



**SUPERIOR
Hays,
Kansas**

DUAL INDUCTION LOG

Company I.A. OPERATING, INC.

Well RUBY #24-1

Field

County SHERIDAN State KANSAS

Location: API # : 15-179-21301

1180' FNL & 590' FWL

SEC 24 TWP 8S RGE 27W

Permanent Datum
Log Measured From
Drilling Measured From

GROUND LEVEL
KELLY BUSHING 5' A.G.L.
KELLY BUSHING

Elevation
K.B. 2548
D.F.
G.L. 2543

Other Services
CDL/CNL
MICRO

Date 5-2-12

Run Number ONE

Depth Driller 3990

Depth Logger 3990

Bottom Logged Interval 3988

Top Log Interval 00

Casing Driller 259

Casing Logger 260

Bit Size 7.875

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3 / 56

pH / Fluid Loss 10.5 / 7.2

Source of Sample FLOWLINE

Rim @ Meas. Temp 1.20 @ 92F

Rmf @ Meas. Temp 0.90 @ 92F

Rmc @ Meas. Temp 1.44 @ 92F

Source of Rmf / Rmc MEASURED

Rim @ BHT .960 @ 115F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 11:00 A.M.

Maximum Recorded Temperature 115F

Equipment Number 860

Location HAYS, KS.

Recorded By RUPP

Witnessed By RANDY KILIAN

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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: TASCO & #24, 1/2E, S INTO.

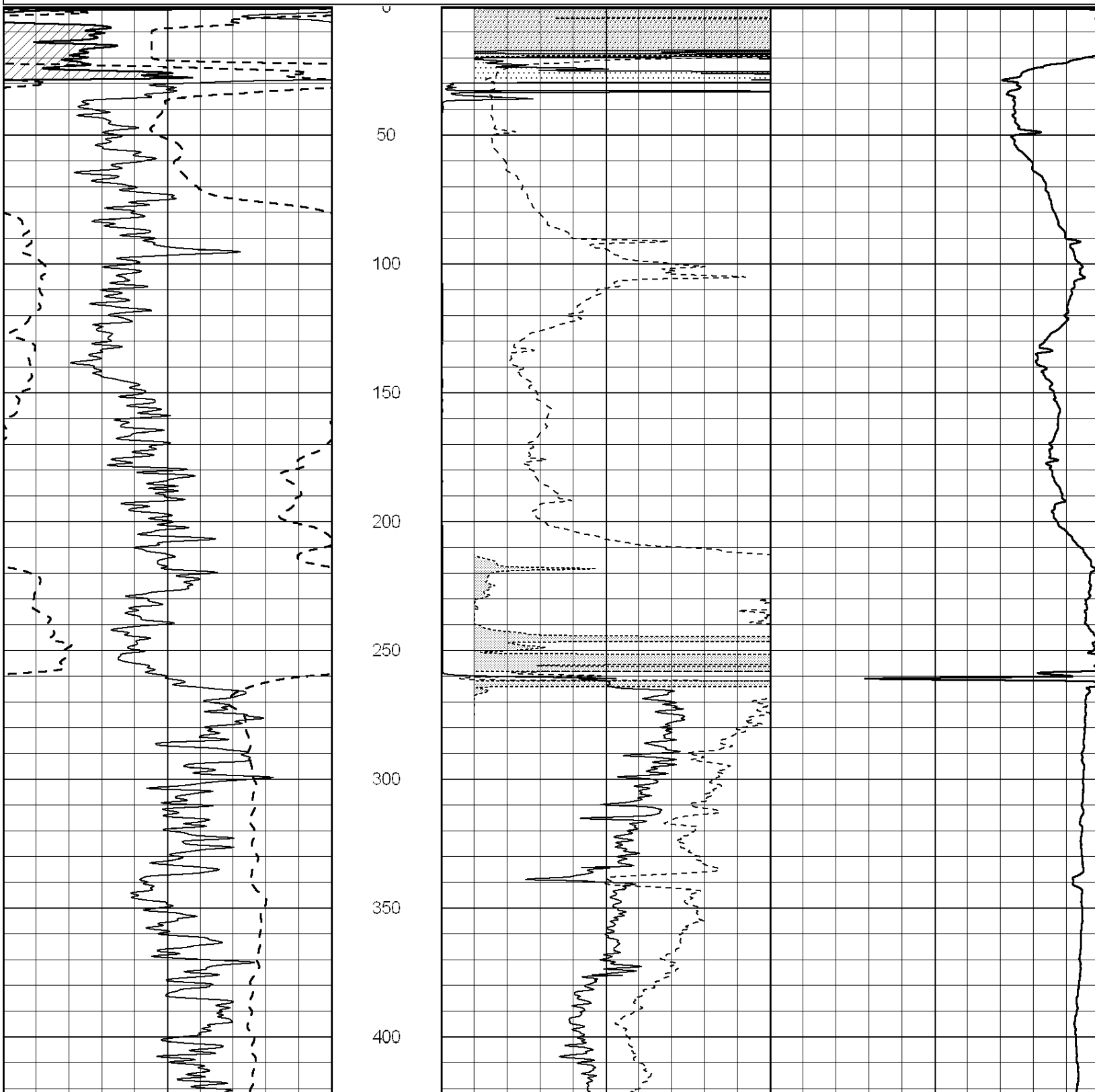


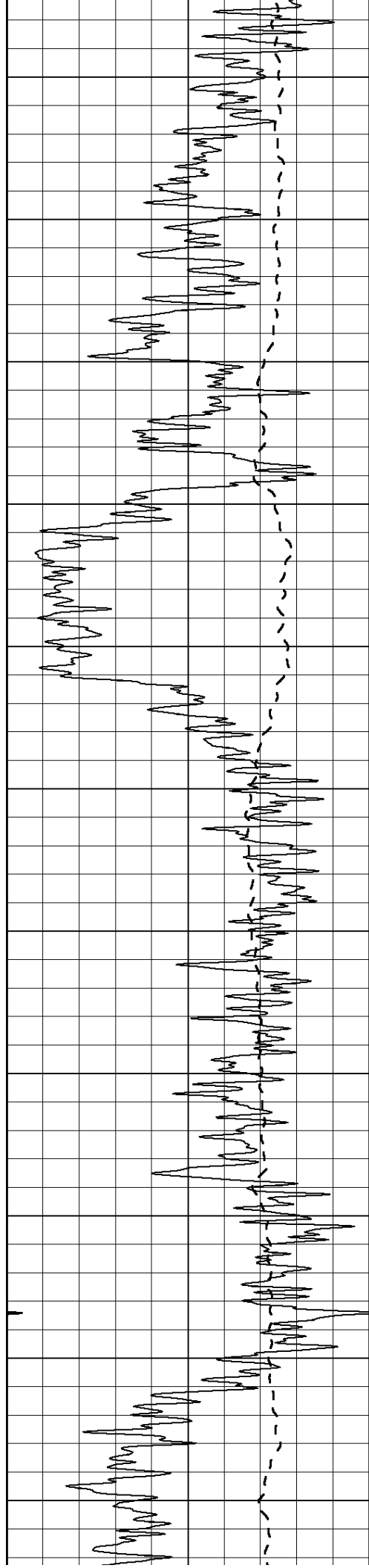
**SUPERIOR
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MAIN SECTION

Database File: 009110ddn.db
 Dataset Pathname: pass3.A
 Presentation Format: dil2
 Dataset Creation: Wed May 02 12:31:44 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

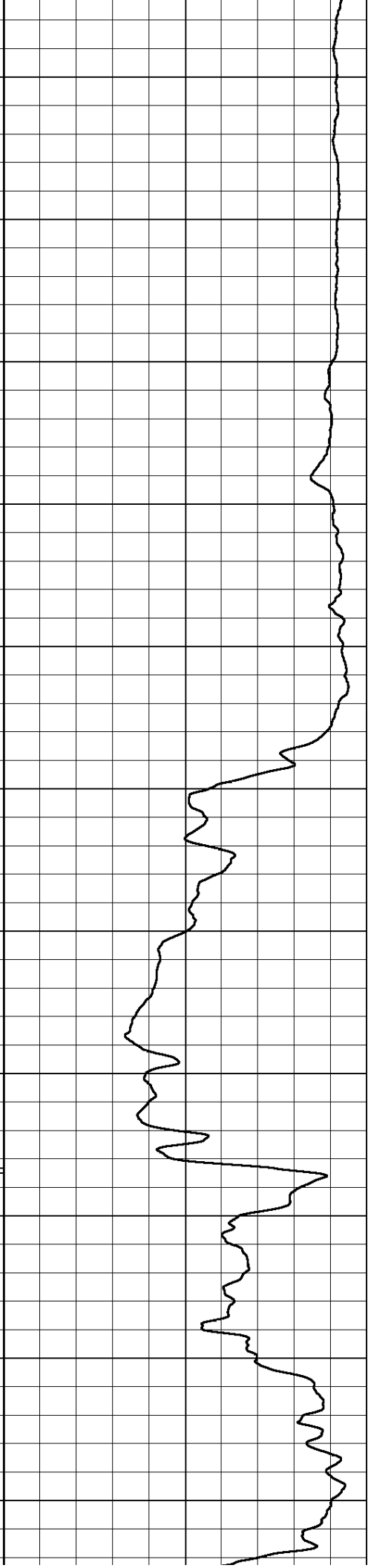
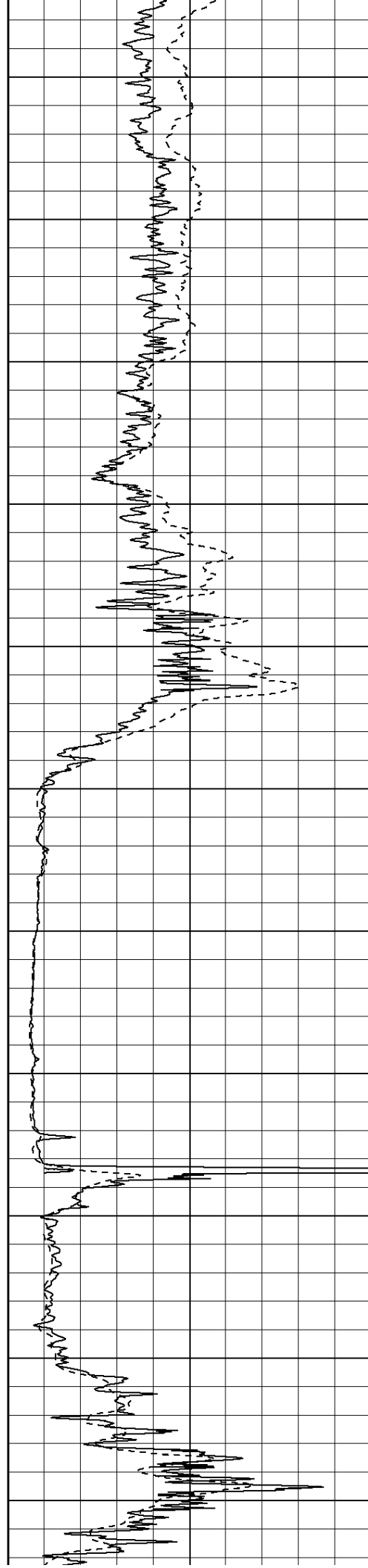
750

