



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company				Kerr-McGee Oil & Gas Onshore, L.P.			
Well				Badding 2N-26HZ			
Field				Wattenberg			
County				Weld			
State				Colorado			
Location:				API # : 05-123-38407			
Permanent Datum				SHL: 350' FSL 1953' FEL			
Log Measured From				Lat/Long: 40.102987/-104.74185			
Drilling Measured From				SEC 26 TWP 2N RGE 66W			
Ground Level				Elevation 5114'			
Kelly Bushing				17 FT			
Kelly Bushing				K.B. 5131'			
				D.F. 5130'			
				G.L. 5114'			
Date				29-March-2014			
Run Number				One			
Depth Driller				12.789 FT			
Depth Logger				6900 FT			
Bottom Logged Interval				6895 FT			
Top Log Interval				Surface			
Open Hole Size				9.625"			
Type Fluid				Water			
Density / Viscosity				8.34 LB/GAL			
Max. Recorded Temp.				225°F			
Estimated Cement Top				Surface			
Time Well Ready				ROA			
Time Logger on Bottom				7.40			
Equipment Number				HD 0324			
Location				Fort Lupton, CO			
Recorded By				Brent Kalkwarf			
Witnessed By				Eric Wenzel			
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 1/2				11.6			
P-110				6839 FT			
				12.774 FT			

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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

Radial Cement Bond Log - Caliper Log is the first recorded log in hole.
Depth reference to Casing Tally reported Liner Top at 6839 FT.
RCBL-CIL ran with 2200 PSI surface induced pressure.

Thank you for choosing FMC Technologies Completion Services, Inc.

Main Pass



Recorded At 2200 PSI Surface Induced Pressure

Database File: 0512338407_anadarko_badding 2n-26hz_03-29-14_mit_rbl.db

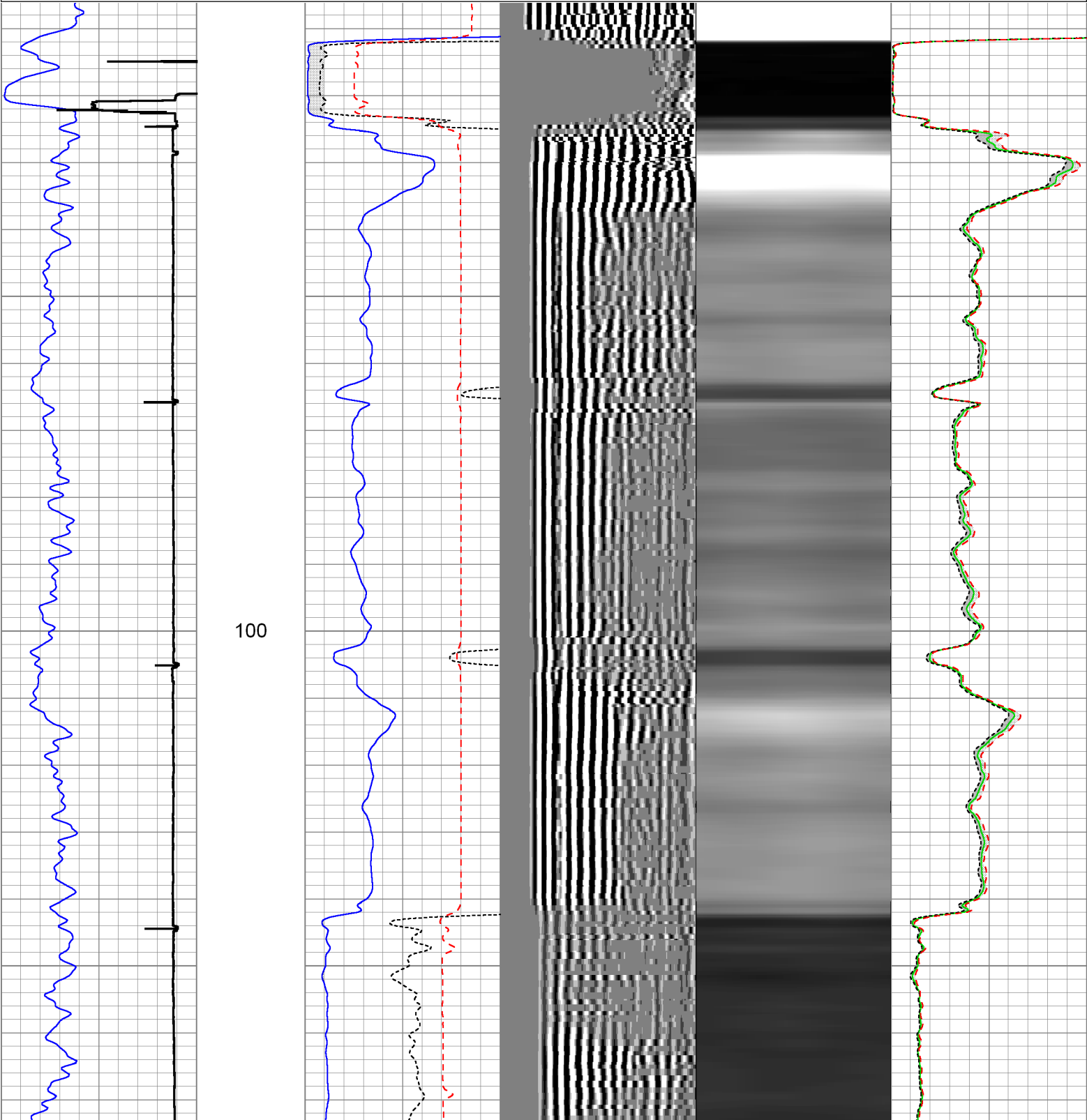
Dataset Pathname: pass3

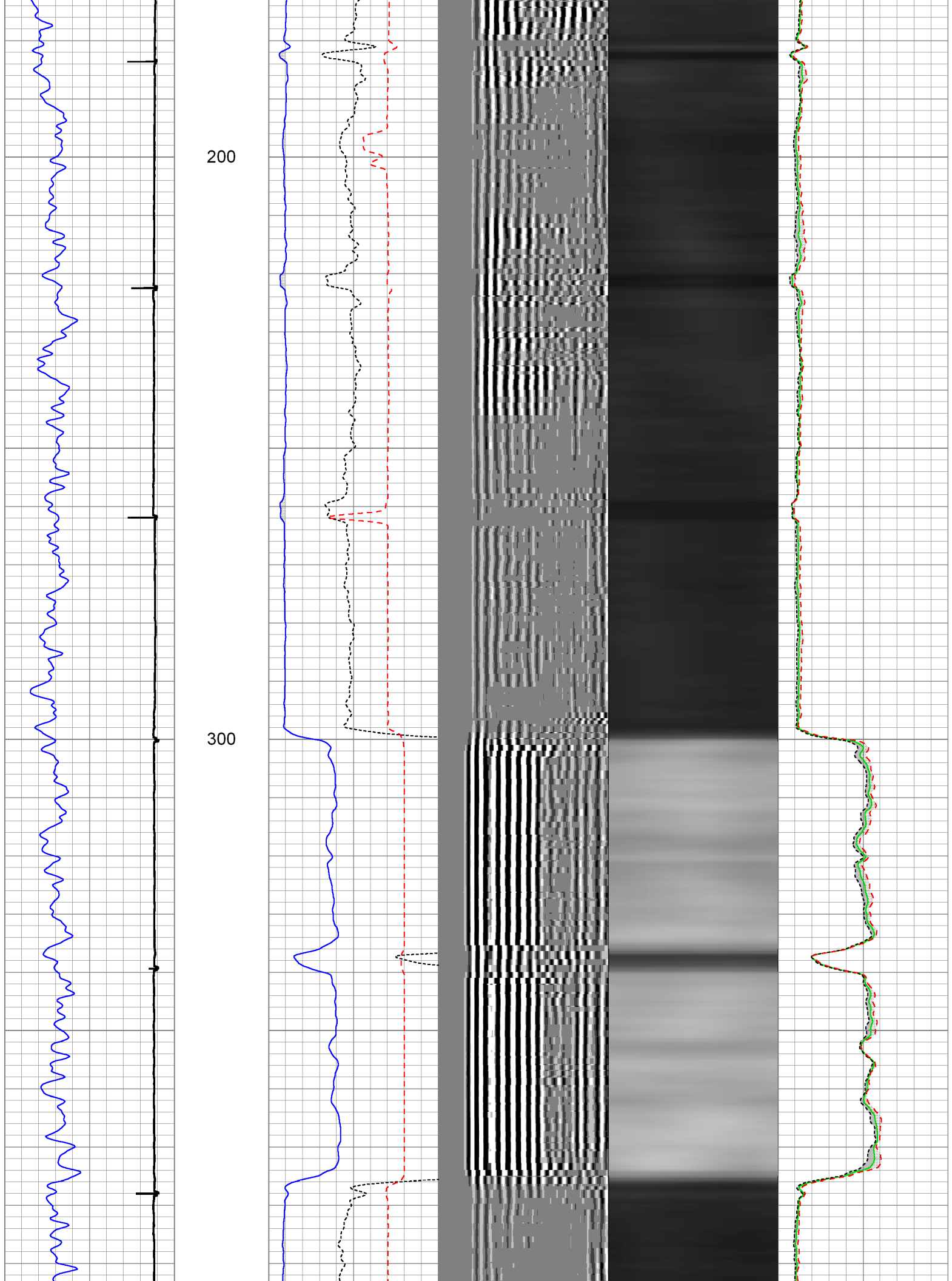
Presentation Format: rbt007

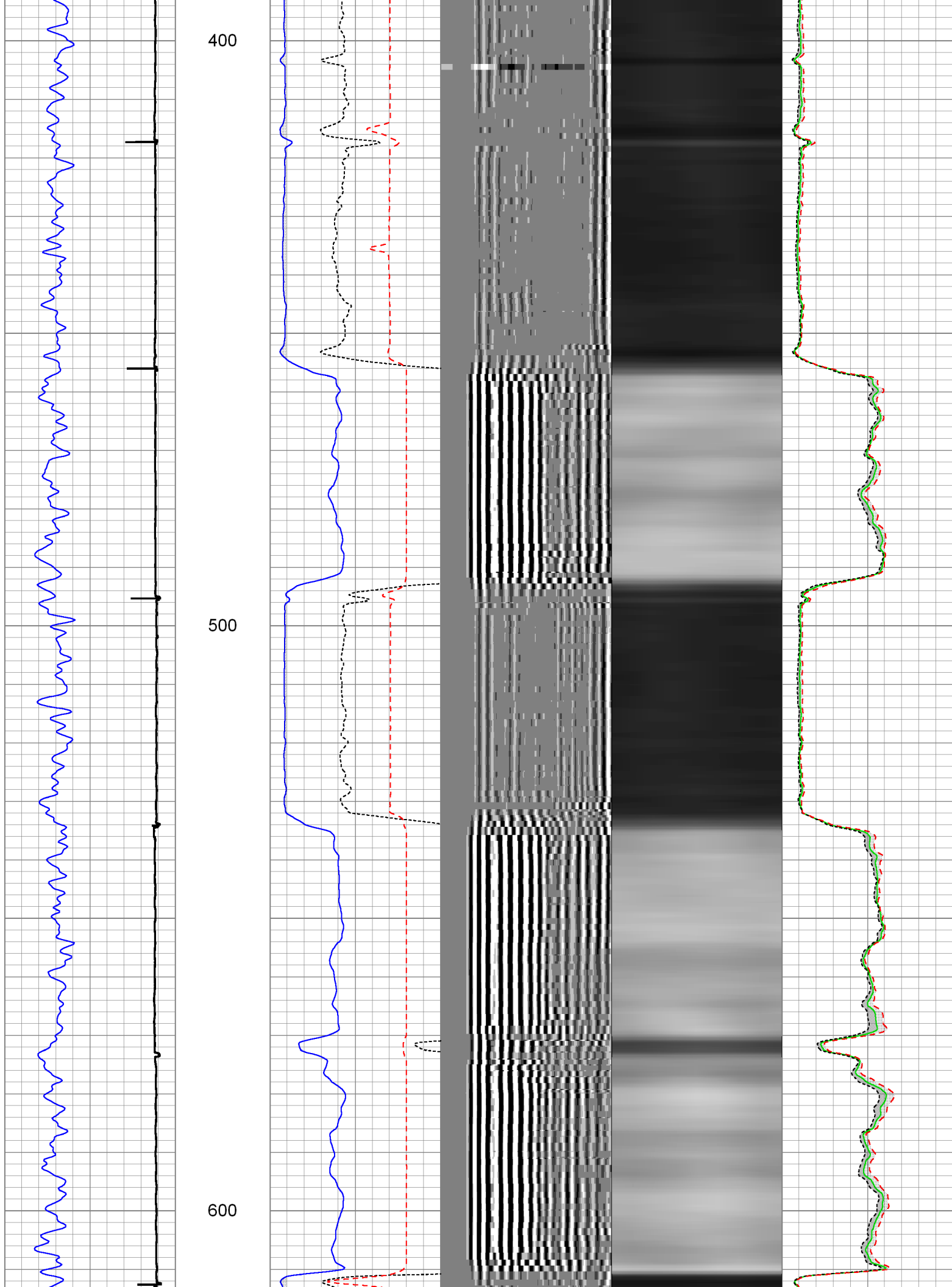
Dataset Creation: Sun Mar 30 06:53:24 2014 by Log Sondex V7.03

