



Pioneer Energy Services

Borehole Compensated Sonic Log

15-015-23,977-00-00

API No.

Company **Range Oil Company, Inc.**
 Well **Breedlove A No.1**
 Field **Wildcat**
 County **Butler** State **Kansas**

Location

1340' FSL & 4500' FEL

Sec: 30 Twp: 28S Rge: 8E

Other Services
DIL
CNL/CDL

Permanent Datum Ground Level Elevation 1574
 Log Measured From Kelly Bushing 10 Ft. Above Perm. Datum
 Drilling Measured From Kelly Bushing

Elevation
K.B. 1584
D.F. 1574
G.L. 1574

Date	5/3/2013	
Run Number	Two	
Type Log	BHC Sonic	
Depth Driller	3225	
Depth Logger	3225	
Bottom Logged Interval	3214	
Top Logged Interval	200	
Type Fluid In Hole	Chemical	
Salinity, PPM CL	1,600	
Density	9.4	
Level	Full	
Max. Rec. Temp. F	108	
Operating Rig Time	3 1/2 Hours	
Equipment -- Location	17 Hays	
Recorded By	C. Desaire	
Witnessed By	John Washburn	Ken Wallace

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	227	8.625	24#	00	227
2	7.875	227	3225				

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

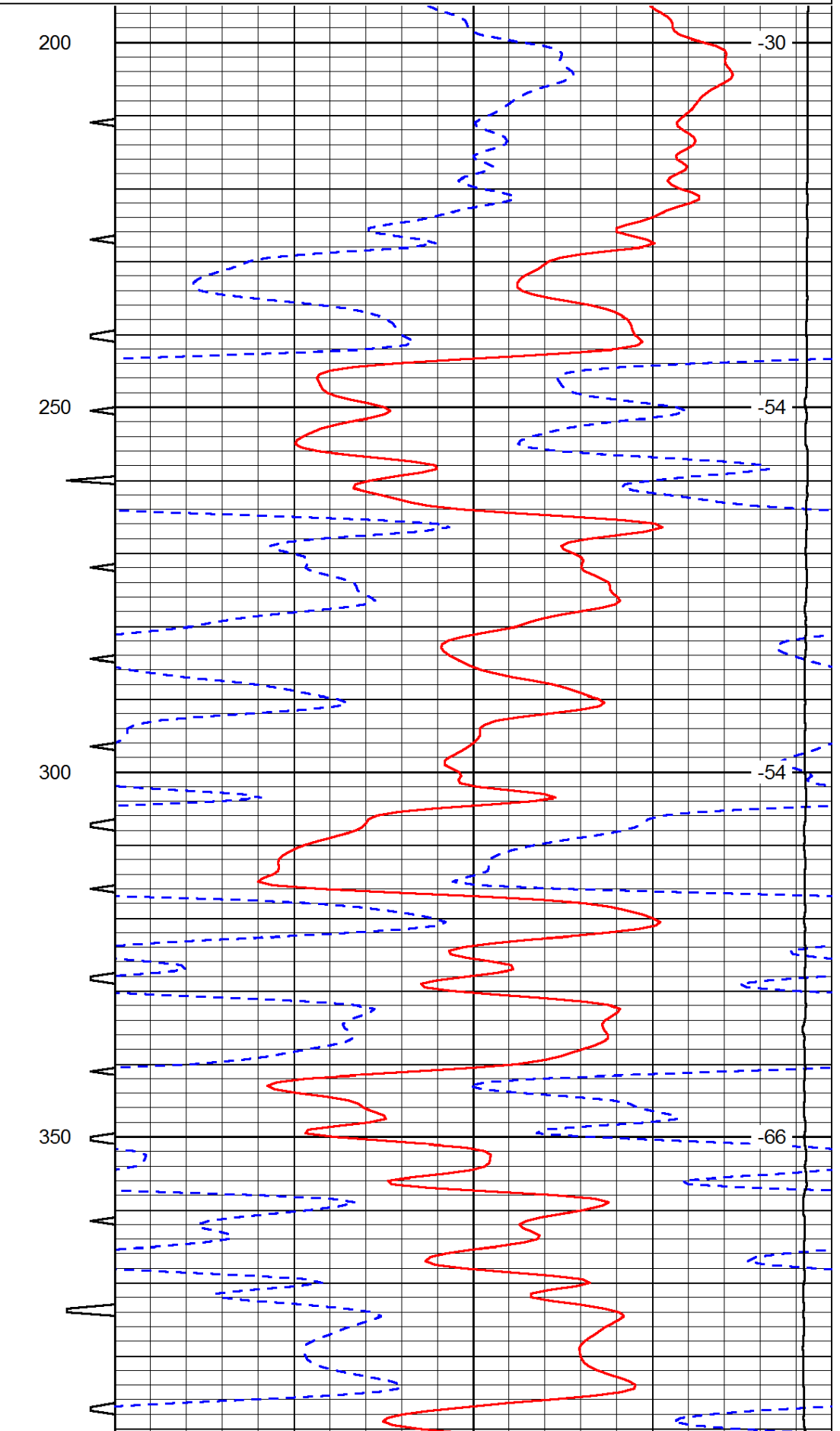
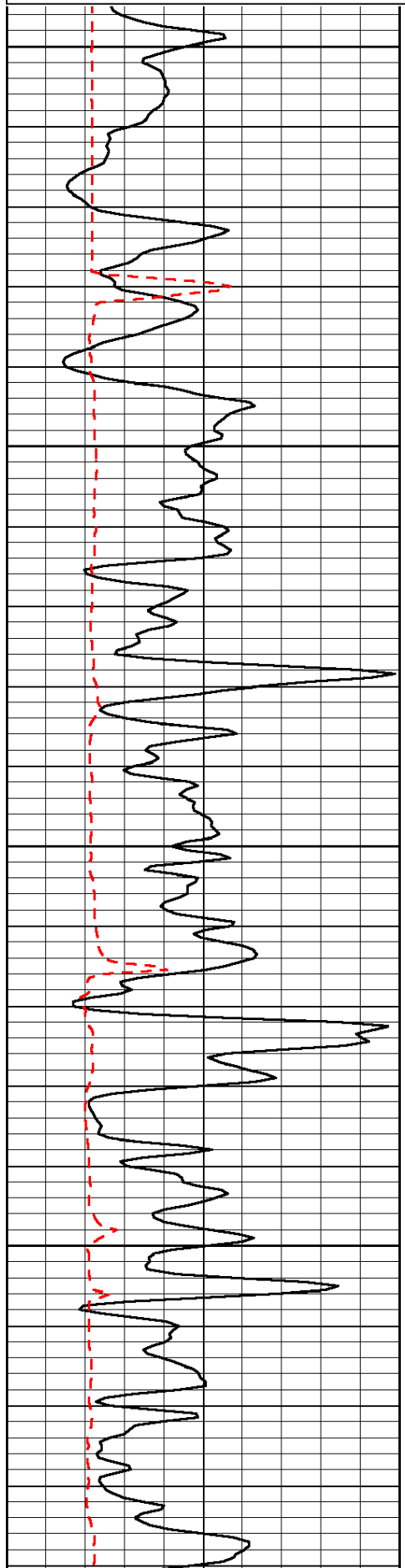
Comments

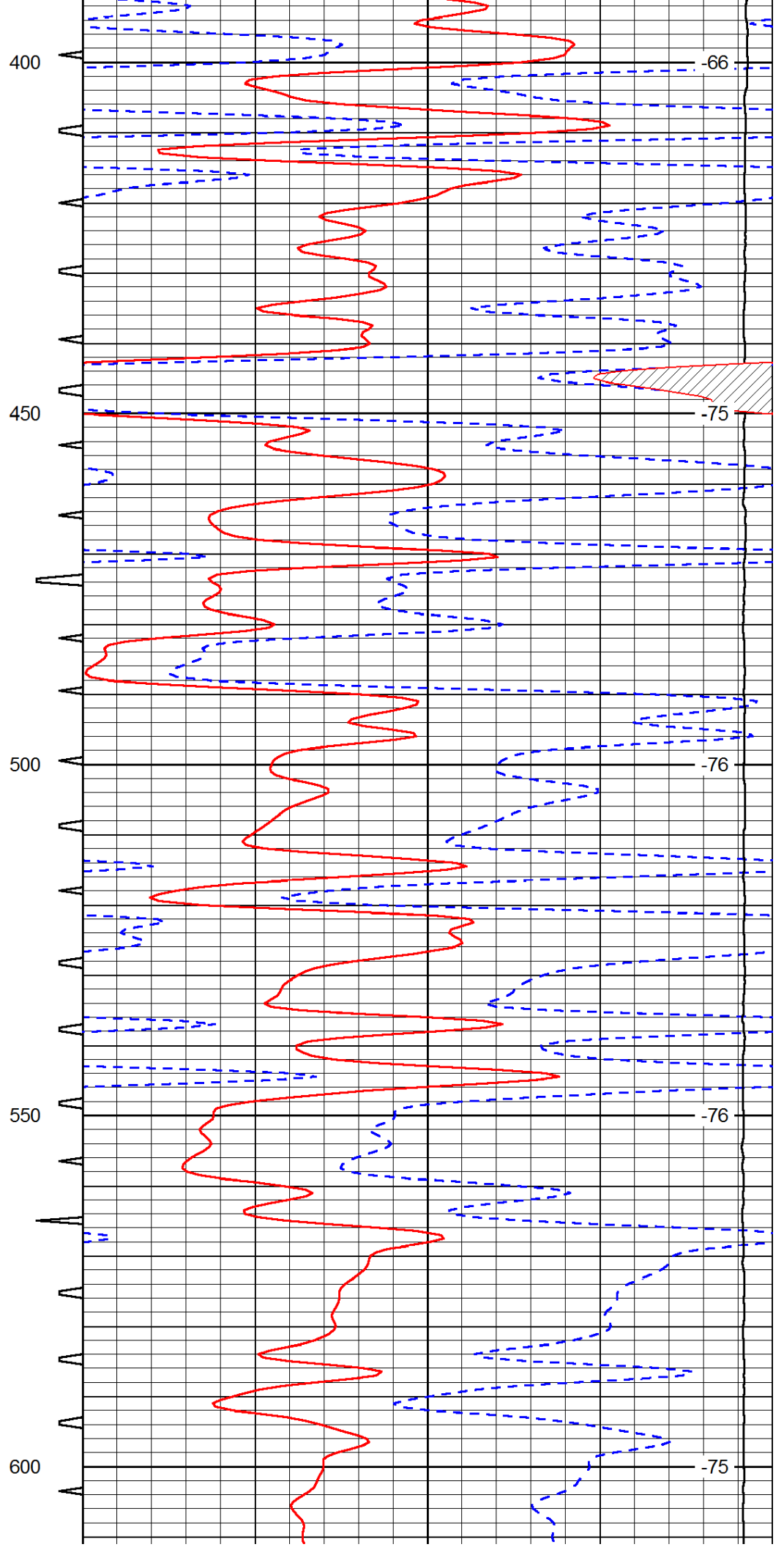
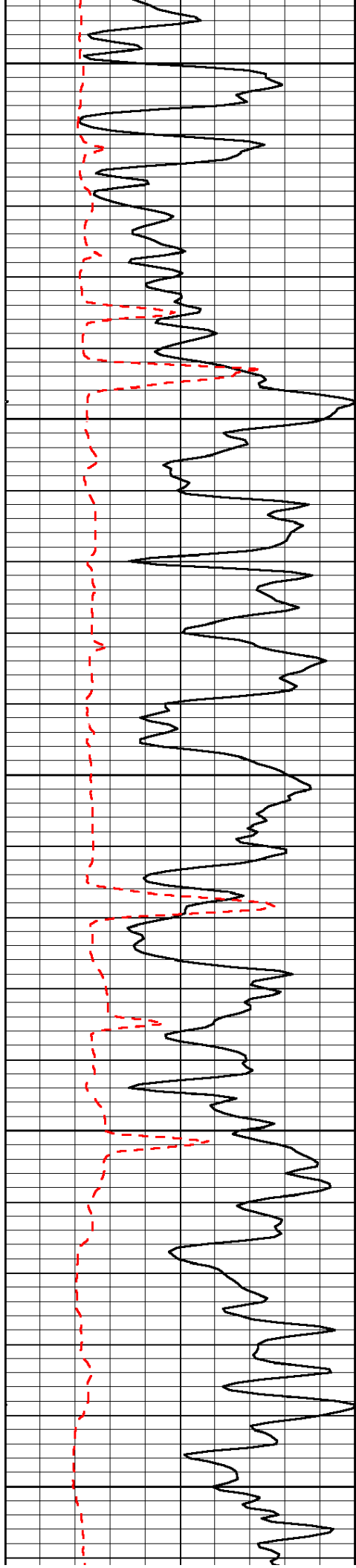
Thank you for using Pioneer Energy Services
 www.pioneerenergy.com
 785 625 3858
 Augusta KS, 17 E to Stony Creek Rd,
 7 S to 180 Rd, 4 E to Tank Batt, E Side thru cttl grd, 1/2 N,
 W thru gate, 3/4 N

