



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company		ABERCROMBIE ENERGY, LLC.	
Well		BRYANT #1-35	
Field		WILDCAT	
County		HASKELL	
State		KANSAS	
Location:		API # : 15-081-22038-0000 330' FNL & 2310' FEL NW - NW - NE	
Permanent Datum Log Measured From Drilling Measured From		GROUND LEVEL KELLY BUSHING 10' A.G.L. KELLY BUSHING	
SEC 35 TWP 29S RGE 31W		Other Services CDL/CNL/PE MEL/SON	
Elevation		K.B. 2852 D.F. 2850 G.L. 2842	
Date	11/5/13		
Run Number	ONE		
Depth Driller	5650		
Depth Logger	5650		
Bottom Logged Interval	5648		
Top Log Interval	0		
Casing Driller	8 5/8" @ 1618'		
Casing Logger	1618'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.25/52	CHLORIDES 3600 PPM	
pH / Fluid Loss	10.0/9.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.00 @ 76F		
Rmf @ Meas. Temp	0.75 @ 76F		
Rmc @ Meas. Temp	1.20 @ 76F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	0.58 @ 131F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	131F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JEFF GRONEMEG		
Witnessed By	KENT CRISLER		

<<< Fold Here >>>

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 NABORS COMPLETION & PRODUCTION SVCS. (785) 628-6395

DIRECTIONS:

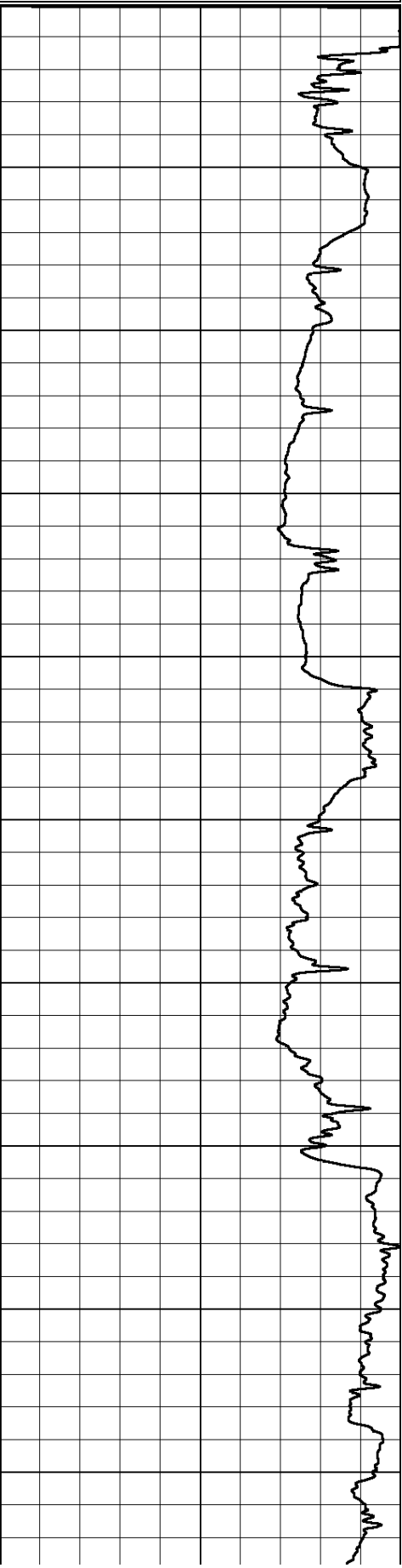
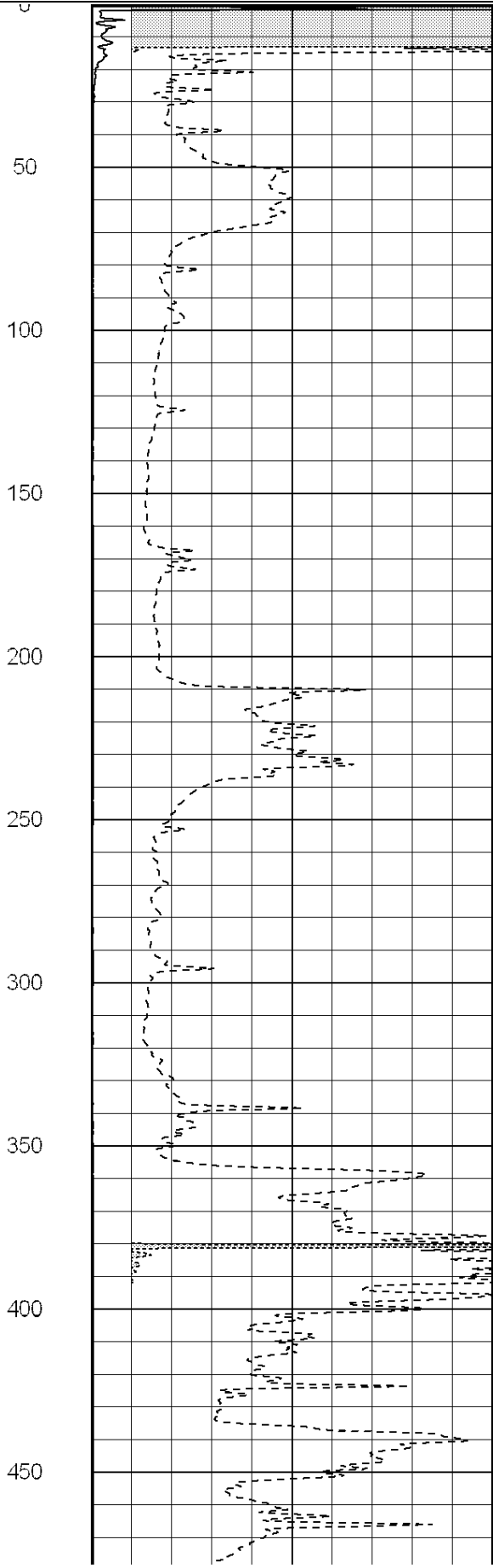
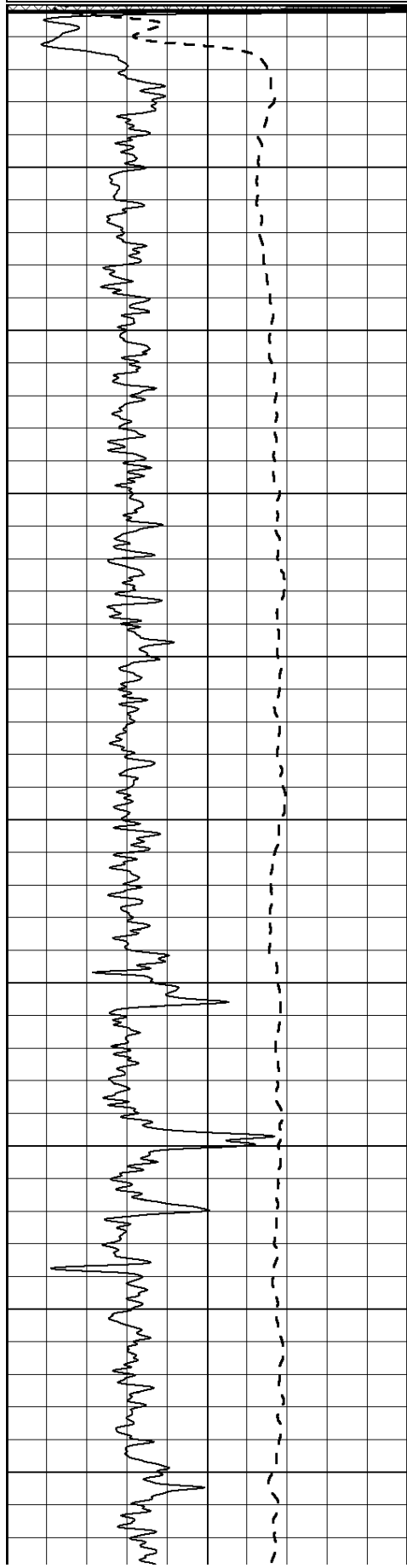
COPELAND, KS - SOUTH 4 1/2 MILES ON RD 2 TO RD A - 2 MILES WEST TO RD XX
1 MILE NORTH - 1/2 MILE WEST - SOUTH INTO

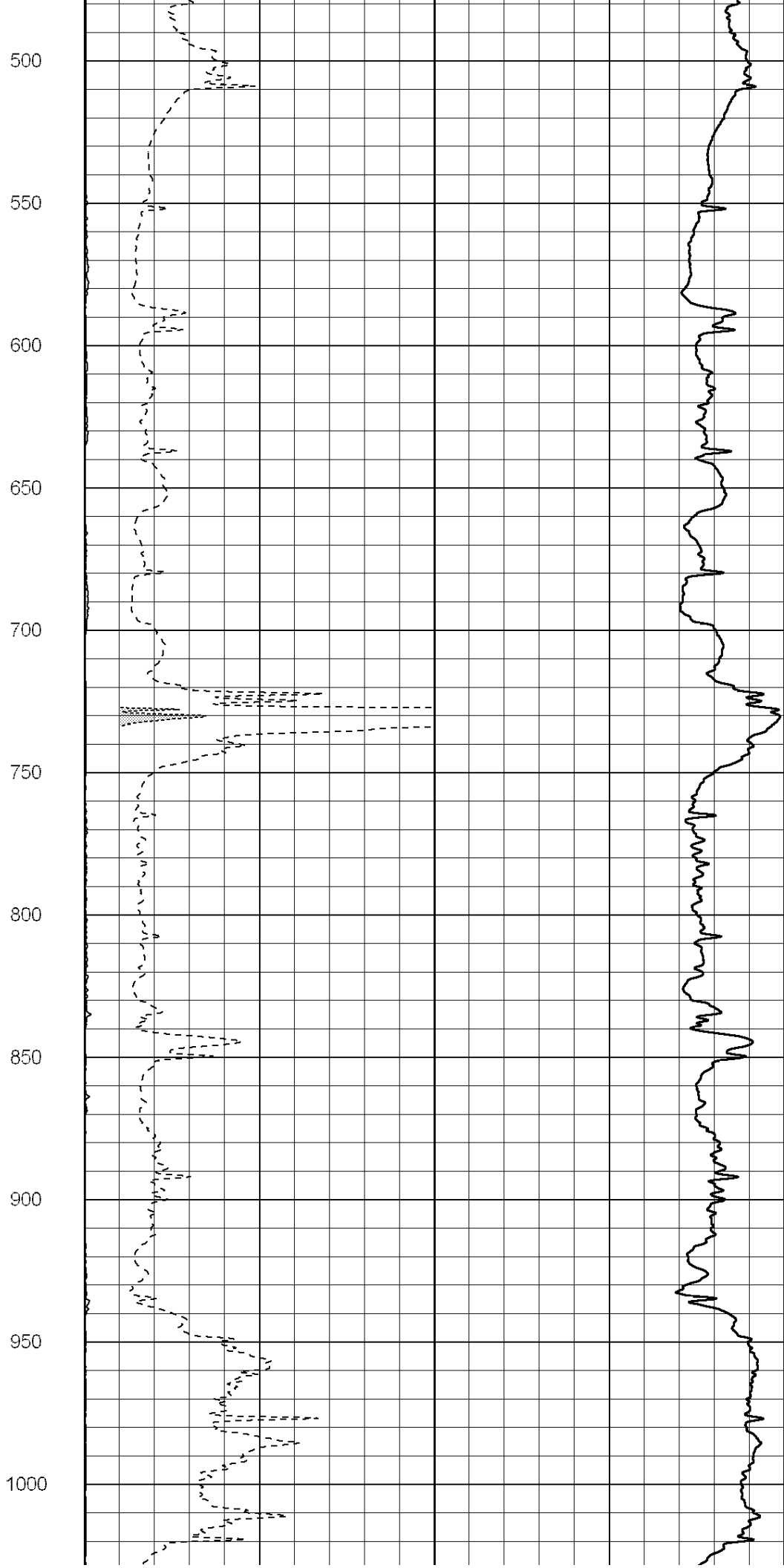
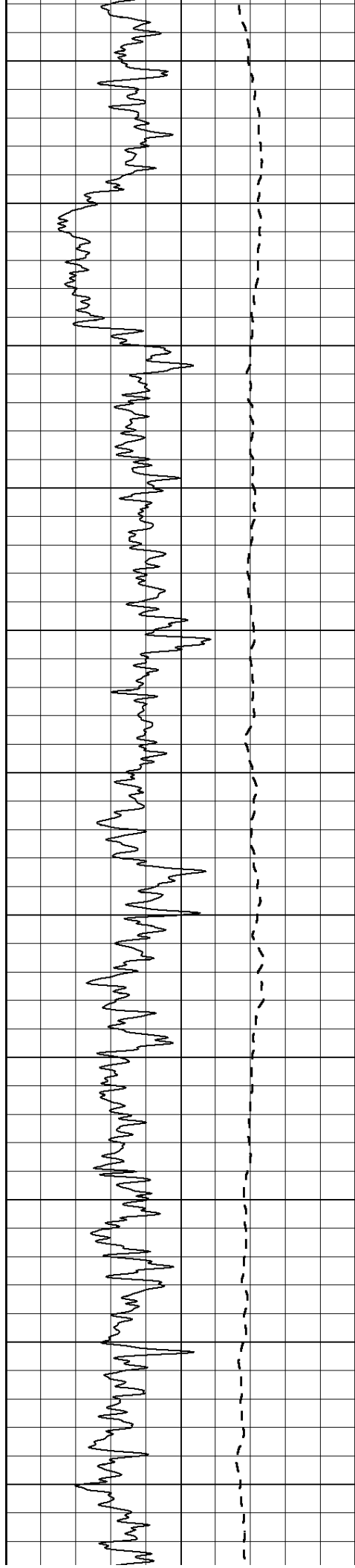
Charted by: Depth in Feet scaled 1:600		
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

