



PIONEER

Pioneer Energy Services

BOREHOLE COMPENSATED SONIC LOG

Company MURFIN DRILLING CO, INC.
Well ABELL RANCH "B" #4-31
Field GAELAND WEST
County GOVE State KANSAS

Location: API #: 15-063-22332-00-00

Other Services

SEC 31 TWP 12S RGE 30W
1980' FNL & 2077' FWL

CNL/CDL
DIL/MEL

Permanent Datum GROUND LEVEL Elevation 2877'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2877'
D.F. N/A
G.L. 2872'

Date 7/27/2018

Run Number TWO

Type Log BHCS

Depth Driller 4620'

Depth Logger 4618'

Bottom Logged Interval 4606'

Top Logged Interval 280'

Type Fluid In Hole CHEMICAL

Salinity, PPM CL 1800

Density 9.5

Level FULL

Max. Rec. Temp. F 122

Operating Rig Time 5 HOURS

Equipment -- Location 91 HAYS

Recorded By IAN MABB

Witnessed By PAUL GUNZELMAN

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	305'	8.625"	23#	0'	305'
TWO	7.875"	305'	TD				

<<< Fold Here >>>

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

GRINNEL, KS.

10 MILES SOUTH TO RD. S - WEST 4 MILES -
NORTH 1/4 MILE & EAST INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

Engineer: IAN MABB
Operator:
Operator:
Operator:

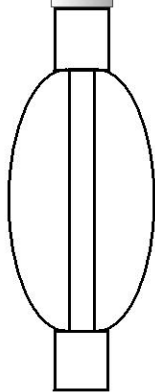
This Log Record Was Witnessed By

Primary Witness: PAUL GUNZELMAN
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

COMPACT 1	SVFLUID usec/ft 189	SVMATRIX usec/ft 47.6	M 2	A 1	SZCOR Off	NPORSEL Limestone	FLUIDDEN g/cc 1
MATRXDEN g/cc 2.71	SPSHIFT mV 0	SNDERRM mmho/m 0	SNDERR mmho/m 0	SRFTEMP degF 79	CASETHCK in 0	CASEOD in 5.5	PERFS 0
TDEPTH ft 4618	BOTTEMP degF 122	BOREID in 7.875					

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CENT-PENGO (3-PENGO)	5.50	3.00	70.00
WVF4 WVF1	13.50 13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF3 WVF2	11.50 11.50					



CENT-PENGO (4-PENGO)

5.50

3.00

70.00

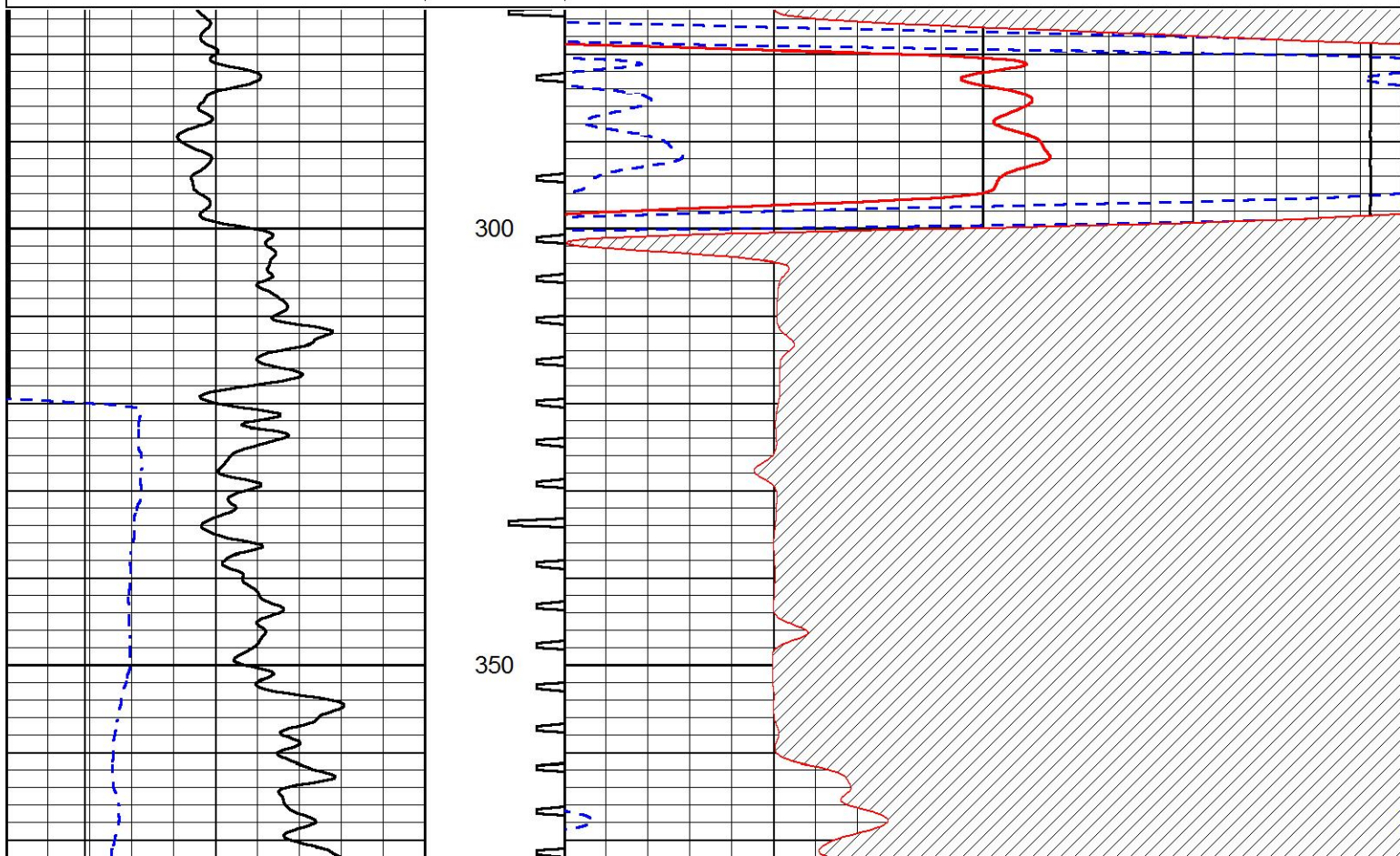
Dataset: murfin_abell_ranch_b_4_31.db: field/well/SON/pass2
Total length: 27.00 ft
Total weight: 440.00 lb
O.D.: 3.50 in

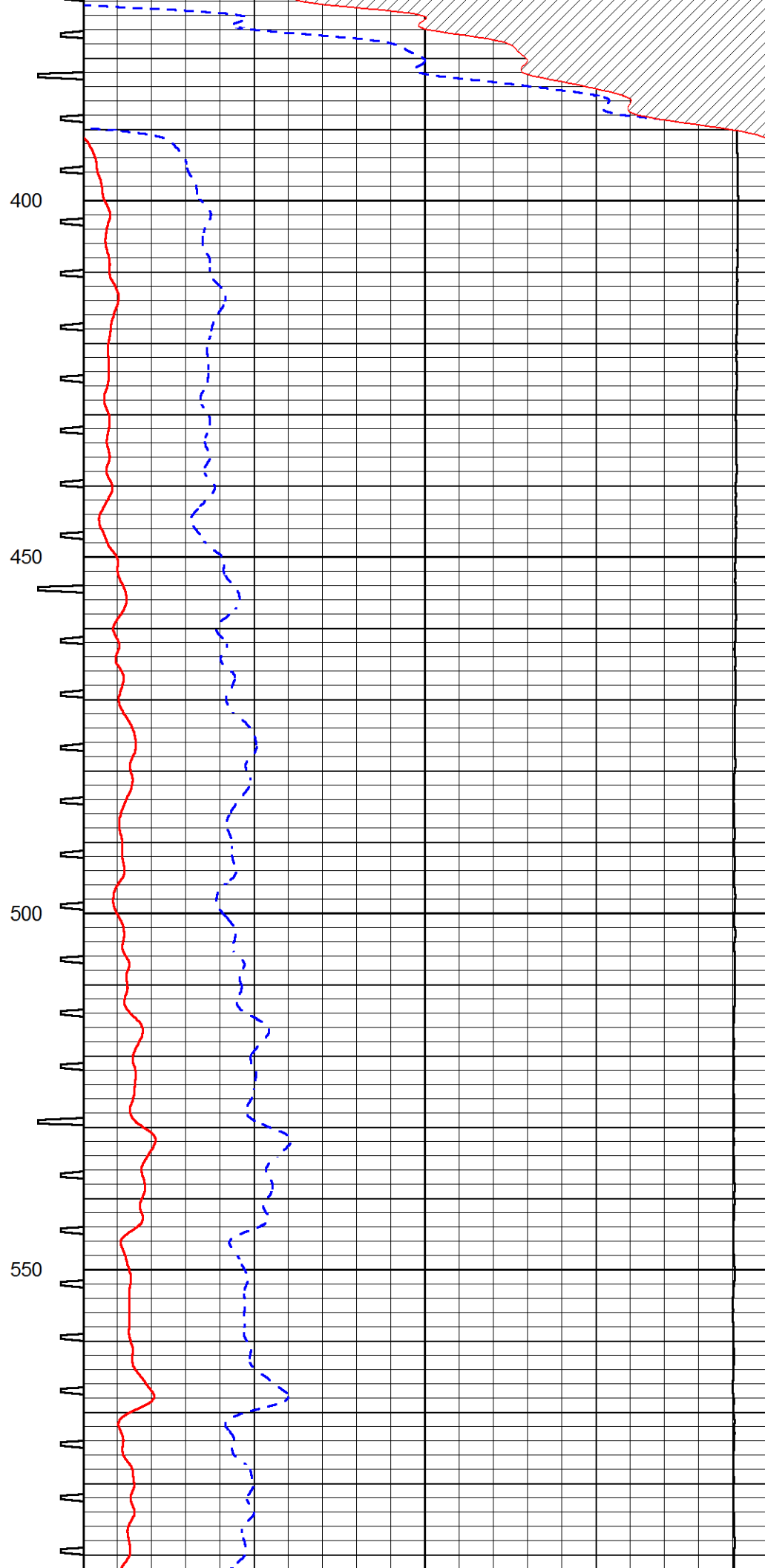
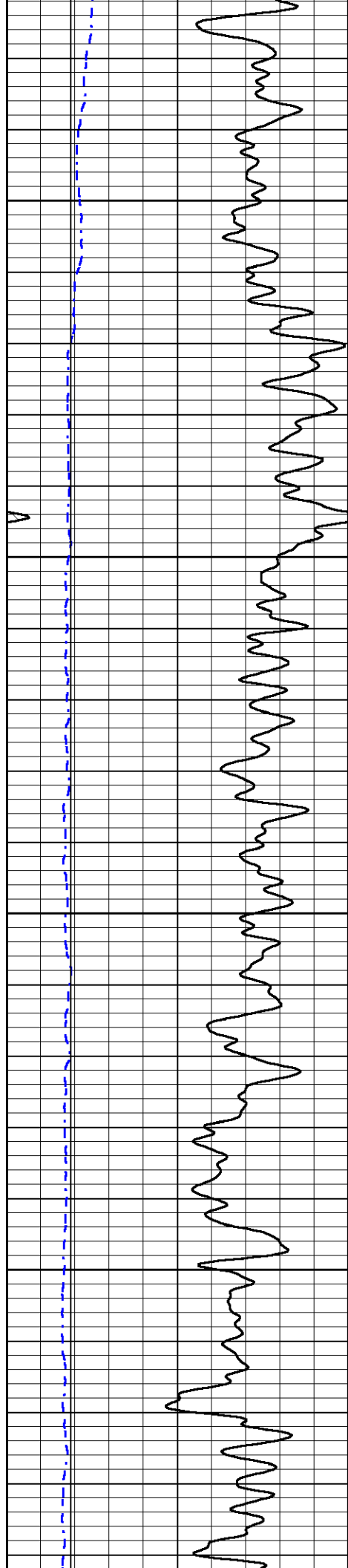


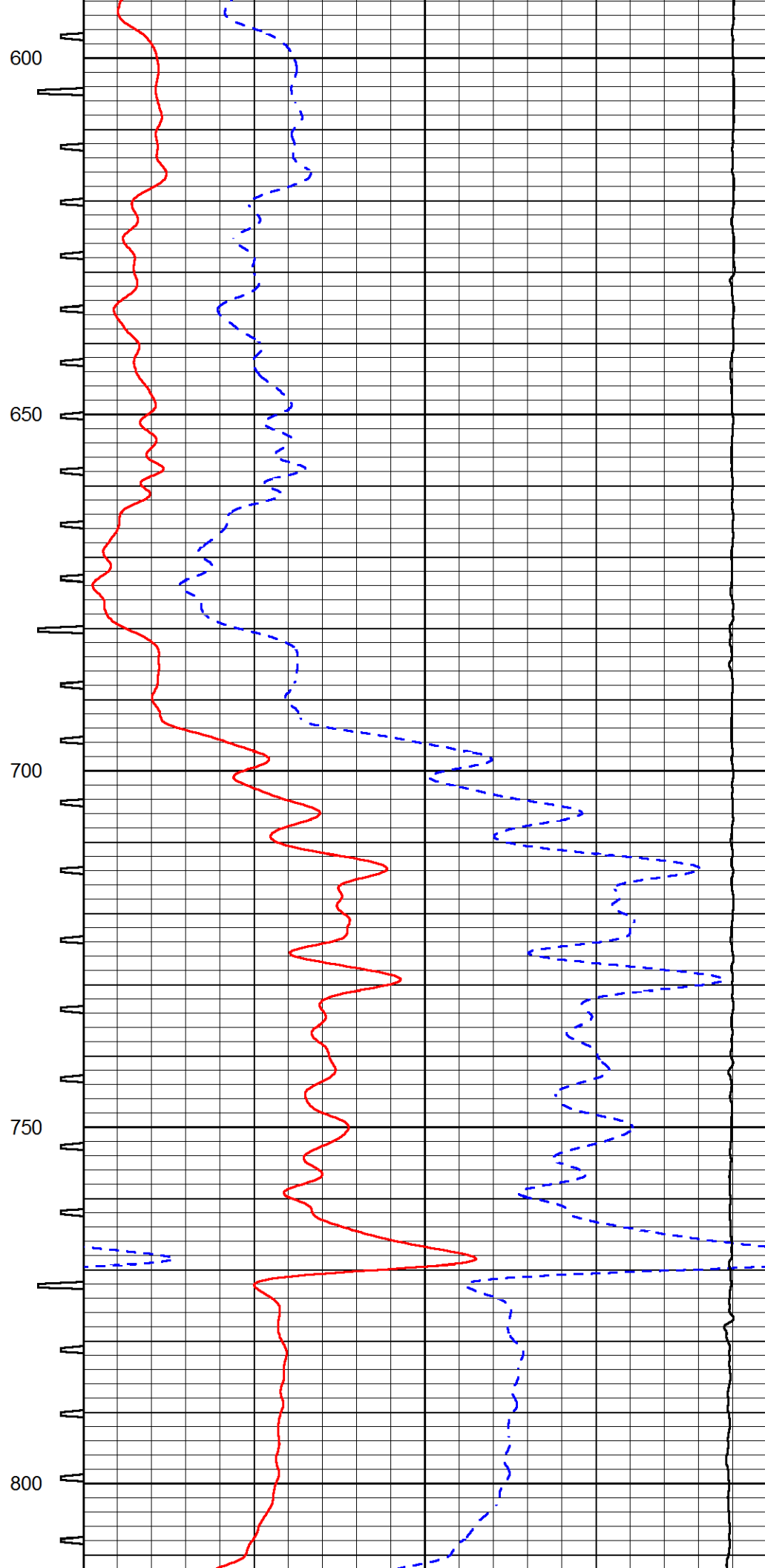
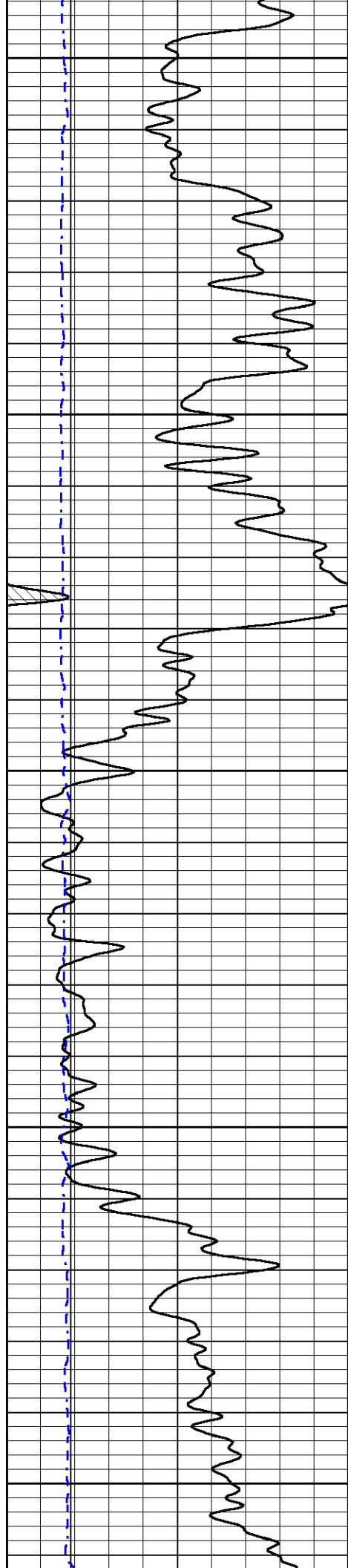
MAIN PASS

