



SUPERIOR
Hays,
Kansas

**DUAL
INDUCTION
LOG**

Company	CHIEFTAIN OIL CO., INC.	Company	CHIEFTAIN OIL COMPANY, INC.	Other Services	CNLCDL PE
Well	DALE #1	Well	DALE #1		
Field		Field			
County	BARBER	County	BARBER	State	KANSAS
Location:	API # : 15-007-23519-0000	Permanent Datum GROUND LEVEL Elevation 1312 Log Measured From KELLY BUSHING 10' A.G.L. Drilling Measured From KELLY BUSHING SEC 34 TWP 34S RGE 10W			
		Elevation	K.B. 1322 D.F. 1320 G.L. 1312		

Date	3/28/10	Run Number	ONE
Depth Driller	5382	Depth Logger	5383
Bottom Logged Interval	5381	Top Log Interval	0
Casing Driller	8 5/8"@332'	Casing Logger	332'
Bit Size	7 7/8"	Type Fluid In Hole	CHEMICAL MUD
Density / Viscosity	9.2/53	pH / Fluid Loss	10.0/12.8
Source of Sample	FLOWLINE	Rim @ Meas. Temp	.500@71F
Rim @ Meas. Temp	.380@71F	Rmc @ Meas. Temp	.600@71F
Source of Rmf / Rmc	MEASUREMENT	Rm @ BHT	.280@128F
Time Circulation Stopped	2 HOURS	Time Logger on Bottom	128F
Maximum Recorded Temperature	0836	Equipment Number	
Location	HAYS, KANSAS	Recorded By	DAN GOTTSCHALK
Witnessed By	ARDEN RATZLAFF		

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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

THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 HAZELTON - 3 SOUTH ON TRI-CITY RD. TO RATTLESNAKE RD. - 1/2 EAST - SOUTH INTO

Charted by:

Depth in Feet scaled 1:600

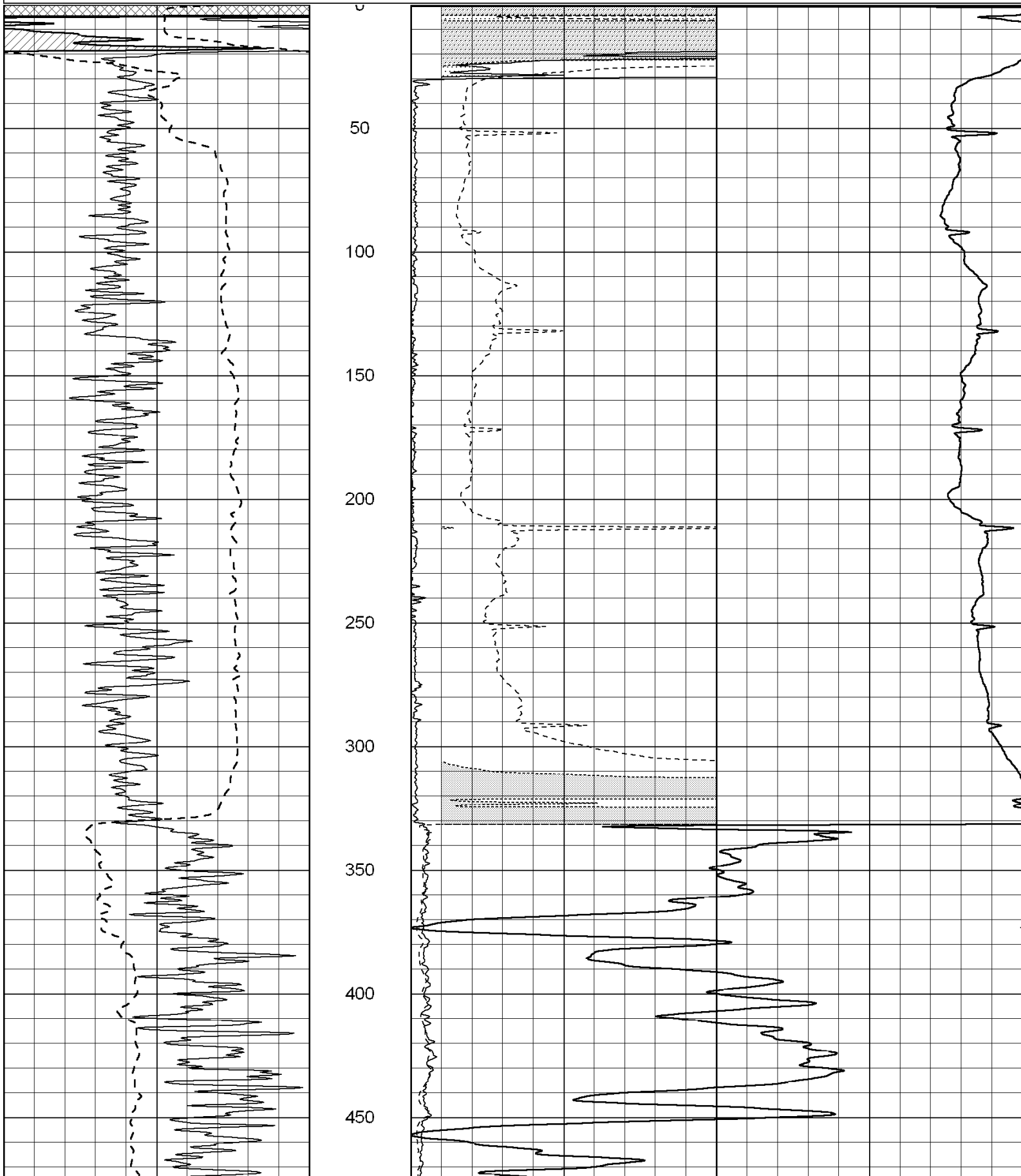
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-100	SP (mV)	100

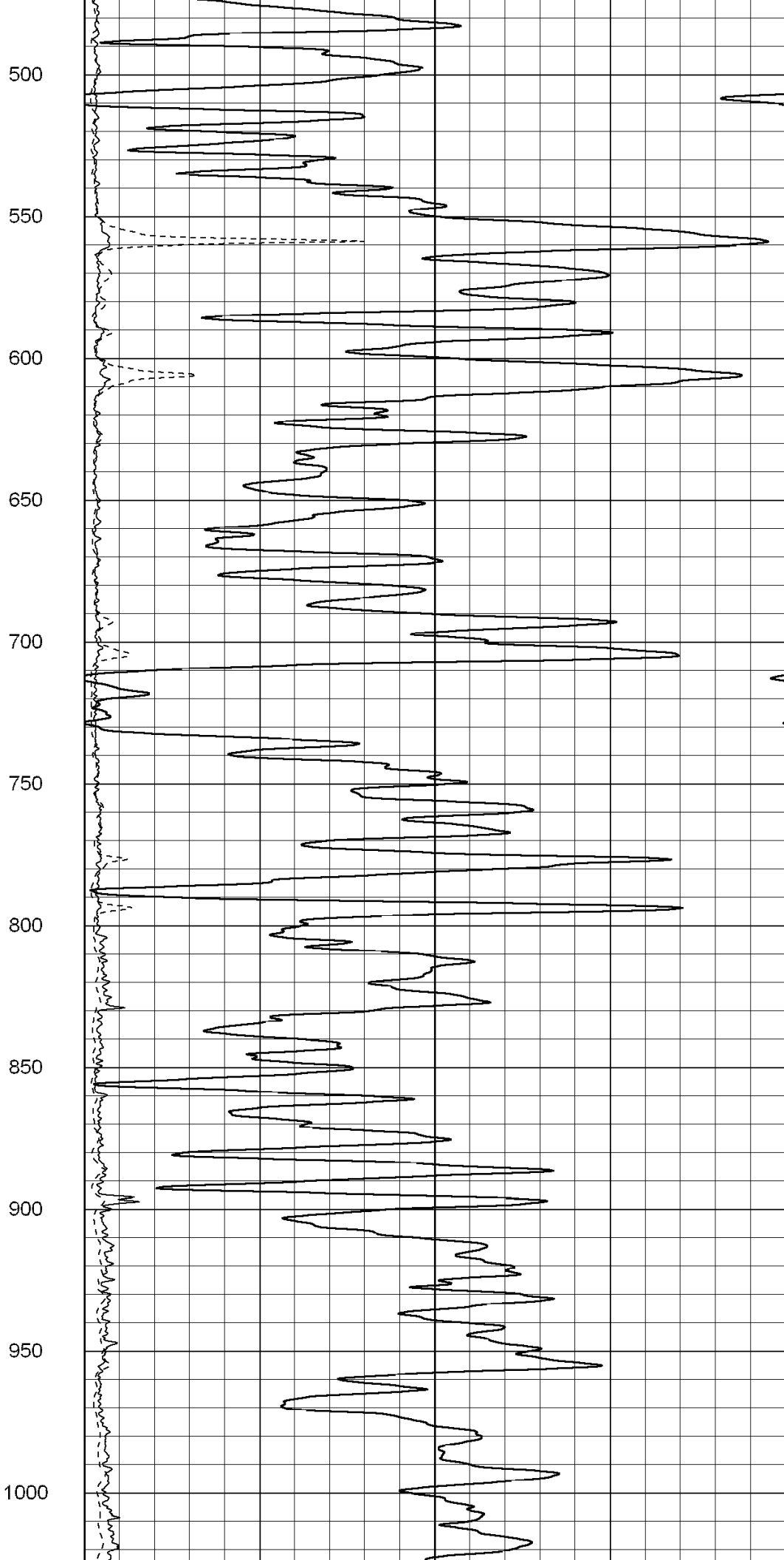
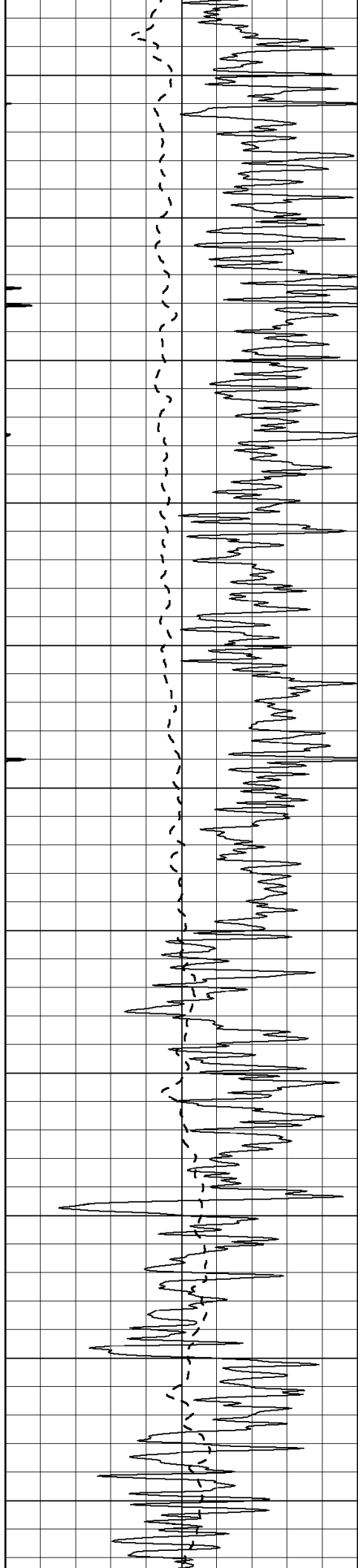
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0	RILD (Ohm-m)	50

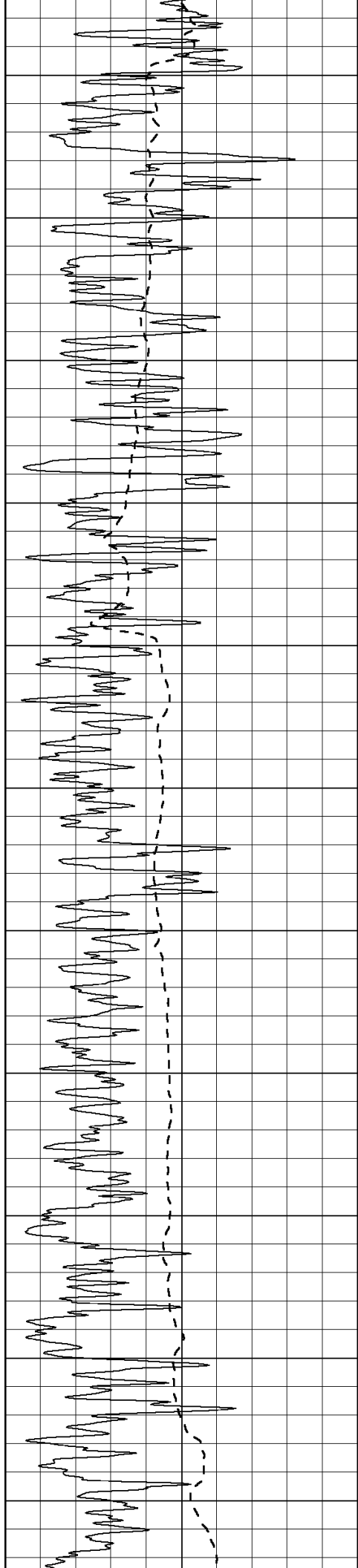
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50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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1050

