



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company	RITCHIE EXPLORATION, INC.		
Well	FRINK 32 C #1		
Field	WILDCAT		
County	FORD	State	KANSAS
Location:	API # : 15-057-20925-00-00		Other Services
	1380' FSL & 480' FWL		CNL/CDL
	W2 - W2 - SW		
	SEC 32	TWP 28S	RGE 23W
Permanent Datum	GROUND LEVEL		Elevation
Log Measured From	KELLY BUSHING 11' A.G.L.		K.B. 2525
Drilling Measured From	KELLY BUSHING		D.F. 2523
			G.L. 2514
Date	3-18-14		
Run Number	ONE		
Depth Driller	5420		
Depth Logger	5416		
Bottom Logged Interval	5414		
Top Log Interval	00		
Casing Driller	8 5/8 @ 352'		
Casing Logger	348'		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 15,000	
Density / Viscosity	8.9 / 52		
pH / Fluid Loss	9.0 / 10.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.70 @ 70F		
Rmf @ Meas. Temp	0.53 @ 70F		
Rmc @ Meas. Temp	0.84 @ 70F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.38 @ 129F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	129F		
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: FORD, KS. - SOUTH TO WILBURN RD. - 6 MILES WEST - NORTH INTO

0 Gamma Ray (GAPI) 150



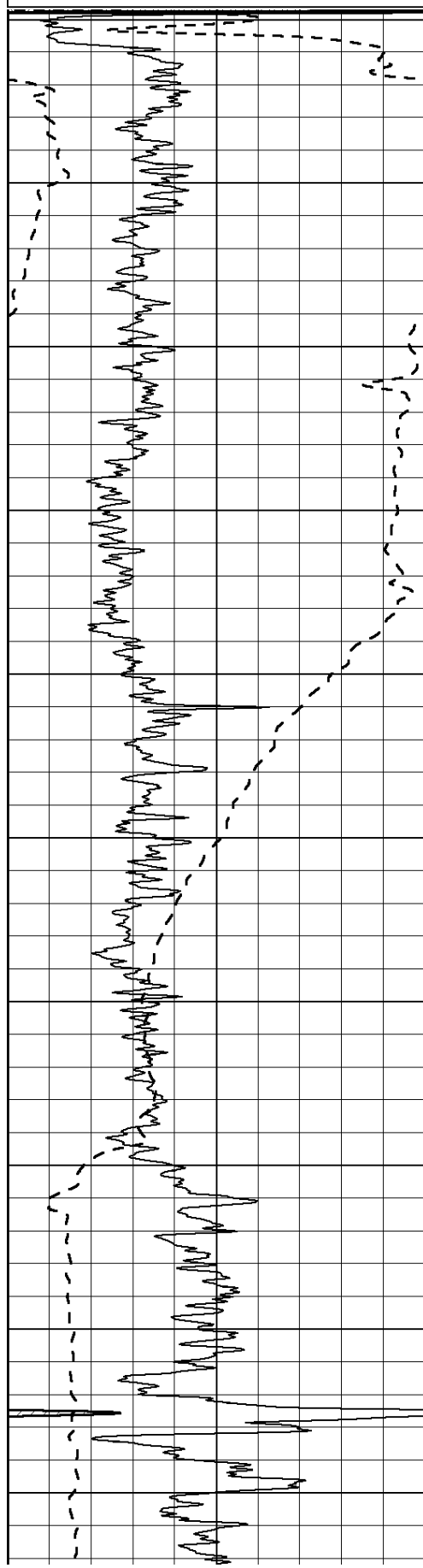
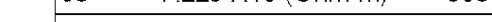
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0 Deep Induction (Ohm-m) 50

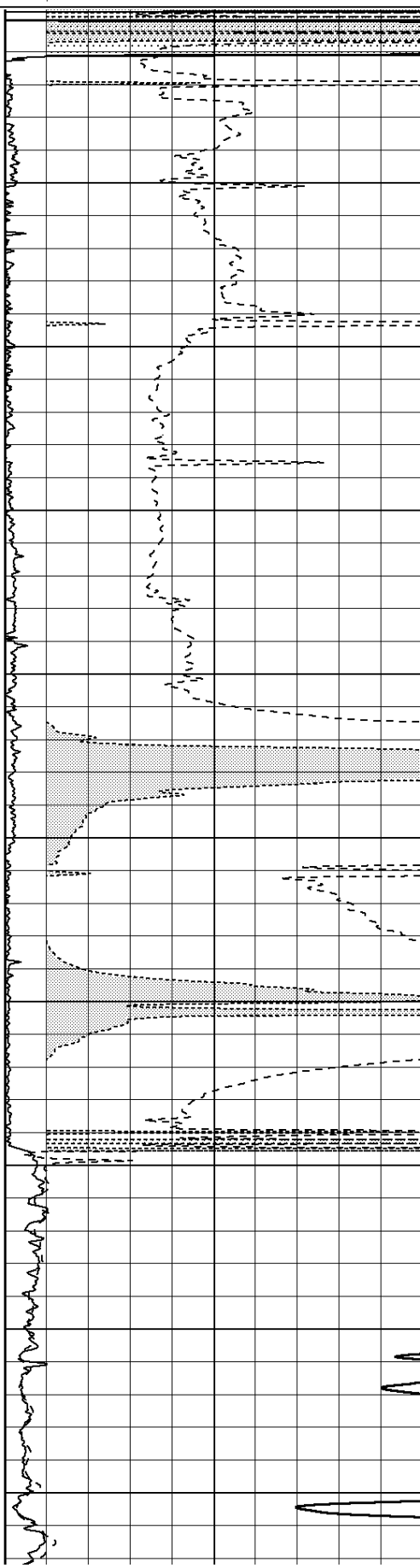
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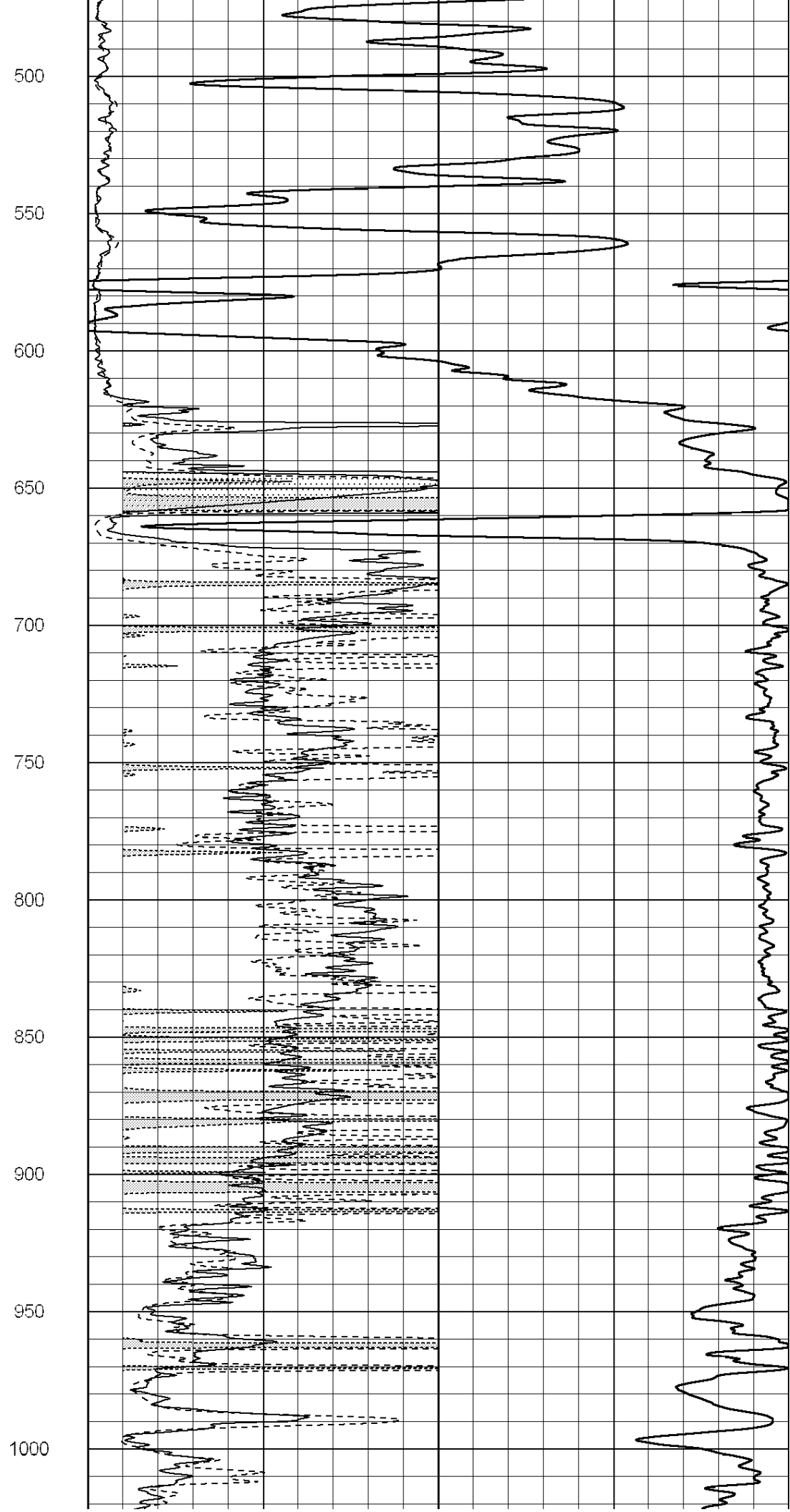
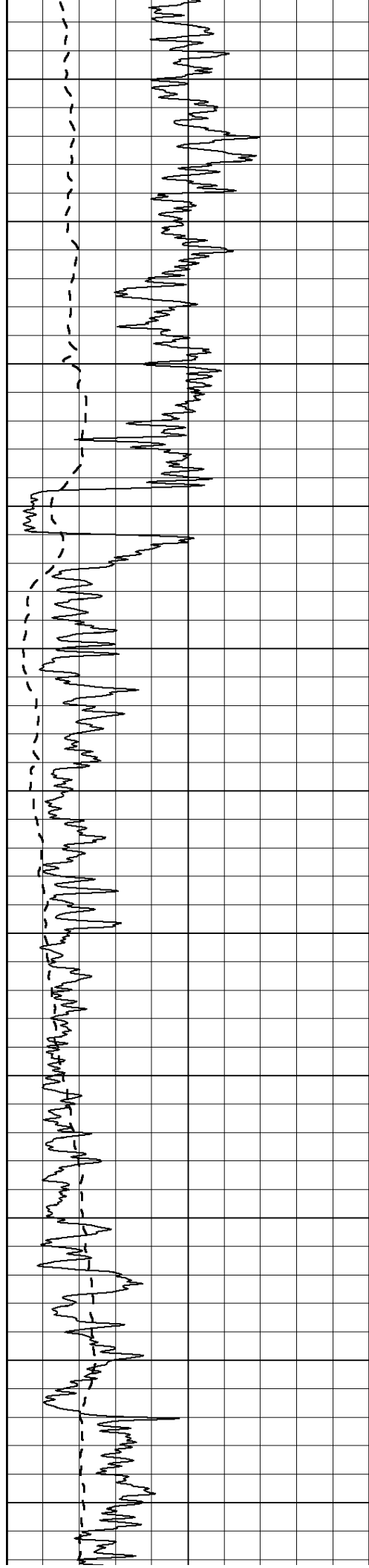
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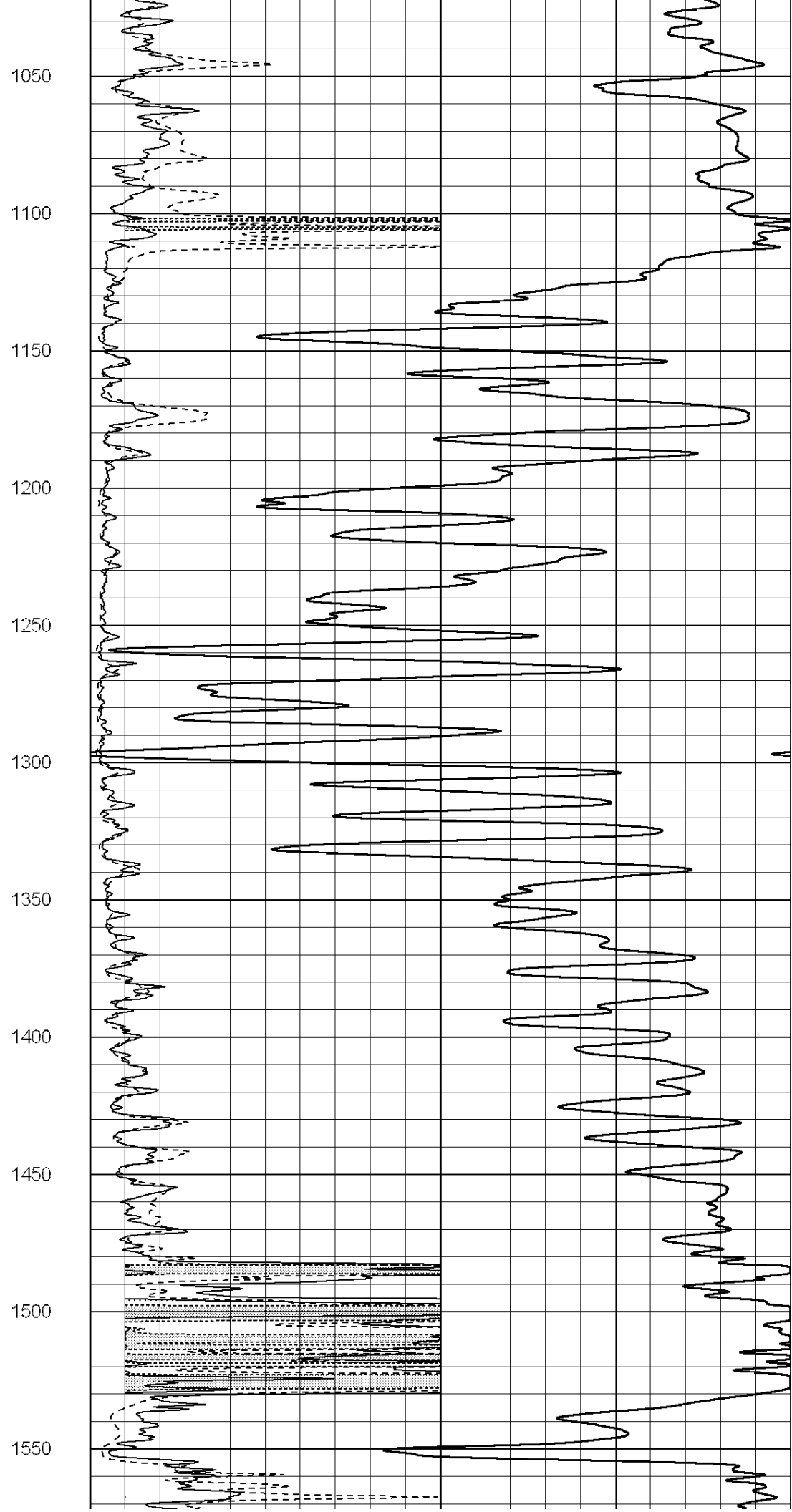
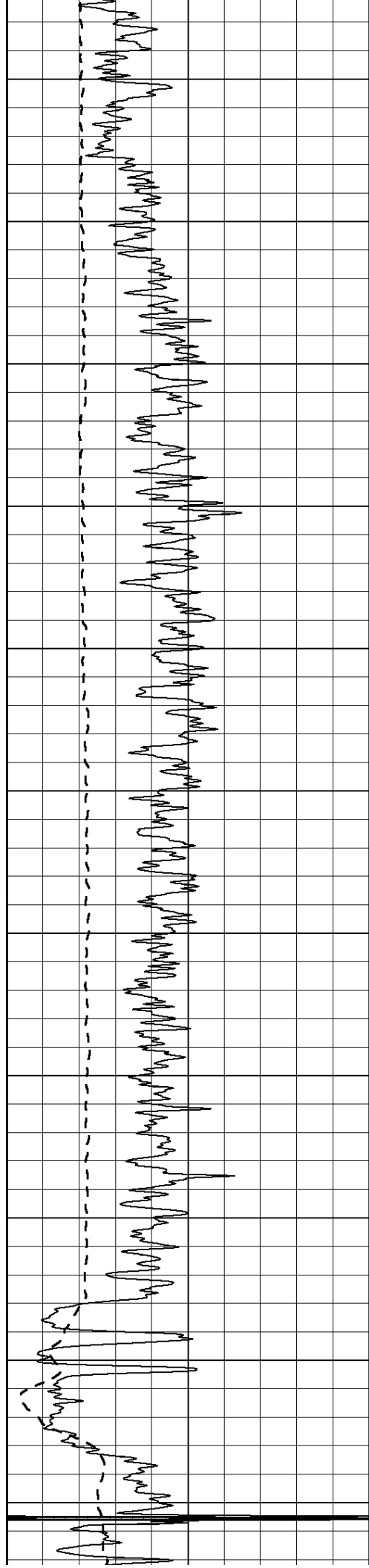
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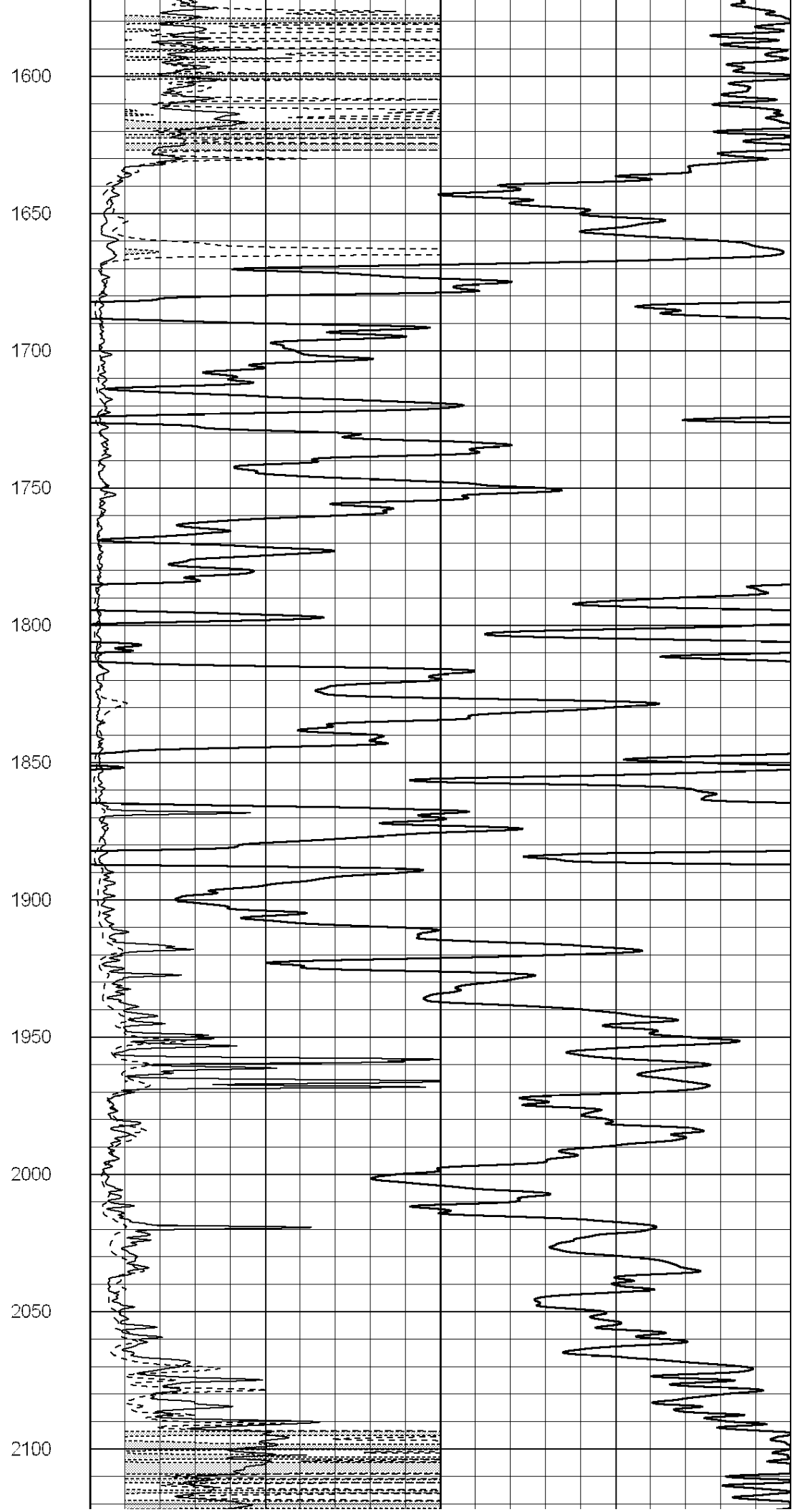
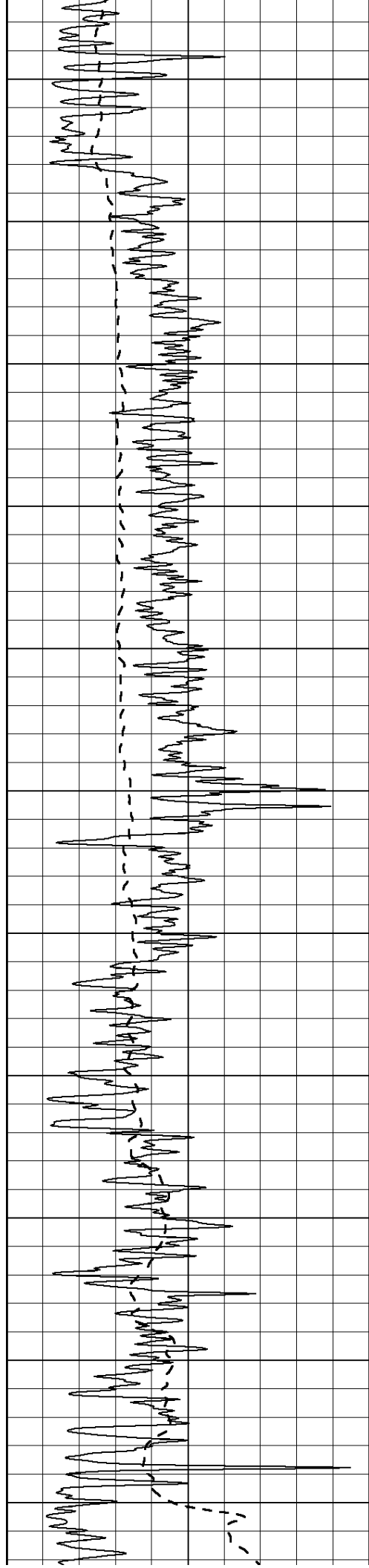