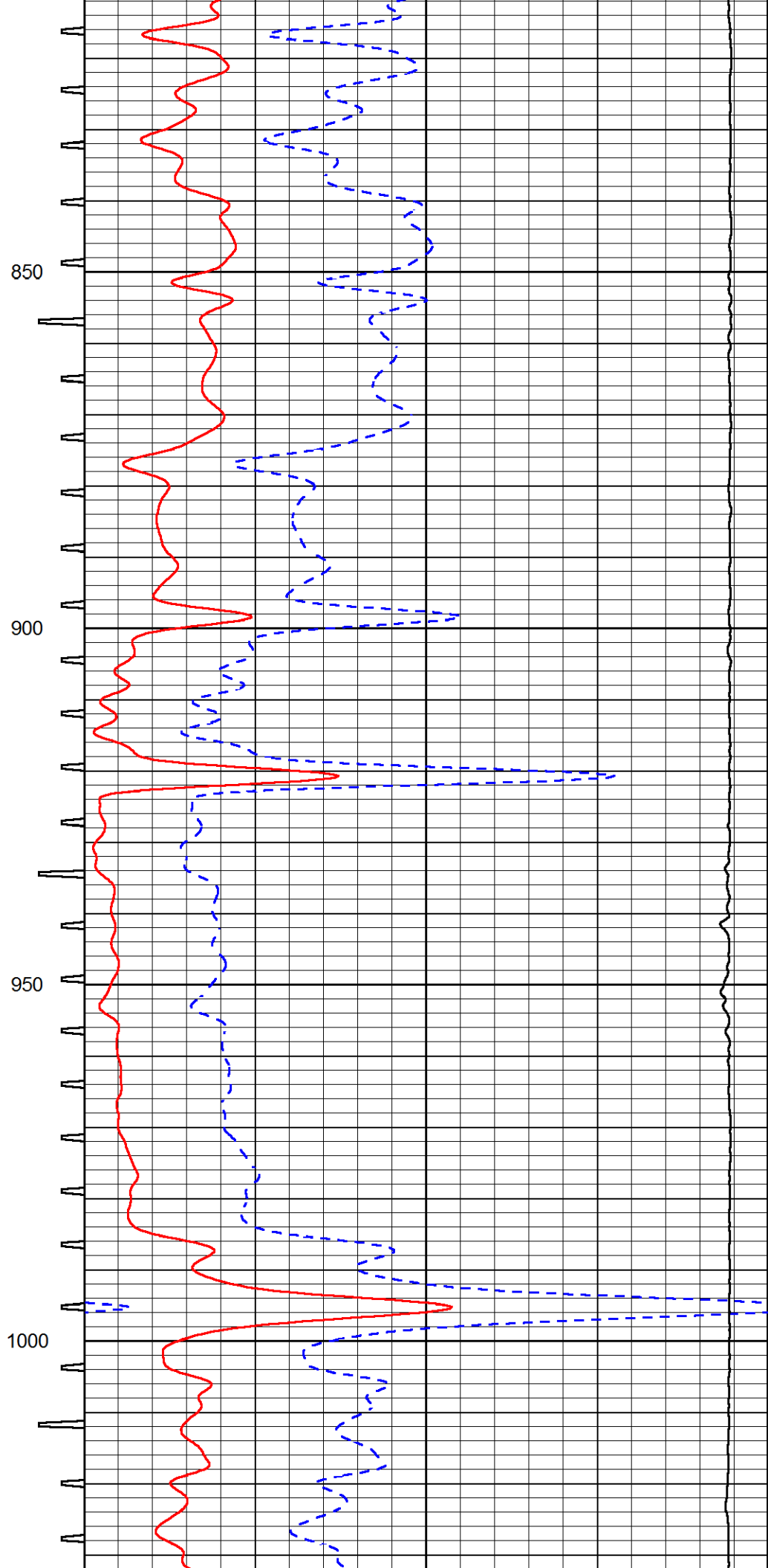
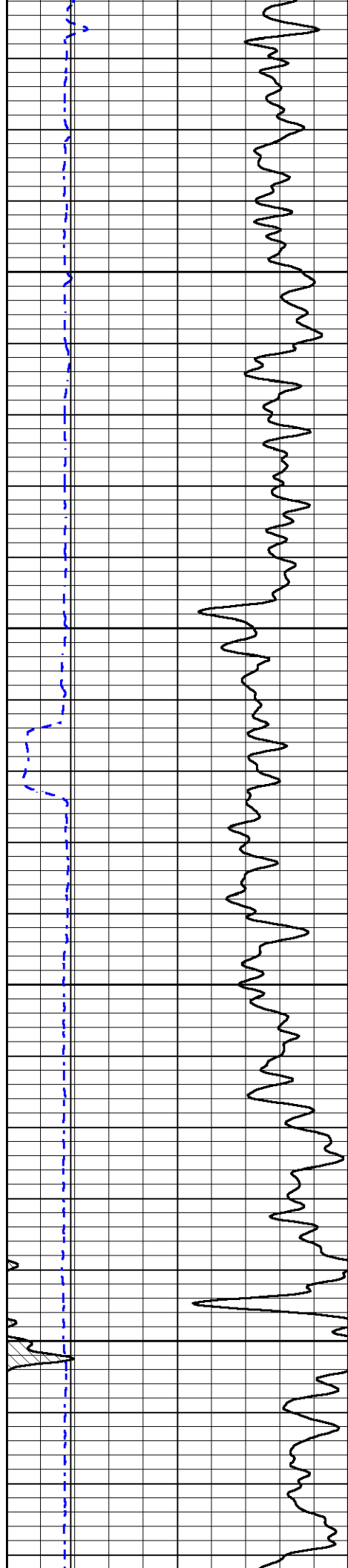
Database File murfin_abell_ranch_b_4_31.db
Dataset Pathname stackmel/pass4.1
Presentation Format sonic
Dataset Creation Sat Jul 28 02:24:51 2018
Charted by Depth in Feet scaled 1:240

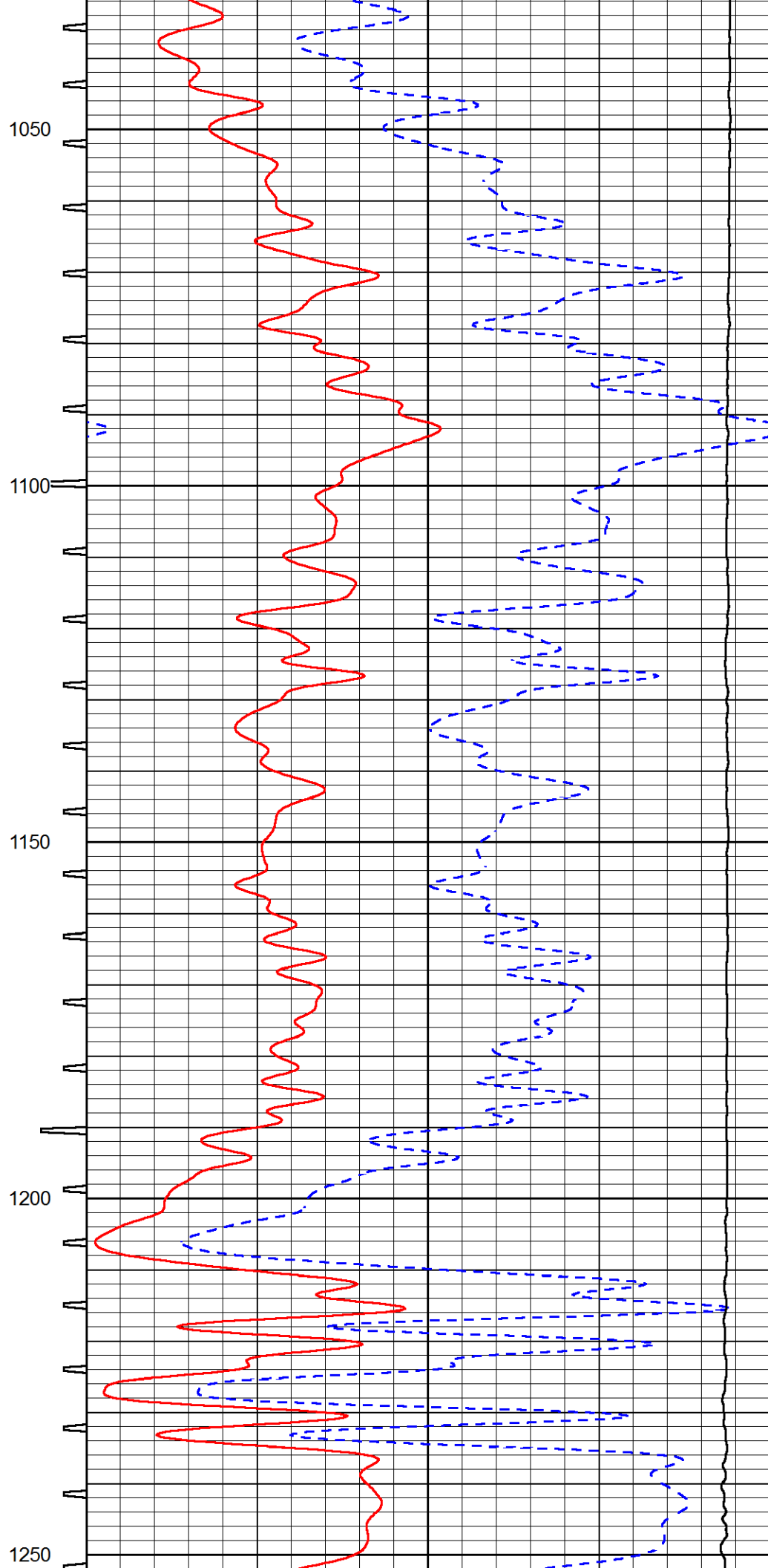
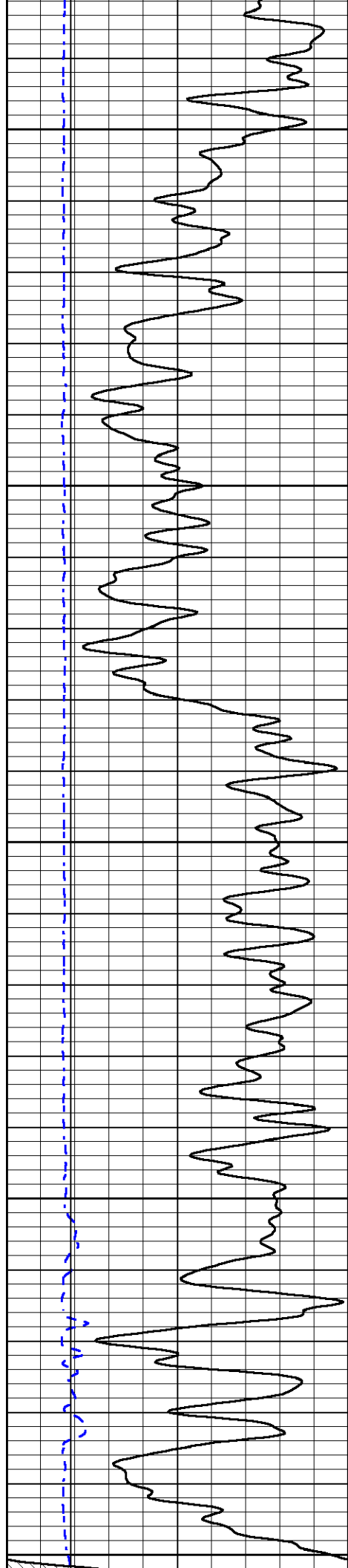
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu)	-10
6	DCAL (in)	16		15000	LTEN (lb) (lb)	0