1100

1150

1200

1250

1300

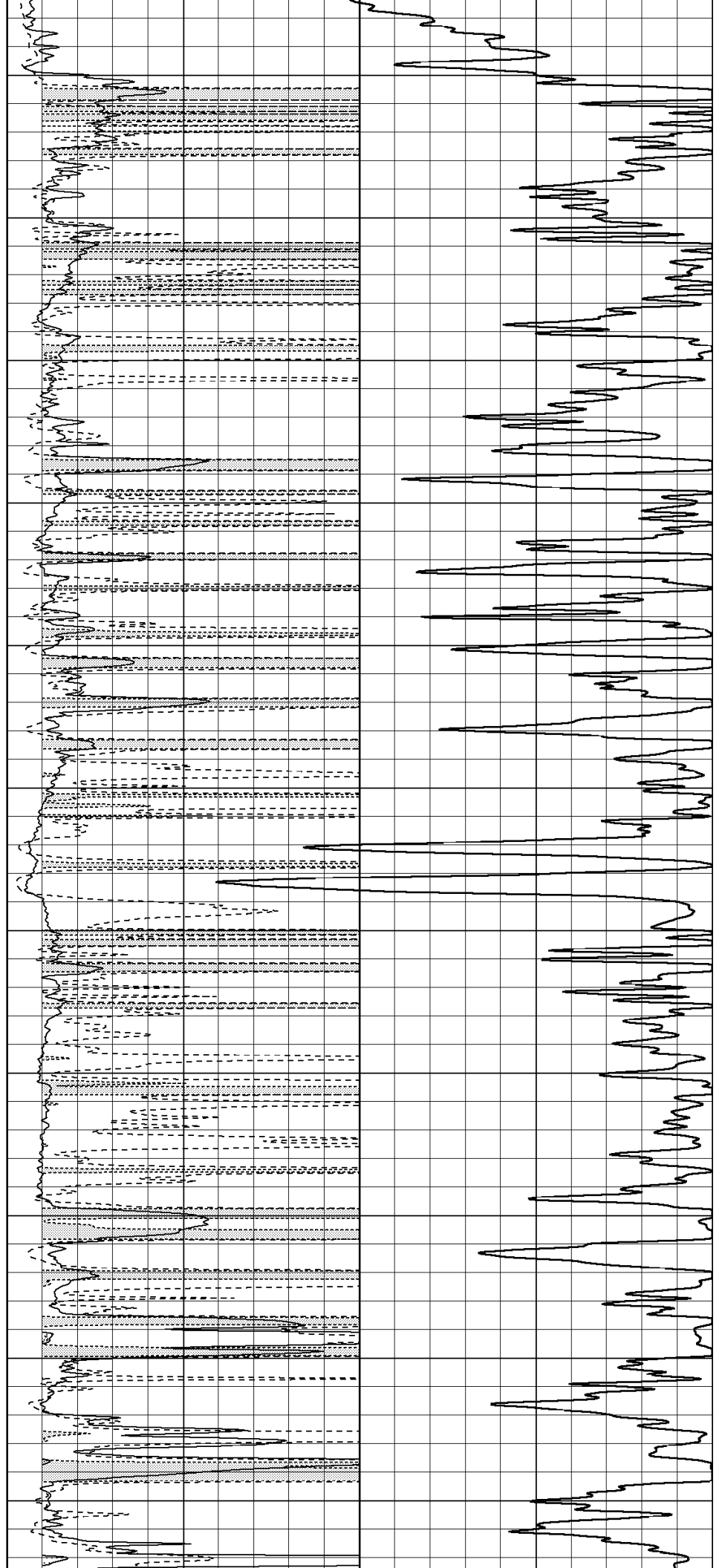
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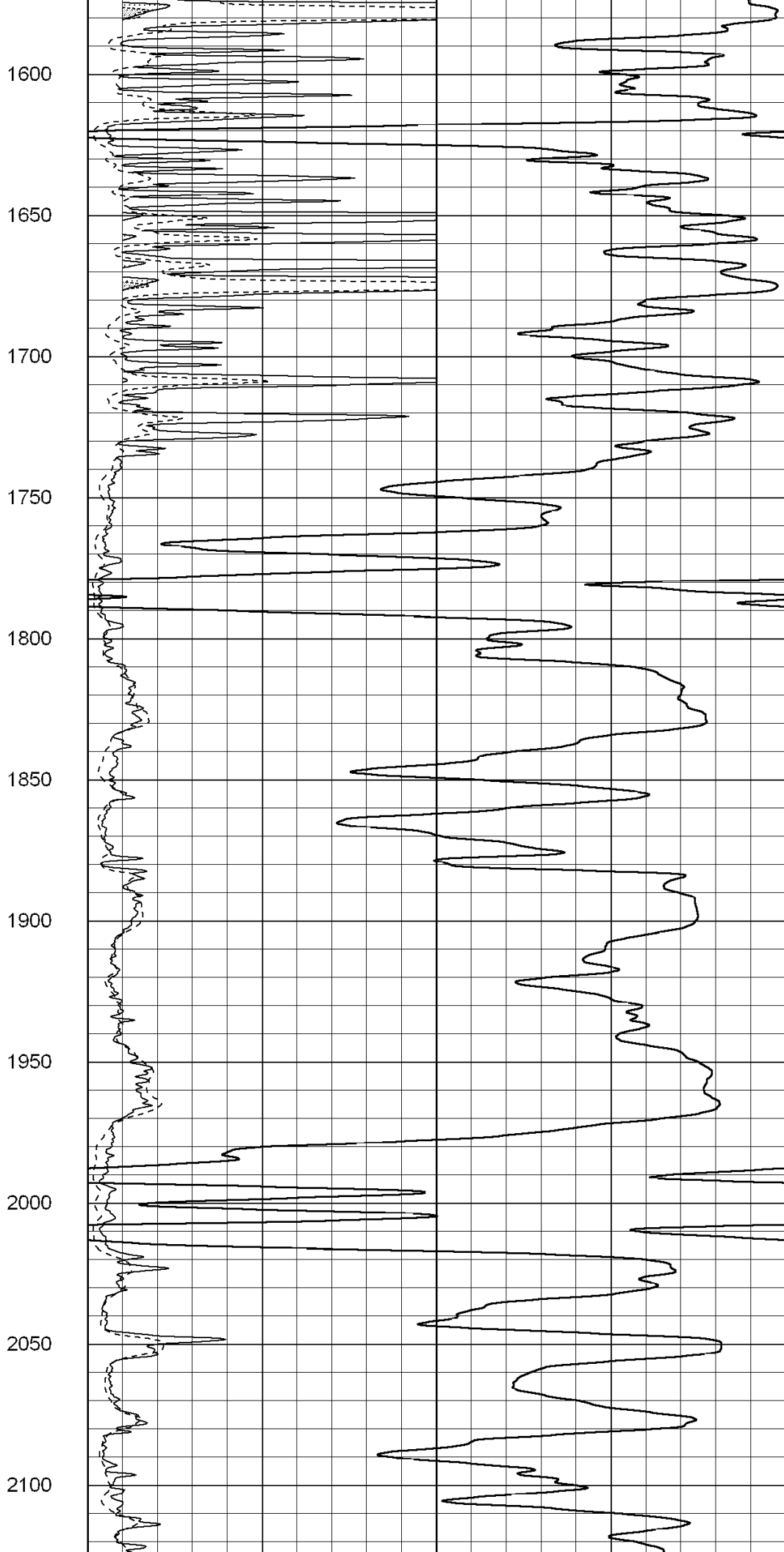
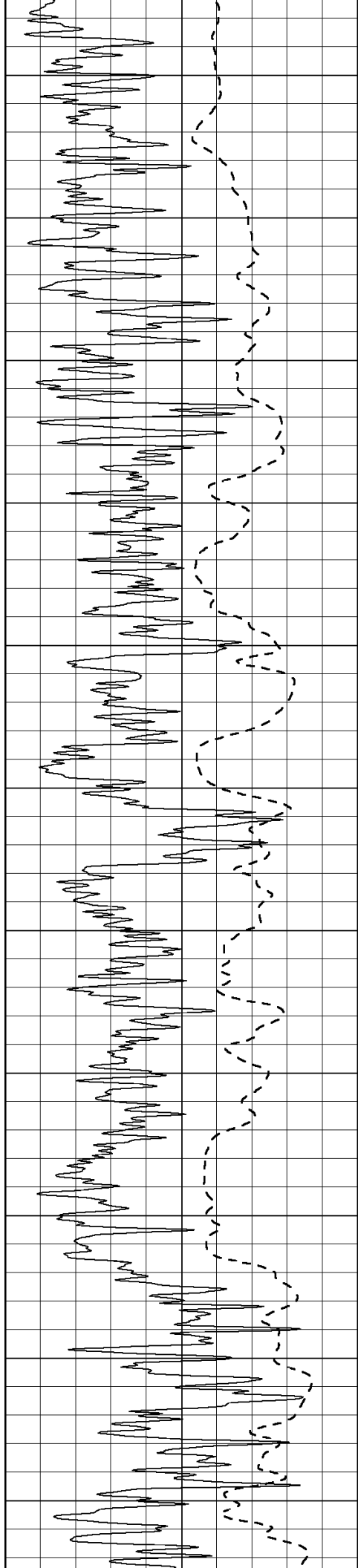
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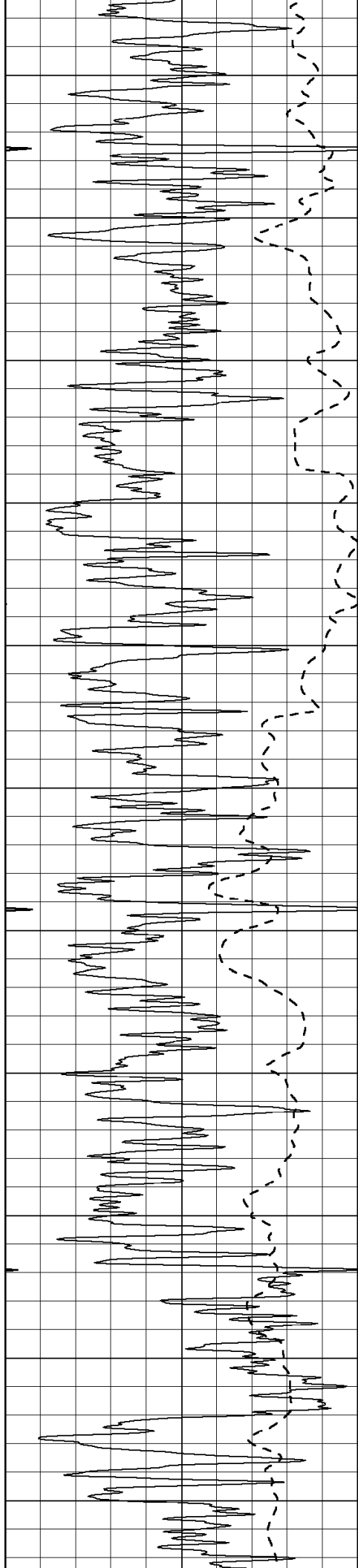
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1500

1550







2150

2200

2250

2300

2350

2400

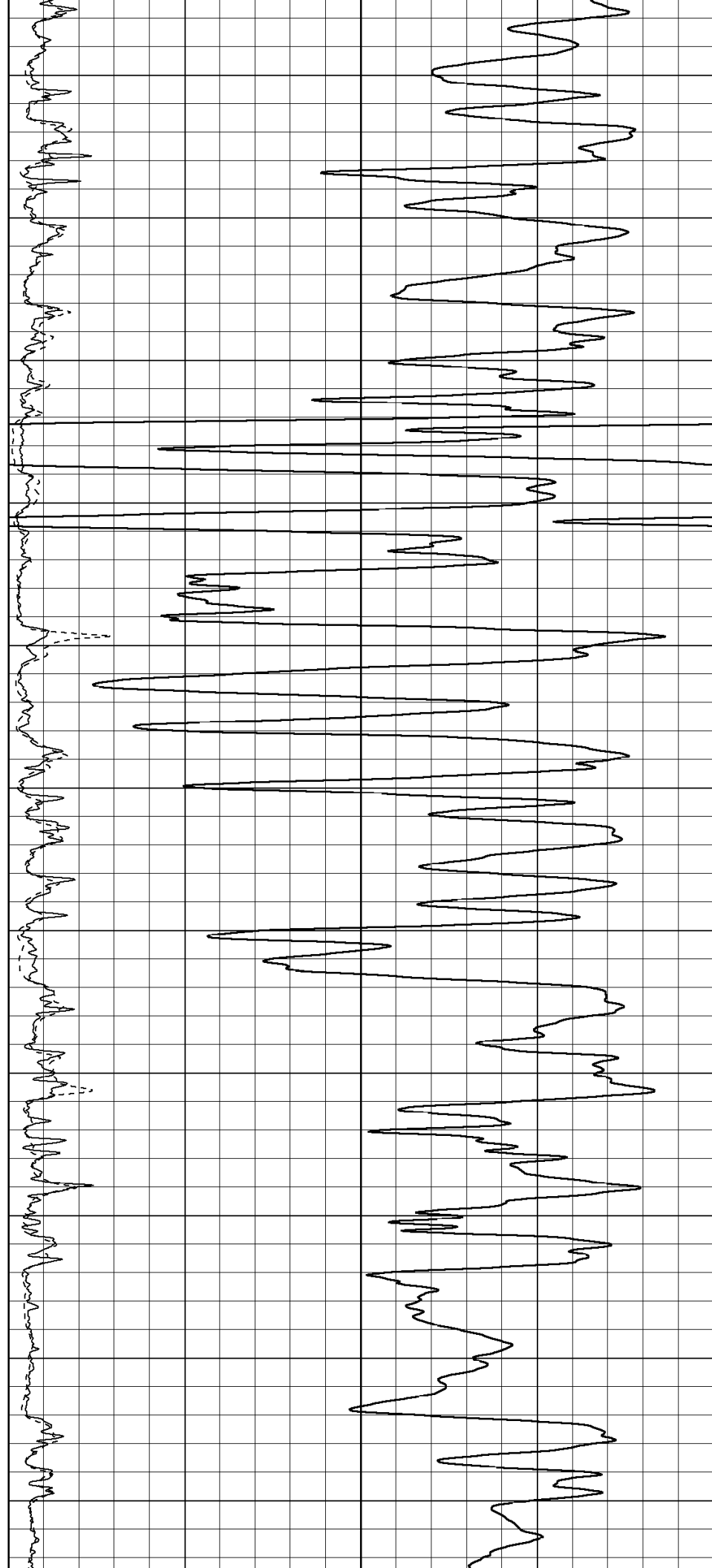
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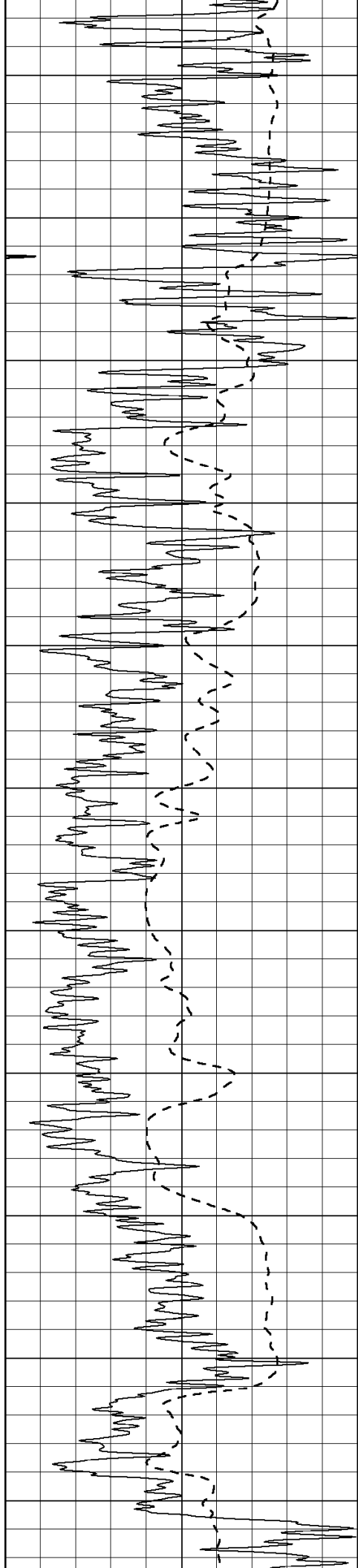
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2700

