



PIONEER

Pioneer Energy Services

BOREHOLE COMPENSATED SONIC LOG

Company **CASINO PETROLEUM, LLC**
Well **HERTER NO. 4**
Field **CHASE-SILICA**
County **BARTON** State **KANSAS**

Location: API #: 15-009-26224-00-00

Other Services

SEC 8 TWP 20S RGE 11W
330' FSL & 1320' FEL

DIL/MEL
CNL/CDL

Permanent Datum **GROUND LEVEL** Elevation **1772'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 1782'
D.F. N/A
G.L. 1772'

Date **7/23/2018**

Run Number **TWO**

Type Log **BHCS**

Depth Driller **3400'**

Depth Logger **3393'**

Bottom Logged Interval **3382'**

Top Logged Interval **250'**

Type Fluid In Hole **CHEMICAL**

Salinity, PPM CL **12800**

Density **9.3**

Level **FULL**

Max. Rec. Temp. F **110 DEG/F**

Operating Rig Time **3 HOURS**

Equipment -- Location **108 HAYS**

Recorded By **J. HENRICKSON**

Witnessed By **JIM MUSGROVE**

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0	275'	8.625"	23#	0	275'
TWO	7.875"	275'	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.

ELLINWOOD KANSAS
SOUTH TO 30 RD, 1 1/2 EAST, NORTH INTO

Log Measured From: **KELLY BUSHING** 10 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: **J. HENRICKSON**
Operator:
Operator:
Operator:

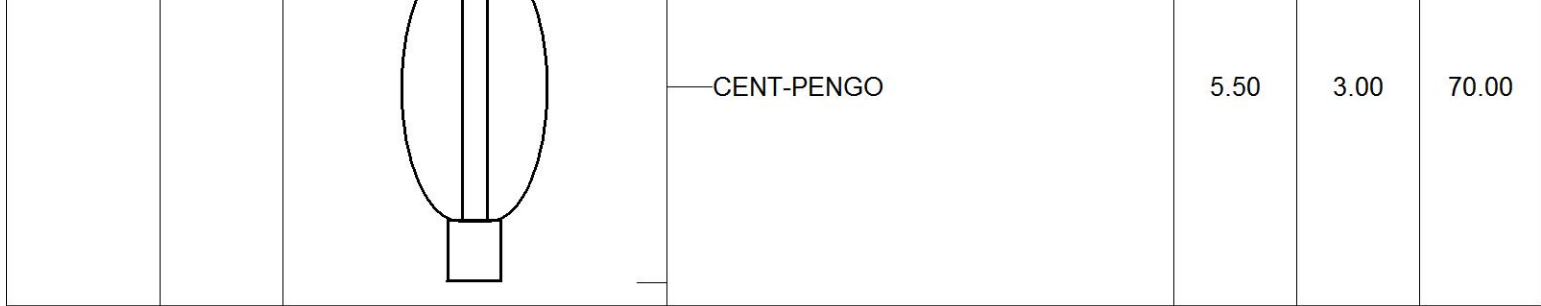
This Log Record Was Witnessed By

Primary Witness: **JIM MUSGROVE**
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 110	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m -8	mV 0	degF 97	Off	ft 3393

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
MCAL MI MN	22.50		ML-Armadillo (Armadillo-1) Pengo micro log tool mandrel with Armadillo Electronics	5.00	3.50	100.00
	22.50					
	22.50					
WVF4 WVF1	13.50 13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF3 WVF2	11.50 11.50					



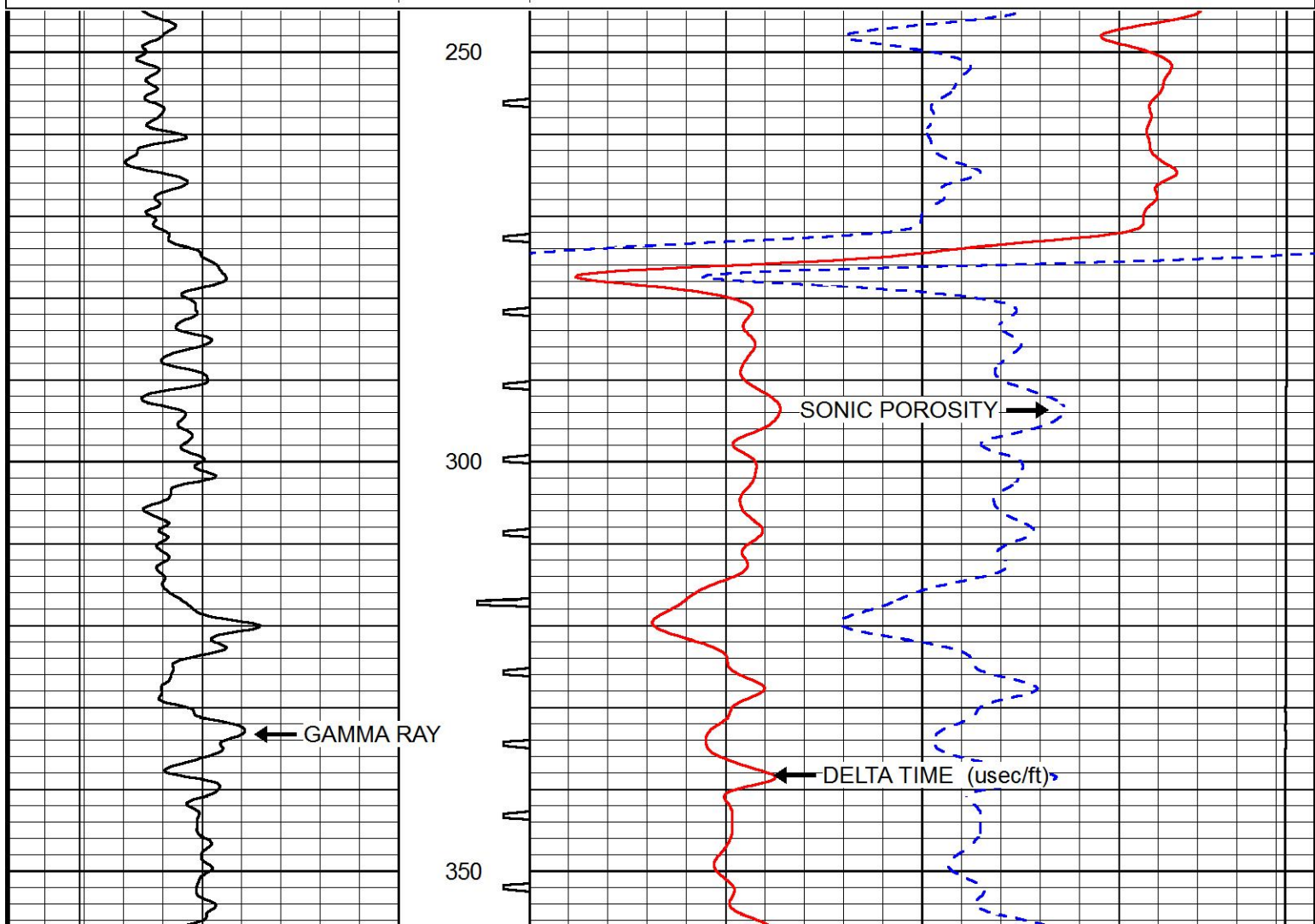
Dataset:	casino_herter_4.db: field/well/SONMEL/pass2
Total length:	26.50 ft
Total weight:	470.00 lb
O.D.:	3.50 in

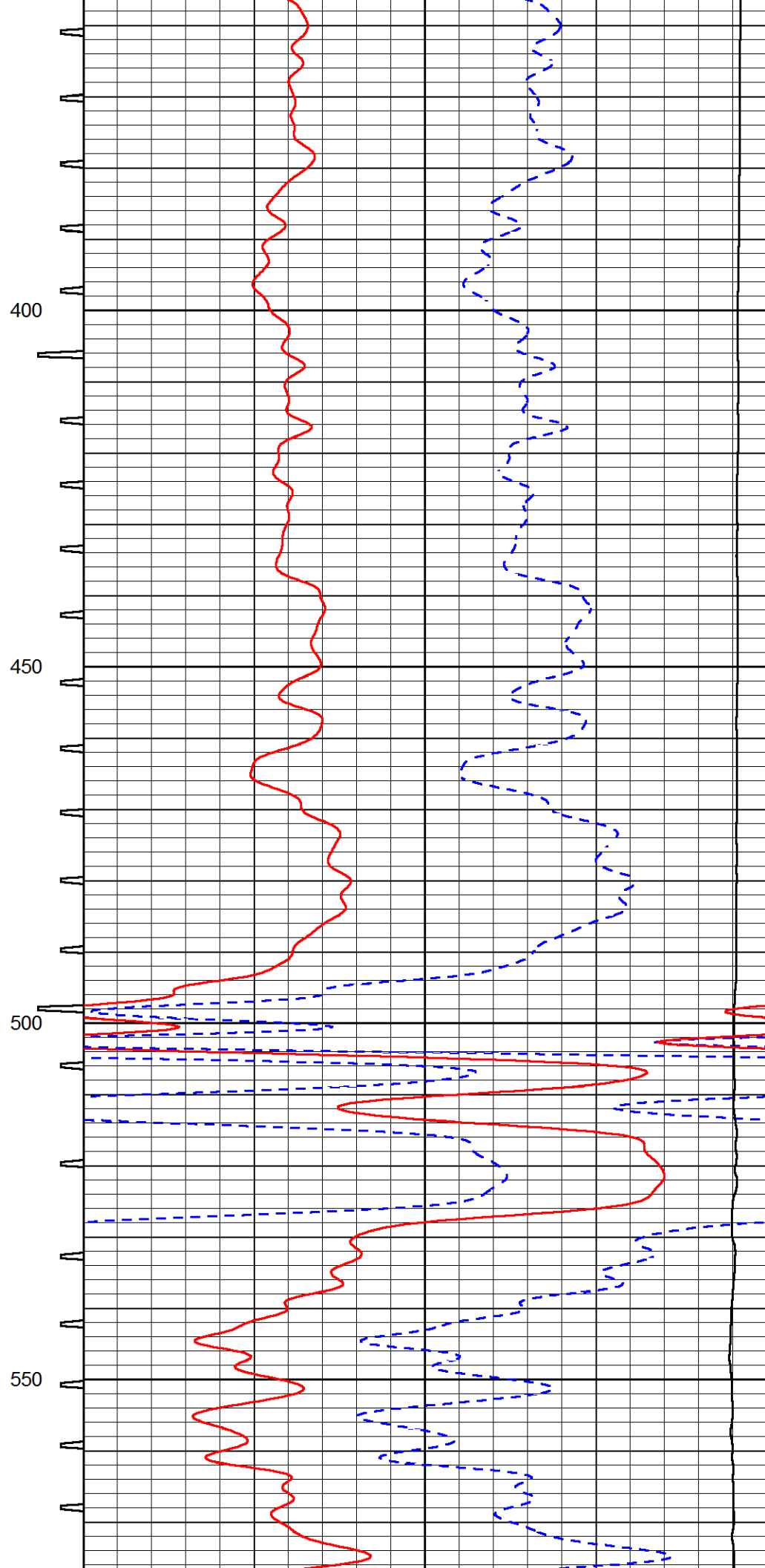
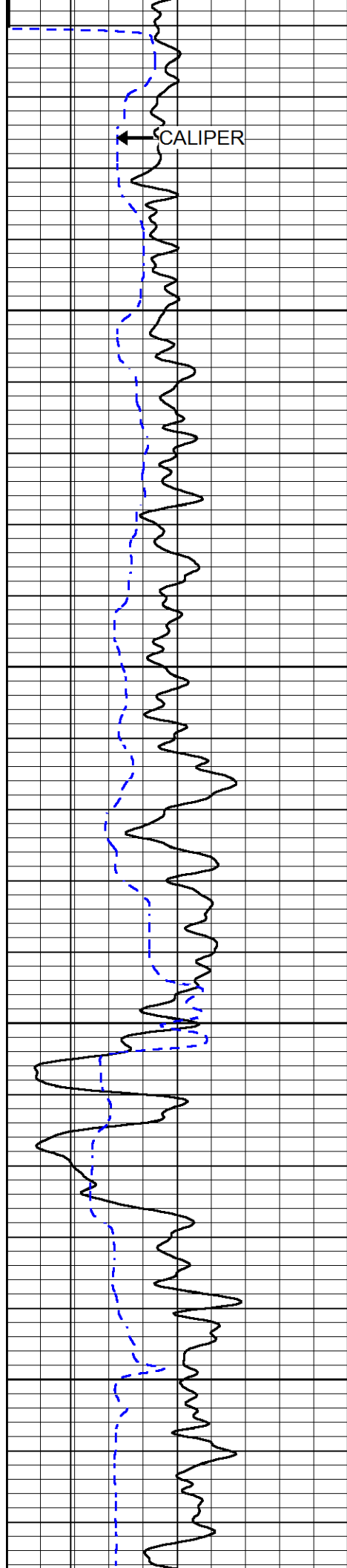


