



DUAL INDUCTION LOG

Company NEC OPERATING - KANSAS, LLC.

Well INDIA #1

Field RATTLESNAKE

County STAFFORD State KANSAS

Location: API #: 15-185-24126-0000
1100' FSL & 1100' FEL
NW - NW - SE - SE

SEC 3 TWP 24S RGE 14W

Permanent Datum GROUND LEVEL Elevation 1951

Log Measured From KELLY BUSHING 8' A.G.L.

Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL/PE
MEL

Elevation
K.B. 1959
D.F. 1957
G.L. 1951

Date	1/4/23
Run Number	ONE
Depth Driller	4260
Depth Logger	4252
Bottom Logged Interval	4250
Top Log Interval	00
Casing Driller	8 5/8"@223'
Casing Logger	223
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/46
pH / Fluid Loss	10.0/9.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.00@66F
Rmf @ Meas. Temp	.750@66F
Rmc @ Meas. Temp	1.20@66F
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.559@118F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	6:30 P.M.
Maximum Recorded Temperature	118F
Equipment Number	8916
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	PAT DEENIHAN

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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, HAYS, KS. (785) 628-6395
DIRECTIONS:
MACKSVILLE, KS., 5 E. ON HWY 50 TO "RD. 60", 2N., 1/2E., N. INTO

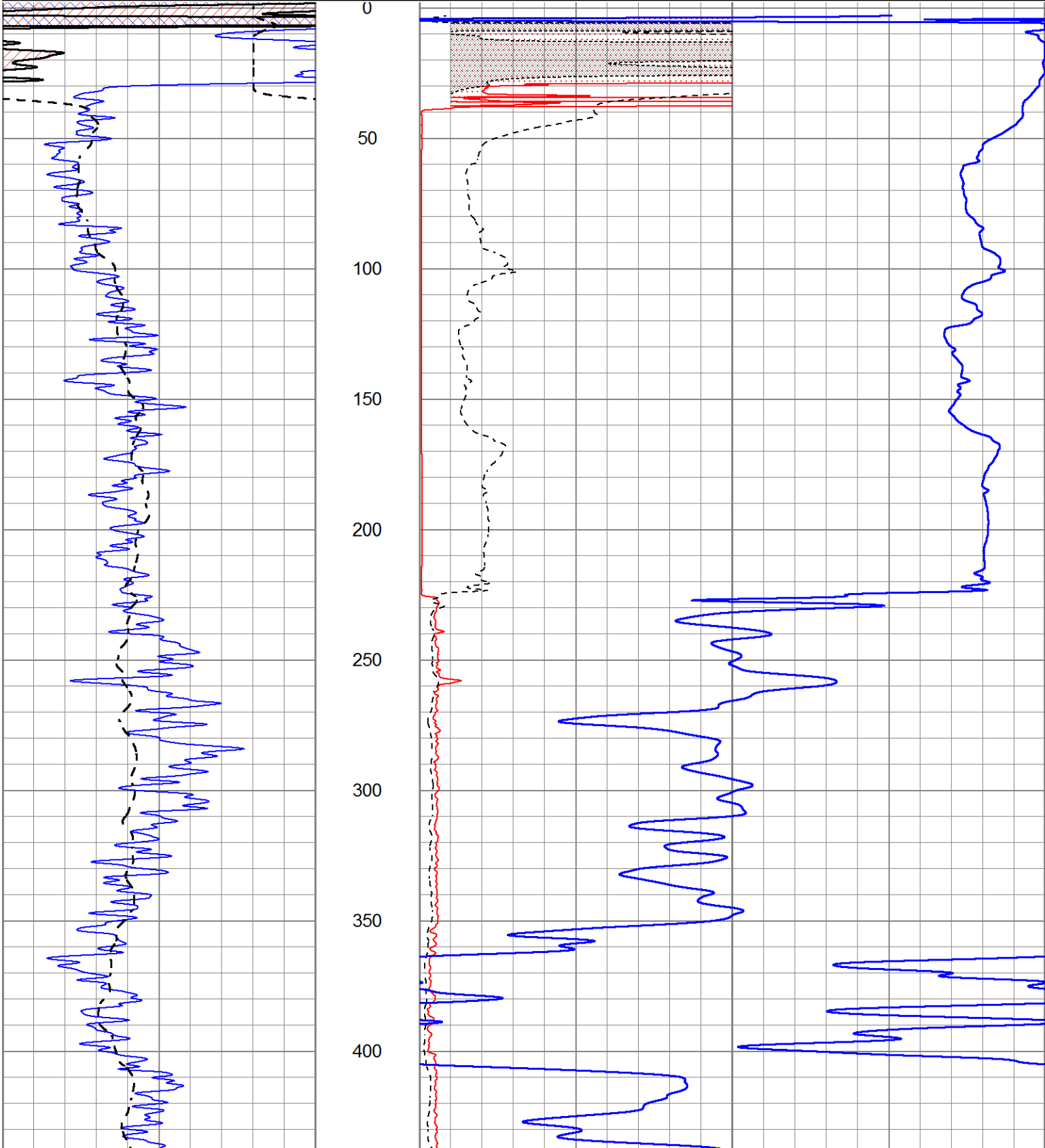


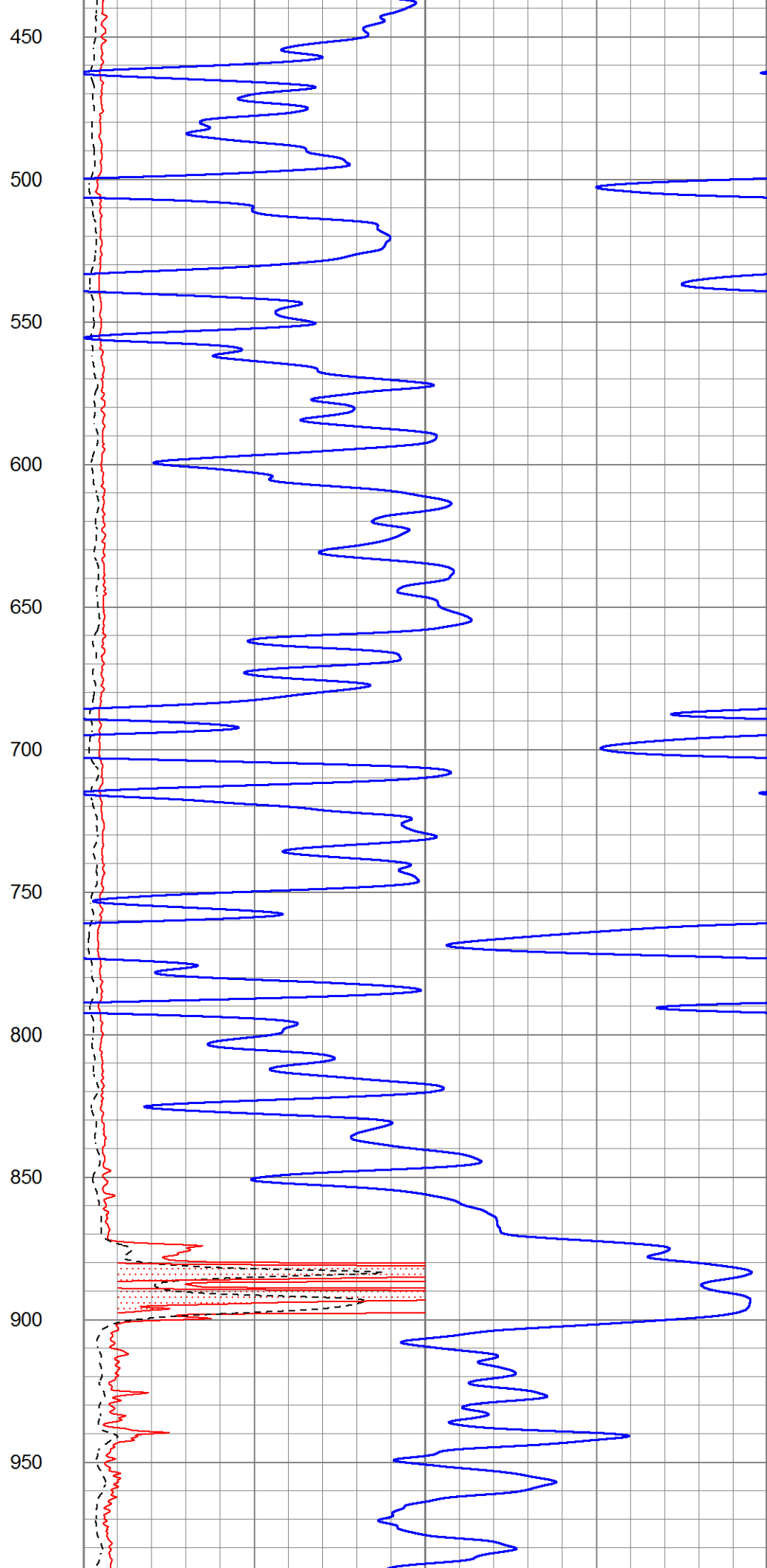
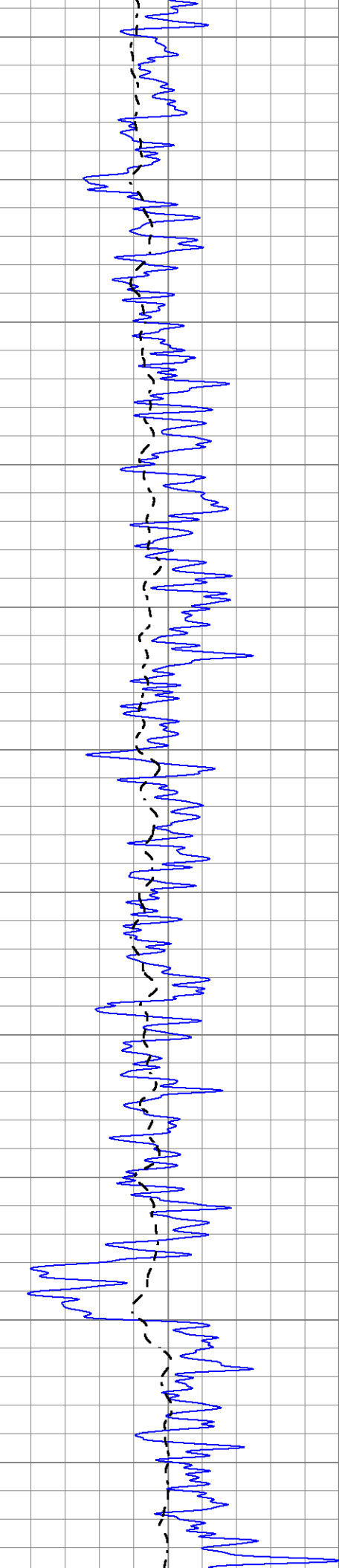
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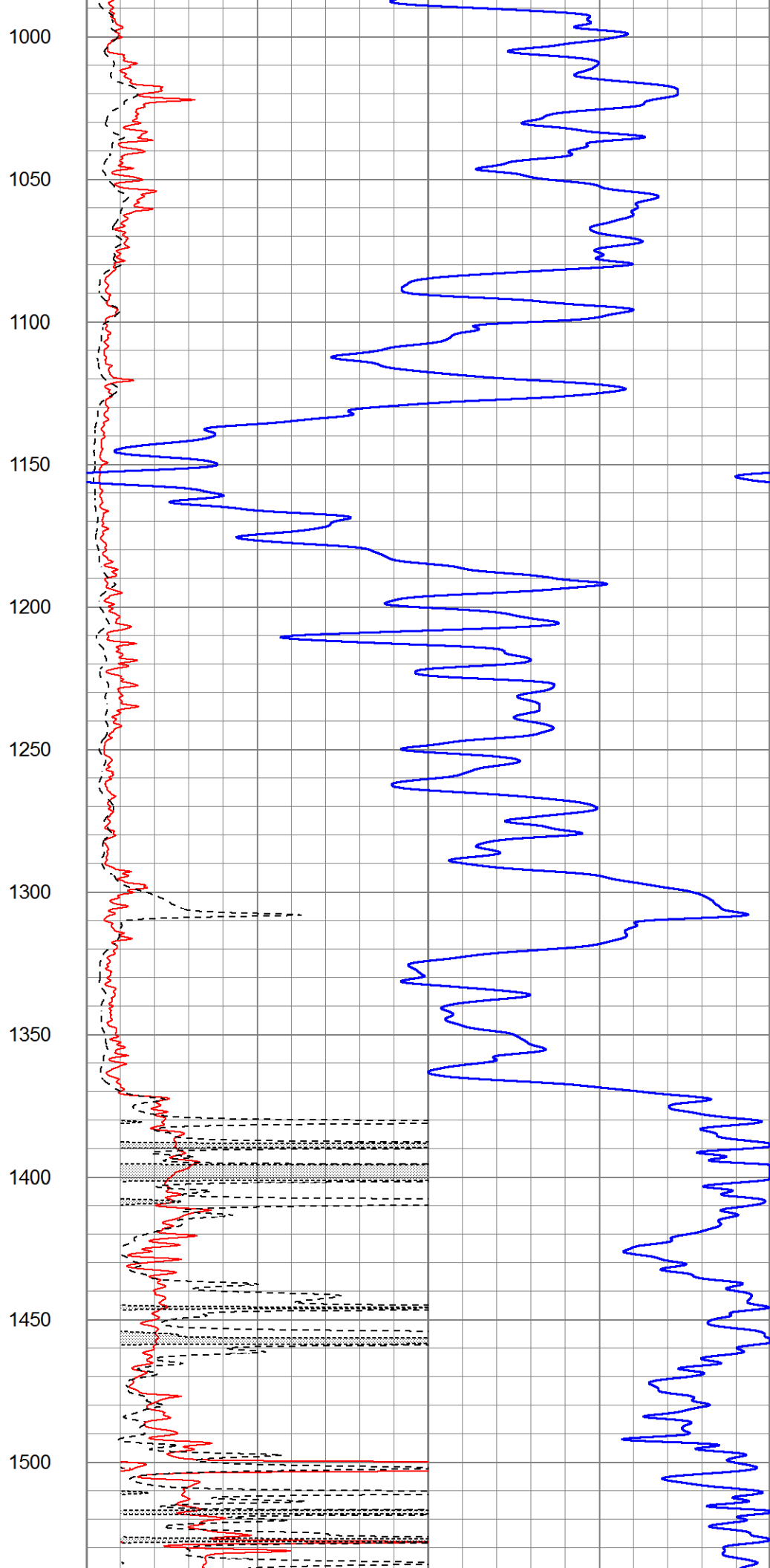
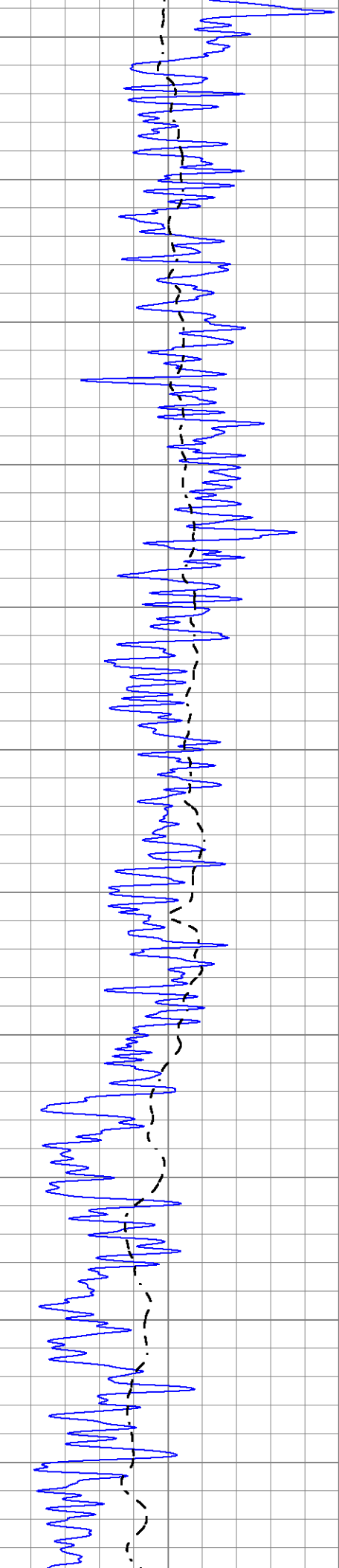
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 Presentation Format _dil2
 Dataset Creation Wed Jan 04 20:22:03 2023
 Charted by Depth in Feet scaled 1:600

