



BOREHOLE COMPENSATED SONIC LOG

MIDWEST WIRELINE

Company Canyon Operating, LLC
Well Rush Trust #17-1
Field High Hill
County Graham
State Kansas

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Location: API #: 15-065-24205-00-00
SEC 17 TWP 10S RGE 24W
Permanent Datum Ground Level Elevation 2467
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing
Other Services
CNL/CDL
DIL/MEL
K.B. 2474
D.F.
G.L. 2467

Date 5/25/2022

Run Number	Two
Type Log	BHCS
Depth Driller	4120
Depth Logger	4122
Bottom Logged Interval	4110
Top Logged Interval	200
Type Fluid In Hole	Chemical
Salinity, PPM CL	5000
Density	9.2
Level	Full
Max. Rec. Temp. F	117
Operating Rig Time	4 Hours
Equipment -- Location	P-108 HAYS
Recorded By	D. Schmidt
Witnessed By	Macklin Armstrong

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	221	8.625	23	0	221
Two	7.875	221	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.

St. Peter,
3 East on Cemetery Rd, 1 South, 1/2 East,
North into

Log Measured From: Kelly Bushing 7 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: Macklin Armstrong
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\canyon_rush trust 17-1.db
Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	117	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	570	50		4122

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

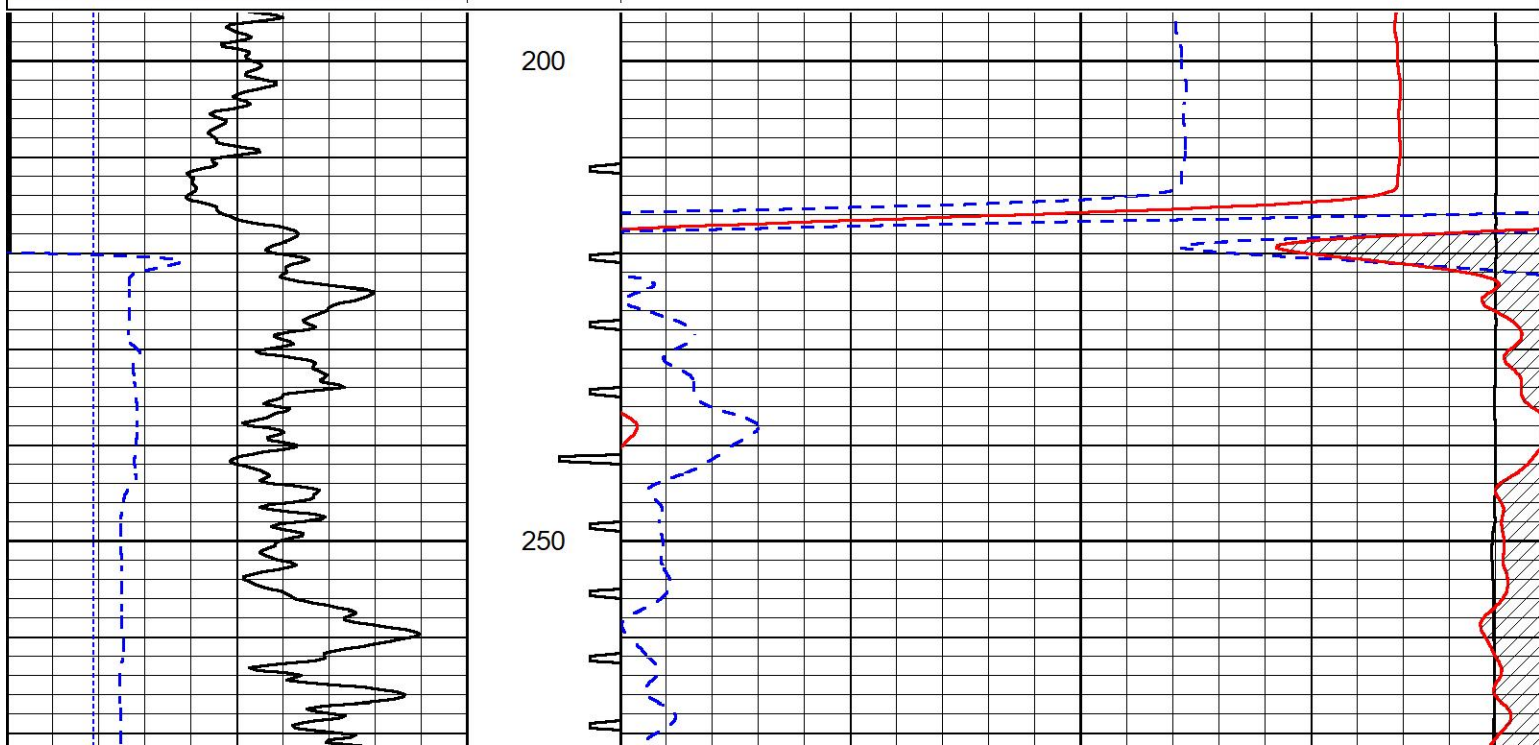


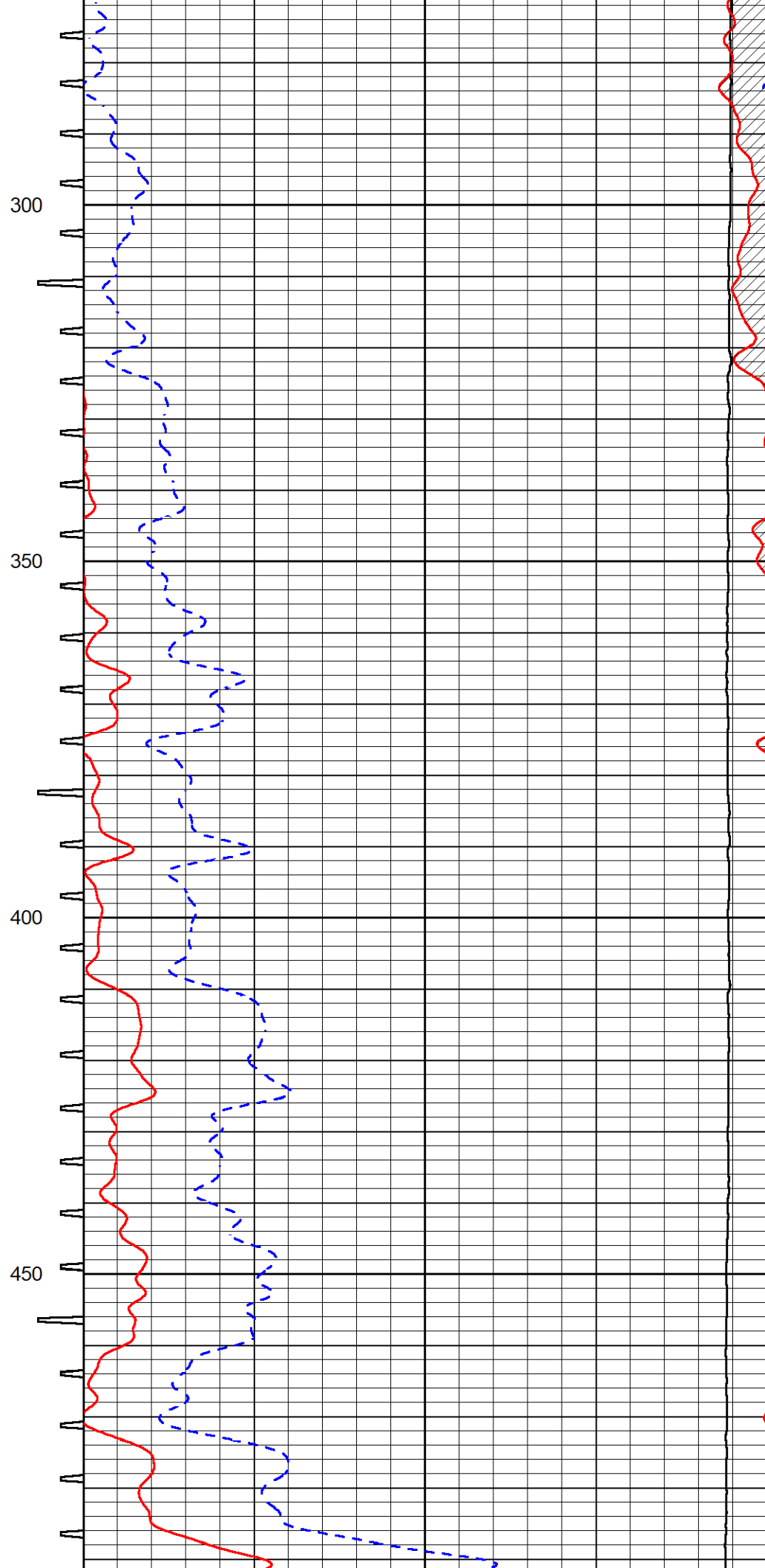
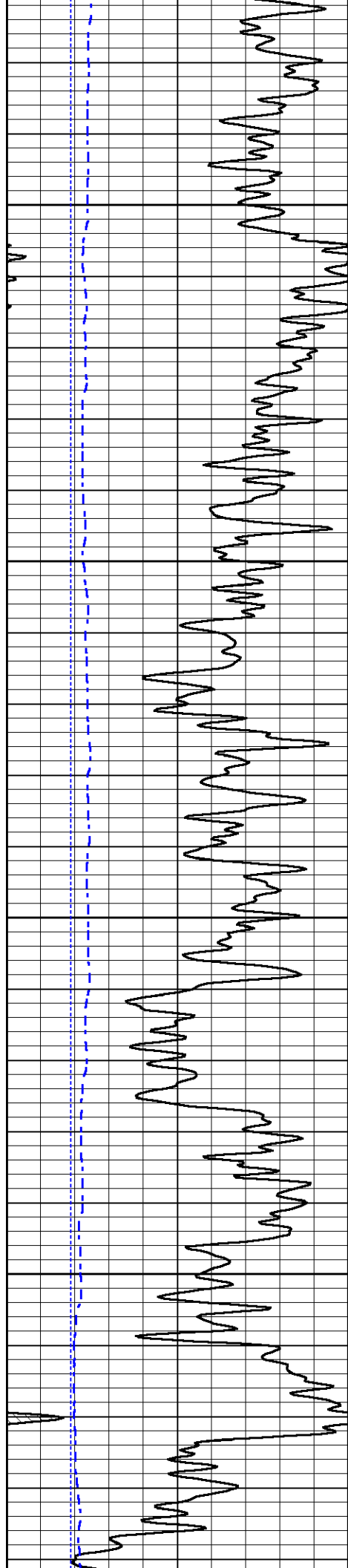
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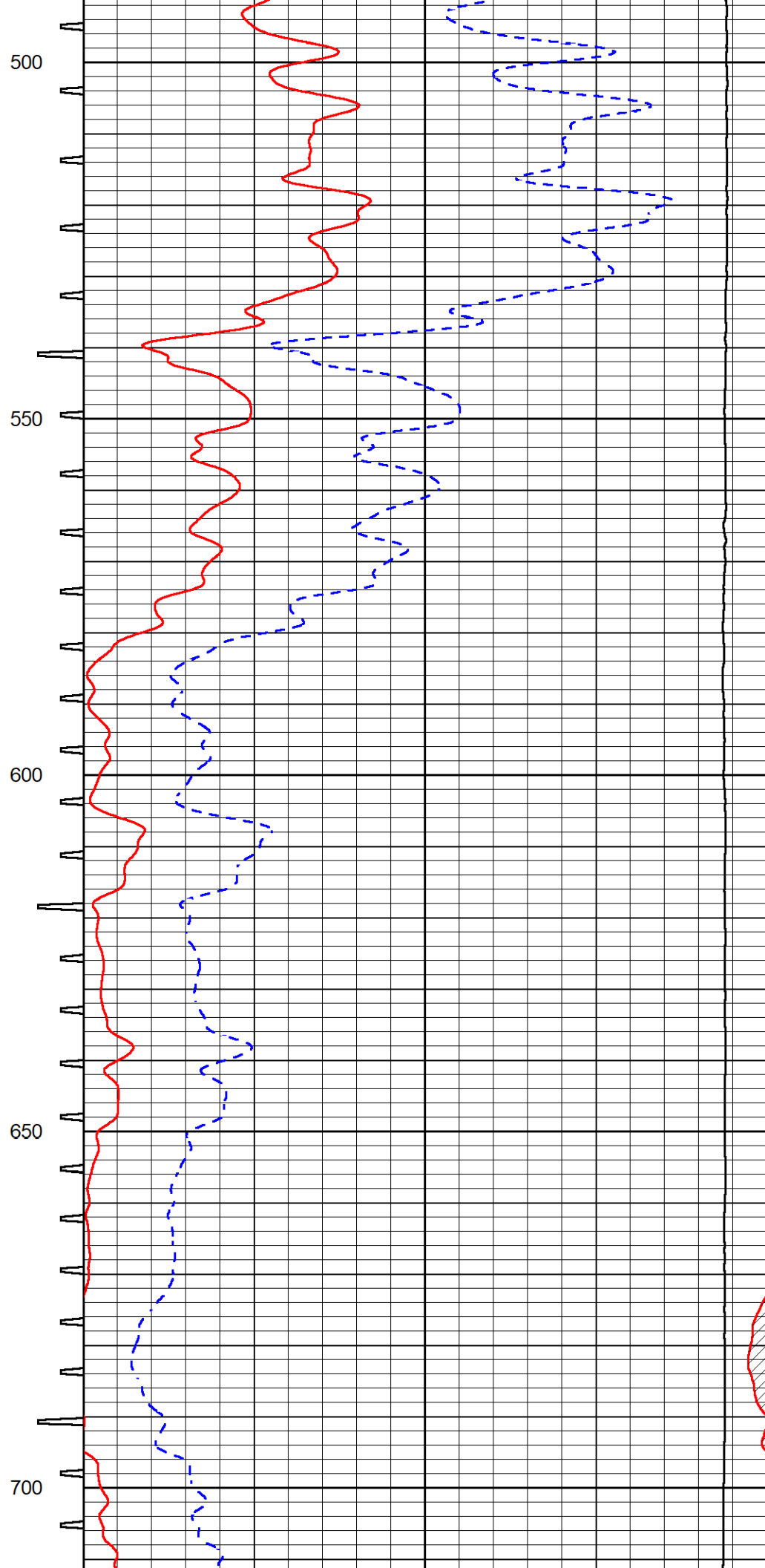
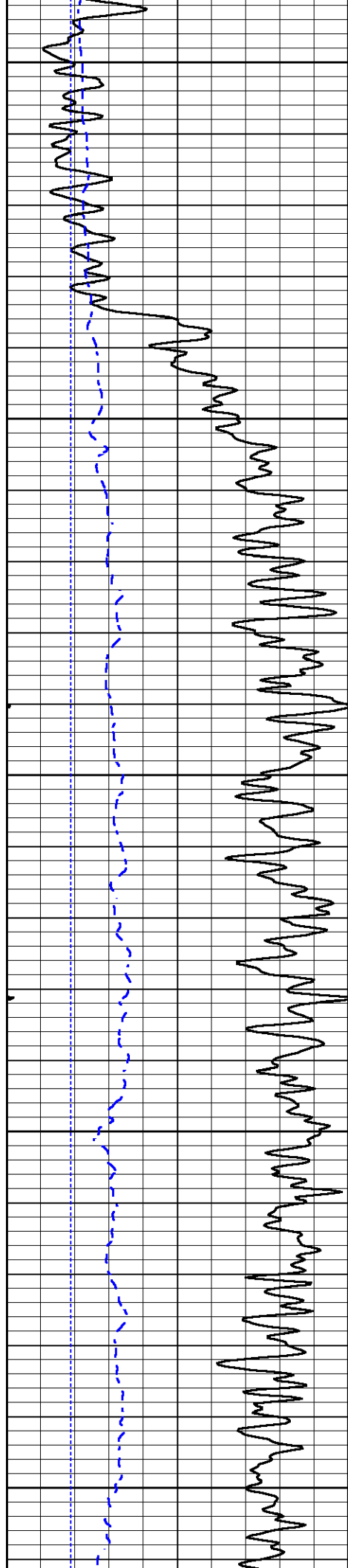
MAIN PASS

