



DUAL INDUCTION LOG

Company	PICKRELL DRILLING COMPANY, INC.	Company	PICKRELL DRILLING COMPANY, INC.
Well	YOUNG "RR" #2	Well	YOUNG "RR" #2
Field	BROADWAY	Field	BROADWAY
County	KINGMAN	County	KINGMAN
State	KANSAS	State	KANSAS
Location:	API # : 15-095-22339-0000	Other Services CDL/CNL MEL/SON	
Permanent Datum	GROUND LEVEL	Elevation	1436
Log Measured From	KELLY BUSHING	Elevation	1443
Drilling Measured From	KELLY BUSHING	Elevation	1441
		Elevation	G.L. 1436
Date	3/23/21		
Run Number	ONE		
Depth Driller	3915		
Depth Logger	3914		
Bottom Logged Interval	3912		
Top Log Interval	00		
Casing Driller	8 5/8"@214'		
Casing Logger	218		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES	9,500 PPM
Density / Viscosity	9.2/50		
pH / Fluid Loss	10.0/11.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.470@78F		
Rmf @ Meas. Temp	.353@78F		
Rmc @ Meas. Temp	.564@78F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.319@115F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	7:30 P.M.		
Maximum Recorded Temperature	115F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	AARON YOUNG		

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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.

15-095-22339-0000

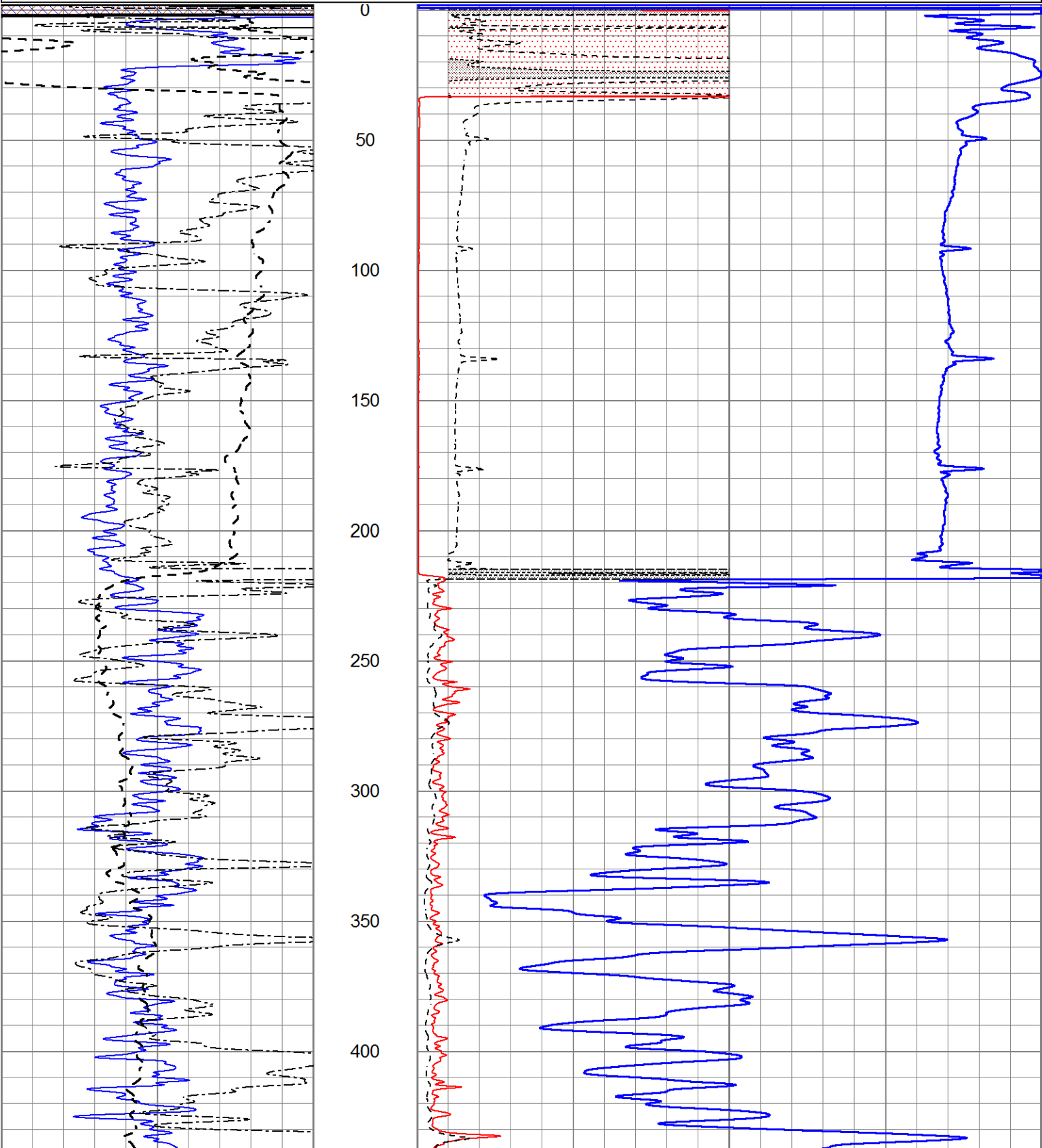
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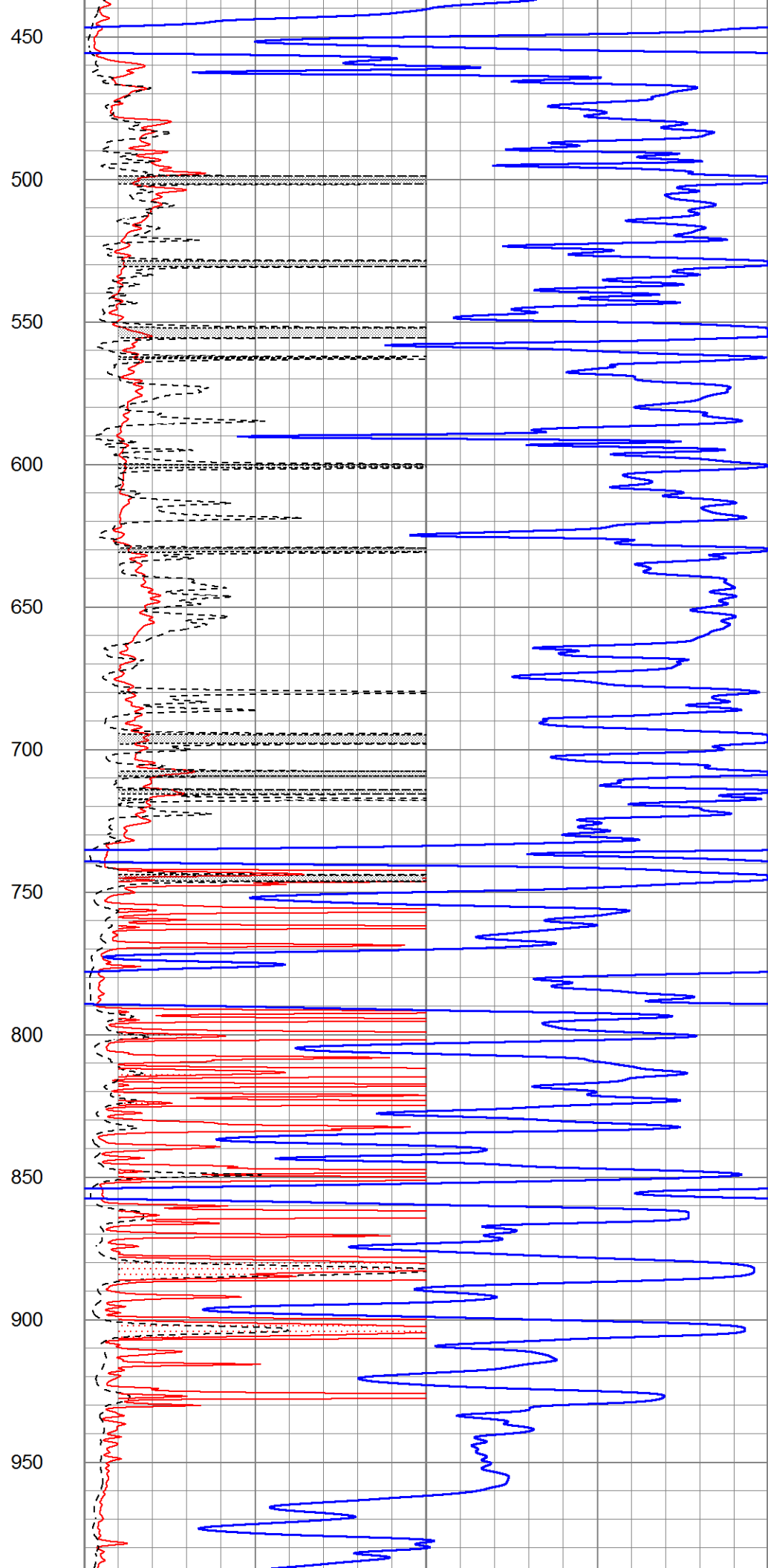
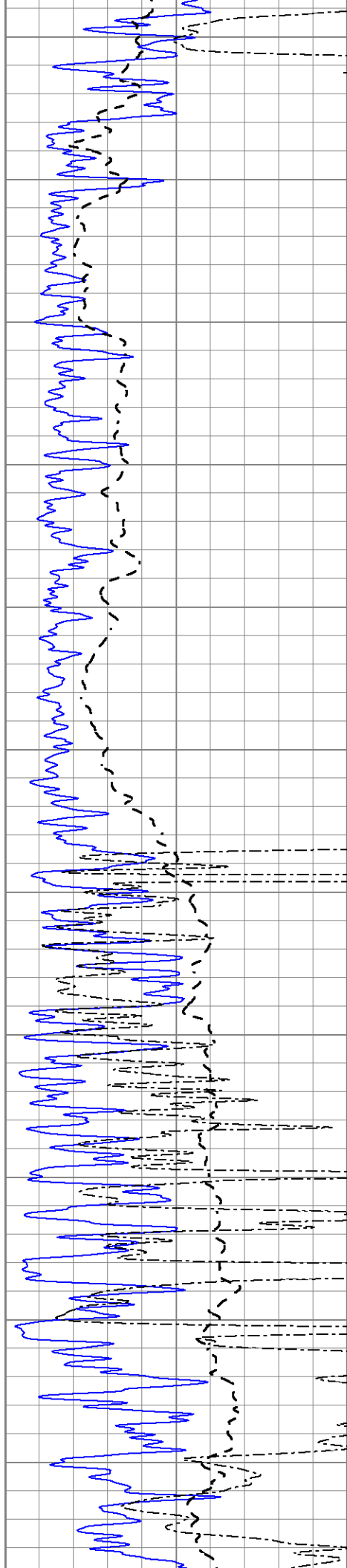
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
(HWY 54 & MT. VERNON EXIT,) 1 1/2S., W. INTO

