



DUAL INDUCTION LOG

Company PIONEER OIL COMPANY, INC.

Well PHELPS #9-14

Field UNNAMED

County LOGAN State KANSAS

Location: API #: 15-109-21670-0000

Permanent Datum GROUND LEVEL Elevation 3003
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING

SEC 14 TWP 14S RGE 34W

Other Services
CDL/CNL/PE
MEL/SON
Elevation

Company PIONEER OIL COMPANY, INC.
Well PHELPS #9-14
Field UNNAMED
County LOGAN
State KANSAS

Date	4/24/24		
Run Number	ONE		
Depth Driller	4680		
Depth Logger	4681		
Bottom Logged Interval	4679		
Top Log Interval	00		
Casing Driller	8 625 @ 224		
Casing Logger	224		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,000 PPM	
Density / Viscosity	9.1/68		
pH / Fluid Loss	11/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.10 @ 60F		
Rmf @ Meas. Temp	.825 @ 60F		
Rmc @ Meas. Temp	1.32 @ 60F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.541 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	10:00 A.M.		
Maximum Recorded Temperature	122F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	COLE ROBBERN		
Witnessed By	ROD ANDERSEN		

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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

THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395

DIRECTIONS:

FROM MONUMENT, KANSAS SOUTH 20 MILES ON 350TH TO INDIAN ROAD, 2 MILES WEST, 1 MILE NORTH, WEST INTO

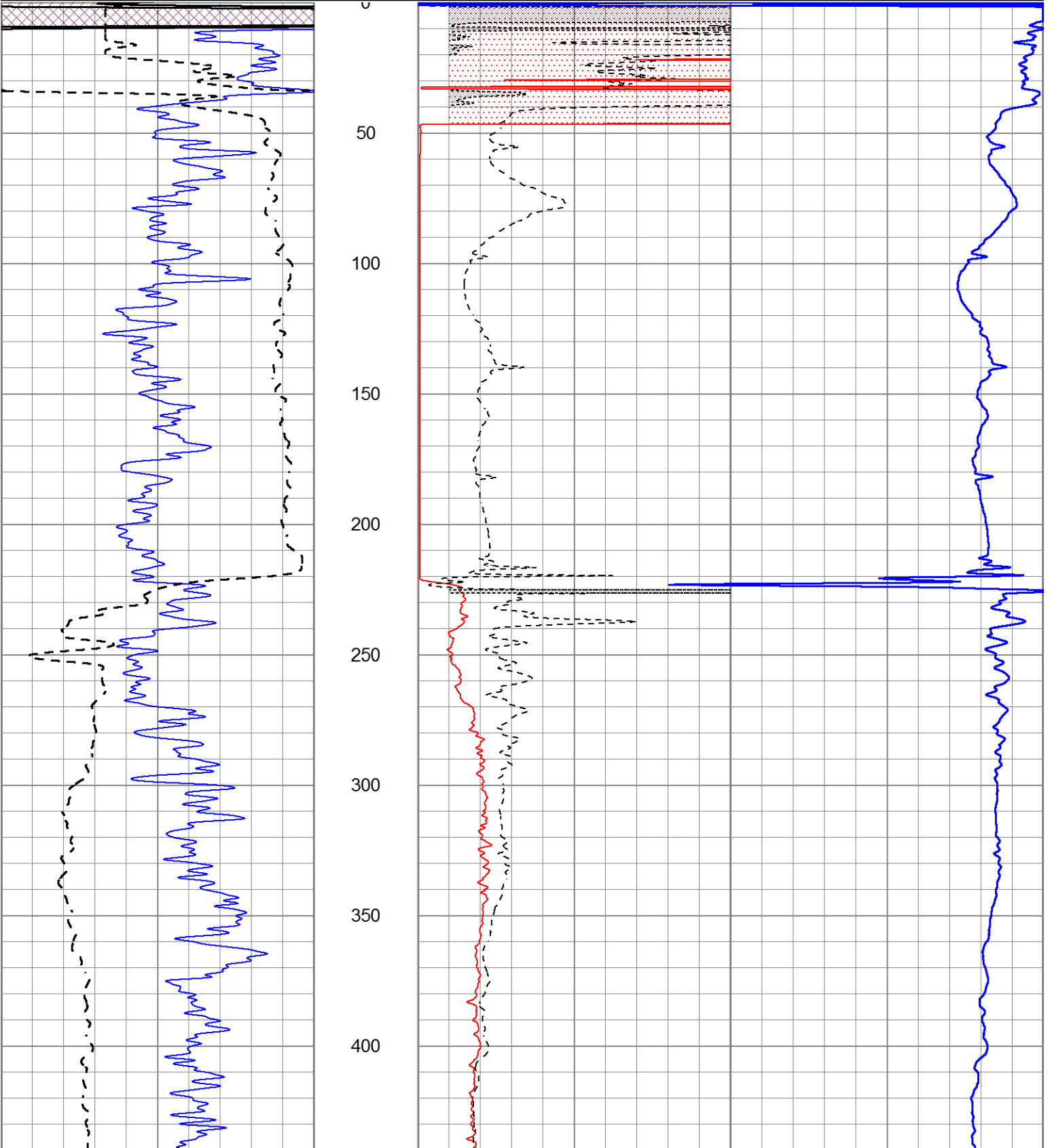


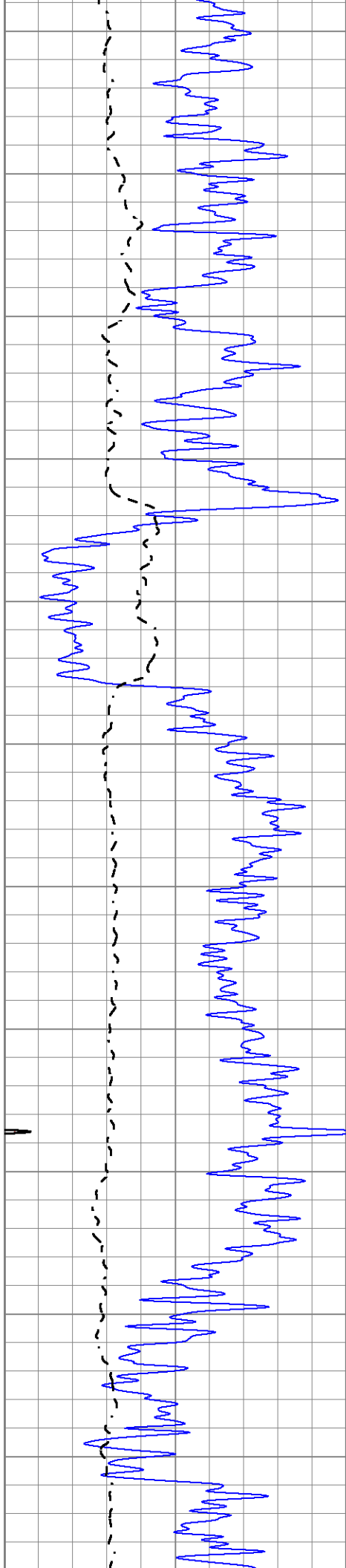
MAIN SECTION

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 Dataset Pathname pass3M
 Presentation Format _dil2
 Dataset Creation Wed Apr 24 12:23:35 2024
 Charted by Depth in Feet scaled 1:600

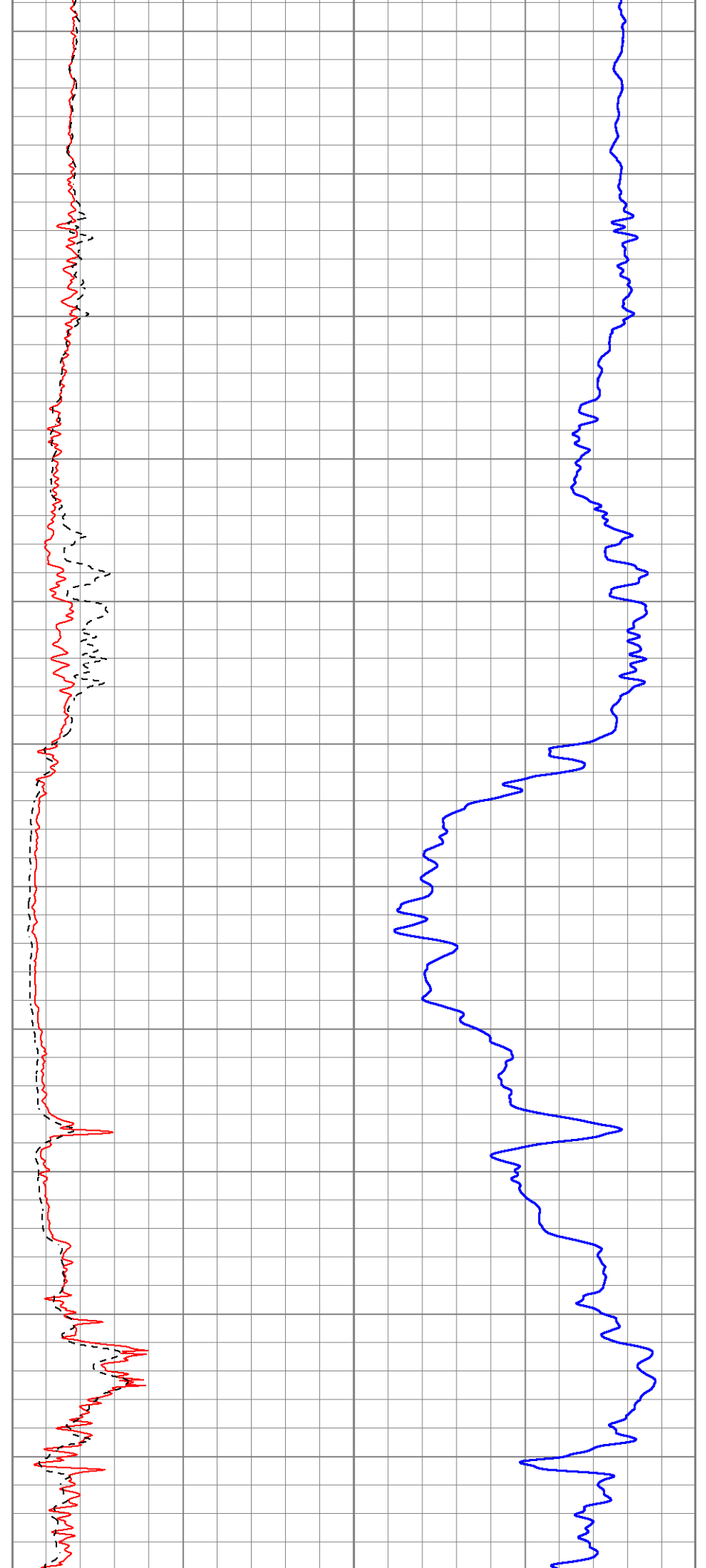
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 -100 SP (mV) 100

