

BOREHOLE COMPENSATED SONIC LOG

MIDWEST WIRELINE

Company Cholla Production, LLC
Well Wrangler #1-23
Field Walz
County Trego State Kansas

Location: API #: 15-195-23115-00-00

Other Services

815' FSL & 1760' FEL
SEC 23 TWP 11S RGE 21W

CNL/CDL
DIL/MEL

Permanent Datum Ground Level Elevation 2265'
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

K.B. 2273'
D.F. N/A
G.L. 2265'

Date 3/9/2021

Run Number Two

Type Log BHCS

Depth Driller 3950'

Depth Logger 3951'

Bottom Logged Interval 3939'

Top Logged Interval 300'

Type Fluid In Hole Chemical

Salinity, PPM CL 3000

Density 9.2

Level Full

Max. Rec. Temp. F 116

Operating Rig Time 4 Hours

Equipment -- Location P-108 HAYS

Recorded By D. Schmidt

Witnessed By Charlie Sturdavant

Borehole Record

Casing Record

Run No. Bit From To Size Wgt. From To

One 12.25" 0' 306' 8.625" 23# 0' 306'

Two 7.875" 306' TD

<<< 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.

I-70 and Riga Rd,
North to F Rd, 1 East to 390, 1 North,
1/2 East to location (stay north of farmstead)

Log Measured From: Kelly Bushing 8 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: Charlie Sturdavant
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\cholla_wrangler 1-23.db
Dataset field/well/stkml/pass4.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	100	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	215	0		0

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

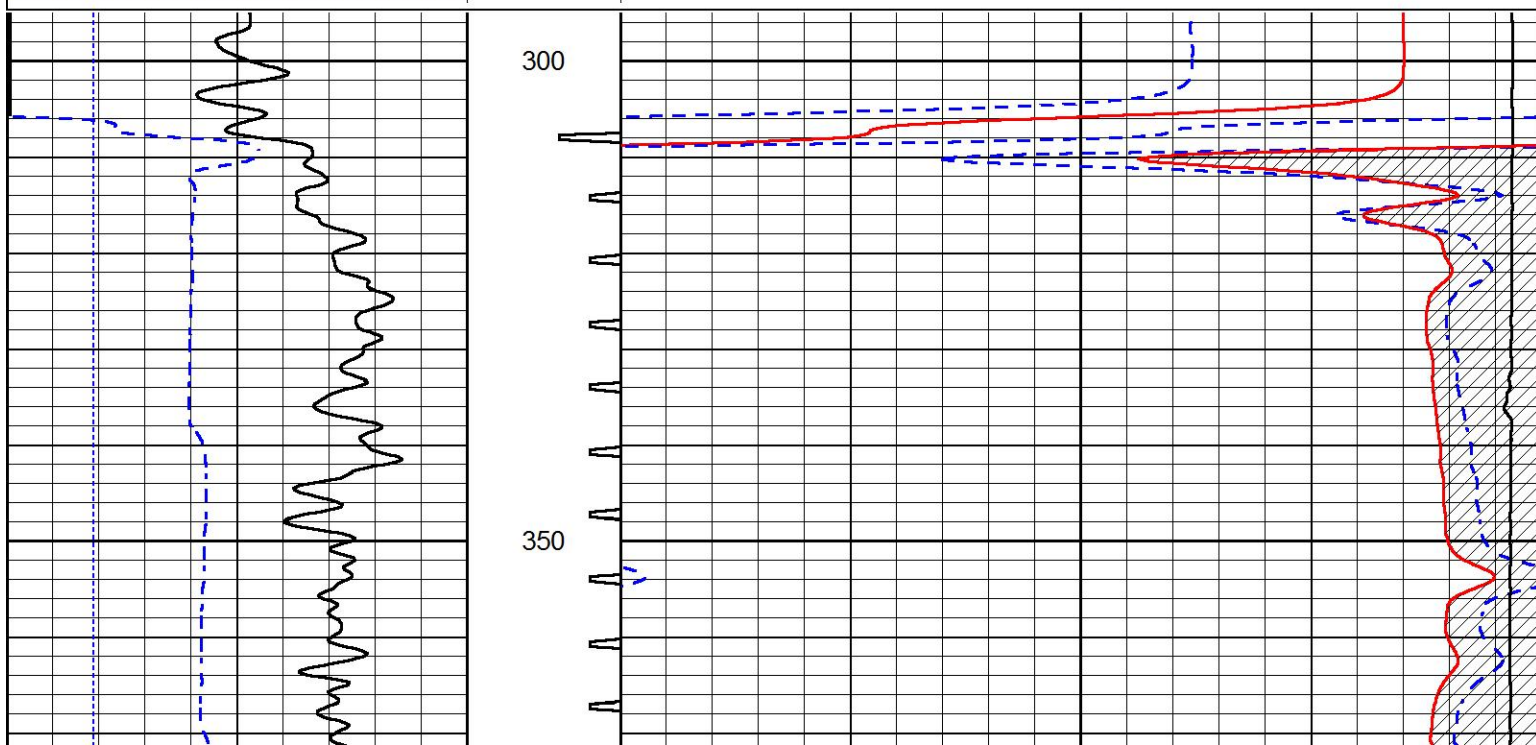


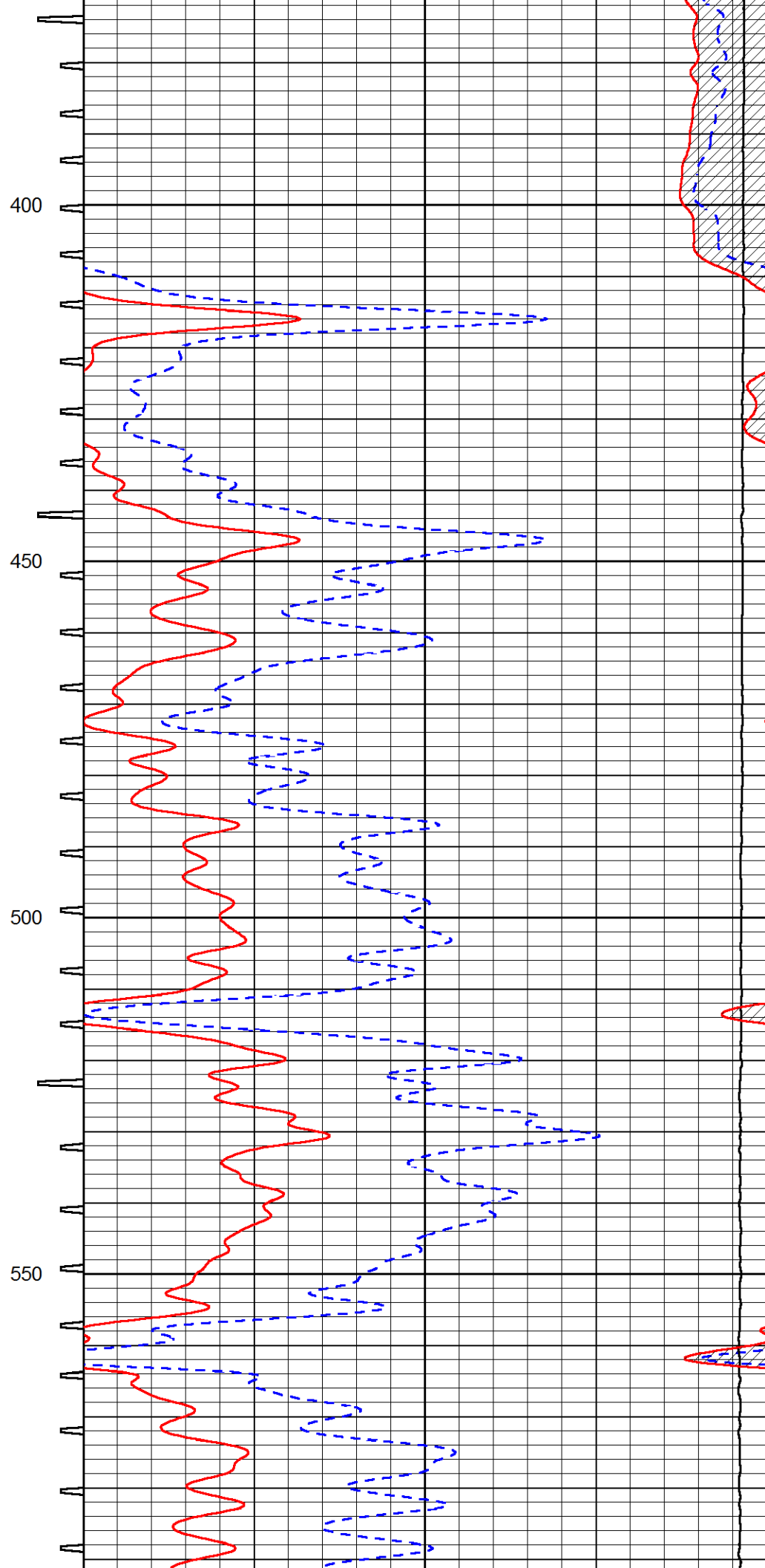
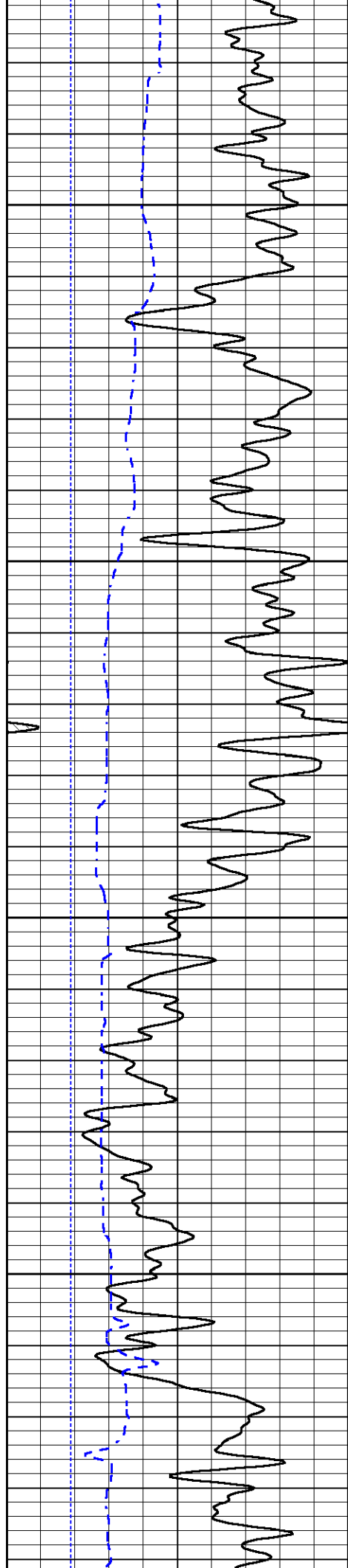
MIDWEST WIRELINE

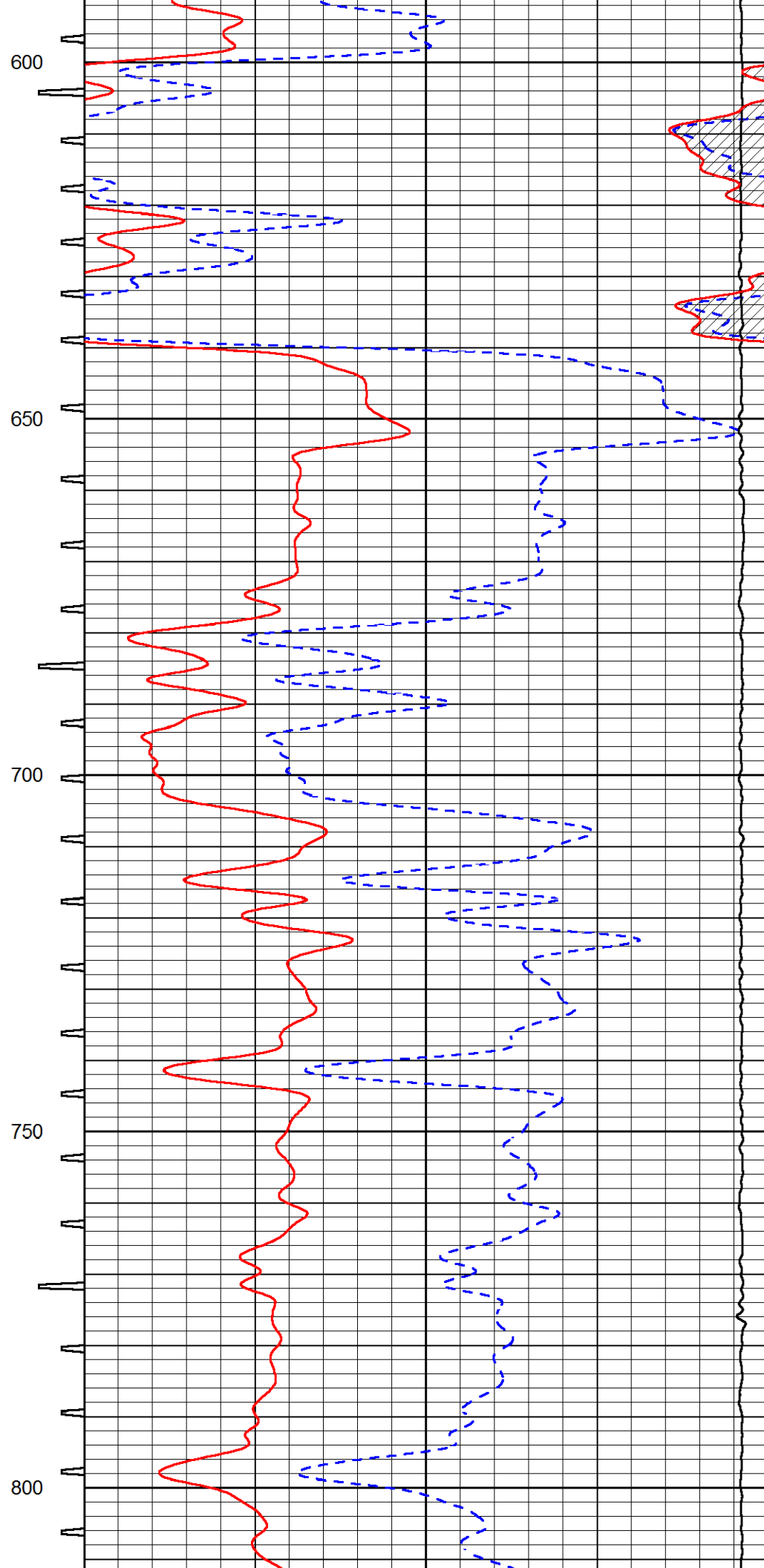
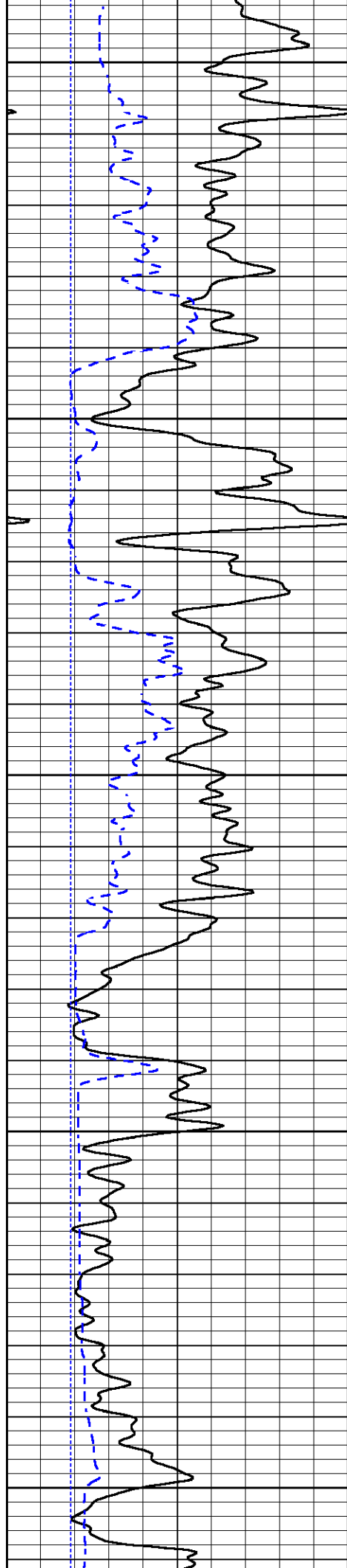
MAIN PASS

