



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company American Warrior, Inc.
 Well Hubin Unit #1-15
 Field Lippoldt West
 County Hodgeman
 State Kansas

Company American Warrior, Inc.
 Well Hubin Unit #1-15
 Field Lippoldt West
 County Hodgeman State Kansas

Location: API #: 15-083-21984-00-00
 245' FNL & 1891' FWL
 SEC 15 TWP 23S RGE 23W
 Permanent Datum Ground Level Elevation 2318'
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 MEL
 Elevation
 K.B. 2329'
 D.F. N/A
 G.L. 2318'

Date	4/9/2021
Run Number	One
Depth Driller	4875'
Depth Logger	4878'
Bottom Logged Interval	4877'
Top Log Interval	250'
Casing Driller	8.625" @ 268'
Casing Logger	266'
Bit Size	7.875"
Type Fluid in Hole	Chemical
Salinity, ppm CL	3300
Density / Viscosity	9.4 53
pH / Fluid Loss	11.0 7.6
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.75 @ 67
Rmt @ Meas. Temp	.56 @ 67
Rmc @ Meas. Temp	1.01 @ 67
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.40 @ 125
Operating Rig Time	2 Hours
Max Rec. Temp. F	125 Deg/F
Equipment Number	P-24
Location	HAYS
Recorded By	J. Henrickson
Witnessed By	Kevin Timson

<<< 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.

Jetmore Kansas
 1 East o 219 Rd, 2 South to K Rd, 2 1/2 East,
 South Into

Log Measured From: Kelly Bushing 11 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: J. Henrickson
 Operator:
 Operator:
 Operator:

This Log Record Was Witnessed By

Primary Witness: Kevin Timson
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\American_warrior_hubin_unit_1_15.db
Dataset field/well/sdtackml/pass3.1/_vars_

Top - Bottom

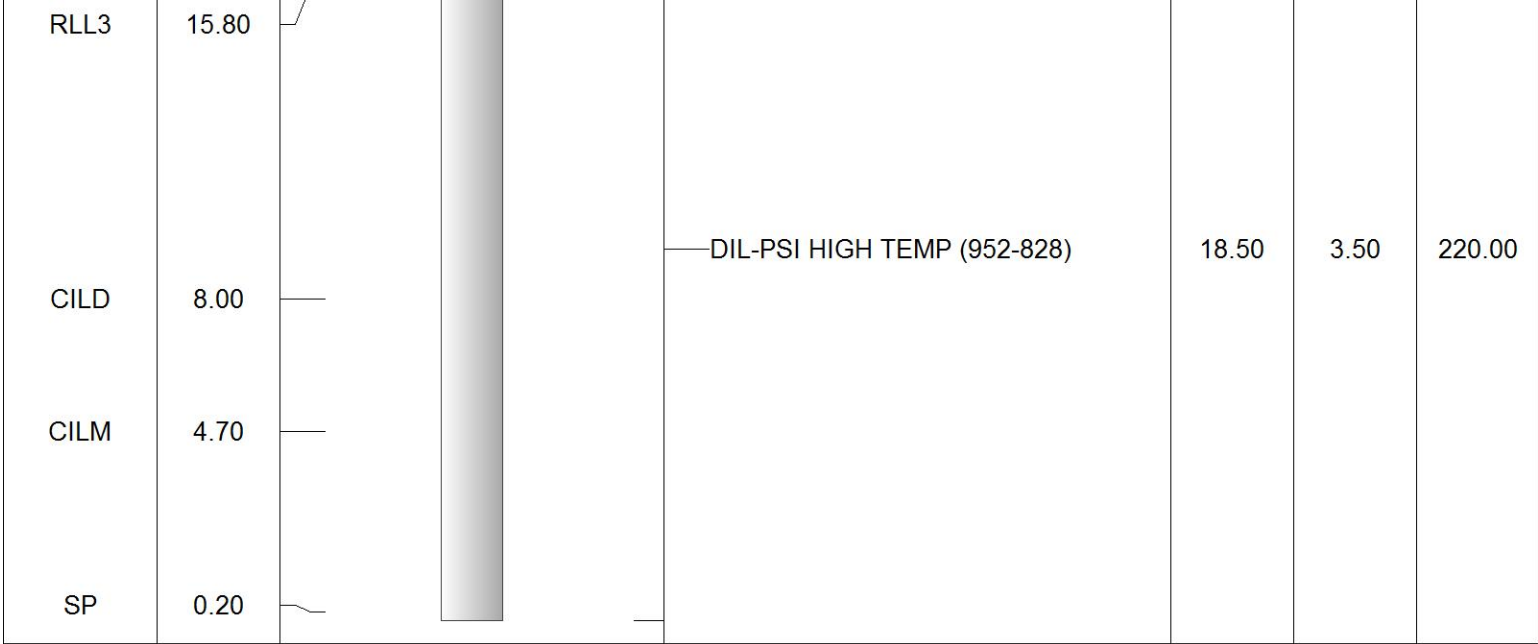
A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	125	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	300	65	Off	4878

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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	44.50		GR-M&W (233-M&W)	3.00	3.50	50.00	
CNLSC	41.40		CNT-M&W (207-MW)	5.50	3.50	100.00	
CNSSC	40.65						
				CDL-M&W (817-947)	8.50	4.00	250.00
LSD	32.35						
DCAL	32.33						
SSD	31.85						
				ML-PSI UDM ML (UDM-01) Stackable Microlog Tools	11.50	4.00	215.00
MCAL	20.87						
MI	20.87						
MN	20.87						
RLL3F	15.80						



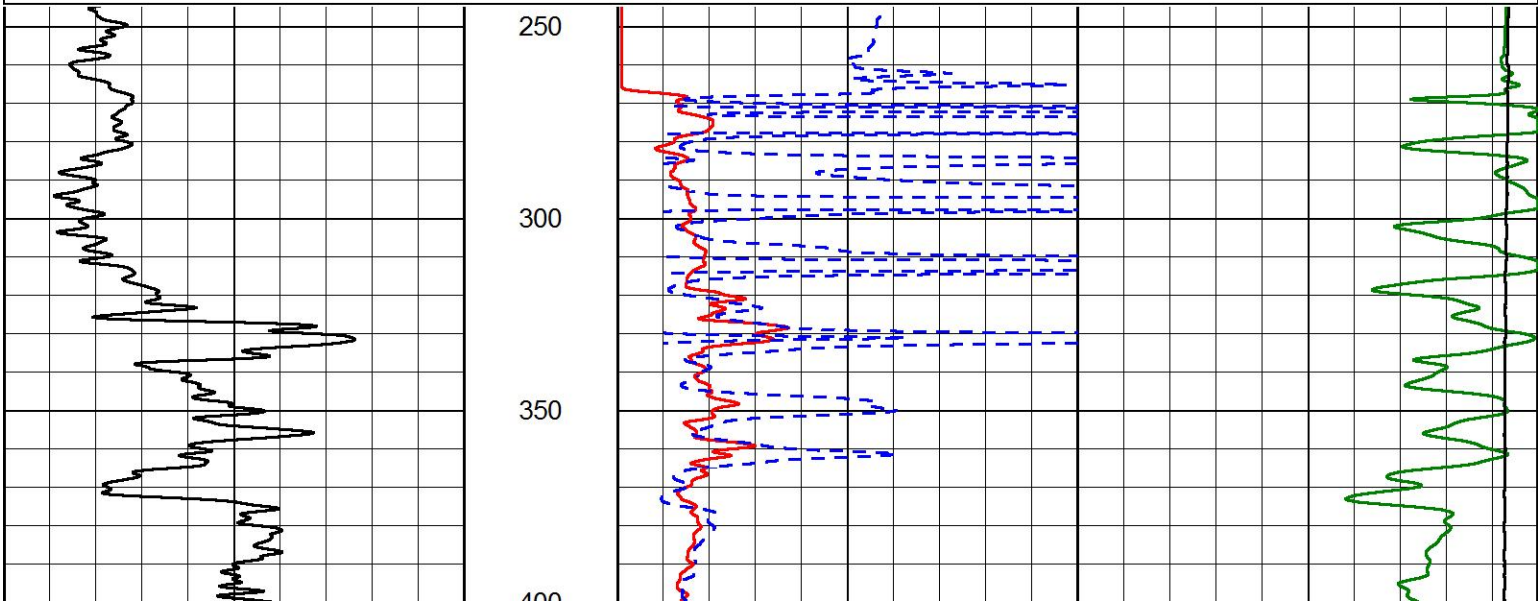
Dataset: american_warrior_hubin_unit_1_15.db: field/well/sdtackml/pass3.1
 Total length: 47.00 ft
 Total weight: 835.00 lb
 O.D.: 4.00 in

