



DUAL INDUCTION LOG

Company	INDIAN OIL COMPANY, INC.	Company	INDIAN OIL COMPANY, INC.
Well	BANKS NORTH #4	Well	BANKS NORTH #4
Field	AMBER CREEK	Field	AMBER CREEK
County	BARBER	County	BARBER
State	KANSAS	State	KANSAS
Location:	API # : 15-007-24486-0000 1400' FNL & 495' FWL NE - NW - SW - NW	Other Services CDL/CNL/PE MEL/SON/FF	
Permanent Datum	GROUND LEVEL	Elevation	1652
Log Measured From	KELLY BUSHING 11' A.G.L.	K.B. 1663 D.F. 1661 G.L. 1652	
Drilling Measured From	KELLY BUSHING		
Date	12/15/23		
Run Number	ONE		
Depth Driller	4792		
Depth Logger	4792		
Bottom Logged Interval	4790		
Top Log Interval	00		
Casing Driller	8 5/8" @ 222		
Casing Logger	218		
Bit Size	7.785		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 7.000 PPM	
Density / Viscosity	9.4/54		
pH / Fluid Loss	9.5/10.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.950 @ 79F		
Rmf @ Meas. Temp	.713 @ 79F		
Rmc @ Meas. Temp	1.14 @ 79F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.610 @ 123F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	9:15 P.M.		
Maximum Recorded Temperature	123F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	AARON YOUNG	ANTHONY FARRAR	

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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.

15-007-24486-0000

Comments

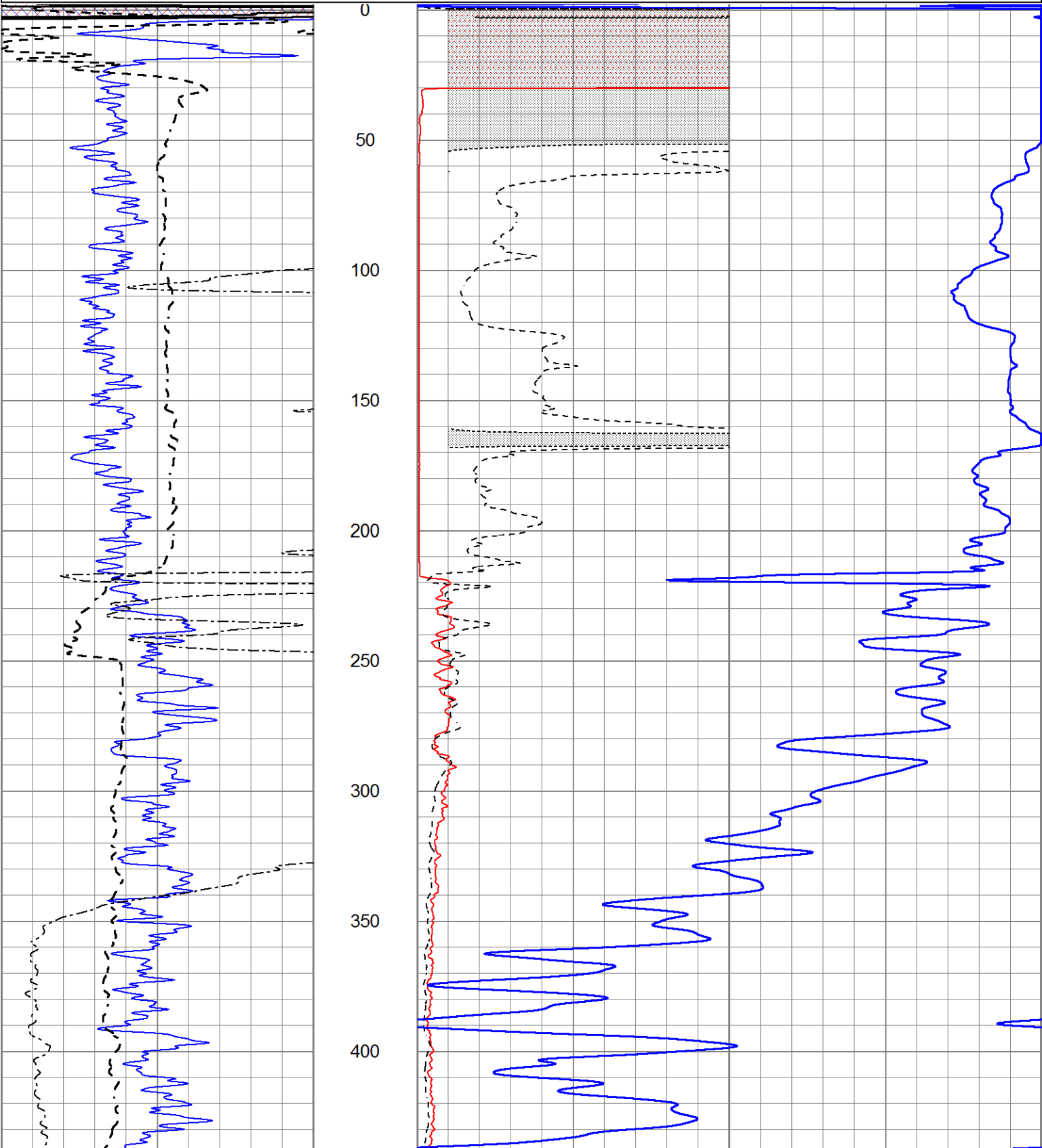
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
MEDICINE LODGE, KS., N. ON HWY 281 TO "99 SPRINGS RD.", E. TO GREEN GATES, S. INTO TAKE
SECOND FORK LEFT

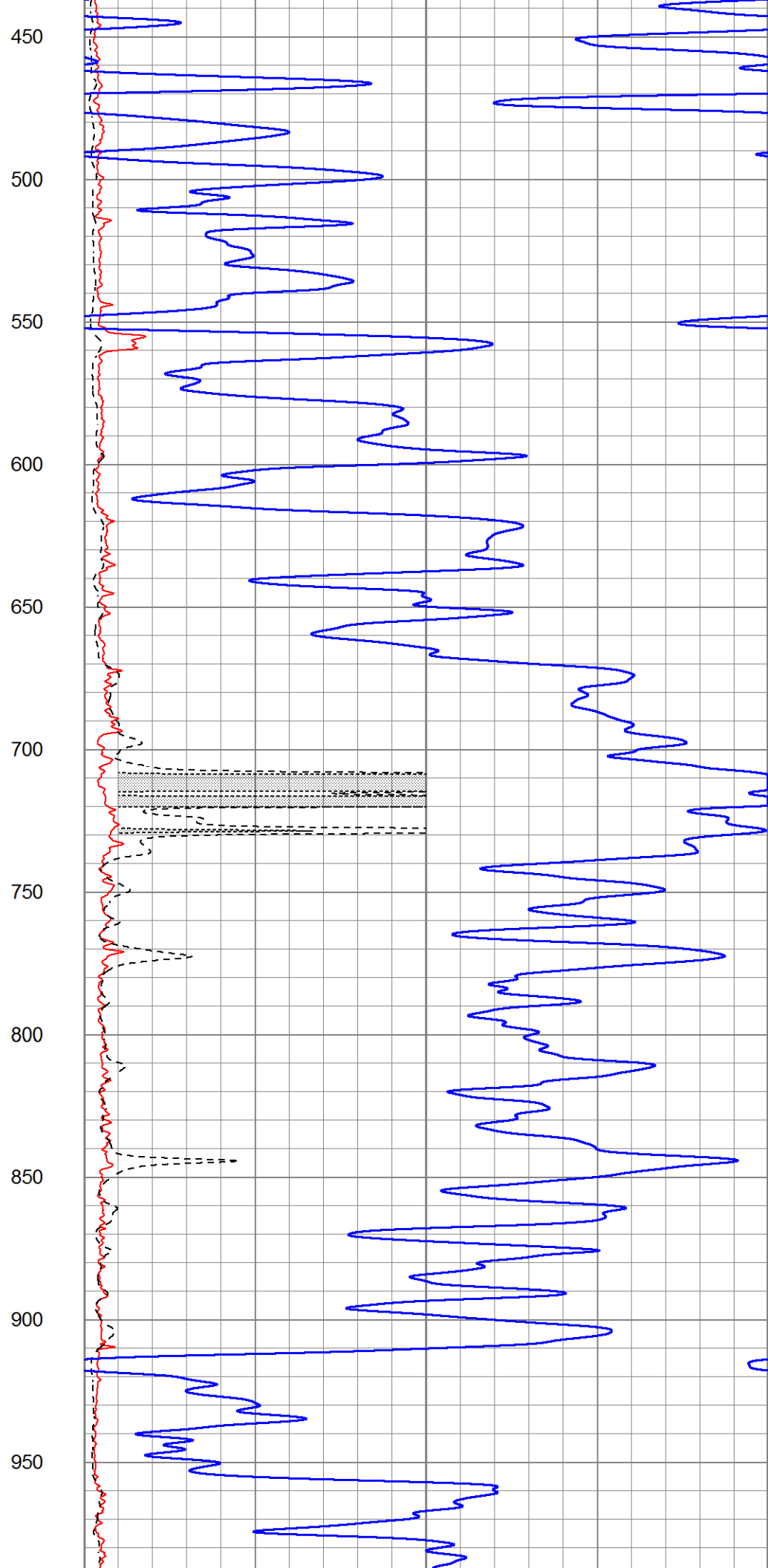
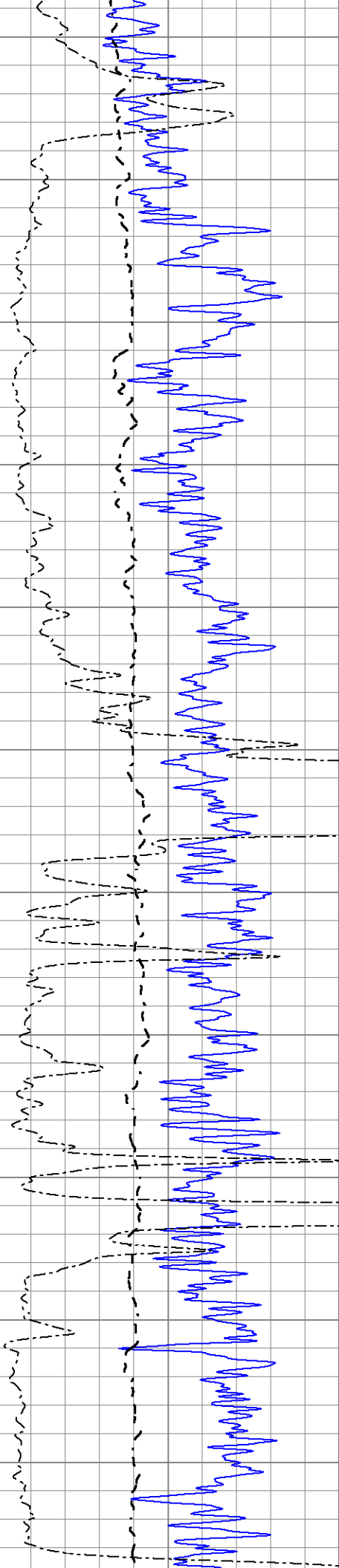


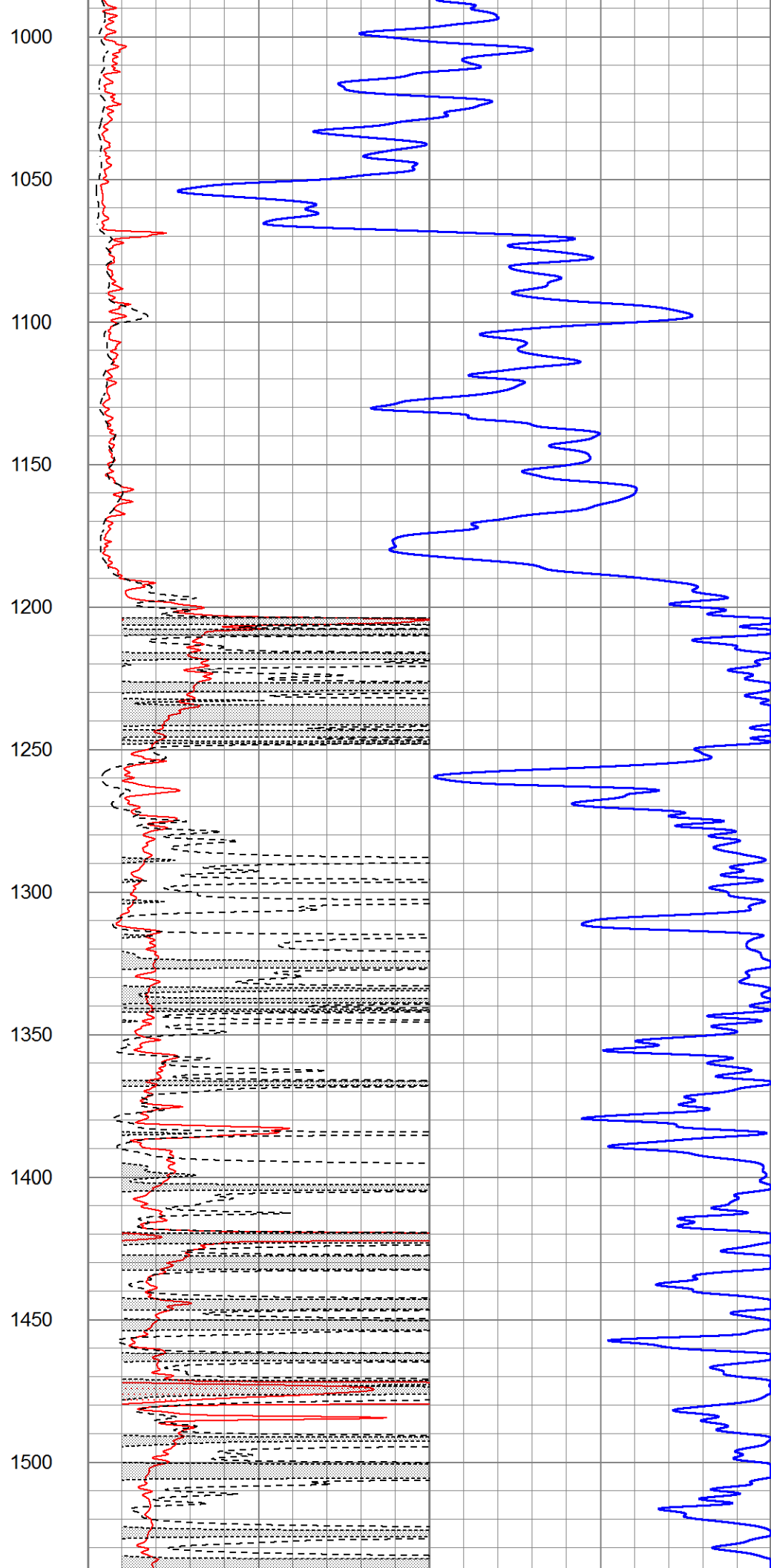
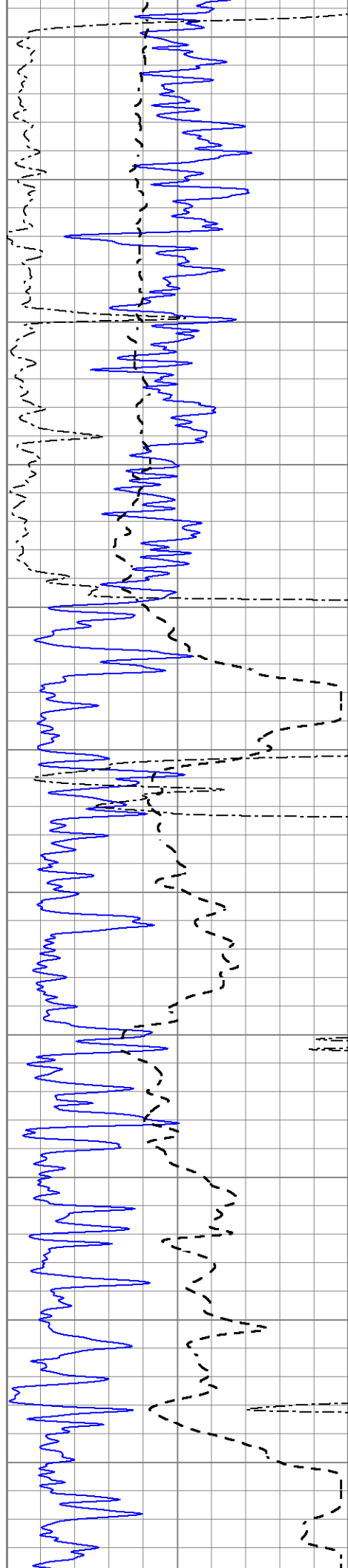
MAIN SECTION