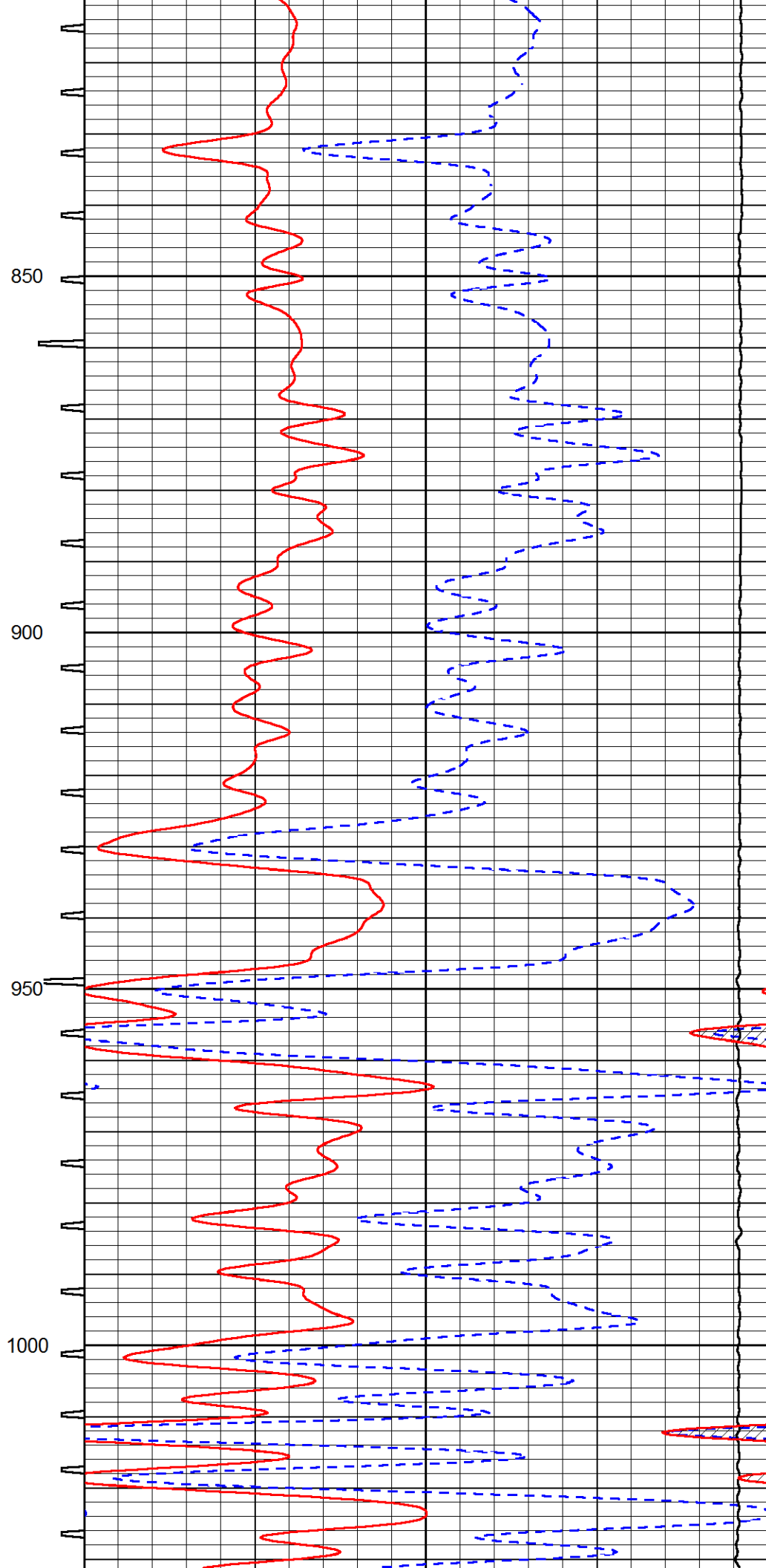
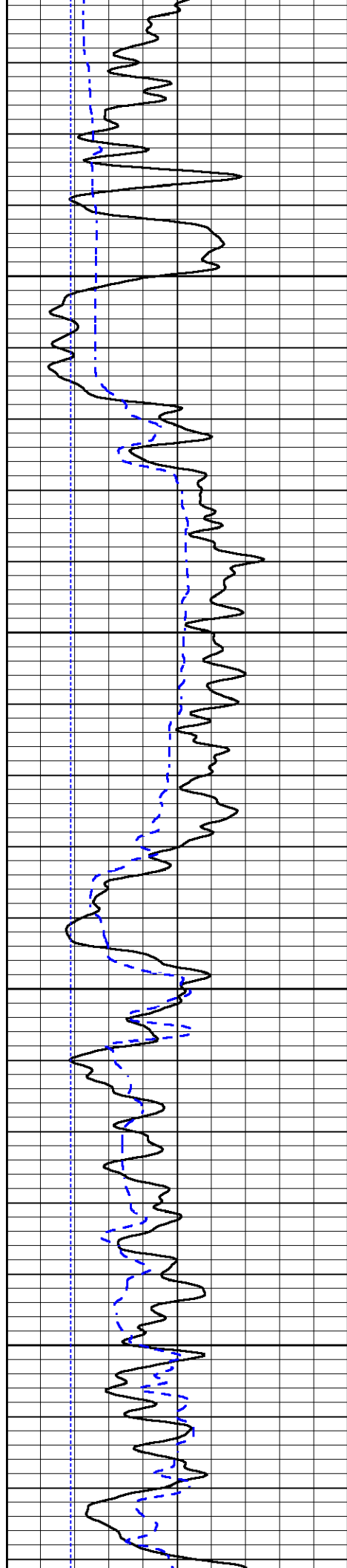
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Dataset Pathname stkml/pass4.1
Presentation Format _sonic
Dataset Creation Tue Mar 09 21:36:44 2021
Charted by Depth in Feet scaled 1:240

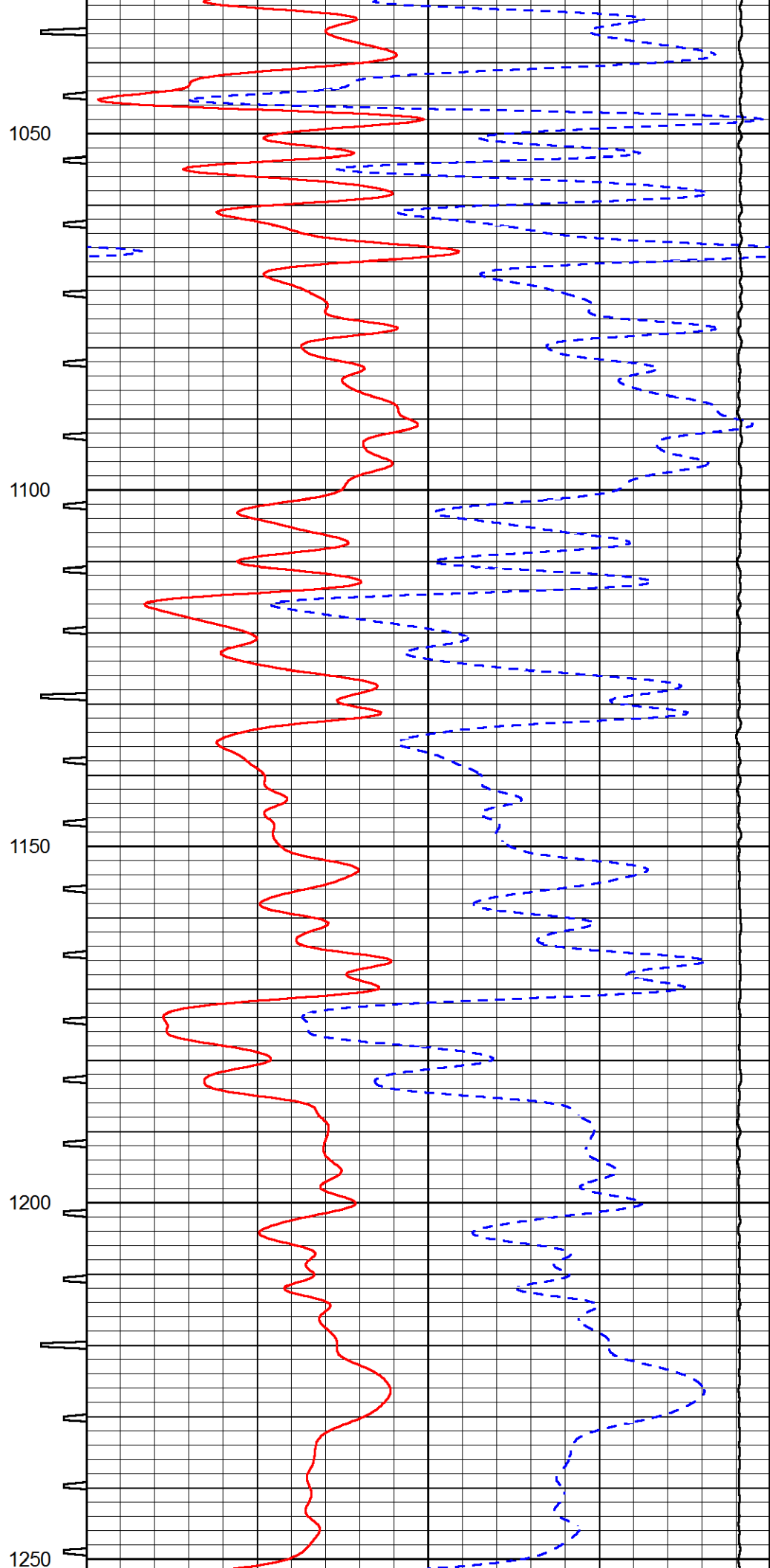
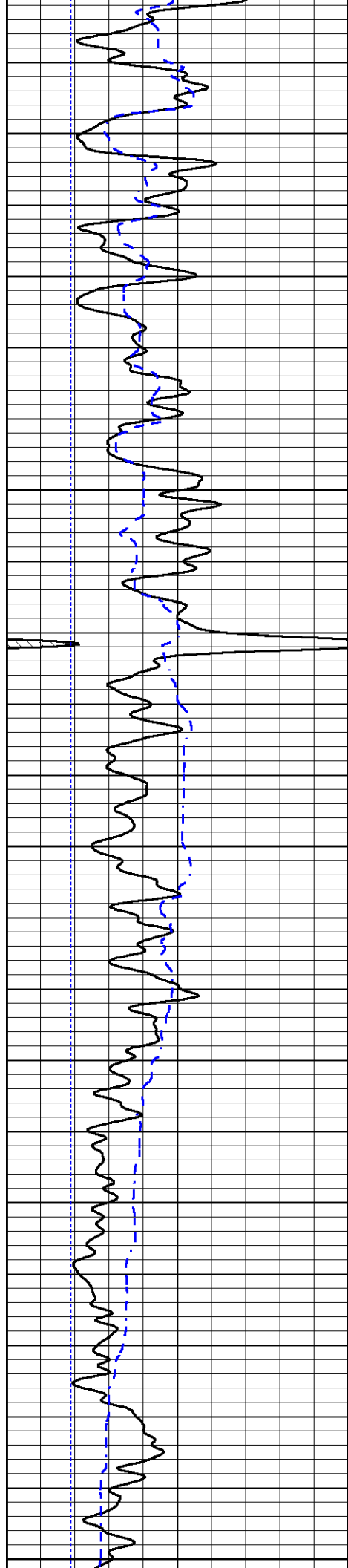
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150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu)	-10
6	DCAL (in)	16		15000	LTEN (lb) (lb)	0

