



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company Griffin Management, LLC

Well Rea #2

Field

County Pratt

State Kansas

Location:

1650 FSL & 2310 FEL

SEC 32 TWP 29S RGE 15W

API #: 15-151-22551-00-00

Other Services

CNL/CDL
MEL

Permanent Datum	Ground Level	Elevation	2001
Log Measured From	Kelly Bushing		
Drilling Measured From	Kelly Bushing		

Elevation
K.B. 2006
D.F.
G.L. 2001

Date	9/25/2022
Run Number	One
Depth Driller	4860
Depth Logger	4858
Bottom Logged Interval	4857
Top Log Interval	250
Casing Driller	8,625 @ 261
Casing Logger	259
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	7000
Density / Viscosity	9.3 55
pH / Fluid Loss	9.5 8.8
Source of Sample	Flowline
Rm @ Meas. Temp	0.40 @ 80
Rmt @ Meas. Temp	0.30 @ 80
Rmc @ Meas. Temp	0.54 @ 80
Source of Rmf / Rmc	Charts
Rm @ BHT	0.26 @ 125
Operating Rig Time	3 Hours
Max Rec. Temp. F	125
Equipment Number	P-24
Location	Hays
Recorded By	D. Schmidt
Witnessed By	Charles Griffin

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Croft,
South to 110, 1 East, 1/2 South,
West and South into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Charles Griffin
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (106)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (207-MW)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (307-11)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (402)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (501 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: griffin_rea 2.db: field/well/stkml/pass3.11
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\griffin_rea 2.db
 Dataset field/well/stkml/pass3.11/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	121	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	320	80	Off	4858

Variable Description

A : Cement Factor (a)
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 M : Cement Exp (m)
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
 PERFS : Perforation Flag
 SNDERR : Deep Sonde Error Correction
 SNDERRM : Medium Sonde Error Correction
 SPSHIFT : S.P. Baseline Offset
 SRFTEMP : Surface Temperature
 SZCOR : CN Size Cor. ?
 TDEPTH : Total Depth

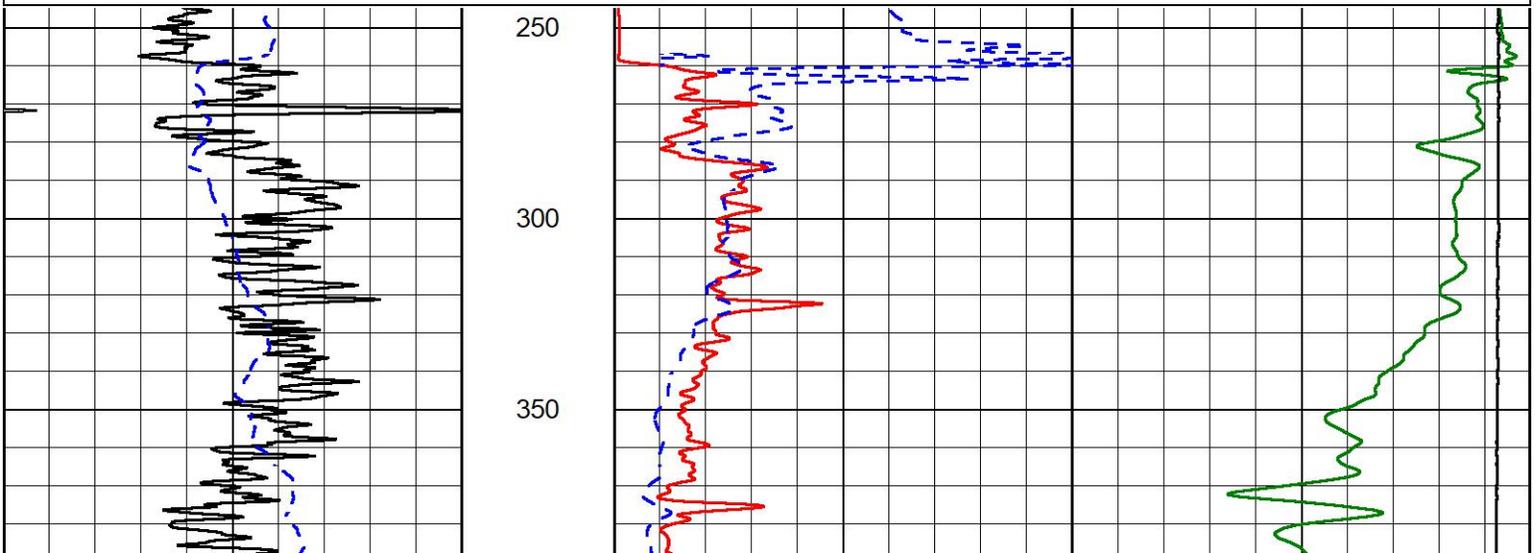


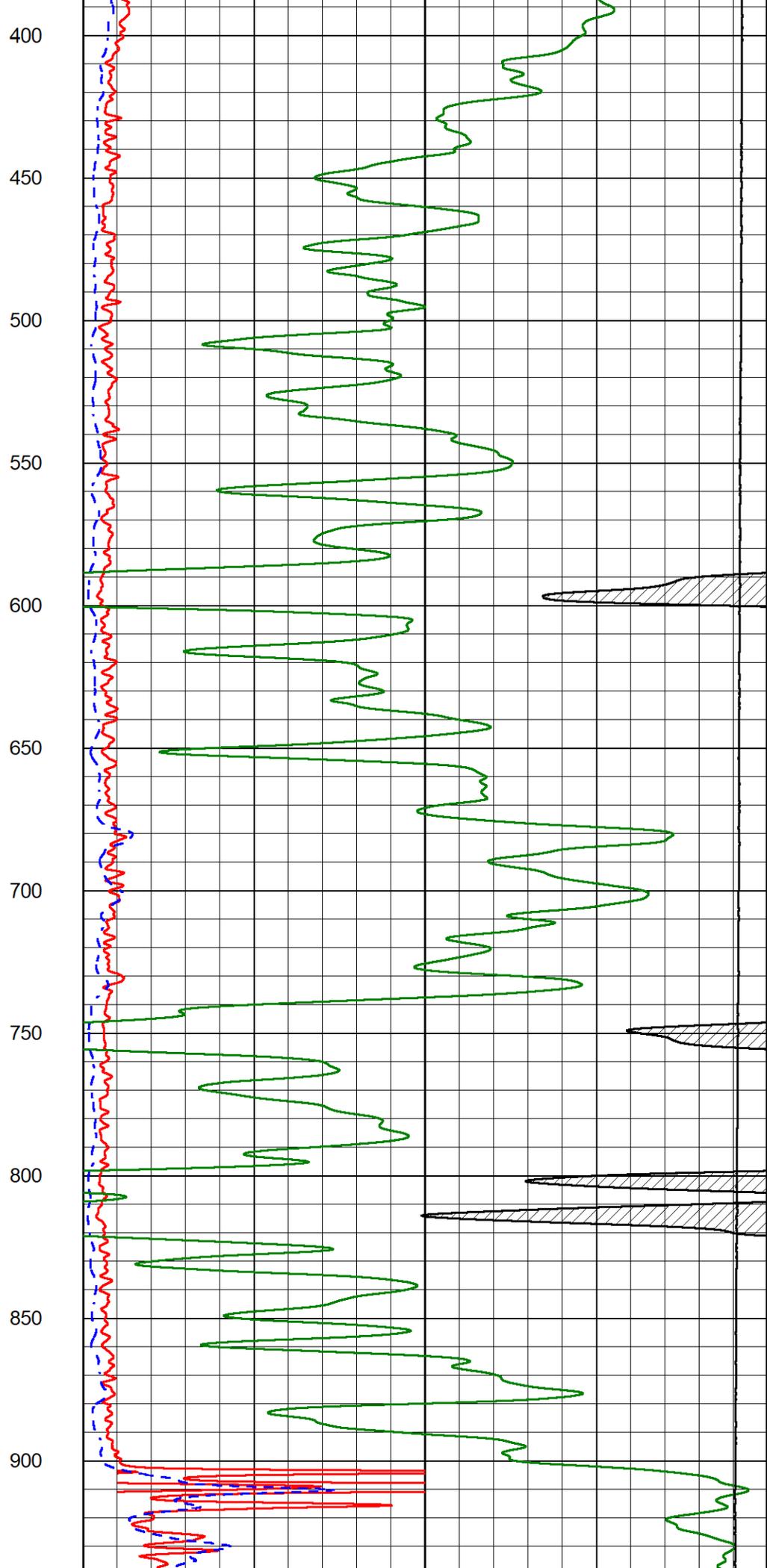
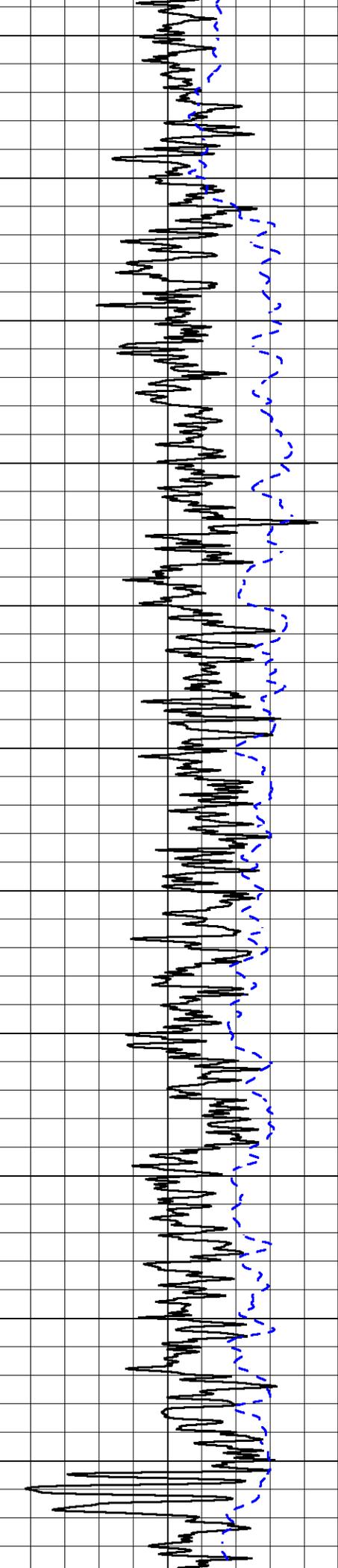
2" SCALE RESISTIVITY

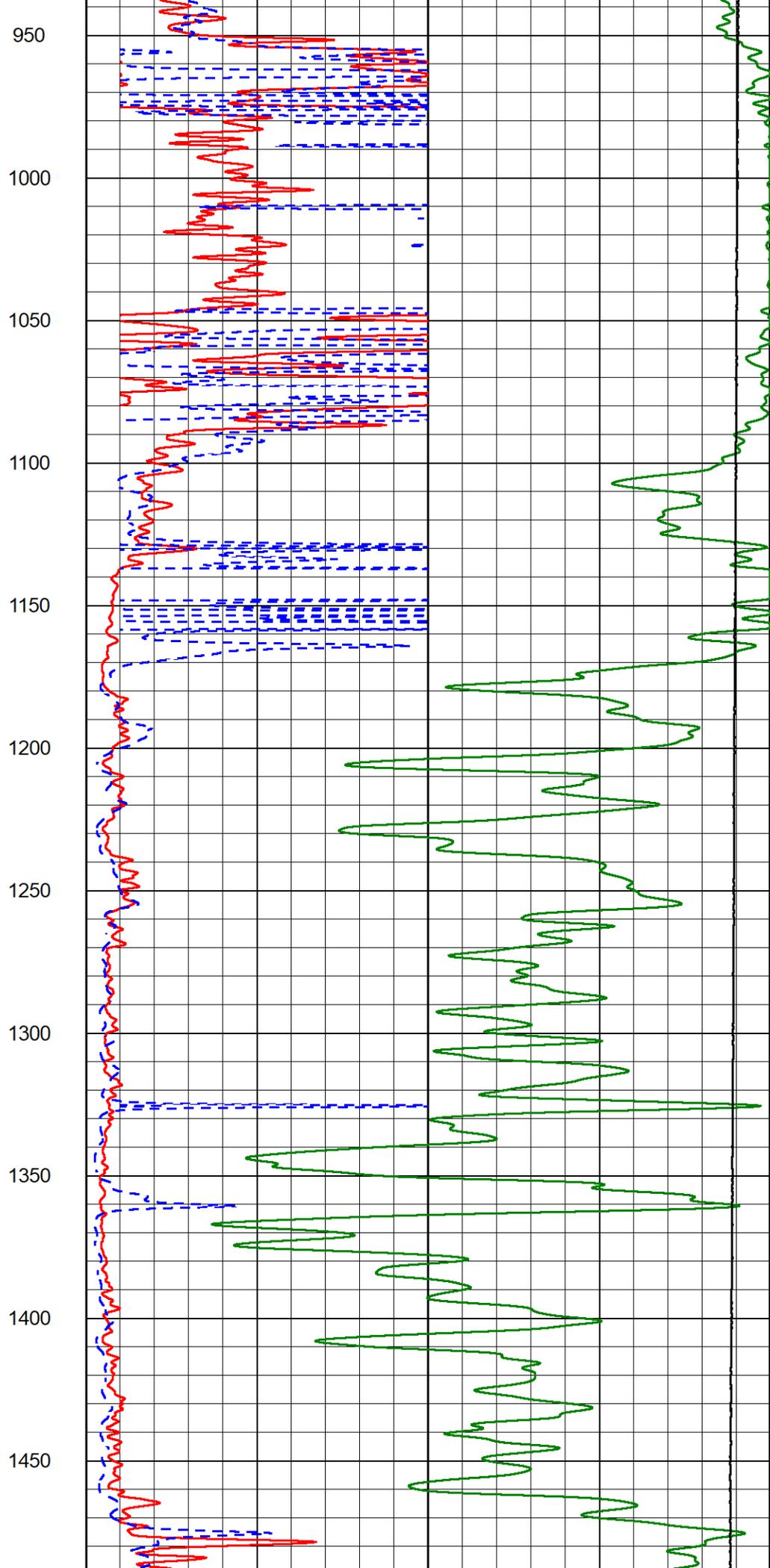
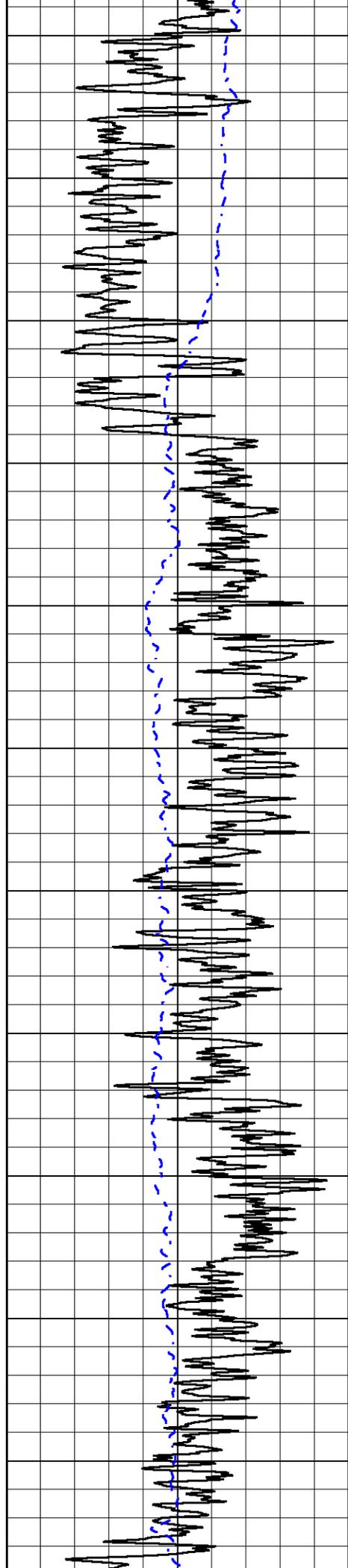
MAIN PASS