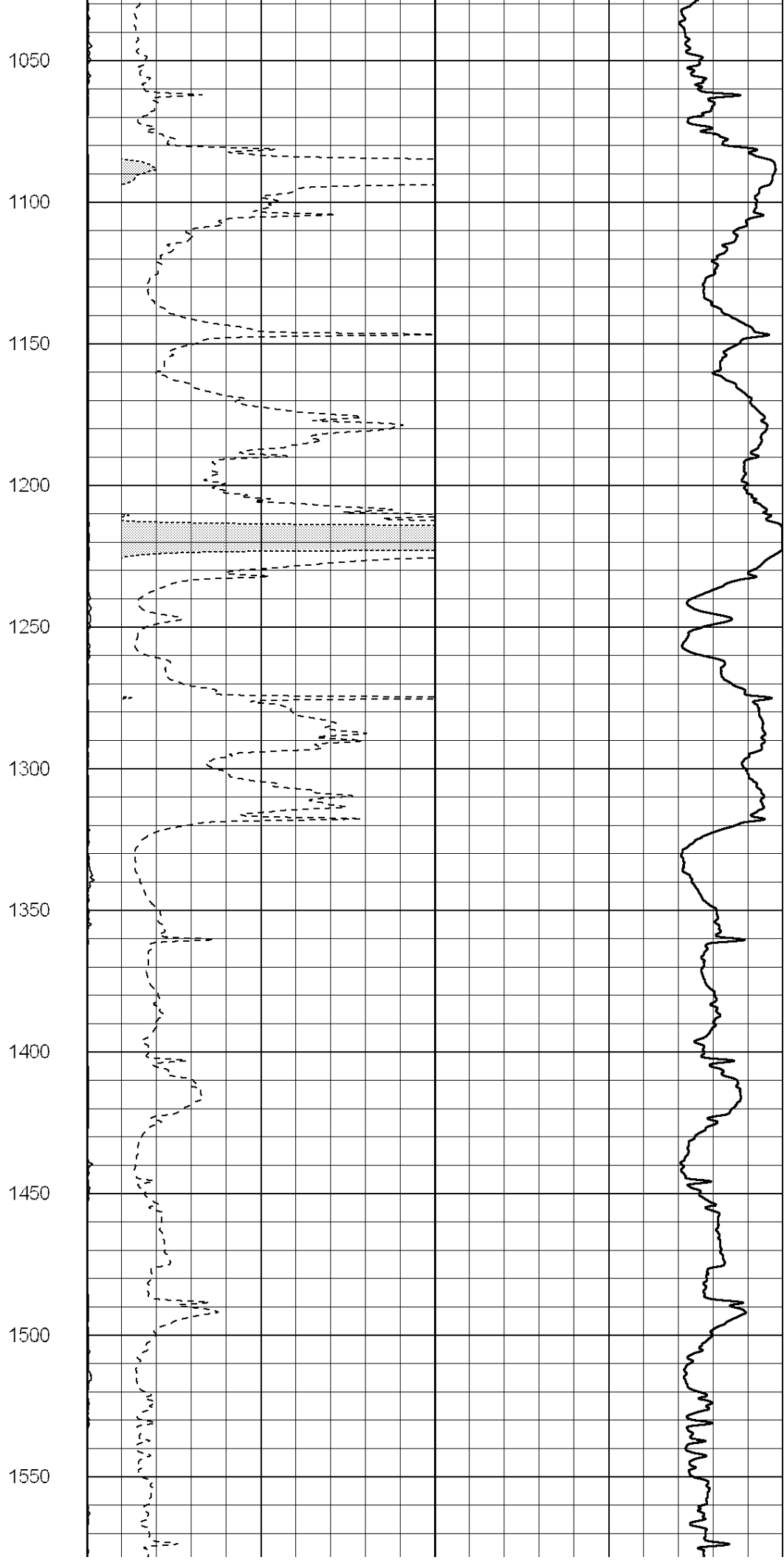
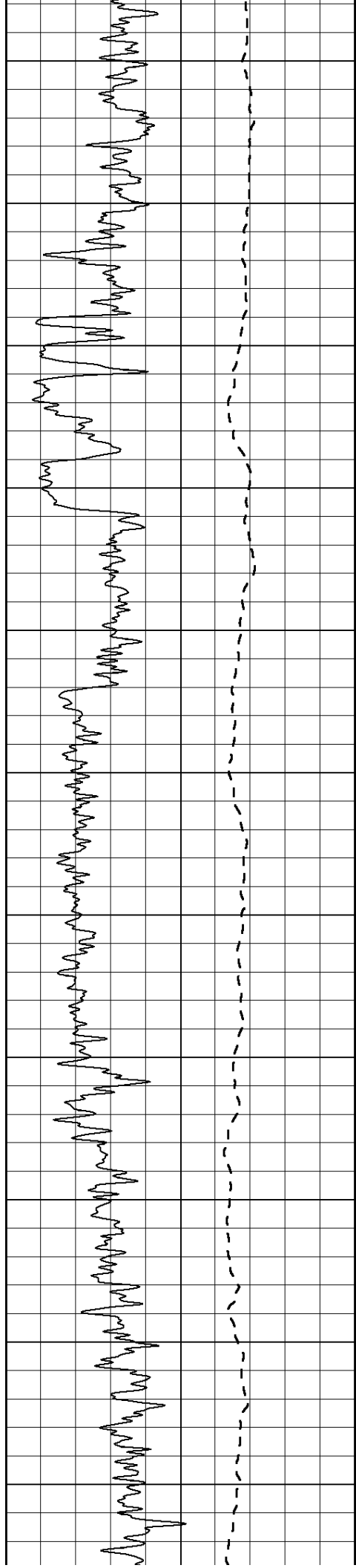
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0	Deep Induction (Ohm-m)	50

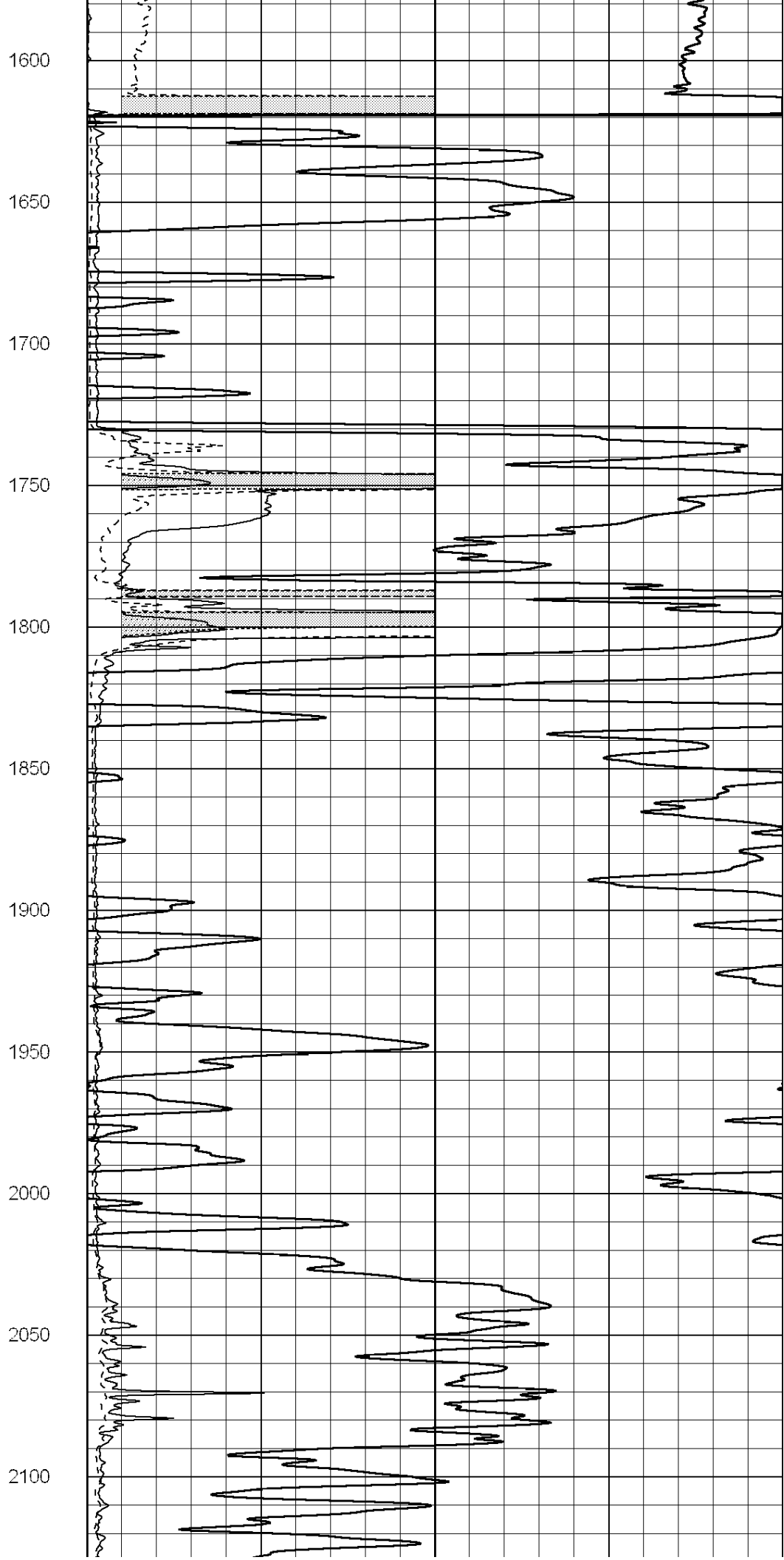
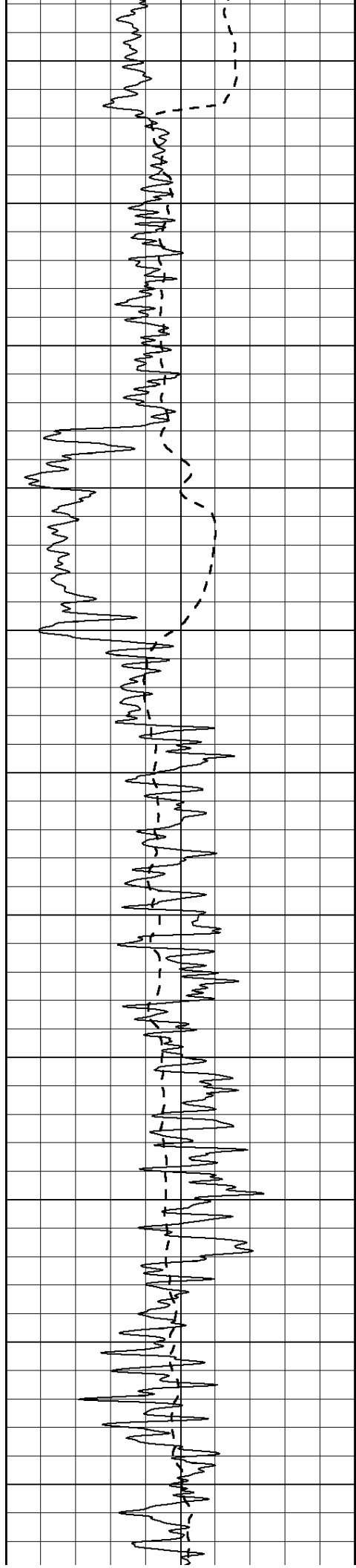
1000	CILD (mmho/m)	0
50	RILD X10 (Ohm-m)	500

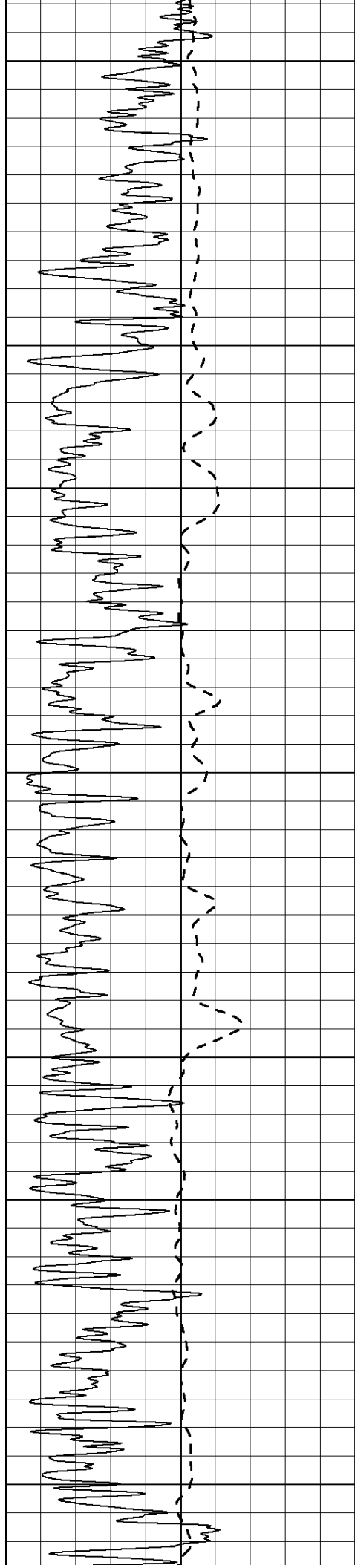
50	RLL3 X10 (Ohm-m)	500











2150

2200

2250

2300

2350

2400

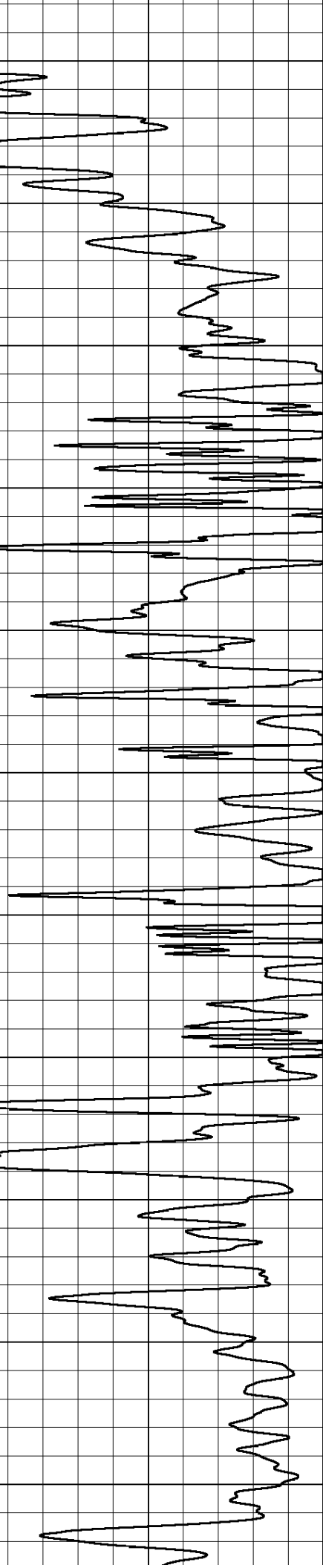
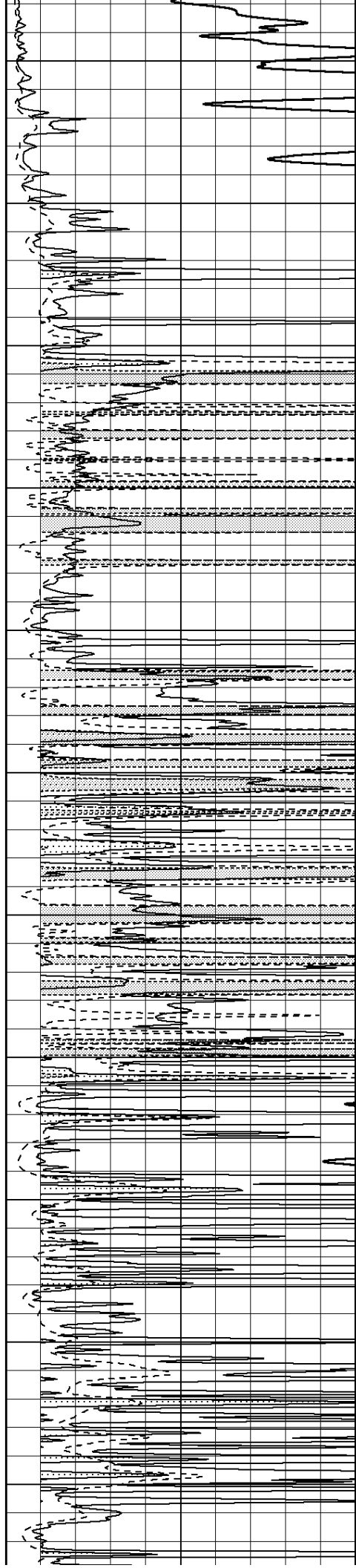
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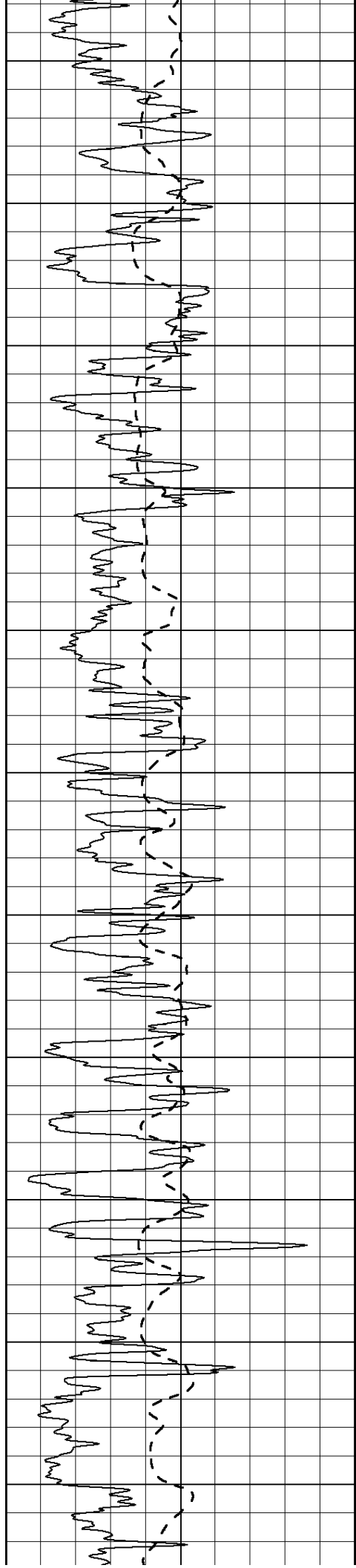
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2550