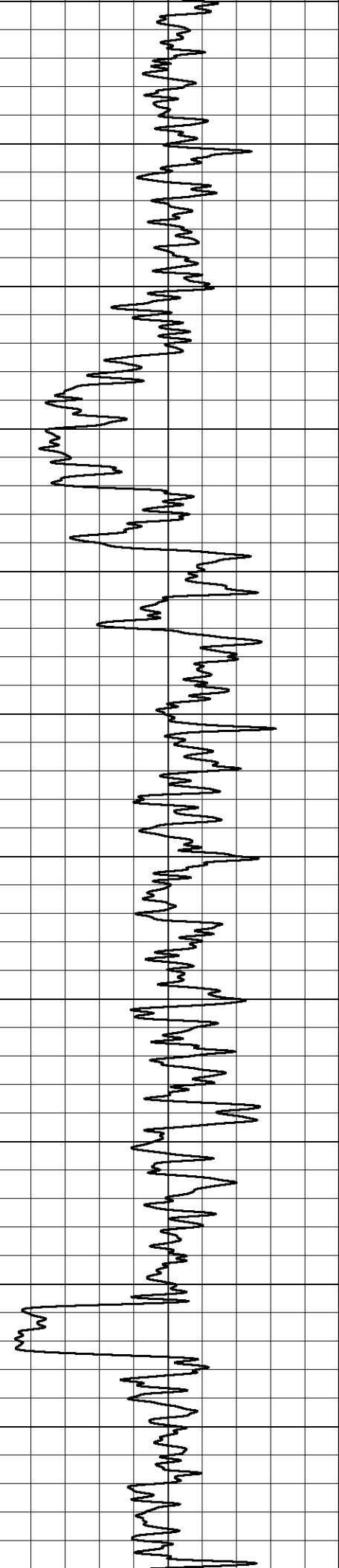


Main Pass

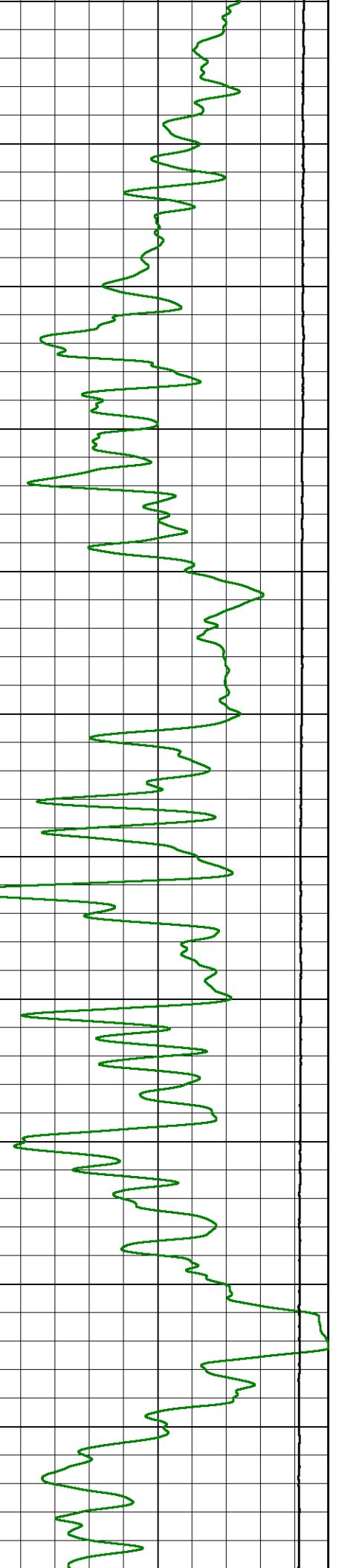
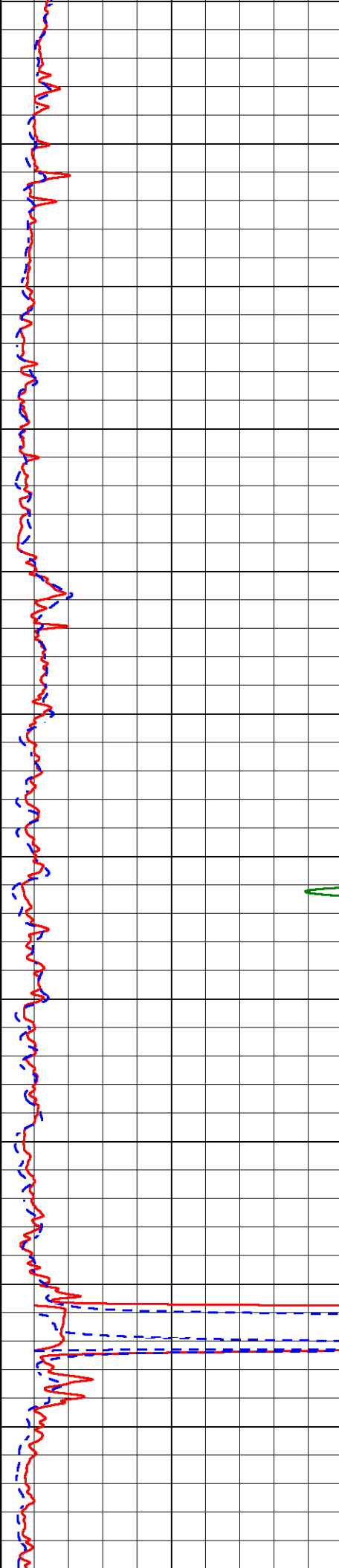
Database File: american_warrior_hubin_unit_1_15.db
 Dataset Pathname: sdtackml/pass3.1
 Presentation Format: dil2in
 Dataset Creation: Fri Apr 09 11:53:40 2021
 Charted by: Depth in Feet scaled 1:600

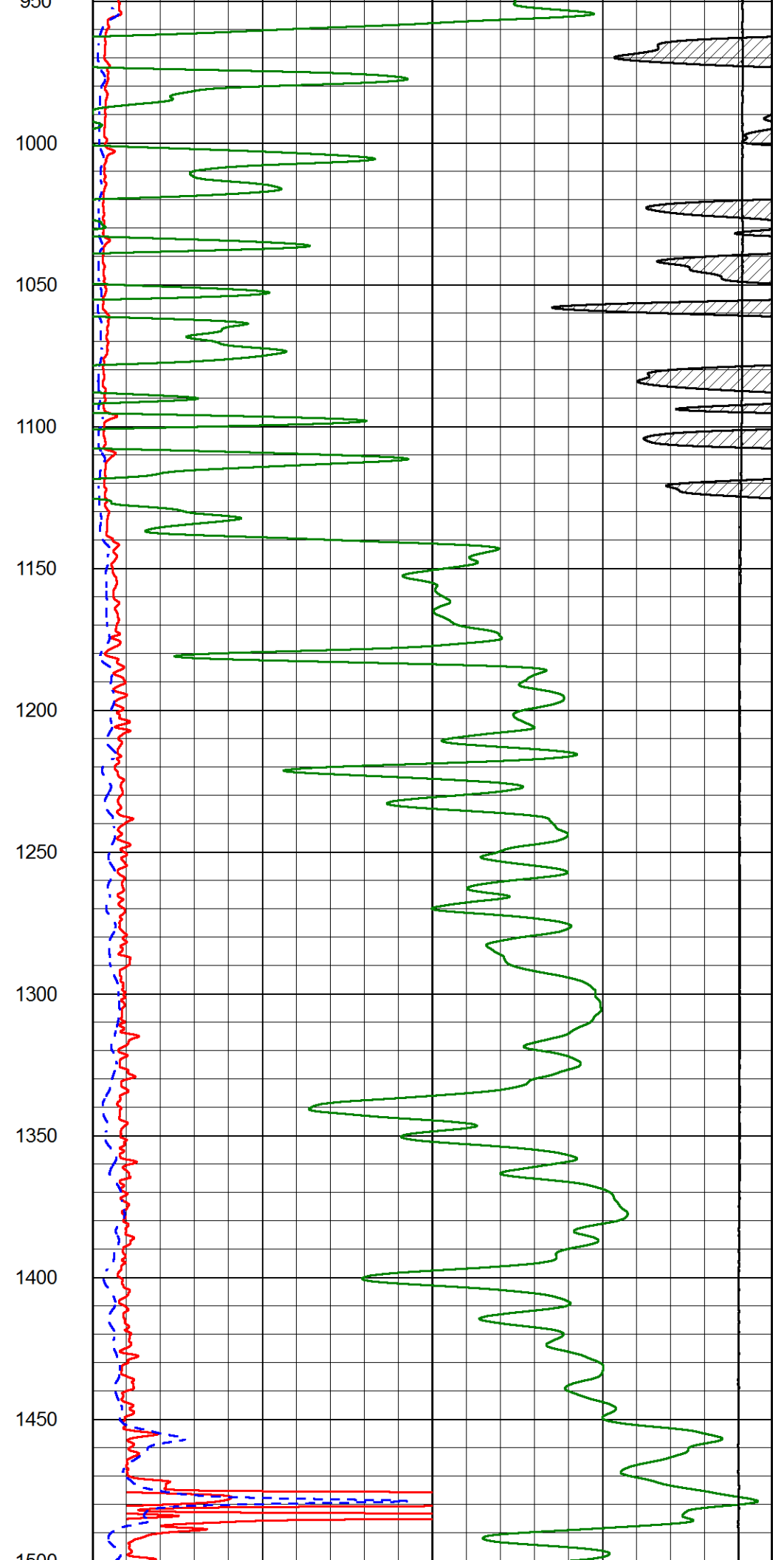
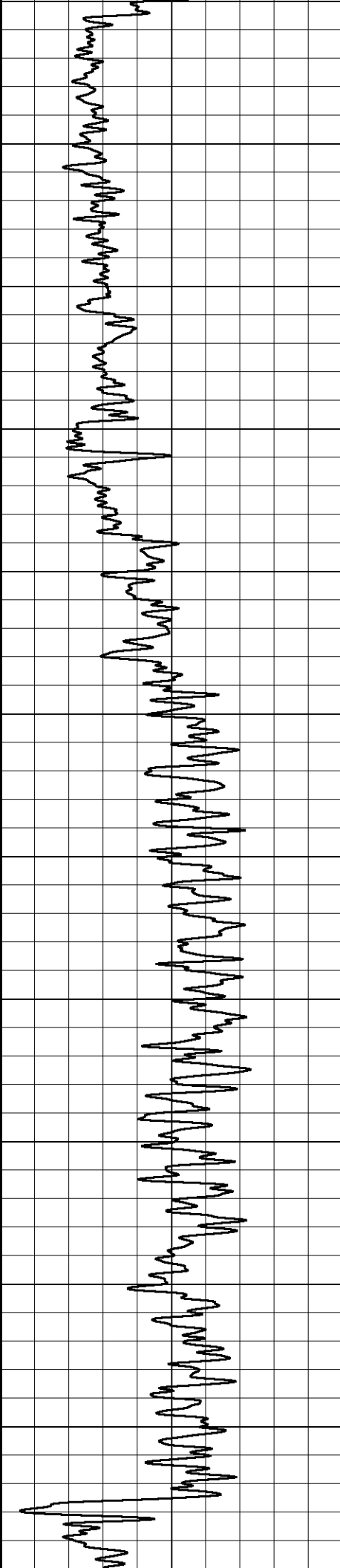
GAMMA RAY (GAPI)	0	150	1000	CONDUCTIVITY (mmho/m)	0	
			15000	Line Tension (lb)	0	
			0	RLL3 (Ohm-m)	50	
			0	DEEP RESISTIVITY (Ohm-m)	50	
			50	RLL3 (Ohm-m)	500	
		50	Deep Resistivity (Ohm-m)	500		

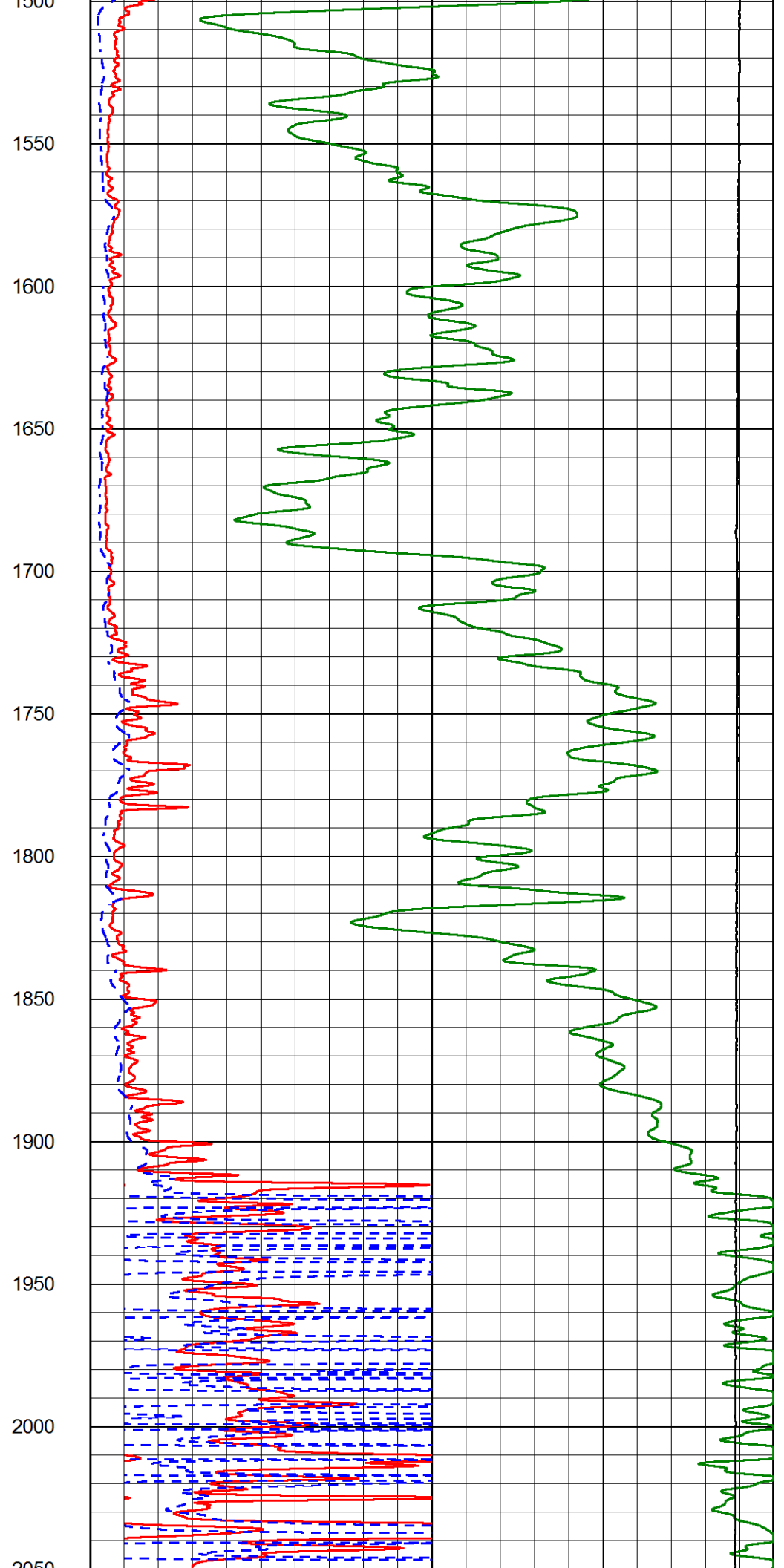
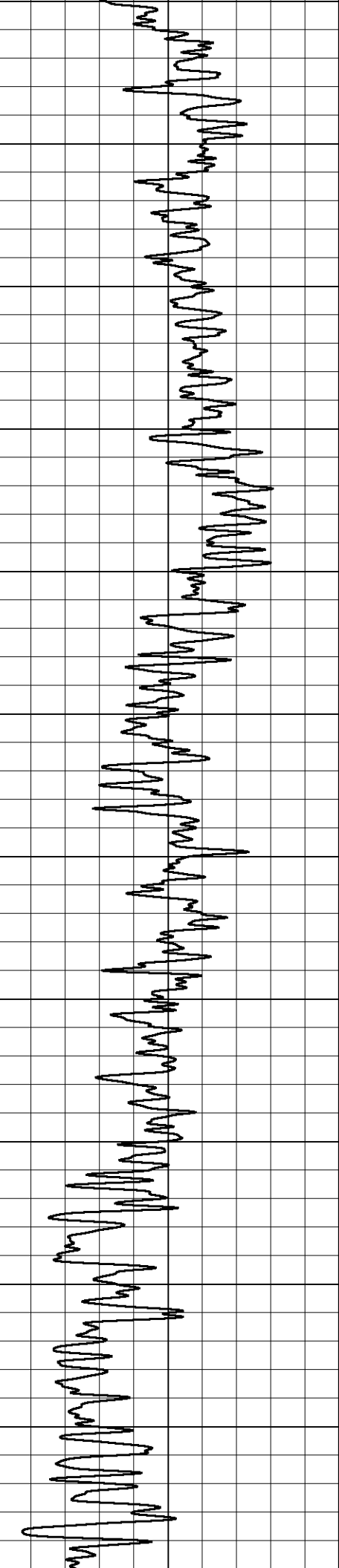


