



MIDWEST WIRELINE

BOREHOLE COMPENSATED SONIC LOG

Company		Murfin Drilling Company, Inc.					
Well	Frisbie B #2-15						
Field							
County	Rawlins	State	Kansas				
Location:	API #: 15-153-21278-00-00		Other Services				
1250 FSL & 2640 FWL		CNL/CDL DIL/MEL					
Permanent Datum	Ground Level	Elevation	3190				
Log Measured From	Kelly Bushing	K.B.	3195				
Drilling Measured From	Kelly Bushing	D.F.					
		G.L.	3190				
Date	1/5/2022						
Run Number	Two						
Type Log	BHCS						
Depth Driller	4800						
Depth Logger	4801						
Bottom Logged Interval	4789						
Top Logged Interval	300						
Type Fluid In Hole	Chemical						
Salinity, PPM CL	1600						
Density	9.1						
Level	Full						
Max. Rec. Temp. F	124						
Operating Rig Time	6 Hours						
Equipment -- Location	P-24 Hays						
Recorded By	D. Schmidt						
Witnessed By	Clayton Erickson						
Borehole Record		Casing Record					
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	330	8.625	23	0	330
Two	7.875	330	TD				

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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.

Beardsley,
5 North, East 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: Clayton Erickson
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\murfin_frisbie b 2-15.db
Dataset field/well/stkml/pass3.12/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	124	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	355	20		4801

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



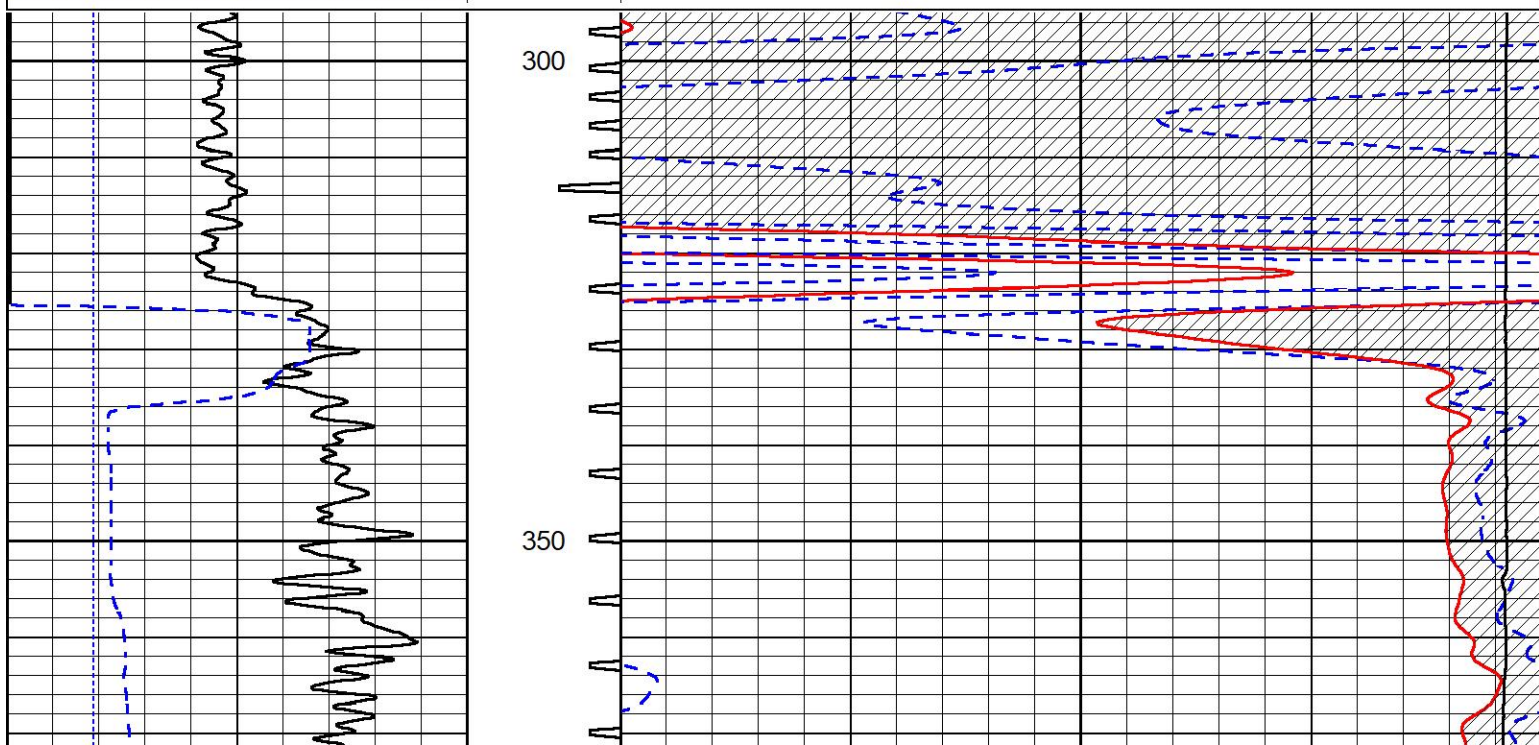
MIDWEST WIRELINE

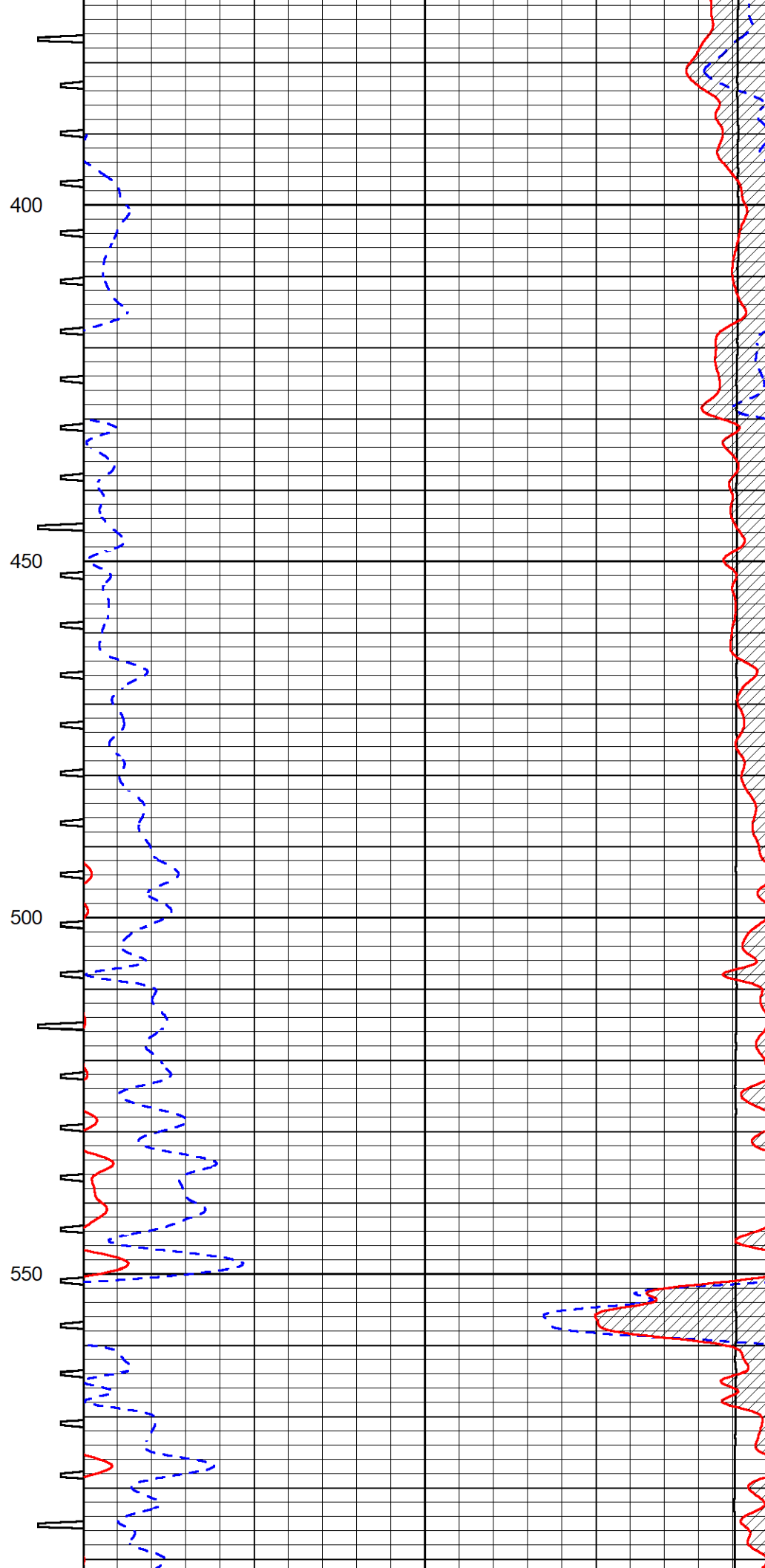
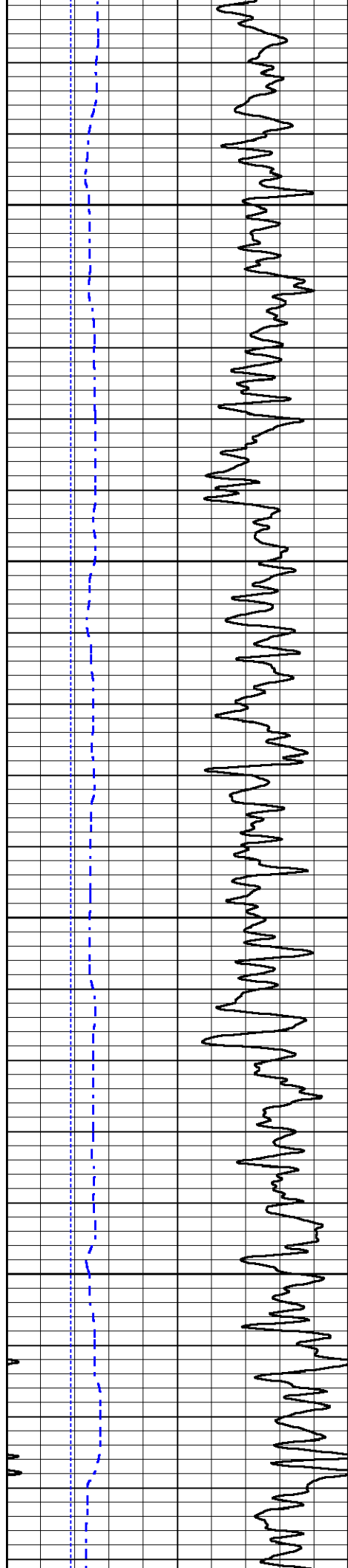
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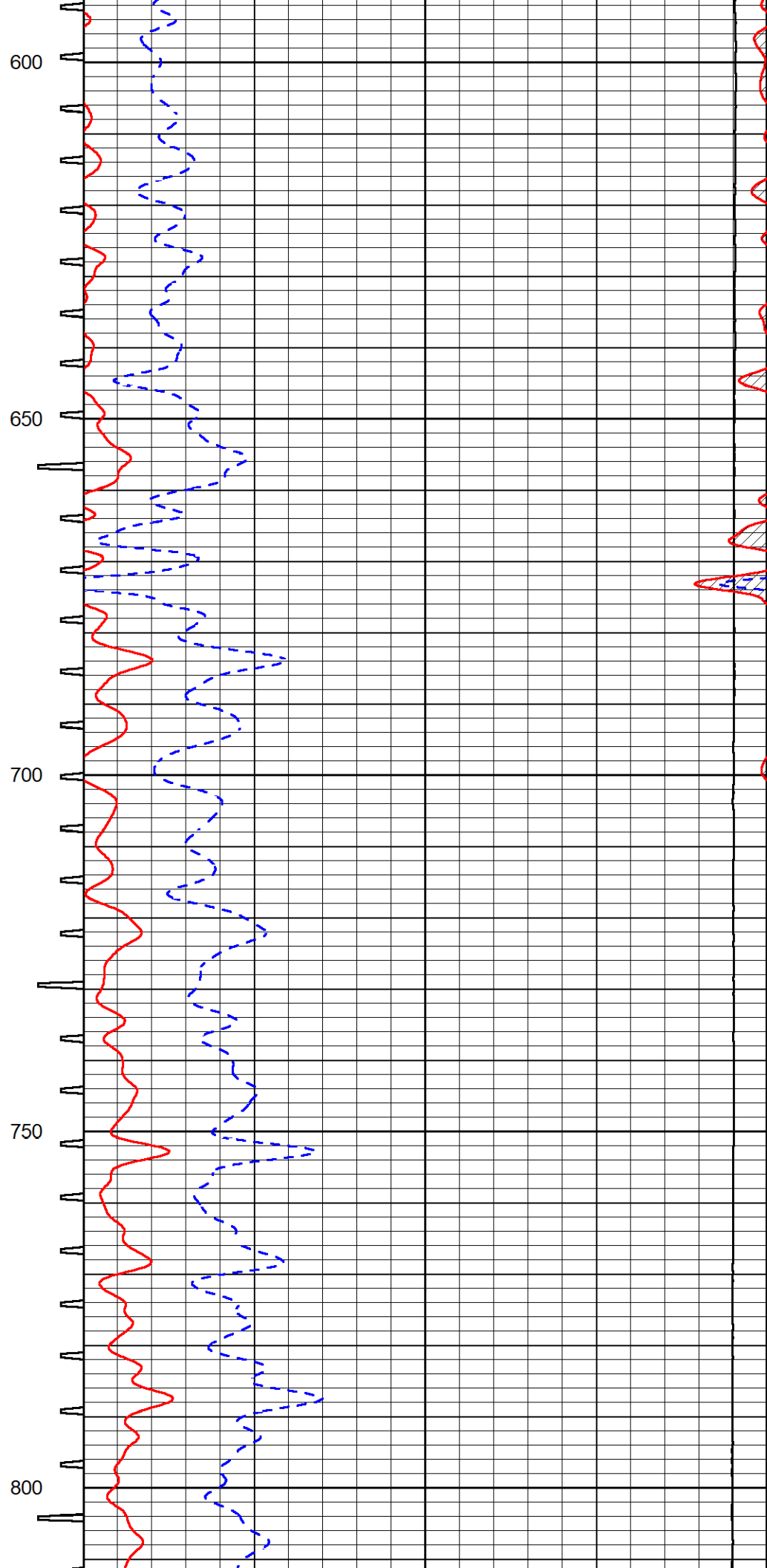
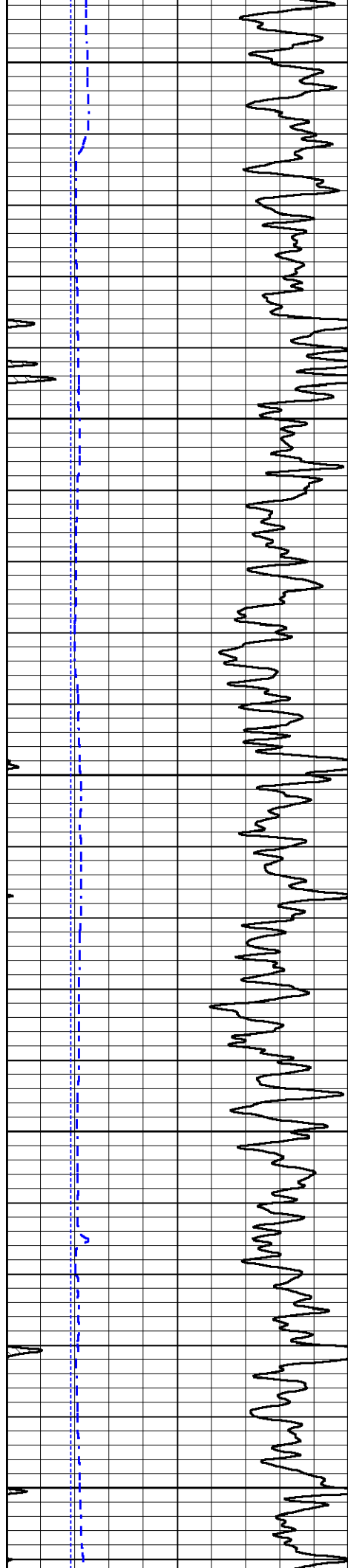
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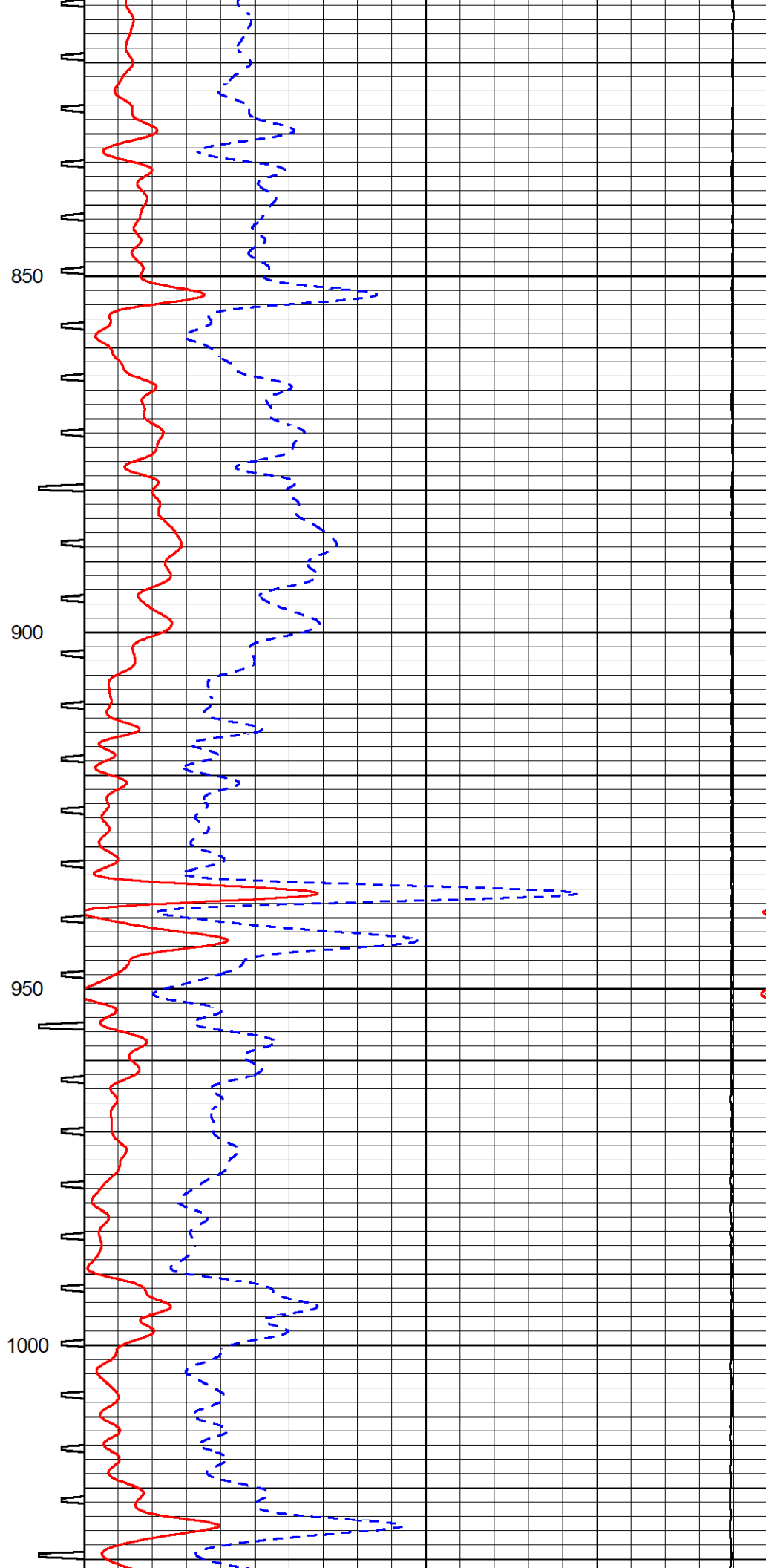
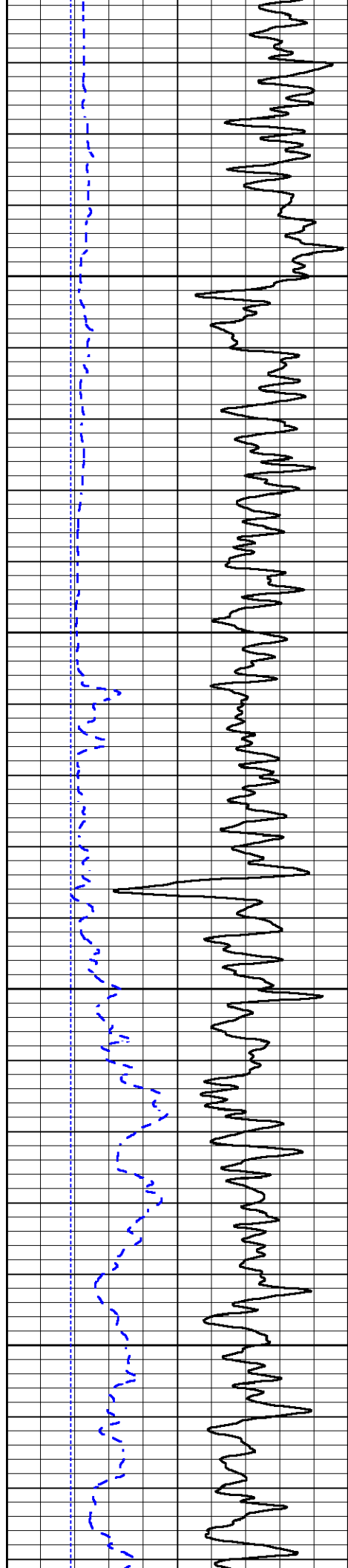
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Dataset Pathname stkml/pass3.4
Presentation Format _sonic
Dataset Creation Wed Jan 05 10:57:08 2022
Charted by Depth in Feet scaled 1:240

