



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company Noble Energy Inc.		Company Noble Energy Inc.	
Well Rampart A33-730		Well Rampart A33-730	
Field Wattenberg		Field Wattenberg	
County Weld		County Weld	
State Colorado		State Colorado	
Location:		API # : 05-123-50924	
SEC 21 TWP 6N RGE 64W		Other Services	
Permanent Datum		Ground Level	
Log Measured From		Kelly Bushing	
Drilling Measured From		Kelly Bushing	
Elevation		4726'	
K.B. 4756'		D.F. ---	
G.L. 4726'		CNL	
Date	09-SEP-2021		
Run Number	One		
Depth Driller	17704 FT		
Depth Logger	7943 FT		
Bottom Logged Interval	7924 FT		
Top Log Interval	Surface		
Open Hole Size	8.5"		
Type Fluid	Water		
Density / Viscosity	8.34 lb/gal		
Max. Recorded Temp.	242°F		
Estimated Cement Top	See Log		
Time Well Ready	ROA		
Time Logger on Bottom	8:58		
Equipment Number	HD-0325		
Location	Platteville, CO		
Recorded By	Jason Morrison		
Witnessed By	Cesar		
Borehole Record		Tubing Record	
Run Number	Bit From To	Size	Weight From To
Casing Record	Size (in)	Wgt (lbs/ft)	Grade
Surface Casing	9 5/8	36	J-55
Intermediate #1	5 1/2	17	P-110
Intermediate #2			Surface
Liner			

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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

Log ran as per customer request
Depth referenced to Casing Tally reported Marker Joint at 7145 FT
Adjusted +4 FT to correlate with Marker Joint
Log ran with 2500 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!!

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	3.60

				SO BS CENT-2750-5500 Slip Over 2-3/4" I.D. for 5-1/2" O.D. Casing Bow Spring Centralizer	1.50	3.25	11.00
TEMP	19.20						
WVFS8	16.96			Probe Radii-2750 RBT (FW1305-096) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	16.96						
WVFS6	16.96						
WVFS5	16.96						
WVFS4	16.96						
WVFS3	16.96						
WVFS2	16.96						
WVFS1	16.96						
WVFCAL	16.96						
WVF3FT	16.96						
WVF5FT	15.96						
CCL\$2	11.83						
CCL\$1	11.83						
GR	10.50			Probe GR-CCL-2750 6PB (FW1304-132) Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT SO BS CENT-2750-5500 Slip Over 2-3/4" I.D. for 5-1/2" O.D. Casing Bow Spring Centralizer	4.80	2.75	55.00
					1.50	3.25	11.00
CNLSC	4.53			Probe CN-2750 BL (FW1308-020_A1483) Probe 2-3/4" Compensated Neutron with Bottom Load	5.03	2.75	60.00
CNSSC	4.12						
LOCTIM	0.00			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
UTCTIM	0.00						
Dataset: Noble_Rampart A33-730_CNL_RBL_09-09-21.db: field/well/run1/Main.1 Total length: 23.14 ft Total weight: 265.60 lb O.D.: 3.25 in							

Calibration Report

Database File C:\ProgramData\Warrior\Data\Chevron_Noble\Noble_Rampart A33-730_CNL_RBL_09-09-21\Noble_Ran
Dataset Pathname Main.1

Compensated Neutron Calibration Report

Serial Number: FW1308-020_A1483
Tool Model: 2750 BL

CALIBRATION Mon Oct 19 14:19:51 2020

Detector	Readings	Target	Normalization
Short Space	3241.60 cps	0.00 cps	1.0000
Long Space	452.04 cps	0.00 cps	1.0000
Ratio	Measured 7.1710	Reference 6.7797	
CNRAT Gain	0.9454		

Gamma Ray Calibration Report

Serial Number:	FW1304-132	
Tool Model:	2750 6PB	
Performed:	Mon Oct 19 14:19:51 2020	
Calibrator Value:	637.0	GAPI
Background Reading:	109.1	cps
Calibrator Reading:	1009.7	cps
Sensitivity:	0.7072	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1305-096	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	111.615	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.536	0.800	71.921	132.668	0.800
CAL	0.667	0.668				
5'	0.000	0.519	0.800	71.921	137.019	0.762
SUM						
S1	0.000	0.513	0.000	100.000	194.866	-0.050
S2	-0.000	0.517	0.000	100.000	193.388	0.008
S3	0.000	0.544	0.000	100.000	183.746	-0.034
S4	-0.000	0.559	0.000	100.000	178.968	0.009
S5	0.000	0.577	0.000	100.000	173.308	-0.061
S6	0.000	0.575	0.000	100.000	173.819	-0.010
S7	-0.001	0.540	0.000	100.000	185.109	0.101
S8	-0.000	0.526	0.000	100.000	190.146	0.064

Air Zero Calibration, performed Thu Sep 9 07:28:11 2021:

Raw (v)	Calibrated (v)	Results
0.00	0.00	0.00
0.01	0.01	0.01
0.02	0.02	0.02
0.03	0.03	0.03
0.04	0.04	0.04
0.05	0.05	0.05
0.06	0.06	0.06
0.07	0.07	0.07
0.08	0.08	0.08
0.09	0.09	0.09
0.10	0.10	0.10
0.11	0.11	0.11
0.12	0.12	0.12
0.13	0.13	0.13
0.14	0.14	0.14
0.15	0.15	0.15
0.16	0.16	0.16
0.17	0.17	0.17
0.18	0.18	0.18
0.19	0.19	0.19
0.20	0.20	0.20
0.21	0.21	0.21
0.22	0.22	0.22
0.23	0.23	0.23
0.24	0.24	0.24
0.25	0.25	0.25
0.26	0.26	0.26
0.27	0.27	0.27
0.28	0.28	0.28
0.29	0.29	0.29
0.30	0.30	0.30
0.31	0.31	0.31
0.32	0.32	0.32
0.33	0.33	0.33
0.34	0.34	0.34
0.35	0.35	0.35
0.36	0.36	0.36
0.37	0.37	0.37
0.38	0.38	0.38
0.39	0.39	0.39
0.40	0.40	0.40
0.41	0.41	0.41
0.42	0.42	0.42
0.43	0.43	0.43
0.44	0.44	0.44
0.45	0.45	0.45
0.46	0.46	0.46
0.47	0.47	0.47
0.48	0.48	0.48
0.49	0.49	0.49
0.50	0.50	0.50
0.51	0.51	0.51
0.52	0.52	0.52
0.53	0.53	0.53
0.54	0.54	0.54
0.55	0.55	0.55
0.56	0.56	0.56
0.57	0.57	0.57
0.58	0.58	0.58
0.59	0.59	0.59
0.60	0.60	0.60
0.61	0.61	0.61
0.62	0.62	0.62
0.63	0.63	0.63
0.64	0.64	0.64
0.65	0.65	0.65
0.66	0.66	0.66
0.67	0.67	0.67
0.68	0.68	0.68
0.69	0.69	0.69
0.70	0.70	0.70
0.71	0.71	0.71
0.72	0.72	0.72
0.73	0.73	0.73
0.74	0.74	0.74
0.75	0.75	0.75
0.76	0.76	0.76
0.77	0.77	0.77
0.78	0.78	0.78
0.79	0.79	0.79
0.80	0.80	0.80
0.81	0.81	0.81
0.82	0.82	0.82
0.83	0.83	0.83
0.84	0.84	0.84
0.85	0.85	0.85
0.86	0.86	0.86
0.87	0.87	0.87
0.88	0.88	0.88
0.89	0.89	0.89
0.90	0.90	0.90
0.91	0.91	0.91
0.92	0.92	0.92
0.93	0.93	0.93
0.94	0.94	0.94
0.95	0.95	0.95
0.96	0.96	0.96
0.97	0.97	0.97
0.98	0.98	0.98
0.99	0.99	0.99
1.00	1.00	1.00

	Zero	Zero	Offset
3'	0.008	0.000	-0.000
5'	0.008	0.000	0.000
SUM			
S1	0.006	0.000	0.000
S2	0.011	0.000	-0.000
S3	0.009	0.000	0.000
S4	0.014	0.000	-0.000
S5	0.008	0.000	0.000
S6	0.008	0.000	0.000
S7	0.020	0.000	-0.001
S8	0.009	0.000	-0.000

Temperature Calibration Report

Serial Number: FW1305-096
 Tool Model: 2750 RBT
 Performed: Mon Oct 19 14:19:51 2020

	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	

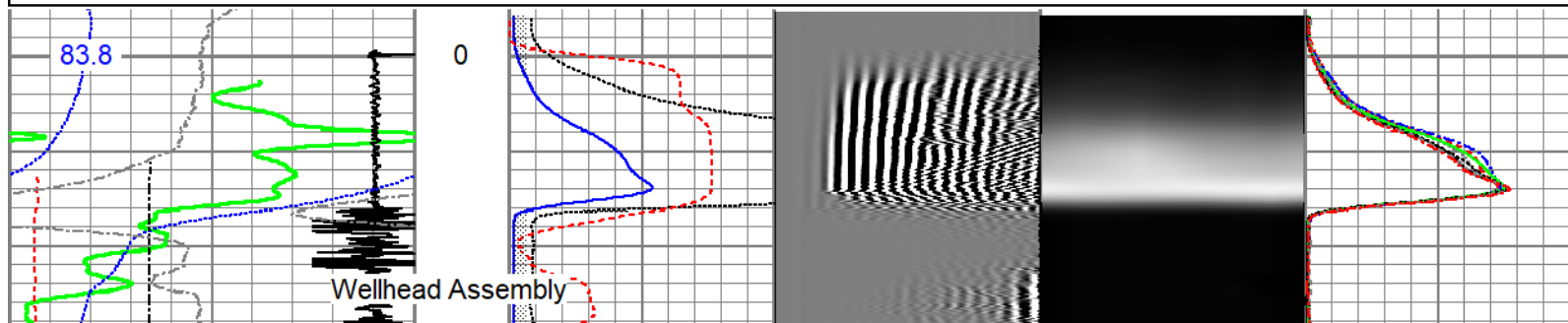


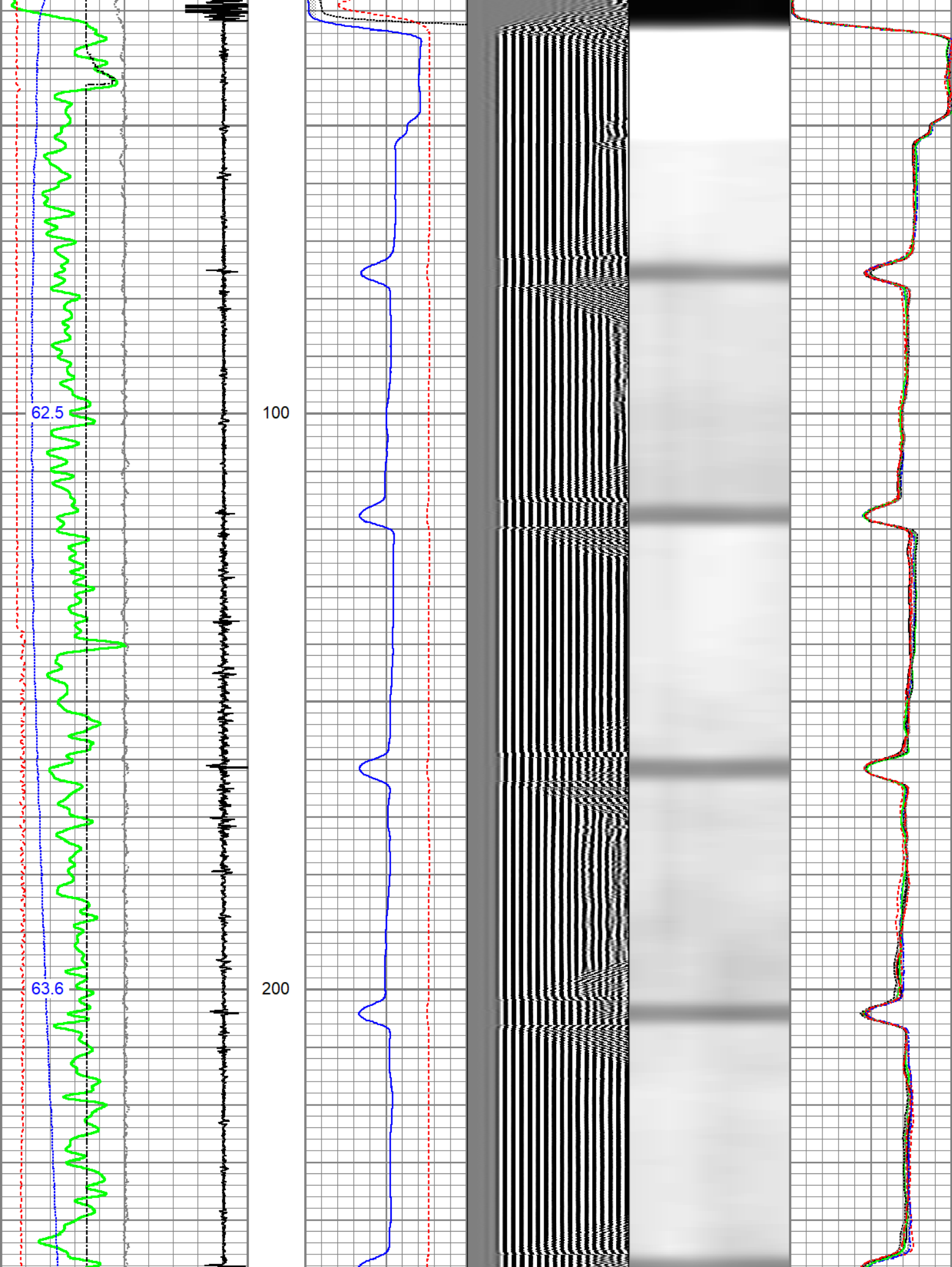
Main Pass

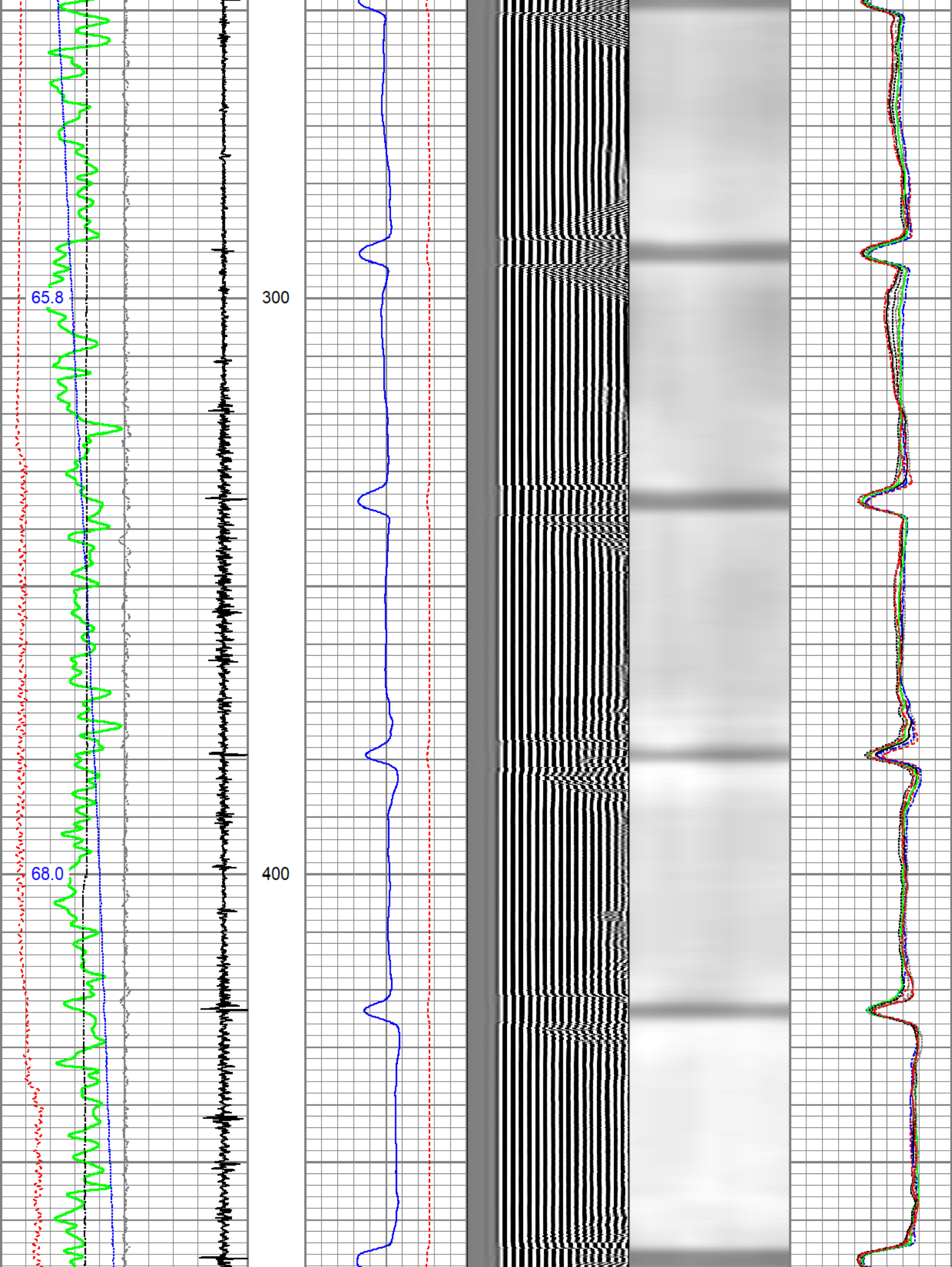
Recorded with 2500 PSI Surface Induced Pressure

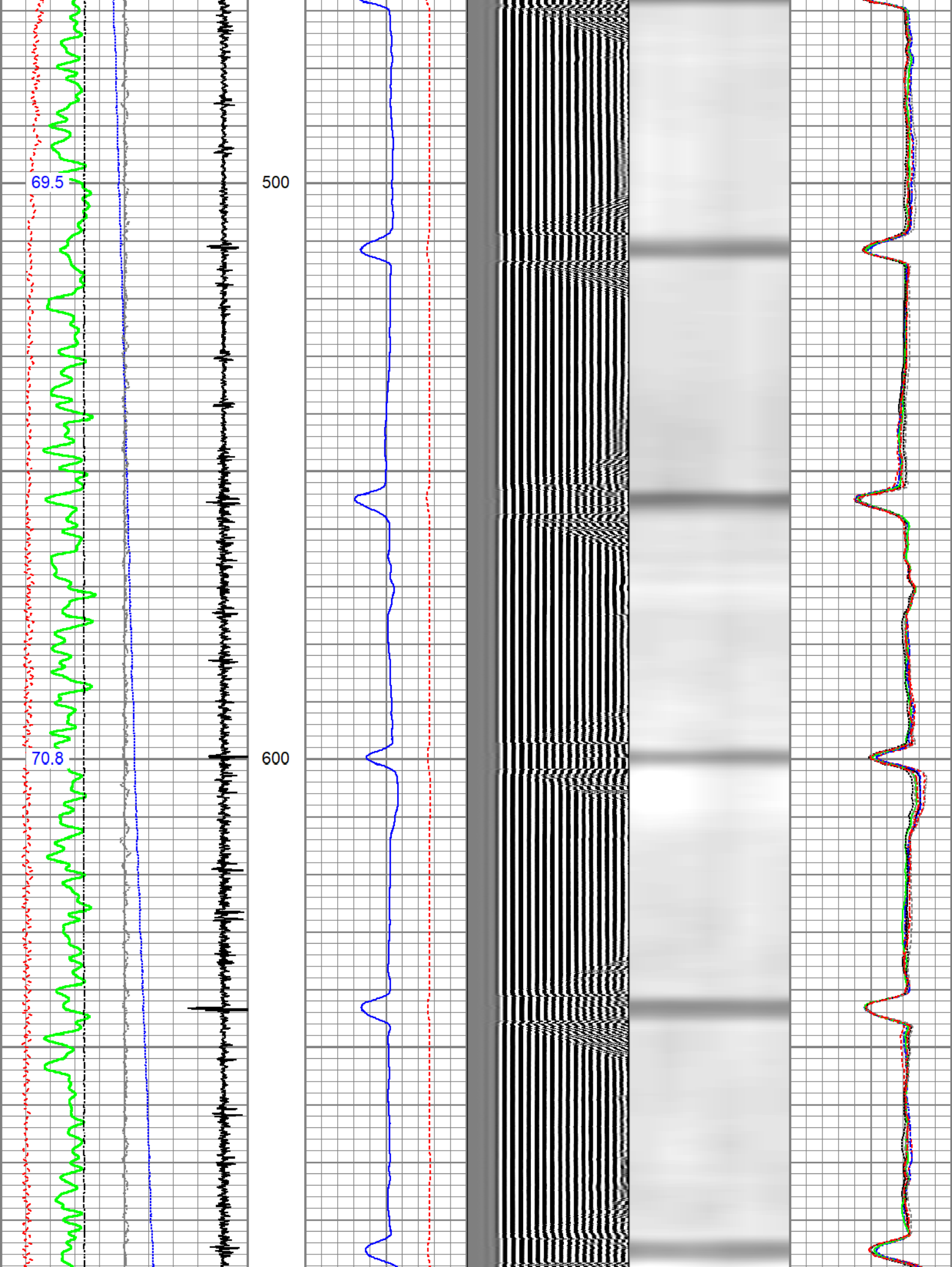
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 Dataset Pathname: Main.1
 Presentation Format: edge_rbl_noble
 Dataset Creation: Thu Sep 09 11:43:56 2021
 Charted by: Depth in Feet scaled 1:240