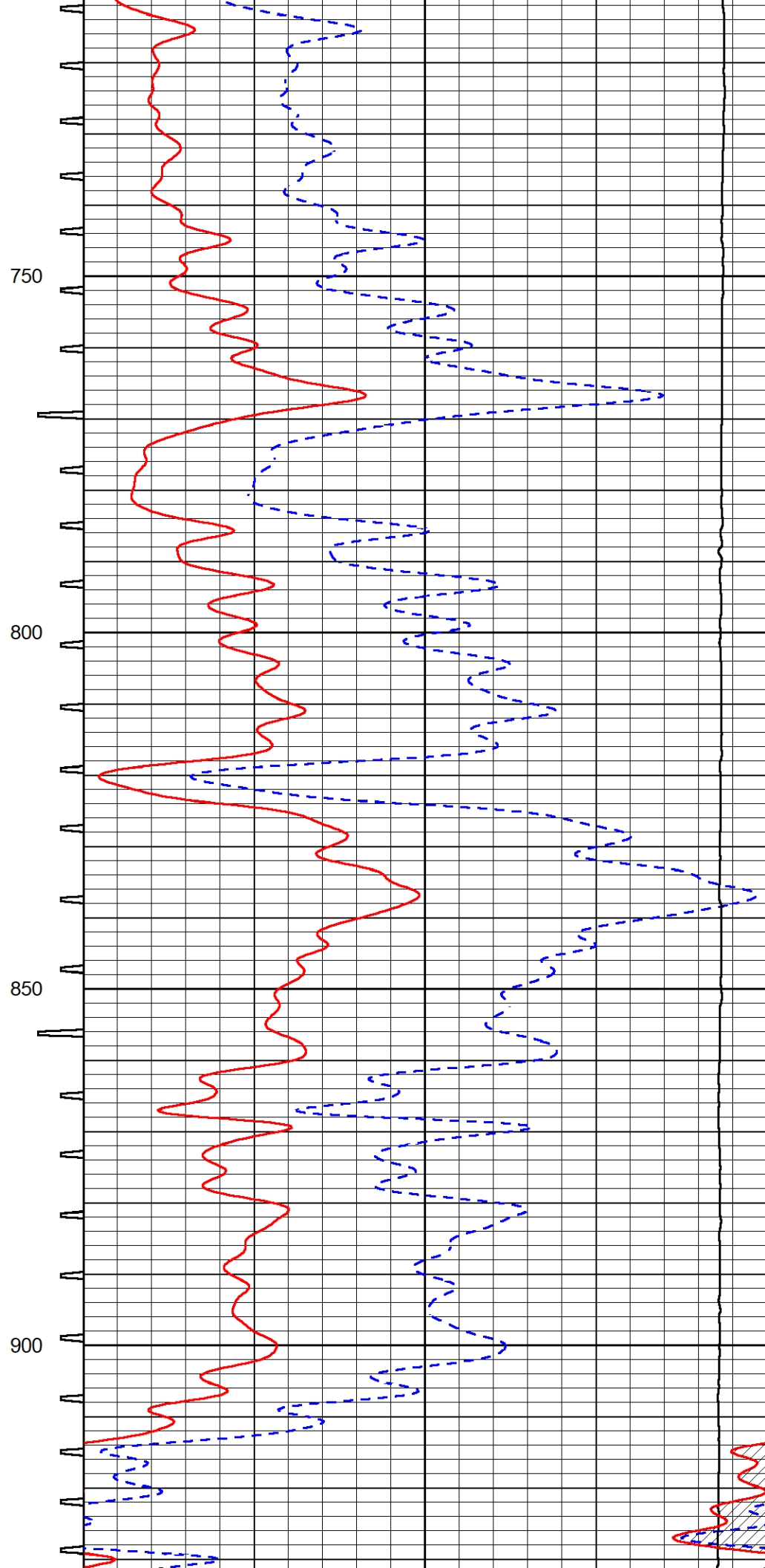
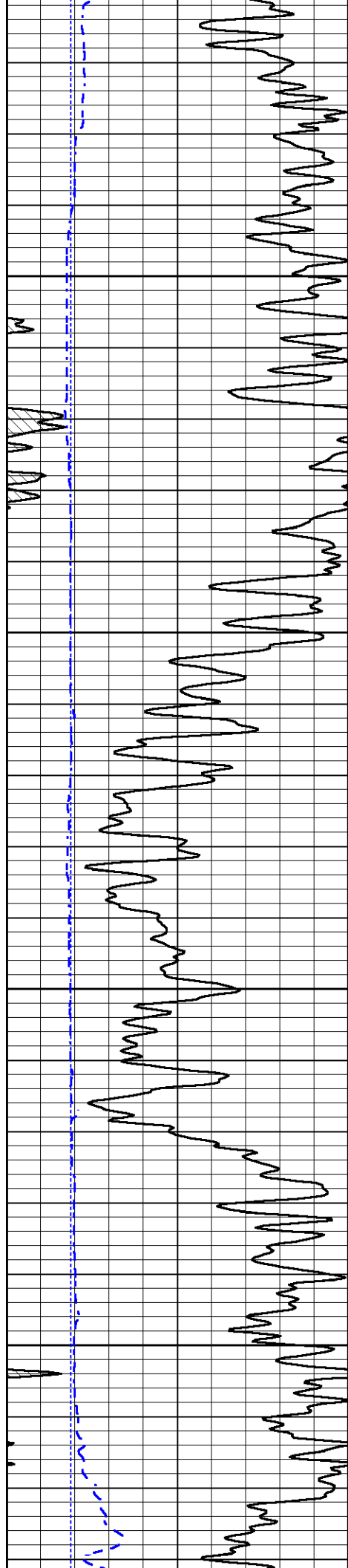
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Dataset Pathname stkml/pass3.1
Presentation Format _sonic
Dataset Creation Wed May 25 12:30:53 2022
Charted by Depth in Feet scaled 1:240

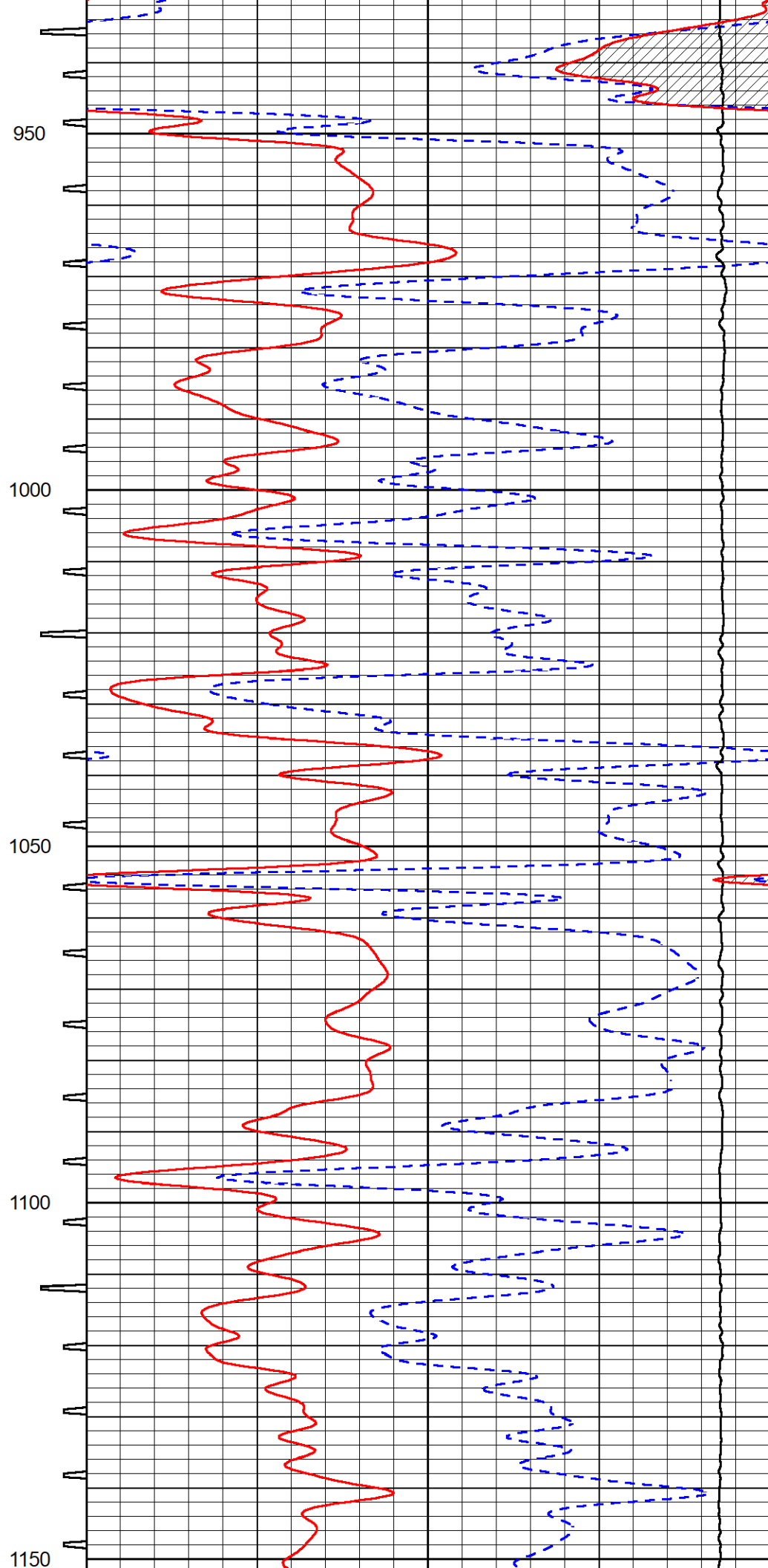
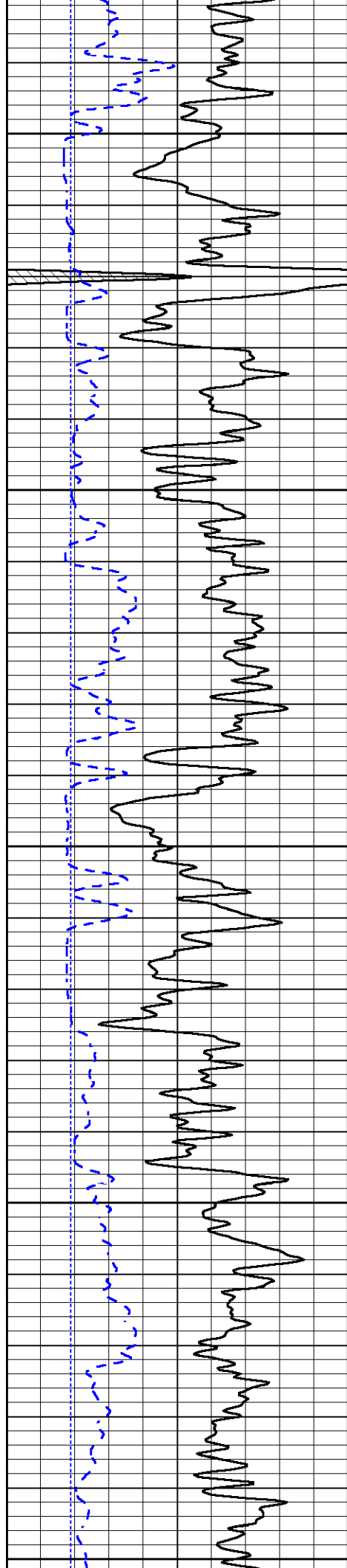
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu) (pu)	-10
6	Caliper (in)	16		15000	Line Tension (lb)	0