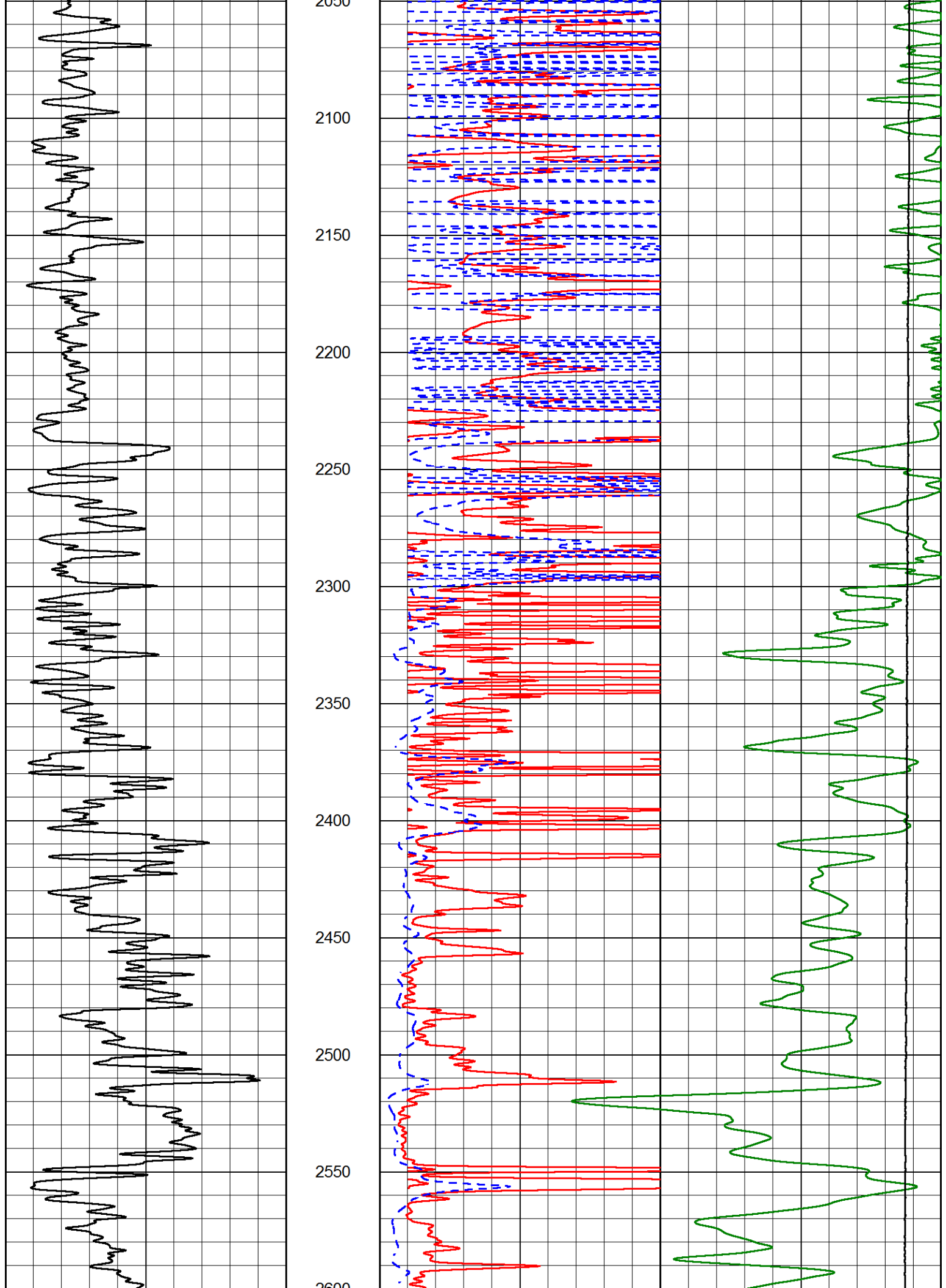


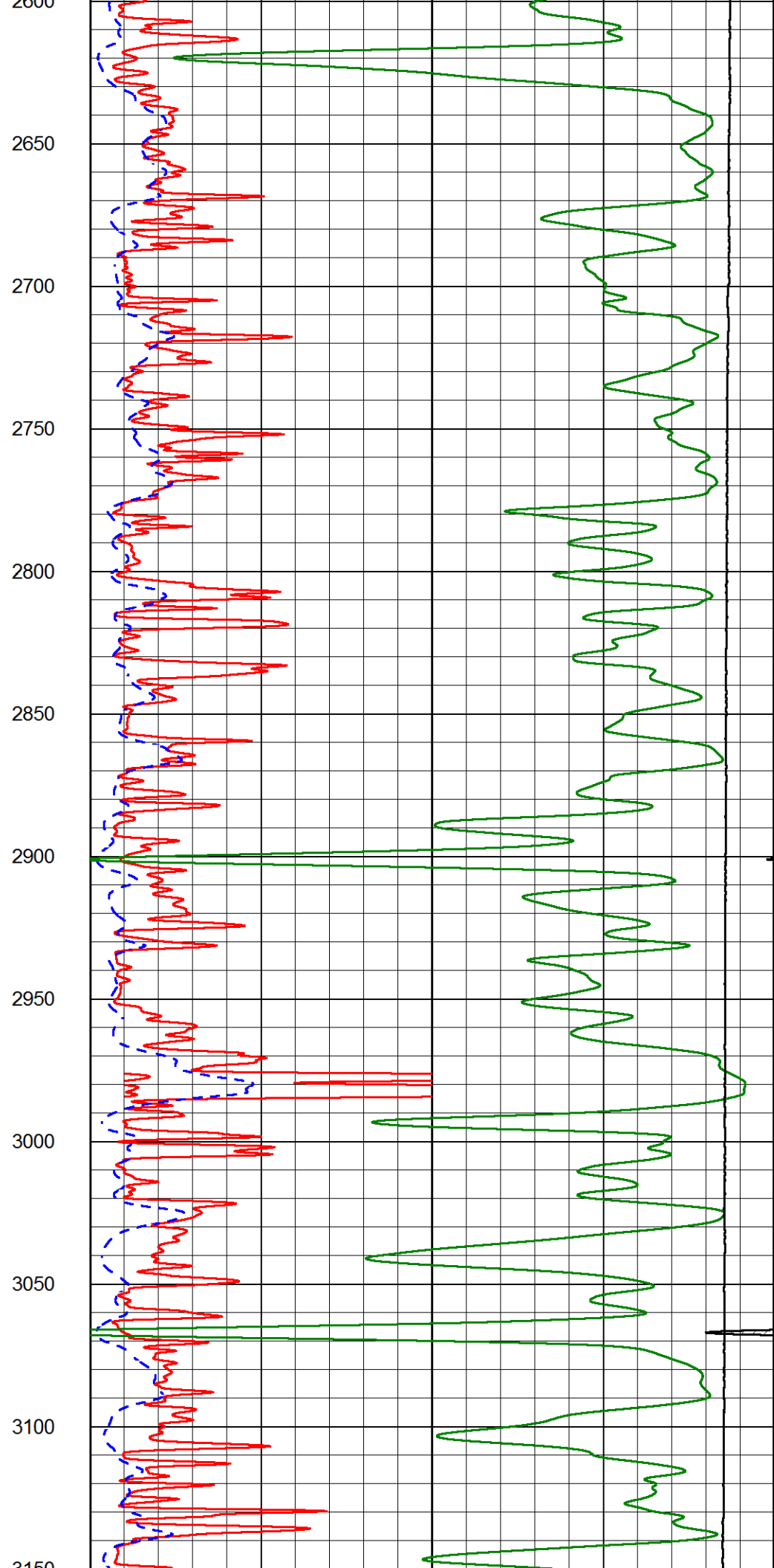
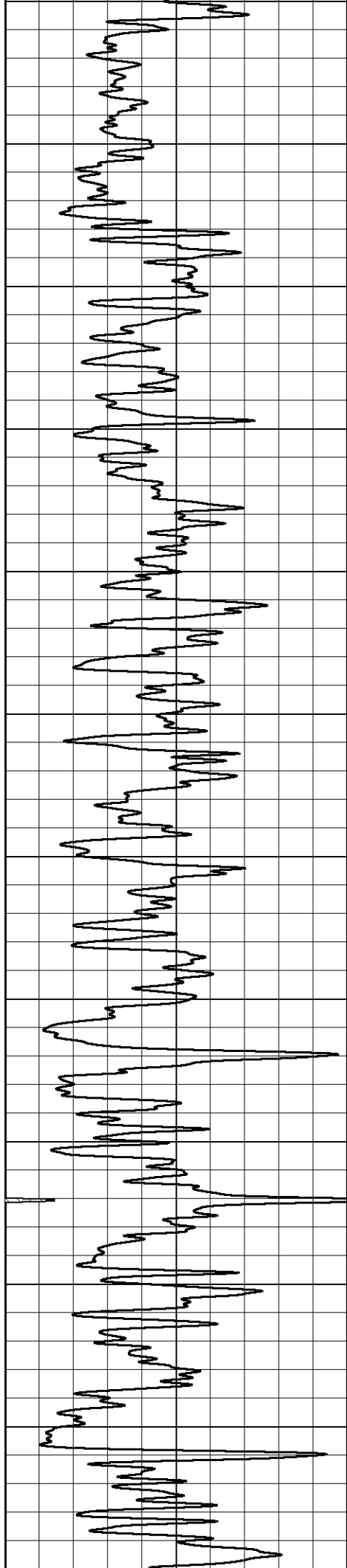
400
450
500
550
600
650
700
750
800
850
900
950