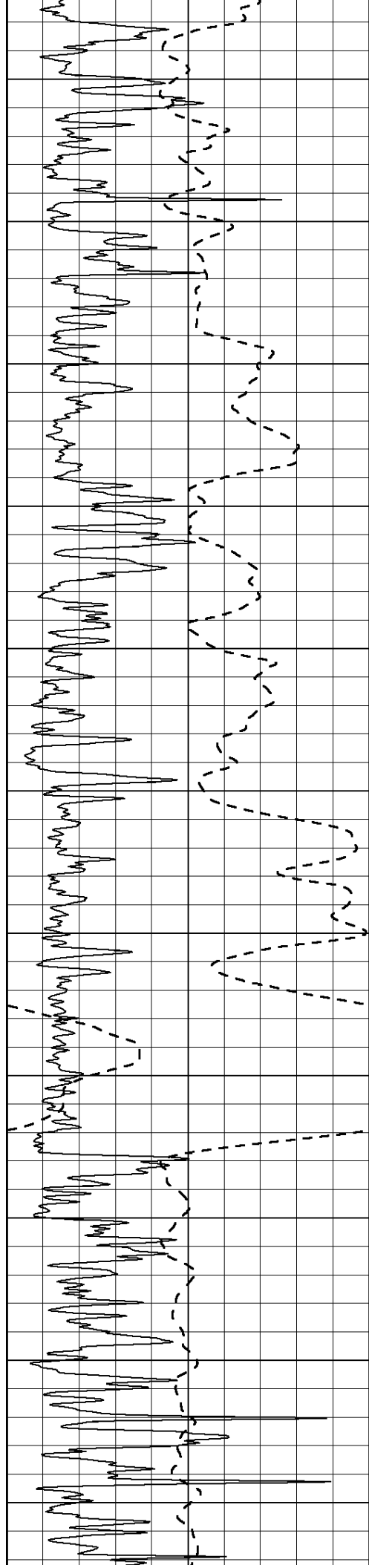
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50
100
150
200
250
300
350
400
450











2150

2200

2250

2300

2350

2400

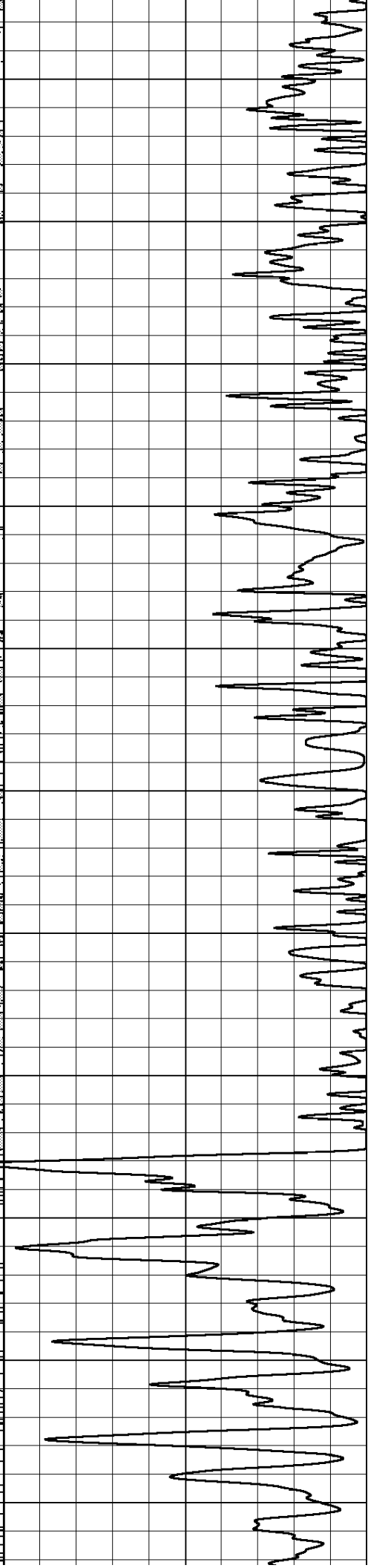
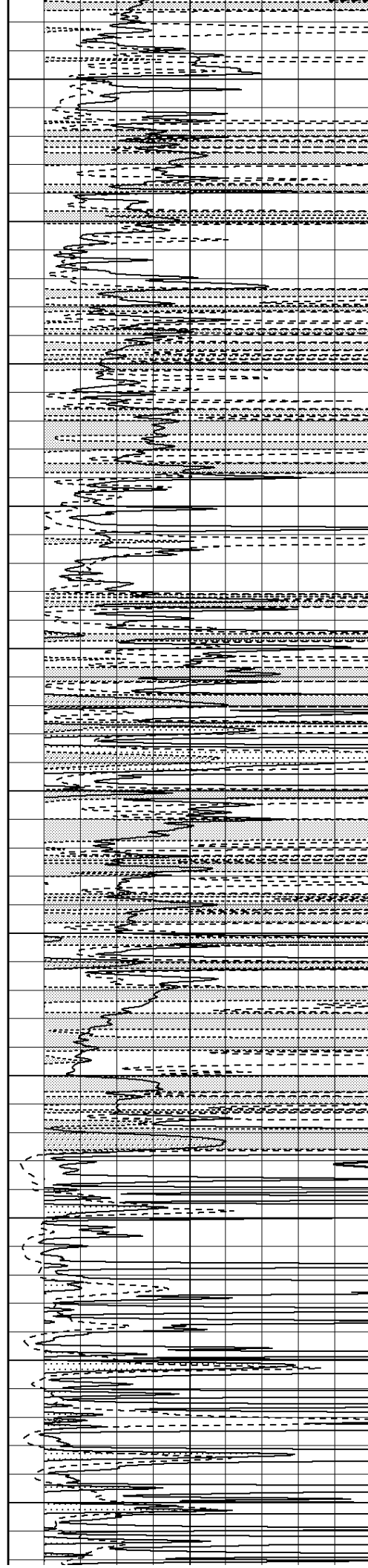
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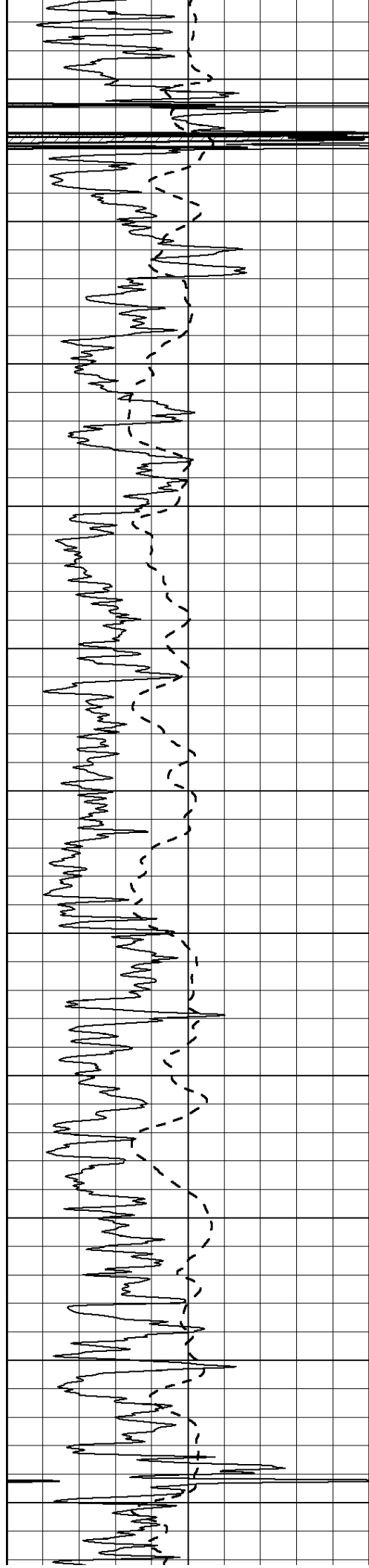
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2600

