



DUAL INDUCTION LOG

Company MULL DRILLING COMPANY, INC.
Well PETERSON TRUST #7-31 SWD
Field RAINBOW RIDGE NORTHWEST
County LYON
State KANSAS

Company MULL DRILLING COMPANY, INC.
Well PETERSON TRUST #7-31 SWD
Field RAINBOW RIDGE NORTHWEST
County LYON State KANSAS

Location: API #: 15-111-20566-0000
335' FSL & 650' FWL
NE - SW - SW - SW
SEC 31 TWP 16S RGE 10E
GROUND LEVEL Elevation 1301
Log Measured From KELLY BUSHING 12' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services CDL/CNL/PE MEL/SONIC
Elevation K.B. 1313 D.F. 1311 G.L. 1301

Table with columns: Date, Run Number, Depth Driller, Depth Logger, Bottom Logged Interval, Top Log Interval, Casing Driller, Casing Logger, Bit Size, Type Fluid in Hole, Density / Viscosity, pH / Fluid Loss, Source of Sample, Rm @ Meas. Temp, Rmf @ Meas. Temp, Rmc @ Meas. Temp, Source of Rmf / Rmc, Rm @ BHT, Time Circulation Stopped, Time Logger on Bottom, Maximum Recorded Temperature, Equipment Number, Location, Recorded By, Witnessed By.

<<< 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.

15-111-20566-0000 Comments
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
BUSHONG, KS., (RD. F & 3RD. ST.) 2.4 S. TO "RD. 310", 4 1/2W., N. INTO, THEN BACK WEST IN PAS

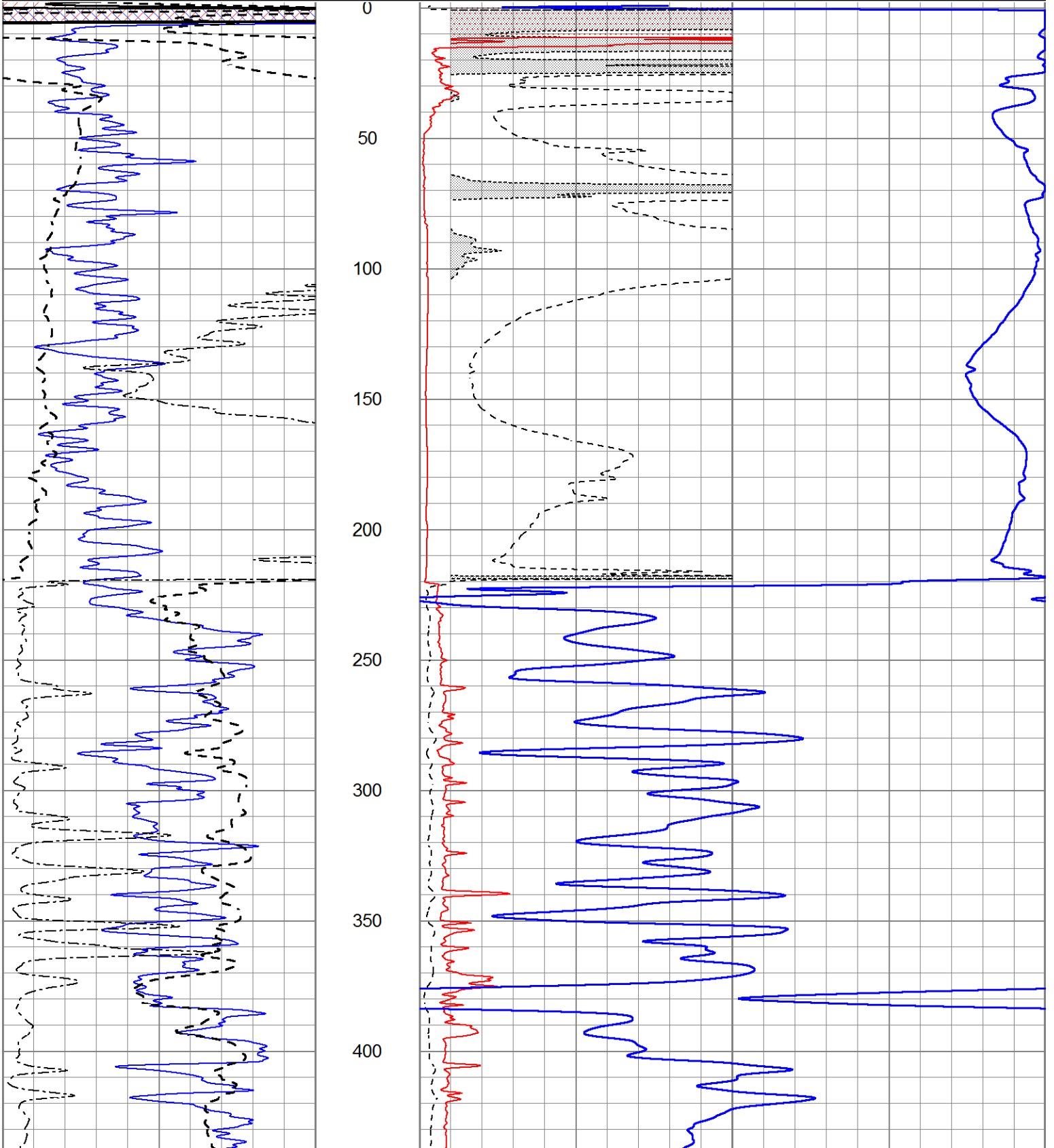


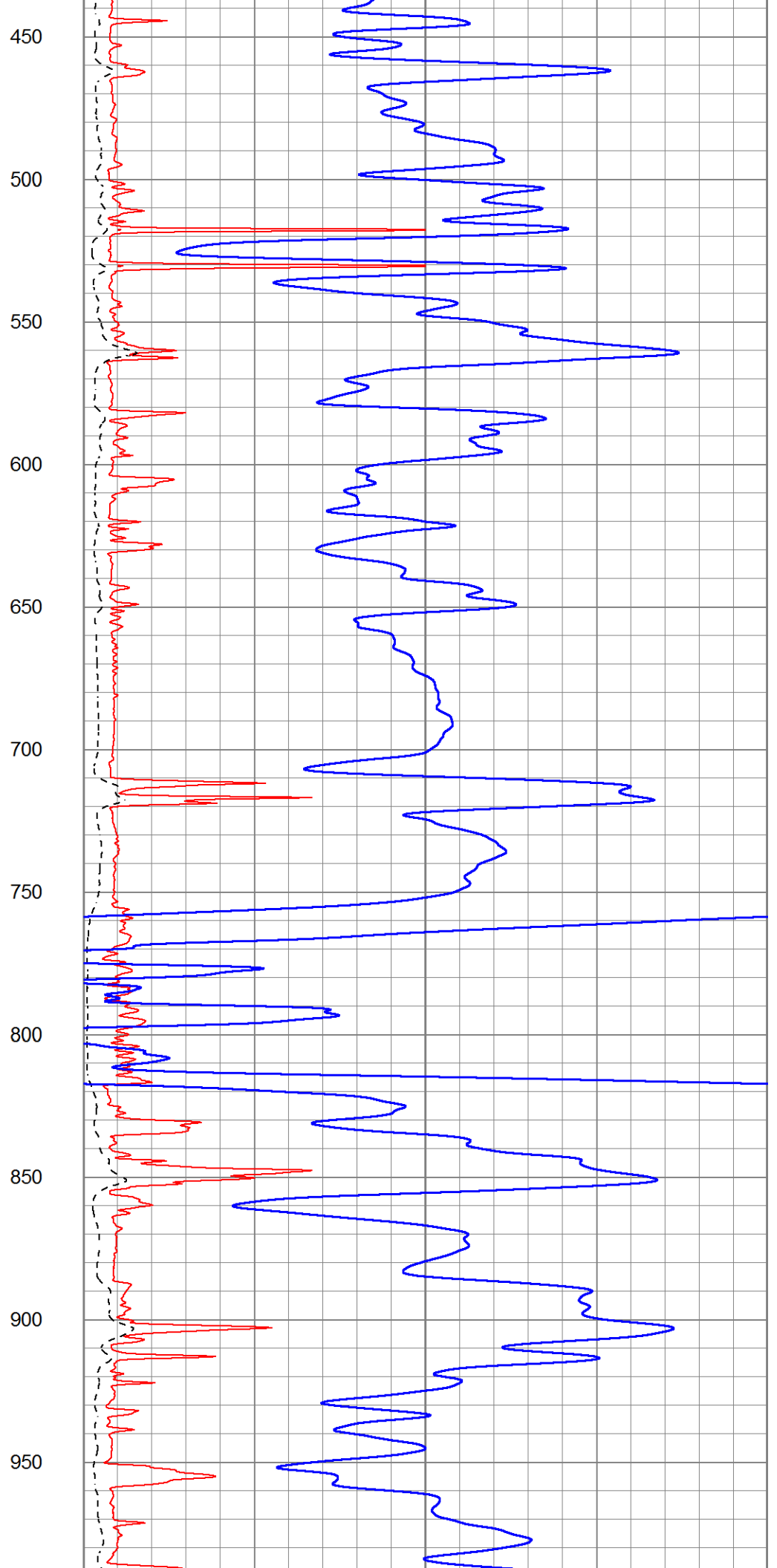
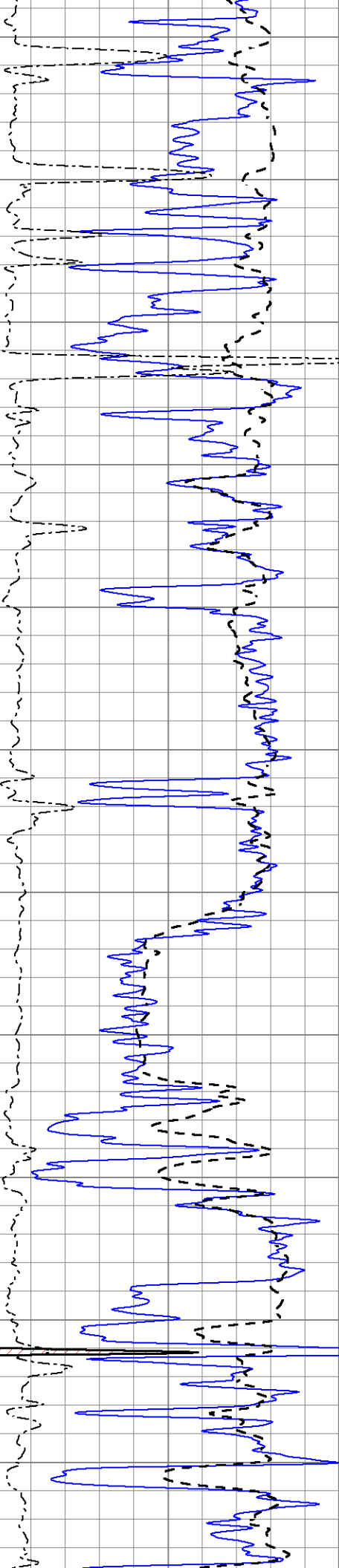
MAIN SECTION

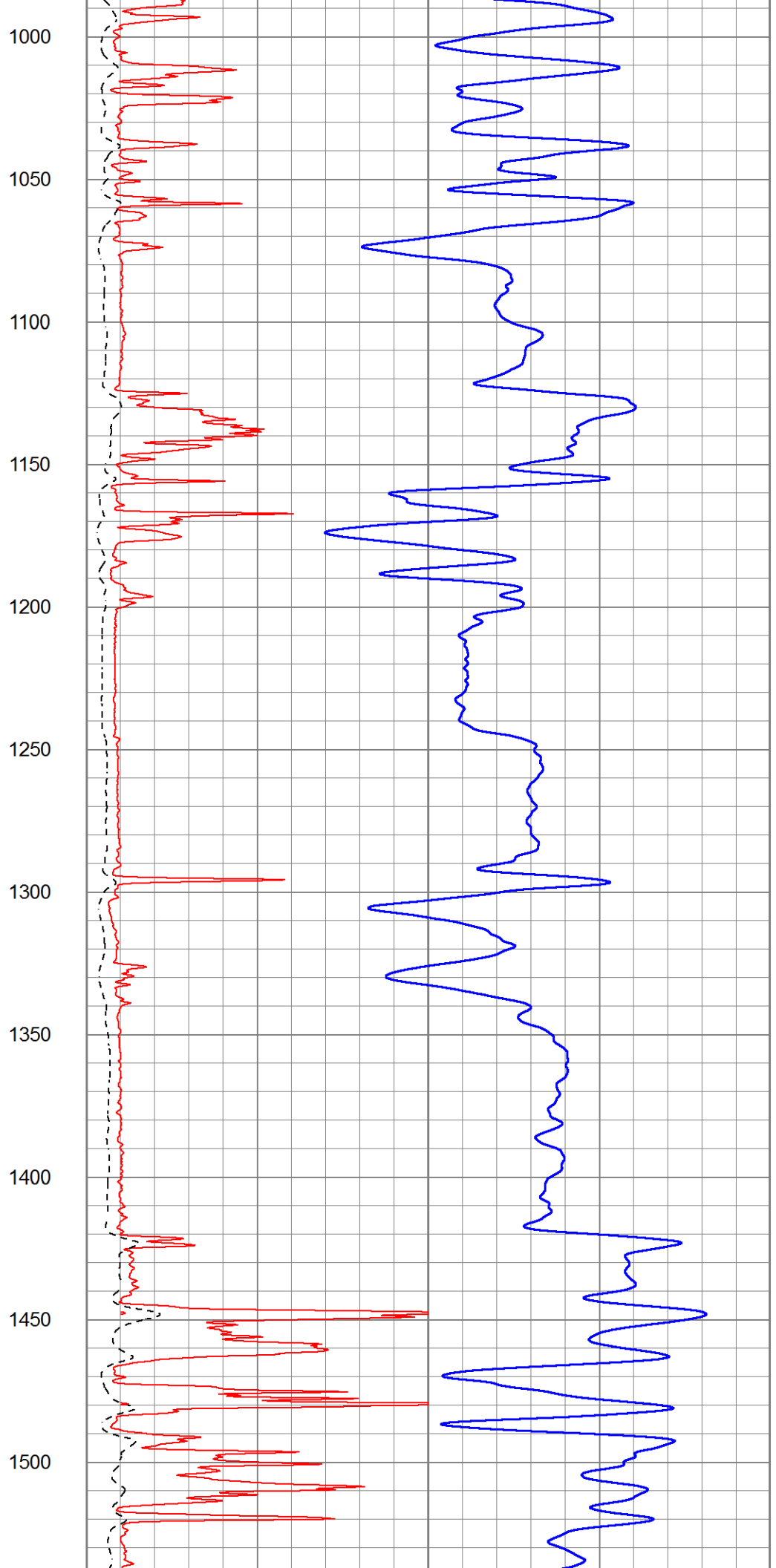
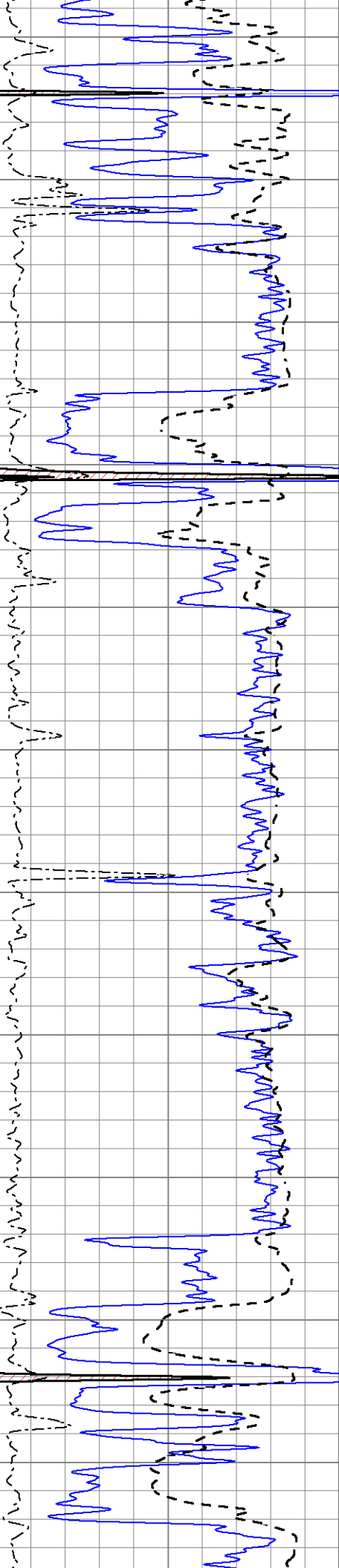
Database File 7318pe.db
 Dataset Pathname pass3.1M
 Presentation Format _dil2
 Dataset Creation Mon Aug 14 02:52:11 2023
 Charted by Depth in Feet scaled 1:600

