

County Weld State Colorado

K.B.	5080
D.F.	
G.L.	5063

ate	18-FEB-2018
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Run Number	One
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Depth Driller	13681 FT
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Depth Logger 7400 FT

Bottom Logged Interval	7394 FT
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op Log Interval	Surface
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Open Hole Size	8.50"
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Type Fluid	Water
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Density / Viscosity	8.34 lb/gal
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Max. Recorded Temp.	219°F
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Estimated Cement Top	See Log
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Time Well Ready	ROA
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Time Logger on Bottom	1120
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Equipment Number	HD-324
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Location	Fort Lupton, CO
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Recorded By	C. Bryan
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Witnessed By	John McCarr
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Borehole Record

Run Number	Bit	From	To
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2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031	2031-2032	2032-2033	2033-2034	2034-2035	2035-2036	2036-2037	2037-2038	2038-2039	2039-2040	2040-2041	2041-2042	2042-2043	2043-2044	2044-2045	2045-2046	2046-2047	2047-2048	2048-2049	2049-2050	2050-2051	2051-2052	2052-2053	2053-2054	2054-2055	2055-2056	2056-2057	2057-2058	2058-2059	2059-2060	2060-2061	2061-2062	2062-2063	2063-2064	2064-2065	2065-2066	2066-2067	2067-2068	2068-2069	2069-2070	2070-2071	2071-2072	2072-2073	2073-2074	2074-2075	2075-2076	2076-2077	2077-2078	2078-2079	2079-2080	2080-2081	2081-2082	2082-2083	2083-2084	2084-2085	2085-2086	2086-2087	2087-2088	2088-2089	2089-2090	2090-2091	2091-2092	2092-2093	2093-2094	2094-2095	2095-2096	2096-2097	2097-2098	2098-2099	2099-2100	2100-2101	2101-2102	2102-2103	2103-2104	2104-2105	2105-2106	2106-2107	2107-2108	2108-2109	2109-2110	2110-2111	2111-2112	2112-2113	2113-2114	2114-2115	2115-2116	2116-2117	2117-2118	2118-2119	2119-2120	2120-2121	2121-2122	2122-2123	2123-2124	2124-2125	2125-2126	2126-2127	2127-2128	2128-2129	2129-2130	2130-2131	2131-2132	2132-2133	2133-2134	2134-2135	2135-2136	2136-2137	2137-2138	2138-2139	2139-2140	2140-2141	2141-2142	2142-2143	2143-2144	2144-2145	2145-2146	2146-2147	2147-2148	2148-2149	2149-2150	2150-2151	2151-2152	2152-2153	2153-2154	2154-2155	2155-2156	2156-2157	2157-2158	2158-2159	2159-2160	2160-2161	2161-2162	2162-2163	2163-2164	2164-2165	2165-2166	2166-2167	2167-2168	2168-2169	2169-2170	2170-2171	2171-2172	2172-2173	2173-2174	2174-2175	2175-2176	2176-2177	2177-2178	2178-2179	2179-2180	2180-2181	2181-2182	2182-2183	2183-2184	2184-2185	2185-2186	2186-2187	2187-2188	2188-2189	2189-2190	2190-2191	2191-2192	2192-2193	2193-2194	2194-2195	2195-2196	2196-2197	2197-2198	2198-2199	2199-2200	2200-2201	2201-2202	2202-2203	2203-2204	2204-2205	2205-2206	2206-2207	2207-2208	2208-2209	2209-2210	2210-2211	2211-2212	2212-2213	2213-2214	2214-2215	2215-2216	2216-2217	2217-2218	2218-2219	2219-2220	2220-2221	2221-2222	2222-2223	2223-2224	2224-2225	2225-2226	2226-2227	2227-2228	2228-2229	2229-2230	2230-2231	2231-2232	2232-2233	2233-2234	2234-2235	2235-2236	2236-2237	2237-2238	2238-2239	2239-2240	2240-2241	2241-2242	2242-2243	2243-2244	2244-2245	2245-2246	2246-2247	2247-2248	2248-2249	2249-2250	2250-2251	2251-2252	2252-2253	2253-2254	2254-2255	2255-2256	2256-2257	2257-2258	2258-2259	2259-2260	2260-2261	2261-2262	2262-2263	2263-2264	2264-2265	2265-2266	2266-2267	2267-2268	2268-2269	2269-2270	2270-2271	2271-2272	2272-2273	2273-2274	2274-2275	2275-2276	2276-2277	2277-2278	2278-2279	2279-2280	2280-2281	2281-2282	2282-2283	2283-2284	2284-2285	2285-2286	2286-2287	2287-2288	2288-2289	2289-2290	2290-2291	2291-
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Size (in)	Wgt (lbs/ft)
0.5/0	35

urnace Casing	9 5/8	30
Pressure Indicator #1	E 1/2	47

Coordinate #3		
Coordinate #1	7/1	

Leilaudale #2		
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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 Marker Joint at 7353 FT
Adjusted +8 FT to correlate with Marker Joint
Log ran from 7394 FT to Surface
Log ran with 2800 PSI surface induced pressure
Logging tools were clean and free of any debris upon completion of operations

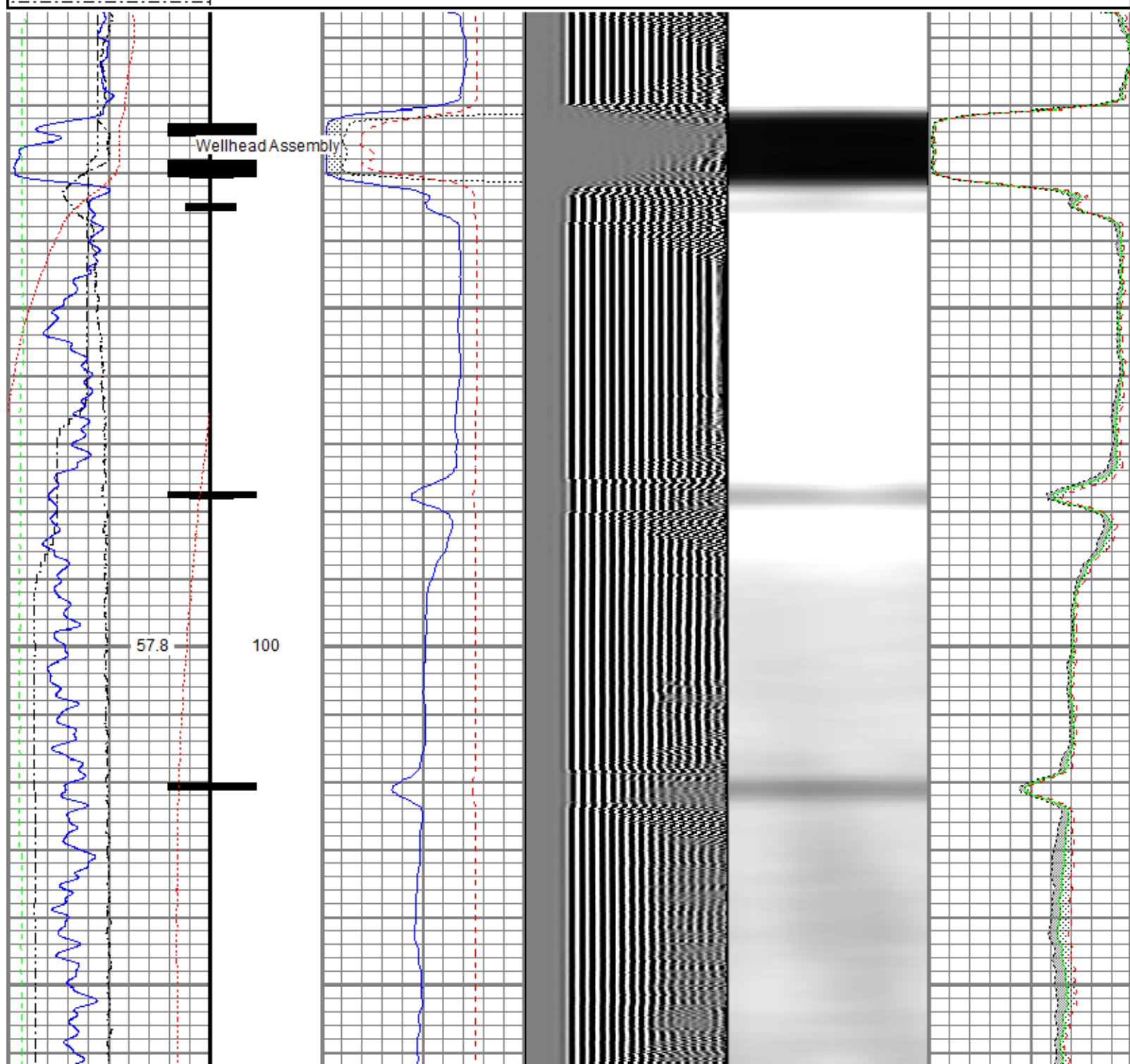
Thank you for choosing Reliance Oilfield Services, LLC!!

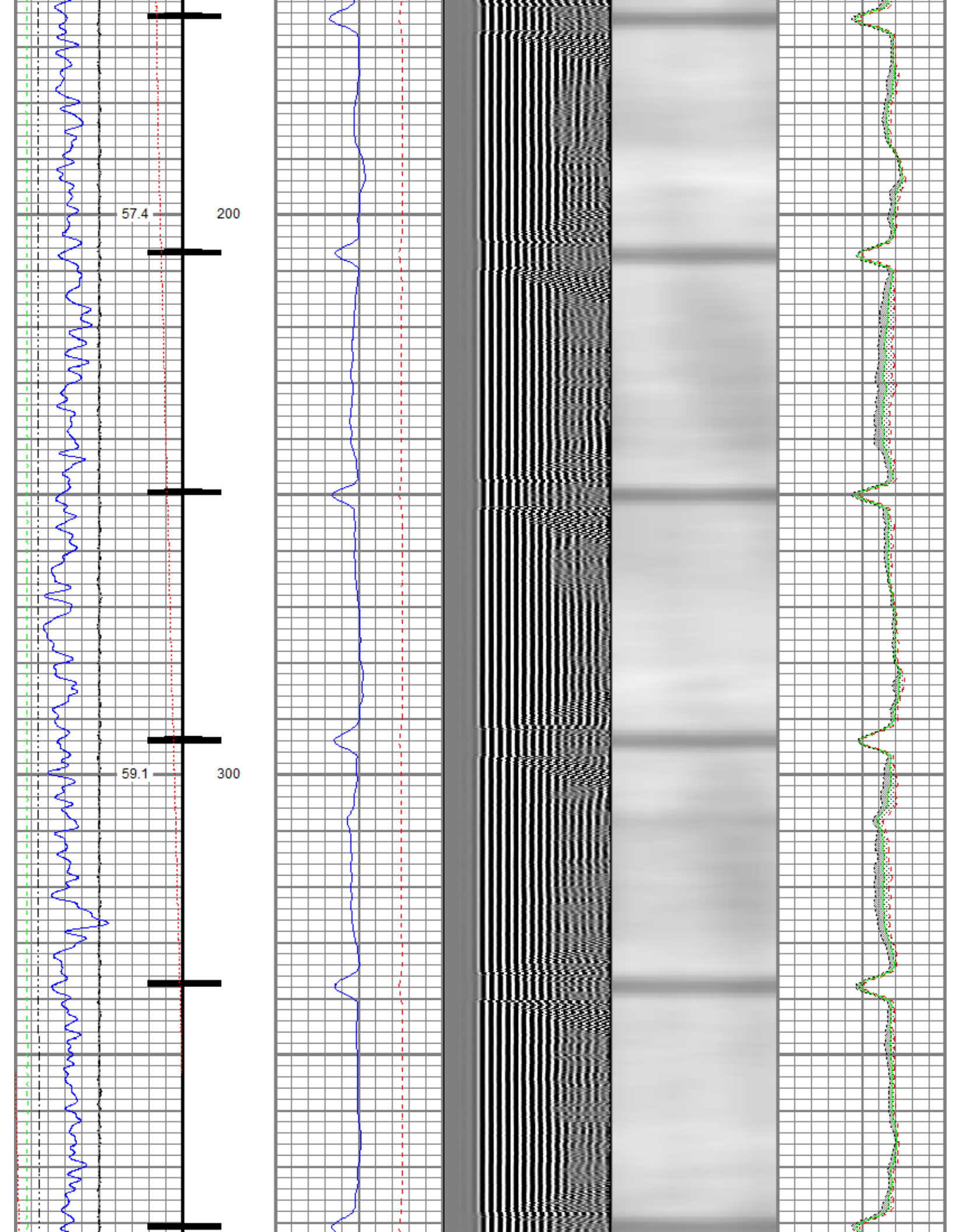
Main Pass

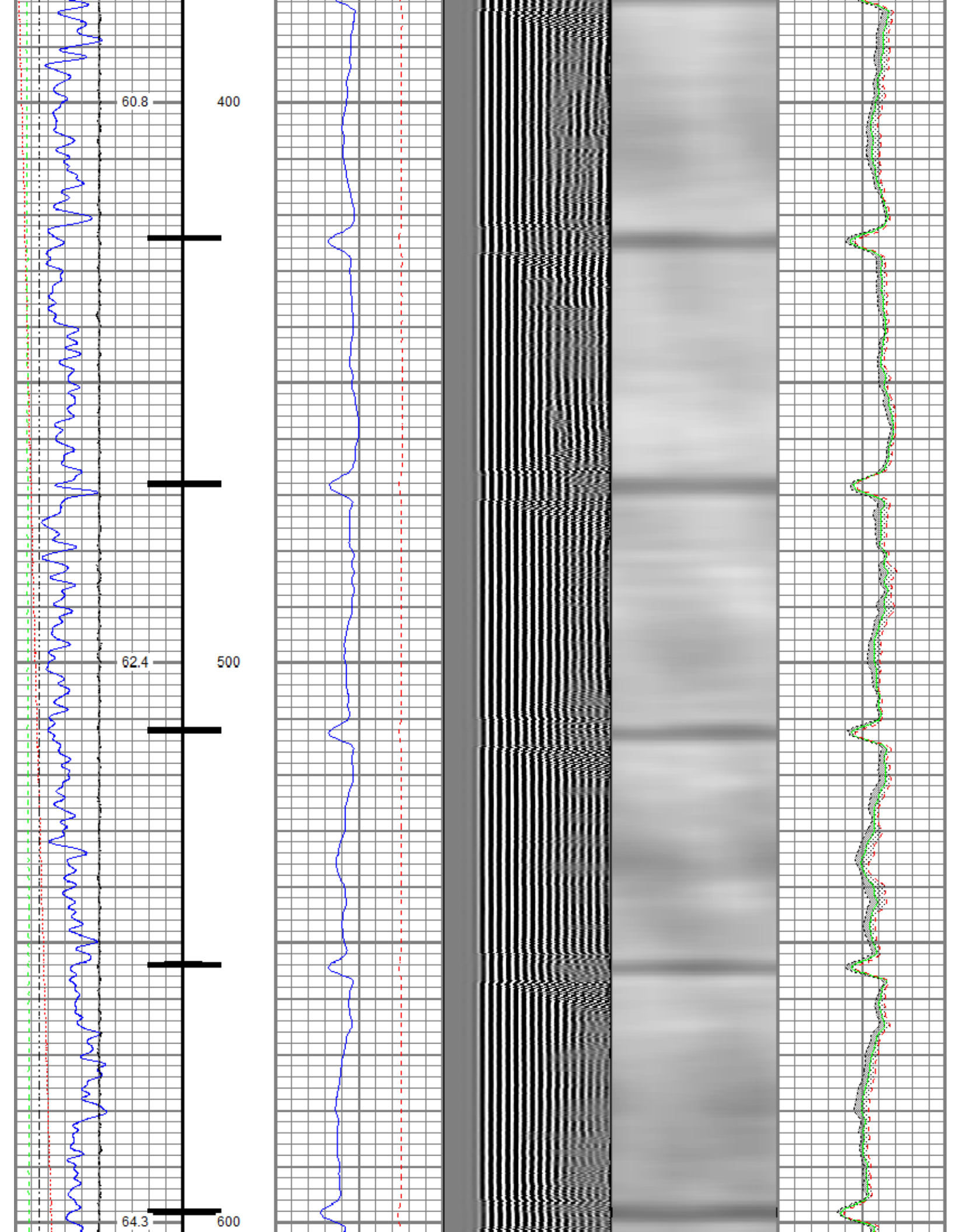


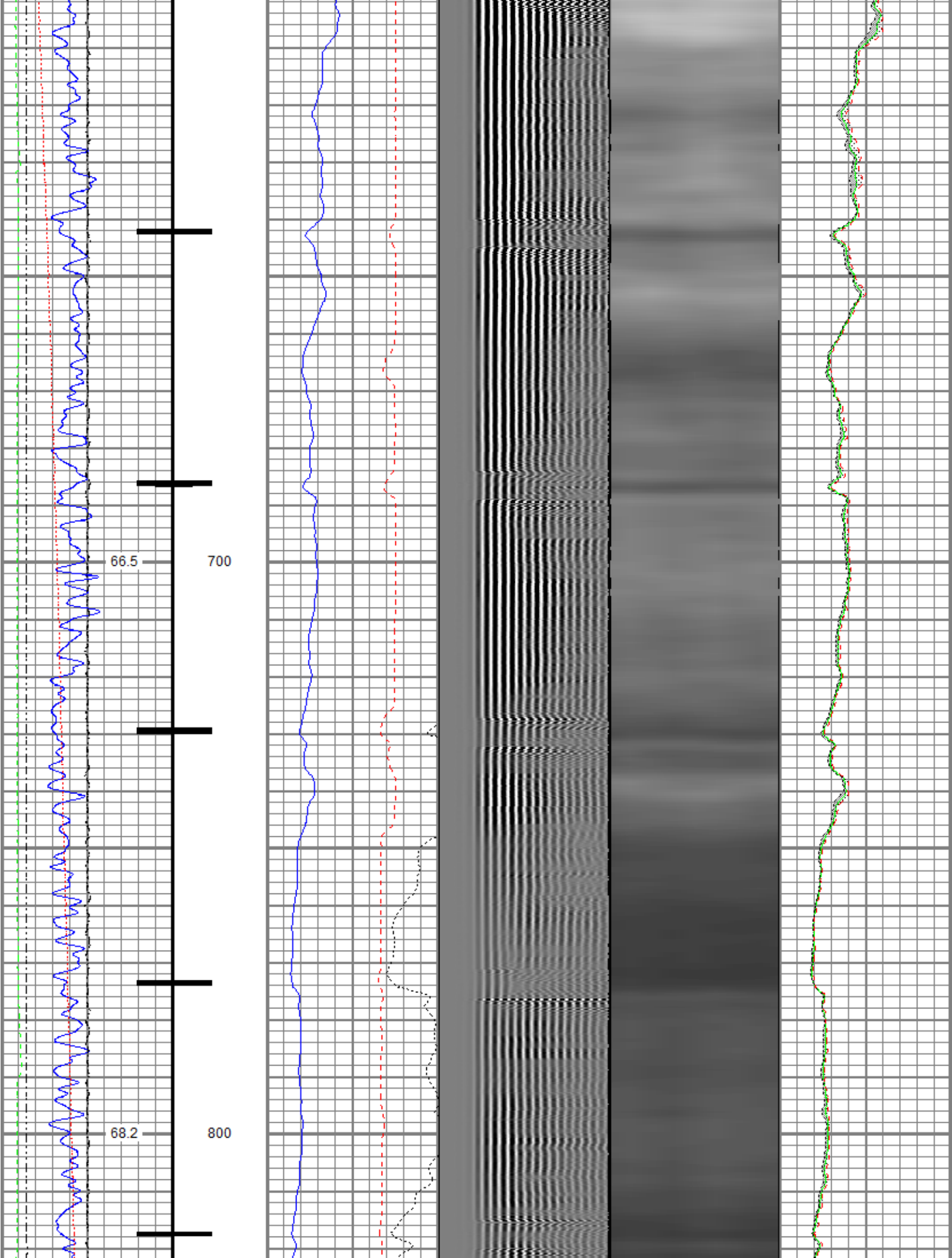
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 Dataset Pathname main.1
 Presentation Format ros_radri
 Dataset Creation Sun Feb 18 13:49:40 2018
 Charted by Depth in Feet scaled 1:240

