



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company				K.P. Kauffman Company Inc.			
Well				Musick-McClintock # 3			
Field				Hambert			
County				Weld			
State				Colorado			
Location:				API # : 05-123-09686			
SEC 32 TWP 4N RGE 65W				SHL: 660' FNL 660' FWL			
Permanent Datum				Ground Level			
Log Measured From				Kelly Bushing			
Drilling Measured From				Kelly Bushing			
Elevation				4892'			
K.B. 4900'				D.F. 4899'			
G.L. 4892'							
Date				April 23, 2014			
Run Number				One			
Depth Driller				4762 FT			
Depth Logger				4534 FT			
Bottom Logged Interval				4534 FT			
Top Log Interval				Surface			
Open Hole Size				8.625"			
Type Fluid				Water			
Density / Viscosity				8.4 lbm/gal			
Max. Recorded Temp.				185°F			
Estimated Cement Top				540 FT			
Time Well Ready				11:15 a.m.			
Time Logger on Bottom				11:40 a.m.			
Equipment Number				HD 0119			
Location				Ft. Lupton, CO			
Recorded By				Zach Fisher			
Witnessed By				Roger Pape			
Borehole Record				Tubing Record			
Run Number				Bit			
From				To			
Size				Weight			
From				To			
Casing Record				Size (in)			
Surface Casing				Wgt (lbs/Ft)			
Intermediate #1				Grade			
Intermediate #2				Top			
Liner				Bottom			
				4.5"			
				10.5			
				---			
				Surface			
				4762 FT			

<<< 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 costumer request.  
All wireline depths measured from KB zero at 8 FT  
Adjusted log -3.7 FT from KB zero to correlate to Gearhart-Owen Gamma Ray Log  
Log ran with -0- PSI in well at Surface

Thanks for choosing FMC Technologies Completion Services, Inc!!