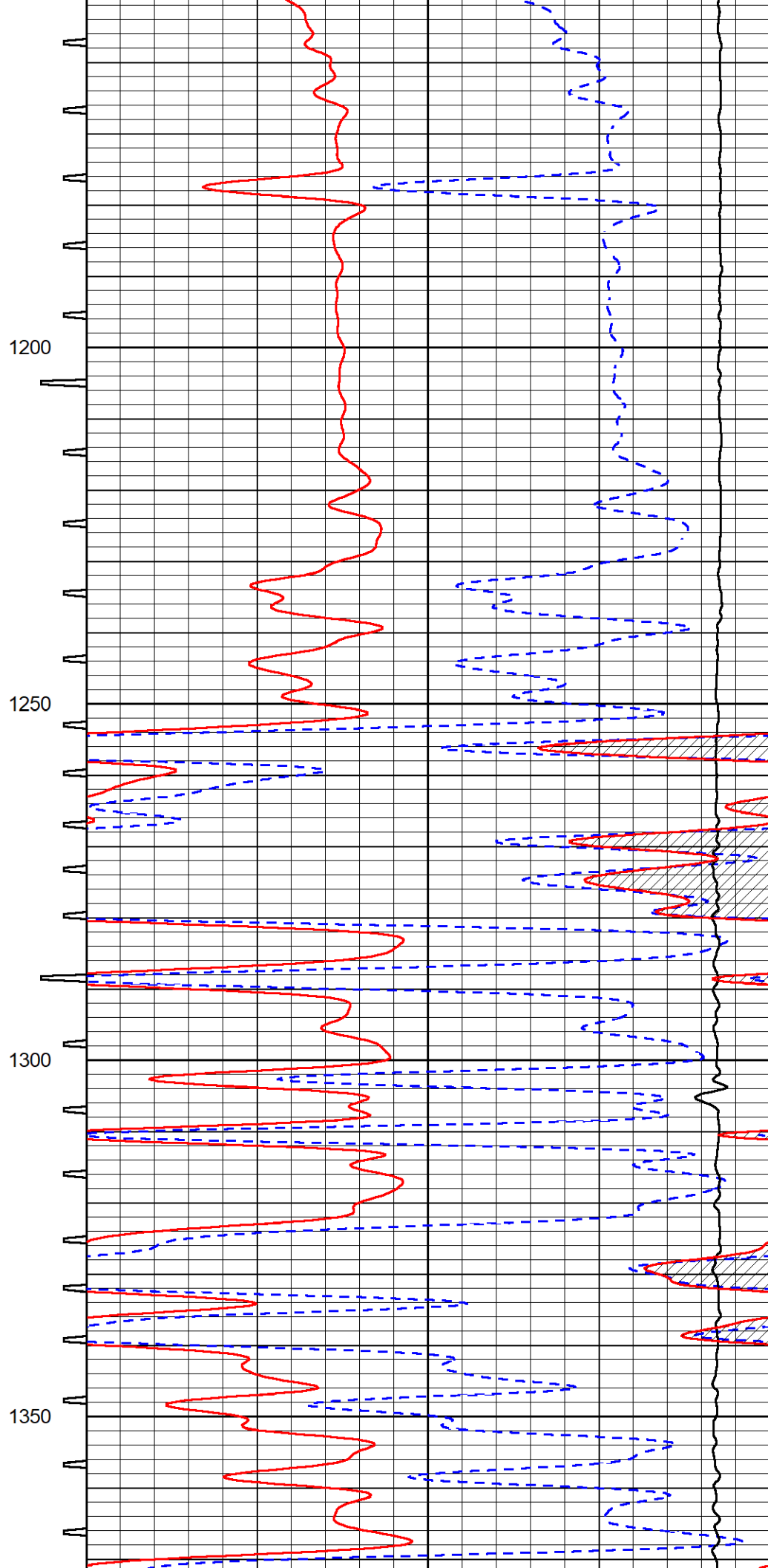
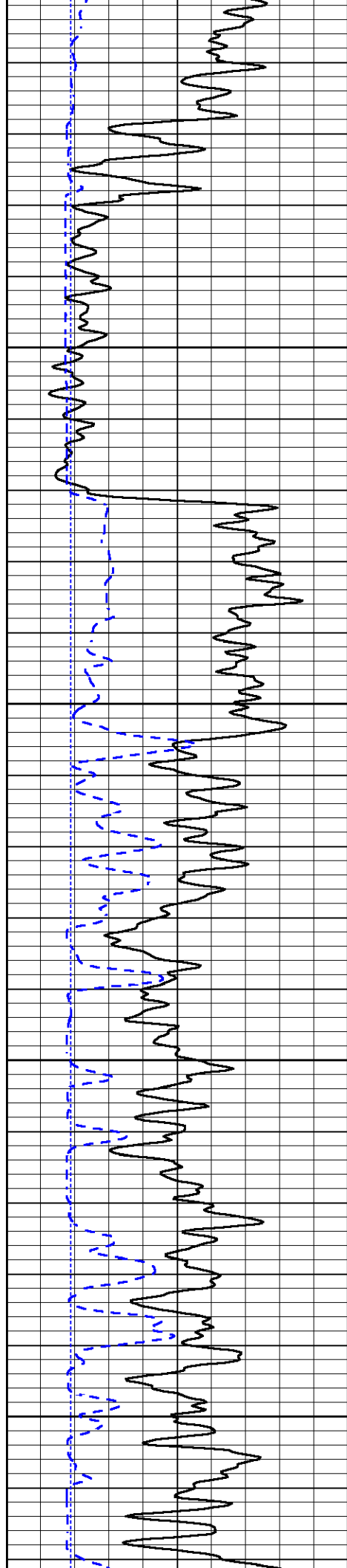


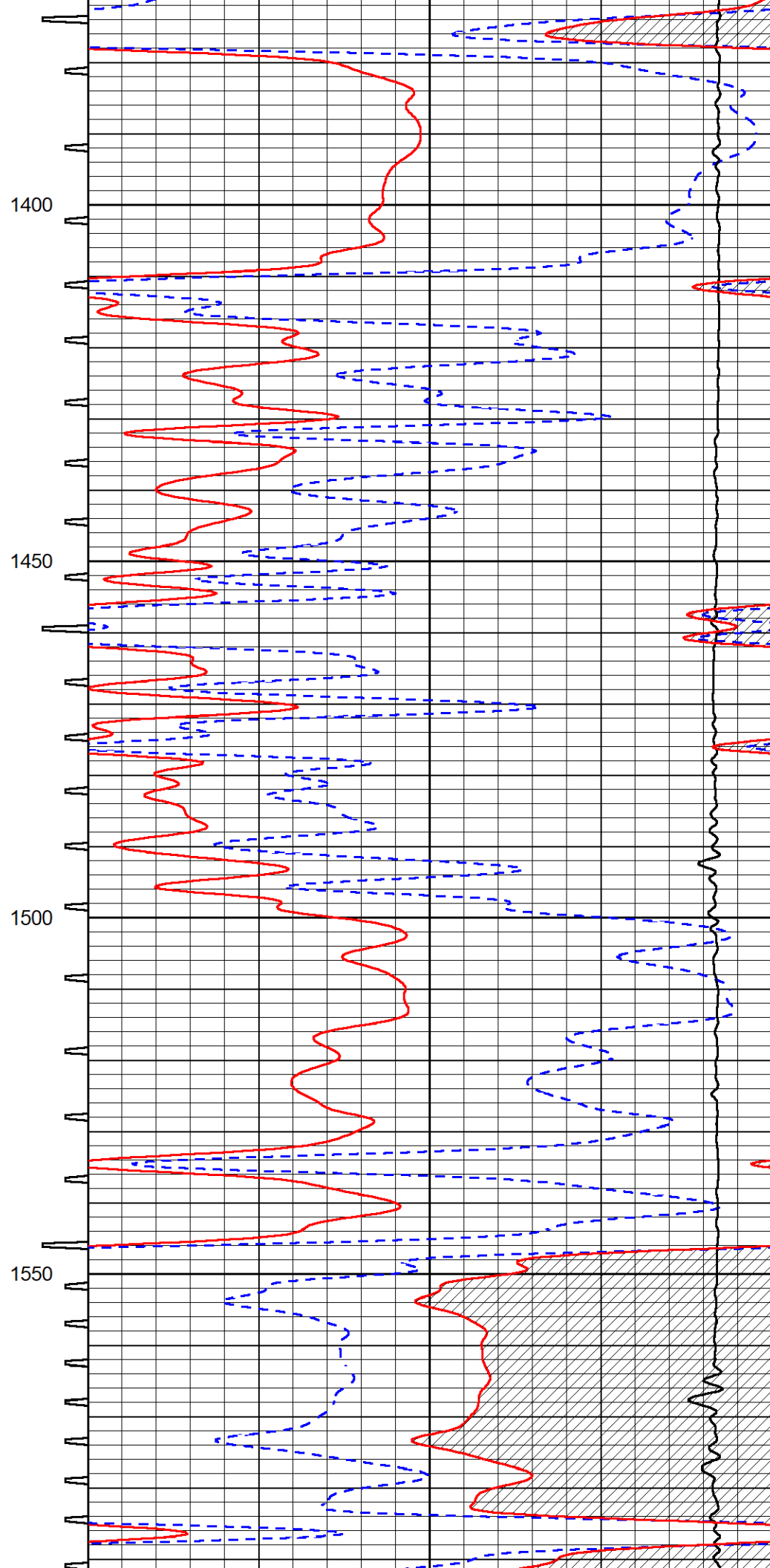
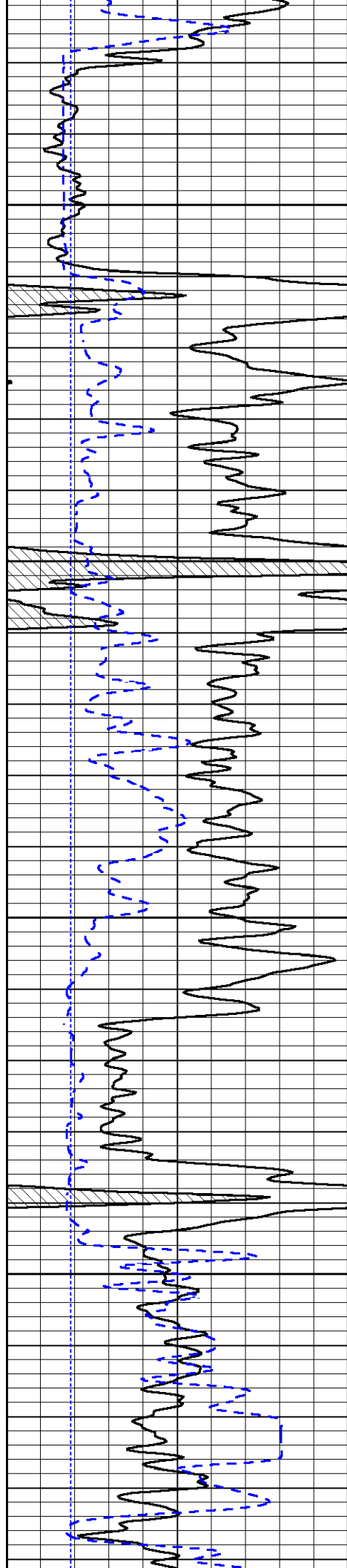


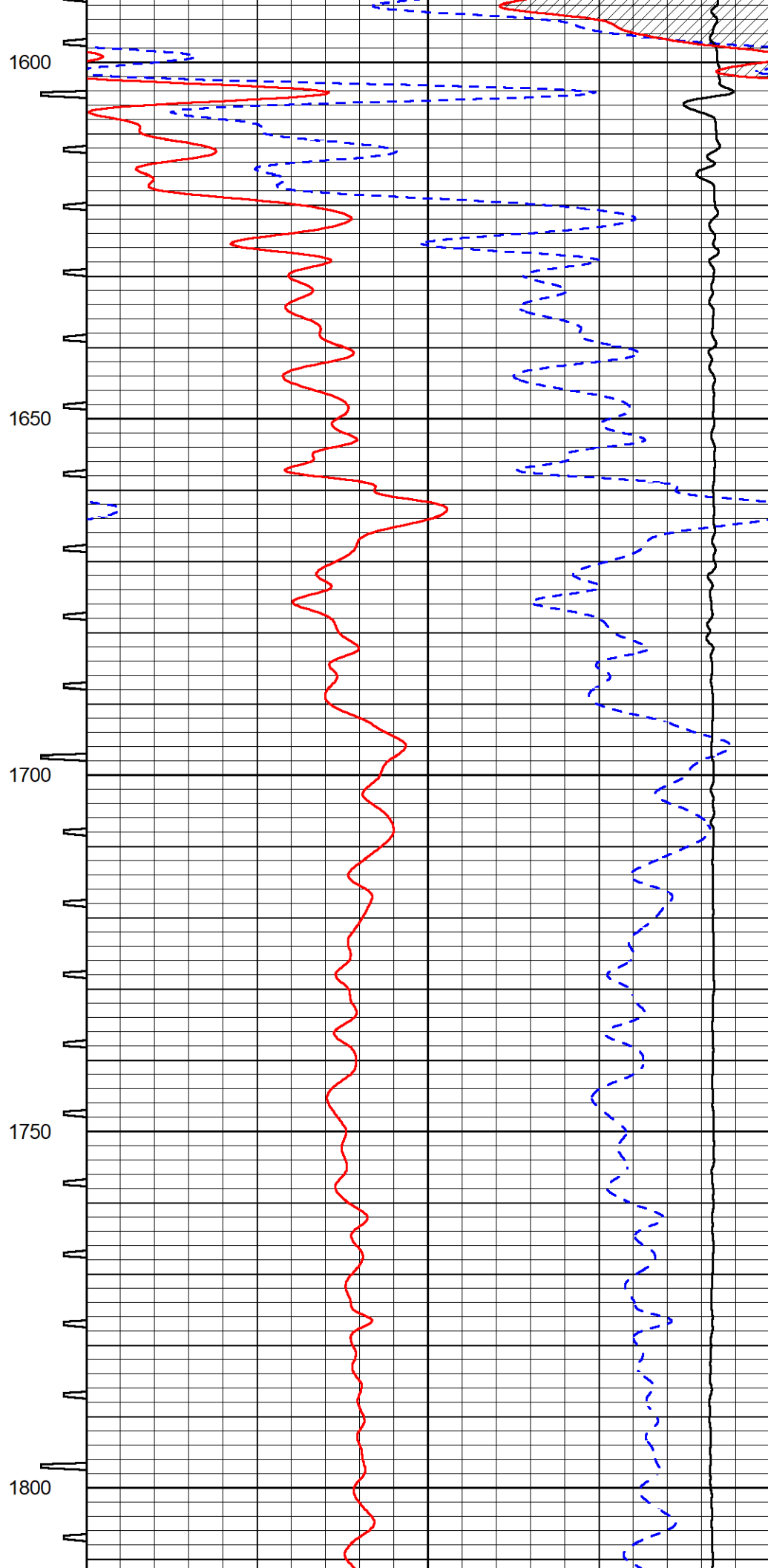
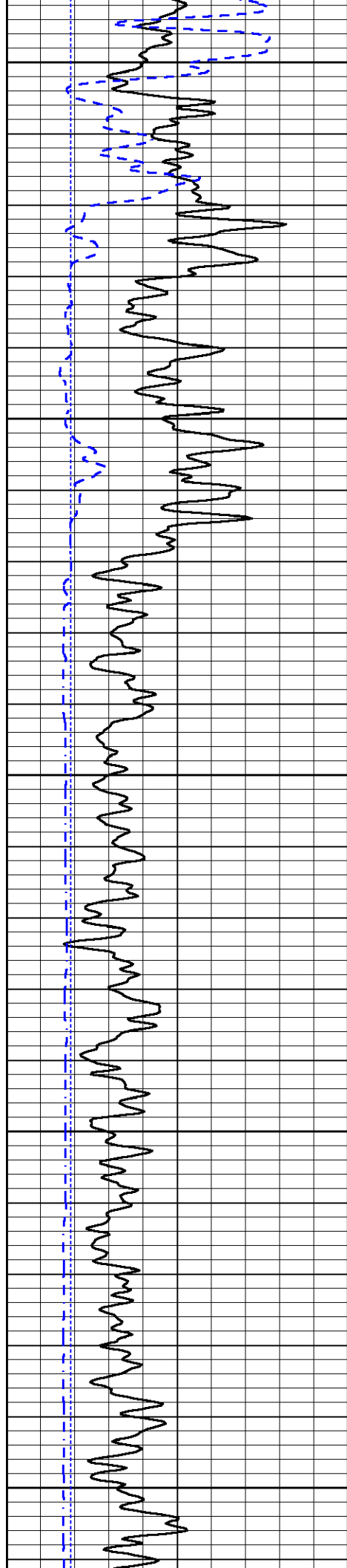