2650





2700

2750

2800

2850

2900

2950

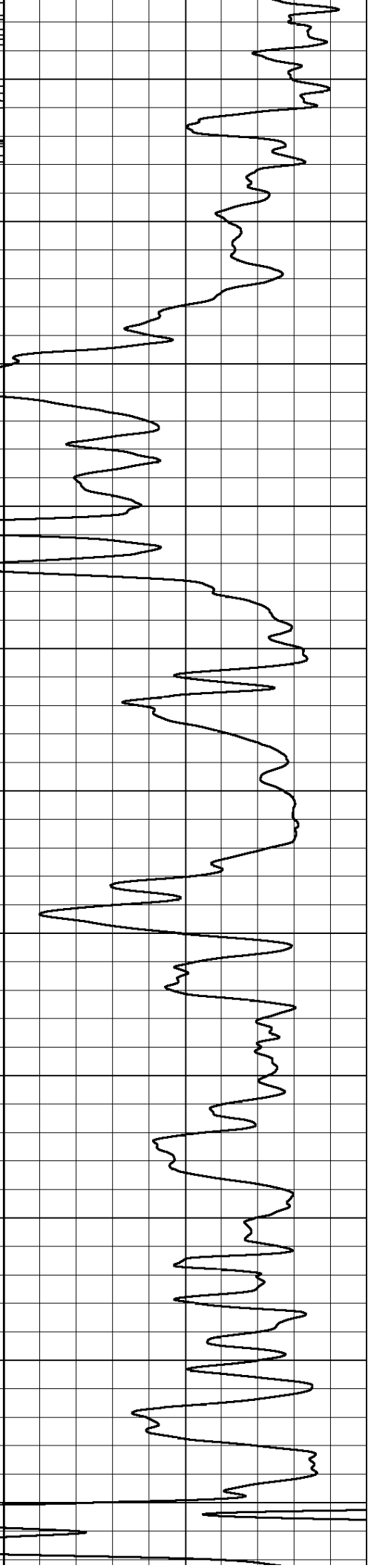
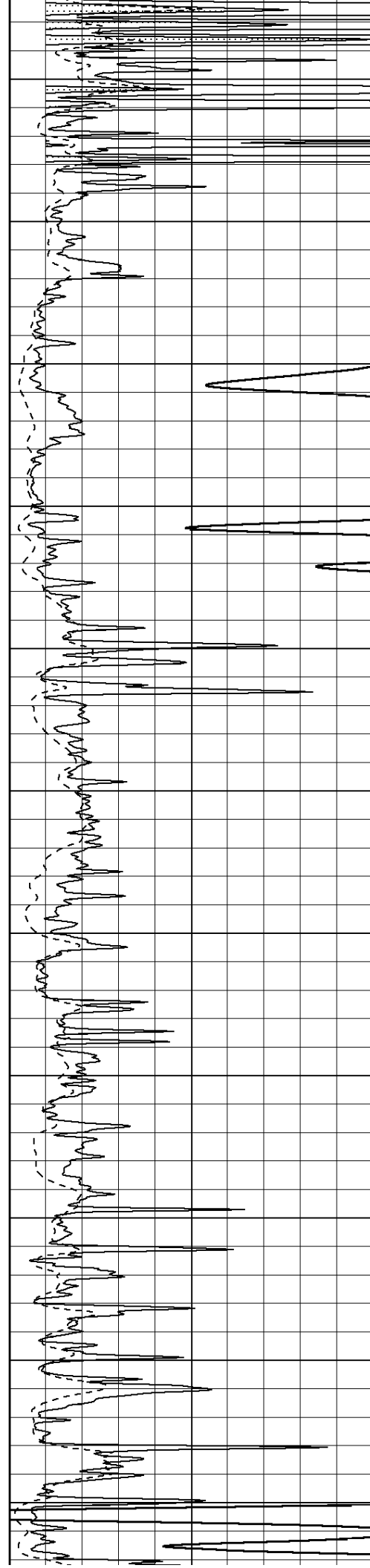
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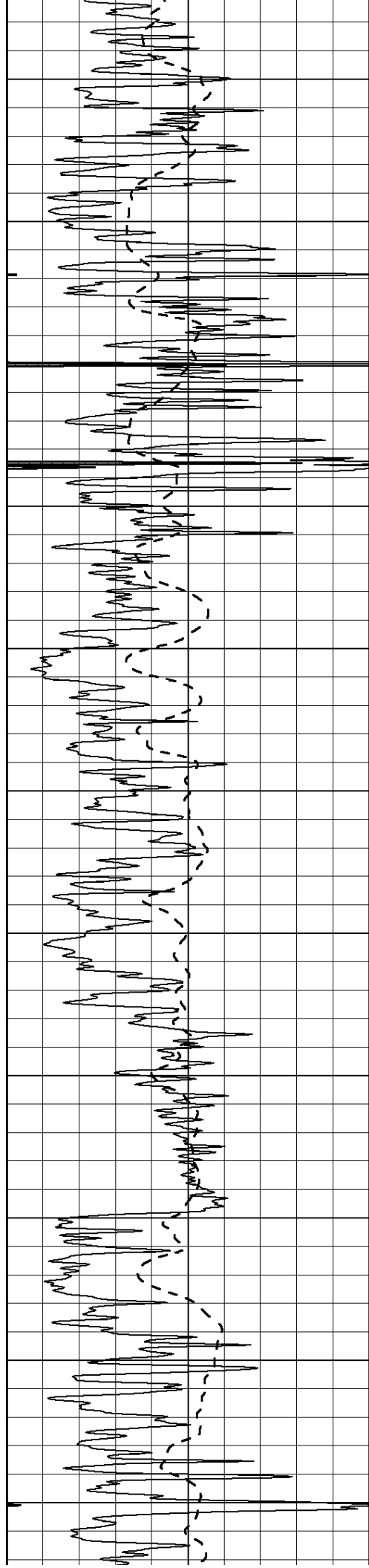
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3300

3350

3400

3450

3500

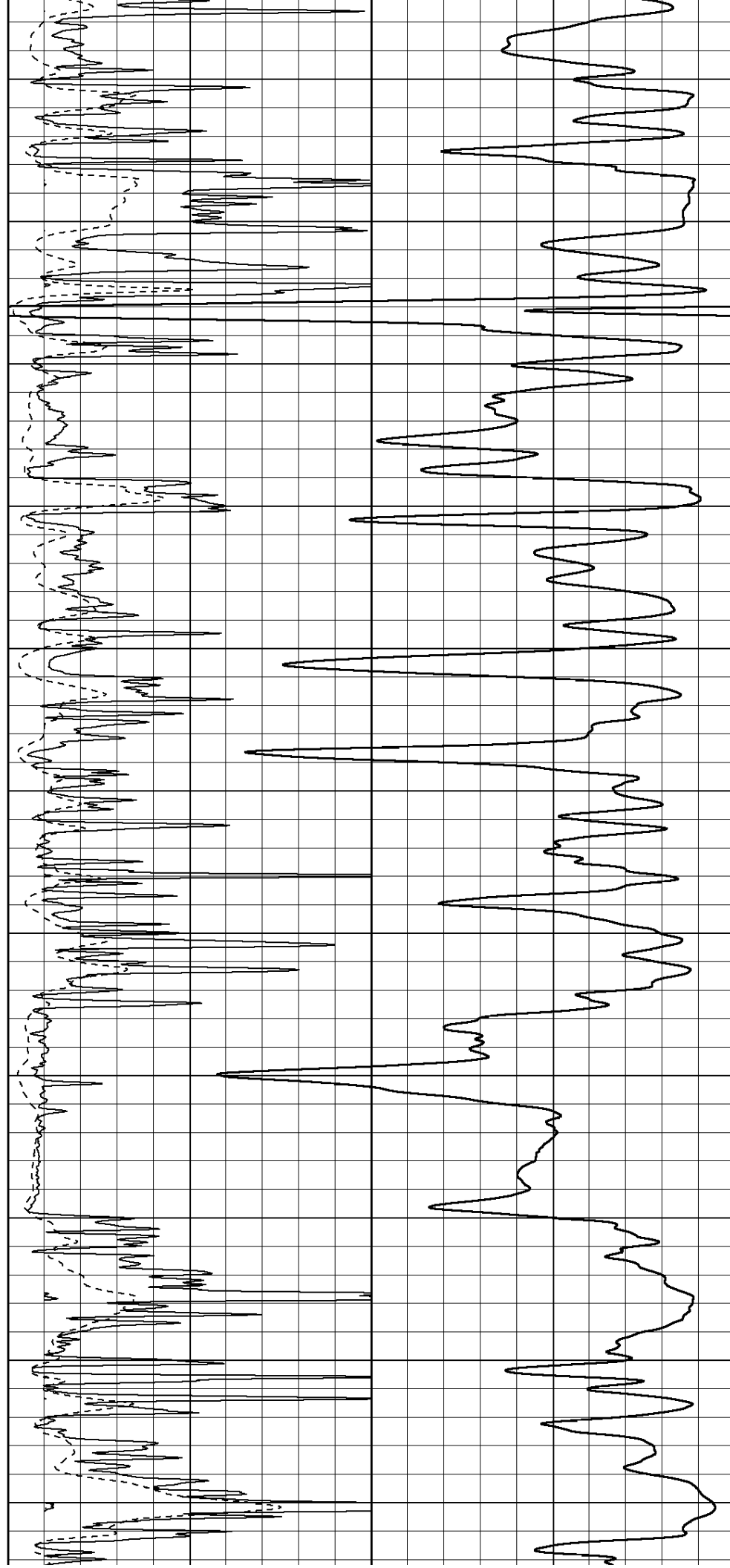
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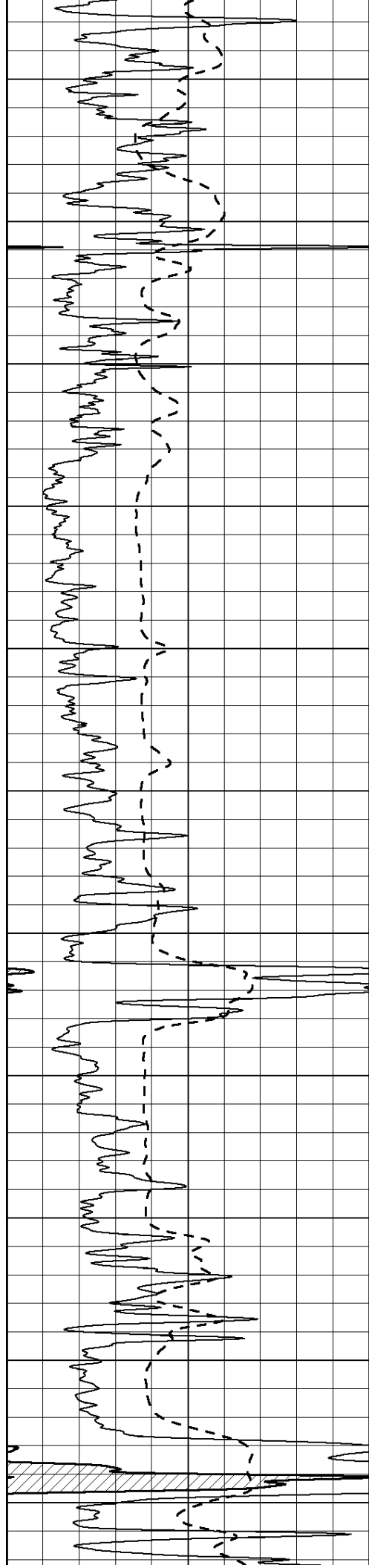
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3700