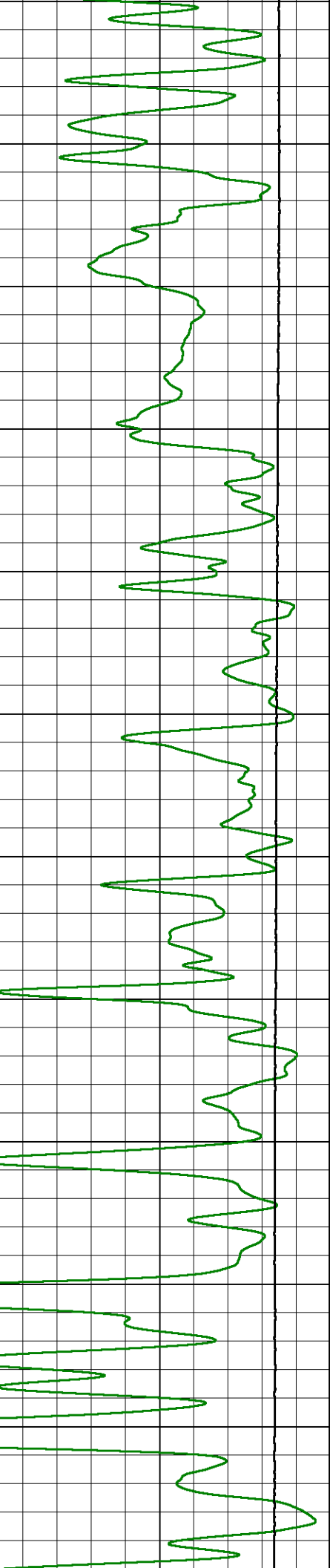
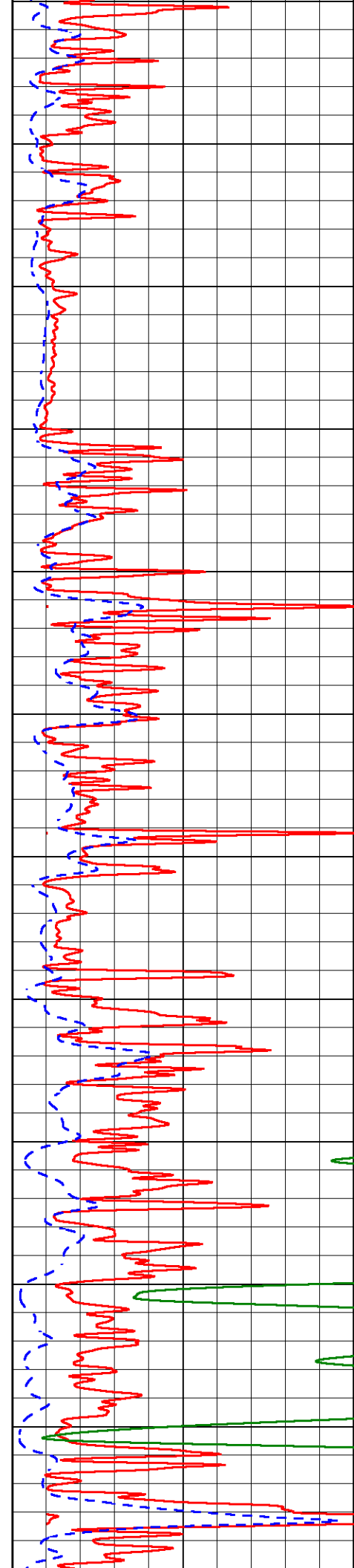
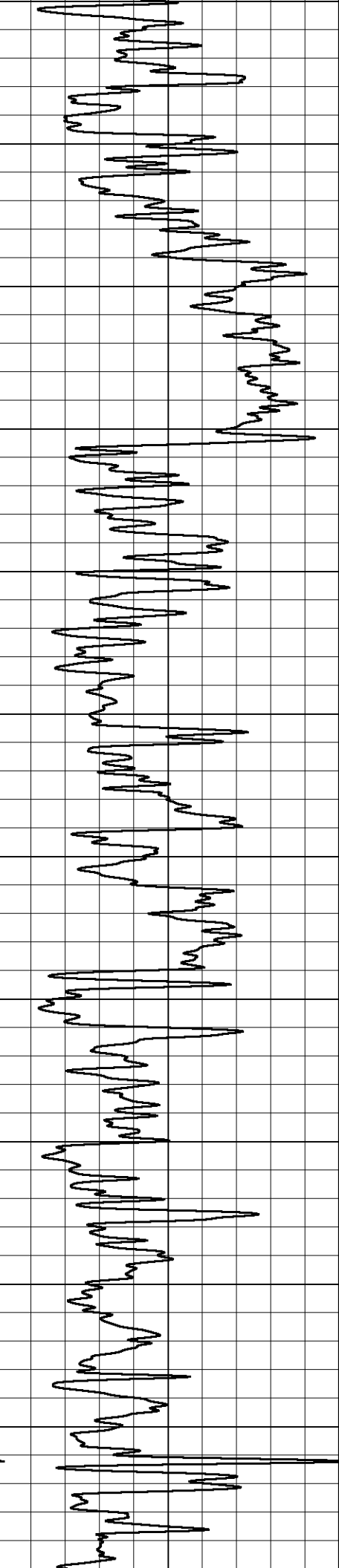


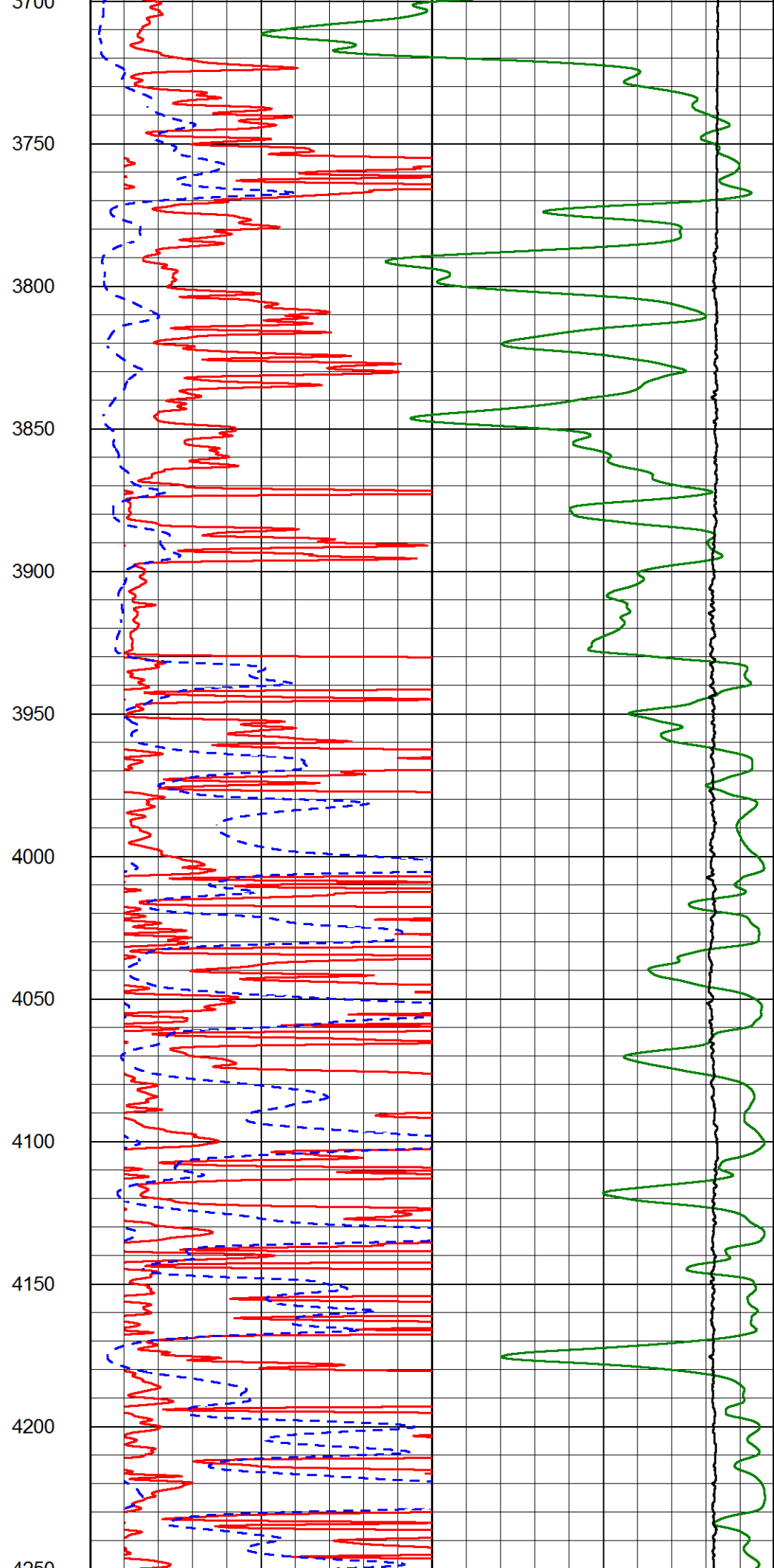
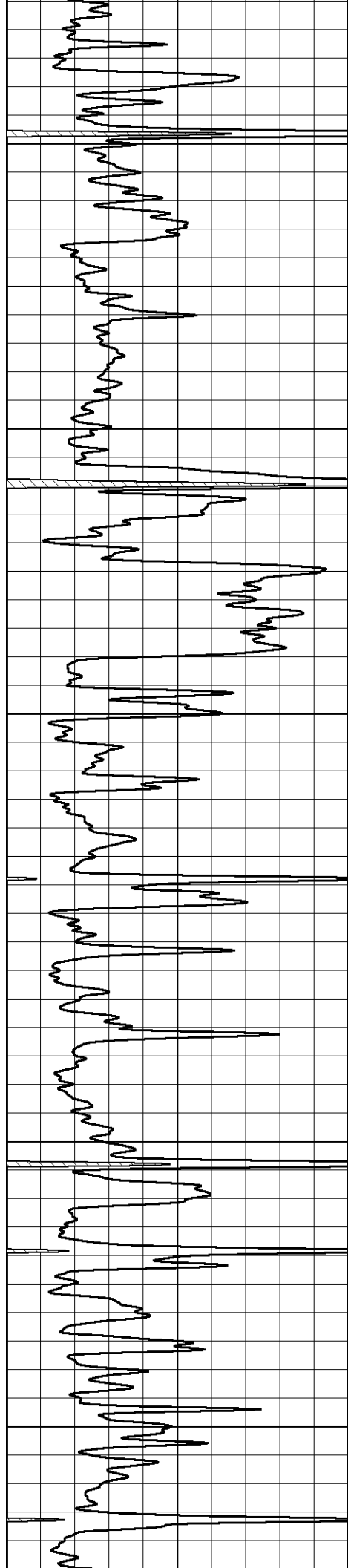