2600

2650





2700

2750

2800

2850

2900

2950

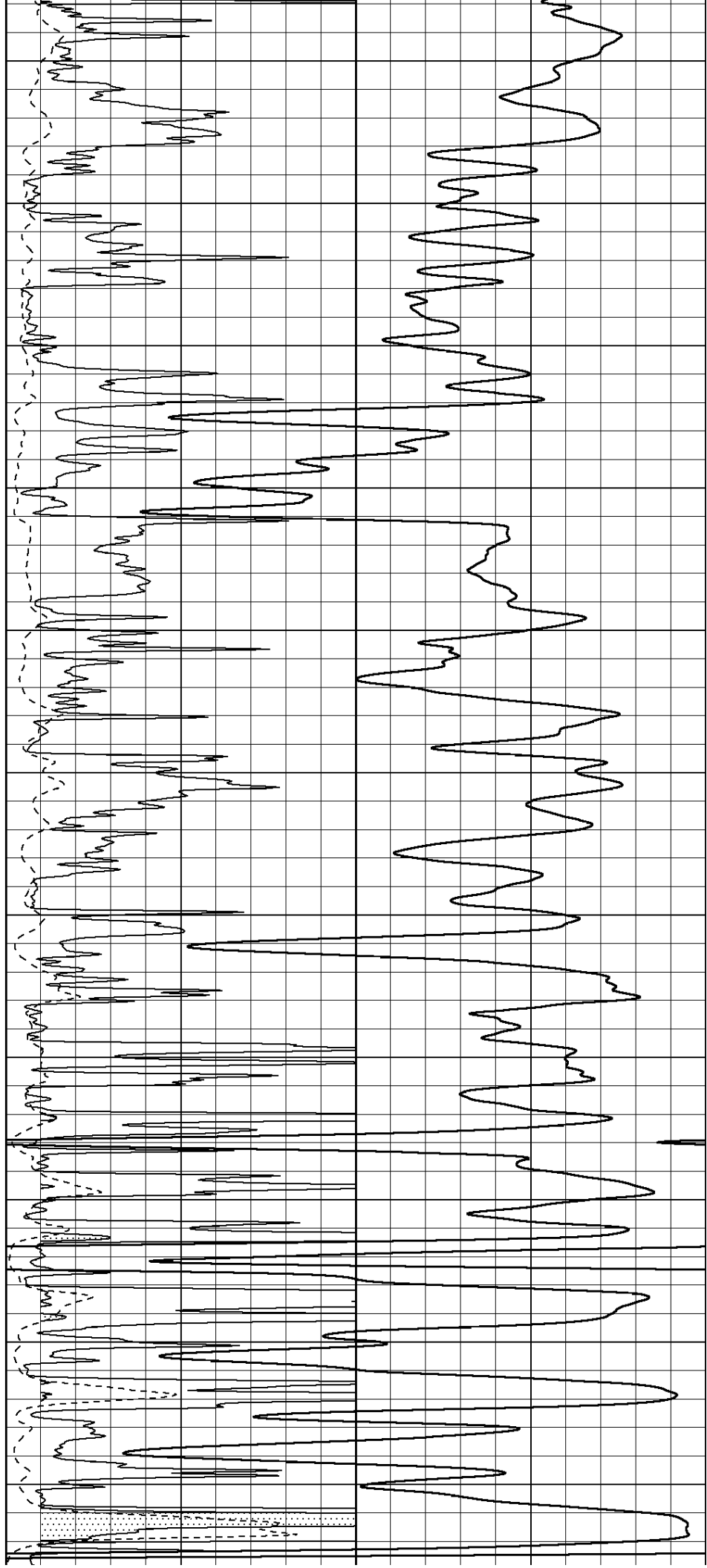
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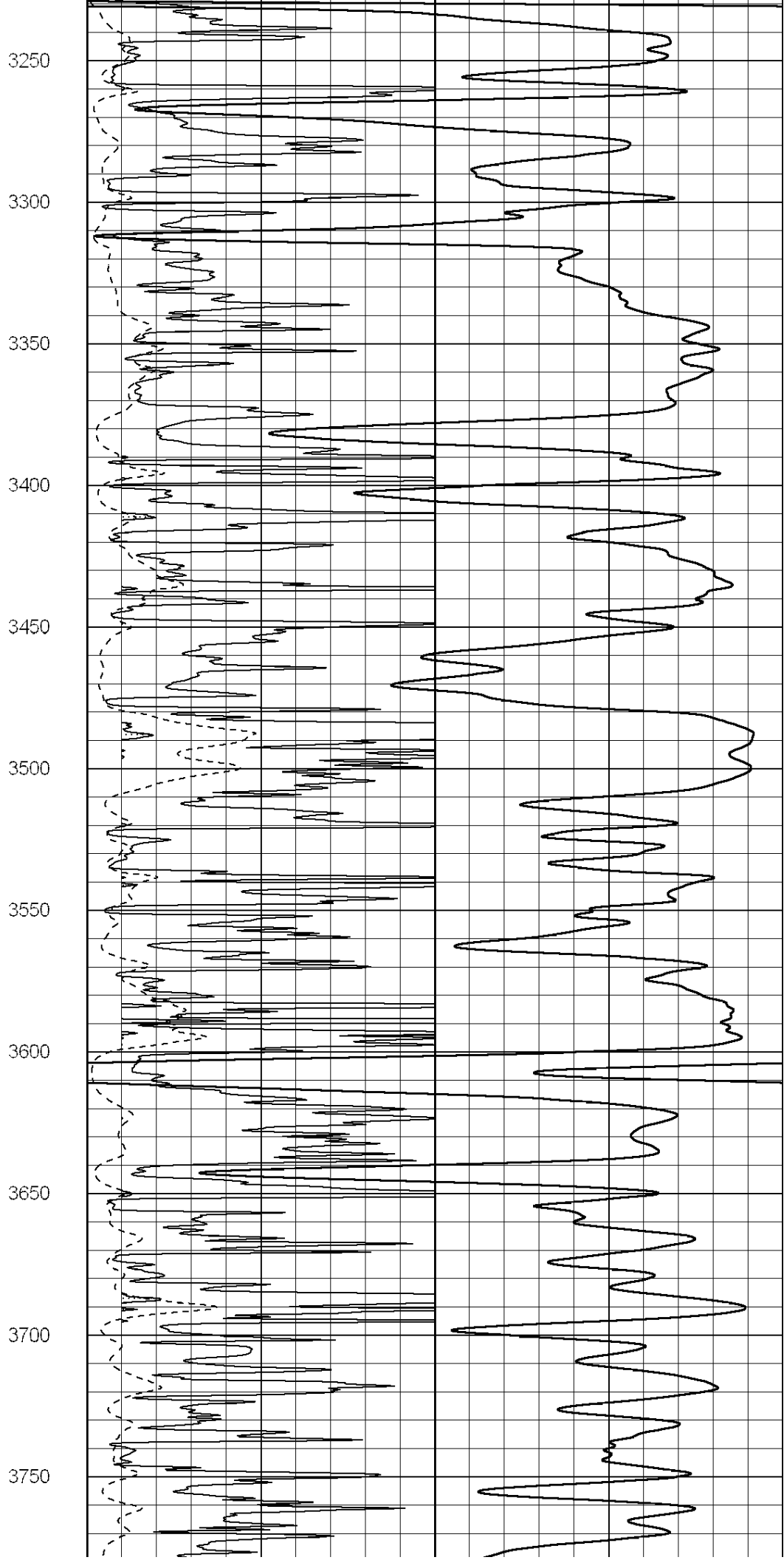
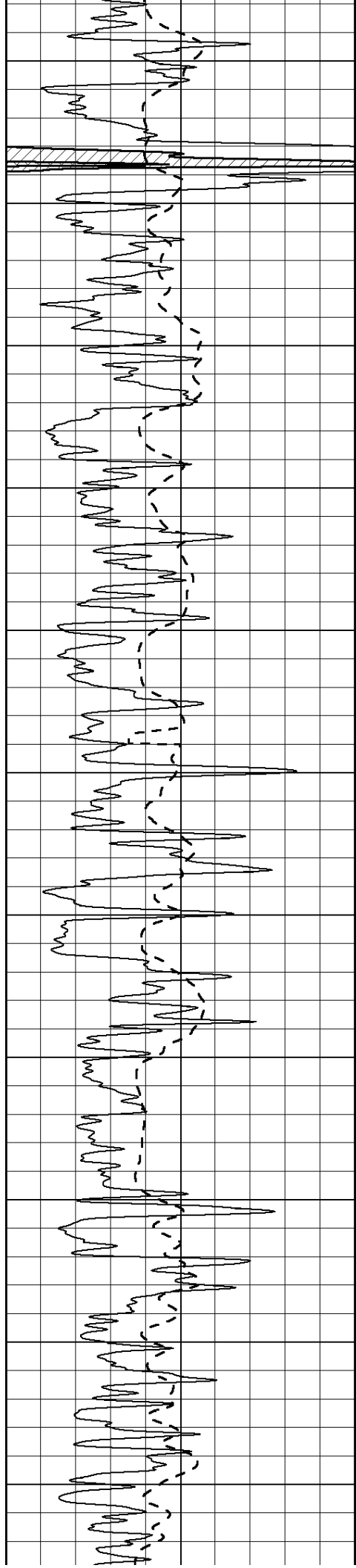
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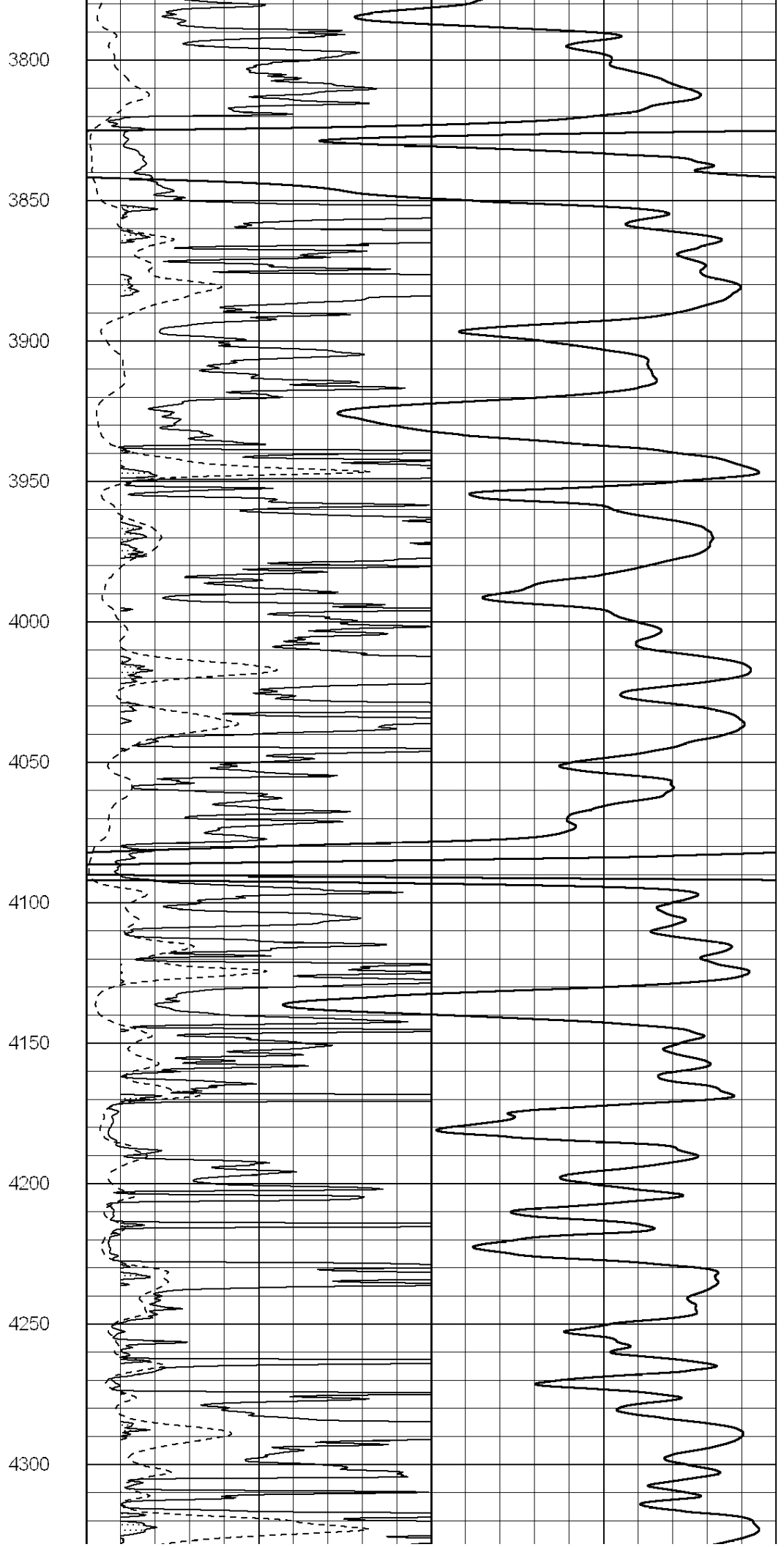
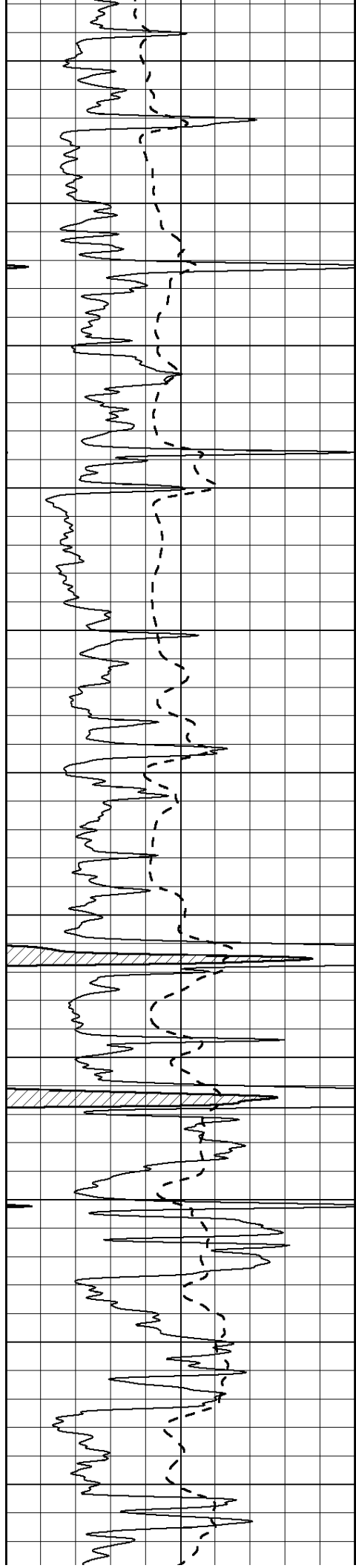
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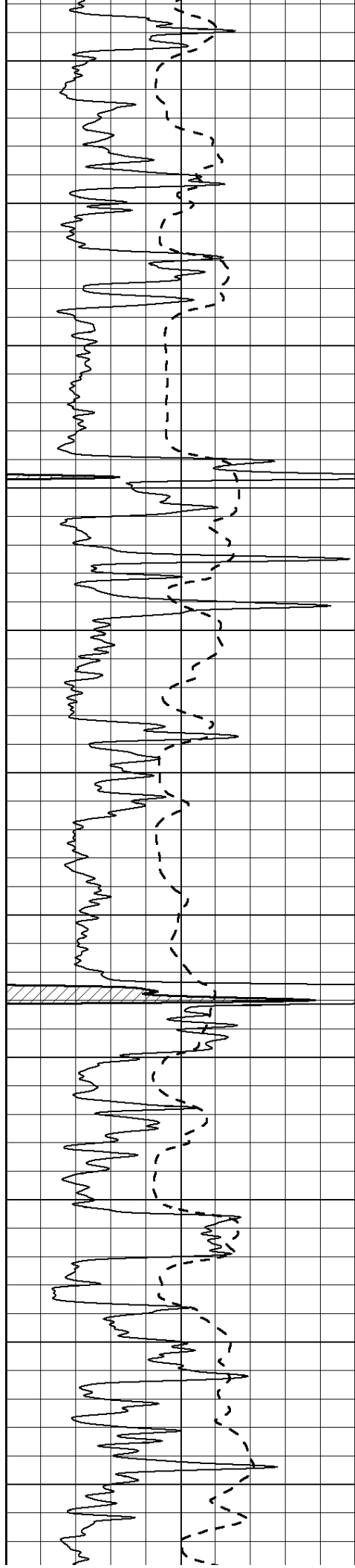
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3200