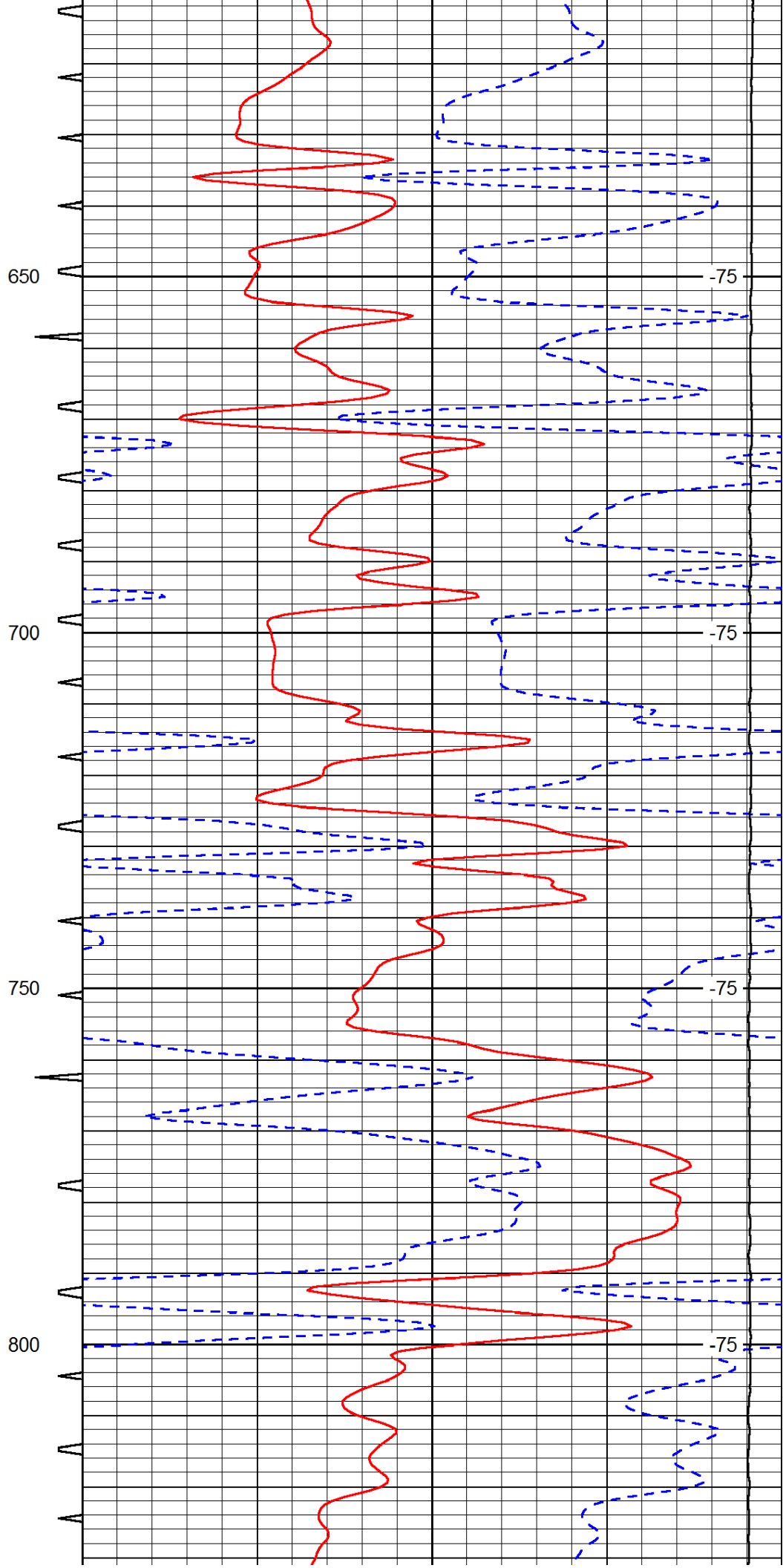
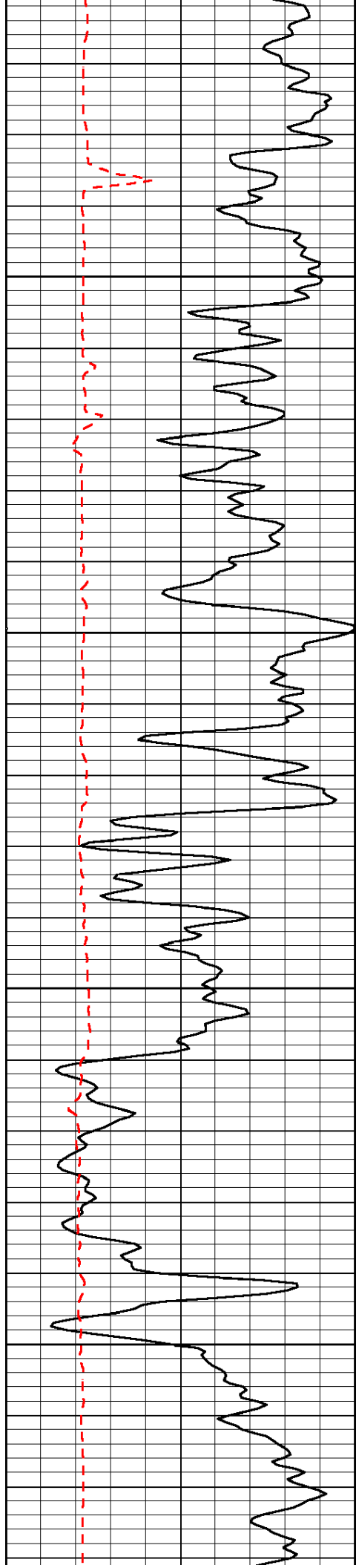
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 Dataset Pathname: dil/rngstk
 Presentation Format: sonic
 Dataset Creation: Sat May 04 00:51:57 2013
 Charted by: Depth in Feet scaled 1:240