800

850

900

950



1000

1050

1100

1150

1200

1250

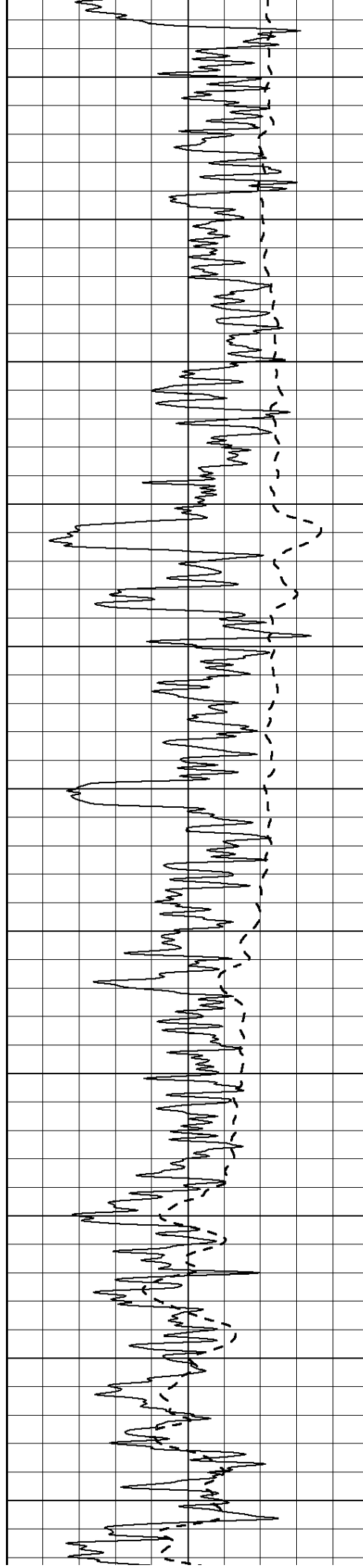
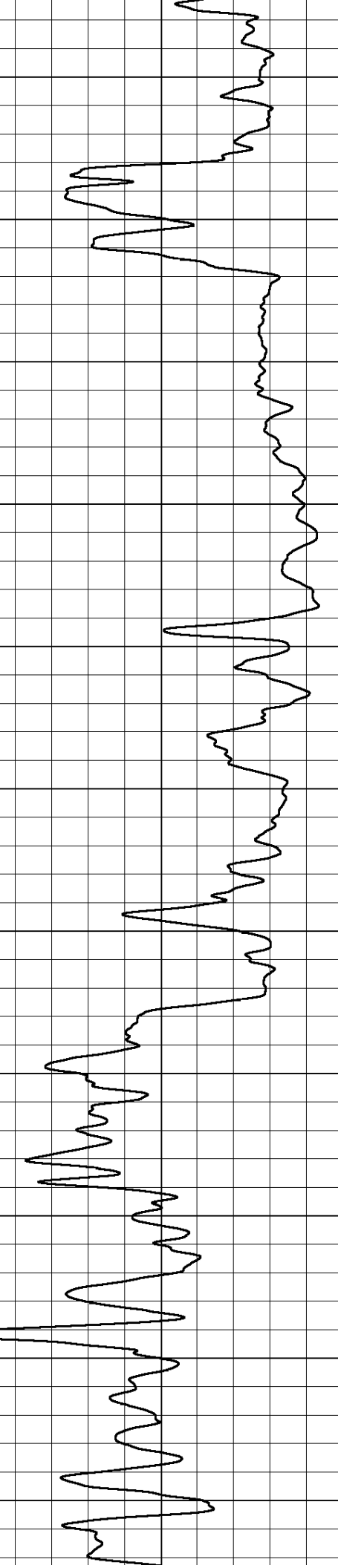
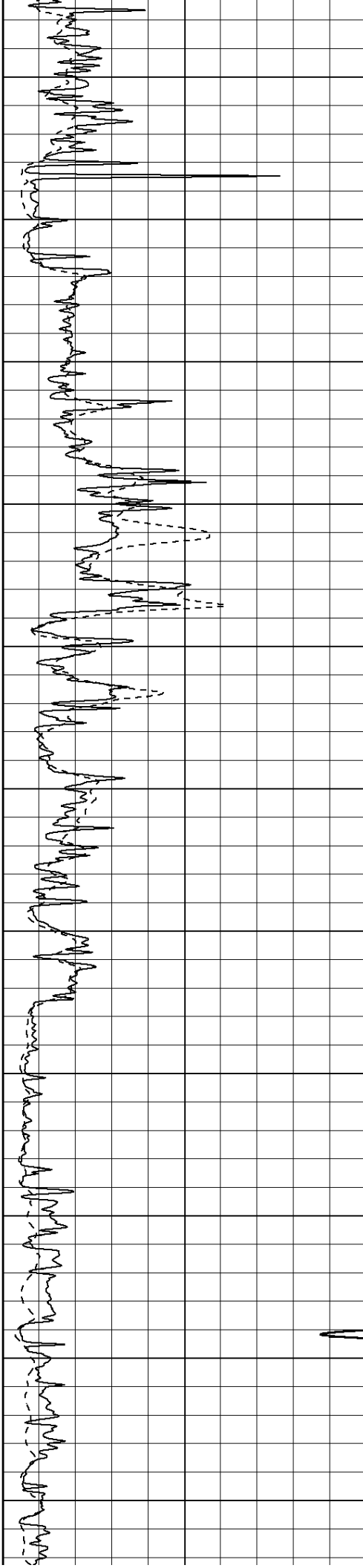
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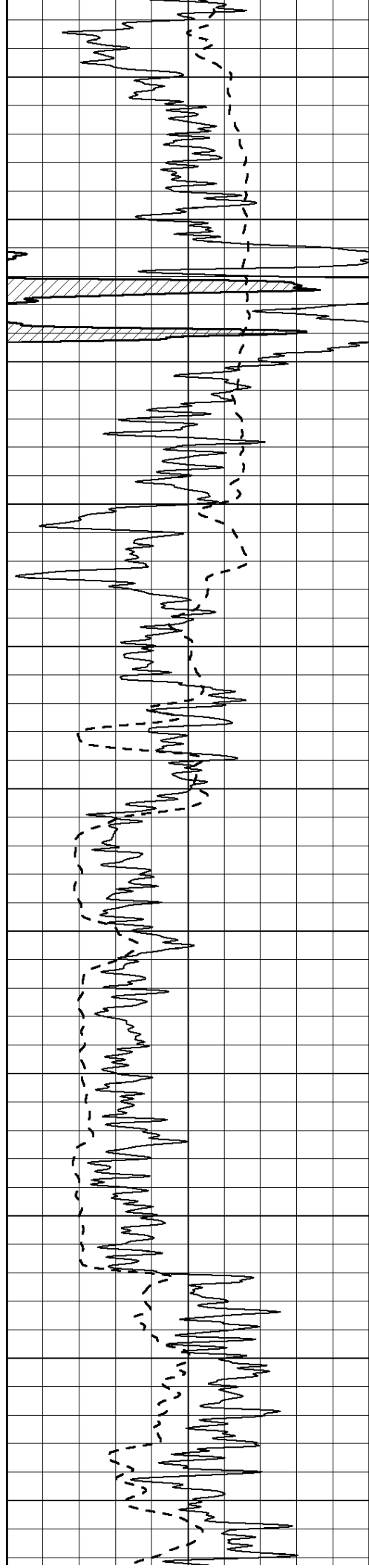
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1400