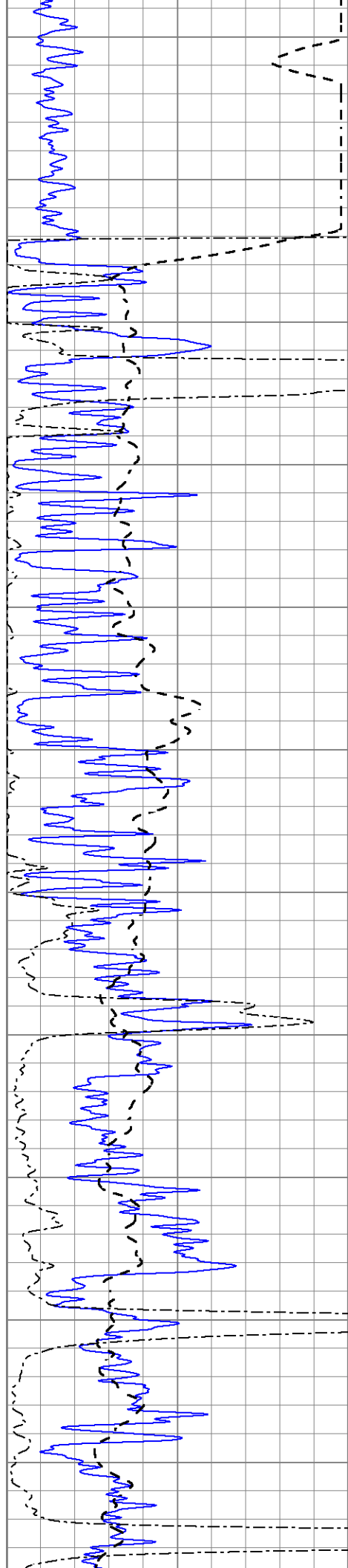
Database File	8348pe.db
Dataset Pathname	pass3.1M
Presentation Format	_dil2
Dataset Creation	Fri Dec 15 23:26:01 2023
Charted by	Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500









1550

1600

1650

1700

1750

1800

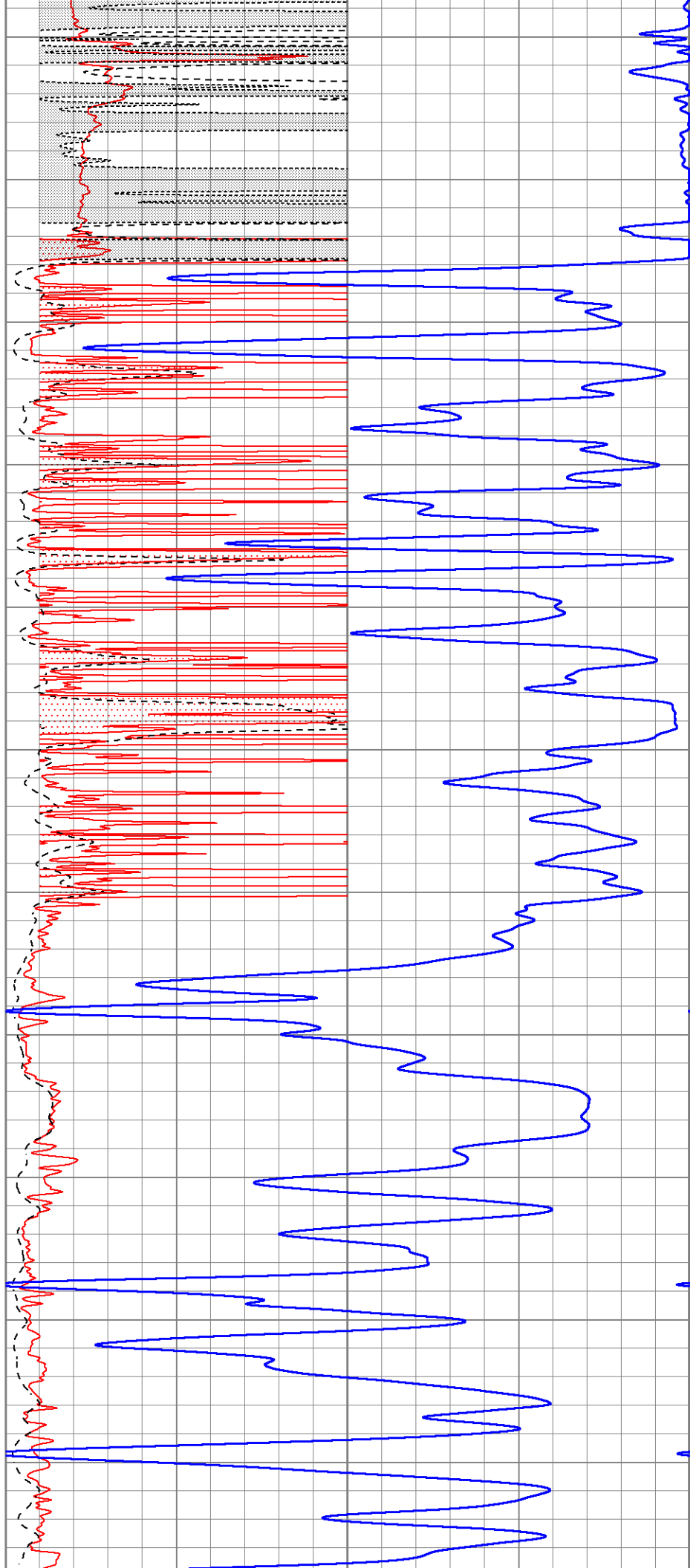
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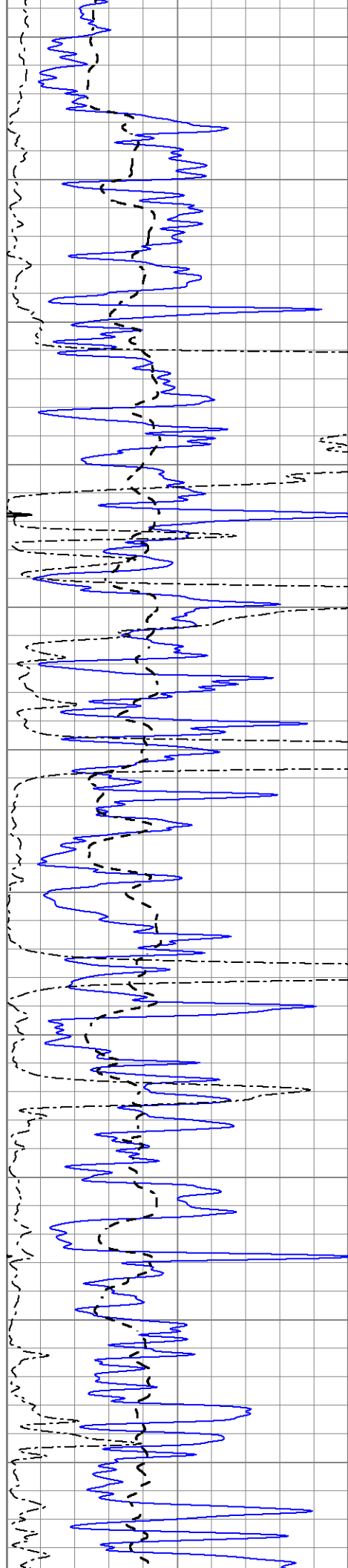
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1950