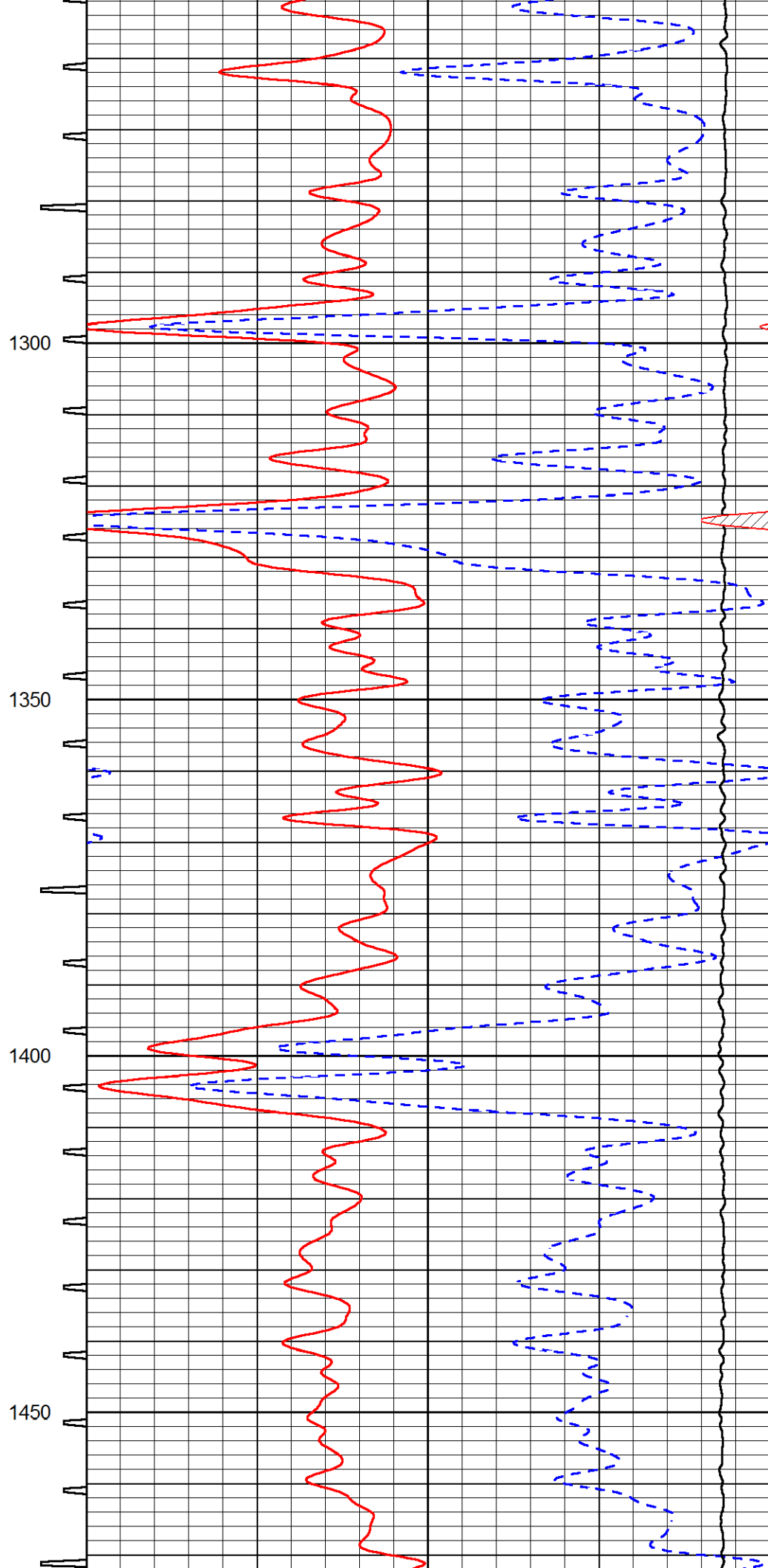
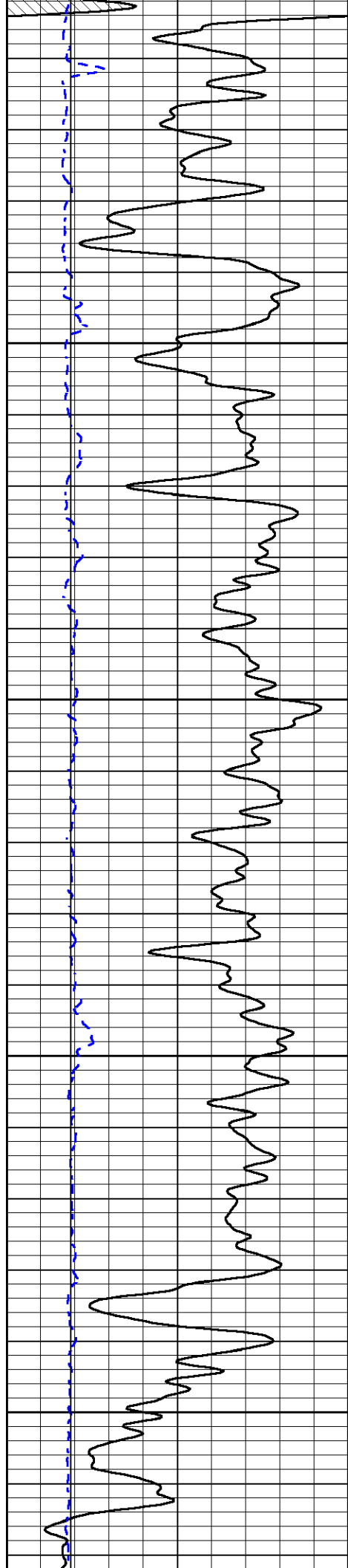


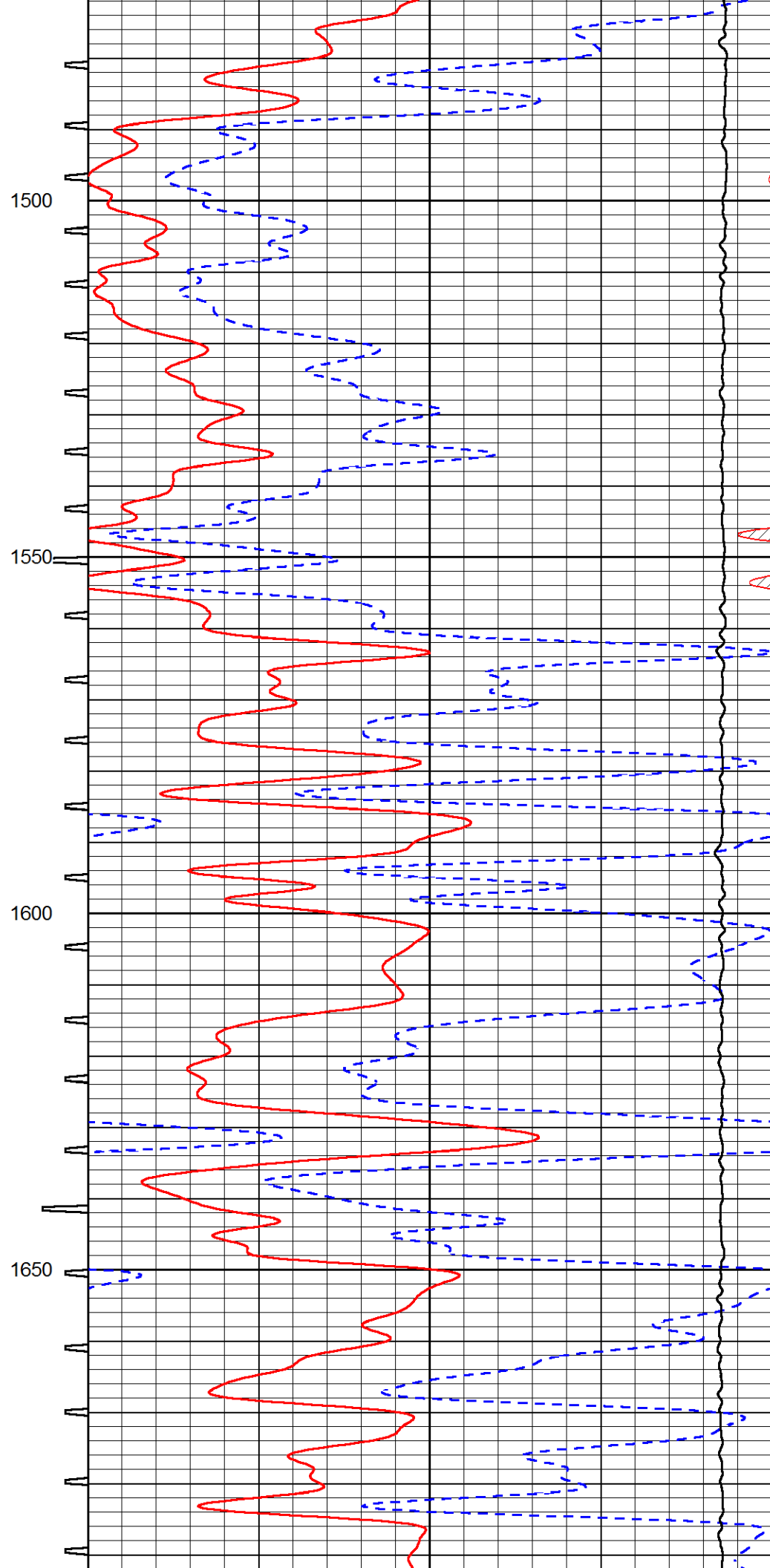
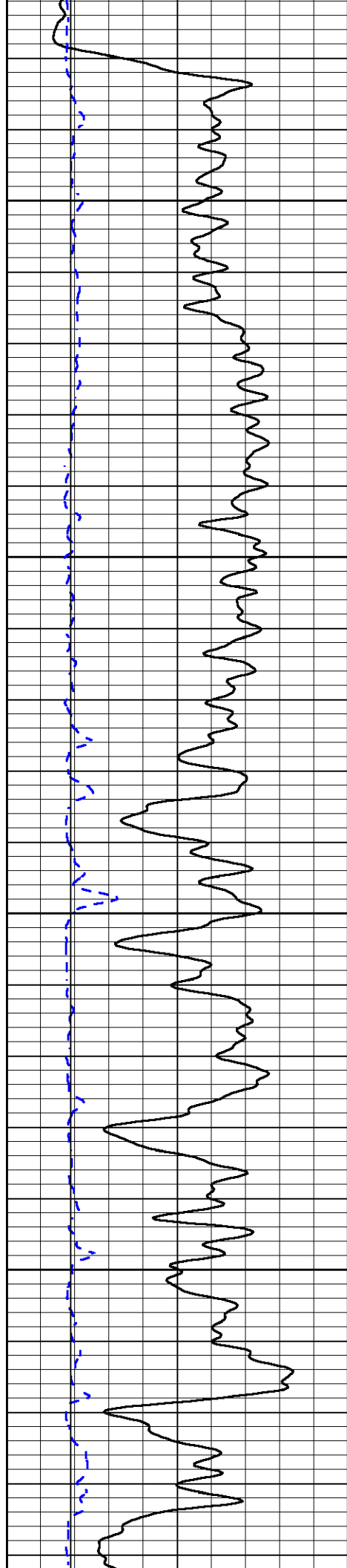


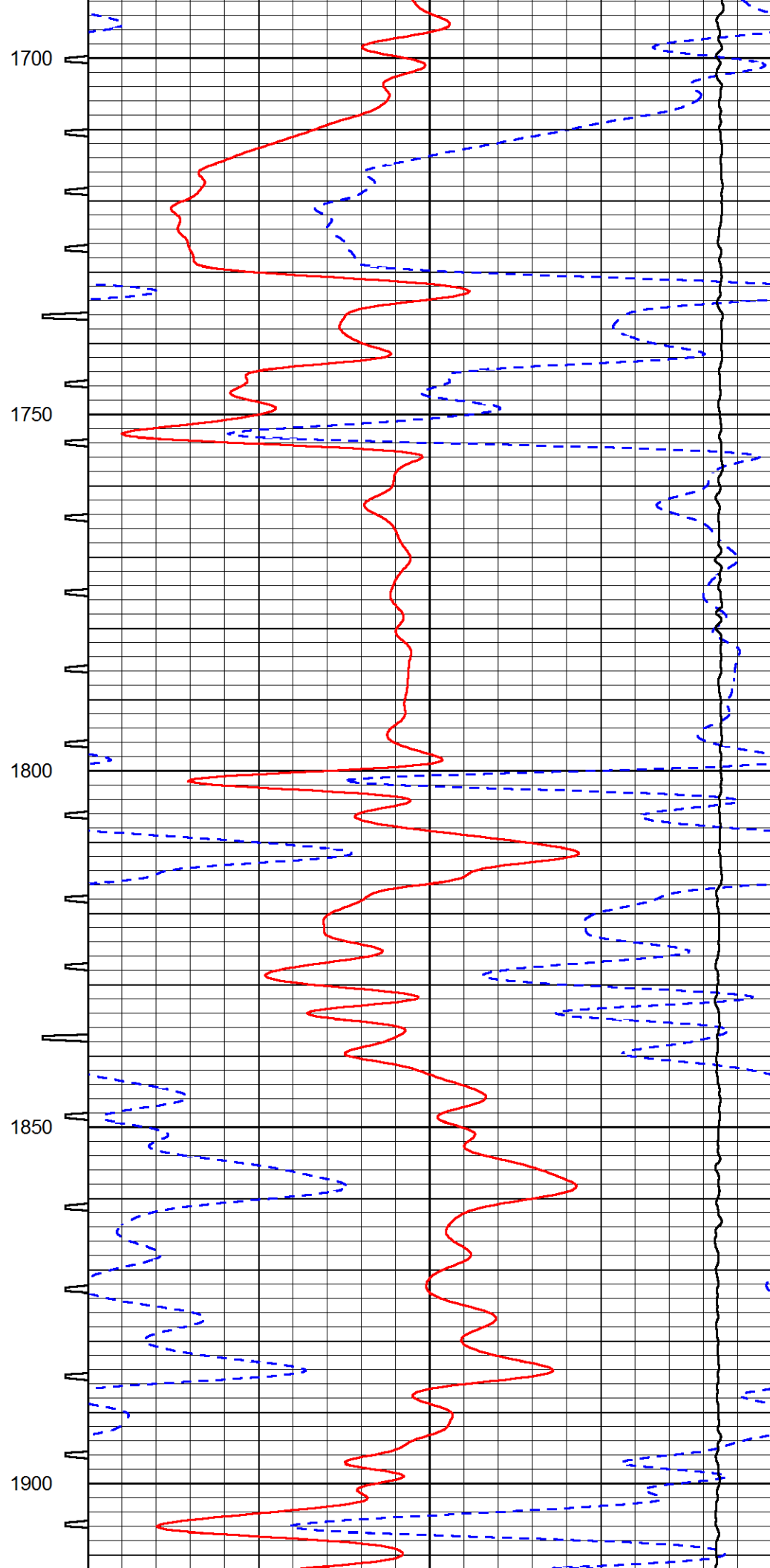
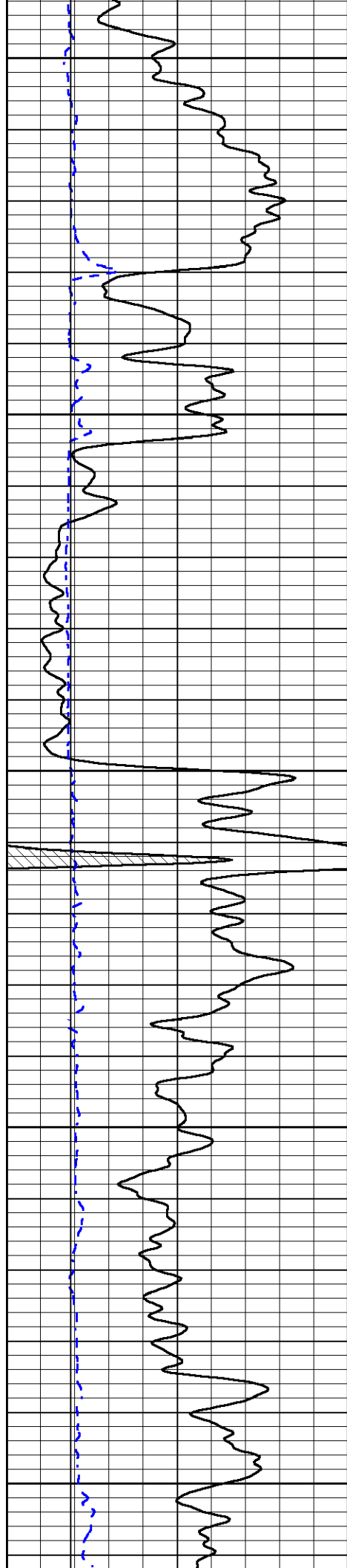