Main Pass

Logged with 0 PSI At Surface

Database File:04-23-14\_k.p. kauffman\_musick-mcclintock #3\_rbl.db

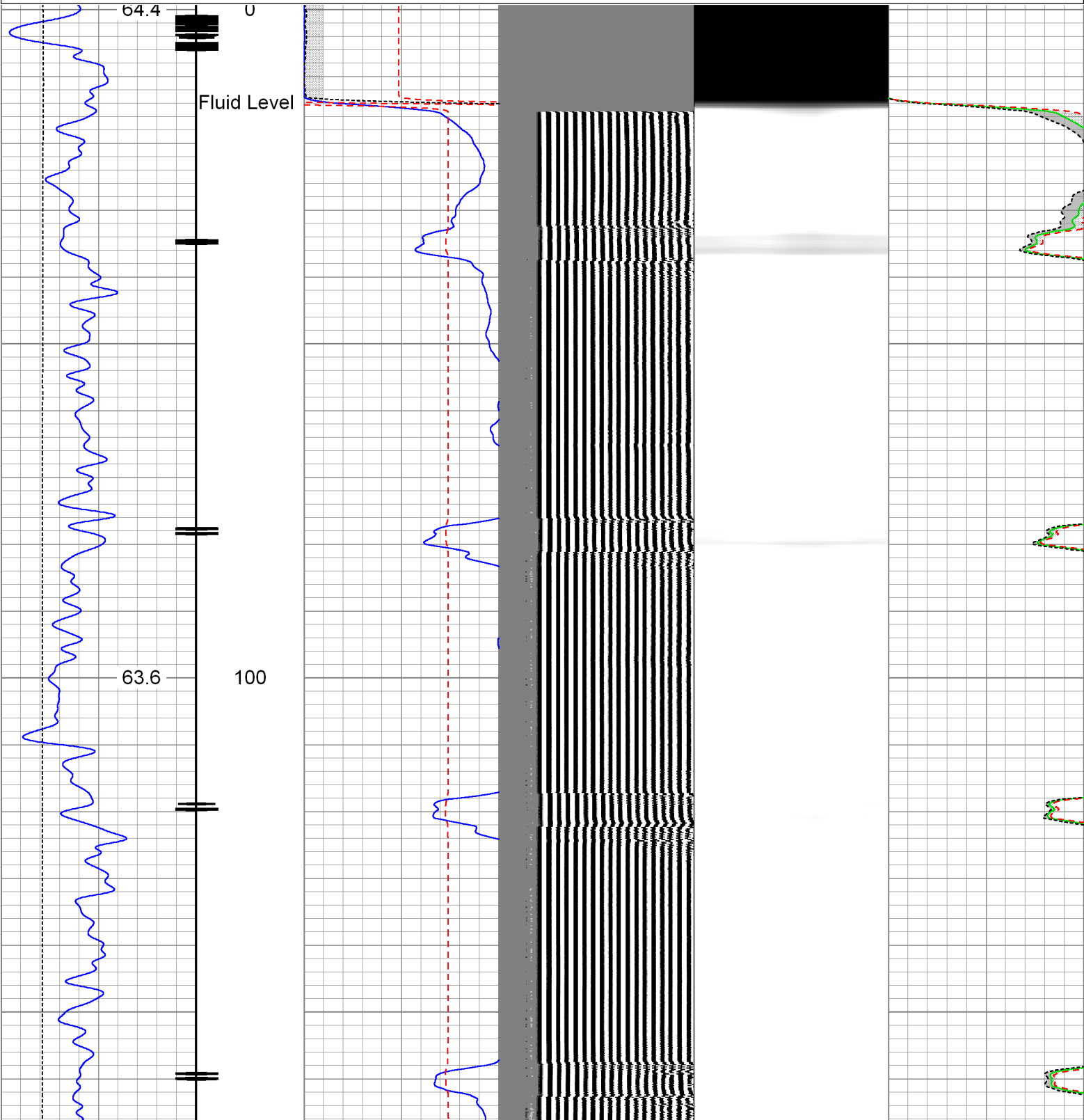
Dataset Pathname:Main.1

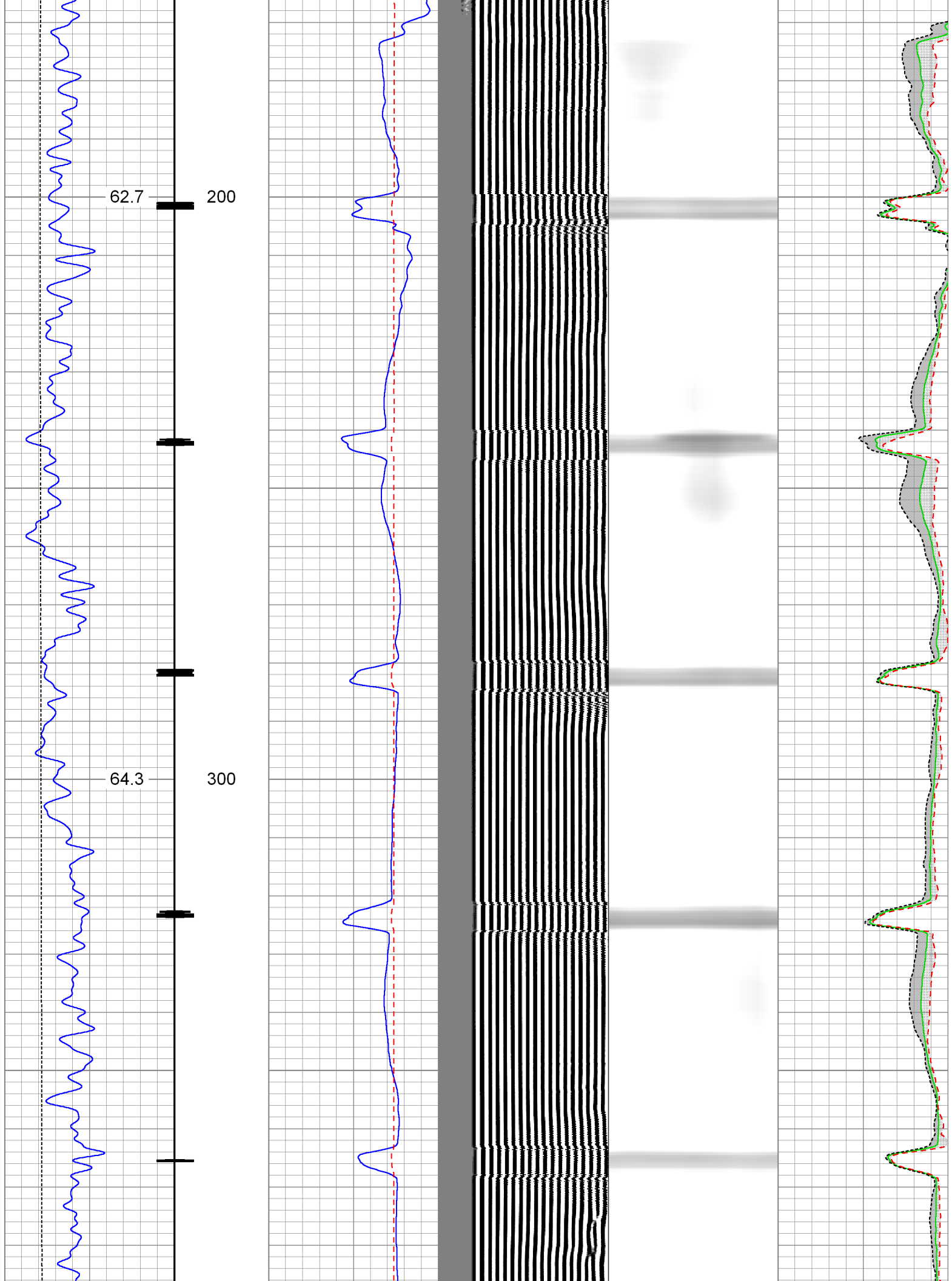
Presentation Format:rbt\_w\_te

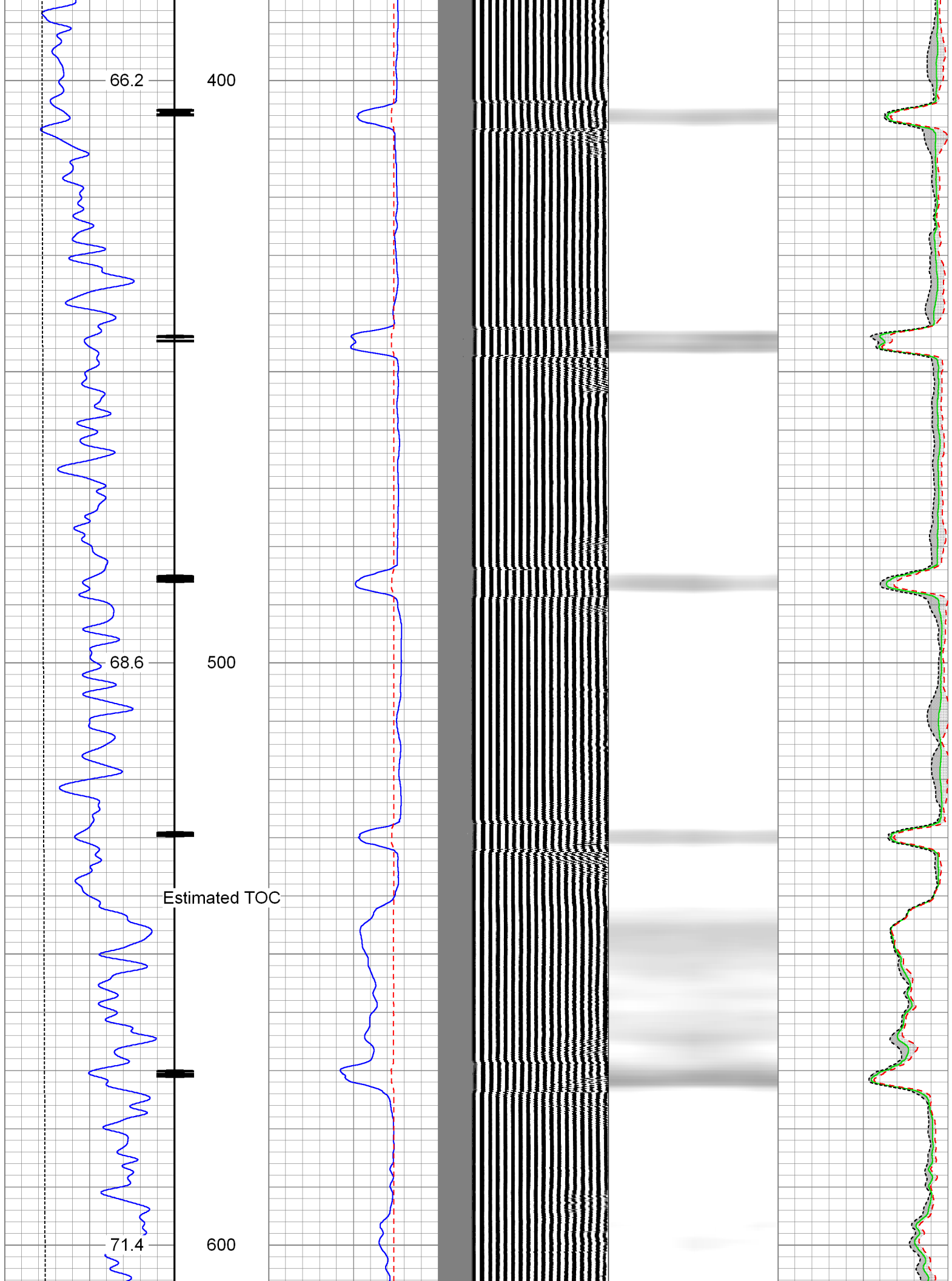
Dataset Creation:Thu Apr 24 13:19:22 2014 by Calc SCH 120430

Charted by:Depth in Feet scaled 1:240

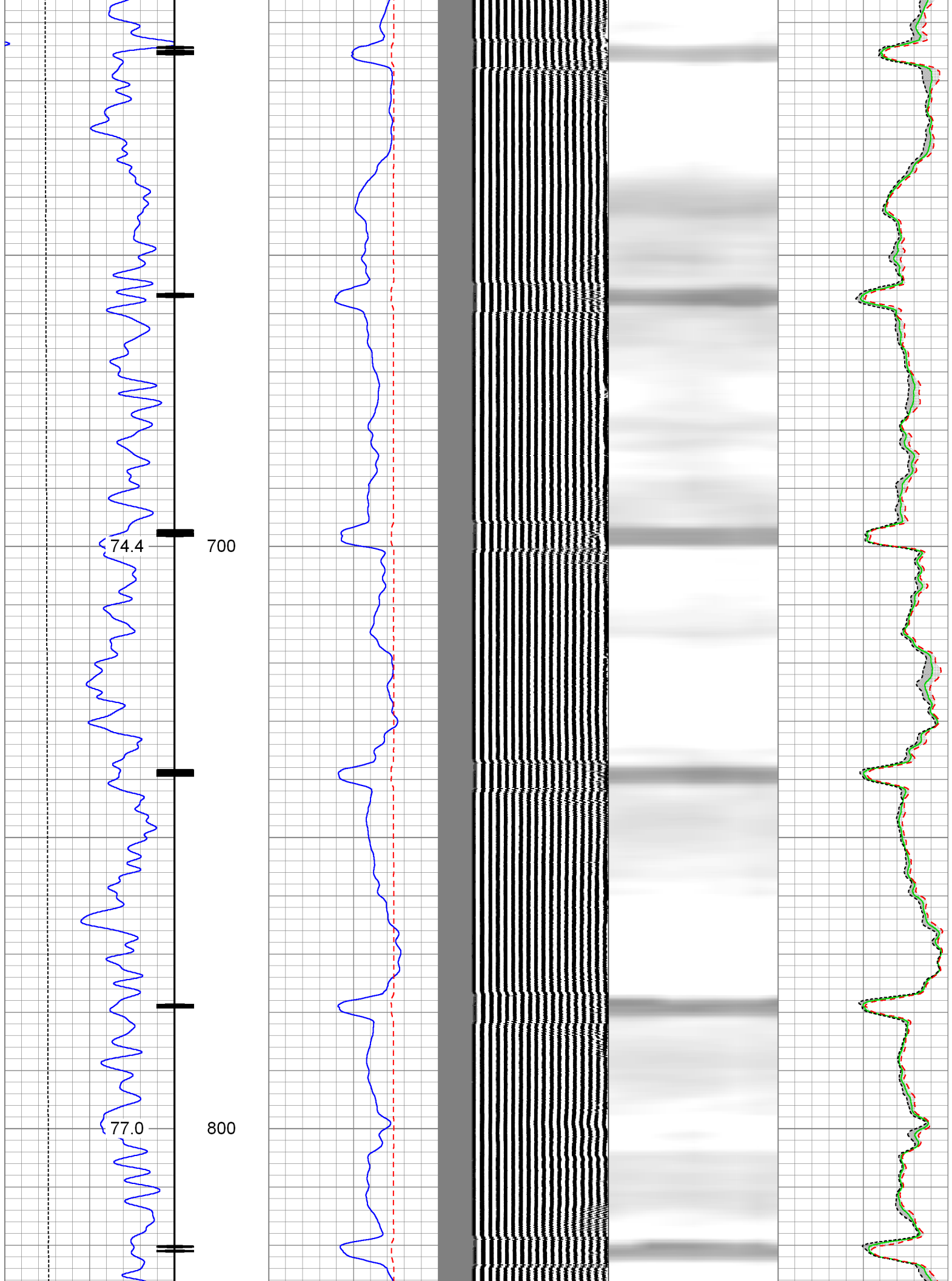
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Collar Locator	3' Amplitude x 5			Minimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 300	3' Travel Time			Maximum Amplitude
	650 (usec) 150			0 100