4350

4400

4450

4500

4550

4600

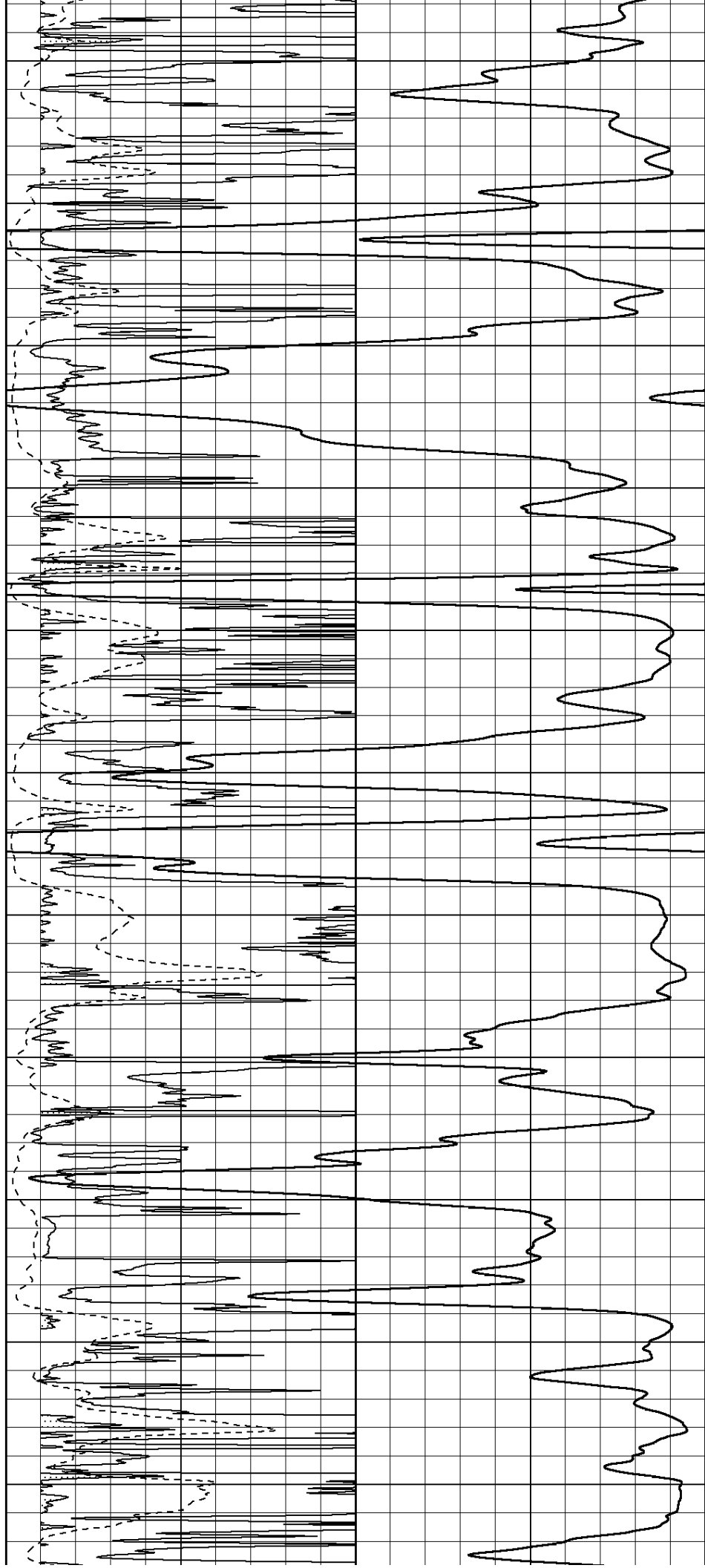
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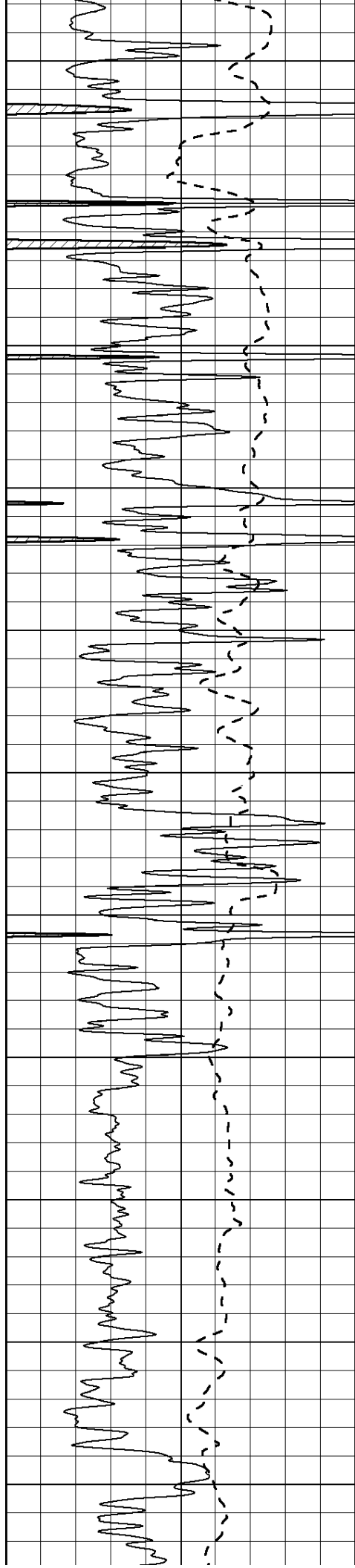
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4750

4800

4850





4900

4950

5000

5050

5100

5150

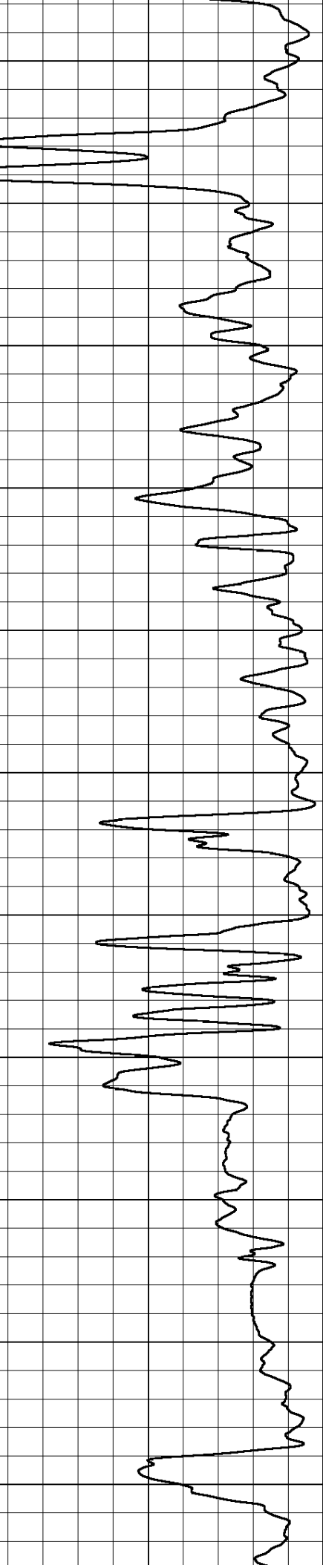
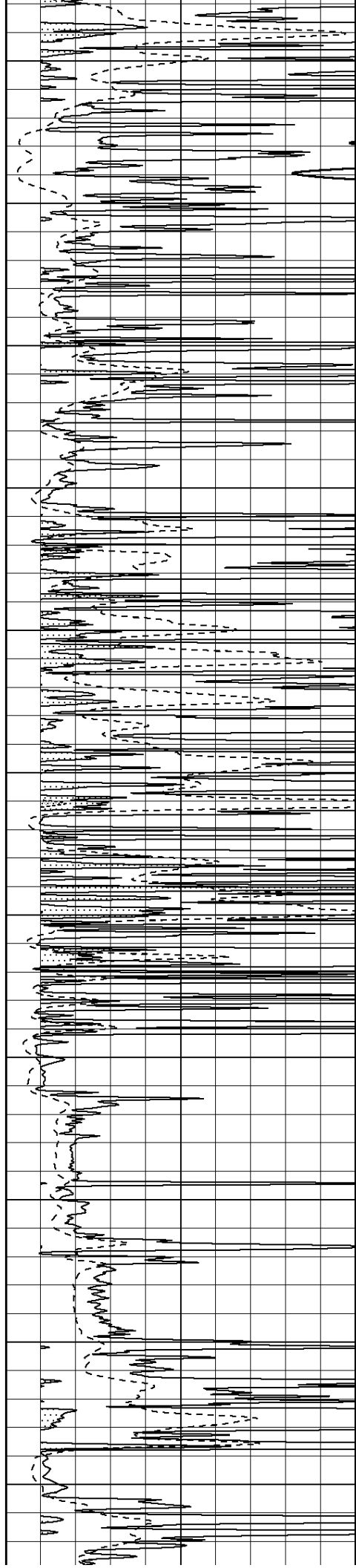
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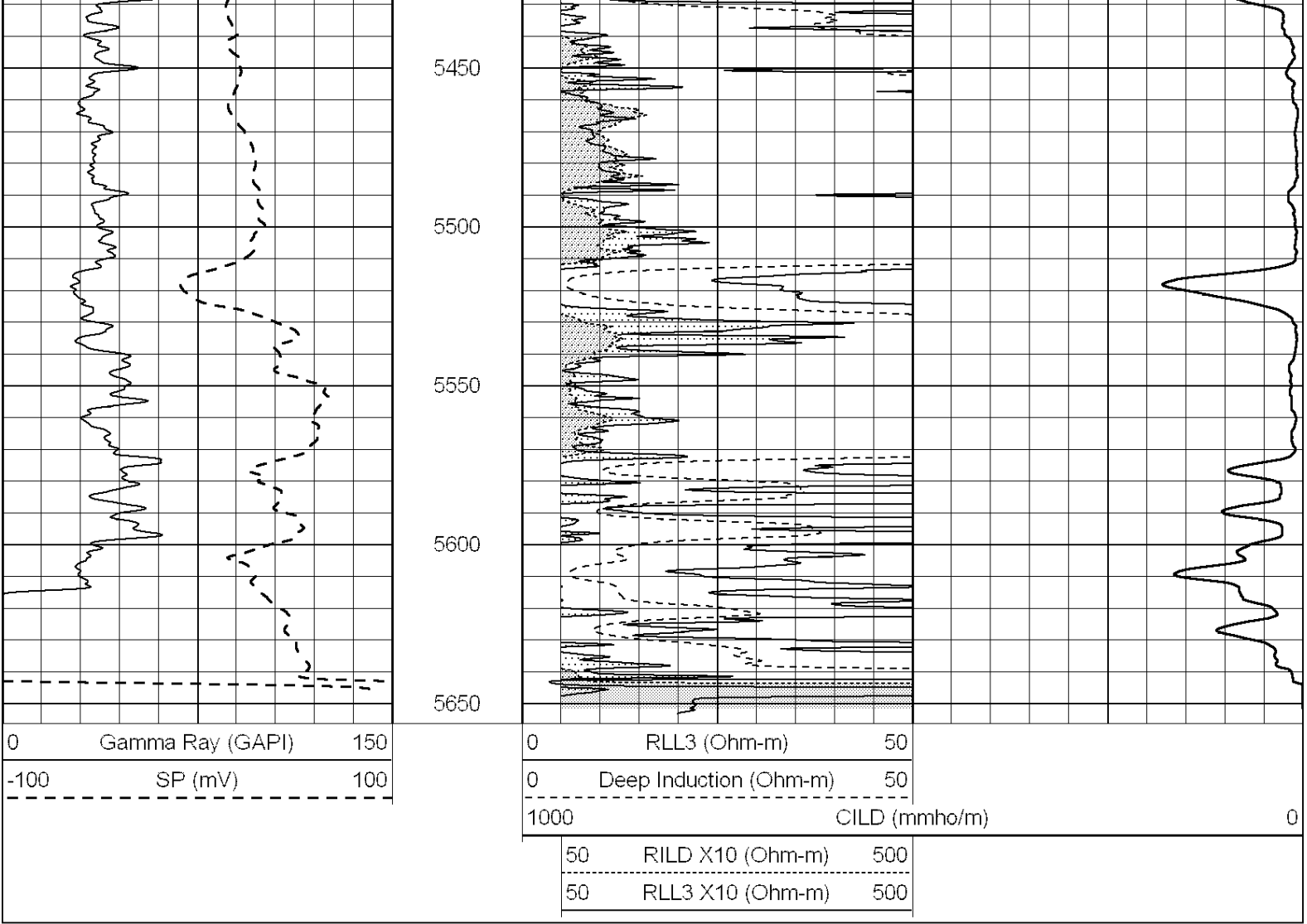
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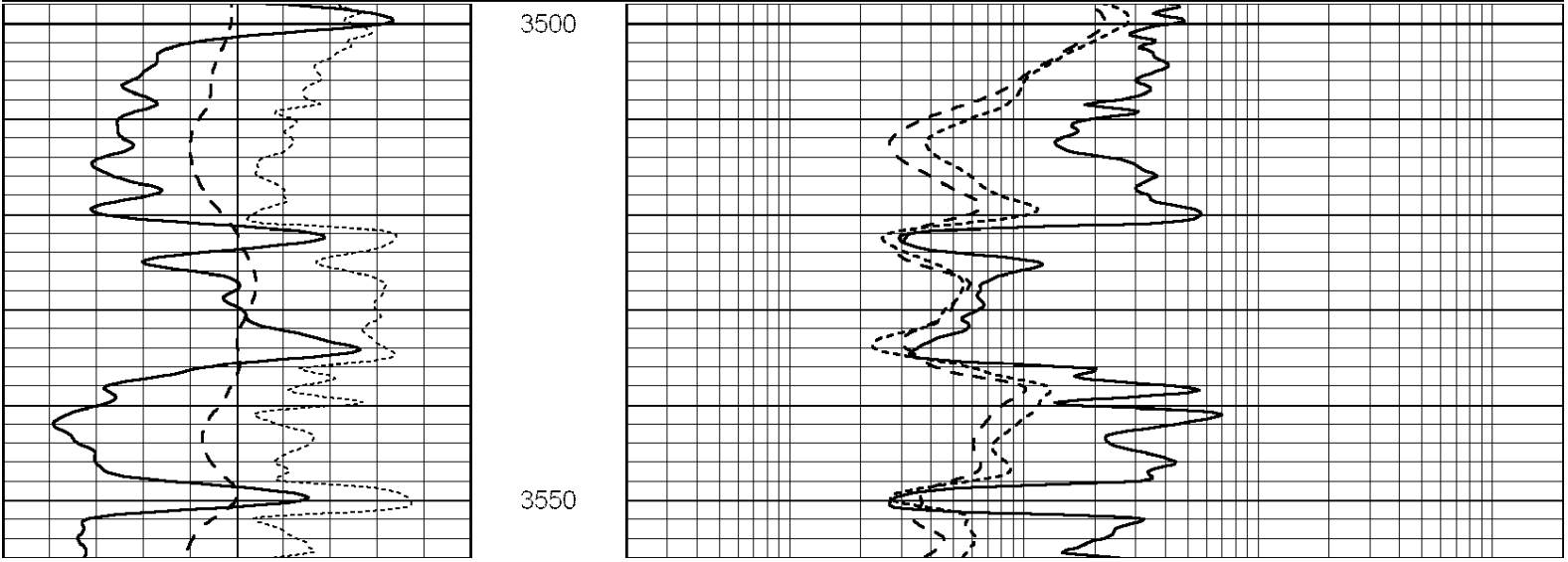