1450

1500





1550

1600

1650

1700

1750

1800

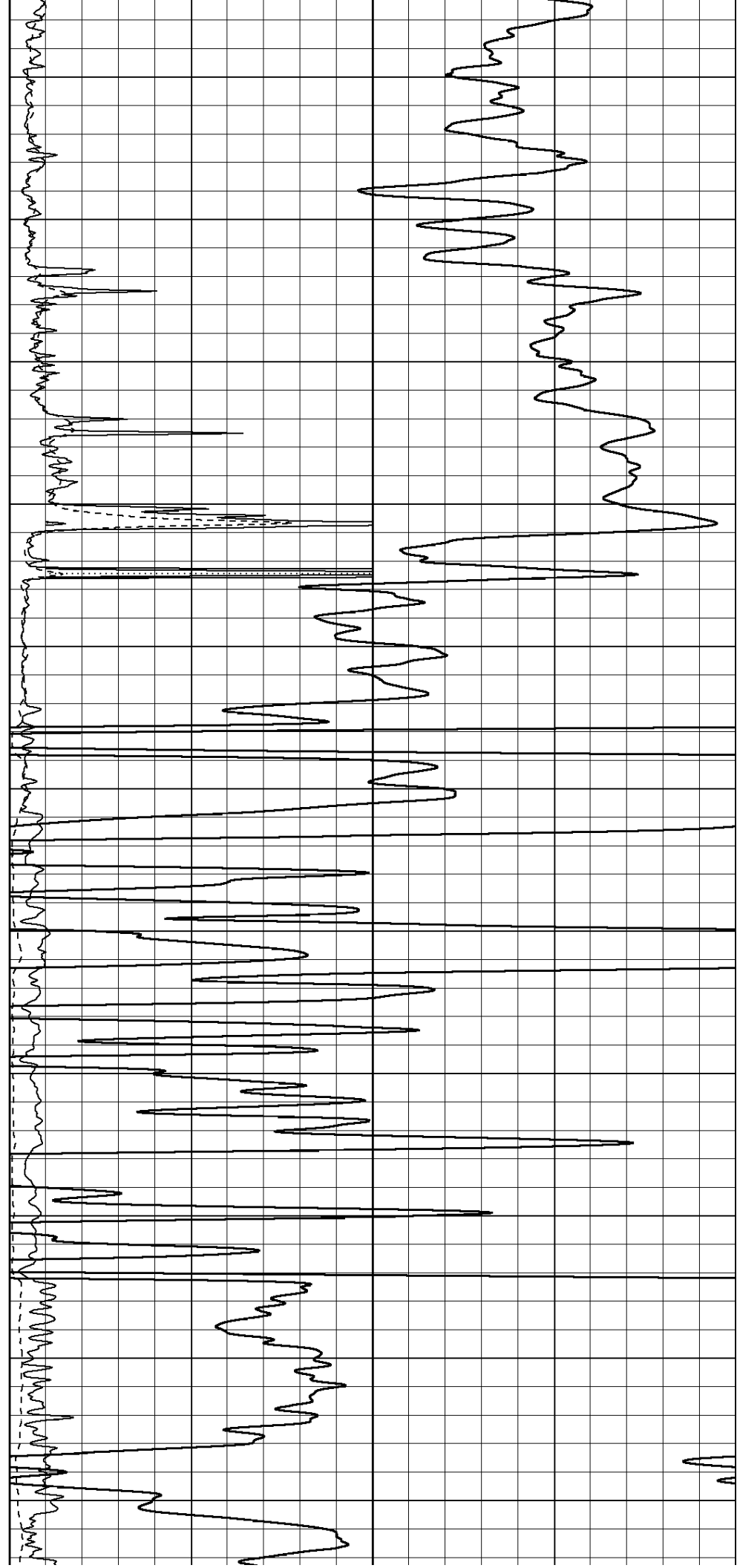
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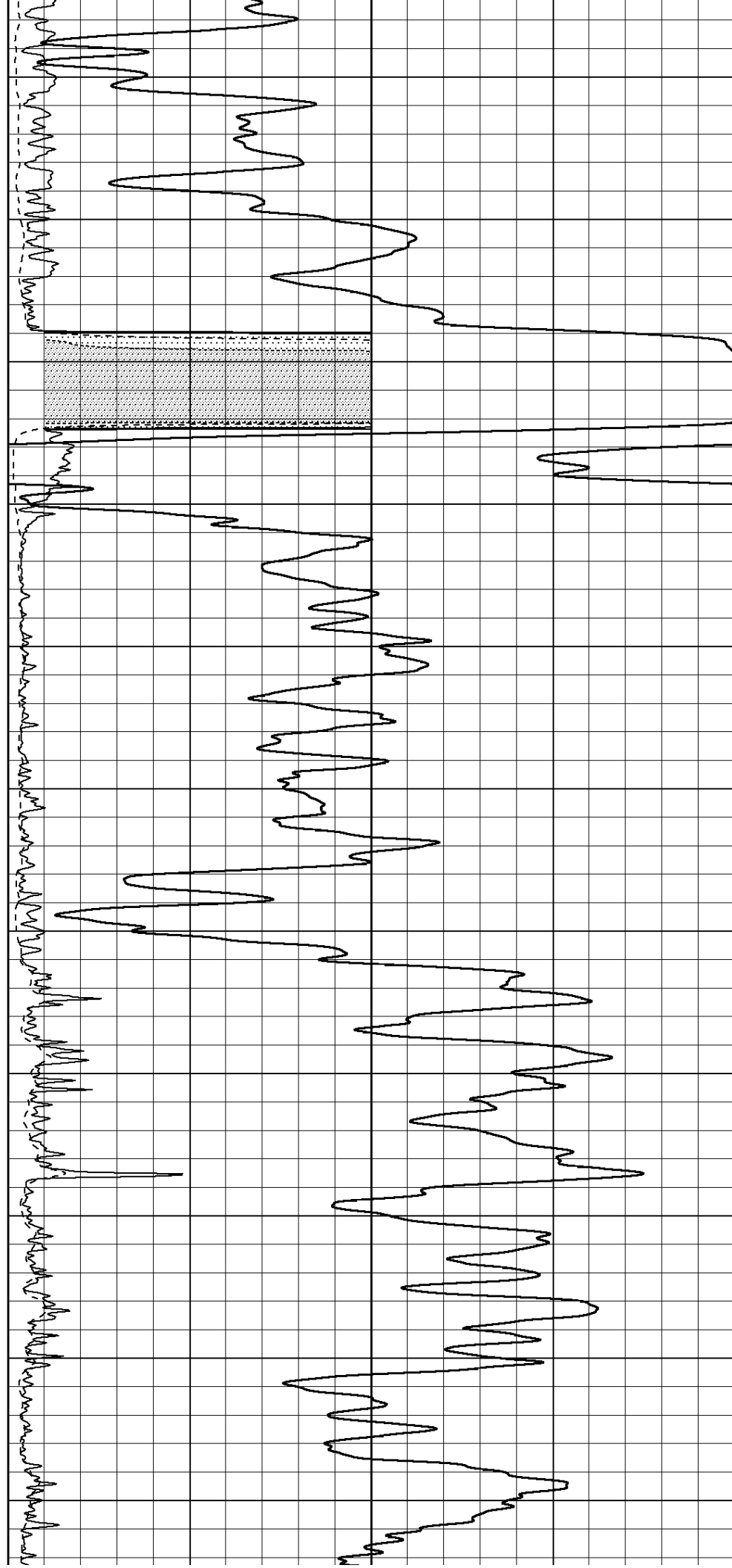
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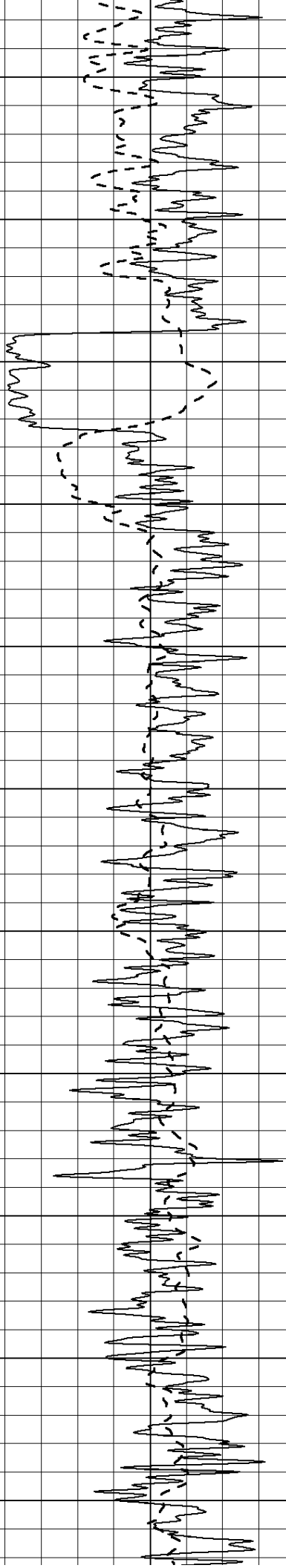
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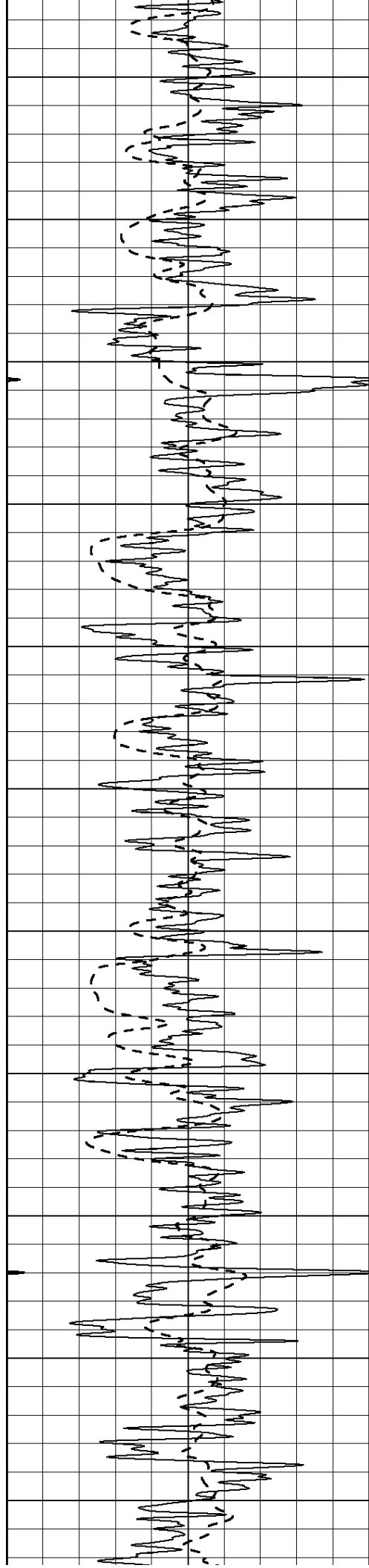
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2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600