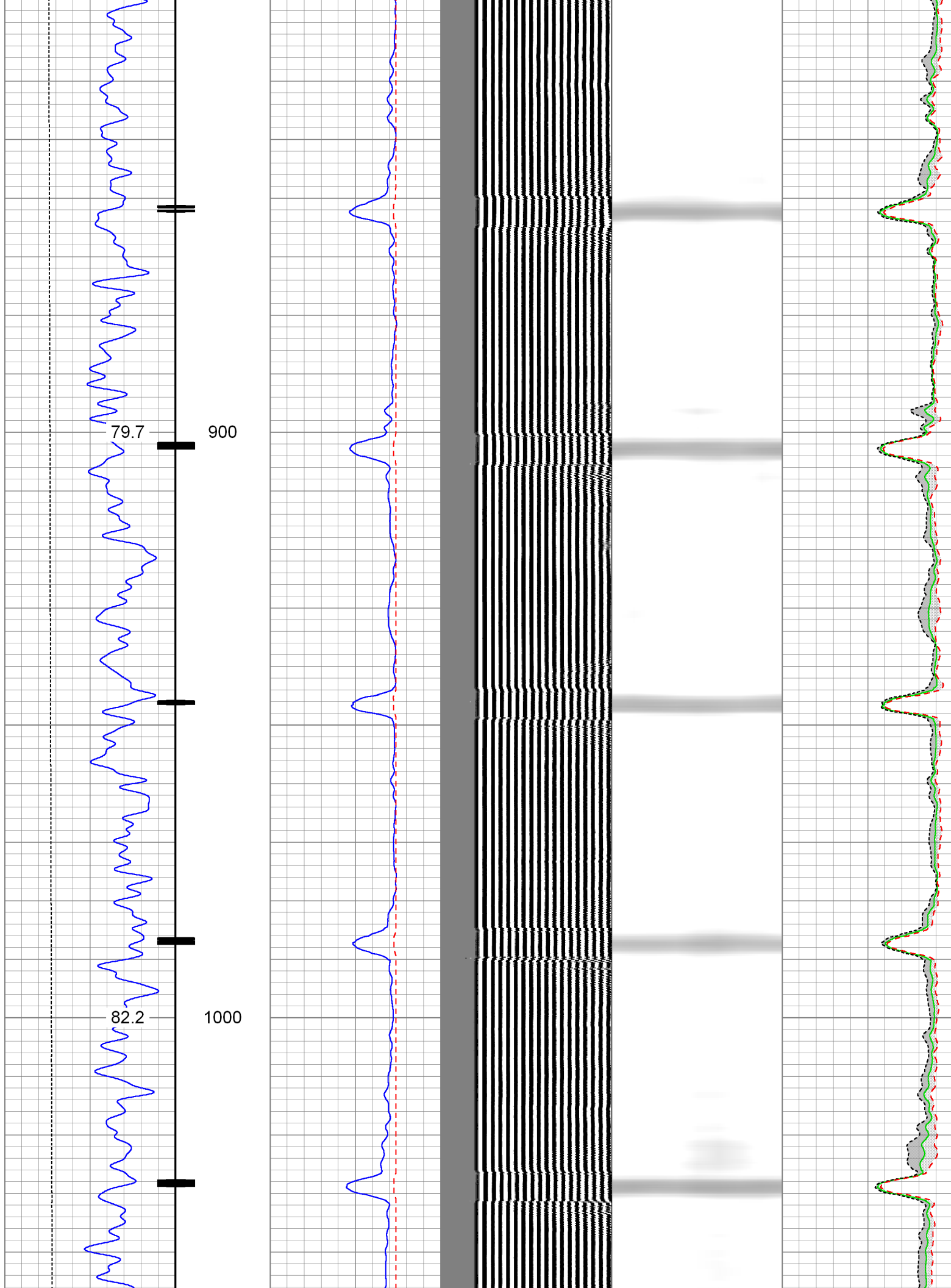


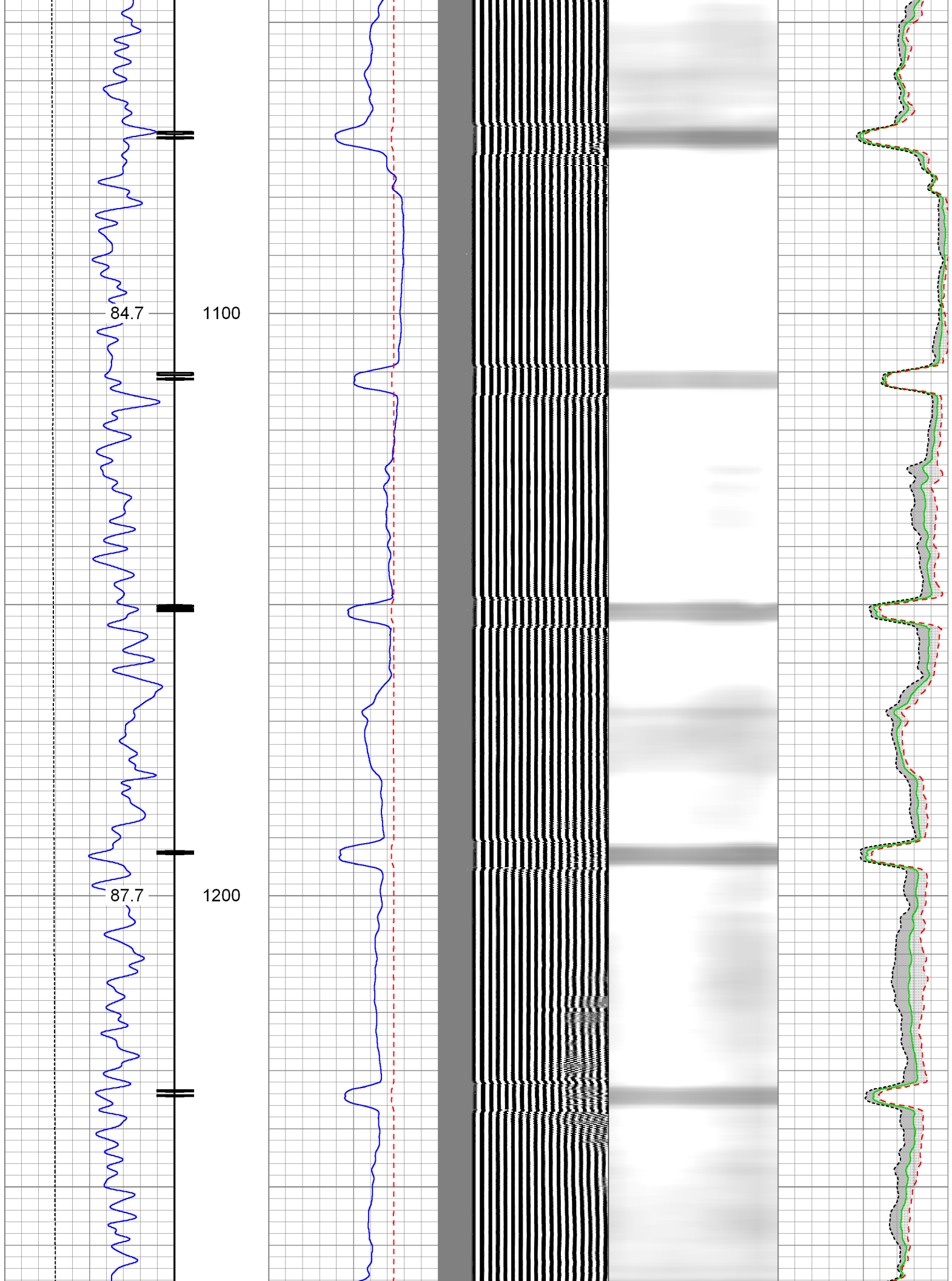


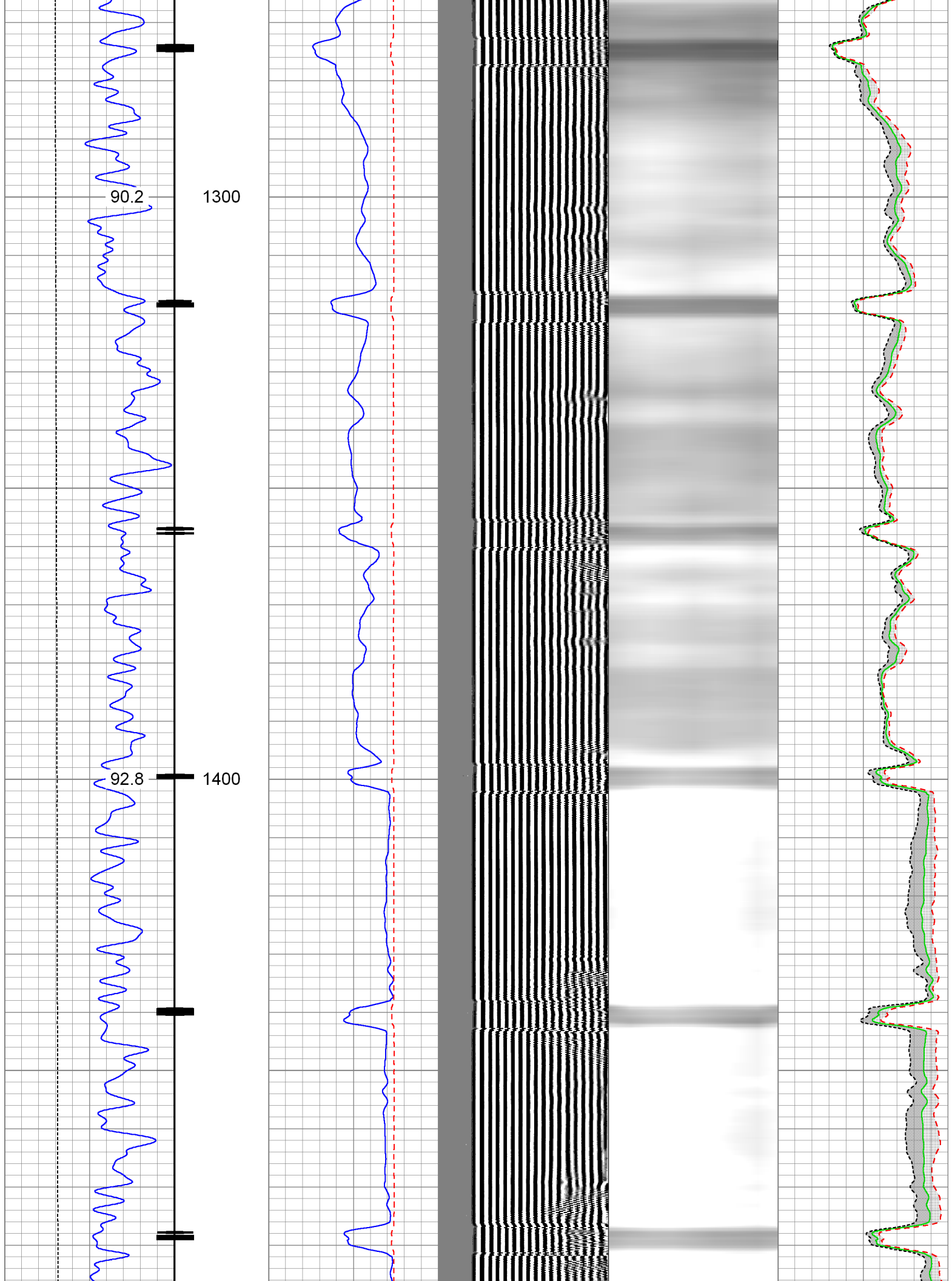


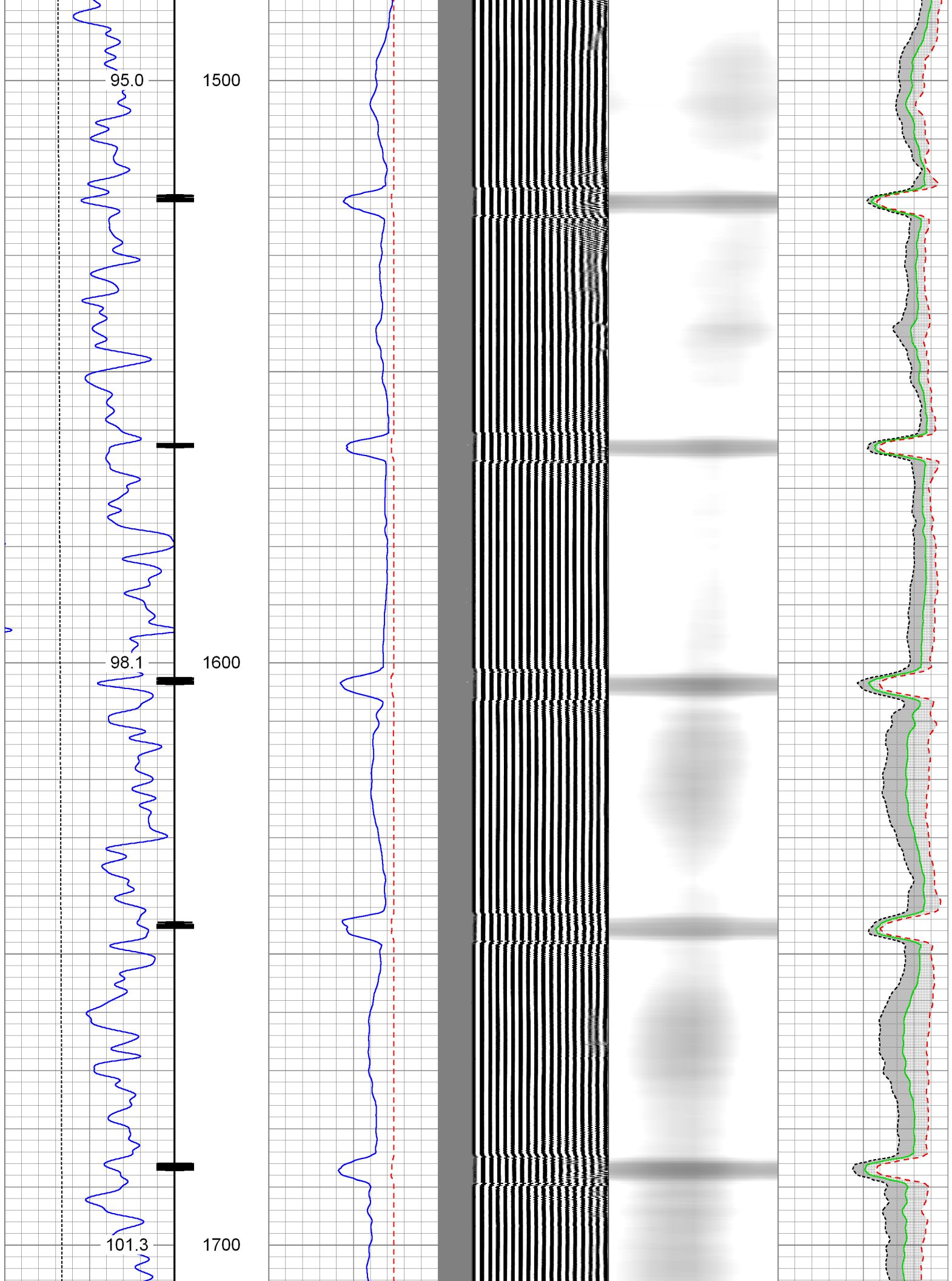


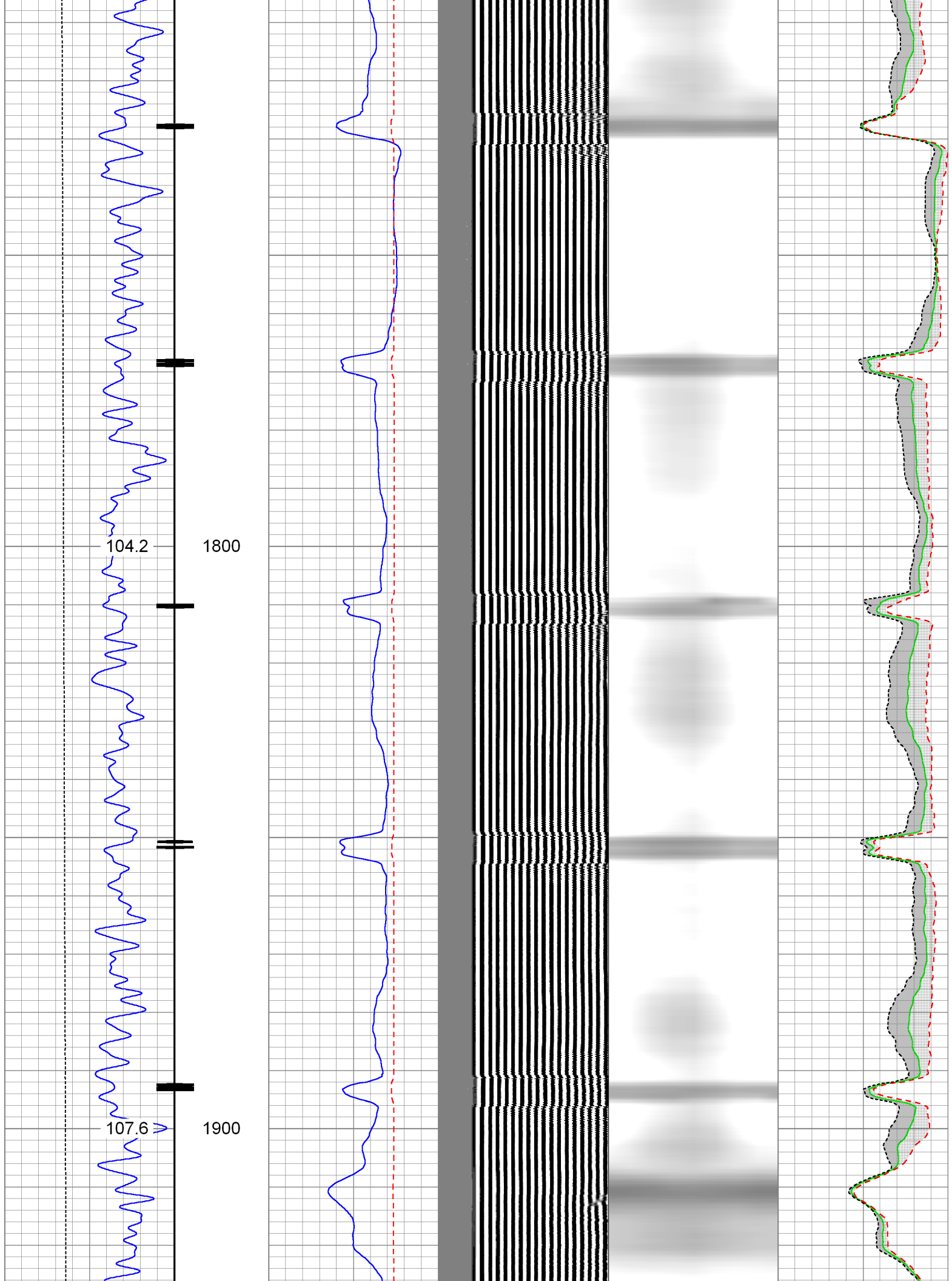




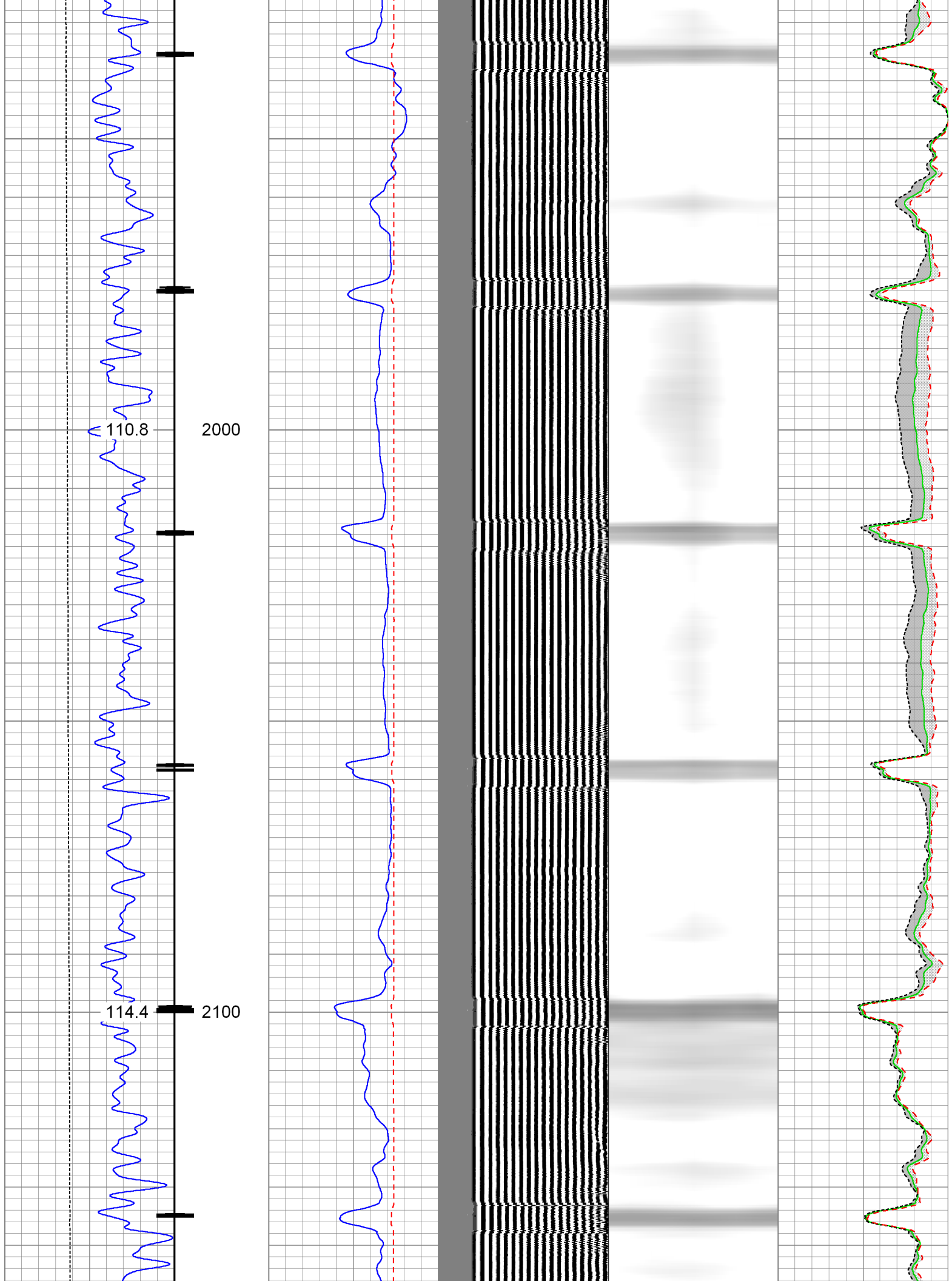




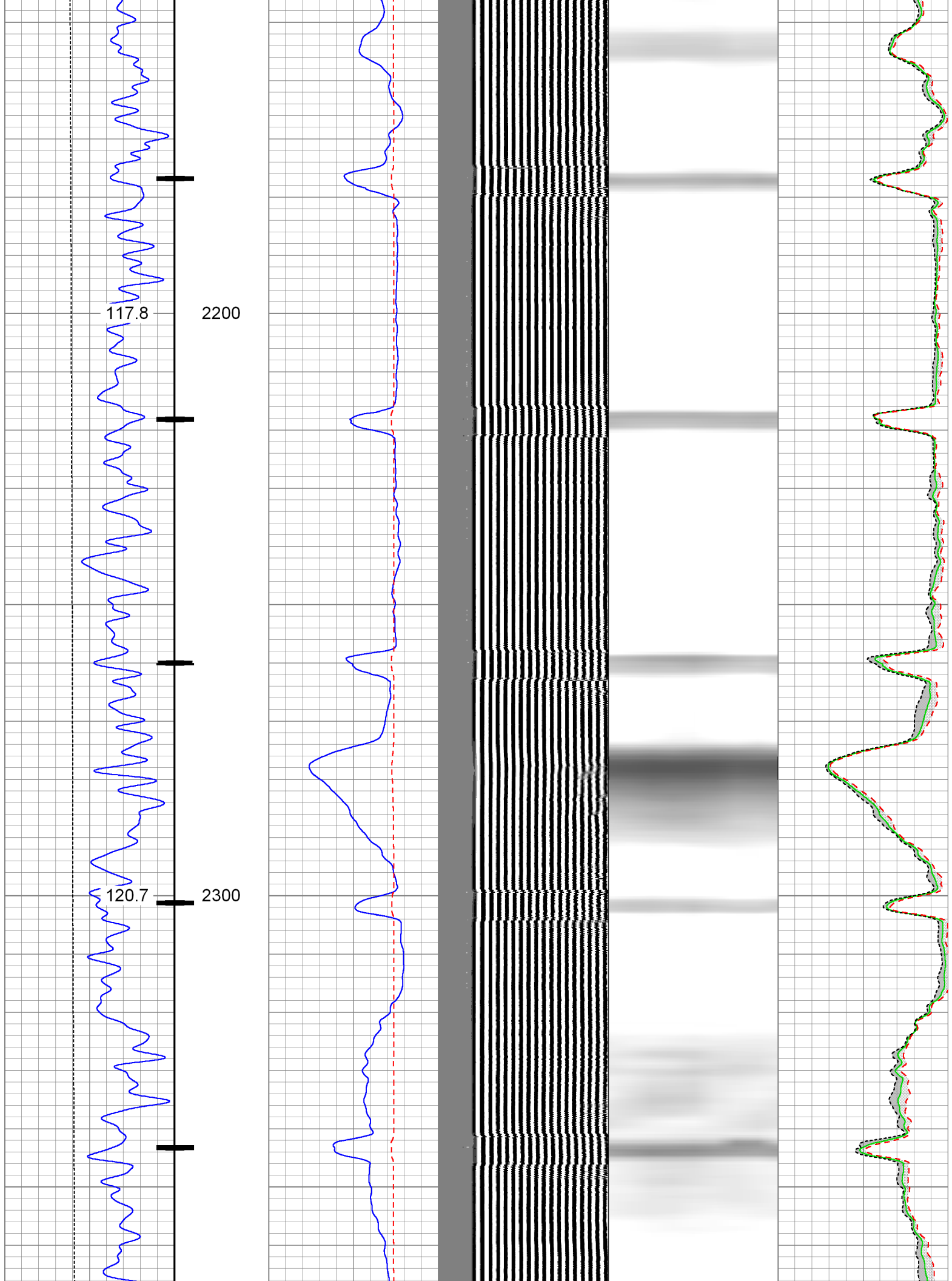


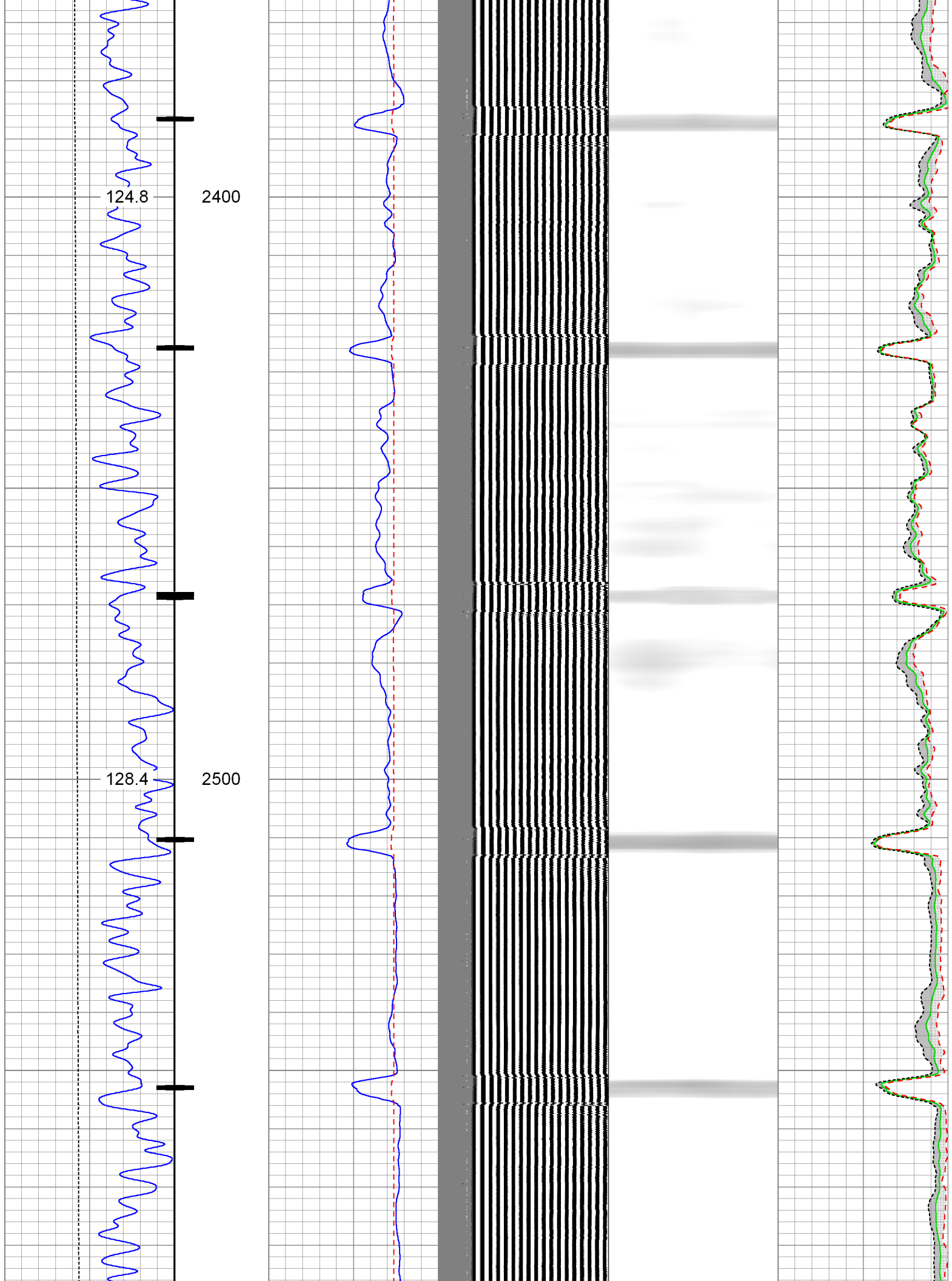


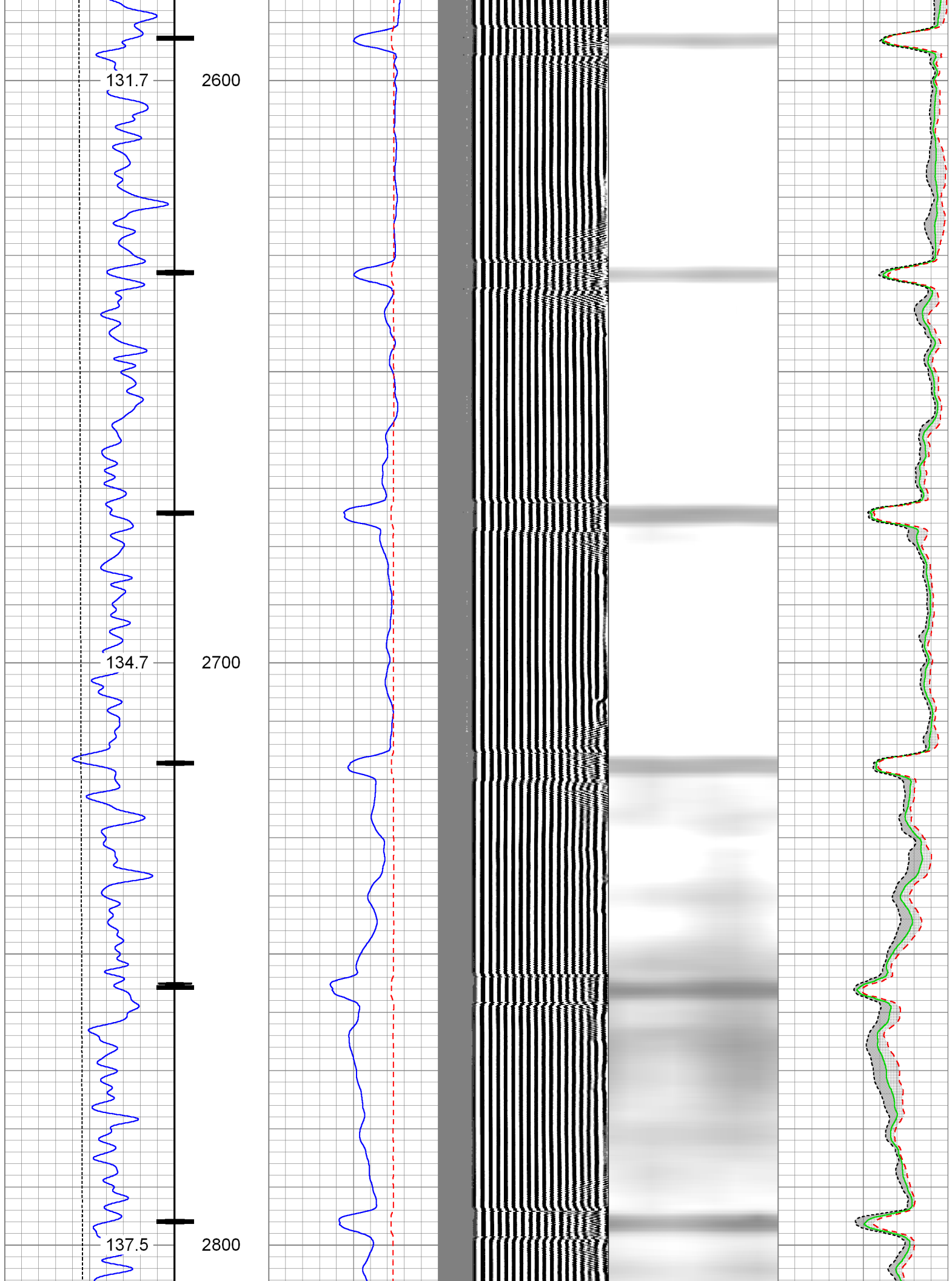


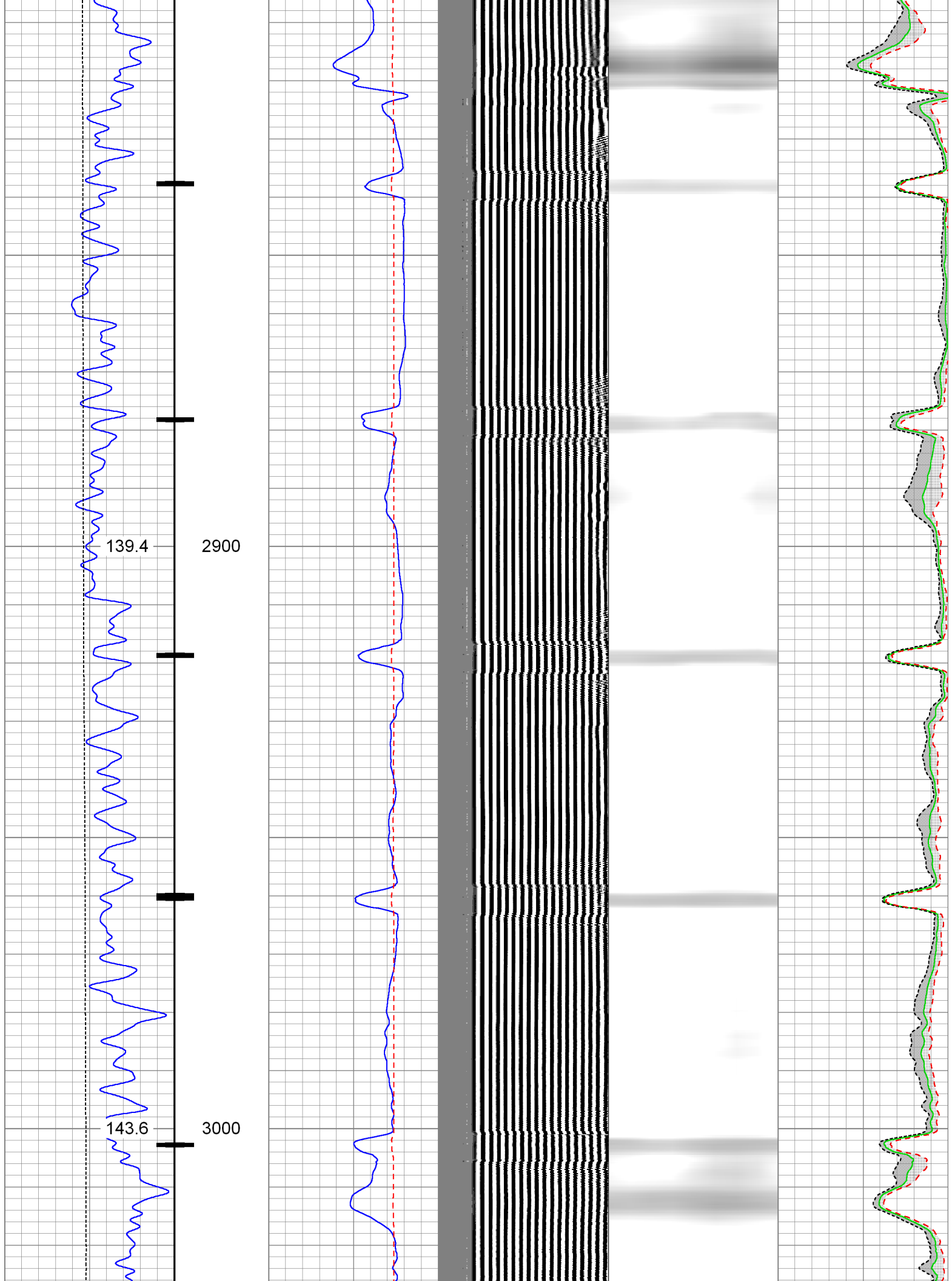


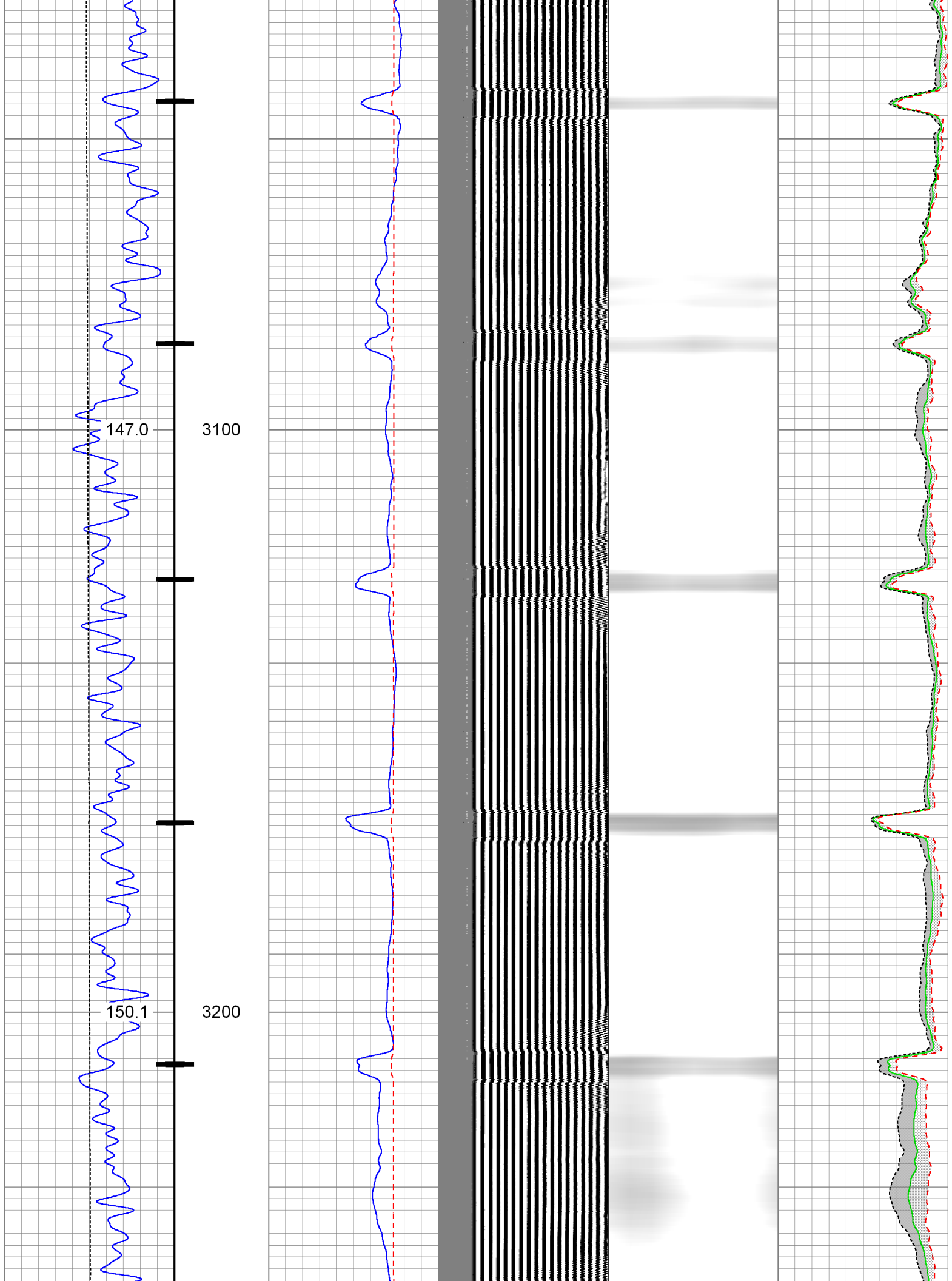


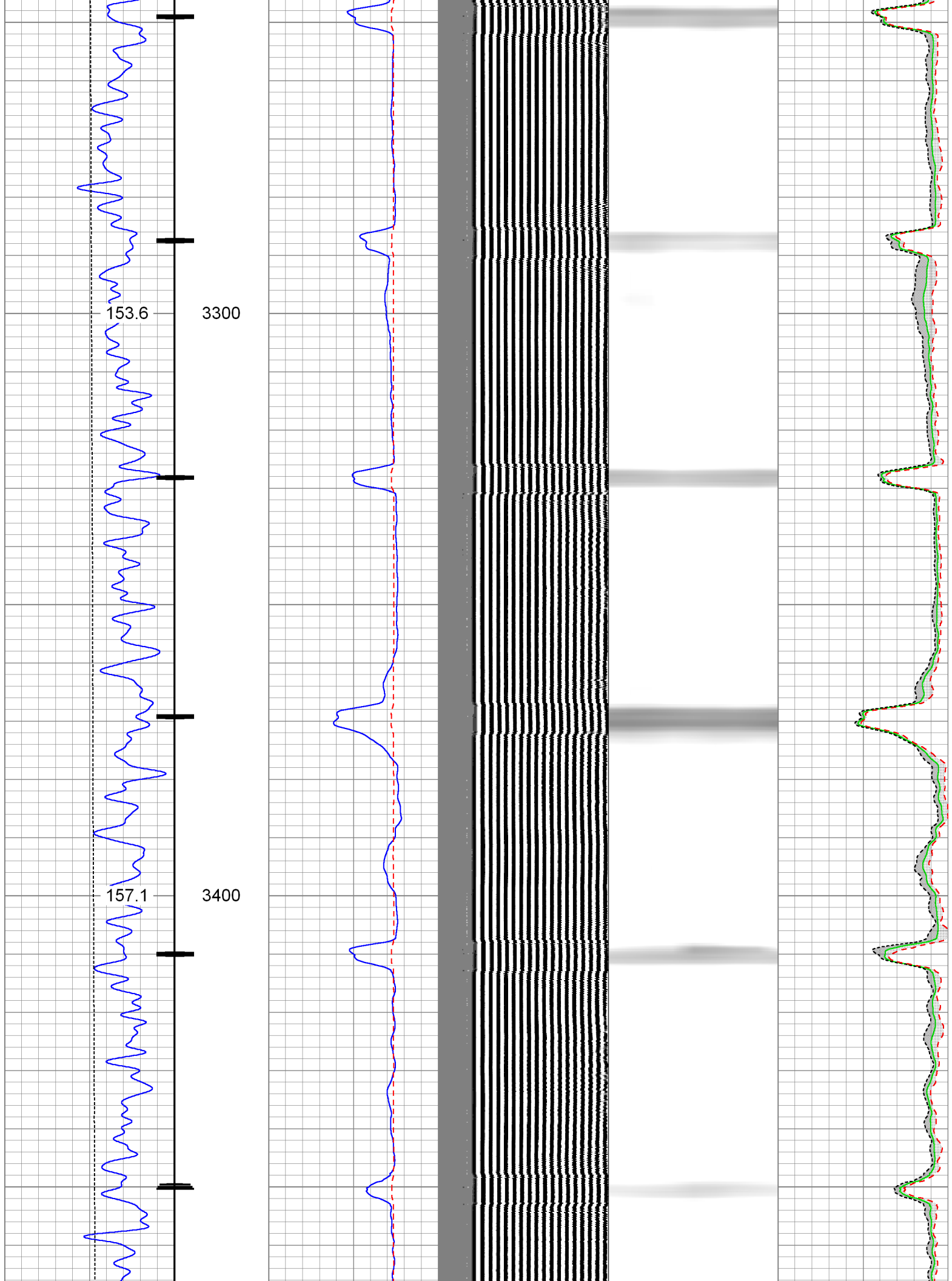




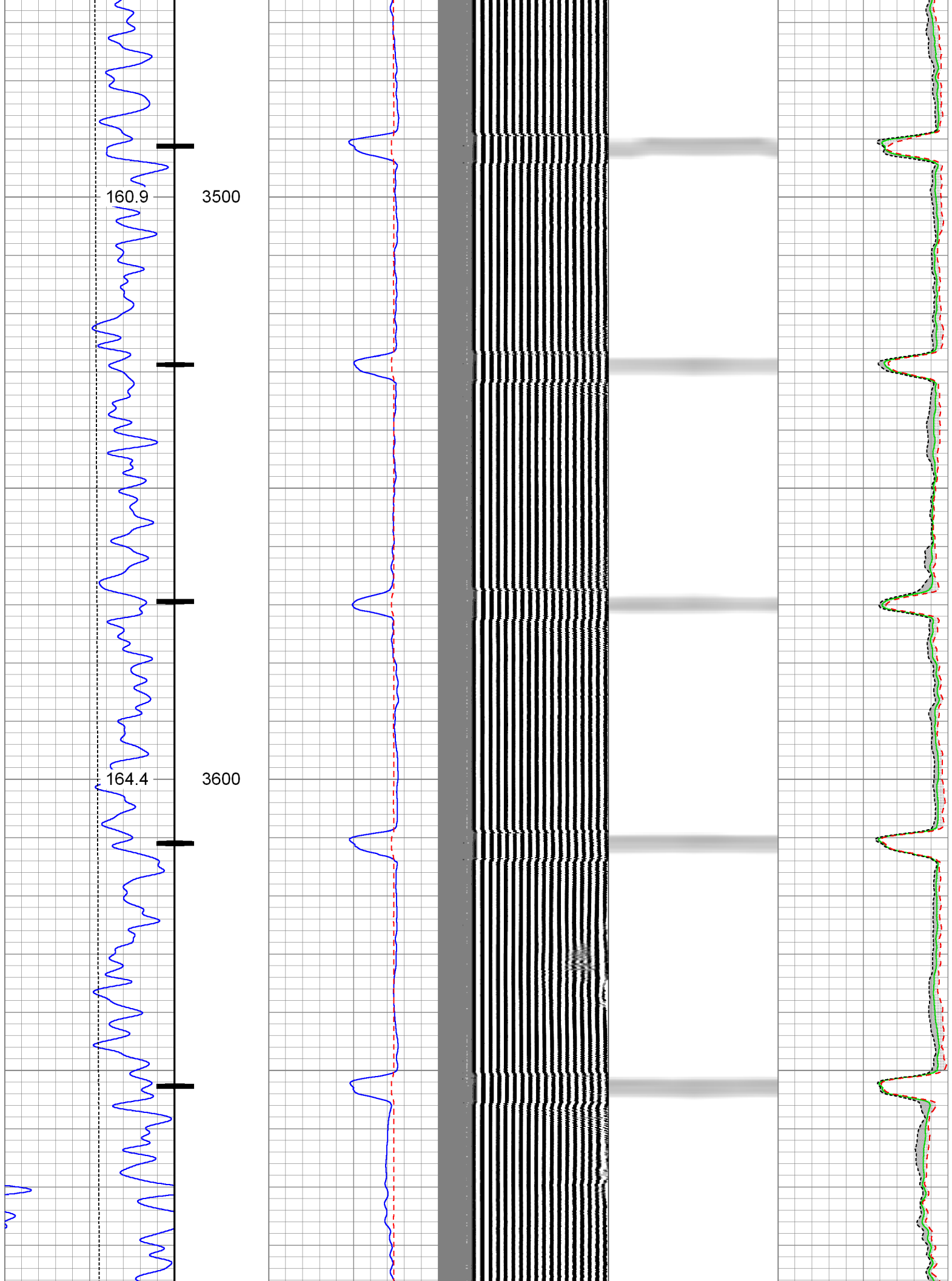