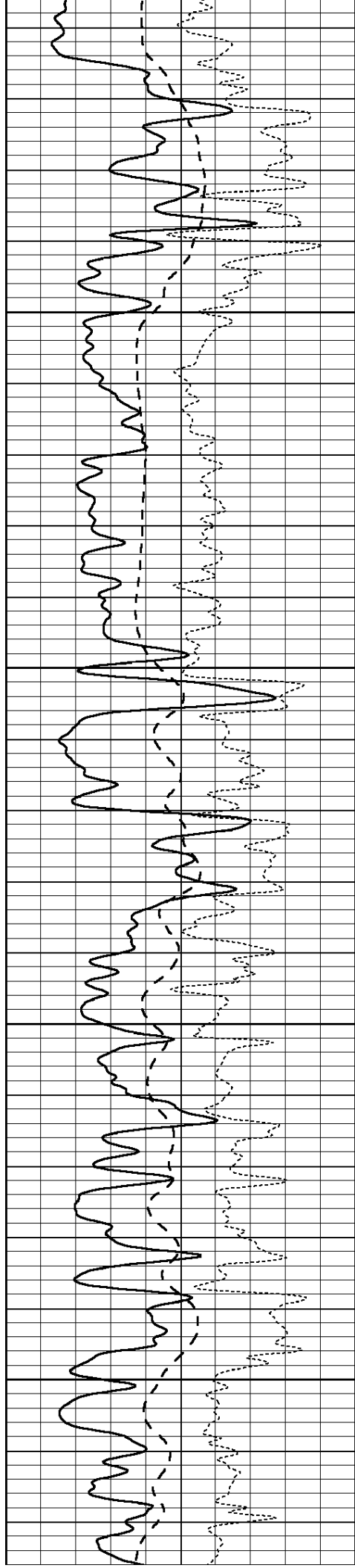


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Presentation Format:	_dil
Dataset Creation:	Tue Nov 05 20:46:00 2013
Charted by:	Depth in Feet scaled 1:240

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

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



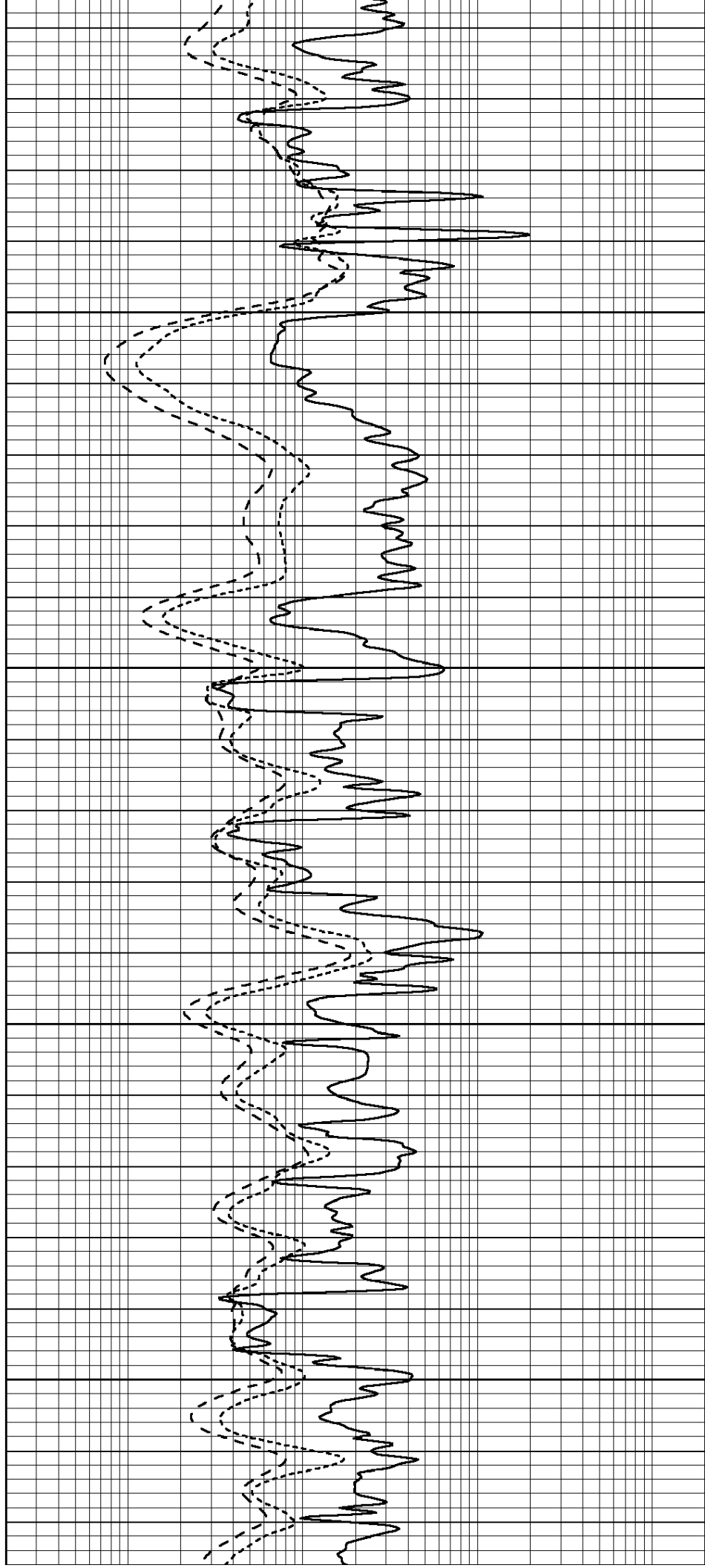


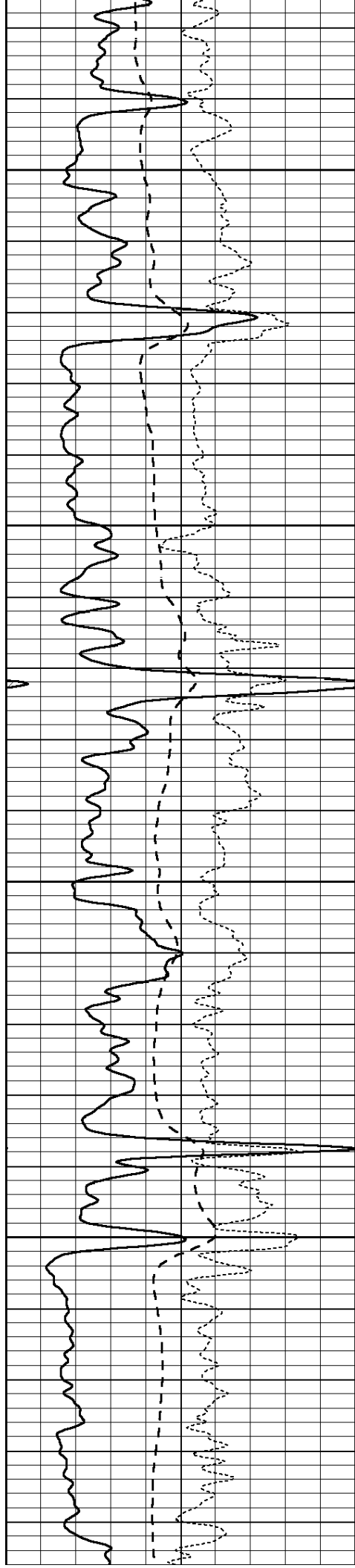
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3700

3750



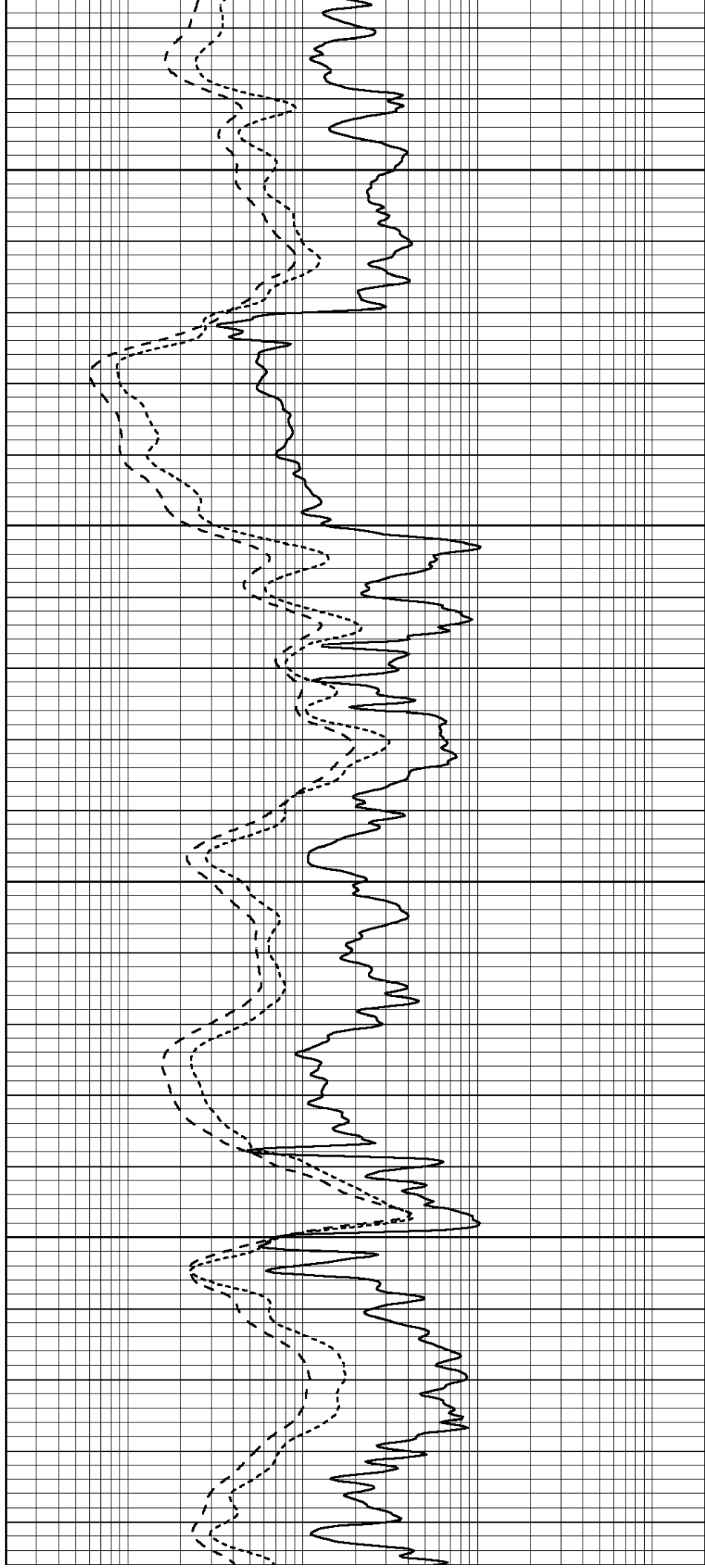


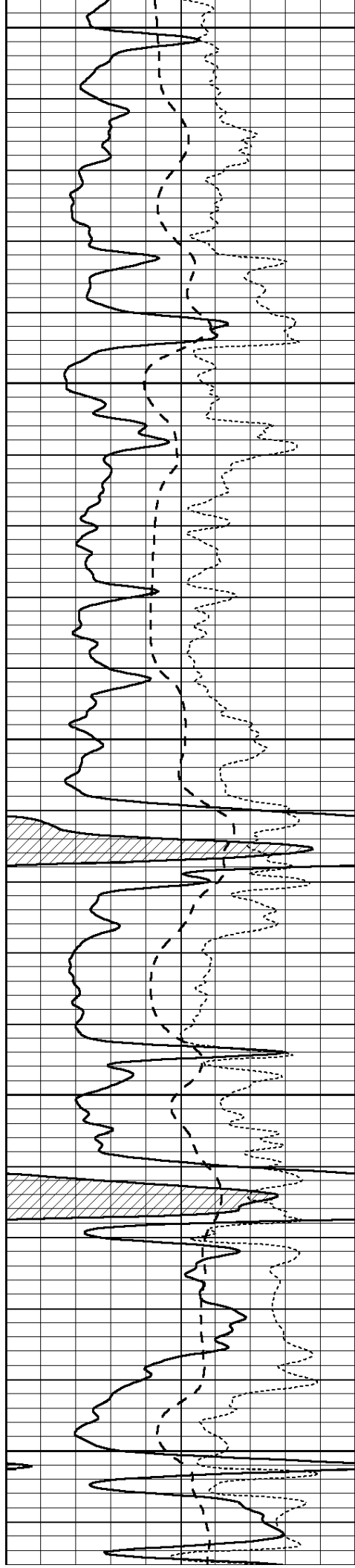
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3850

