



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company RITCHIE EXPLORATION, INC.
Well LAMPE 3B #1
Field RACCOON
County FORD State KANSAS

Company RITCHIE EXPLORATION, INC.
Well LAMPE 3B #1
Field RACCOON
County FORD
State KANSAS

Location: API #: 15-057-20912-00-00
3140' FSL & 1320' FWL
S2 - NW
SEC 3 TWP 26S RGE 22W
Permanent Datum GROUND LEVEL Elevation 2401
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
Elevation
K.B. 2411
D.F. 2409
G.L. 2401

Date	10/8/13
Run Number	ONE
Depth Driller	5001
Depth Logger	5003
Bottom Logged Interval	5001
Top Log Interval	00
Casing Driller	8 5/8 @ 360
Casing Logger	357
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2 / 63
pH / Fluid Loss	10.5 / 8.8
Source of Sample	FLOWLINE
Rim @ Meas. Temp	0.60 @ 84F
Rmf @ Meas. Temp	0.45 @ 84F
Rmc @ Meas. Temp	0.72 @ 84F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	0.40 @ 125F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	125F
Equipment Number	860
Location	HAYS, KS.
Recorded By	IAN MABB
Witnessed By	ADAM ELDANI

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: SPEARVILLE, KS. - 1 MILE SOUTH - 1 MILE EAST - 1/2 MILE SOUTH - EAST INTO

0 Gamma Ray (GAPI) 150

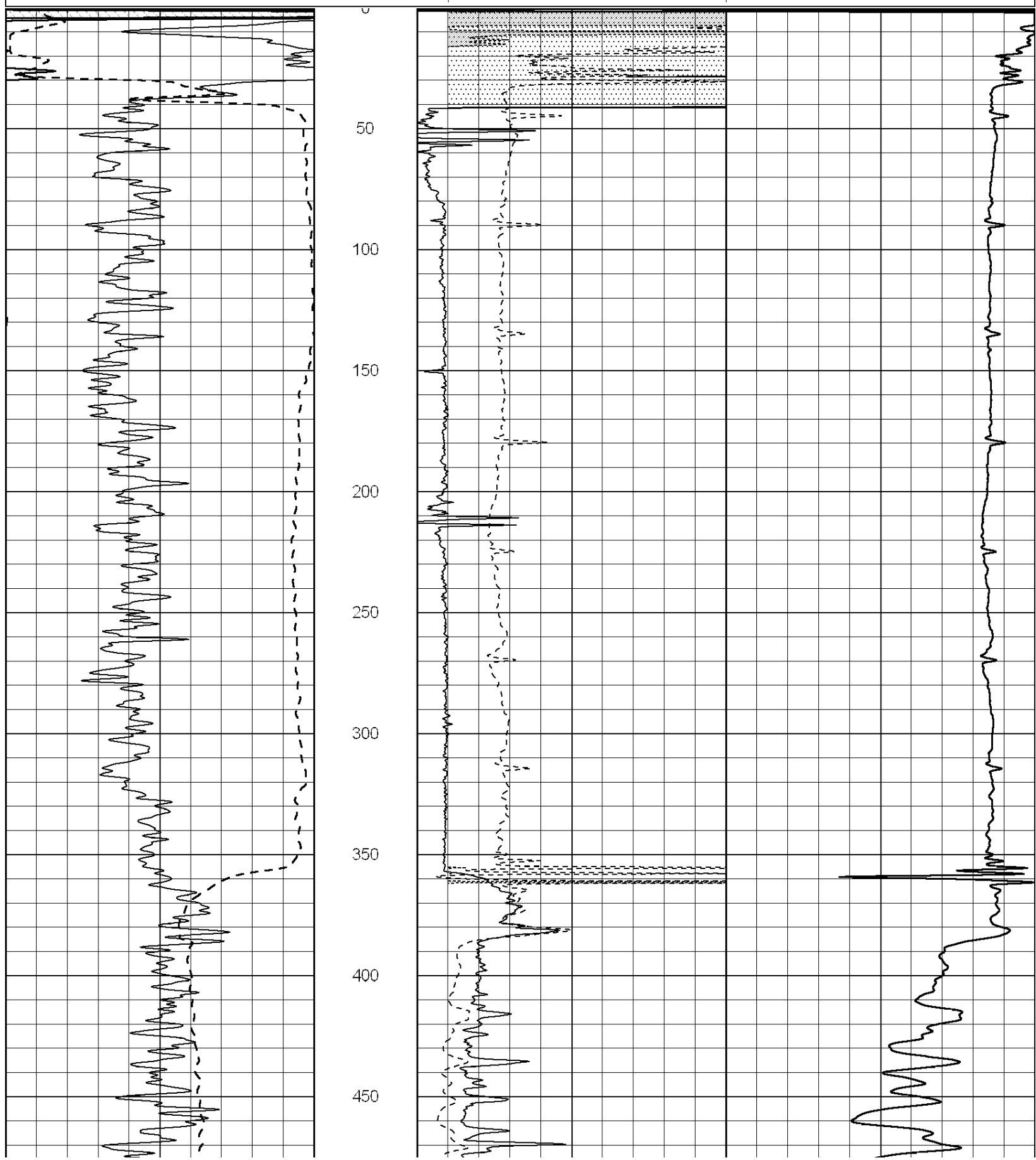
0 RLL3 (Ohm-m) 50

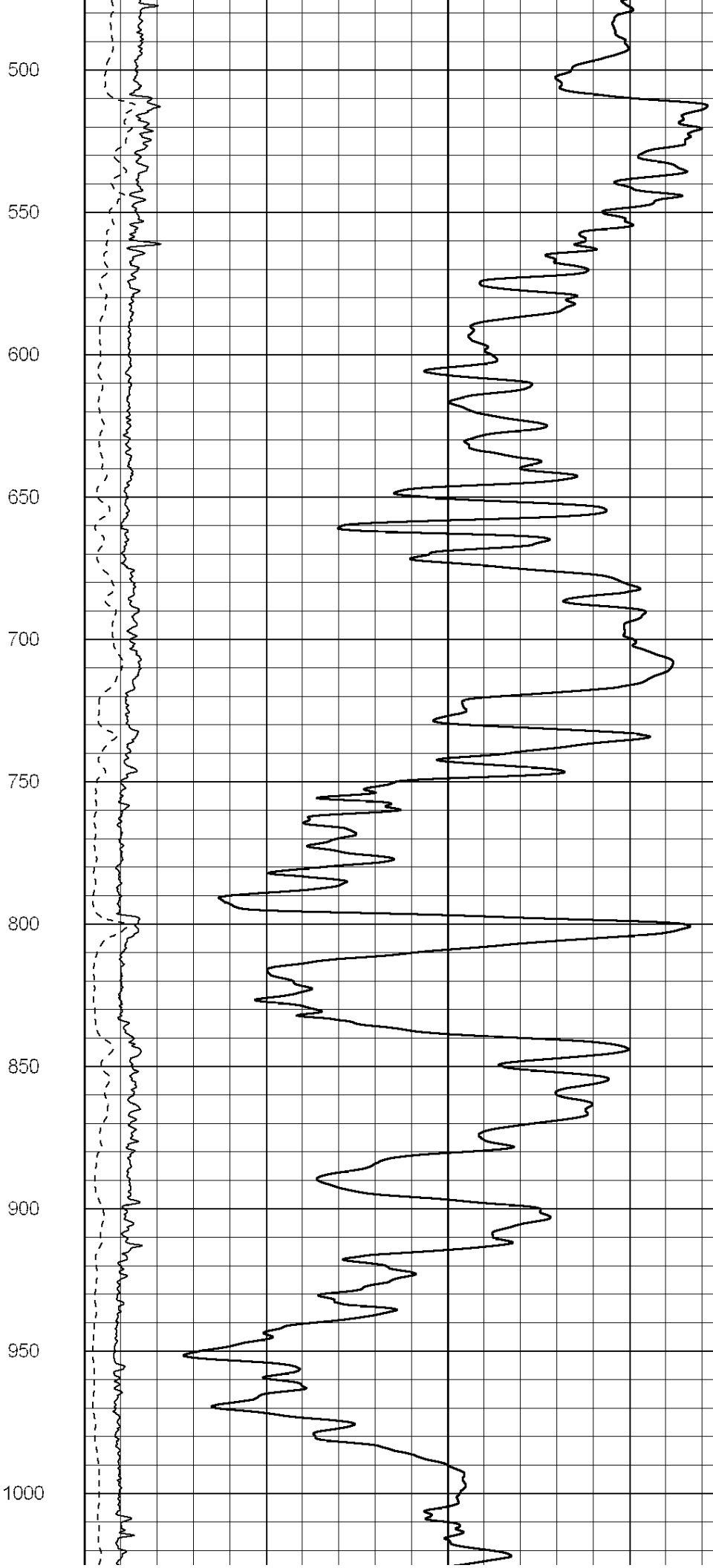
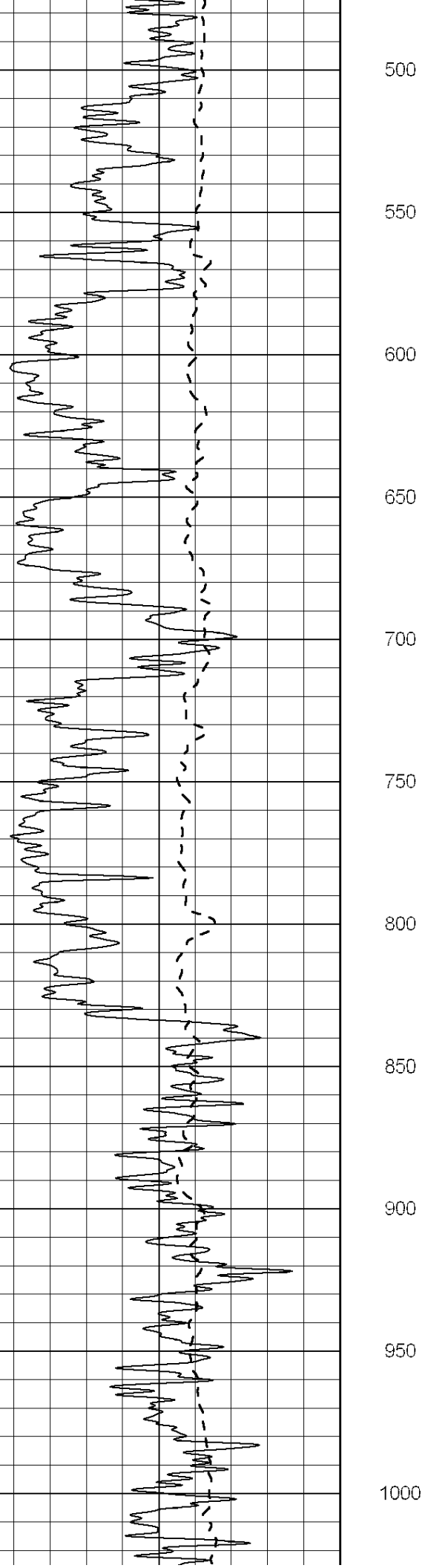
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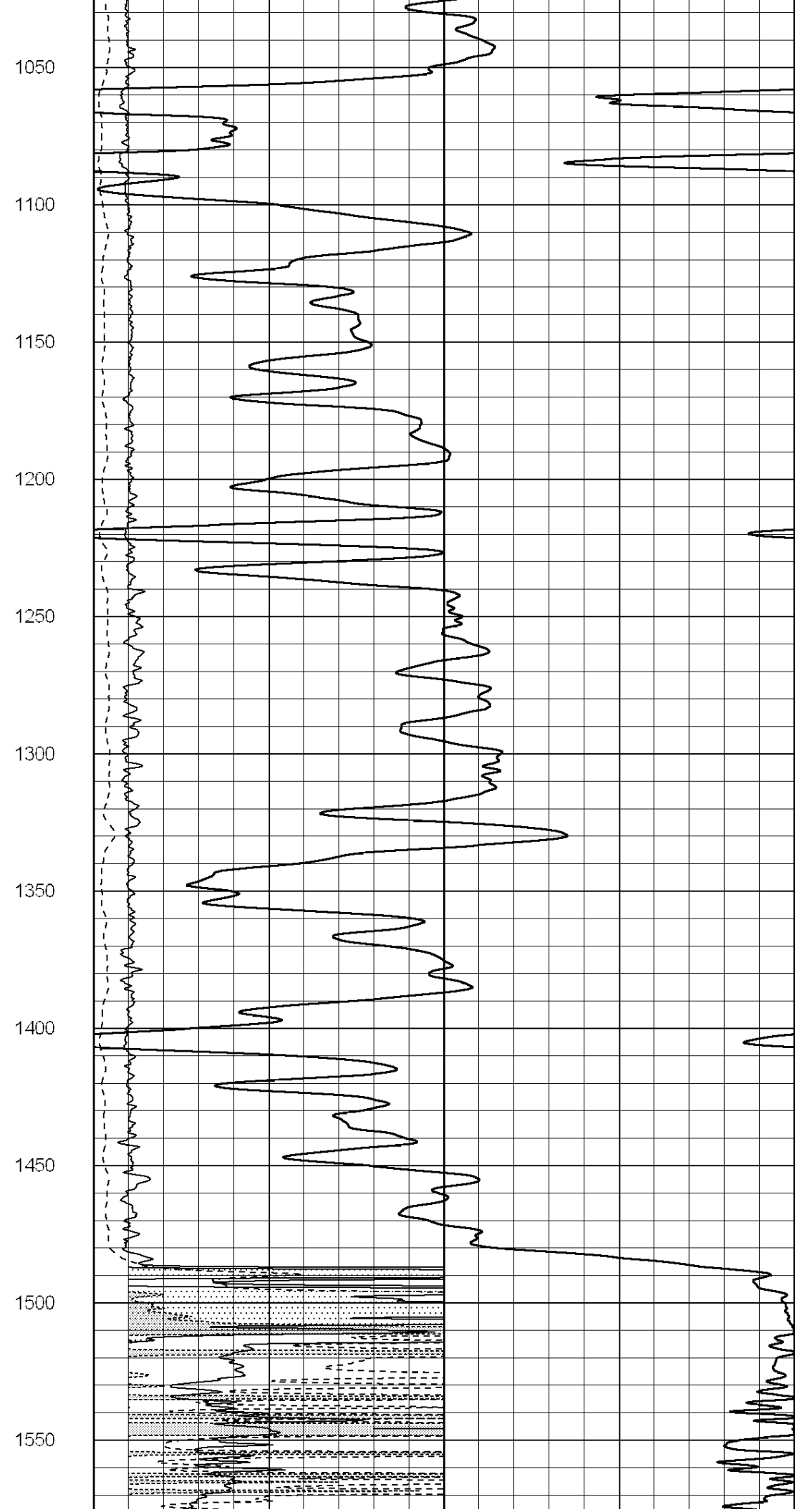
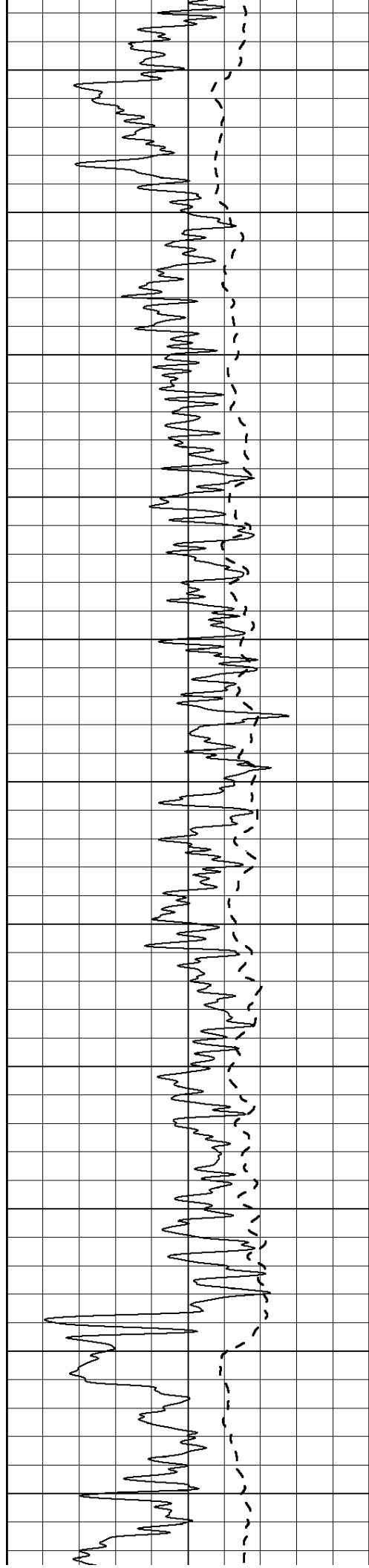
1000 CILD (mmho/m) 0