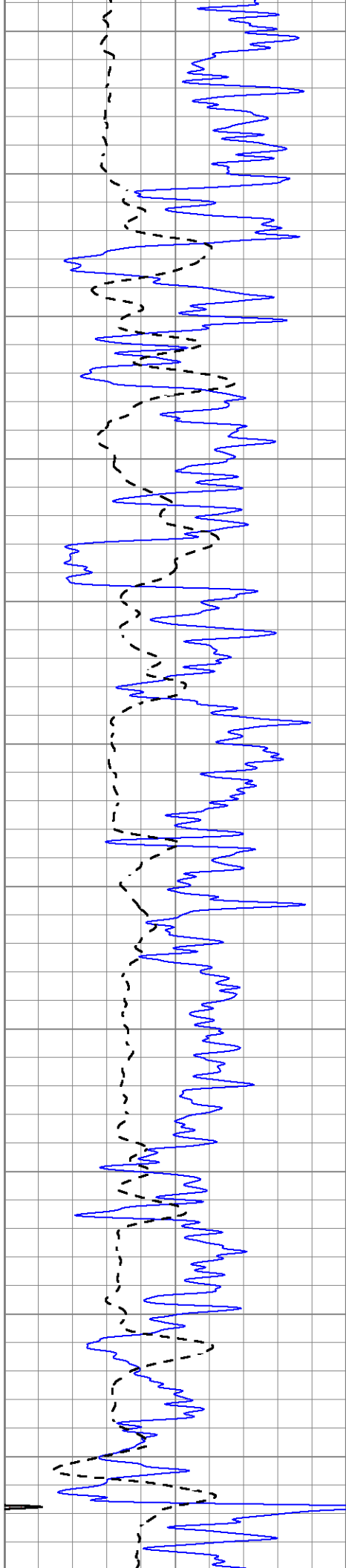
1000 CILD (mmho/m) 0
 0 RLL3 (Ohm-m) 50
 0 Deep Induction (Ohm-m) 50
 50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500



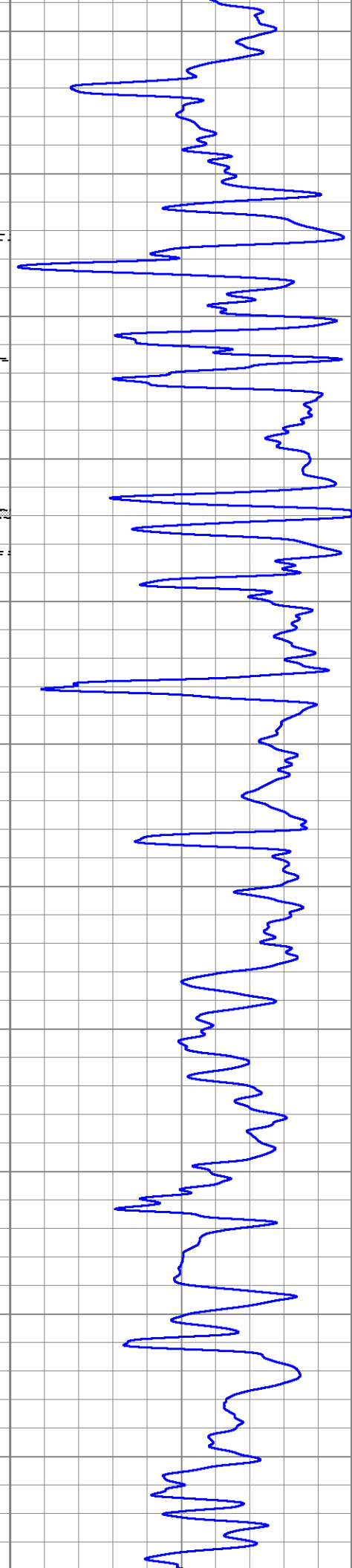
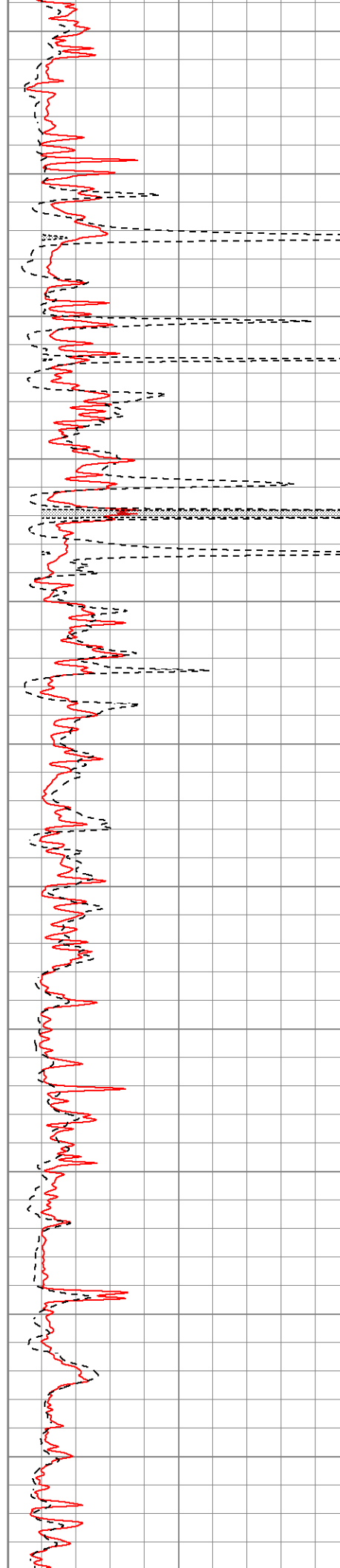


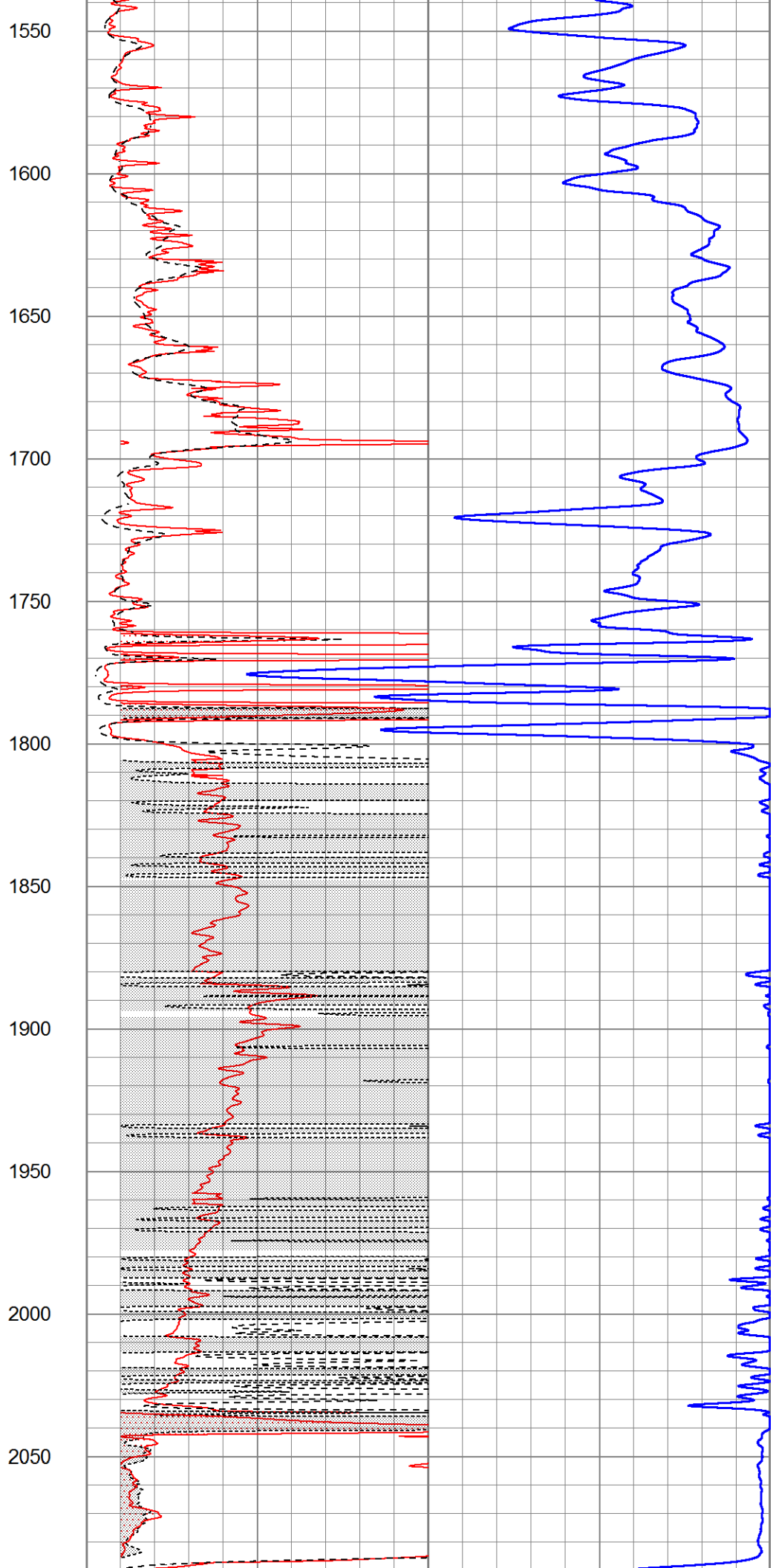
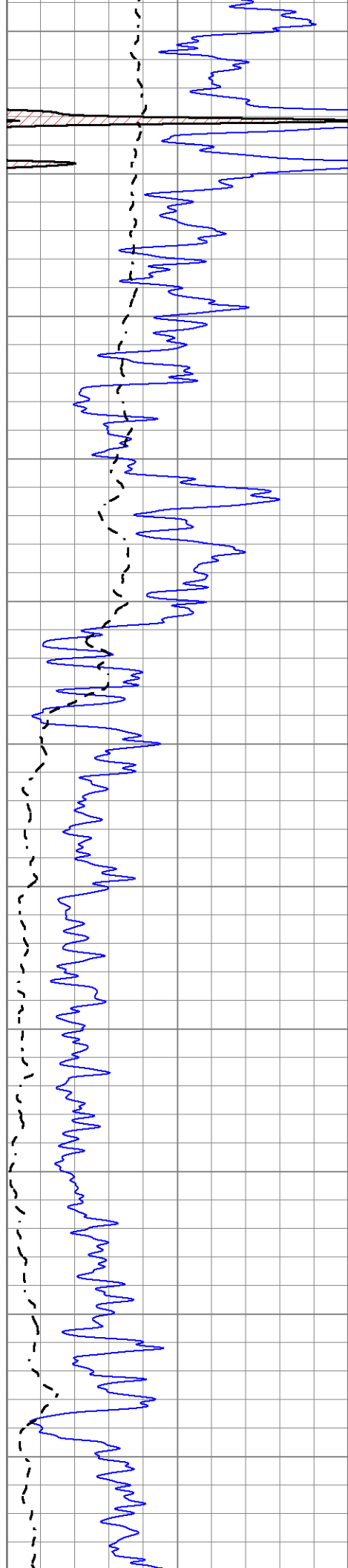
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500
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600
650
700
750
800
850
900
950