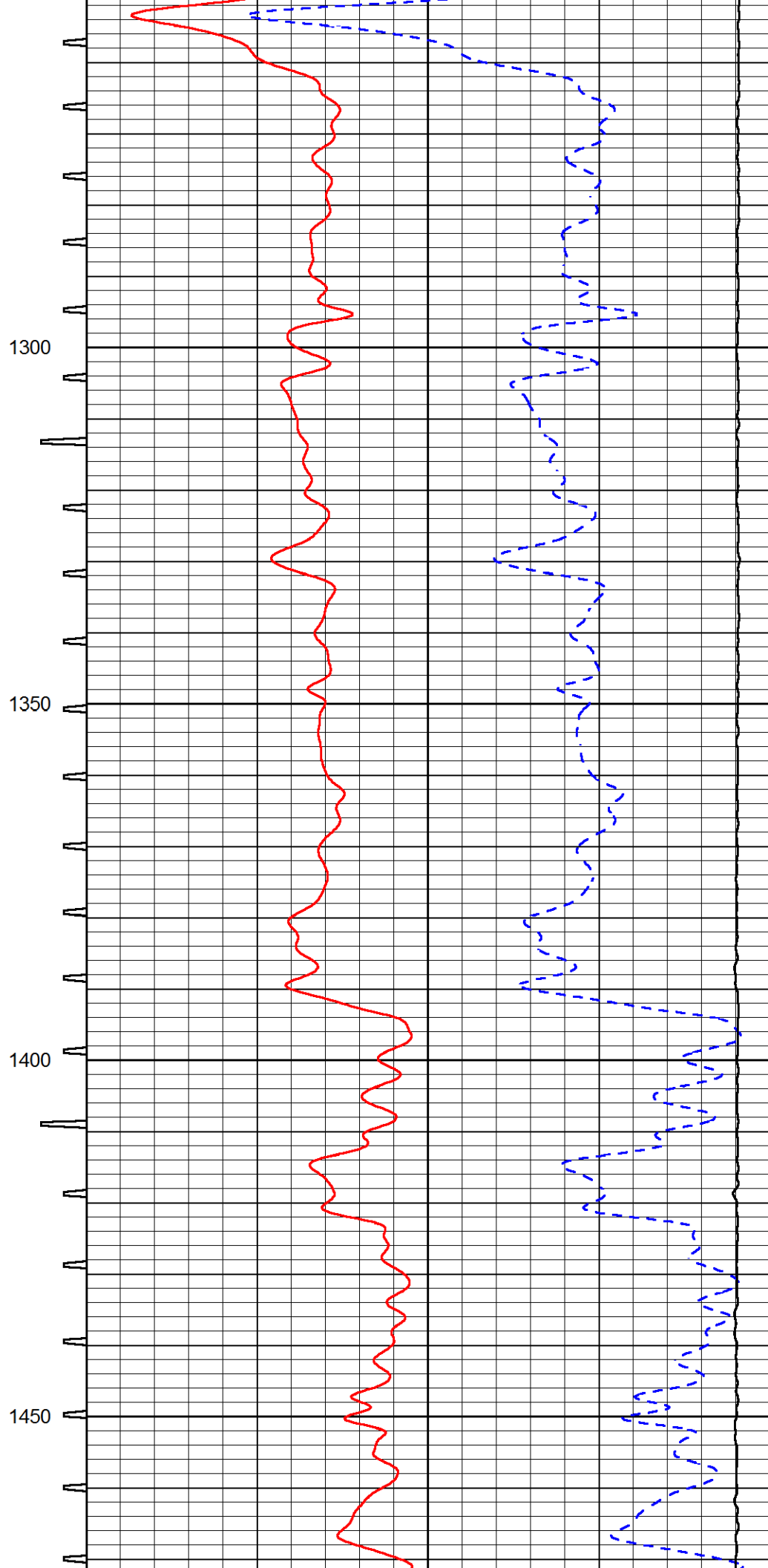
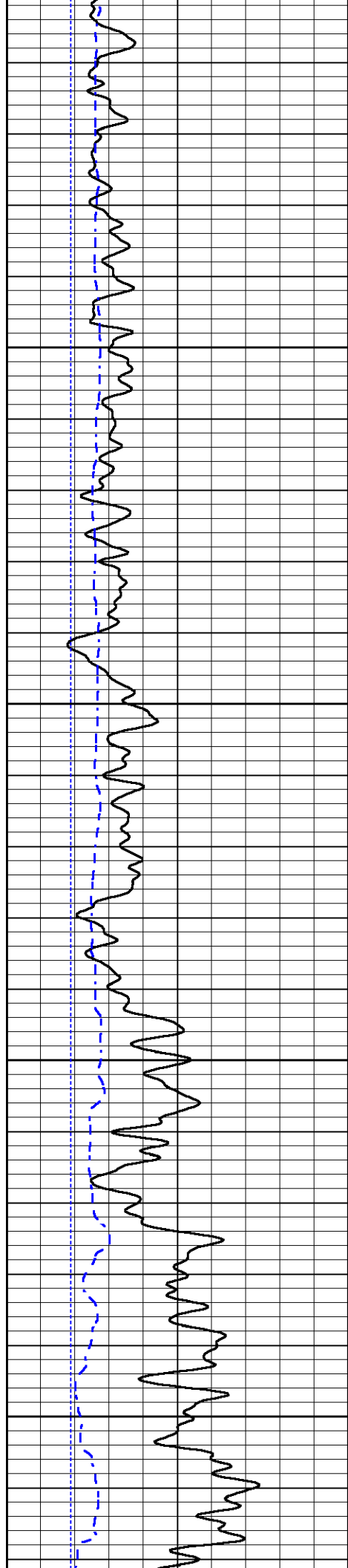


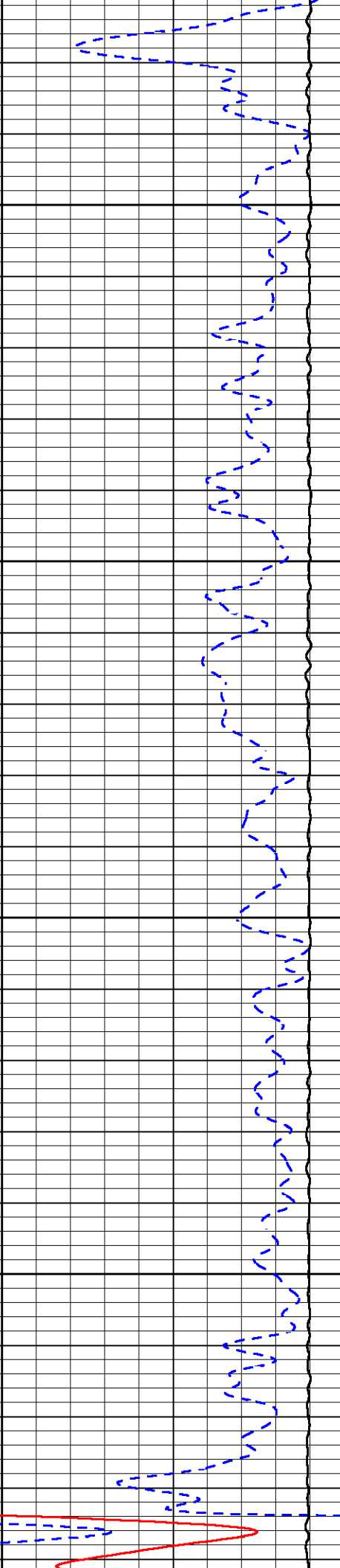
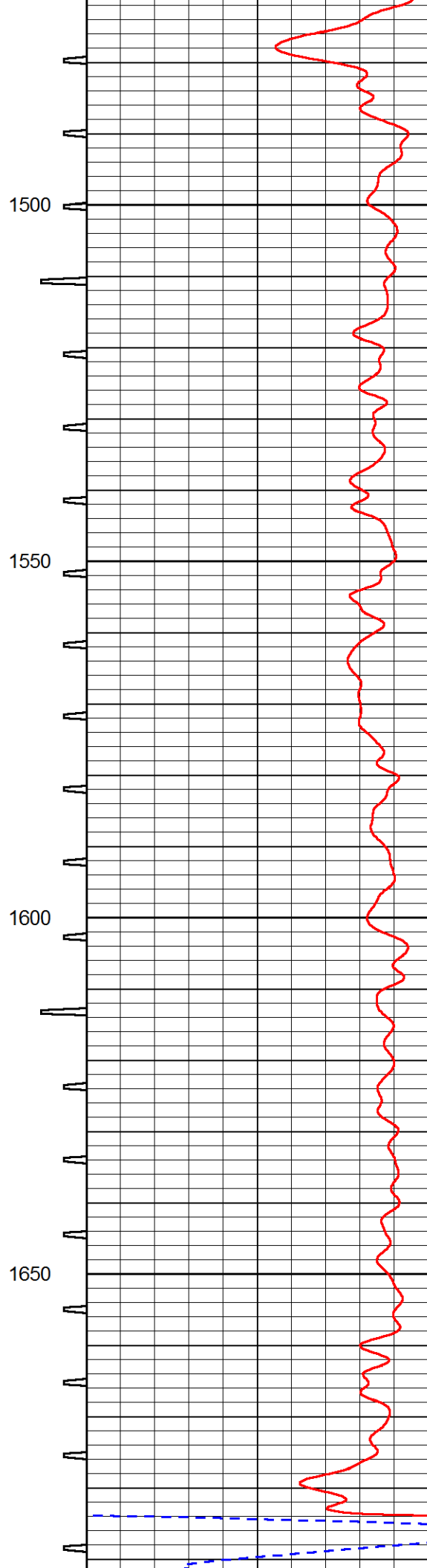
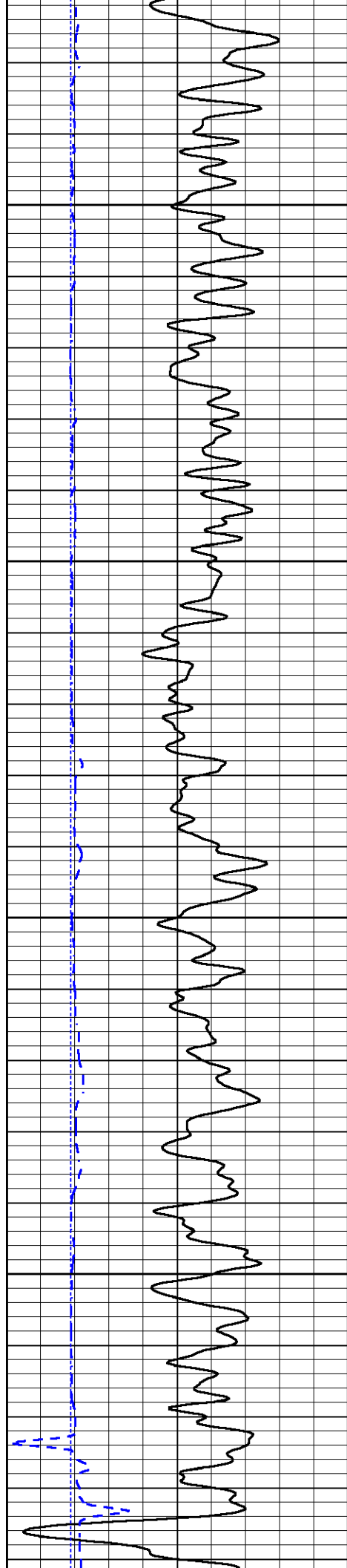


