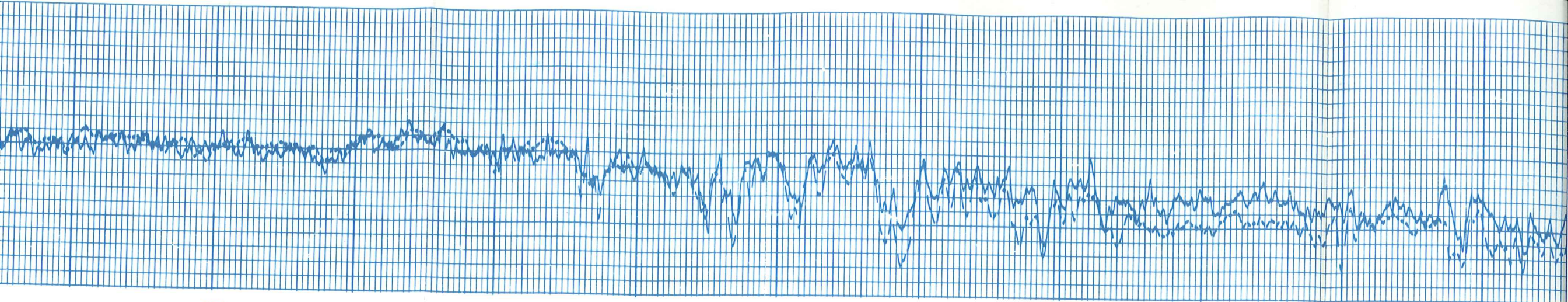
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Blank white space below the ECG tracings.