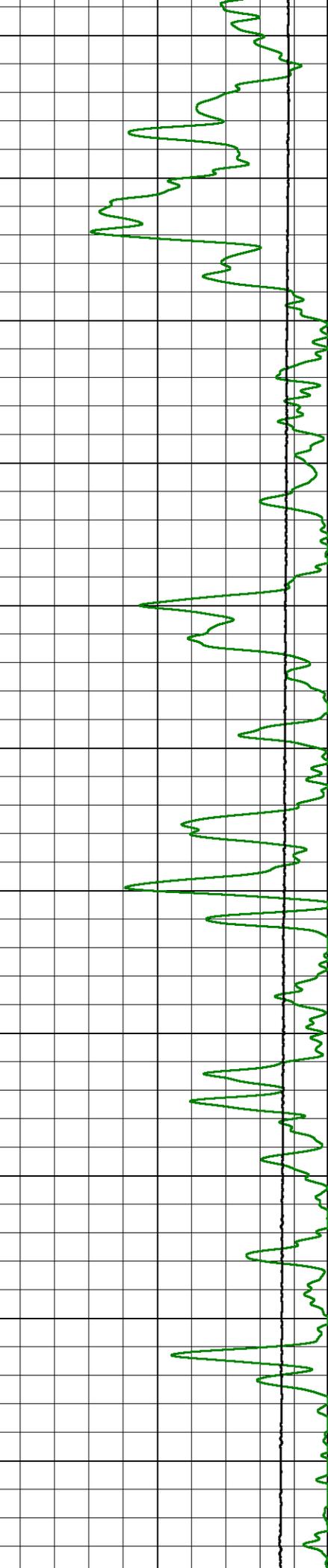
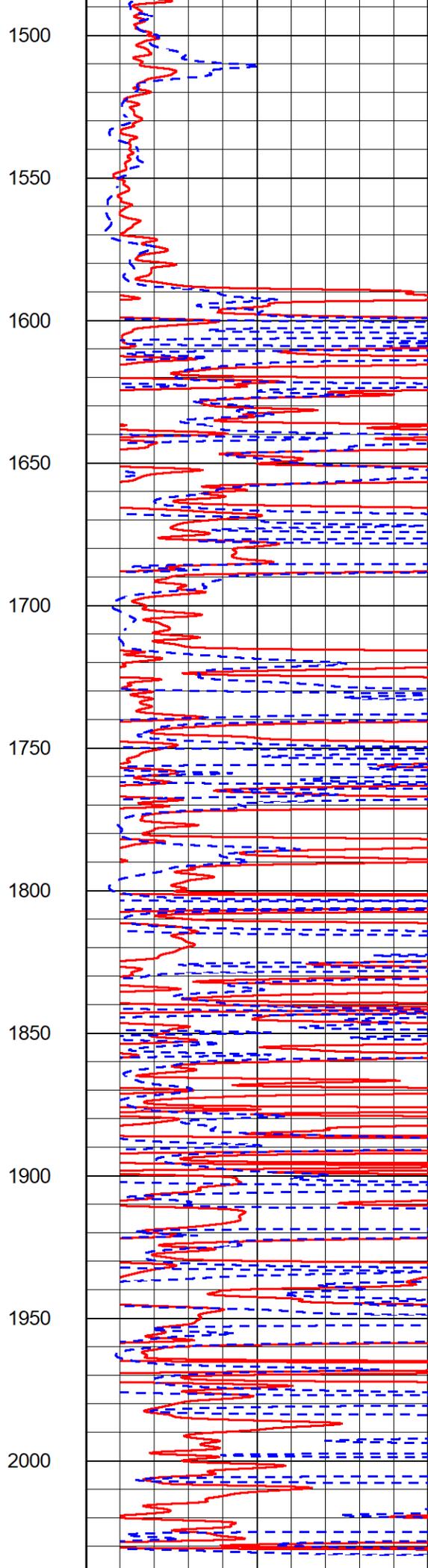
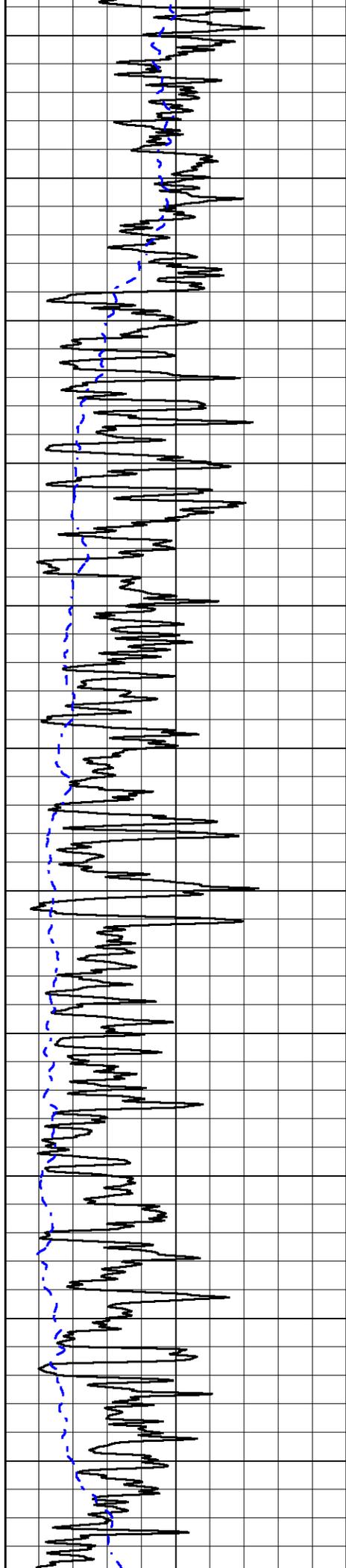
Database File griffin_rea 2.db
 Dataset Pathname stkml/pass3.3
 Presentation Format _dil2in
 Dataset Creation Sun Sep 25 21:32:23 2022
 Charted by Depth in Feet scaled 1:600

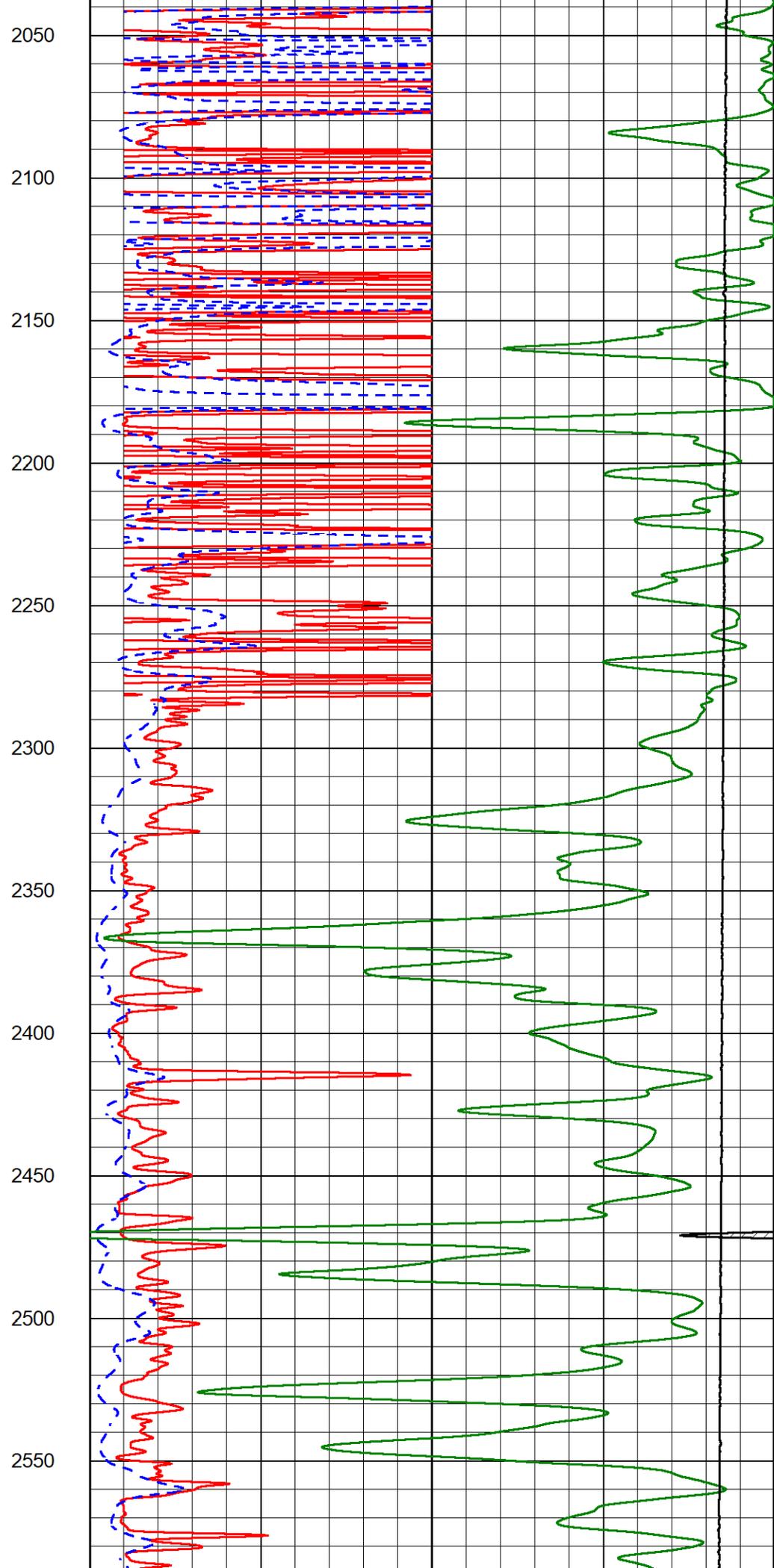
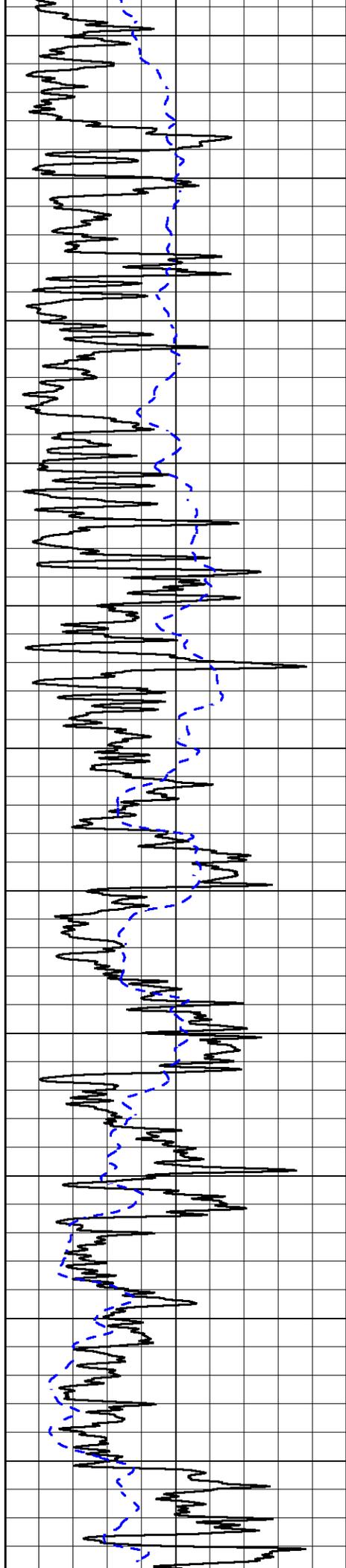
0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
-200	SP (mV)	0	15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
			50	Shallow Resistivity (Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200

