



**SUPERIOR
Hays,
Kansas**

**DUAL
INDUCTION
LOG**

Company EDISON OPERATING COMPANY, LLC.
Well PEGGY #1-18
Field MOODY
County STAFFORD
State KANSAS

Company EDISON OPERATING COMPANY, LLC.
Well PEGGY #1-18
Field MOODY
County STAFFORD State KANSAS

Location: API #: 15-185-23746
990' FSL & 1980' FWL
SEC 8 TWP 25S RGE 14W
Permanent Datum GROUND LEVEL Elevation 1990
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
SONIC/MEL
Elevation
K.B. 2000
D.F.
G.L. 1990

Date	5-23-12		
Run Number	TW0		
Depth Driller	4500		
Depth Logger	4501		
Bottom Logged Interval	4499		
Top Log Interval	0.0		
Casing Driller	417		
Casing Logger	417		
Bit Size	7.875		
Type Fluid in Hole	STARCRH MUD	CHLORIDES: 68,400 ppm	
Density / Viscosity	9.6 / 55		
pH / Fluid Loss	7.0 / 16.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.25 @ 91F		
Rmf @ Meas. Temp	0.19 @ 91F		
Rmc @ Meas. Temp	0.30 @ 91F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.190 @ 120F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	10:00 A.M.		
Maximum Recorded Temperature	120F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	DEREK PATTERSON		

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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

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: JCT. OF #281 & #50, 7W TO BYERS BLACKTOP, 6S, 1 1/2W, NW INTO.



**SUPERIOR
Hays,
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MAIN SECTION

Database File: 009125ddn.db
 Dataset Pathname: pass8.1A
 Presentation Format: dil2
 Dataset Creation: Wed May 23 14:11:51 2012
 Charted by: Depth in Feet scaled 1:600

0 Gamma Ray (GAPI) 150

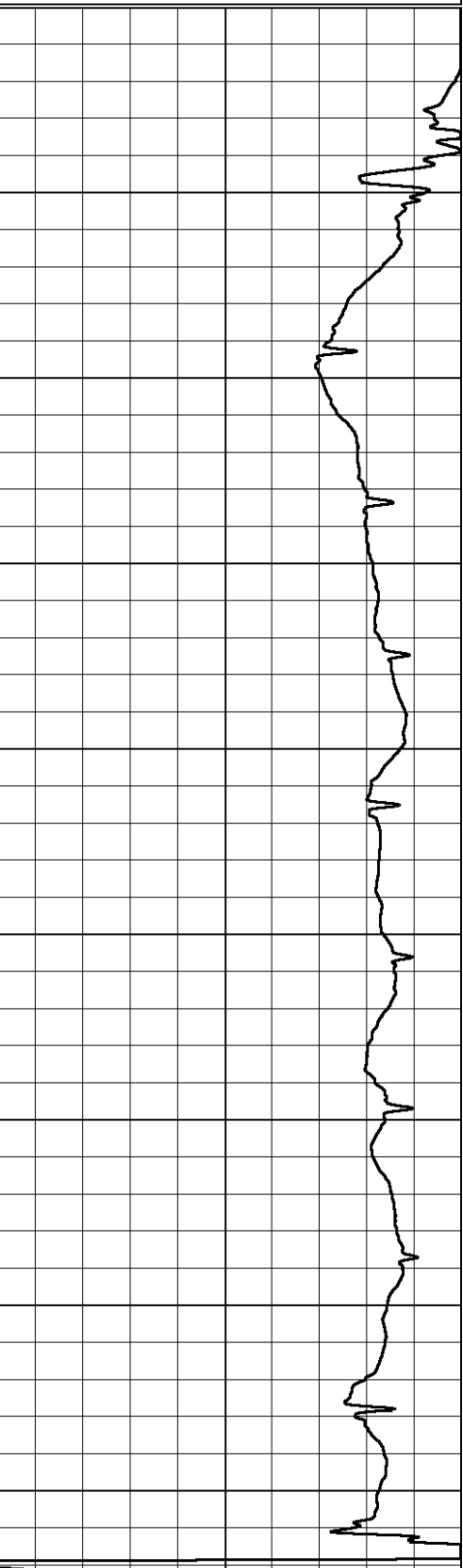
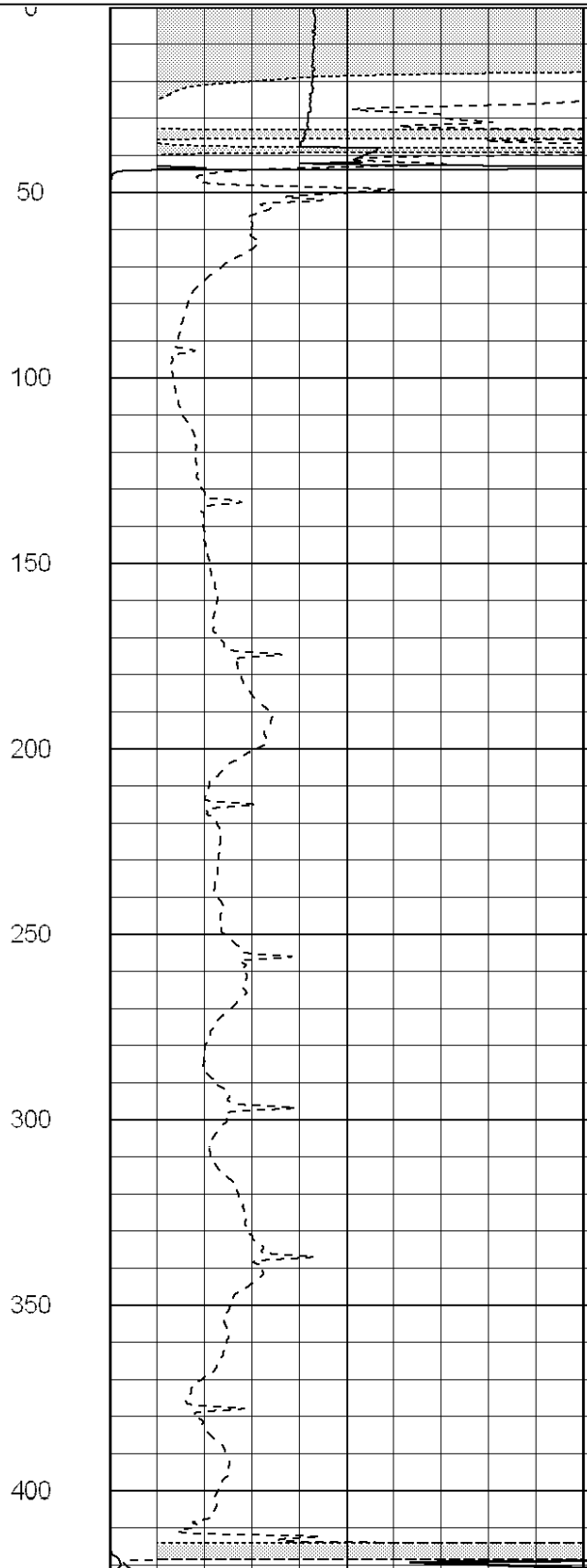
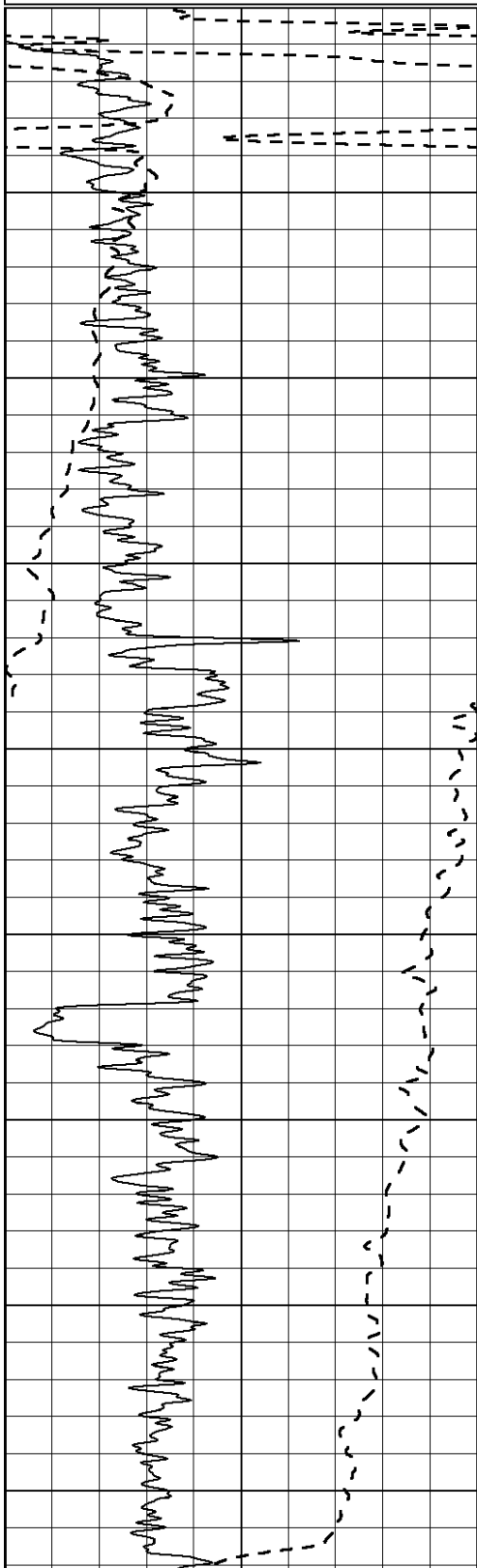
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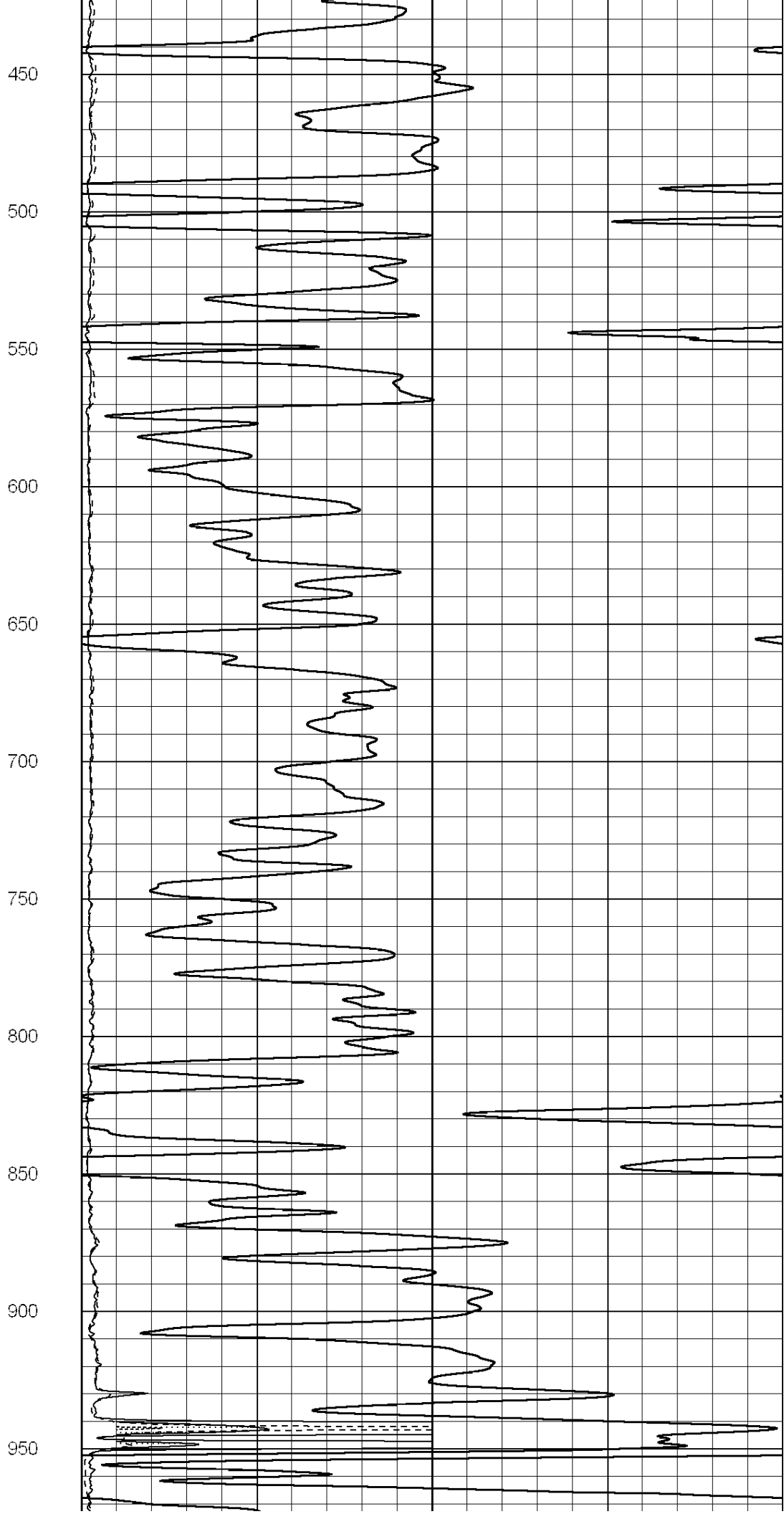
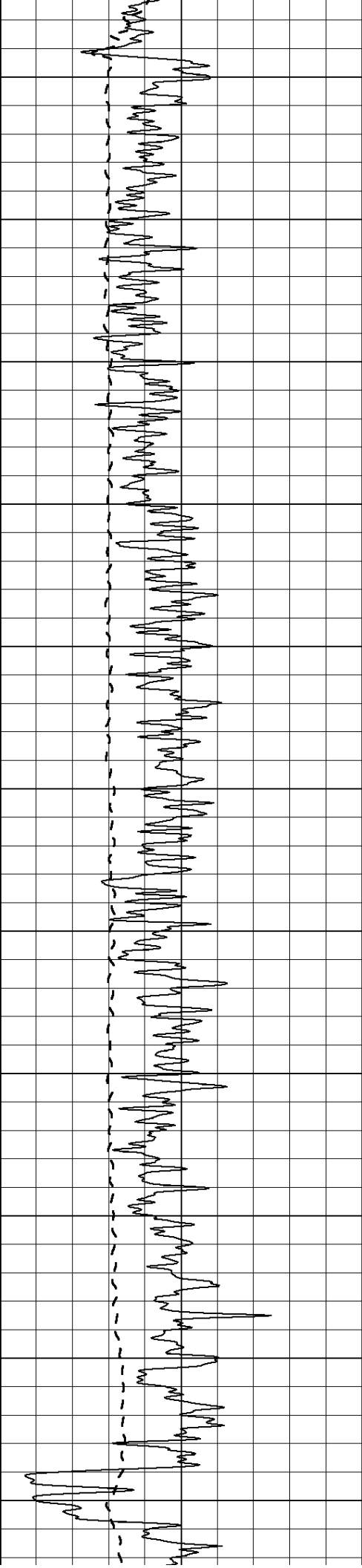
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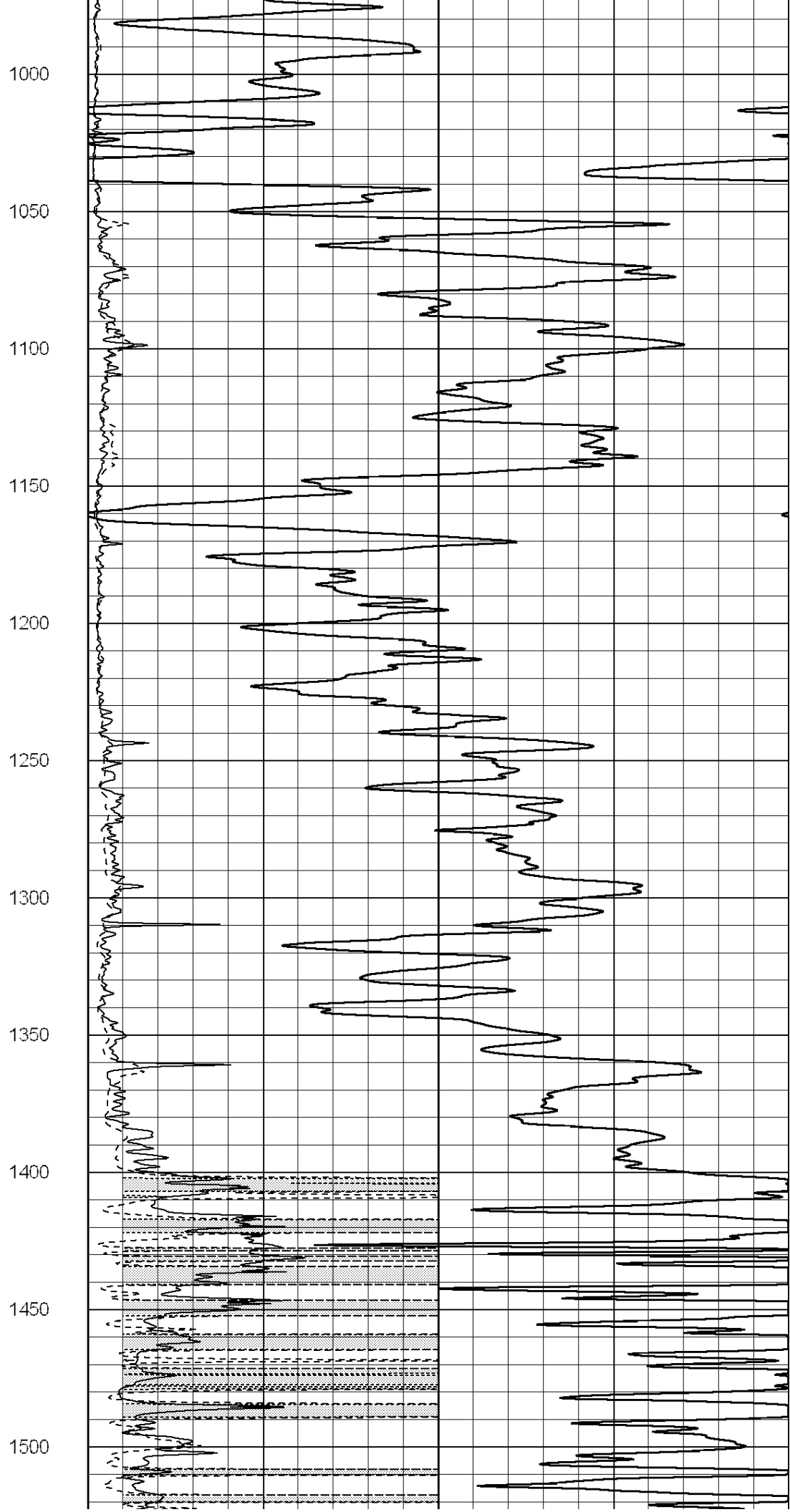
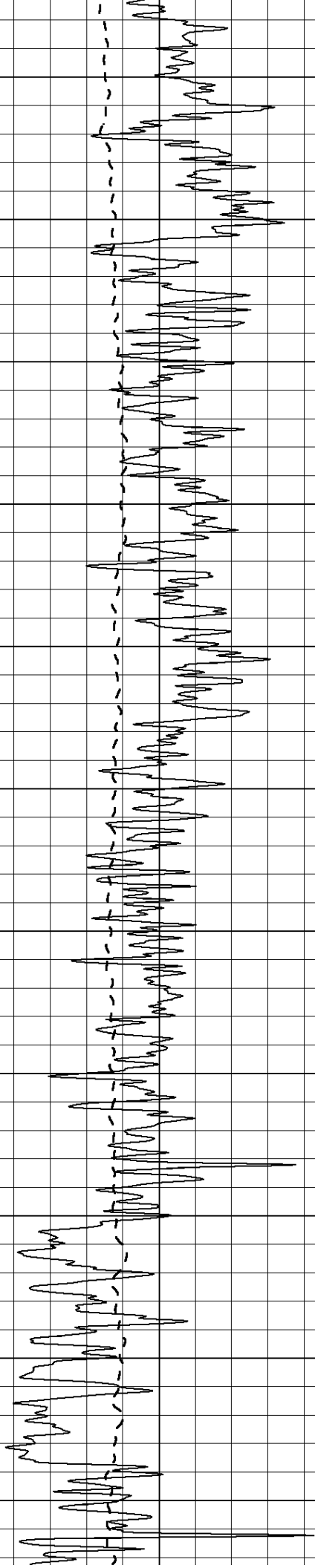
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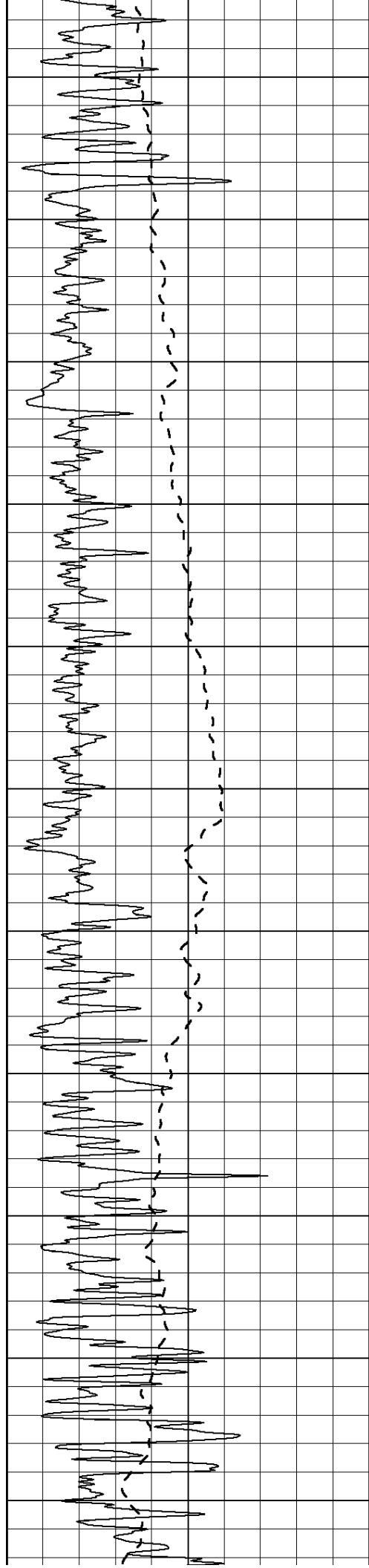
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50 RLL3 X10 (Ohm-m) 500

