



DUAL
INDUCTION
LOG

Company GRIFFIN MANAGEMENT, LLC.

Well MARY #3

Field

County PRATT

State KANSAS

Location: API #: 15-151-22511-0000

1370' FNL & 1950' FWL

Other Services
CDL/CNL/PE
MEL/SON

SEC 33 TWP 29S RGE 15W

Elevation

Company GRIFFIN MANAGEMENT, LLC.
Well MARY #3
Field
County PRATT
State KANSAS

Permanent Datum GROUND LEVEL Elevation 1968
Log Measured From KELLY BUSHING 11' A.G.L.
Drilling Measured From KELLY BUSHING

Date 2/2/20

Run Number ONE

Depth Driller 4840

Depth Logger 4850

Bottom Logged Interval 4848

Top Log Interval 00

Casing Driller 8 5/8" @ 267'

Casing Logger 265'

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.4/58

pH / Fluid Loss 10.5/8.8

Source of Sample FLOWLINE

Rm @ Meas. Temp .80 @ 70F

Rmf @ Meas. Temp .60 @ 70F

Rmc @ Meas. Temp .96 @ 70F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .45 @ 124F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom ////

Maximum Recorded Temperature 124F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By ELI FELTS

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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
CROFT, KS. - SOUTH TO 110TH RD. - 1 EAST - 1/4 SOUTH - EAST INTO

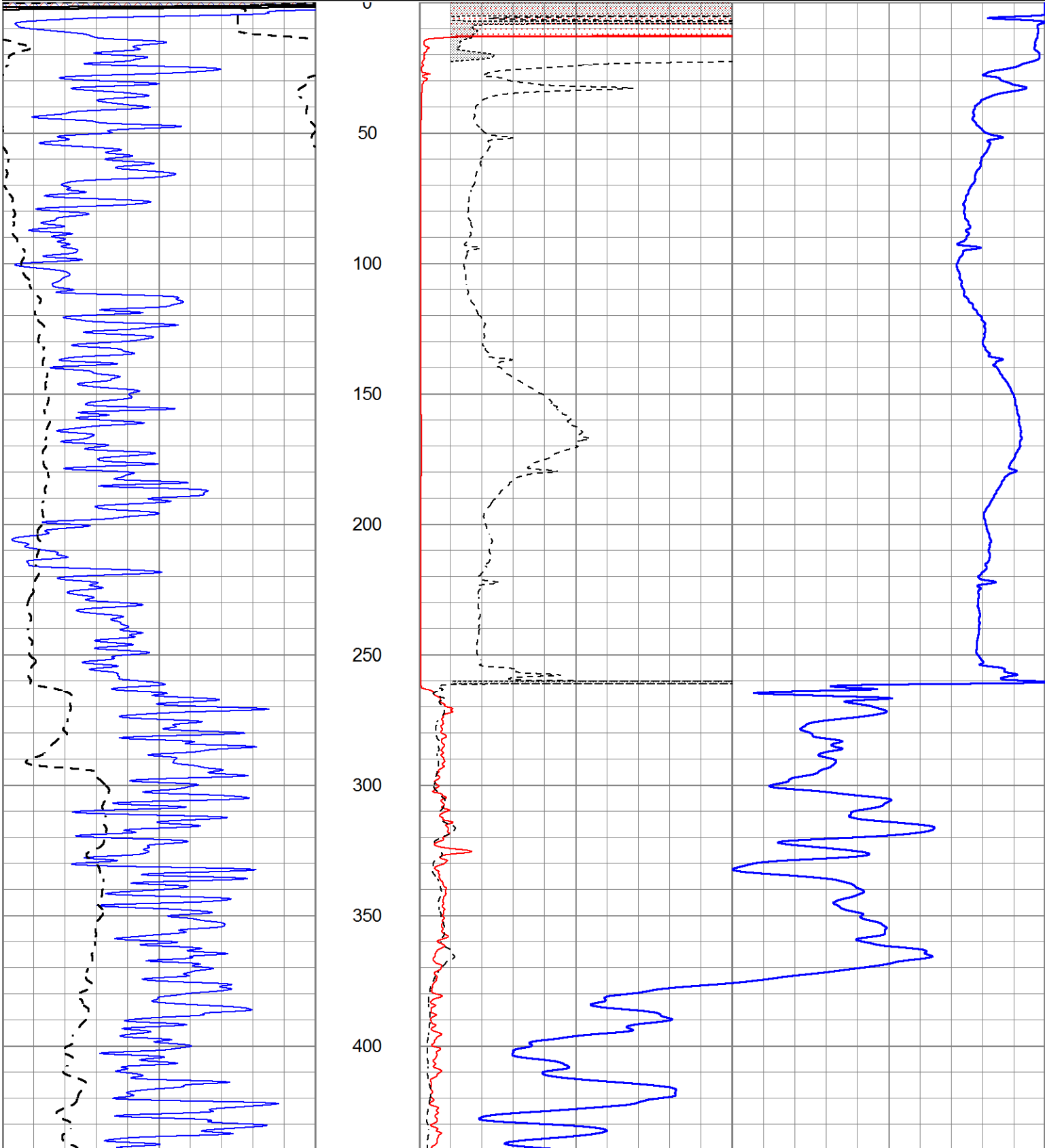


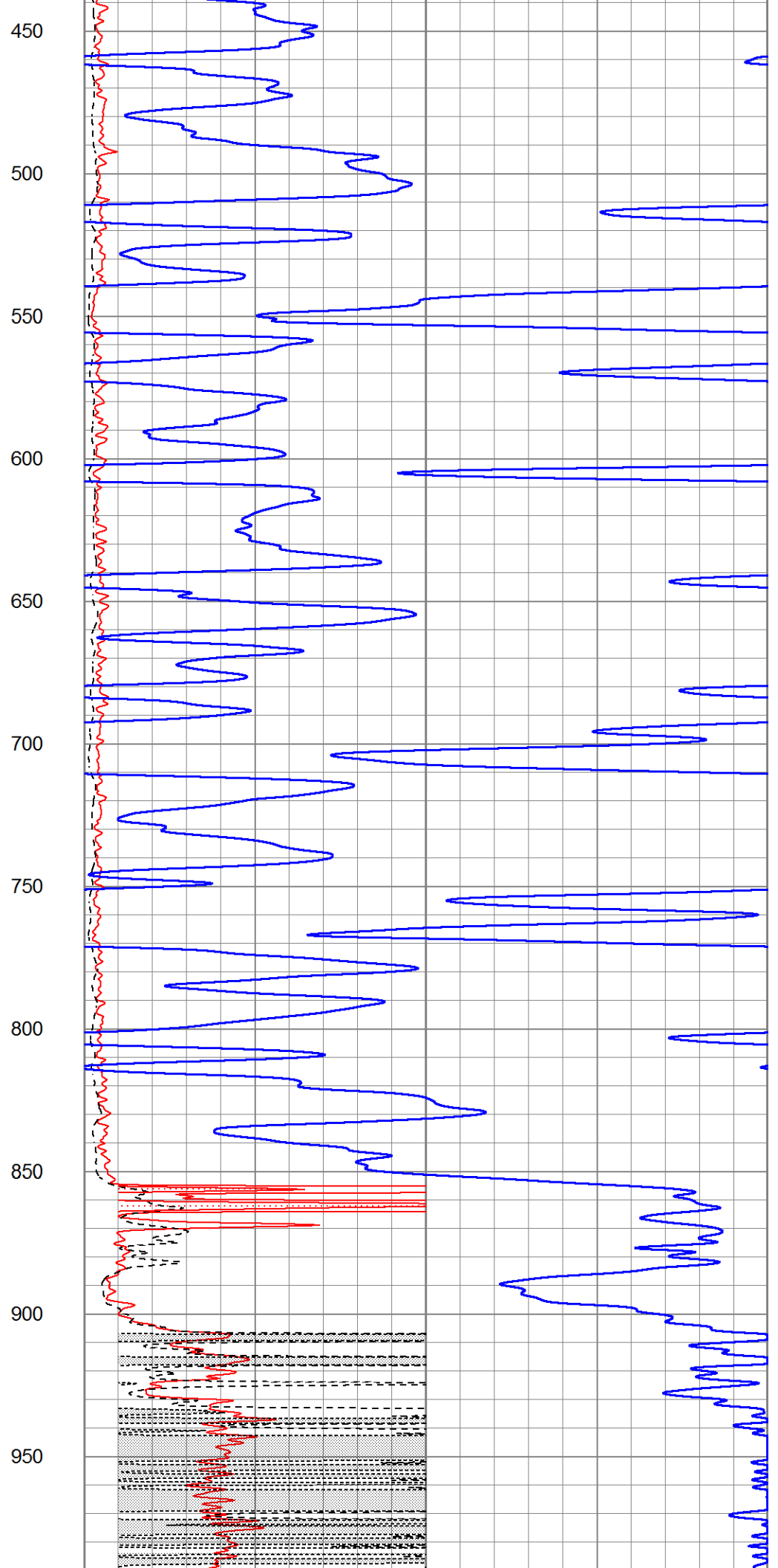
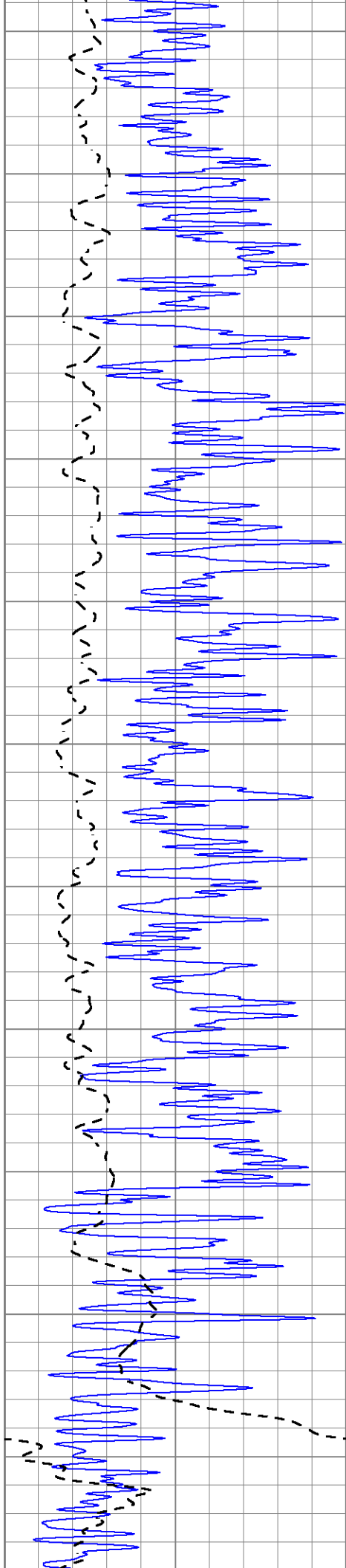
MAIN SECTION