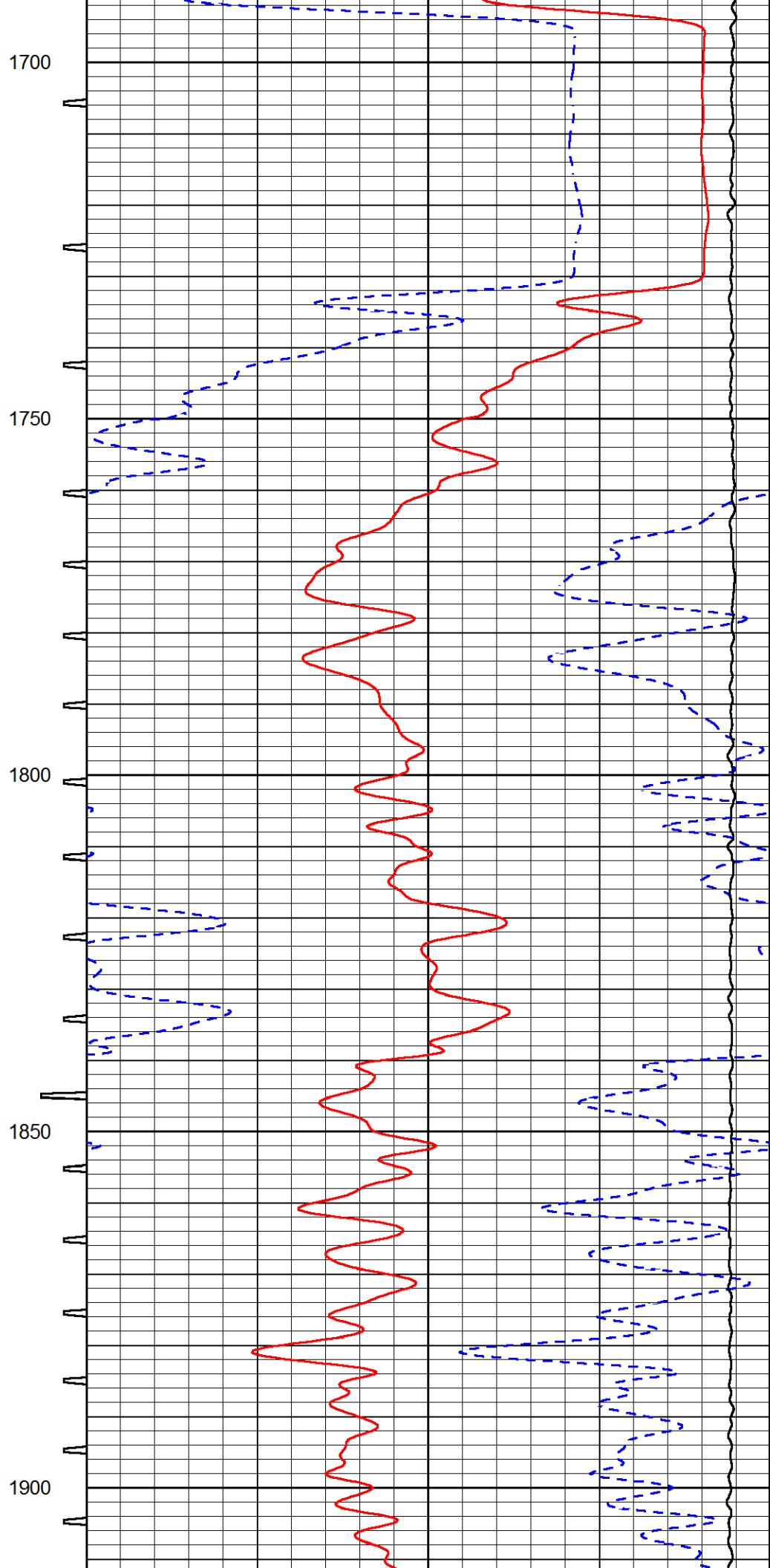
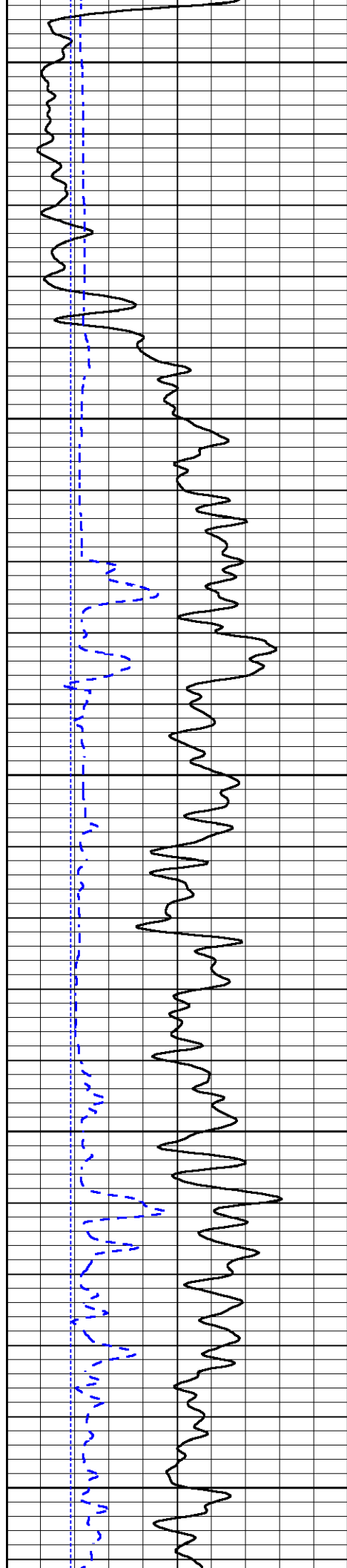


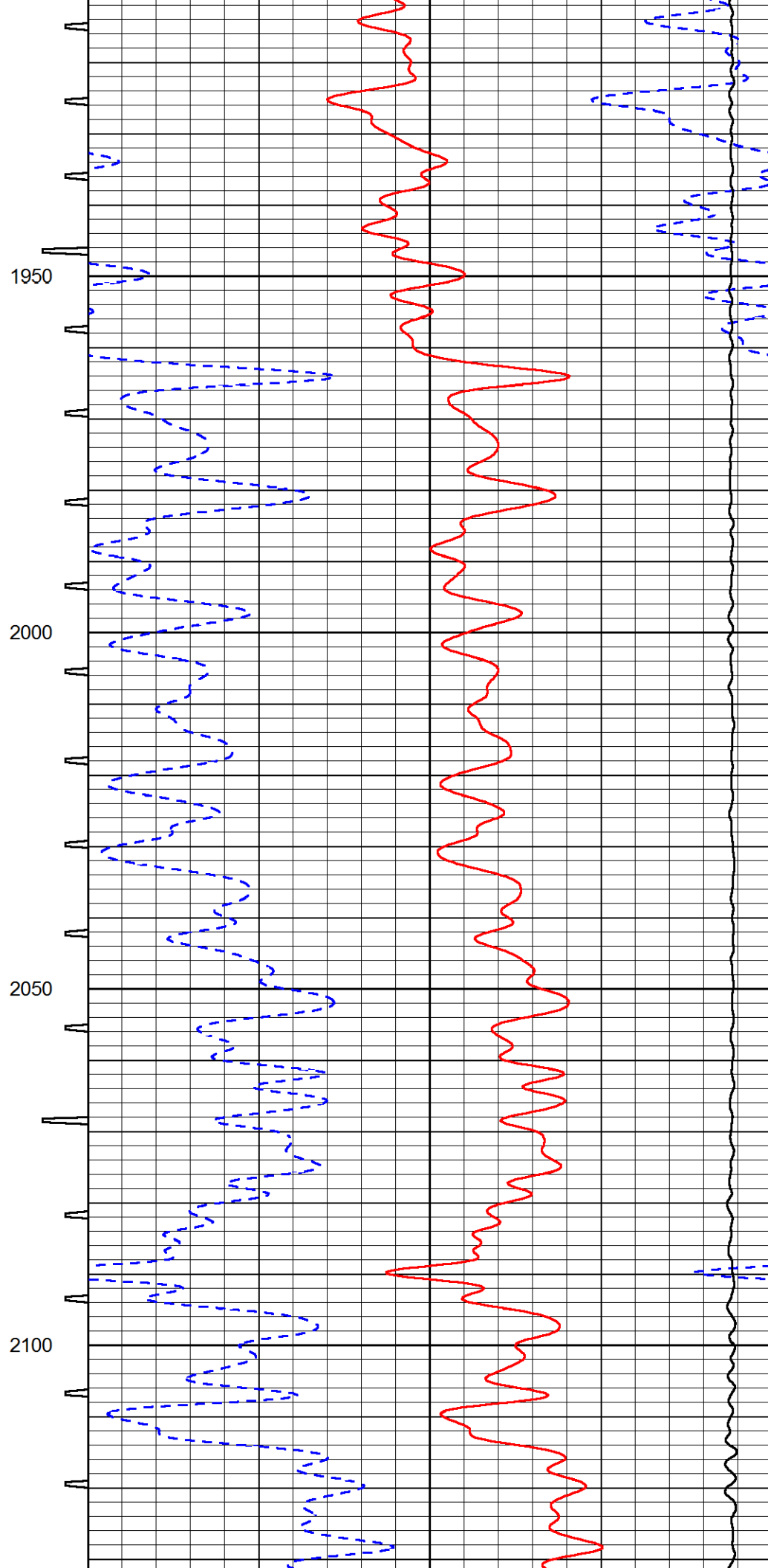
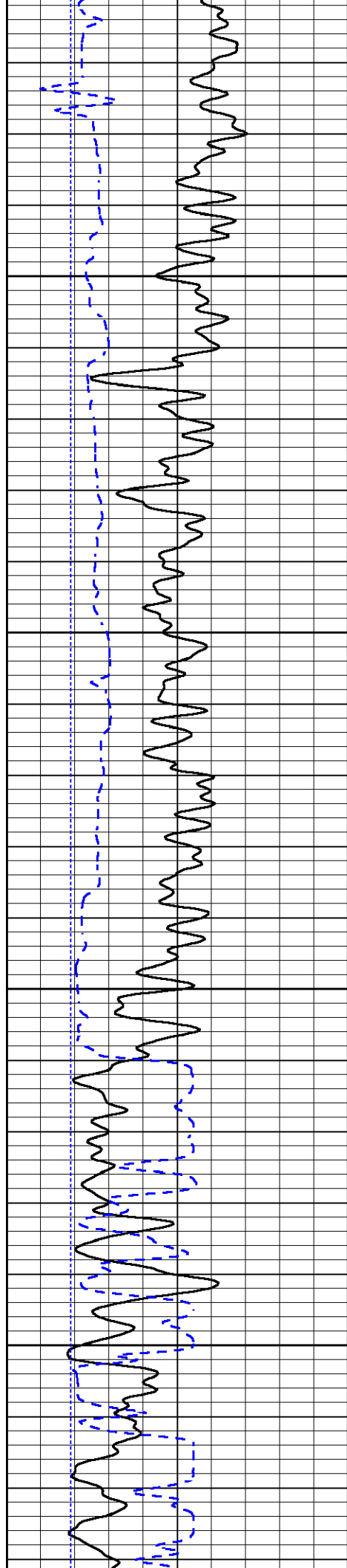


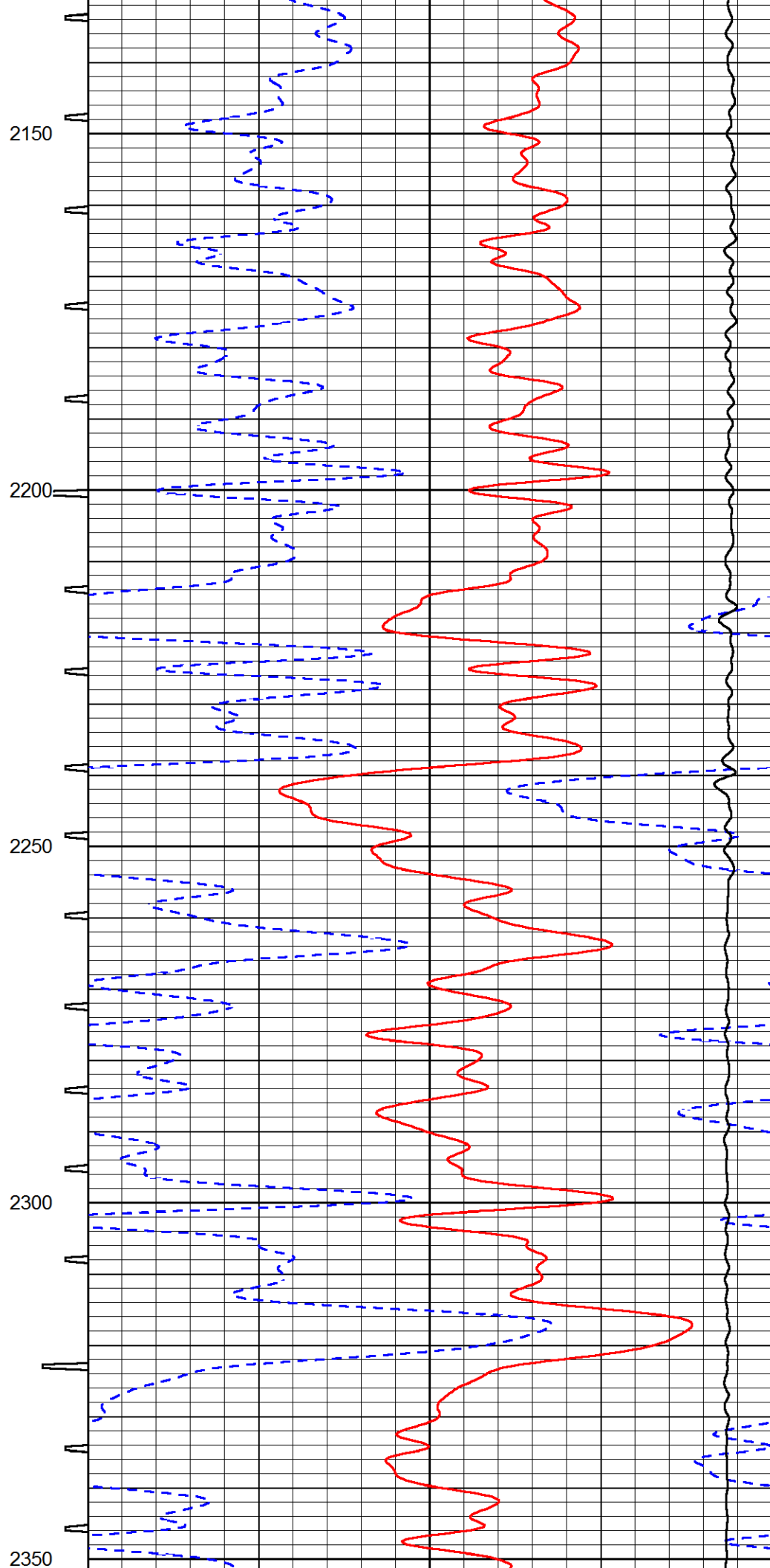
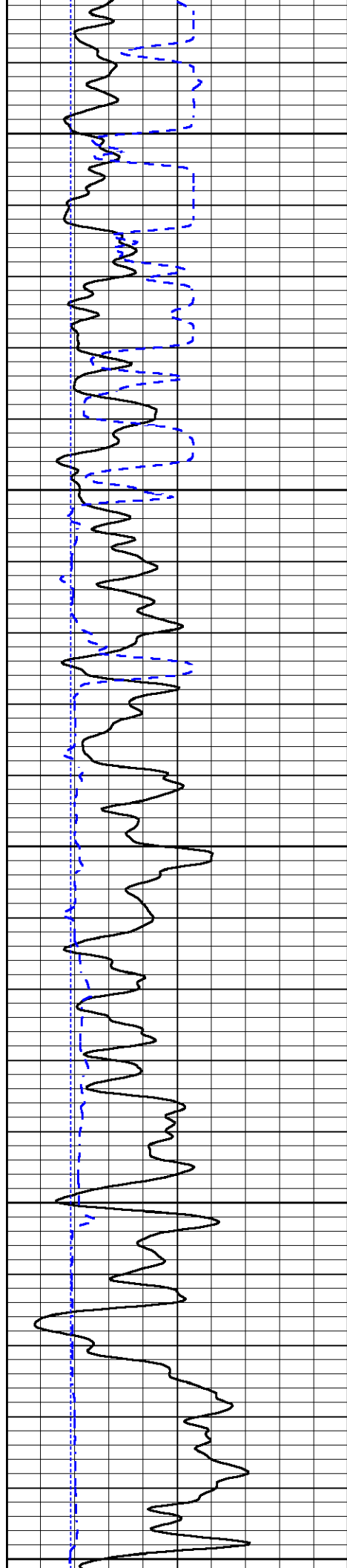