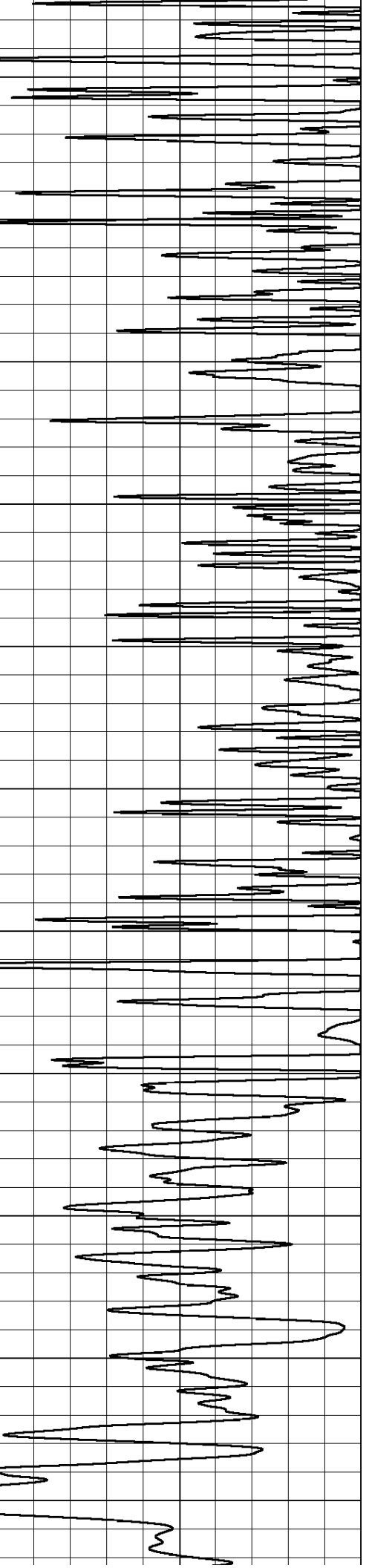
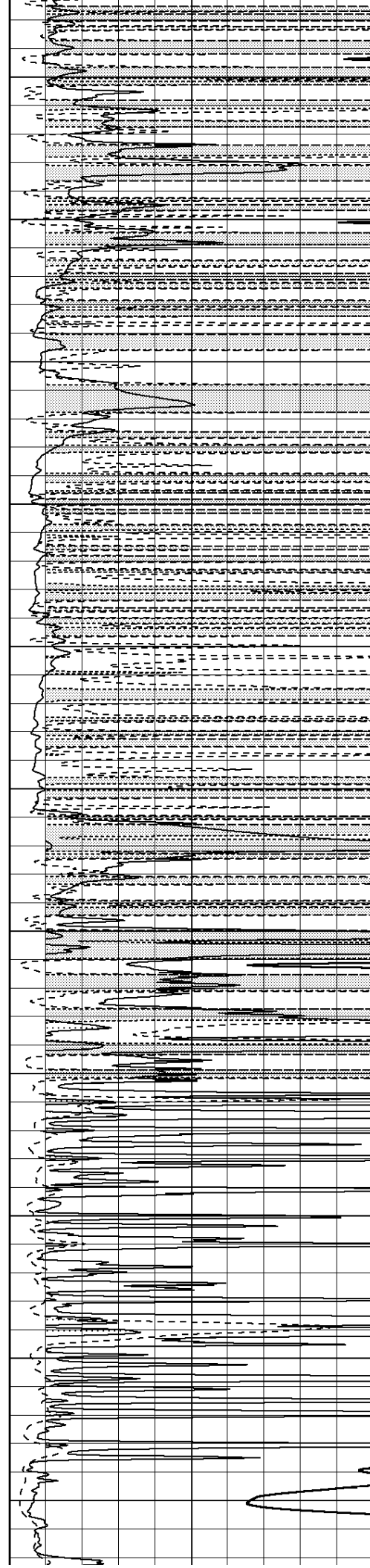