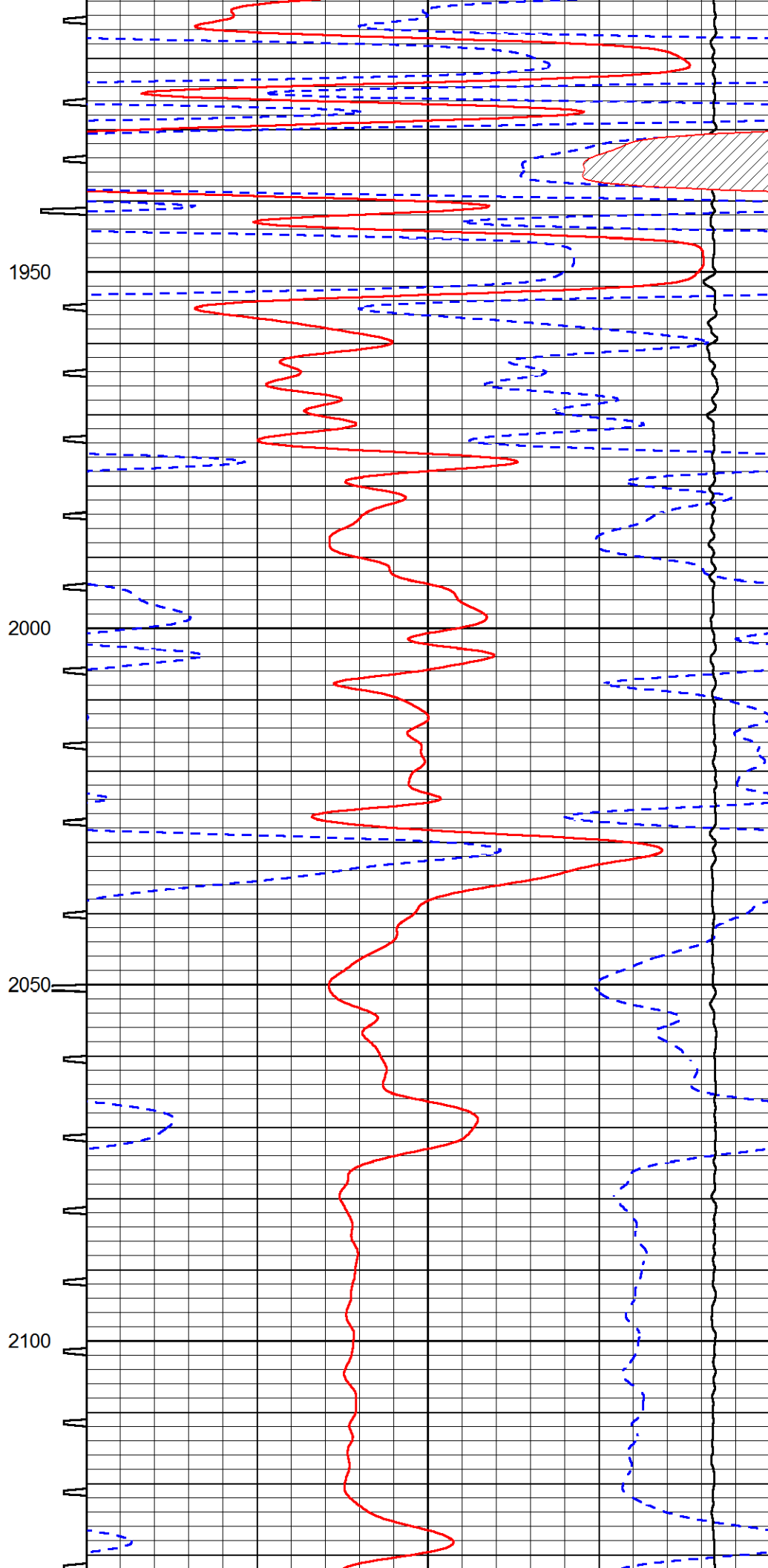
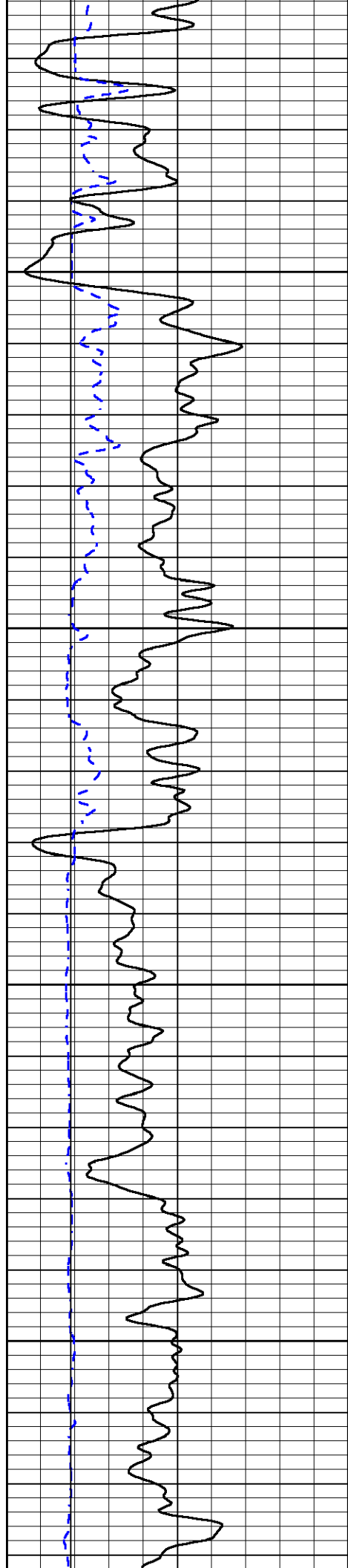


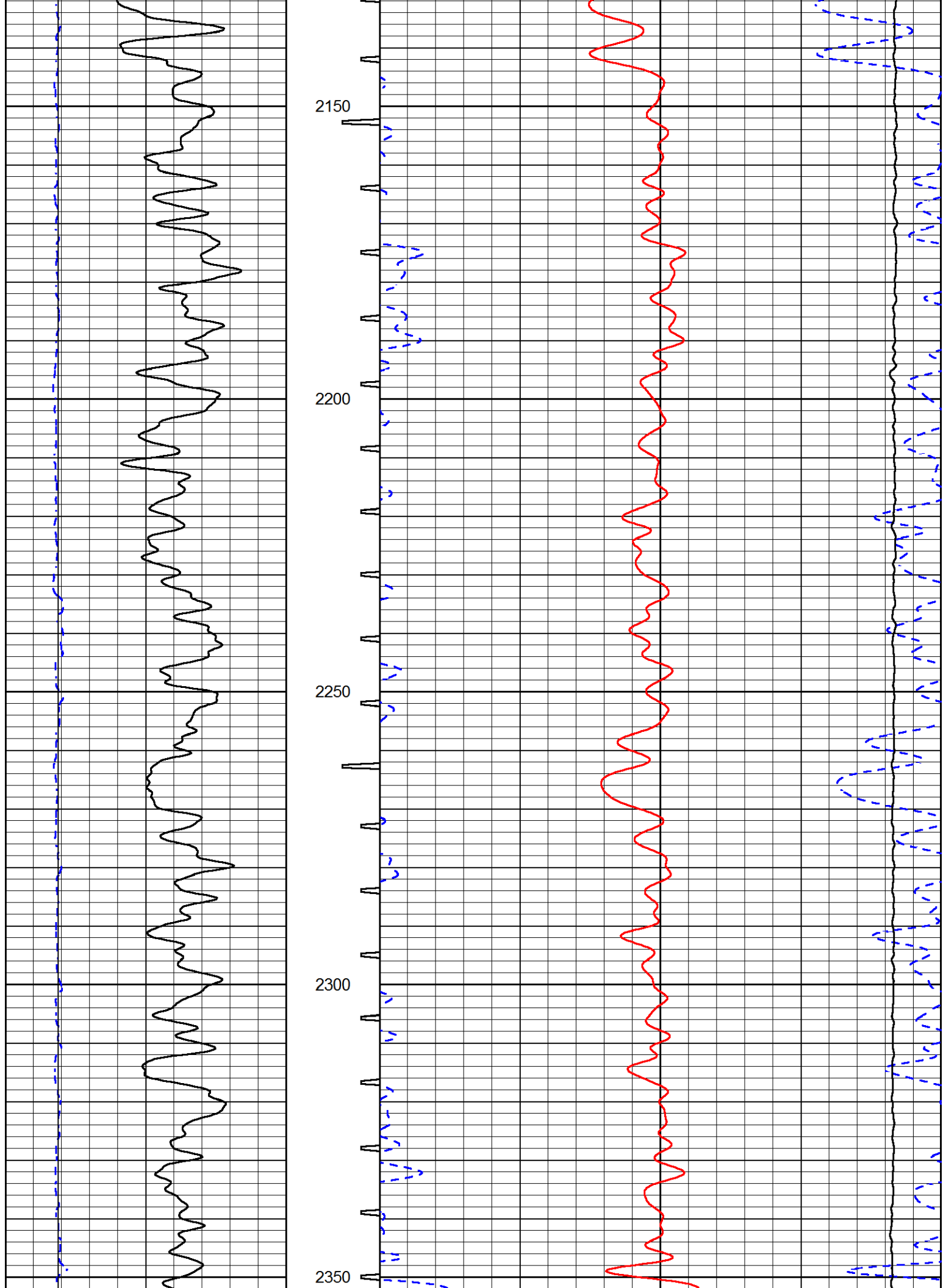


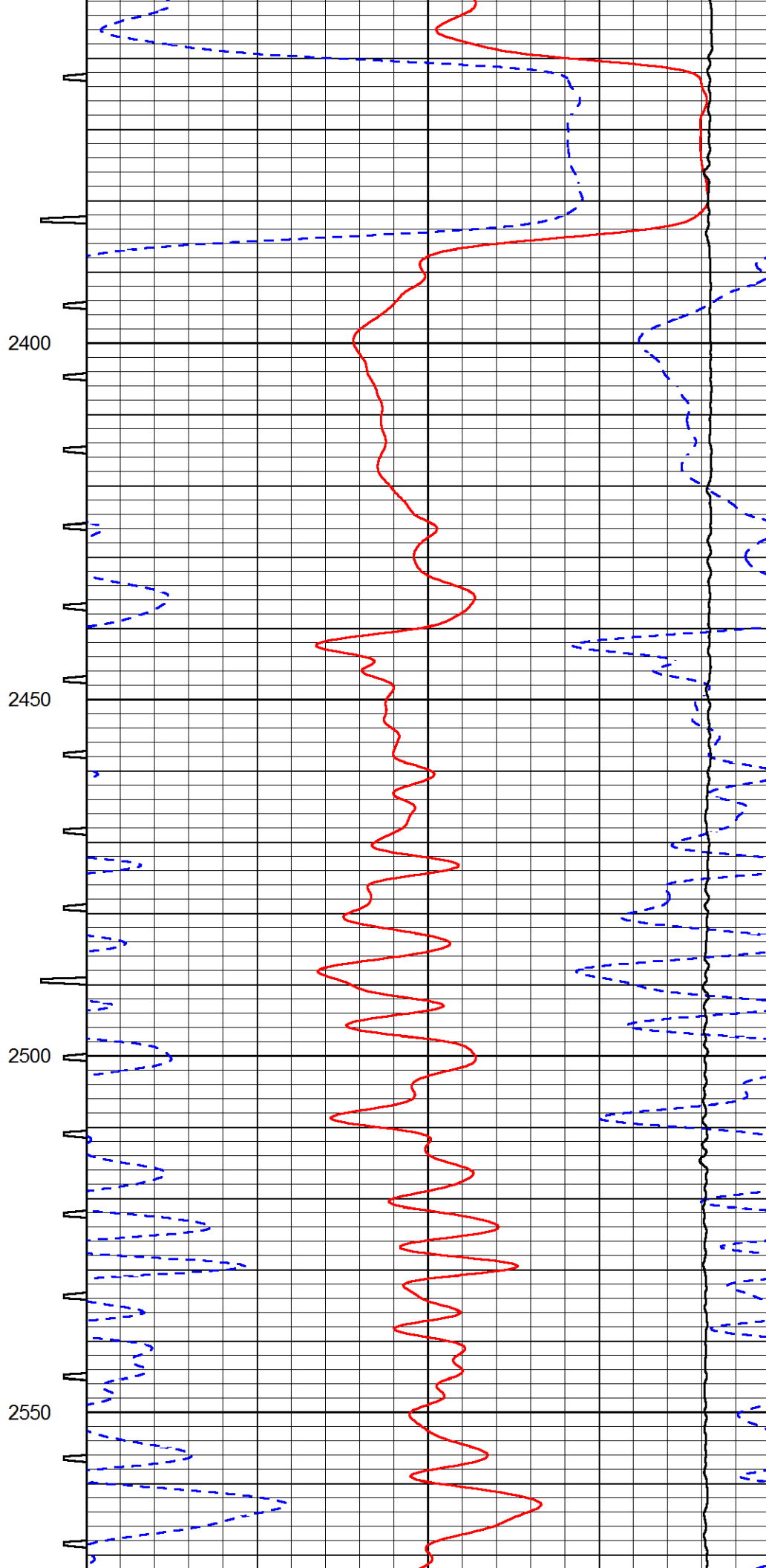
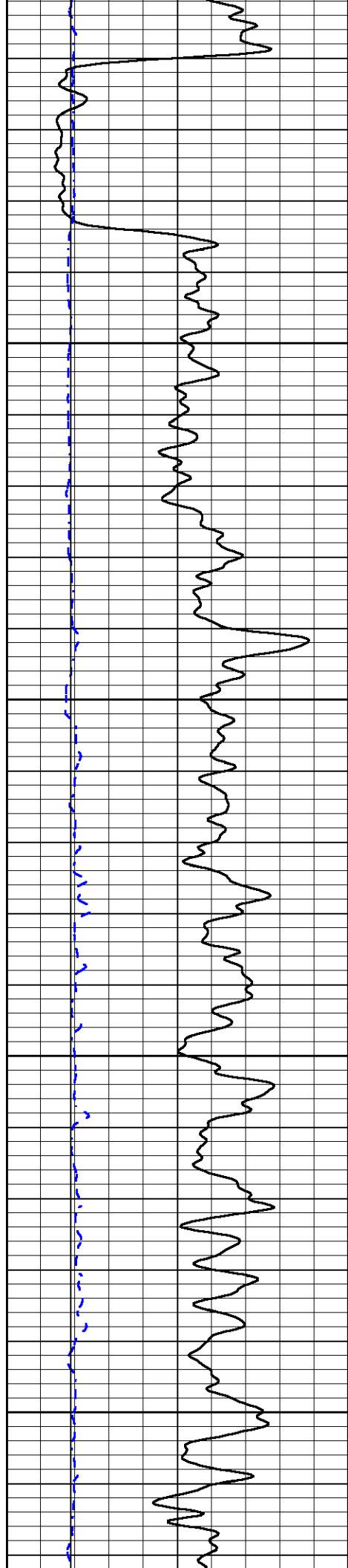