2000

2050





2100

2150

2200

2250

2300

2350

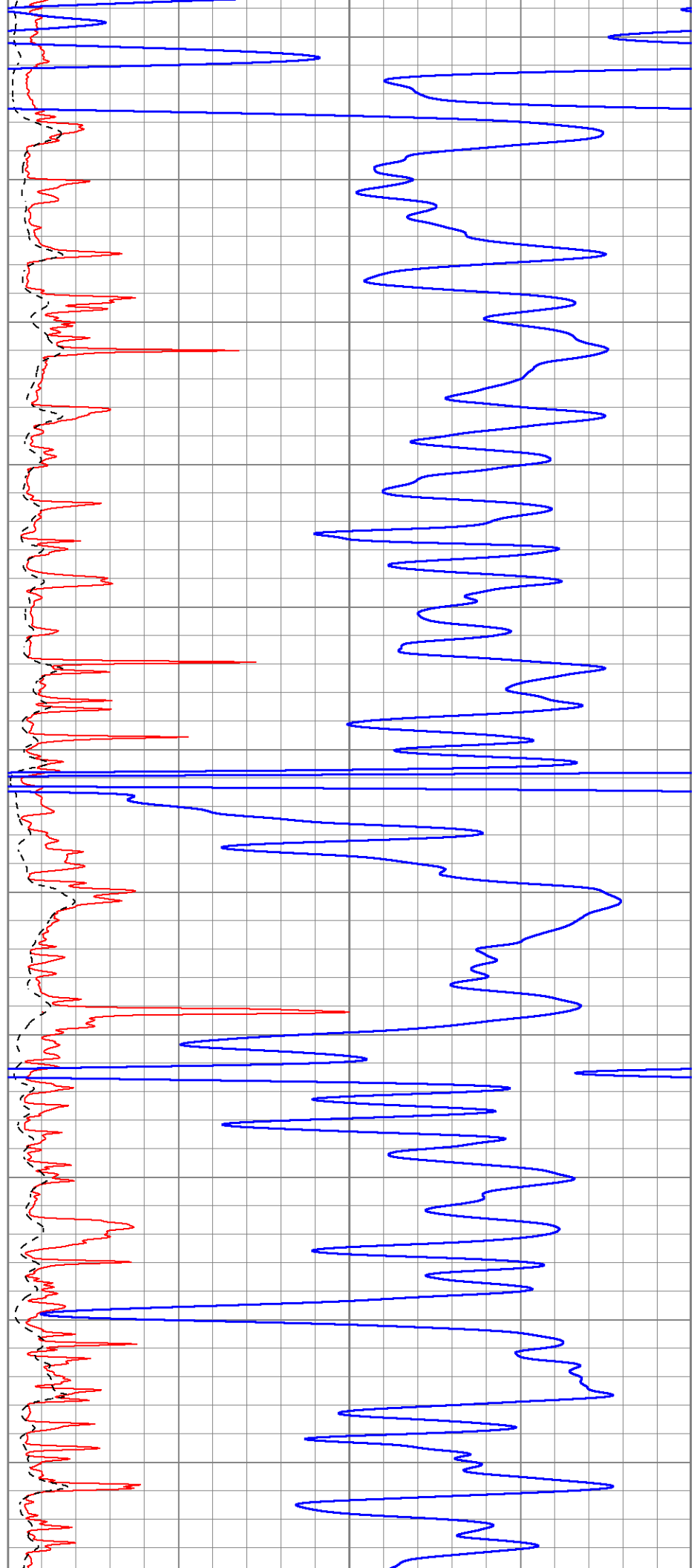
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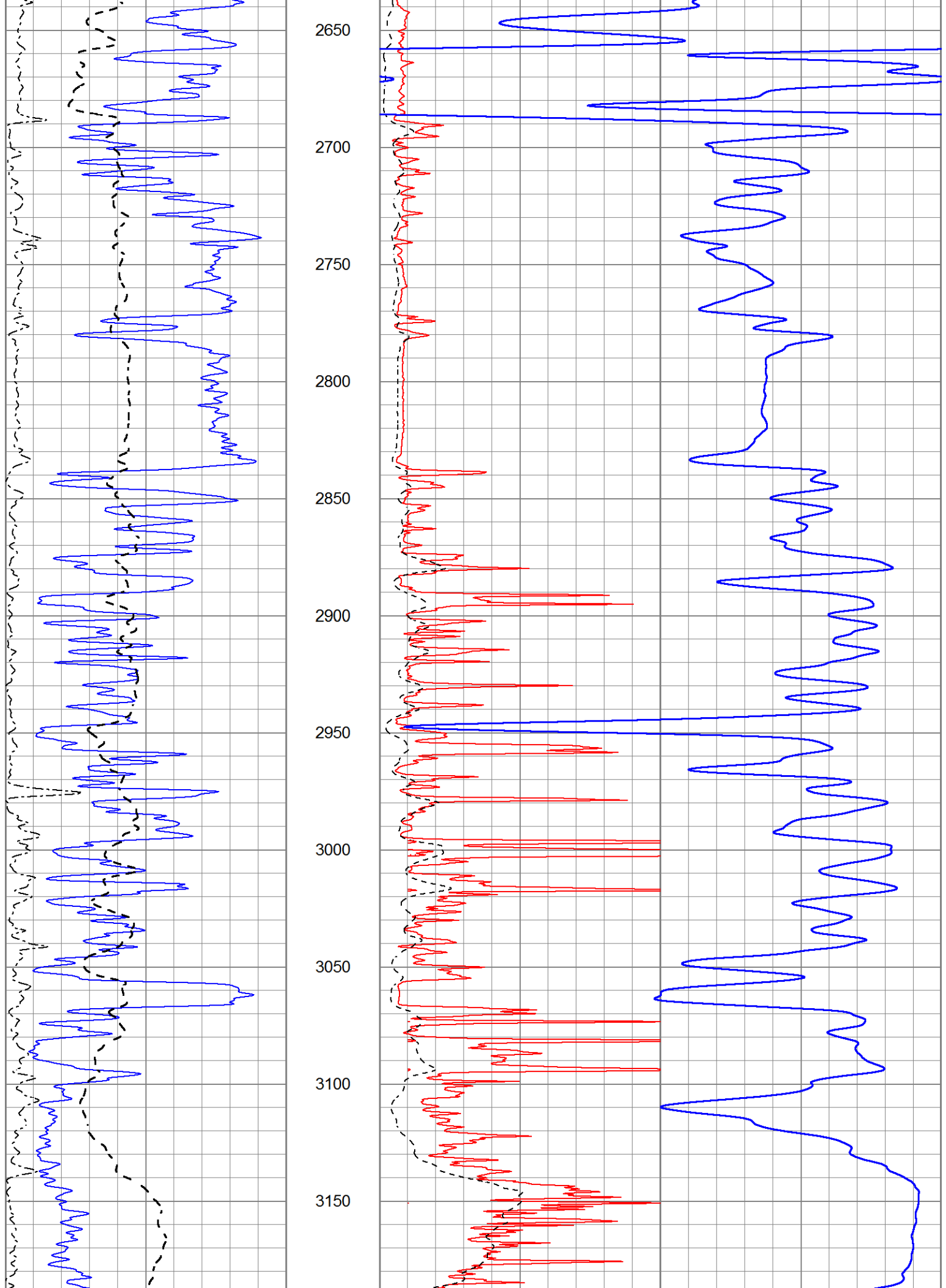
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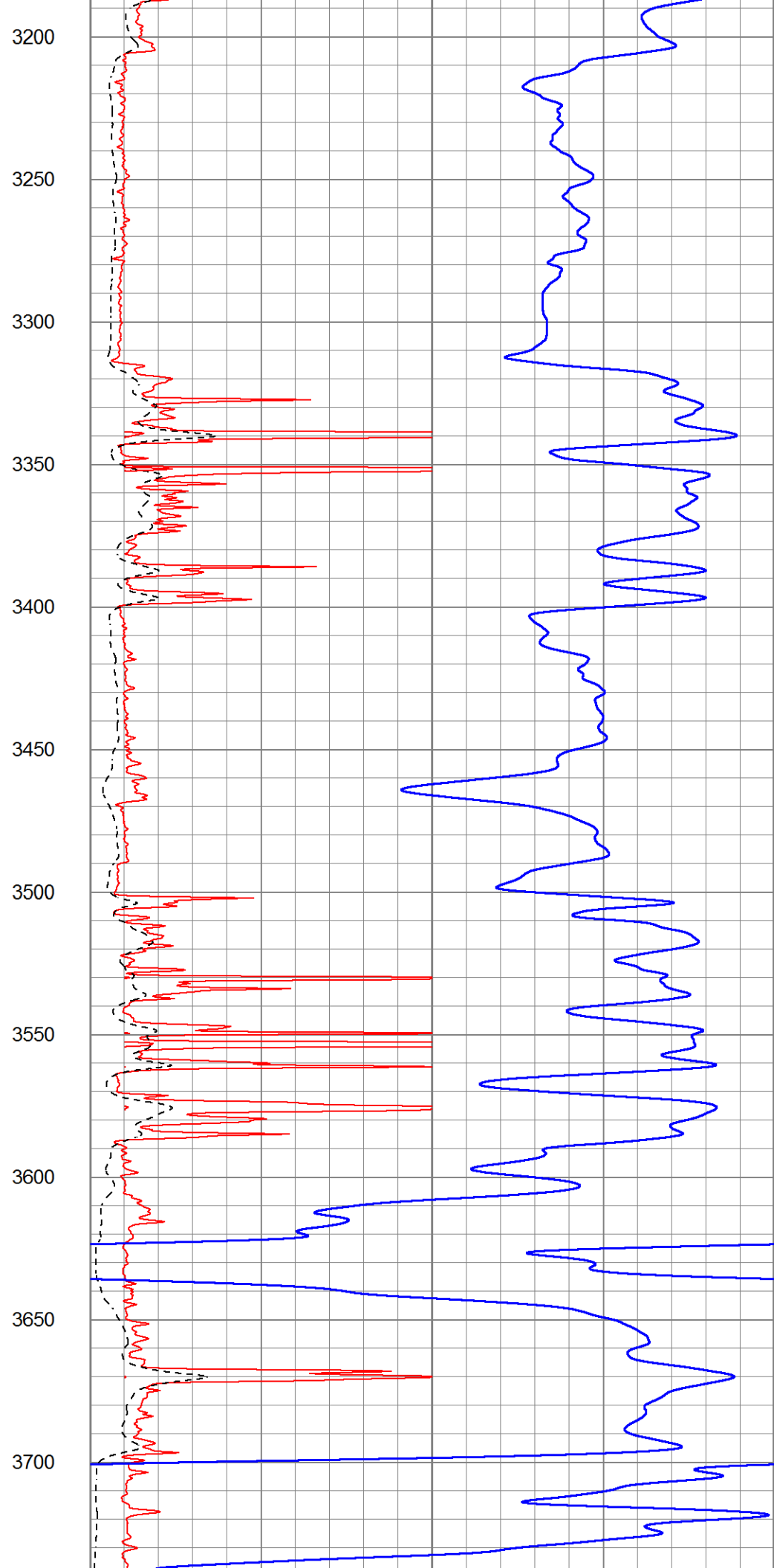
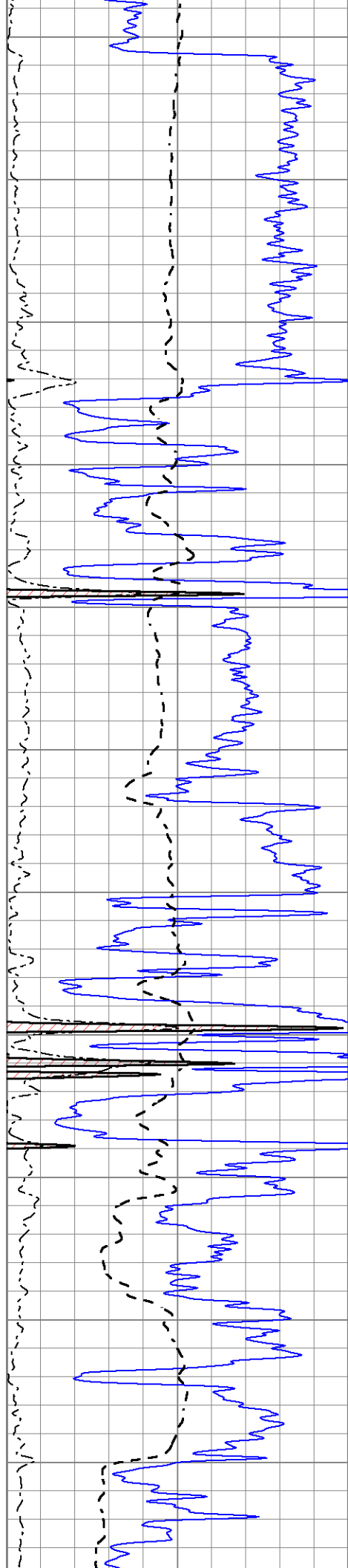
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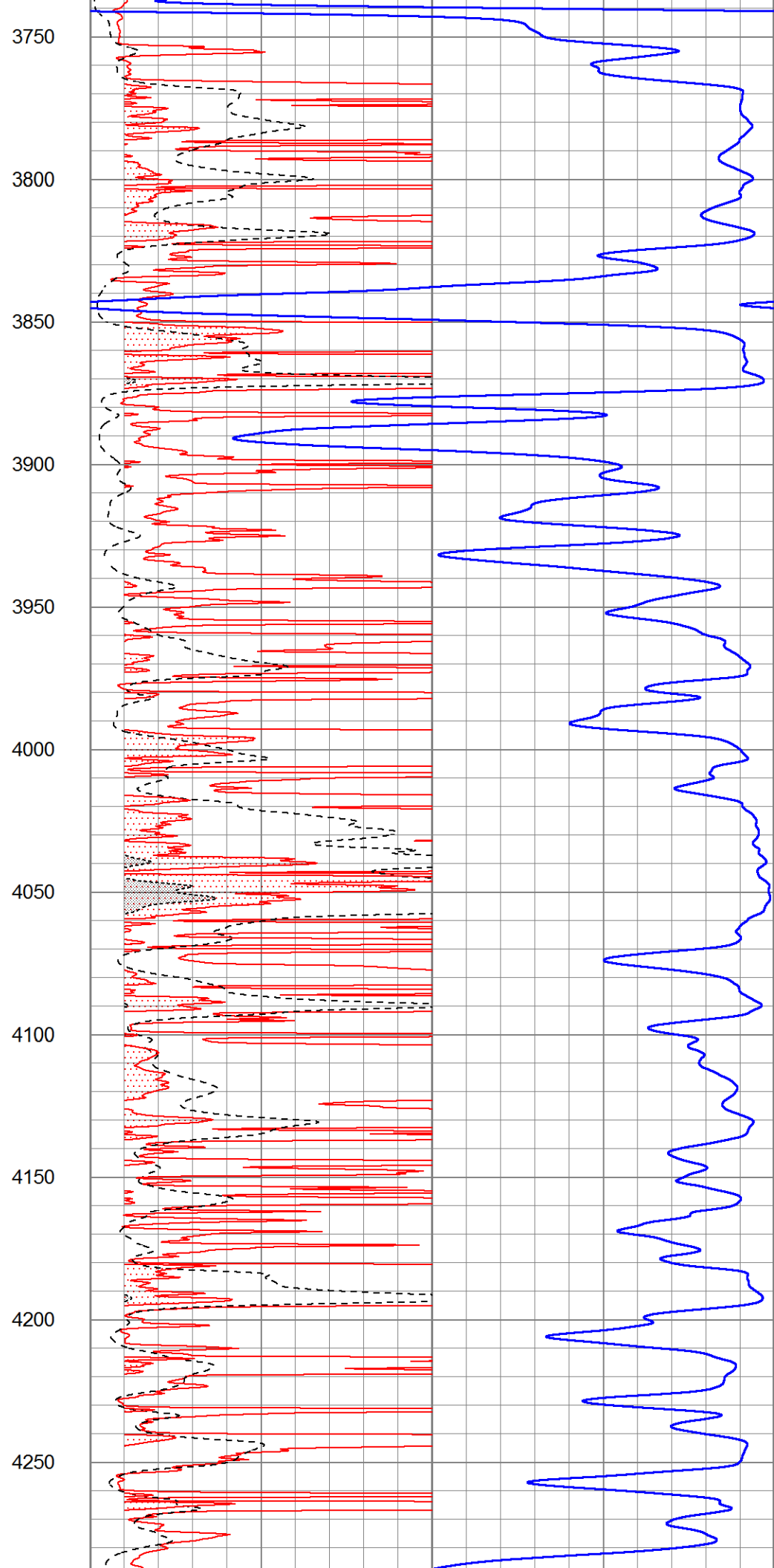
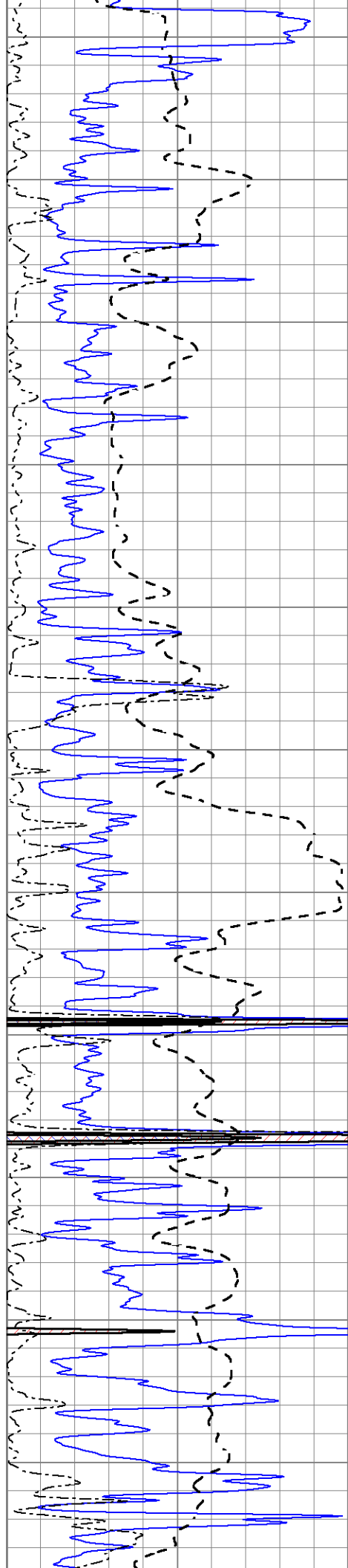
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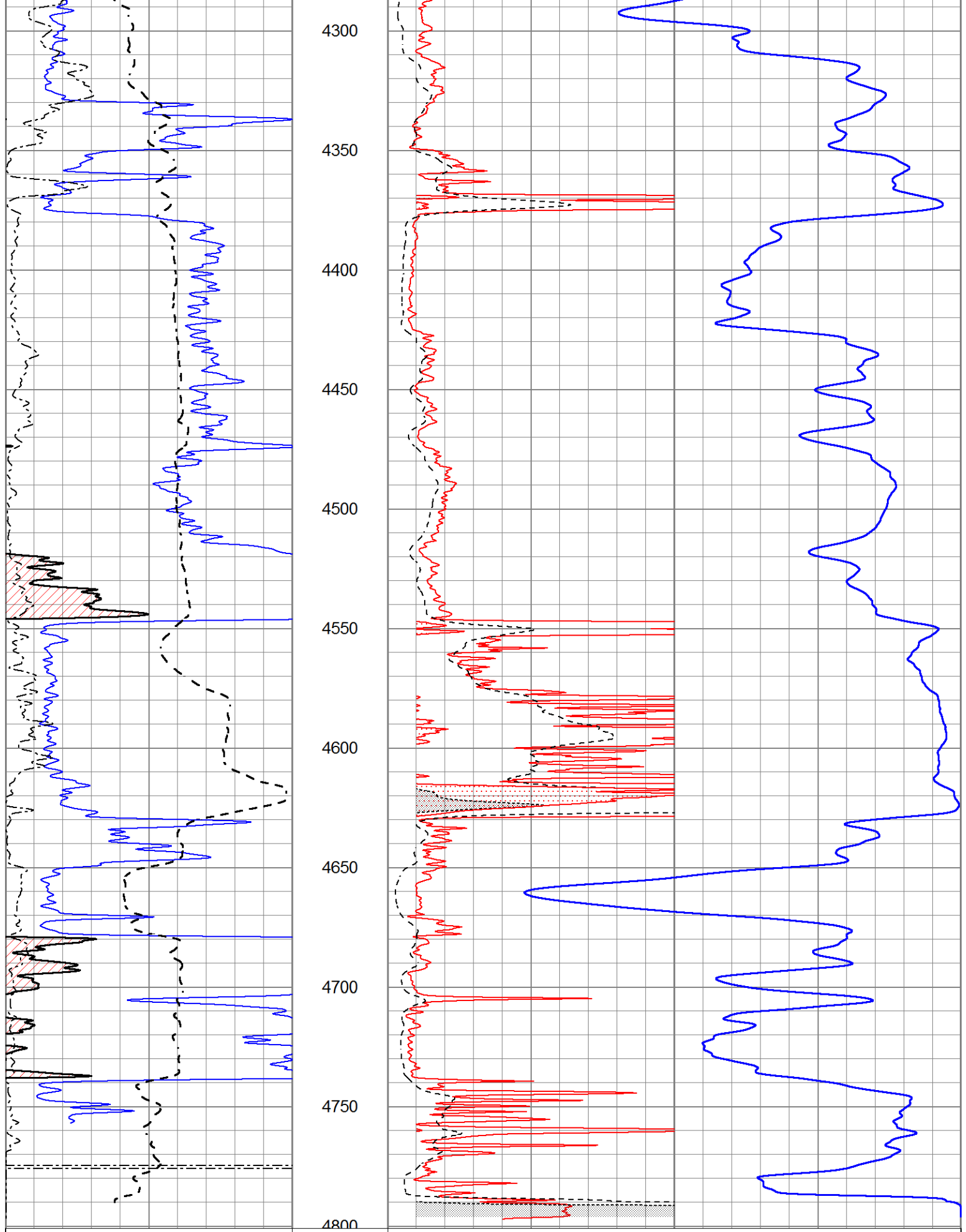
2600