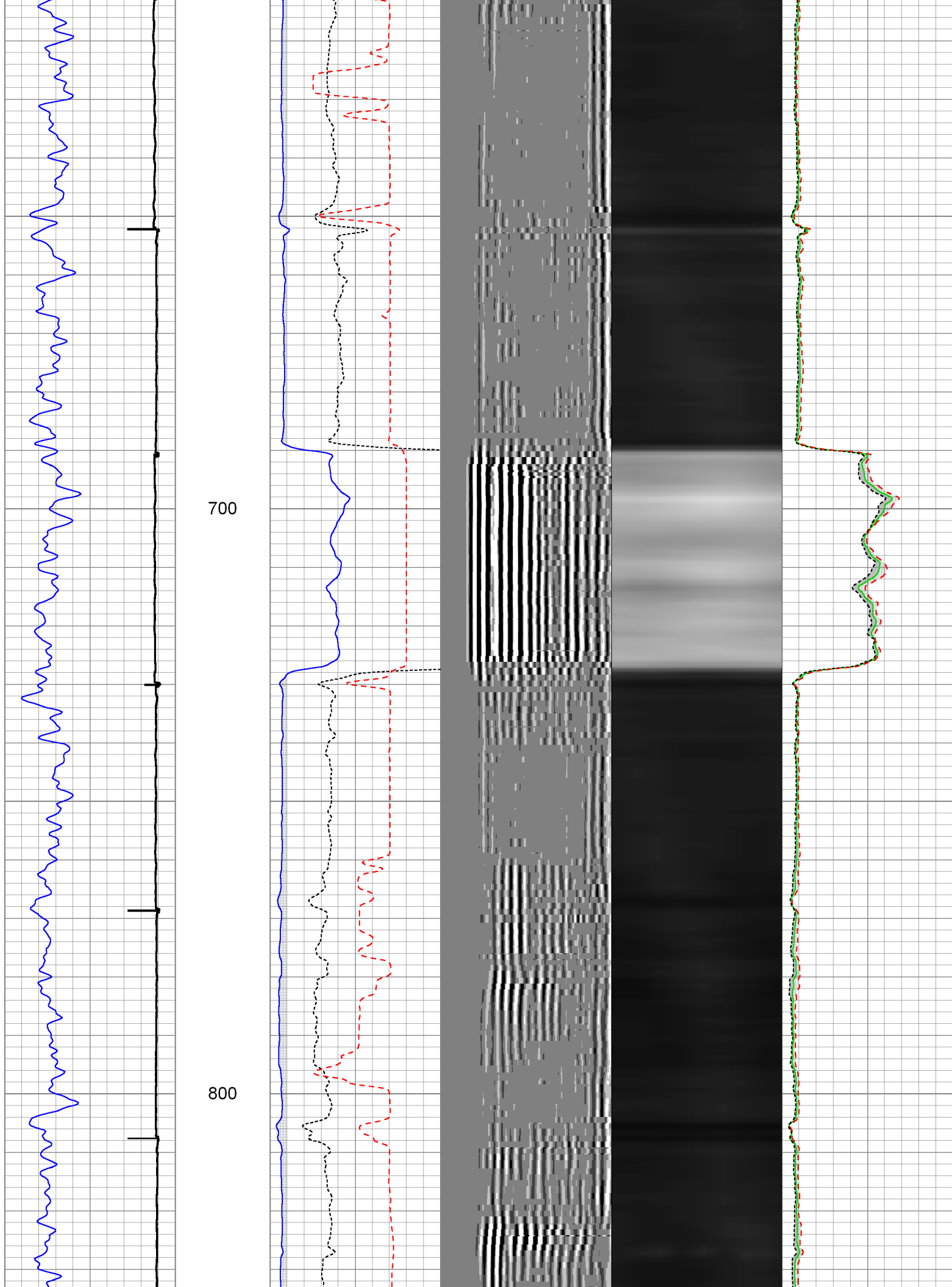
Charted by: Depth in Feet scaled 1:240

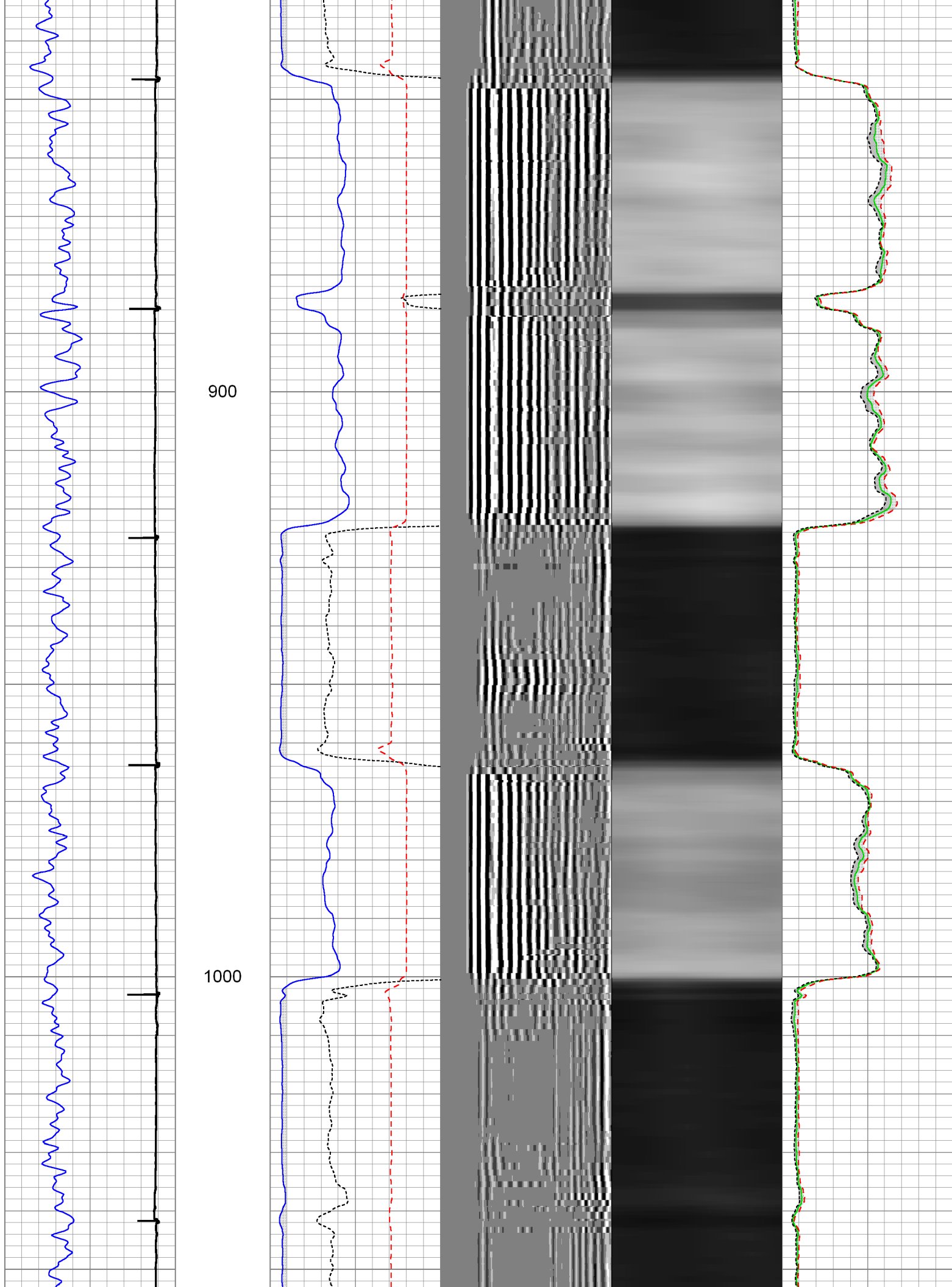
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Collar Locator	3' Amplitude x 5			Minimum Amplitude
	0 (mV) 20			0 100
	3' Travel Time			Maximum Amplitude
	650 (usec) 150			0 100