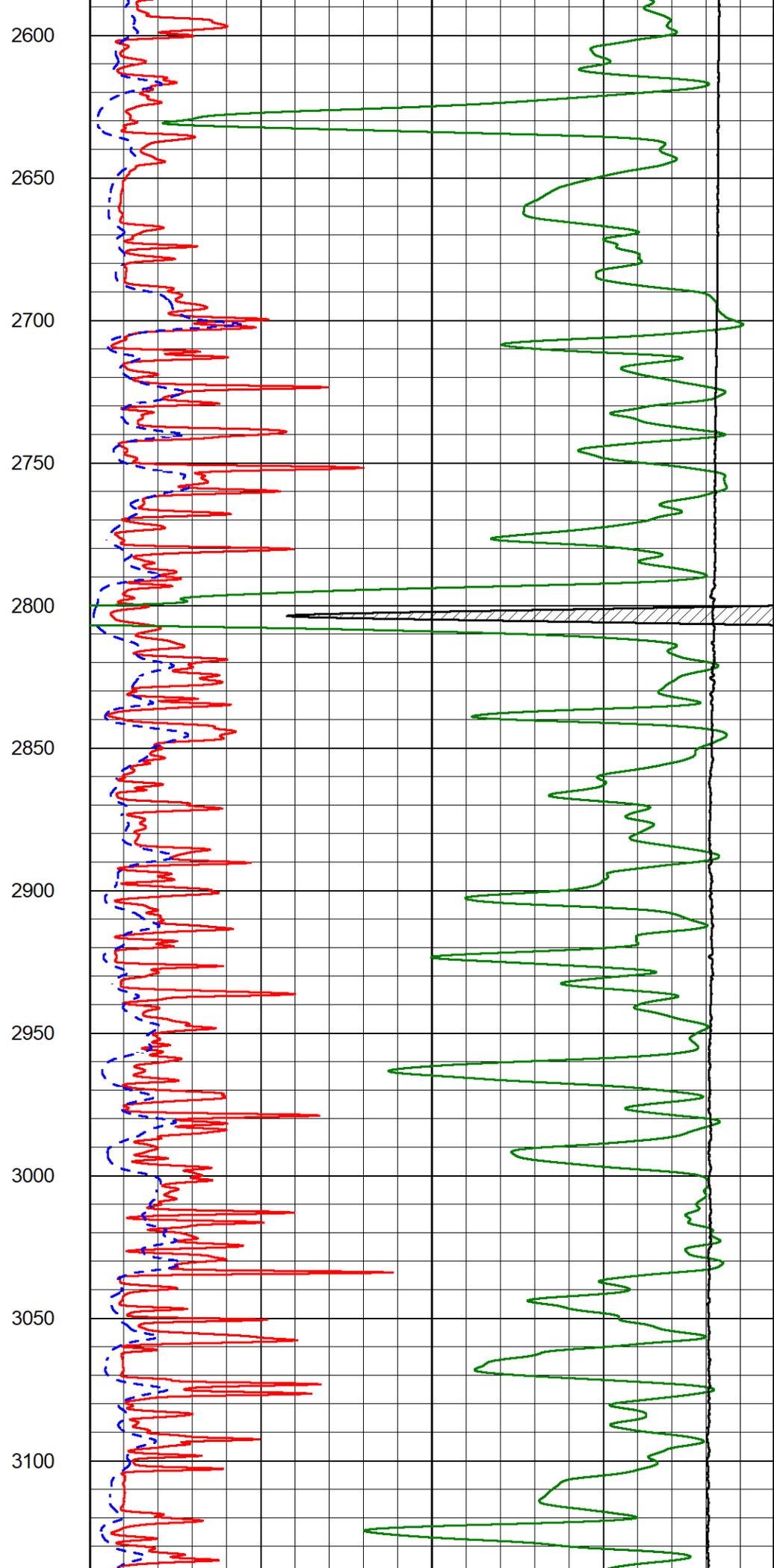
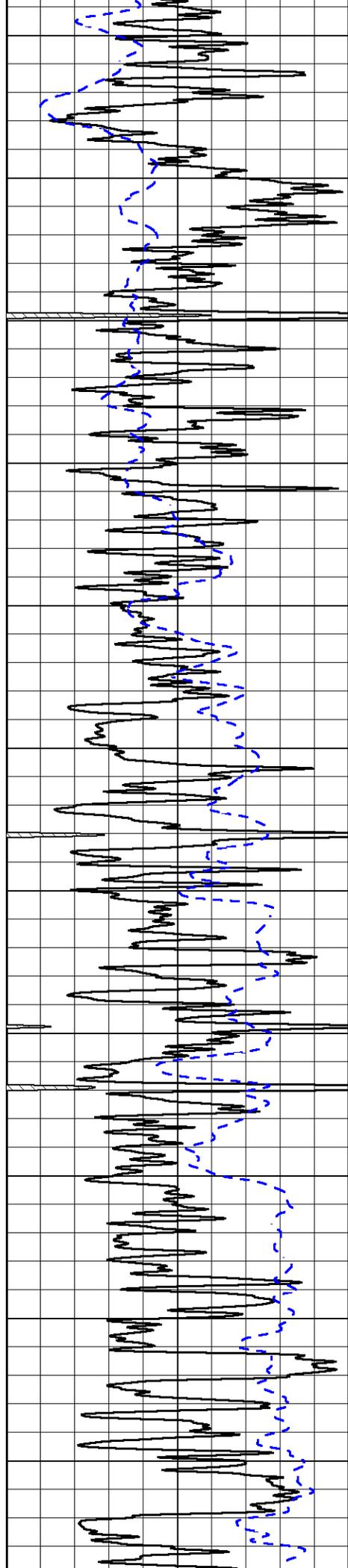


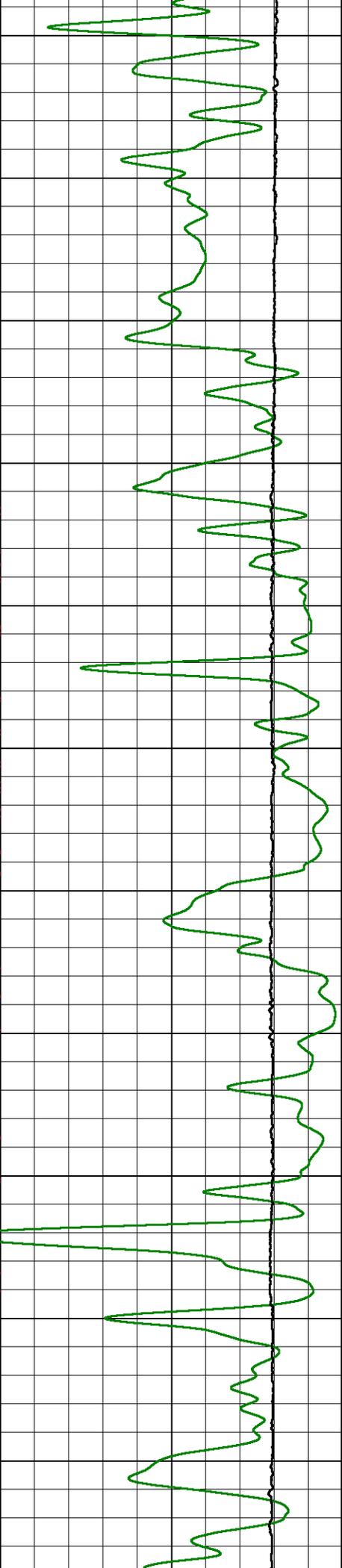
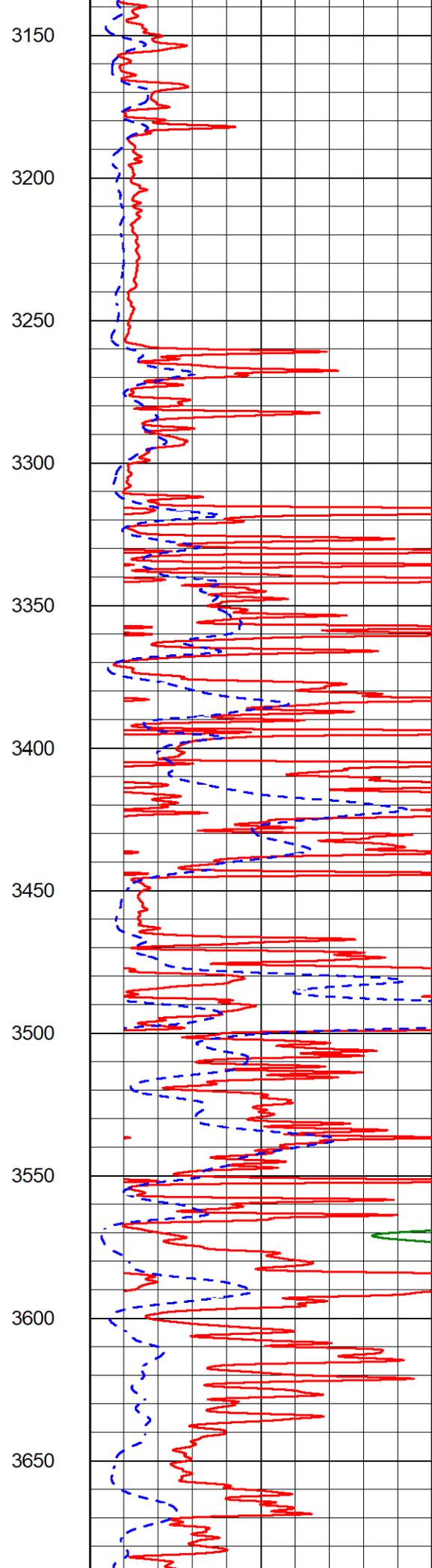
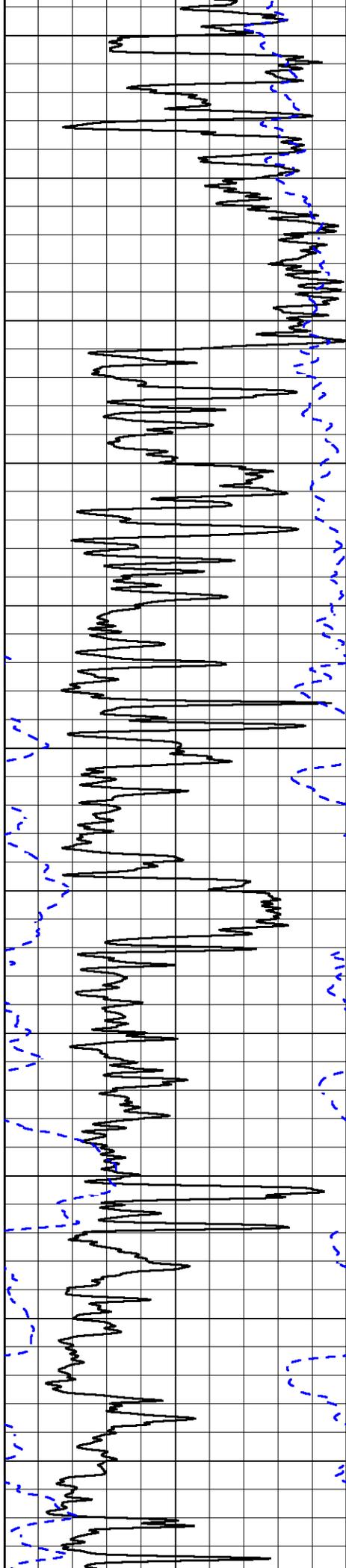


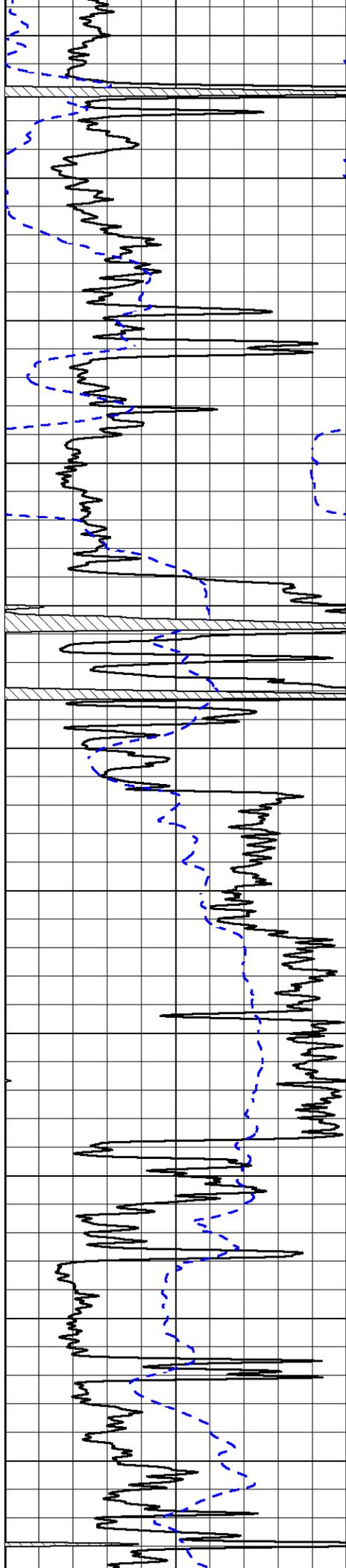












3700

3750

3800

3850

3900

3950

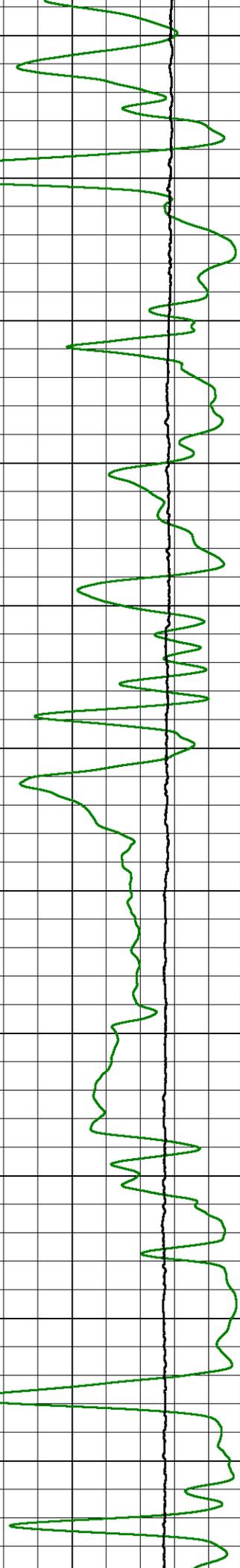
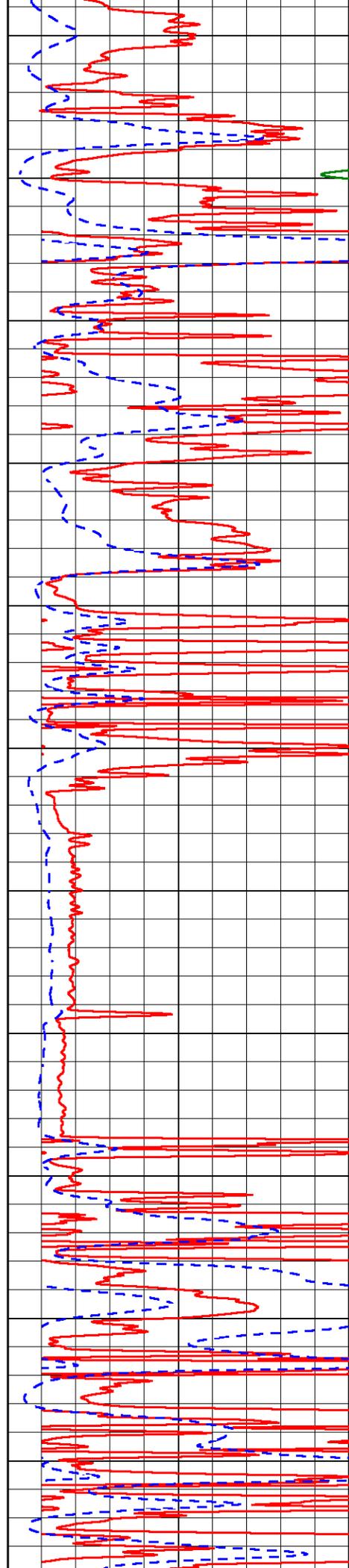
4000