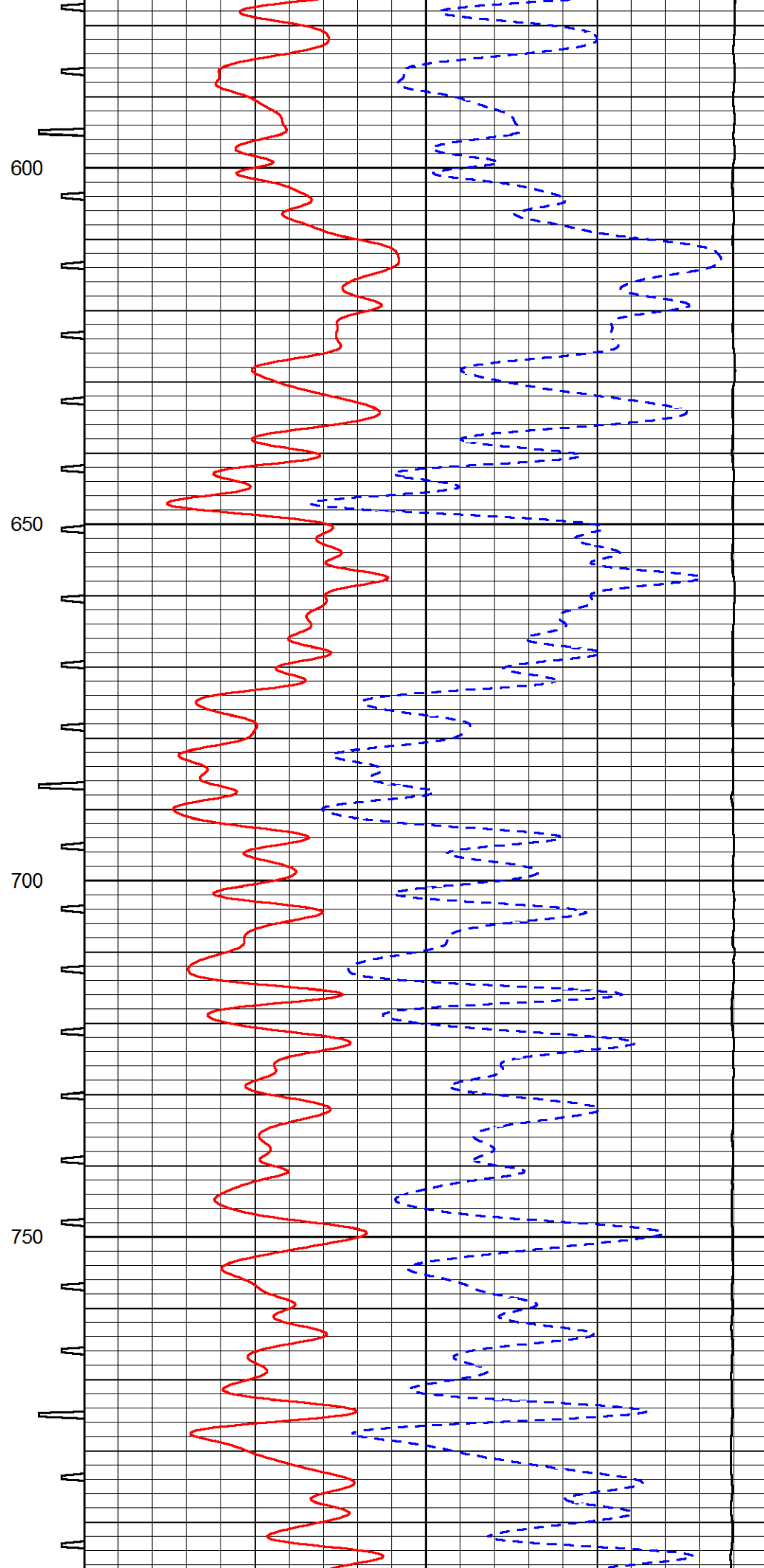
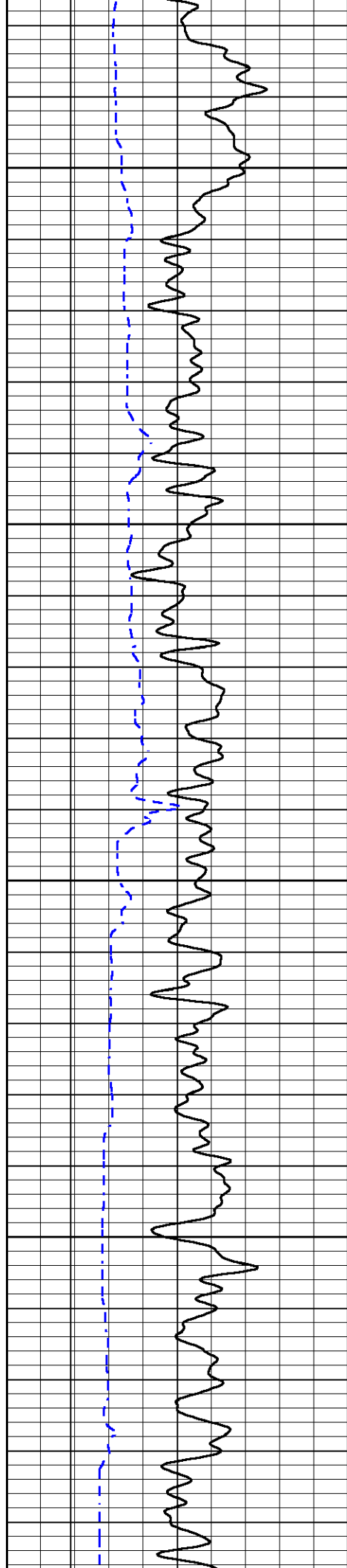
MAIN PASS

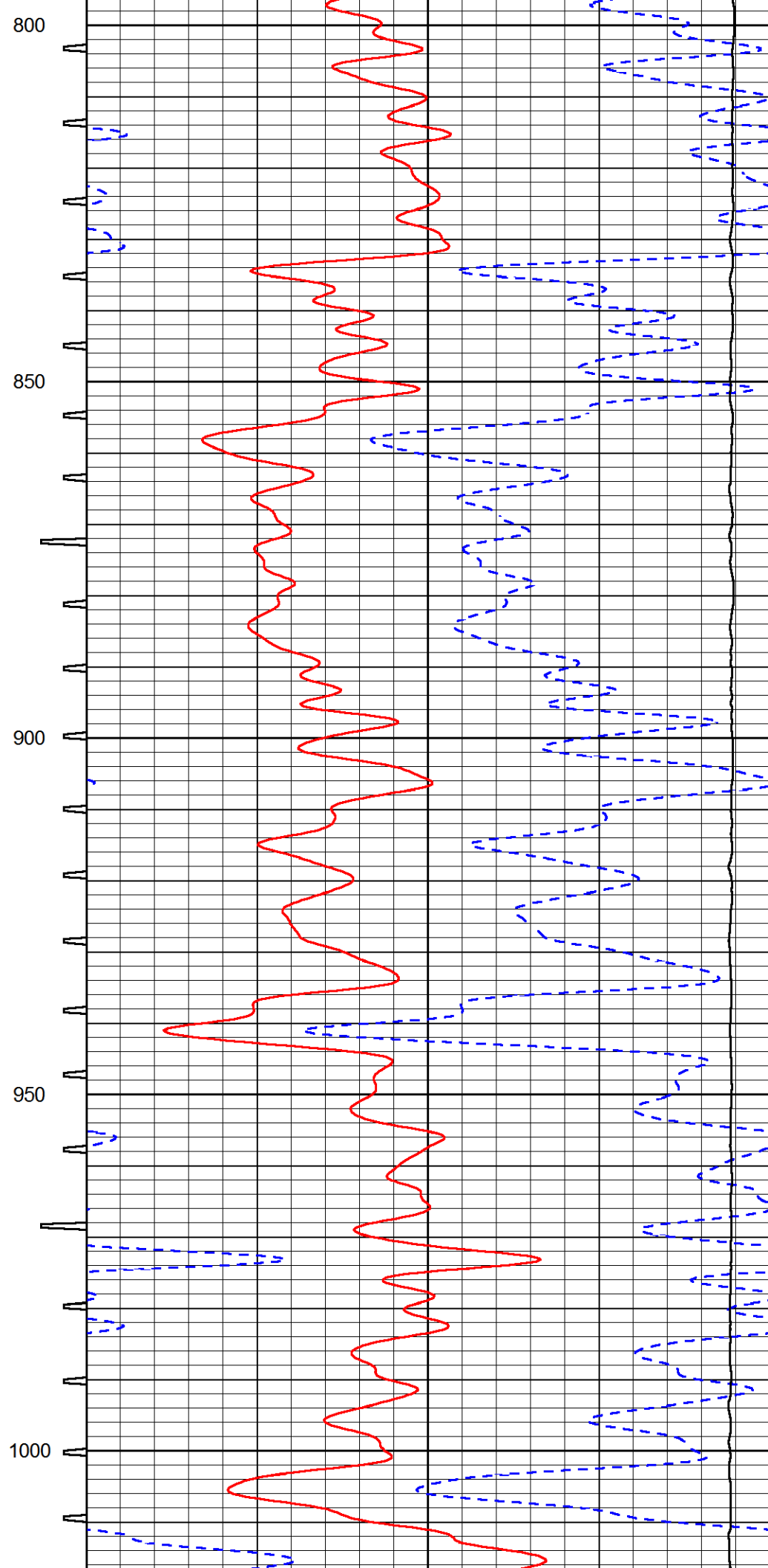
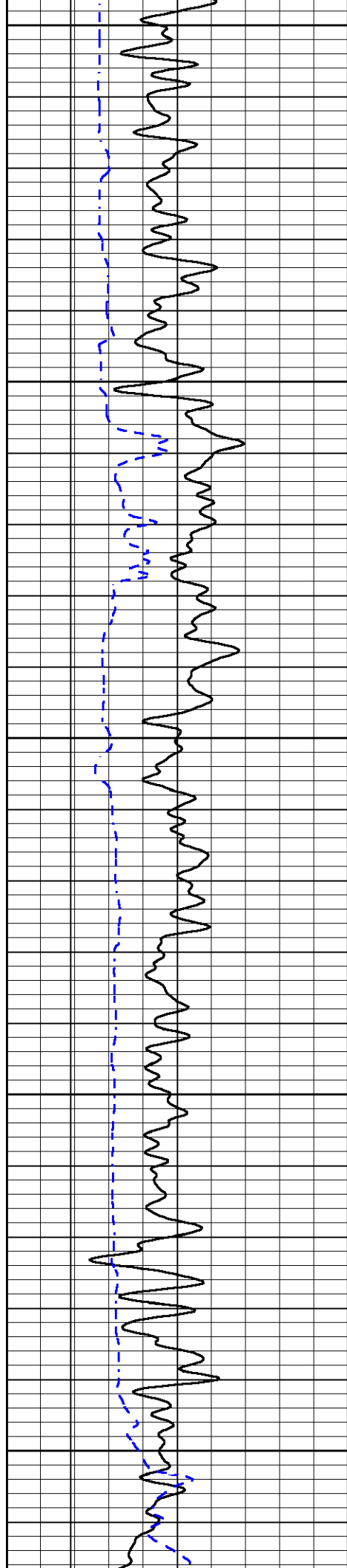
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Presentation Format	sonic
Dataset Creation	Mon Jul 23 17:44:39 2018
Charted by	Depth in Feet scaled 1:240