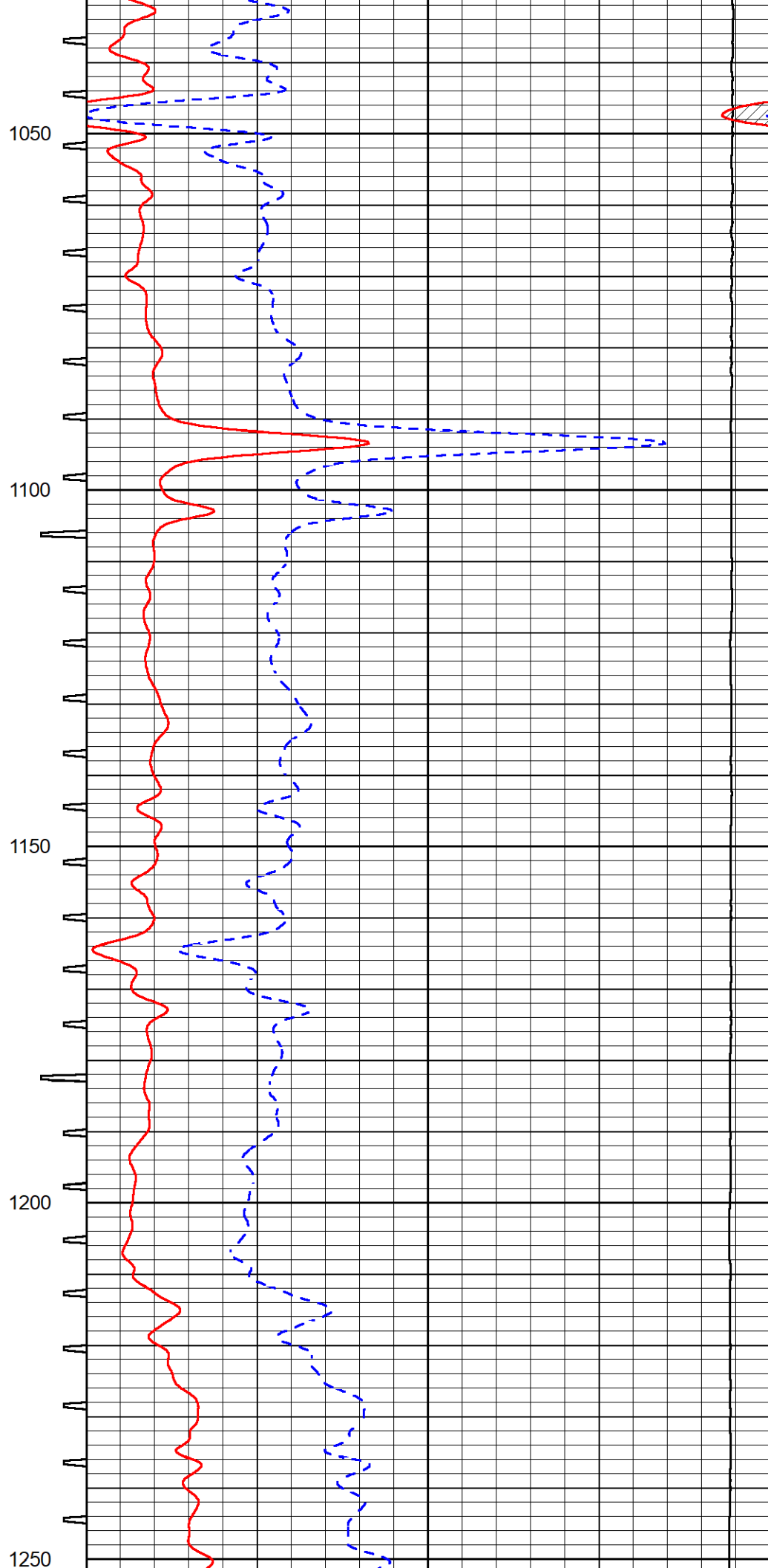
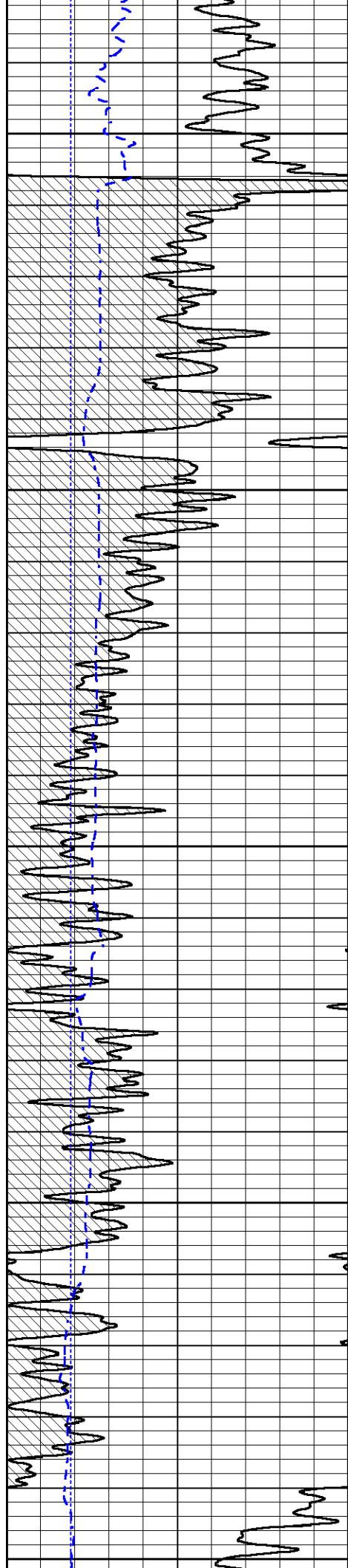
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu) (pu)	-10
6	Caliper (in)	16		15000	Line Tension (lb)	0

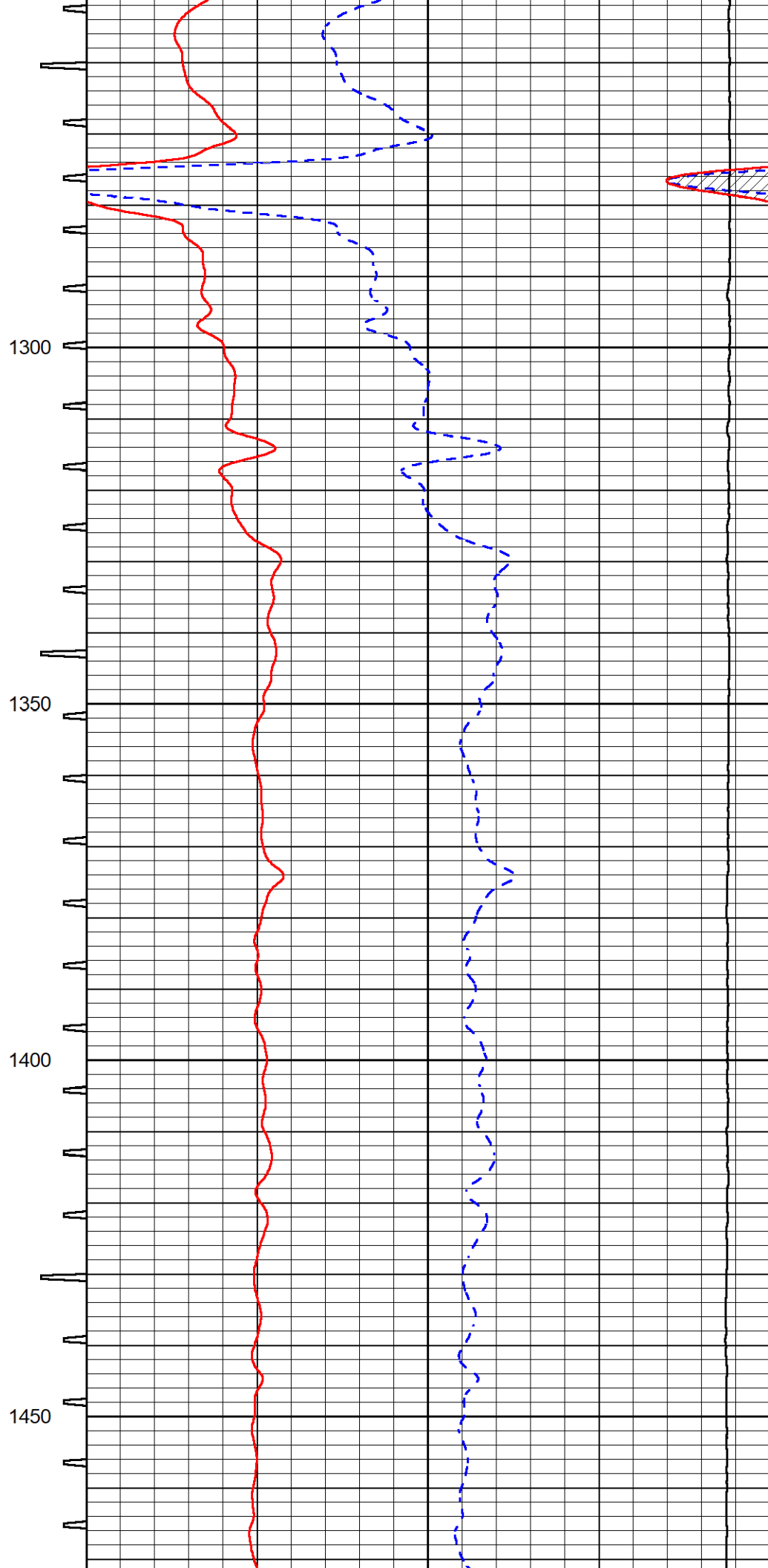
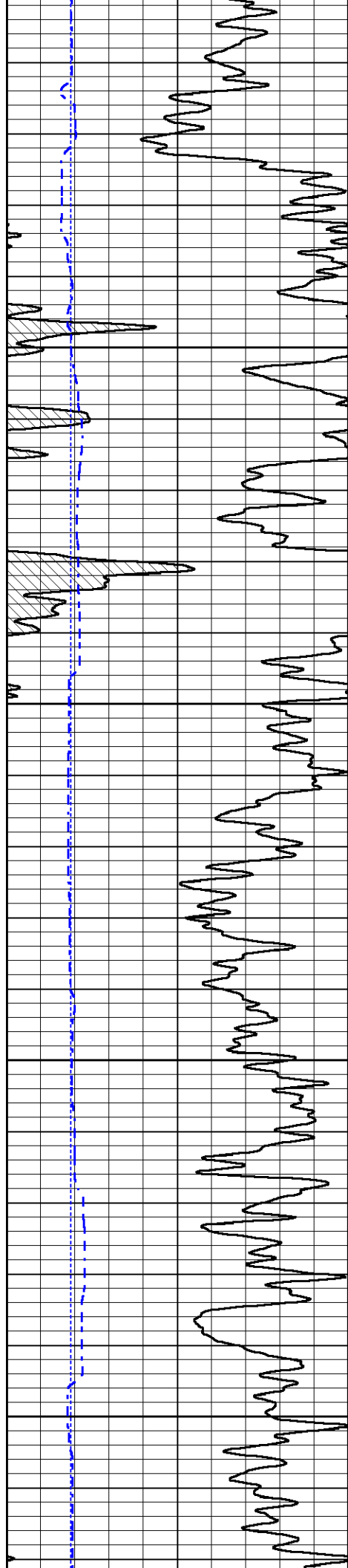