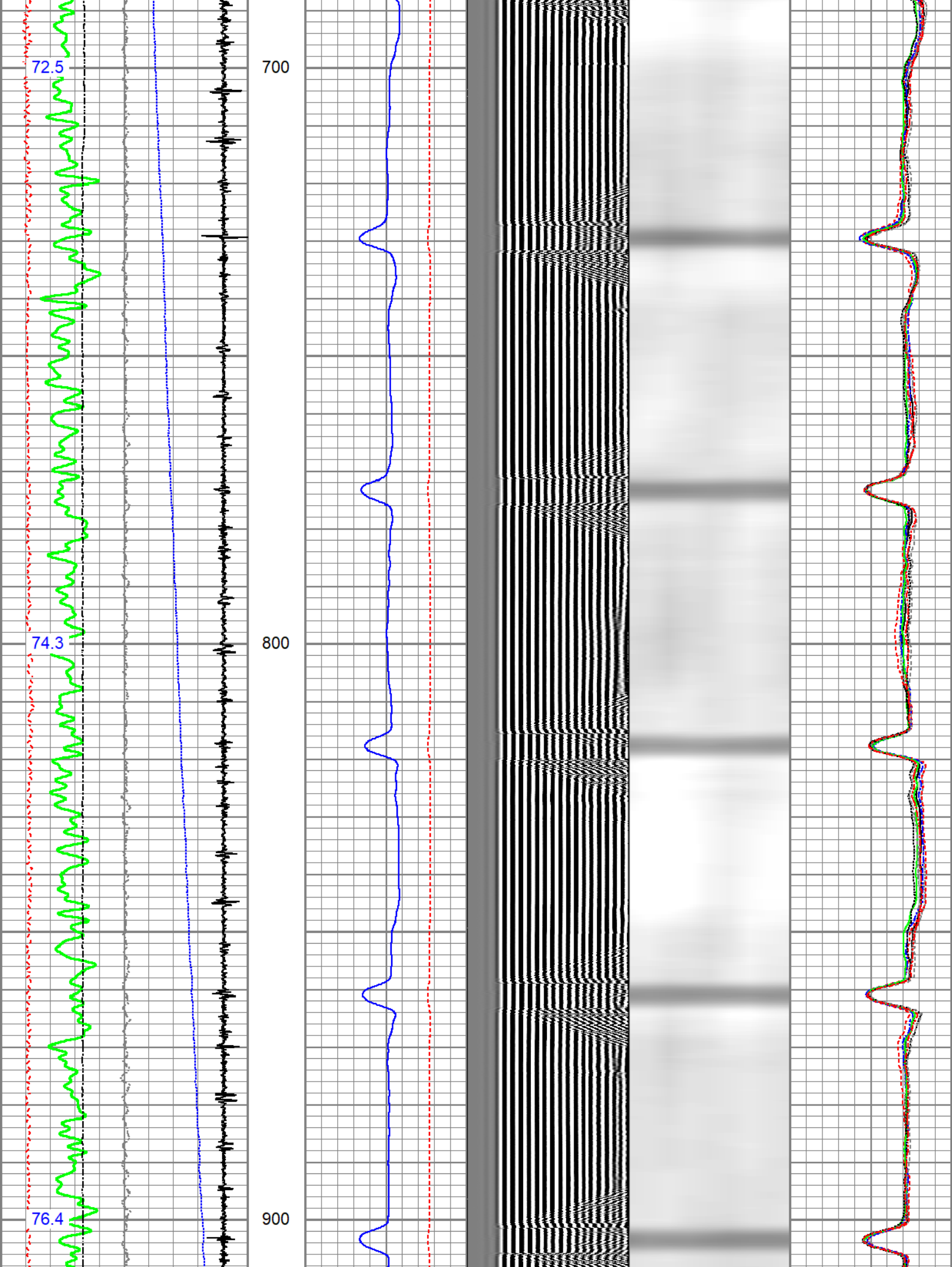
0	Gamma Ray (GAPI)	120	3' Amplitude	5' Variable Density	Sector Map	0	AMP S1	100
9	Casing Collar Locator	-1	0 (mV)	200 (usec)	1200	0	AMP S2	100
0	Temperature (degF)	20	3' Amplitude x 5			0	AMP S3	100
-150	Line Speed (ft/min)	150	0 (mV)	20		0	AMP S4	100
0	Line Tension (lb)	2000	3' Travel Time			0	AMP S5	100
	Differential Temperature		650 (usec)	150		0	AMP S6	100
-2	(degF)	2				0	AMP S7	100
Temperature						0	AMP S8	100
(degF)								