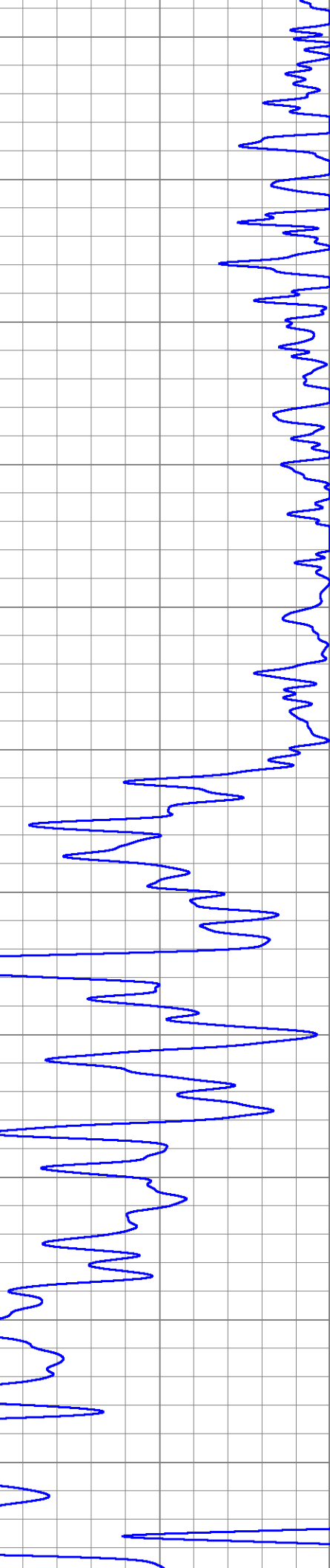
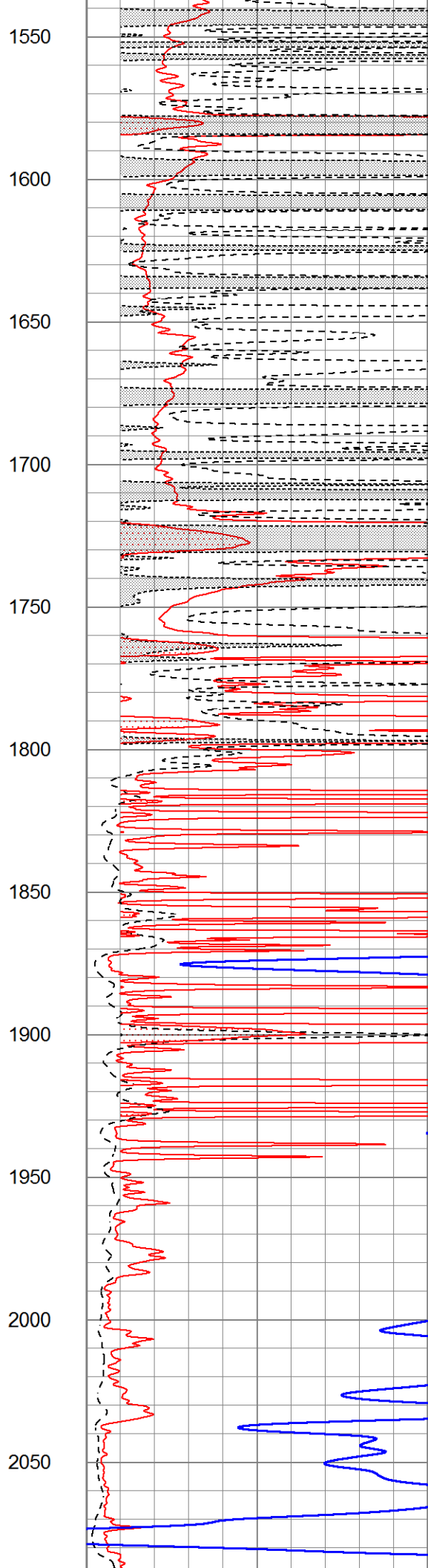
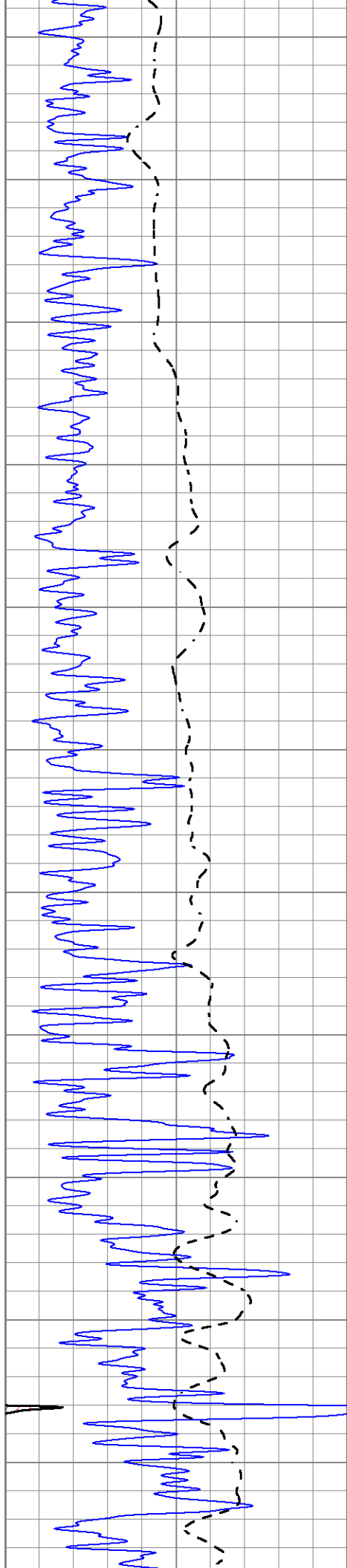
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-100	SP (mV)	100

