



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil & Gas Onshore, L.P.		
Well	Joker 1N2-9HZ		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:		API # : 05-123-41328	Other Services
SEC 9 TWP 1N RGE 65W		Elevation K.B. 4997' D.F. 4996' G.L. 4972'	JB/GR
Permanent Datum	Ground Level		
Log Measured From	Kelly Bushing		
Drilling Measured From	Kelly Bushing	25 FT	

Date	10-SEP-2015		
Run Number	Two		
Depth Driller	11991 FT		
Depth Logger	7100 FT		
Bottom Logged Interval	7096 FT		
Top Log Interval	Surface		
Open Hole Size	7.875		
Type Fluid	Water		
Density / Viscosity	8.34 lbm/gal		
Max. Recorded Temp.	227°F		
Estimated Cement Top	Surface		
Time Well Ready	ROA		
Time Logger on Bottom	11:20 AM		
Equipment Number	HD-0311		
Location	Ft. Lupton, CO		
Recorded By	B. Kalkwarf		
Witnessed By	Darrel Bothwell		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom		
Surface Casing	9 5/8	36	J55 LT&C	Surface	1854 FT		
Intermediate #1							
Intermediate #2	5 1/2	17	HCP-110 LTC	Surface	11944 FT		
Liner							

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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

Log ran as per customer request
Log was measured from KB 25 FT
Recorded Marker Joint at 6412 FT- 6433 FT
Log ran from as deep as possible in heel to Surface
Recorded with 2800 PSI Surface Induced Pressure
Logging tools were clean and free of debris upon completion of operations

Thank you for choosing FMC Technologies Completion Services, Inc.!!



Main Pass

Recorded with 2800 PSI Surface Induced Pressure

Database File: c:\warrior\data\0512341328_anadarko_joker 1n2-9hz_09-10-15_rbl\0512341328_anadarko_joker 1n2

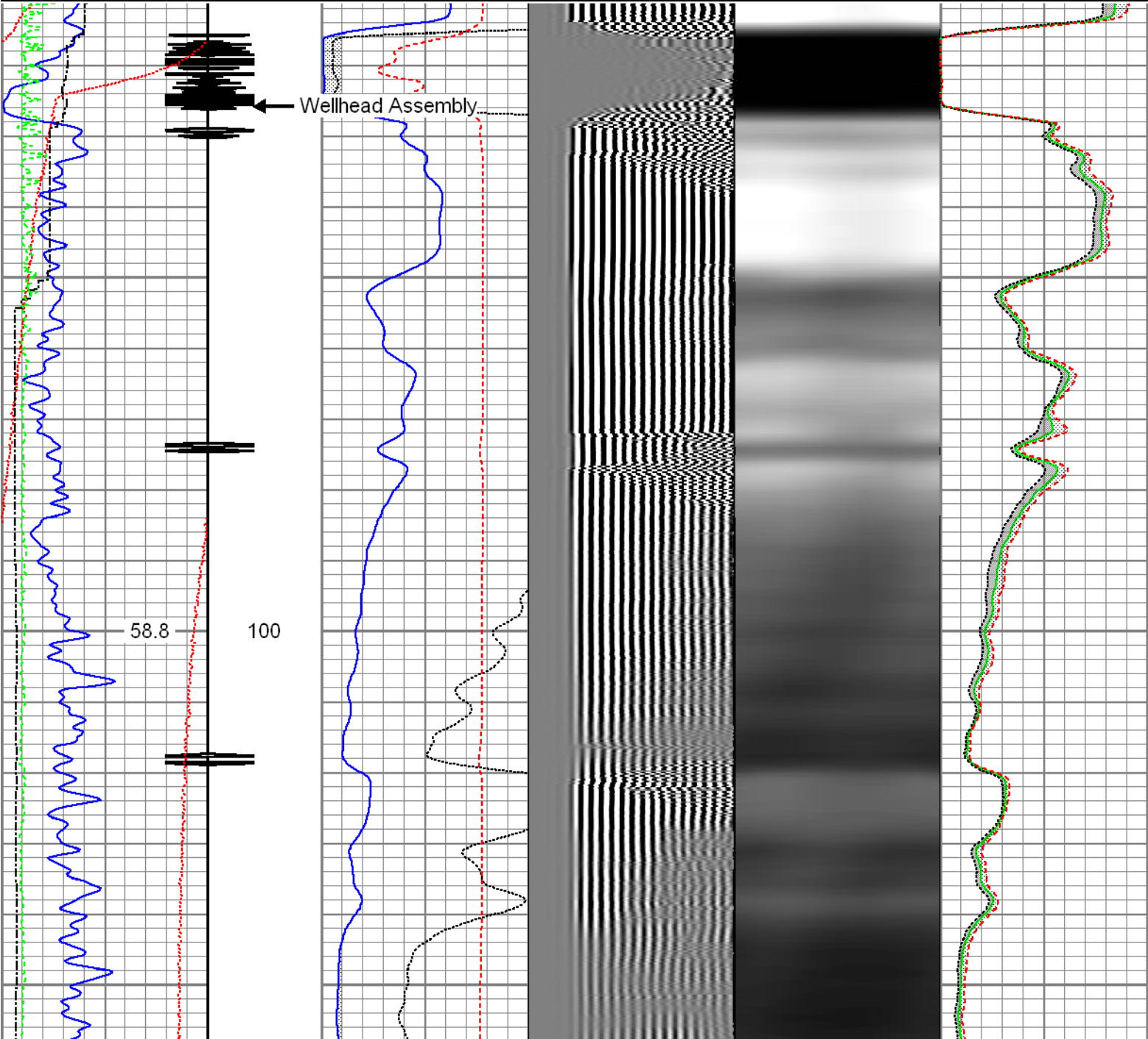
Dataset Pathname: pass4

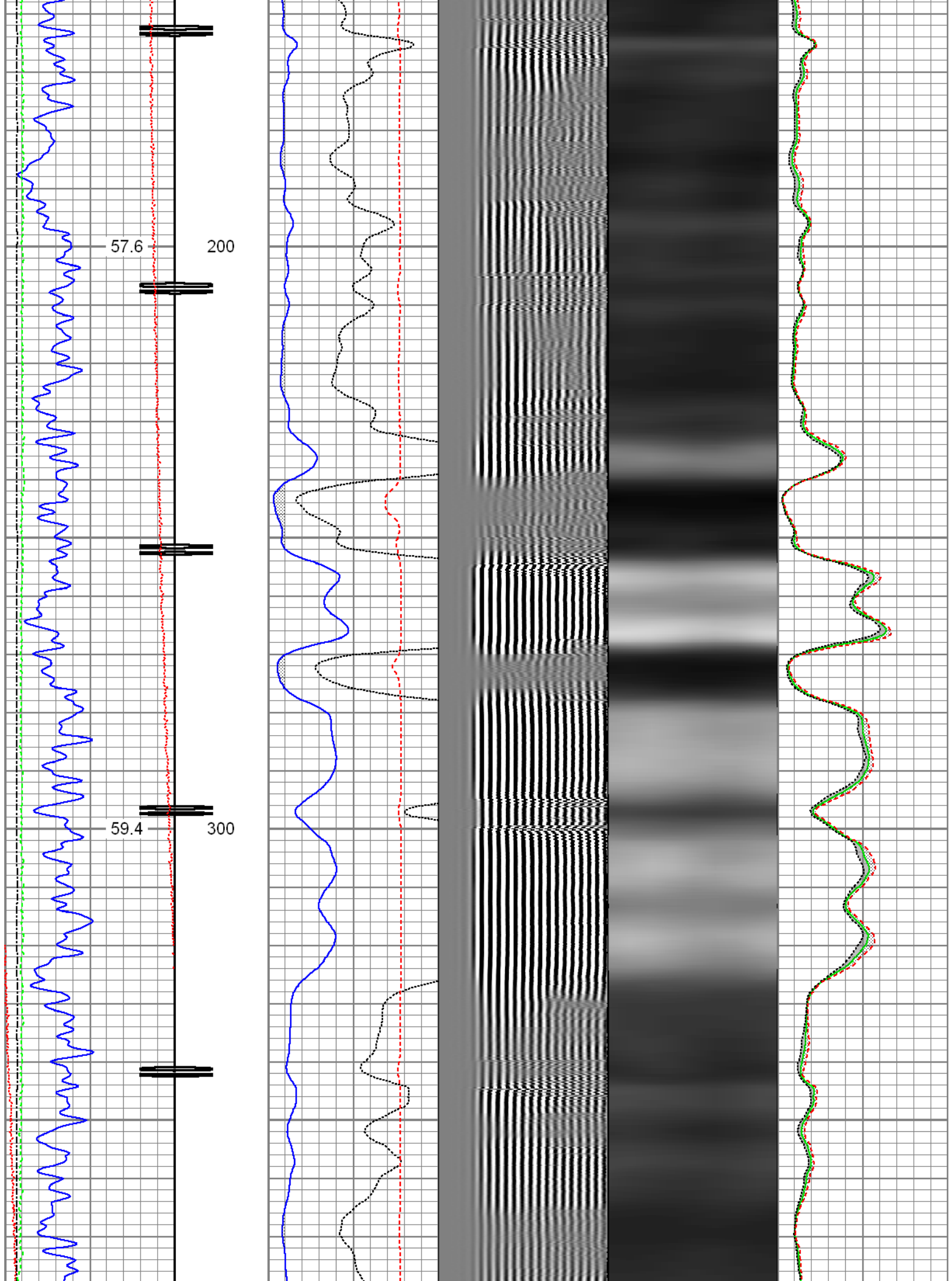
Presentation Format: radii

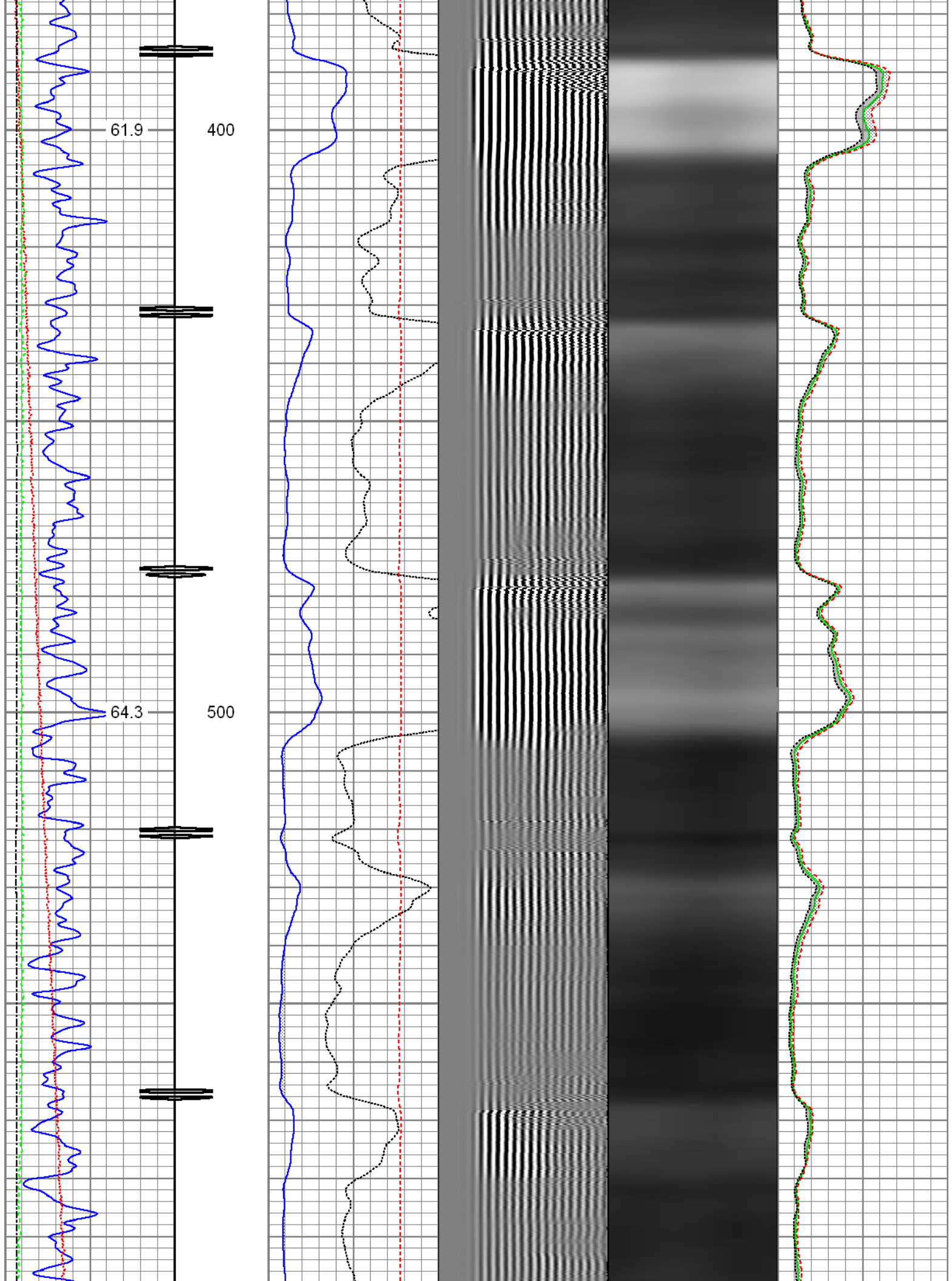
Dataset Creation: Thu Sep 10 11:15:16 2015 by Log 7.0 B1

