

STEP

MICRO

LOG

energy services

Company VAL ENERGY, INC. Well SAWYER #2-31 Field WILSON County COWLEY State KANSAS Country USA API No. 15-035-24704-0000		File No : TUL-70310 Company : VAL ENERGY, INC. Well : SAWYER #2-31 Field : WILSON County : COWLEY State : KANSAS Country : USA API No : 15-035-24704-0000	
Location : 1650' FNL & 2800' FEL E/2 NE SE NW		LSD : Sect : 31 Twp : 32S Rge : 6E	
Permanent Datum:	GL	Elevations:	
Drilling Measured From:	KB	KB	1293.00
Log Measured From:	KB	DF	1292.00
Above Permanent Datum:	9.00 Ft	GL	1284.00
Date	06-17-2019		
Run Number	1		
Depth--Driller	3475.0 Ft		
Depth--Logger	3475.0 Ft		
First Reading	3452.0 Ft		
Last Reading	305.0 Ft		
Casing--Driller	305.0 Ft		
Casing--Logger	305.0 Ft		
Bit Size	7.875 In		
Casing Size	8.625 In		
Hole Fluid Type	WBM		
Density	9.1		
Fluid Loss	8.8		
PH/Viscosity	9.5	49.0	
Sample Source	MEASURED		
RM@Measured Temp.	2.000 @ 70 F		
RMF@Measured Temp	1.600 @ 70 F		
RMG@Measured Temp.	2.400 @ 70 F		
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	1.320 @ 110 F		
Time Circulation Stopped	06-17-2019 08:30		
Max Recorded Temp.	110 F		
Equipment/Base	1022 TULSA, OK		
Recorded By	SHELDON TYLER		
Witnessed By	JOE BAKER		

The customer is hereby warned that by providing the log data herein, STEP Energy Services does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. STEP Energy Services does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by STEP Energy Services personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by STEP Energy Services for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings			
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
7.875	3475.00	8.625	32.00	305.00	0.00

Run Number	1	
Date	06-17-2019	
Date/Time On Bottom	06-17-2019 11:30	
Depth to Fluid	0.0 Ft	
Salinity	1000.000	
RMF@BHT	1.060 @ 110 F	
RMC@BHT	1.580 @ 110 F	

Run Number 1

Comments

ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT AND PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR HOLE VOLUME CALCULATED USING 5.5" PRODUCTION CASING
 PHIN IS CALIPER CORRECTED

CUSTOMER REQUESTED DETAIL PULLED TO 1750 & NO REPEAT

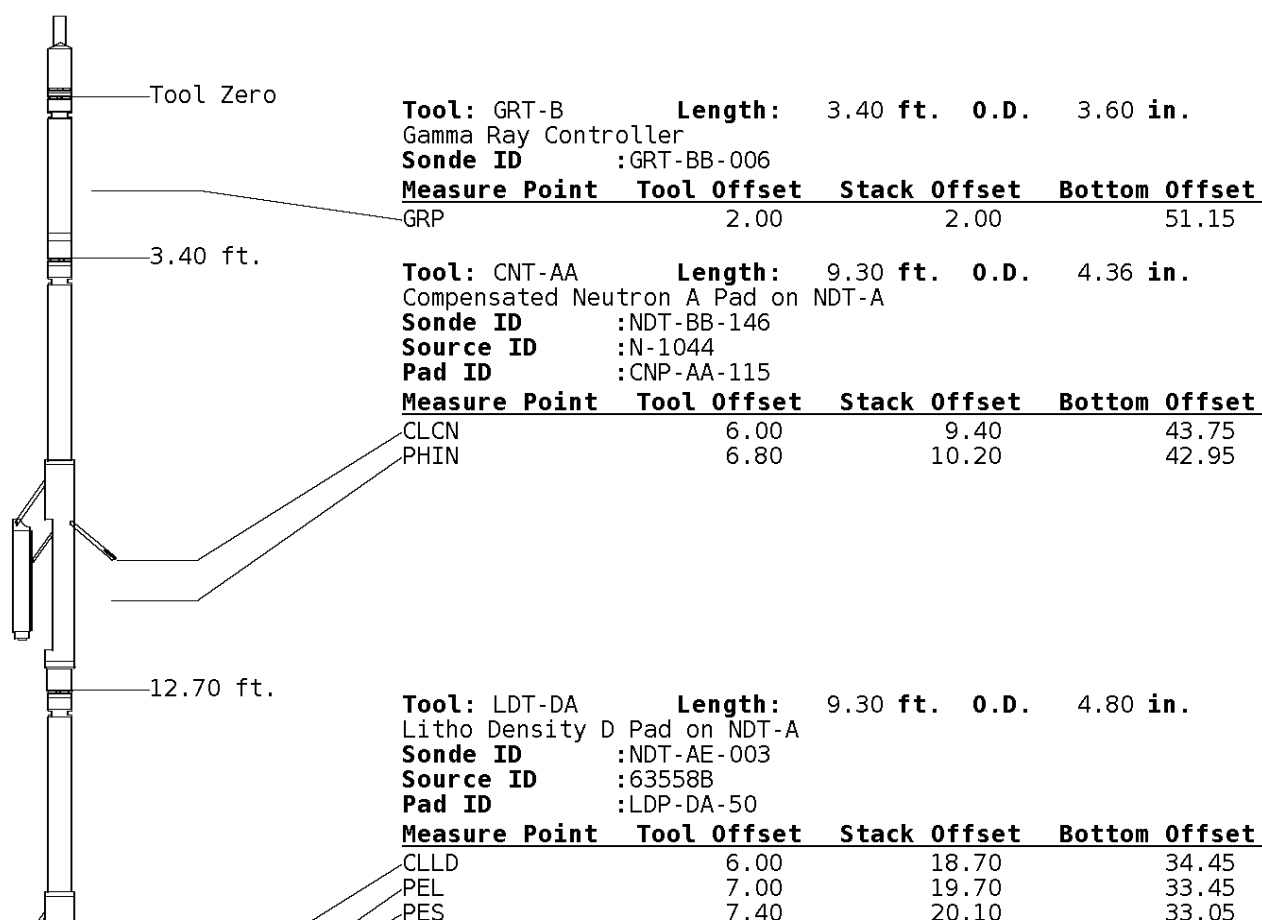
GRT: GRP, GRX
 CNT: PHIN, CLCNIN, PHXN
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN, PRXL, PECLX, LDENNX, LCORX
 MLT: NOR_RF, INV_RF, MSCLPIN
 PIT: ILD, ILM, SPU, SFLAEC, CIRD

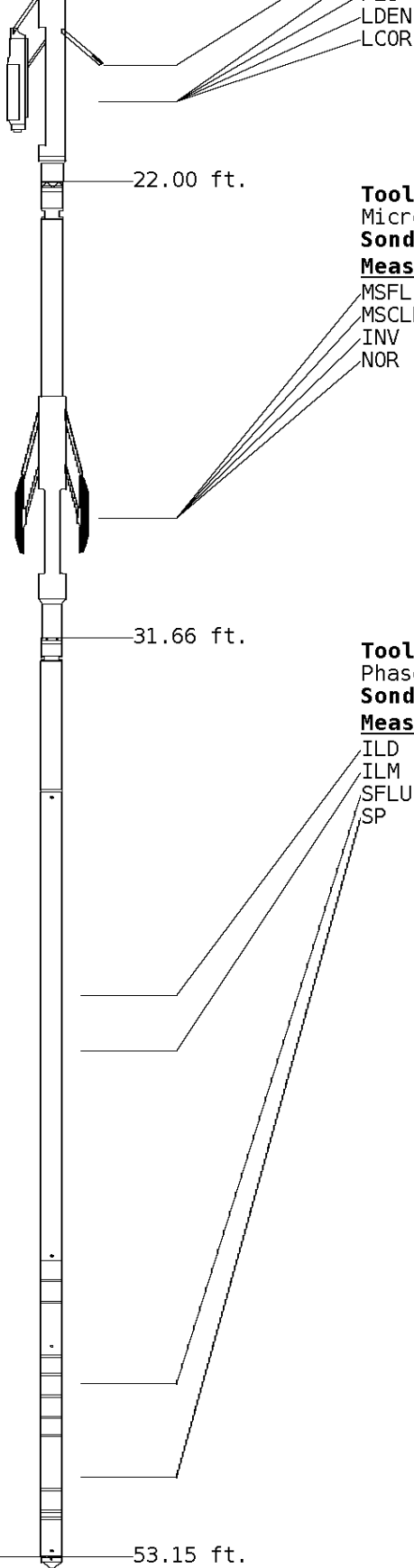
OPERATORS:

B. BROWN
 S. KEELEY

Tool String Schematic

Total Tool Length - 53.15 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 943.00 lbs.





Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
 Micro Spherically Focused (IC)
Sonde ID :MST-DA-024

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	23.55
MSCLP	7.60	29.60	23.55
INV	7.60	29.60	23.55
NOR	7.60	29.60	23.55

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-069

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	40.58	12.56
ILM	10.10	41.76	11.39
SFLU	17.49	49.15	4.00
SP	20.60	52.26	0.88