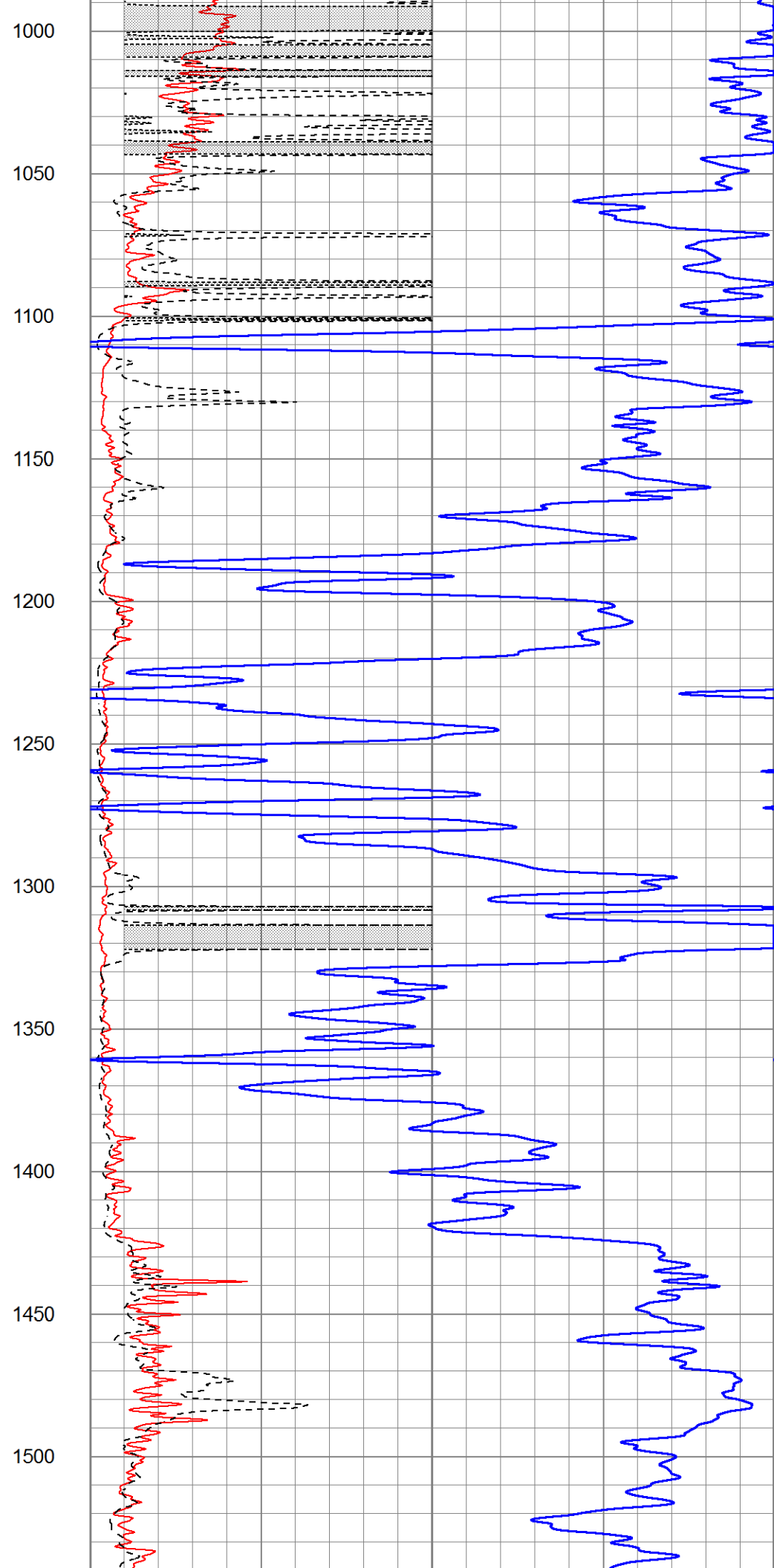
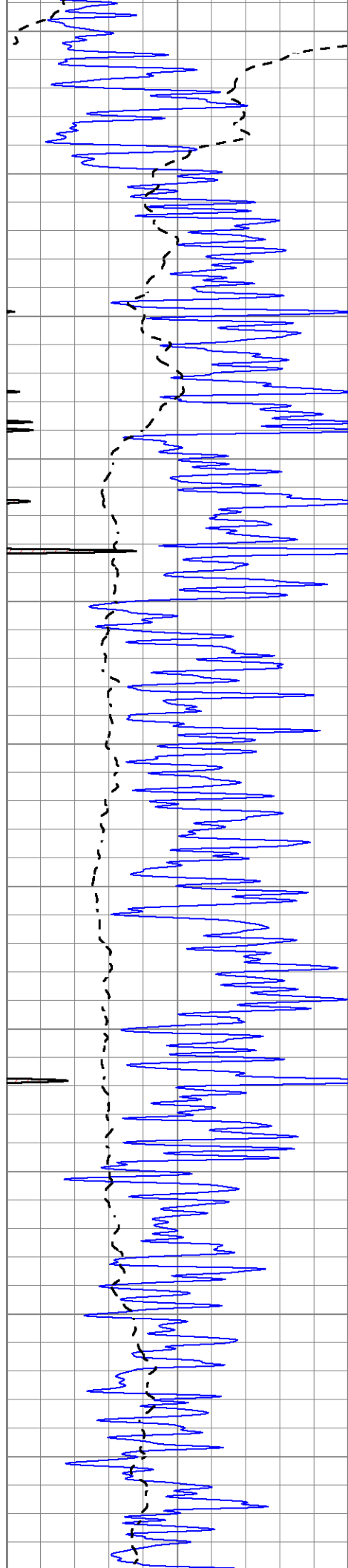
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 Presentation Format _dil2
 Dataset Creation Sun Feb 02 03:28:39 2020
 Charted by Depth in Feet scaled 1:600

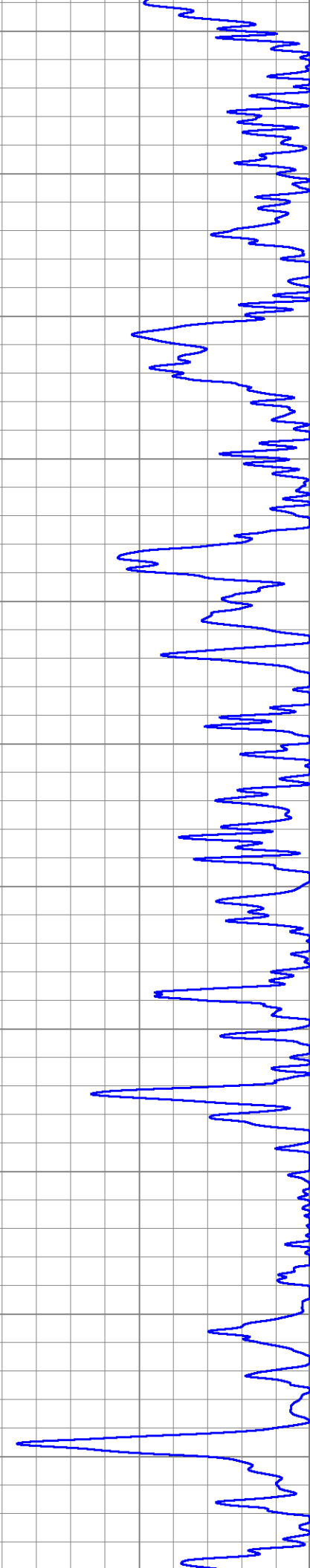
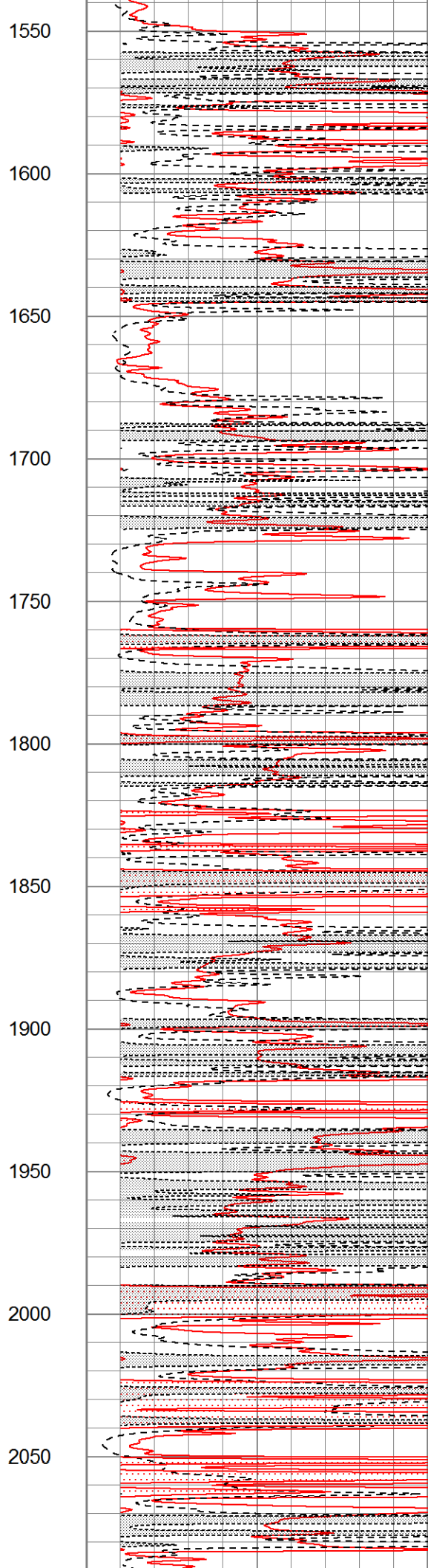
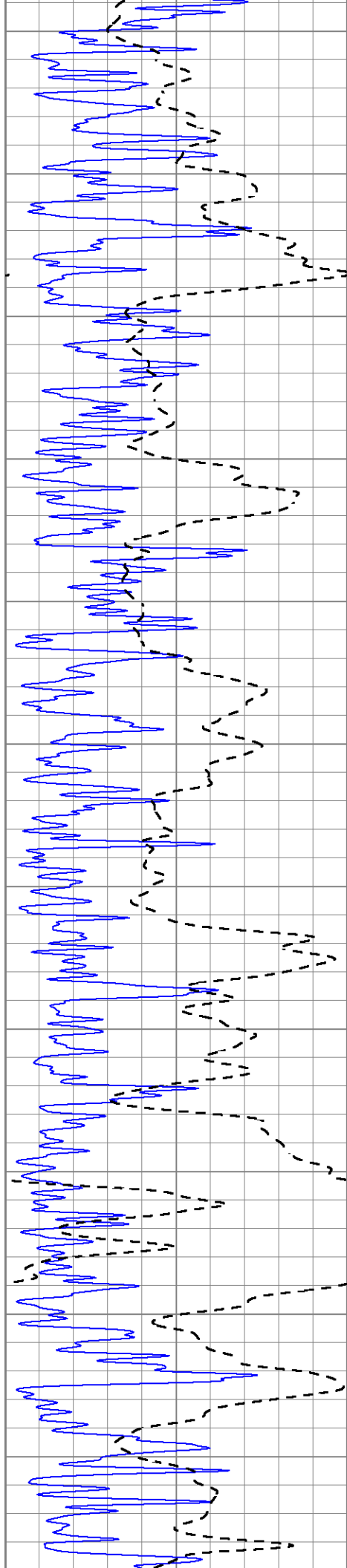
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 -100 SP (mV) 100