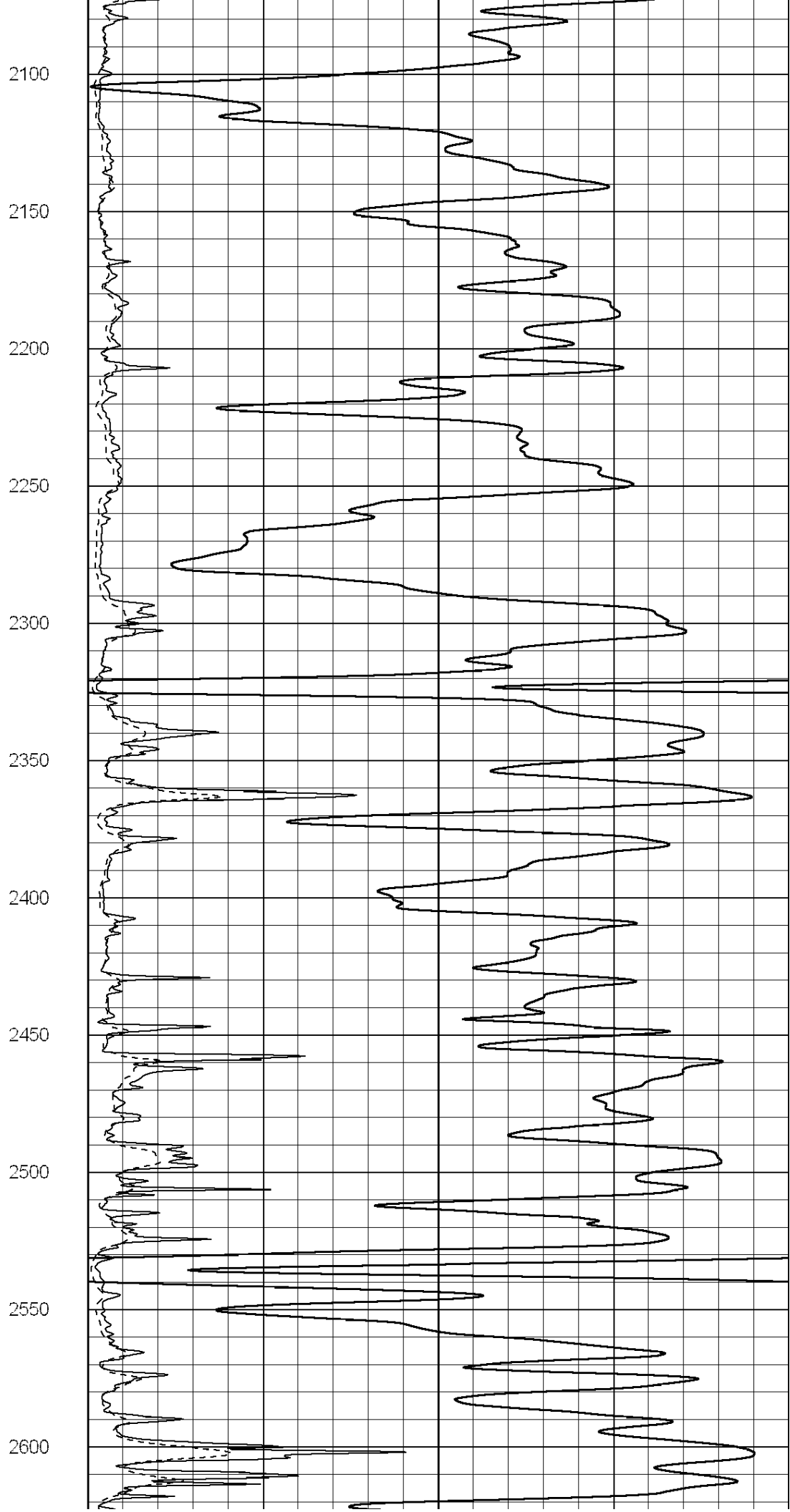
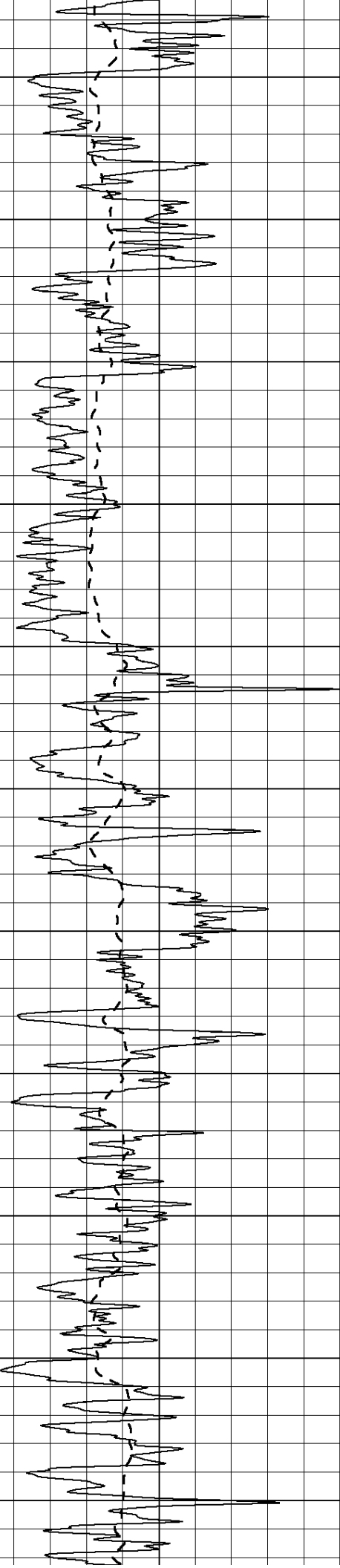


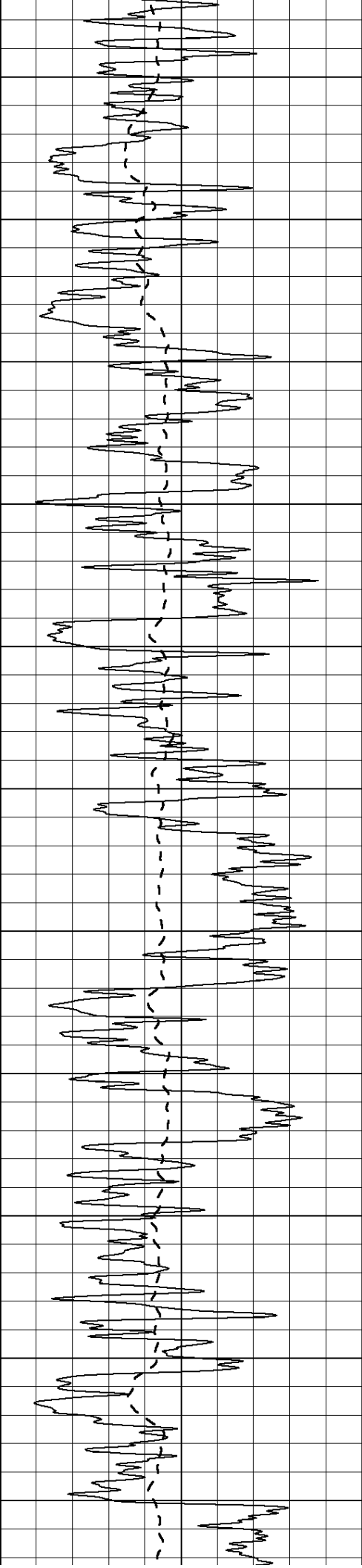




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1600
1650
1700
1750
1800
1850
1900
1950
2000
2050







2650

2700

2750

2800

2850

2900

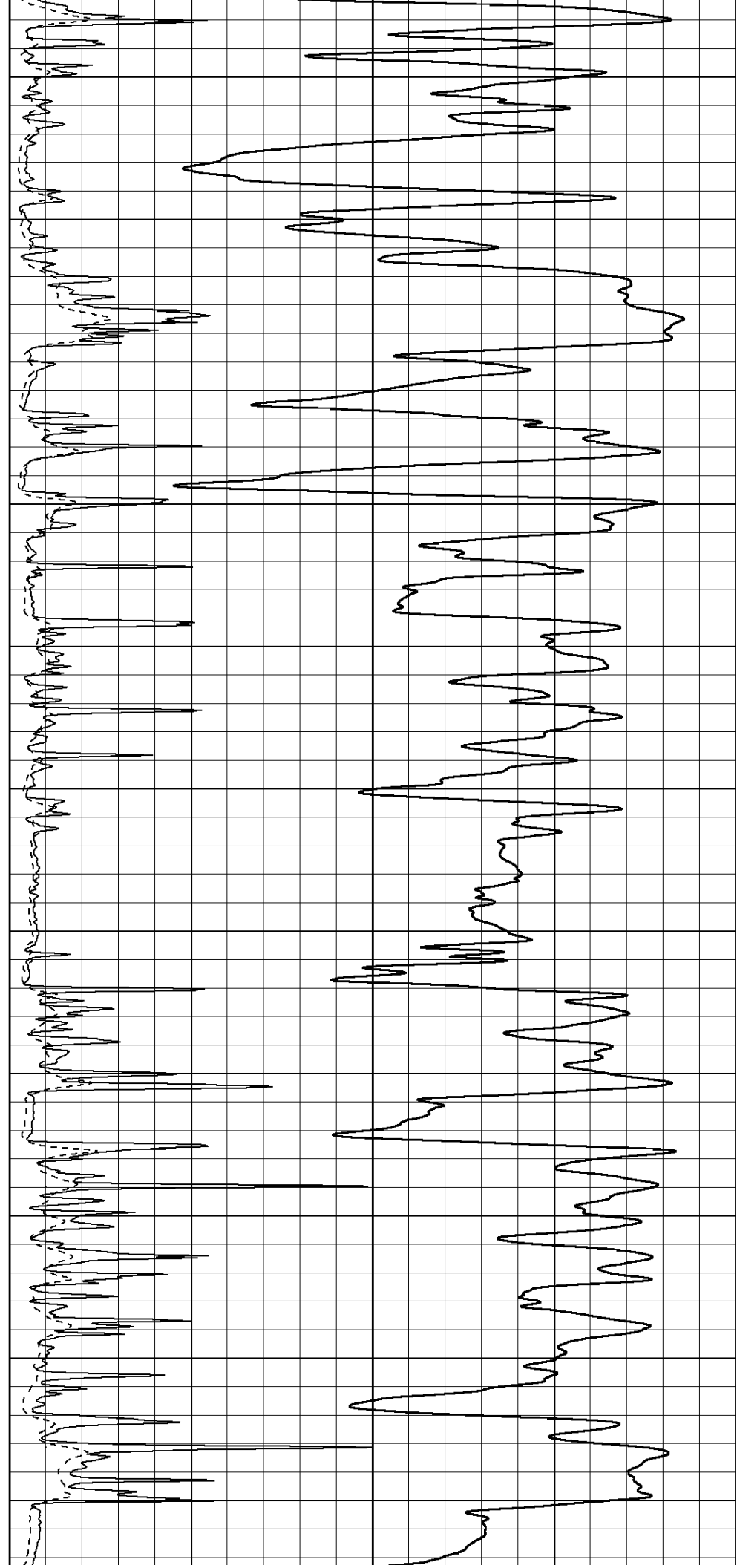
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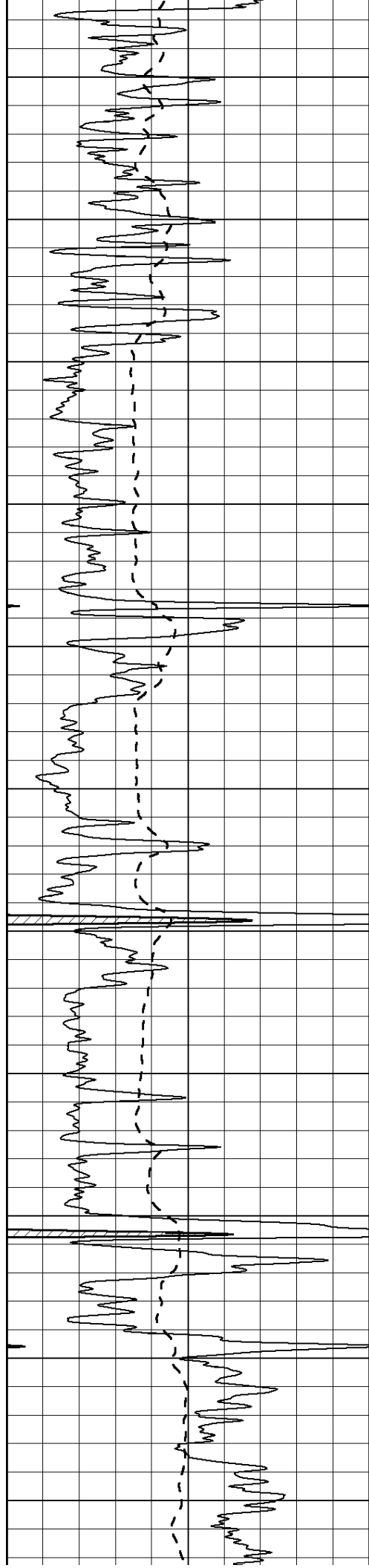
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3100