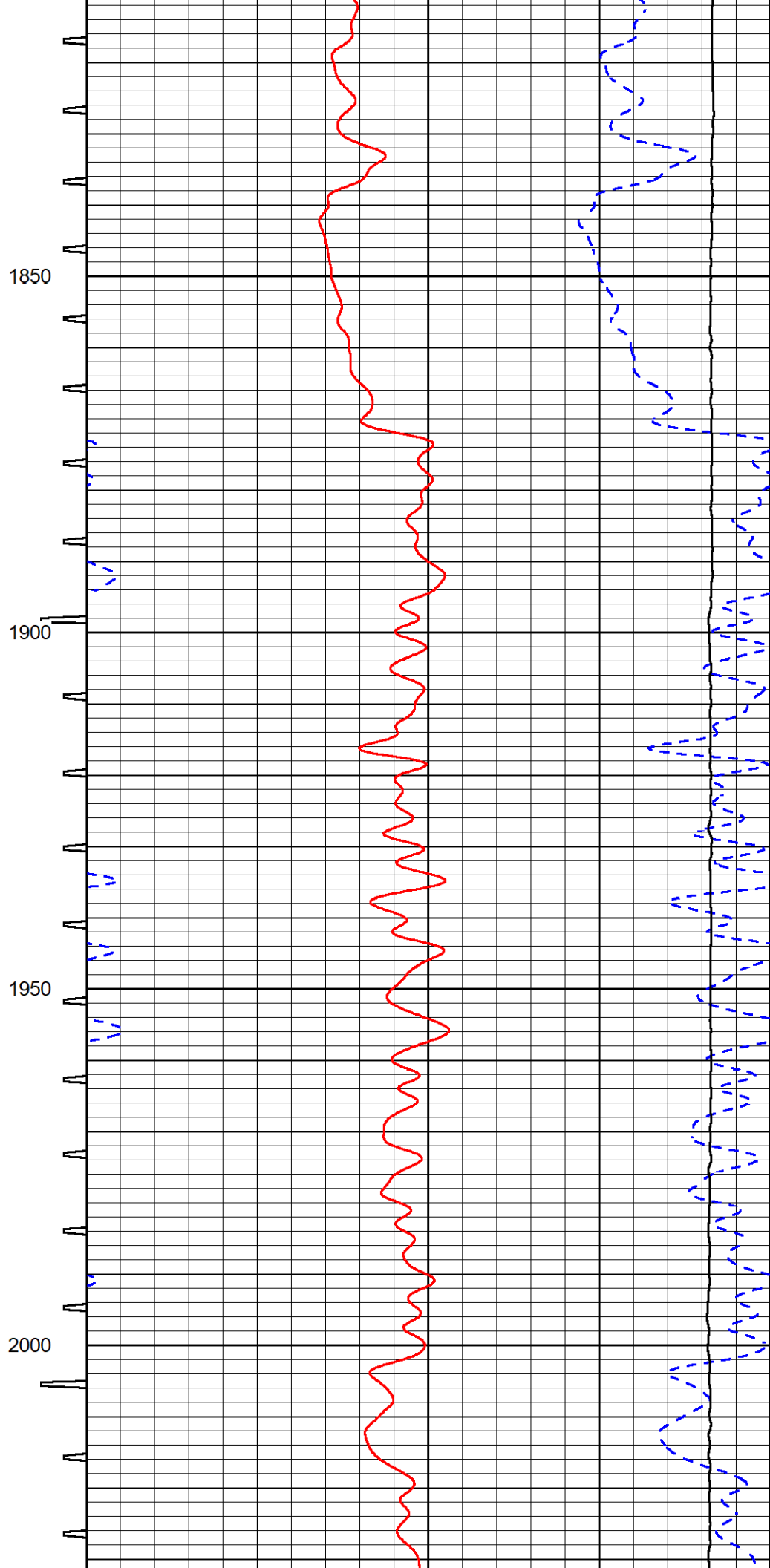
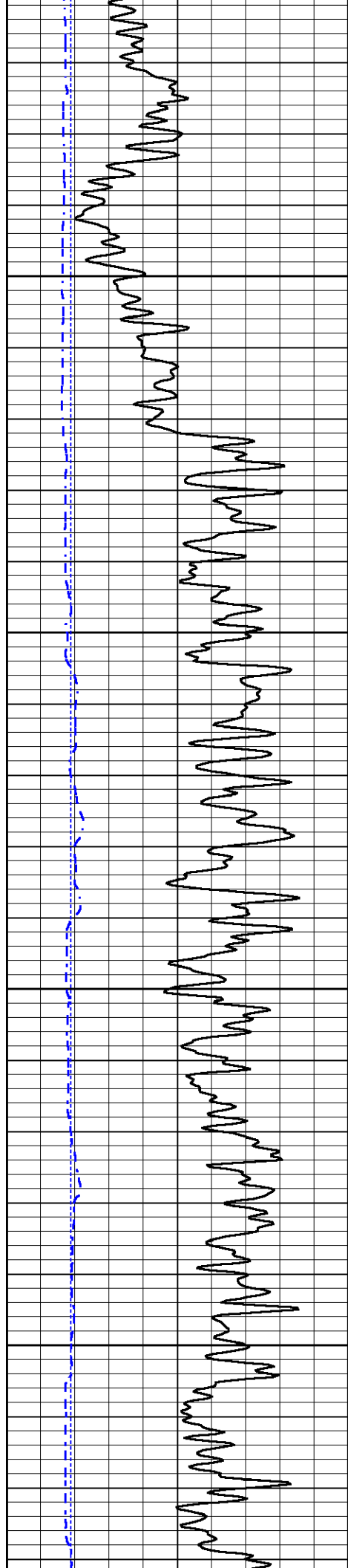


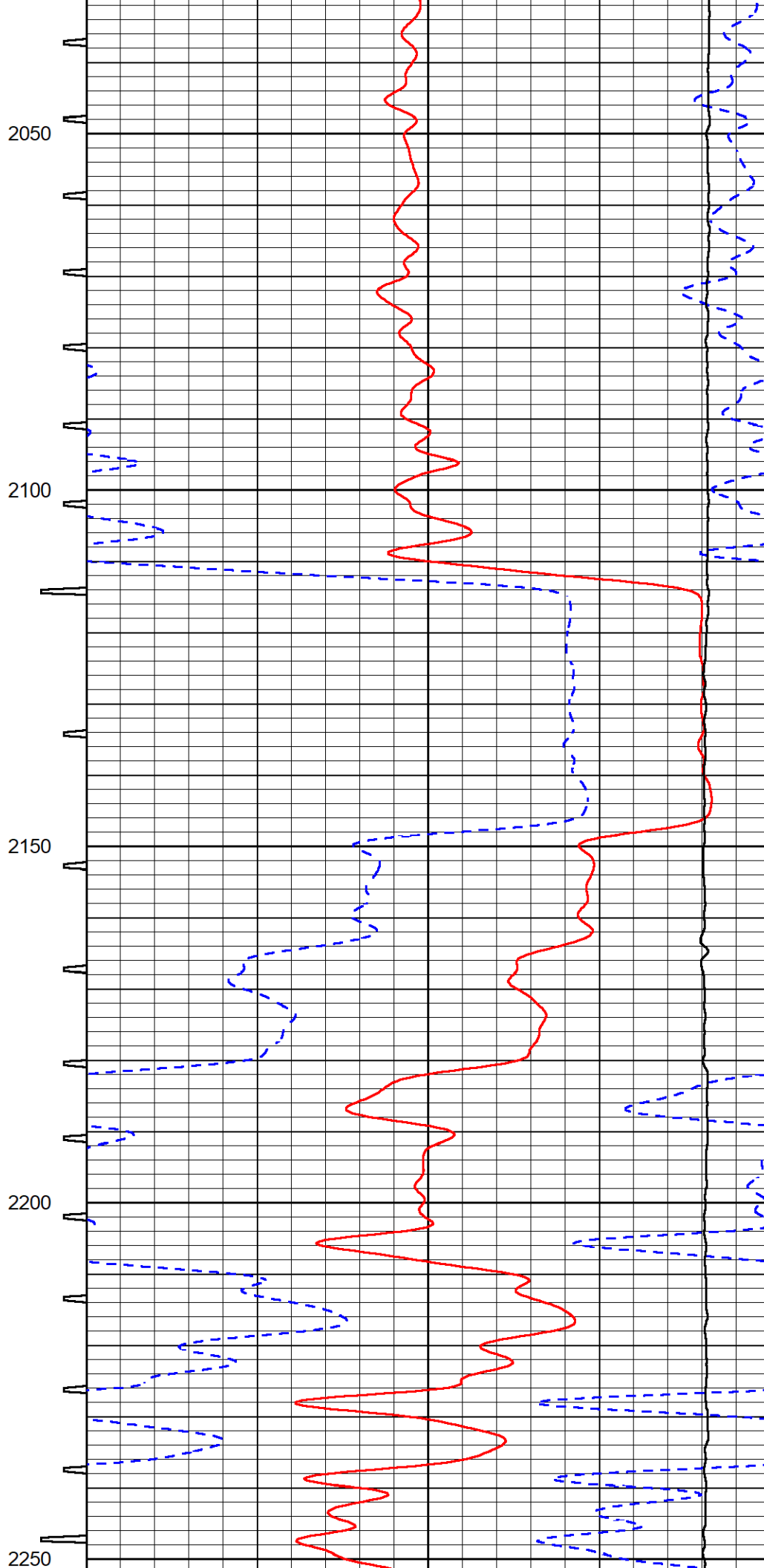
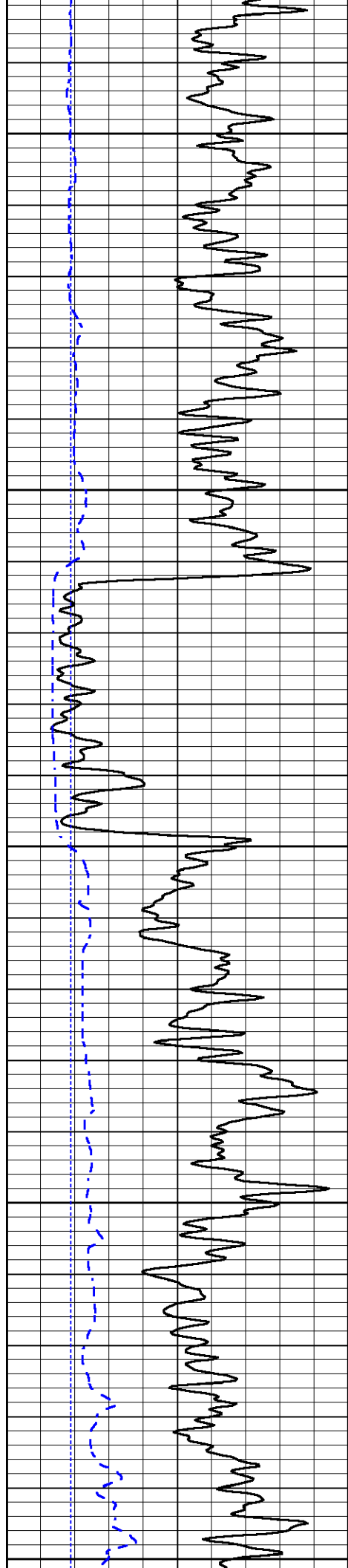