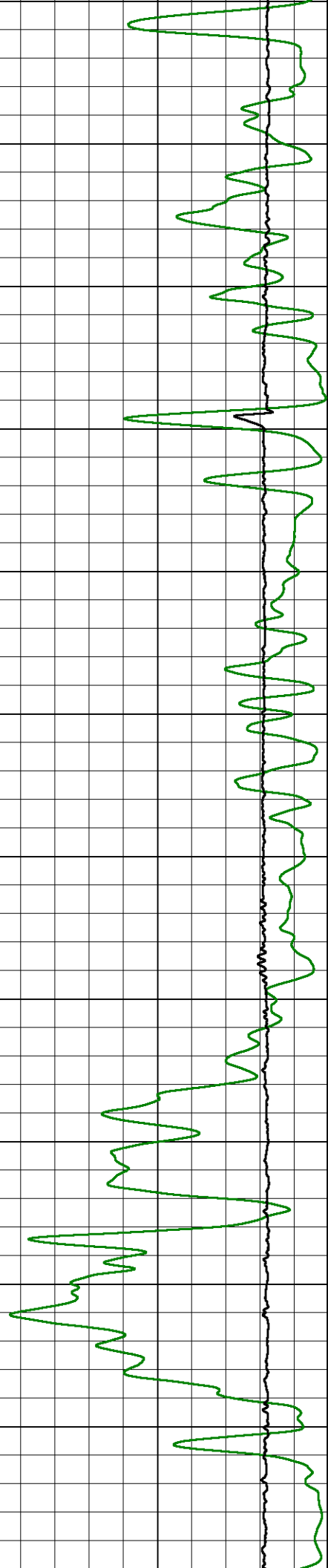
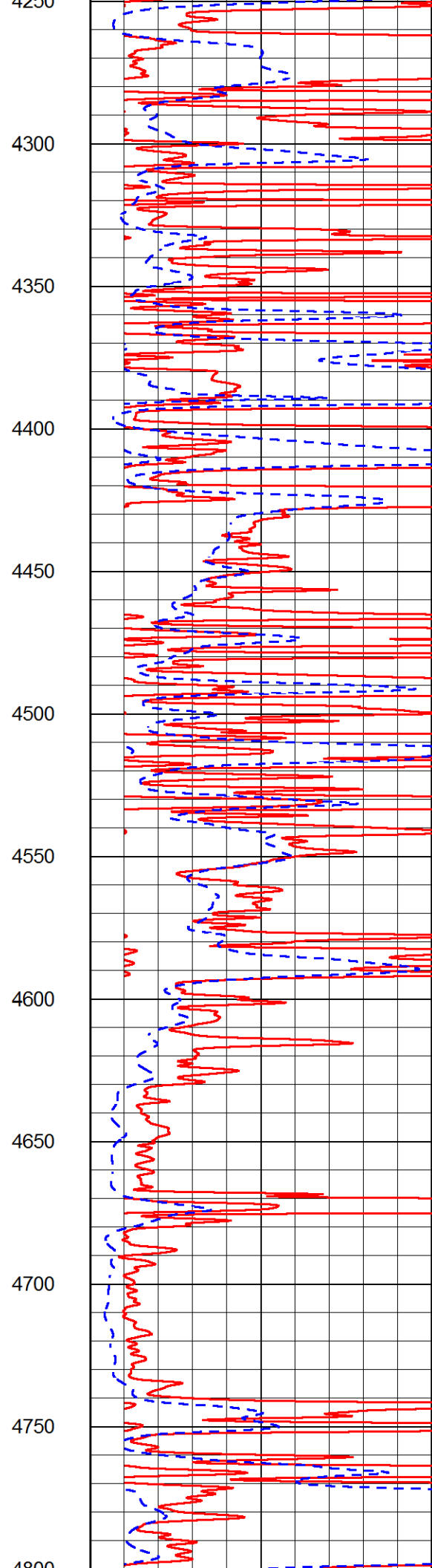
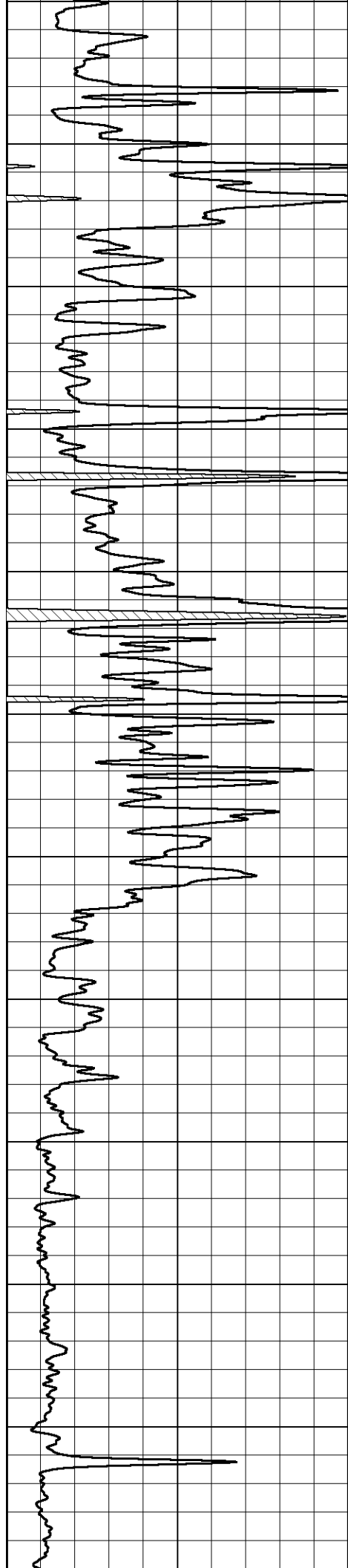


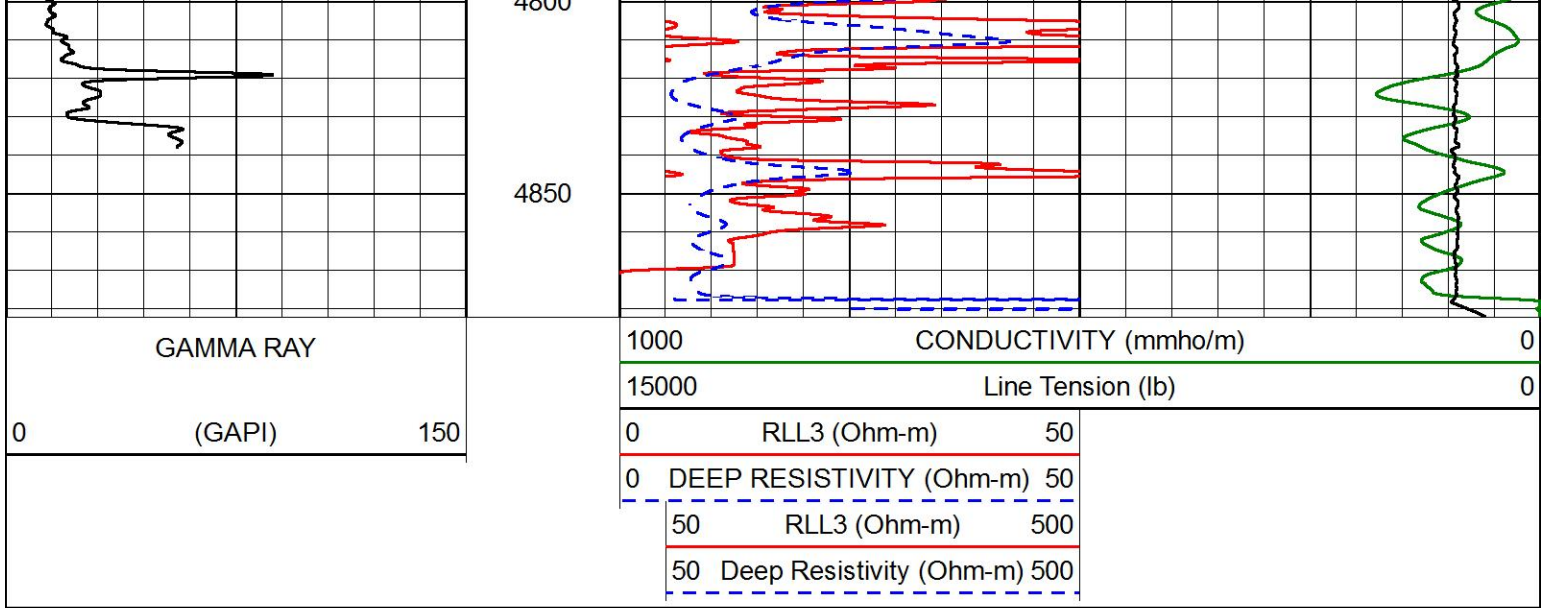










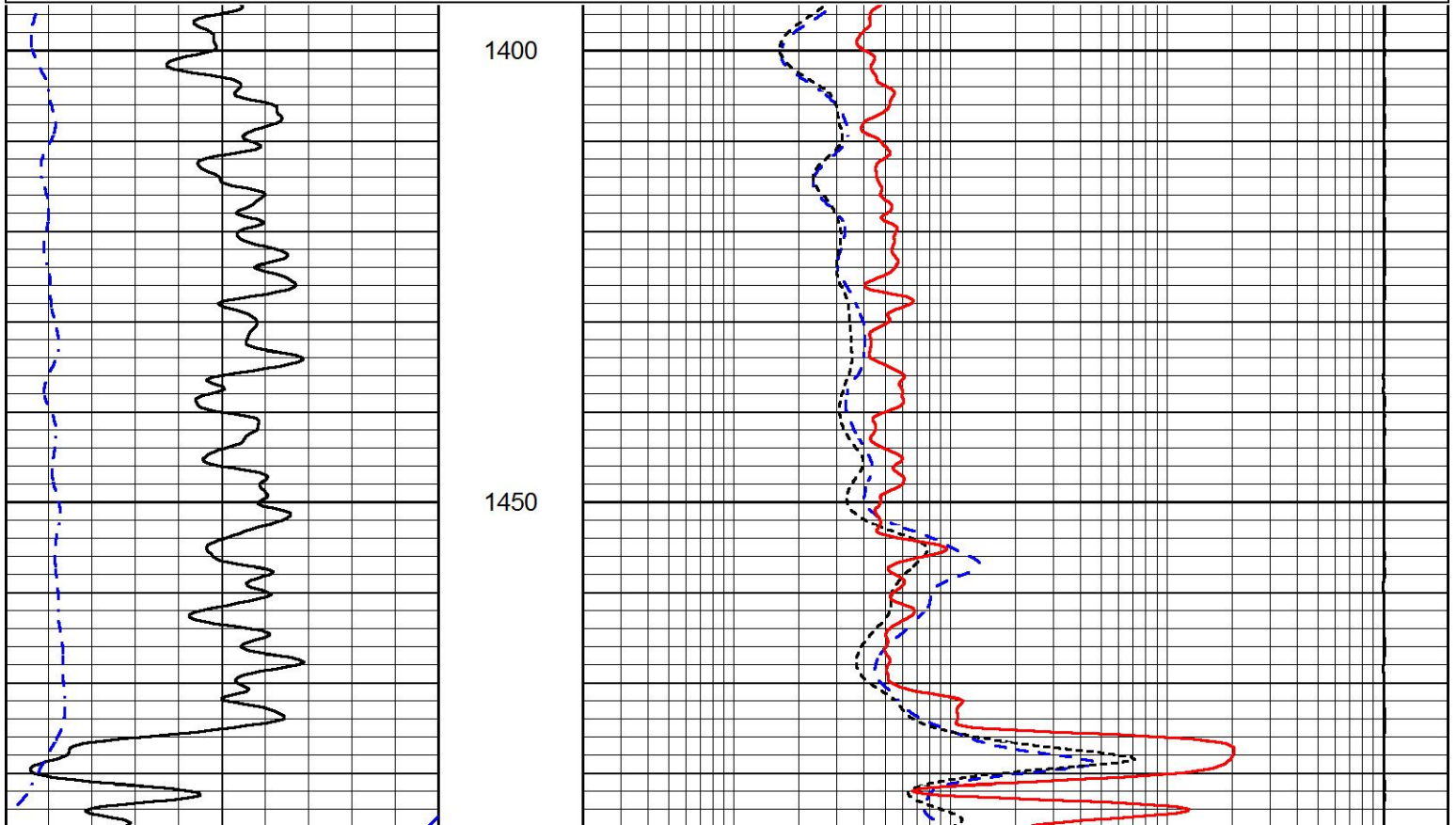


MIDWEST WIRELINE

Main Pass

Database File american_warrior_hubin_unit_1_15.db
 Dataset Pathname sdtackml/pass3.1
 Presentation Format _dil
 Dataset Creation Fri Apr 09 11:53:40 2021
 Charted by Depth in Feet scaled 1:240