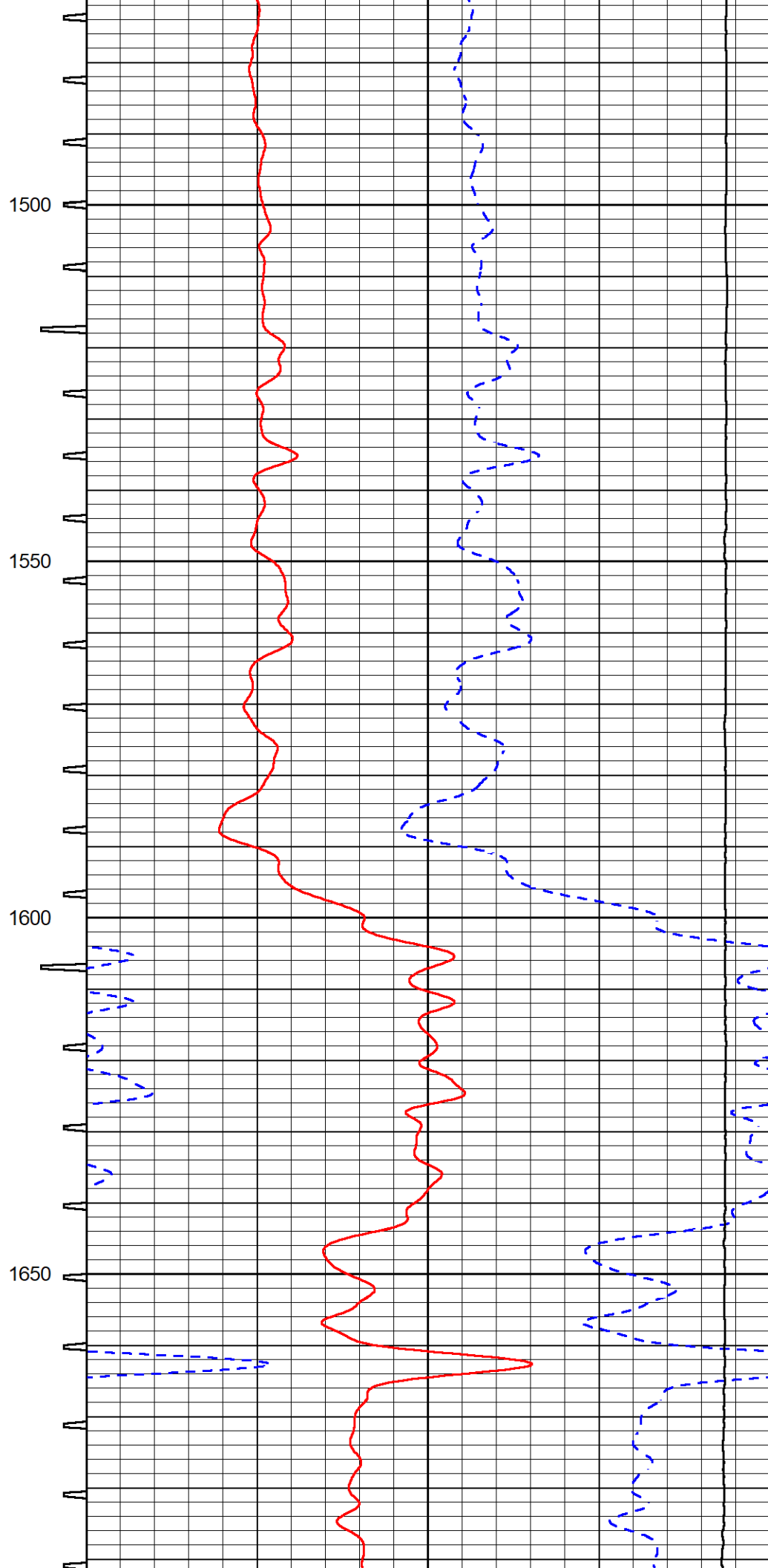
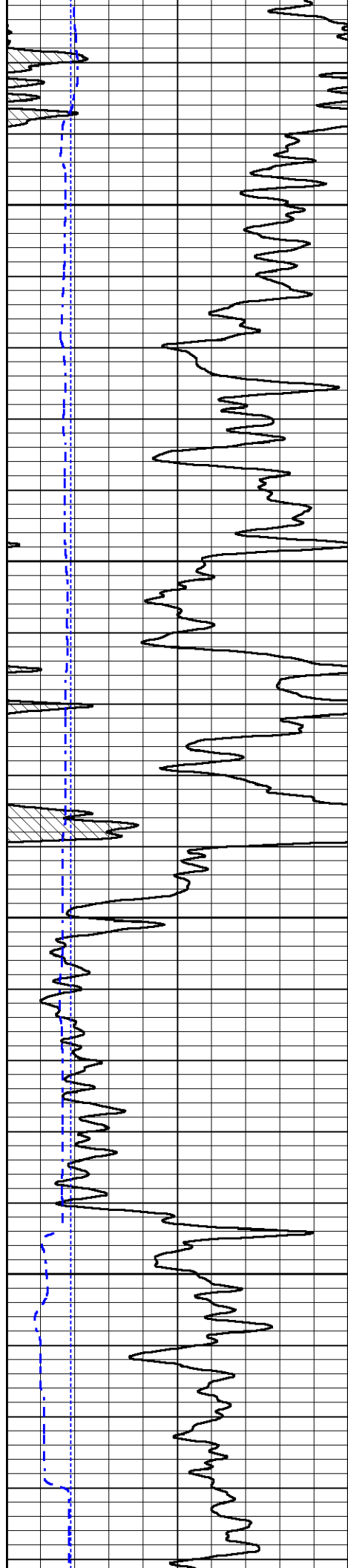


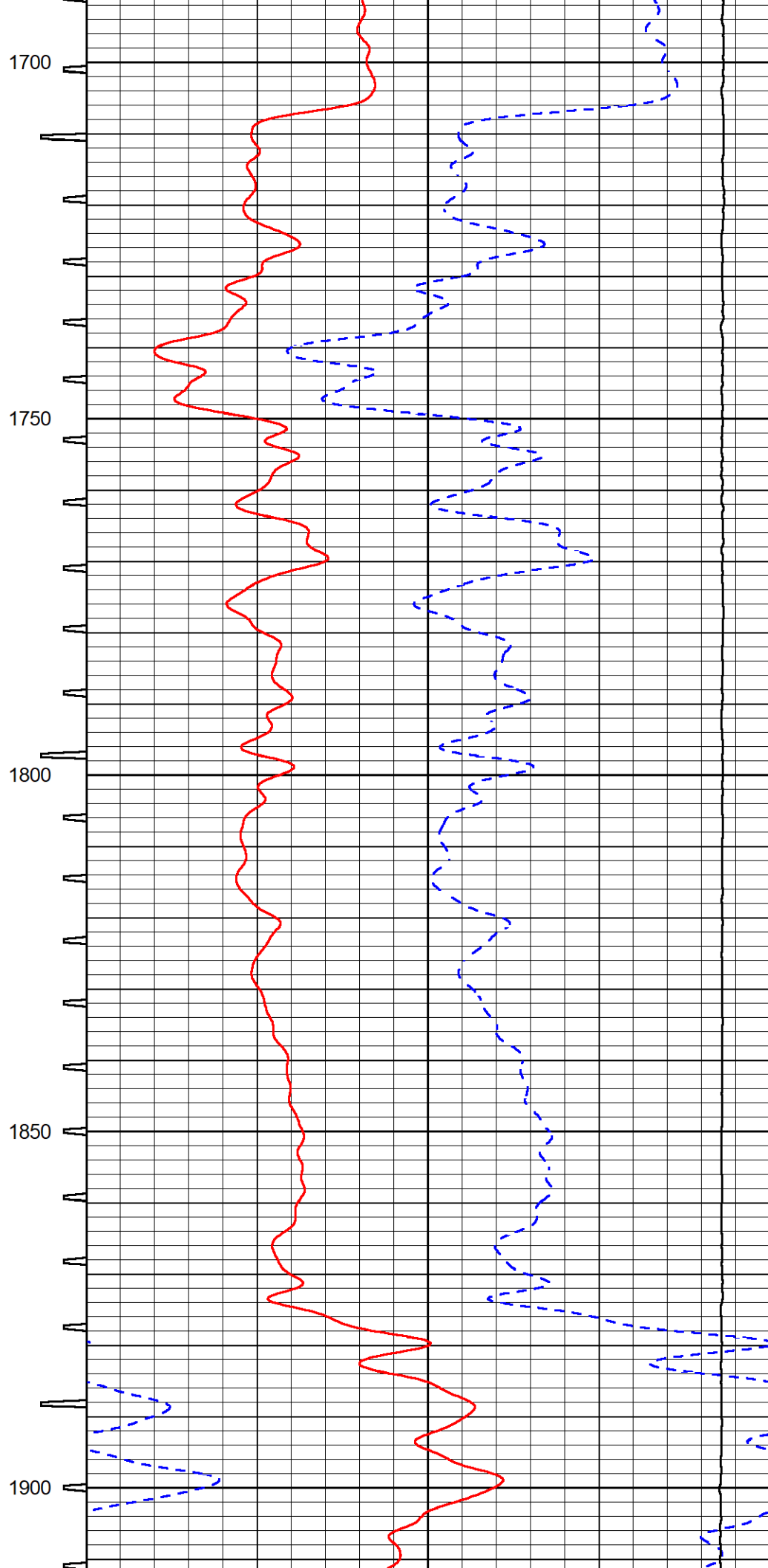
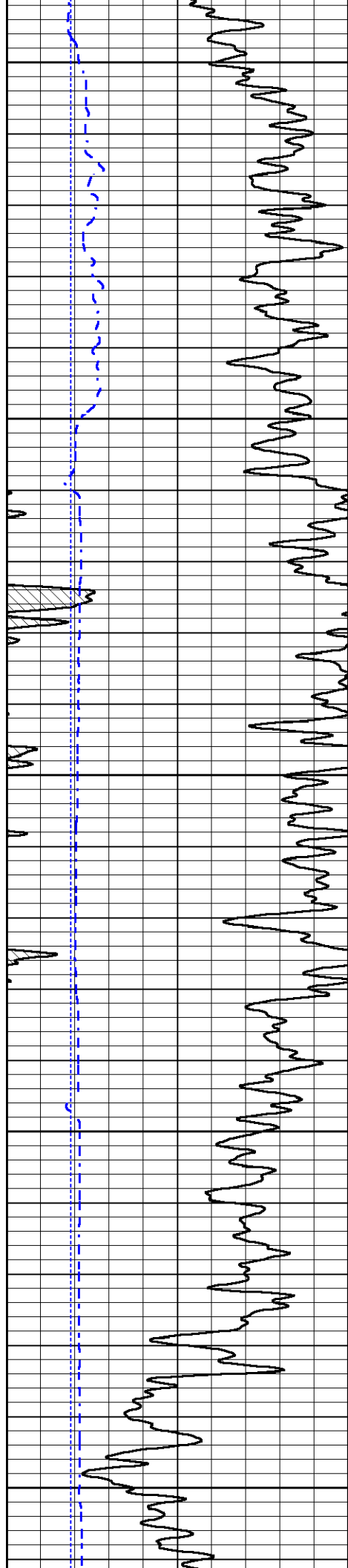


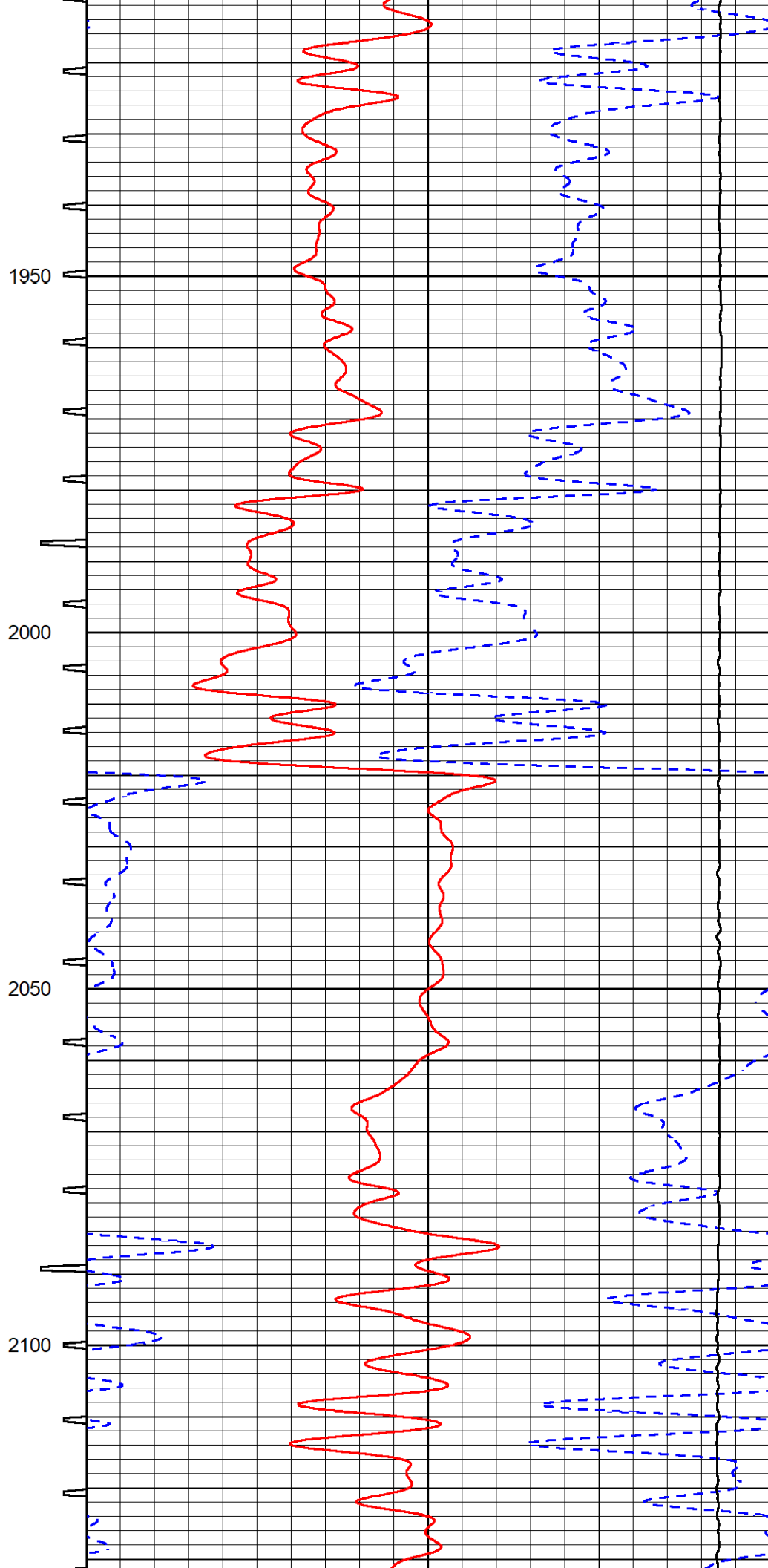
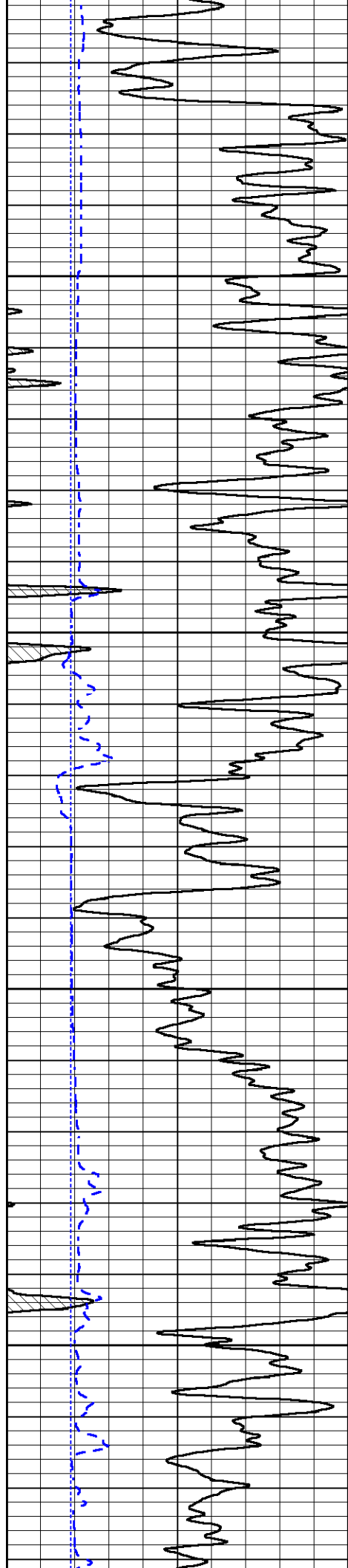