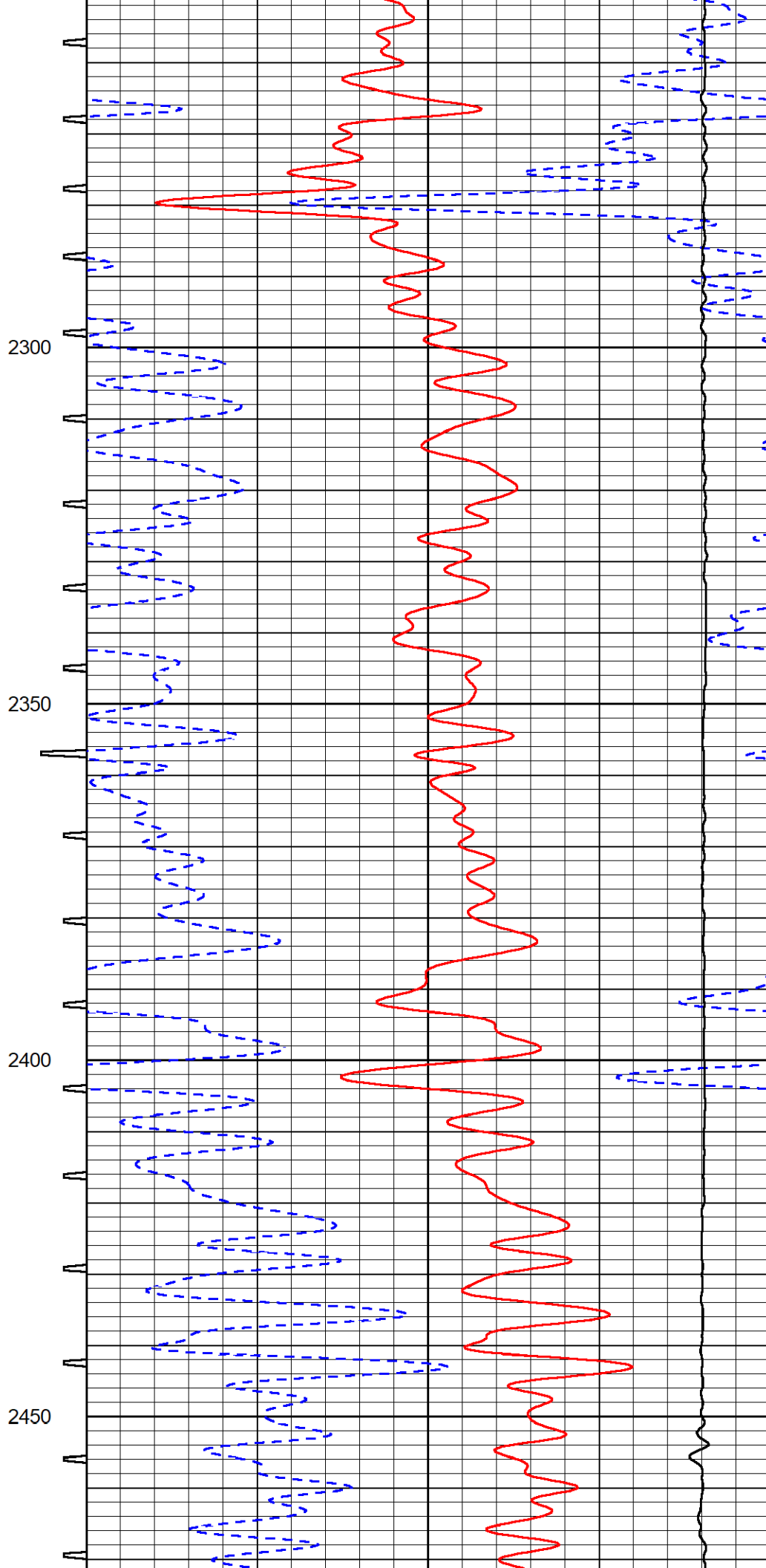
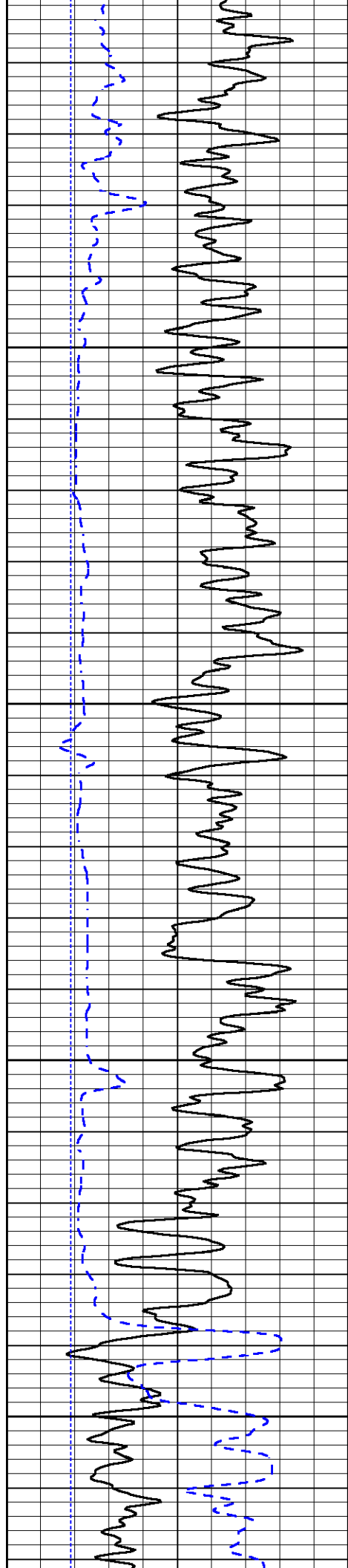


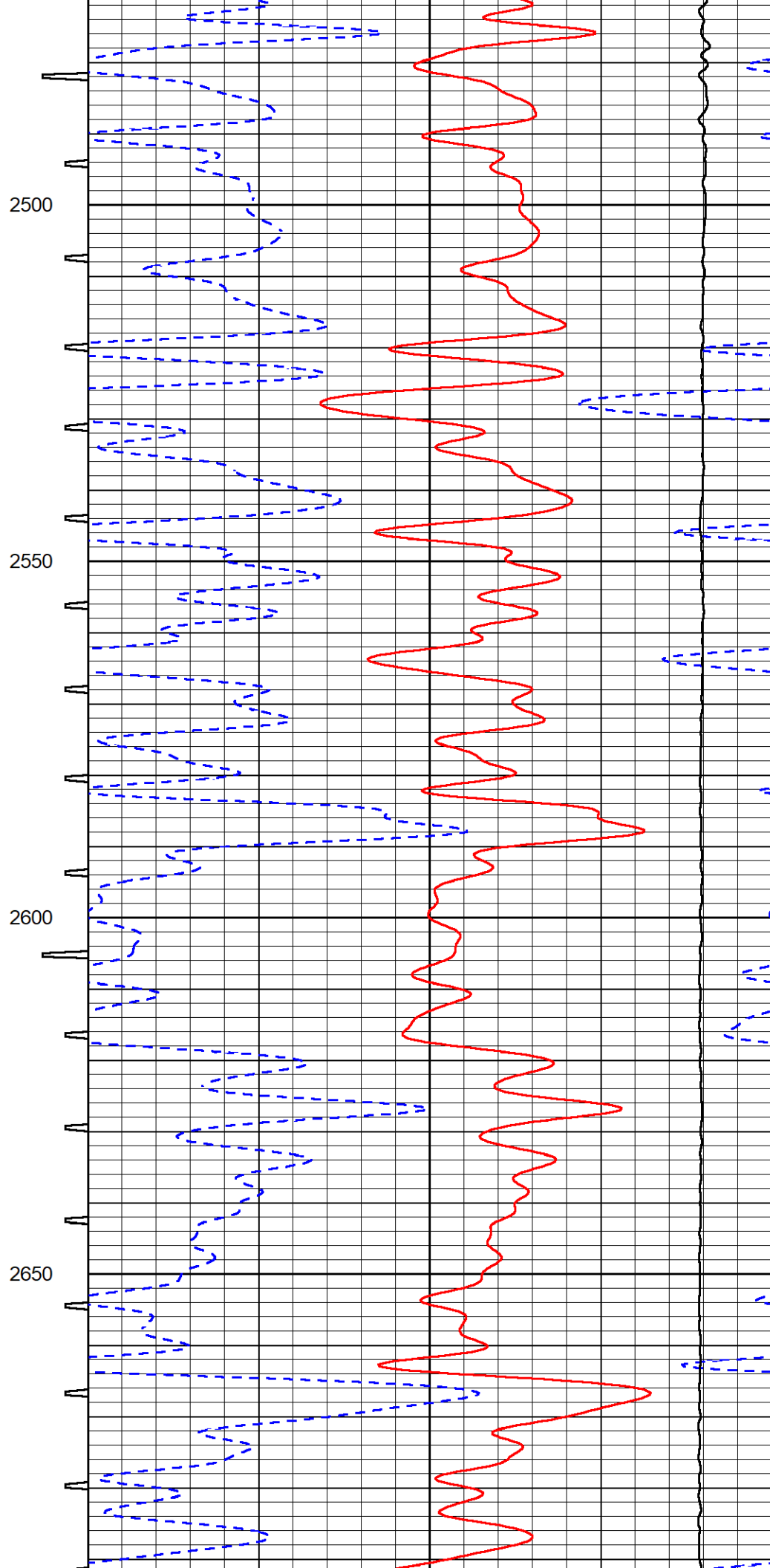
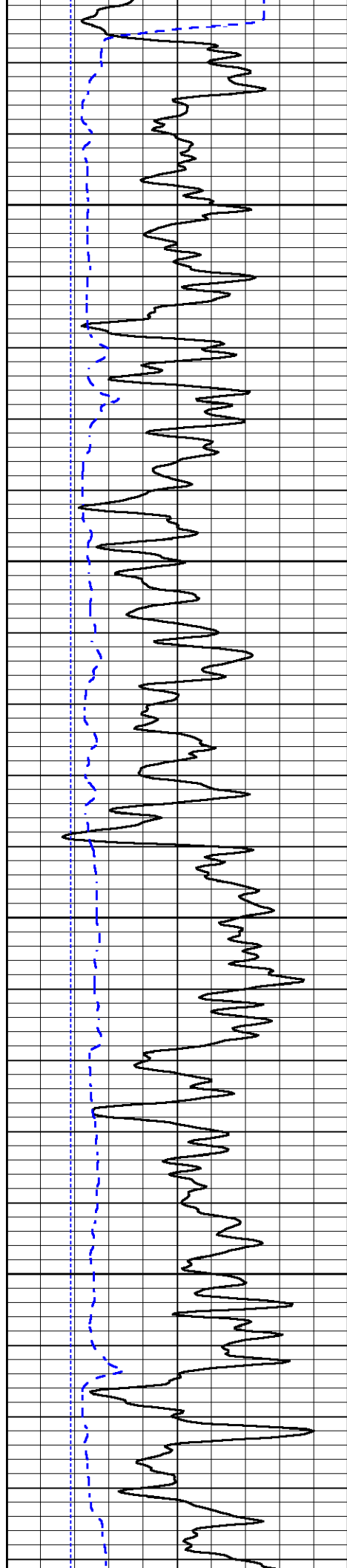


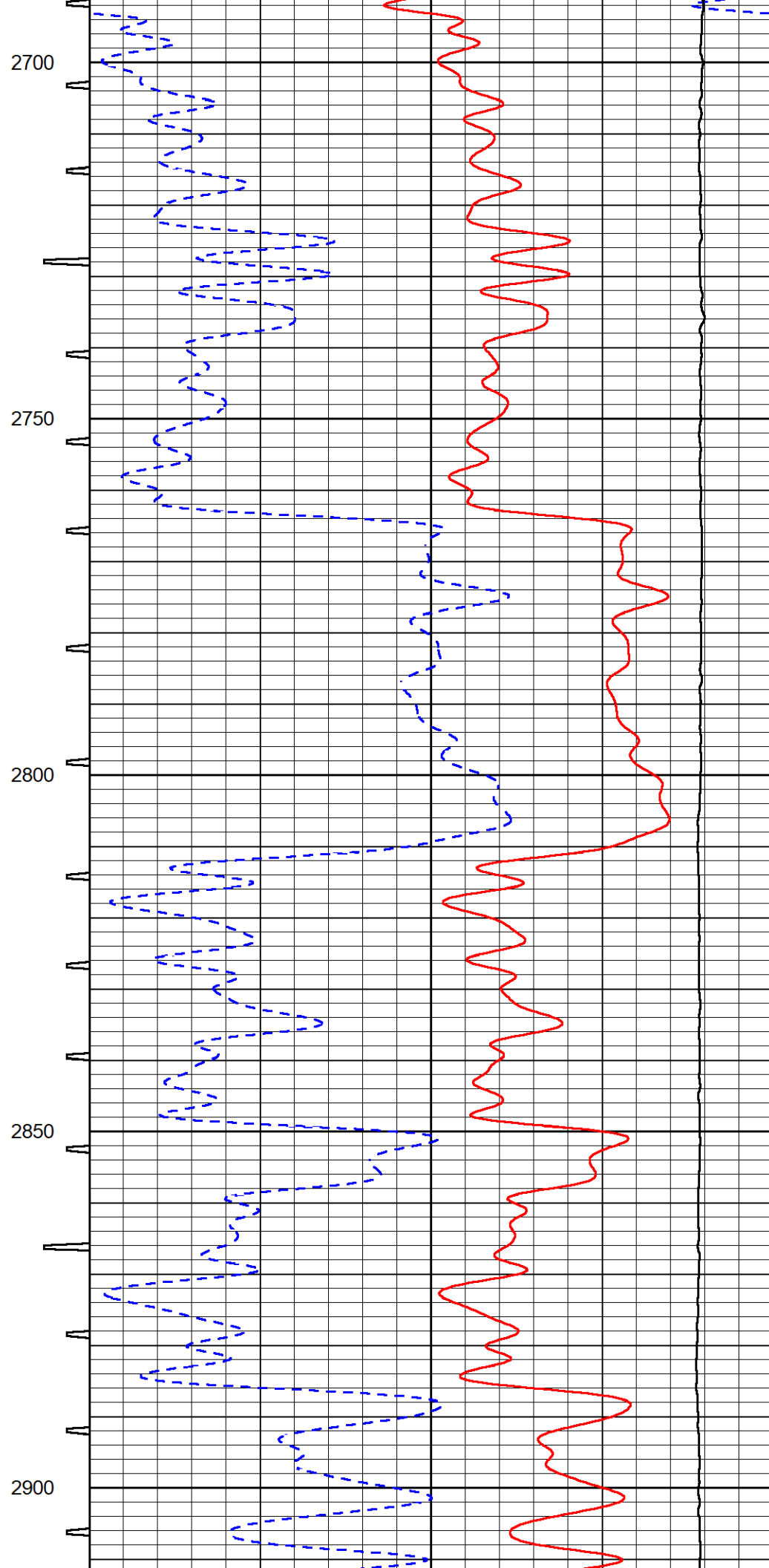
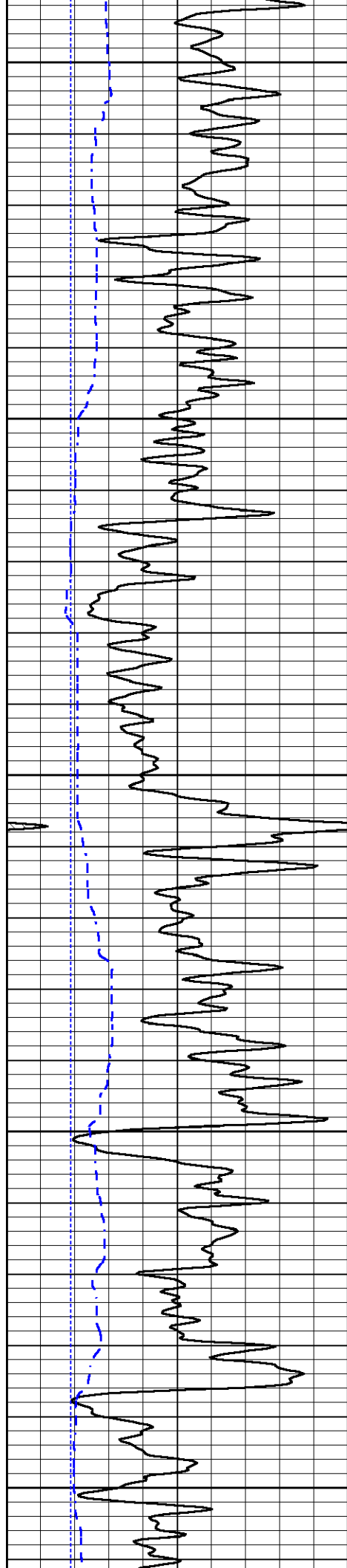