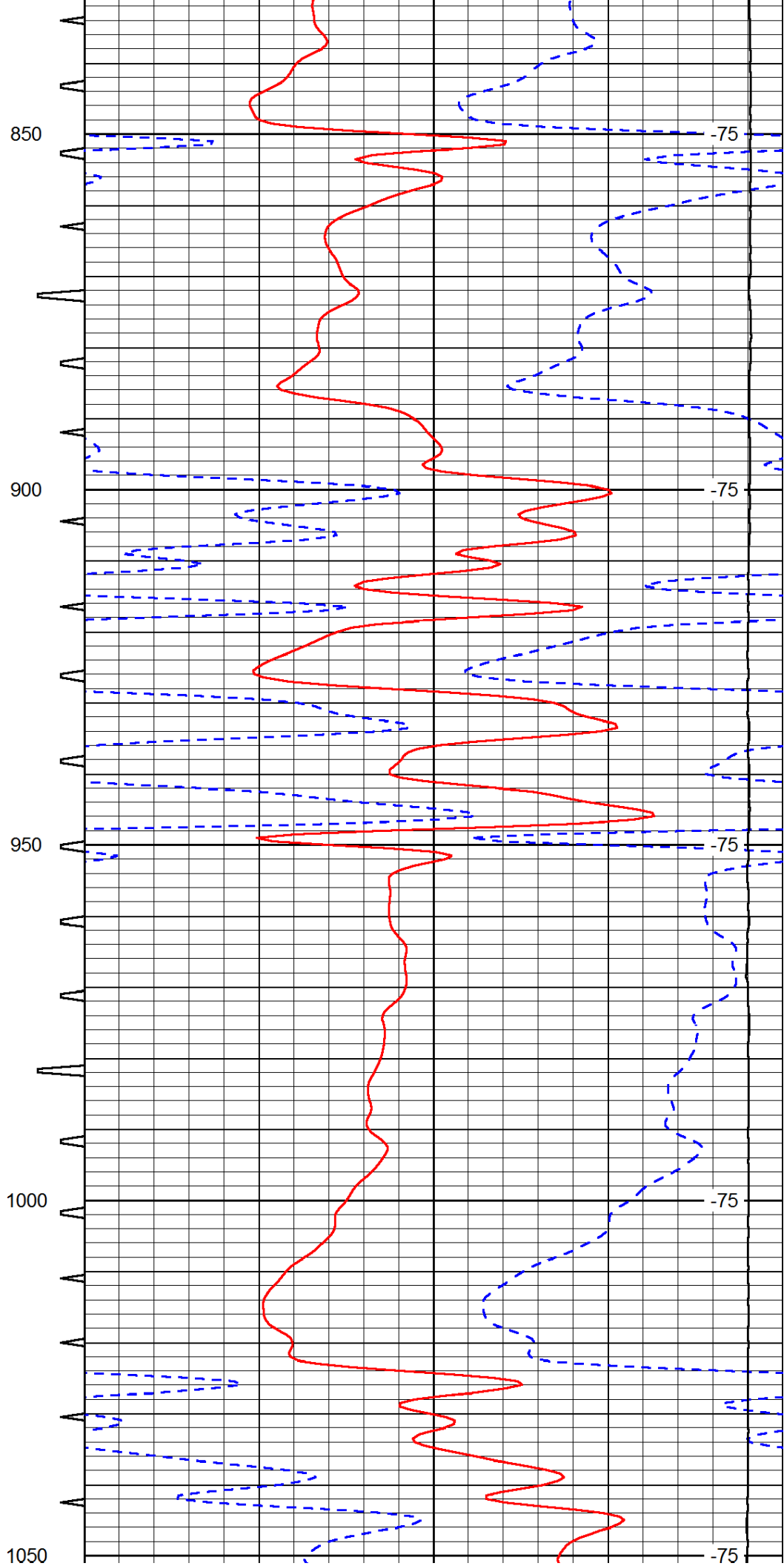
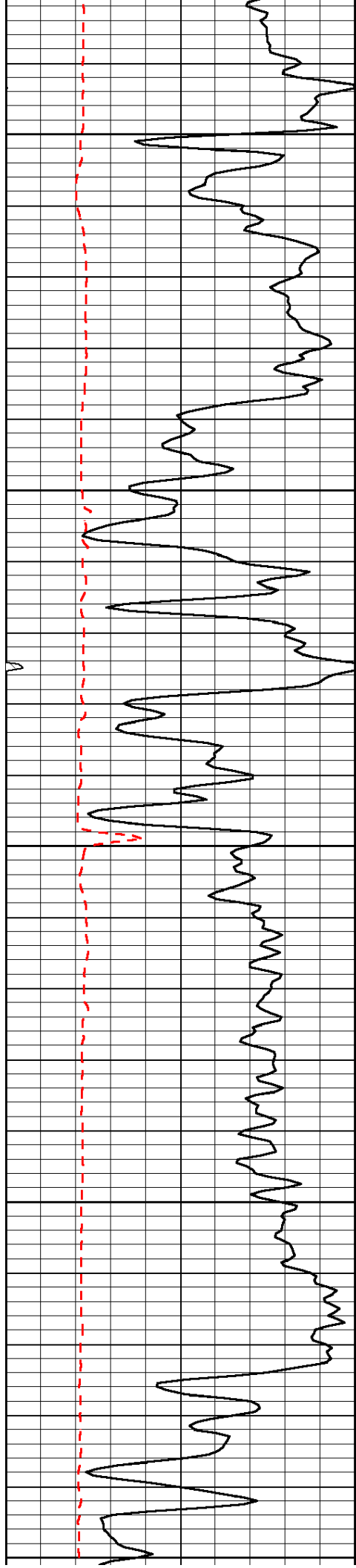
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150	Gamma Ray	300	5	0	SPOR	-10
6	Caliper (GAPI)	16		15000	LTEN (lb)	0

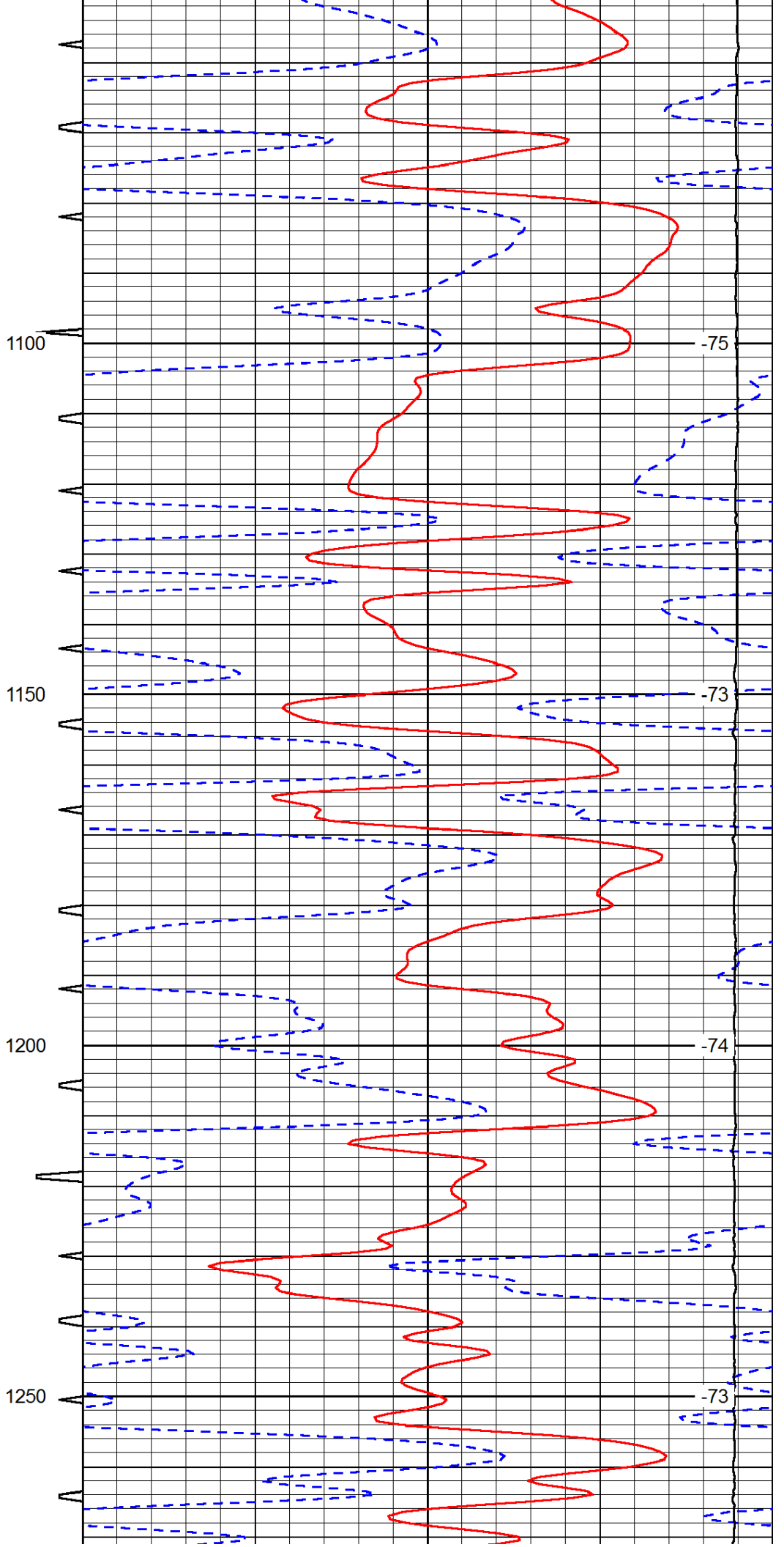
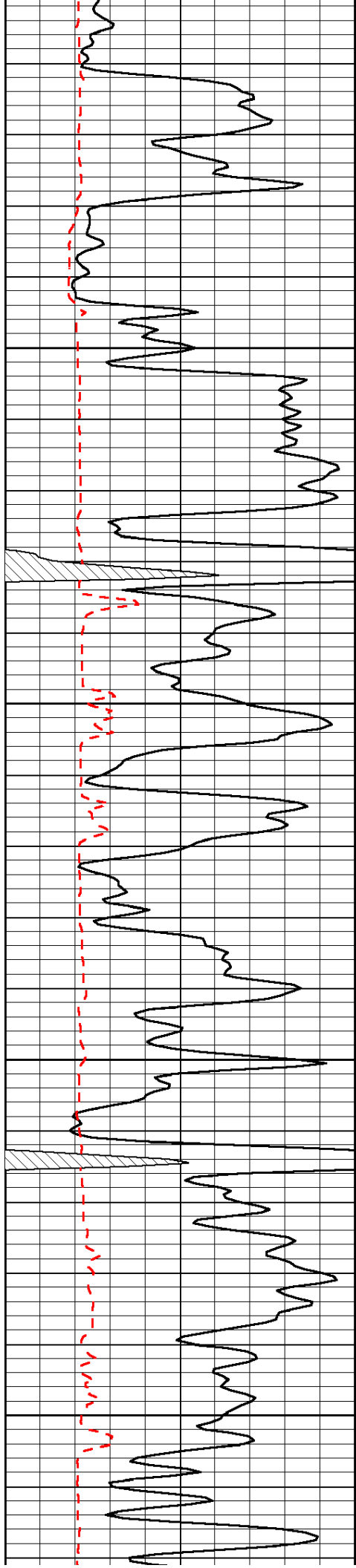
LSPD