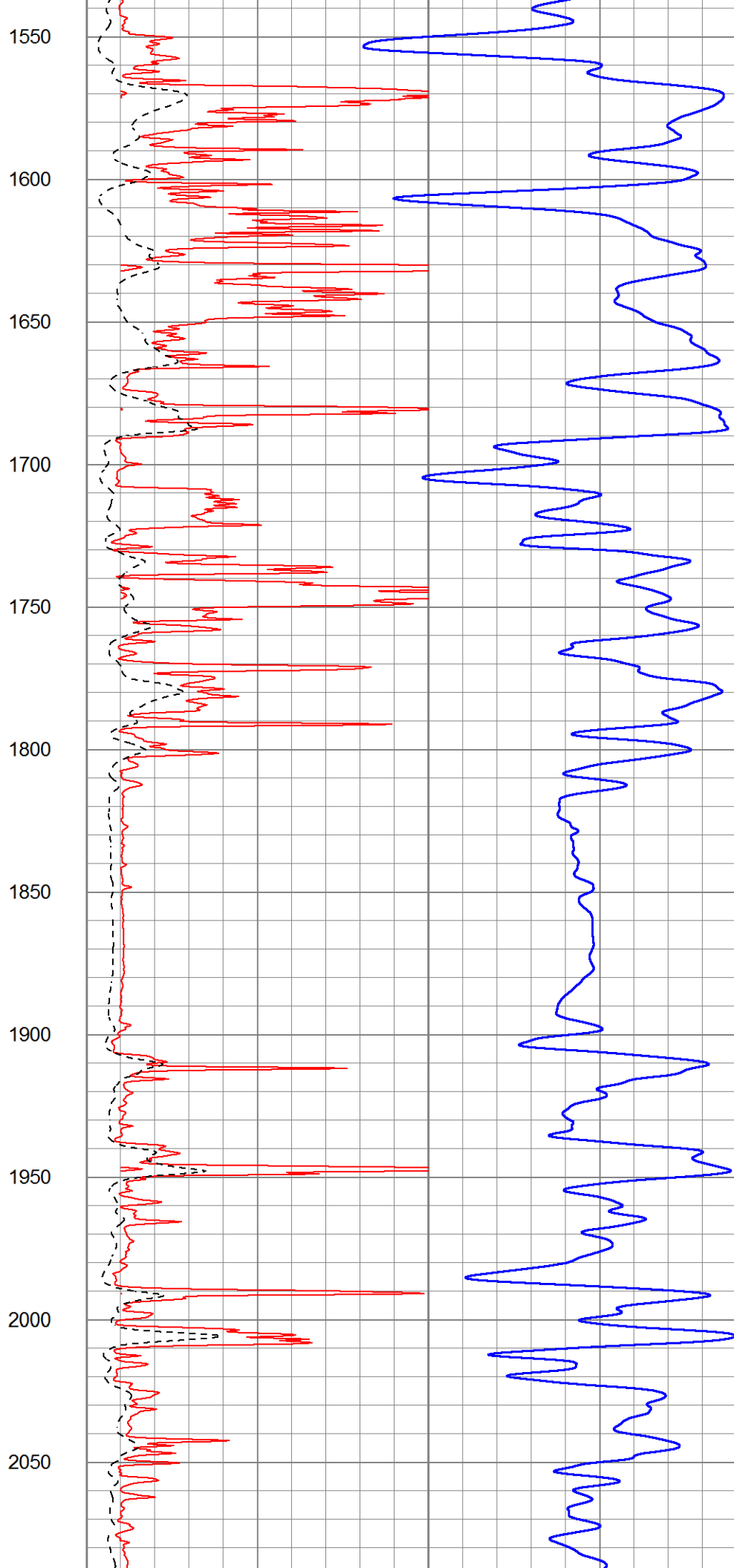
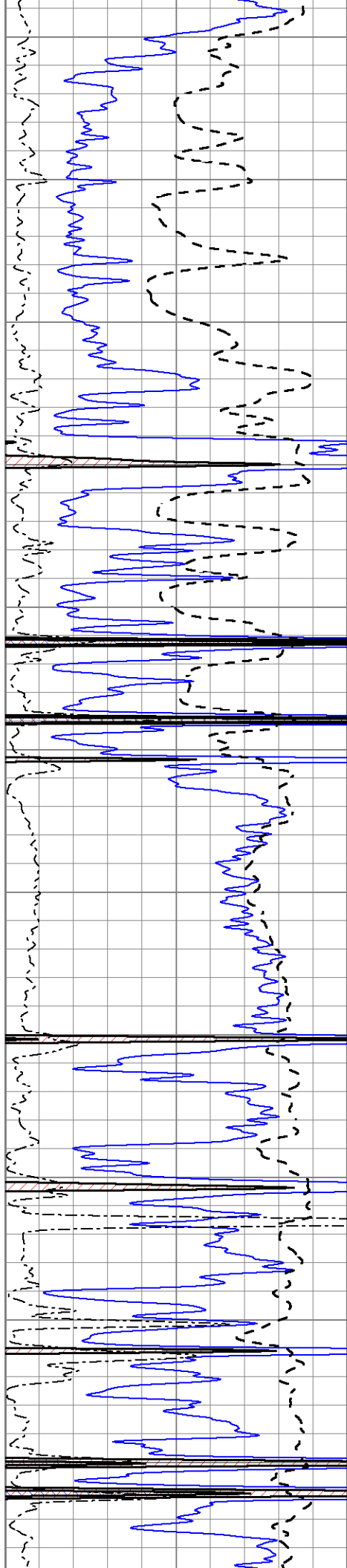
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

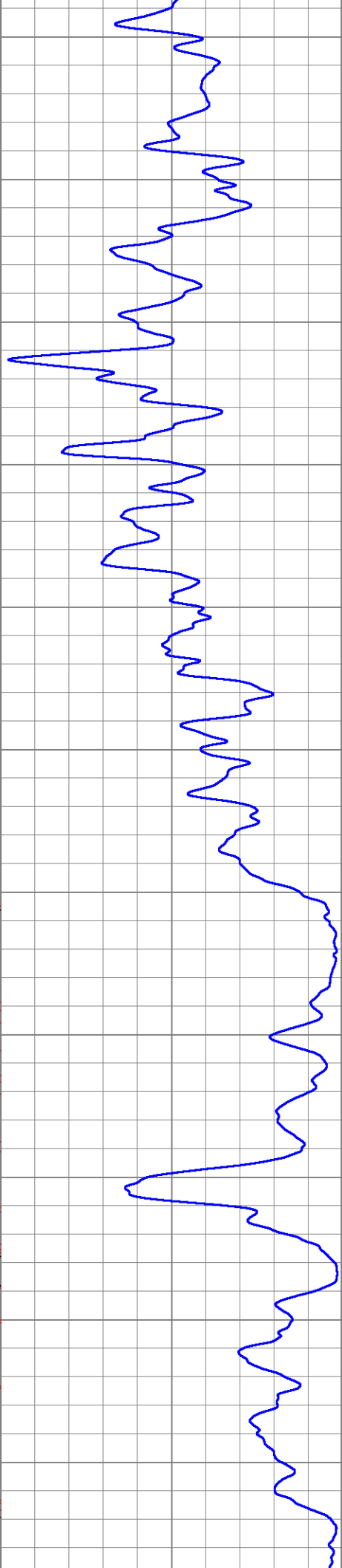
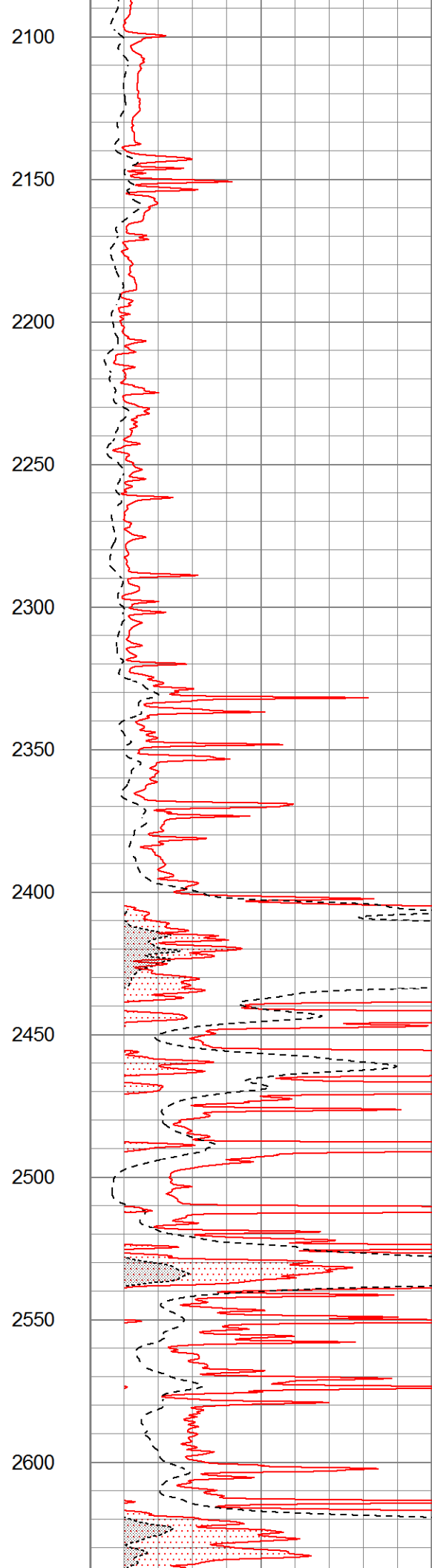
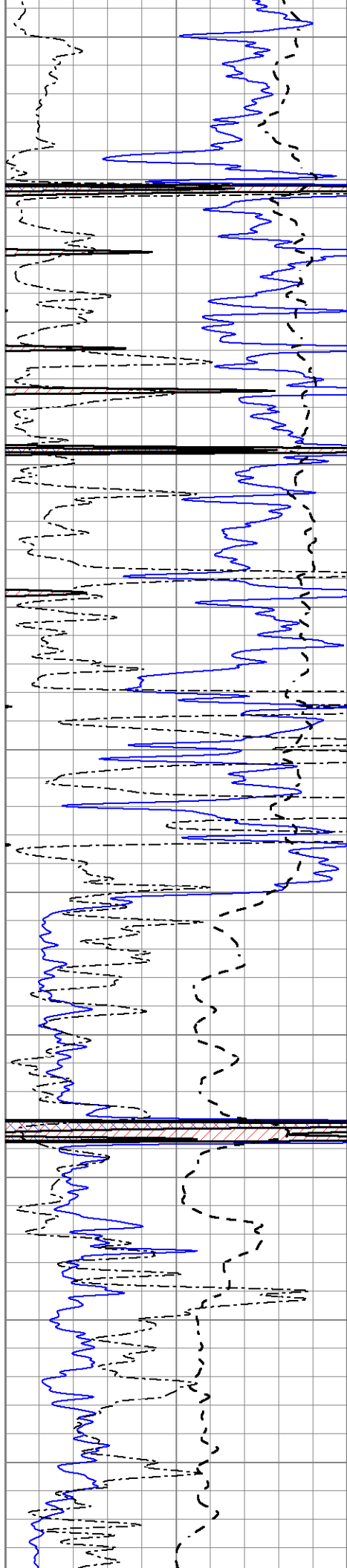
1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