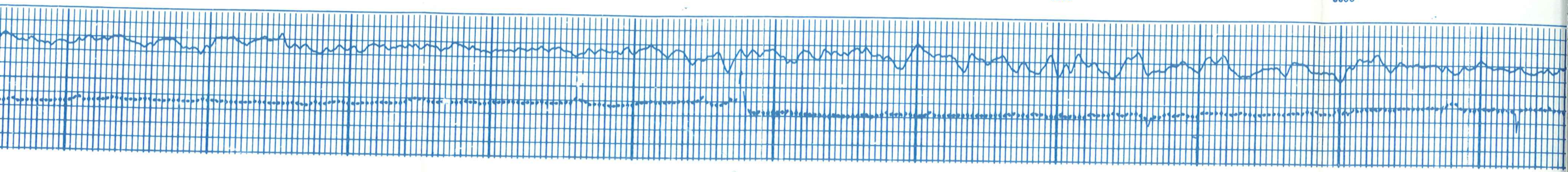
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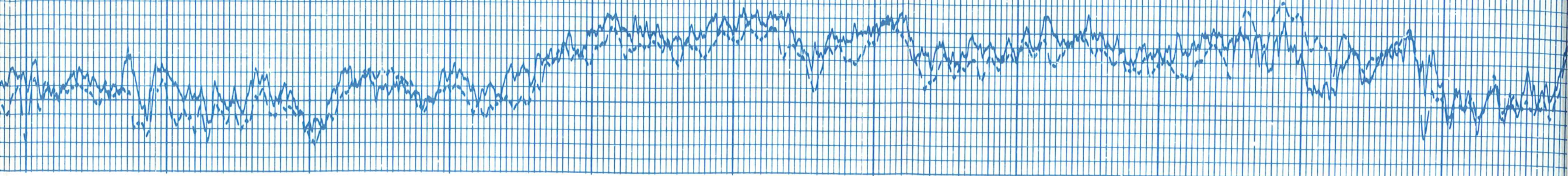
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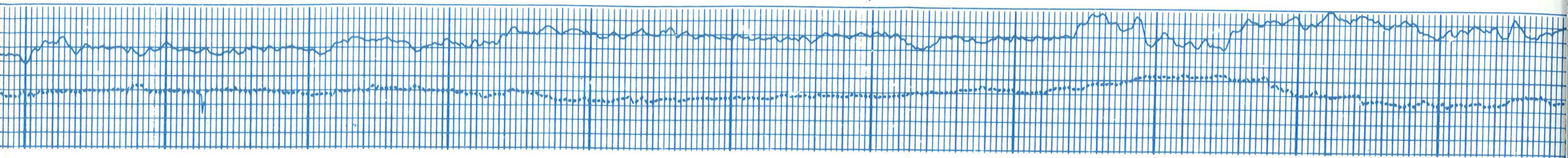
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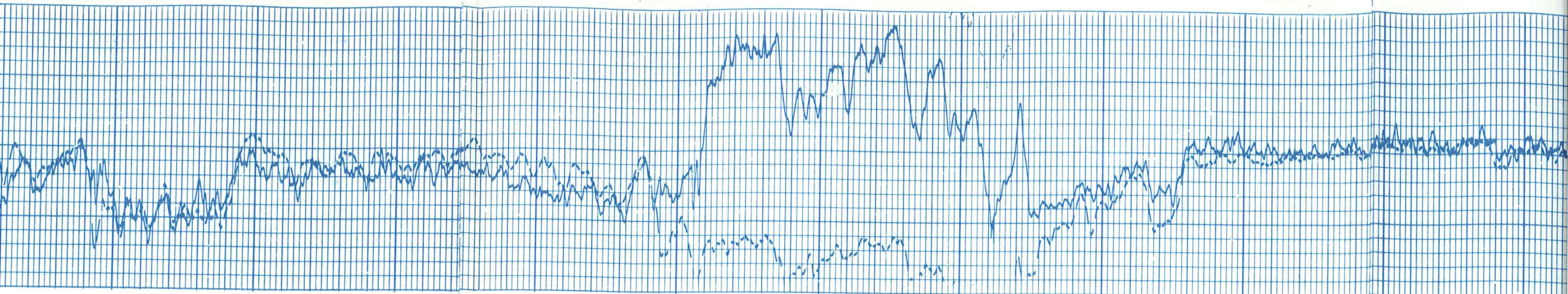
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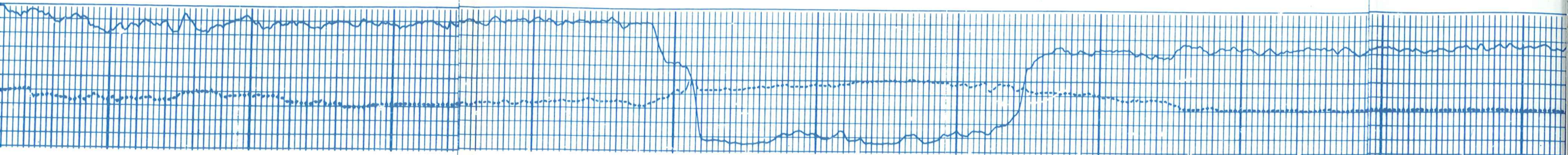