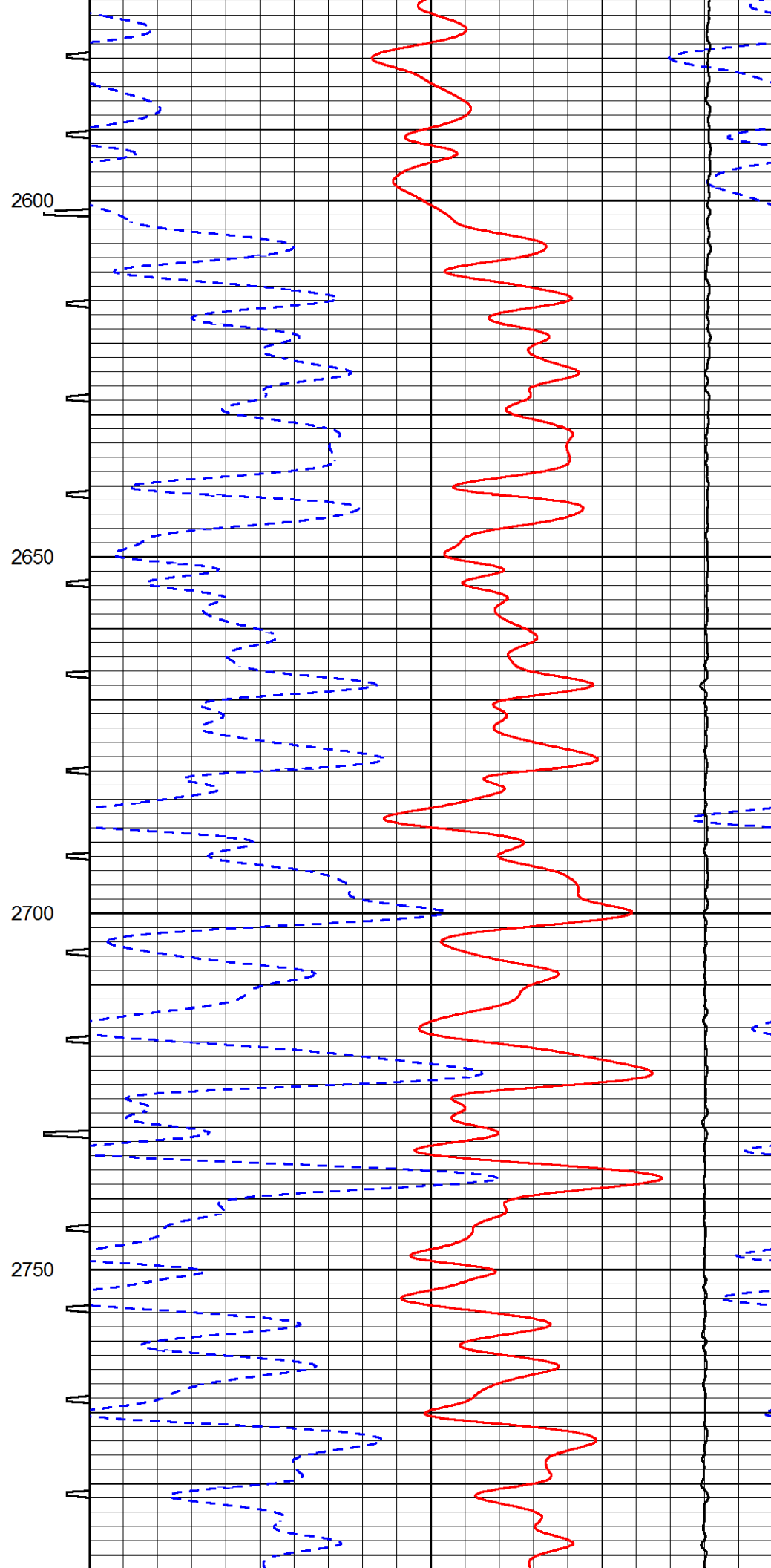
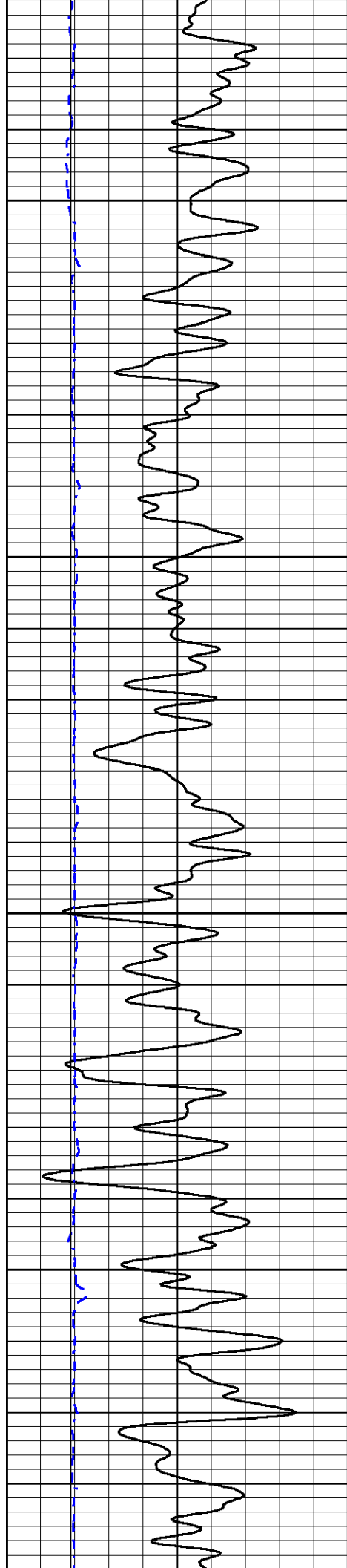


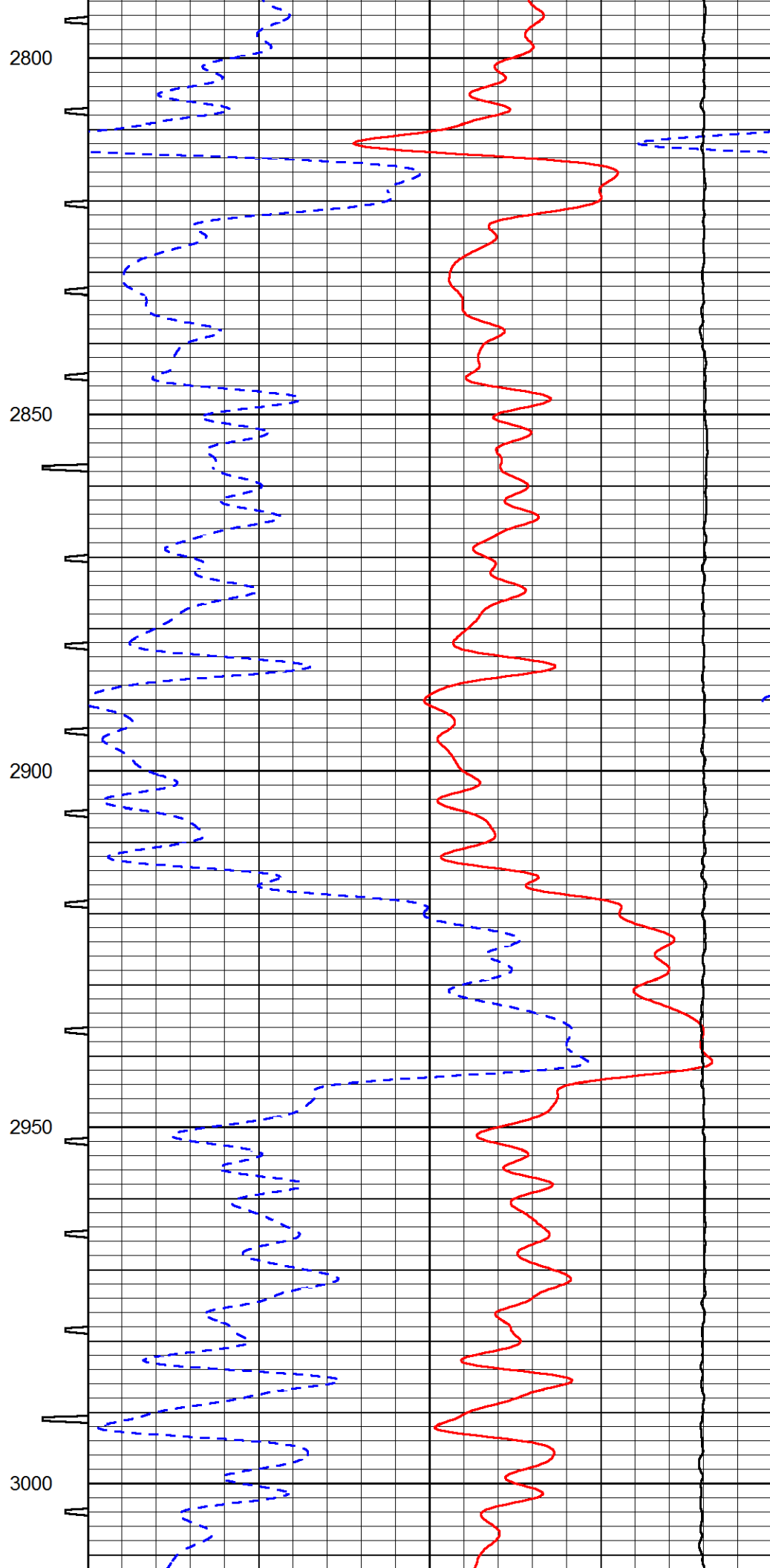
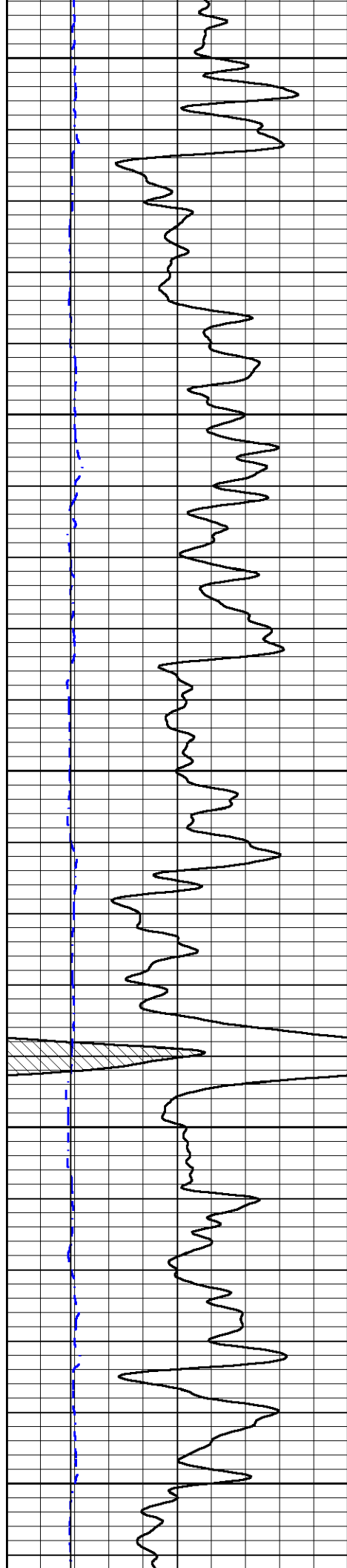


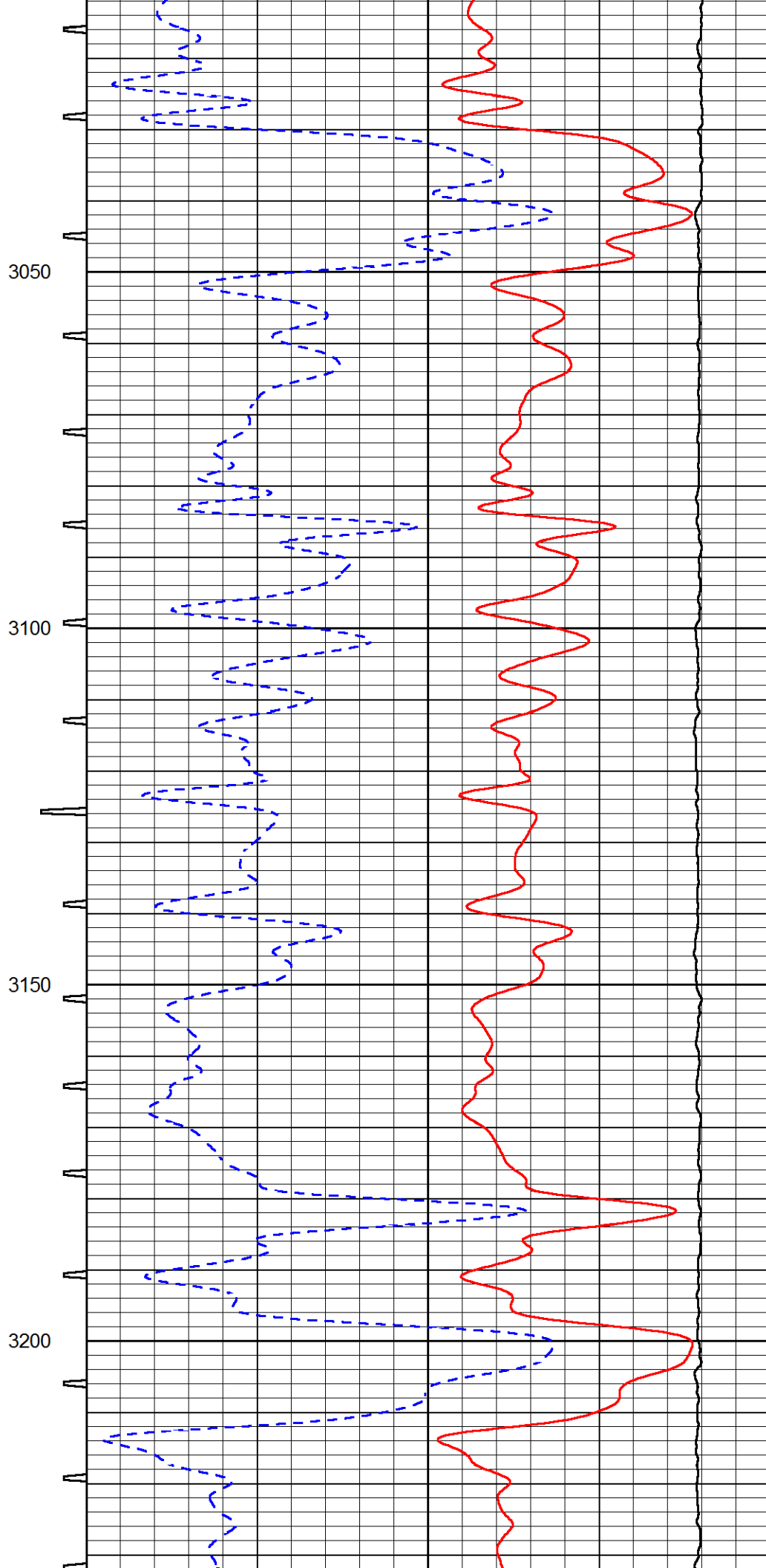
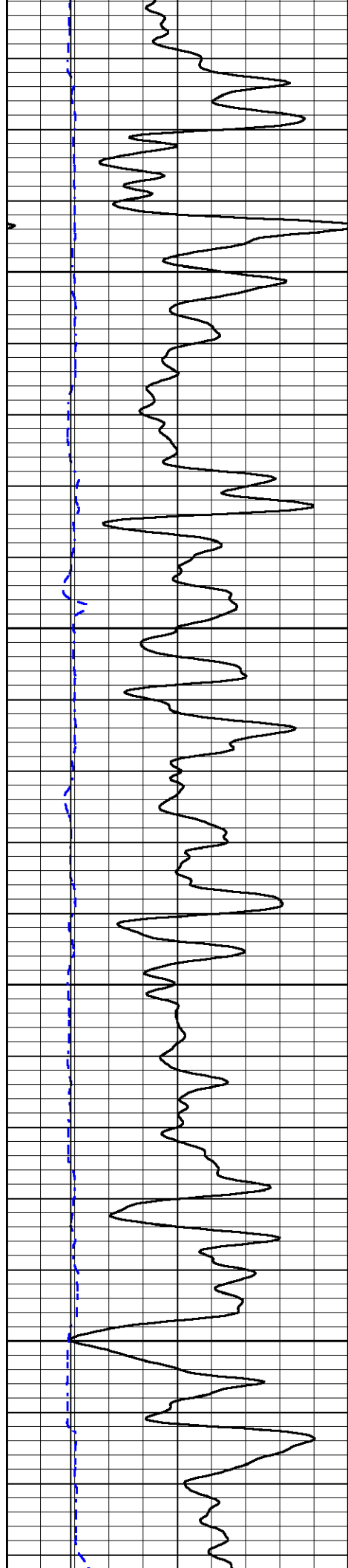


