



Compensated Neutron
Gamma Ray
Casing Collar Log

Company SRC Energy Inc.
Well Hood 23C-22-M
Field Wattenberg
County Weld State Colorado

Location: API #: 05-123-44373
Permanent Datum SEC 20 TWP 6N RGE 66W
Log Measured From Ground Level Elevation 4736'
Drilling Measured From Kelly Bushing
Other Services
JB/GR
RBL
RBP
Elevation
K.B. 4761'
D.F. 4760'
G.L. 4736'

Company SRC Energy Inc.
Well Hood 23C-22-M
Field Wattenberg
County Weld
State Colorado

Date 02-JUL-2017

Run Number	Three
Depth Driller	15400 FT
Depth Logger	6750 FT
Bottom Logged Interval	6745 FT
Top Log Interval	Surface
Open Hole Size	----
Type Fluid	Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	224°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	1300
Equipment Number	HD-0324
Location	Fort Lupton, CO
Recorded By	Jack Amidei
Witnessed By	Shane Hart
	Sam Hopper

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size (in)	Weight (lb/ft)	From	To

Casing Record	Size (in)	Wgt (lb/ft)	Grade	Top	Bottom
Surface Casing	9 5/8	36	---	Surface	1750 FT
Intermediate #1	5 1/2	20	HCP-110	Surface	15384 FT
Intermediate #2					
Liner					

<<< Fold Here >>>

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

Log ran as per customer request
Depth referenced to Marker Joint reported at 6472 FT
Adjusted Log -12 FT to correlate with Marker Joint
Log ran with 2500 PSI Surface Induced Pressure
Log ran from 6750 FT to Surface
Logging tools came out clean and free of debris upon completion of operations

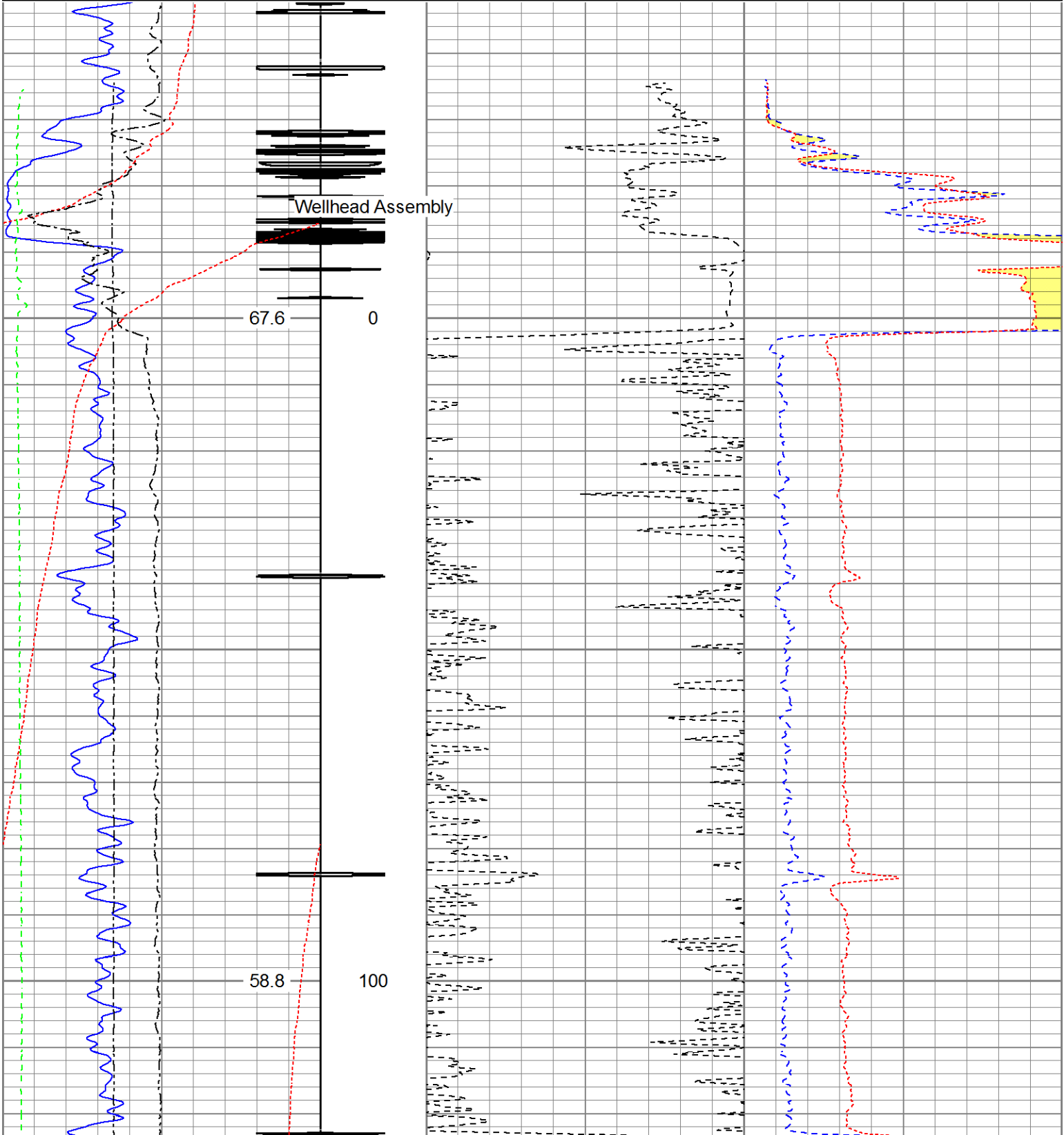
Thank you for choosing Reliance Oilfield Services, LLC!!

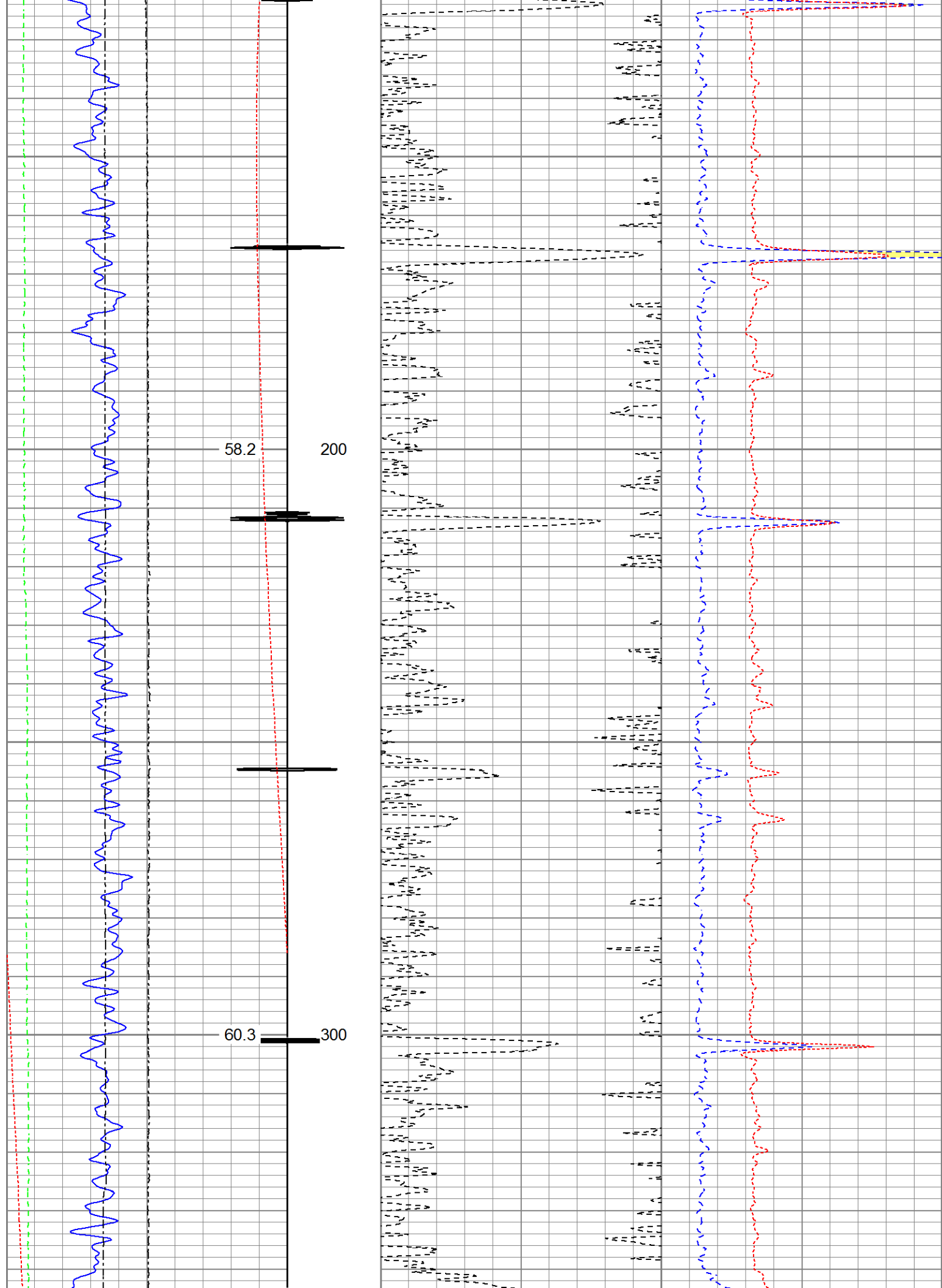
Main Pass

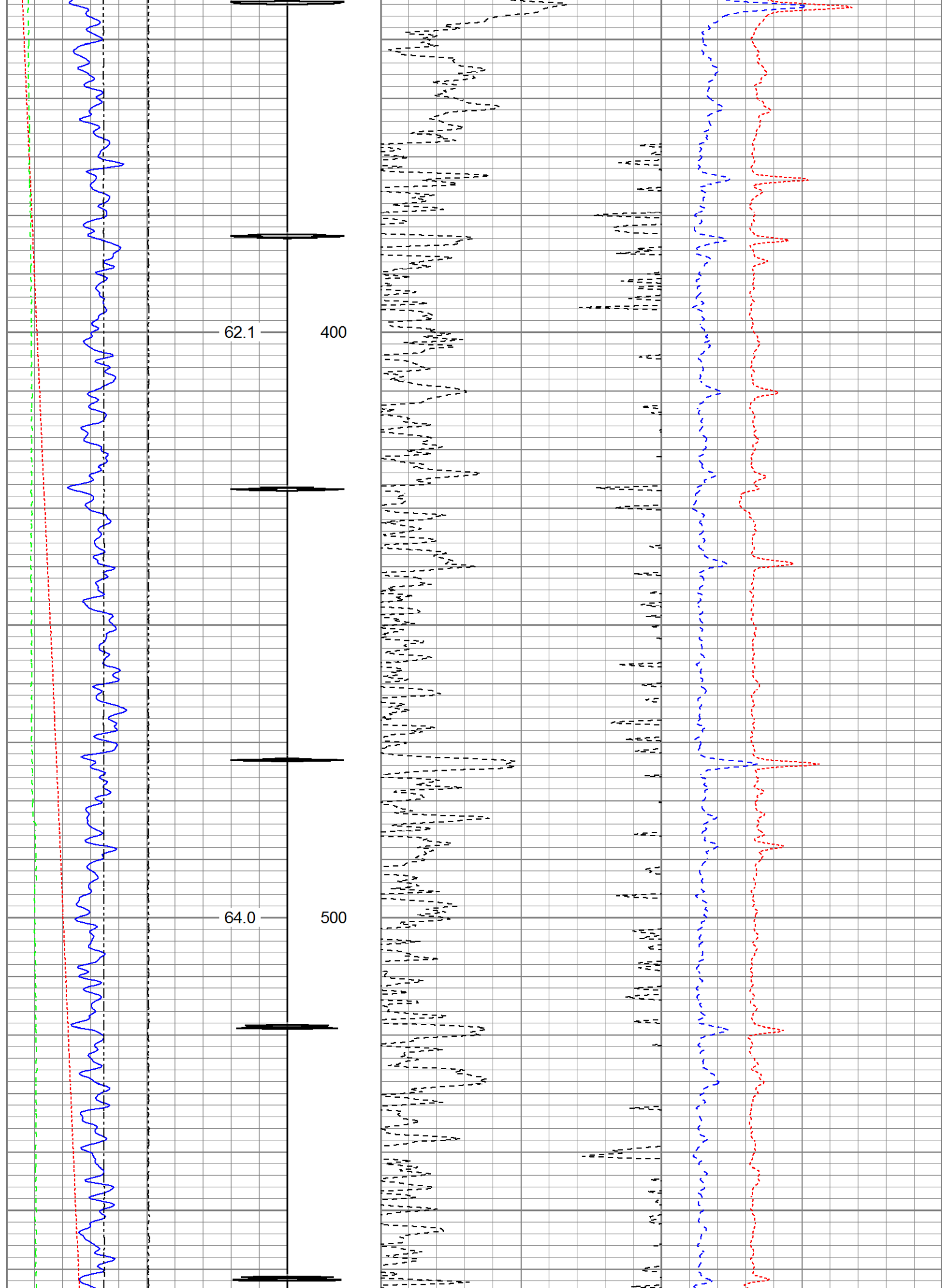
Recorded With 2500 PSI Surface Induced Pressure

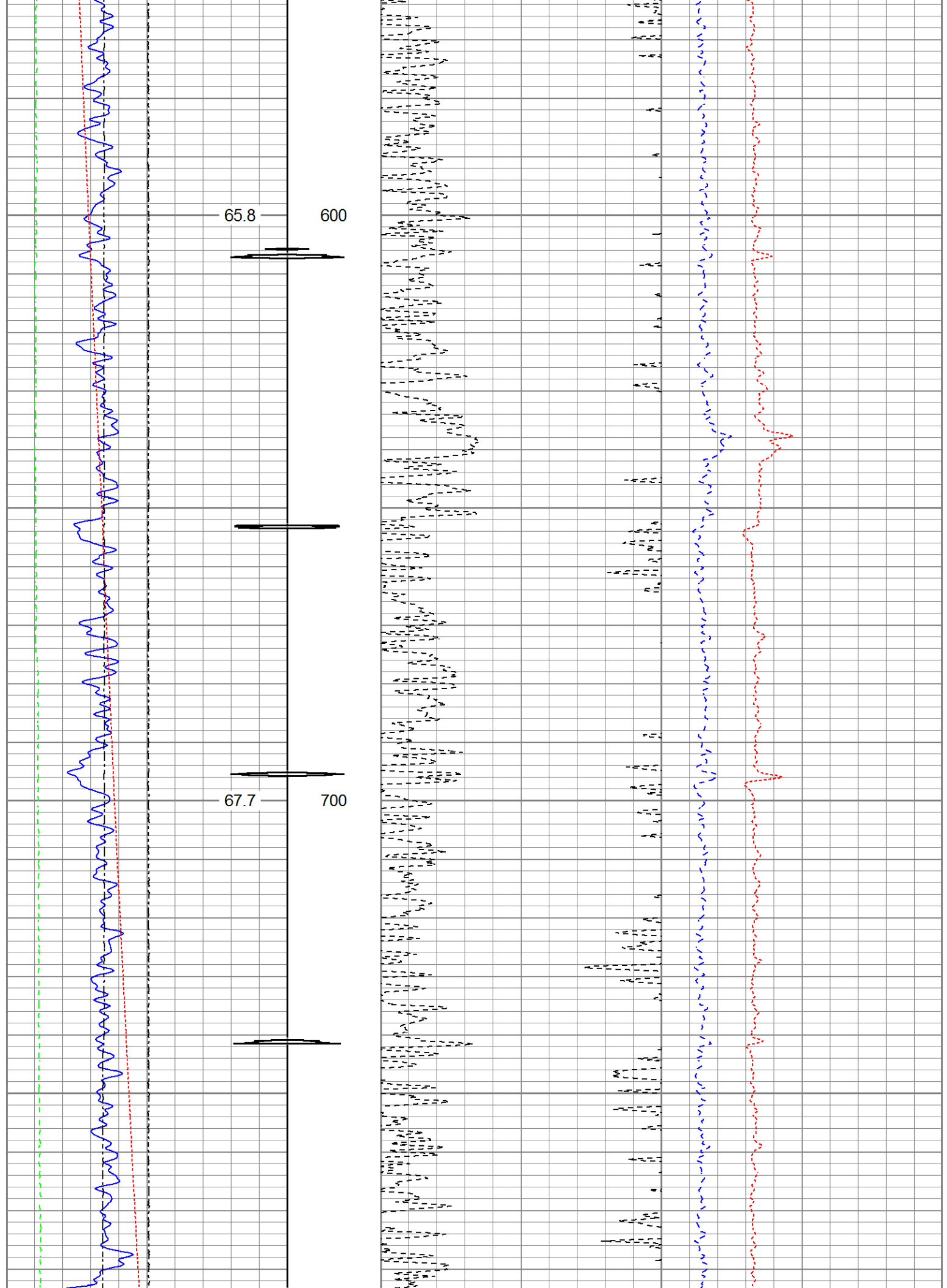


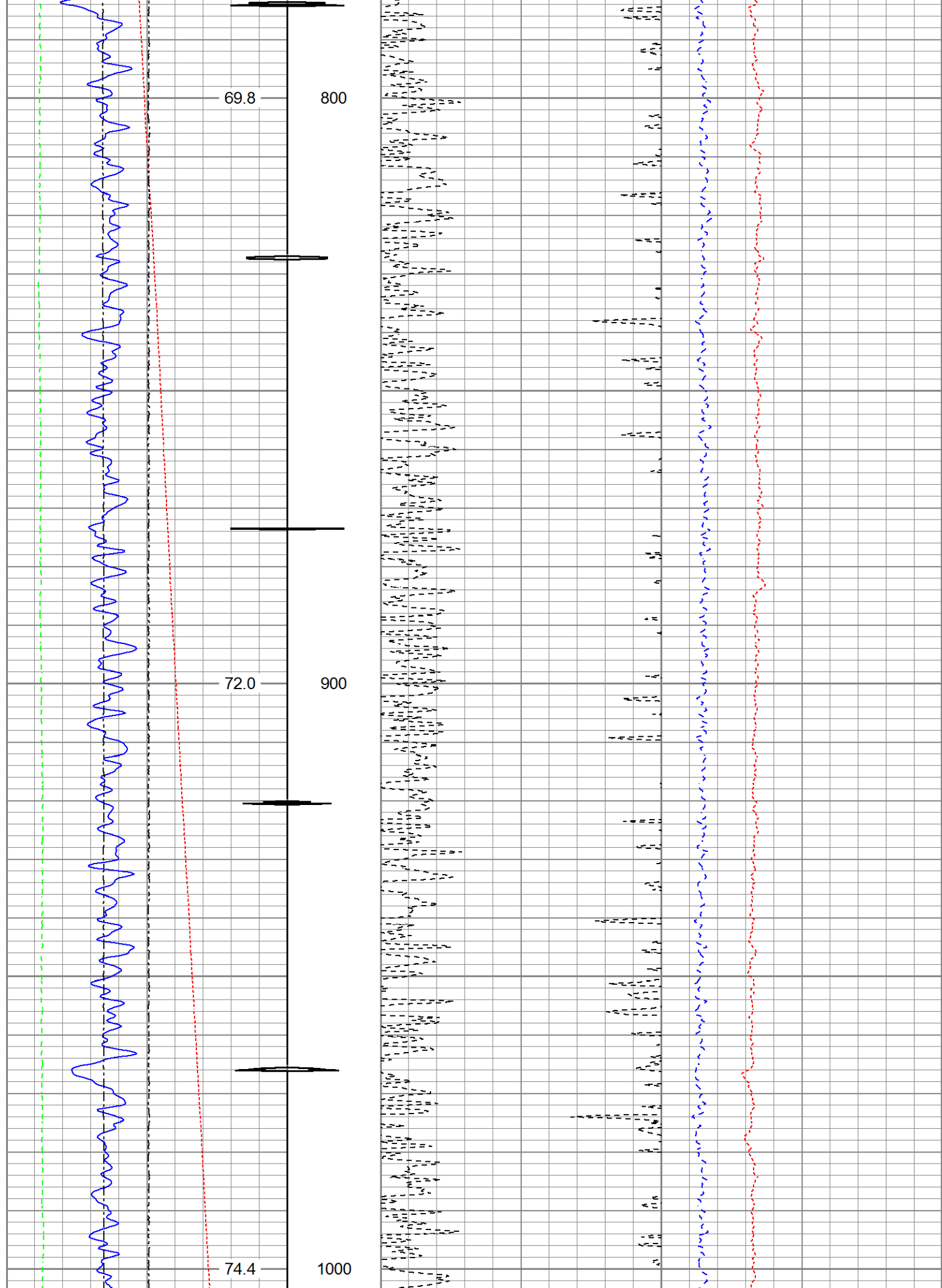
0	Gamma Ray (GAPI)	120	60	Neutron Porosity (pu)	0	0	Far Neutron (cps)	1000
Casing Collar Locator						0	Near Neutron (cps)	10000
0	Temperature (degF)	20						
-100	Line Speed (ft/min)	100						
0	Line Tension (lb)	2000						
-2	Differential Temperature (degF)	2						

