



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Chevron USA Inc.	Company	Chevron USA Inc.
Well	Union Pacific 135Y-28	Well	Union Pacific 135Y-28
Field	Rangely	Field	Rangely
County	Rio Blanco	County	Rio Blanco
State	Colorado	State	Colorado
Location:		API # : 05-103-09105	Other Services
SEC 28 TWP 2N RGE 102W		MIT	
Permanent Datum	Ground Level	Elevation	
Log Measured From	Kelly Bushing	15 FT	
Drilling Measured From	Kelly Bushing		K.B. 5302' D.F. 5301' G.L. 5287'

Date	17-JUL-2015
Run Number	One
Depth Driller	6617 FT
Depth Logger	5658 FT
Bottom Logged Interval	5643 FT
Top Log Interval	3640 FT
Open Hole Size	8-75"
Type Fluid	Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	---
Estimated Cement Top	---
Time Well Ready	15:45
Time Logger on Bottom	16:45
Equipment Number	HD-0624
Location	Grand Junction, CO
Recorded By	D. Shannon
Witnessed By	L. Demers

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
1	13-75"	Surface	2776 FT				
2	8-75"	2776 FT	6617 FT				
Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom		
Surface Casing	9-625	36	---	Surface	2776 FT		
Intermediate #1							
Intermediate #2	7	23	---	Surface	5330 FT		
Liner	7	26	---	5330 FT	6616 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 customer reported DV tool at 4041 FT
Depth shifted 15.5 FT downhole
Log ran from to 3650-5653 FT
Log ran with 0 PSI at surface

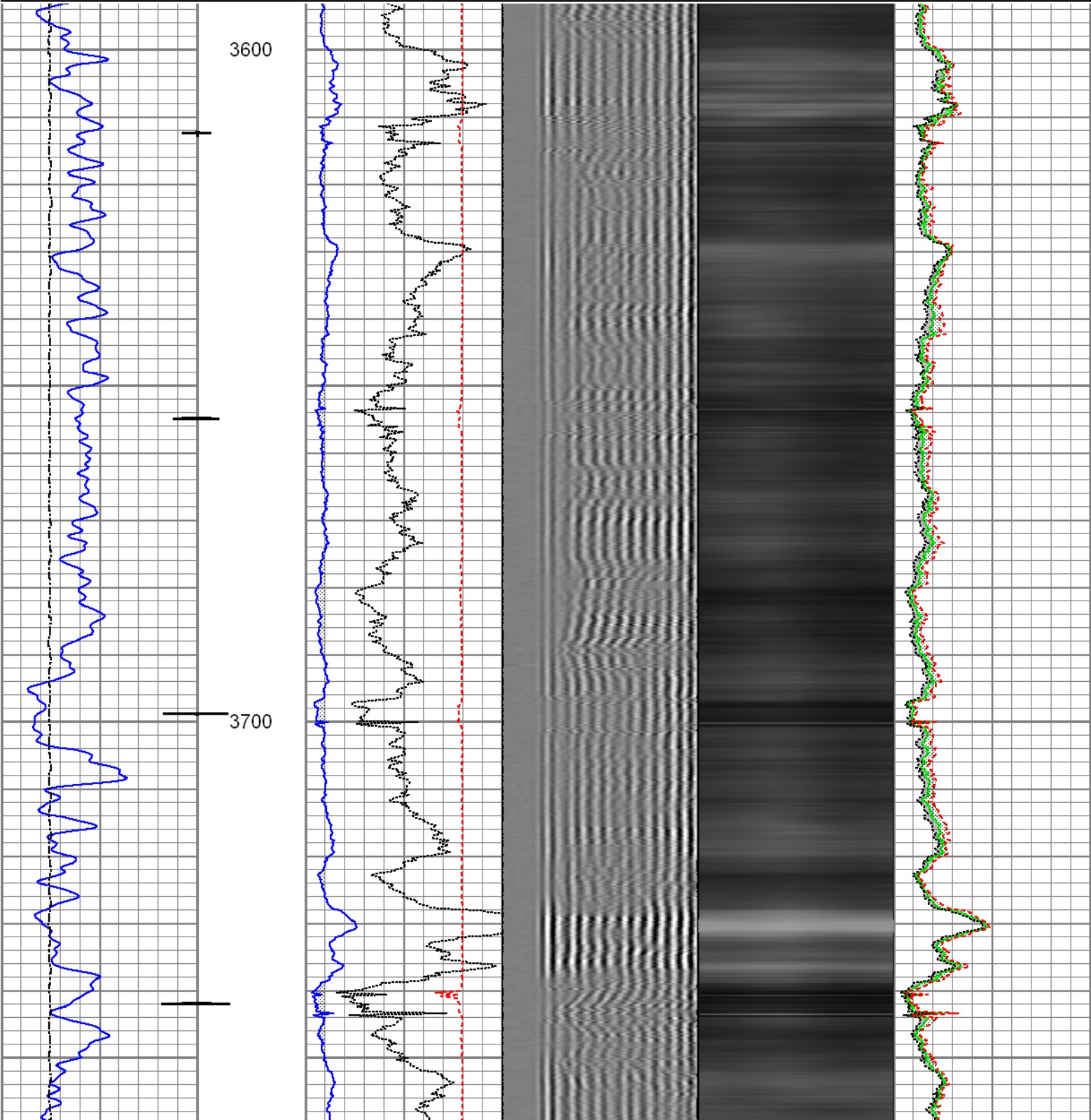
Thank you for choosing FMC Technologies Completion Services, Inc.