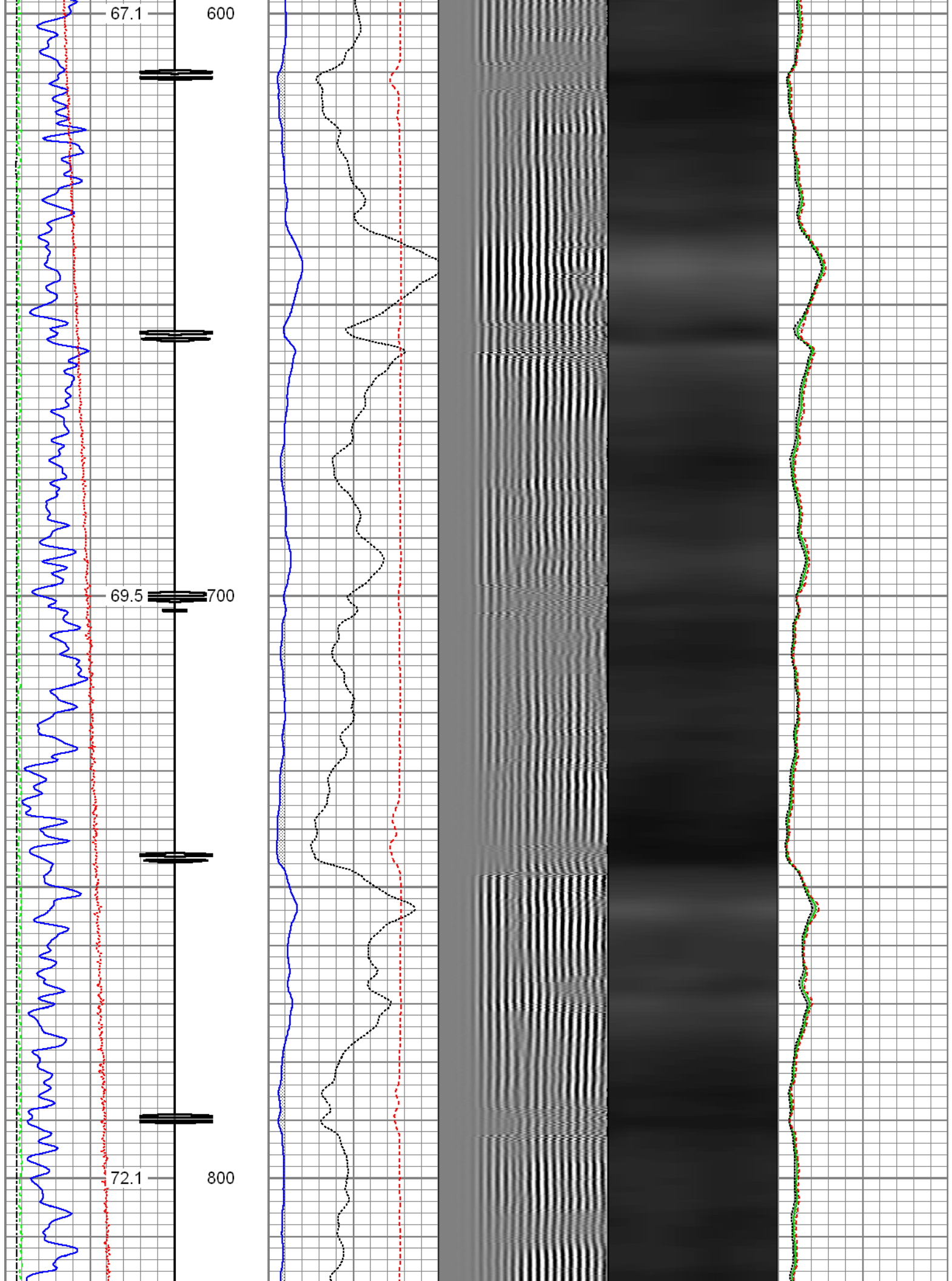
Charted by: Depth in Feet scaled 1:240

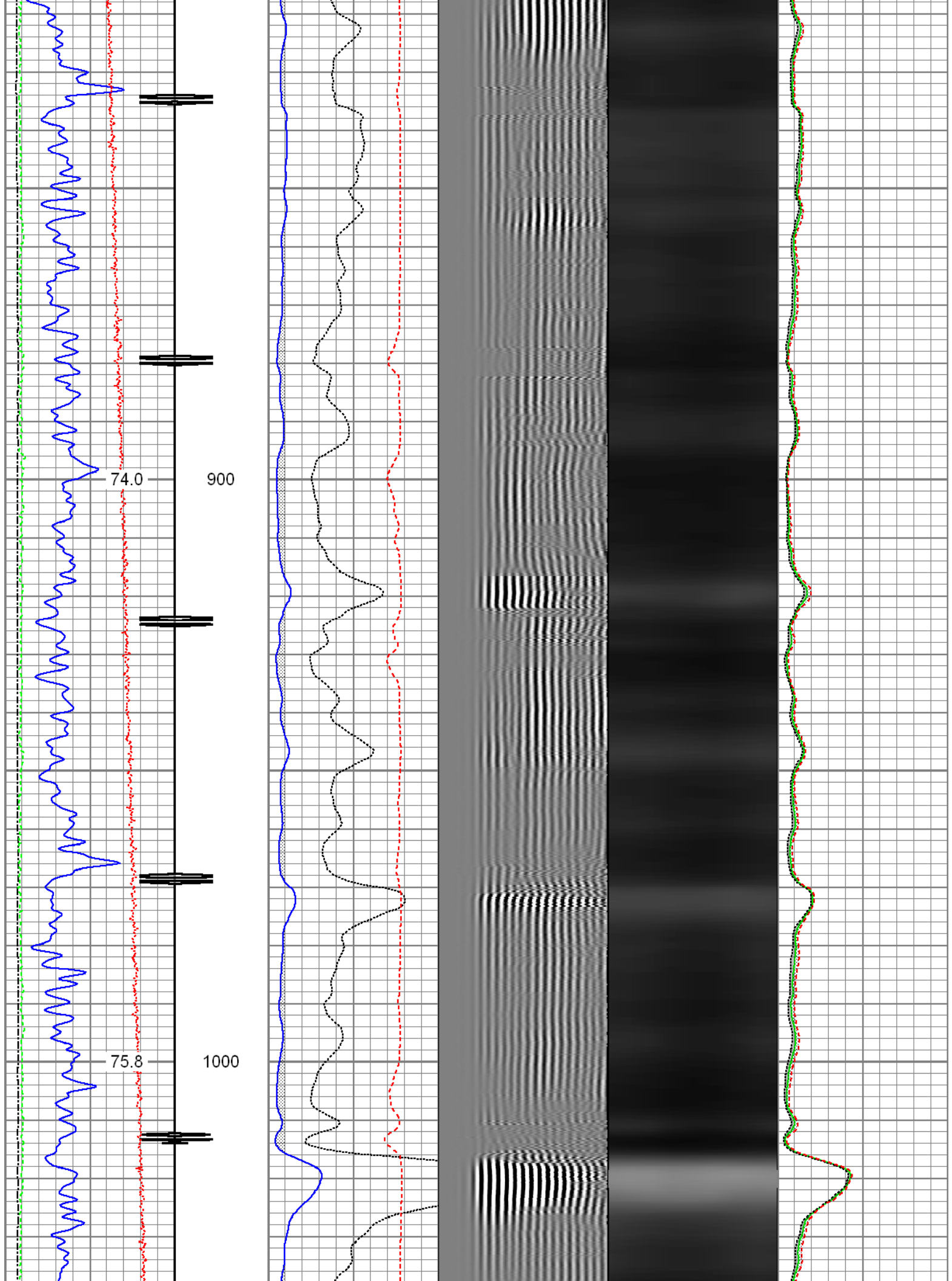
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150				
Line Tension				
0 (lb) 2000				