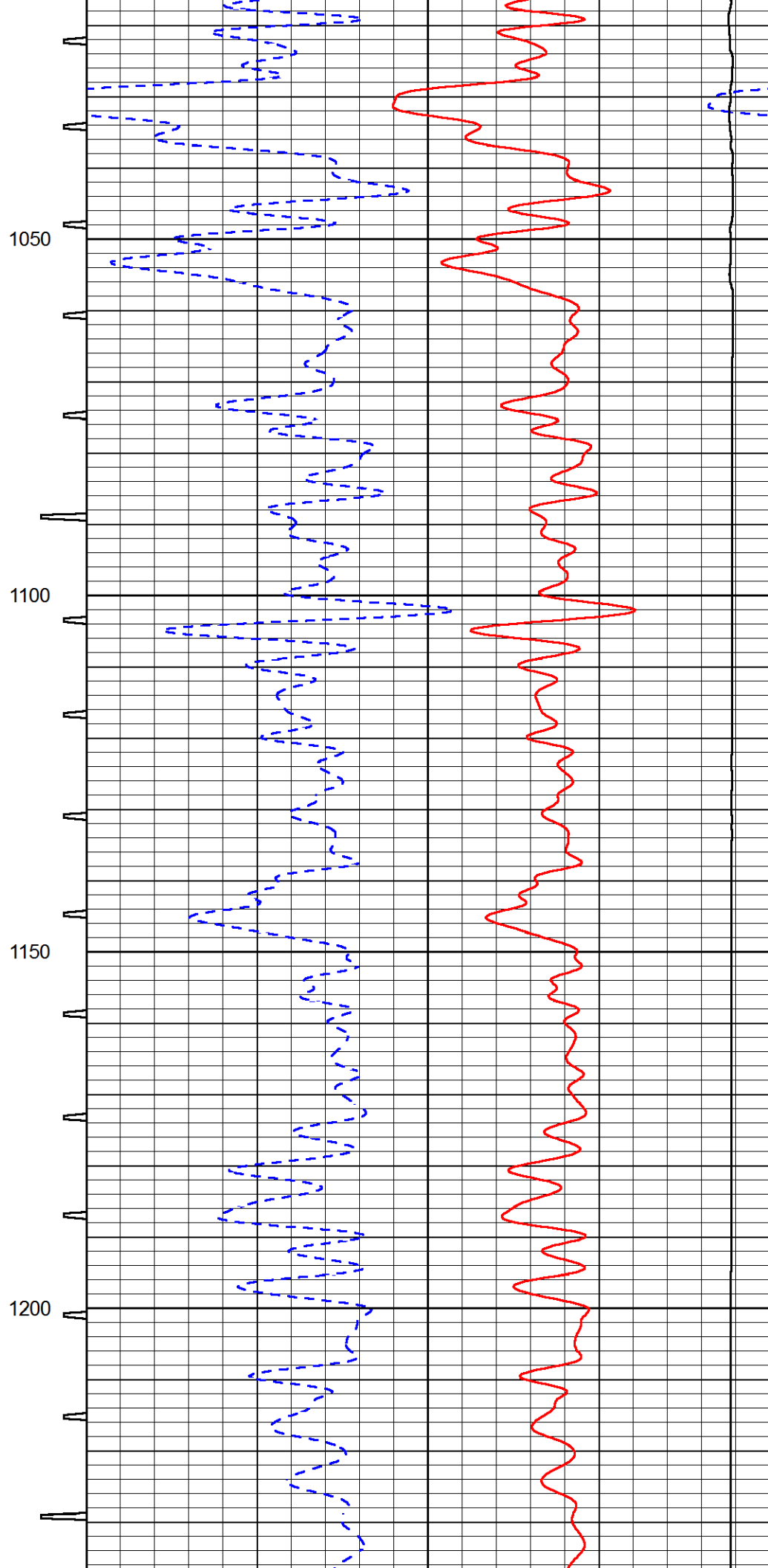
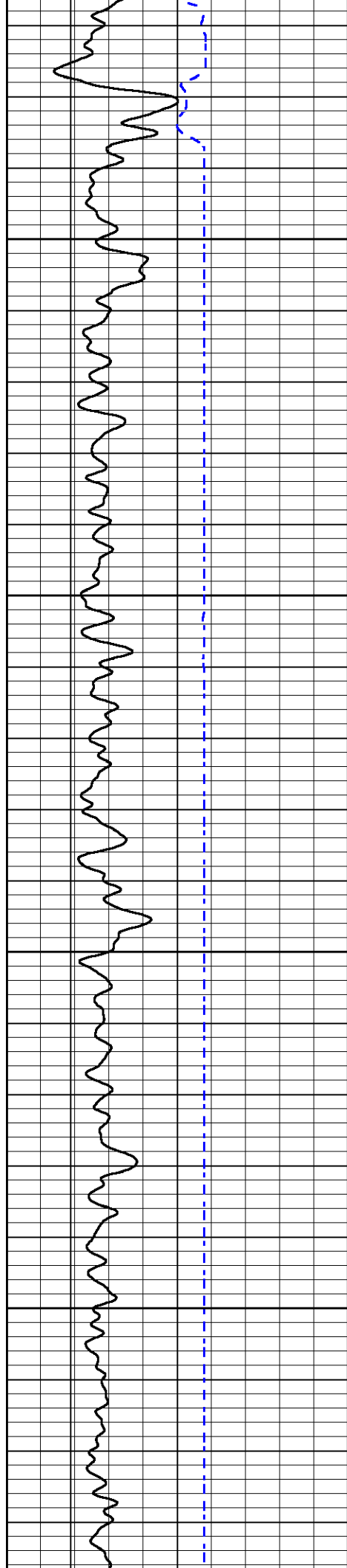
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6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0

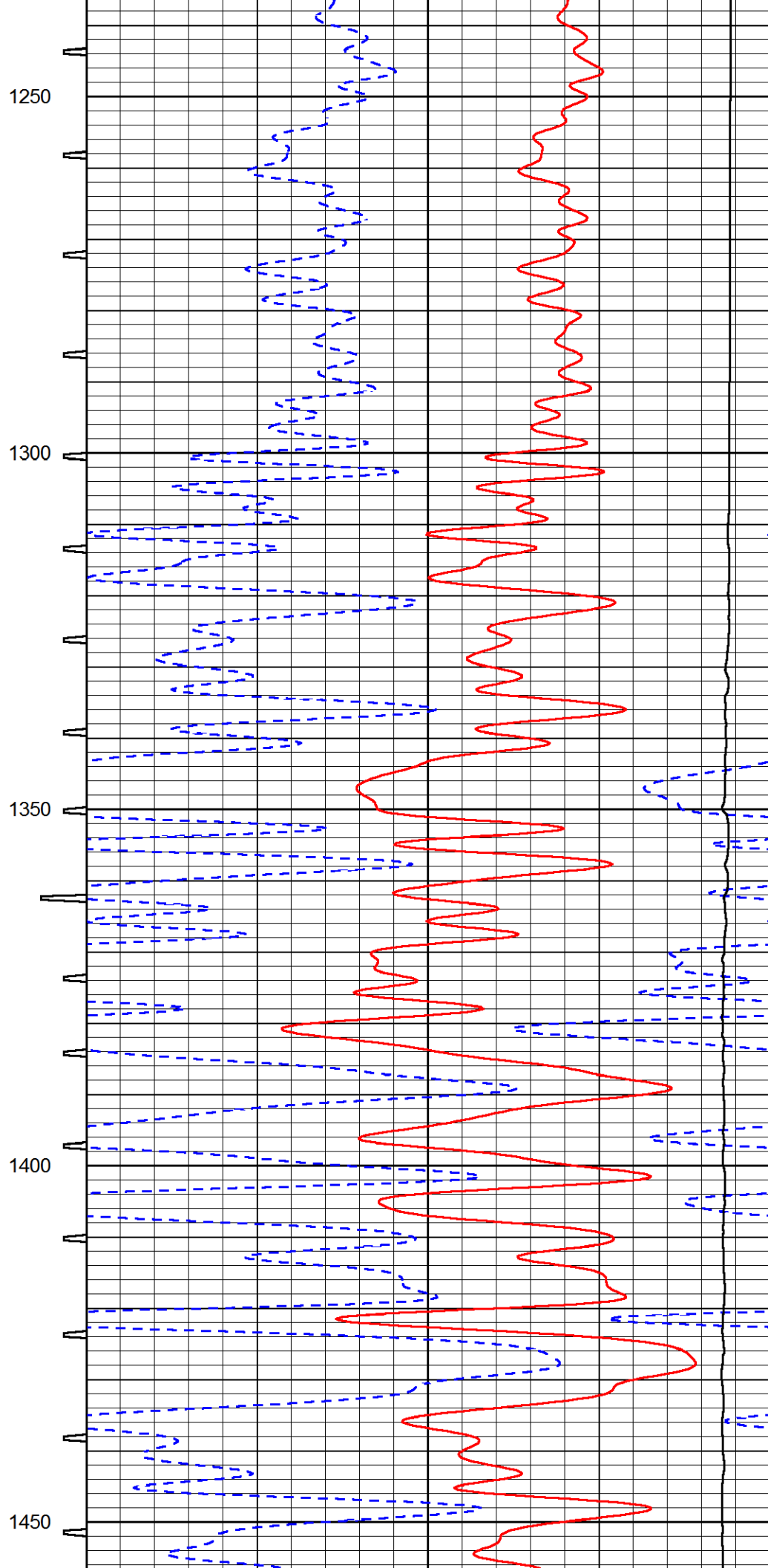
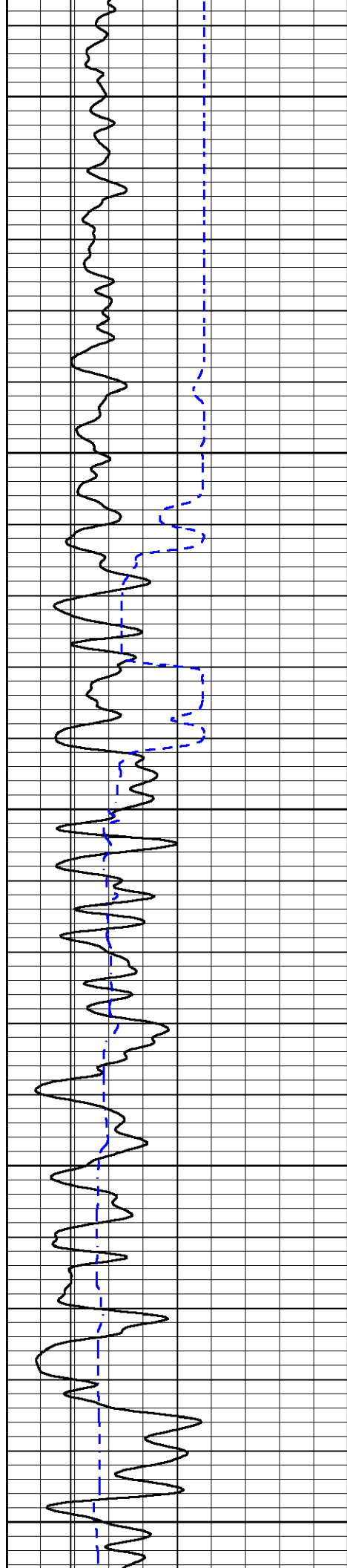