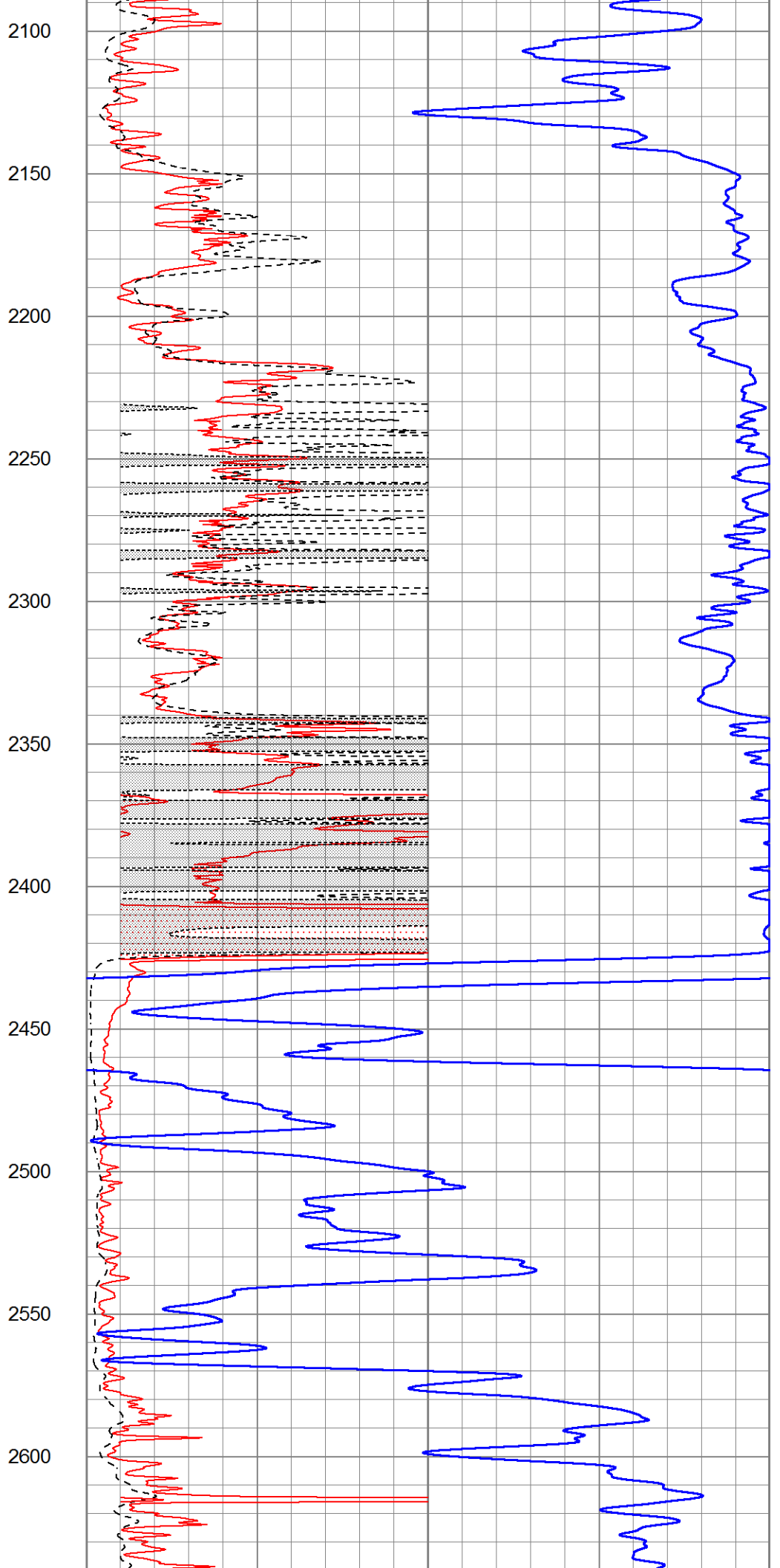
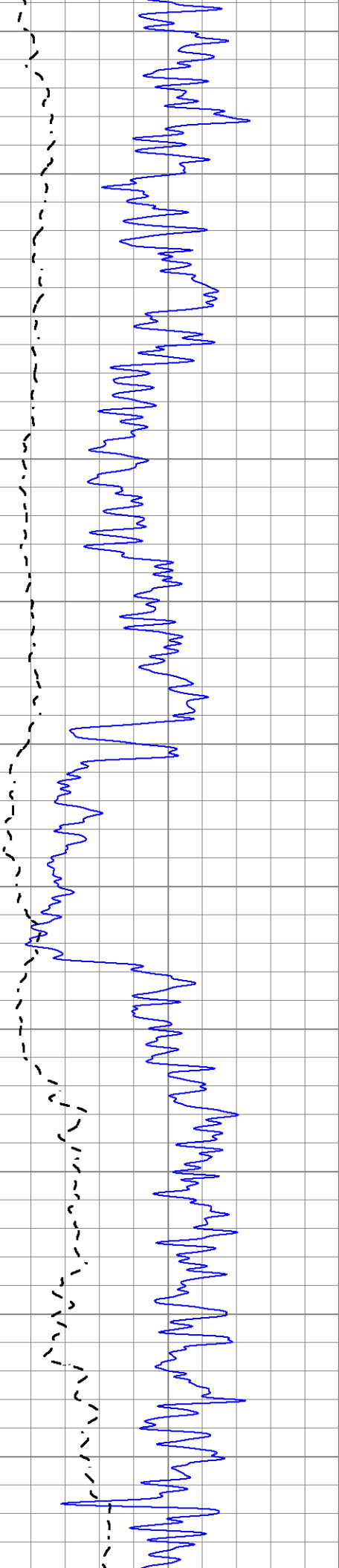


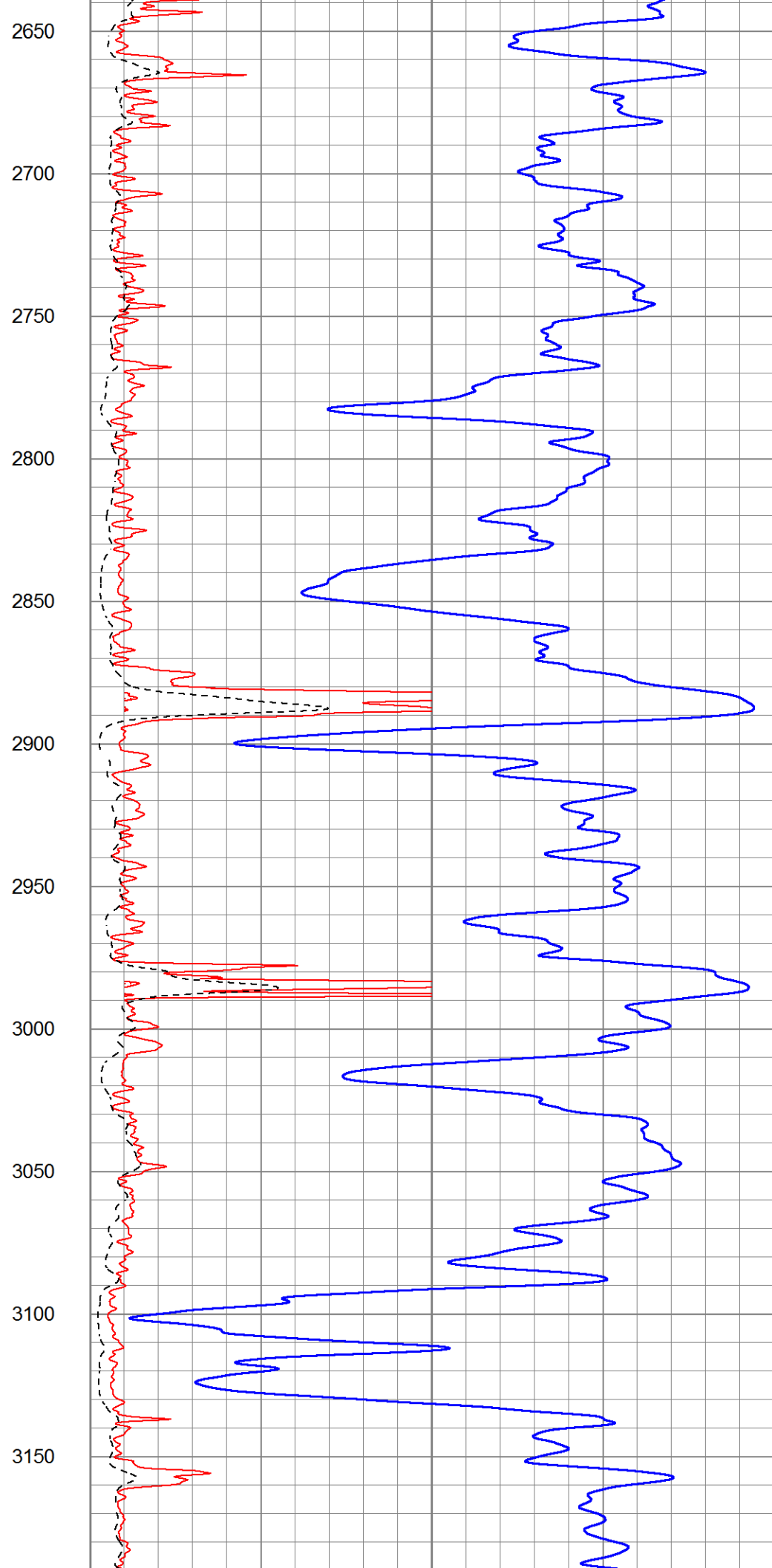
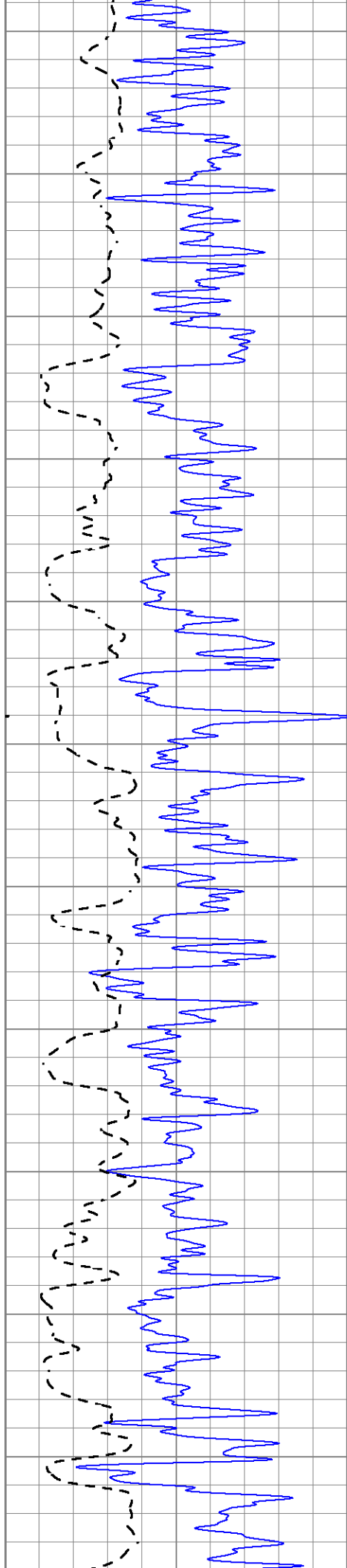