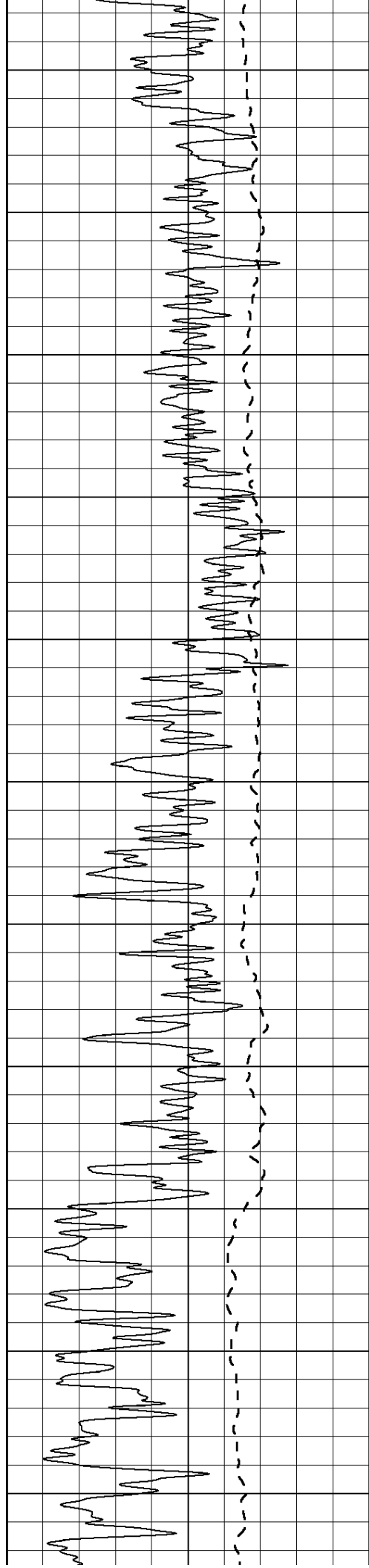
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50 RLL3 X10 (Ohm-m) 500

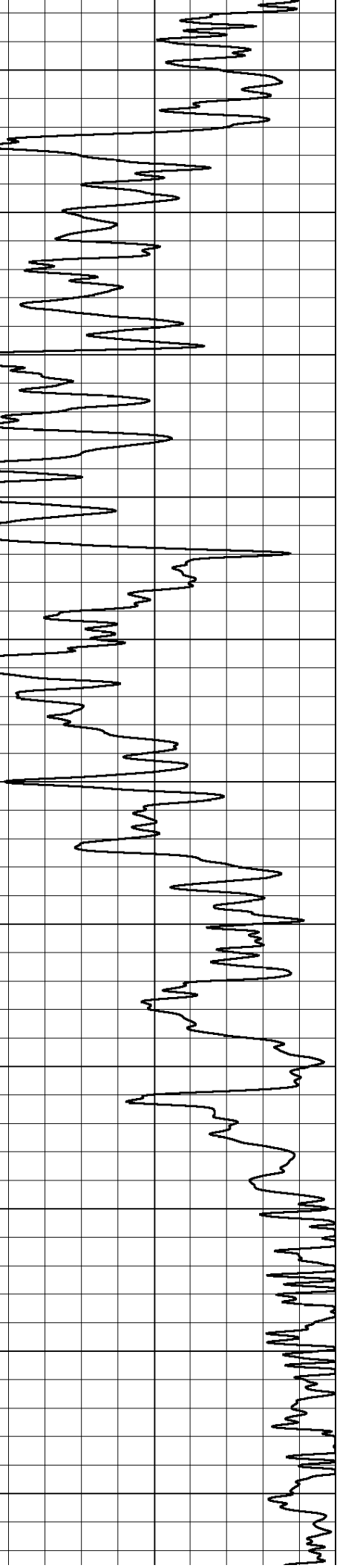
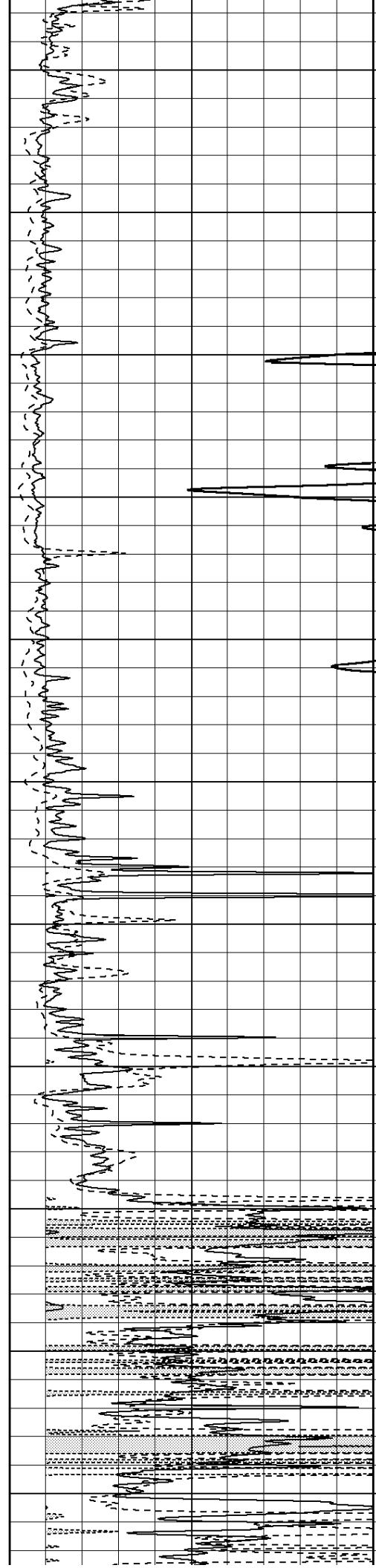