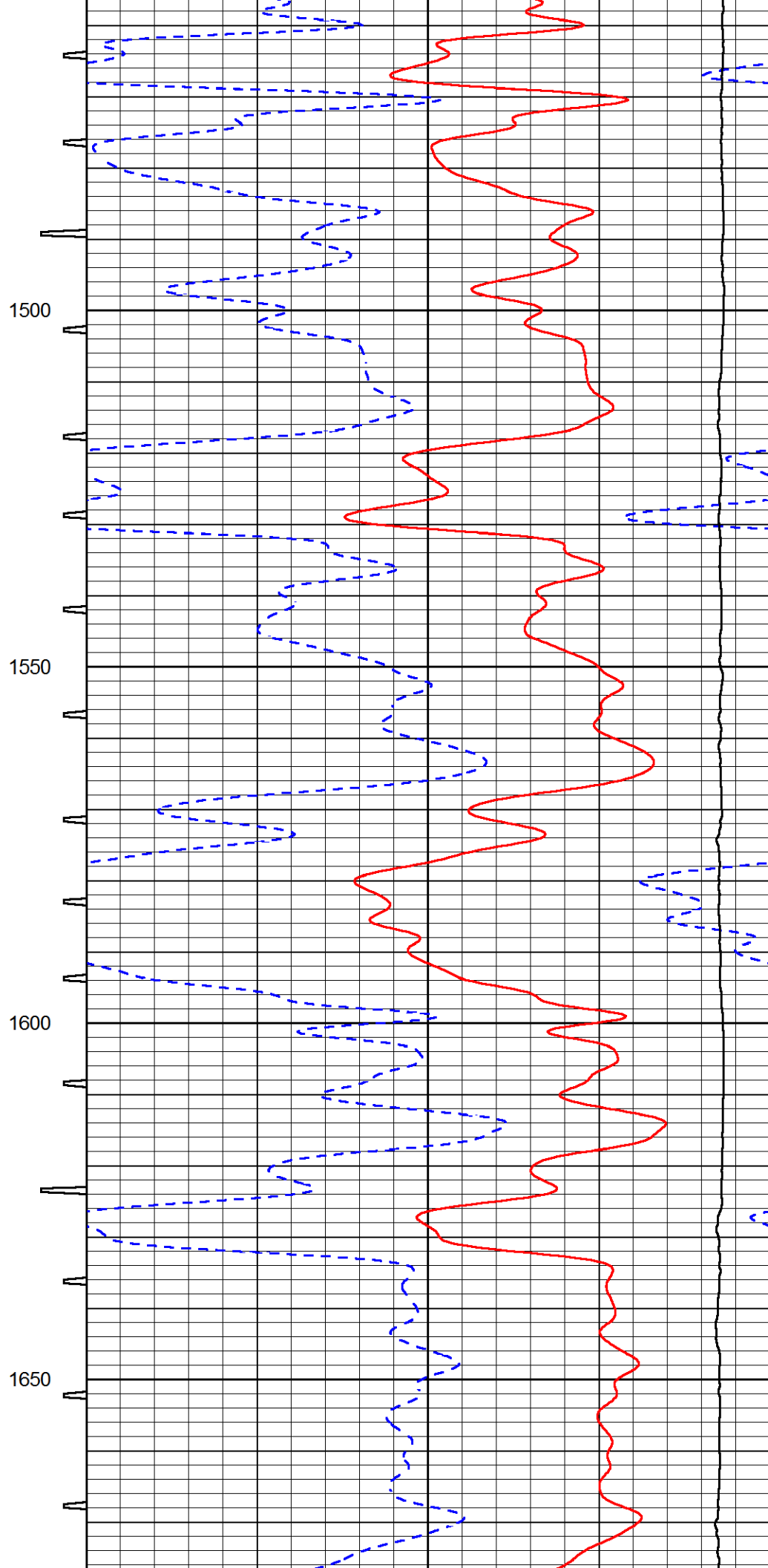
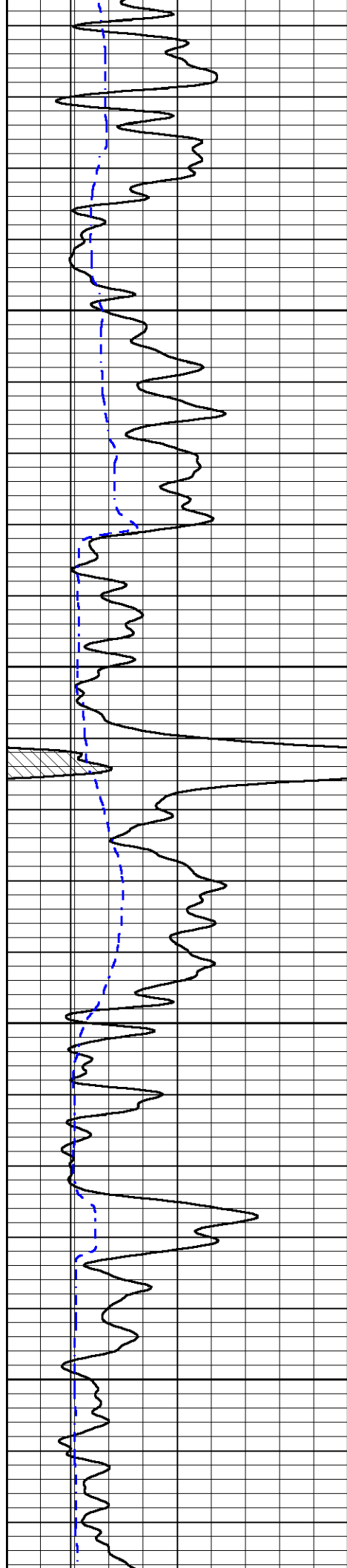


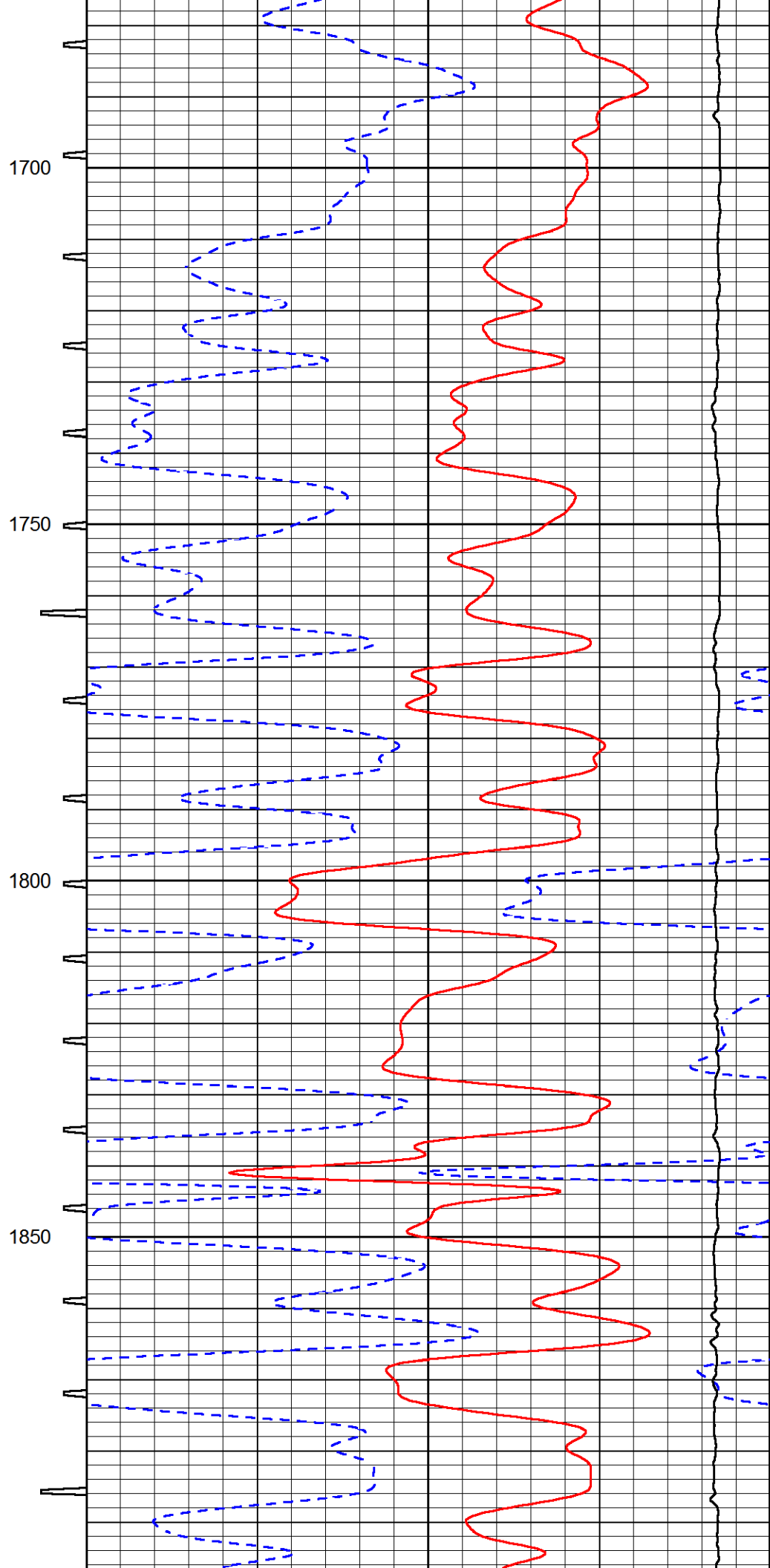
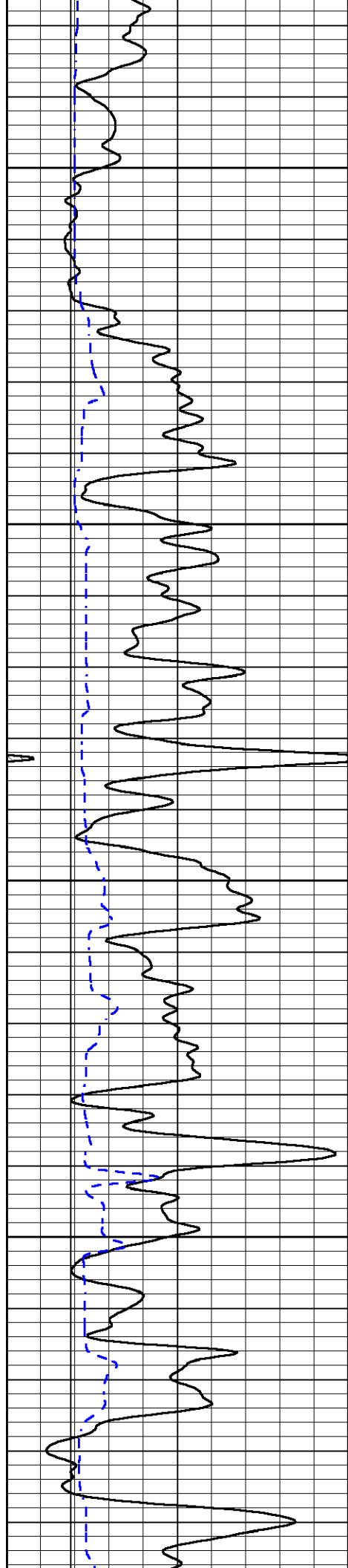