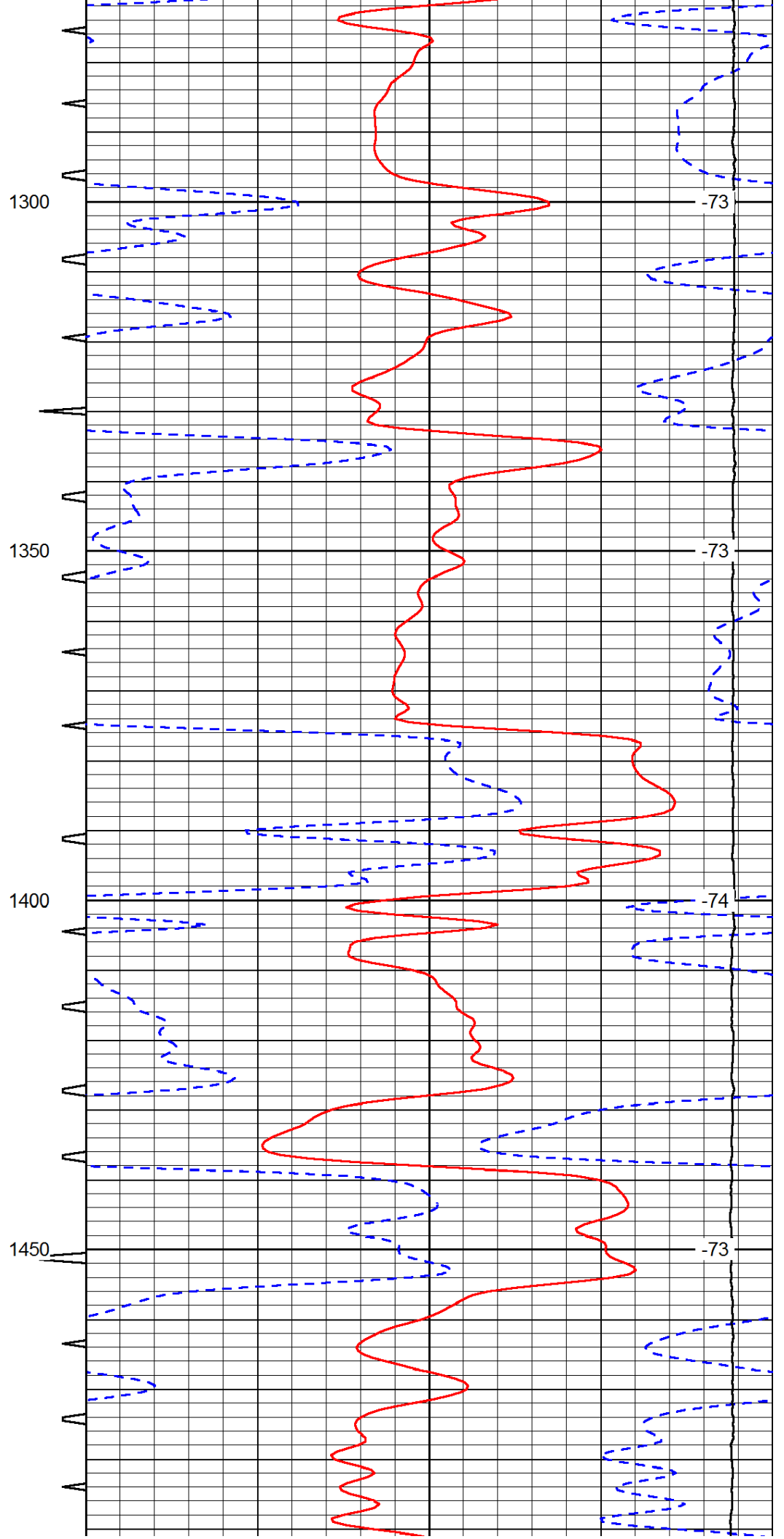
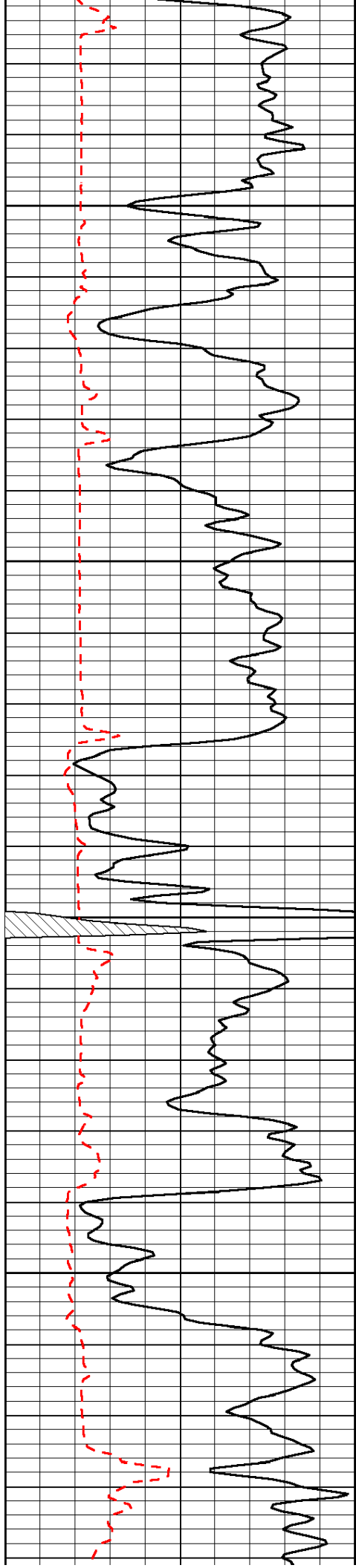


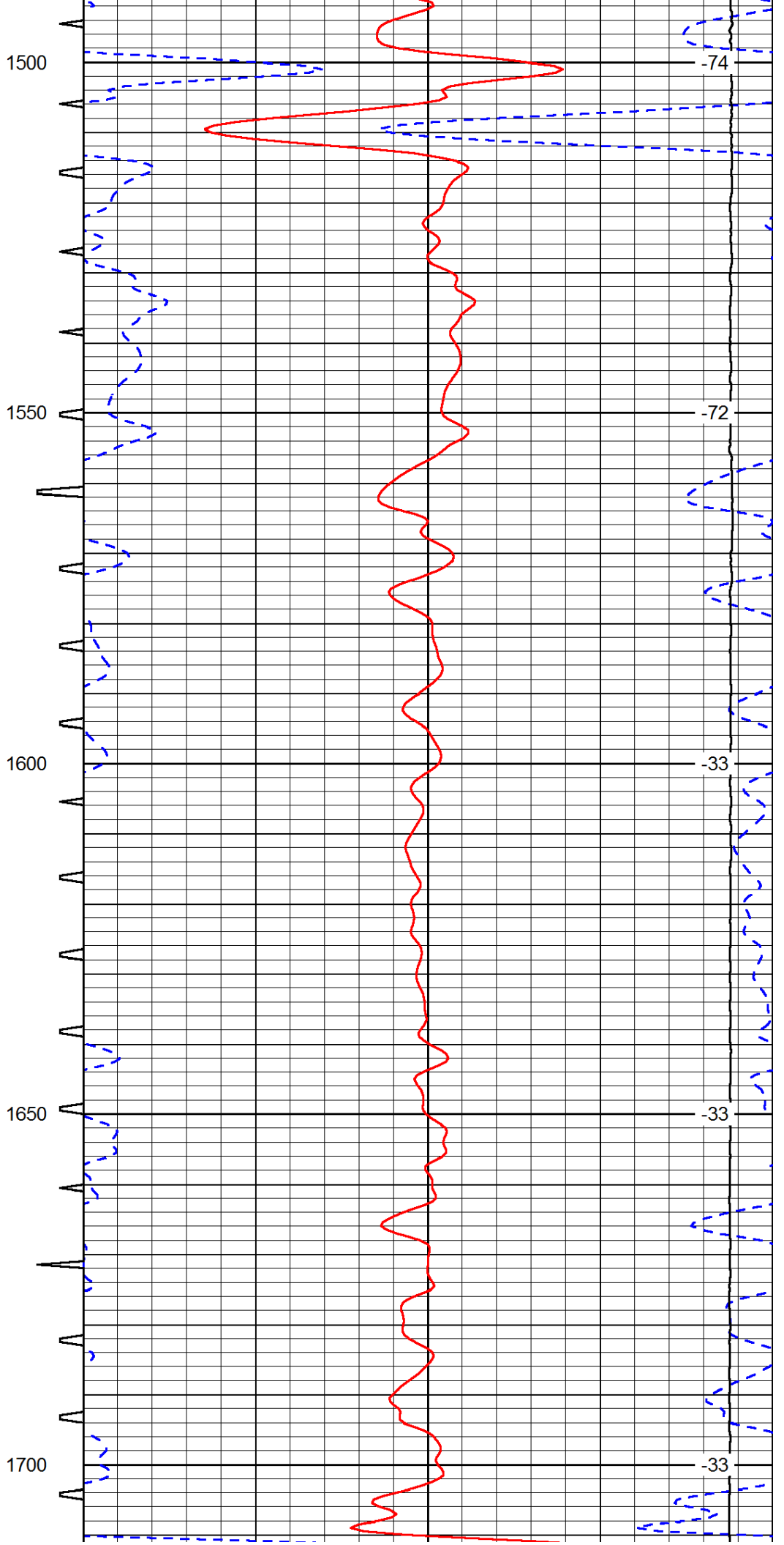
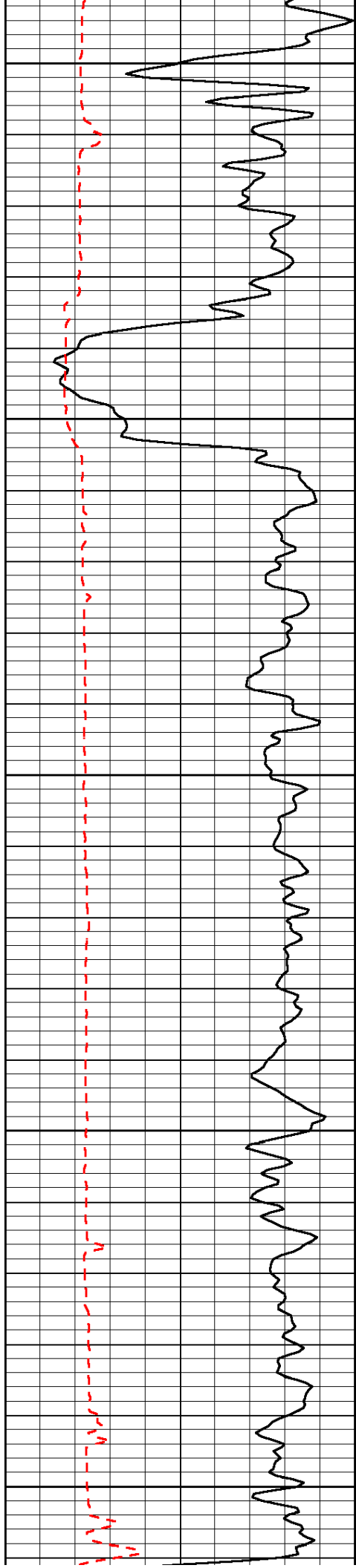