3150





3200

3250

3300

3350

3400

3450

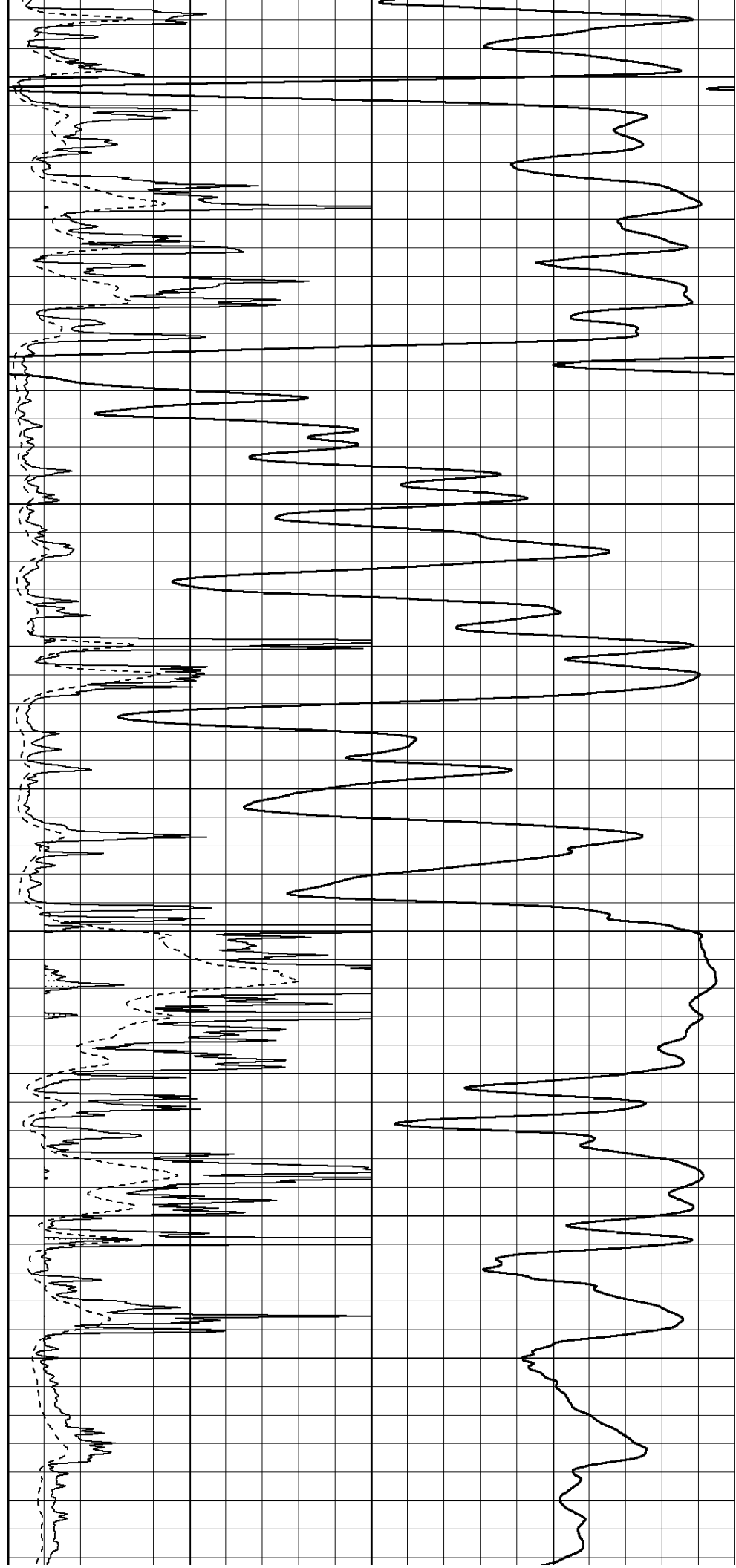
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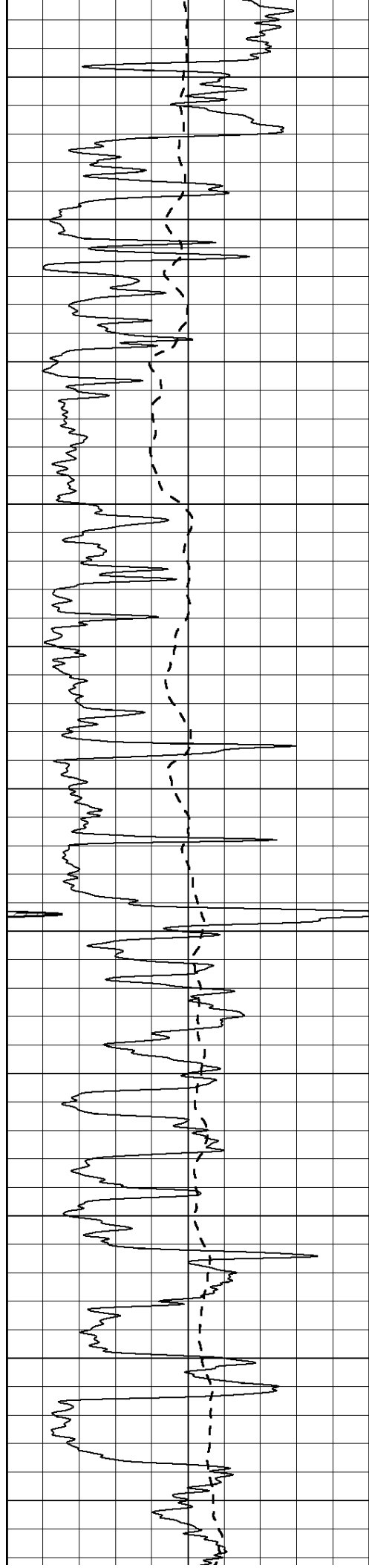
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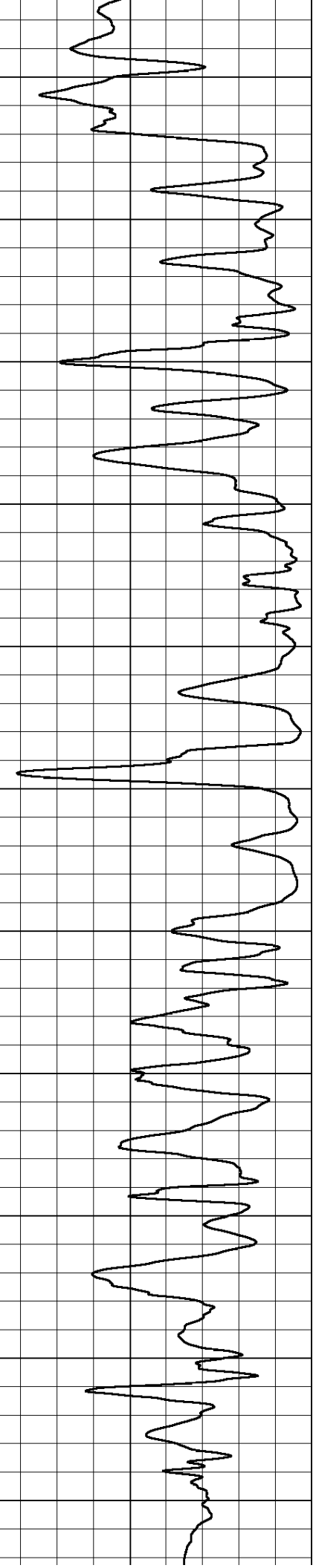
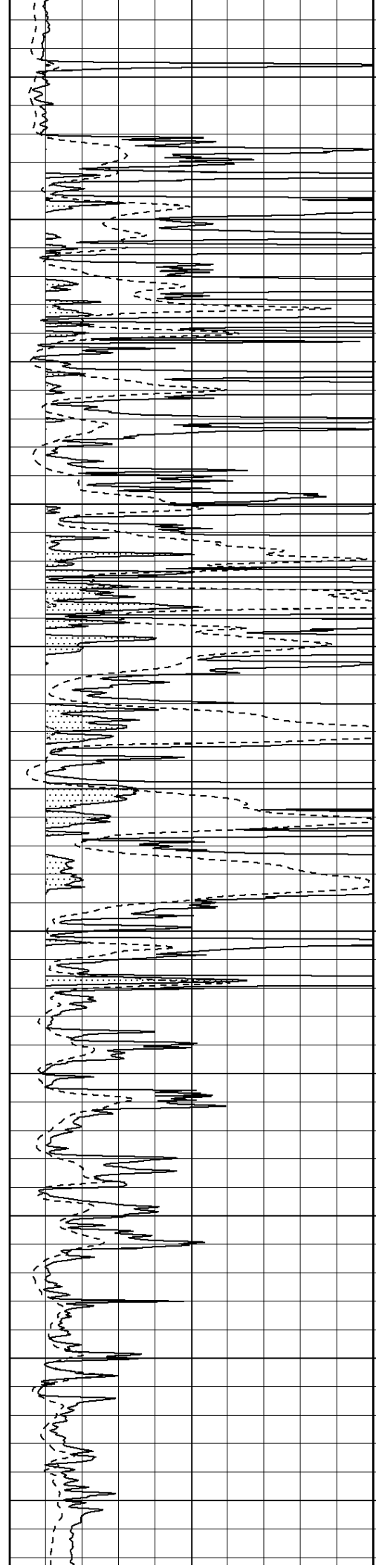
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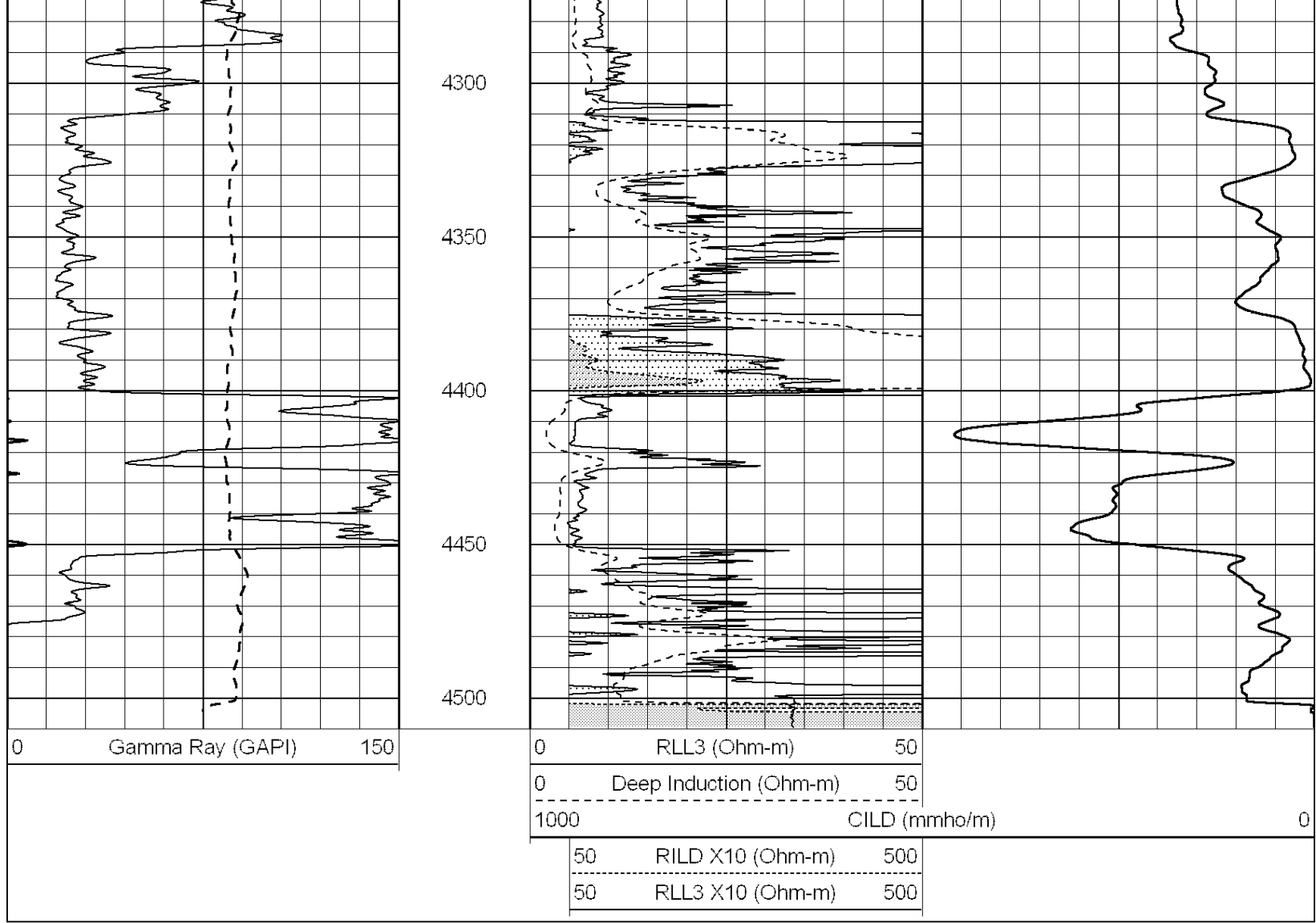
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3900
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4000
4050
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4200
4250