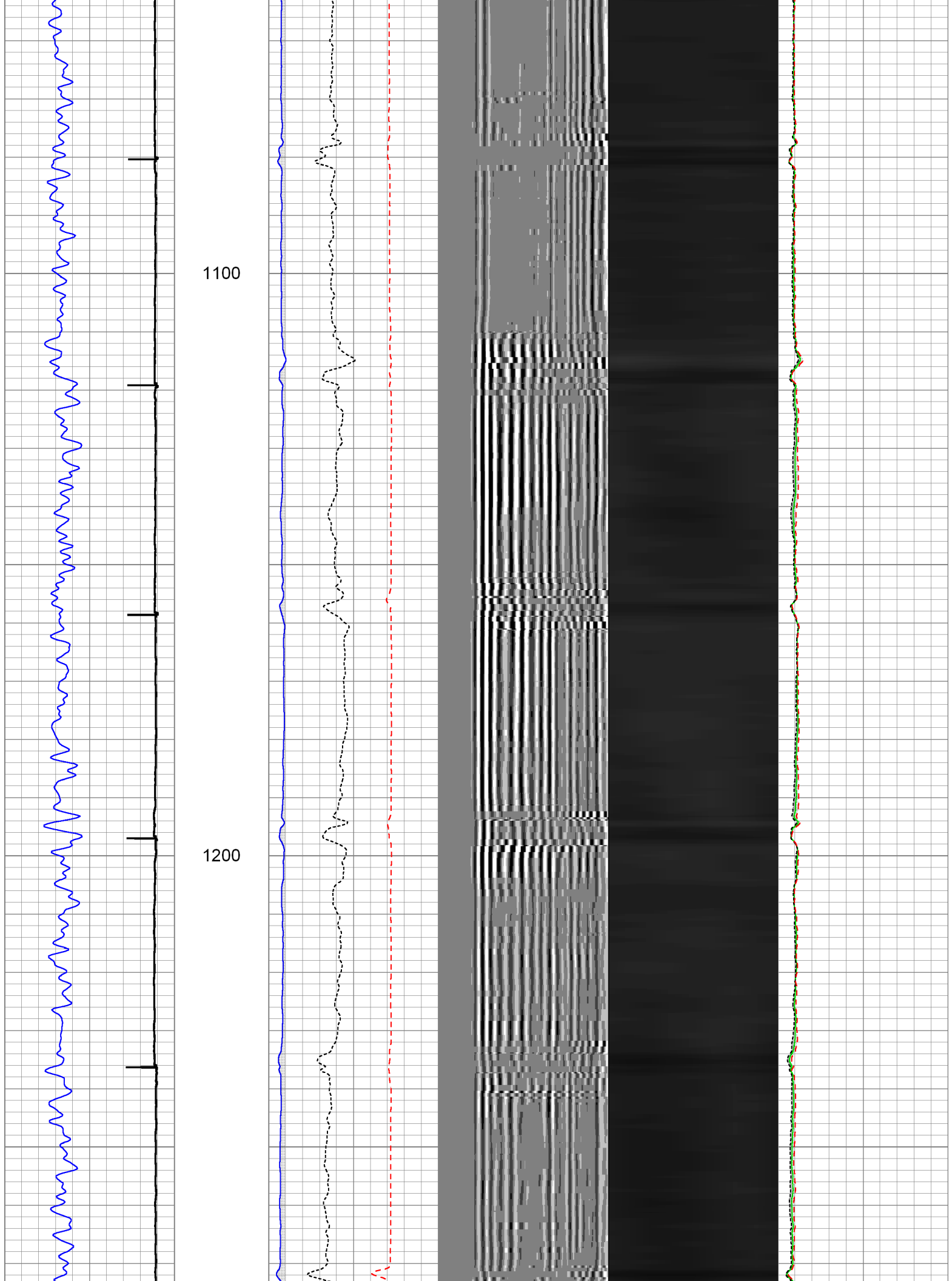






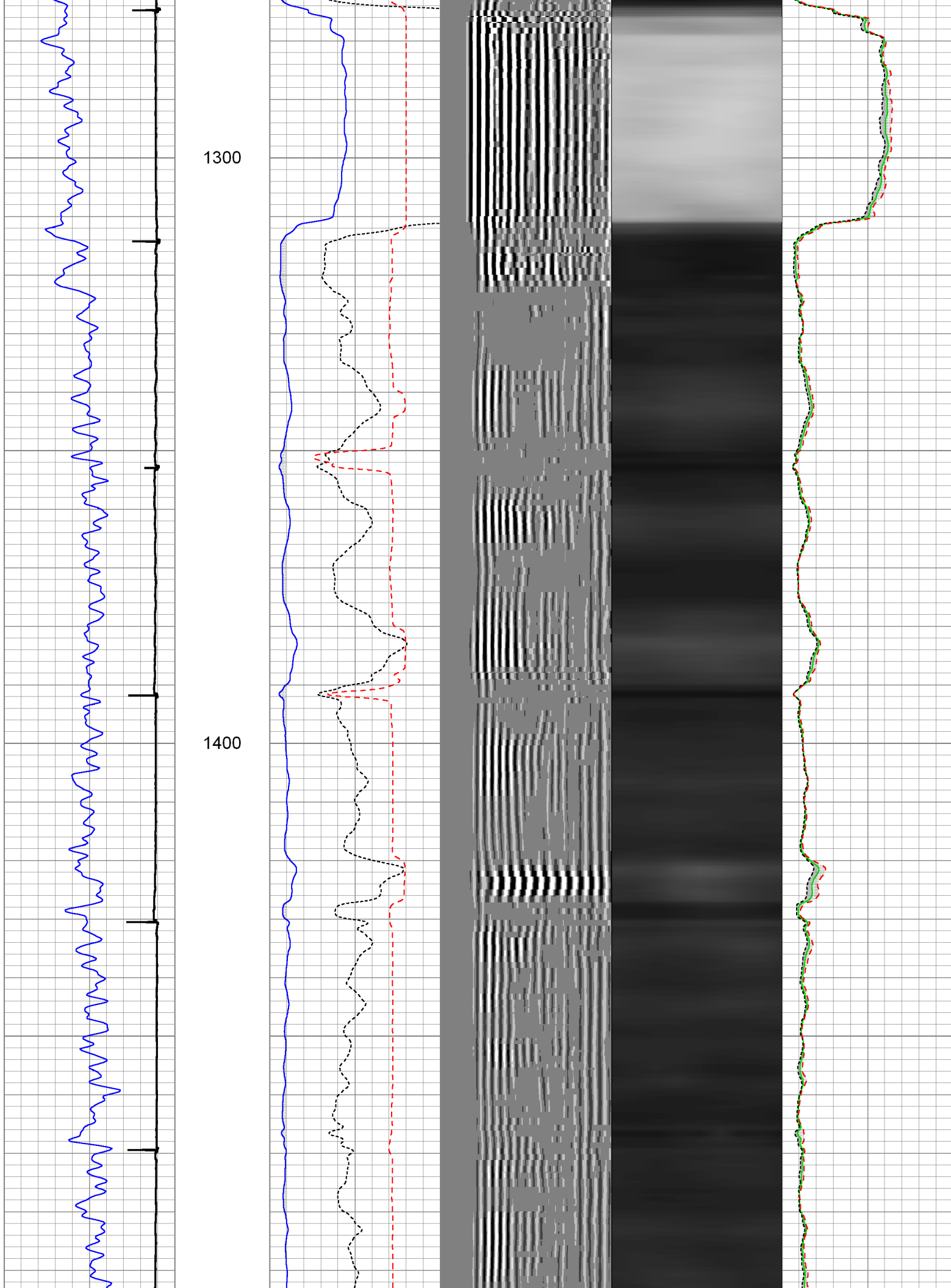


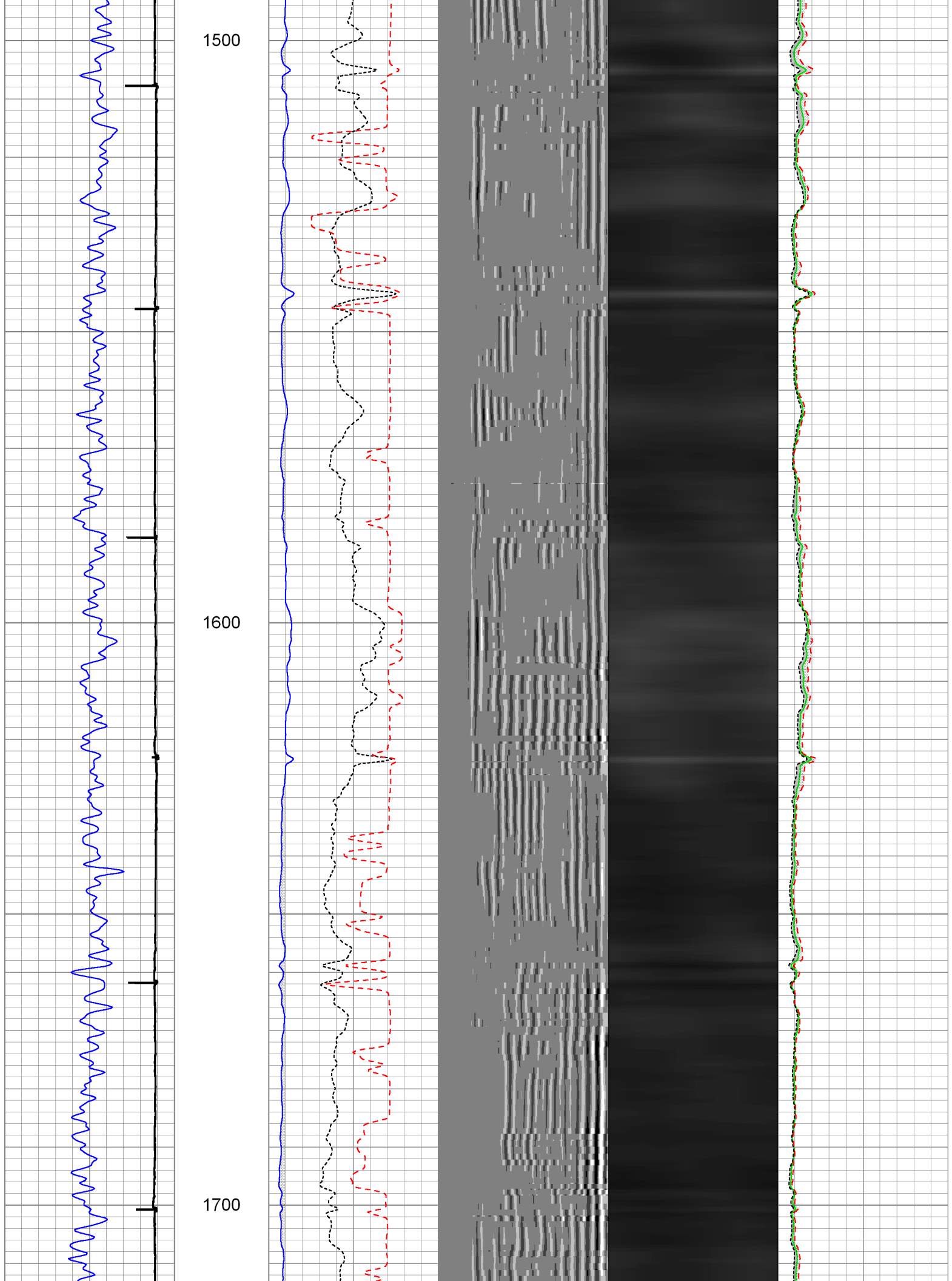


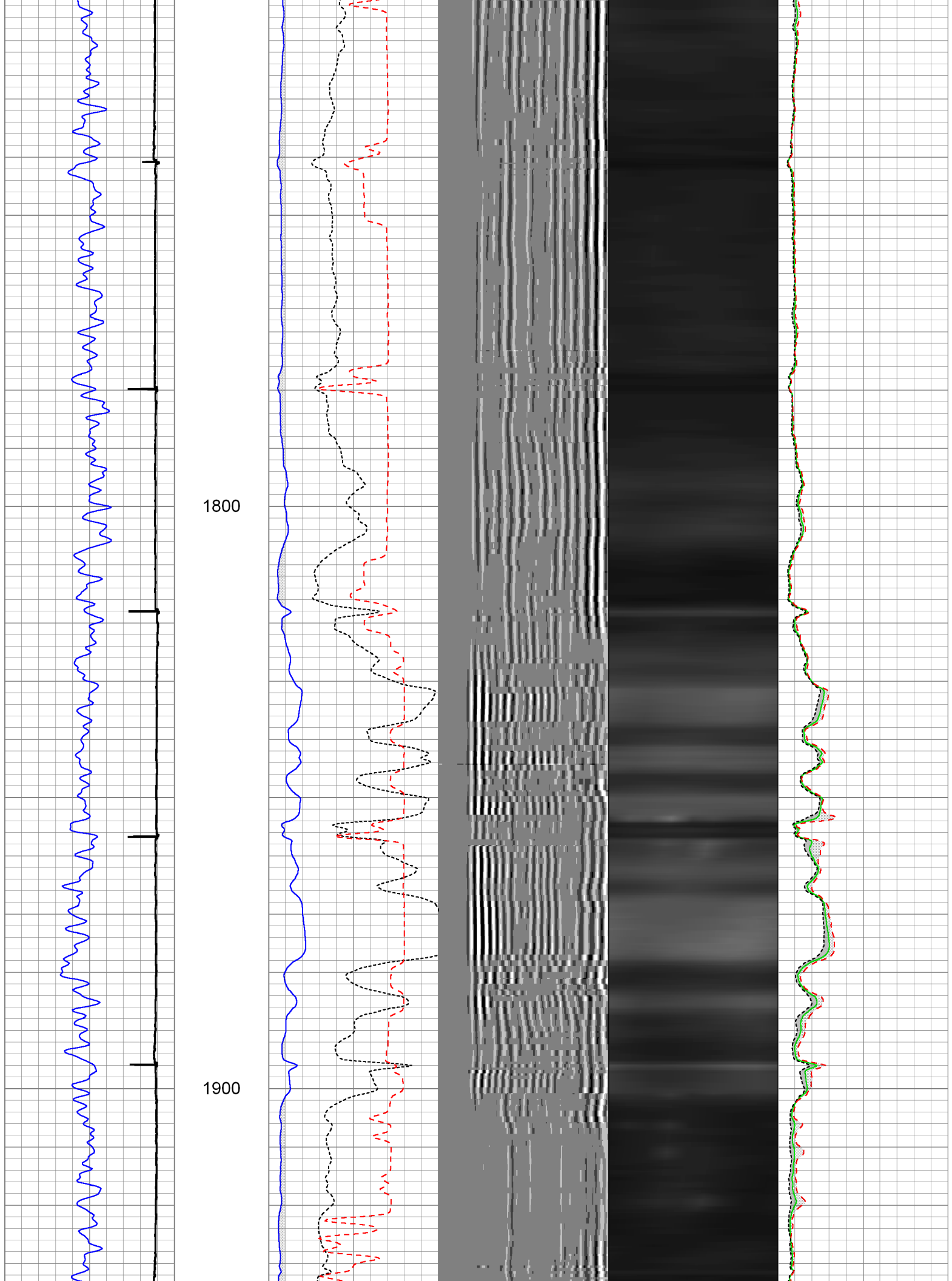


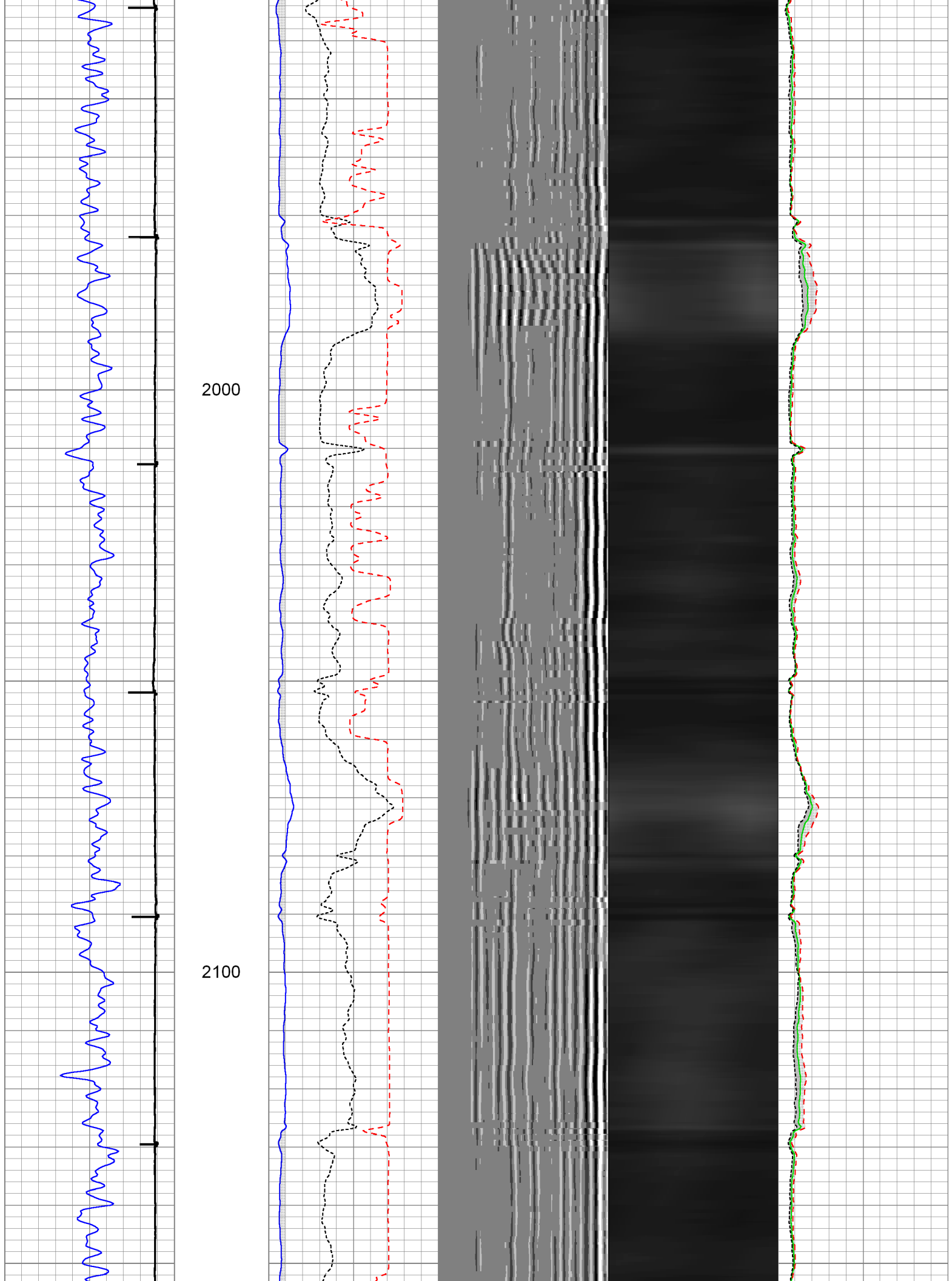
1300

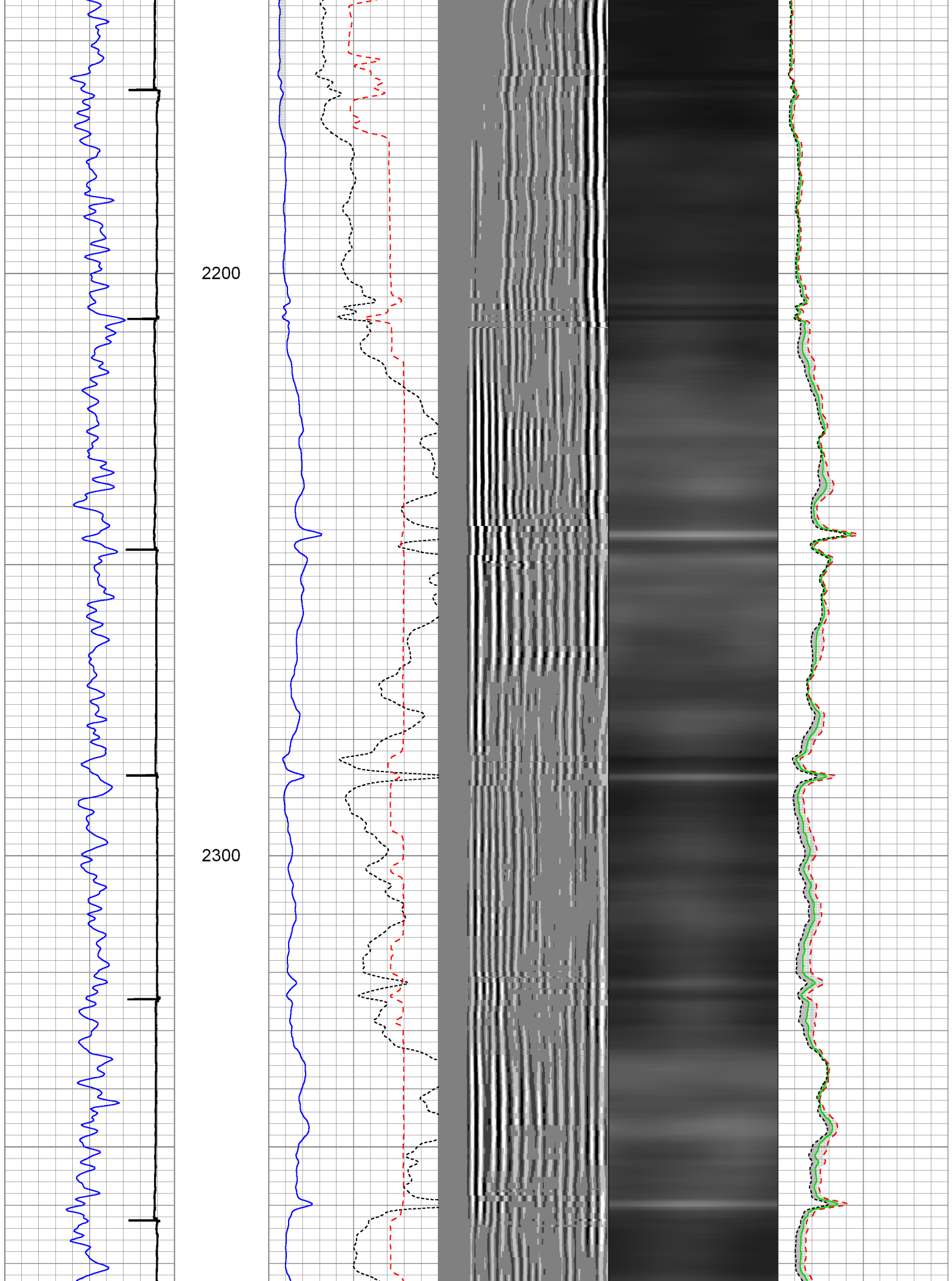
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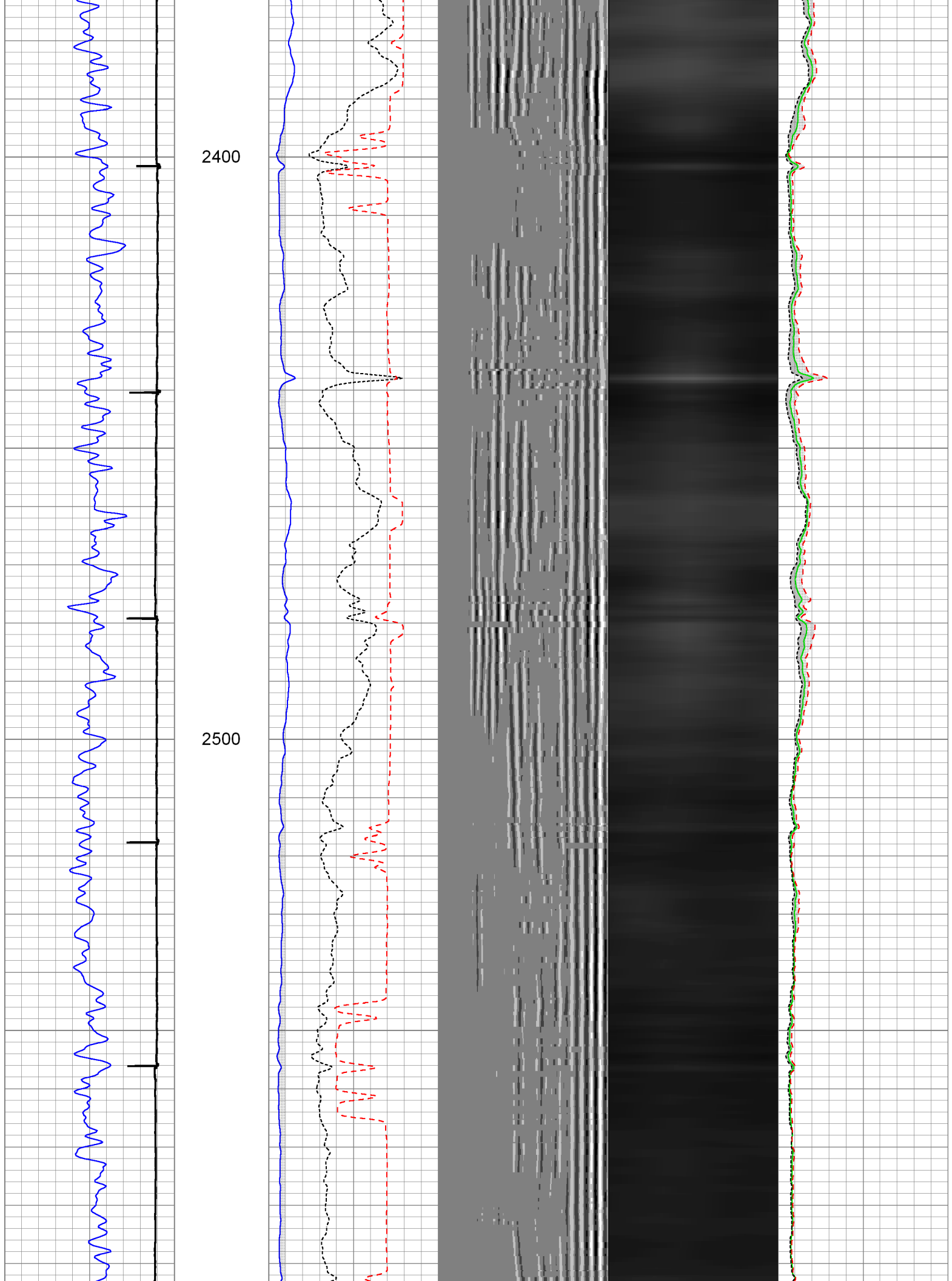