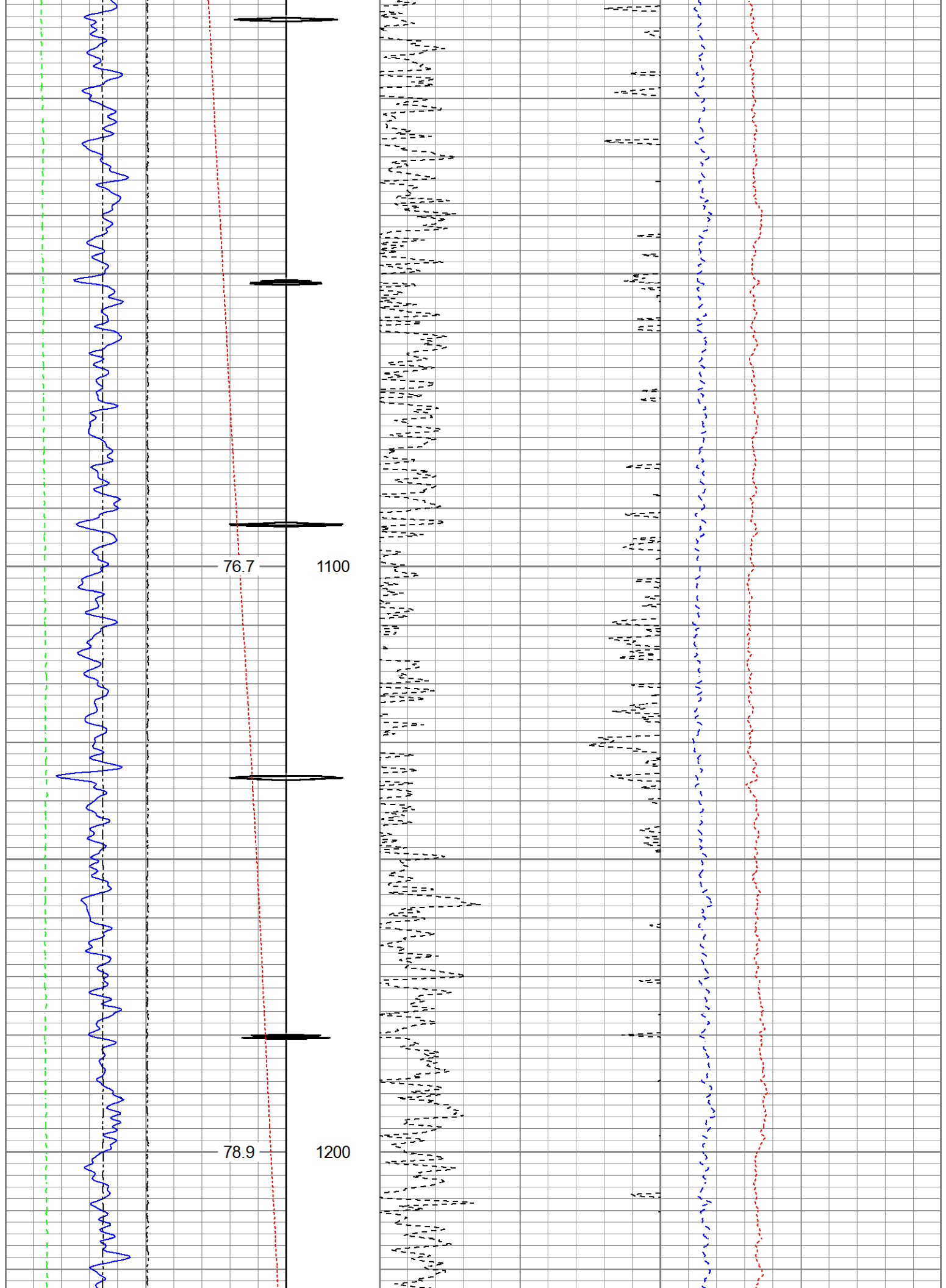


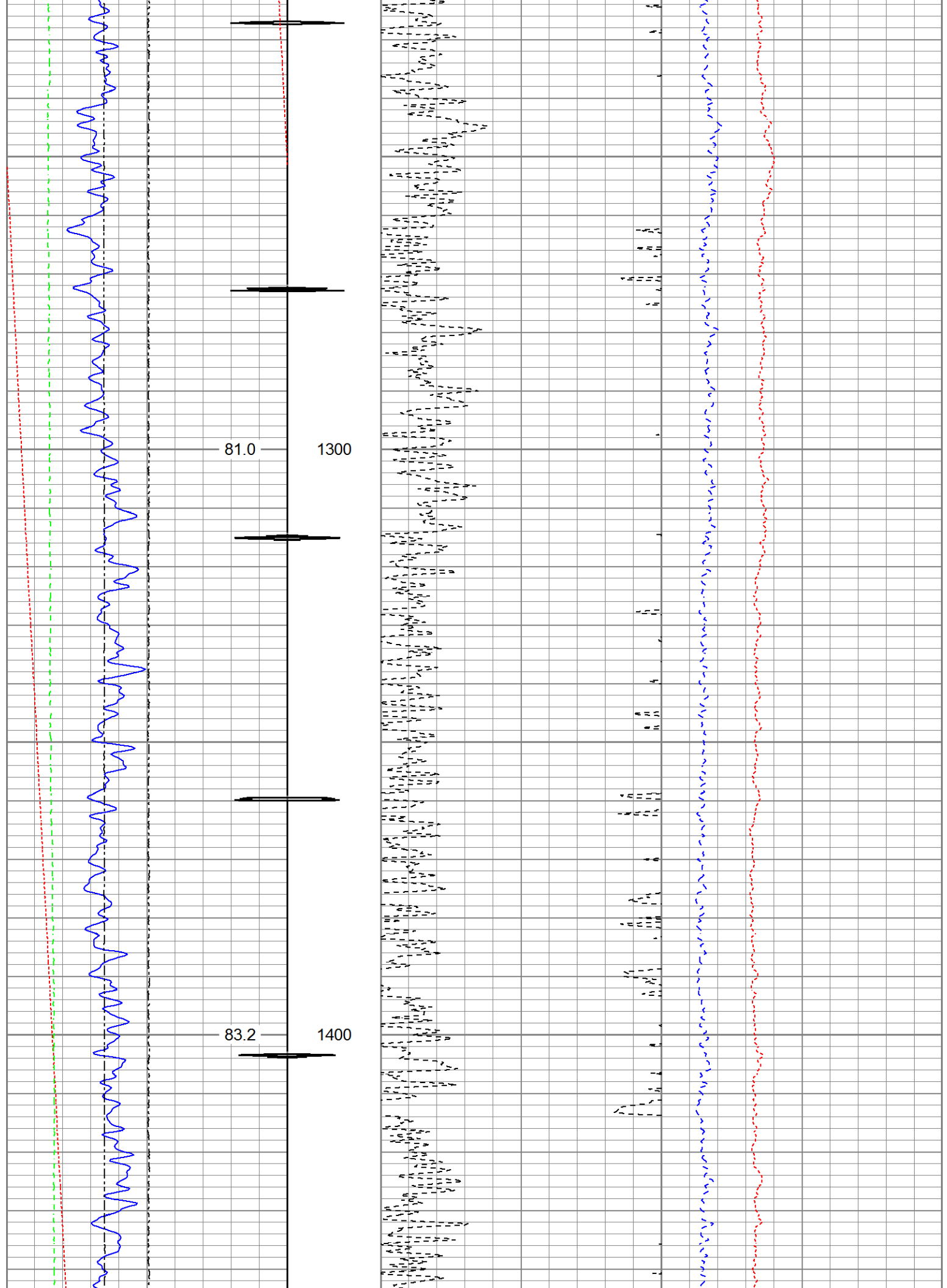


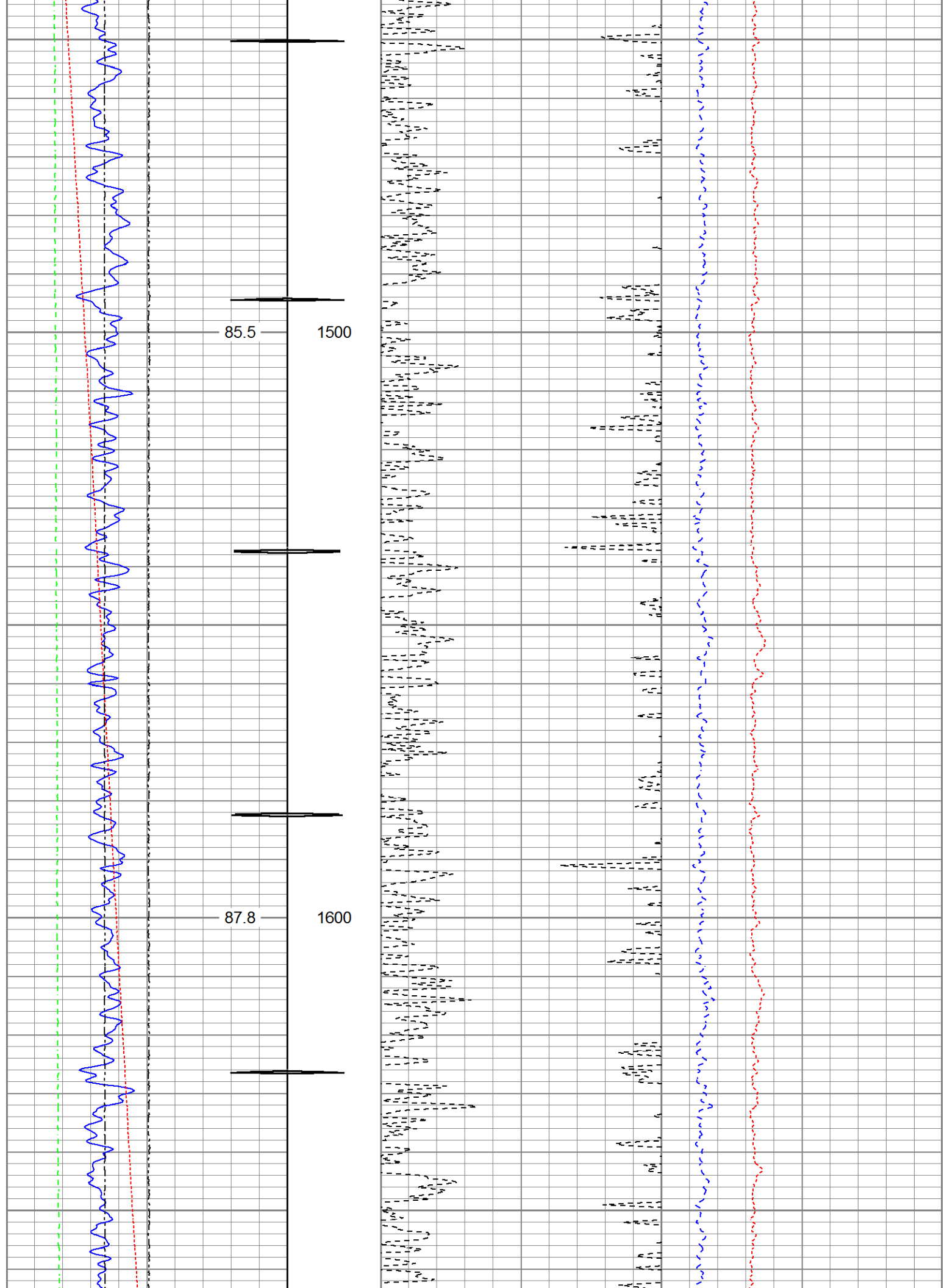


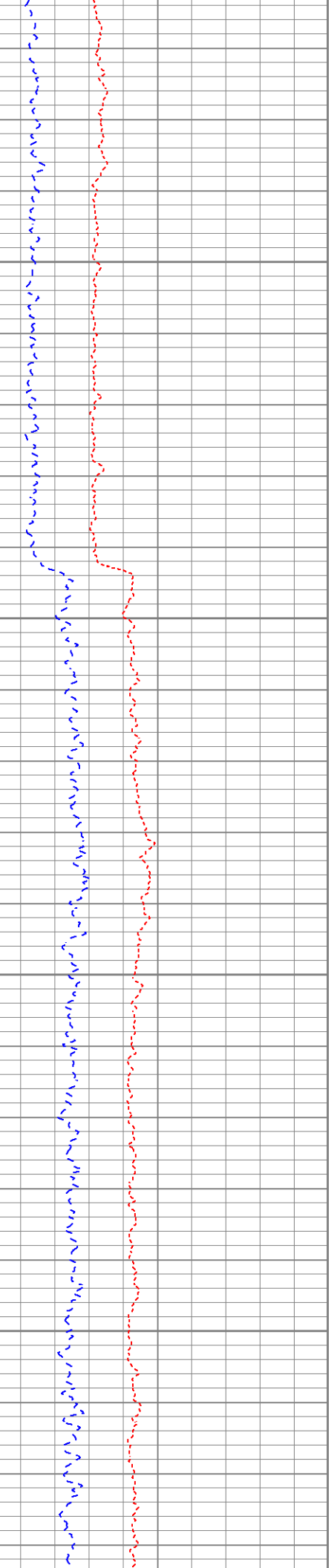
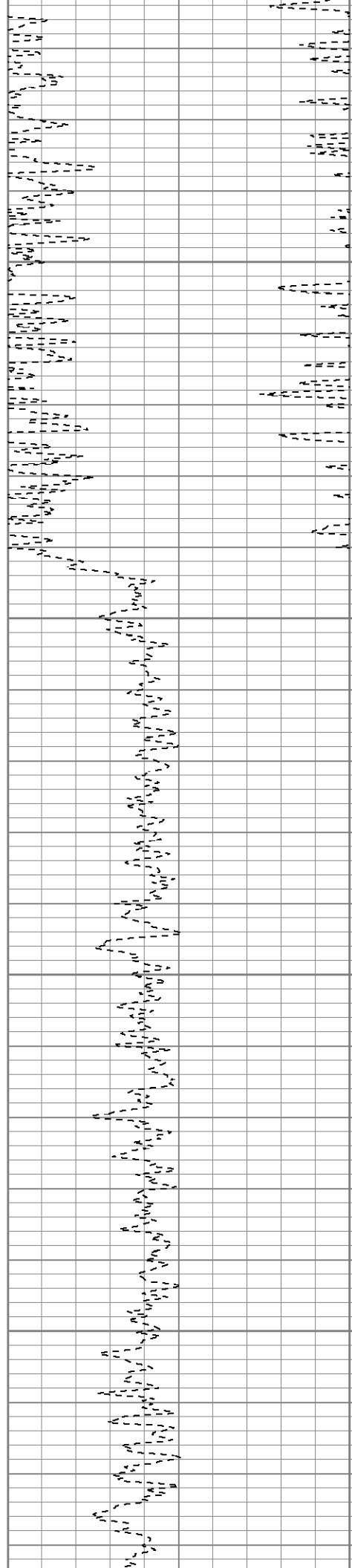
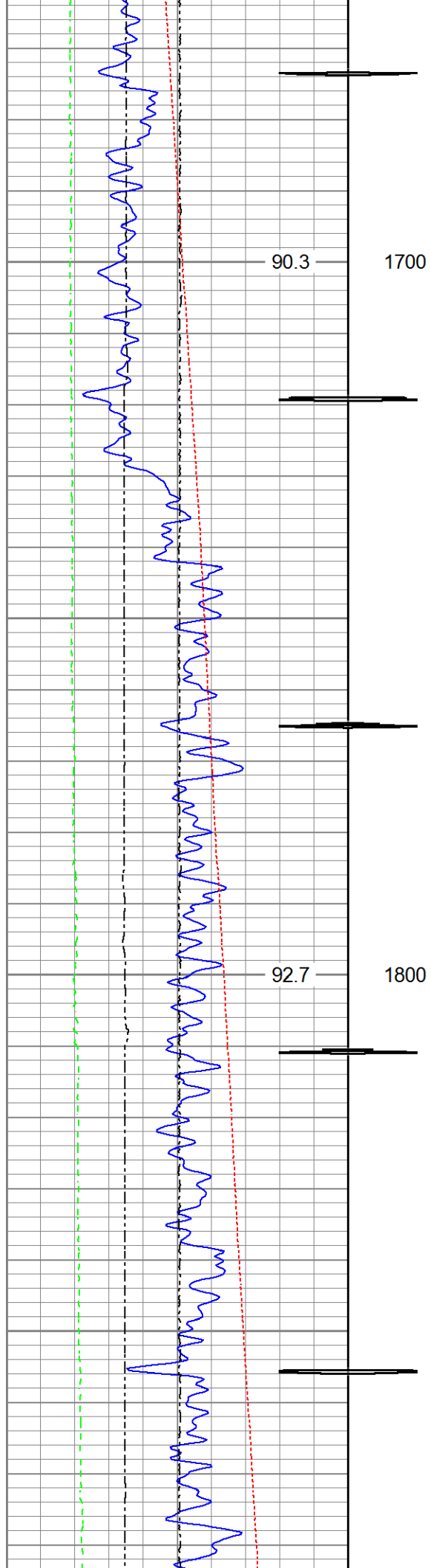


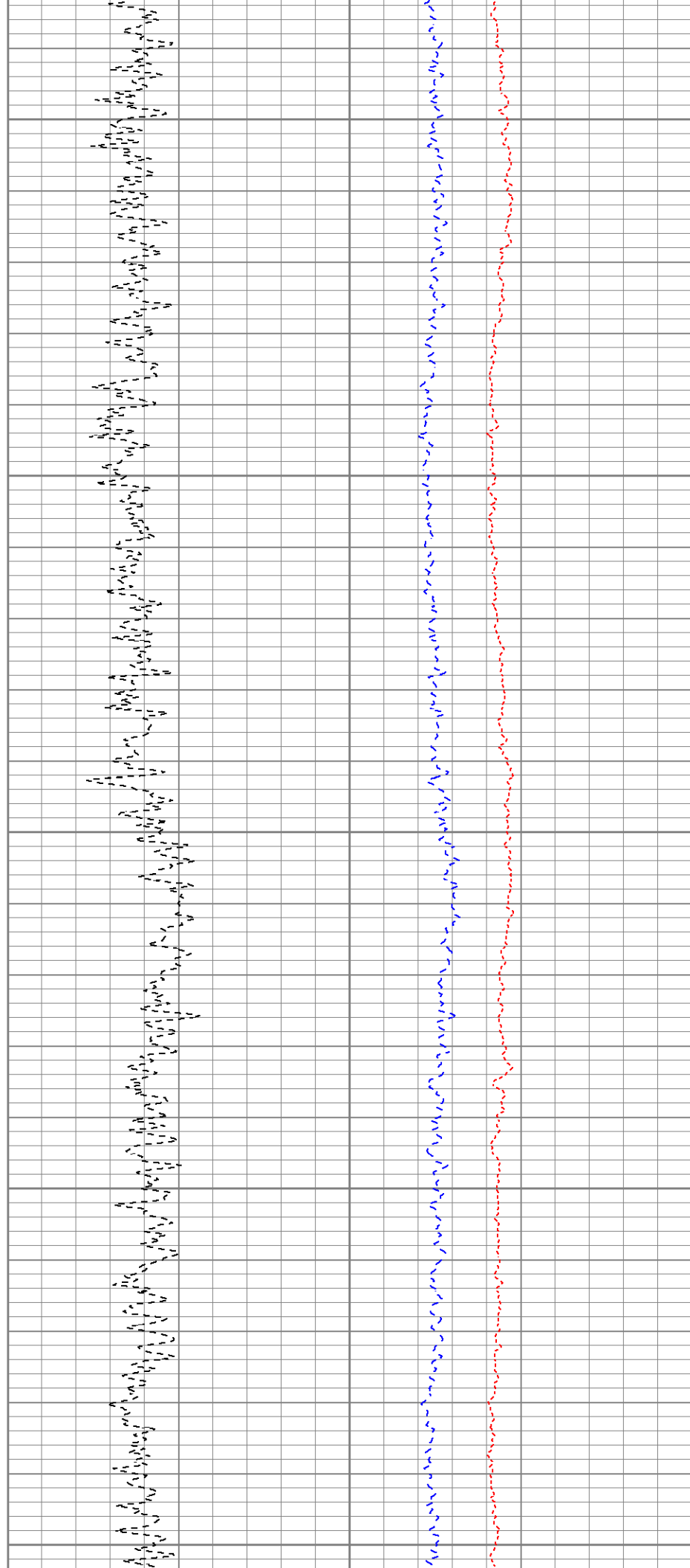
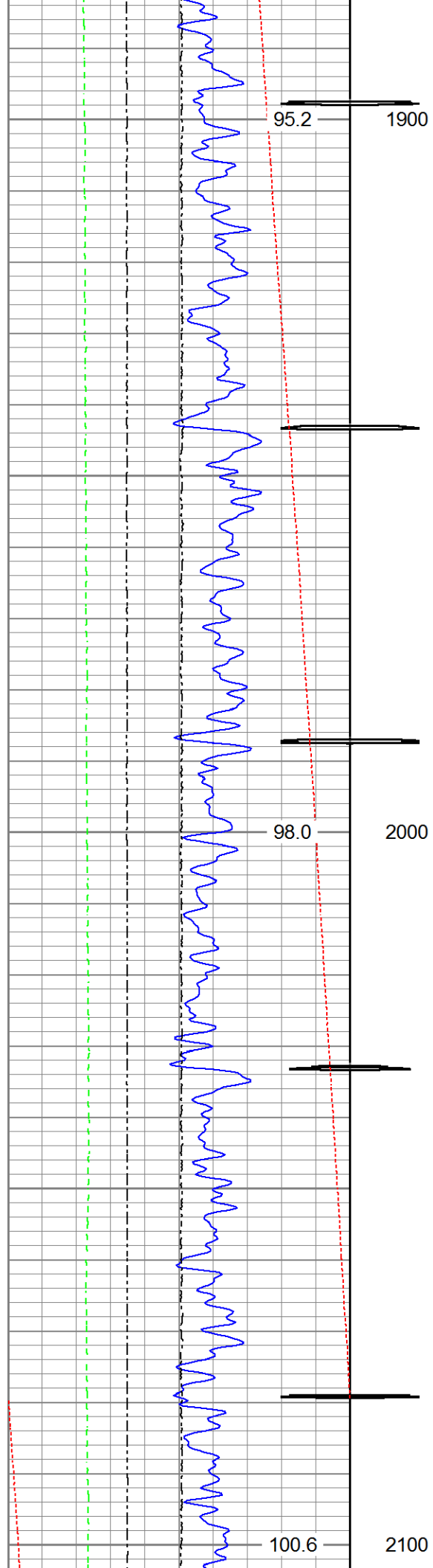