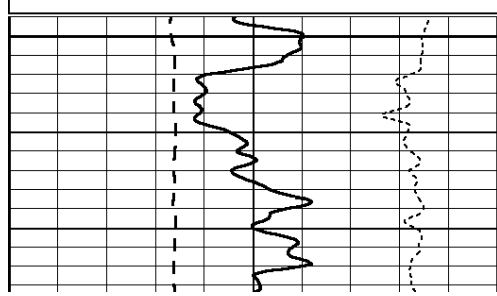
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MAIN SECTION

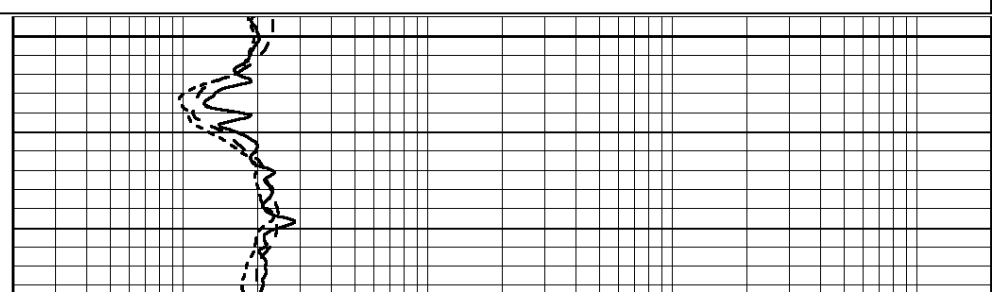
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 Charted by: Depth in Feet scaled 1:240

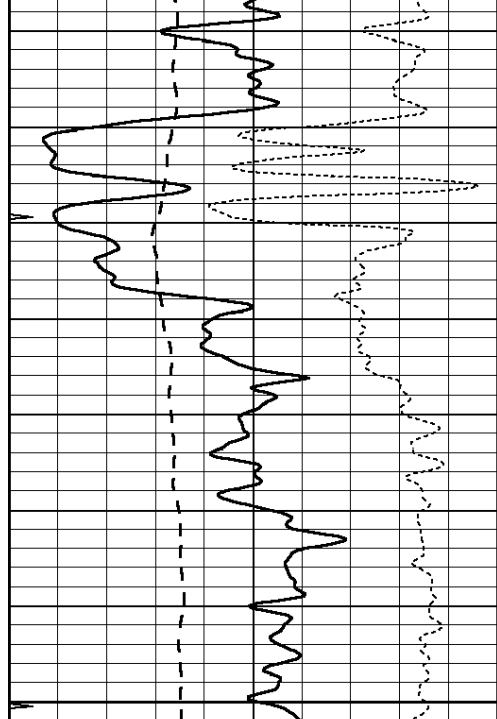
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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



900

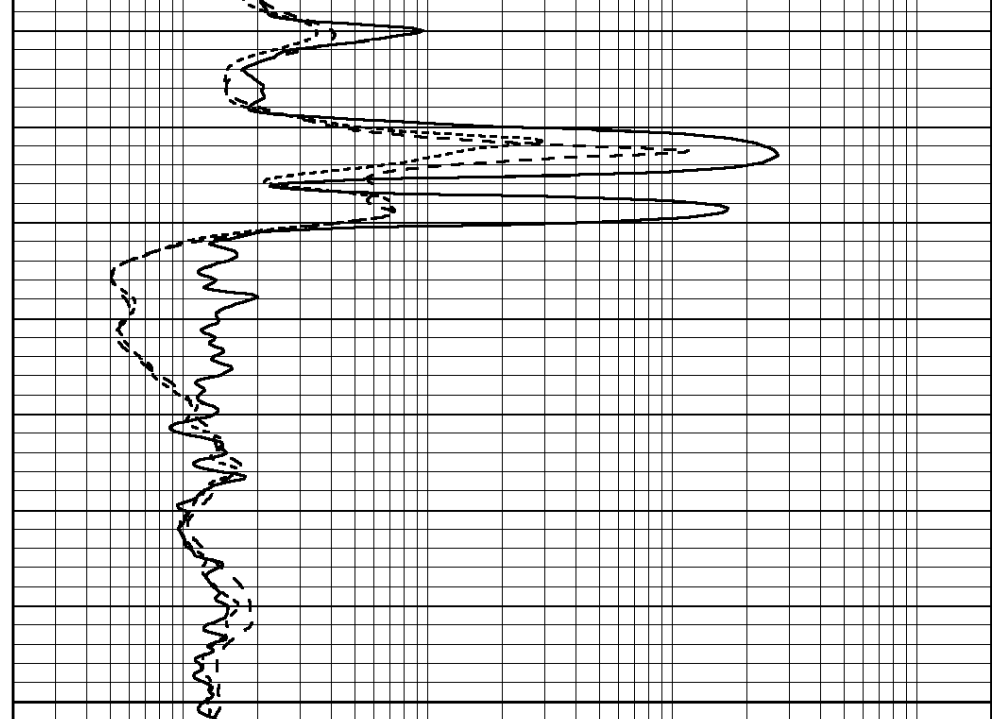




950

1000

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



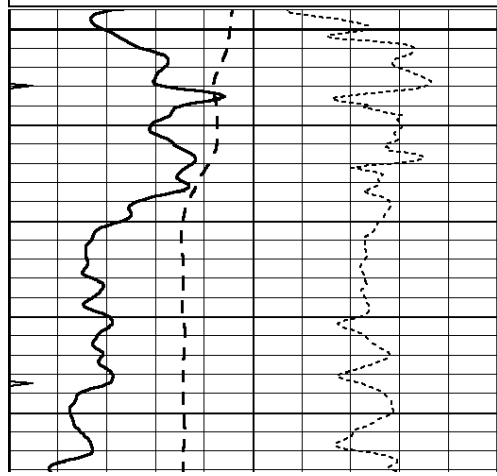
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MAIN SECTION

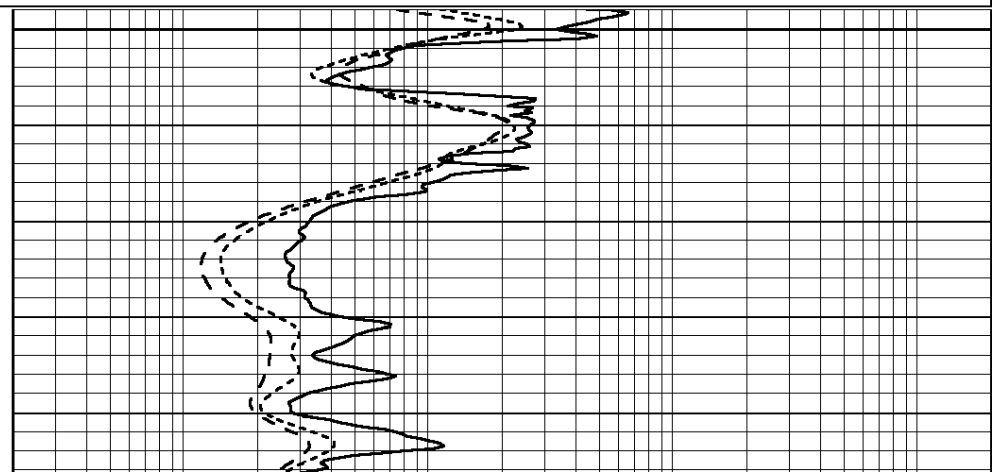
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 Charted by: Depth in Feet scaled 1:240

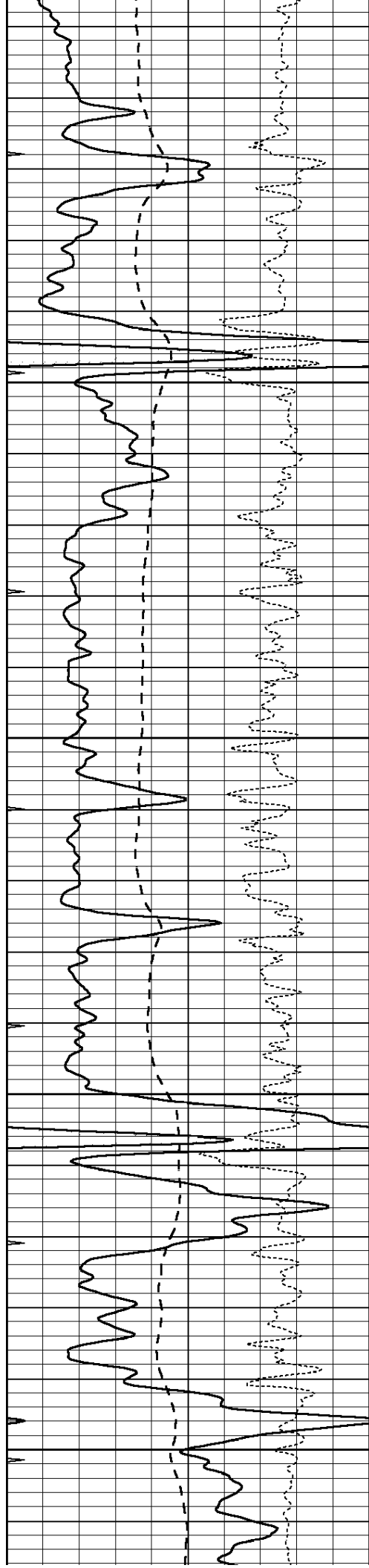
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-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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