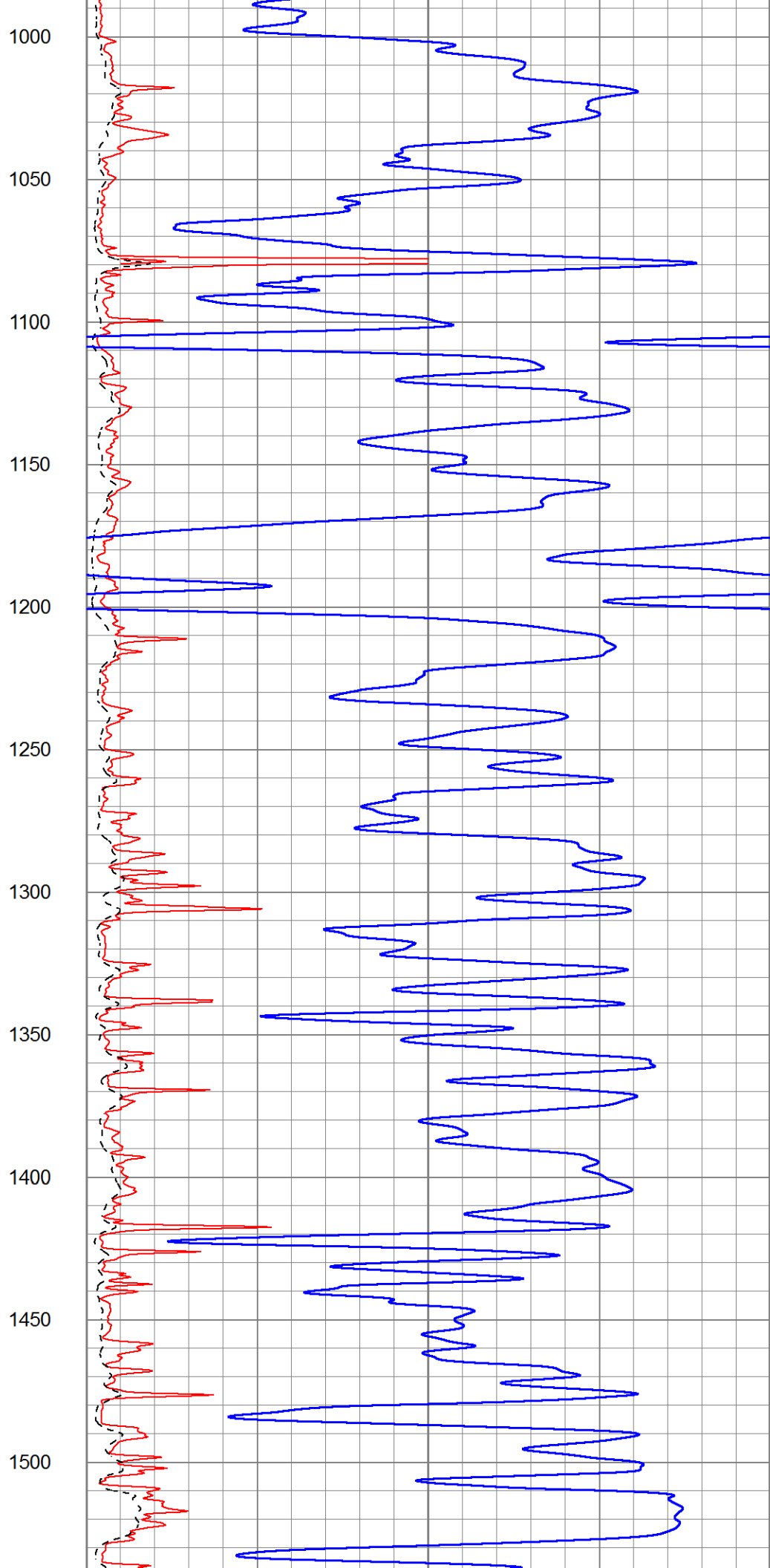
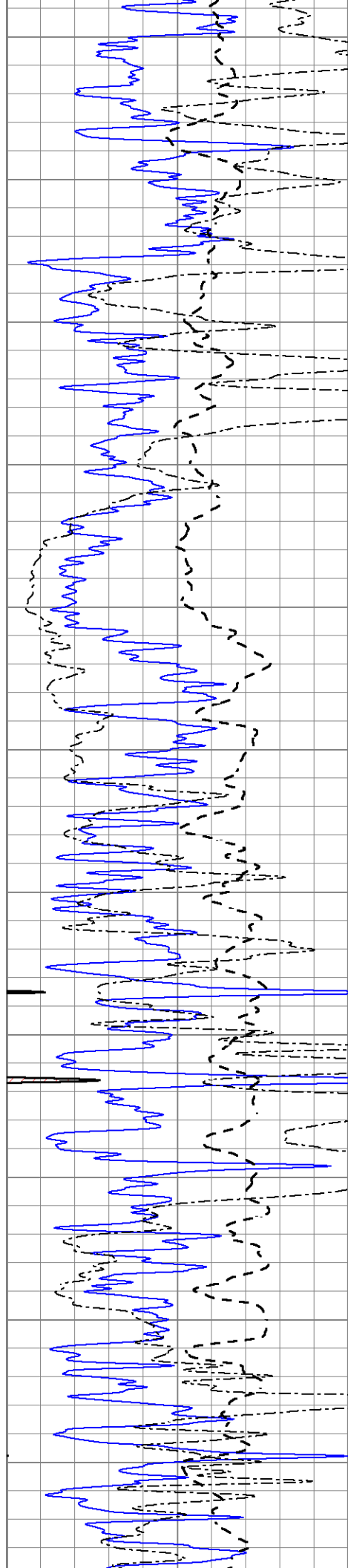


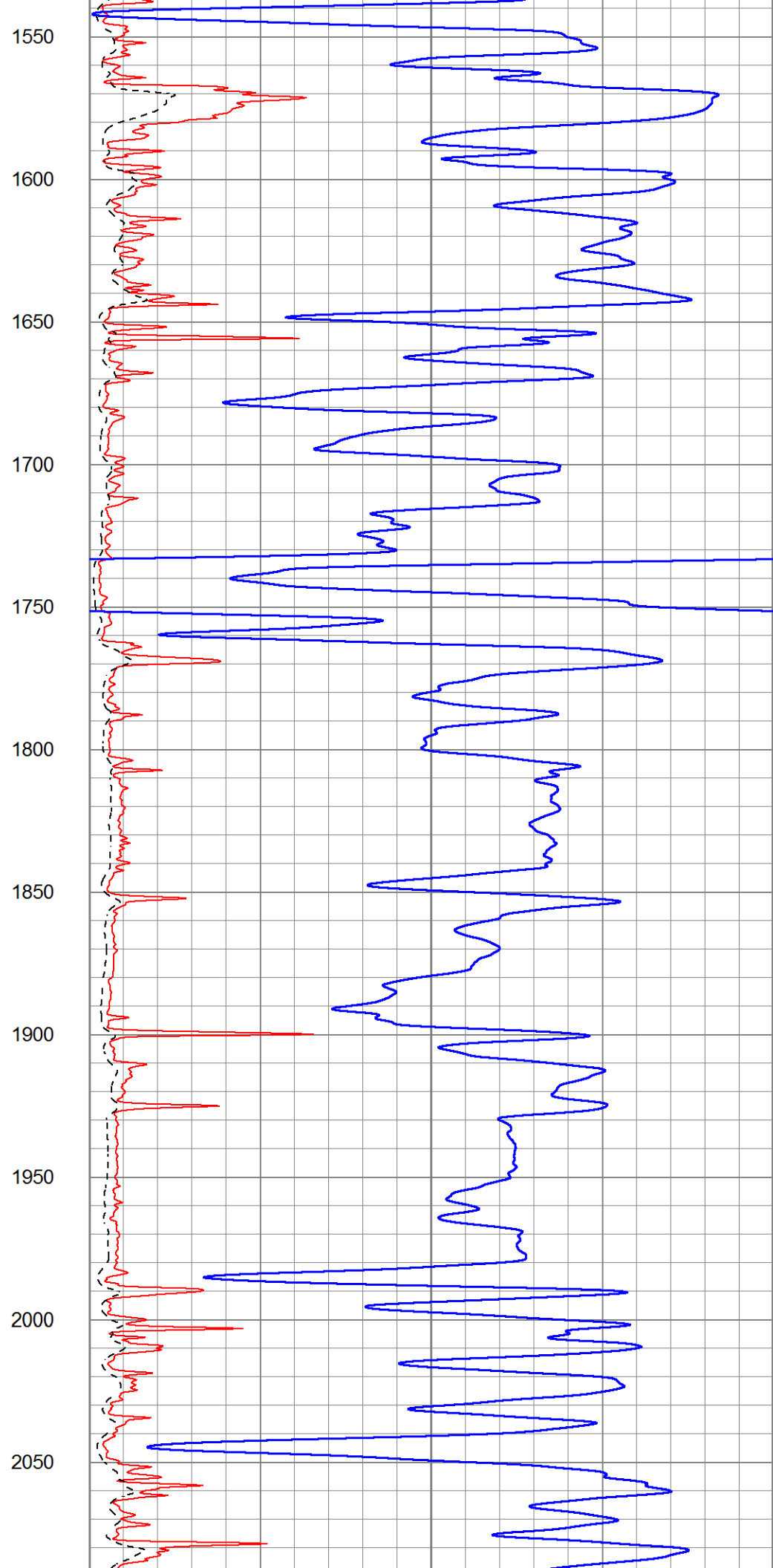
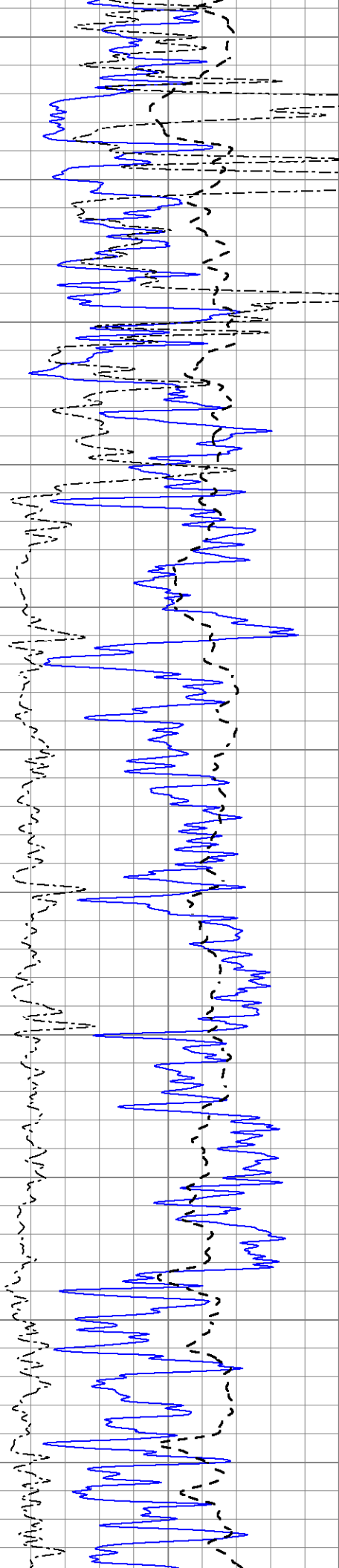
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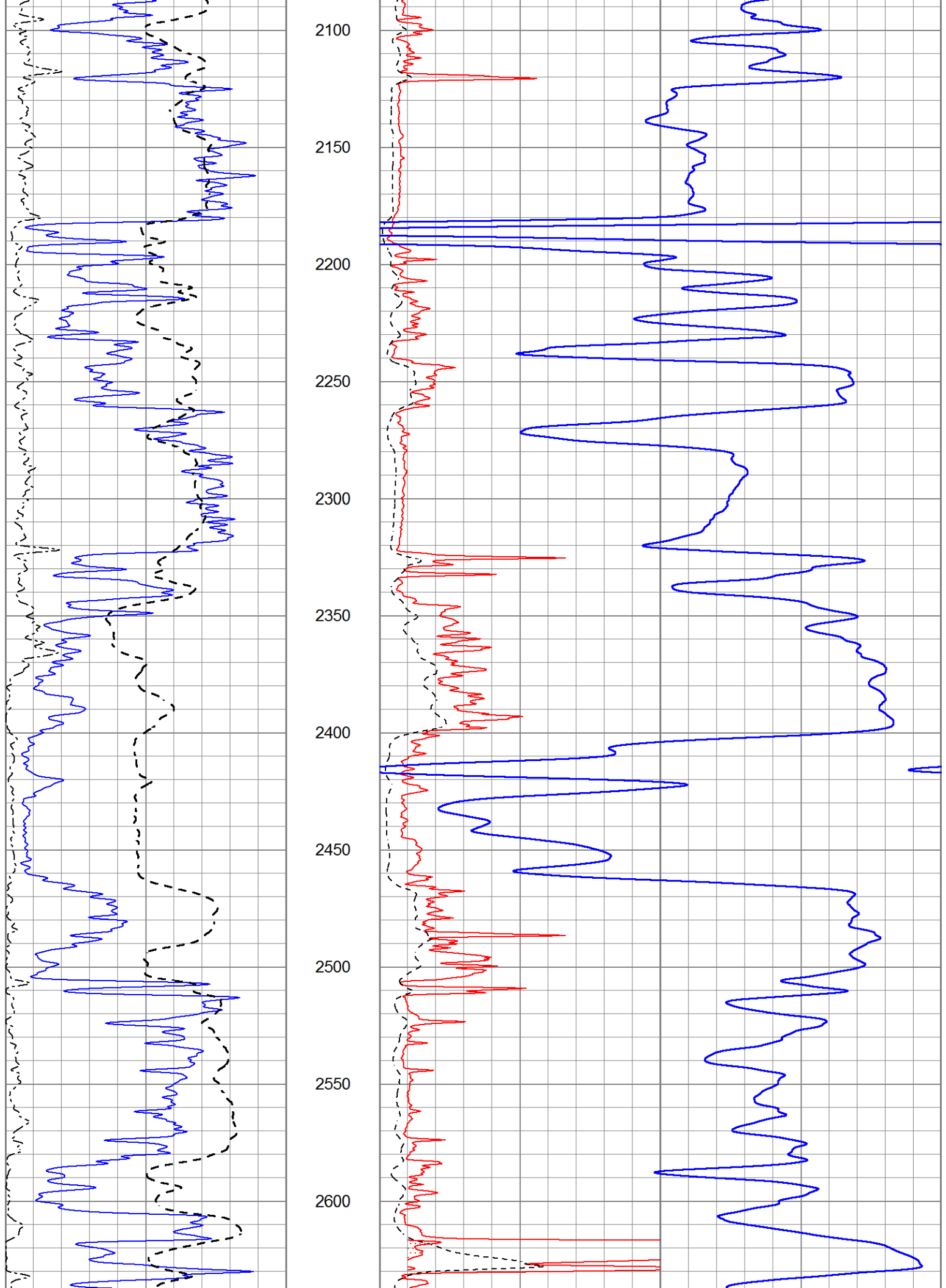
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-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
0	RWA (Ohm-m)	1	0	RILD (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