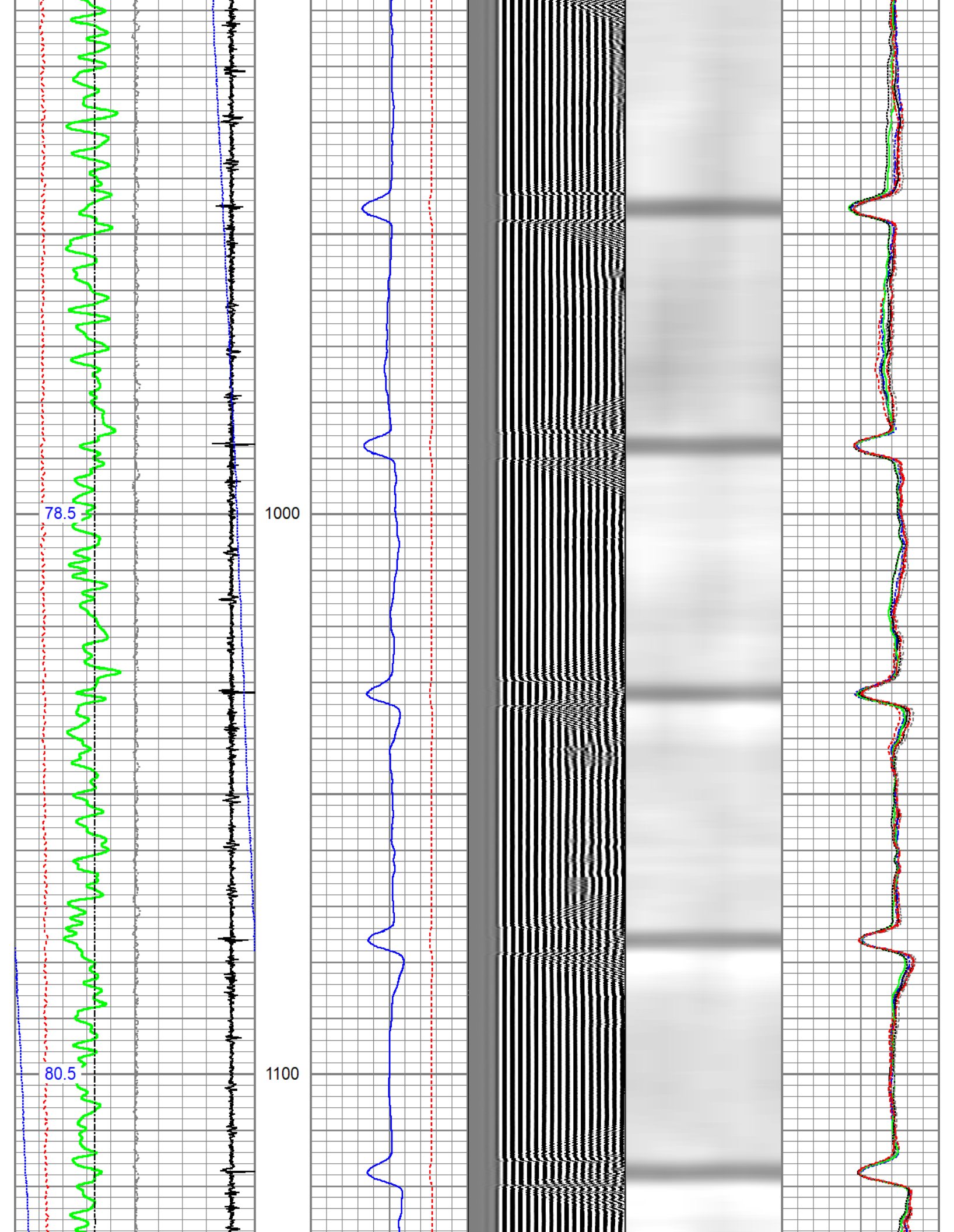


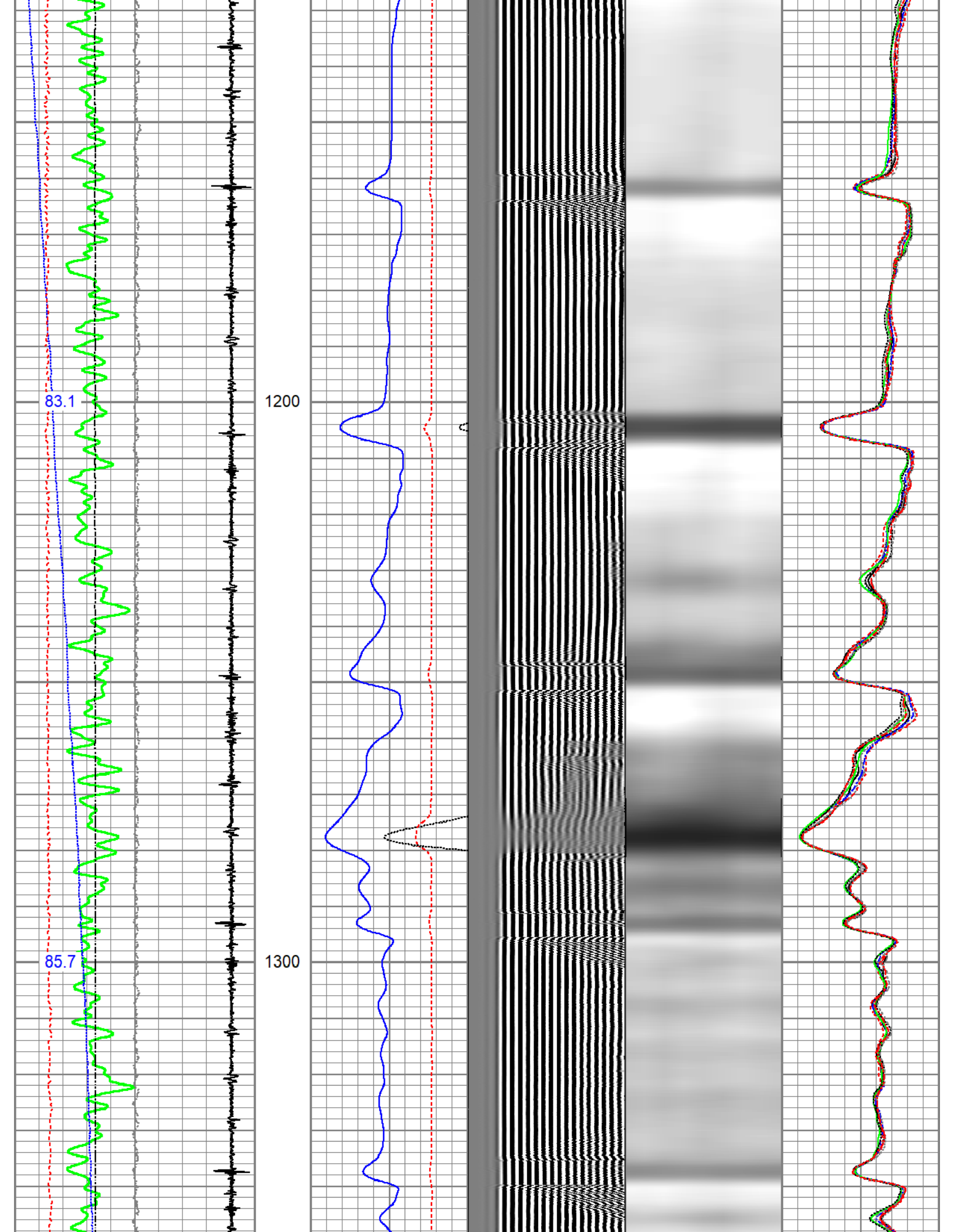


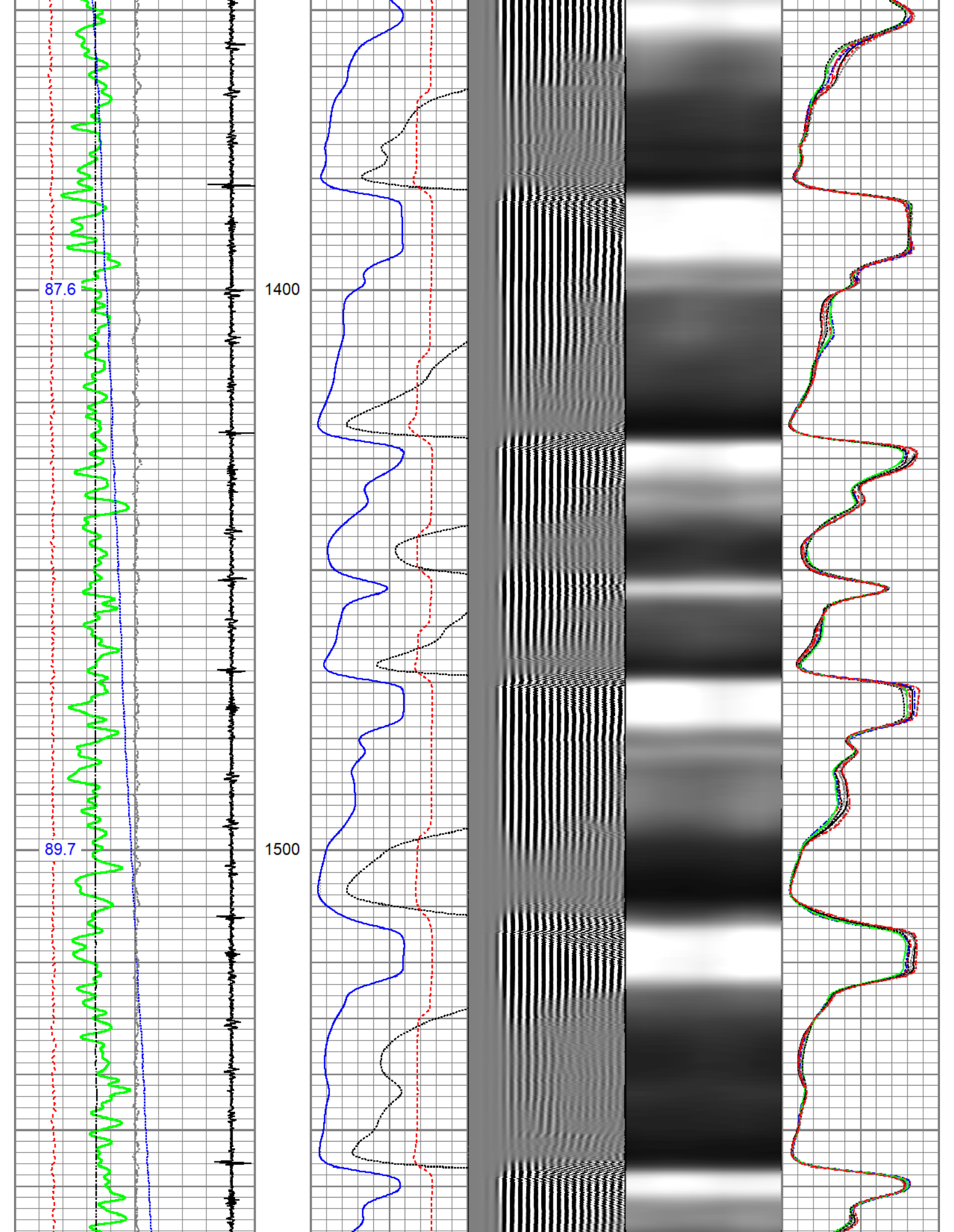


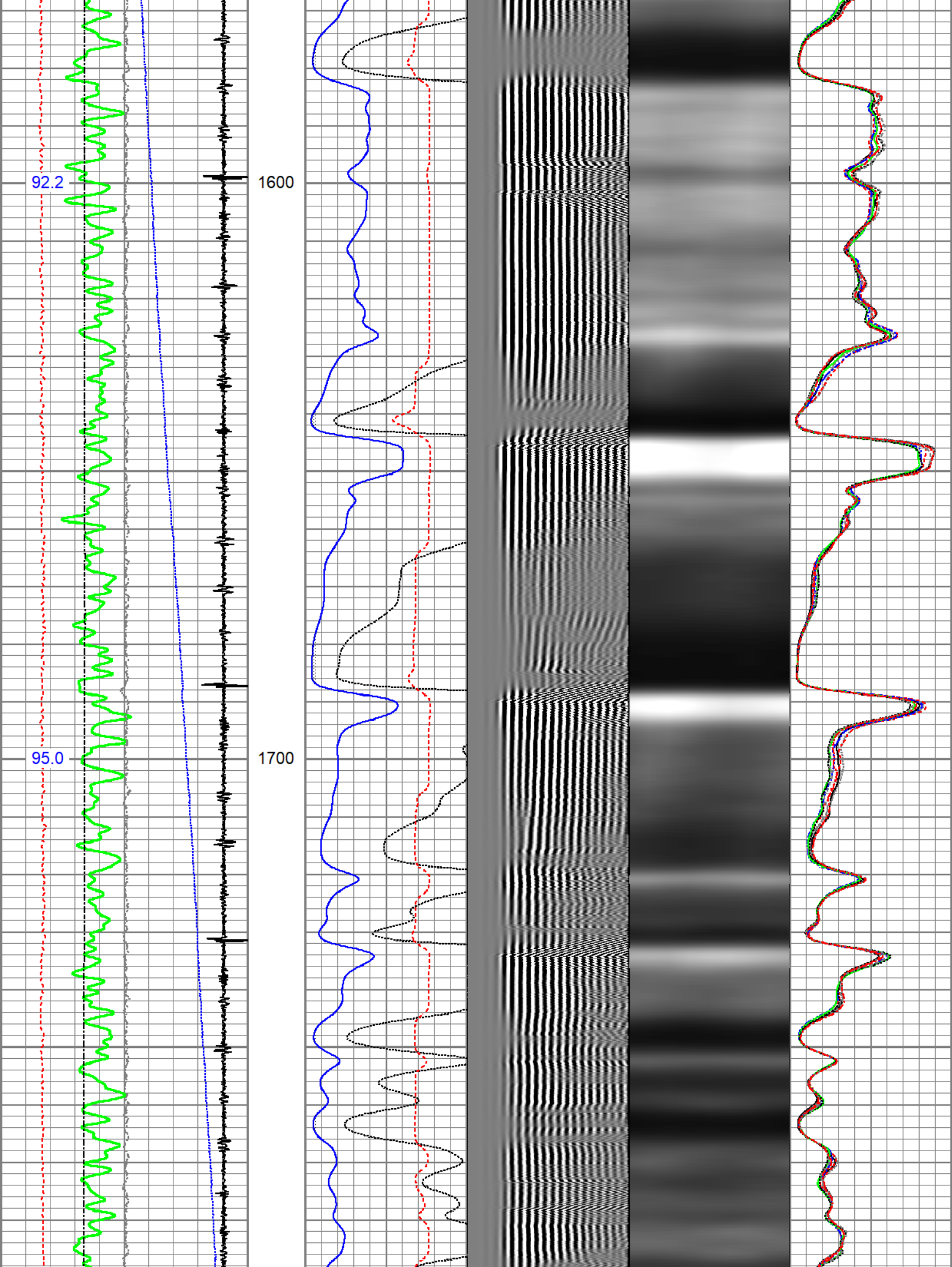


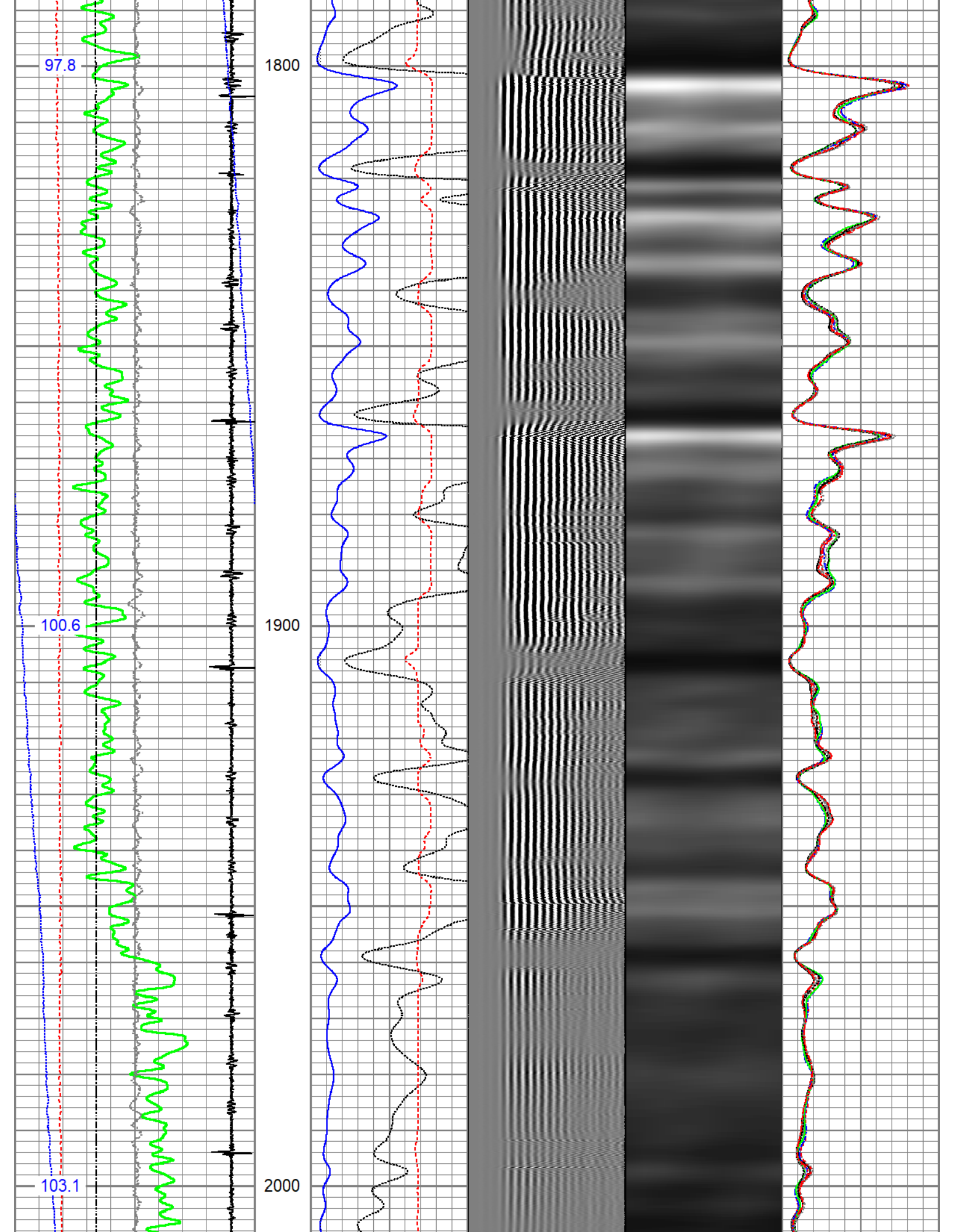


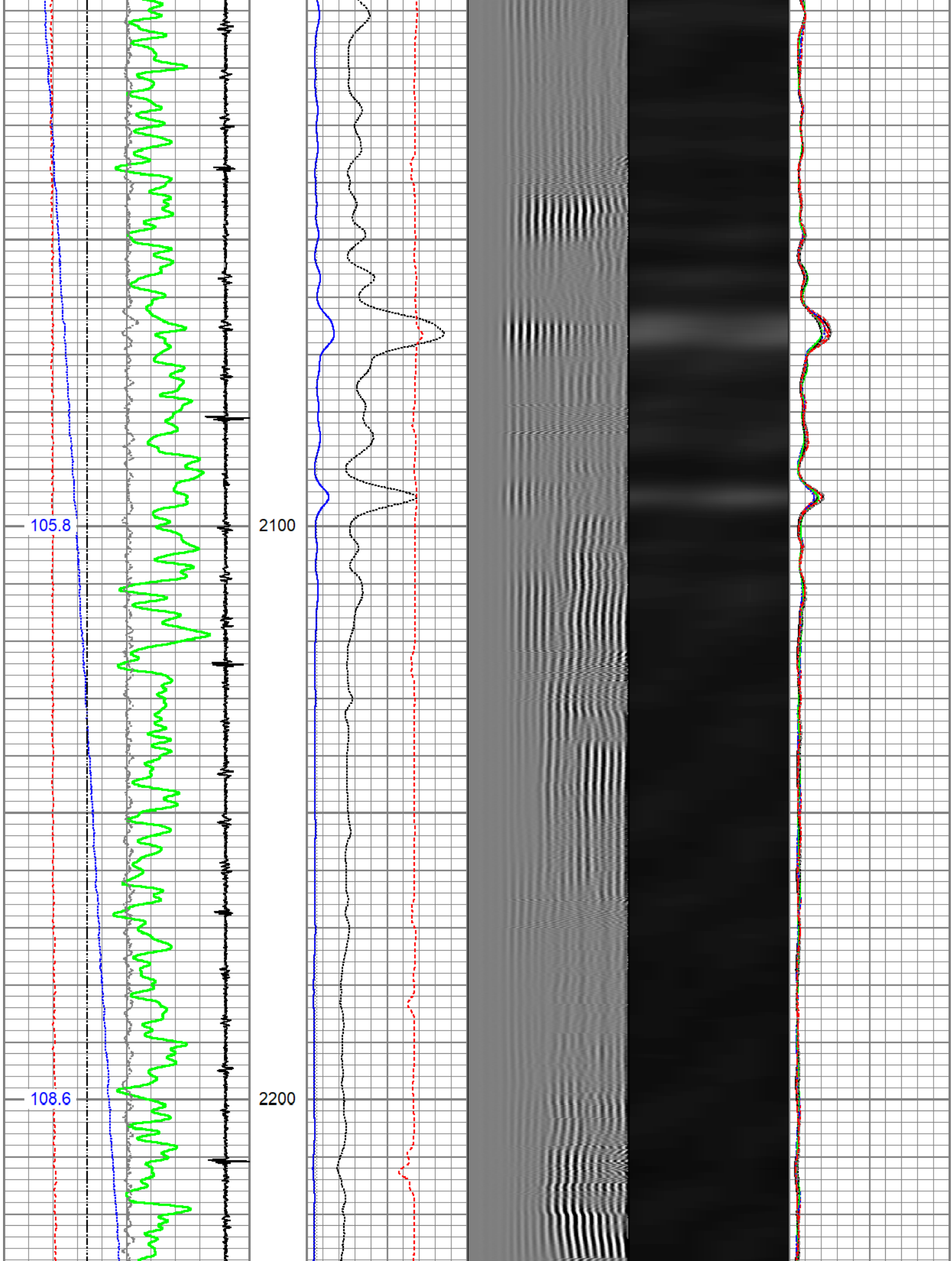


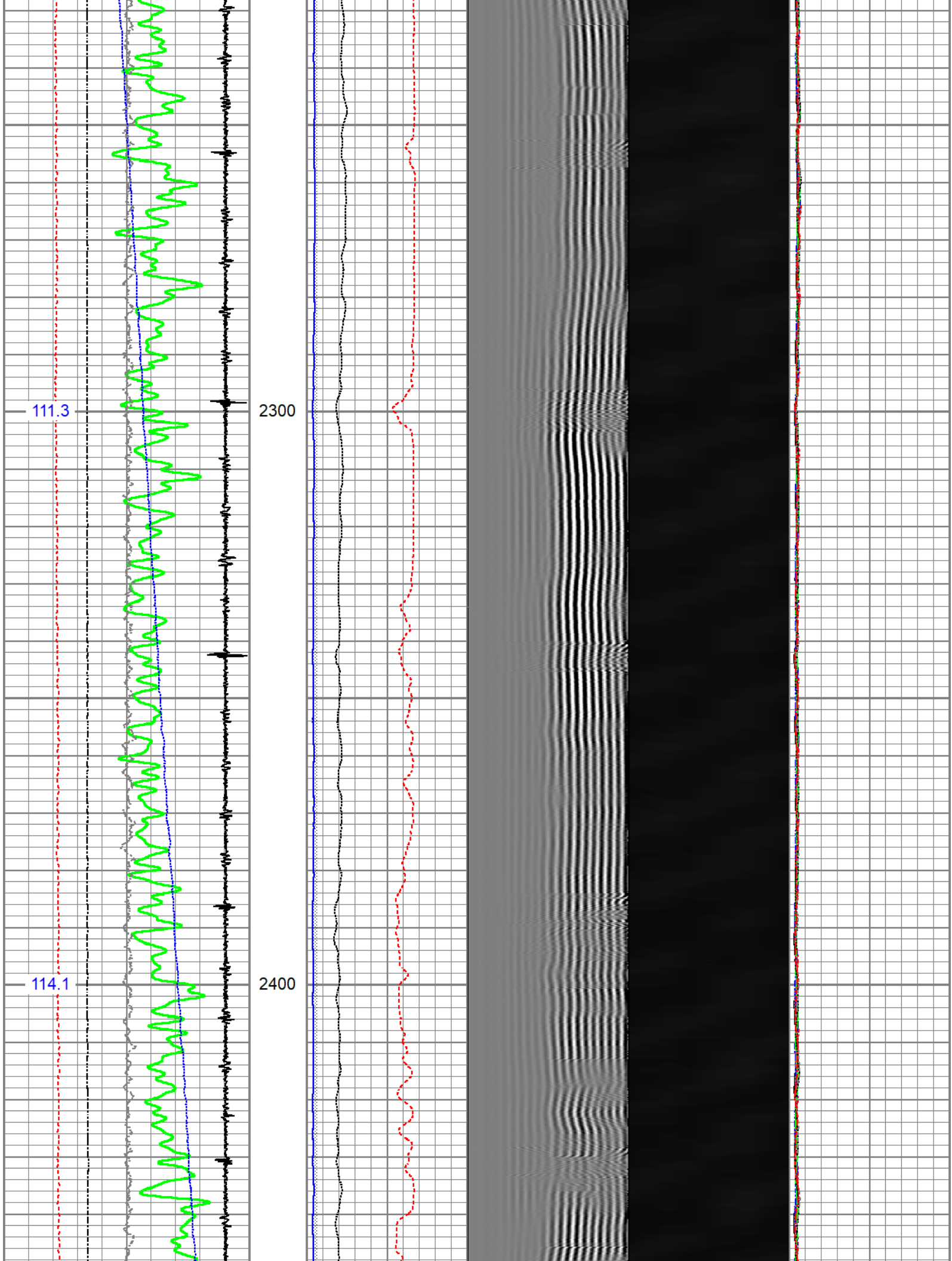