2650

2700

2750

2800

2850

2900

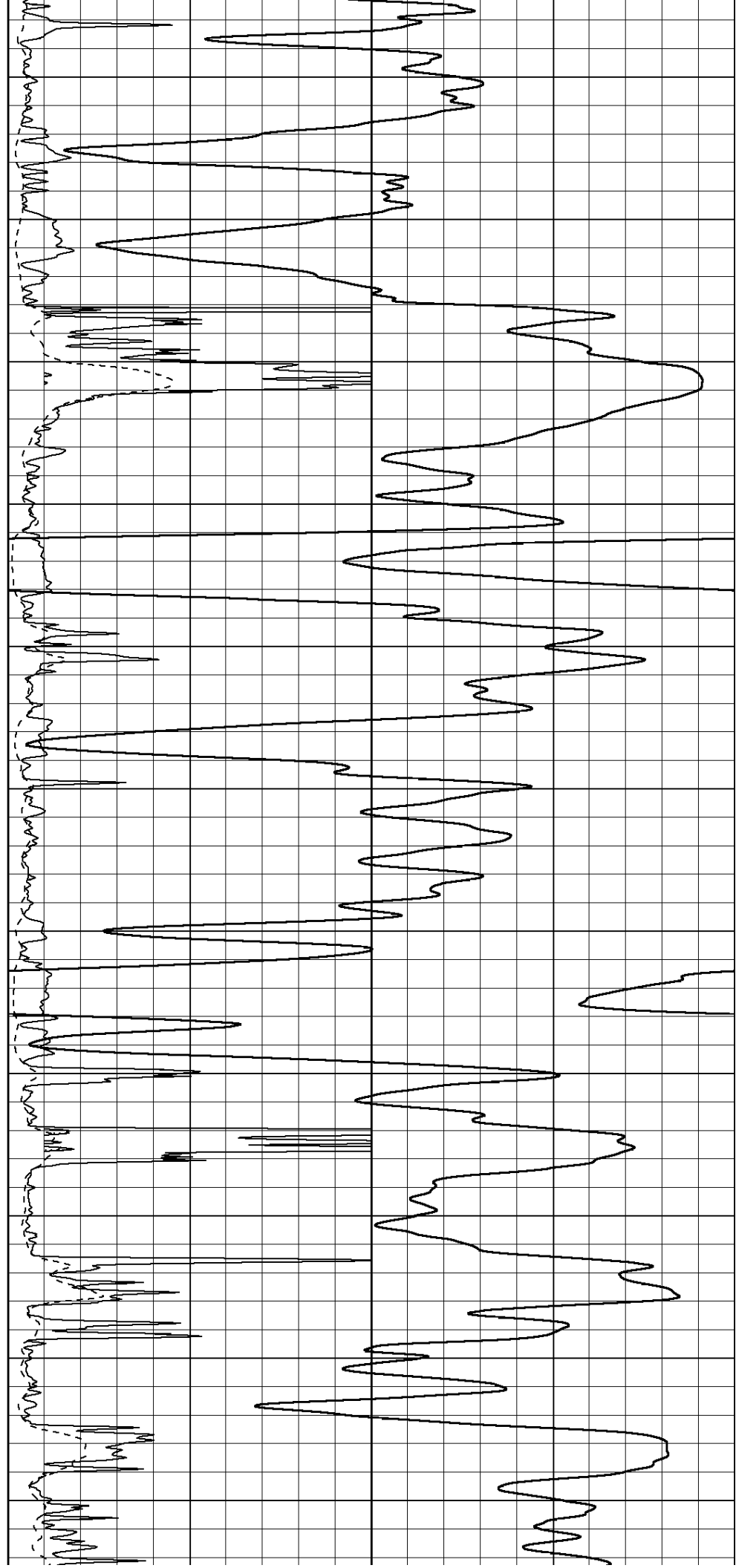
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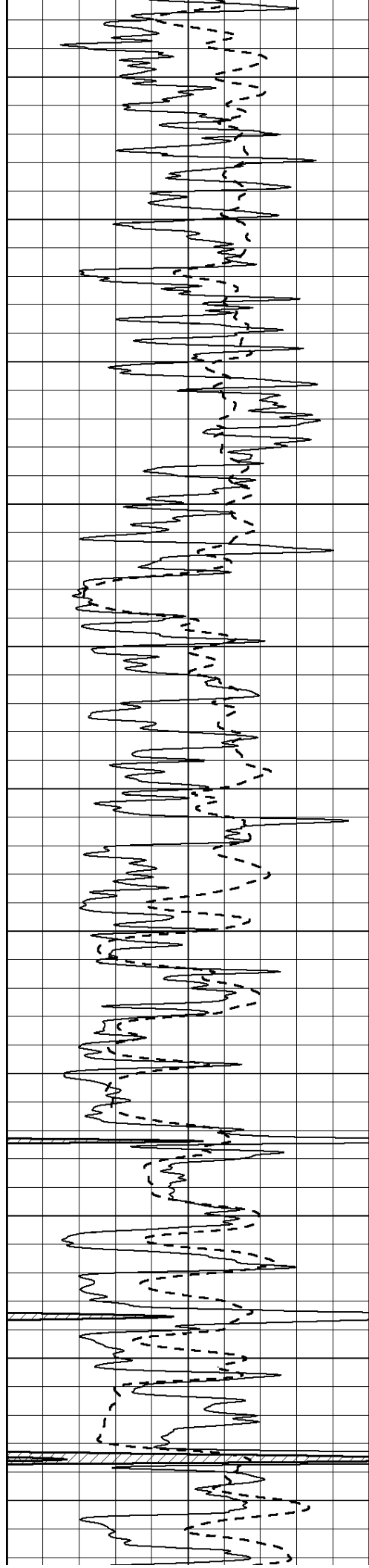
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3050