3400





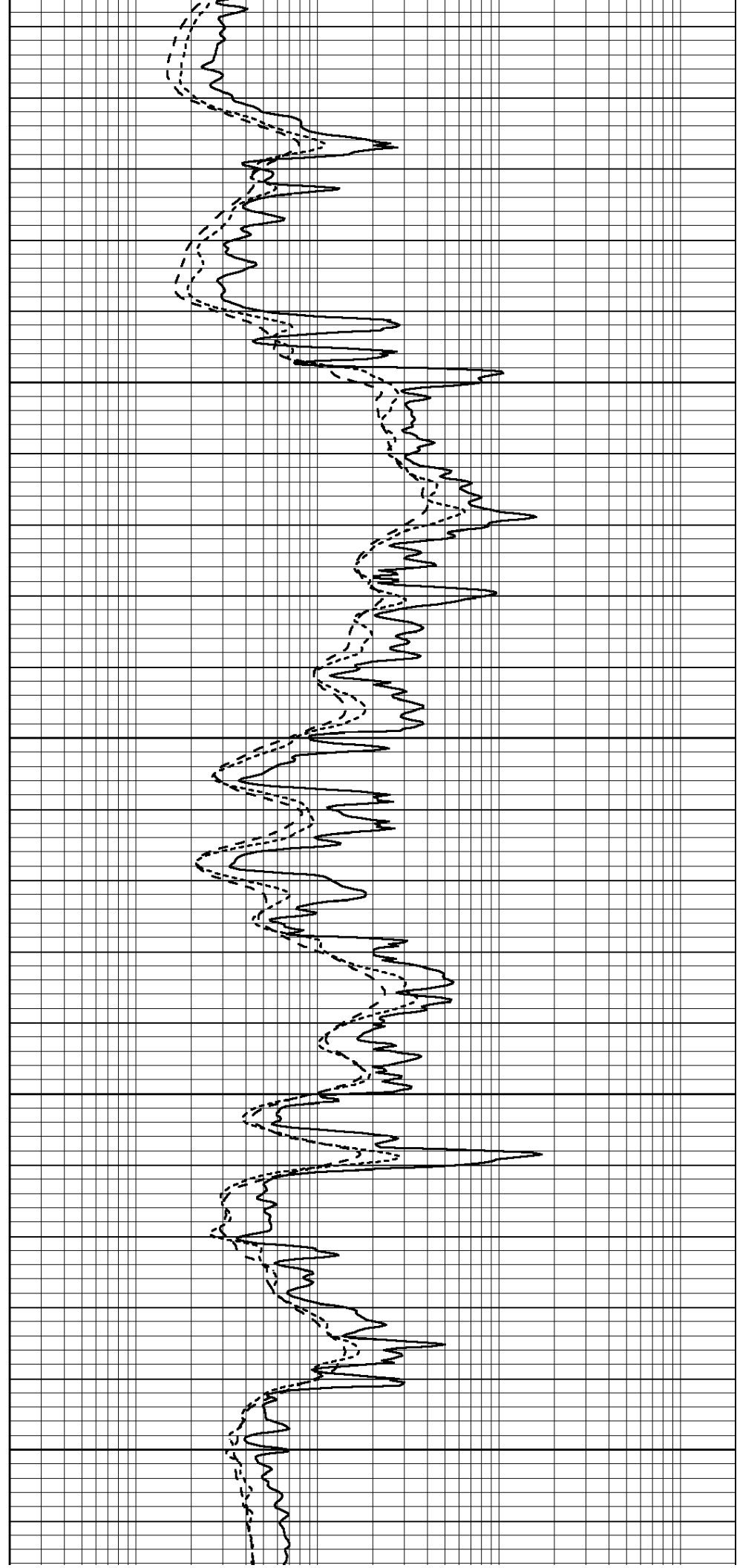
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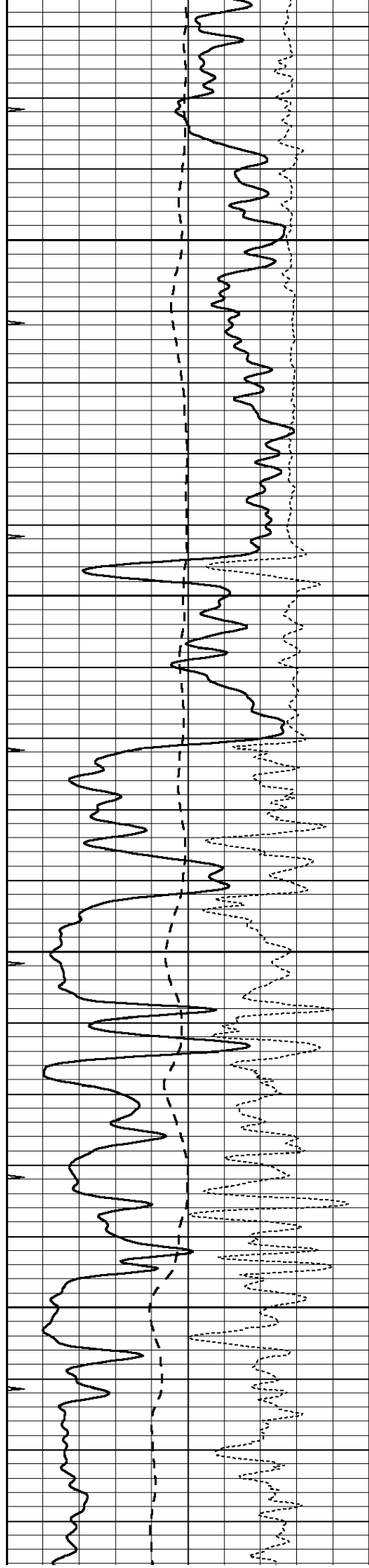
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3600

3650



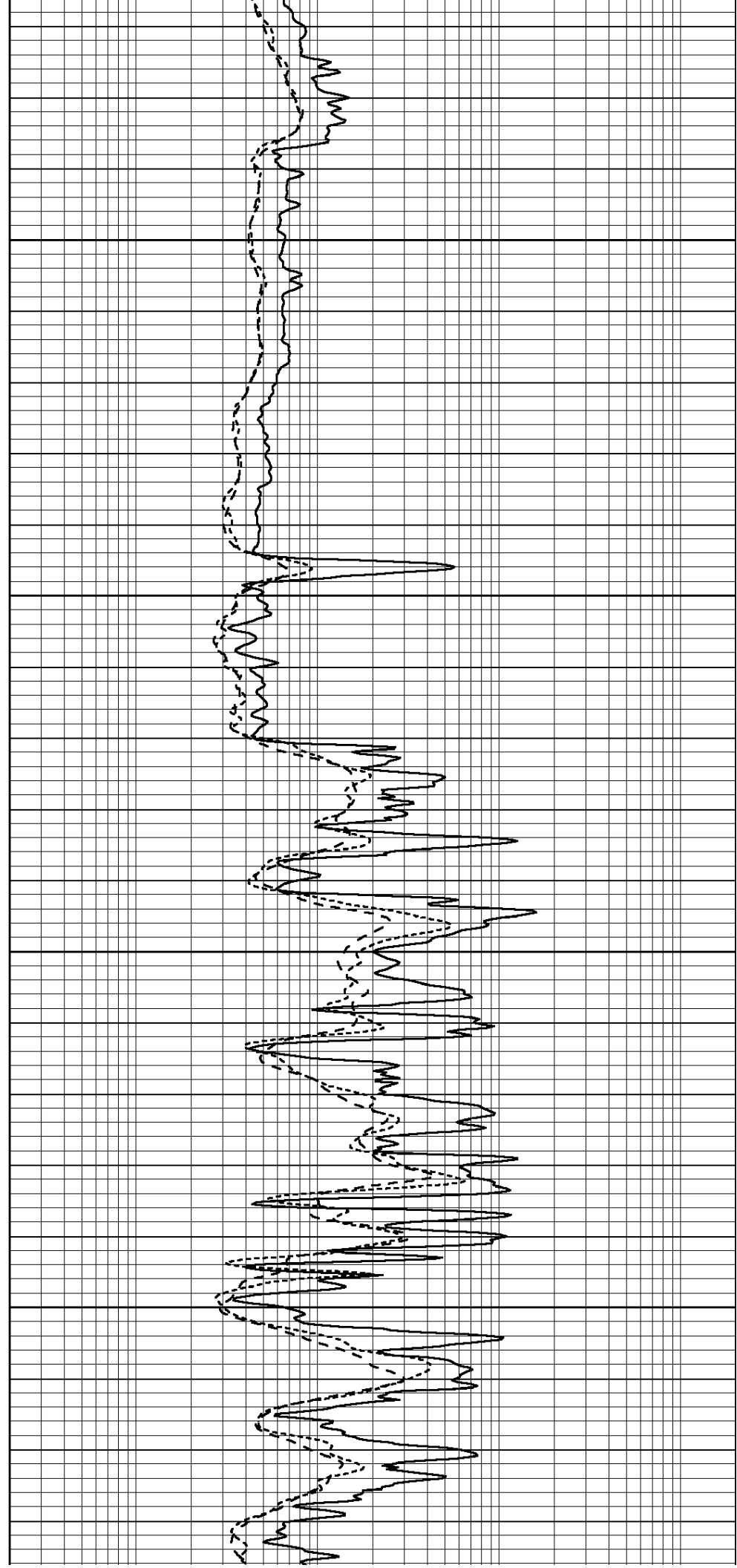


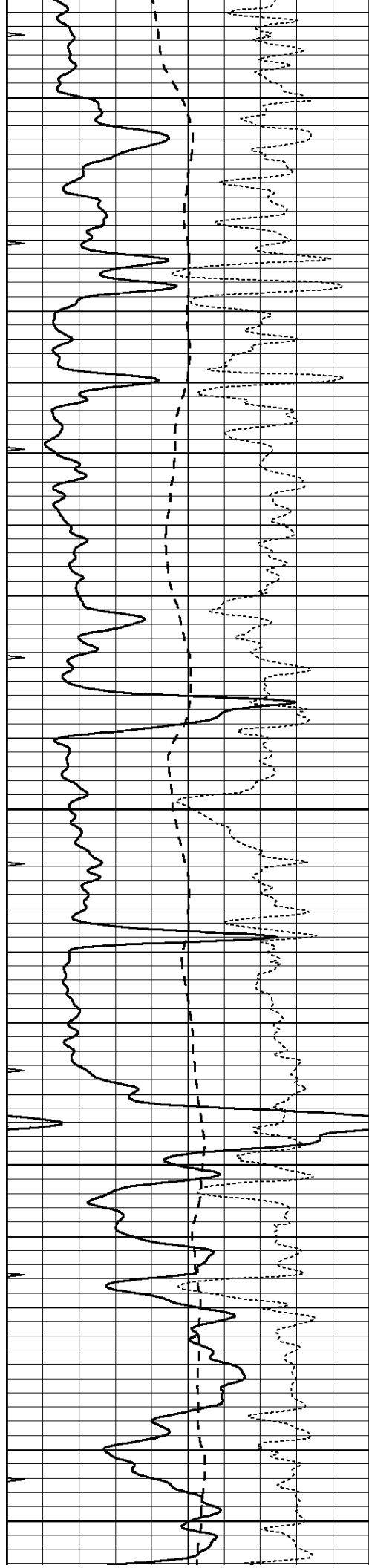
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3800