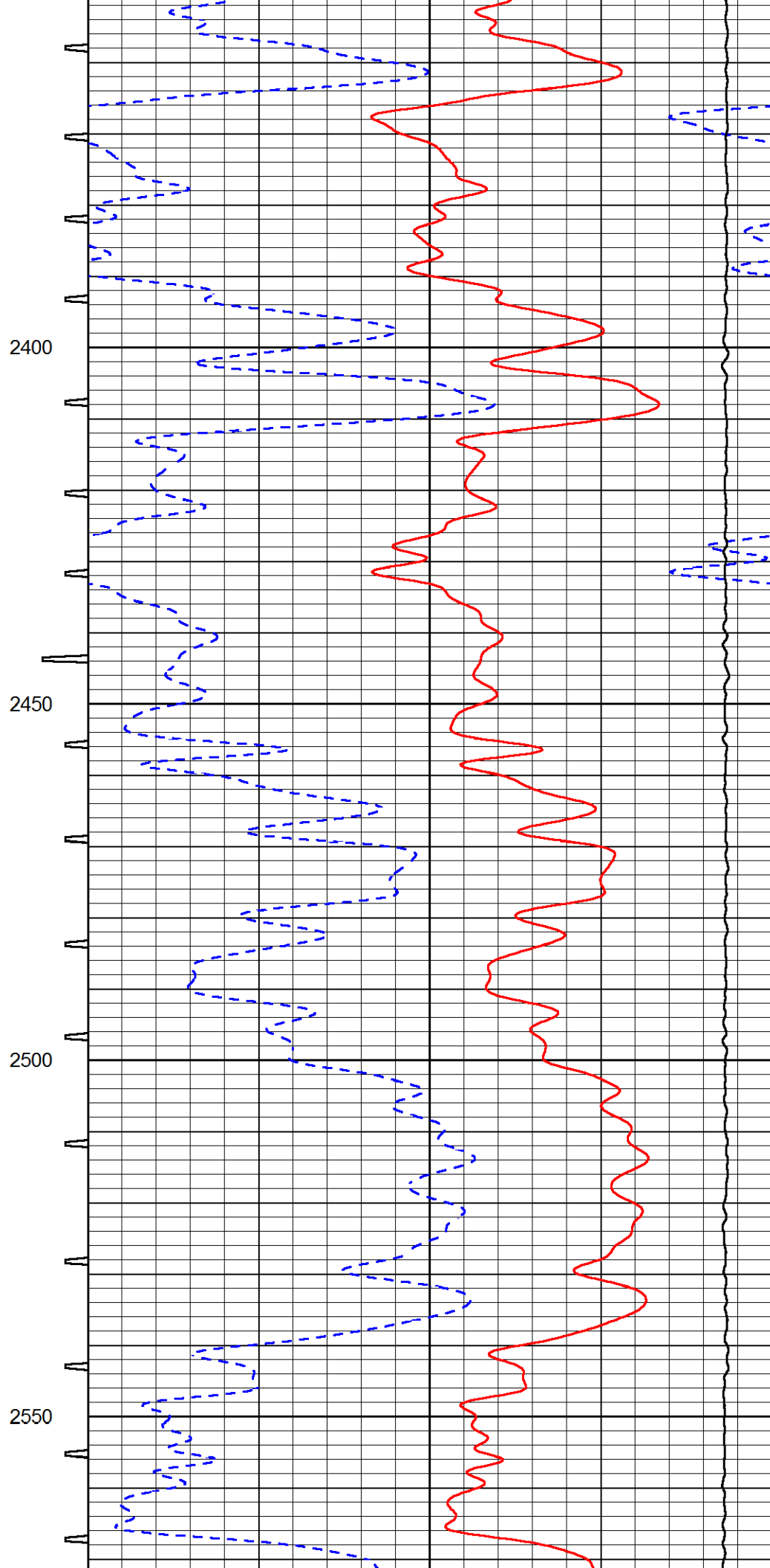
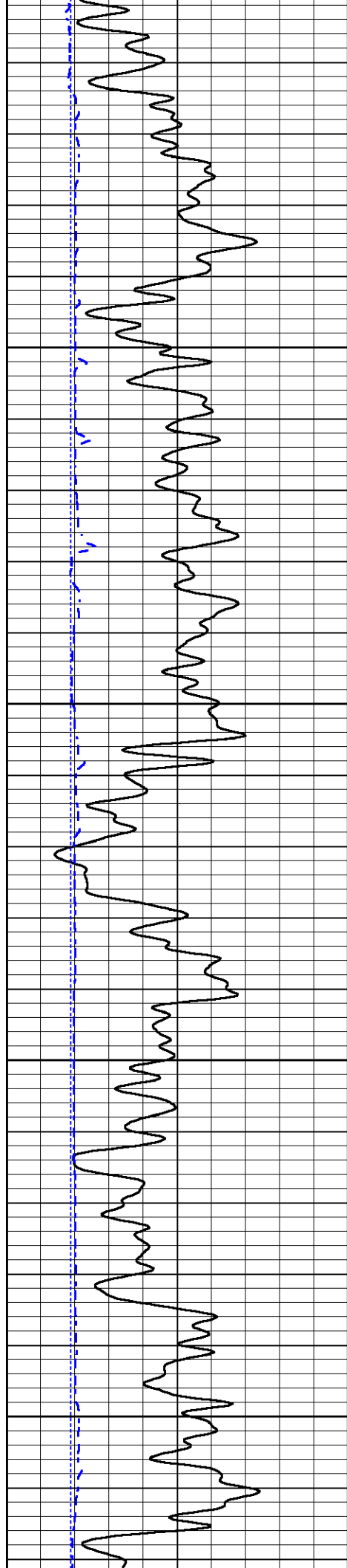


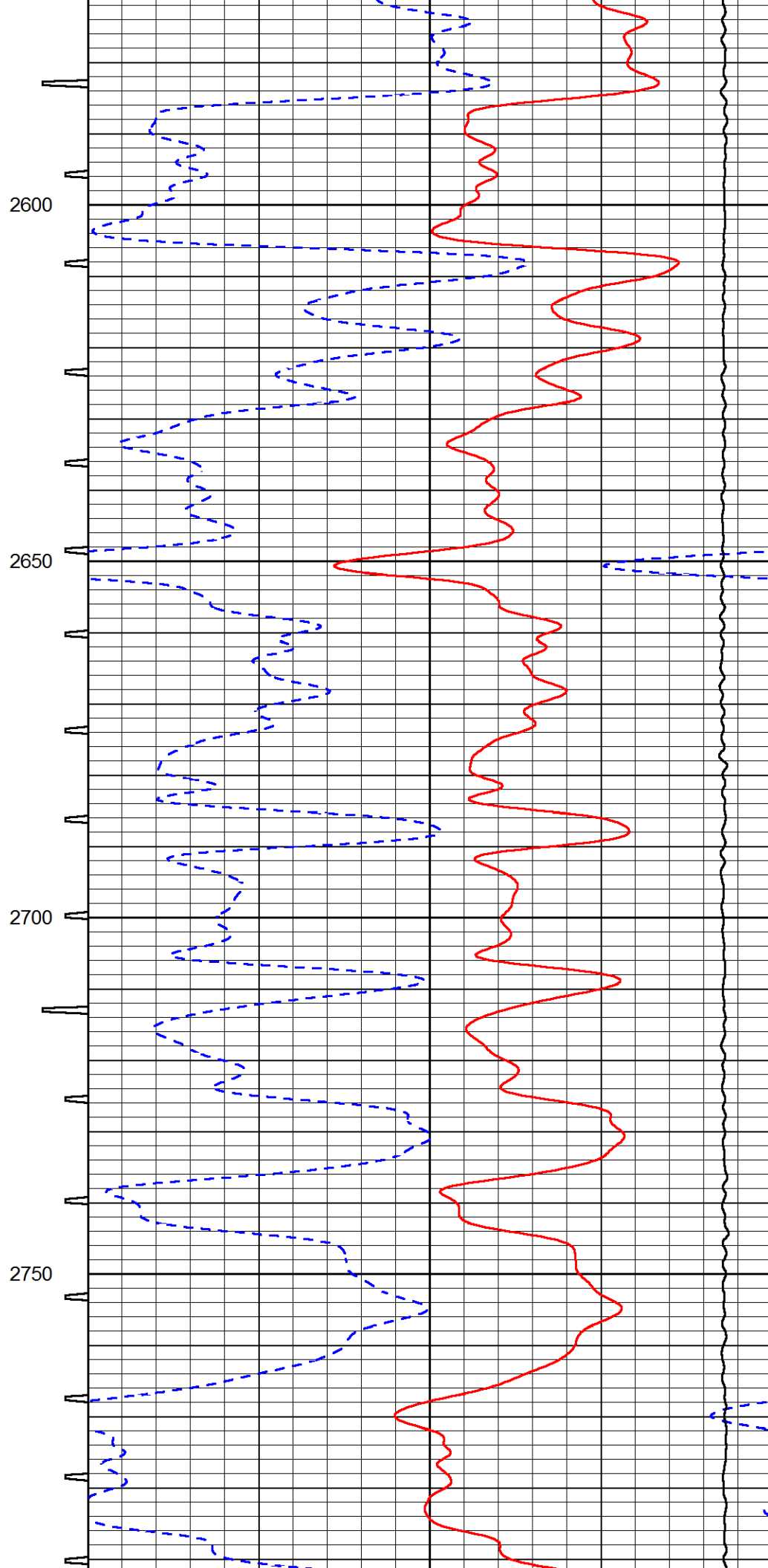
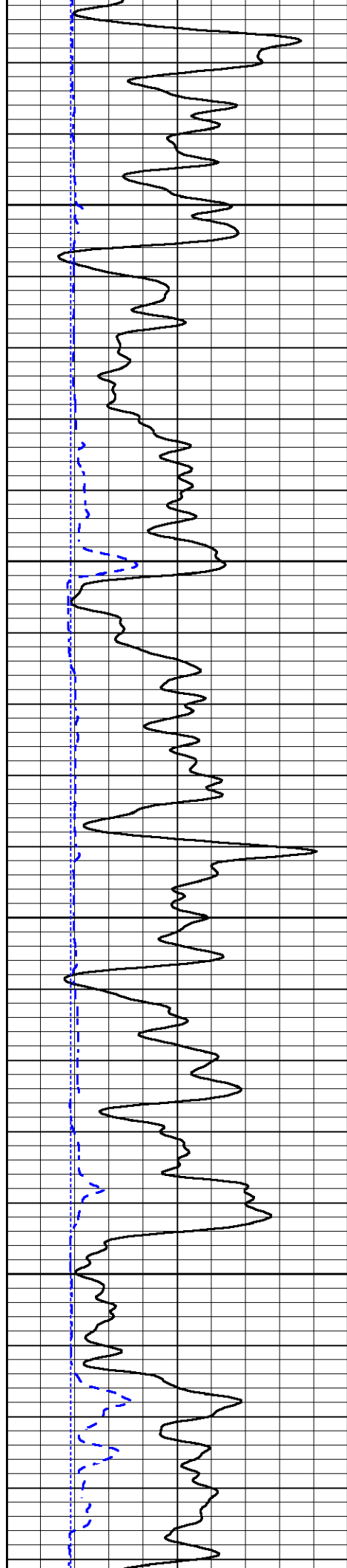