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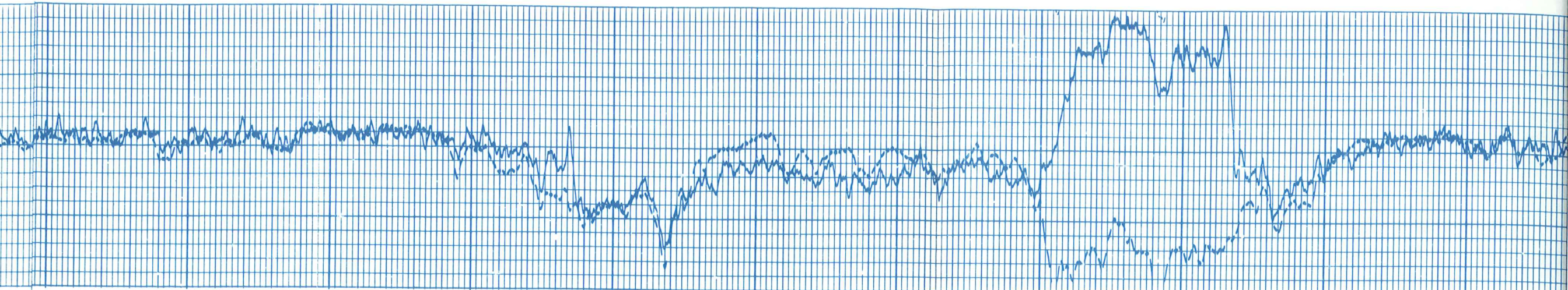
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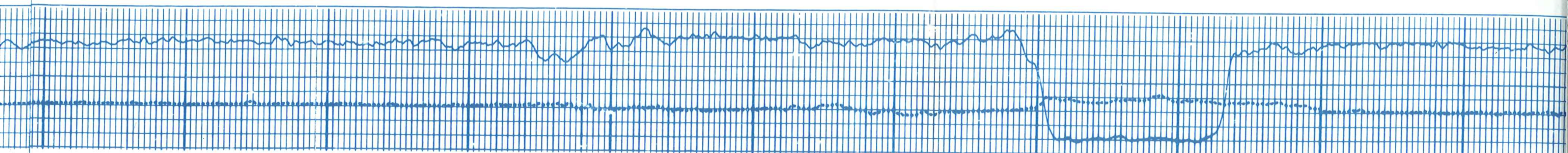
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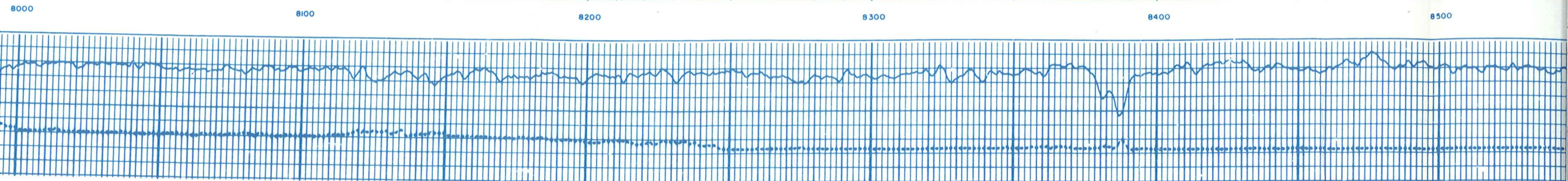
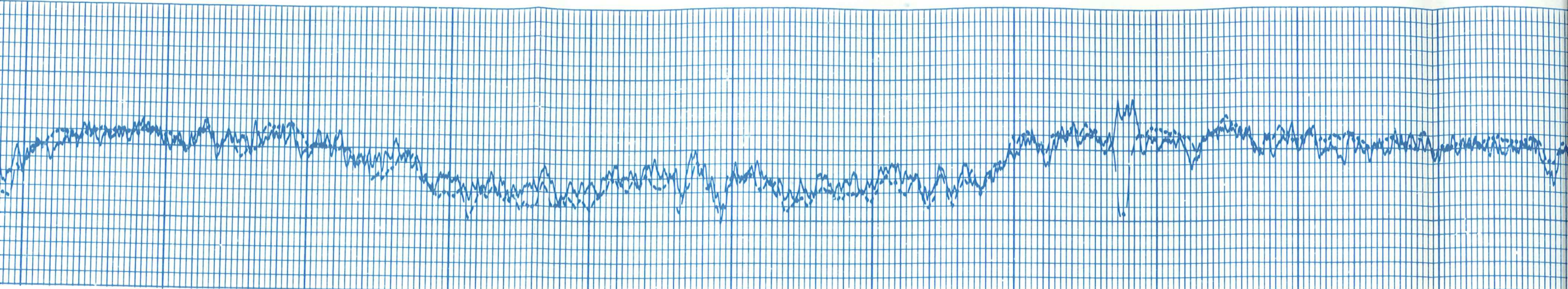
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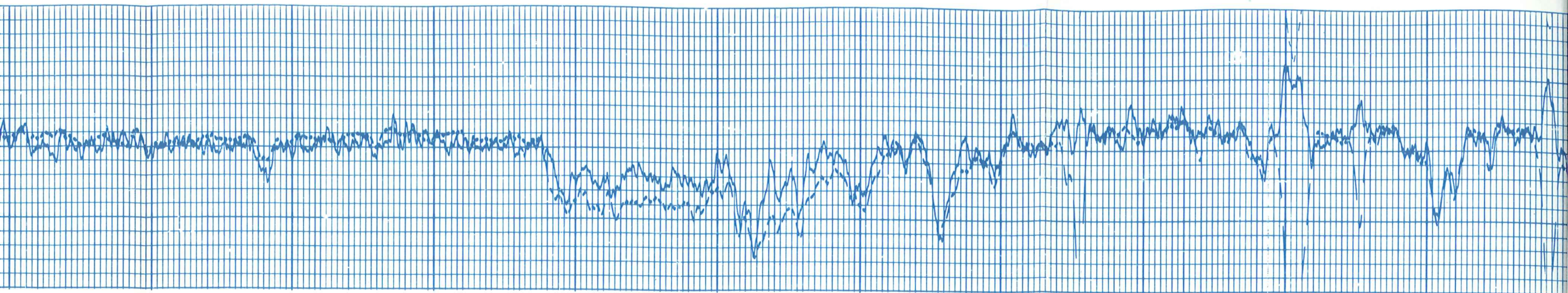
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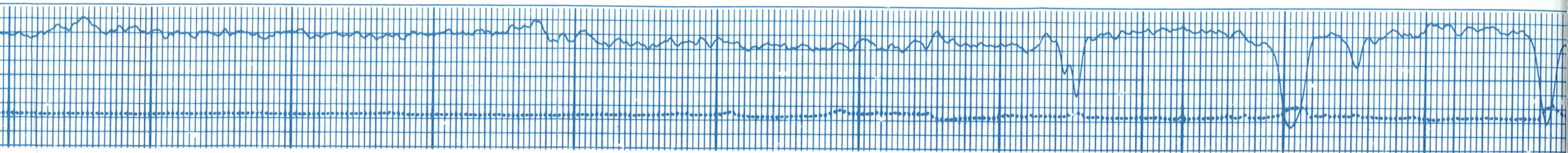
