



Borehole Compensated Sonic Log

Pioneer Energy Services

API No.

15-009-28,899-00-00

Company H&D Exploration, LLC

Well Snider No. 1

Field Beaver

County Barton

State Kansas

Location

SE-SW-NE-NE
1037' FNL & 703' FEL

Other Services
CNL/CDL
MEL/DIL

Sec: 9

Twp: 16S

Rge: 12W

Elevation

Permanent Datum Ground Level Elevation 1861
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Date 10/25/13

Run Number Two

Type Log BHC Sonic

Depth Driller 3303

Depth Logger 3303

Bottom Logged Interval 3292

Top Logged Interval 750

Type Fluid In Hole Chemical

Salinity, PPM CL 7,200

Density 9.3

Level Full

Max. Rec. Temp. F 109

Operating Rig Time 5 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 00 775 8.625 23# 00 775

Two 7.875 775 TD

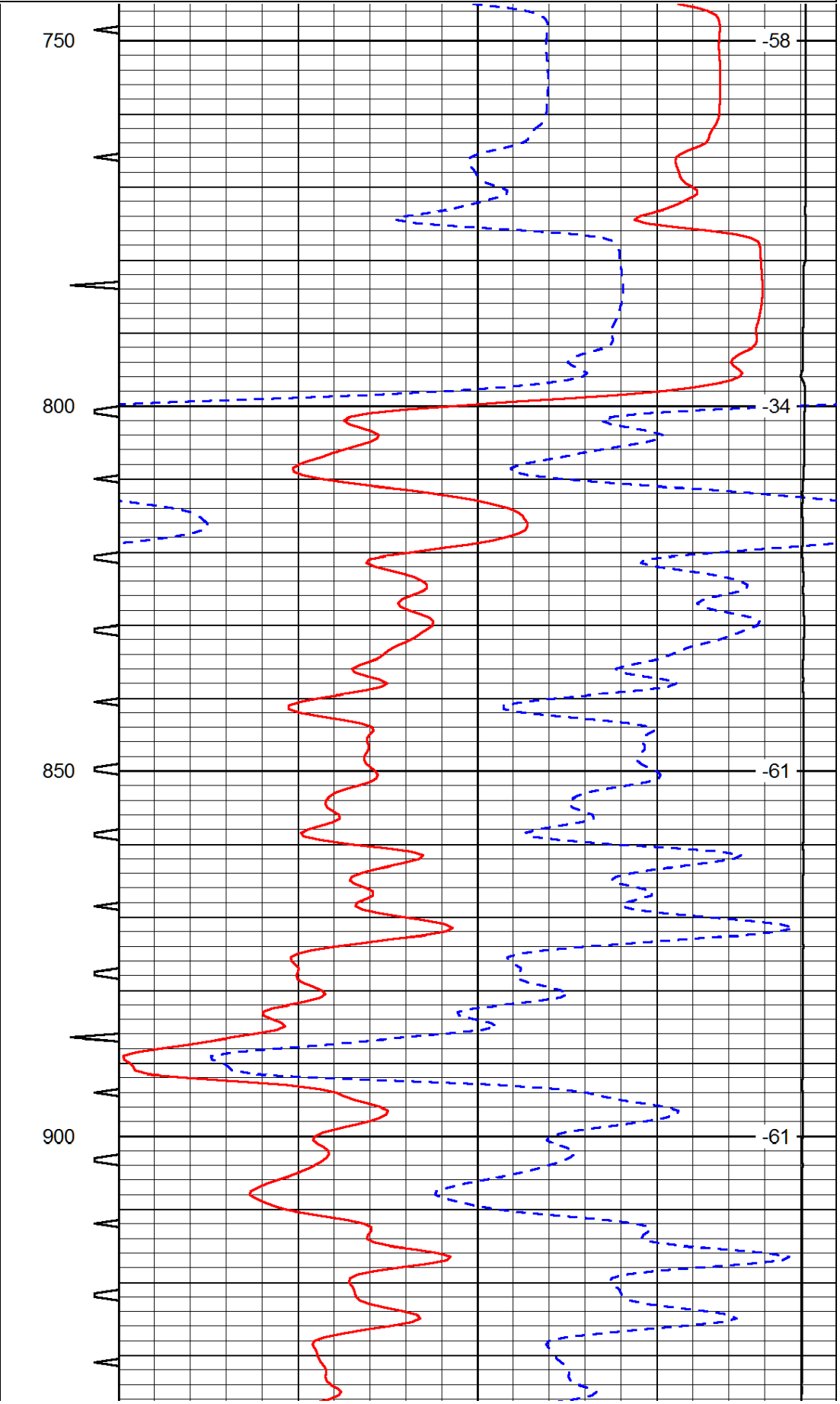
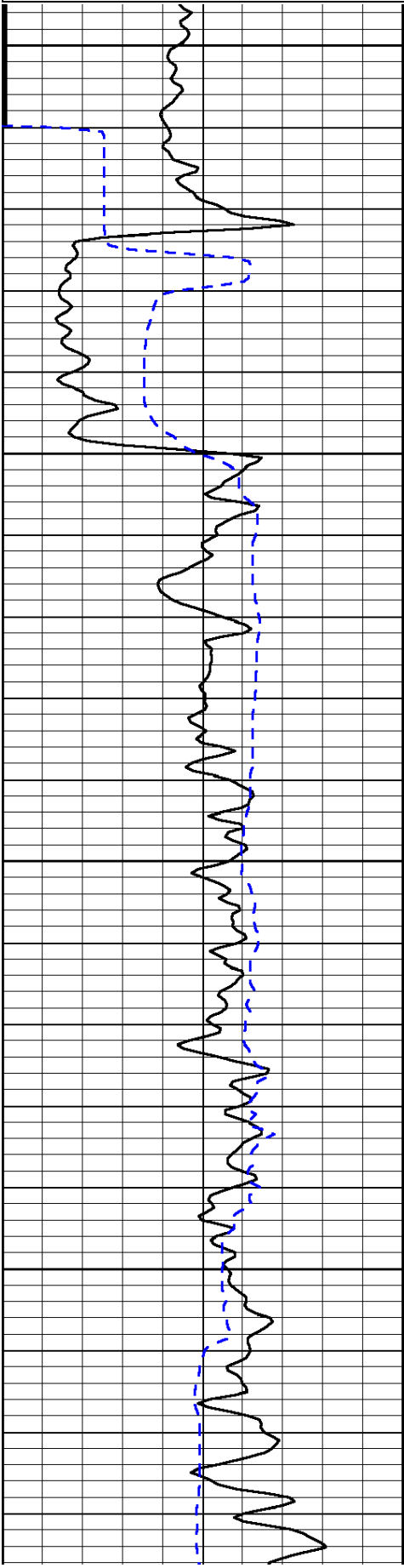
Comments