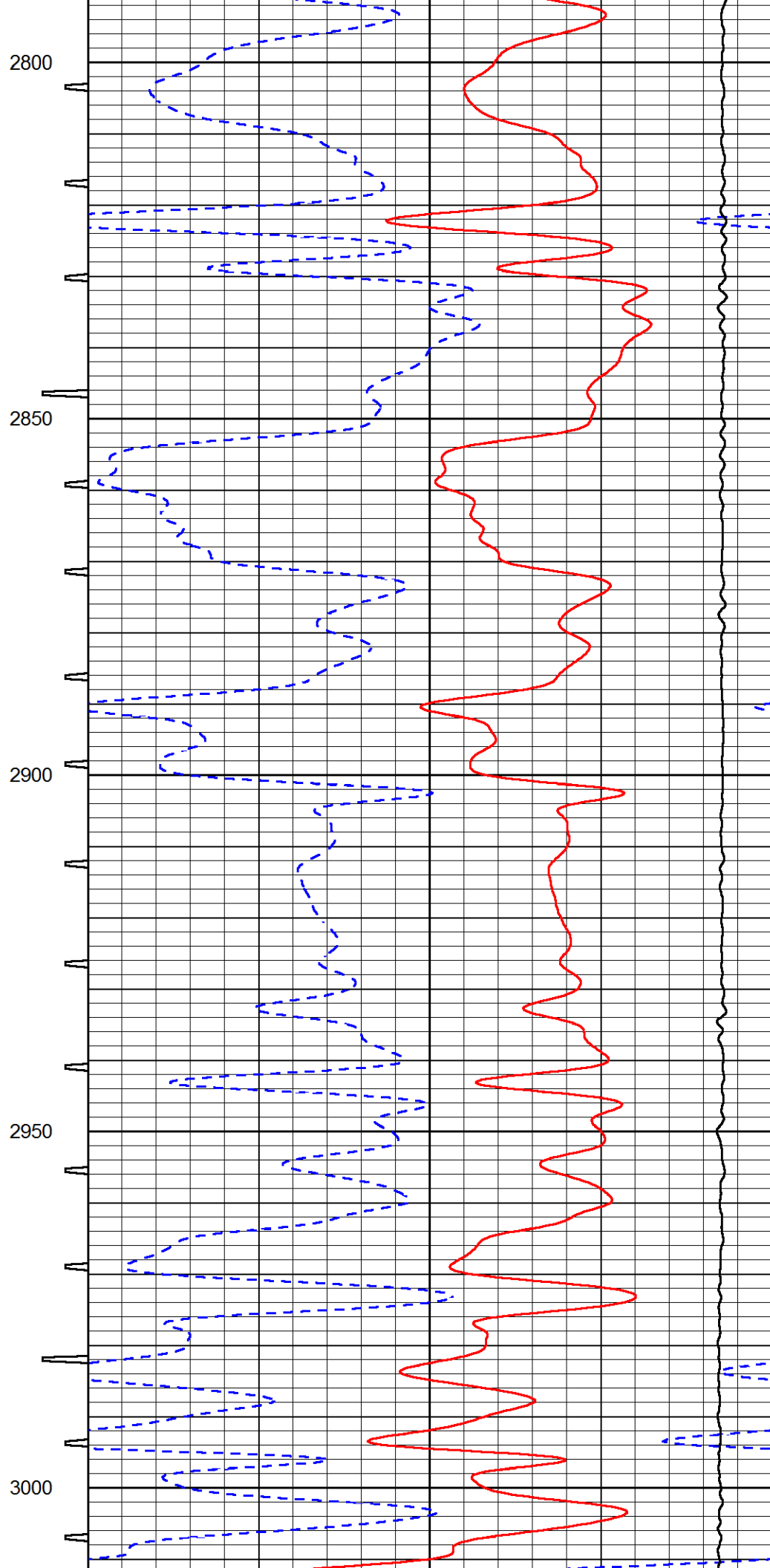
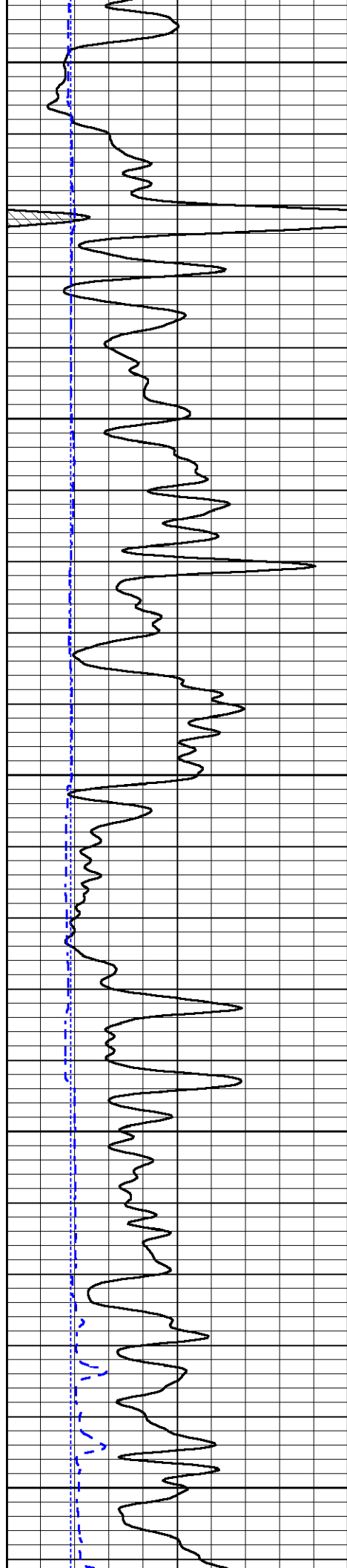


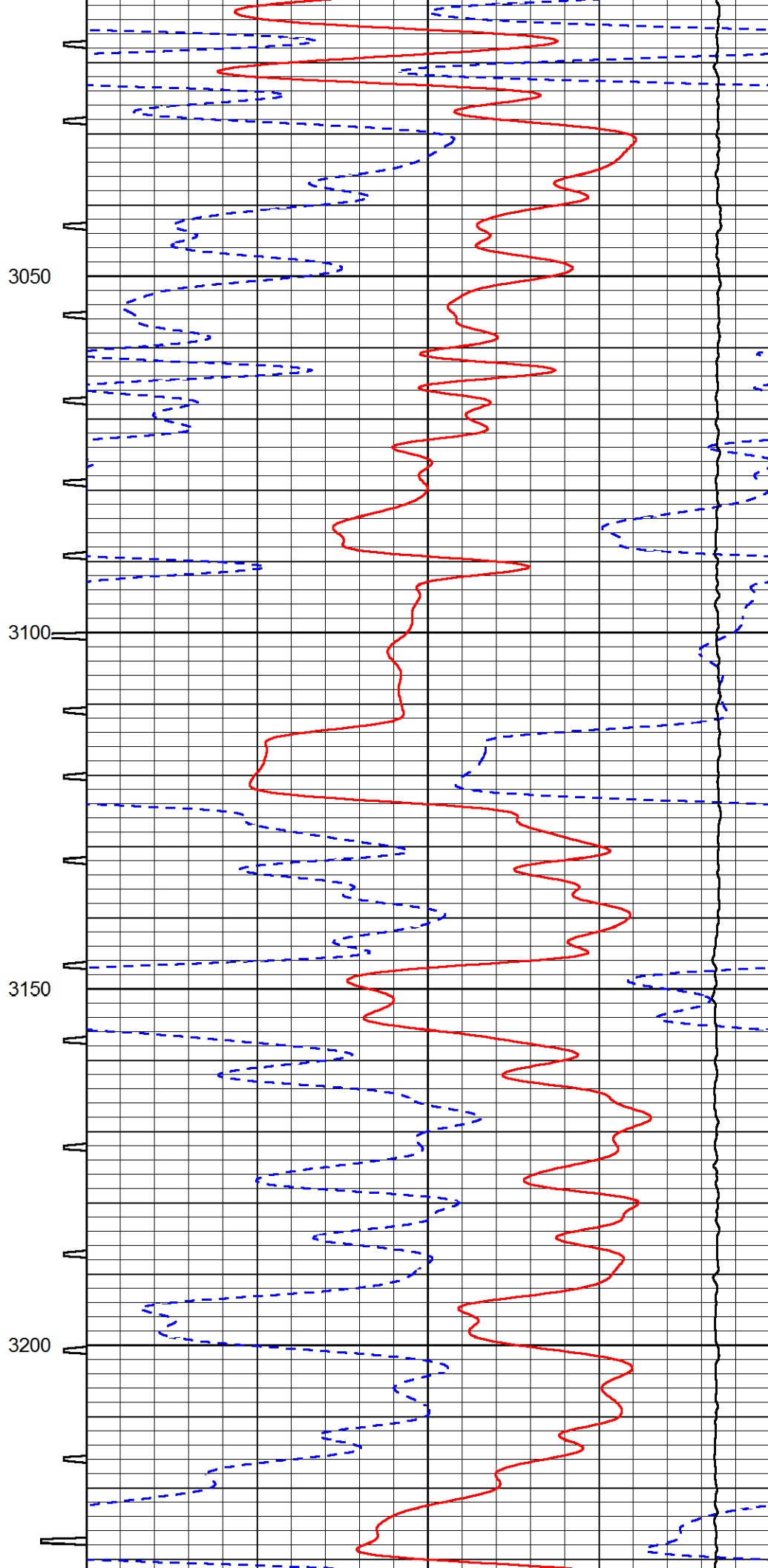
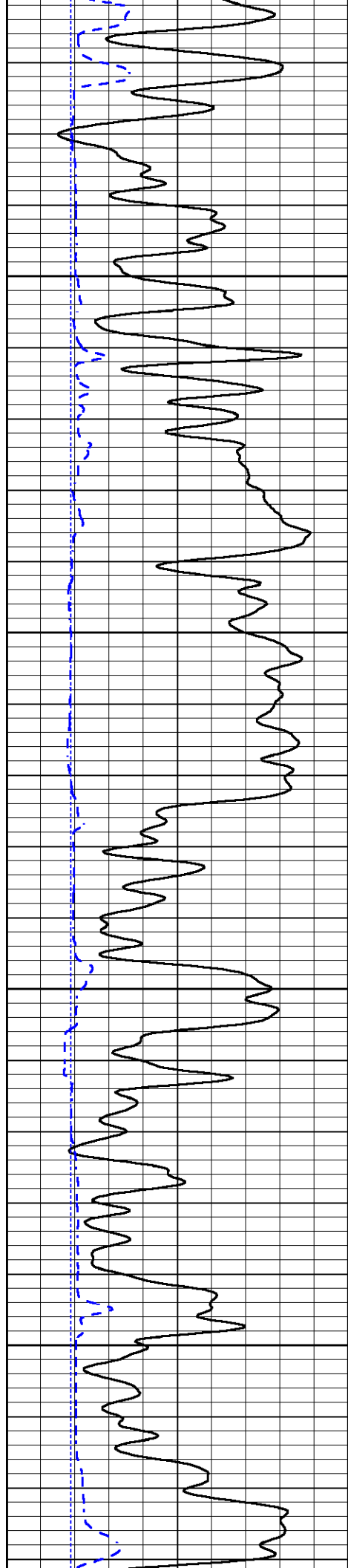


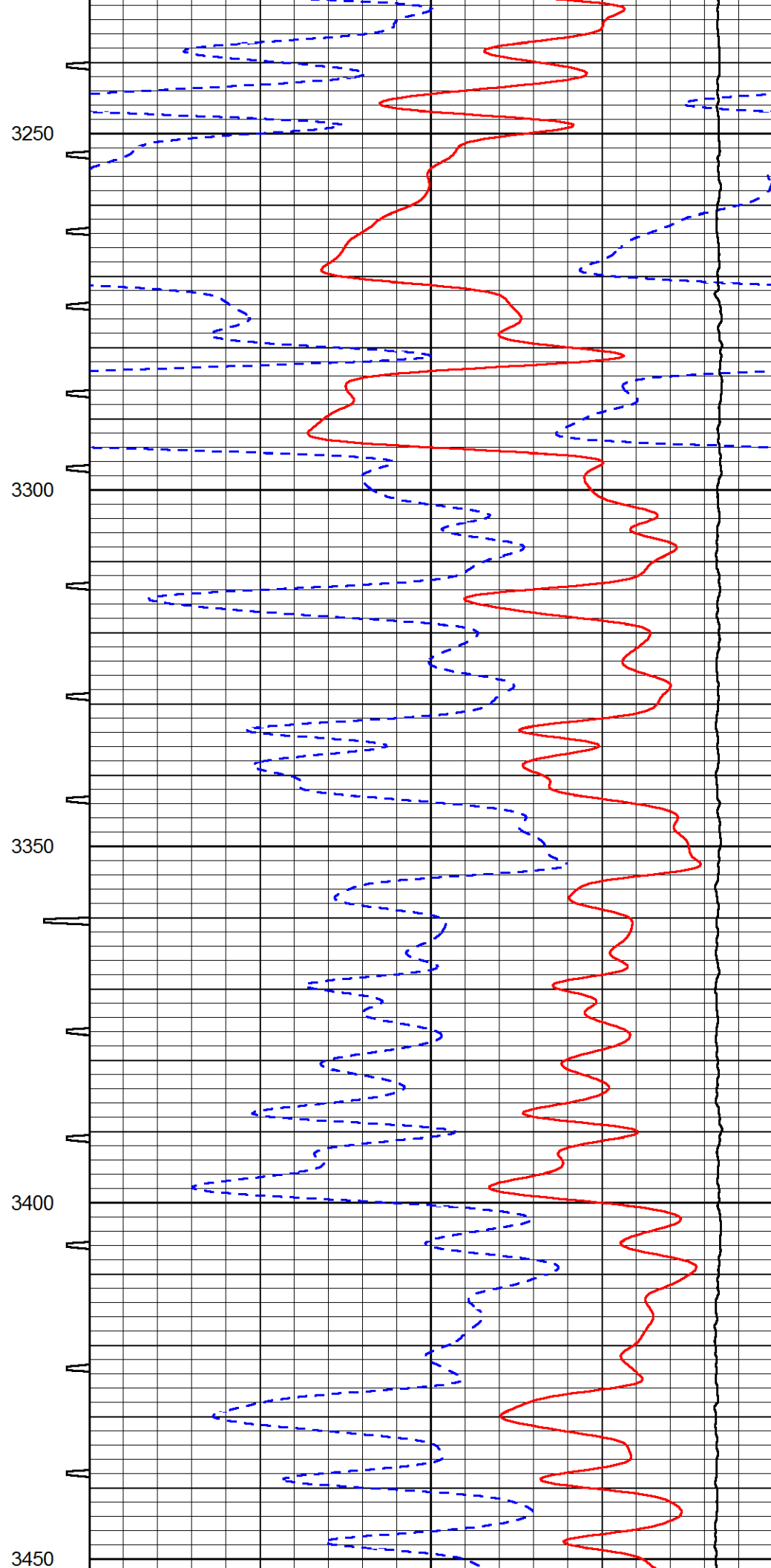
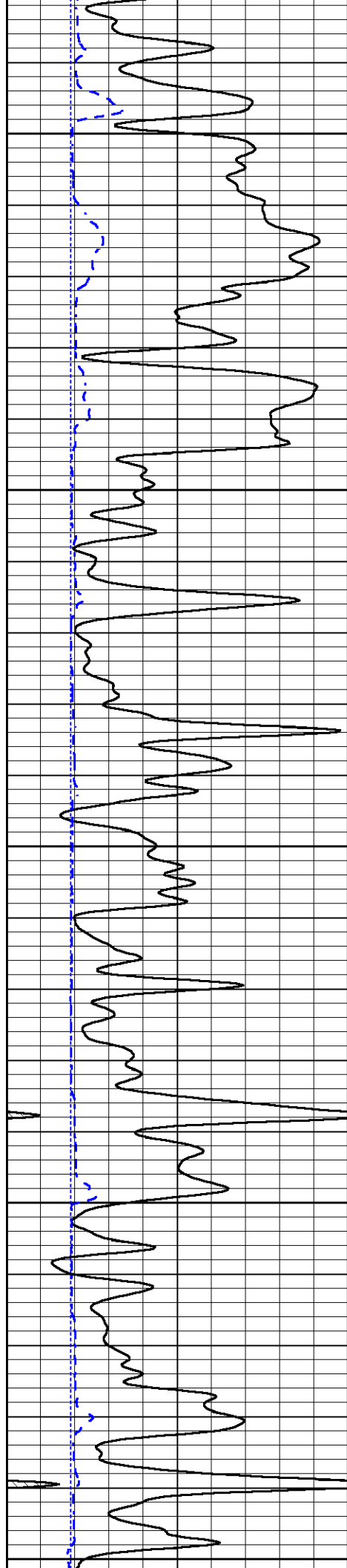