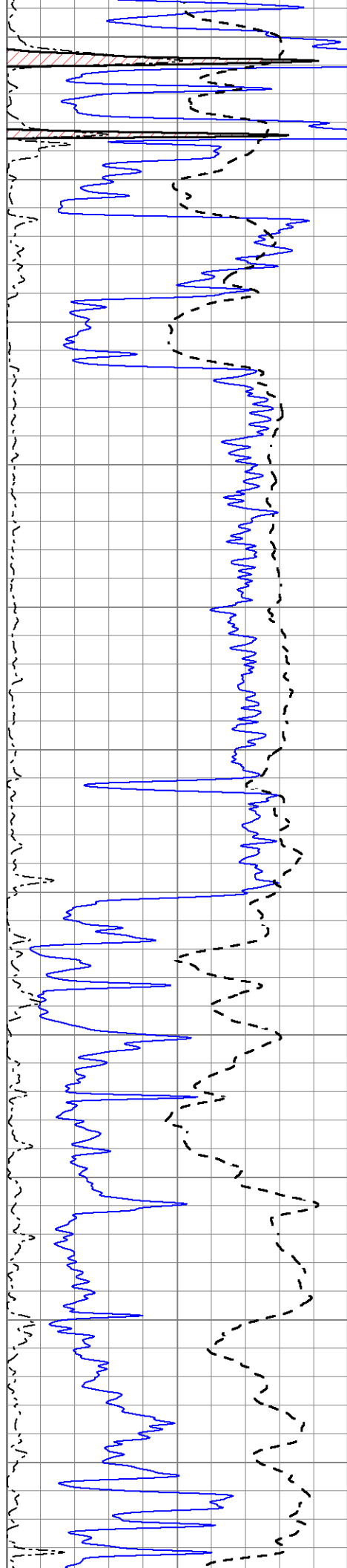












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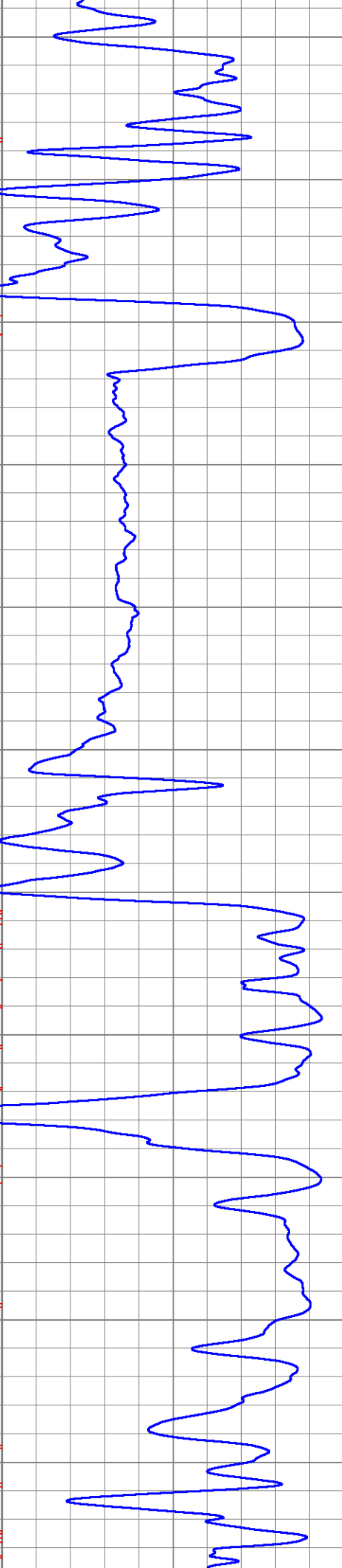
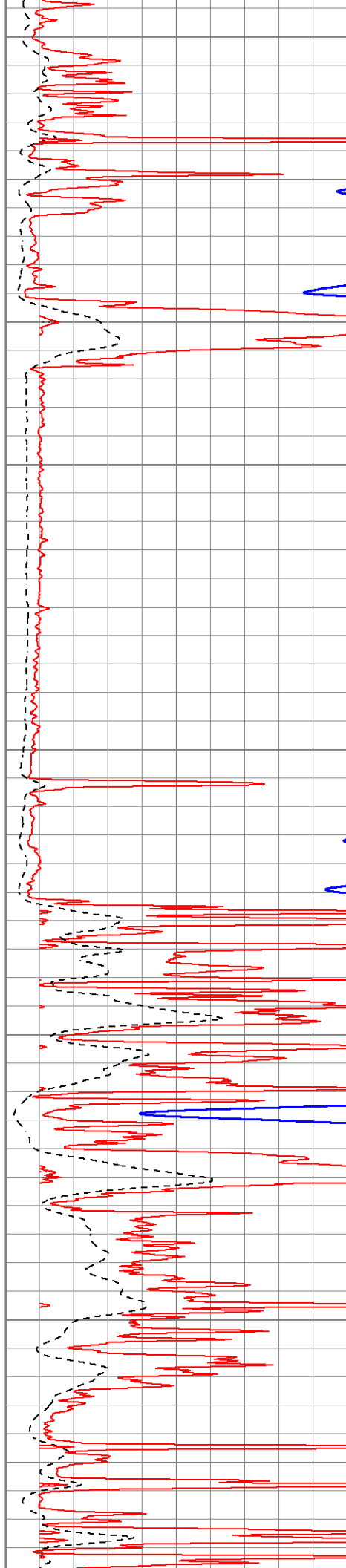
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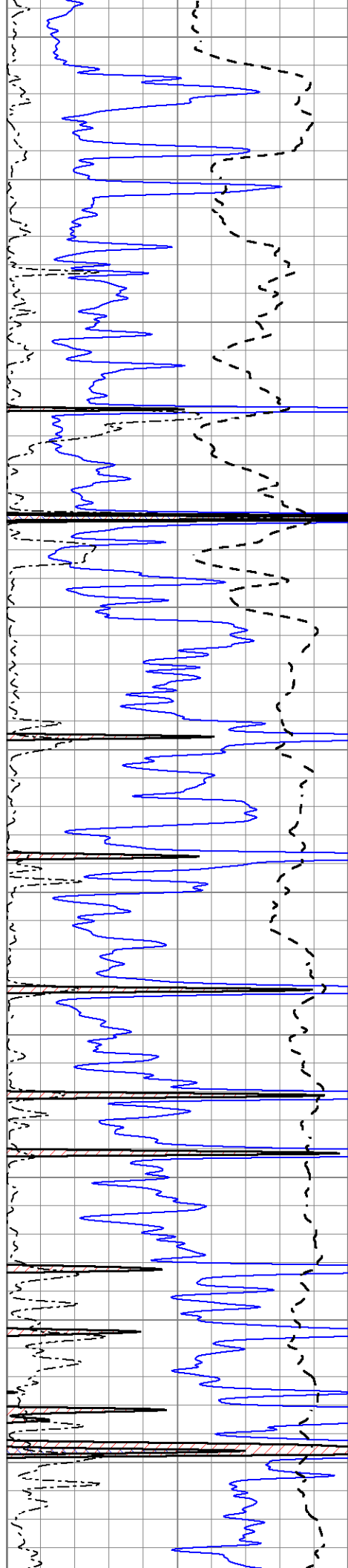
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3050