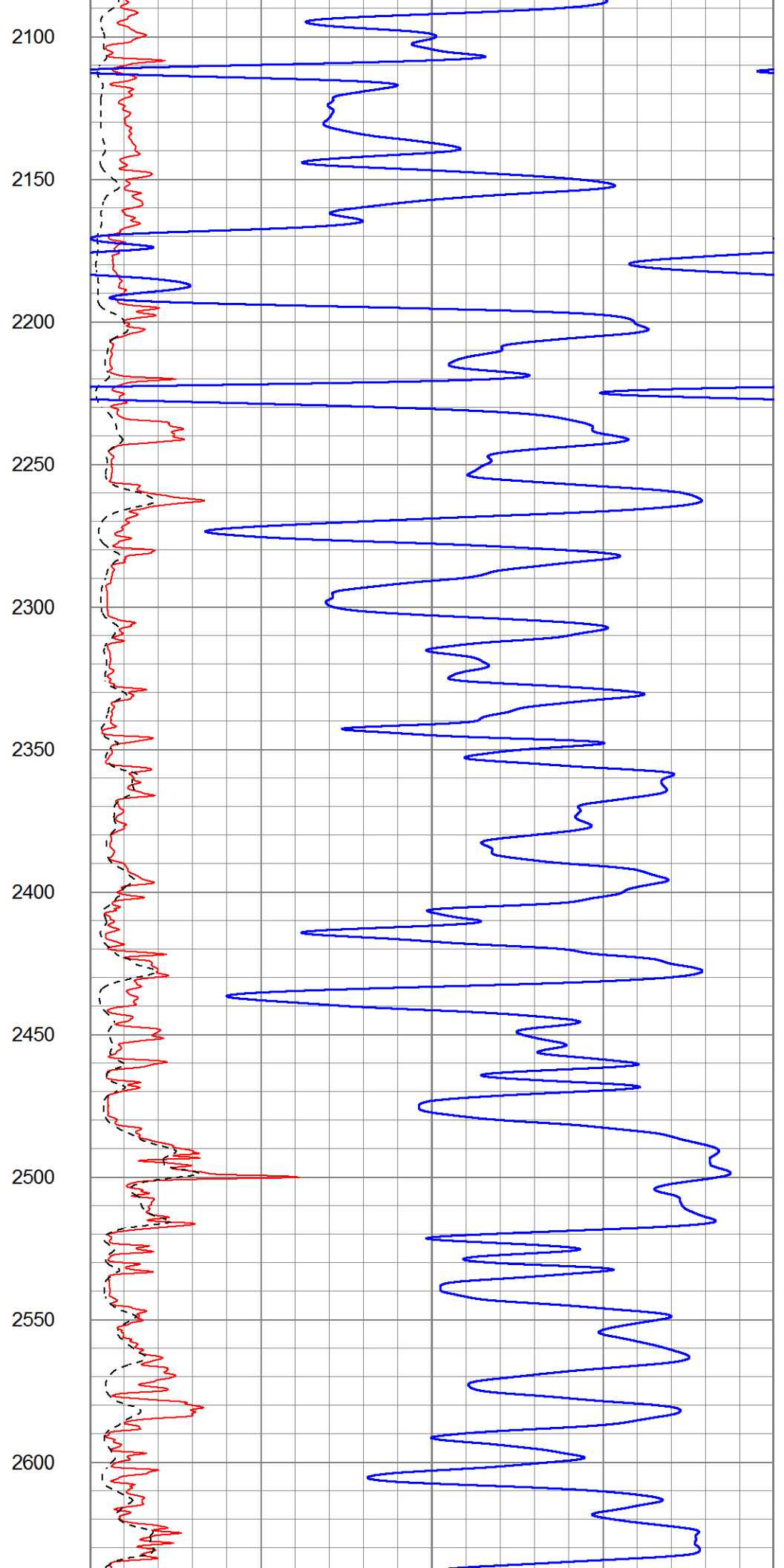
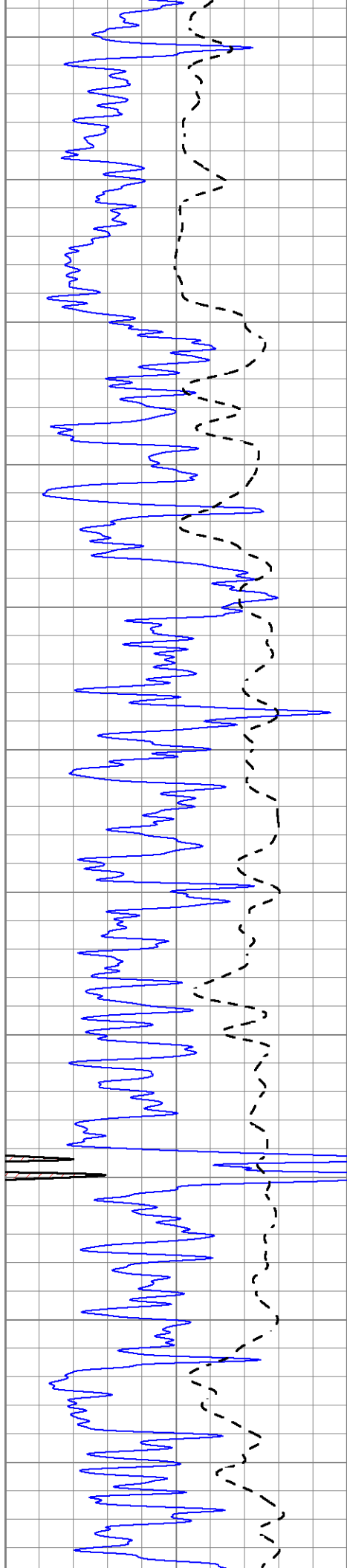
1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

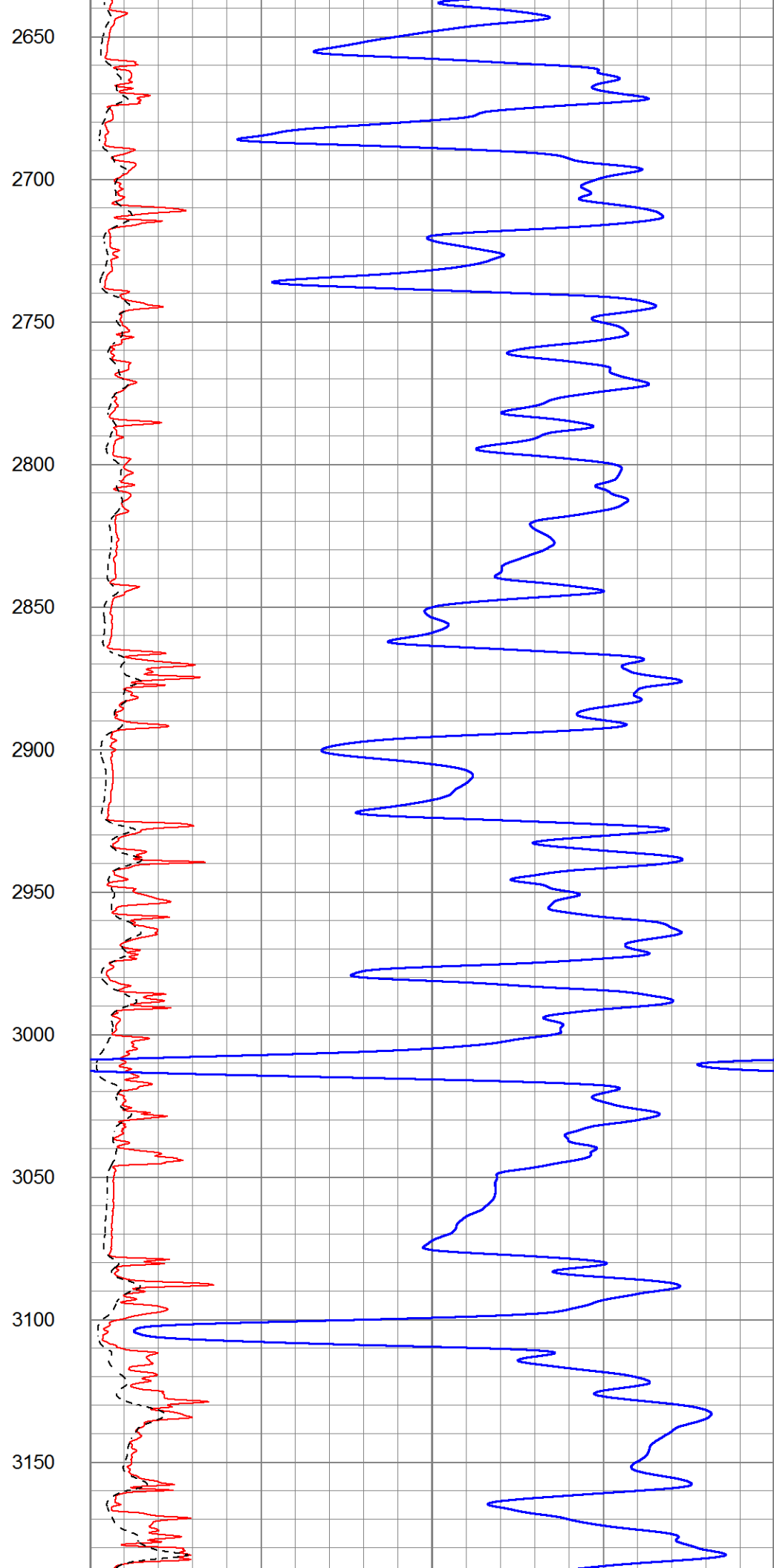
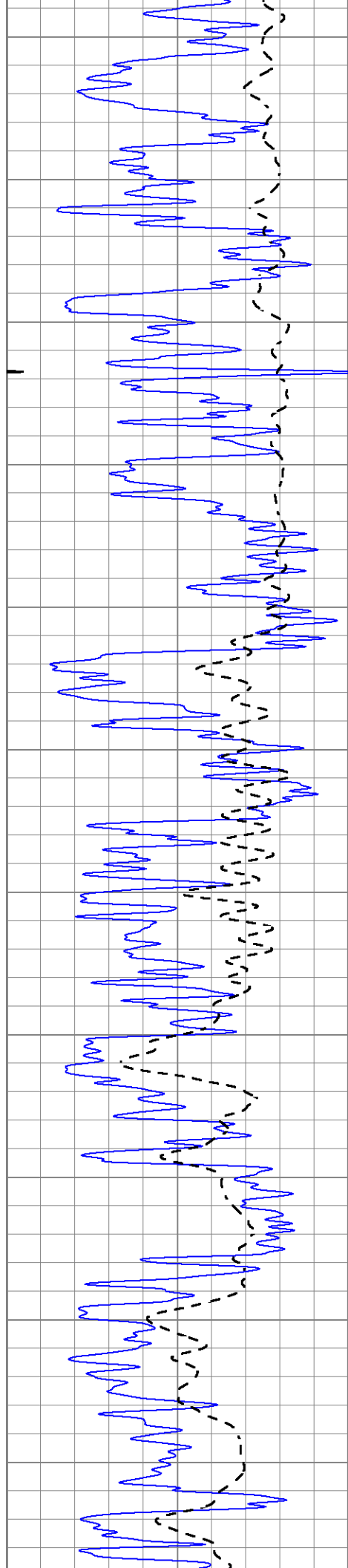