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2800

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2900

2950

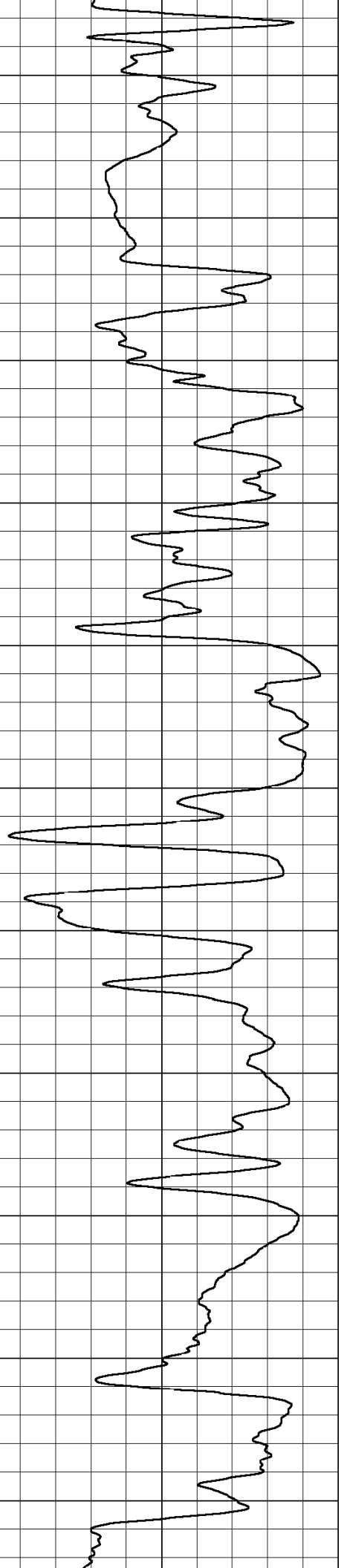
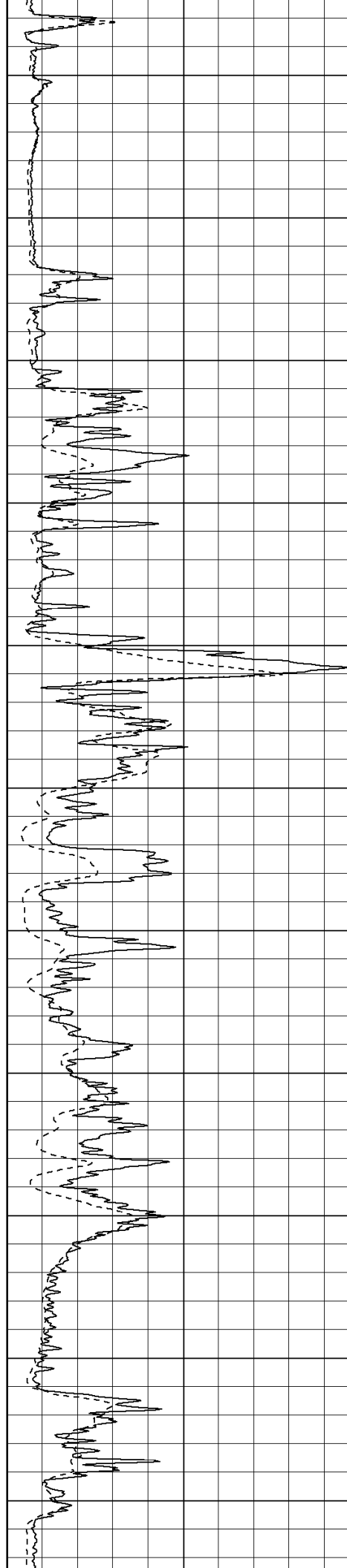
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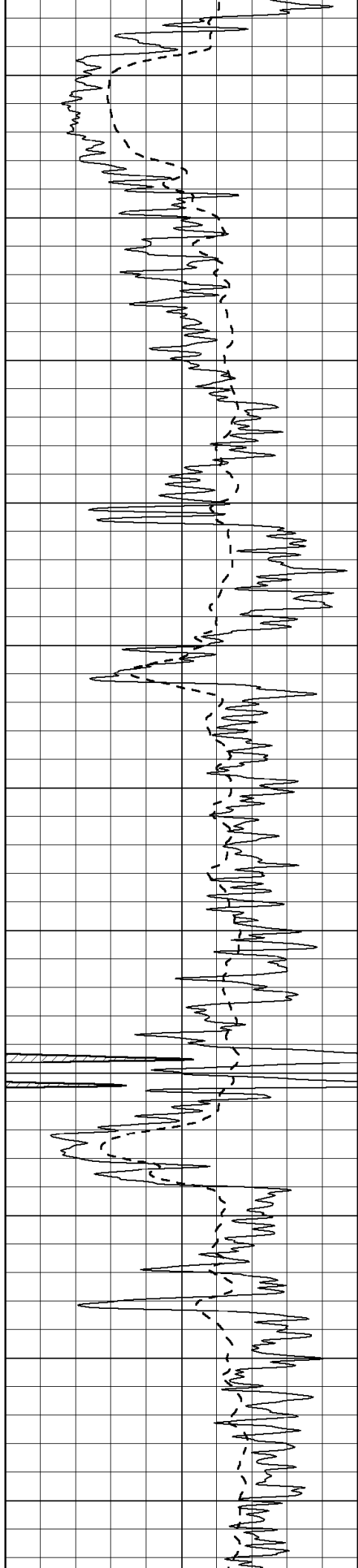
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3150

3200





3250

3300

3350

3400

3450

3500

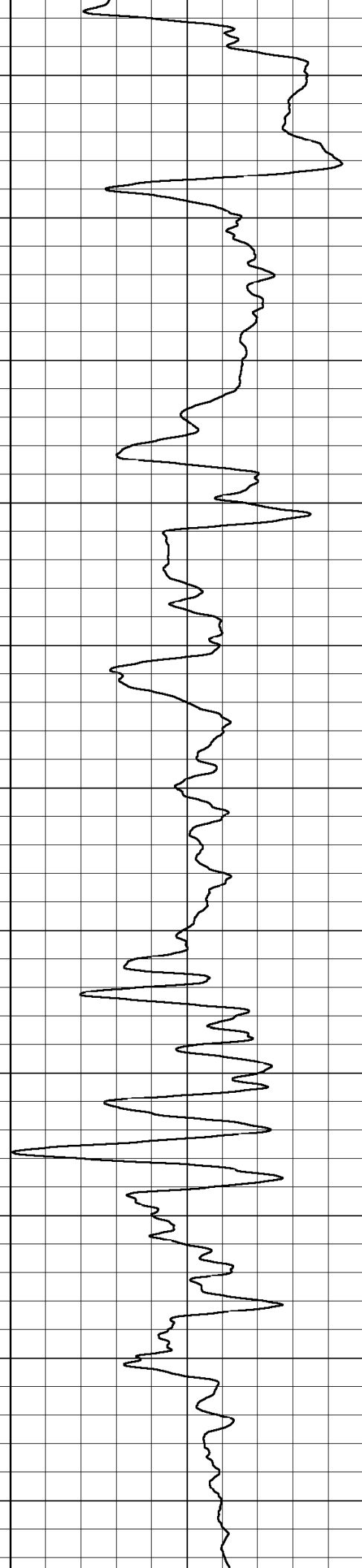
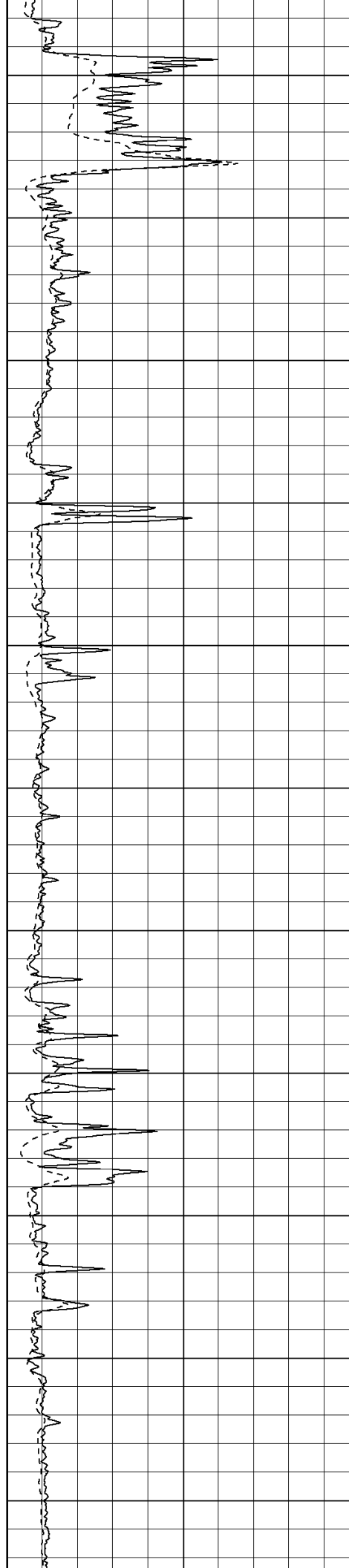
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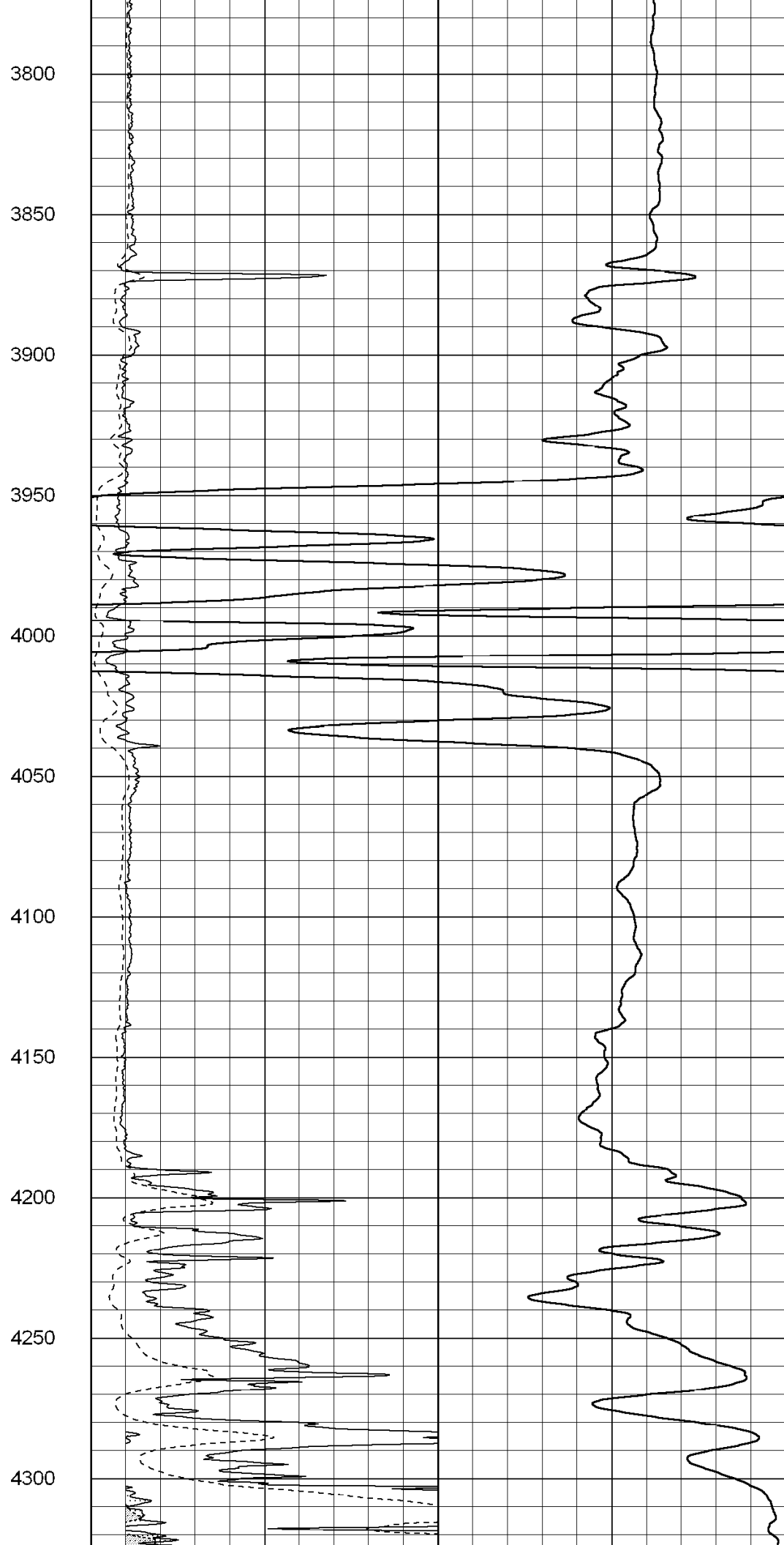
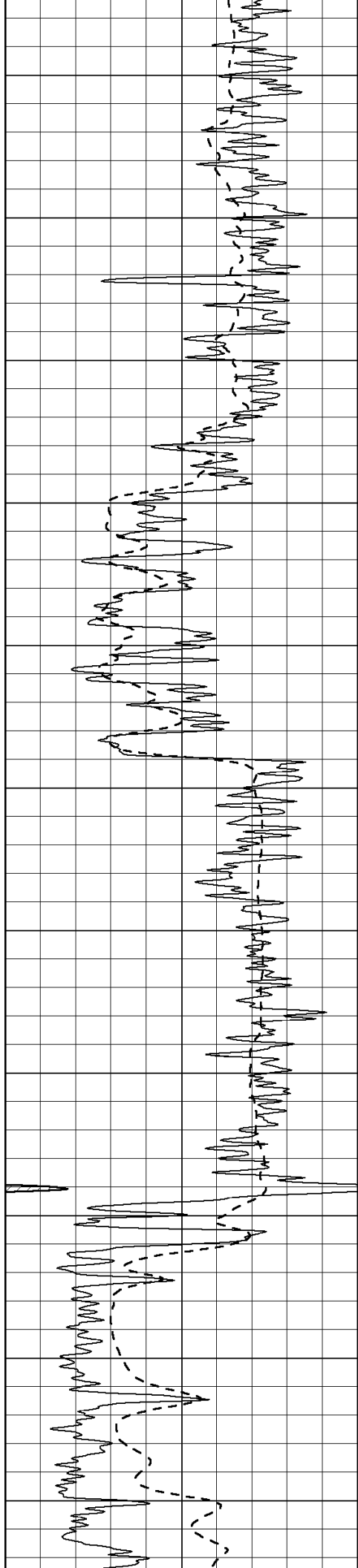
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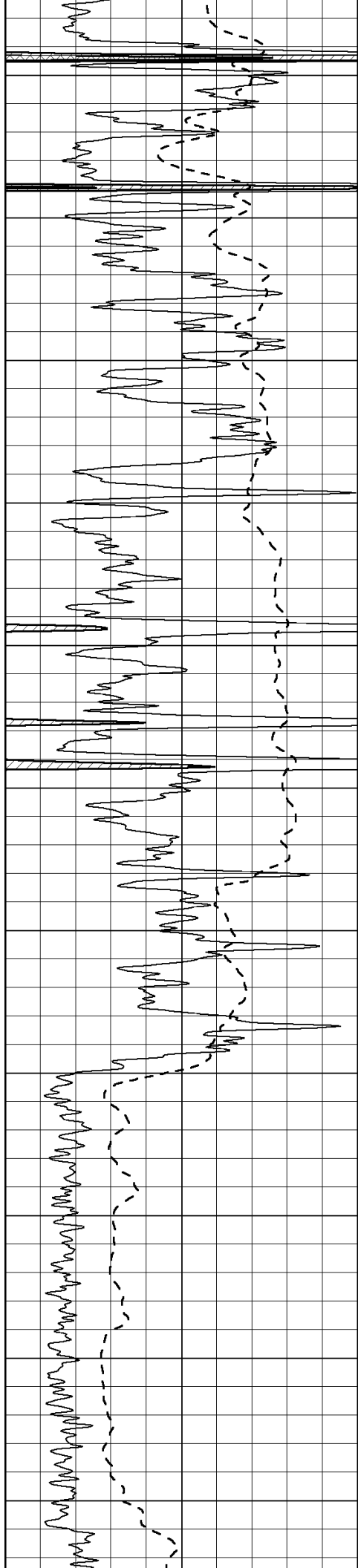
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4350