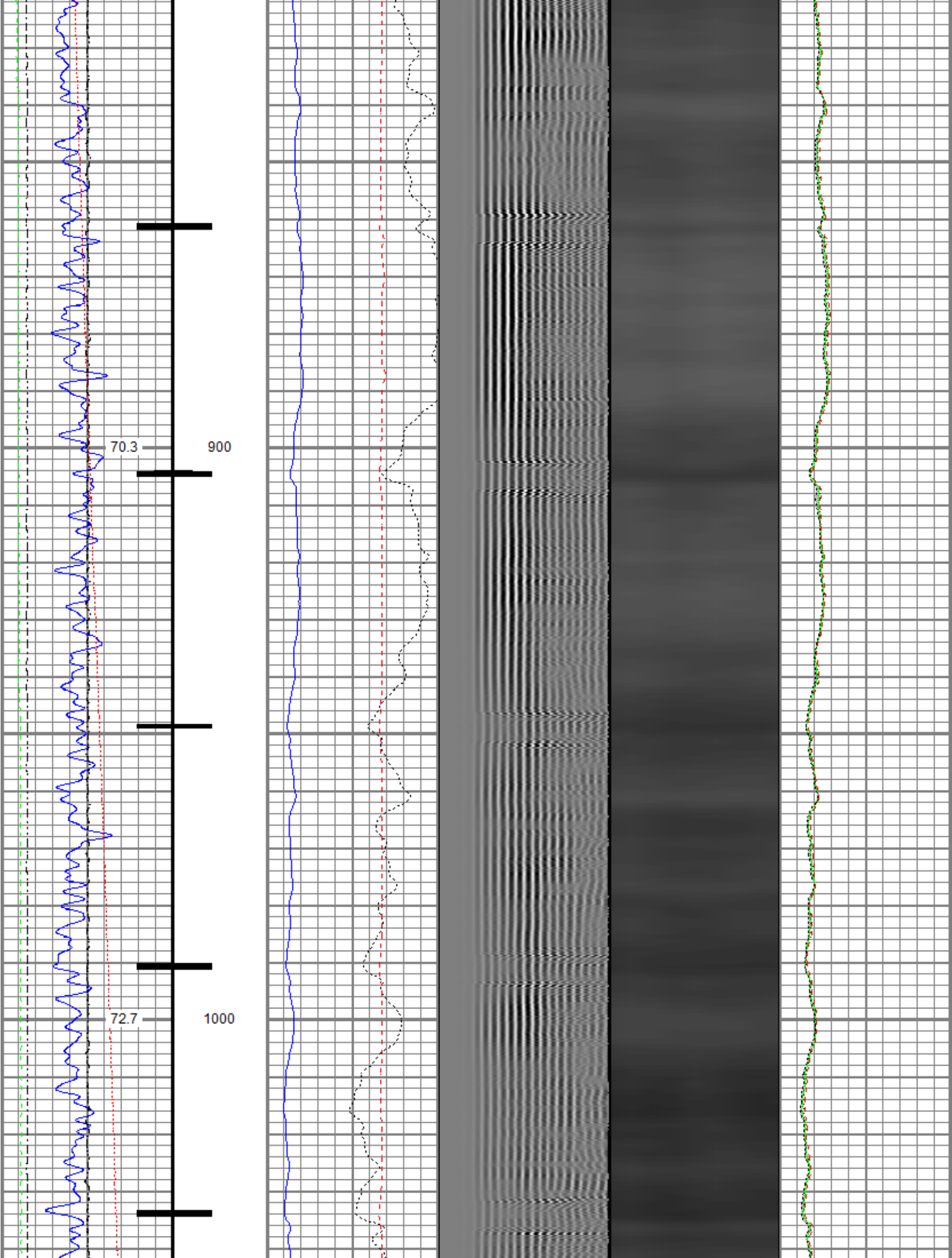
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
(ft/min) 150						
Line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