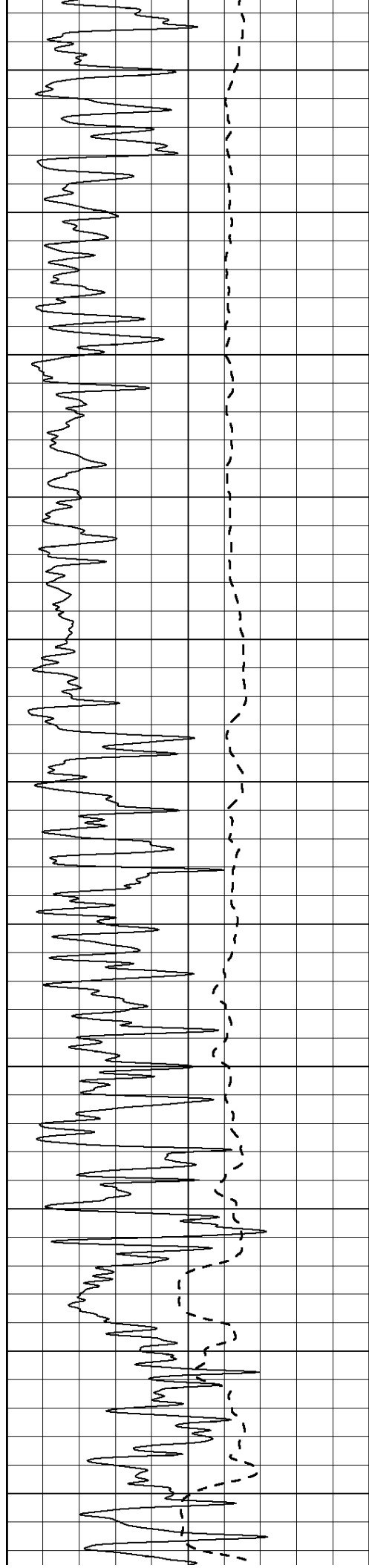






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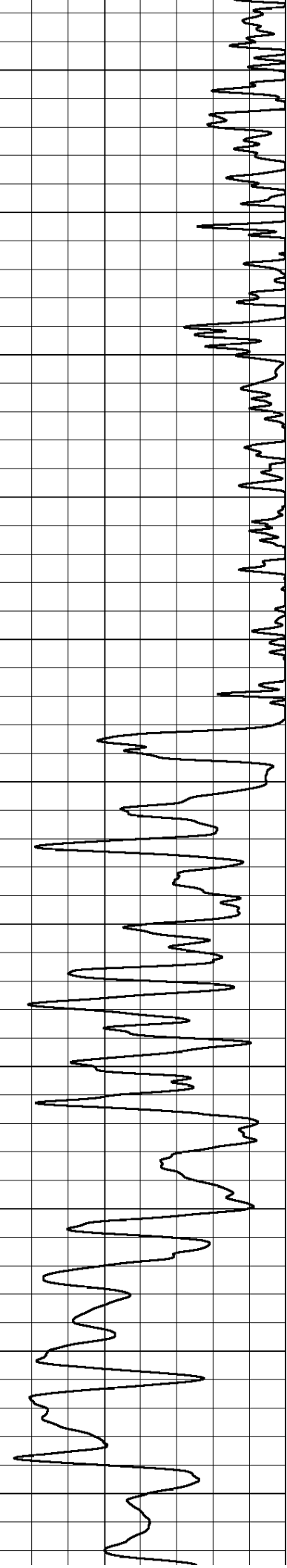
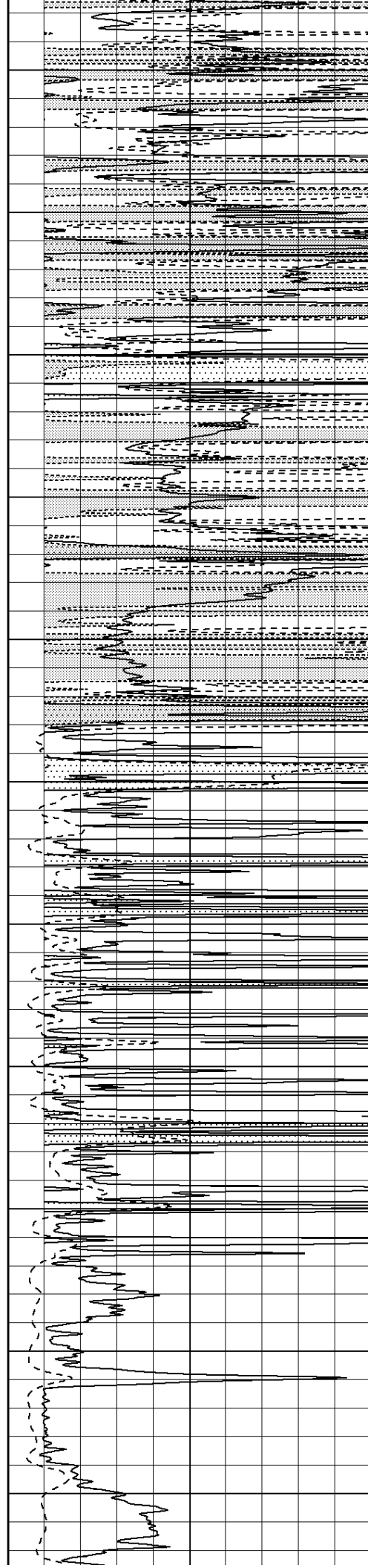
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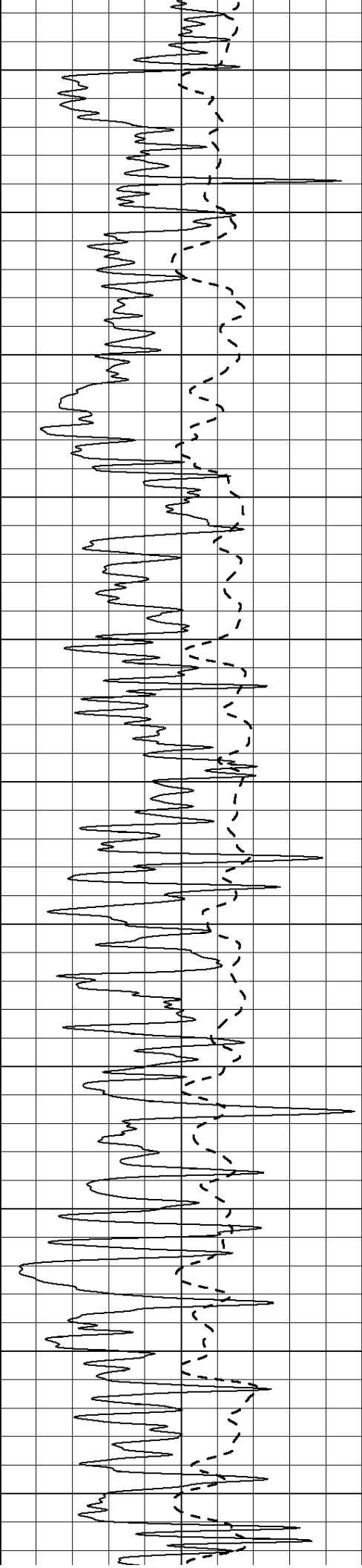
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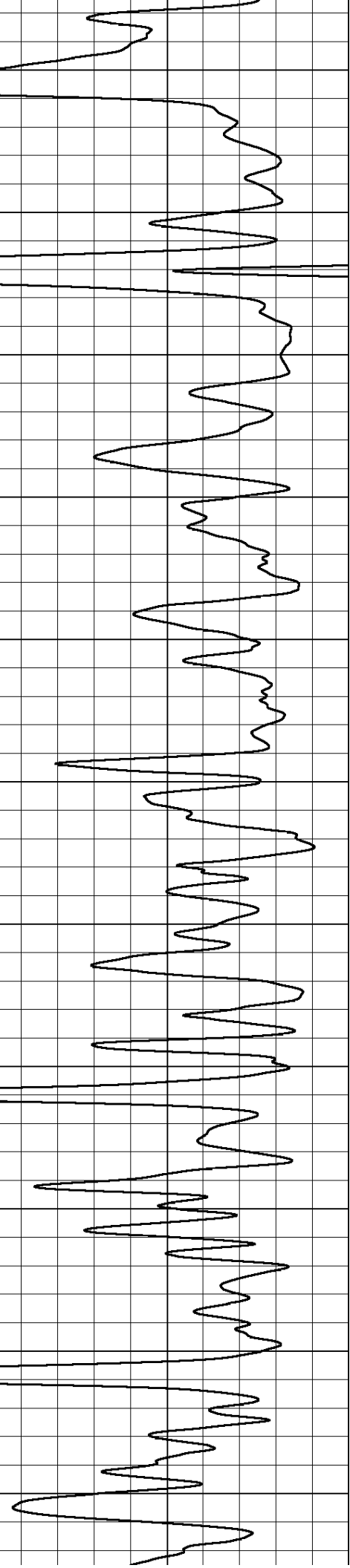
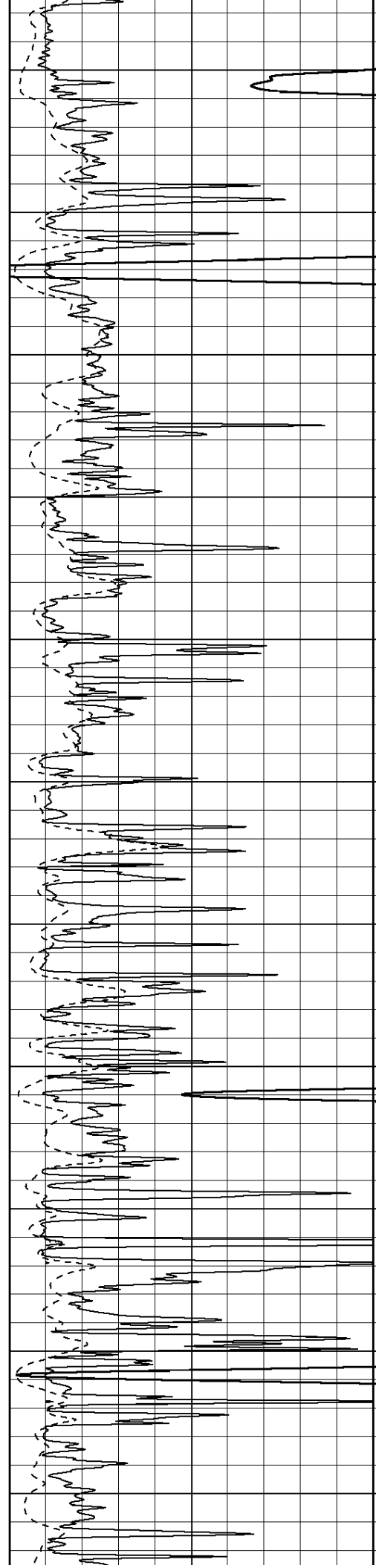
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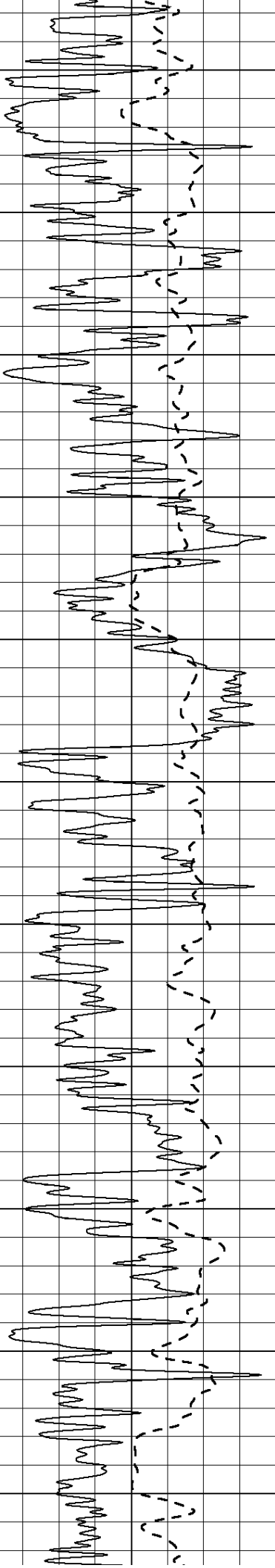
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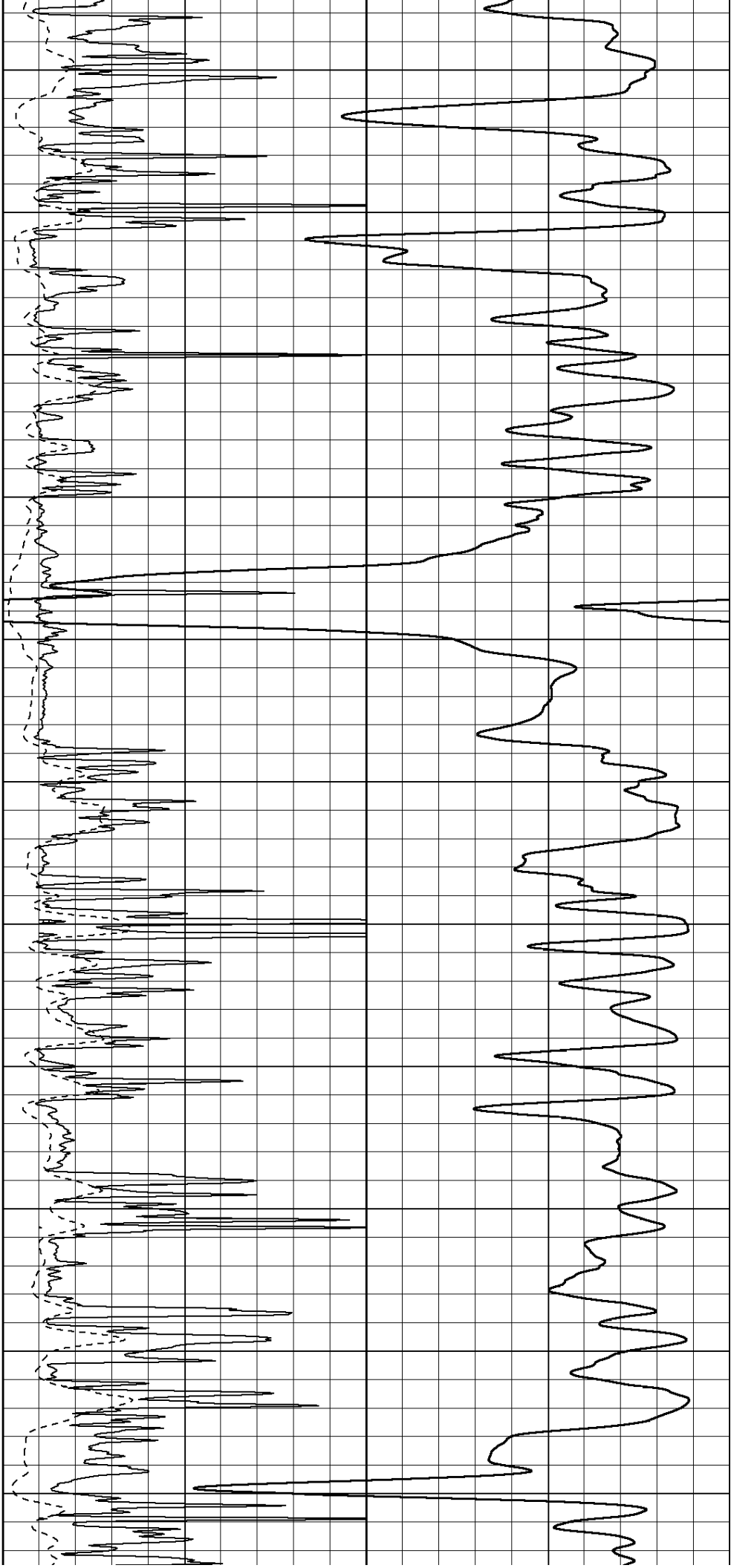