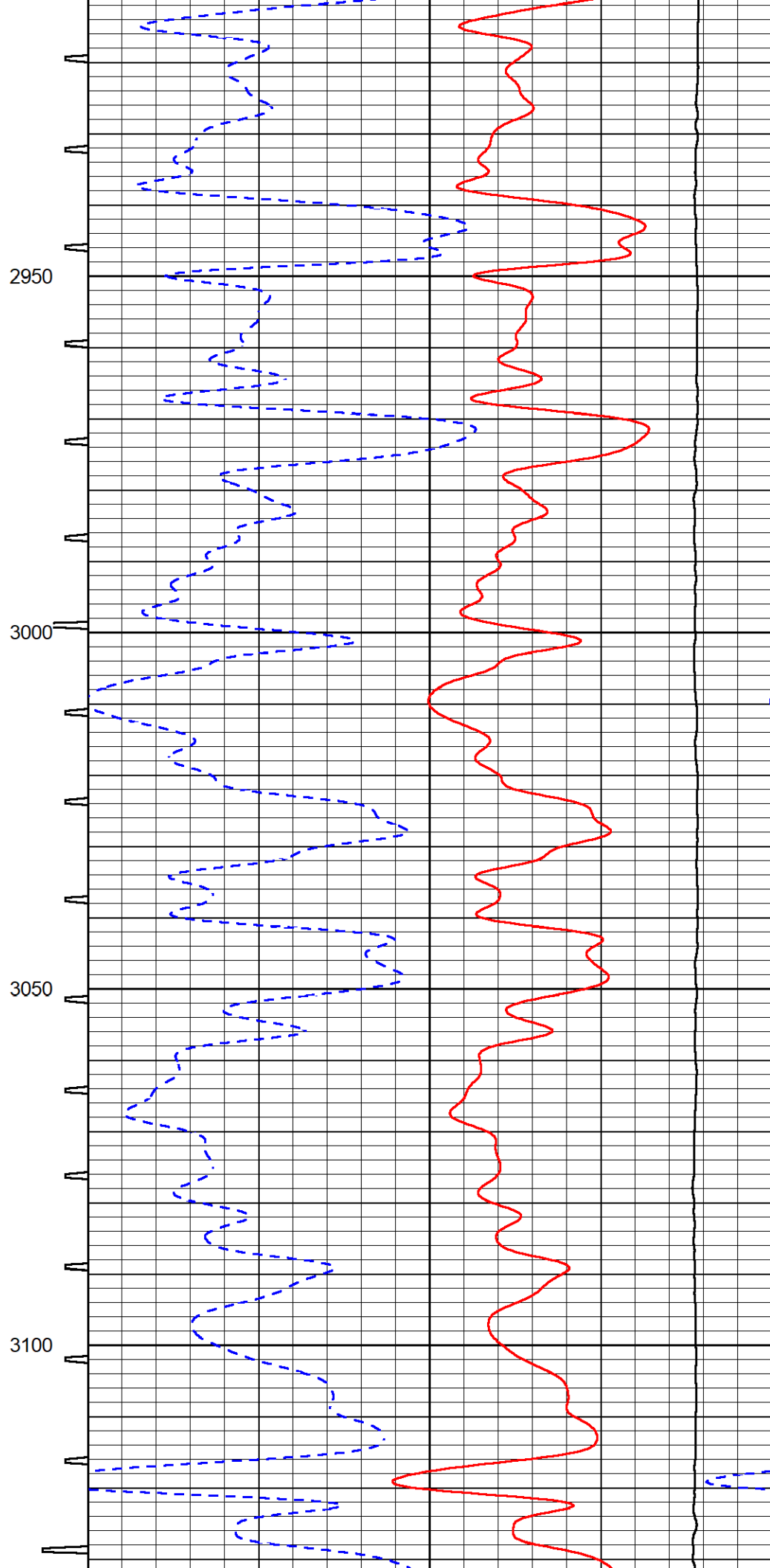
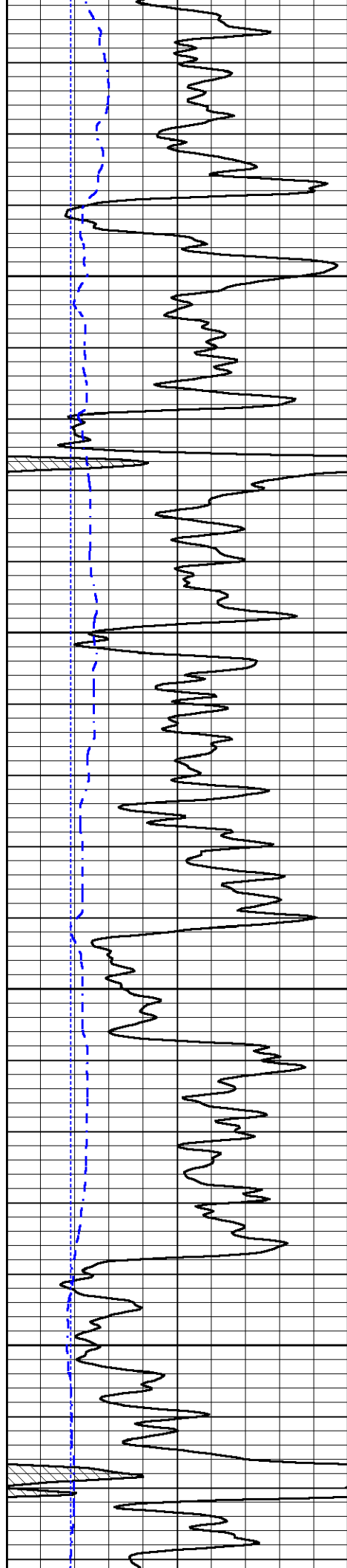


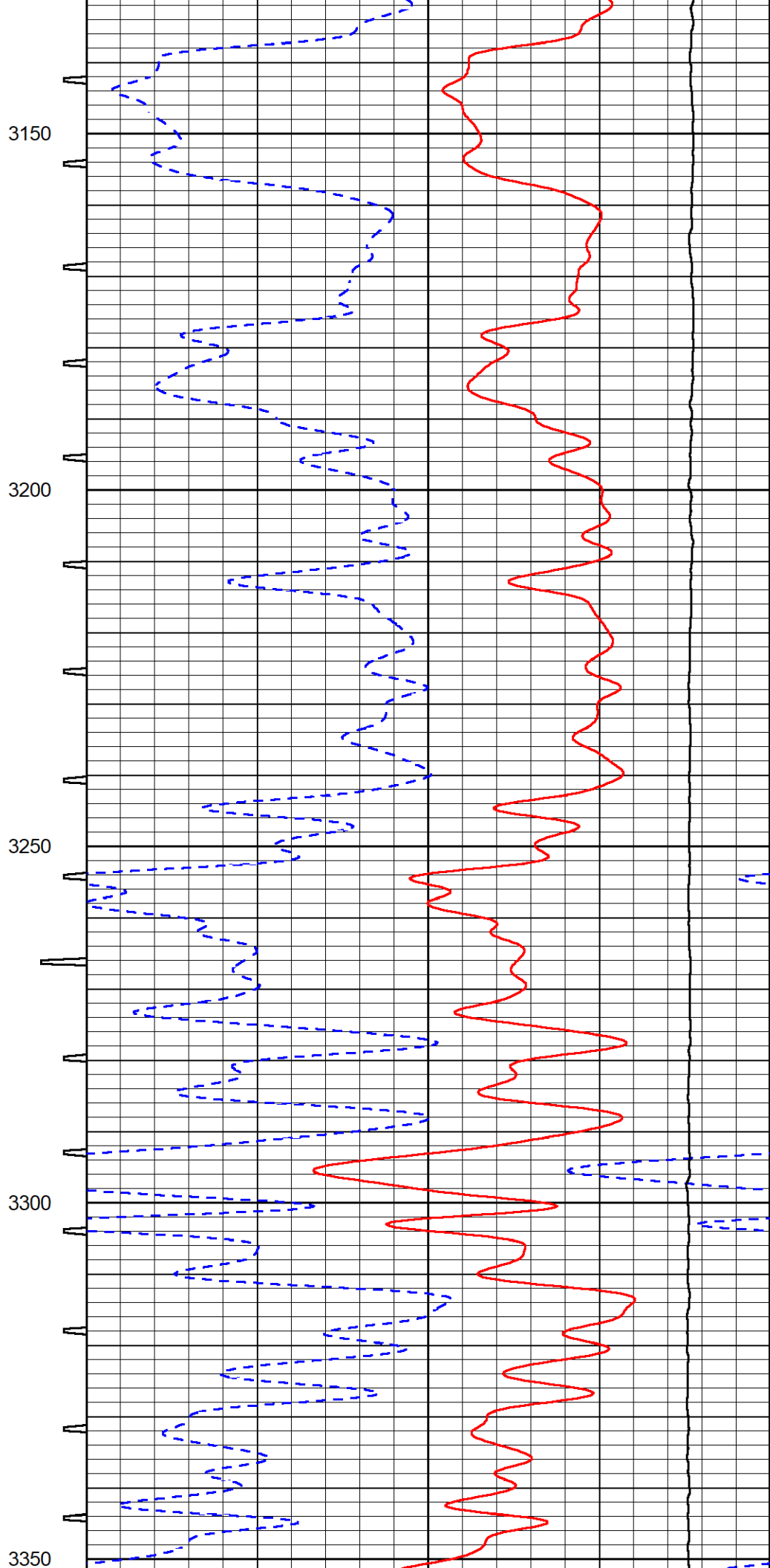
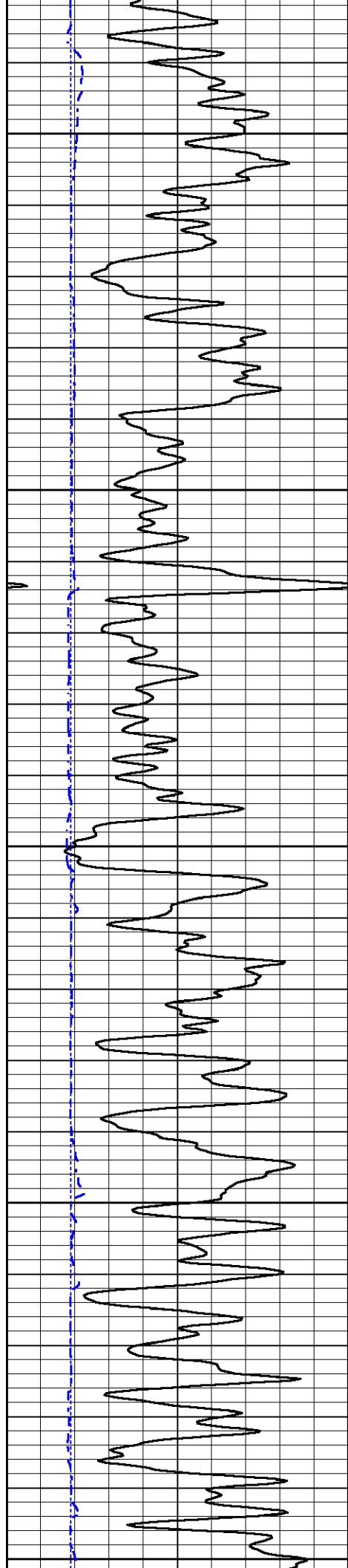