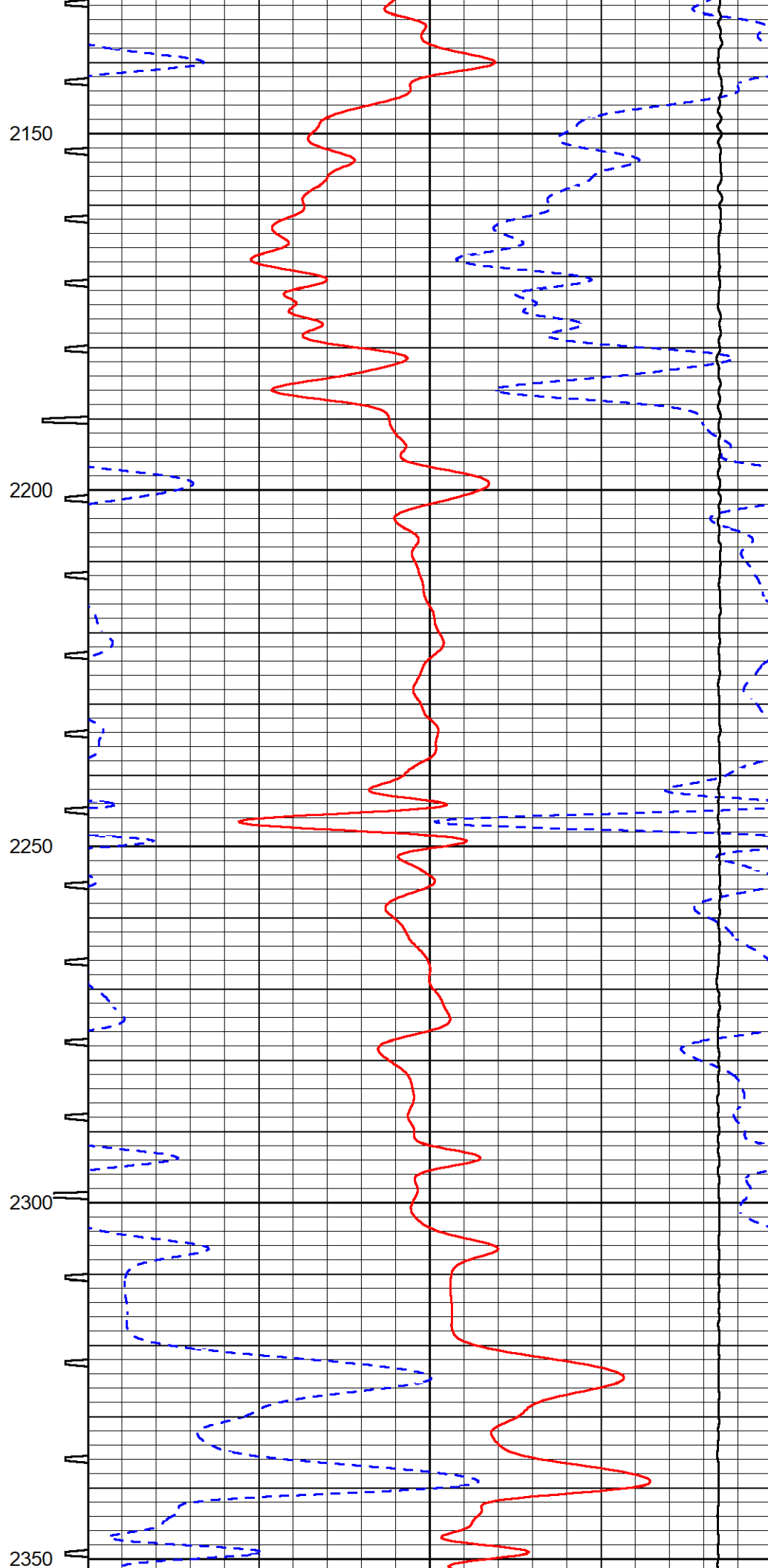
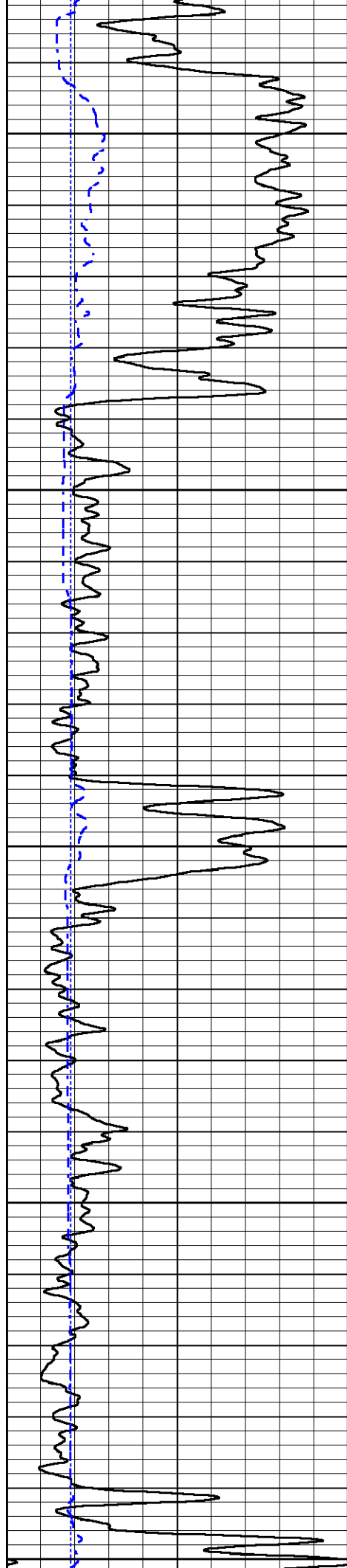


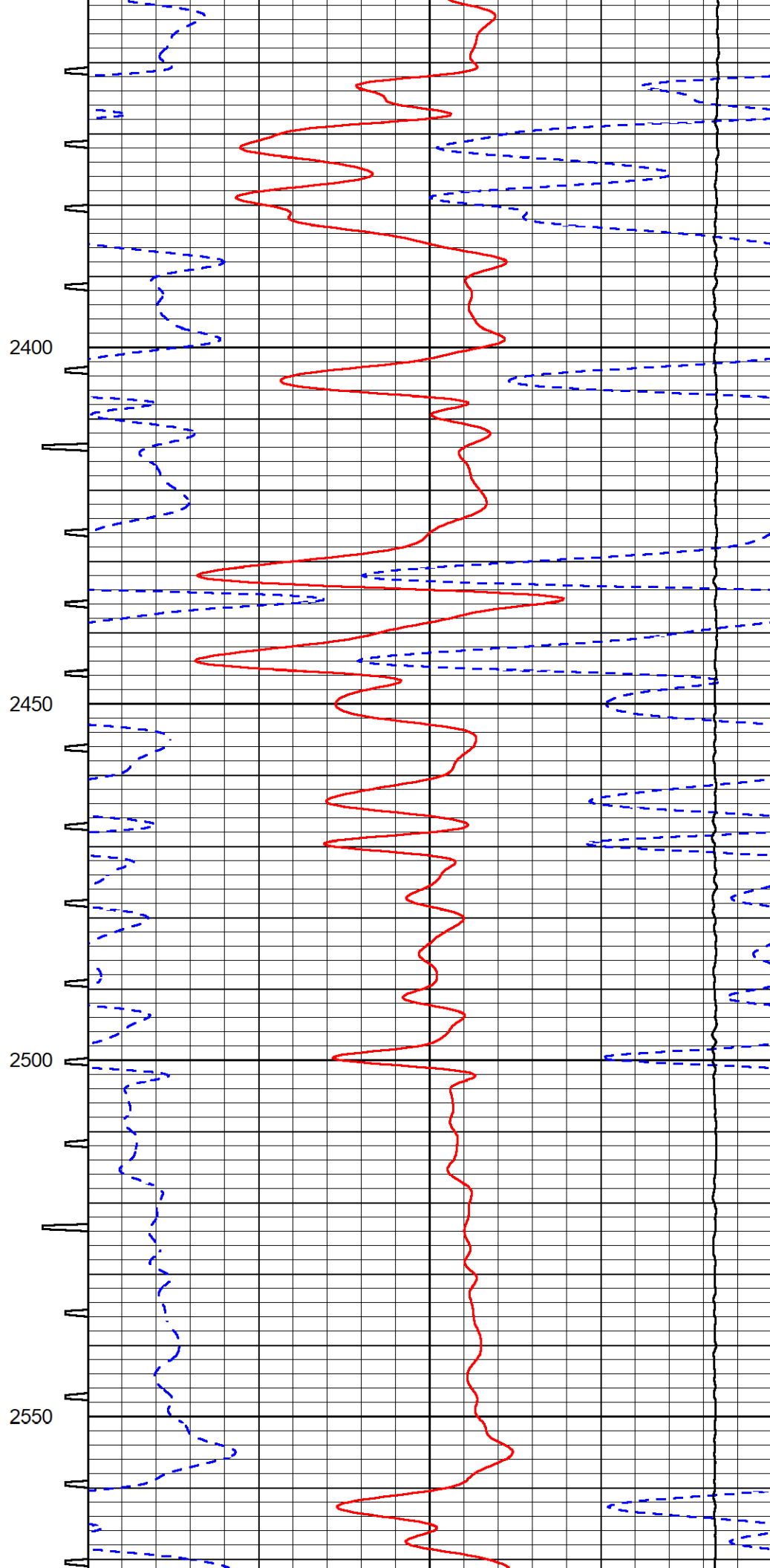
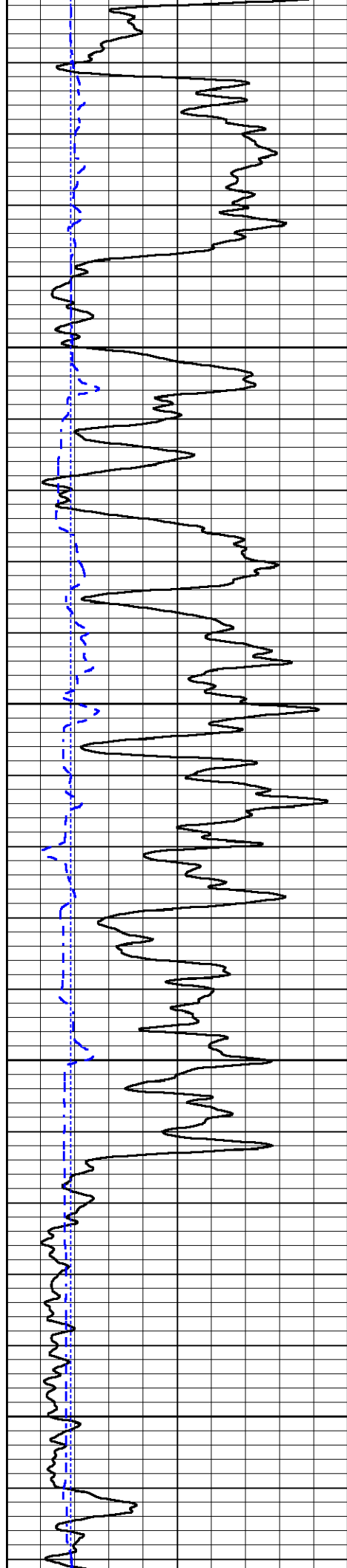


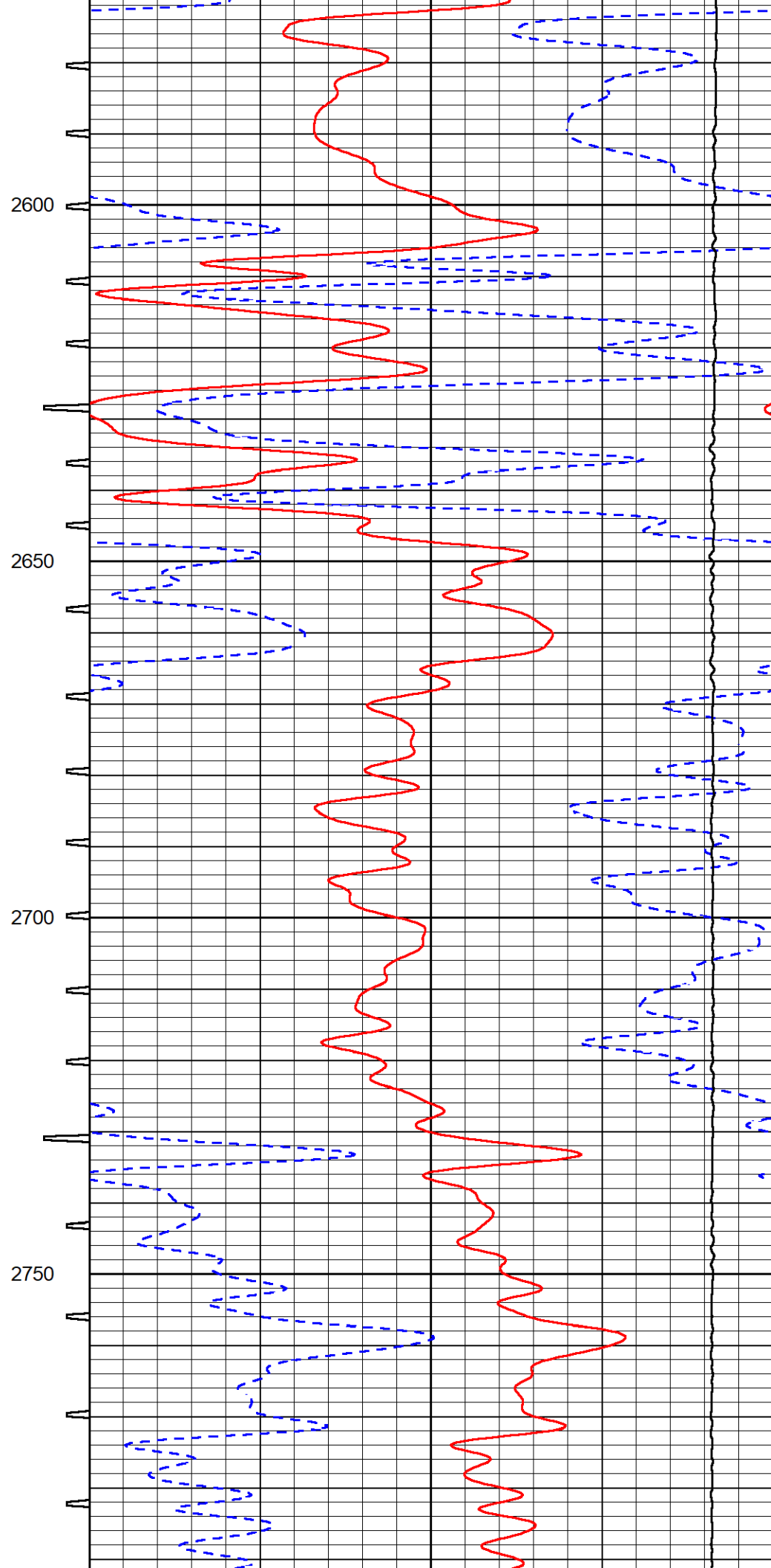
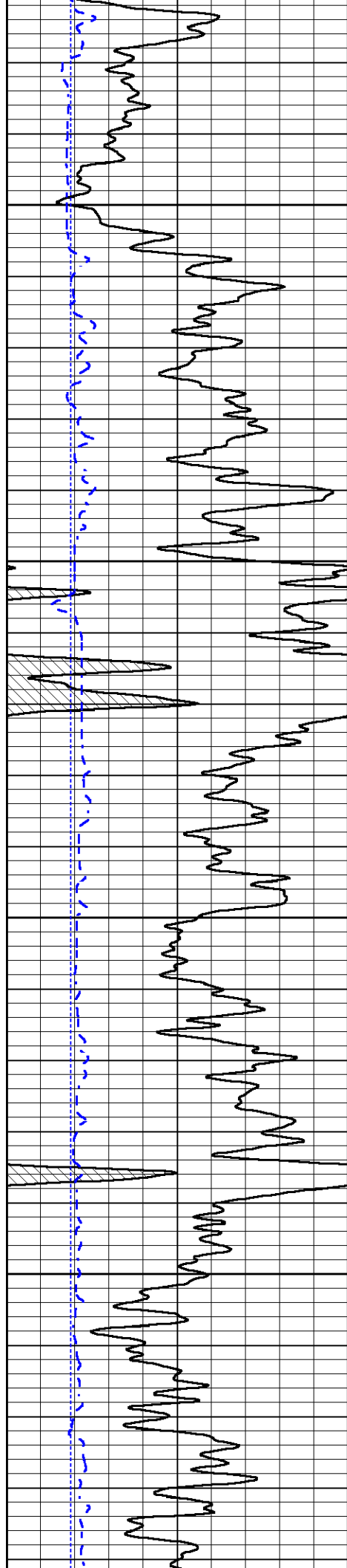


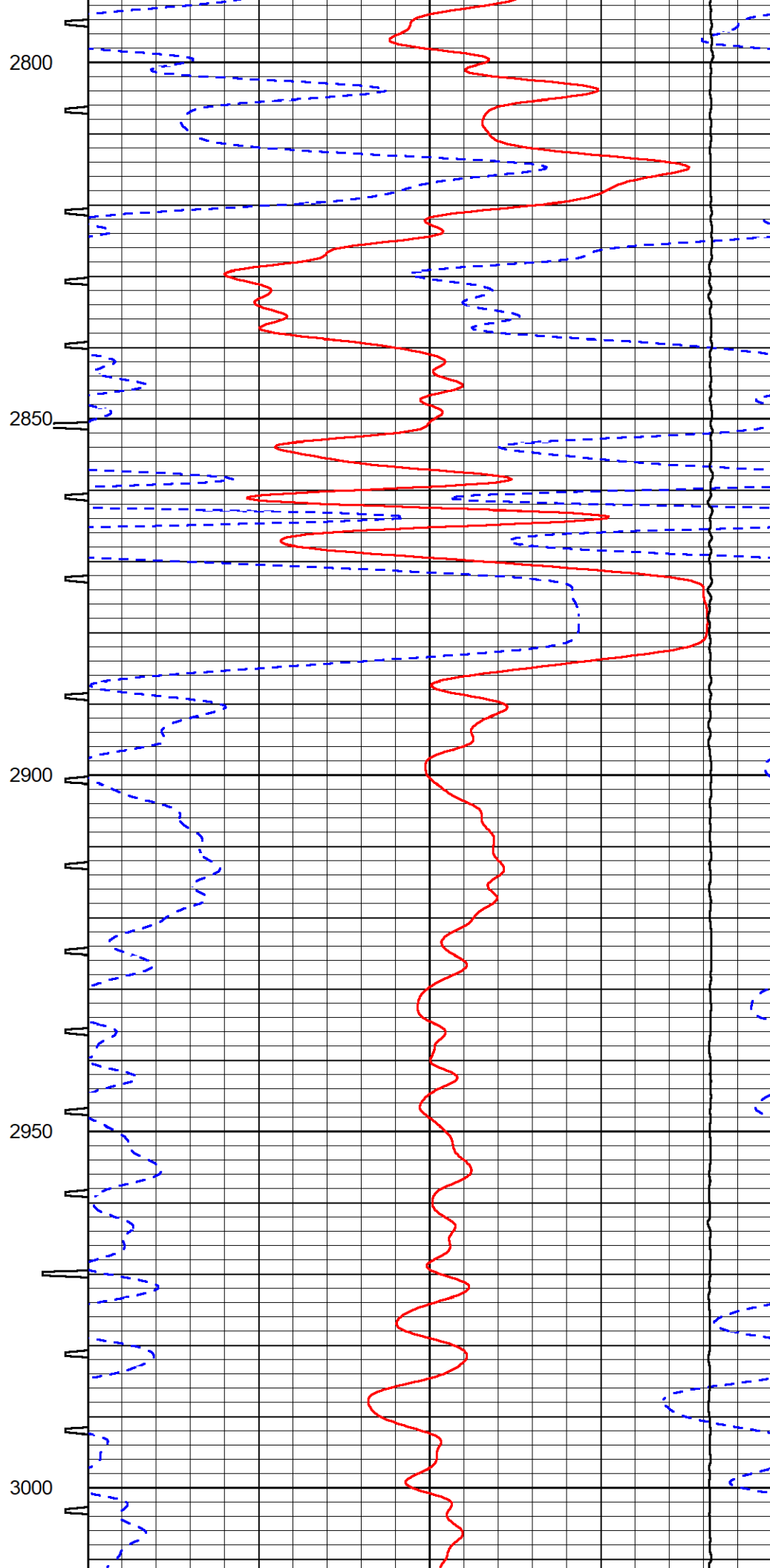
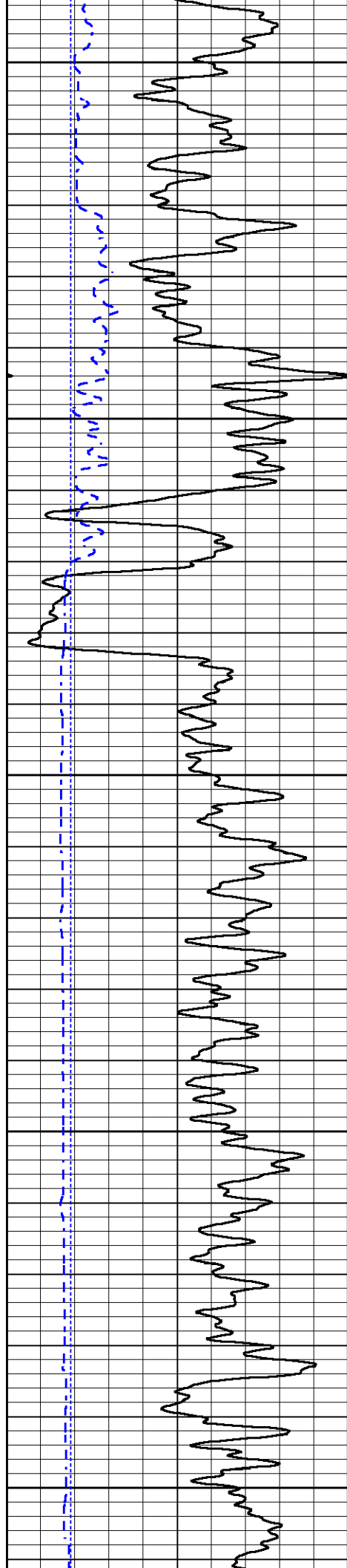