0 GAMMA RAY (GAPI) 150	0.2 DEEP RESISTIVITY (Ohm-m) 2000
-200 SP (mV) 0	0.2 MEDIUM RESISTIVITY (Ohm-m) 2000
	0.2 RLL3 (Ohm-m) 2000
	10000 LINE TENSION (lb) 0

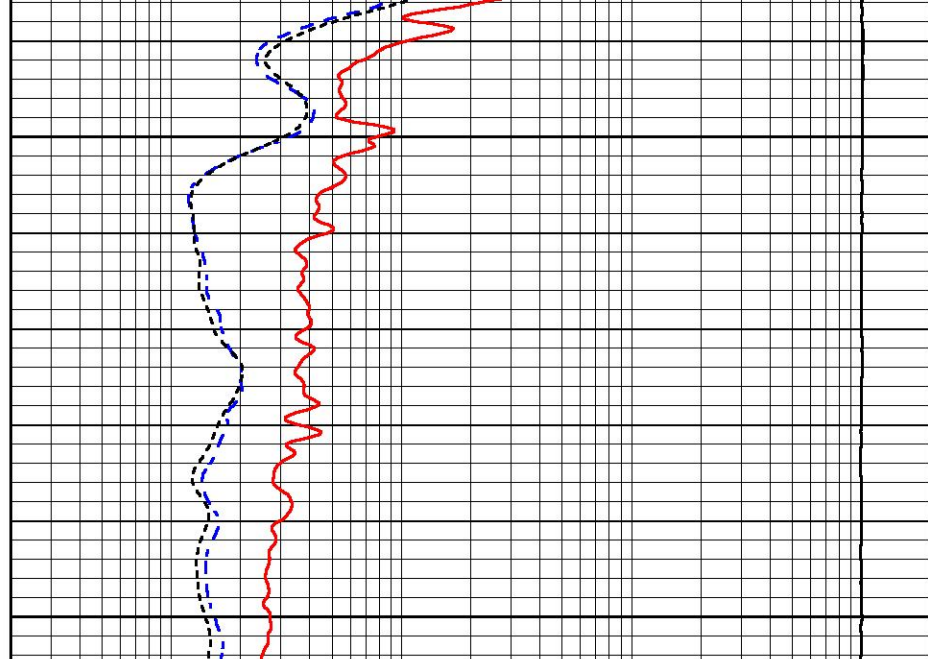




1500

1550

0	GAMMA RAY (GAPI)	150
-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



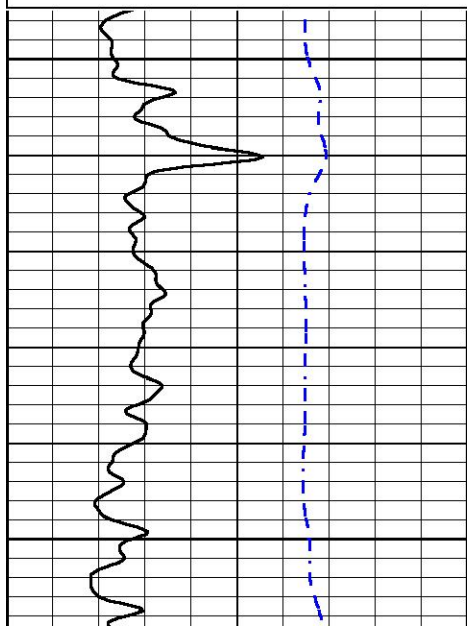
MIDWEST WIRELINE

Main Pass

Database File american_warrior_hubin_unit_1_15.db
 Dataset Pathname sdtackml/pass3.1
 Presentation Format _dil
 Dataset Creation Fri Apr 09 11:53:40 2021
 Charted by Depth in Feet scaled 1:240

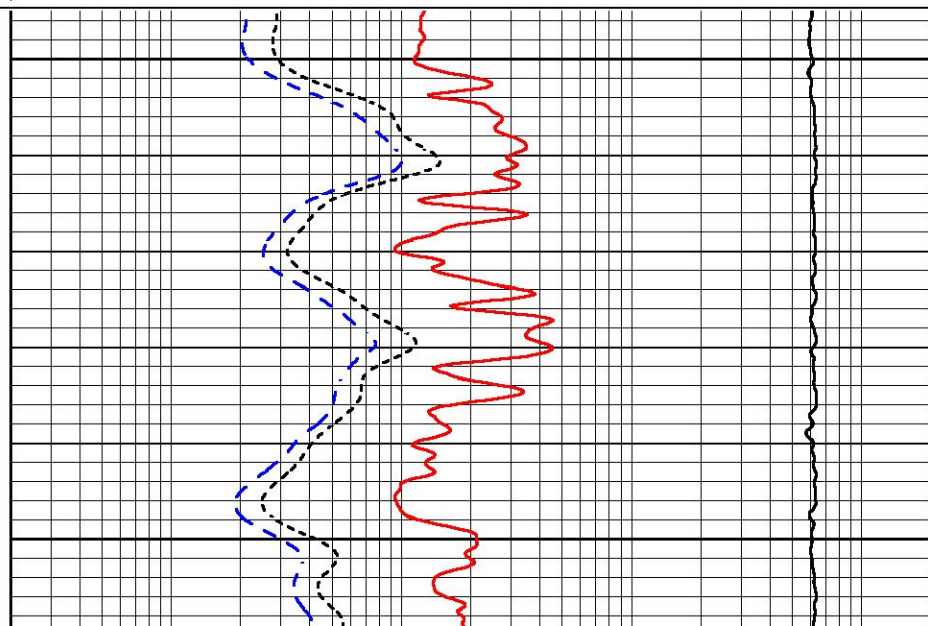
0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

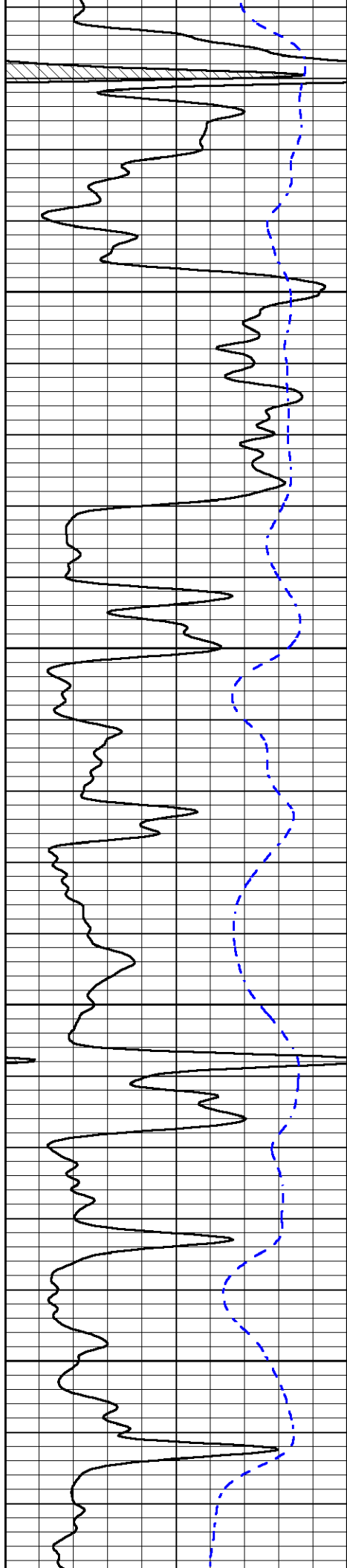
0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	LINE TENSION (lb)	0