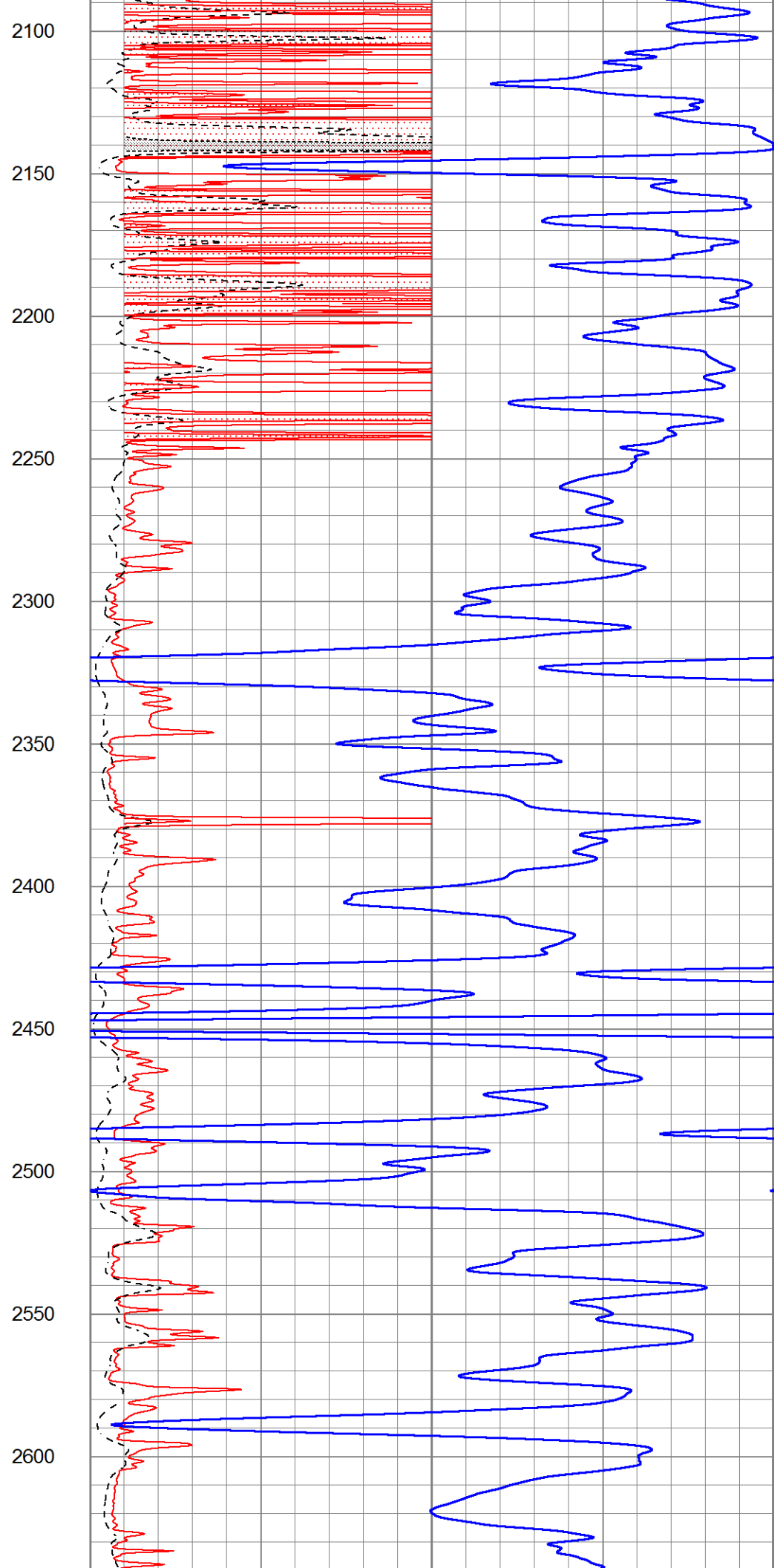
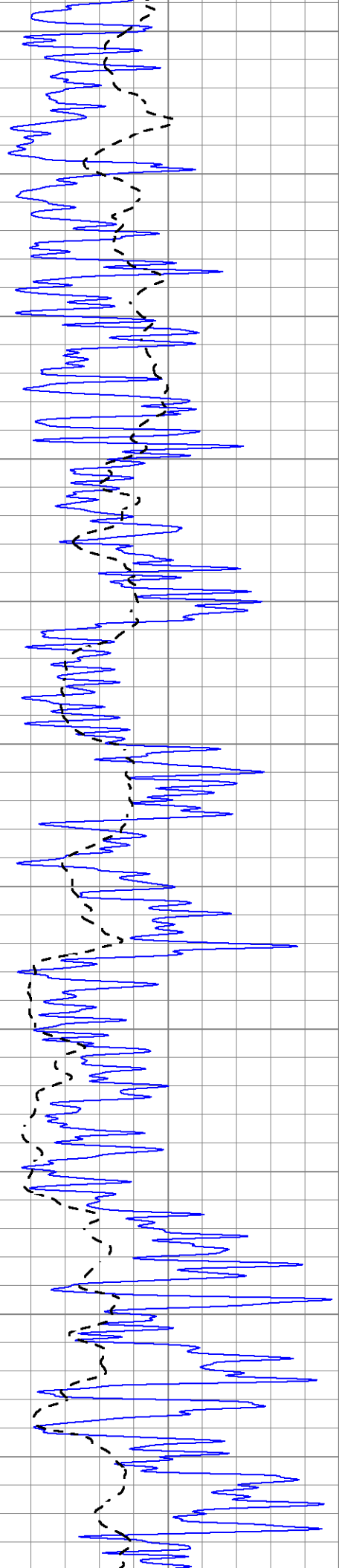
1000 CILD (mmho/m) 0
 0 RLL3 (Ohm-m) 50
 0 Deep Induction (Ohm-m) 50
 50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500

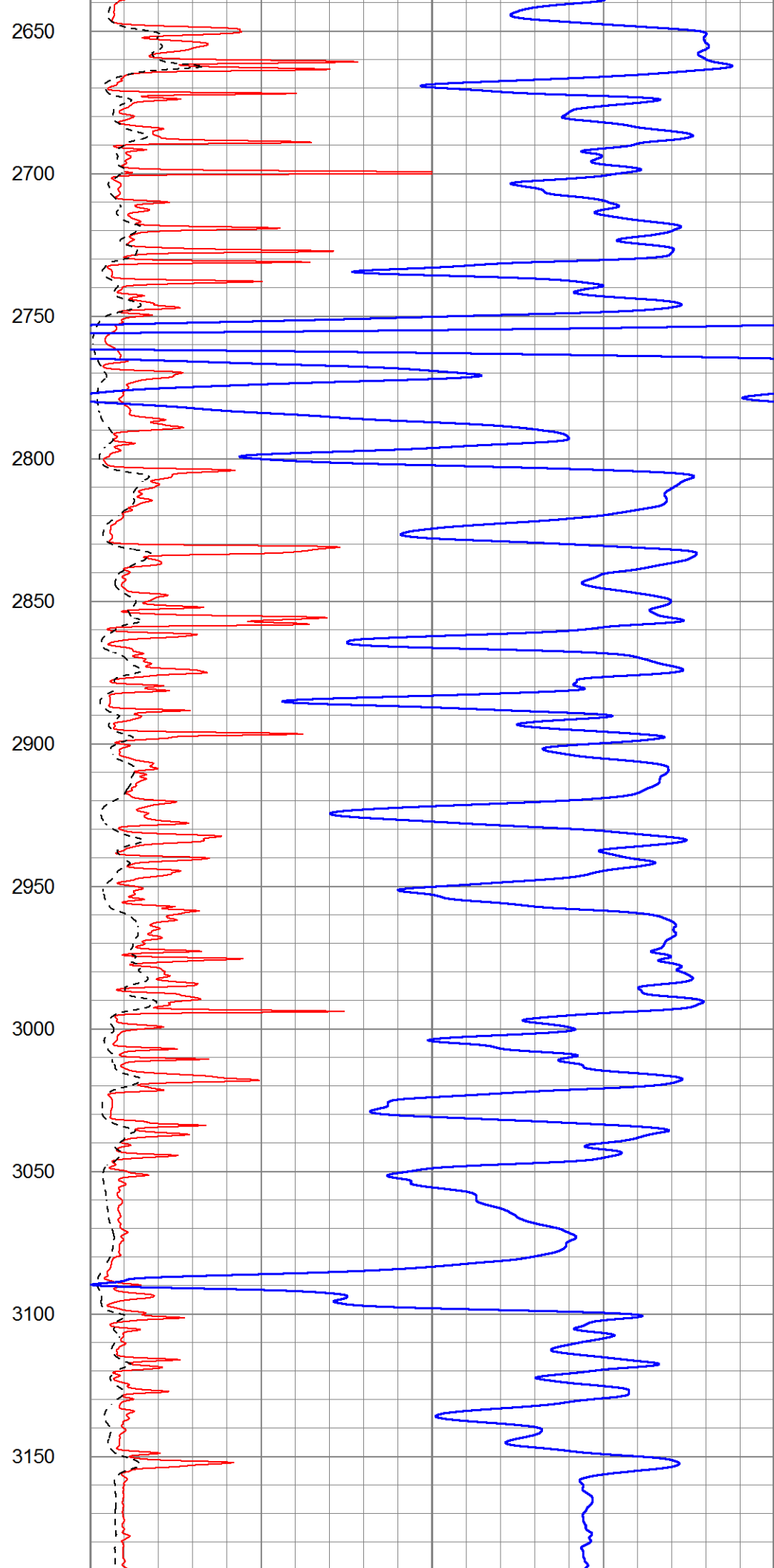
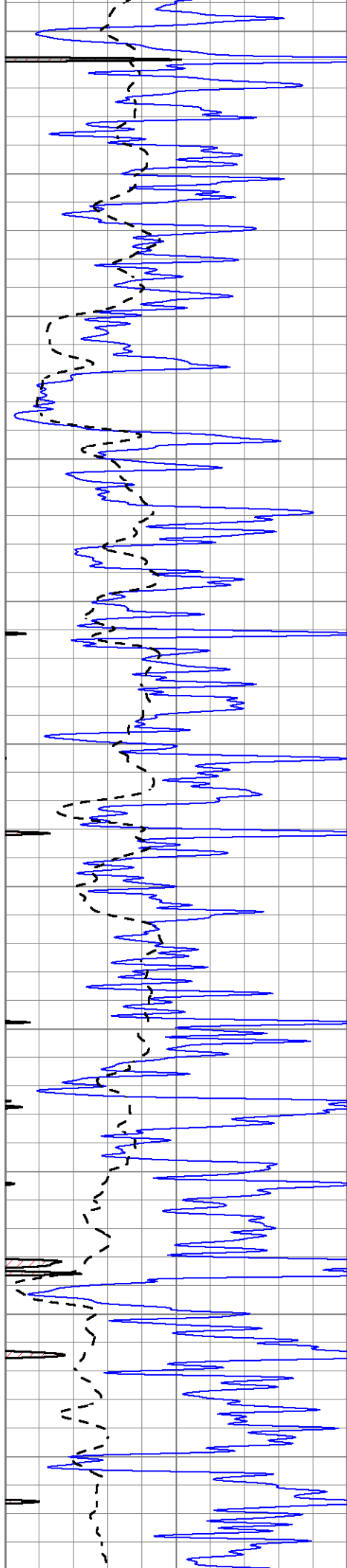