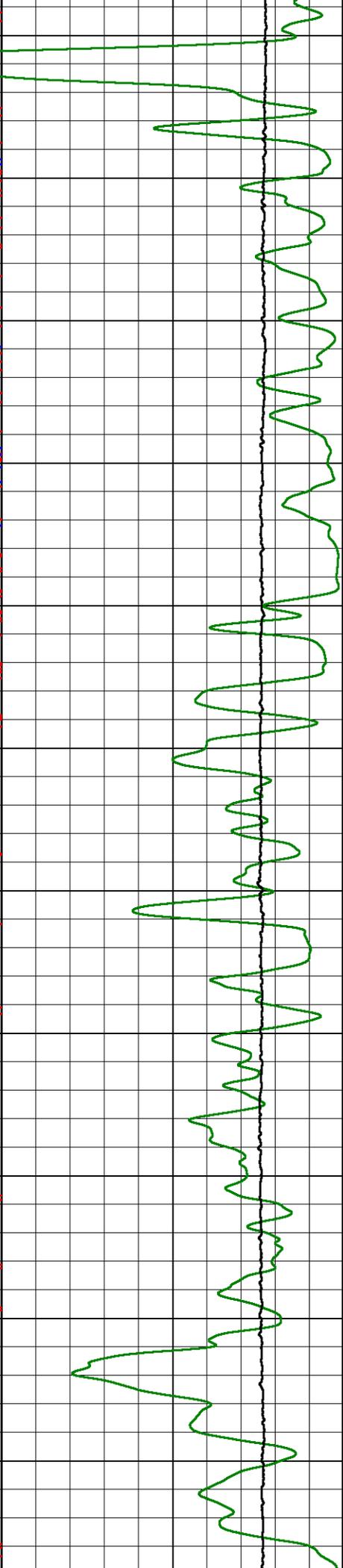
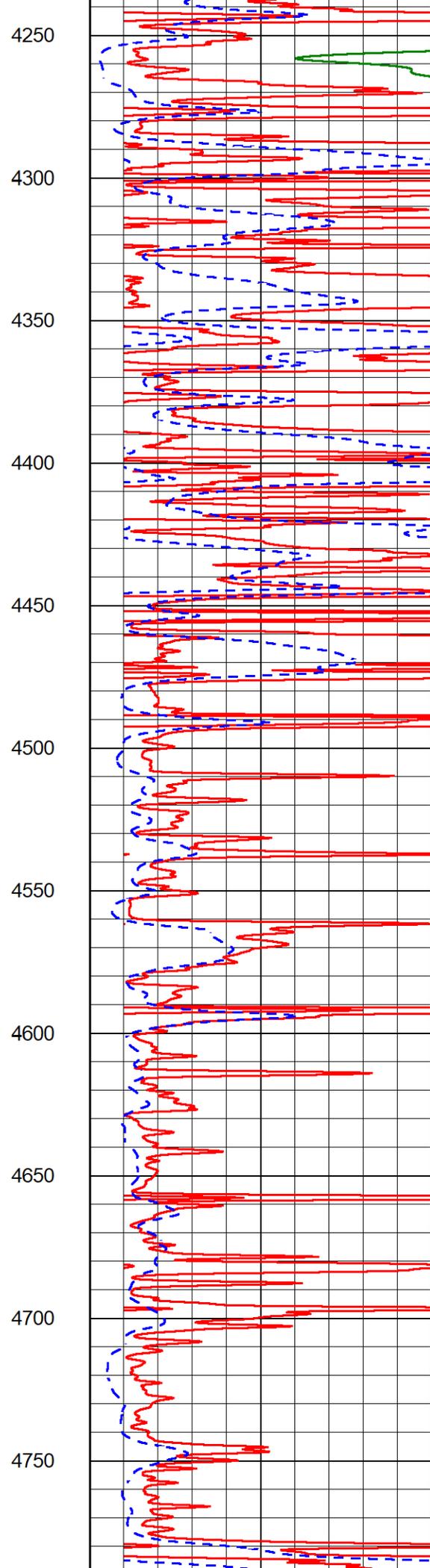
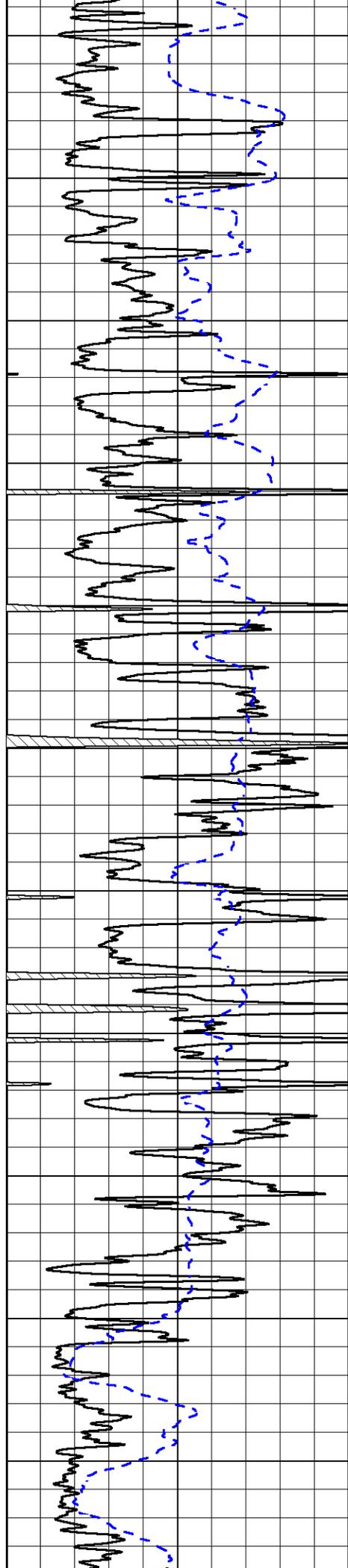
4050

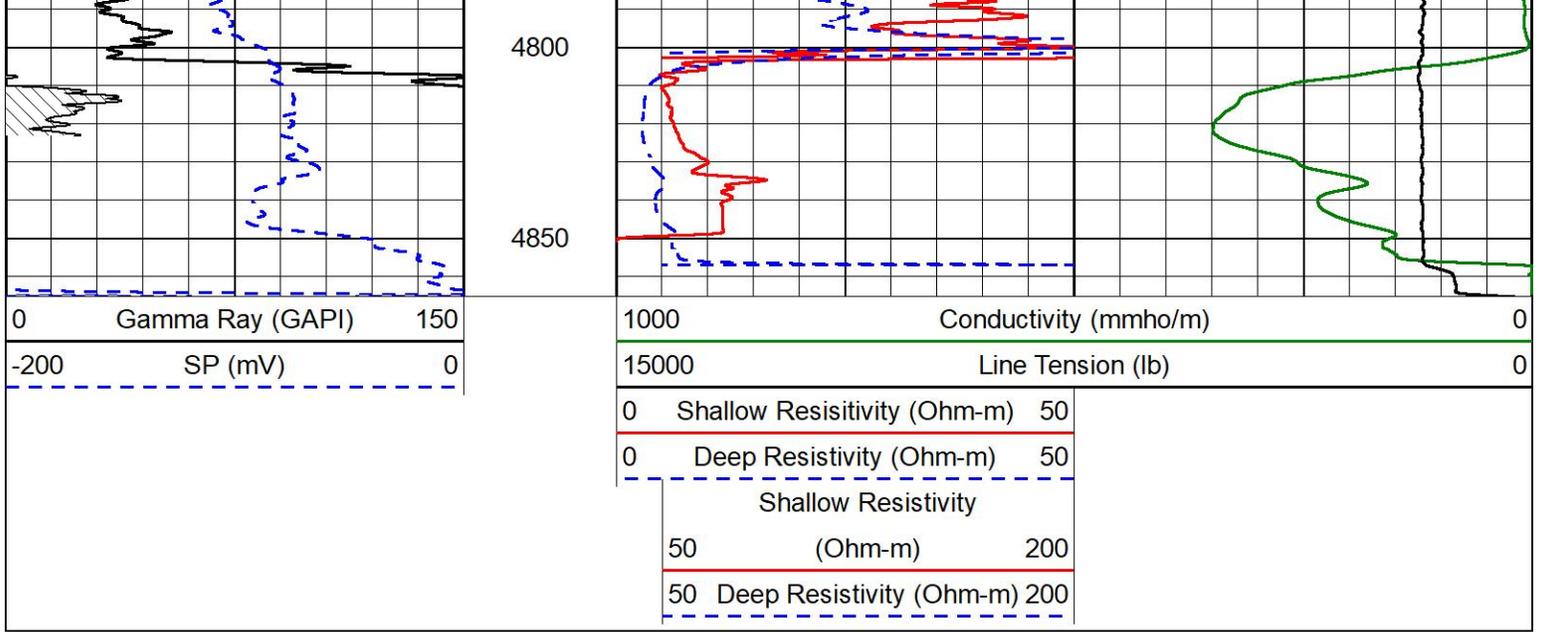
4100

4150

4200



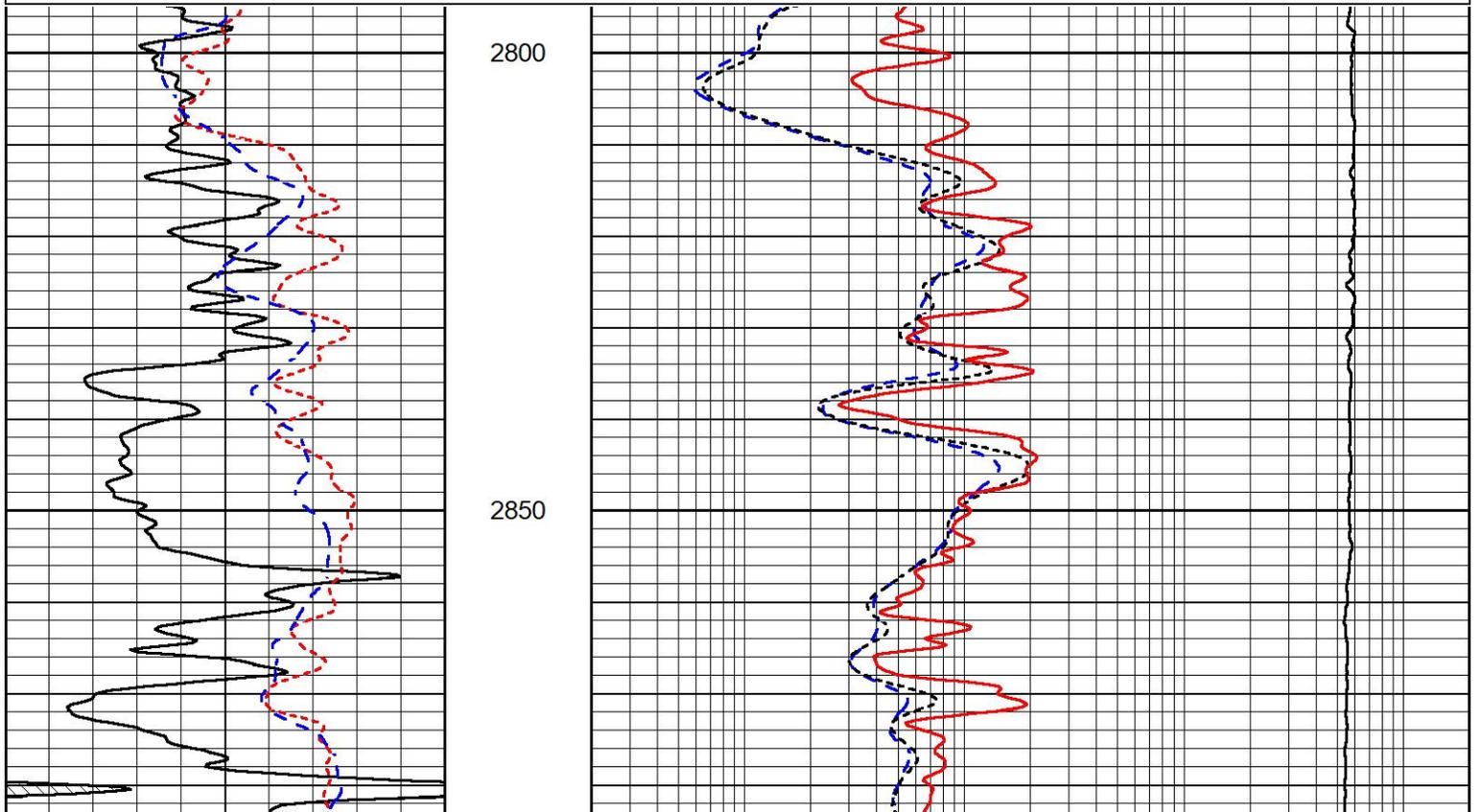
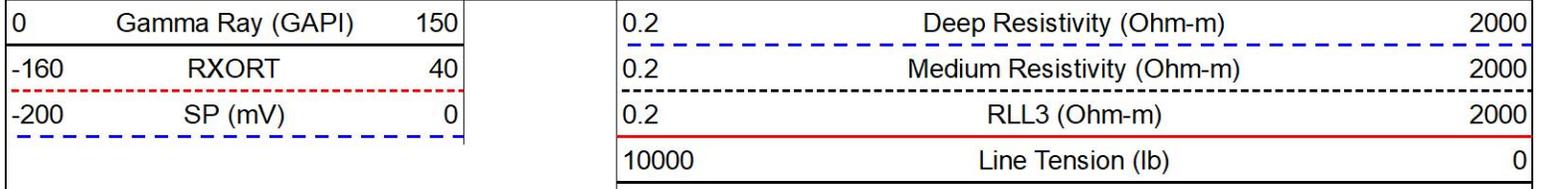