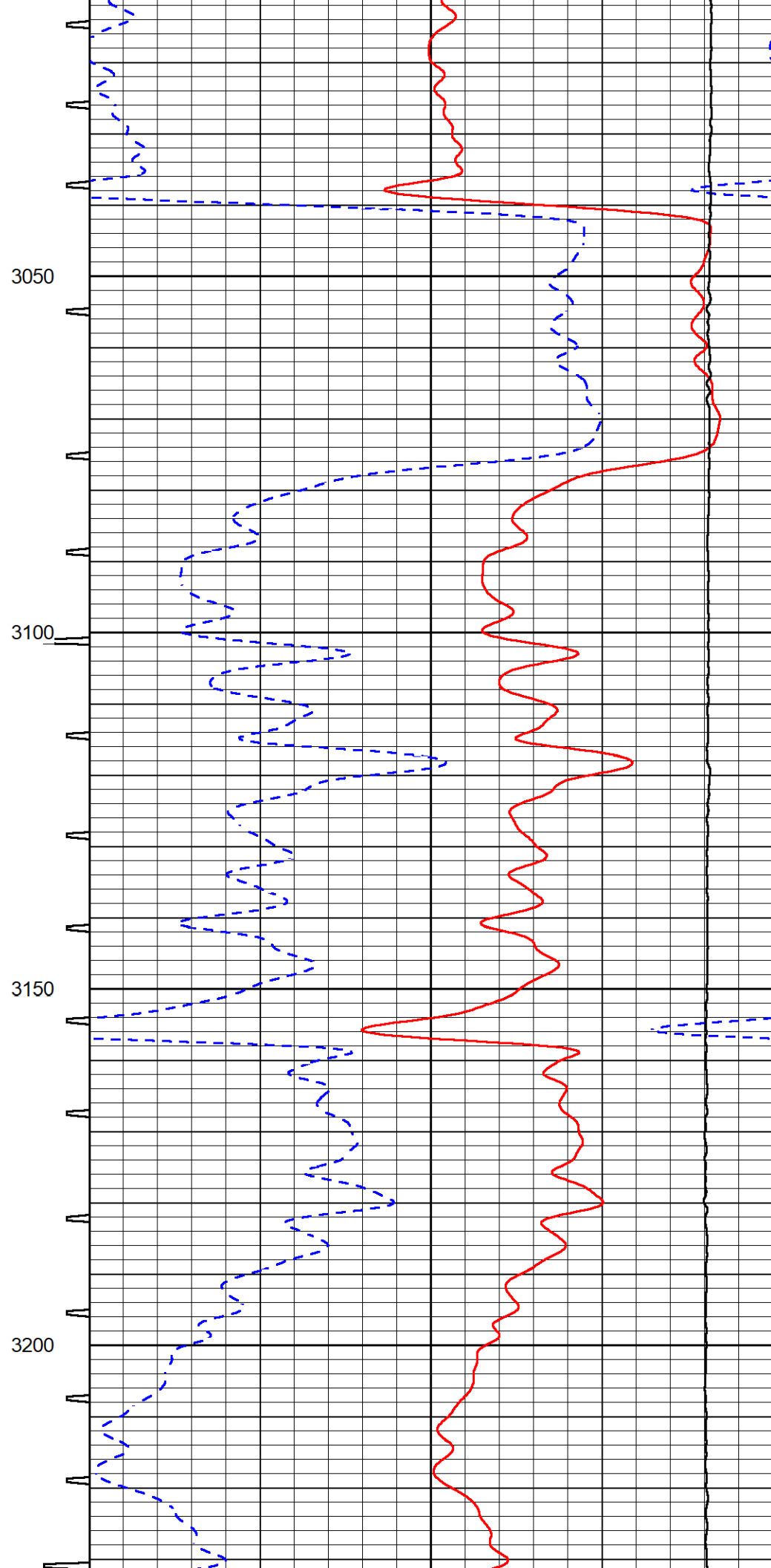
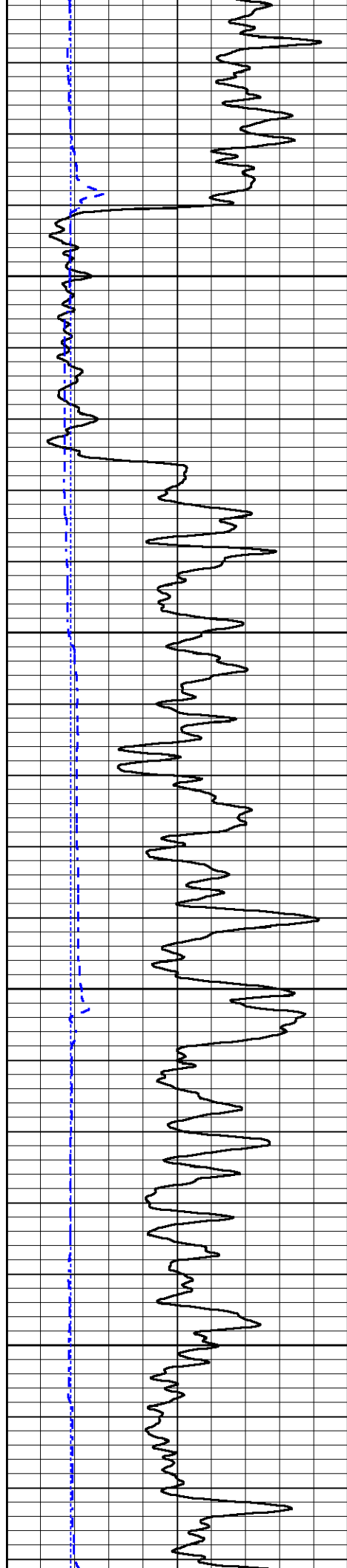


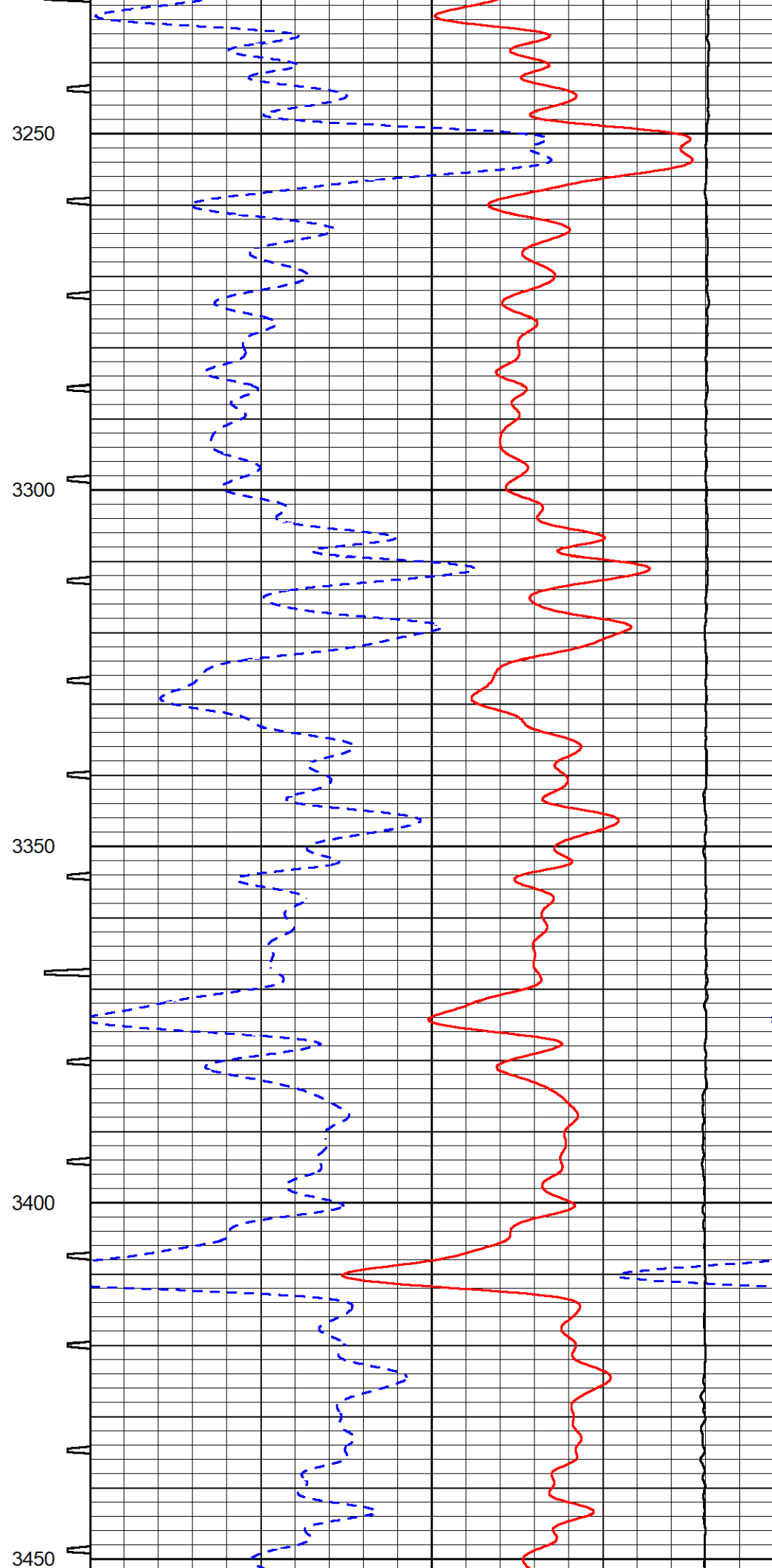
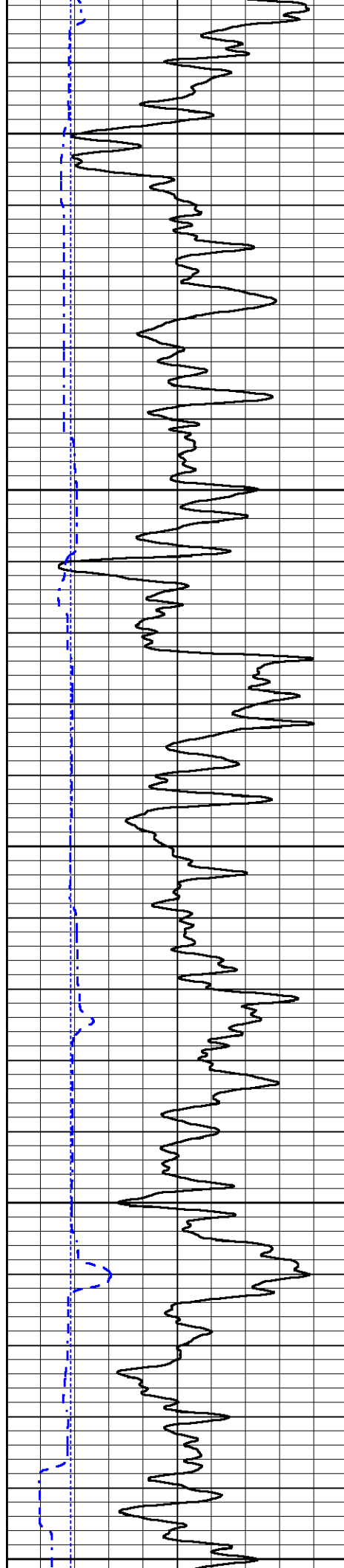


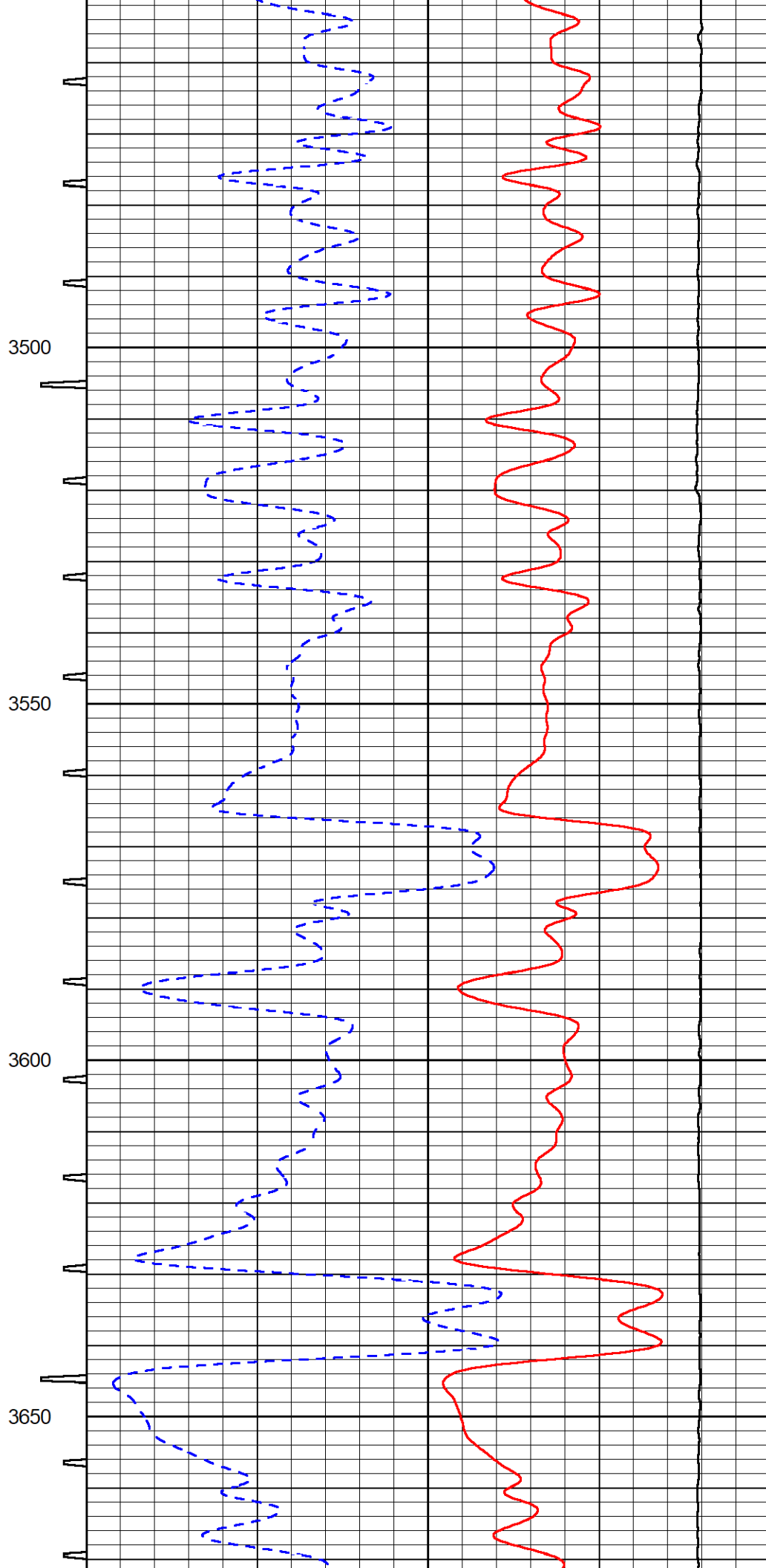
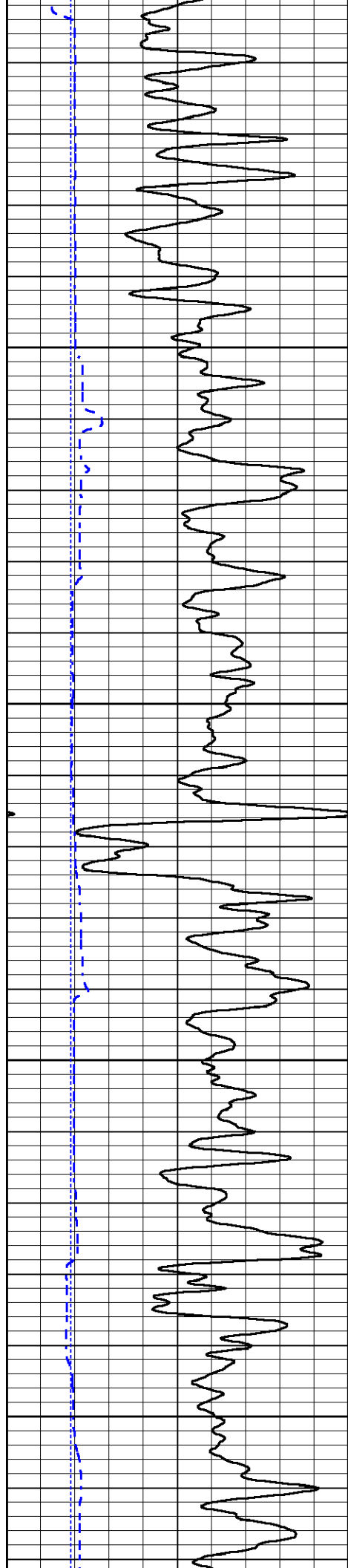