3900

3950





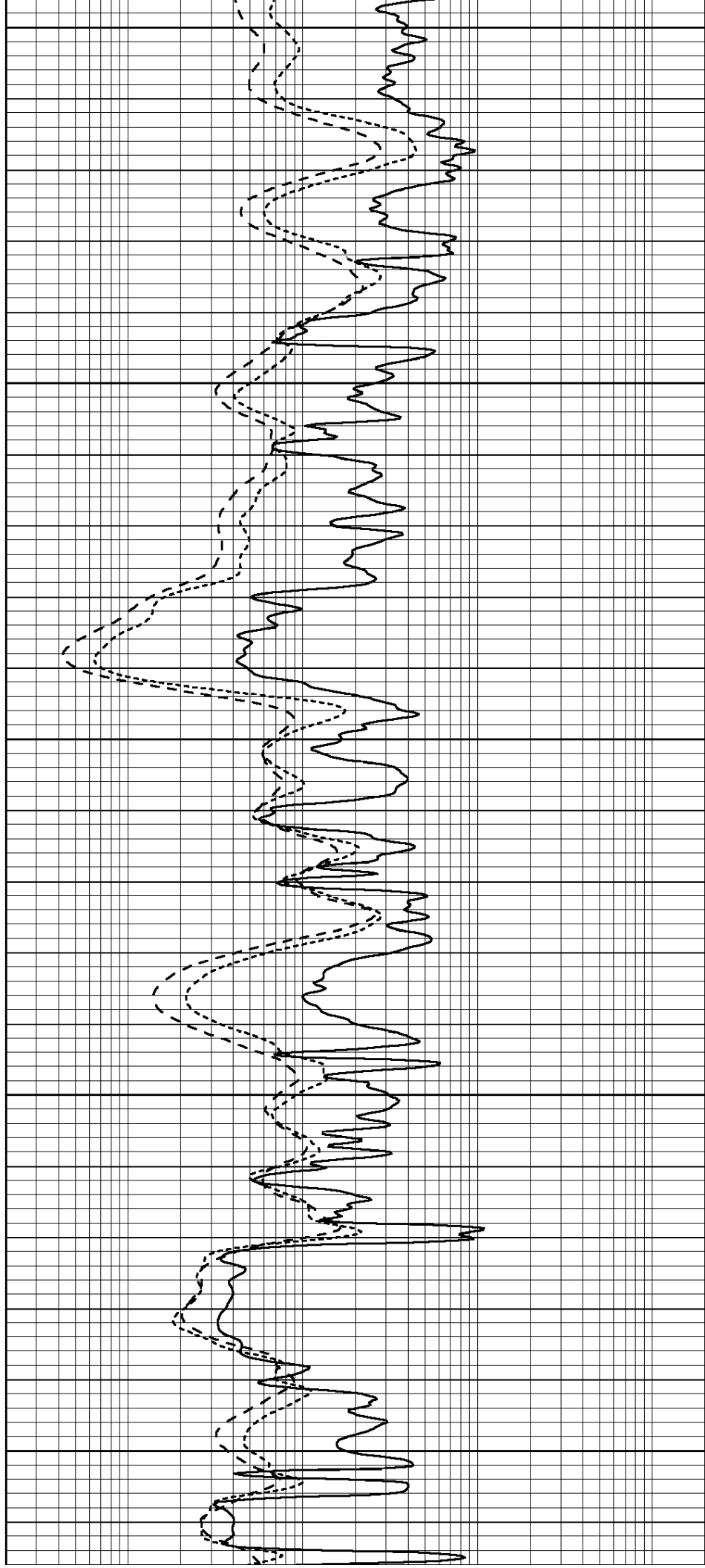
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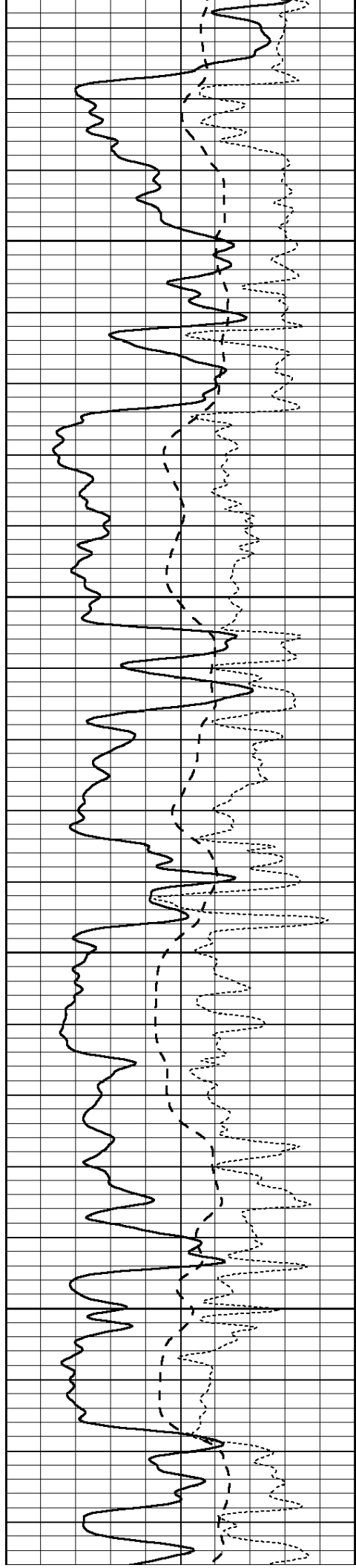
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4100

4150

4200



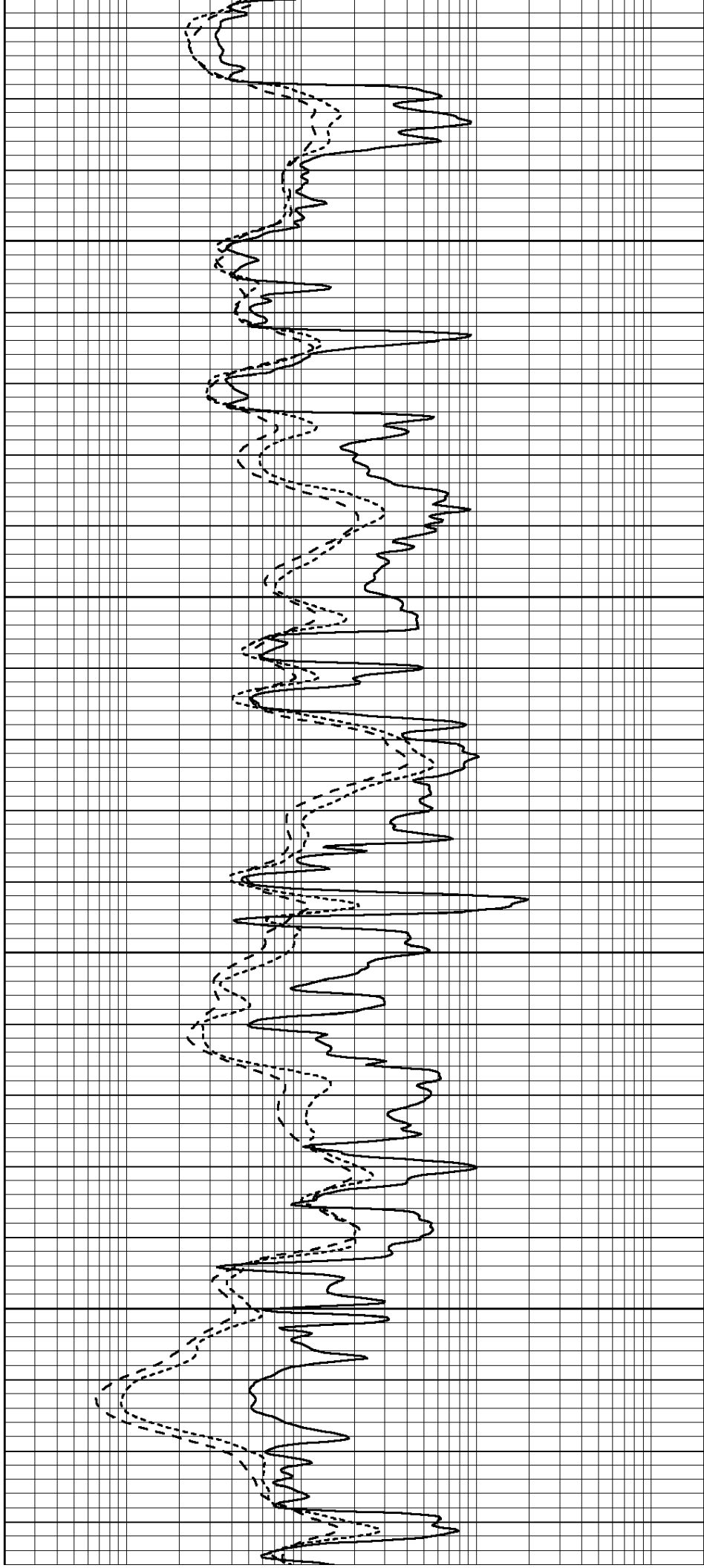


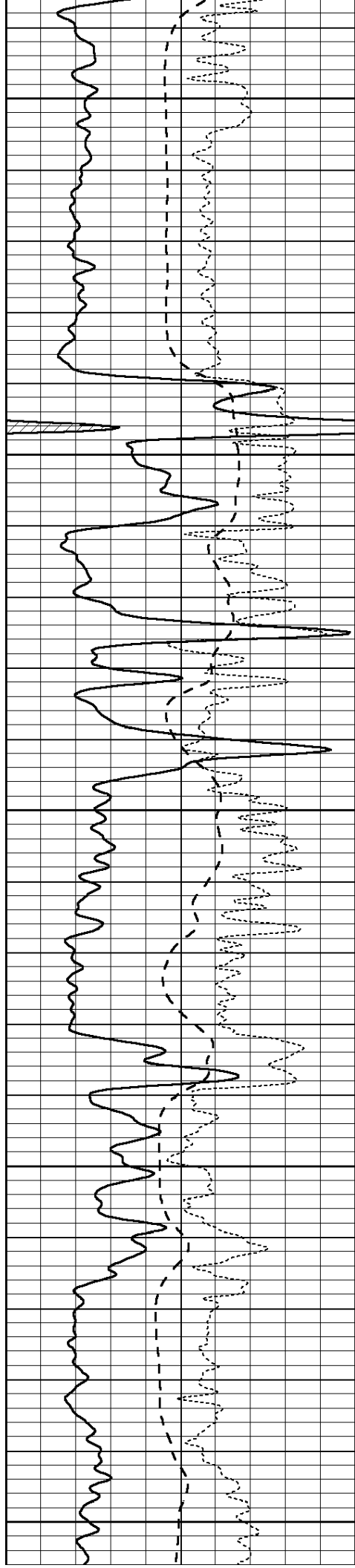
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4400





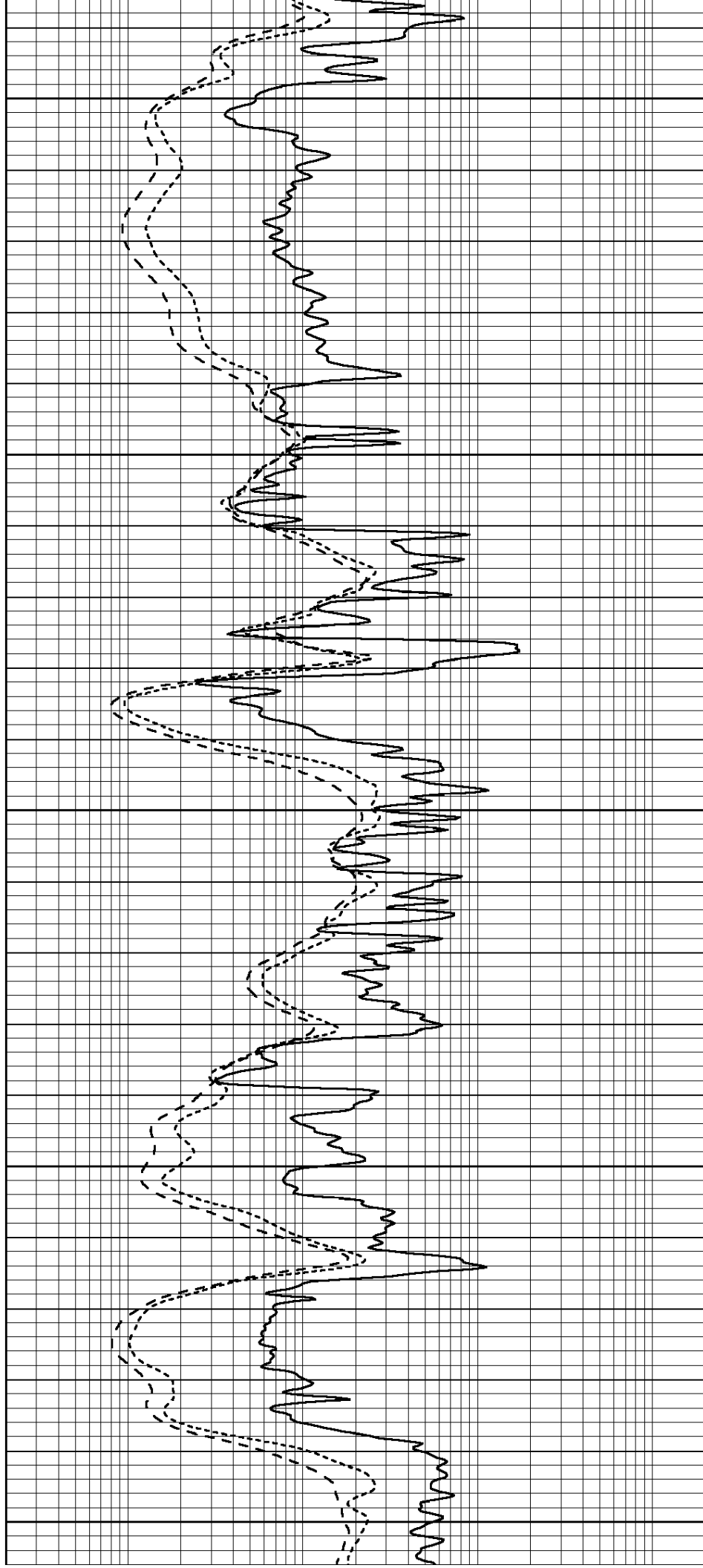
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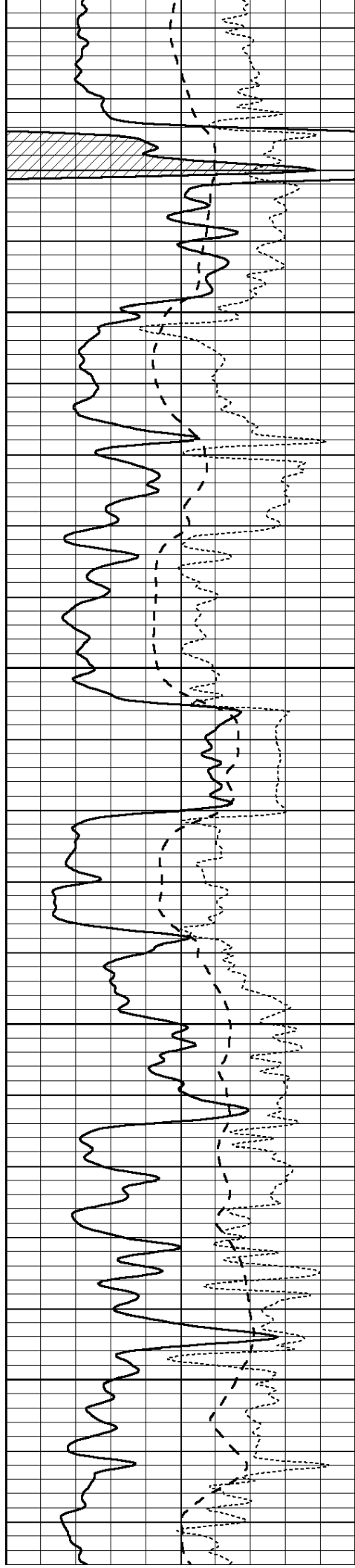
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4600