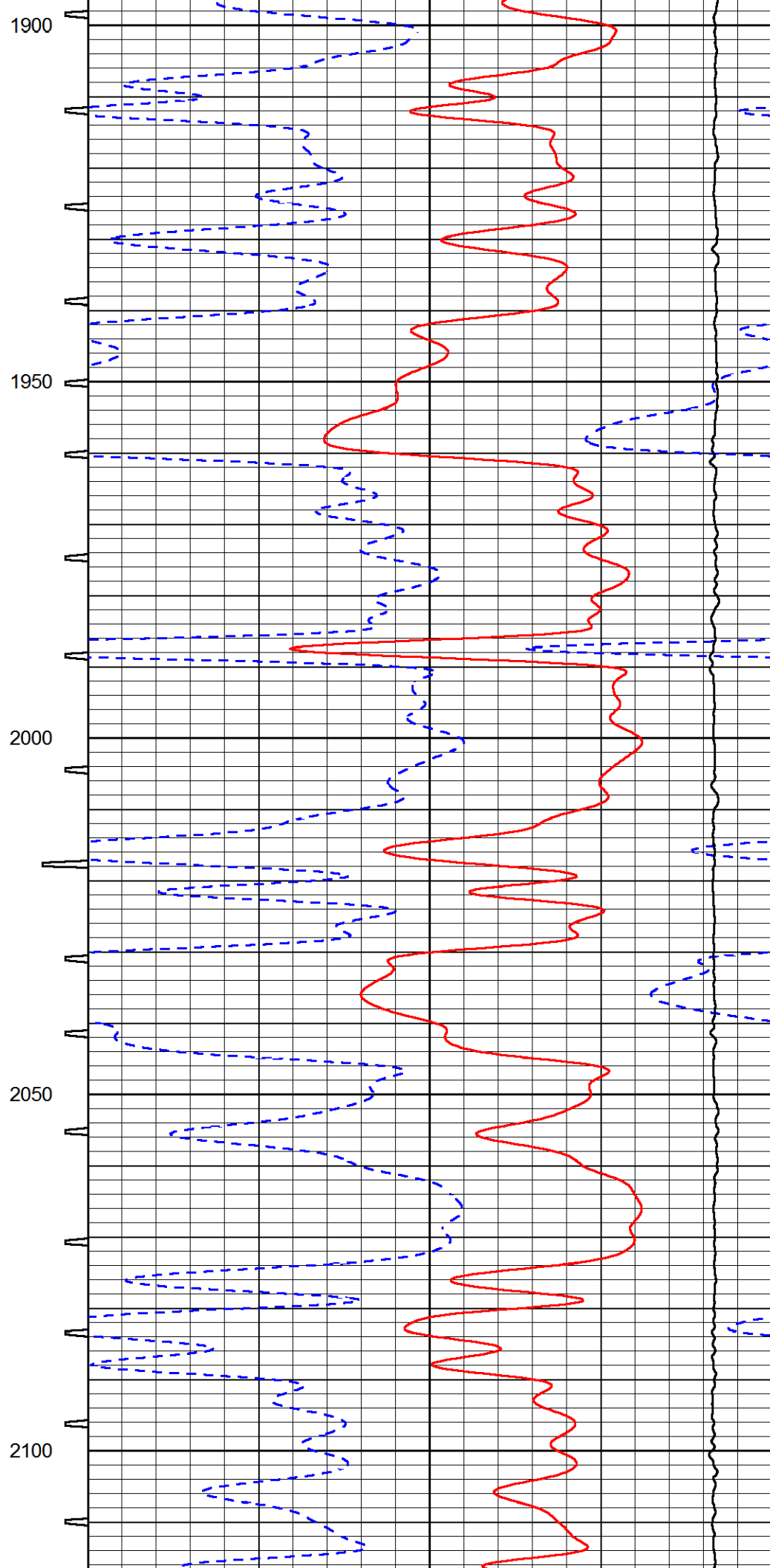
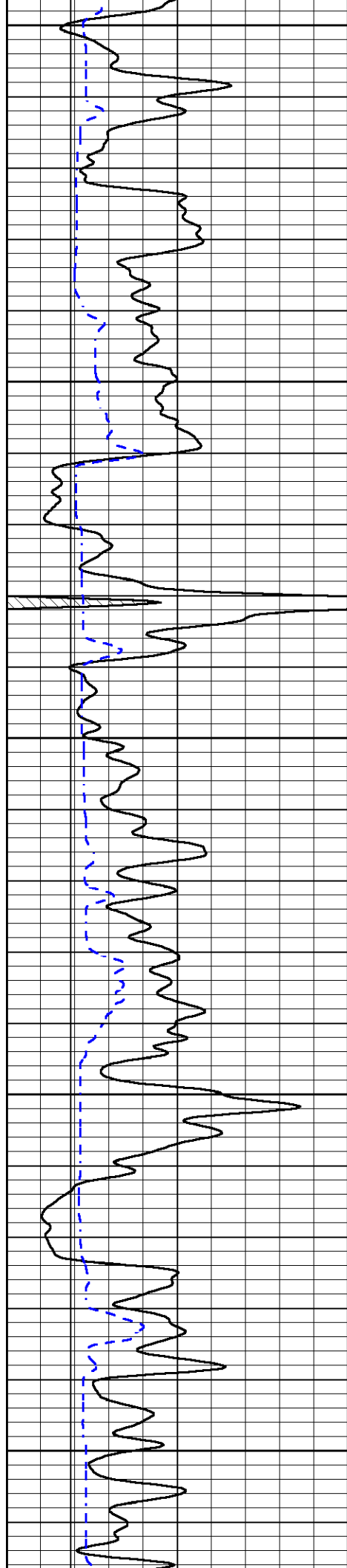


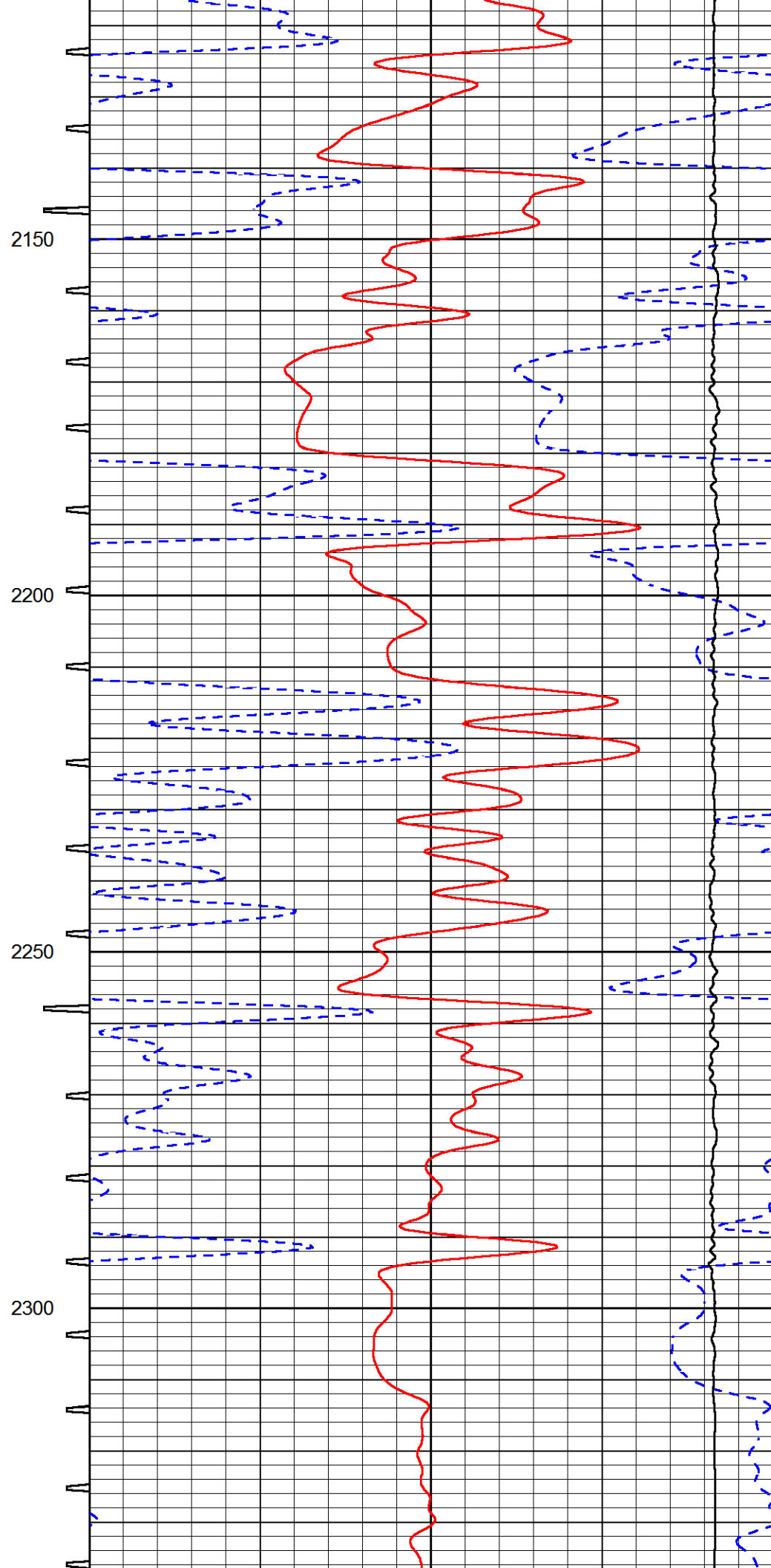
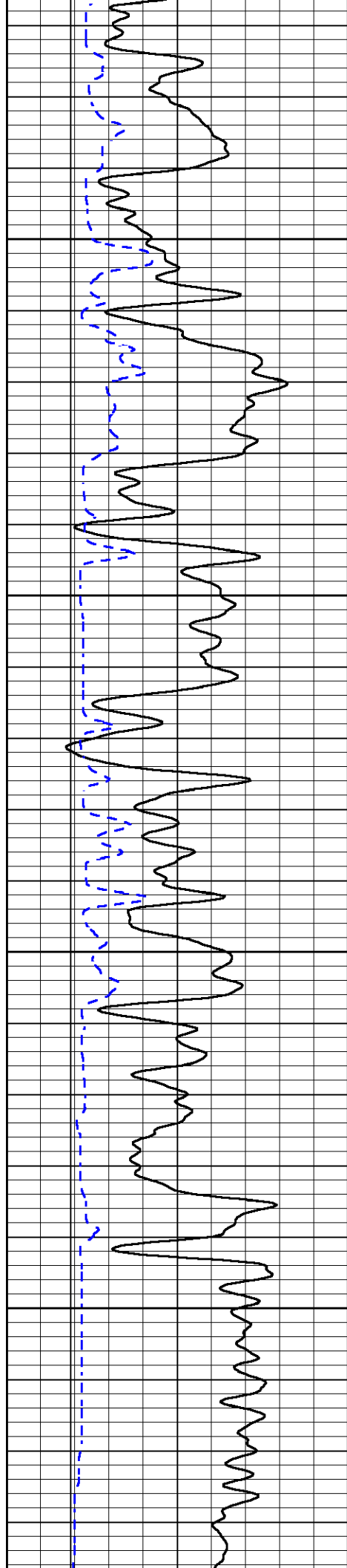