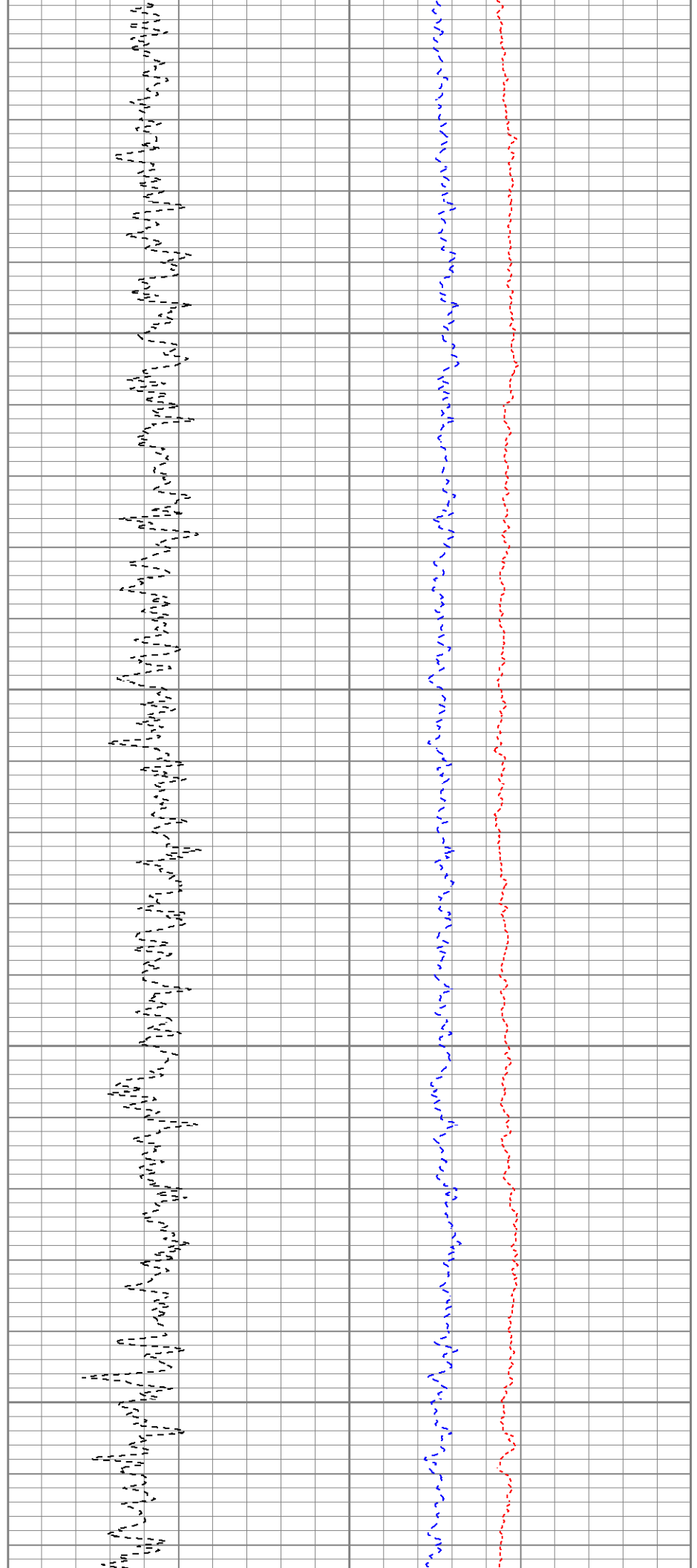
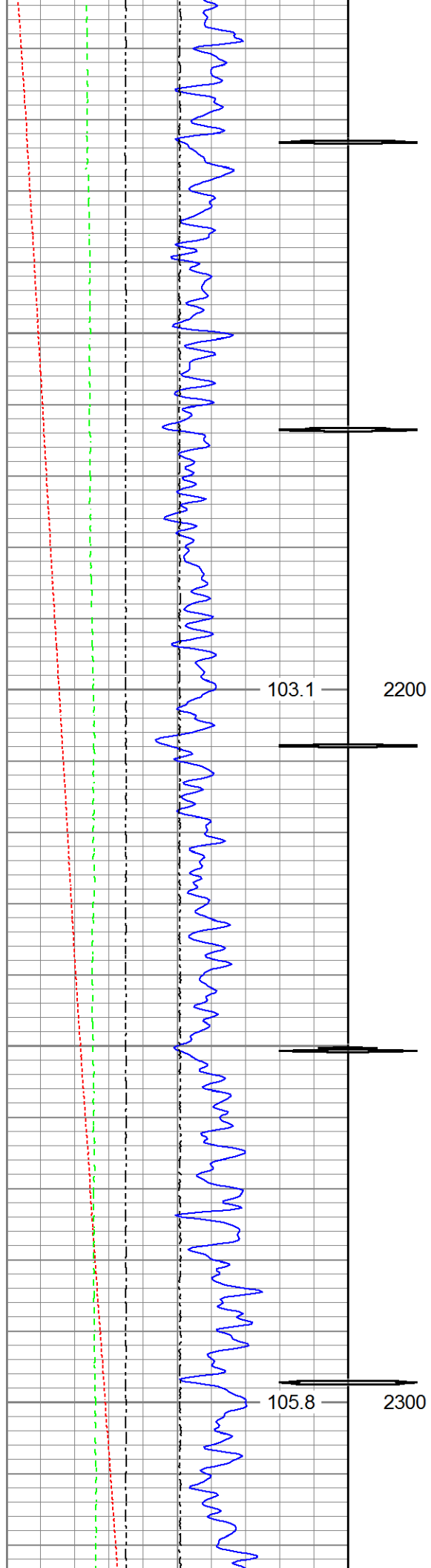


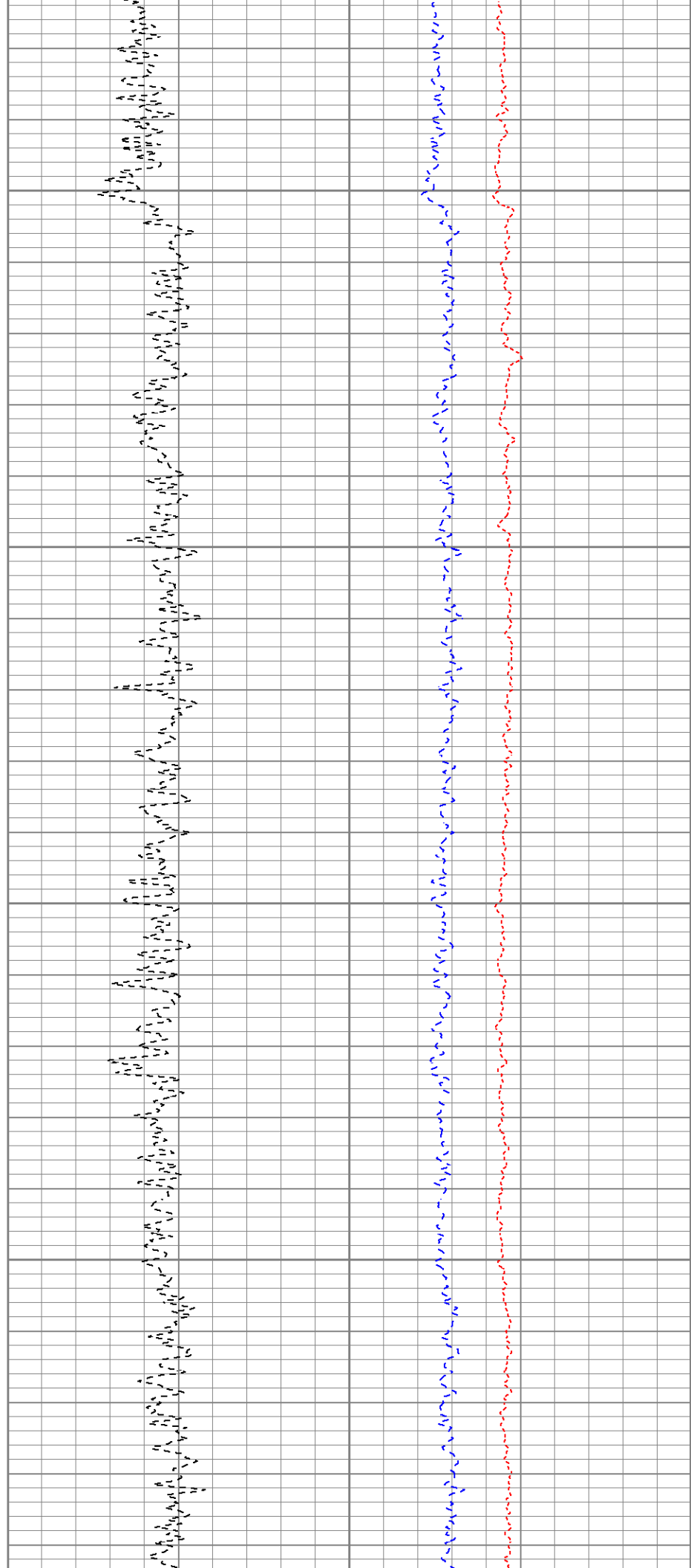
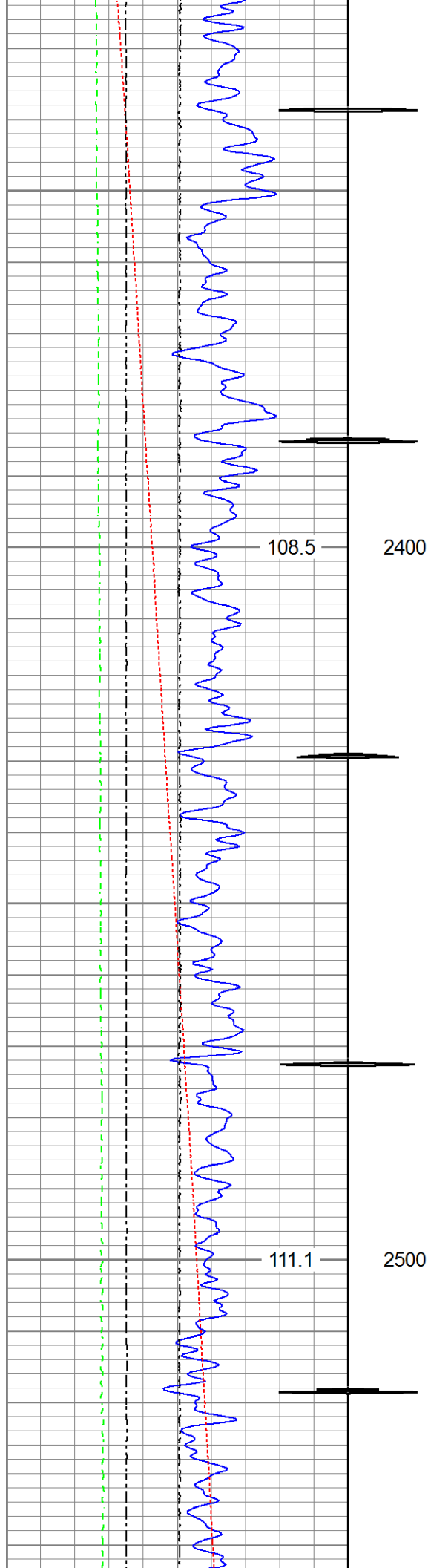


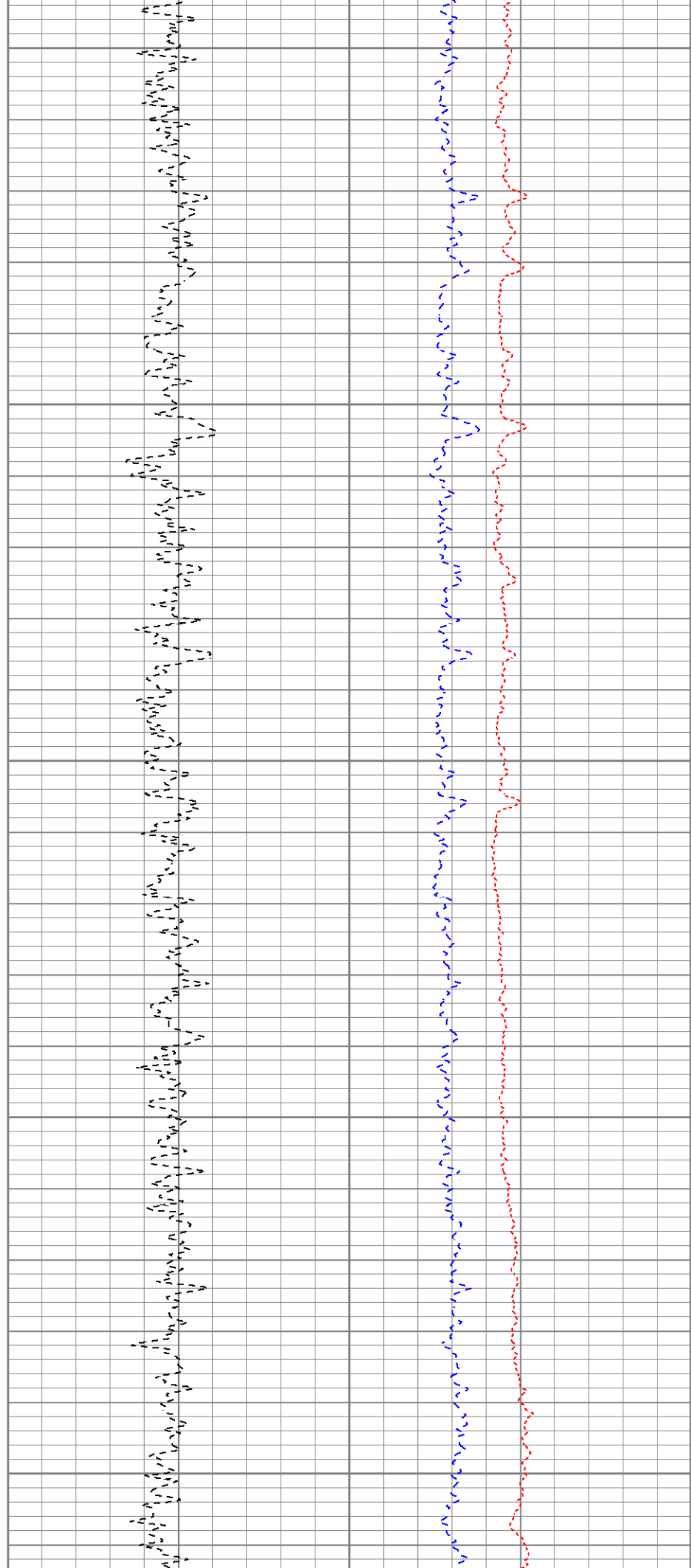
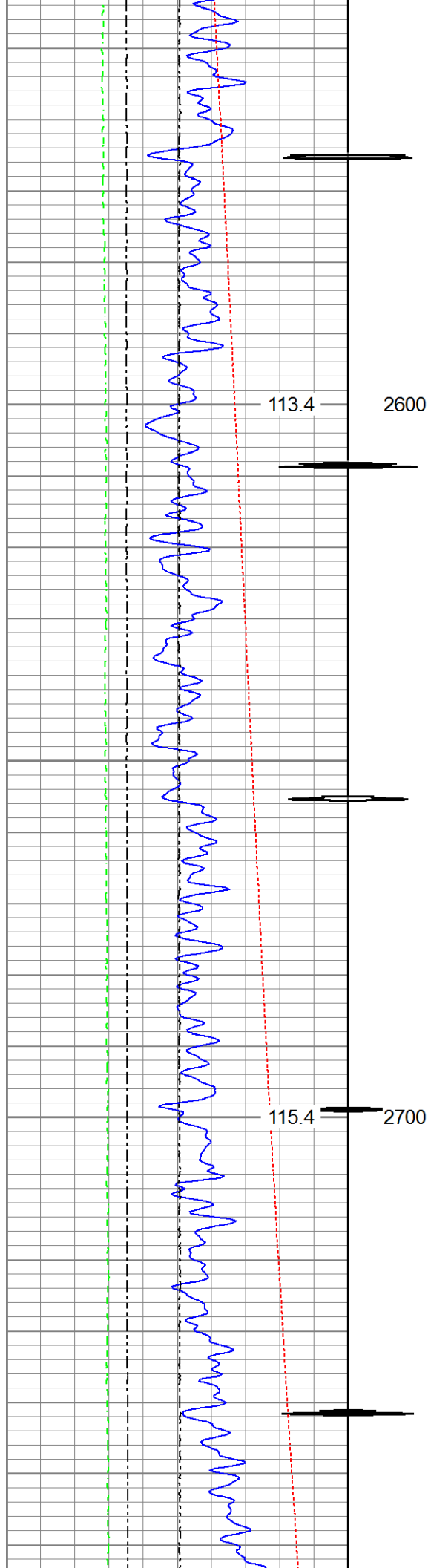