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

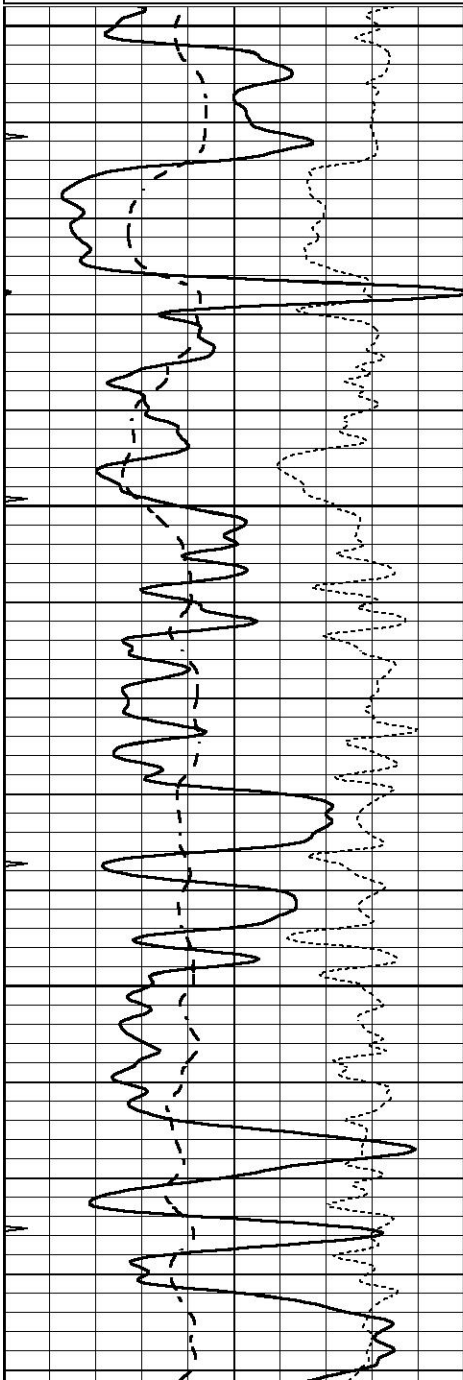


MAIN SECTION

Database File 8348pe.db
 Dataset Pathname pass3.1M
 Presentation Format _dil
 Dataset Creation Fri Dec 15 23:26:01 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

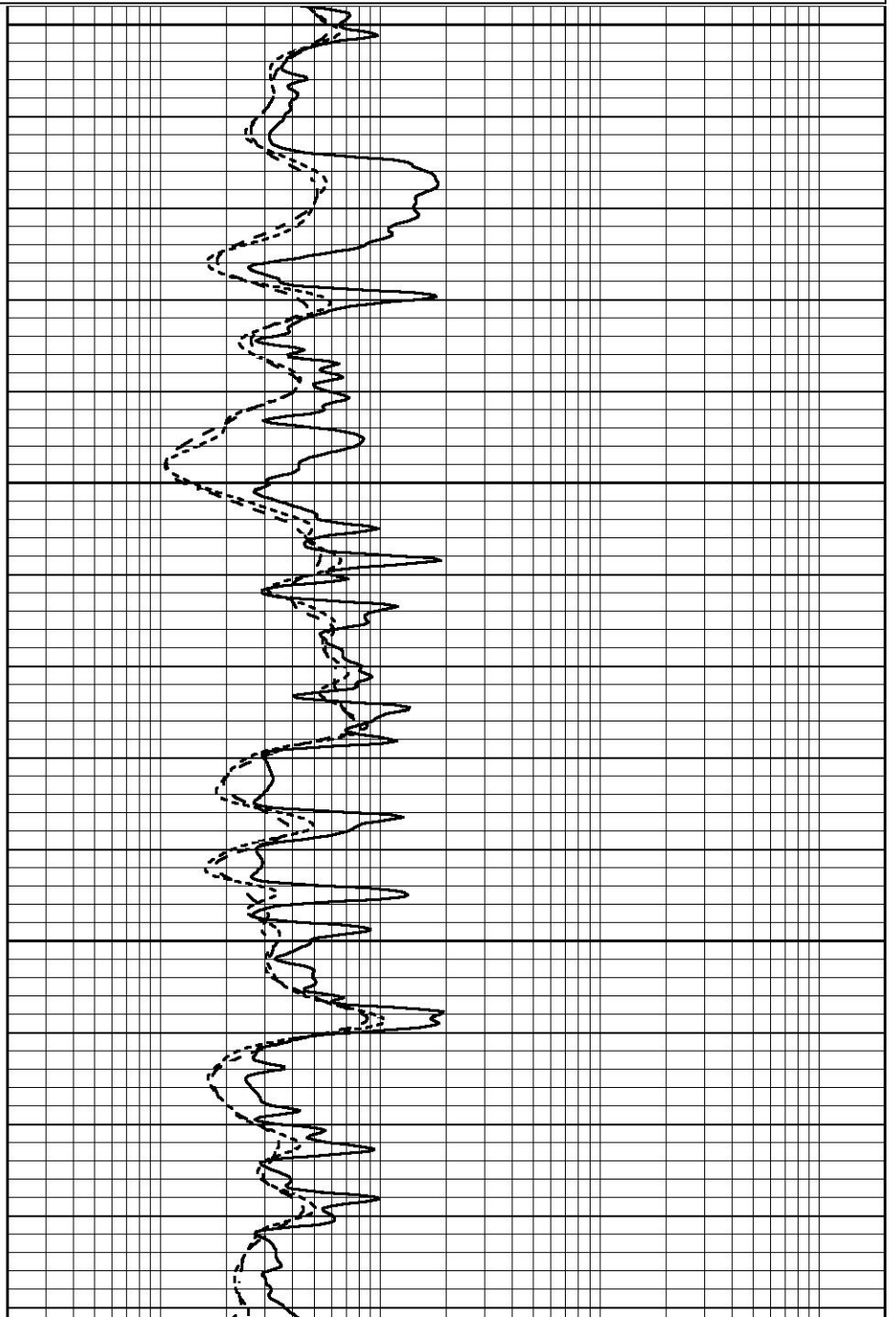
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

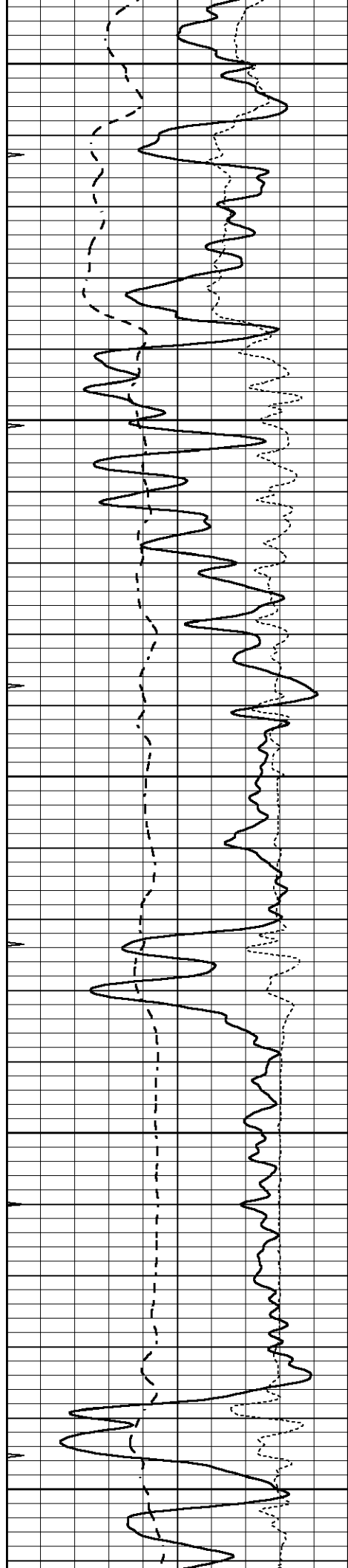


2500

2550

2600





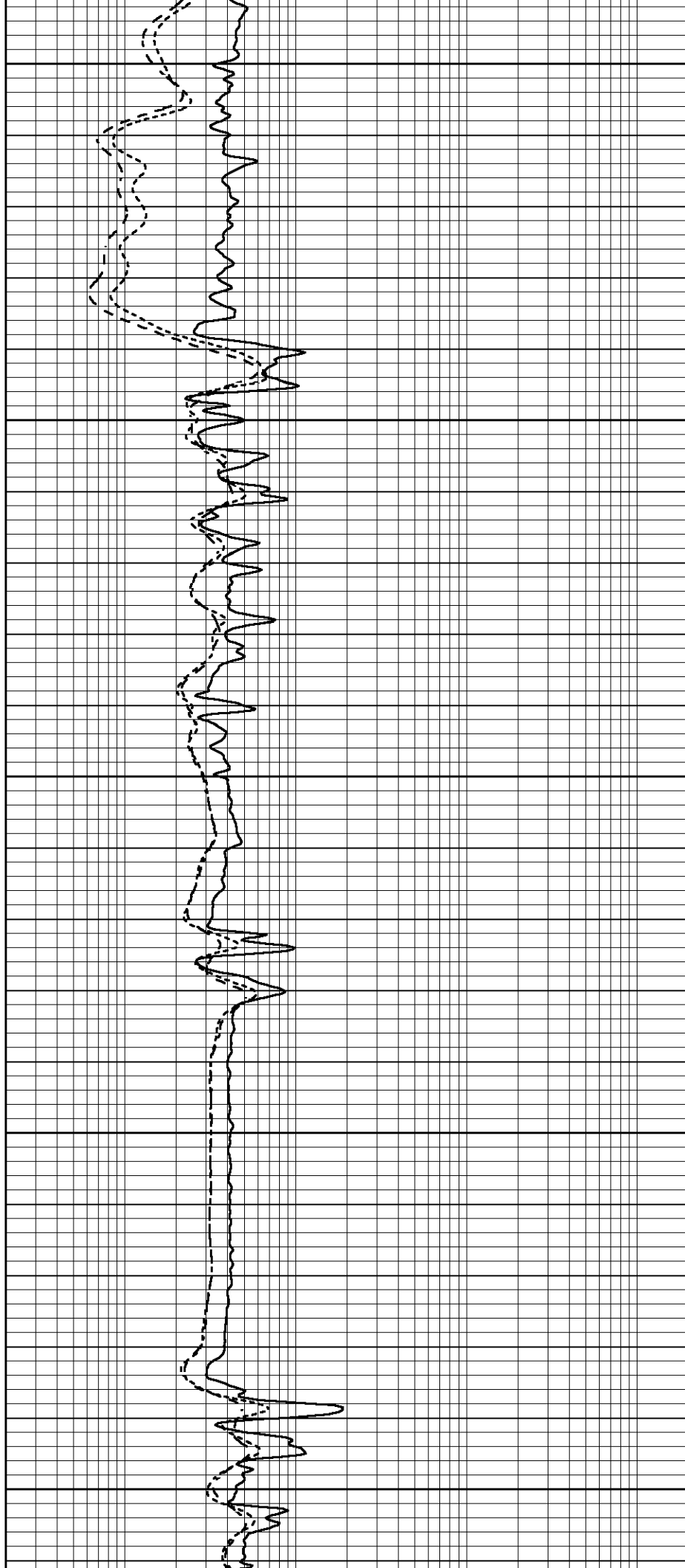
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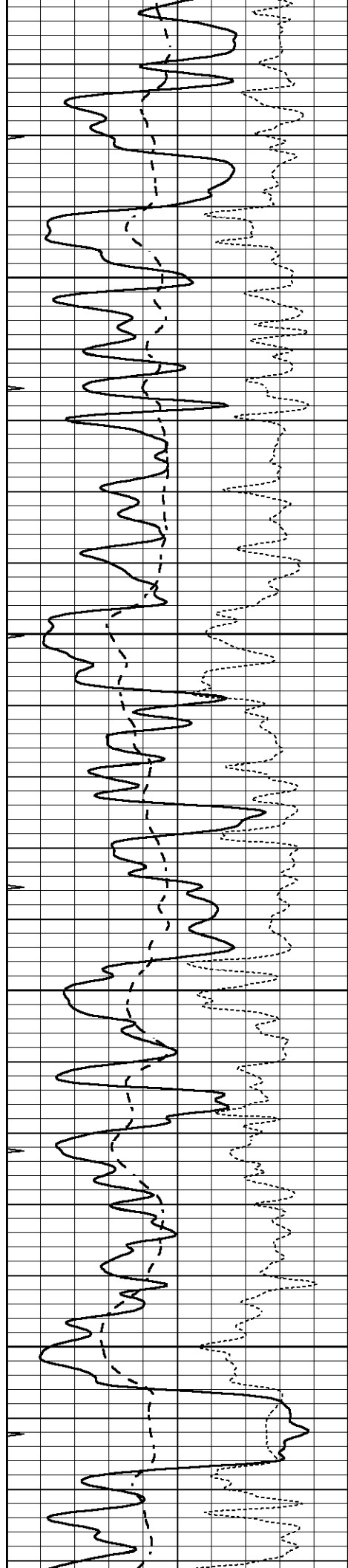
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2750