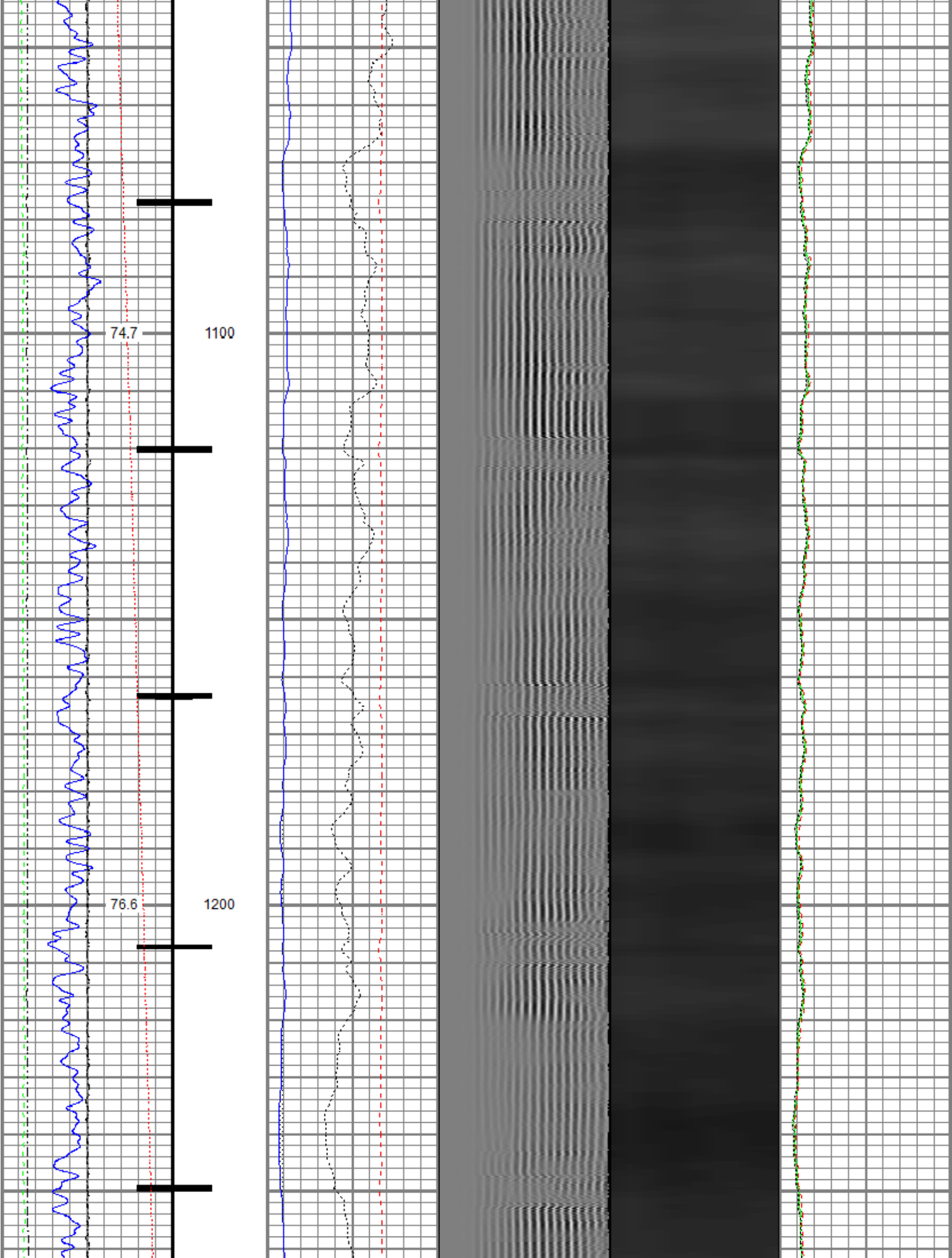


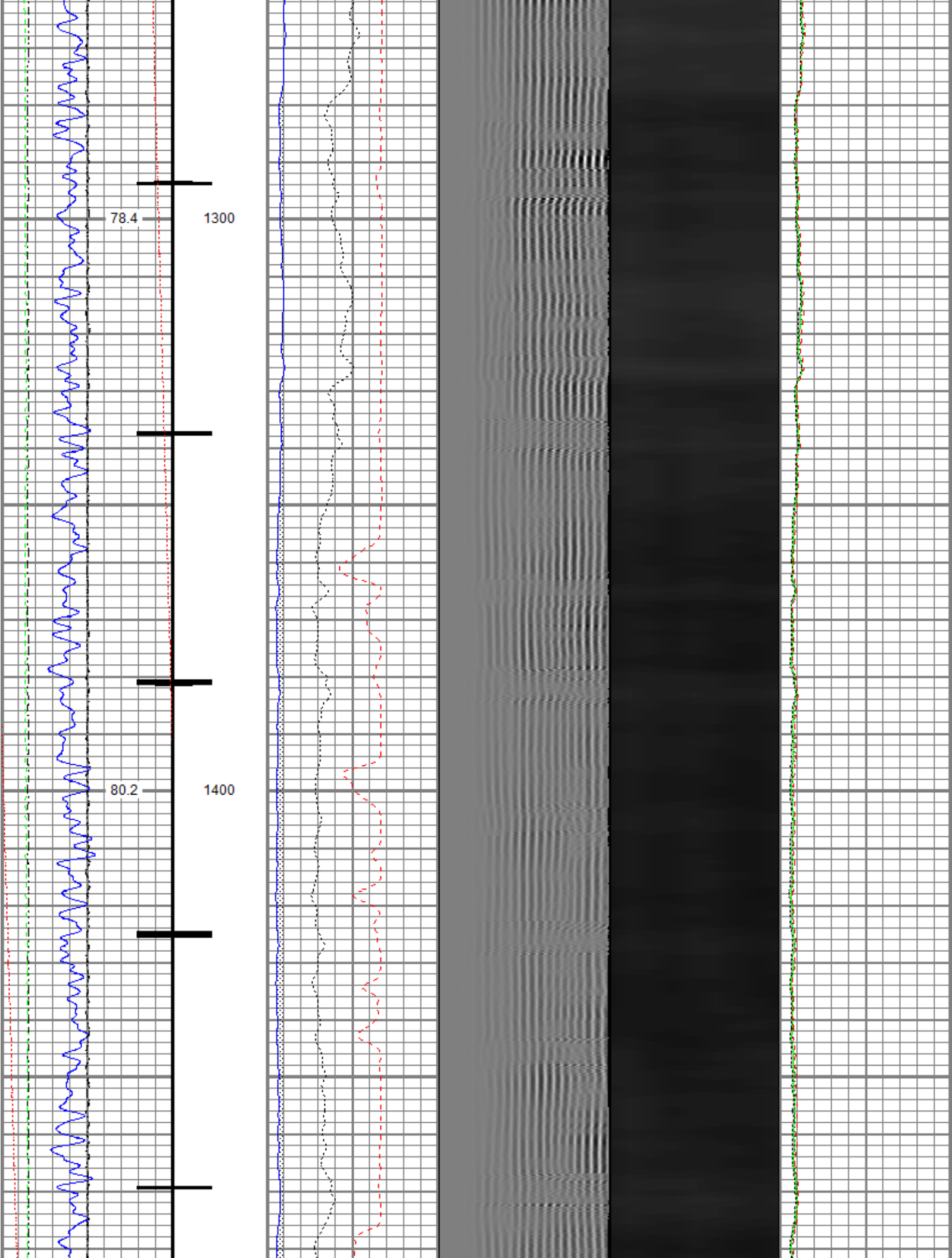


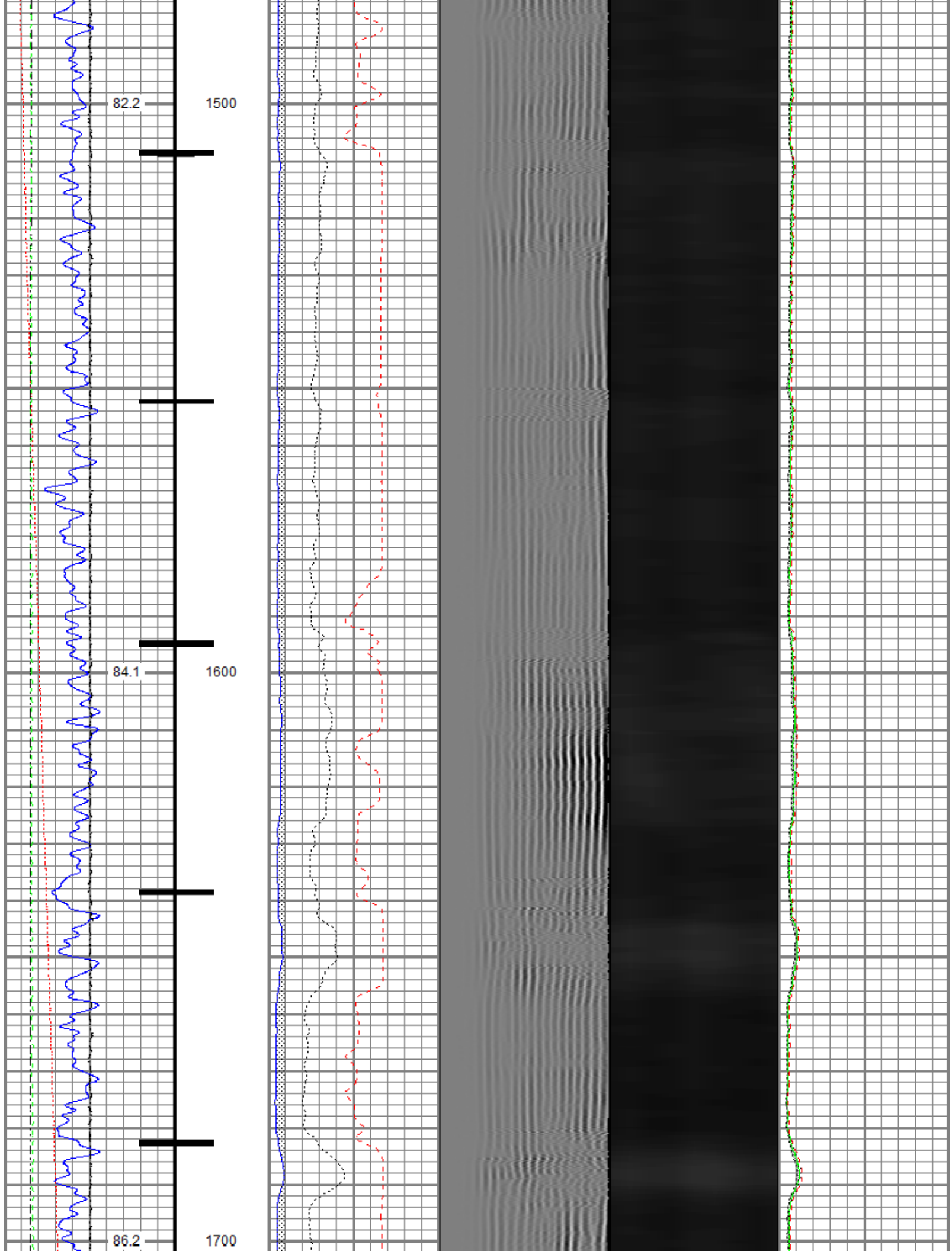


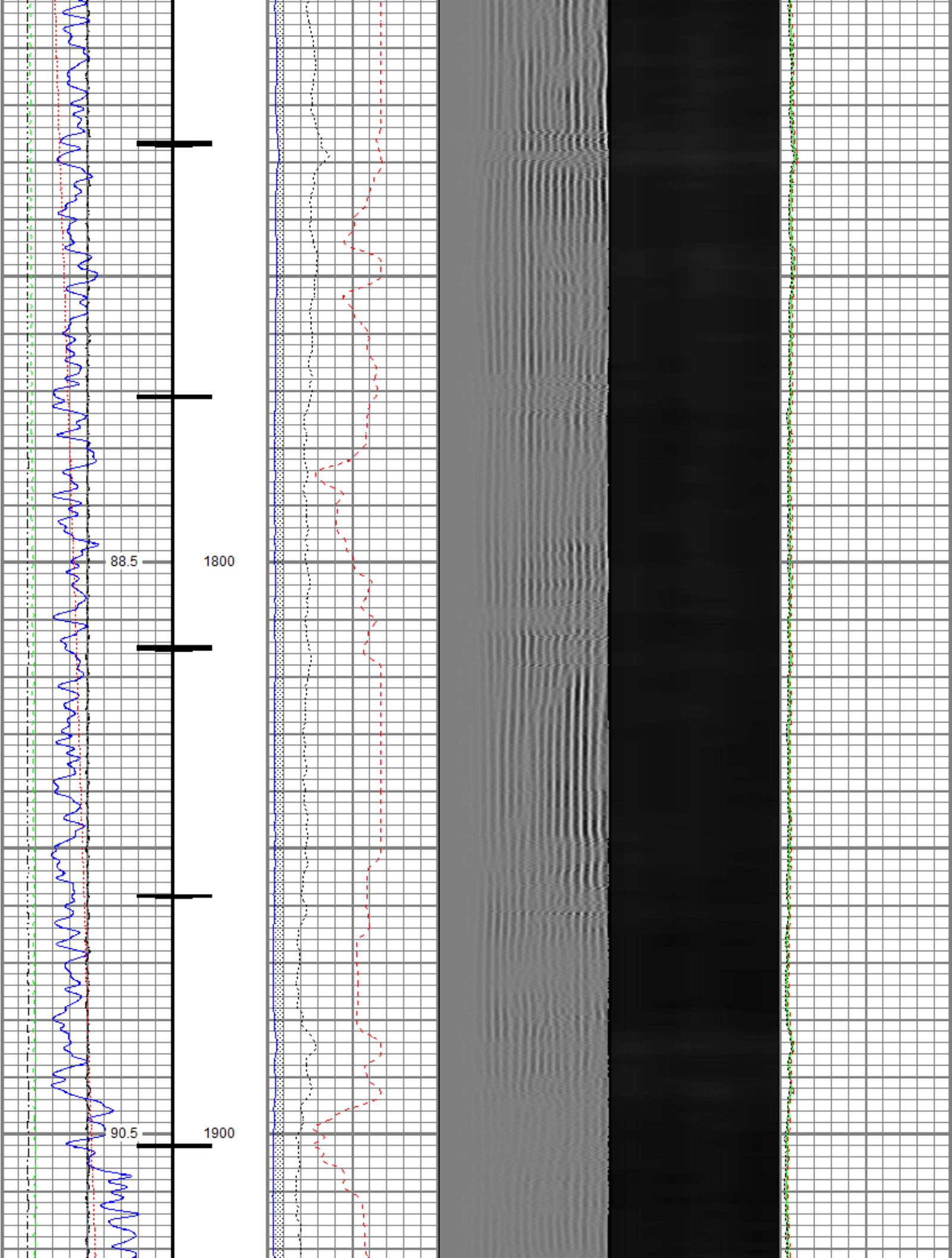


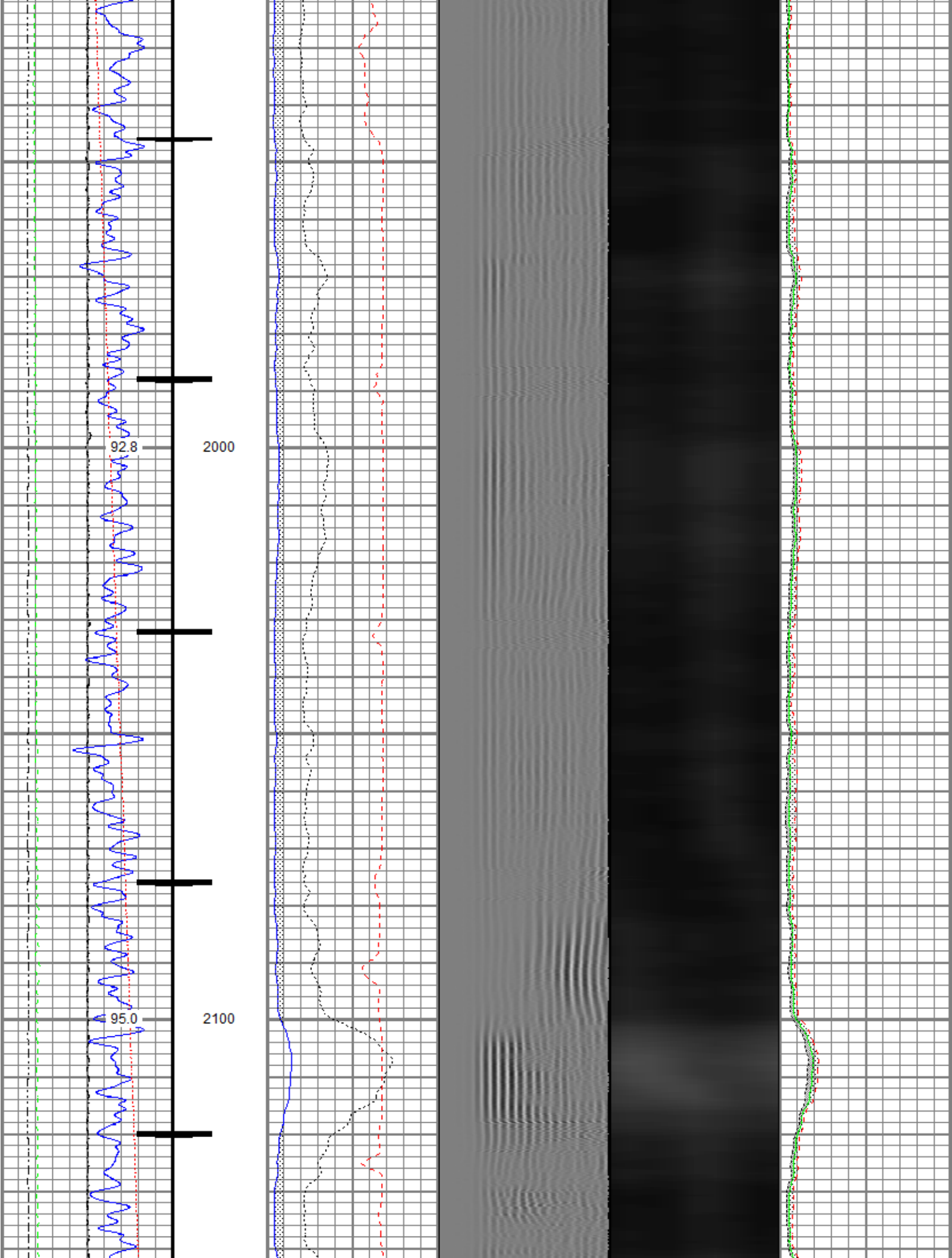


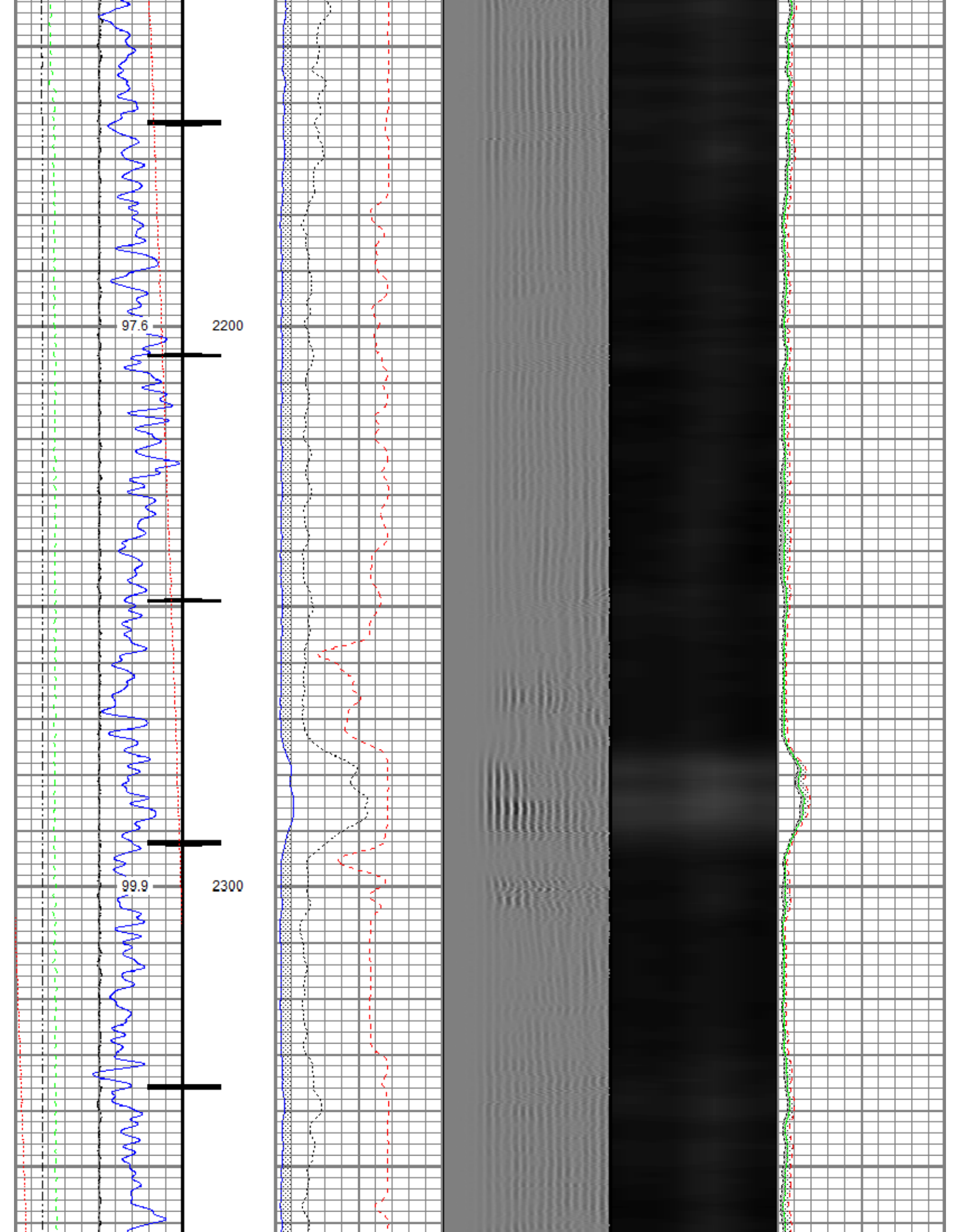