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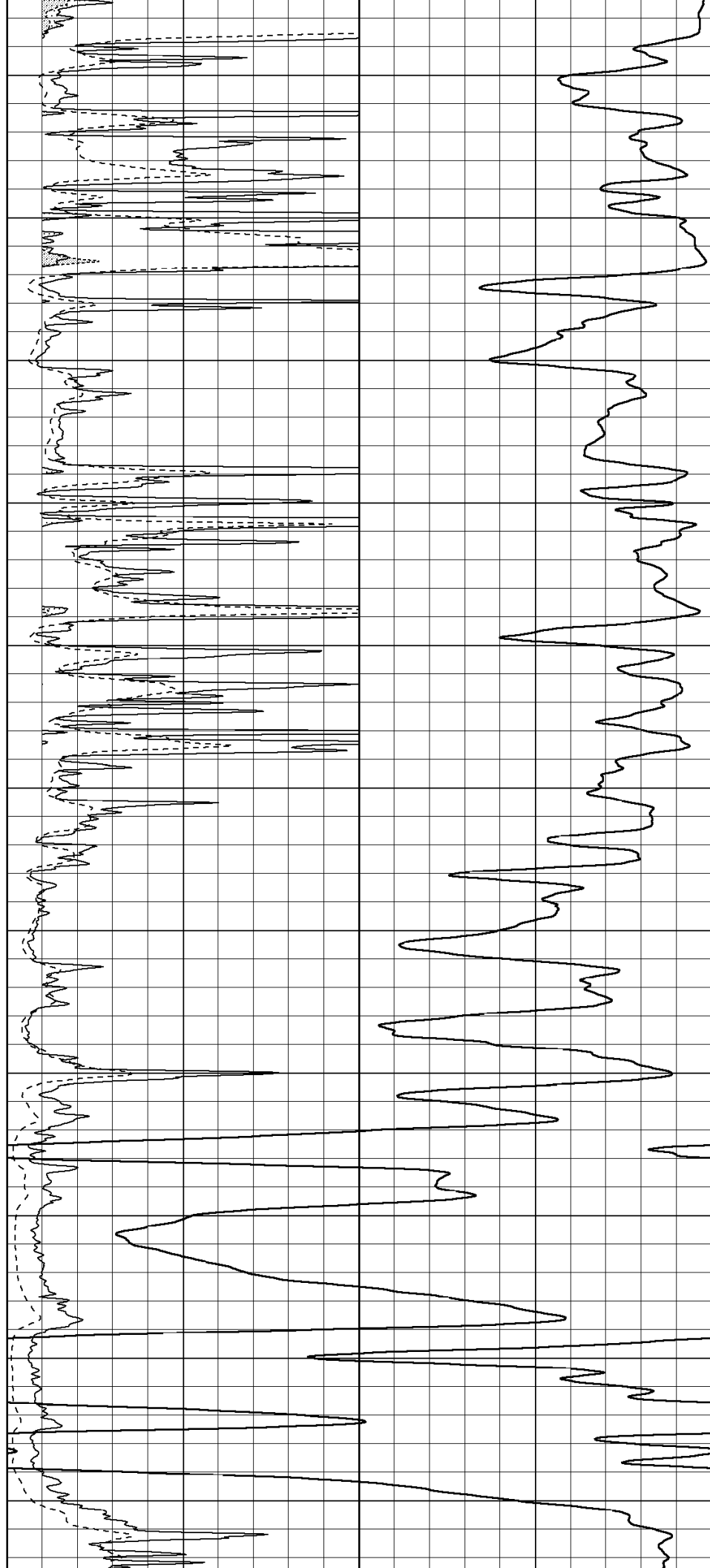
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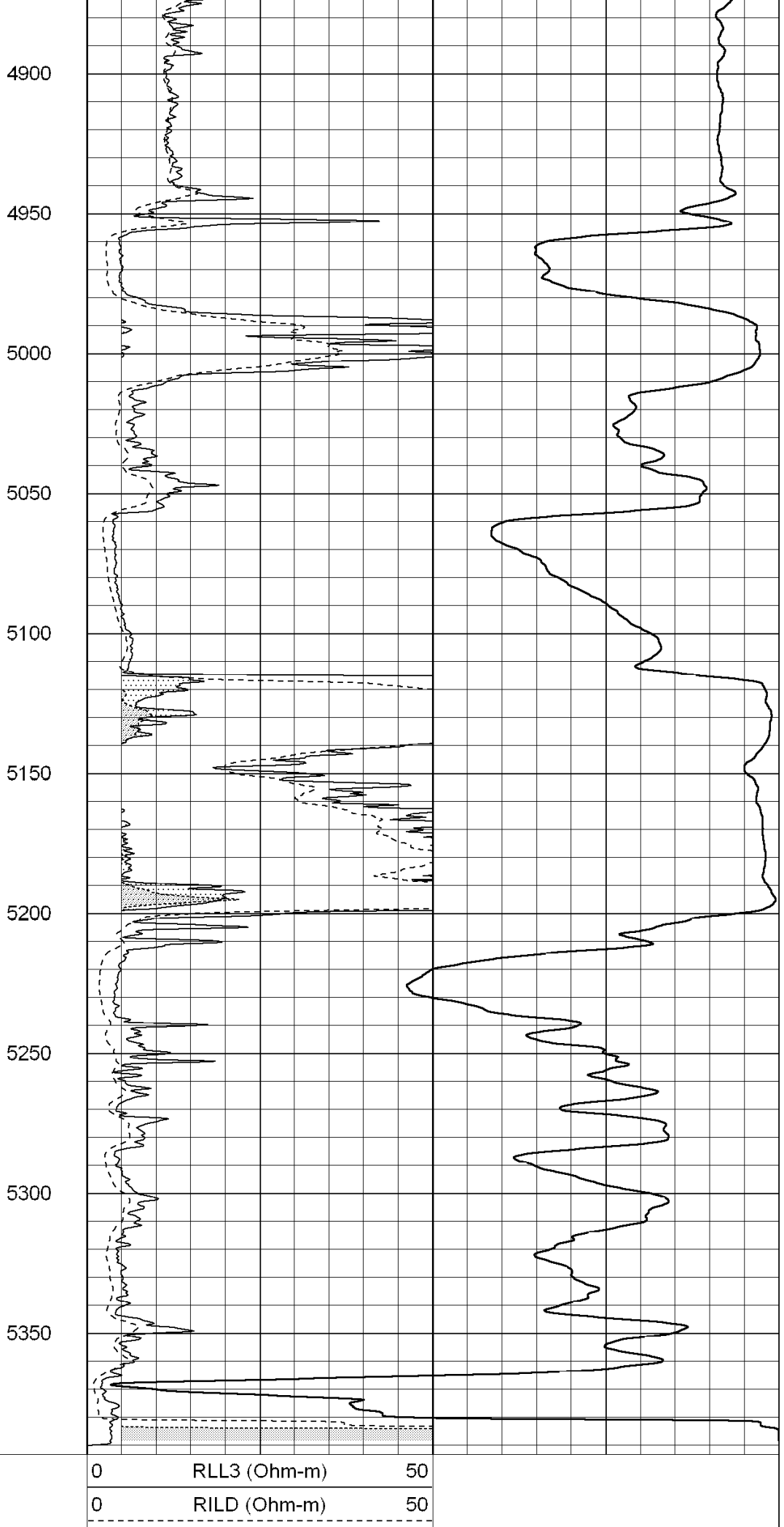
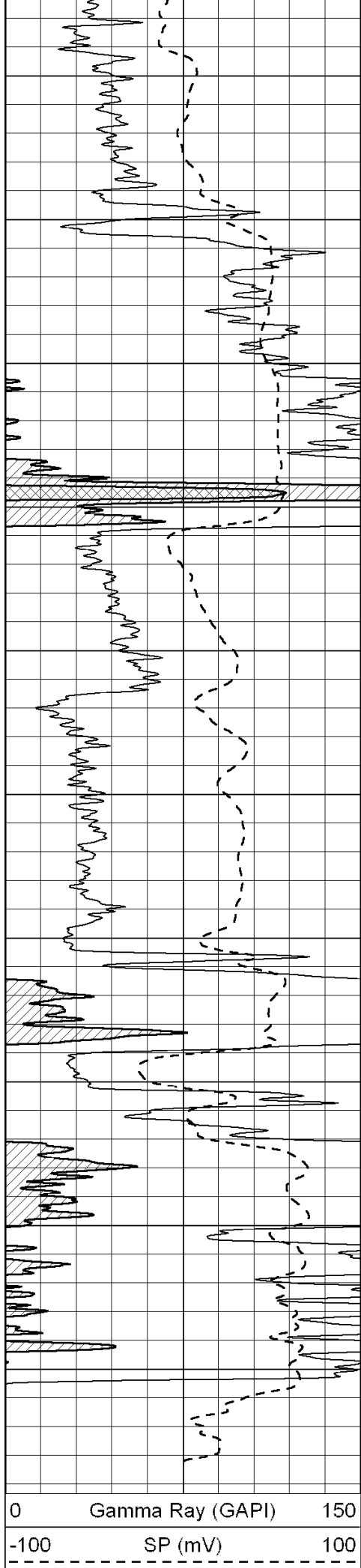
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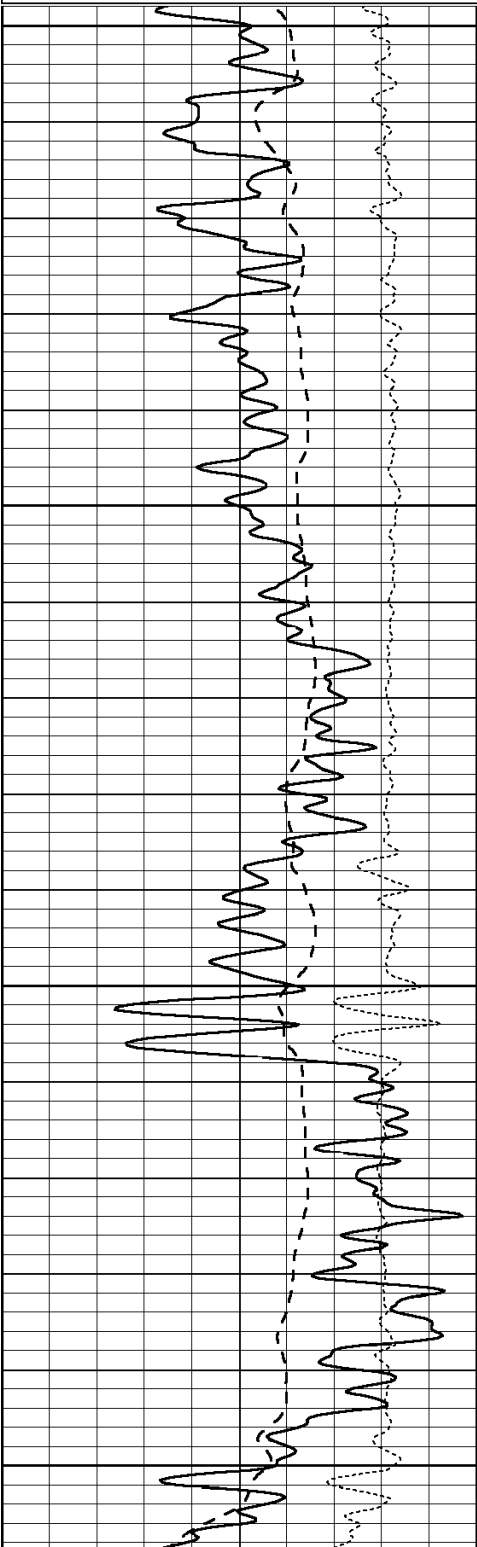