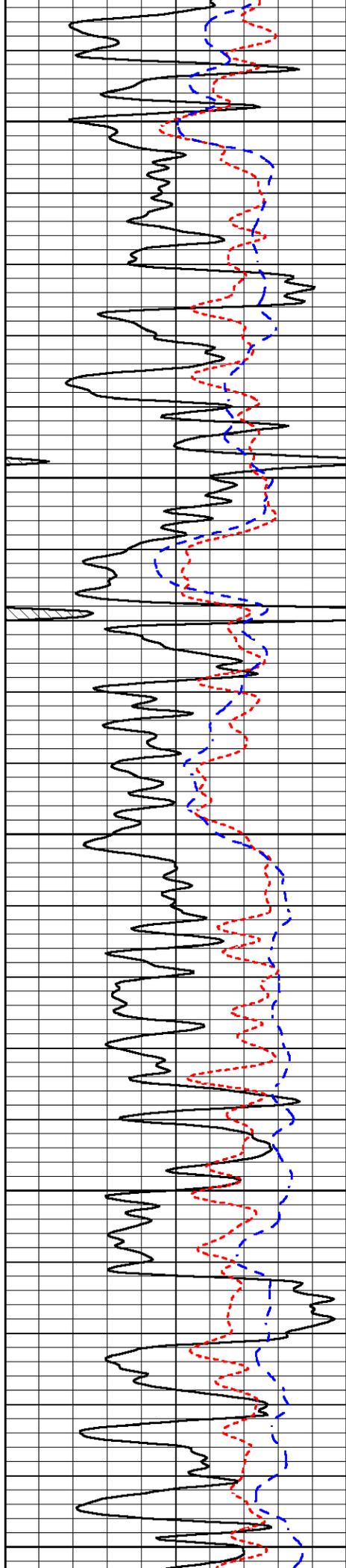


DETAIL SECTION

MAIN PASS

Database File griffin_rea 2.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _dil
 Dataset Creation Sun Sep 25 21:32:12 2022
 Charted by Depth in Feet scaled 1:240