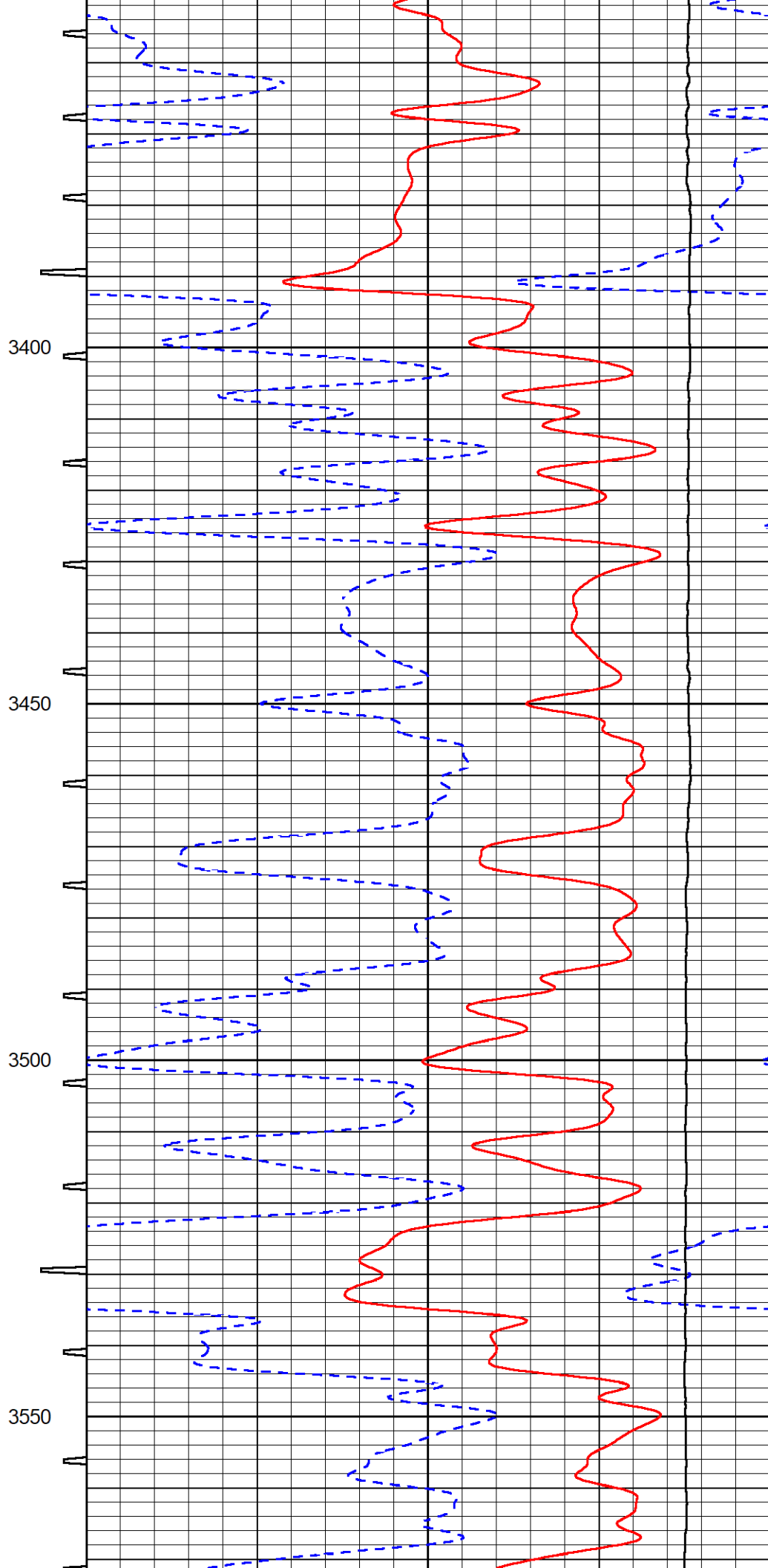
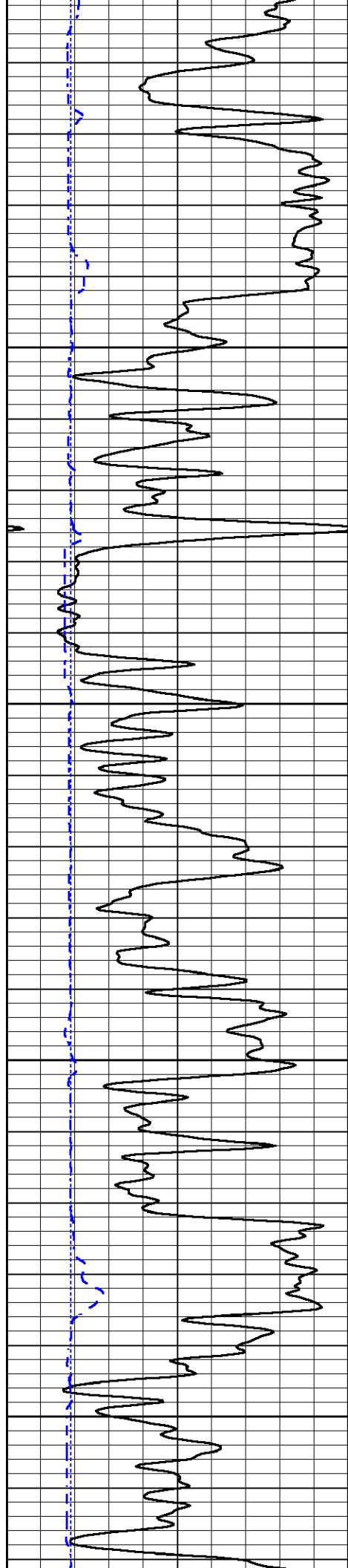


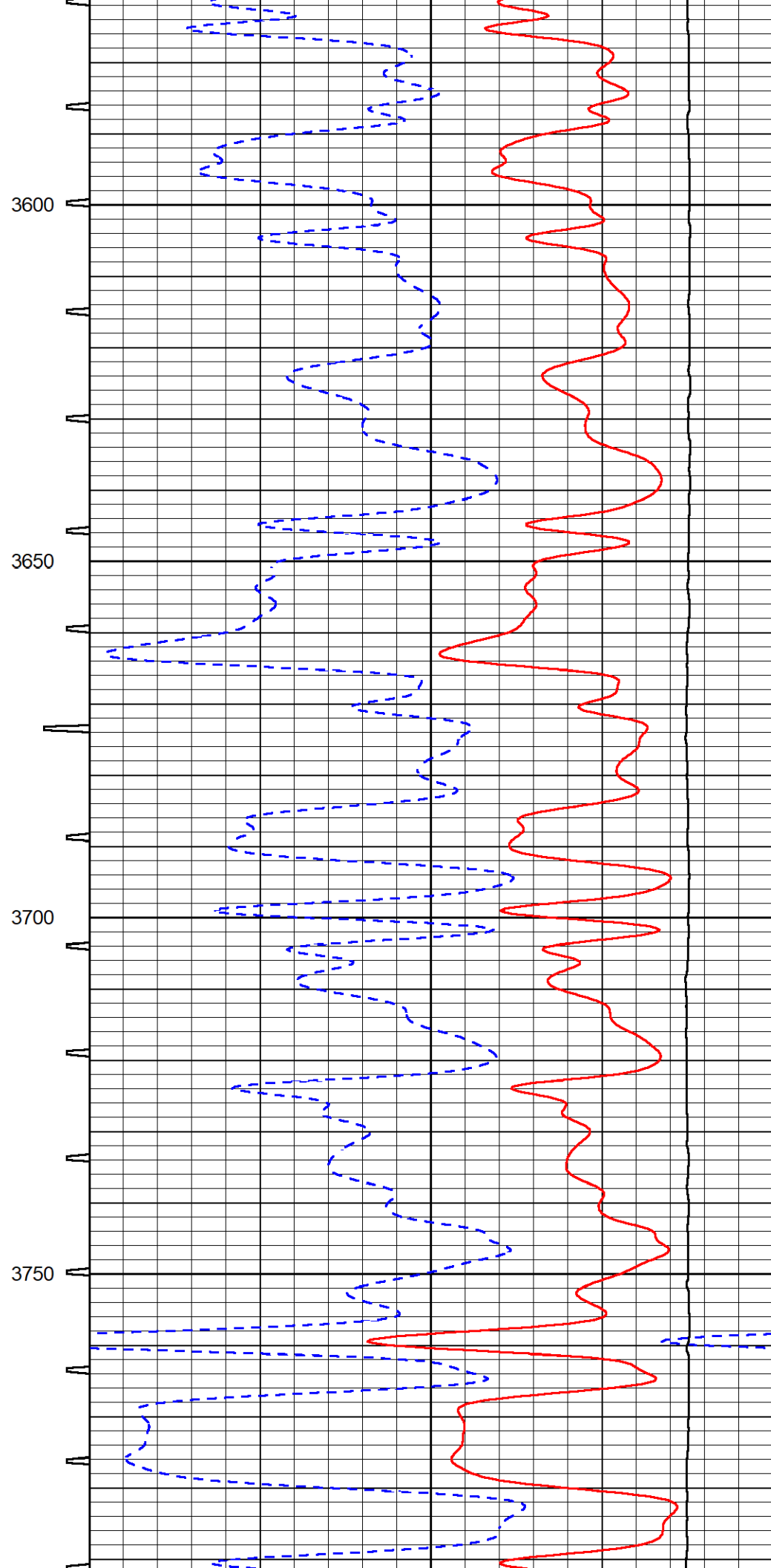
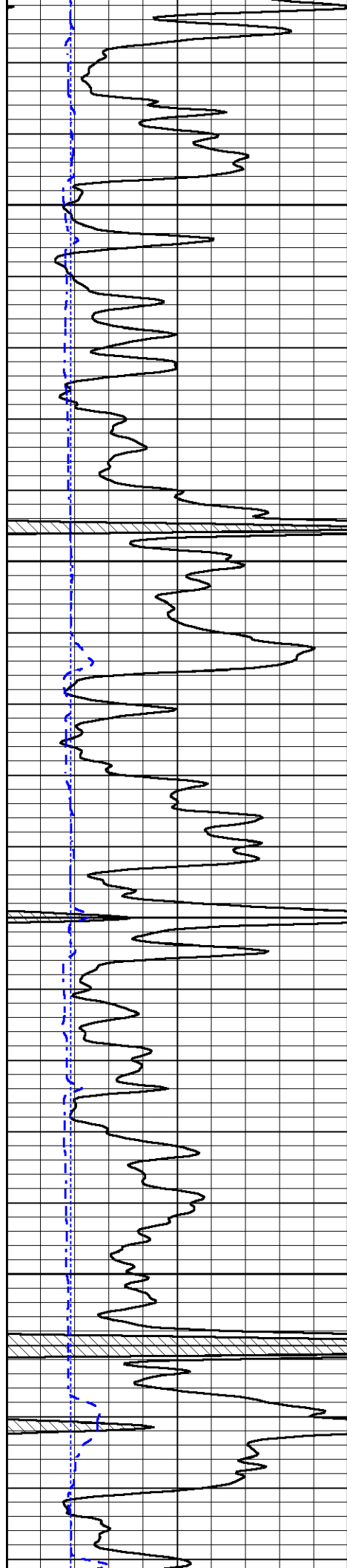


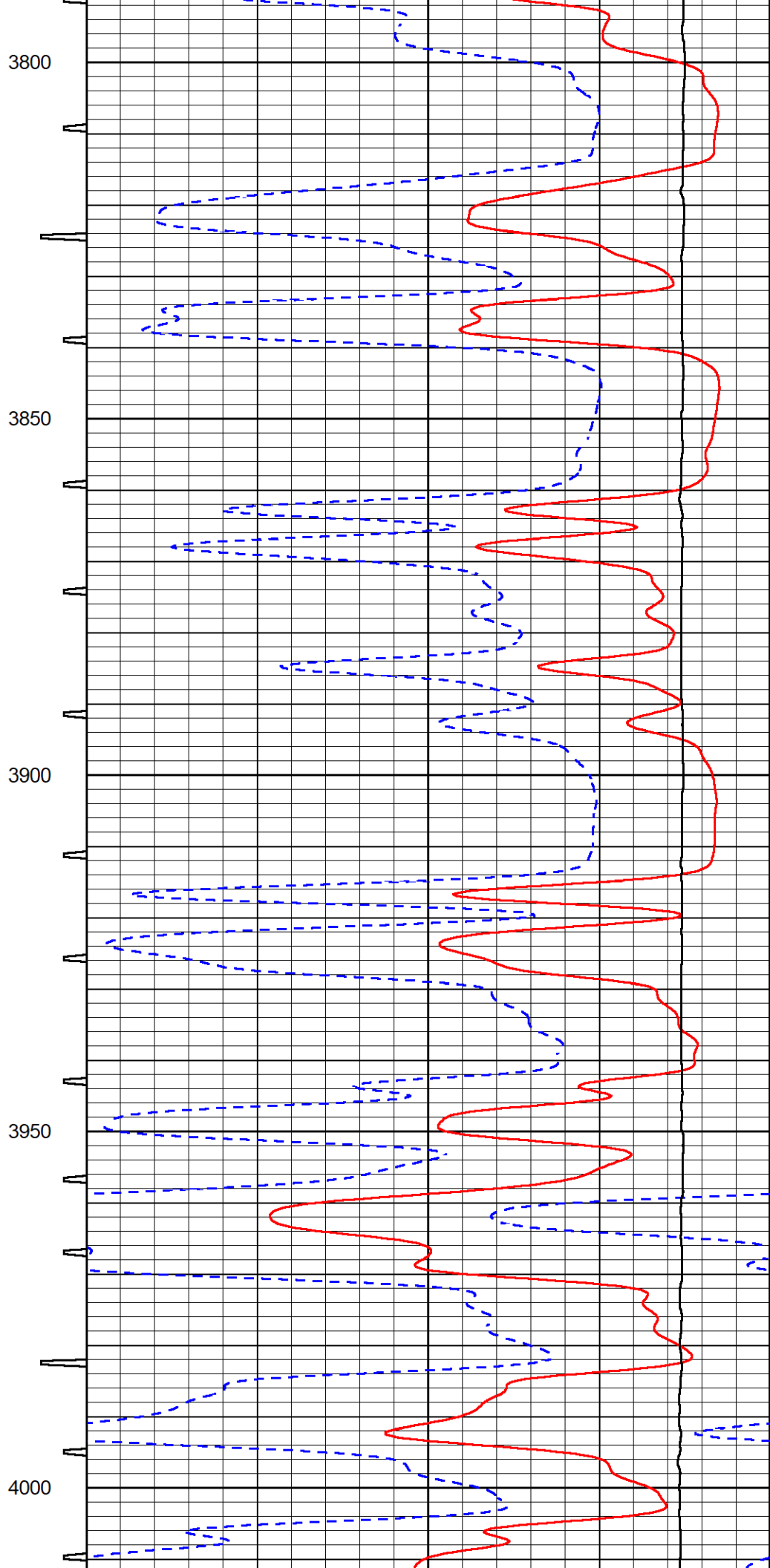
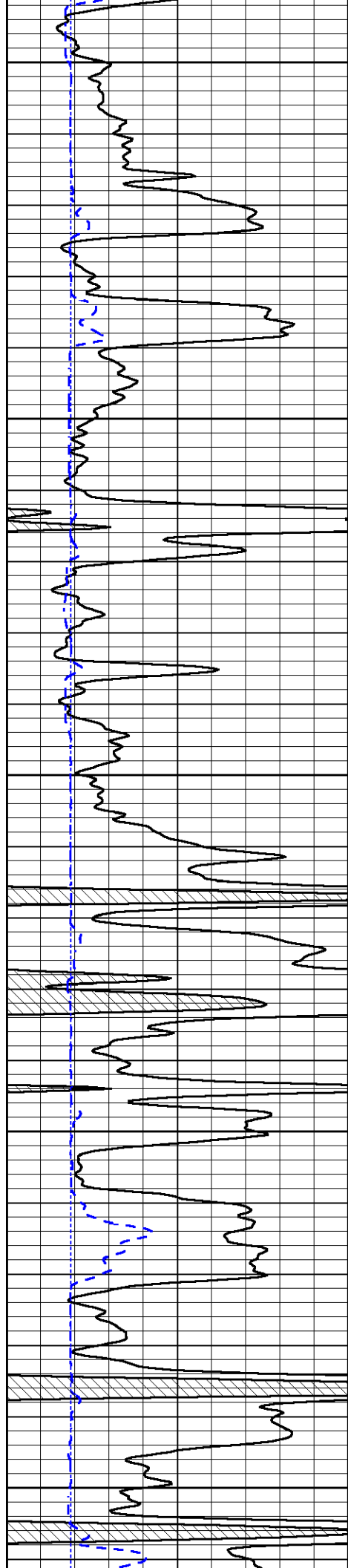