2800

2850



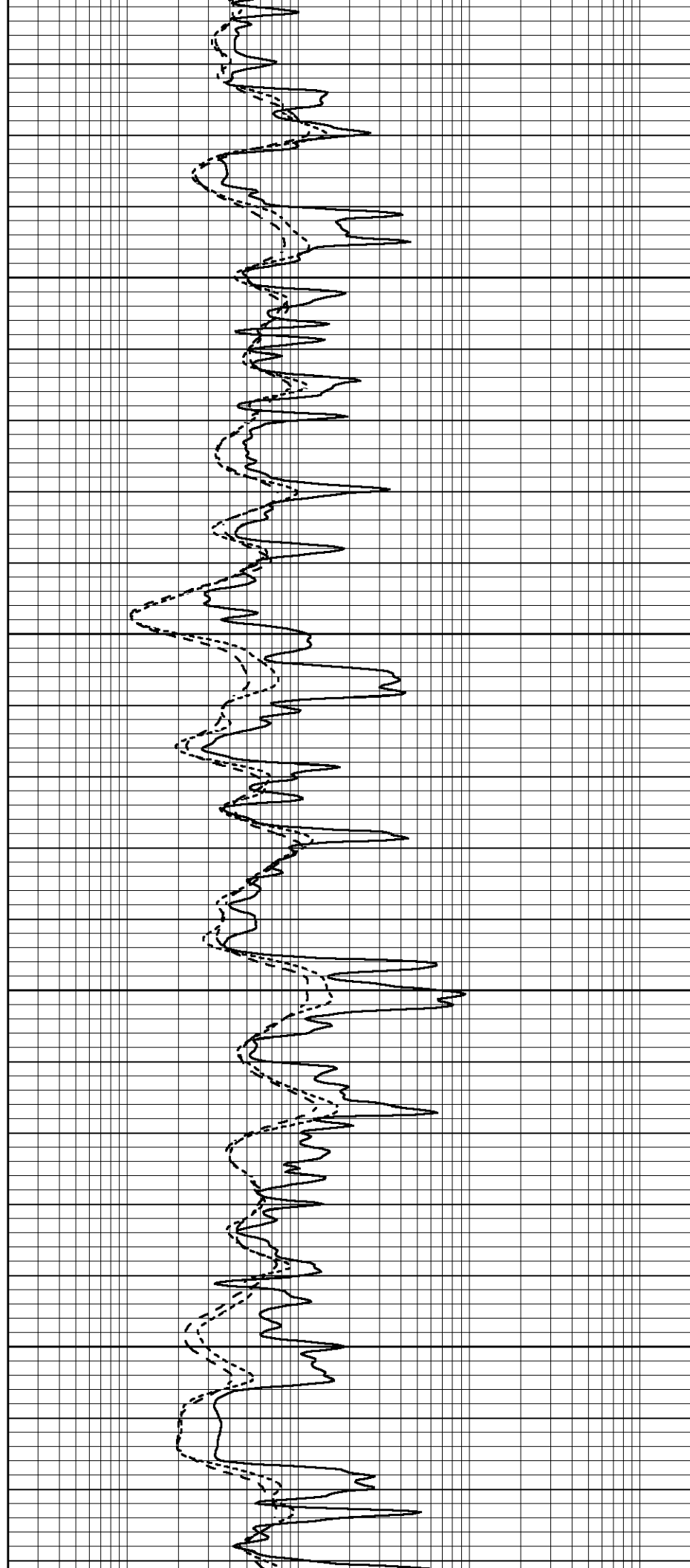


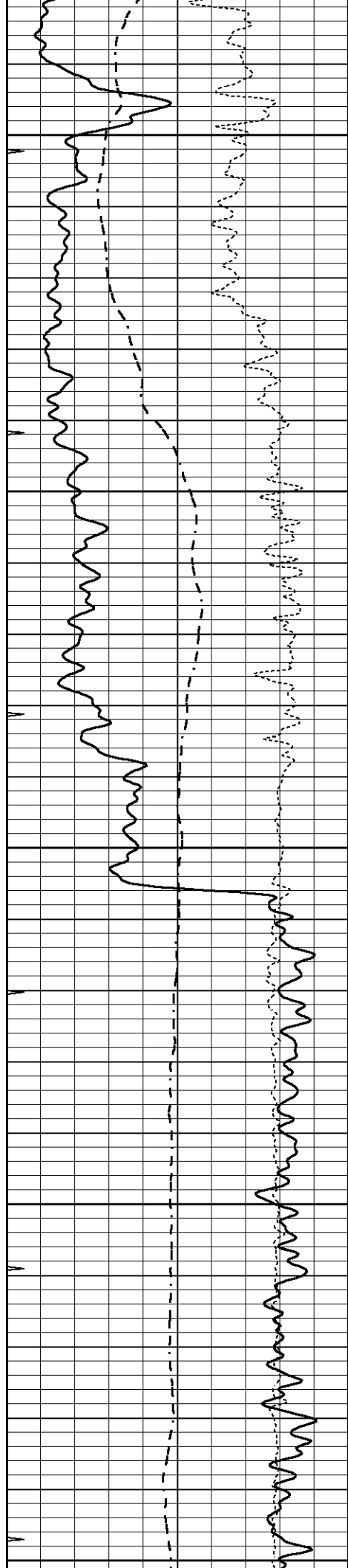
2900

2950

3000

3050





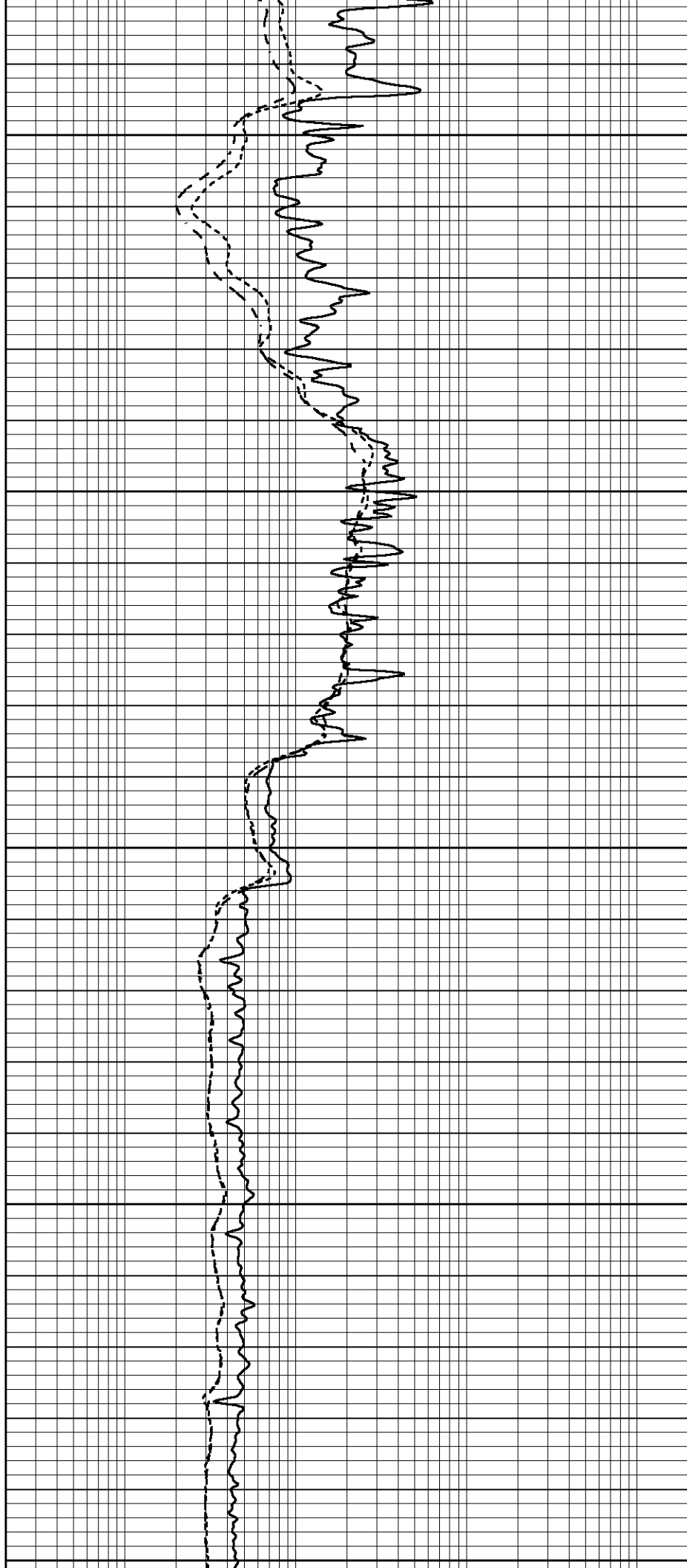
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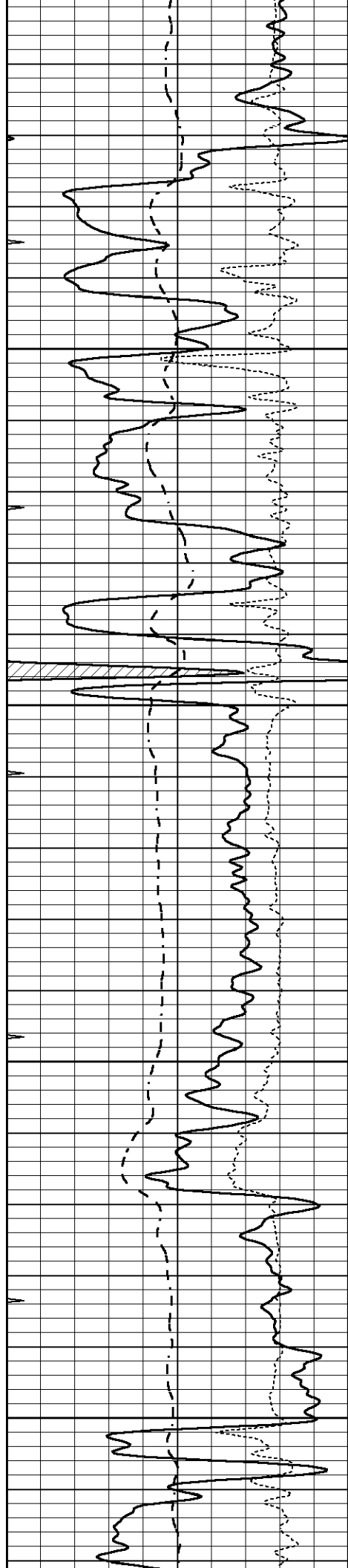
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3200