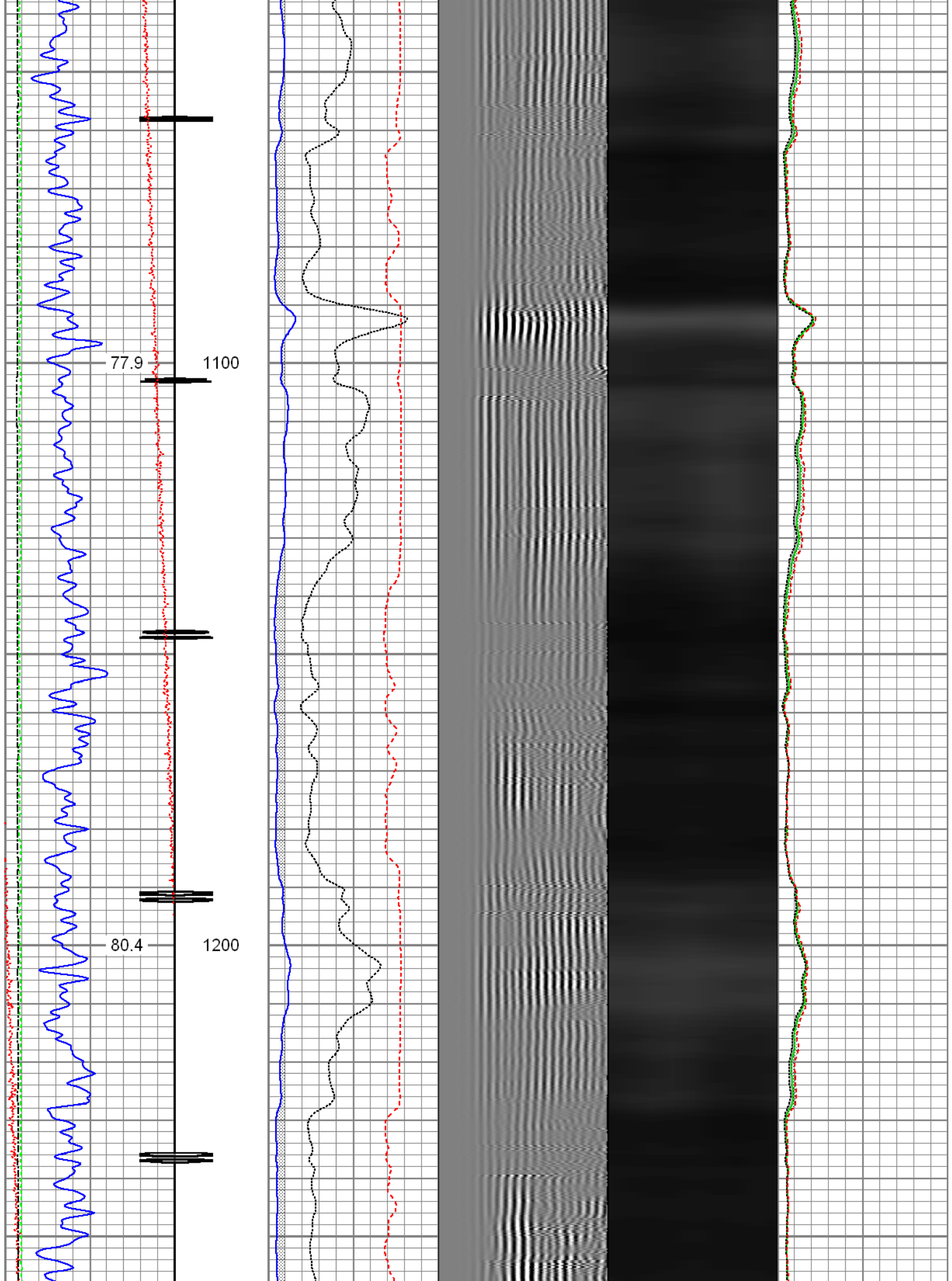


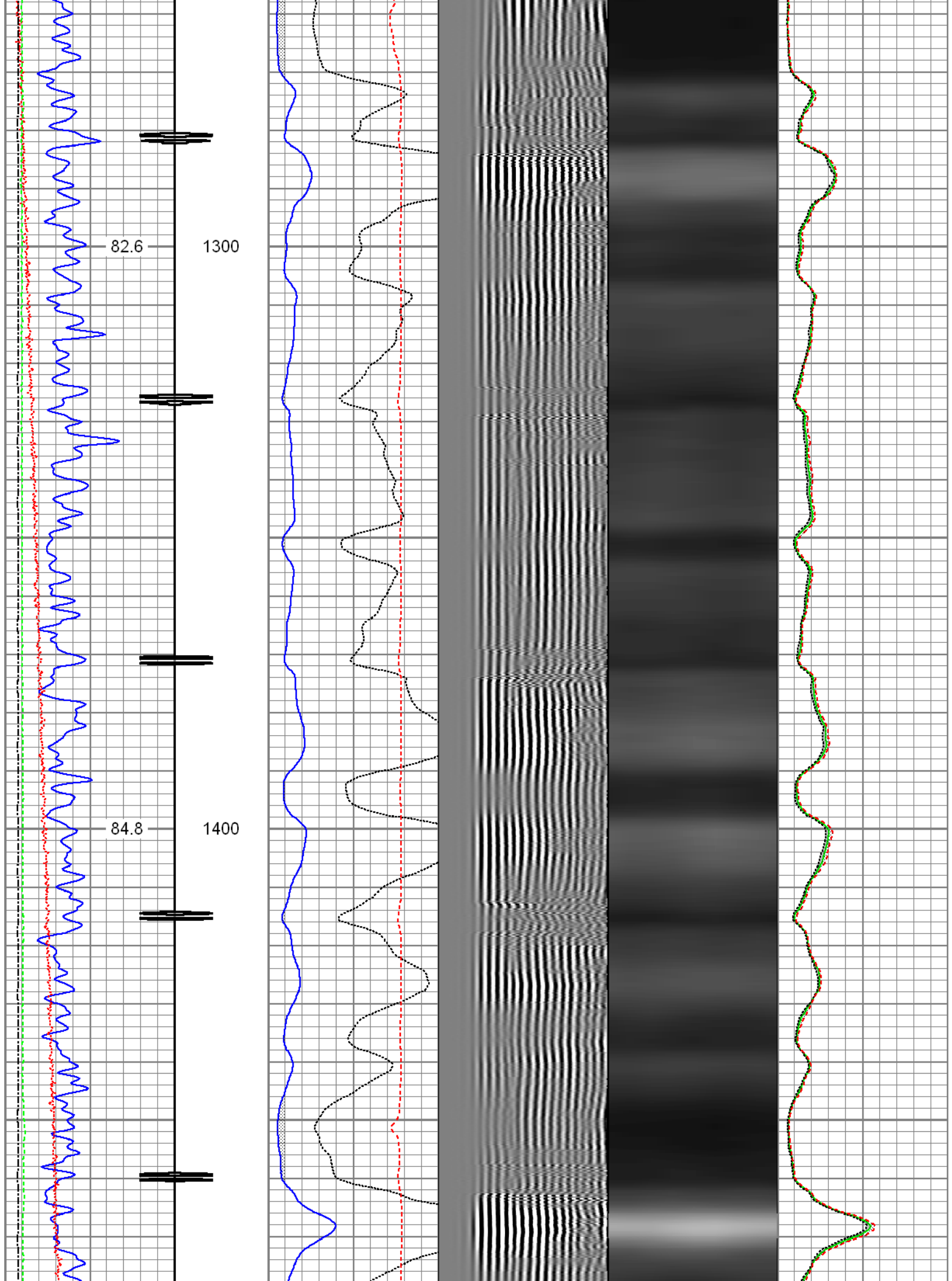


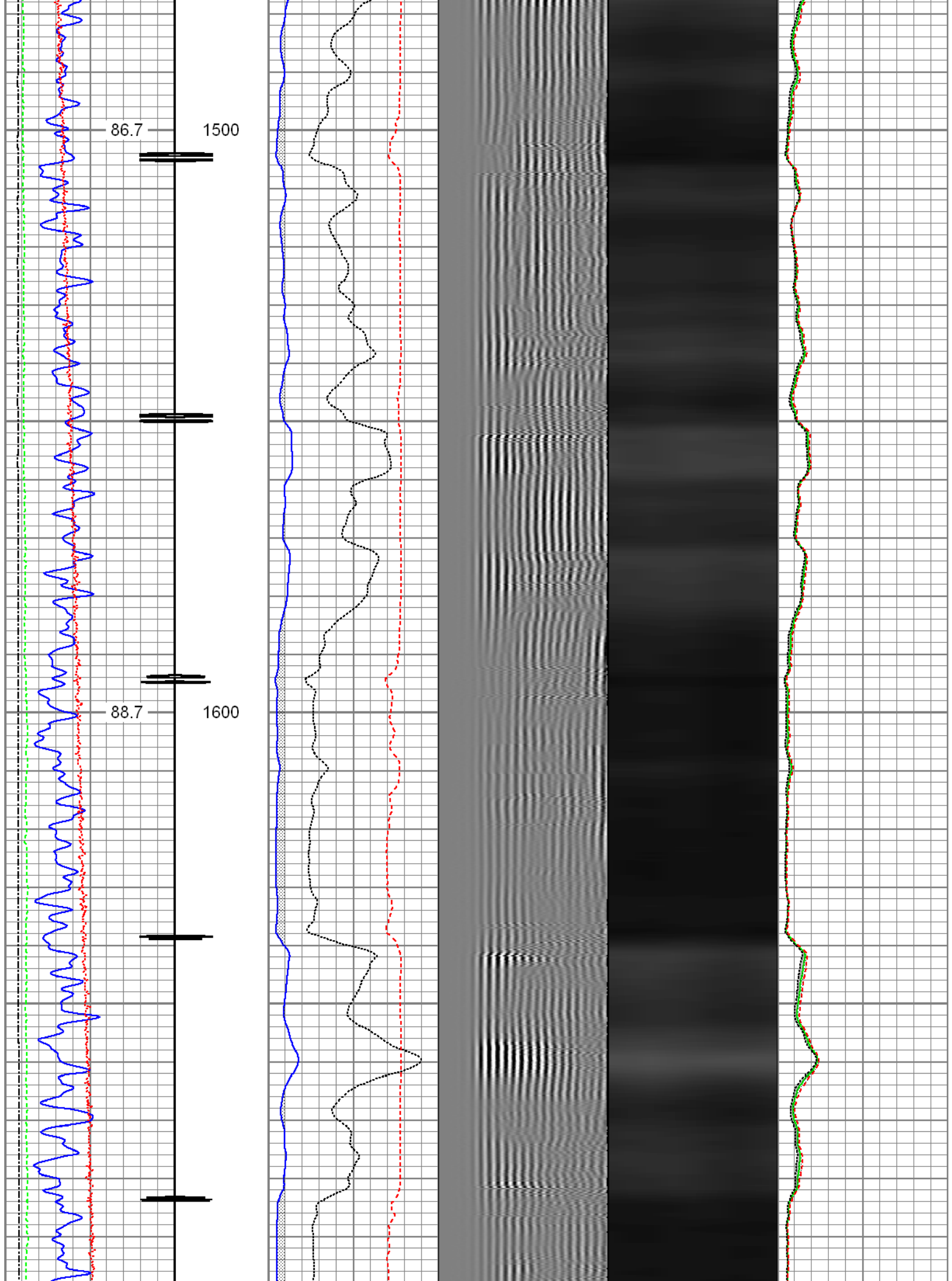


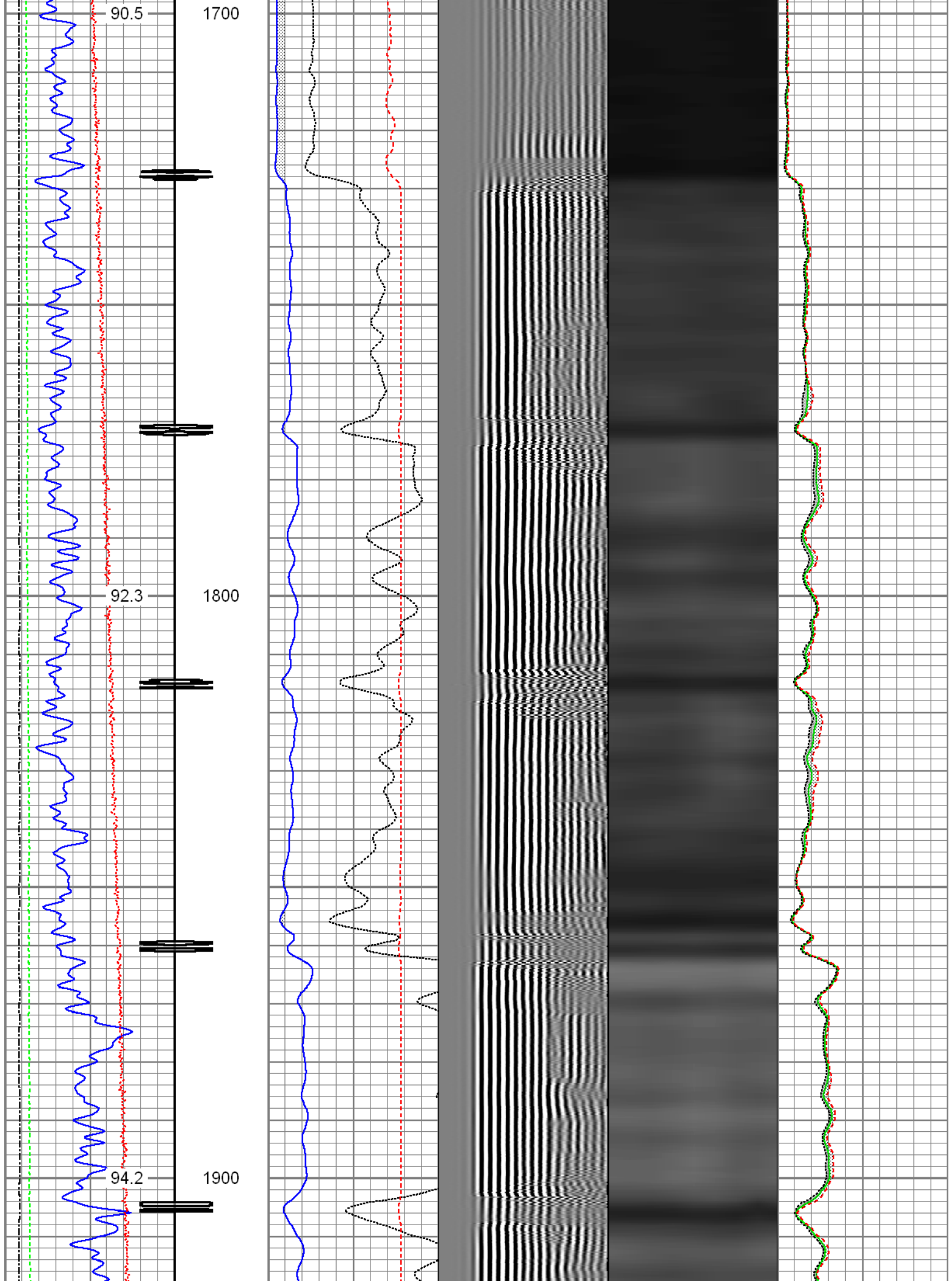


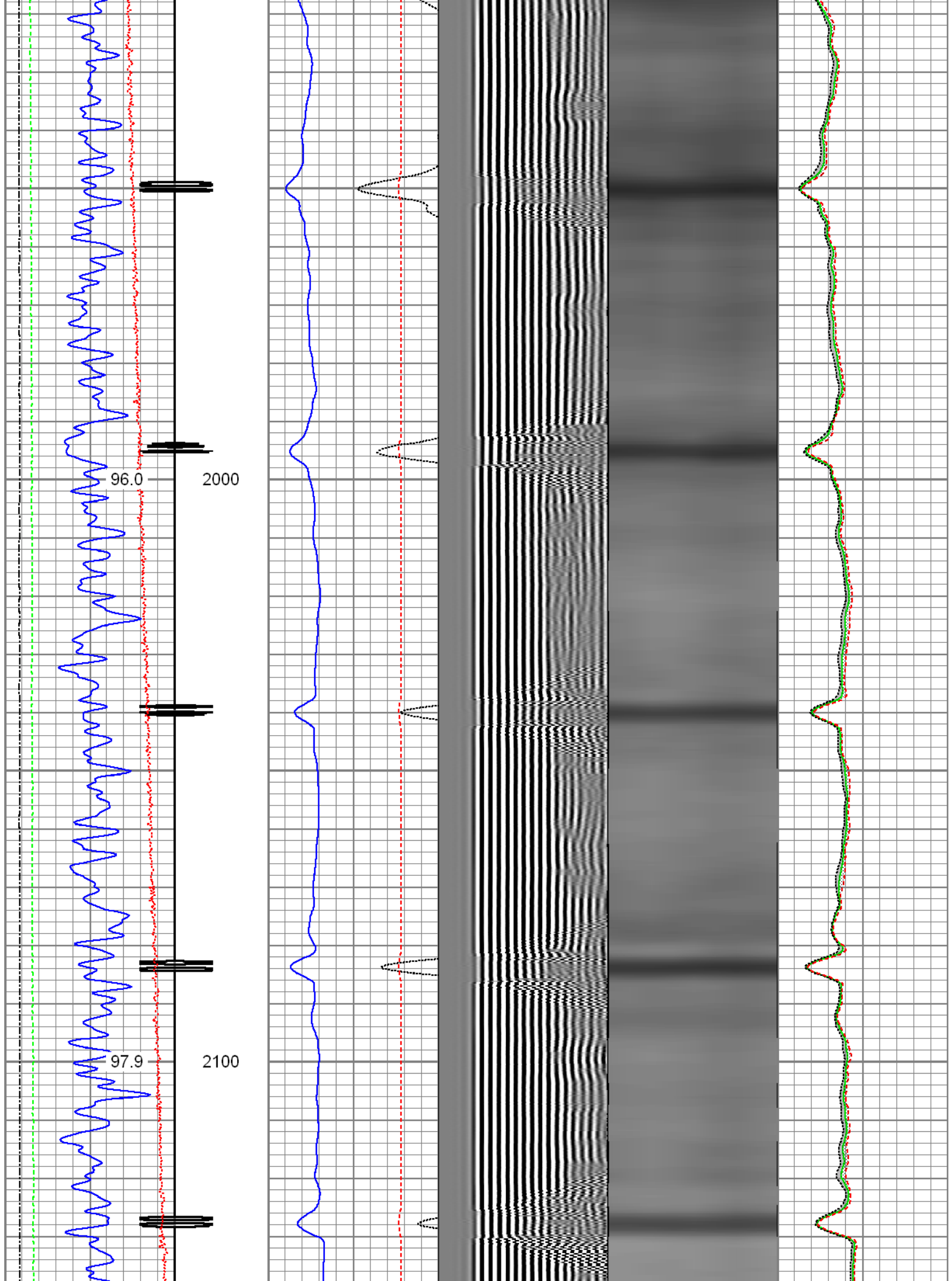


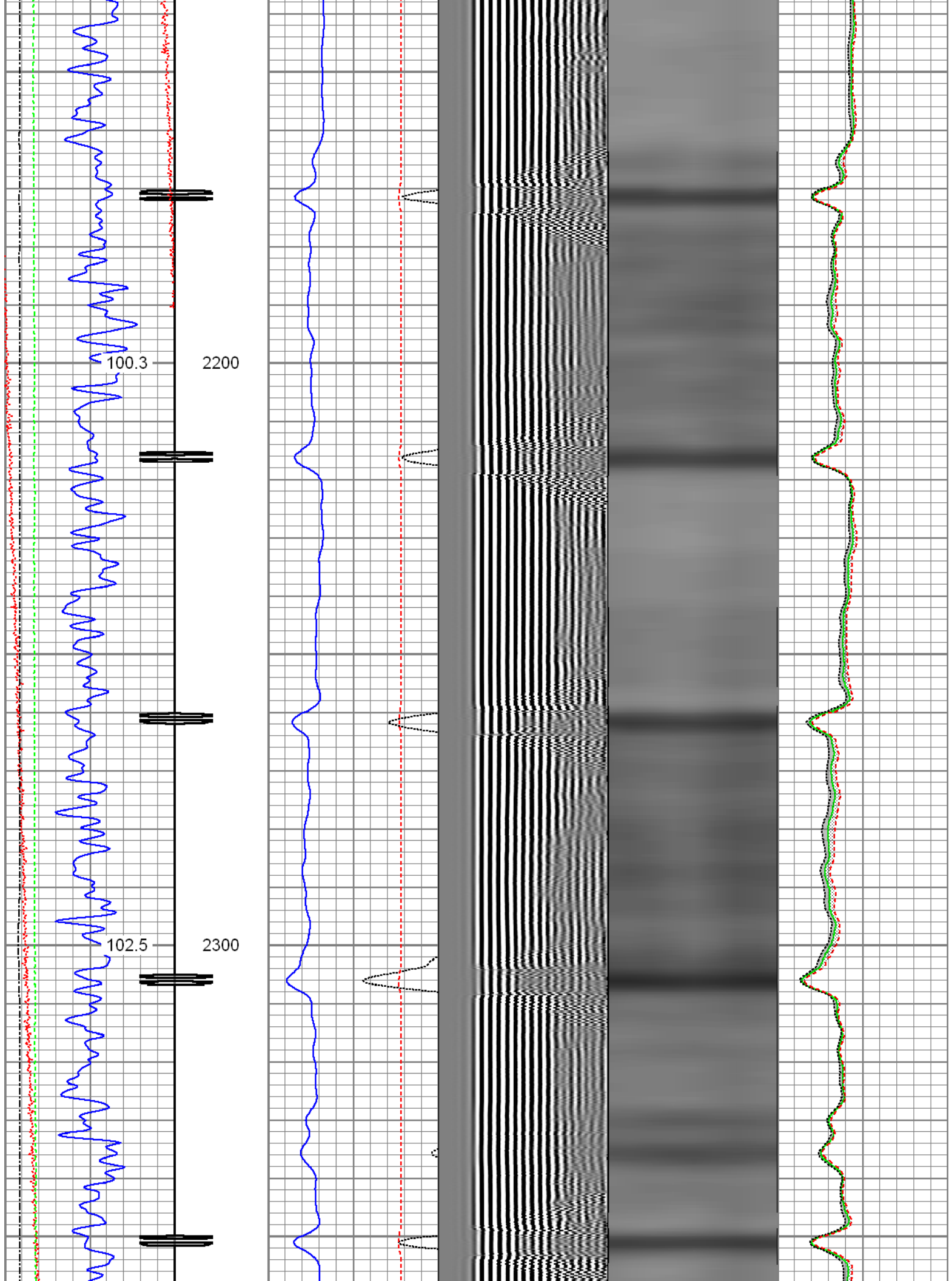


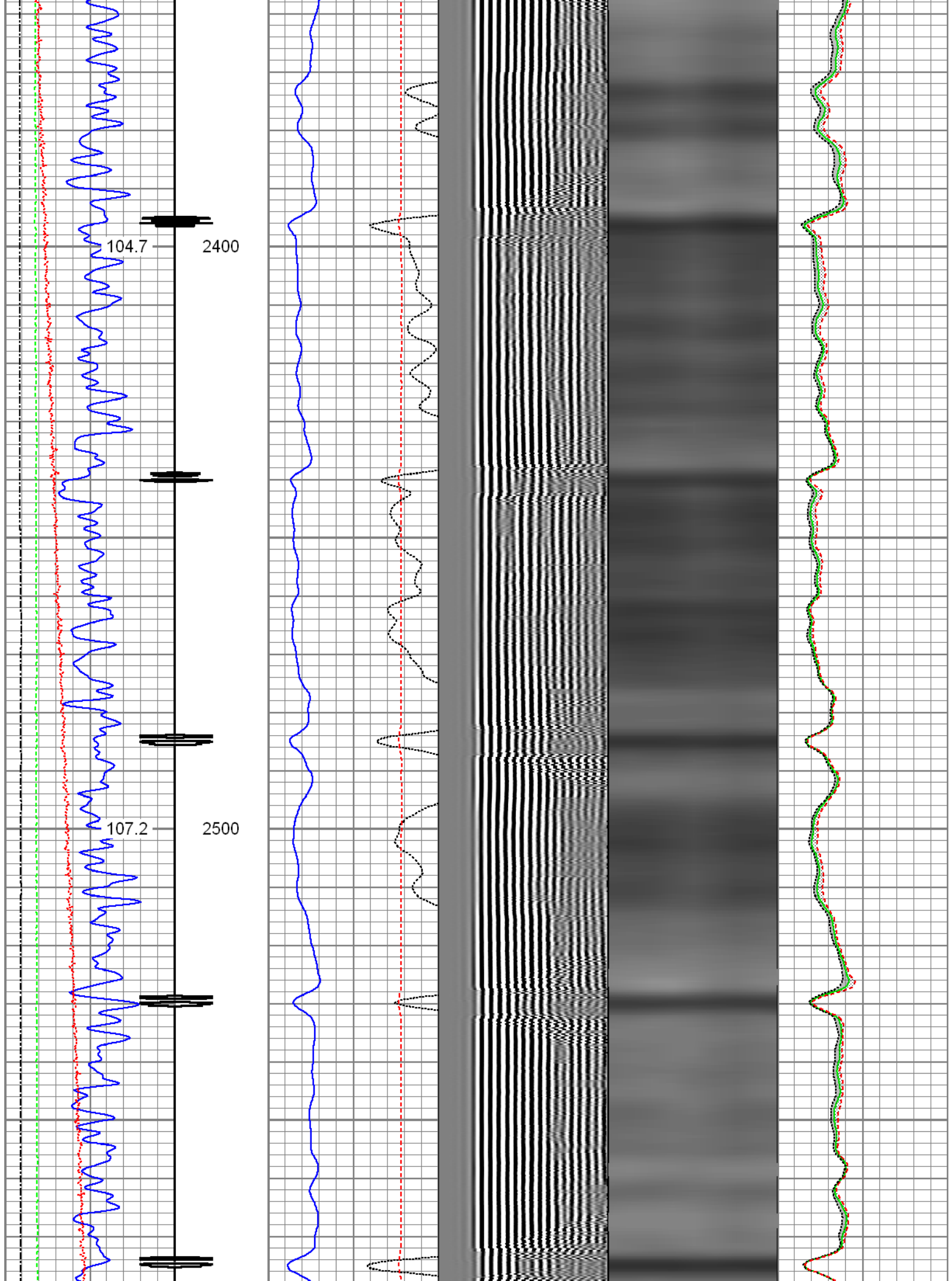


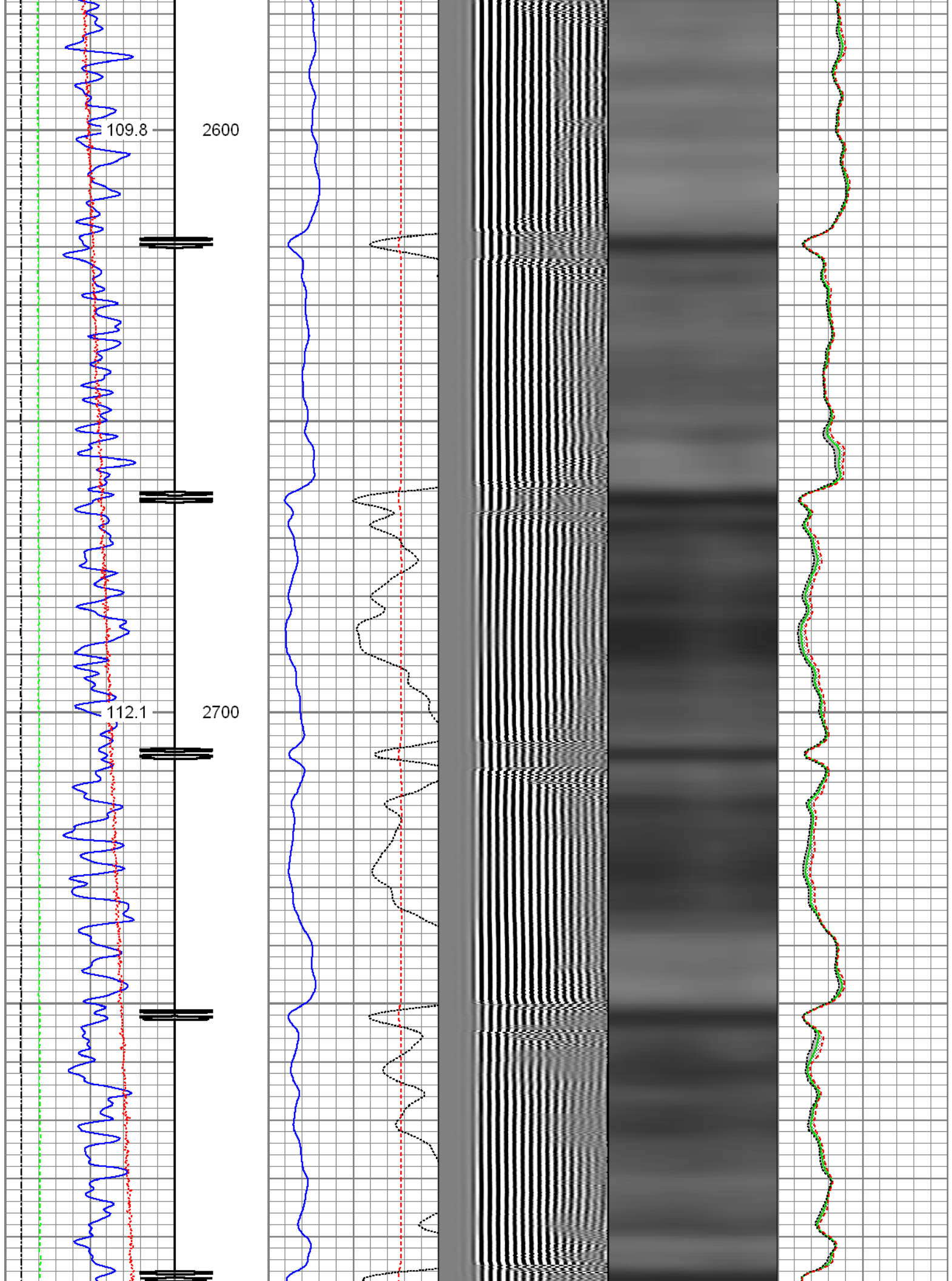


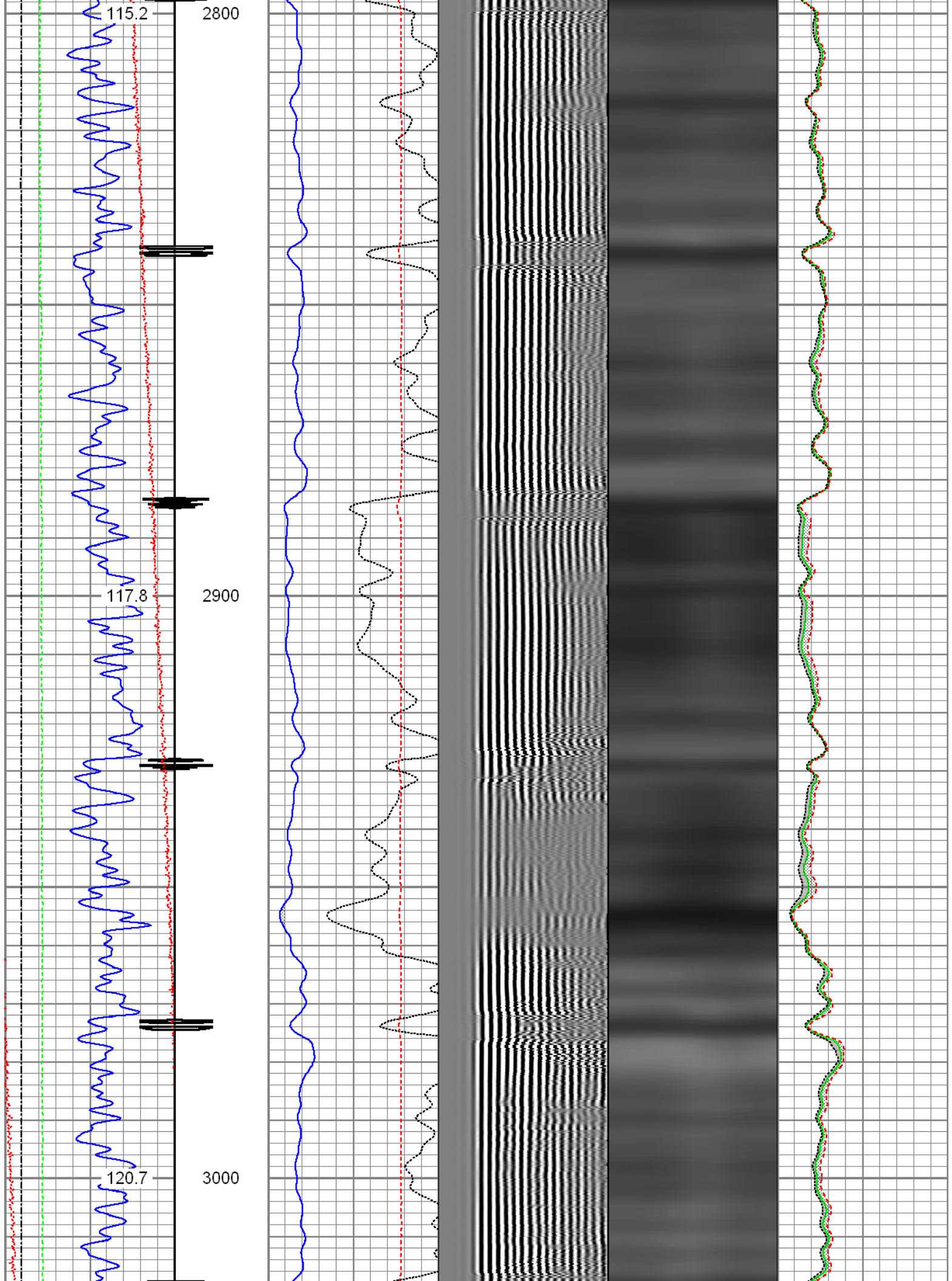


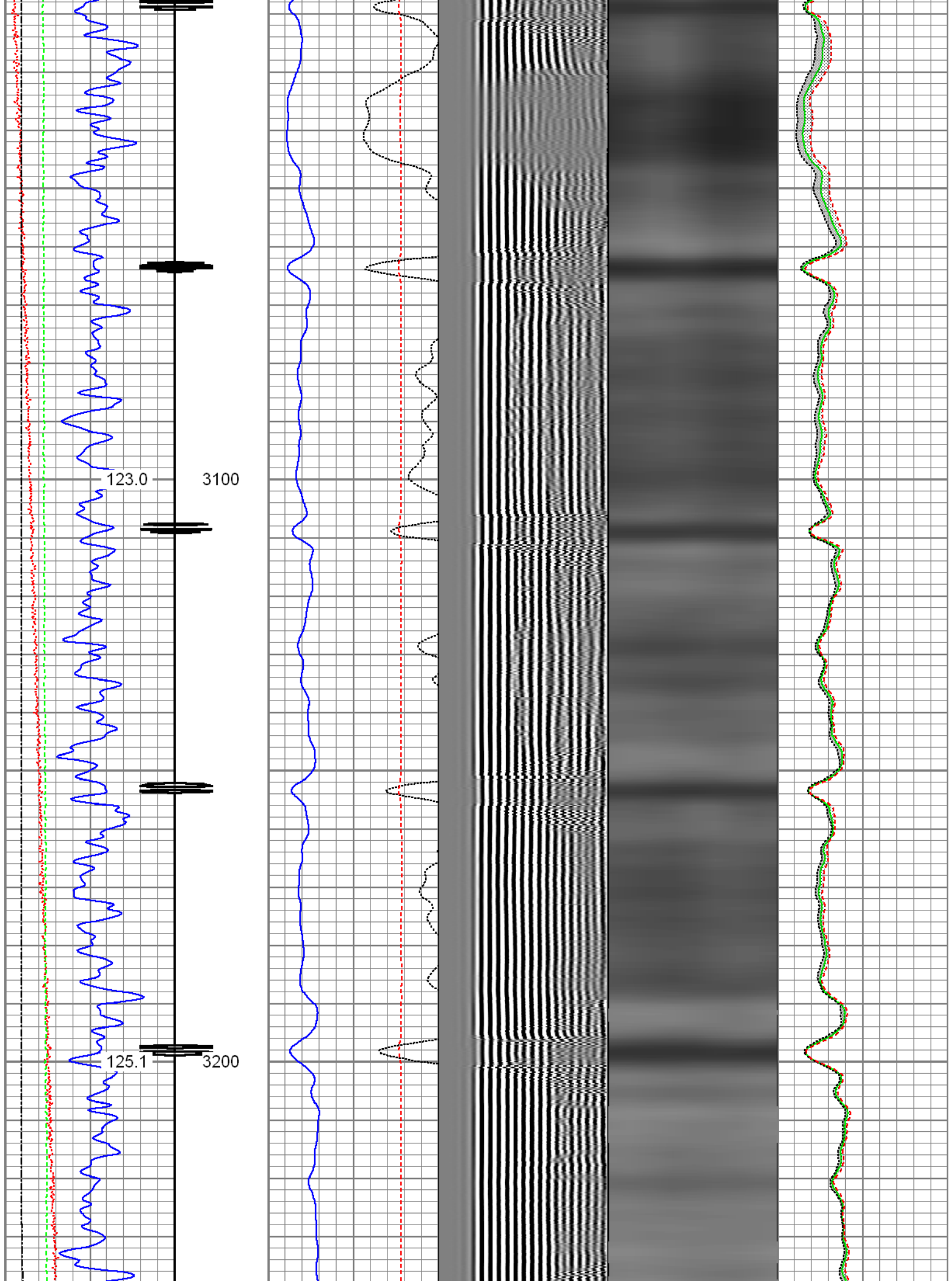


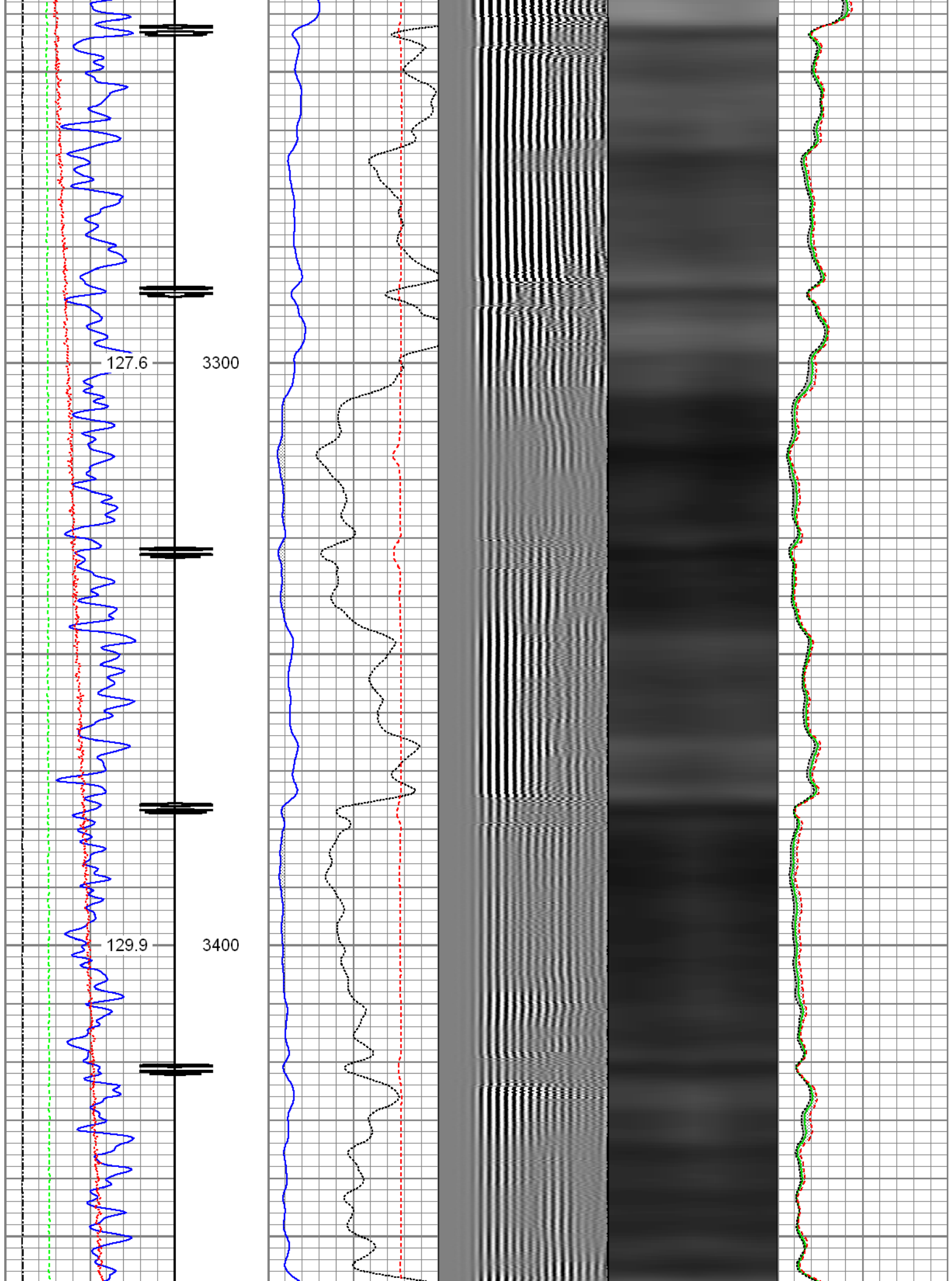


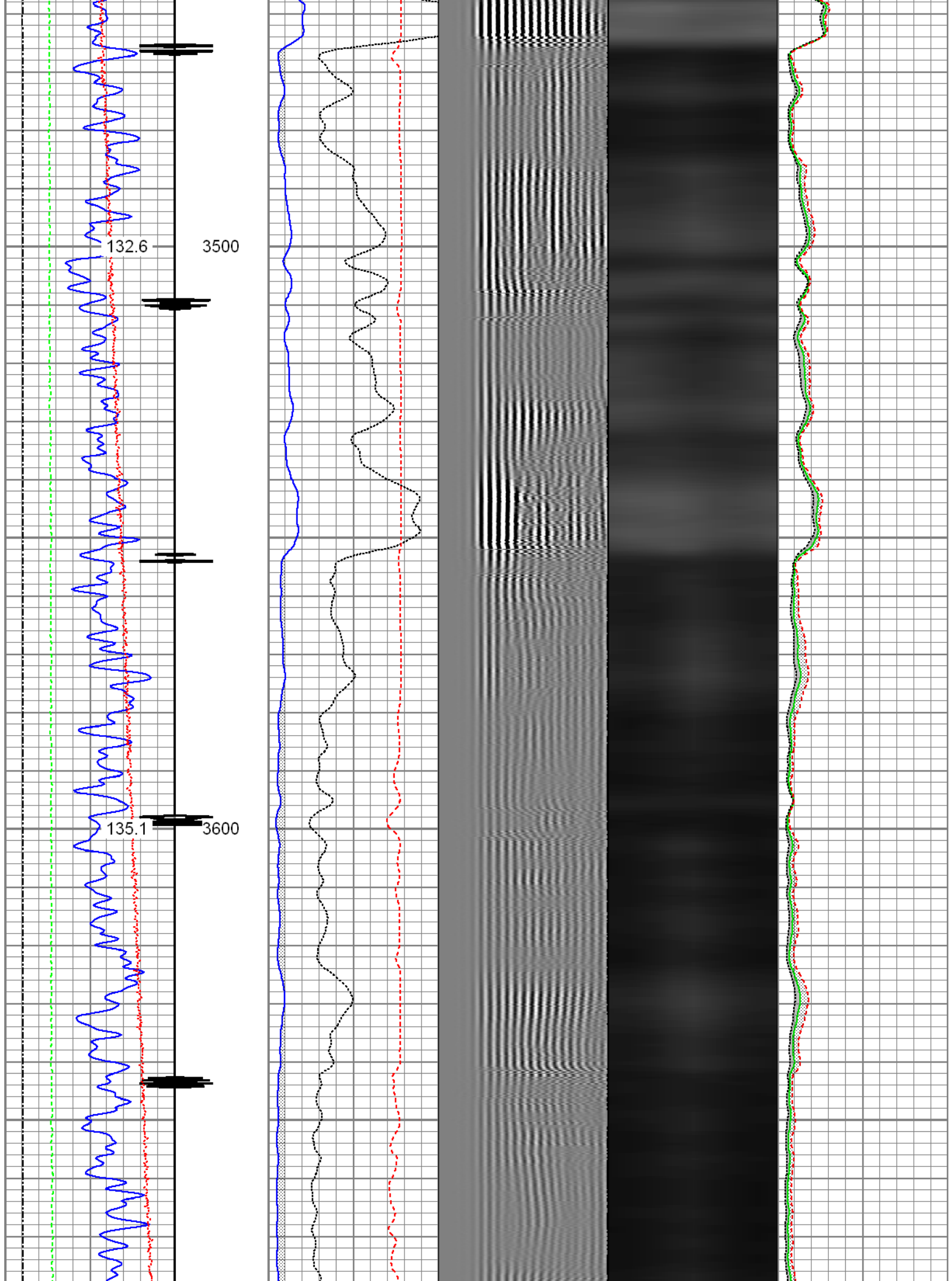


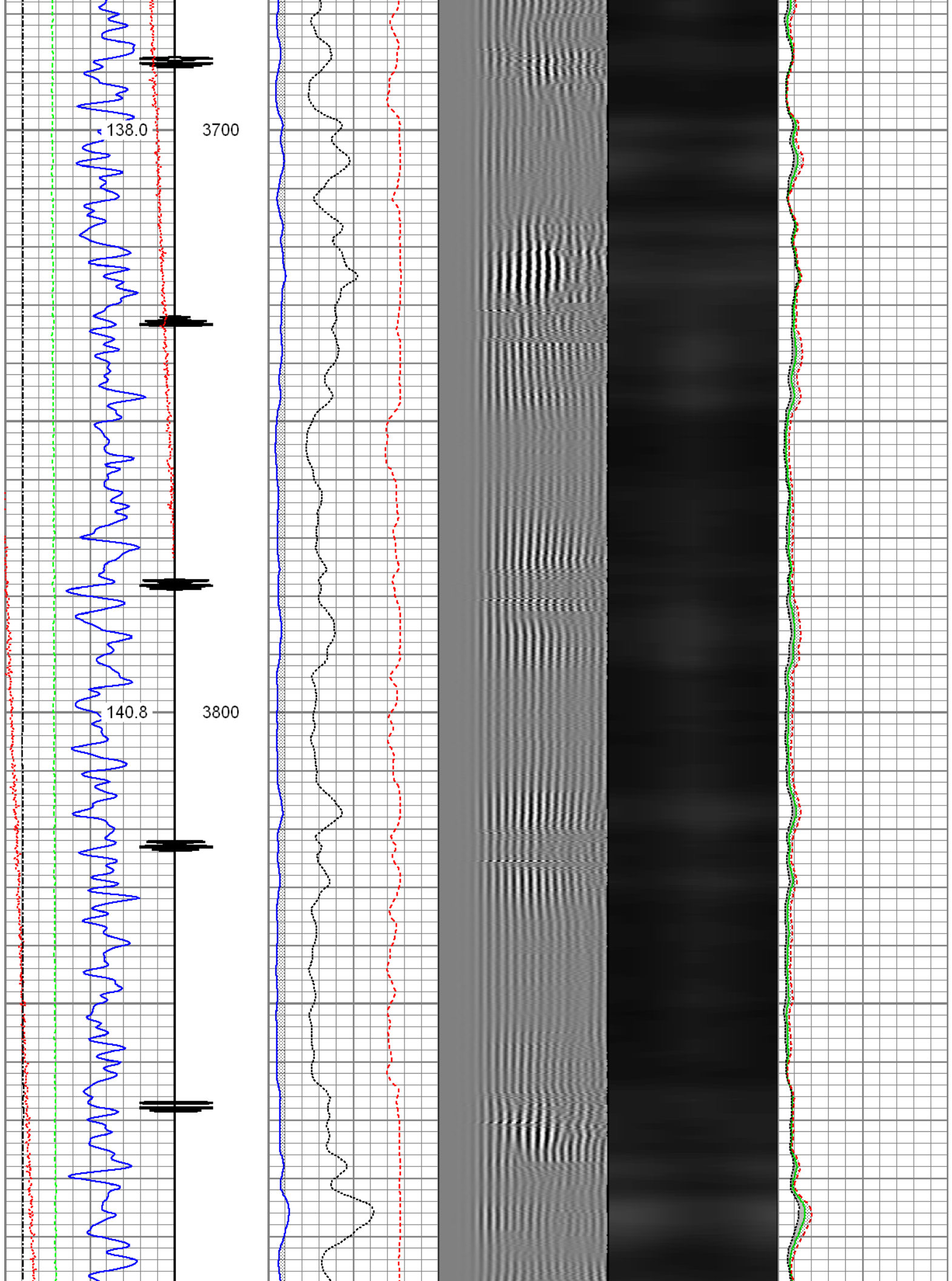


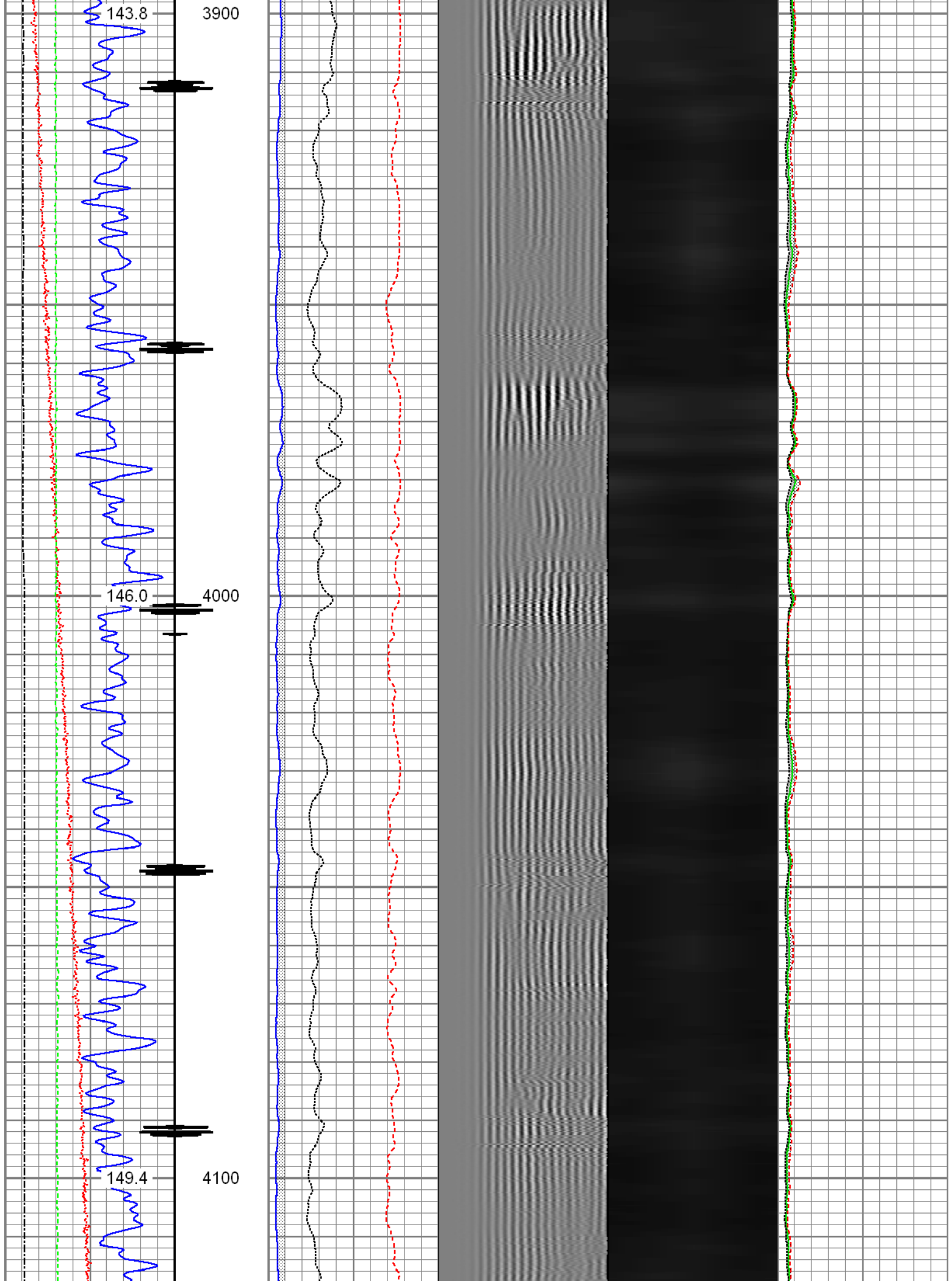


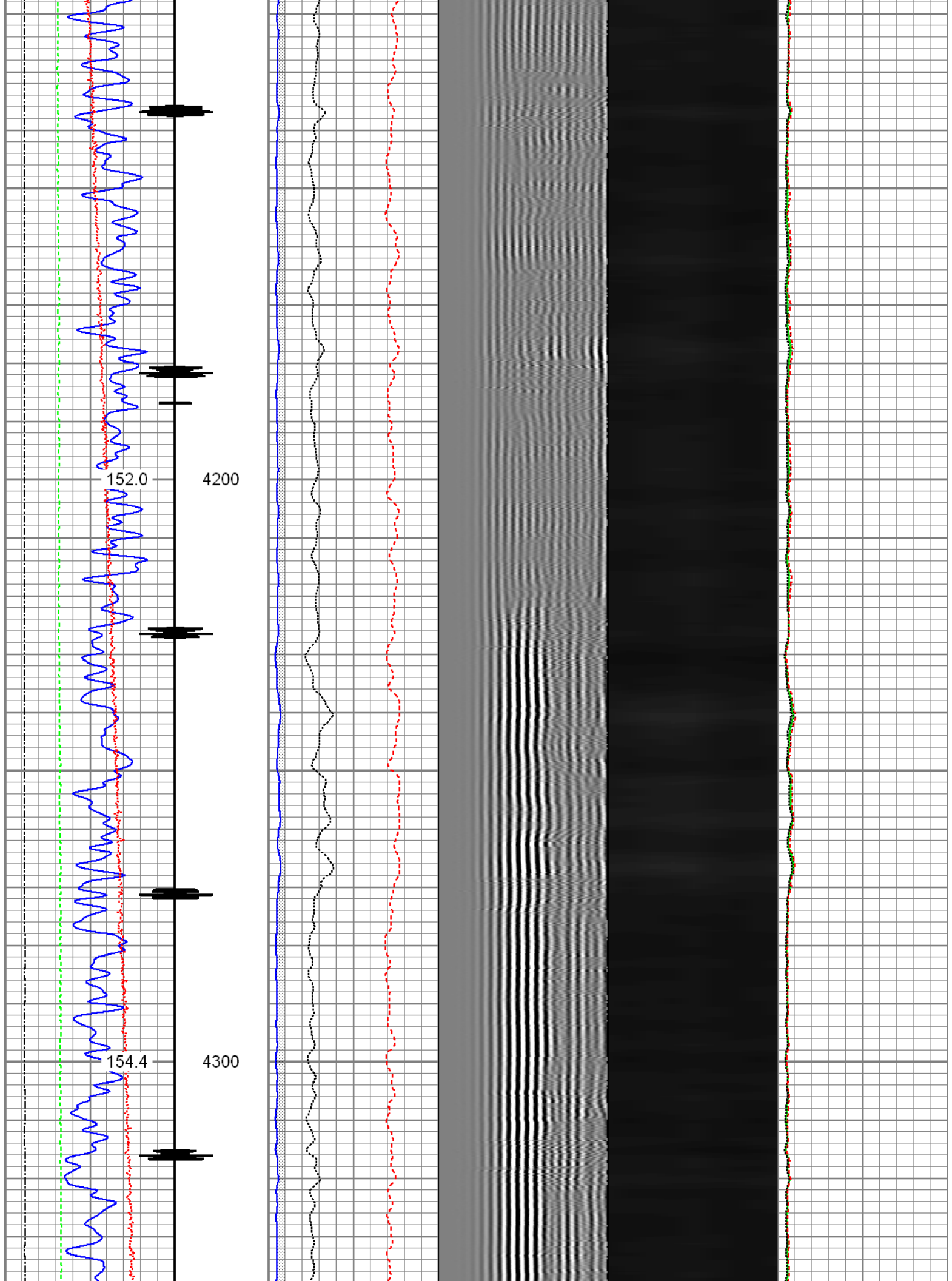