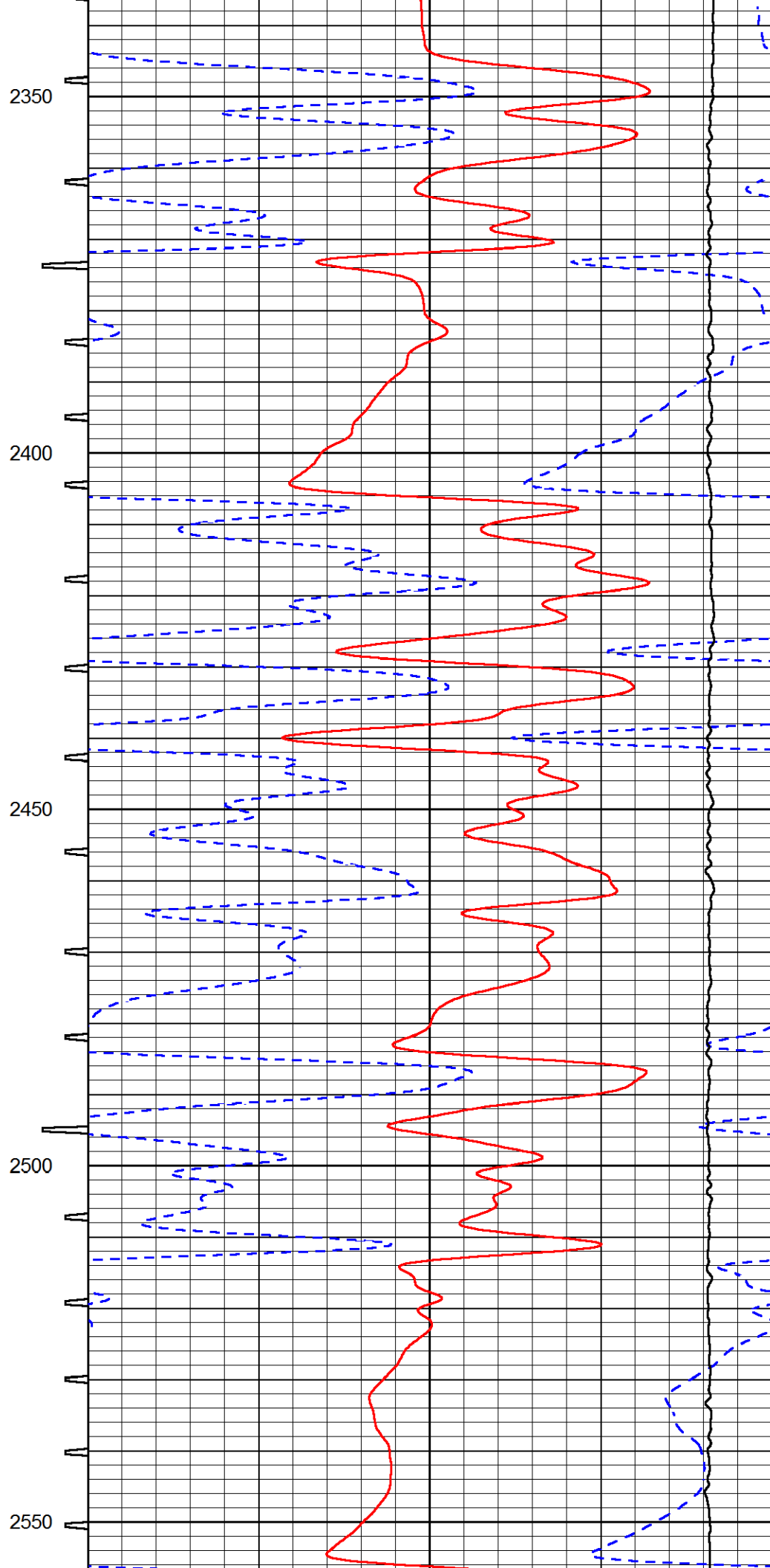
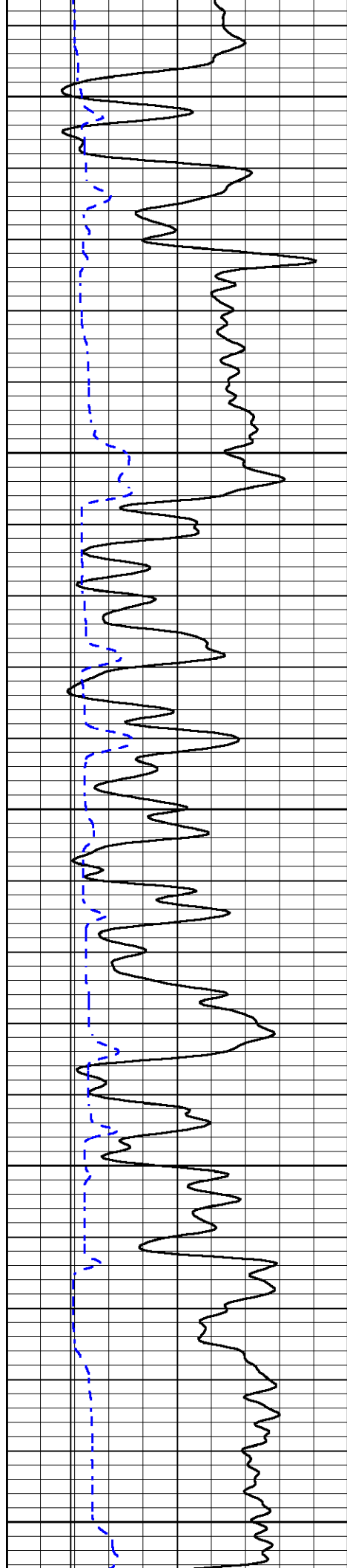


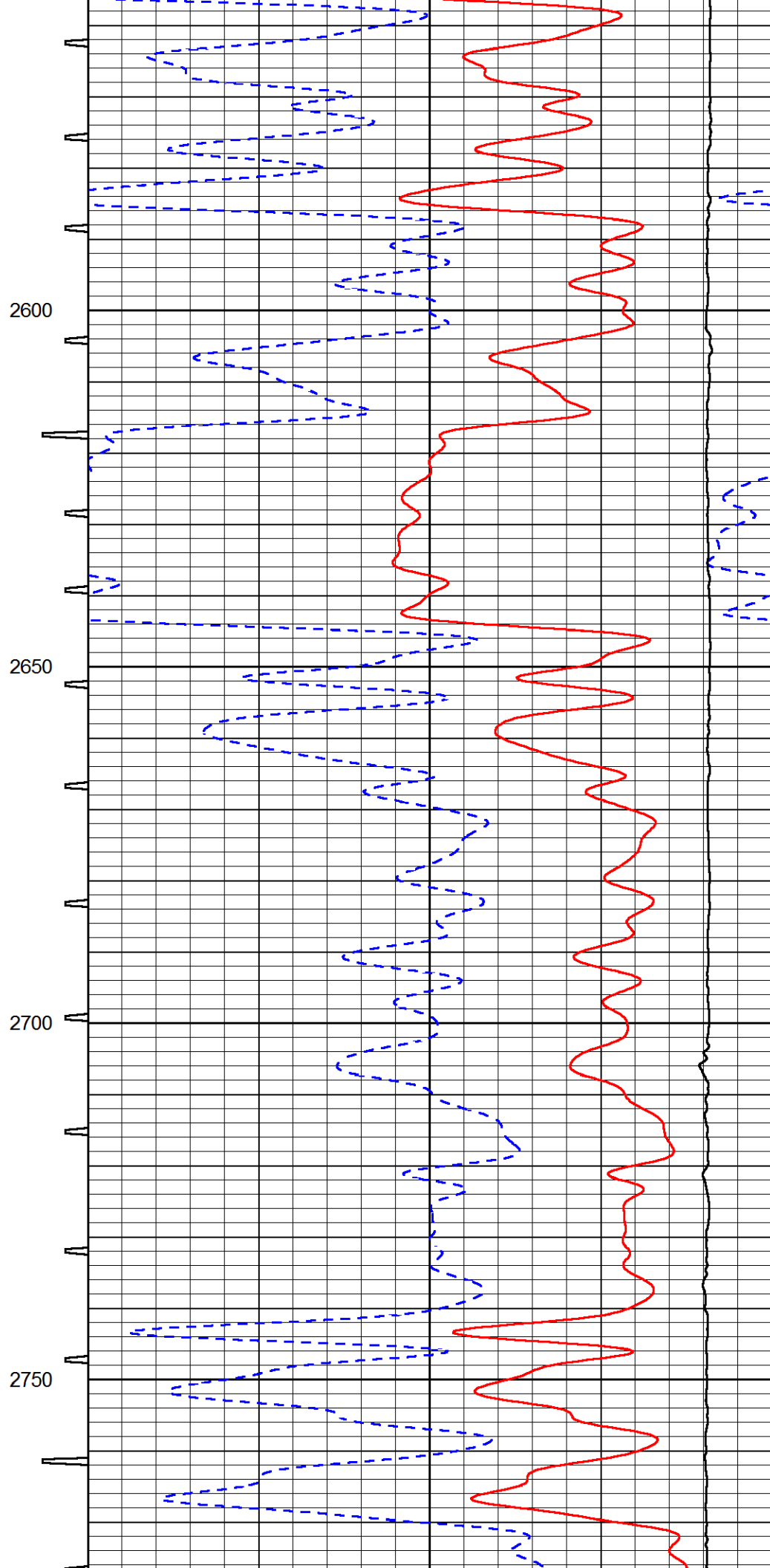
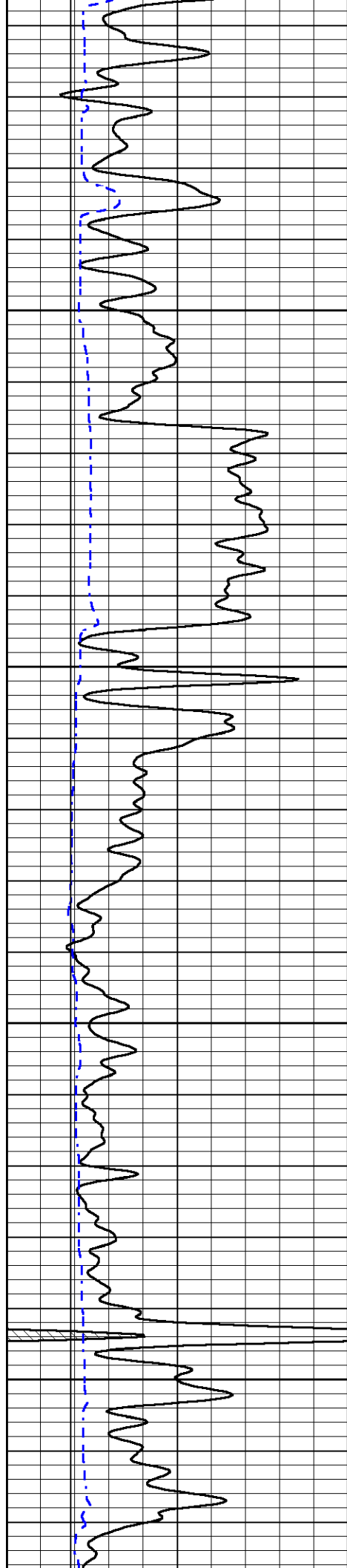