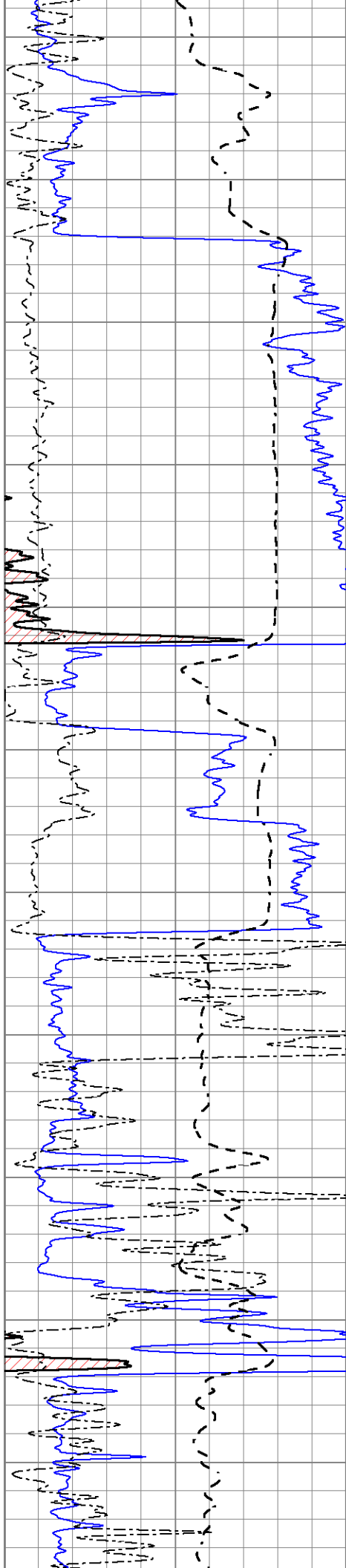












2650

2700

2750

2800

2850

2900

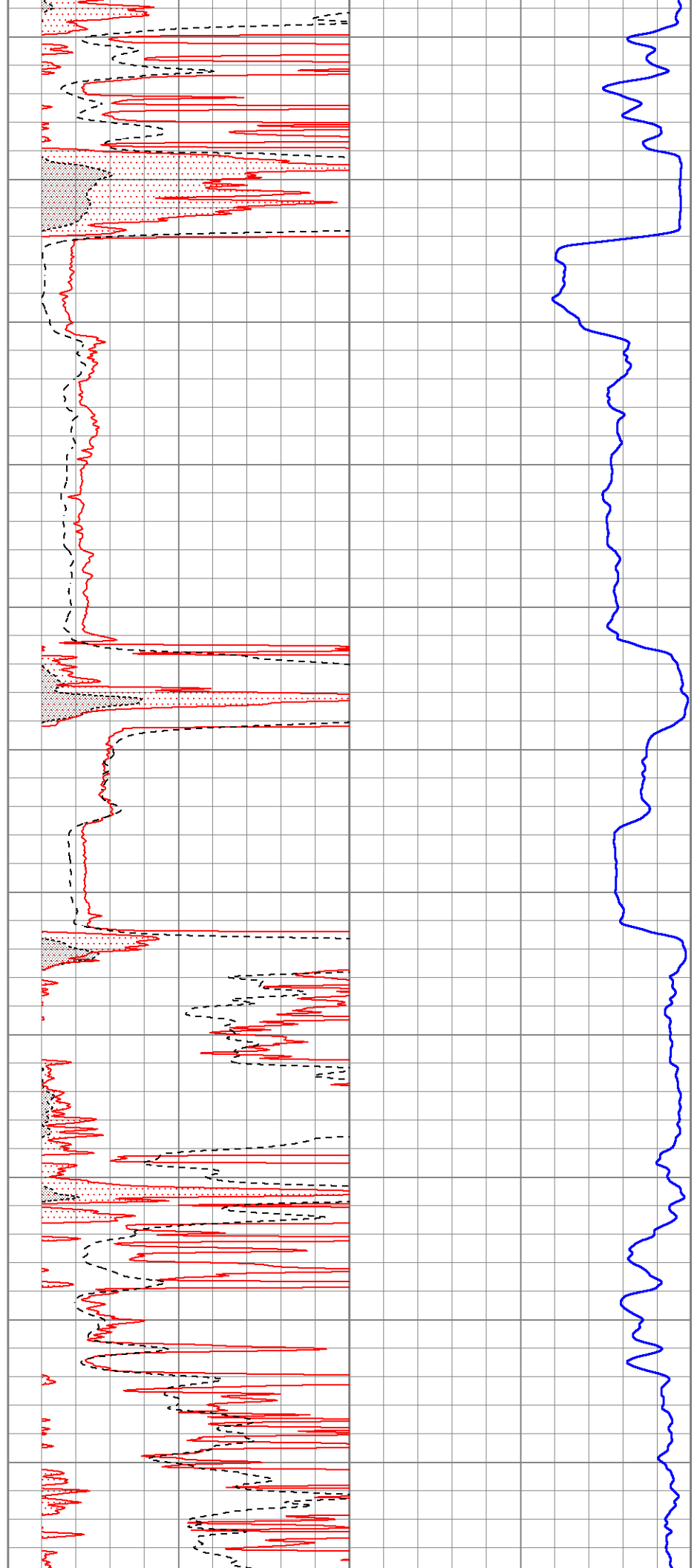
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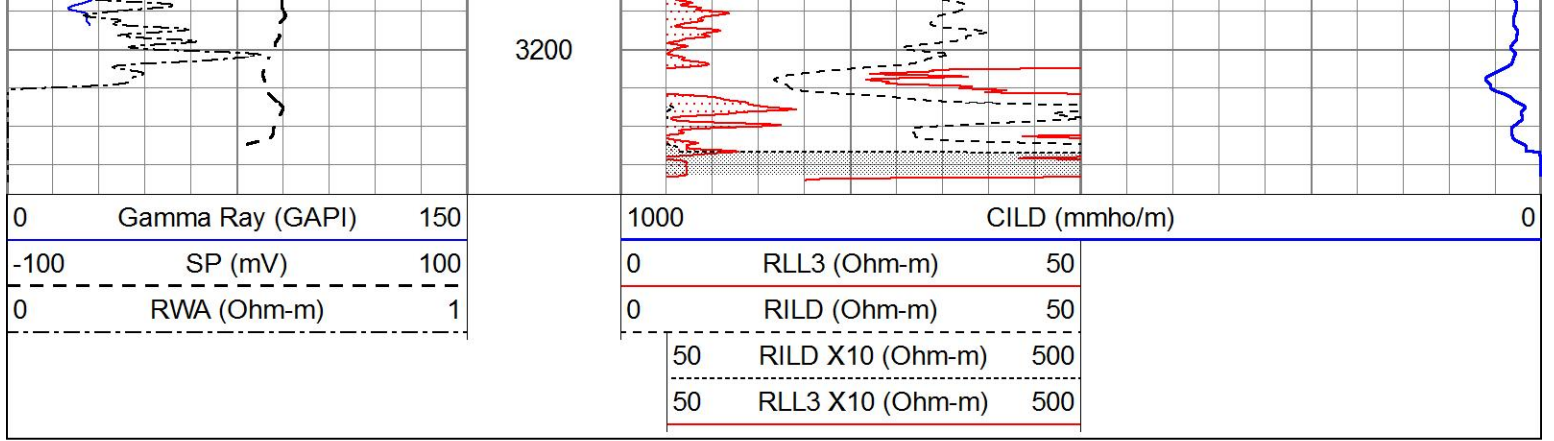
3000

3050

3100

3150

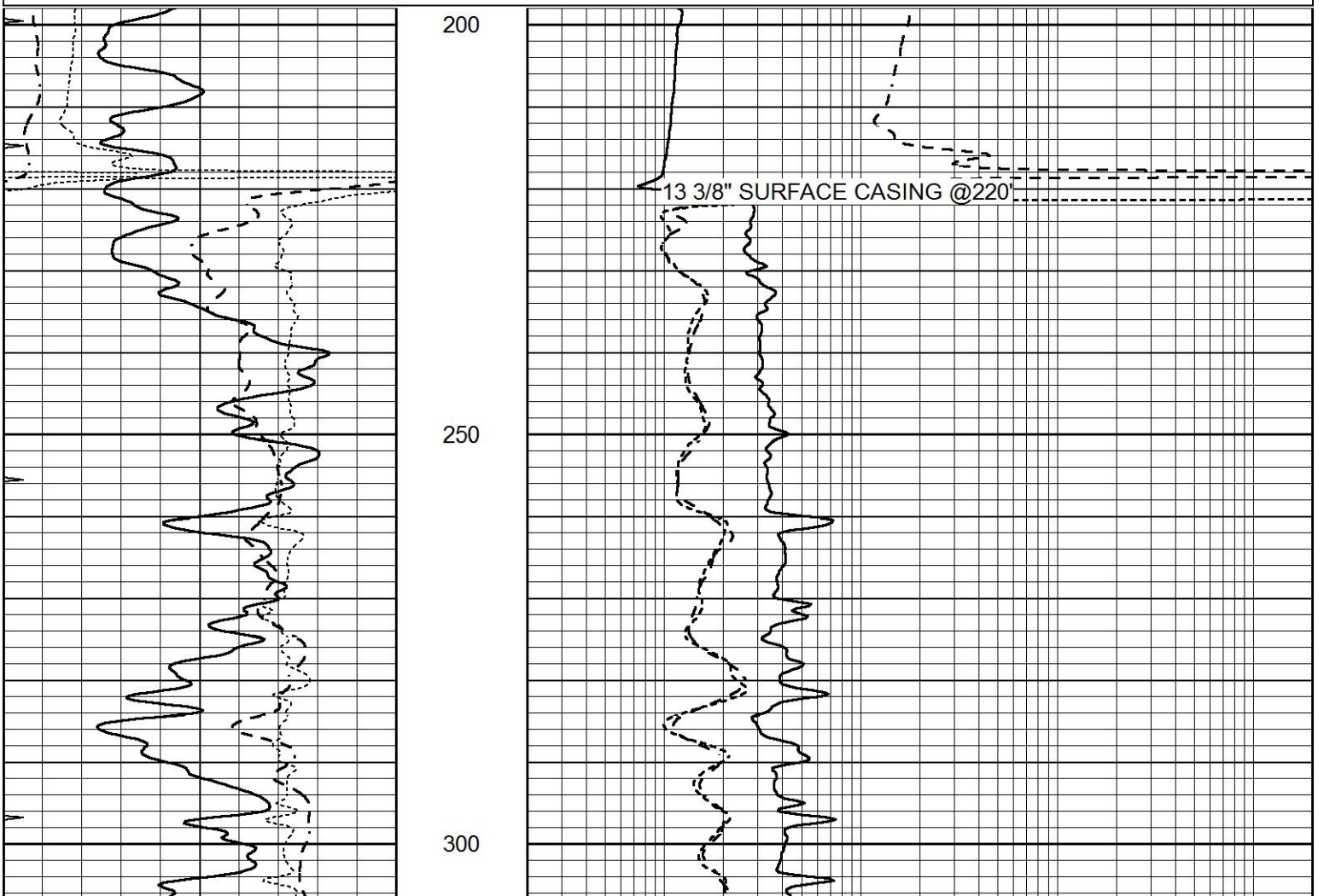


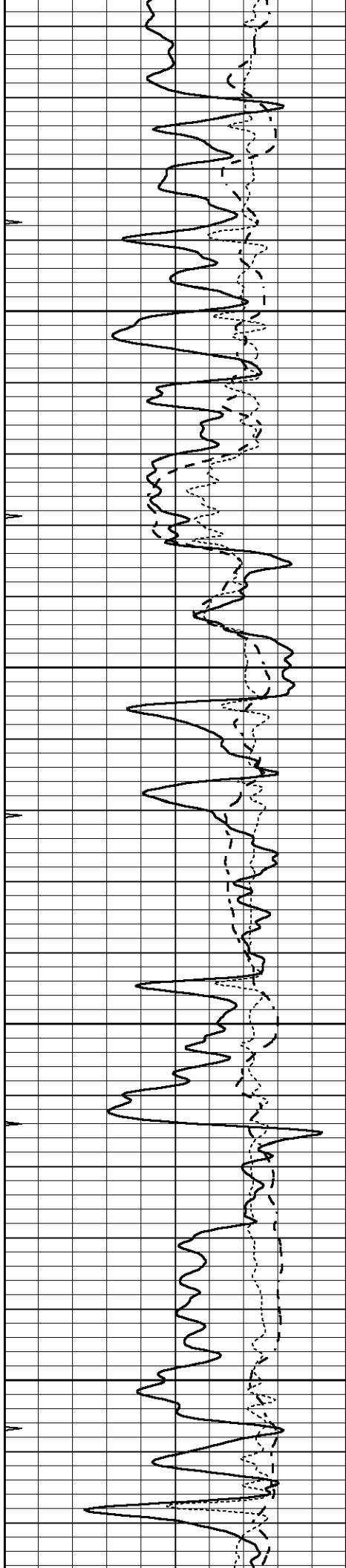


MAIN SECTION

Database File 7318pe.db
 Dataset Pathname pass3.1M
 Presentation Format _dil
 Dataset Creation Mon Aug 14 02:52:11 2023
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