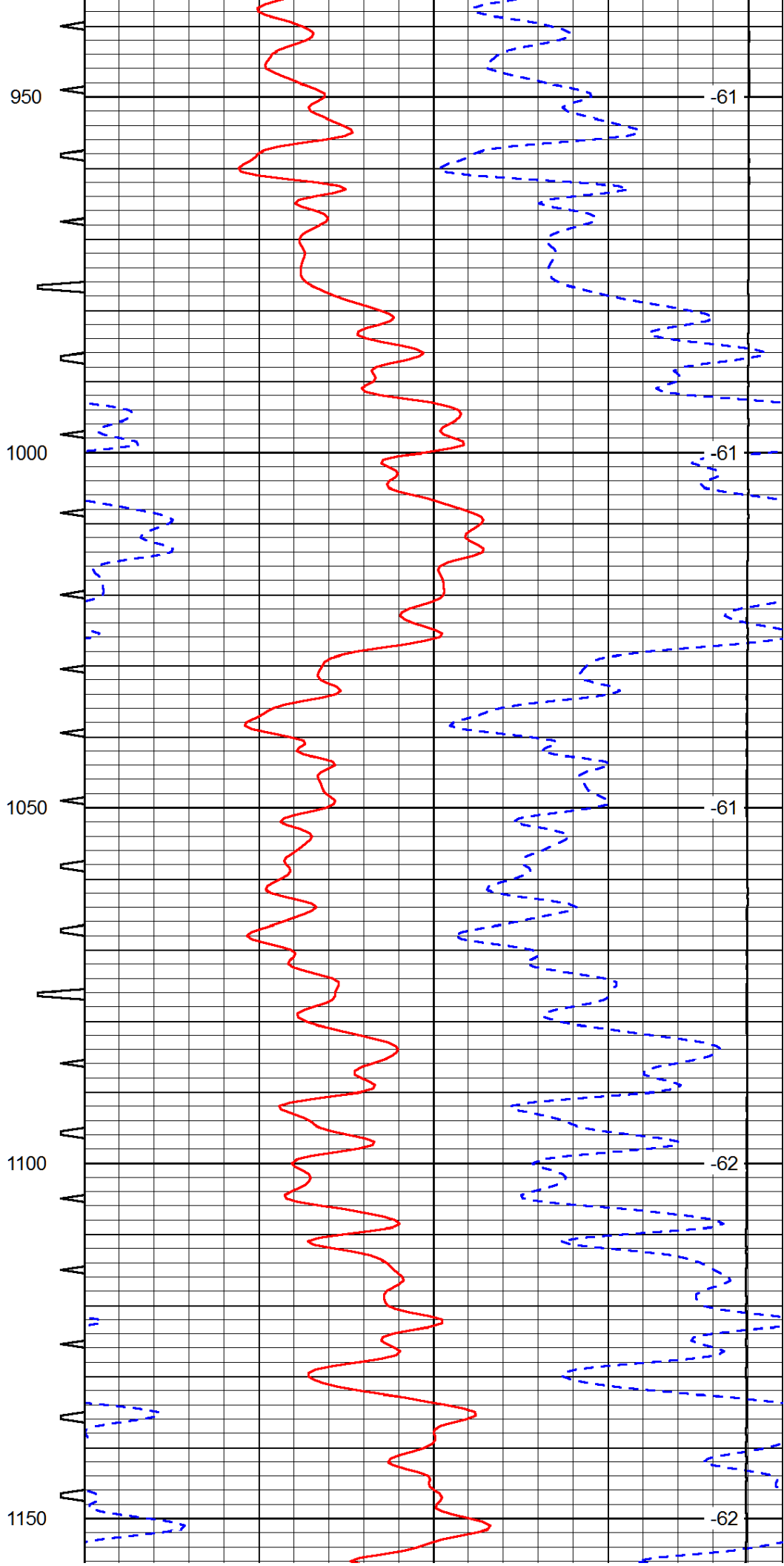
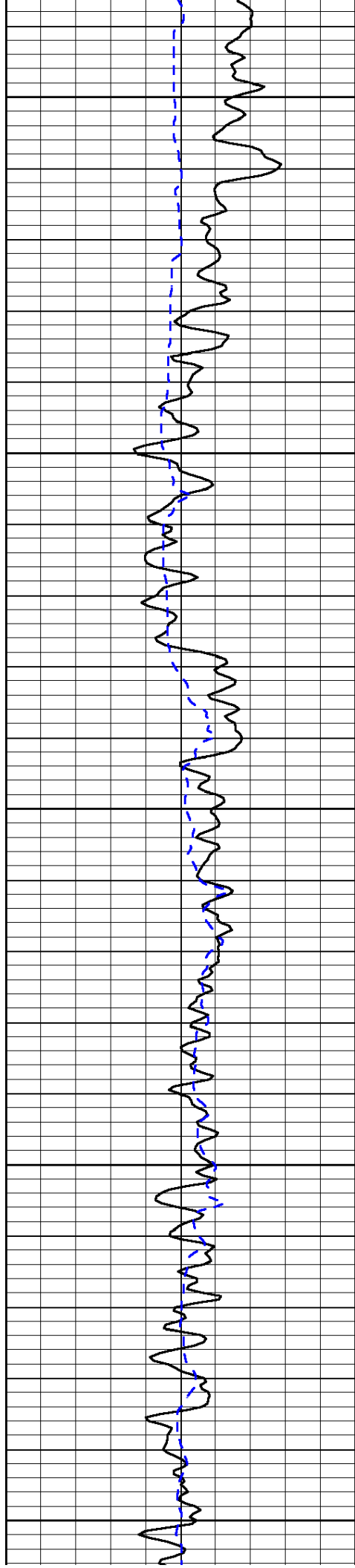
Thank you for using Log-Tech, Inc.
(785) 625-3858

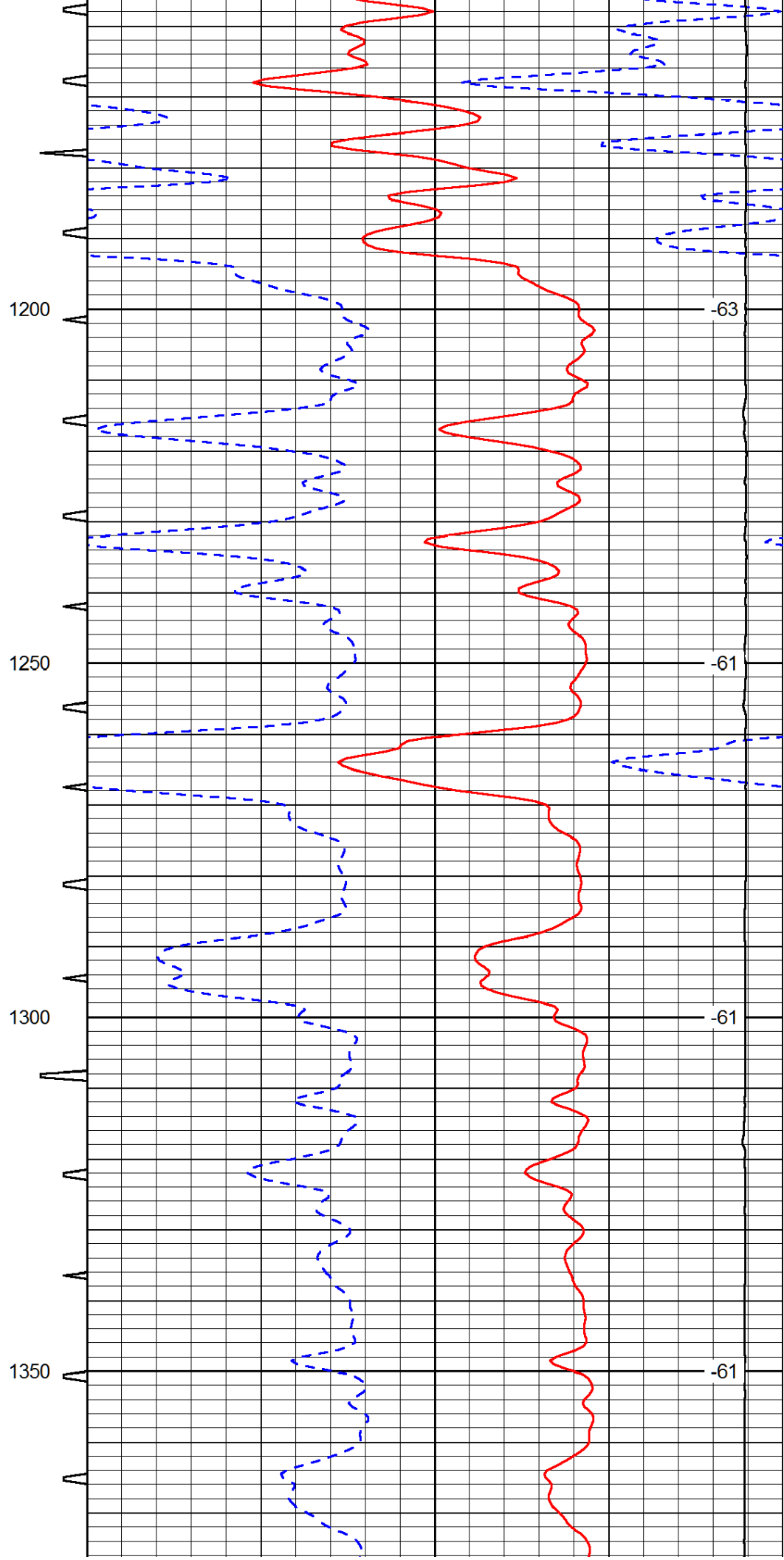
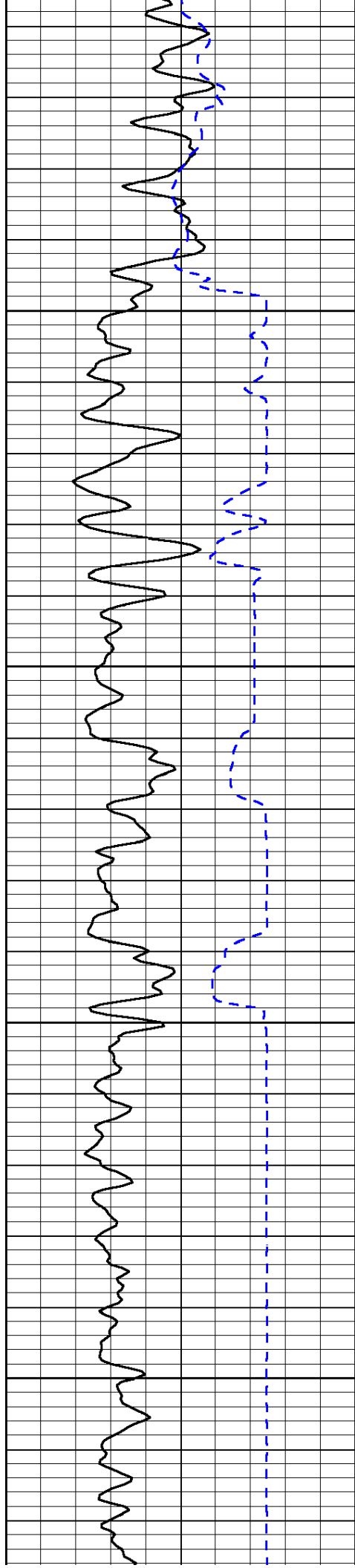
Beaver Kansas
1 East, 2 1/2 North, West Into