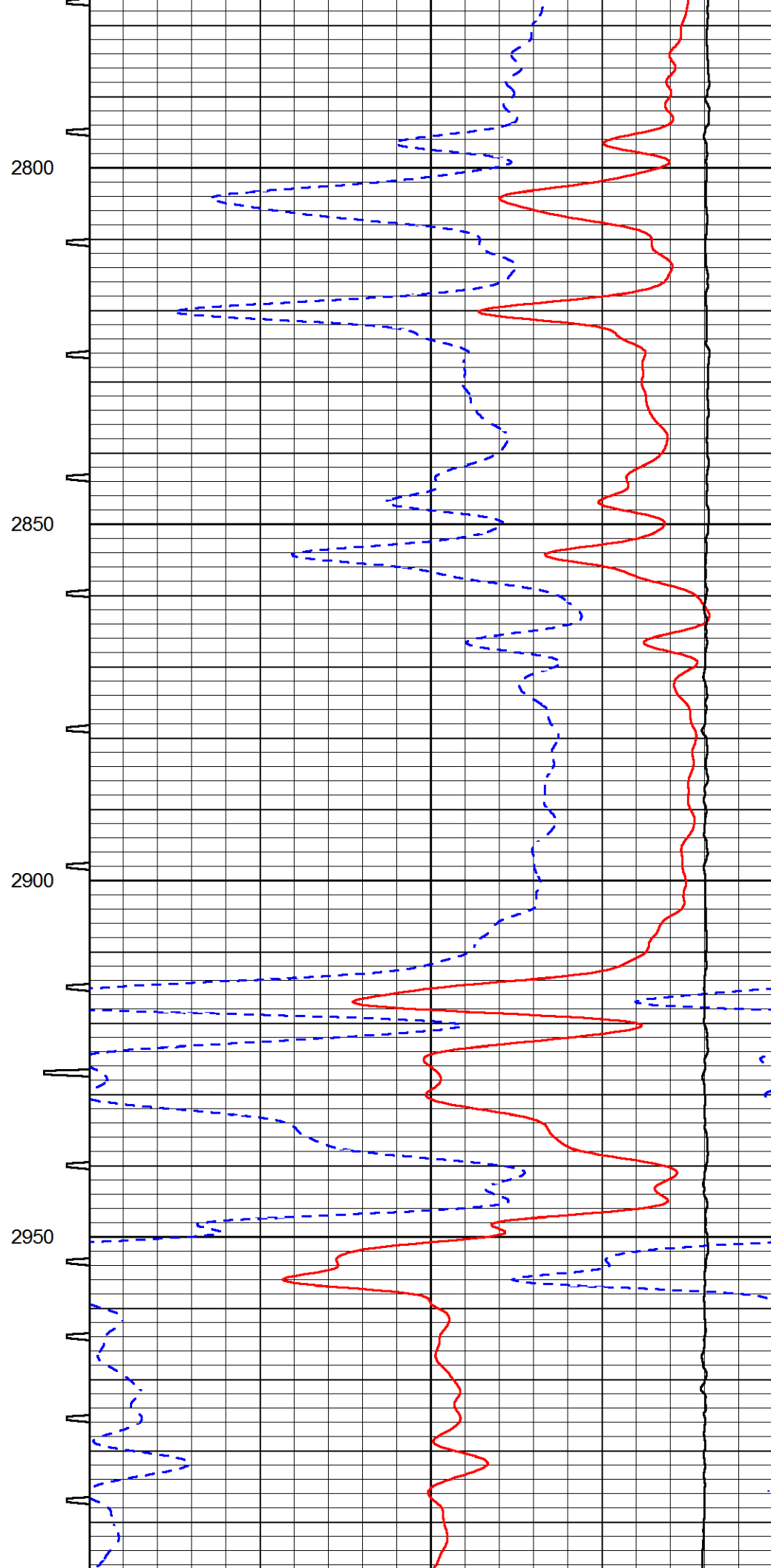
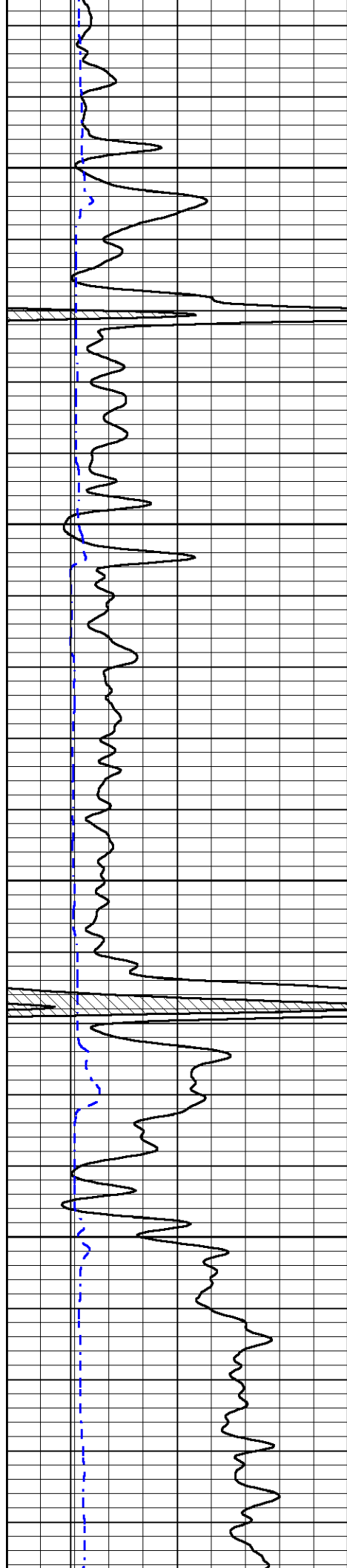


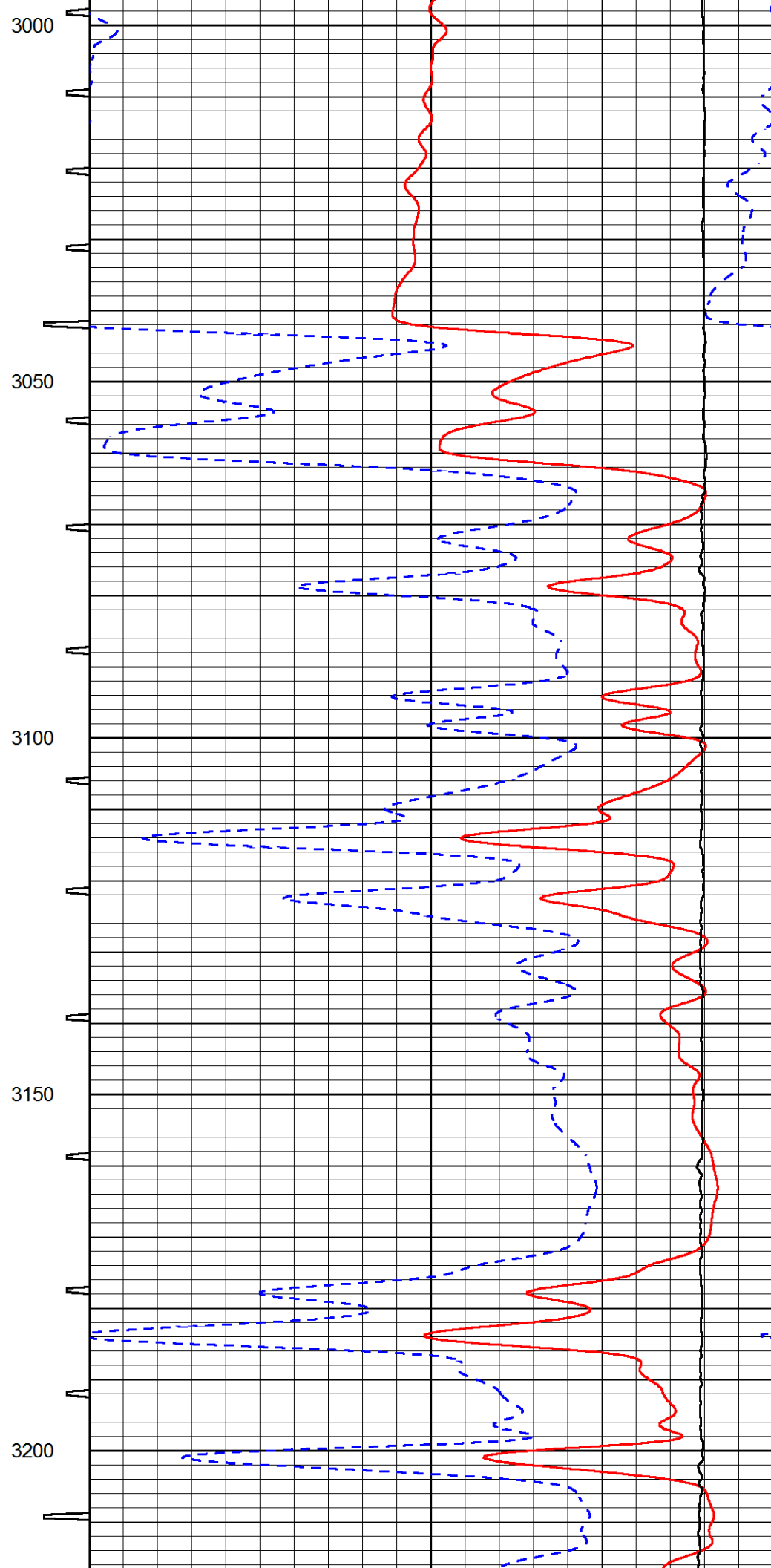
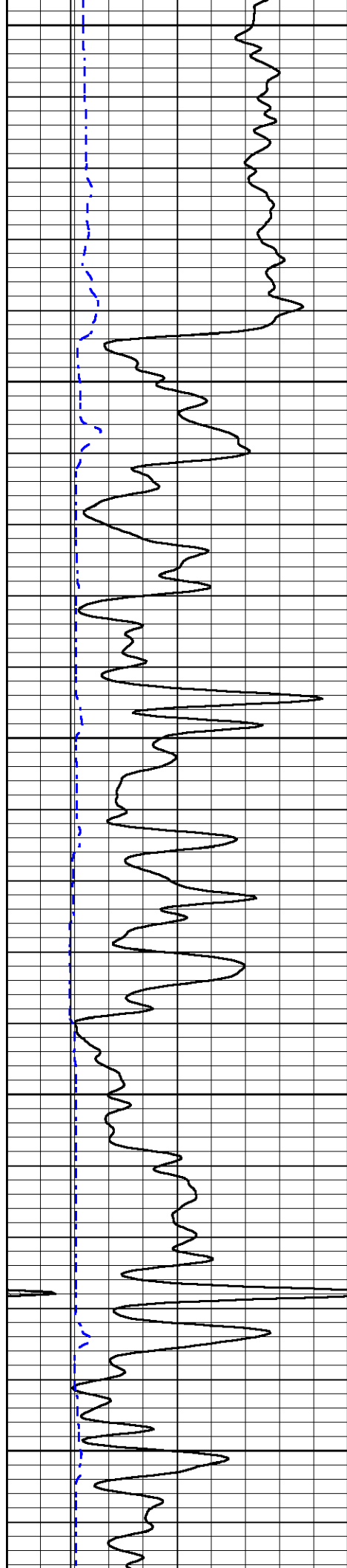