3800

3850



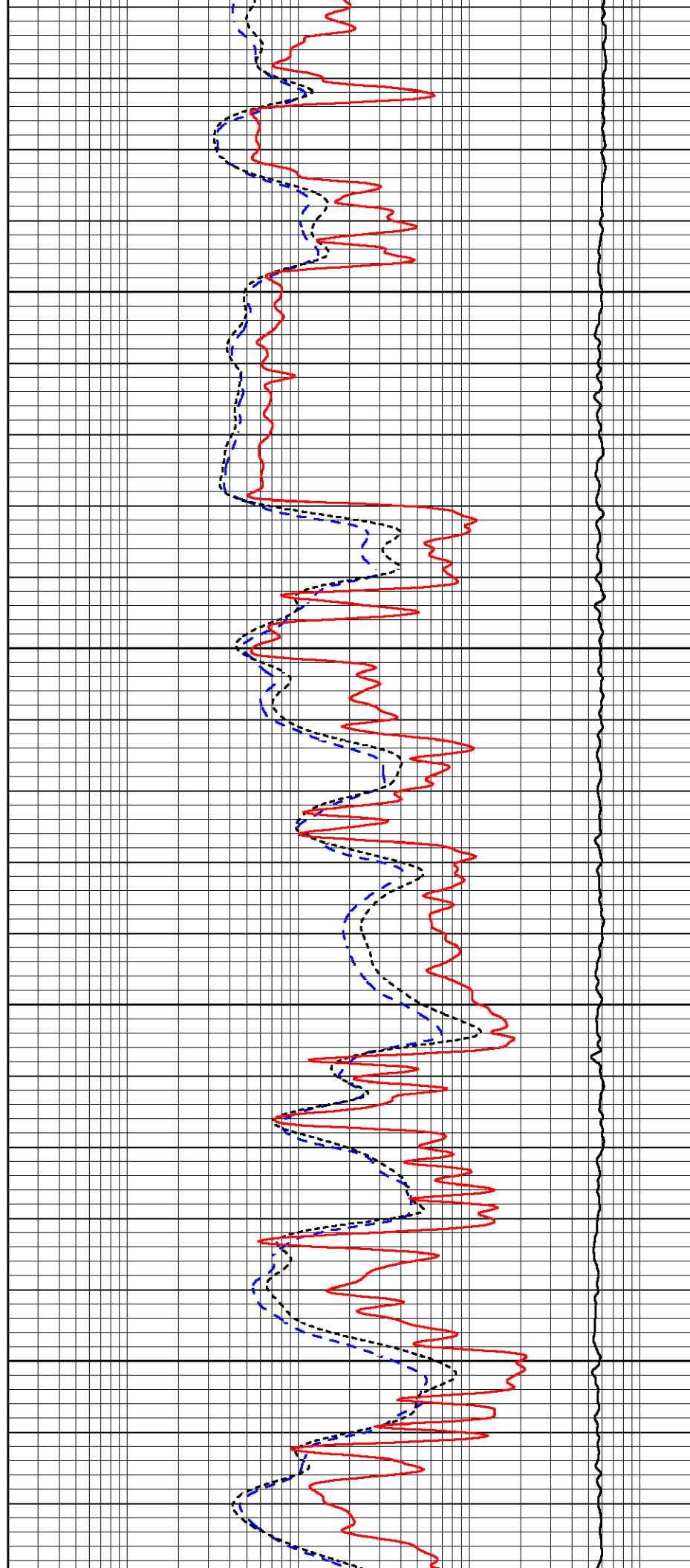


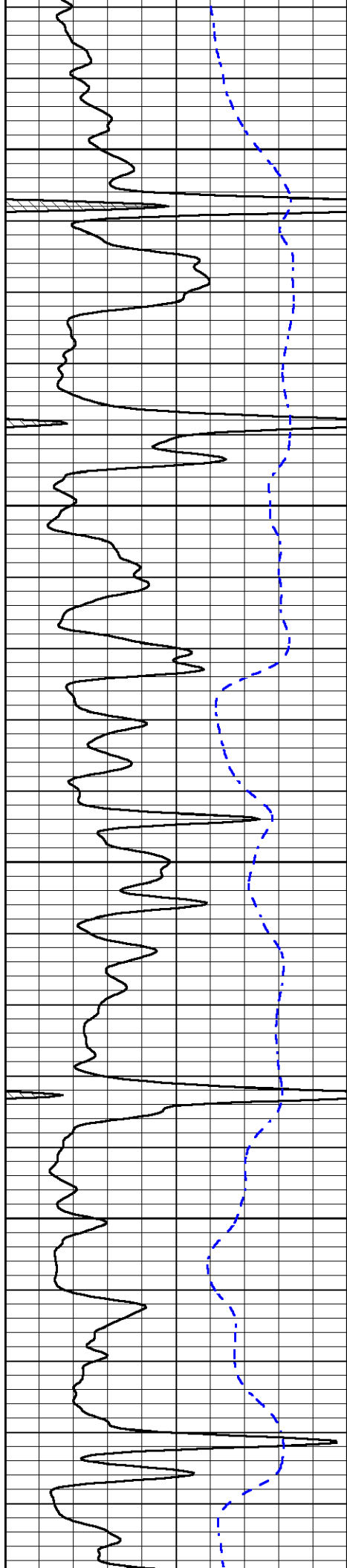
3900

3950

4000

4050





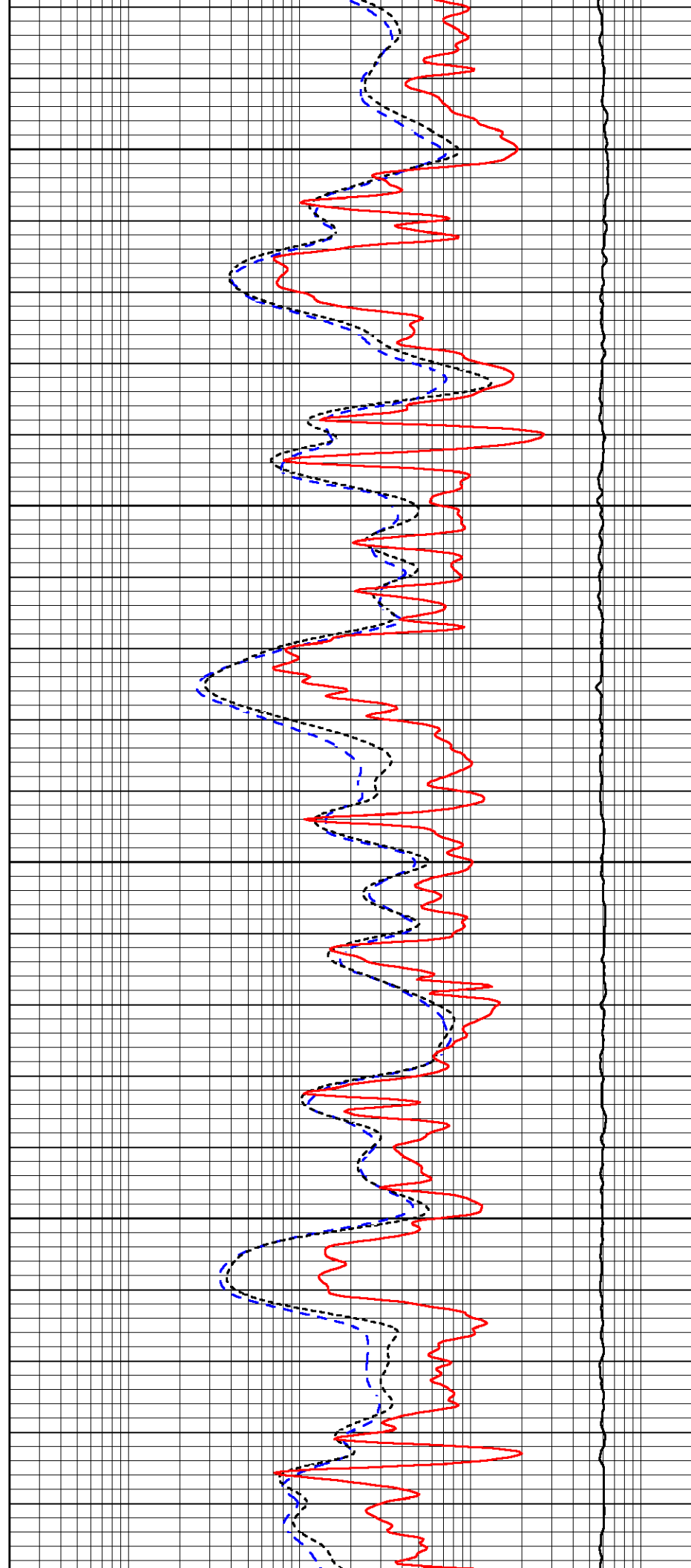
4100

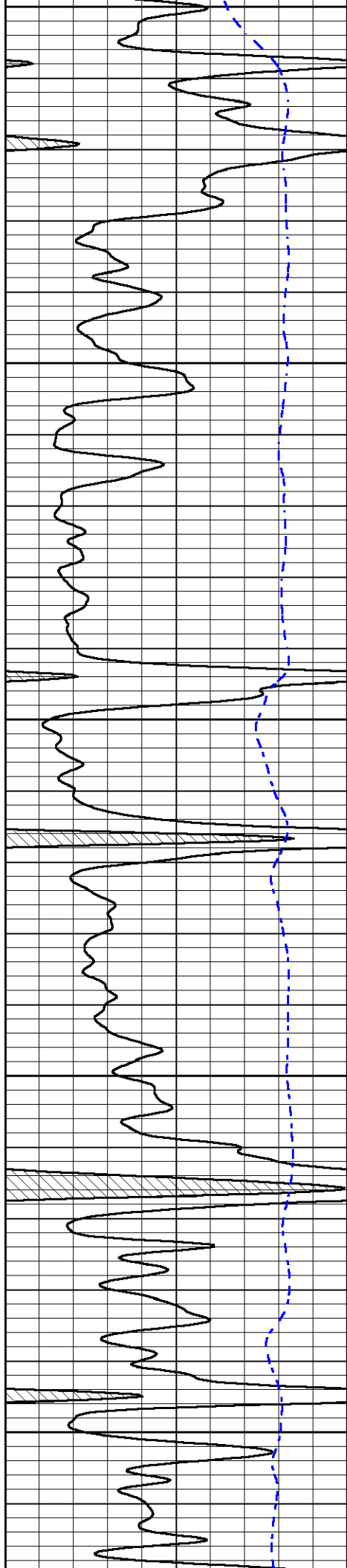
4150

4200

4250

4300





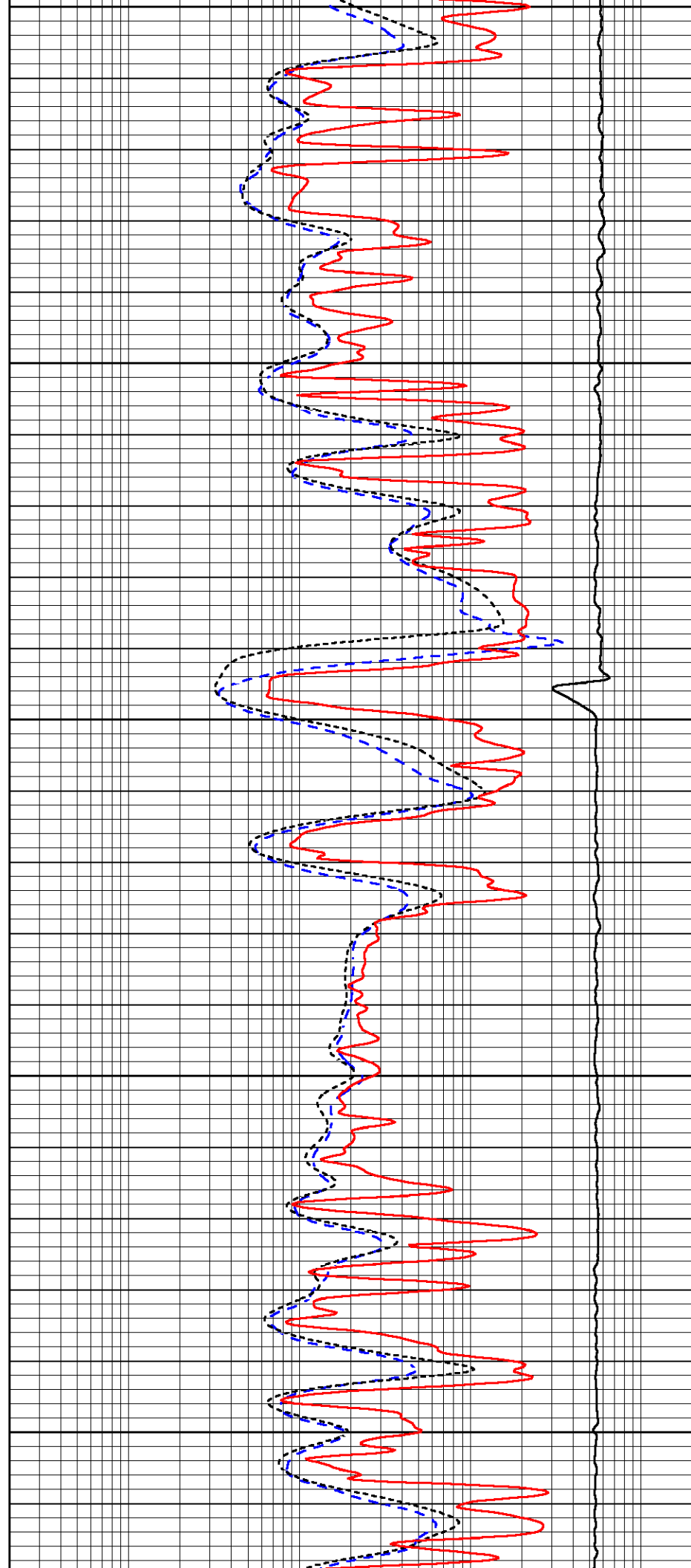
4300

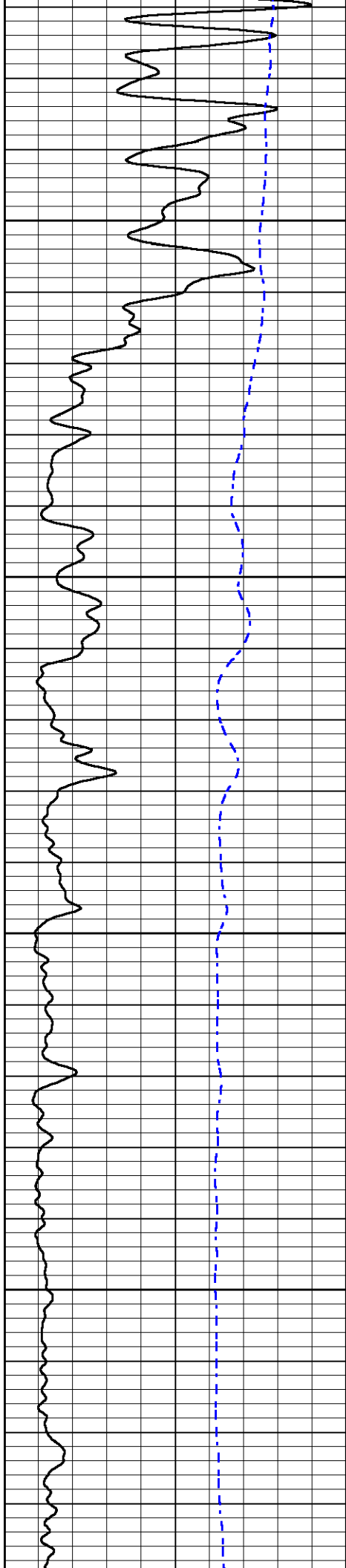
4350

4400

4450

4500



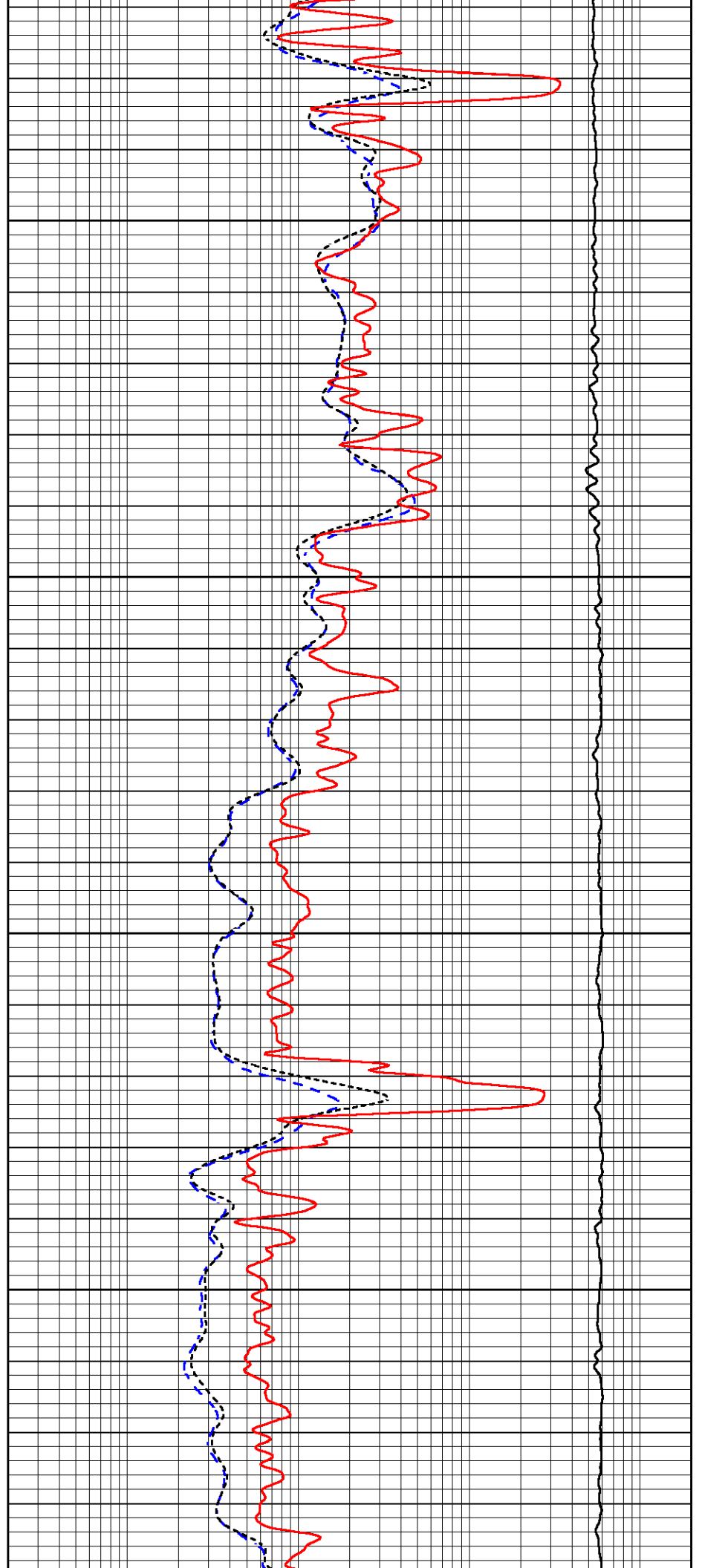


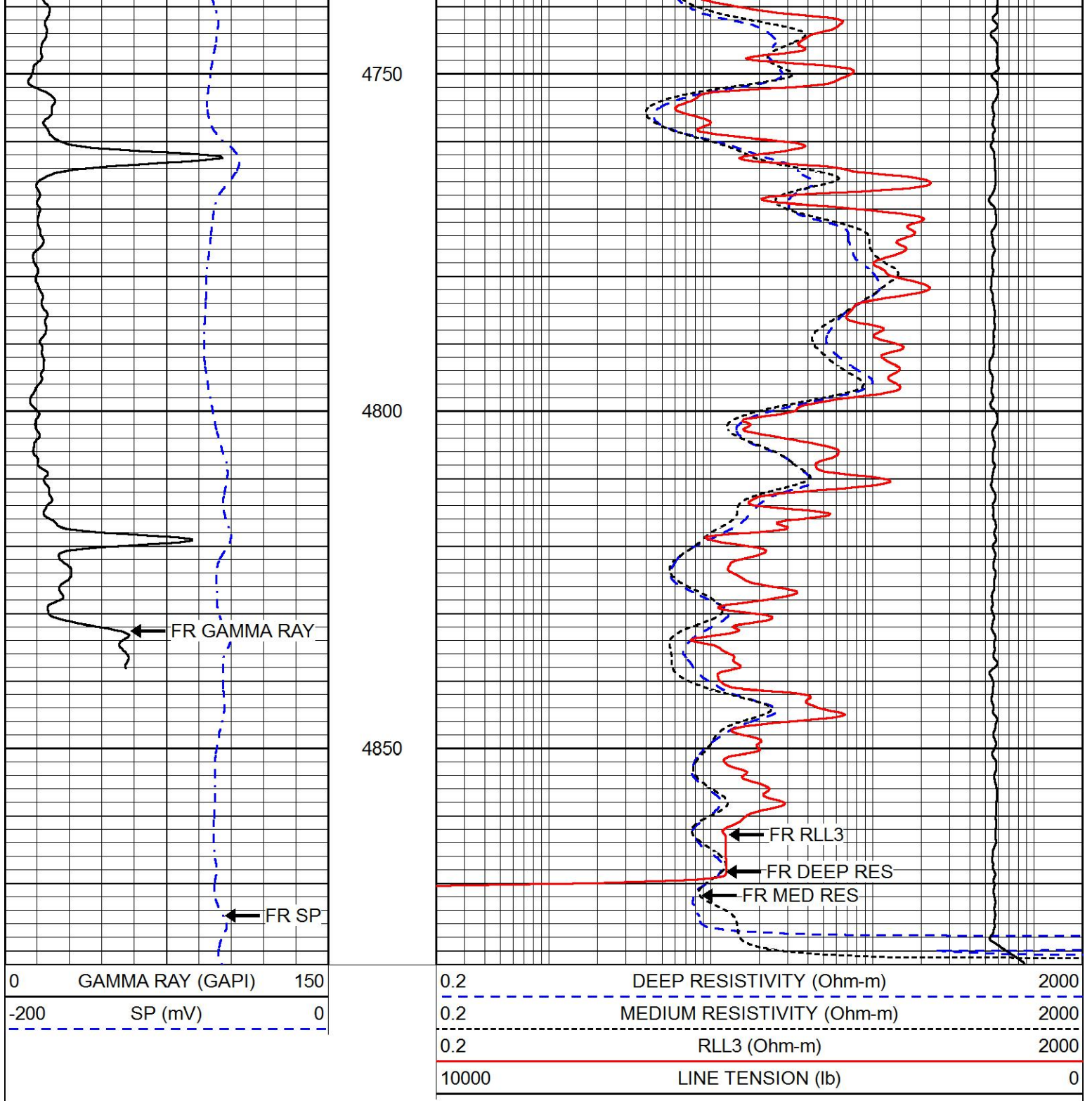