3100

3150





3200

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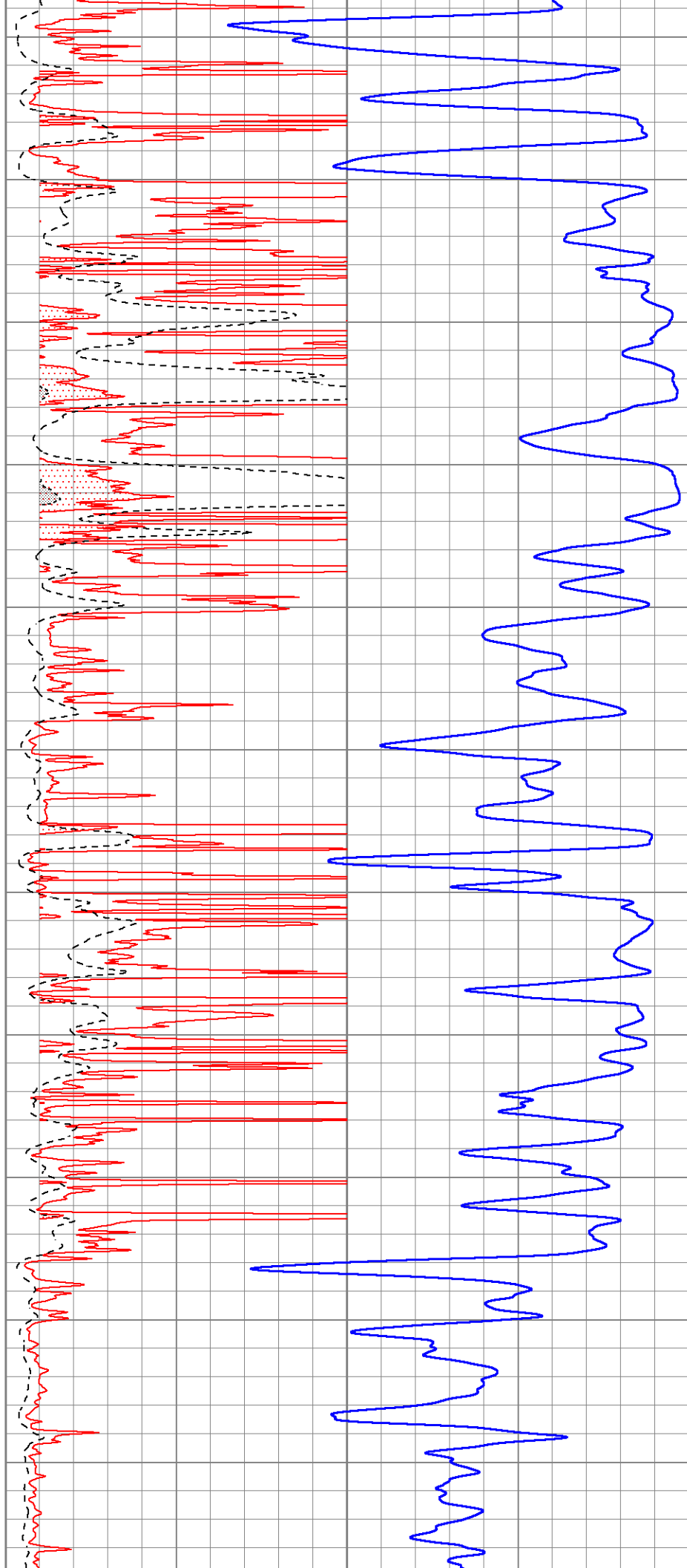
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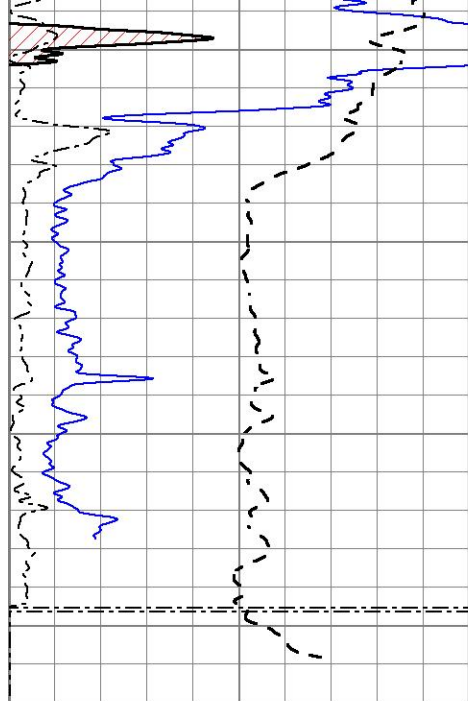
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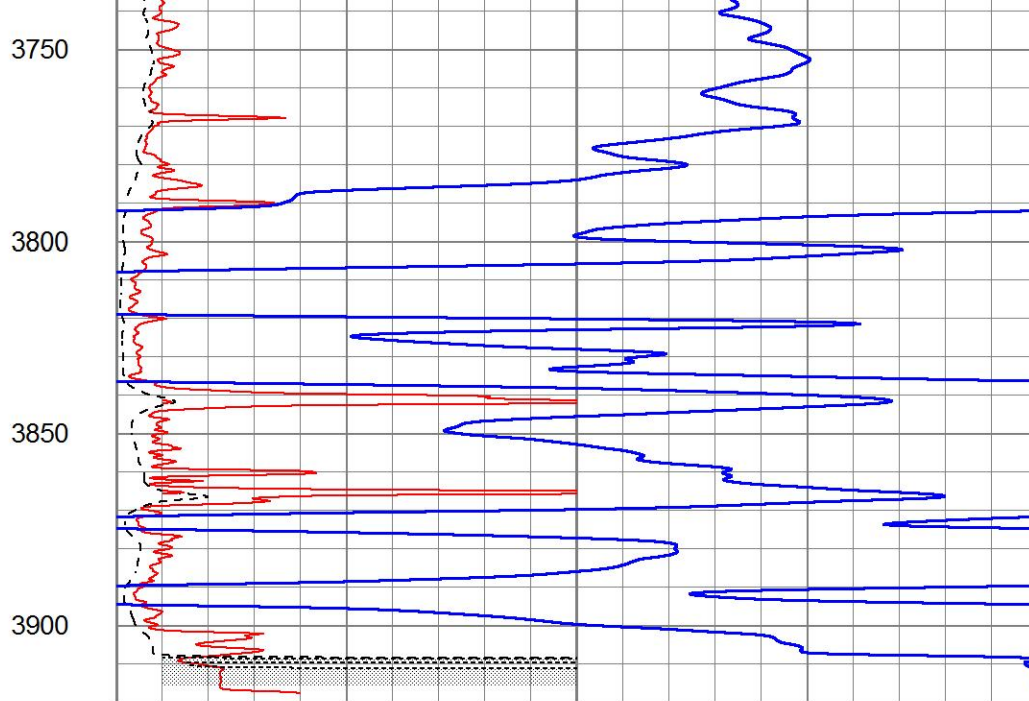
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0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1



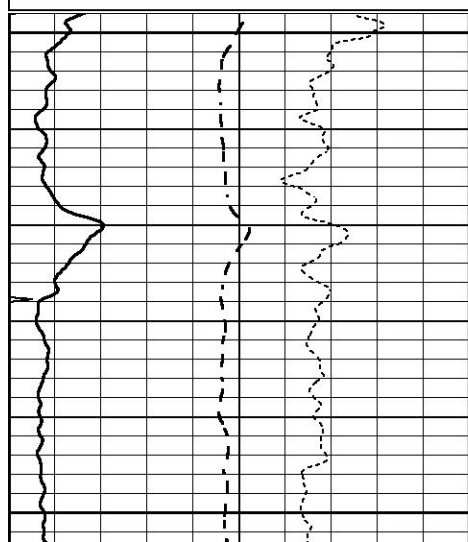
1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500



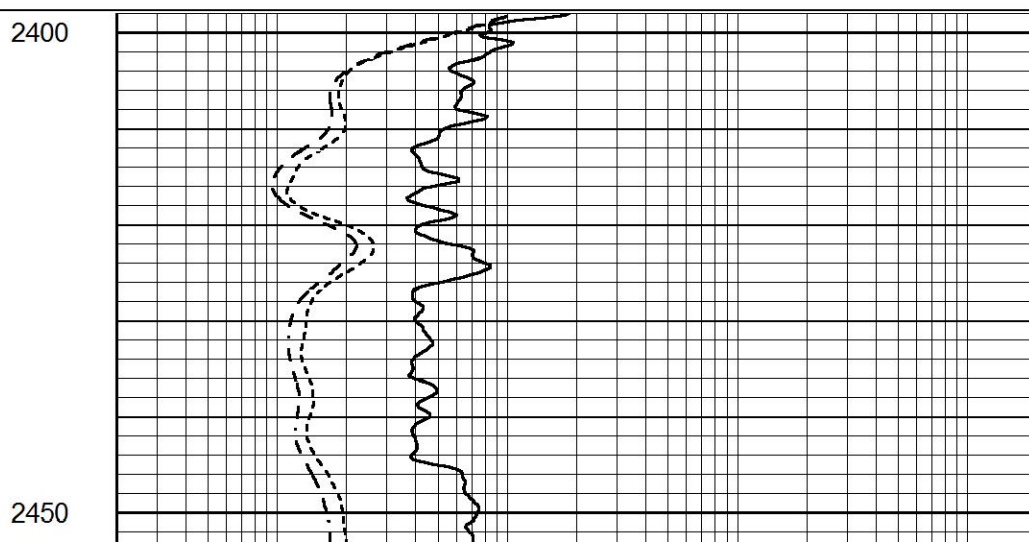
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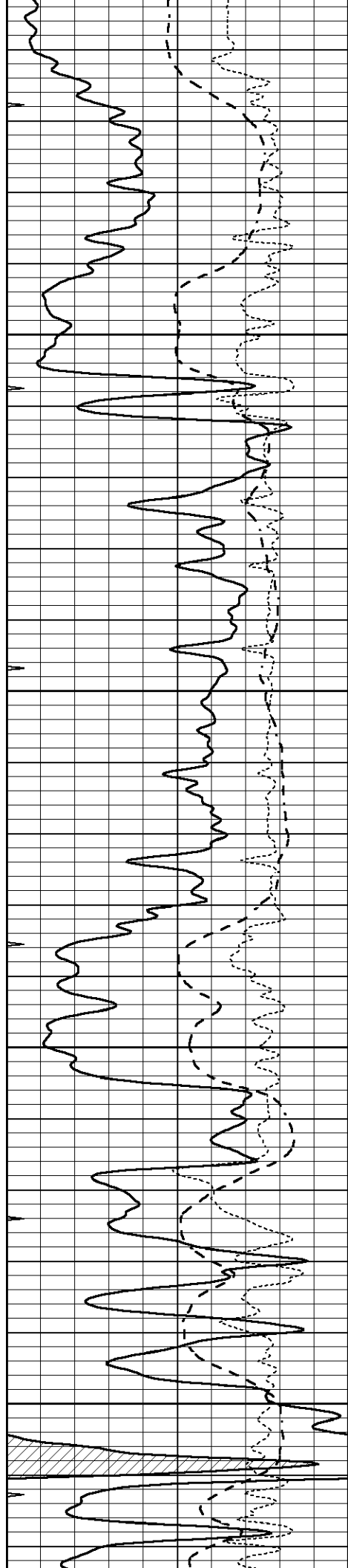
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 Dataset Pathname pass3.1M
 Presentation Format _dil
 Dataset Creation Tue Mar 23 20:57:08 2021
 Charted by Depth in Feet scaled 1:240