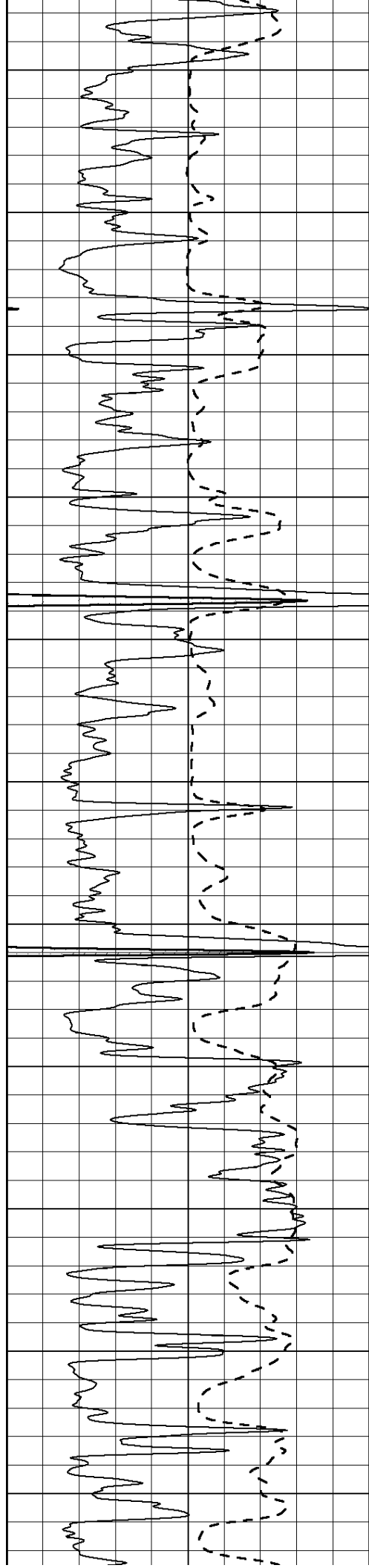
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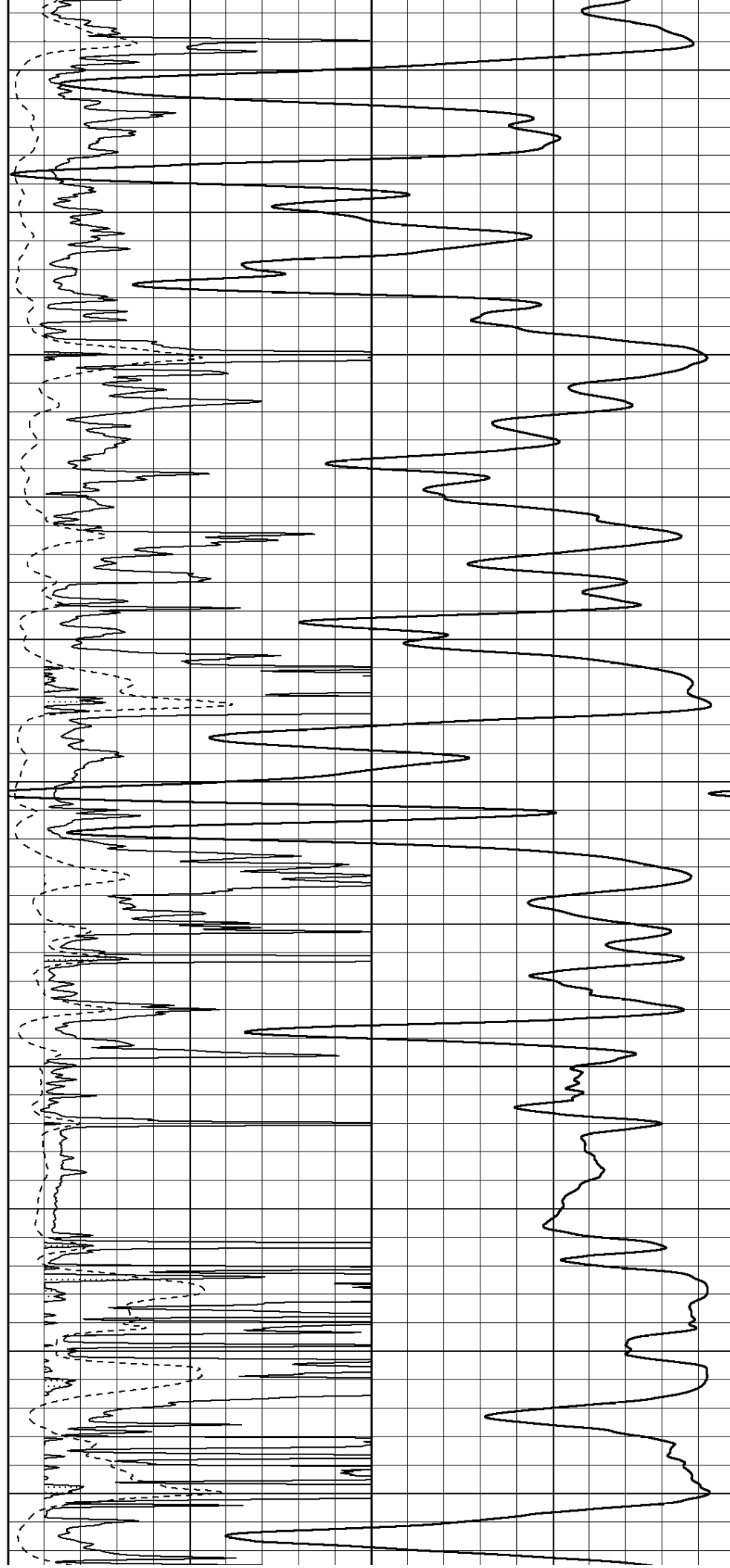
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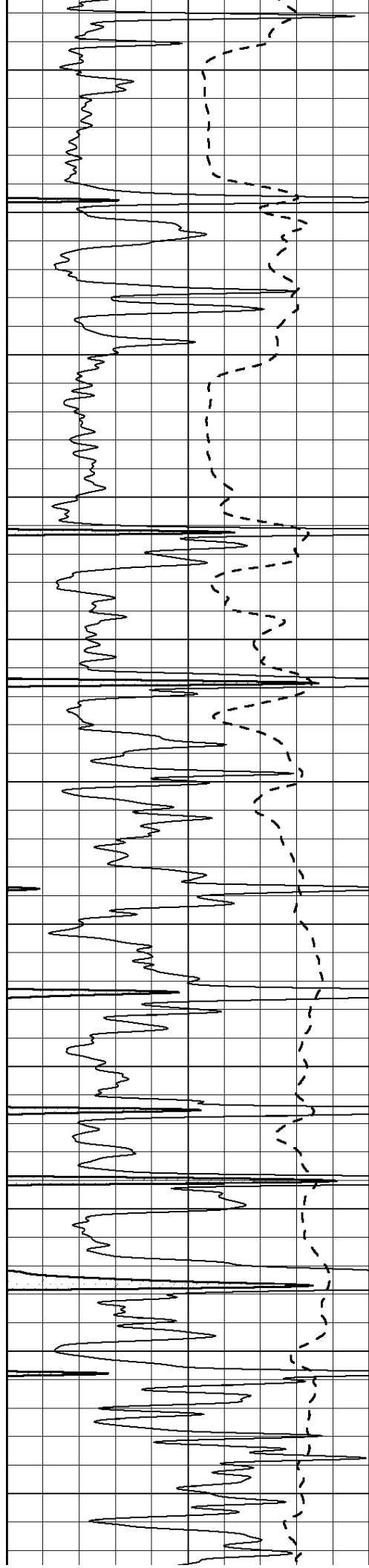
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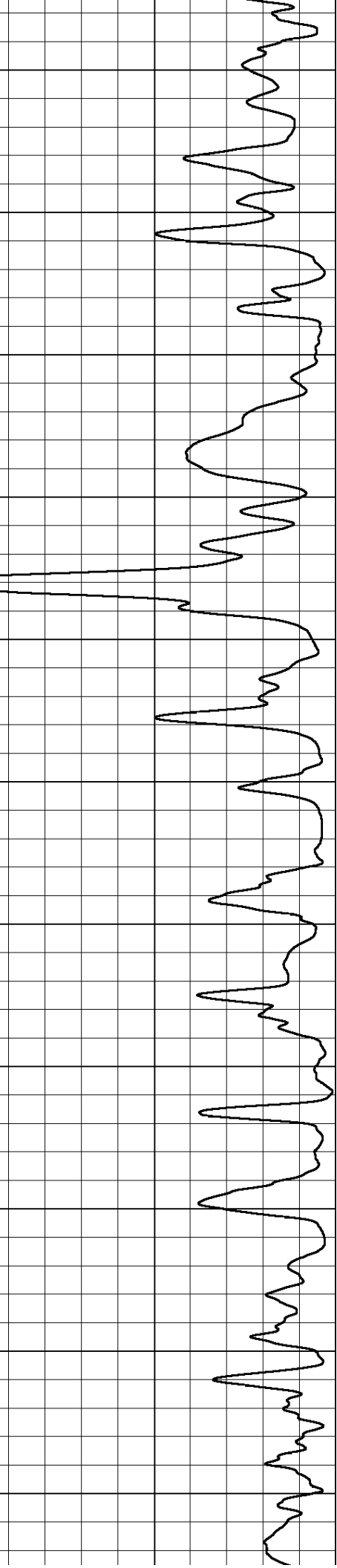
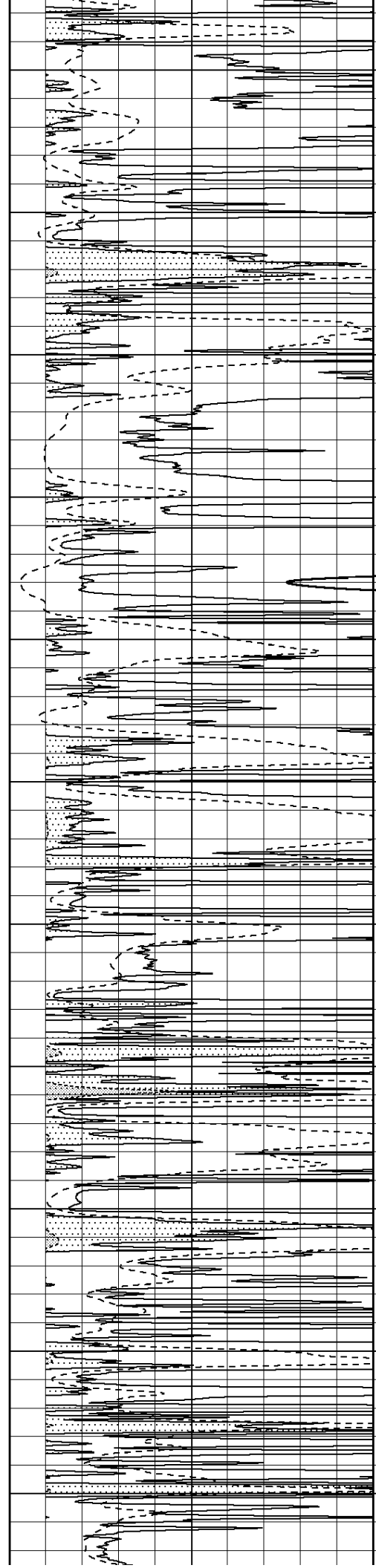
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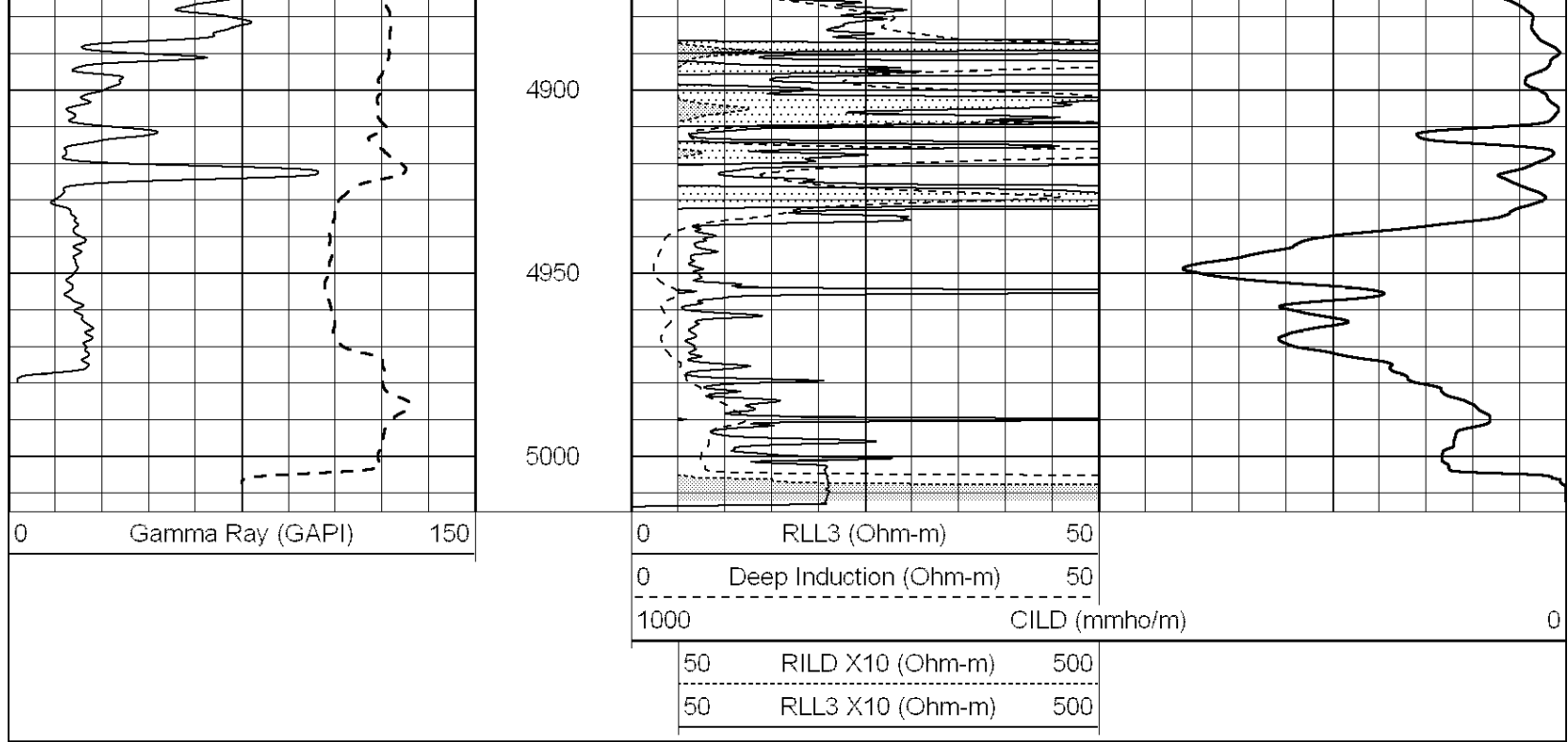
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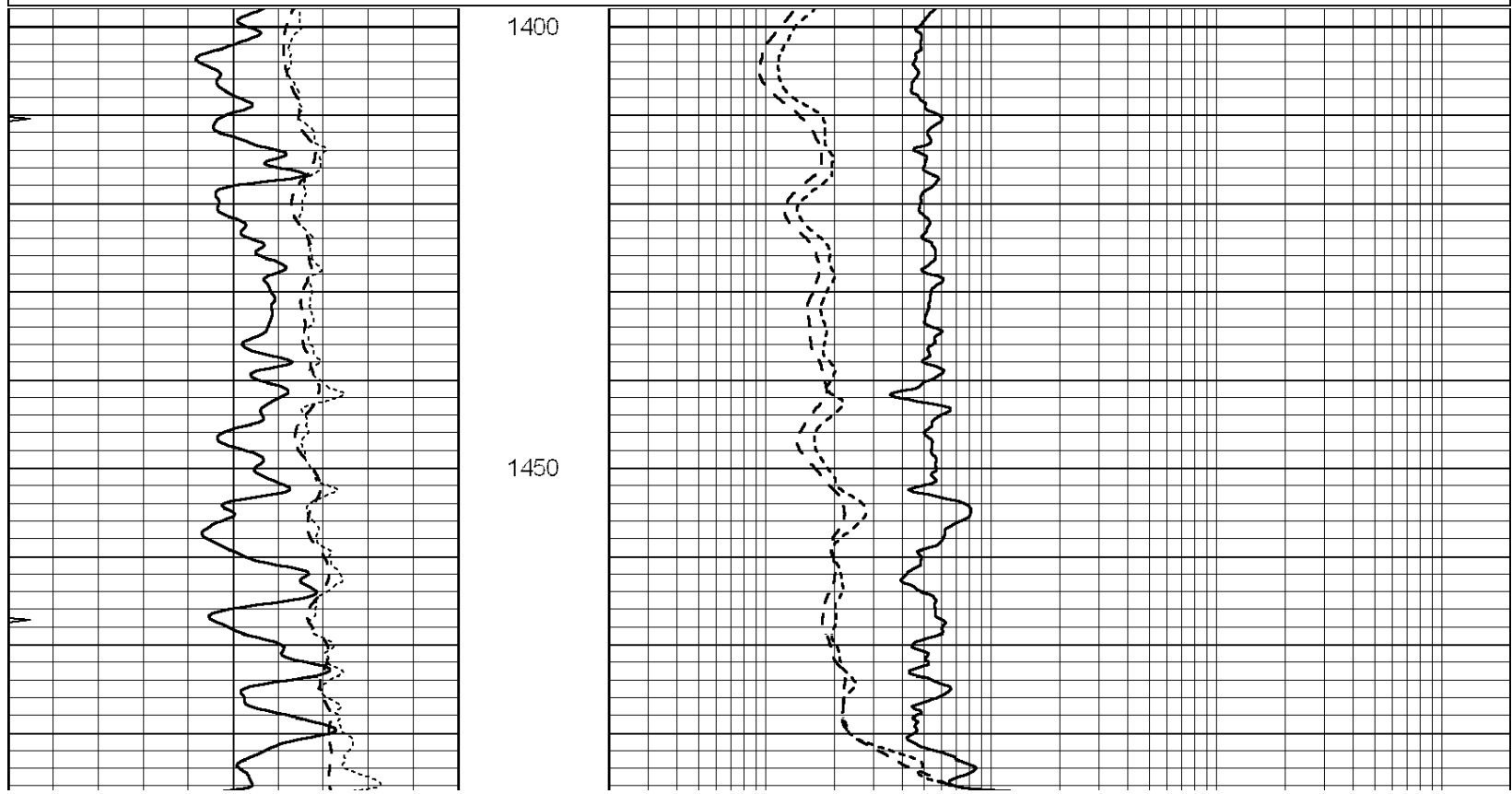
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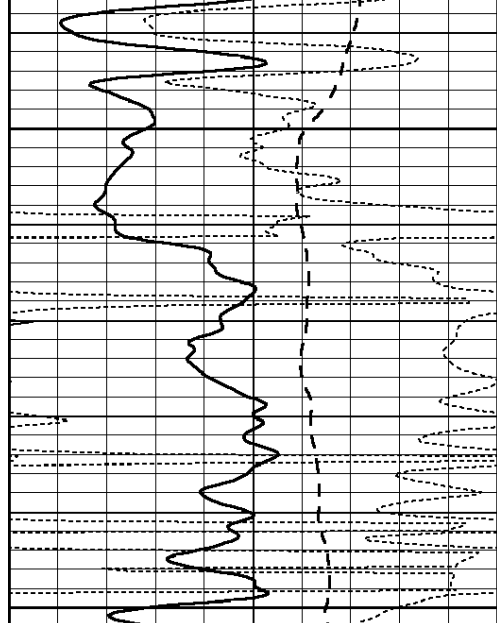