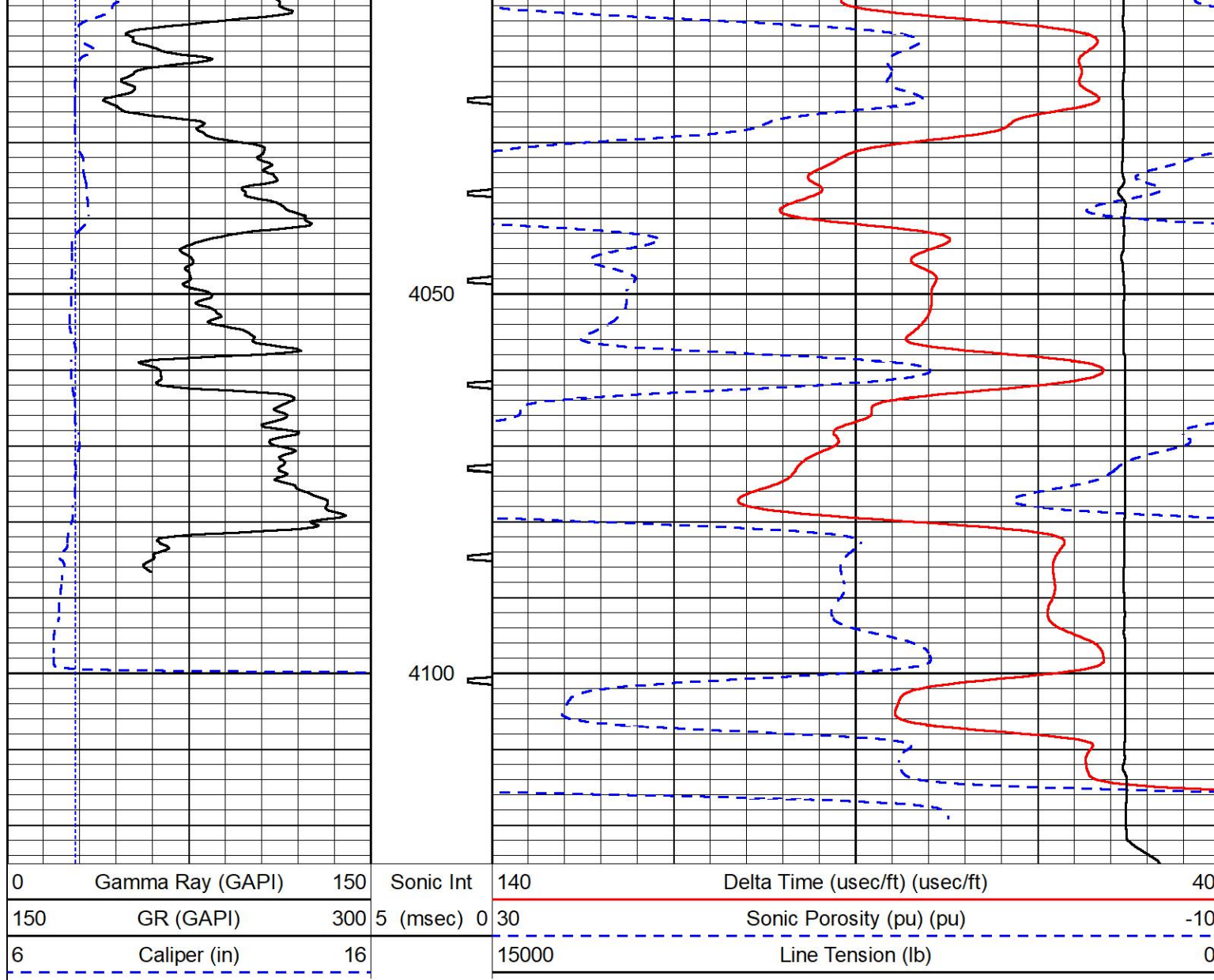












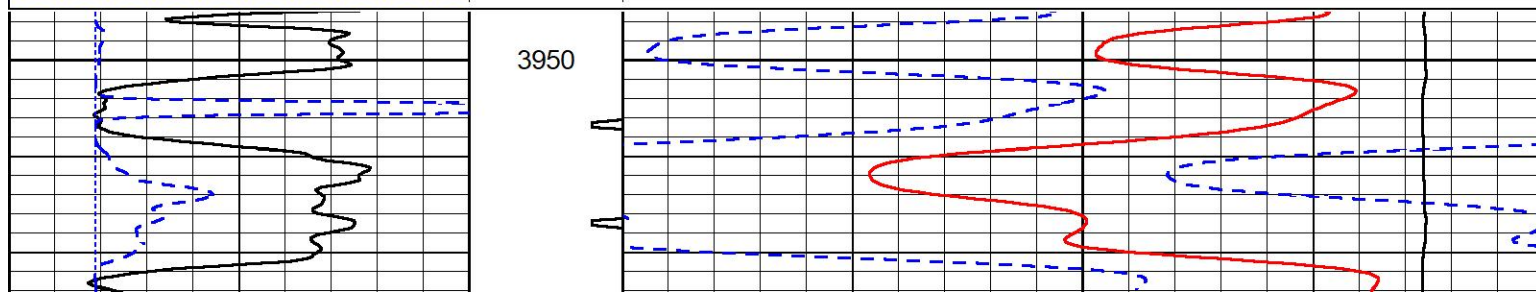
MIDWEST WIRELINE

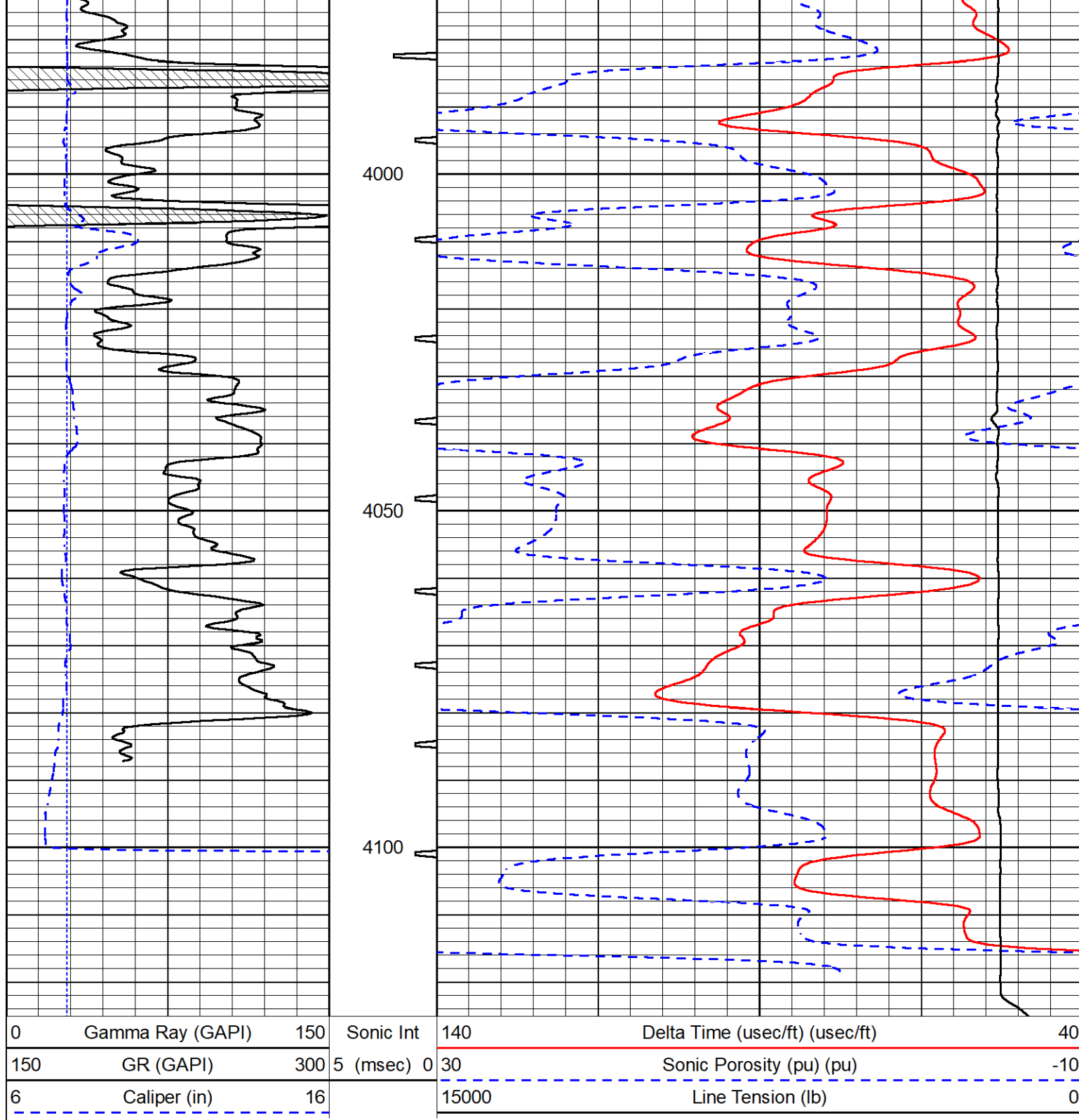
REPEAT SECTION

REPEAT PASS

Database File canyon_rush trust 17-1.db
 Dataset Pathname stkml/pass2.1
 Presentation Format _sonic
 Dataset Creation Wed May 25 11:38:42 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





Calibration Report						
Database File	canyon_rush trust 17-1.db					
Dataset Pathname	stkml/pass3.1					
Dataset Creation	Wed May 25 12:30:53 2022					
Dual Induction Calibration Report						
Serial-Model:			504 HT-M&W			
Surface Cal Performed:			Thu Dec 16 22:32:49 2021			
Readings		References			Results	
Loop:	Air	Loop	Air	Loop	m	b

Deep	178.615	710.235	0.000	255.800	mmho/m	0.650	-18.000
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.450	-45.500
Microlog Calibration Report							
Serial-Model: Performed:			402-PSI STKBL ML Mon May 23 16:31:54 2022				
Readings		References			Results		
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	14000.0000	-0.9000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	12500.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1520	-131.3550
Compensated Density Calibration Report							
Serial-Model: Source #: Master Calibration Performed:			303-03-M&W 21170B Thu Dec 16 23:28:34 2021				
Master Calibration							
	Density		Far Detector		Near Detector		
Magnesium	1.755	g/cc	3841.78	5151.73	cps		
Aluminum	2.670	g/cc	700.98	3068.49	cps		
	Spine Angle = 73.06		Density/Spine Ratio = 0.515				
	Size		Reading				
Small Ring	4.00	in	1.17				
Large Ring	14.00	in	1.03				
Compensated Neutron Calibration Report							
Serial-Model: Source #: Master Calibration Performed:			210-M&W N-1238 Fri Dec 3 09:16:24 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:		103					
Tool Model:		M&W					
Performed:		Fri Dec 3 12:13:24 2021					
Calibrator Value:		500.0		GAPI			
Background Reading:		28.0		cps			
Calibrator Reading:		986.0		cps			
Sensitivity:		0.5700		GAPI/cps			



MIDWEST WIRELINE

Company	Canyon Operating, LLC
Well	Rush Trust #17-1
Field	High Hill
County	Graham
State	Kansas