3100

3150





3200

3250

3300

3350

3400

3450

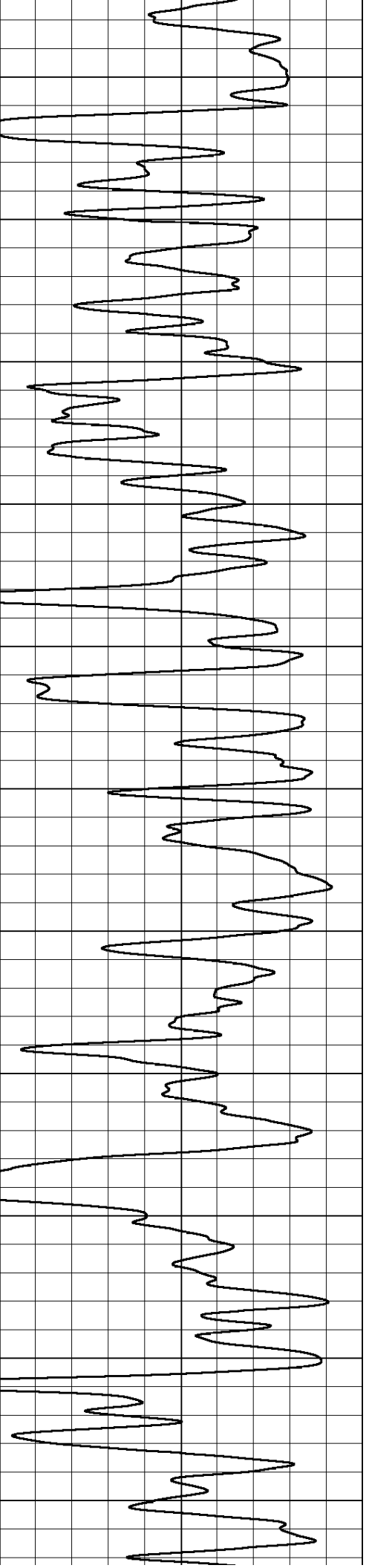
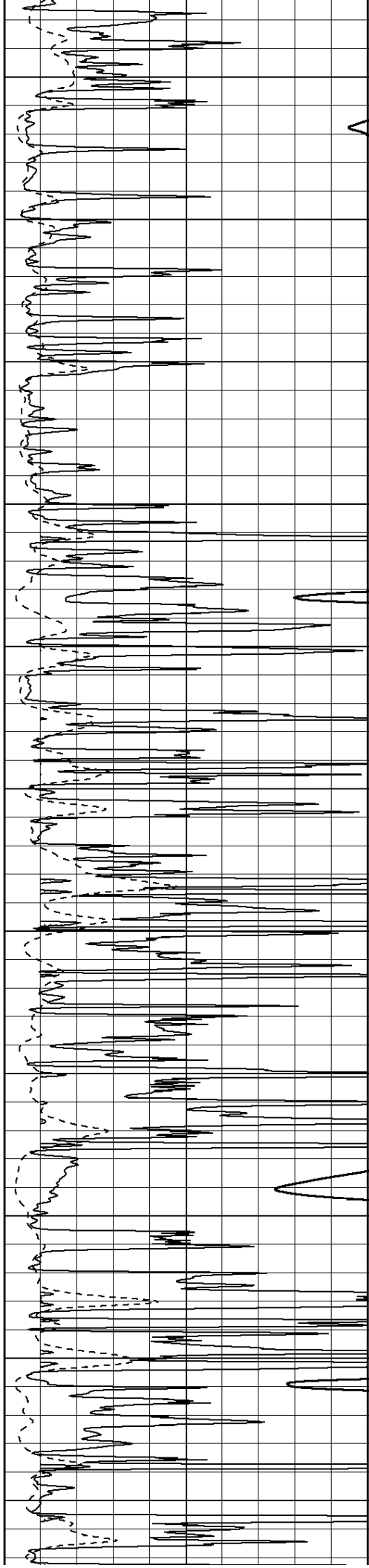
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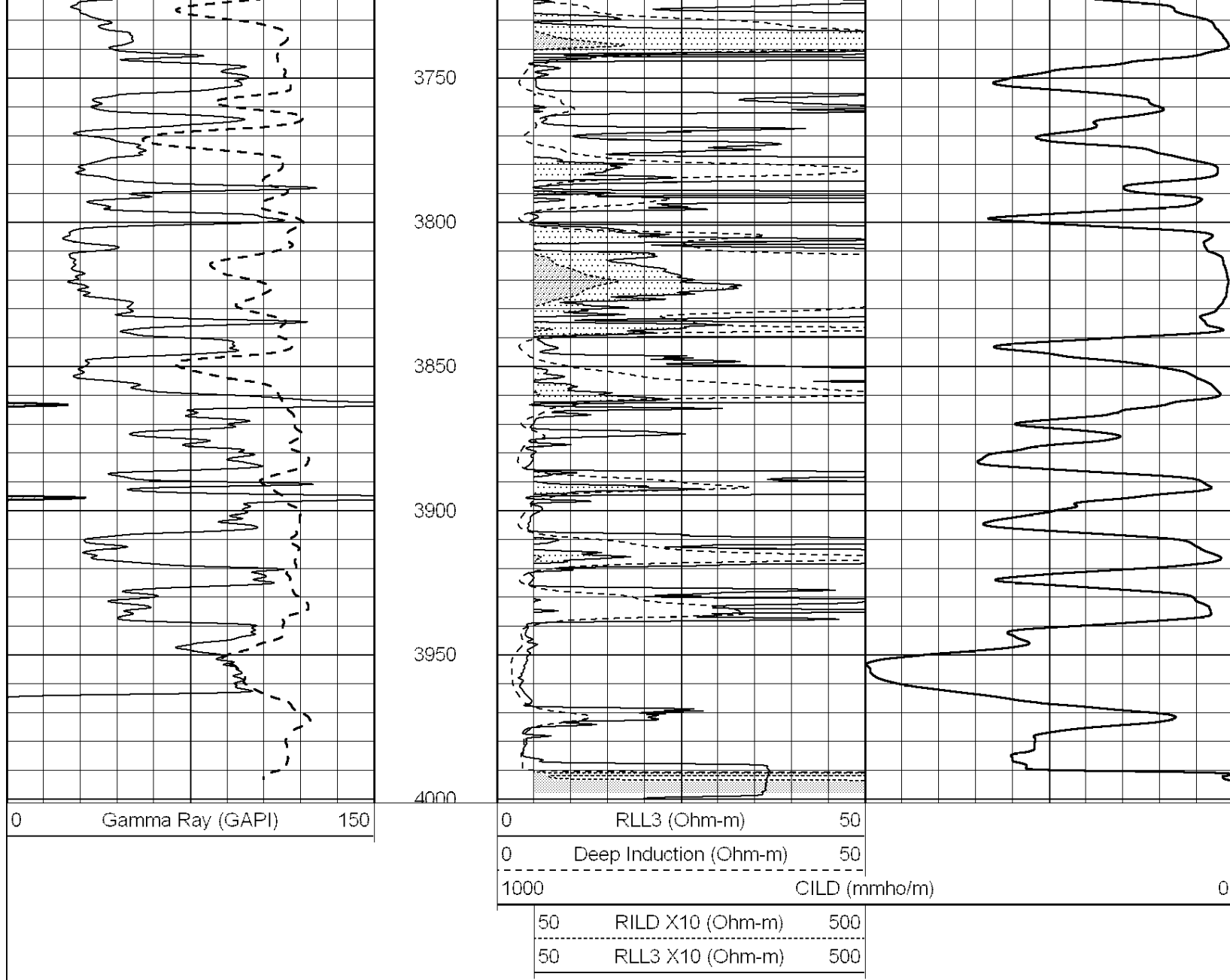
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3600

3650

3700



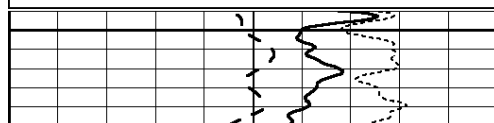


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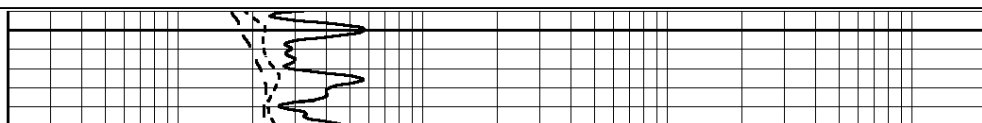
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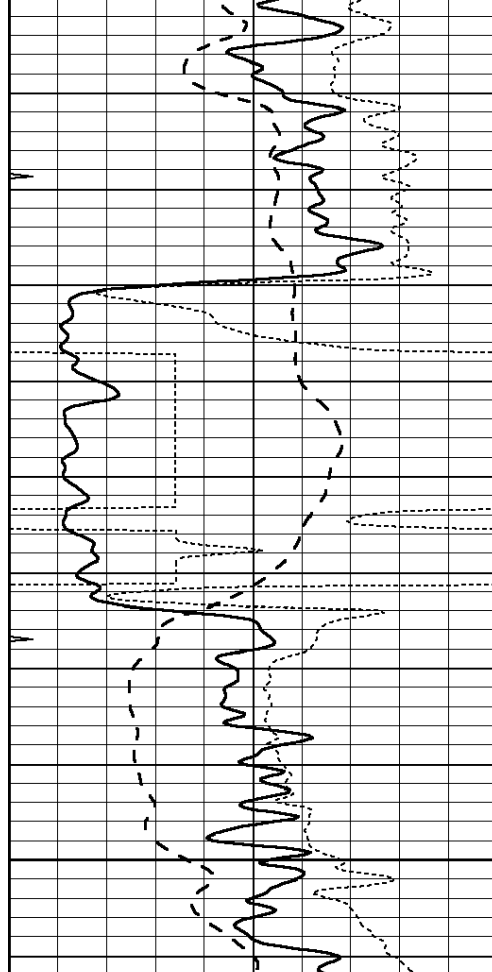
Database File: 009110ddn.db
Dataset Pathname: pass3.A
Presentation Format: dil
Dataset Creation: Wed May 02 12:31:44 2012
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	RLL3 (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	RxoRt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