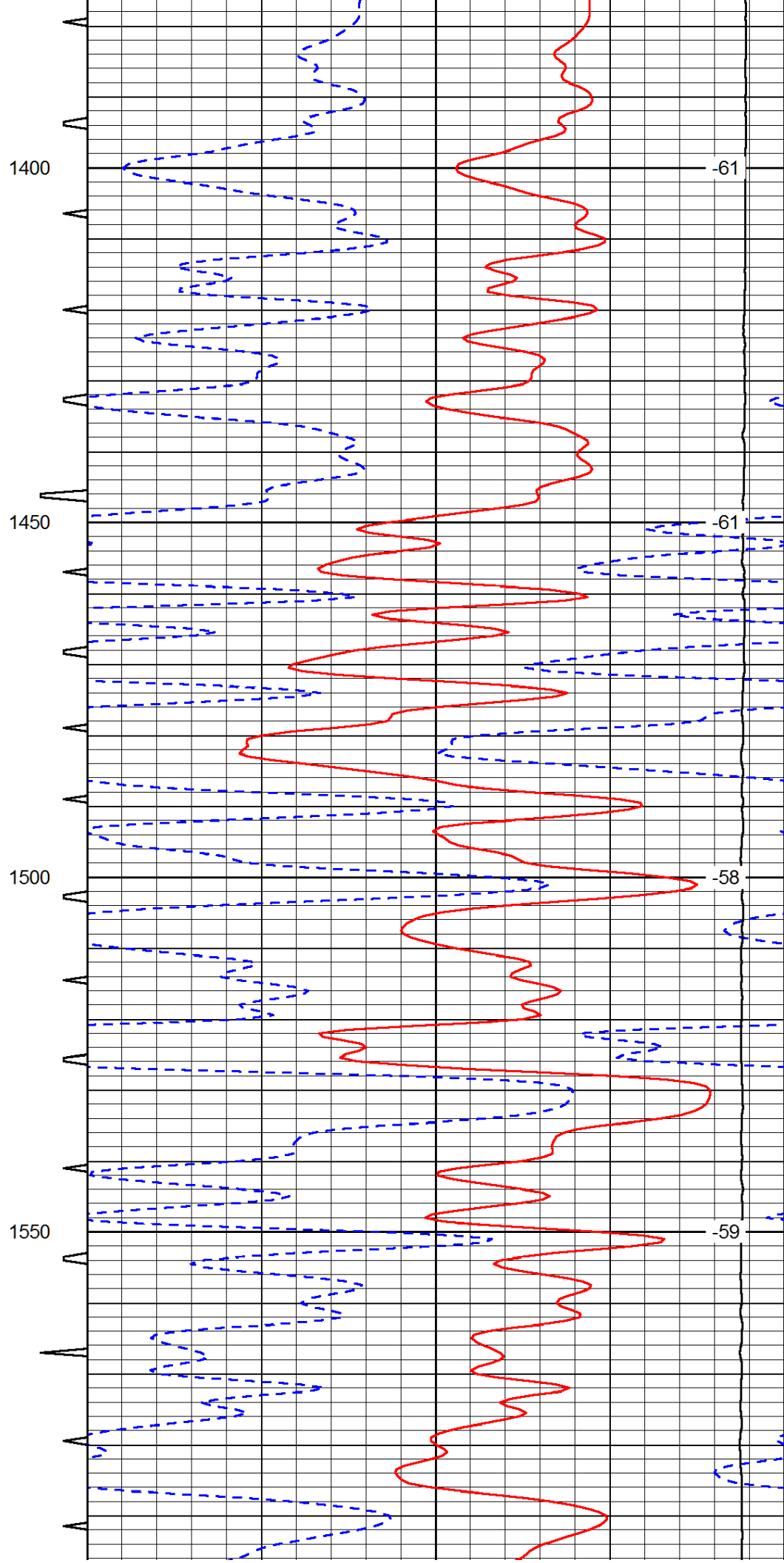
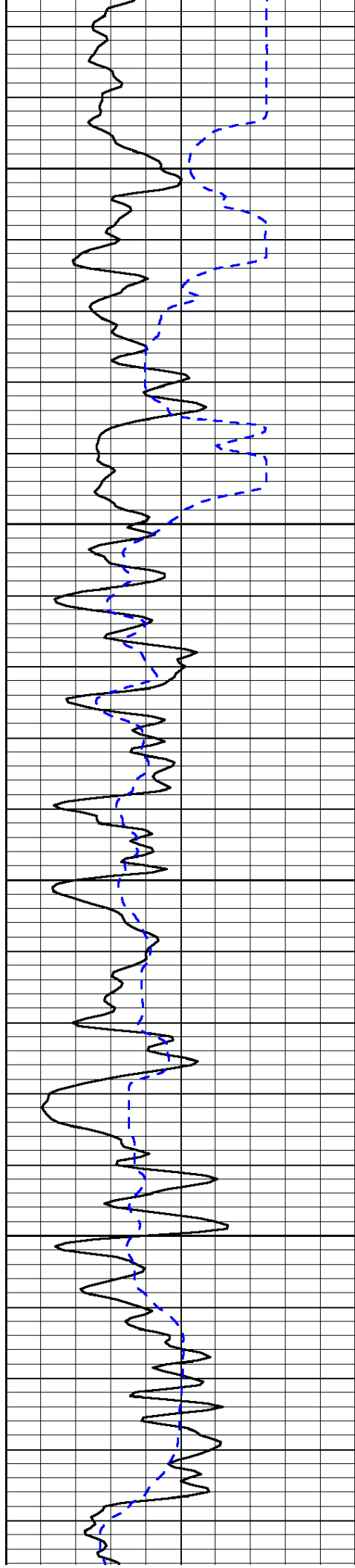
Database File: handd_snider_1hd.db
Dataset Pathname: DIL/hdstk
Presentation Format: sonic
Dataset Creation: Fri Oct 25 08:04:59 2013
Charted by: Depth in Feet scaled 1:240