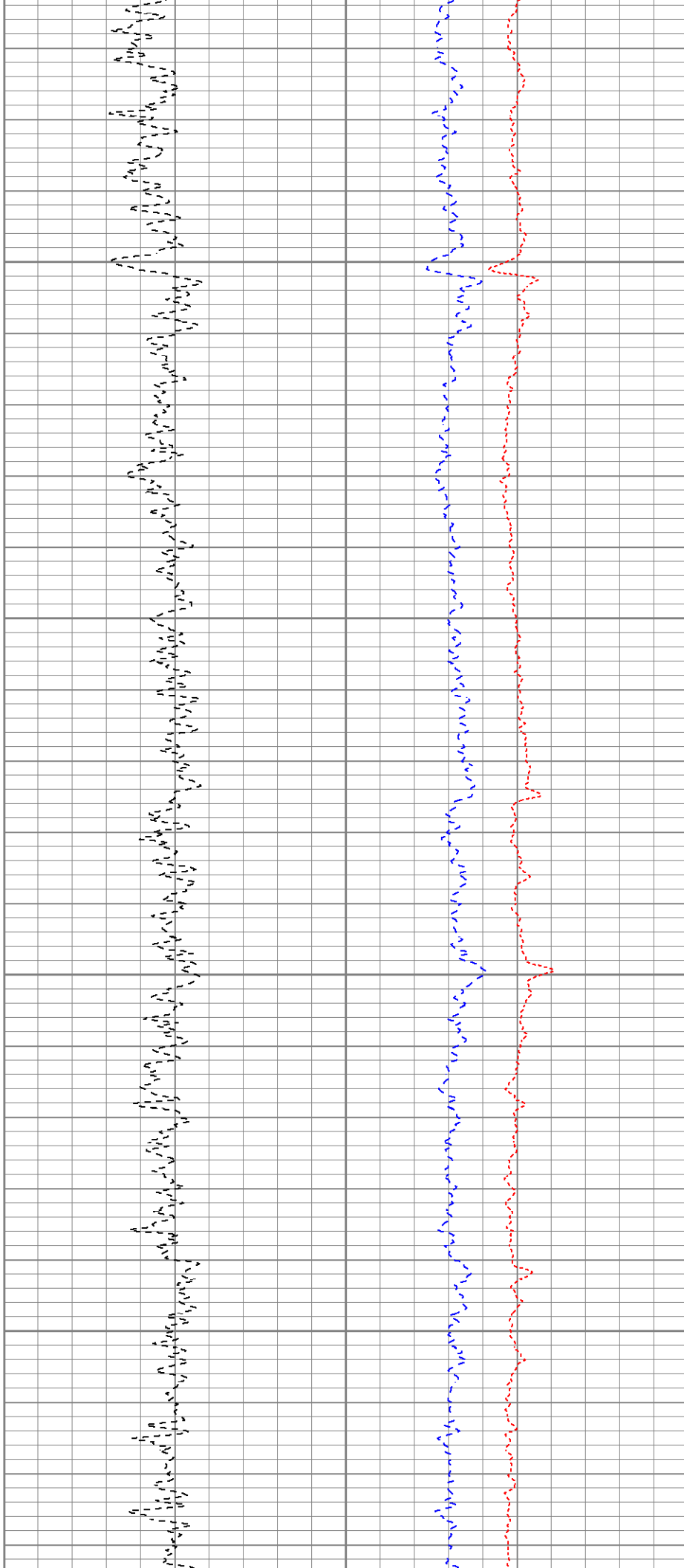
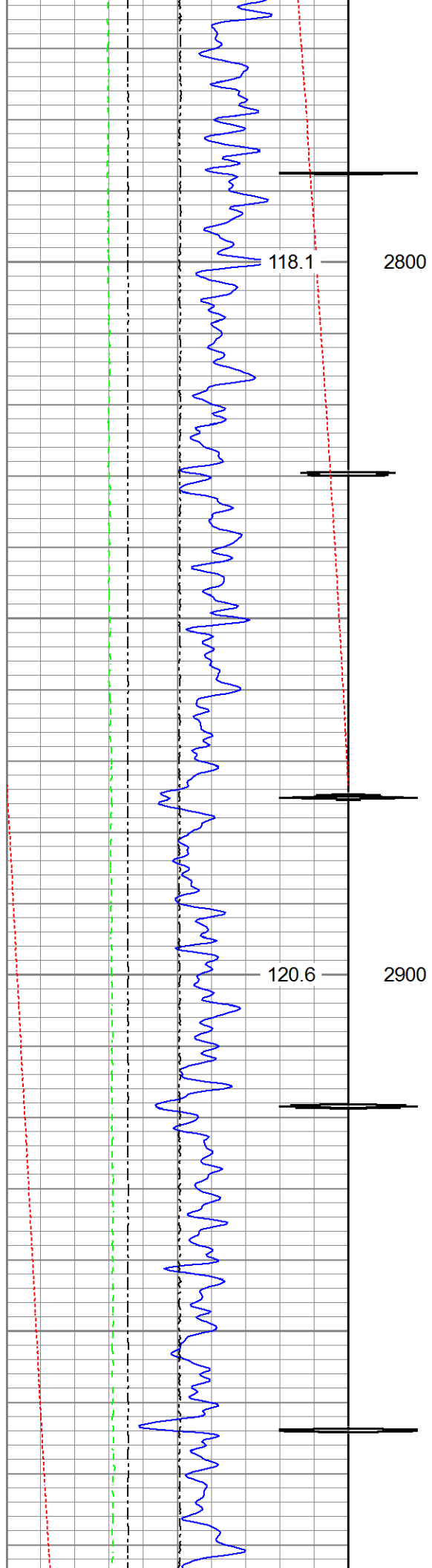


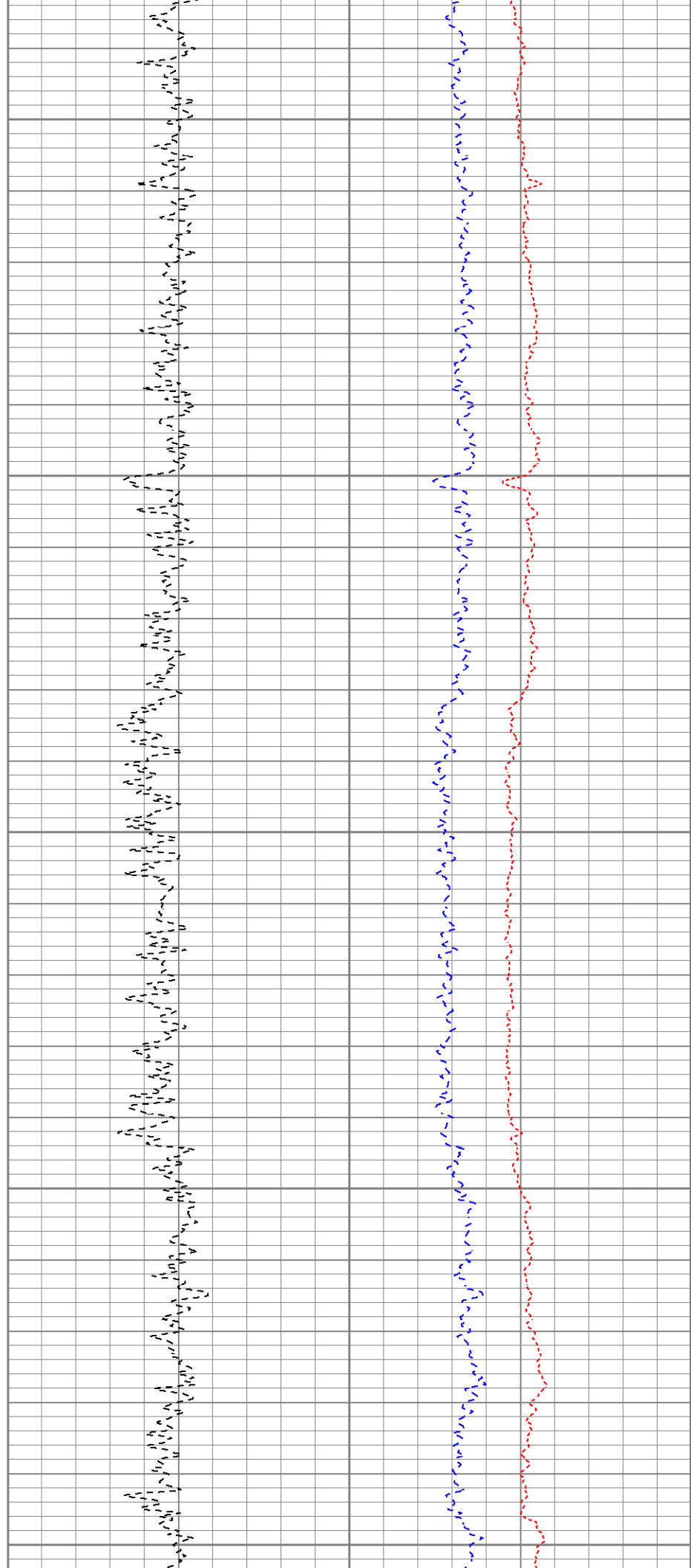
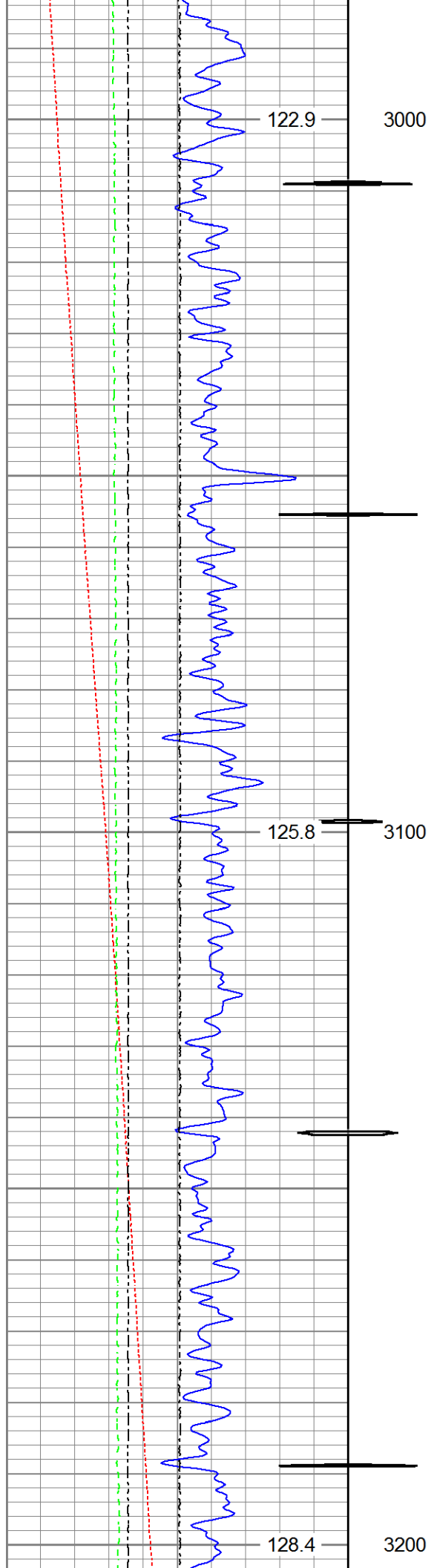


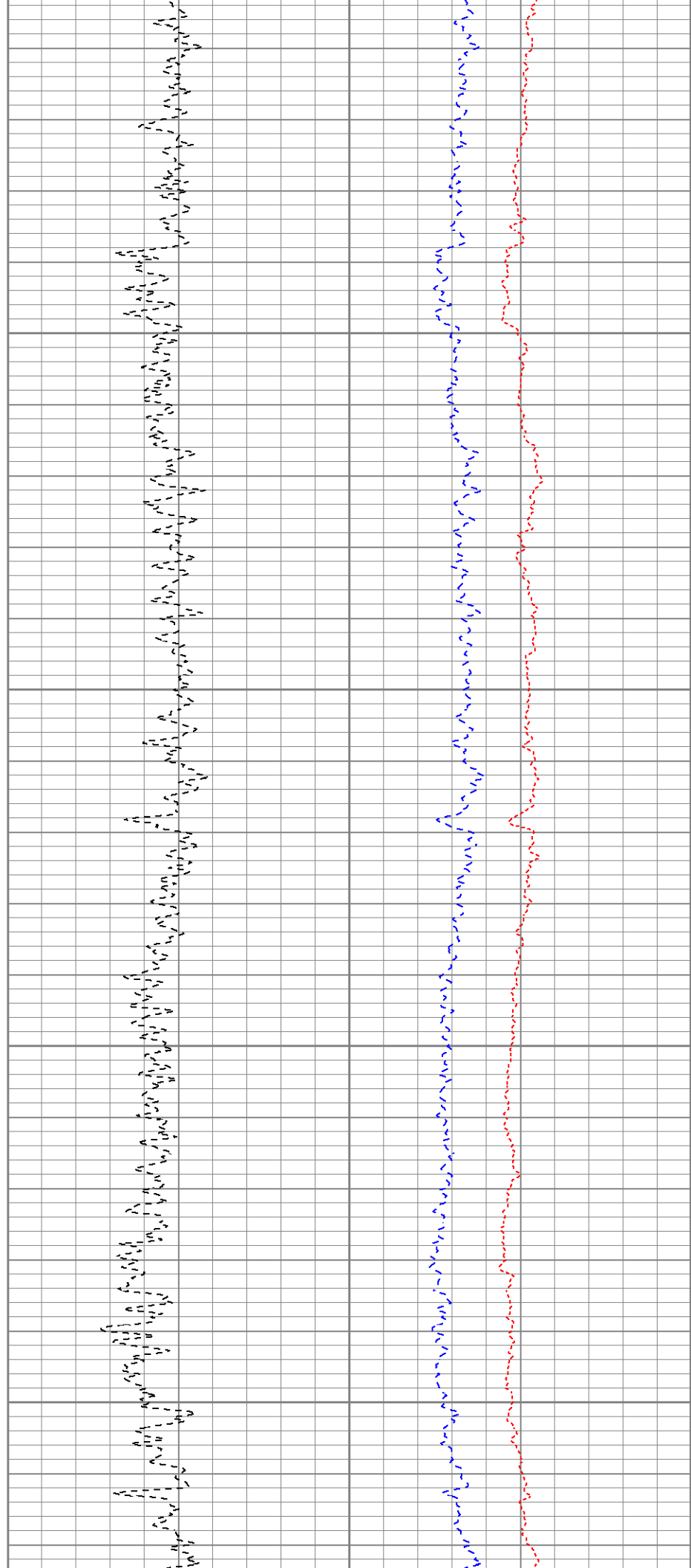
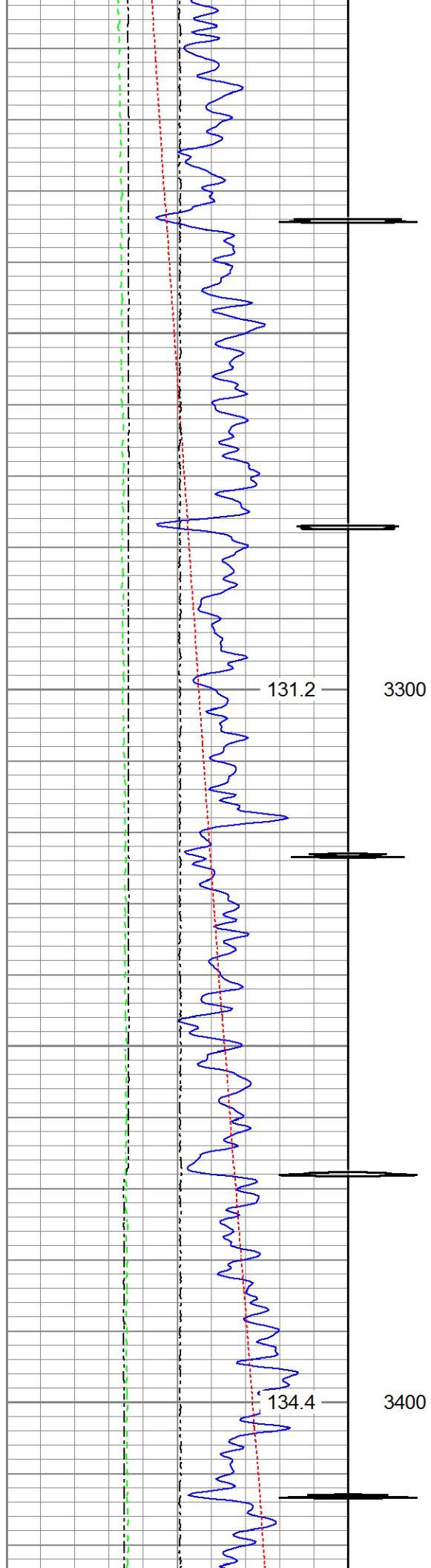


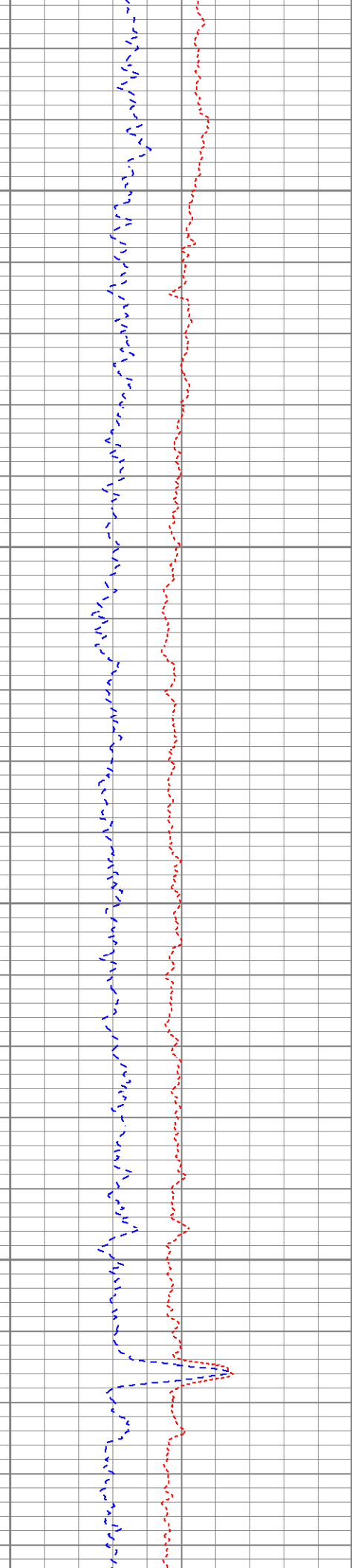
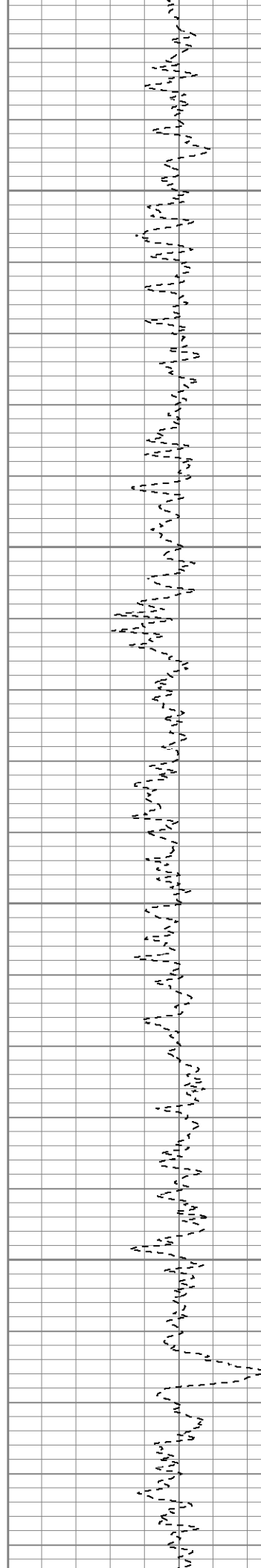
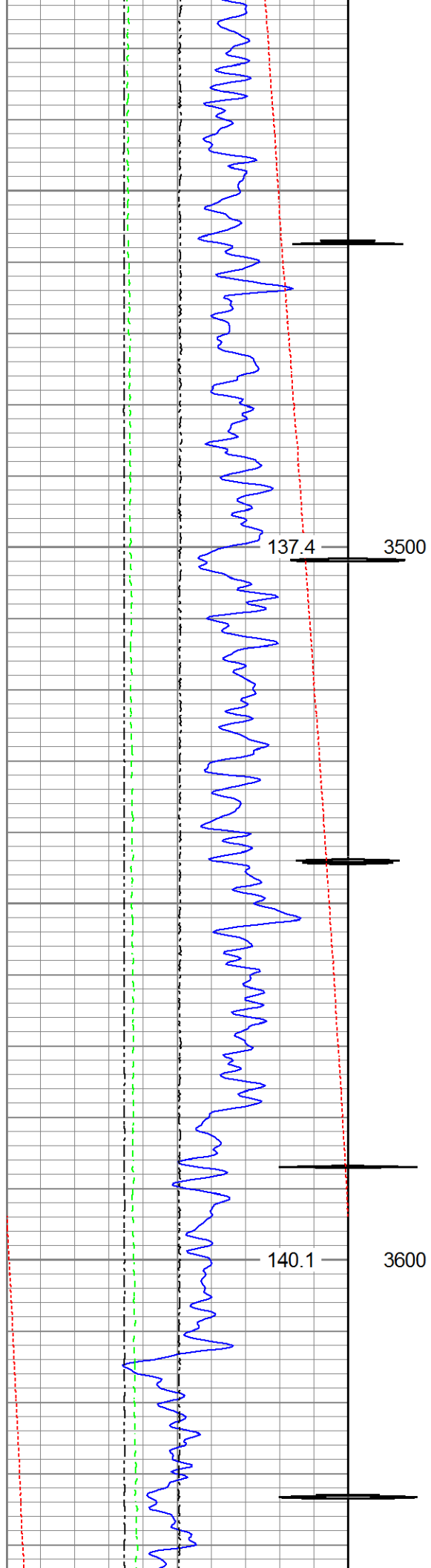