4550

4600

4650

4700



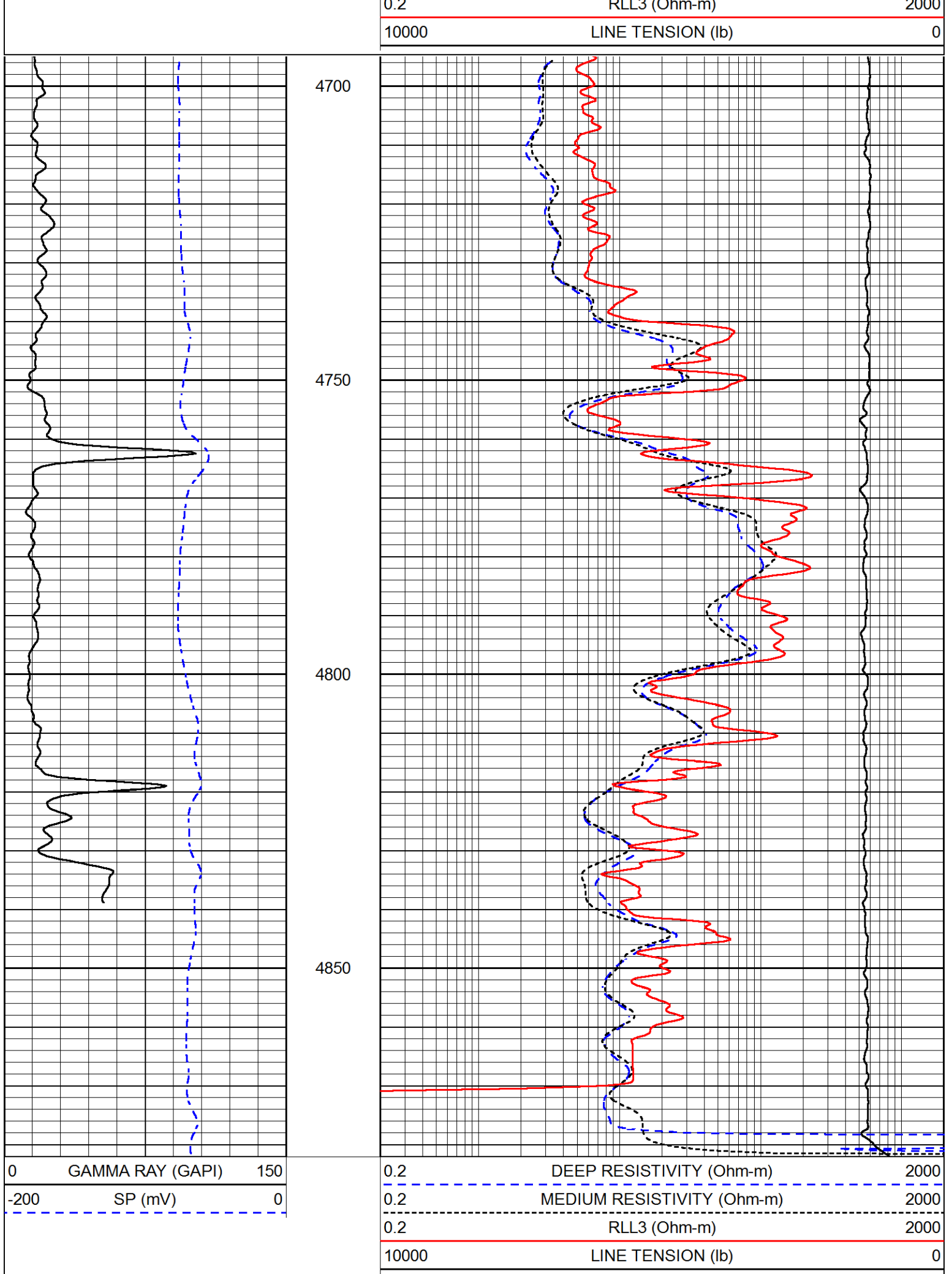


MIDWEST WIRELINE

Repeat Section

Database File american_warrior_hubin_unit_1_15.db
 Dataset Pathname sdtackml/pass2.1
 Presentation Format _dil
 Dataset Creation Fri Apr 09 11:09:59 2021
 Charted by Depth in Feet scaled 1:240







Company	American Warrior, Inc.
Well	Hubin Unit #1-15
Field	Lippoldt West
County	Hodgeman
State	Kansas