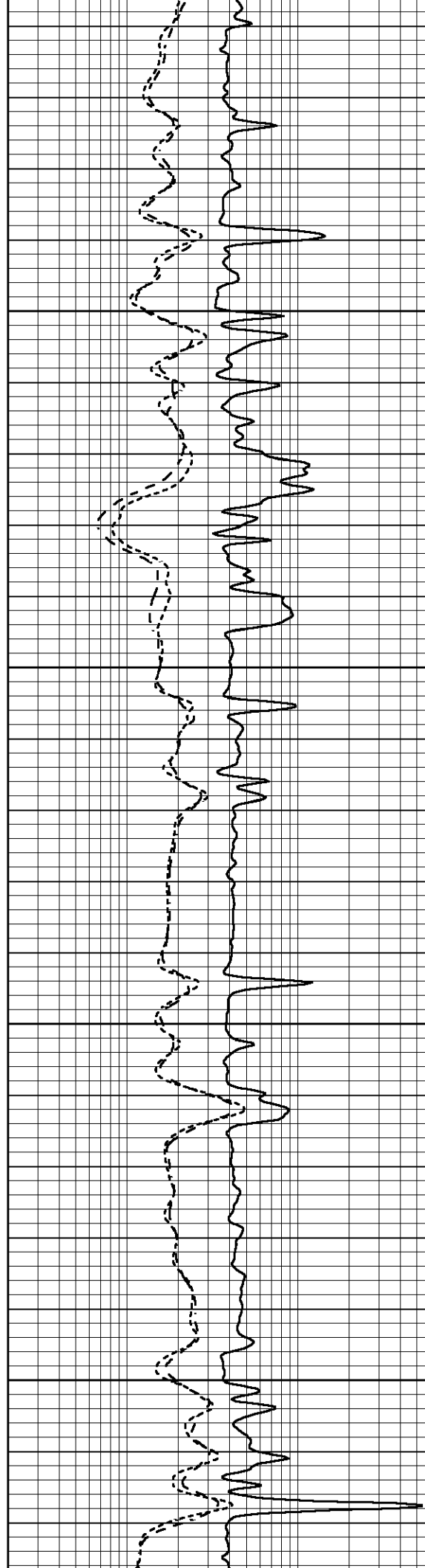


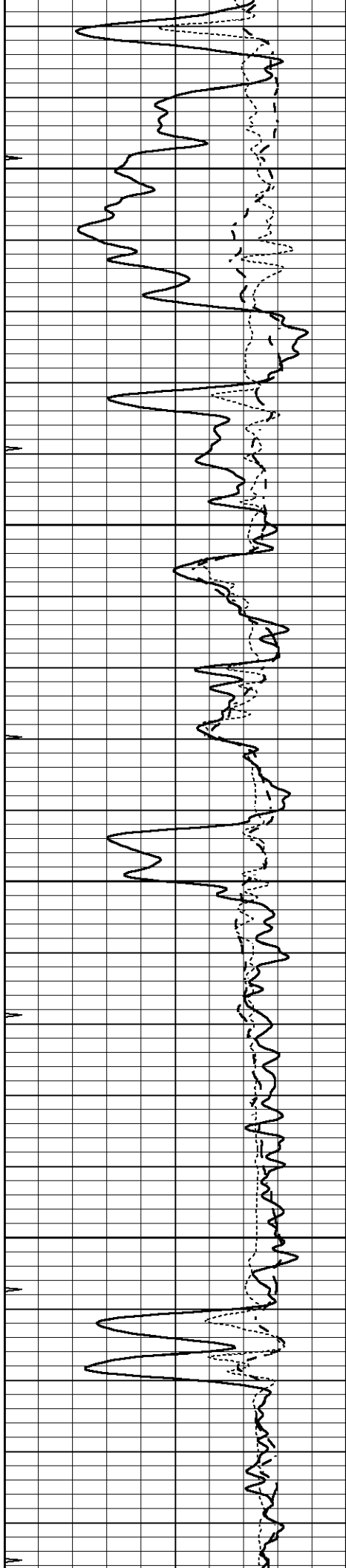
350

400

450

500



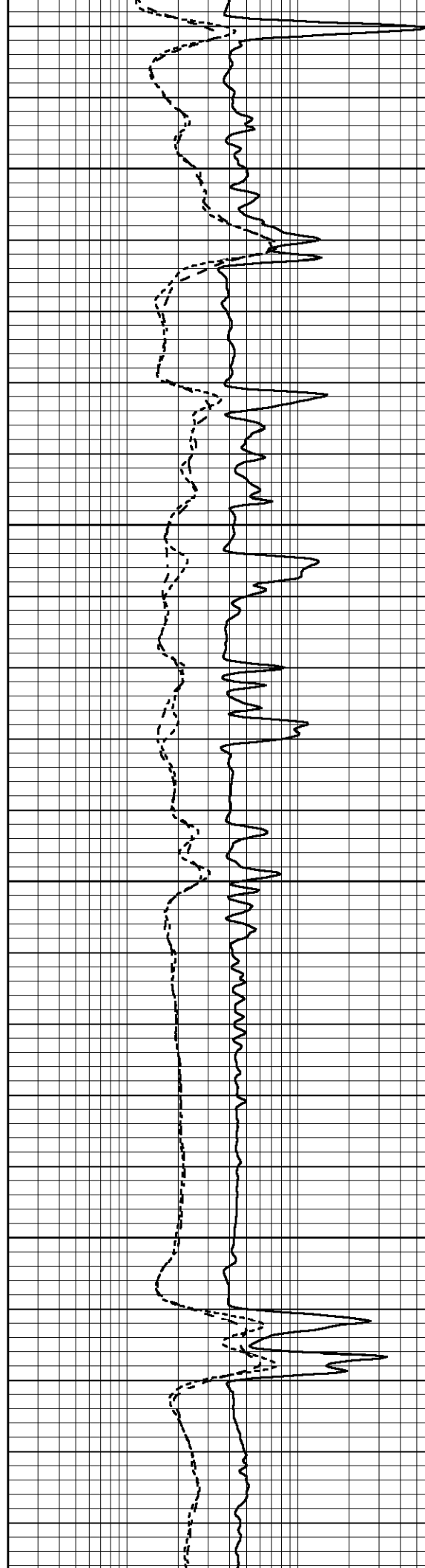


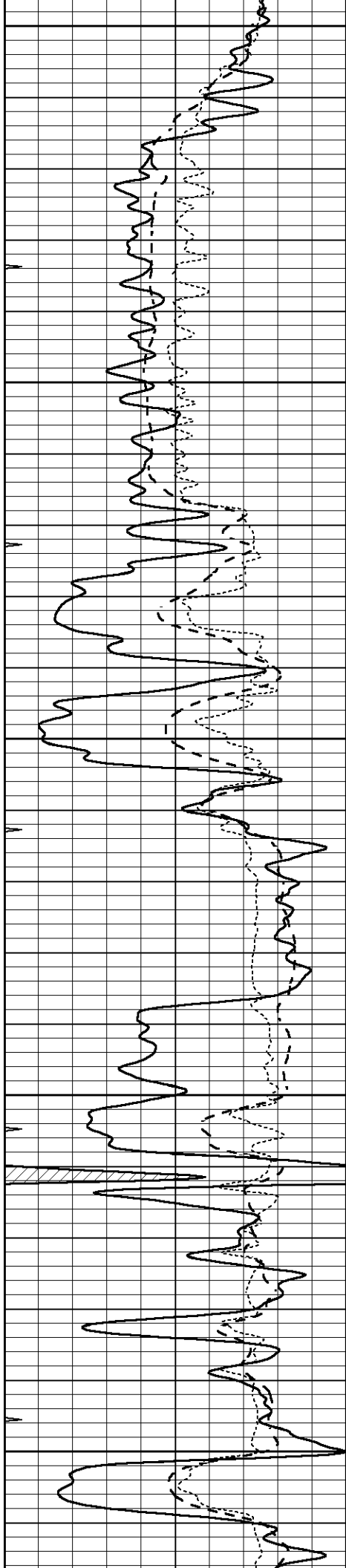
550

600

650

700





750

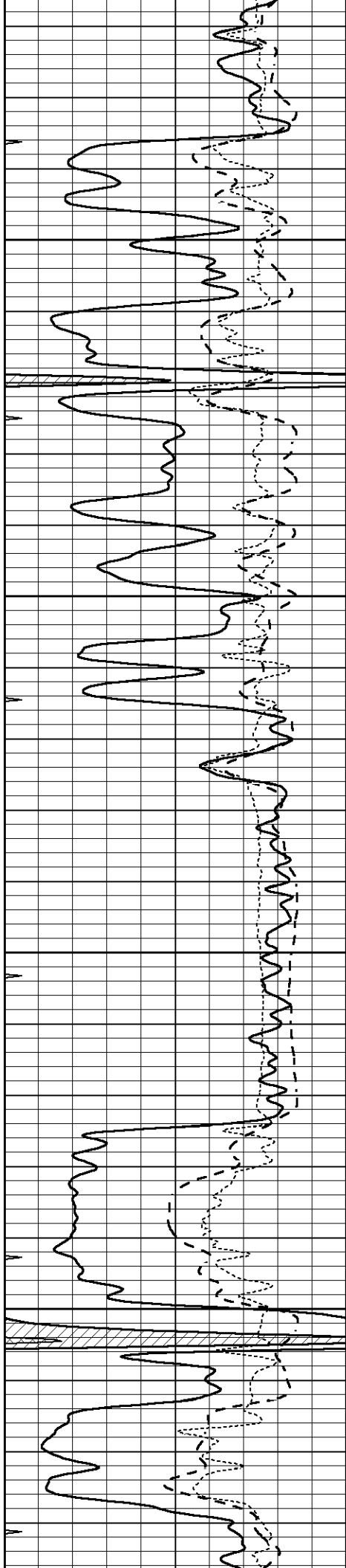
800

850

900

950





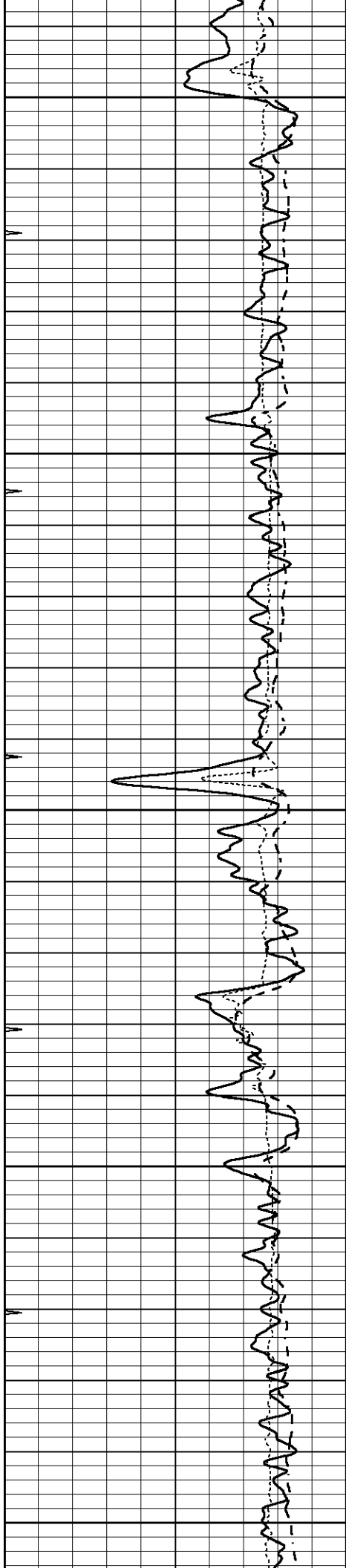
1000

1050

1100

1150





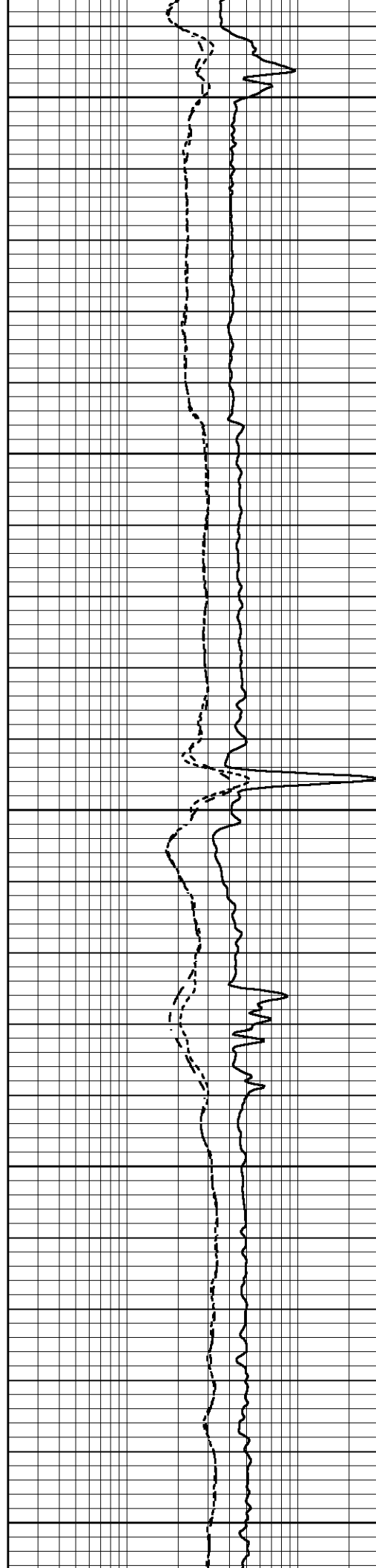
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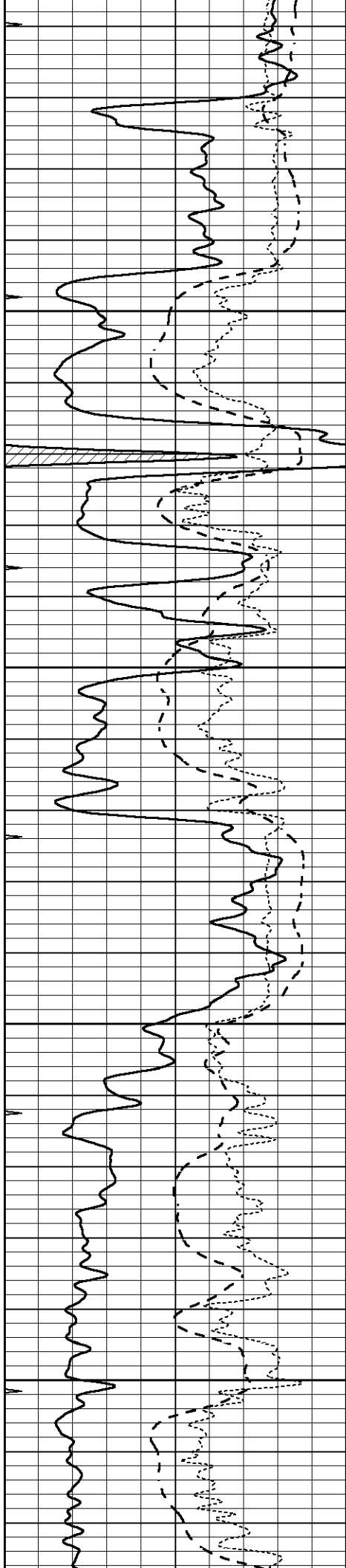
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1300