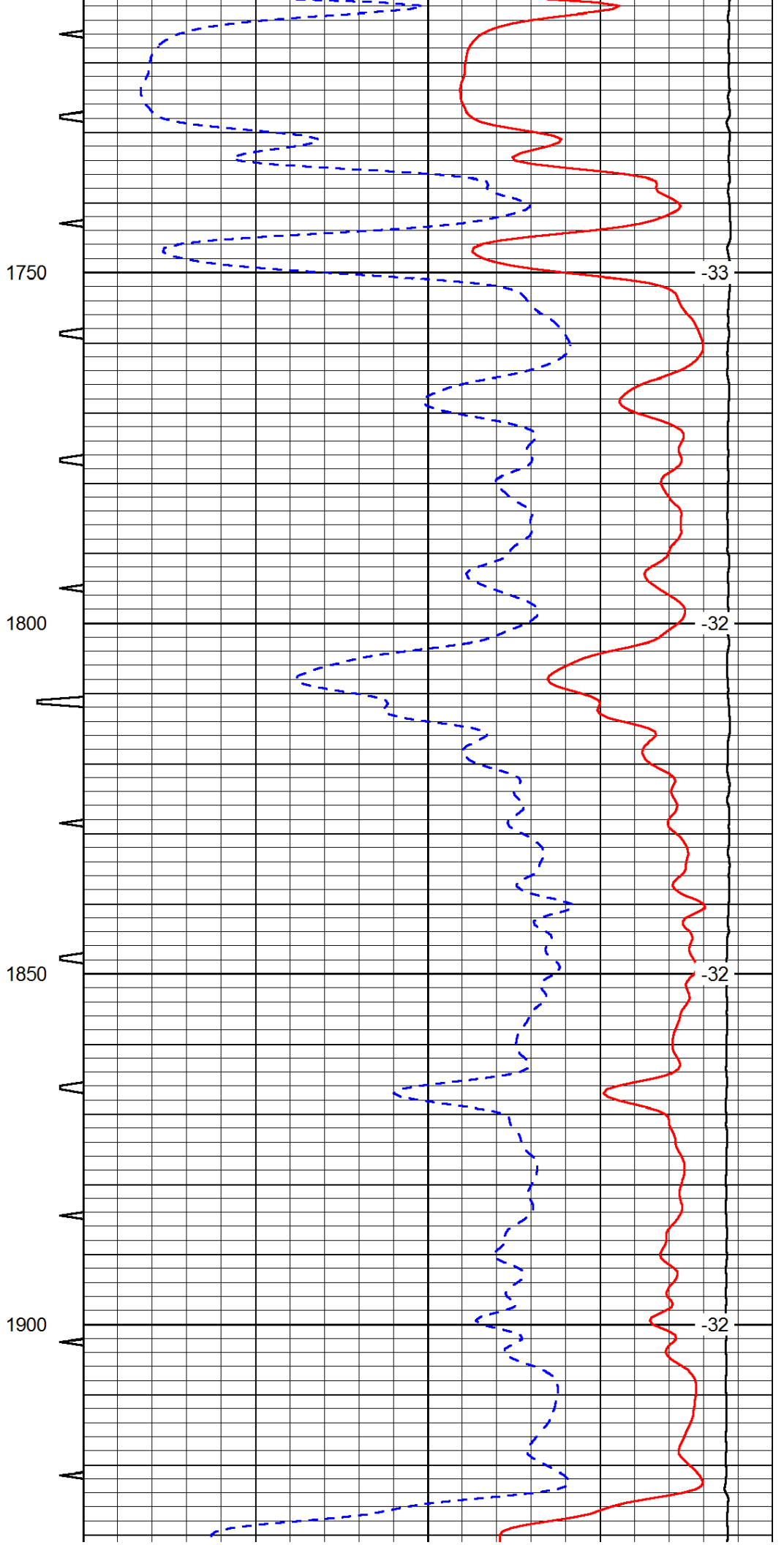
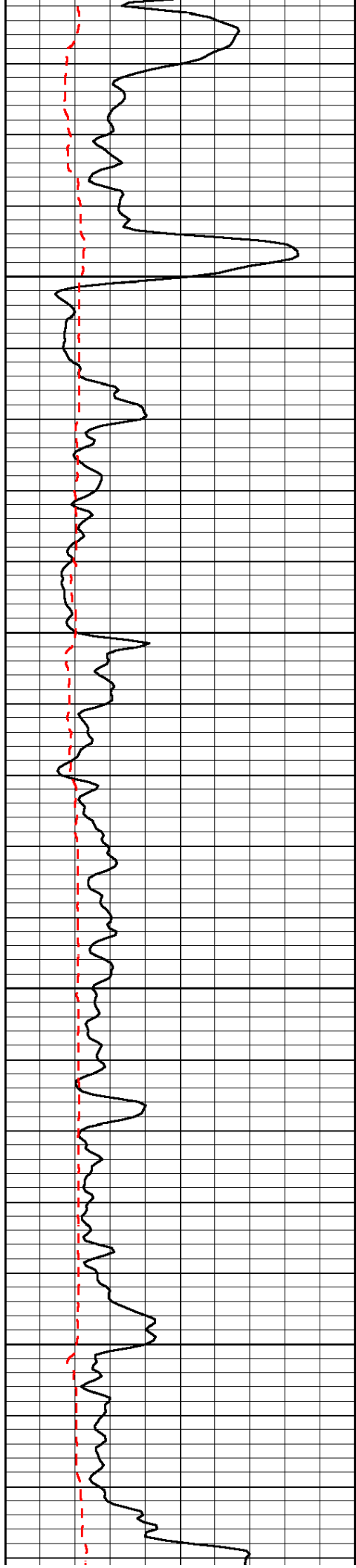


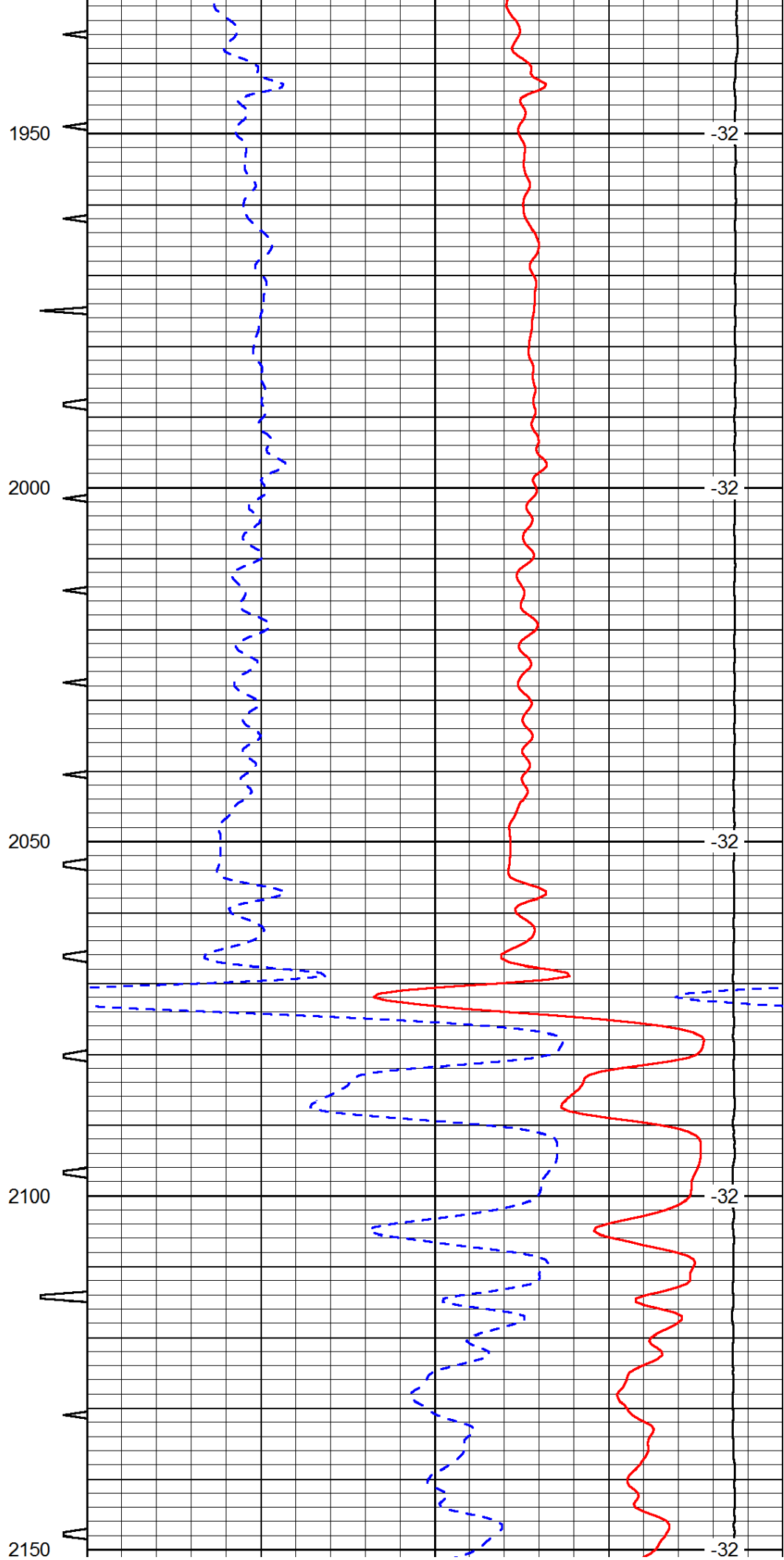
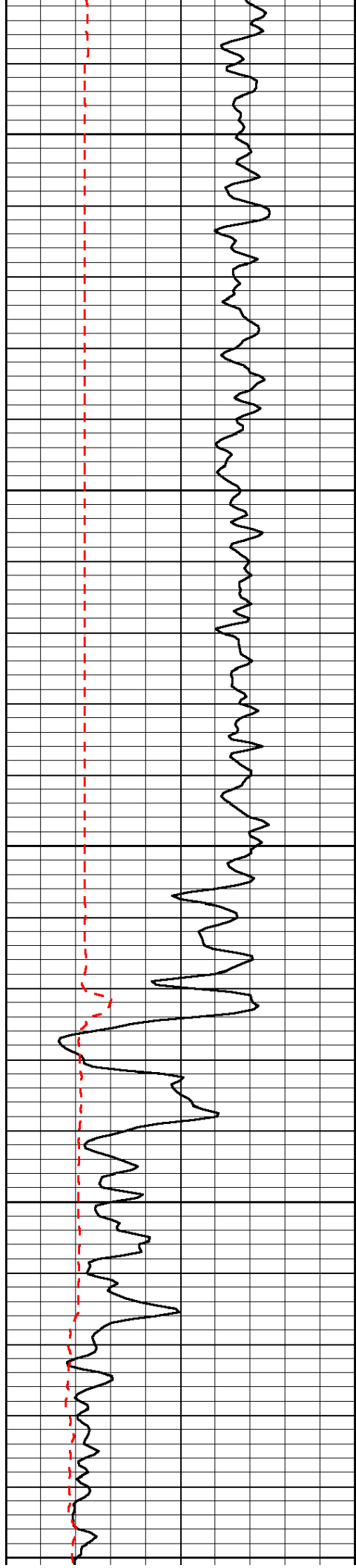


