



County Weld State Colorado

Elevation	
K.B.	5006'
D.F.	---
G.L.	4974'

Date	04-JAN-2018
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DATE	TIME
07-07-2010	11:11

Depth Unriller	18356 F1
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01/11/20	01/11/20
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Open Hole Size	1.875"
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Density / Viscosity	0.24 lb/gal
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[illegible]

Time Logger on Bottom	09:30
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Education	100% English, 0%
Occupation	Accountant

Borehole Record

[illegible]

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Wavelength (nm)	Size (nm)	Refractive Index
400	100	1.33
450	150	1.35
500	200	1.37
550	250	1.39
600	300	1.41
650	350	1.43
700	400	1.45
750	450	1.47
800	500	1.49
850	550	1.51
900	600	1.53
950	650	1.55
1000	700	1.57

Intermediate #3		
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[illegible]

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 Kelly Bushing of 32 FT
Adjusted +5 FT to correlate with Kelly Bushing
Gauge Ring/Junk Basket ran to 7395 FT with no debris
Log ran from just above WRP
Recorded with 2800 PSI Surface Induced Pressure
Logging tools were clean and free of any debris upon completion of operations

Thank you for choosing Reliance Oilfield Services, LLC!!

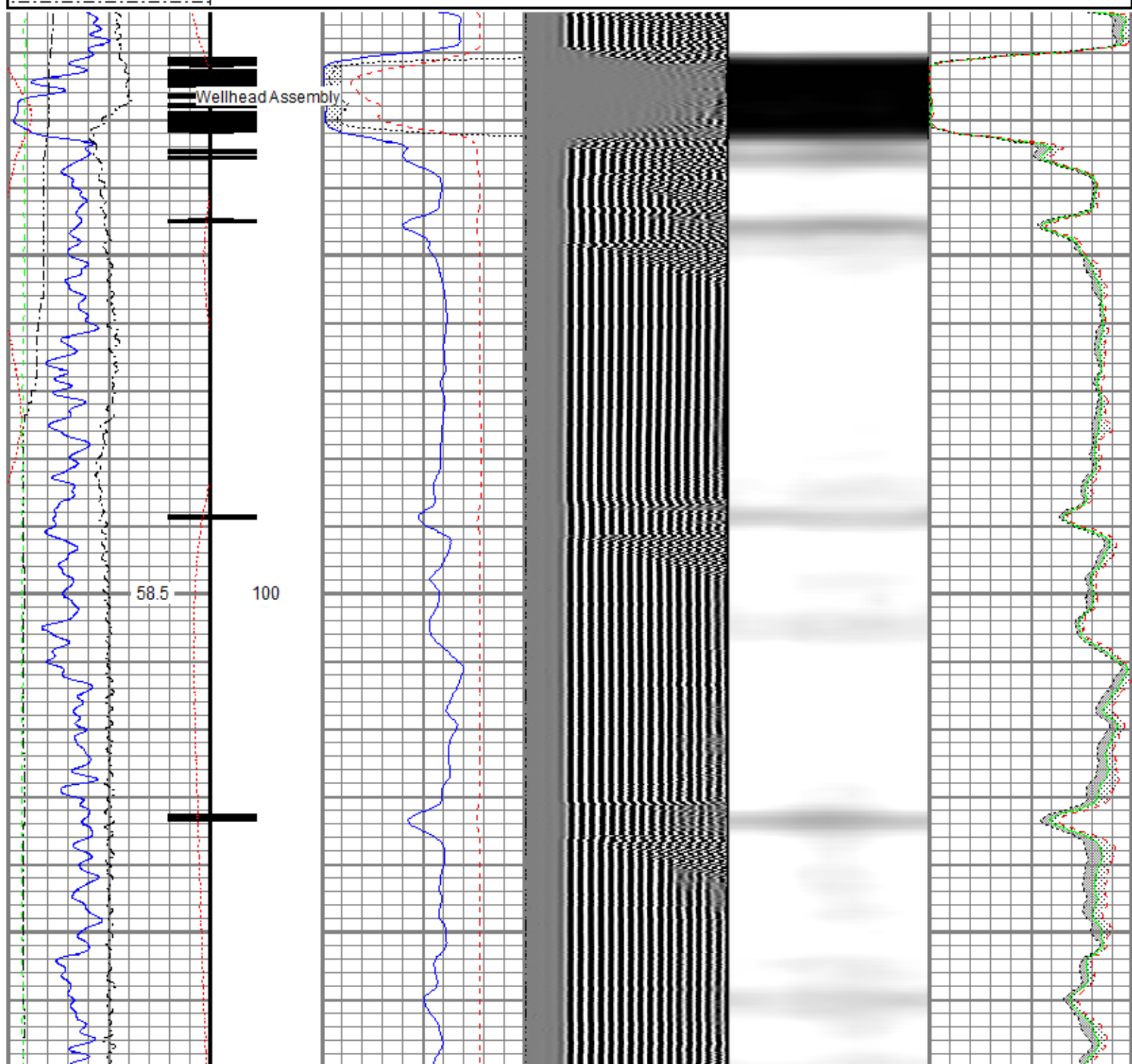
Main Pass

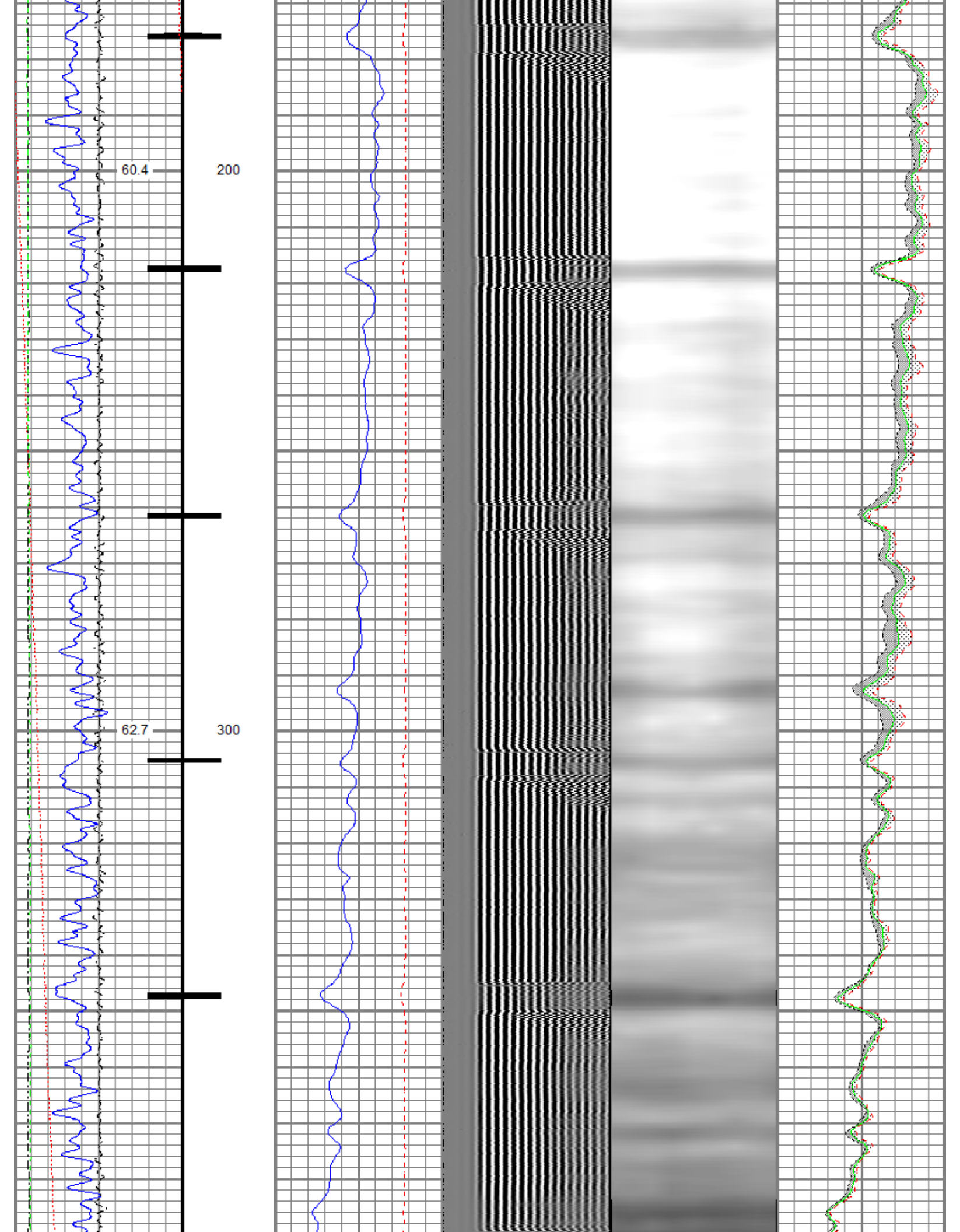


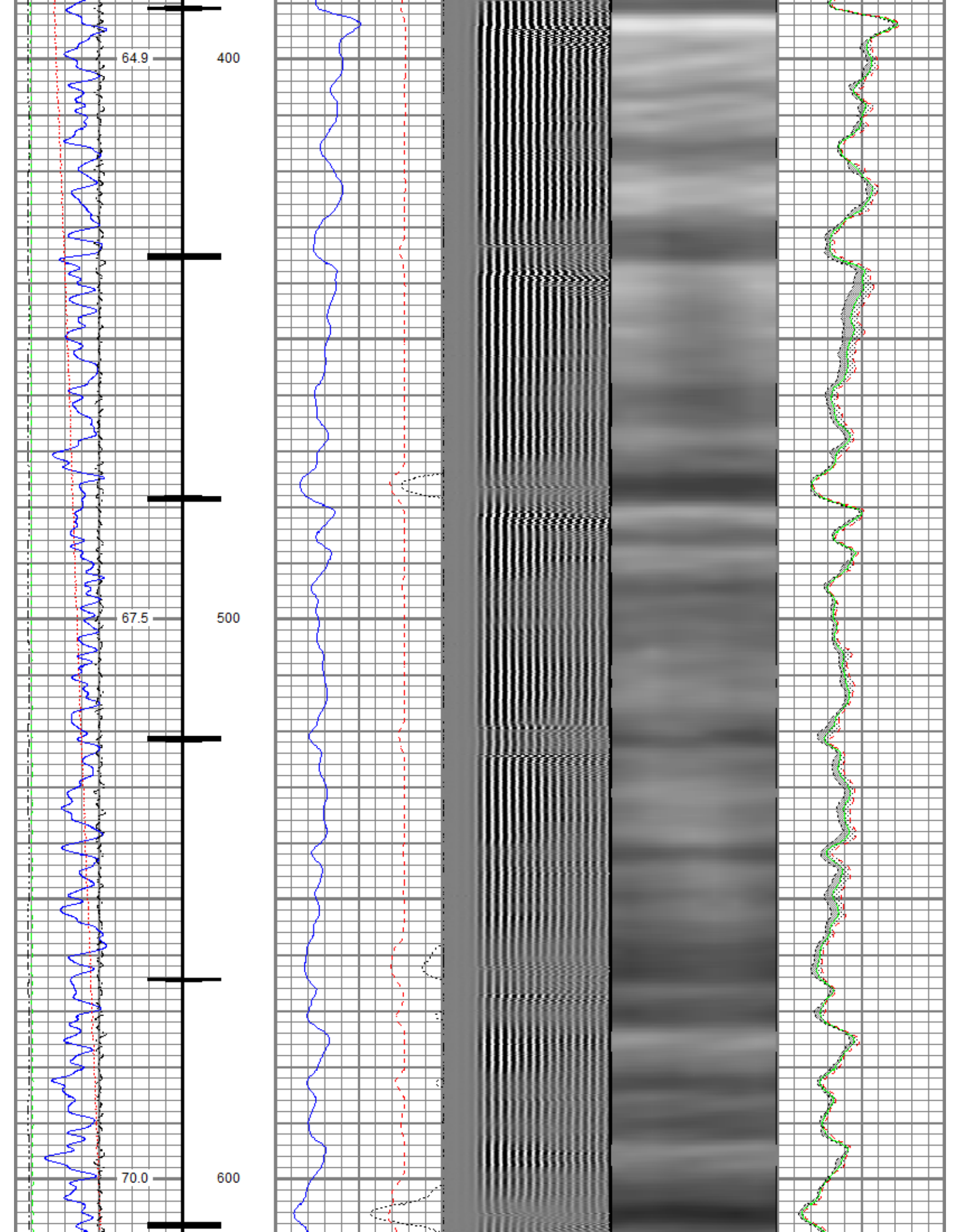
Recorded With 2800 PSI Surface Induced Pressure

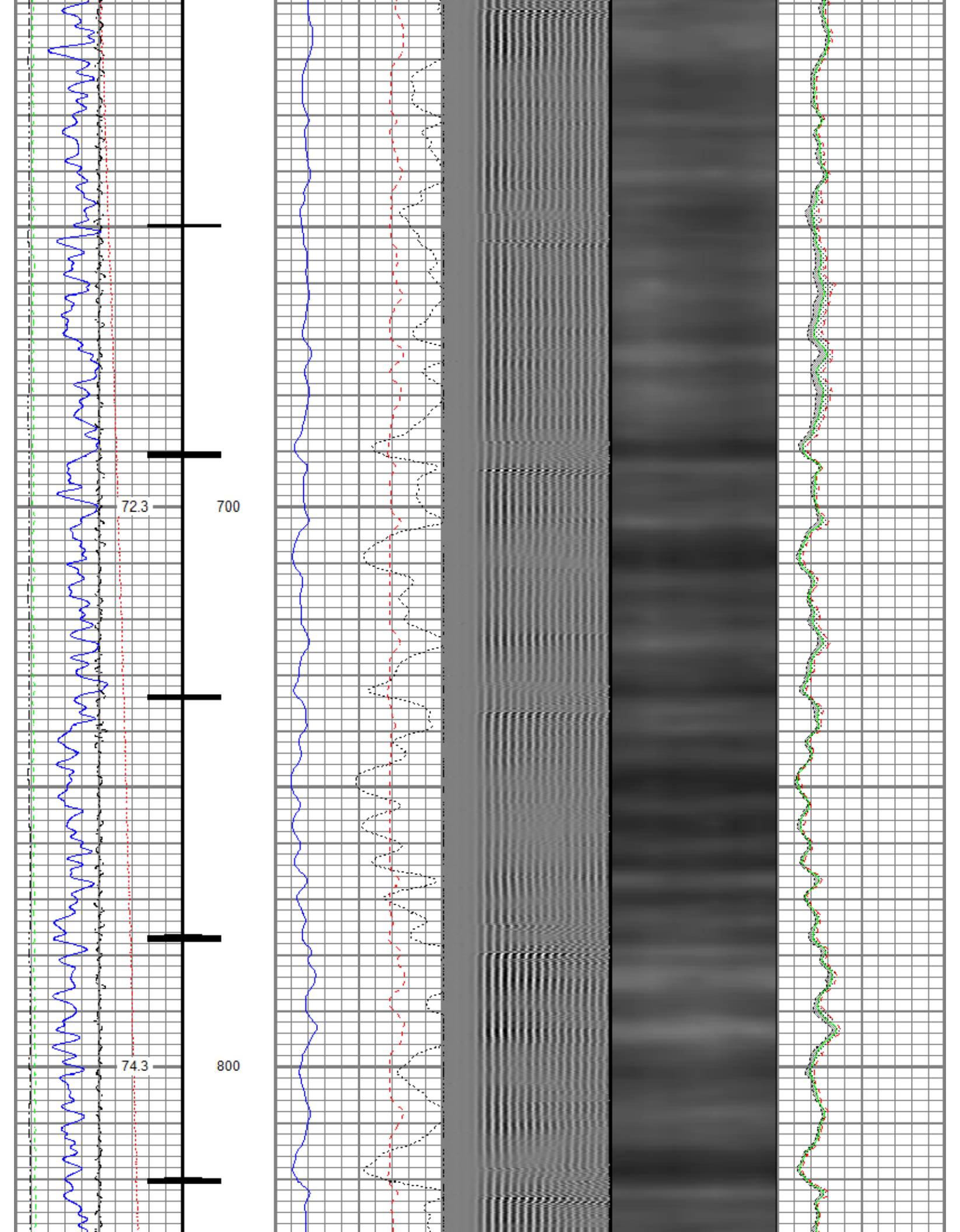
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Dataset Pathname	pass4.1
Presentation Format	ros_radri
Dataset Creation	Sat Jan 06 16:07:50 2018
Charted by	Depth in Feet scaled 1:240