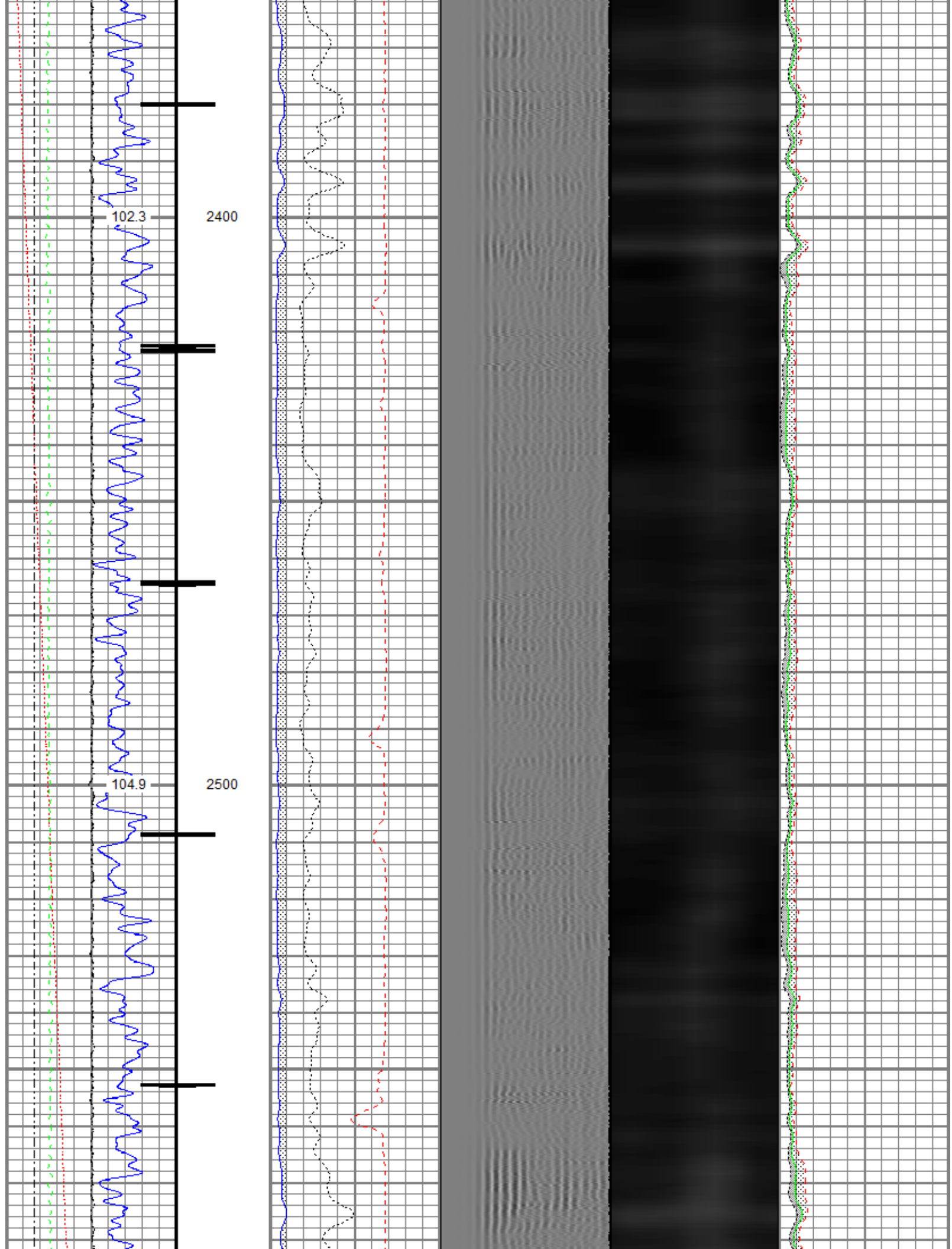


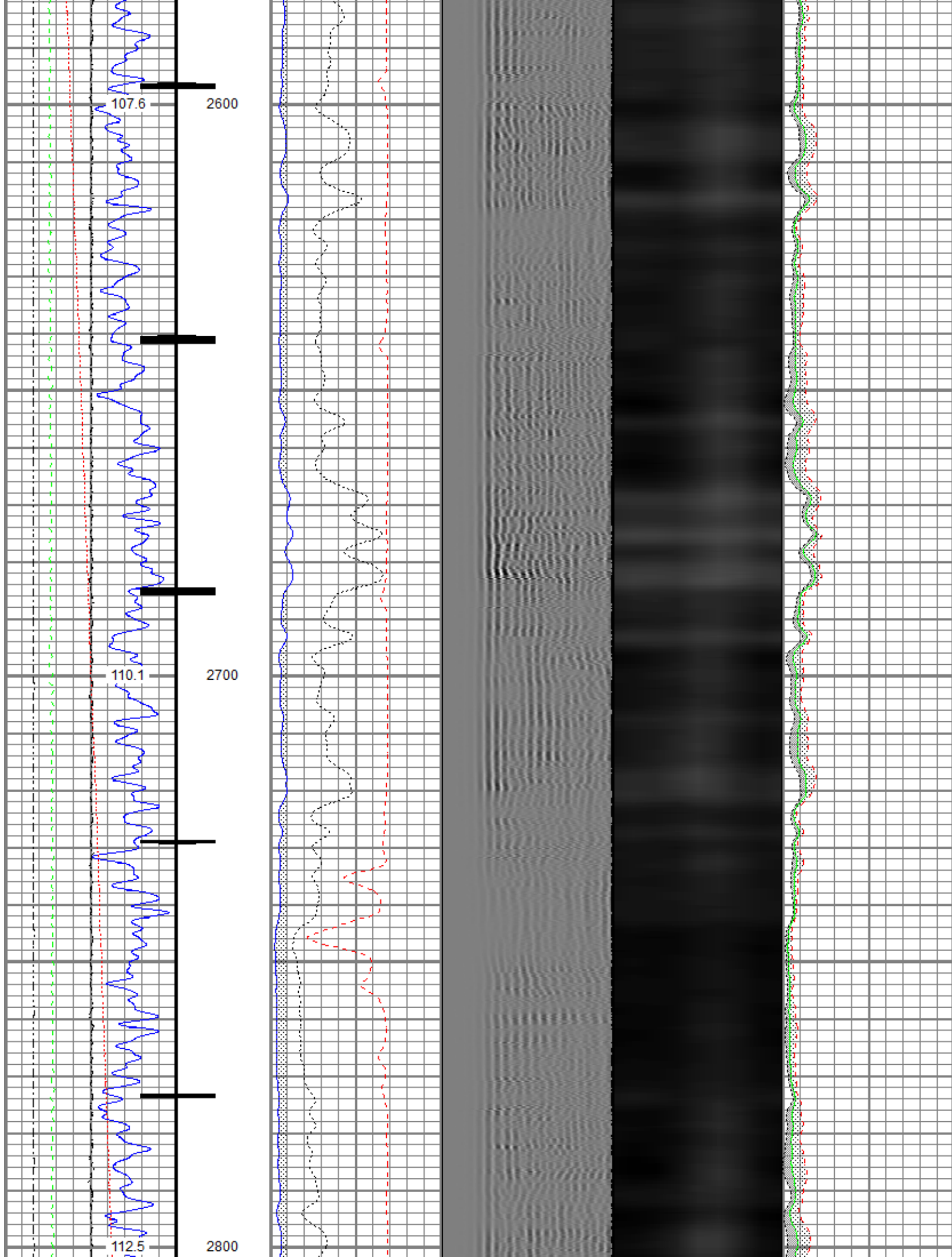


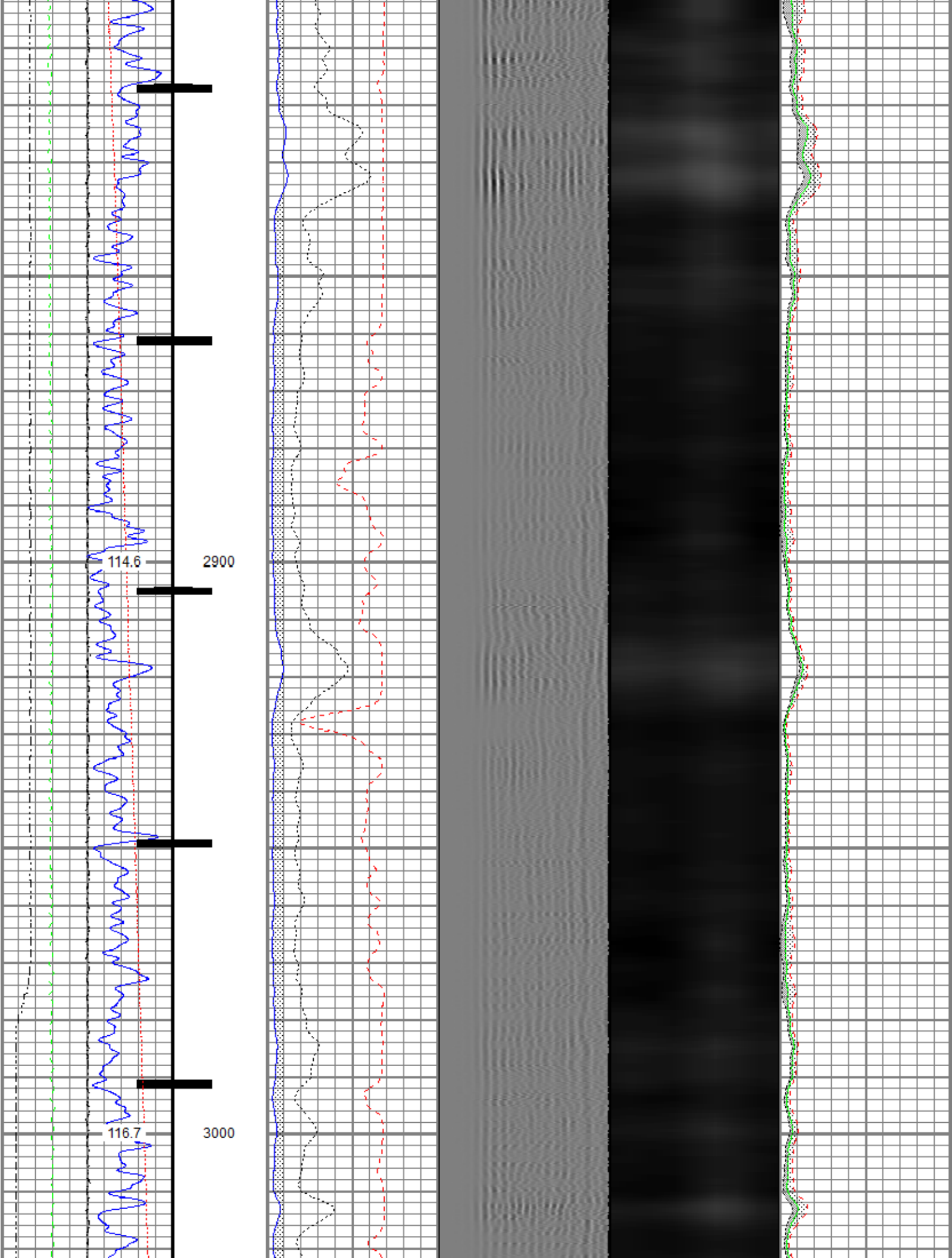


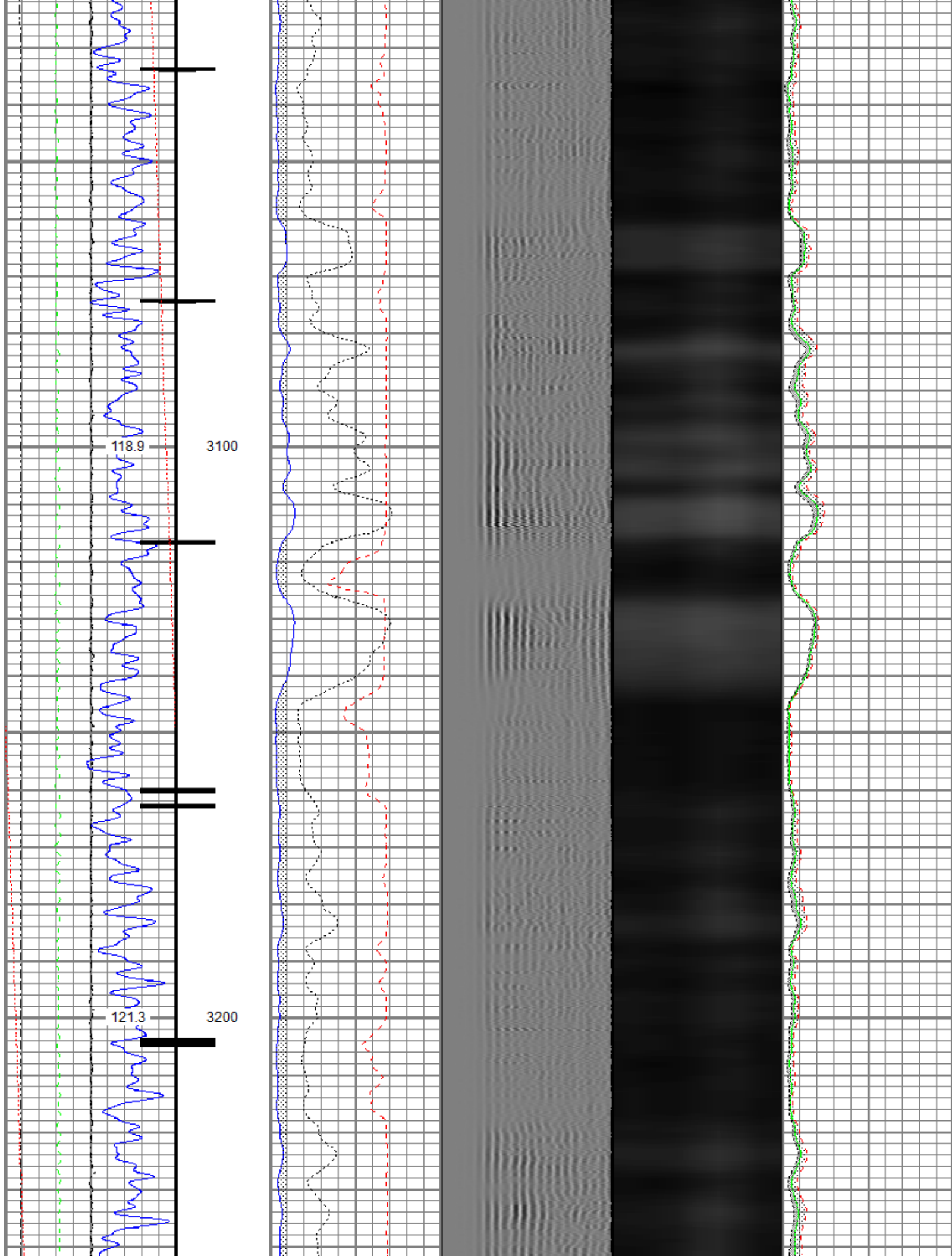


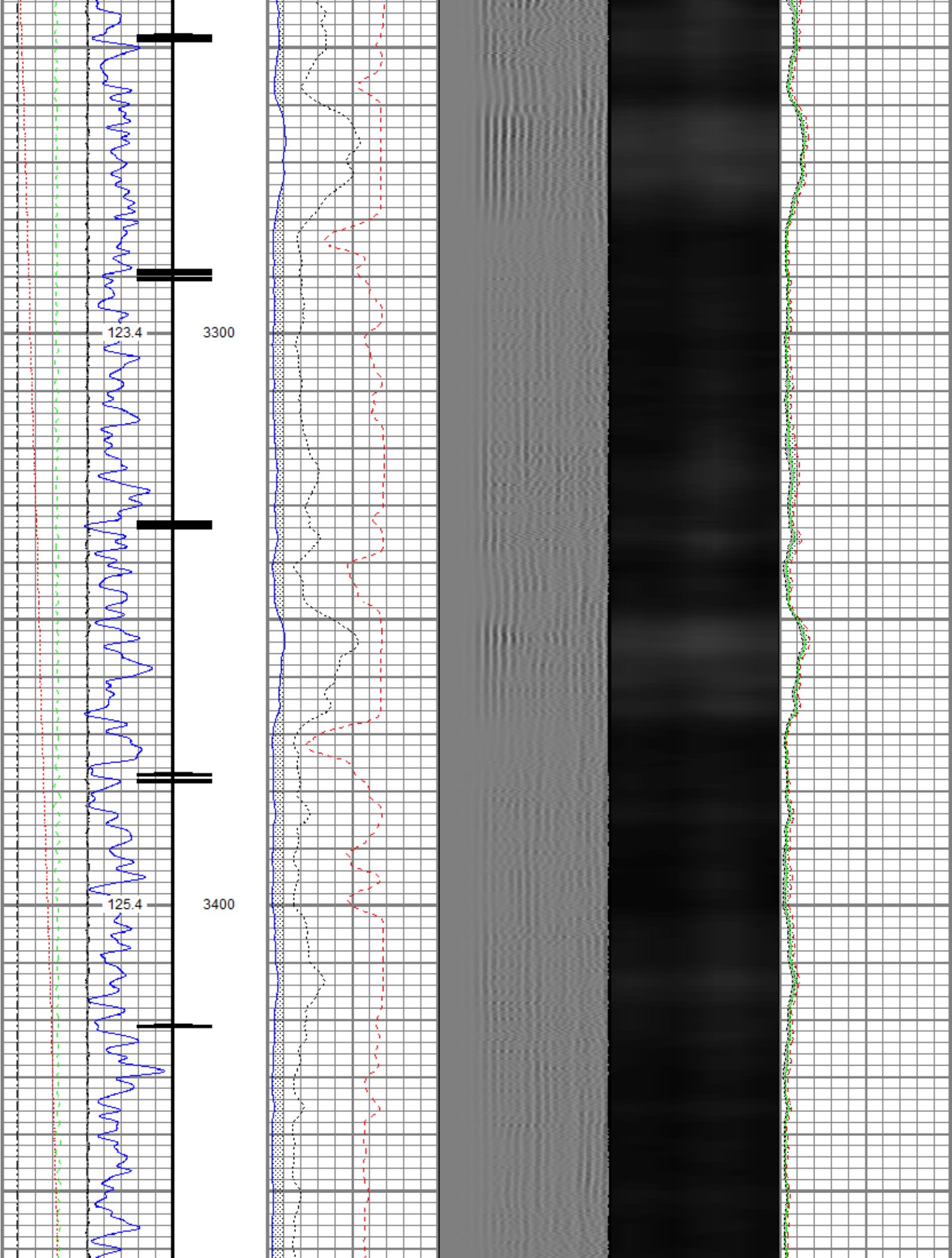


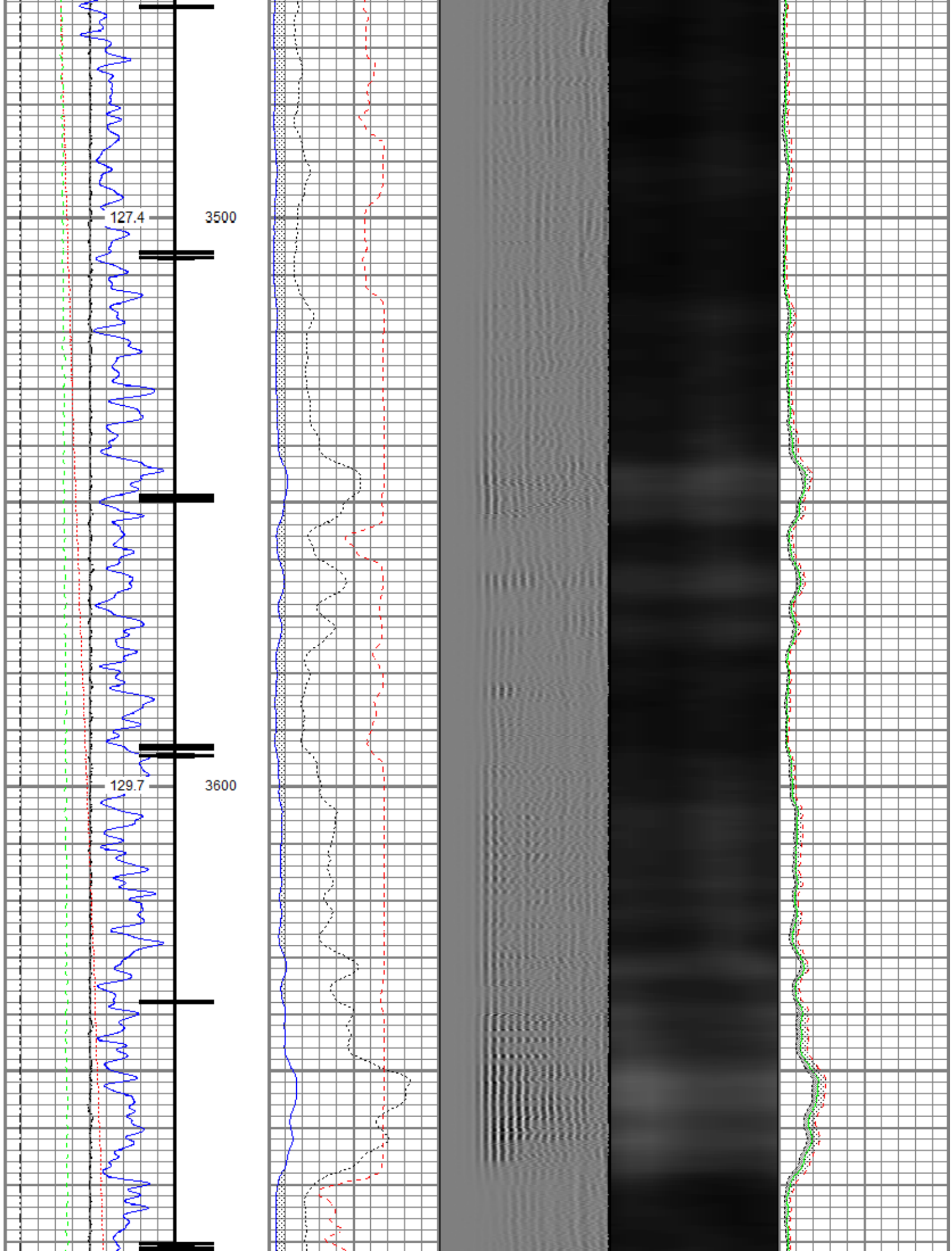


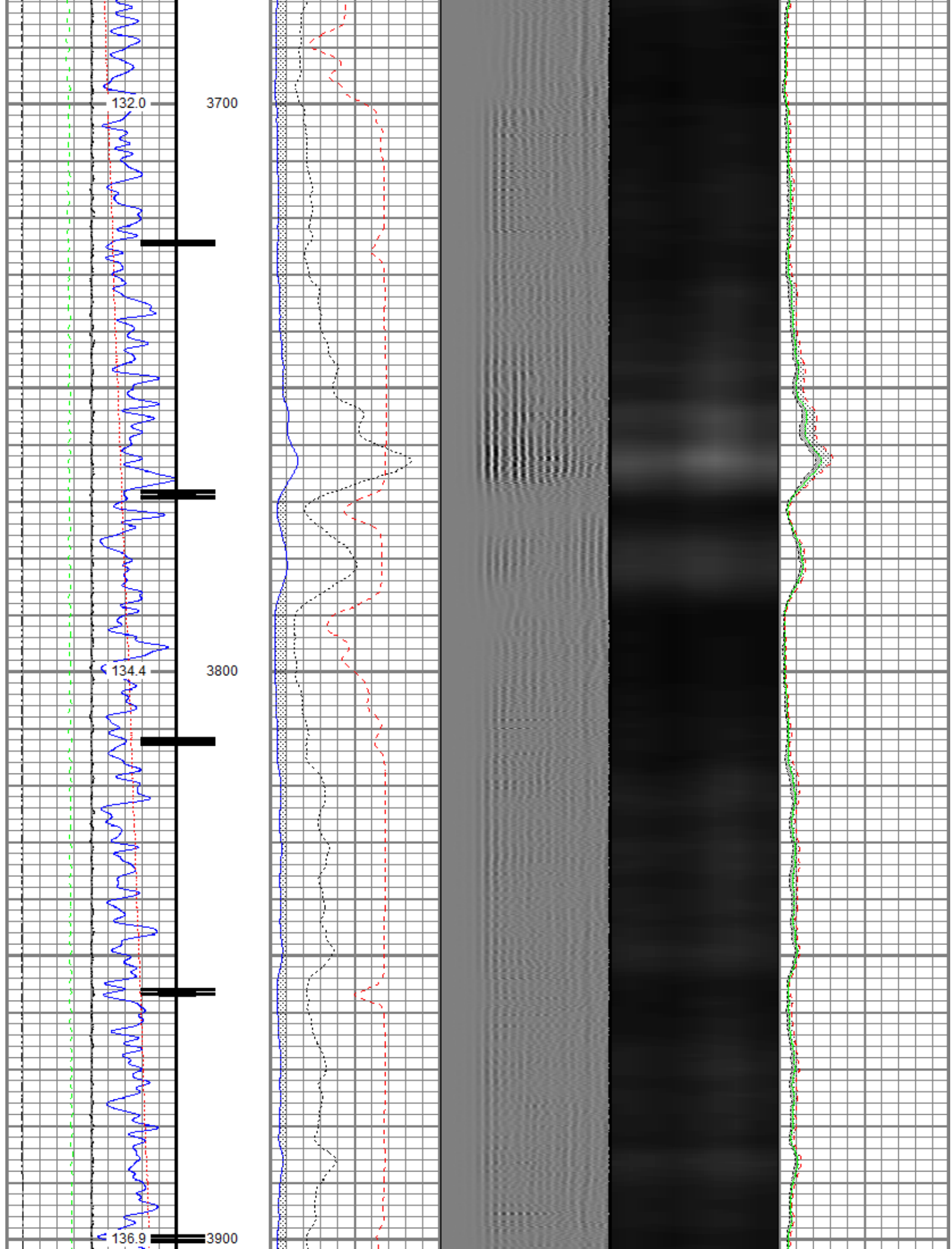