1350

1400



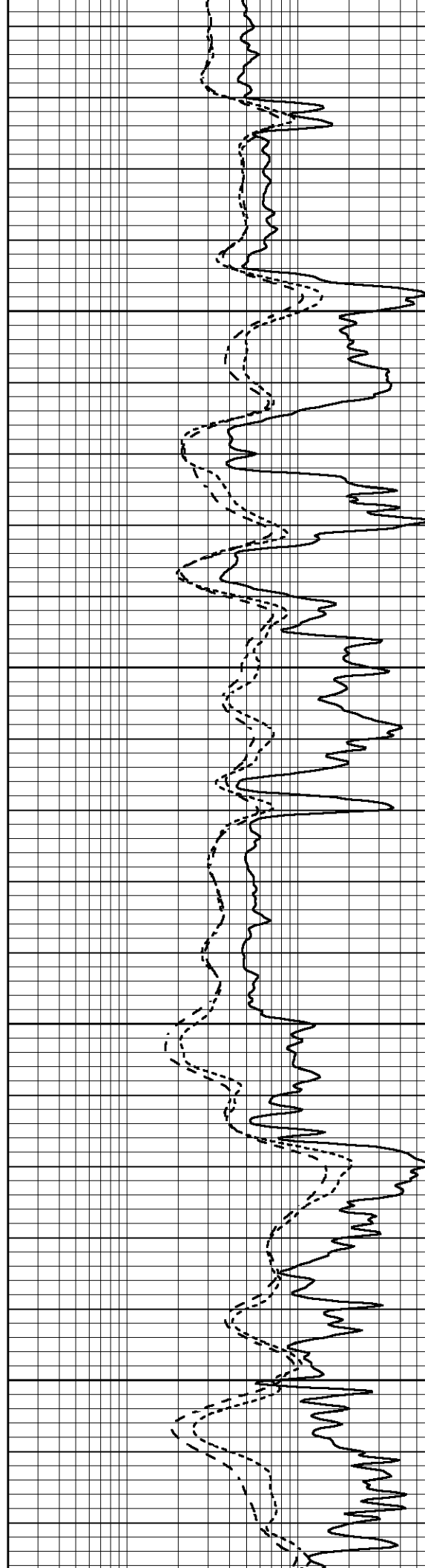


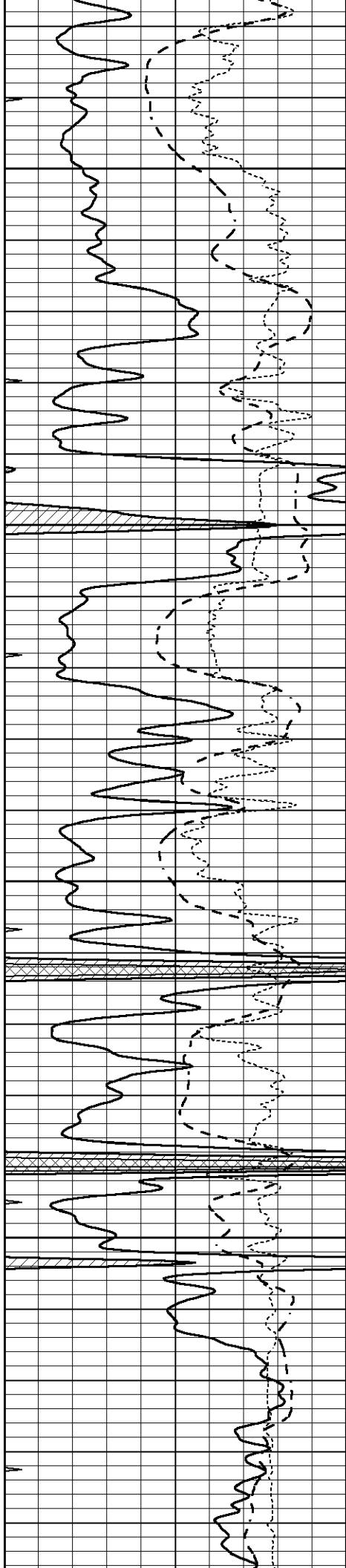
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1500

1550

1600



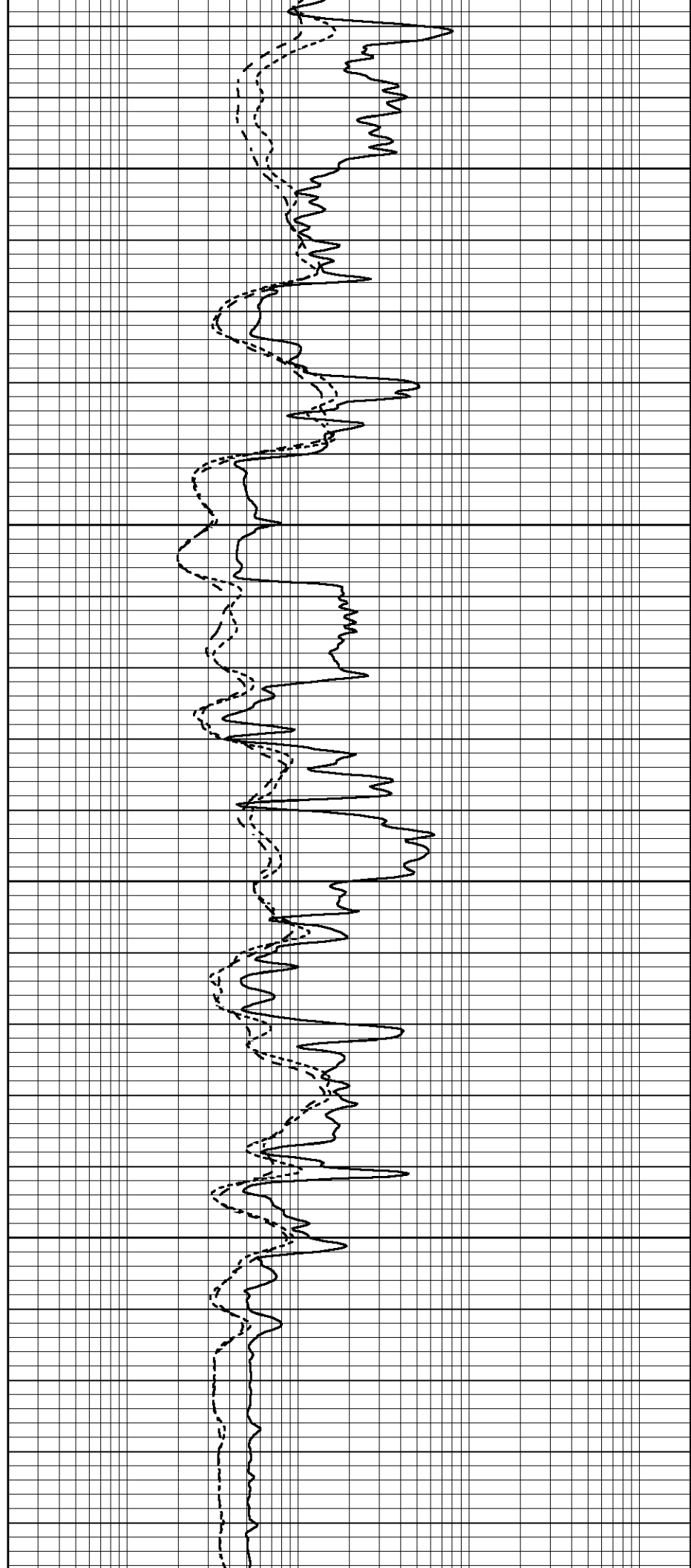


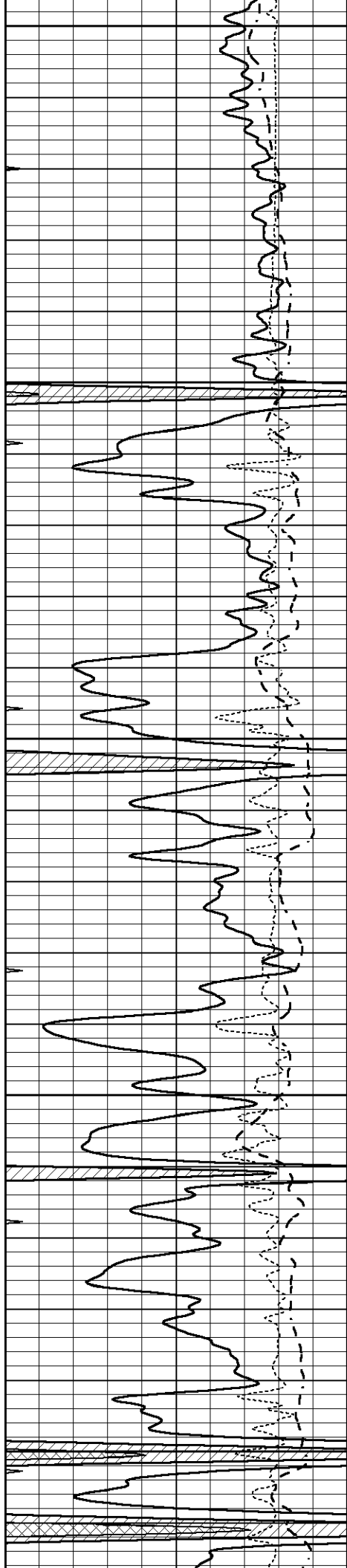
1650

1700

1750

1800





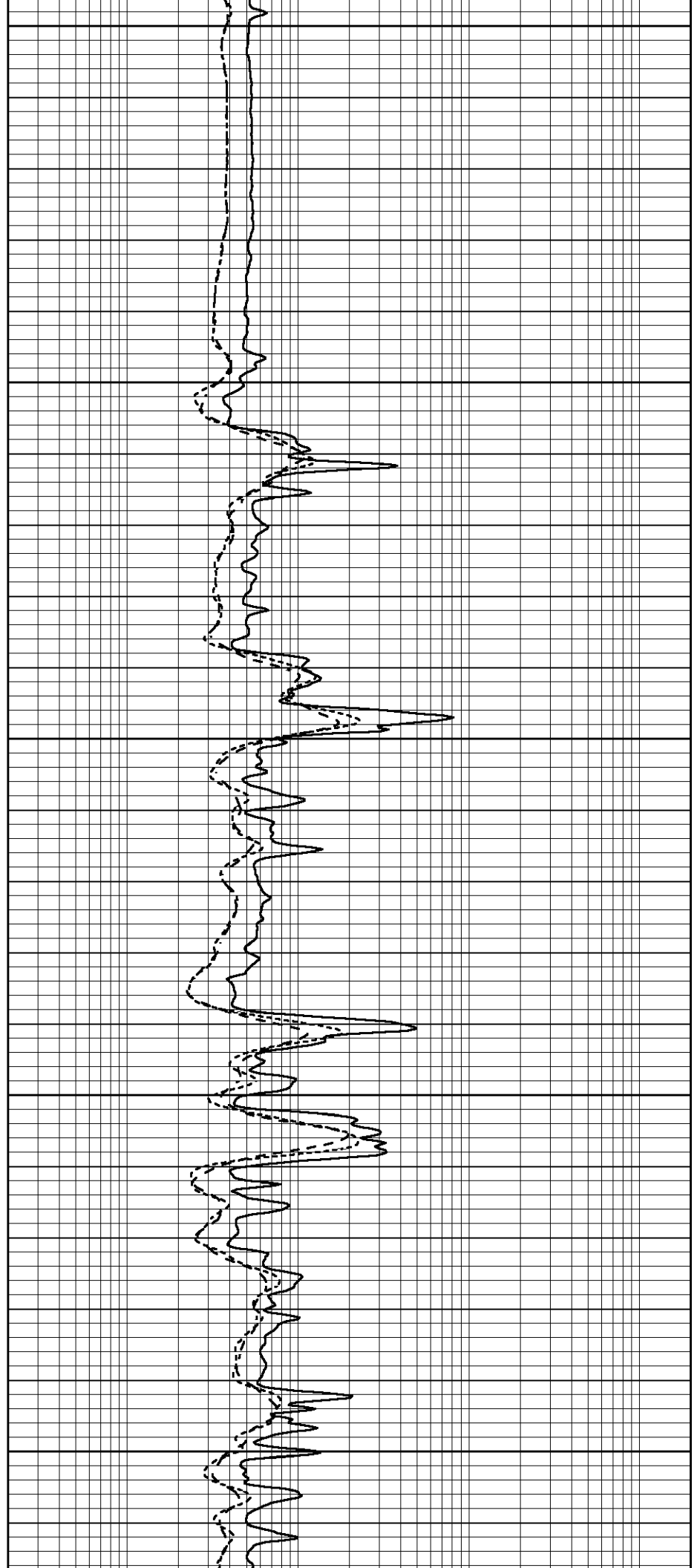
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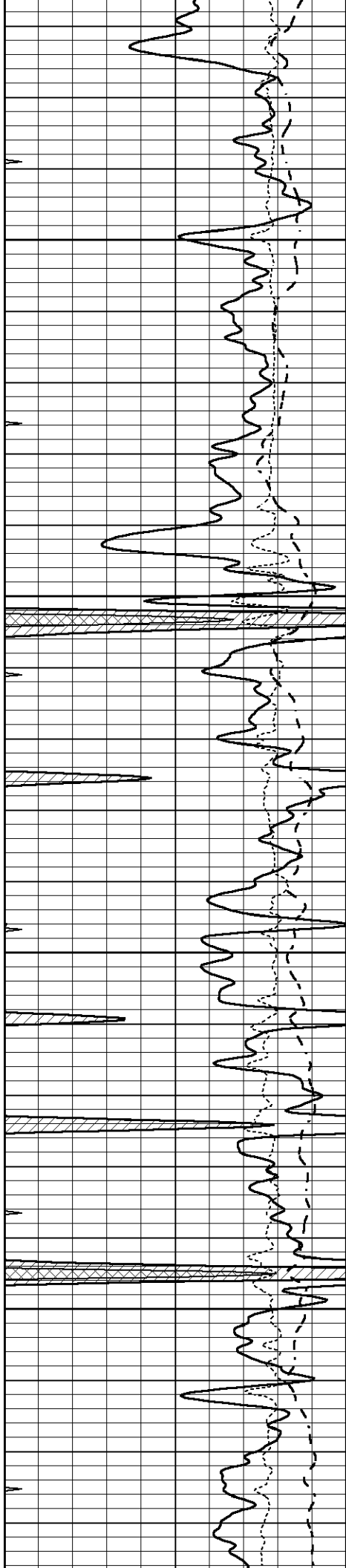
1900