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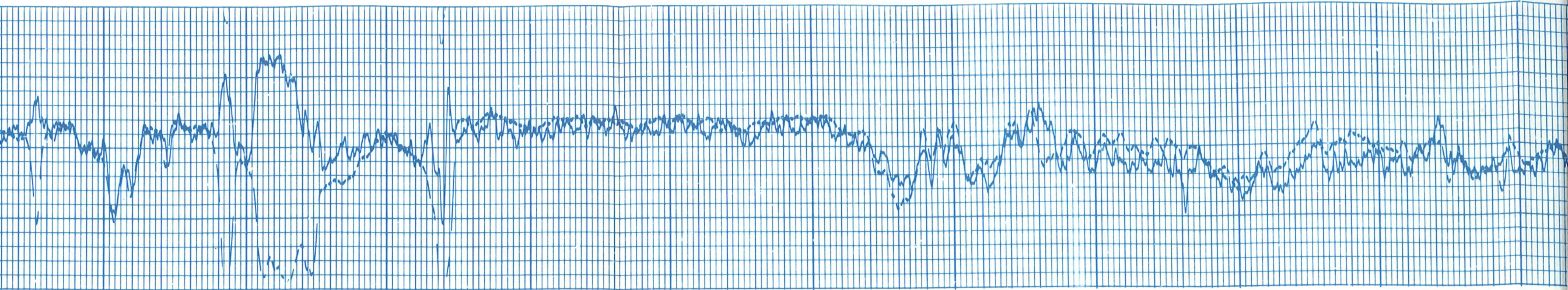
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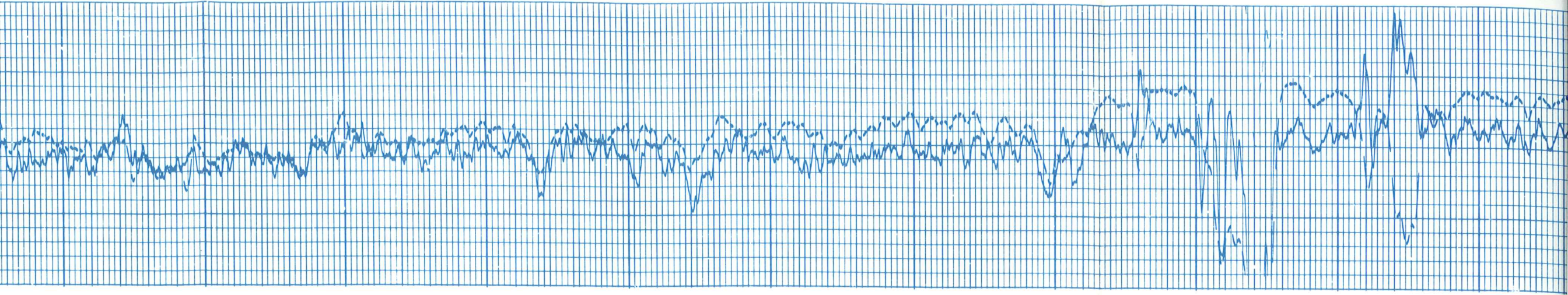
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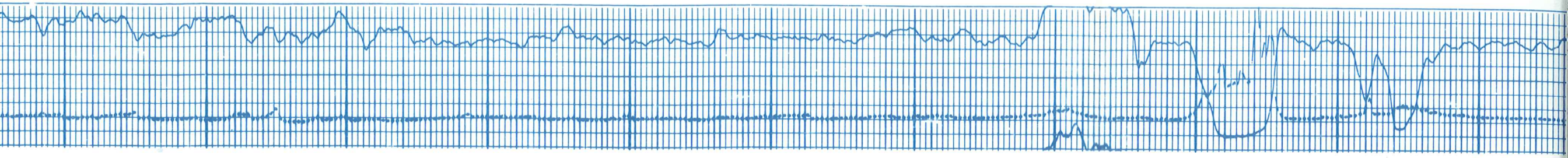
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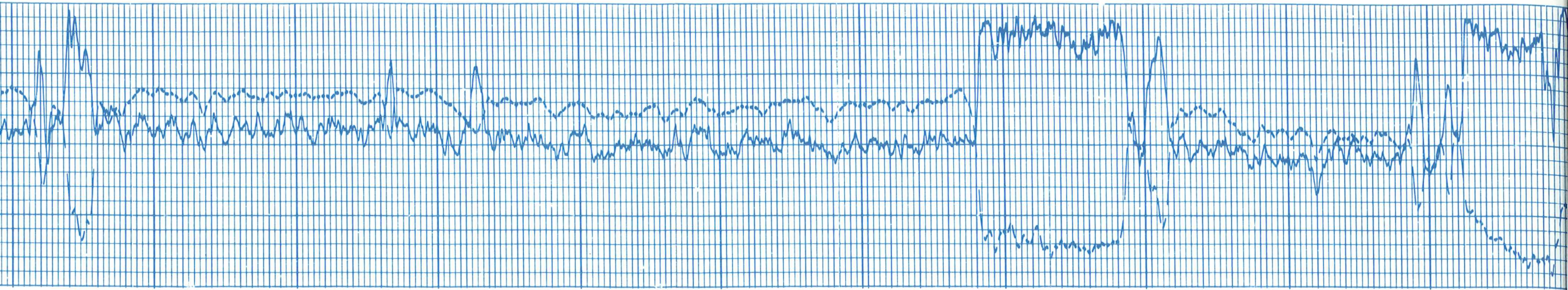
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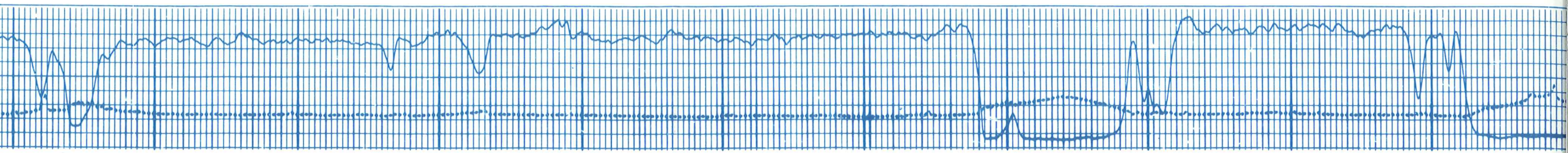