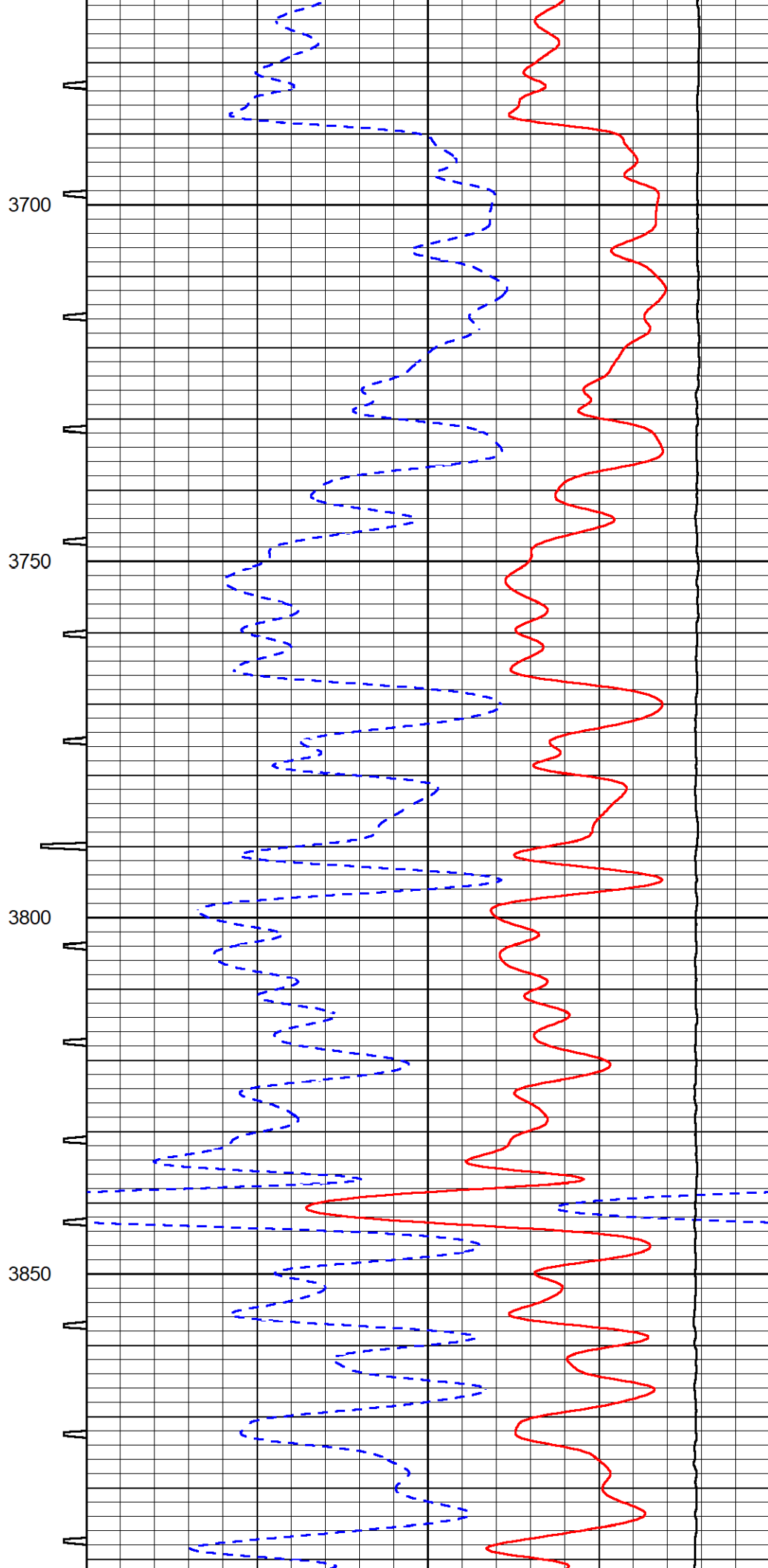
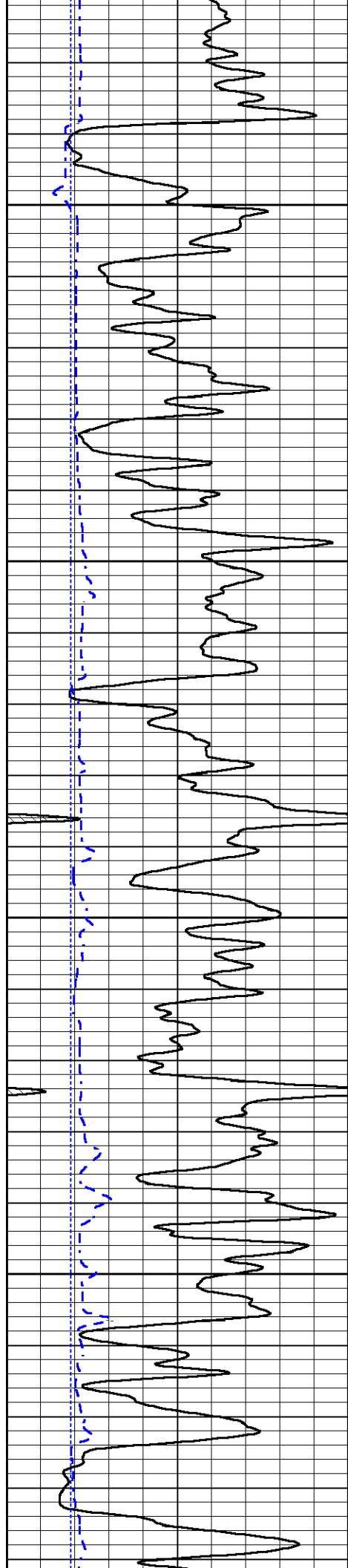


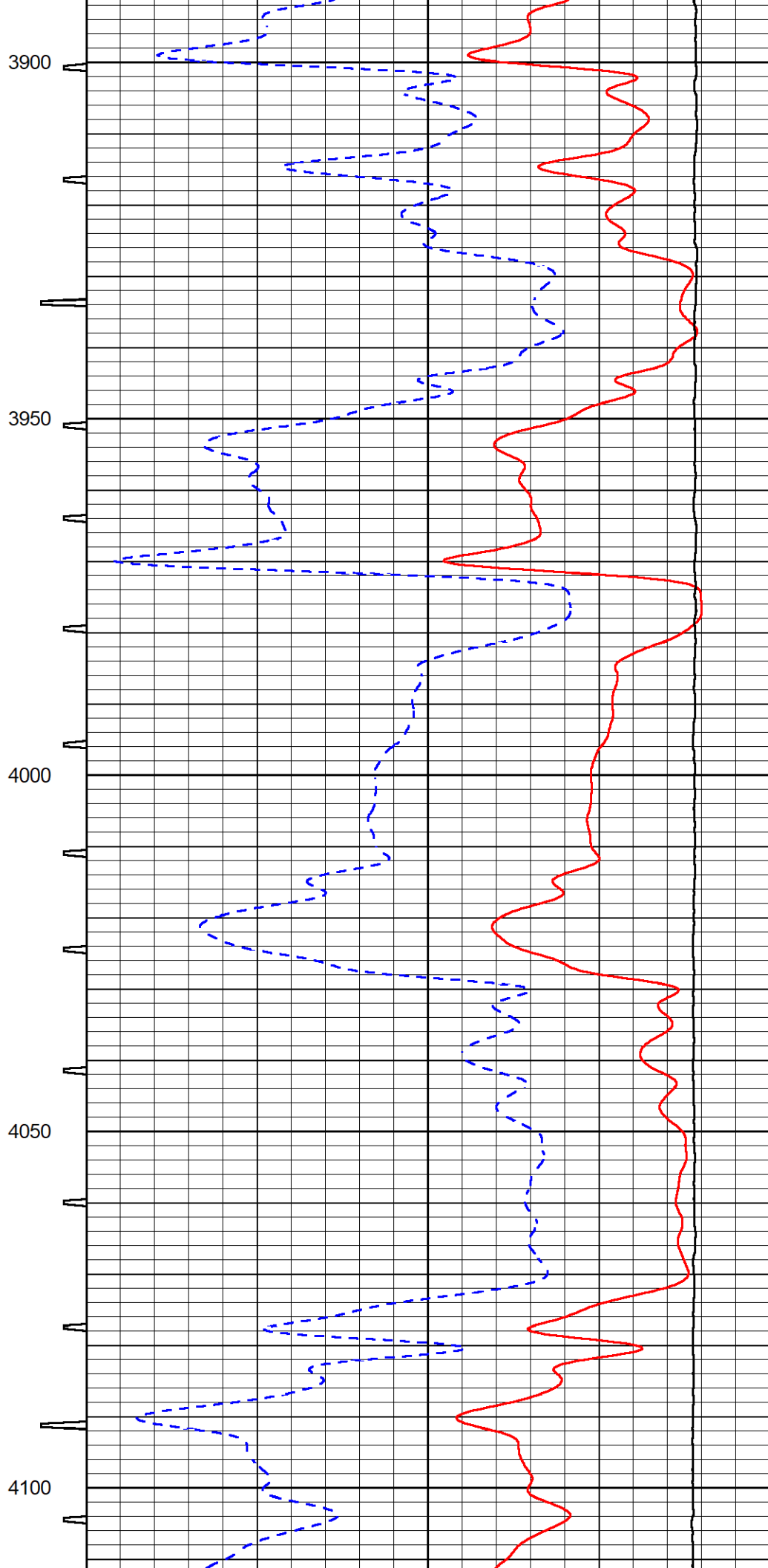
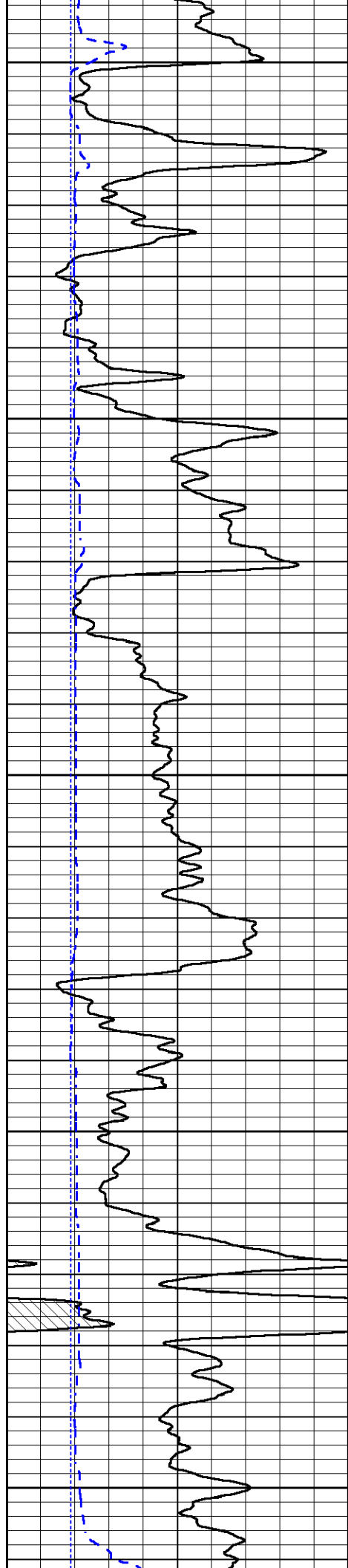


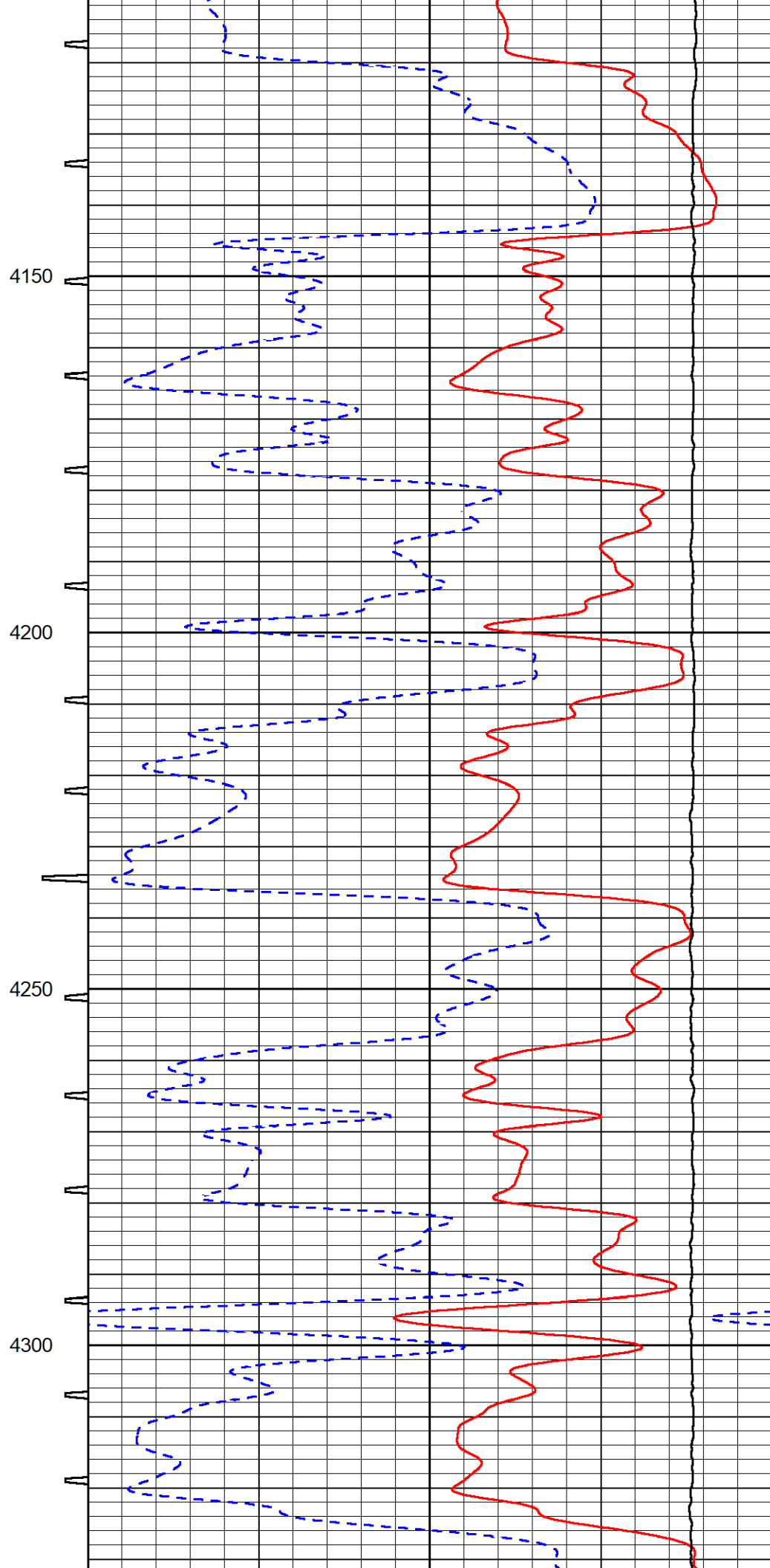
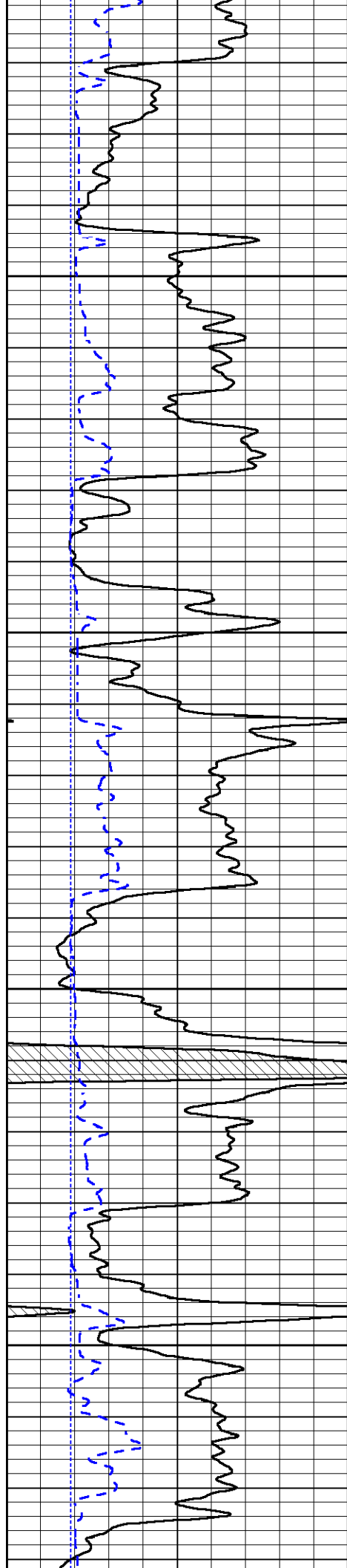