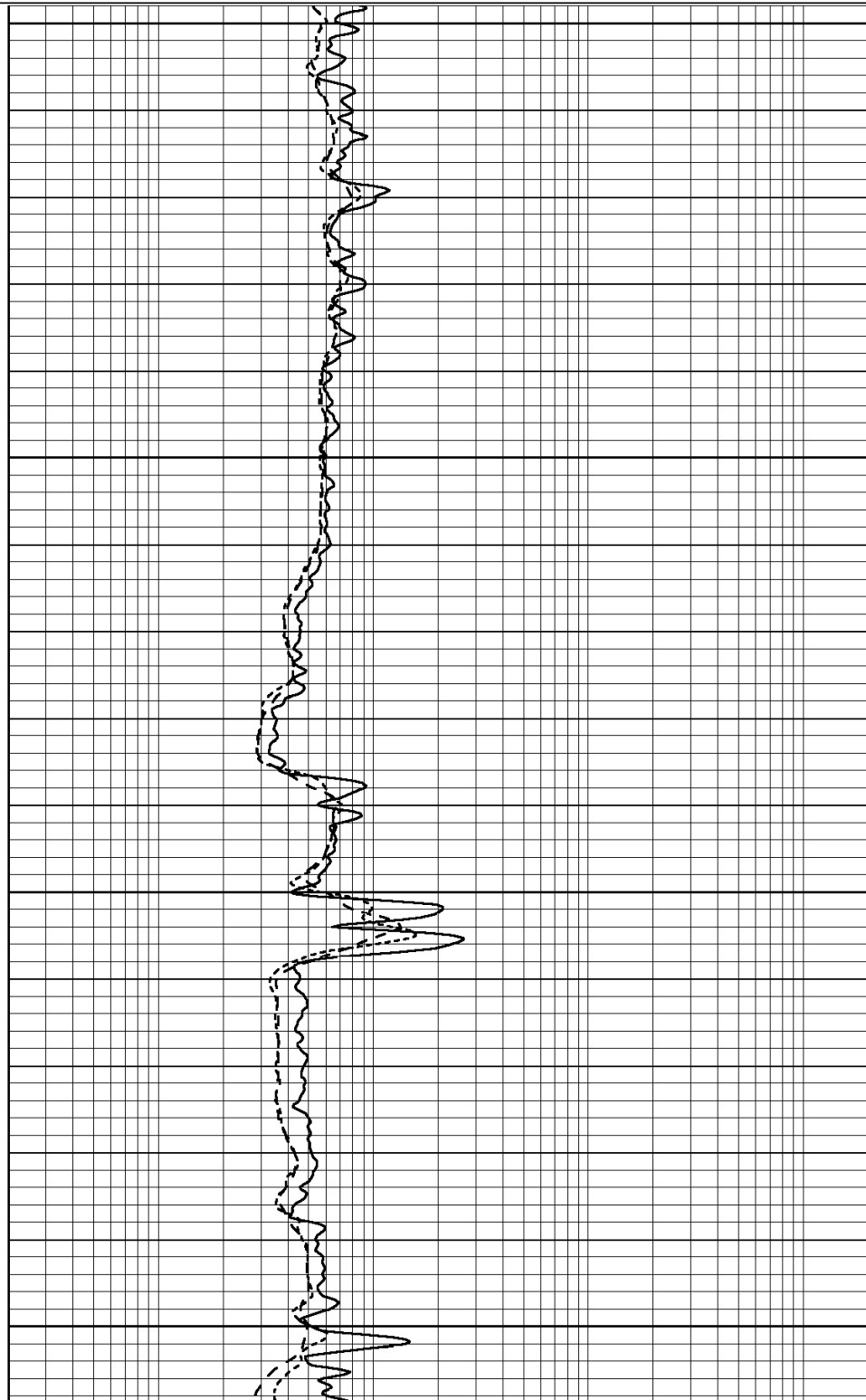
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50	RILD X10 (Ohm-m)		500
50	RLL3 X10 (Ohm-m)		500

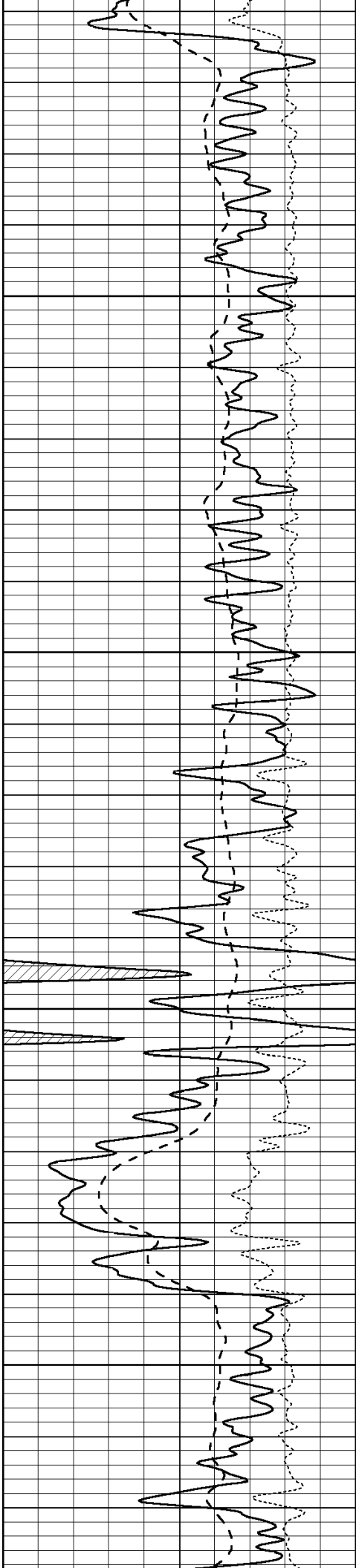
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 Charted by: Depth in Feet scaled 1:240

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-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000



3300
 3350
 3400
 3450



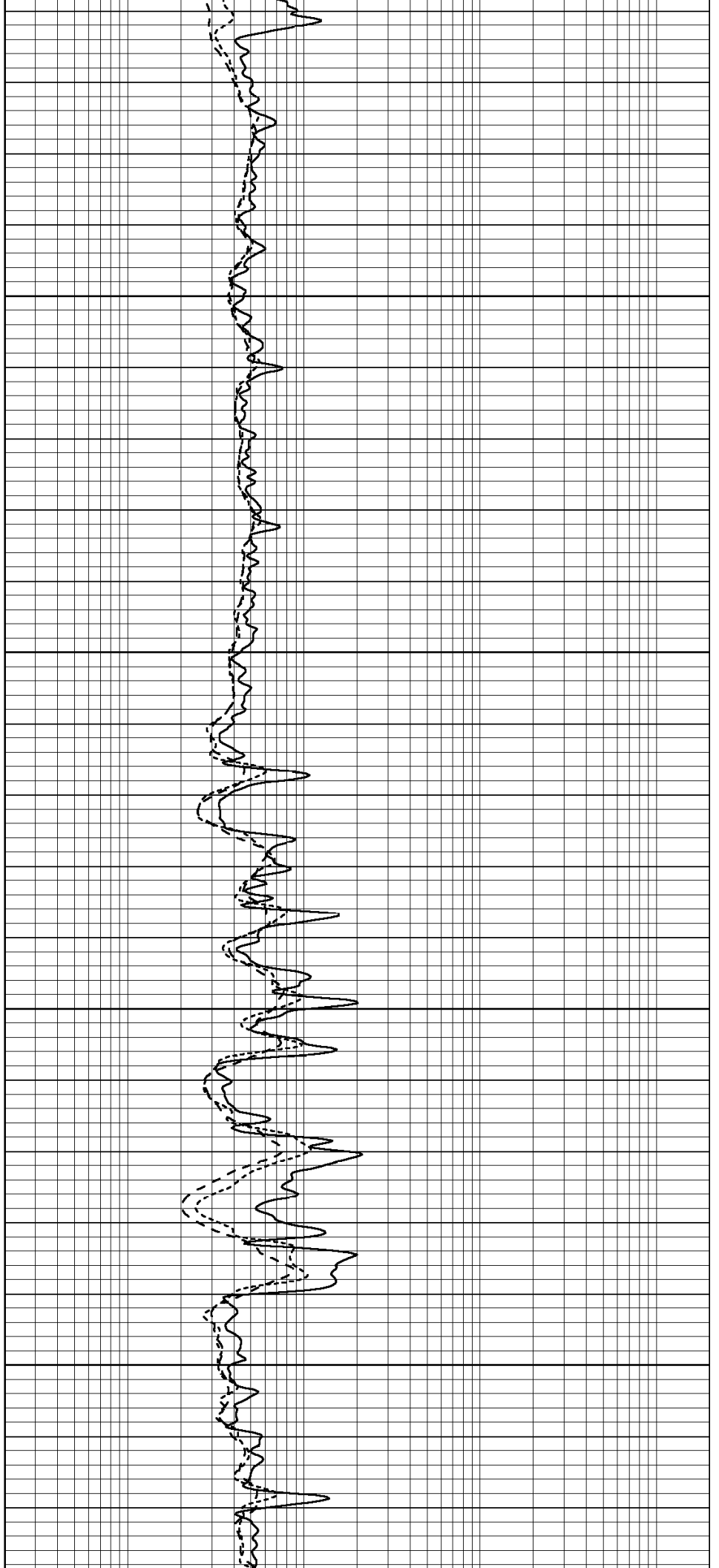


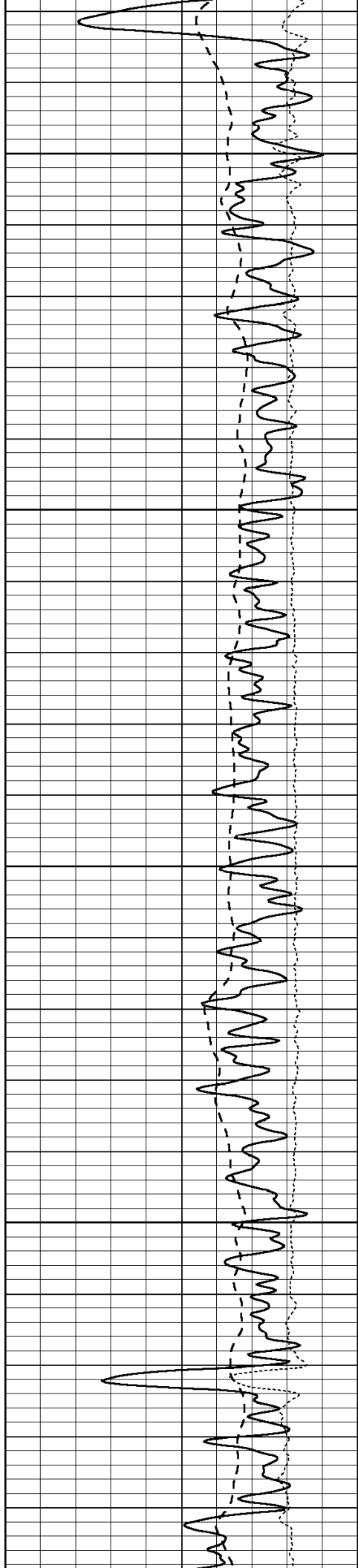
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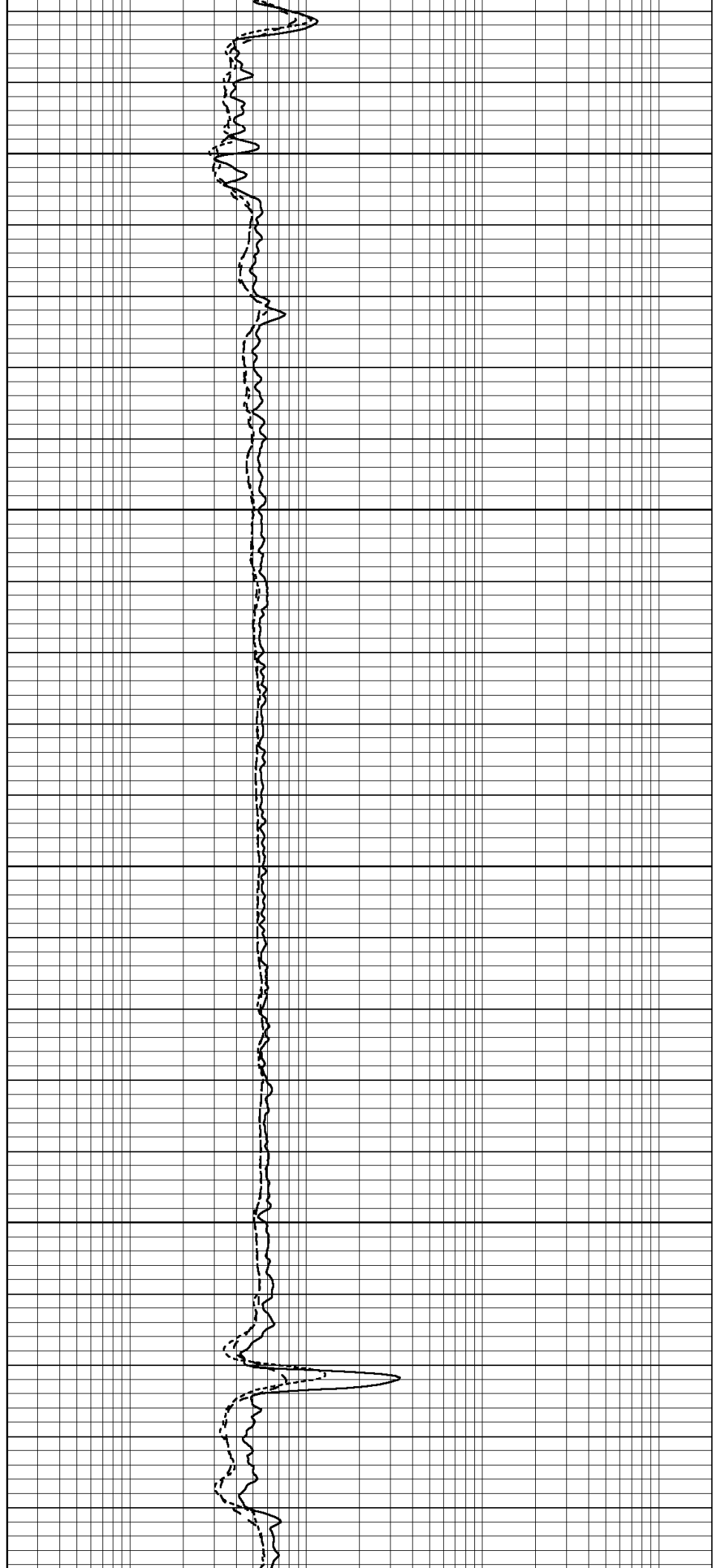