Well File: VAL ENERGY SAWYER 2-31_JUNE17_MSTK

Scale: 1:240 **Format:** MST-240

Segment: V1.D1.S3 Reprocess of MAIN

Acquired: 2019-06/17 11:16 3.4.1-13968

Reference: 0

Processed: 2019-06/17 12:31 3.4.1-13968

**BIT SIZE
INCHES (IN)**

6 16

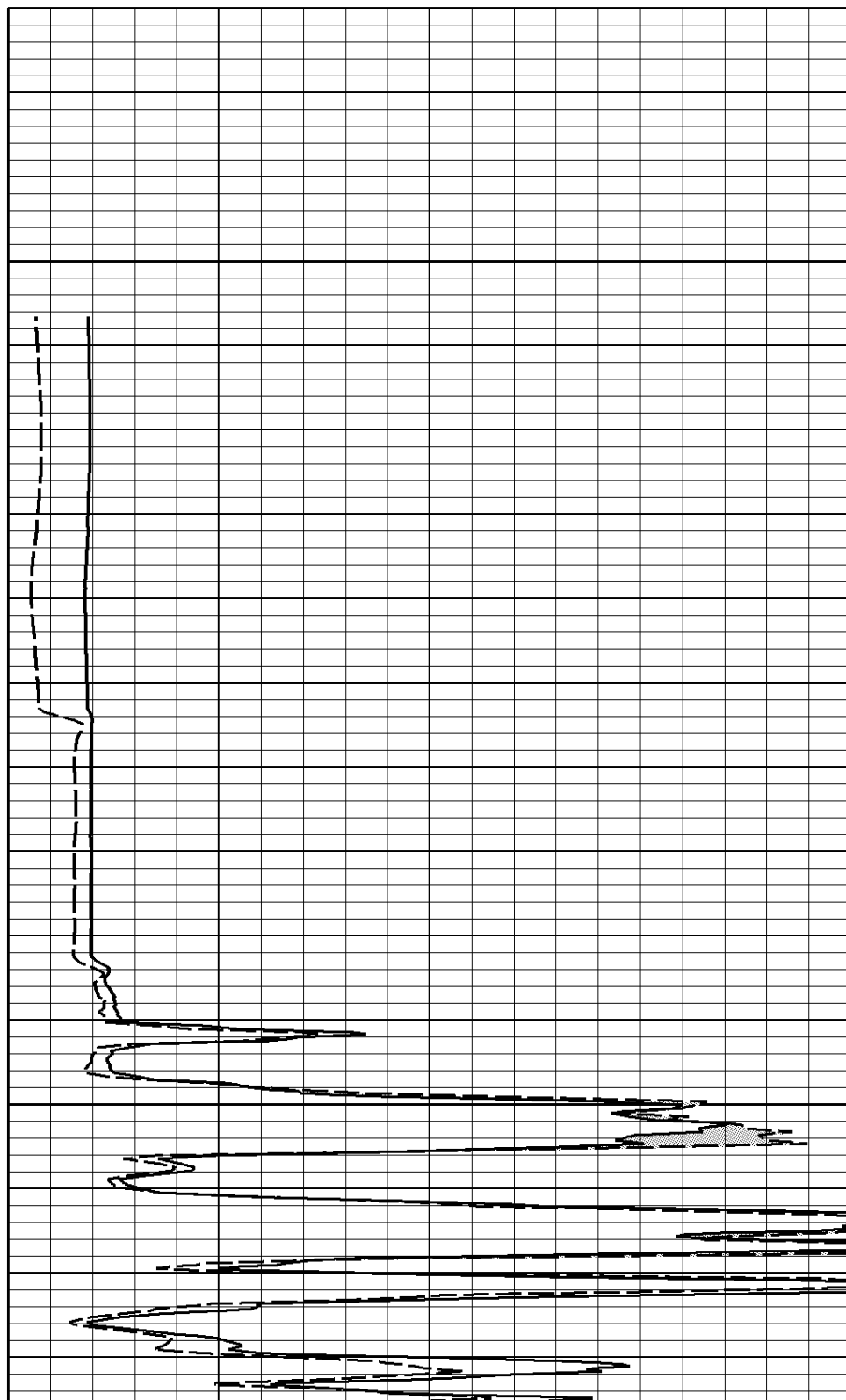
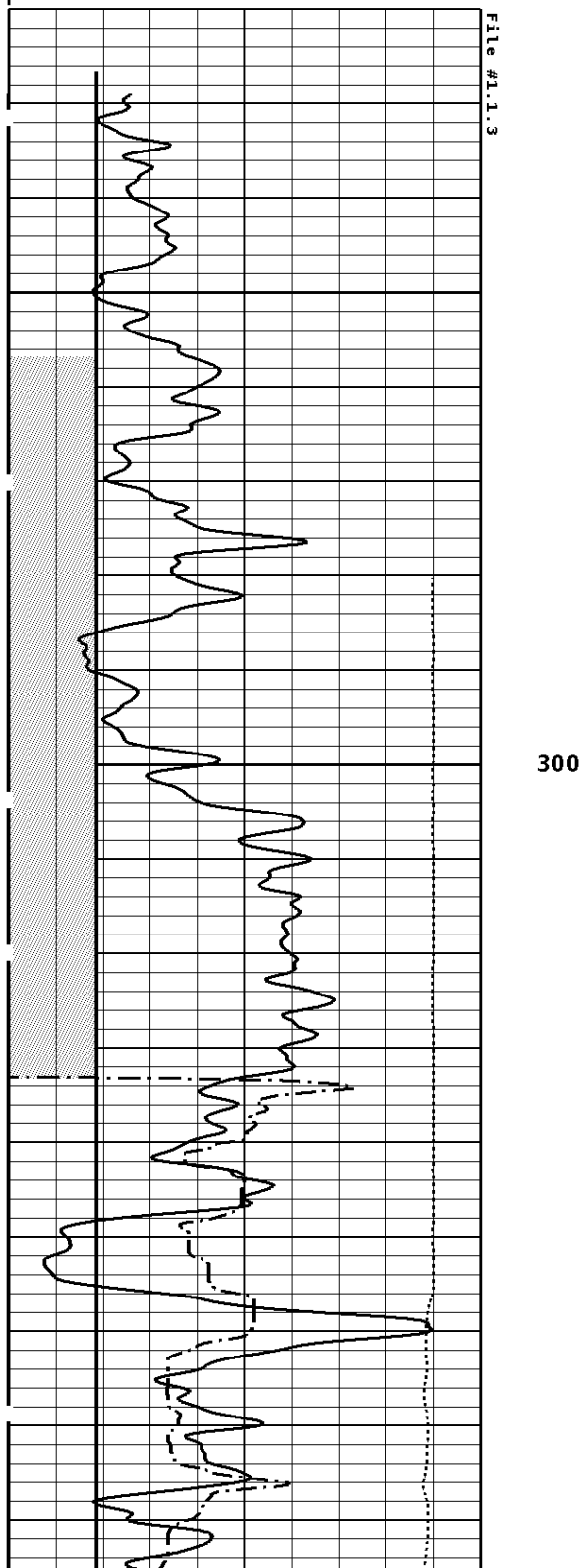
**CALIPER MICRO
INCHES (IN)**