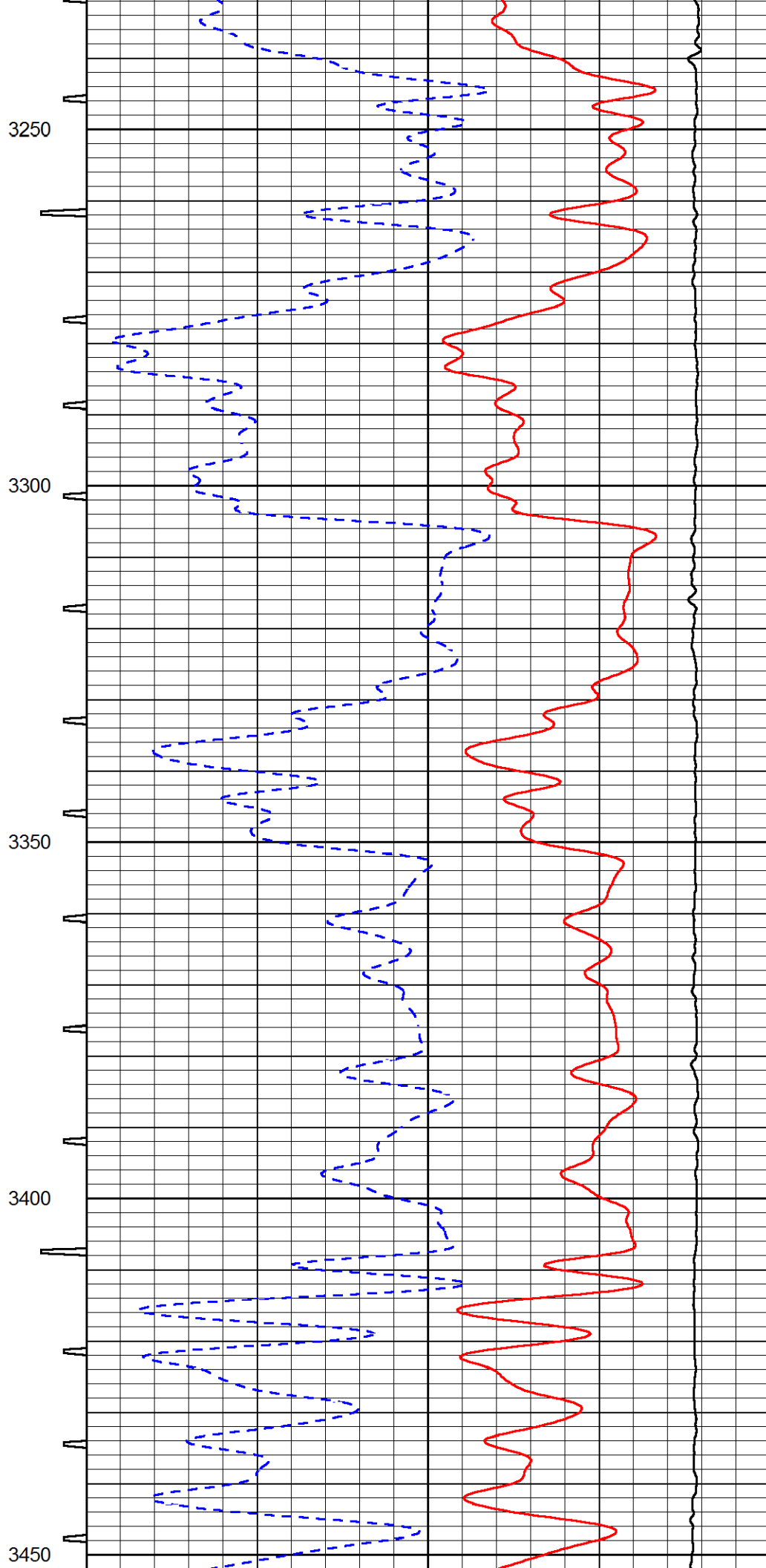
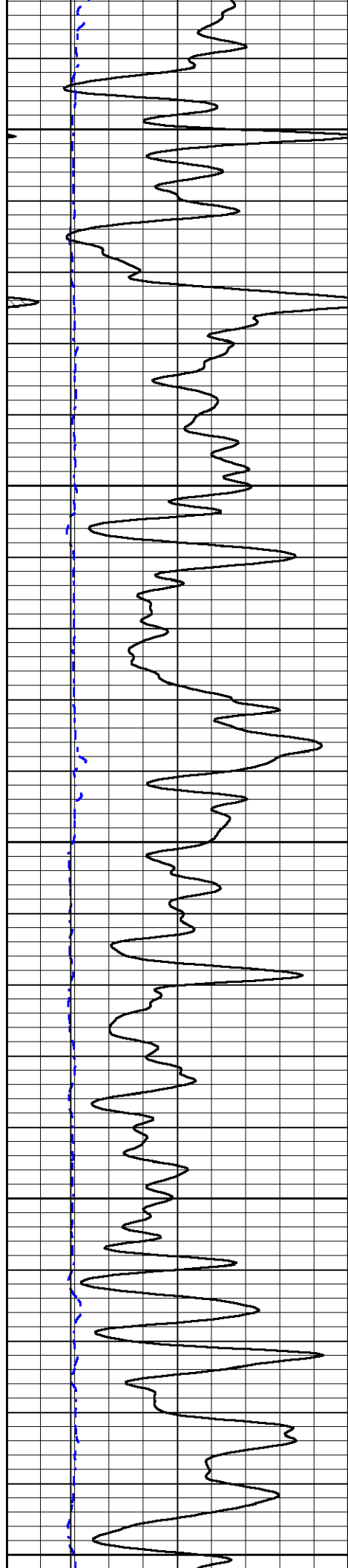


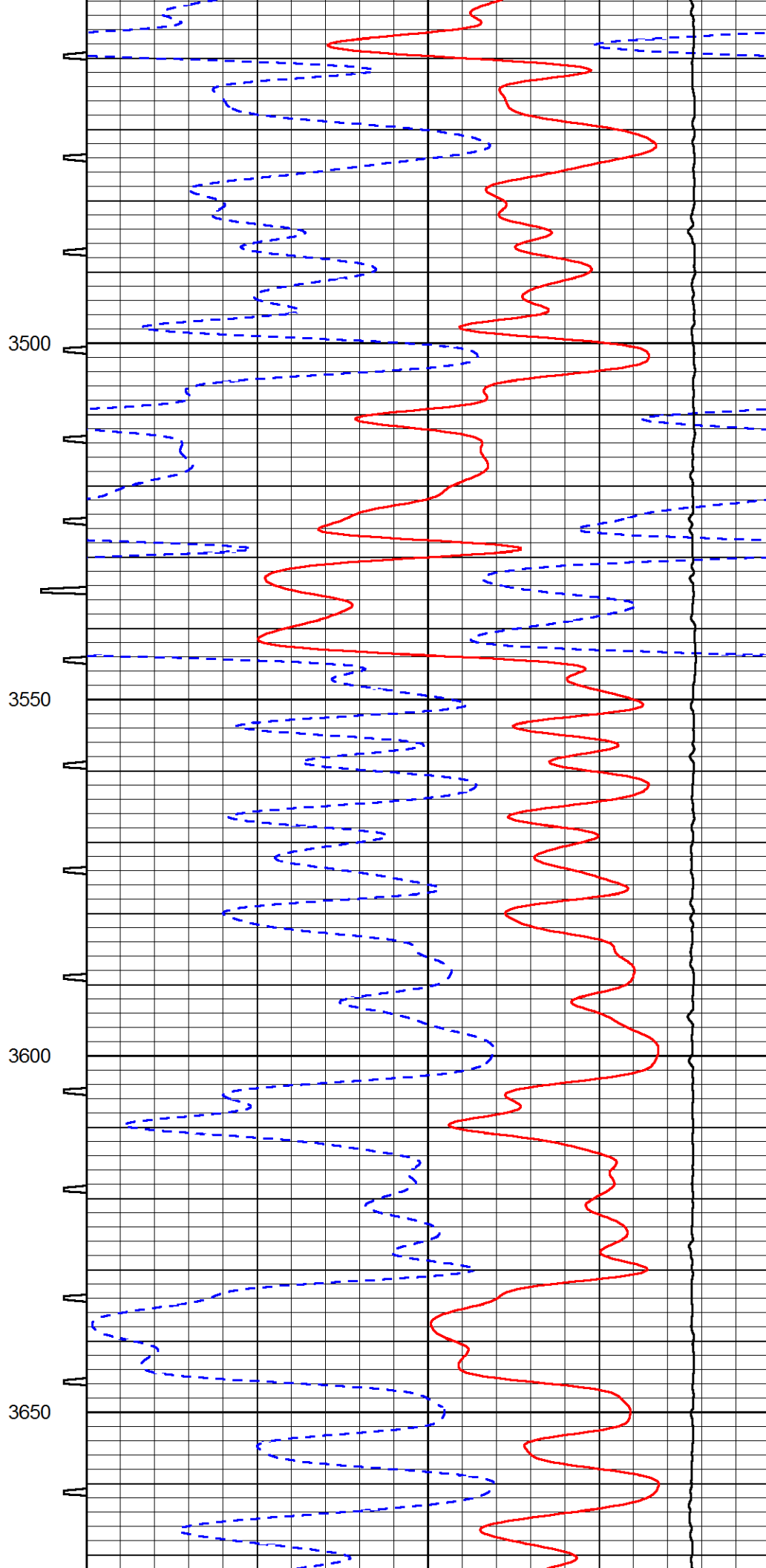
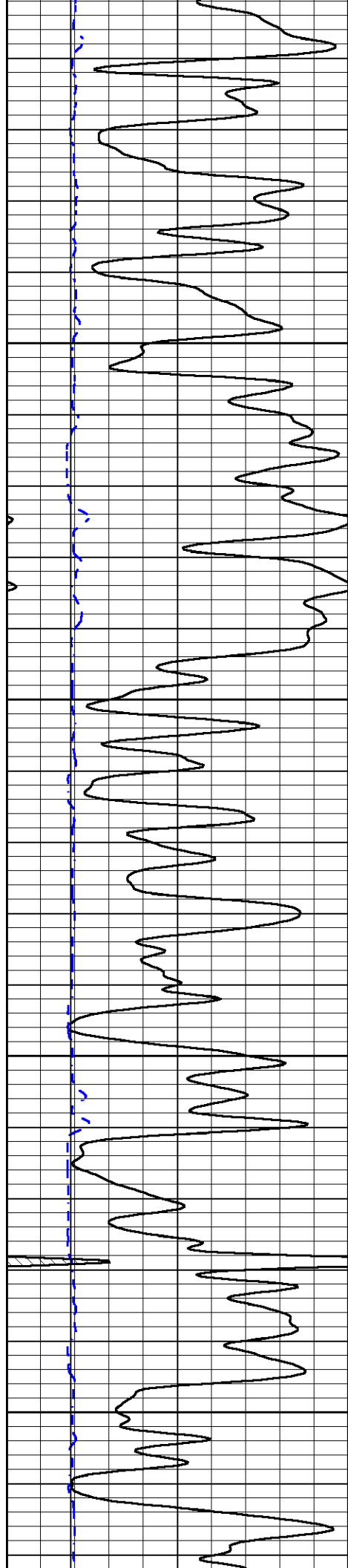


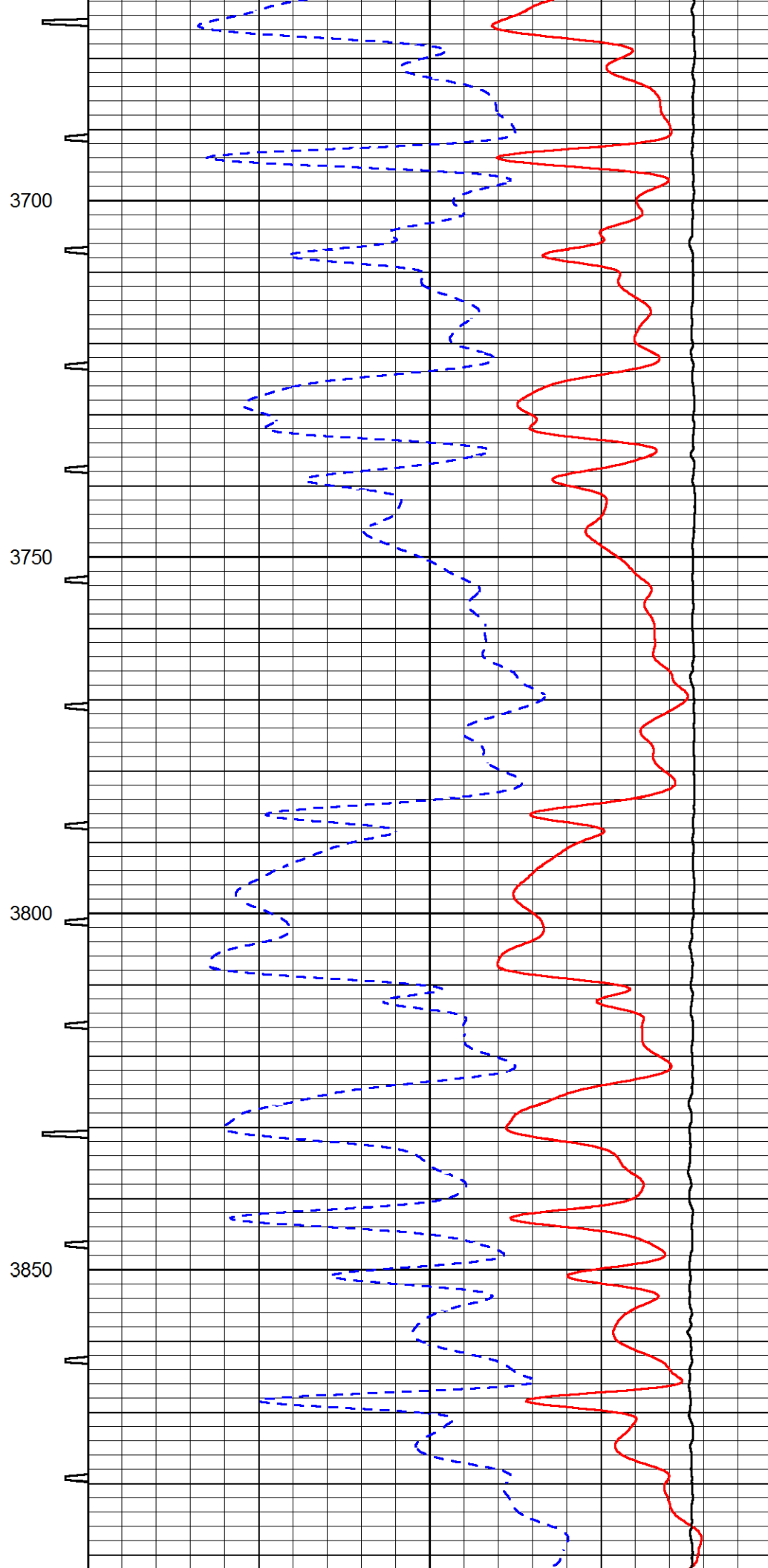
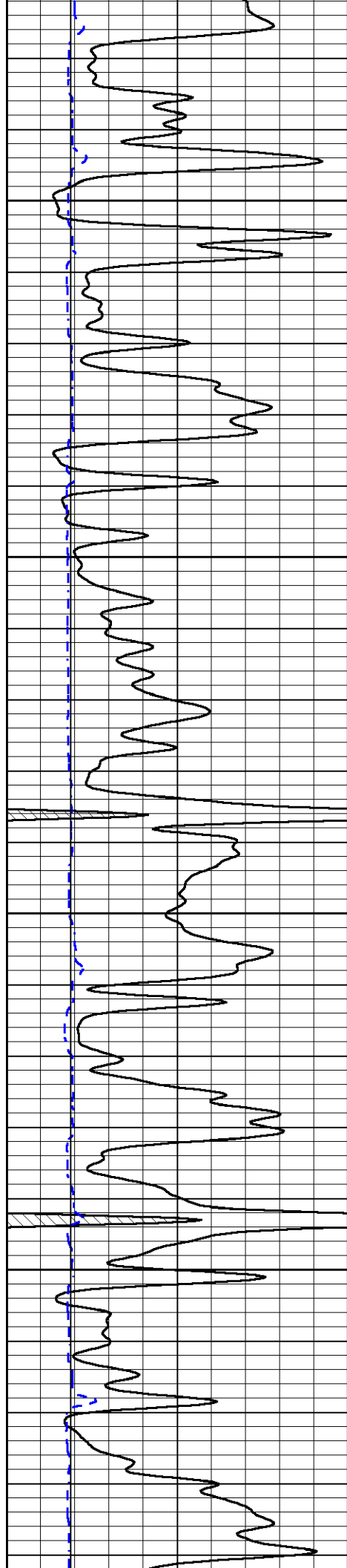