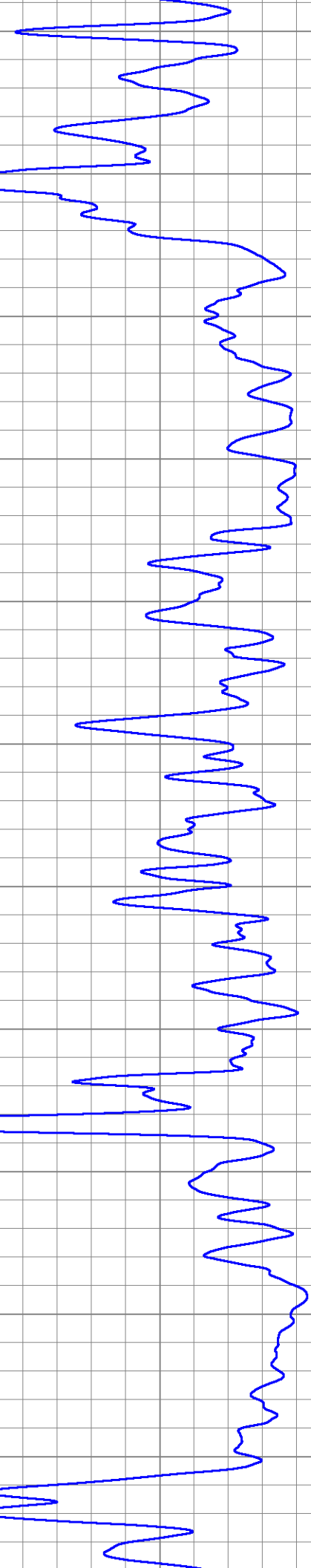
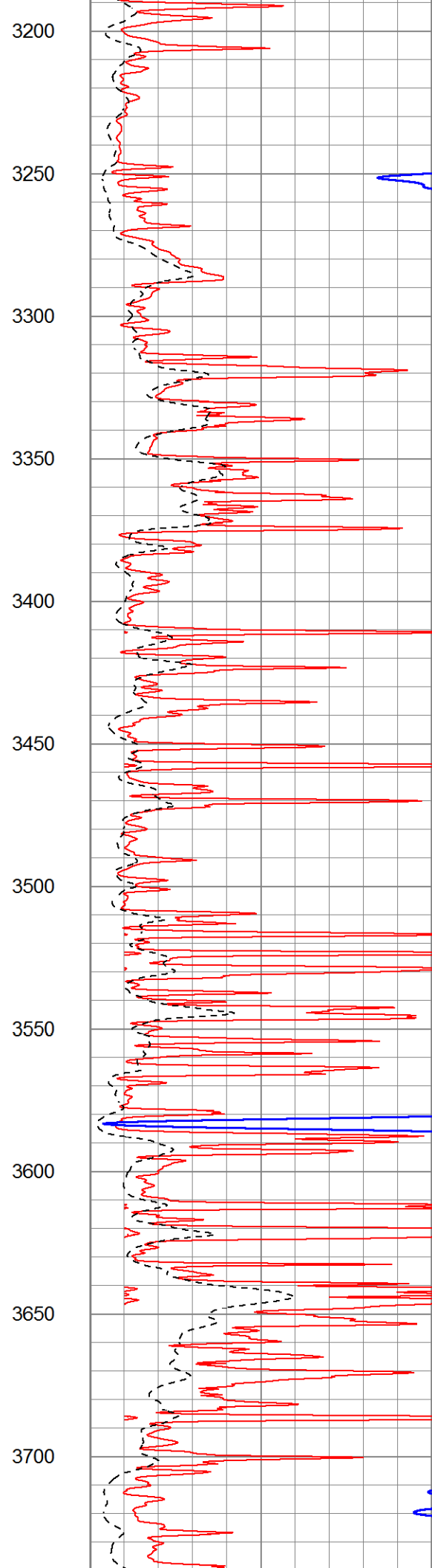
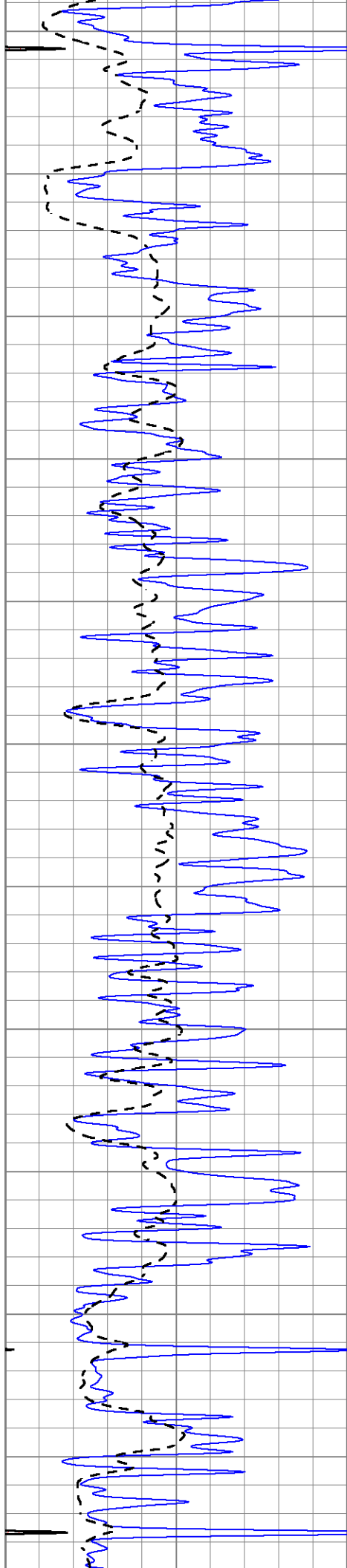
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1050
1100
1150
1200
1250
1300
1350
1400
1450
1500

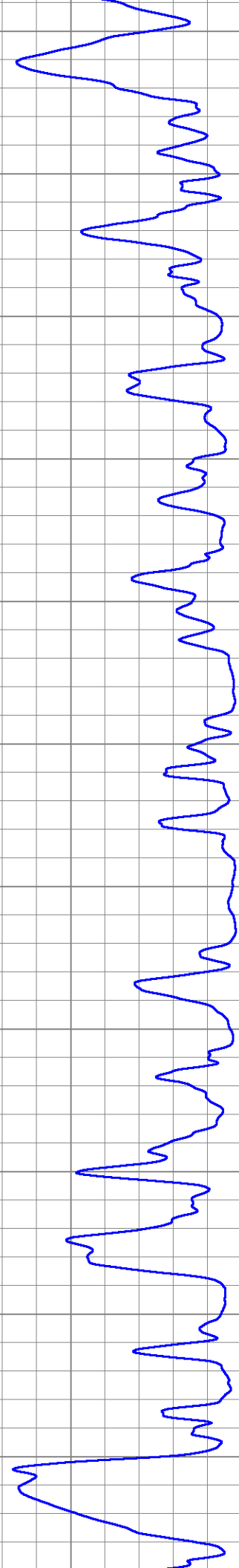
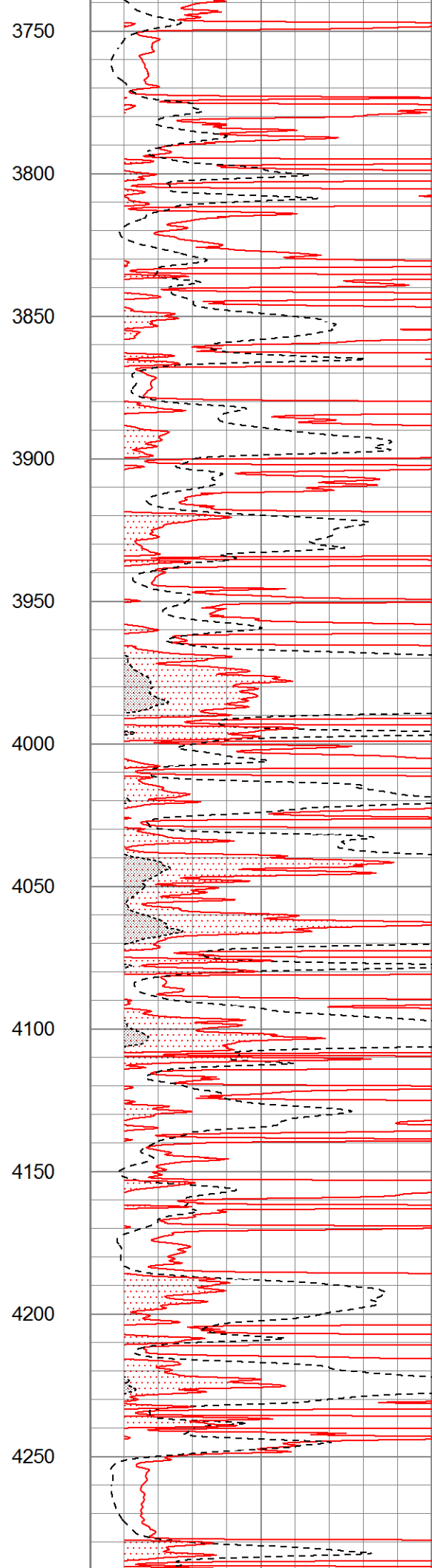
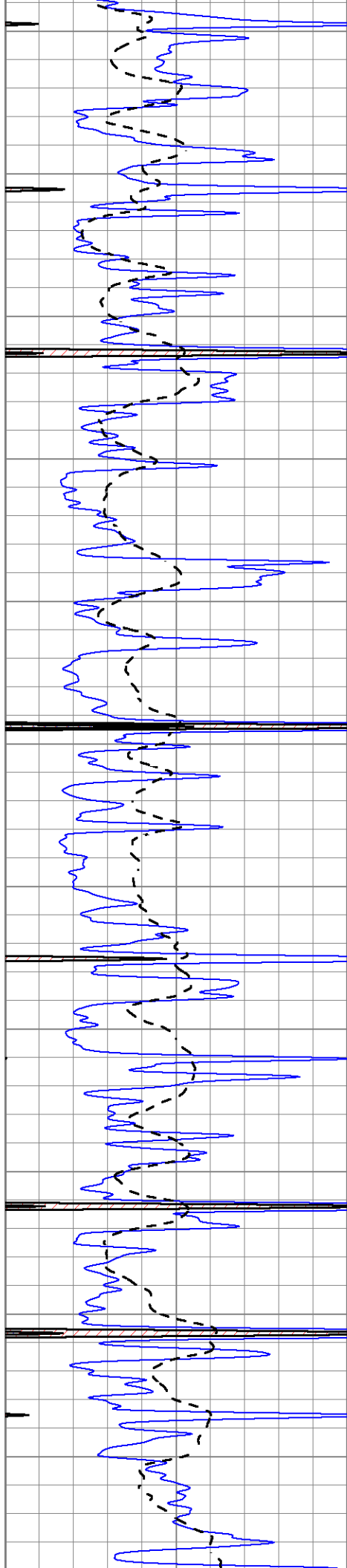