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



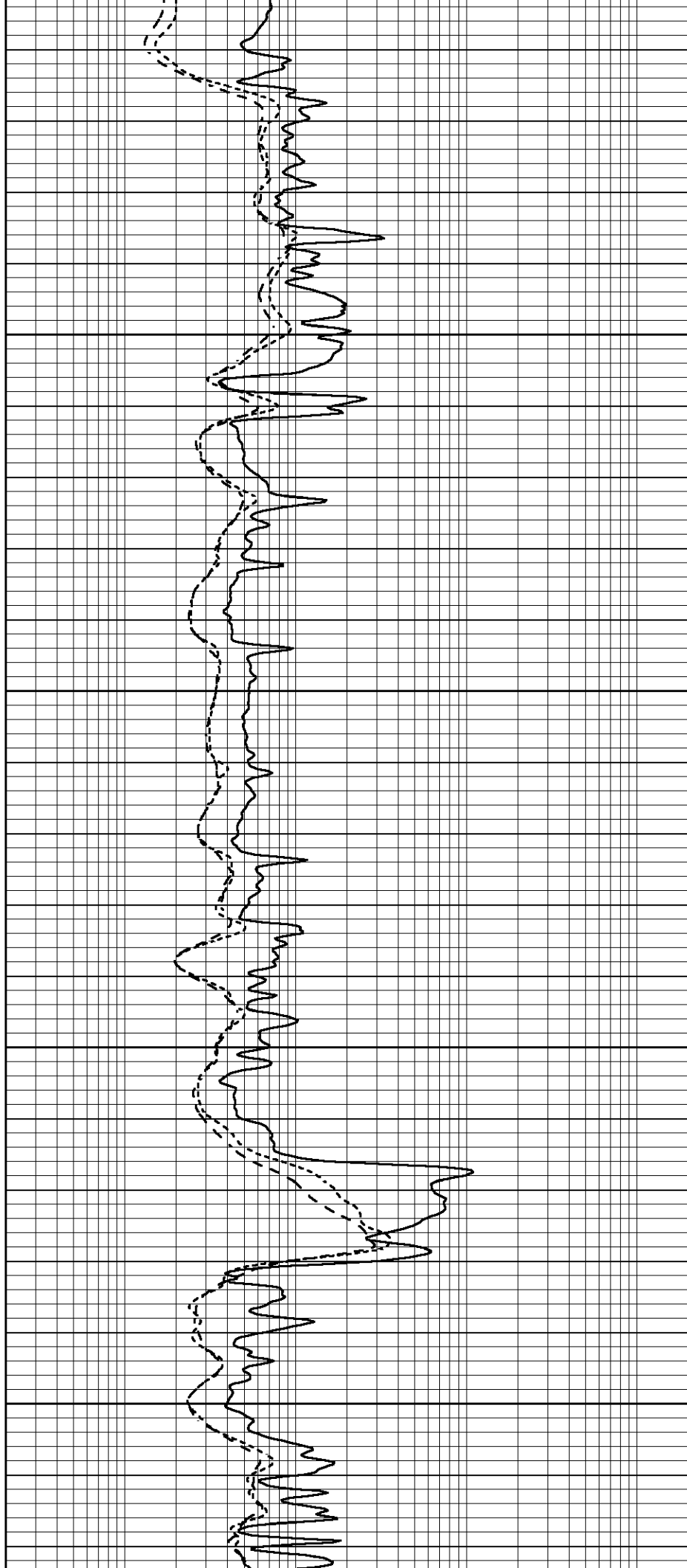


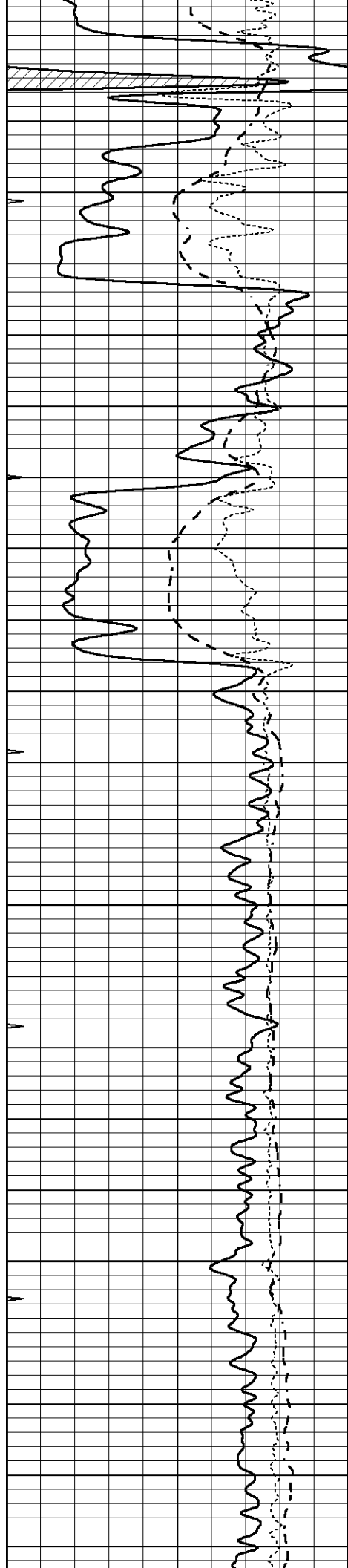
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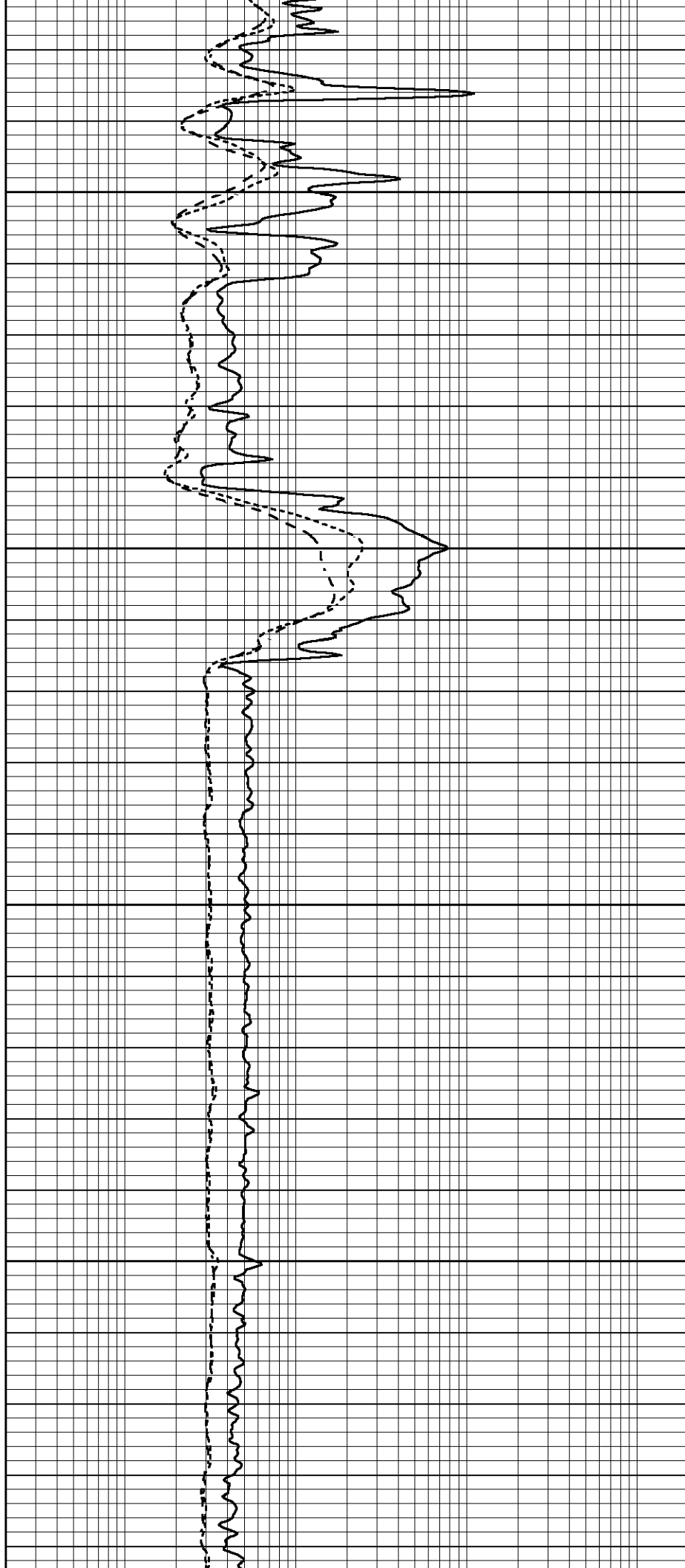