1950

2000

2050



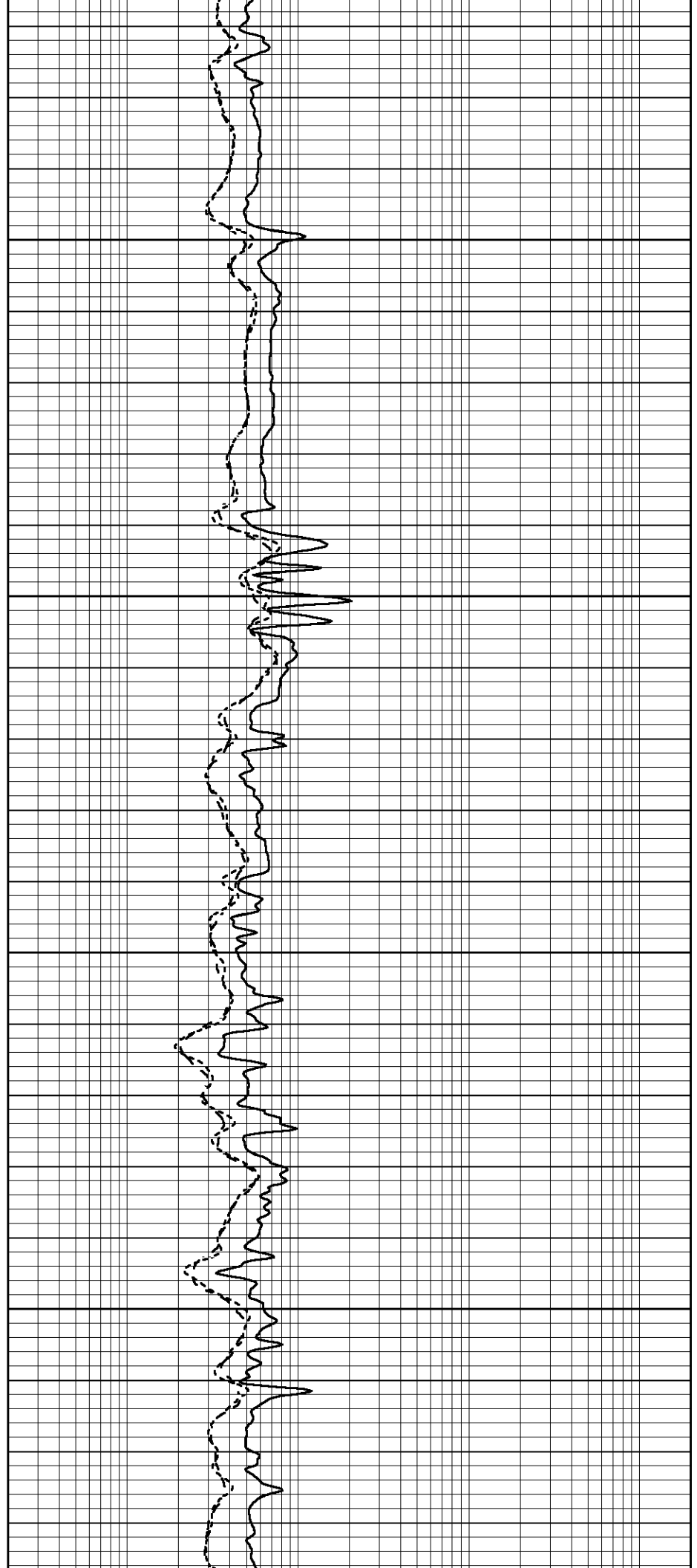


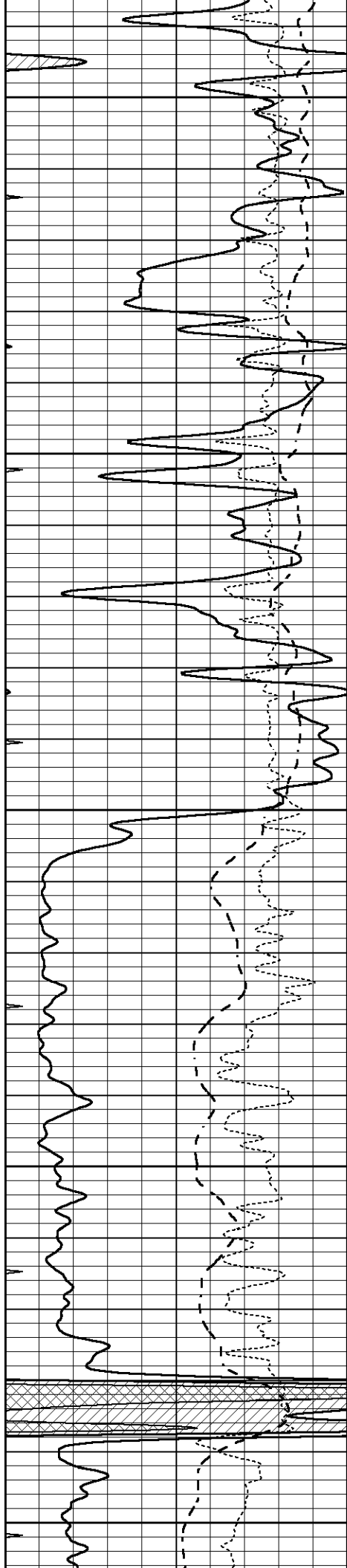
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2150

2200

2250





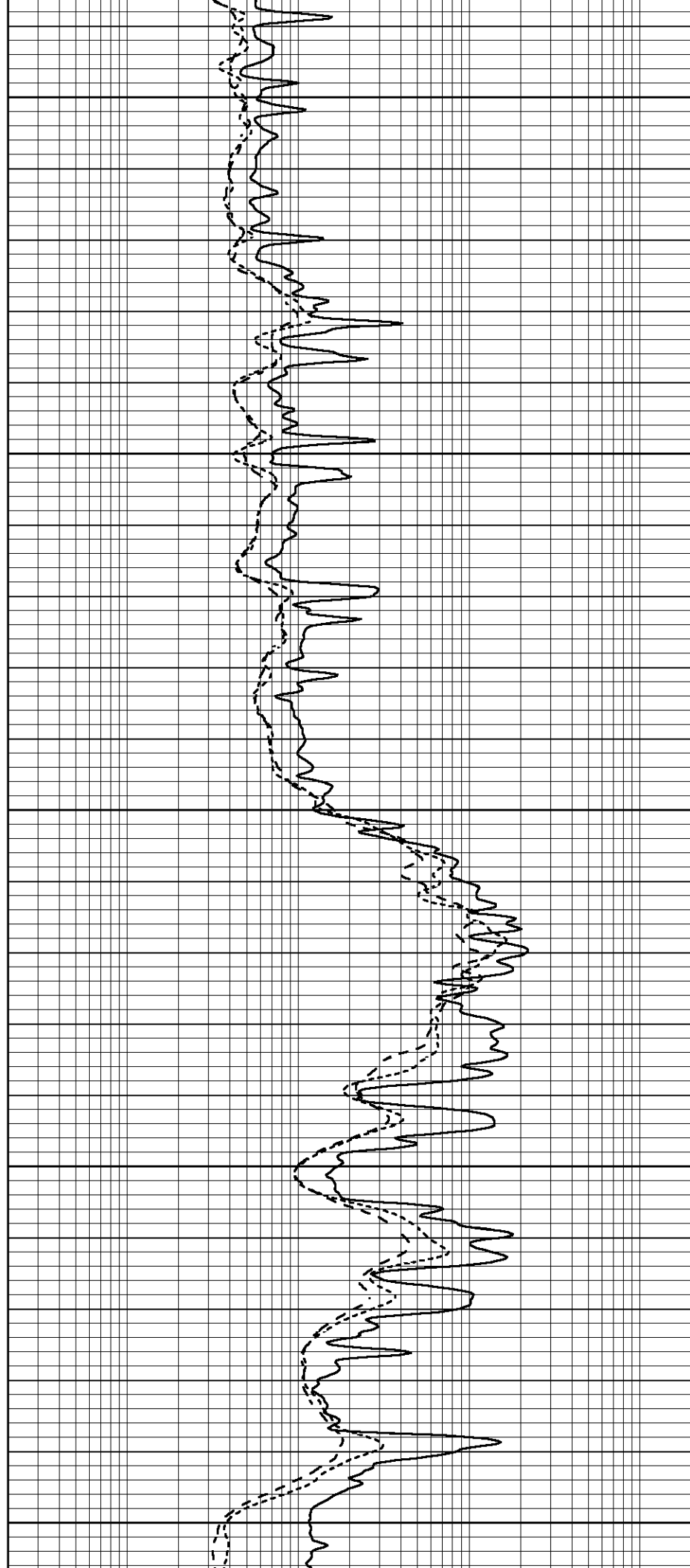
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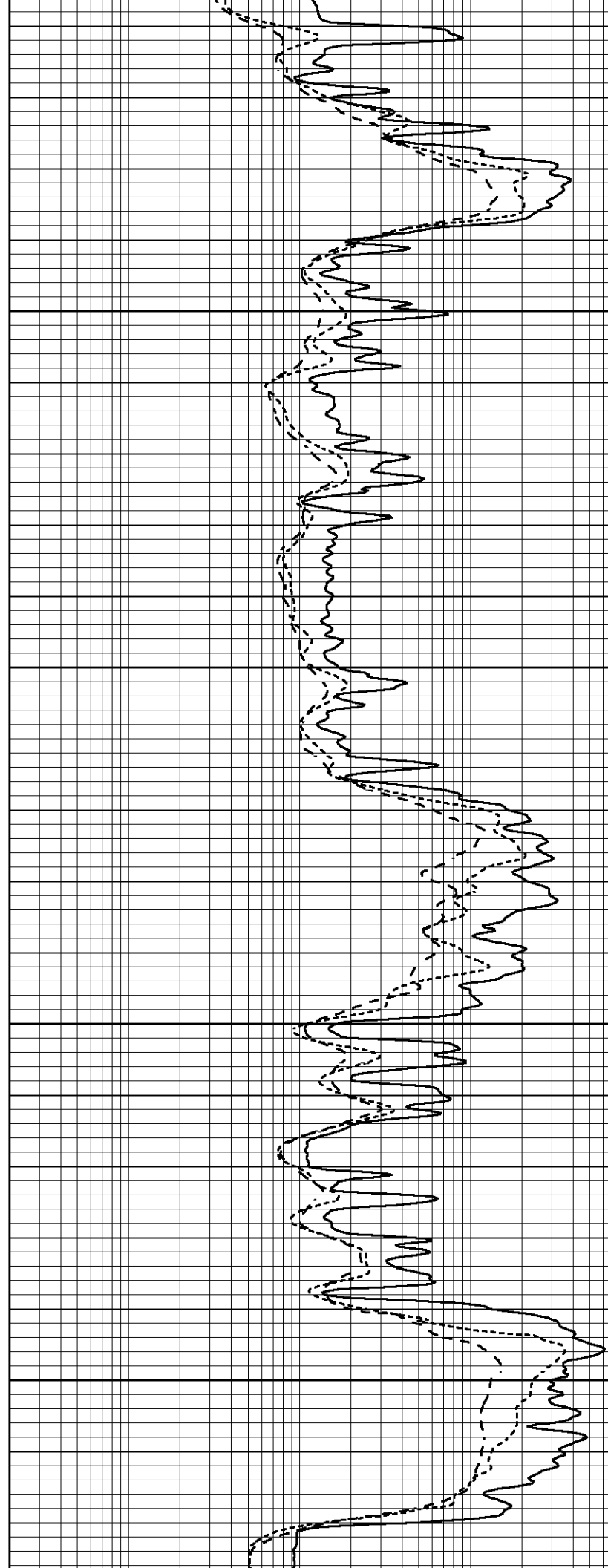
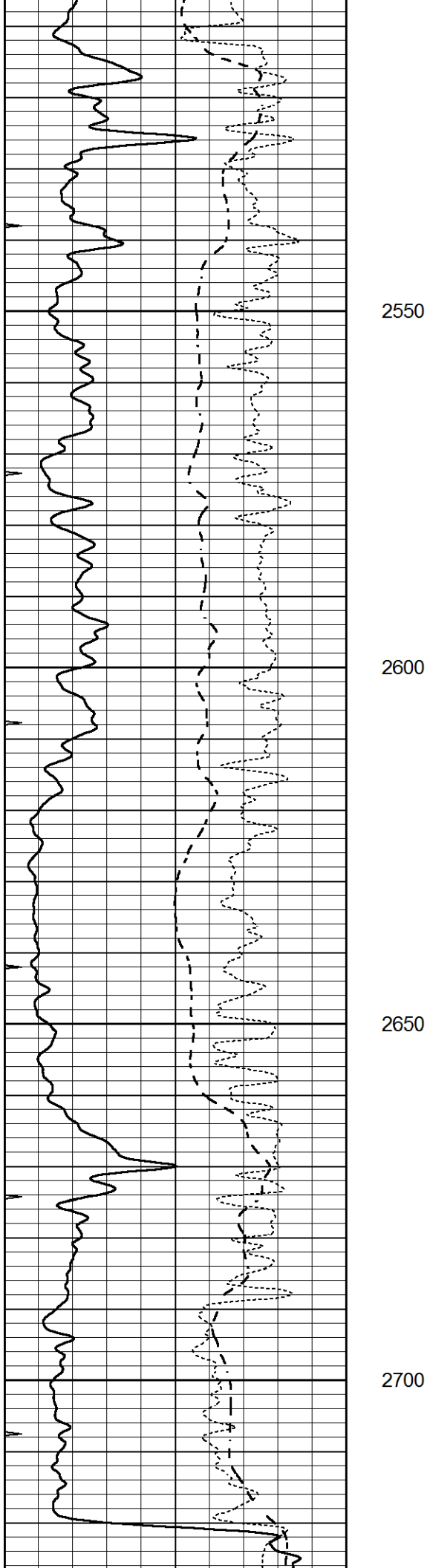
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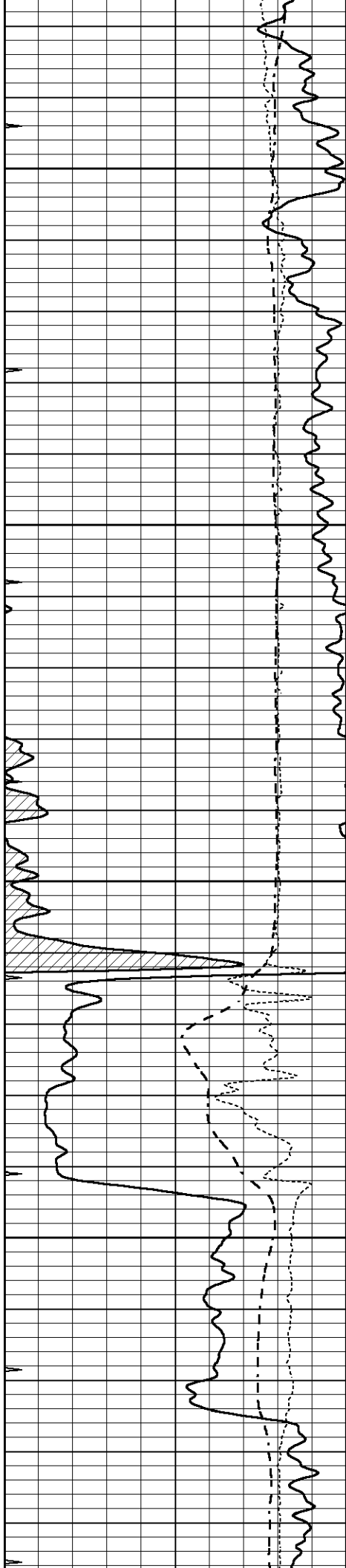
2400