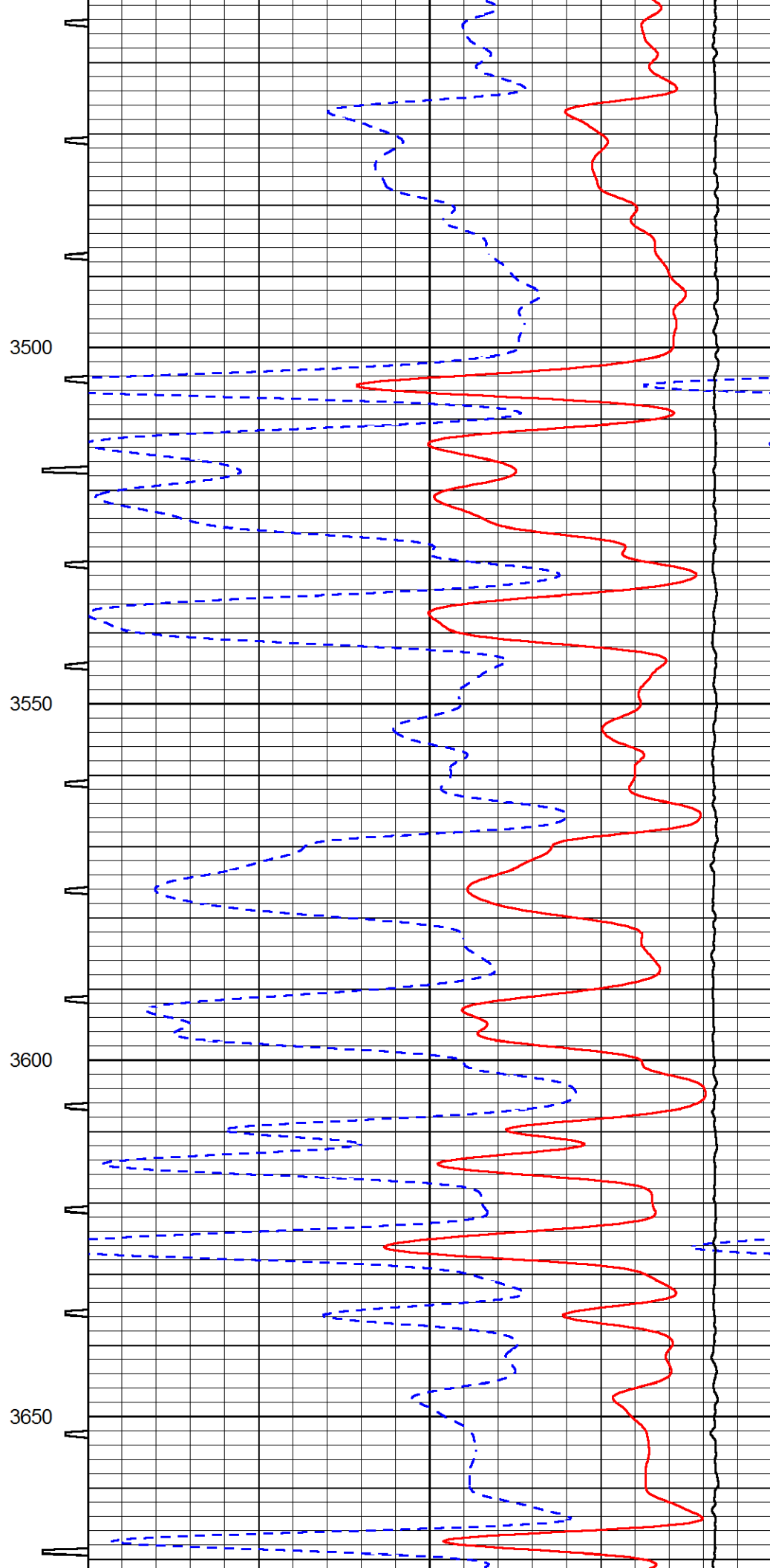
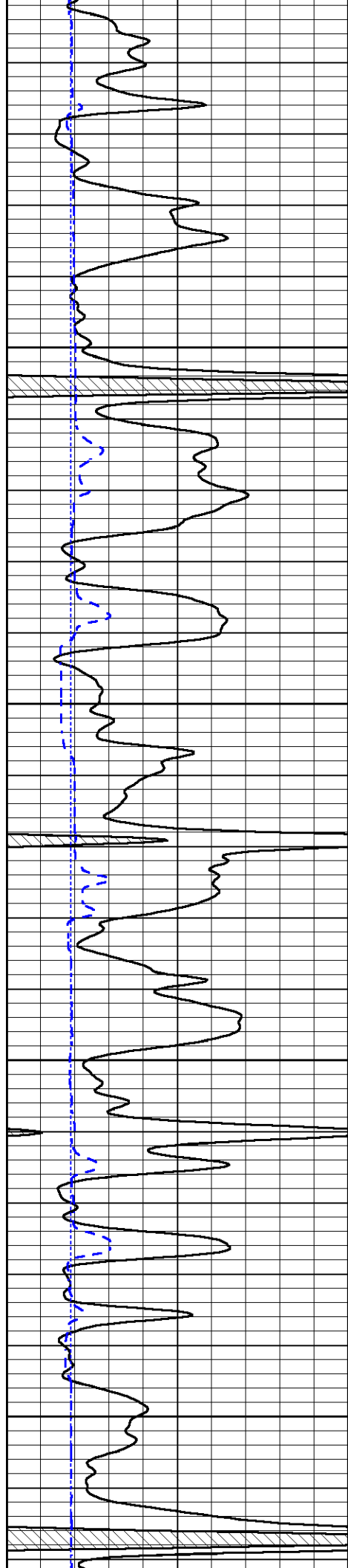


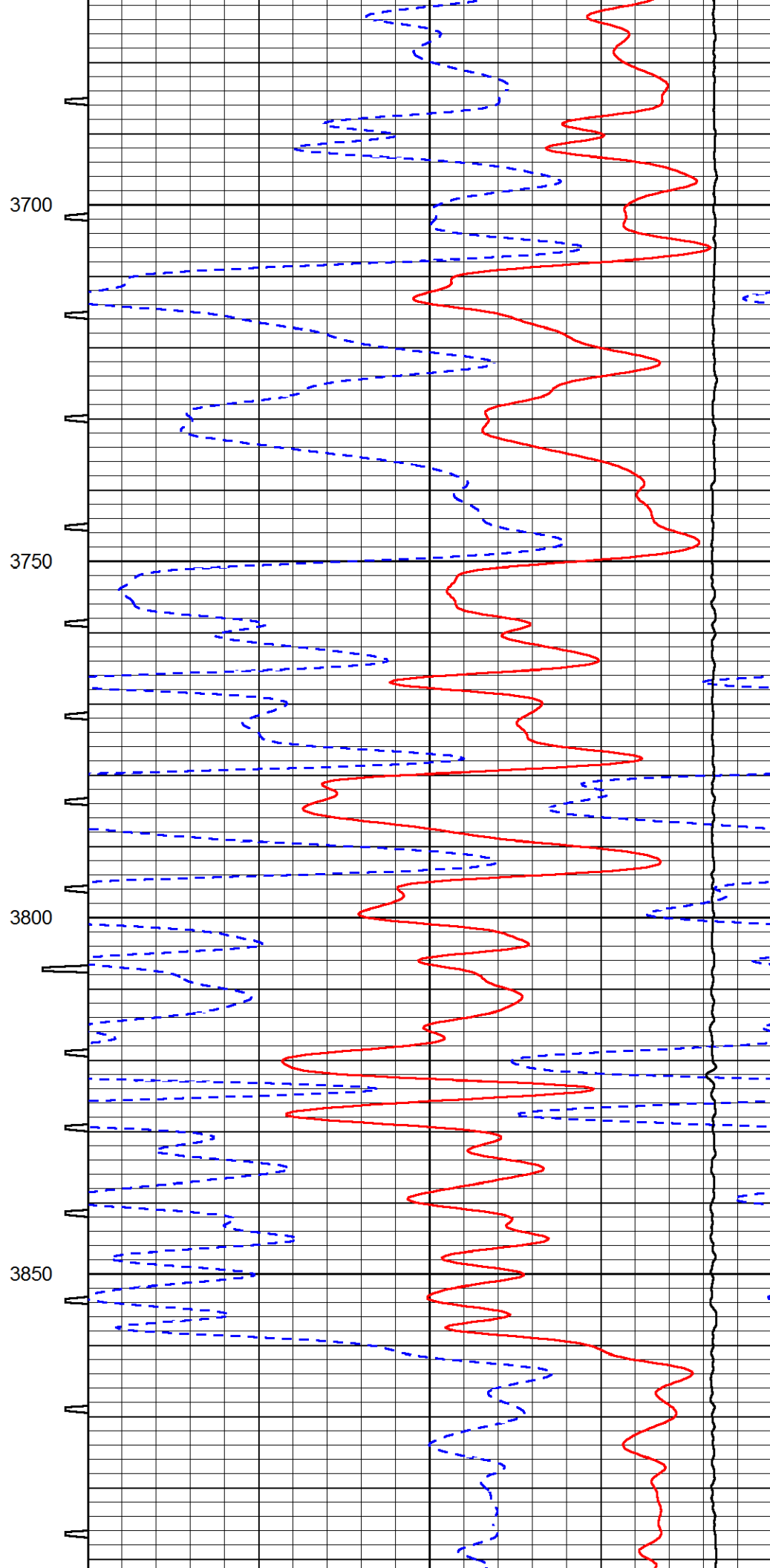
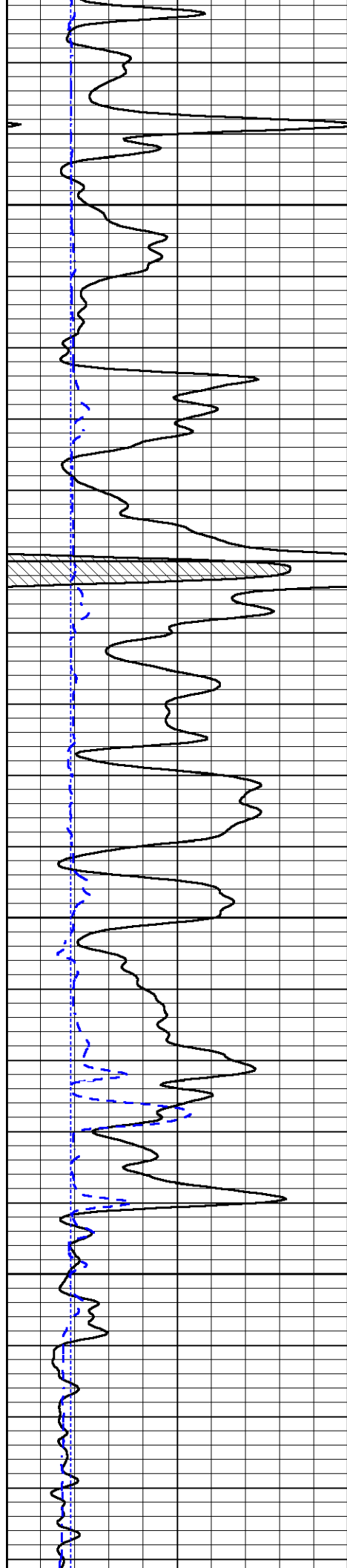