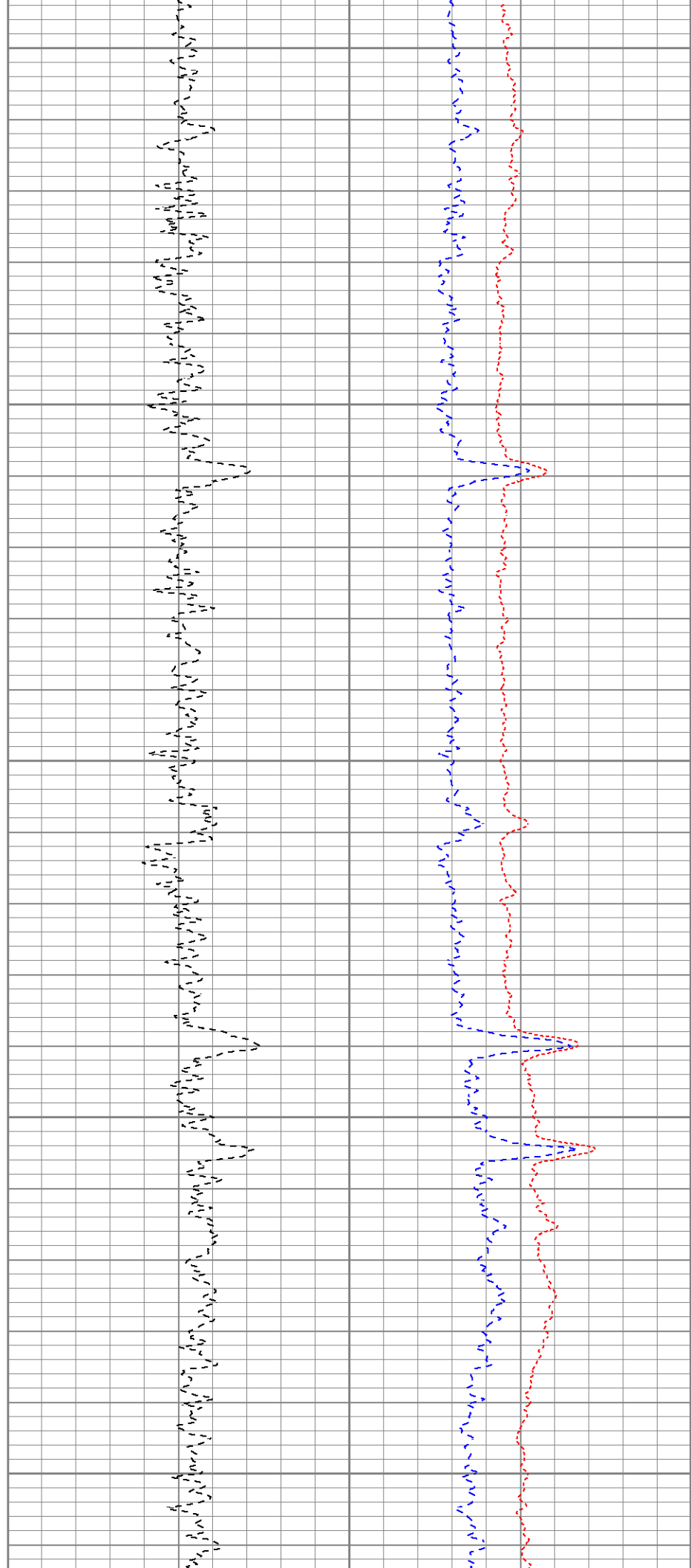
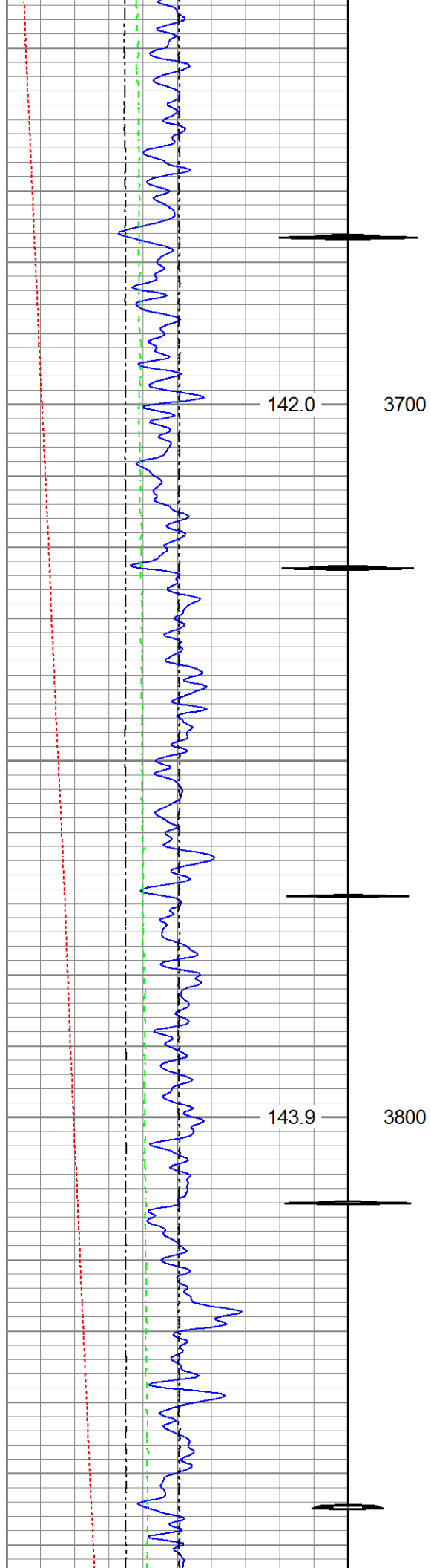


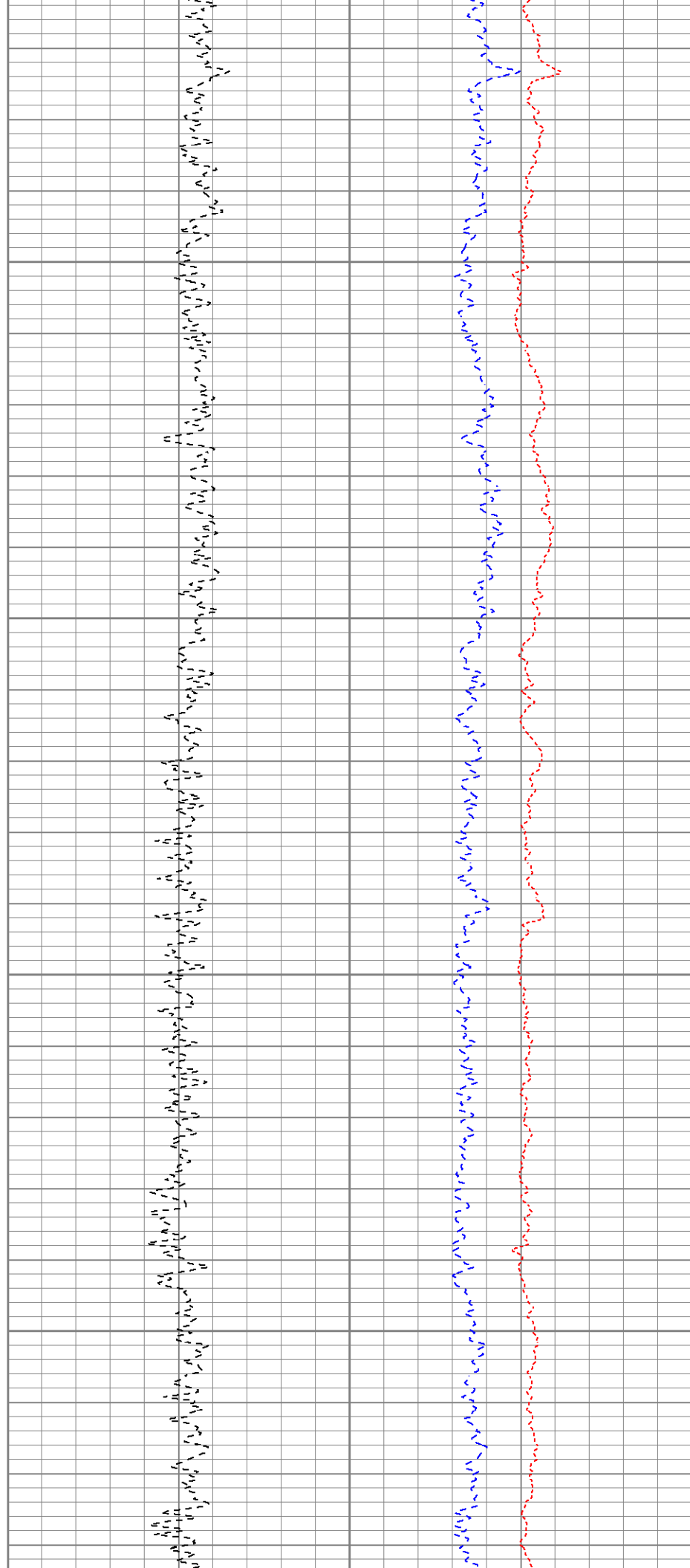
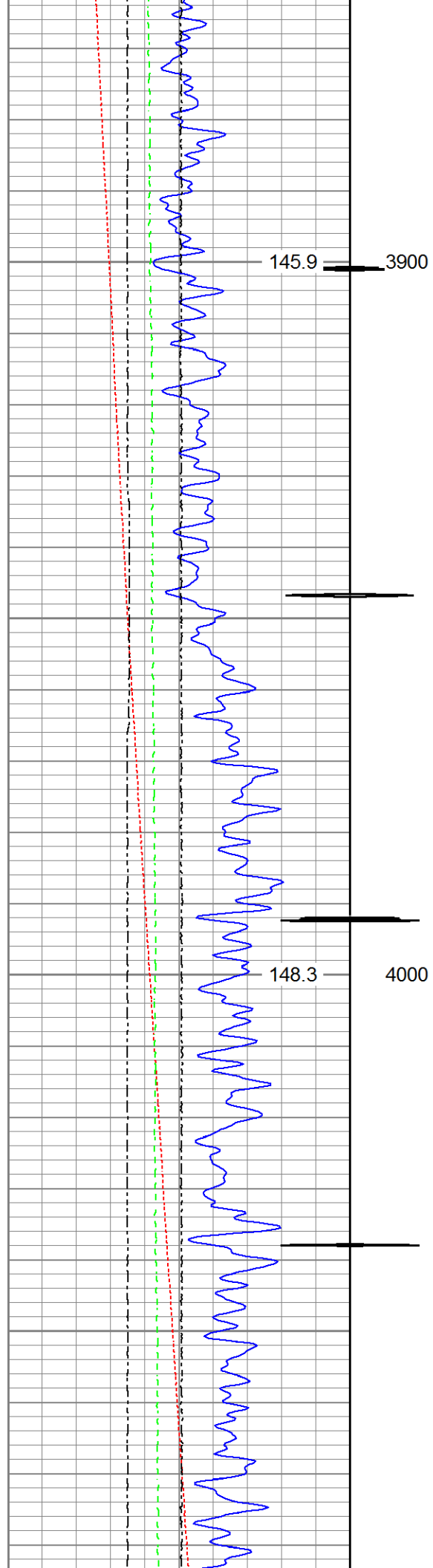


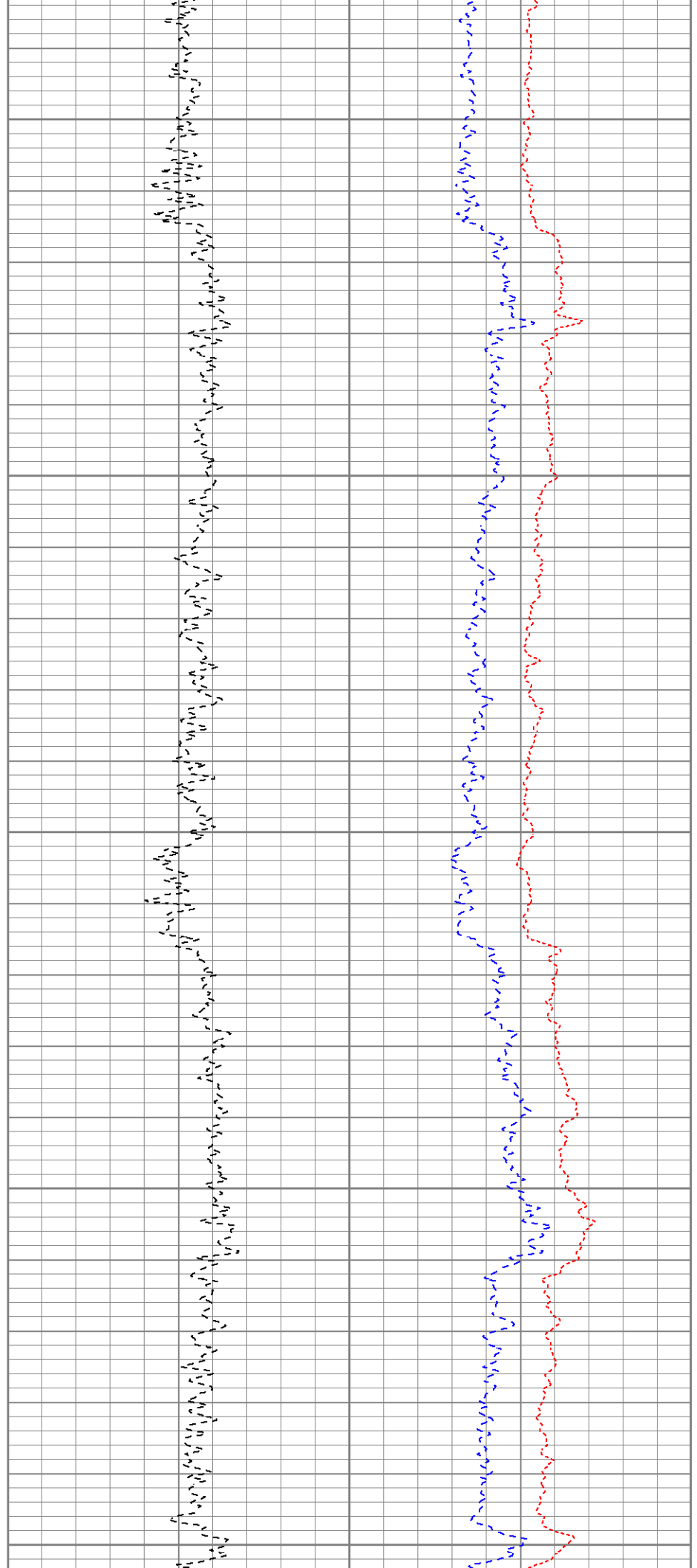
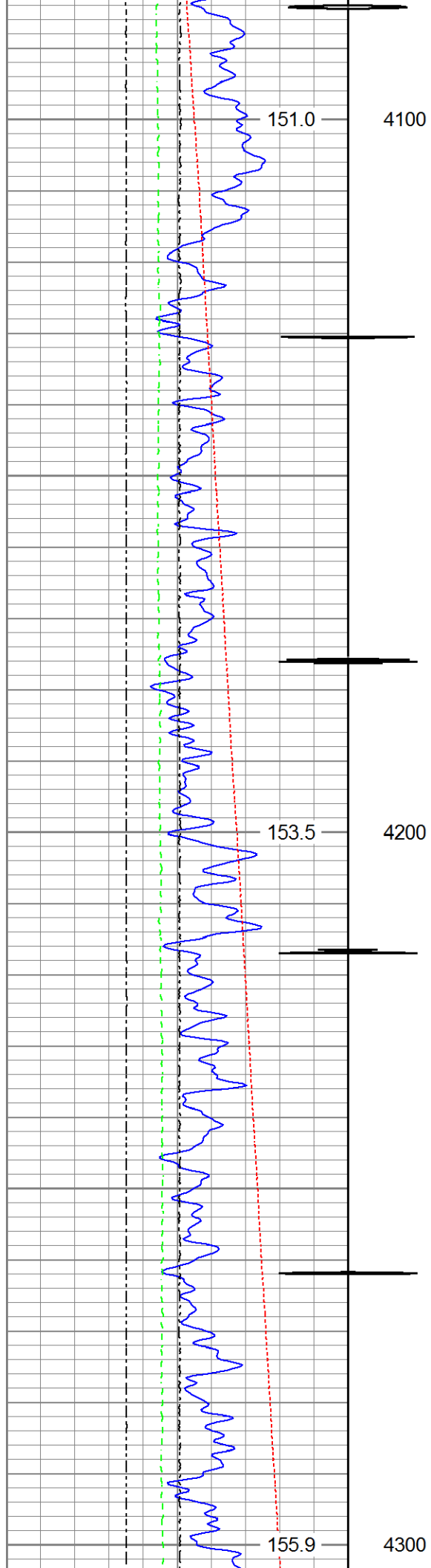


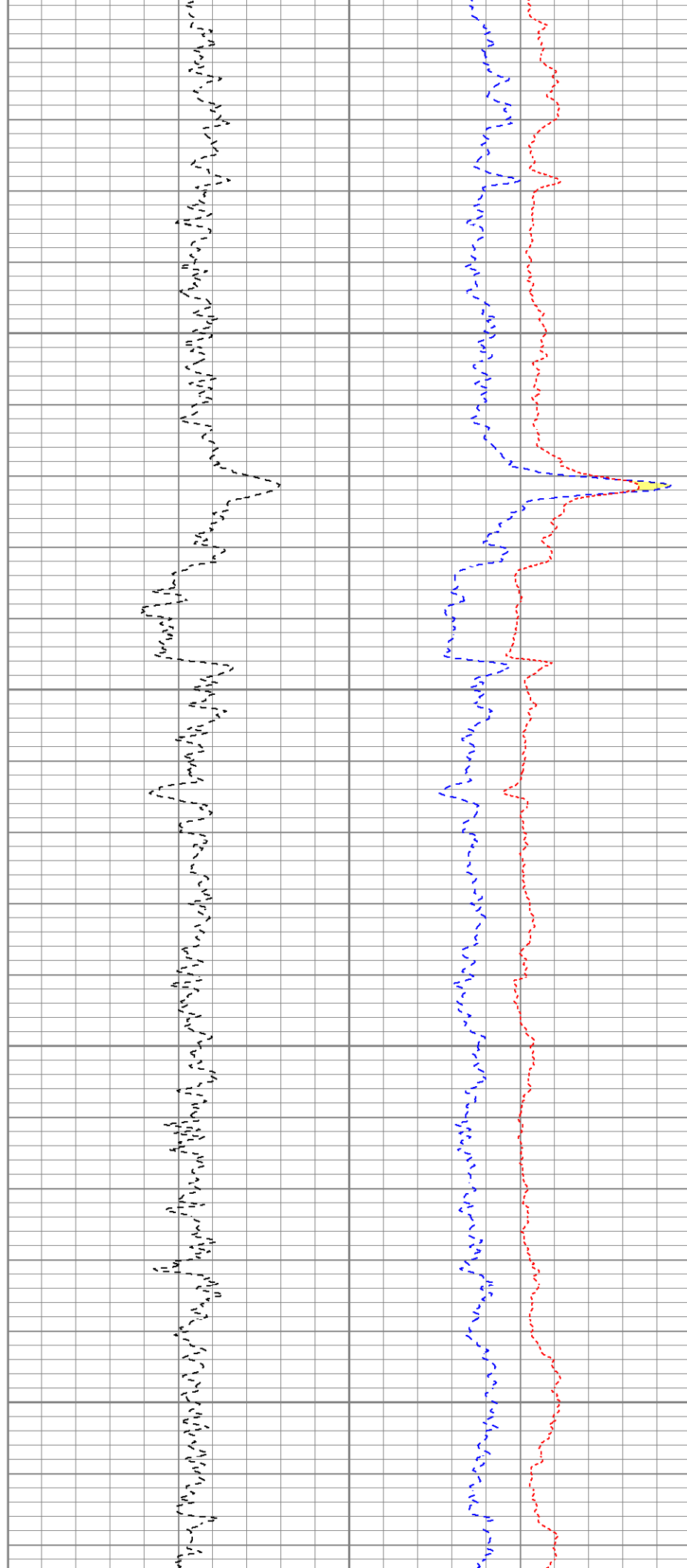
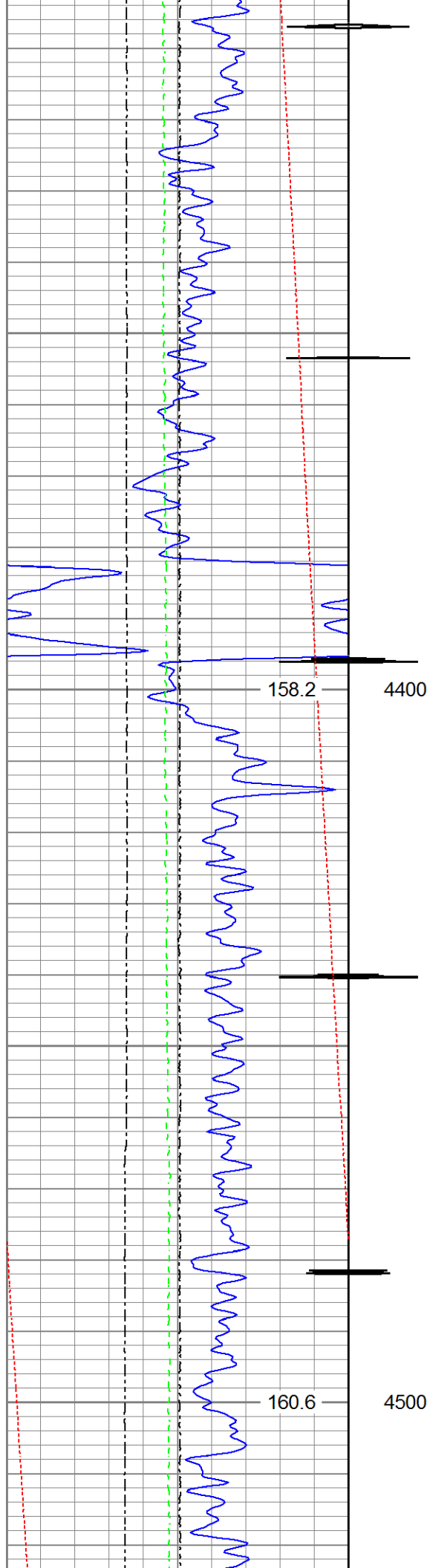