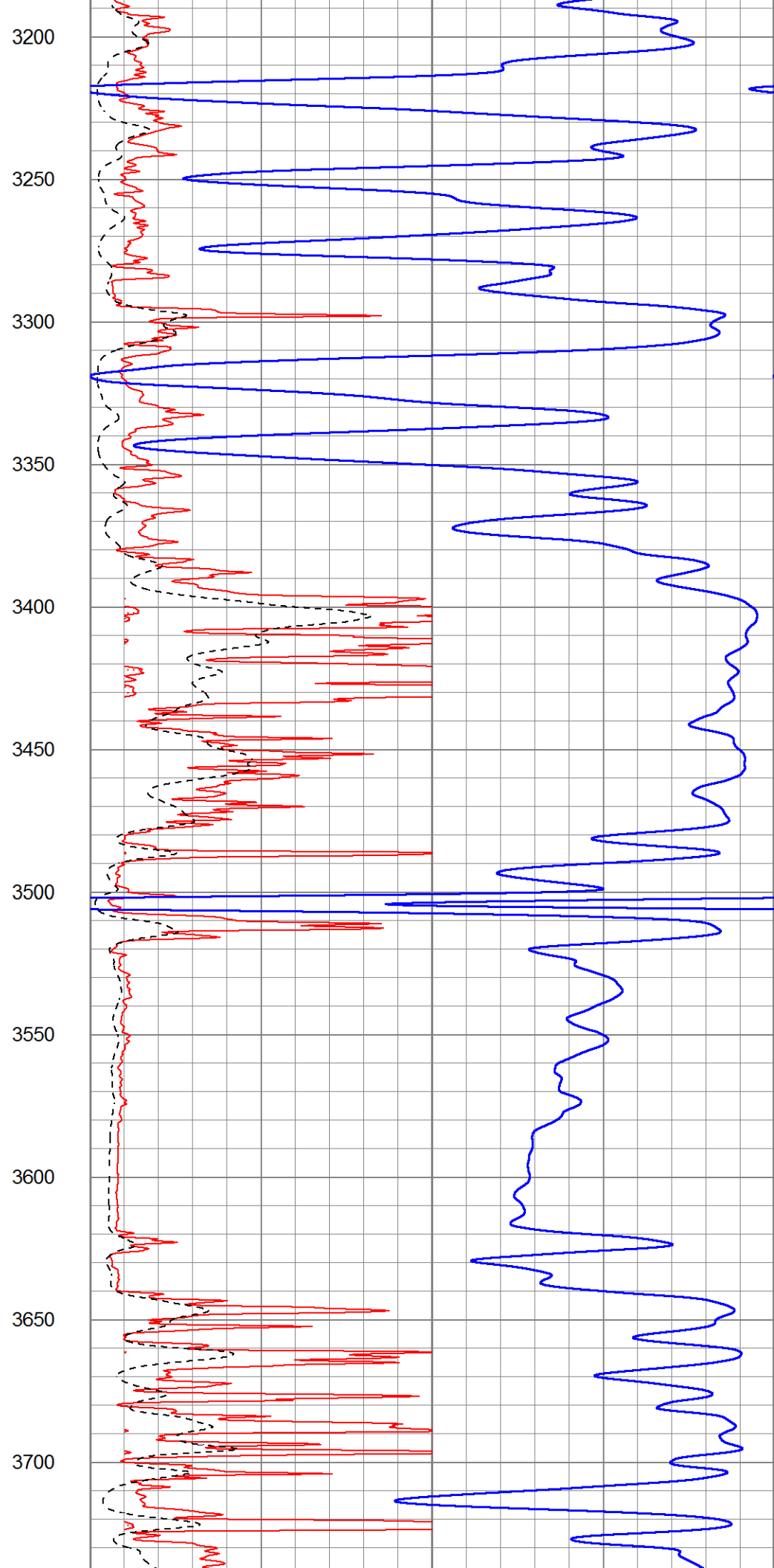
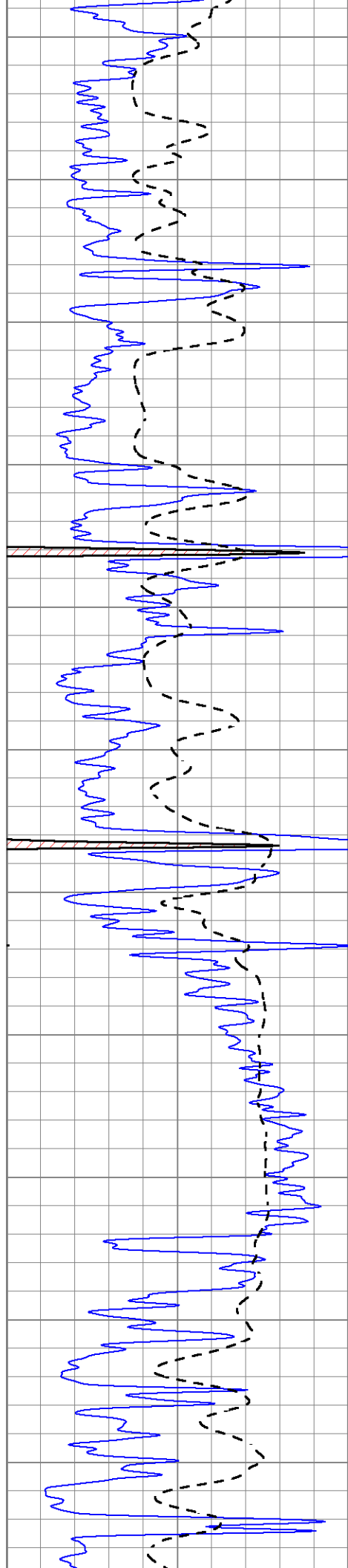