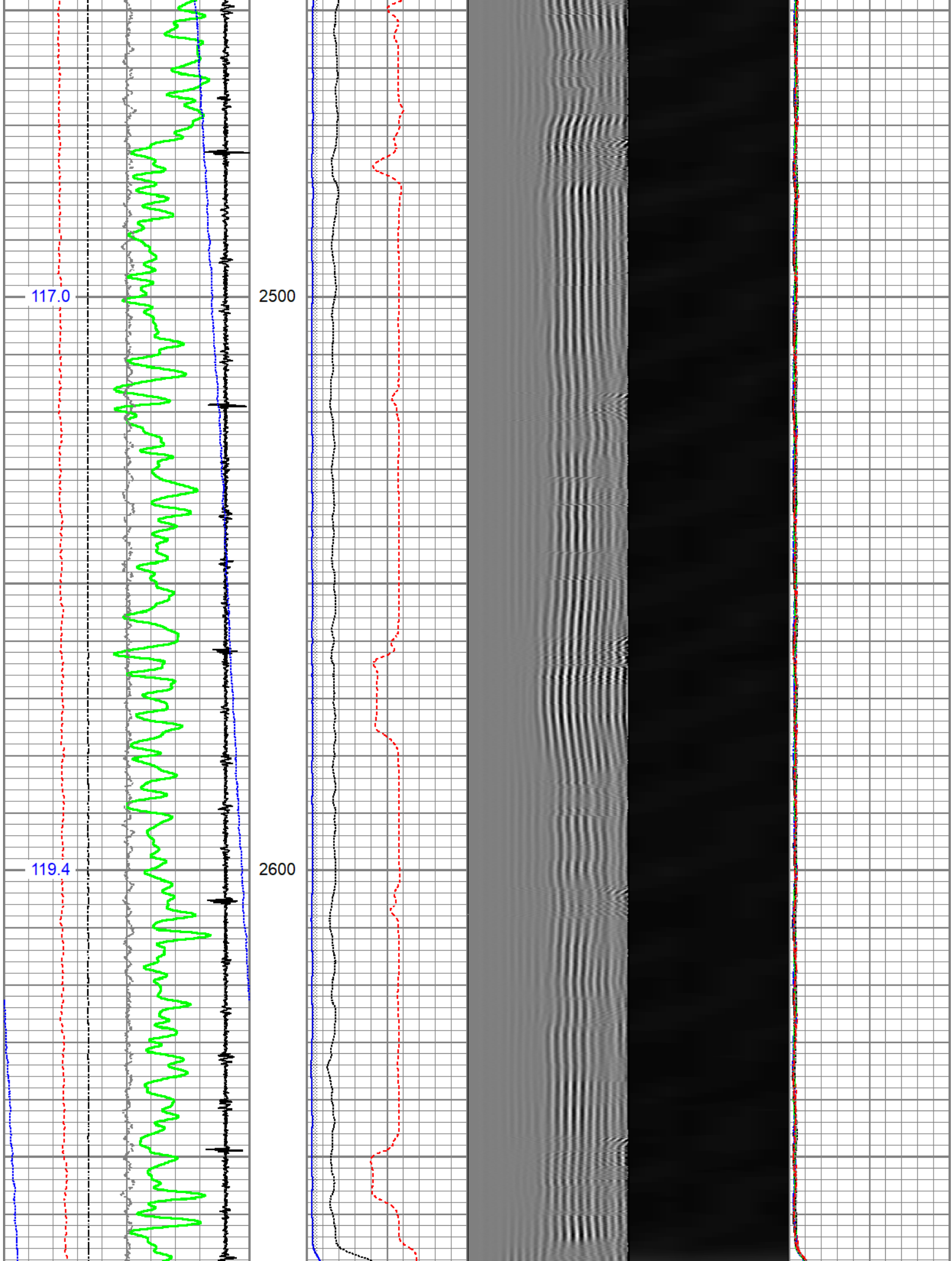


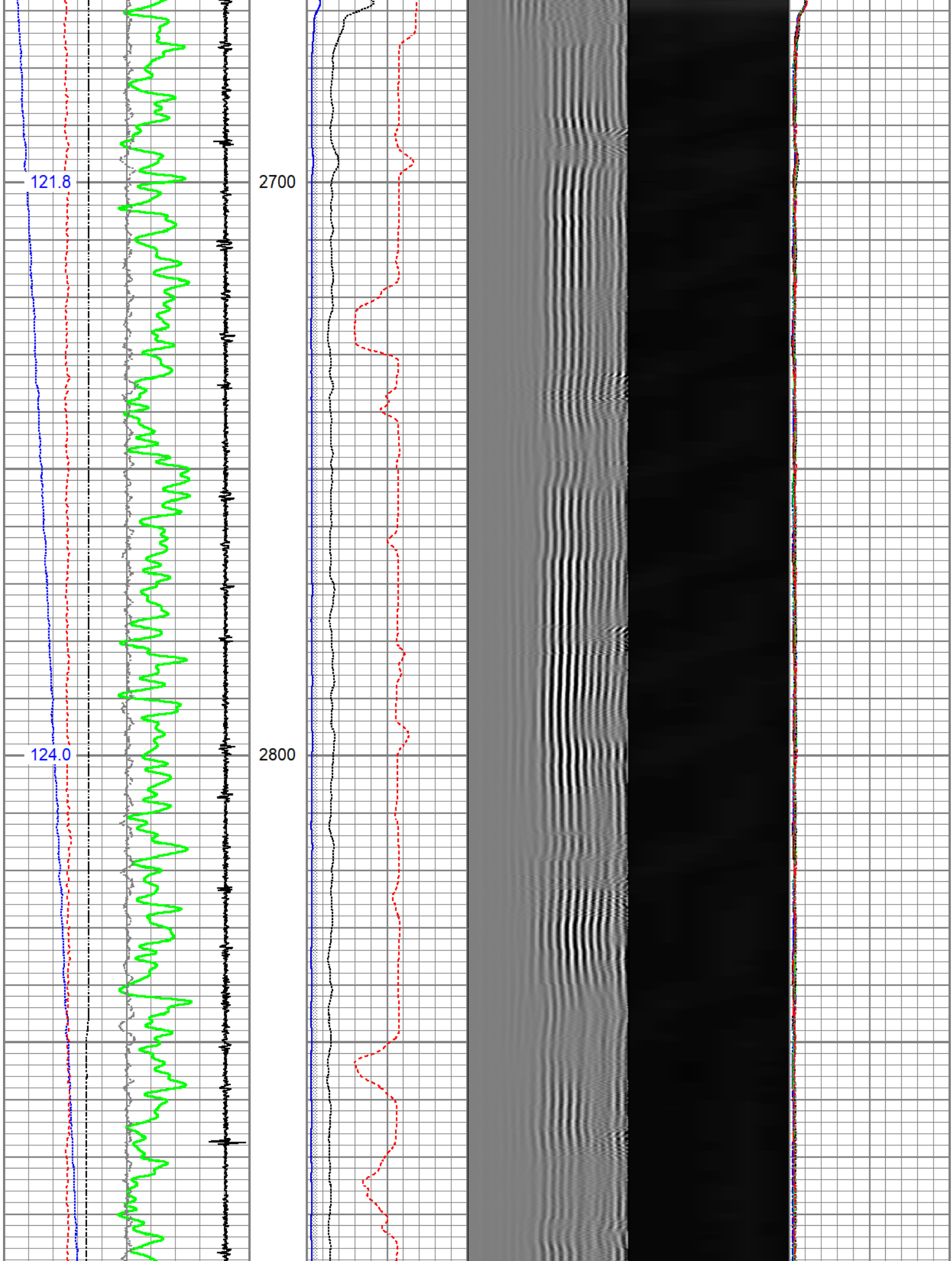


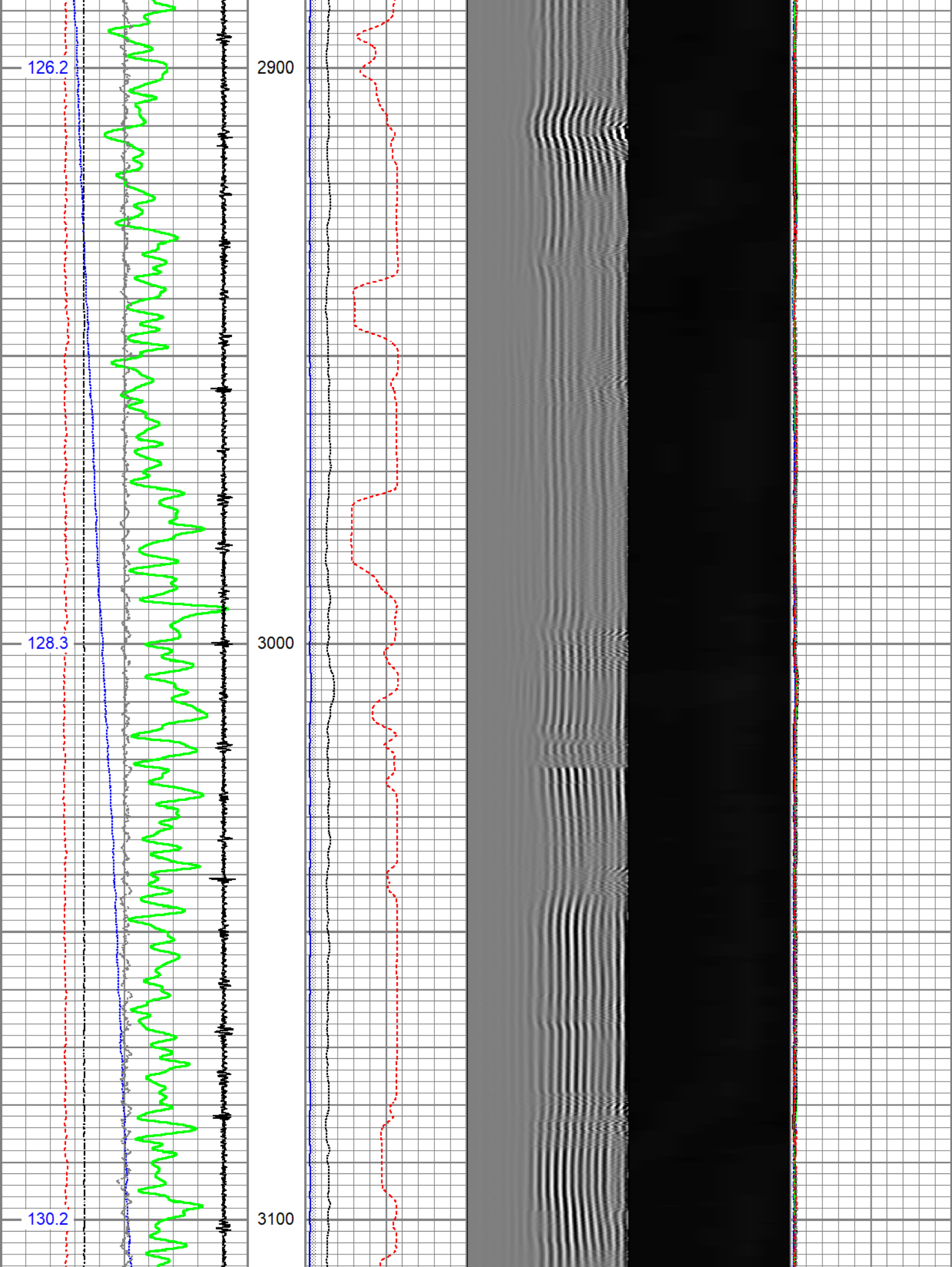


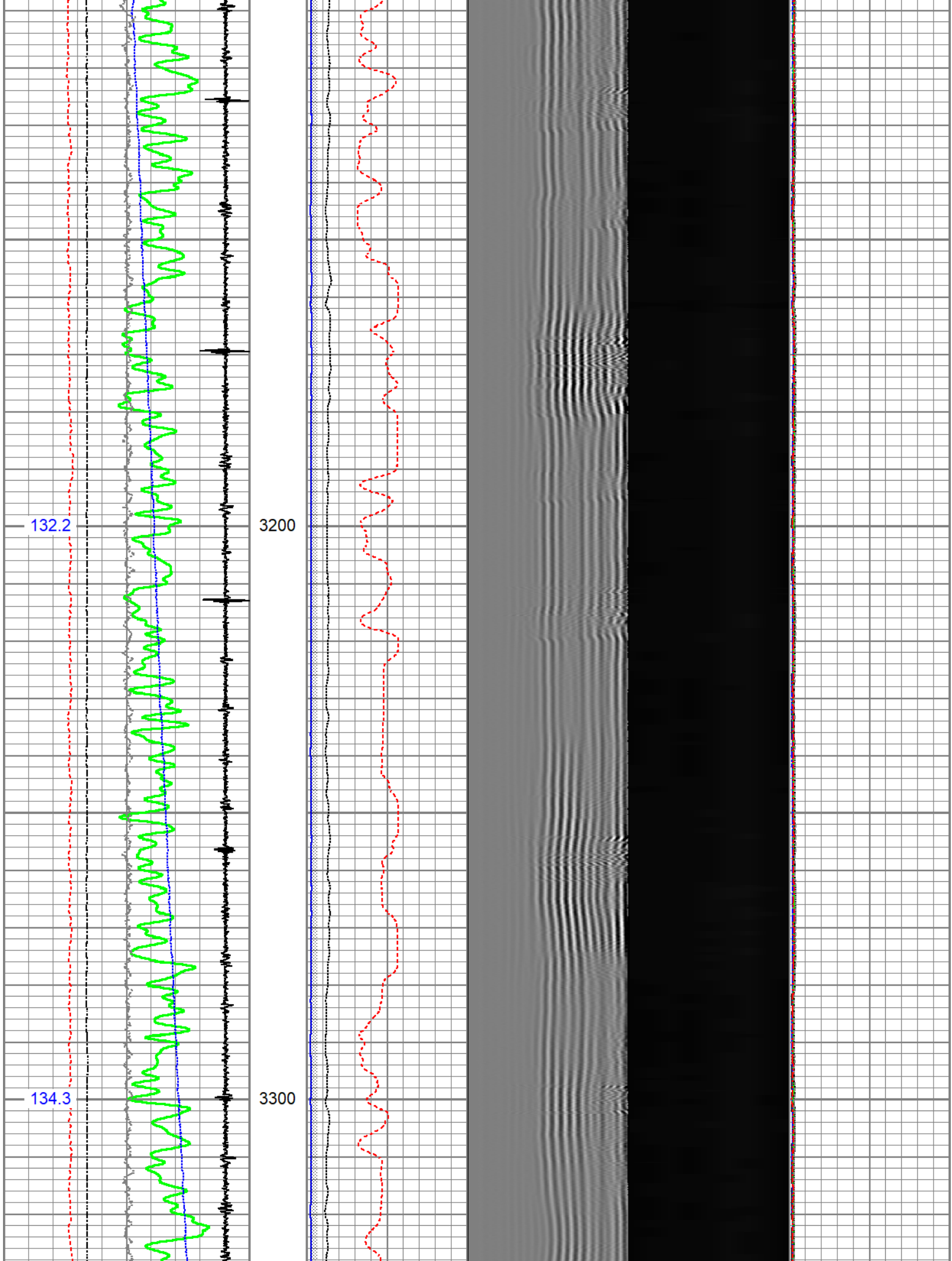


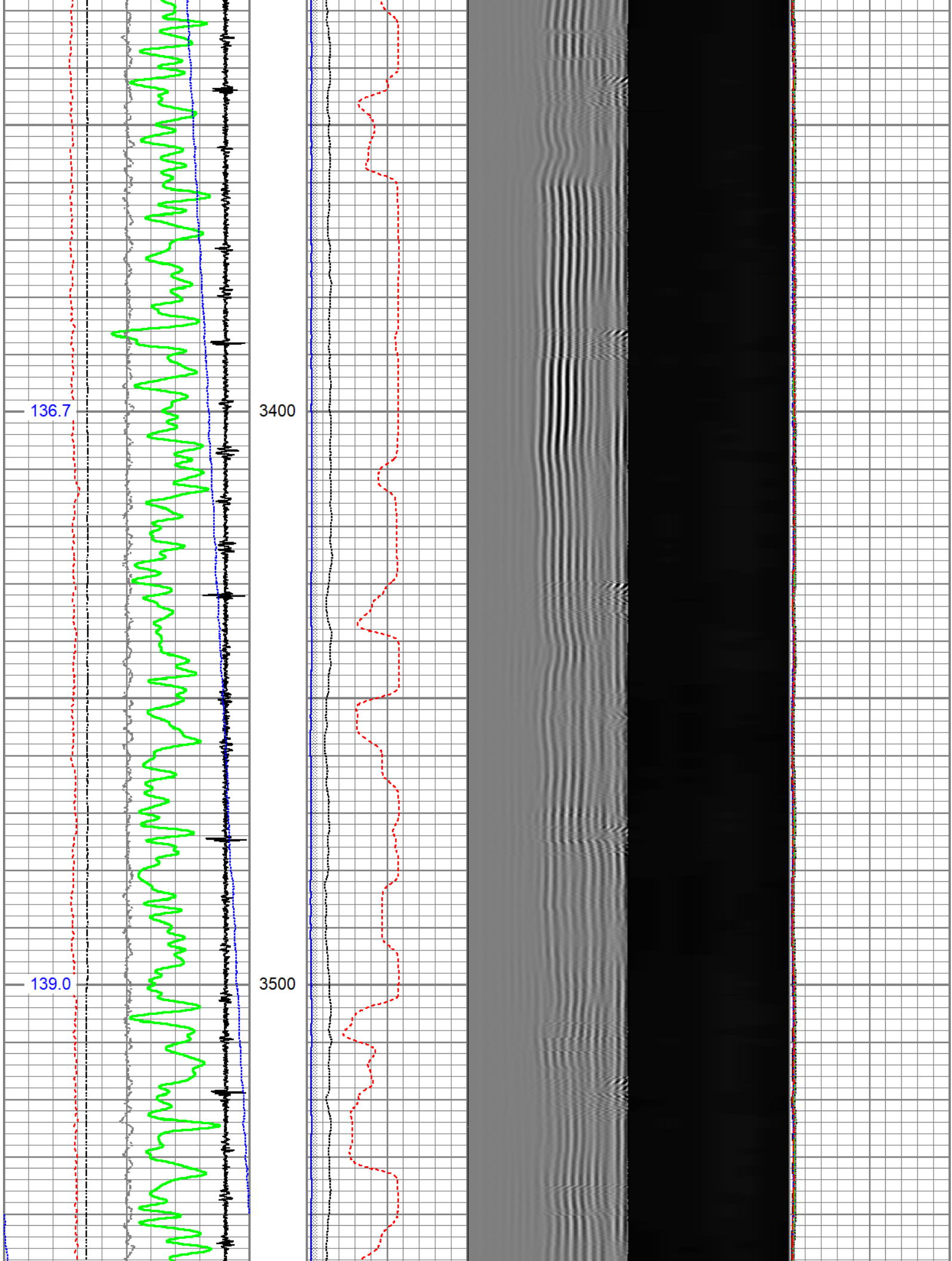


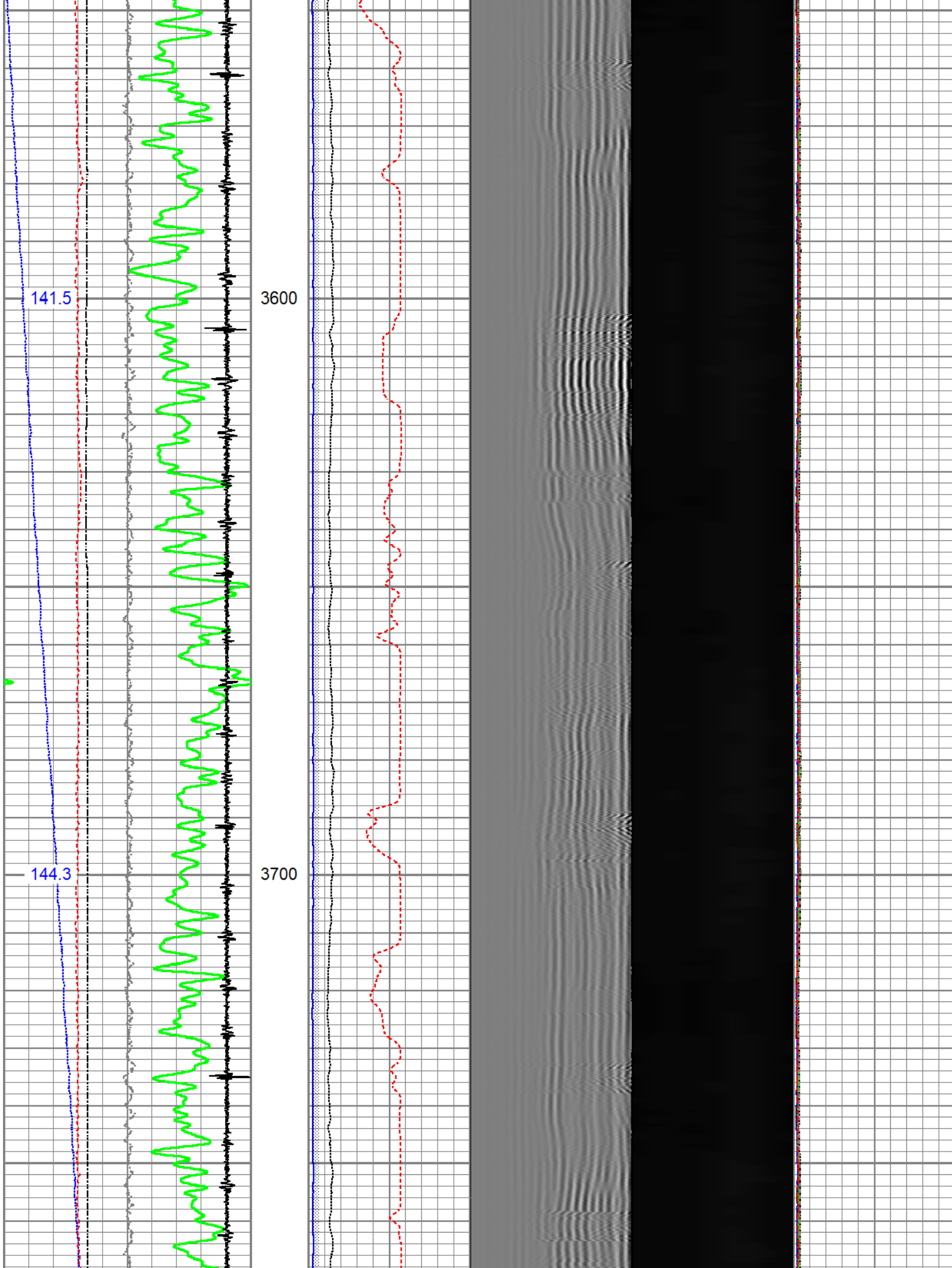