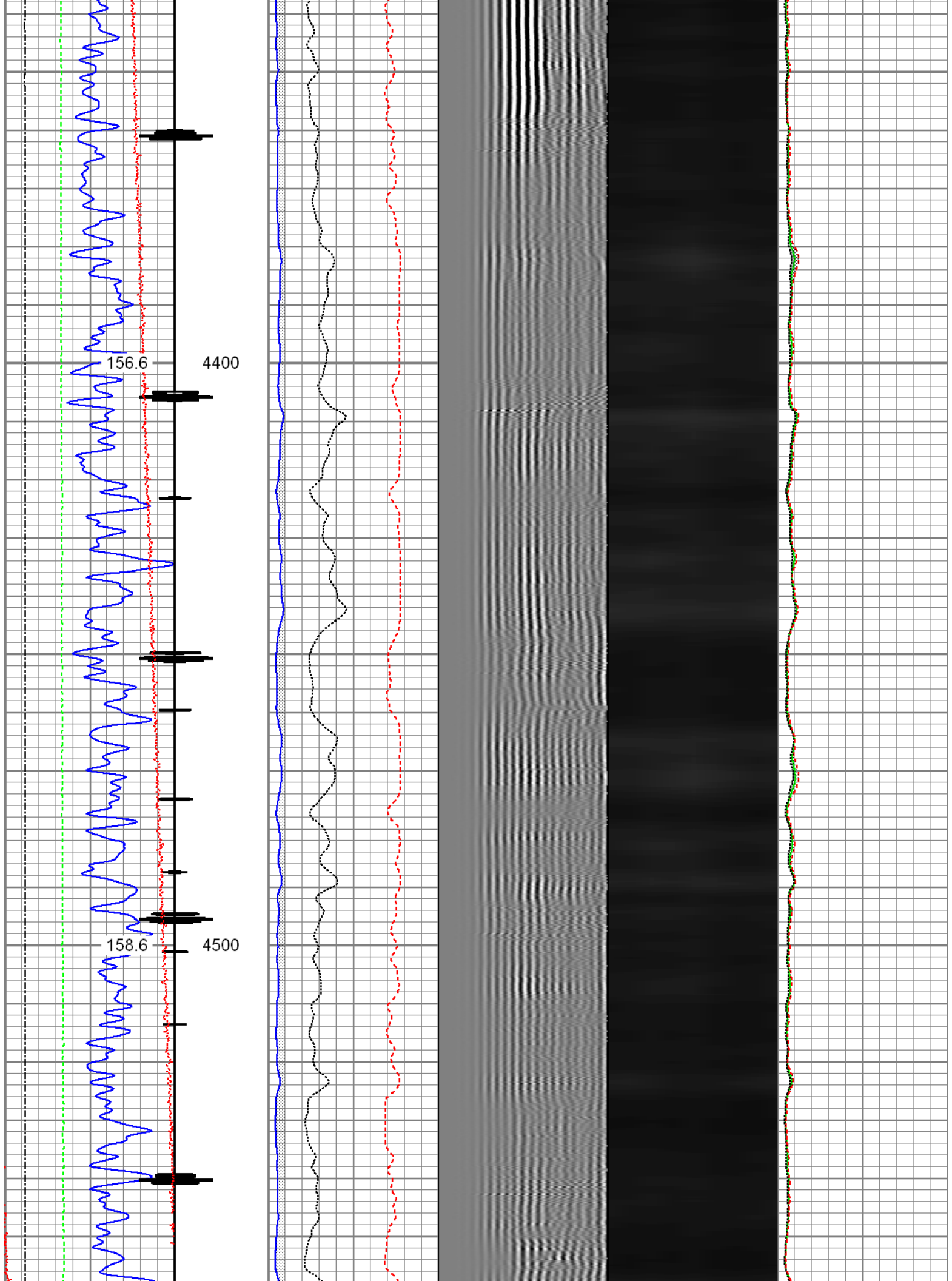


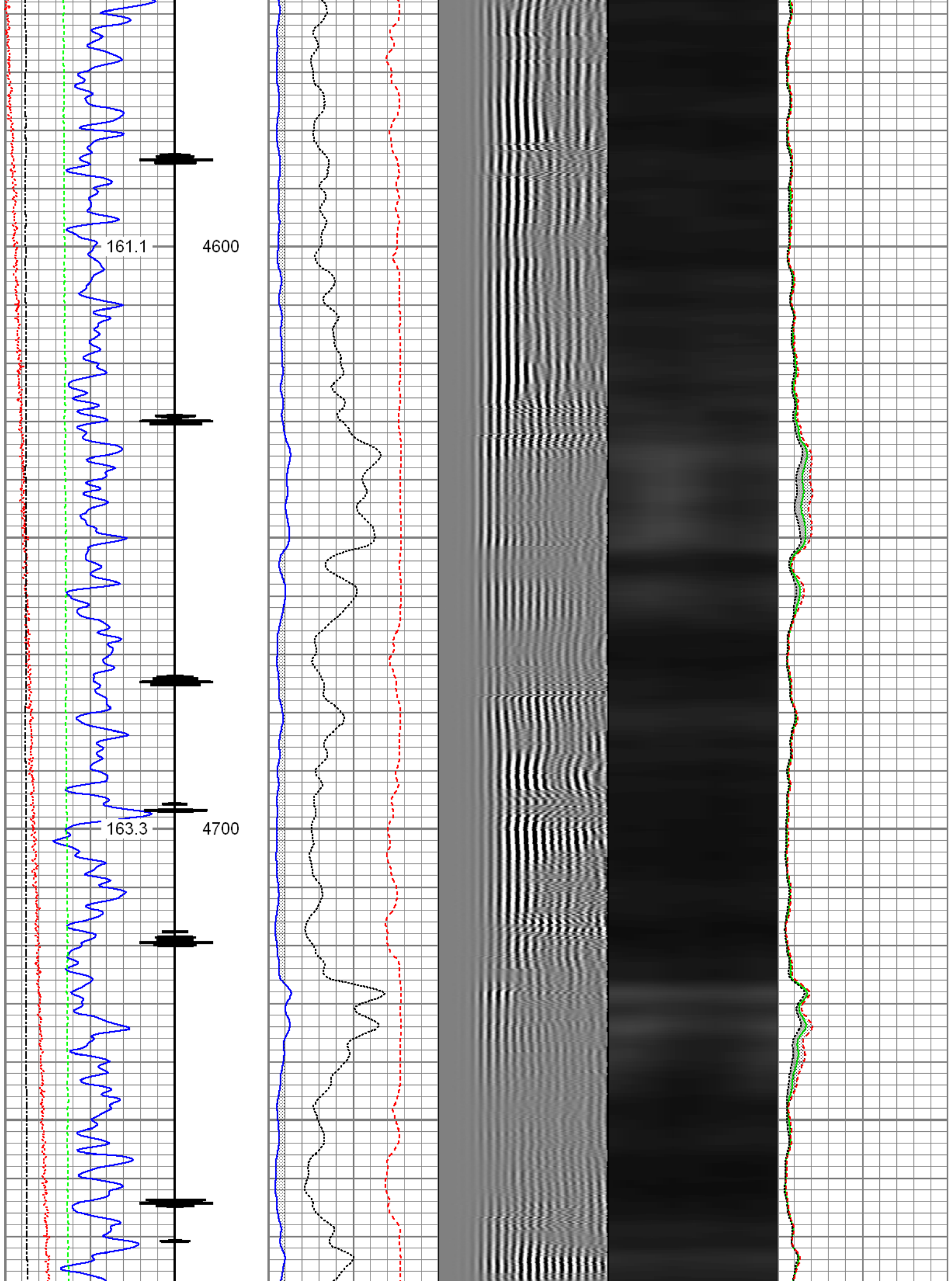


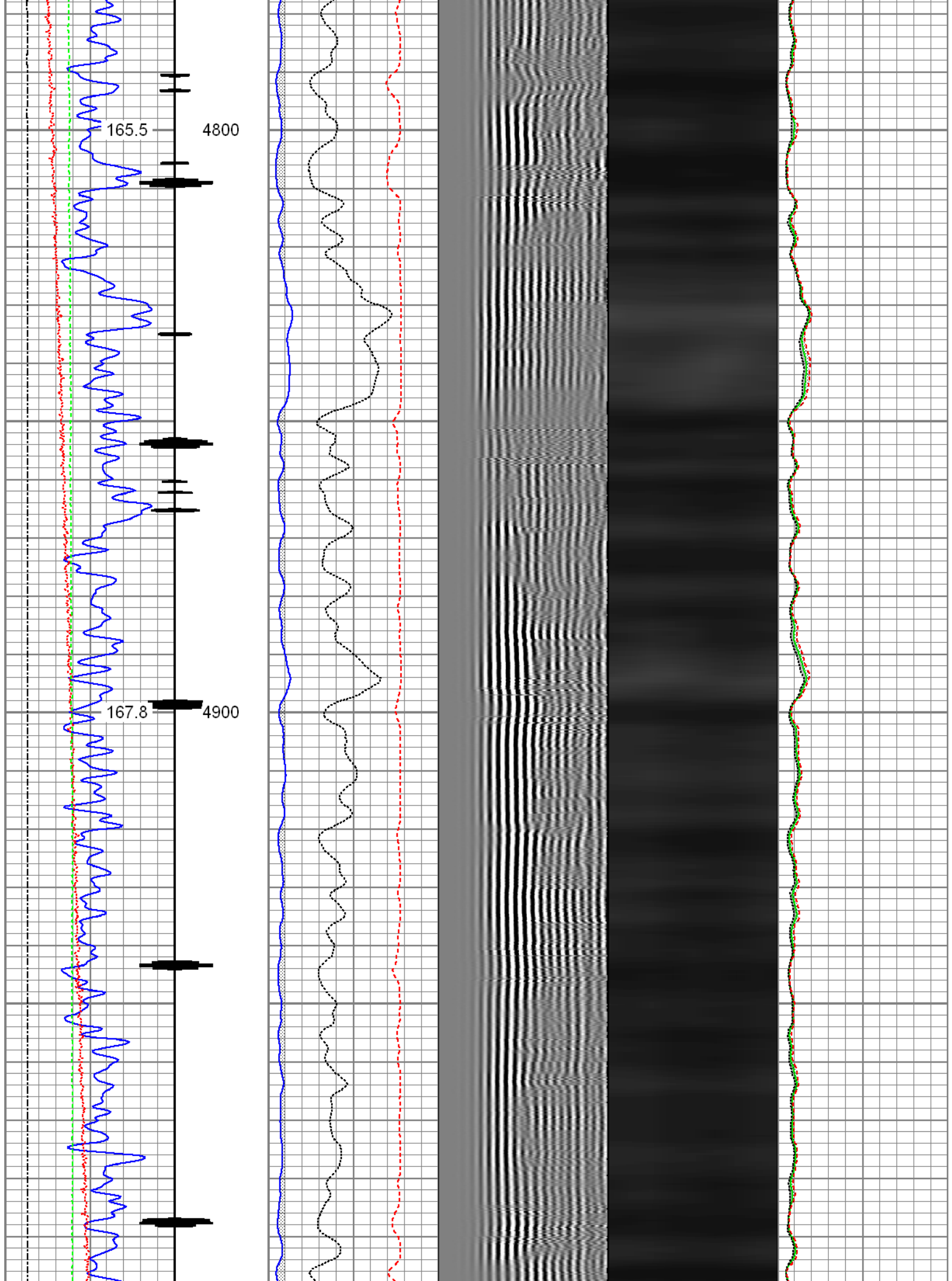


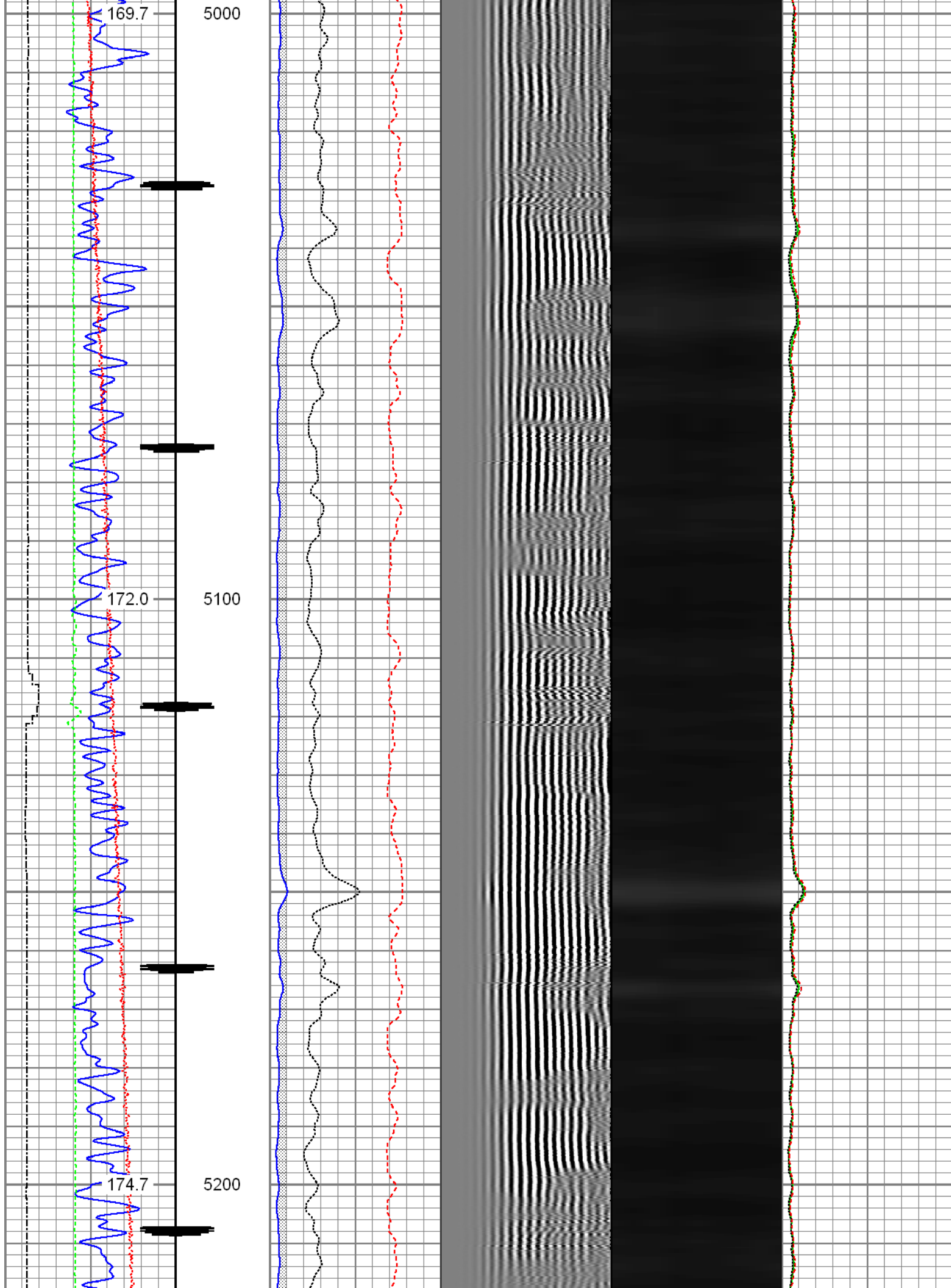


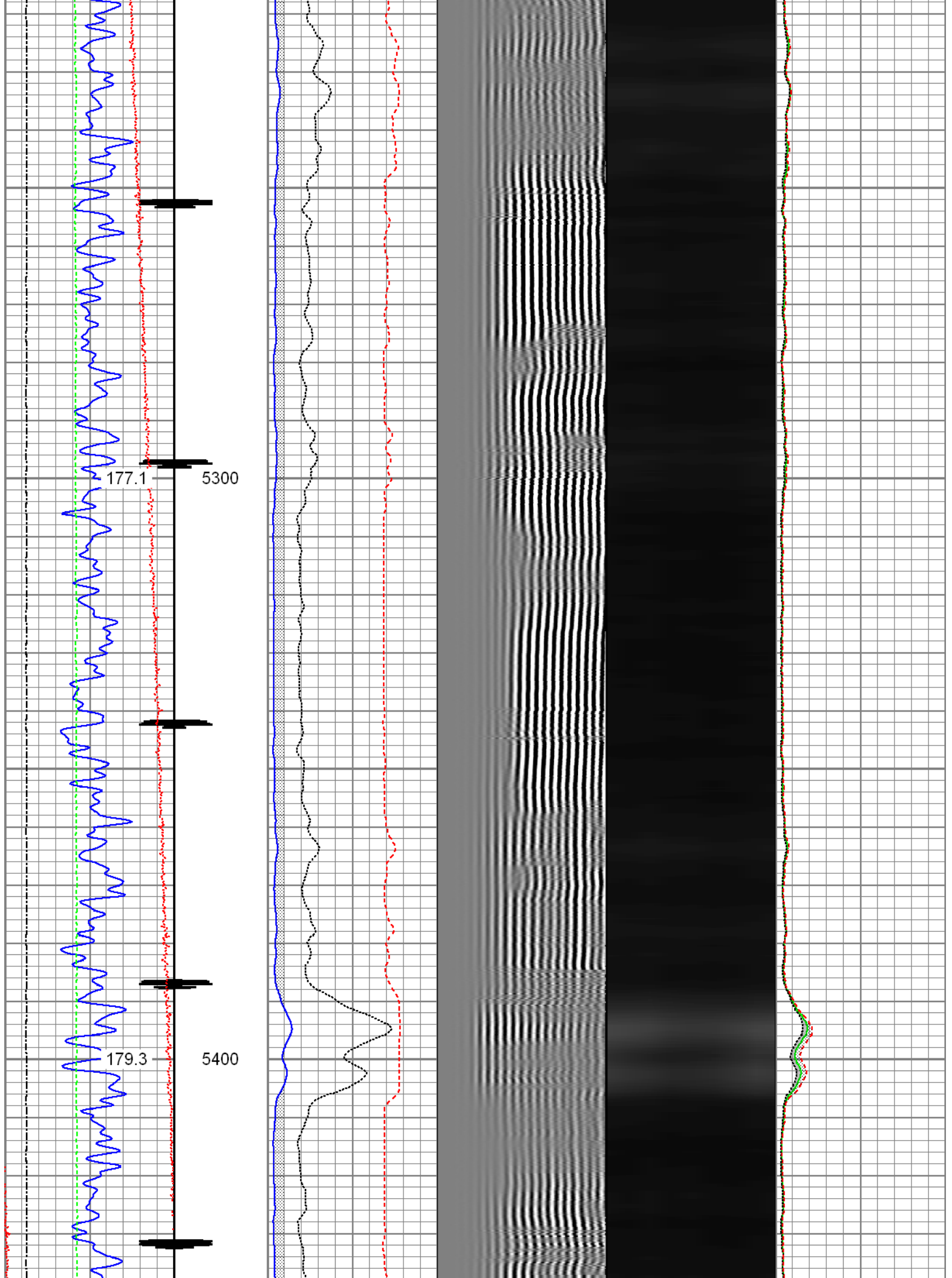


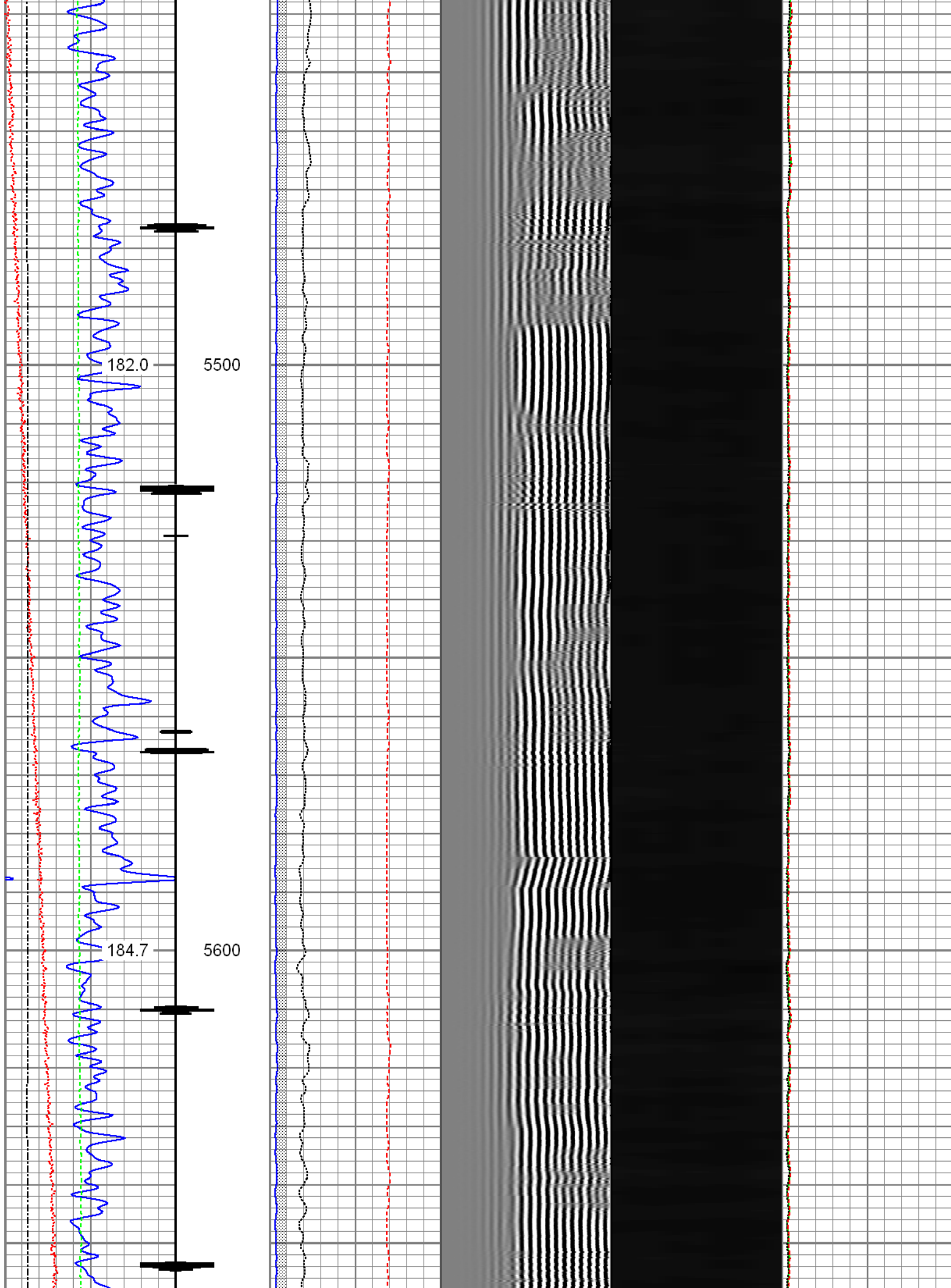


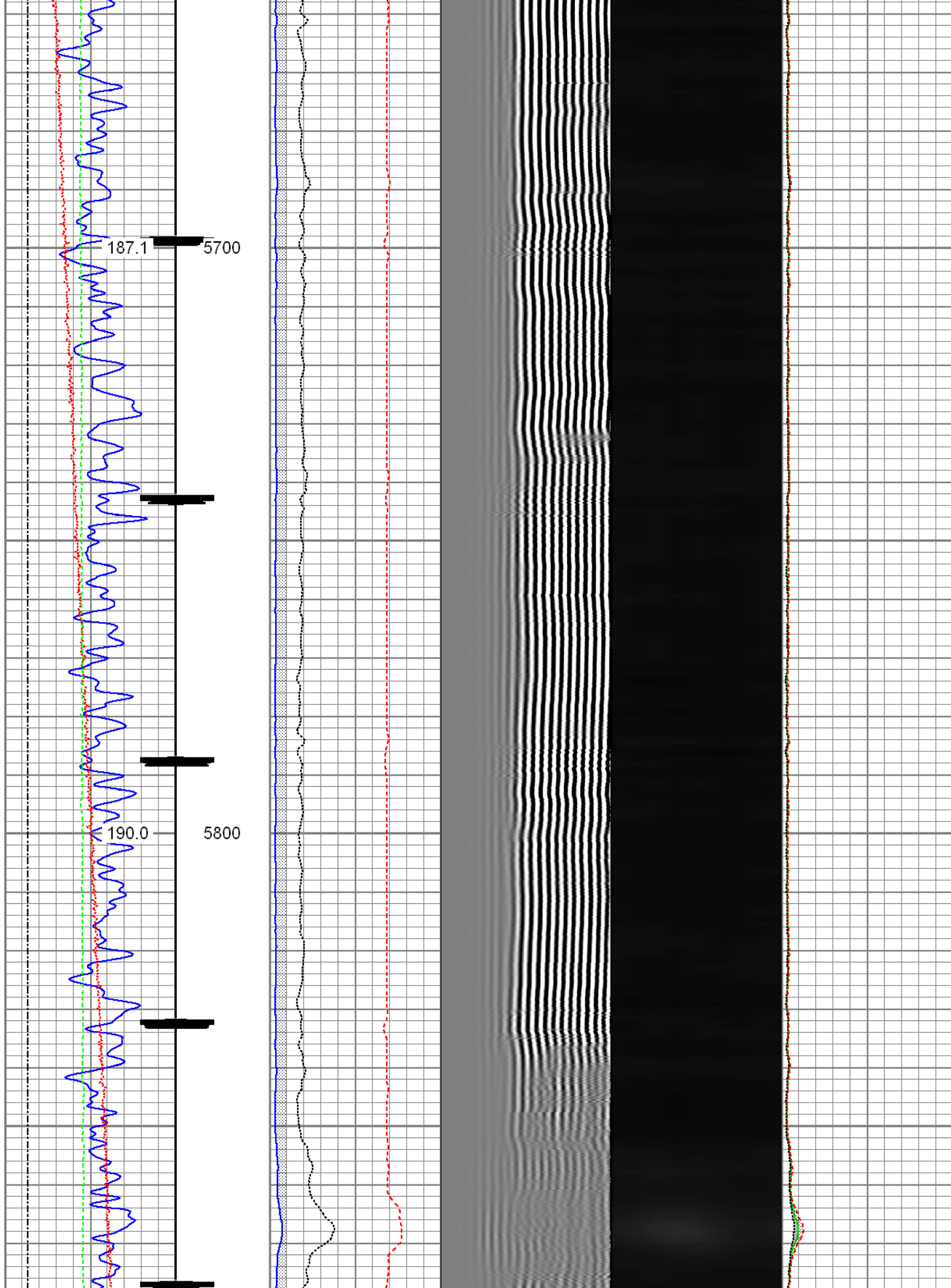


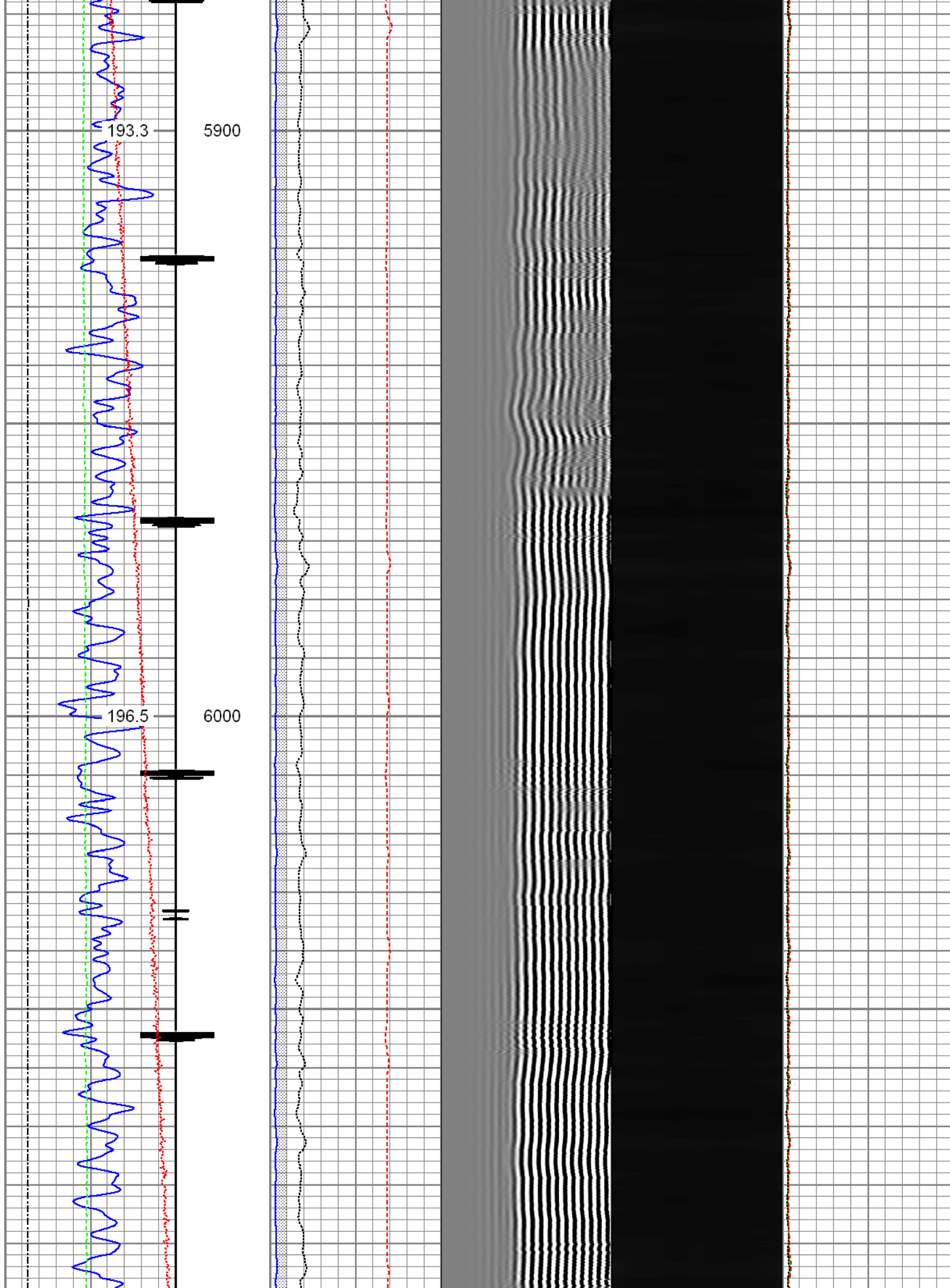


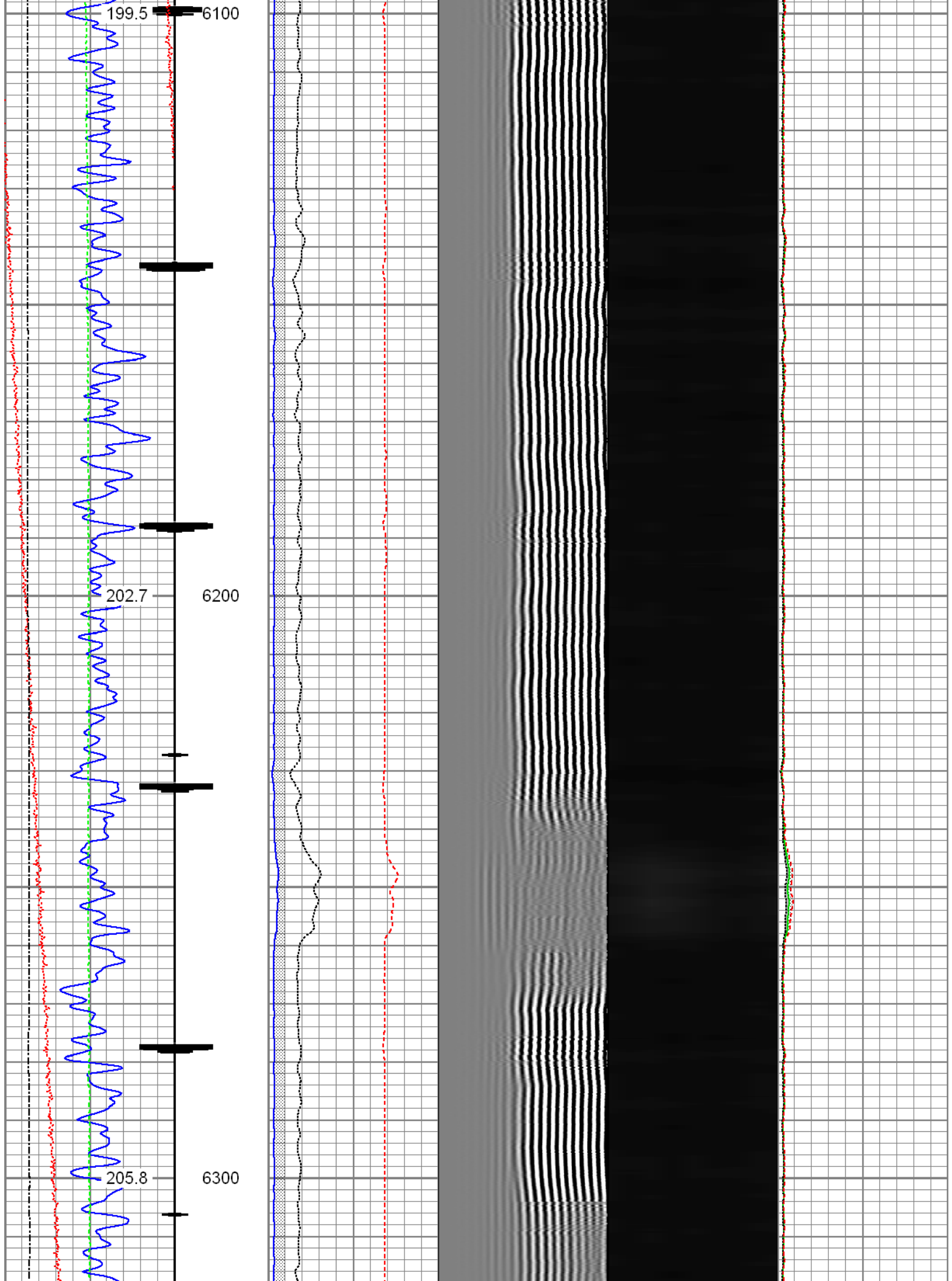


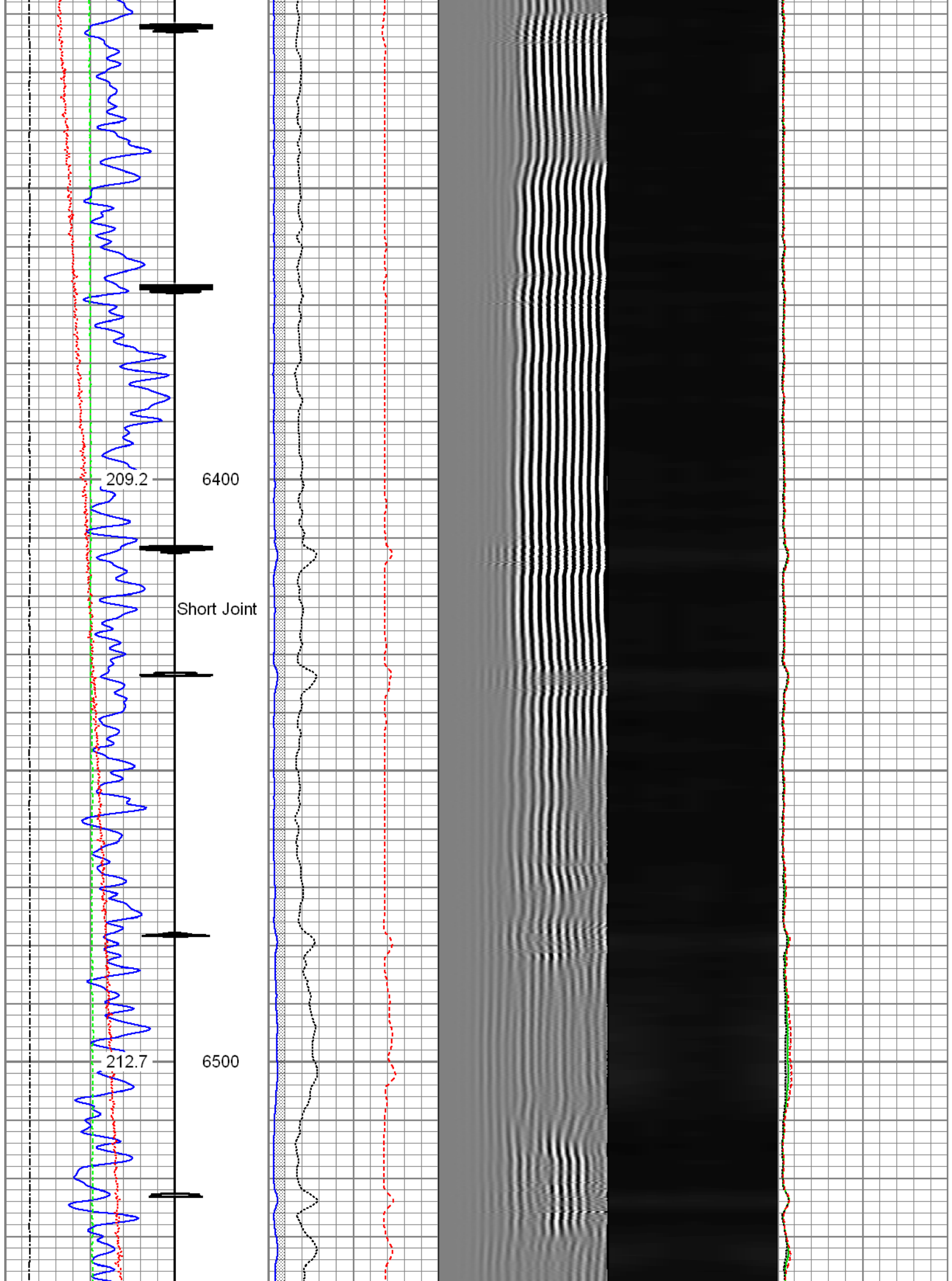


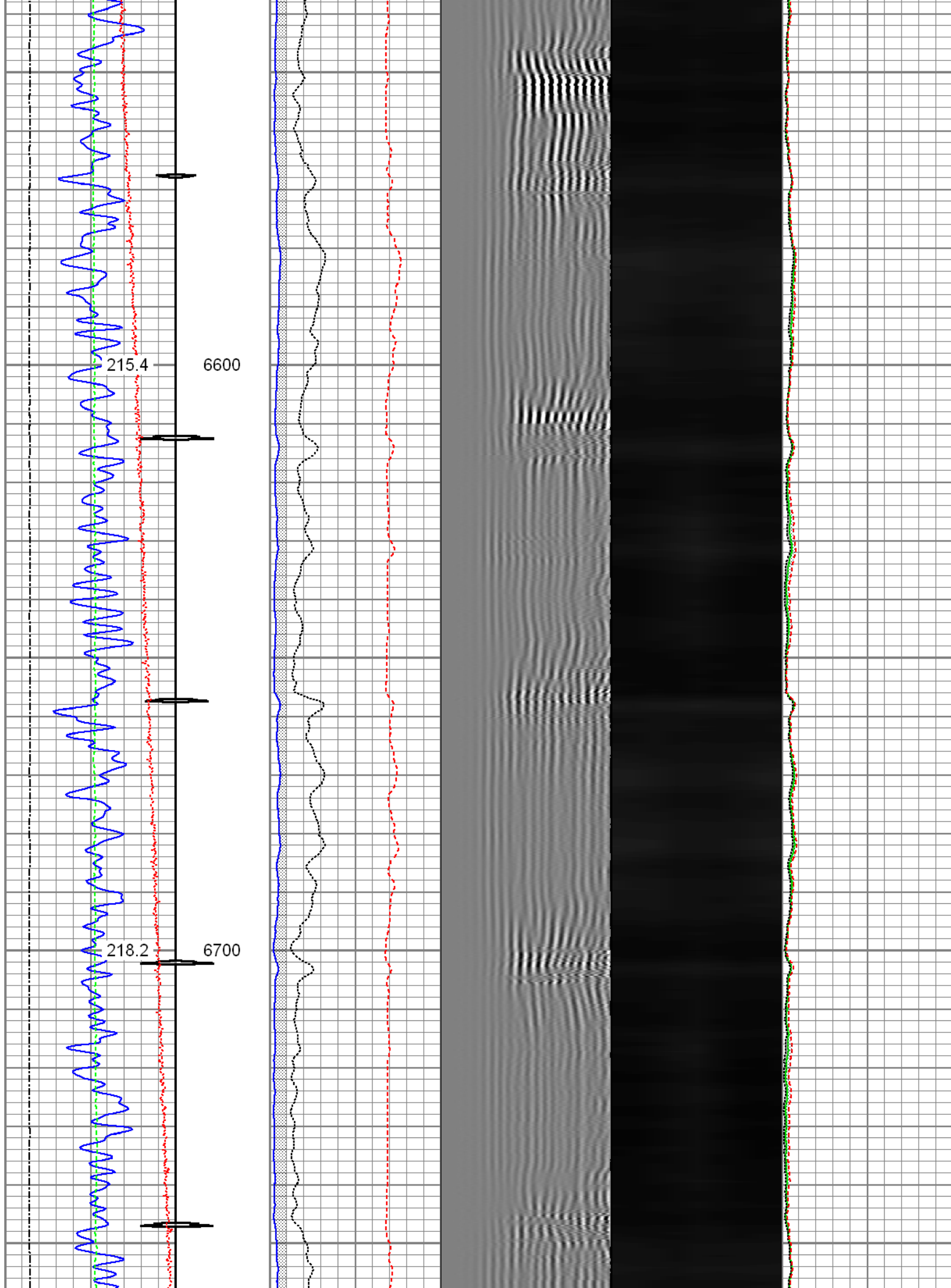


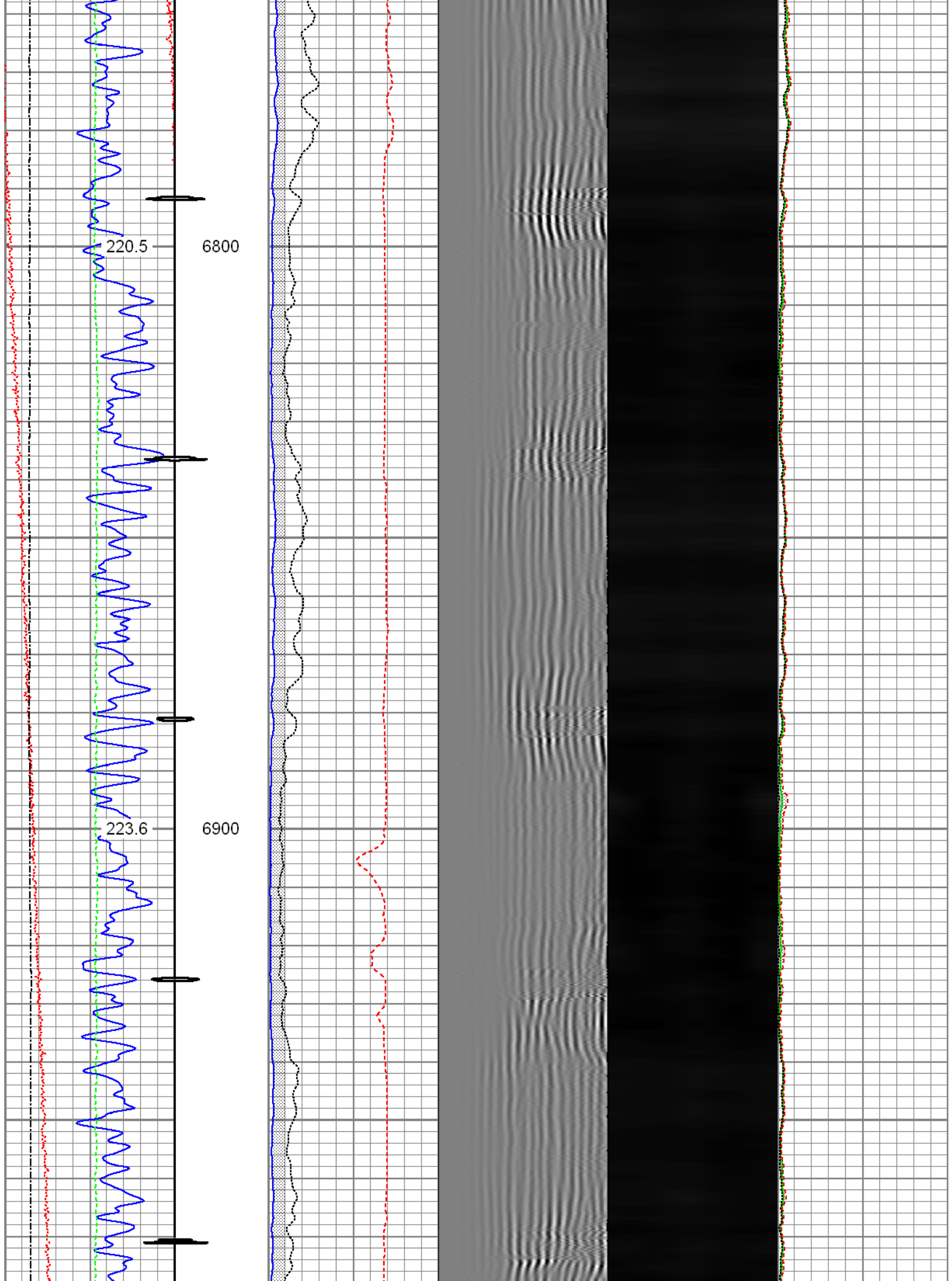


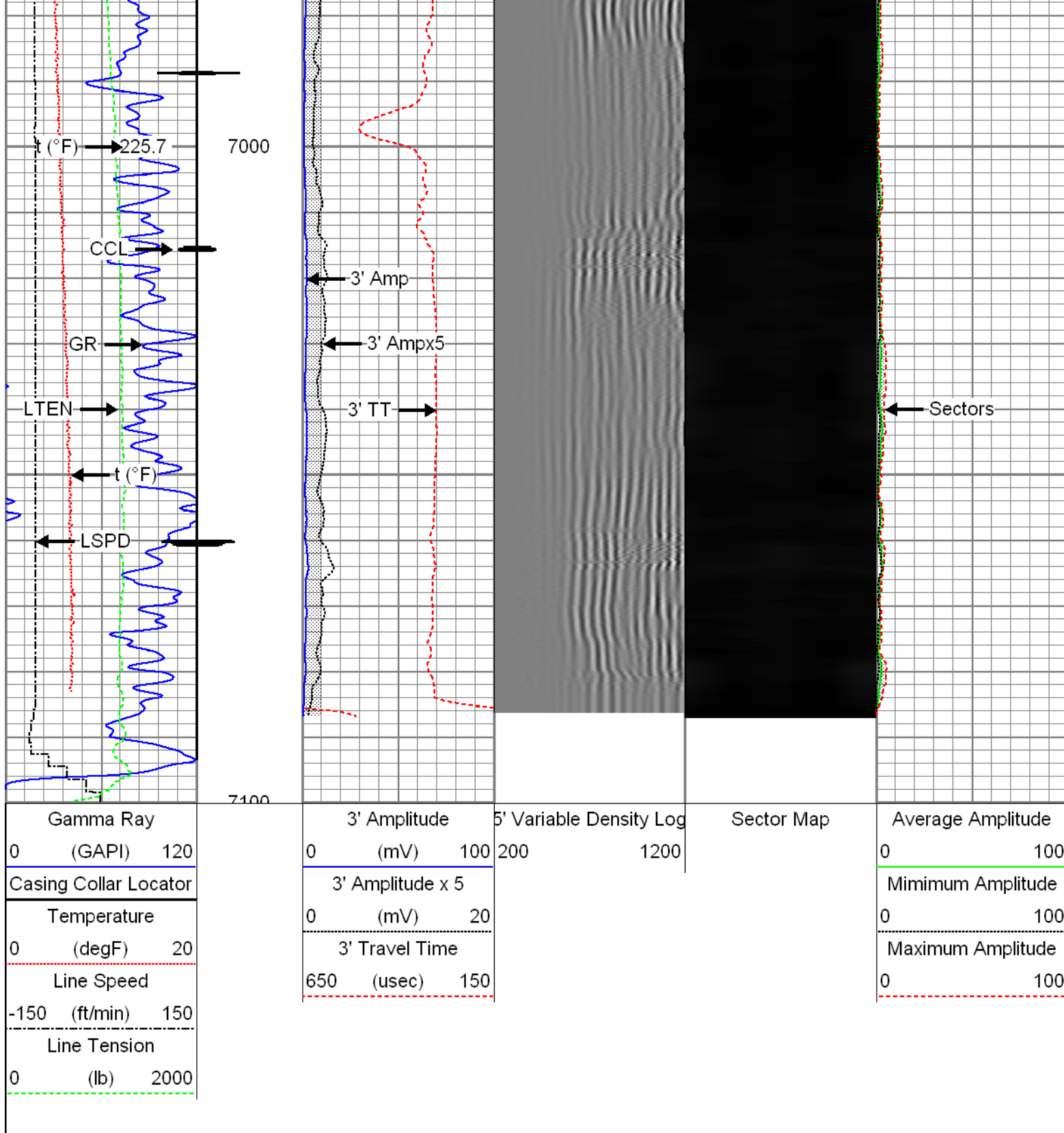










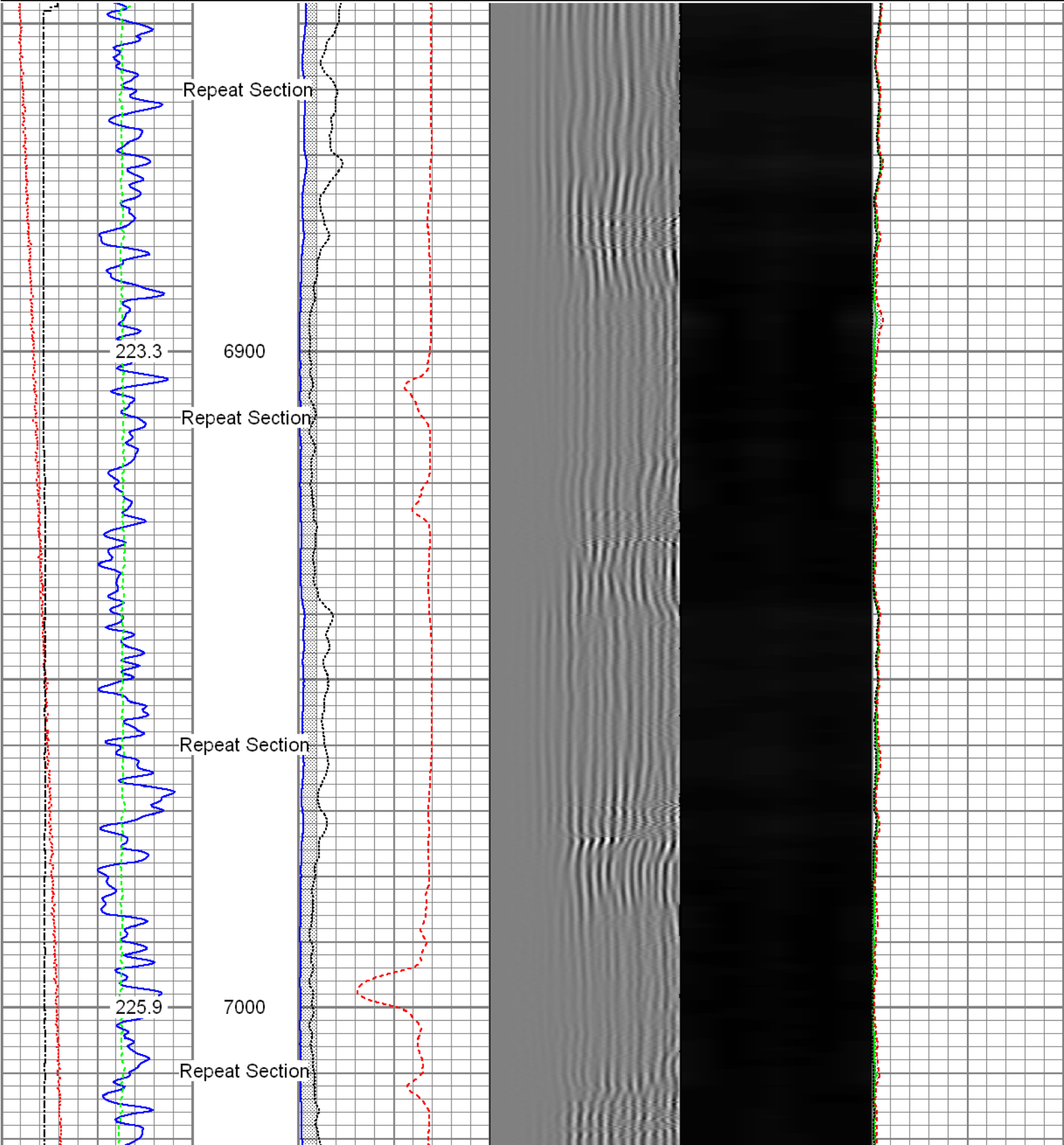


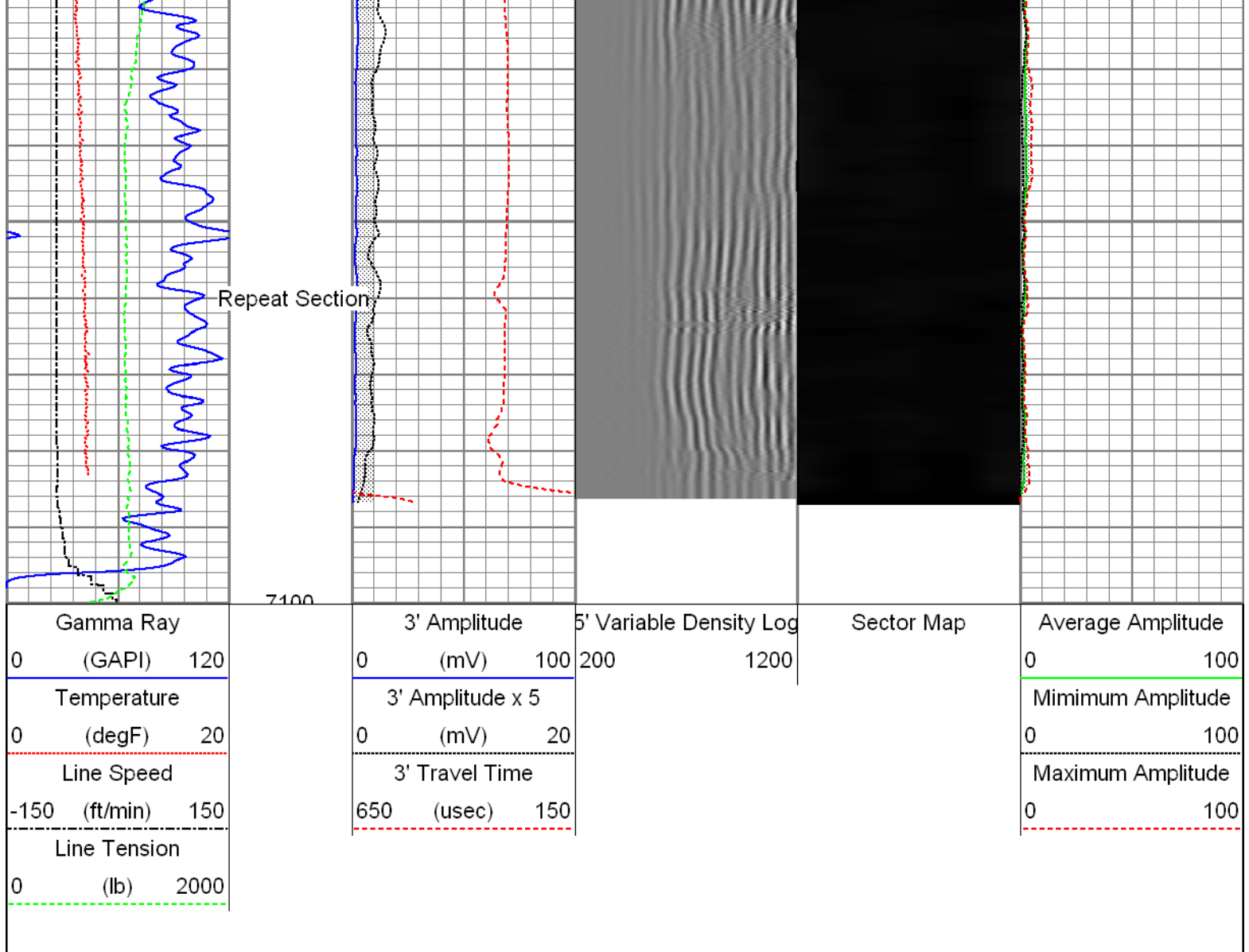
Repeat Pass