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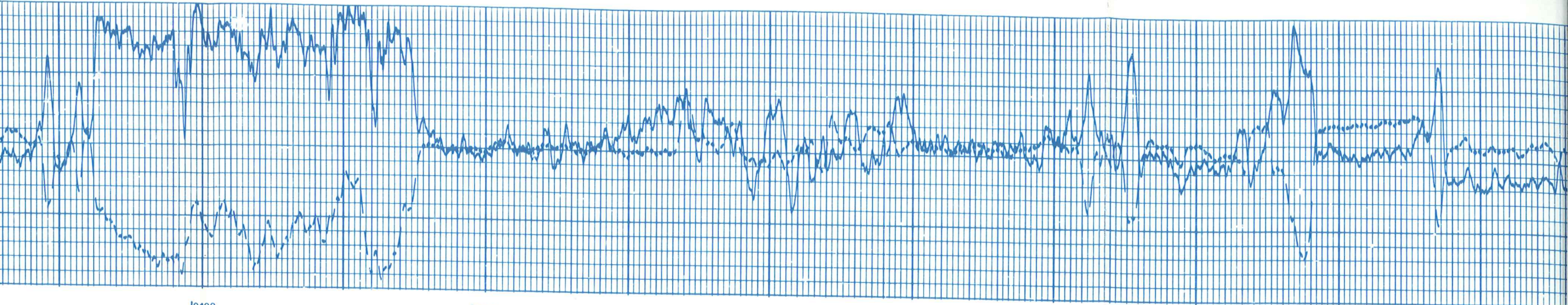
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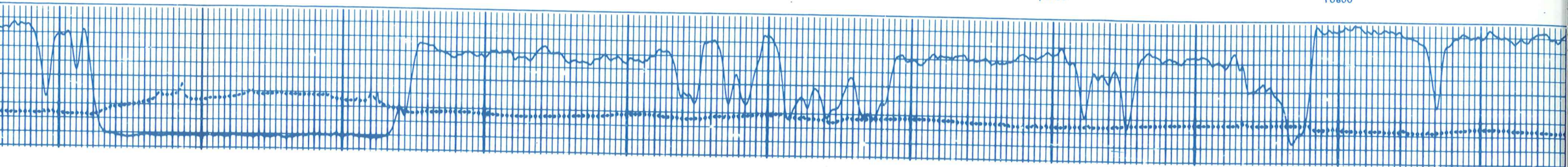
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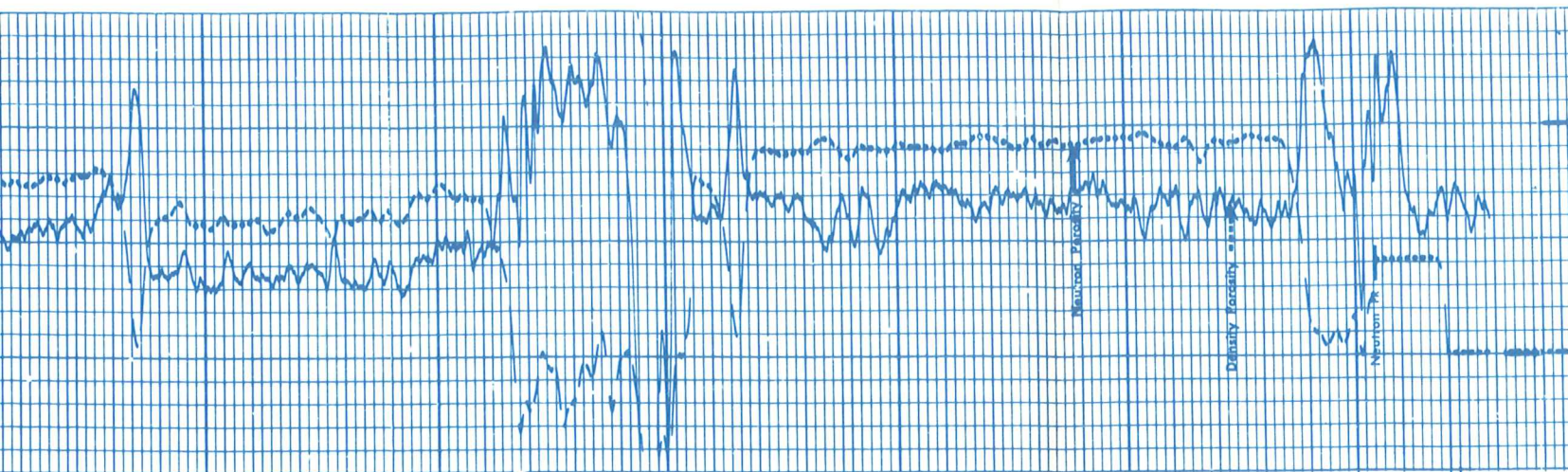
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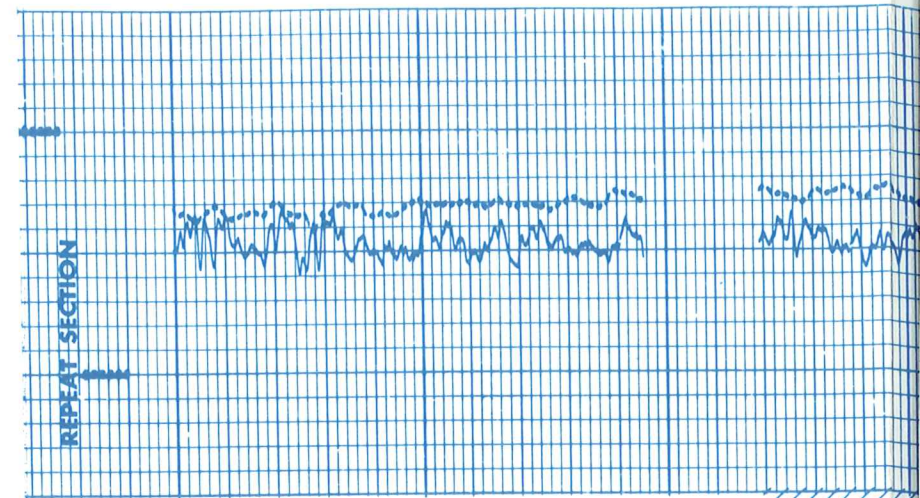
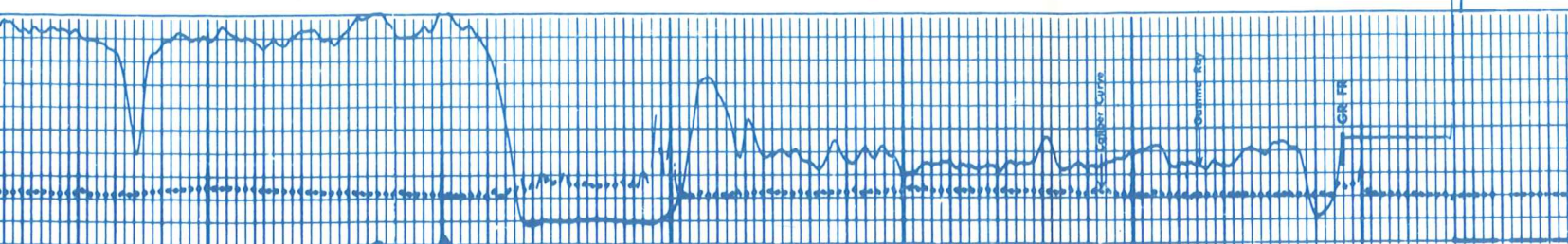