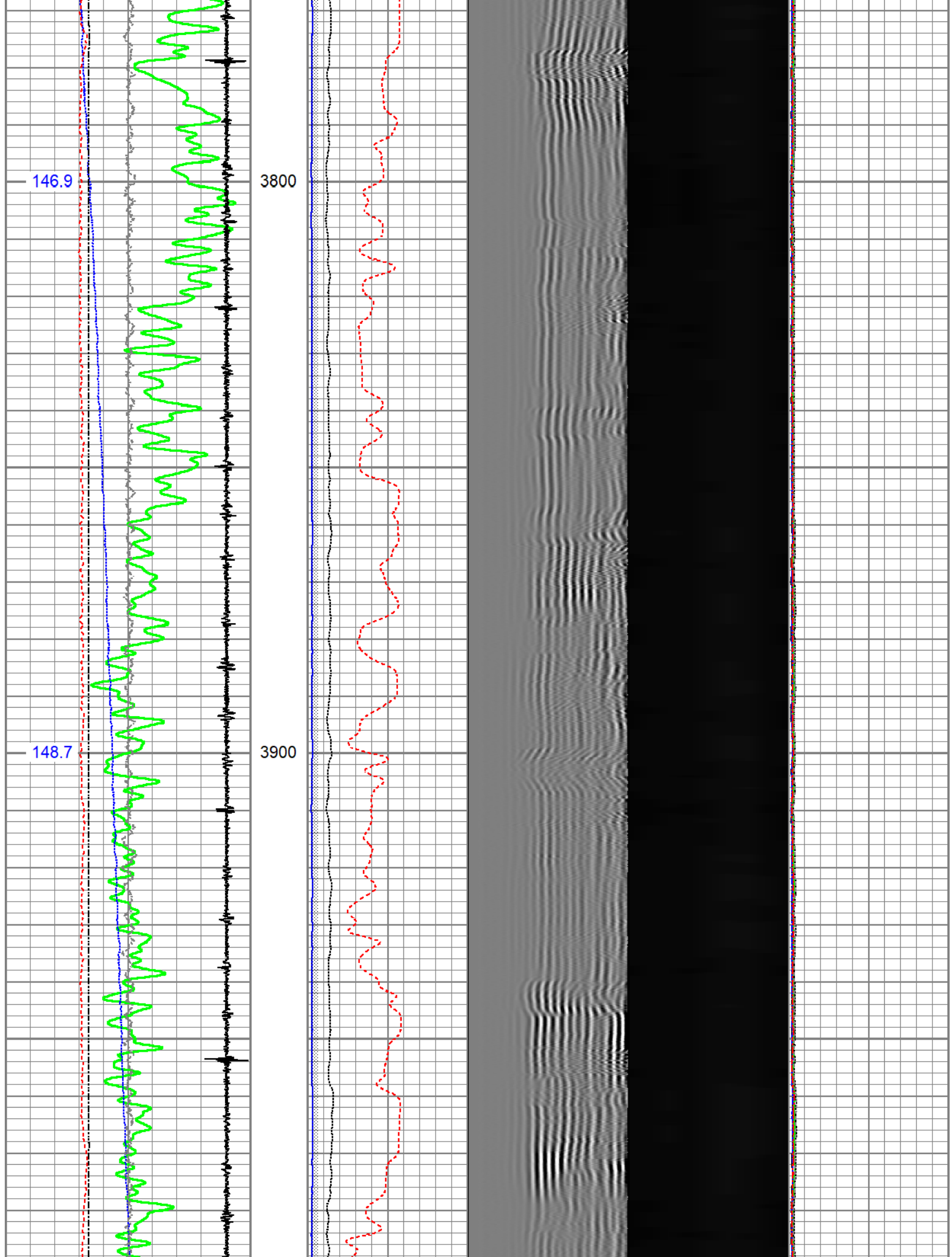


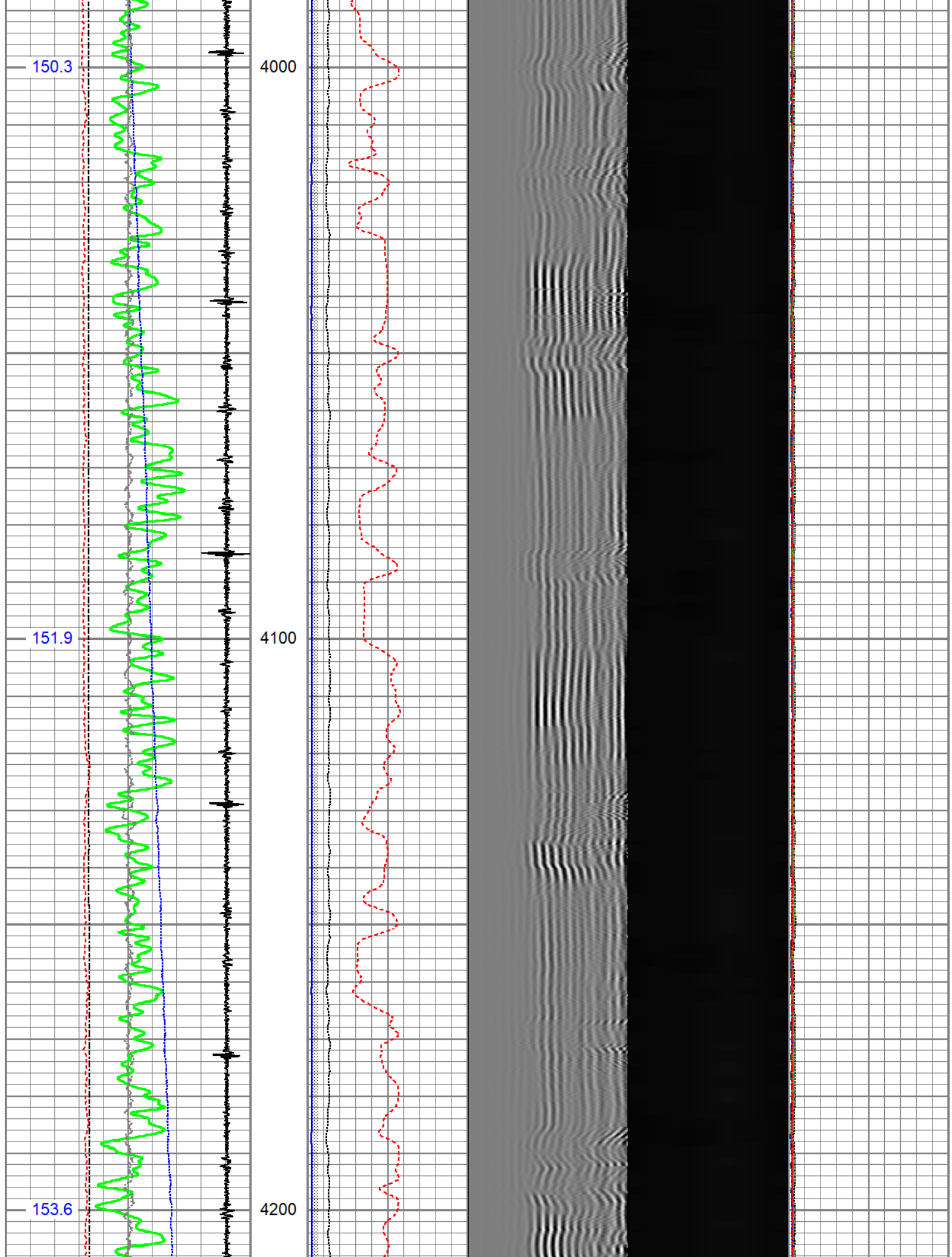


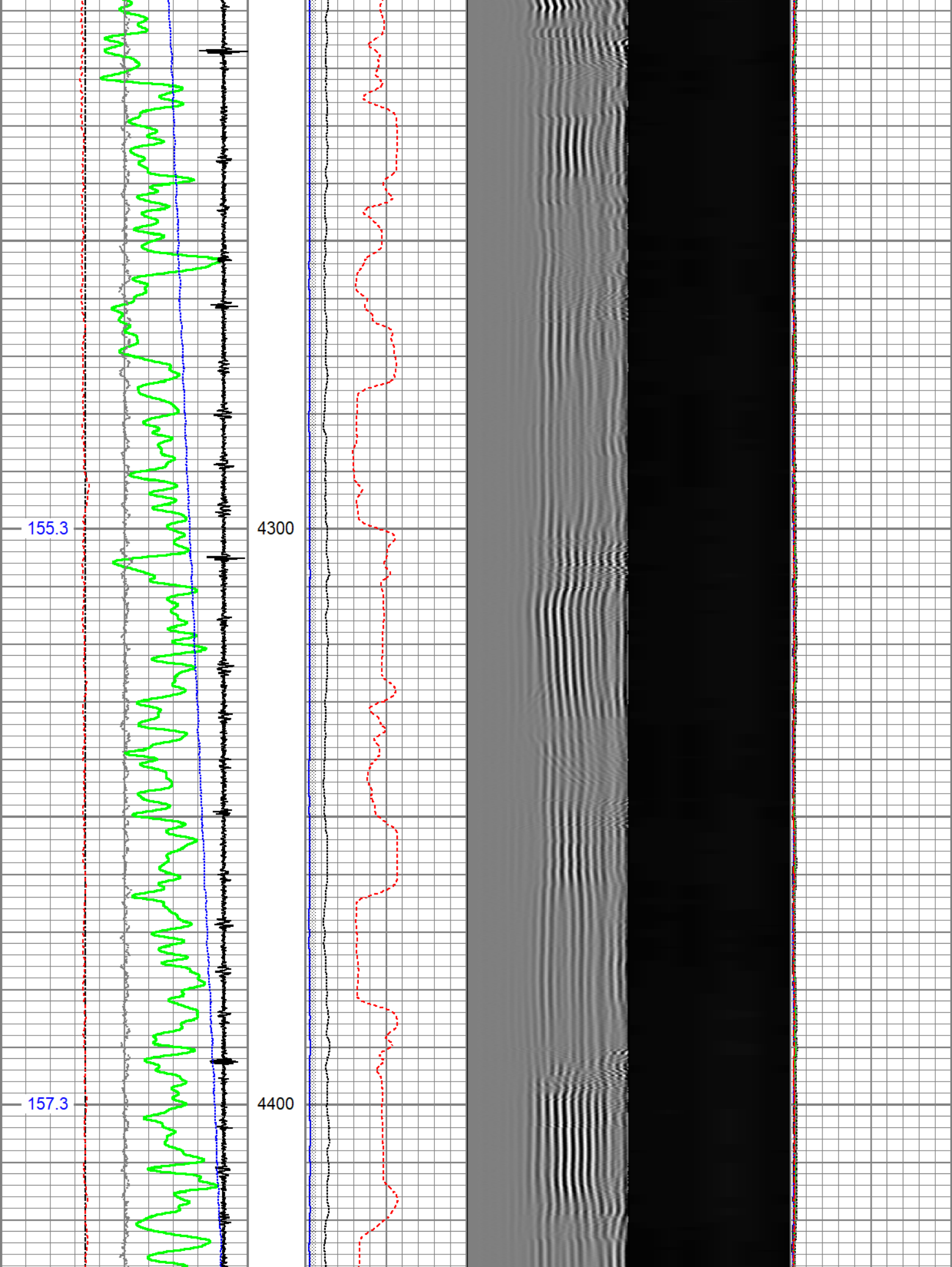


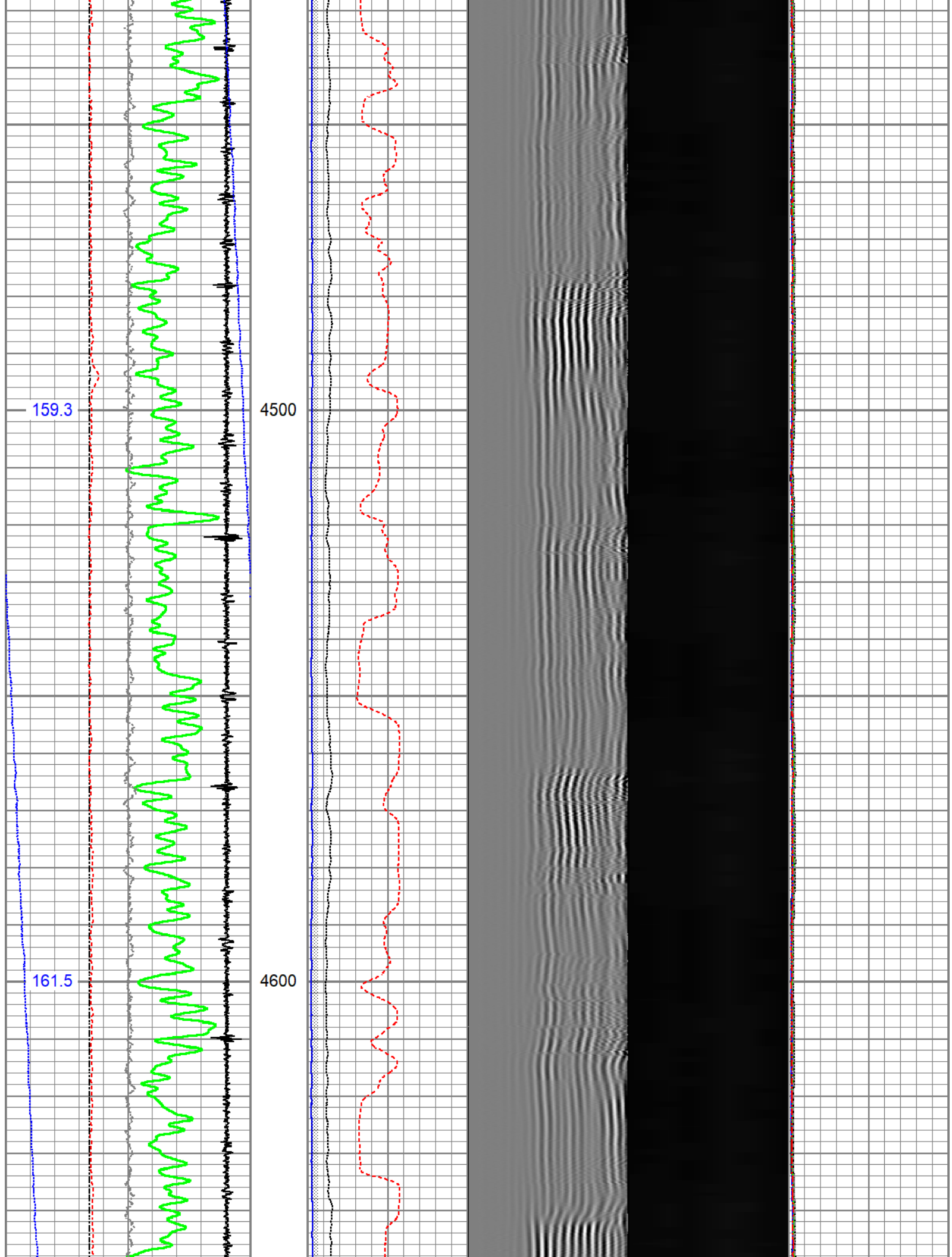


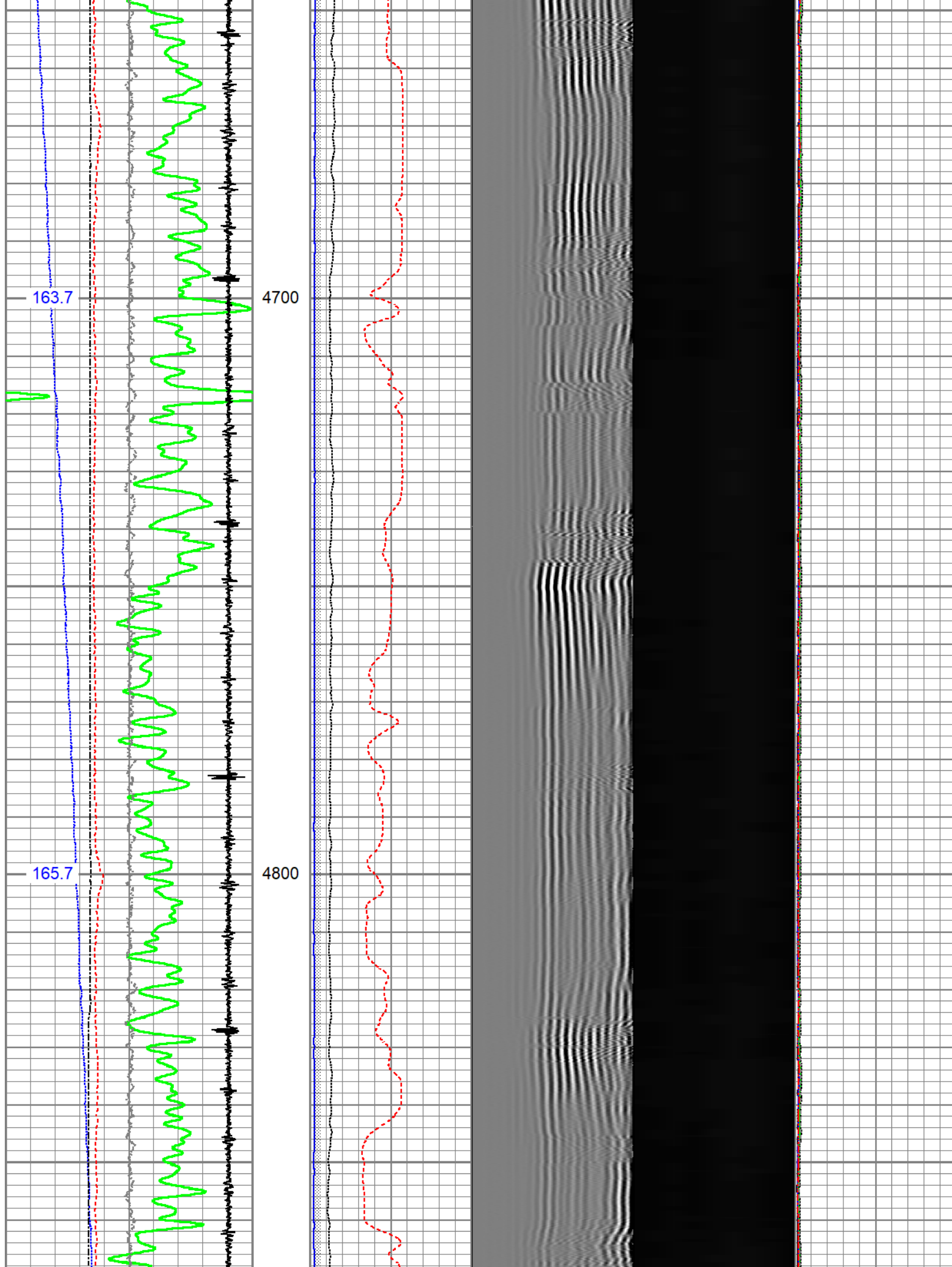


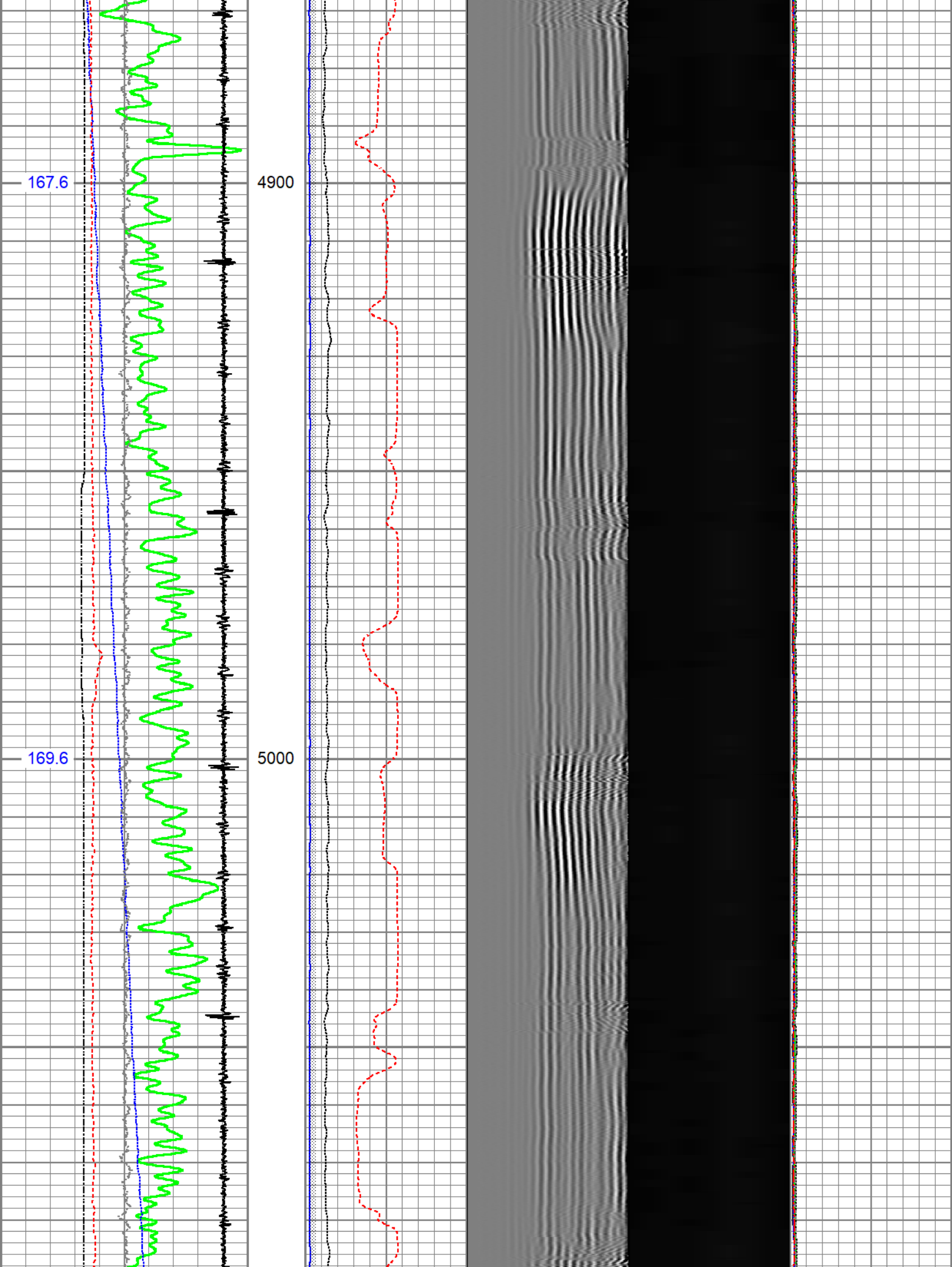


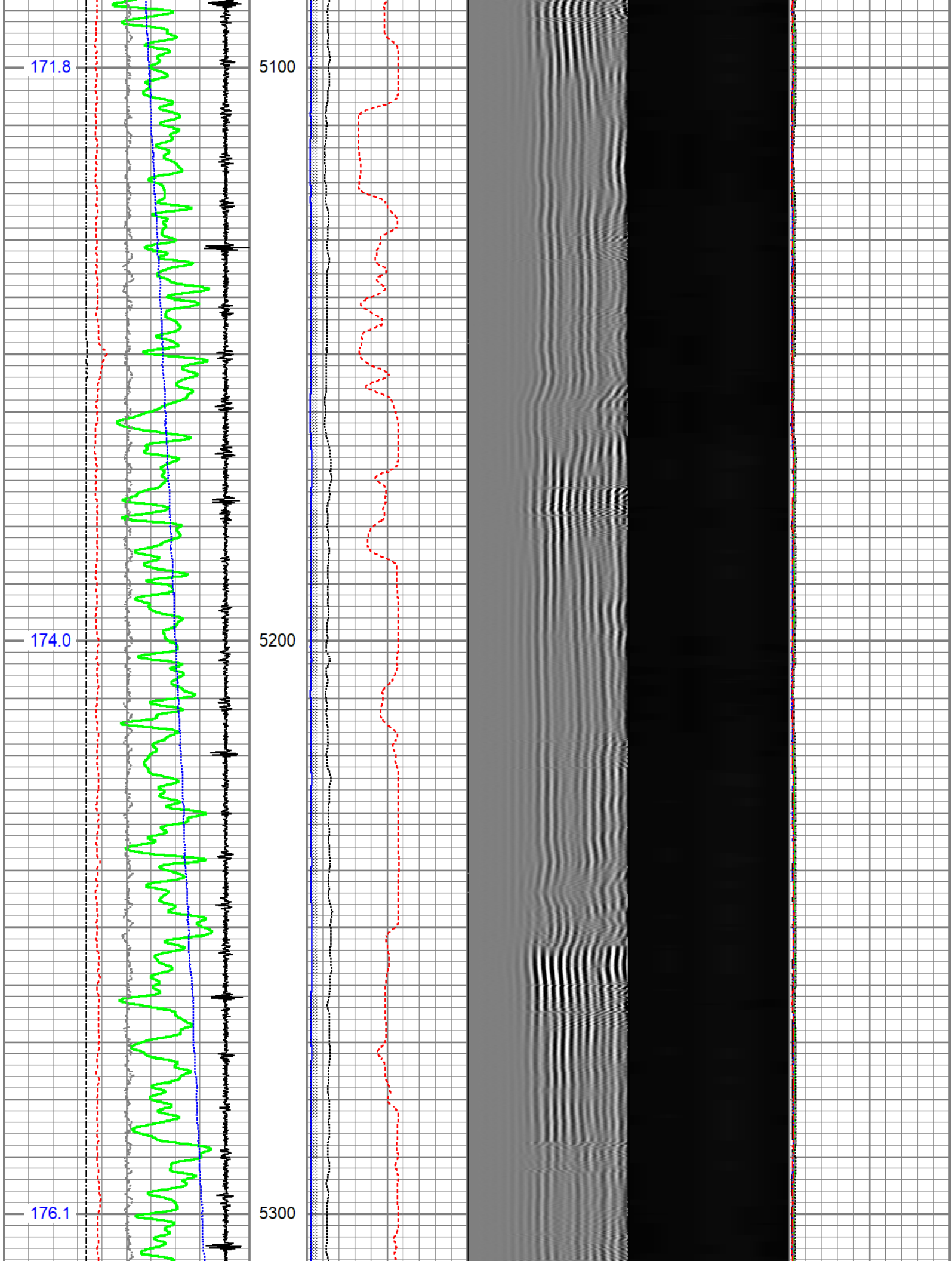


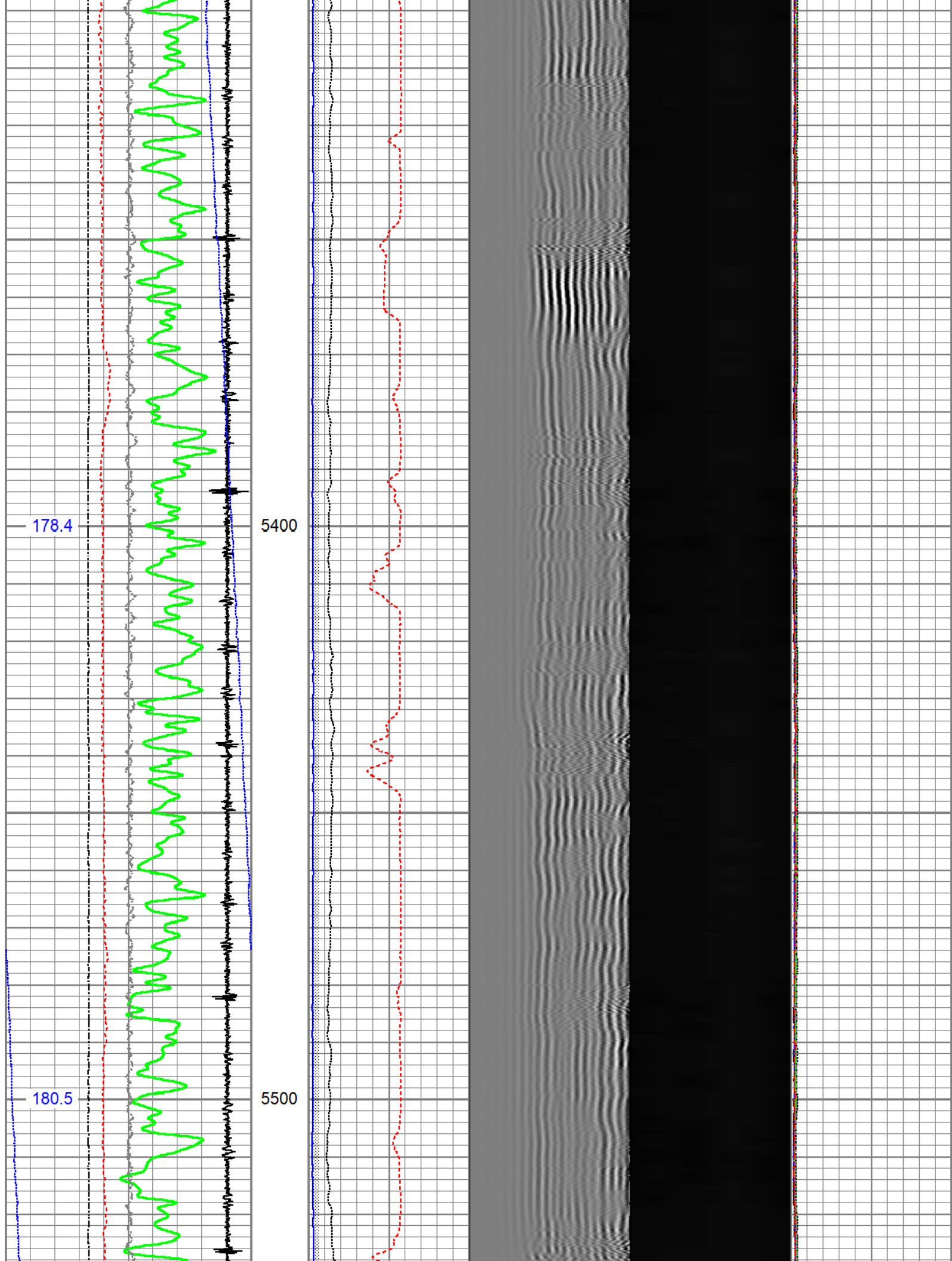


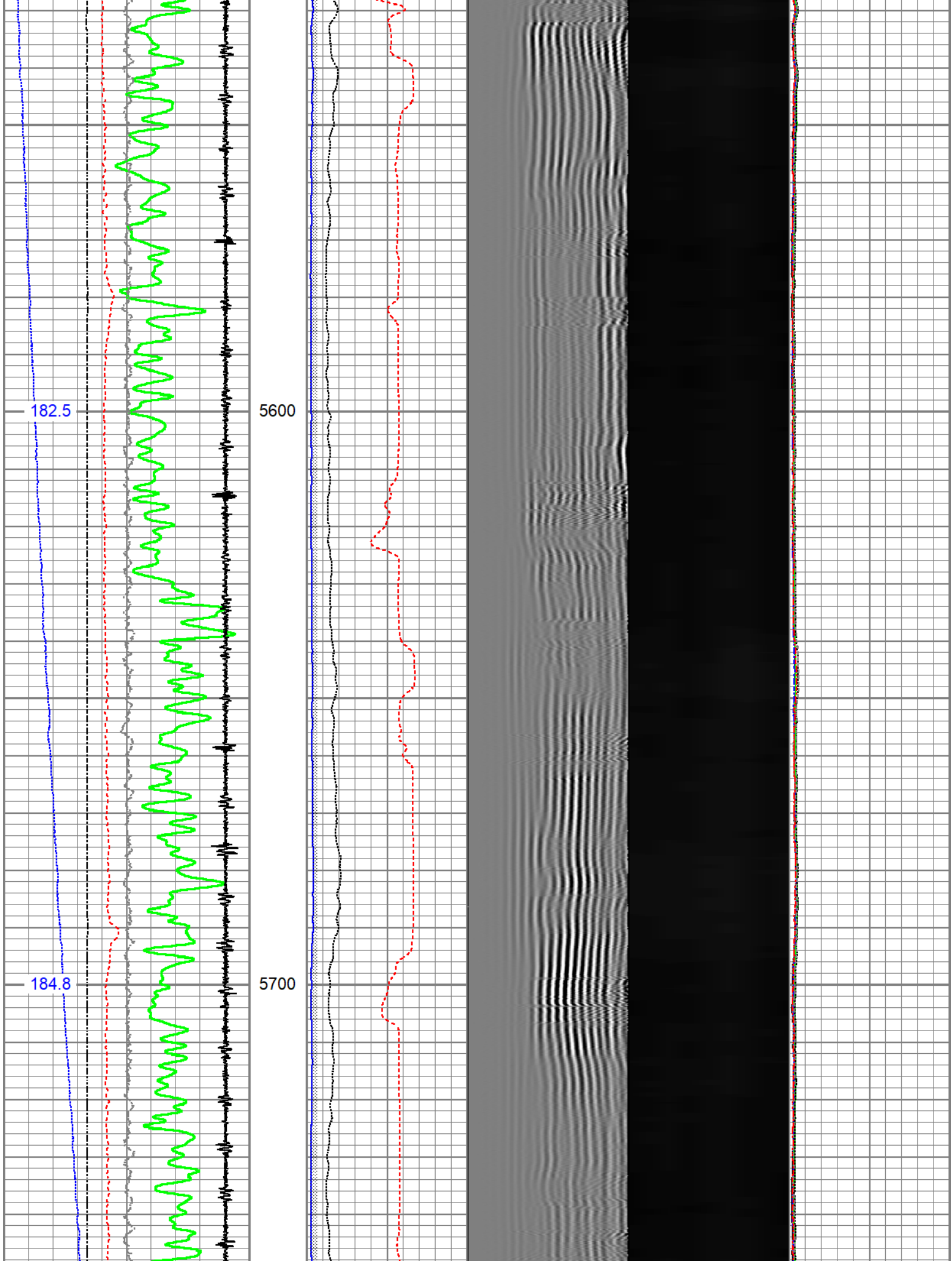


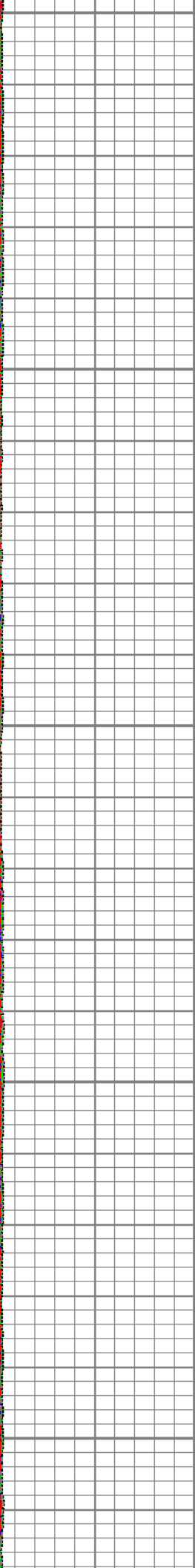
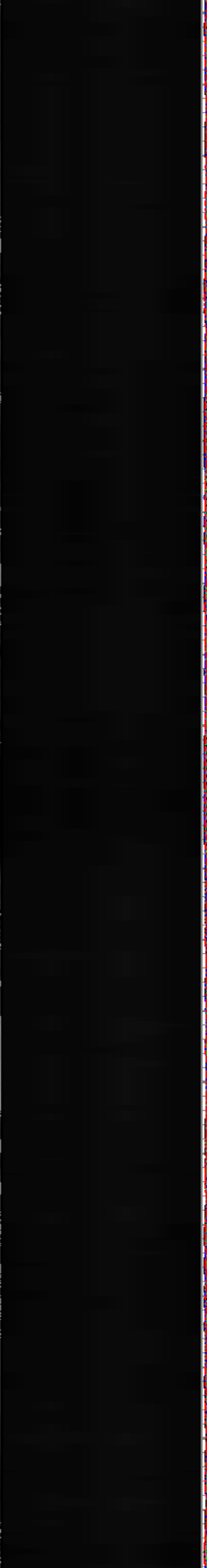
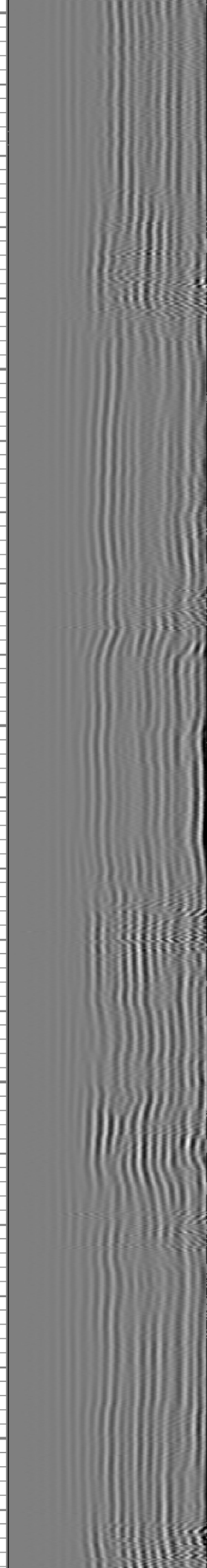
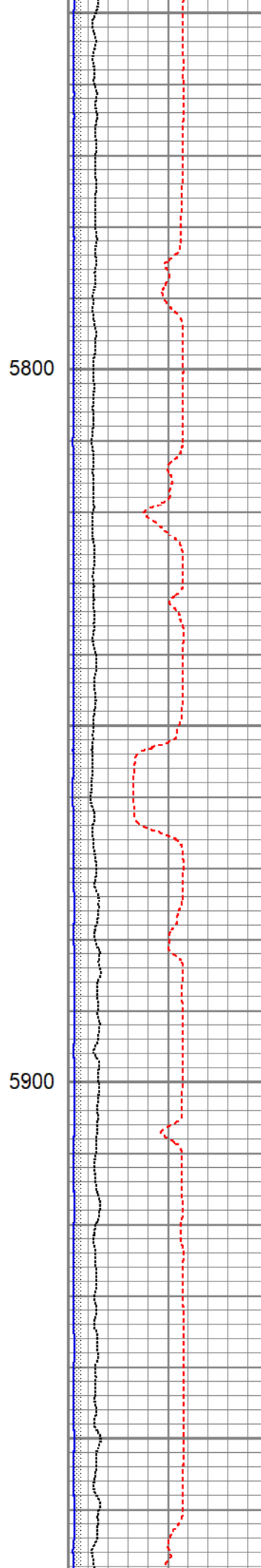
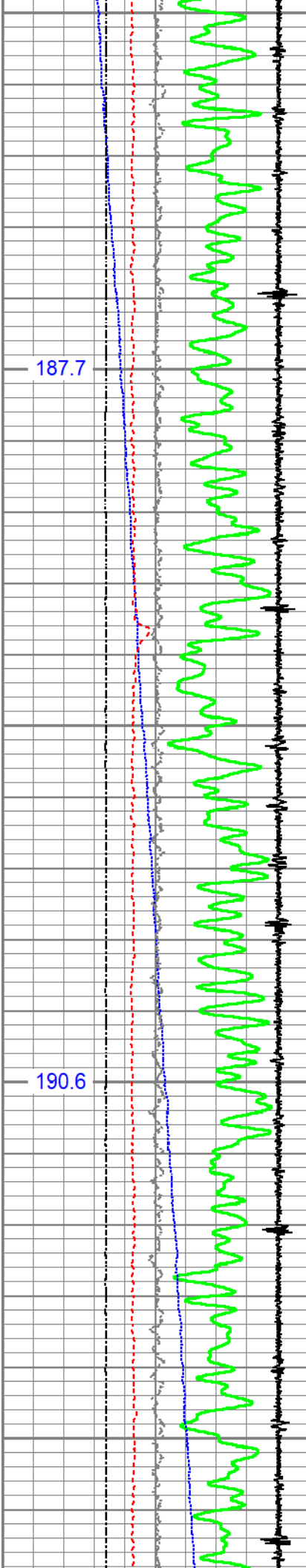


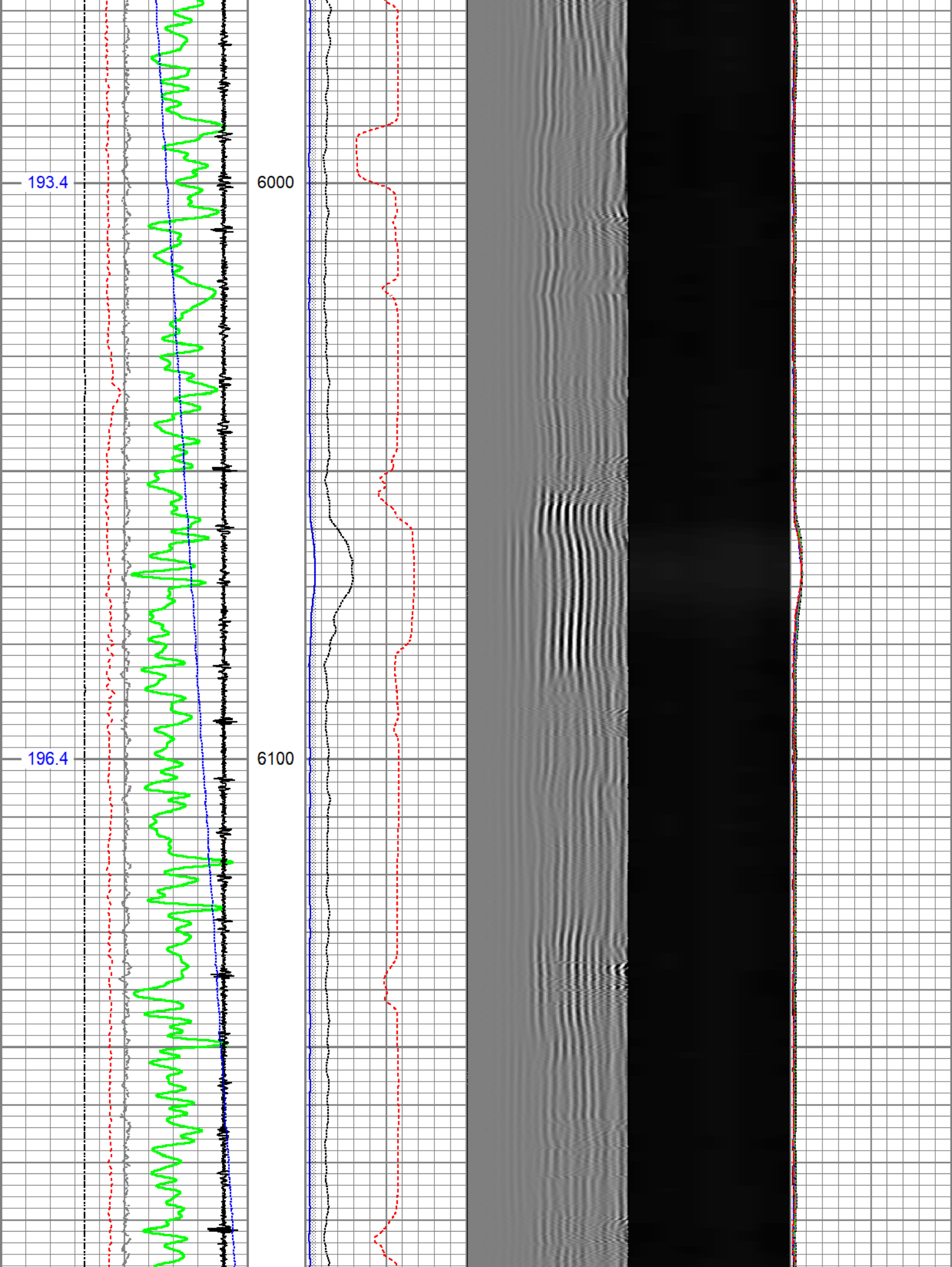


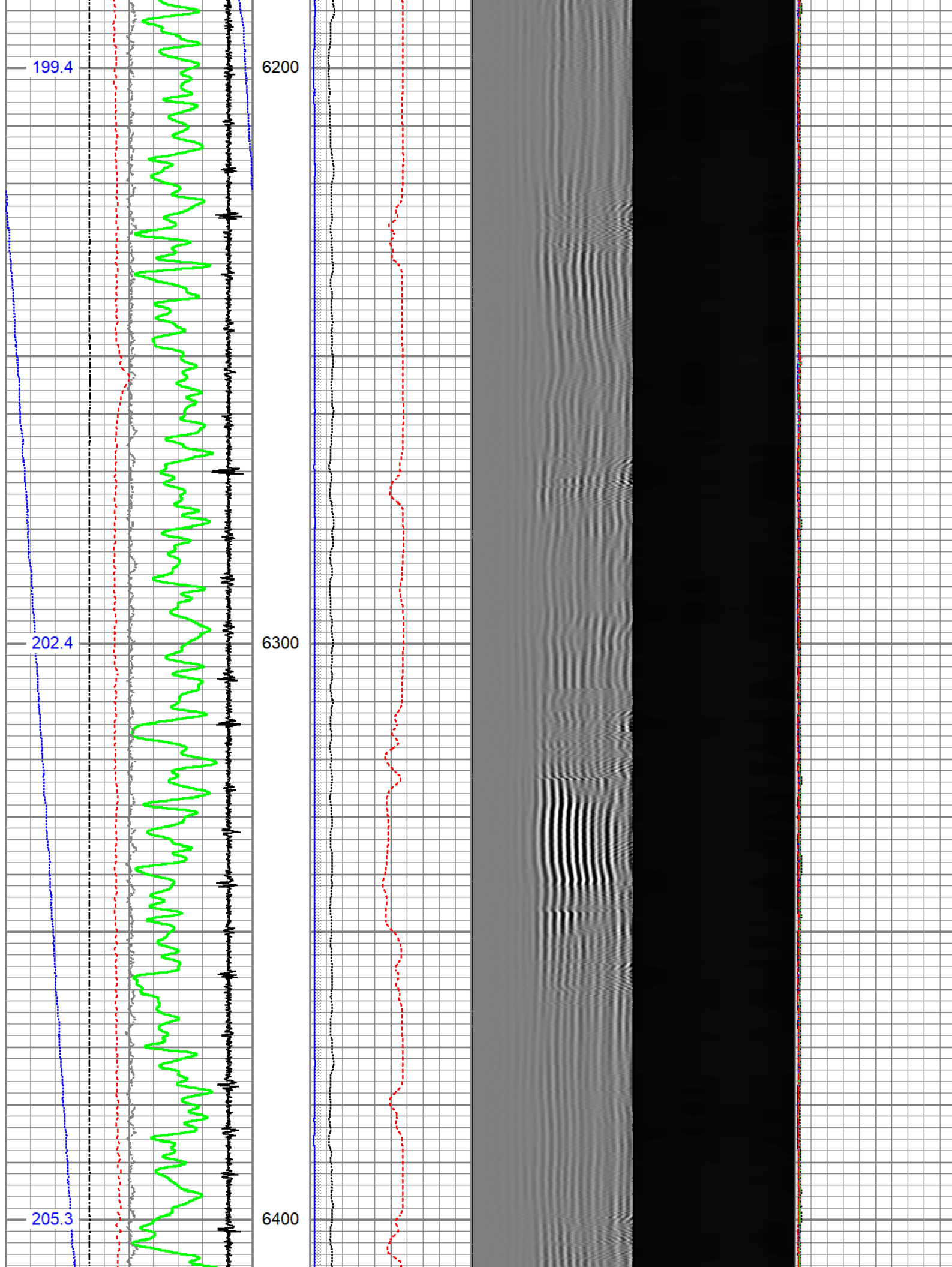


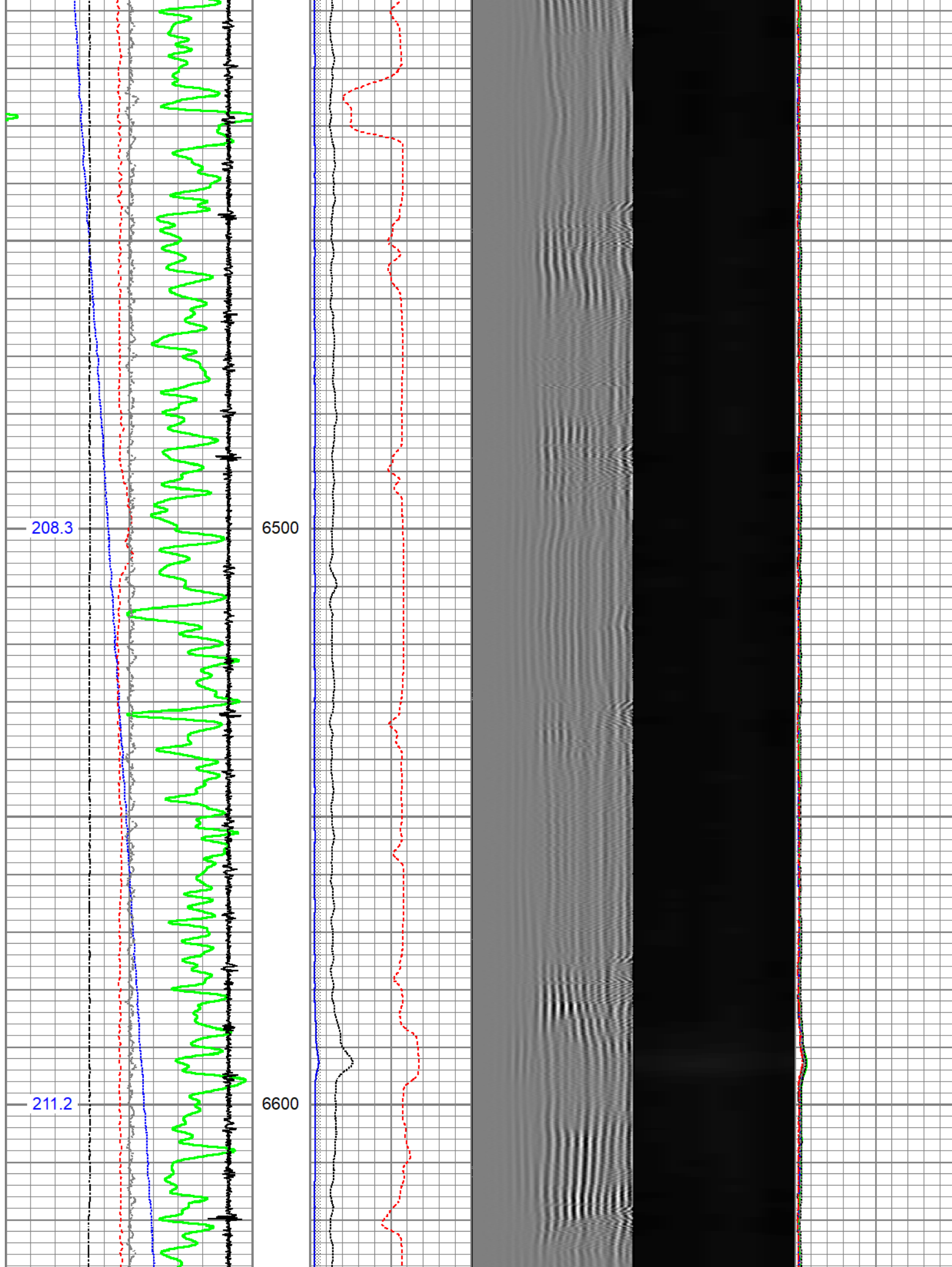


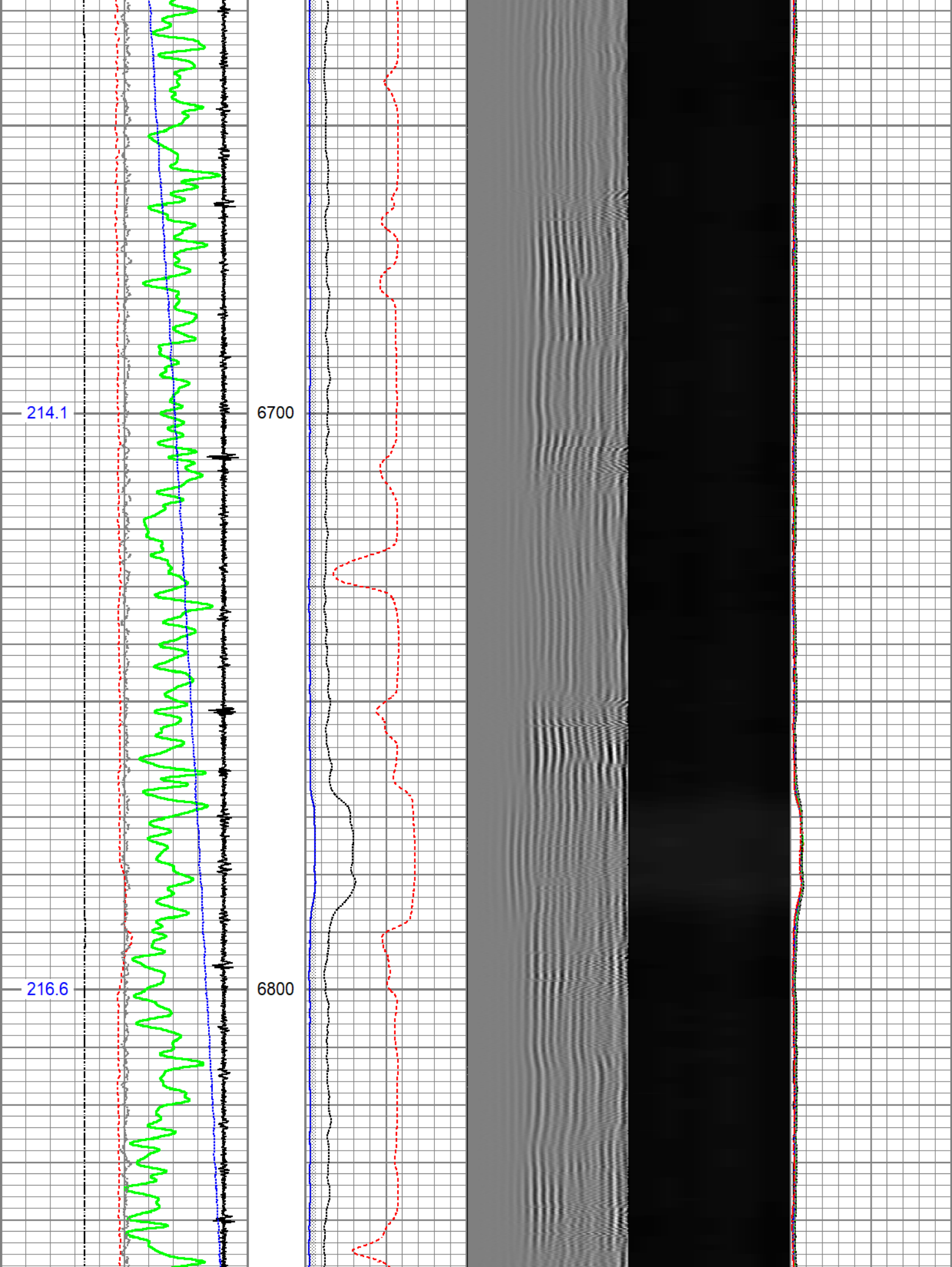


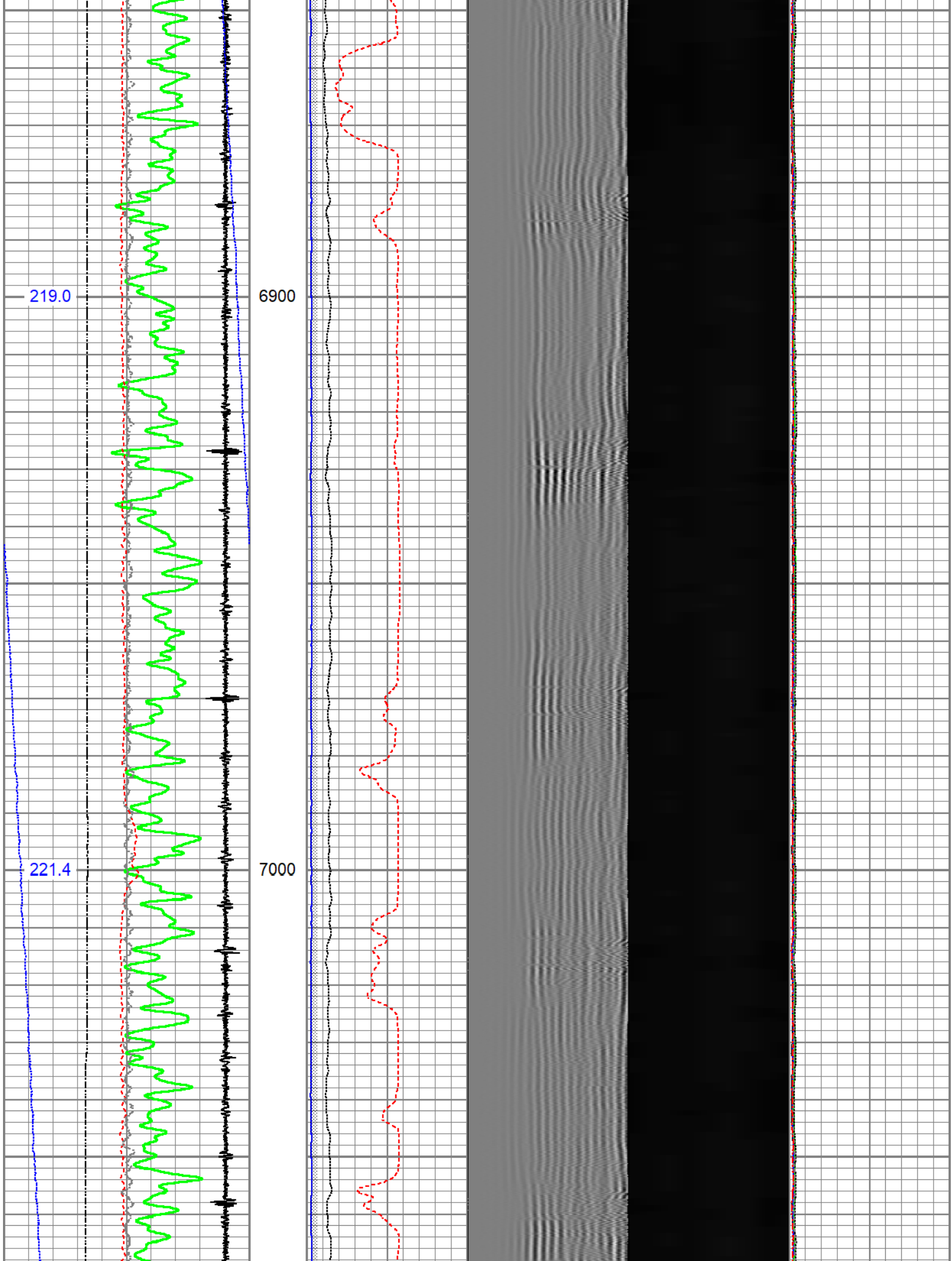


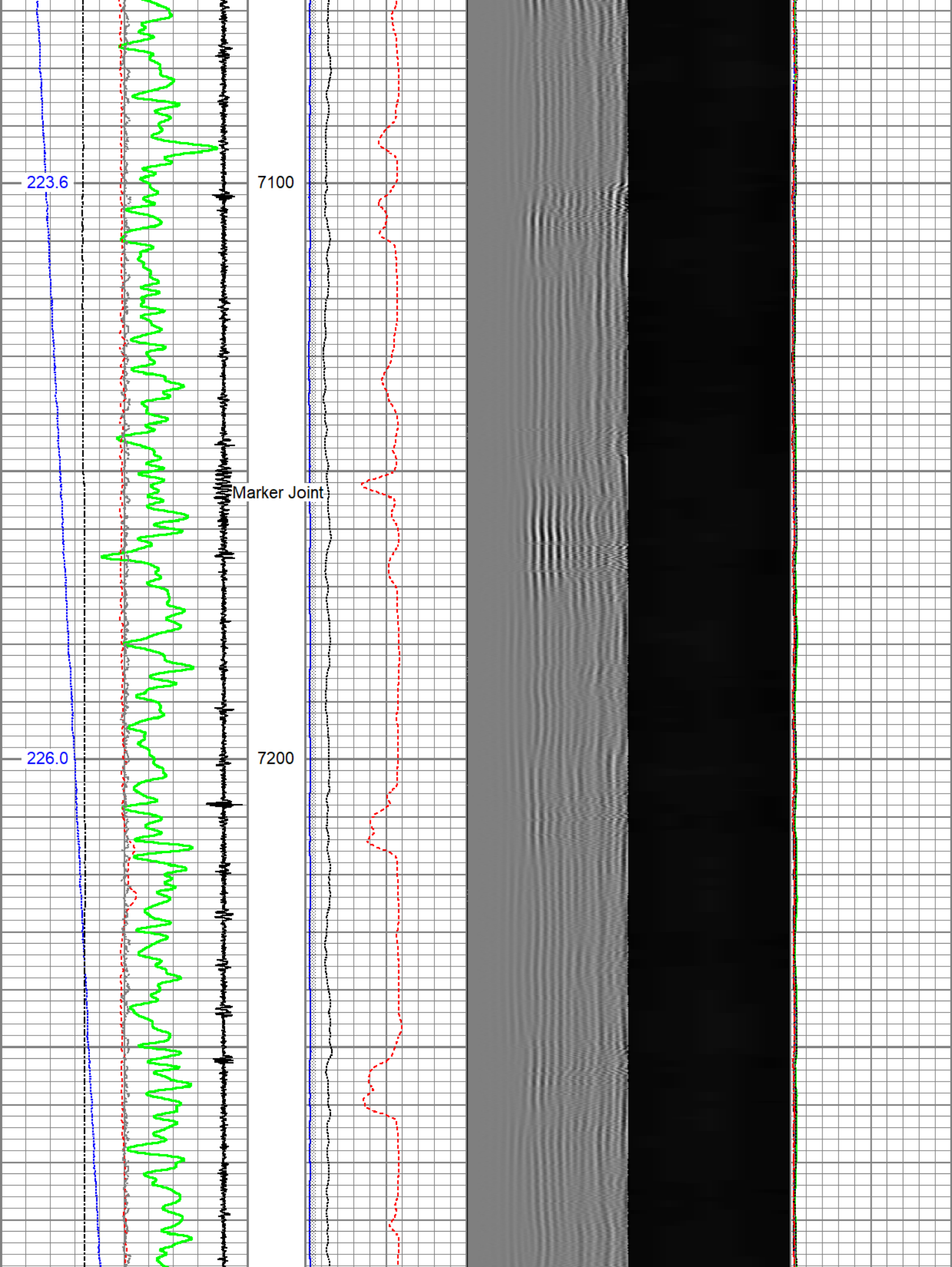


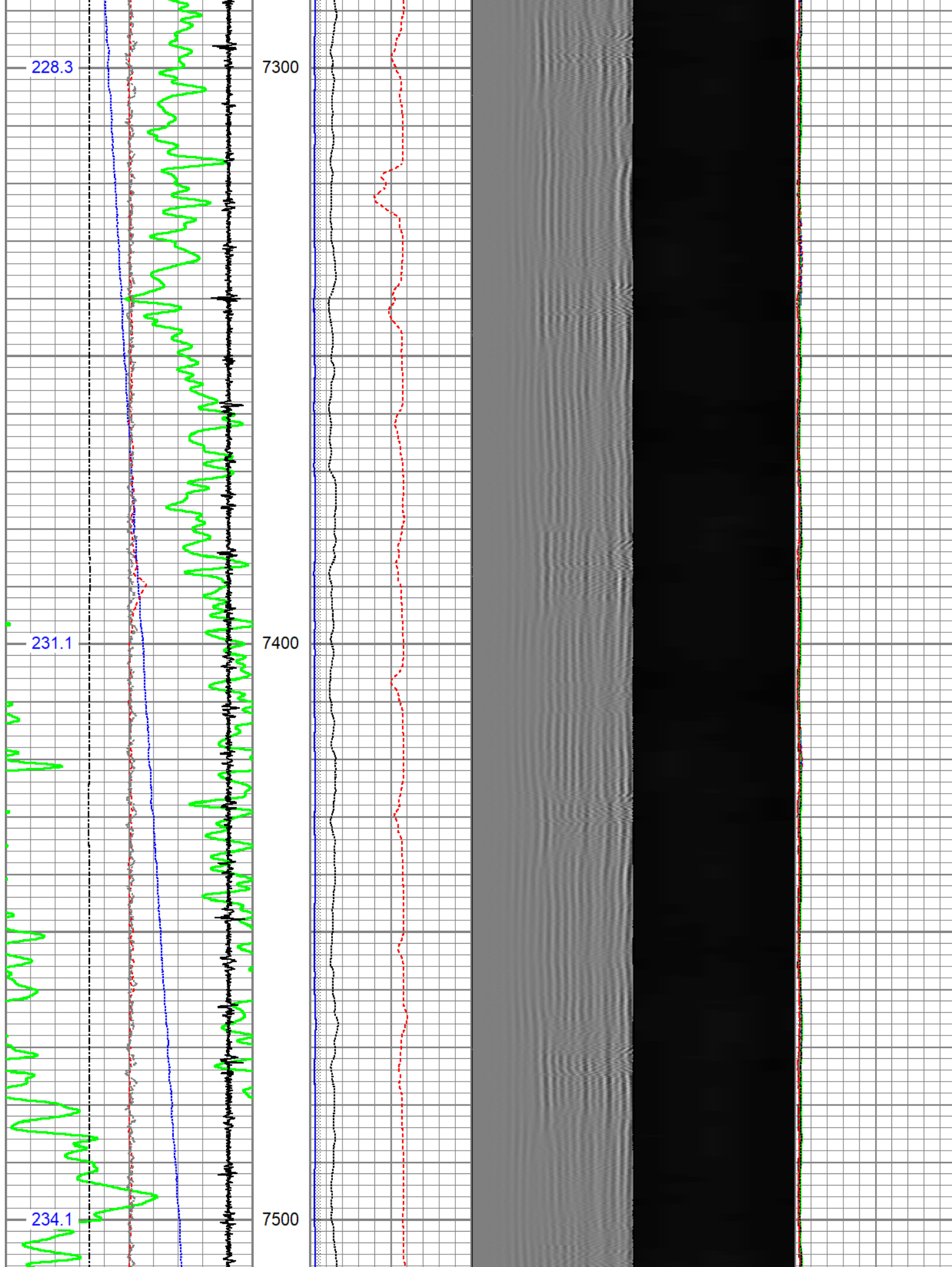


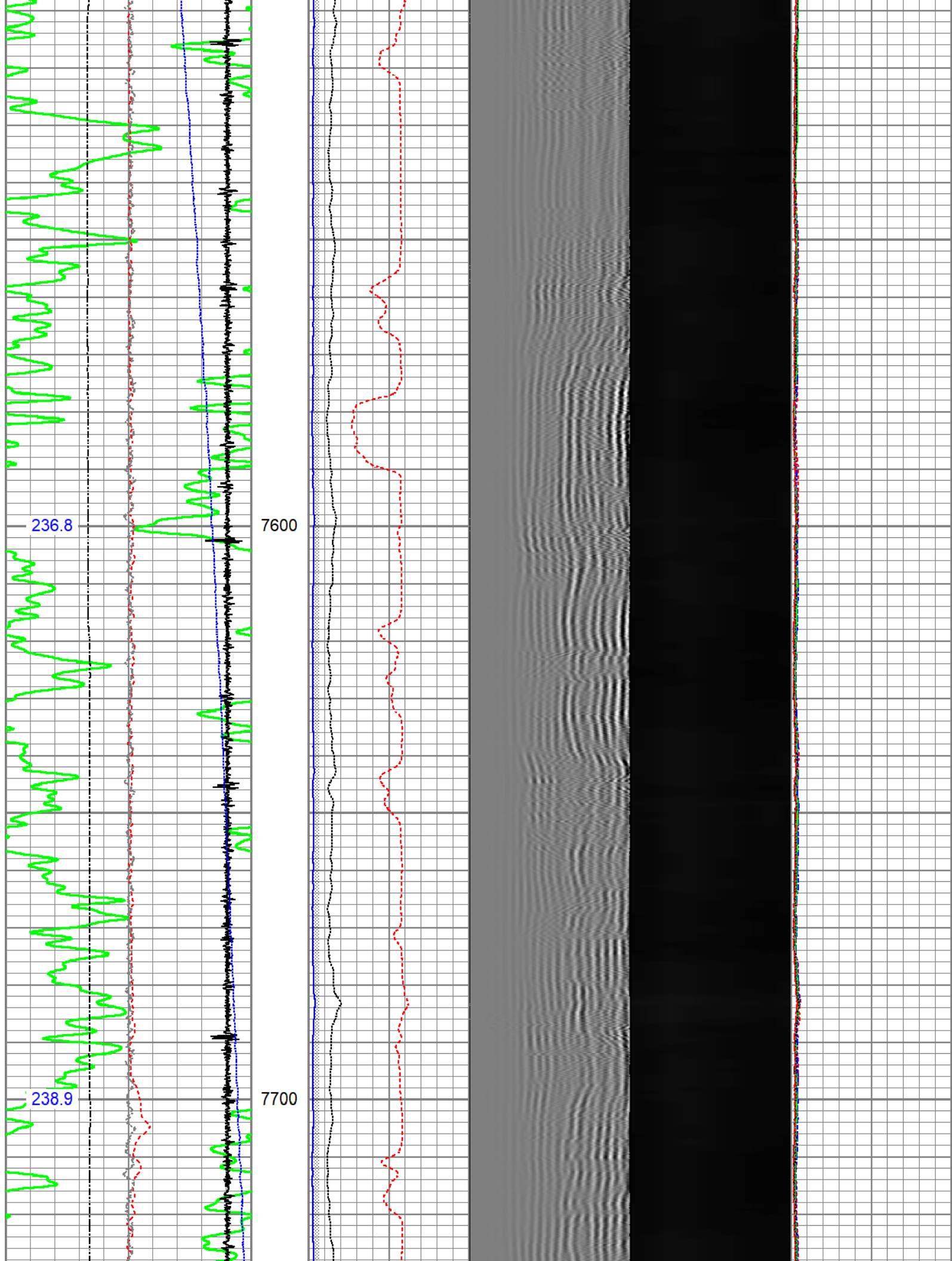


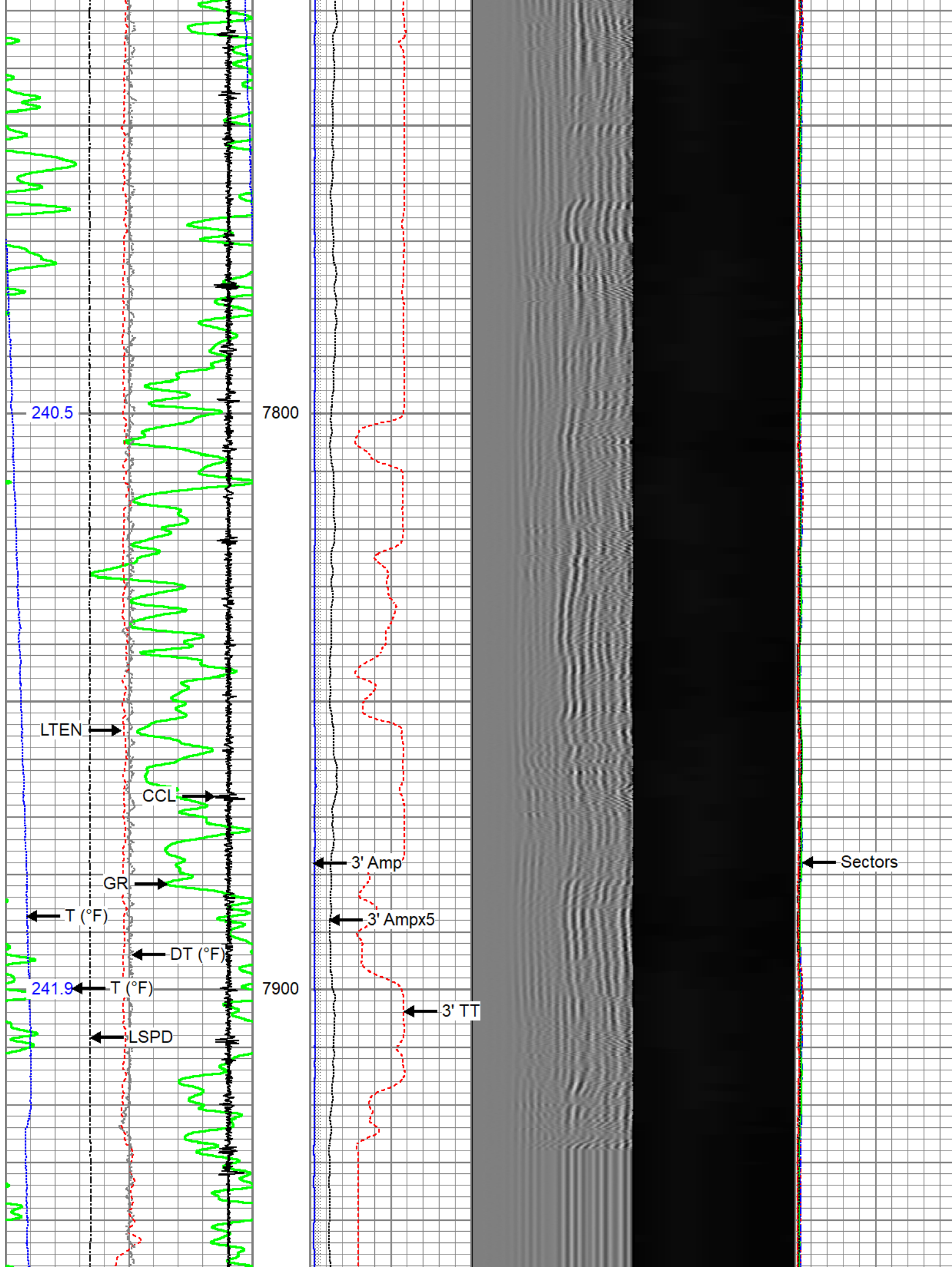


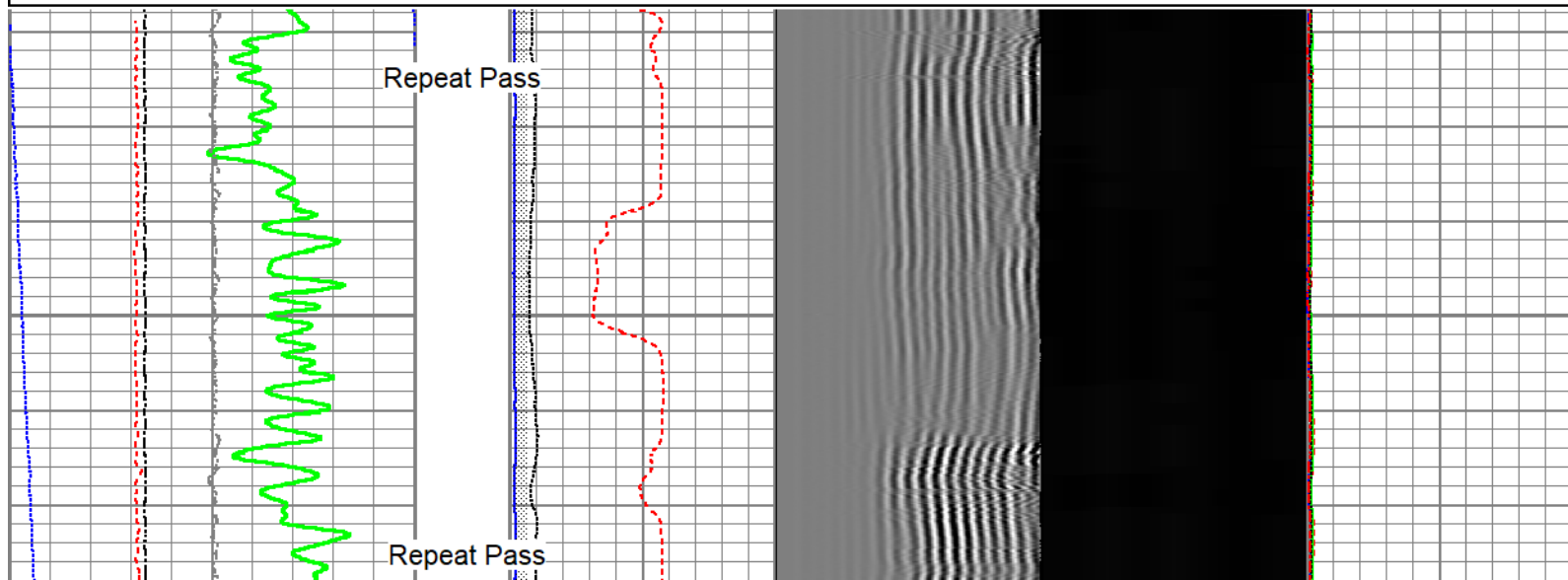
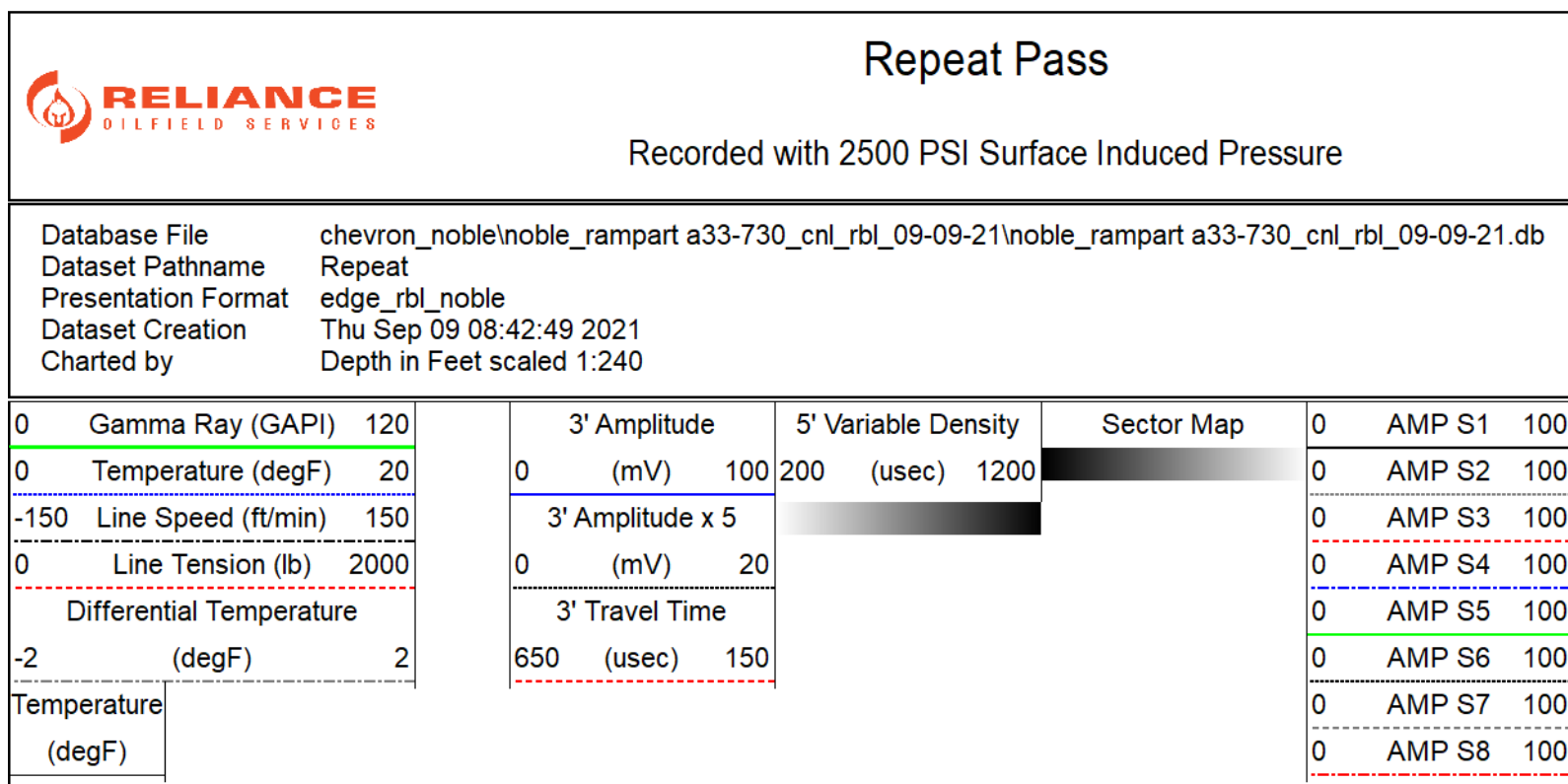
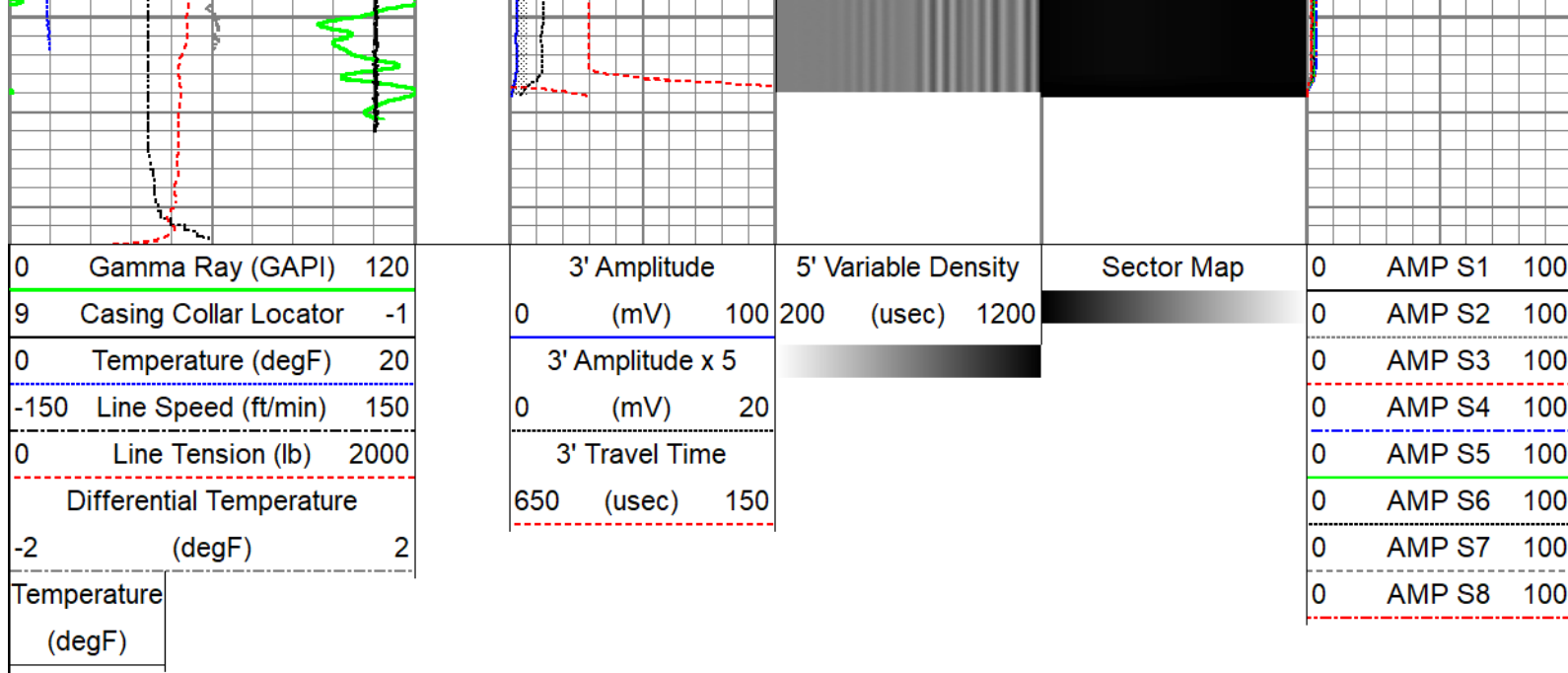


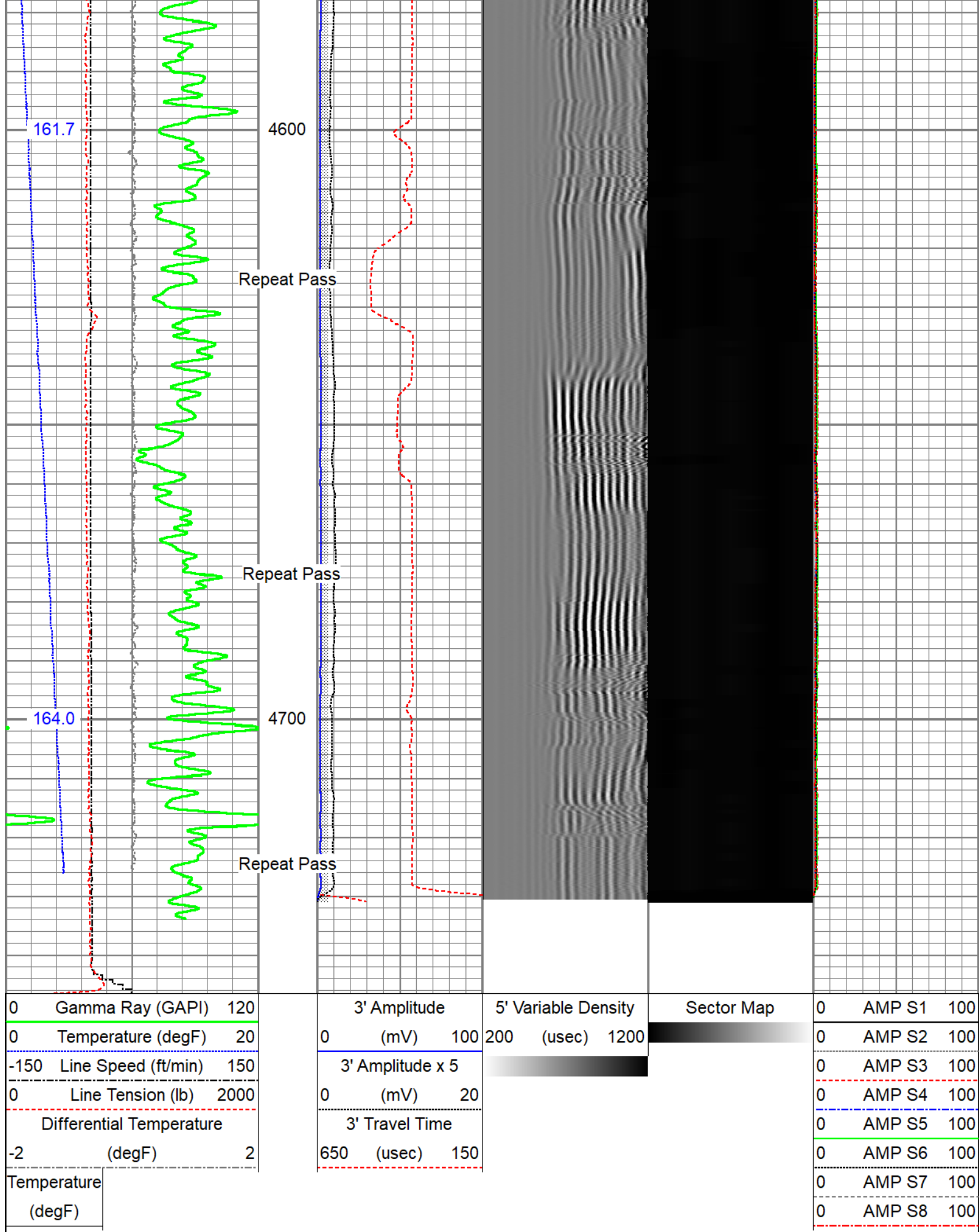














Company	Noble Energy Inc.
Well	Rampart A33-730
Field	Wattenberg
County	Weld
State	Colorado