2150

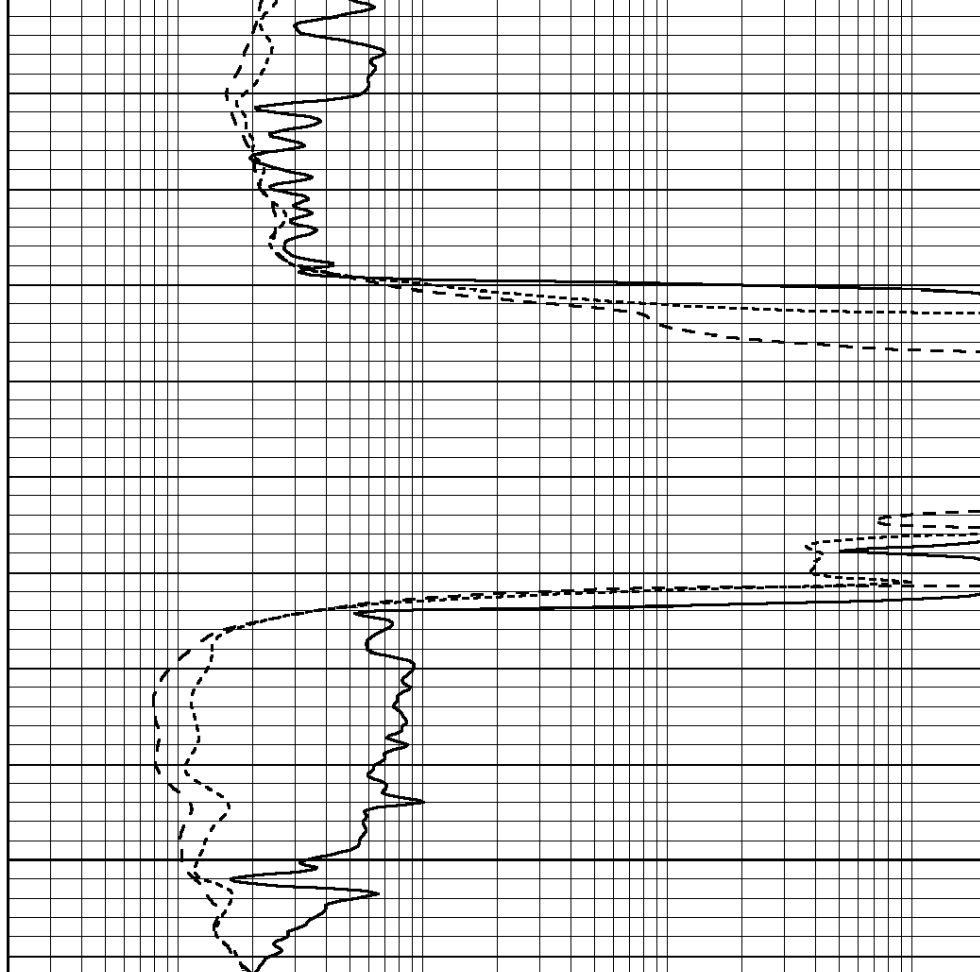




2200

2250

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



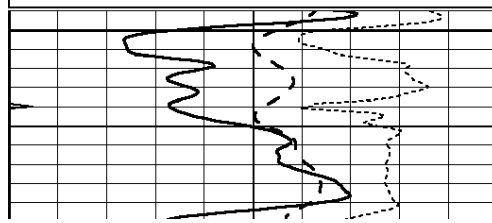
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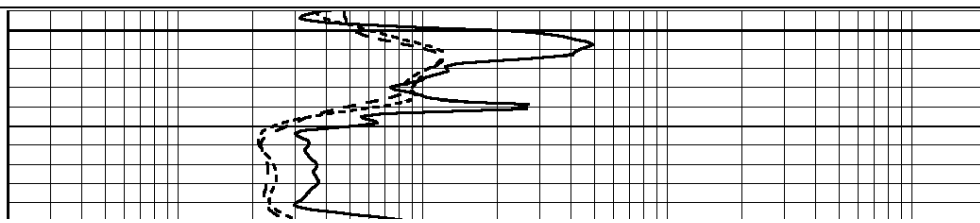
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 Charted by: Depth in Feet scaled 1:240

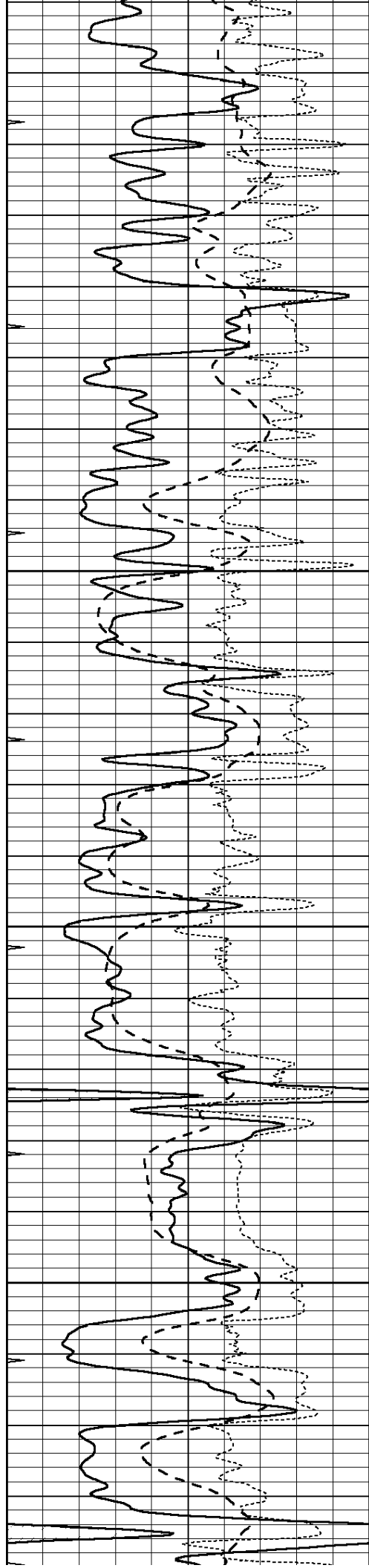
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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



3400



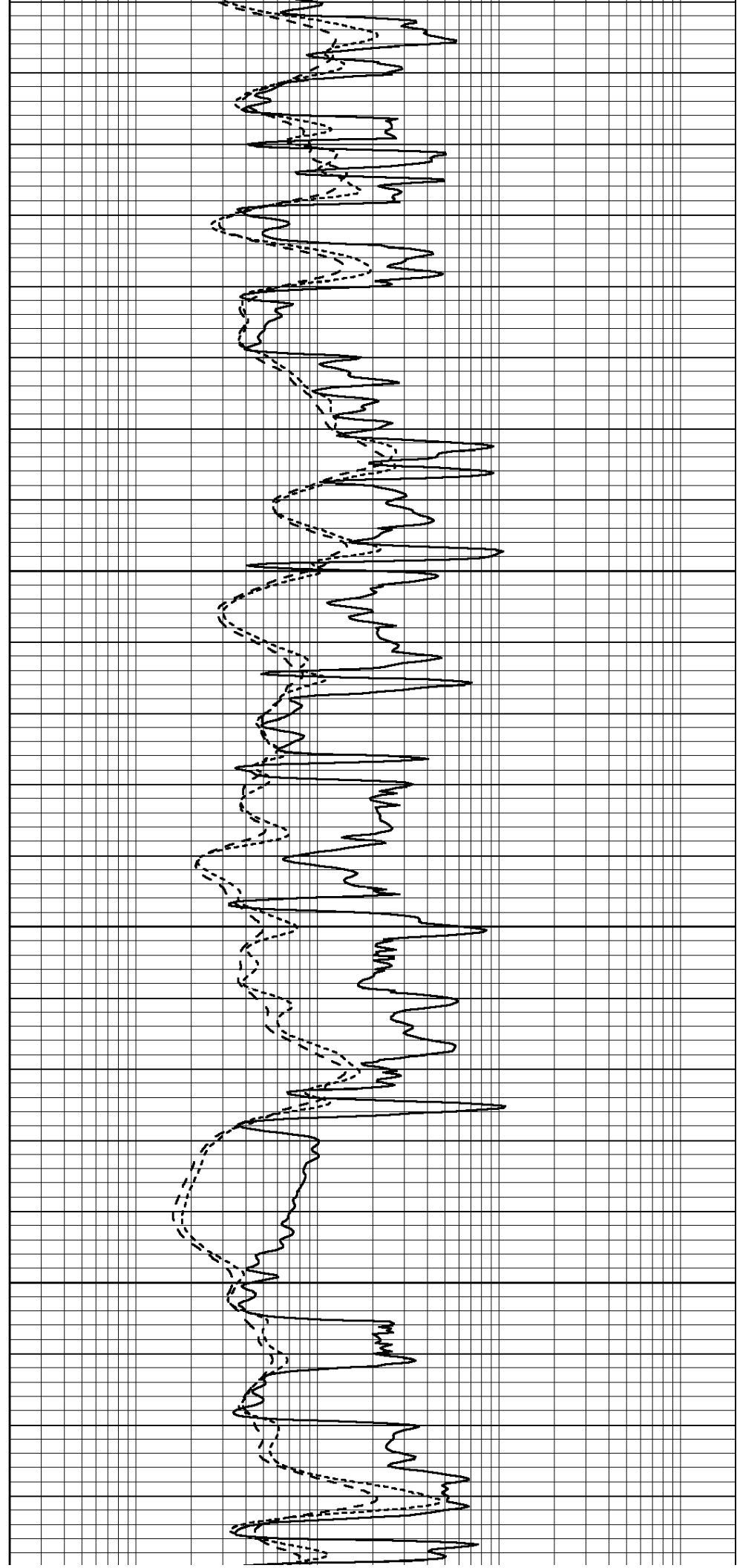


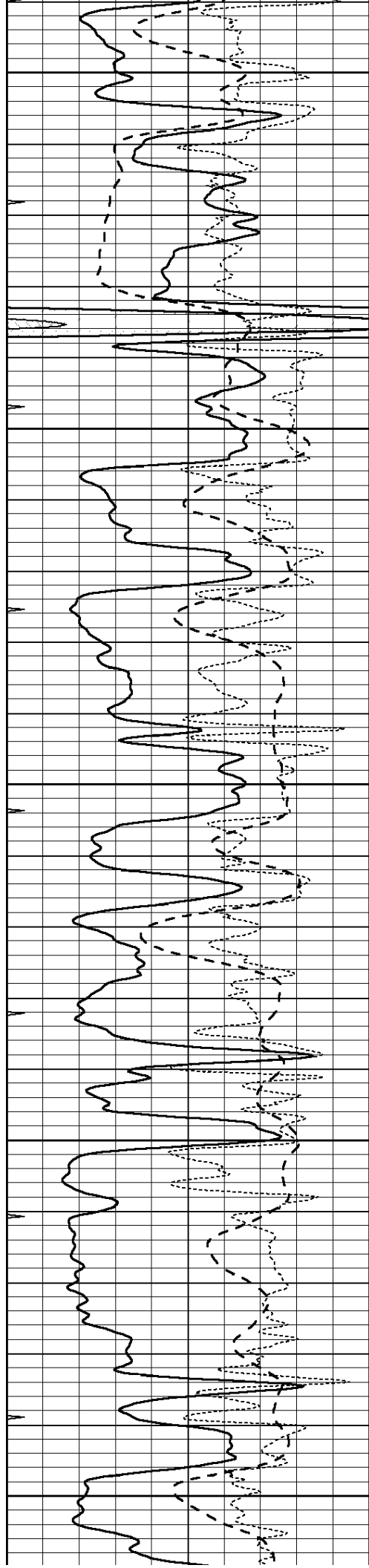
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3500