3250

3300



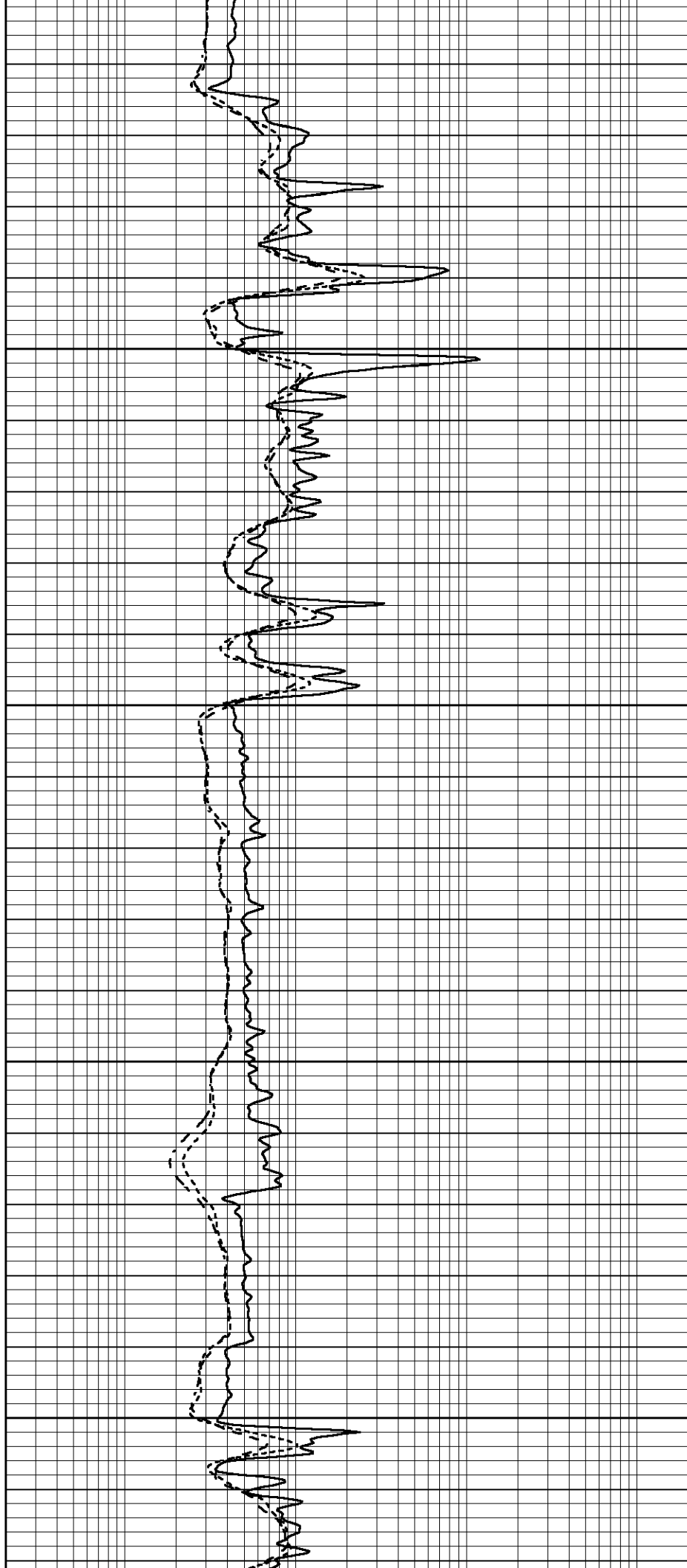


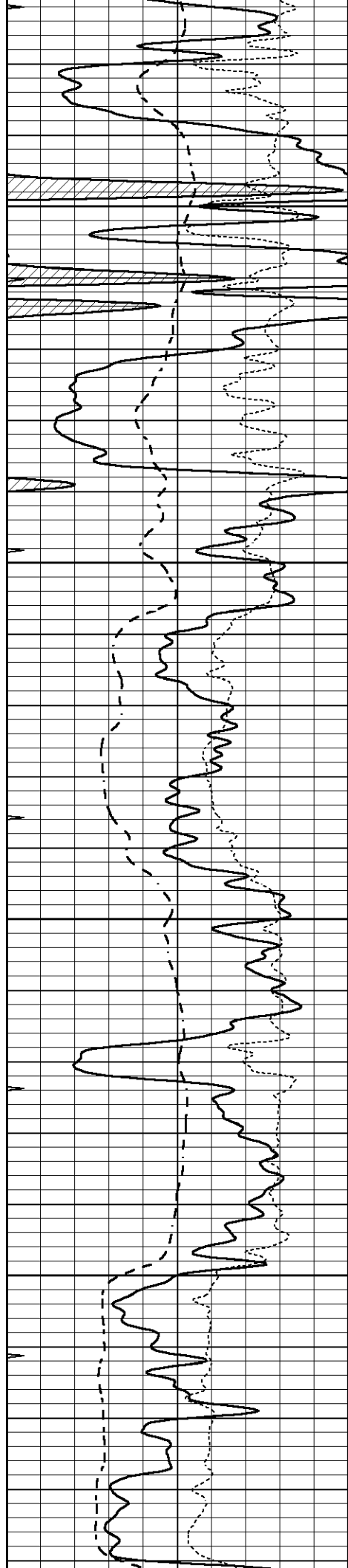
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3400

3450

3500



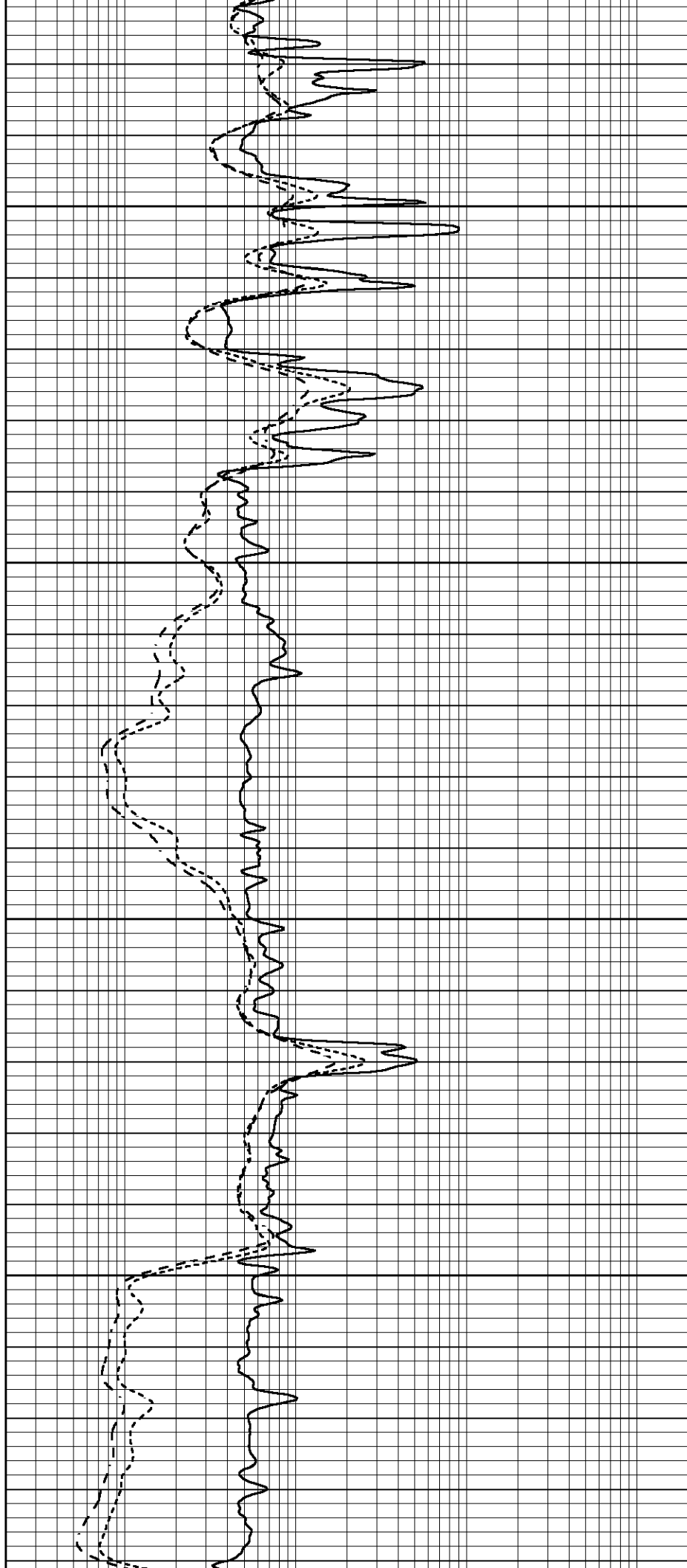


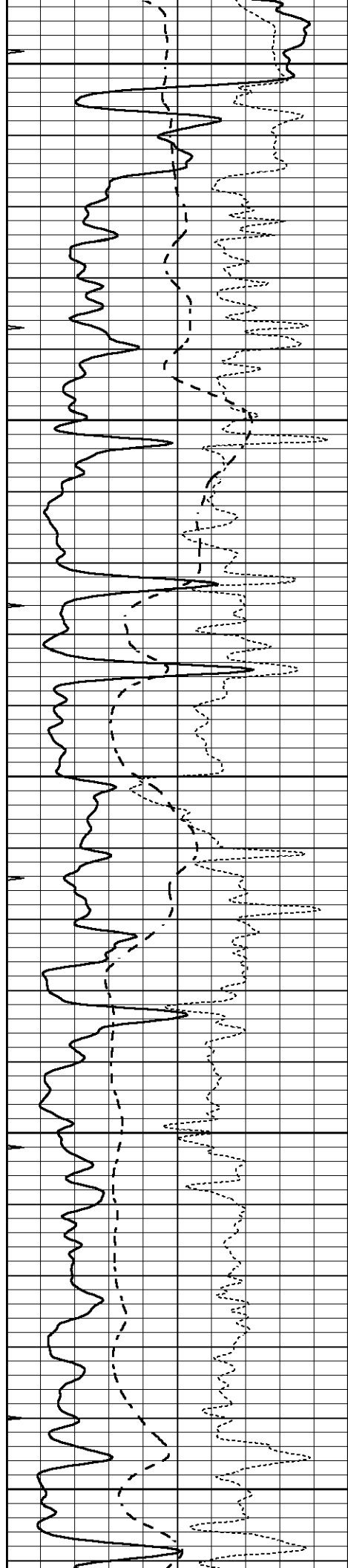
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3600

3650

3700





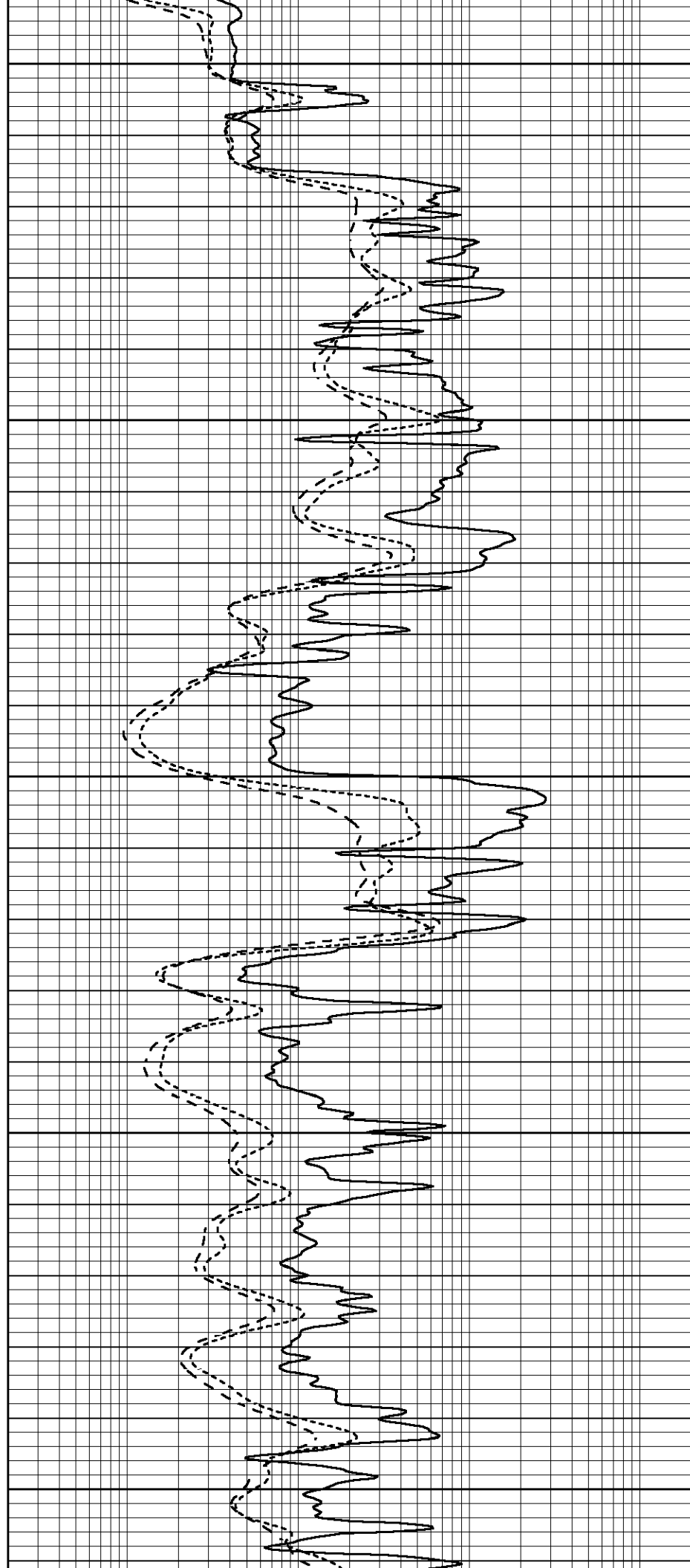
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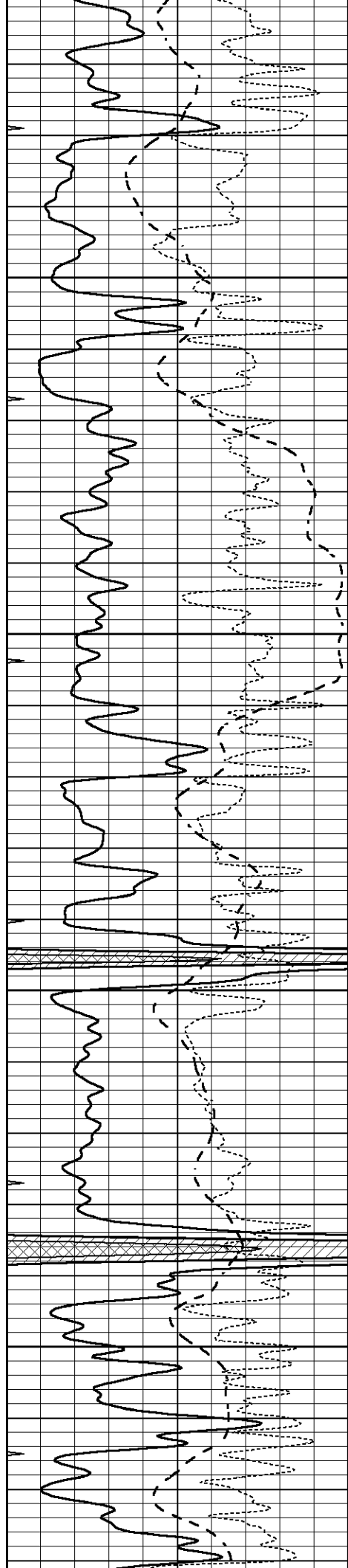
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3850