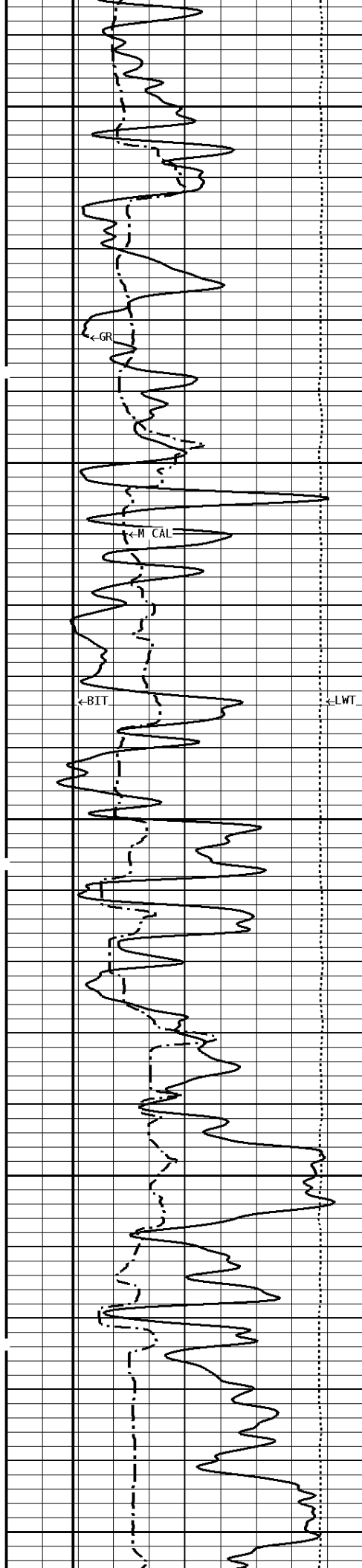
16 26

16	26
6	16
TENSION LBS	
10000	0
GAMMA RAY API UNITS	
150	300
0	150

INVERSE OHMM	
0	40
NORMAL OHMM	
0	40

1:240 MAIN SECTION

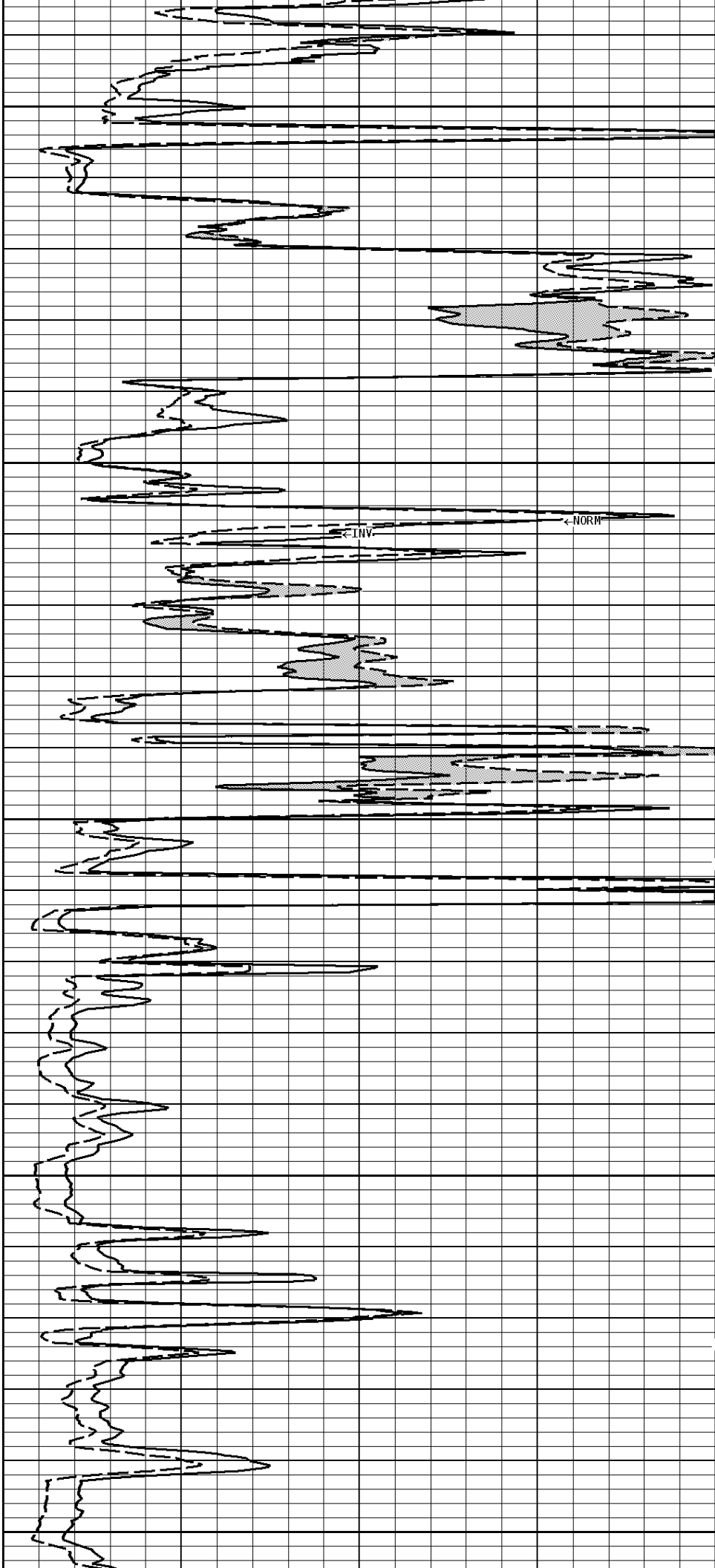


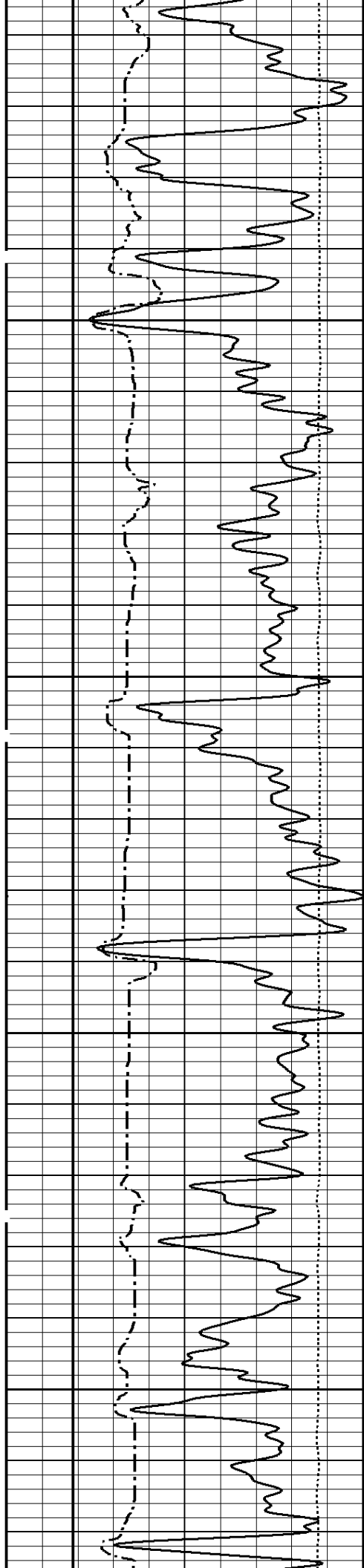


400

500

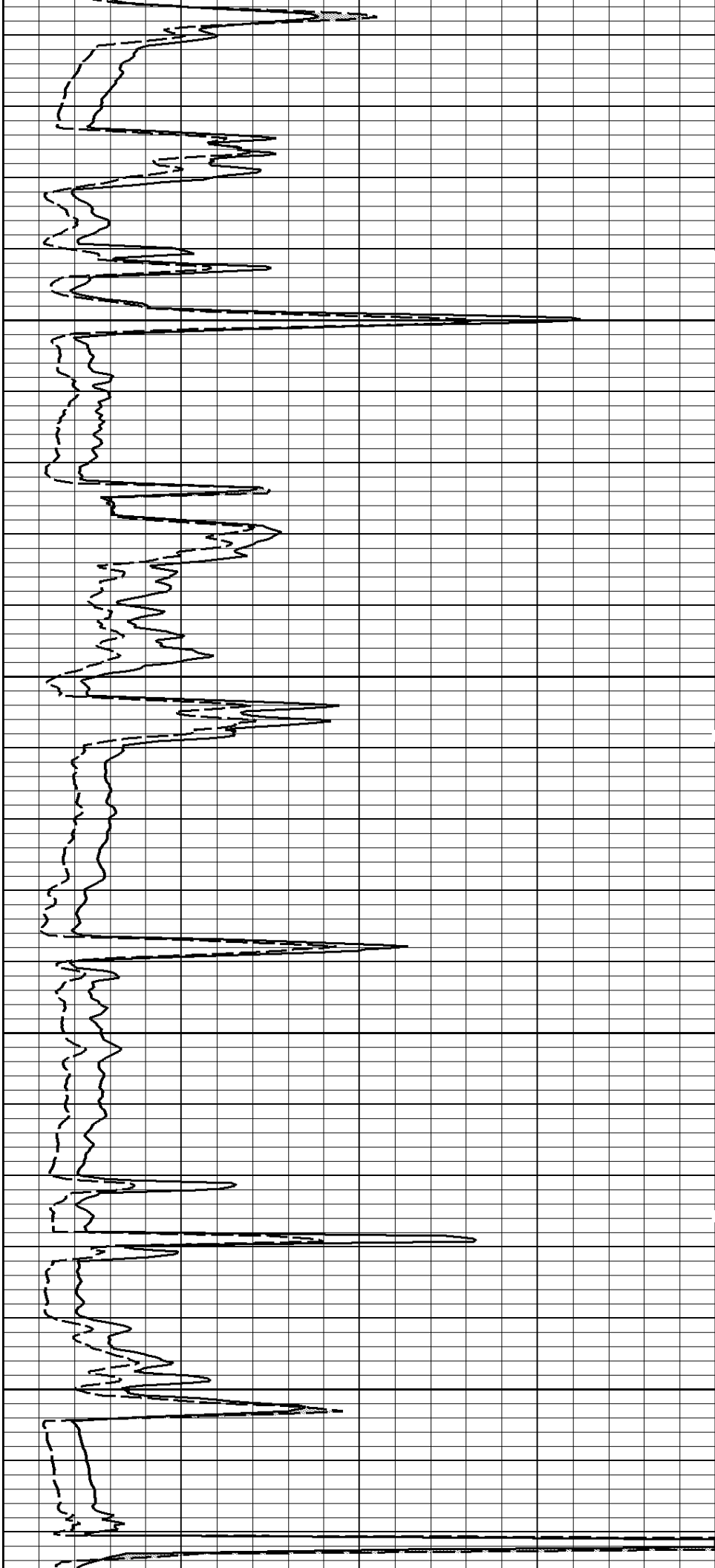
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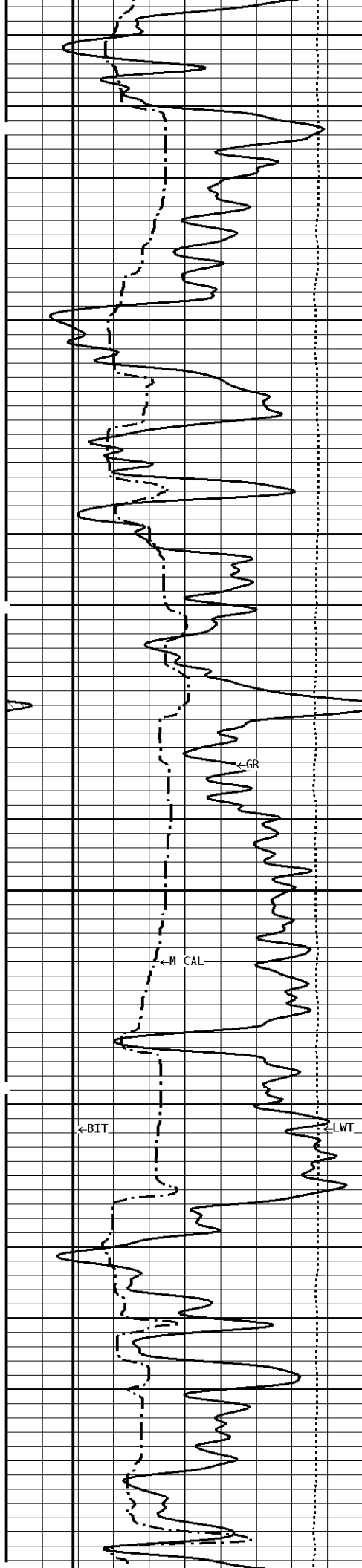




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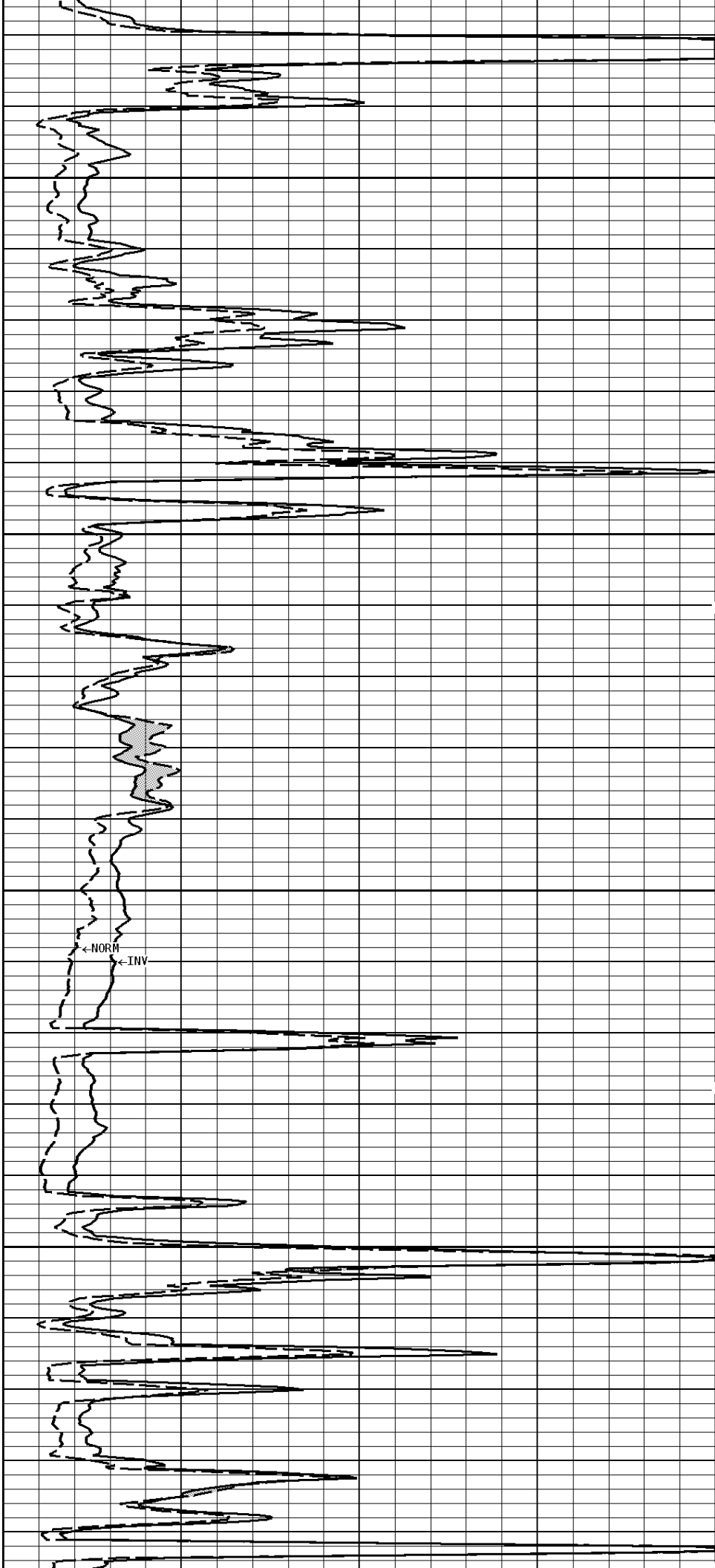
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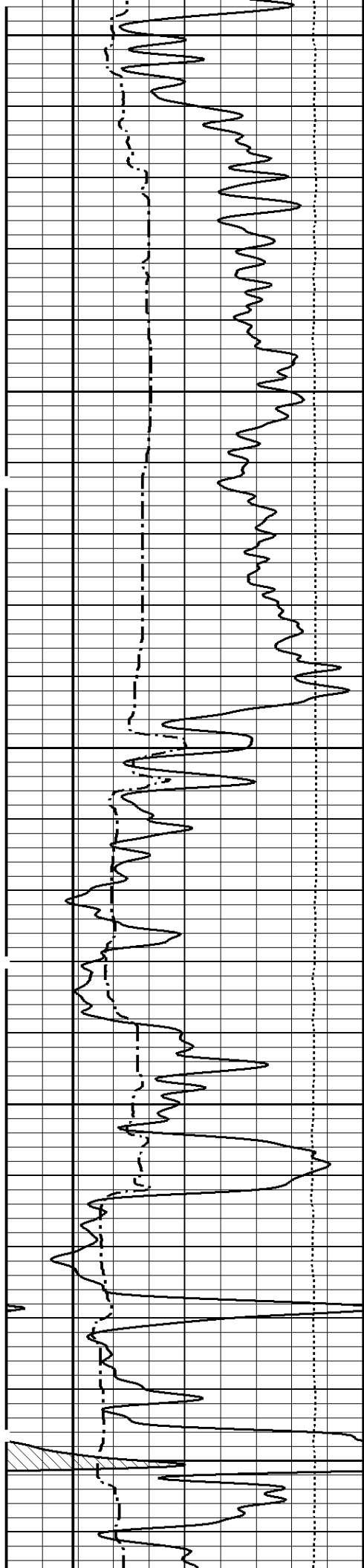