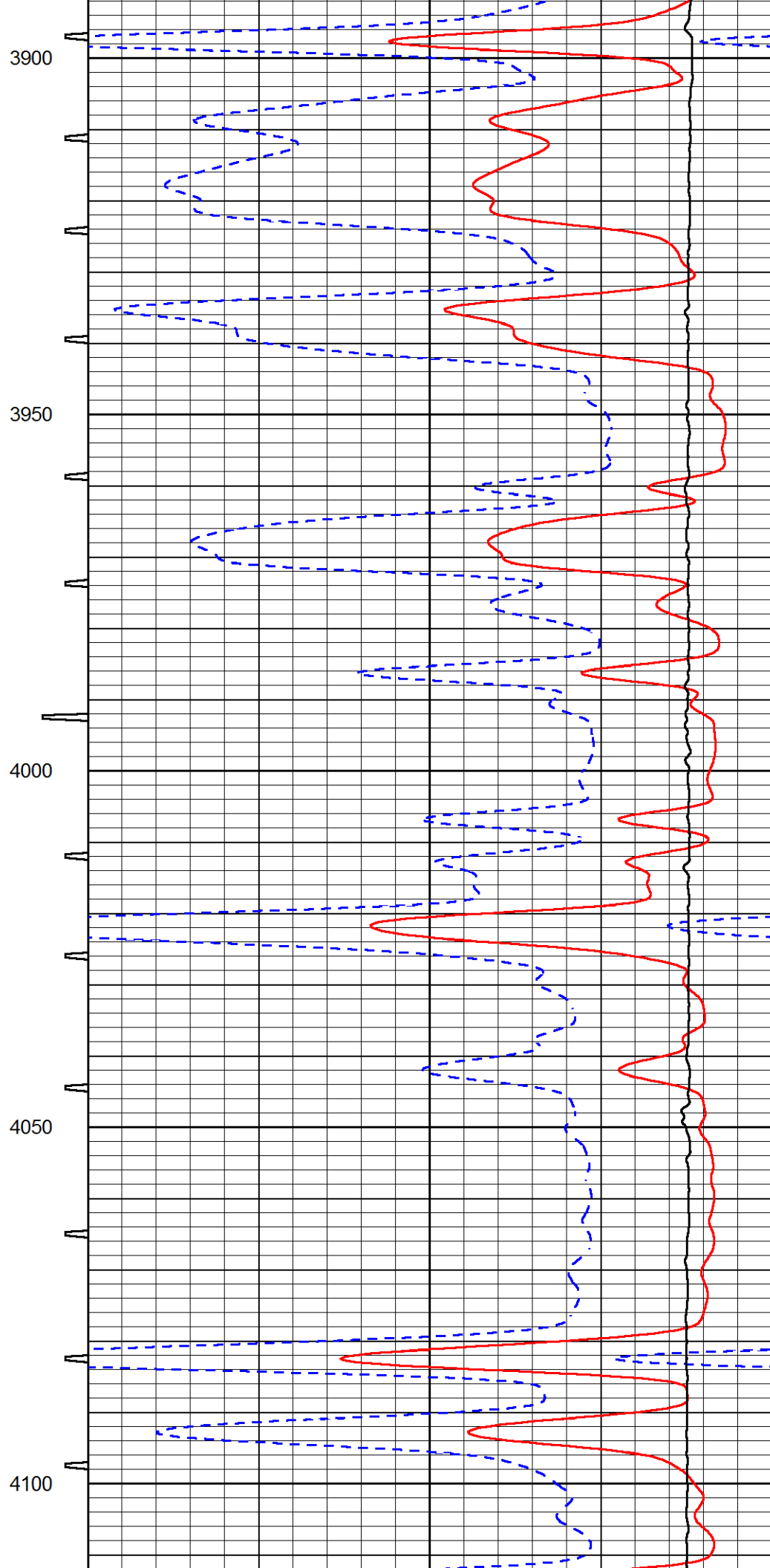
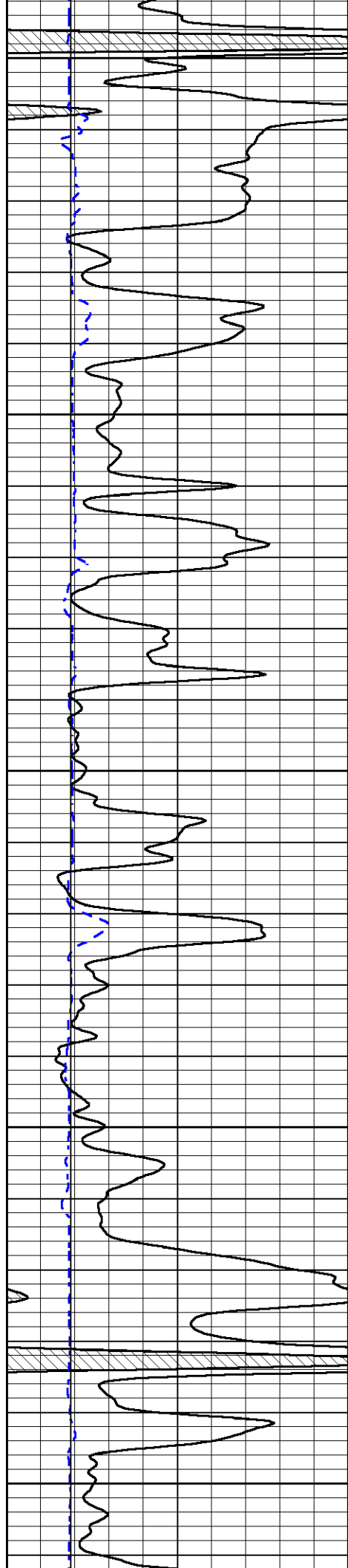


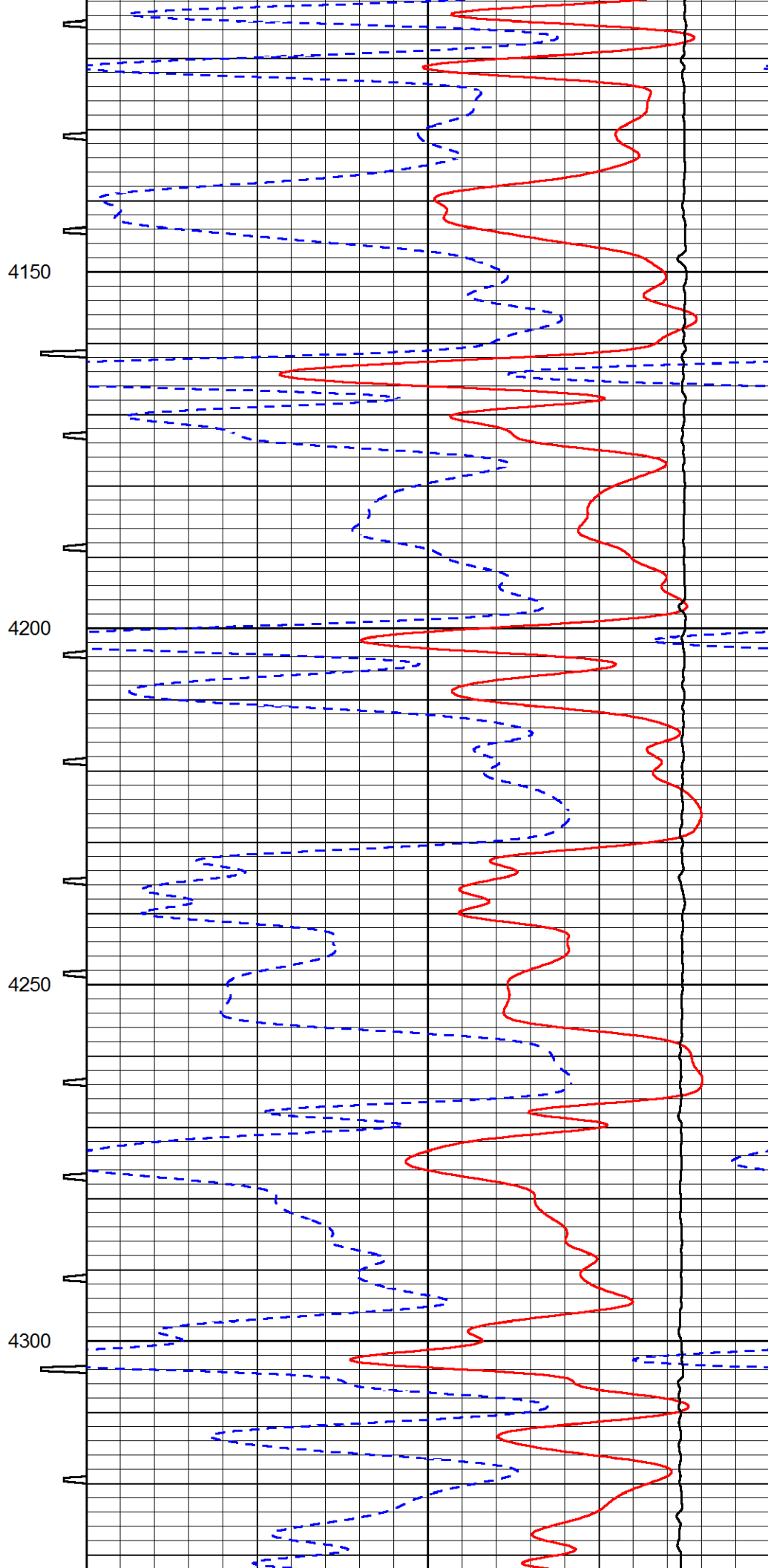
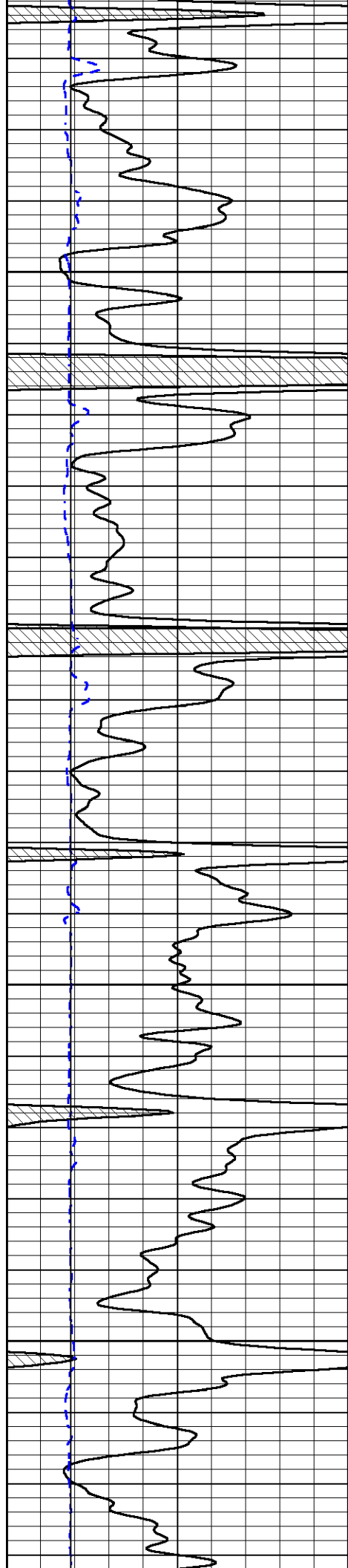


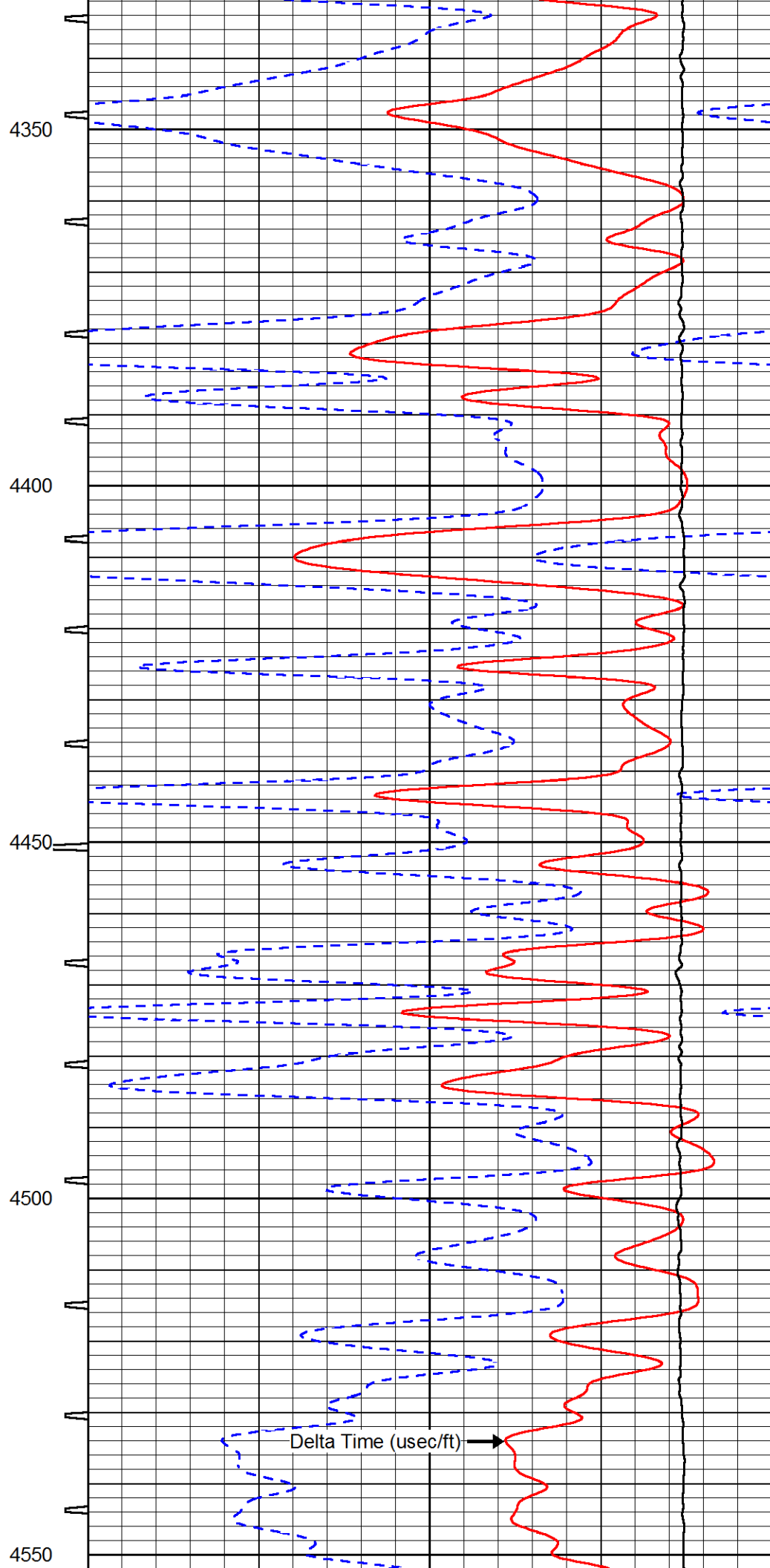
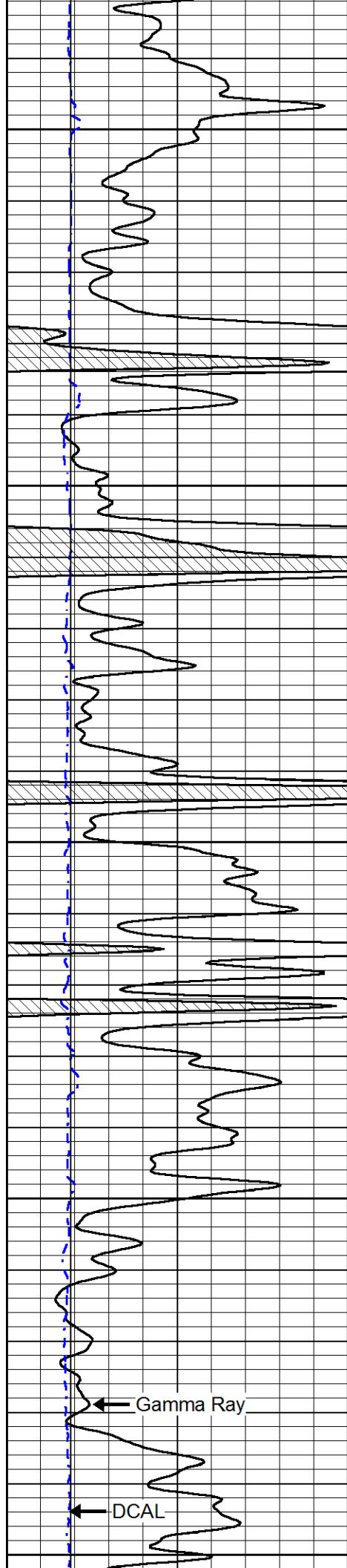