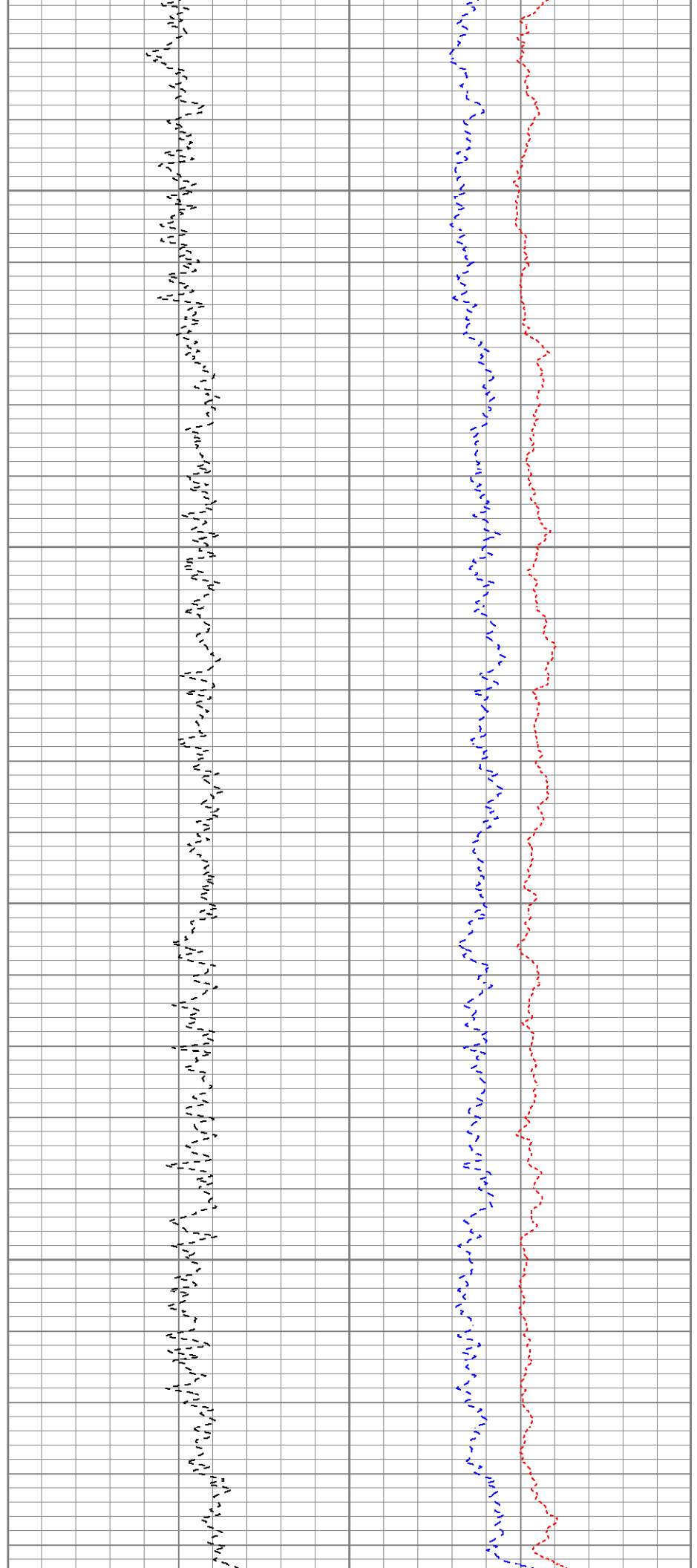
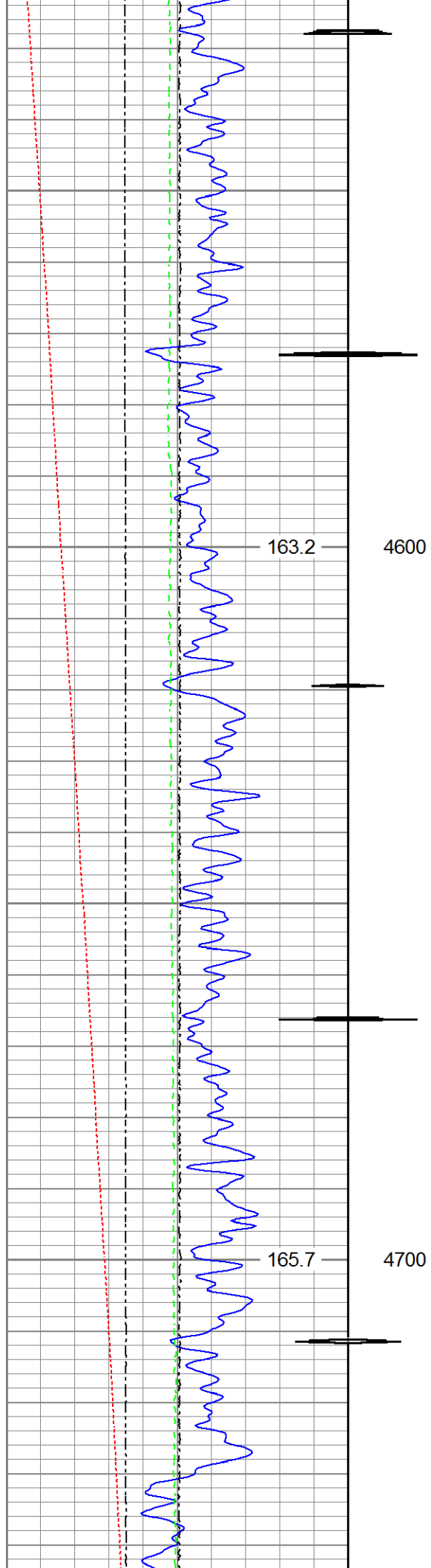


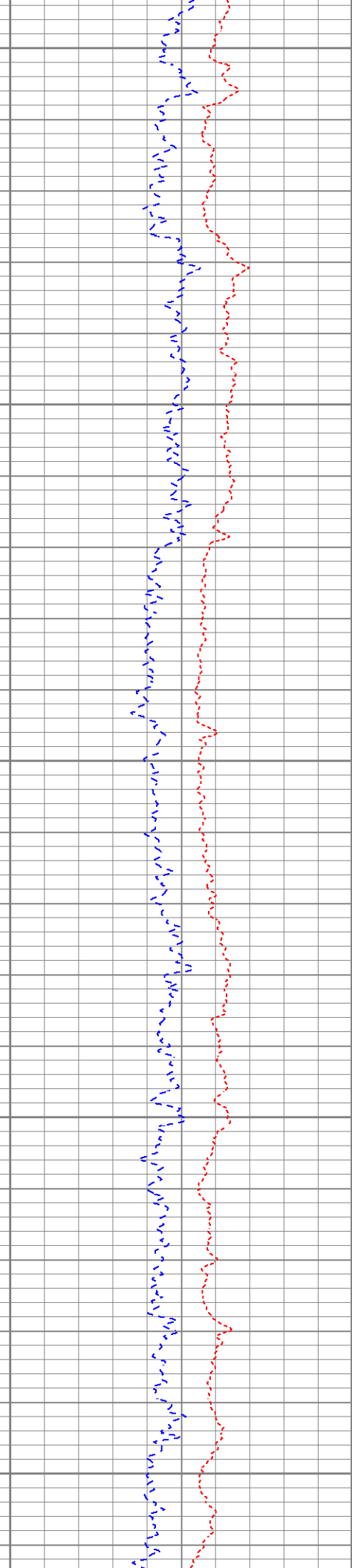
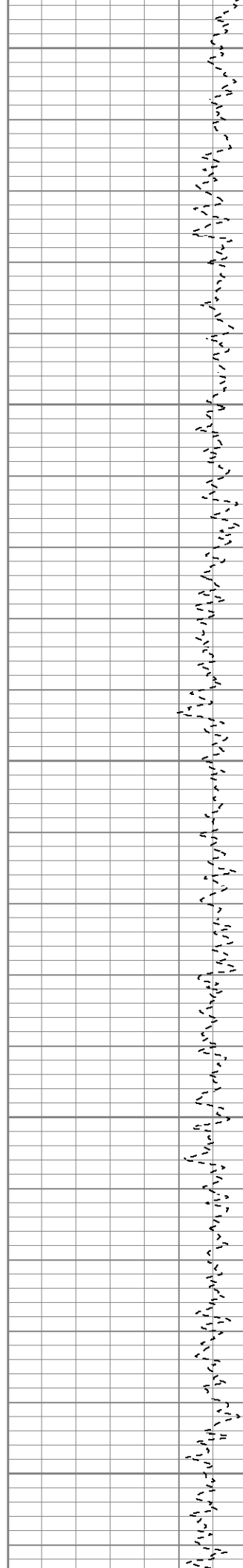
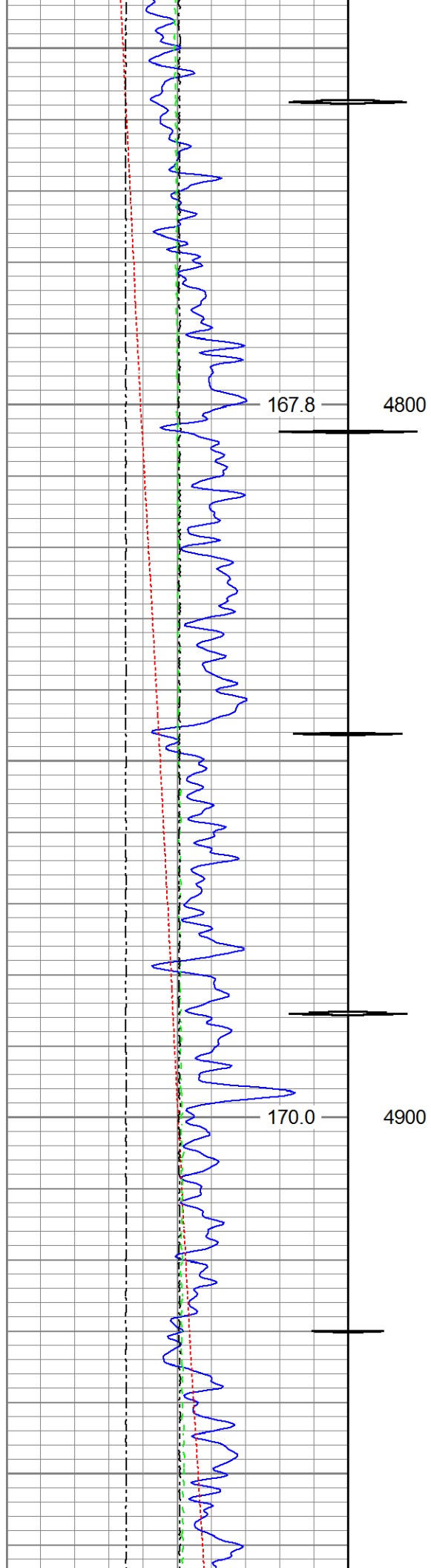


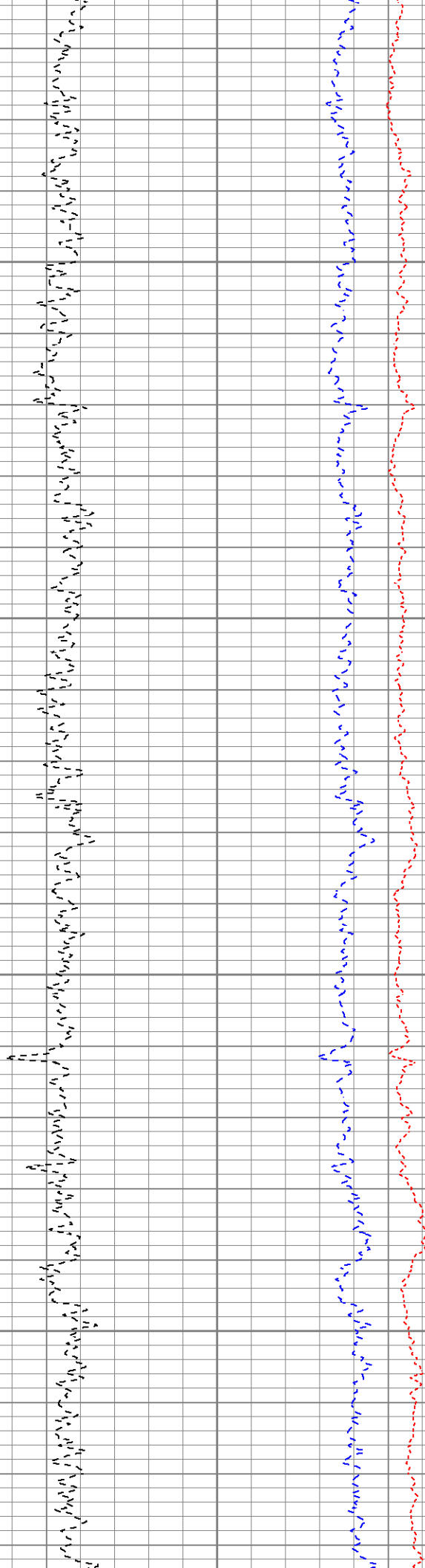
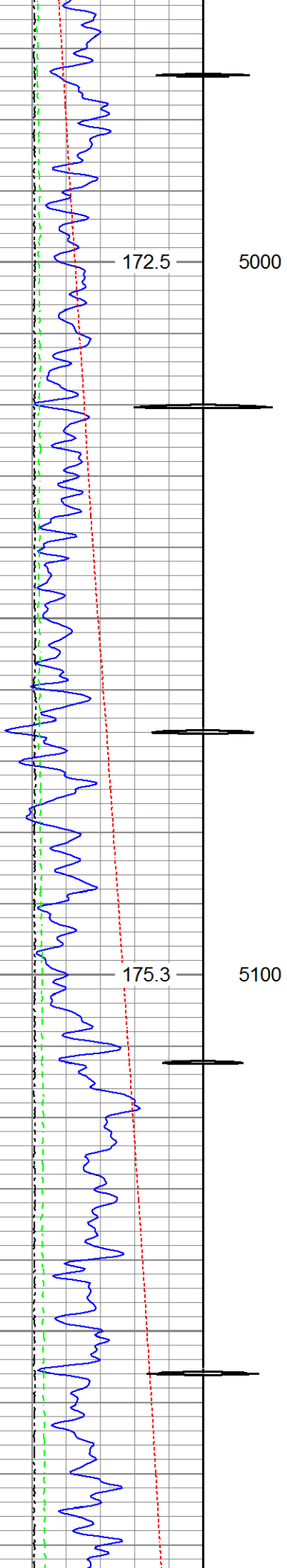


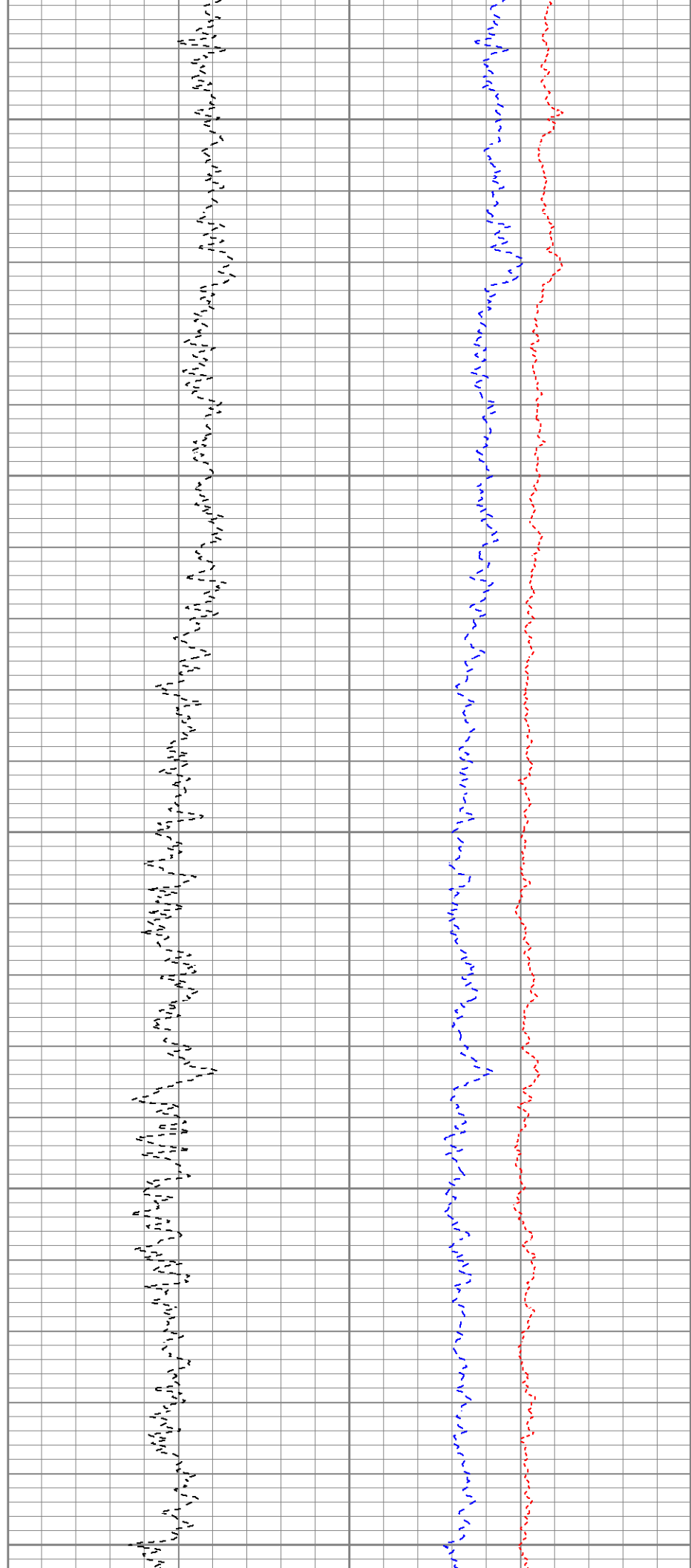
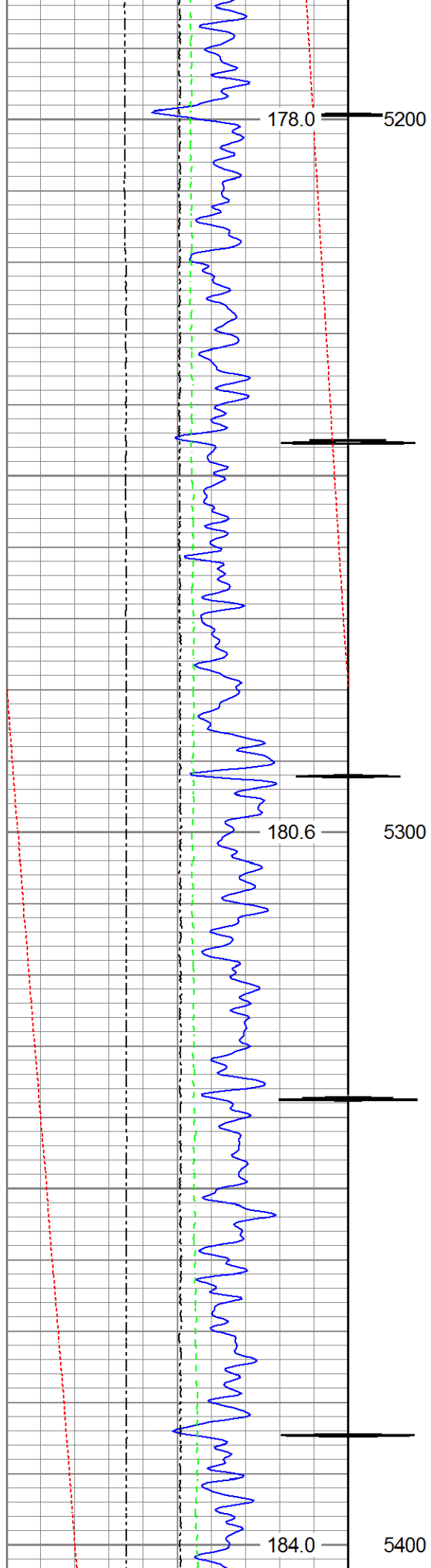