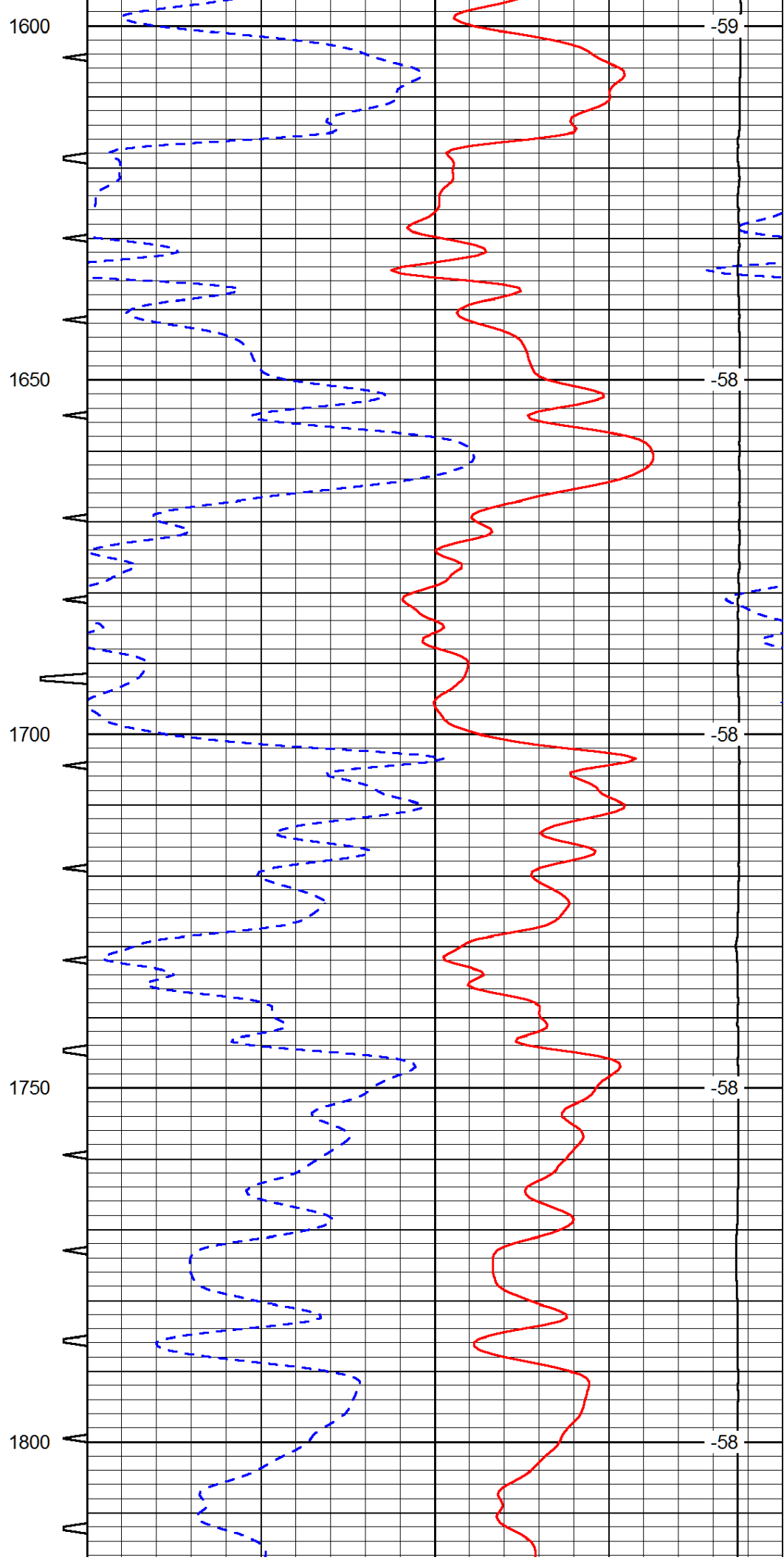
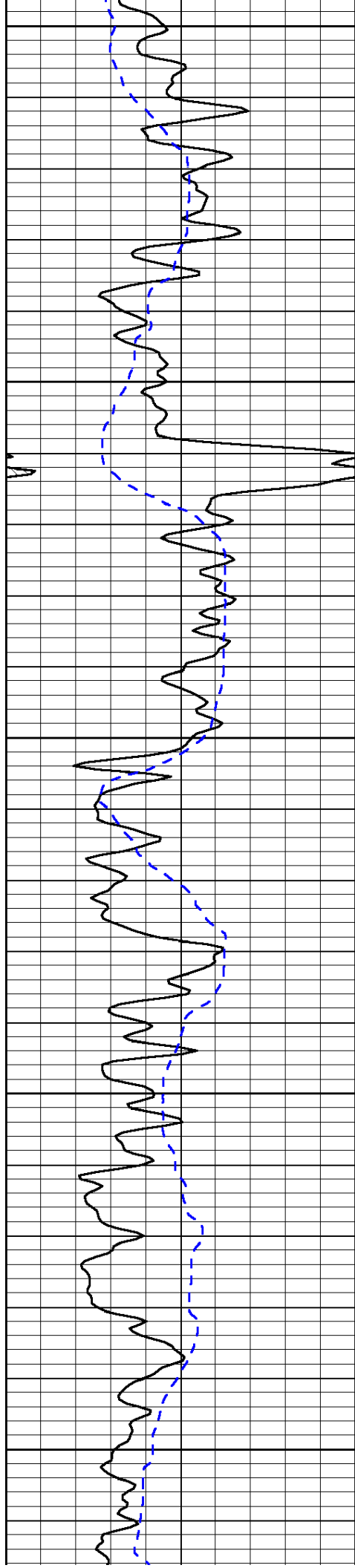
Charted by:		Depth in Feet scaled 1:2.16				
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	Gamma Ray (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu)	-10
6	dCAL (in)	16		15000	LTEN (lb) (lb)	0
						LSPD (ft/min)

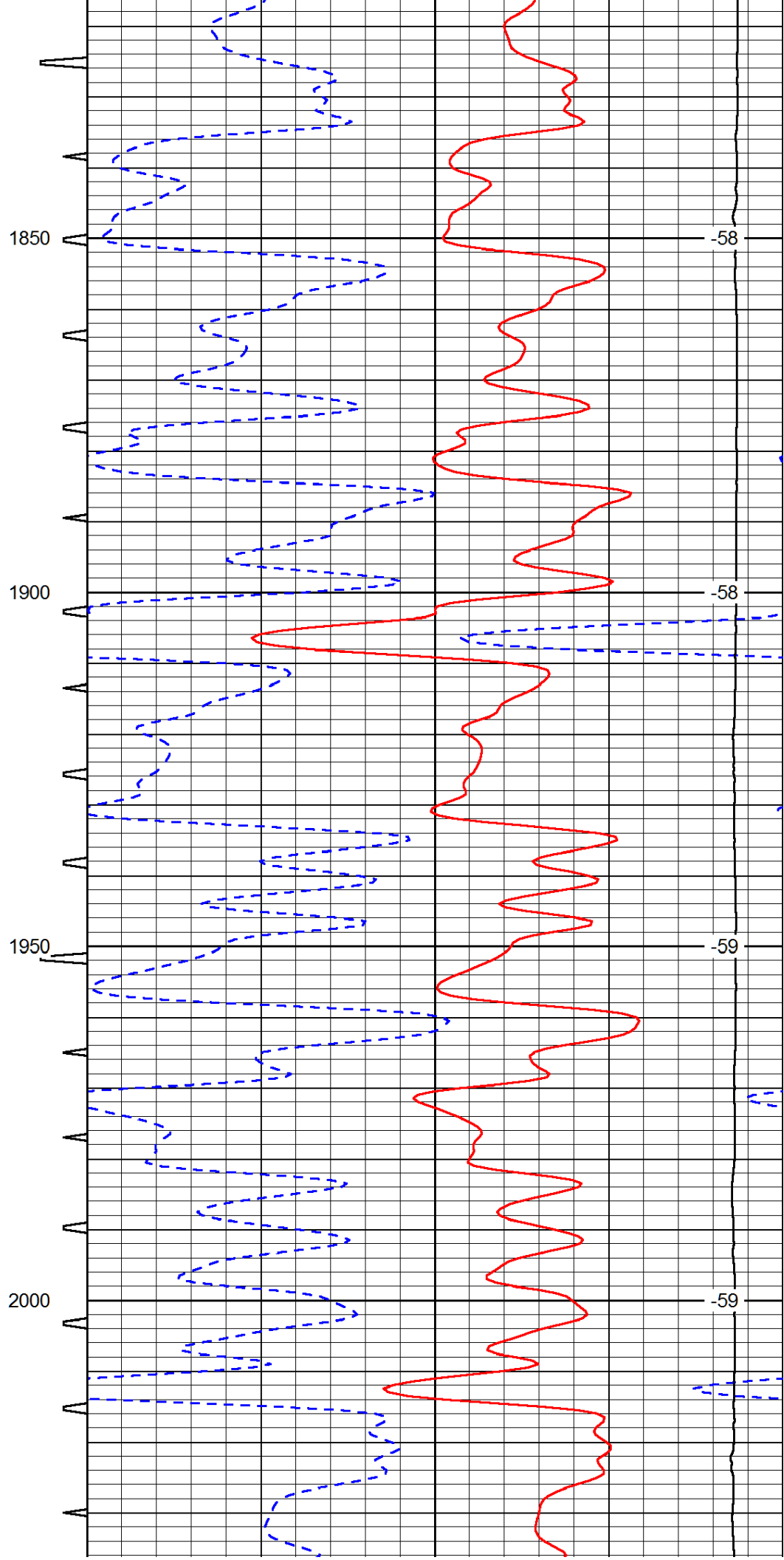
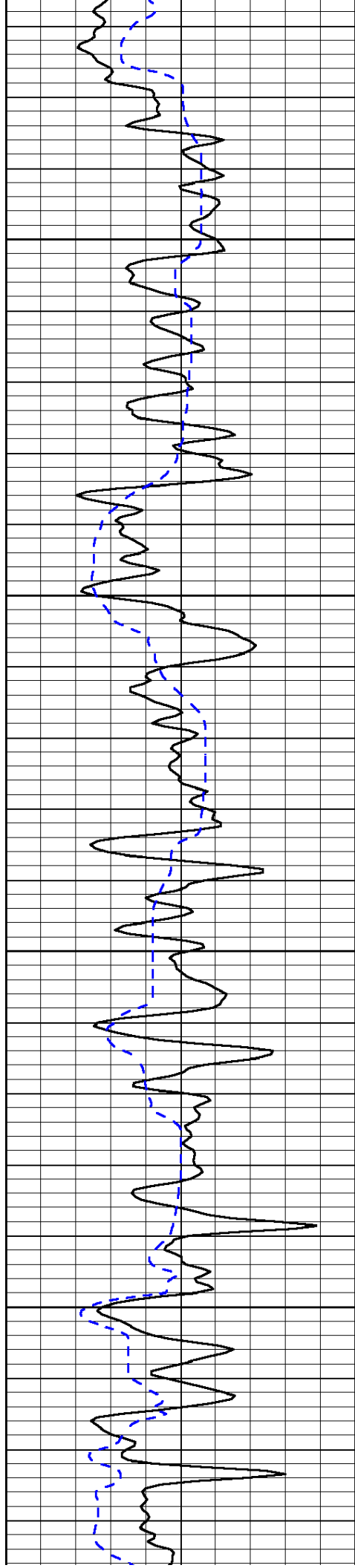