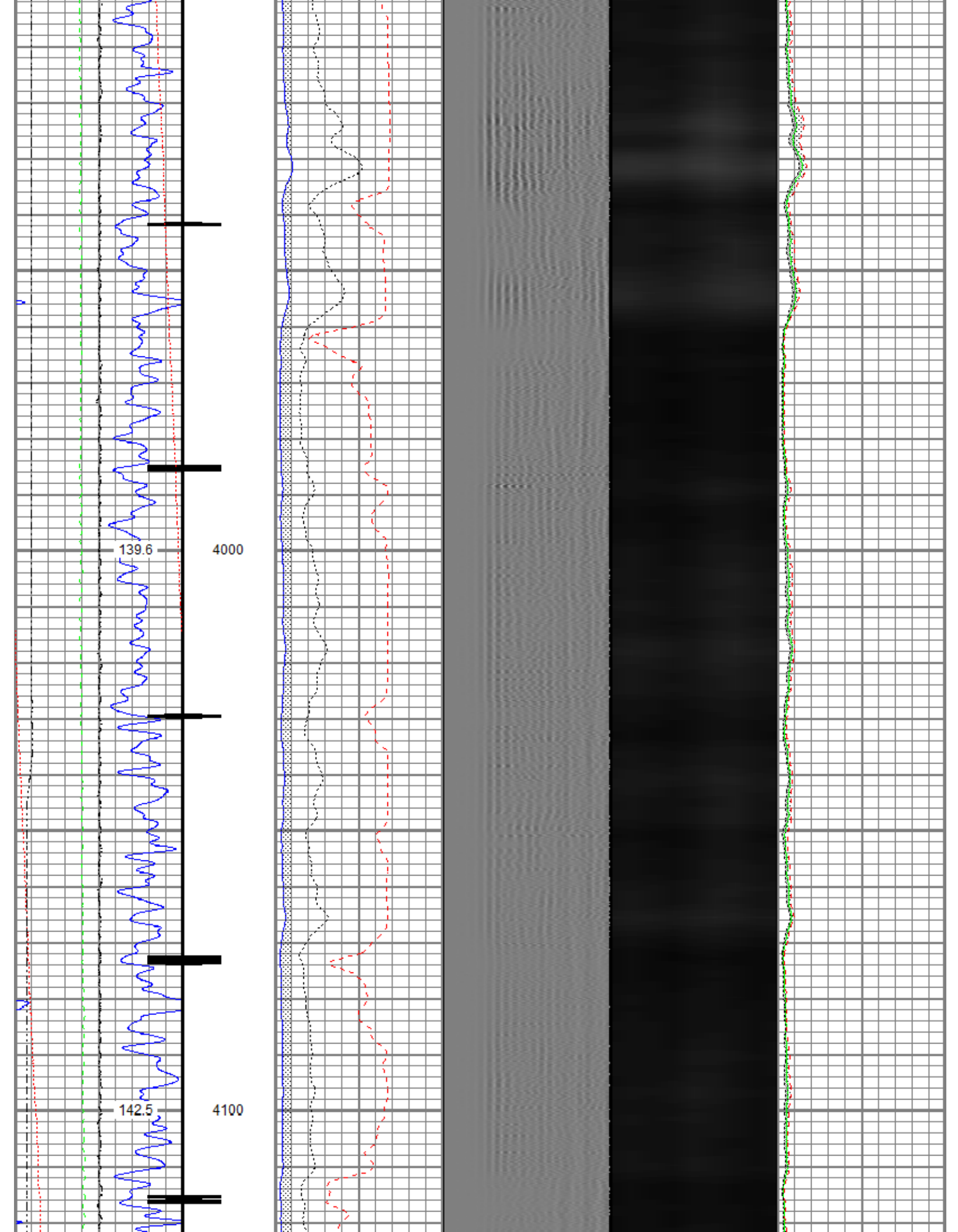


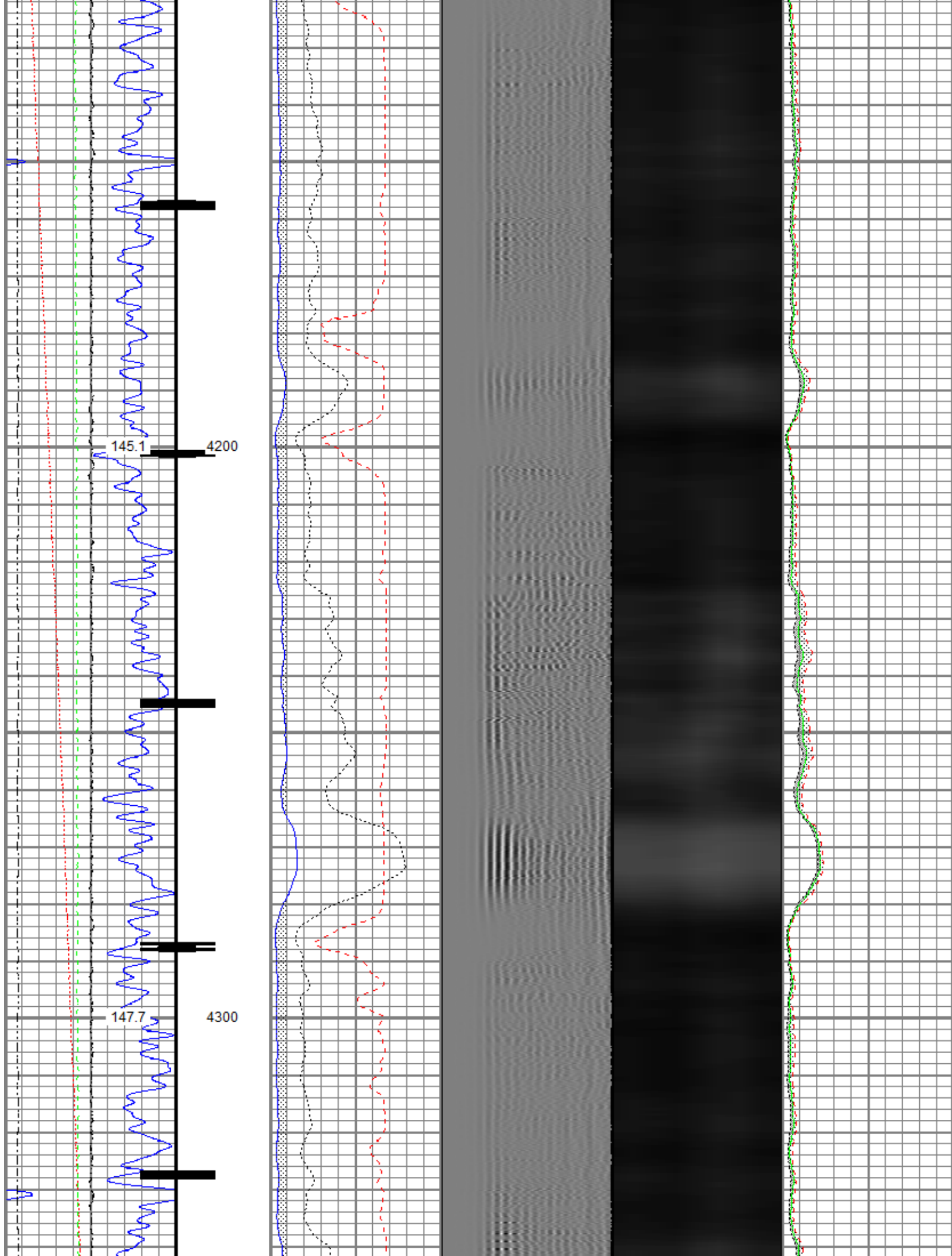


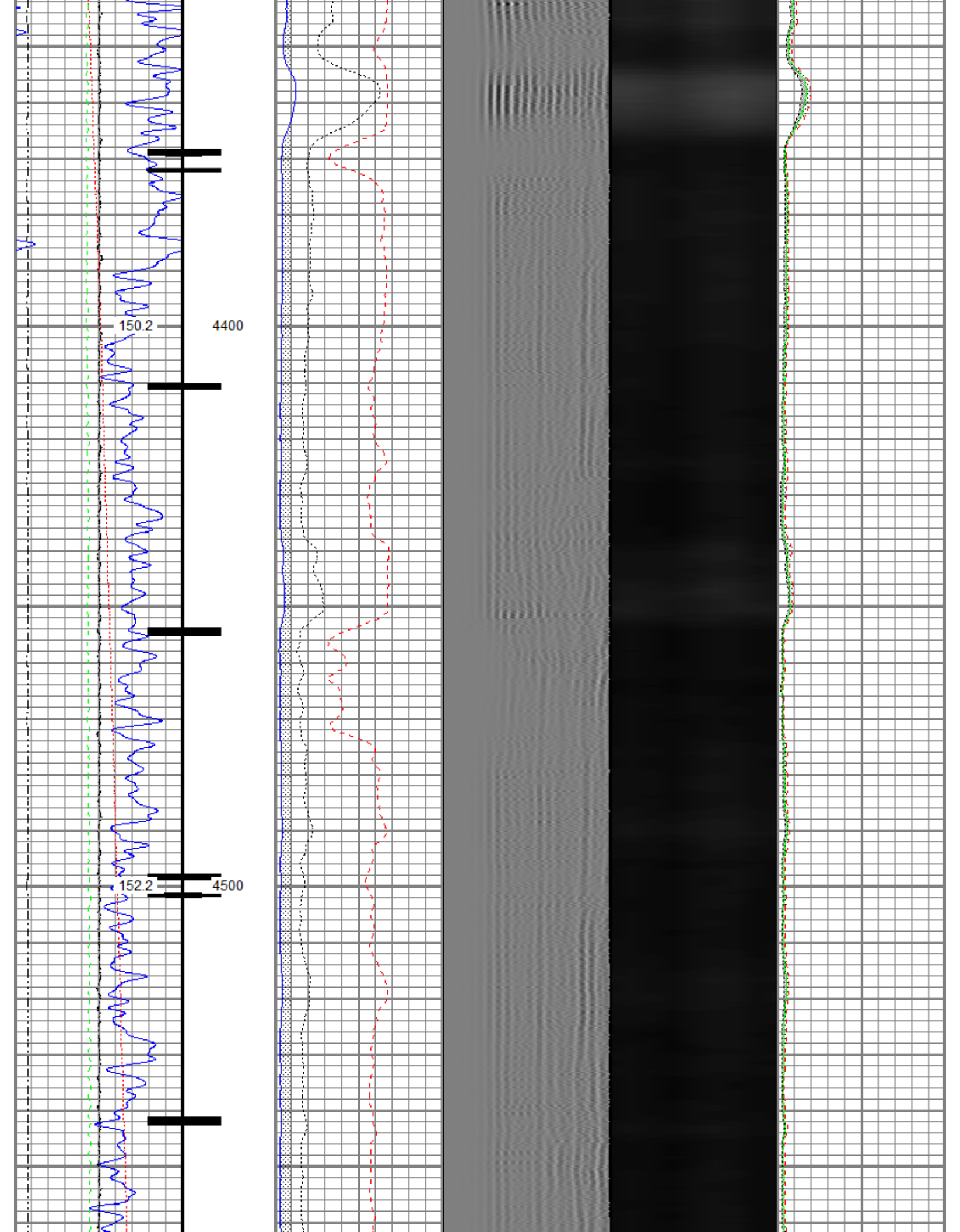


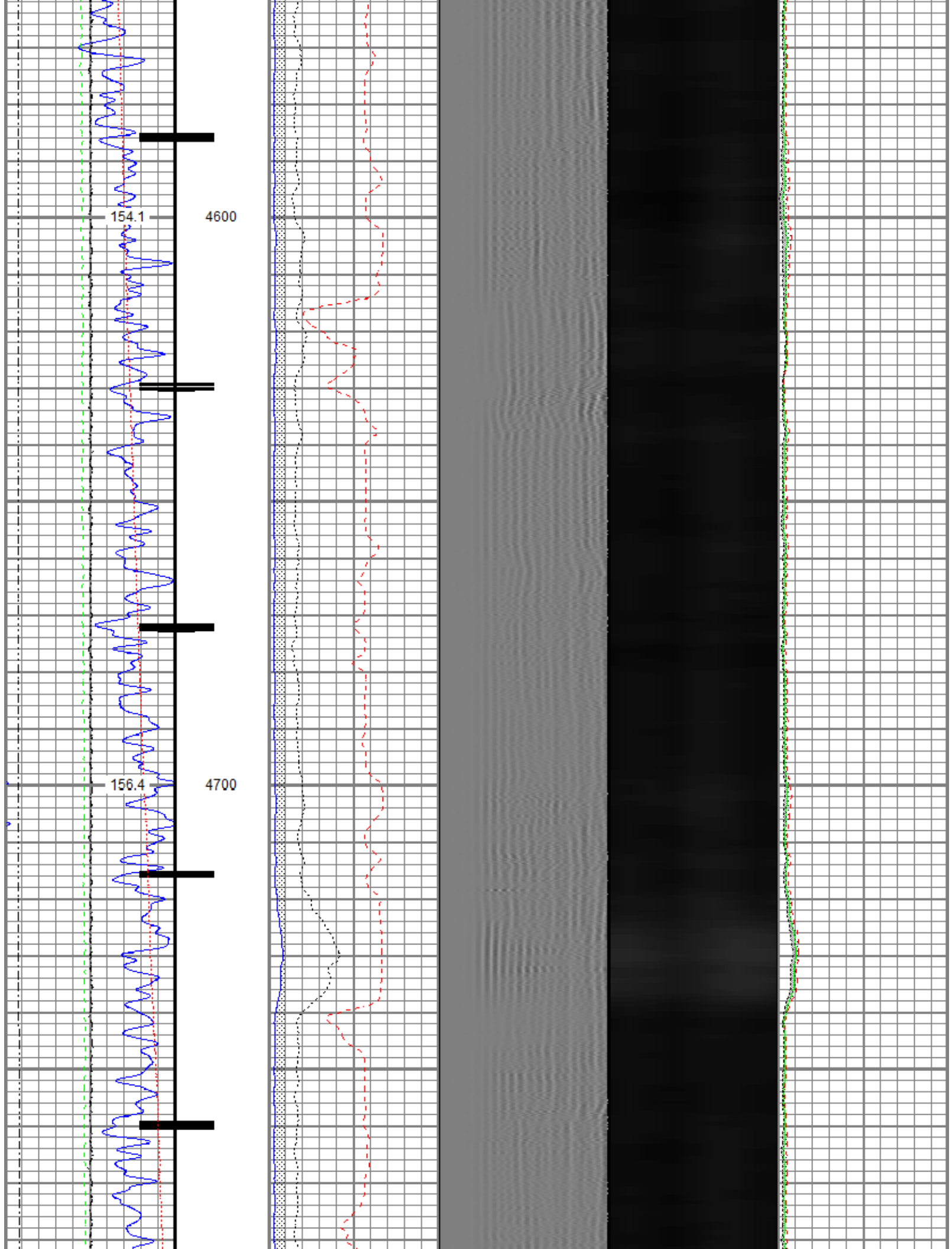


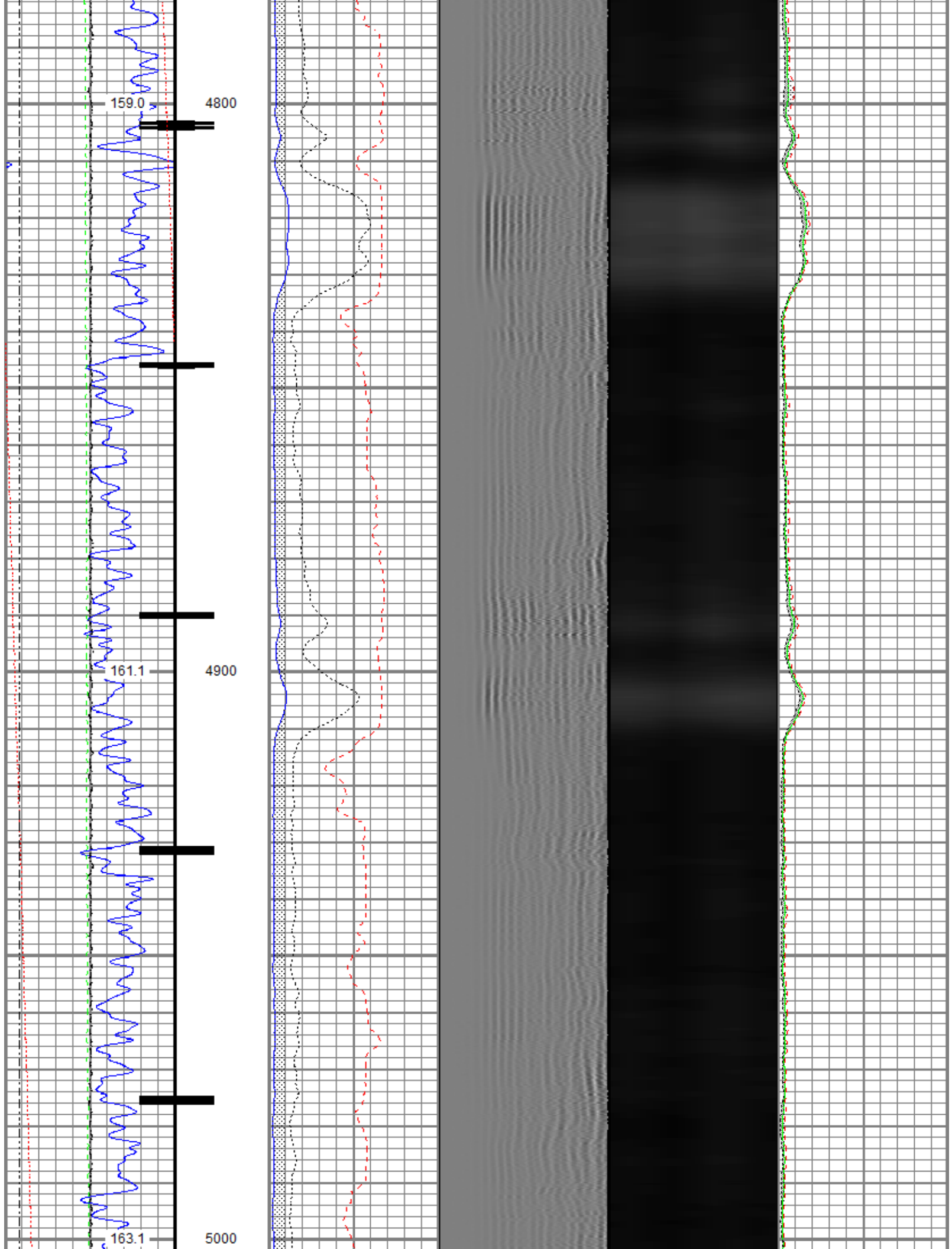


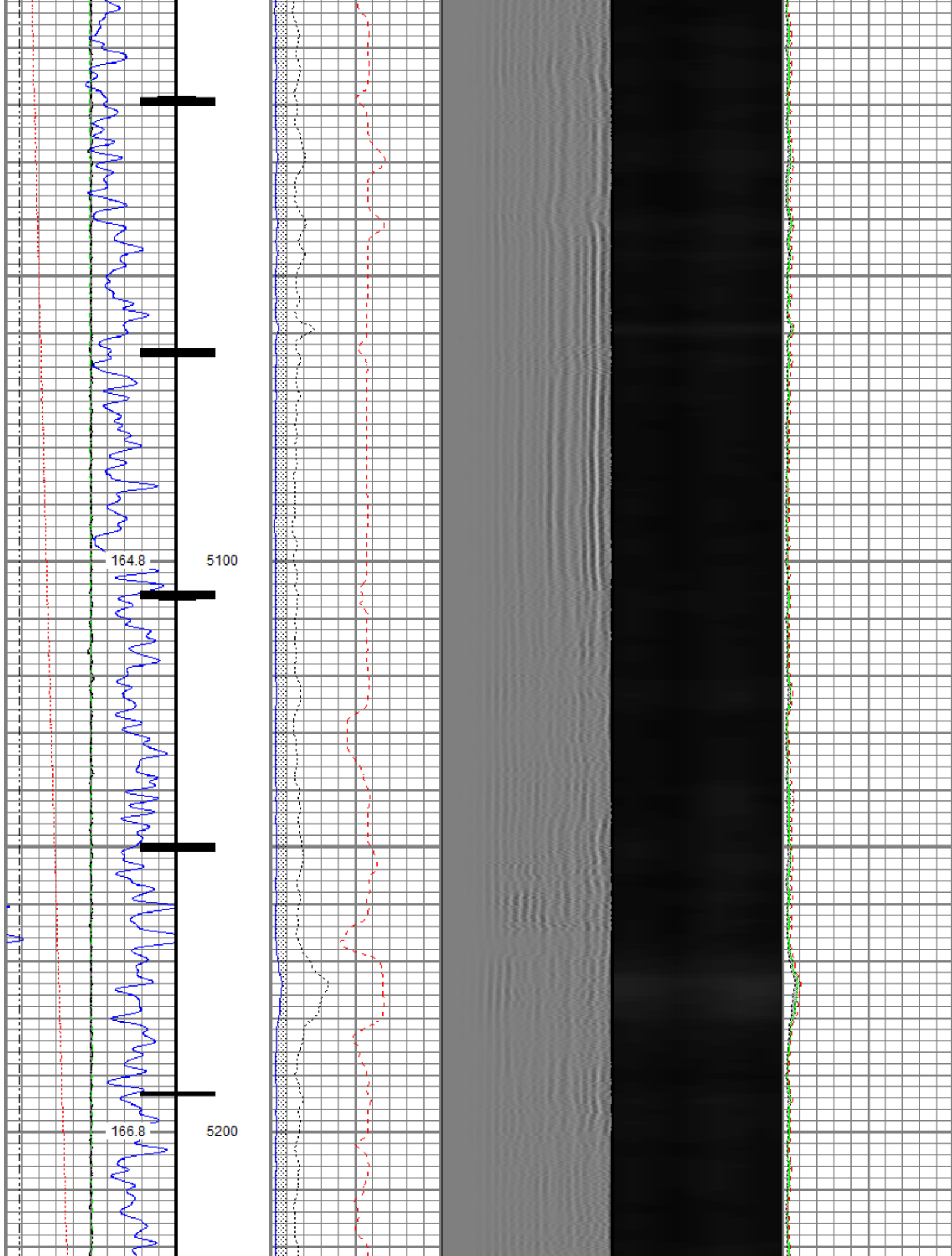