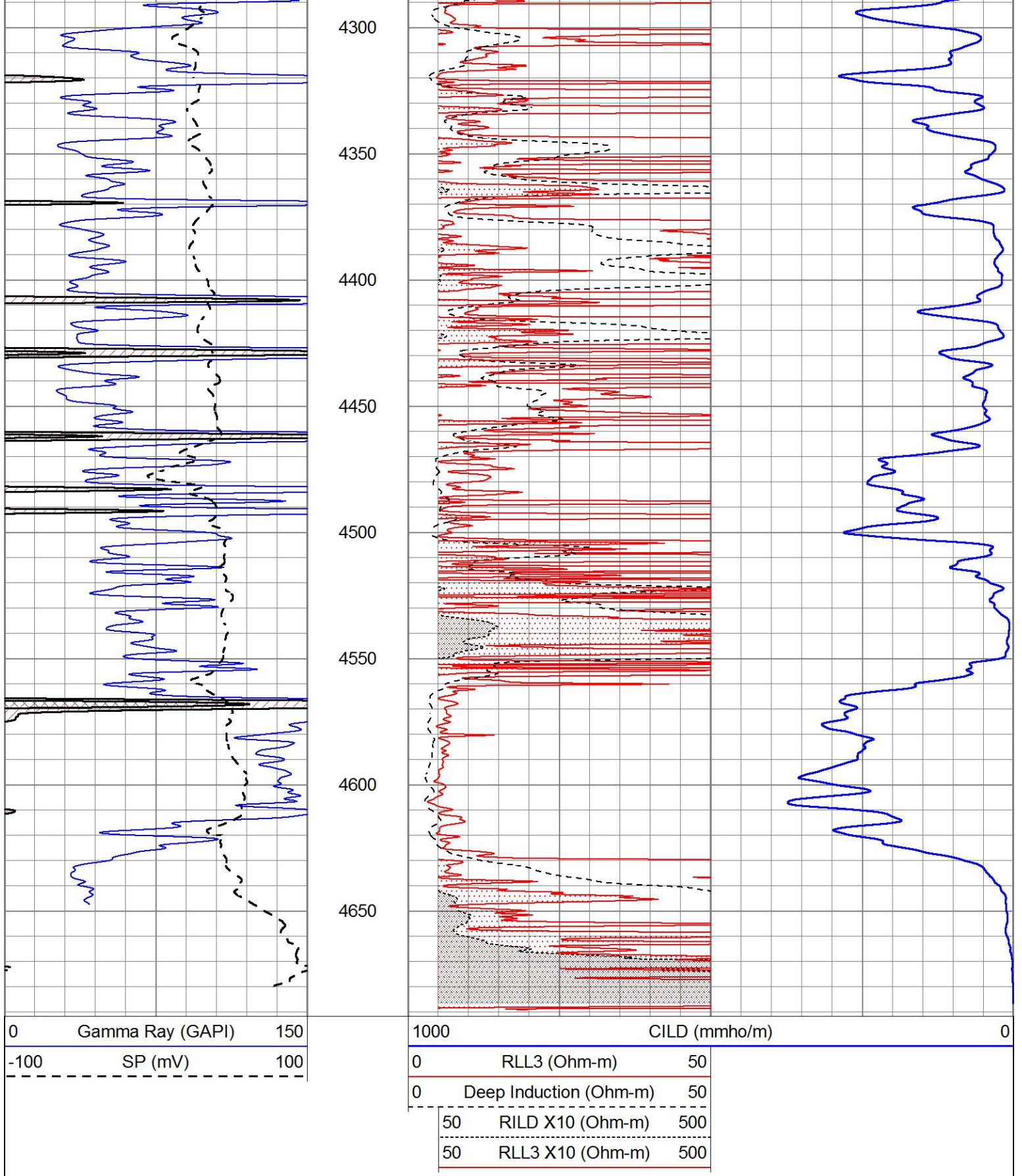




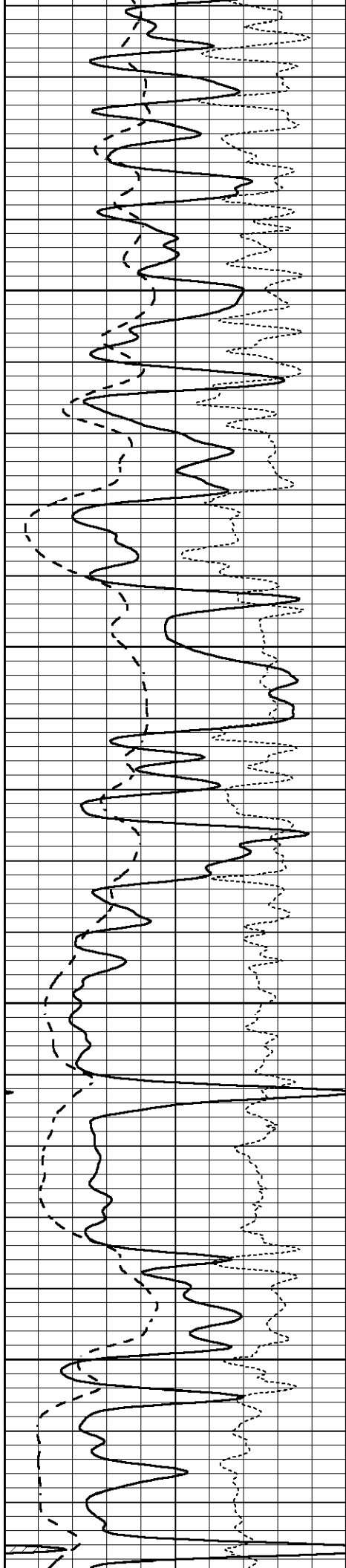








ANHYDRITE

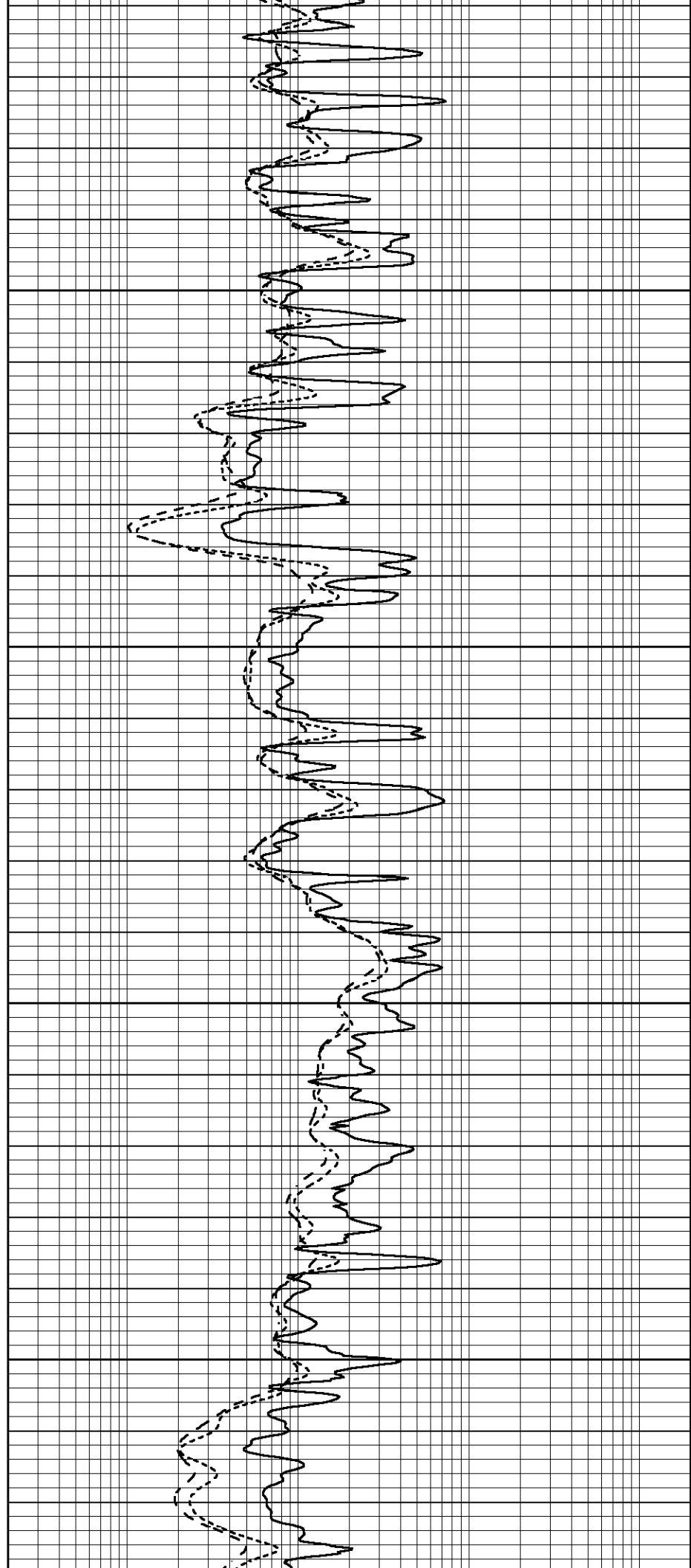


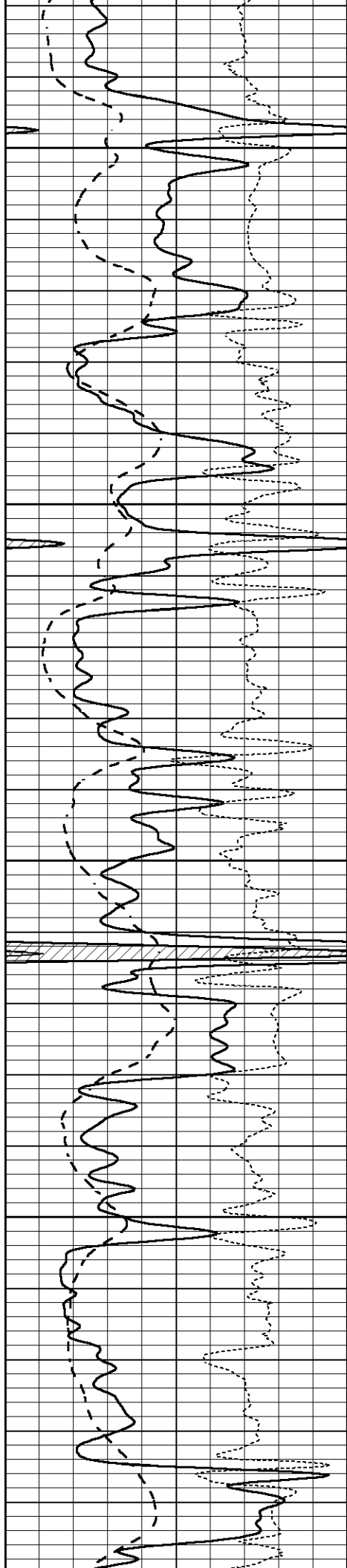
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3600

3650

3700