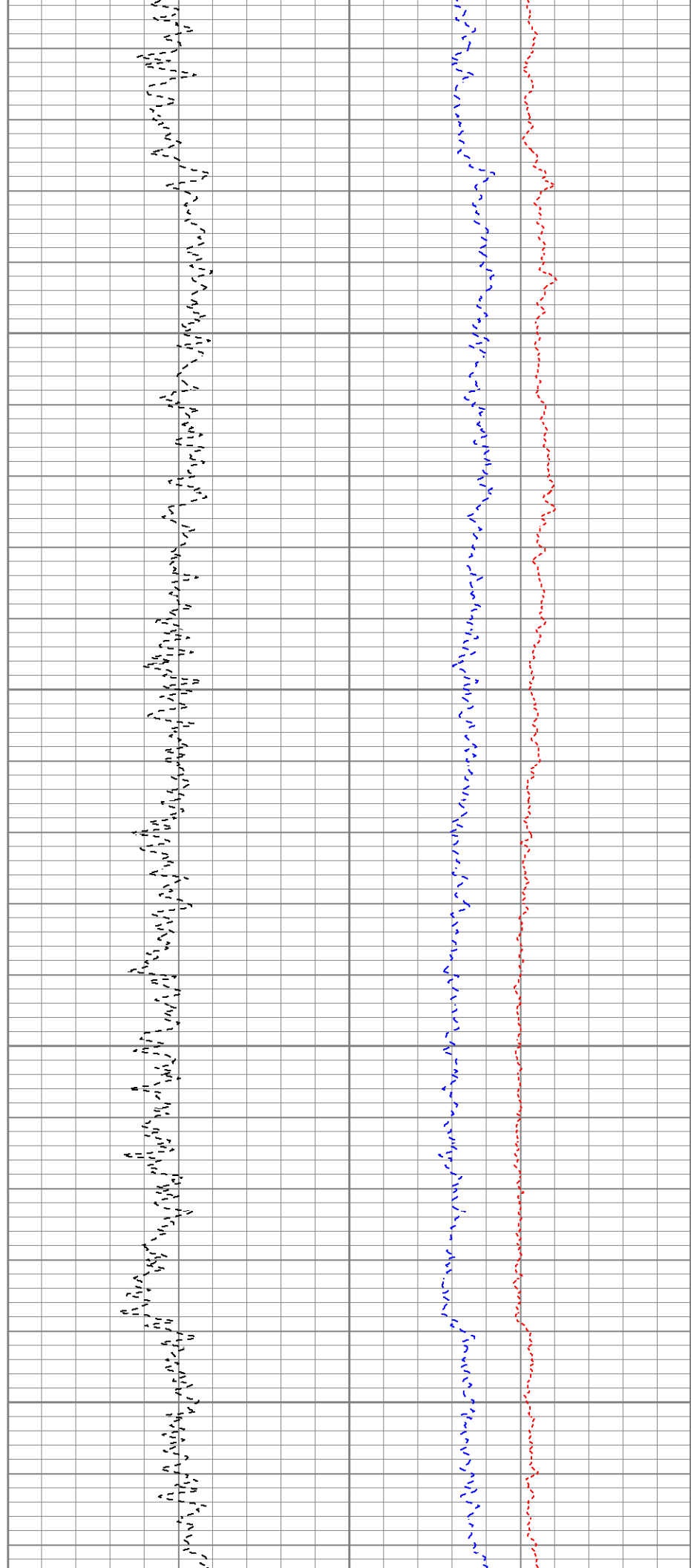
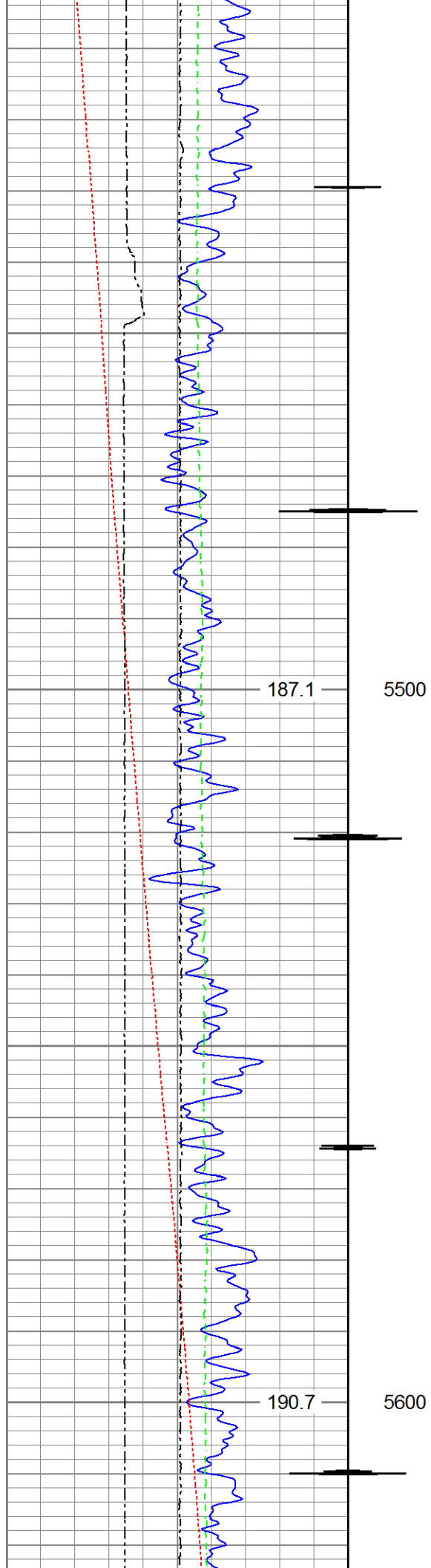


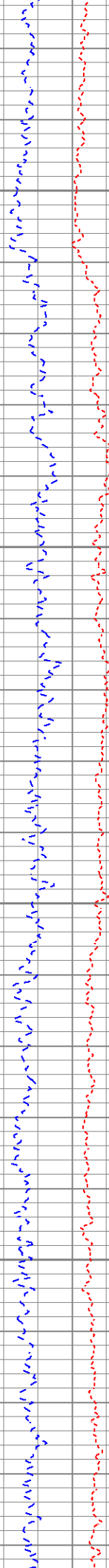
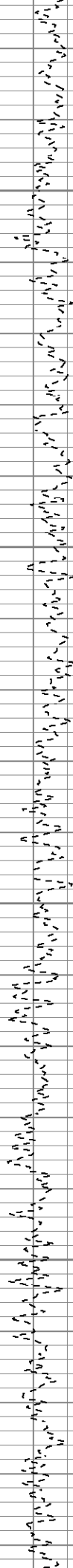
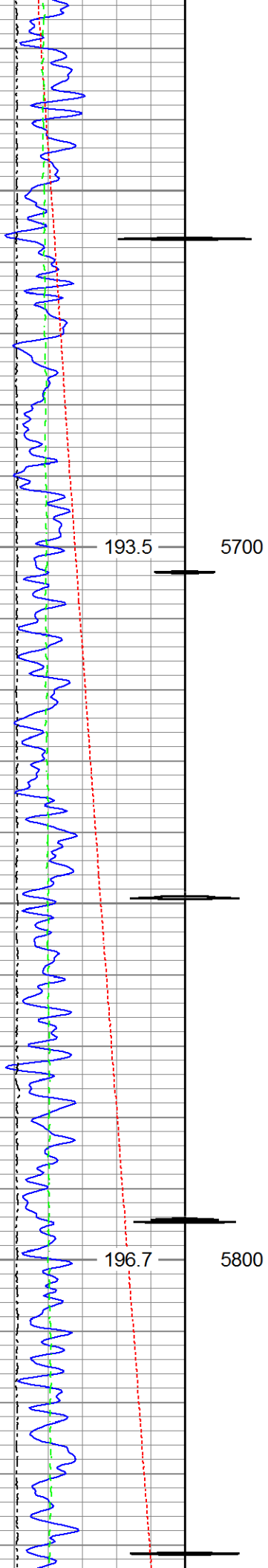


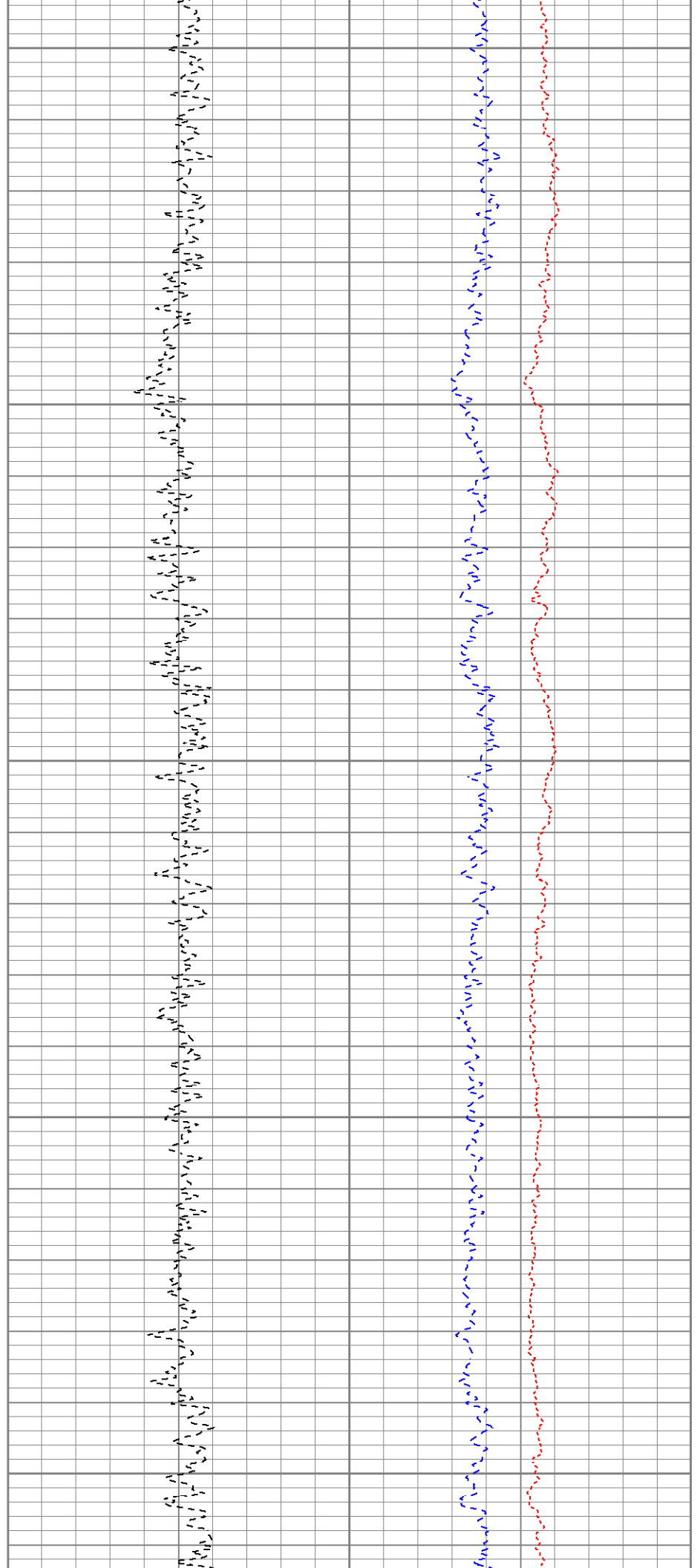
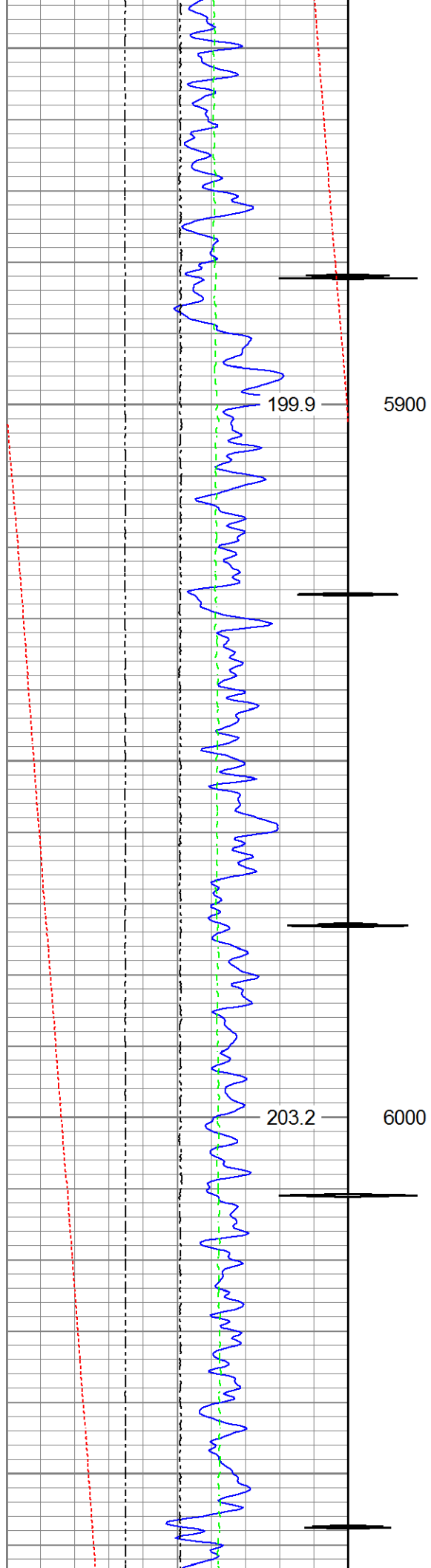


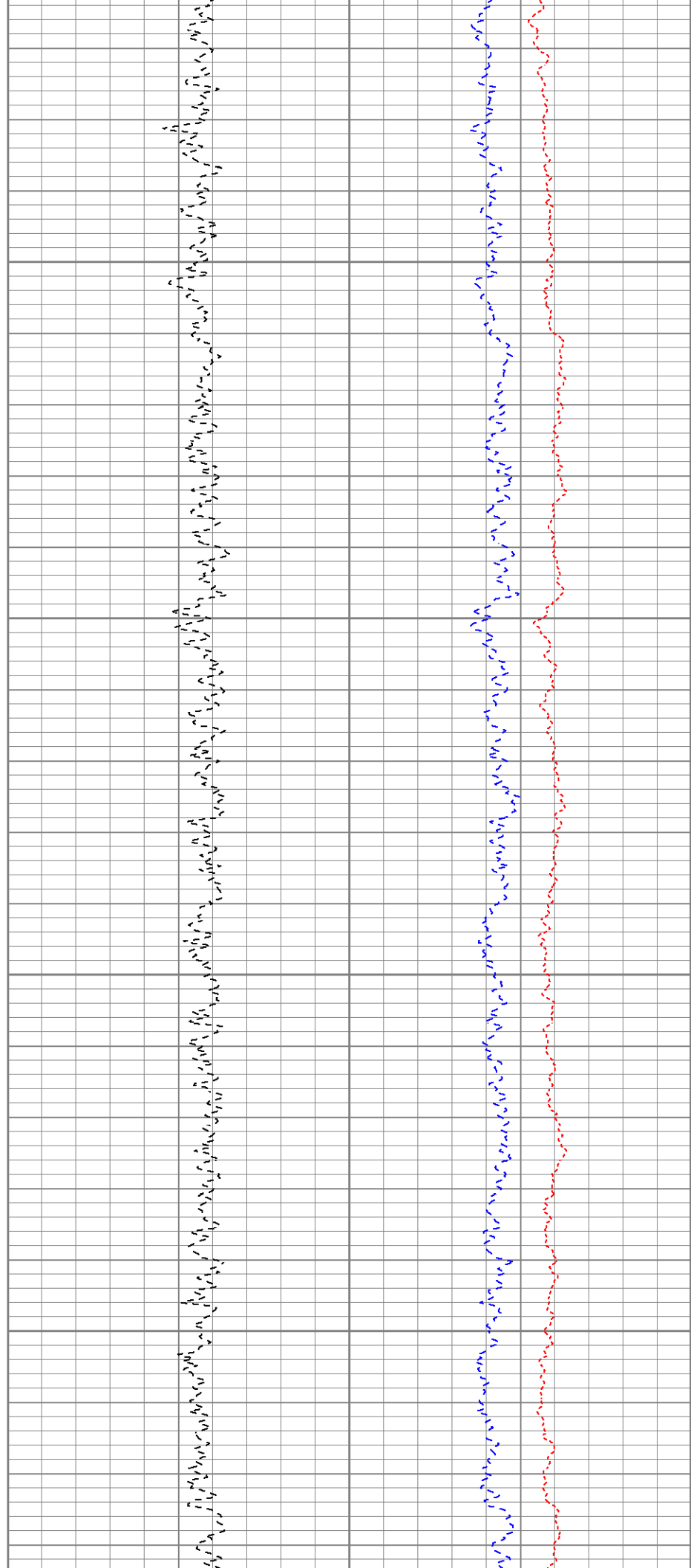
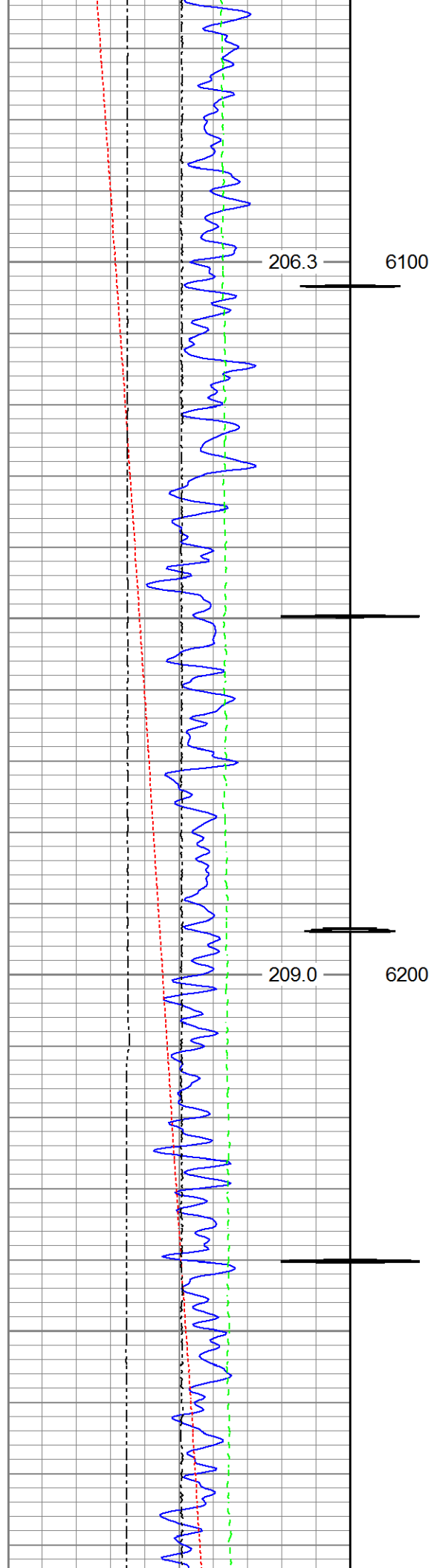