3750





3800

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3900

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4000

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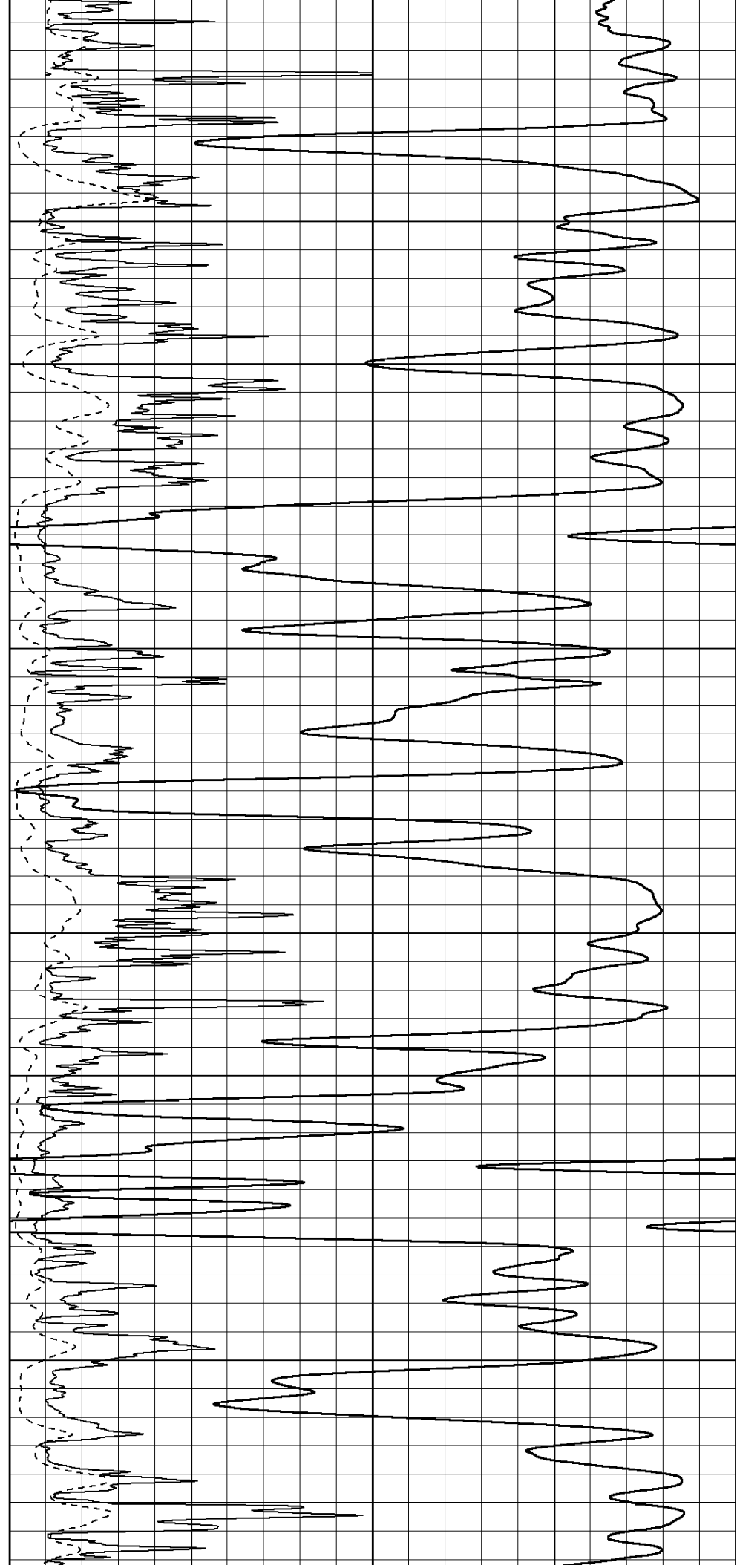
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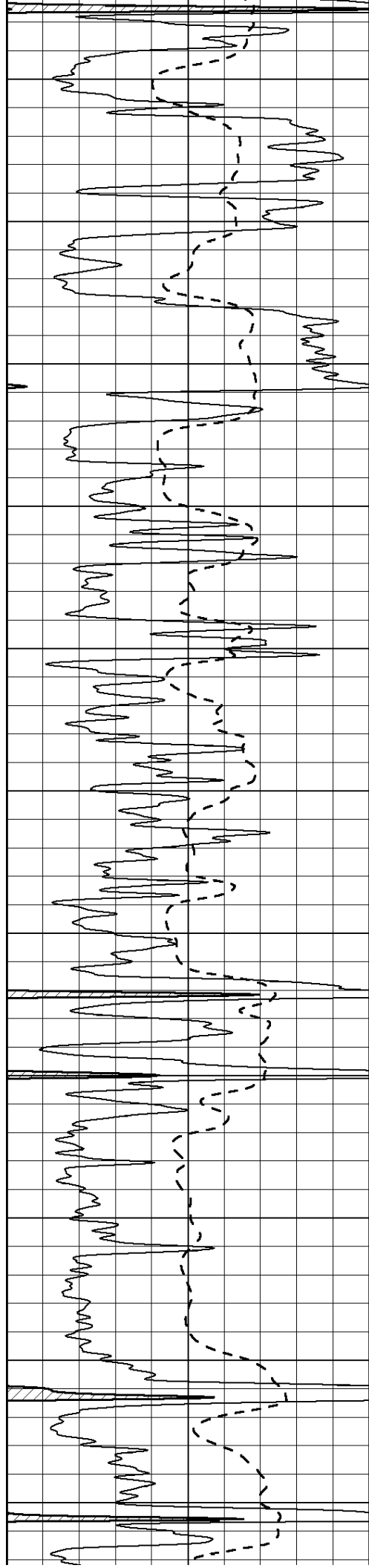
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4350

4400

4450

4500

4550

4600

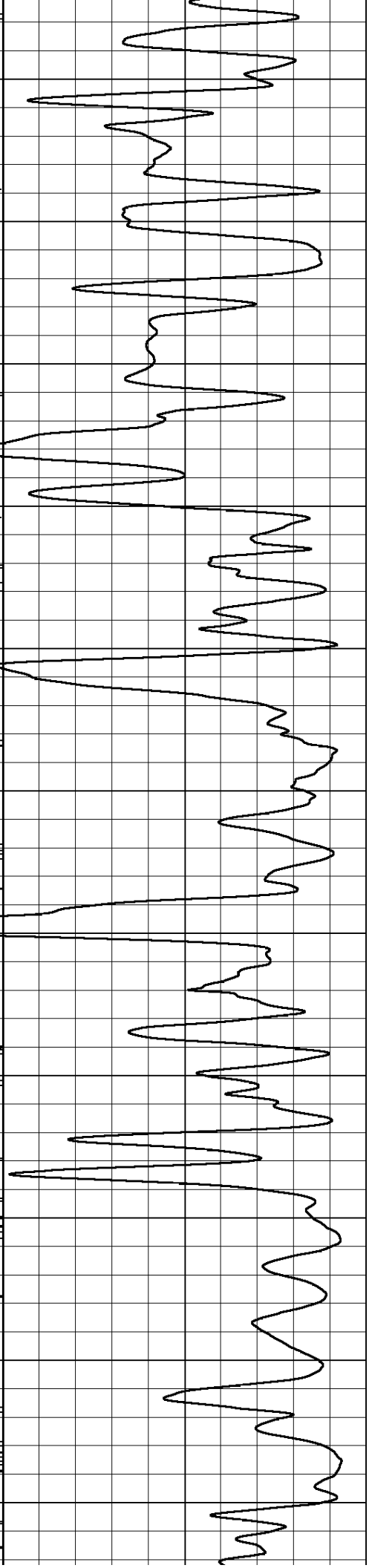
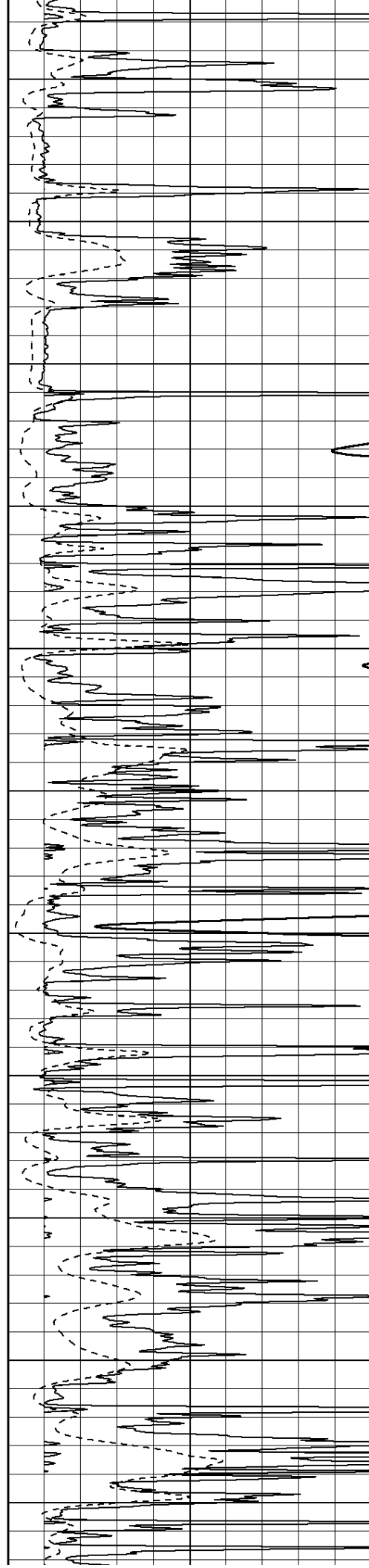
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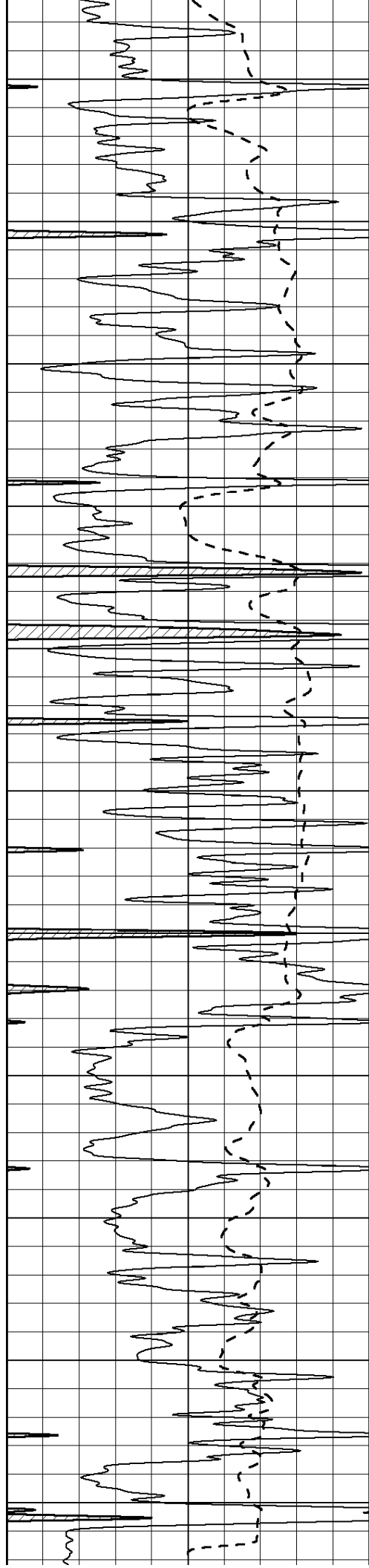
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5150