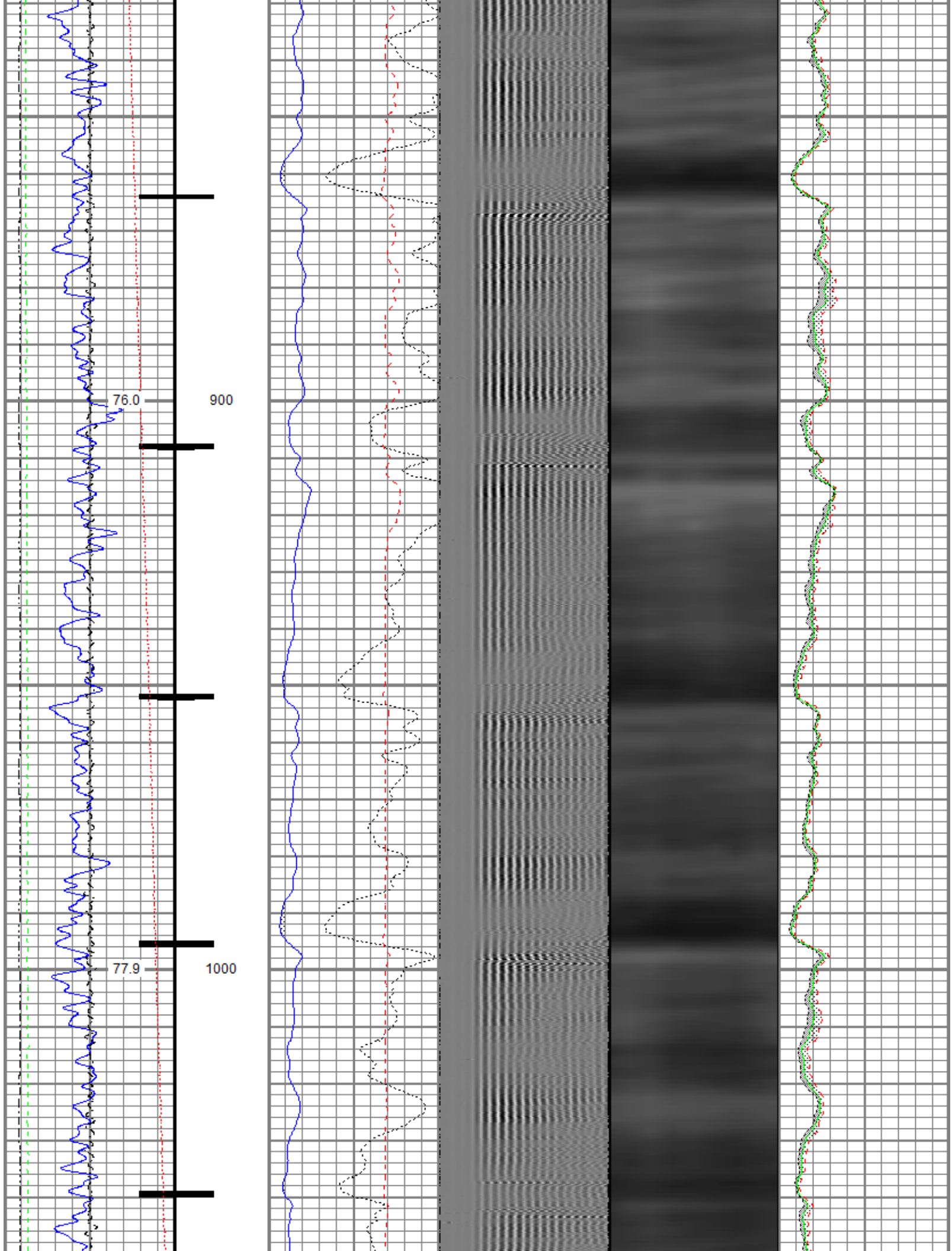
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
(ft/min) 150						
Line Tension (lb) 2000						
Differential Temperature						
(degF) 2						