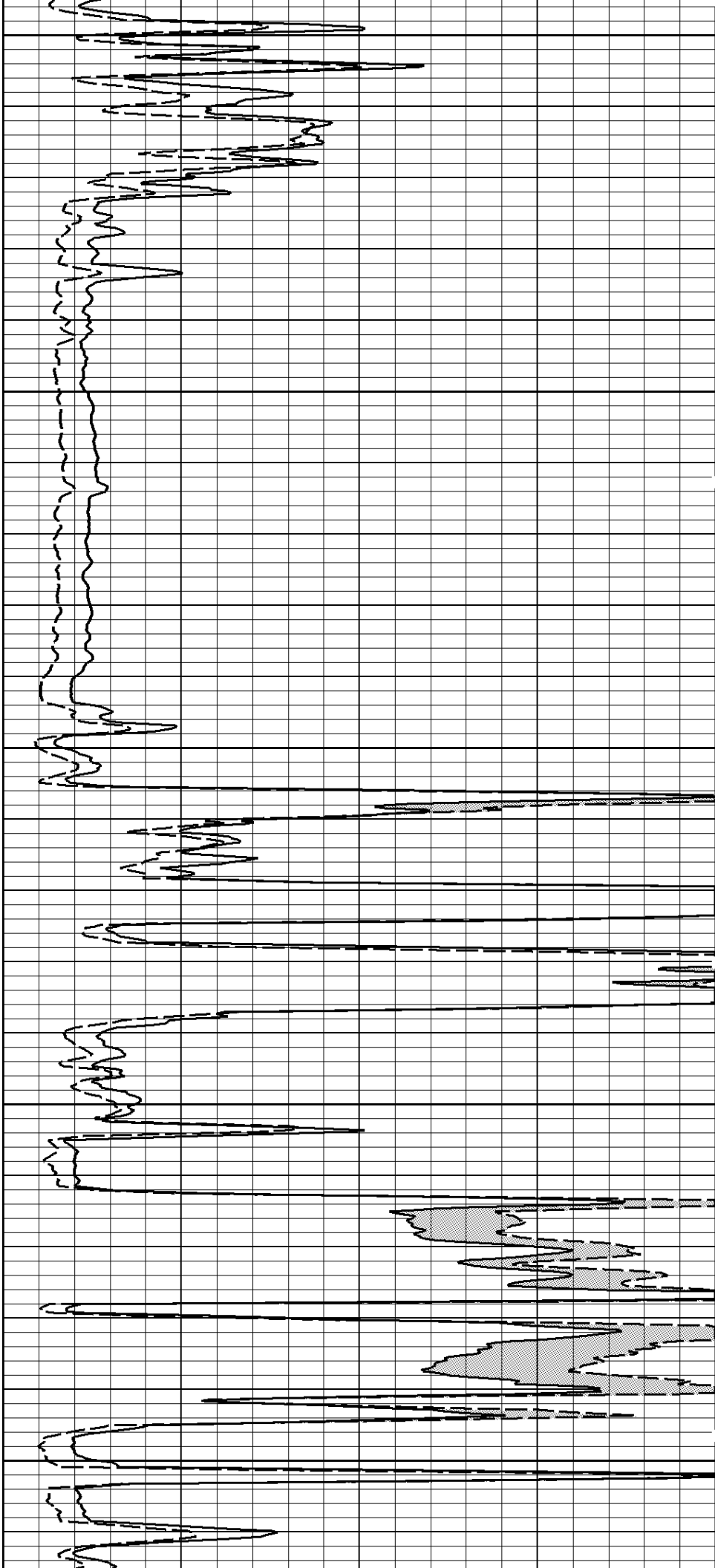
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1000



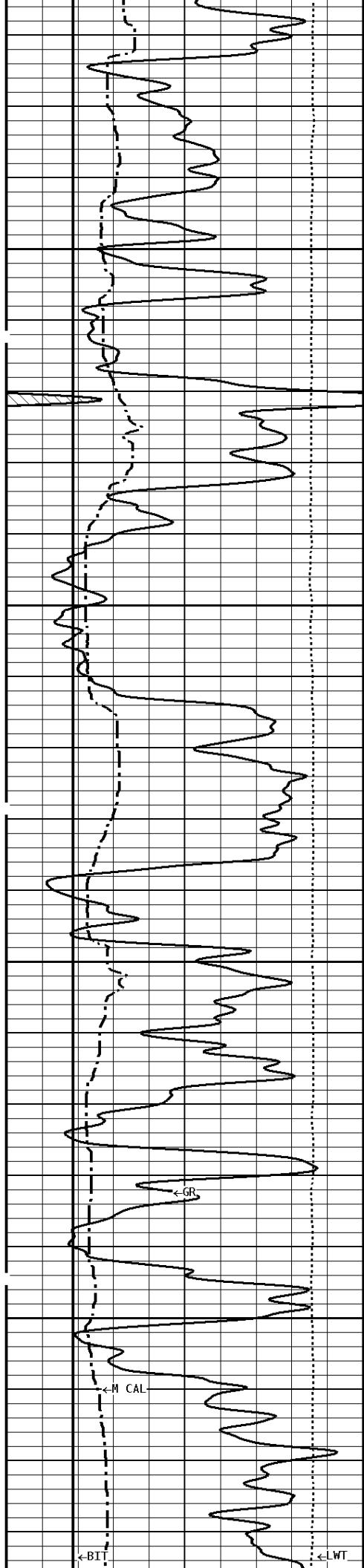


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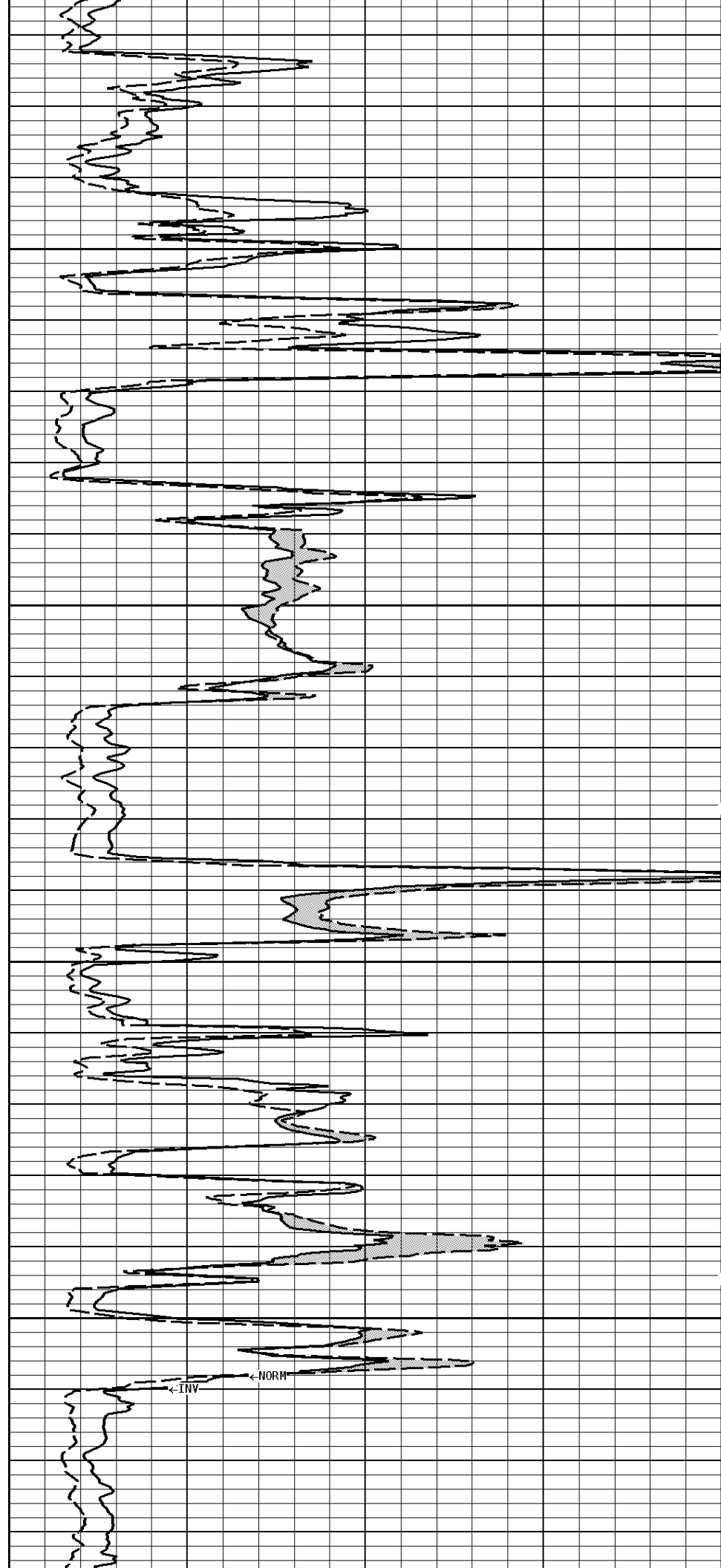
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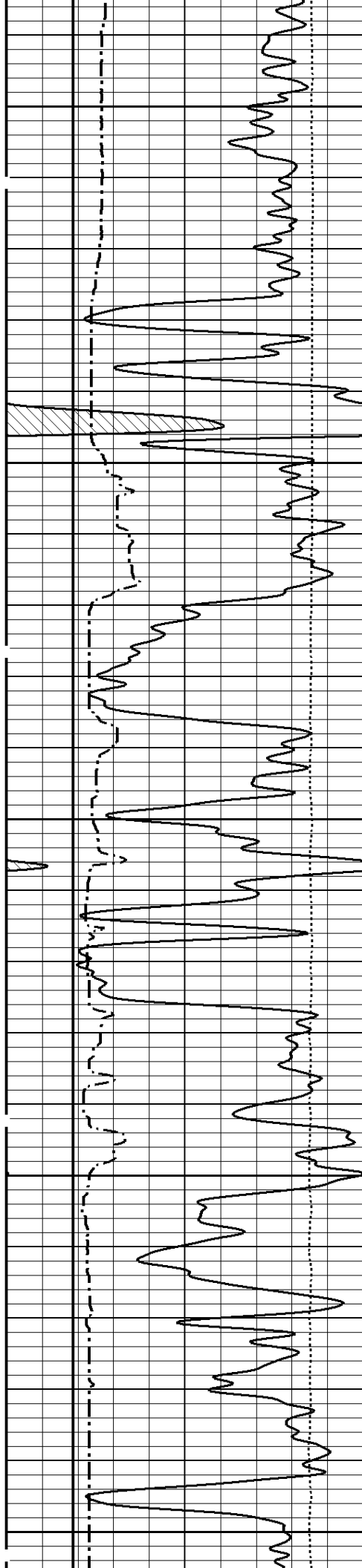