3900

3950



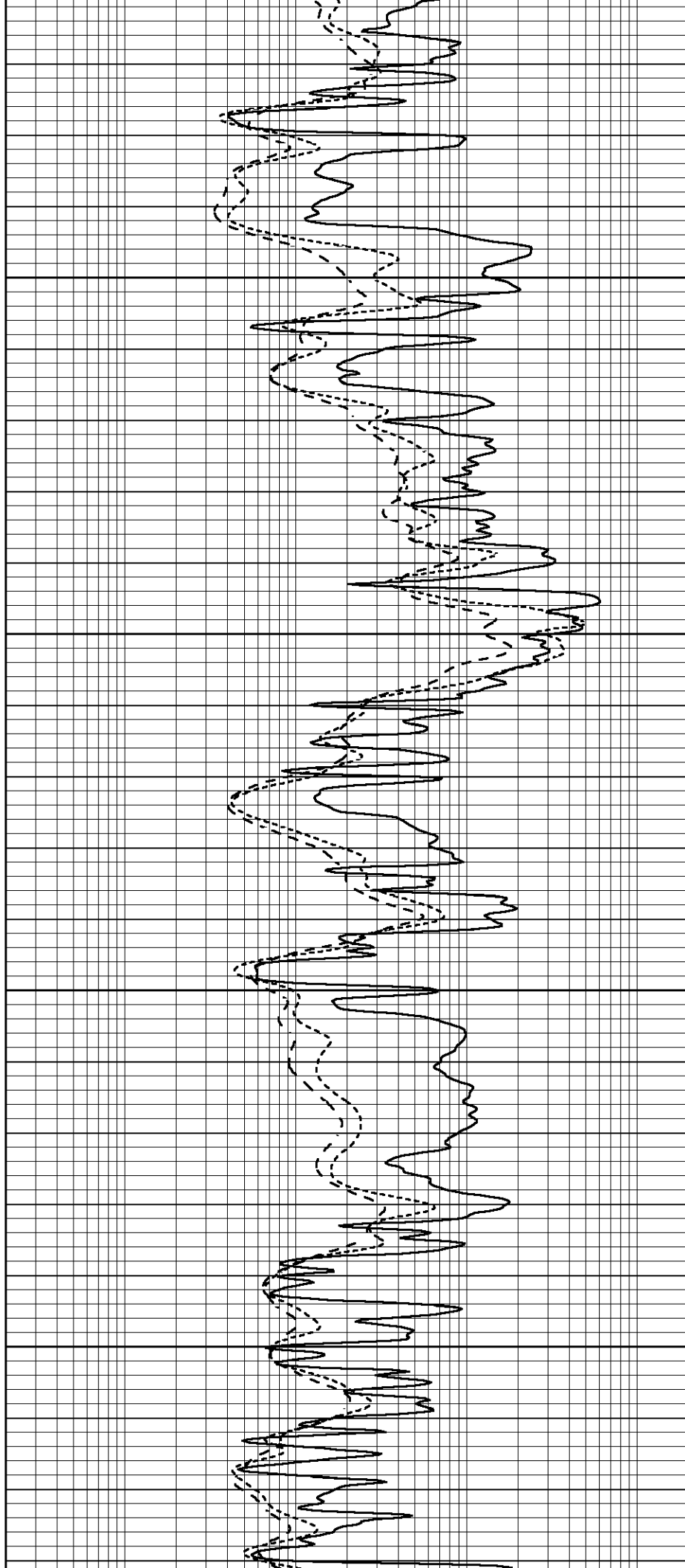


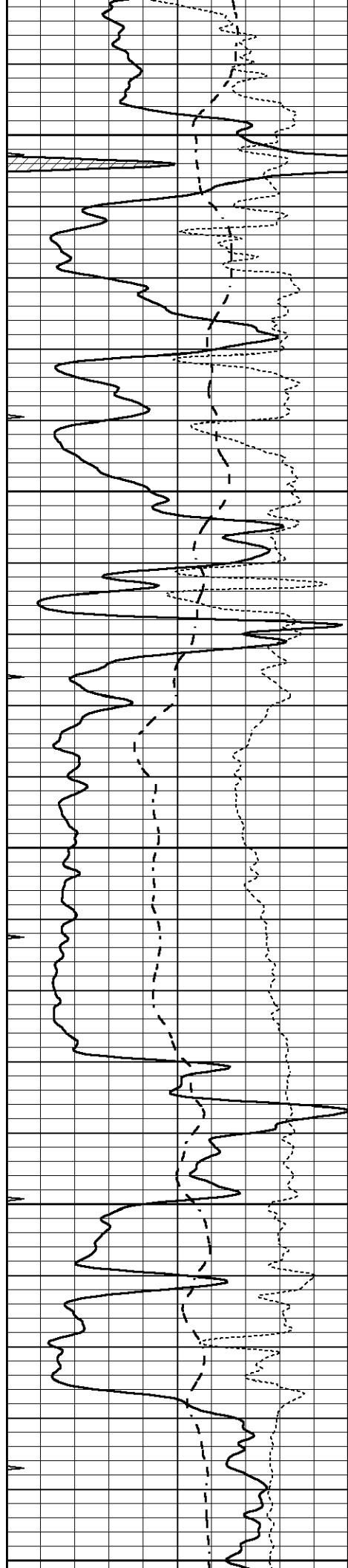
4000

4050

4100

4150





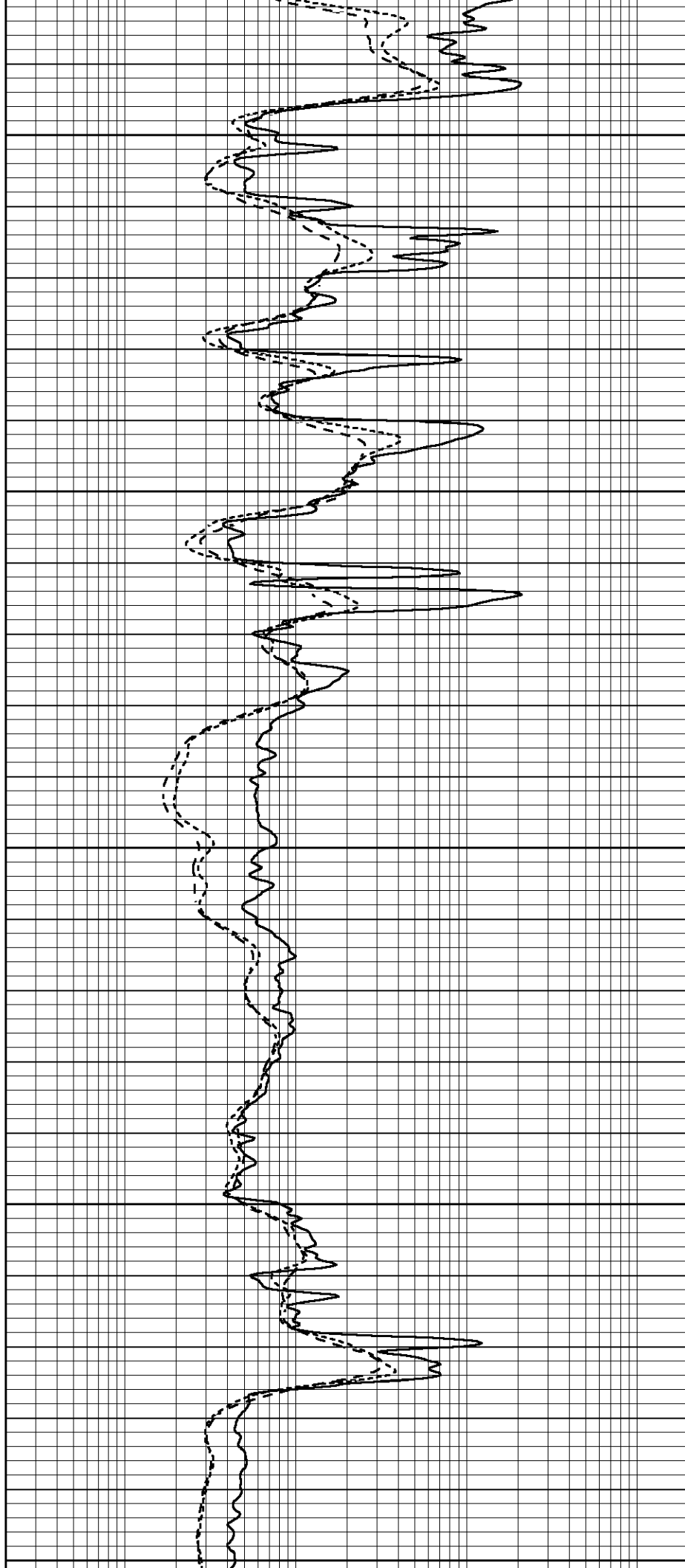
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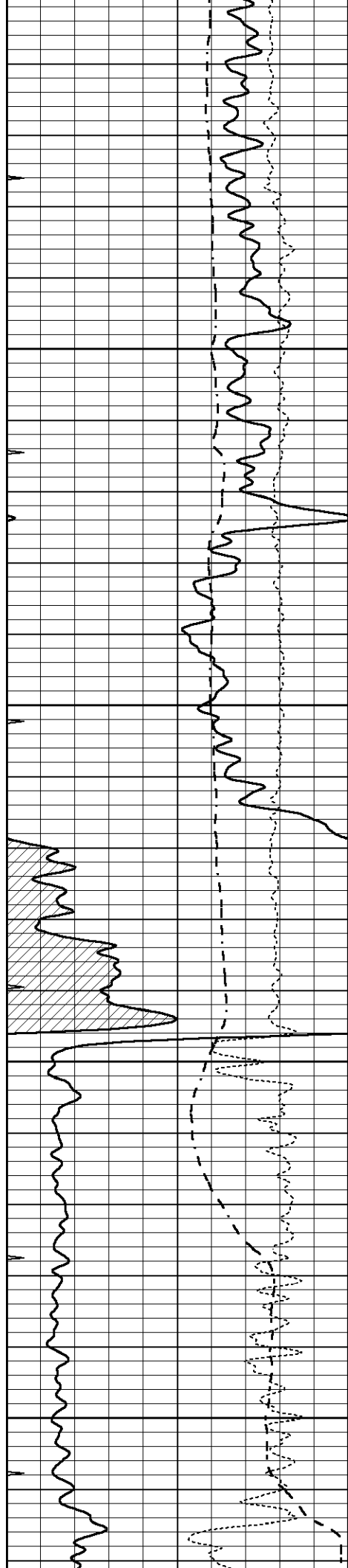
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4300