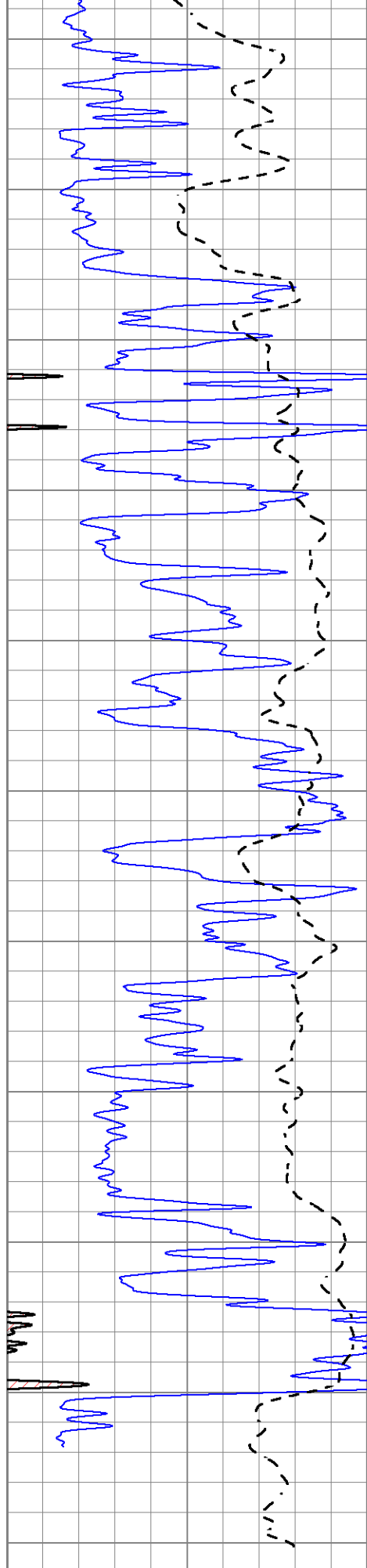




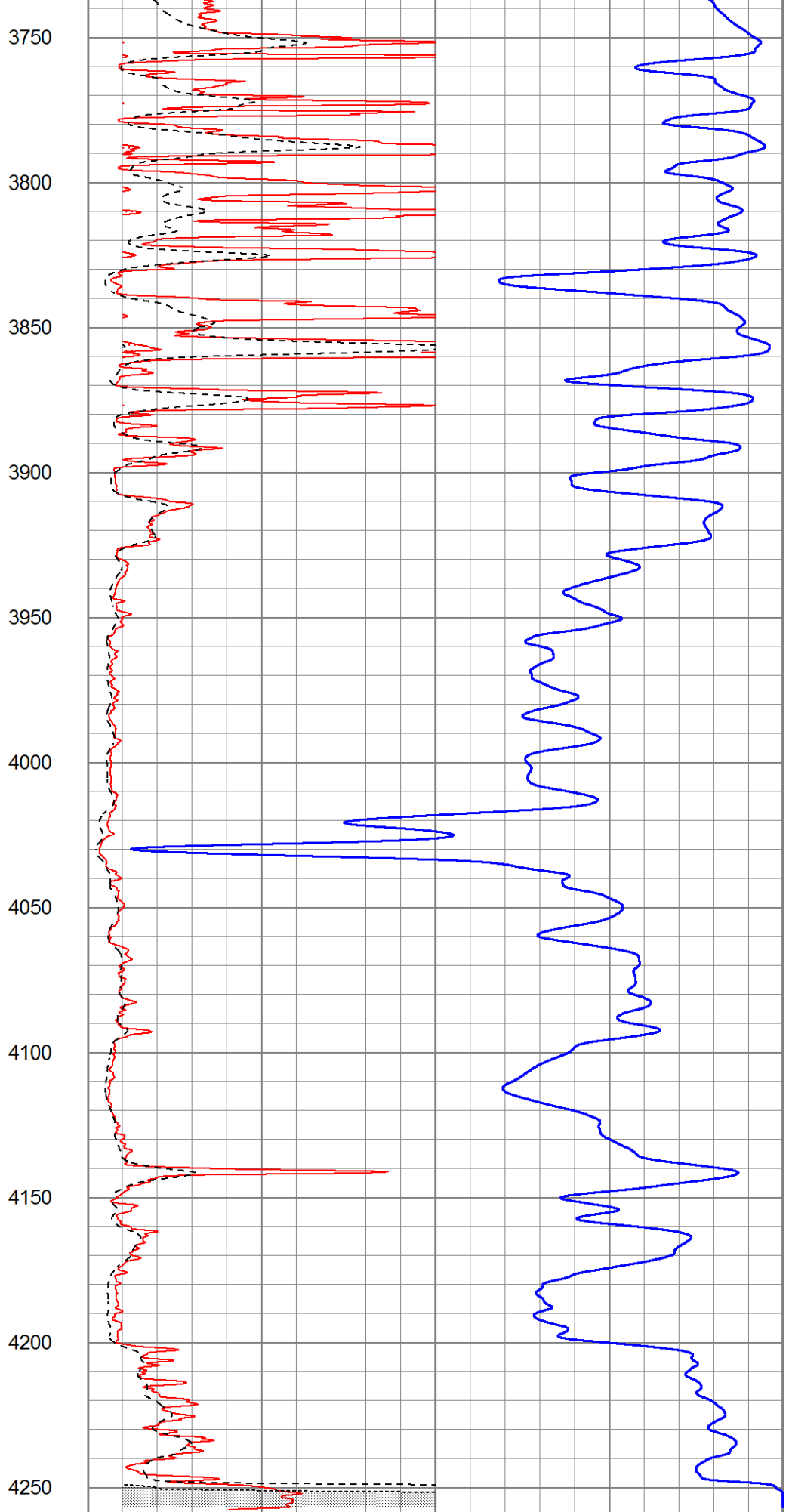








0	Gamma Ray (GAPI)	150
-100	SP (mV)	100



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

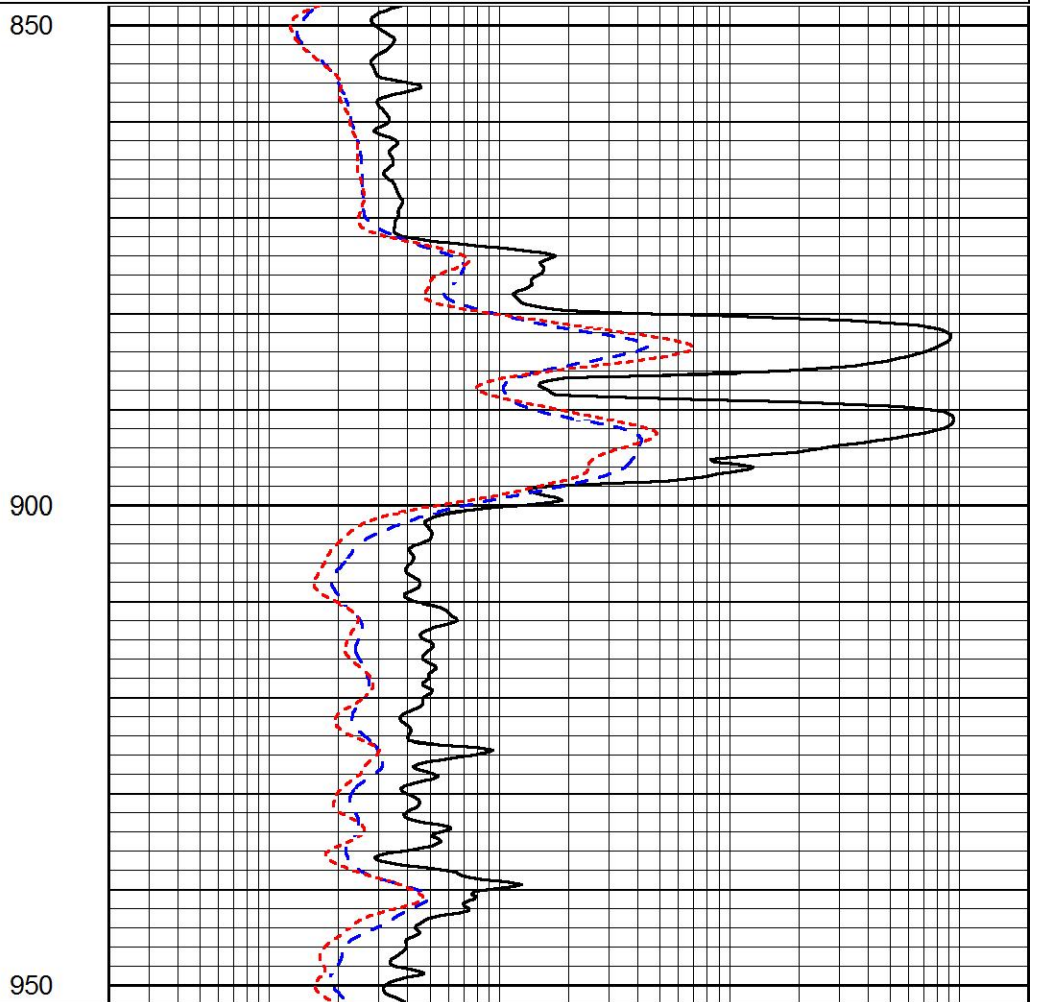
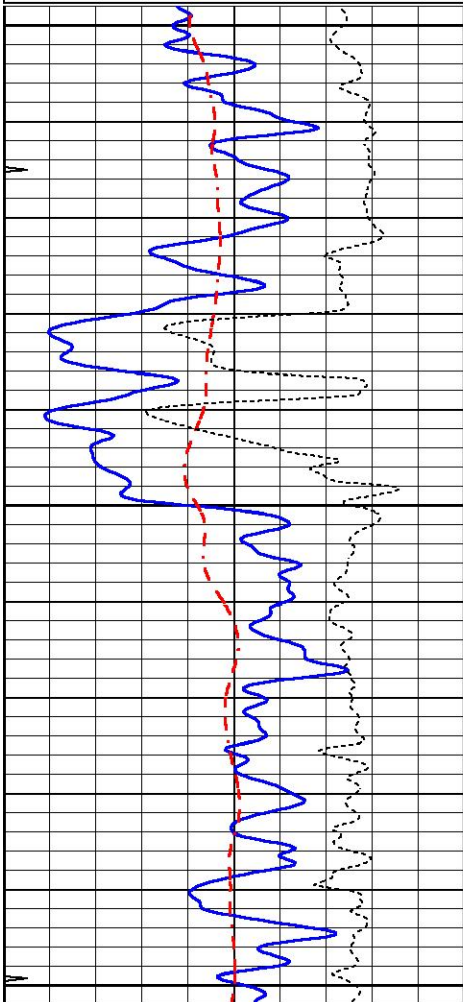


ANHYDRITE

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 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



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



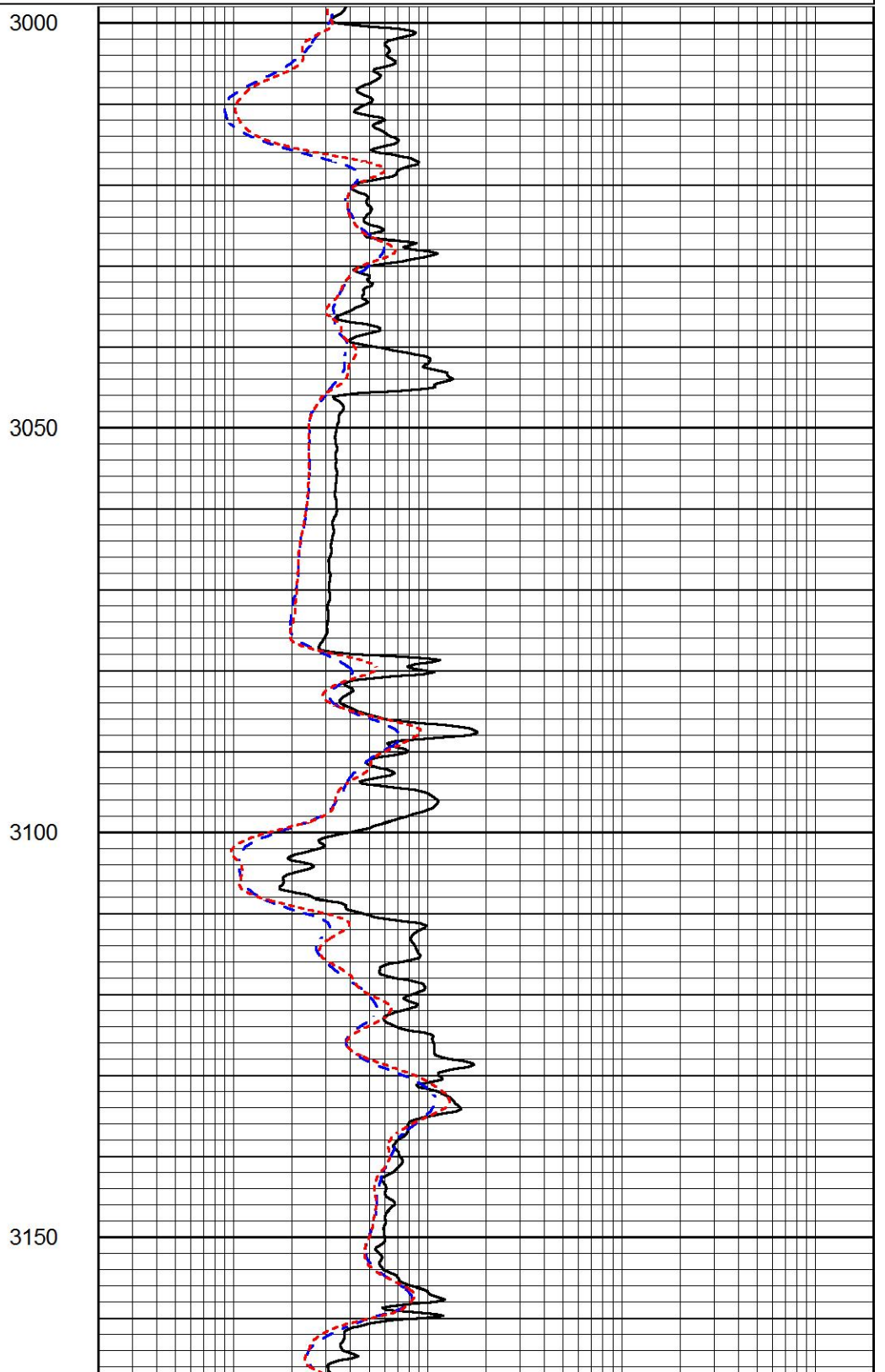
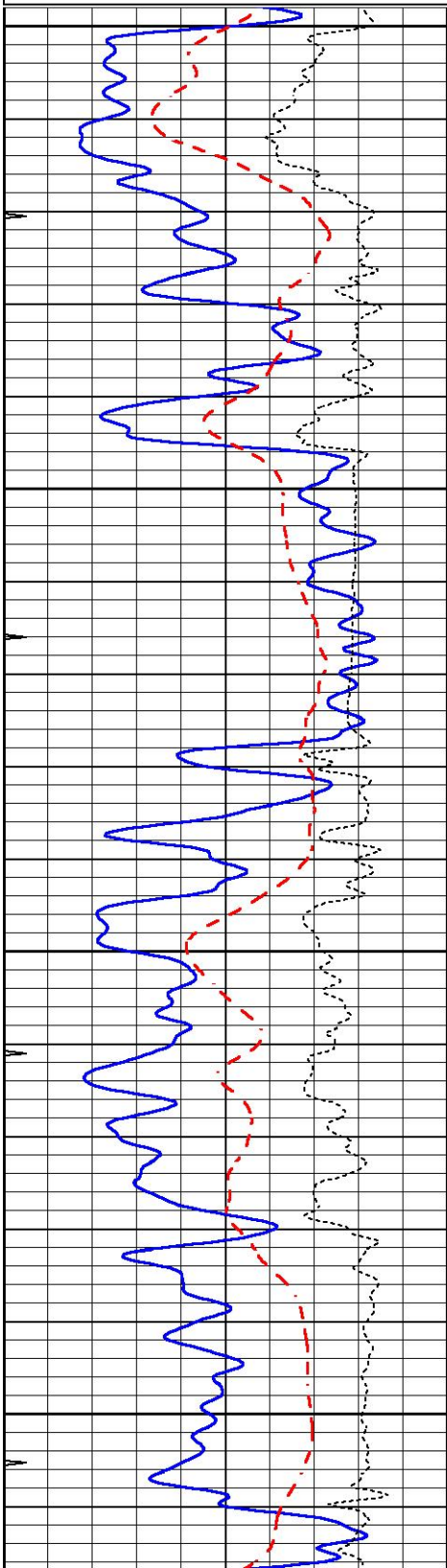
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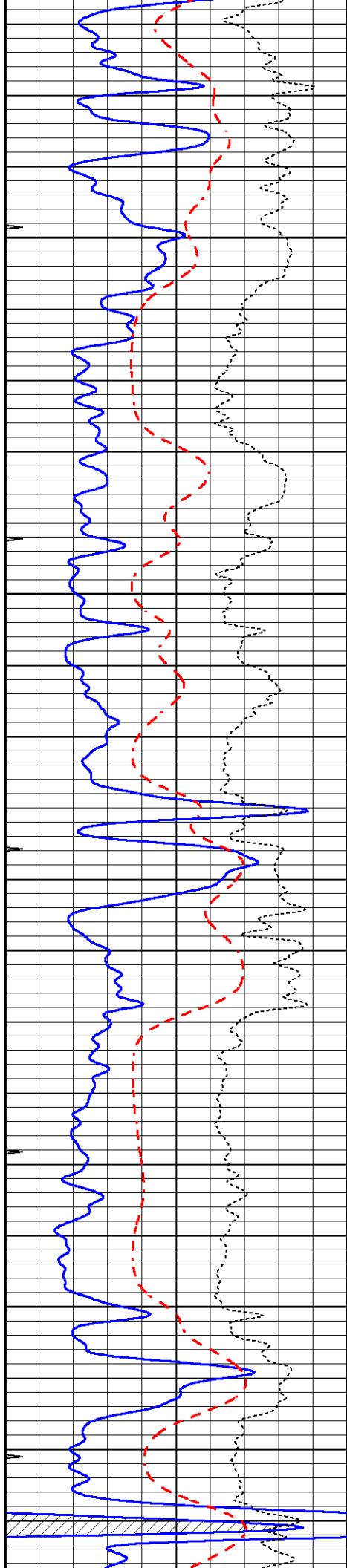
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Presentation Format _dil
Dataset Creation Wed Jan 04 20:22:03 2023
Charted by Depth in Feet scaled 1:240