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1400

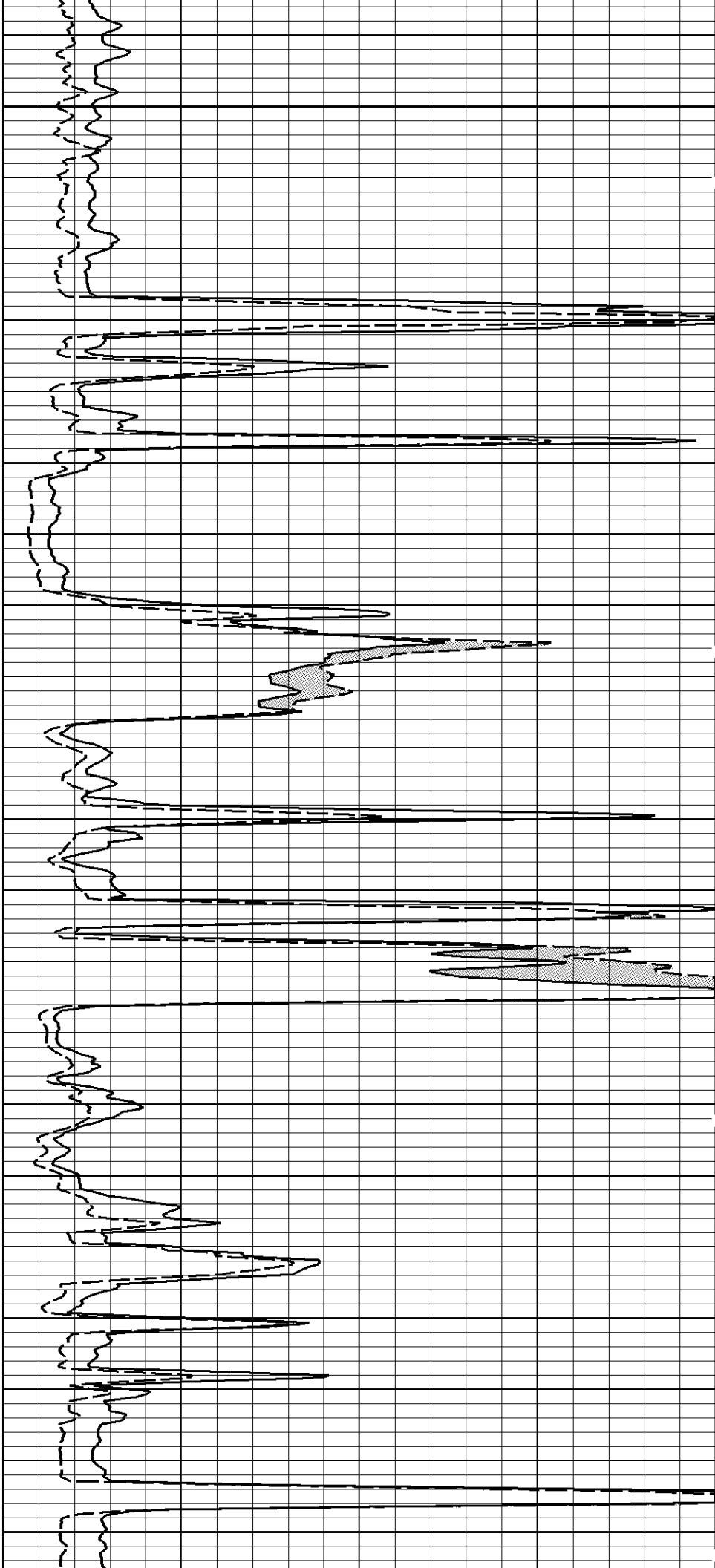


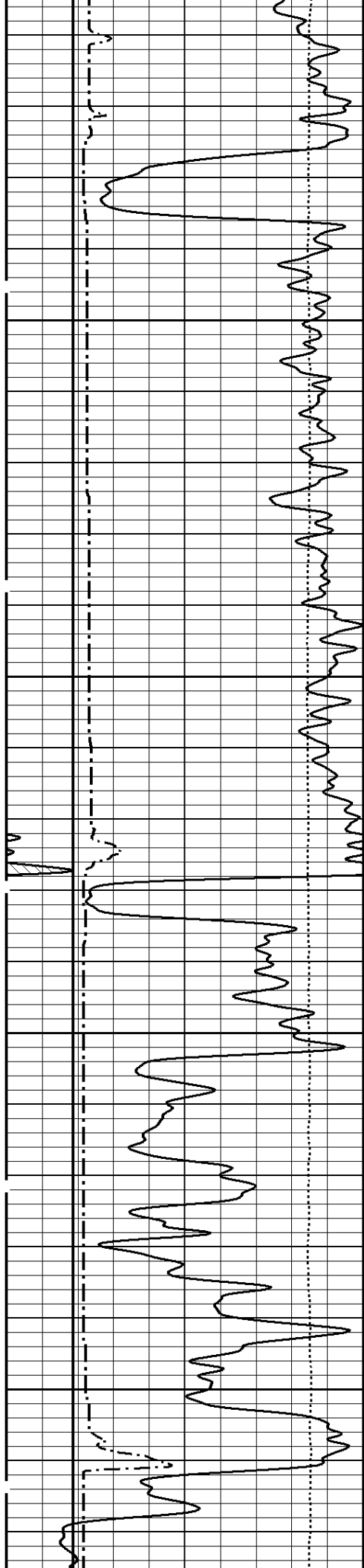


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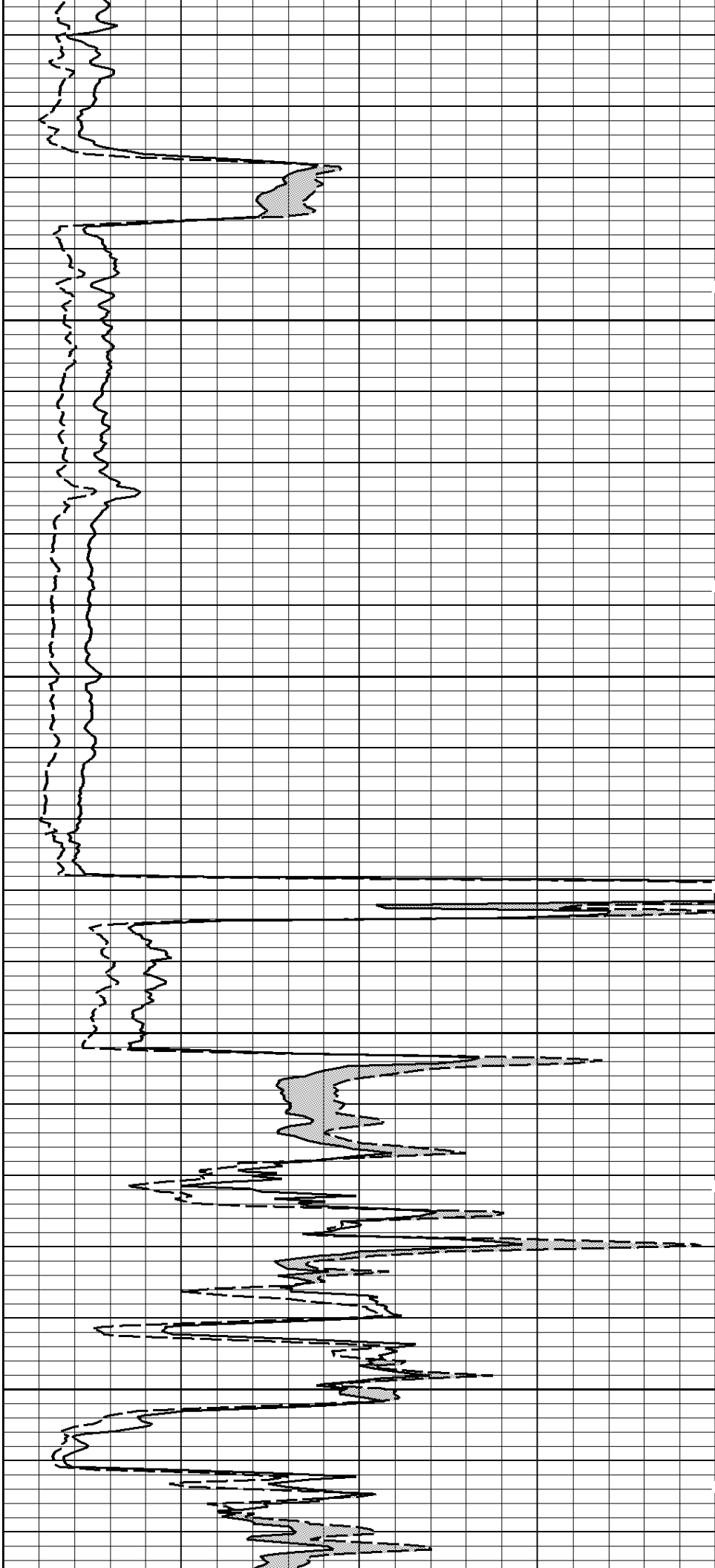
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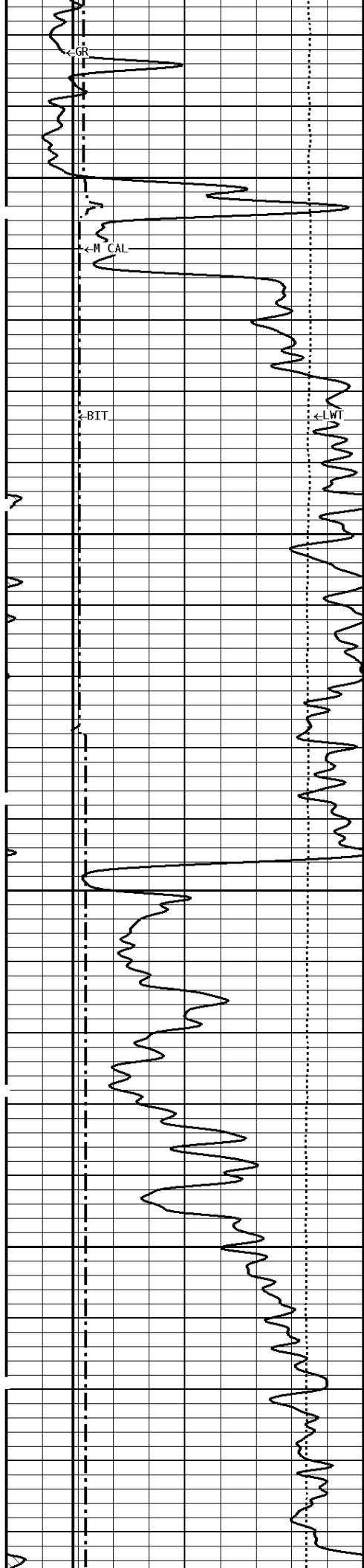