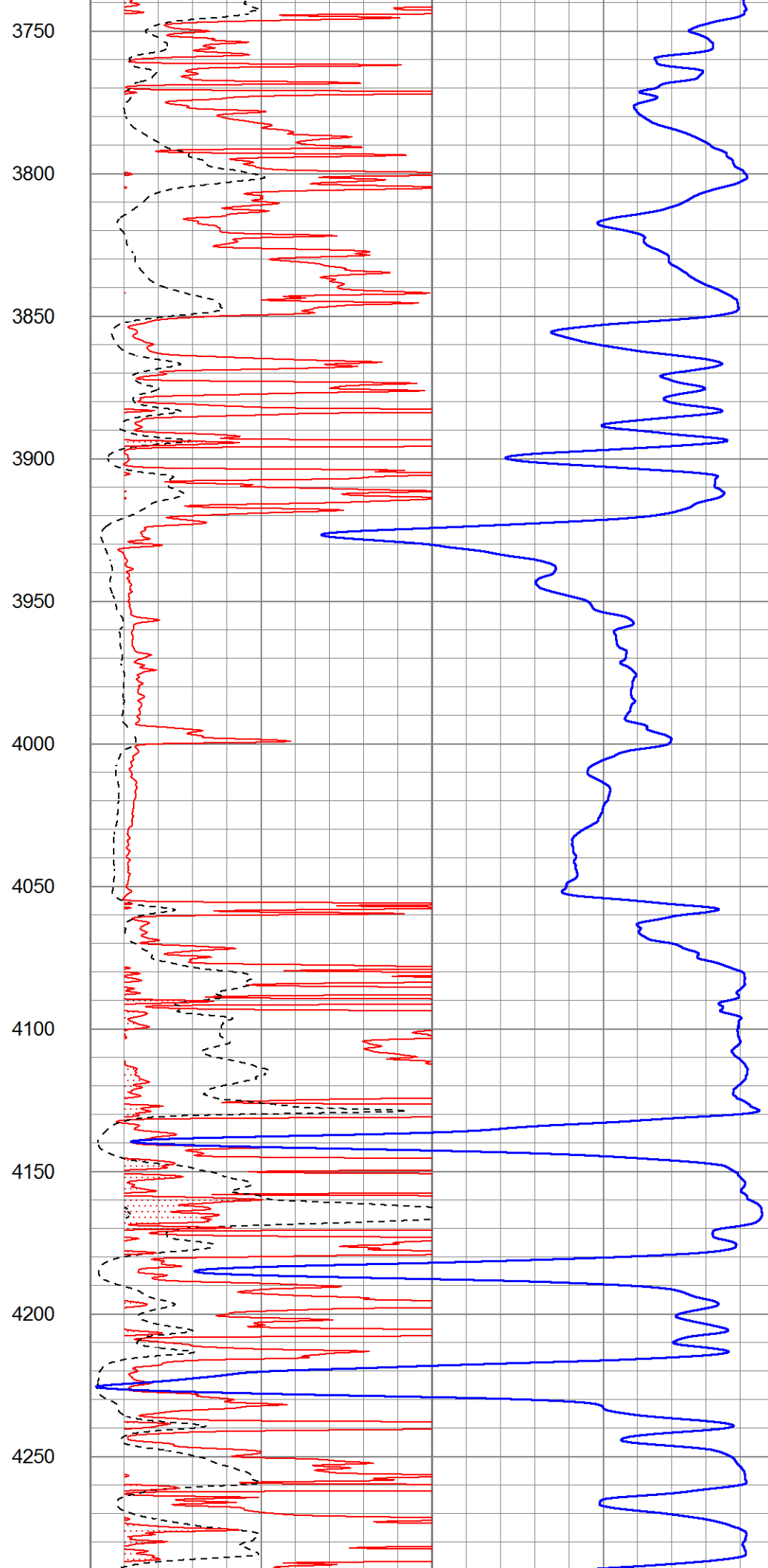
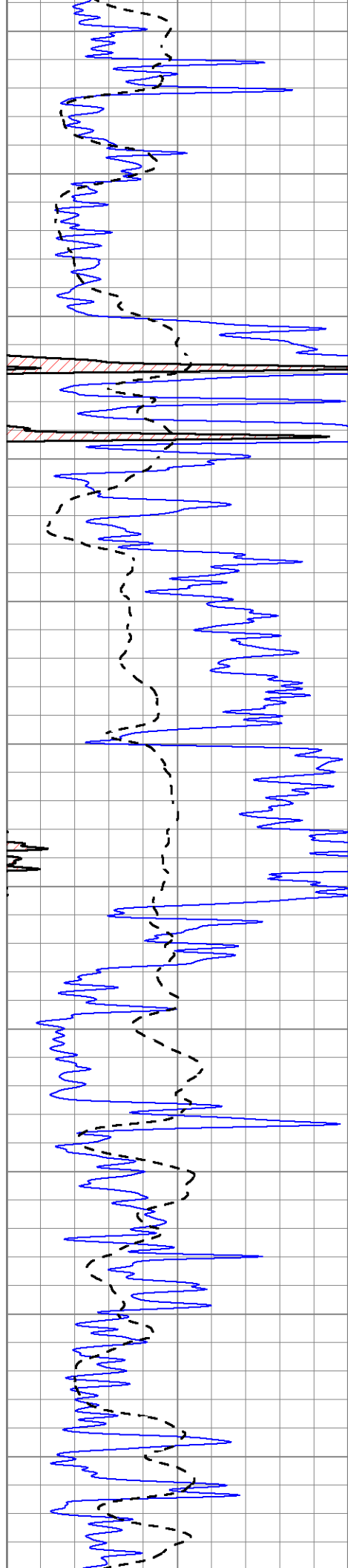


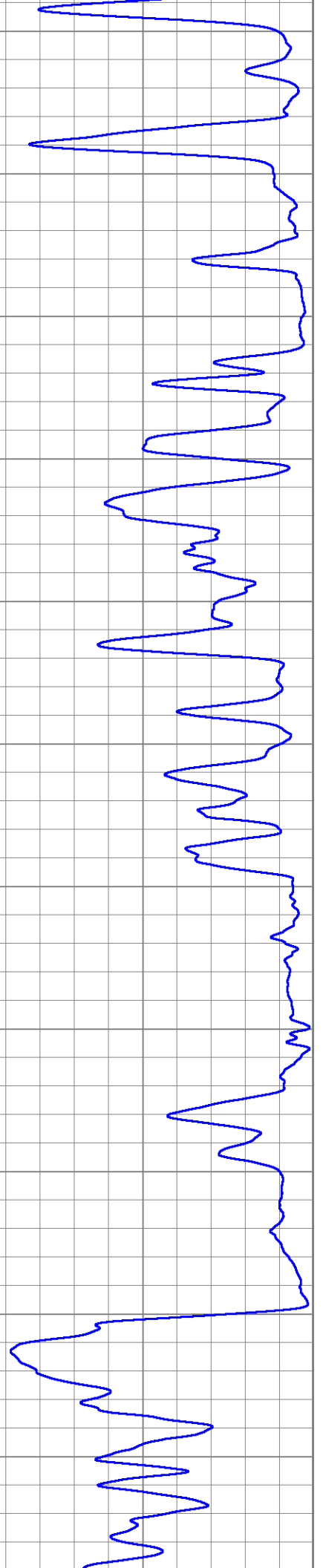
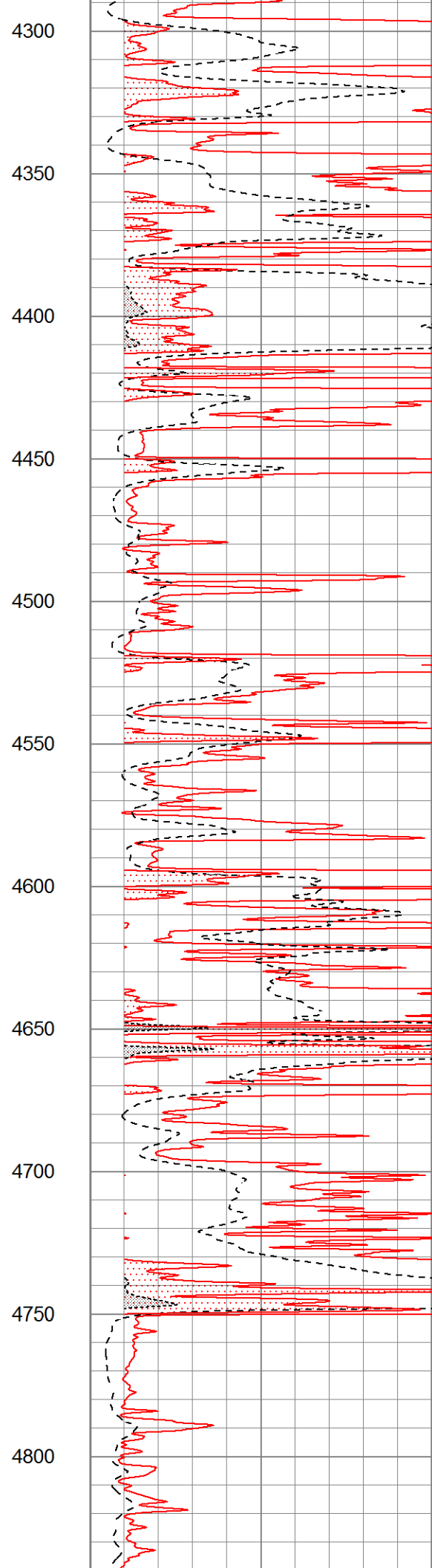
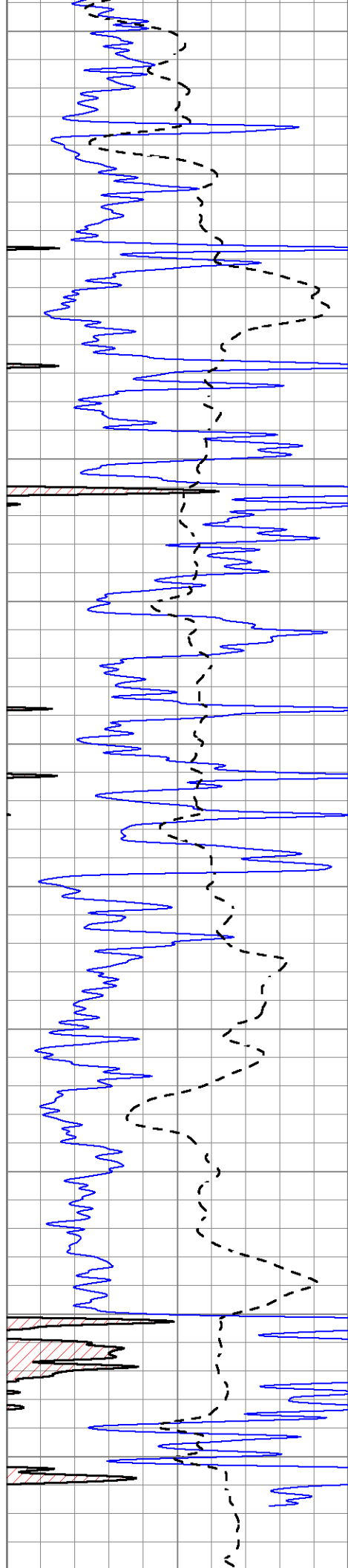