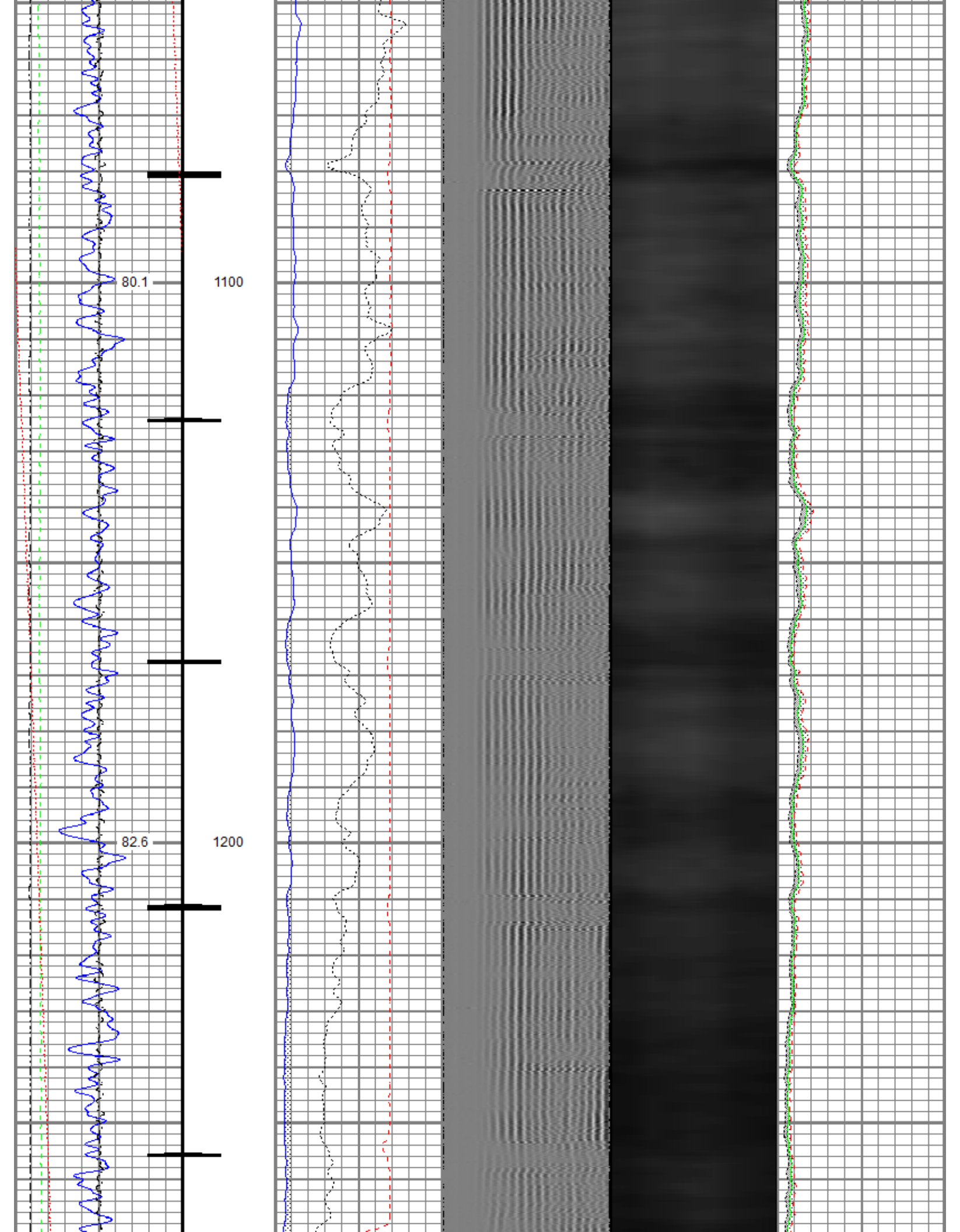


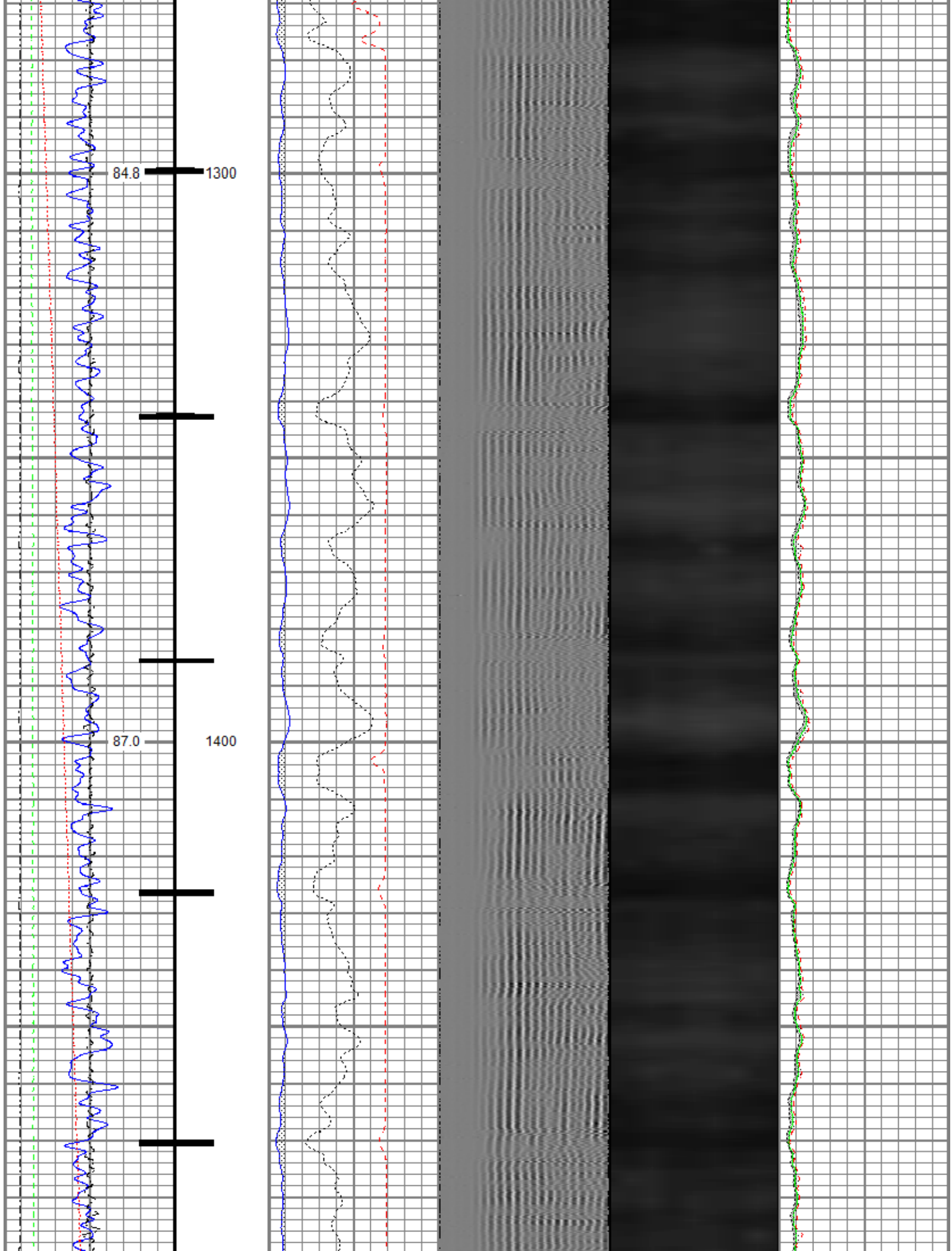


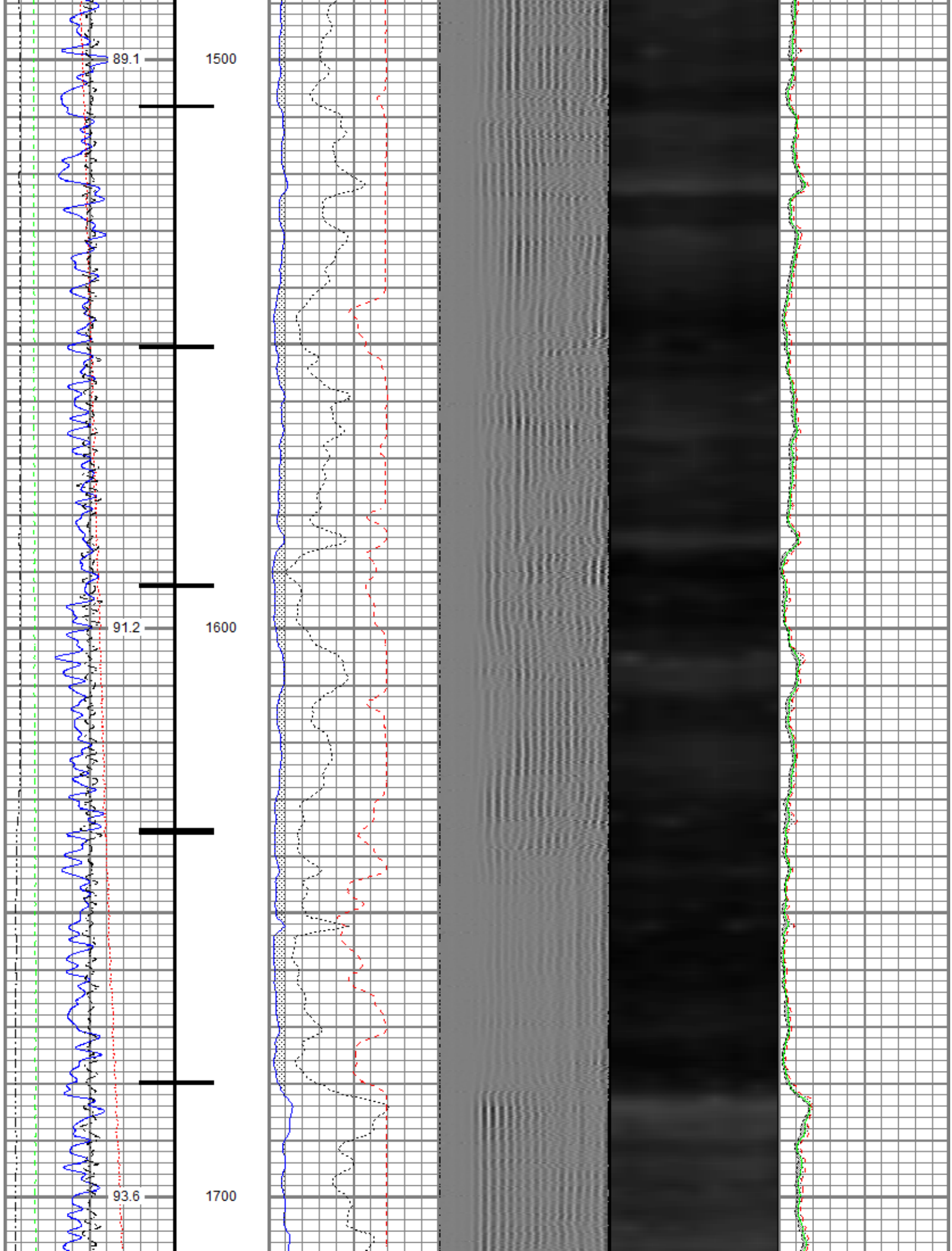


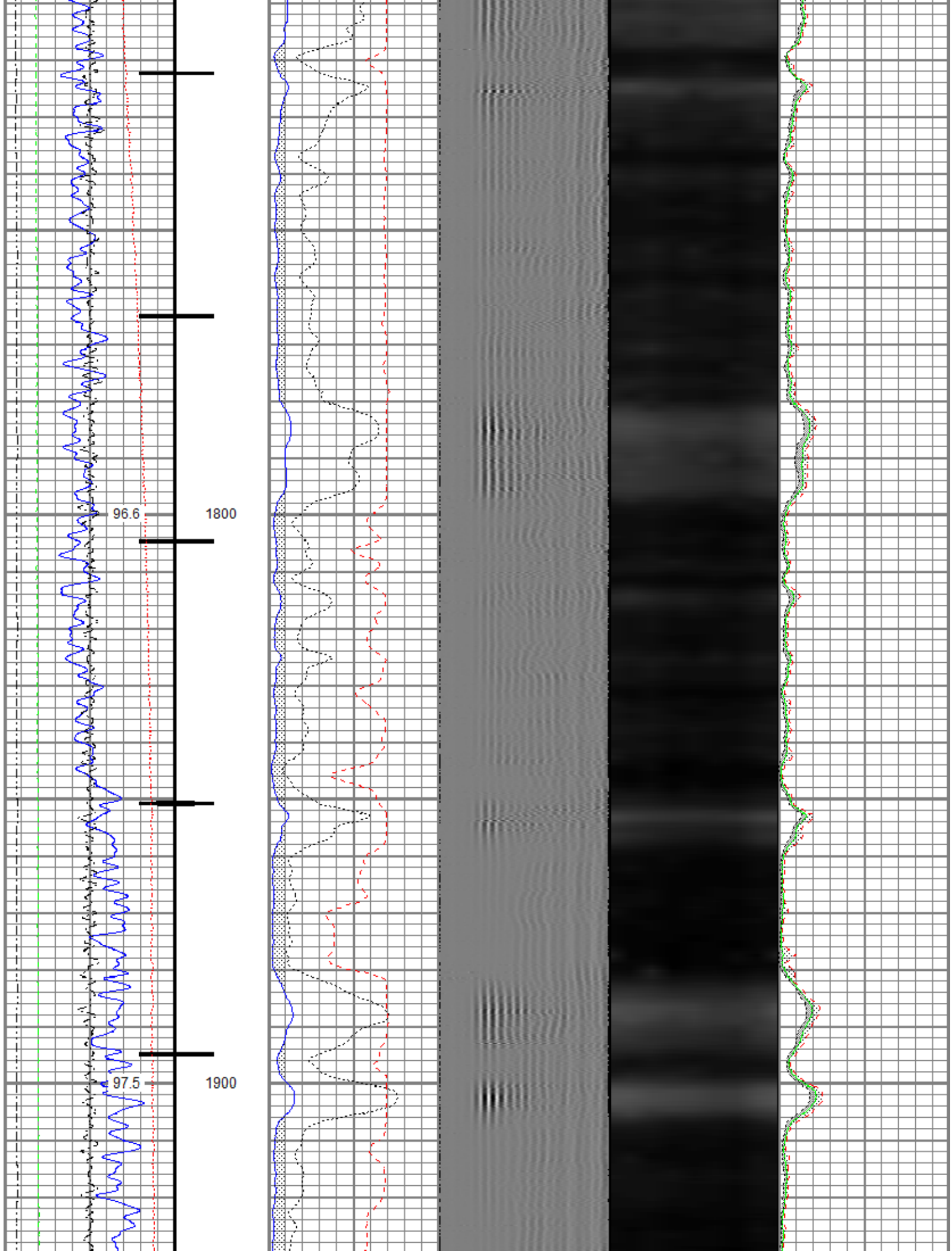


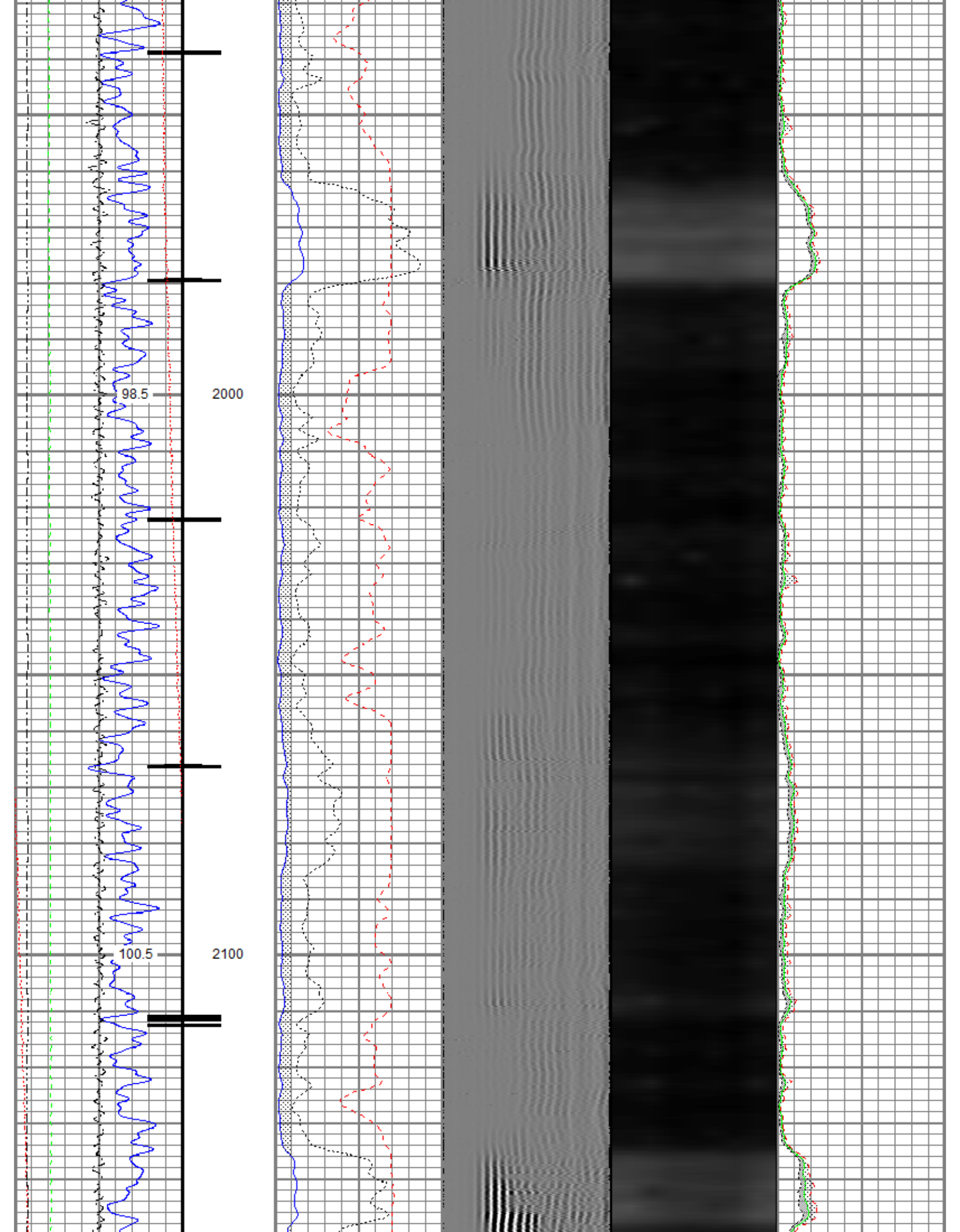


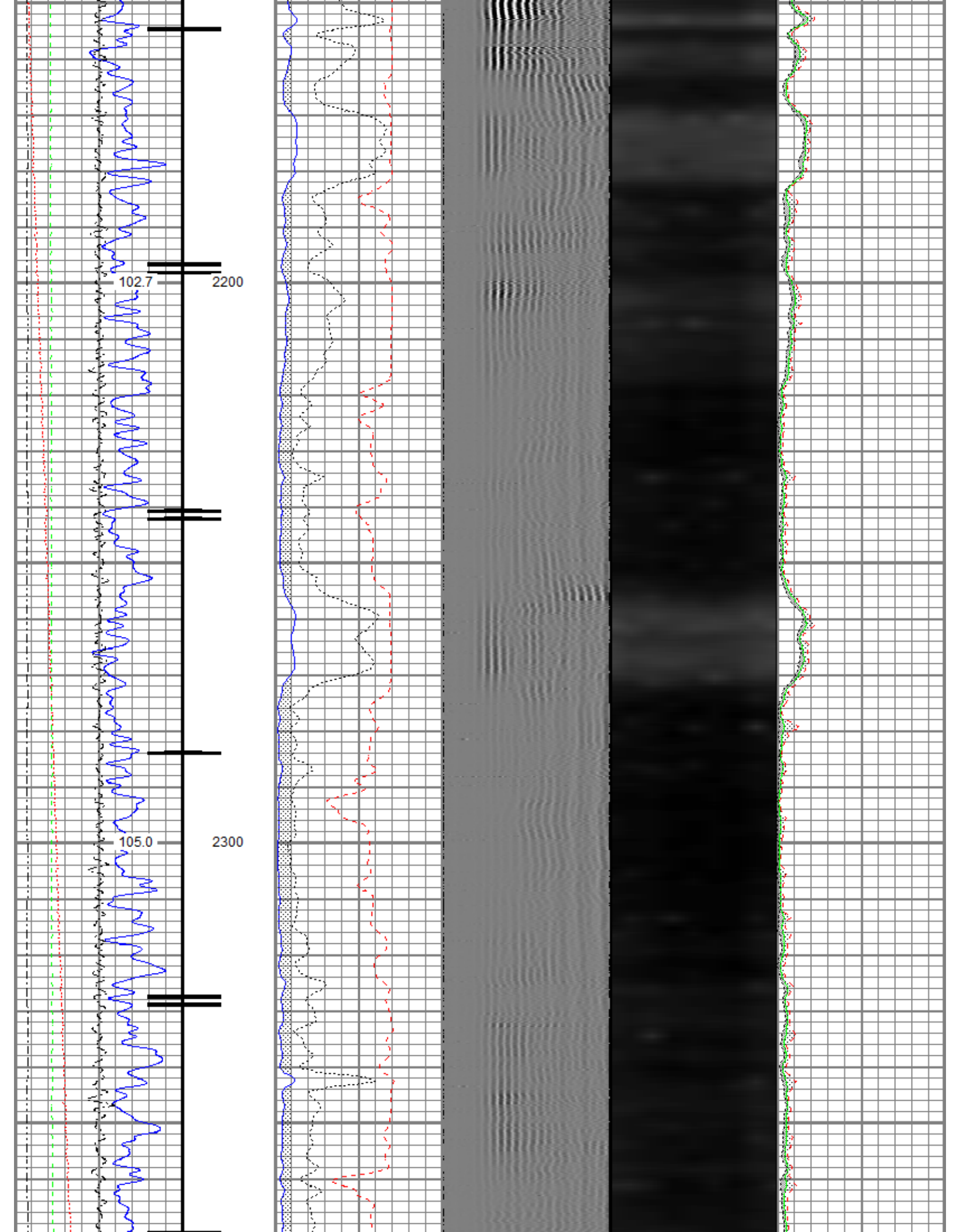


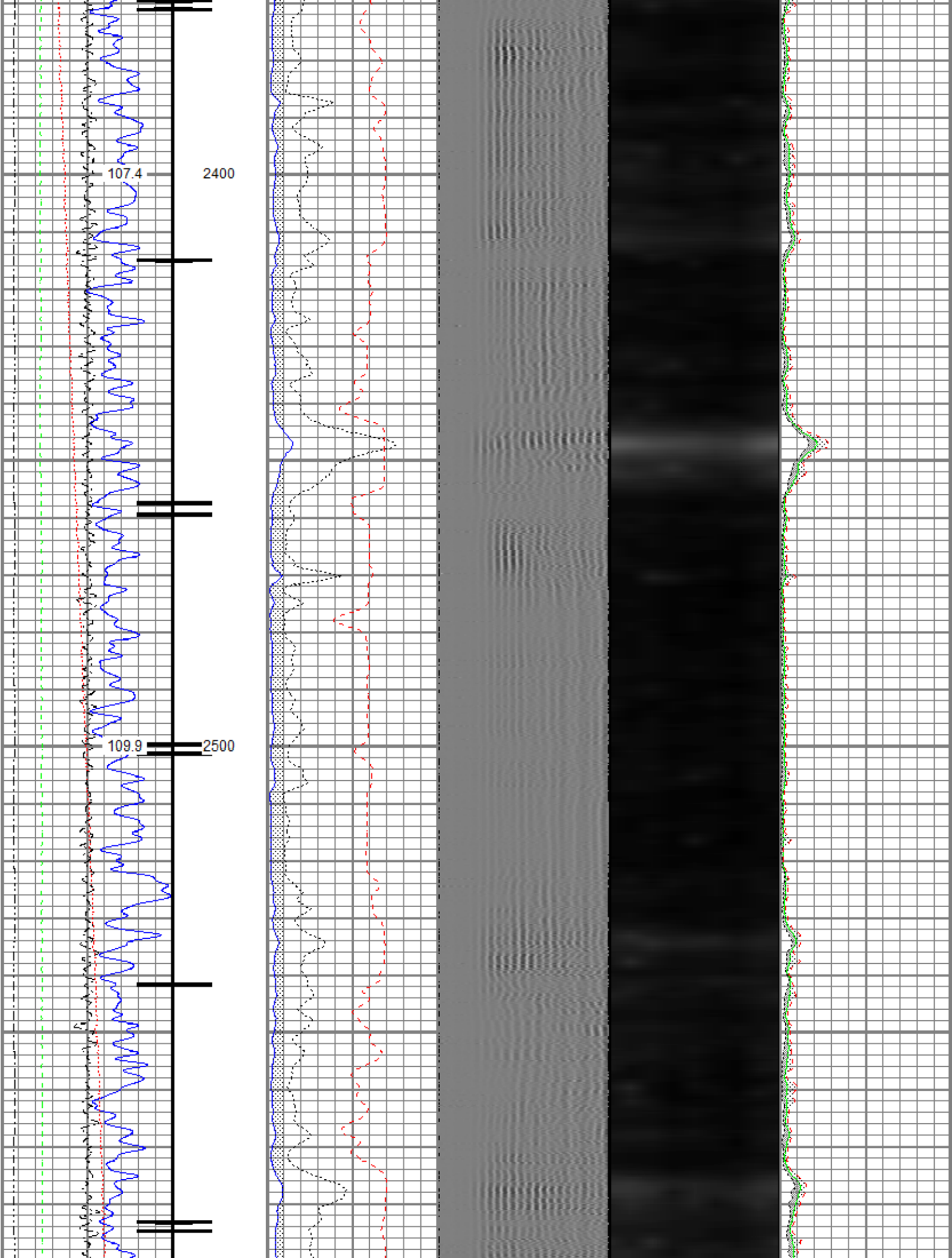


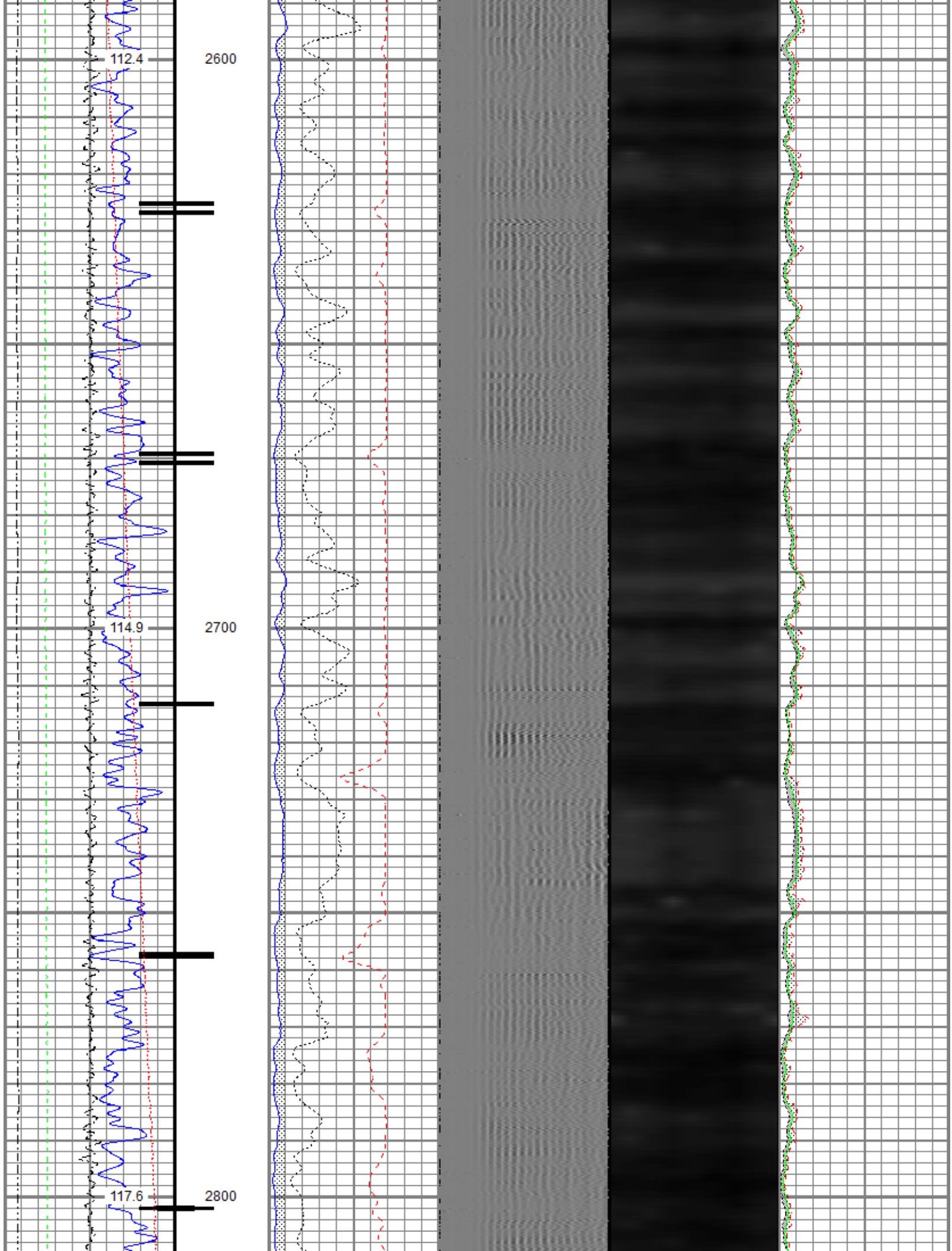


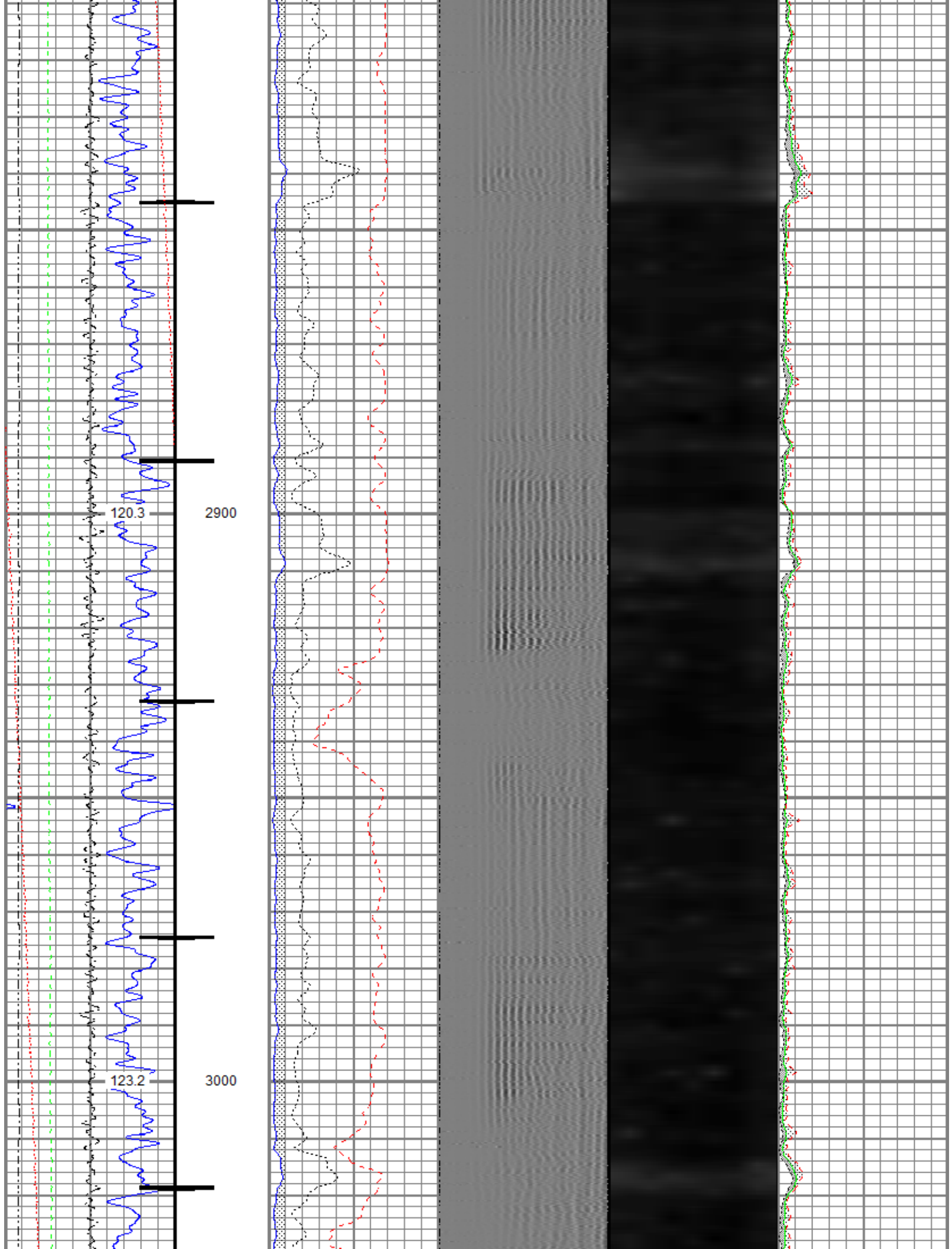


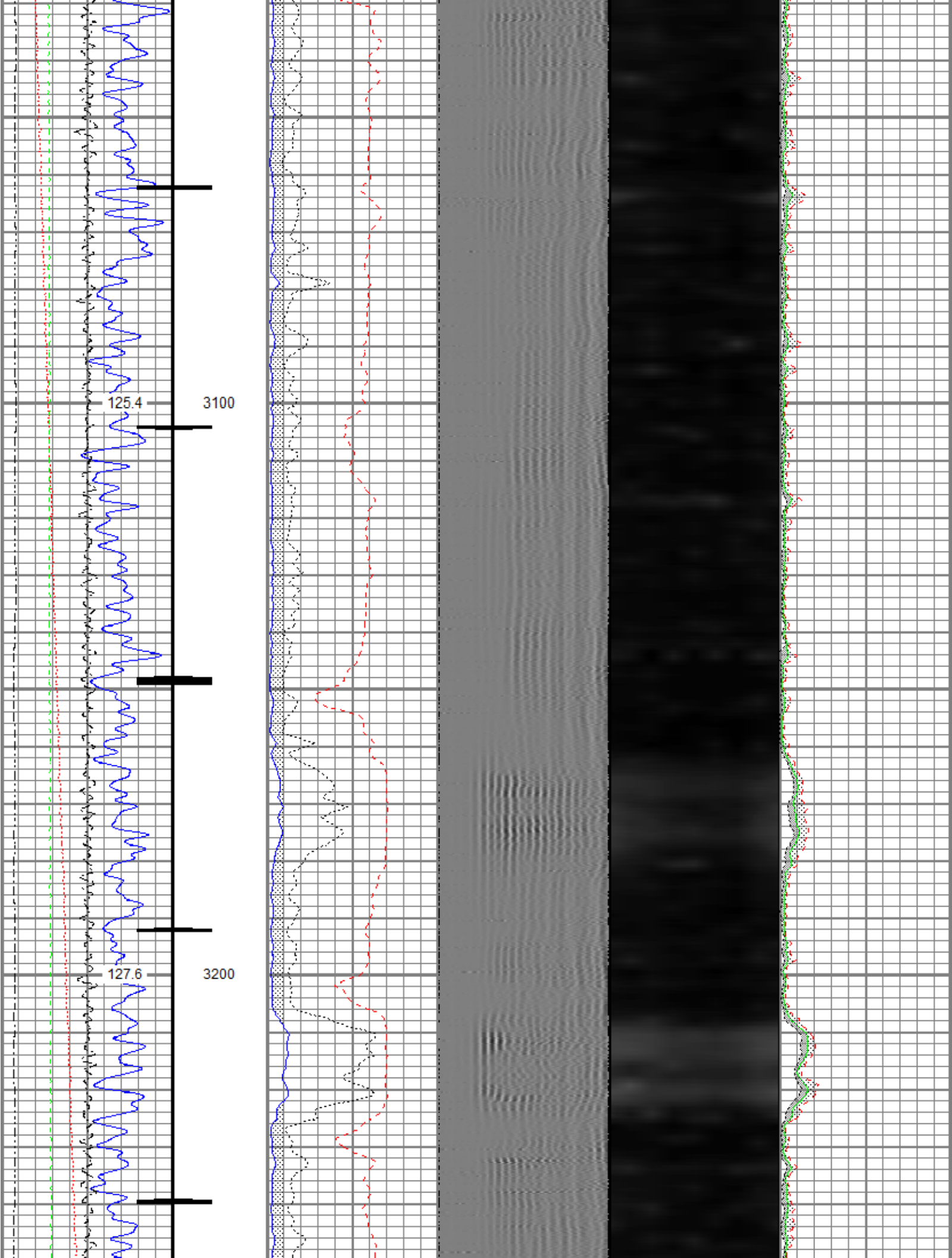


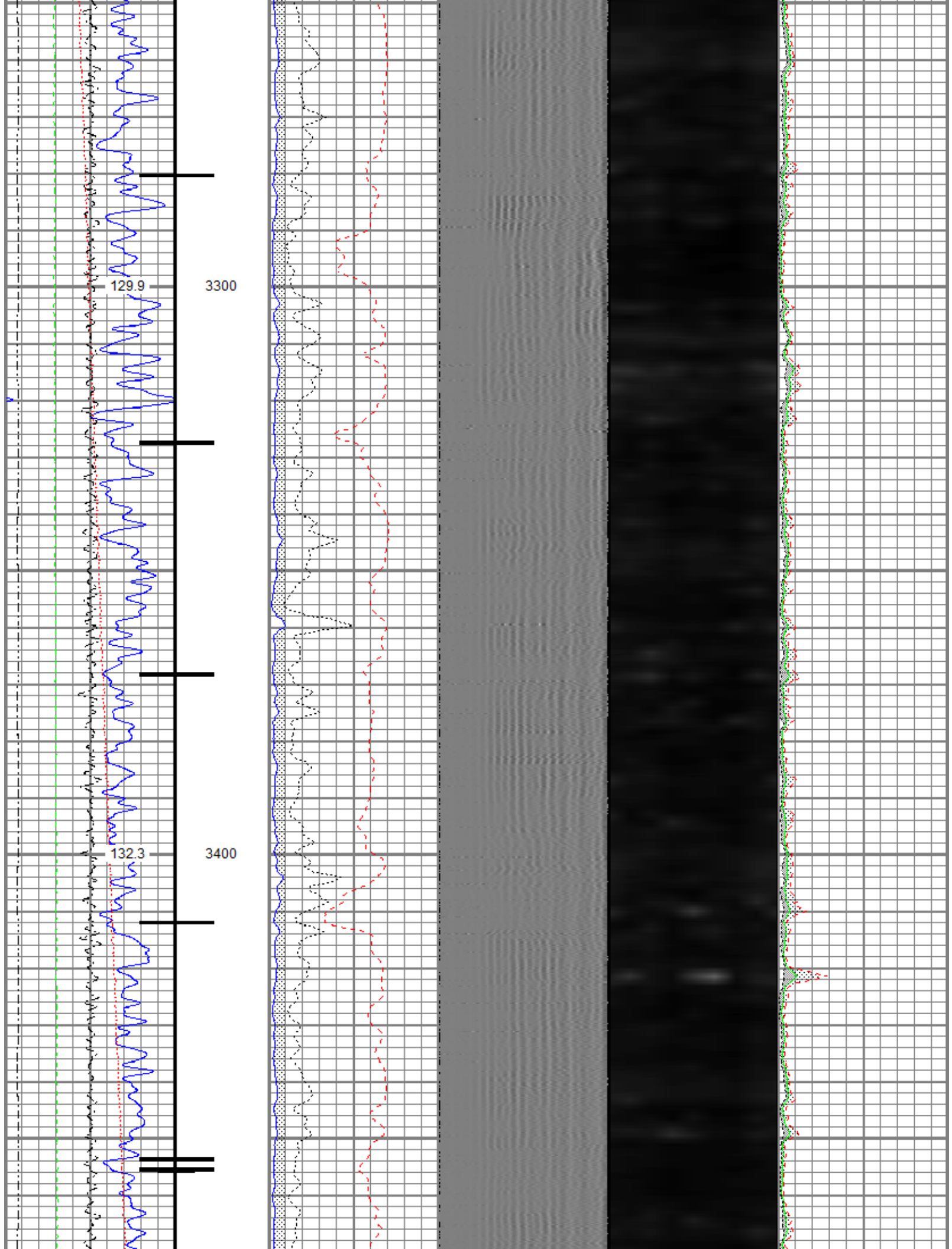


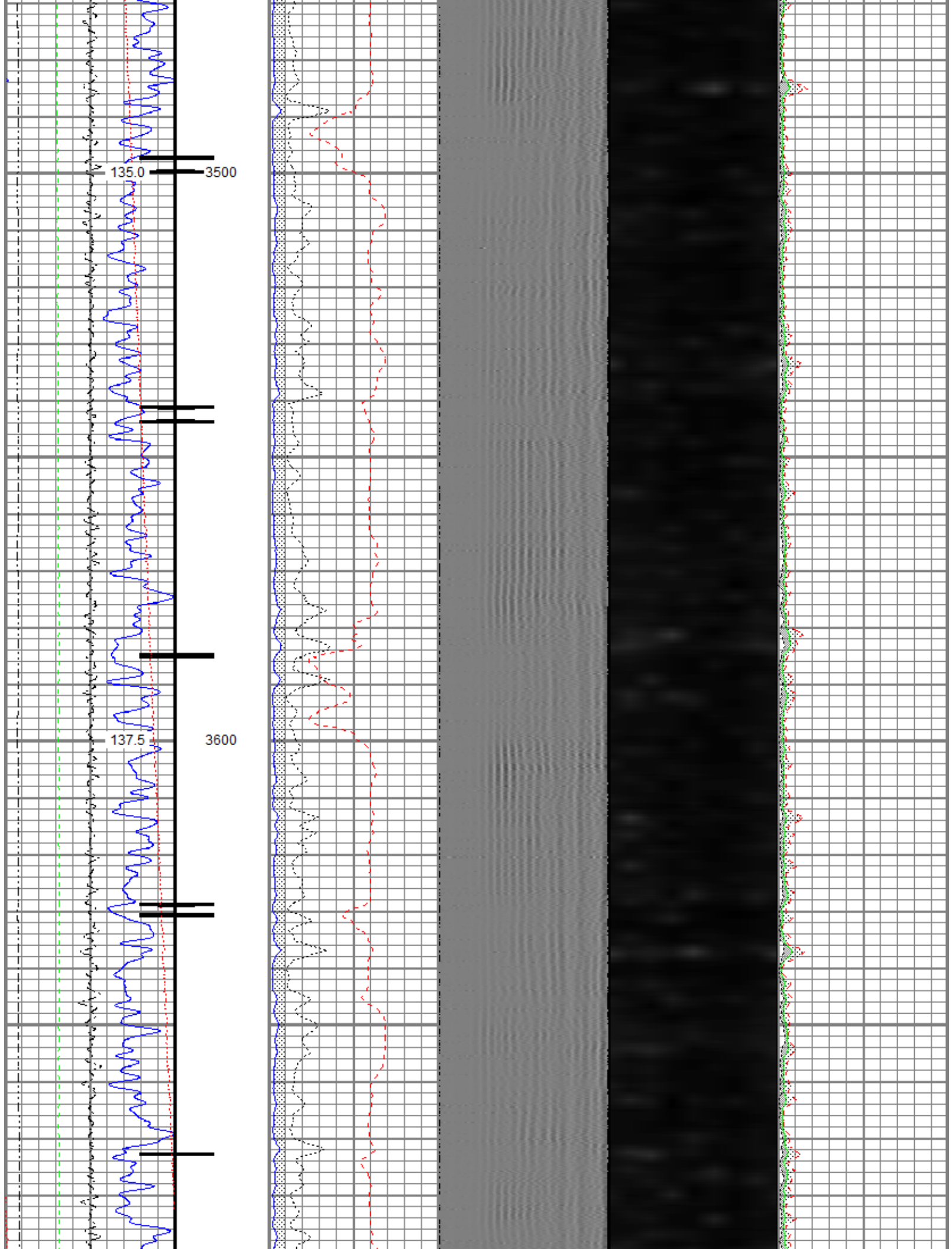


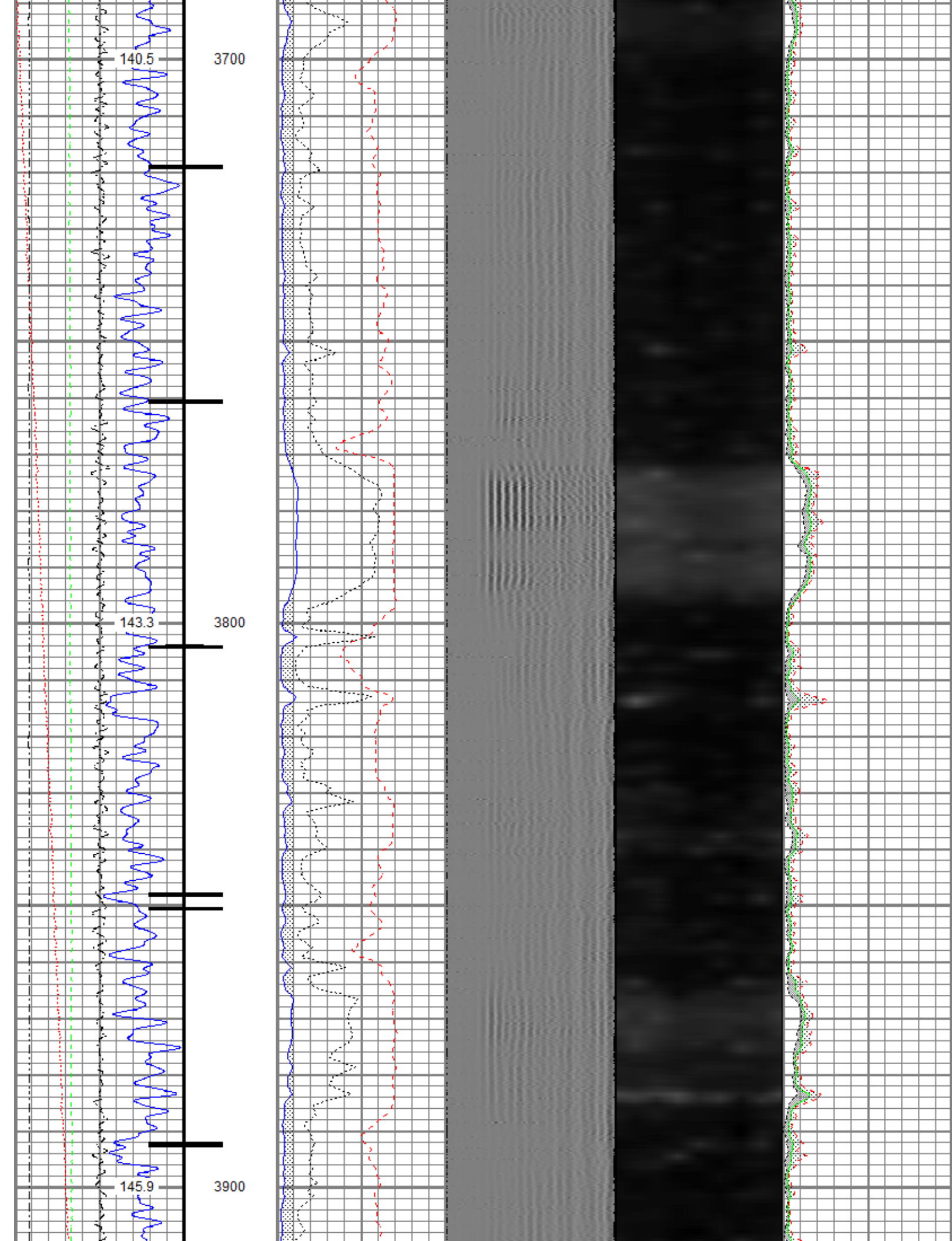


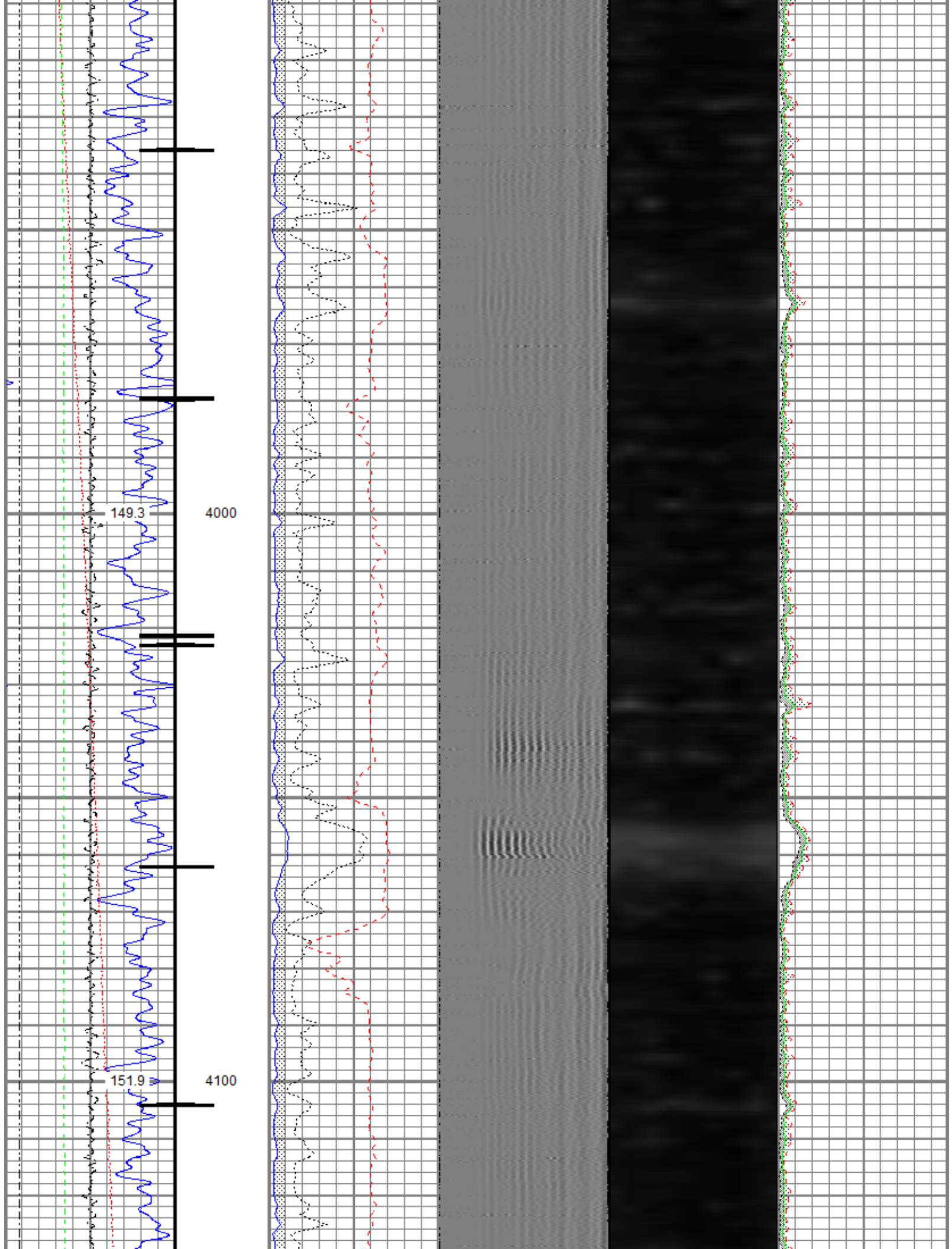


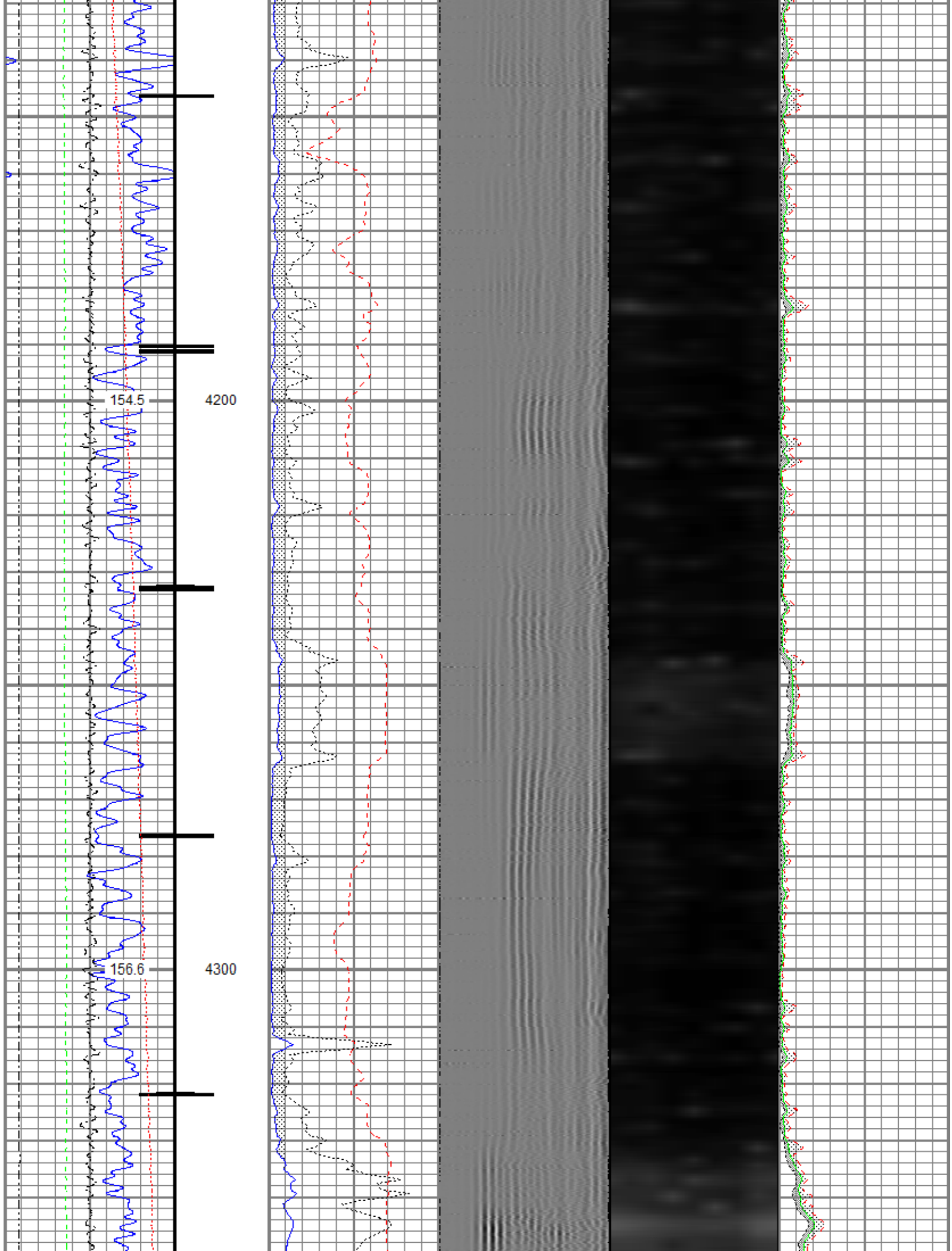


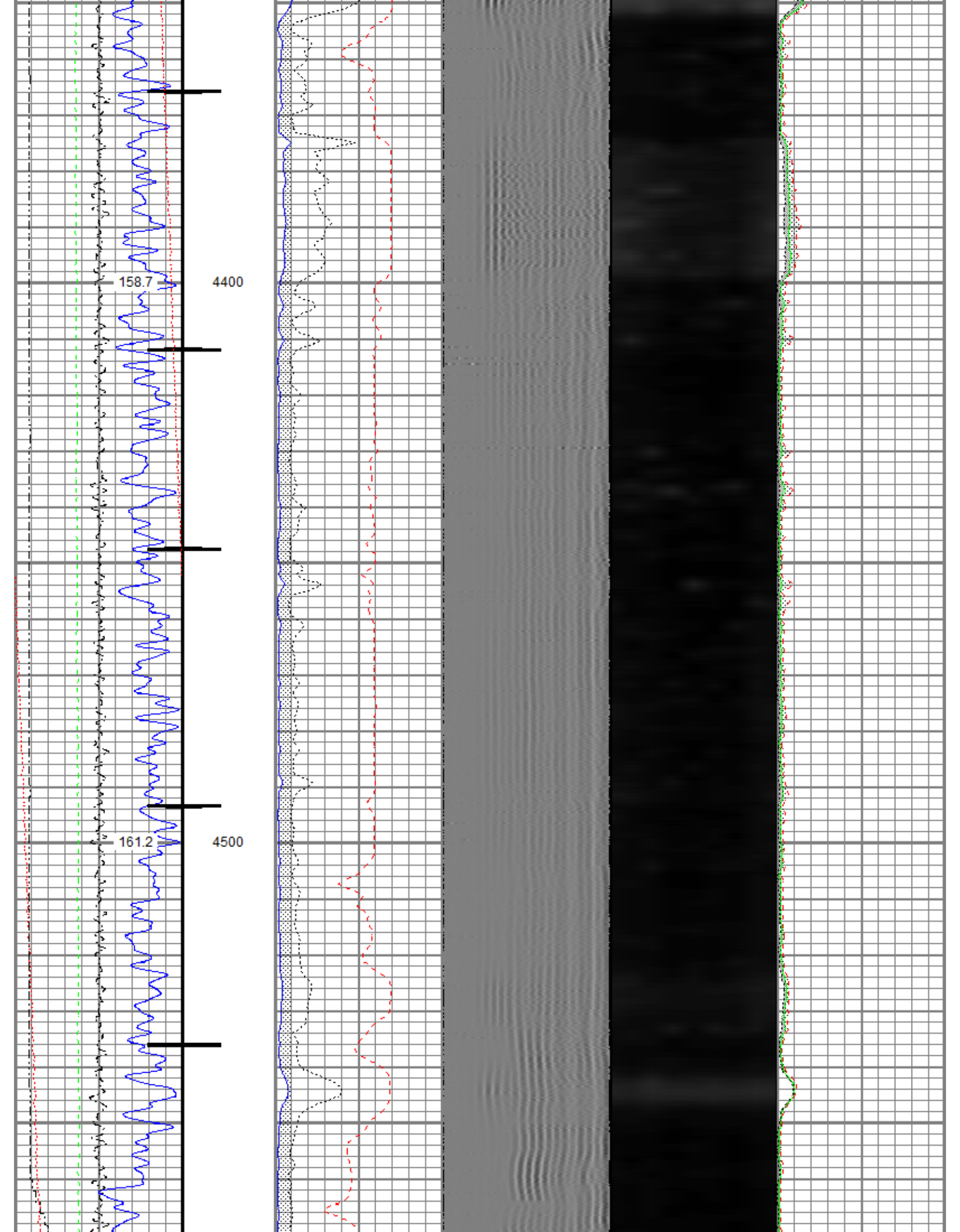


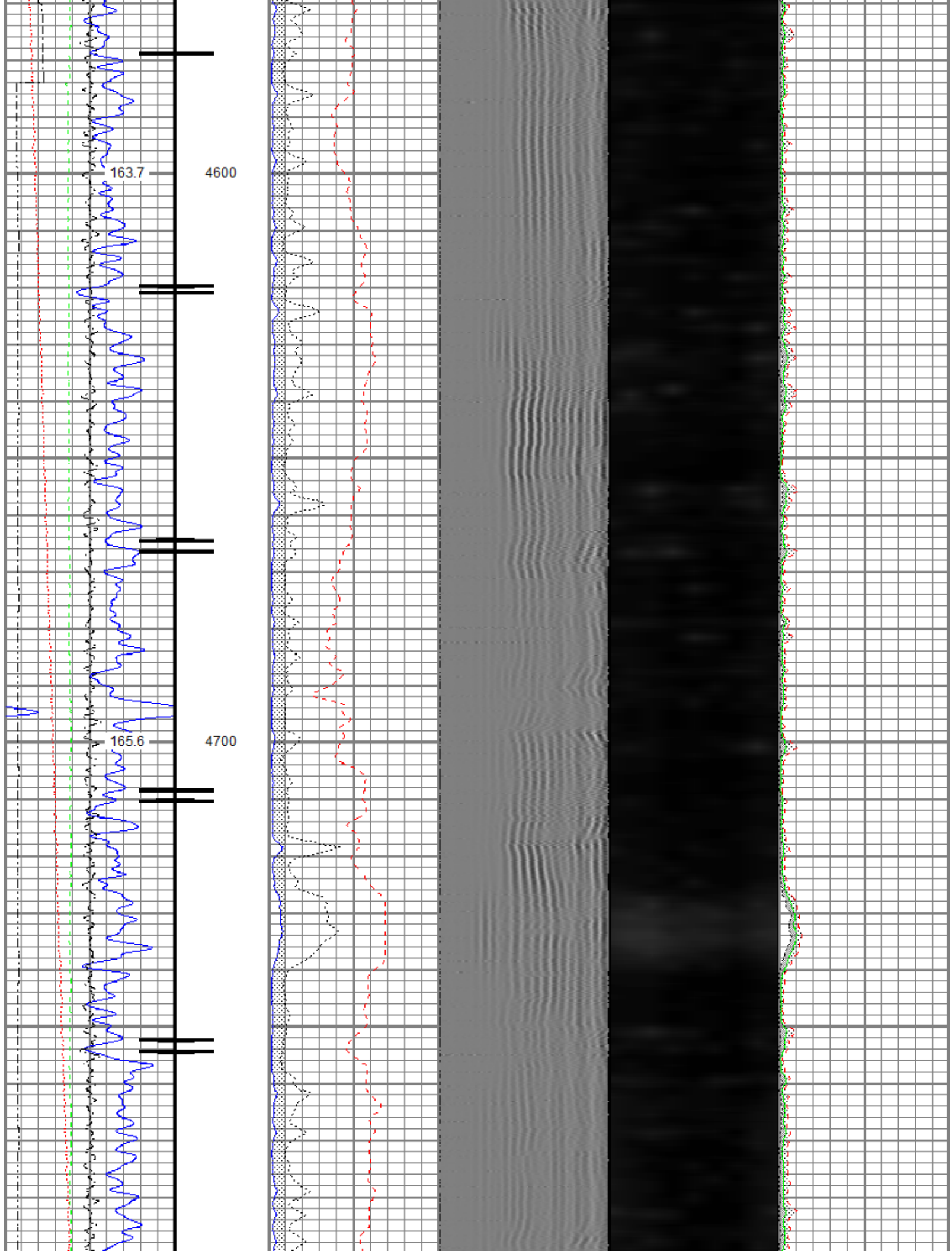