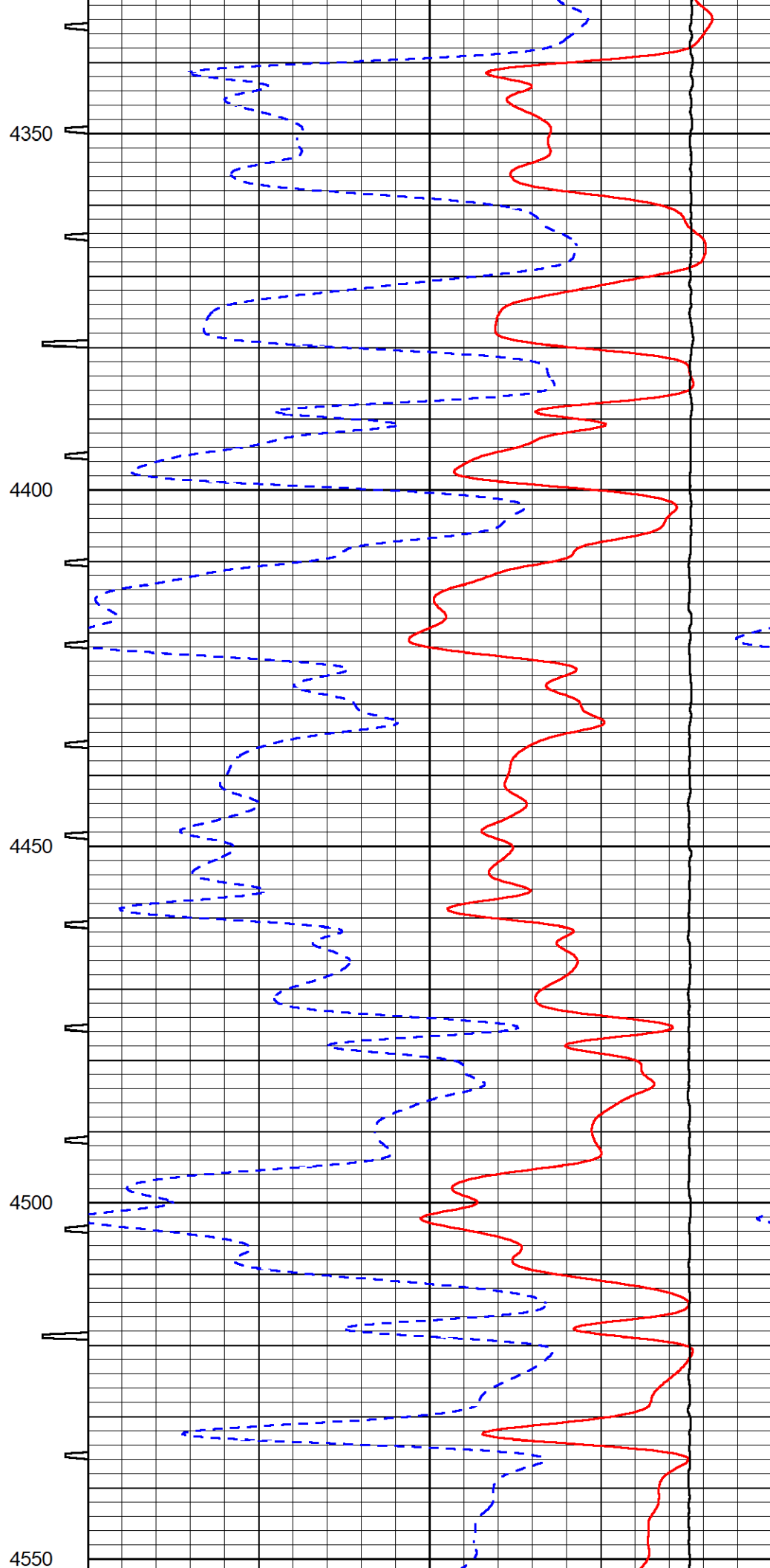
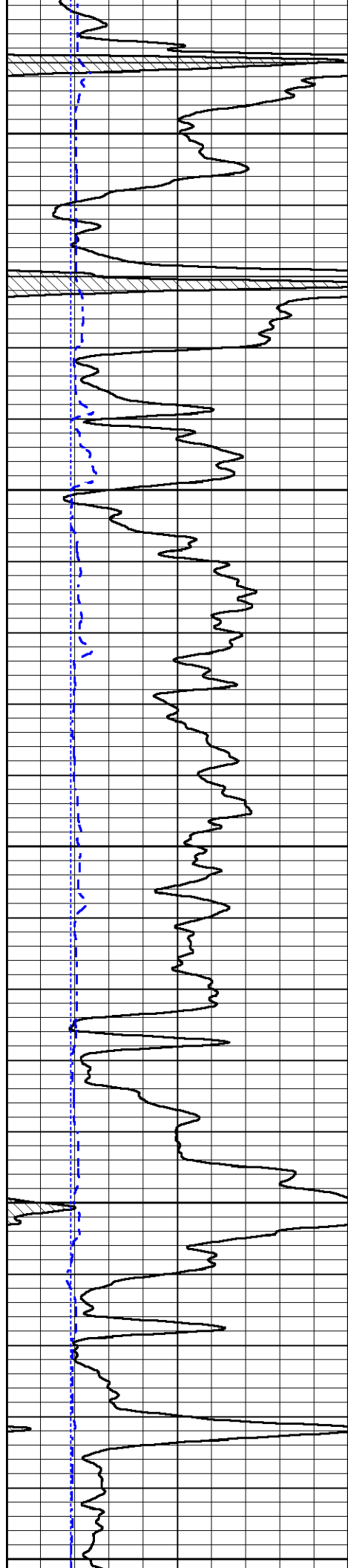


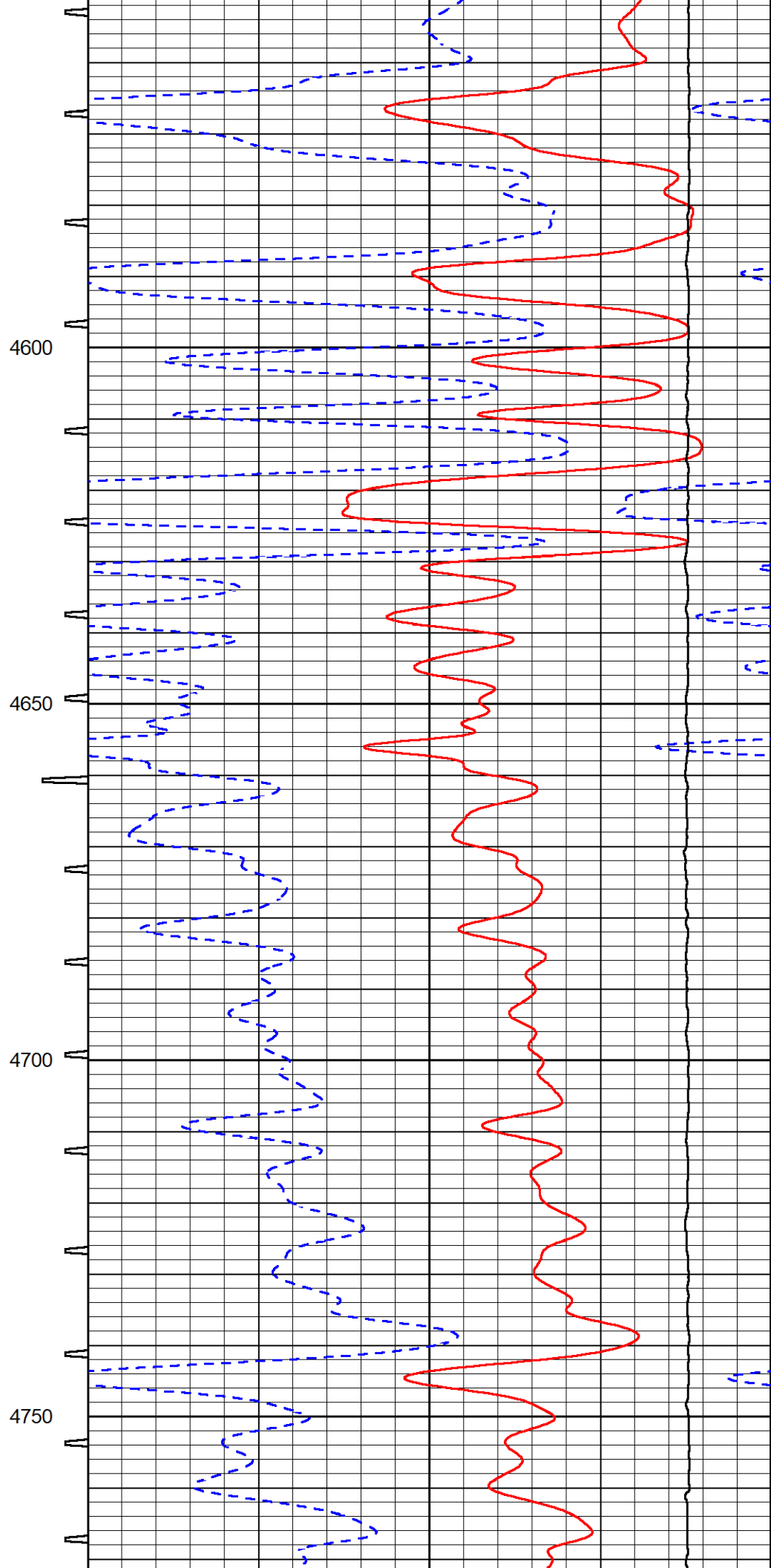
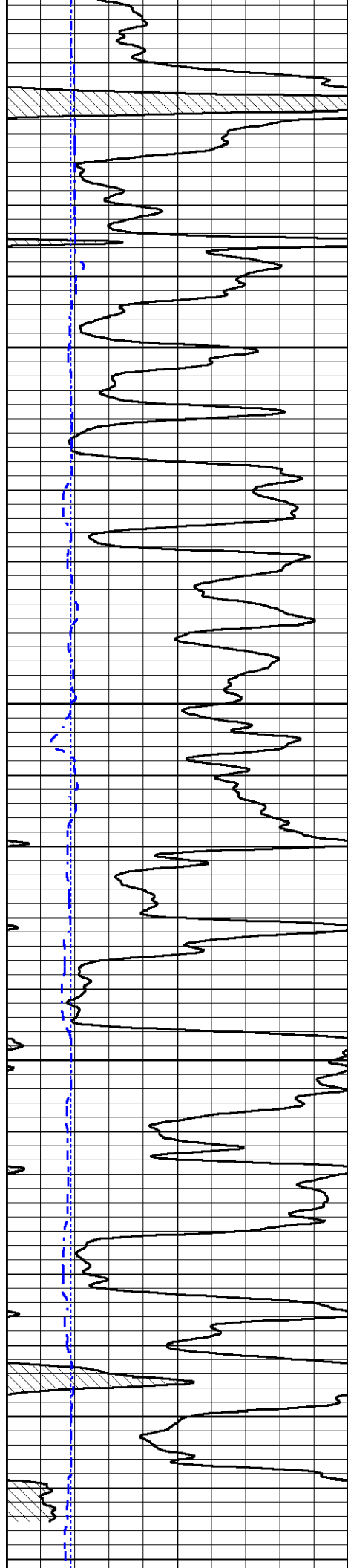