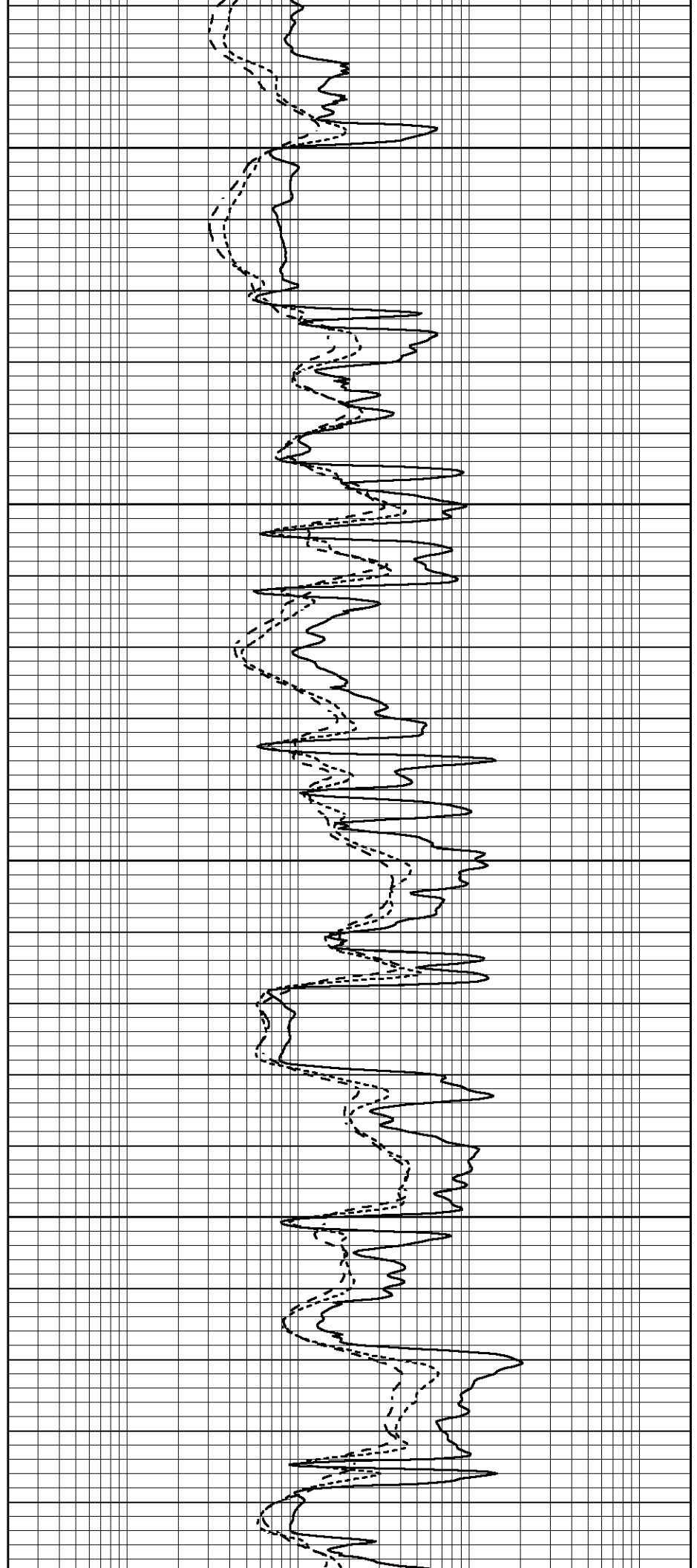
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3800

3850

3900

3950



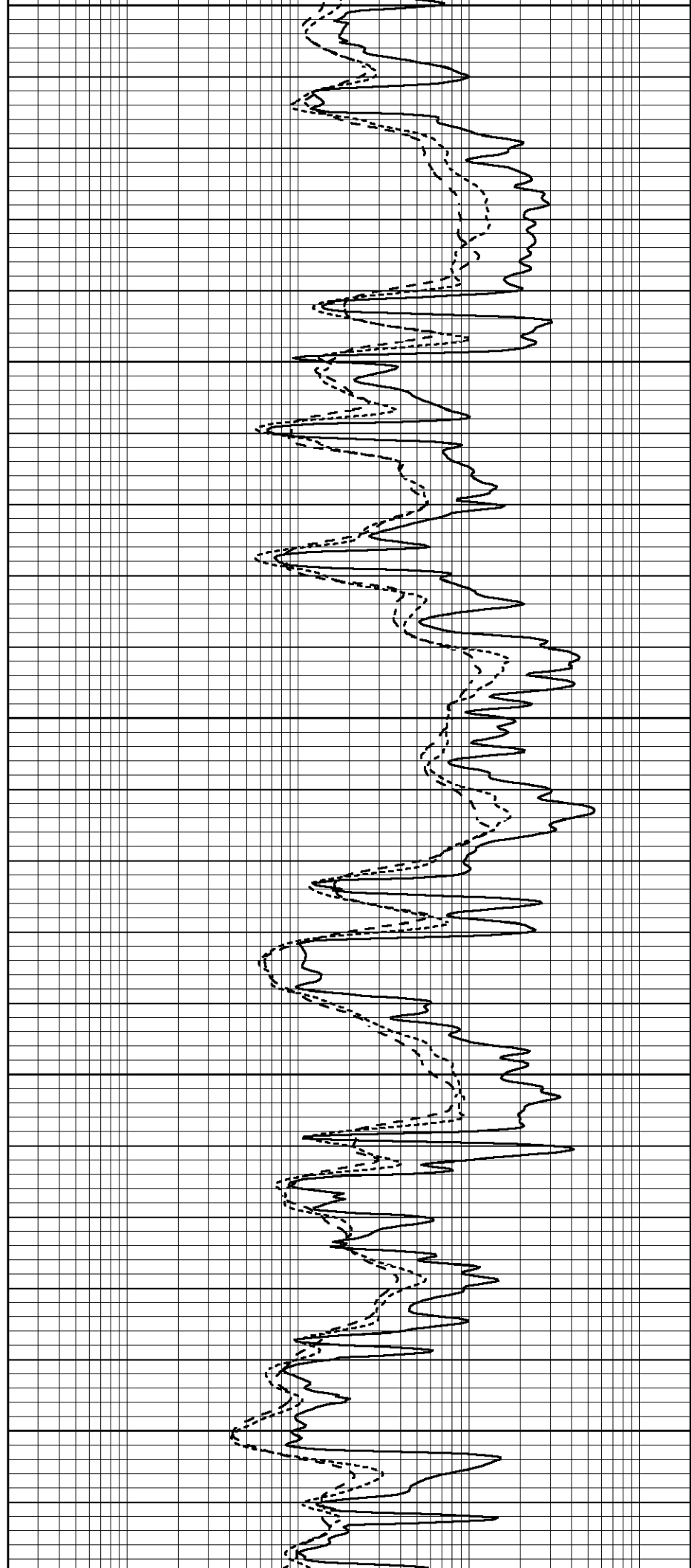
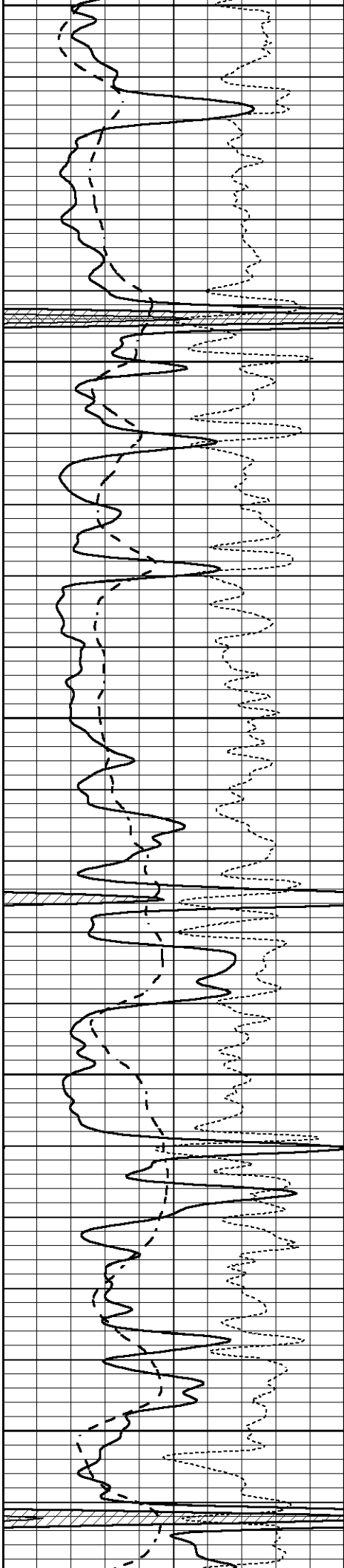
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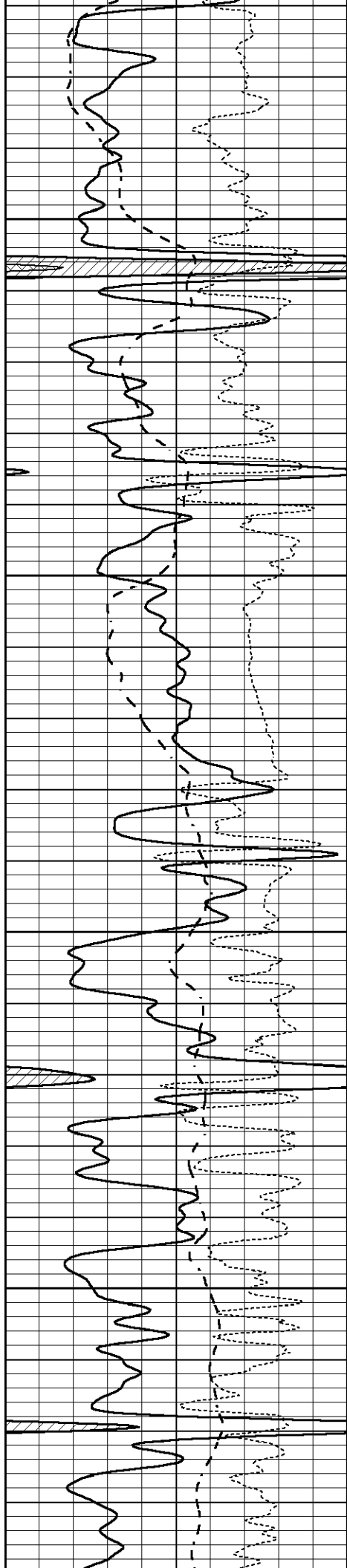
4000