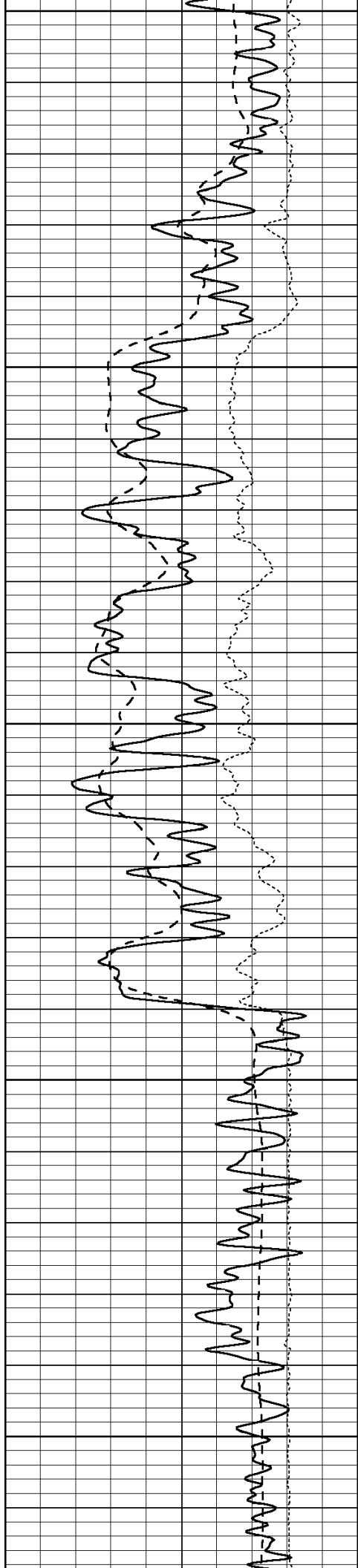
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3850





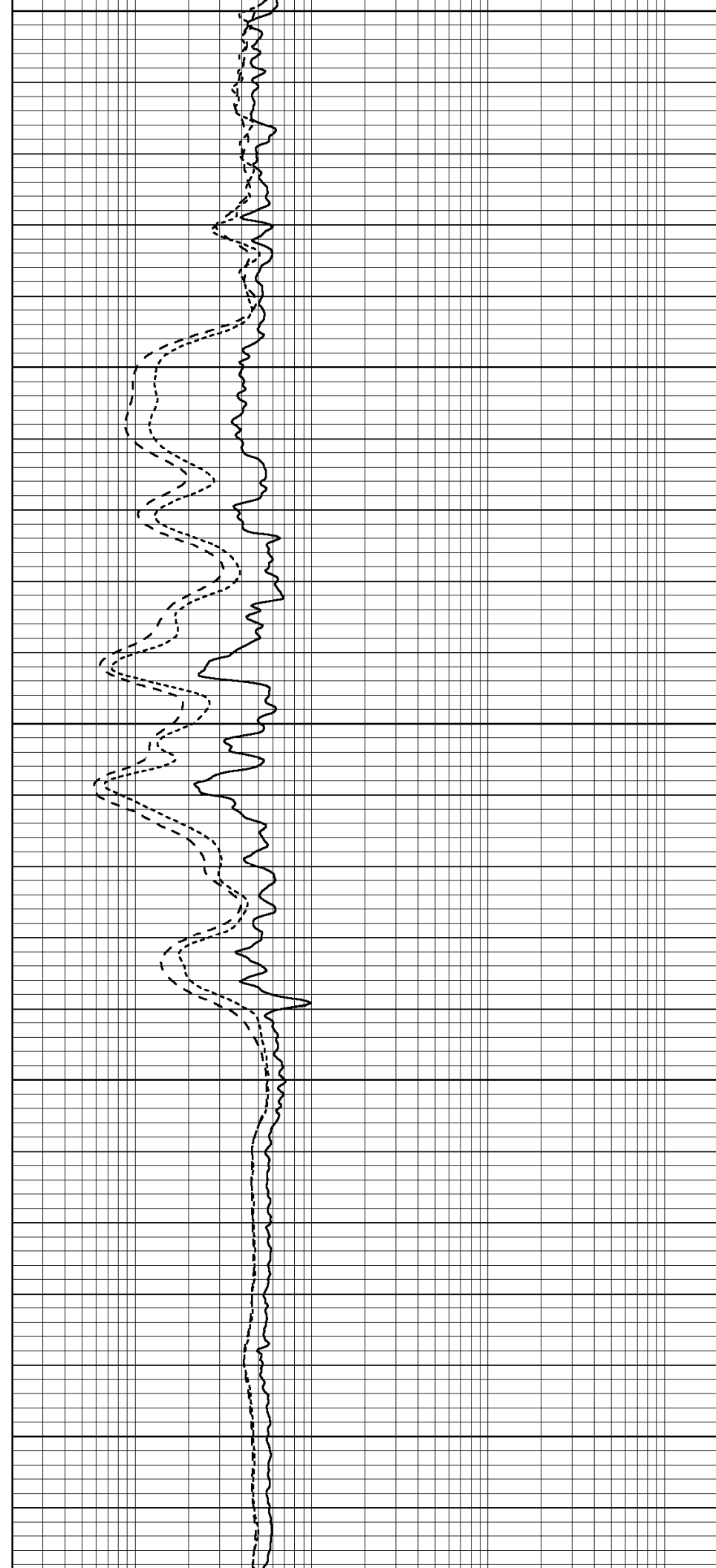
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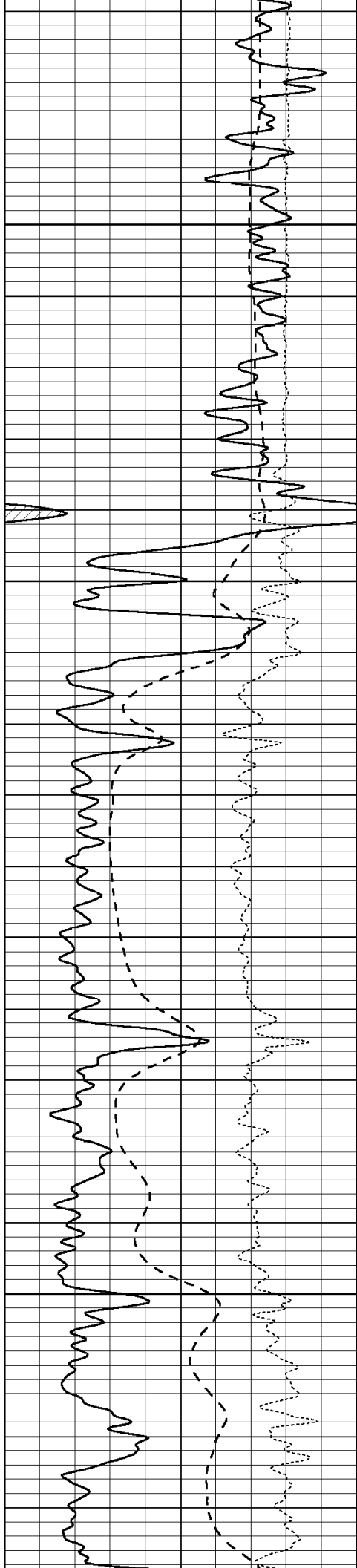
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4050

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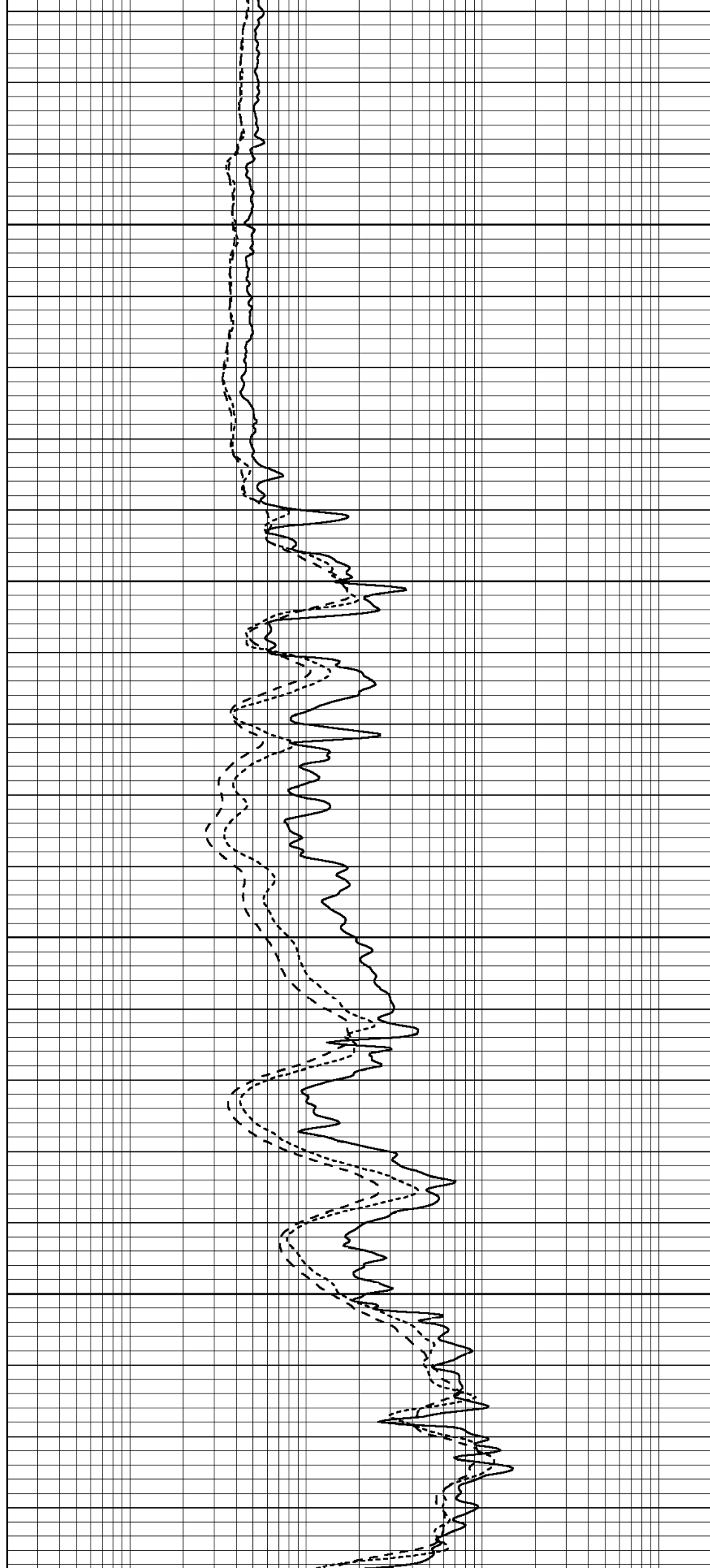