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 Dataset Pathname: pass3.6
 Presentation Format: _dil
 Dataset Creation: Tue Oct 08 12:37:43 2013 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	RLL3 (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	RxoRt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			

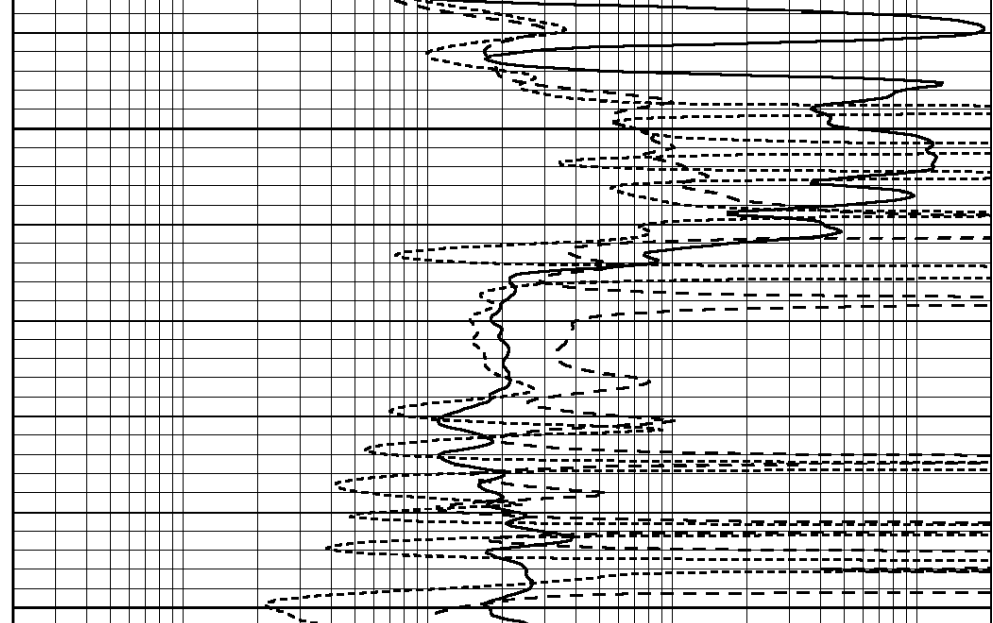




1500

1550

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

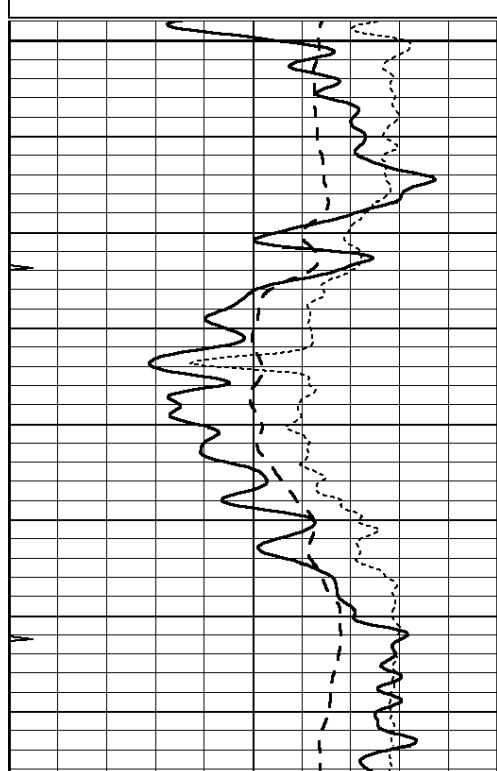


0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Database File: 010212ddn.db
 Dataset Pathname: pass3.5
 Presentation Format: _dil
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 Charted by: Depth in Feet scaled 1:240

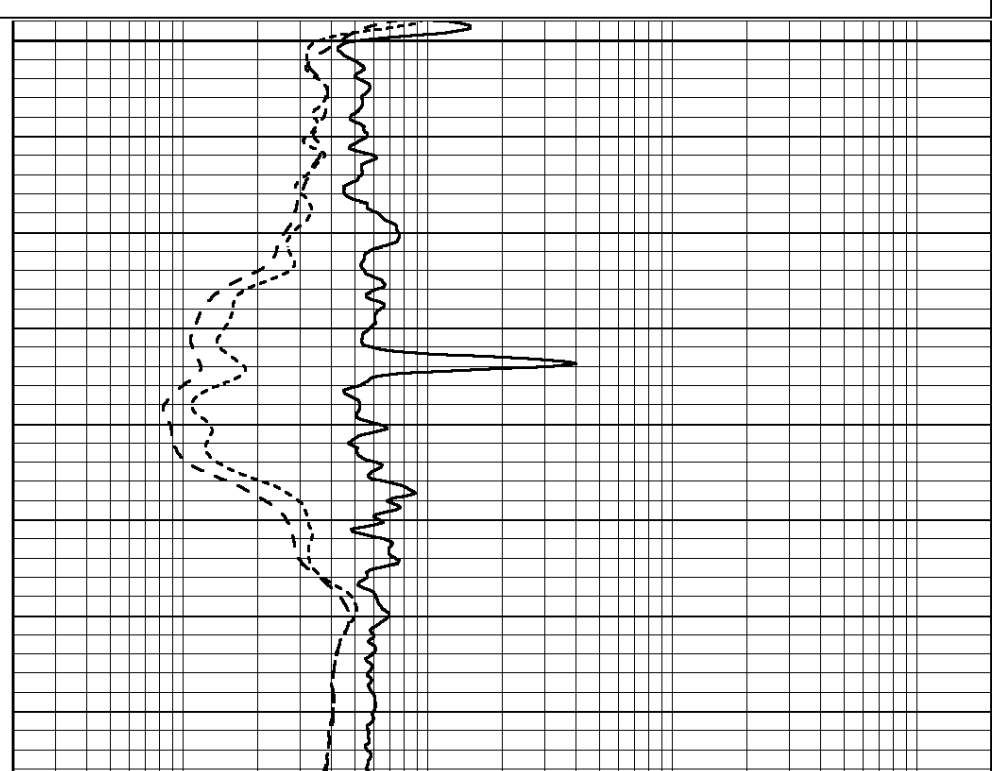
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-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

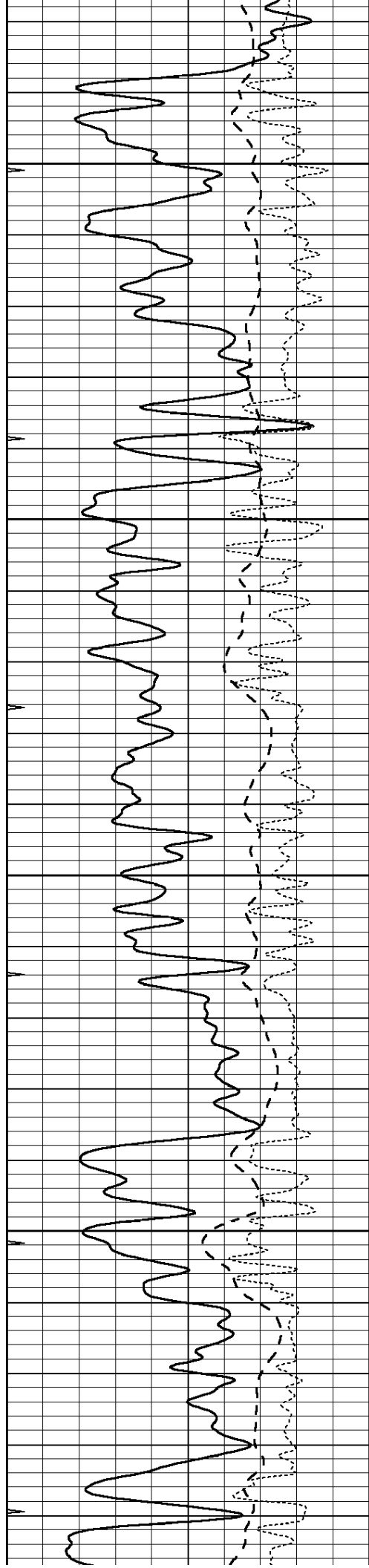
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



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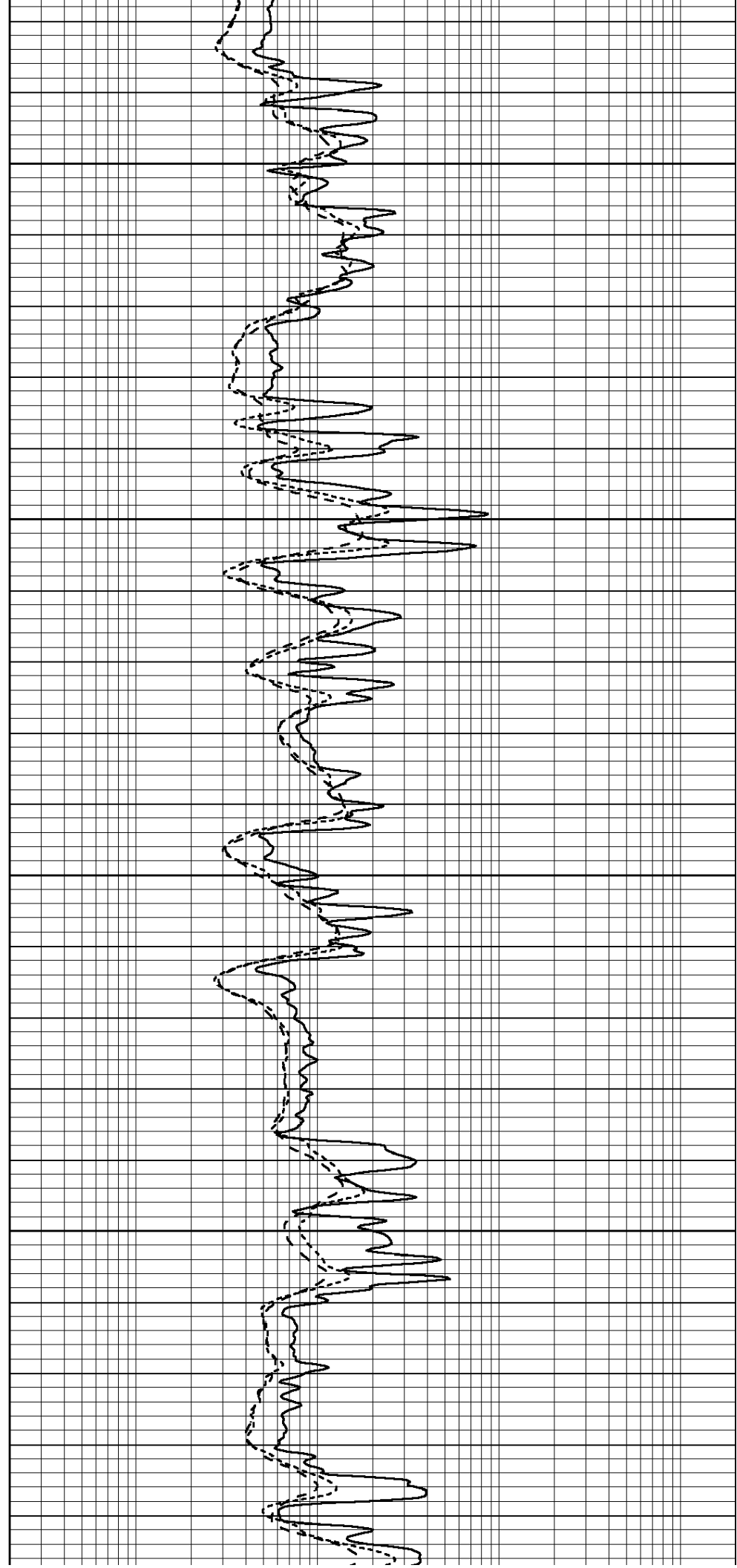