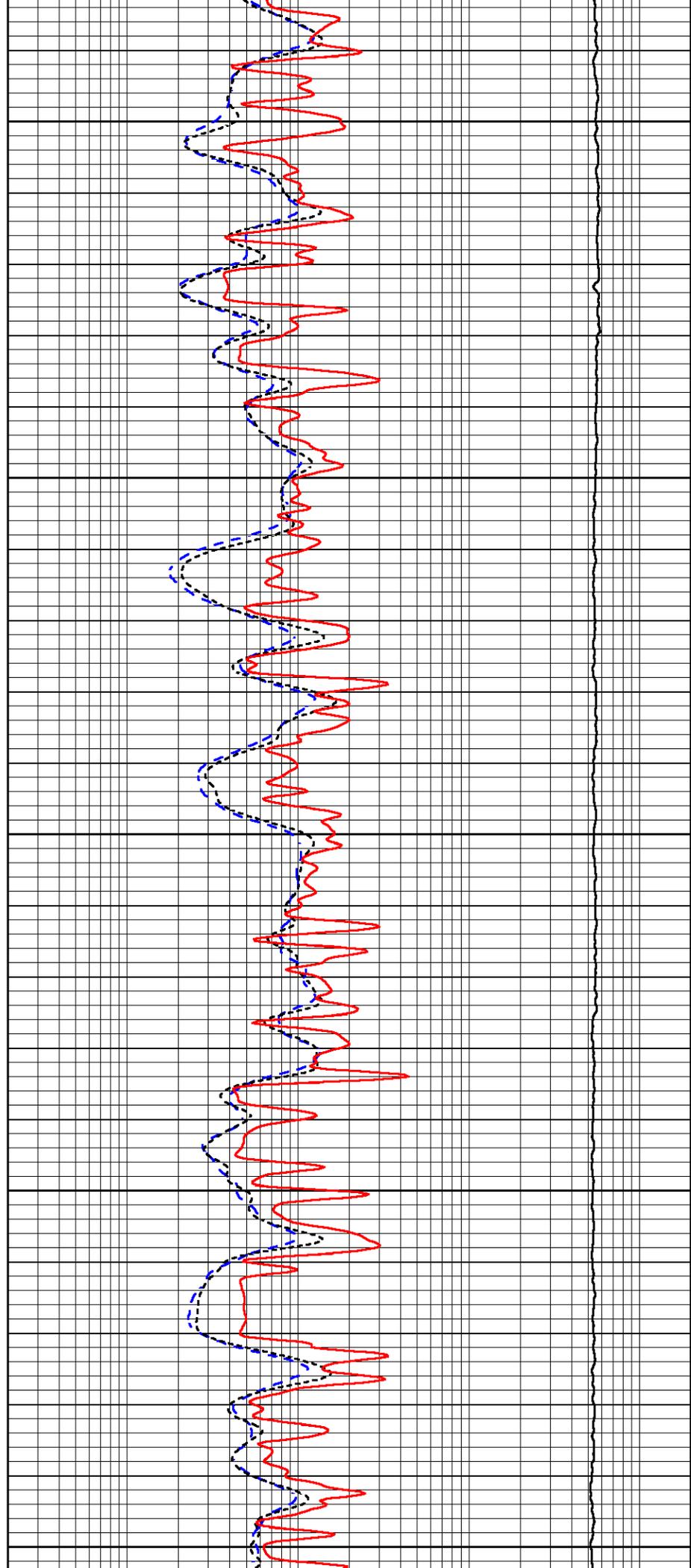
2900

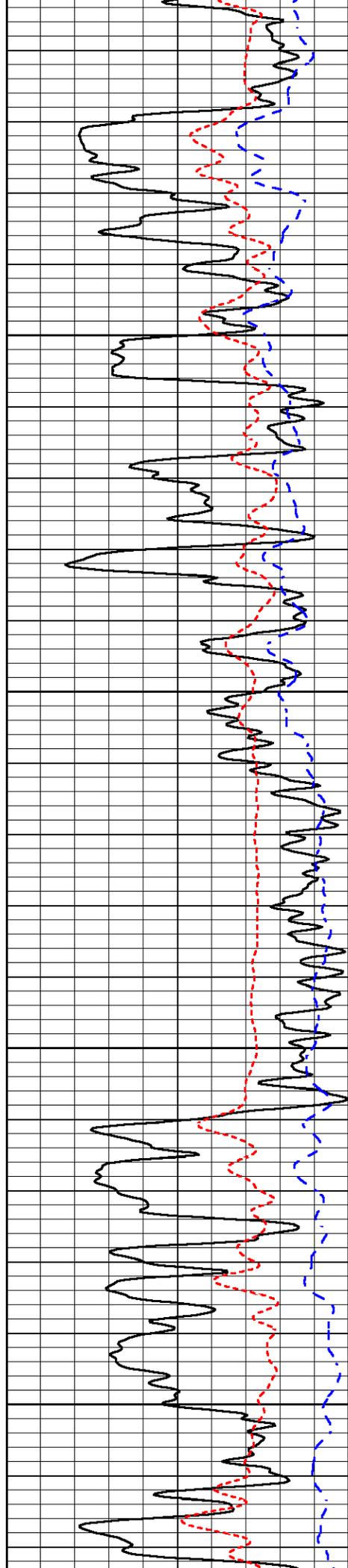
2950

3000

3050

3100



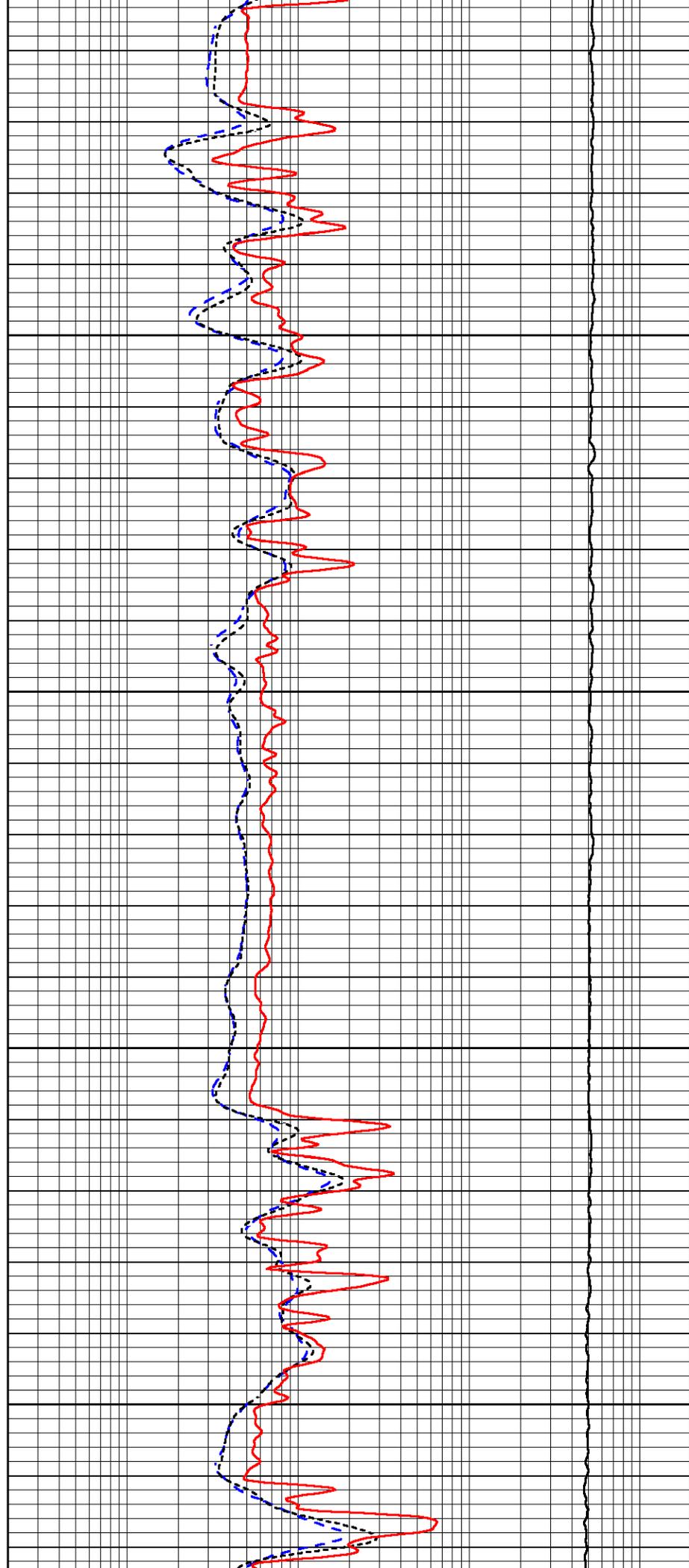


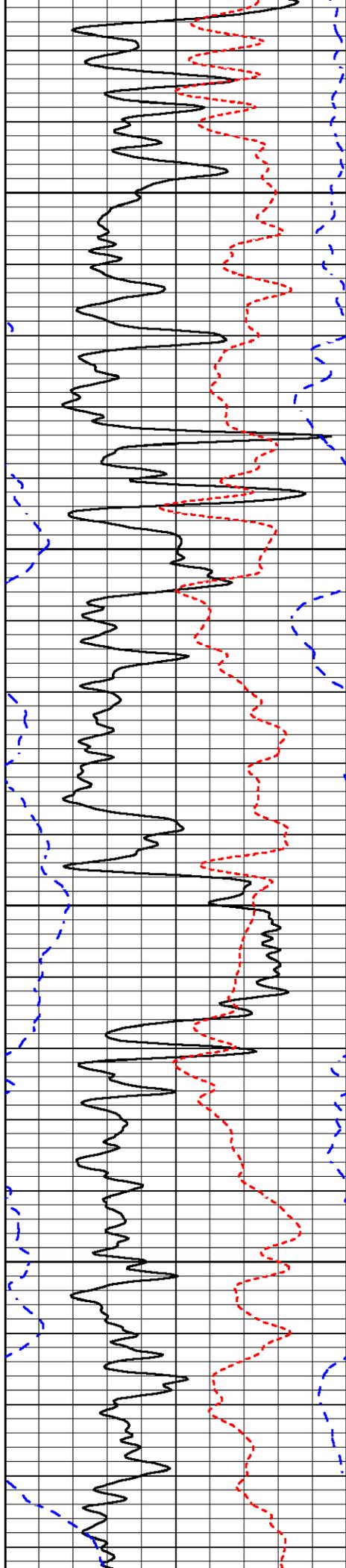
3150

3200

3250

3300



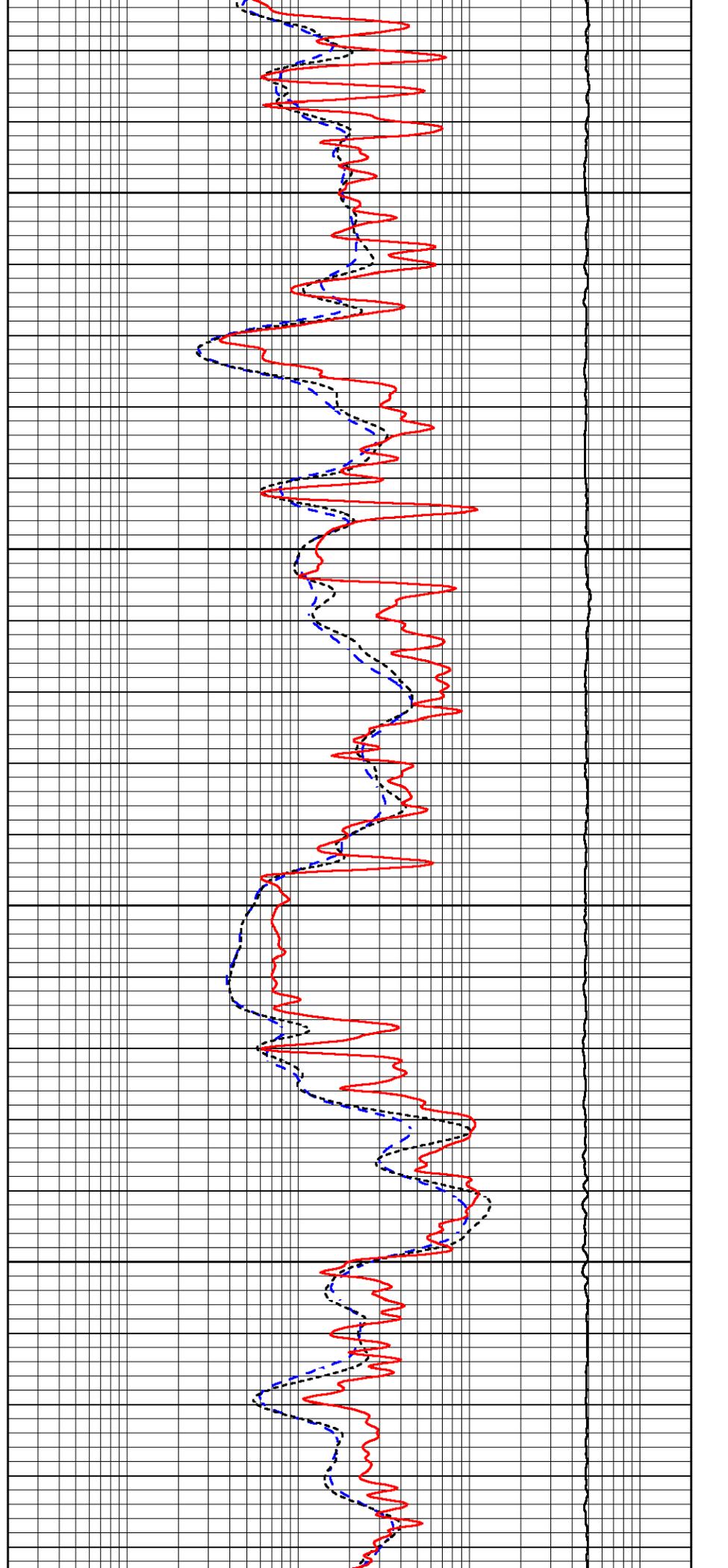


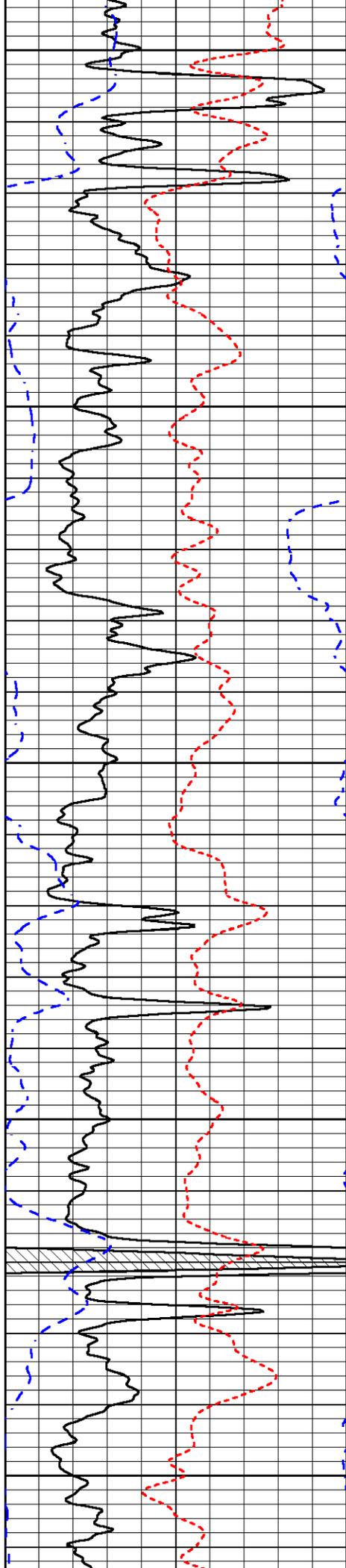
3350

3400

3450