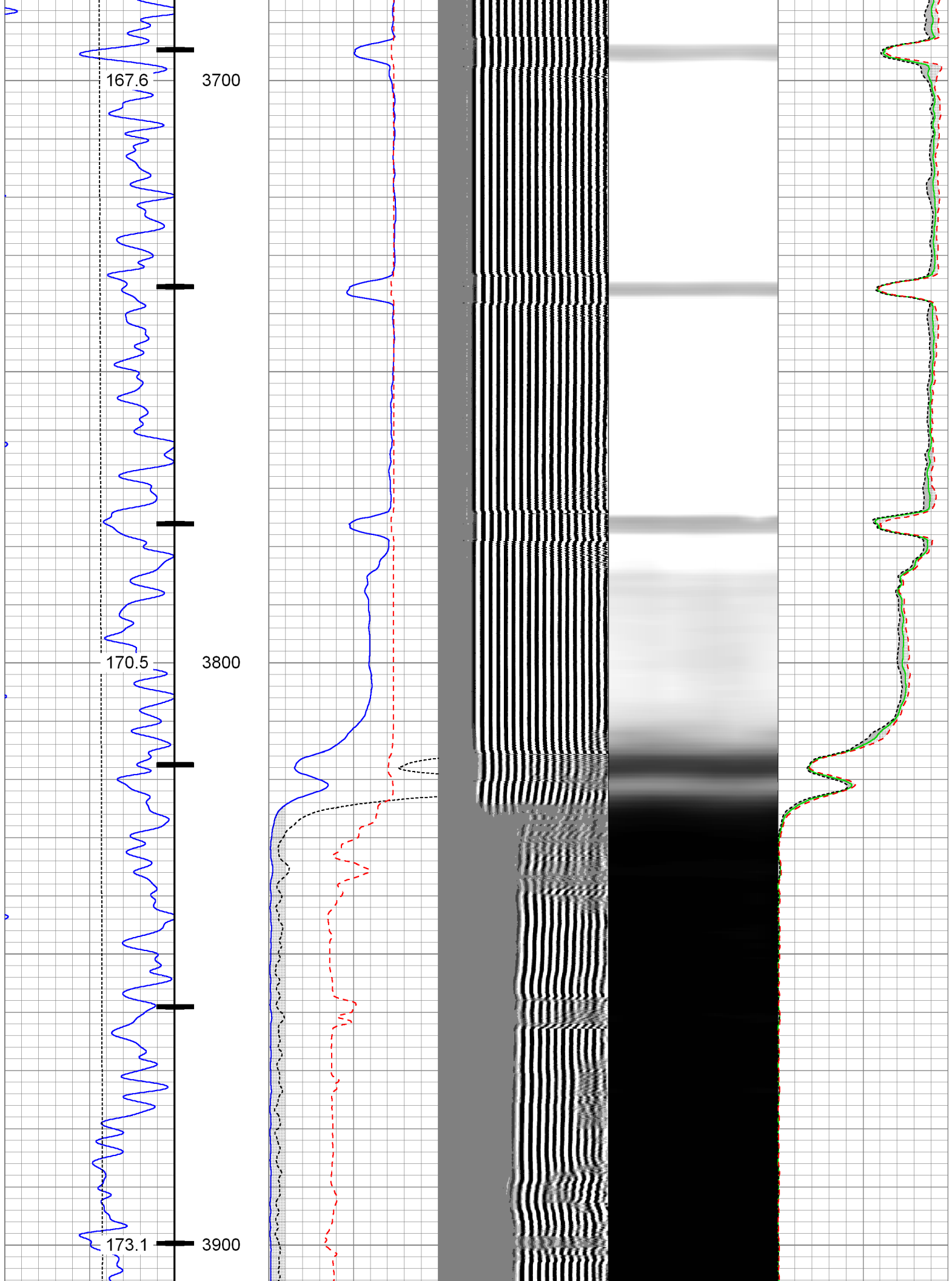


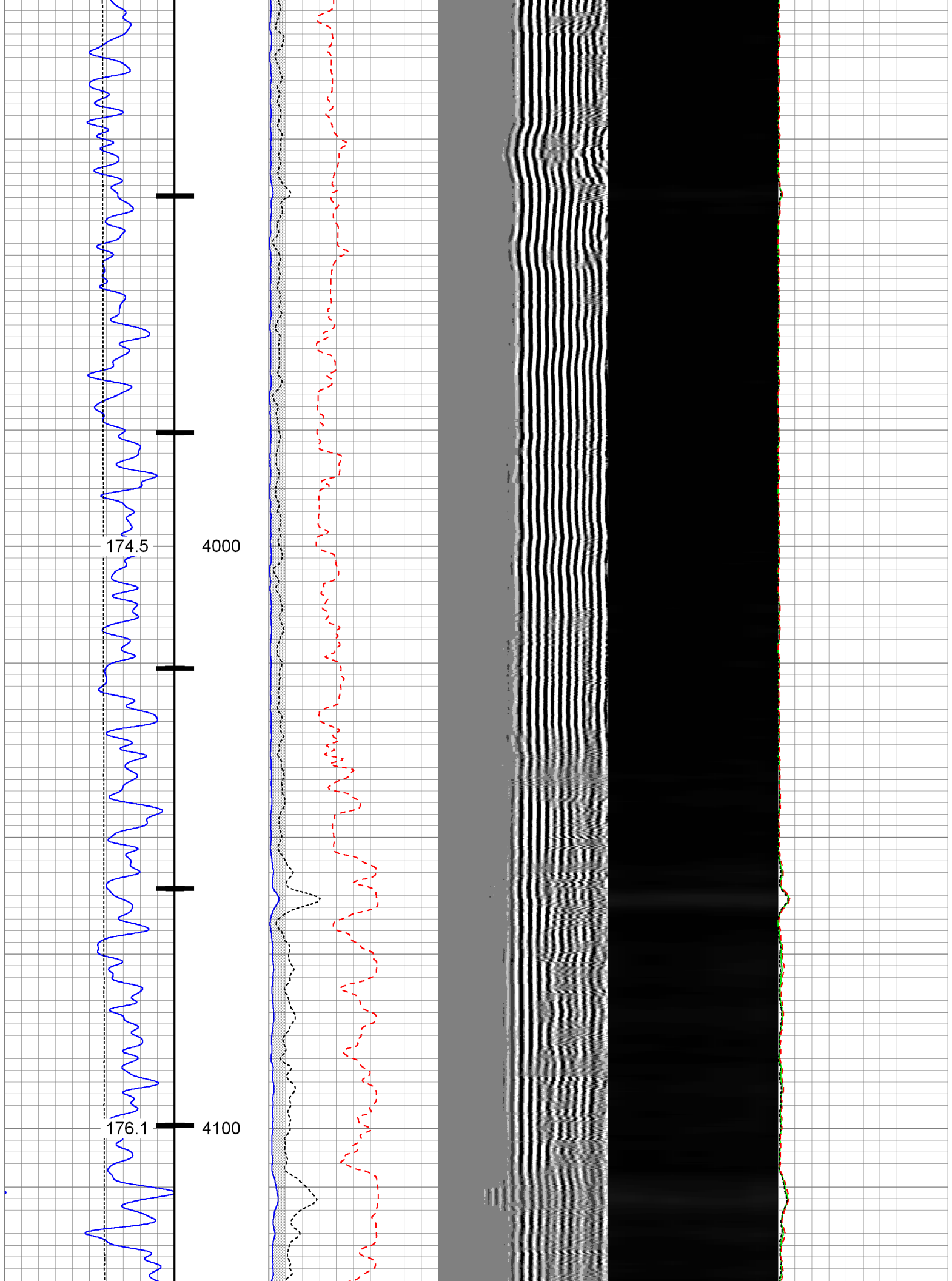


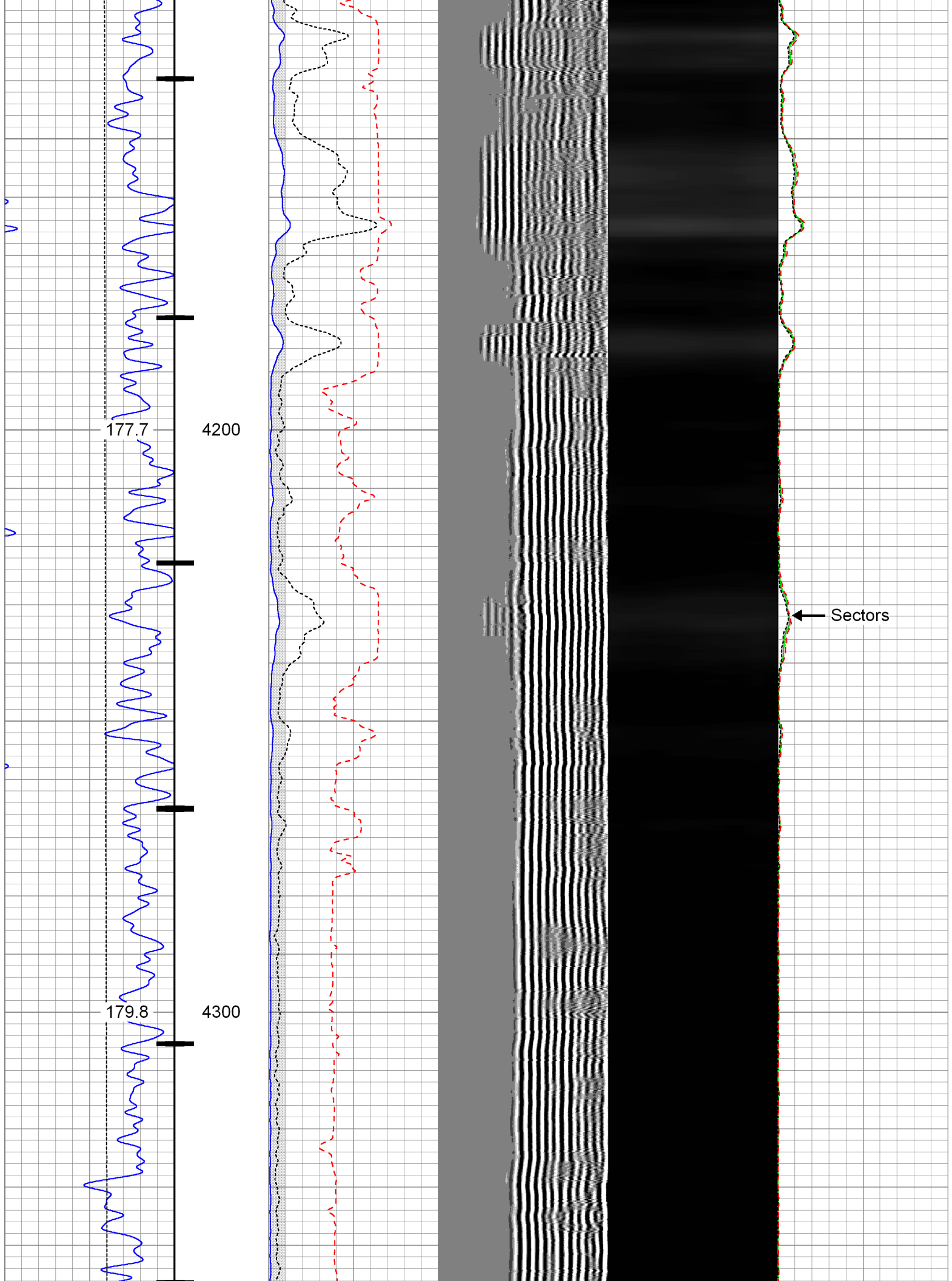


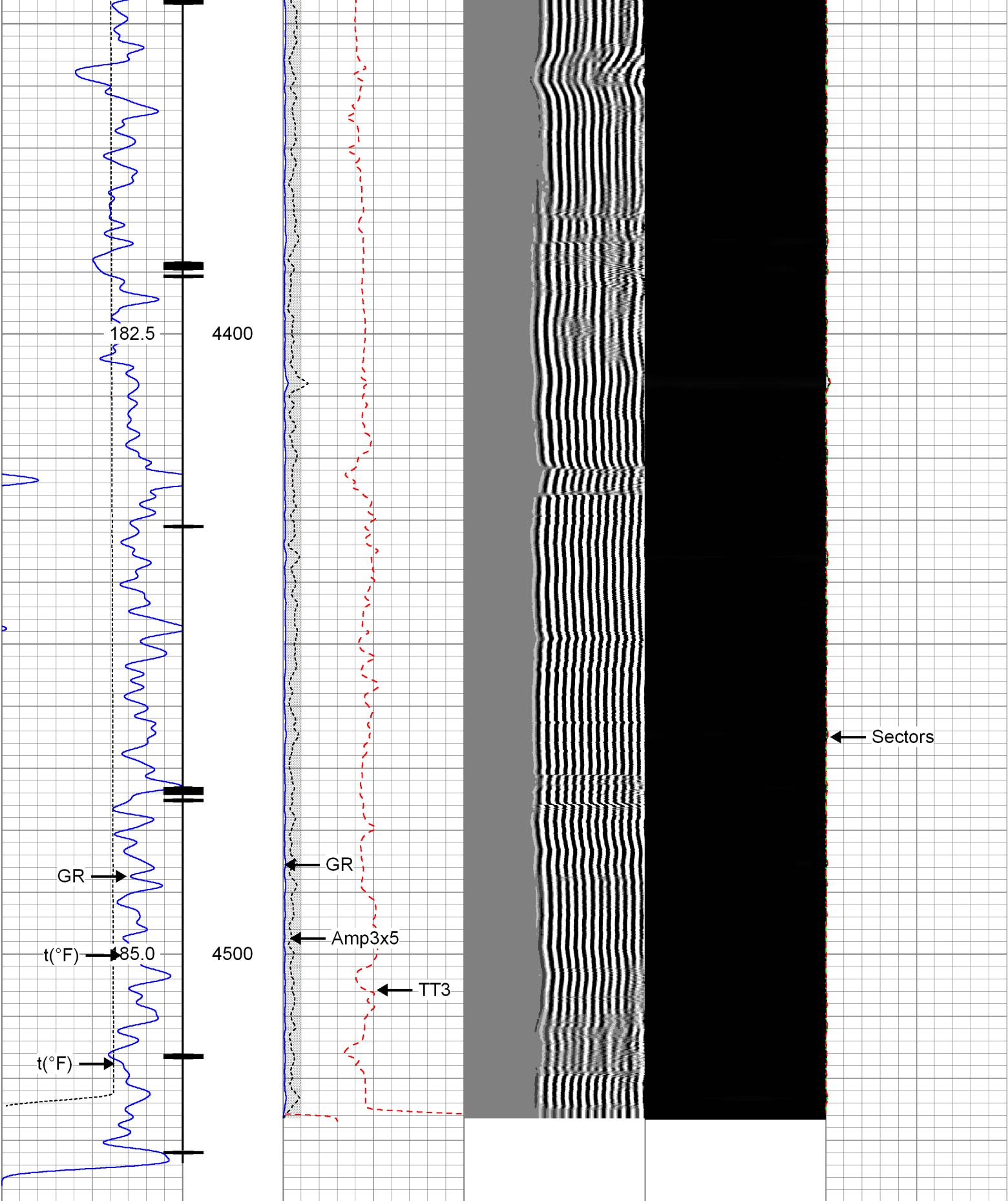












Gamma Ray (GAPI)	3' Amplitude (mV)	5' Variable Density Log	Sector Map	Average Amplitude
0 120	0 100	200 1200		0 100
Collar Locator	3' Amplitude x 5 (mV)			Minimum Amplitude
Temperature (degF)	0 20			0 100
	3' Travel Time (msec)			Maximum Amplitude
	0 150			0 150

650 (usec) 150

0 100

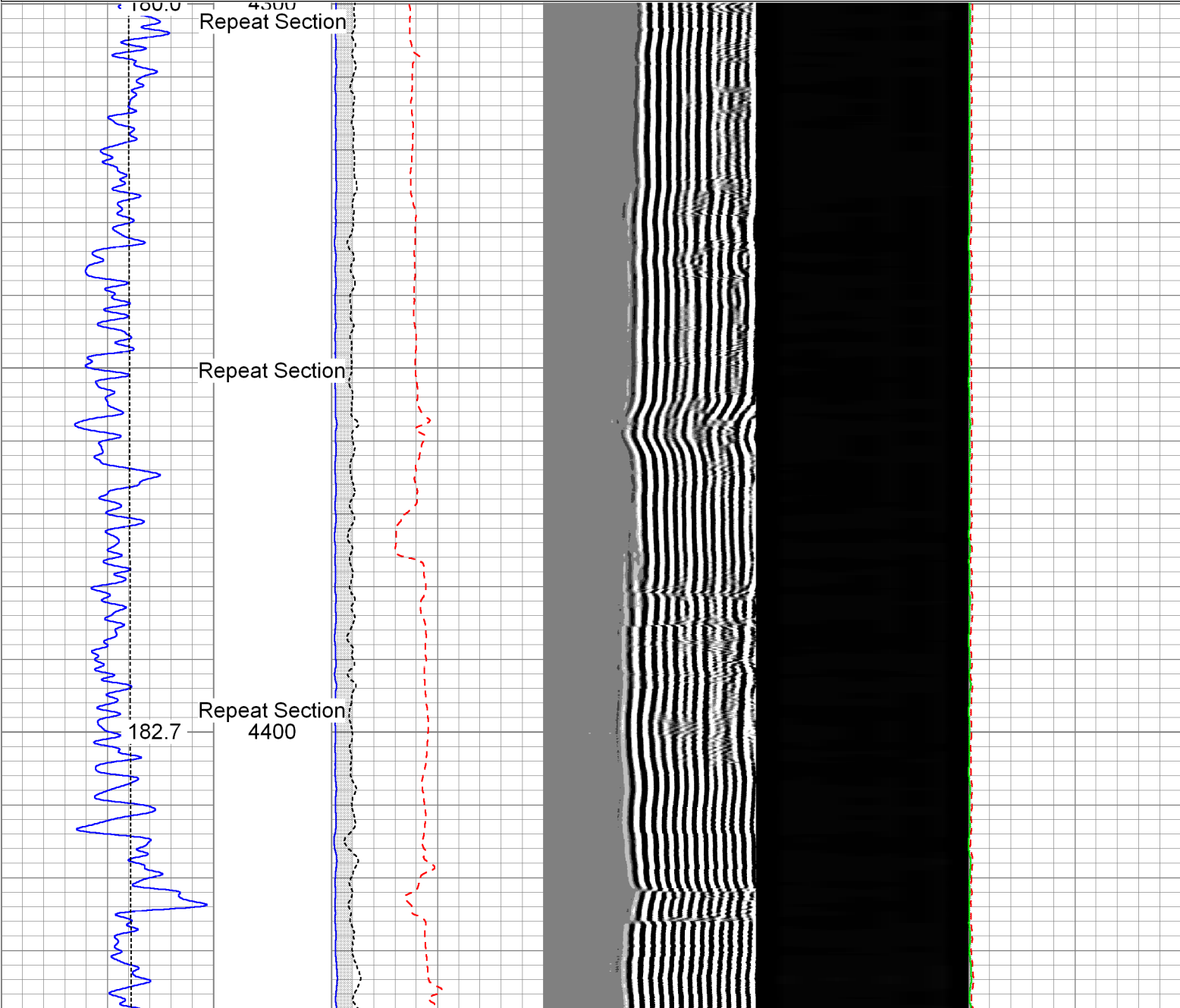


Repeat Pass

Logged With 0 PSI At Surface

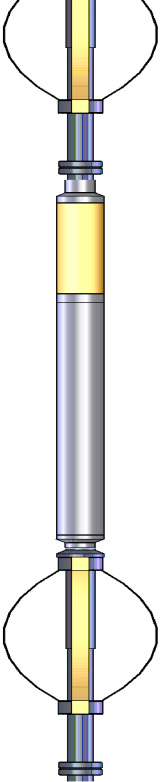