3550

3600





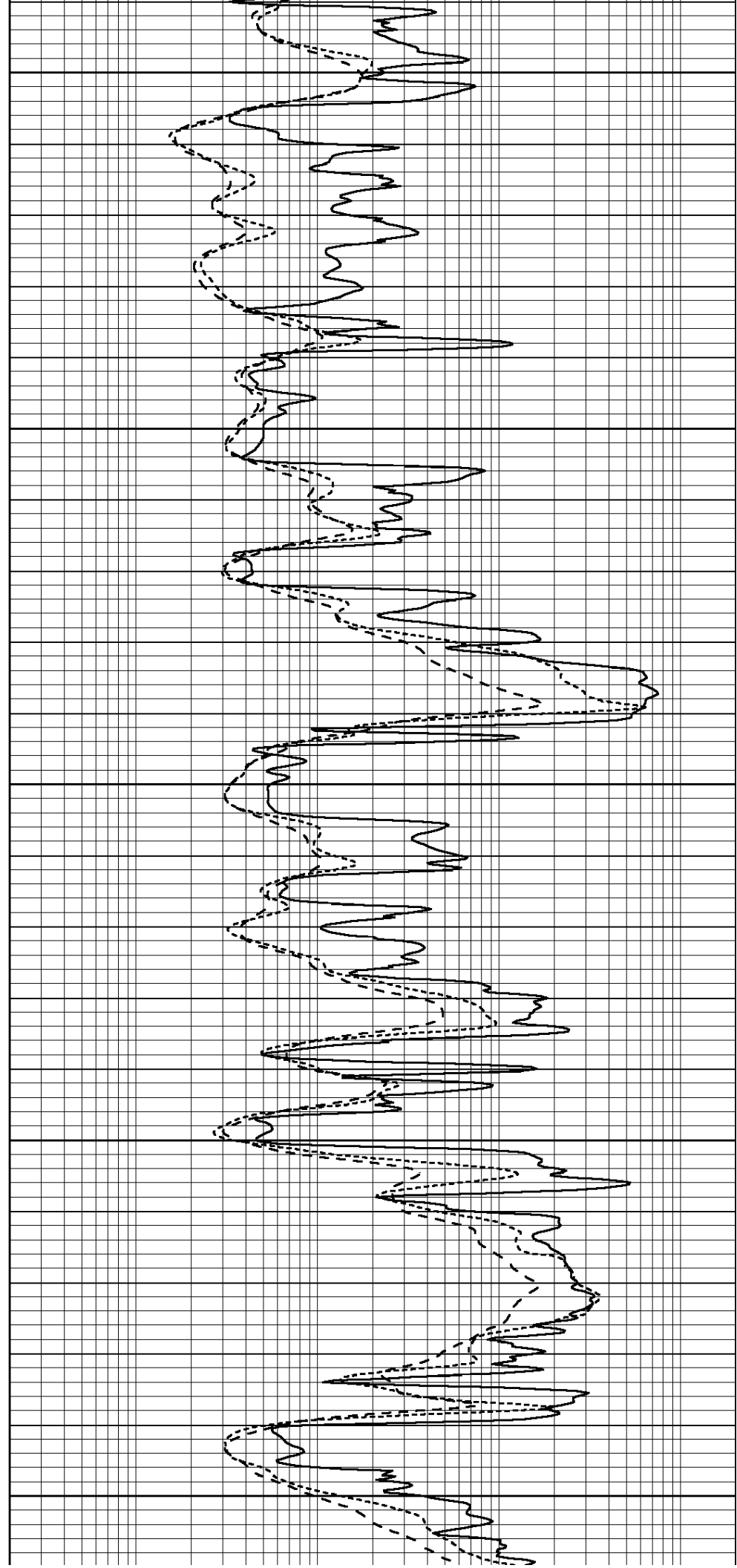
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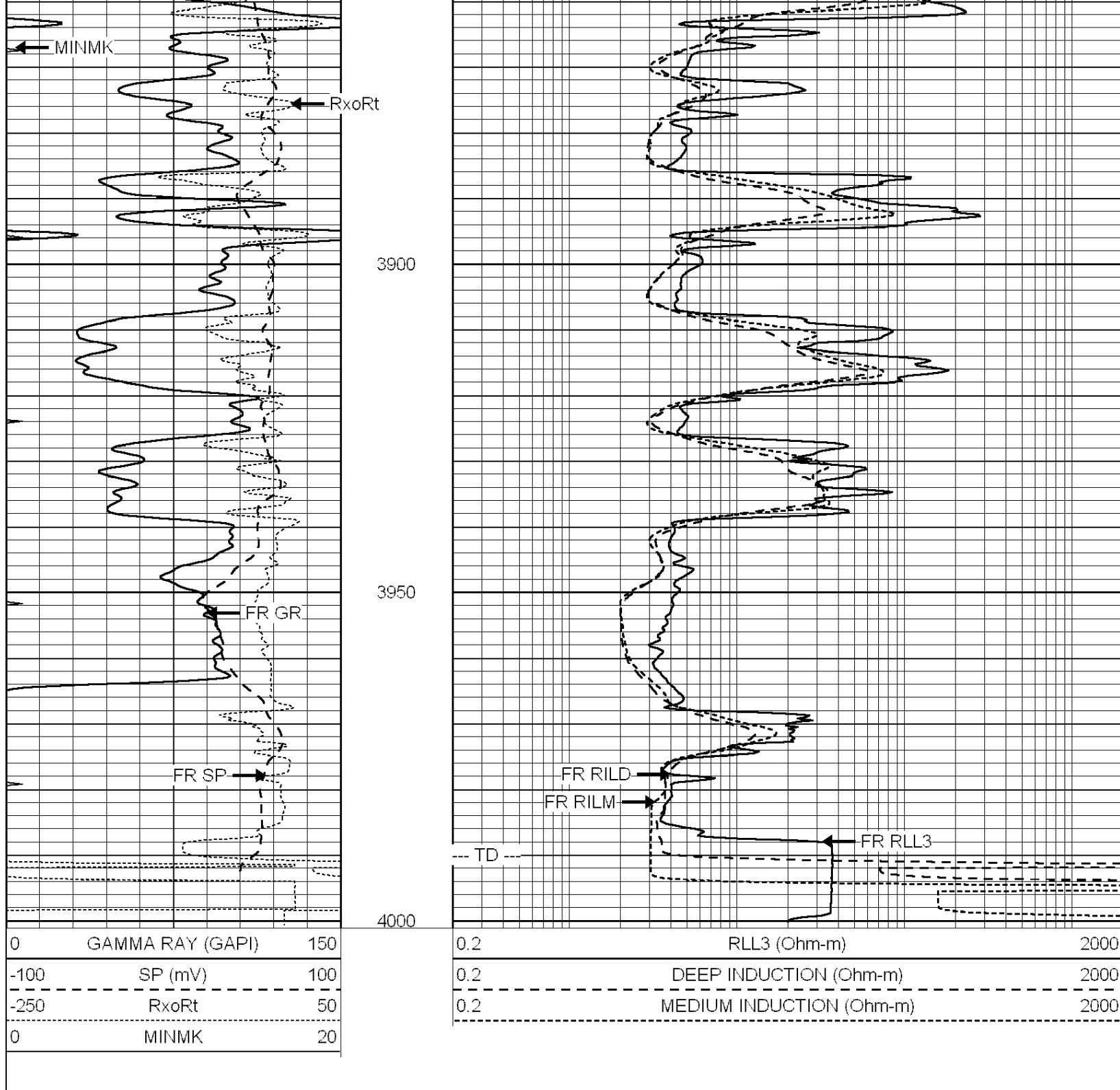
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3750

3800

3850

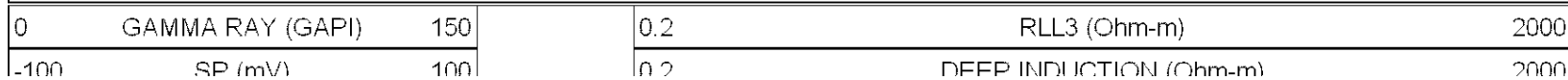




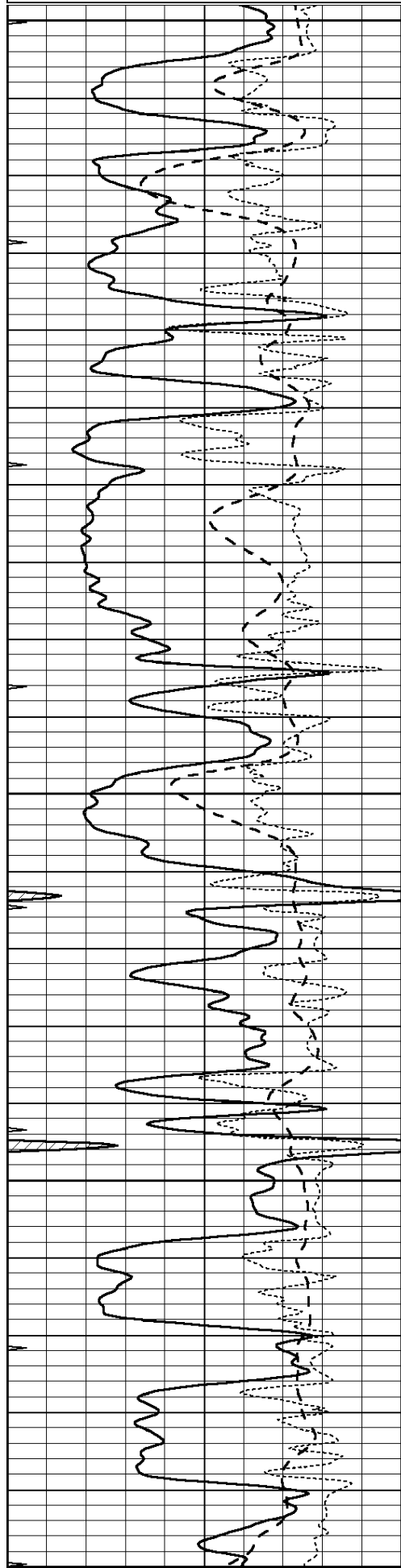
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REPEAT SECTION