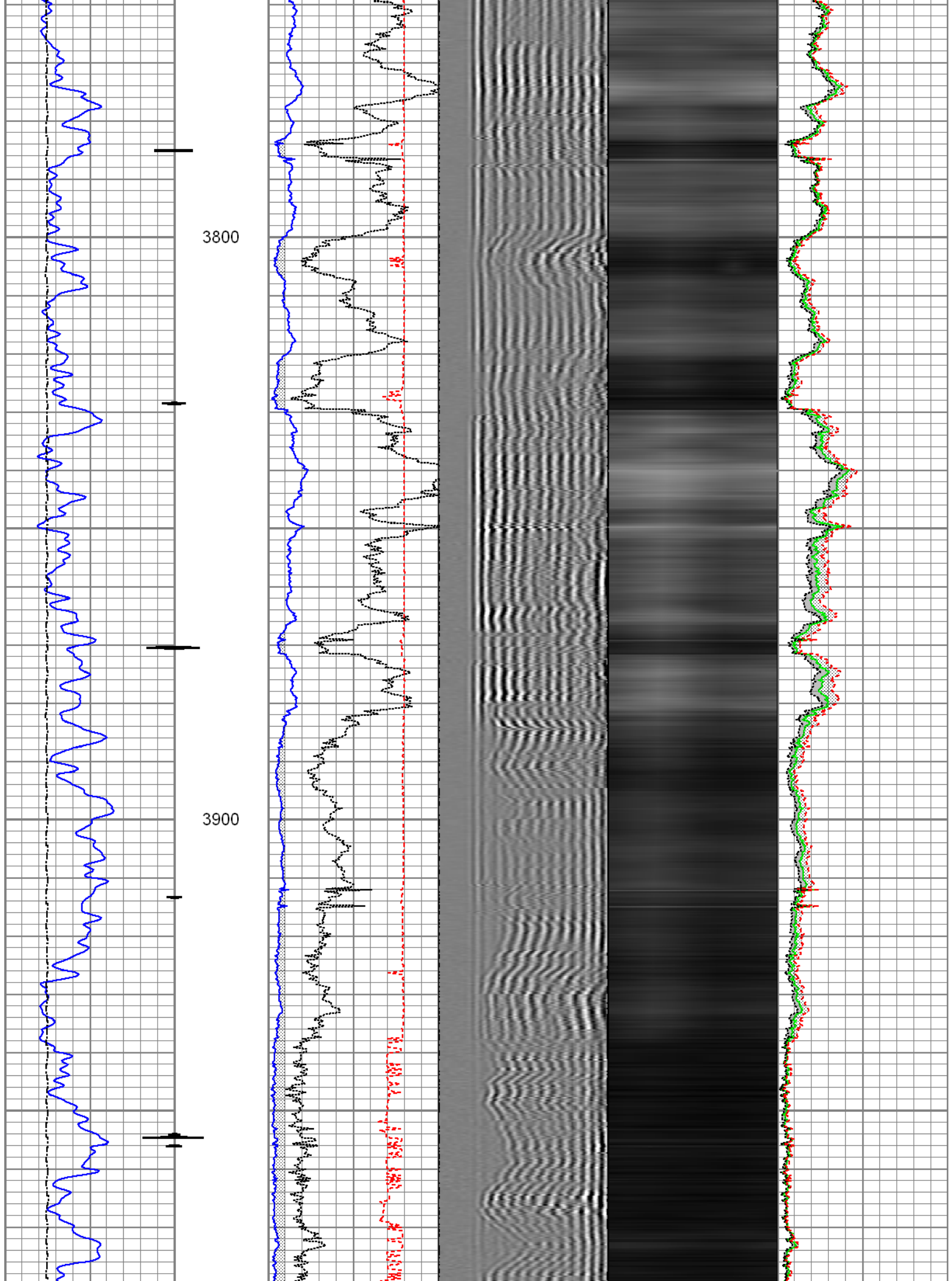


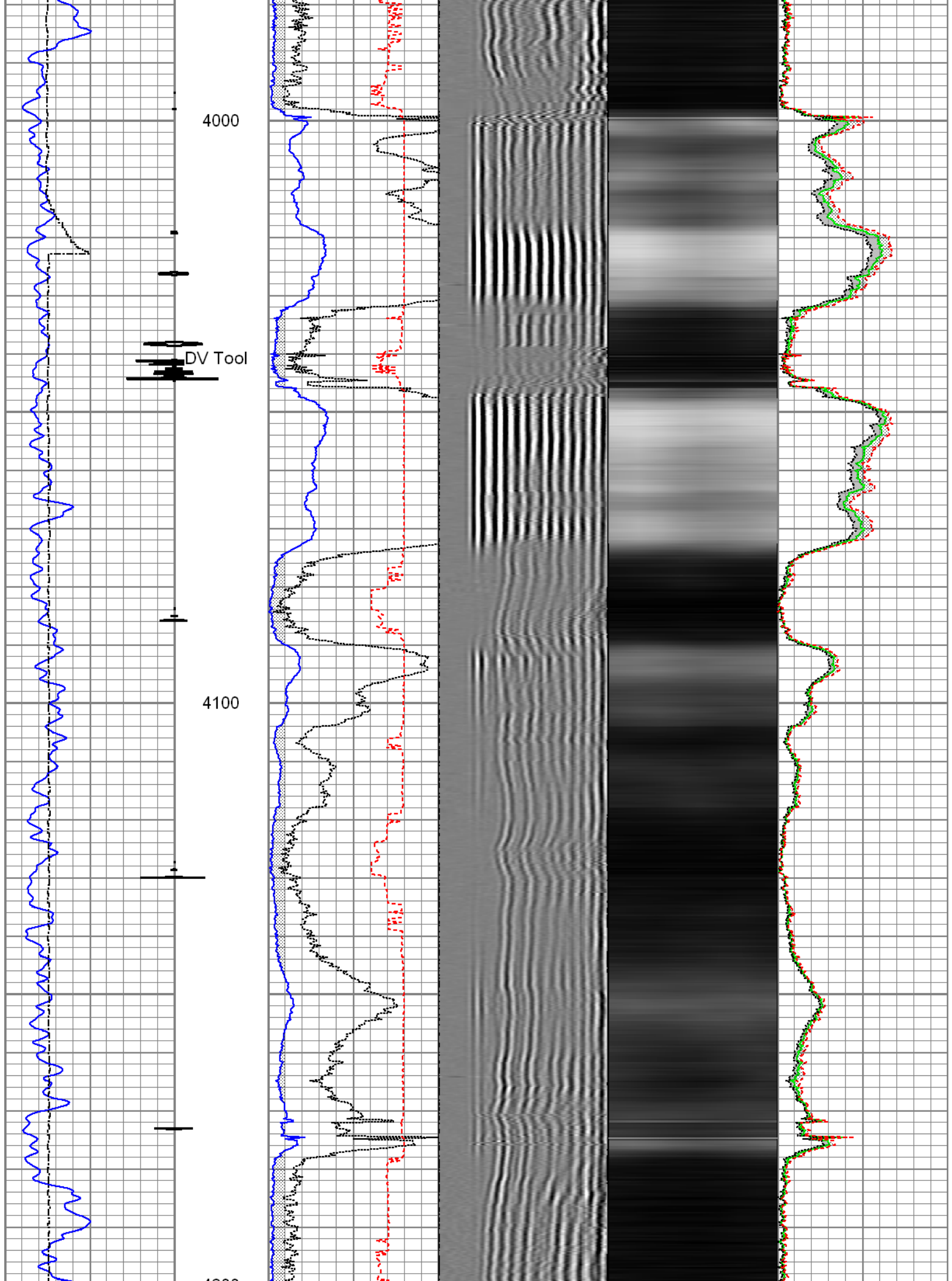
Main Pass

Recorded With 0 PSI Surface Induced Pressure

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



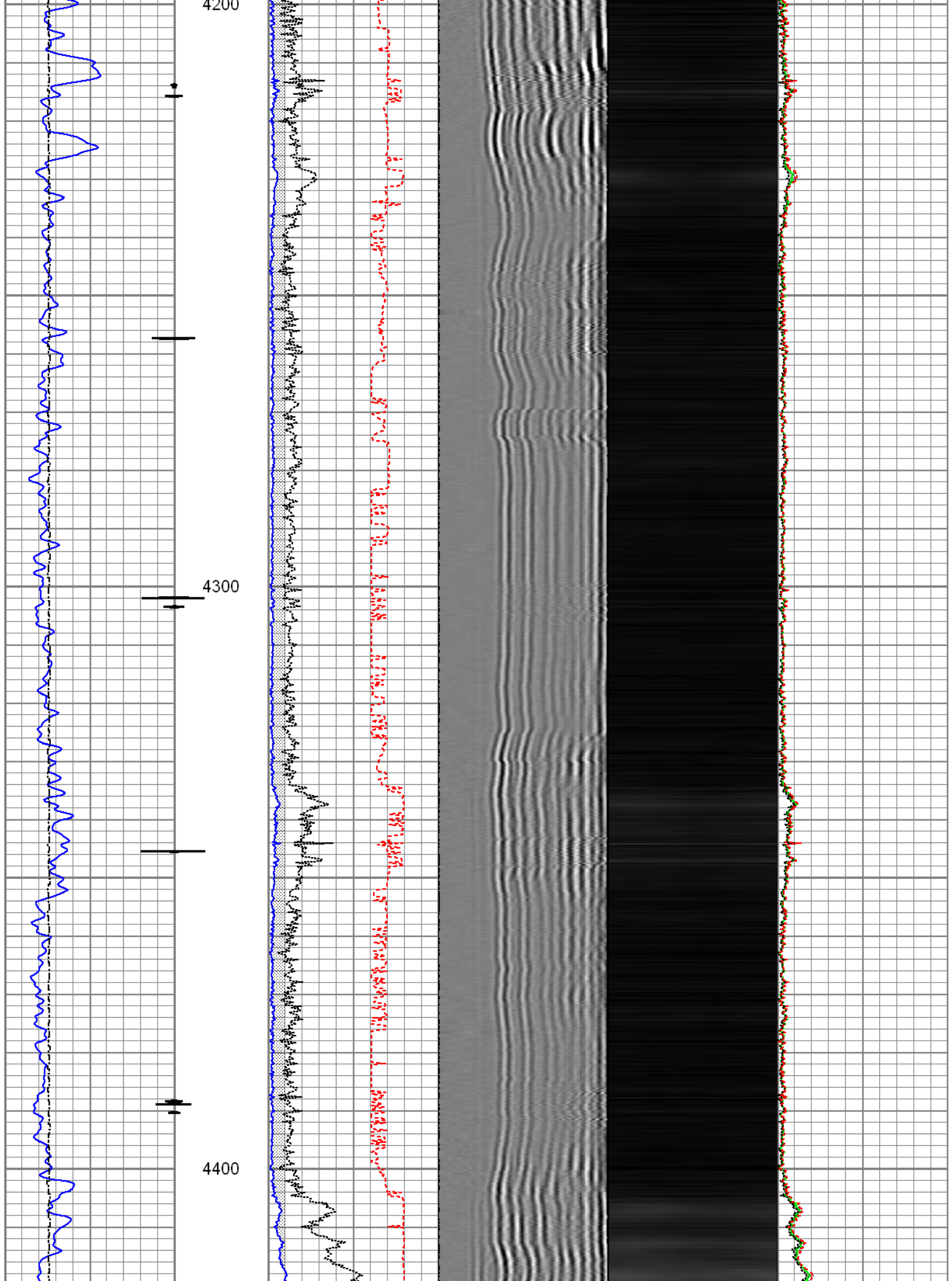


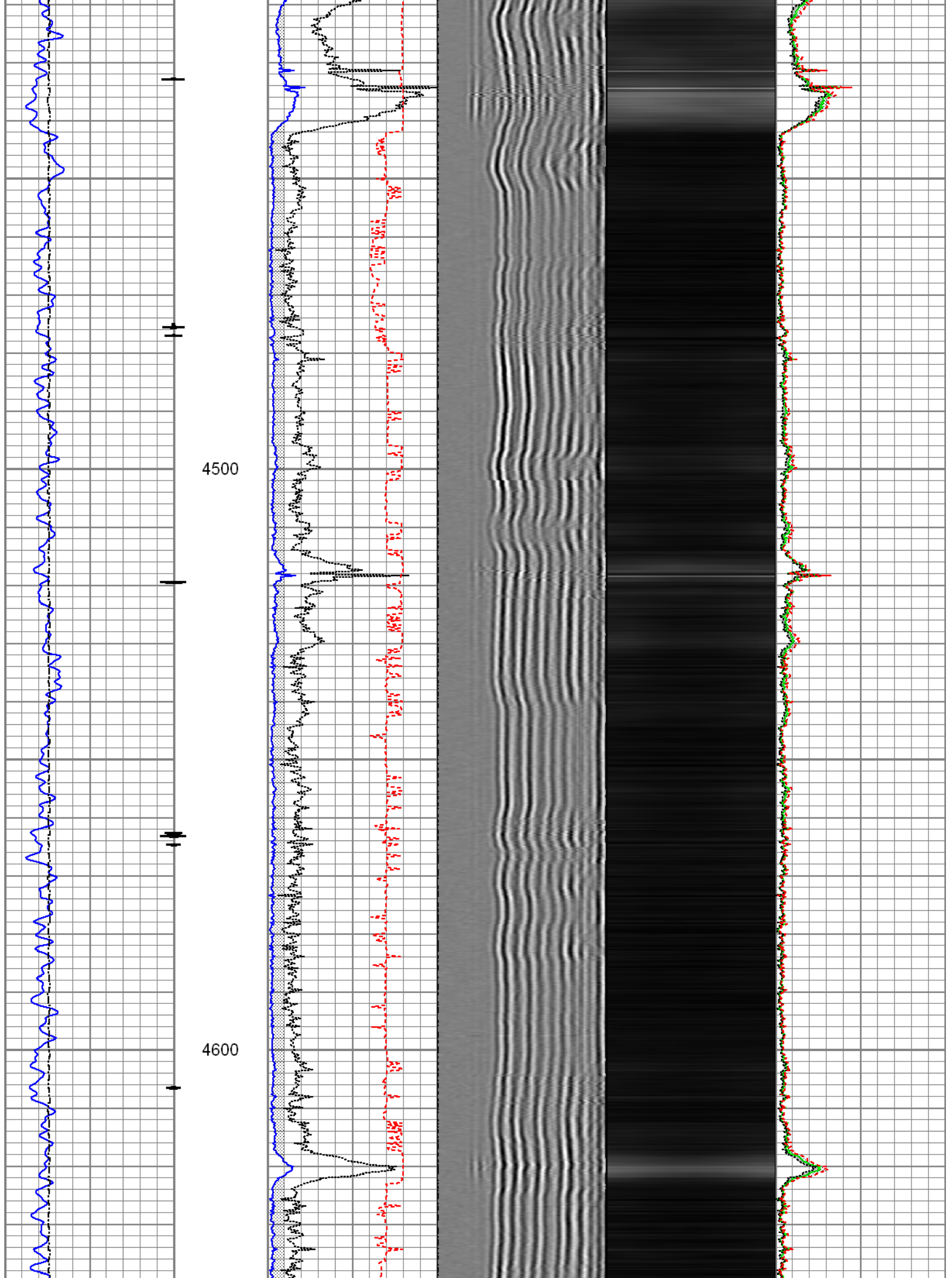


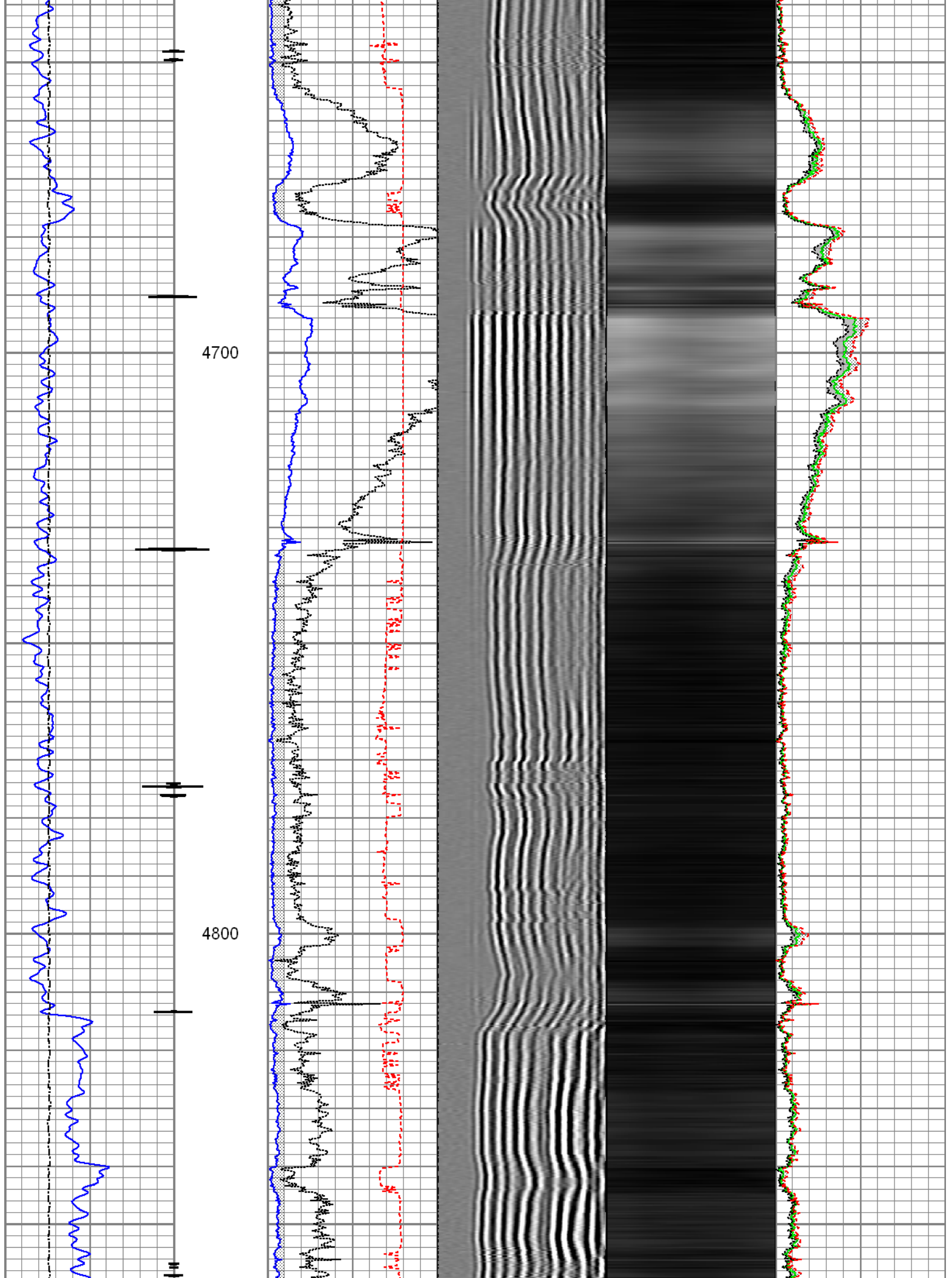
4200

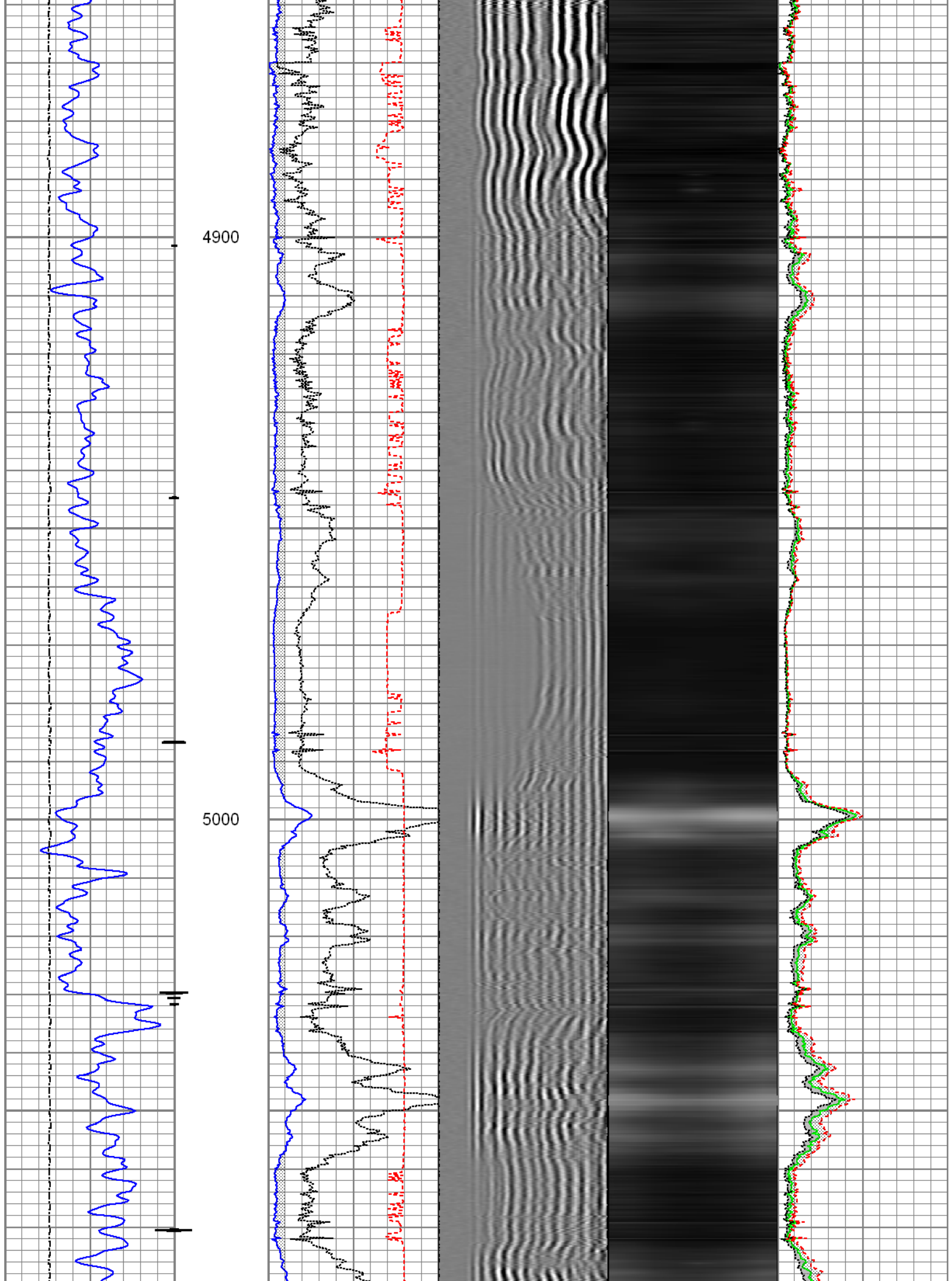
4300

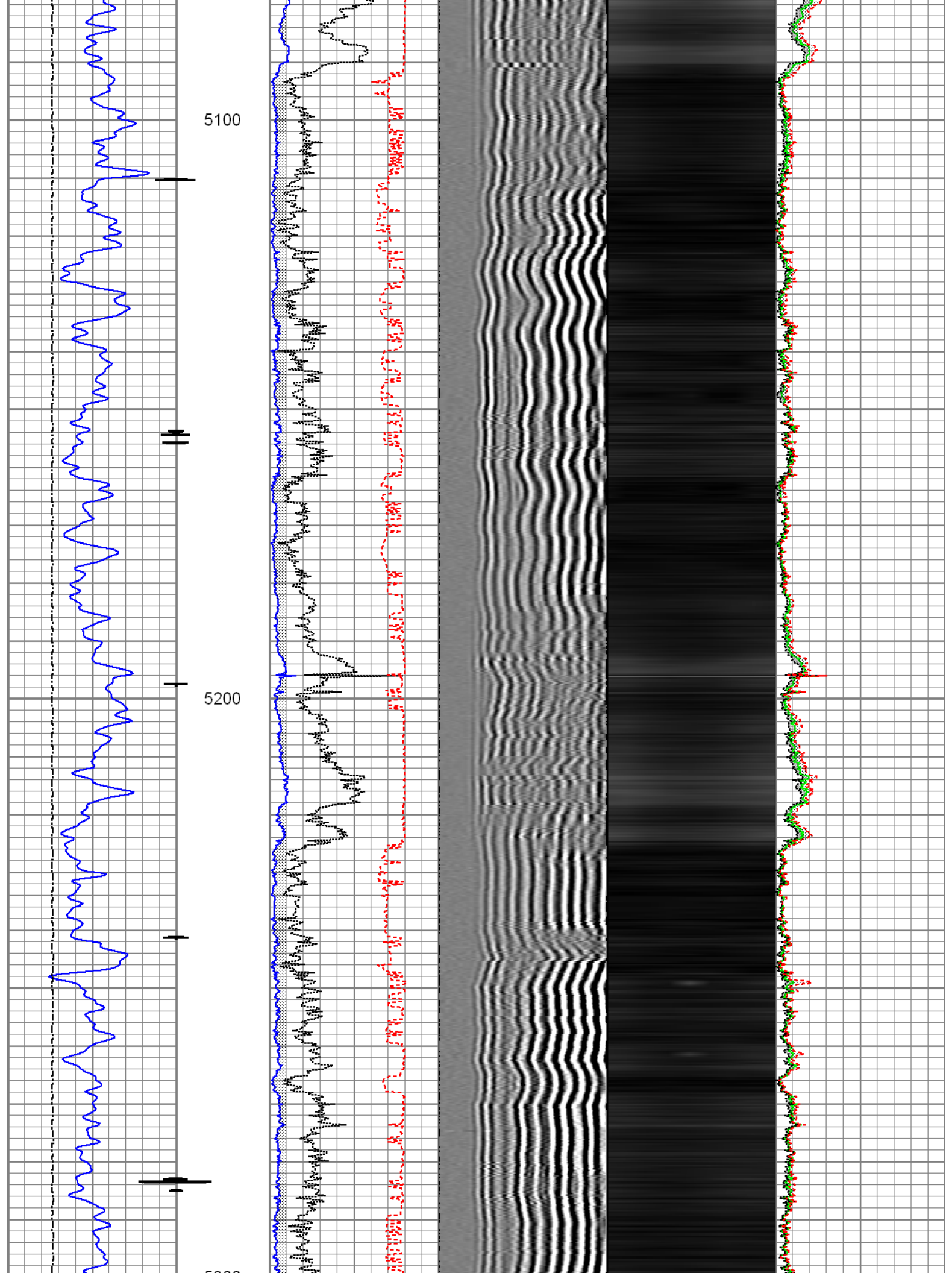
4400







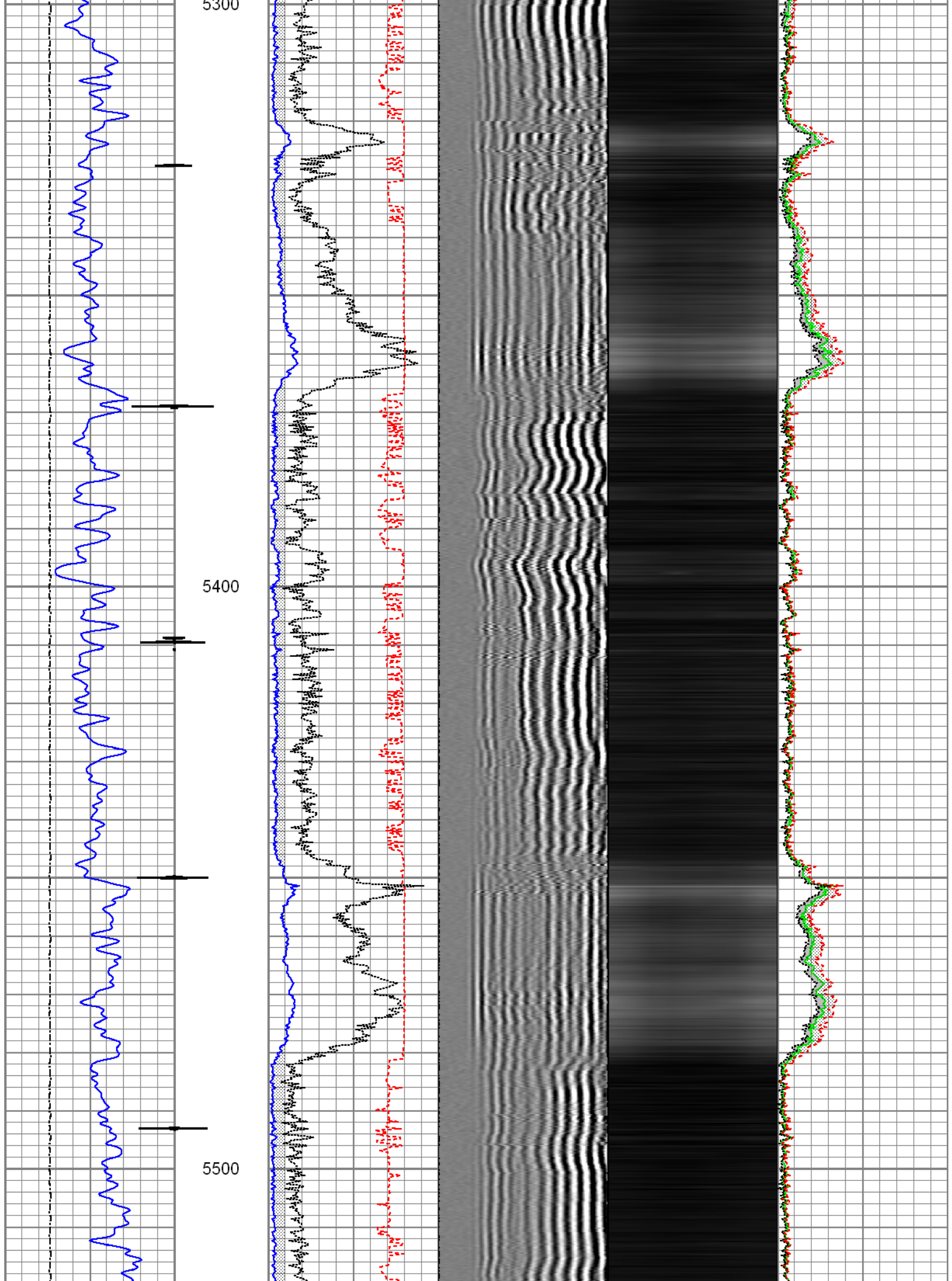


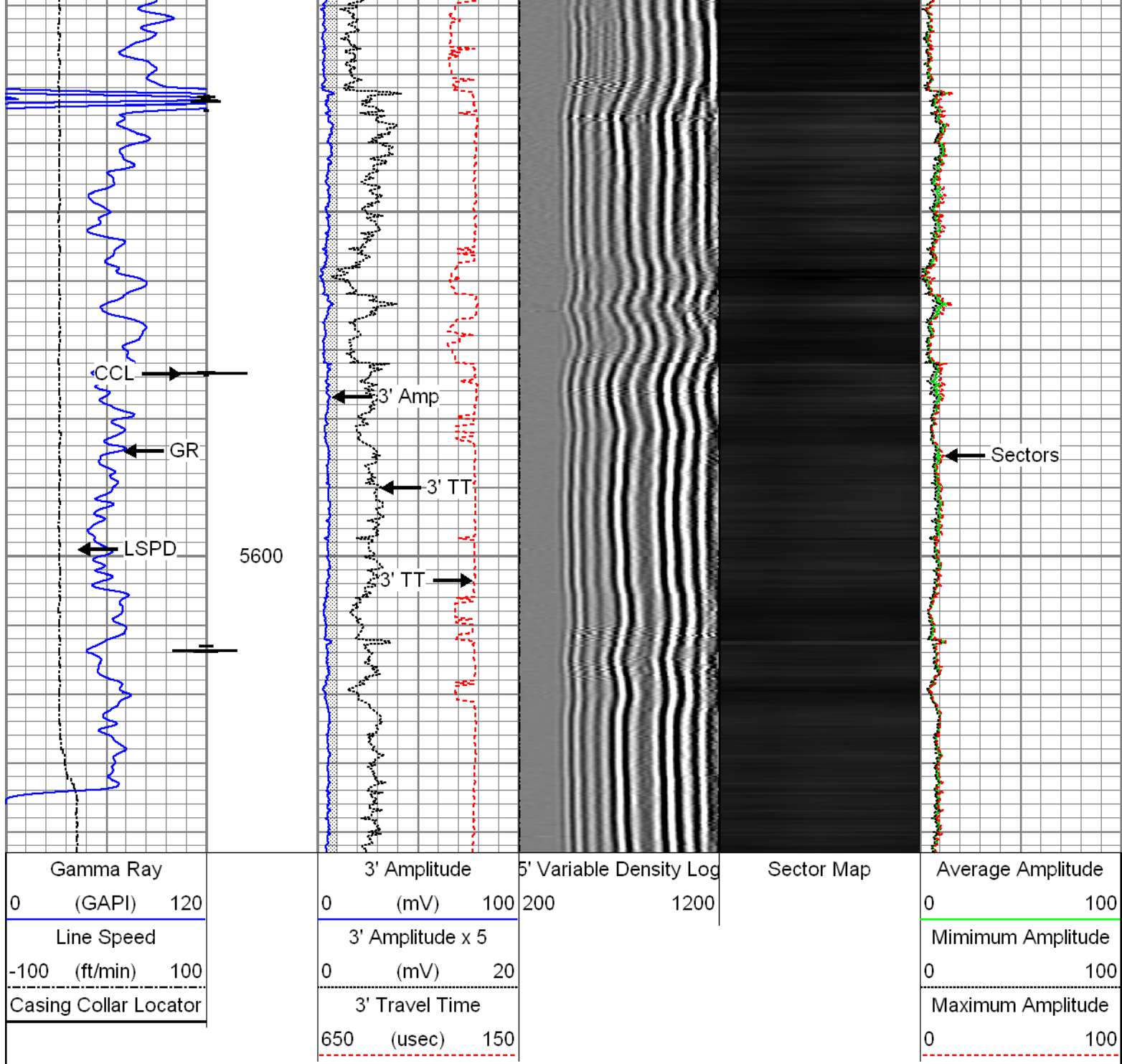


5300

5400

5500

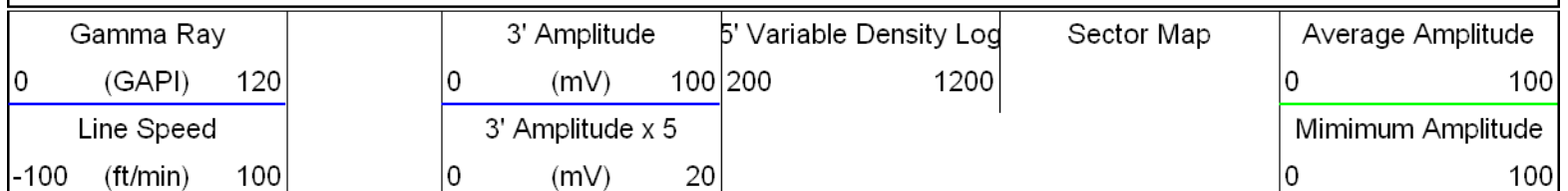




Repeat Pass

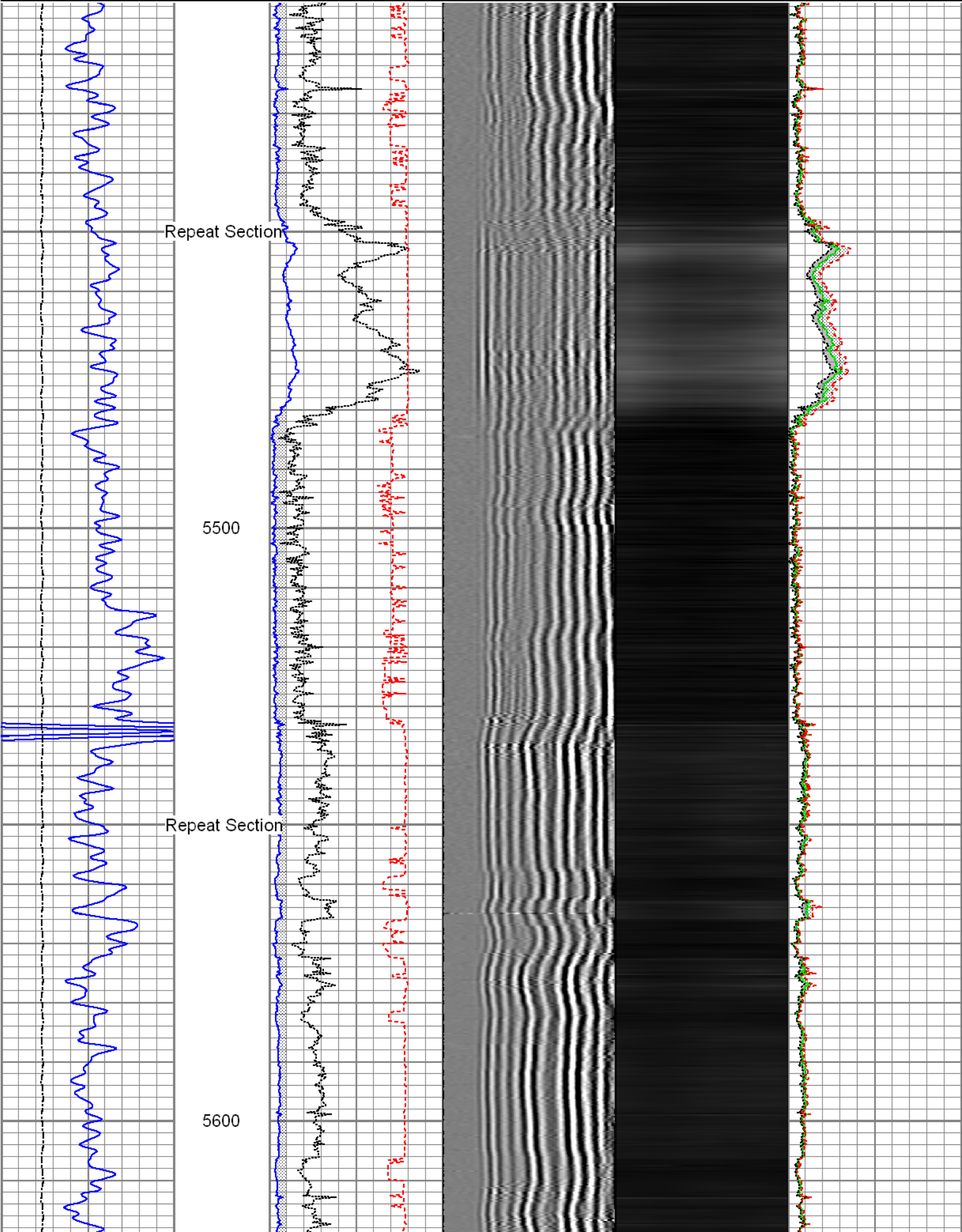
Recorded With 0 PSI Surface Induced Pressure

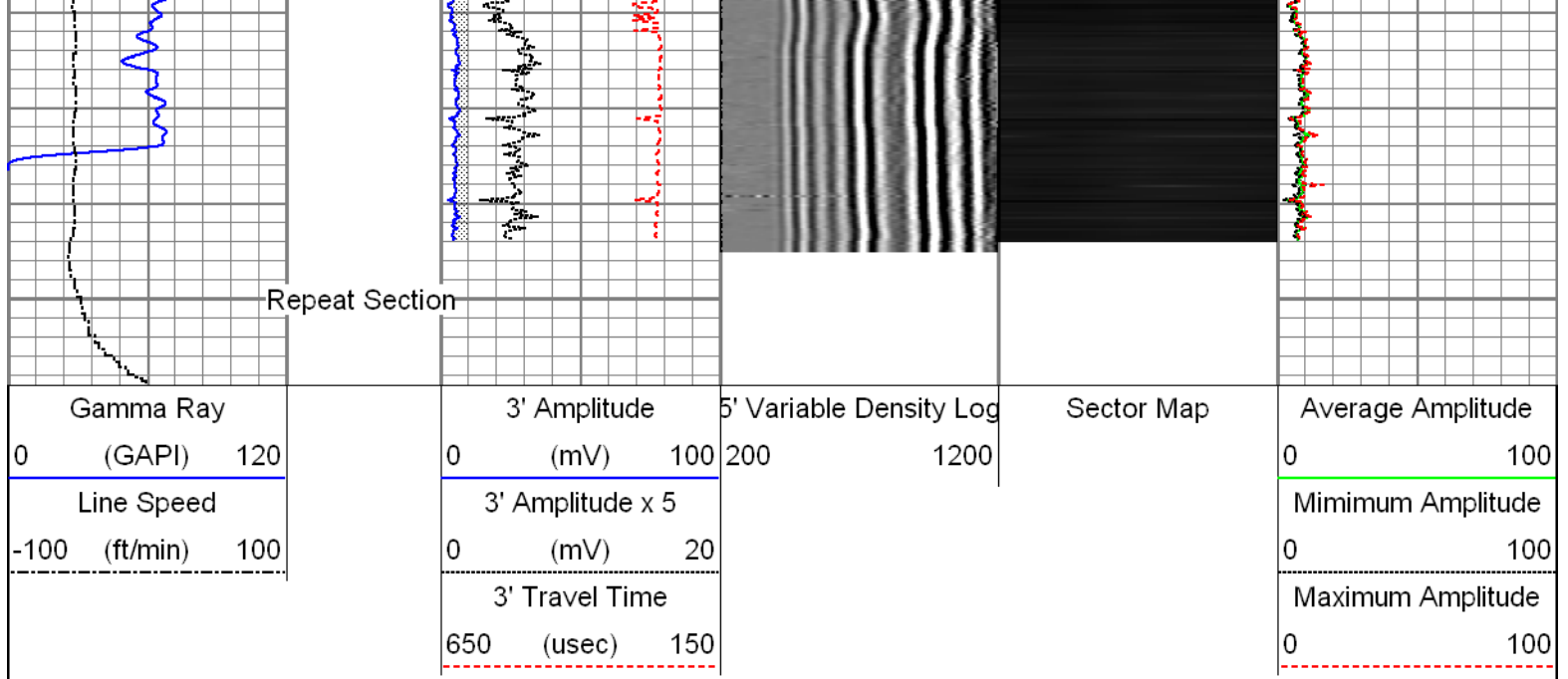
Database File: c:\warrior\data\chevron_union pacific 135y-28\07-17-15_chevron_union pacific 135y-28_mit_rbl_ll.db
 Dataset Pathname: repeatpas
 Presentation Format: rbt007
 Dataset Creation: Fri Jul 17 16:55:34 2015 by Log 7.0 B1
 Charted by: Depth in Feet scaled 1:240



3' Travel Time
650 (usec) 150

Maximum Amplitude
0 100





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
Titan_Electric	C28.25	Heads	T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
UW_AGS	27.22		UW_AGS-UW_AGS_001 (10017430) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW_XTU-UW_XTU_002 (10010519) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
GR	24.00		UW_PGR-UW_PGR_020 (10019371) Production Gamma Ray	1.93	1.69	9.50
CCL	22.47		UW_CCL-UW_CCL_028 (10024819) Ultrawire 3 1/8" Casing Collar Locator	1.61	3.13	15.00
DSS	21.89		DSS-2-3/4" (RAC.20.085SX) DSS 2-3/4" 5 Arm Centralizer W/ Sondex Ends	2.55	2.75	
UW_RBT	19.34		UW_RBT-UW_RBT_004 (10012639) Sondex Ultrawire 3- 1/8" Radial Bond Tool	9.47	3.13	140.00
WVFS1	15.00					
WVFS2	15.00					
WVFS3	15.00					
WVFS4	15.00					
WVFS5	15.00					
WVFS6	15.00					
WVFS7	15.00					
WVFS8	15.00					
CBLTEMP	15.00					
CBLROT	15.00					
WVFS5FT	14.00					
DSS	9.86		DSS #2 -2-3/4" (RAC.20.086SX)	2.55	2.75	

DSS	0.00		DSS 2-3/4" 5 Arm Centralizer W/ Sondex Ends	2.55	2.75	
MIT	4.98		UW_MIT-UW_MIT40_042 (10014703) 40 Multifinger Imaging Tool	4.54	2.75	61.10
DSS	2.77					
			DSS #3 -2-3/4" (RAC.20.087SX) DSS 2-3/4" 5 Arm Centralizer W/ Sondex Ends	2.55	2.75	
UW_BUL	0.22		UW_BUL-UW_BUL_006 (219229)	0.22	1.69	1.20
TSTAMP	0.00		Sondex Ultrawire Bullnose Terminator			
Dataset: 07-17-15_Chevron_Union Pacific 135Y-28_MIT_RBL_LL.db: field/well/run1/main1 Total Length: 28.25 ft Total Weight: 238.30 lb O.D. 3.13 in						

Calibration Report	
Database File:	C:\Warrior\Data\Chevron_Union Pacific 135Y-28\07-17-15_Chevron_Union Pacific 135Y-28_MIT_RBL
Dataset Pathname:	main1
Dataset Creation:	Fri Jul 17 17:08:31 2015 by Log 7.0 B1

Multi-finger Imaging Tool Calibration Report
--

Serial Number:	10014703
Number of Fingers:	40
Tool Model:	UW_MIT40_042

Inclinometer Calibration Report		
Performed:	Fri Sep 20 11:47:48 2013	
Calibration Angle:	45	
	Inc X	Inc Y
Vertical:	1963	1960
Finger 1 up:	1748	1727
Finger 31 up:	2195	1742
Finger 21 up:	2178	2188
Finger 11 up:	1727	2173
Sensitivity ratio:	1.00706	
X-axis angle:	132.825	
Deviation const.:	317.775	

Finger Calibration Report											
Performed: Fri Jul 17 11:51:45 2015											
Ring size:	5		5.5		6		6.5		7		7.25
(in)		Sens		Sens		Sens		Sens		Sens	
Finger 01:	1456	390.0	1651	388.0	1845	386.0	2038	444.0	2260	392.0	2358
Finger 02:	1425	400.0	1625	404.0	1827	404.0	2029	466.0	2262	416.0	2366
Finger 03:	1430	388.0	1624	384.0	1816	394.0	2013	454.0	2240	412.0	2343
Finger 04:	1370	410.0	1575	412.0	1781	416.0	1989	488.0	2233	432.0	2341
Finger 05:	1387	384.0	1579	378.0	1768	382.0	1959	444.0	2181	404.0	2282
Finger 06:	1400	398.0	1599	390.0	1794	400.0	1994	462.0	2225	424.0	2331
Finger 07:	1397	392.0	1593	384.0	1785	390.0	1980	452.0	2206	416.0	2310
Finger 08:	1380	402.0	1581	400.0	1781	410.0	1986	464.0	2218	436.0	2327
Finger 09:	1452	394.0	1649	382.0	1840	388.0	2034	430.0	2249	404.0	2350
Finger 10:	1410	392.0	1606	386.0	1799	396.0	1997	436.0	2215	420.0	2320
Finger 11:	1393	394.0	1590	390.0	1785	402.0	1986	442.0	2207	432.0	2315

Finger 12:	1466	374.0	1653	366.0	1836	376.0	2024	396.0	2222	396.0	2321
Finger 13:	1416	384.0	1608	388.0	1802	406.0	2005	424.0	2217	436.0	2326
Finger 14:	1412	396.0	1610	402.0	1811	424.0	2023	424.0	2235	448.0	2347
Finger 15:	1364	398.0	1563	410.0	1768	432.0	1984	424.0	2196	452.0	2309
Finger 16:	1414	384.0	1606	396.0	1804	418.0	2013	404.0	2215	440.0	2325
Finger 17:	1438	374.0	1625	388.0	1819	408.0	2023	382.0	2214	424.0	2320
Finger 18:	1476	374.0	1663	388.0	1857	406.0	2060	382.0	2251	424.0	2357
Finger 19:	1441	382.0	1632	398.0	1831	420.0	2041	384.0	2233	432.0	2341
Finger 20:	1356	384.0	1548	416.0	1756	436.0	1974	392.0	2170	448.0	2282
Finger 21:	1445	372.0	1631	414.0	1838	422.0	2049	362.0	2230	432.0	2338
Finger 22:	1429	378.0	1618	406.0	1821	424.0	2033	374.0	2220	432.0	2328
Finger 23:	1472	382.0	1663	406.0	1866	422.0	2077	376.0	2265	428.0	2372
Finger 24:	1405	350.0	1580	388.0	1774	396.0	1972	352.0	2148	412.0	2251
Finger 25:	1443	386.0	1636	416.0	1844	428.0	2058	376.0	2246	424.0	2352
Finger 26:	1392	374.0	1579	418.0	1788	422.0	1999	374.0	2186	428.0	2293
Finger 27:	1579	384.0	1771	450.0	1996	420.0	2206	330.0	2371	468.0	2488
Finger 28:	1429	362.0	1610	420.0	1820	420.0	2030	354.0	2207	424.0	2313
Finger 29:	1382	378.0	1571	414.0	1778	428.0	1992	394.0	2189	420.0	2294
Finger 30:	1369	382.0	1560	418.0	1769	430.0	1984	400.0	2184	416.0	2288
Finger 31:	1614	398.0	1813	426.0	2026	432.0	2242	406.0	2445	408.0	2547
Finger 32:	1352	374.0	1539	398.0	1738	410.0	1943	396.0	2141	396.0	2240
Finger 33:	1477	402.0	1678	428.0	1892	432.0	2108	436.0	2326	424.0	2432
Finger 34:	1328	384.0	1520	406.0	1723	412.0	1929	428.0	2143	408.0	2245
Finger 35:	1518	406.0	1721	422.0	1932	420.0	2142	444.0	2364	408.0	2466
Finger 36:	1397	374.0	1584	386.0	1777	390.0	1972	420.0	2182	392.0	2280
Finger 37:	1505	406.0	1708	416.0	1916	416.0	2124	450.0	2349	412.0	2452
Finger 38:	1447	384.0	1639	390.0	1834	388.0	2028	432.0	2244	396.0	2343
Finger 39:	1431	374.0	1618	376.0	1806	378.0	1995	426.0	2208	392.0	2306
Finger 40:	1365	414.0	1572	418.0	1781	426.0	1994	478.0	2233	436.0	2342

Segmented Cement Bond Log Calibration Report

Serial Number:	10012639	
Tool Model:	UW_RBT_004	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	0.000	ft

Master Calibration, performed Thu Jun 11 18:14:30 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.000	0.927	1.100	62.200	65.940	1.100
5FT	0.000	0.858	1.100	62.200	71.211	1.100
S1	-0.001	0.890	0.000	100.000	112.213	0.142
S2	-0.004	0.861	0.000	100.000	115.568	0.450
S3	-0.003	0.887	0.000	100.000	112.358	0.300
S4	-0.004	0.924	0.000	100.000	107.743	0.412
S5	-0.002	0.944	0.000	100.000	105.738	0.159
S6	-0.003	1.006	0.000	100.000	99.183	0.260
S7	-0.003	1.008	0.000	100.000	98.842	0.333
S8	-0.002	0.951	0.000	100.000	104.956	0.225

Gamma Ray Calibration Report

Serial Number: 10019371
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
---------------------	-----	-----

Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

	Company	Chevron USA Inc.
	Well	Union Pacific 135Y-28
	Field	Rangely
	County	Rio Blanco
	State	Colorado