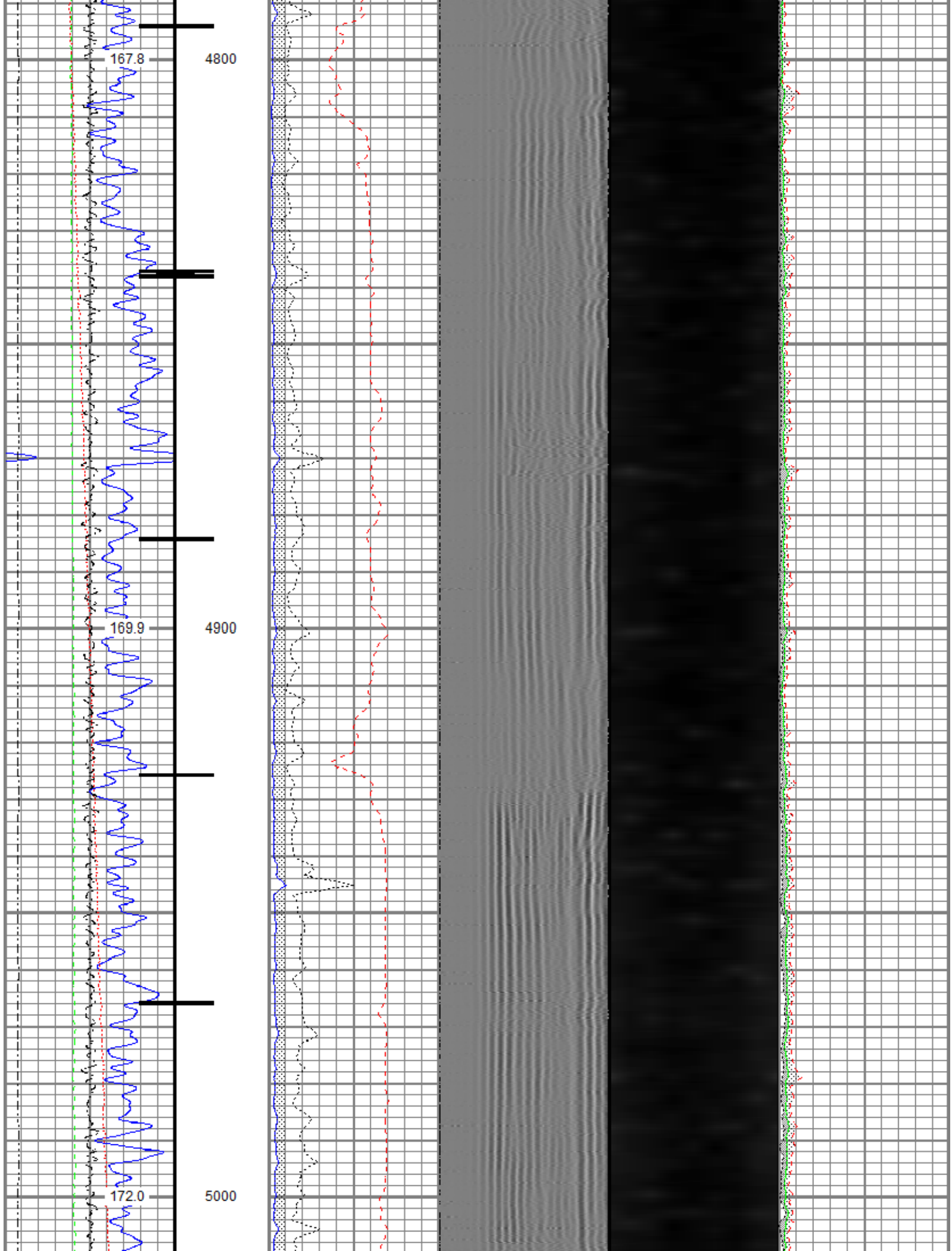


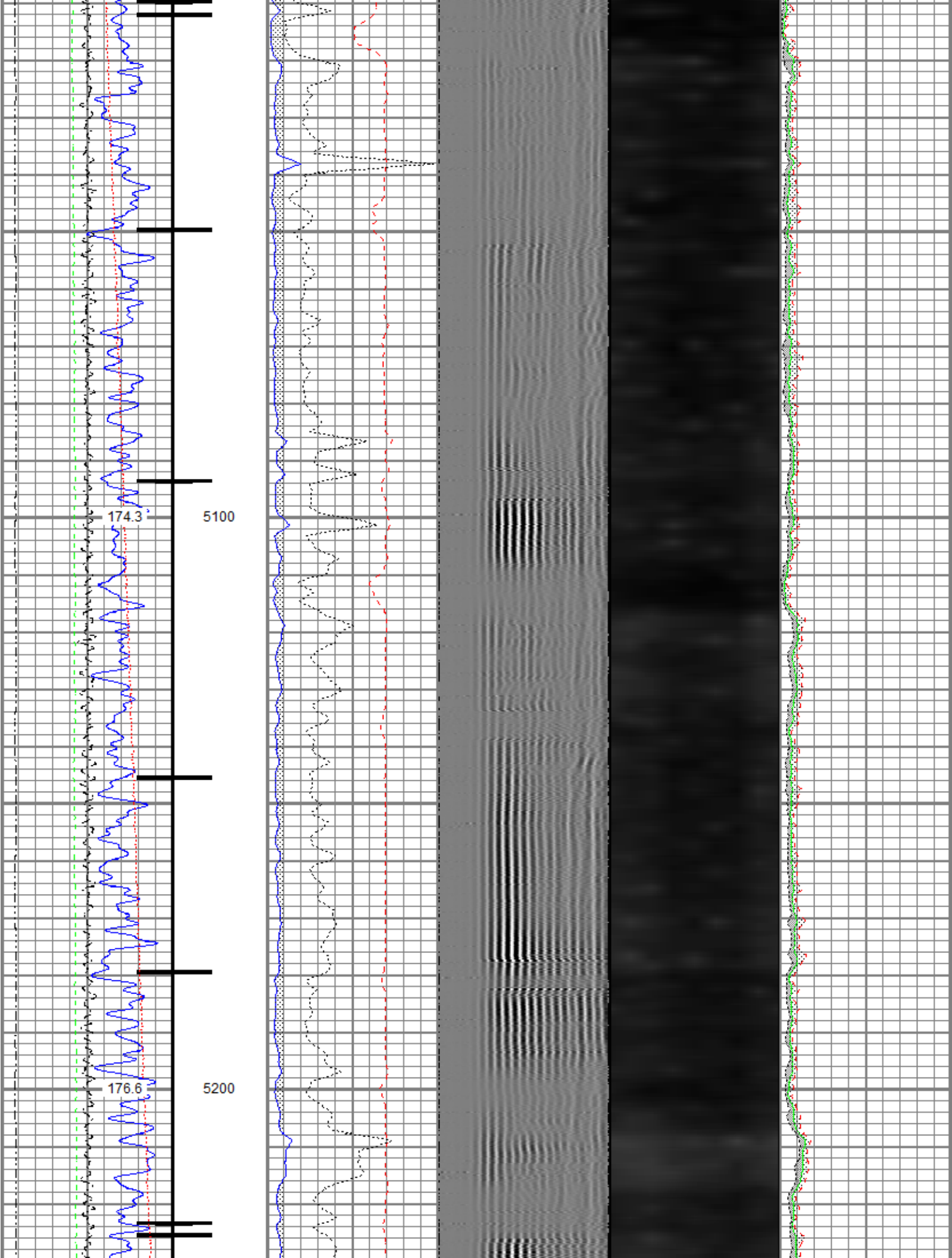


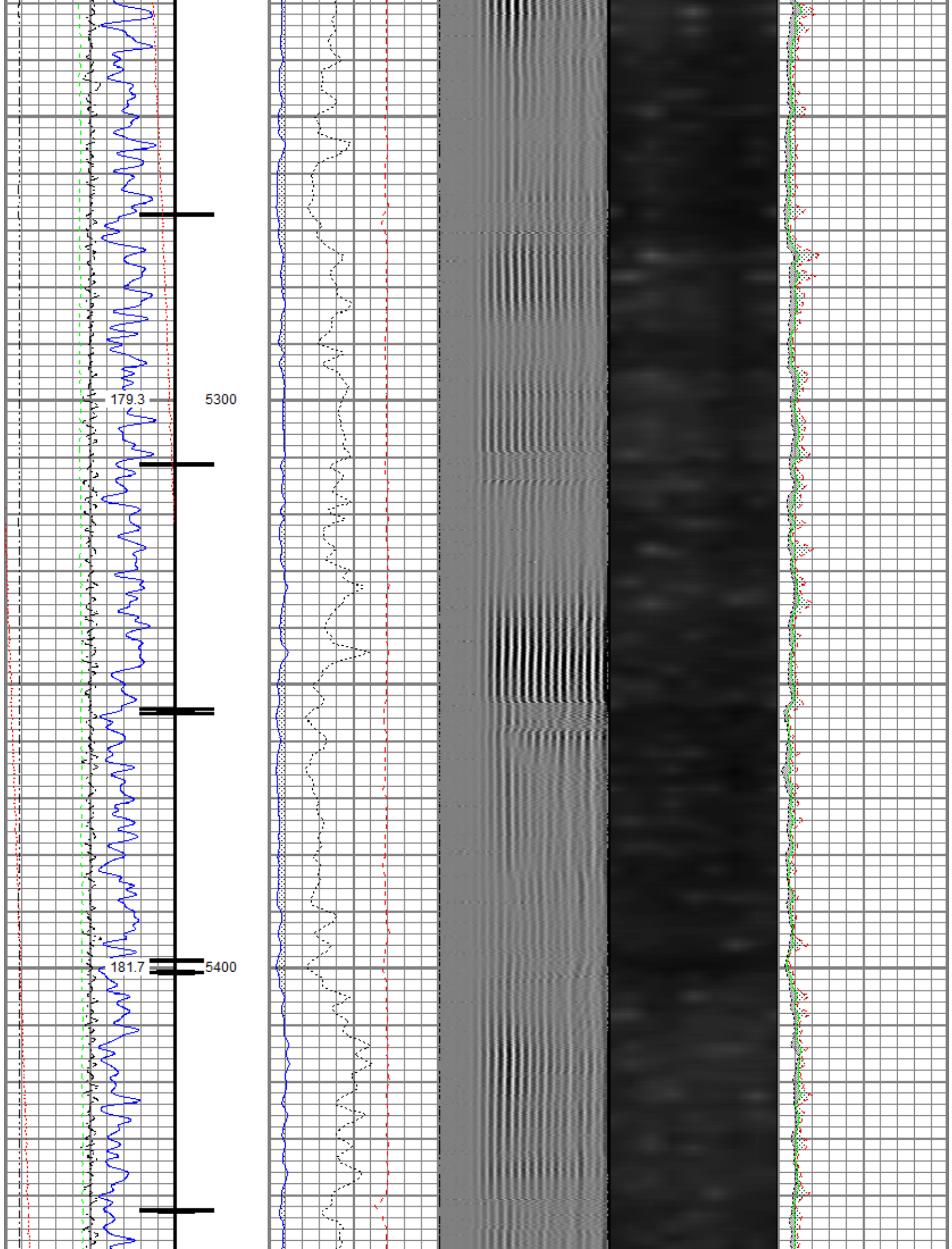


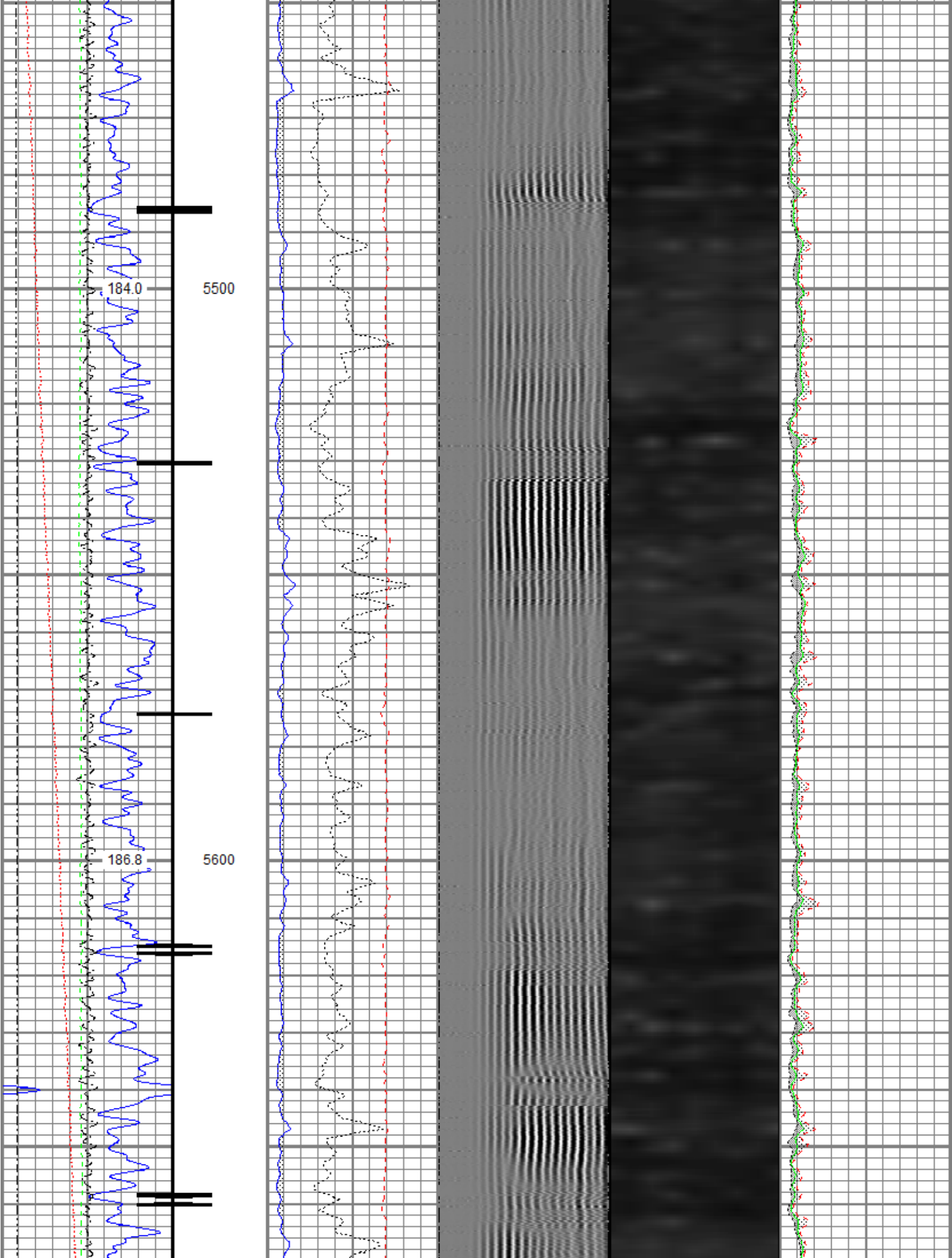


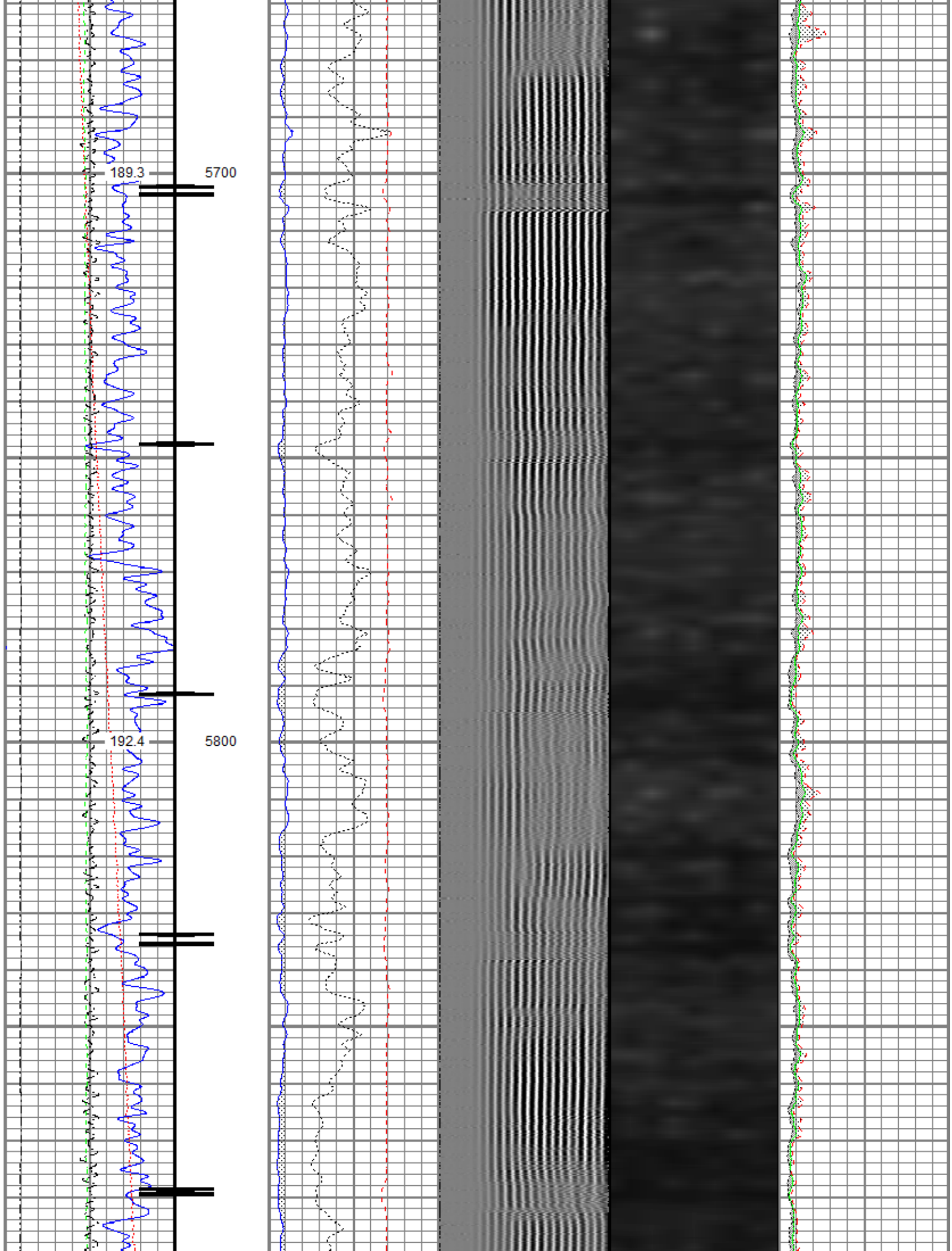


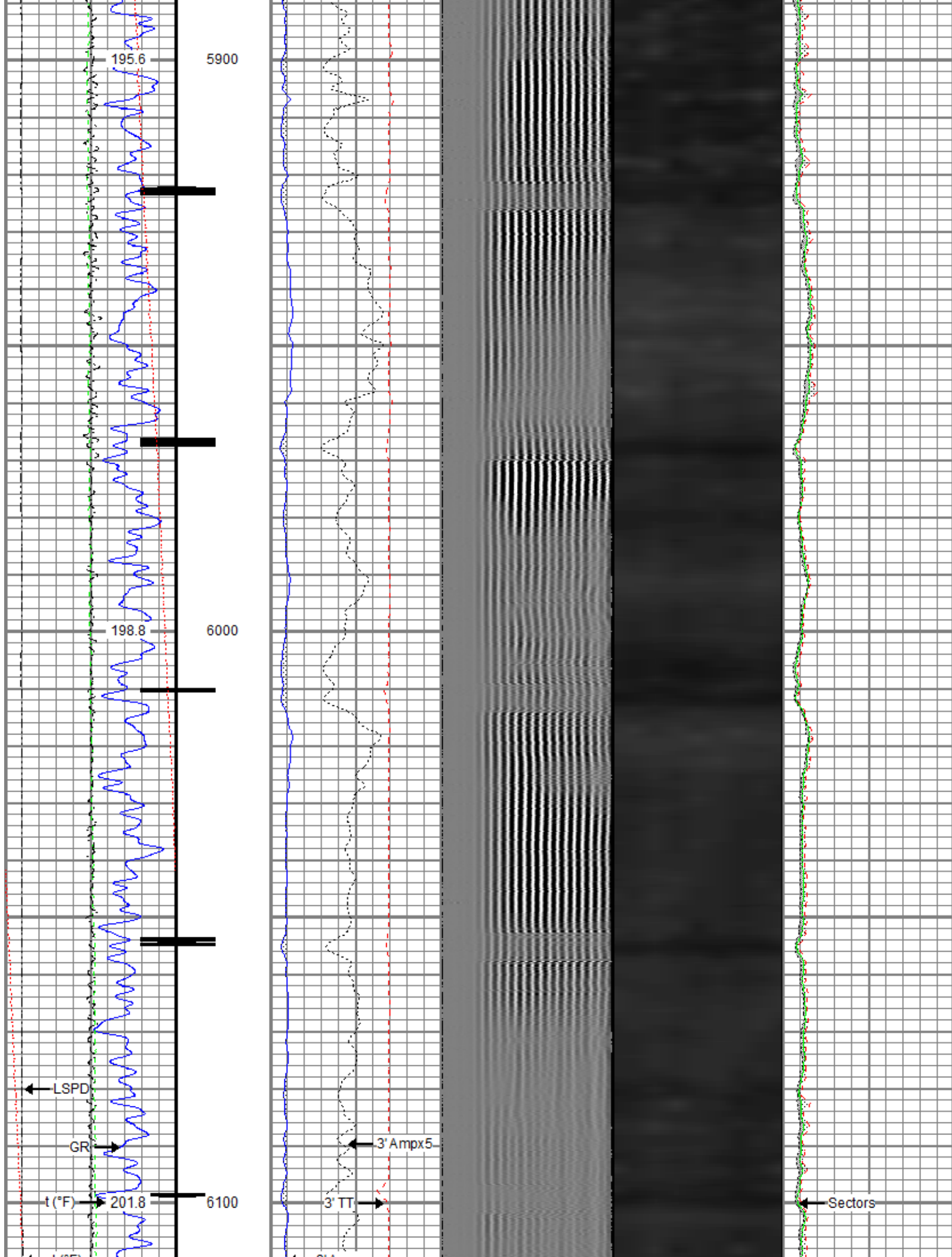


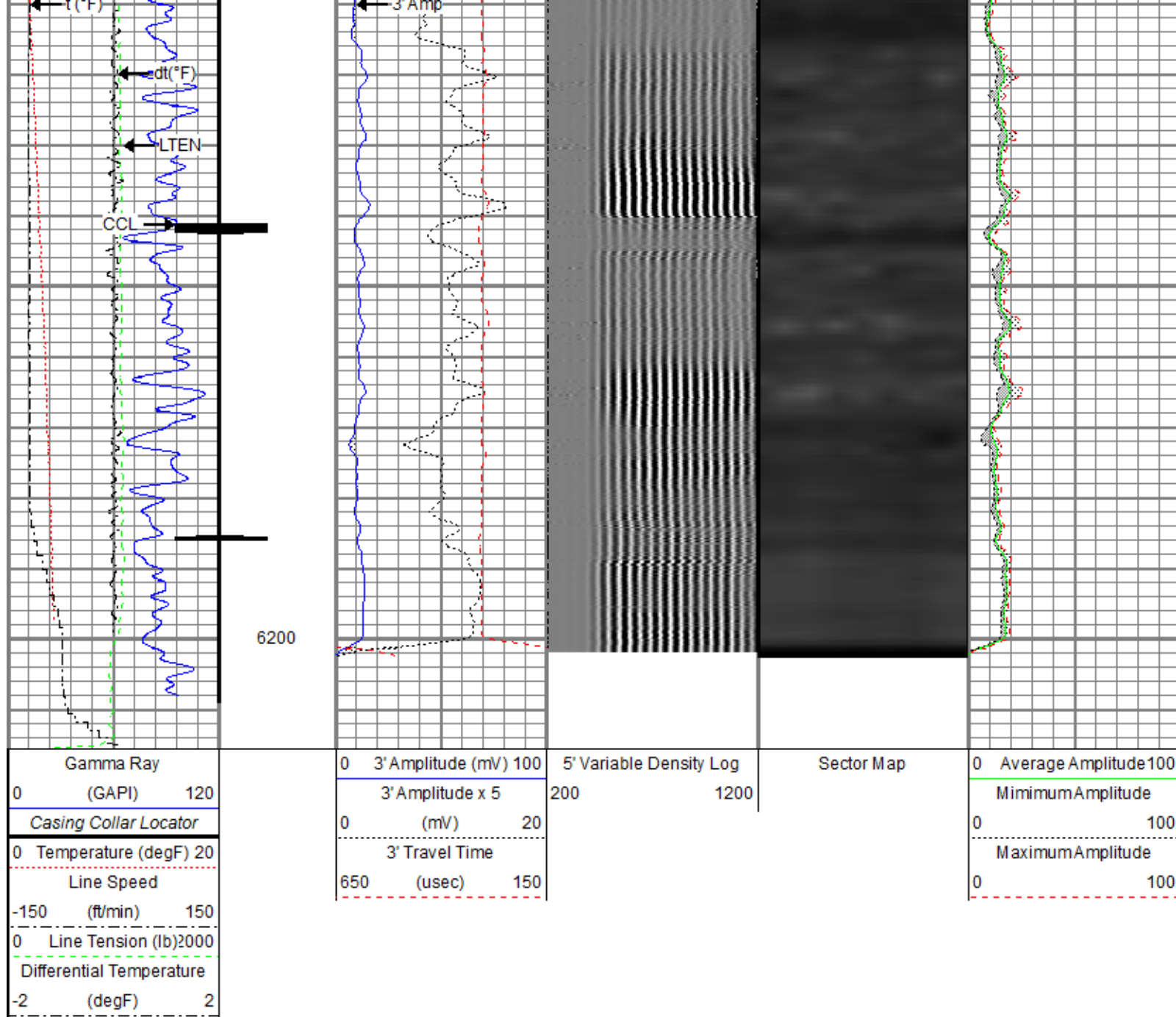








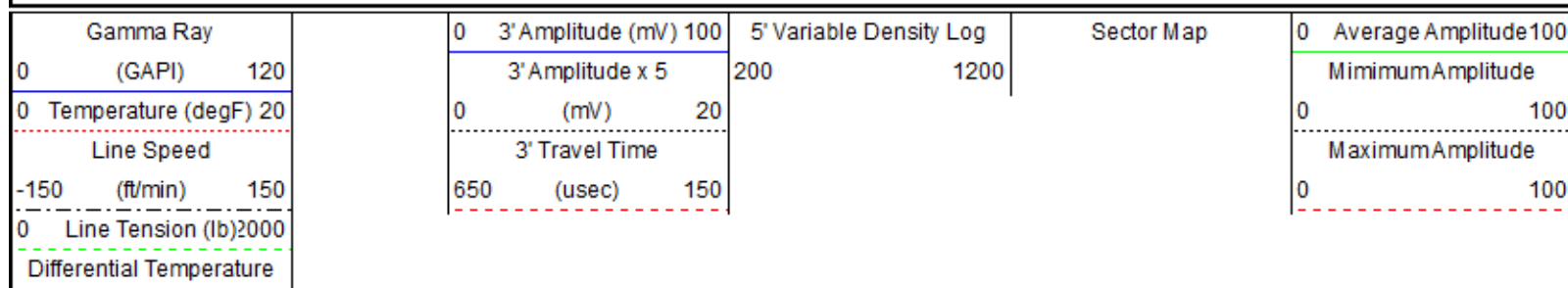




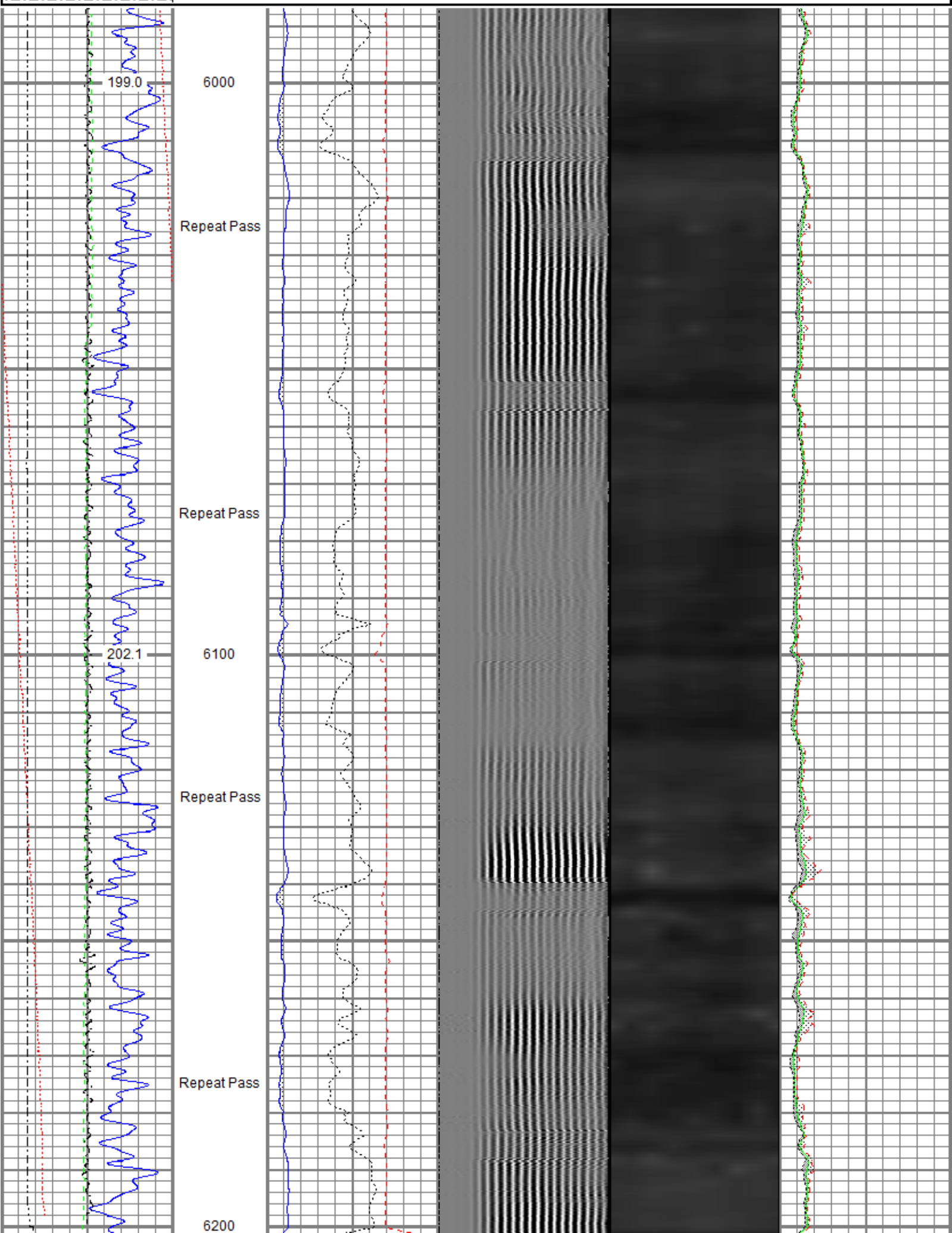
Repeat Pass

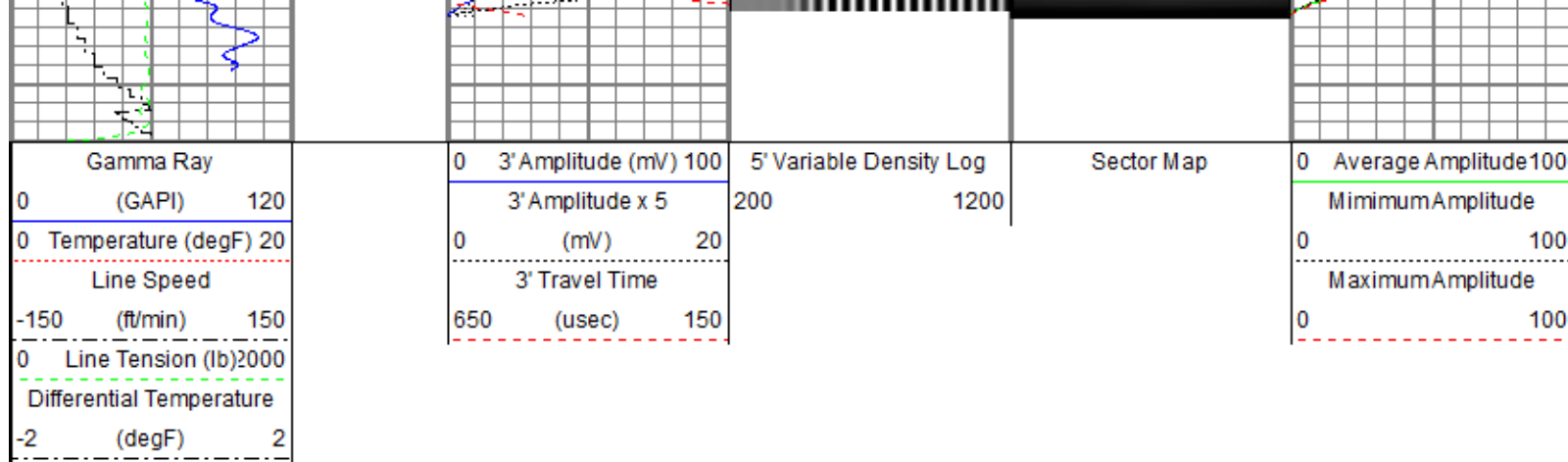
Recorded With 2800 PSI Surface Induced Pressure

Database File 0512345250_anadarko_robin 9-16hz_rbl_01-04-18\0512345250_anadarko_robin 9-16hz_rbl_01-04-18.db
 Dataset Pathname pass2.2
 Presentation Format ros_radrii
 Dataset Creation Sat Jan 06 16:20:25 2018