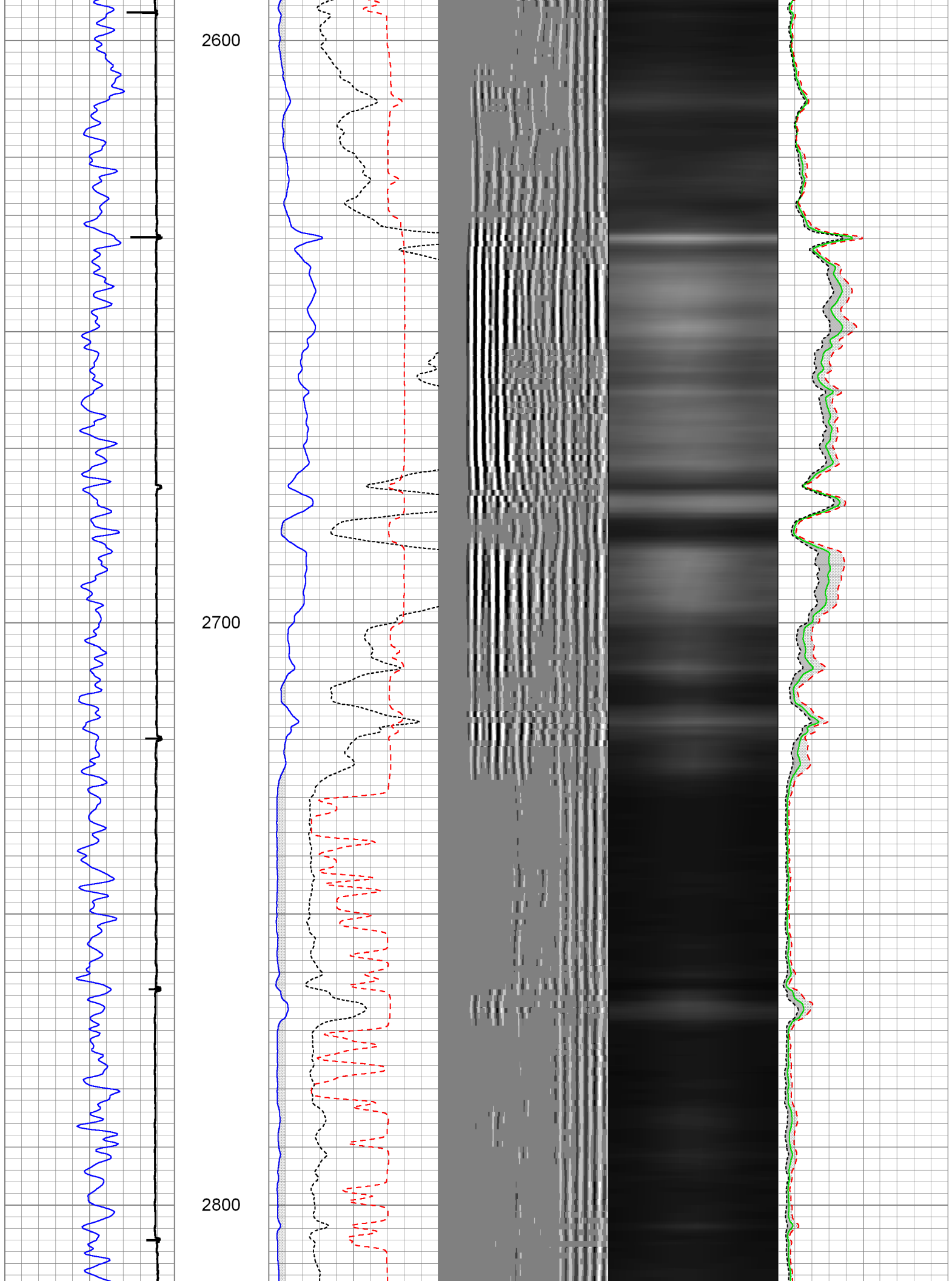


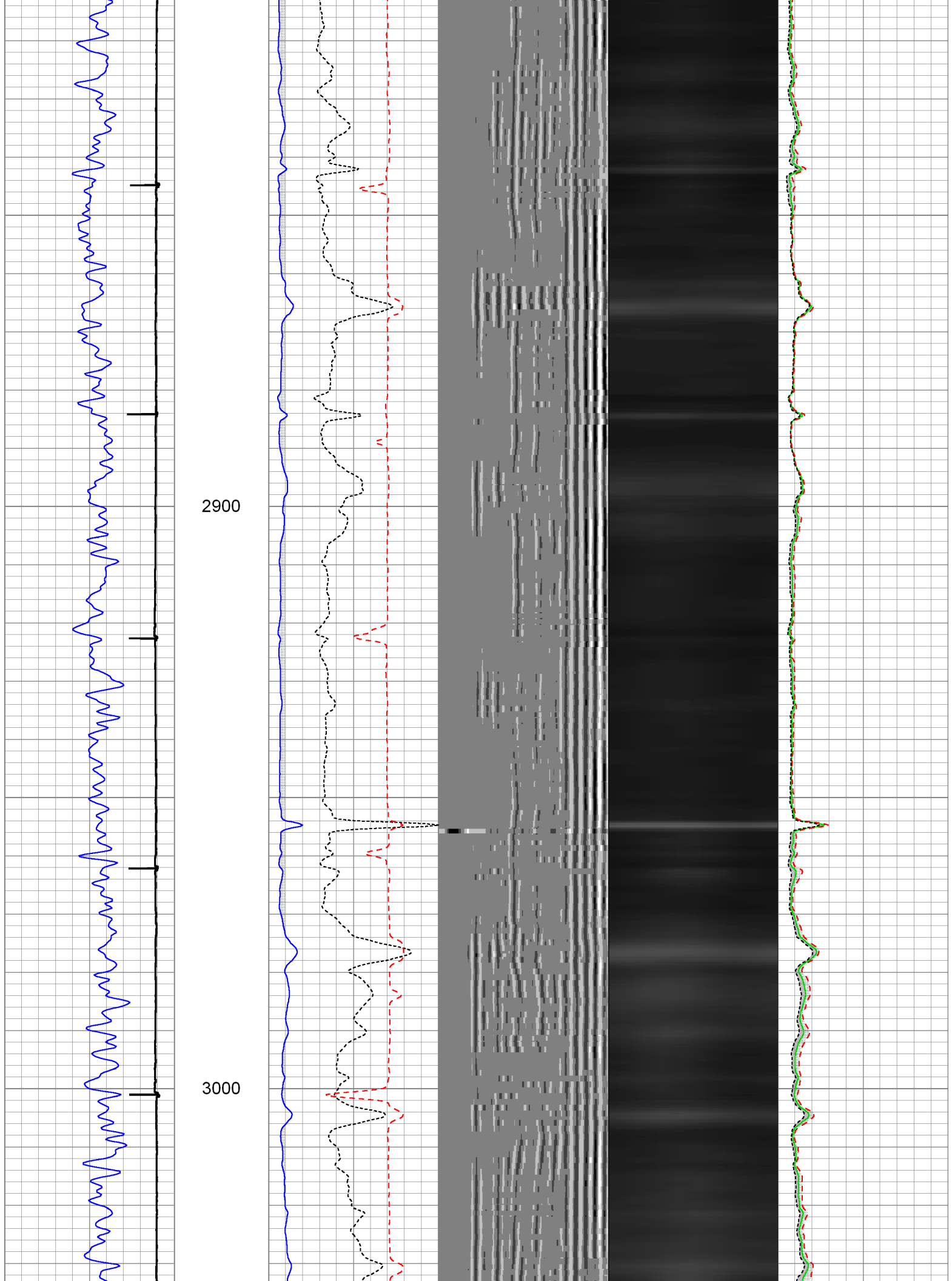


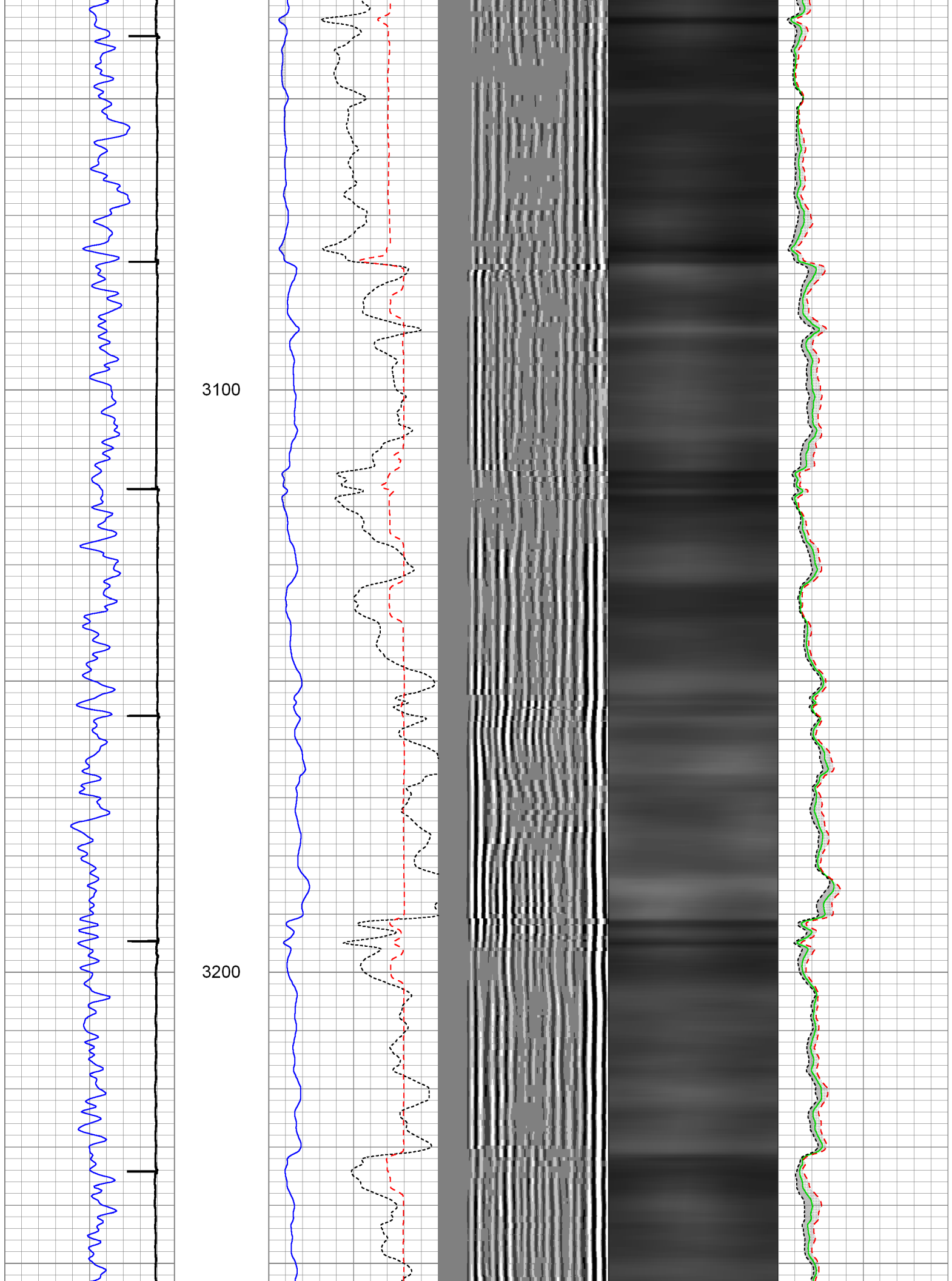






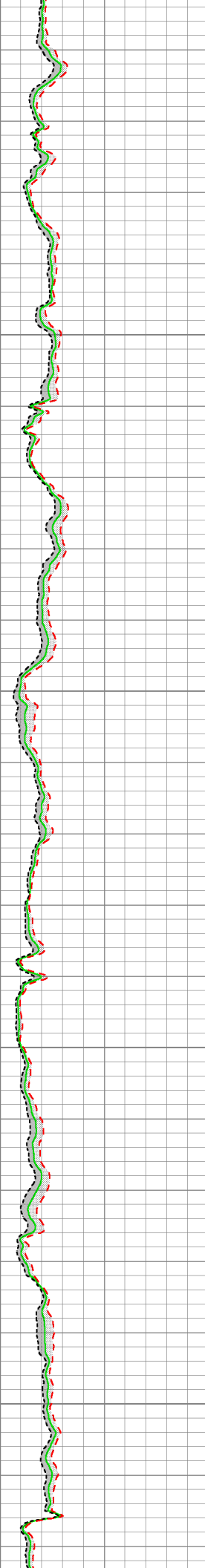
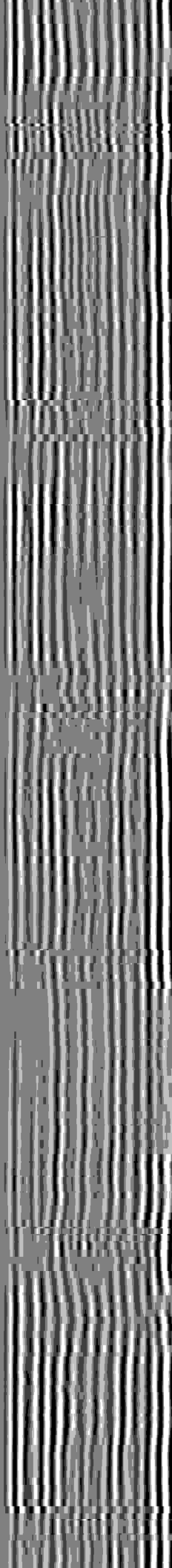
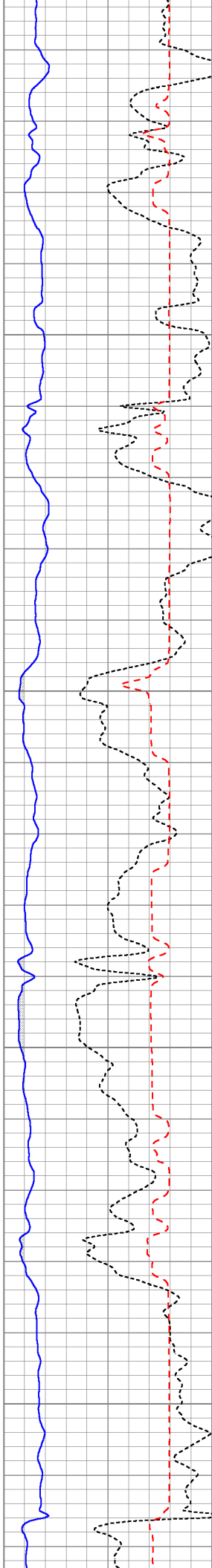
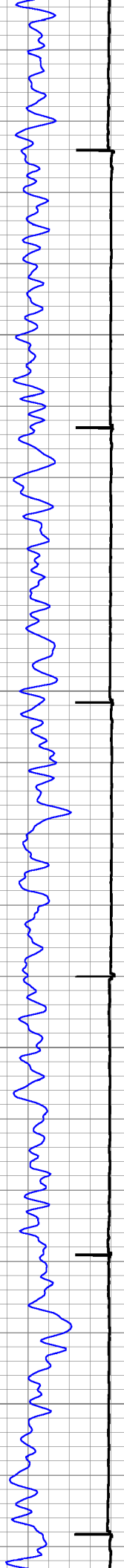






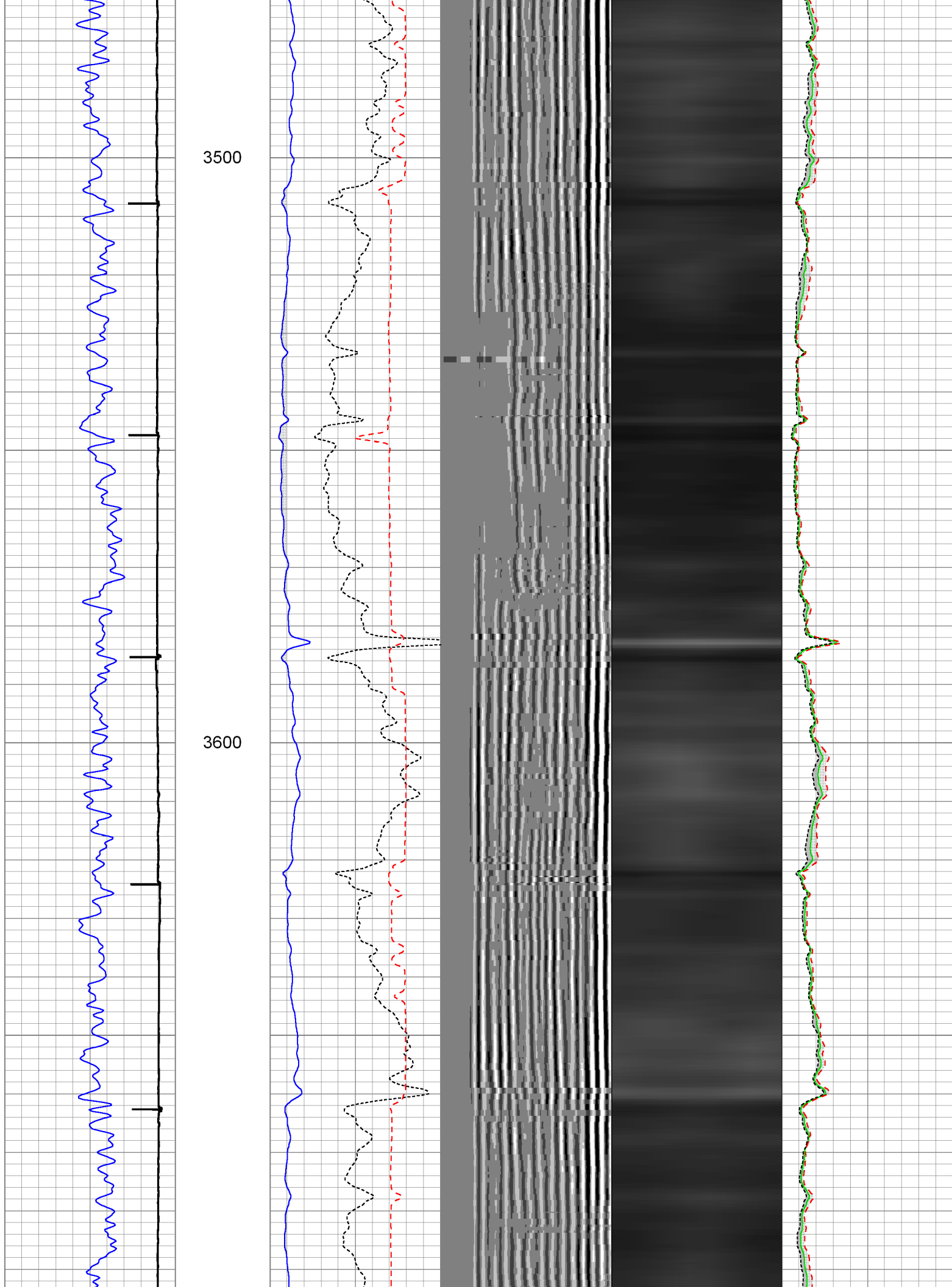
3300

3400



3500

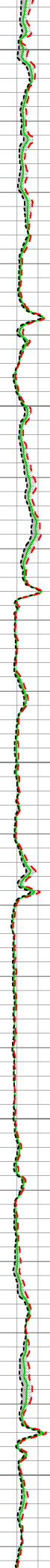
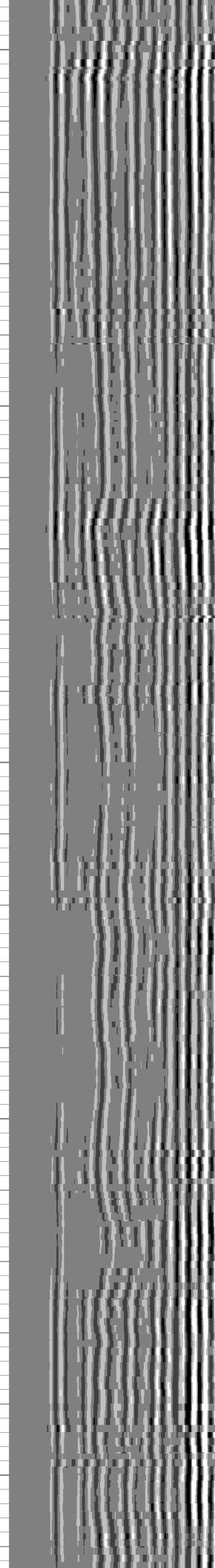
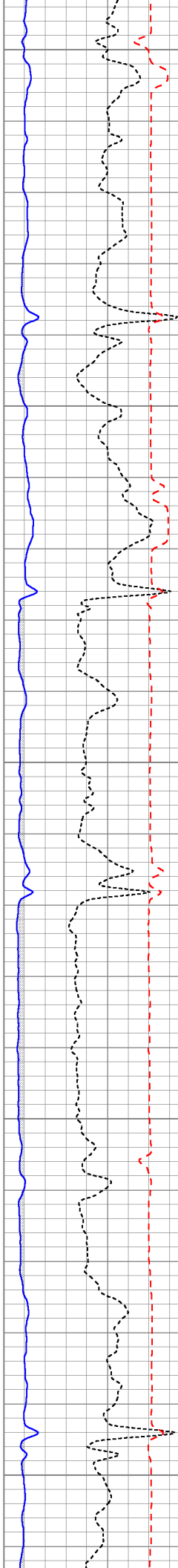
3600

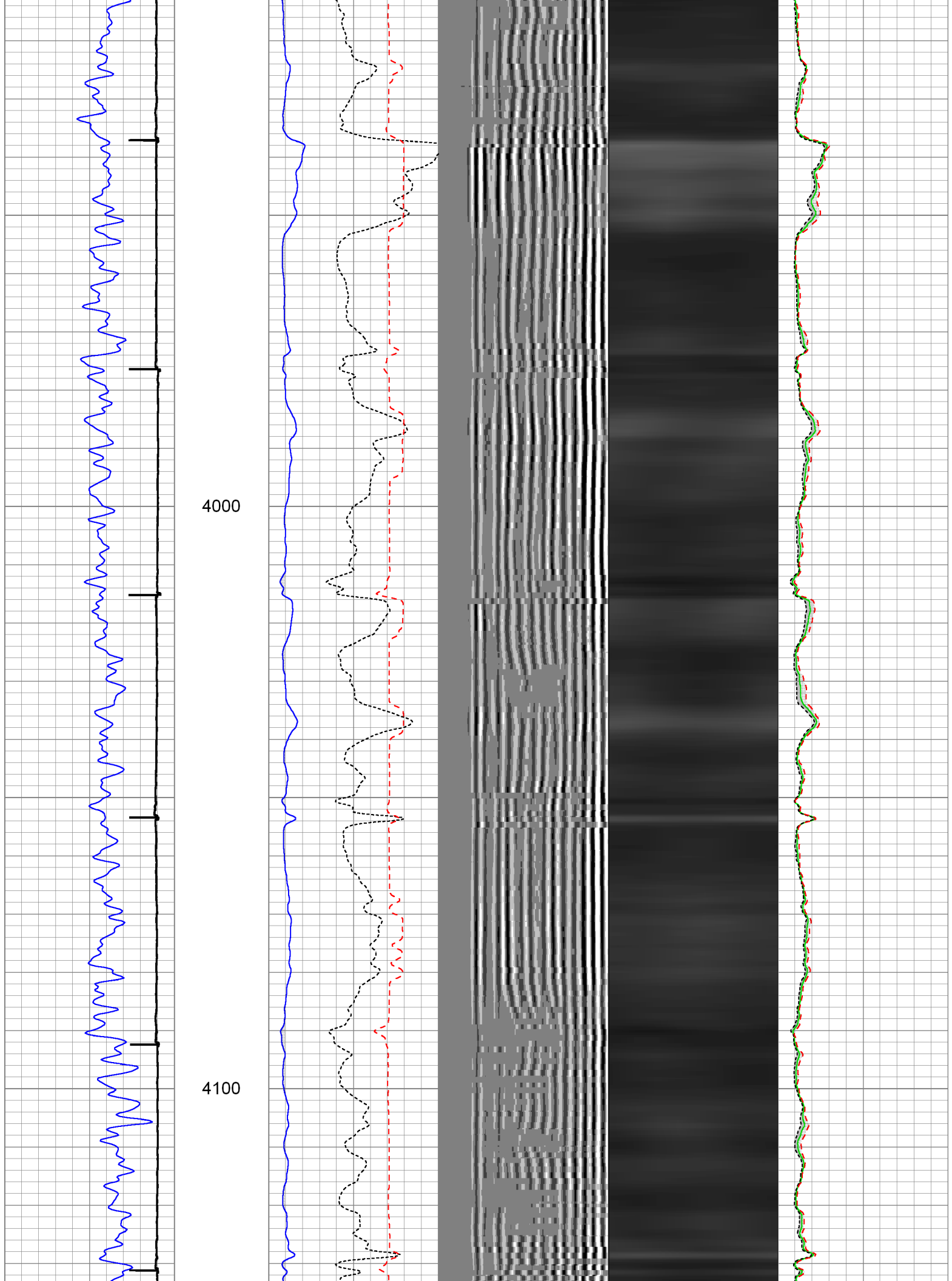


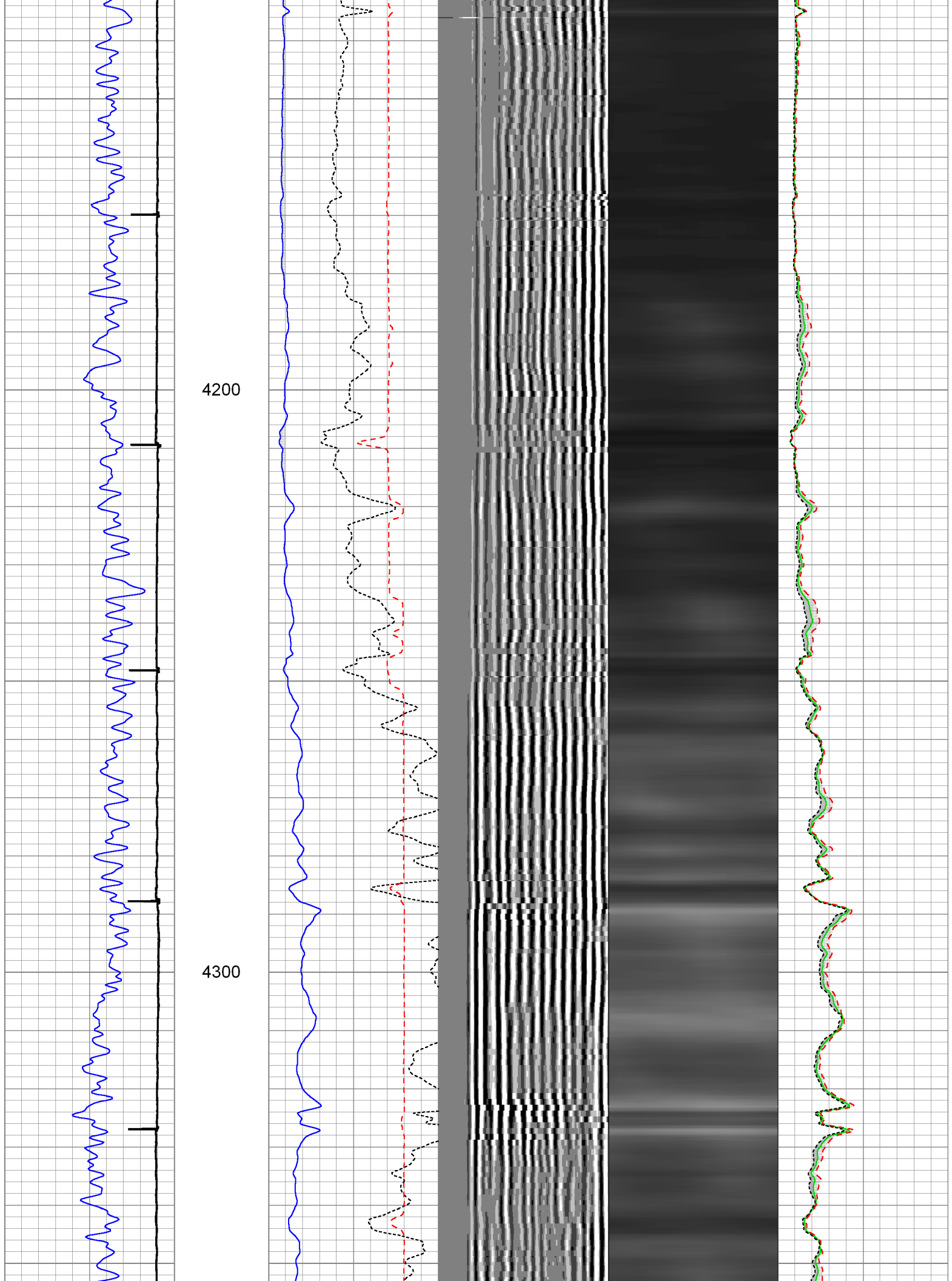
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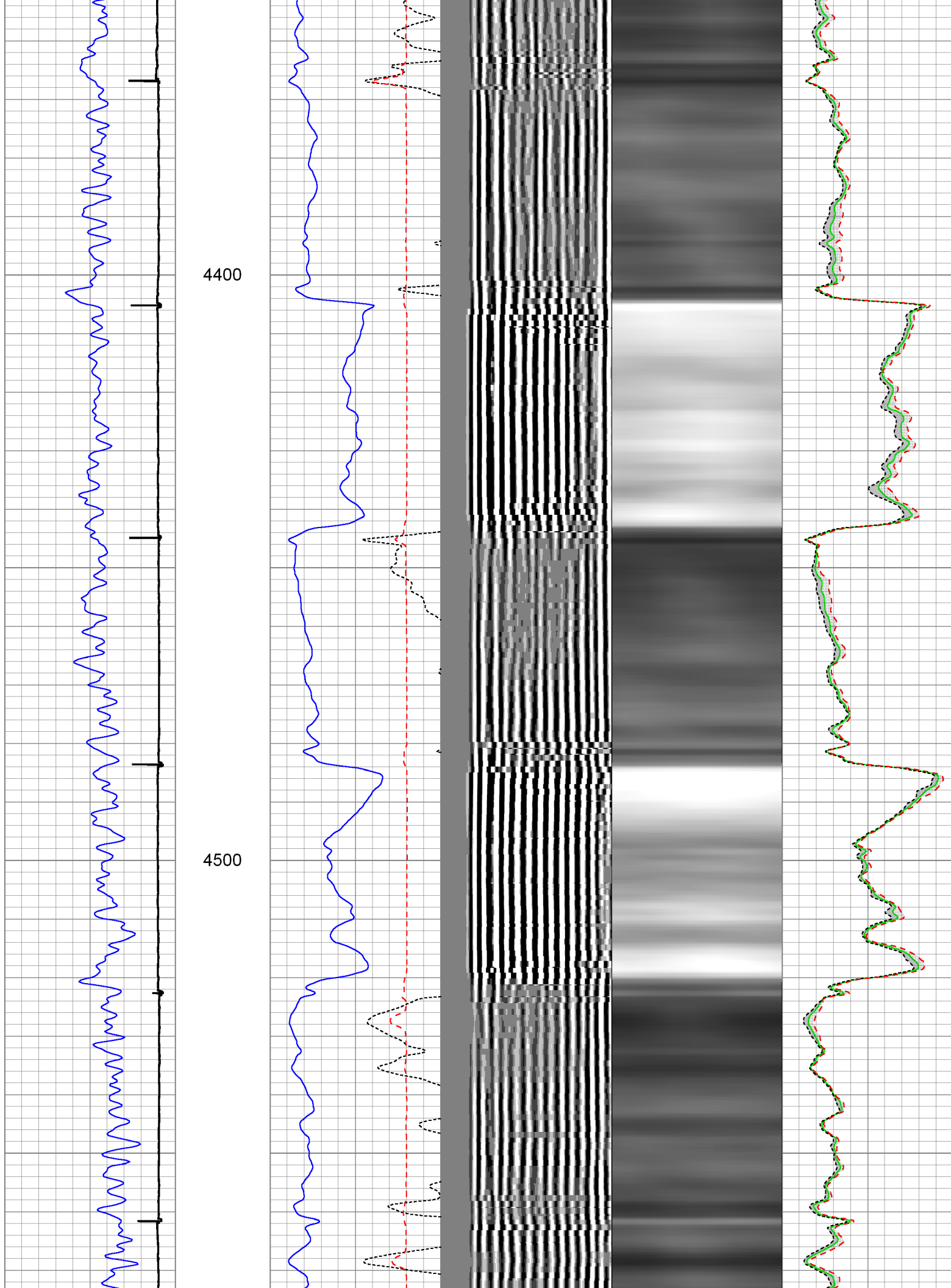
3800

3900



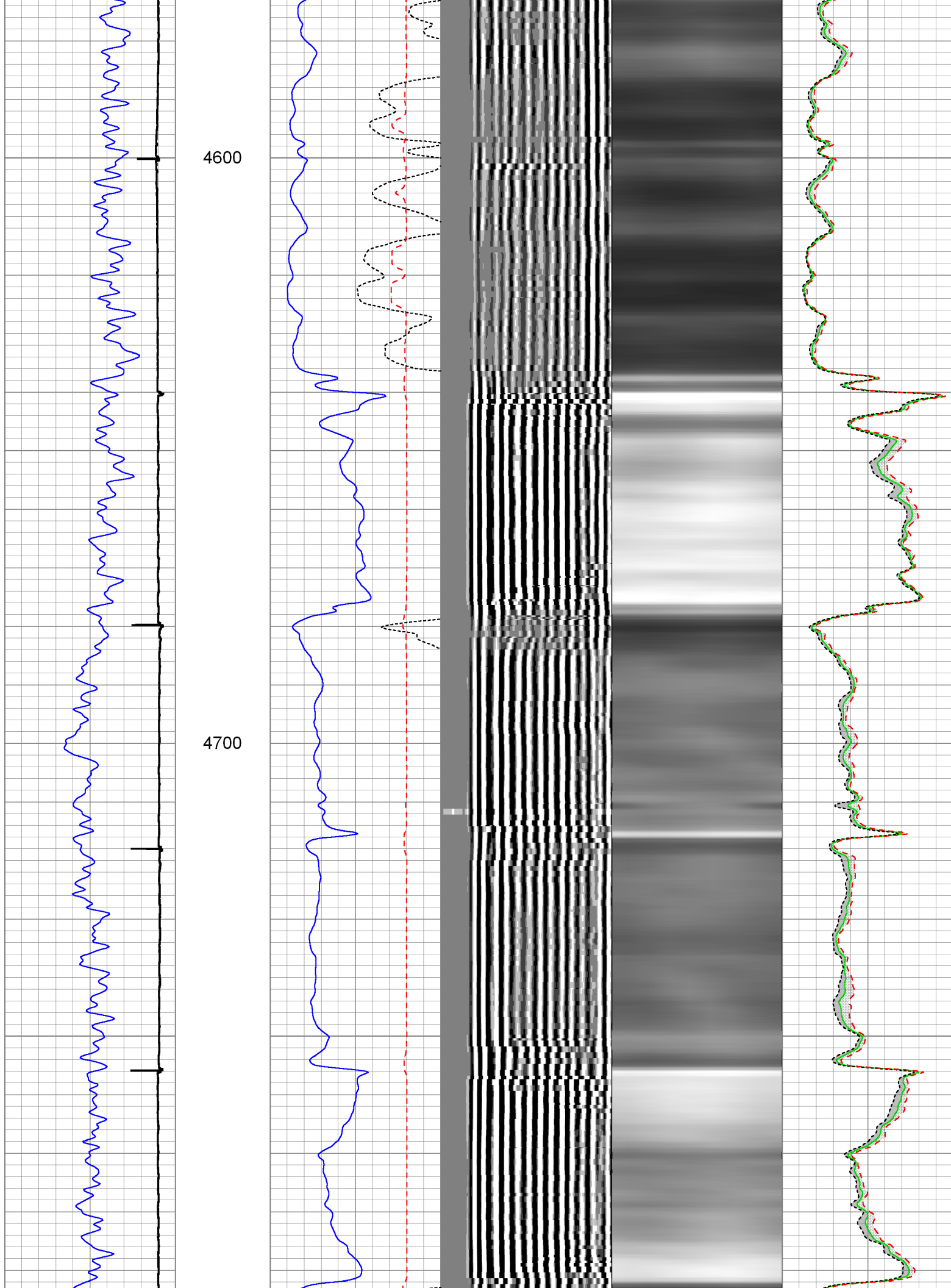






4600

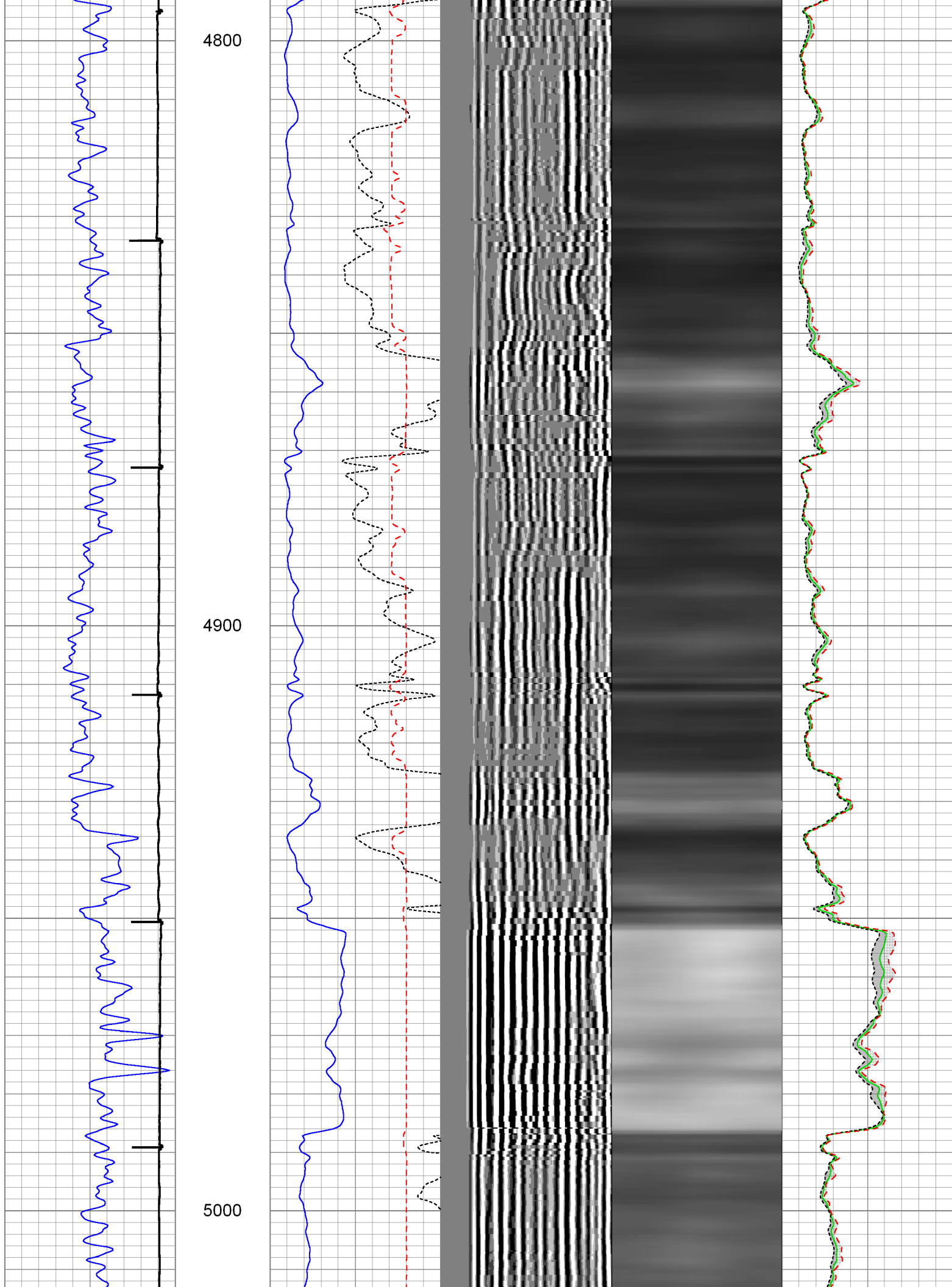
4700

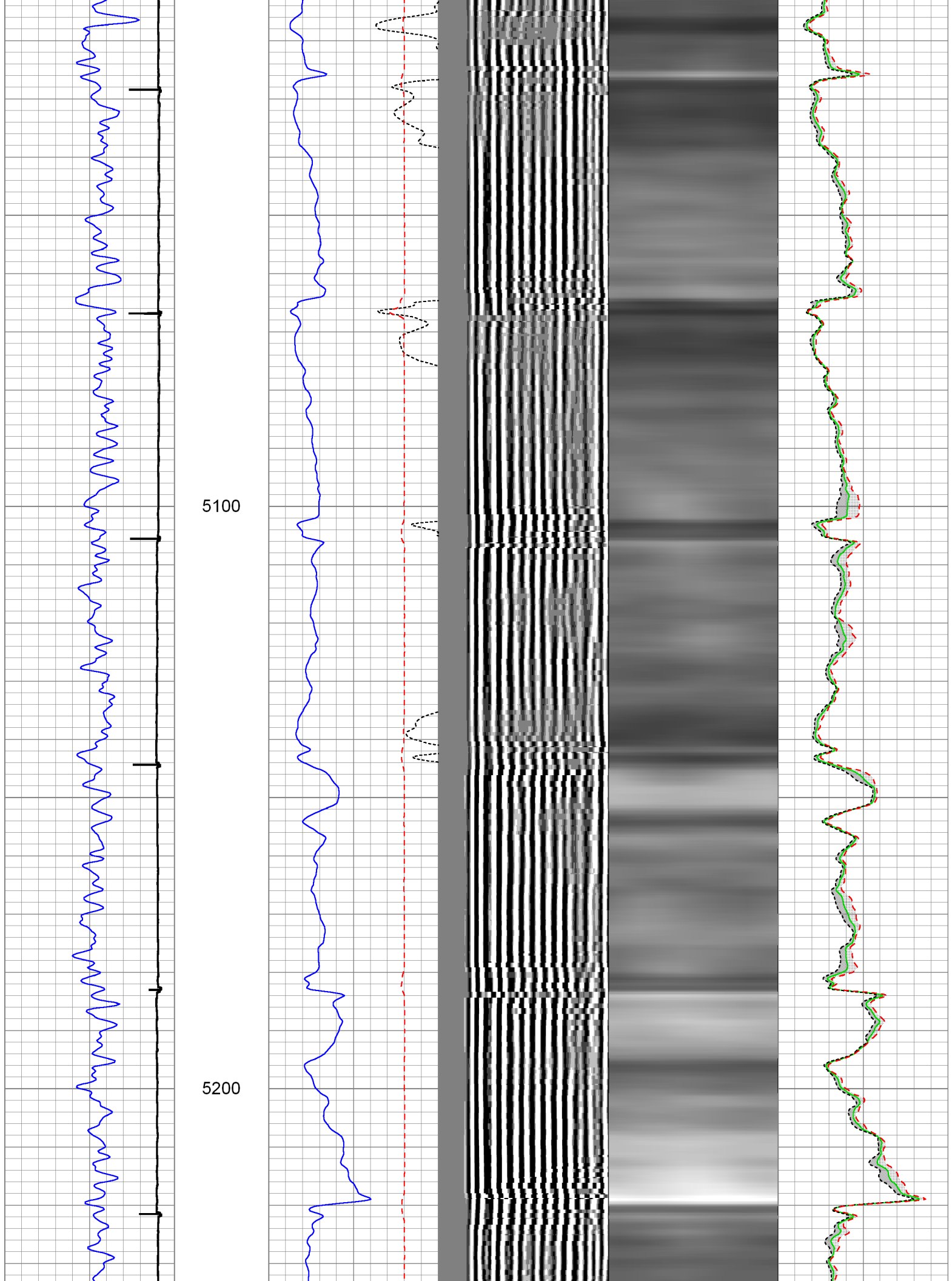


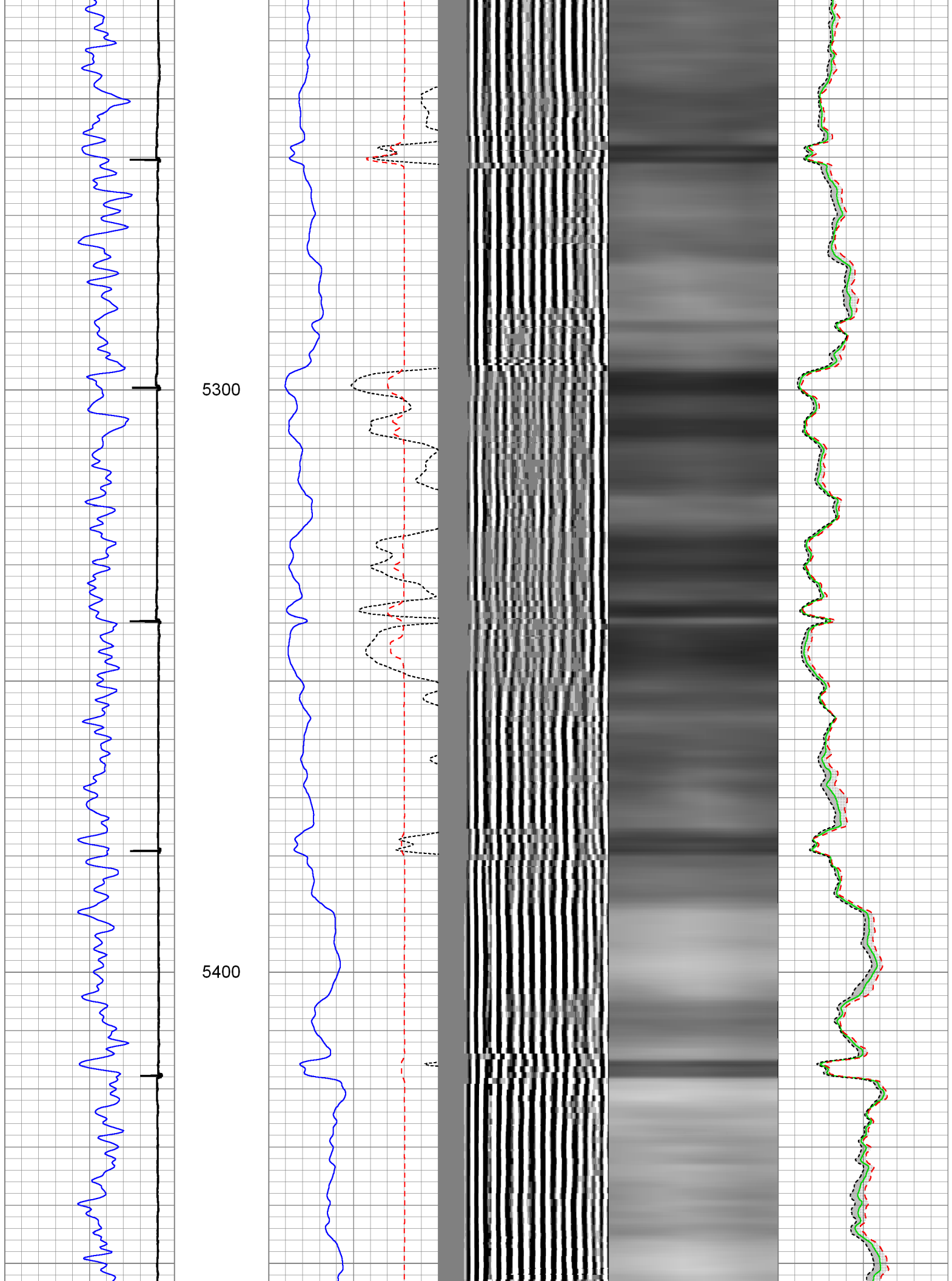
4800

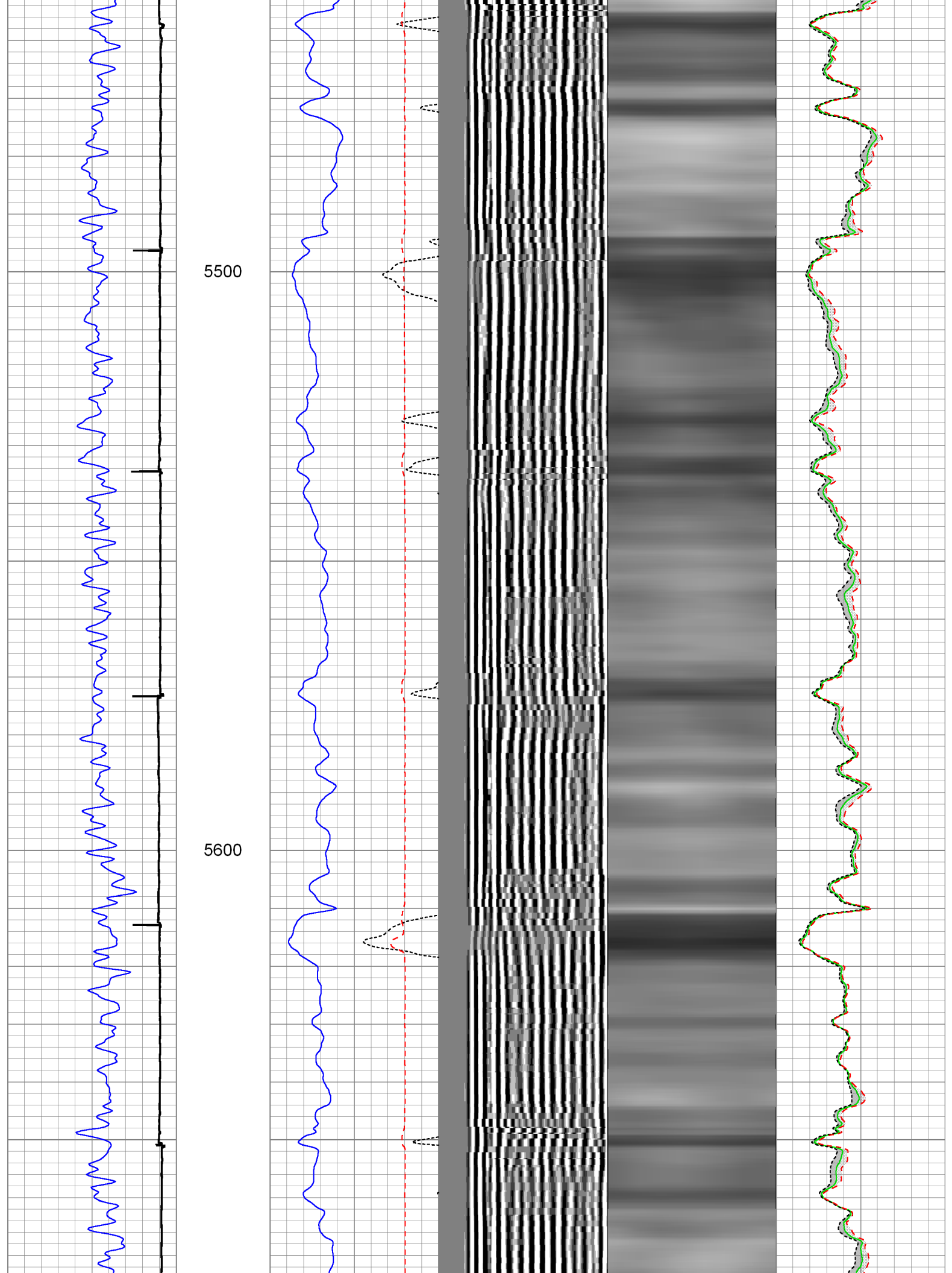
4900

5000



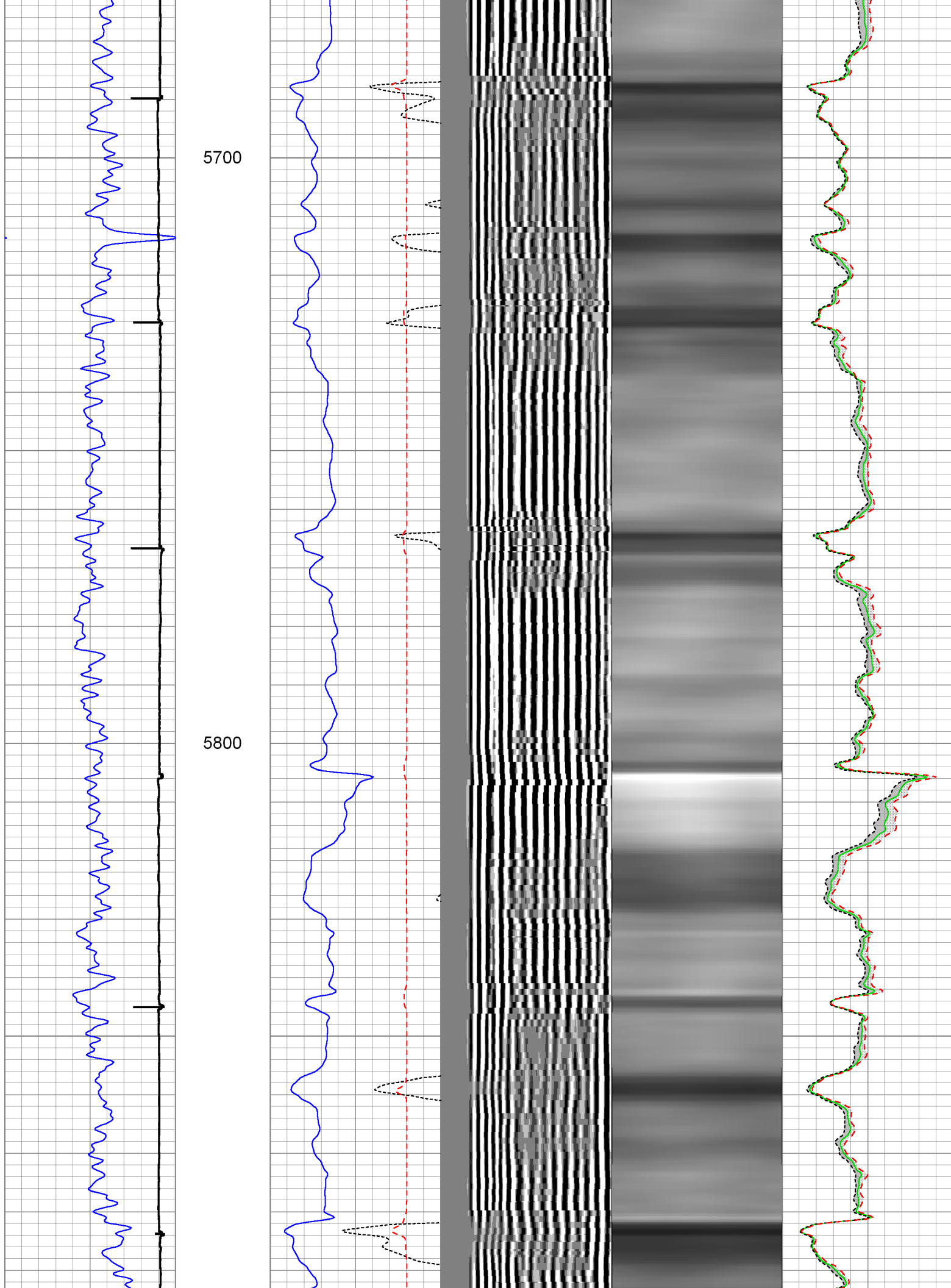






5700

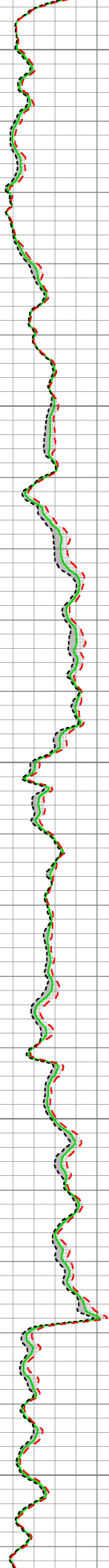
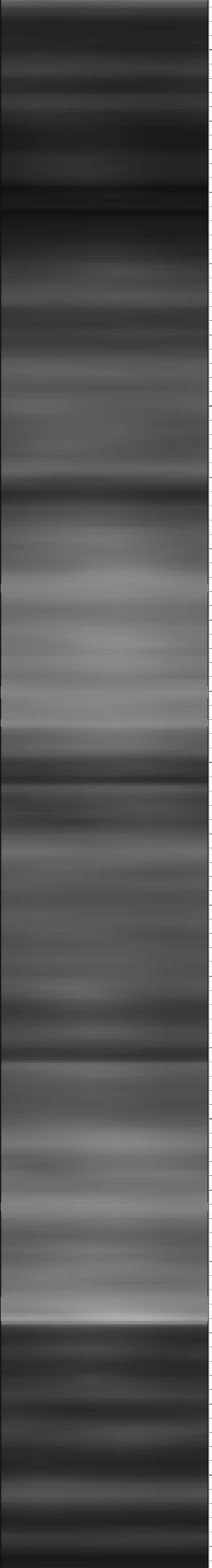