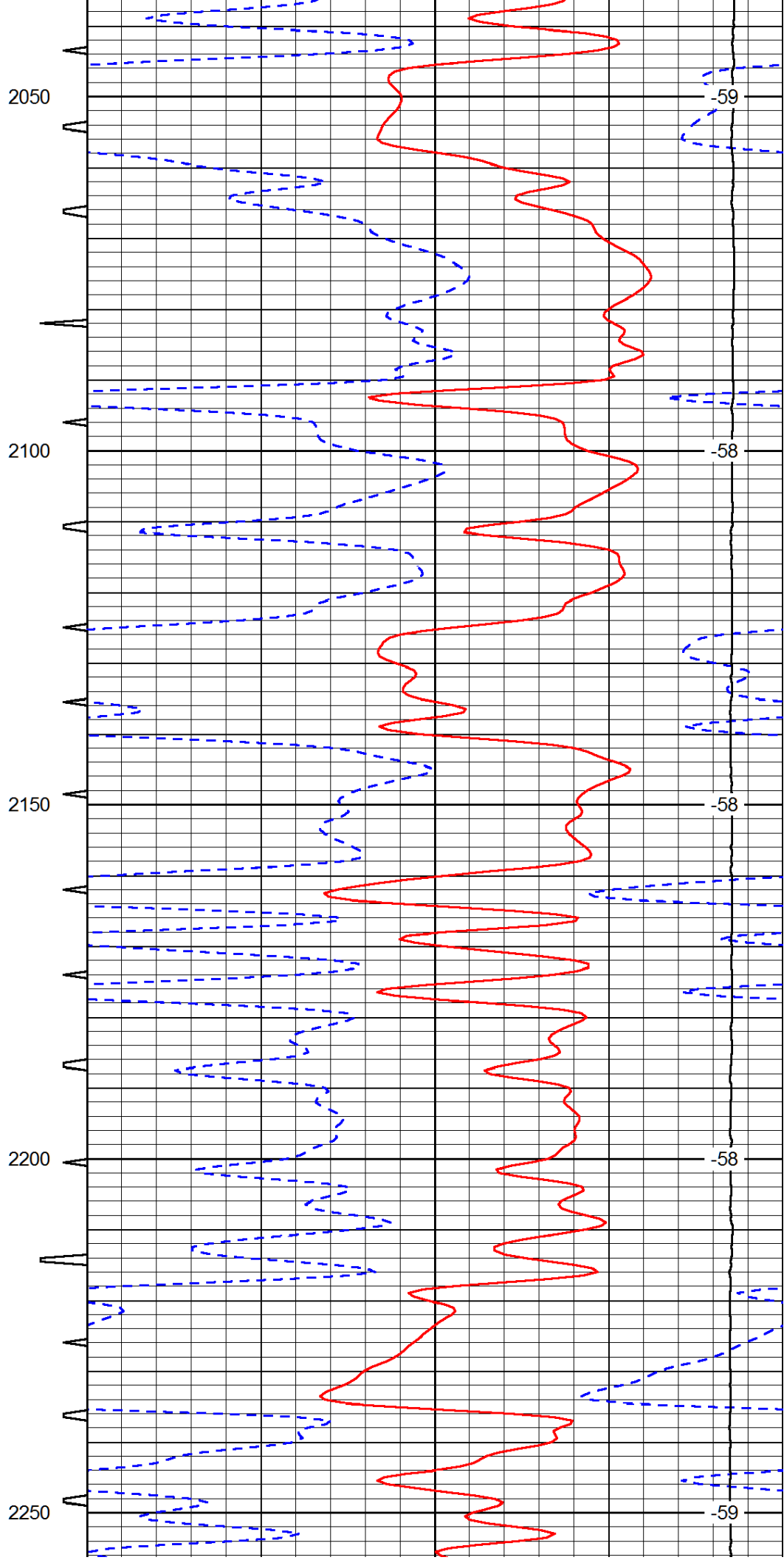
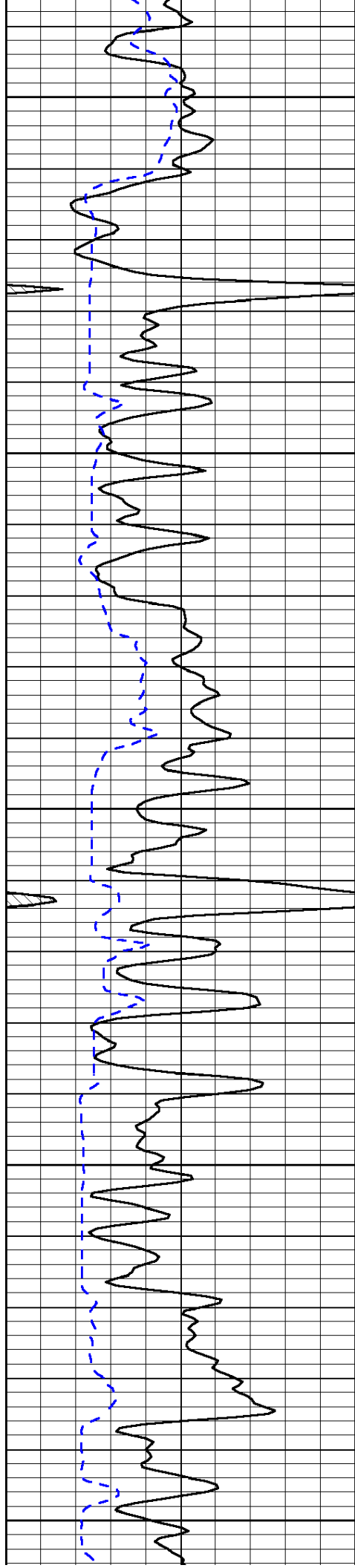