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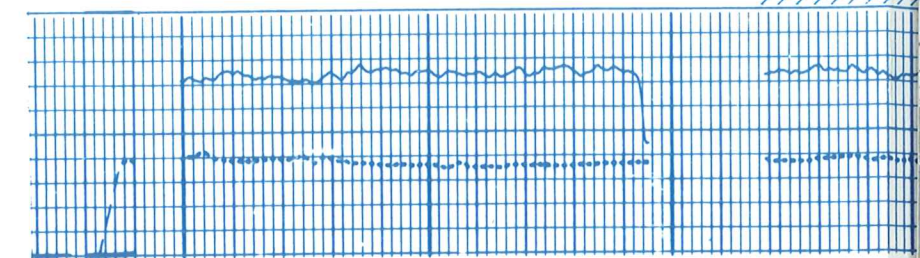
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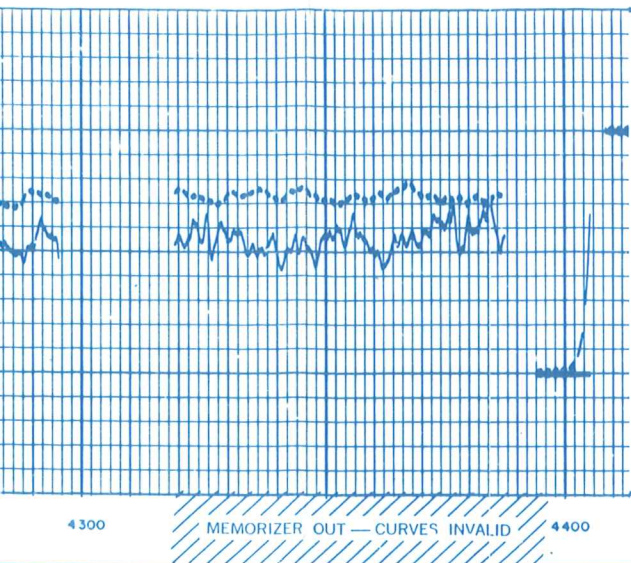