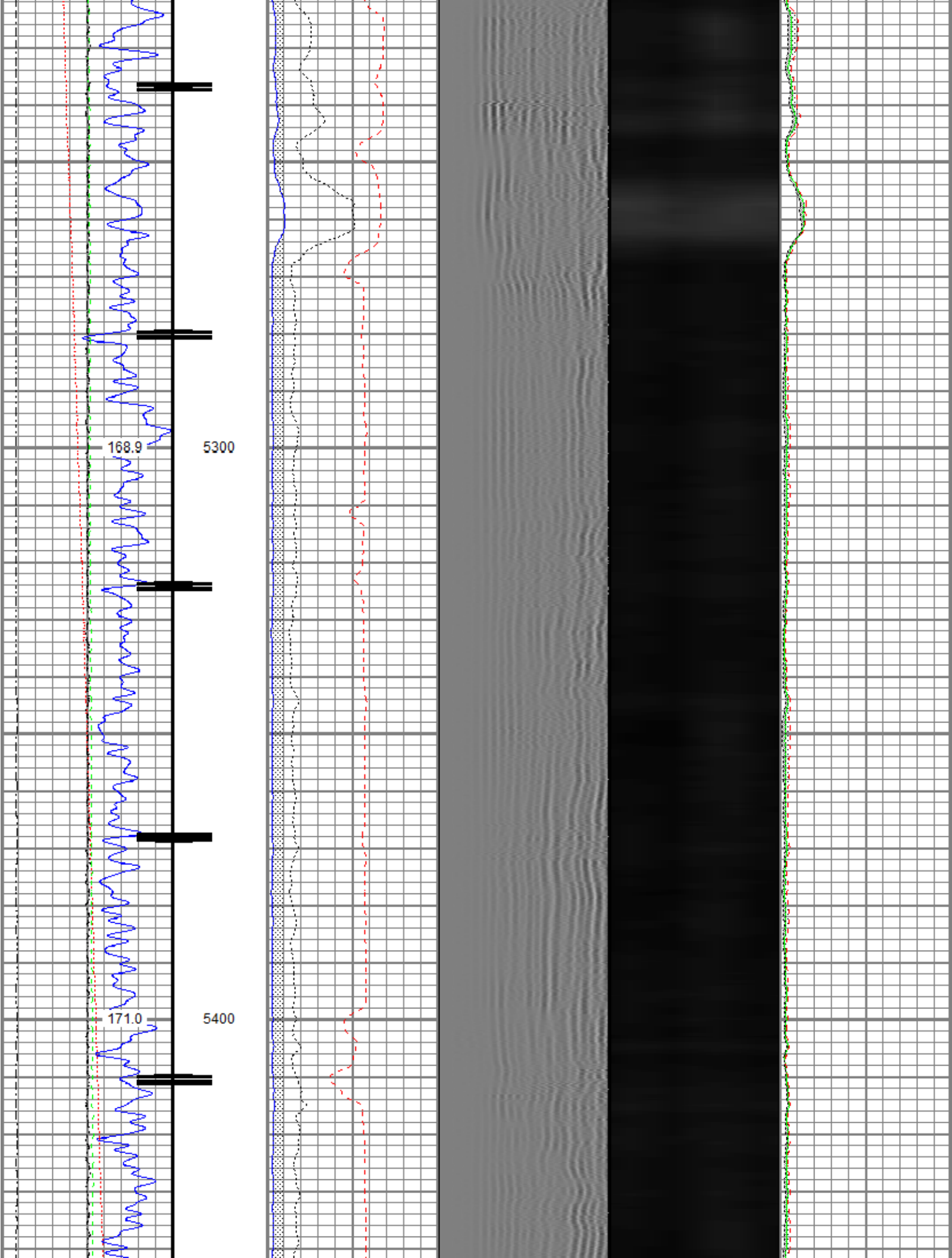


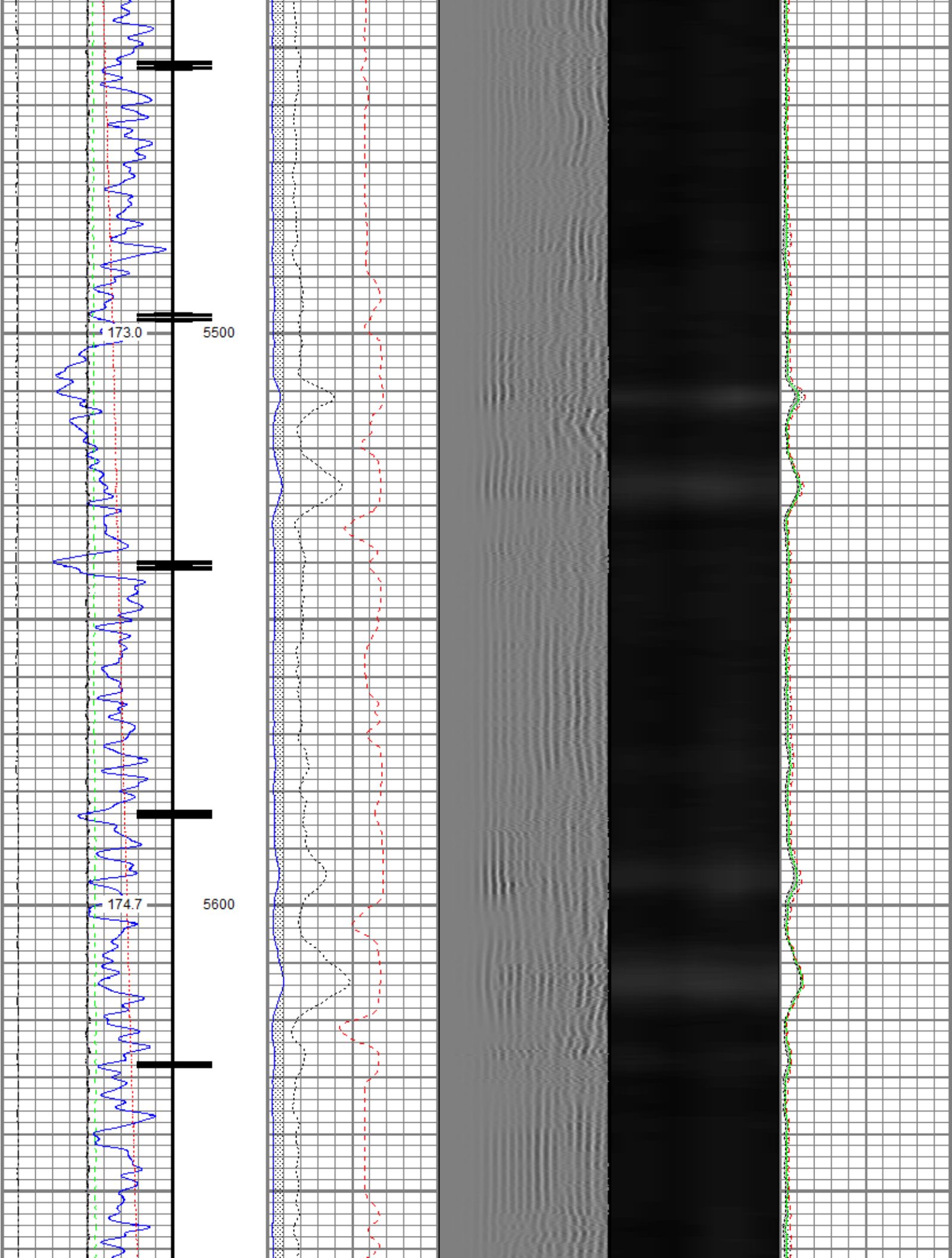


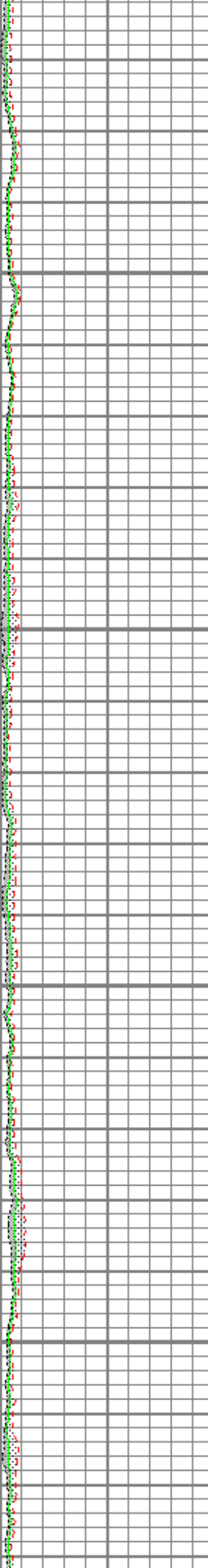
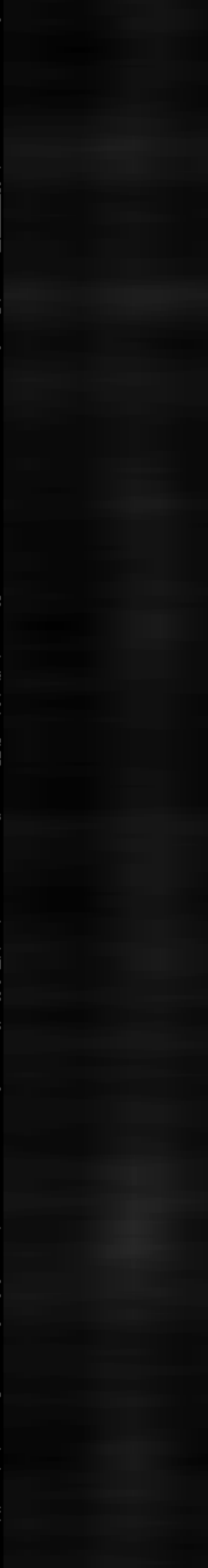
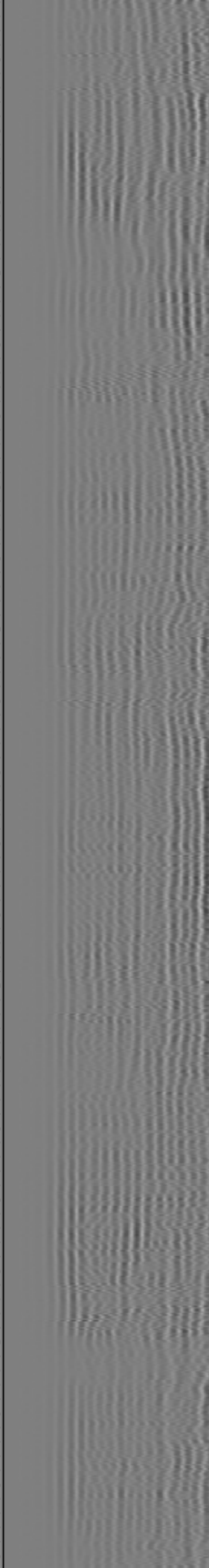
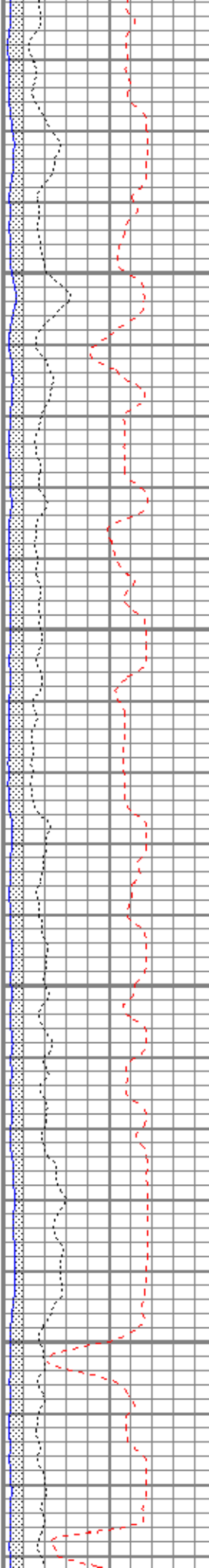
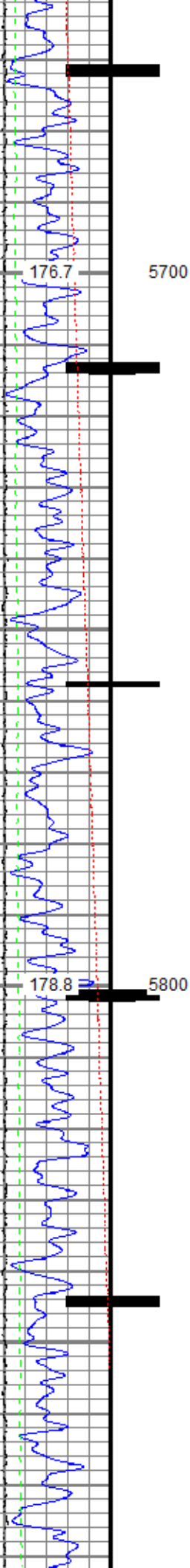