 Charted by Depth in Feet scaled 1:240

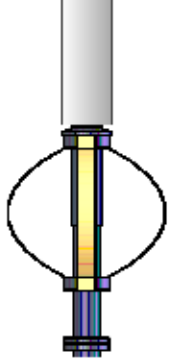


-2 (degF) 2





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	16.75		Titan CHD-16875 GO	1.03	1.69	5.40
			Titan 1-11/16" Assembled Electric Cable Head w/ 1" Fishing Neck			
			Probe CENT-2750	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			
			Probe Radii-2750 RBT (FW1305-096)	9.39	2.75	105.00
			Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub			
			Probe CENT-2750	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			
			Probe GR-CCL-2750 GOB (FW1212-026)	4.51	2.75	55.00
			Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined			
WVFS8	14.52					
WVFS7	14.52					
WVFS6	14.52					
WVFS5	14.52					
WVFS4	14.52					
WVFS3	14.52					
WVFS2	14.52					
WVFS1	14.52					
WVFCAL	14.52					
WVF3FT	14.52					
WVF5FT	13.52					
CCL\$2	6.51					
CCL\$1	6.51					
GR	5.26					

			Ray/CCL Combined			
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: 0512345250_anadarko_robin 9-16hz_rbl_01-04-18.db: field/well/run1/pass4.1 Total length: 23.57 ft Total weight: 225.40 lb O.D.: 2.75 in						

Calibration Report	
Database File	c:\programdata\warrior\data\0512345250_anadarko_robin 9-16hz_rbl_01-04-18\0512345250_anadarko_robin 9-16hz_rbl_01-04-18
Dataset Pathname	pass4.1
Dataset Creation	Sat Jan 06 16:07:50 2018

Gamma Ray Calibration Report		
Serial Number:	FW1212-026	
Tool Model:	2750 GOB	