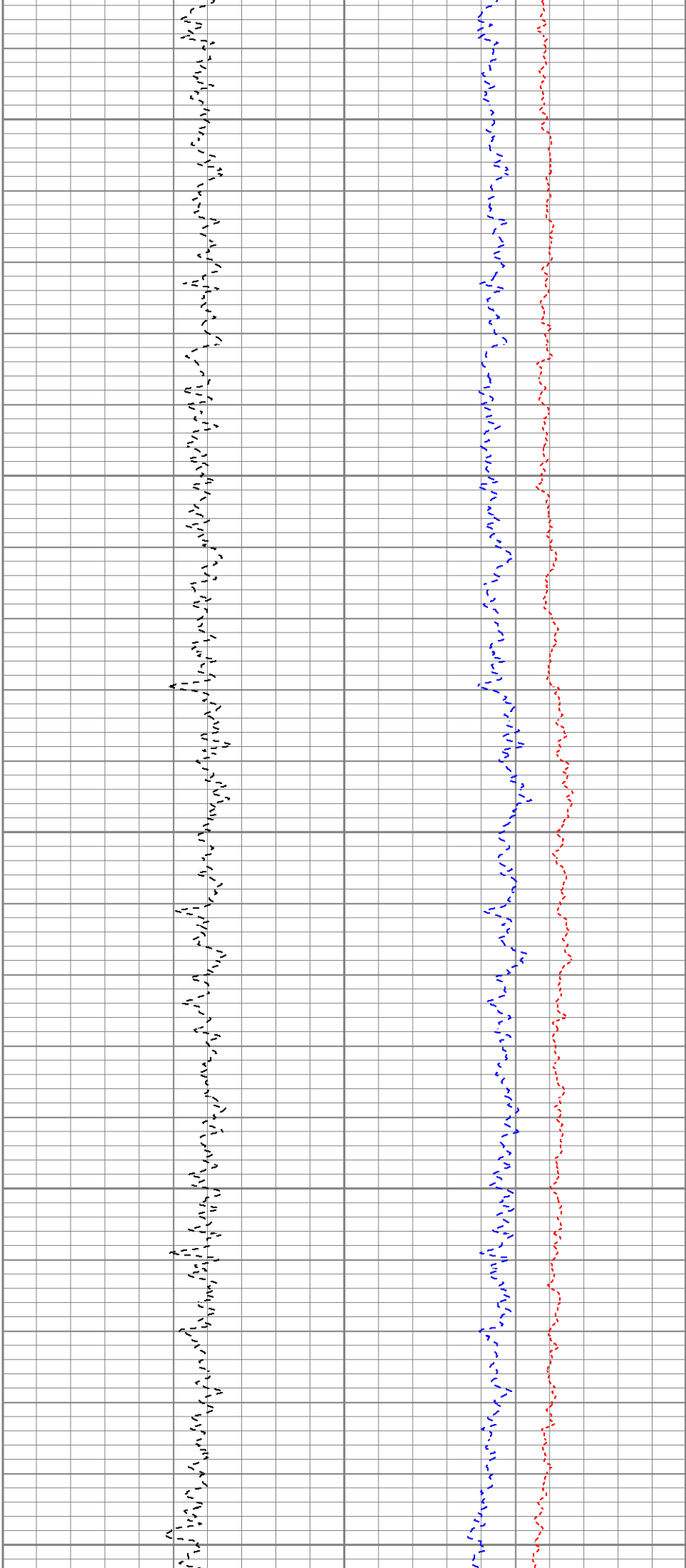
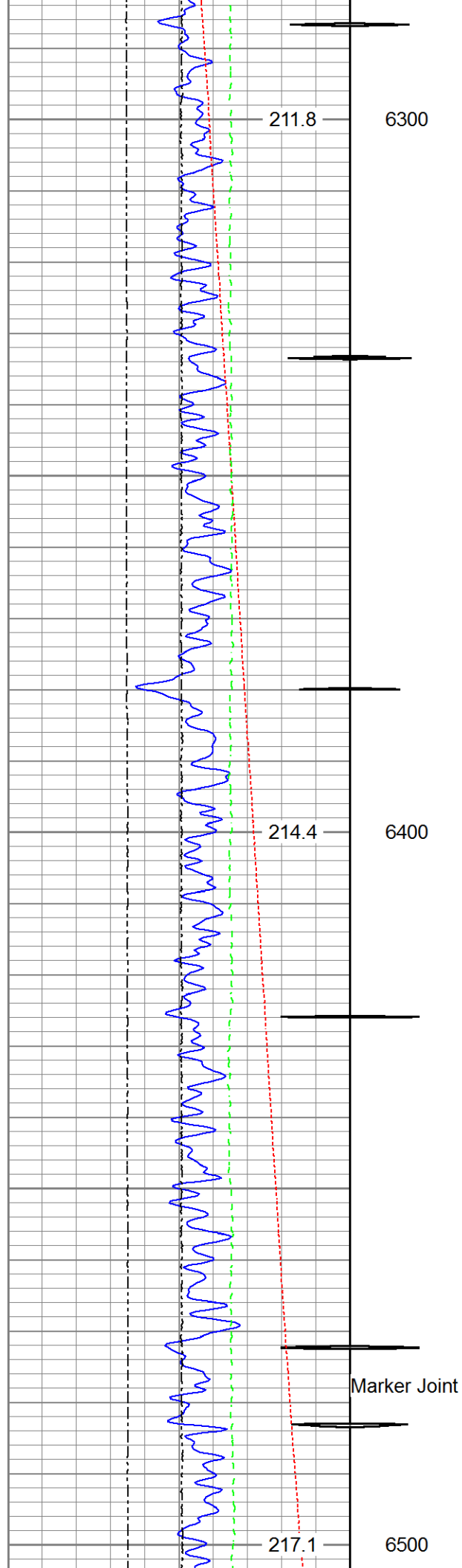


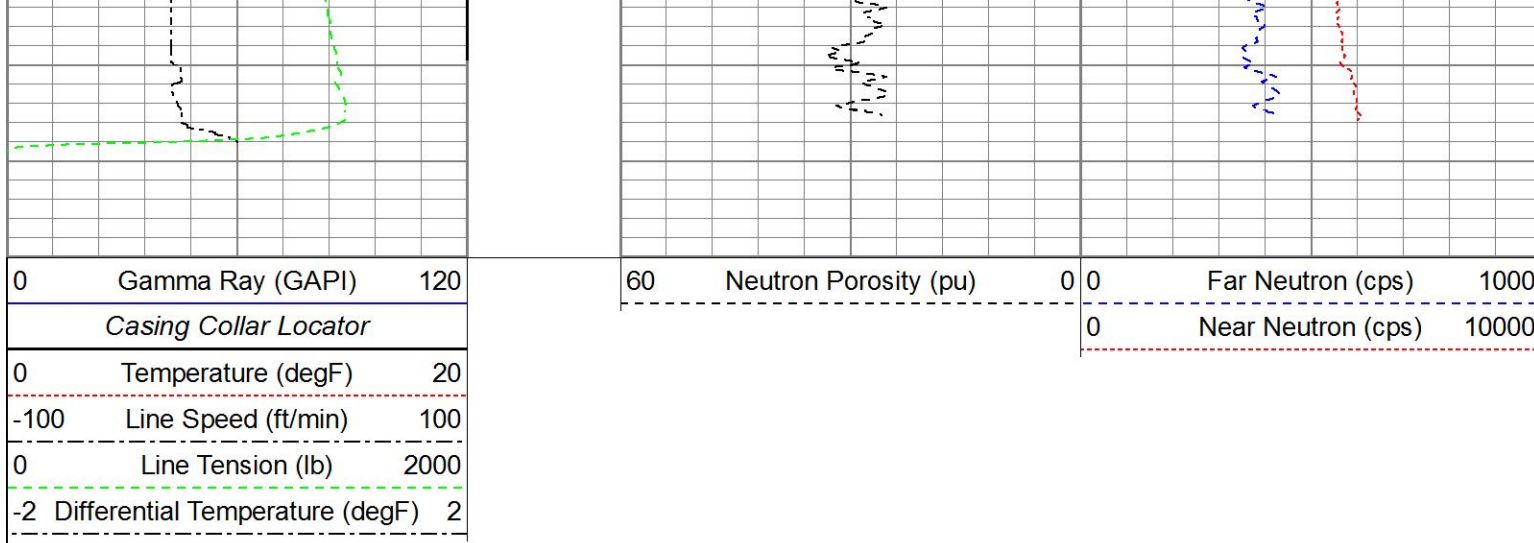








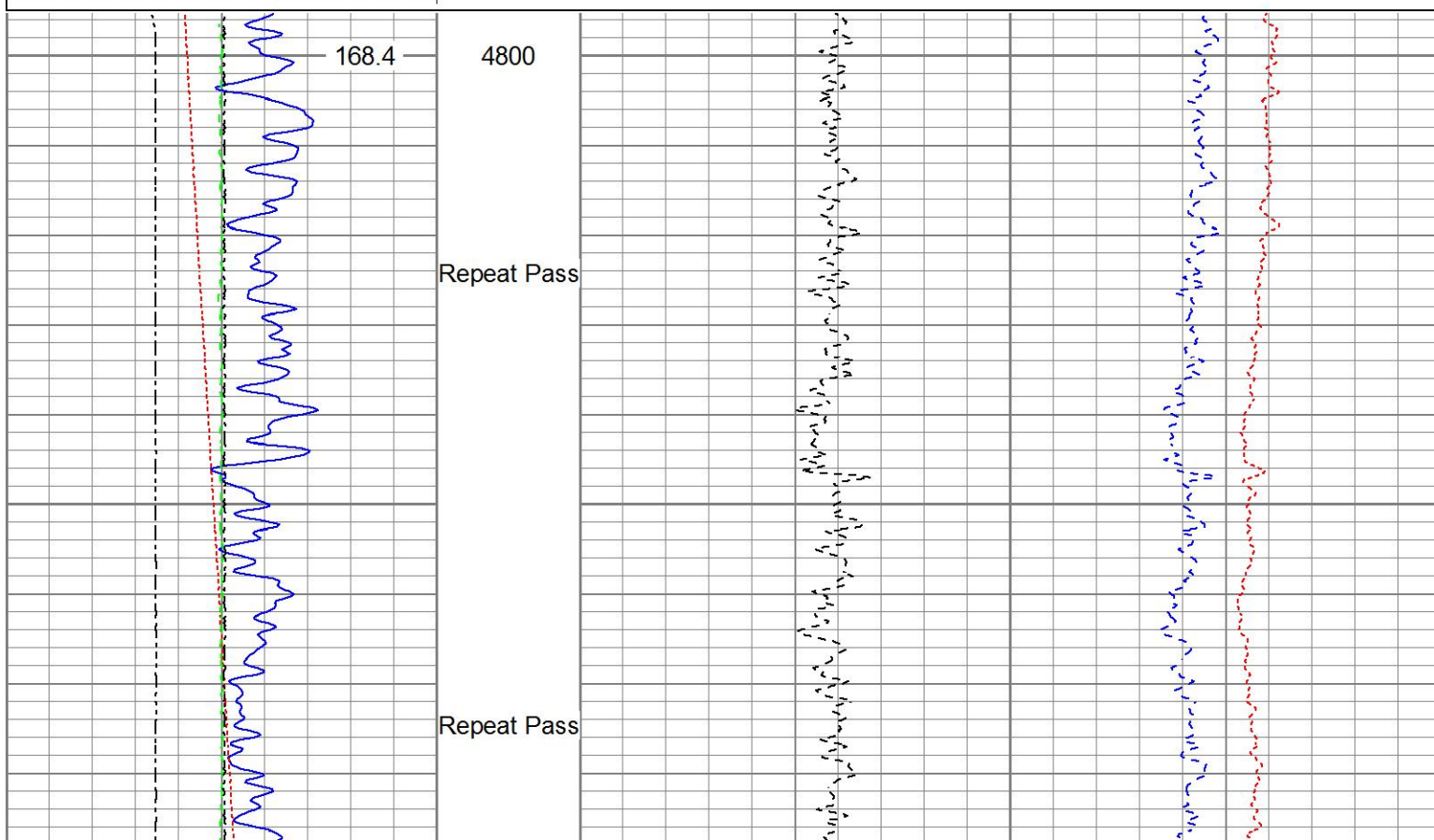
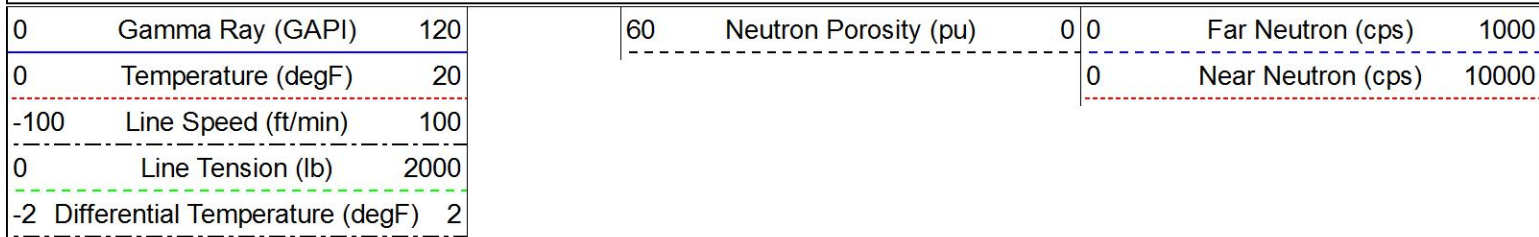


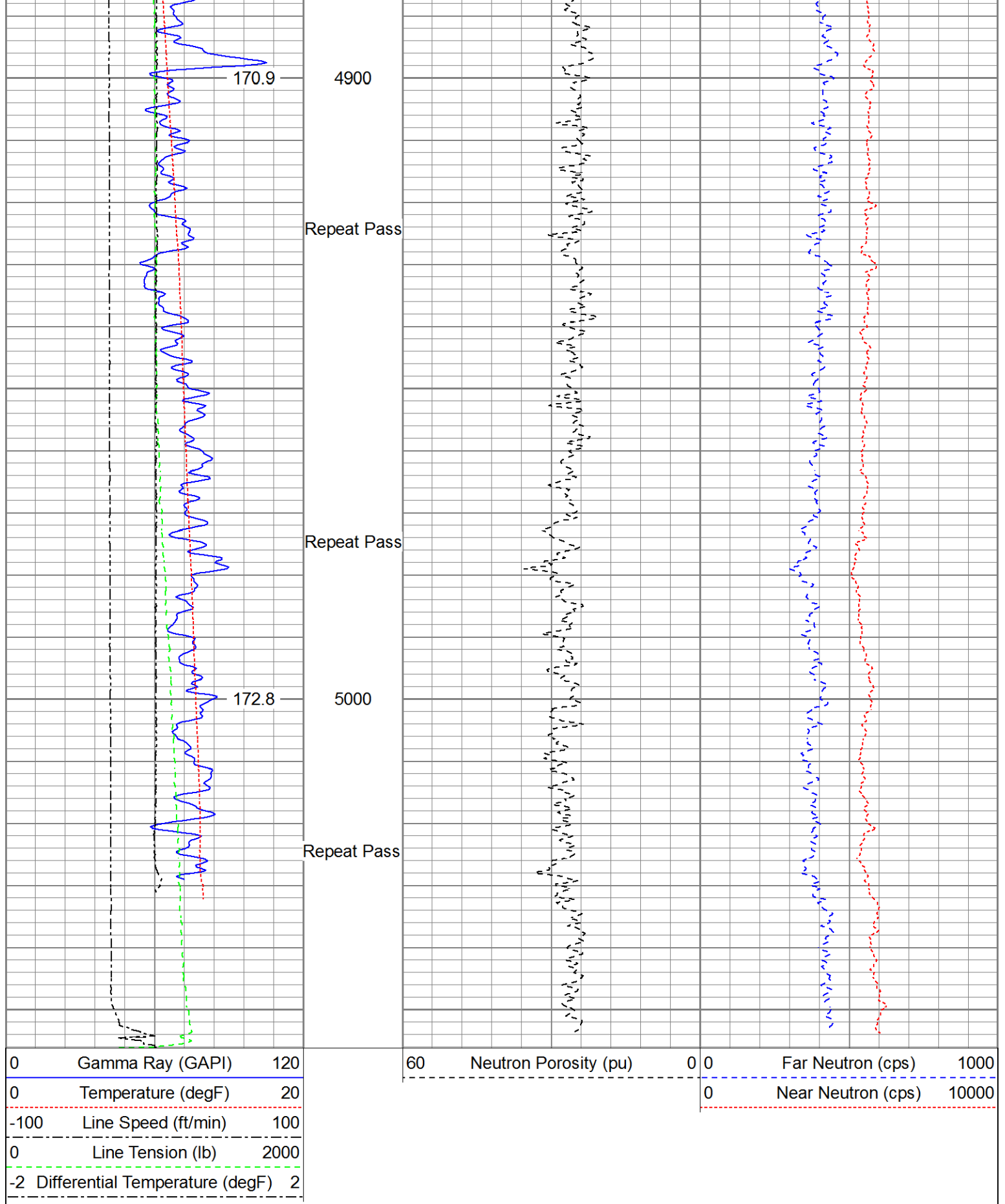




Repeat Pass

Recorded With 2500 PSI Surface Induced Pressure

Database File src energy_hood 23c-22-m\src energy_hood 23c-22-m_cnl_07-02-17.db
 Dataset Pathname pass2
 Presentation Format ros_cnl_sx
 Dataset Creation Sun Jul 02 12:51:25 2017
 Charted by Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan_Electric_Cable_Heads-Titan_1-11/161.03 Electric Cable Head with 1" Fishing Neck	161.03	1.69	5.40
			UW_AGS-UW_AGS_001 (219135) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00

				UW_XTU-UW_XTU_002 (218874) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
GR	25.09			UW_PGR-UW_PGR_020 (10013902) Production Gamma Ray	1.92	1.69	9.50
TEMP	23.69			UW_PRT-PRT_016 (10024052) Platinum Resistance Thermometer	1.04	1.69	5.20
				UW_PKJ-PKJ_013 Sondex 1-11/16" Ultrawire Knuckle Joint	0.54	1.69	3.50
				UW_PRC-DSS_RAC 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
CCL	19.36			UW_CCL-UW_CCL_028 (10024819) 3-1/8" Ultrawire Casing Collar Locator	1.61	3.13	36.00
CBLROT	14.51			UW_RBT-UW_RBT_004 (10013454) Sondex Ultrawire 3-1/8" Radial Bond Tool	9.48	3.13	140.00
CBLTEMP	14.51						
WVFS8	14.51						
WVFS7	14.51						
WVFS6	14.51						
WVFS5	14.51						
WVFS4	14.51						
WVFS3	14.51						
WVFS2	14.51			UW_BUL-UW_BUL_006 (031422) Sondex Ultrawire Bullnose Terminator	0.22	1.69	1.20
WVFS1	14.51						
WVF3FT	14.51			UW_PRC-DSS_RAC 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
WVF5FT	13.51						
CBLTEMP	9.38						
				UW_CNL-UW_CNL_007 (1005) Sondex Compensated Neutron Logging Tool	6.61	1.69	30.00
CNLSC	1.53						
CNSSC	1.12						
TSTAMP	0.00						
Dataset: SRC Energy_Hood 23C-22-M_CNL_07-02-17.db: field/well/run1/pass4 Total length: 29.34 ft Total weight: 302.30 lb O.D.: 3.13 in							

Calibration Report

Database File	D:\Warrior\Data\SRC Energy_Hood 23C-22-M\SRC Energy_Hood 23C-22-M_CNL_07-02-17.db
Dataset Pathname	pass4
Dataset Creation	Sun Jul 02 13:09:05 2017

Compensated Neutron Calibration Report						
Serial Number:		1005				
Tool Model:		UW_CNL_007				
Master Calibration		Sun Feb 07 11:39:11 2016				
Detector		Readings				
Short Space		240.87	cps			
Long Space		303.55	cps			
Ratio		Measured	Reference			
CNRAT Gain K		0.8150	Sleeve: 1.0000			
1.0271						
Before Survey						
Detector		Readings				
Short Space			cps			
Long Space			cps			
Ratio		Measured	Reference			
After Survey						
Detector		Readings				
Short Space			cps			
Long Space			cps			
Ratio		Measured	Reference			
Segmented Cement Bond Log Calibration Report						
Serial Number:		10013454				
Tool Model:		UW_RBT_004				
Calibration Casing Diameter:		7.000	in			
Calibration Depth:		305.118	ft			
Master Calibration, performed Sat Feb 06 13:28:33 2016:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	-0.002	0.773	0.800	71.921	91.773	0.981
5FT	-0.003	0.768	0.800	71.921	92.202	1.088
S1	-0.002	0.769	0.000	100.000	129.687	0.251
S2	-0.003	0.788	0.000	100.000	126.430	0.399
S3	-0.003	0.788	0.000	100.000	126.434	0.431
S4	-0.003	0.788	0.000	100.000	126.300	0.433
S5	-0.002	0.776	0.000	100.000	128.498	0.255
S6	-0.003	0.765	0.000	100.000	130.109	0.417
S7	-0.003	0.750	0.000	100.000	132.795	0.360
S8	-0.002	0.755	0.000	100.000	132.040	0.315
Temperature Calibration Report						
Serial Number:		10024052				
Tool Model:		PRT_016				
Performed:		Sun Oct 11 12:16:39 2015				

Point #	Reading		Reference	
1	12242.00	cps	68.00	degF
2	18329.00	cps	104.00	degF
3	29563.00	cps	176.00	degF
4	41222.00	cps	248.00	degF
5	52988.00	cps	320.00	degF
6	58824.00	cps	356.00	degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

Gamma Ray Calibration Report				
Serial Number:	10013902			
Tool Model:	UW_PGR_020			
Performed:	(Not Performed)			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	1.0000	GAPI/cps		

	Company	SRC Energy Inc.
	Well	Hood 23C-22-M
	Field	Wattenberg
	County	Weld
	State	Colorado