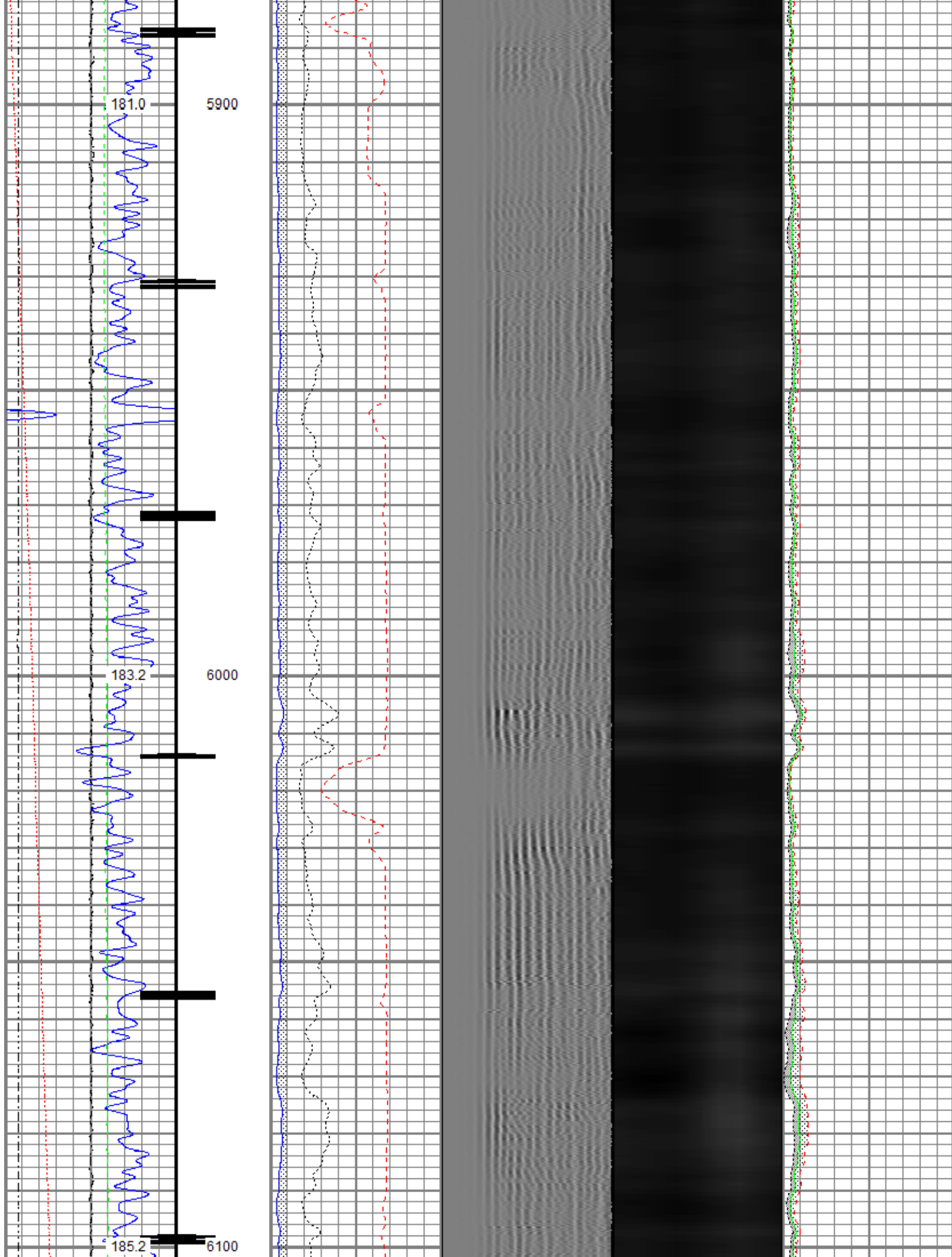


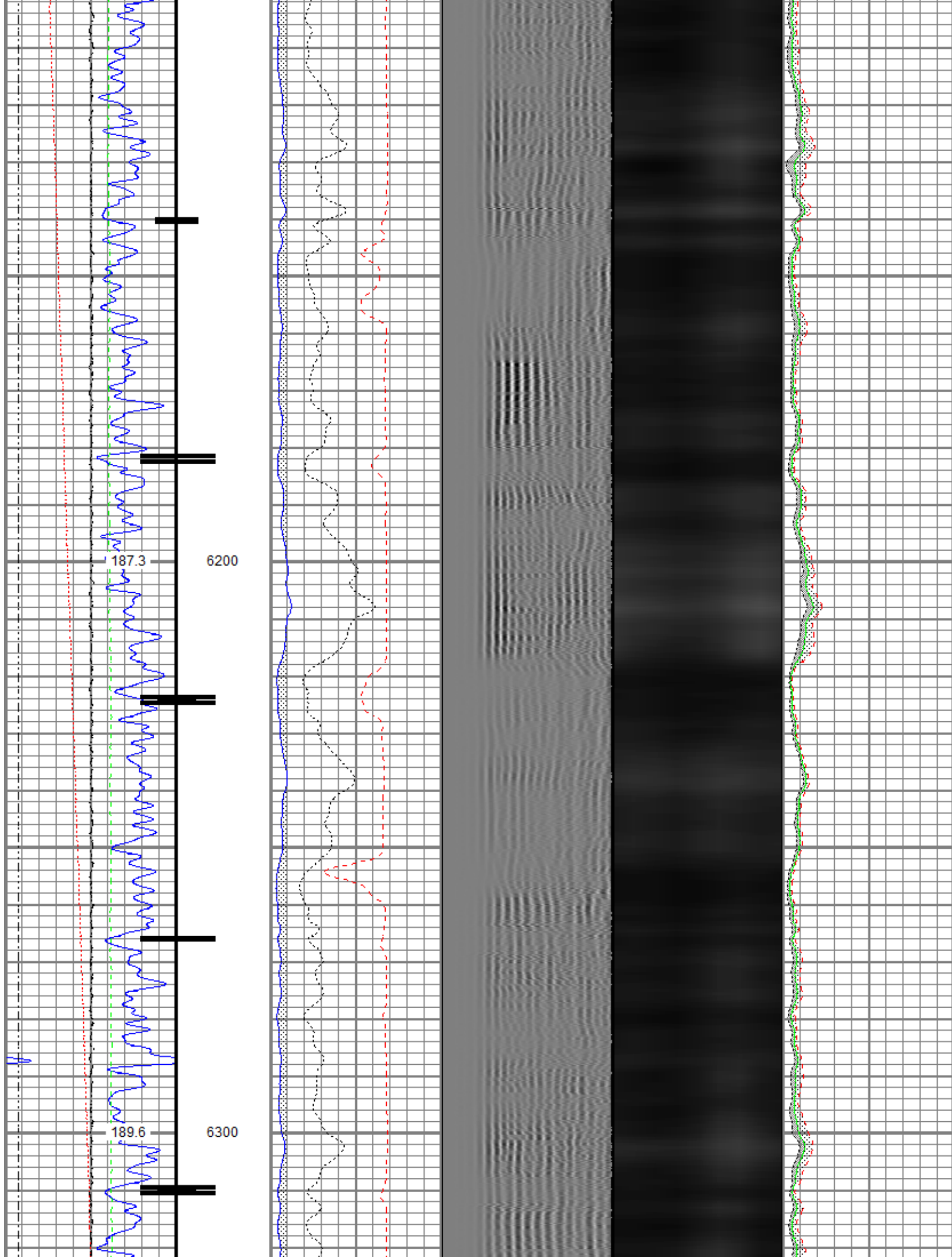


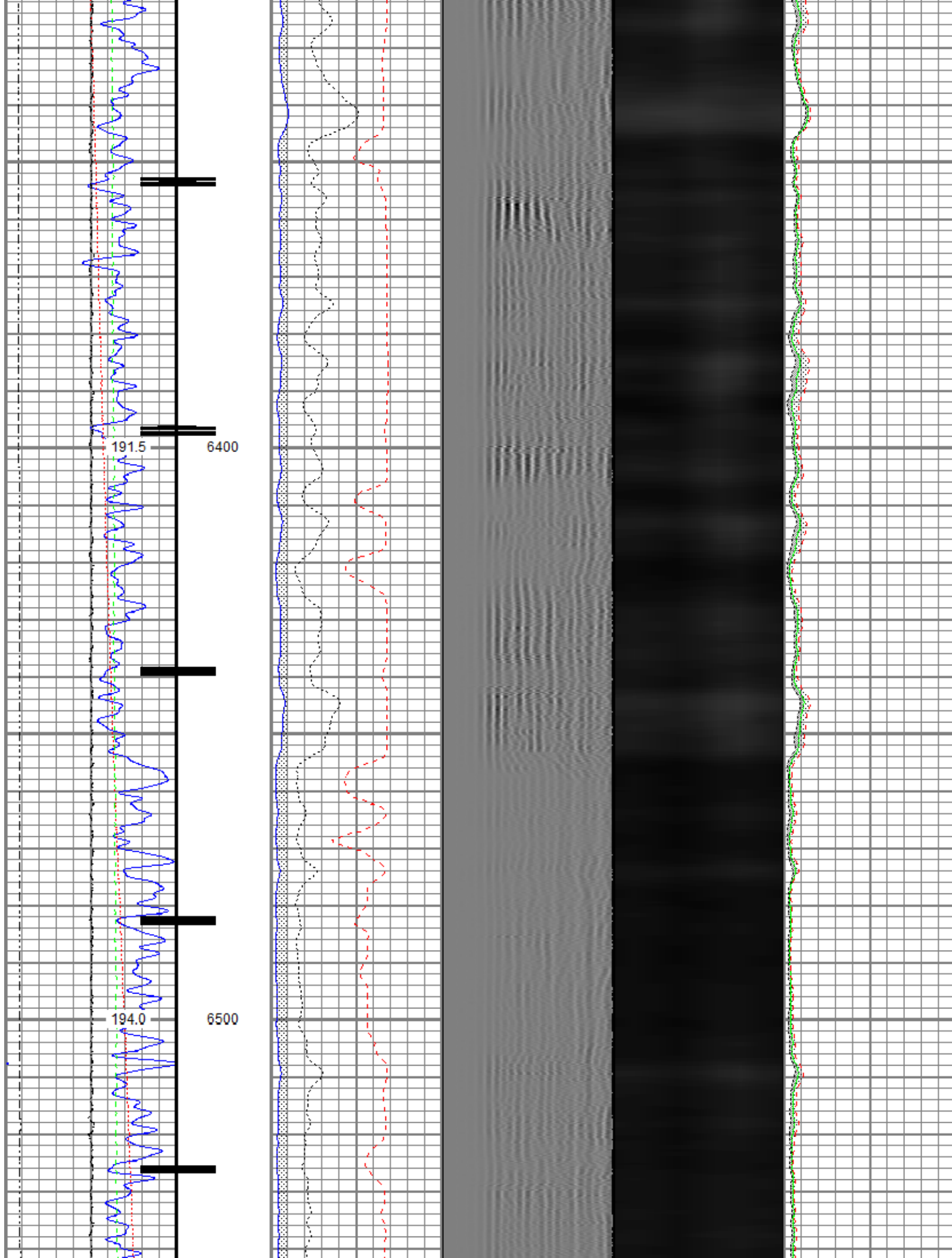


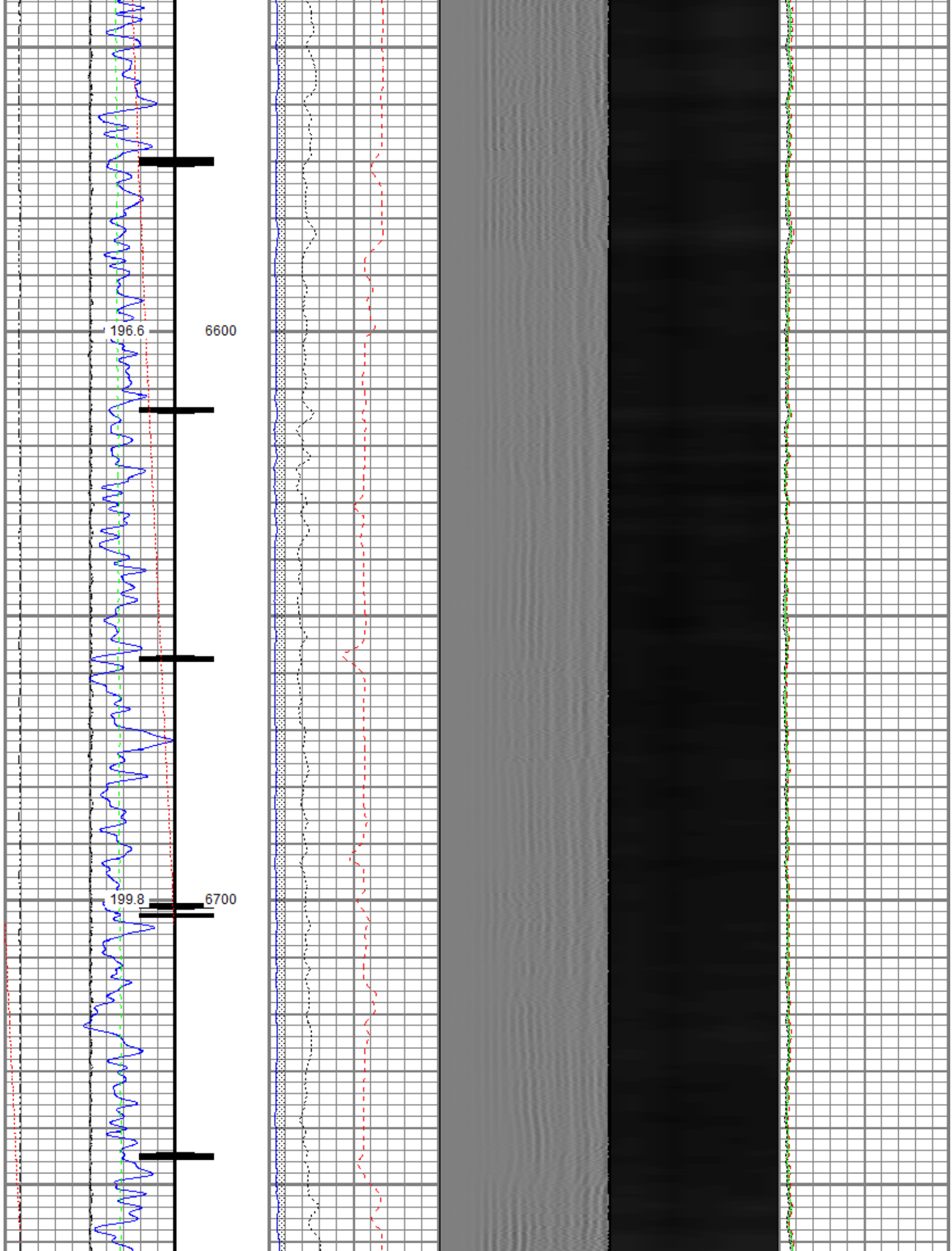


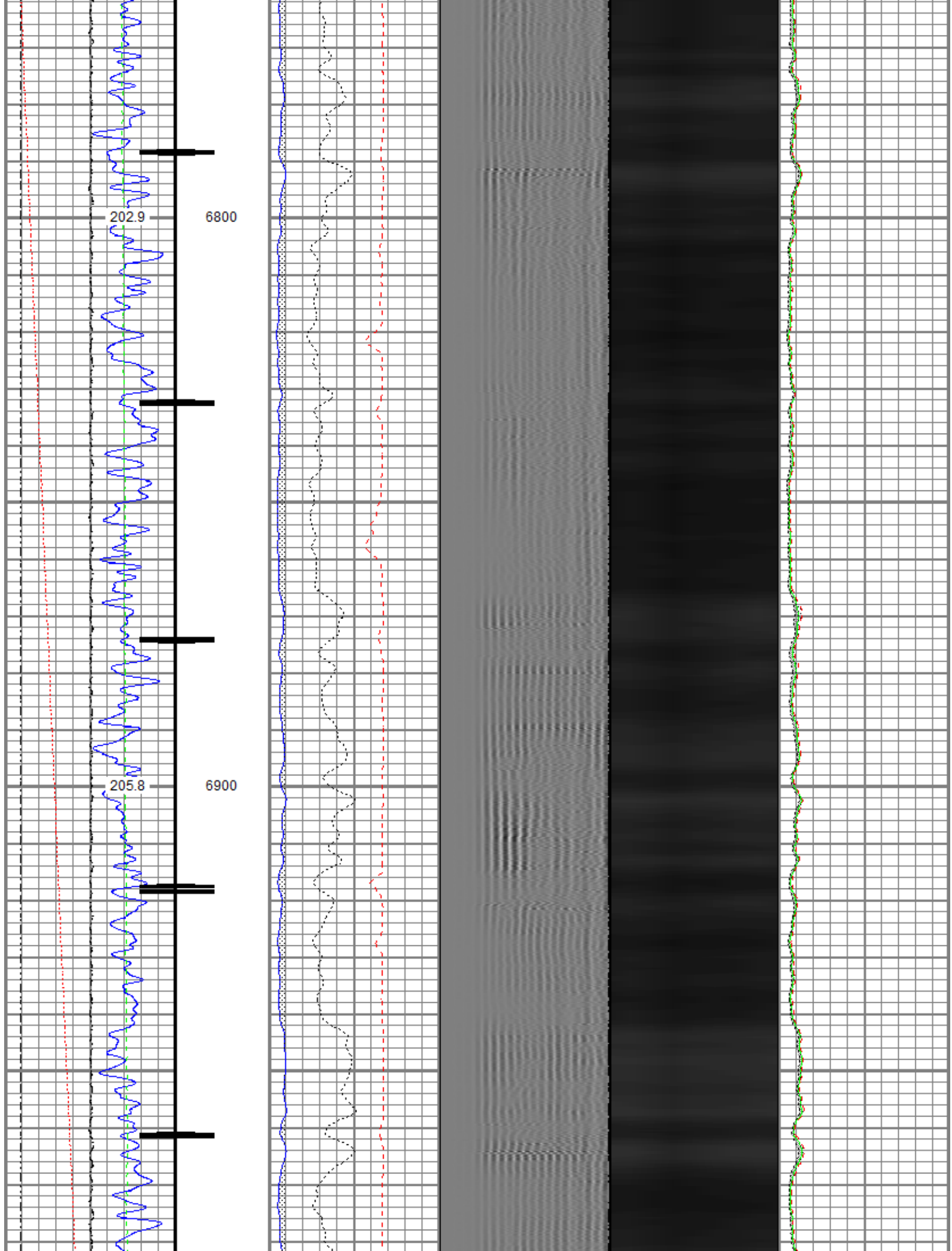


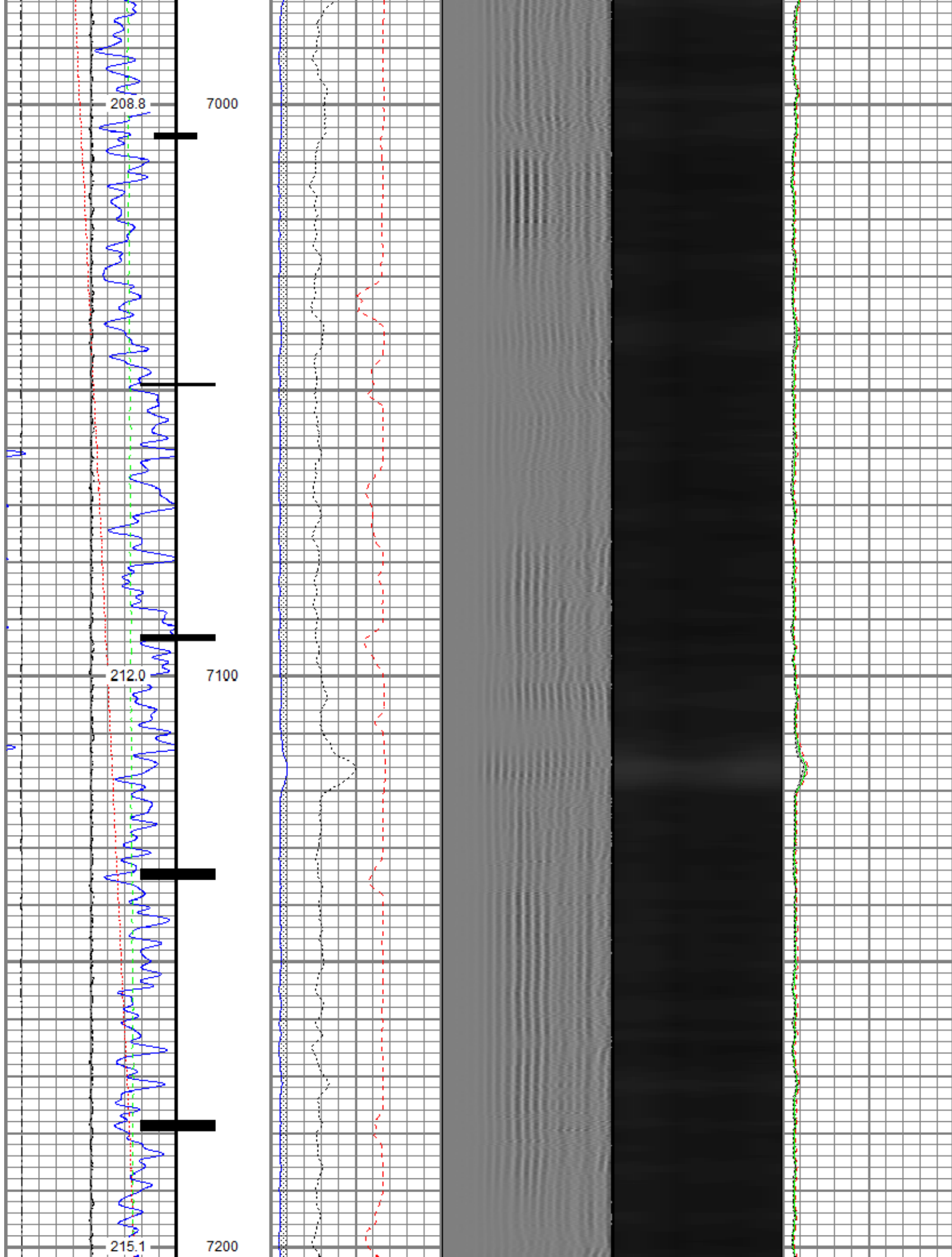












-150	(ft/min)	150
0	Line Tension (lb)	2000
Differential Temperature		
-2	(degF)	2

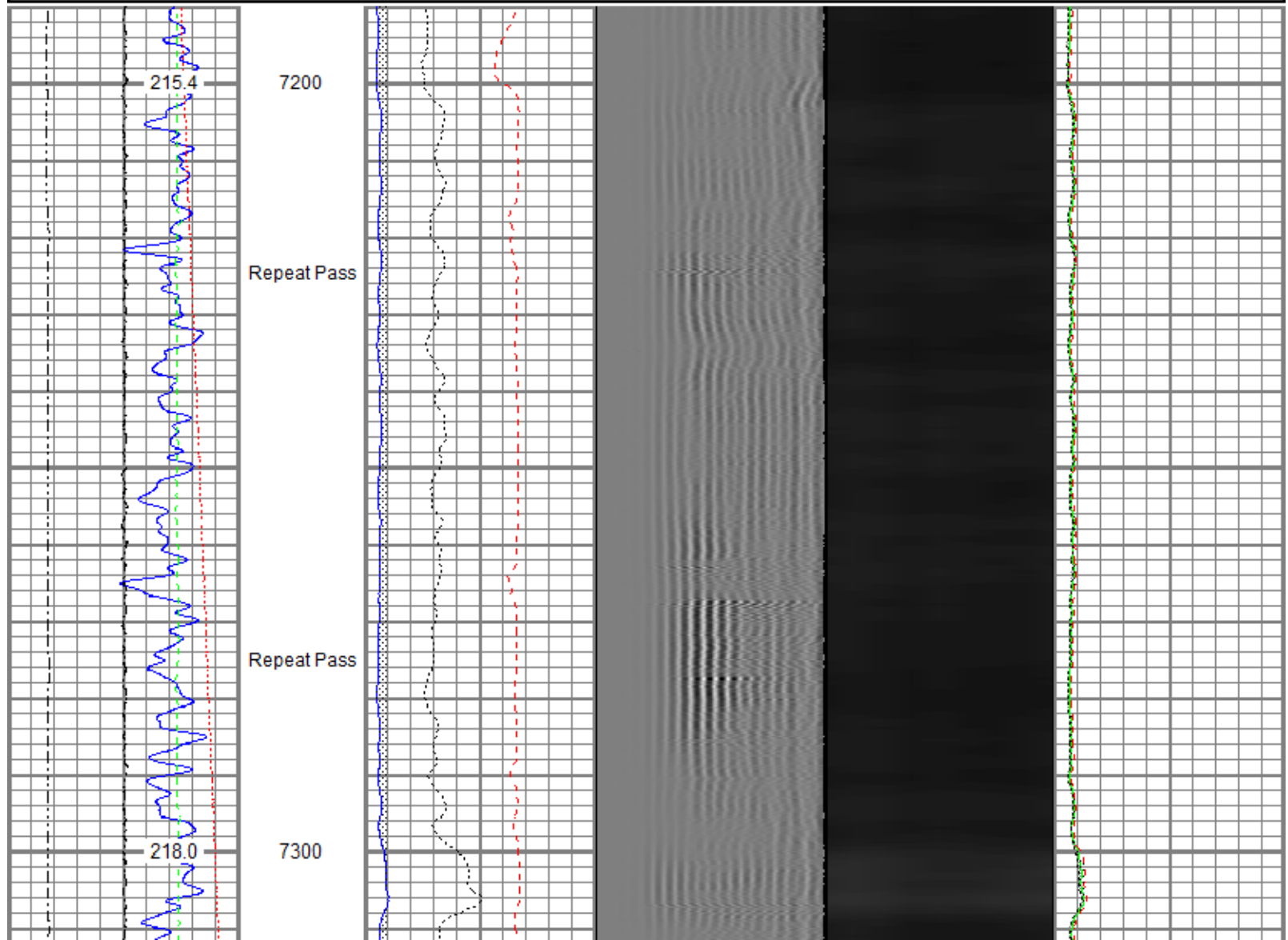


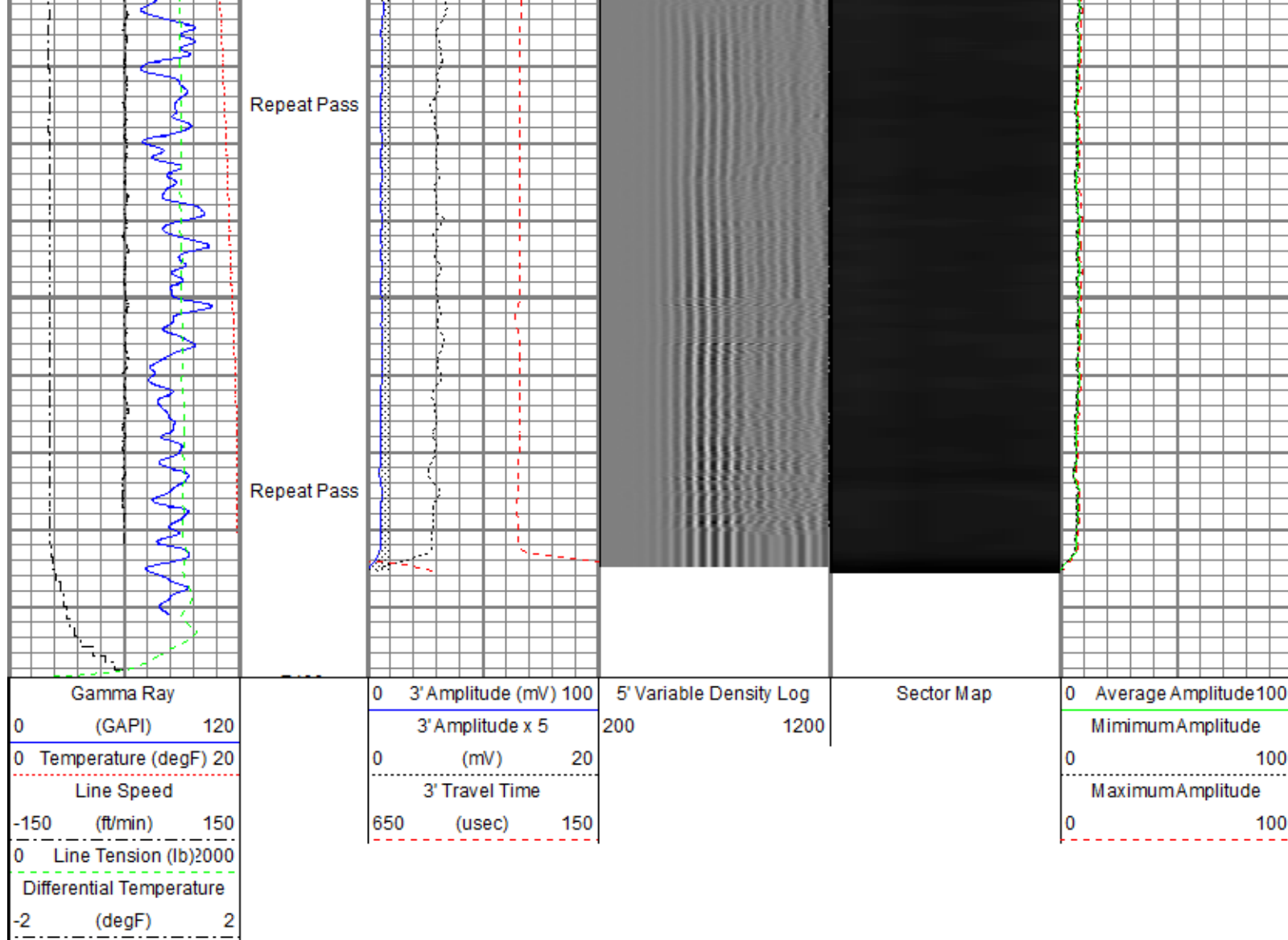
Repeat Pass

Recorded with 2800 PSI Surface Induced Pressure

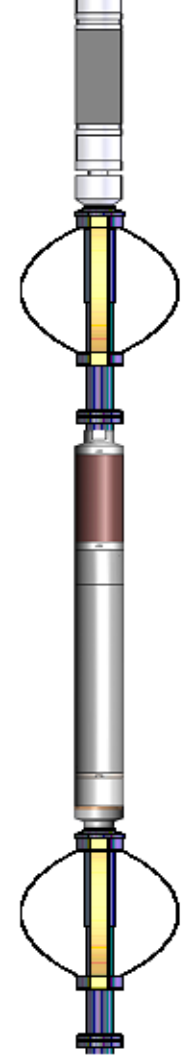
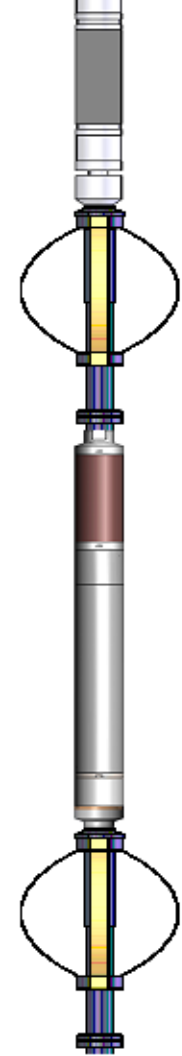
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Dataset Pathname repeat.1
Presentation Format ros_radrii
Dataset Creation Sun Feb 18 20:44:44 2018
Charted by Depth in Feet scaled 1:240

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
0 Temperature (degF) 20	0	(mV) 20			0	100
Line Speed		3' Travel Time				Maximum Amplitude
-150 (ft/min) 150	650	(usec) 150			0	100
0 Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
TEMP	17.33					
WVFS8	15.09		Probe Radii-2750 RBT (FW1302-002) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	15.09					
WVFS6	15.09					
WVFS5	15.09					

WVFS4	15.09		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
WVFS3	15.09					
WVFS2	15.09					
WVFS1	15.09					
WVFCAL	15.09					
WVF3FT	15.09					
WVF5FT	14.09					
CCL\$2	7.08		Probe GR-CCL-2750 6PB (101001) Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT	4.80	2.75	55.00
CCL\$1	7.08					
GR	5.75					
			Probe ADPT-6P-GO Probe 2-3/4" 6-Pin Top to GO Bottom Adaptor Sub	0.28	2.75	2.00
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: 0512345500_Anadarko_Yellowhammer 30N-8HZ_RBL_02-18-18.db: field/well/run1/main.1 Total length: 24.15 ft Total weight: 225.60 lb O.D.: 2.75 in						

Calibration Report			
Database File	C:\ProgramData\Warrior\Data\yellowhammer_30n-8hz\0512345500_Anadarko_Yellowhammer 30N-8HZ_RBL_02-18-18.db		
Dataset Pathname	main.1		
Dataset Creation	Sun Feb 18 13:49:40 2018		
Gamma Ray Calibration Report			
Serial Number:	101001		
Tool Model:	2750 6PB		
Performed:	Sun Nov 12 11:25:32 2017		
Calibrator Value:	637.0	GAPI	
Background Reading:	100.6	cps	
Calibrator Reading:	981.1	cps	
Sensitivity:	0.7235	GAPI/cps	
Segmented Cement Bond Log Calibration Report			
Serial Number:	FW1302-002		
Tool Model:	2750 RBT		
Calibration Casing Diameter:	5.500	in	
Calibration Depth:	-101.109	ft	
Master Calibration, performed (Derived):			

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	0.425	0.800	71.921	167.745	0.702
CAL	0.007	0.497				
5'	0.000	0.381	0.800	71.921	186.885	0.764
SUM						
S1	-0.002	0.410	0.000	100.000	242.836	0.531
S2	-0.004	0.396	0.000	100.000	250.098	0.970
S3	-0.002	0.400	0.000	100.000	248.597	0.455
S4	0.001	0.422	0.000	100.000	237.225	-0.148
S5	0.001	0.454	0.000	100.000	220.845	-0.157
S6	0.001	0.465	0.000	100.000	215.394	-0.197
S7	0.001	0.452	0.000	100.000	221.320	-0.116
S8	0.000	0.437	0.000	100.000	229.337	-0.112

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	0.497	1.000	0.000

Air Zero Calibration, performed Sun Feb 18 07:06:35 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.007		0.000		-0.000	
5'	0.007		0.000		-0.000	
SUM						
S1	0.007		0.000		0.000	
S2	0.007		0.000		0.000	
S3	0.007		0.000		0.000	
S4	0.007		0.000		0.000	
S5	0.007		0.000		0.000	
S6	0.007		0.000		0.000	
S7	0.007		0.000		-0.000	
S8	0.007		0.000		-0.000	

Temperature Calibration Report

Serial Number: FW1302-002
Tool Model: 2750 RBT
Performed: Sun Nov 12 13:28:07 2017

	Reference	Reading
Low Reference:	100.00 degF	110.72 degF
High Reference:	350.00 degF	409.18 degF

Gain: 0.84
Offset: 7.26
Delta Spacing: 1



Company Kerr-McGee Oil & Gas Onshore, L.P.
Well Yellowhammer 30N-8HZ
Field Wattenberg
County Weld
State Colorado