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



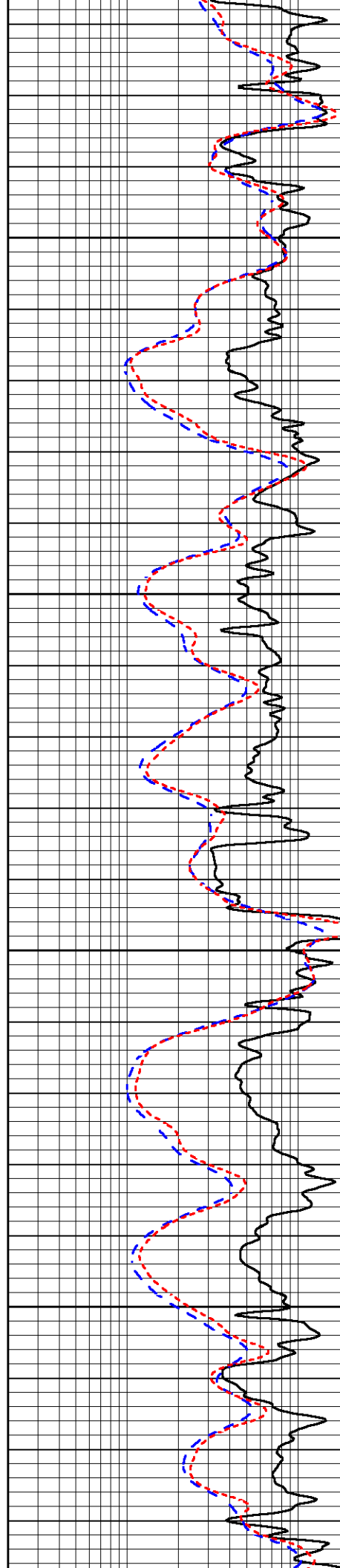


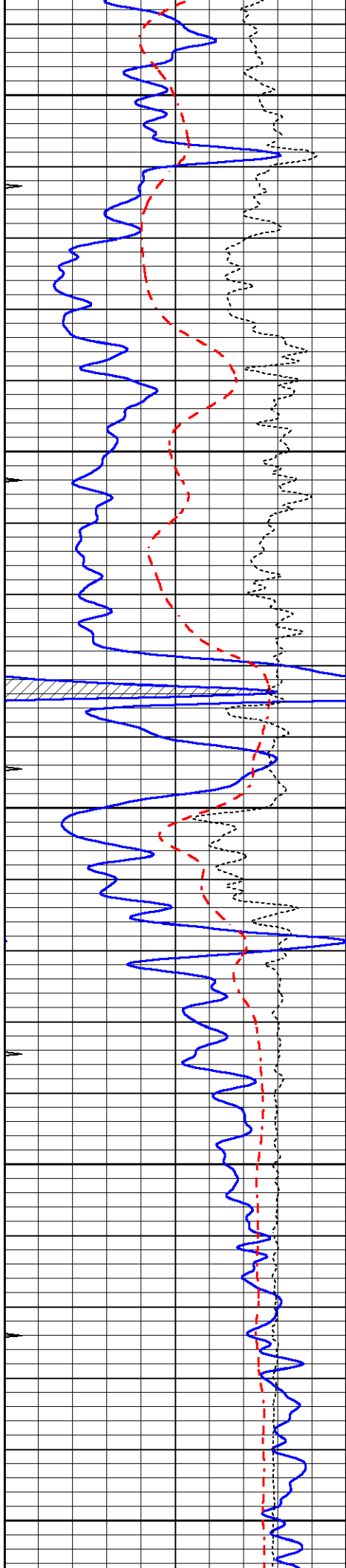
3200

3250

3300

3350





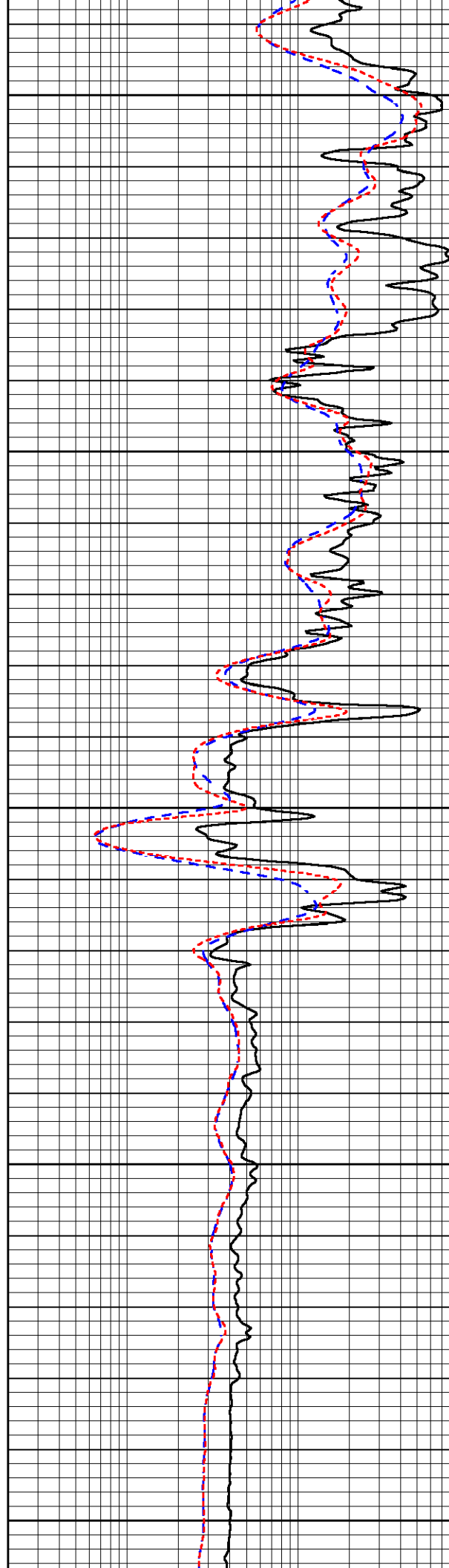
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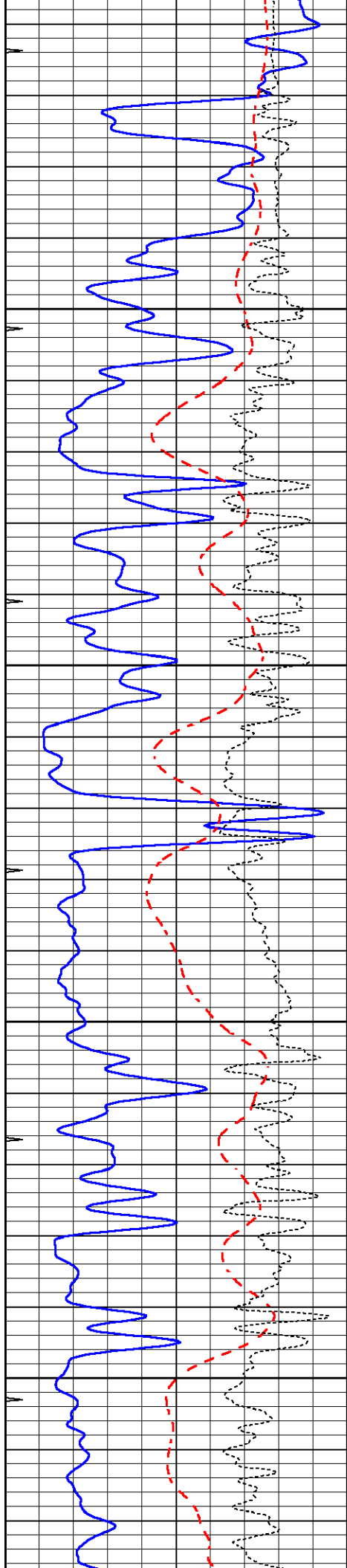
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3500

3550

3600



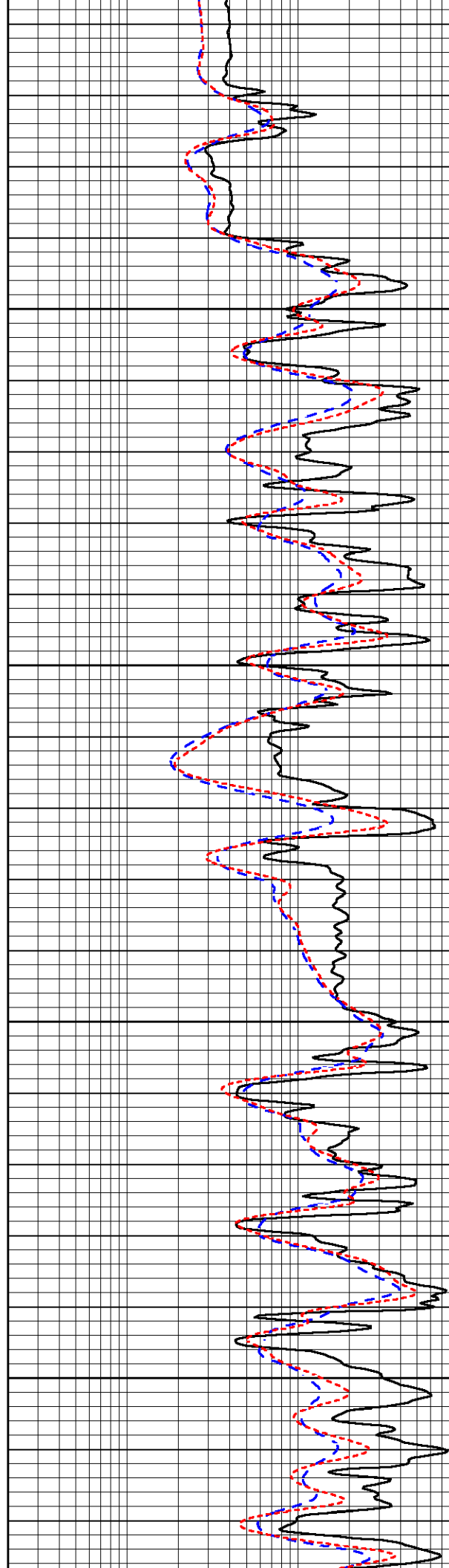


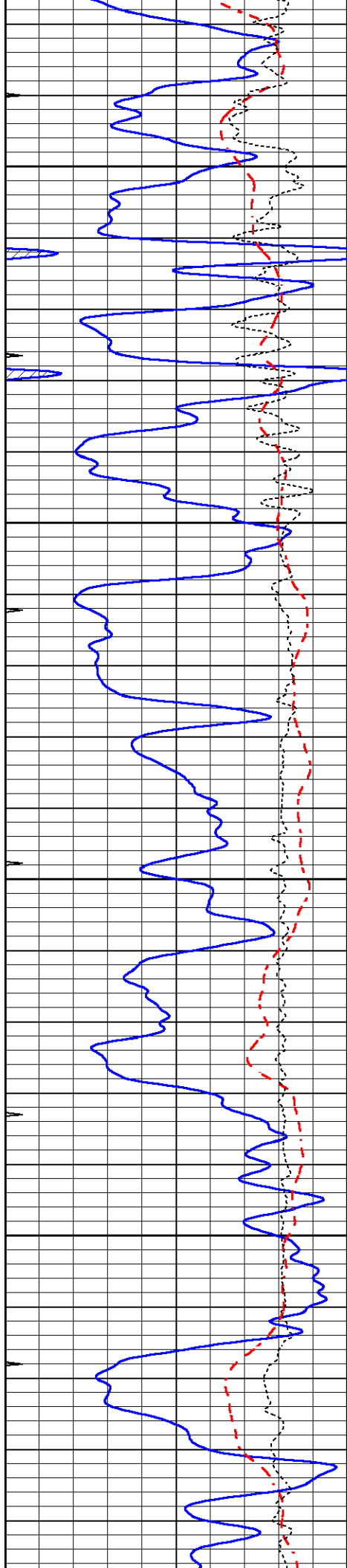
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3700

3750

3800



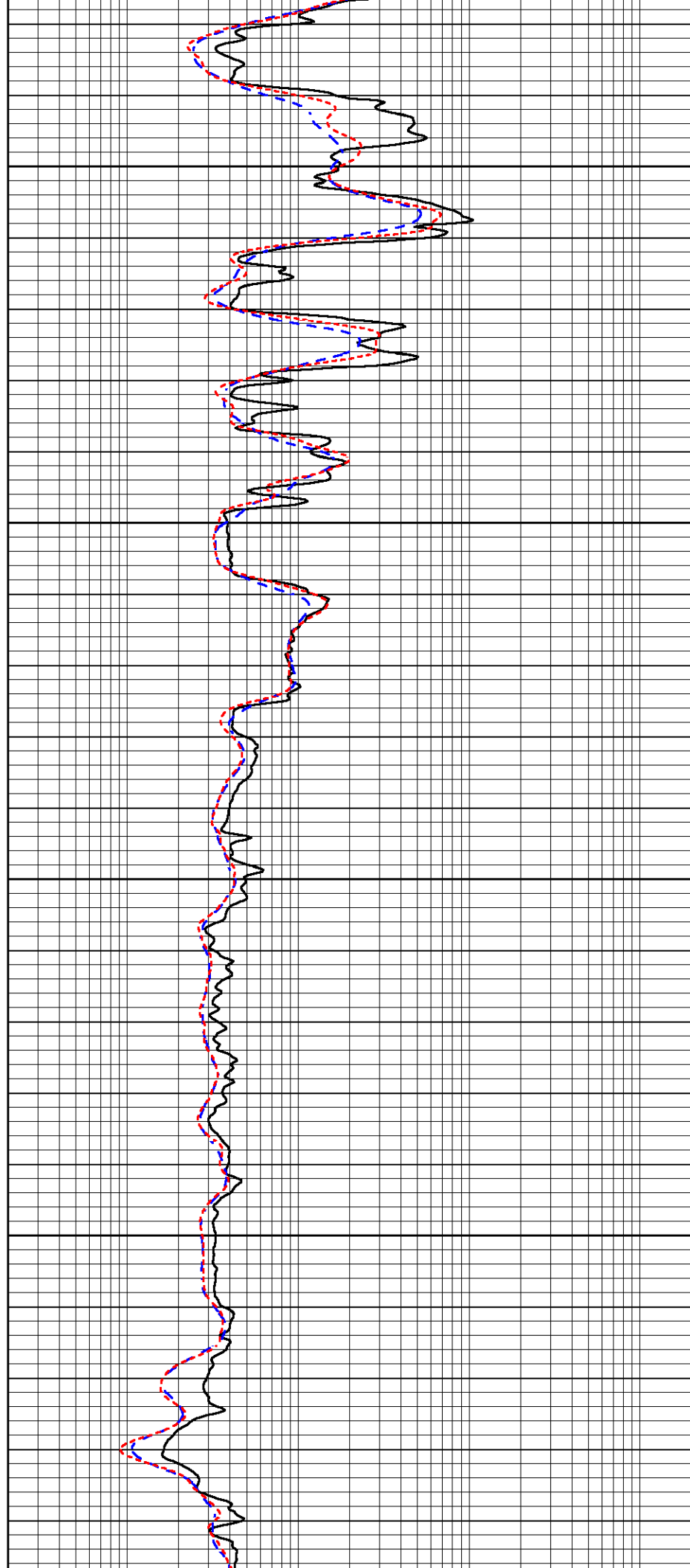


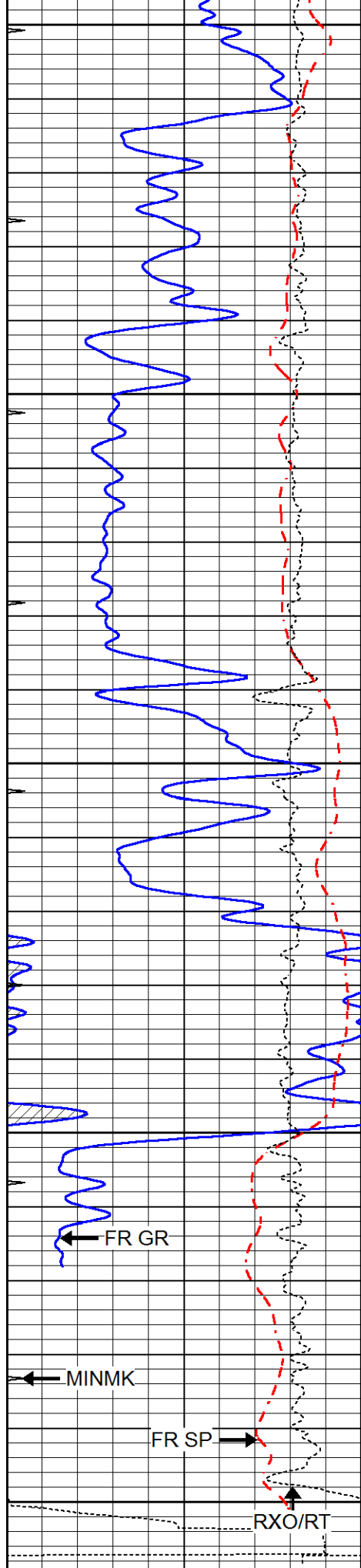
3850

3900

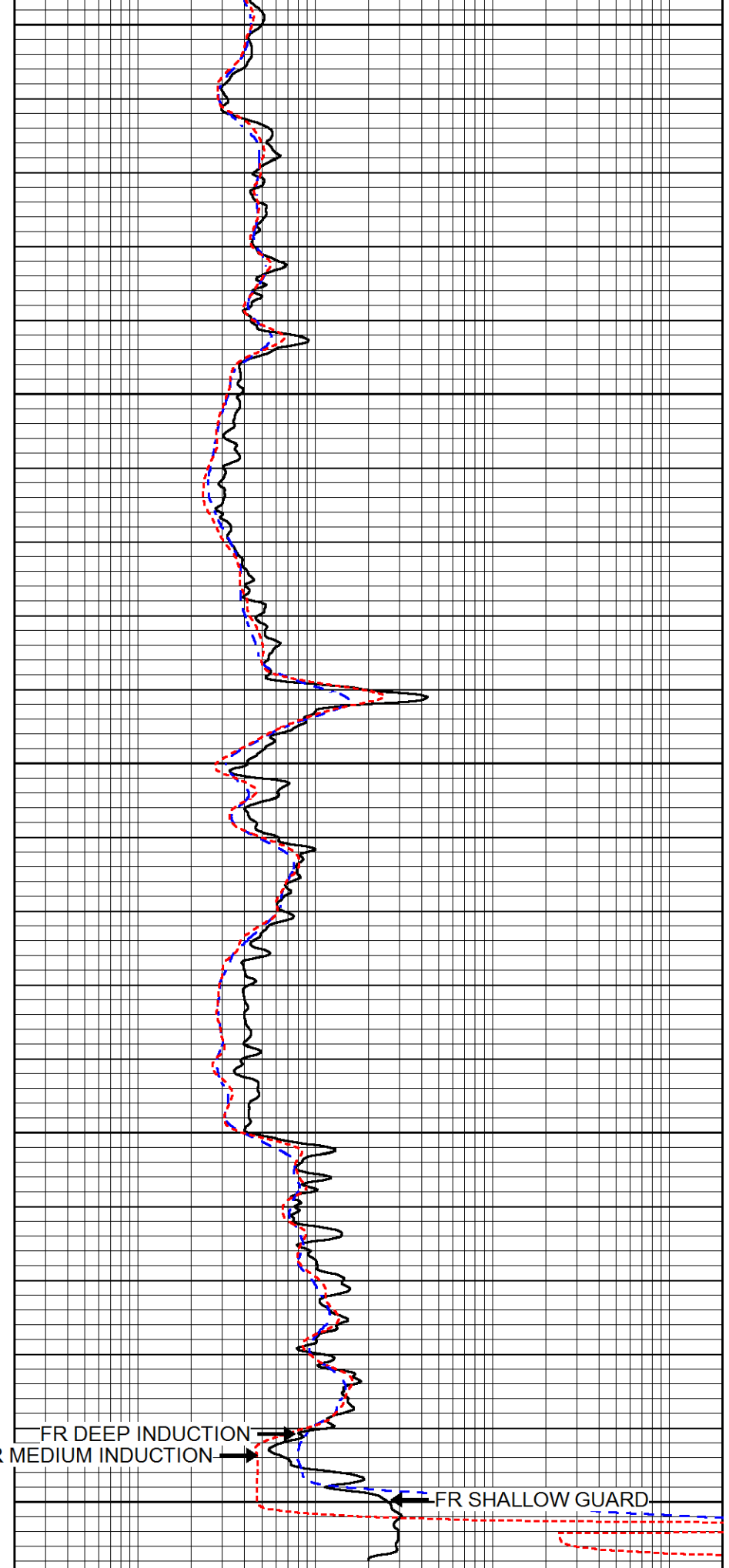
3950

4000





4050
 4100
 4150
 4200
 4250
 LTD 4252



0 GAMMA RAY (GAPI) 150

0.2 SHALLOW GUARD (Ohm-m) 2000

-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

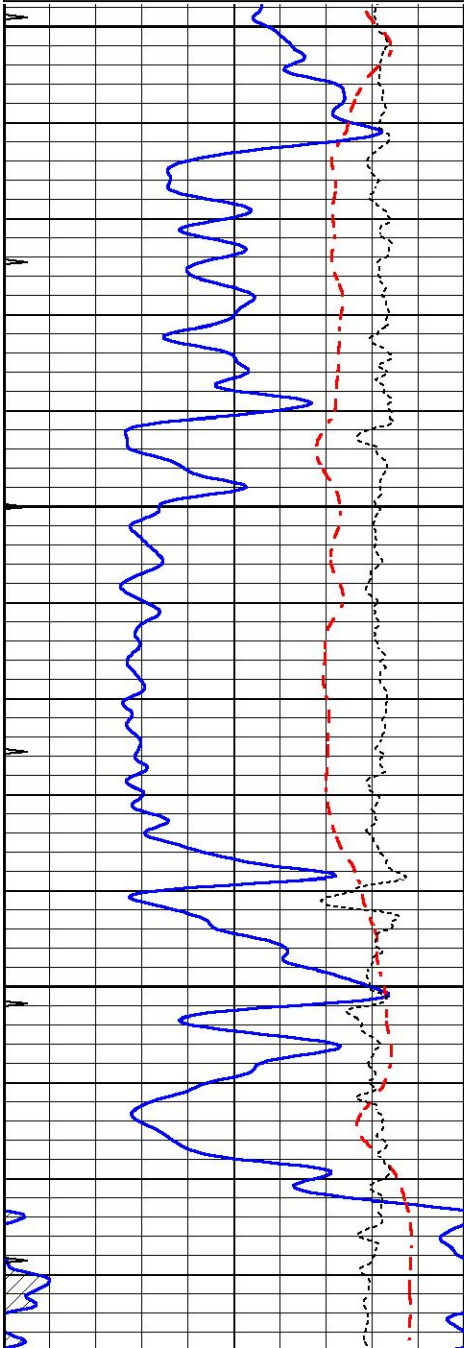


REPEAT SECTION

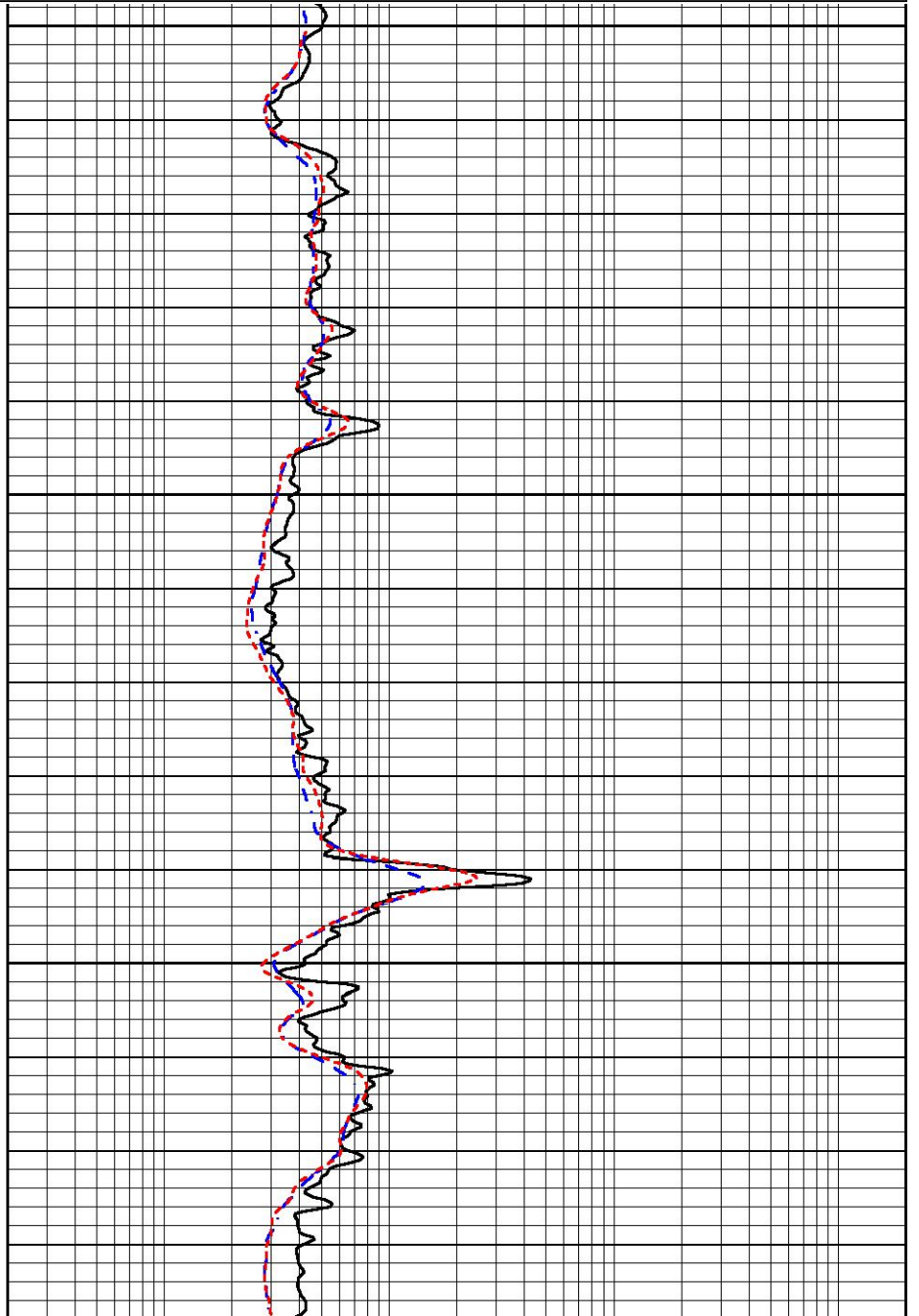
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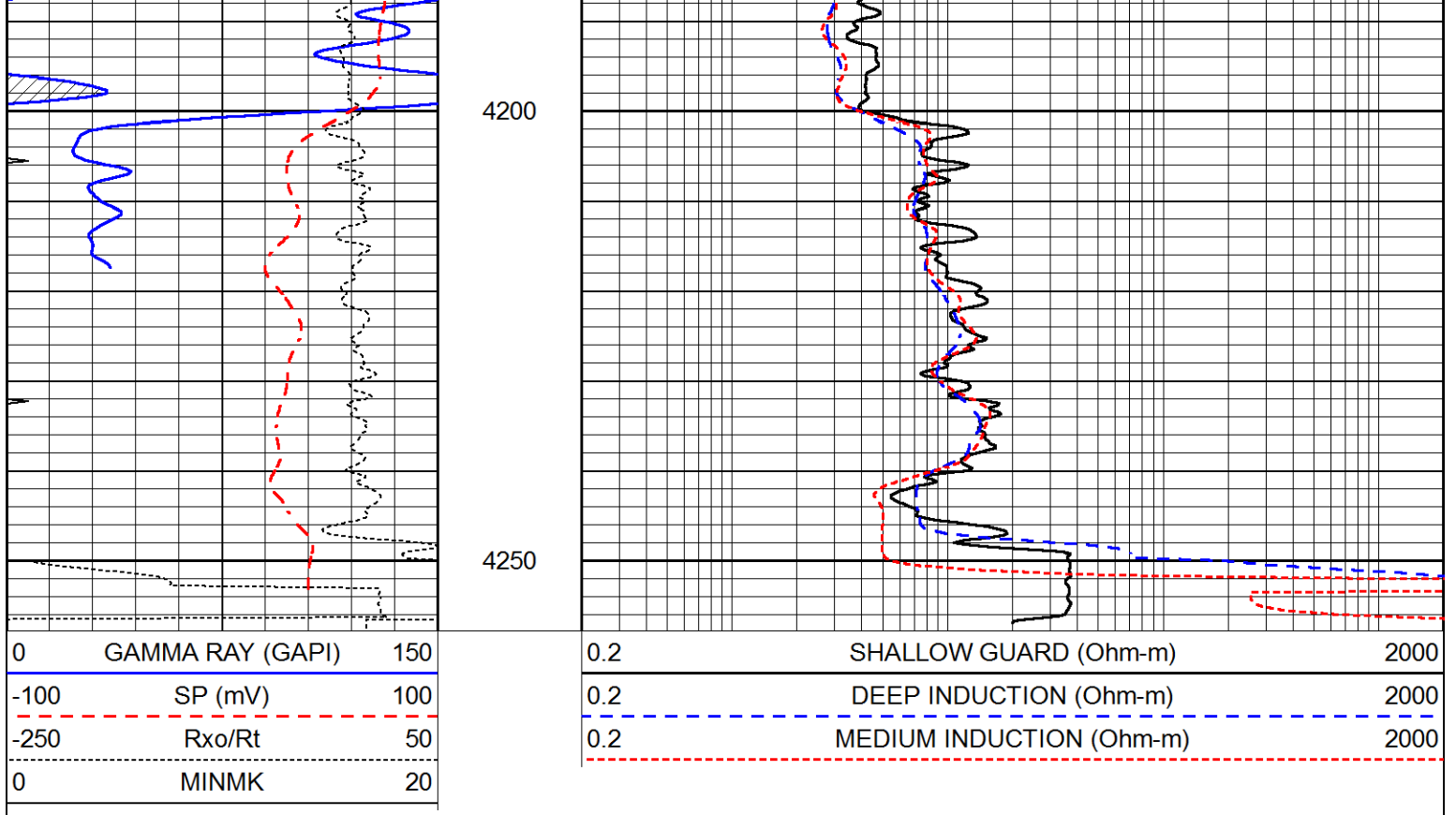
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

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



4050
4100
4150





Calibration Report

Database File 7430pe.db
 Dataset Pathname pass6.1M
 Dataset Creation Wed Jan 04 20:22:03 2023

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Wed Jan 04 09:16:01 2023
 Downhole Cal Performed: Mon Sep 10 14:28:38 2018
 After Survey Verification Performed: Mon Sep 10 14:28:40 2018

Surface Calibration

Loop:	Readings			V	References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.015	0.648			0.000	400.000	mmho/m	620.000	4.000
Medium	0.029	0.796			0.000	464.000	mmho/m	620.000	-10.000
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.017	0.657			0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757			0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

	Readings			mmho/m	References			Results	
	Zero	Cal			Zero	Cal		m'	b'
Deep	0.000	0.000			2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000			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	
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	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 Fri Nov 04 15:19:59 2022

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1153.2	7232.1	2536.8	2279.5	cps
Window 2	1055.6	6225.5	2222.3	2030.5	cps
Window 3	902.5	3849.3	1546.4	1462.0	cps
Window 4	254.4	258.2	253.1	253.9	cps
Long Space	0.0	5169.9	1166.7	974.9	cps
Short Space	4.7	1383.0	950.5	792.1	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 45.9	Rib Slope	: 1.031	Density/Spine Ratio	: 0.573
Spine Angle	: 75.9	Spine Slope	: 3.970	Spine Intercept	: -20.2

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: 6I
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

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	GR6	
Tool Model:	OPEN	
Performed:	Tue Nov 08 13:43:57 2022	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.8500	GAPI/cps