Recorded with 2800 PSI Surface Induced Pressure

Database File: c:\warrior\data\0512341328_anadarko_joker 1n2-9hz_09-10-15_rb\0512341328_anadarko_joker 1n2
Dataset Pathname: pass2
Presentation Format: radii
Dataset Creation: Thu Sep 10 11:10:28 2015 by Log 7.0 B1
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
Temperature			3' Amplitude x 5									Minimum Amplitude		
0	(degF)	20	0	(mV)	20							0		100
Line Speed			3' Travel Time									Maximum Amplitude		
-150	(ft/min)	150	650	(usec)	150							0		100
Line Tension														
0	(lb)	2000												





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
HeadVolt	19.49					
Temp	16.72					
WVF3FT	14.55		Probe_RADII-C-2-3/4" (FW1302-002) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	9.19	2.75	105.00
WVFCAL	14.55					
WVFS1	14.55					

WVFS2	14.55					
WVFS3	14.55					
WVFS4	14.55					
WVFS5	14.55					
WVFS6	14.55					
WVFS7	14.55					
WVFS8	14.55					
WVF5FT	13.55					
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
CCL	6.51					
DCCL	6.51					
			Probe_CCL_GR-2.75"Digital (FW1211-081) Probe 2-3/4" Digital CCL / Gamma Ray Combined	4.54	2.75	55.00
GR	3.77					
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Dataset: 0512341328_Anadarko_Joker 1N2-9HZ_09-10-15_RBL.db: field/well/run1/pass4 Total Length: 23.40 ft Total Weight: 194.00 lb O.D. 2.75 in						

Calibration Report	
Database File:	C:\Warrior\Data\0512341328_Anadarko_Joker 1N2-9HZ_09-10-15_RBL\0512341328_Anadarko_Joke
Dataset Pathname:	pass4
Dataset Creation:	Thu Sep 10 11:15:16 2015 by Log 7.0 B1

Gamma Ray Calibration Report		
Serial Number:	FW1211-081	
Tool Model:	2.75"Digital	
Performed:	Fri Aug 28 07:53:28 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1302-002	
Tool Model:	2-3/4"	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	25.891	ft

Master Calibration, performed Thu Sep 10 08:55:48 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.795	1.000	71.921	89.662	0.606
CAL	0.729	1.486				
5'	0.005	0.447	1.000	71.921	160.374	0.168
SUM						
S1	0.002	0.746	0.000	100.000	134.405	-0.269
S2	0.005	0.738	0.000	100.000	136.438	-0.640
S3	0.005	0.761	0.000	100.000	132.133	-0.611
S4	0.005	0.816	0.000	100.000	123.232	-0.608
S5	0.005	0.886	0.000	100.000	113.521	-0.606
S6	0.005	0.896	0.000	100.000	112.288	-0.592
S7	0.005	0.853	0.000	100.000	117.847	-0.534
S8	0.005	0.799	0.000	100.000	125.895	-0.602

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	0.729	1.486	1.000	0.000

Air Zero Calibration, performed Thu Sep 10 08:54:03 2015:

	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 Kerr-McGee Oil & Gas Onshore, L.P.
 Well Joker 1N2-9HZ
 Field Wattenberg
 County Weld
 State Colorado