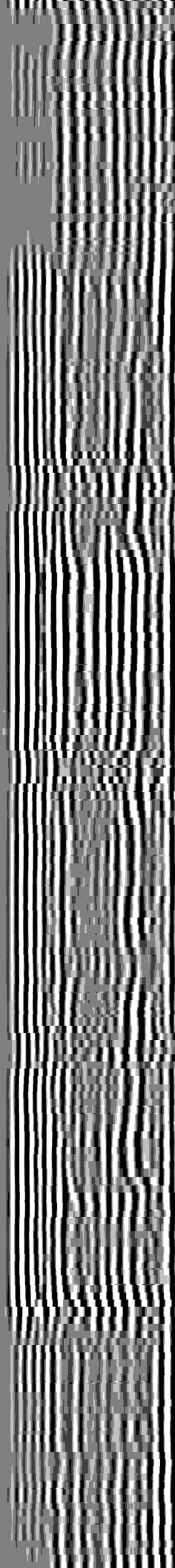
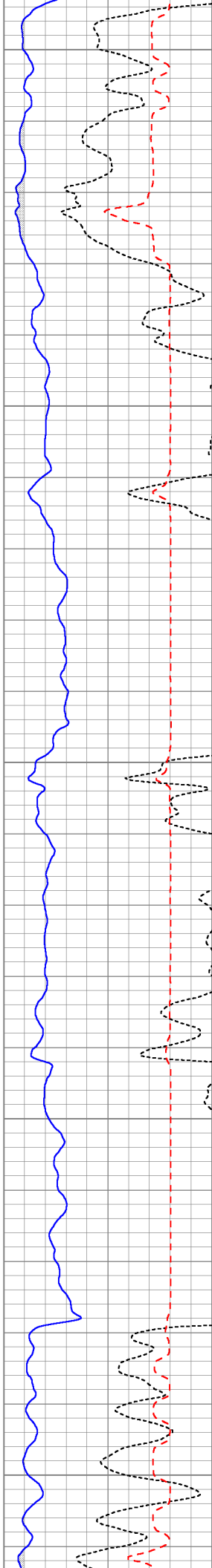
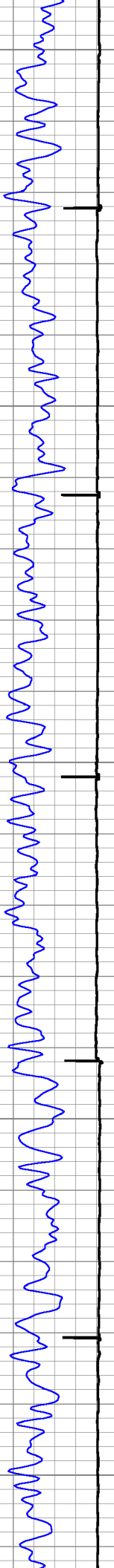
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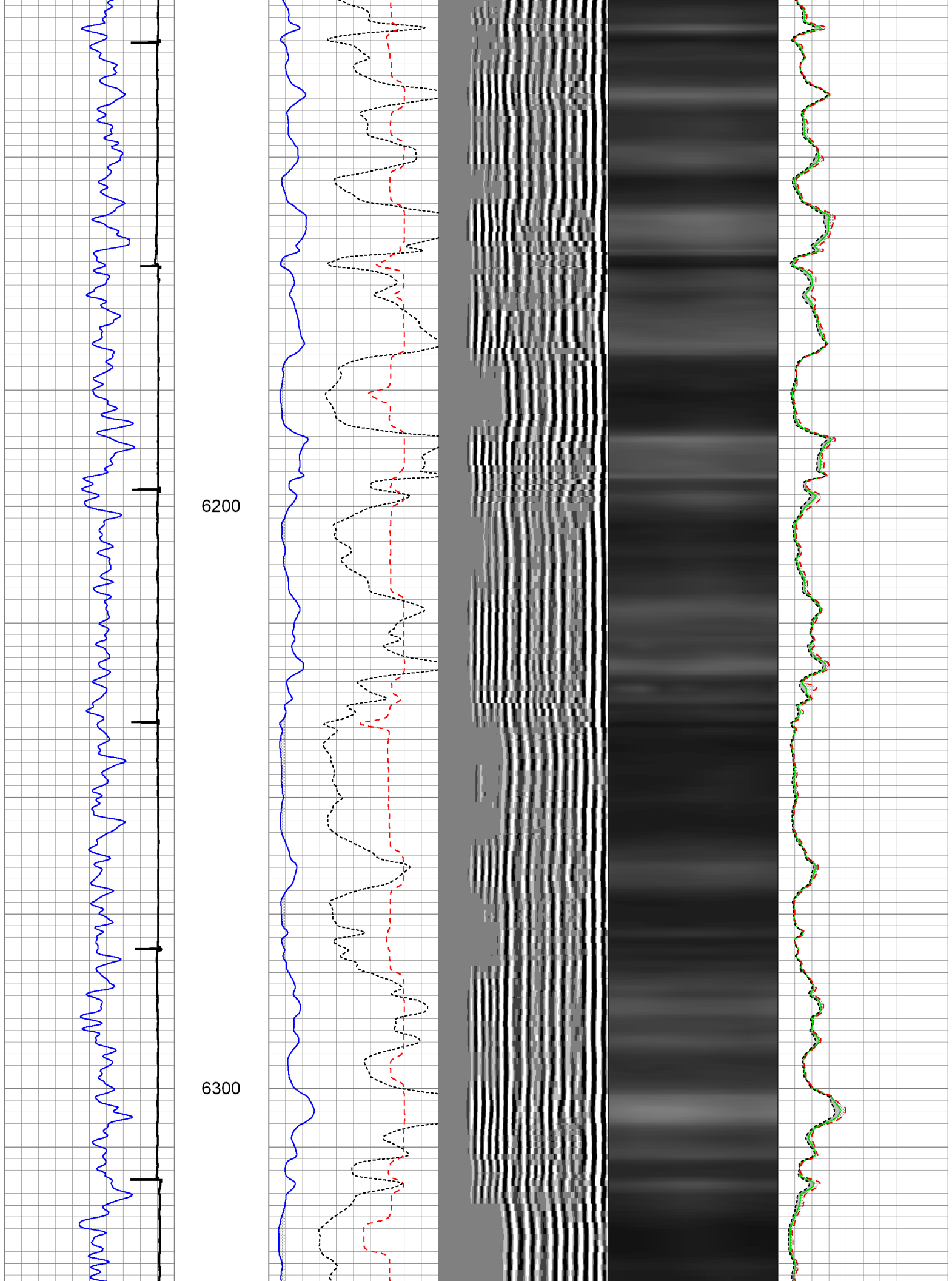


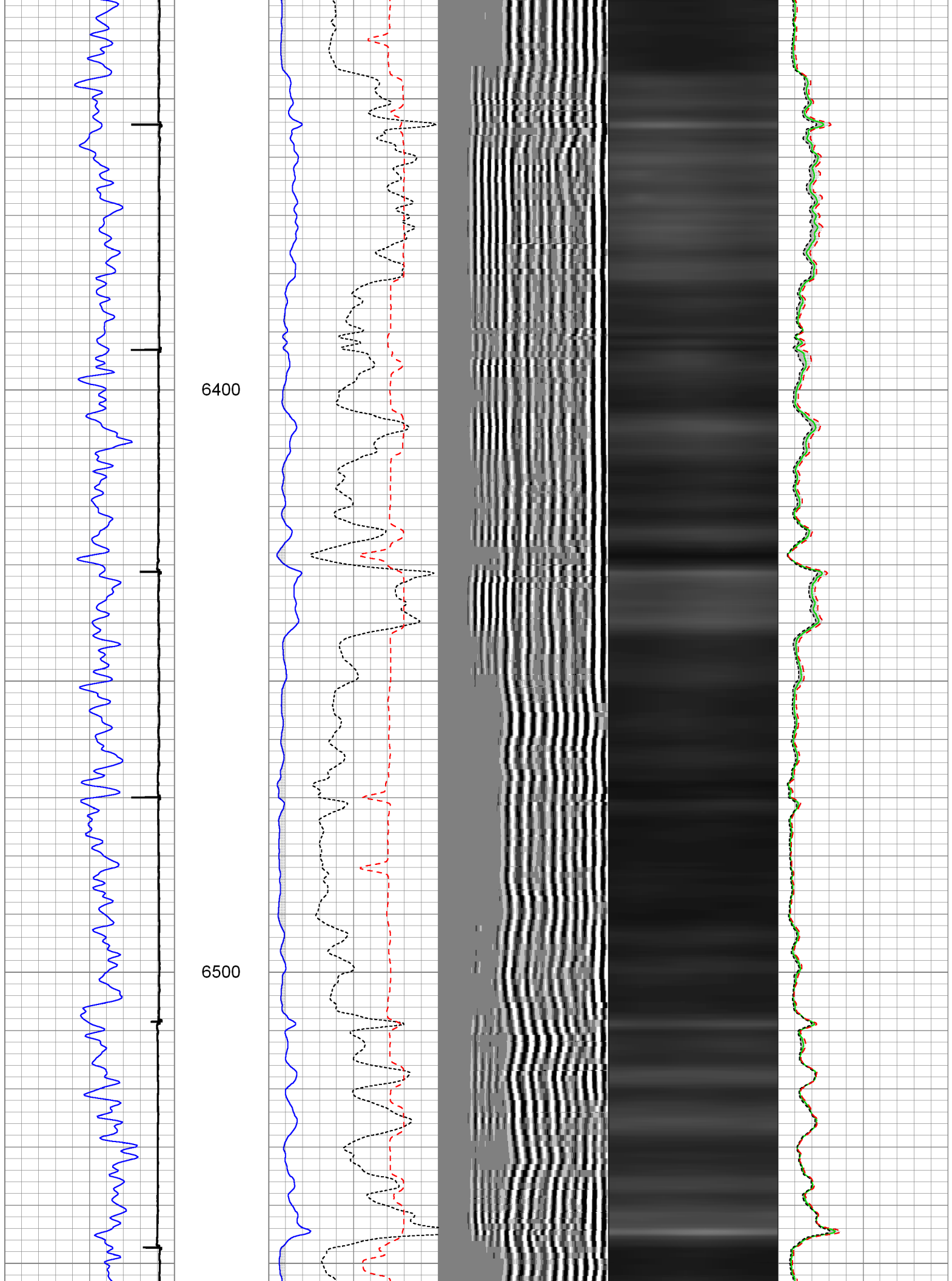
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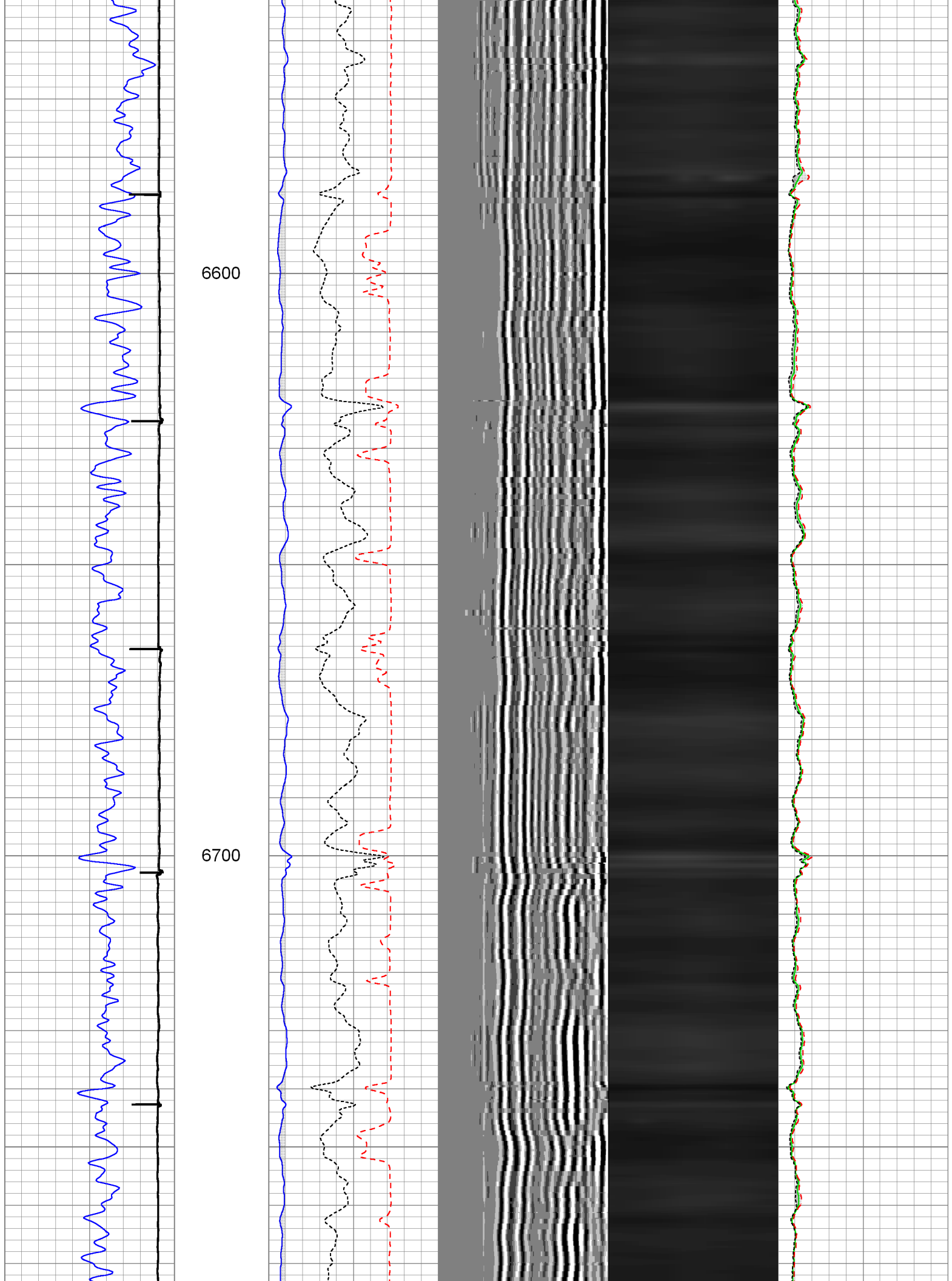
6000