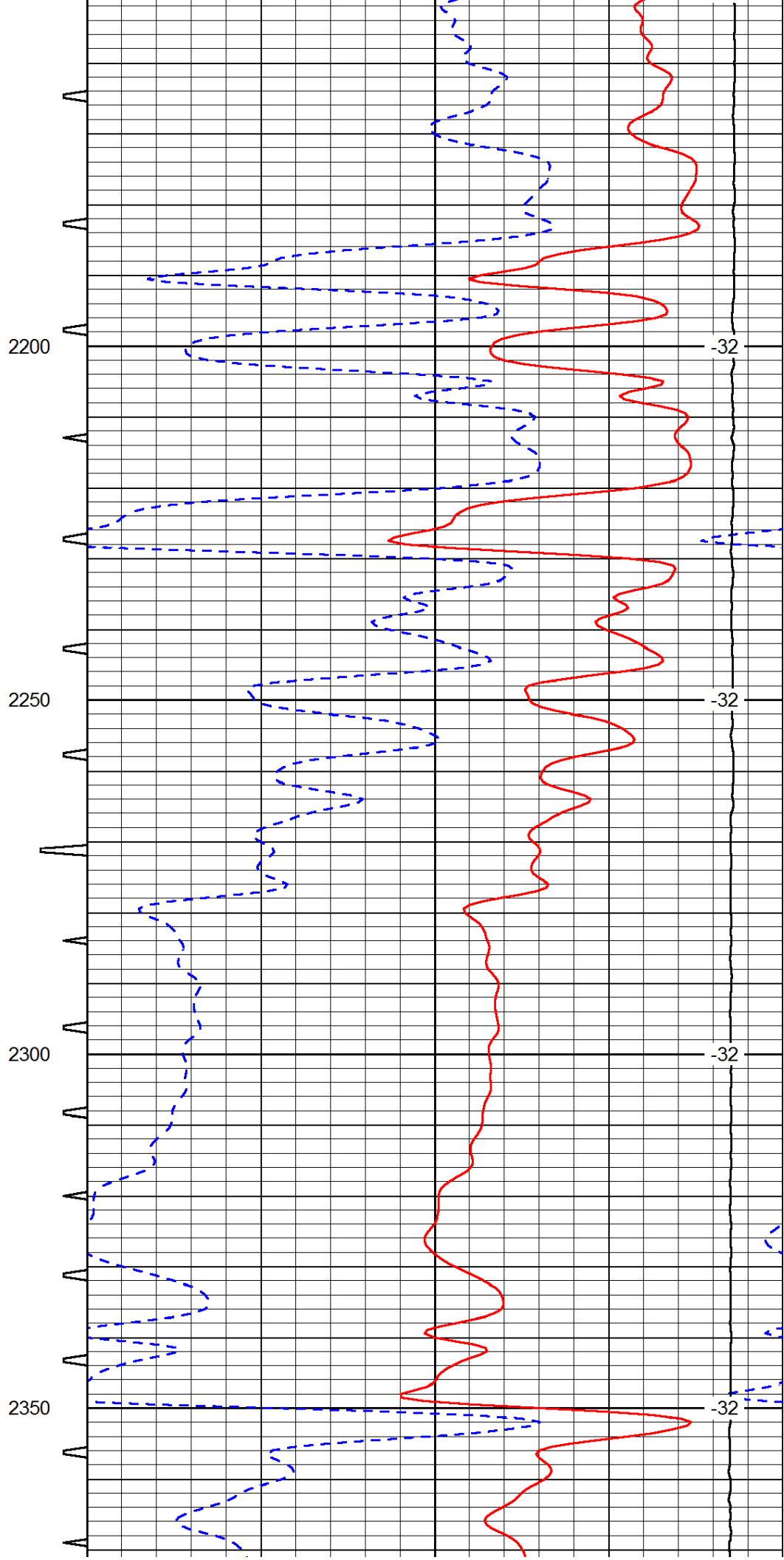
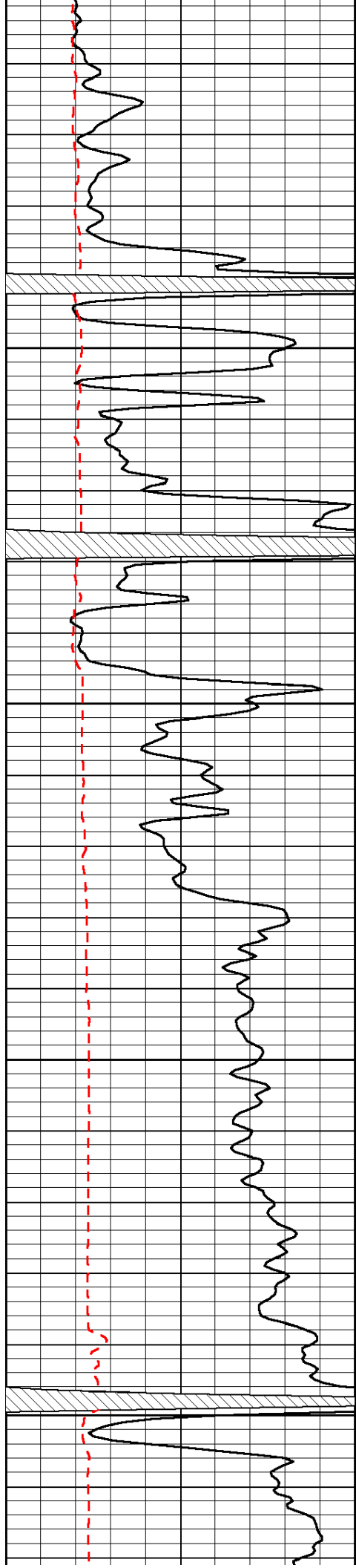