4050

4100

4150



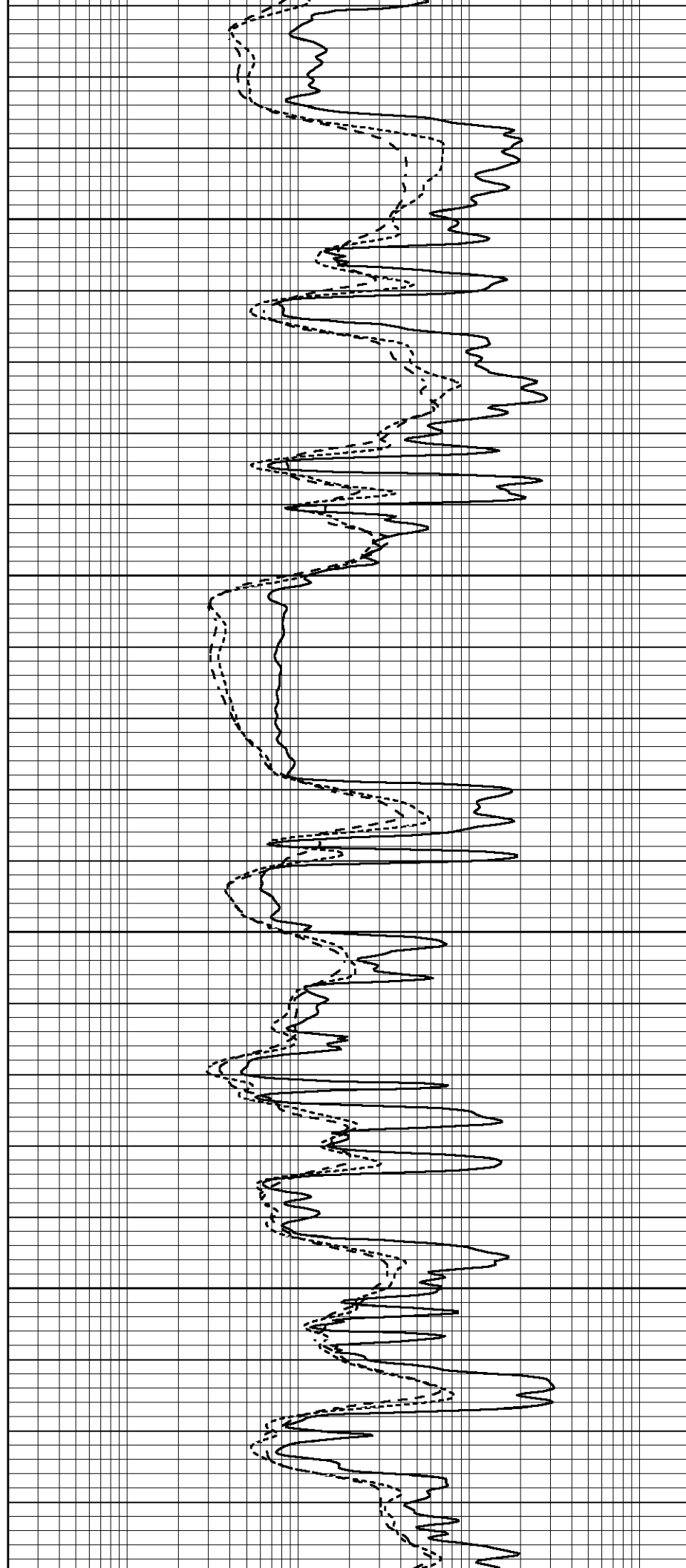


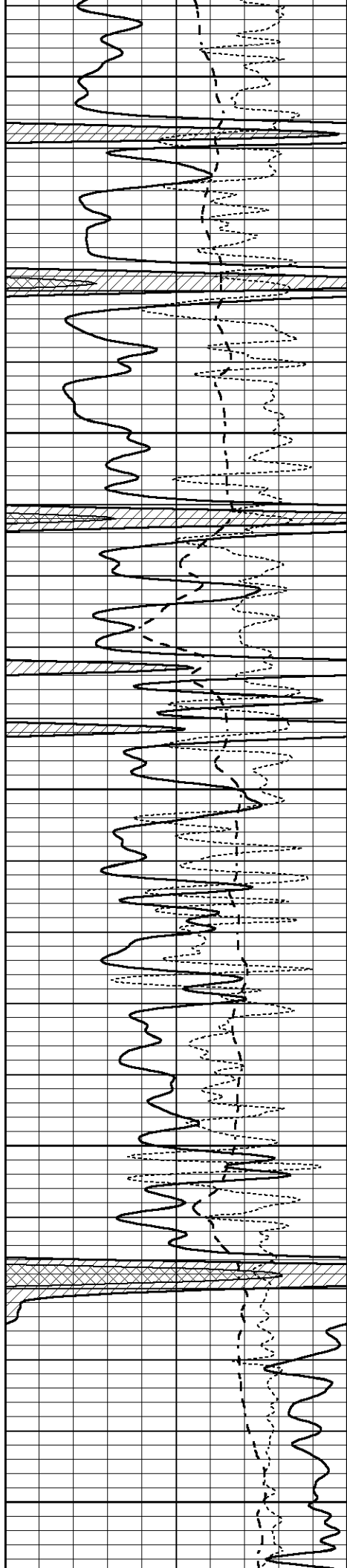
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4250

4300

4350





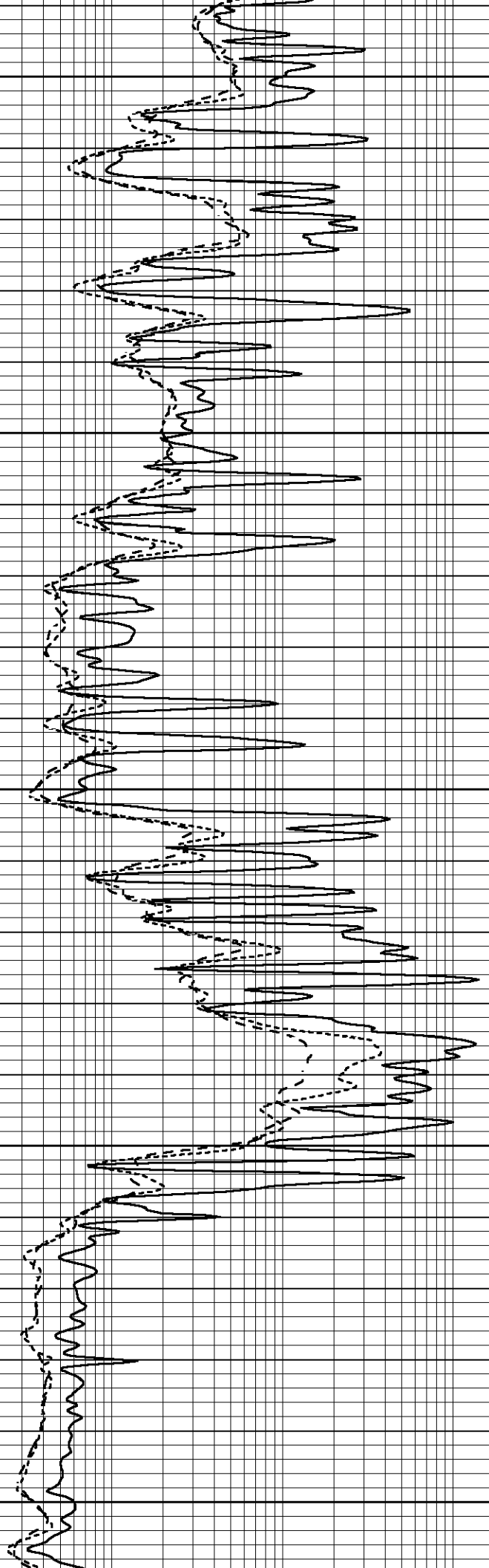
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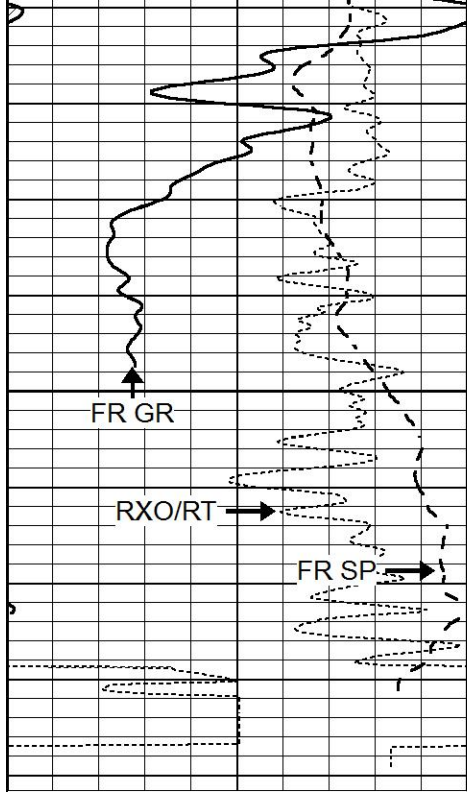
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4500