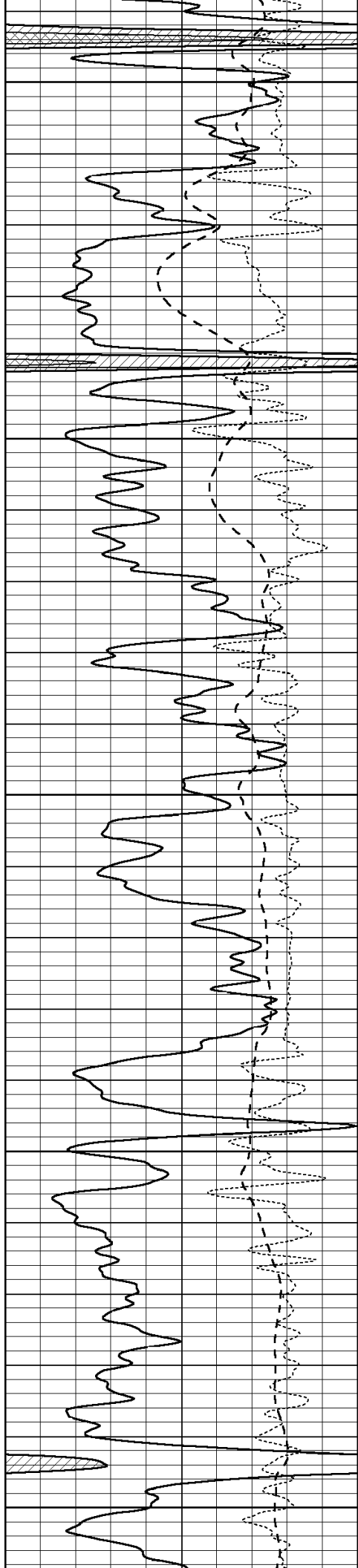
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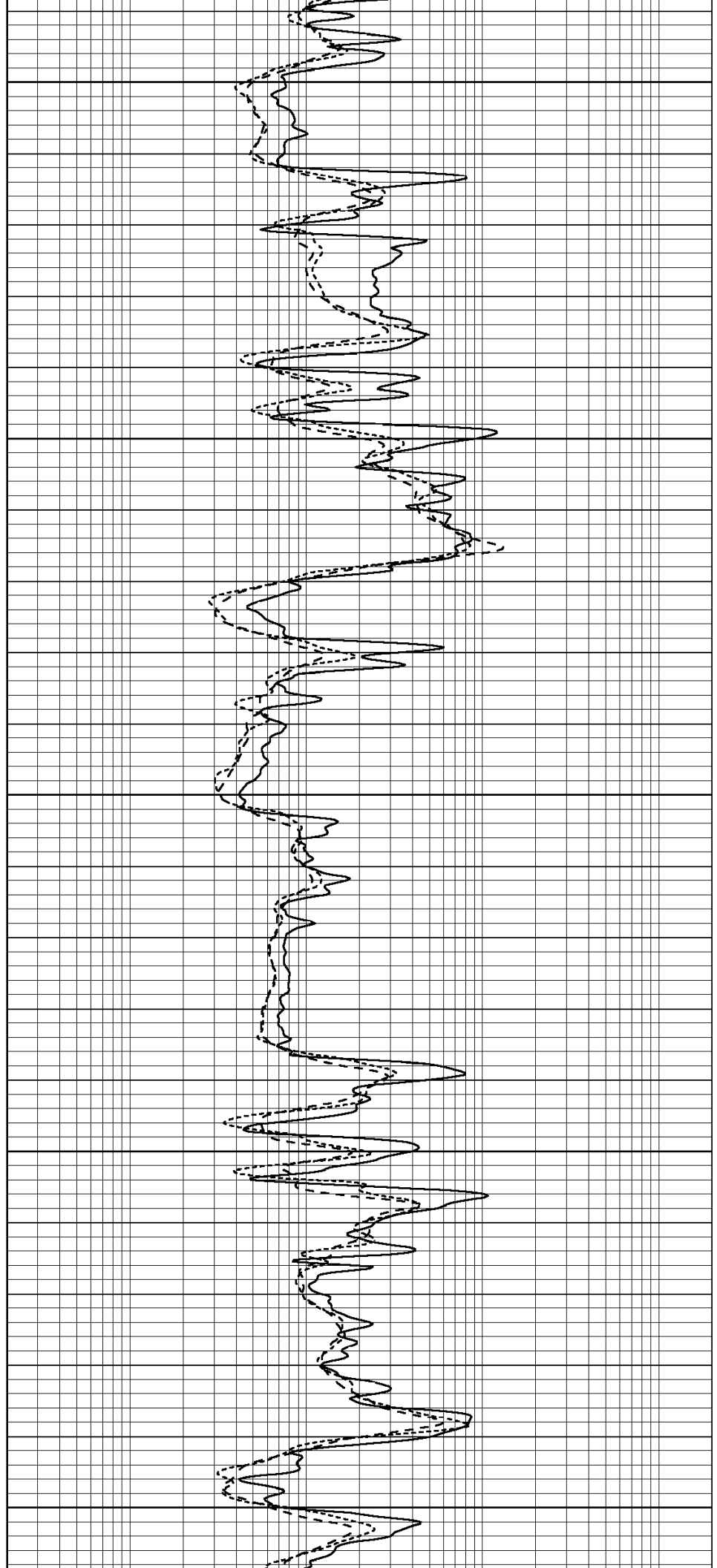
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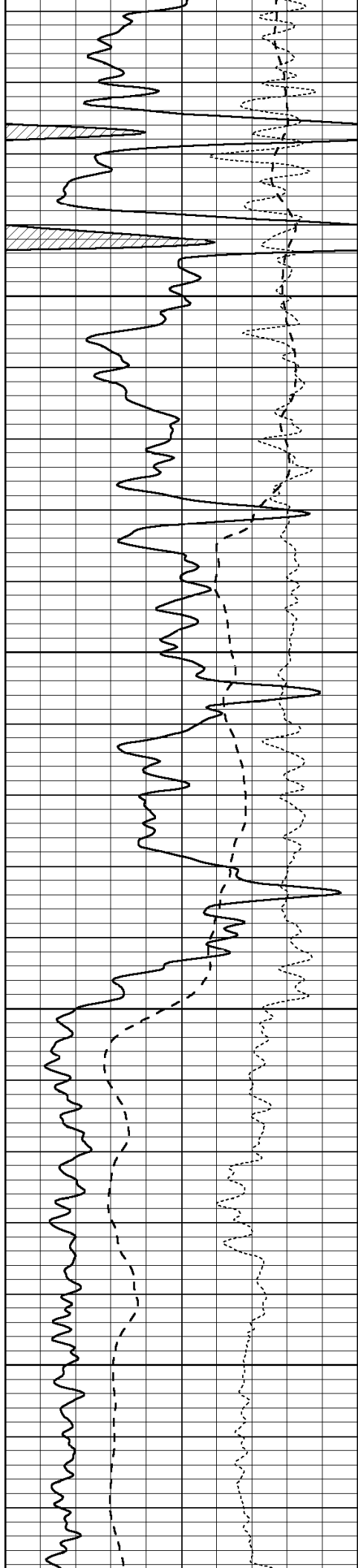
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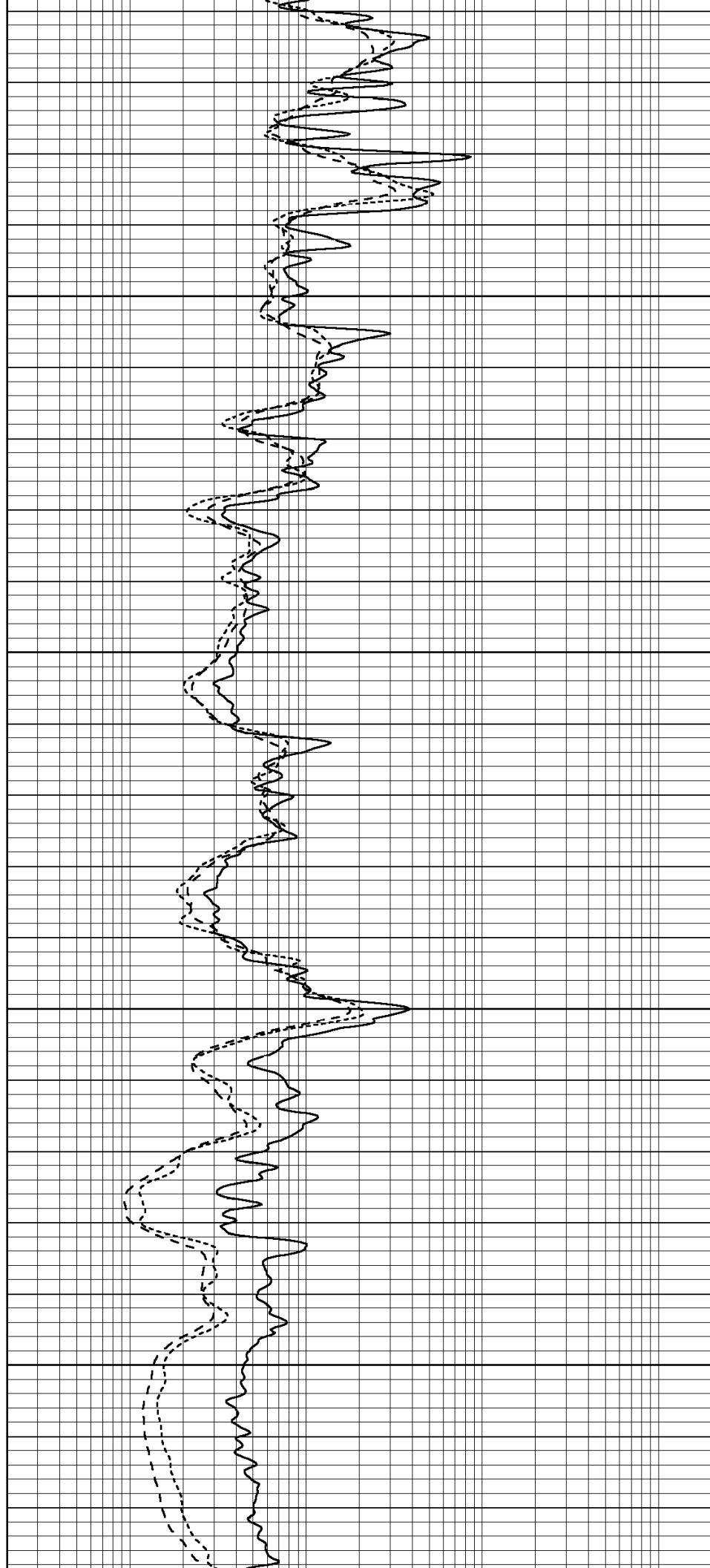


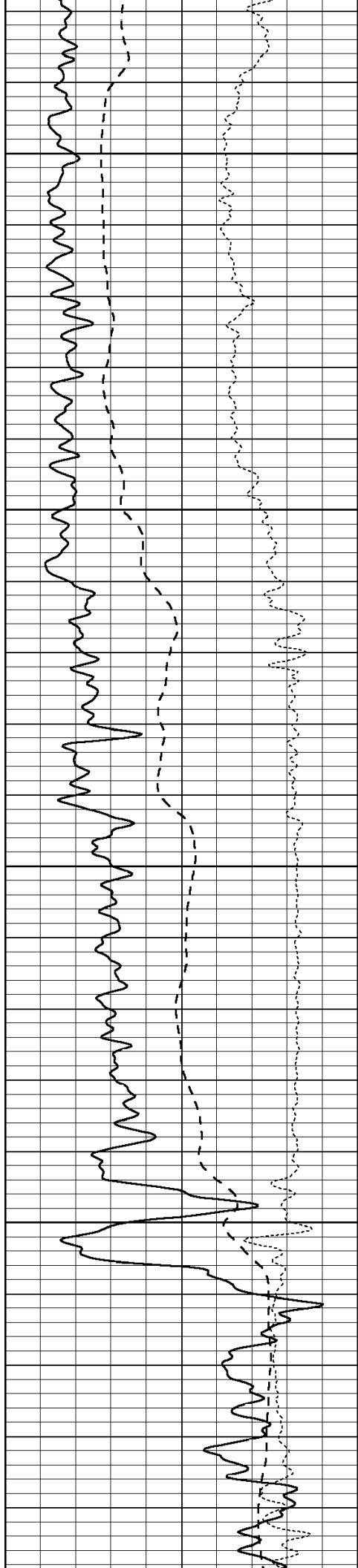
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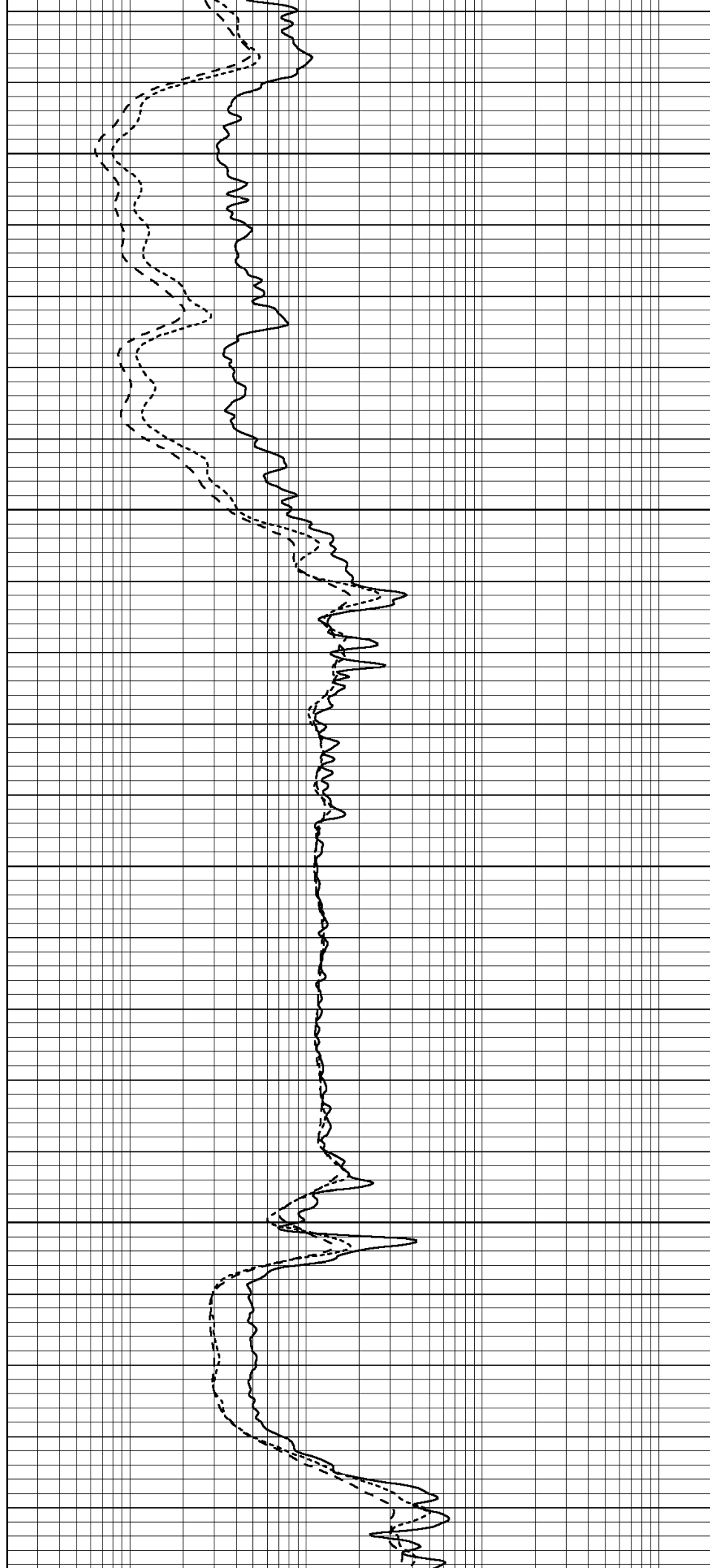