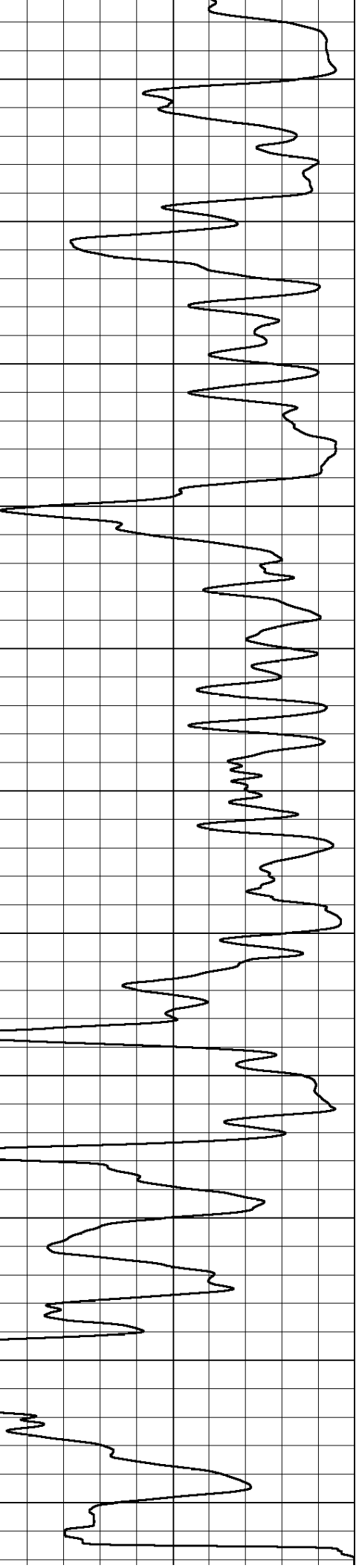
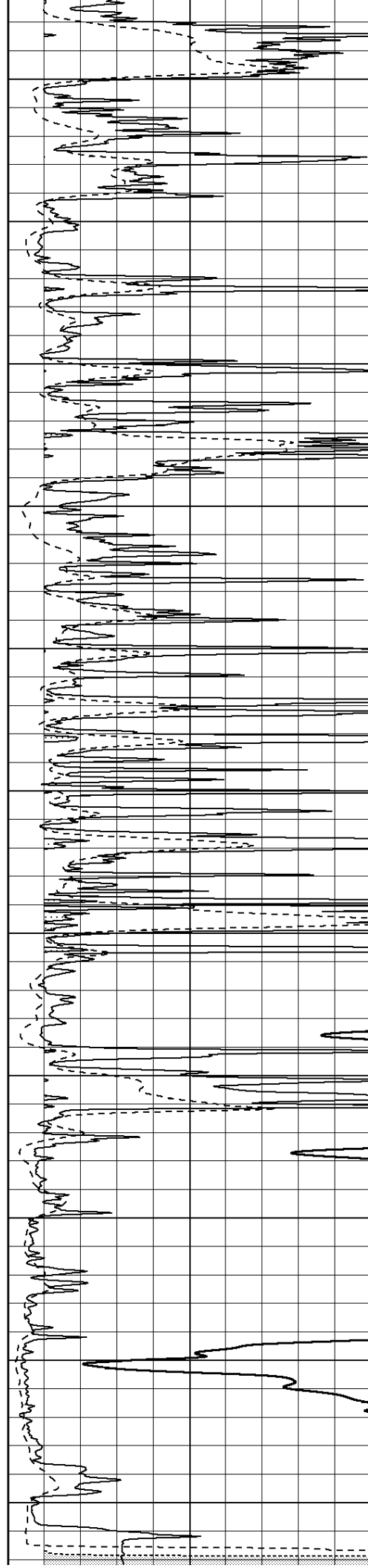
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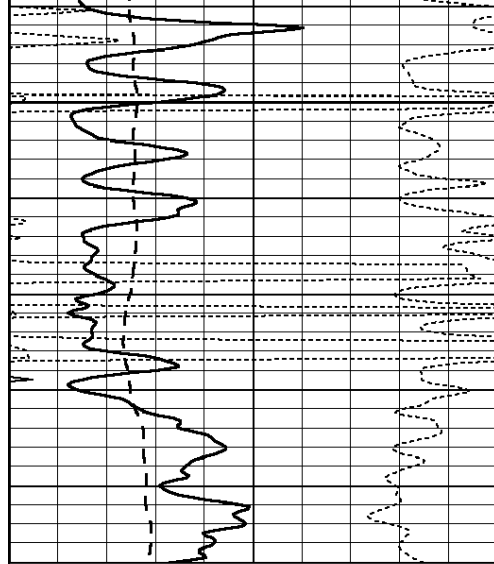
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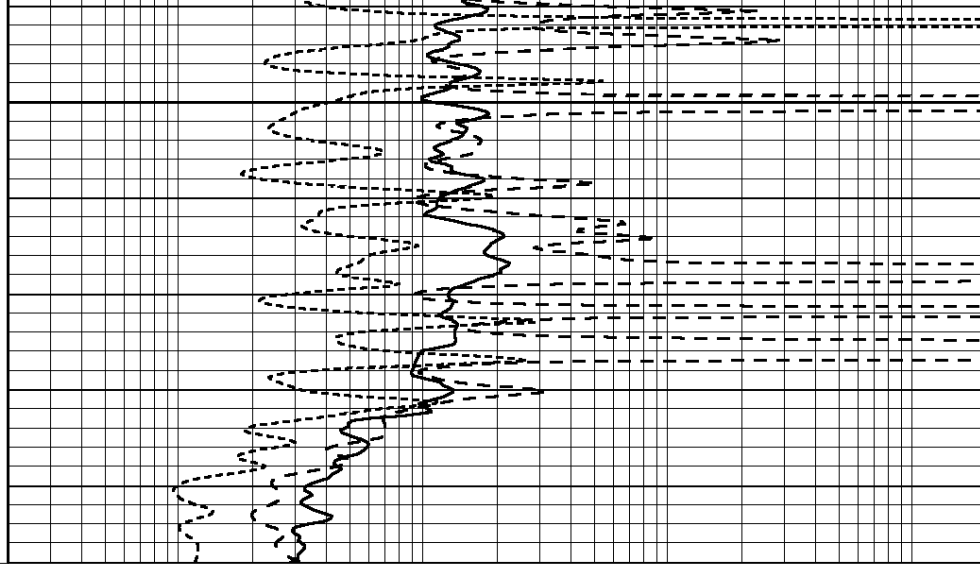


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Dataset Pathname:	pass7.3
Presentation Format:	_dil
Dataset Creation:	Tue Mar 18 08:49:10 2014
Charted by:	Depth in Feet scaled 1:240



1600

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

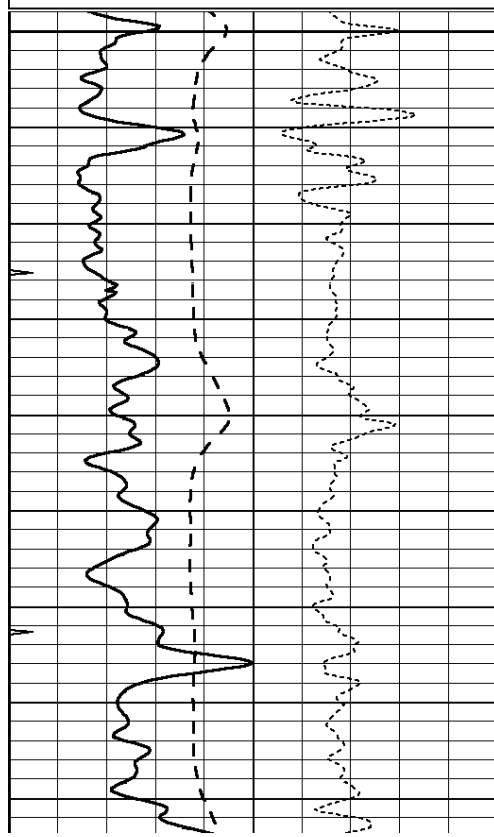


0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Database File: 23922ddn.db
 Dataset Pathname: pass7.3
 Presentation Format: _dil
 Dataset Creation: Tue Mar 18 08:49:10 2014
 Charted by: Depth in Feet scaled 1:240

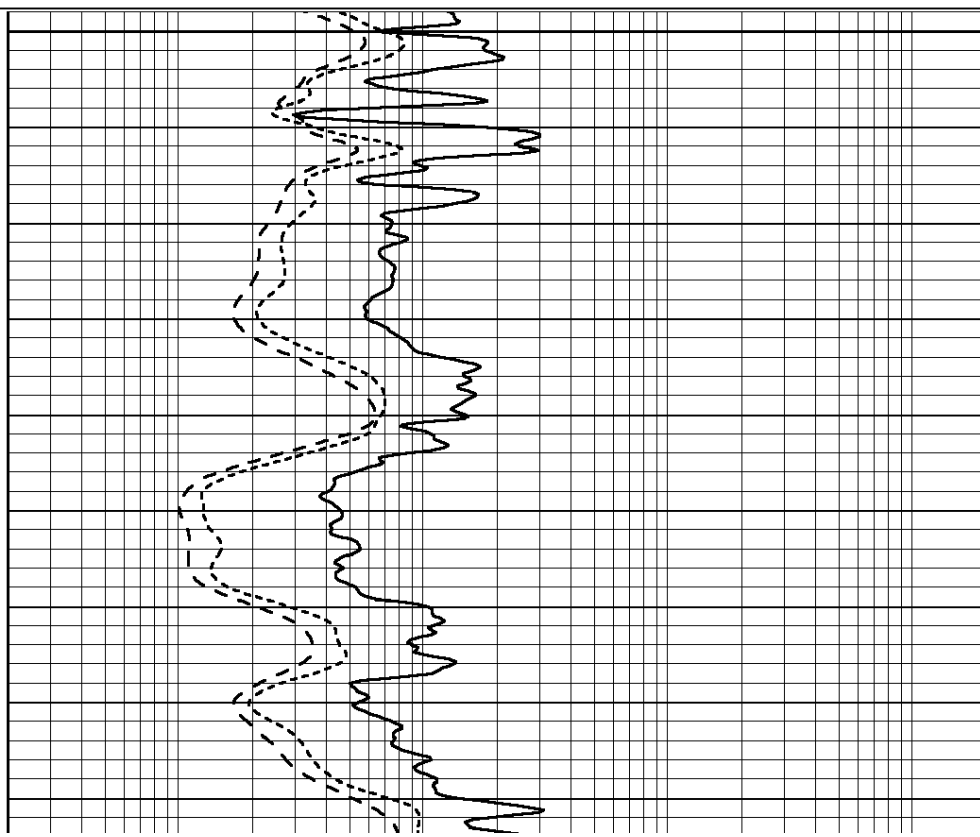
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

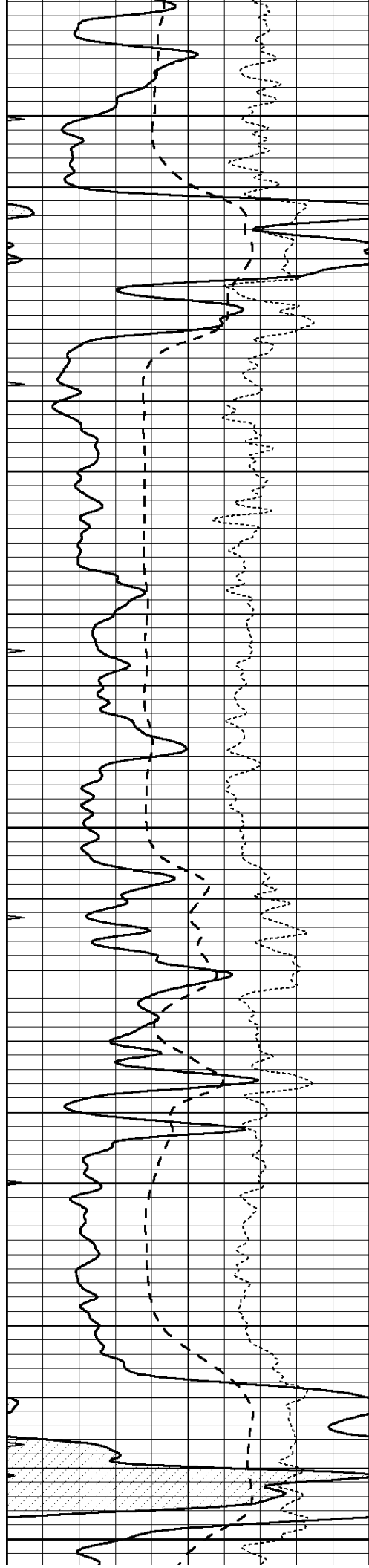
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



4000

4050





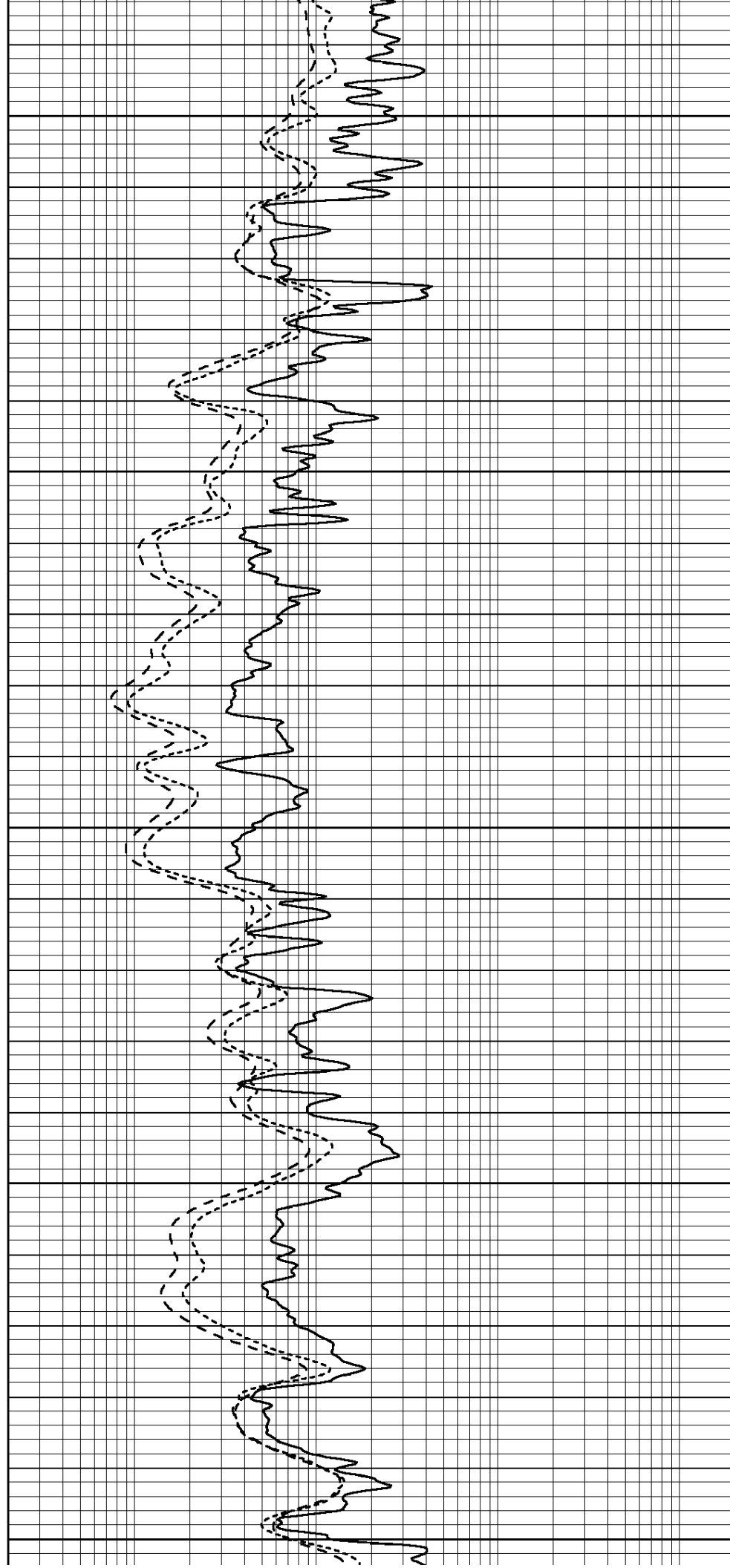
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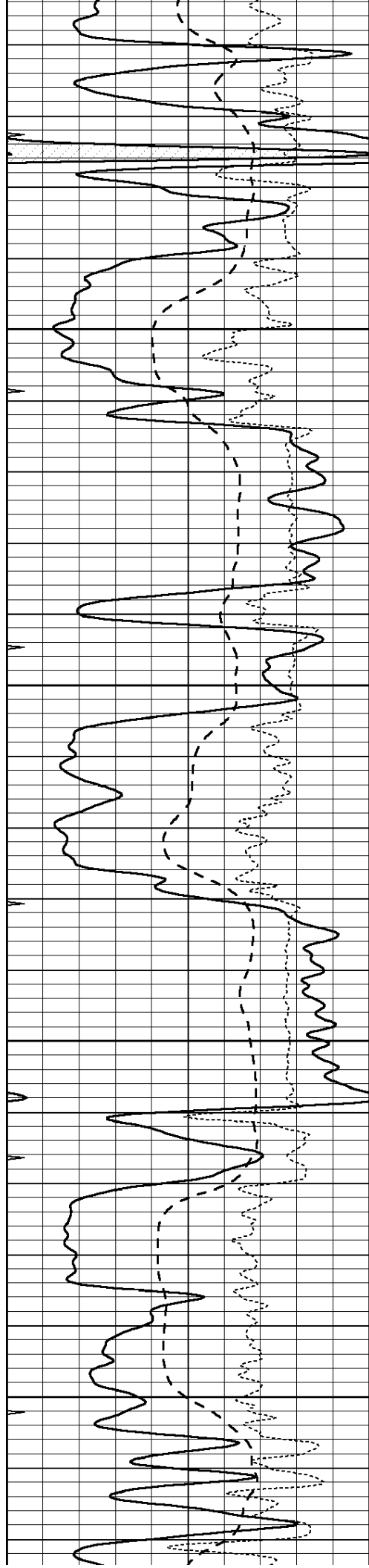
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4200