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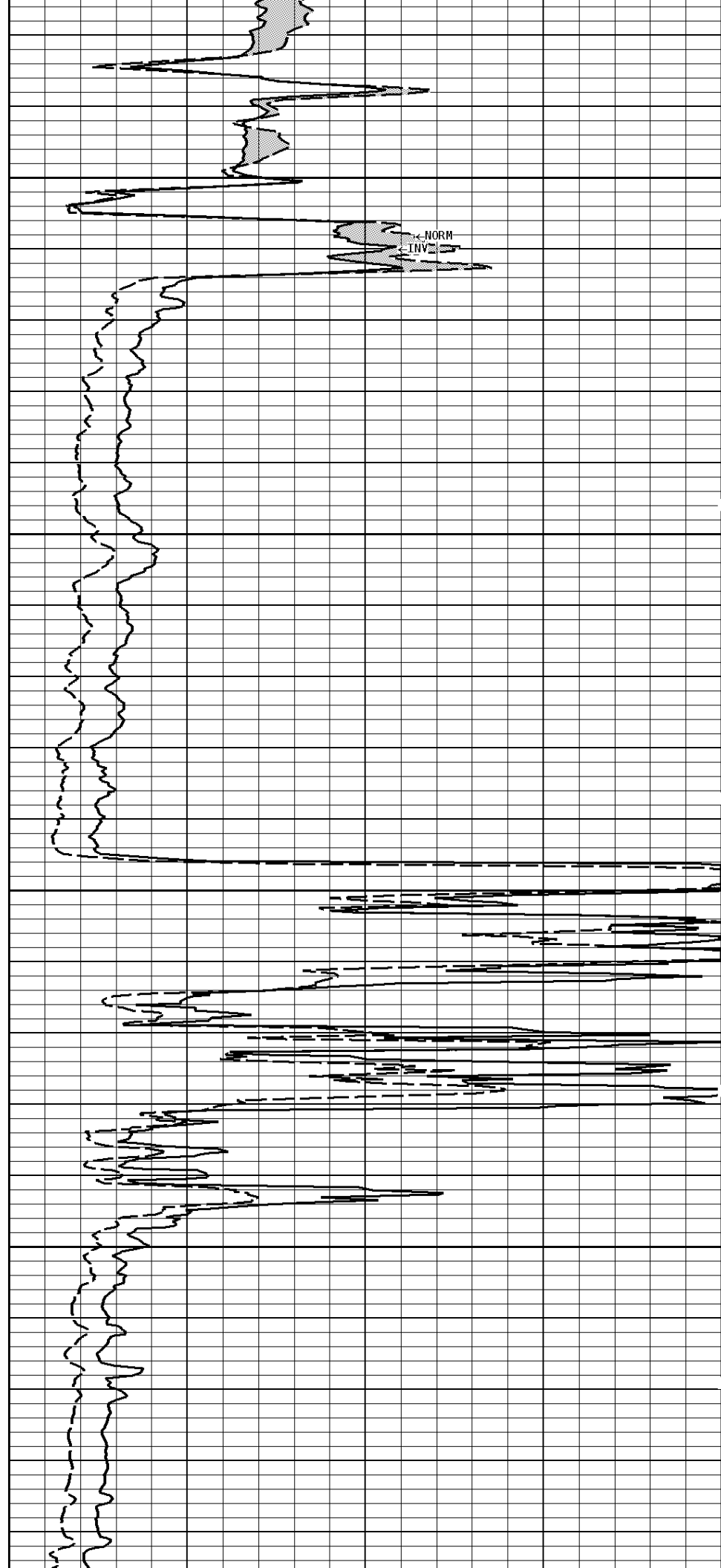
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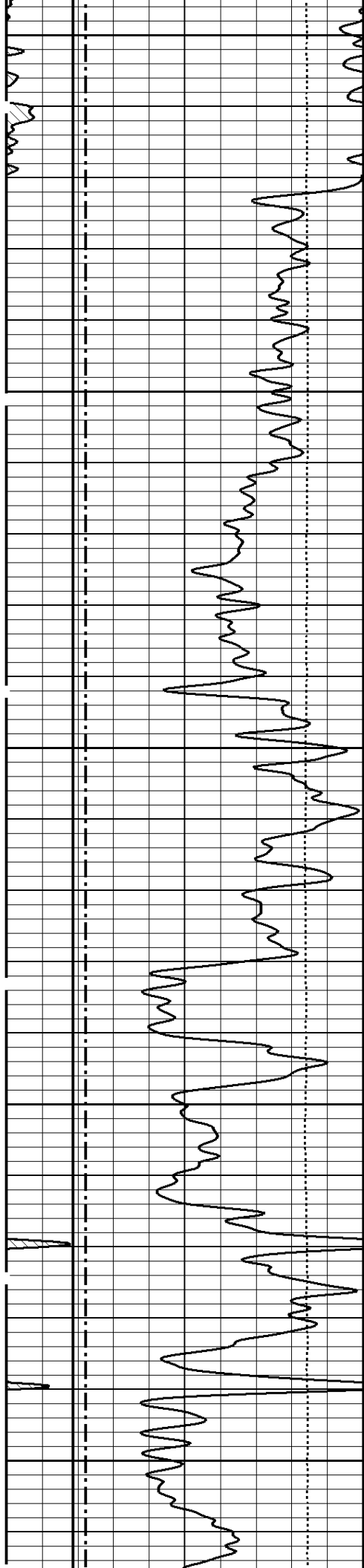




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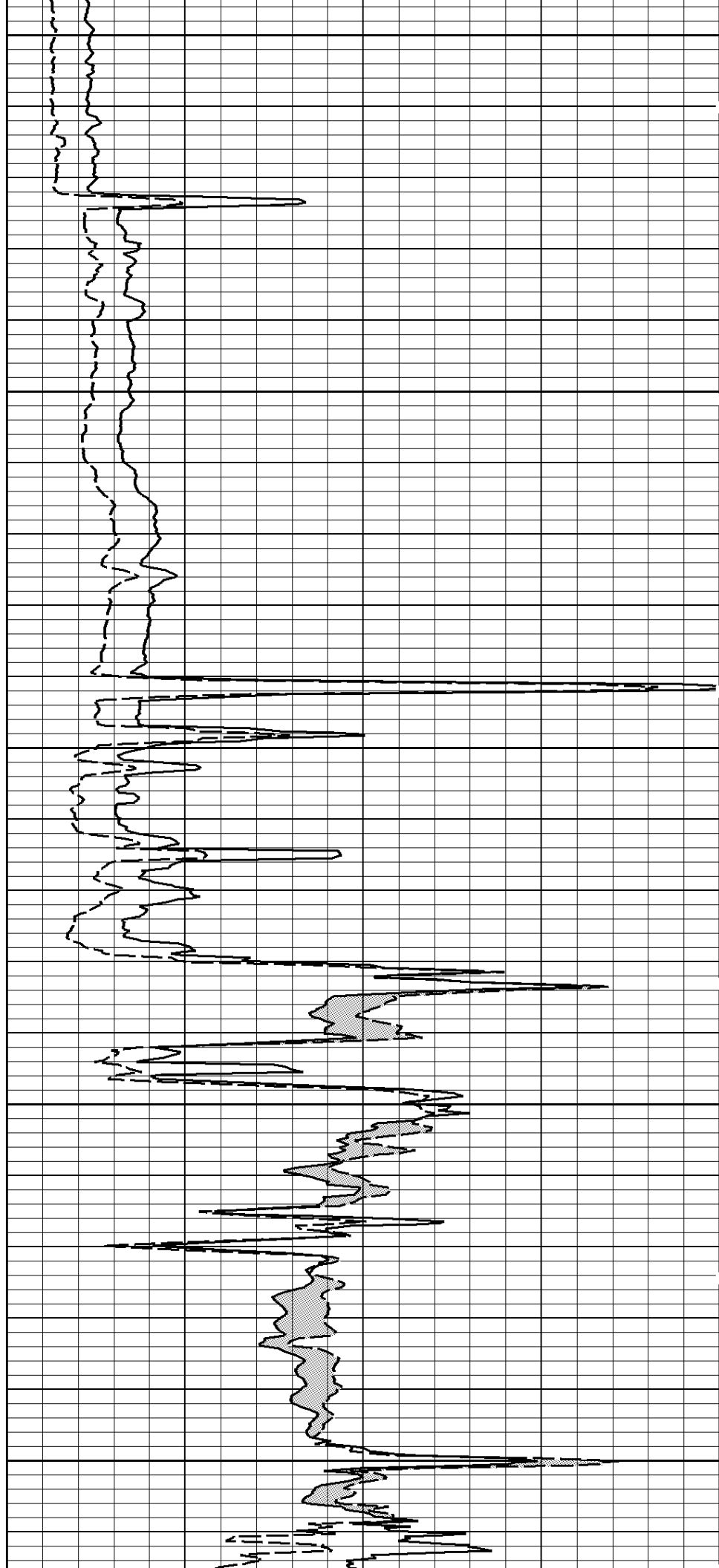
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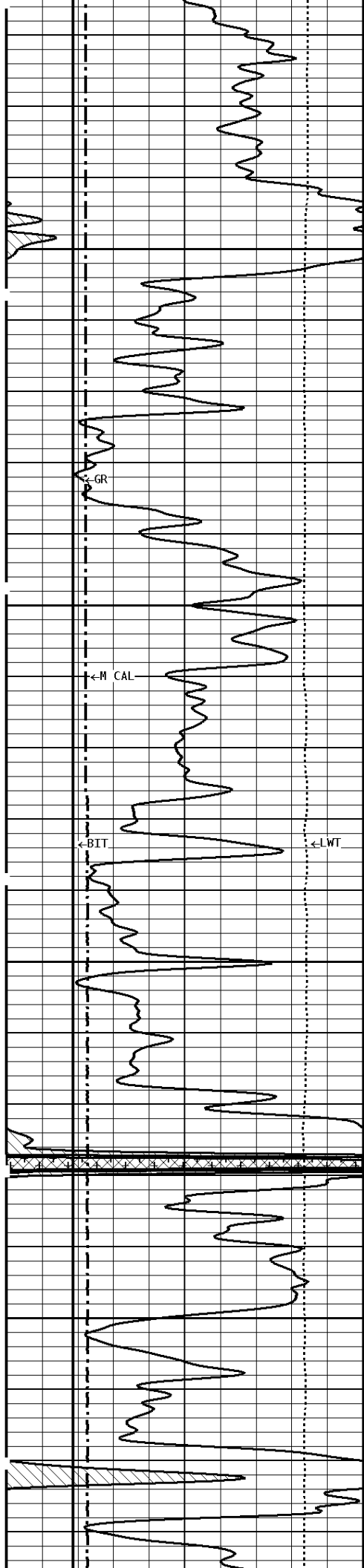




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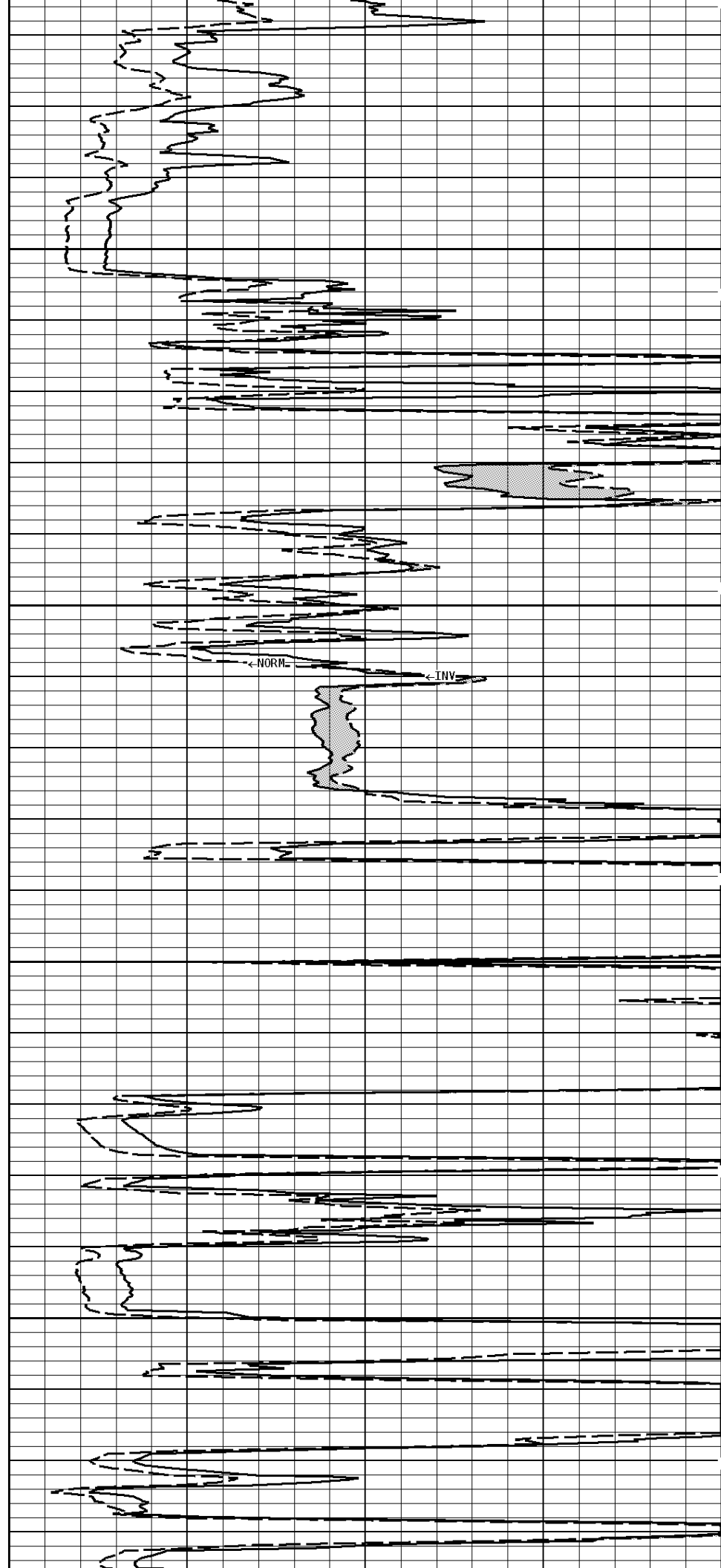
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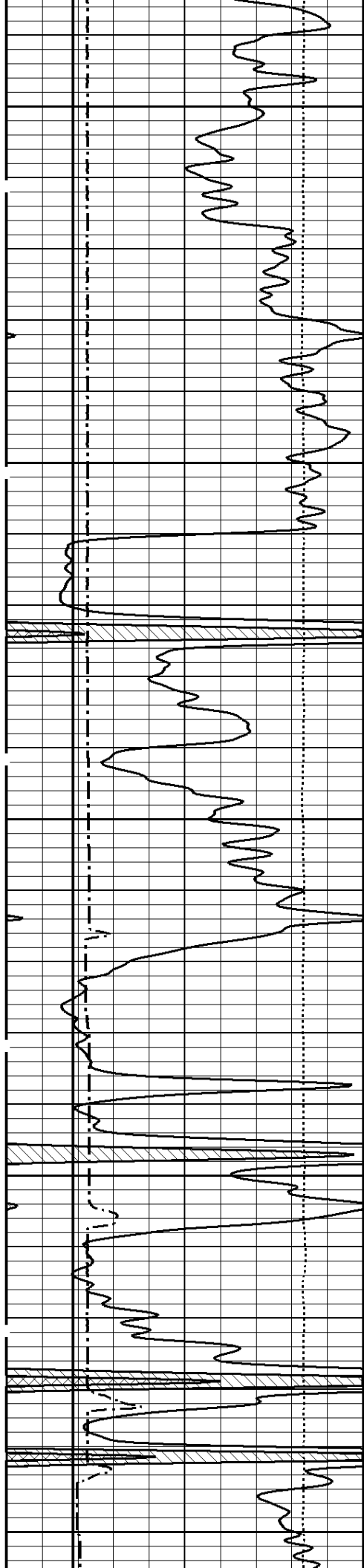