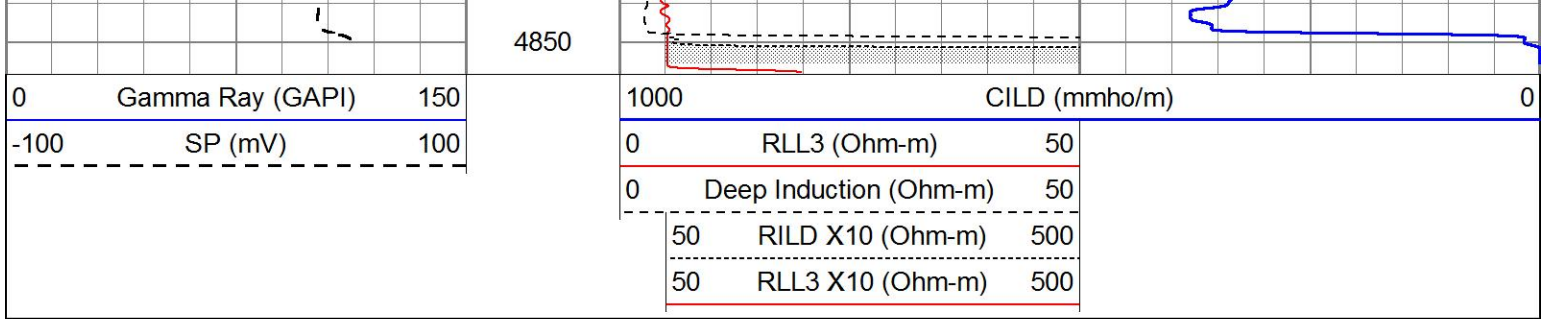








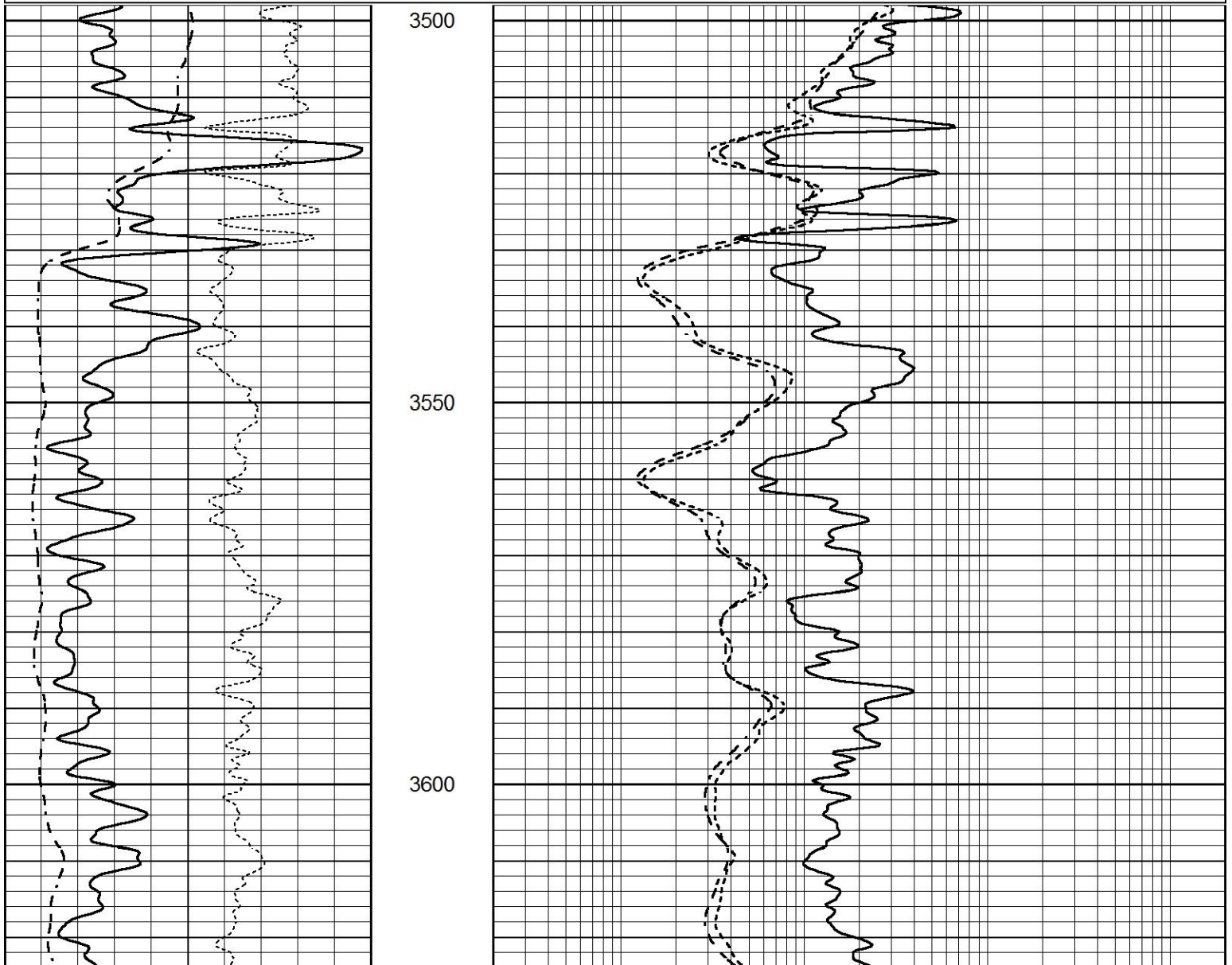


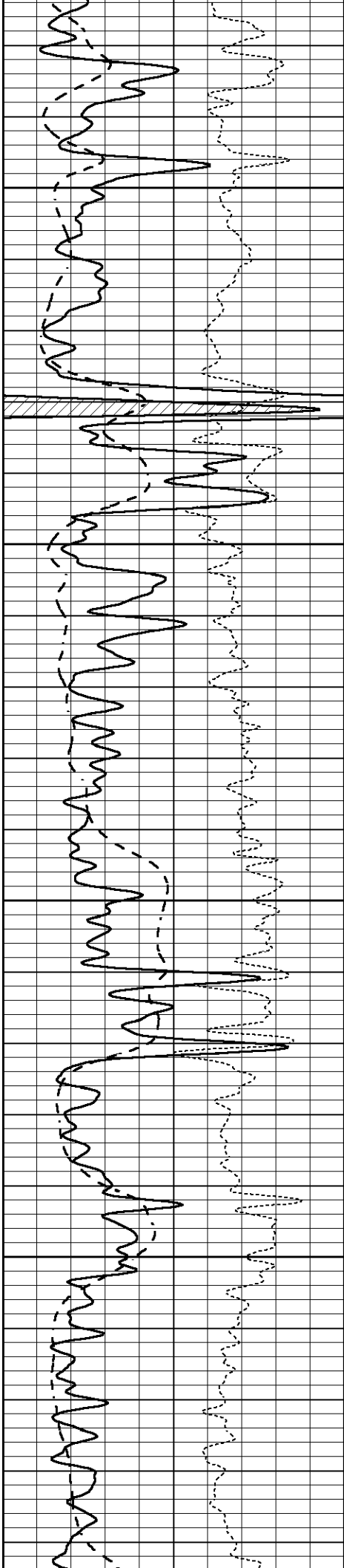


MAIN SECTION

Database File 4726pe.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Sun Feb 02 02:38:53 2020
 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	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000