4550

4600





4650

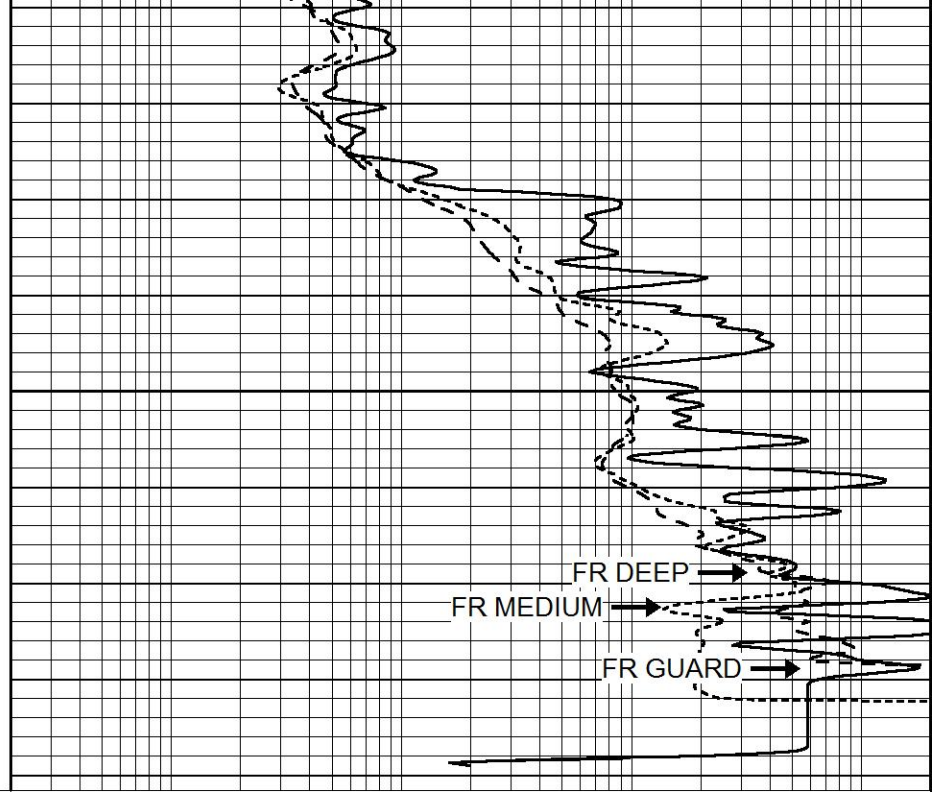
FR GR

RXO/RT

FR SP

LTD 4681

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



FR DEEP

FR MEDIUM

FR GUARD

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

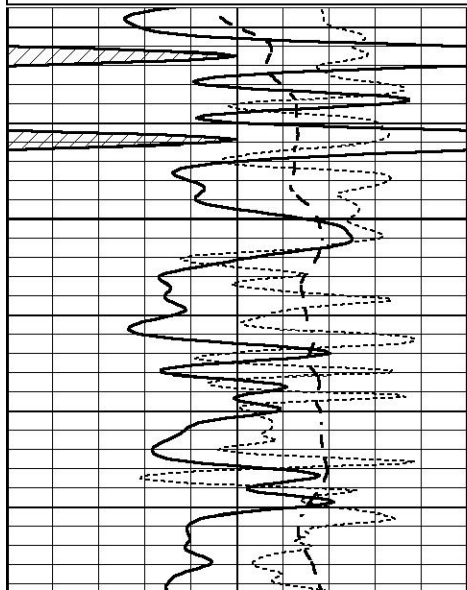


REPEAT SECTION

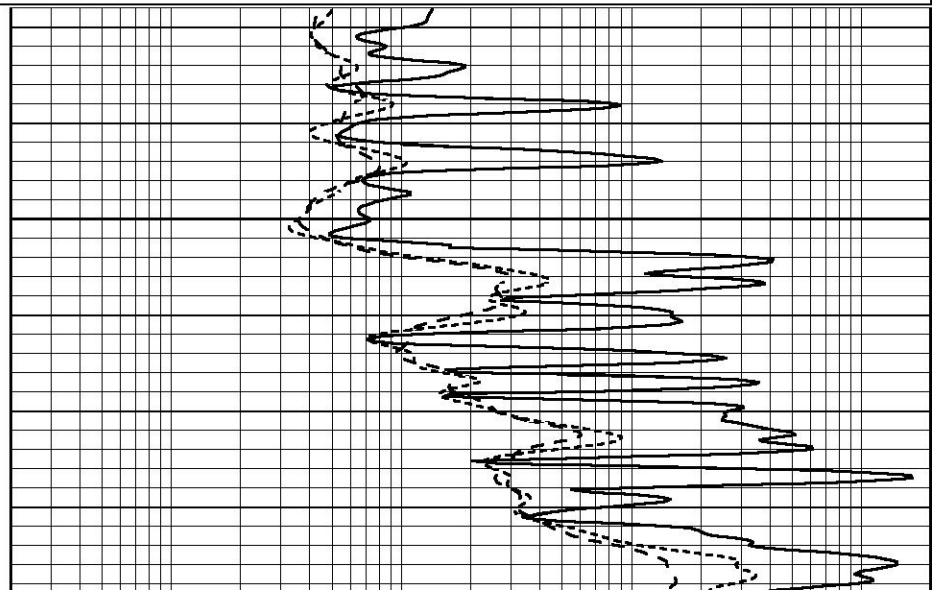
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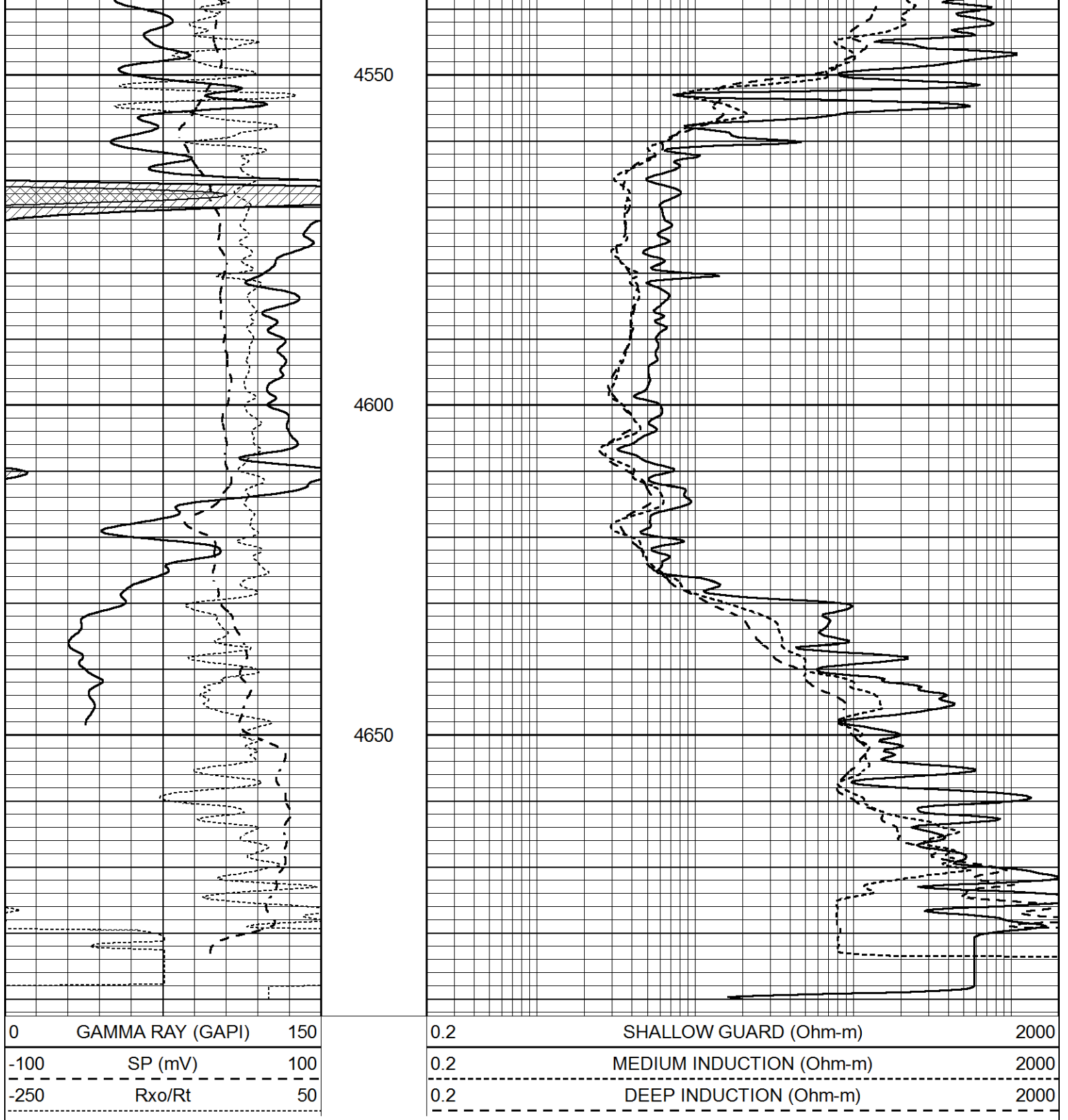
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



4500





Calibration Report

Database File 8672pe.db
 Dataset Pathname pass3M
 Dataset Creation Wed Apr 24 12:23:35 2024

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Sat Jul 29 01:57:42 2023
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

Readings

References

Results

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	565.000	-5.500
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	530.000	-9.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration								
Readings			References			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification								
Readings			Targets			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report
Serial: 002 Model: PRB

Master Calibration					Performed Tue Mar 05 14:38:26 2014			
	Background	Magnesium	Aluminum	Aluminum+Fe				
Window 1	725.2	6706.7	2064.1	1781.5				cps
Window 2	662.7	5683.9	1787.4	1577.3				cps
Window 3	531.1	2851.1	1038.7	963.2				cps
Window 4	159.2	158.7	158.9	156.4				cps
Long Space	0.0	5021.2	1124.6	914.6				cps
Short Space	1.4	1196.9	818.3	680.9				cps
Rho		1.7100	2.5900	0.0000				g/cc
Pe		2.0000	2.7500	5.7900				
Rib Angle	: 45.7	Rib Slope	: 1.026	Density/Spine Ratio			: 0.570	
Spine Angle	: 75.7	Spine Slope	: 3.935	Spine Intercept			: -19.4	

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				

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: 080621PMC
 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: 46001
 Tool Model: Probe1
 Performed: Thu Apr 20 09:55:57 2023

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.4300 GAPI/cps