3500





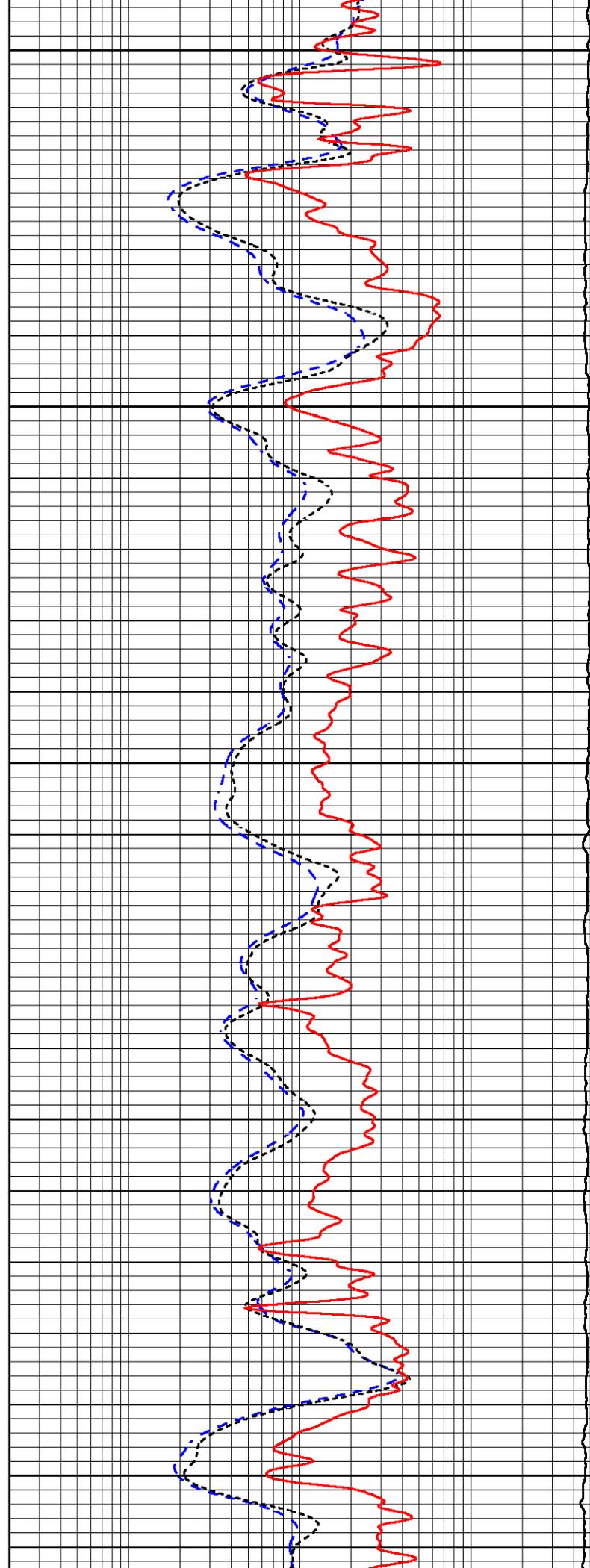
3550

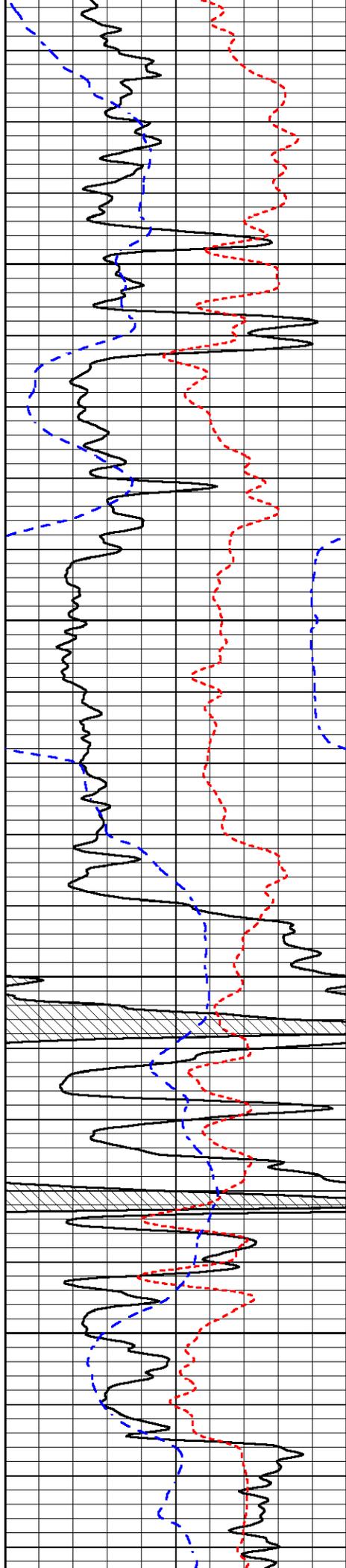
3600

3650

3700

3750



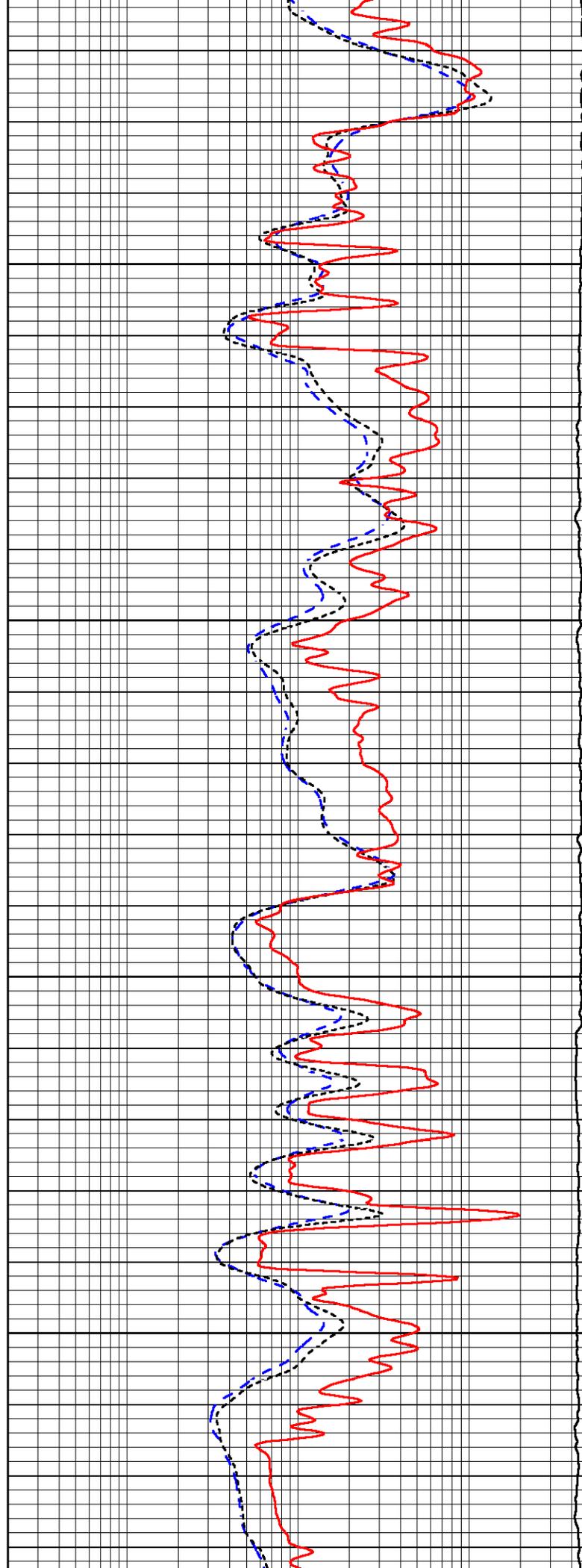


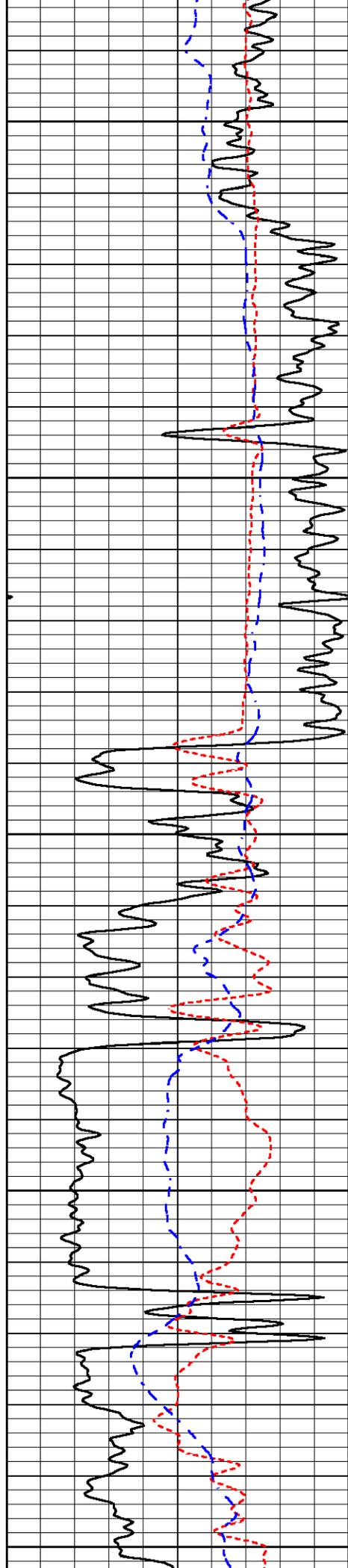
3800

3850

3900

3950





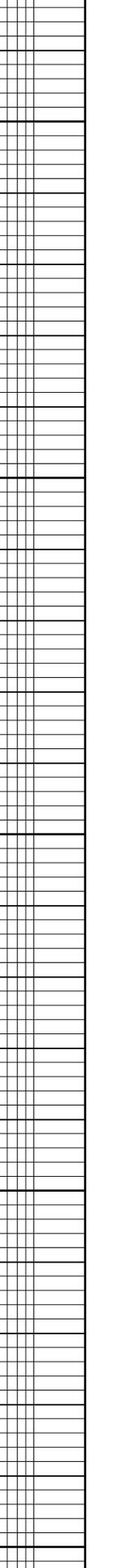
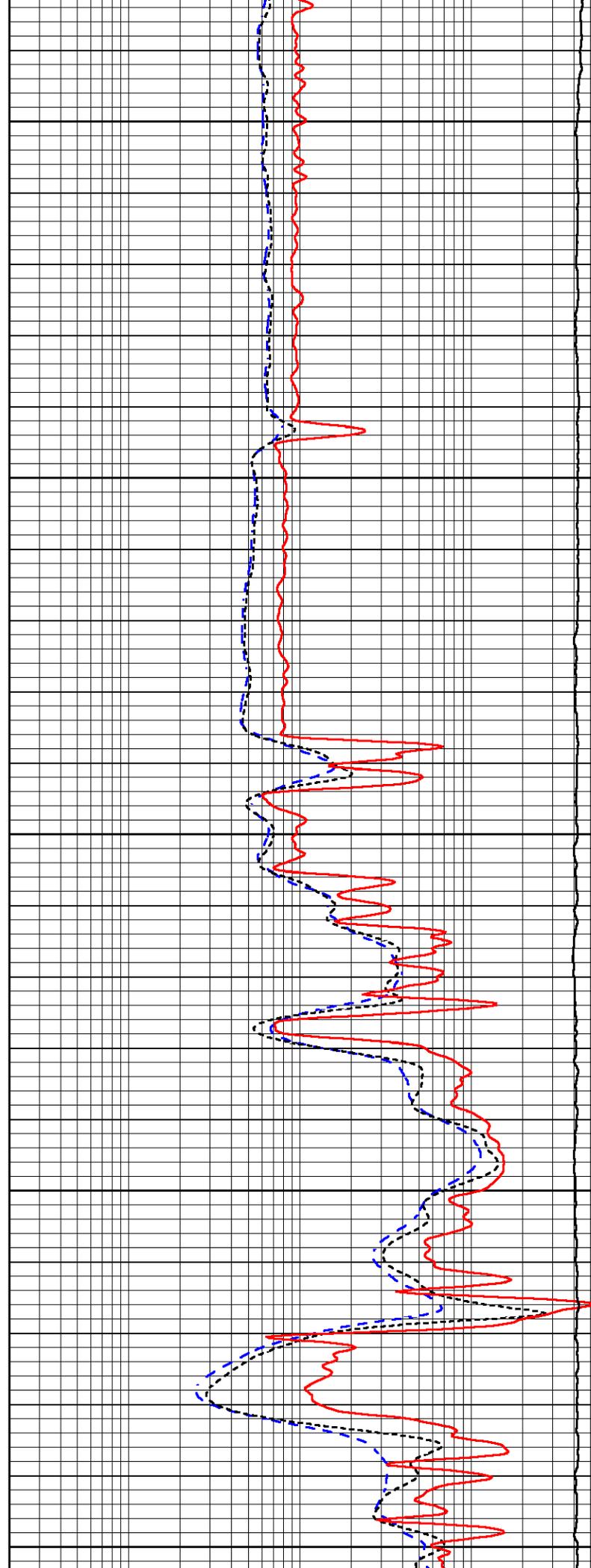
4000