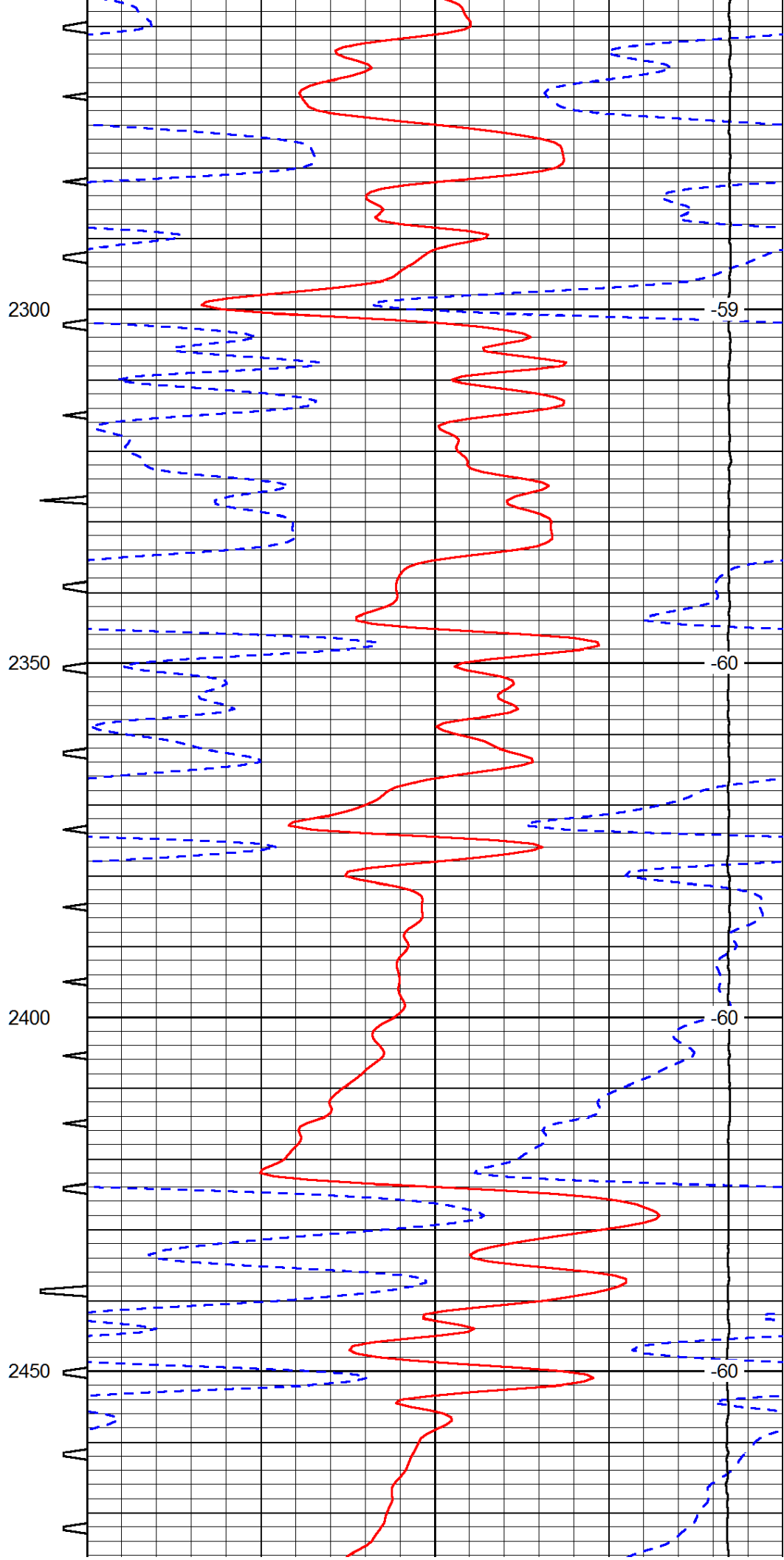
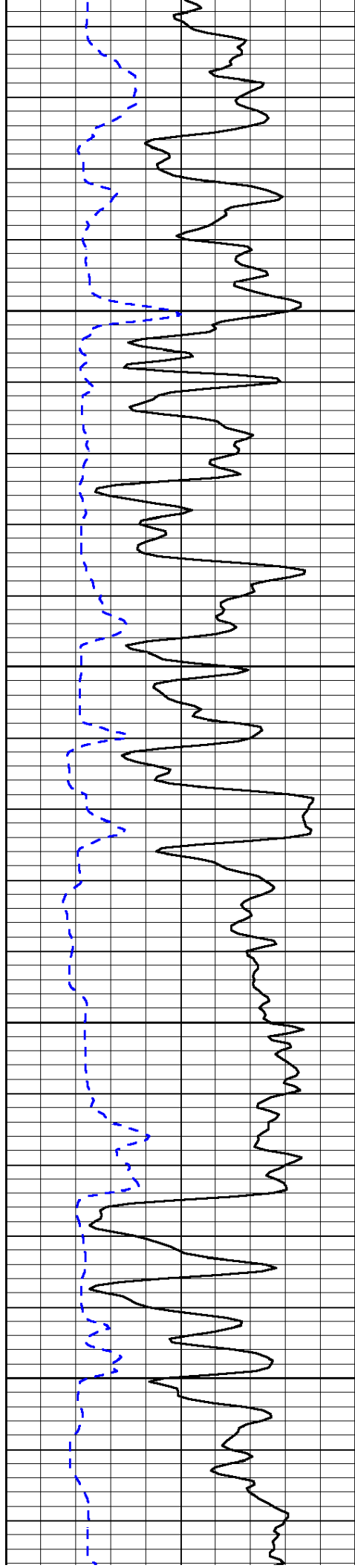


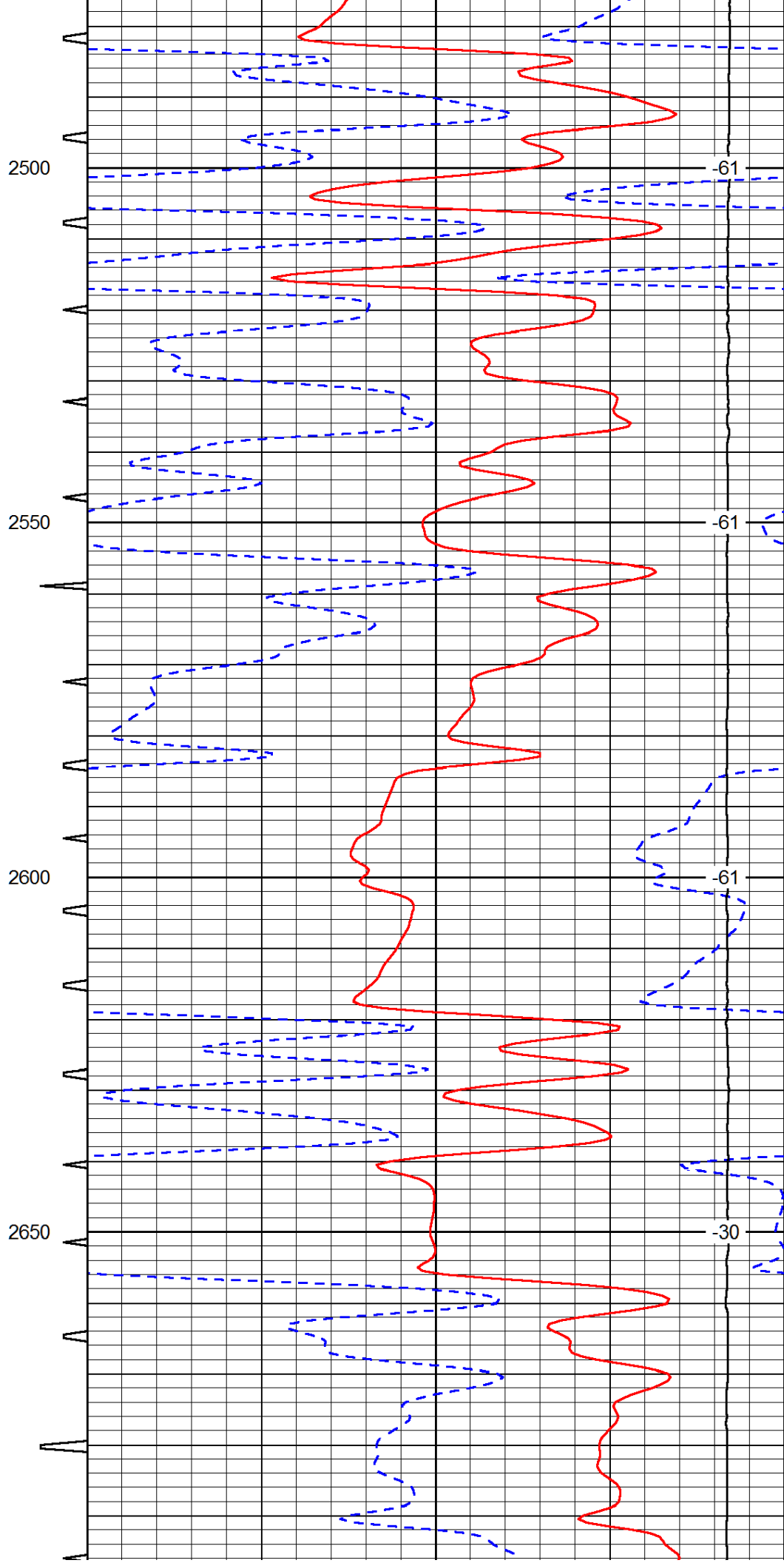
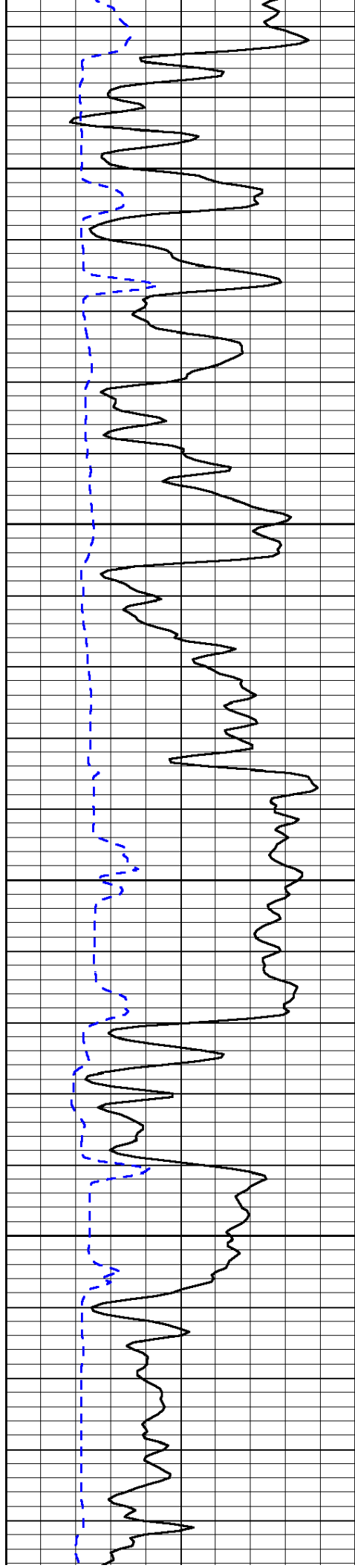


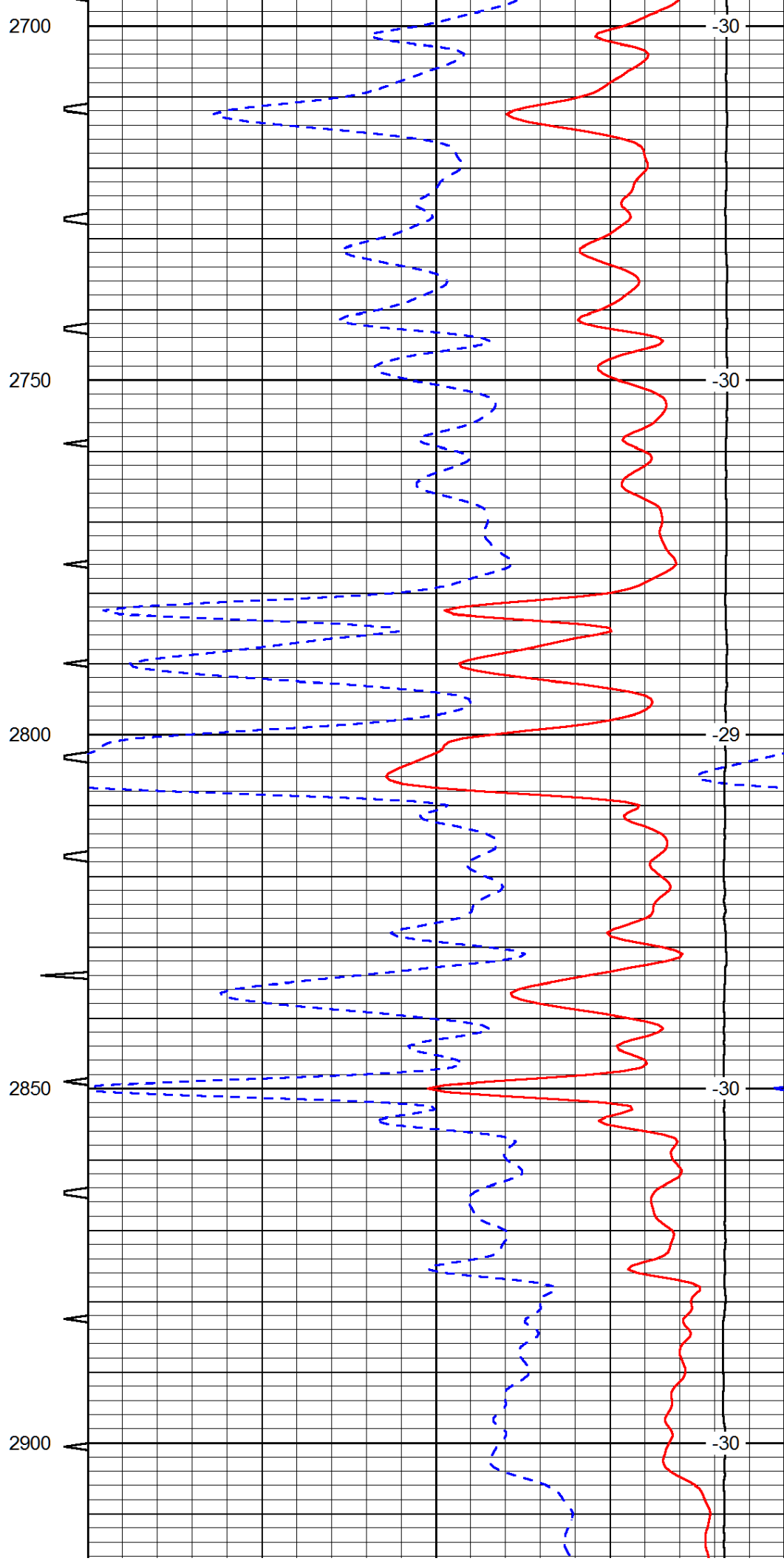
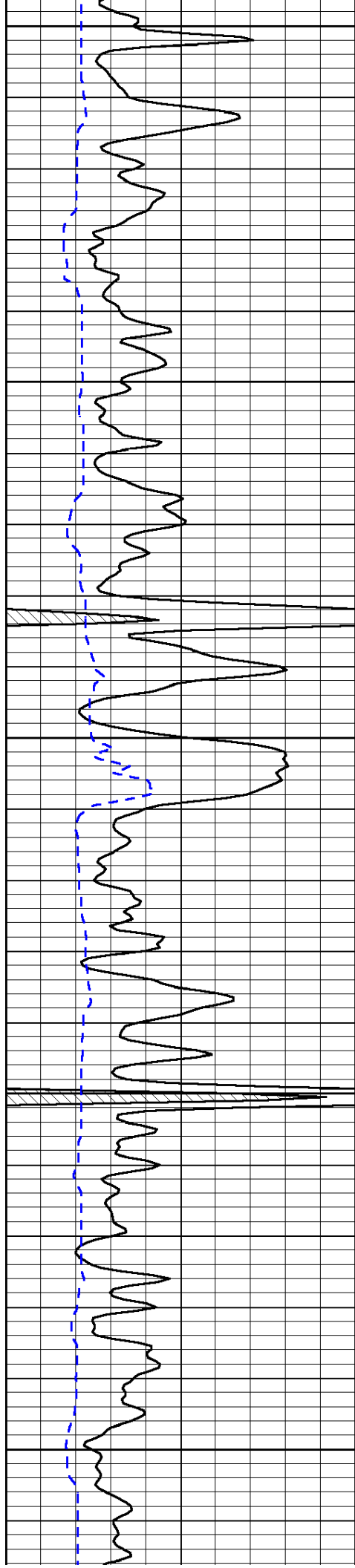


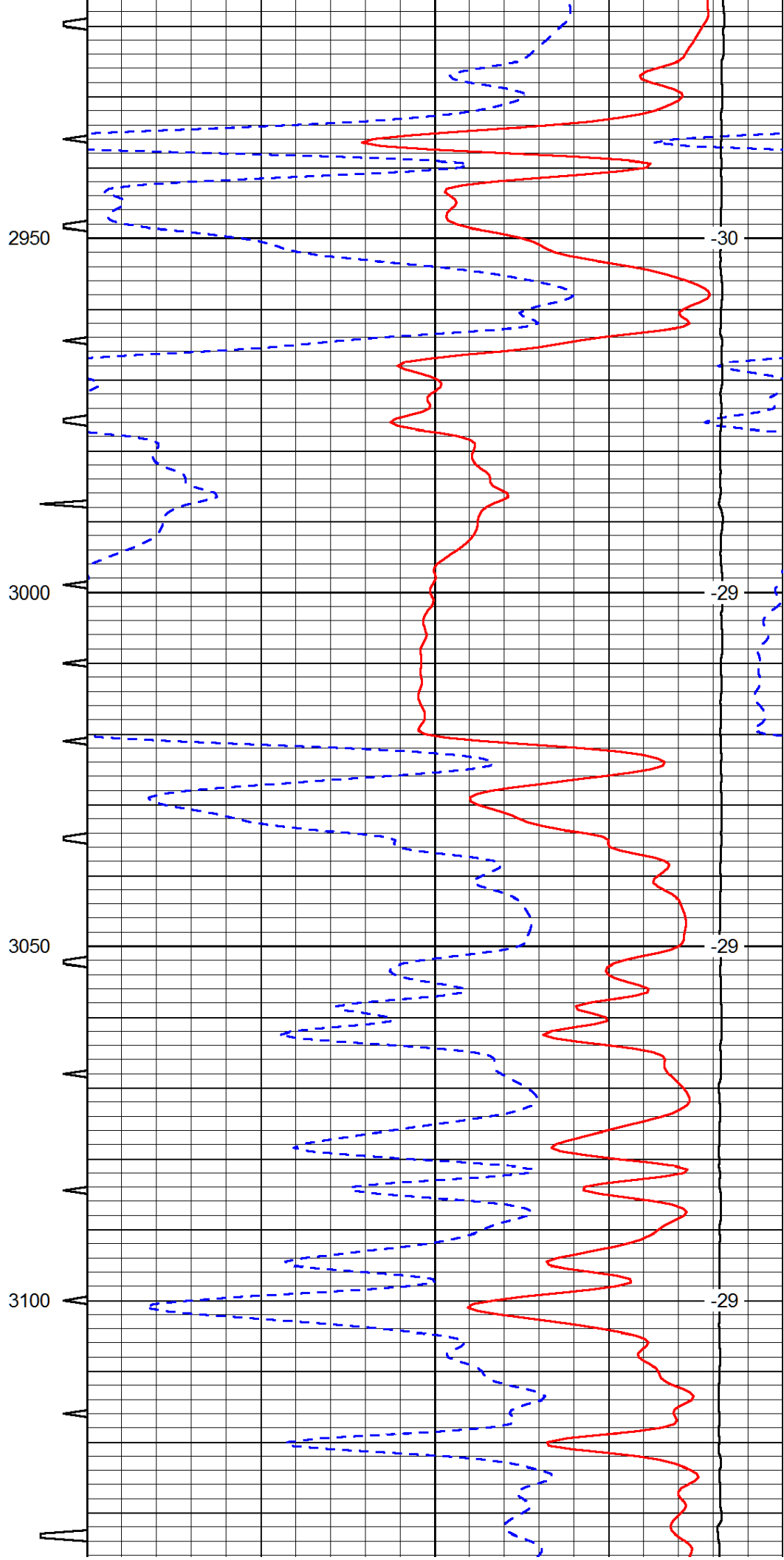
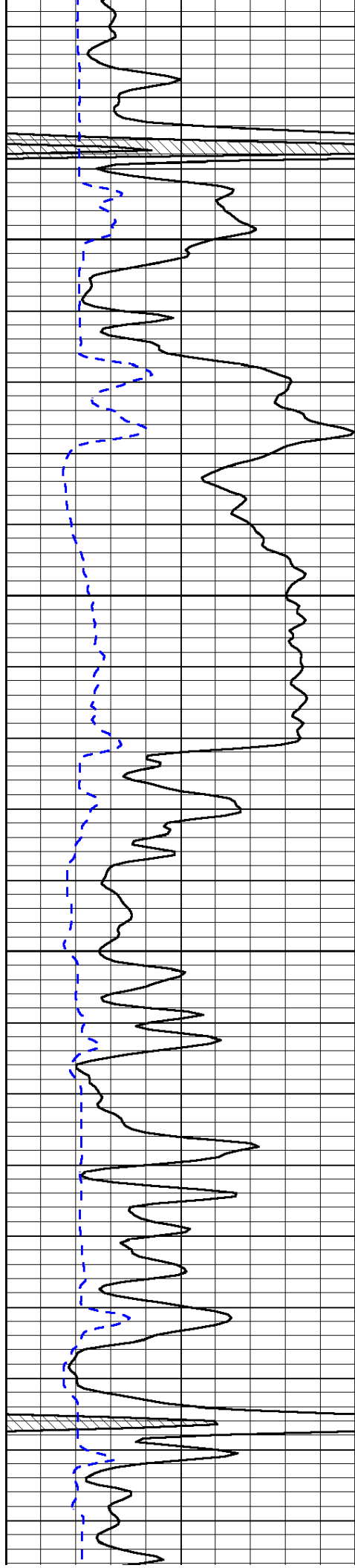