4250

4300



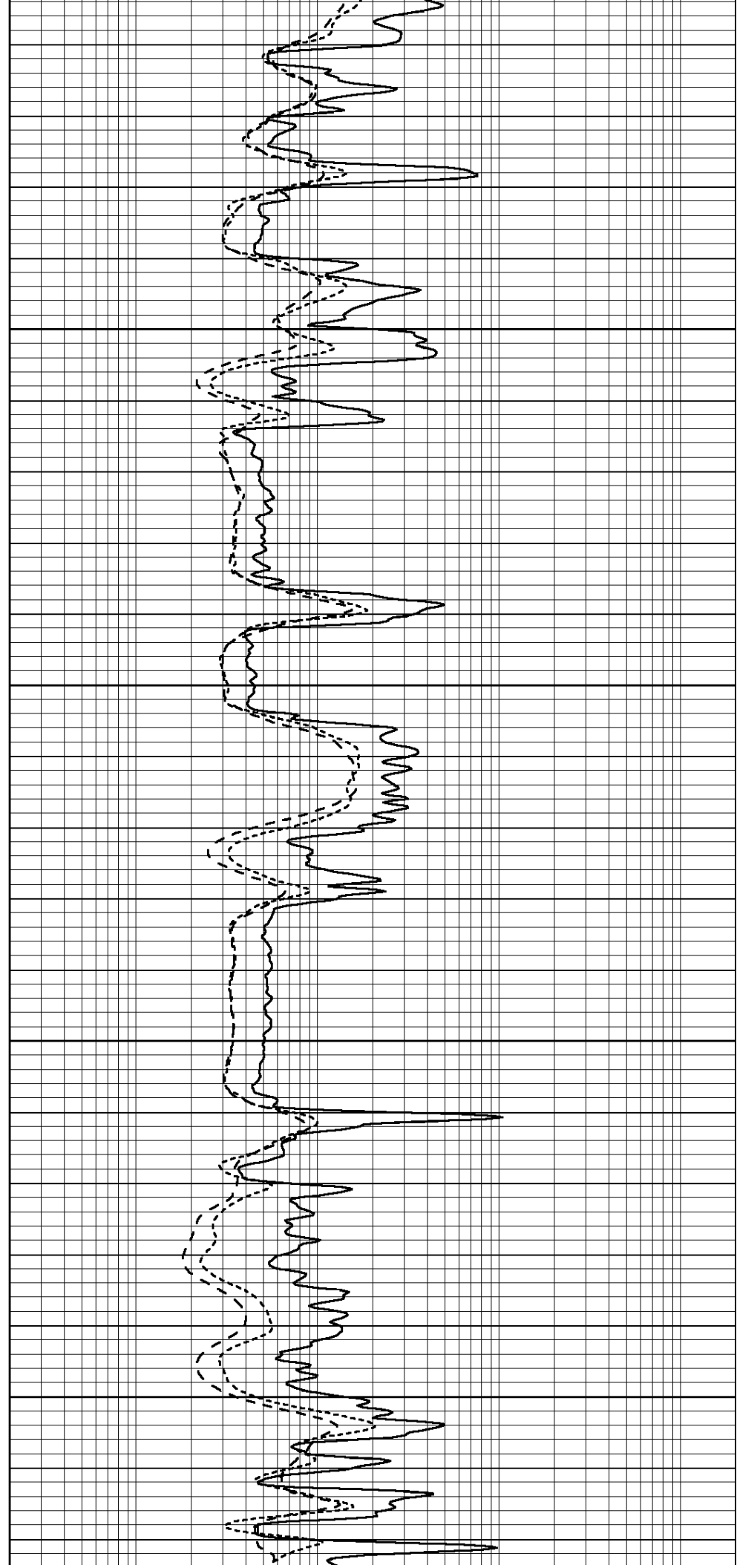


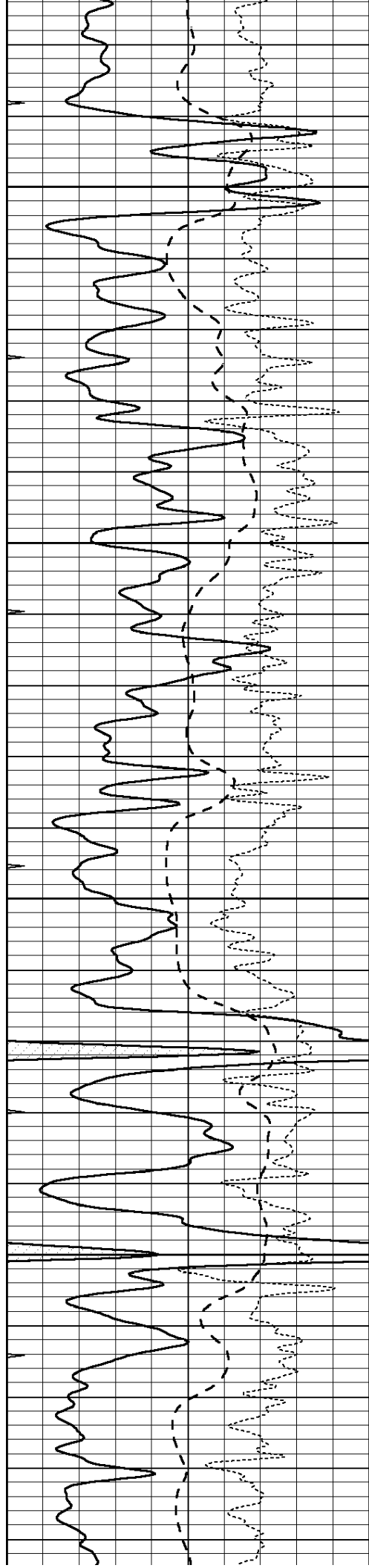
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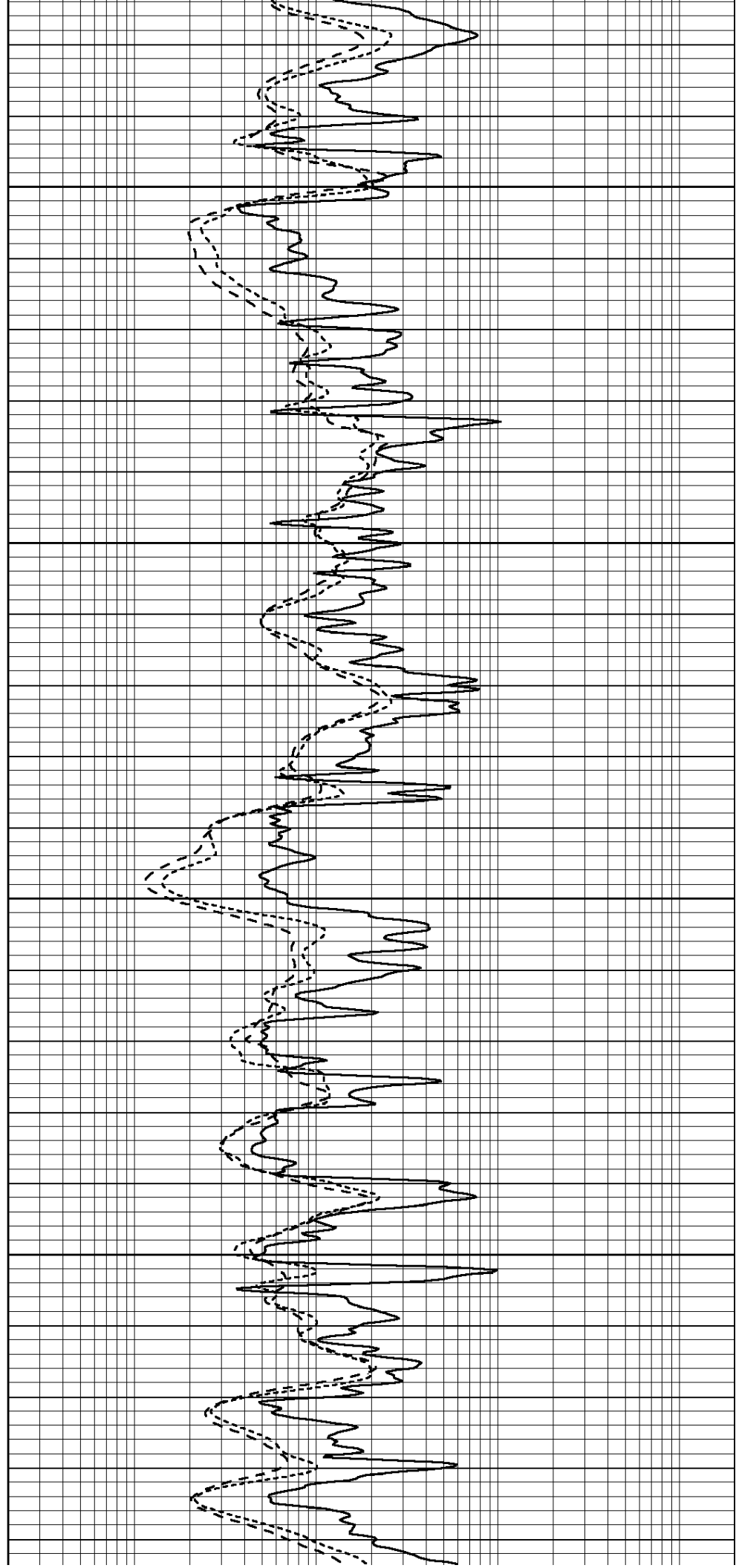