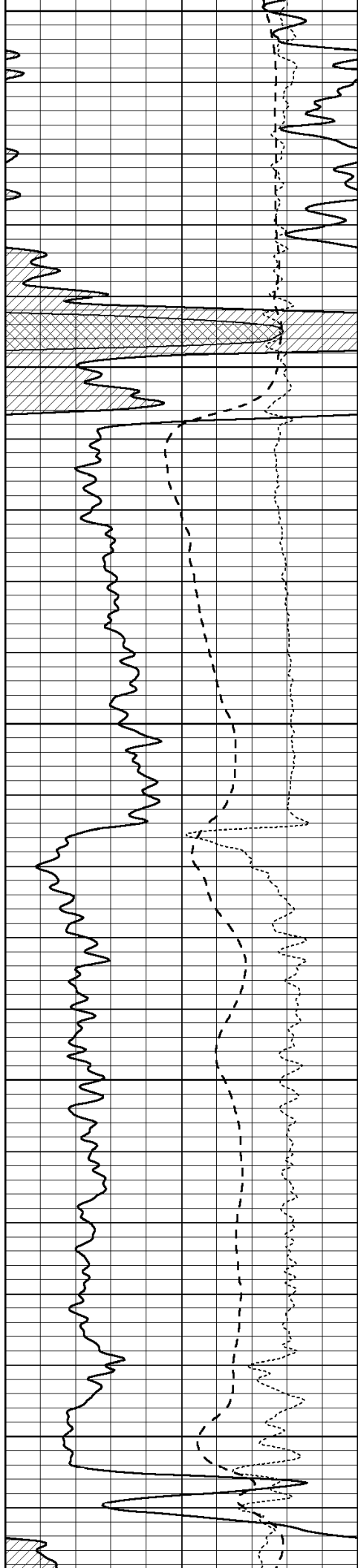
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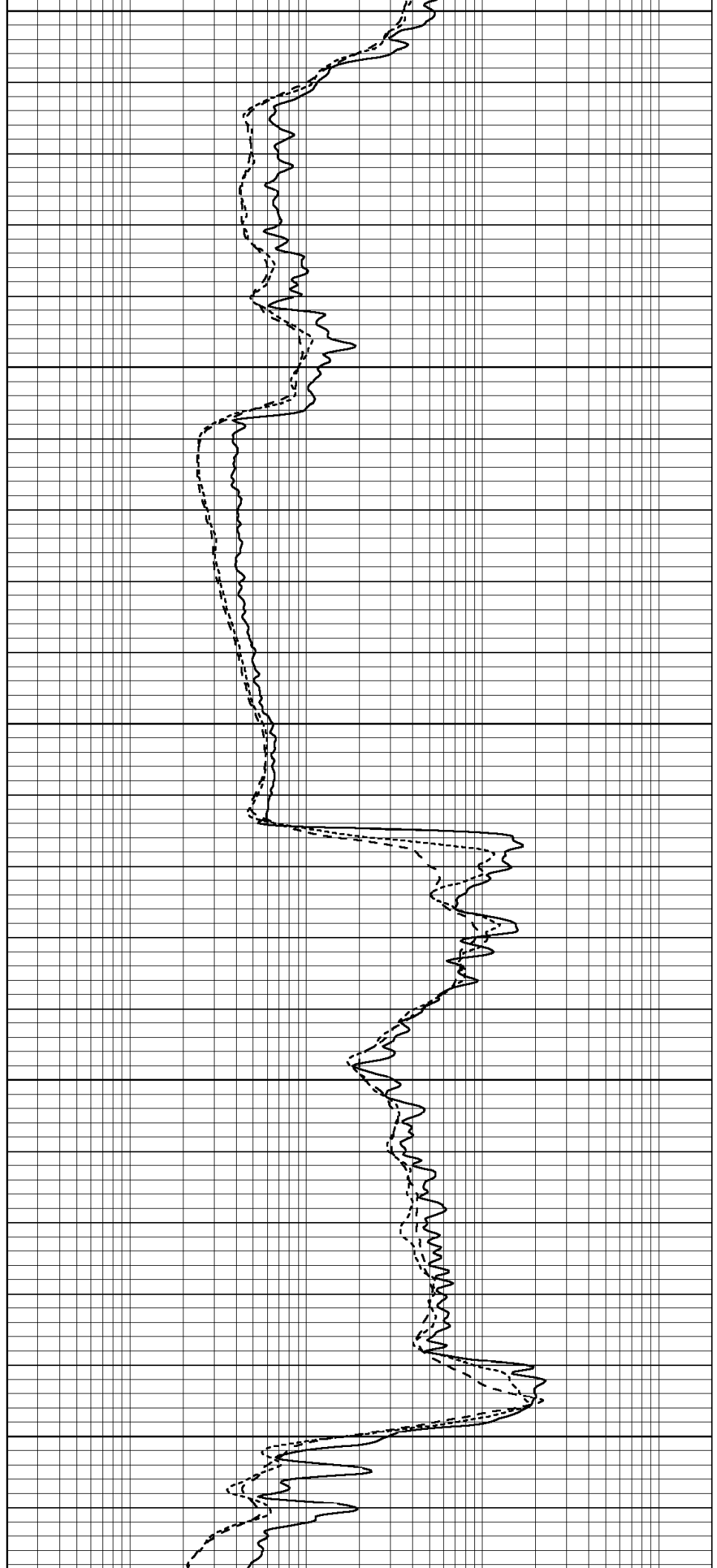
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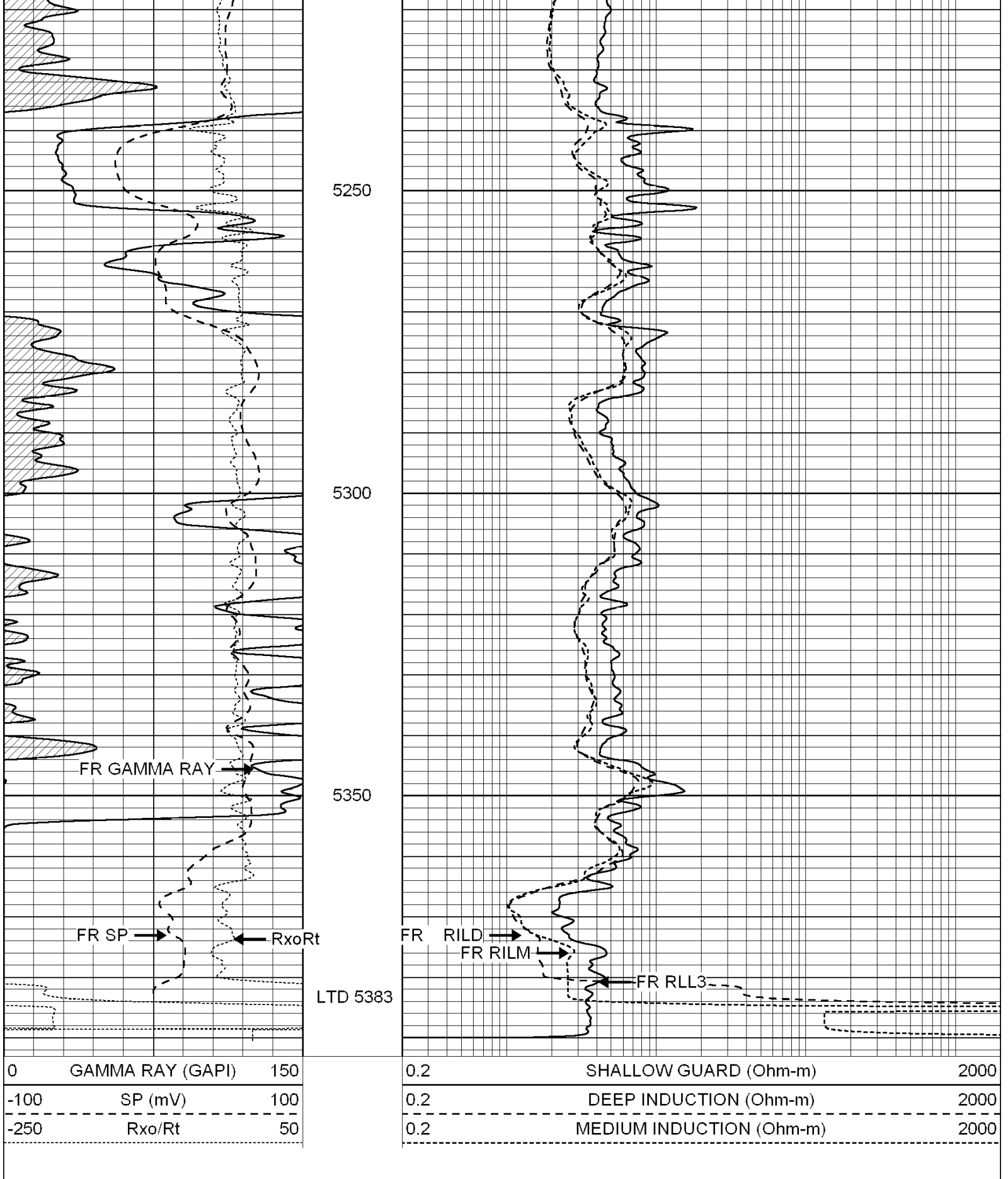
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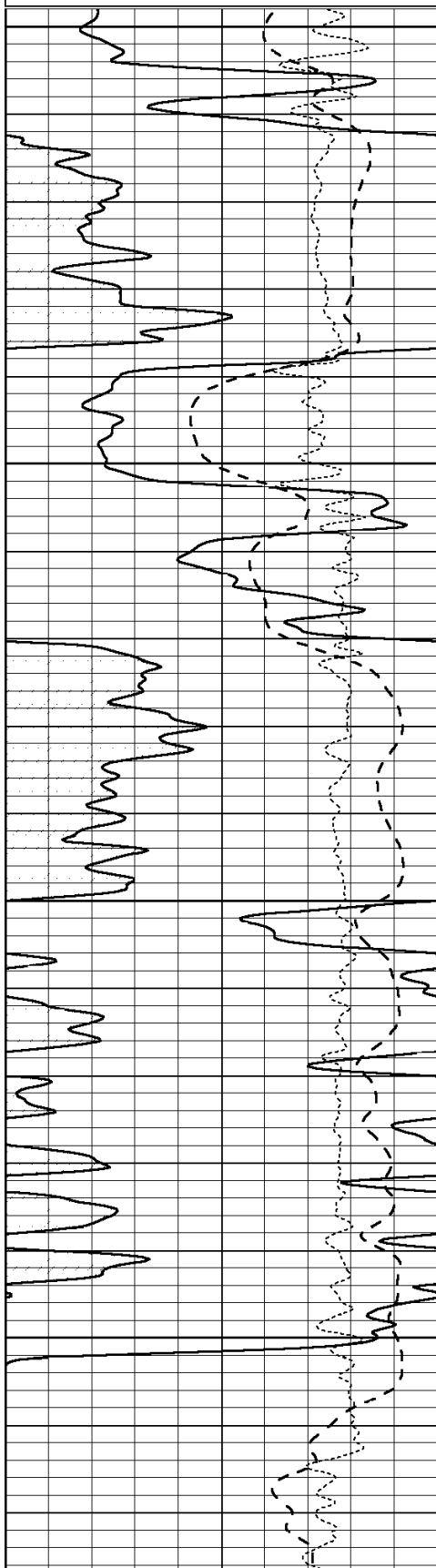
SUPERIOR
Hays,
Kansas

REPEAT SECTION

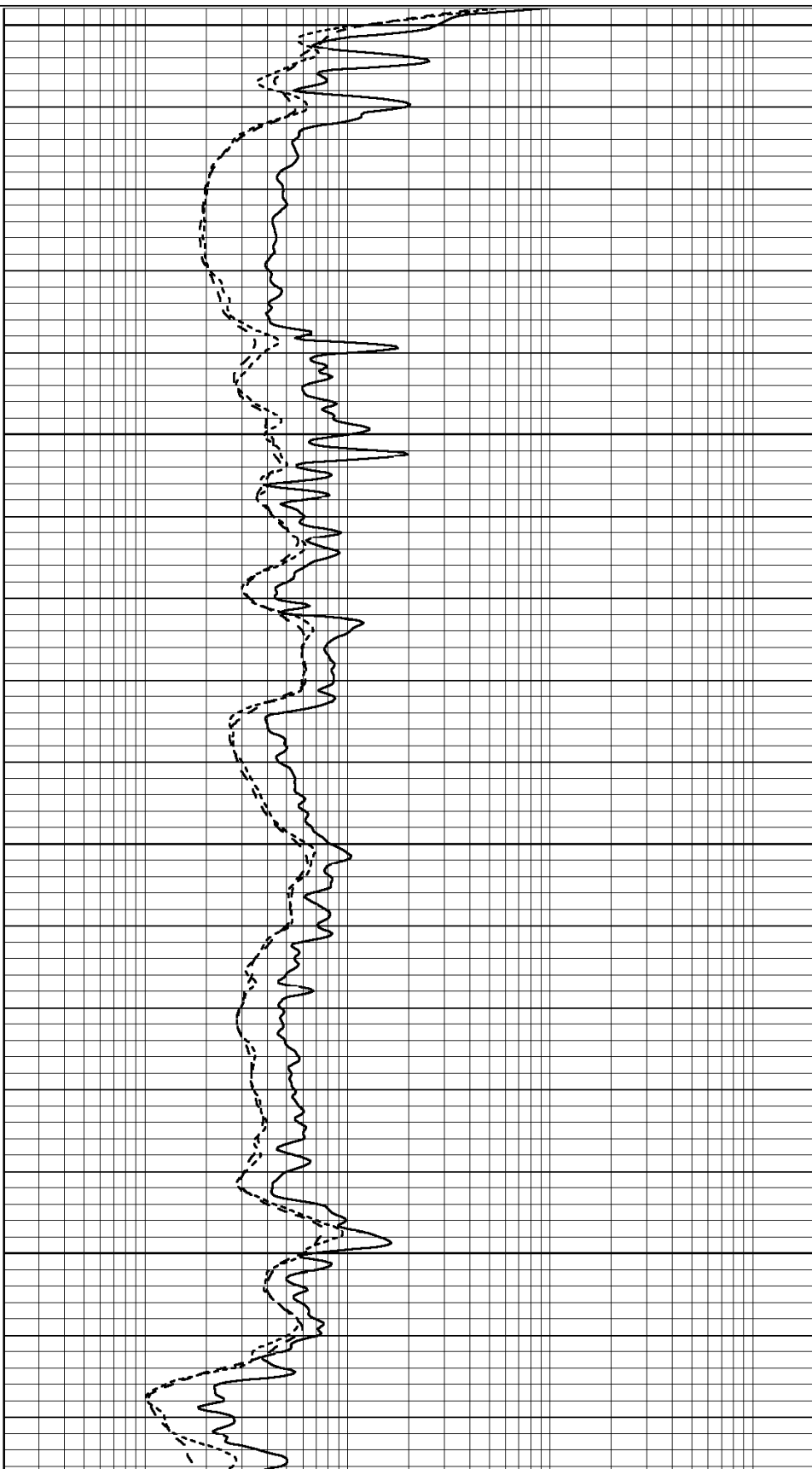
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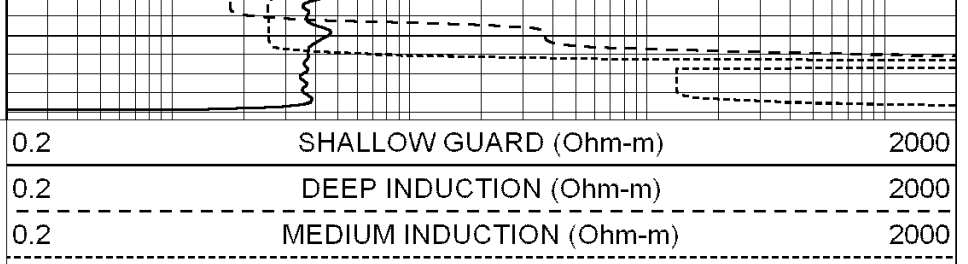
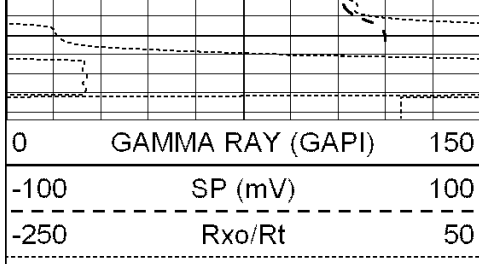
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



5200
 5250
 5300
 5350





Calibration Report

Database File: 004839pe.db
 Dataset Pathname: pass2
 Dataset Creation: Sun Mar 28 18:22:26 2010 by Log Open-Cased 060407

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Tue Mar 23 22:50:28 2010

Loop:	Readings				References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho-m	640.000	0.000	
Medium	0.013	0.740	V	0.000	462.500	mmho-m	700.000	-12.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.002	0.645	V	0.000	400.000	mmho-m	622.059	-1.071	
Medium	0.007	0.740	V	0.000	462.500	mmho-m	631.393	-4.555	

Litho Density Calibration Report
 Serial: 003N Model: PRB
 Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Long Space	0.0	8278.9	1768.4	9257.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8

Caliper

	Readings	Reference
Low Ref	2.2	6.8
High Ref	4.6	14.0
Gain:	3.0	Offset: 0.4

Compensated Neutron Calibration Report

Serial Number: NEU_3I
 Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	997.00 cps	1000.00 cps	1.0000
Long Space	986.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number:	GR3	
Tool Model:	OPEN	
Performed:	Wed Mar 24 02:31:10 2010	
Calibrator Value:	200.0	GAPI
Background Reading:	3.0	cps
Calibrator Reading:	186.0	cps
Sensitivity:	0.7000	GAPI/cps