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MEMORIZER OU

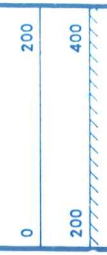




4300

MEMORIZER OUT — CURVES INVALID

4400



GAMMA RAY
API UNITS

NEUTRON POROSITY INDEX %
LIMESTONE MATRIX

CALIPER
HOLE DIAM. IN INCHES

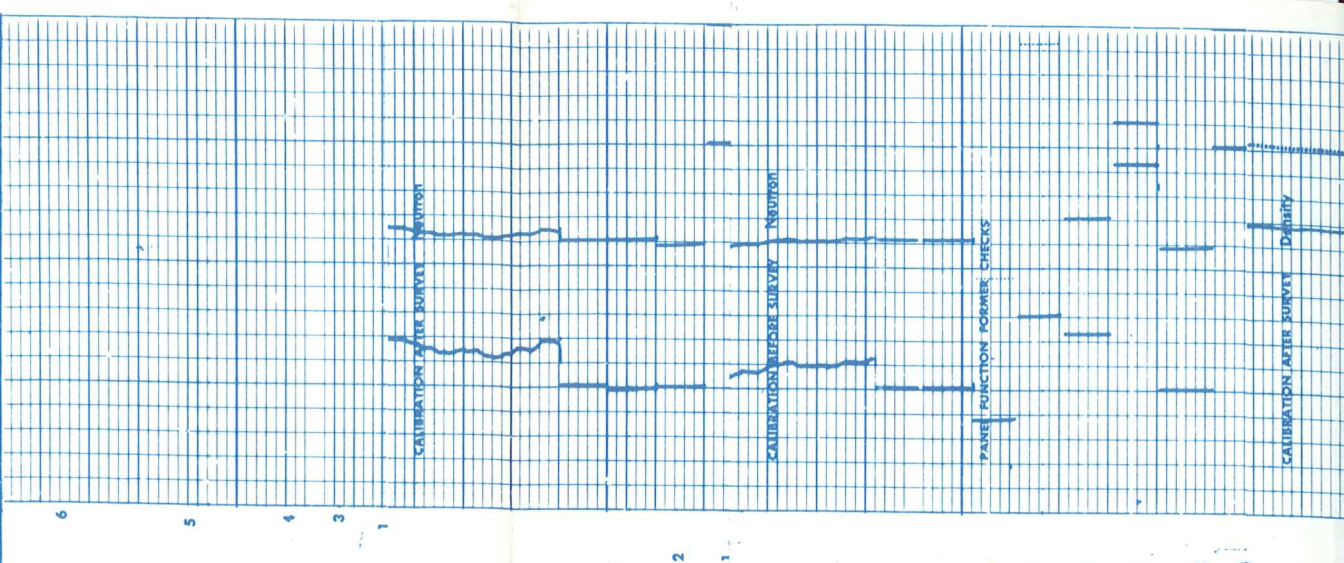
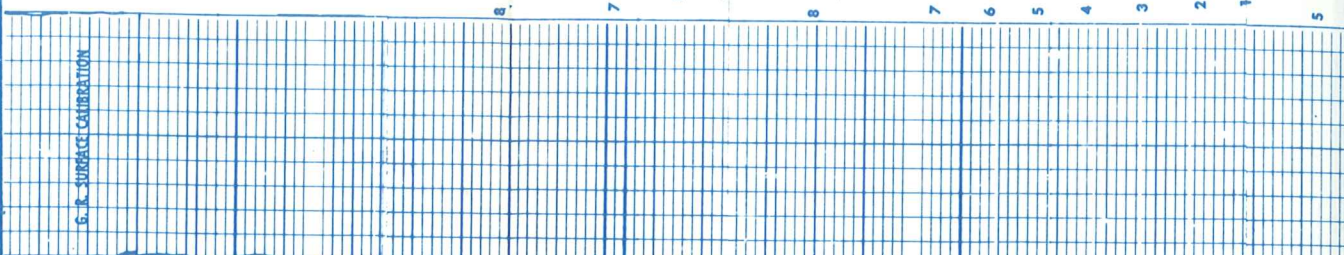
DENSITY POROSITY INDEX %
LIMESTONE MATRIX