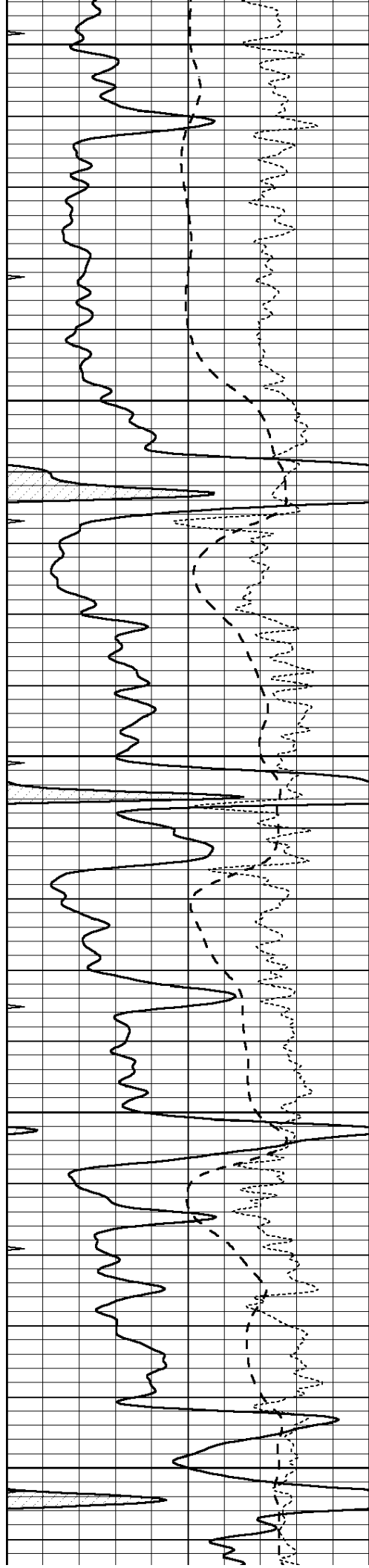
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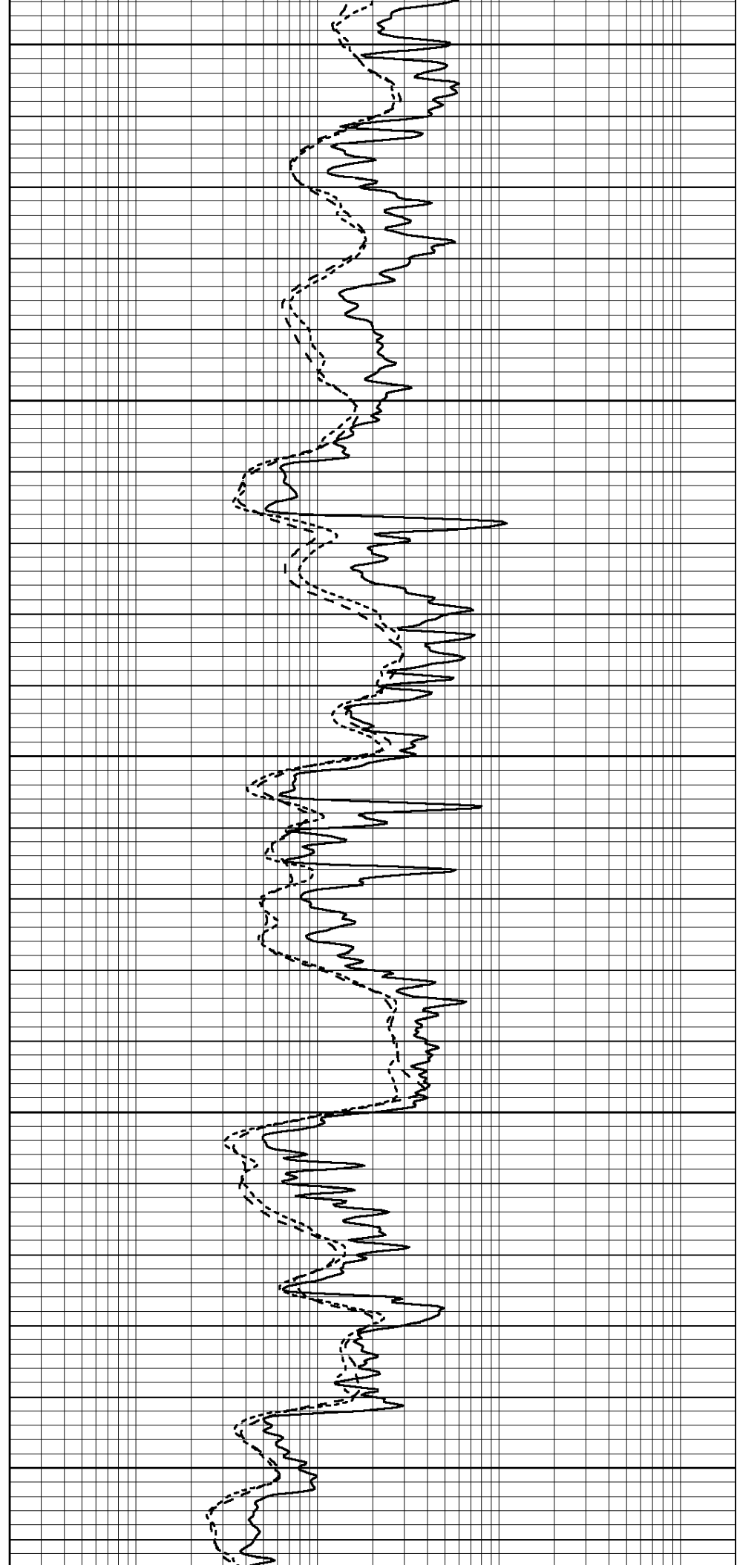
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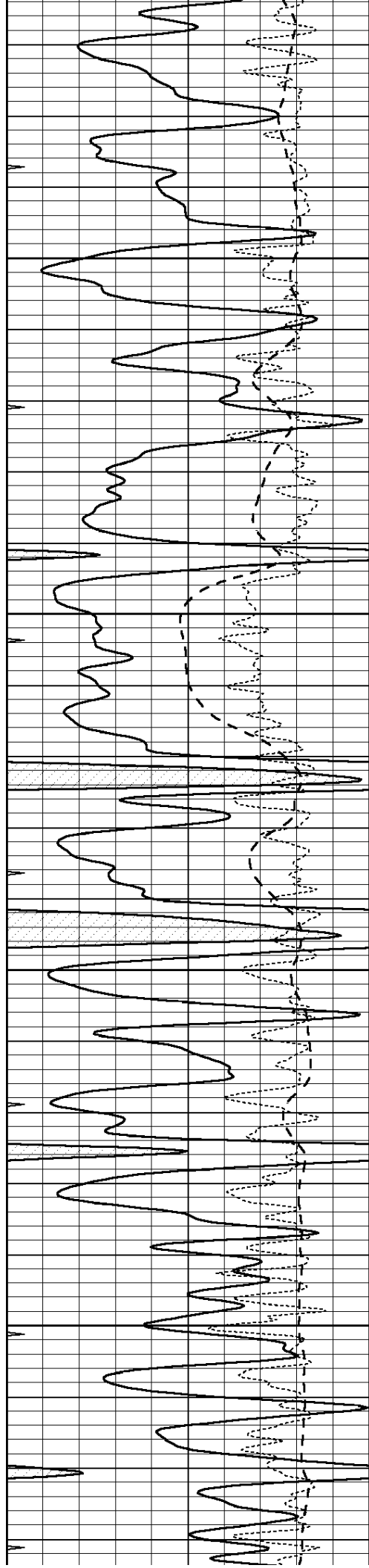
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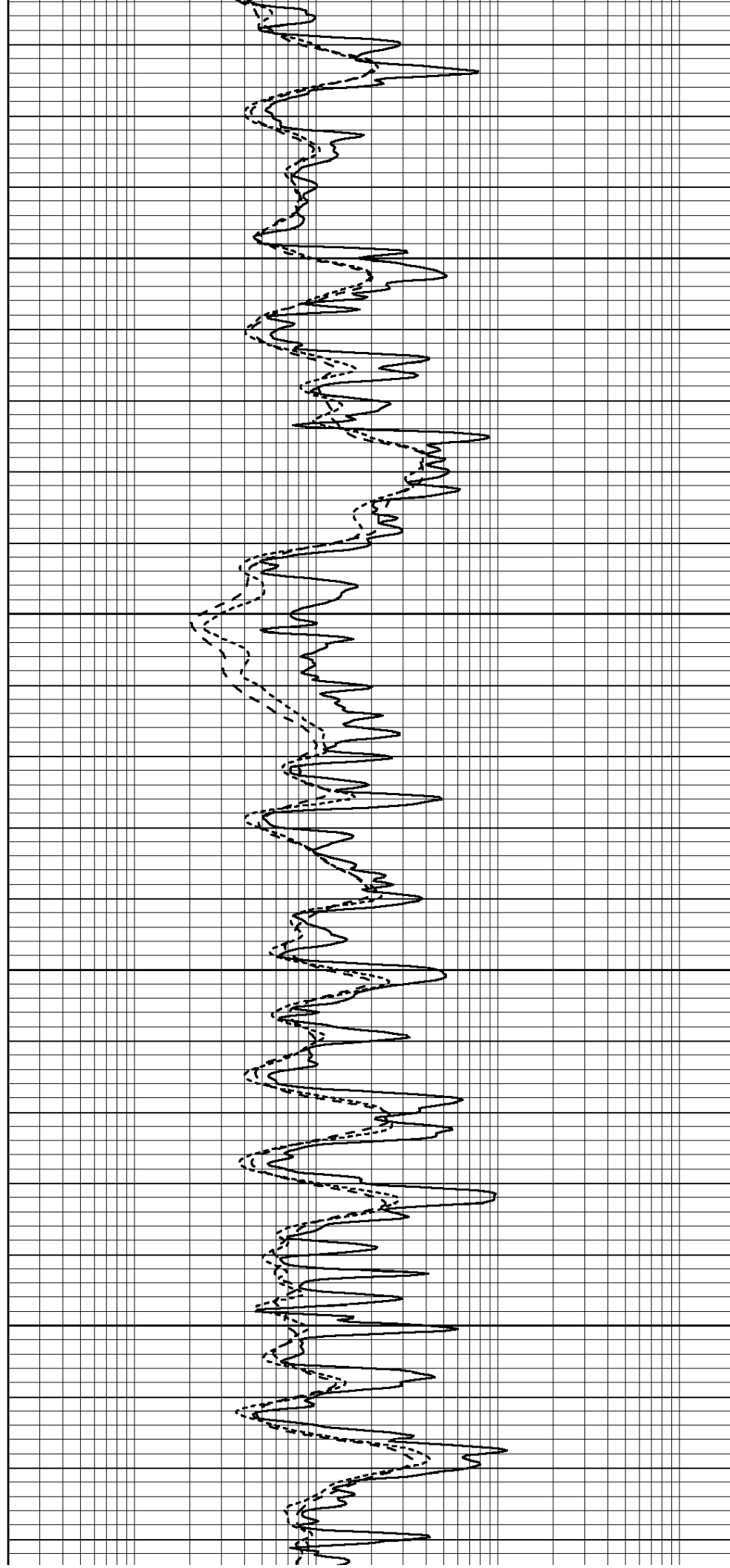