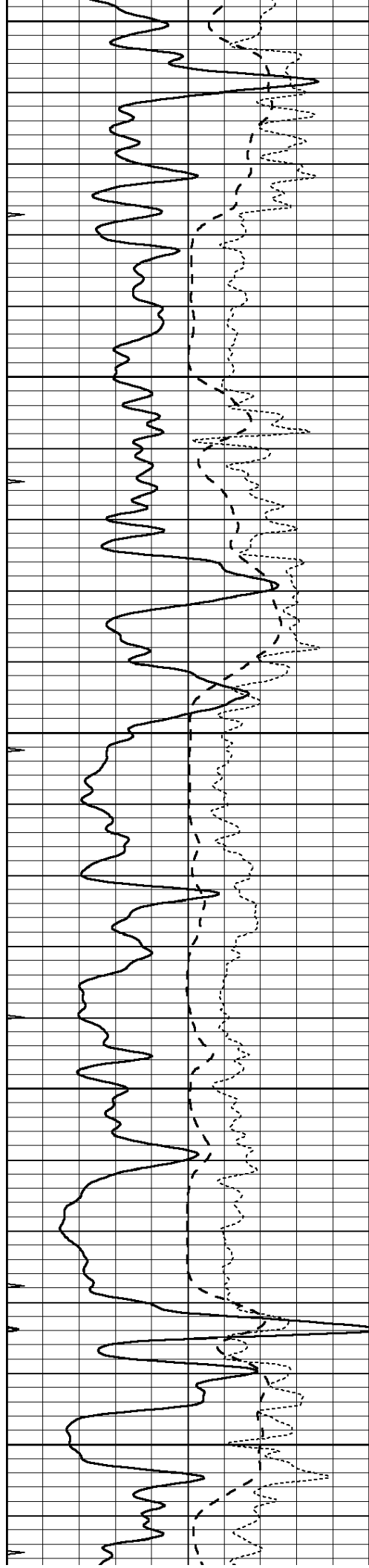
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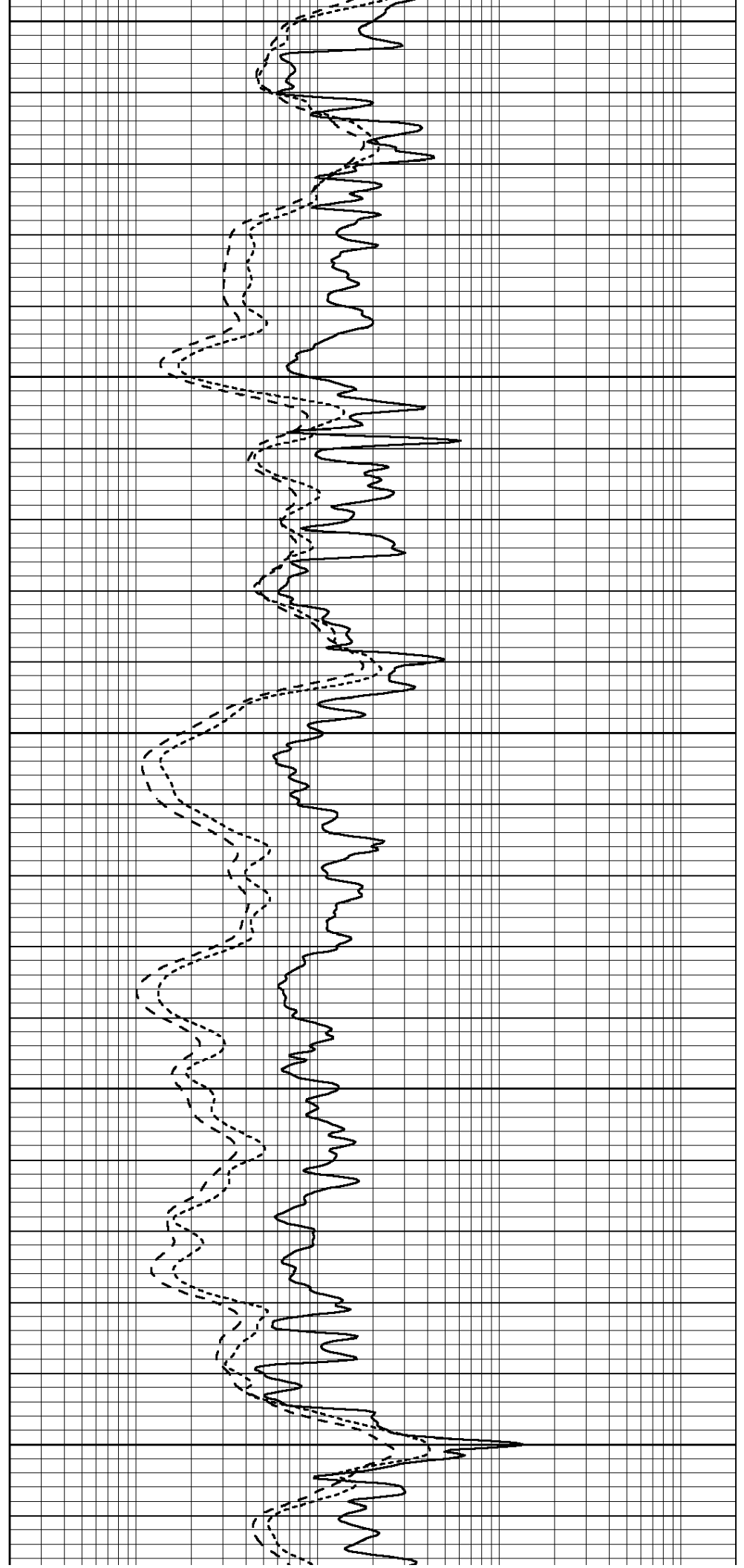
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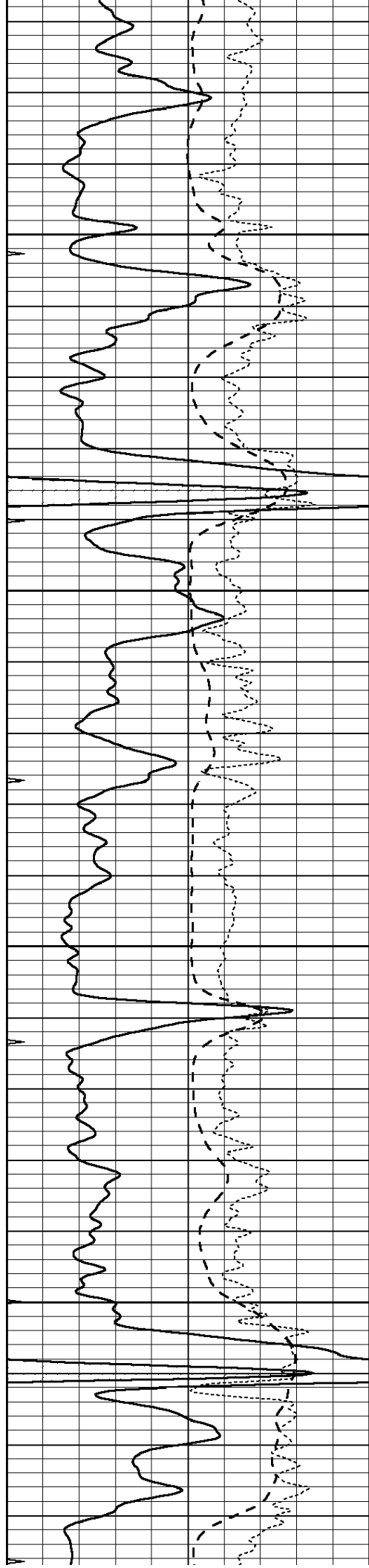
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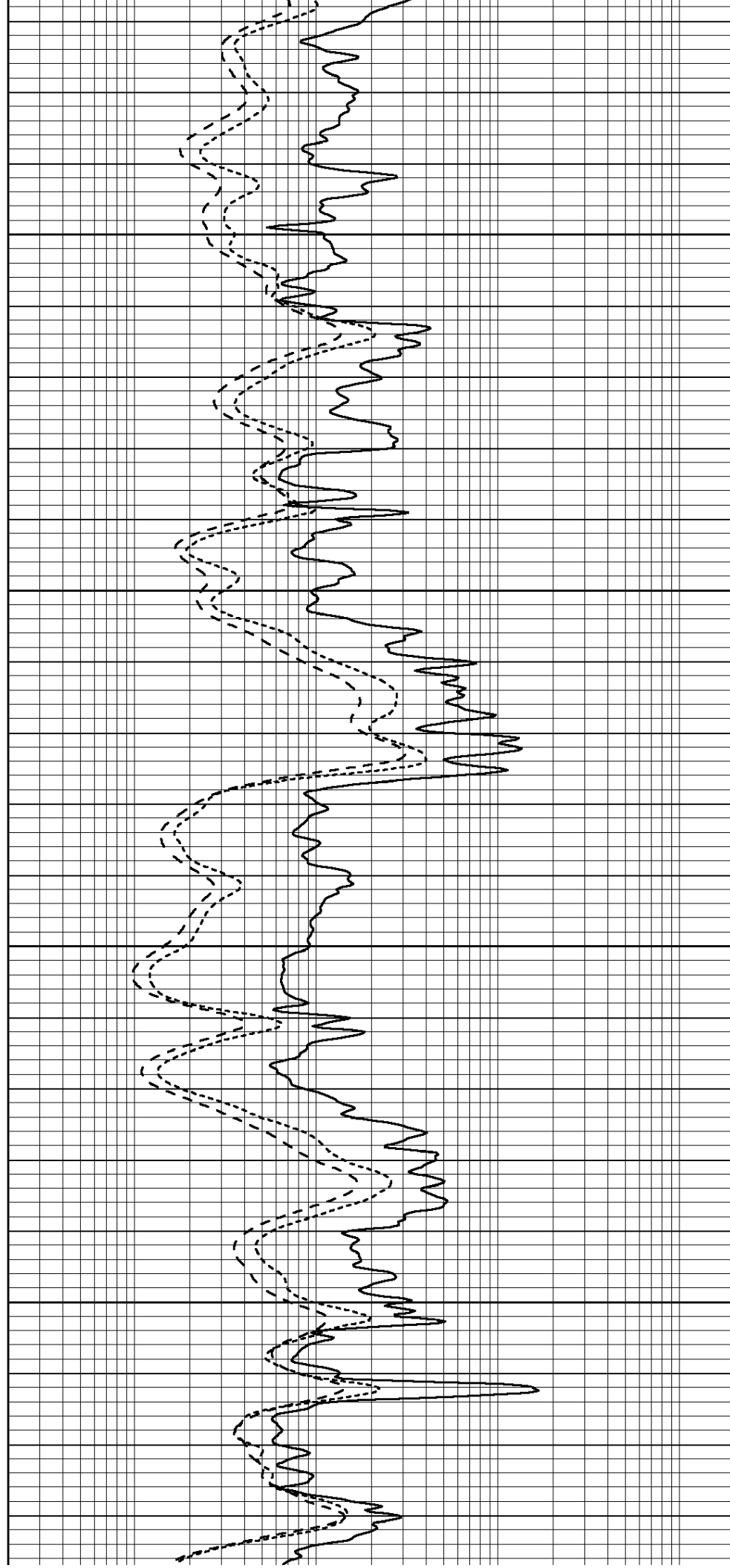