3850





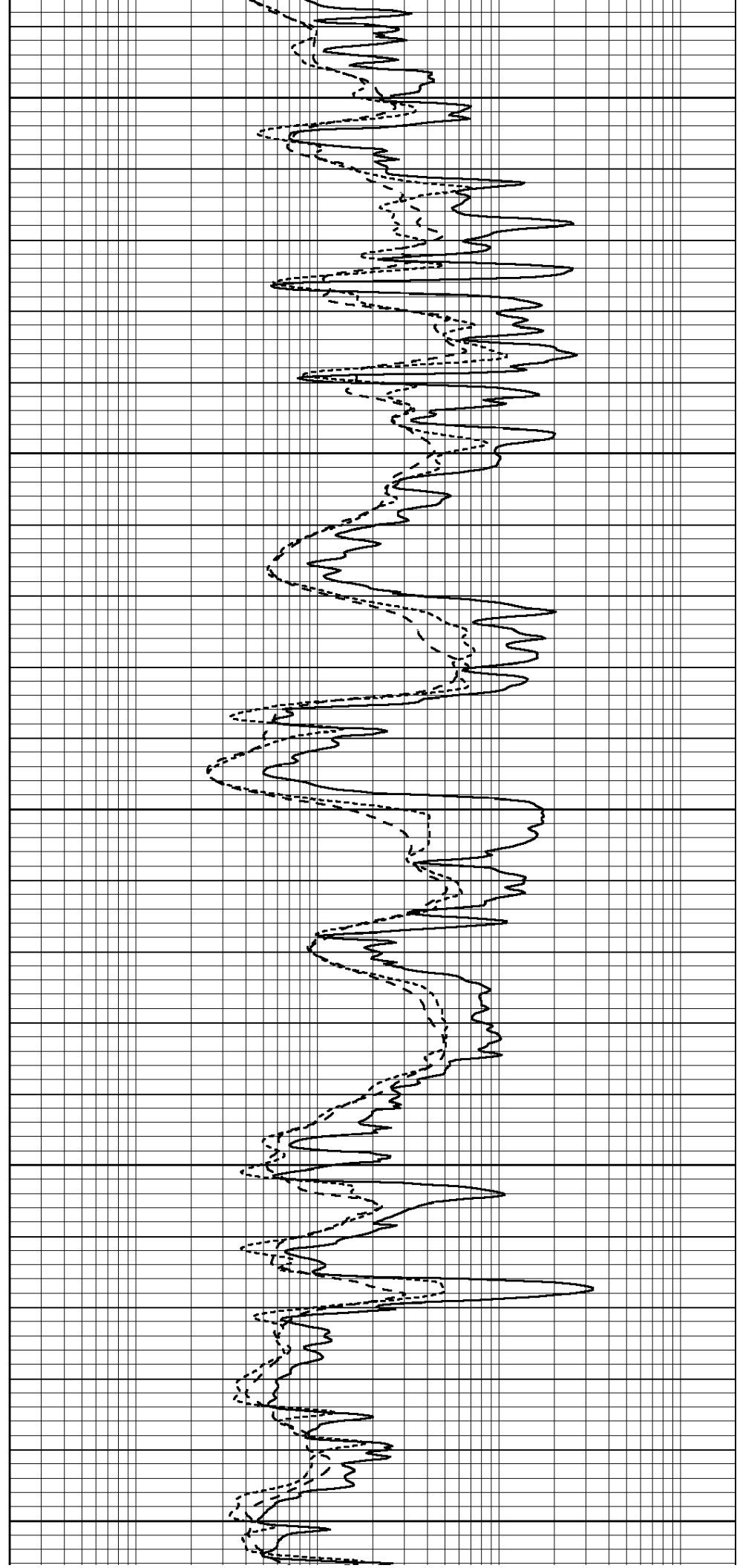
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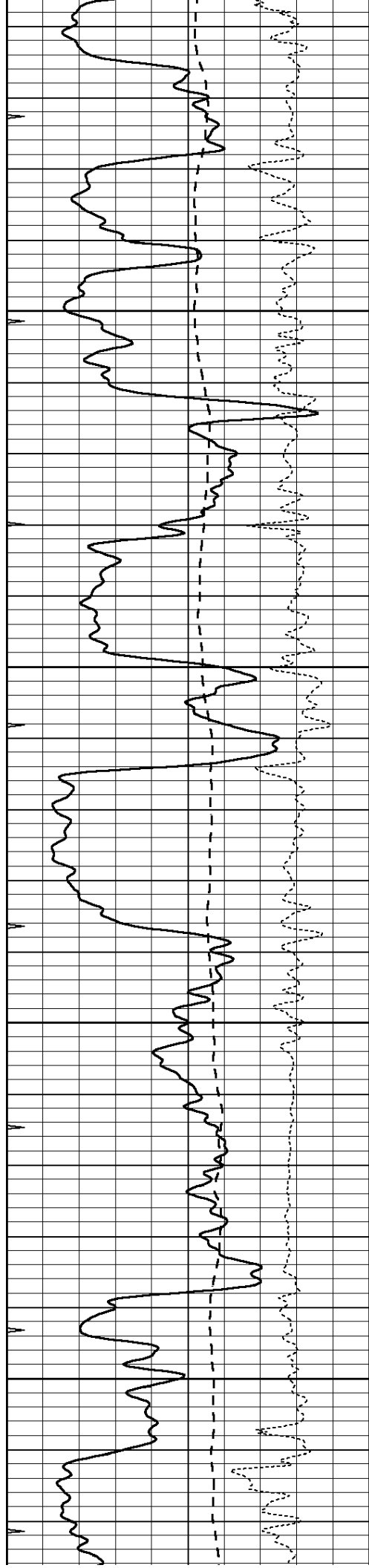
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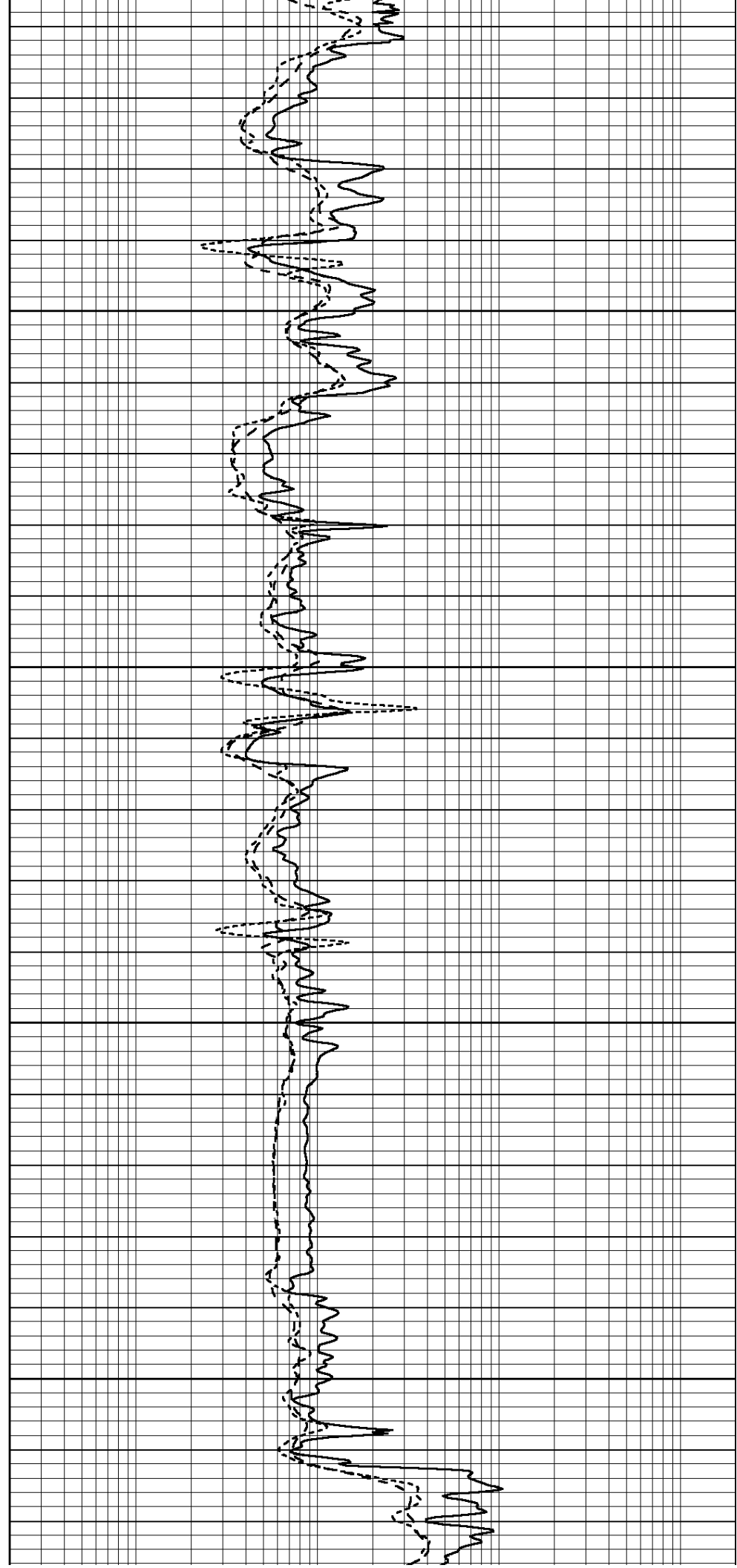


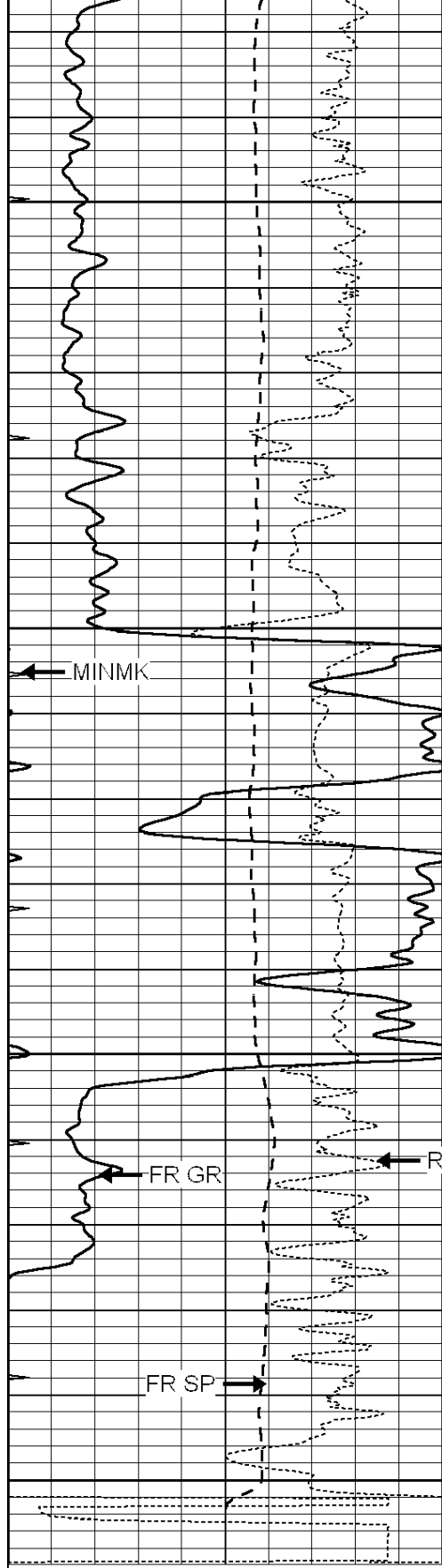
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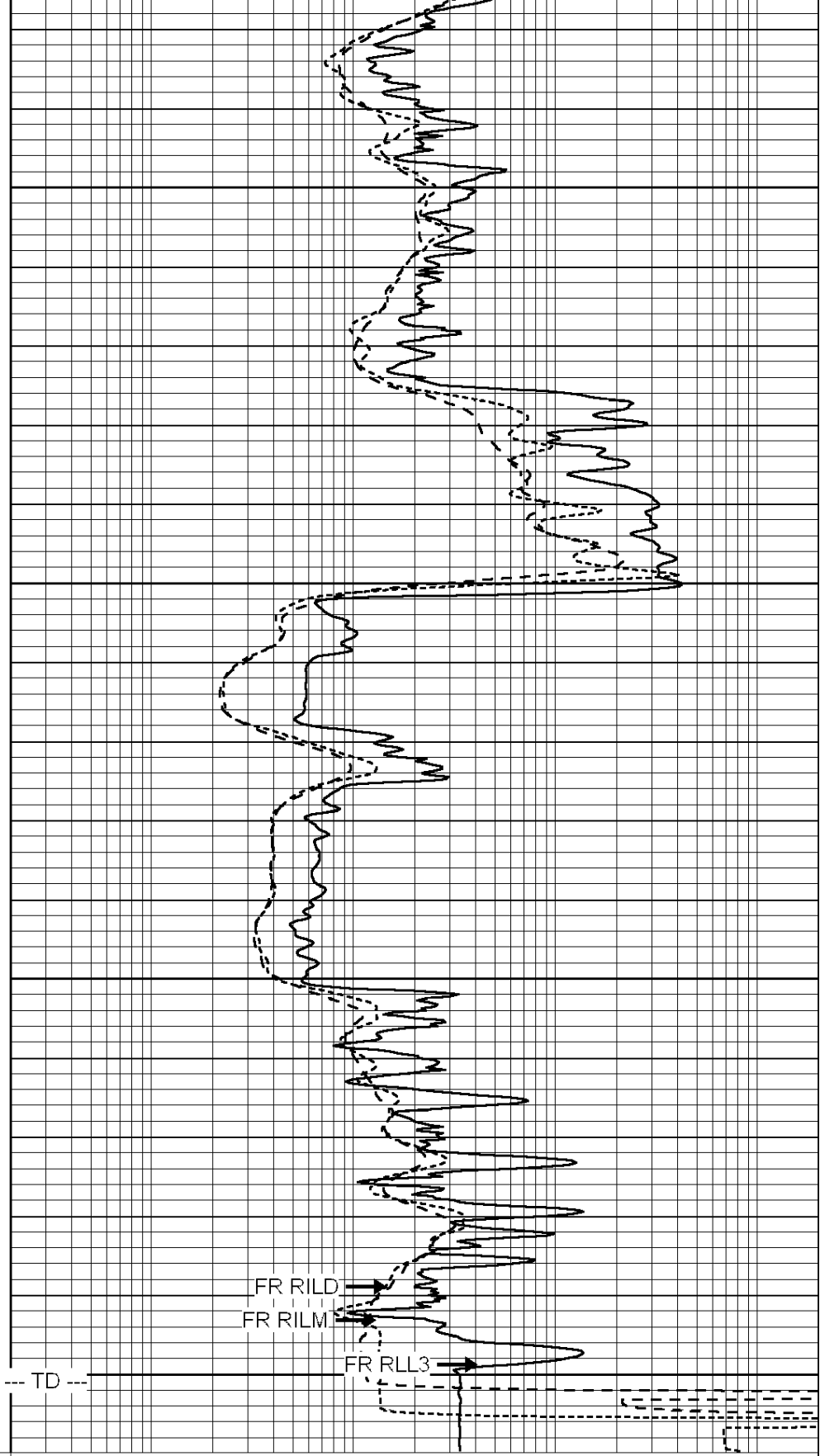
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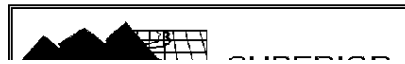