4350

4400



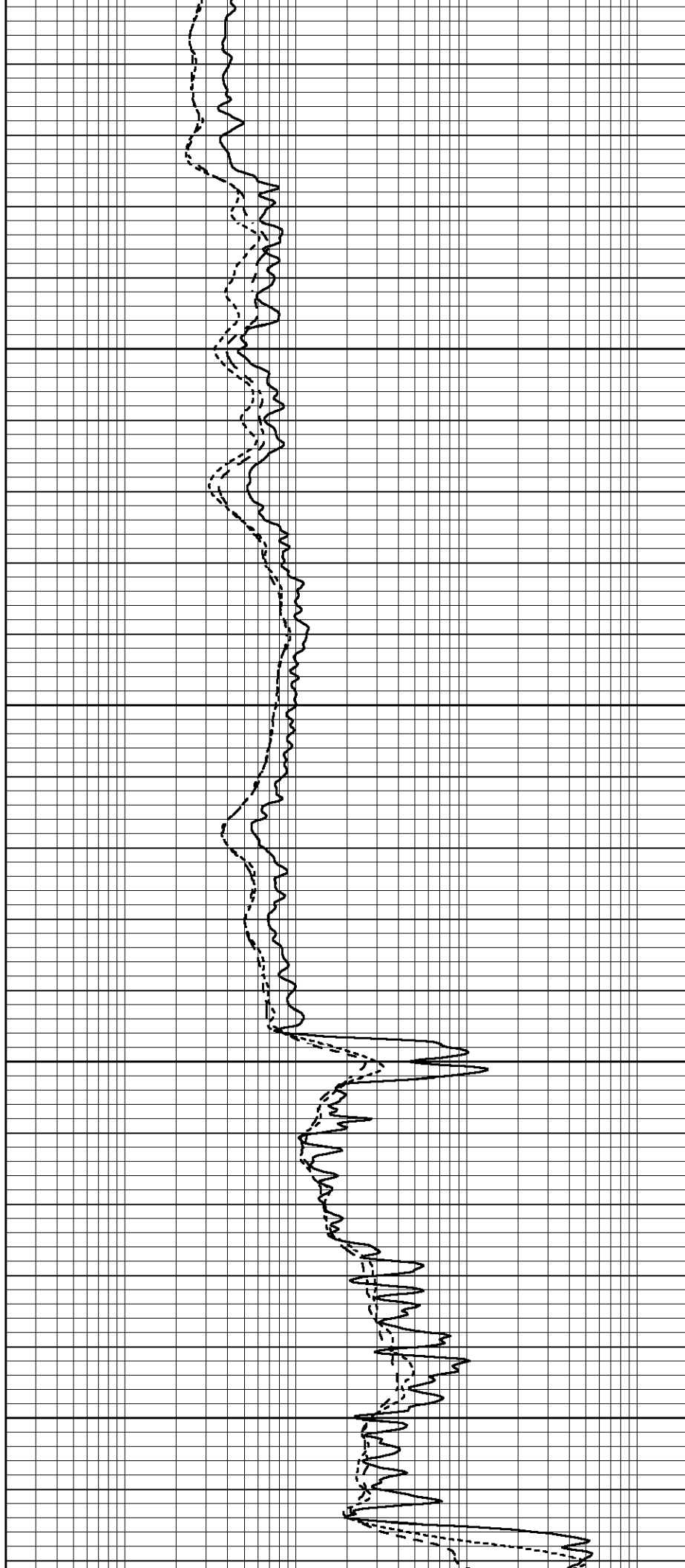


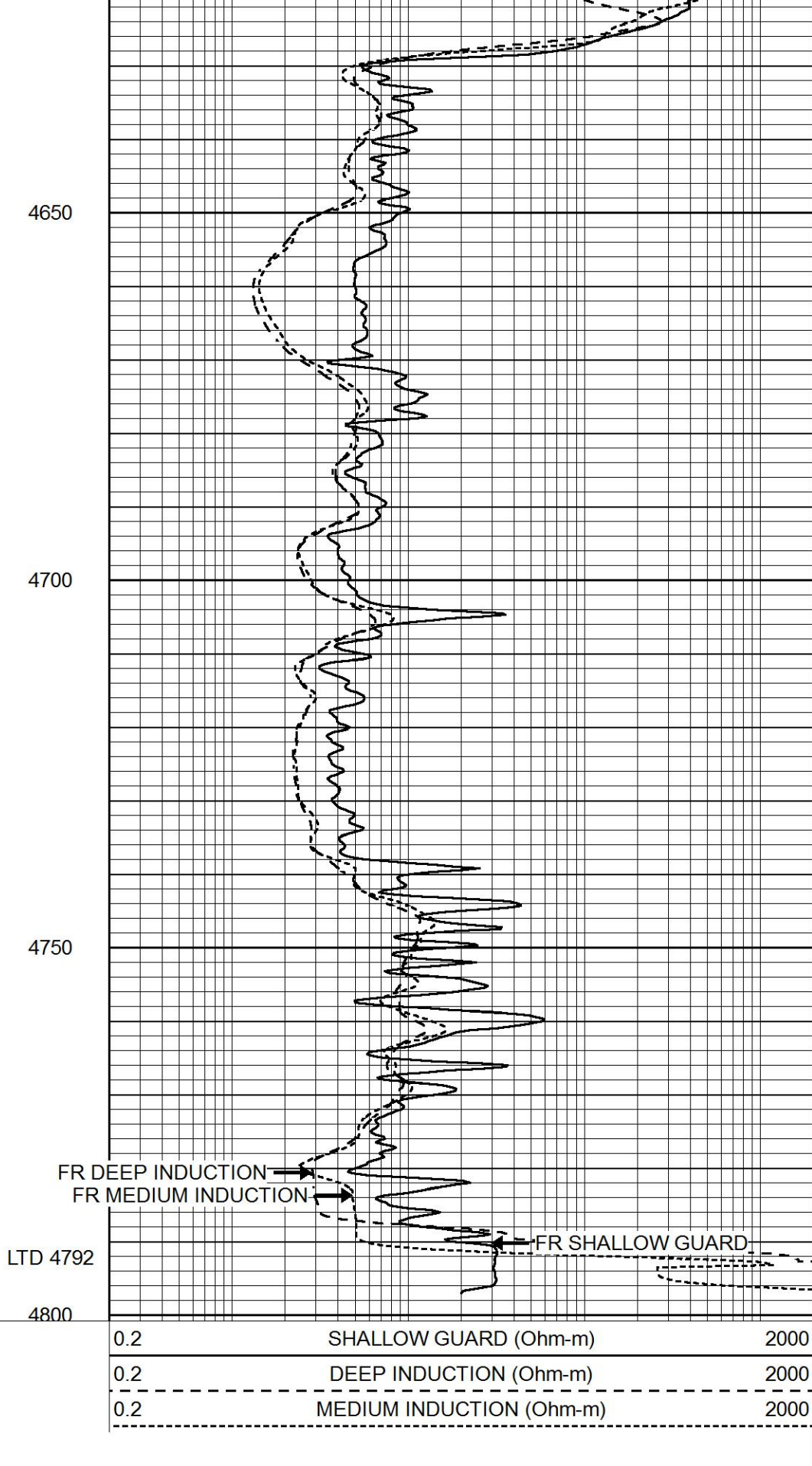
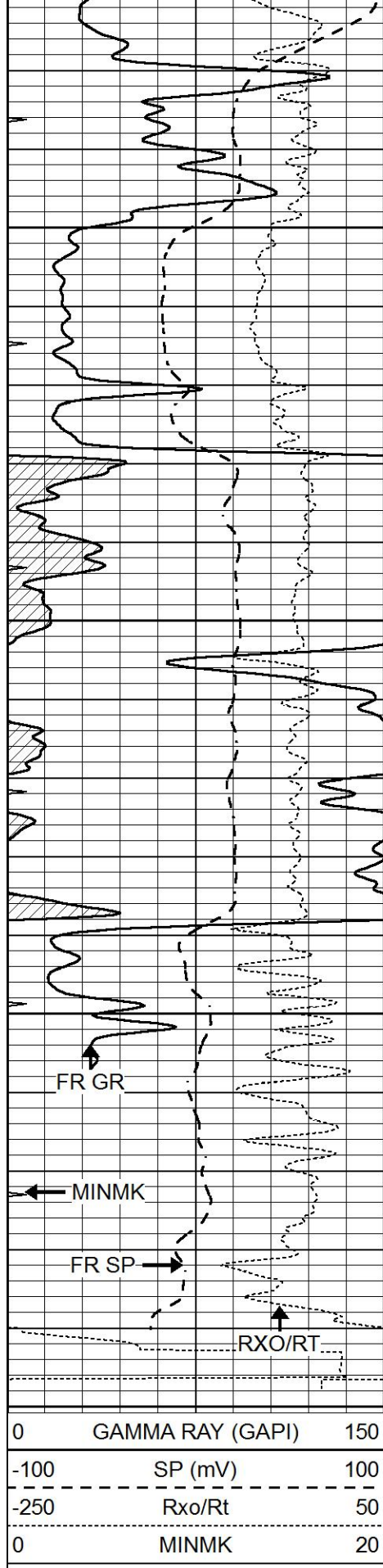
4450

4500

4550

4600





REPEAT SECTION

Database File8348pe.db

Dataset Pathnamepass2.1R

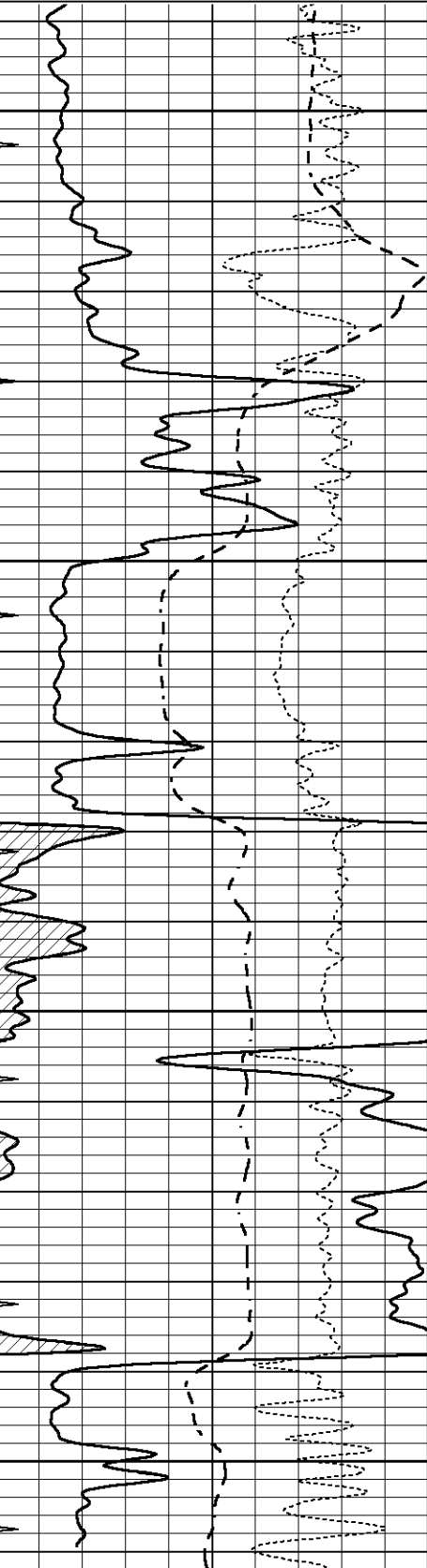
Presentation Format_dil

Dataset CreationFri Dec 15 23:15:06 2023

Charted byDepth 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

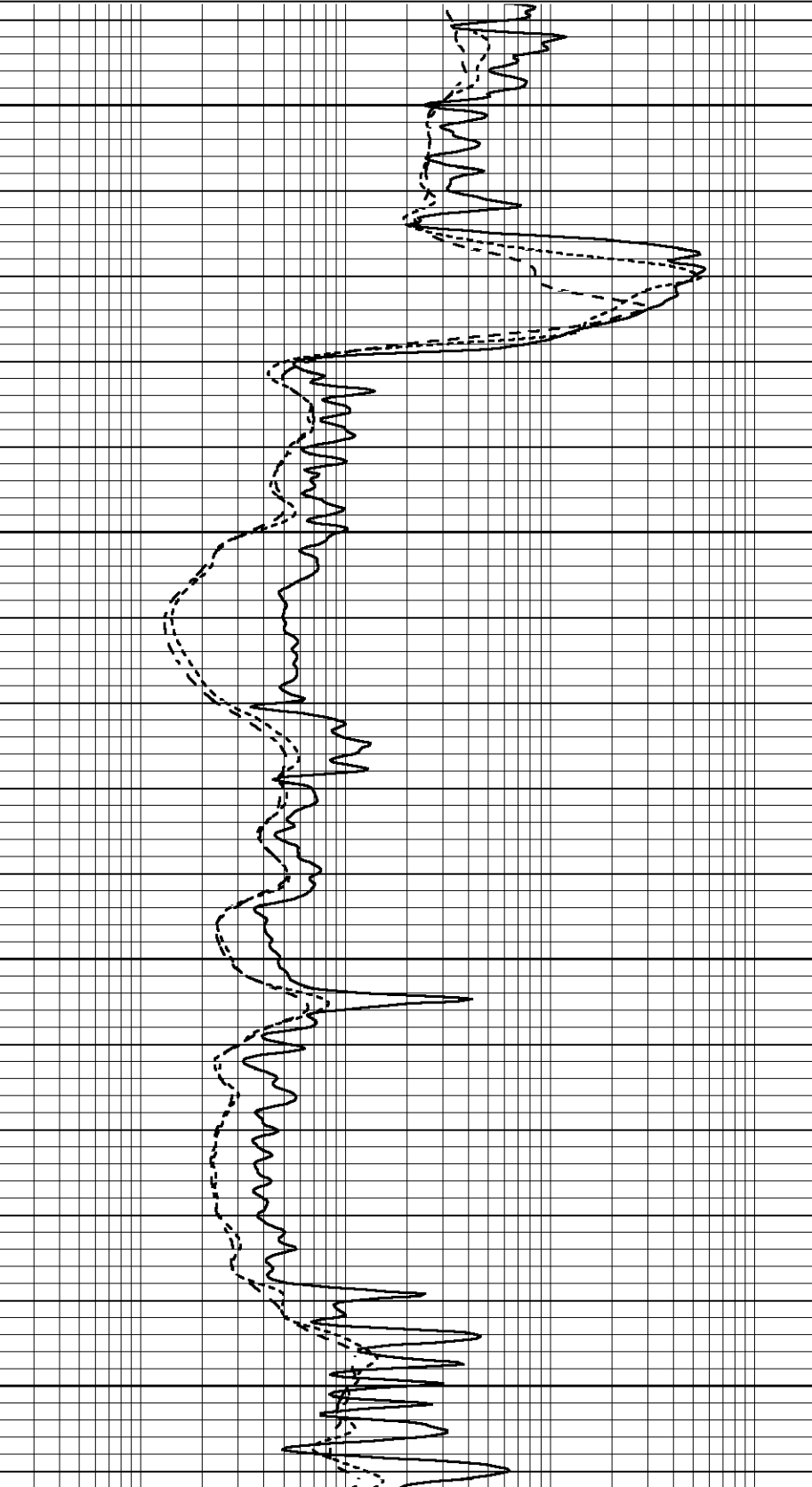


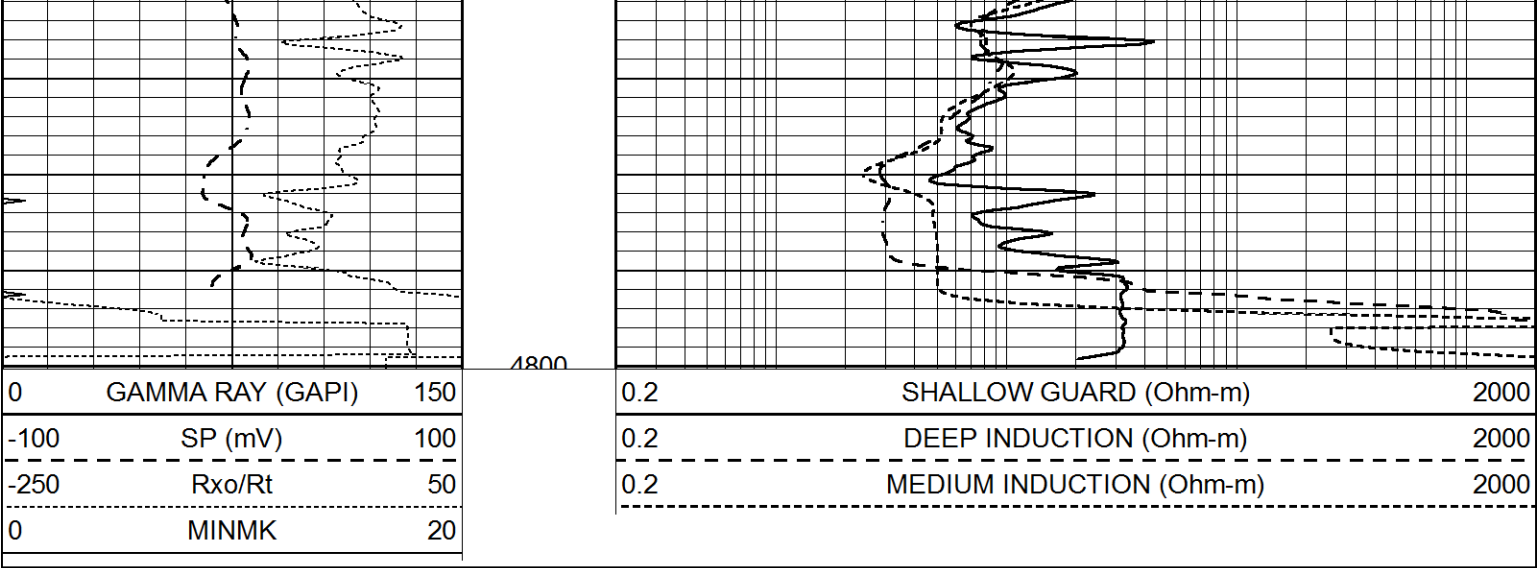
4600

4650

4700

4750





Calibration Report									
Database File	8348pe.db								
Dataset Pathname	pass3.1M								
Dataset Creation	Fri Dec 15 23:26:01 2023								
Dual Induction Calibration Report									
Serial-Model:				PROBE8-DILG					
Surface Cal Performed:				Fri Dec 15 21:52:07 2023					
Downhole Cal Performed:				Mon Aug 14 00:39:25 2023					
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	660.000	10.000	
Medium	0.029	0.796	V	0.000	464.000	mmho/m	650.000	-3.000	
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			

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:
Tool Model:070808PMC
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:	Wed Nov 15 06:07:43 2023	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps