

Radial Cement Bond Gamma Ray Casing Collar Log

Company	Kerr-McGee Oil & Gas Onshore, L.P.				
Well	Goodin 37N - C6HZ				
Field	Wattenberg				
County	Weld				
State	Colorado				
Company	Kerr-McGee Oil & Gas Onshore, L.P.				
Well	Goodin 37N - C6HZ				
Field	Wattenberg				
County	Weld	State	Colorado		
Location:	API # : 05-123-40743			Other Services Gauge Ring MIT	
SEC 7		TWP 1N	RGE 65W		
Permanent Datum	Ground Level	Elevation	4979'	Elevation	
Log Measured From	Kelly Bushing	25 FT		K.B. 5004' D.F. 5003' G.L. 4979'	
Drilling Measured From	Kelly Bushing				

Date	26-JUN-2015
Run Number	Two
Depth Driller	13,428 FT
Depth Logger	7448 FT
Bottom Logged Interval	7443 FT
Top Log Interval	Surface
Open Hole Size	8.750"
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	215°F
Estimated Cement Top	52 FT
Time Well Ready	ROA
Time Logger on Bottom	8:18 AM
Equipment Number	HD-0343
Location	Ft. Lupton, CO
Recorded By	J. Houlim
Witnessed By	Levi McCarthur

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	J-55	Surface	1597 FT		
Intermediate #1	7	26	HC-P110	Surface	7574 FT		
Intermediate #2							
Liner	4 1/2	11.6	HCP-110	6727 FT	13,428 FT		

<<<< Fold Here >>>>

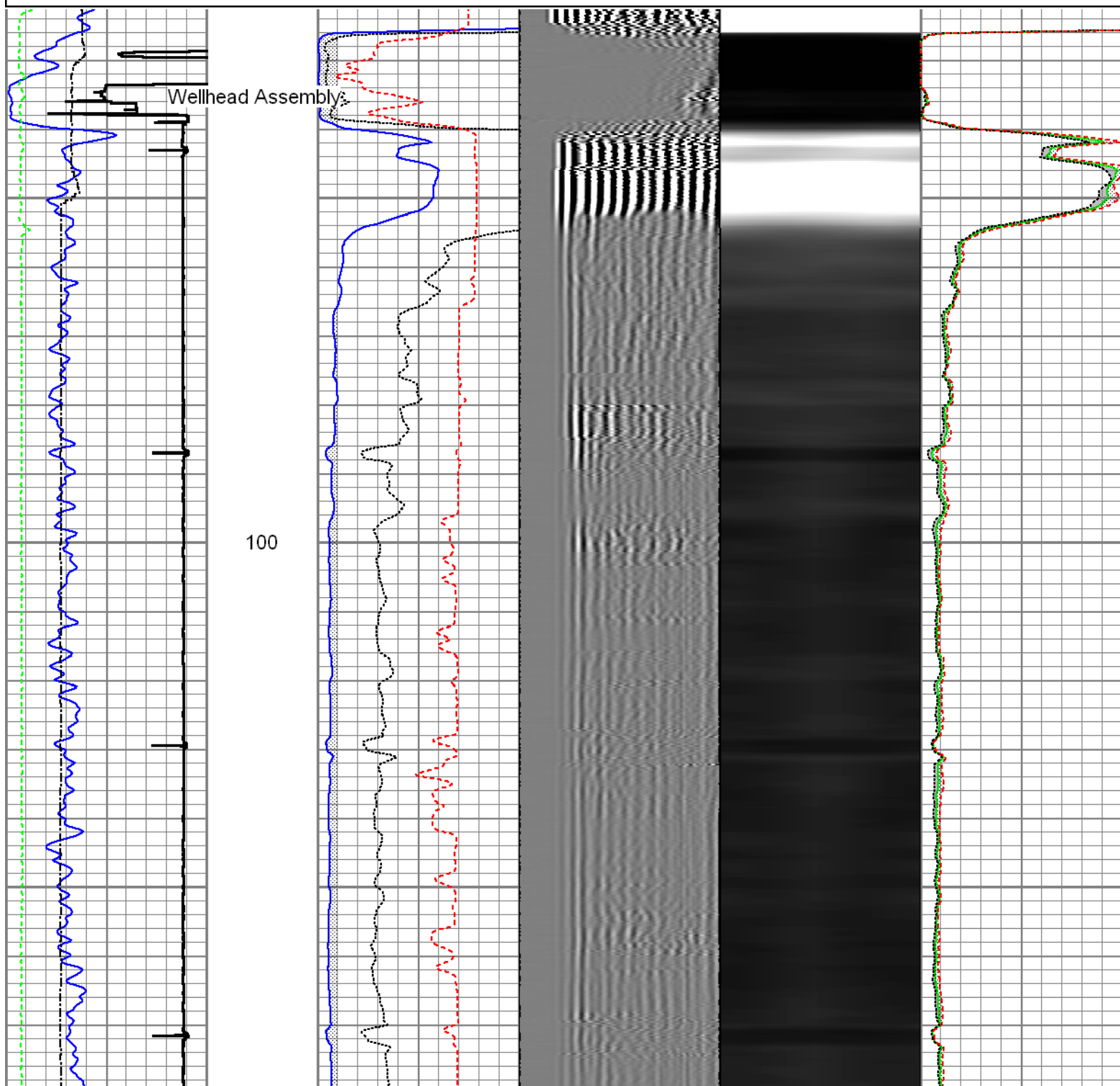
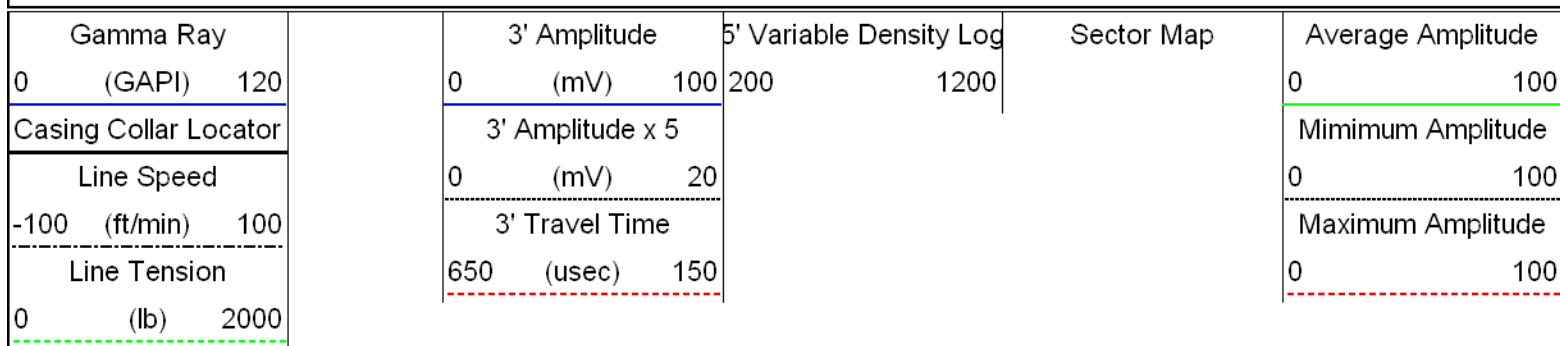
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

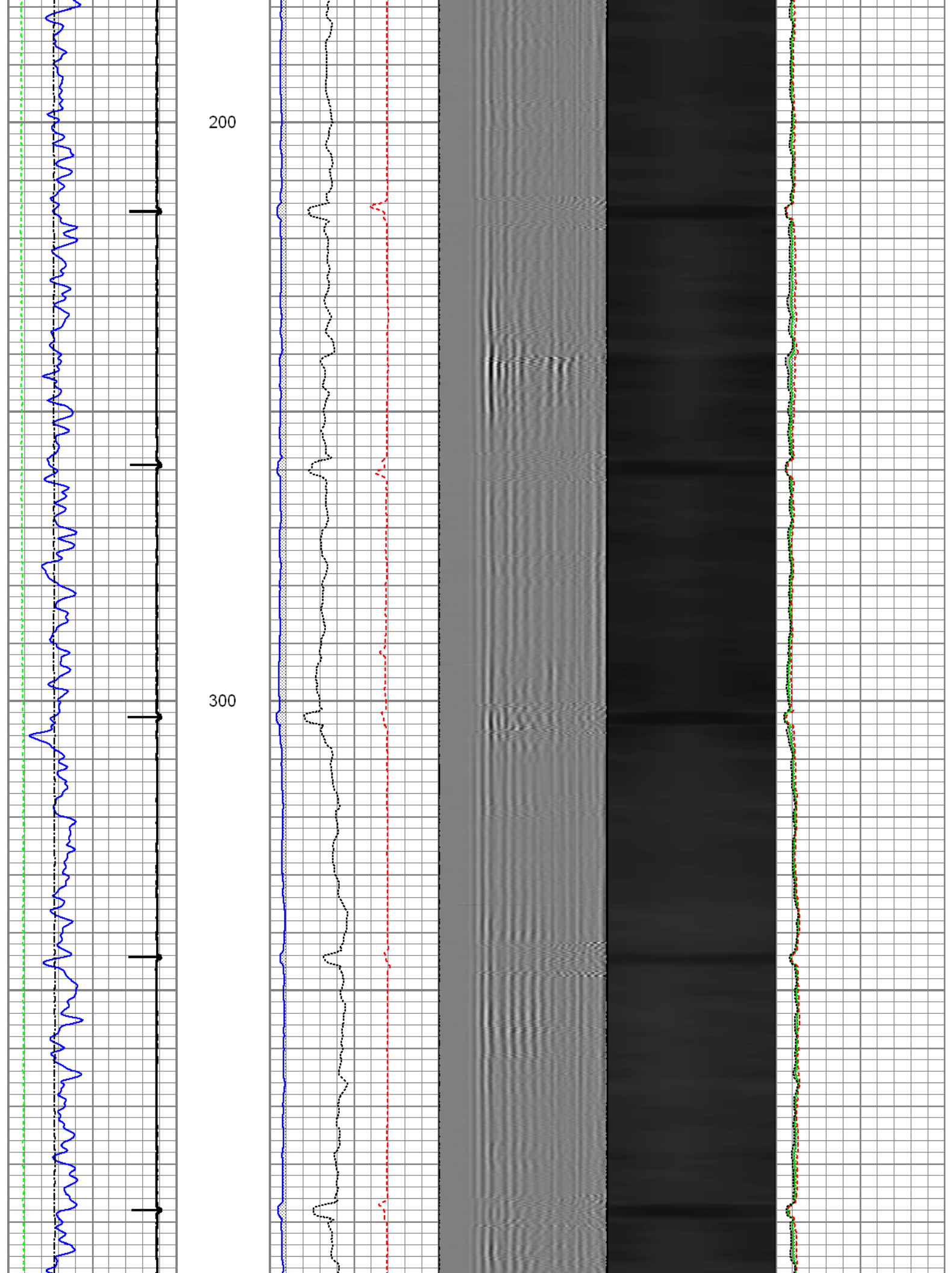
Comments

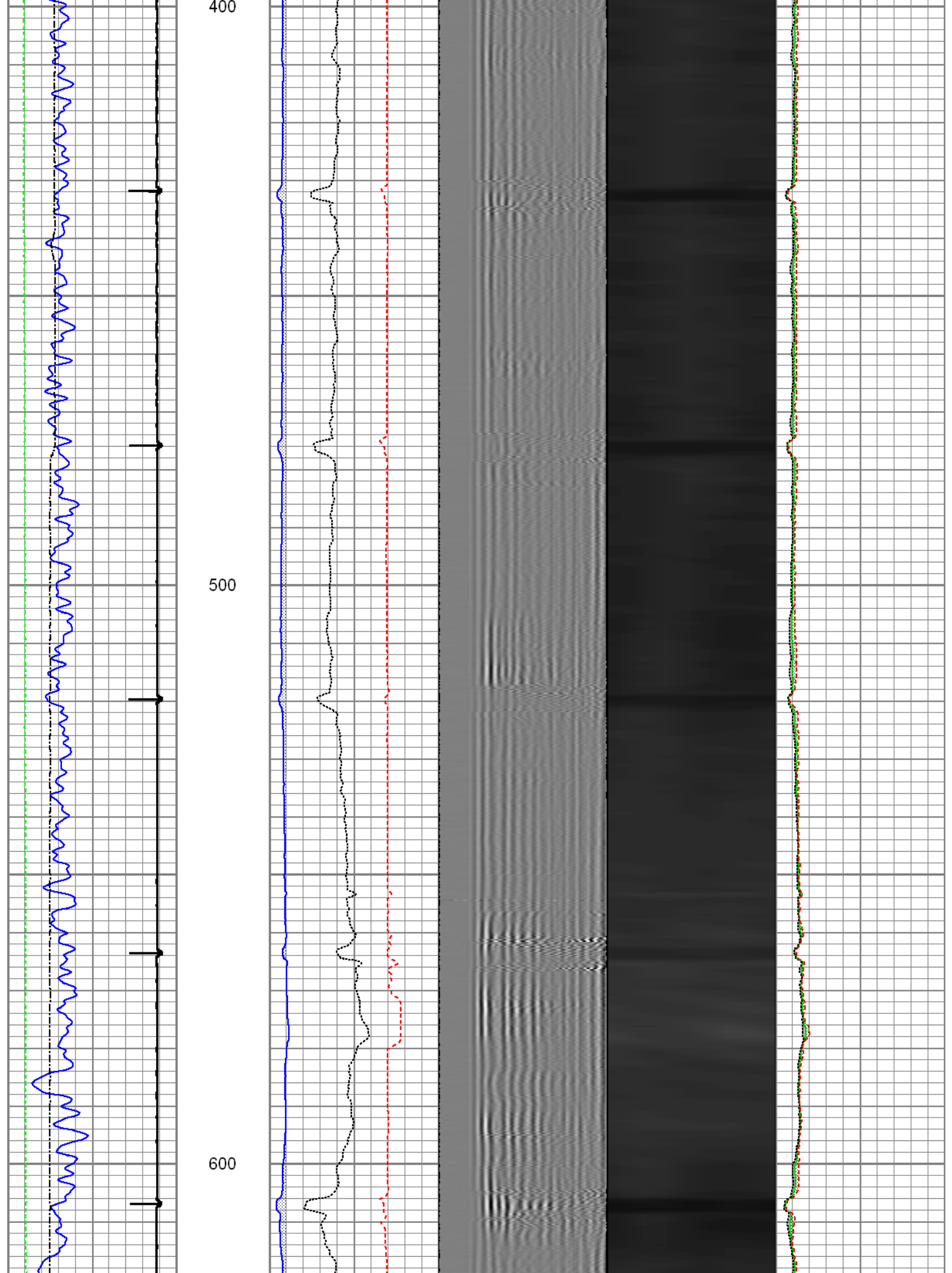
Log ran as per customer request
Depth referenced to casing tally reported liner top at 6727 FT
Adjusted log +13 FT to correlate with liner top
Gauge Ring/Junk Basket ran to 7449 FT no debris was found after run
No debris found on logging tools upon completion of run

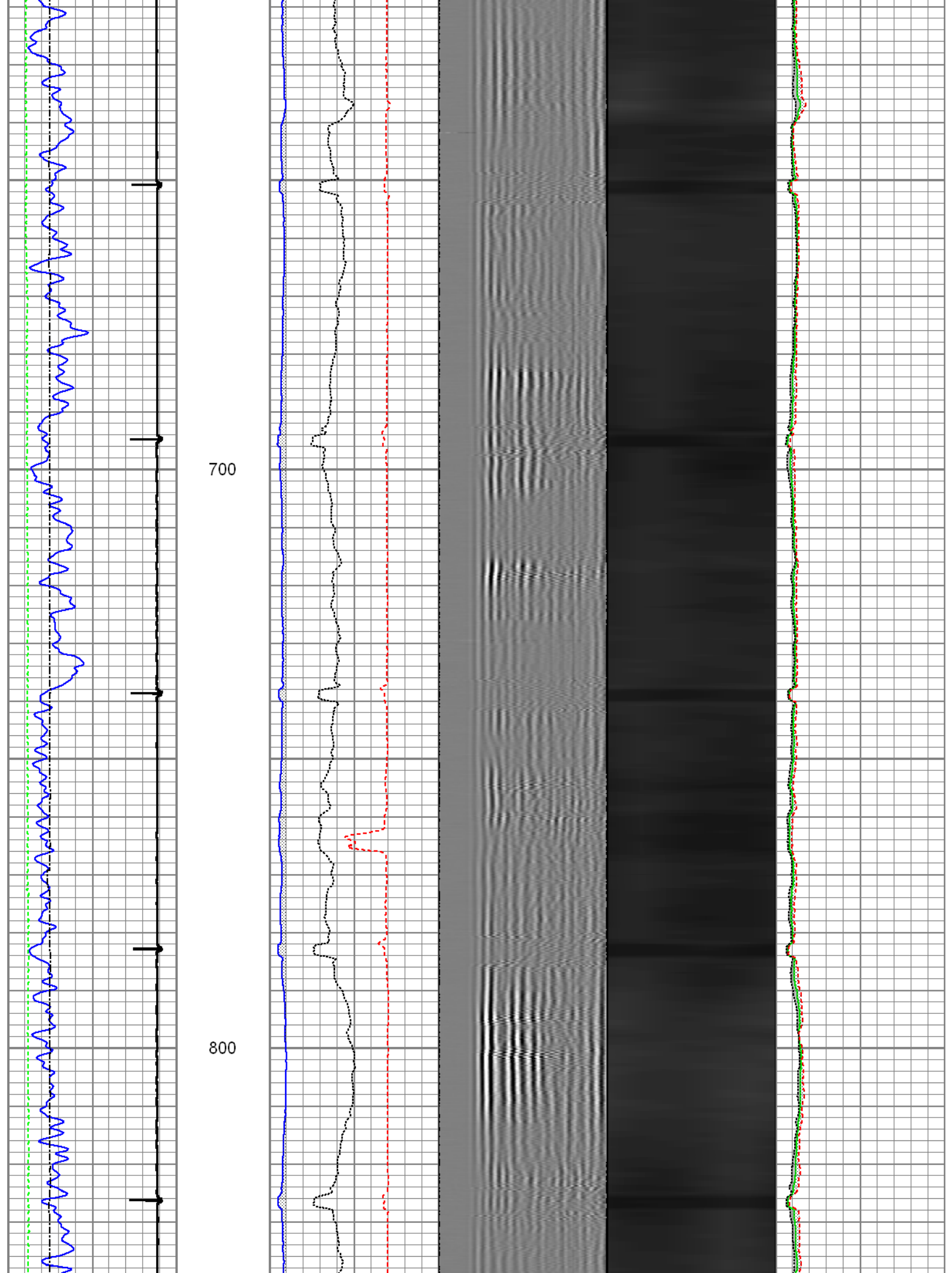
Thank you for choosing FMC Technologies Completion Services, Inc.!!

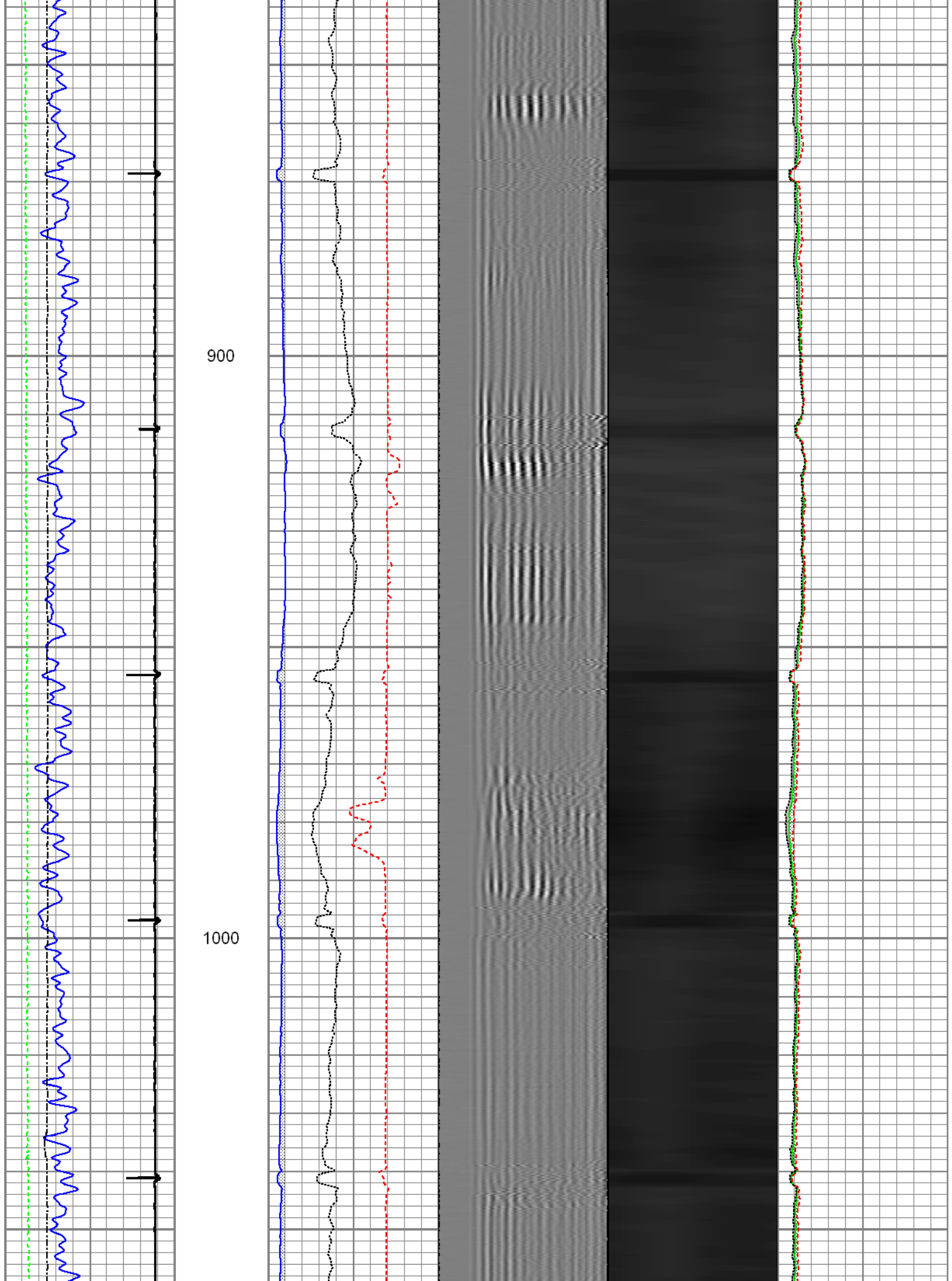
Database File: x:\logs_for_processing\logs to be reviewed\0512340743_anadarko_goodin 37n-c6hz_06-26-15_mit_
Dataset Pathname: pass3
Presentation Format: rbt4_mit
Dataset Creation: Fri Jun 26 08:19:26 2015 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

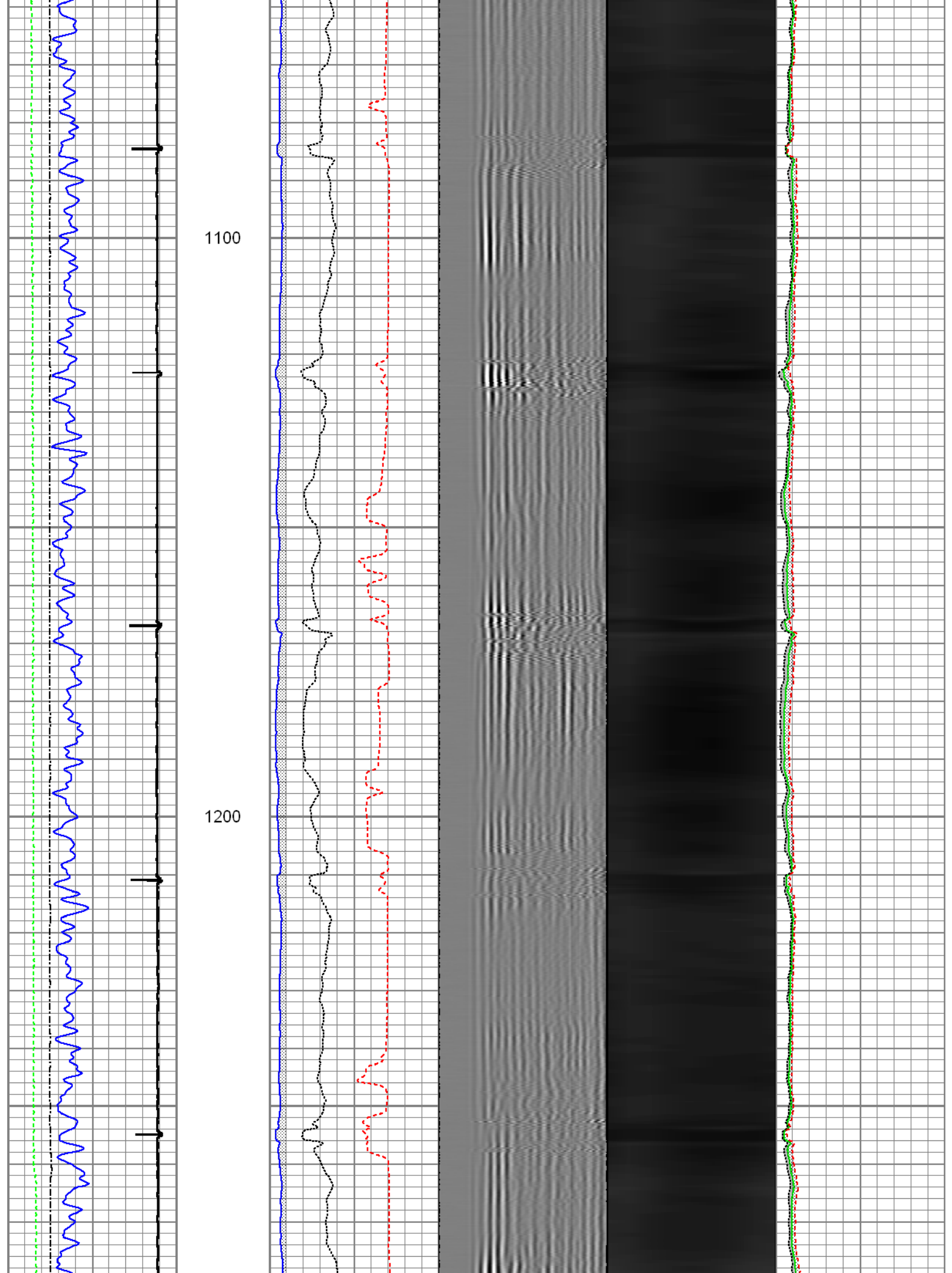


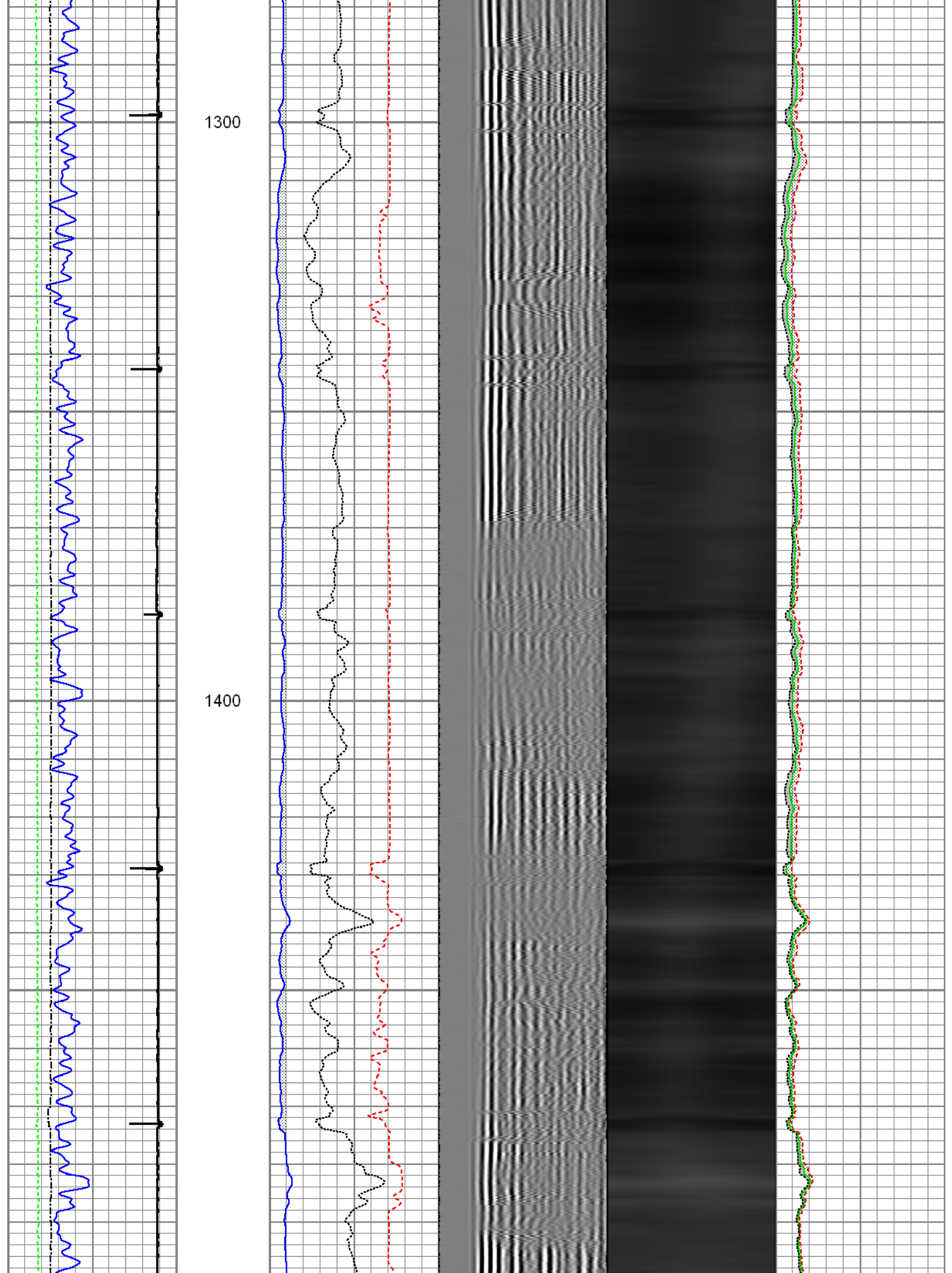


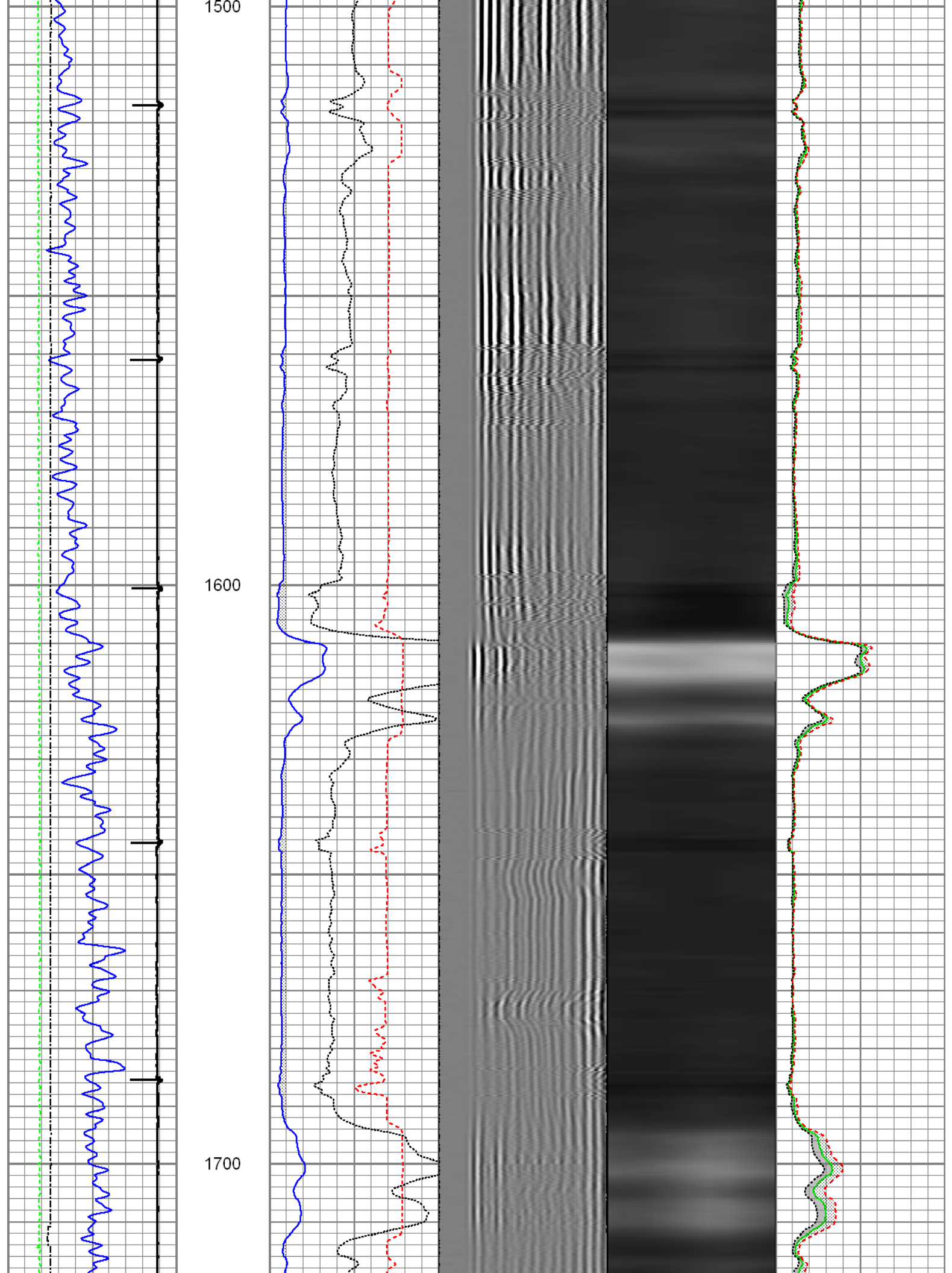


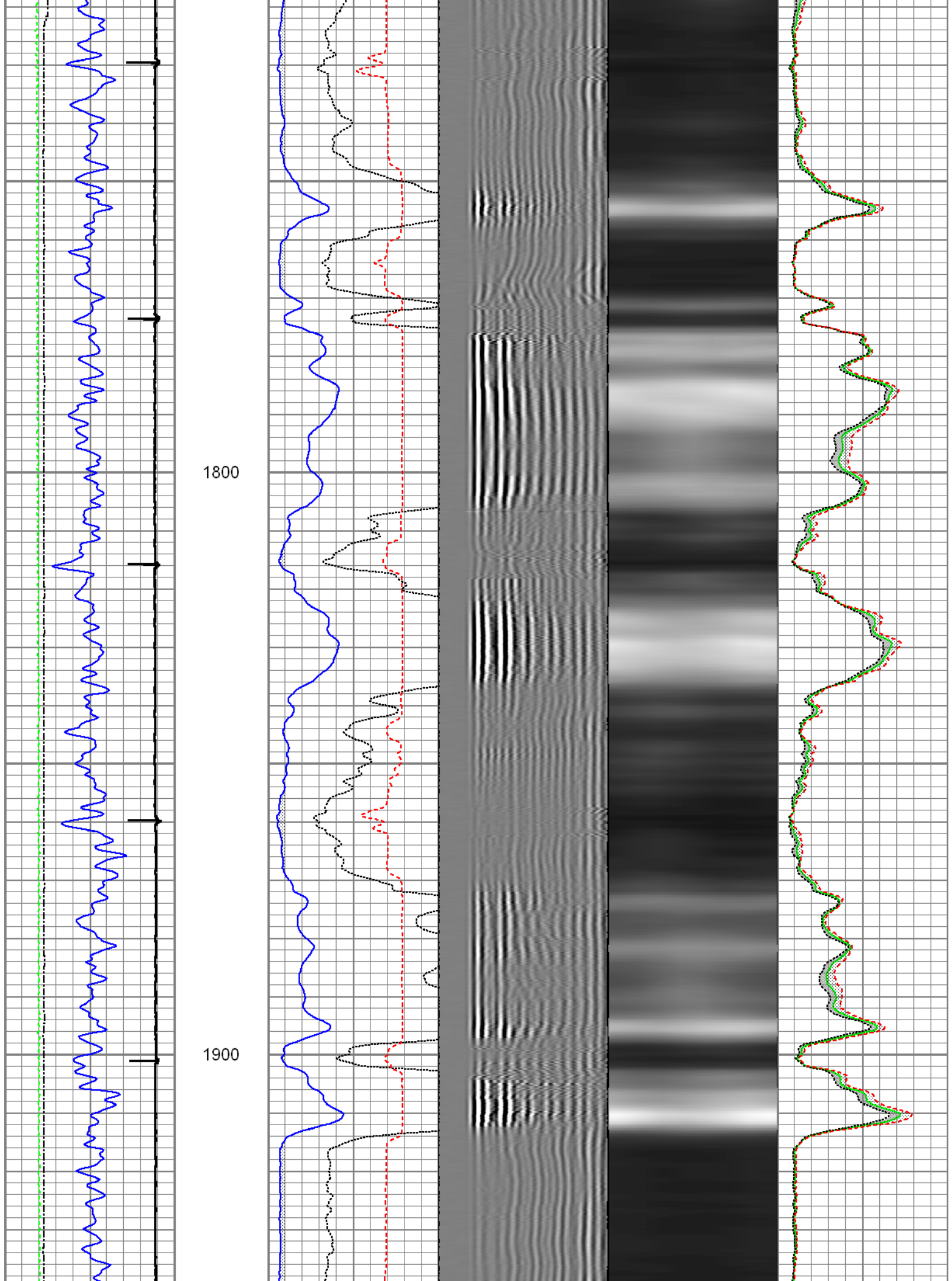


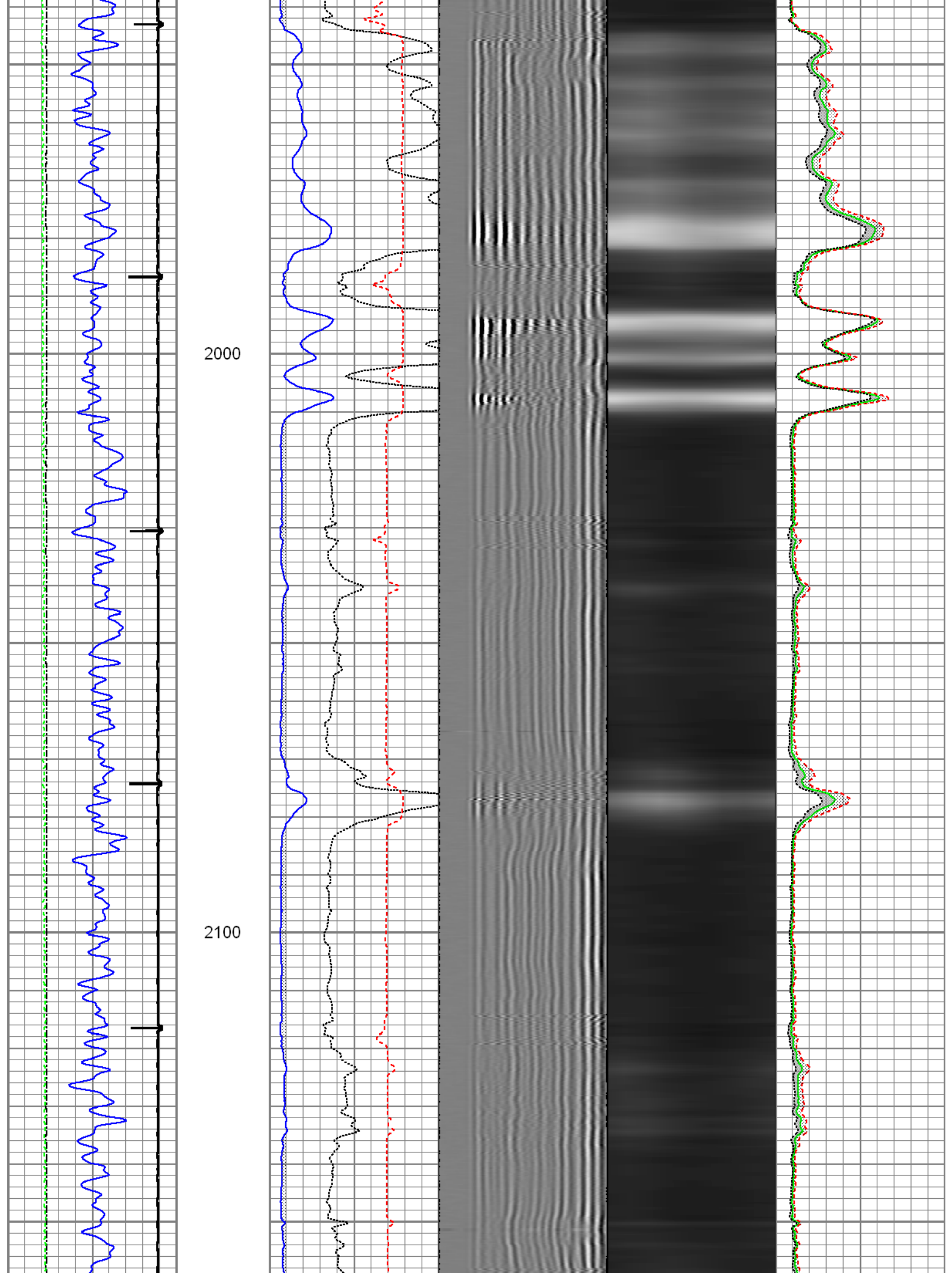


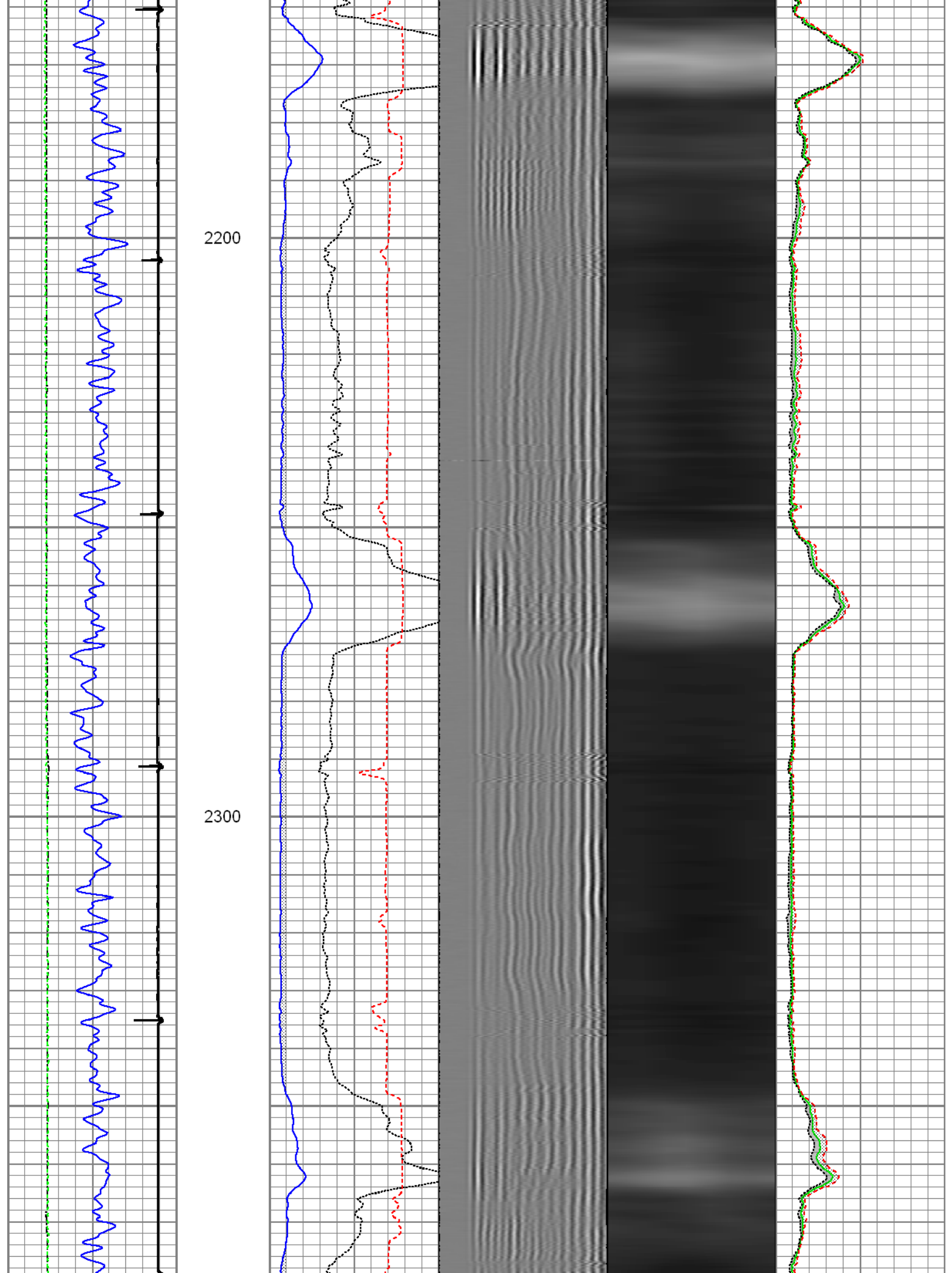






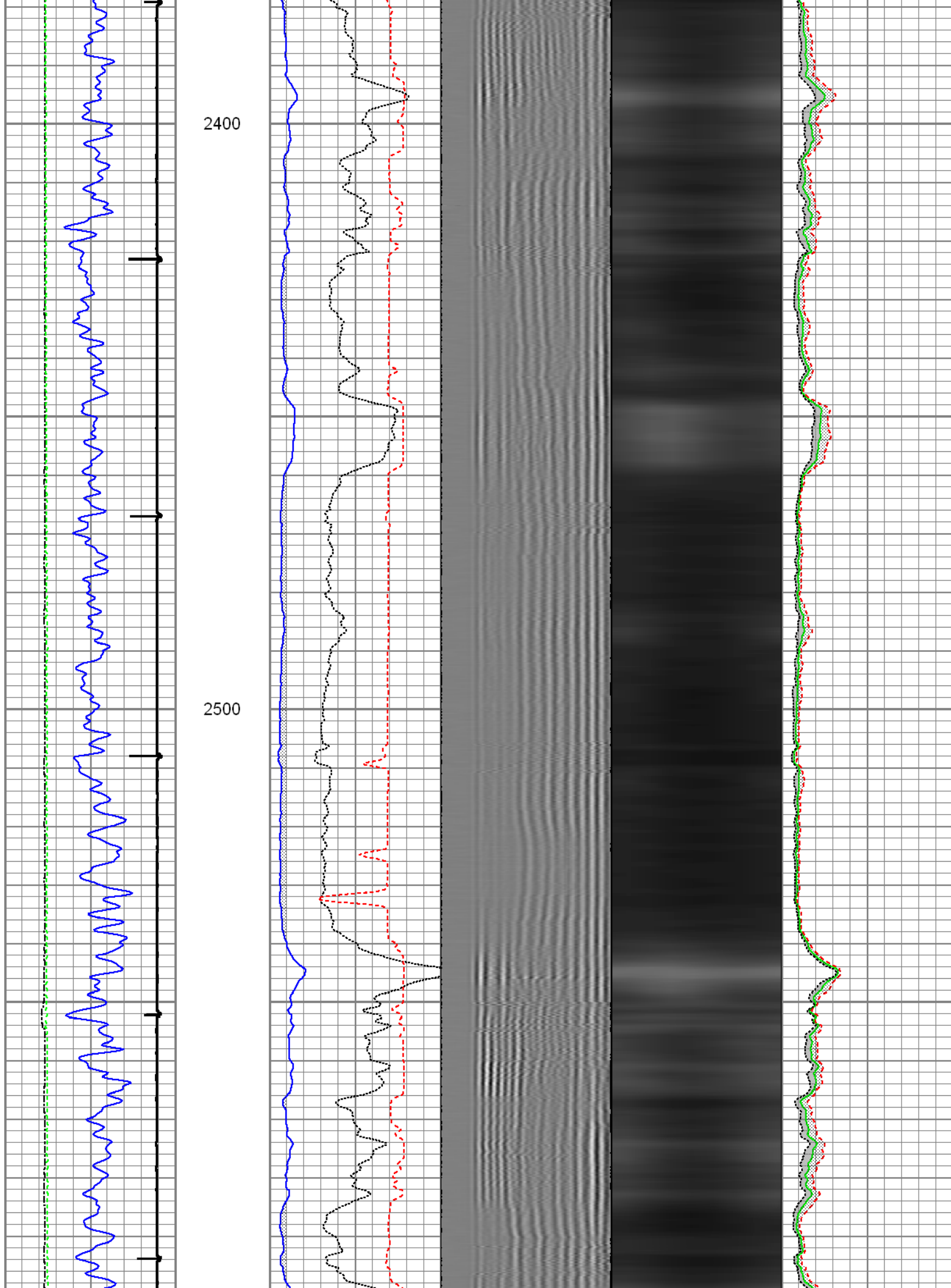






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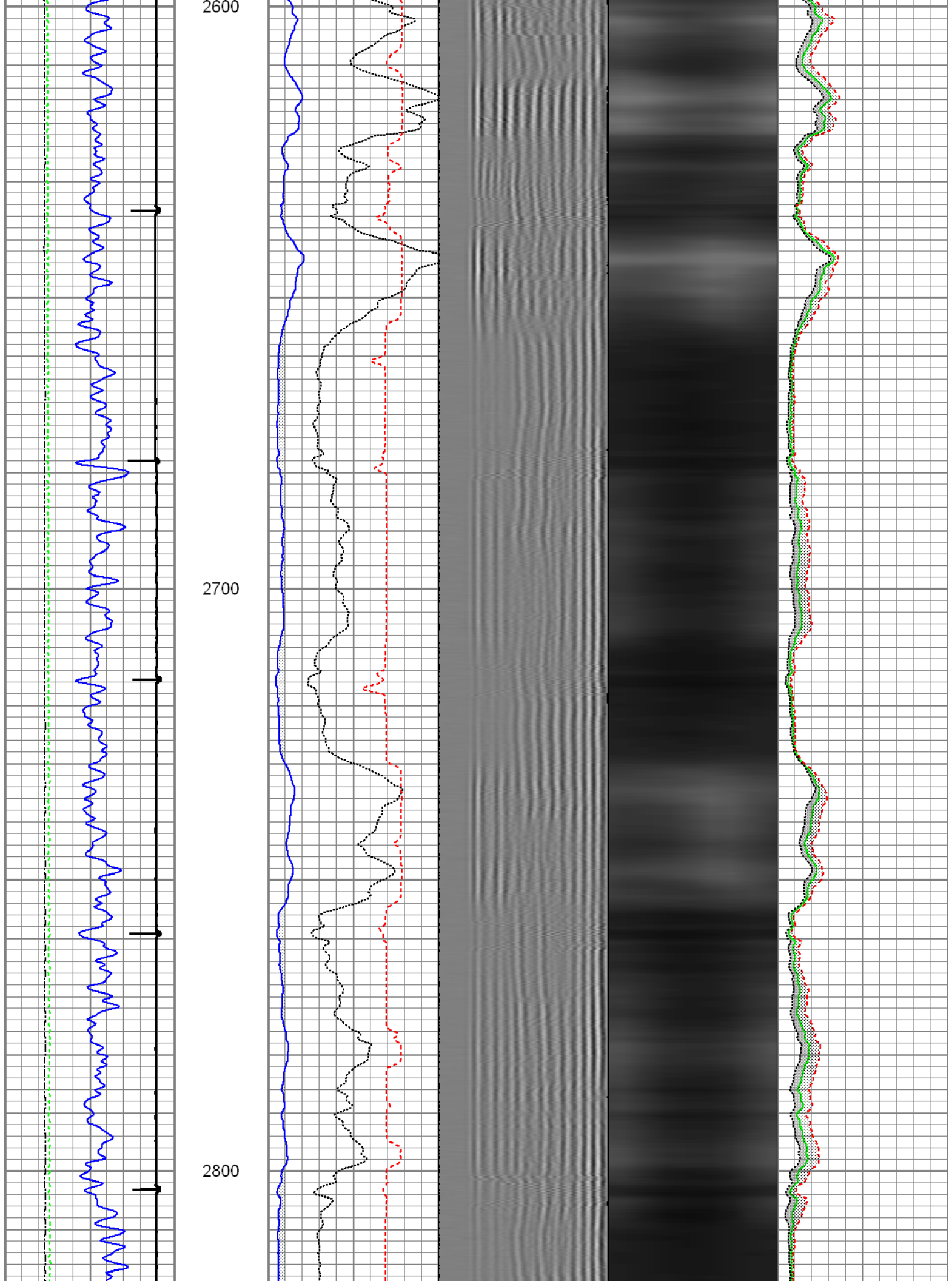
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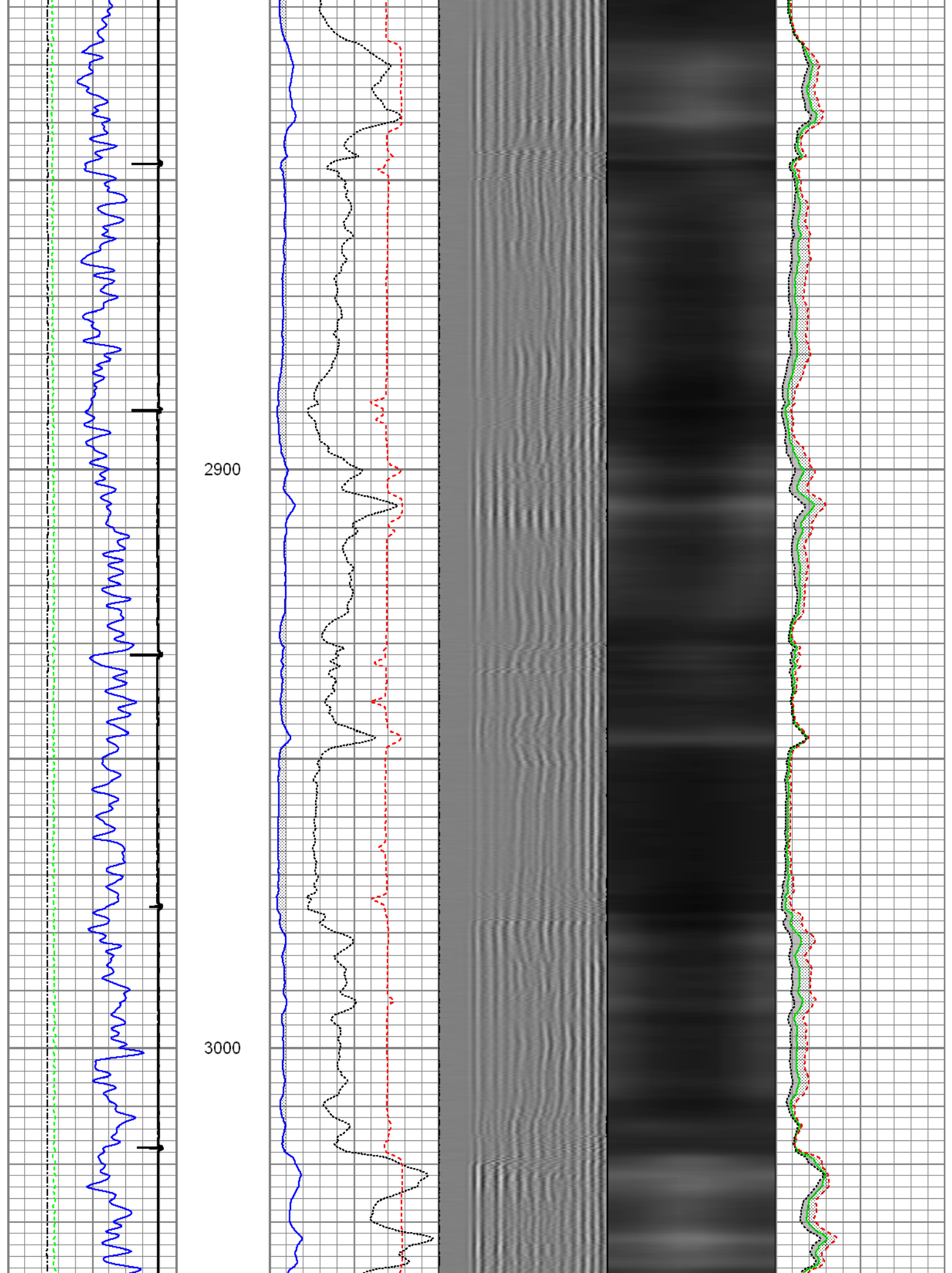


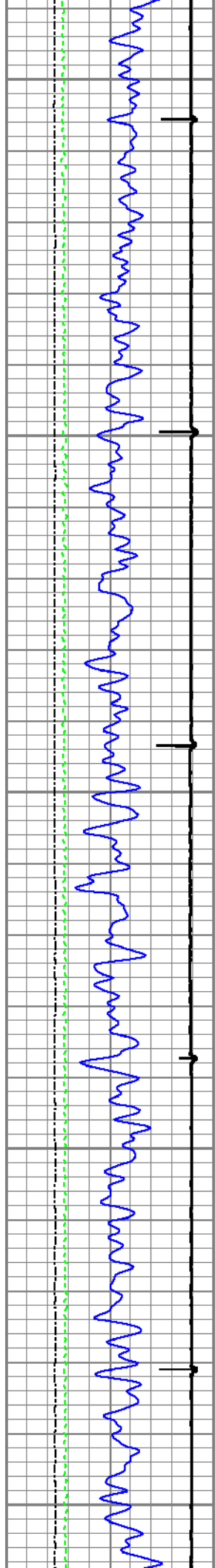
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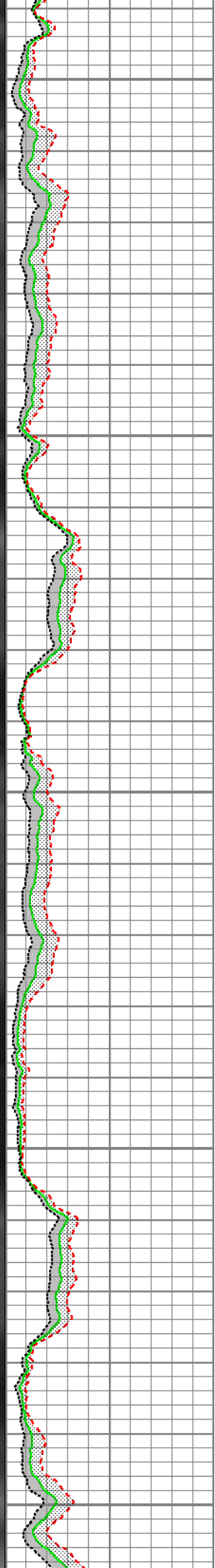
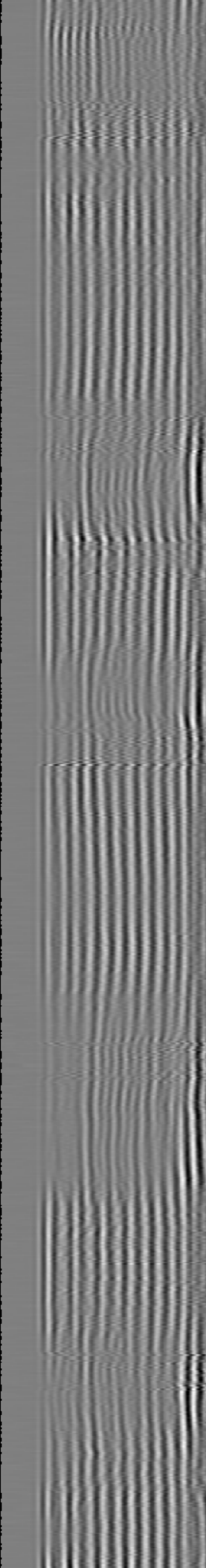
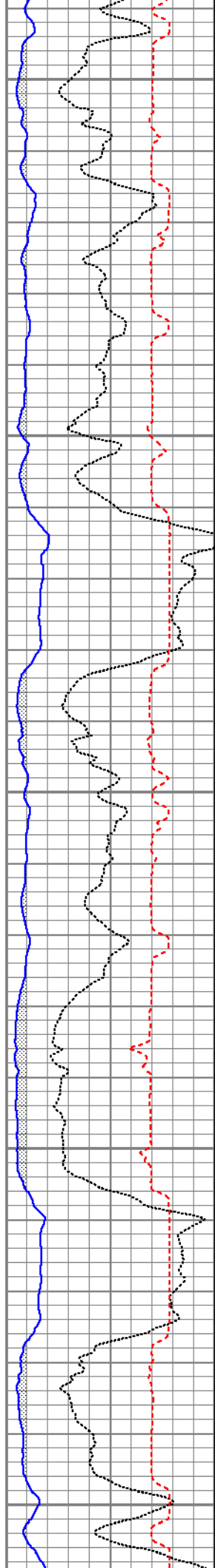


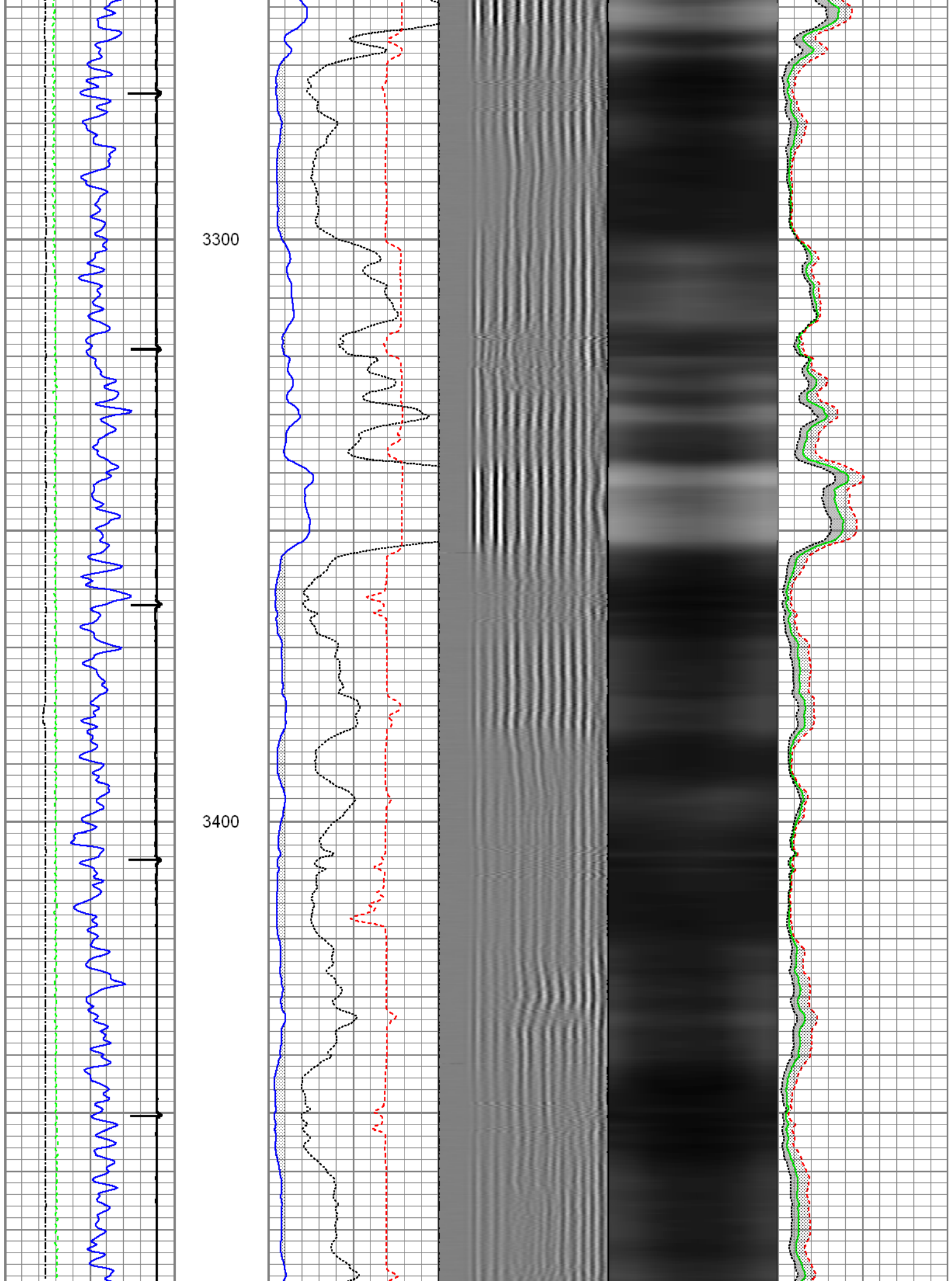


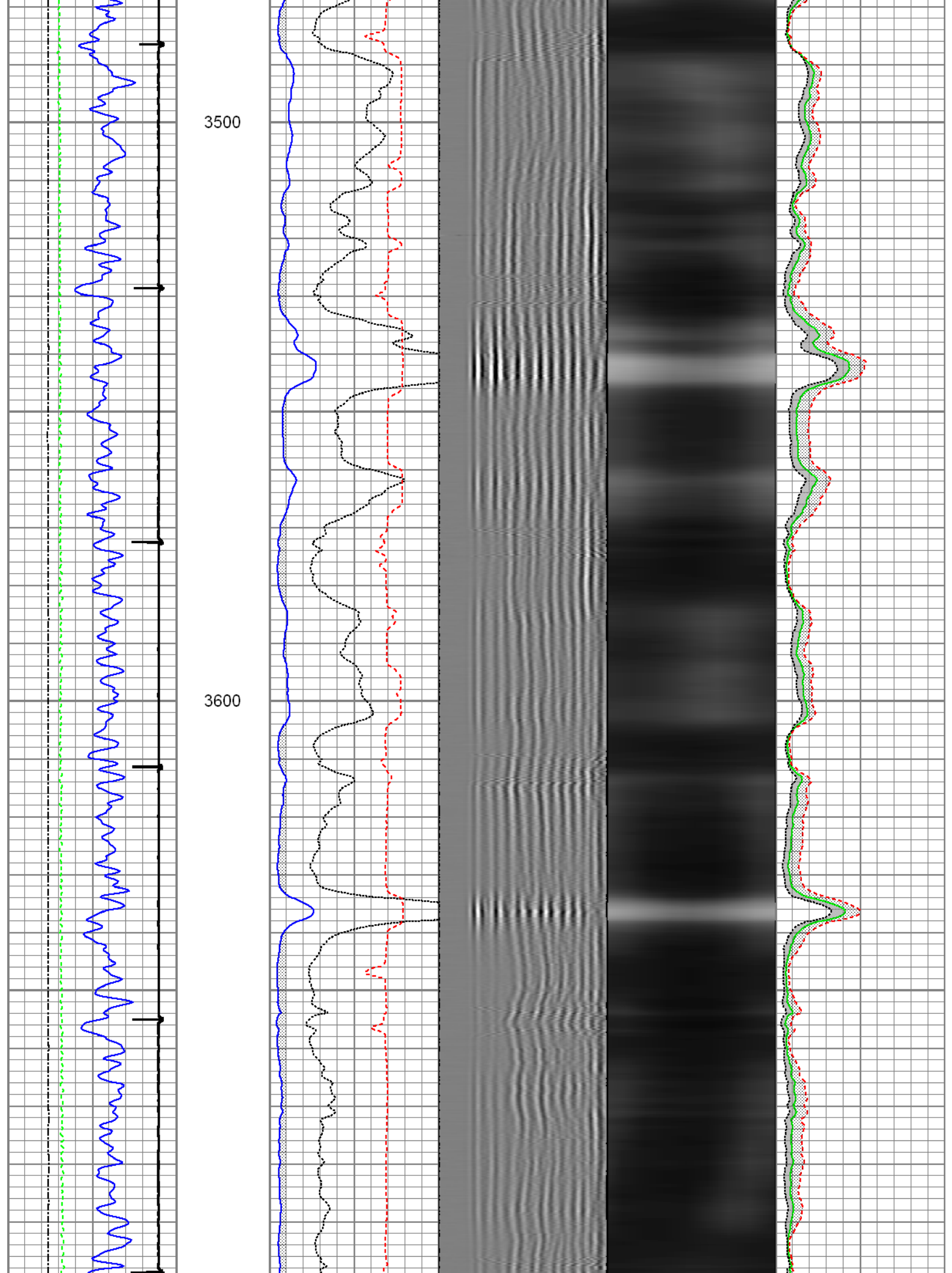


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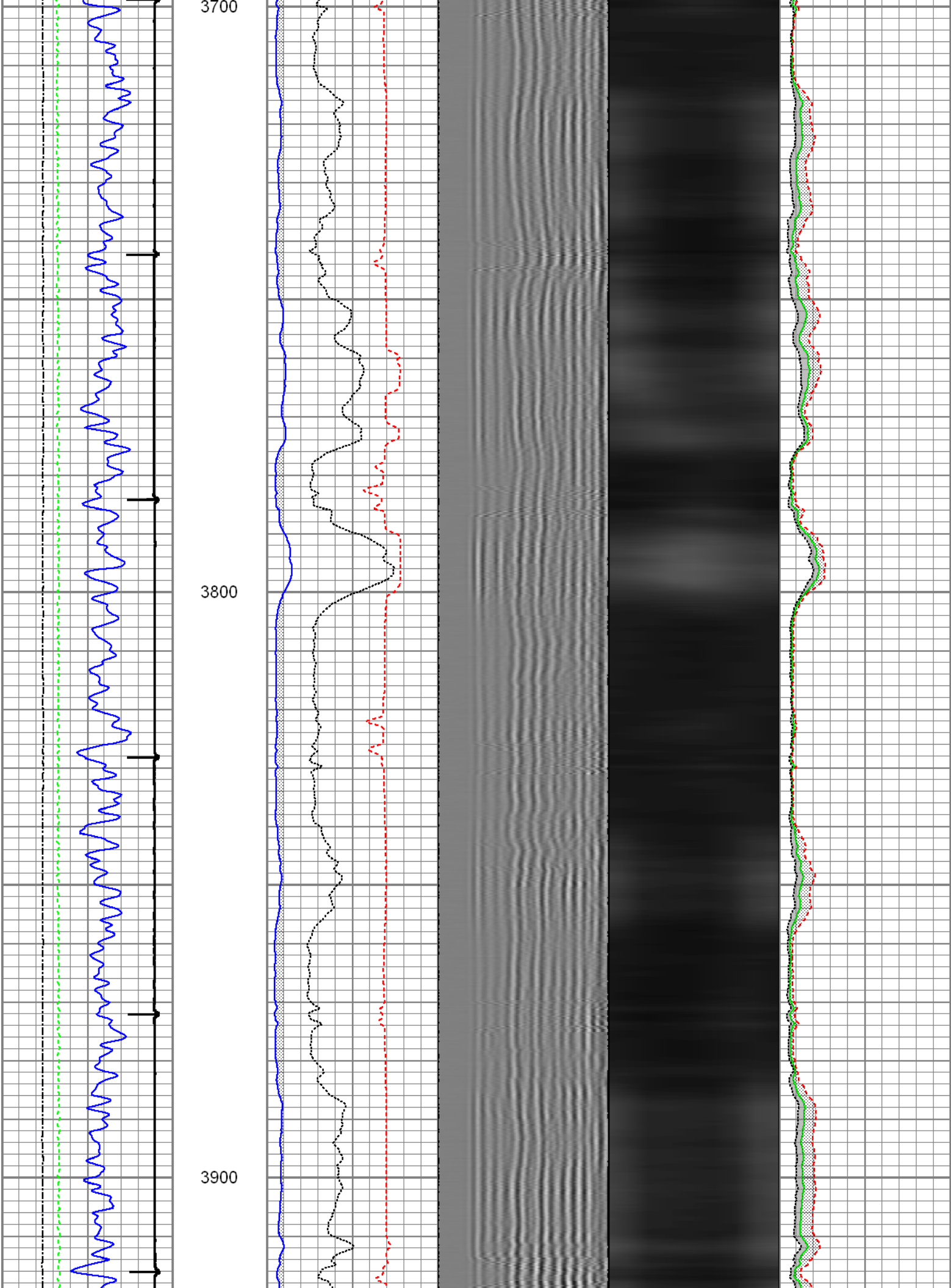


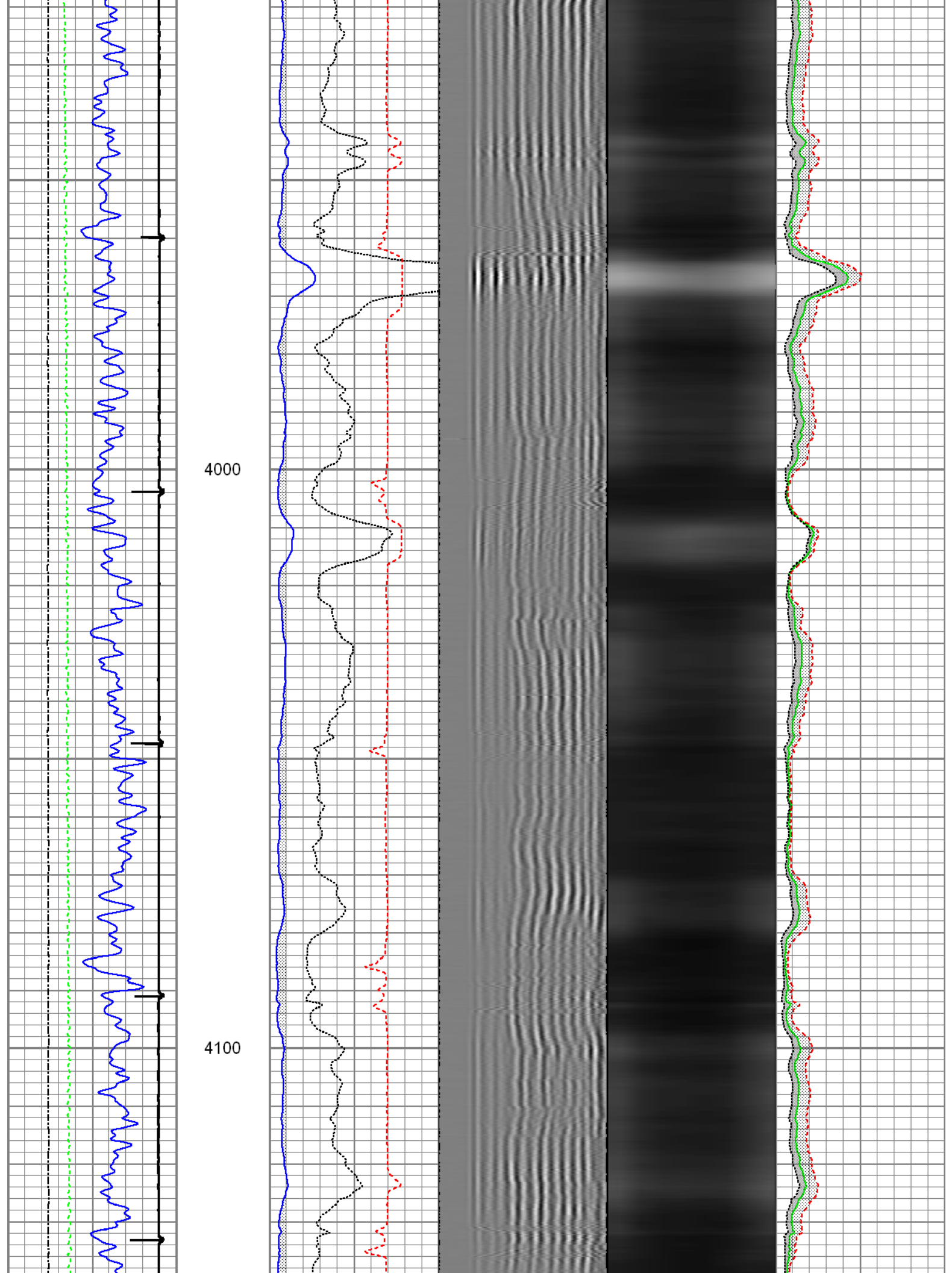


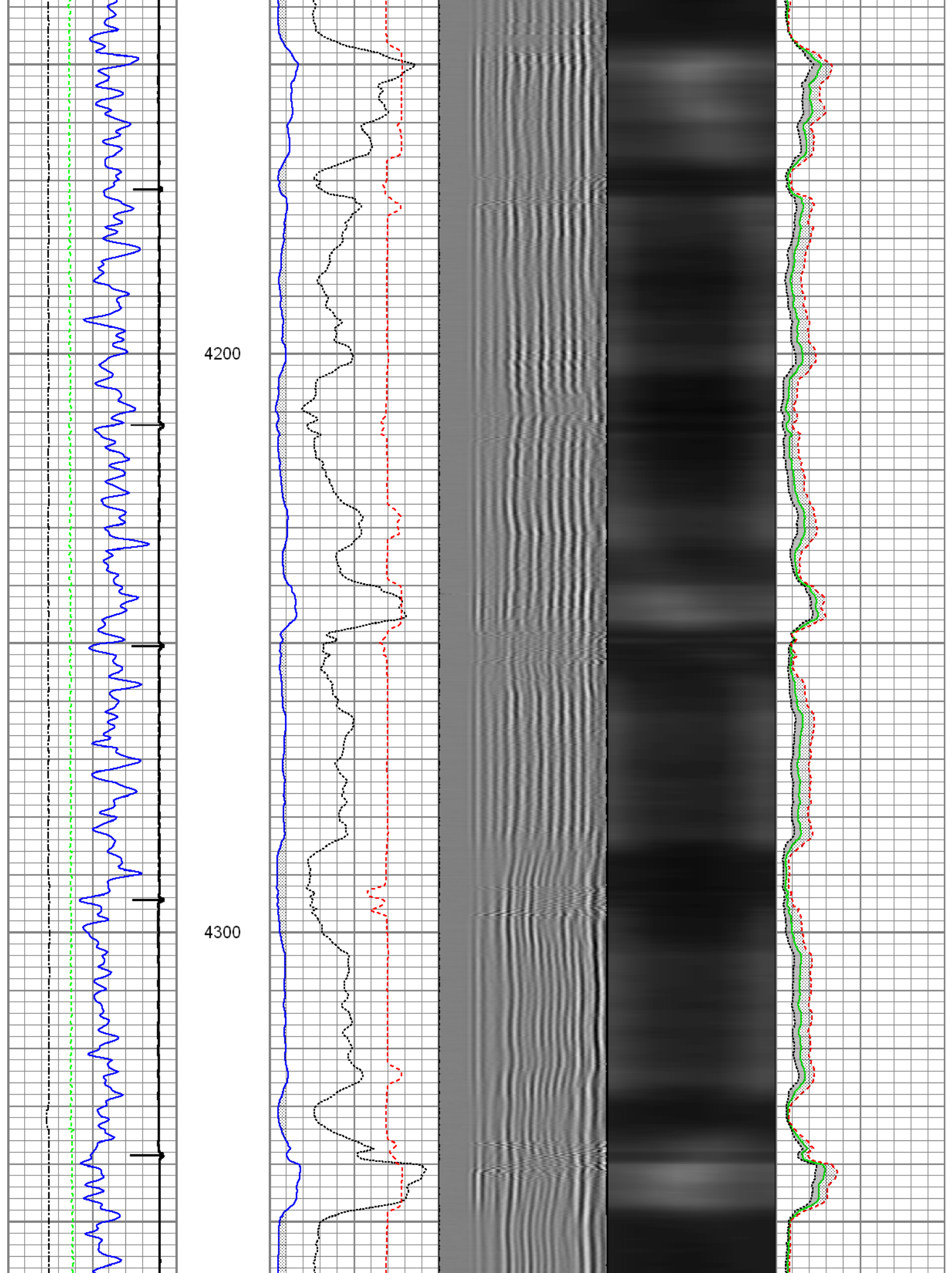
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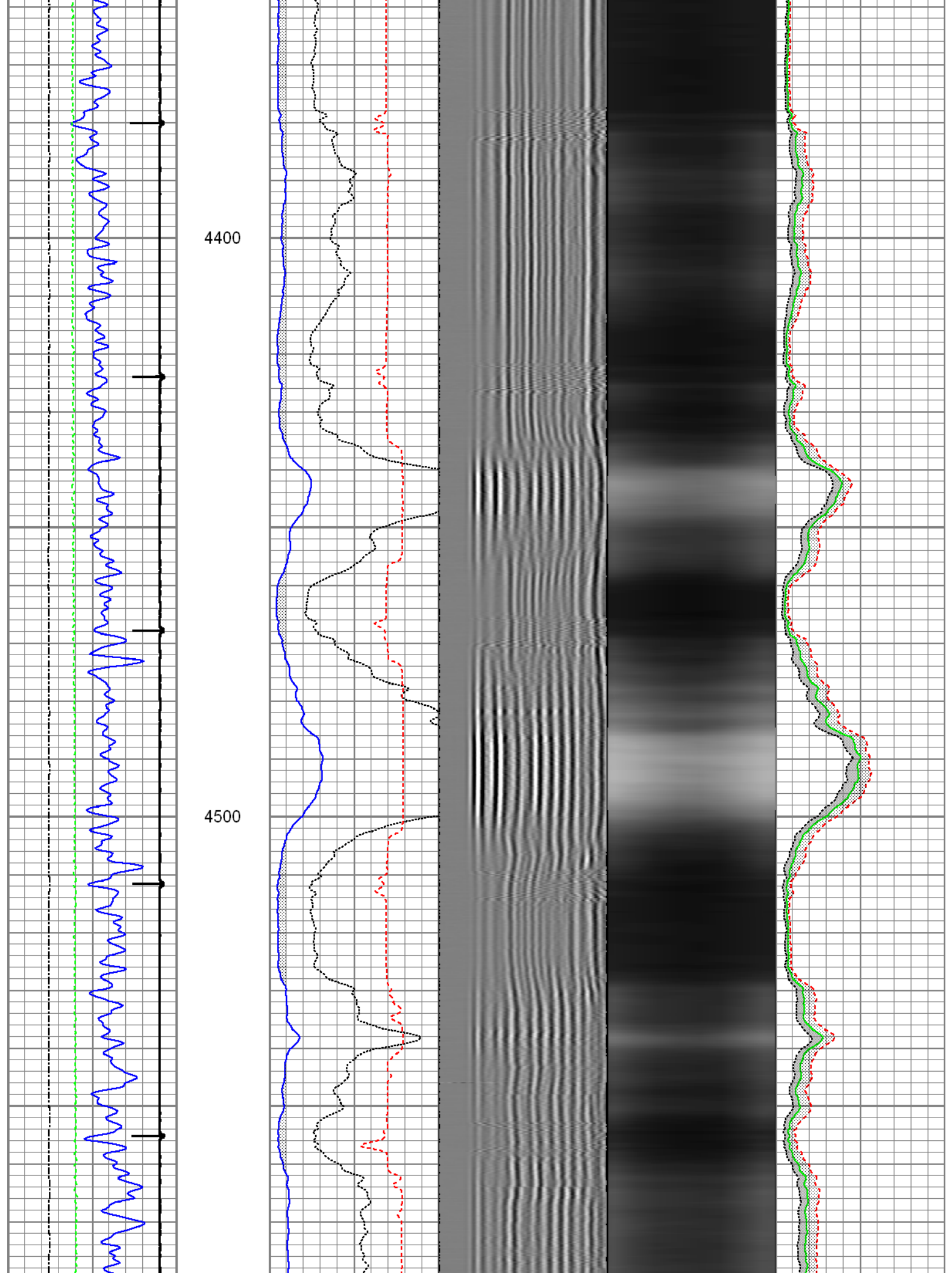
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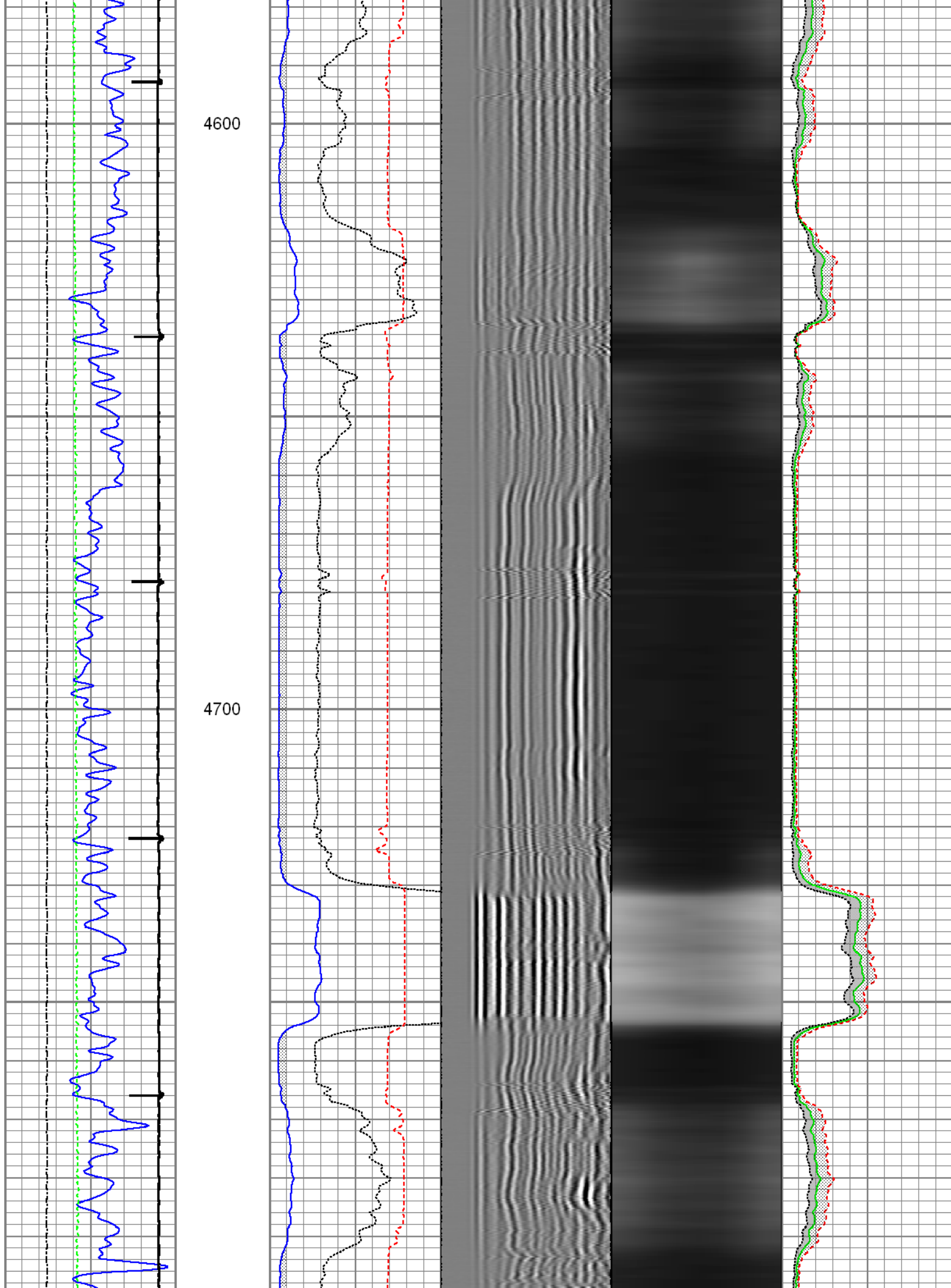






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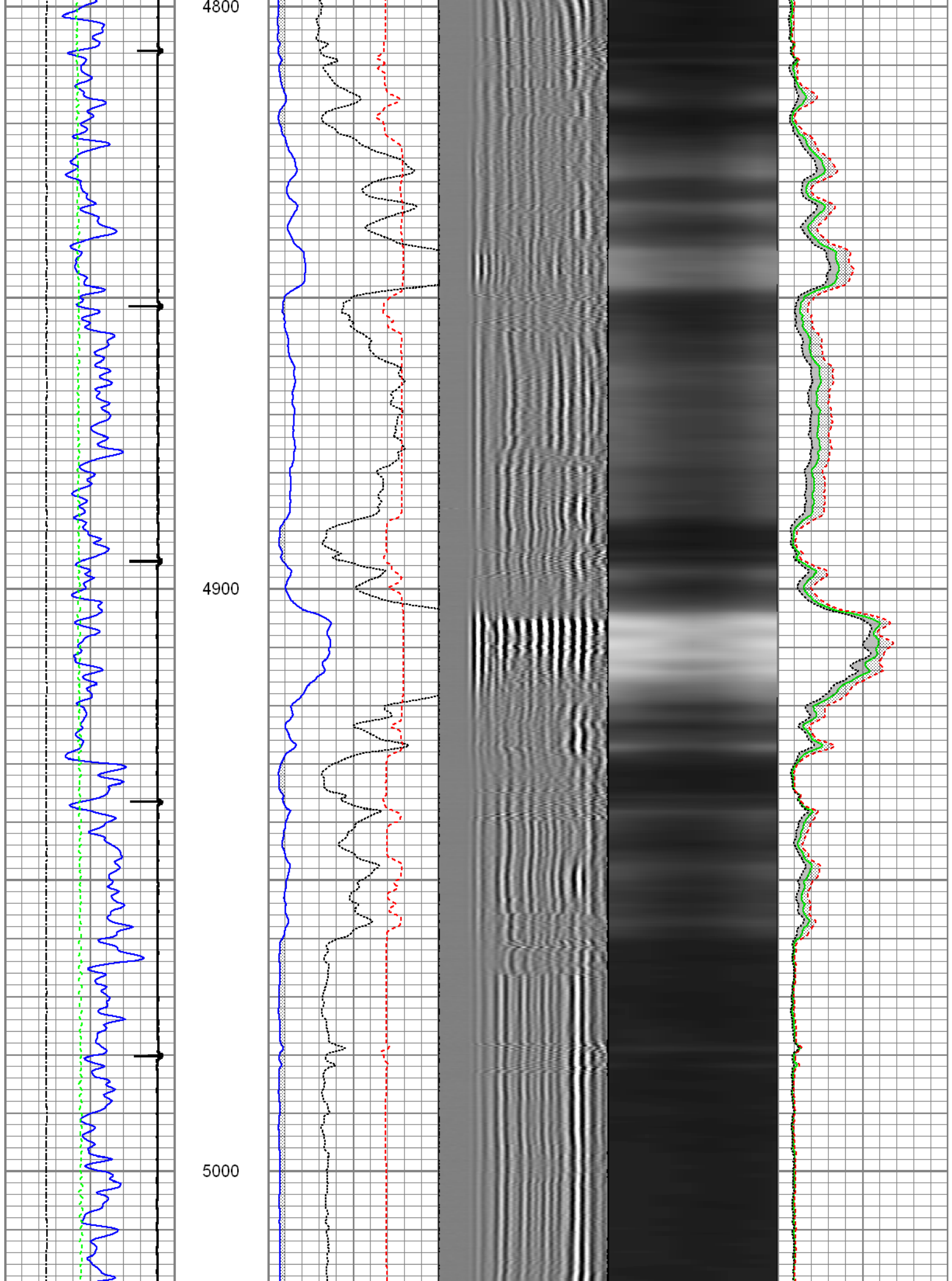
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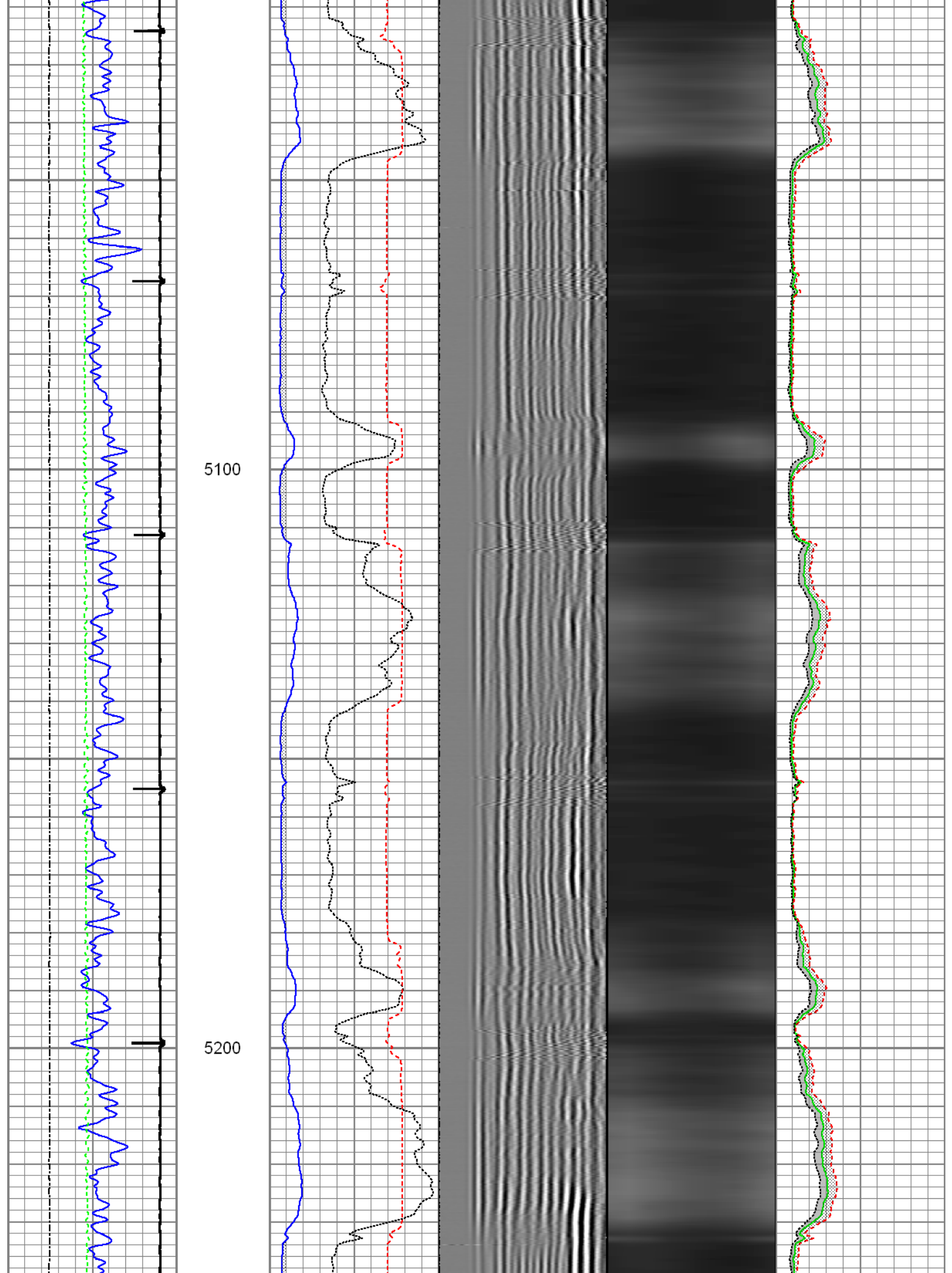


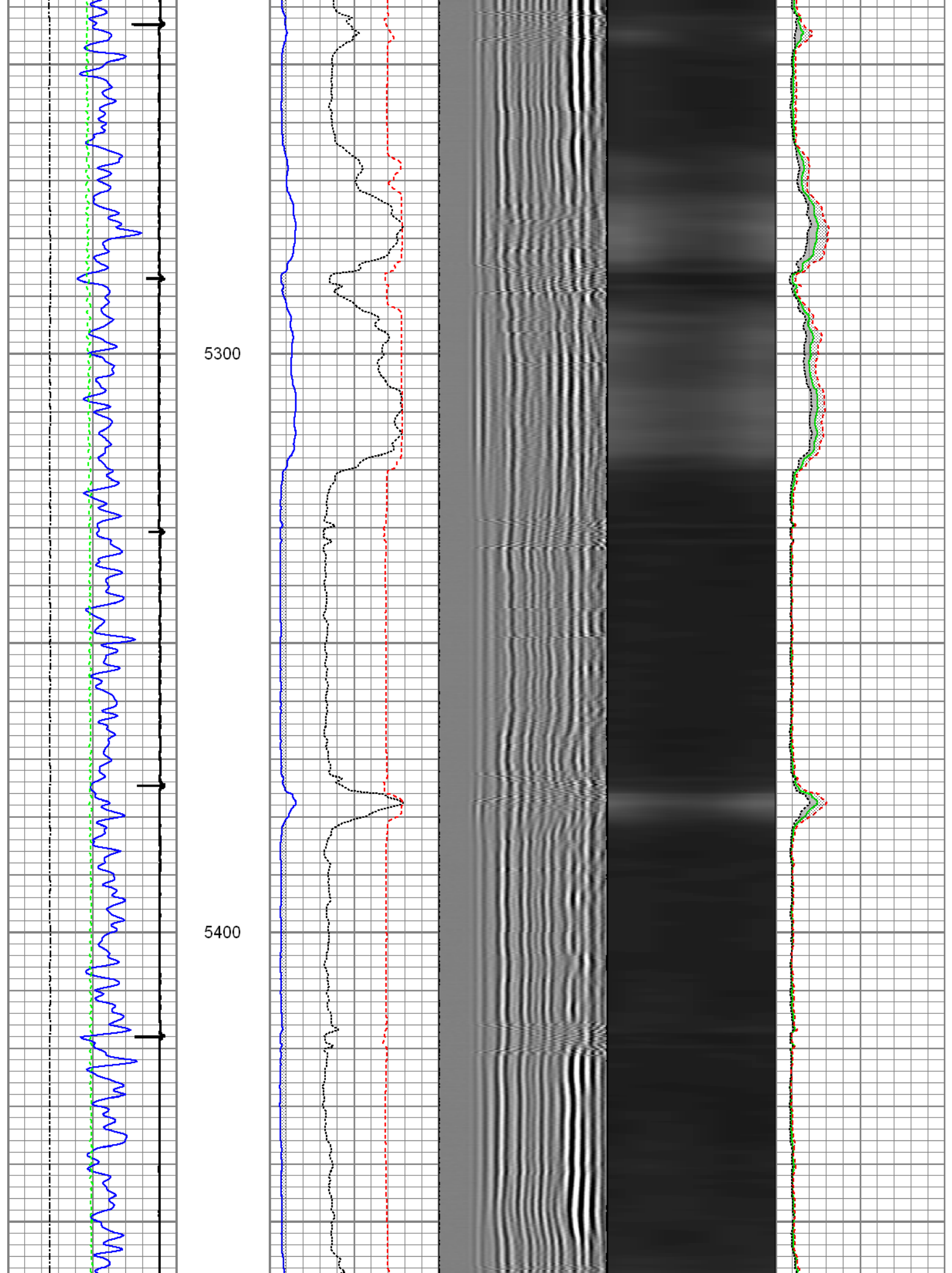
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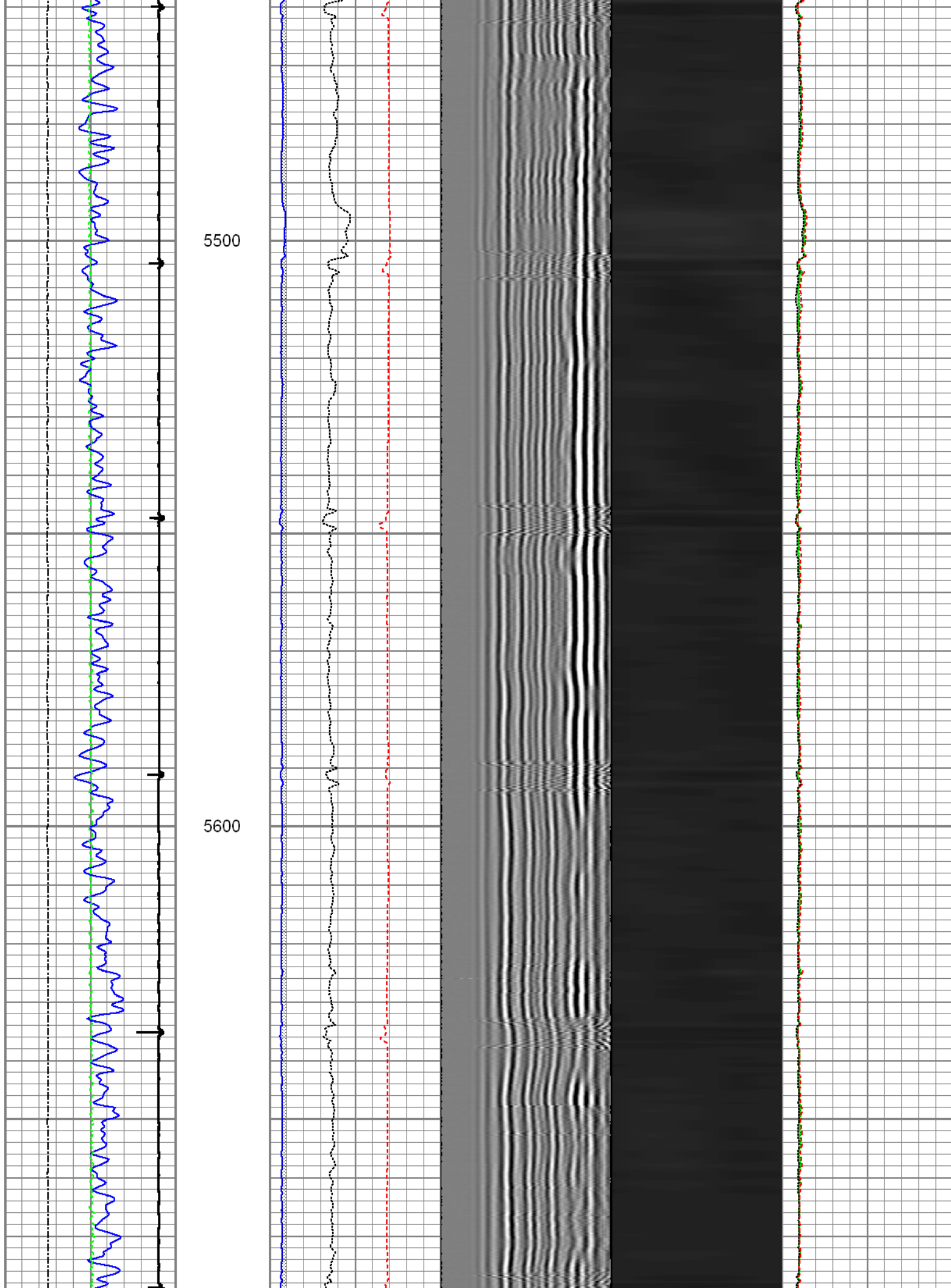


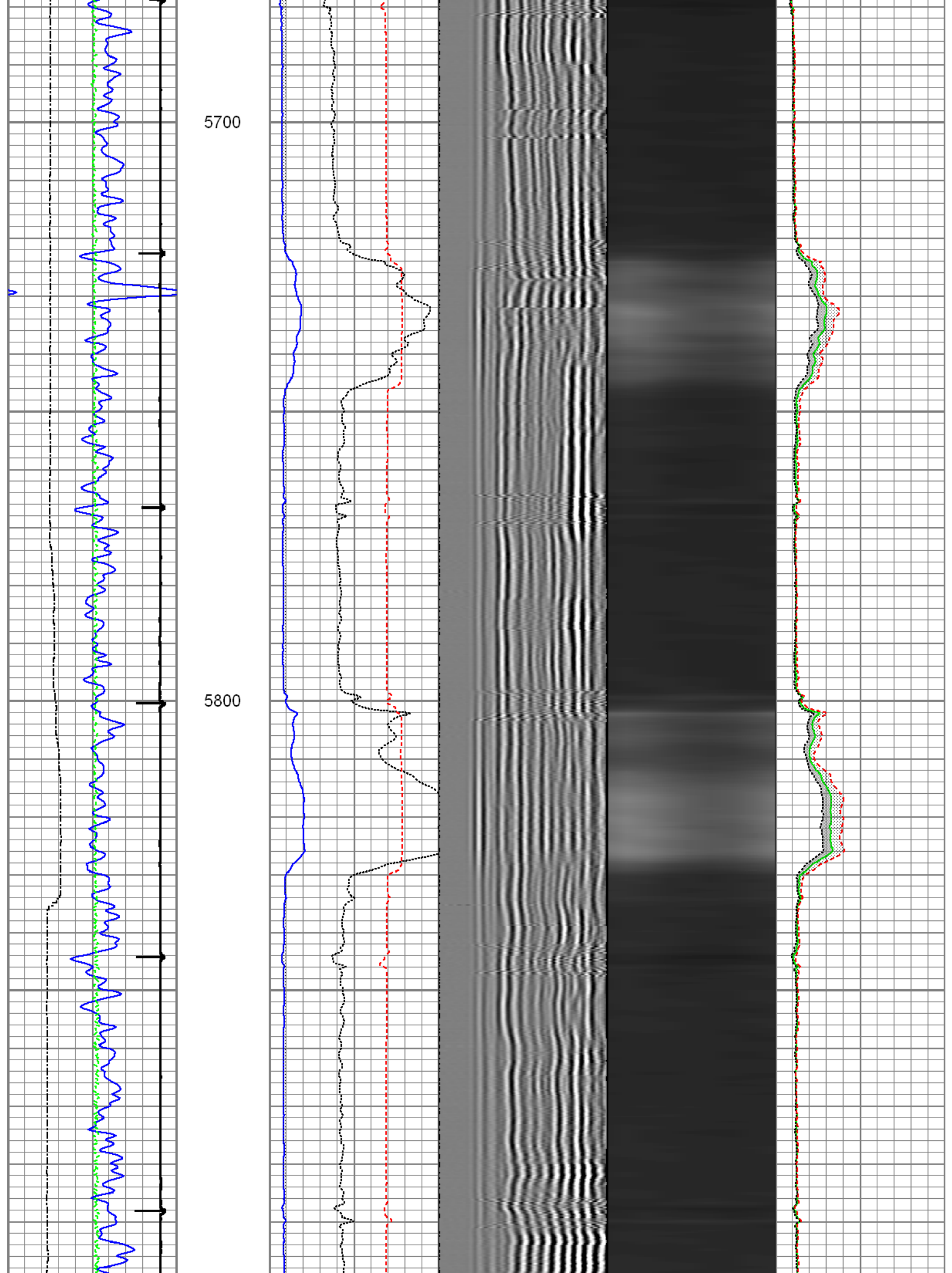




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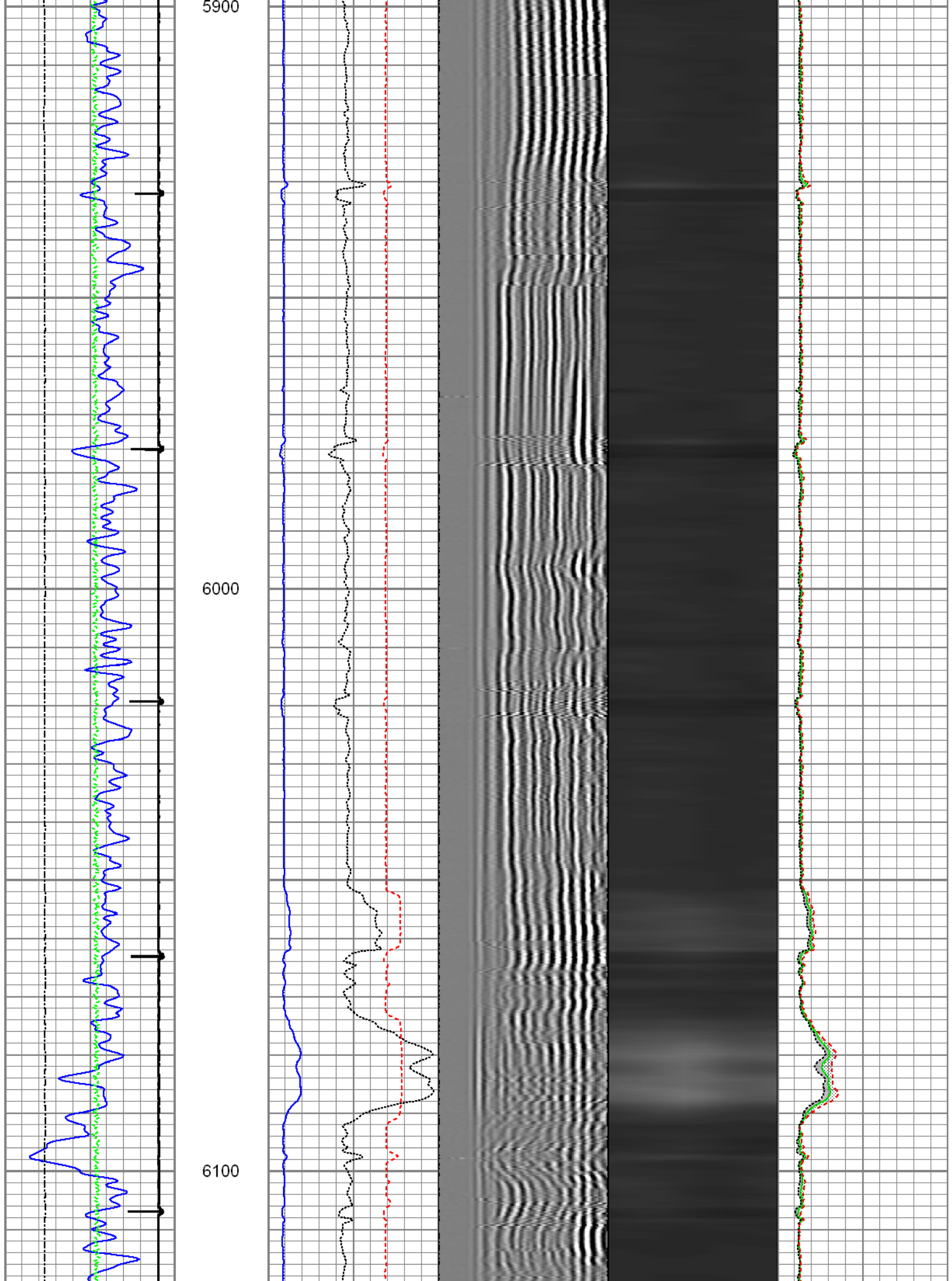


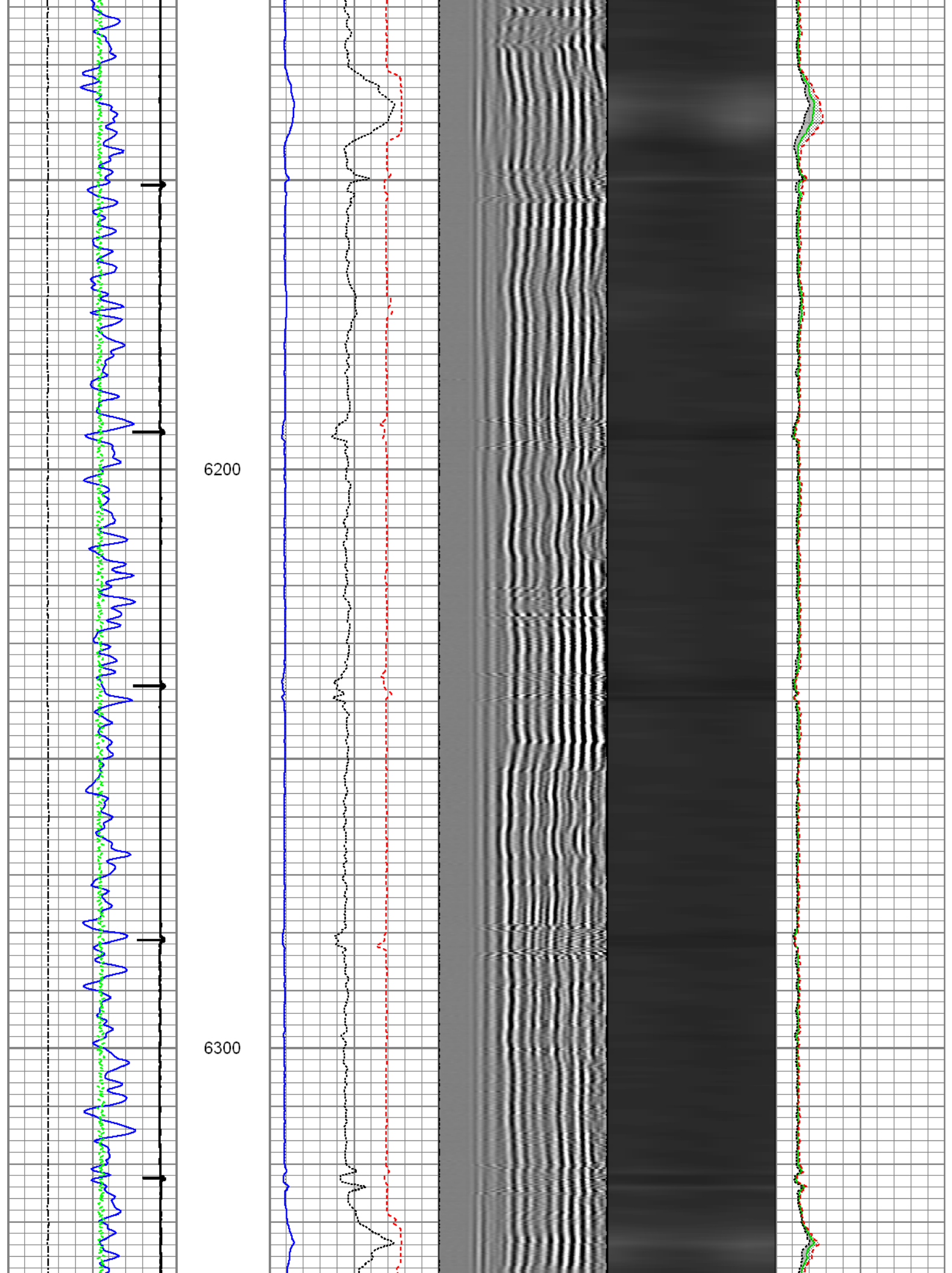


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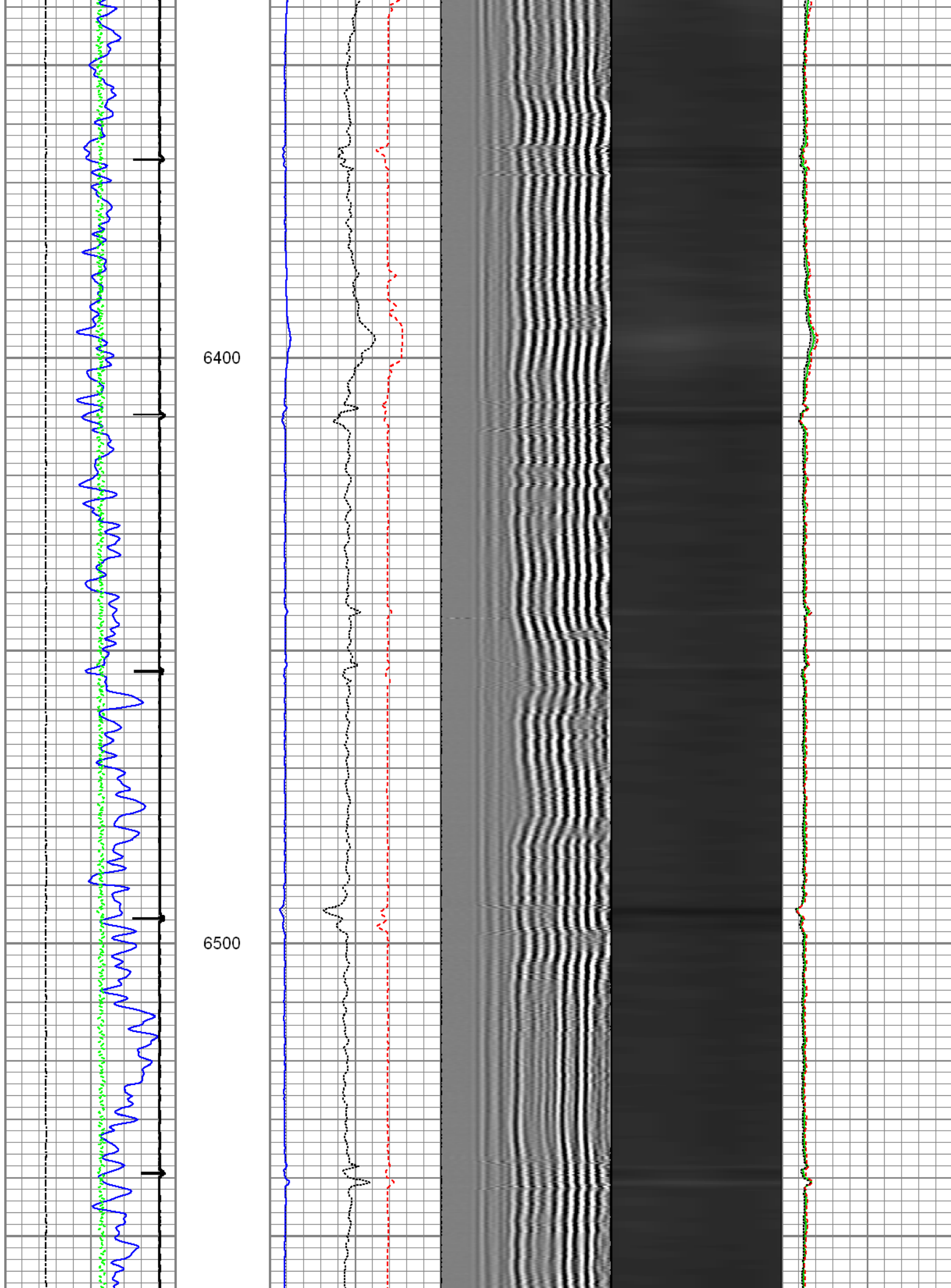
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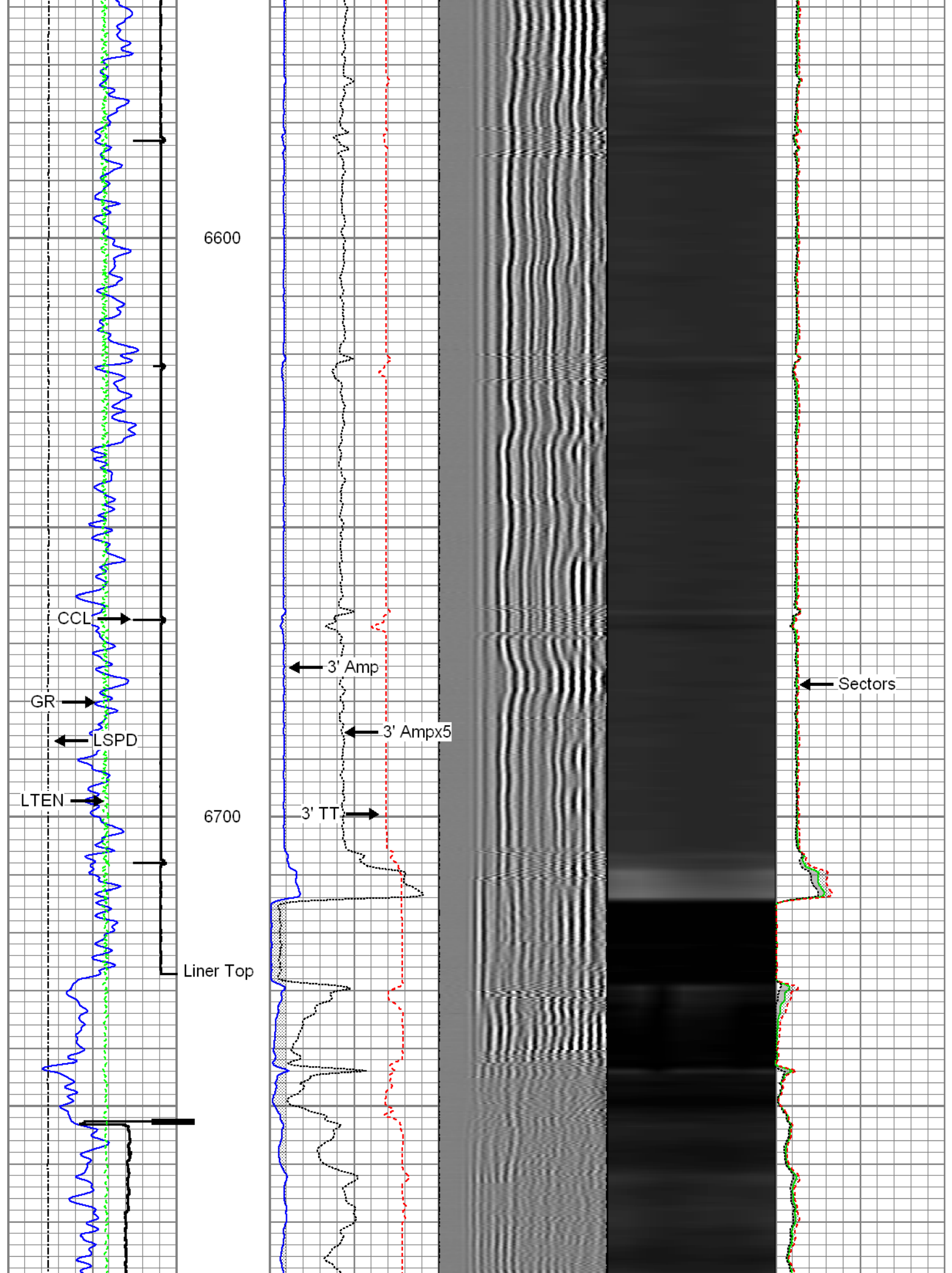


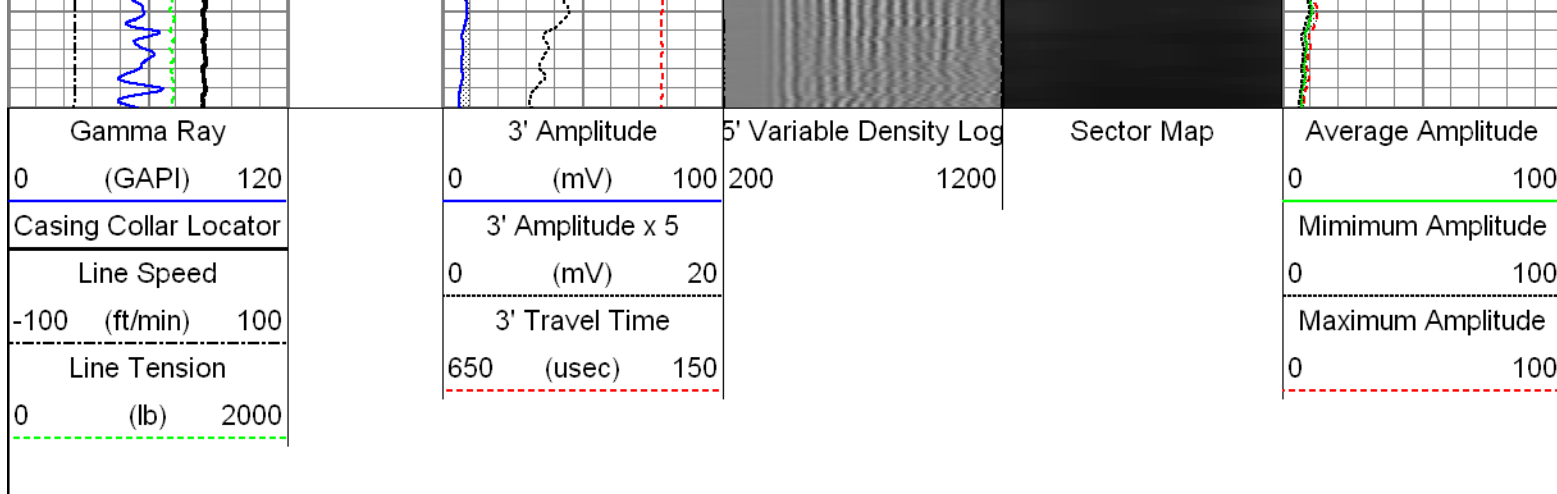


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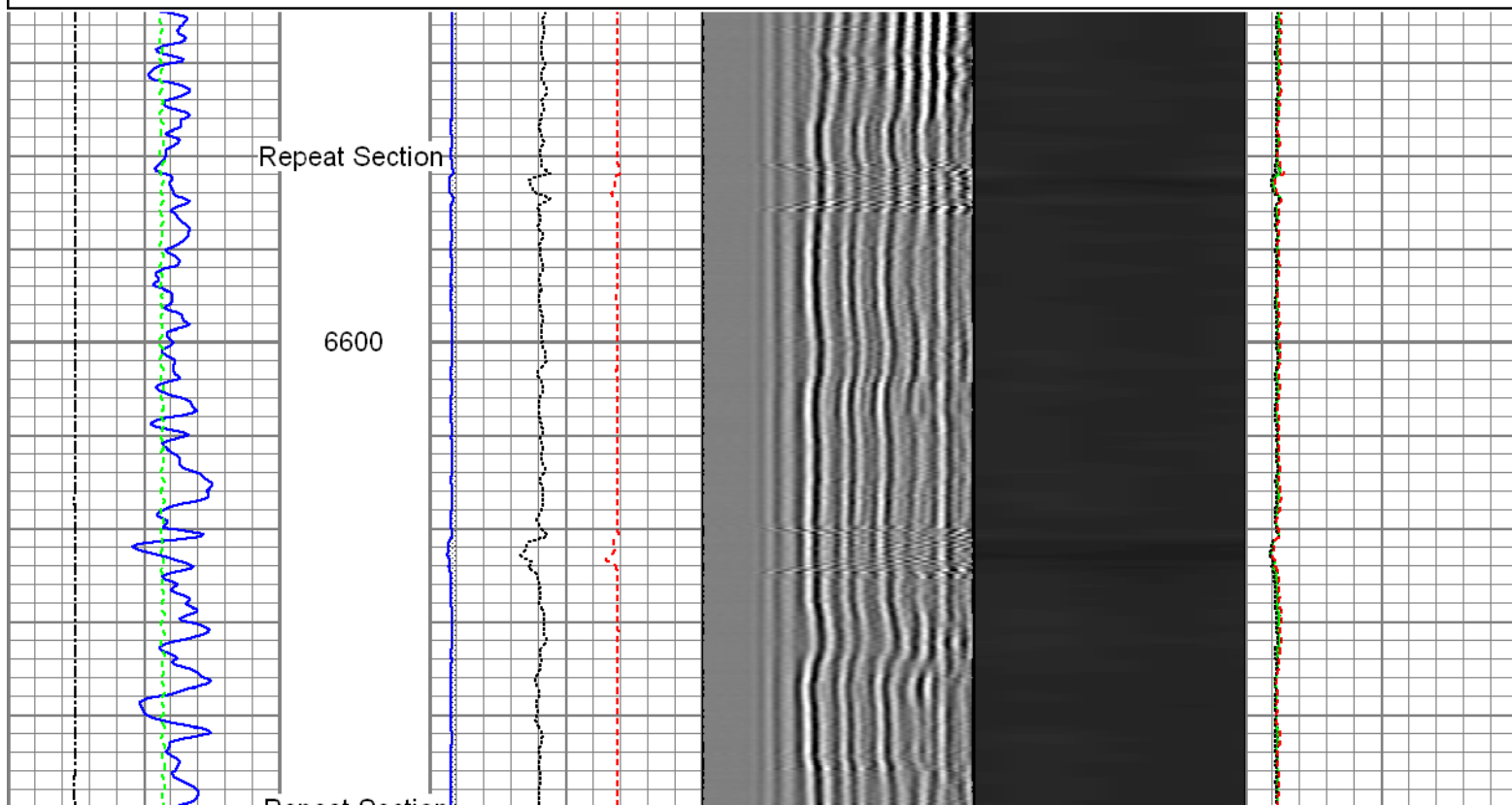
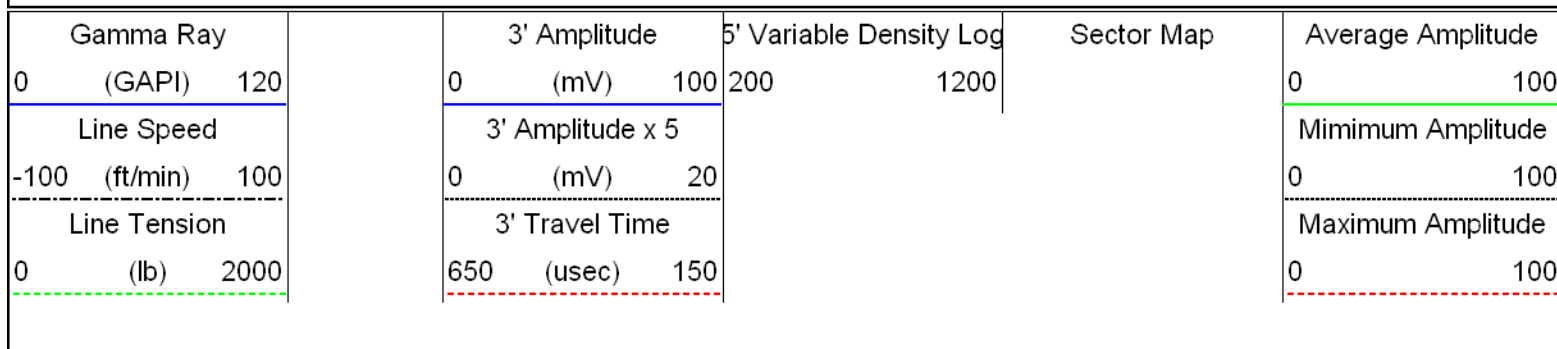


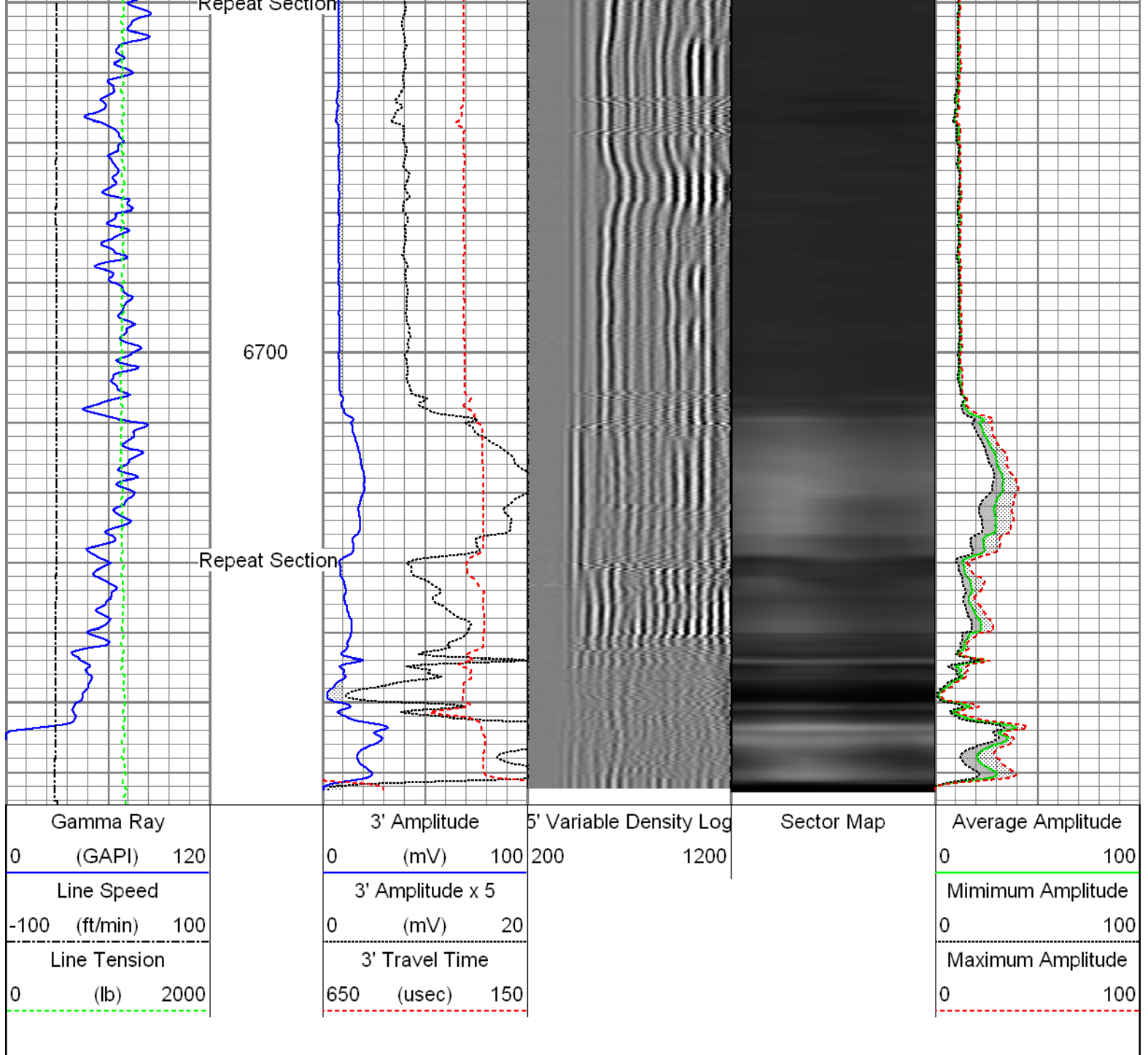


Repeat Pass

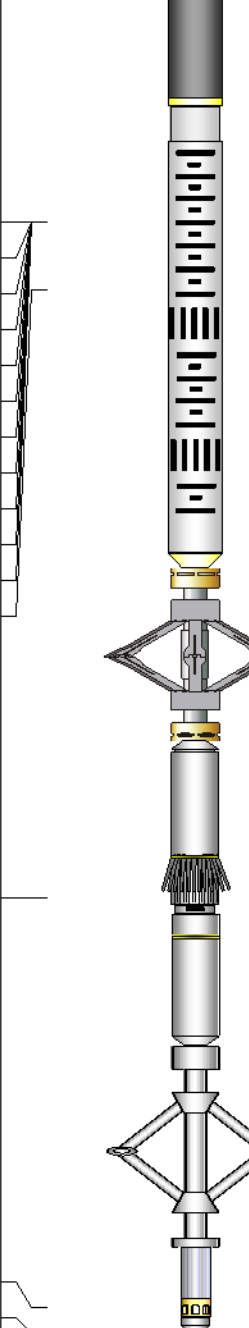
Recorded with 2800 PSI Surface Induced Pressure

Database File: x:\logs_for_processing\logs to be reviewed\0512340743_anadarko_goodin 37n-c6hz_06-26-15_mit_
 Dataset Pathname: pass2
 Presentation Format: rbt4_mit
 Dataset Creation: Fri Jun 26 08:03:16 2015 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
GR	23.85		T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			UW_AGS-UW_AGS_001 (215017) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW_XTU-UW_XTU_002 (219135) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
			UW_PGR-UW_PGR_020 (10019072) Production Gamma Ray	1.93	1.69	9.50
			UW_PRC #4 -DSSRAC (081) 2-3/4" DSS 5 Arm Roller Centralizer	2.55	2.75	32.00

WVF3FT	16.46		UW_RBT-UW_RBT_004 (10022773) Sondex Ultrawire 3-1/8" Radial Bond Tool	9.47	3.13	140.00
WVFS1	16.46					
WVFS2	16.46					
WVFS3	16.46					
WVFS4	16.46					
WVFS5	16.46					
WVFS6	16.46					
WVFS7	16.46					
WVFS8	16.46					
CBLTEMP	16.46	UW_PRC-DSSRAC (080) 2-3/4" DSS 5 Arm Roller Centralizer	2.55	2.75	32.00	
CBLROT	16.46					
WVF5FT	15.46					
MIT	6.45	UW_MIT-UW_MIT40_027 (218950) 40 Multifinger Imaging Tool	4.54	2.75	61.10	
TEMP TSTAMP	0.37 0.00	UW_PRC-UW_PRC_057 (1101) Sondex 2-3/4" 4-Arm Production Roller Centraliser	2.98	2.75	32.00	
		UW_PRT-UW_PRT_016 (10025097) Platinum Resistance Thermometer	1.04	1.69	5.20	
		UW_BUL-UW_BUL_006 (218707) Sondex Ultrawire Bullnose Terminator	0.22	1.69	1.20	
Dataset: 0512340743_Anadarko_Goodin 37N-C6HZ_06-26-15_MIT_RBL.db: field/well/run1/pass3 Total Length: 28.09 ft Total Weight: 324.50 lb O.D. 3.13 in						

Calibration Report					
Database File:	X:\Logs_For_Processing\Logs to be reviewed\0512340743_Anadarko_Goodin 37N-C6HZ_06-26-15_M				
Dataset Pathname:	pass3				
Dataset Creation:	Fri Jun 26 08:19:26 2015 by Log 7.0 B1				
Temperature Calibration Report					
Serial Number:		10025097			
Tool Model:		UW_PRT_016			
Performed:		Wed Feb 11 13:44:44 2015			
Point #	Reading			Reference	
1	13053.00	cps		68.00	degF
2	18014.00	cps		104.00	degF
3	29668.00	cps		176.00	degF
4	41181.00	cps		248.00	degF

5	52983.00	cps	320.00	degF
6	58931.00	cps	356.00	degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

Multi-finger Imaging Tool Calibration Report

Serial Number:	218950
Number of Fingers:	40
Tool Model:	UW_MIT40_027

Inclinometer Calibration Report			
Performed:	Fri, Oct, 10 10:41:51 2008		
Calibration Angle:	45		
	Inc X	Inc Y	
Vertical:	1996	1975	
Finger 1 up:	2238	2226	
Finger 31 up:	1760	2216	
Finger 21 up:	1769	1745	
Finger 11 up:	2250	1738	
Sensitivity ratio:	1.00023		
X-axis angle:	314.283		
Deviation const.:	339.139		

Finger Calibration Report							
	Performed: Fri Jun 26 07:16:01 2015						
Ring size:	4	5	6	7			
(in)	Sens	Sens	Sens				
Finger 01:	1437 270.0	1707 286.0	1993 301.0	2294			
Finger 02:	1502 249.0	1751 257.0	2008 264.0	2272			
Finger 03:	1416 275.0	1691 288.0	1979 301.0	2280			
Finger 04:	1438 274.0	1712 287.0	1999 292.0	2291			
Finger 05:	1474 266.0	1740 275.0	2015 280.0	2295			
Finger 06:	1400 277.0	1677 296.0	1973 301.0	2274			
Finger 07:	1422 276.0	1698 294.0	1992 295.0	2287			
Finger 08:	1417 274.0	1691 288.0	1979 291.0	2270			
Finger 09:	1411 279.0	1690 295.0	1985 297.0	2282			
Finger 10:	1433 265.0	1698 286.0	1984 287.0	2271			
Finger 11:	1417 276.0	1693 296.0	1989 296.0	2285			
Finger 12:	1373 279.0	1652 300.0	1952 303.0	2255			
Finger 13:	1472 259.0	1731 277.0	2008 273.0	2281			
Finger 14:	1414 265.0	1679 288.0	1967 290.0	2257			
Finger 15:	1406 280.0	1686 301.0	1987 300.0	2287			
Finger 16:	1418 271.0	1689 295.0	1984 295.0	2279			
Finger 17:	1424 282.0	1706 305.0	2011 304.0	2315			
Finger 18:	1370 270.0	1640 294.0	1934 290.0	2224			
Finger 19:	1429 275.0	1704 296.0	2000 296.0	2296			
Finger 20:	1441 275.0	1716 298.0	2014 299.0	2313			
Finger 21:	1394 285.0	1679 311.0	1990 314.0	2304			
Finger 22:	1420 269.0	1689 287.0	1976 290.0	2266			
Finger 23:	1418 274.0	1692 293.0	1985 298.0	2283			
Finger 24:	1459 273.0	1732 290.0	2022 291.0	2313			
Finger 25:	1433 276.0	1709 294.0	2003 299.0	2302			
Finger 26:	1402 279.0	1681 298.0	1979 307.0	2286			
Finger 27:	1460 269.0	1729 285.0	2014 294.0	2308			
Finger 28:	1446 277.0	1723 293.0	2016 304.0	2320			
Finger 29:	1498 260.0	1758 275.0	2033 282.0	2315			
Finger 30:	1408 276.0	1684 291.0	1975 309.0	2284			
Finger 31:	1437 280.0	1717 296.0	2013 309.0	2322			
Finger 32:	1495 264.0	1759 274.0	2033 285.0	2318			
Finger 33:	1449 279.0	1728 294.0	2022 311.0	2333			
Finger 34:	1457 272.0	1729 287.0	2016 308.0	2324			

Finger 35:	1501	253.0	1754	263.0	2017	277.0	2294
Finger 36:	1482	263.0	1745	276.0	2021	295.0	2316
Finger 37:	1456	277.0	1733	289.0	2022	299.0	2321
Finger 38:	1538	246.0	1784	254.0	2038	272.0	2310
Finger 39:	1451	266.0	1717	277.0	1994	288.0	2282
Finger 40:	1412	279.0	1691	292.0	1983	310.0	2293

Segmented Cement Bond Log Calibration Report

Serial Number:	10022773
Tool Model:	UW_RBT_004
Calibration Casing Diameter:	7.000 in
Calibration Depth:	25.099 ft

Master Calibration, performed Fri Jun 26 07:18:40 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.002	0.763	0.800	62.165	80.696	0.606
5FT	-0.002	0.702	0.800	62.165	87.171	0.959
S1	0.002	0.755	0.000	100.000	132.901	-0.324
S2	0.001	0.837	0.000	100.000	119.684	-0.146
S3	0.002	0.835	0.000	100.000	120.142	-0.261
S4	0.001	0.781	0.000	100.000	128.271	-0.180
S5	0.002	0.725	0.000	100.000	138.348	-0.333
S6	0.001	0.667	0.000	100.000	150.128	-0.183
S7	0.002	0.659	0.000	100.000	152.045	-0.258
S8	0.002	0.697	0.000	100.000	143.694	-0.218

Gamma Ray Calibration Report

Serial Number:	10019072
Tool Model:	UW_PGR_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	Goodin 37N - C6HZ
Field	Wattenberg
County	Weld
State	Colorado