Performed:	Sun Nov 12 12:27:51 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	113.7	cps
Calibrator Reading:	1029.1	cps
Sensitivity:	0.6959	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1305-096	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	28.352	ft

Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	0.456	0.800	71.921	158.199	-0.260
CAL	0.004	0.549				
5'	0.009	0.364	0.800	71.921	200.285	-0.971
SUM						
S1	0.007	0.457	0.000	100.000	222.337	-1.529
S2	0.008	0.433	0.000	100.000	235.486	-1.883
S3	0.006	0.428	0.000	100.000	237.365	-1.526
S4	0.005	0.434	0.000	100.000	233.214	-1.278
S5	0.008	0.452	0.000	100.000	225.055	-1.755
S6	0.008	0.472	0.000	100.000	215.568	-1.649
S7	0.008	0.479	0.000	100.000	212.396	-1.799
S8	0.009	0.478	0.000	100.000	213.209	-1.838

Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset

CAL	0.000	0.000	0.004	0.549	1.000	0.000
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Air Zero Calibration, performed Thu Jan 04 06:50:35 2018:

	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

Temperature Calibration Report

Serial Number: FW1305-096
Tool Model: 2750 RBT
Performed: Sun Nov 12 13:42:10 2017

	Reference	Reading
Low Reference:	100.00 degF	109.43 degF
High Reference:	350.00 degF	405.87 degF
Gain:	0.84	
Offset:	7.72	
Delta Spacing	1	



Company Kerr-McGee Oil & Gas Onshore, L.P.
Well Robin 9-16HZ
Field Wattenberg
County Weld
State Colorado