Database File: 04-23-14\_k.p. kauffman\_musick-mcclintock #3\_rbl.db  
Dataset Pathname: repeat  
Presentation Format: rbt\_w\_te  
Dataset Creation: Wed Apr 23 11:39:03 2014 by Log SCH 111116  
Charted by: Depth in Feet scaled 1:240

Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150		0 (mV) 100	200 1200		0 100
Temperature		3' Amplitude x 5			Minimum Amplitude
0 (degF) 300		0 (mV) 20			0 100
		3' Travel Time			Maximum Amplitude
		650 (usec) 150			0 100







CCL DCCL  GR	6.59		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
	6.59					
	5.25		Probe_CCL_GR-2.75"Digital (FW1302-1204.58 Probe 2-3/4" Digital CCL / Gamma Ray Combined		2.75	55.00
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Dataset: 04-23-14_K.P. Kauffman_Musick-McClintock #3_RBL.db: field/well/run1/Main.1 Total Length: 23.47 ft Total Weight: 190.00 lb O.D. 2.75 in						

Calibration Report	
Database File:	04-23-14_K.P. Kauffman_Musick-McClintock #3_RBL.db
Dataset Pathname:	Main.1
Dataset Creation:	Thu Apr 24 13:19:22 2014 by Calc SCH 120430

Gamma Ray Calibration Report		
Serial Number:	FW1302-120	
Tool Model:	2.75"Digital	
Performed:	Mon Apr 01 18:31:37 2013	
Calibrator Value:	100.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	150.0	cps
Sensitivity:	0.6667	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1305-96in7"	
Tool Model:	2-3/4"	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	447.373	ft

Master Calibration, performed Thu Apr 24 13:19:19 2014:						
3'	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
	0.007	0.864	0.800	81.196	93.832	0.101



CAL	1.029	1.029				
5'	0.017	0.743	0.800	81.196	110.789	-1.111
SUM						
S1	0.002	0.845	0.000	100.000	118.661	-0.281
S2	0.009	0.856	0.000	100.000	118.025	-1.063
S3	0.008	0.866	0.000	100.000	116.600	-0.938
S4	0.006	0.876	0.000	100.000	114.976	-0.693
S5	0.006	0.905	0.000	100.000	111.313	-0.697
S6	0.008	0.894	0.000	100.000	112.915	-0.902
S7	0.004	0.854	0.000	100.000	117.626	-0.499
S8	0.008	0.852	0.000	100.000	118.455	-0.978

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	1.029	1.029	1.000	0.000

Air Zero Calibration, performed Wed Apr 23 11:04:01 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	



Company K.P. Kauffman Company Inc.  
Well Musick-McClintock # 3  
Field Hambert  
County Weld  
State Colorado