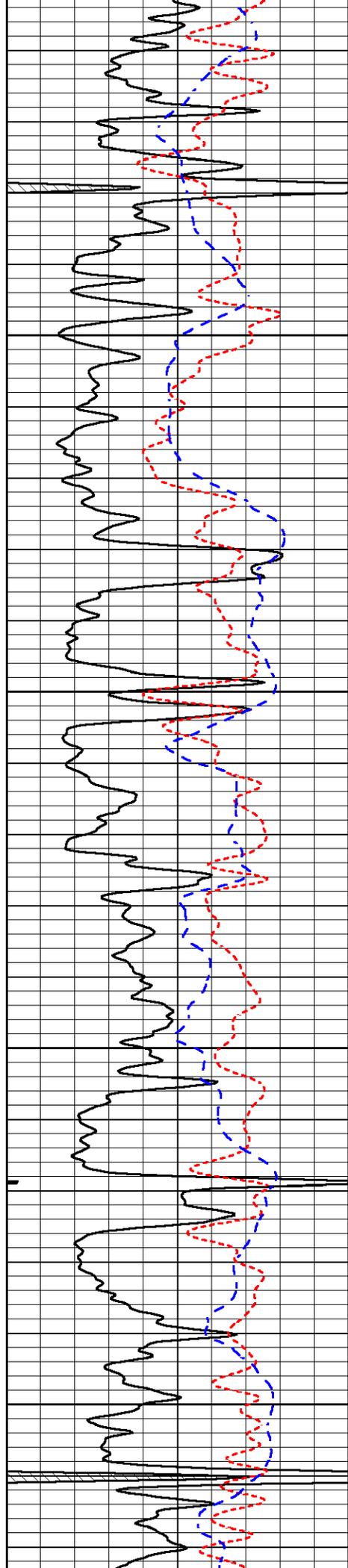
4050

4100

4150

4200



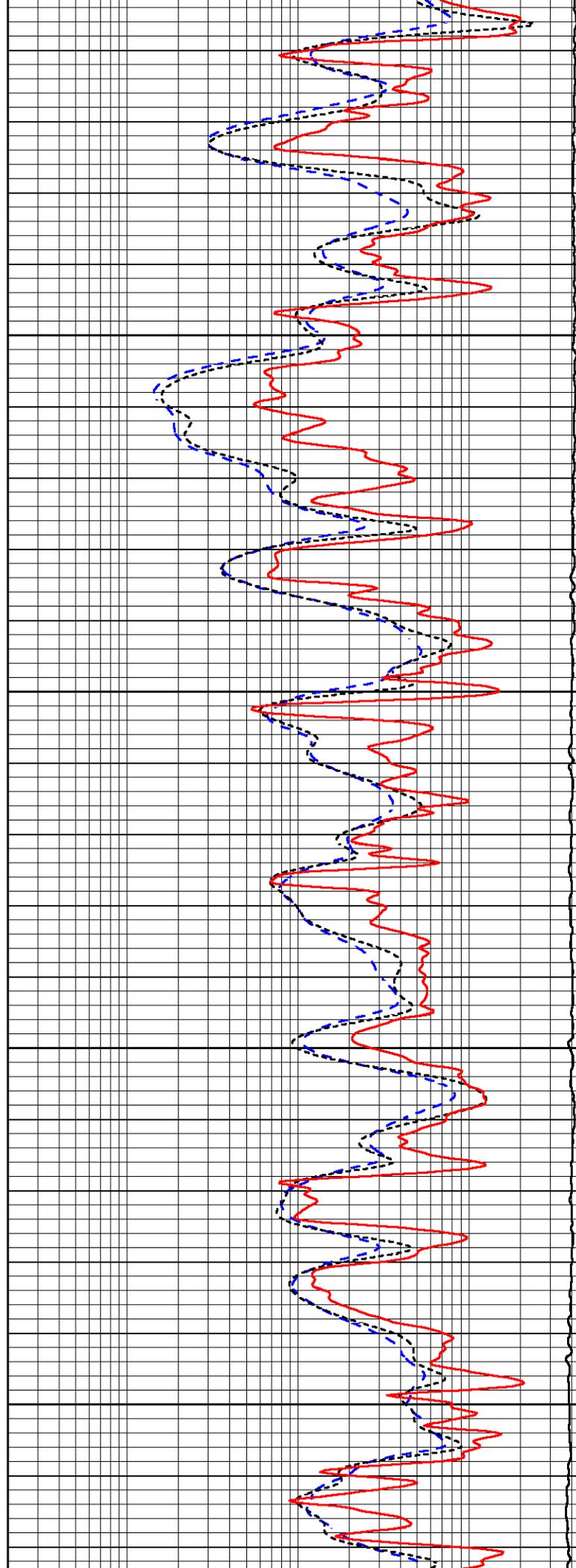


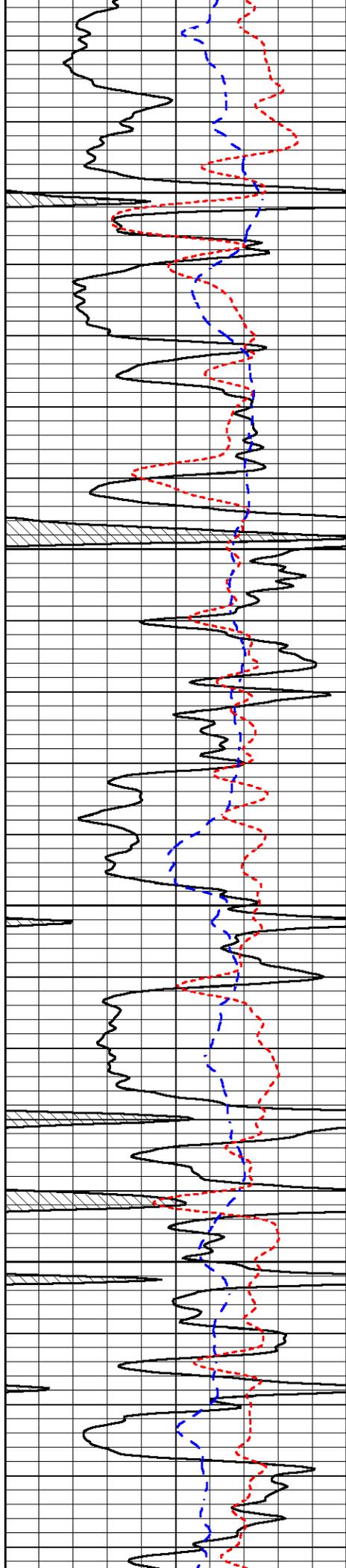
4250

4300

4350

4400



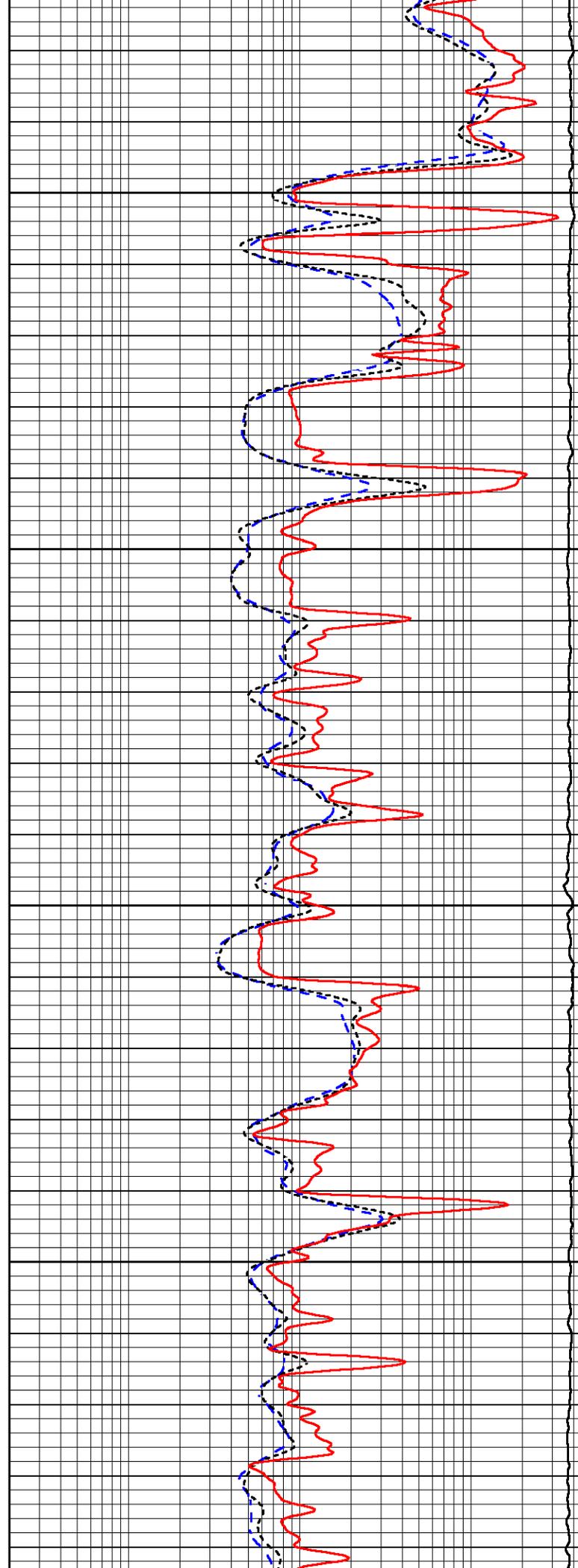


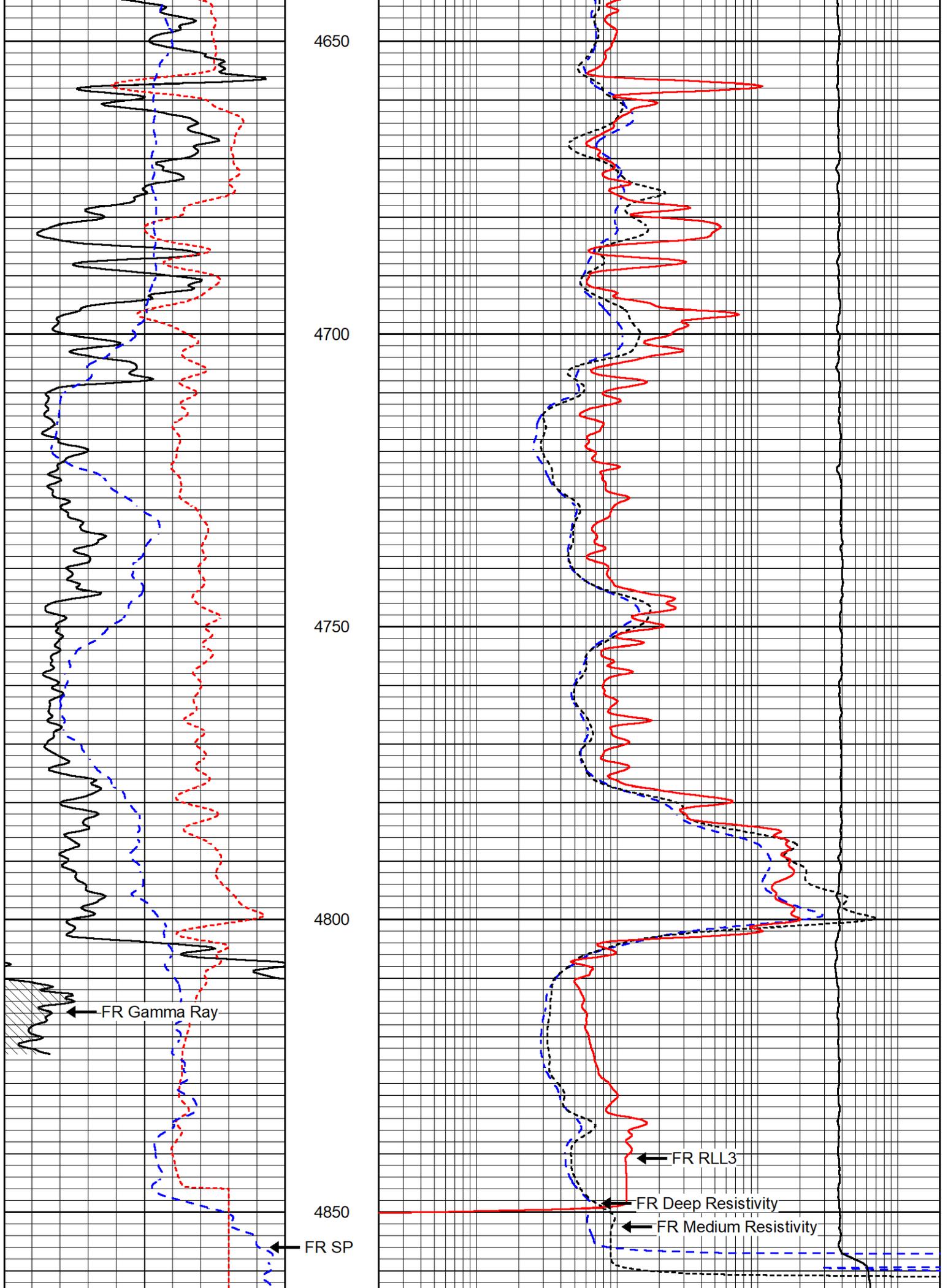
4450

4500

4550

4600





4650

4700

4750

4800

4850

FR Gamma Ray

FR SP

FR RLL3

FR Deep Resistivity

FR Medium Resistivity

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0



MIDWEST WIRELINE

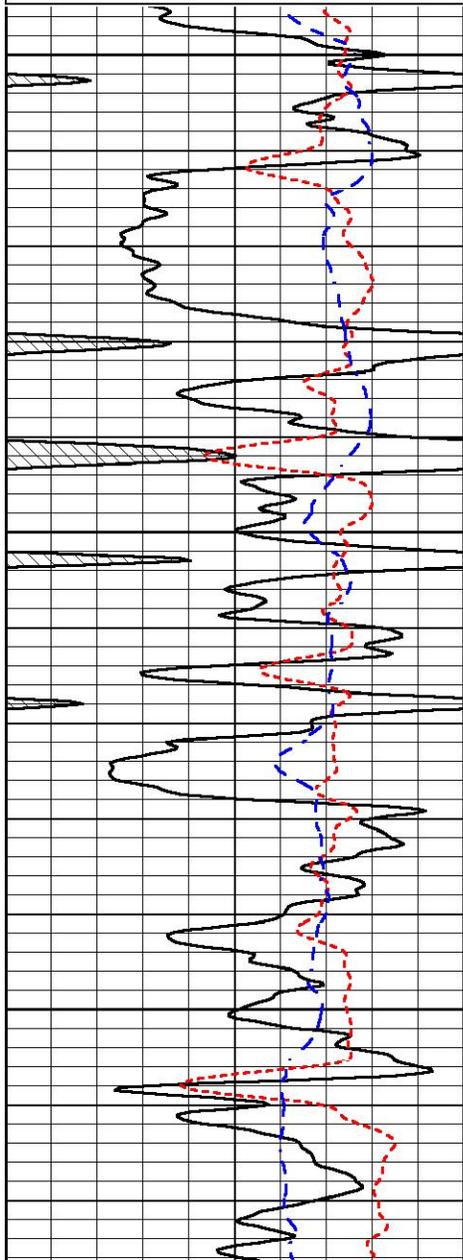
REPEAT SECTION

REPEAT PASS

Database File griffin_rea 2.db
 Dataset Pathname stkml/pass2.10
 Presentation Format _dil
 Dataset Creation Sun Sep 25 20:38:46 2022
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

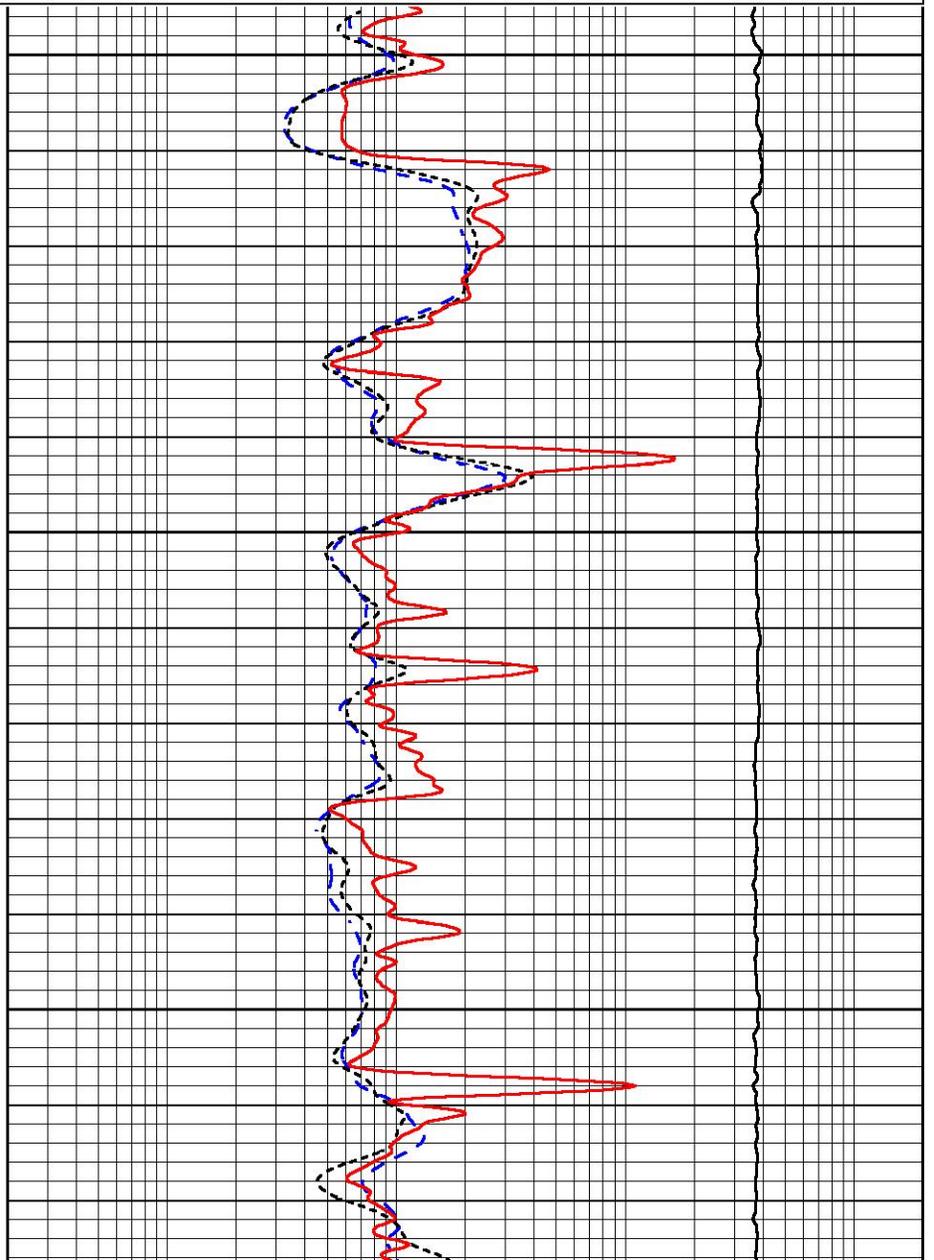
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

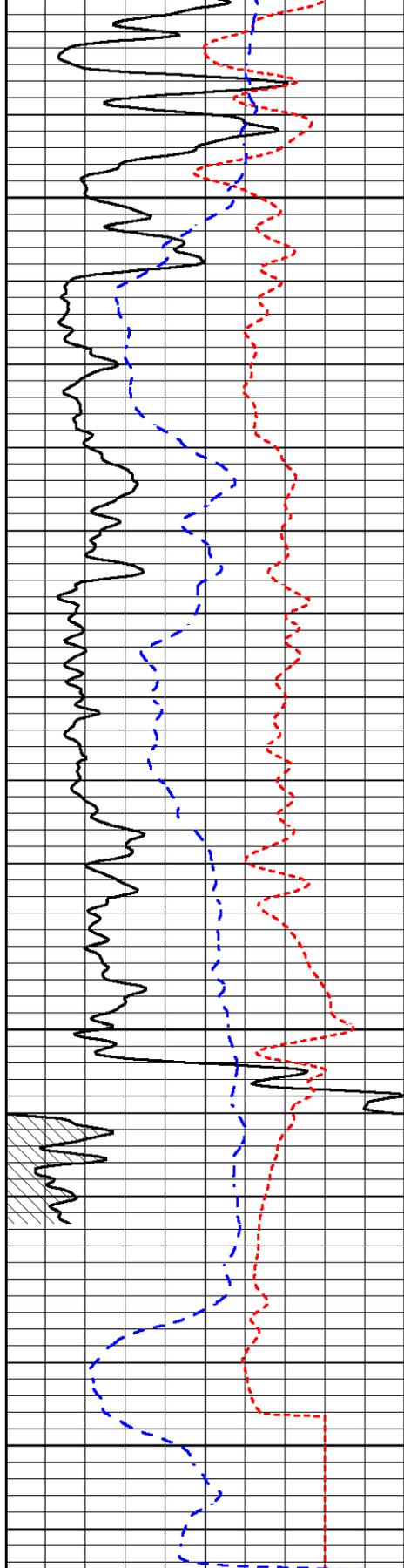


4550

4600

4650





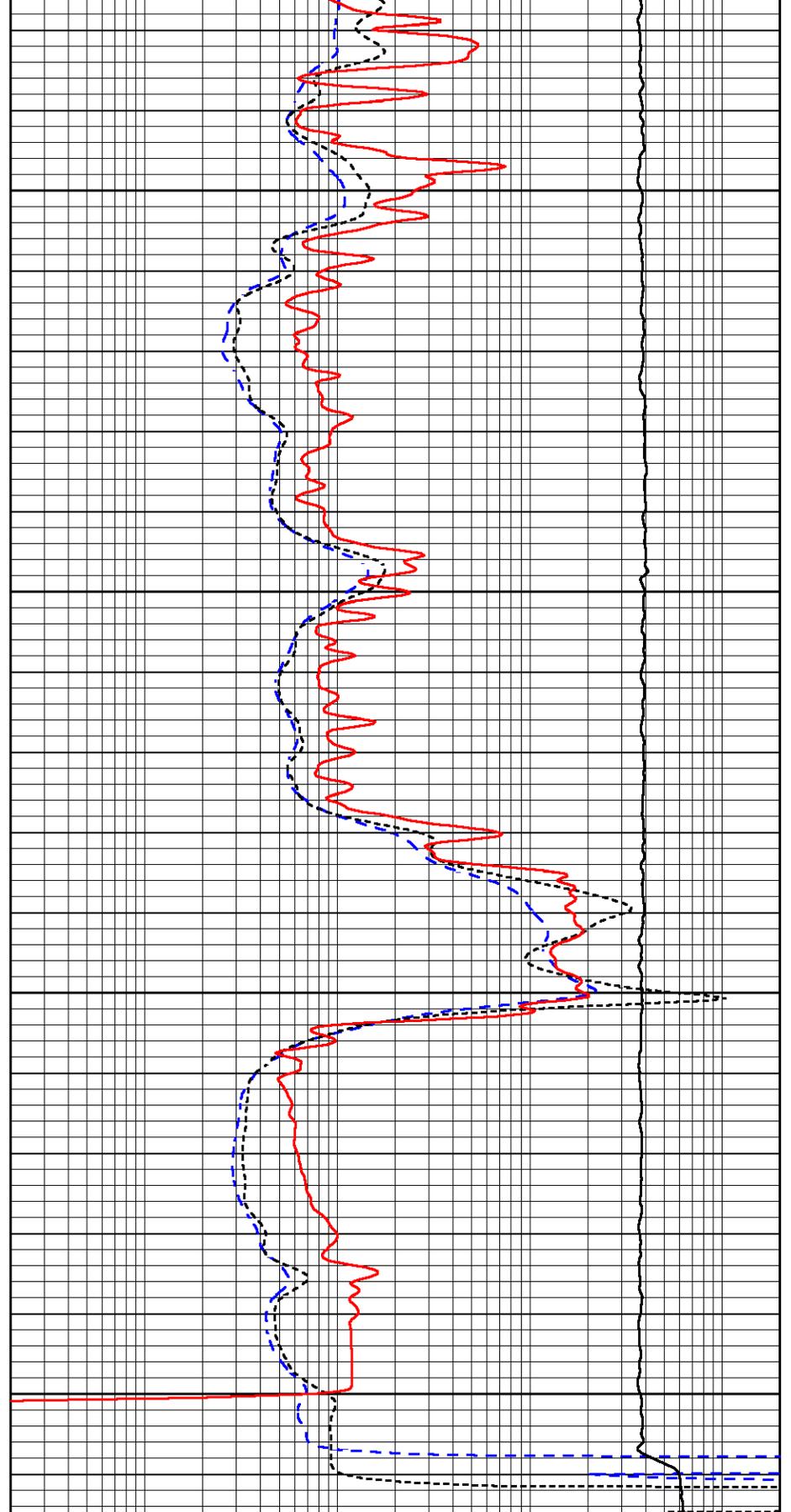
4700

4750

4800

4850

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

Database File griffin_rea 2.db
 Dataset Pathname stkml/pass3.11
 Dataset Creation Sun Sep 25 20:36:22 2022

Dual Induction Calibration Report

Serial-Model: 501 HT-M&W
 Surface Cal Performed: Thu Sep 22 17:20:27 2022

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.455	-37.000
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.305	-35.000

Microlog Calibration Report

Serial-Model: 402-PSIML
 Performed: Thu Sep 22 17:20:33 2022

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	20000.0000	-1.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	22000.0000	-0.7000
Caliper	1.0052	1.0858	5.0000	16.5000	in	120.0000	-115.8000

Compensated Density Calibration Report

Serial-Model: 307-11-M&W
 Source #: 20762B
 Master Calibration Performed: Sat Aug 27 10:20:16 2022

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3600.52	4768.22	cps
Aluminum	2.670	g/cc	693.98	3106.20	cps
Spine Angle = 75.41			Density/Spine Ratio = 0.538		
	Size		Reading		
Small Ring	6.00	in	1.16		
Large Ring	18.00	in	1.01		

Compensated Neutron Calibration Report

Serial Number: 207-MW
 Tool Model: M&W

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
----------	----------	----------	--------

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

POST-SURVEY VERIFICATION

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

Gamma Ray Calibration Report

Serial Number:	106	
Tool Model:	M&W	
Performed:	Fri Dec 3 15:10:46 2021	
Calibrator Value:	500.0	GAPI
Background Reading:	24.0	cps
Calibrator Reading:	637.0	cps
Sensitivity:	0.5500	GAPI/cps



MIDWEST WIRELINE

Company	Griffin Management, LLC
Well	Rea #2
Field	
County	Pratt
State	Kansas