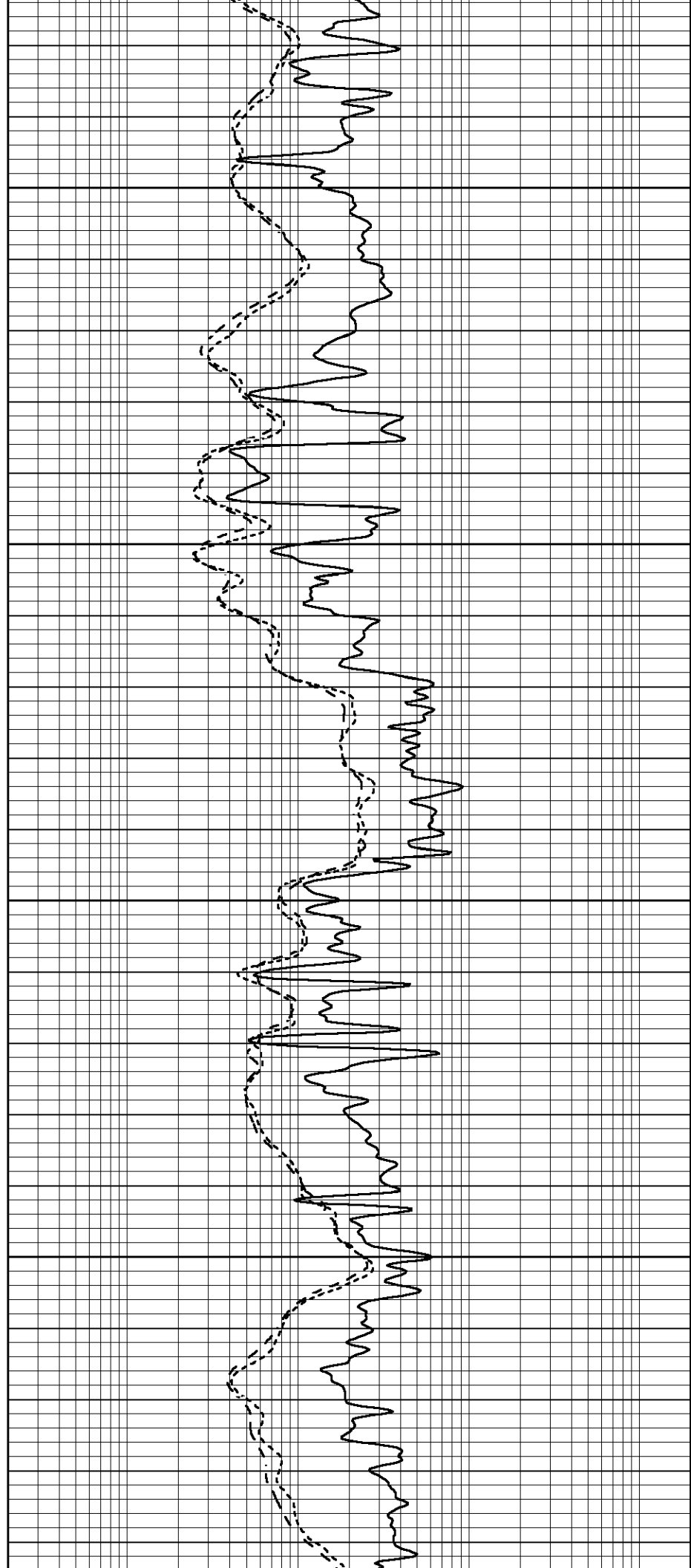


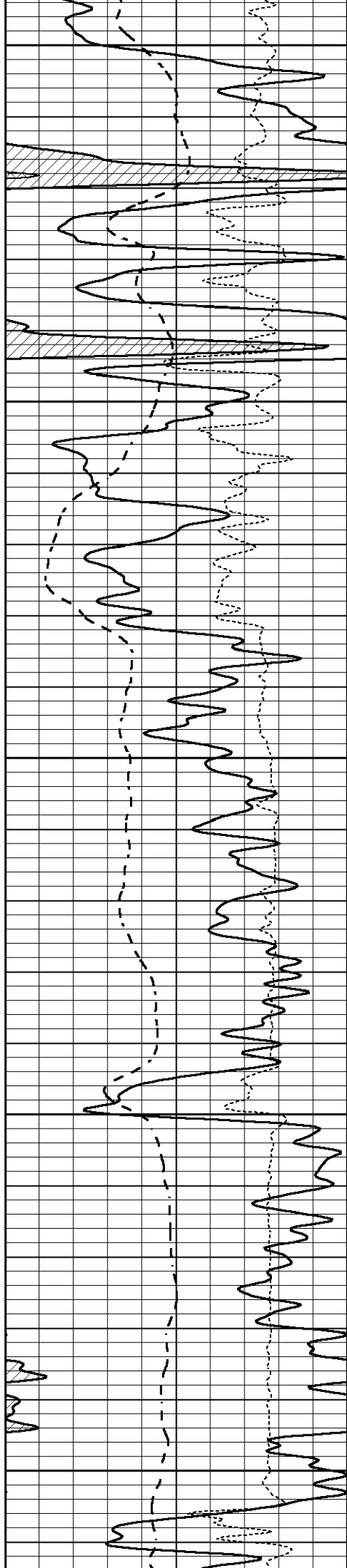
3650

3700

3750

3800





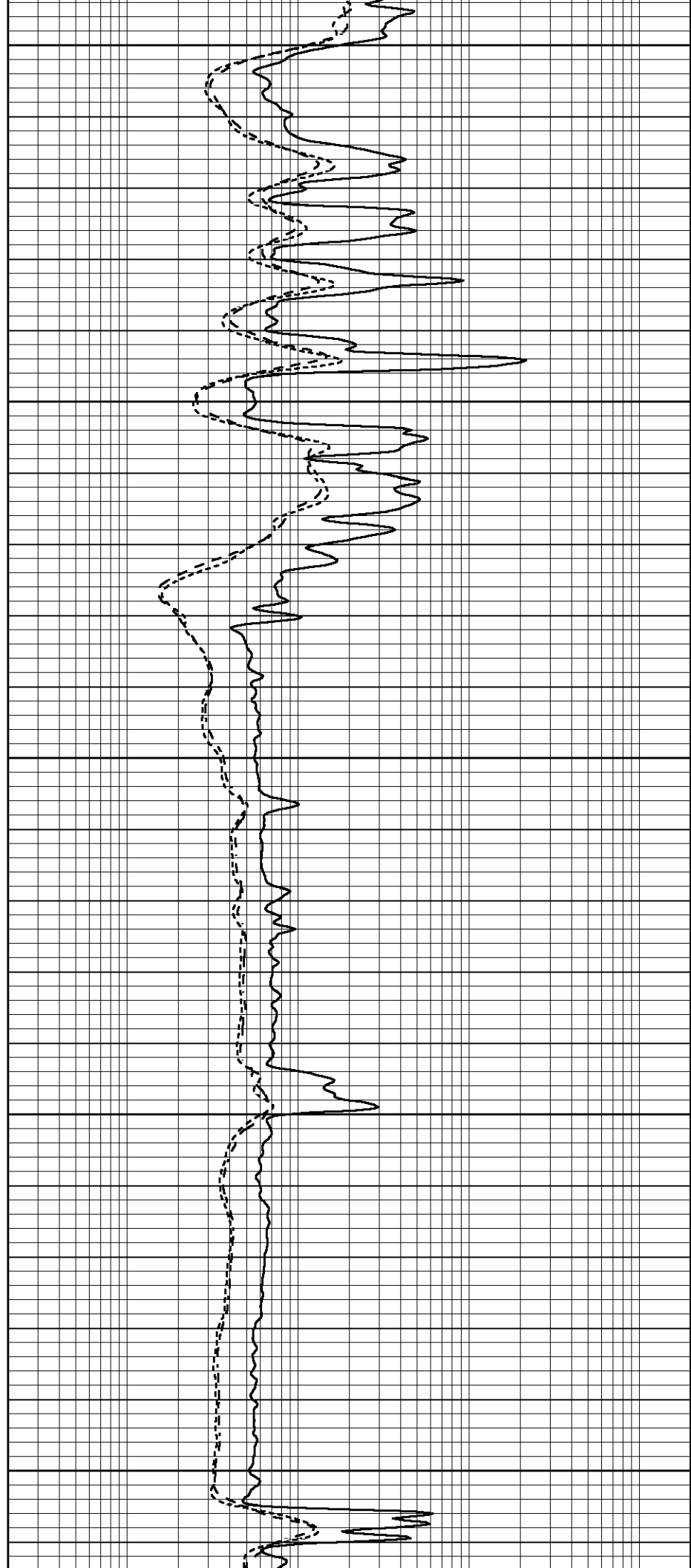
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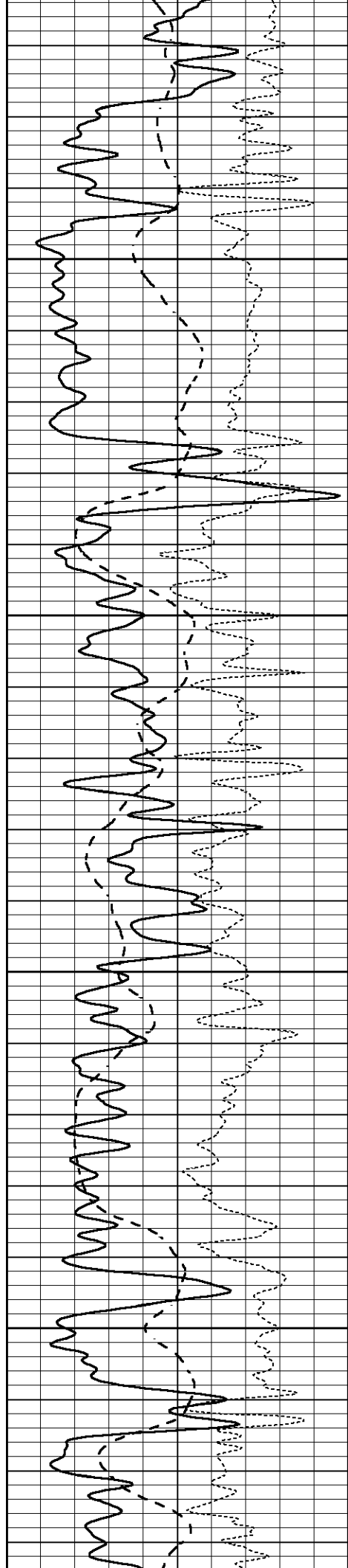
3900

3950

4000

4050



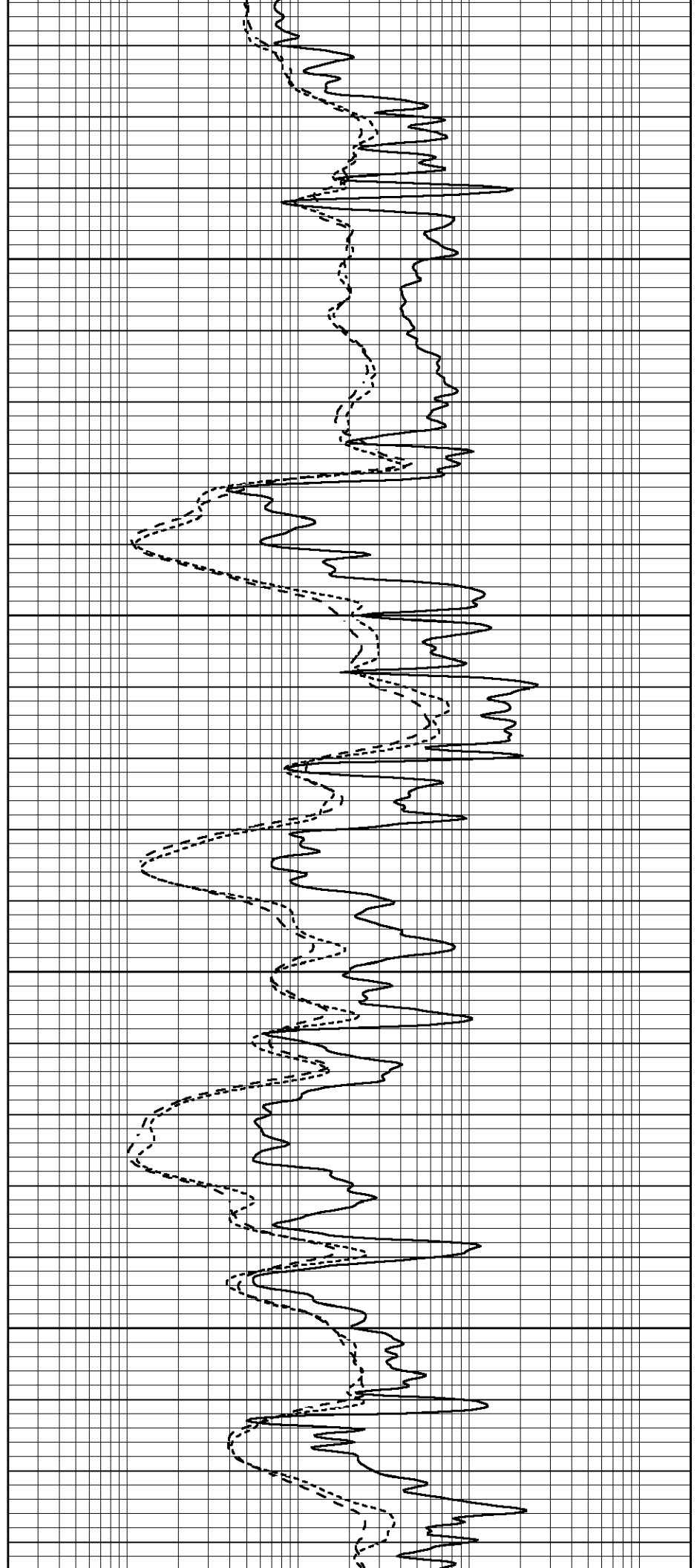


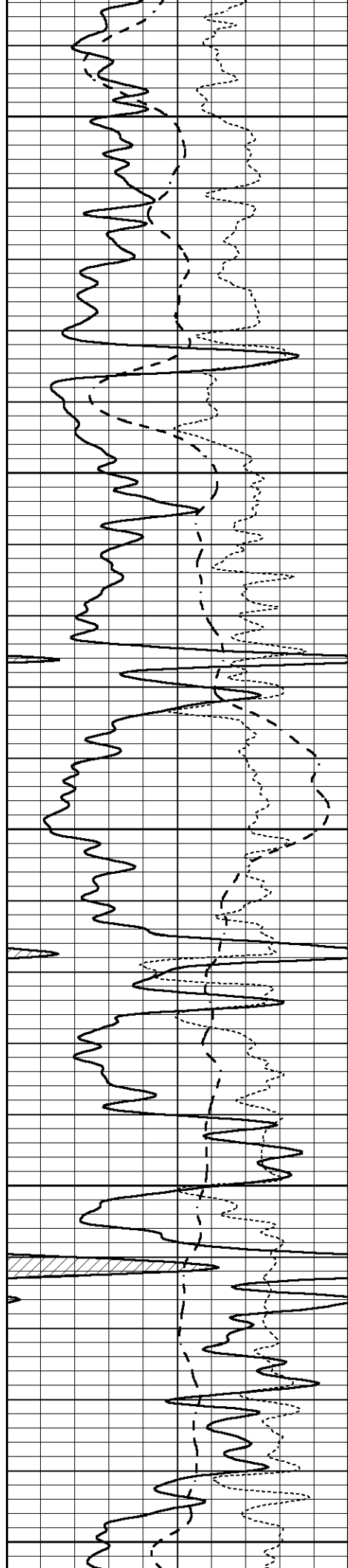
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4150