2400

2500

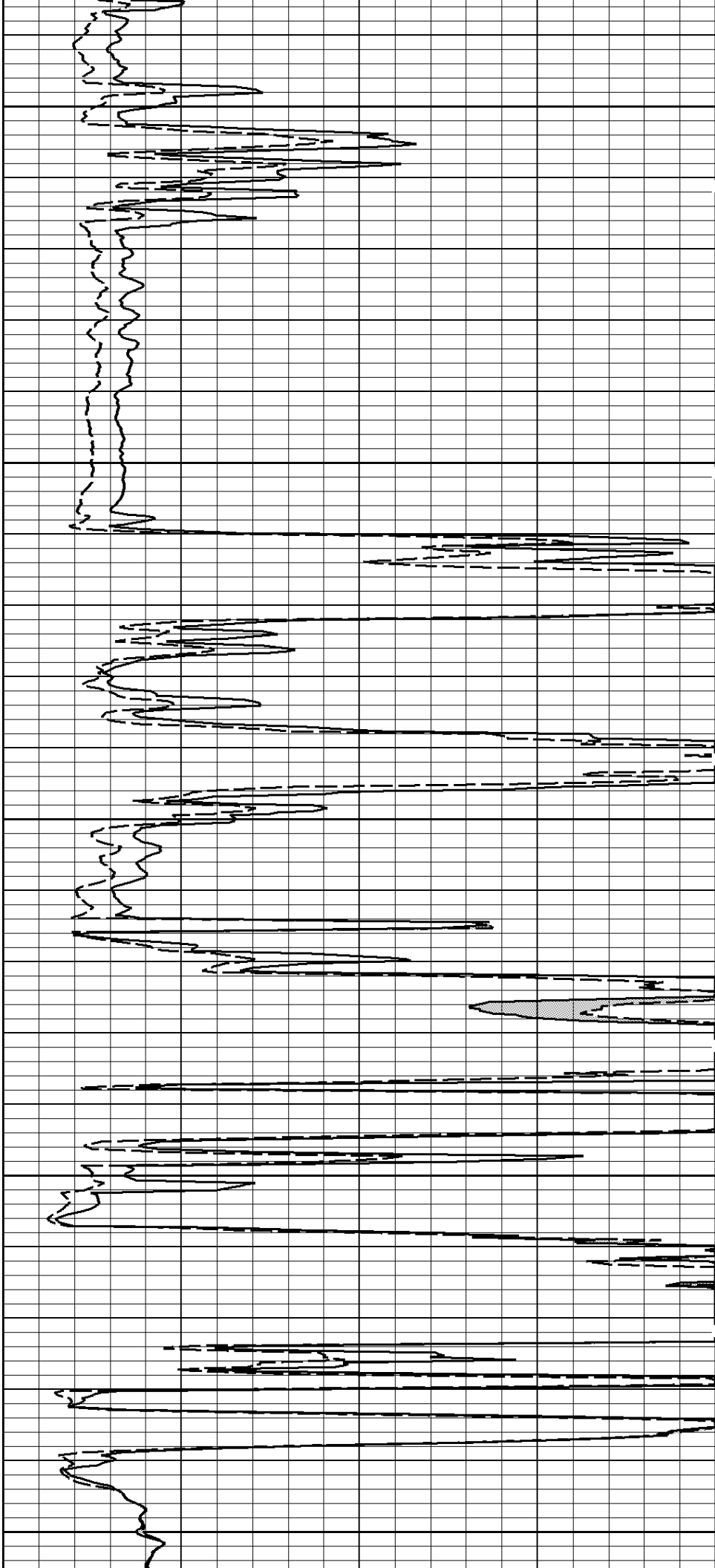


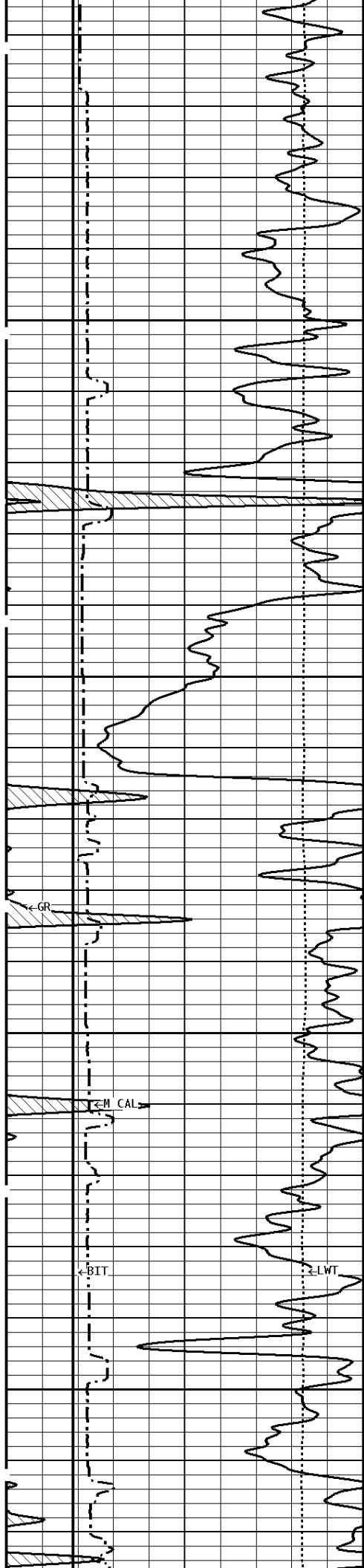


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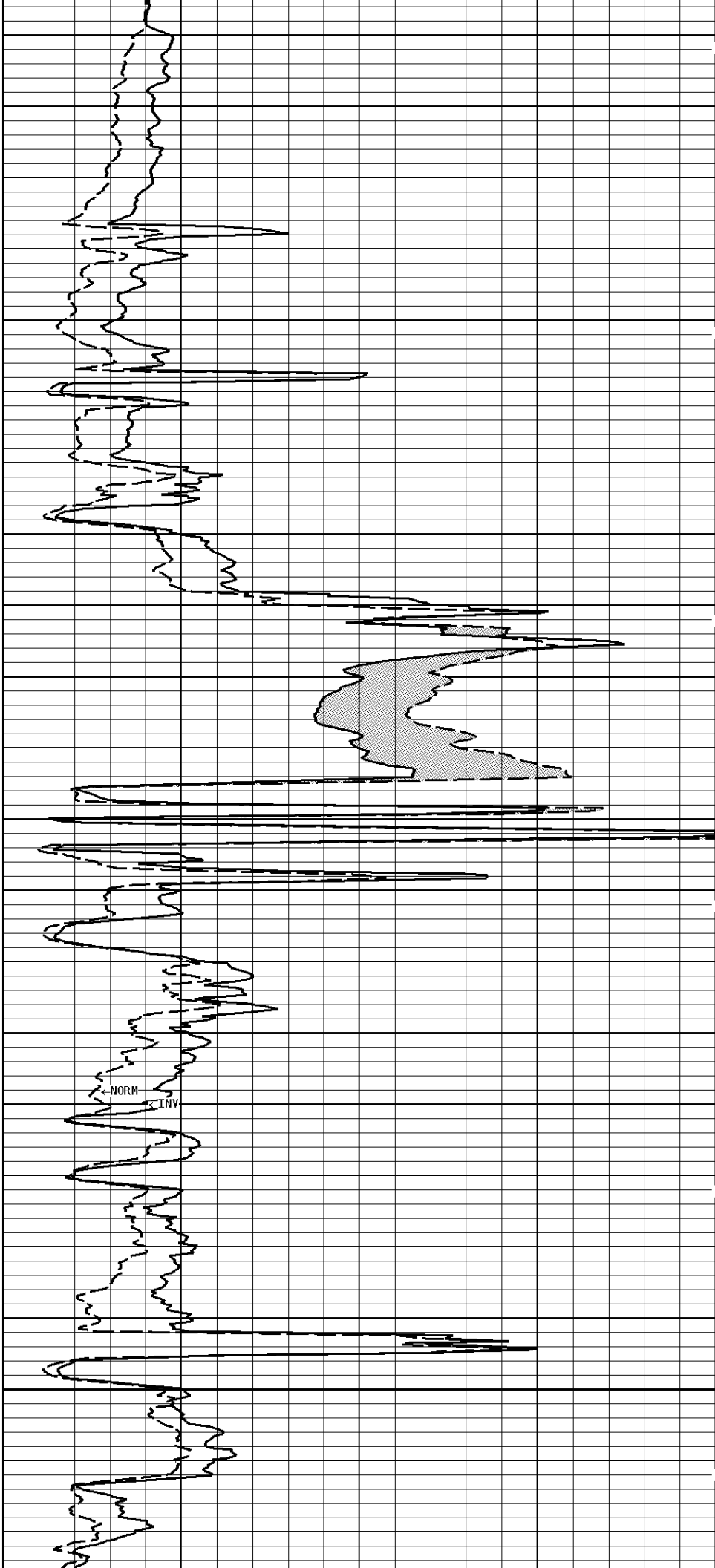
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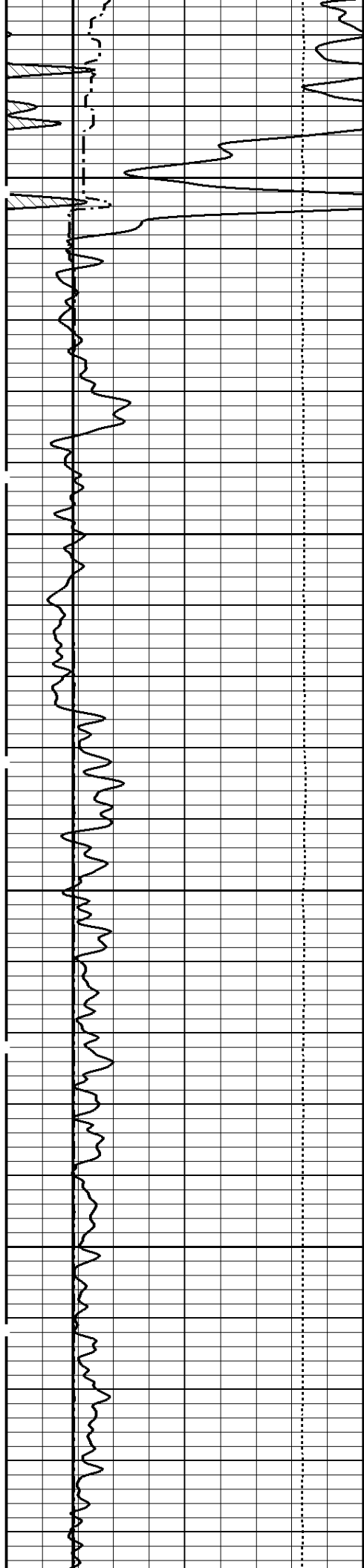