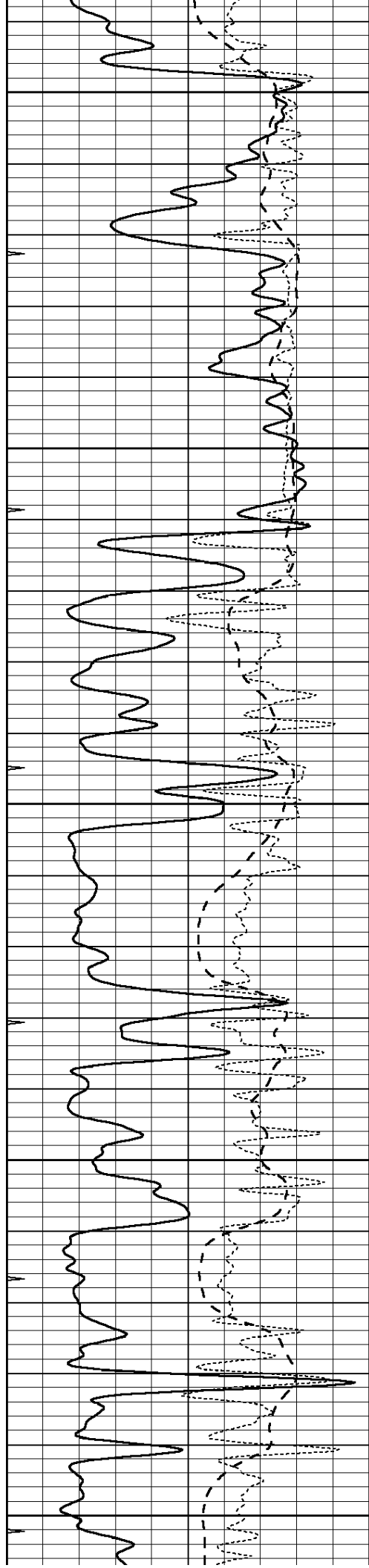
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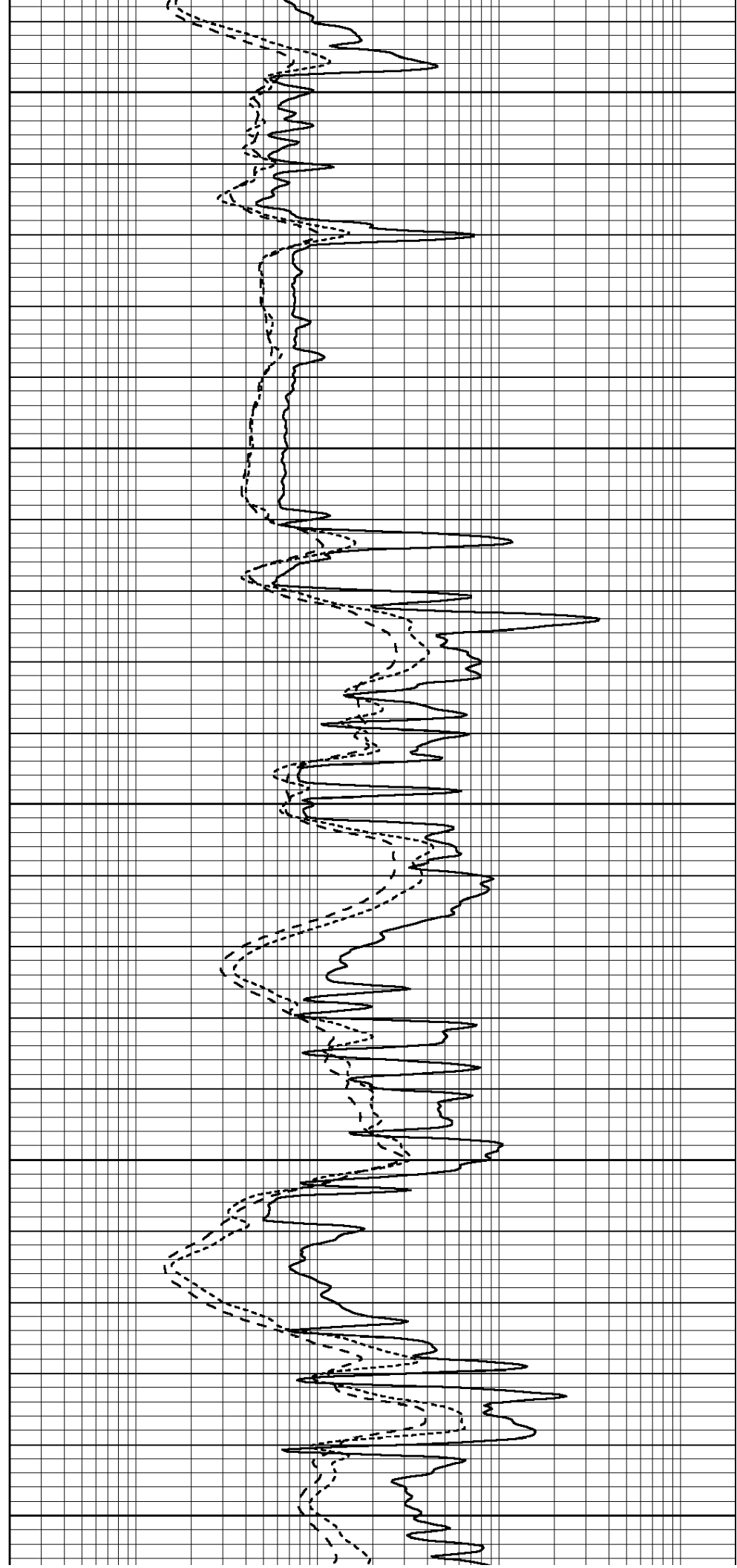
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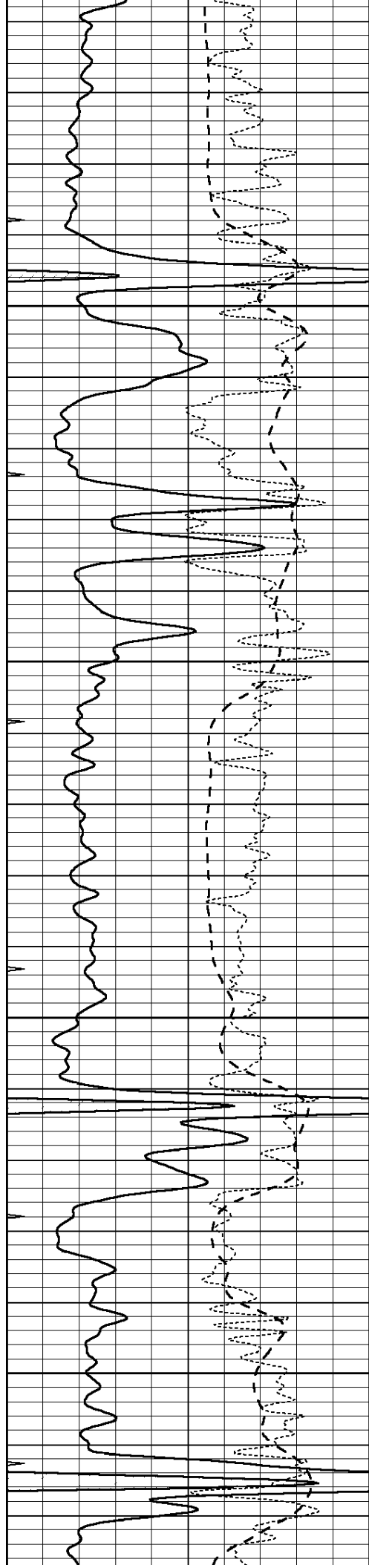
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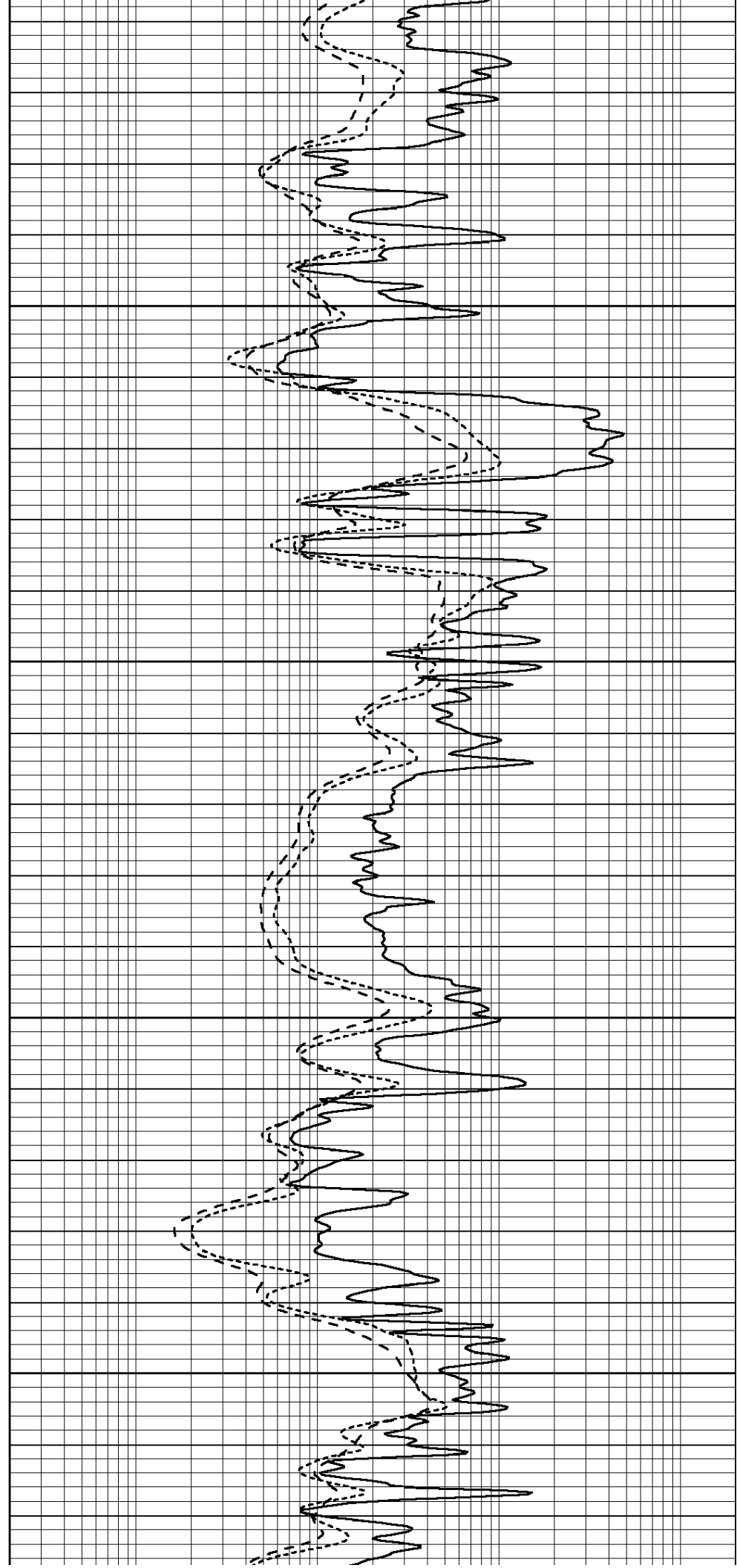


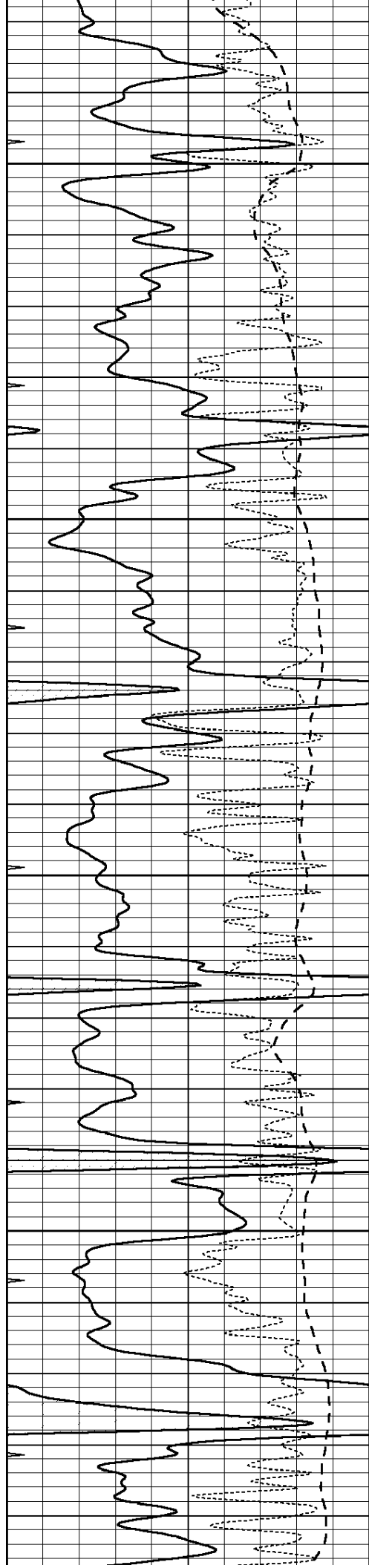
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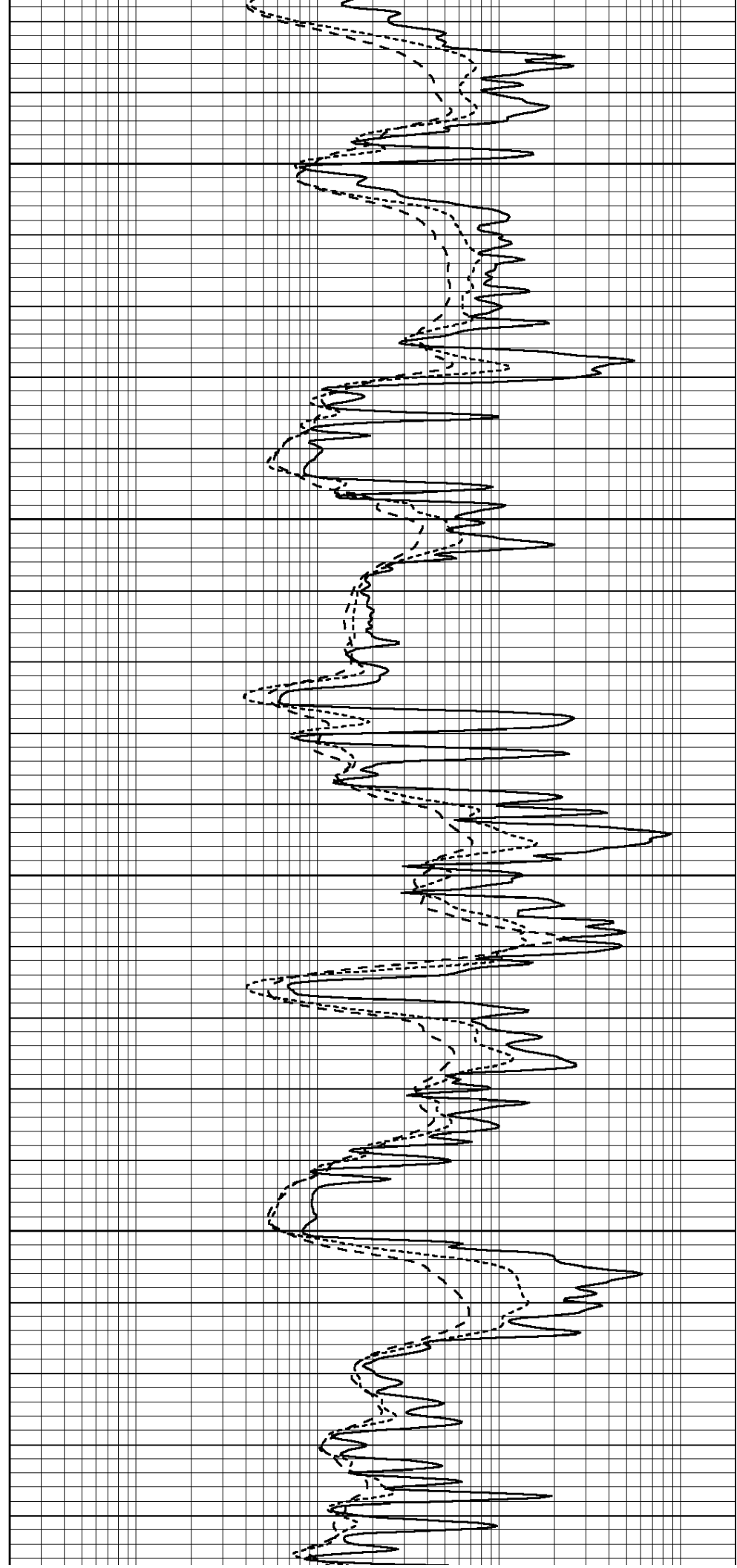