4200

4250





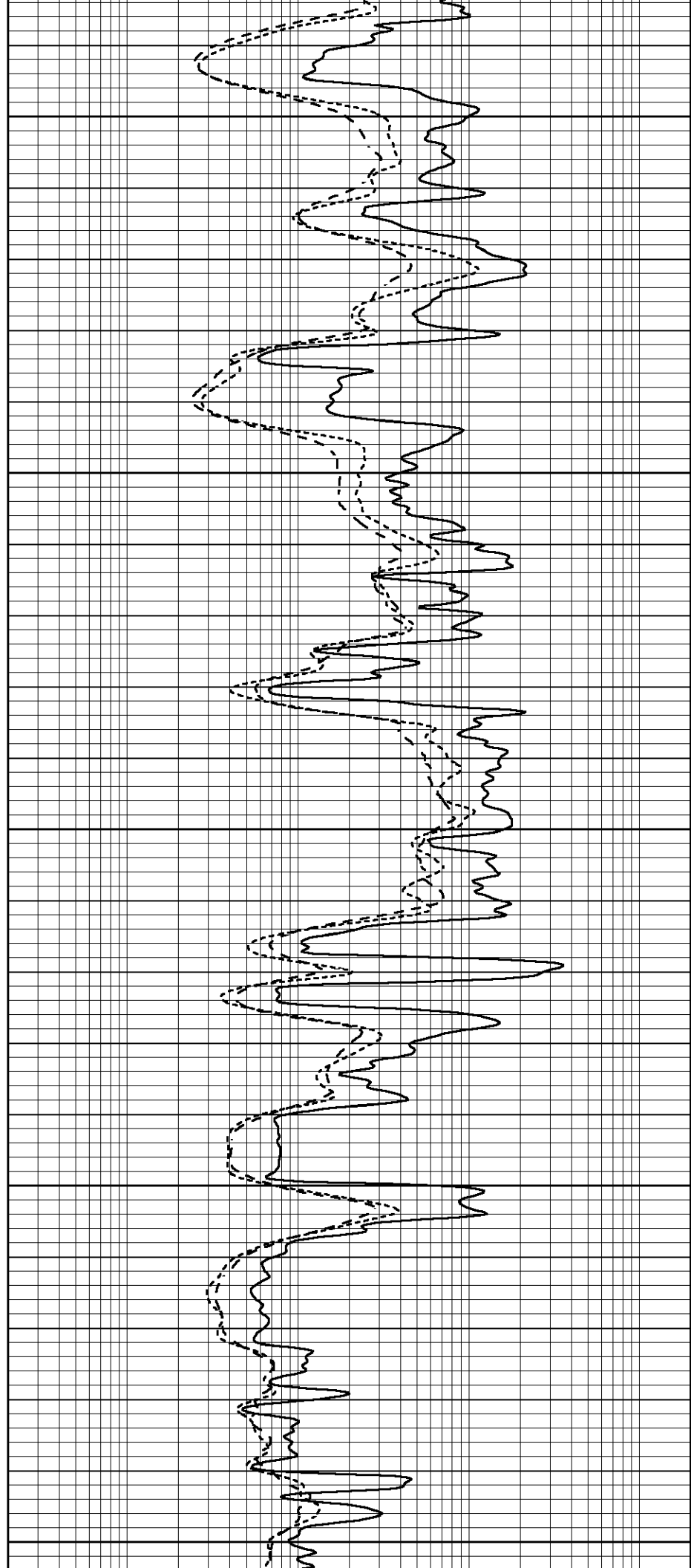
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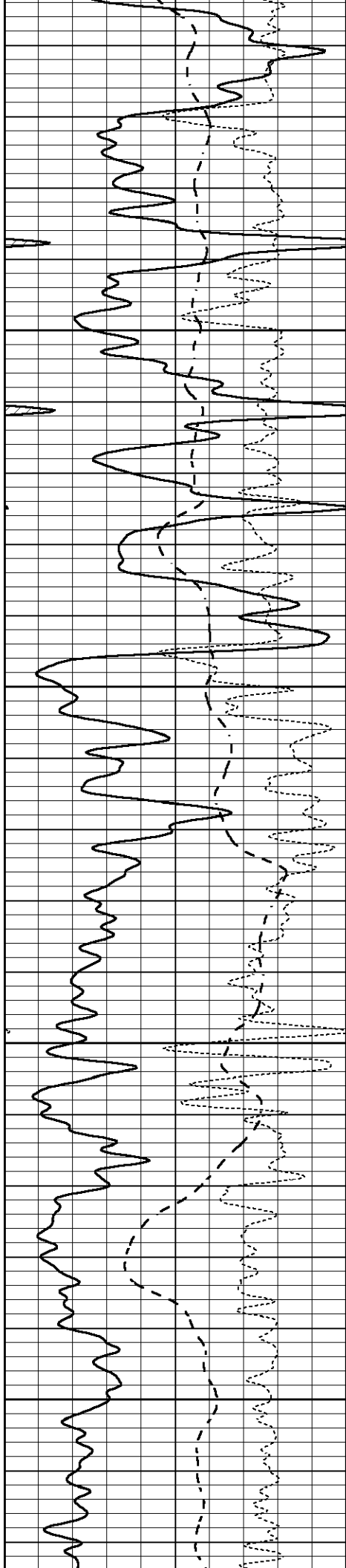
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4400

4450

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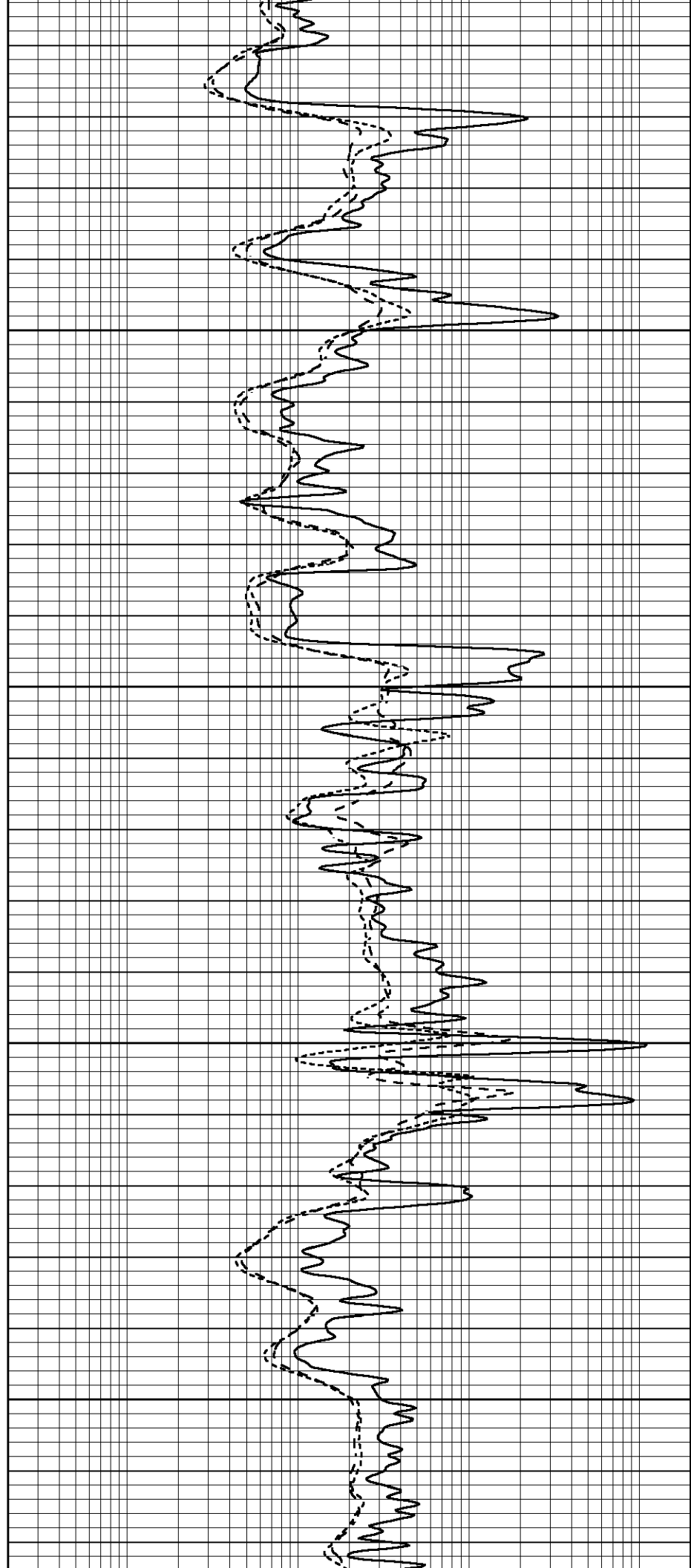


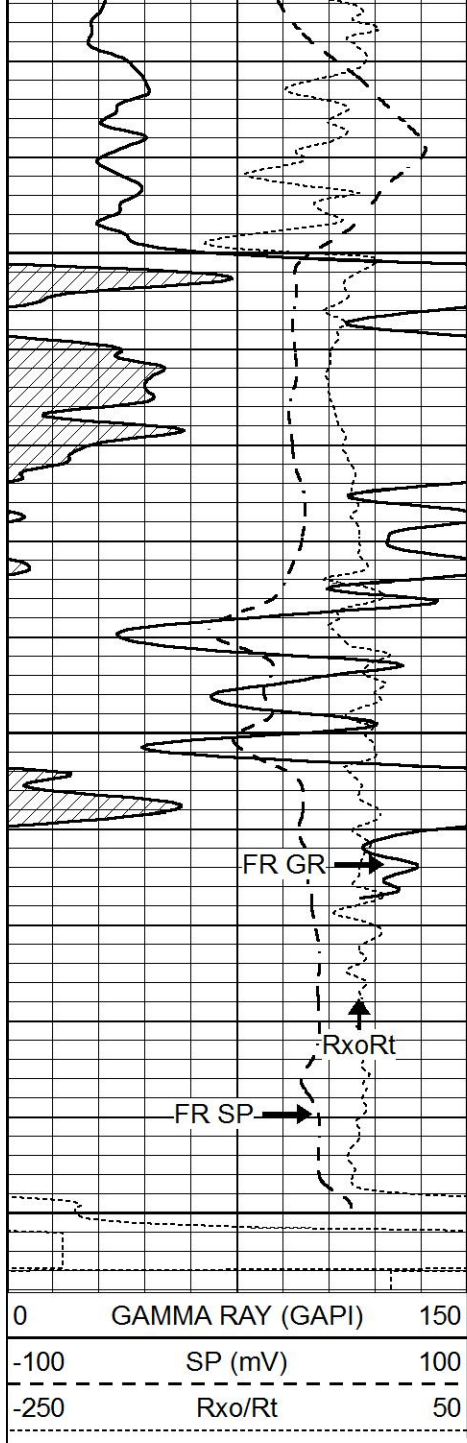
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4600