2450

2500





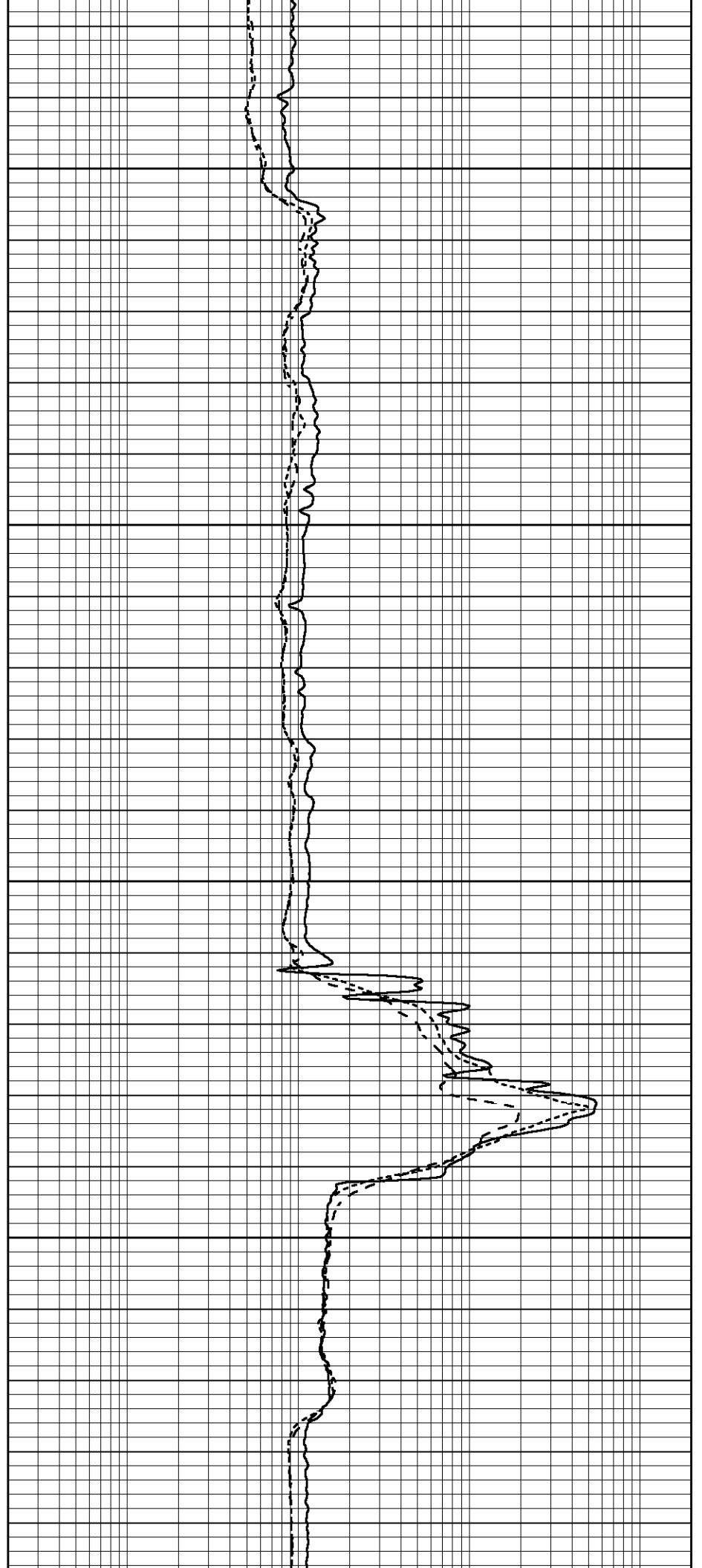


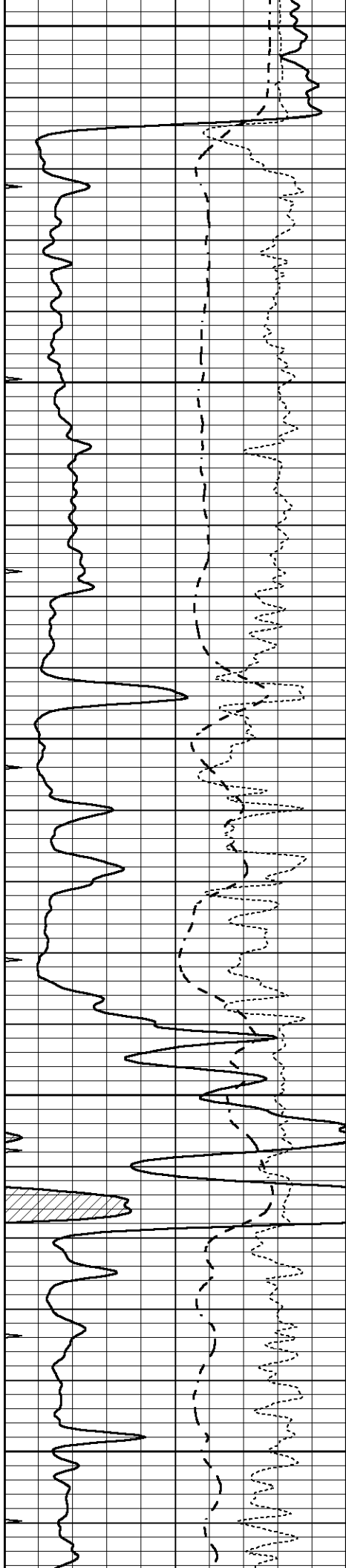
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2800

2850

2900





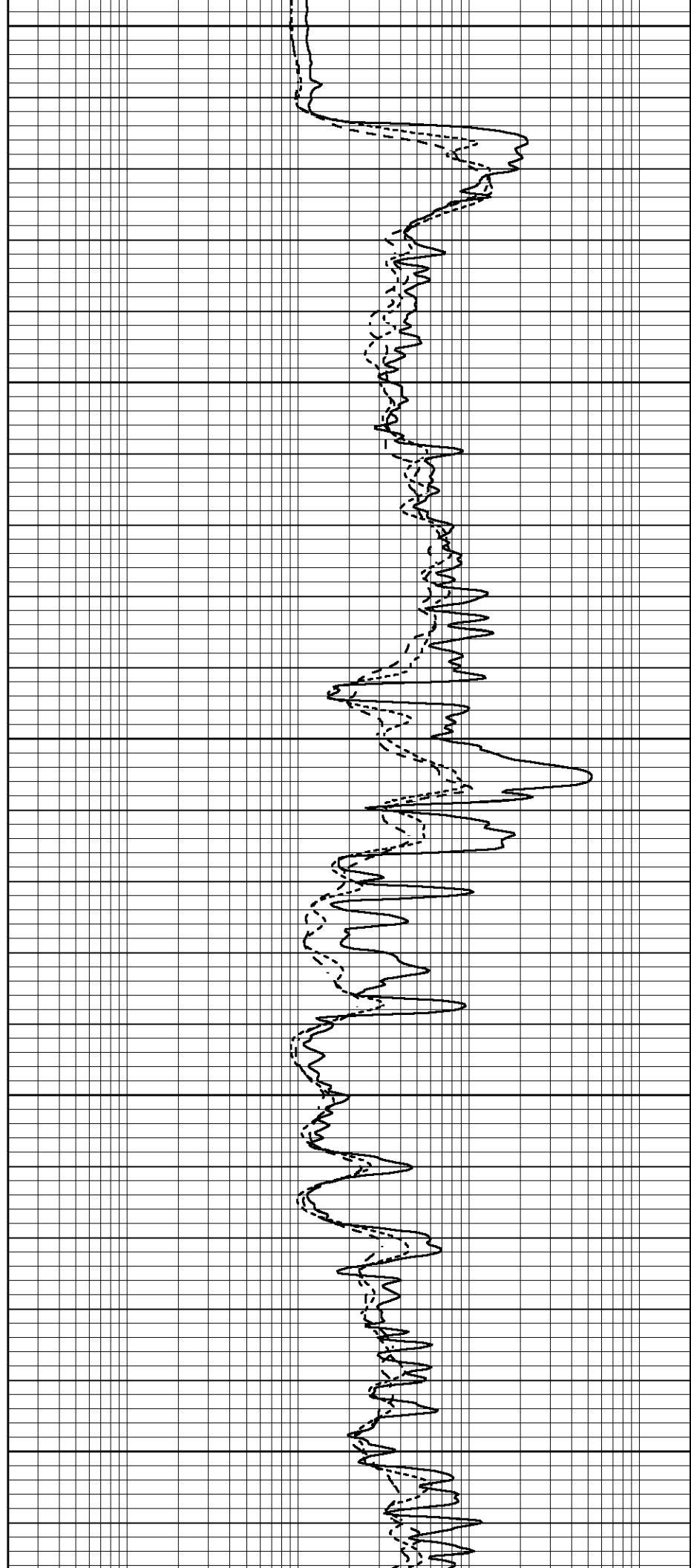
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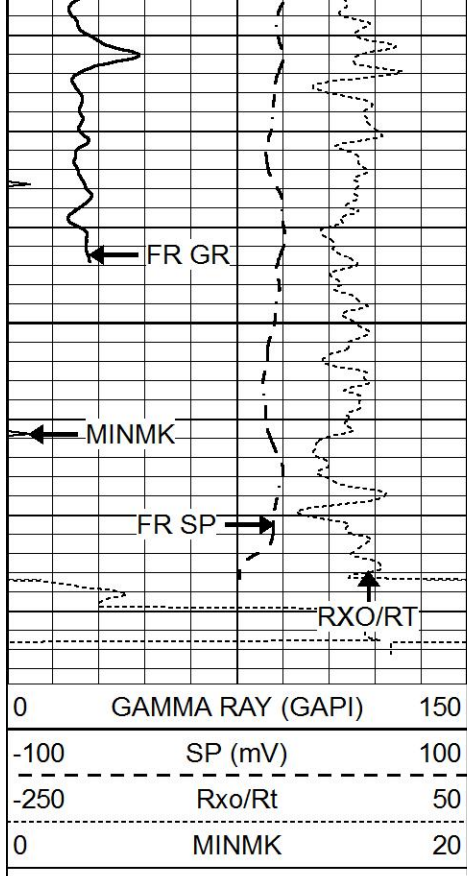
3000

3050

3100

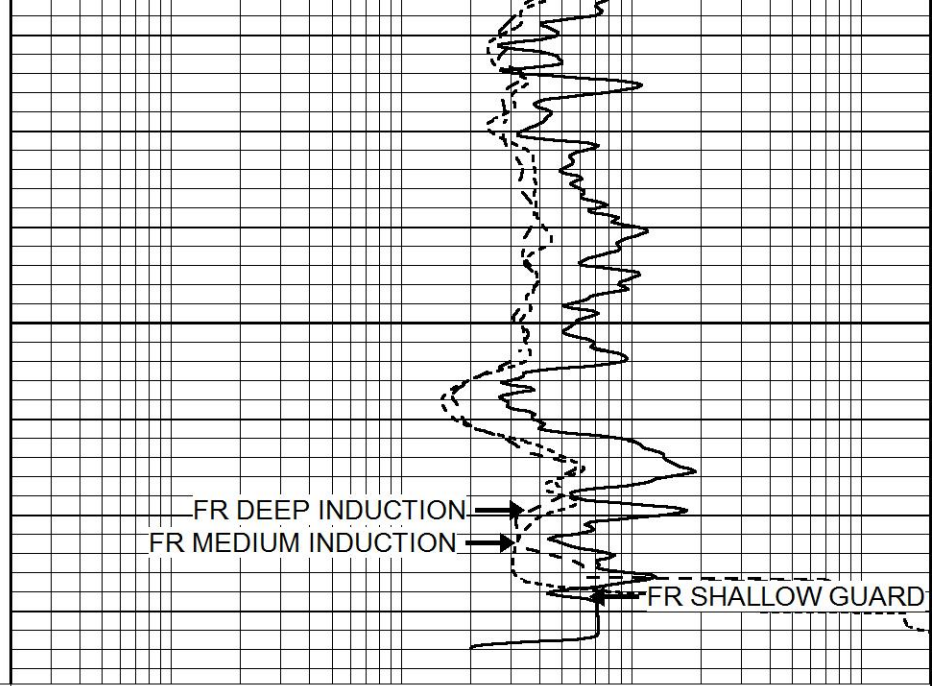
3150





3200

LTD 3231



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



REPEAT SECTION

Database File 7318pe.db
 Dataset Pathname pass2.2R
 Presentation Format _dil
 Dataset Creation Mon Aug 14 03:12:47 2023
 Charted by Depth in Feet scaled 1:240