4650



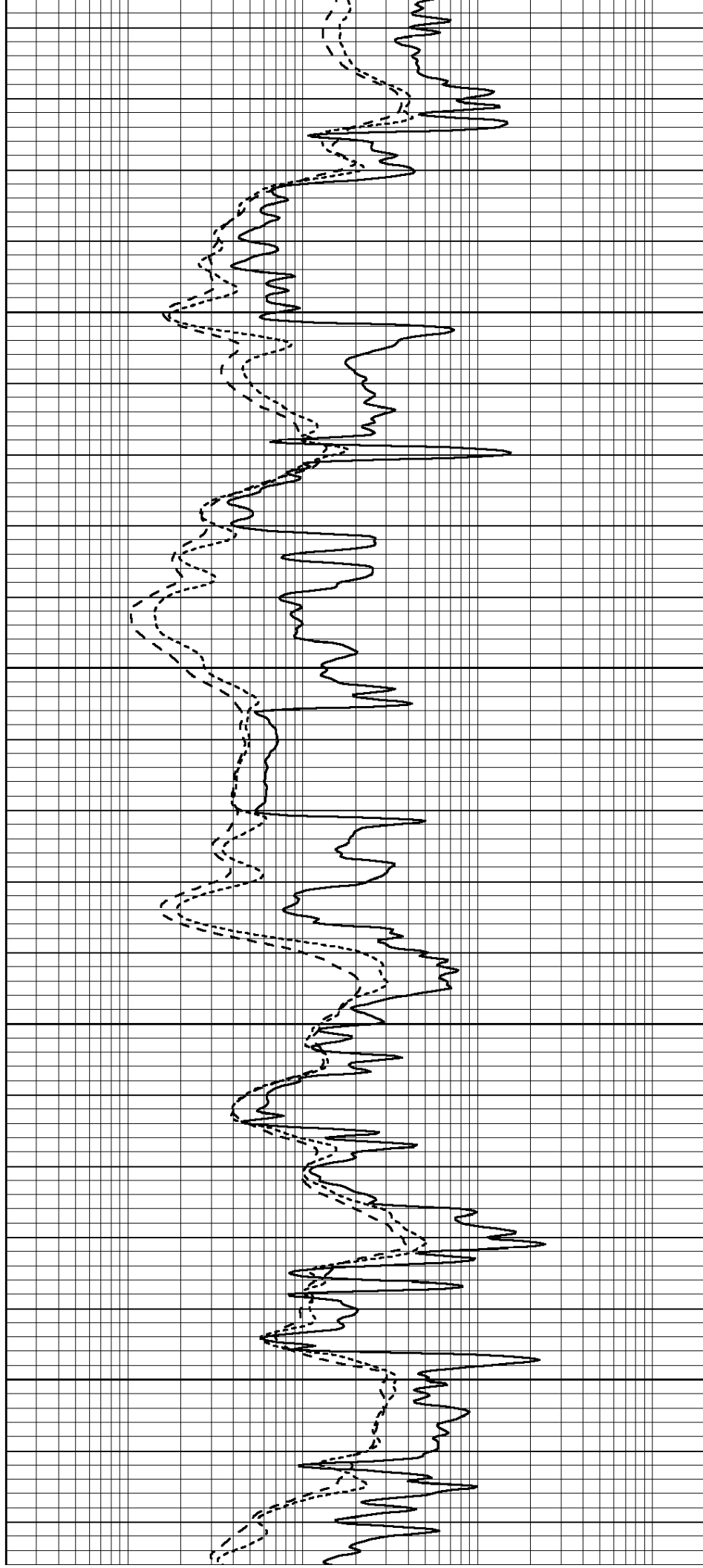


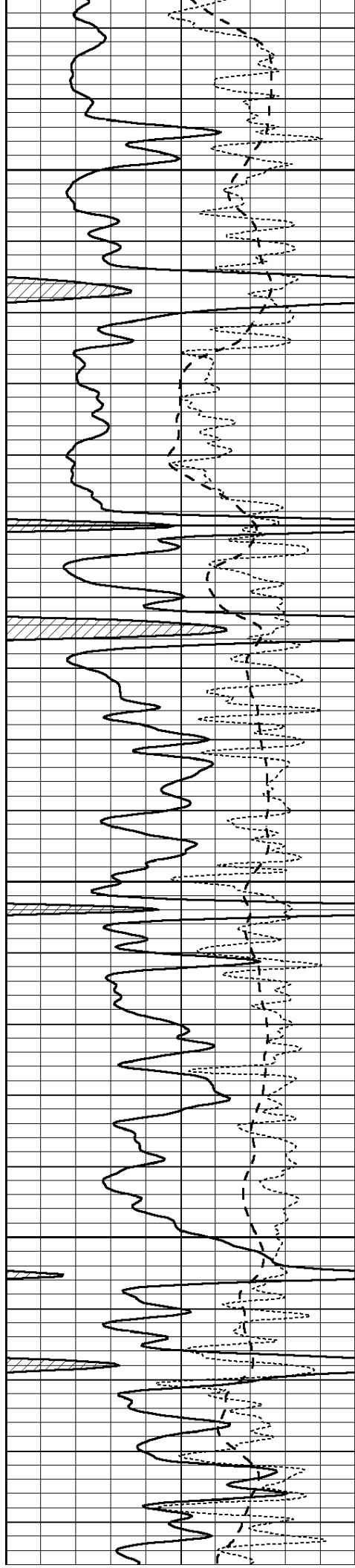
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4850



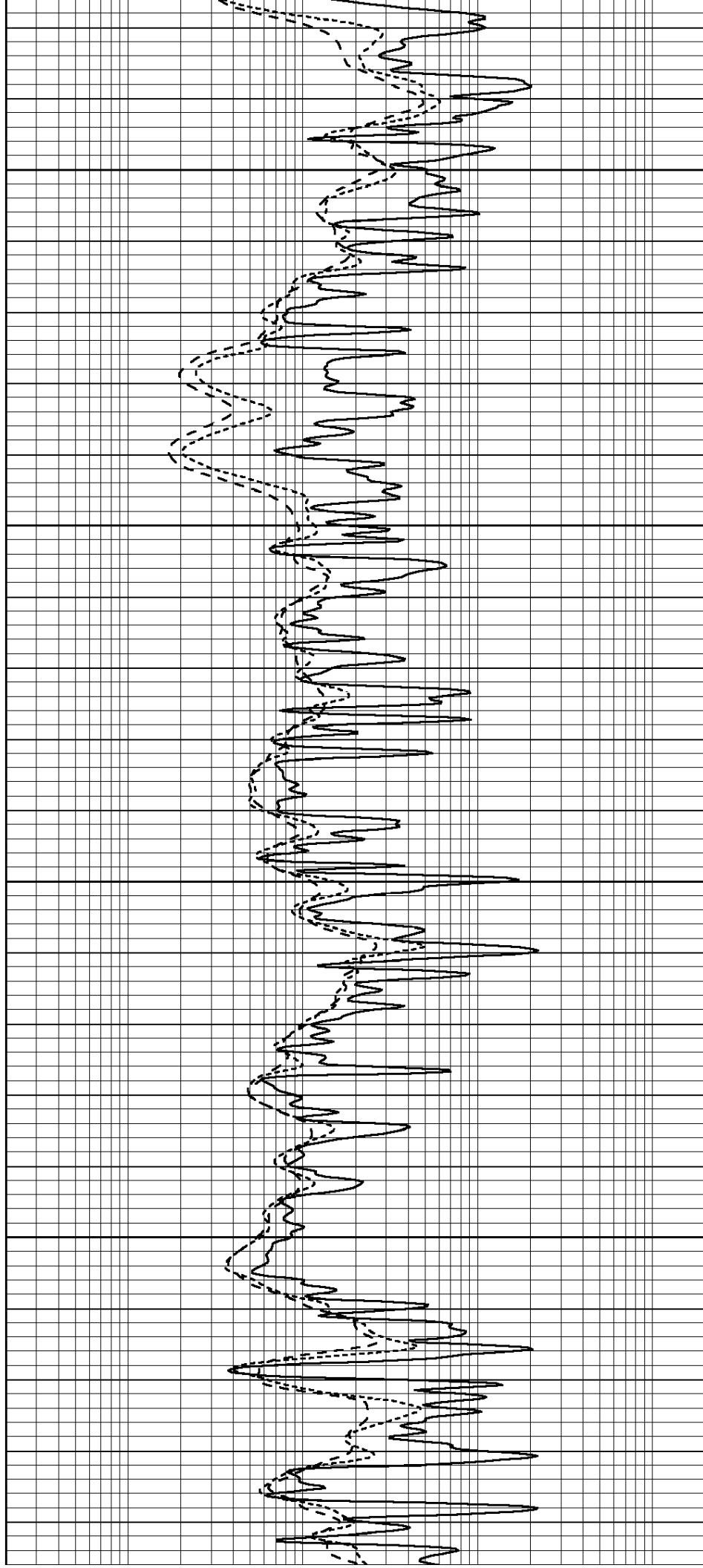


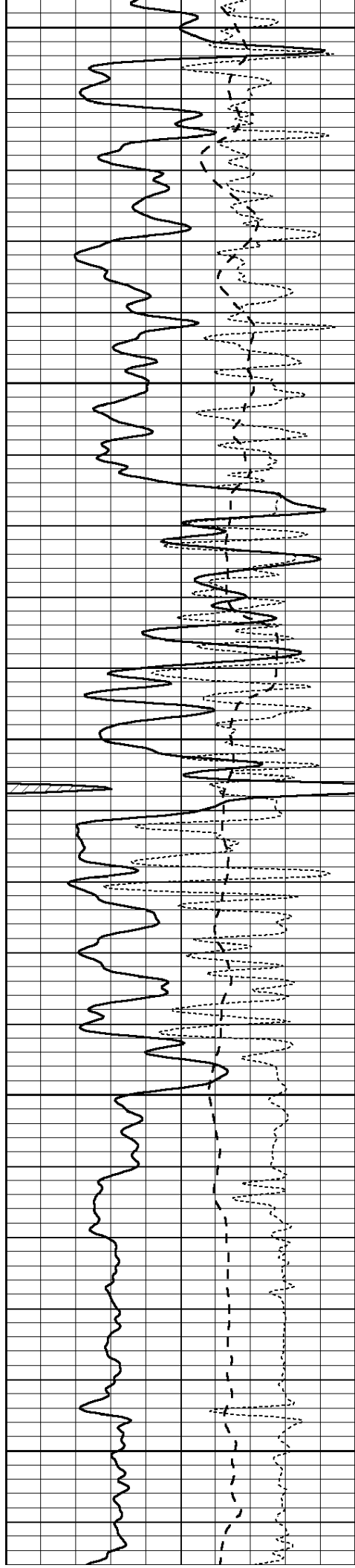
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5050





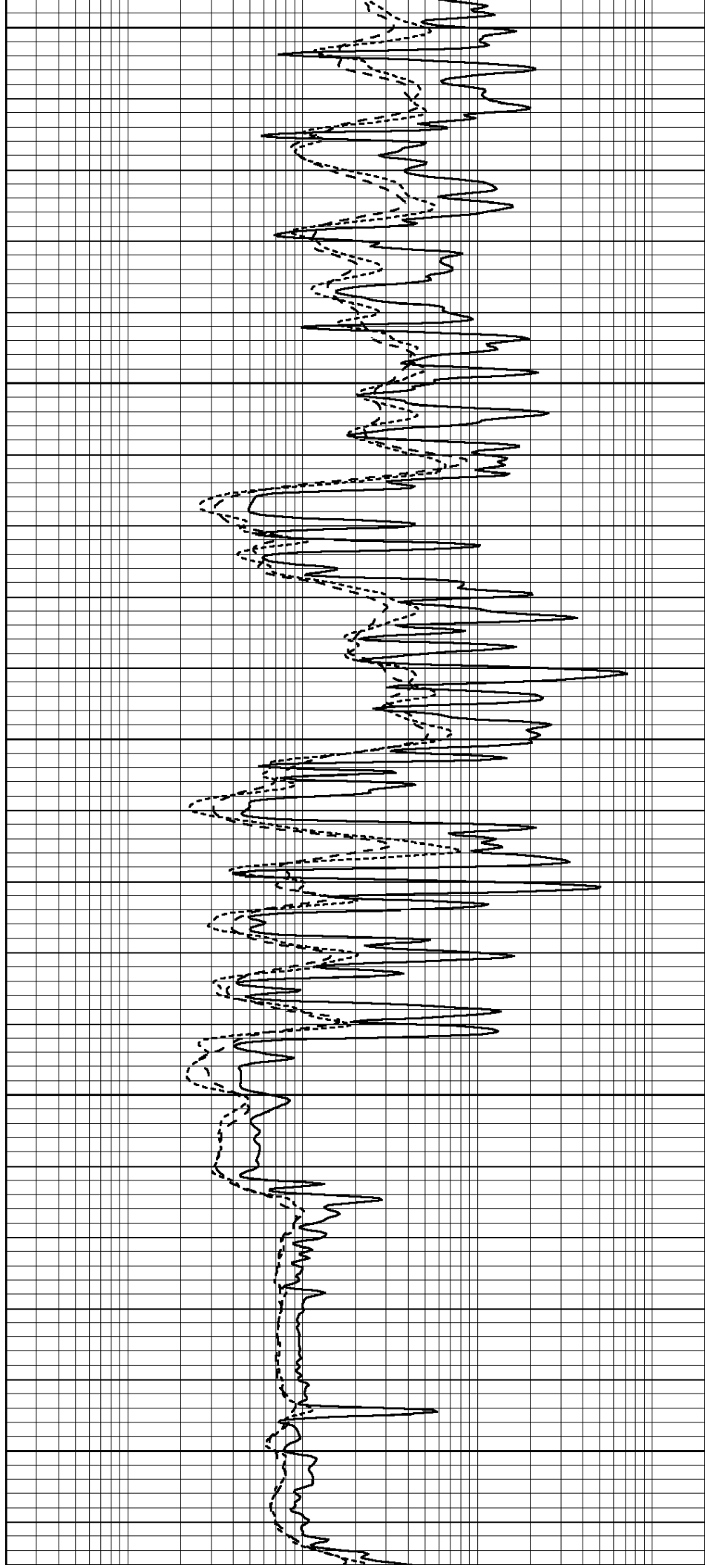
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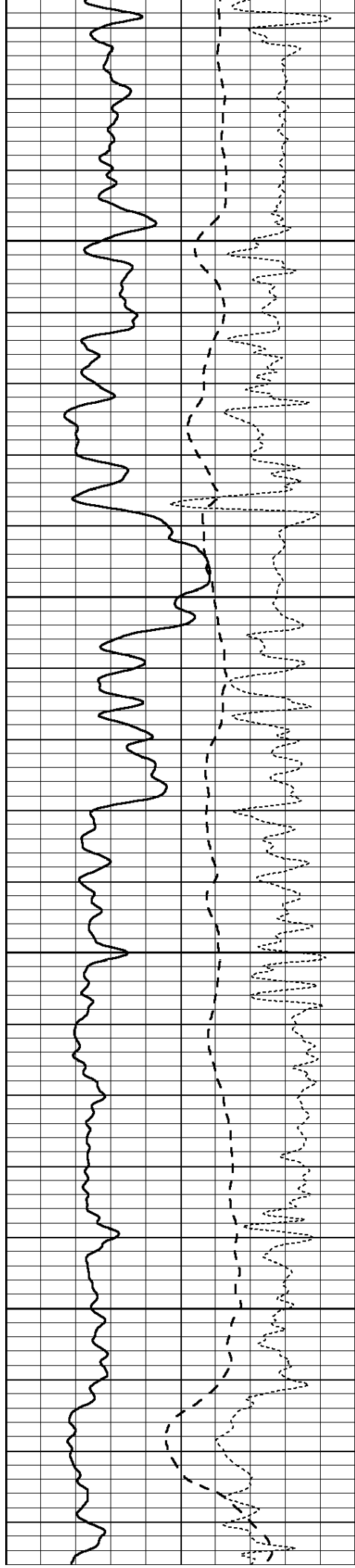
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5300