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4700



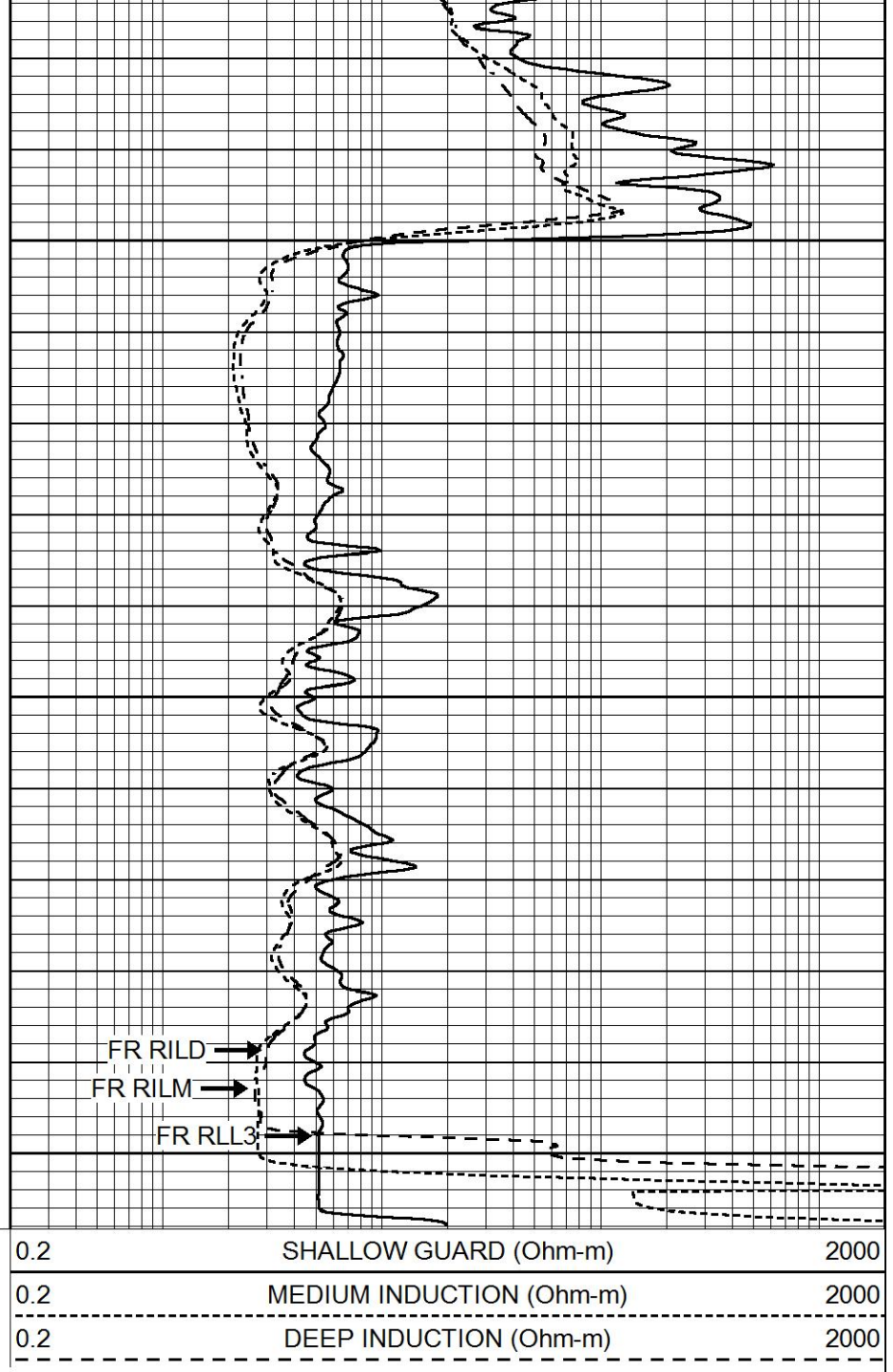


4750

4800

LTD 4850

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



FR RILD

FR RILM

FR RLL3

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

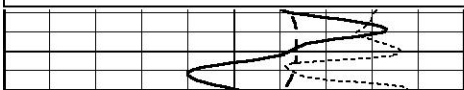


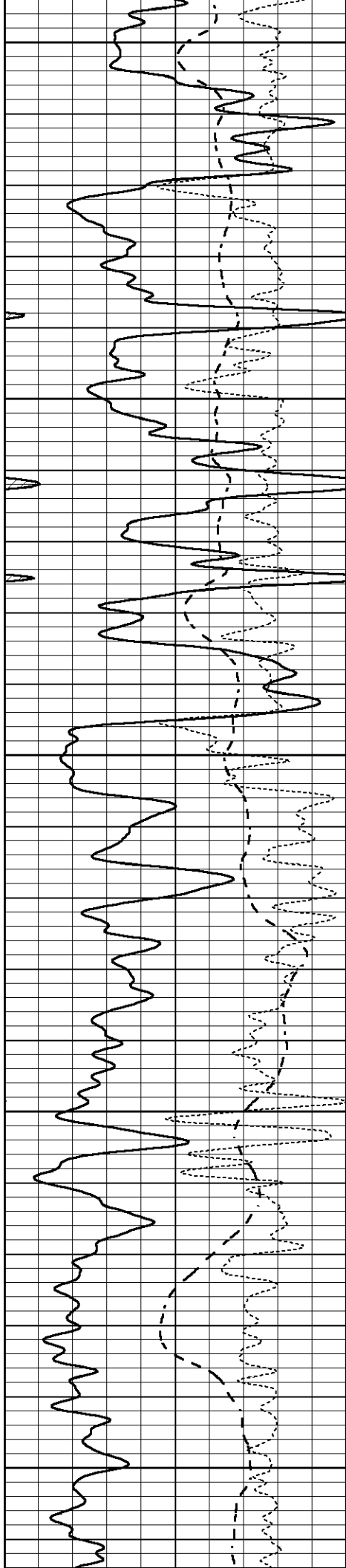
REPEAT SECTION

Database File 4726pe.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Sun Feb 02 02:37:34 2020
 Charted by Depth in Feet scaled 1:240

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





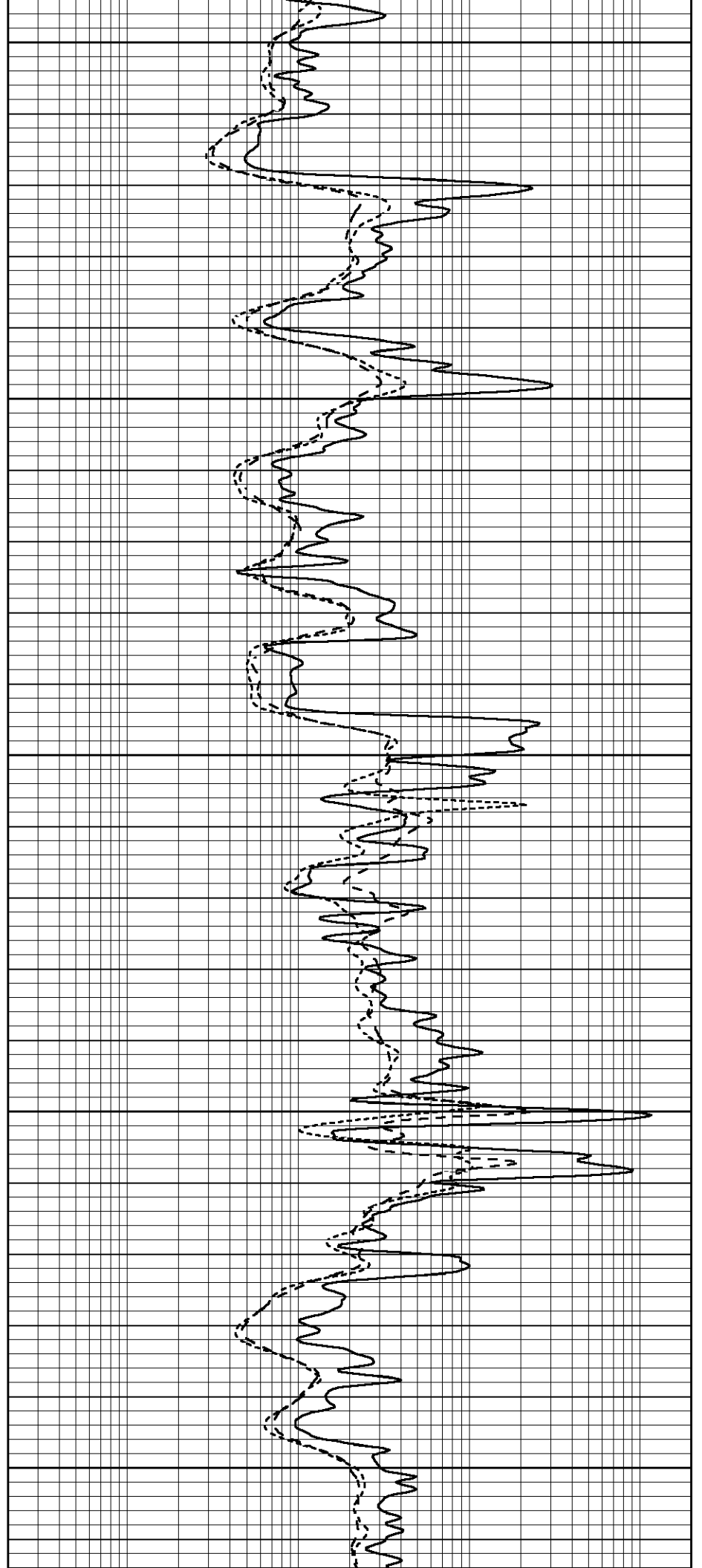
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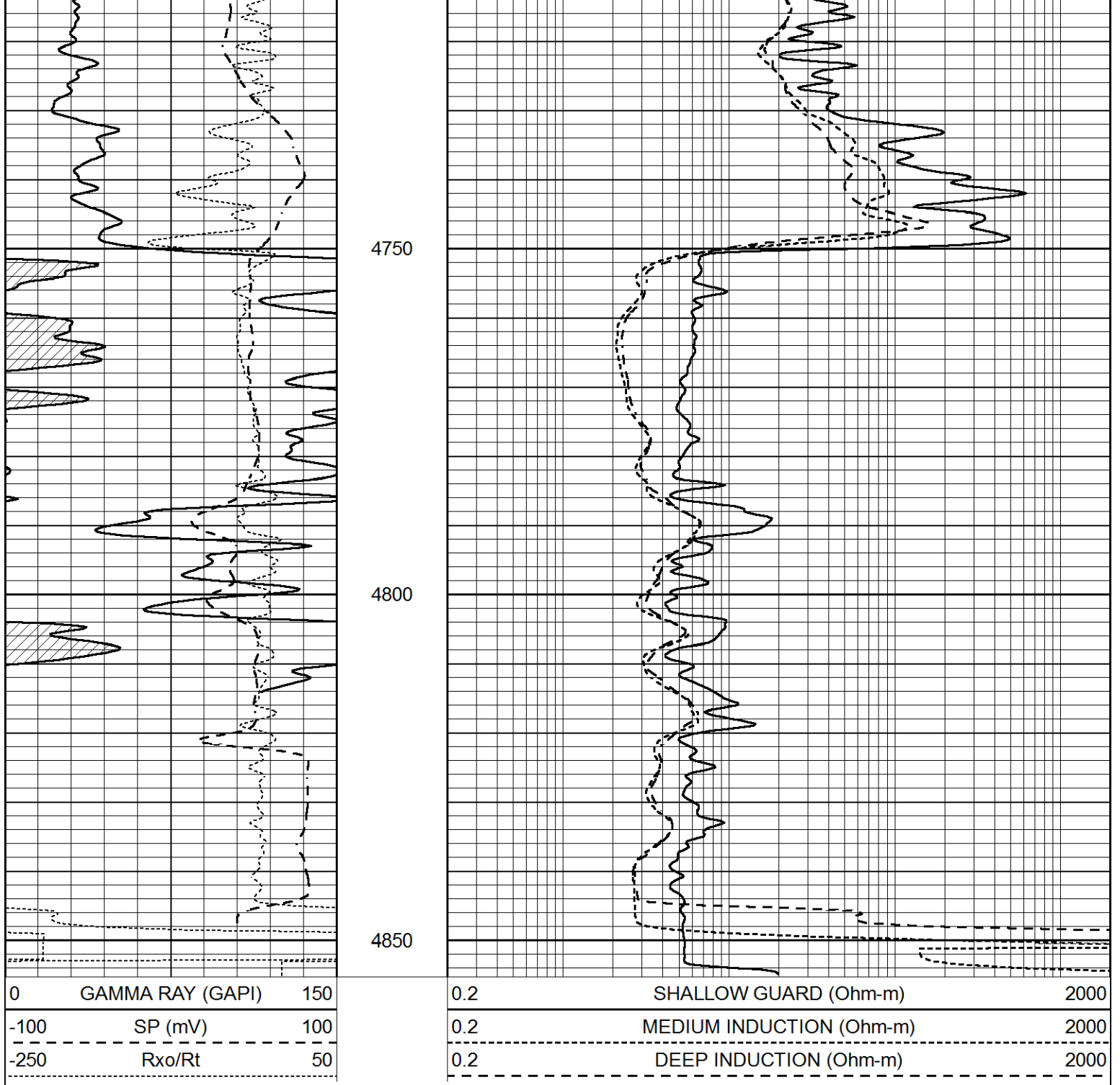
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4600

4650

4700





Calibration Report

Database File 4726pe.db
 Dataset Pathname pass2.1
 Dataset Creation Sun Feb 02 02:37:34 2020

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Tue Feb 19 11:44:18 2019
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

Loop:	Readings		References		Results	
	Air	Loop	Air	Loop	m	b
Down	0.011	0.056	1.000	100.000	mho/m	010.505 5.504

Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
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		

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:	7
Tool Model:	Probe1
Performed:	Tue Dec 10 10:02:55 2019
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.5400 GAPI/cps