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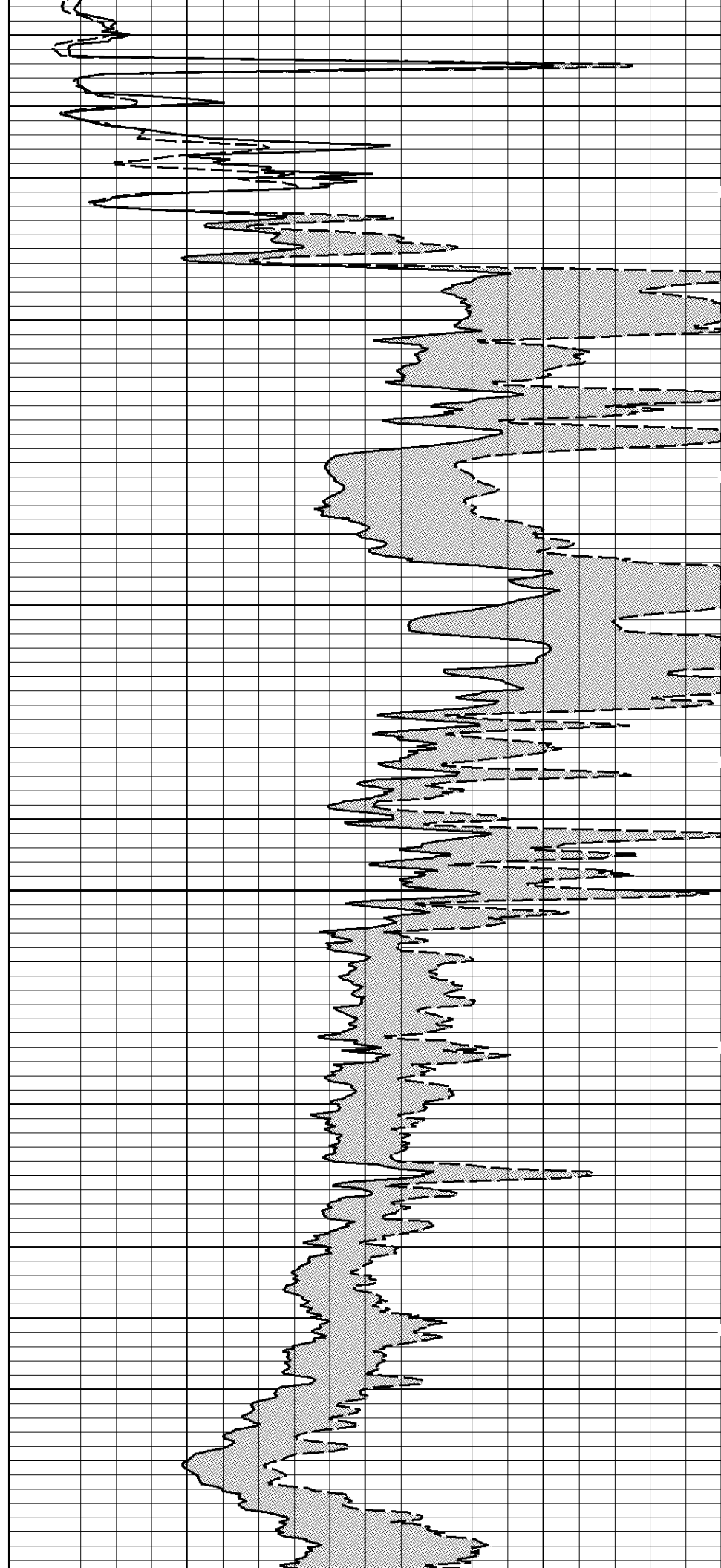
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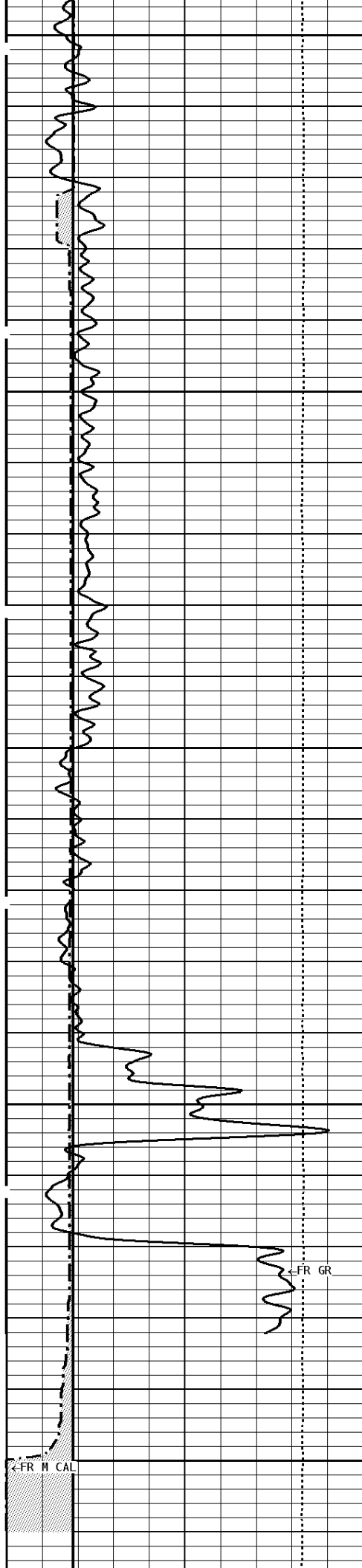




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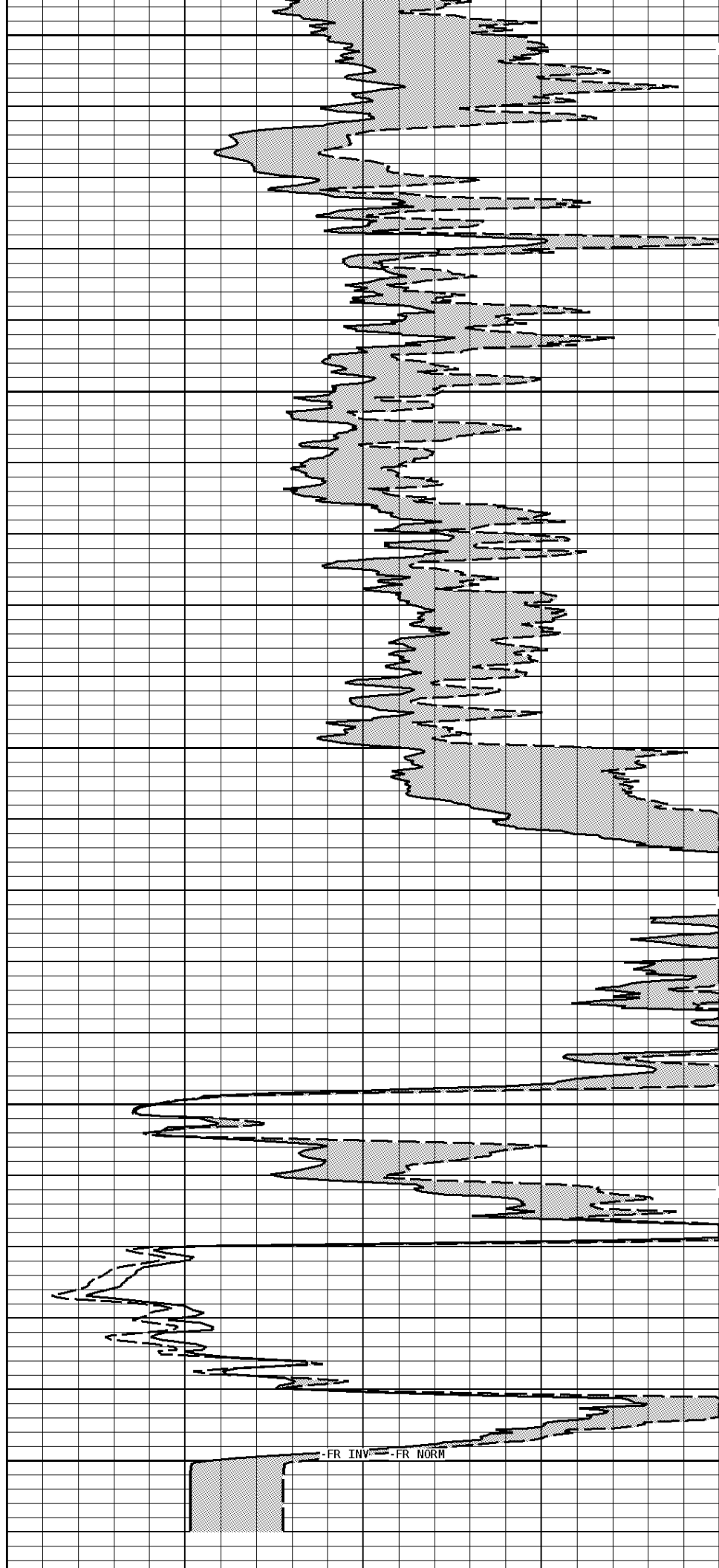
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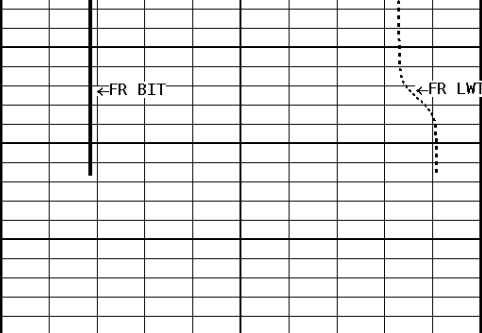




3300

3400





3475

File #1.1.3

1:240 MAIN SECTION

GAMMA RAY API UNITS	
150 0	300 150
TENSION LBS	
10000	0
CALIPER MICRO INCHES (IN)	
16 6	26 16
BIT SIZE INCHES (IN)	
6	16

NORMAL OHMM	
0	40
INVERSE OHMM	
0	40

* Borehole Zone Factors *

Zone 1				99999.0	to	0.0	Feet
Drill Bit Size				7.875 in			
MSTNG Normal Correction				0.00 ohmm			
MSTNG Inverse Correction				1.50 ohmm			