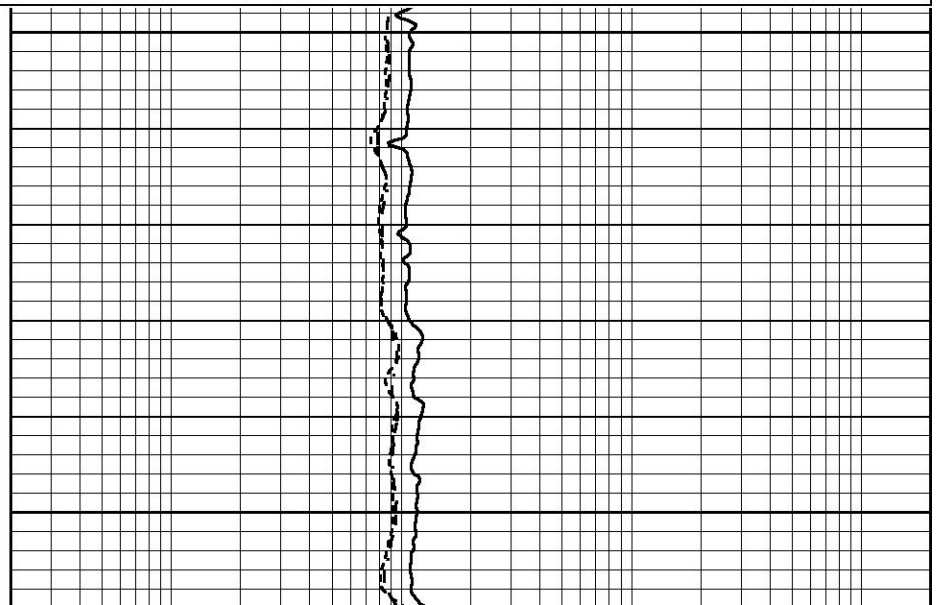
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

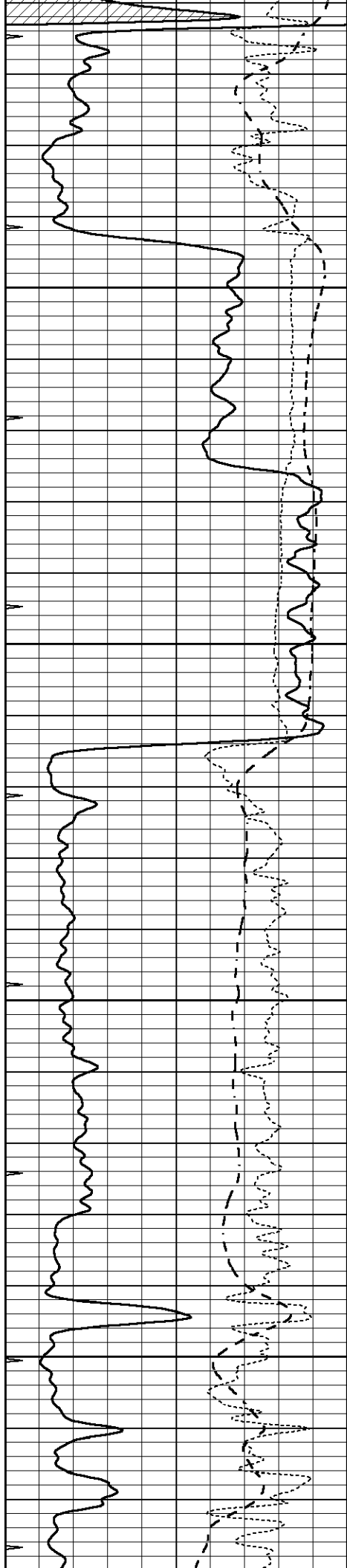
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



2800

2850



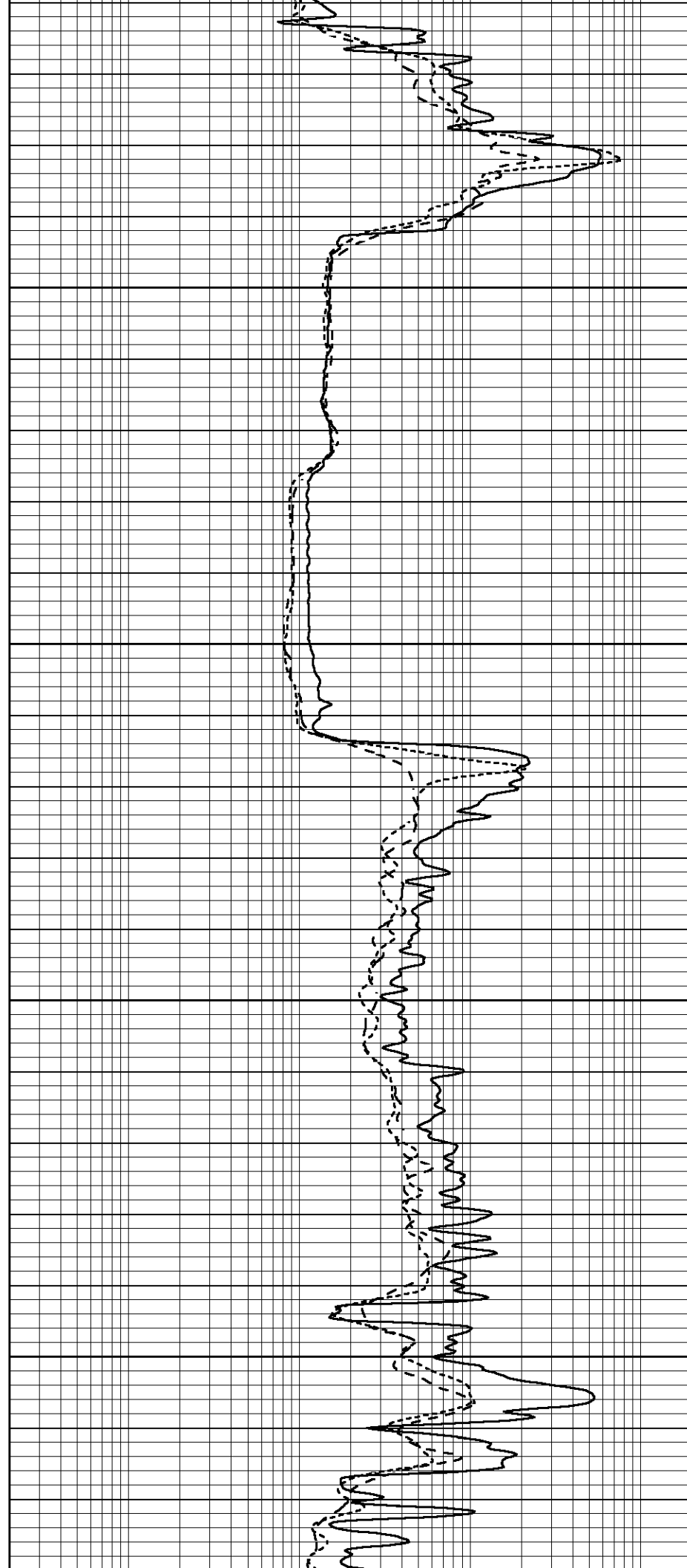


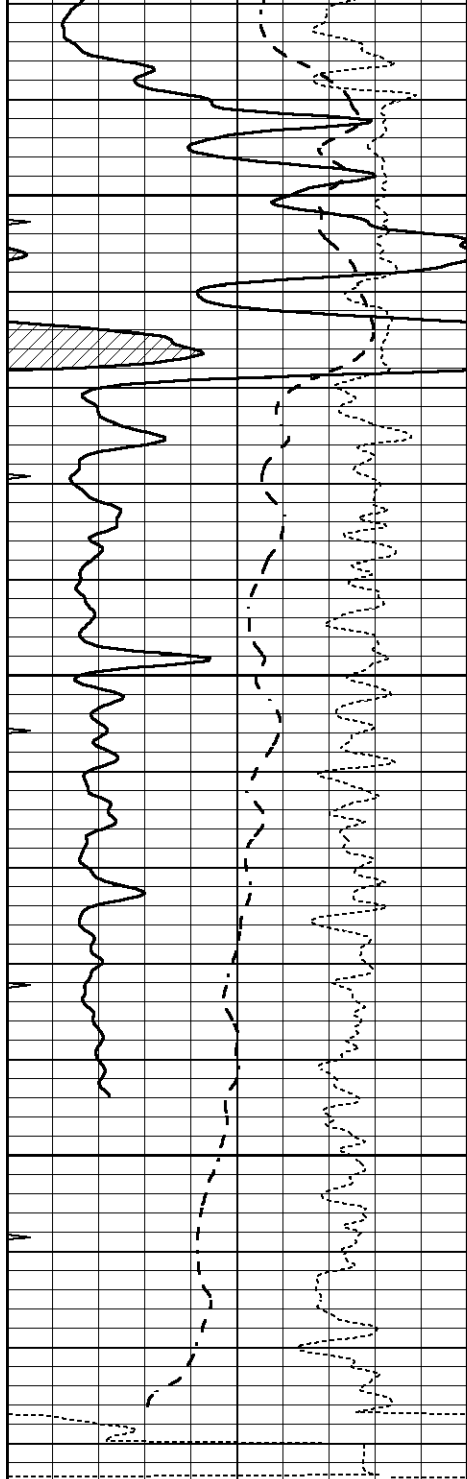
2900

2950

3000

3050



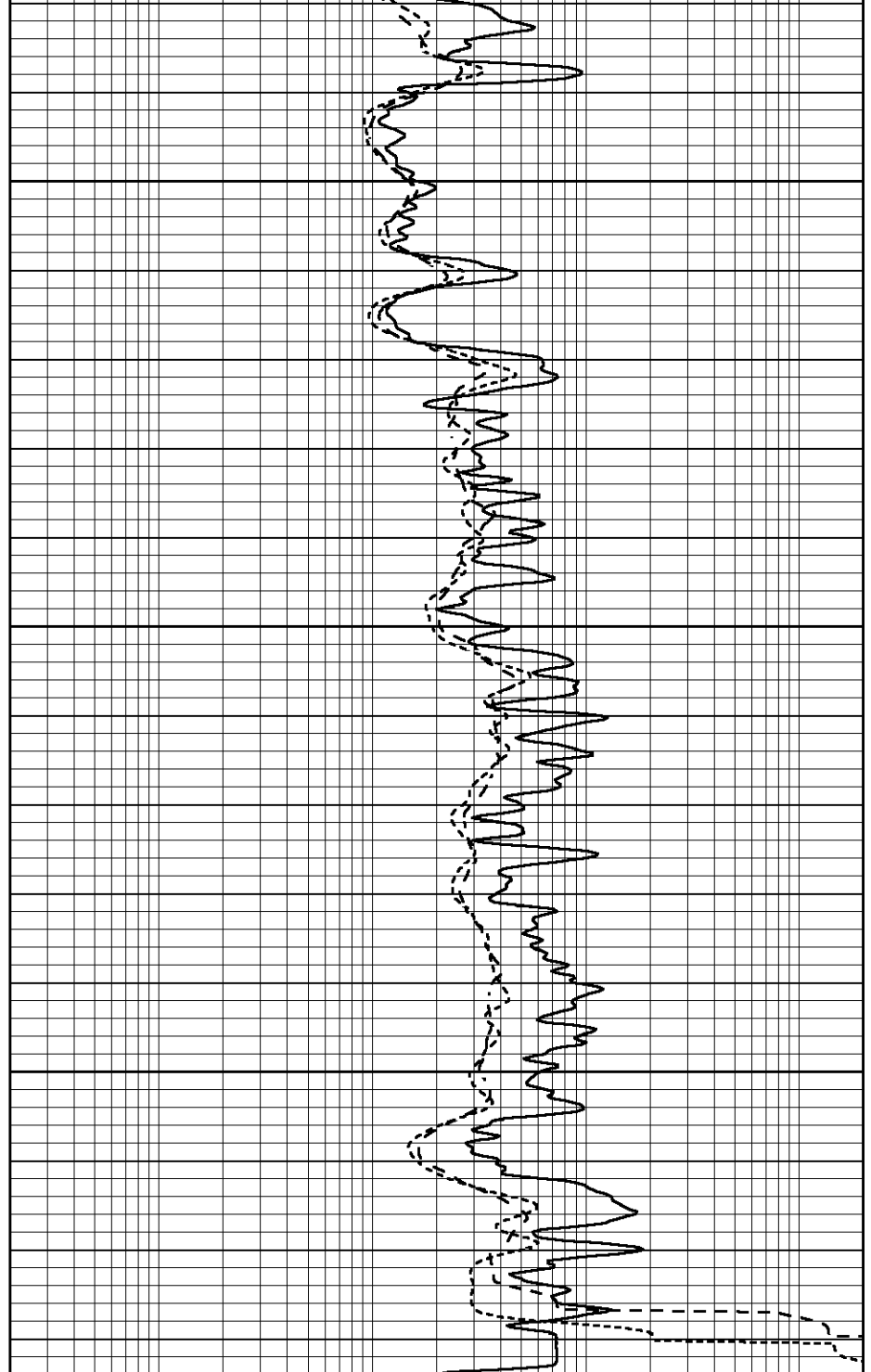


3100

3150

3200

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



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

Calibration Report

Database File 7318pe.db
 Dataset Pathname pass3.1M
 Dataset Creation Mon Aug 14 02:52:11 2023

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Mon Aug 14 00:43:09 2023
 Downhole Cal Performed: Mon Aug 14 00:39:25 2023
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration								
Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	660.000	14.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	620.000	4.000
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: 004 Model: PRB

Master Calibration					Performed Tue Aug 02 11:29:35 2022			
	Background	Magnesium	Aluminum	Aluminum+Fe				
Window 1	1154.2	10019.5	3137.9	2795.6				cps
Window 2	1054.4	8597.6	2733.4	2469.5				cps
Window 3	902.3	5241.4	1832.1	1719.3				cps
Window 4	251.9	261.1	255.8	252.9				cps
Long Space	0.0	7543.2	1679.0	1415.0				cps
Short Space	4.4	2049.3	1321.7	1116.8				cps
Rho		1.7100	2.5900	0.0000				g/cc
Pe		2.0000	2.7500	5.7900				
Rib Angle	: 43.7	Rib Slope	: 0.957	Density/Spine Ratio				: 0.562
Spine Angle	: 73.7	Spine Slope	: 3.426	Spine Intercept				: -17.2

Before Survey Verification					Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0				cps
Window 2	0.0	0.0	0.0	0.0				cps
Window 3	0.0	0.0	0.0	0.0				cps
Window 4	0.0	0.0	0.0	0.0				cps
Long Space	0.0	0.0	0.0	0.0				cps
Short Space	0.0	0.0	0.0	0.0				cps
Measured Rho		0.0000	0.0000	0.0000				g/cc
Measured Correction		0.0000	0.0000	0.0000				g/cc
Measured Pe			0.0000	0.0000				

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808PMC
Tool Model: NABORS

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: 070558
Tool Model: OPEN_GR
Performed: Tue Aug 01 12:36:48 2023

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps