



**SUPERIOR
Hays,
Kansas**

**DUAL
INDUCTION
LOG**

Company HERMAN L. LOEB, LLC.
Well PETERS "D" #3-10
Field UNICE NORTHEAST
County NESS State KANSAS

Company HERMAN L. LOEB, LLC.
Well PETERS "D" #3-10
Field UNICE NORTHEAST
County NESS
State KANSAS

Location: API #: 15-135-25390
950' FSL & 1940' FWL
SEC 10 TWP 16S RGE 26W
Permanent Datum GROUND LEVEL Elevation 2621
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
MICRO
Elevation
K.B. 2632
D.F.
G.L. 2621

Date	6-17-12
Run Number	ONE
Depth Driller	4625
Depth Logger	4625
Bottom Logged Interval	4623
Top Log Interval	00
Casing Driller	352
Casing Logger	350
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.4 / 65
pH / Fluid Loss	8.5 / 7.6
Source of Sample	FLOWLINE
Rim @ Meas. Temp	1.20 @ 82F
Rmf @ Meas. Temp	0.90 @ 82F
Rmc @ Meas. Temp	1.44 @ 82F
Source of Rmf / Rmc	MEASURED
Rim @ BHT	.810 @ 121F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	10:45 A.M.
Maximum Recorded Temperature	121F
Equipment Number	860
Location	HAYS, KS.
Recorded By	RUPP
Witnessed By	JON CHRISTENSEN

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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: UTICA, W TO RD. "D", 2N, W INTO.

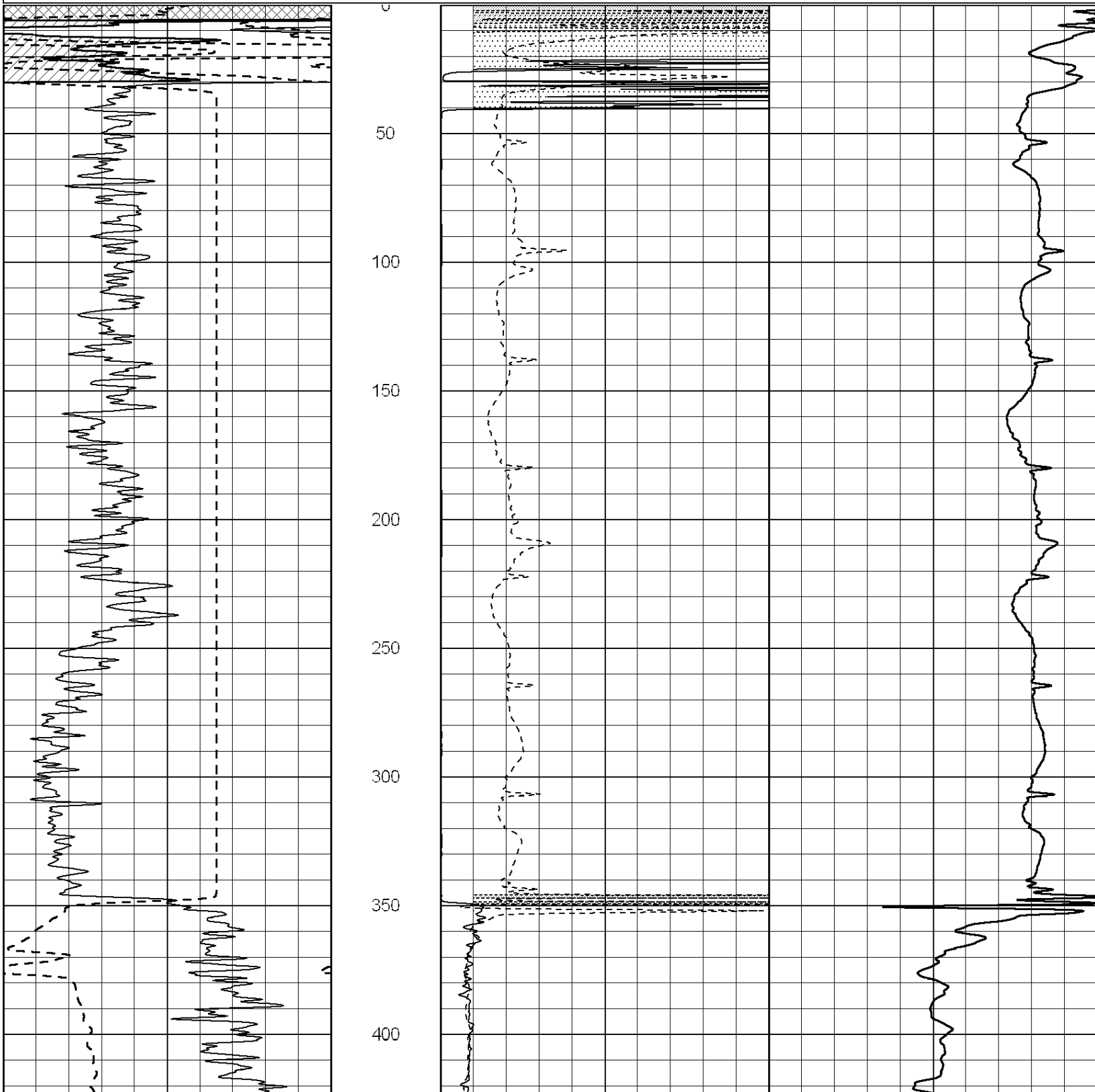


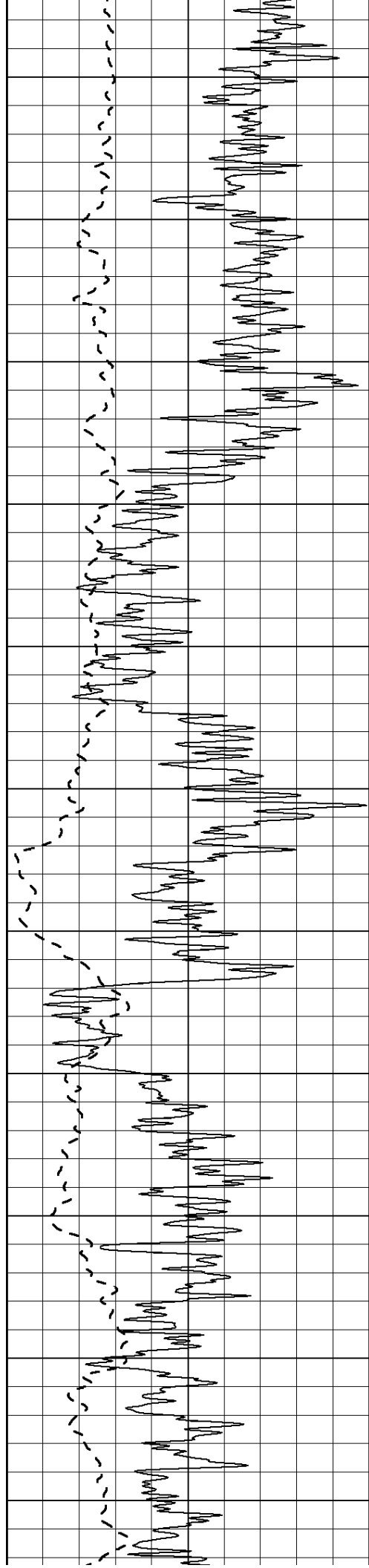
**SUPERIOR
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MAIN SECTION

Database File: 008791pdr.db
Dataset Pathname: pass3.A
Presentation Format: dil2
Dataset Creation: Sun Jun 17 12:18:31 2012
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50
			0	Deep Induction (Ohm-m)	50
			1000	CILD (mmho/m)	0
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500





450

500

550

600

650

700

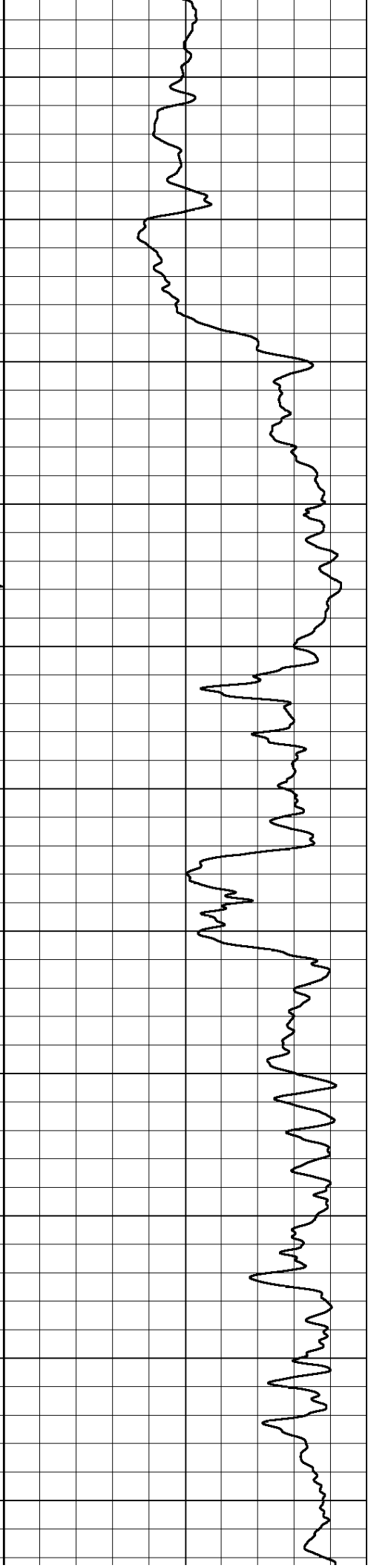
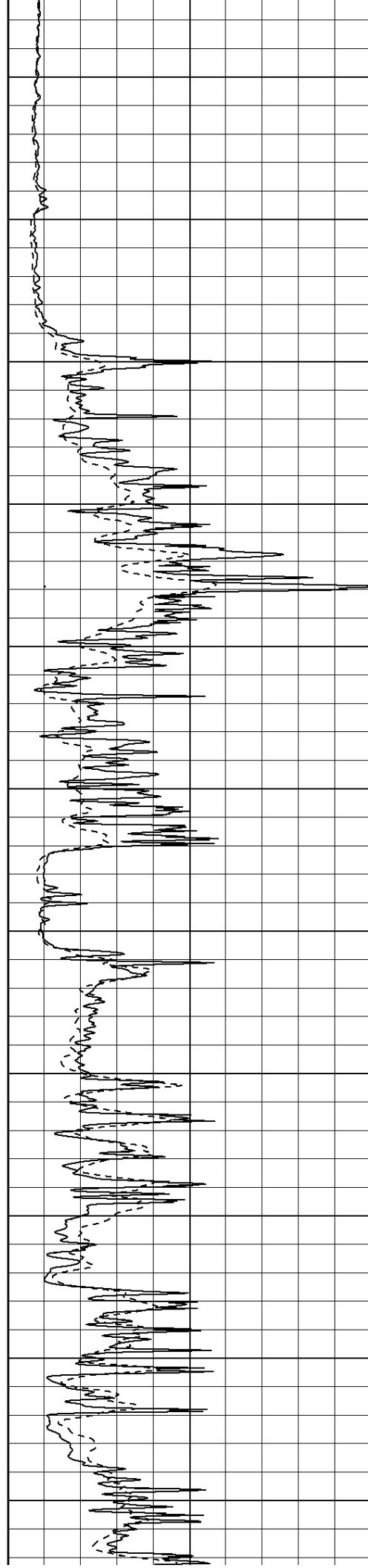
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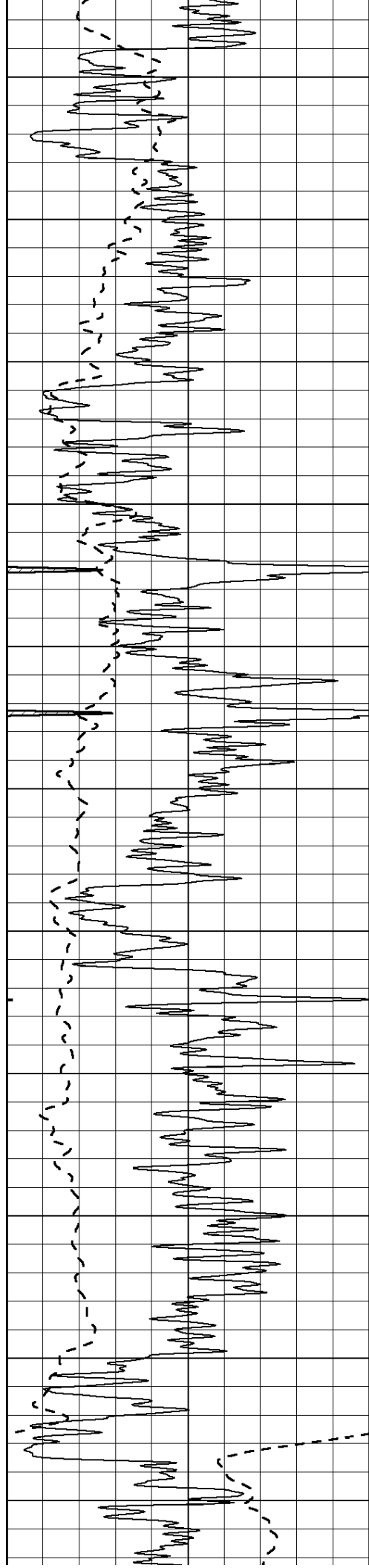
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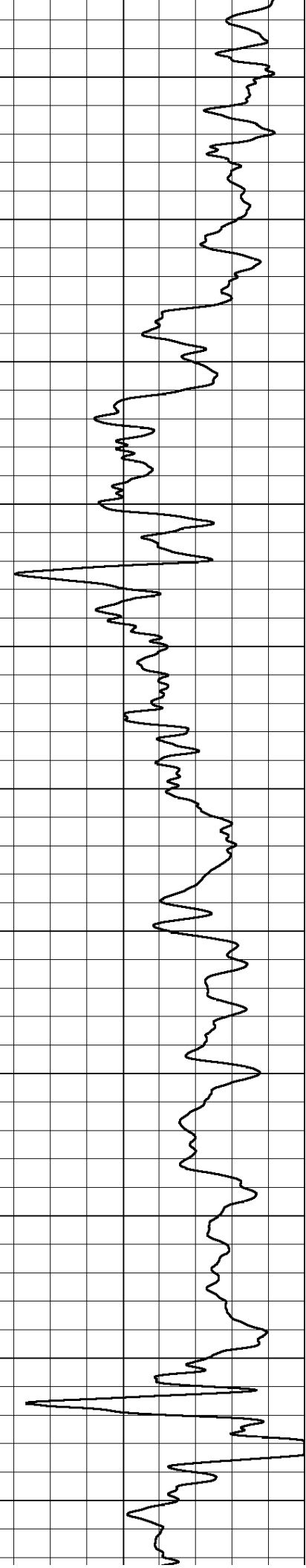
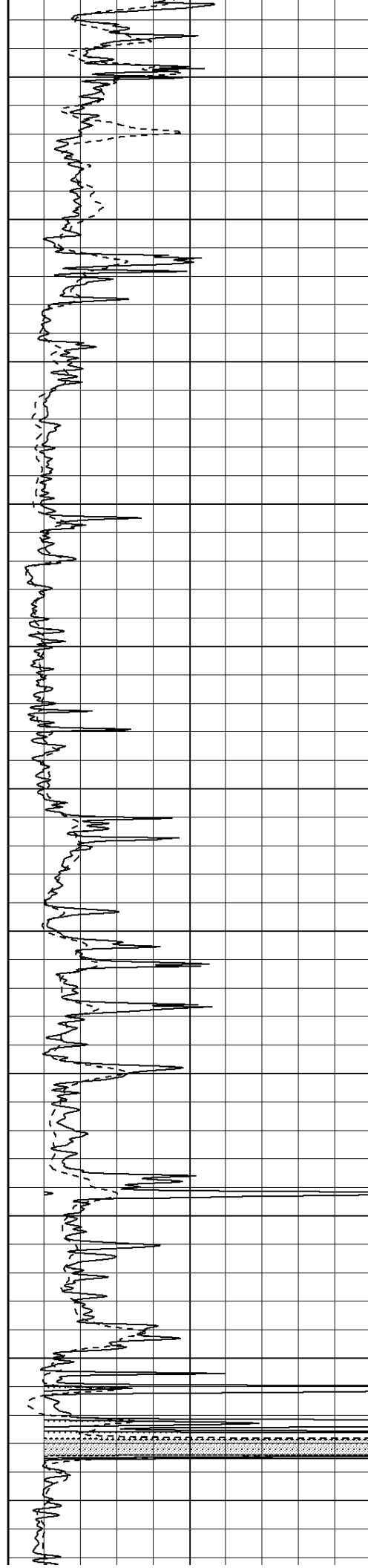
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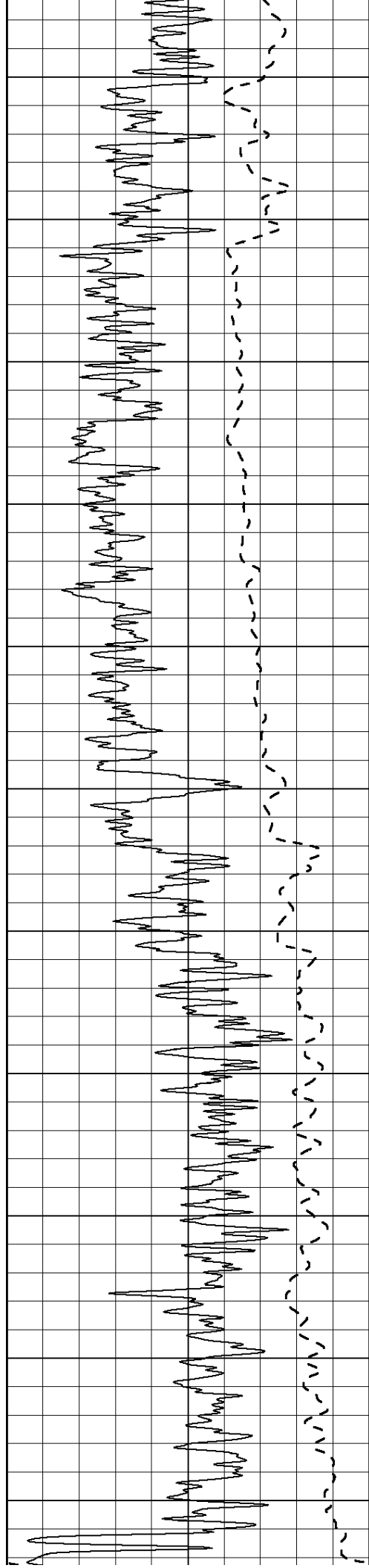
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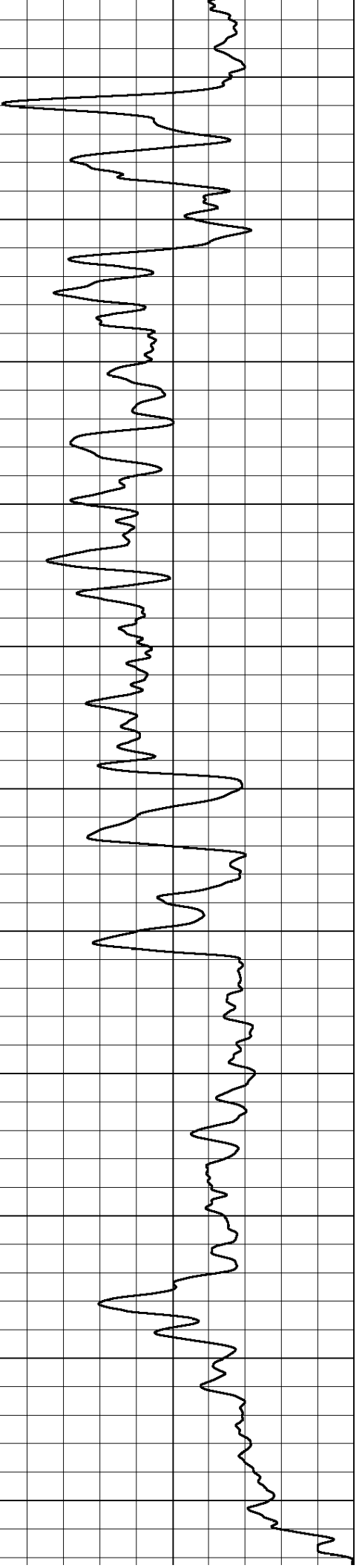
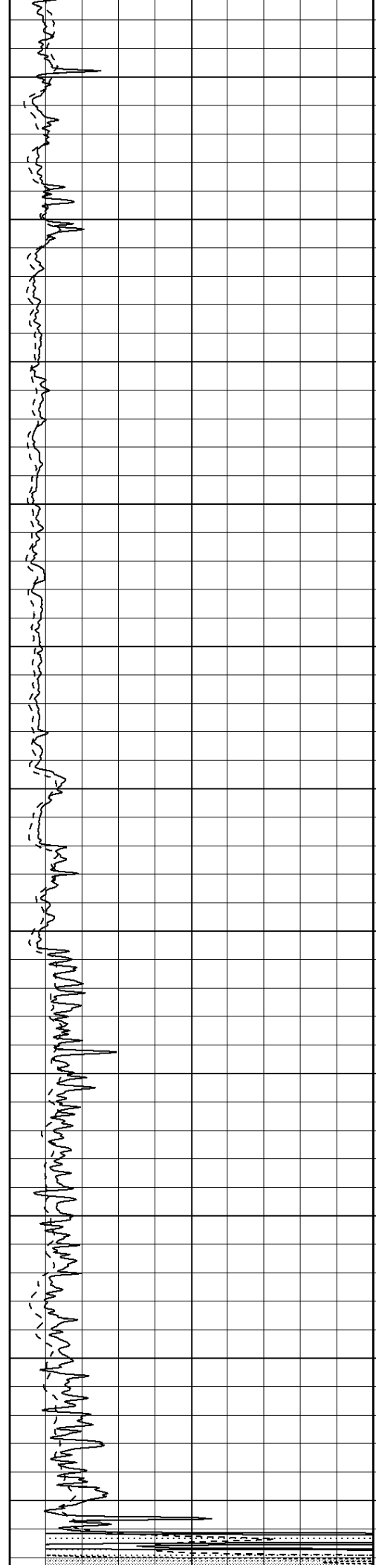


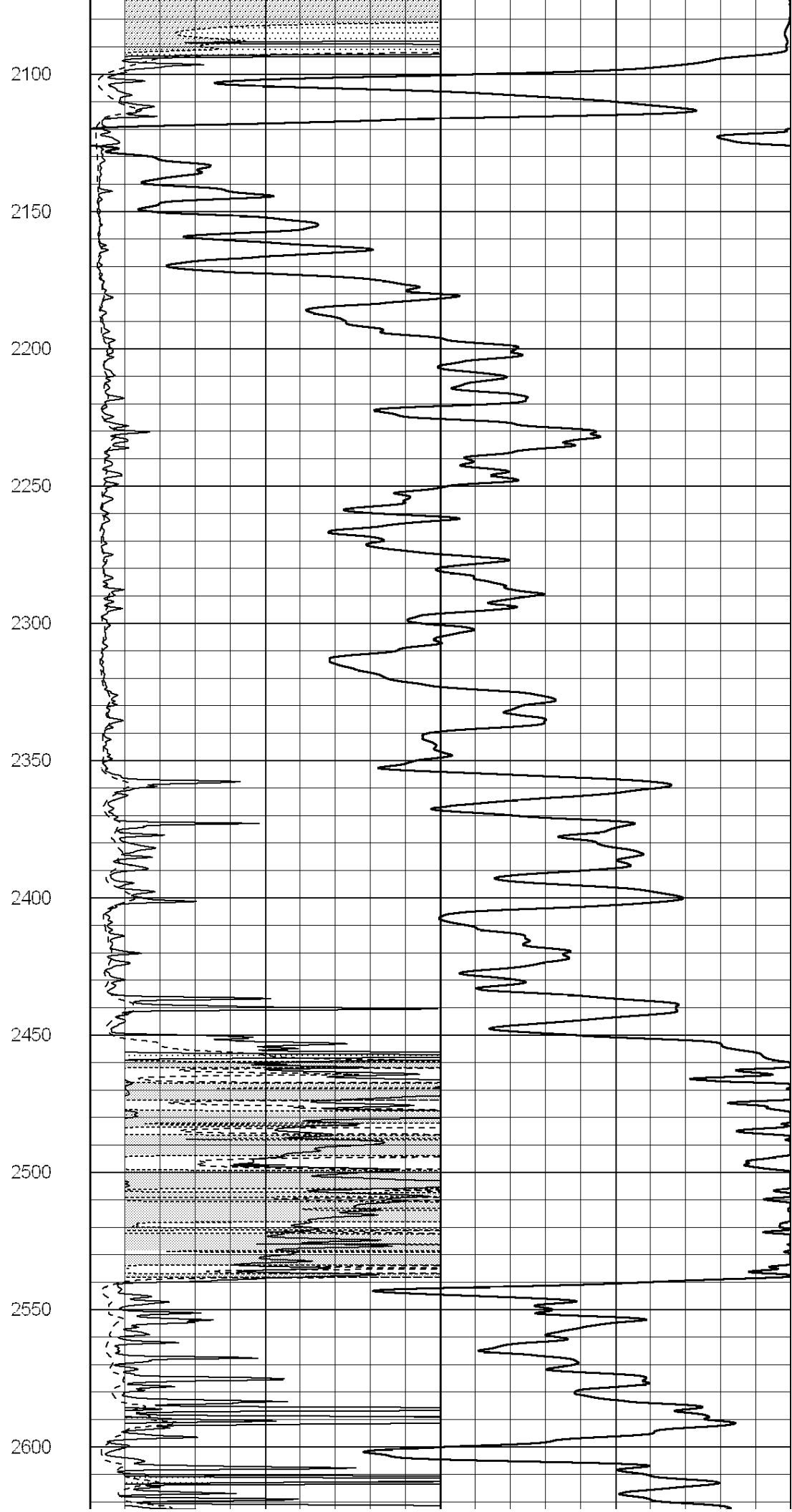
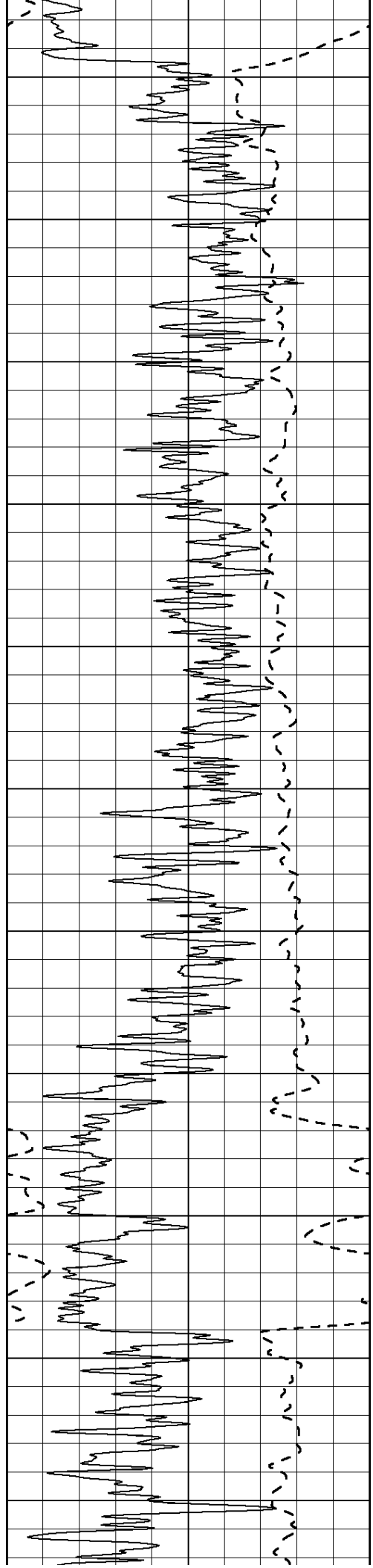
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1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

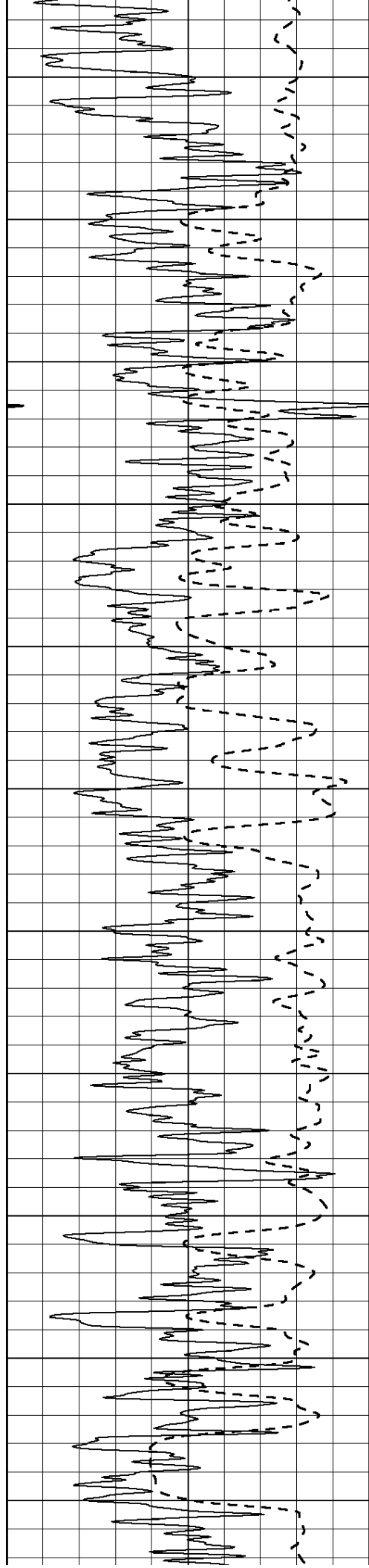




2050 2000 1950 1900 1850 1800 1750 1700 1650 1600 1550







2650

2700

2750

2800

2850

2900

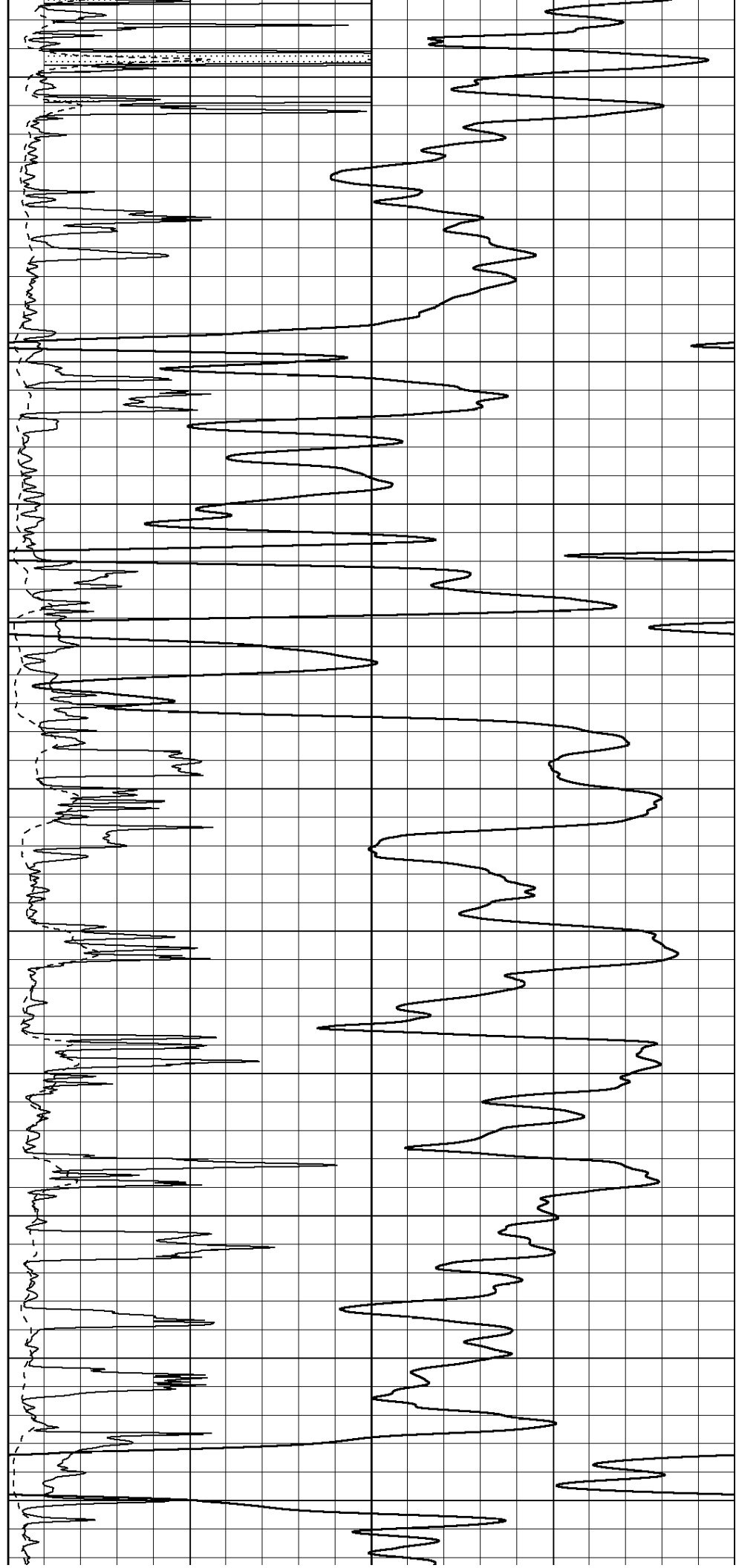
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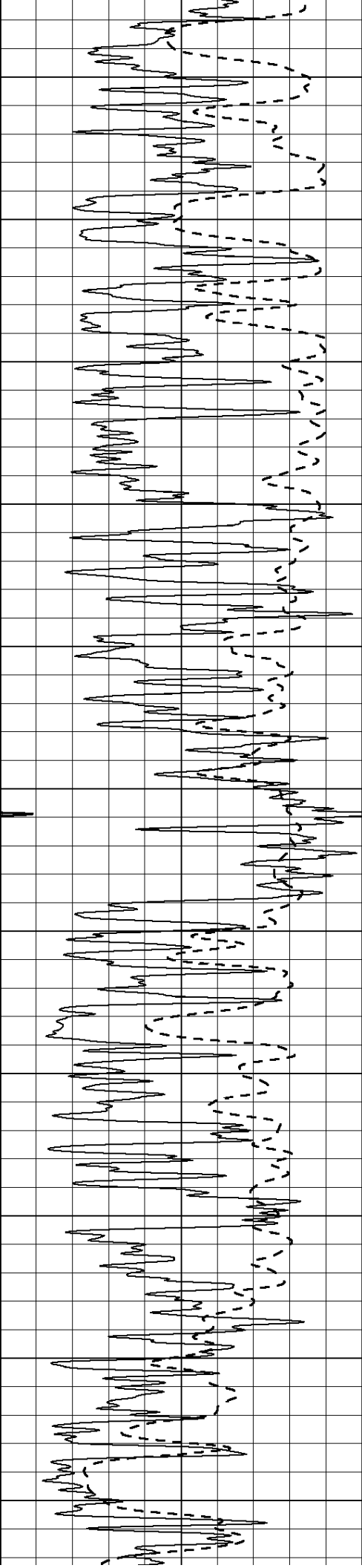
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3050

3100

3150





3200

3250

3300

3350

3400

3450

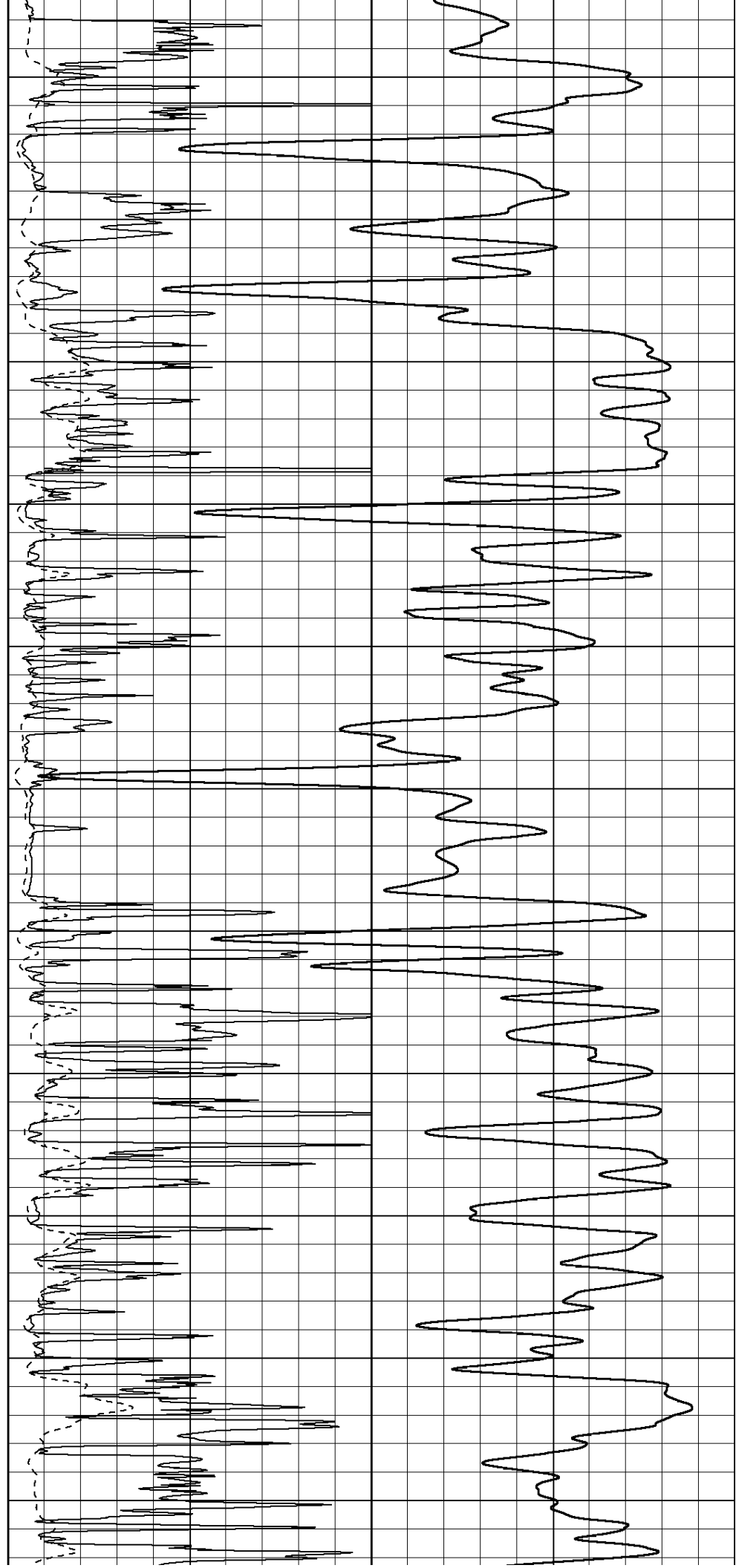
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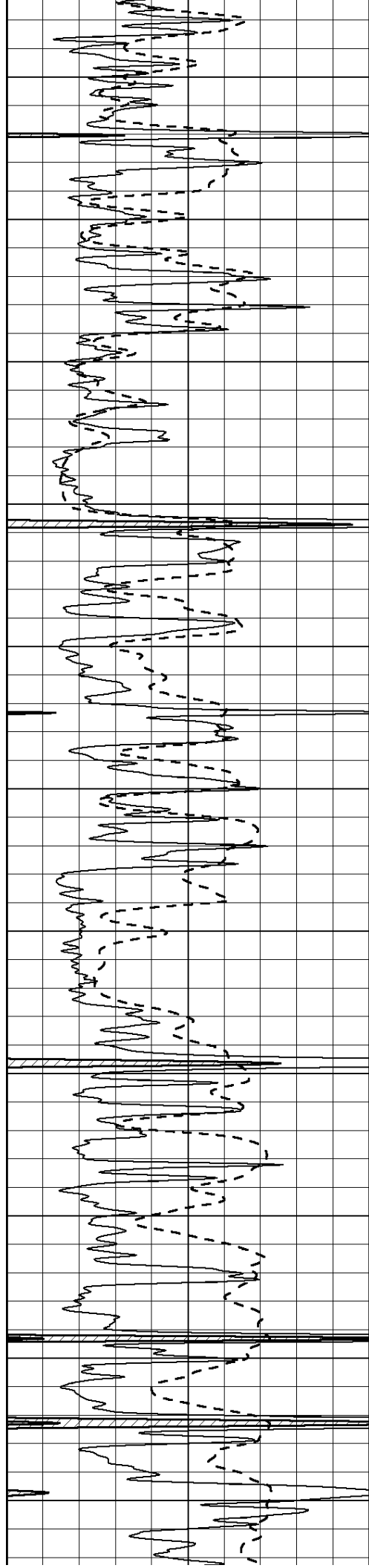
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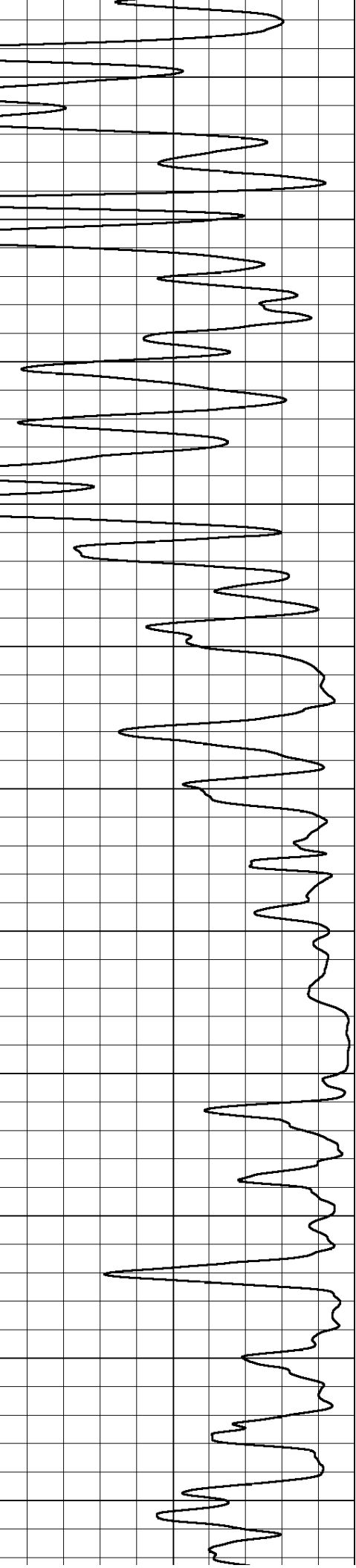
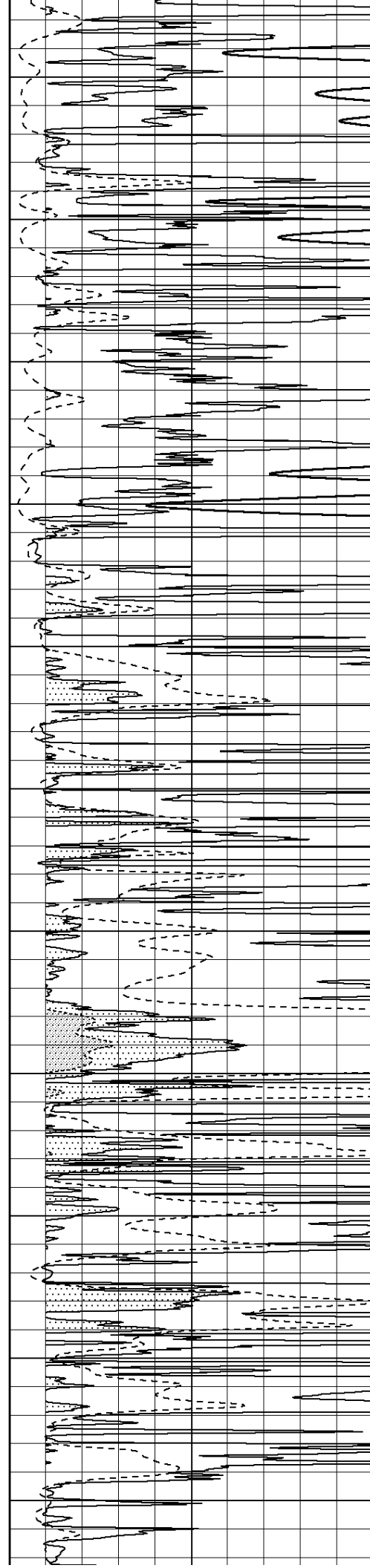
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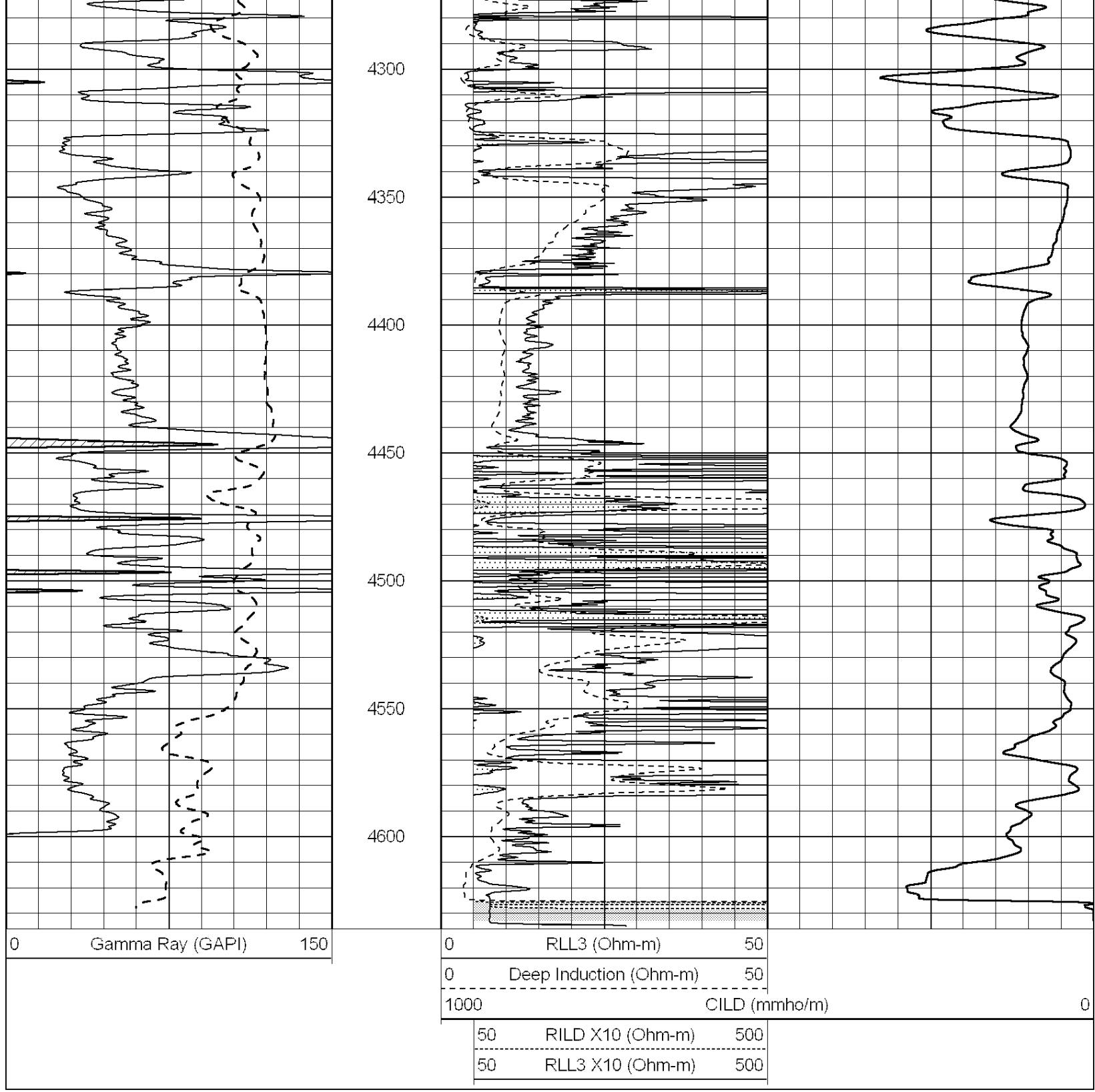
3700





3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250





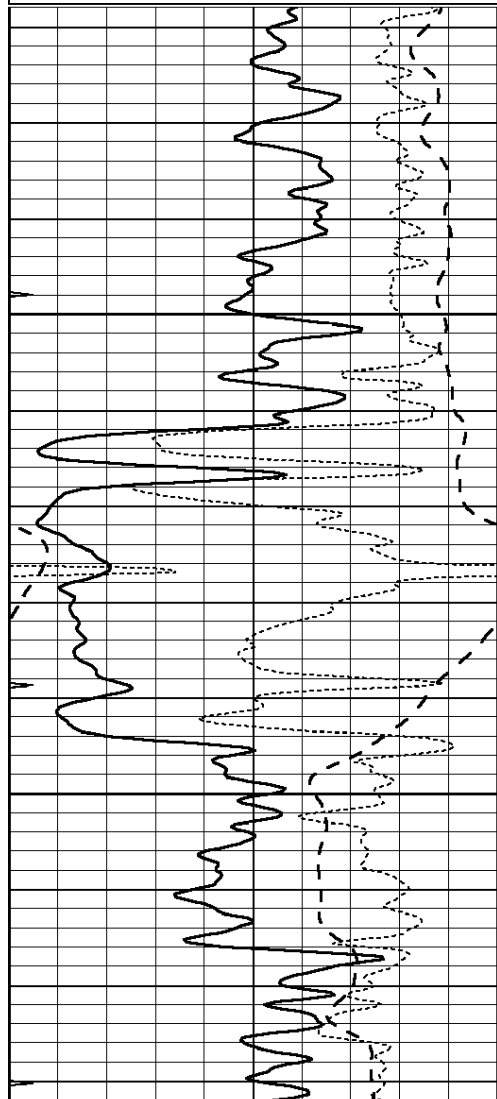
SUPERIOR
Hays,
Kansas

MAIN SECTION

Database File: 008791pdn.db
 Dataset Pathname: pass3.A
 Presentation Format: dil
 Dataset Creation: Sun Jun 17 12:18:31 2012
 Charted by: Depth in Feet scaled 1:240

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

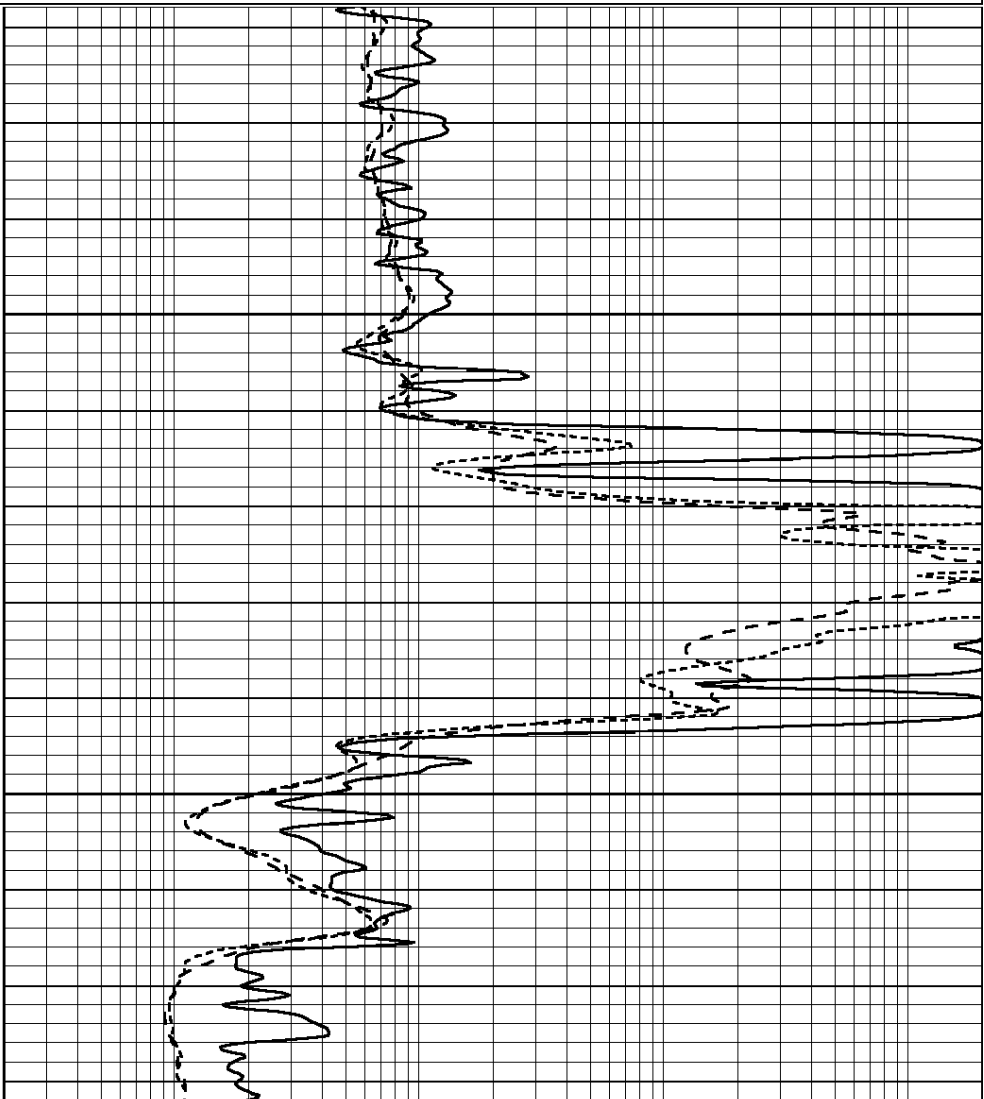
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



2050

2100

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



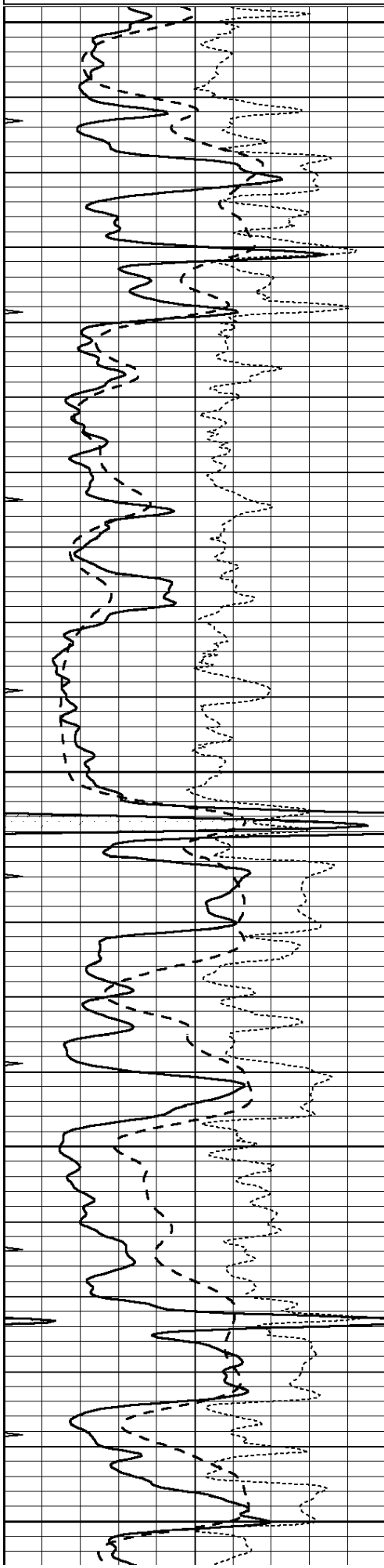
SUPERIOR
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MAIN SECTION

Database File: 008791pdn.db
 Dataset Pathname: pass3.A
 Presentation Format: dil
 Dataset Creation: Sun Jun 17 12:18:31 2012
 Charted by: Depth in Feet scaled 1:240

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

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



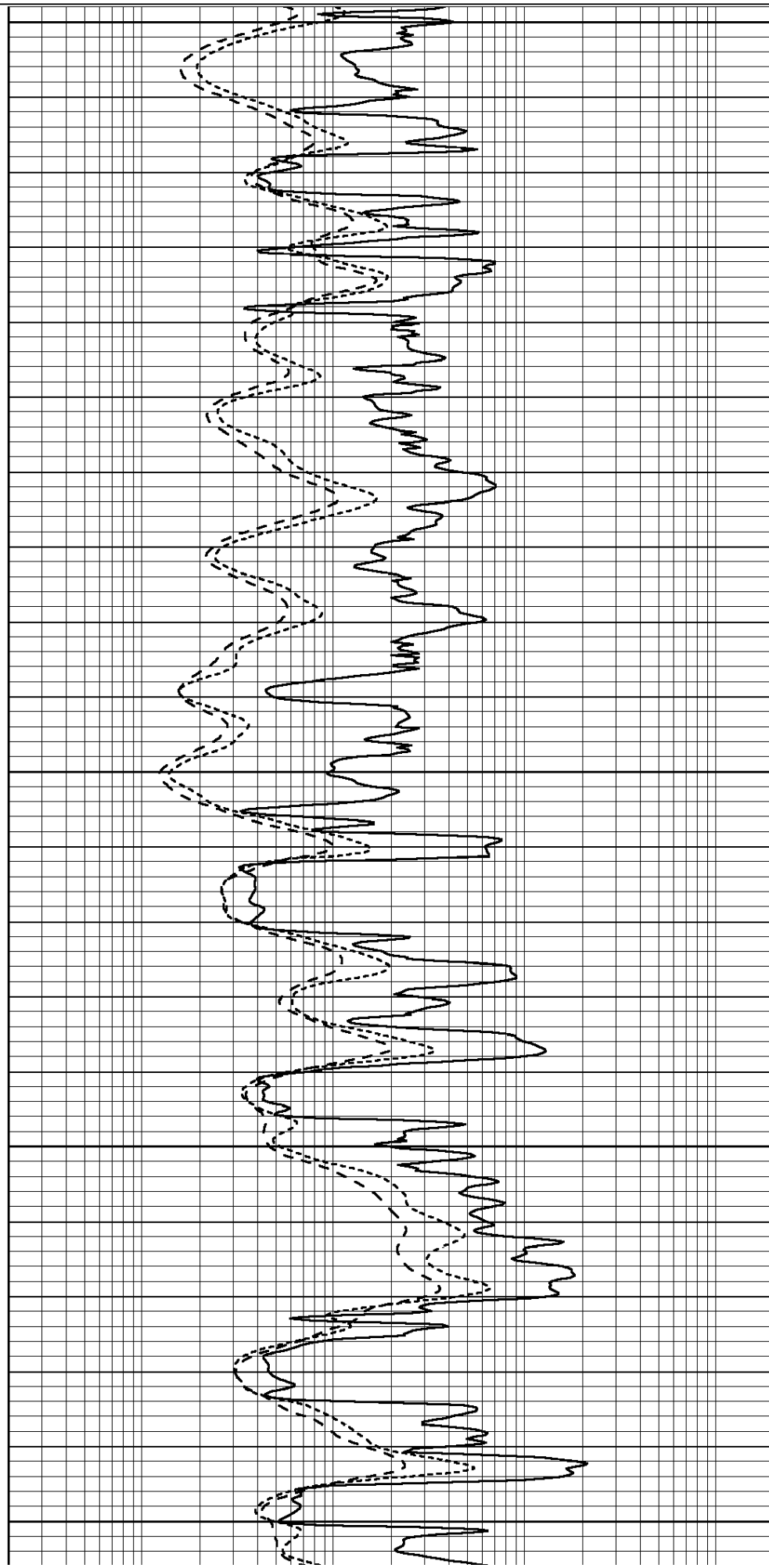
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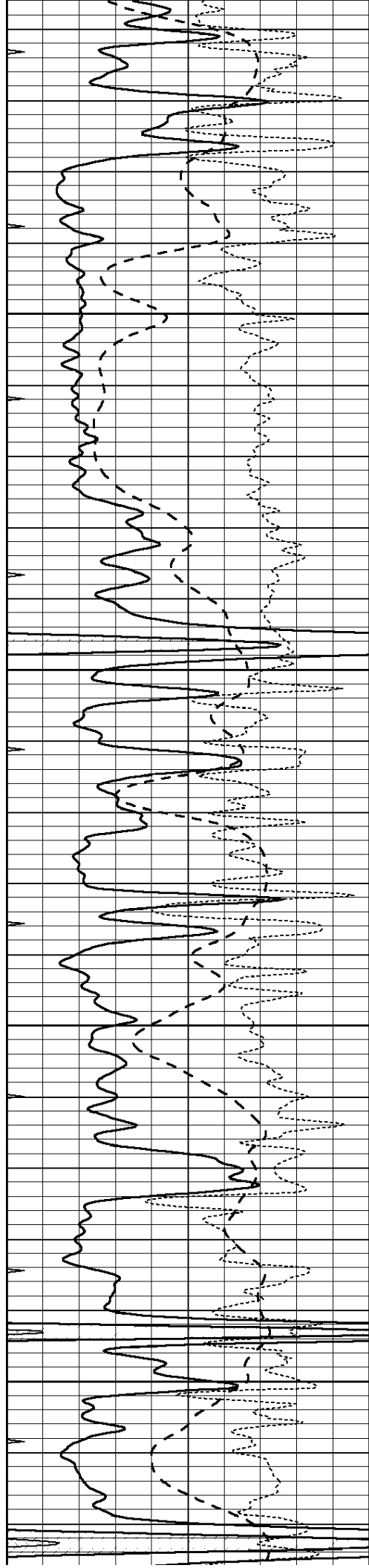
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3900

3950

4000



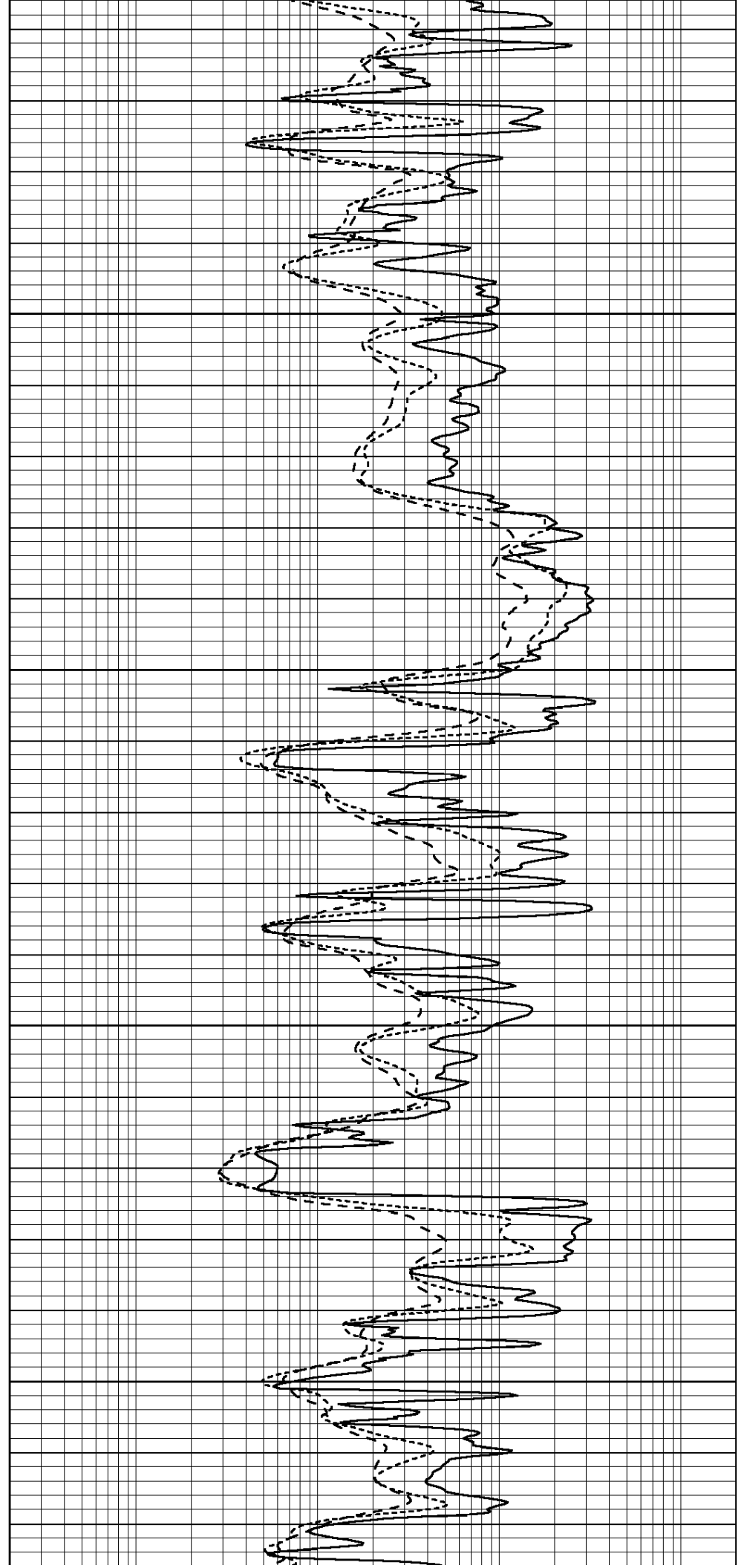


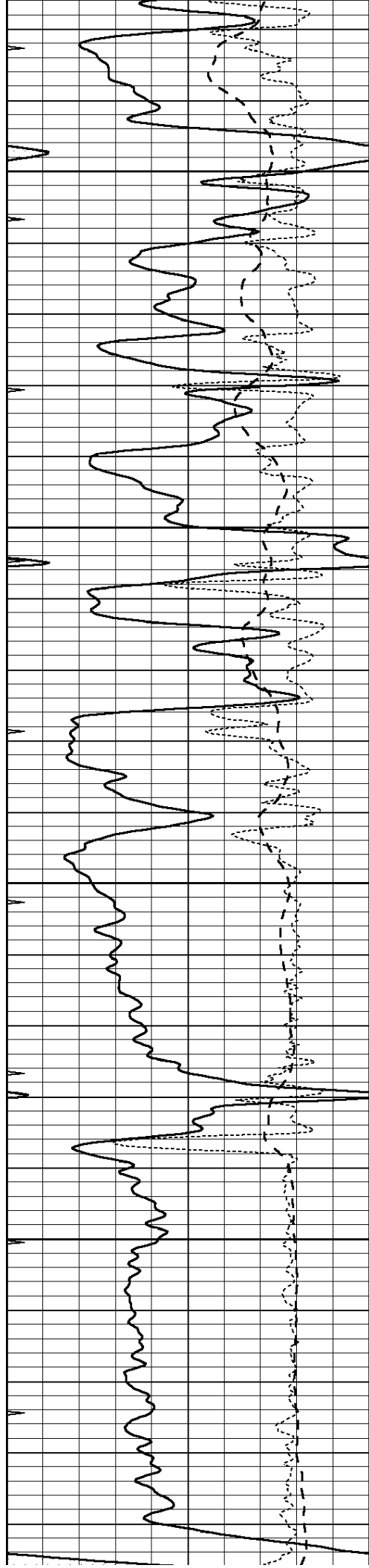
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4100

4150

4200



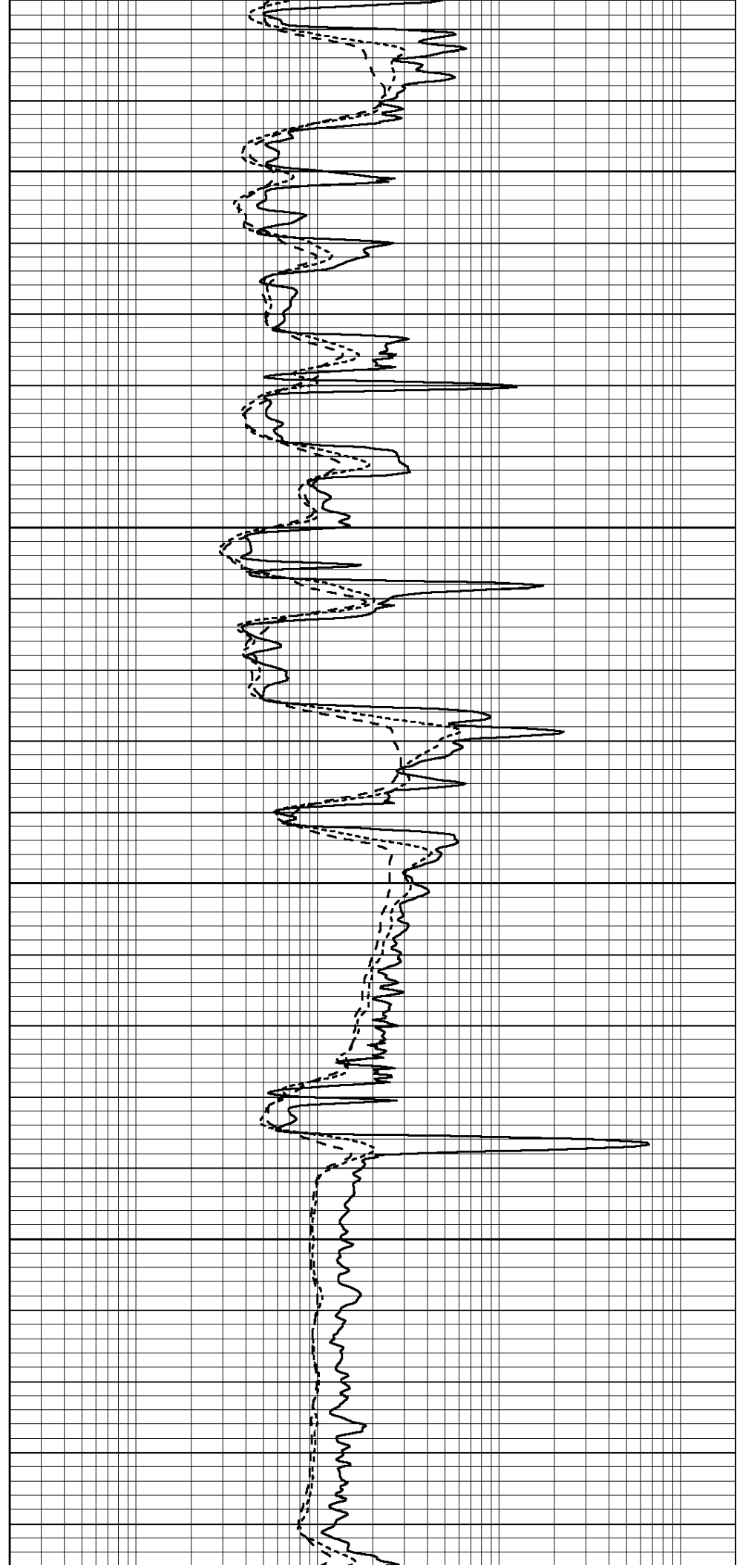


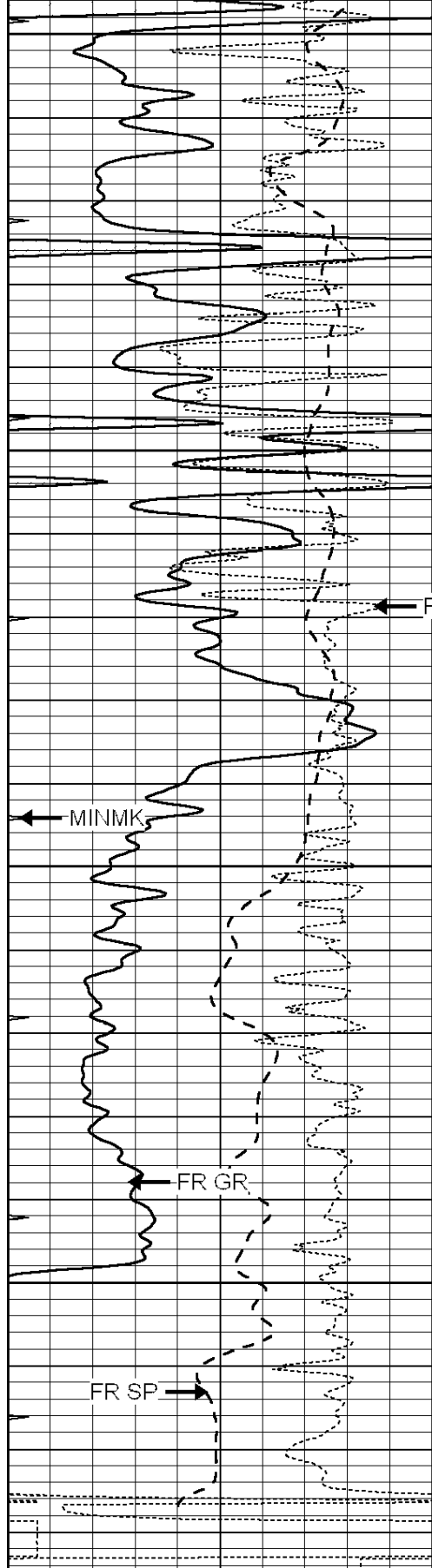
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4300

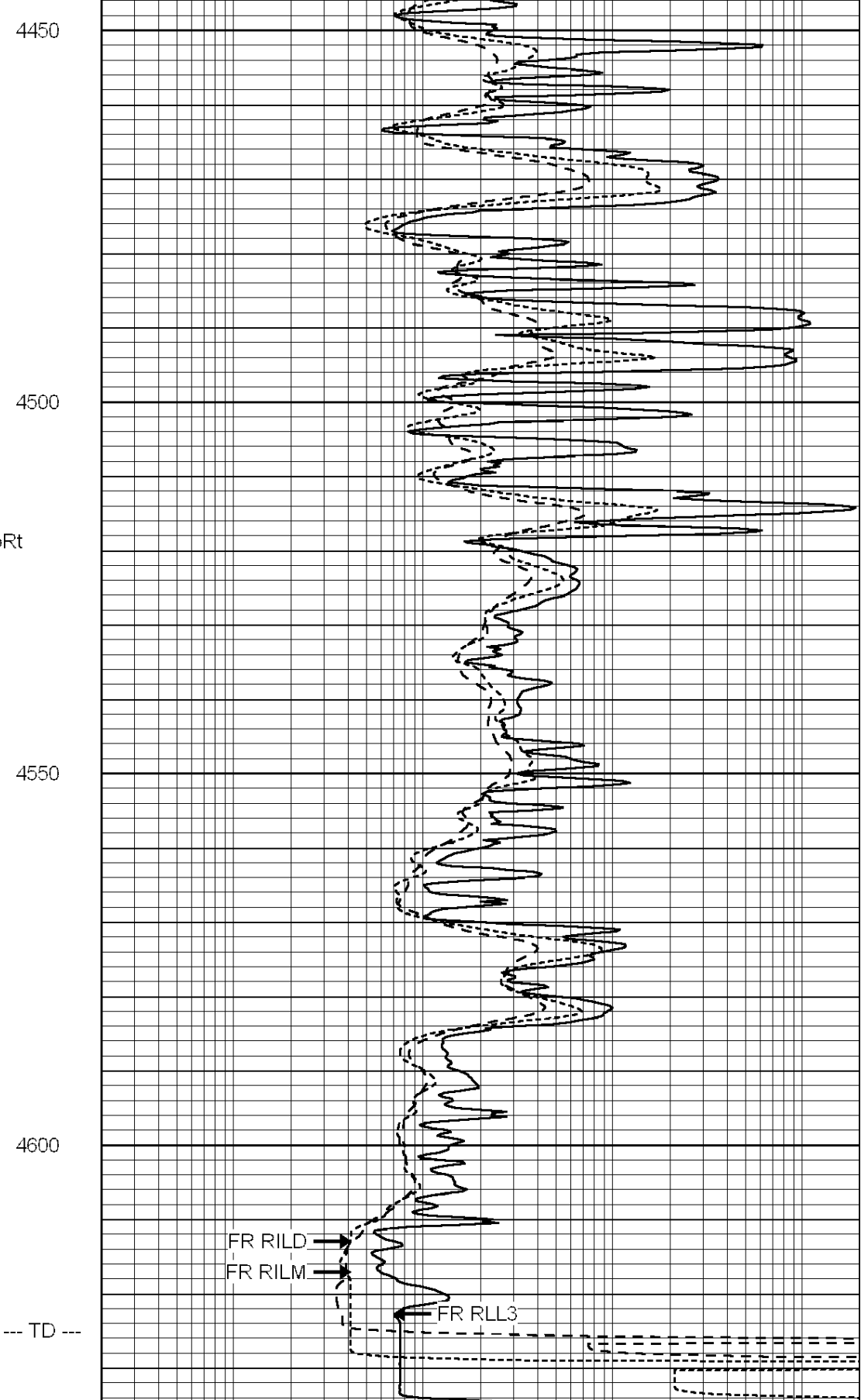
4350

4400





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



SUPERIOR

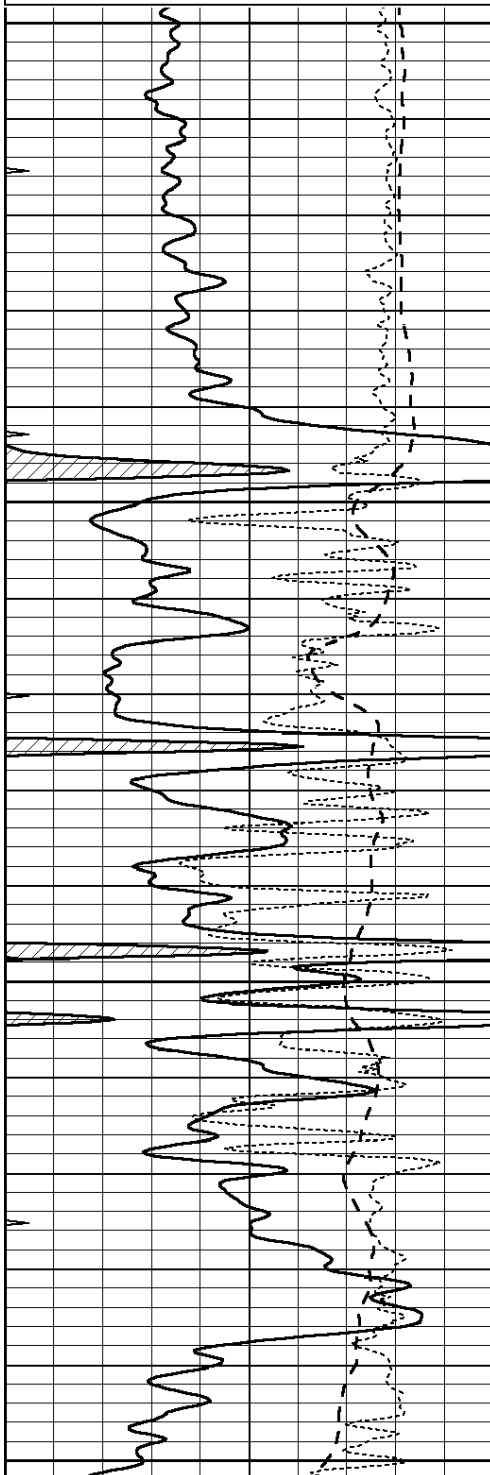
Hays,
Kansas

REPEAT SECTION

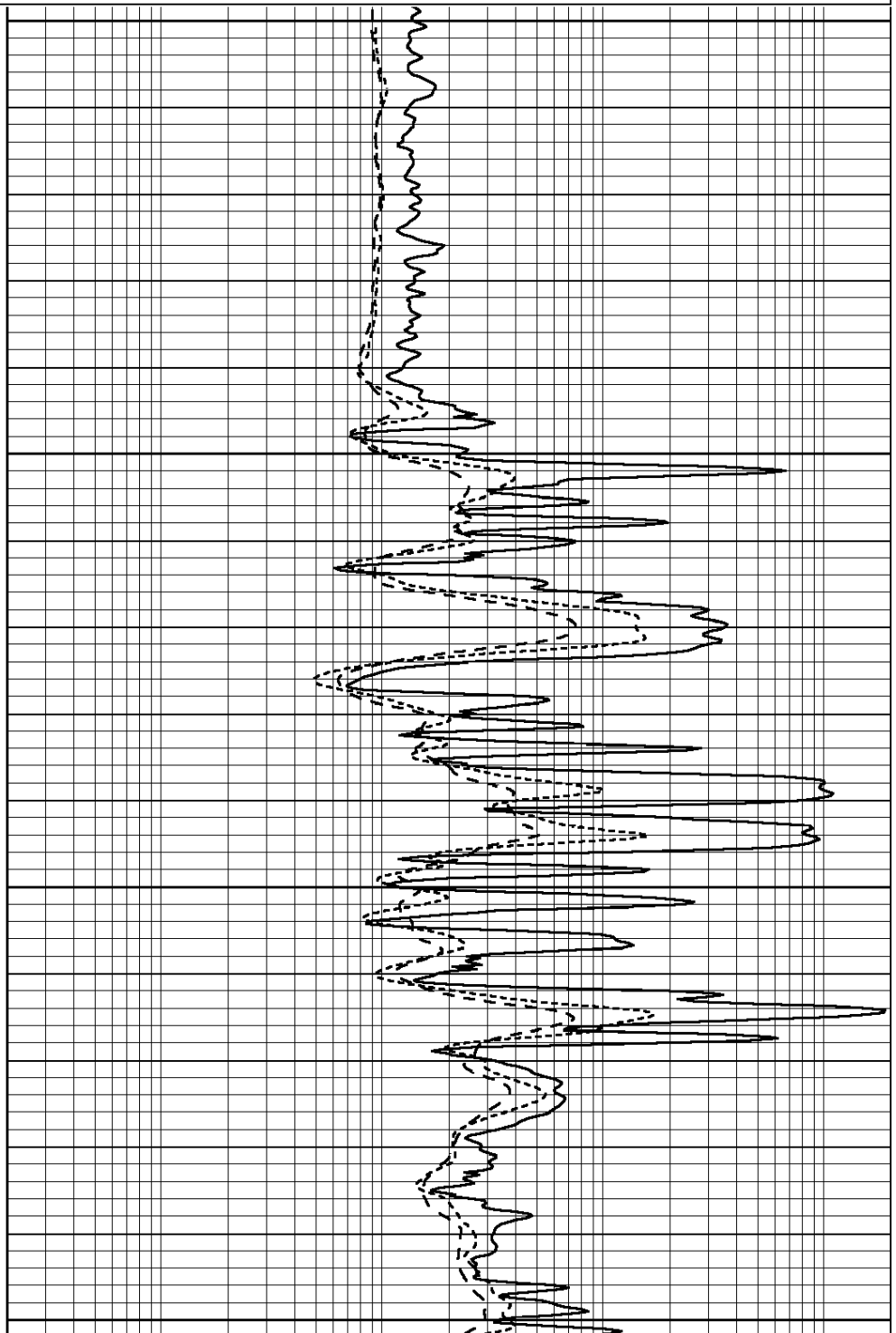
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 Presentation Format: dil
 Dataset Creation: Sun Jun 17 10:59:57 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

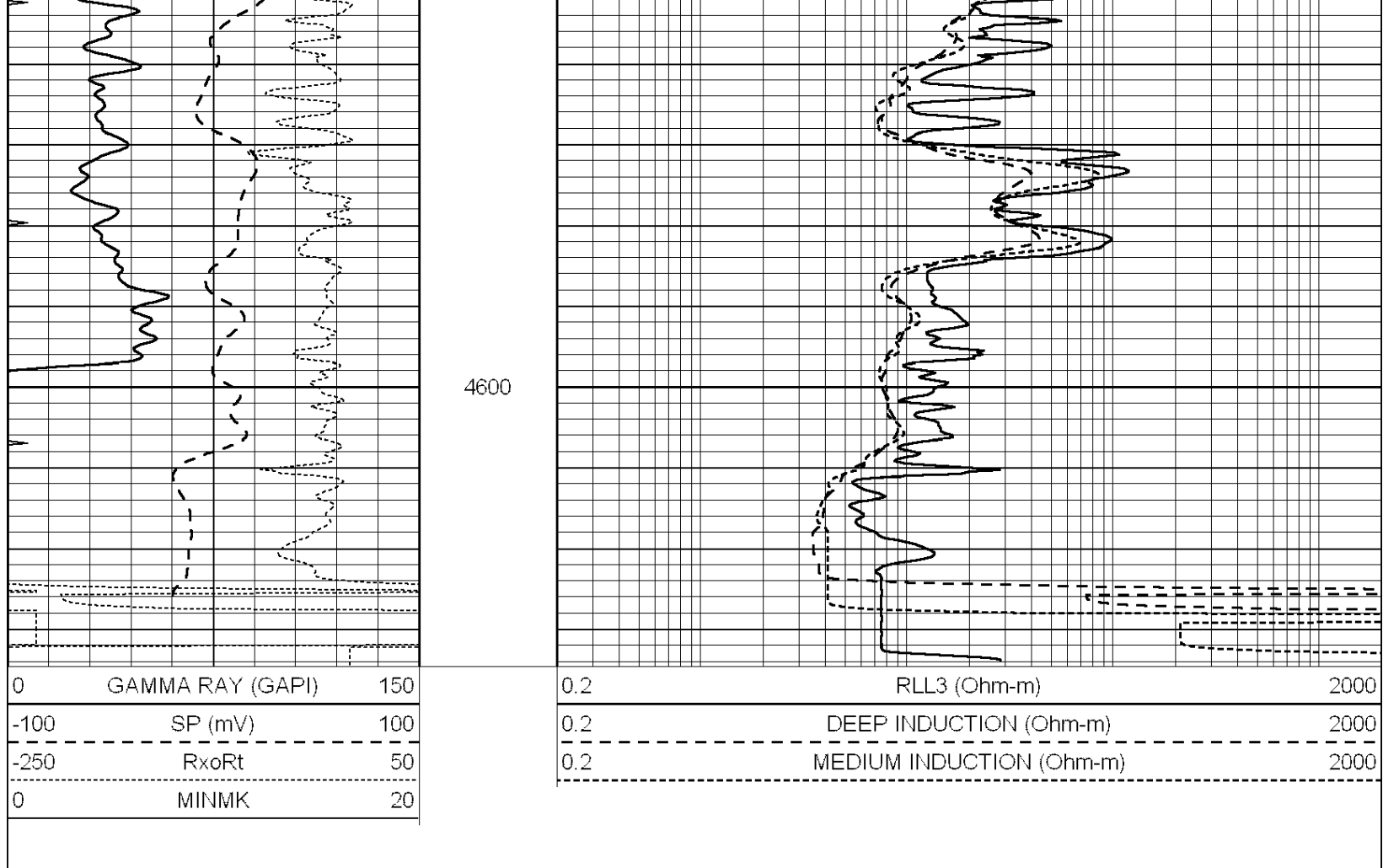
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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



4400
4450
4500
4550





Calibration Report

Database File: 008791pdn.db
 Dataset Pathname: pass3.A
 Dataset Creation: Sun Jun 17 12:18:31 2012

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Sun Jun 17 10:50:44 2012
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Fri Jun 01 07:32:39 2012

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	540.000	-14.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	540.000	-18.000
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 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		

Litho Density Calibration Report
 Serial: 002 Model: PRB
 Performed Mon Apr 02 17:56:53 2012

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	872.3	7266.3	2292.6	7931.5	cps
Window 2	822.9	5957.5	1958.0	6389.6	cps
Window 3	670.4	3219.9	1211.9	3388.2	cps
Window 4	201.6	201.1	202.3	204.6	cps
Long Space	0.0	5134.6	1135.0	5566.6	cps
Short Space	1.1	994.2	674.4	1059.2	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.6	Rib Slope	: 1.020	Density/Spine Ratio	: 0.569
Spine Angle	: 75.6	Spine Slope	: 3.888	Spine Intercept	: -18.3

Caliper

	Readings	Reference	
Low Ref	3.8	8.7	
High Ref	4.9	12.0	
	Gain: 2.9		Offset: -2.4

Compensated Neutron Calibration Report

Serial Number: NUE_2I
 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: Sun Jun 17 10:55:59 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.7500 GAPI/cps