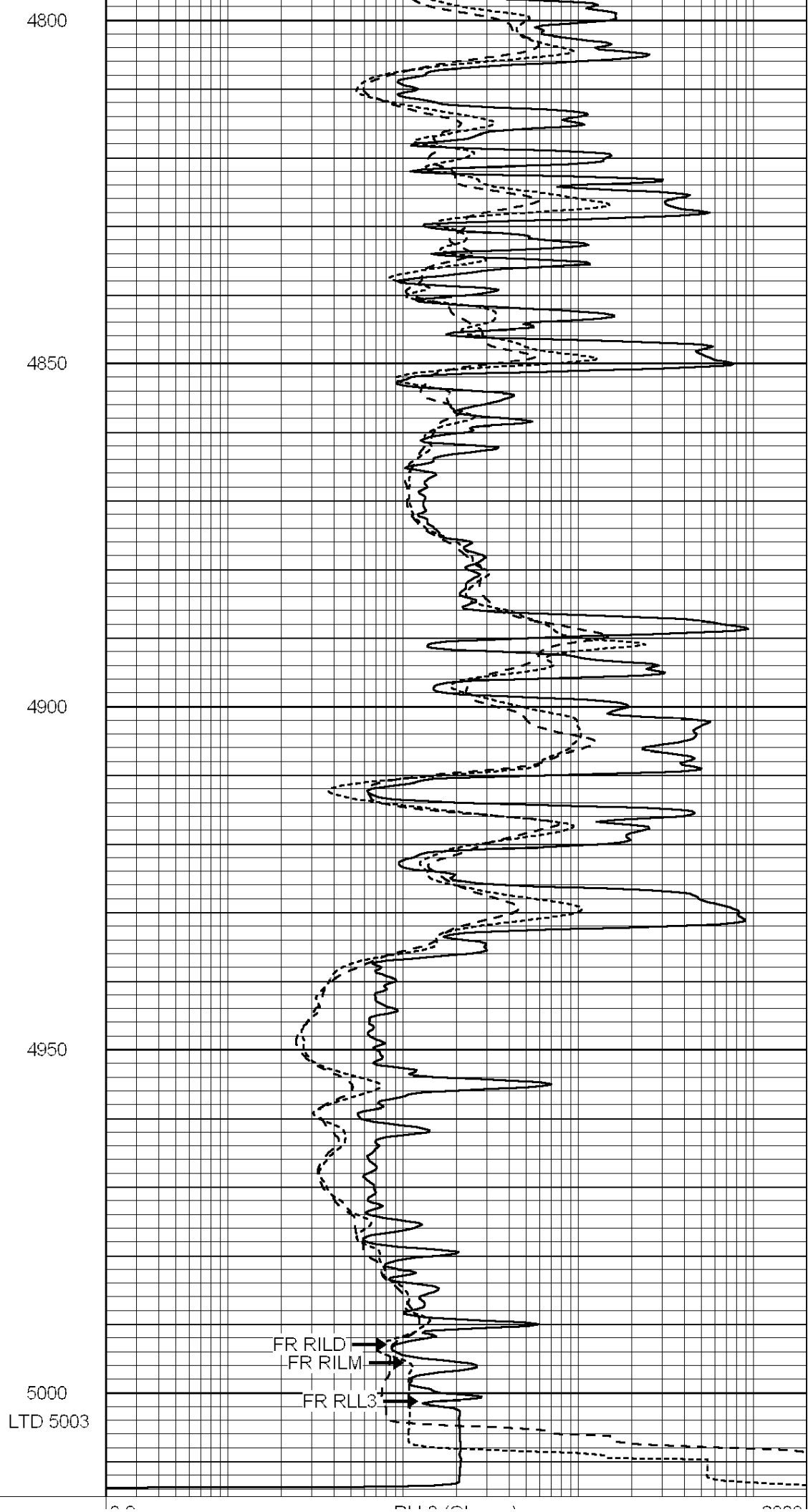
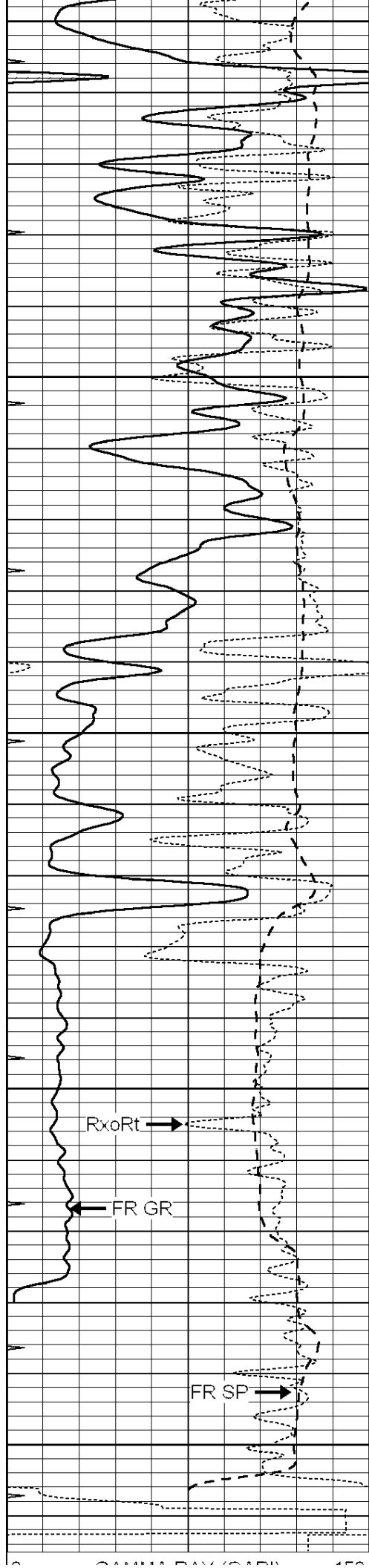
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0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

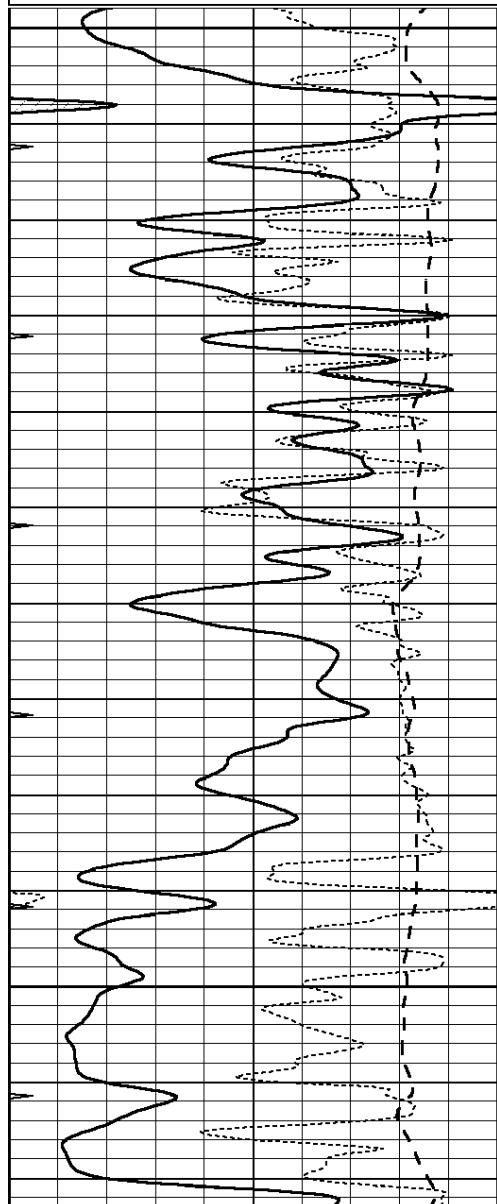


REPEAT SECTION

Database File: 010212ddn.db
 Dataset Pathname: pass2.8
 Presentation Format: _dil
 Dataset Creation: Tue Oct 08 12:35:15 2013 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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-250	RxoRt	50
0	MINMK	20

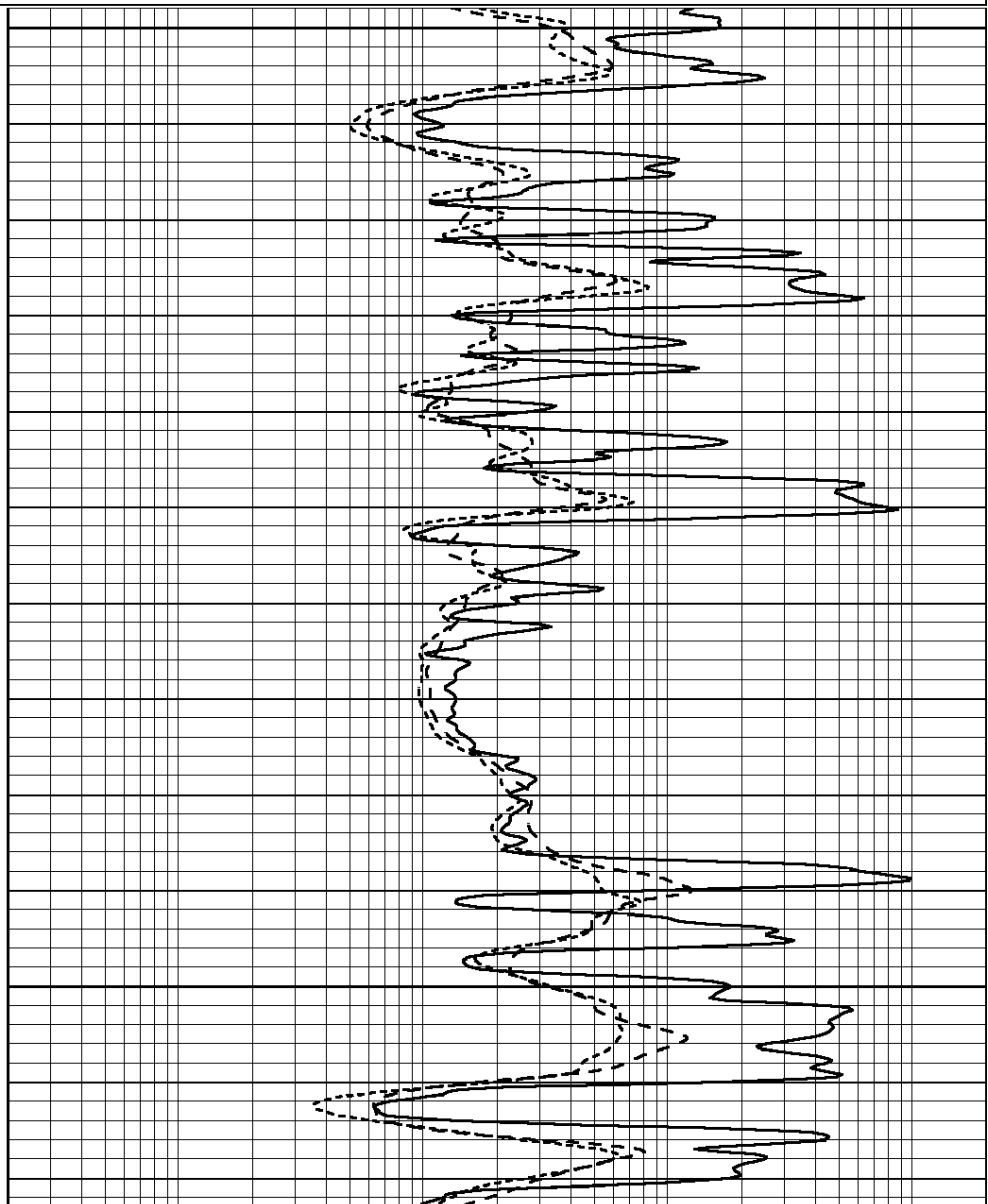
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0.2	MEDIUM INDUCTION (Ohm-m)	2000

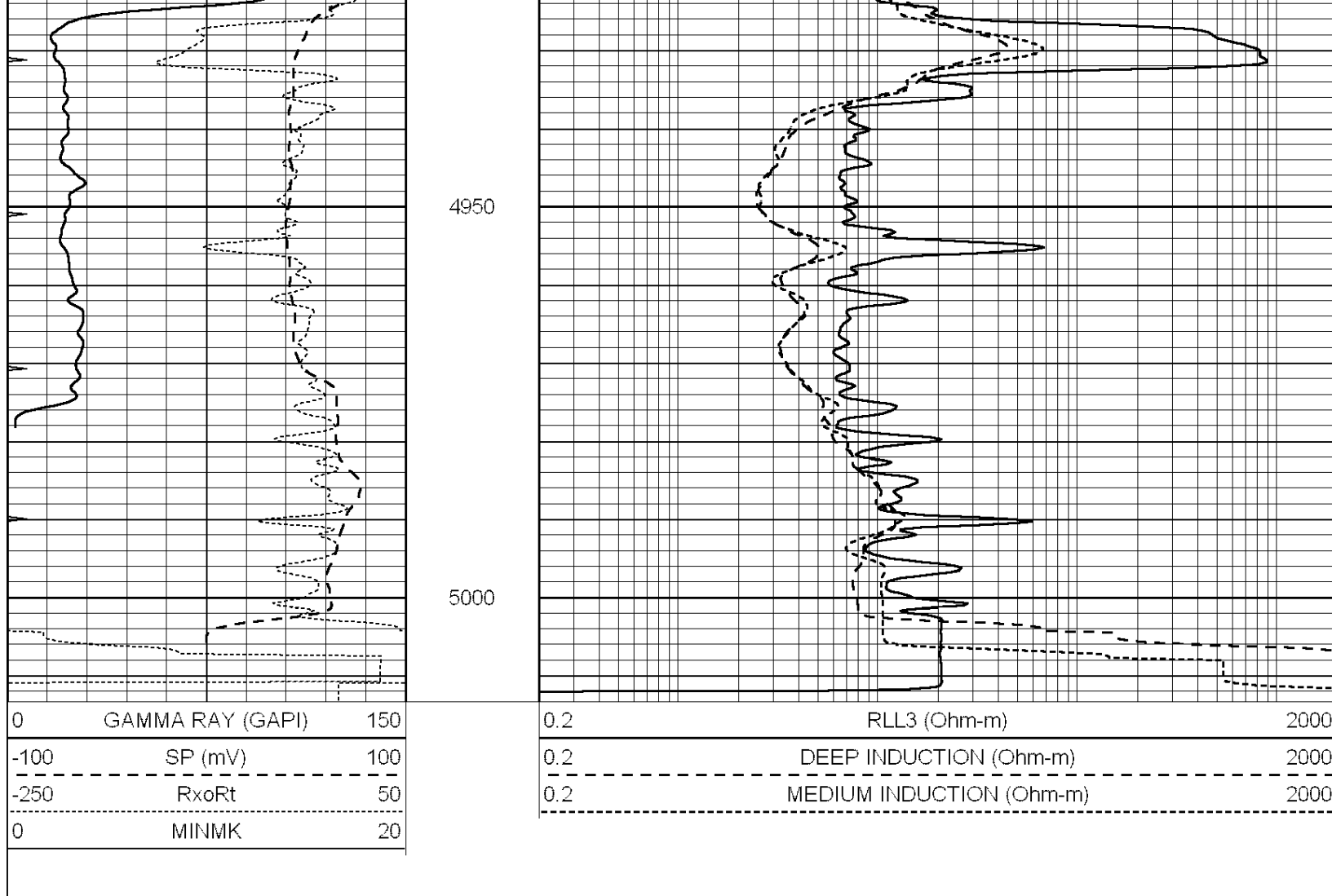


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4900





Calibration Report

Database File: 010212ddn.db
 Dataset Pathname: pass3.6
 Dataset Creation: Tue Oct 08 12:37:43 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Fri Oct 04 10:52:47 2013

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	440.000	6.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	510.000	7.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	560.000	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	540.000	-4.000

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Fri Oct 04 10:04:49 2013

Master Calibration

Density Far Detector Near Detector

Magnesium	1.710	g/cc	1205.77	610.74	cps
Aluminum	2.570	g/cc	271.21	419.72	cps

Spine Angle = 75.89

Density/Spine Ratio = 0.559

	Size		Reading	
Small Ring	8.20	in	4.83	V
Large Ring	14.00	in	7.01	V

Compensated Neutron Calibration Report

Serial Number: NEU_4I
 Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	1.00 cps	1.00 cps	1.0000
Long Space	1.00 cps	1.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR5
 Tool Model: OPEN
 Performed: Fri Oct 04 13:15:45 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.8800 GAPI/cps