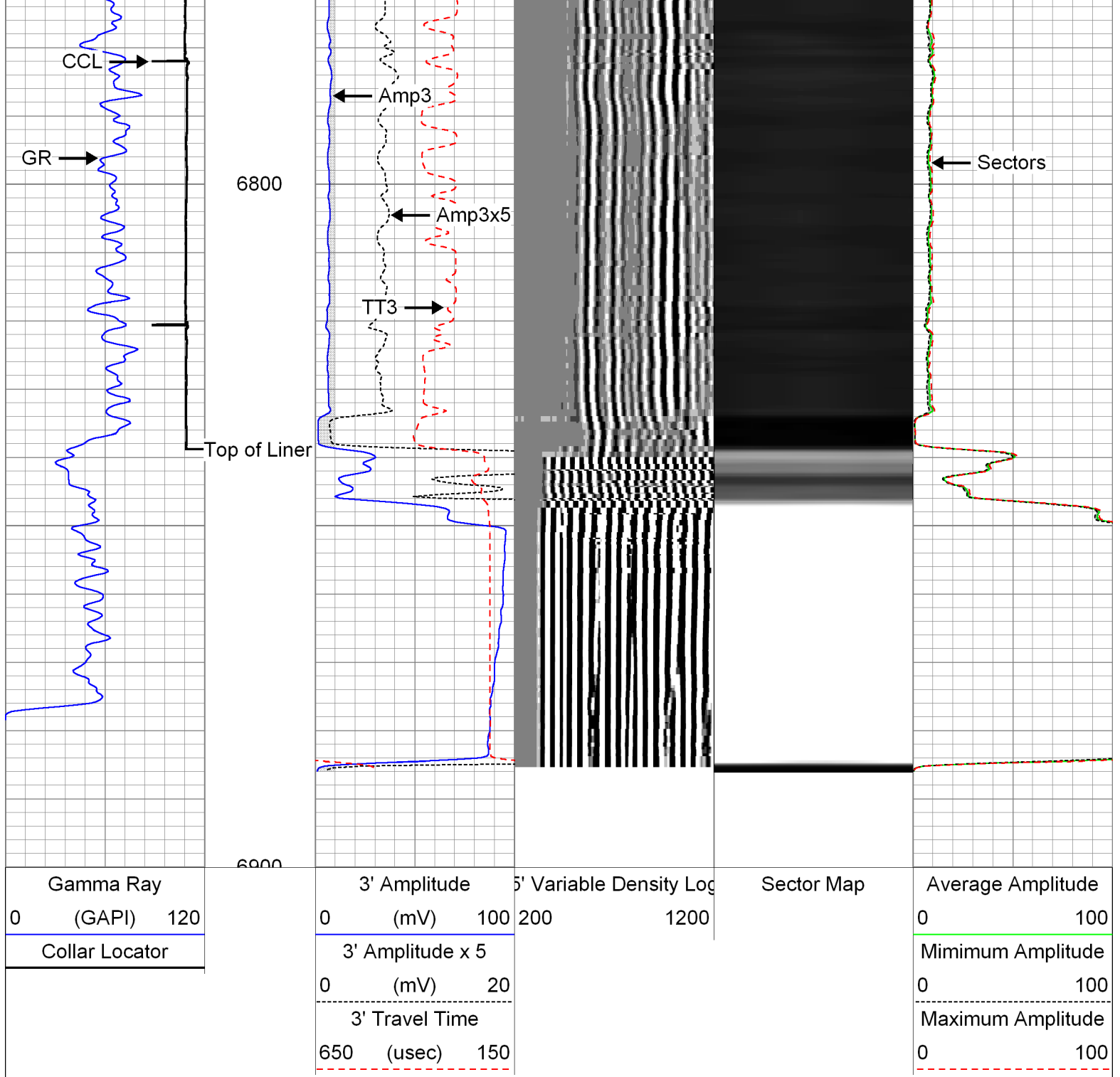
6100







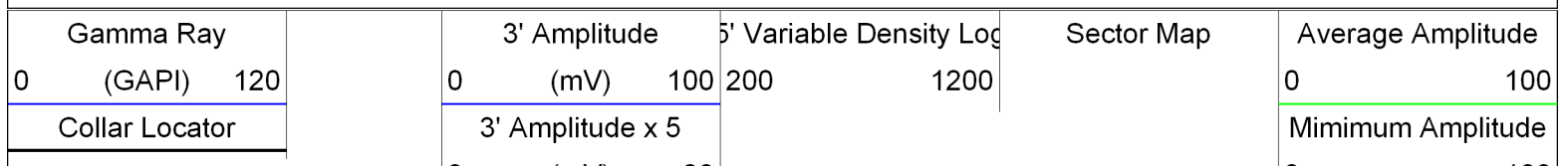




Repeat Pass

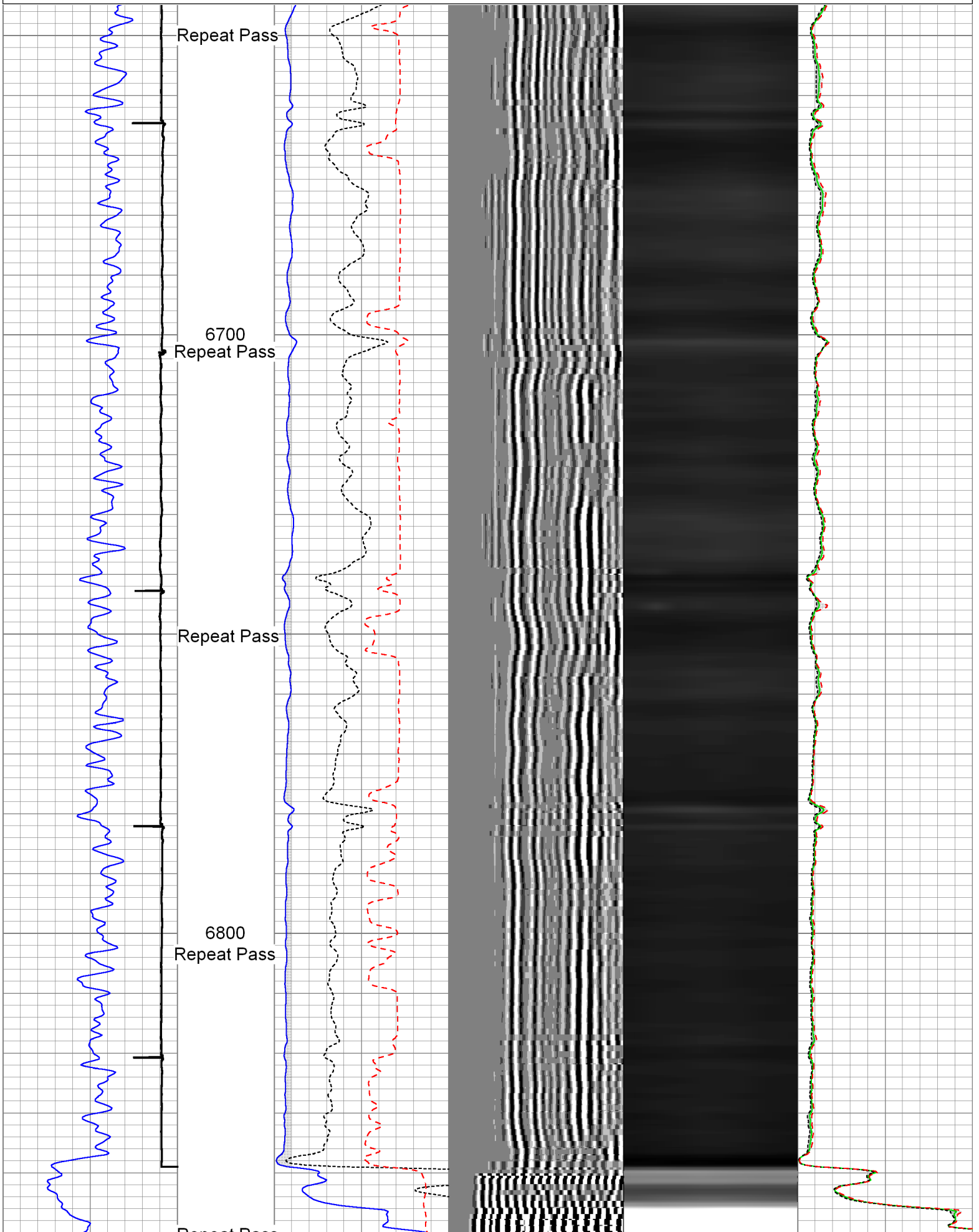
Recorded At 2200 PSI Surface Induced Pressure

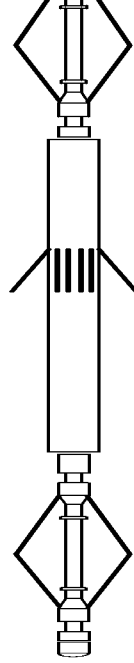
Database File: 0512338407_anadarko_badding 2n-26hz_03-29-14_mit_rbl.db
 Dataset Pathname: pass2
 Presentation Format: rbt007
 Dataset Creation: Sun Mar 30 06:41:07 2014 by Log Sondex V7.03
 Charted by: Depth in Feet scaled 1:240



0 (mV) 20
3' Travel Time
650 (usec) 150

0 100
Maximum Amplitude
0 100



MIT	5.30		PRC-034 (000006) Production Roller Centraliser (4 Arm)	2.91	1.69	13.00
			MIT-027 (10012912) Multifinger Imaging Tool (UW 40F)	4.54	2.75	61.10
TSTAMP	0.00		PRC-057 (000007) Production Roller Centraliser (4 Arm)	2.74	2.75	32.00
			BUL-006 (000002) Bullnose Terminator	0.22	1.69	1.20
Dataset: 0512338407_anadarko_badding 2n-26hz_03-29-14_mit_rbl.db: field/well/run1/pass3 Total Length: 27.33 ft Total Weight: 278.30 lb O.D. 3.13 in						

Calibration Report	
Database File:	0512338407_anadarko_badding 2n-26hz_03-29-14_mit_rbl.db
Dataset Pathname:	pass3
Dataset Creation:	Sun Mar 30 06:53:24 2014 by Log Sondex V7.03

Multi-finger Imaging Tool Calibration Report	
Serial Number:	10012912
Number of Fingers:	40
Tool Model:	027

Inclinometer Calibration Report		
Performed:	Mon, Oct, 06 14:03:04 2008	
Calibration Angle:	45	
	Inc X	Inc Y
Vertical:	1996	1984
Finger 1 up:	1780	1738
Finger 31 up:	2235	1756
Finger 21 up:	2216	2228
Finger 11 up:	1736	2196
Sensitivity ratio:	1.0062	
X-axis angle:	131.534	
Deviation const.:	331.322	

Finger Calibration Report							
Performed:				Sun Mar 30 07:04:21 2014			
Ring size:	4	5	6	7			
(in)							
	Sens	Sens	Sens	Sens			
Finger 01:	1117 371.0	1488 388.0	1876 397.0	2273			
Finger 02:	1114 383.0	1497 391.0	1888 408.0	2296			
Finger 03:	1061 386.0	1447 404.0	1851 427.0	2278			
Finger 04:	1084 374.0	1458 392.0	1850 416.0	2266			
Finger 05:	1098 388.0	1486 395.0	1881 412.0	2293			
Finger 06:	1101 396.0	1497 396.0	1893 415.0	2308			
Finger 07:	1066 384.0	1450 399.0	1849 415.0	2264			
Finger 08:	1087 383.0	1470 389.0	1859 415.0	2274			

Finger 09:	1091	389.0	1480	392.0	1872	407.0	2279
Finger 10:	1079	382.0	1461	391.0	1852	412.0	2264
Finger 11:	1100	383.0	1483	390.0	1873	407.0	2280
Finger 12:	1085	377.0	1462	389.0	1851	409.0	2260
Finger 13:	1111	388.0	1499	382.0	1881	397.0	2278
Finger 14:	1101	387.0	1488	395.0	1883	413.0	2296
Finger 15:	1017	384.0	1401	407.0	1808	426.0	2234
Finger 16:	1027	387.0	1414	404.0	1818	426.0	2244
Finger 17:	1028	385.0	1413	403.0	1816	428.0	2244
Finger 18:	1105	371.0	1476	390.0	1866	404.0	2270
Finger 19:	1049	370.0	1419	394.0	1813	413.0	2226
Finger 20:	1029	370.0	1399	404.0	1803	427.0	2230
Finger 21:	1060	378.0	1438	408.0	1846	410.0	2256
Finger 22:	1028	372.0	1400	404.0	1804	426.0	2230
Finger 23:	988	374.0	1362	412.0	1774	437.0	2211
Finger 24:	1072	368.0	1440	396.0	1836	400.0	2236
Finger 25:	1021	377.0	1398	417.0	1815	432.0	2247
Finger 26:	1126	359.0	1485	381.0	1866	396.0	2262
Finger 27:	1053	362.0	1415	406.0	1821	416.0	2237
Finger 28:	1097	360.0	1457	391.0	1848	405.0	2253
Finger 29:	1013	366.0	1379	412.0	1791	429.0	2220
Finger 30:	1067	364.0	1431	402.0	1833	417.0	2250
Finger 31:	1086	361.0	1447	400.0	1847	409.0	2256
Finger 32:	1052	372.0	1424	408.0	1832	426.0	2258
Finger 33:	1146	366.0	1512	380.0	1892	388.0	2280
Finger 34:	1127	367.0	1494	394.0	1888	408.0	2296
Finger 35:	1049	378.0	1427	418.0	1845	437.0	2282
Finger 36:	1060	369.0	1429	401.0	1830	424.0	2254
Finger 37:	1130	381.0	1511	398.0	1909	416.0	2325
Finger 38:	1119	369.0	1488	386.0	1874	401.0	2275
Finger 39:	1140	367.0	1507	386.0	1893	397.0	2290
Finger 40:	1064	378.0	1442	396.0	1838	420.0	2258

Segmented Cement Bond Log Calibration Report						
Serial Number:		1066in7				
Tool Model:		004				
Calibration Casing Diameter:		7.000	in			
Calibration Depth:		151.017	ft			
Master Calibration, performed Sun Mar 02 16:30:51 2014:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	-0.004	0.717	0.800	62.165	85.210	1.106
5FT	-0.007	0.772	0.800	62.165	78.746	1.377
S1	-0.003	0.679	0.000	100.000	146.553	0.445
S2	-0.005	0.696	0.000	100.000	142.673	0.686
S3	-0.005	0.710	0.000	100.000	139.922	0.637
S4	-0.005	0.730	0.000	100.000	136.067	0.659
S5	-0.003	0.741	0.000	100.000	134.379	0.382
S6	-0.004	0.748	0.000	100.000	132.996	0.482
S7	-0.003	0.740	0.000	100.000	134.593	0.434
S8	-0.003	0.703	0.000	100.000	141.539	0.441
Gamma Ray Calibration Report						
Serial Number:		000001				
Tool Model:		020				
Performed:		Sun Jun 13 13:33:21 1993				
Calibrator Value:		1.0	GAPI			

Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

	Company	Kerr-McGee Oil & Gas Onshore, L.P.
	Well	Badding 2N-26HZ
	Field	Wattenberg
	County	Weld
	State	Colorado