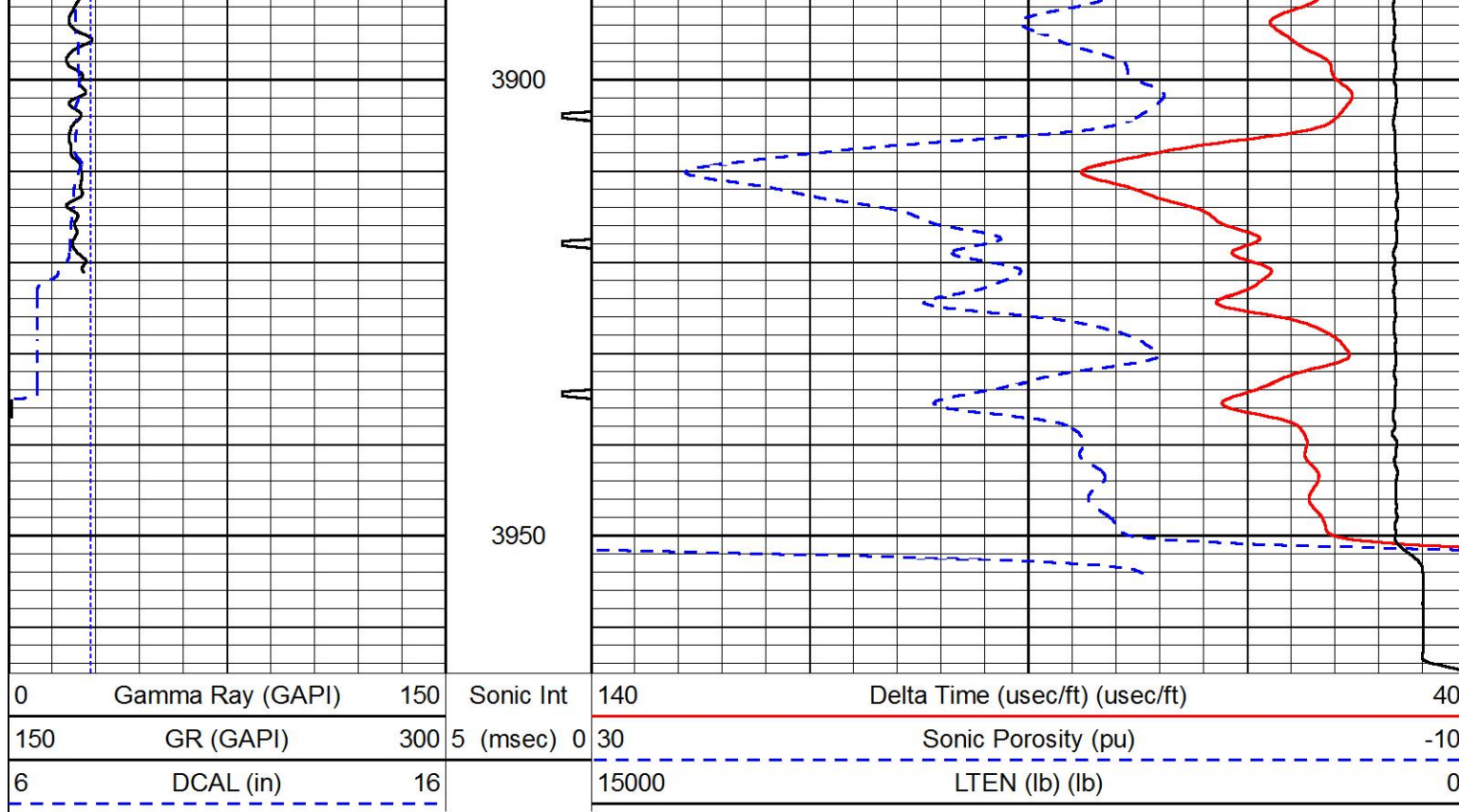










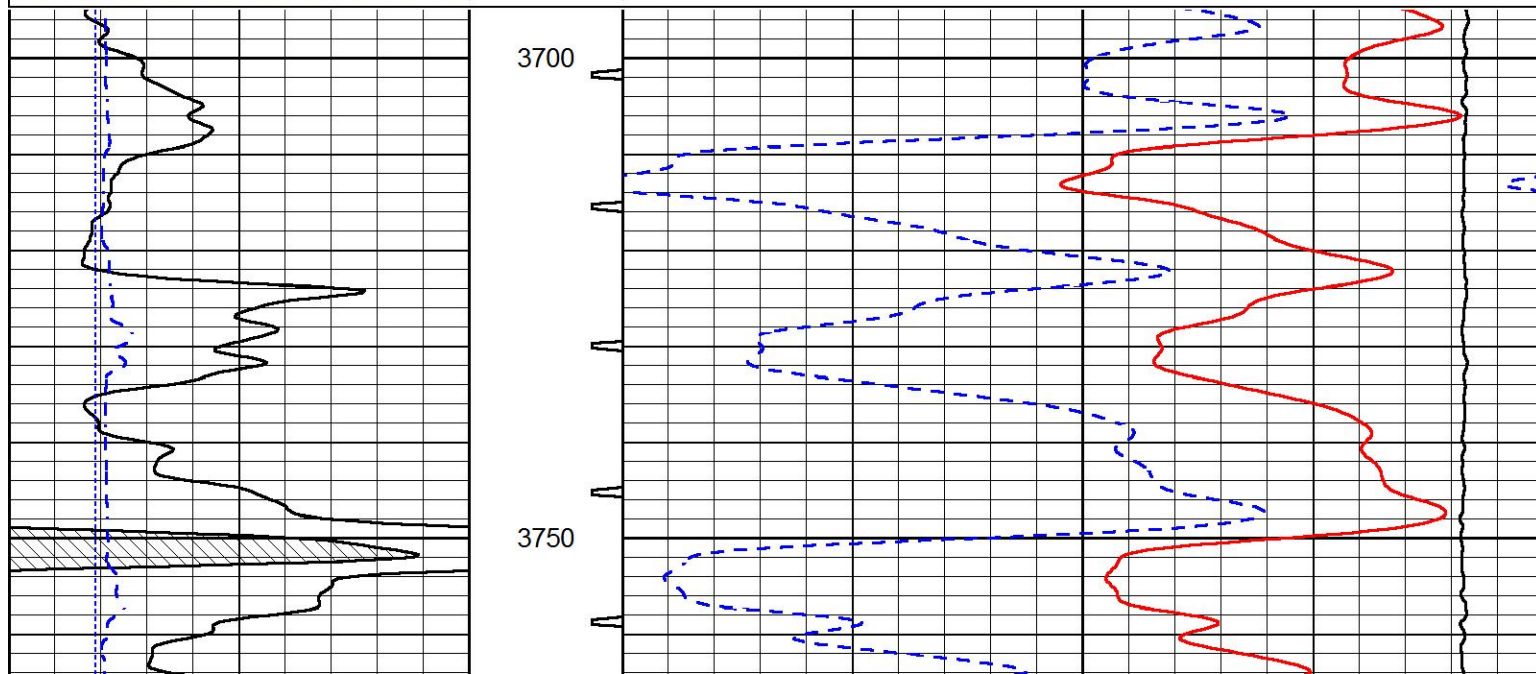


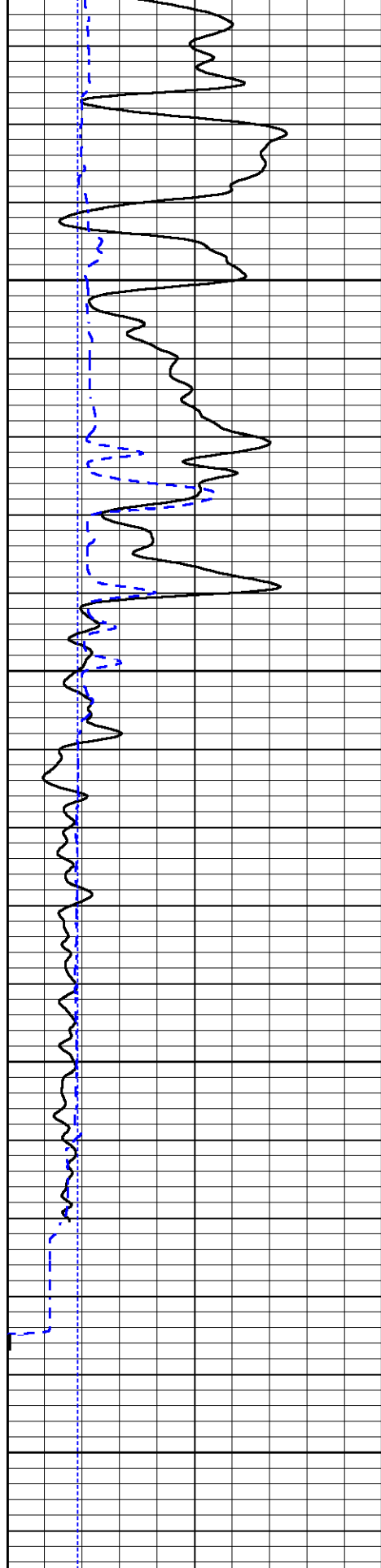
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REPEAT SECTION

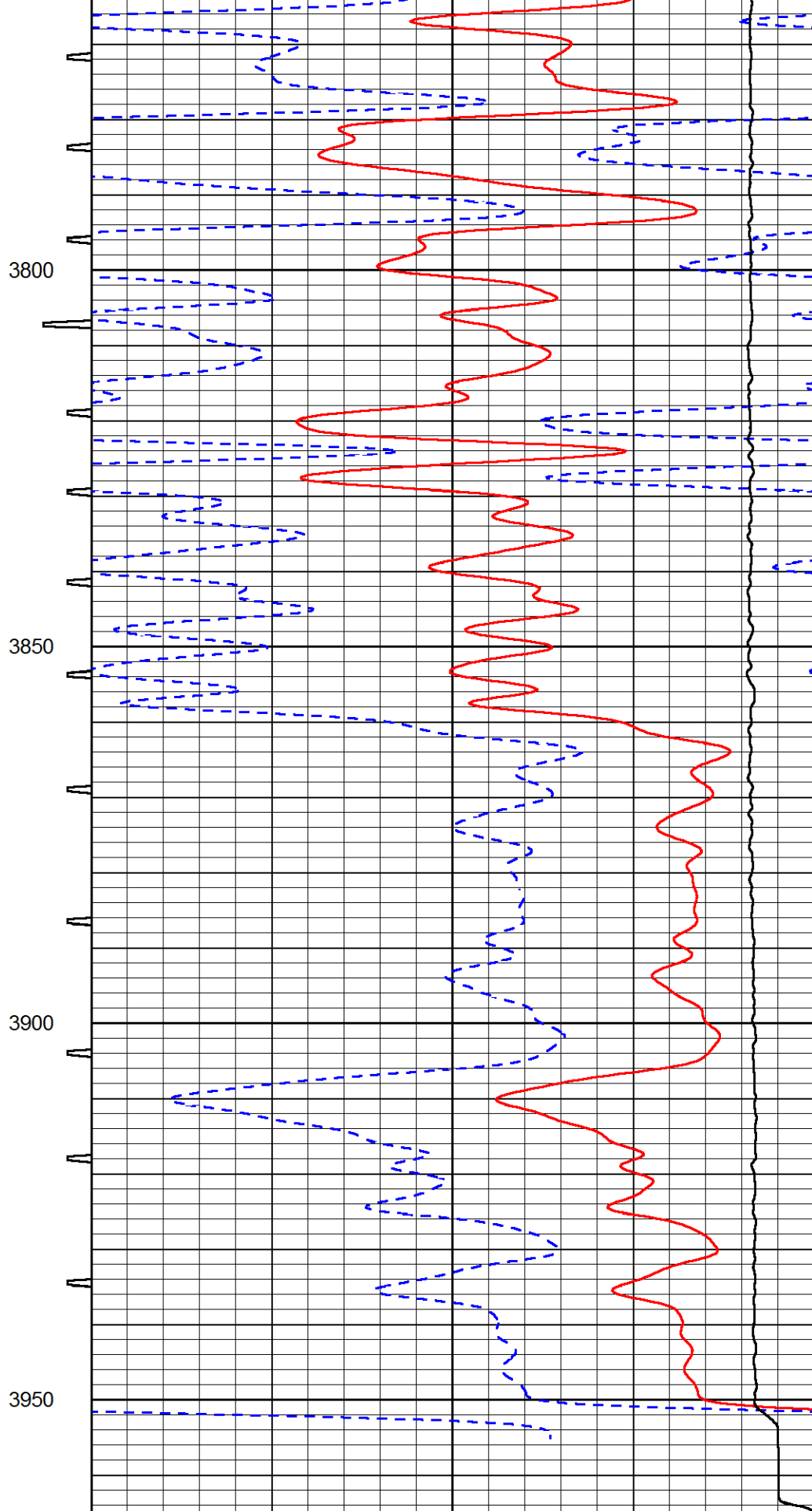
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 Charted by Depth in Feet scaled 1:240

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)	-10
6	DCAL (in)	16		15000	LTEN (lb) (lb)	0





0	Gamma Ray (GAPI)	150
150	GR (GAPI)	300
6	DCAL (in)	16



Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
5 (msec) 0	30	Sonic Porosity (pu)	-10
	15000	LTEN (lb) (lb)	0

Database File	cholla_wrangler 1-23.db
Dataset Pathname	stkml/pass4.1
Dataset Creation	Tue Mar 09 21:36:44 2021

Serial-Model: 952-828-PSI HIGH TEMP
Calibration Performed: Wed Mar 03 05:24:49 2021

Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.455	-33.000
Medium	0.000	1348.000	142.000	255.000	mmho/m	0.325	-30.000

Serial-Model: PSI-01-PSIML
Performed: Wed Mar 03 05:24:59 2021

	Zero	Cal		Zero	Cal		m	b
Normal	0.0000	1.0000		0.0000	1.0000	Ohm-m	12000.0000	-0.3000
Inverse	0.0000	1.0000		0.0000	1.0000	Ohm-m	13000.0000	0.3000
Caliper	1.0033	1.0841		5.0000	16.5000	in	142.3500	-138.6000

Serial-Model: 817-947-M&W
Source / Verifier: 16955B / 2ci
Master Calibration Performed: Wed Mar 03 05:25:05 2021

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	6127.15	5922.31	cps
Aluminum	2.675	g/cc	1141.85	3762.09	cps
Spine Angle = 74.89			Density/Spine Ratio = 0.529		
	Size		Reading		
Small Ring	4.50	in	1.02		
Large Ring	14.50	in	1.23		

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: WED MAR 3 7:30:30 2021

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:	233-M&W	
Tool Model:	M&W	
Calibration Performed:	Wed Mar 03 05:25:33 2021	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5500	GAPI/cps