DEPTHS

COMPANY ANSCHUTZ CORPORATION
WELL FEDERAL 60-13 NO. 1
FIELD WILDCAT
COUNTY OHYHEE STATE IDAHO

SCHL. FR. 11,120
SCHL. TO 11,122
DRLR. TO 11,125
ELEV. KB-2751
DI. DL-2740
GL. 2740

CALIBRATION RECORD



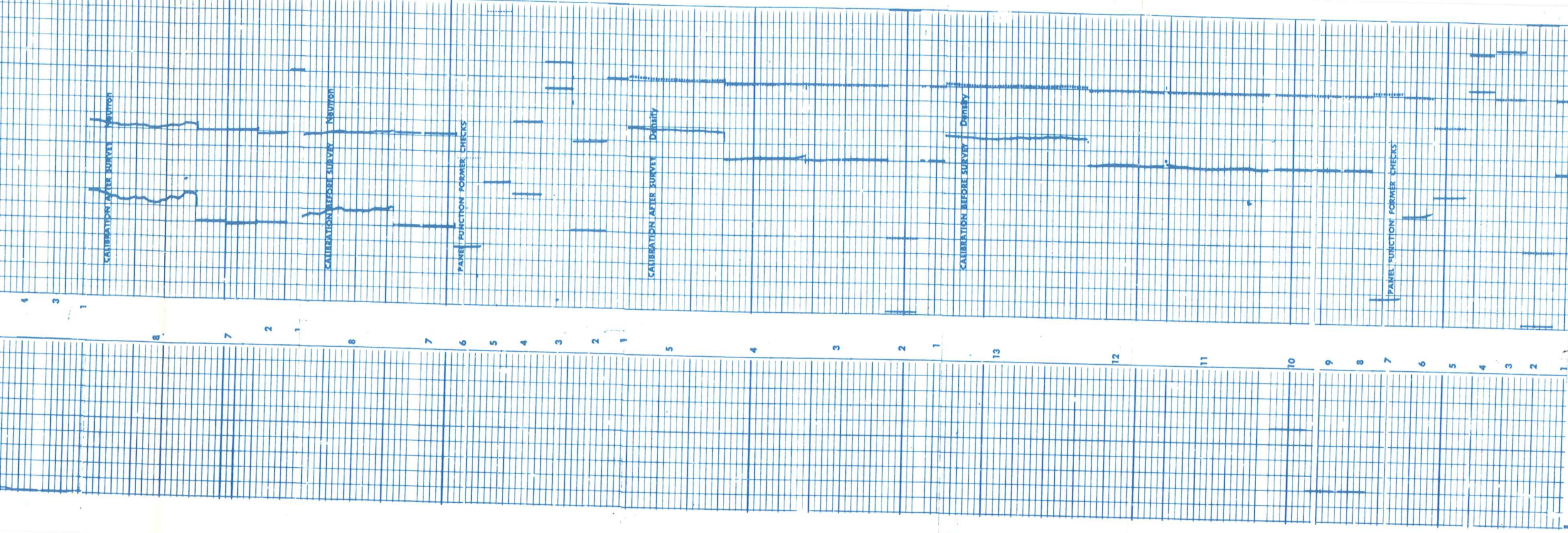
G. R. SURFACE CALIBRATION

CALIBRATION AFTER SURVEY NEUTRON

CALIBRATION BEFORE SURVEY NEUTRON

PANEL FUNCTION FORMER CHECKS

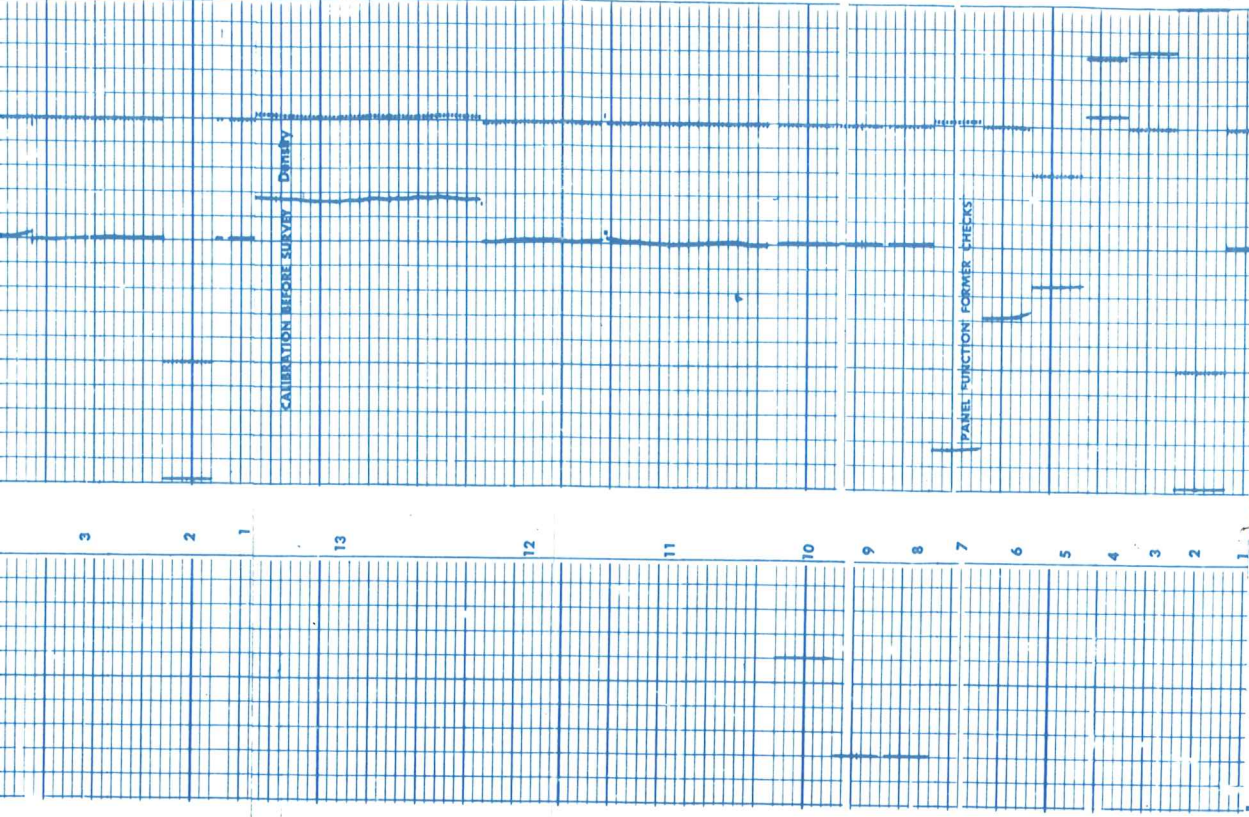
CALIBRATION AFTER SURVEY DENSITY



COMPENSATED NEUTRON CALIBRATION CODING

P A N E L T E S	3	1	2	3	4	7A	MECHANICAL ZERO		RECORDED SENSITIVITY (THRU MEMORIZER IF USED)		POROSITY	
							RATIO	DO	SS	LS	SS	LS
							1.6	1.6	1.6	1.6	2.4	2.4
							-0.2	15.6	19.7	13.0	0.1	0.1
							31.3	26.0	25.7	29.1	24.1	24.1
							52.2	61.4	53.0	52.2	45.2	45.2

7A. TOOL IN NCT/B
8. LOG POSITION WITH COR. ALPHAS



COMPENSATED NEUTRON CALIBRATION CODING

1. MECHANICAL ZERO RATIO	LS	SS	DO	CH
2. RECORDED SENSITIVITY (THRU MEMORIZER IF USED)	1.6	4.9	0.2	13
3. PANEL TEST	15.6	19.7	8.1	2.4
4. LOG POSITION WITH CNB-A IN PLACE	31.3	36.0	25.9	0.1
5. LOG POSITION WITH CNB-B IN PLACE	52.2	61.4	29.1	9.0
6. LOG POSITION WITH TOOL IN NCT-B	52.2	61.4	52.2	24.1
7. LOG POSITION WITH TOOL IN NCT-A	52.2	61.4	52.2	52.2
8. LOG POSITION WITH TOOL IN NCT-B	52.2	61.4	52.2	45.7
9. LOG POSITION WITH TOOL IN NCT-A	52.2	61.4	52.2	45.7
10. LOG POSITION WITH TOOL IN NCT-B	52.2	61.4	52.2	45.7
11. LOG POSITION WITH TOOL IN NCT-A	52.2	61.4	52.2	45.7
12. LOG POSITION WITH TOOL IN NCT-B	52.2	61.4	52.2	45.7
13. LOG POSITION WITH TOOL IN NCT-A	52.2	61.4	52.2	45.7
14. LOG POSITION WITH TOOL IN NCT-B	52.2	61.4	52.2	45.7
15. LOG POSITION WITH TOOL IN NCT-A	52.2	61.4	52.2	45.7
16. LOG POSITION WITH TOOL IN NCT-B	52.2	61.4	52.2	45.7
17. LOG POSITION WITH TOOL IN NCT-A	52.2	61.4	52.2	45.7
18. LOG POSITION WITH TOOL IN NCT-B	52.2	61.4	52.2	45.7

FORMATION DENSITY COMPENSATED CALIBRATION CODING

1. MECHANICAL ZERO	8. MECHANICAL ZERO CALIBER
2. RECORDED SENSITIVITY	9. 8 RING
3. PANEL TEST	10. 12 RING
4. LOG POSITION WITH CNB-A IN PLACE	11. TOOL CALIBRATE #1 SET
5. LOG POSITION WITH CNB-B IN PLACE	12. TOOL CALIBRATE #2 SET
6. LOG POSITION WITH TOOL IN NCT-B	13. LOG POSITION
7. LOG POSITION WITH TOOL IN NCT-A	14. LOG POSITION

GAMMA RAY CALIBRATION CODING

1. MECHANICAL ZERO	3. RECORDER SENSITIVITY	5. BACKGROUND
2. ELECTRICAL ZERO	4. MEMORIZER ADJUSTMENT	6. CALIBRATE SOURCE IN PLACE

CALIBRATION RECORD

COMPANY ANSCHUTZ CORPORATION

WELL FEDERAL 60-13 NO. 1

FIELD WILDCAT

COUNTY ONYHEE STATE IDAHO

SCHL. FR. 11,120

SCHL. TD. 11,122

DRLR. TD. 11,125

Elev: KB 2751

DF GL 2740