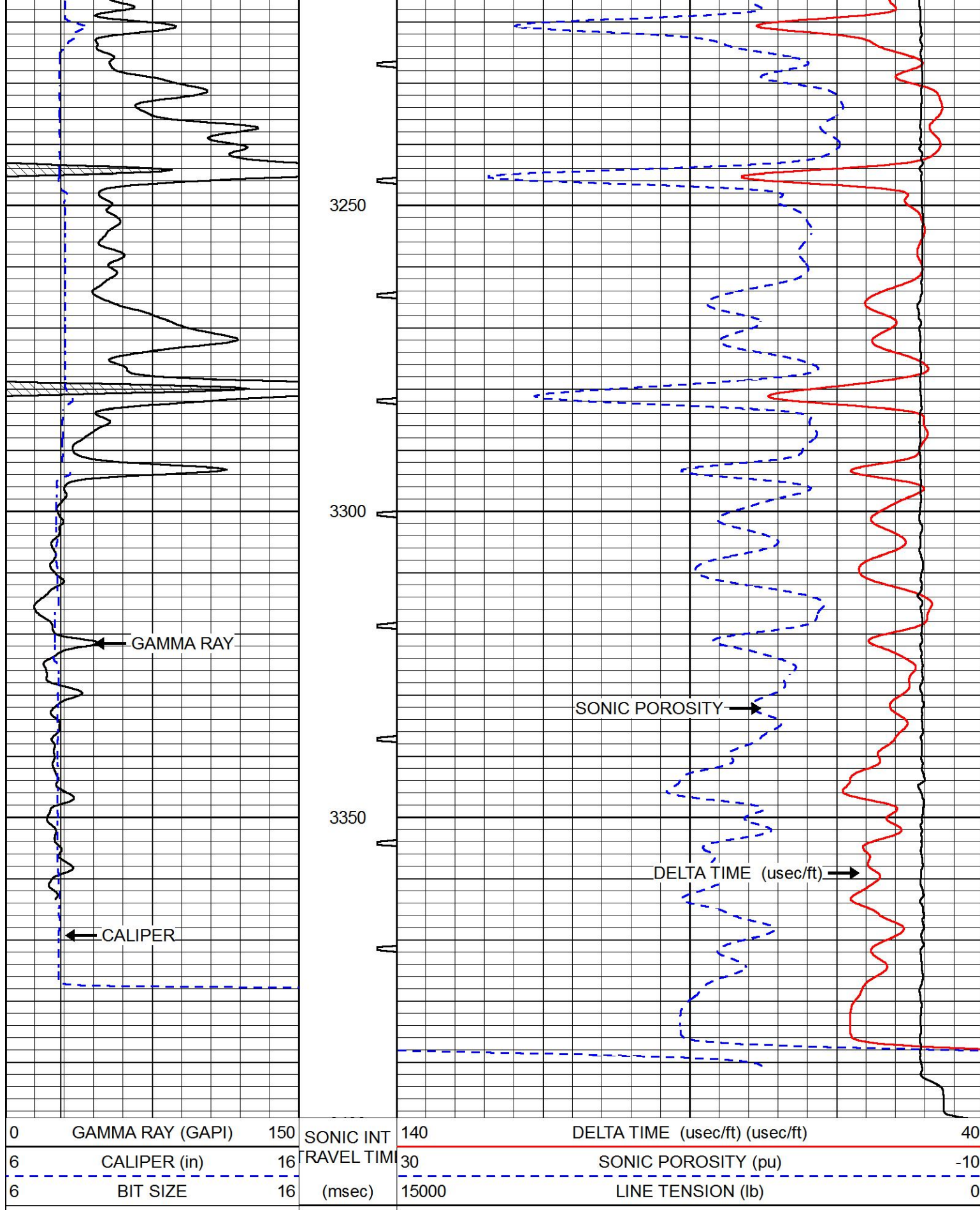






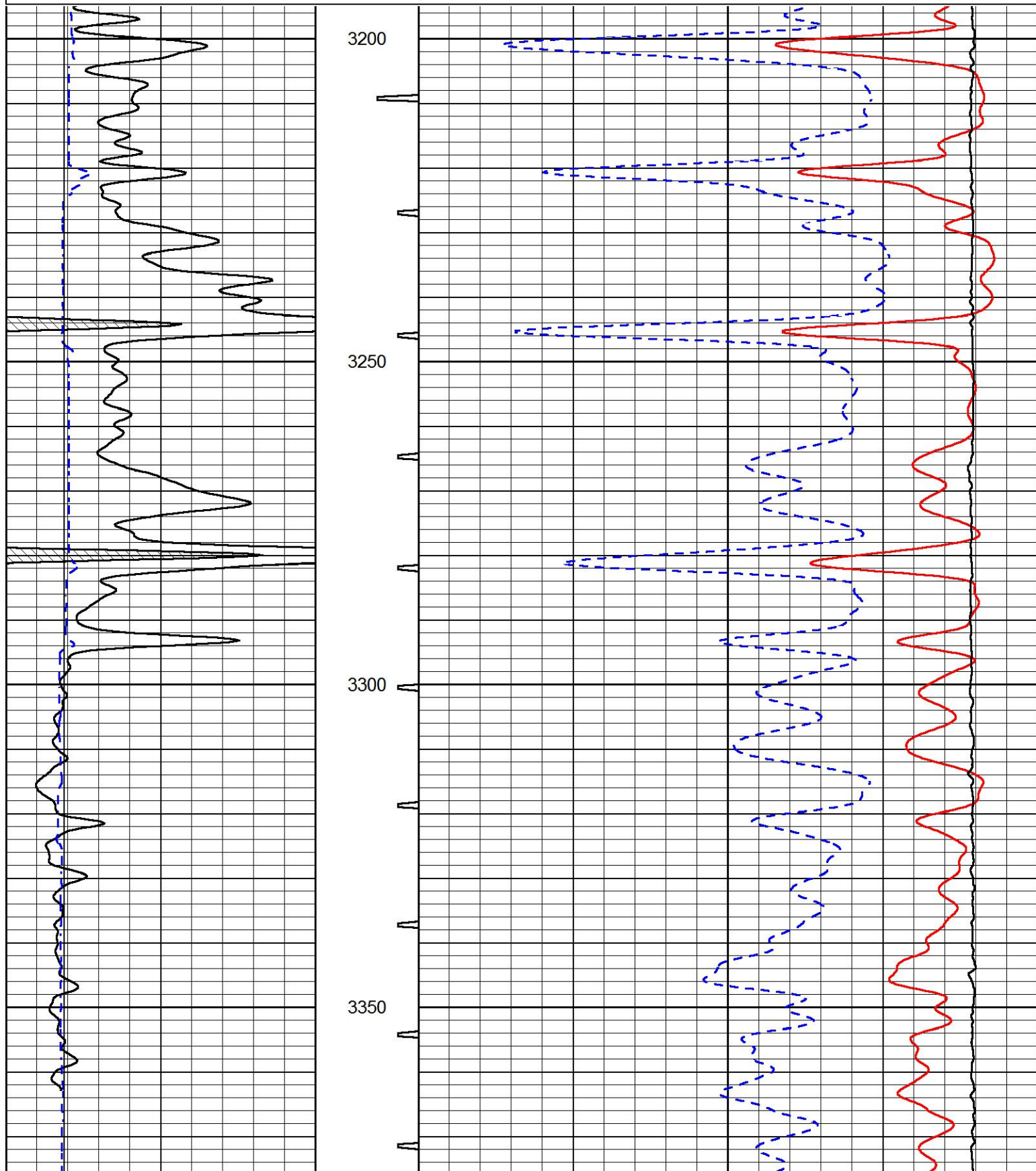


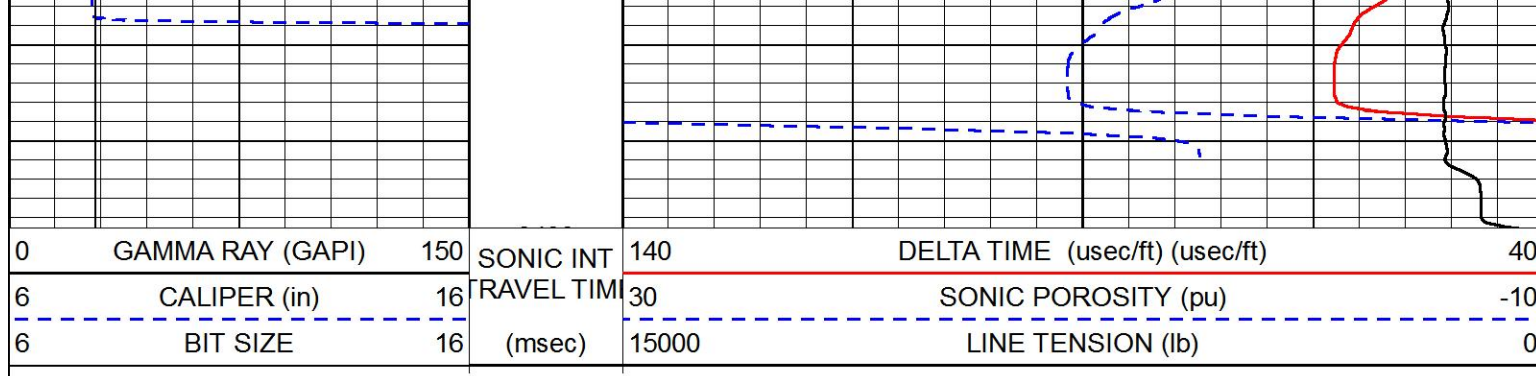




Database File	casino_herter_4.db
Dataset Pathname	stack/pass2.1
Presentation Format	sonic
Dataset Creation	Mon Jul 23 17:45:33 2018
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	RAVEL TIM	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0







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