Database File: 009110ddn.db
 Dataset Pathname: pass2.A
 Presentation Format: dil
 Dataset Creation: Wed May 02 12:35:05 2012
 Charted by: Depth in Feet scaled 1:240



-250	RxoRt	50
0	MINMK	20



3750

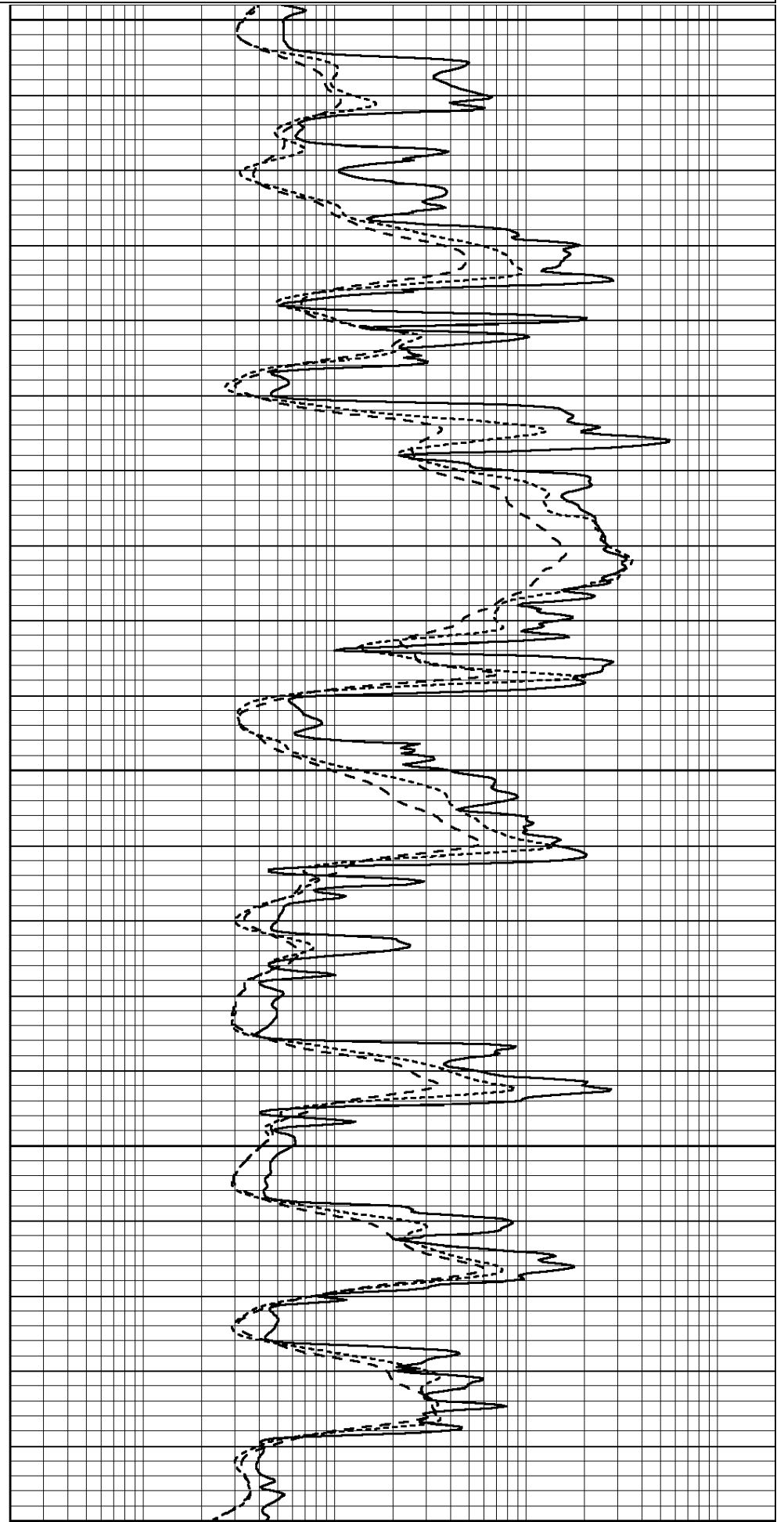
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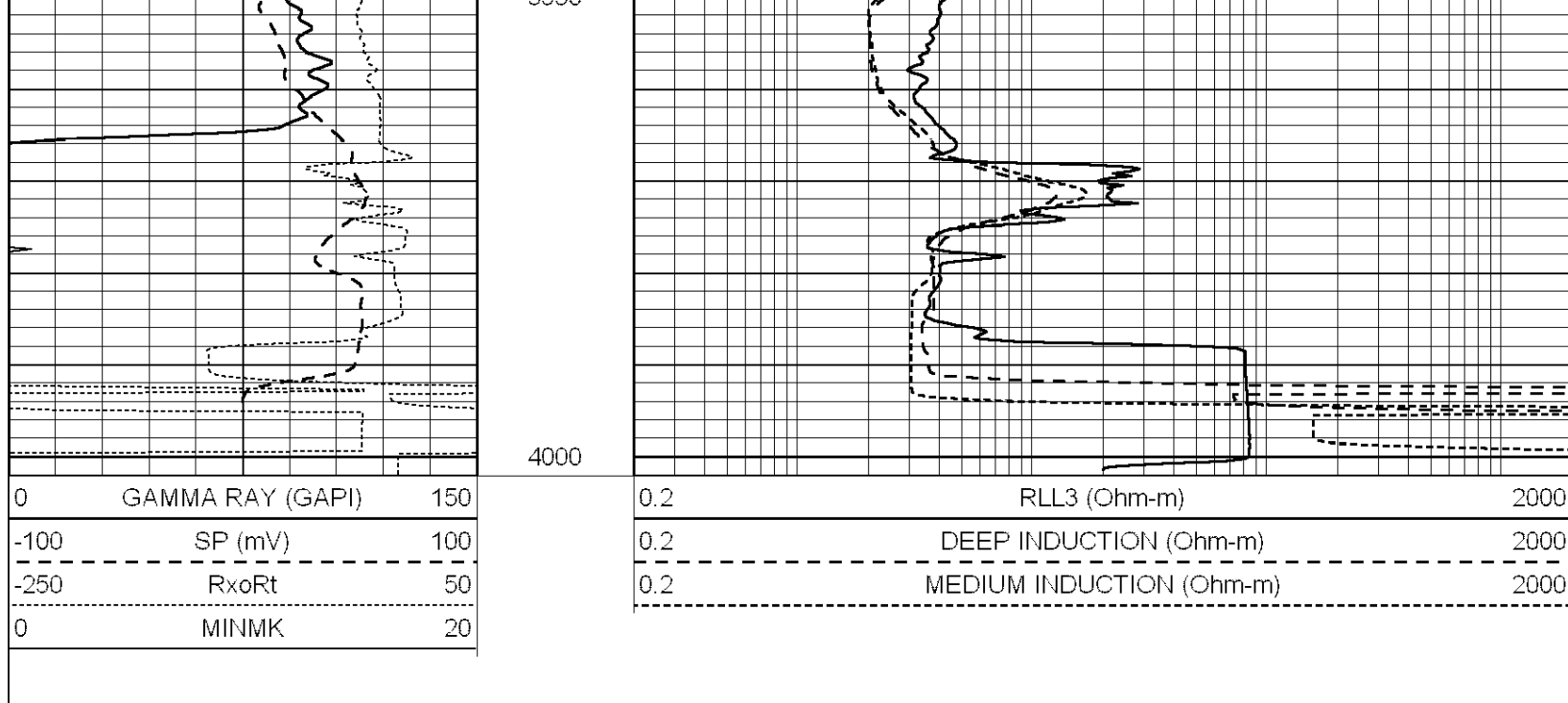
3850

3900

3950

0.2	MEDIUM INDUCTION (Ohm-m)	2000
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Calibration Report

Database File: 009110ddn.db
 Dataset Pathname: pass3.A
 Dataset Creation: Wed May 02 12:31:44 2012

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Mon Apr 30 23:18:26 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	-15.000
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	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
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Serial-Model:	GEAR1-GEARHART
Source / Verifier:	147 / 147
Master Calibration Performed:	Mon Apr 30 23:17:51 2012

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.580	g/cc	282.16	435.01	cps
Spine Angle = 76.03			Density/Spine Ratio = 0.569		
	Size		Reading		
Small Ring	10.10	in	3.50	V	
Large Ring	16.00	in	5.30	V	

Compensated Neutron Calibration Report
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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:	Wed May 02 11:32:19 2012	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.7000	GAPI/cps