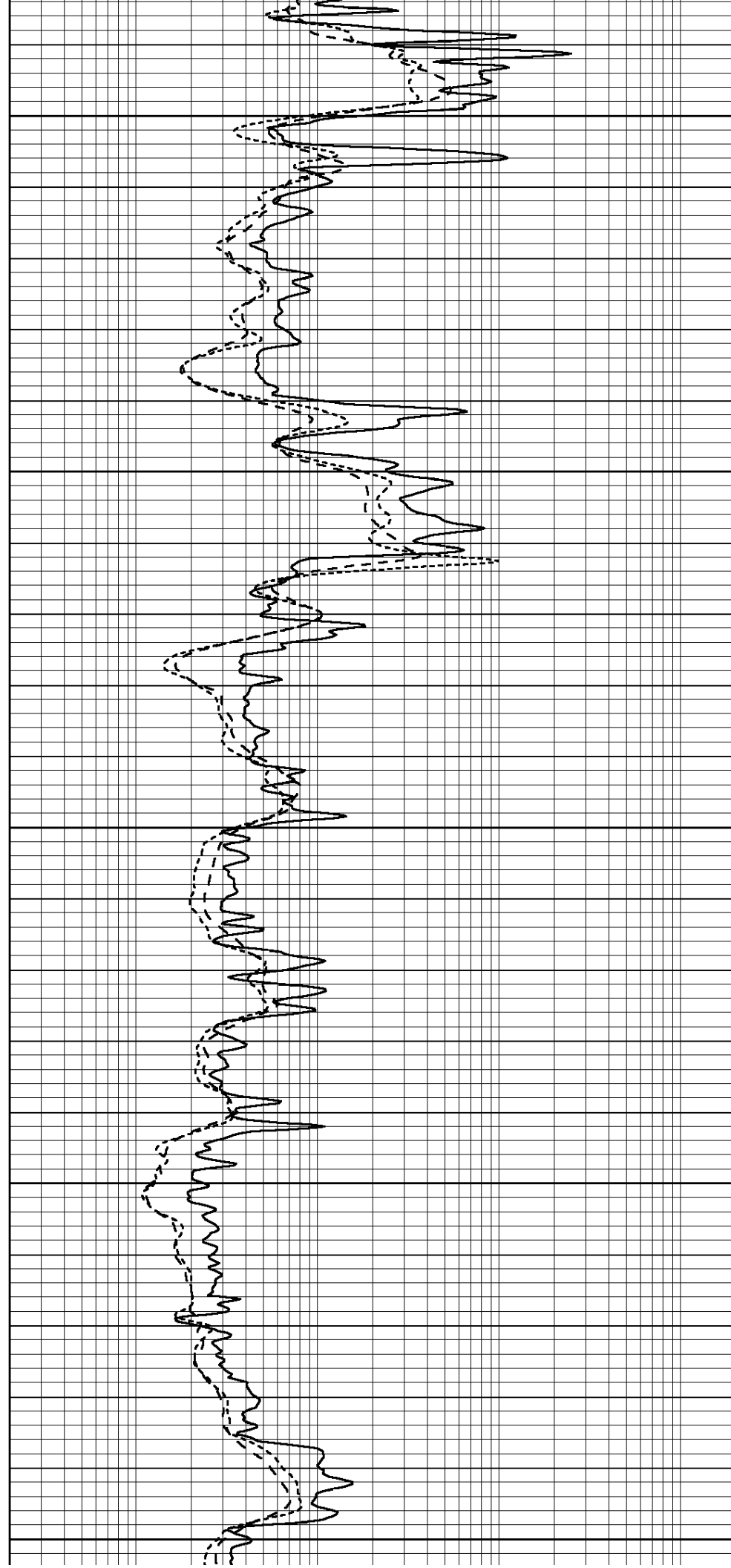
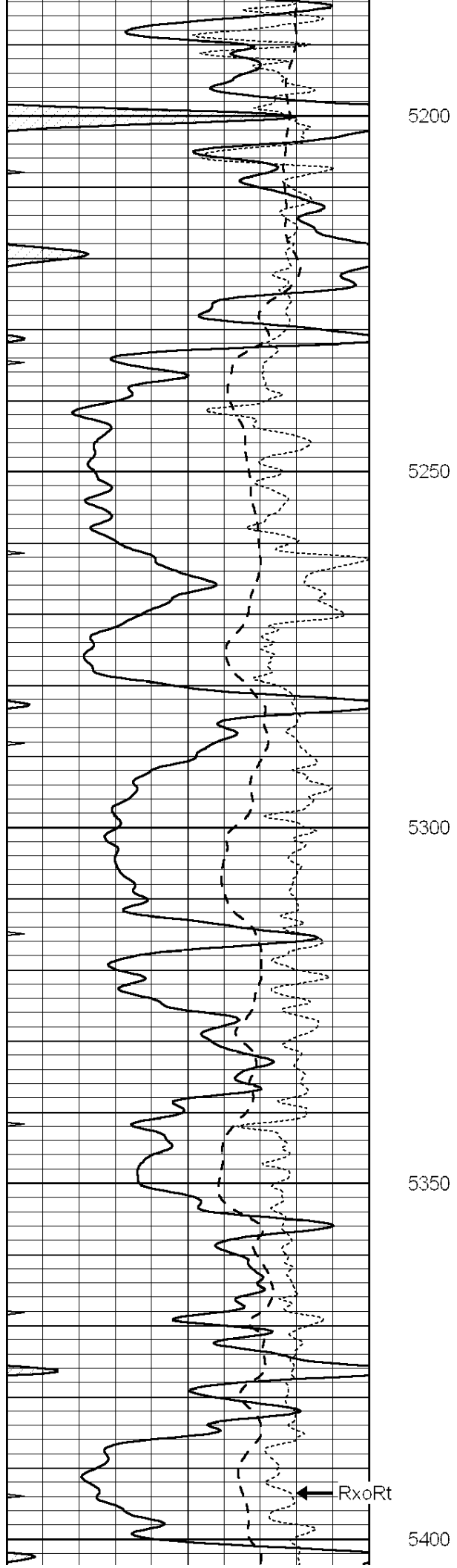
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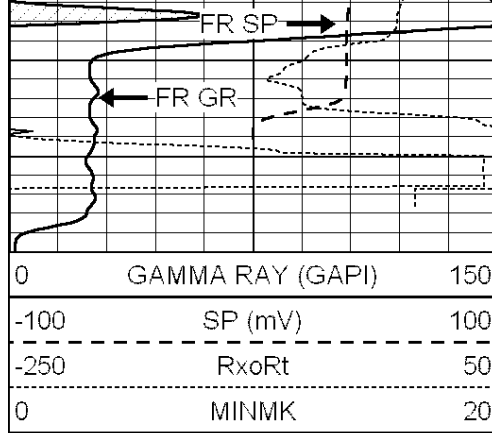
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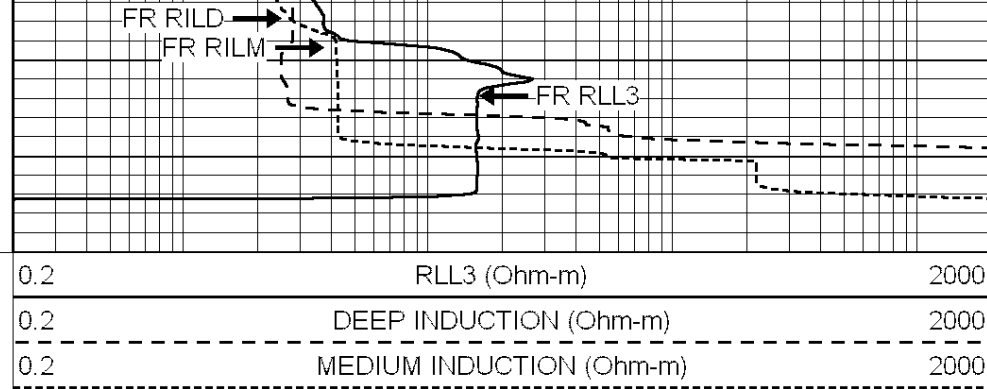
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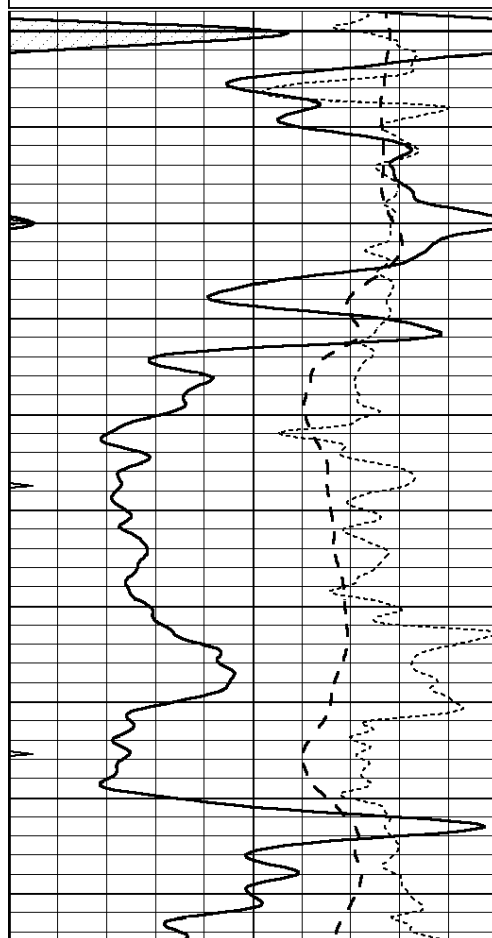
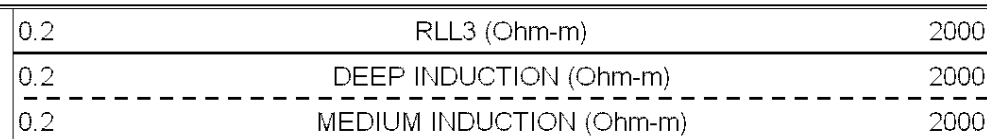
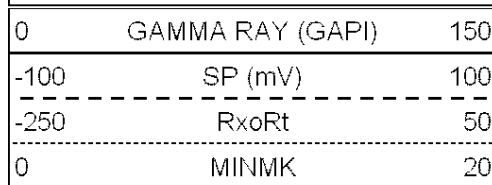


LTD 5416



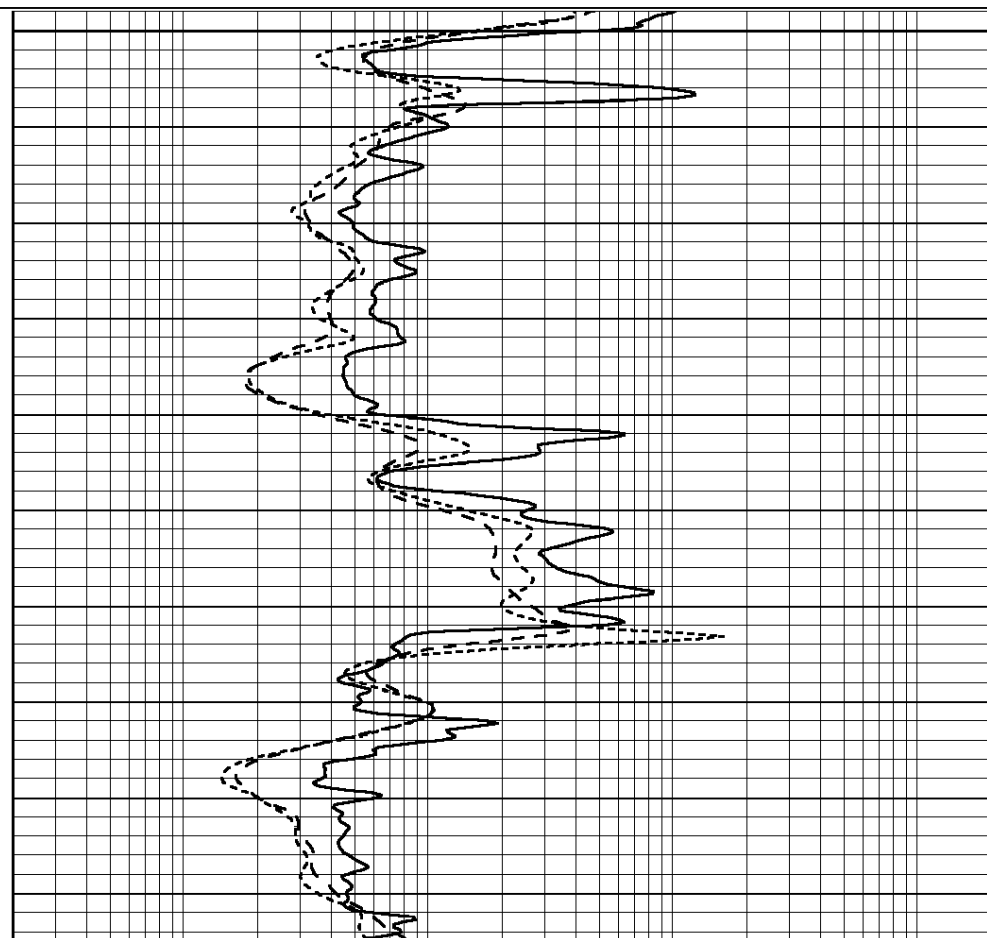
REPEAT SECTION

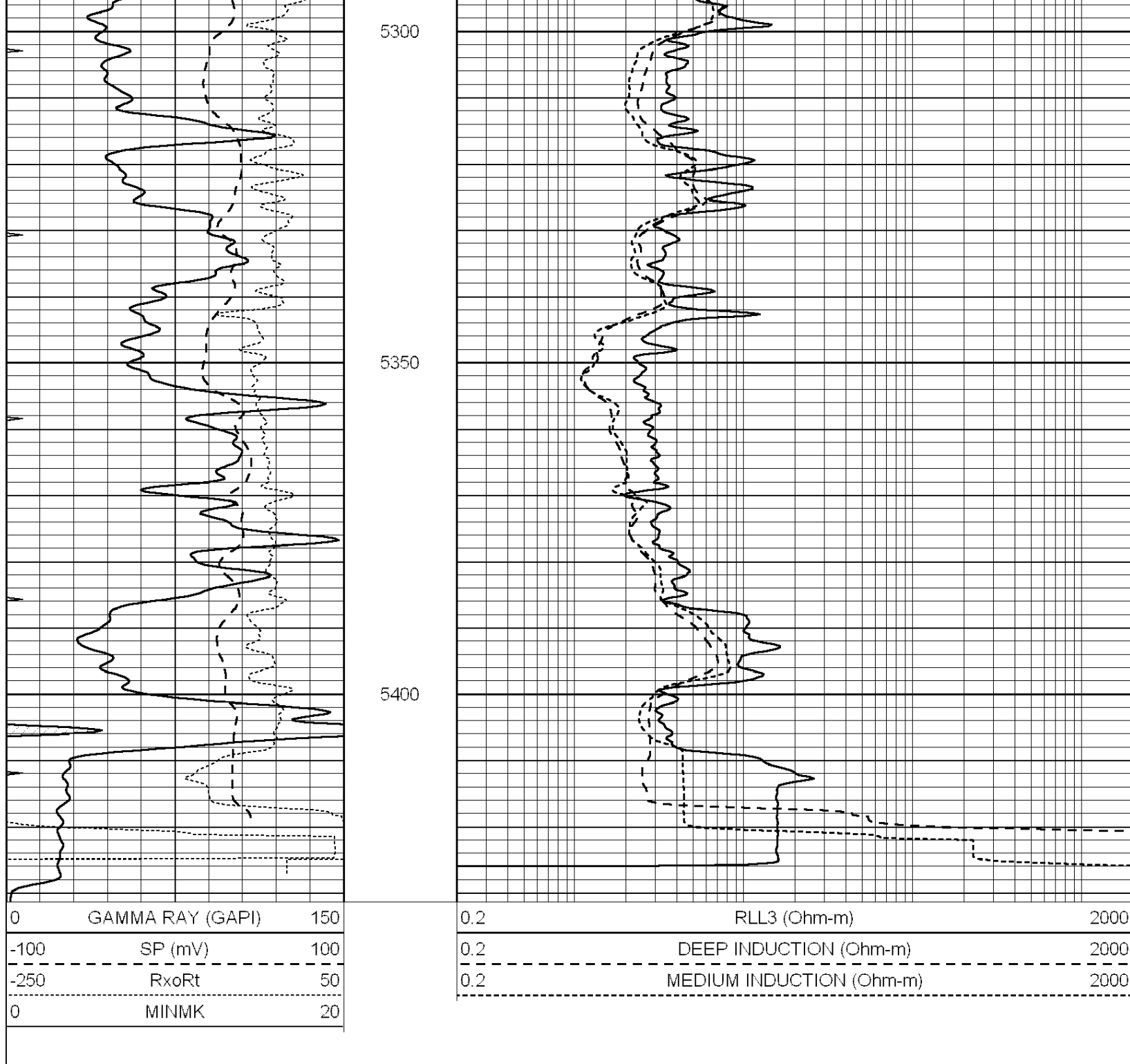
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Dataset Pathname: pass5.3
Presentation Format: _dil
Dataset Creation: Tue Mar 18 08:21:53 2014
Charted by: Depth in Feet scaled 1:240



5200

5250





Calibration Report

Database File: 23922ddn.db
 Dataset Pathname: pass7.3
 Dataset Creation: Tue Mar 18 08:49:10 2014

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Wed Mar 05 17:42:55 2014

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	500.000	4.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	570.000	3.000

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:				Wed Mar 05 16:50:17 2014				
Master Calibration								
	Density			Far Detector		Near Detector		
Magnesium	1.710	g/cc		1211.27		625.92	cps	
Aluminum	2.600	g/cc		267.11		413.26	cps	
Spine Angle = 74.64				Density/Spine Ratio = 0.568				
	Size			Reading				
Small Ring	8.20	in		5.18		V		
Large Ring	14.00	in		8.18		V		
Compensated Neutron Calibration Report								
Serial Number:				080620				
Tool Model:				Probe				
PRE-SURVEY VERIFICATION								
Detector		Readings		Measured		Target		
Short Space		cps						
Long Space		cps		pu		pu		
POST-SURVEY VERIFICATION								
Detector		Readings		Measured		Target		
Short Space		cps						
Long Space		cps		pu		pu		
Gamma Ray Calibration Report								
Serial Number:			7					
Tool Model:			Probe1					
Performed:			Tue Mar 04 10:47:15 2014					
Calibrator Value:			1.0		GAPI			
Background Reading:			0.0		cps			
Calibrator Reading:			1.0		cps			
Sensitivity:			0.4500		GAPI/cps			