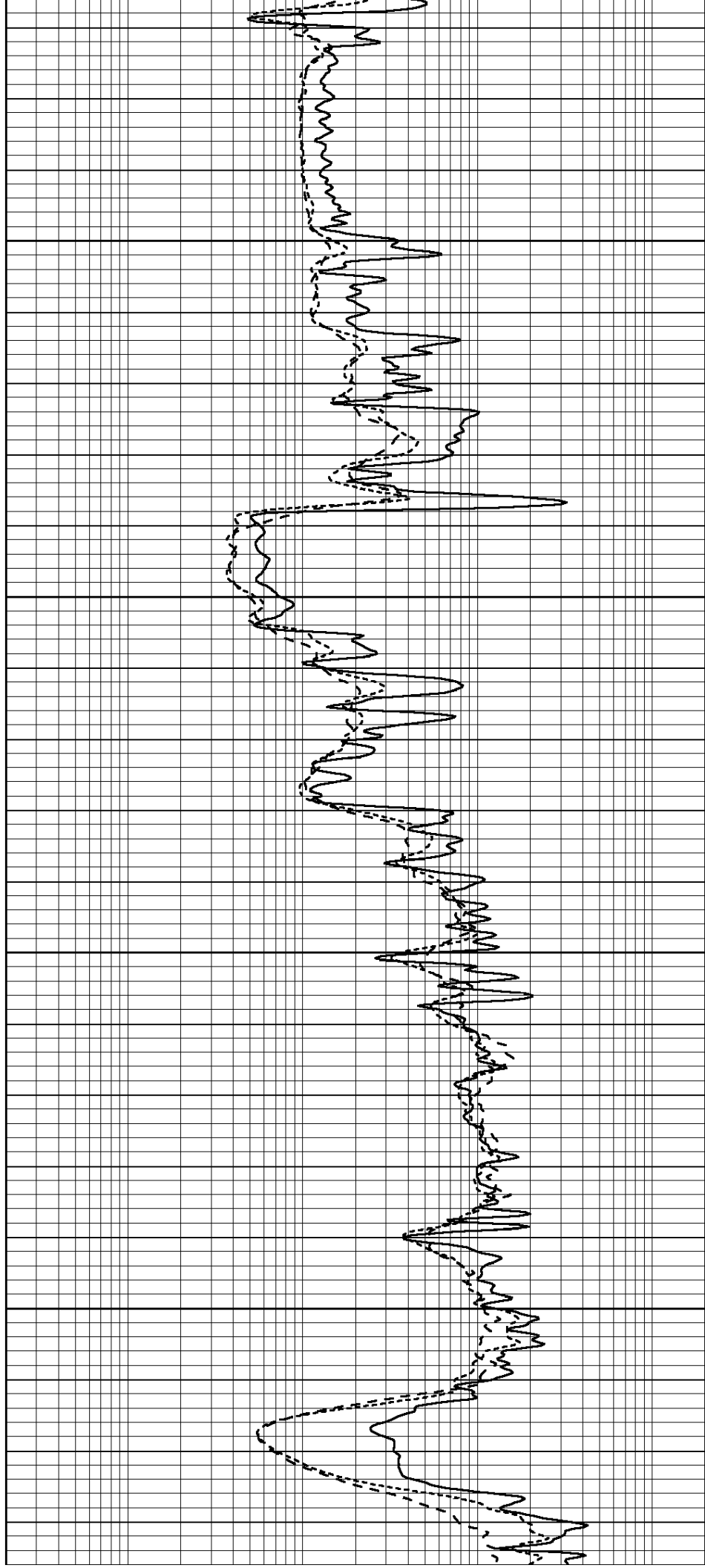


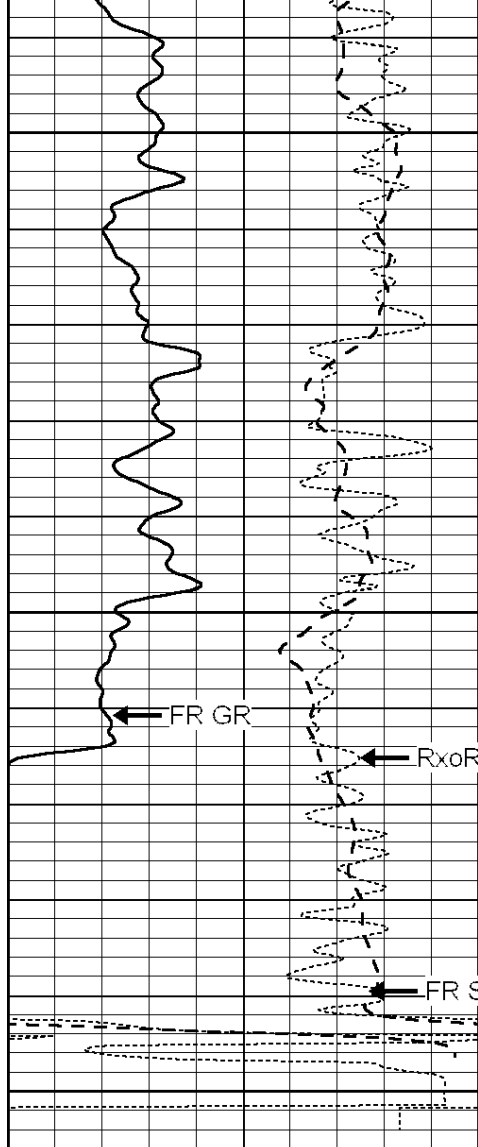
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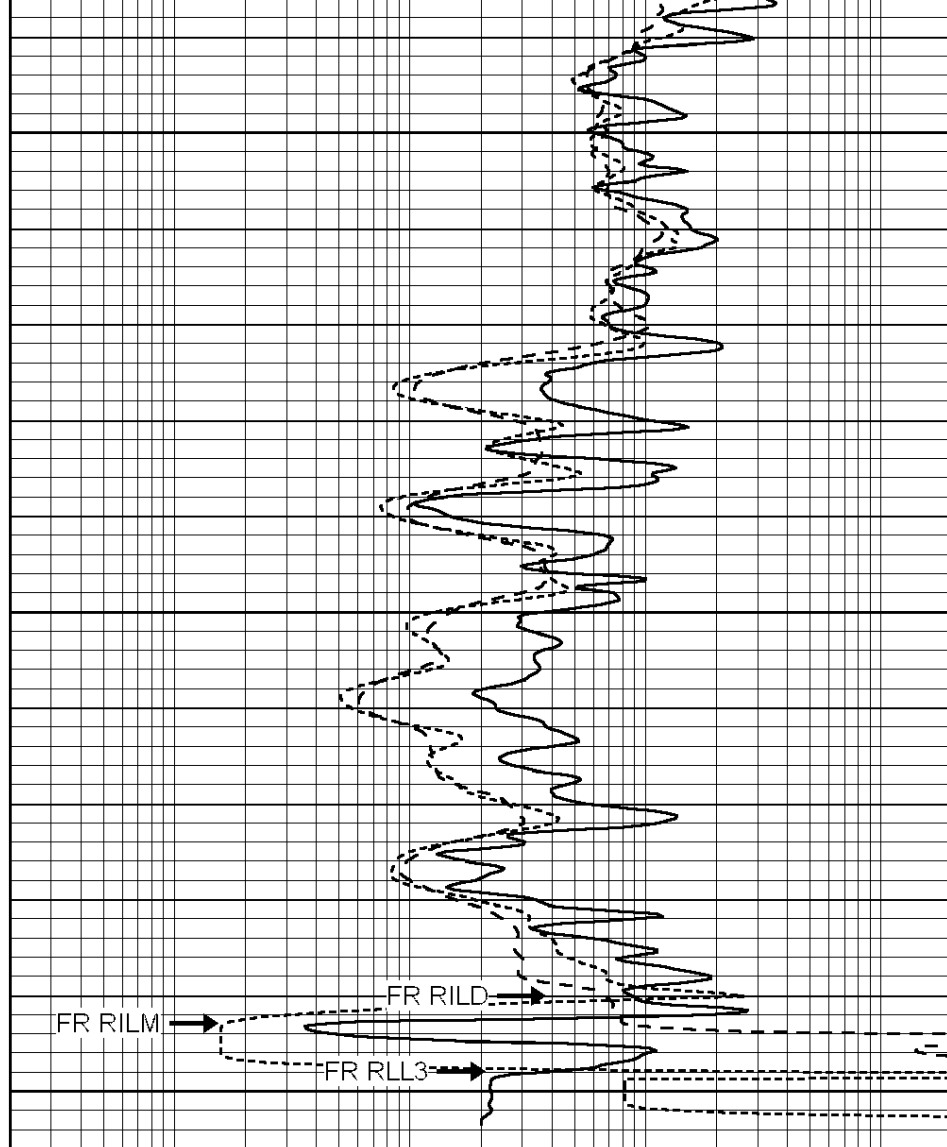


5550

5600

LTD 5650

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



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

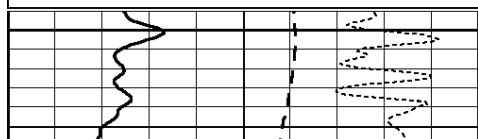


REPEAT SECTION

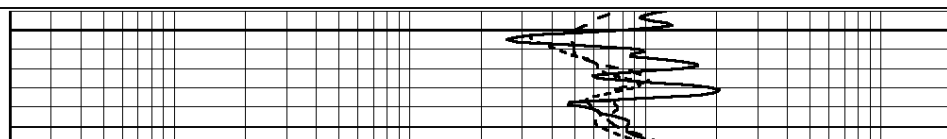
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 Dataset Creation: Tue Nov 05 20:49:34 2013
 Charted by: Depth in Feet scaled 1:240

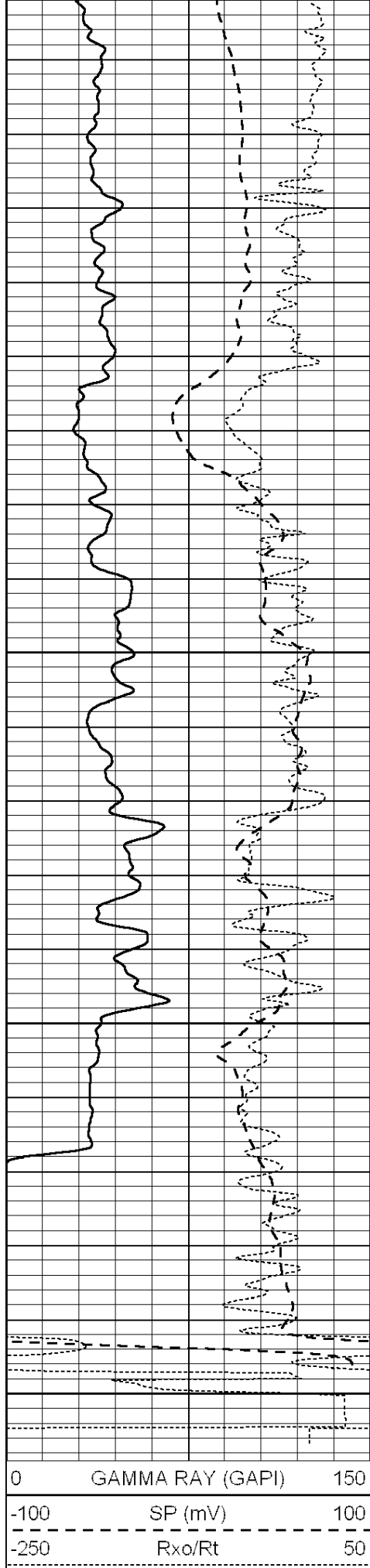
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



5450





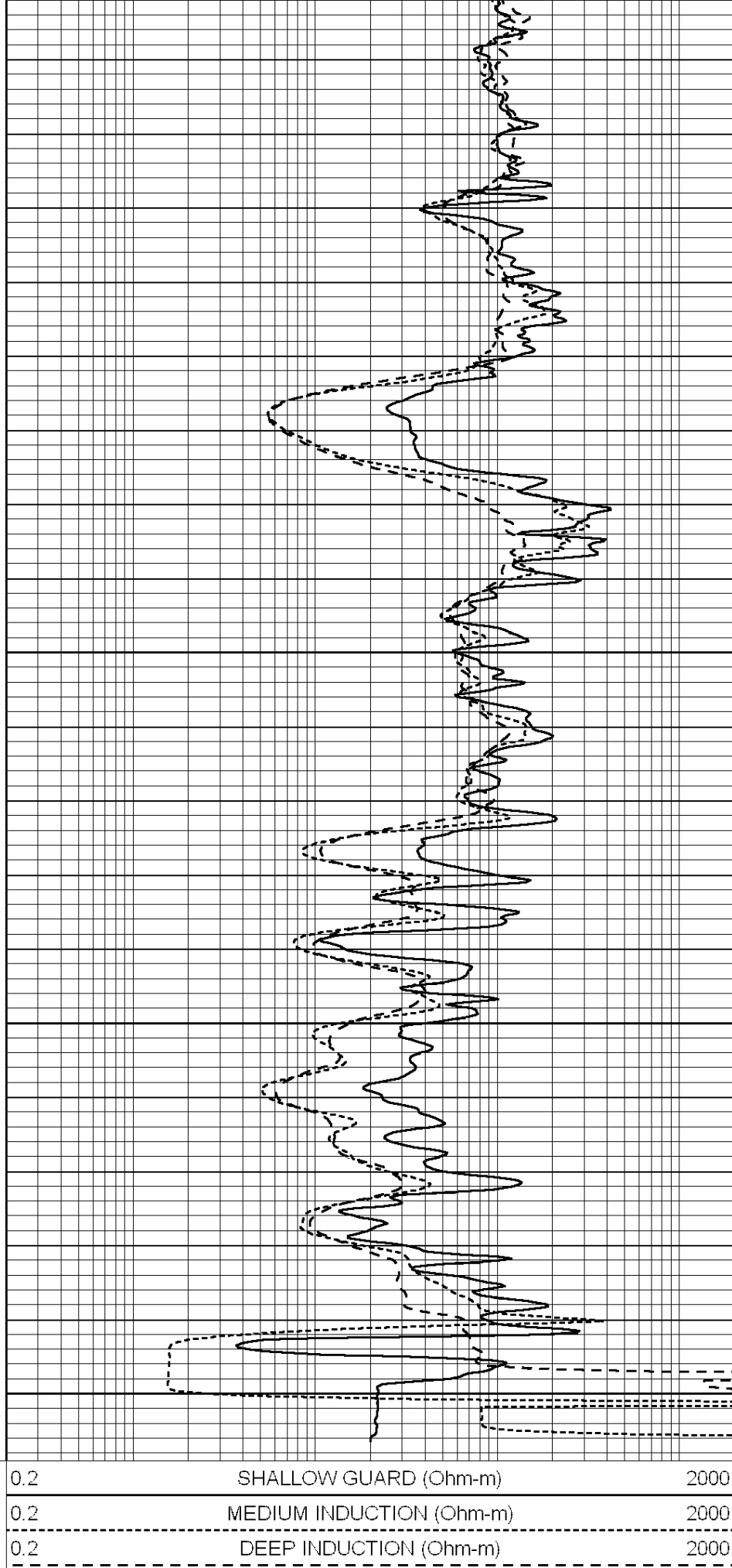
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5550

5600

5650

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



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

Calibration Report

Database File: 012084pe.db
 Dataset Pathname: pass3.3
 Dataset Creation: Tue Nov 05 20:03:13 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Aug 01 06:33:19 2008
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

After Survey Verification

Readings				Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report

Serial: 001 Model: PRB
 Performed Thu Sep 17 09:57:21 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2056.0	9796.8	3673.1	10821.3	cps
Window 2	1920.0	8541.1	3303.5	9307.2	cps
Window 3	1563.1	4735.7	2212.8	5017.5	cps
Window 4	466.0	466.1	465.6	471.5	cps
Long Space	0.0	6621.1	1383.5	7387.2	cps
Short Space	2.5	2361.7	1523.2	2534.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 44.4	Rib Slope	: 0.978	Density/Spine Ratio	: 0.541
Spine Angle	: 74.4	Spine Slope	: 3.570	Spine Intercept	: -18.9

Caliper	Readings	Reference	
Low Ref	3.1	8.4	
High Ref	4.3	14.3	
	Gain: 4.6		Offset: -5.5
Compensated Neutron Calibration Report			
	Serial Number:	070808	
	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:	080327		
Tool Model:	Probe1		
Performed:	Sun Jun 13 14:33:21 1993		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.4300	GAPI/cps	