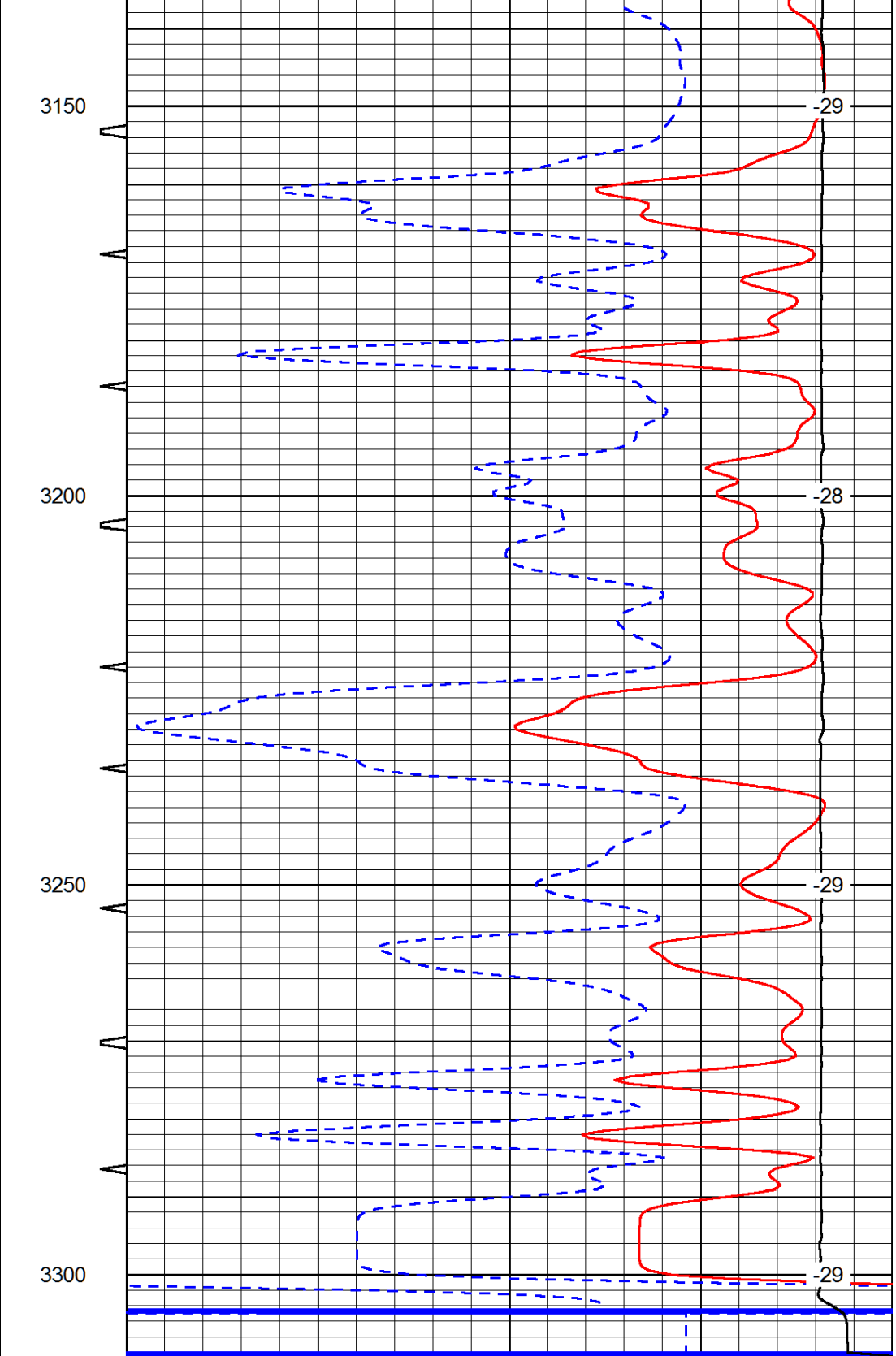
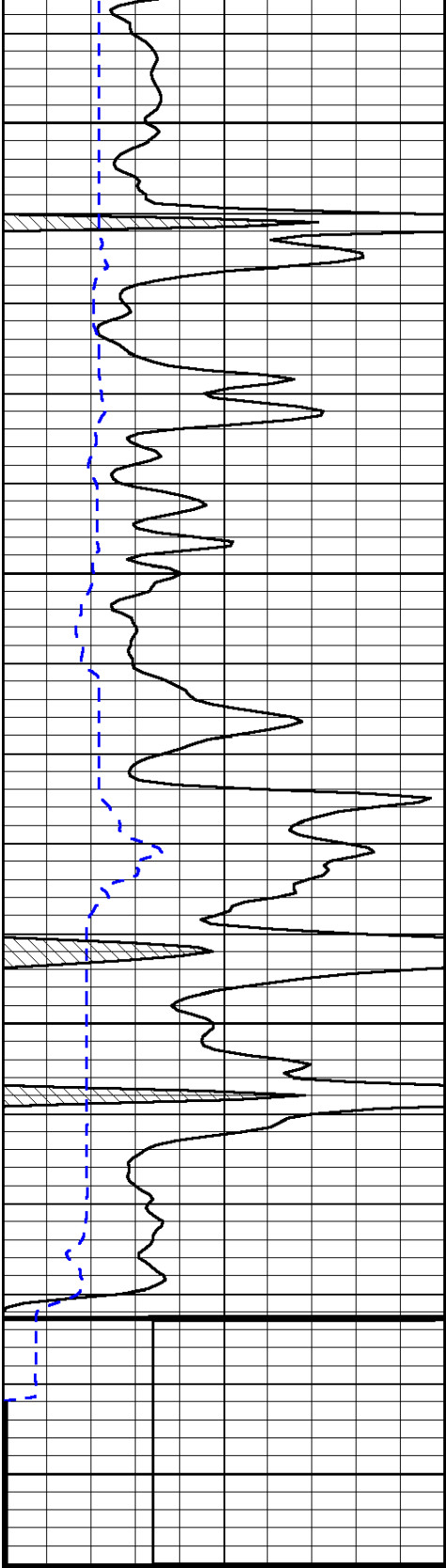












0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	Gamma Ray (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu)	-10
6	dCAL (in)	16		15000	LTEN (lb) (lb)	0
						LSPD (ft/min)