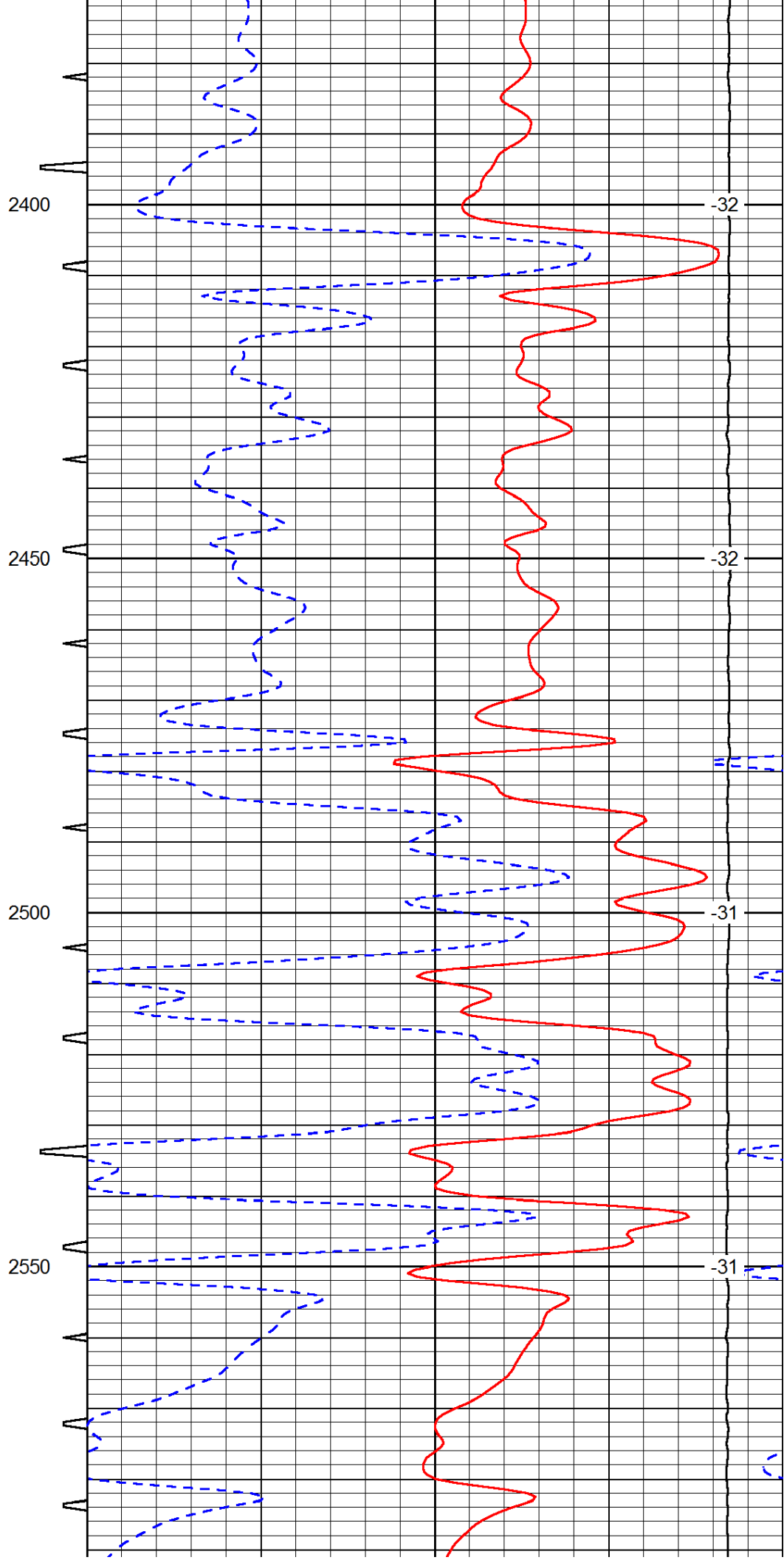
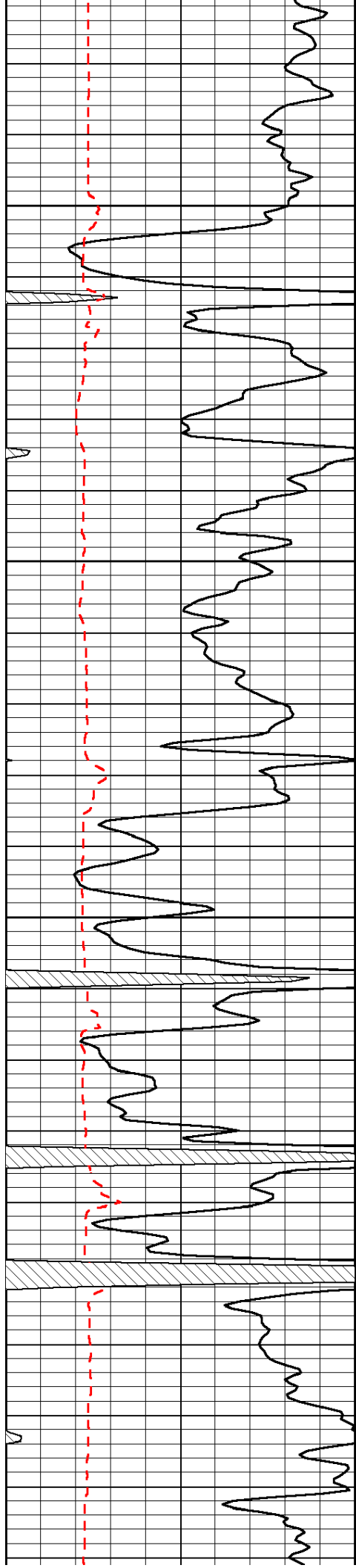


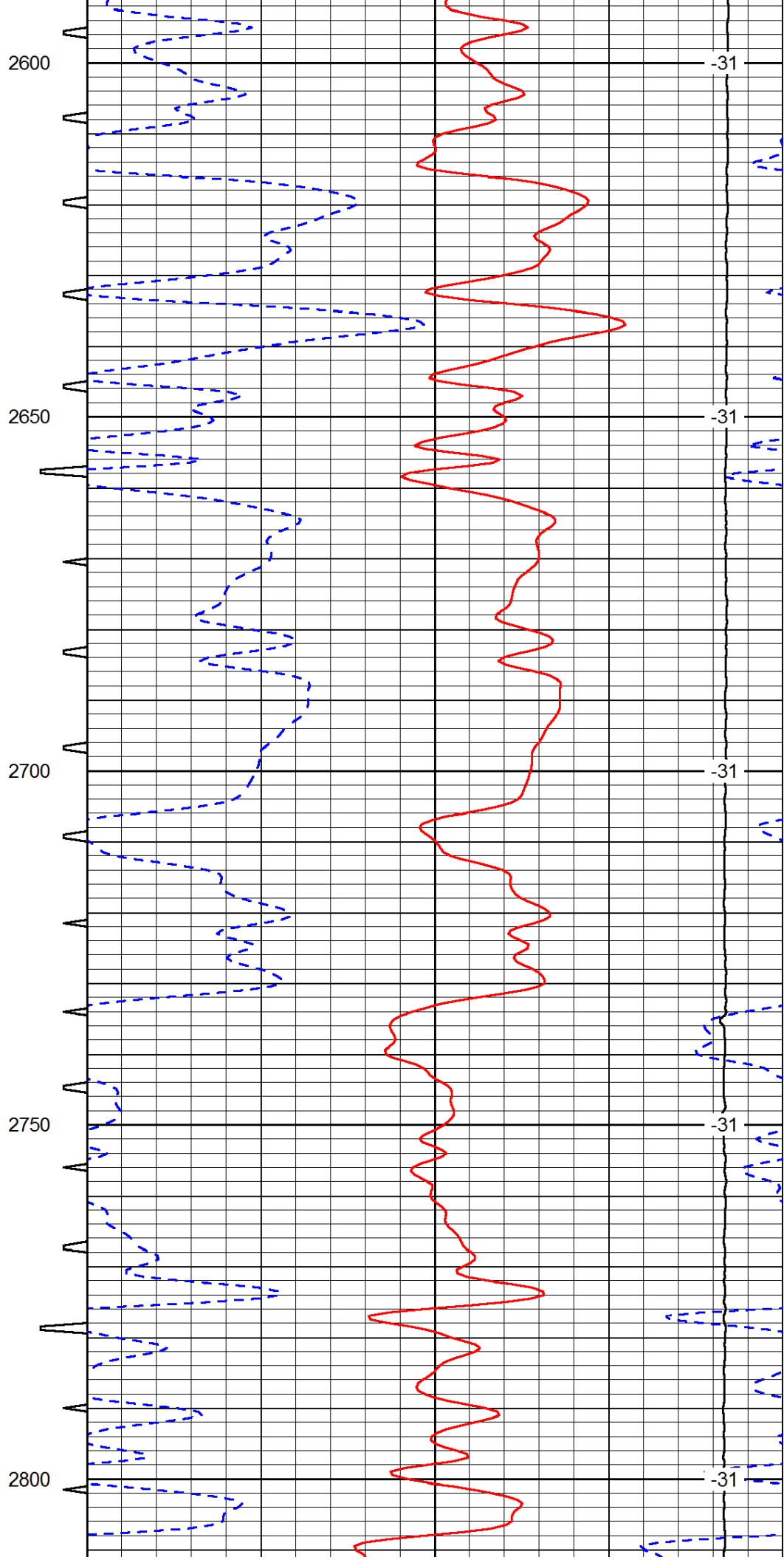
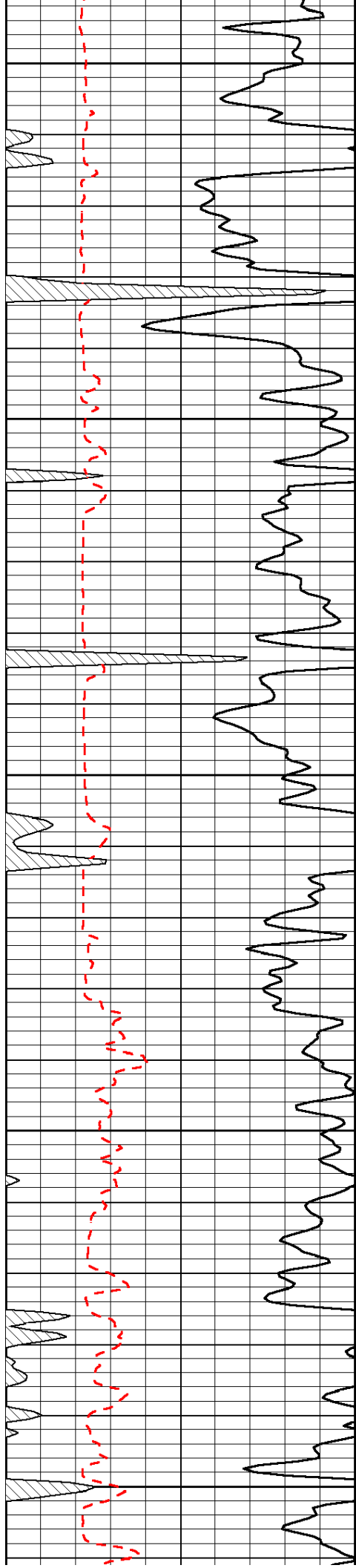


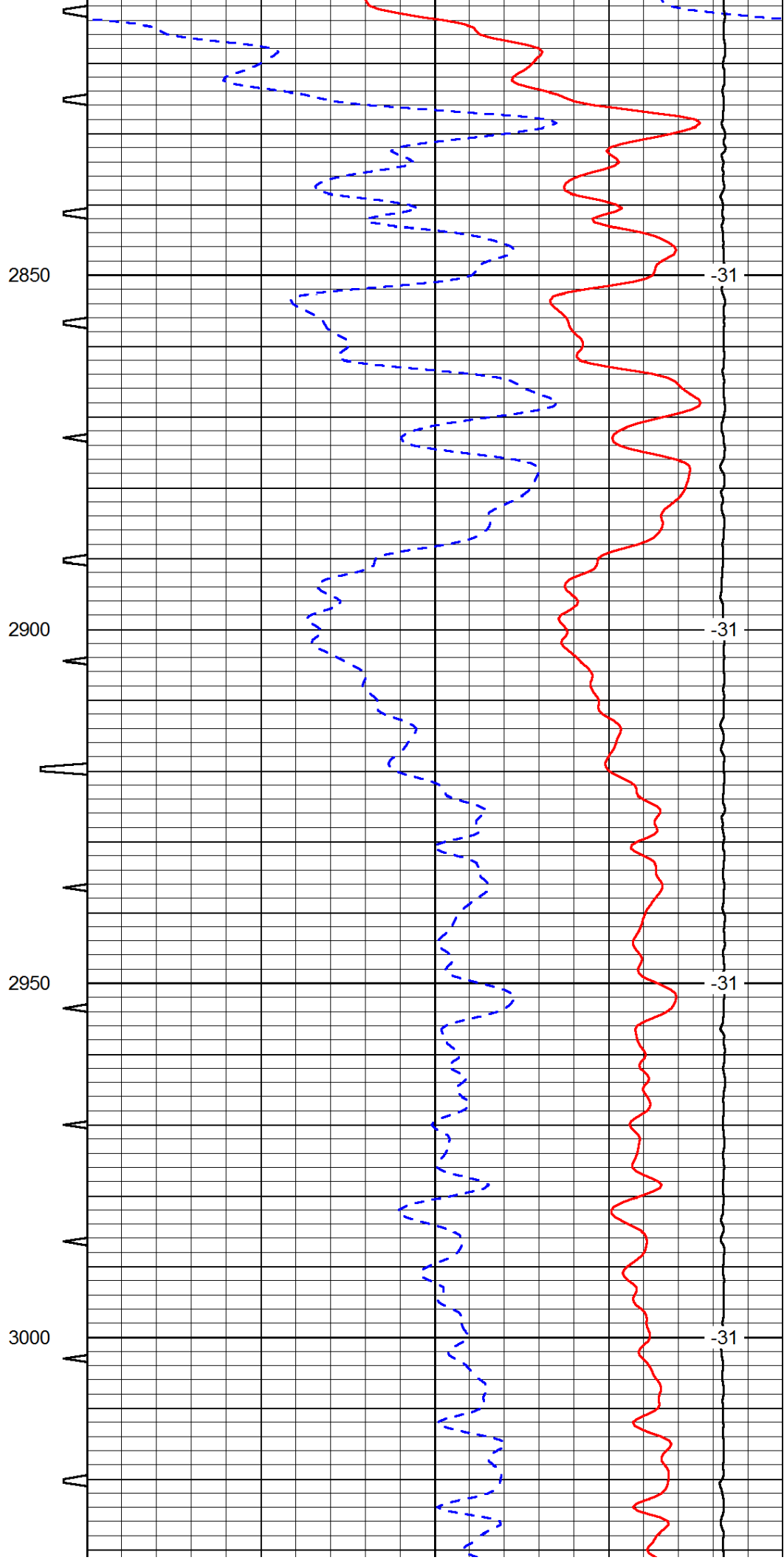
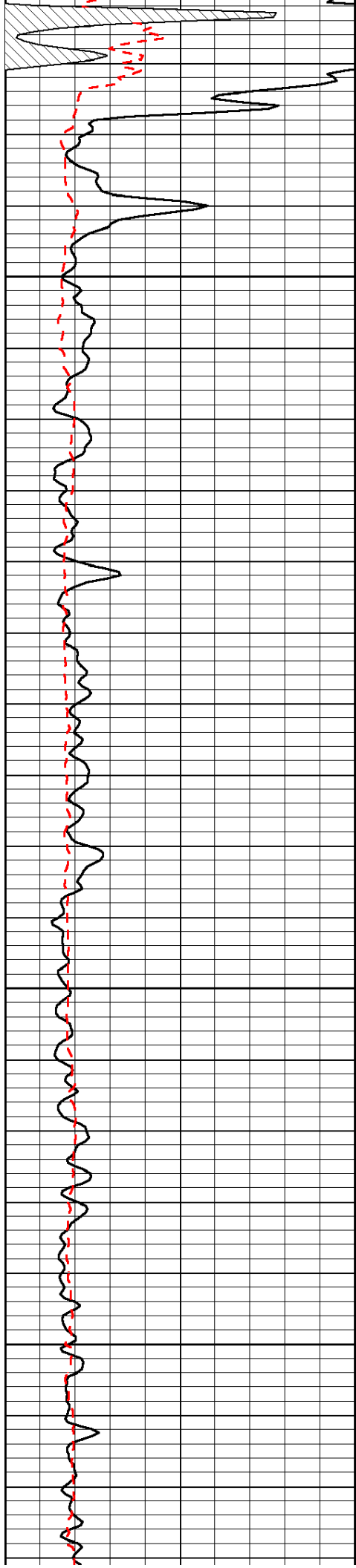


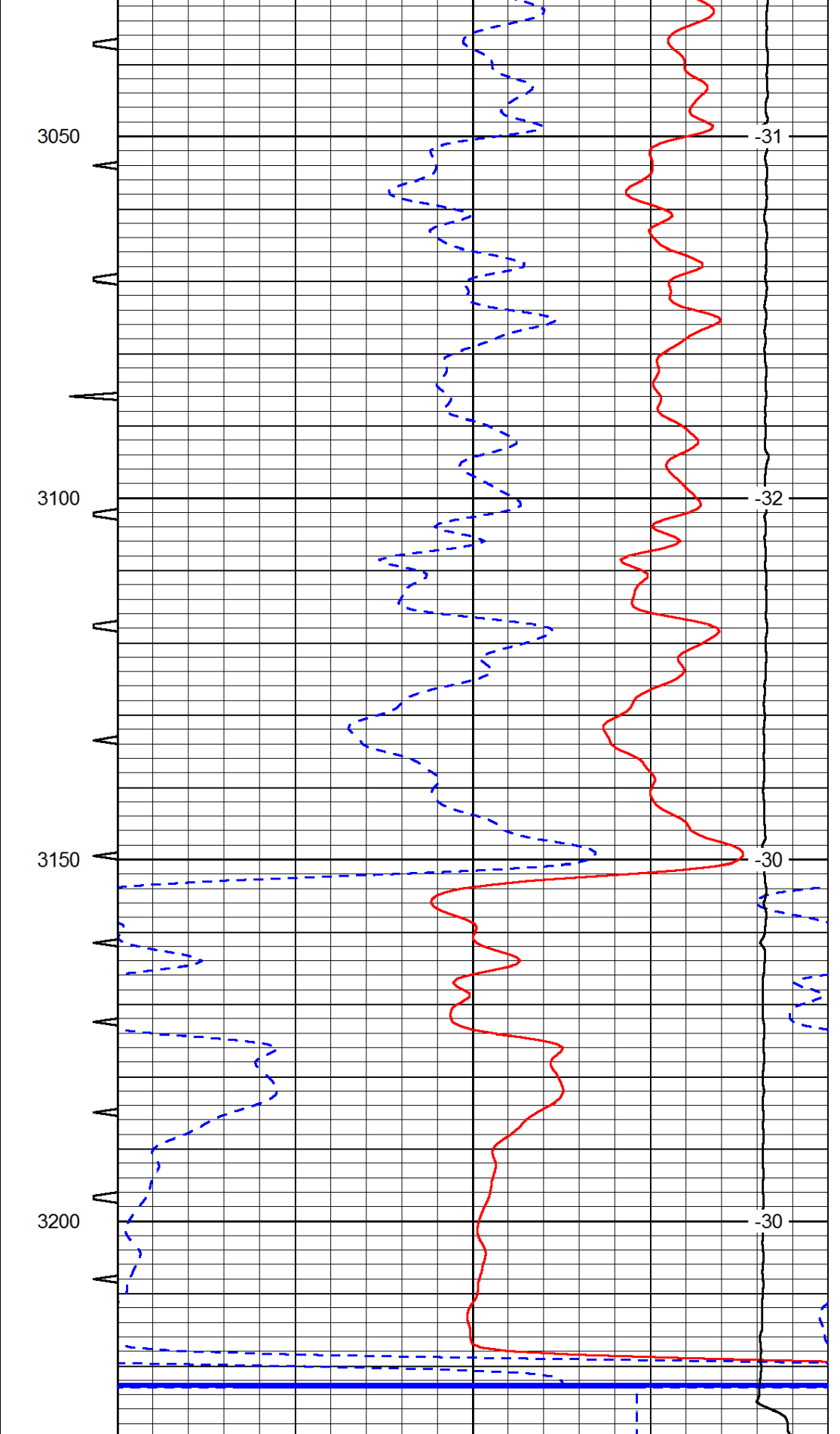
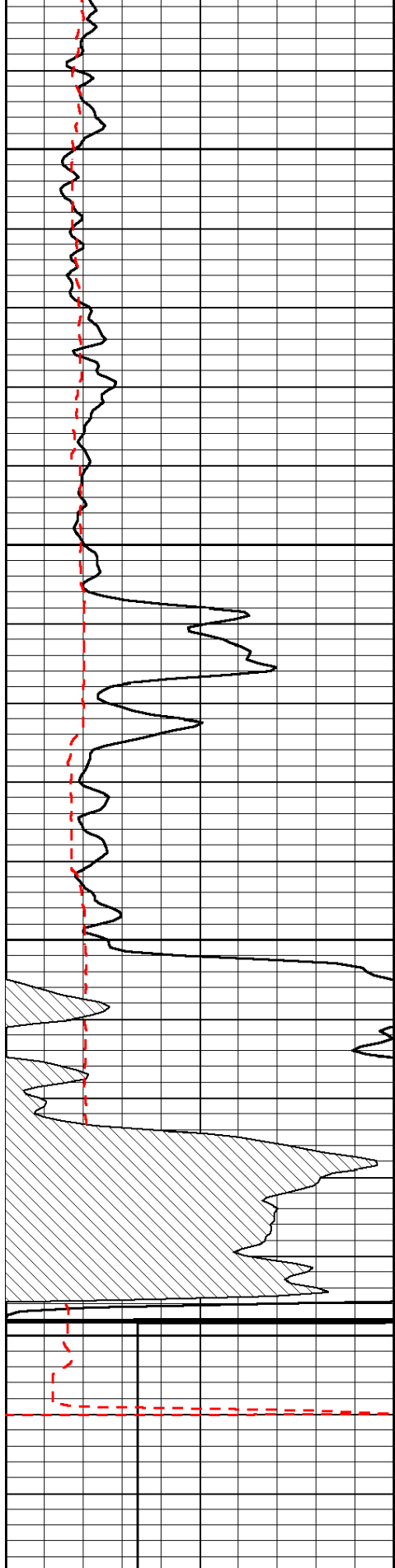












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