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

4350
4400
4450
4500



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





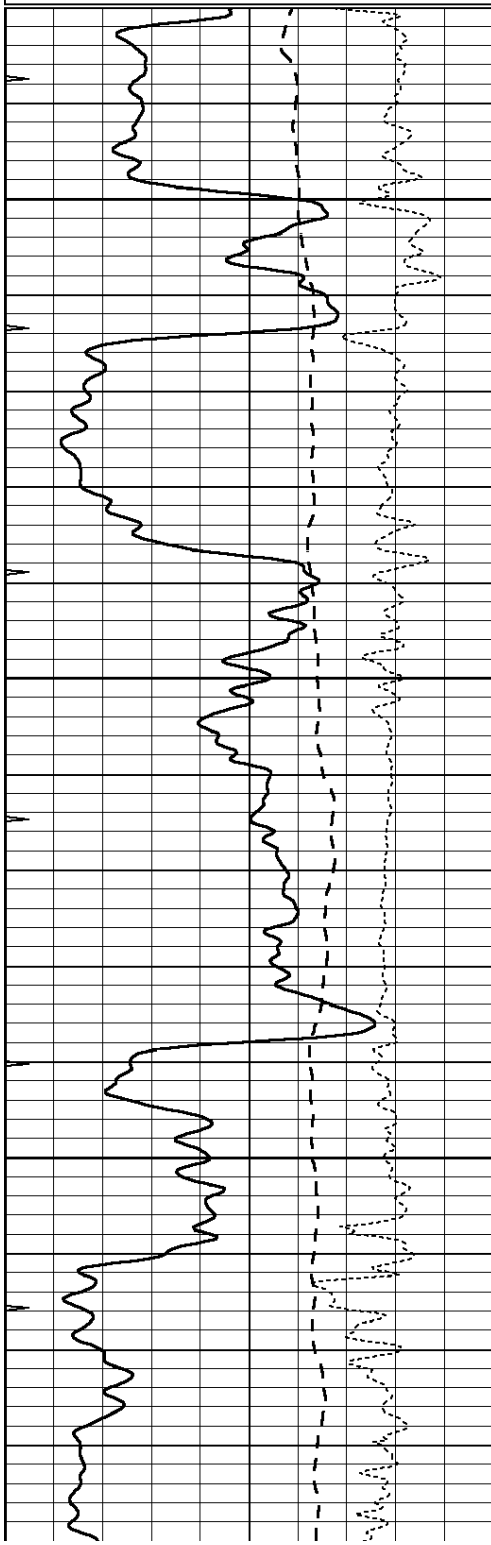
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 009125ddn.db
 Dataset Pathname: pass7.A
 Presentation Format: dil
 Dataset Creation: Wed May 23 12:43:14 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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-250	RxoRt	50
0	MINMK	20

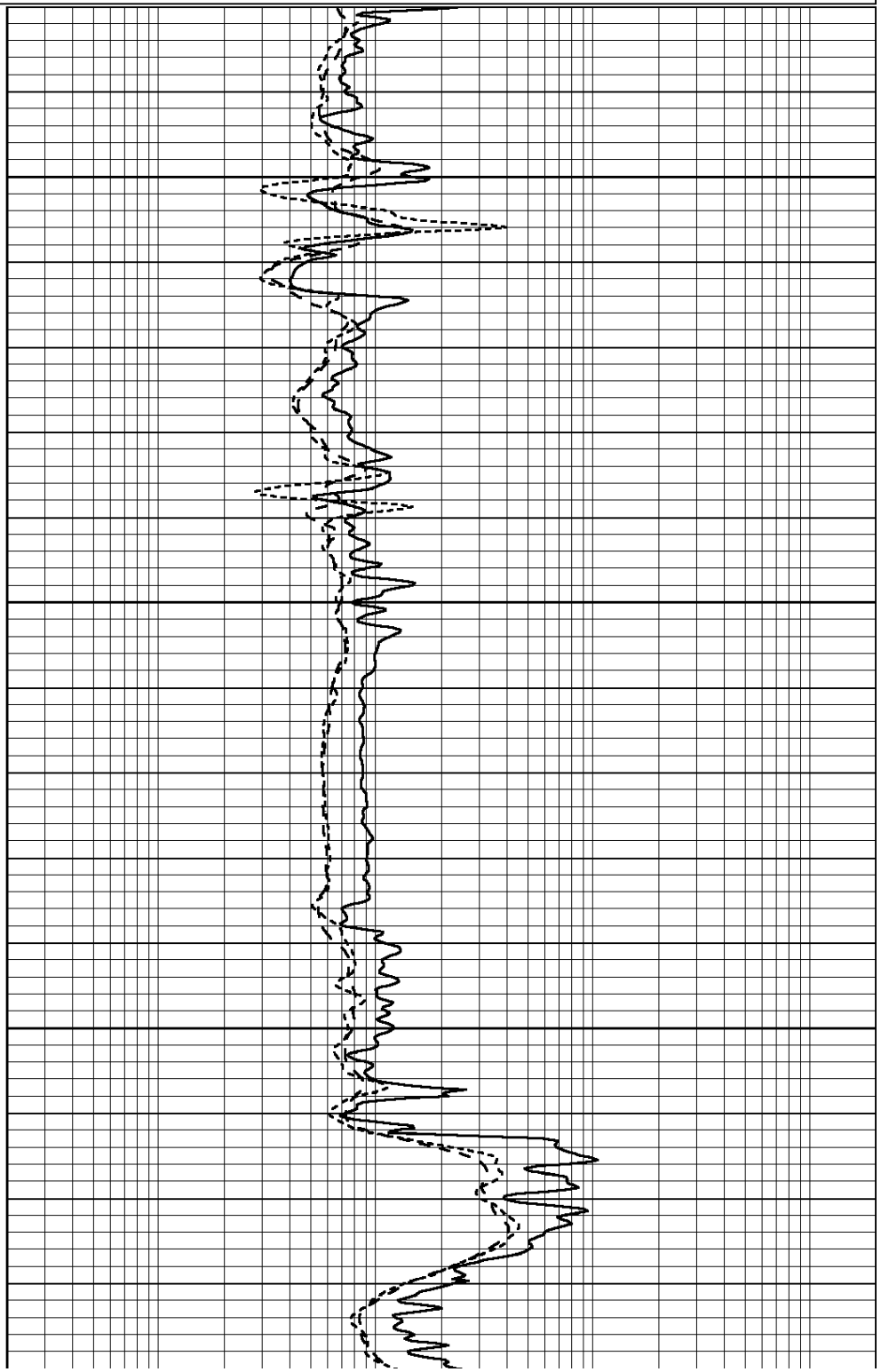
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0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

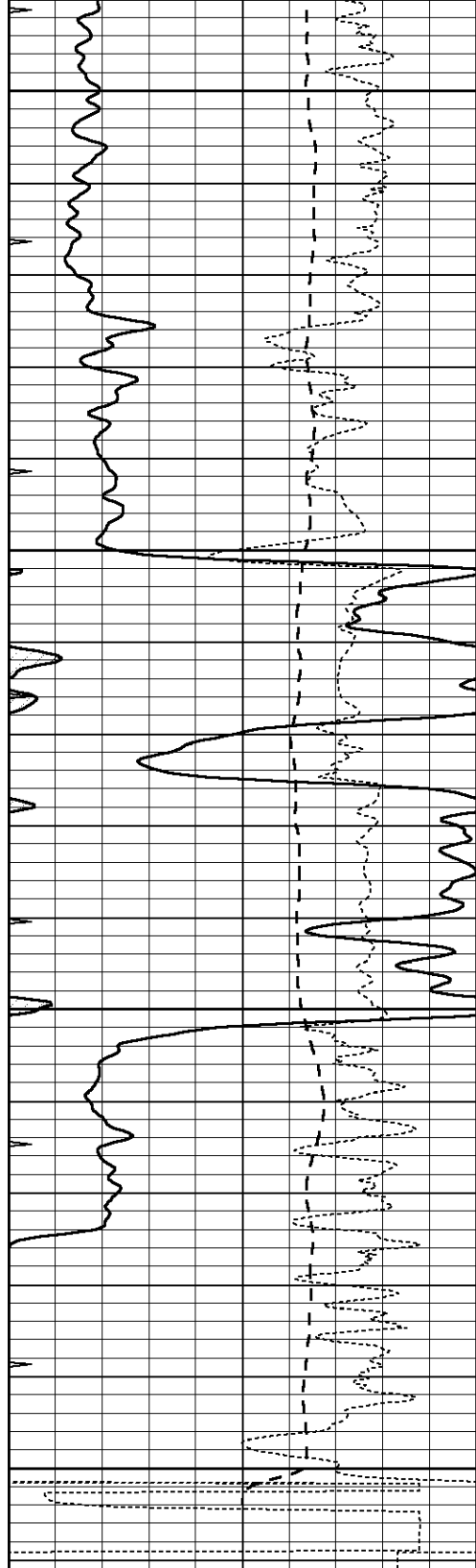


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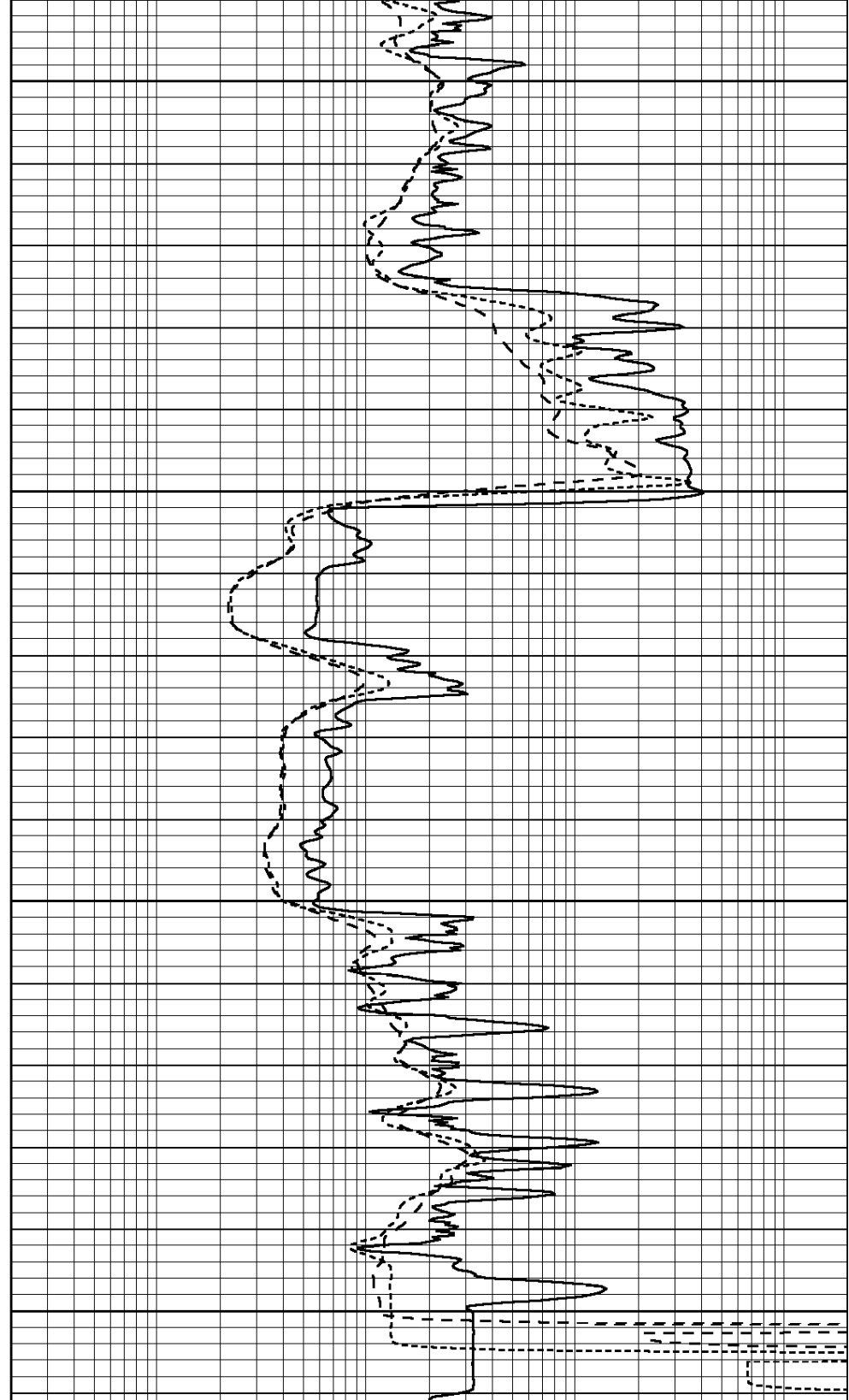
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4350
4400
4450
4500

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

Calibration Report

Database File: 009125ddn.db
 Dataset Pathname: pass8.1A
 Dataset Creation: Wed May 23 14:11:51 2012

Dual Induction Calibration Report

Serial-Model:	PROBE9-DILG
Surface Cal Performed:	Wed May 23 12:31:13 2012
Downhole Cal Performed:	Mon Jul 28 12:02:56 2008
After Survey Verification Performed:	Mon Jul 28 12:02:56 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	550.000	-10.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	540.000	-12.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3970.000	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		

Compensated Density Calibration Report

Serial-Model:	GEAR2-GEARHART
Source / Verifier:	147 / 147
Master Calibration Performed:	Sat May 19 06:53:16 2012

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1203.63	642.89	cps
Aluminum	2.590	g/cc	267.51	439.63	cps
Spine Angle = 75.82			Density/Spine Ratio = 0.567		
	Size		Reading		
Small Ring	7.40	in	4.16	V	
Large Ring	14.00	in	5.99	V	

Compensated Neutron Calibration Report

Serial Number:	NUE_2I
Tool Model:	G

CALIBRATION

Detector	Readings	Target	Normalization
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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:	Wed May 23 09:40:59 2012	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.7000	GAPI/cps