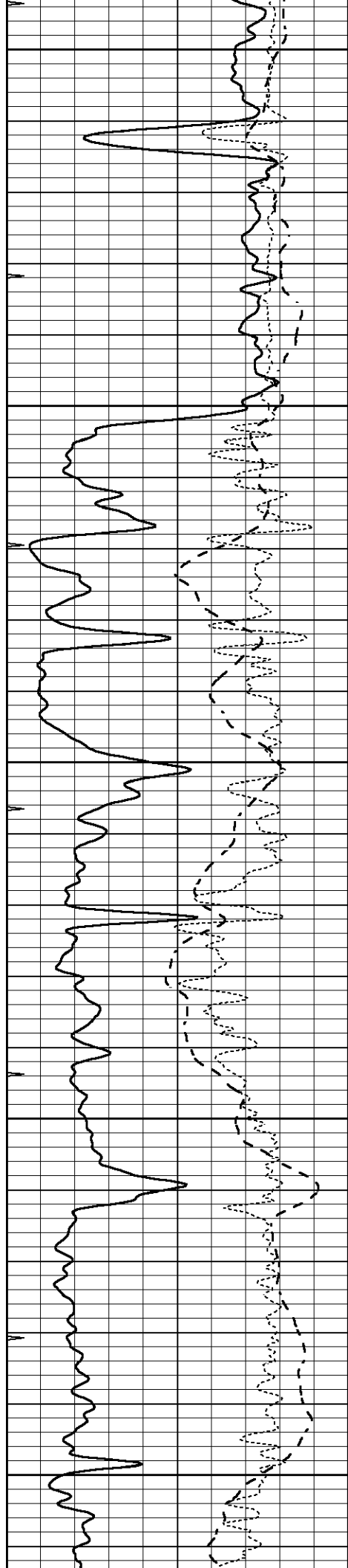
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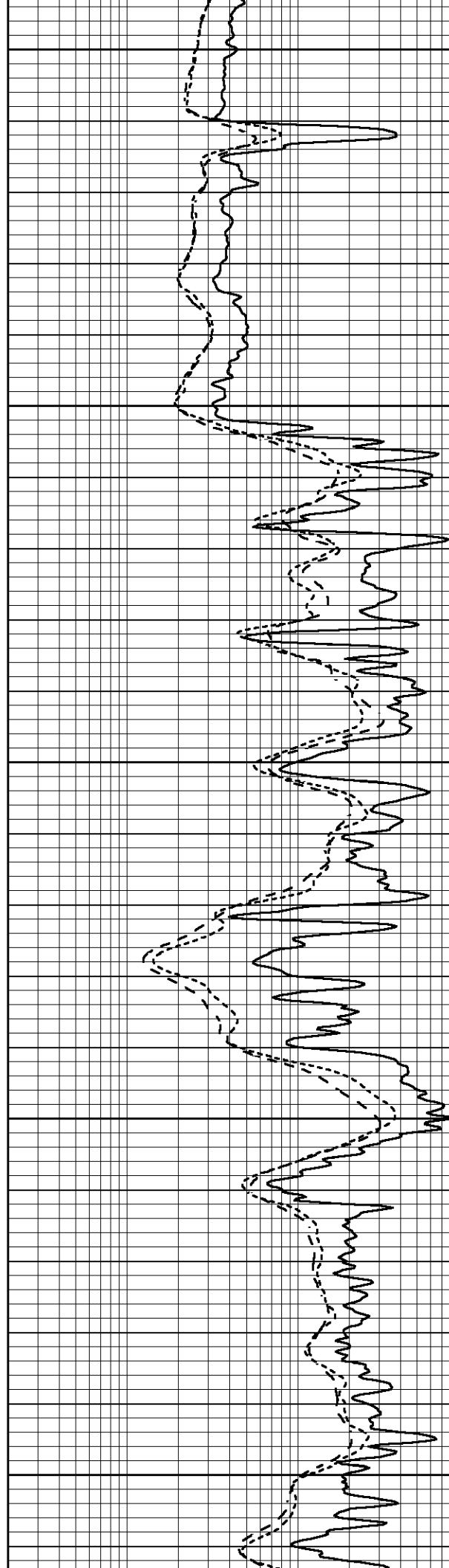
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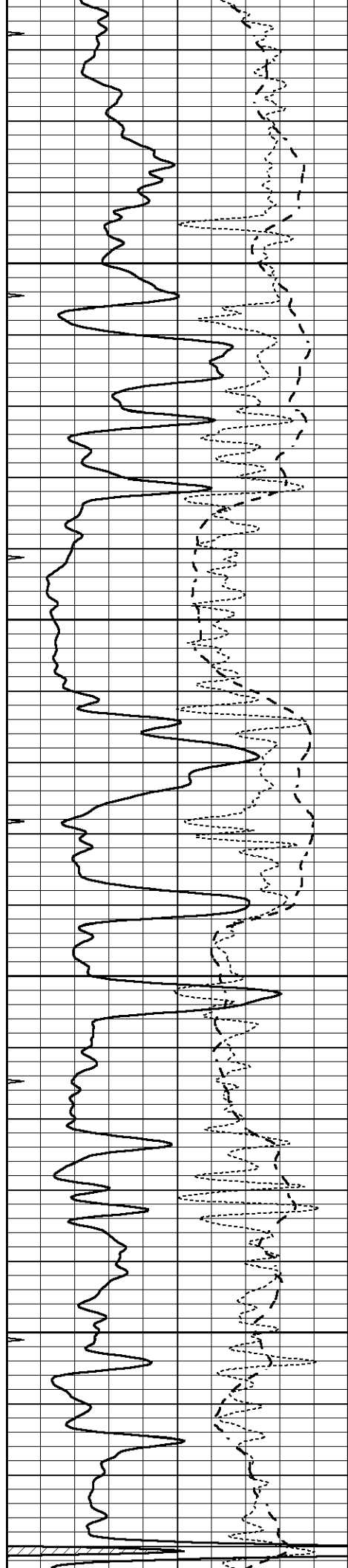
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3000

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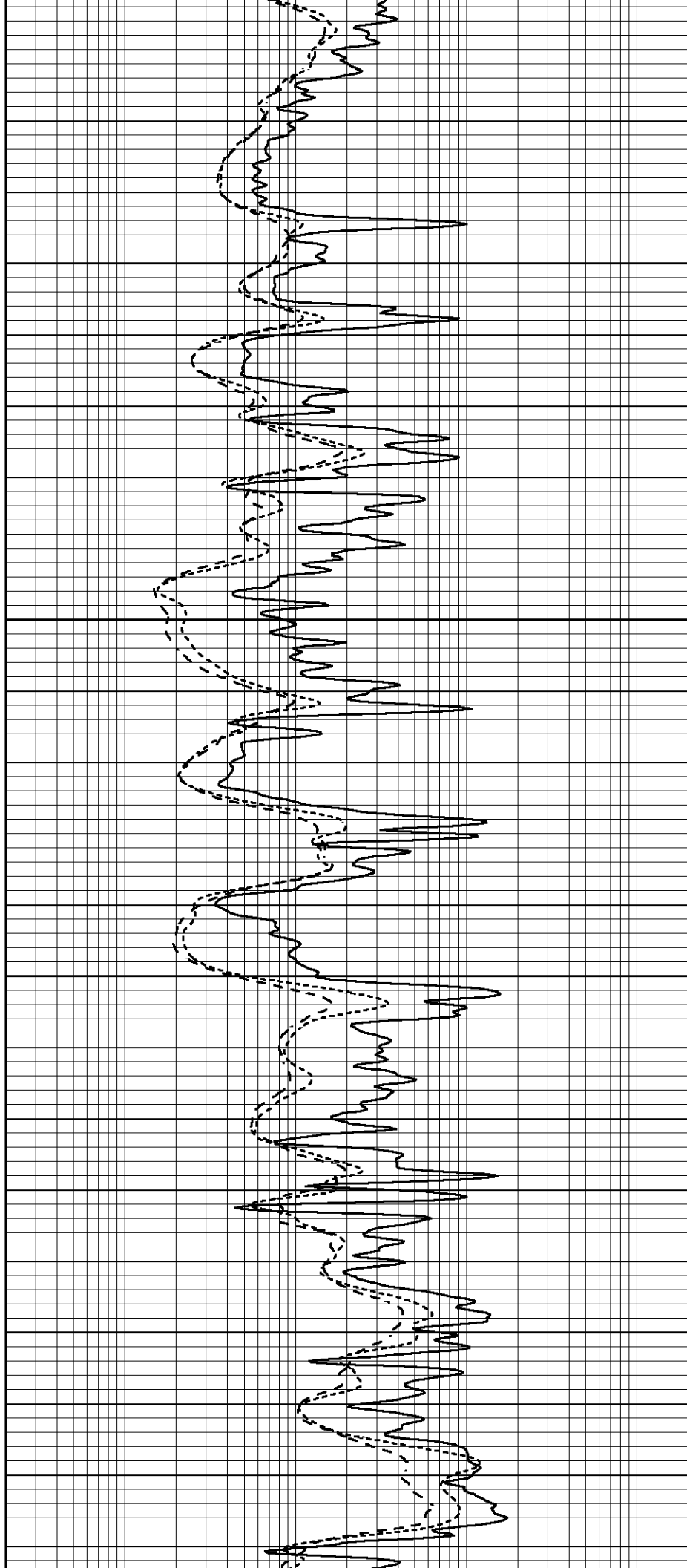


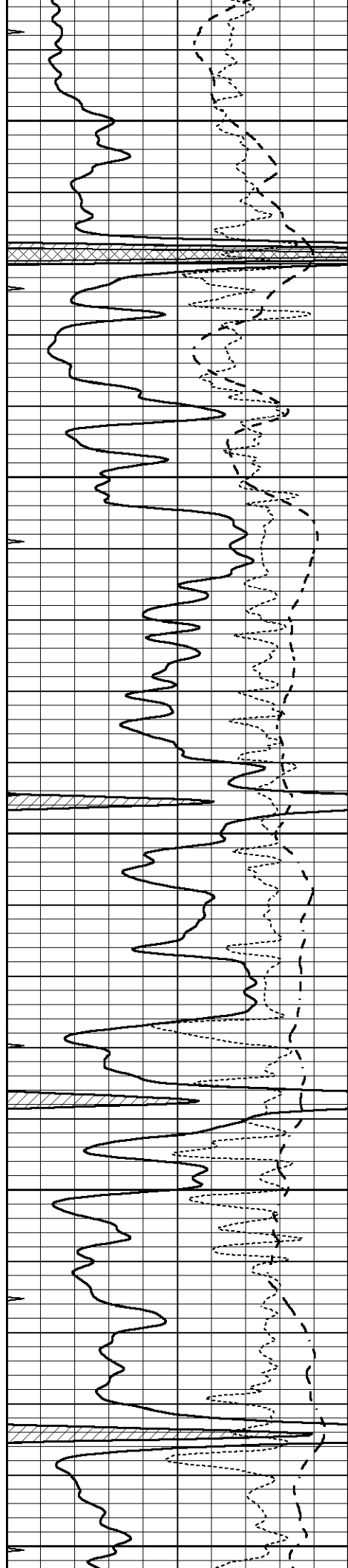
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3200