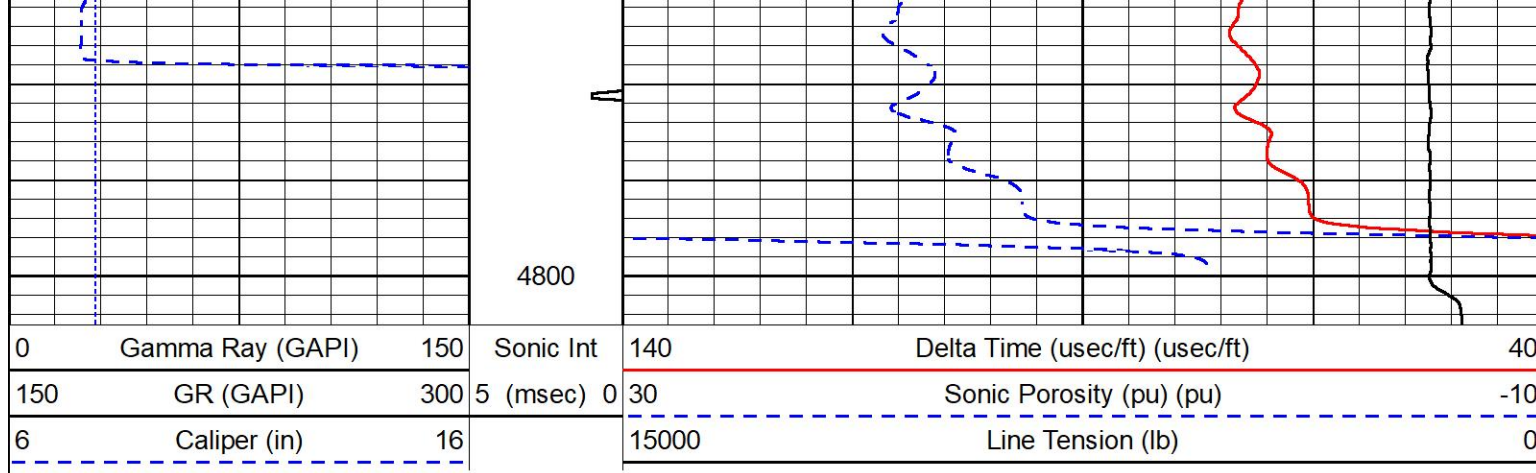












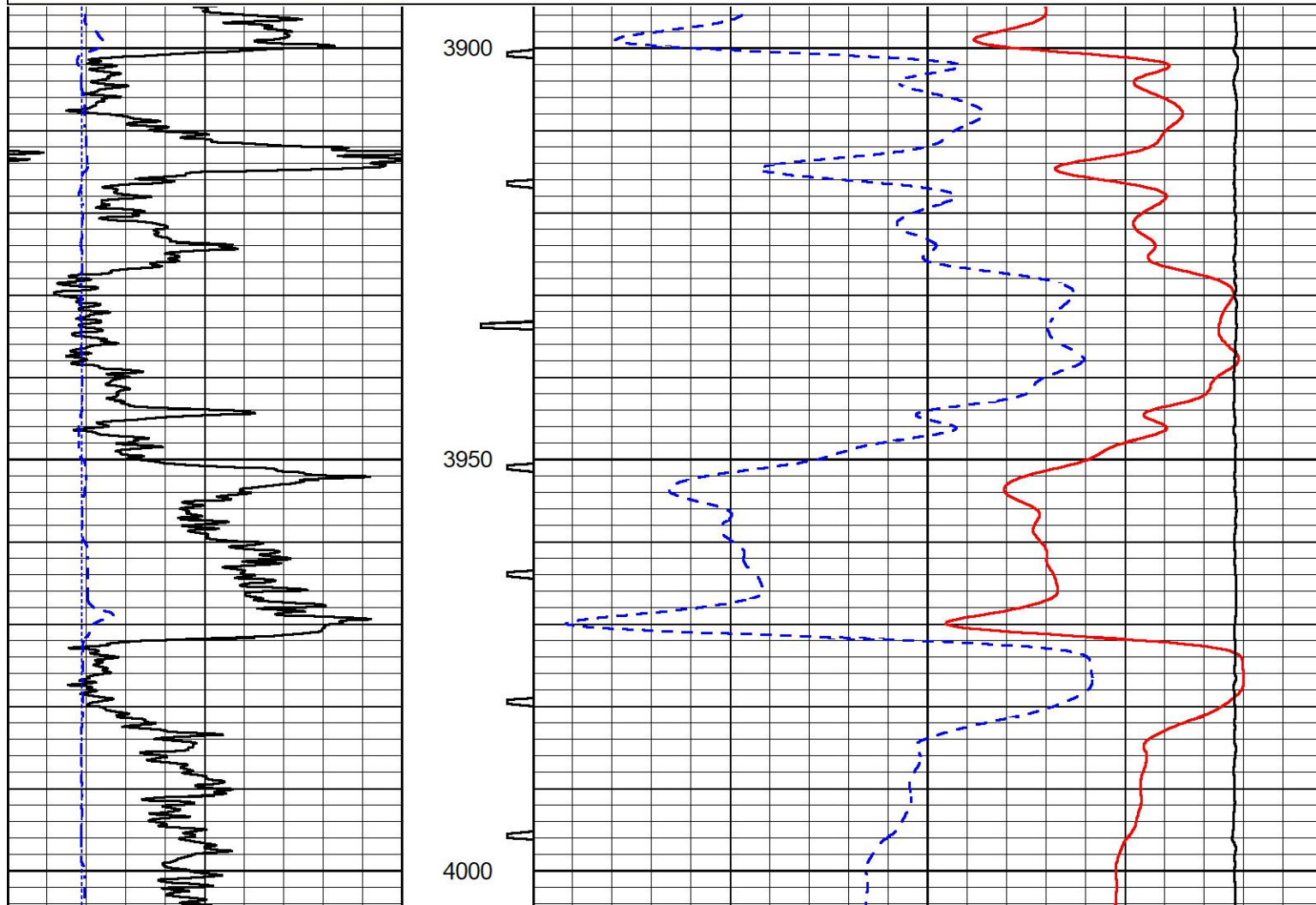
MIDWEST WIRELINE

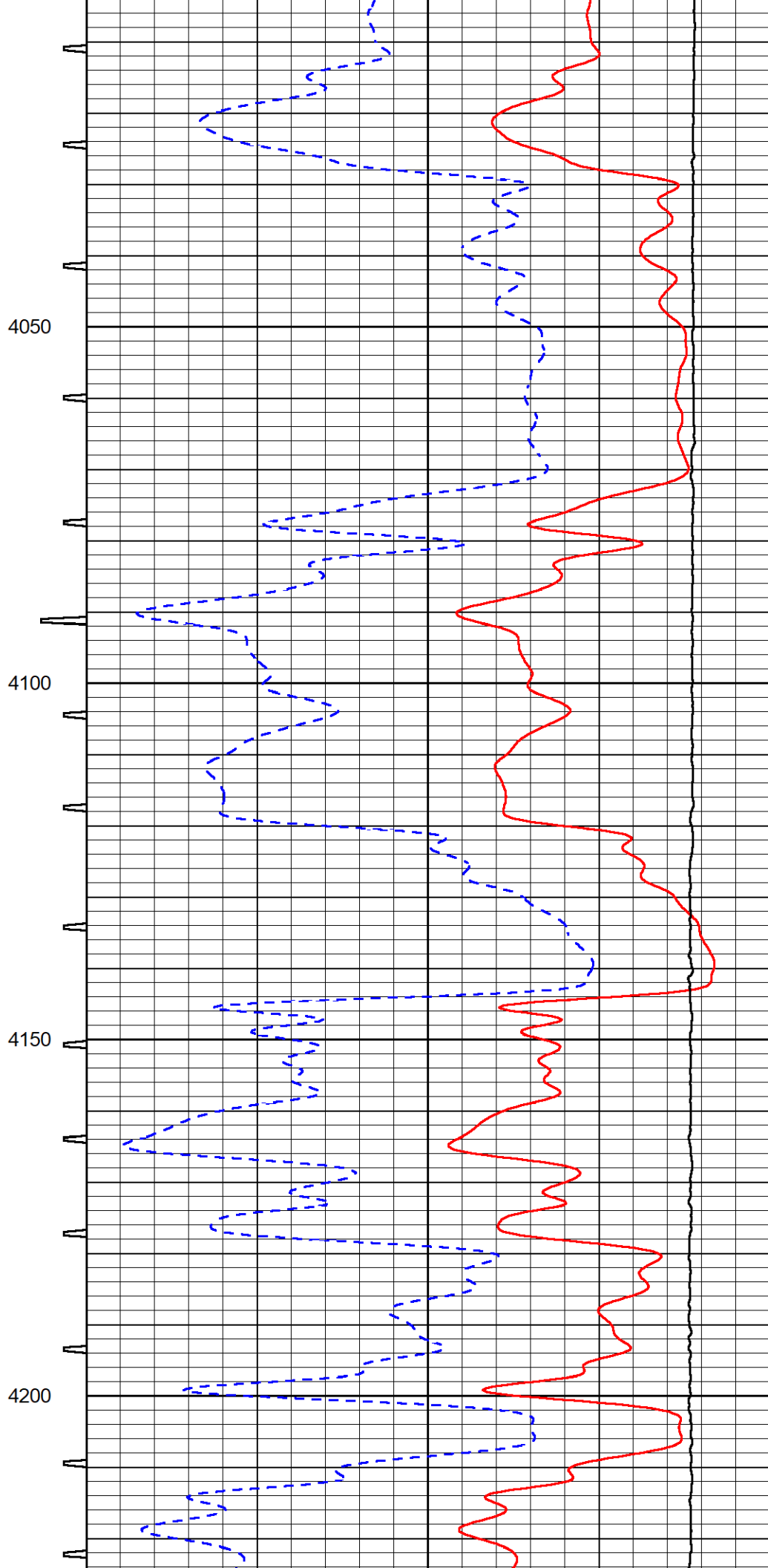
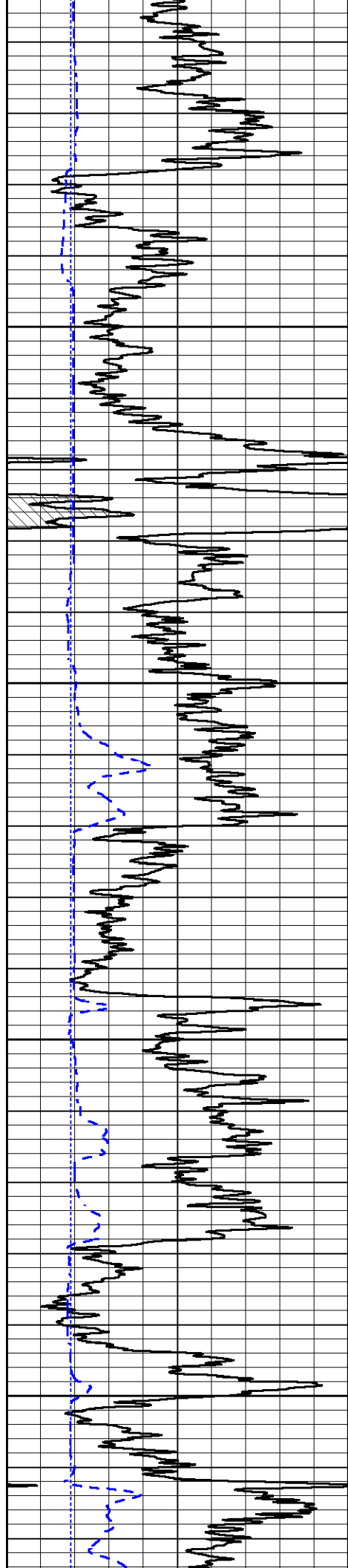
REPEAT SECTION

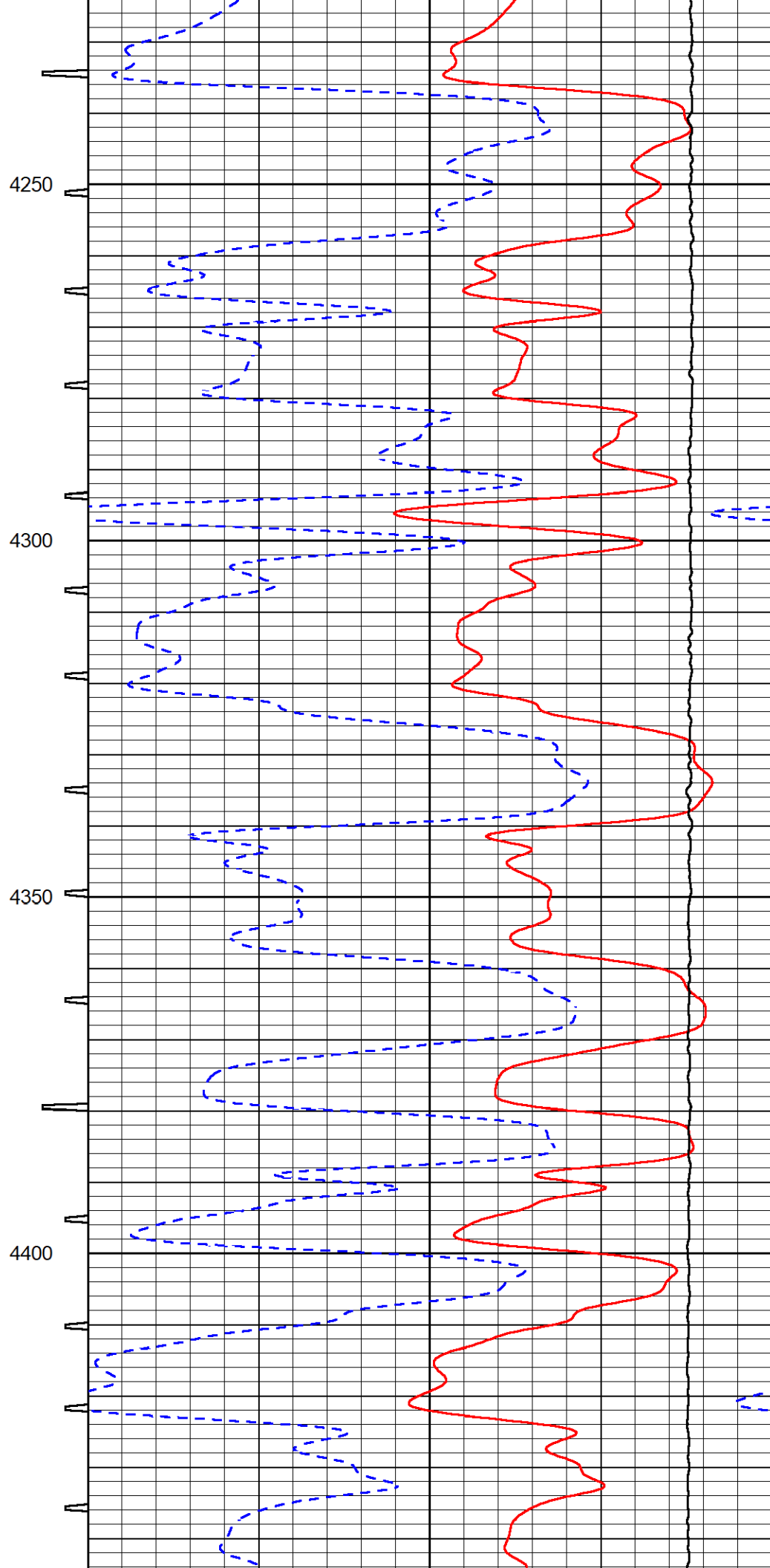
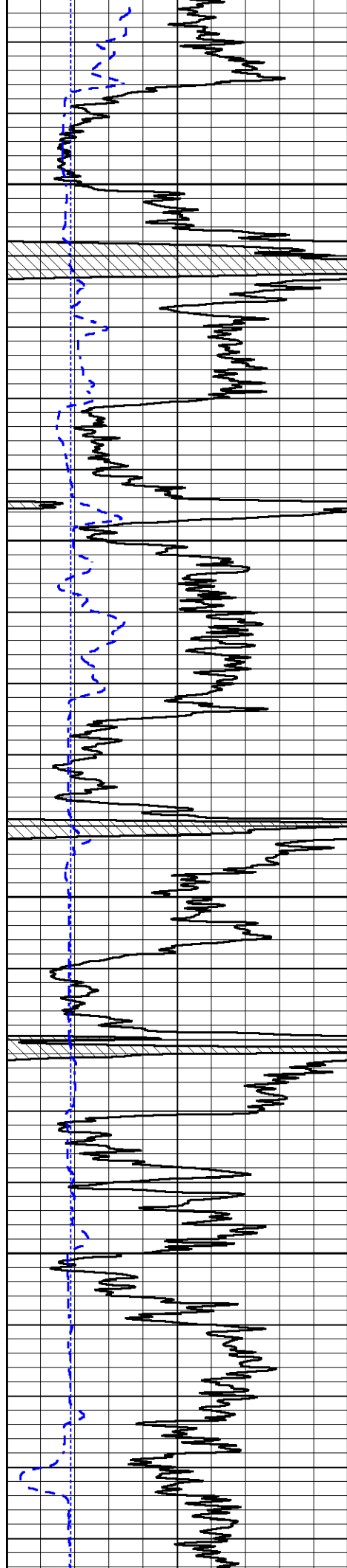
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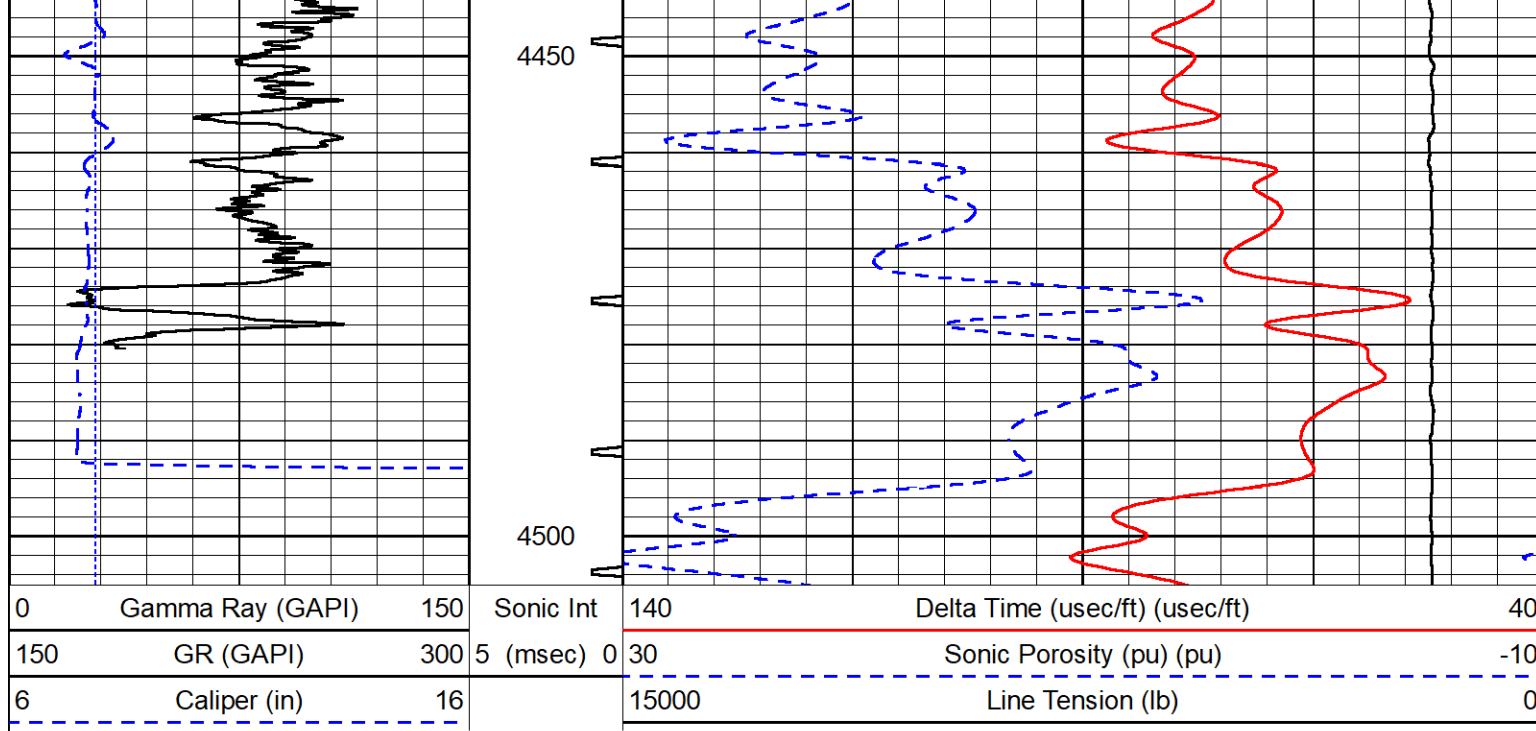
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 Dataset Pathname stkm1/pass2.1
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 Dataset Creation Wed Jan 05 09:00:58 2022
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (u sec/ft) (u sec/ft)	40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu) (pu)	-10
6	Caliper (in)	16		15000	Line Tension (lb)	0









Calibration Report	
Database File	murfin_frisbie b 2-15.db
Dataset Pathname	stkml/pass3.12
Dataset Creation	Wed Jan 05 08:53:30 2022

Dual Induction Calibration Report	
Serial-Model:	501 HT-M&W
Surface Cal Performed:	Mon Dec 20 13:26:03 2021

Readings			References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.420	-35.500
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.300	-30.500

Microlog Calibration Report	
Serial-Model:	402-PSIML
Performed:	Wed Jan 5 07:26:27 2022

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	33000.0000	-1.5500
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	24000.0000	0.0000
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-142.5000

Compensated Density Calibration Report	
Serial-Model:	305-05-M&W
Source #:	20762B
Master Calibration Performed:	Mon Dec 13 15:18:29 2021

Master Calibration	
Serial-Model:	305-05-M&W
Source #:	20762B
Master Calibration Performed:	Mon Dec 13 15:18:29 2021

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	8758.11	9709.36	cps
Aluminum	2.630	g/cc	1513.14	5652.54	cps
Spine Angle = 72.88			Density/Spine Ratio = 0.476		
	Size		Reading		
Small Ring	4.00	in	1.75		
Large Ring	14.00	in	1.38		

Compensated Neutron Calibration Report

Serial-Model:	207-MW-M&W
Source #:	100046B
Master Calibration Performed:	Mon Nov 29 15:06:24 2021

Master 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

Gamma Ray Calibration Report

Serial Number:	101	
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

	Company	Murfin Drilling Company, Inc.
	Well	Frisbie B #2-15
	Field	
	County	Rawlins
	State	Kansas