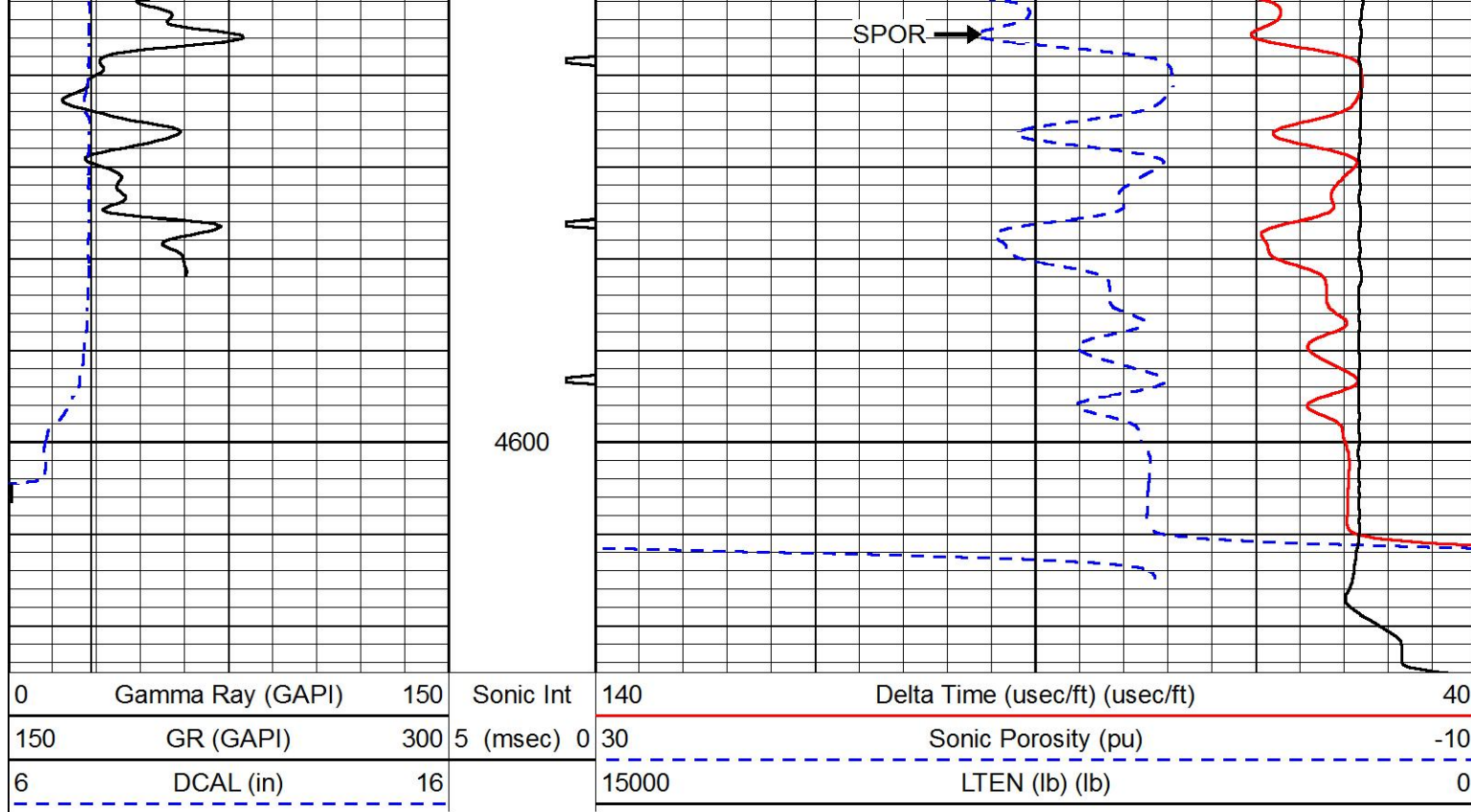








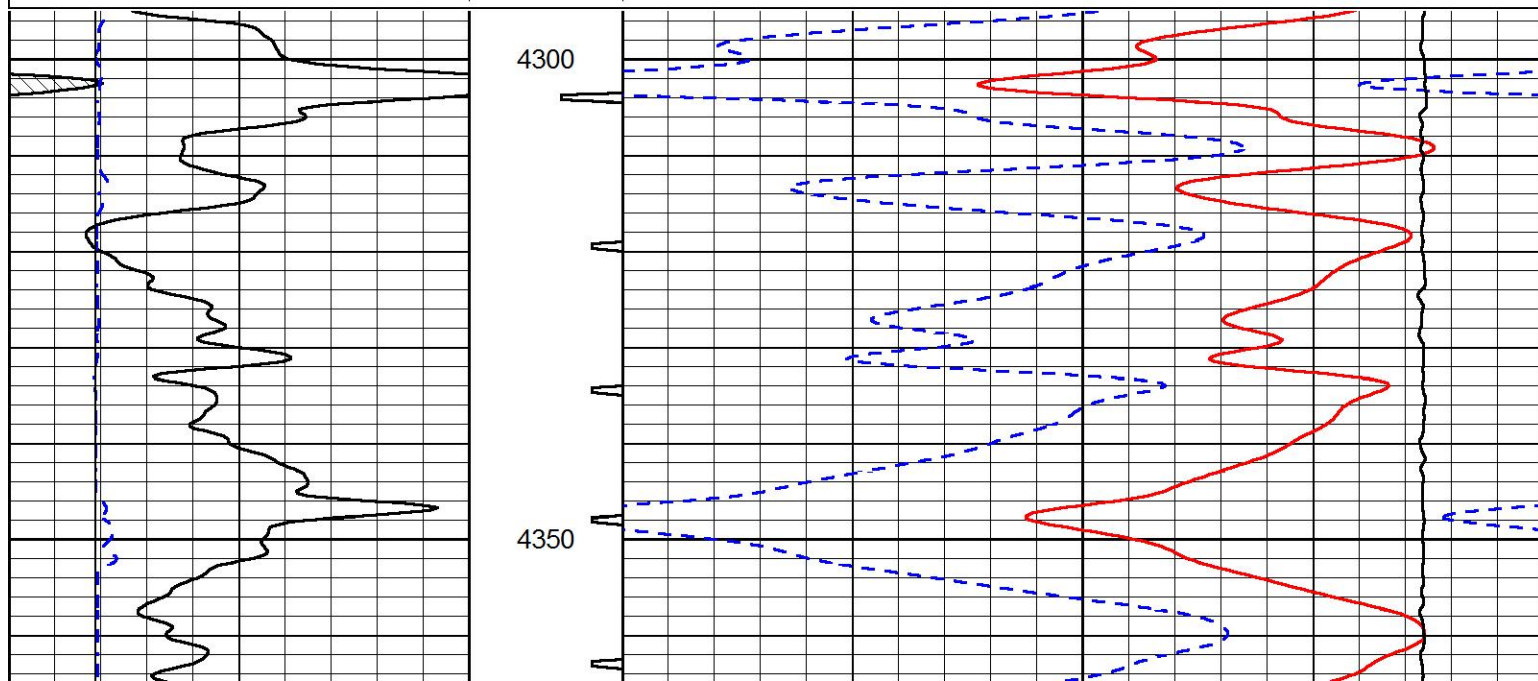


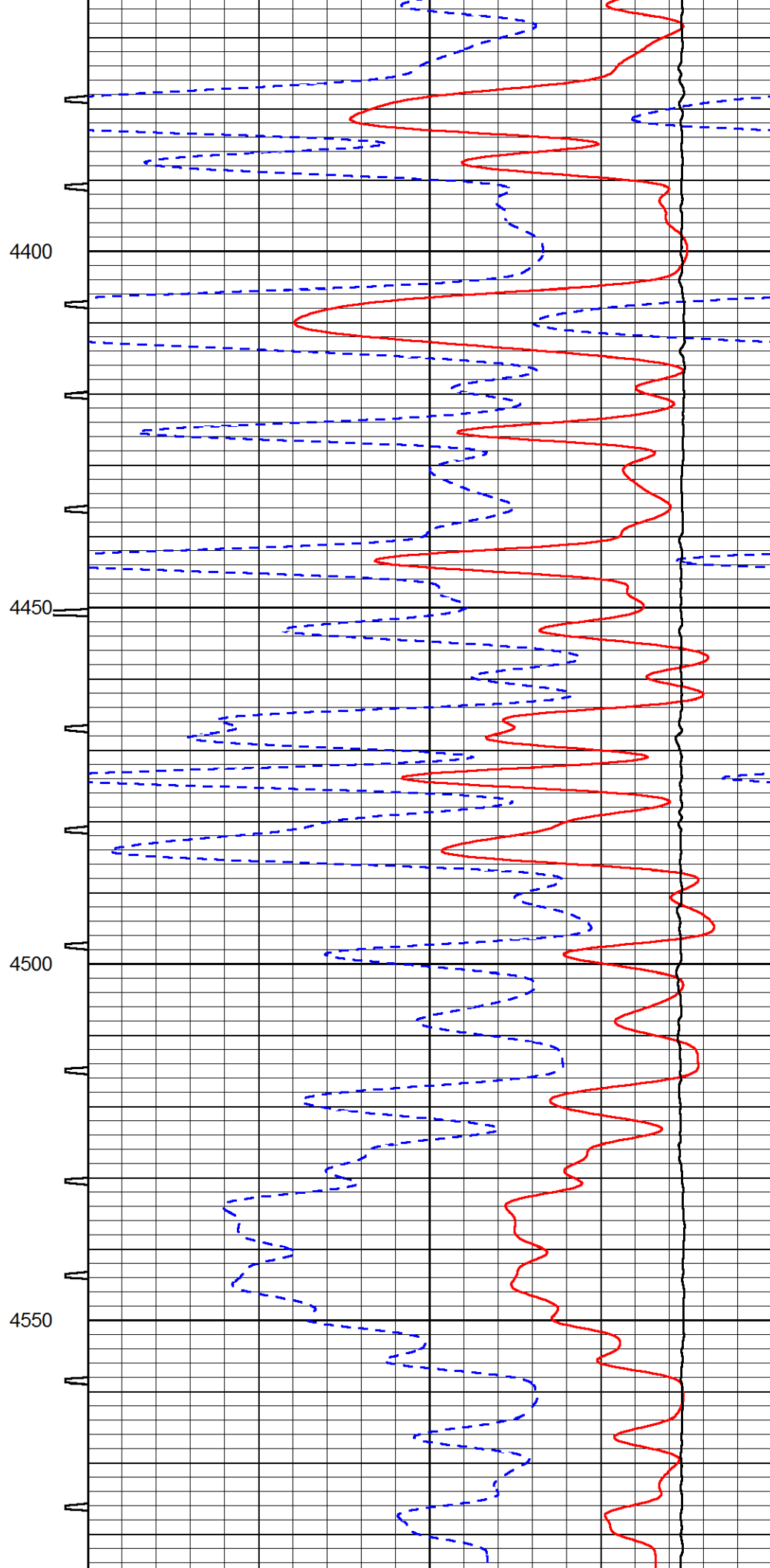
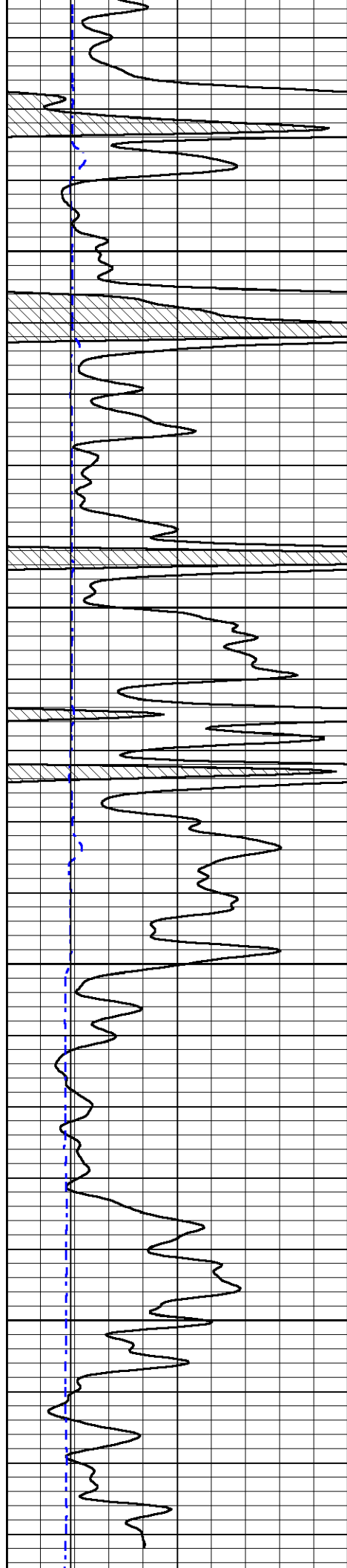


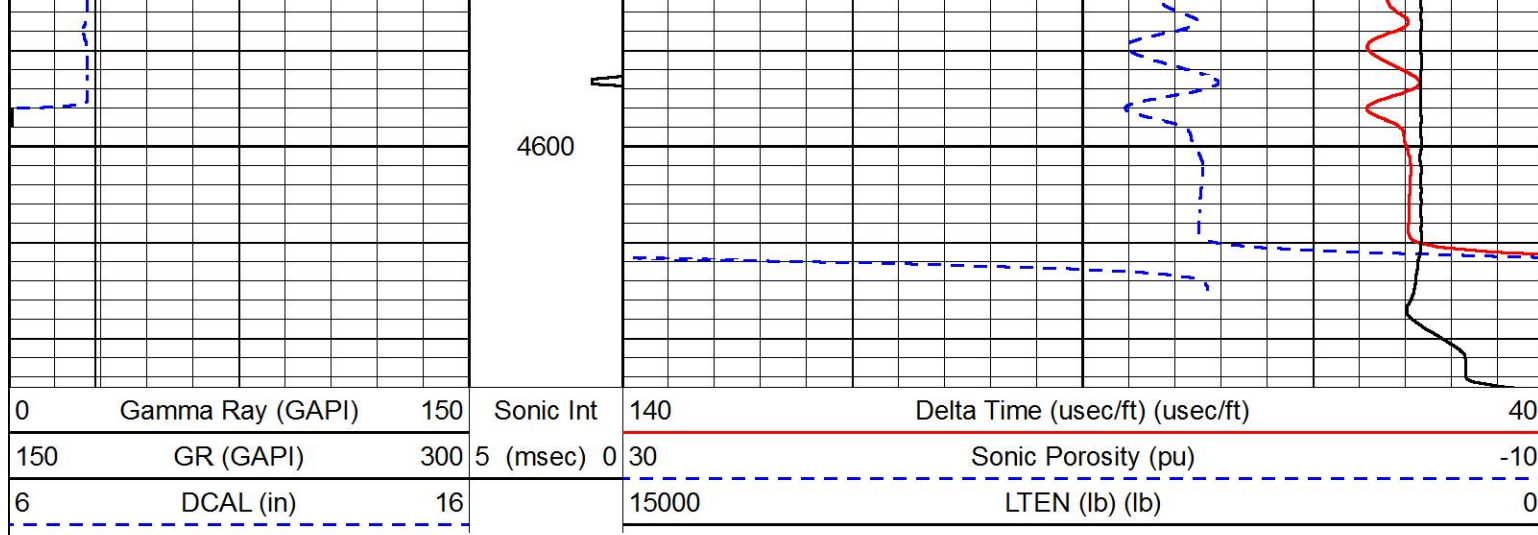
REPEAT SECTION

Database File: murfin_abell_ranch_b_4_31.db
 Dataset Pathname: stackmel/pass2.1
 Presentation Format: sonic
 Dataset Creation: Sat Jul 28 01:28:43 2018
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
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6	DCAL (in)	16		15000	LTEN (lb) (lb)	0







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	Field	GAELAND WEST
	County	GOVE
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