3250

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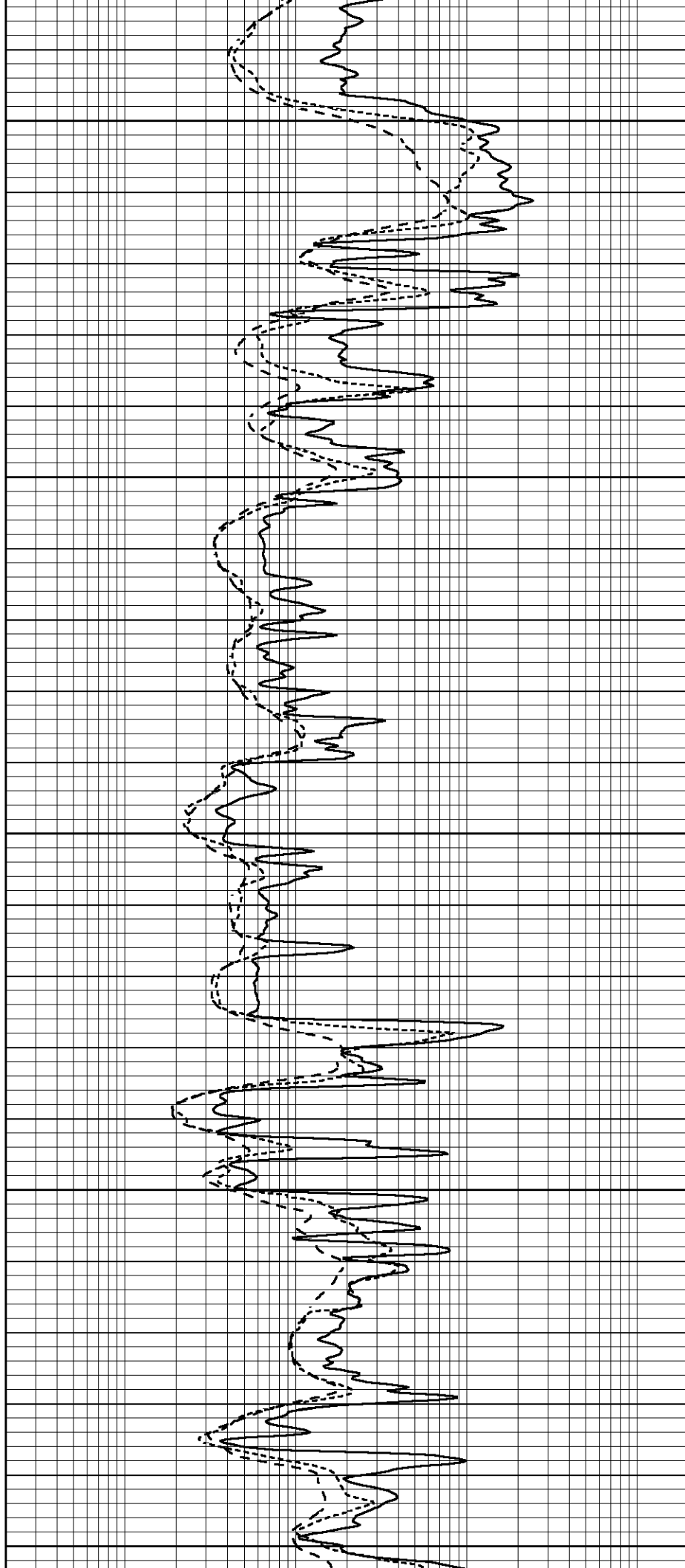
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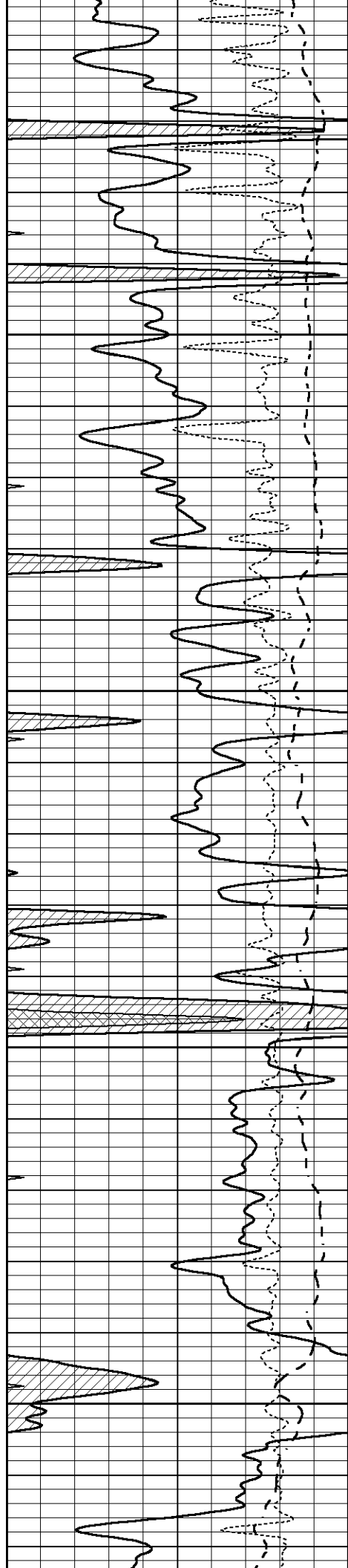
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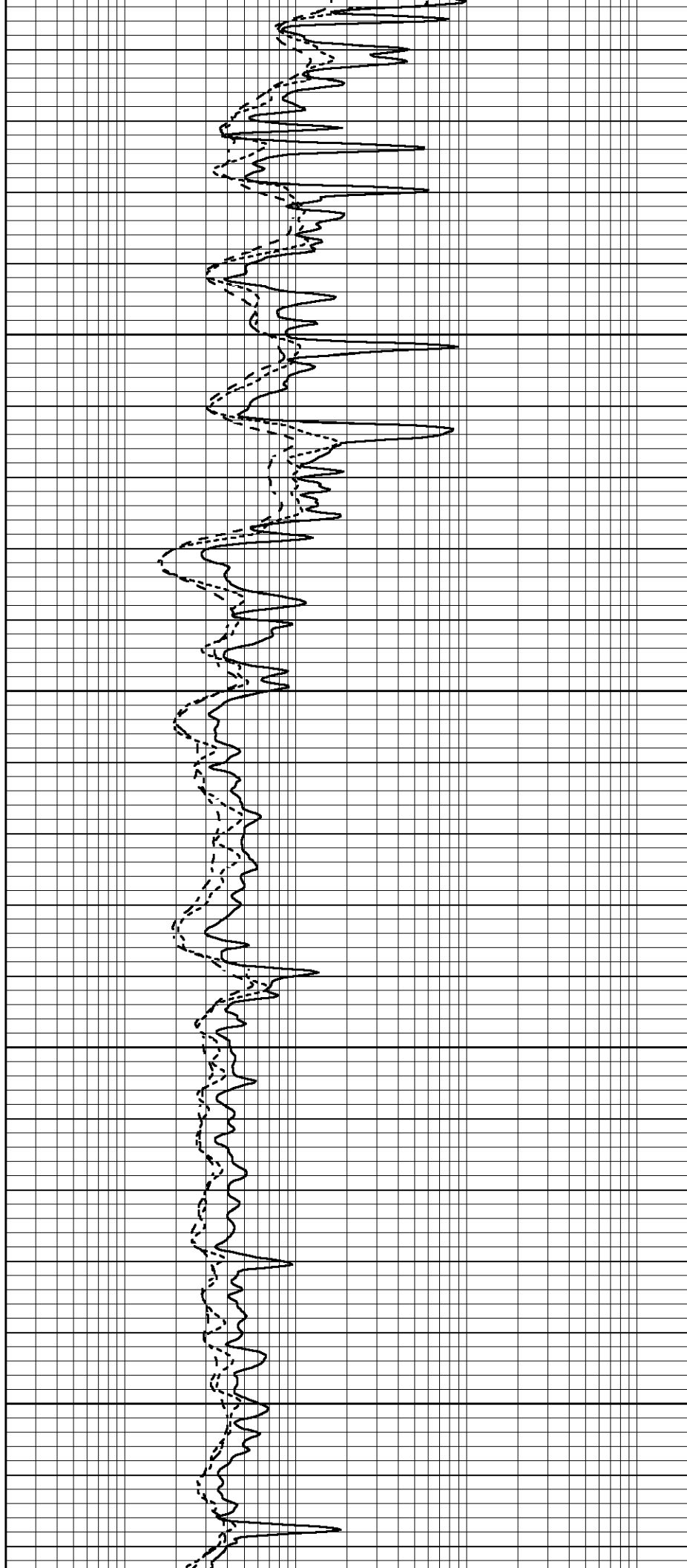


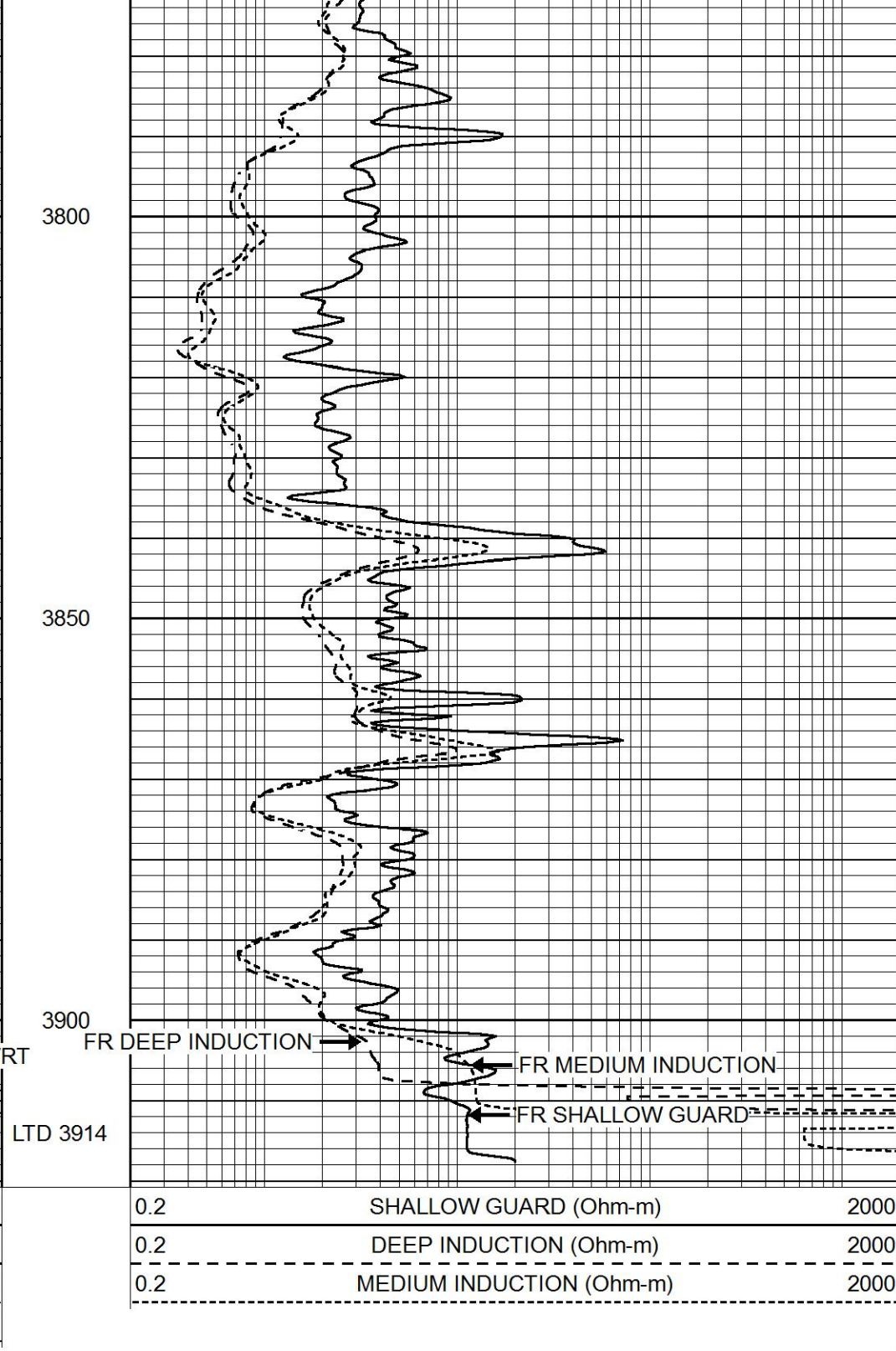
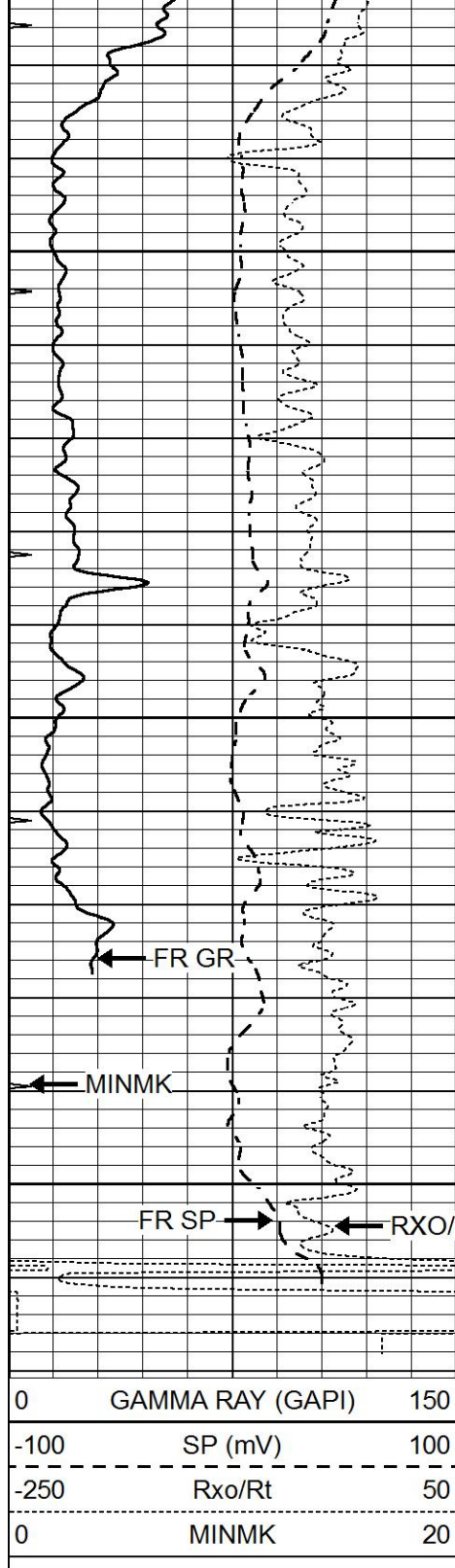
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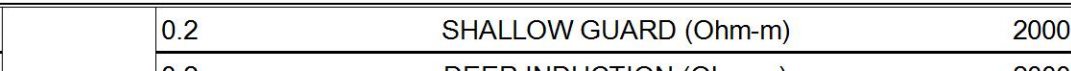
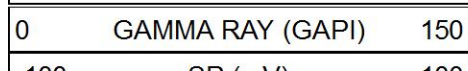
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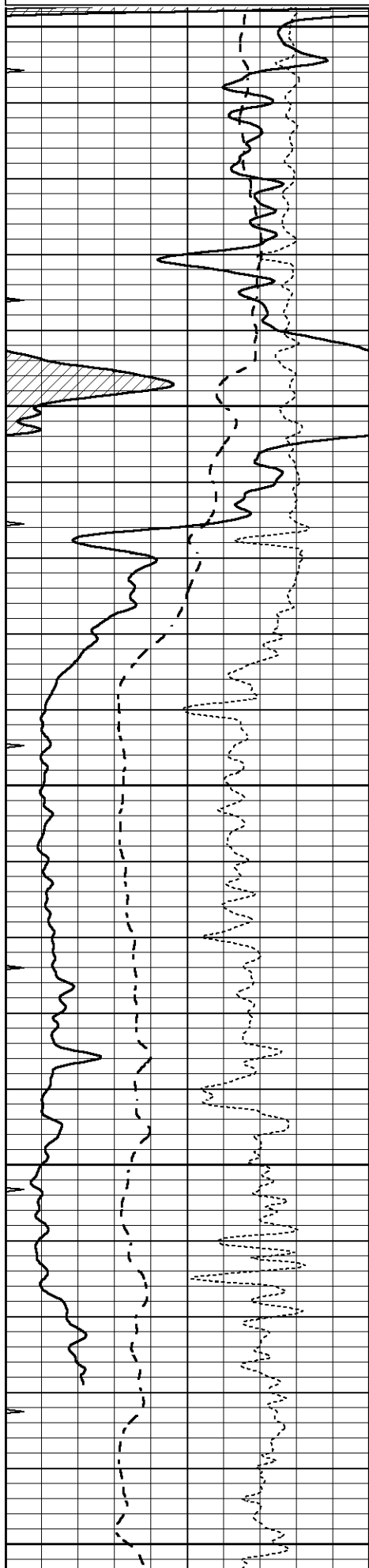


REPEAT SECTION

Database File 5264ddn.db
 Dataset Pathname pass2.1R
 Presentation Format _dil
 Dataset Creation Tue Mar 23 20:58:22 2021
 Charted by Depth in Feet scaled 1:240



-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



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

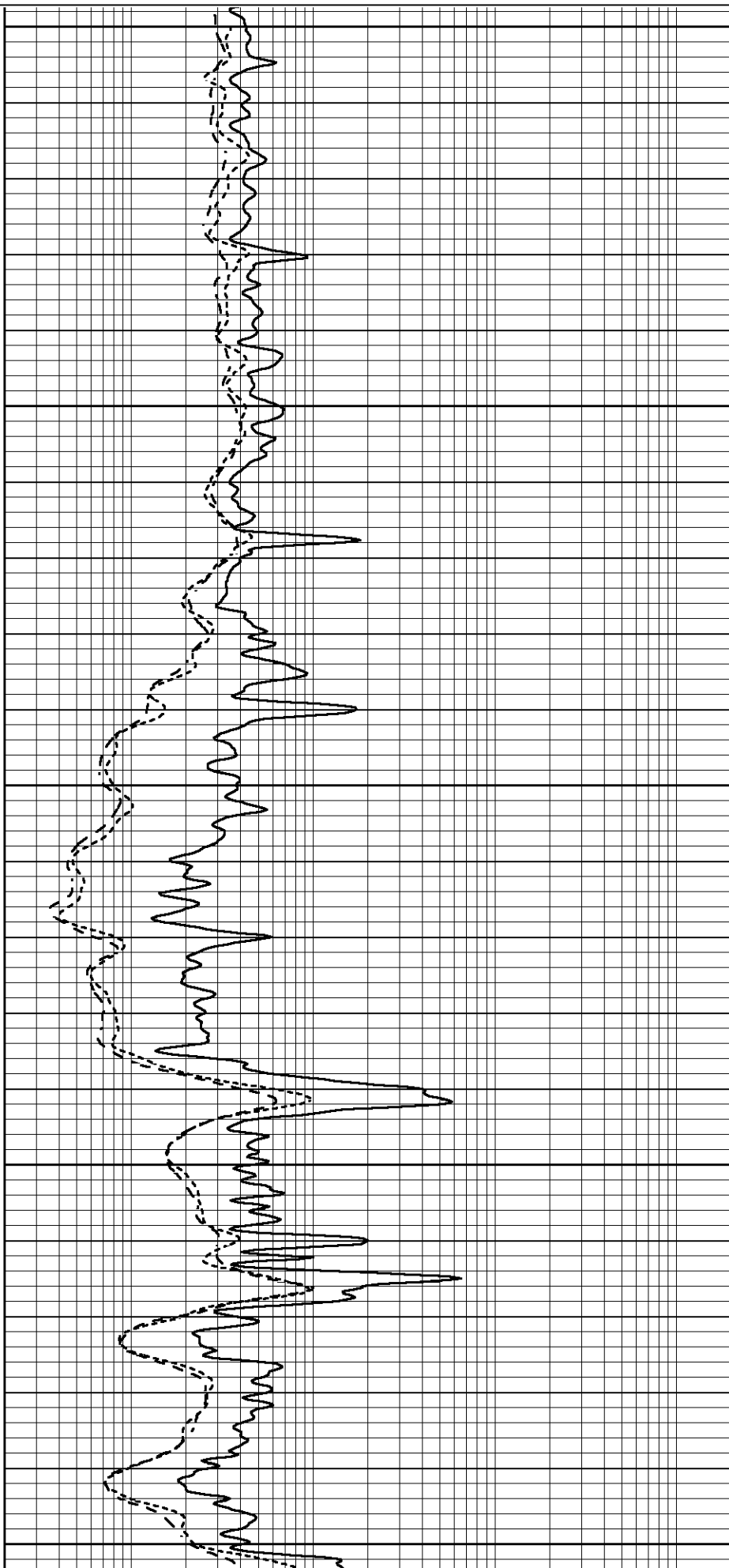
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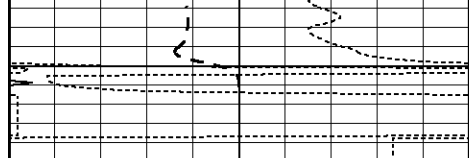
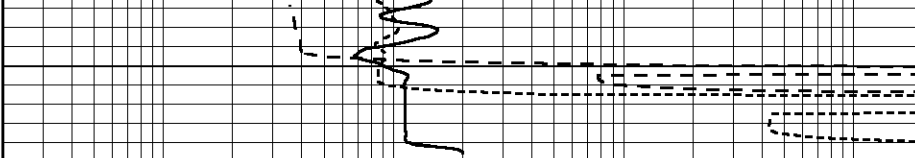
3750

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3900



	
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	

Calibration Report	
Database File	5264ddn.db
Dataset Pathname	pass3.1M
Dataset Creation	Tue Mar 23 20:57:08 2021

Dual Induction Calibration Report	
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Serial-Model:	PROBE9-DILG
Surface Cal Performed:	Tue Mar 23 20:15:37 2021
Downhole Cal Performed:	Wed Mar 11 11:31:19 2020
After Survey Verification Performed:	Wed Mar 11 11:31:22 2020

Surface Calibration		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	720.000	-18.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	720.000	-30.000
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		4000.000	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 Thu Jan 28 13:15:53 2021		
	Background	Magnesium	Aluminum	Aluminum+Fe
Window 1	1182.9	9855.6	3179.6	2818.8
				cps

Window 1	1073.6	8204.9	2708.2	2458.3	cps
Window 2	887.9	4656.3	1694.9	1596.1	cps
Window 3	243.5	250.4	242.2	245.6	cps
Window 4	0.0	7131.3	1634.6	1384.6	cps
Long Space	1.6	1661.2	1115.7	935.2	cps
Short Space		1.7100	2.5900	0.0000	g/cc
Rho		2.0000	2.7500	5.7900	
Pe					
Rib Angle	: 44.9	Rib Slope	: 0.996	Density/Spine Ratio	: 0.577
Spine Angle	: 74.9	Spine Slope	: 3.700	Spine Intercept	: -18.6

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:	Wed Jul 03 10:25:53 2019
Calibration Method:	1.0
Calibration Model:	GAUSS

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps