



PATRIOT
WELL SOLUTIONS

**RADIAL CEMENT LOG
CCL/ GAMMA RAY**

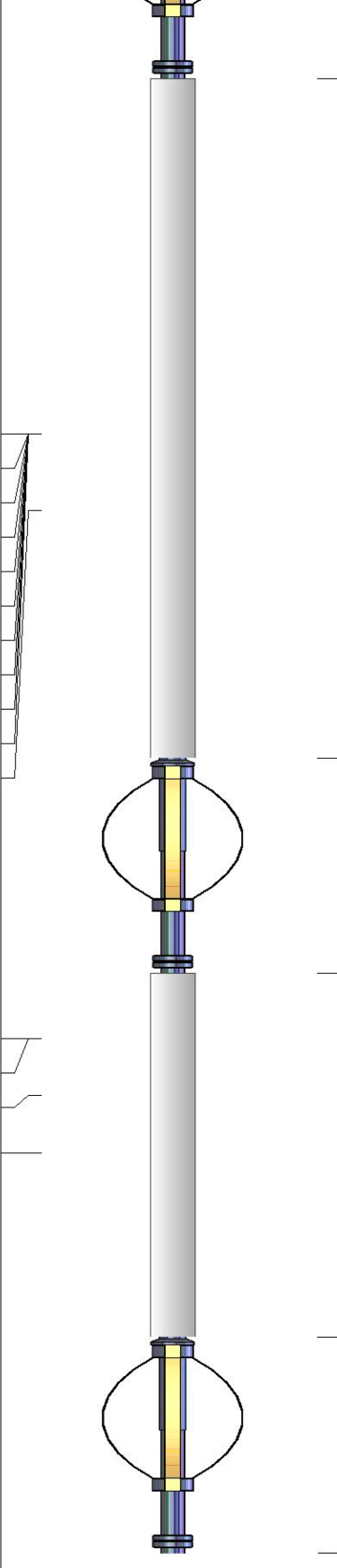
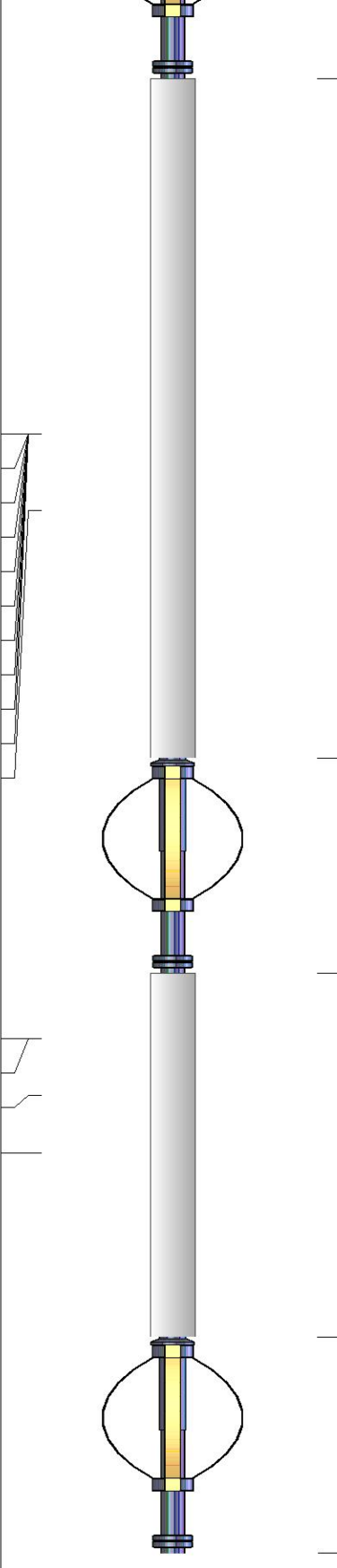
Company		HIGHPOINT RESOURCES	
Well		CRITTER CREEK 240-1411H	
Field		HEREFORD	
County		WELD	
State		COLORADO	
Country		USA	
Location:		API # : 05-123-46853	
Permanent Datum		SEC 14 TWP 11N RGE 63W	
Log Measured From		G.L. 382 FSL & 770' FWL	
Drilling Measured From		K.B. 5237 D.F. 5237 G.L. 5217	
Other Services			
Company		HIGHPOINT RESOURCES	
Well		CRITTER CREEK 240-1411H	
Field		HEREFORD	
County		WELD	
State		COLORADO	
Country		USA	
Date		11-AUG-2018	
Run Number		1	
Depth Driller		17988	
Depth Logger		7808	
Bottom Logged Interval		7808	
Top Log Interval		SURFACE	
Open Hole Size		8.375	
Type Fluid		WATER	
Density / Viscosity		N/A	
Max. Recorded Temp.		230	
Estimated Cement Top		1040	
Time Well Ready		10:30	
Time Logger on Bottom		11:00	
Equipment Number		1003	
Location		CASPER	
Recorded By		T HATHAWAY	
Witnessed By		B KELSCH	
Run Number		Bit	
From		To	
Size		Weight	
From		To	
Casing Record		Size	
Surface String		9-5/8"	
Prot. String		7"	
Production String		4-1/2"	
Liner		4-1/2"	

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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.

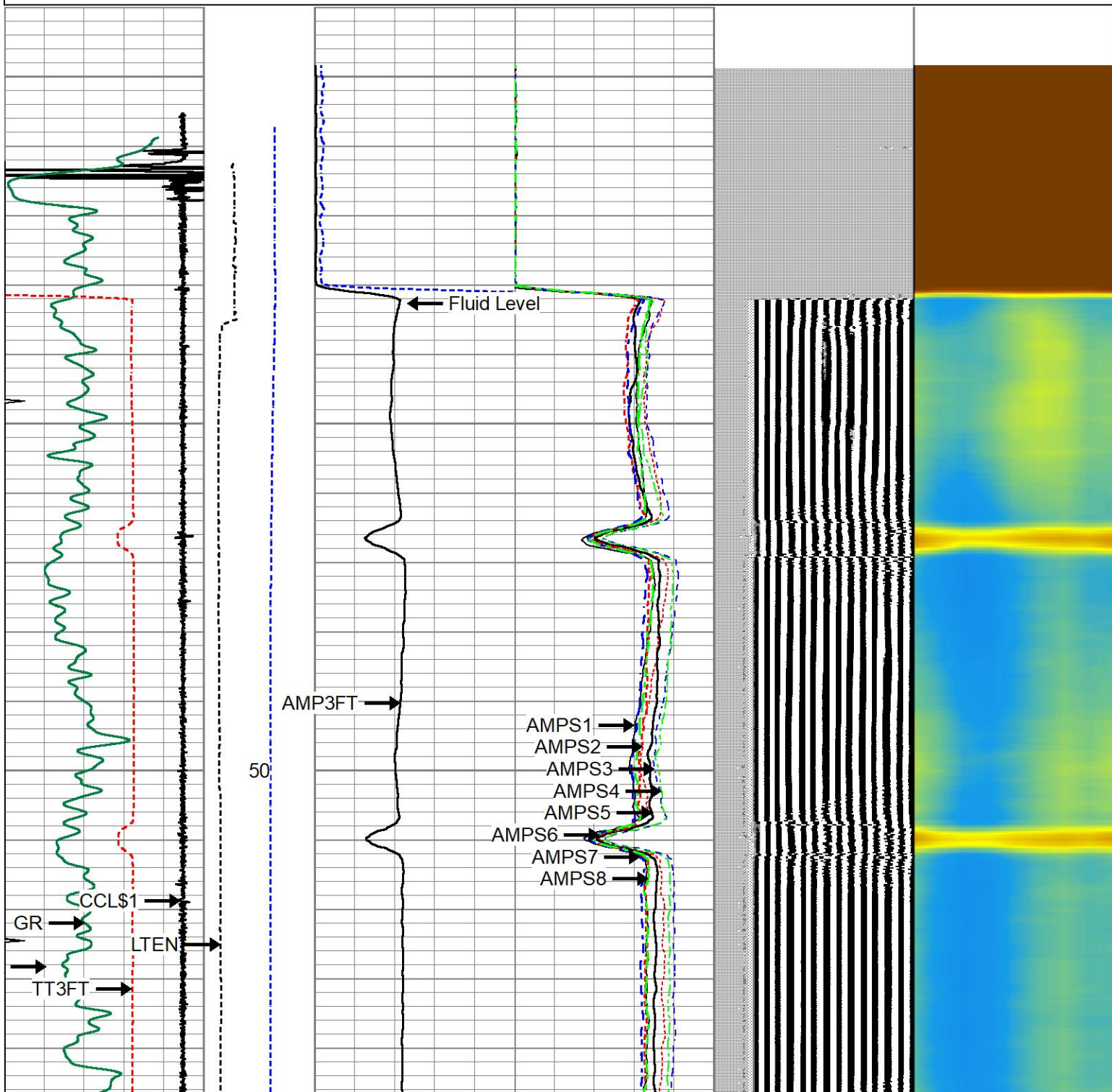
Comments

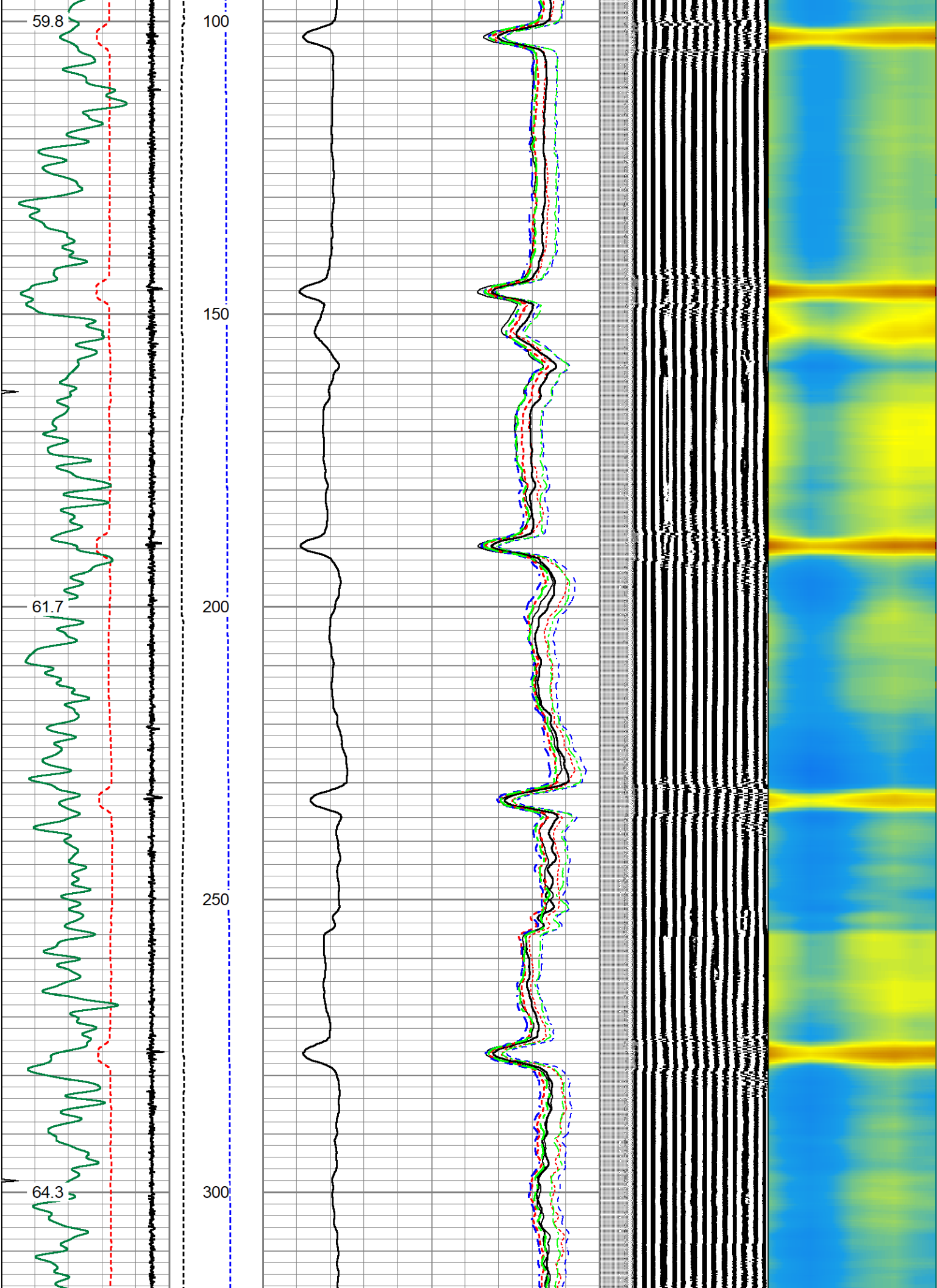
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
ErrCt	22.19		CENT-PTS275	2.83	2.75	24.00

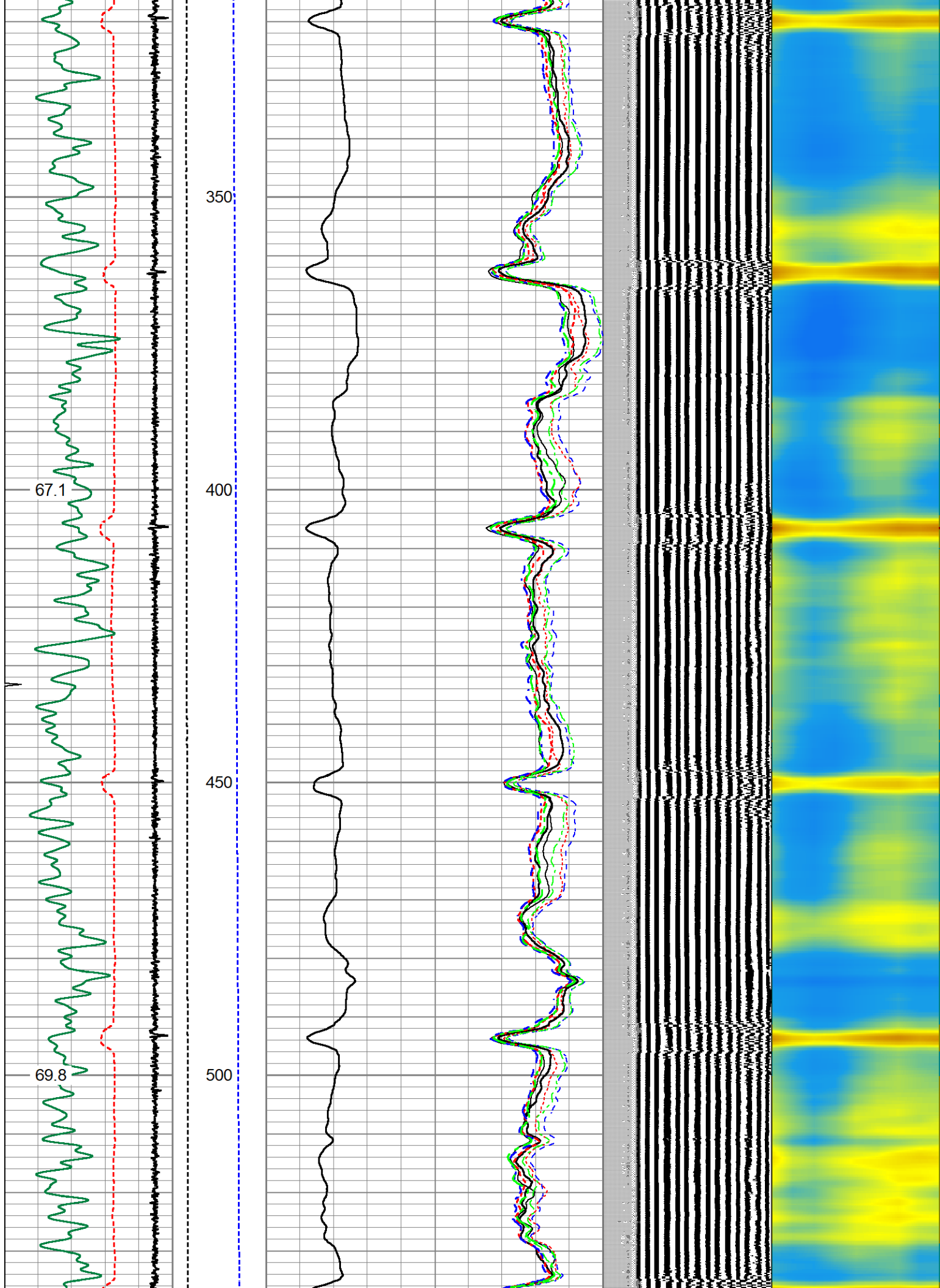
WVFS8	14.69		RBT-RBTC3 (08114) RADIAL BOND TOOL	8.92	2.75	90.00			
WVFS7	14.69								
WVFS6	14.69								
WVFS5	14.69								
WVFS4	14.69								
WVFS3	14.69								
WVFS2	14.69								
WVFS1	14.69								
WVFCAL	14.69								
WVF3FT	14.69								
WVF5FT	13.69								
			CENT-PTS275	2.83	2.75	24.00			
CCL\$2	6.75								
CCL\$1	6.75								
GCT_Temp	6.00								
GR	5.25		GR-GCT275 (GCT275_base) Probe GR-CCL w/Temp	4.77	2.75				
			CENT-PTS275	2.83	2.75	24.00			
Dataset: 1003-0173_hpo_240-1411h_cbl.db: field/well/run1/pass4 Total length: 22.19 ft Total weight: 162.00 lb O.D.: 2.75 in									

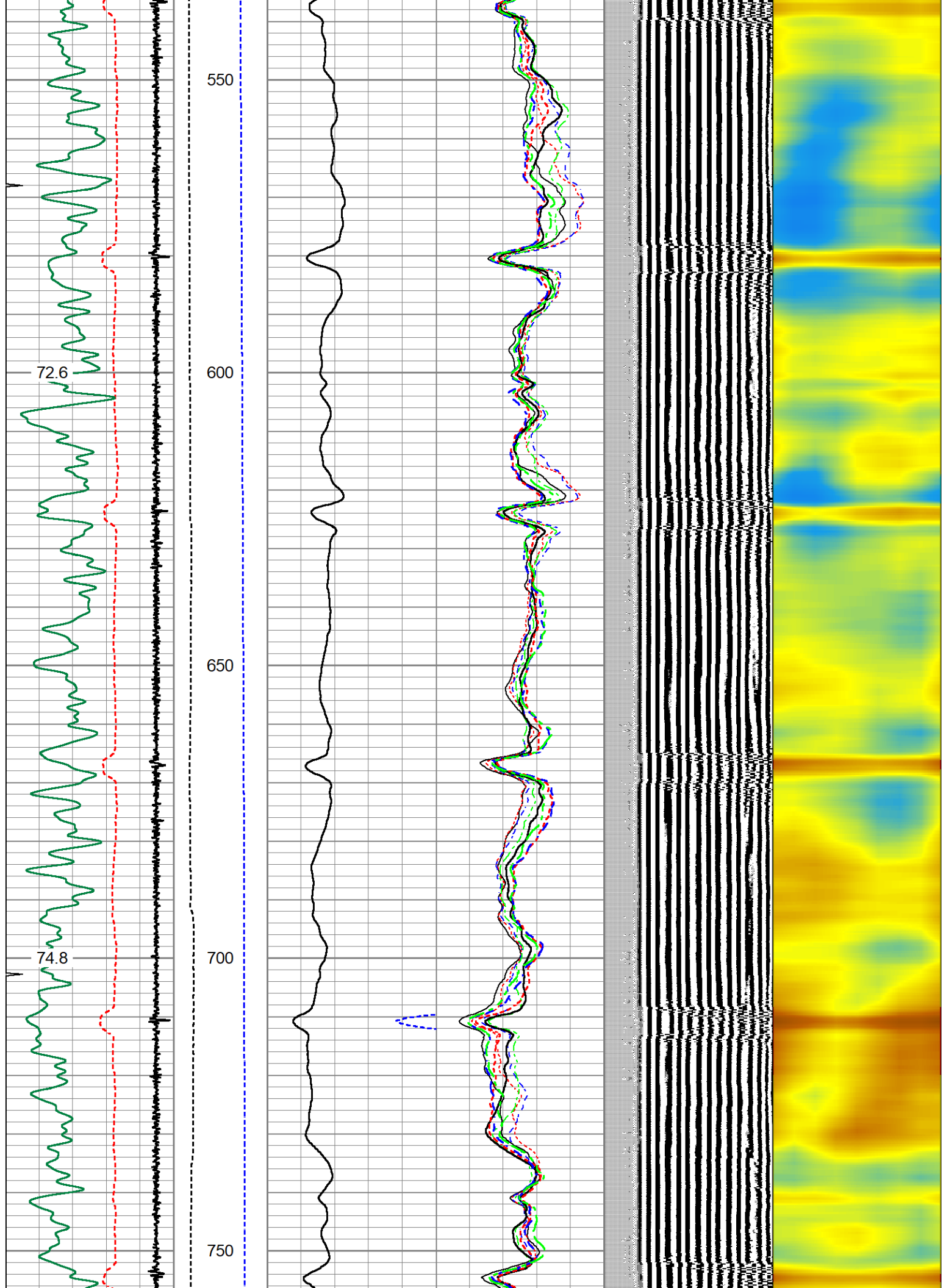
Database File 1003-0173_hpo_240-1411h_cbl.db
Dataset Pathname merge5
Presentation Format 1patriot_rad
Dataset Creation Sat Aug 11 11:31:23 2018
Charted by Depth in Feet scaled 1:240

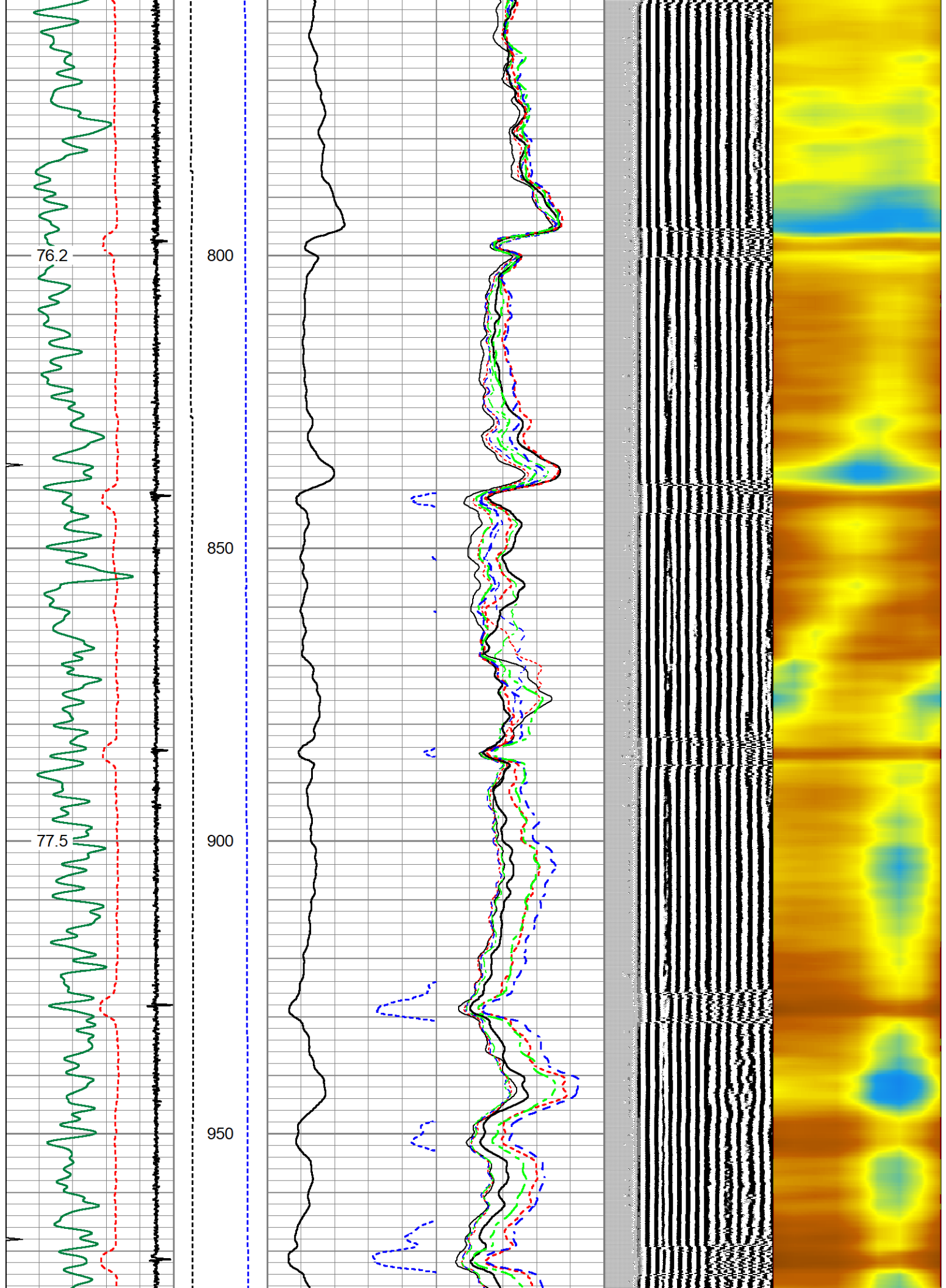
350	TT (usec)	250	GCT_TEMP	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8
9	CCL	-1	(degF)	0	AMPx10 (mV)	20	0	AMPS2	100				3		95
0	GR (GAPI)	150	100	200			0	AMPS3	100						
0	MINMK	10	LTEN				0	AMPS4	100						
GCT_TEMP			0	(lb 1500)			0	AMPS5	100						
(degF)							0	AMPS6	100						
							0	AMPS7	100						
							0	AMPS8	100						

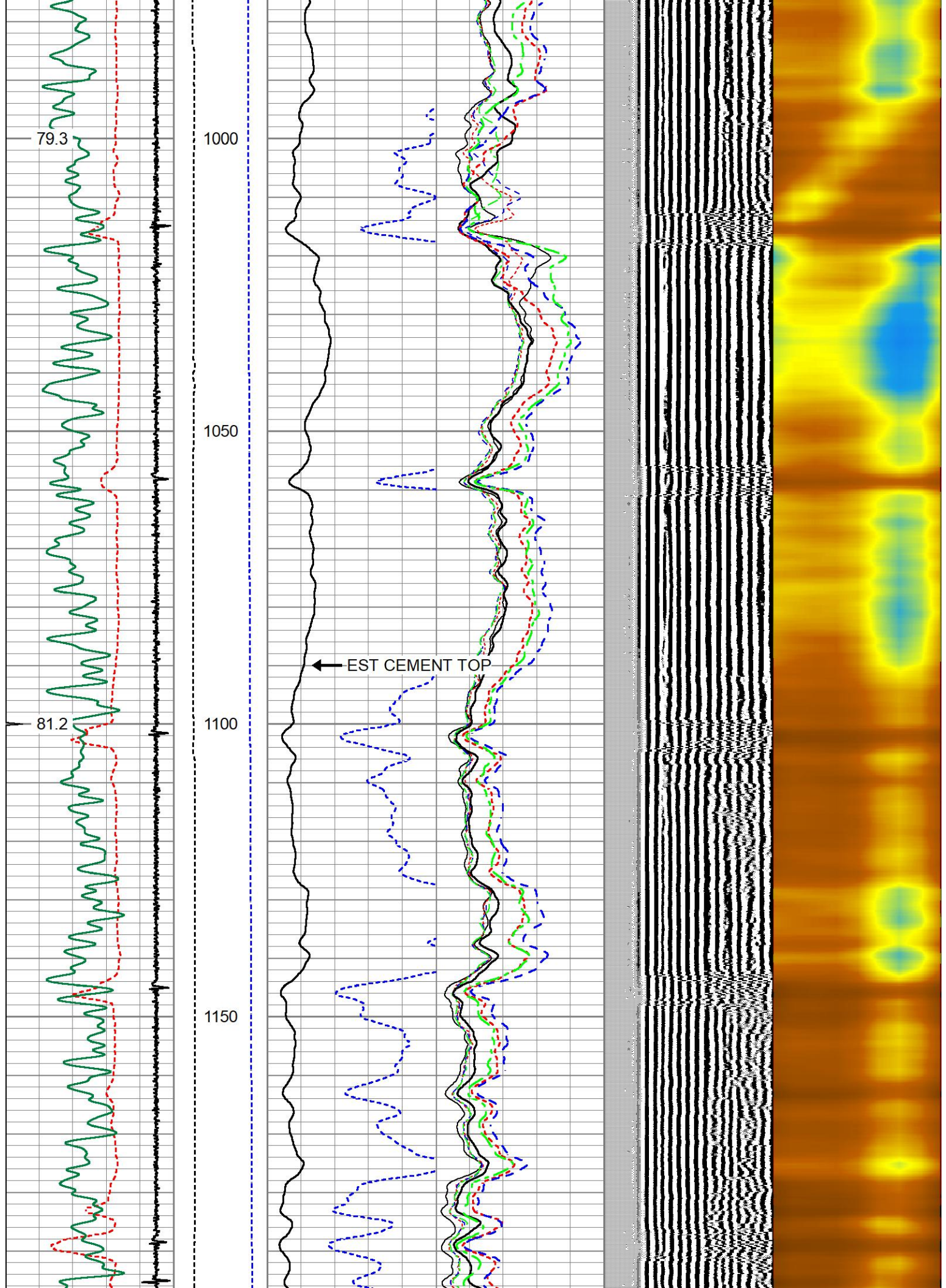


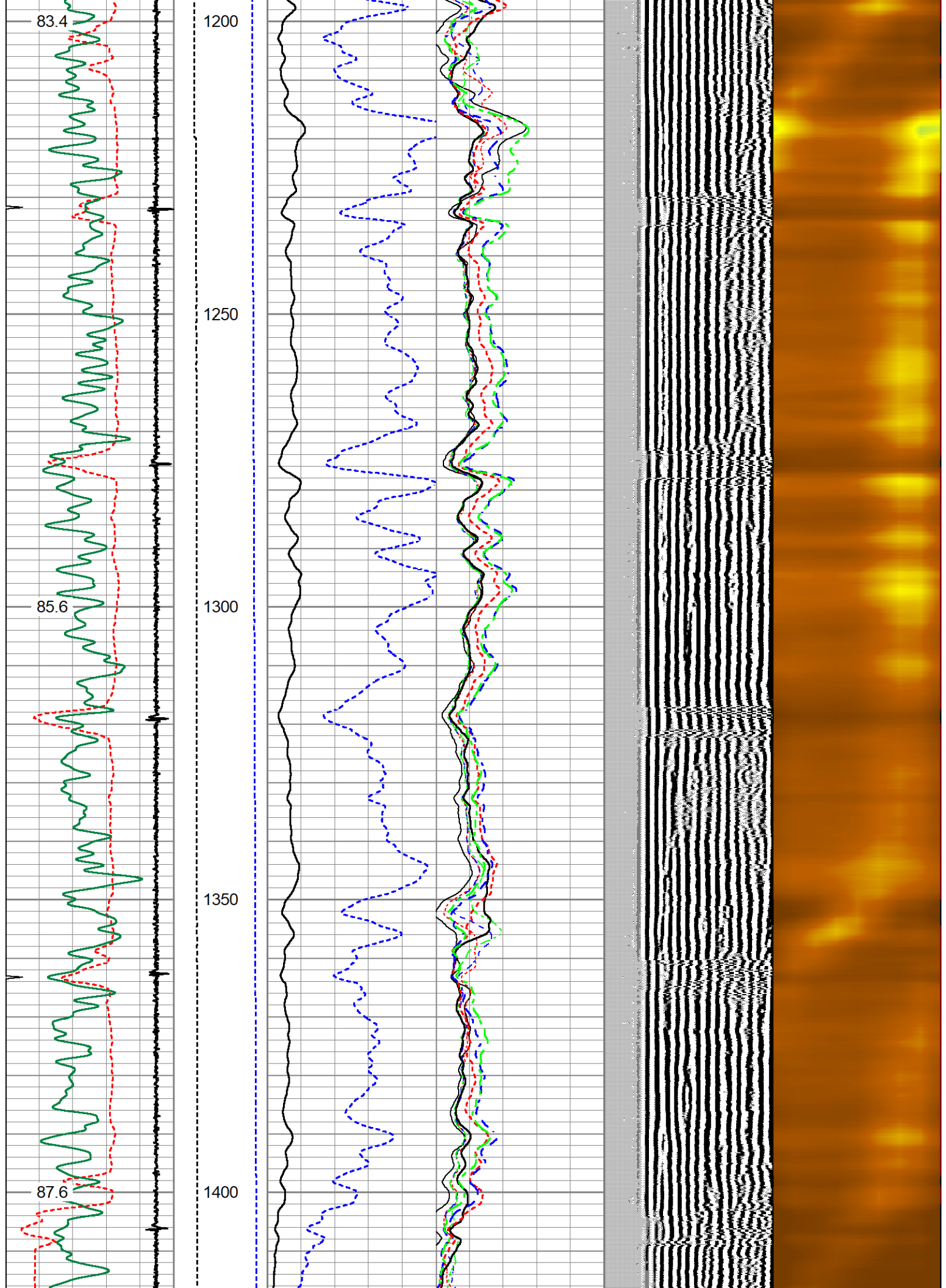


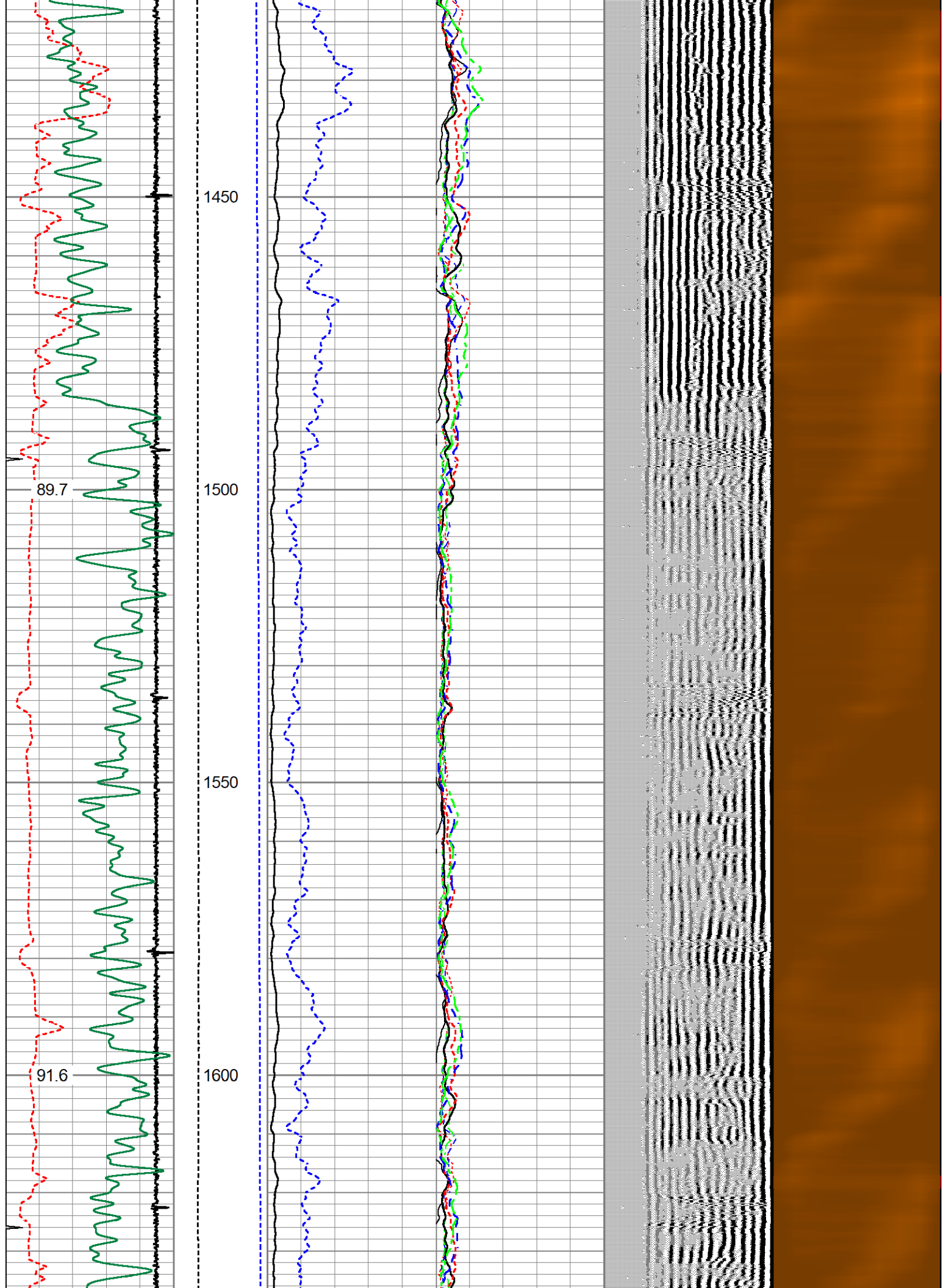


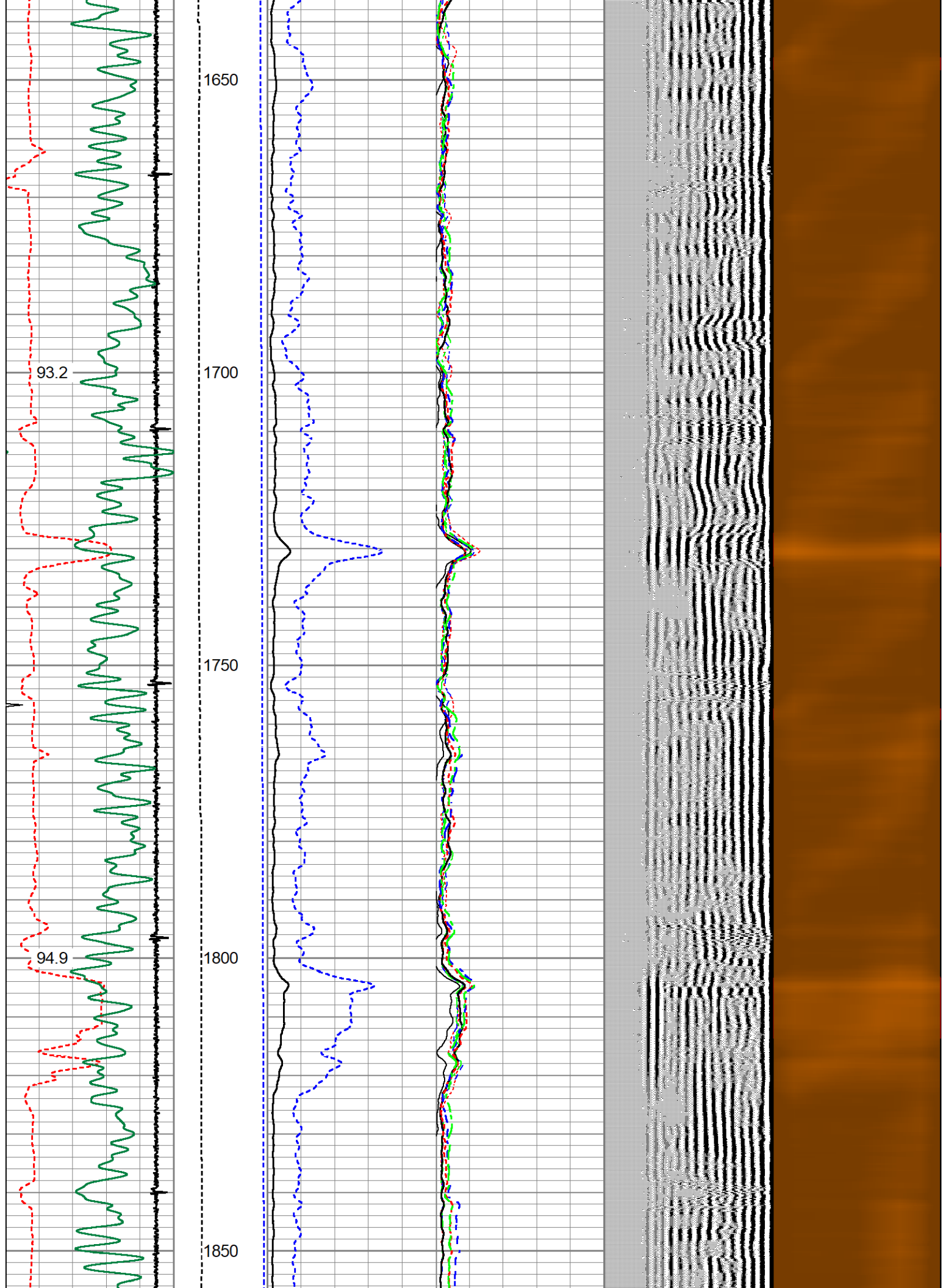


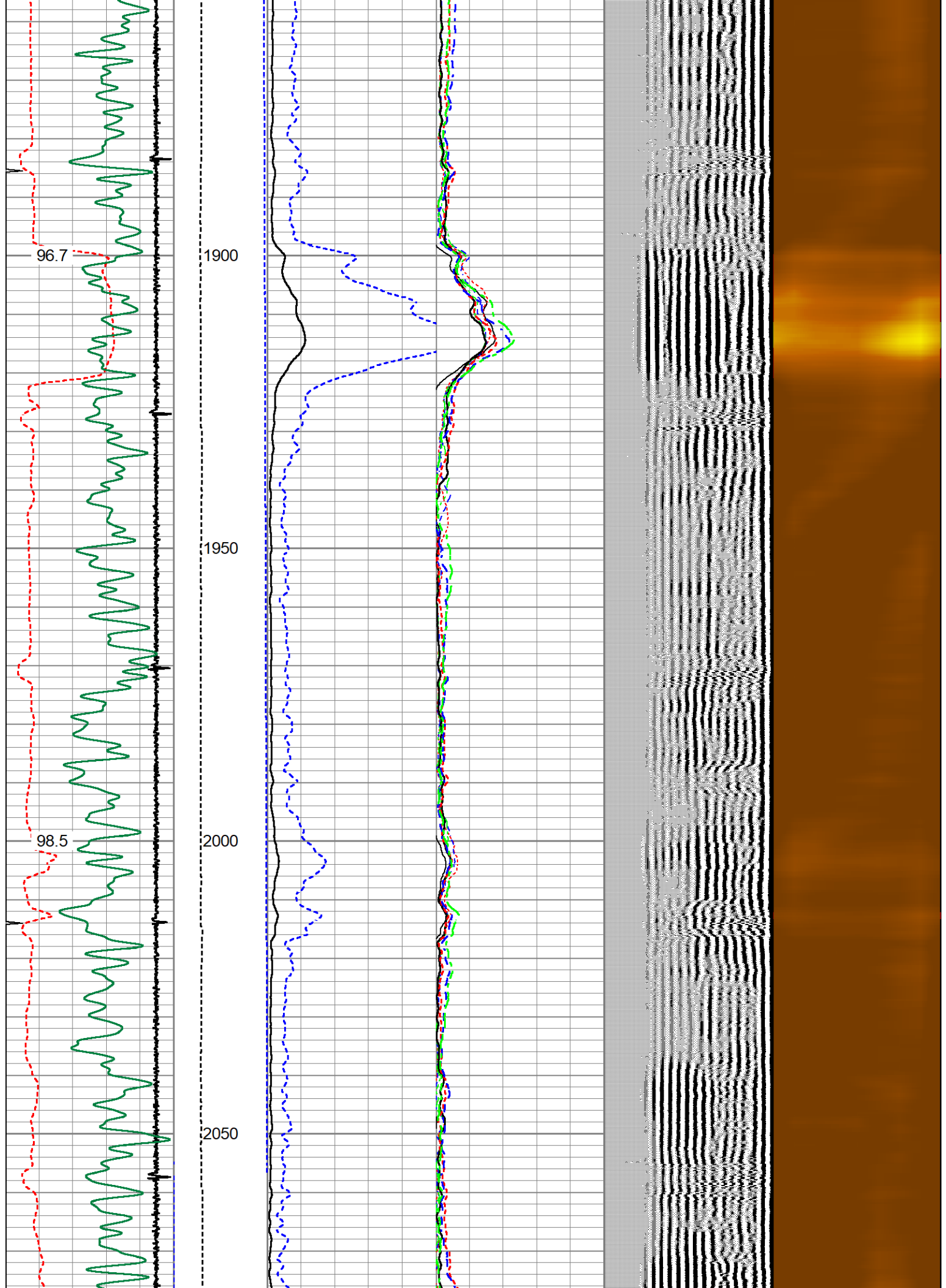


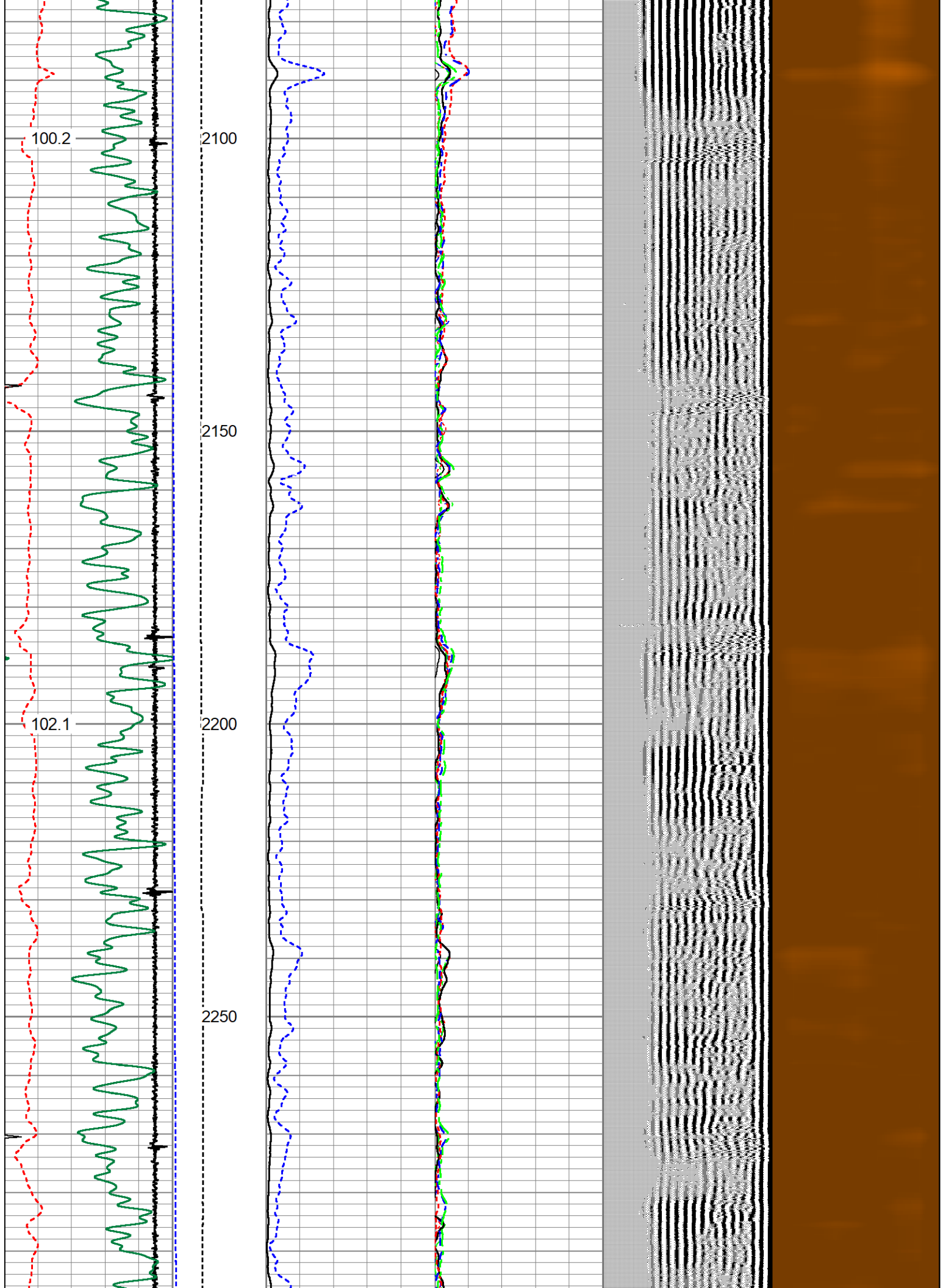


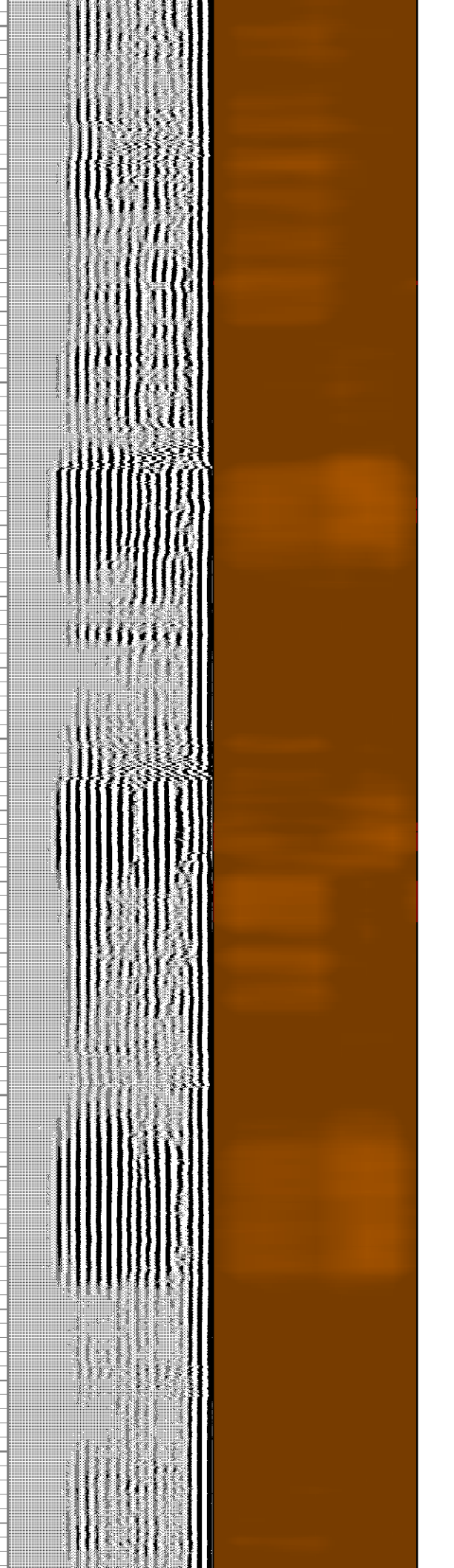
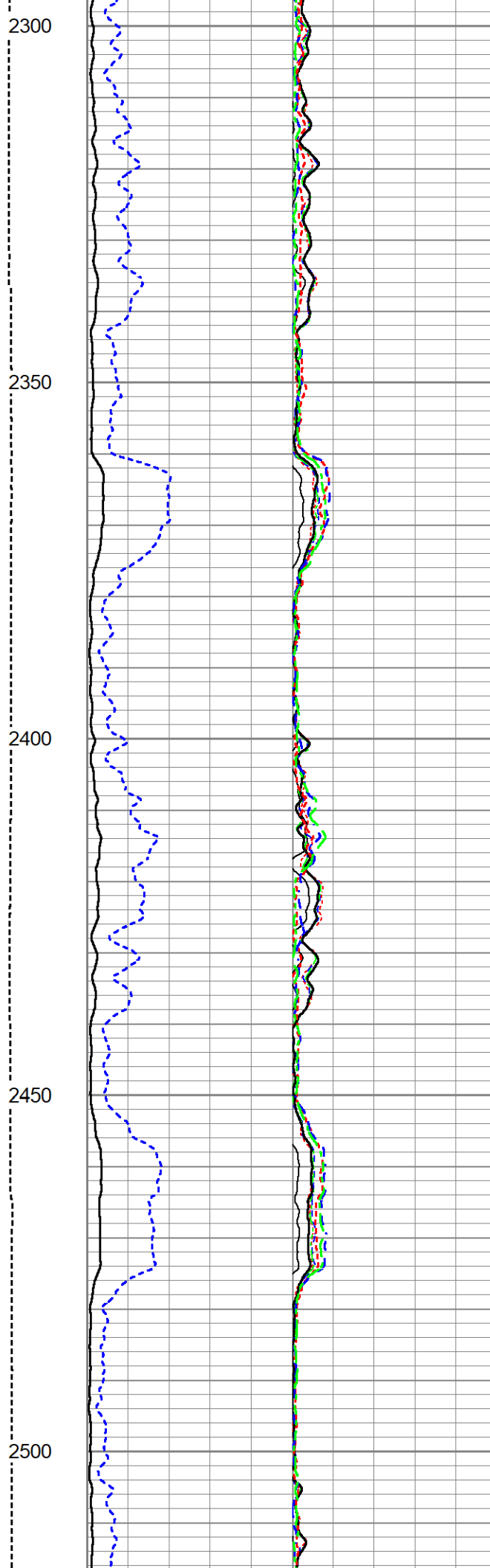
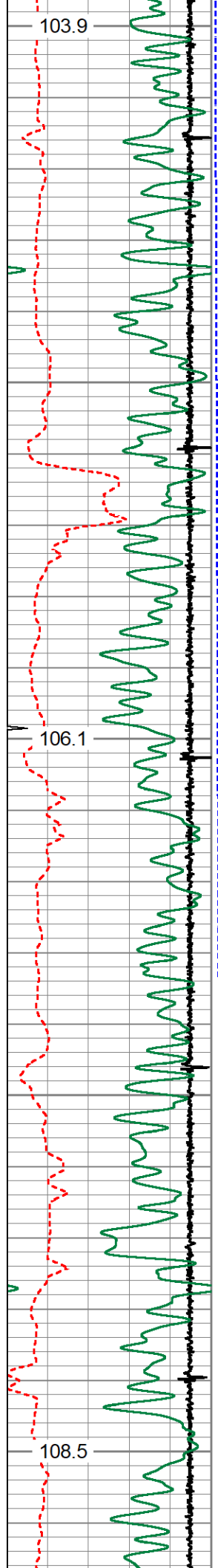


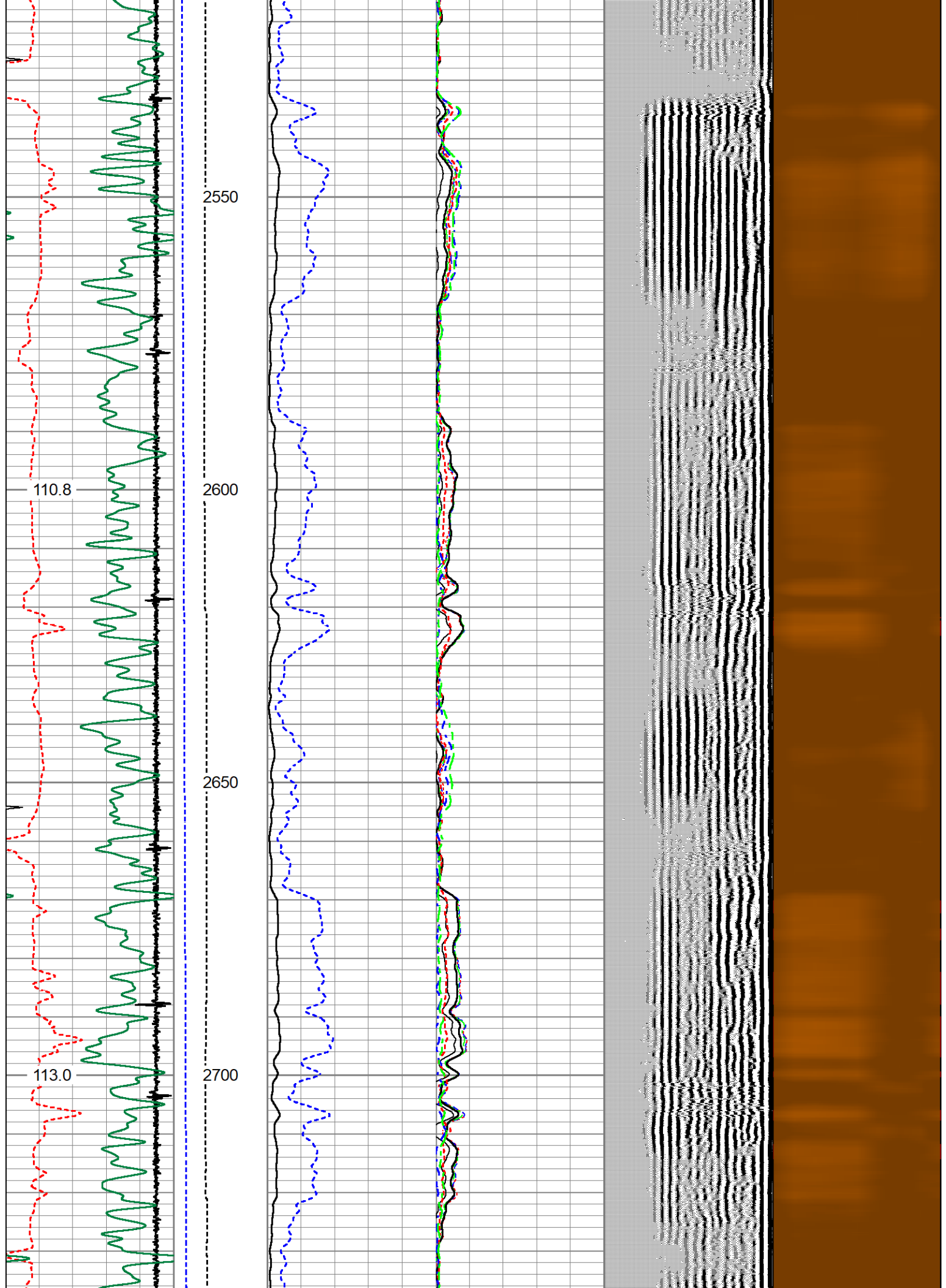


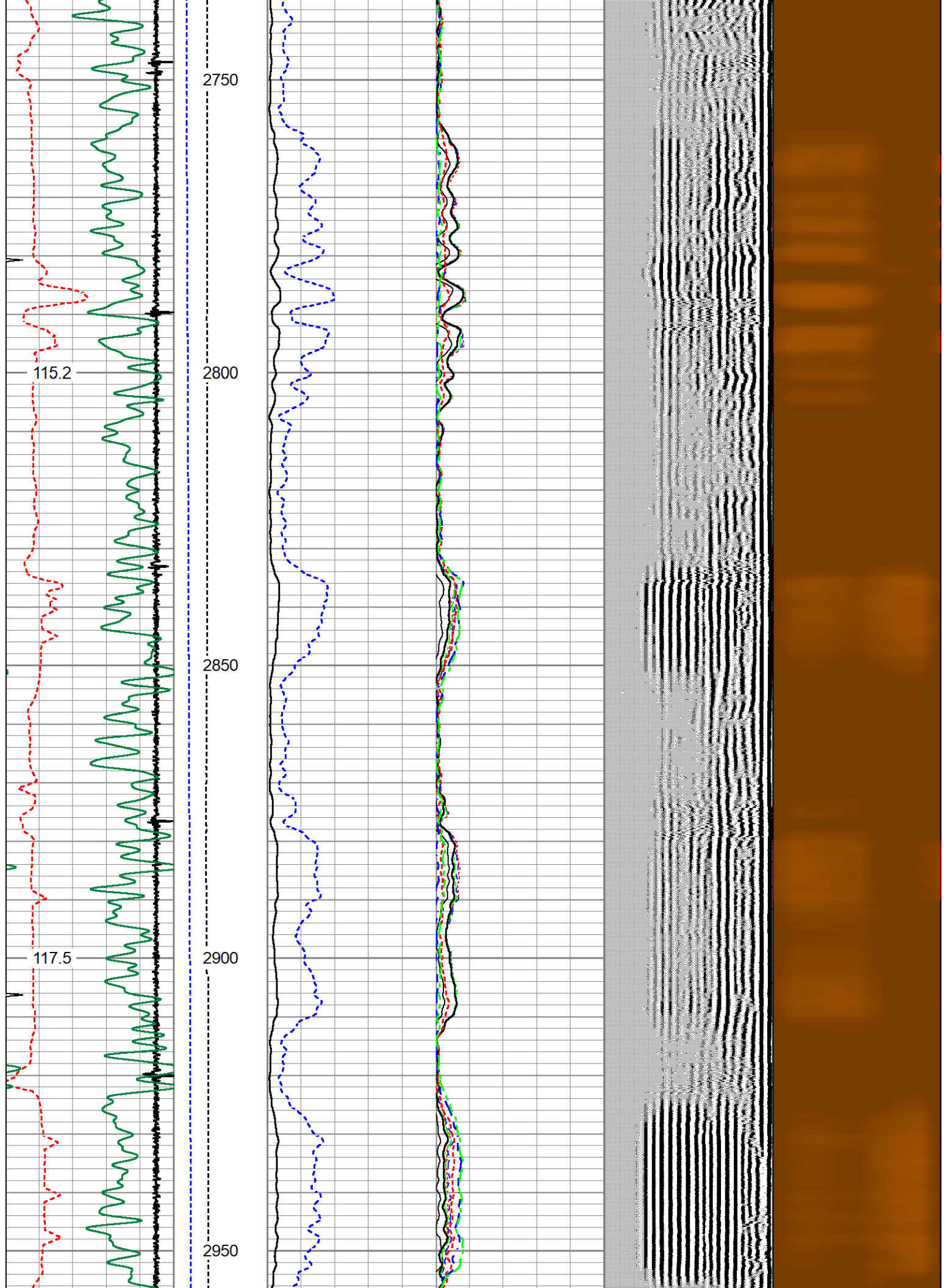


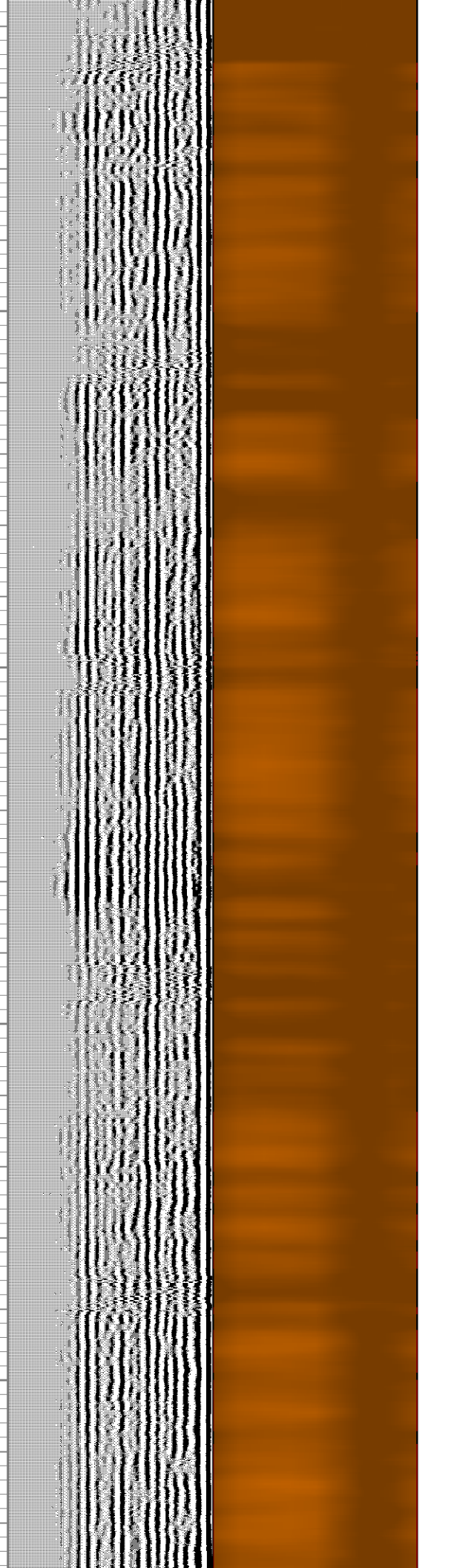
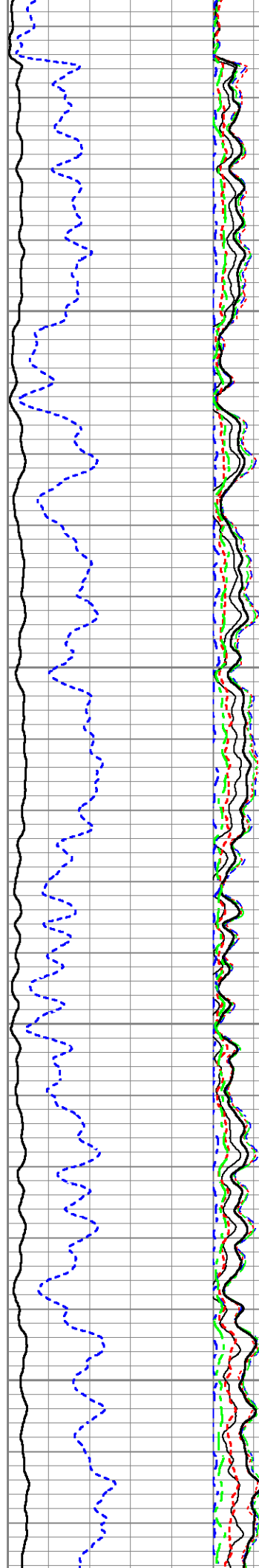
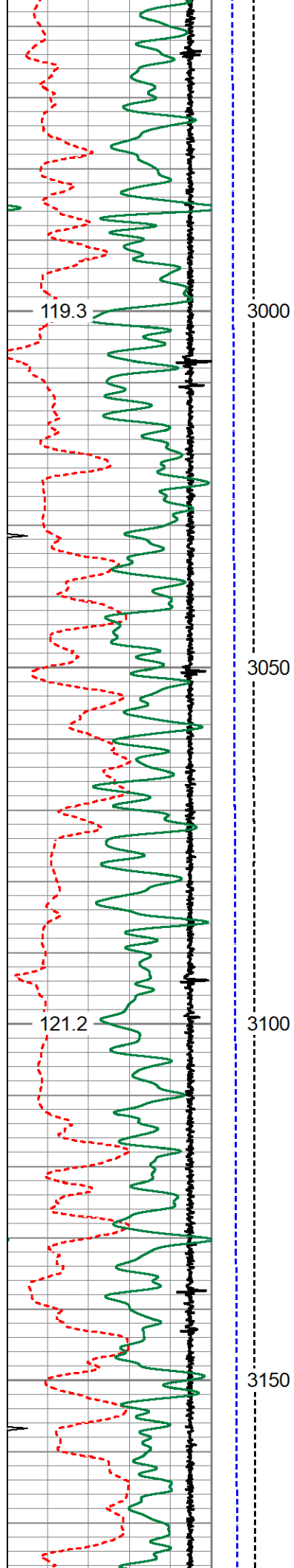


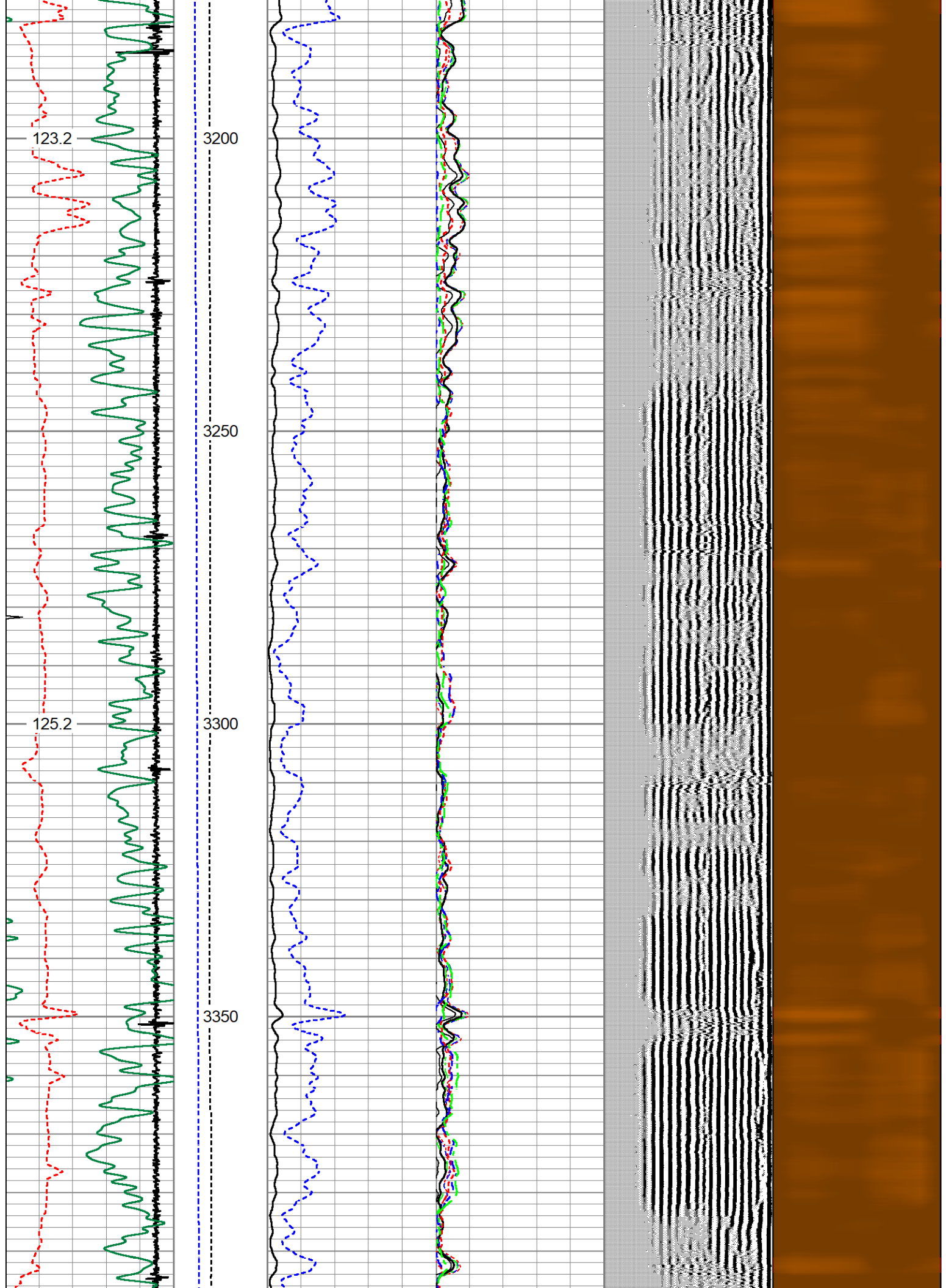


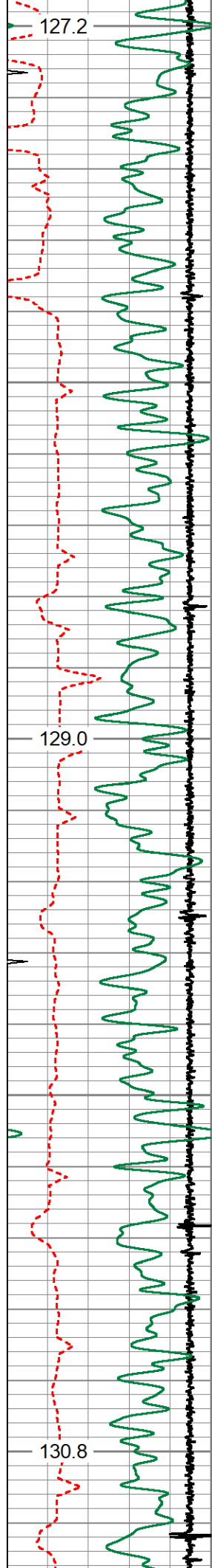




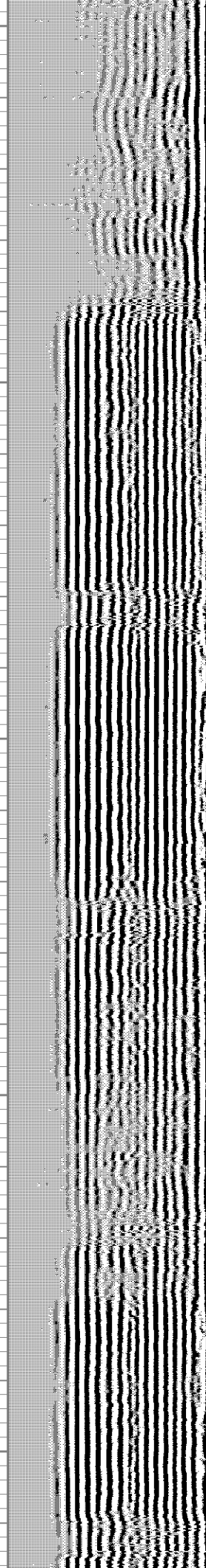
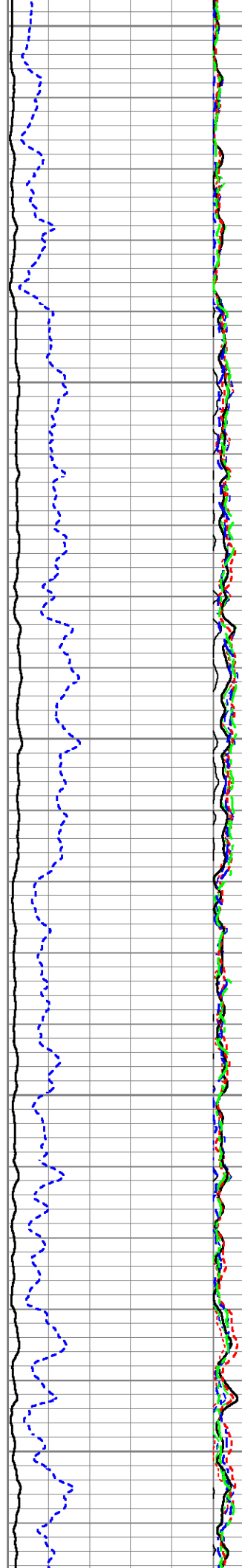


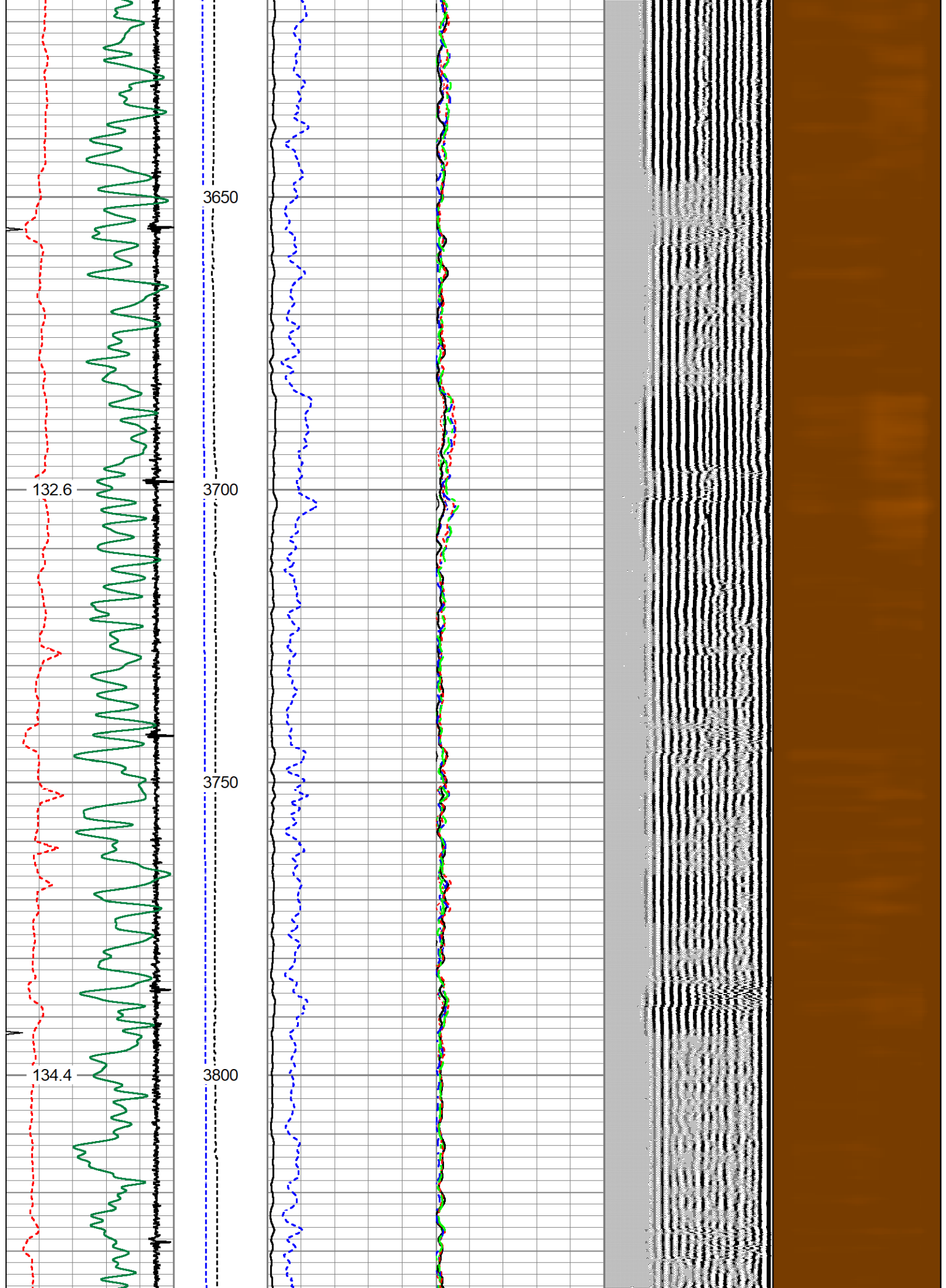


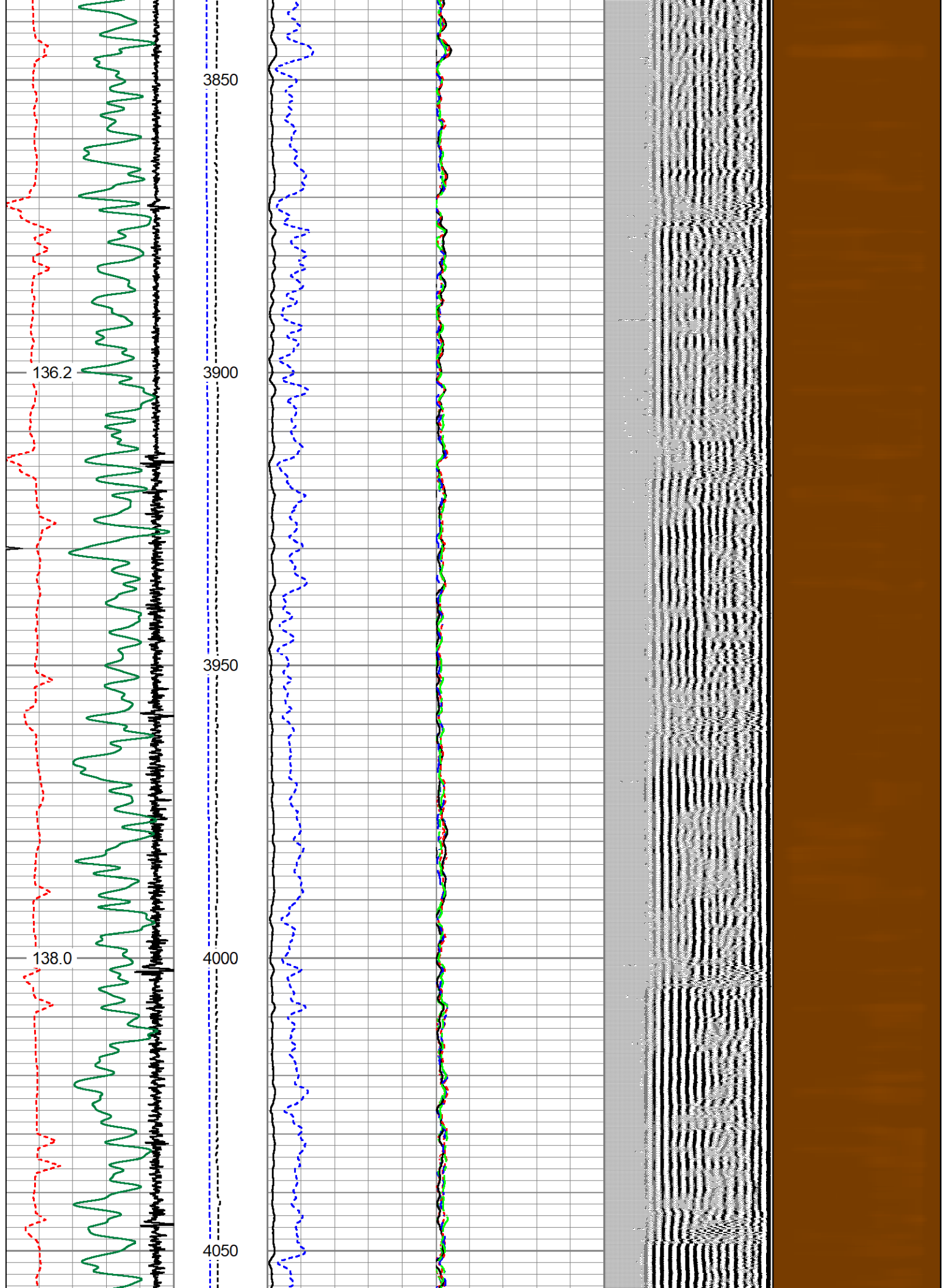


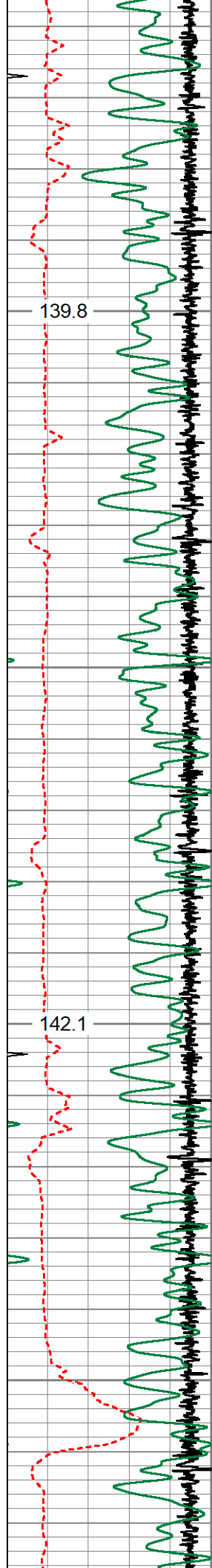


3400
3450
3500
3550
3600

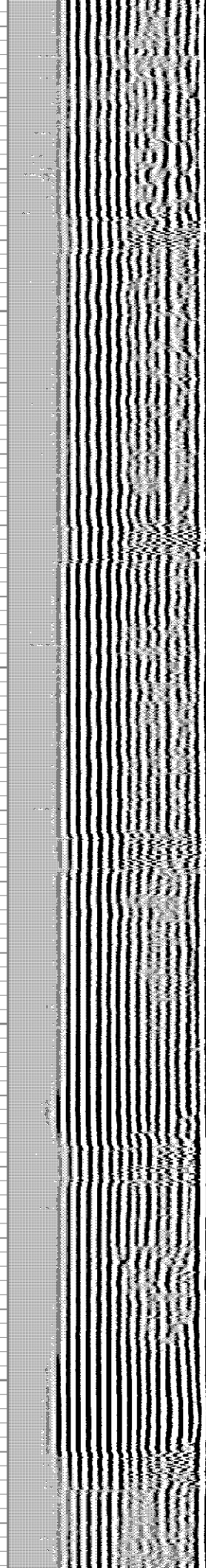
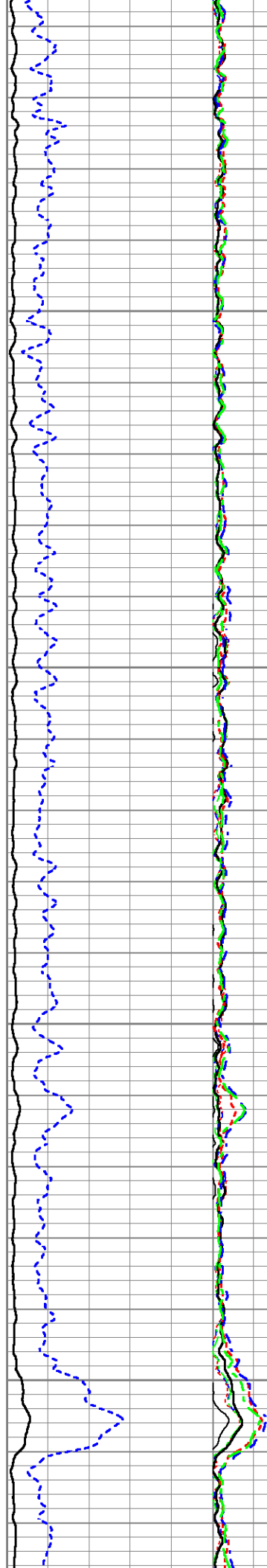


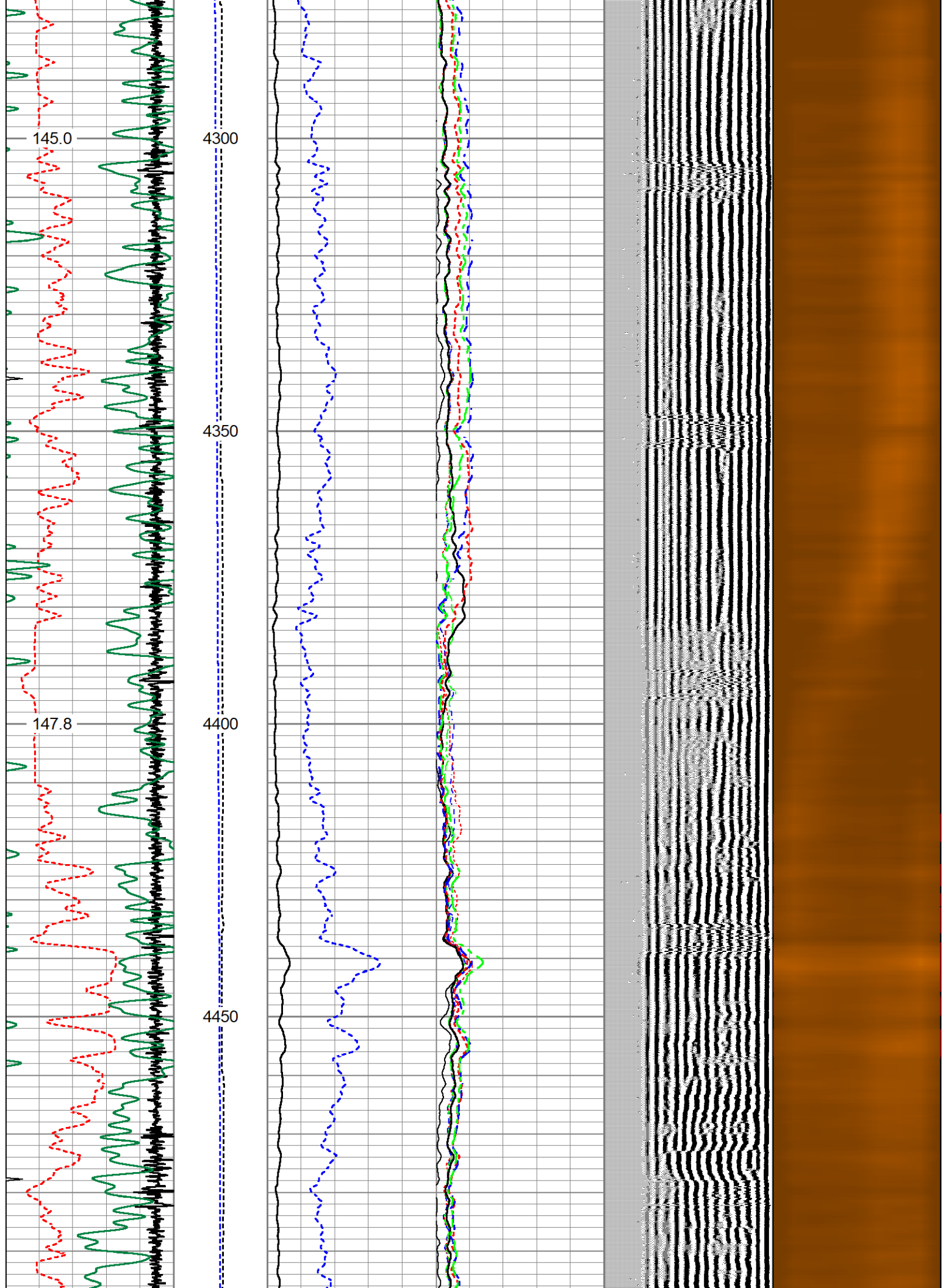


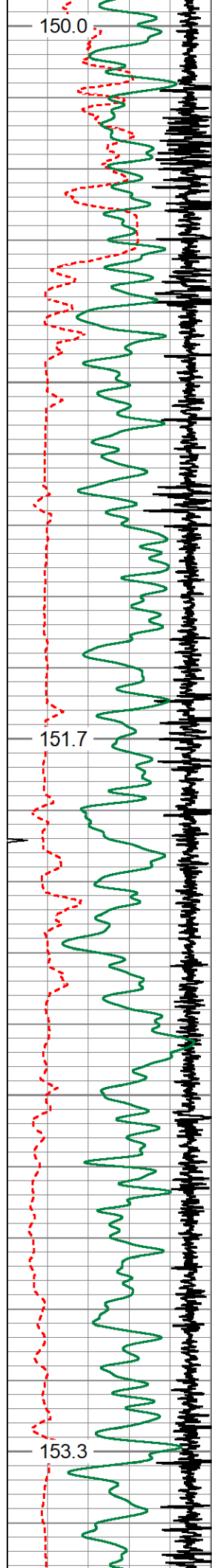




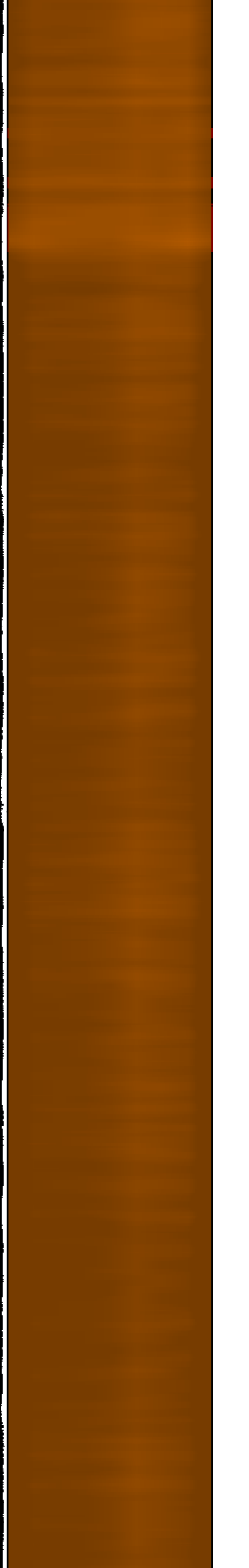
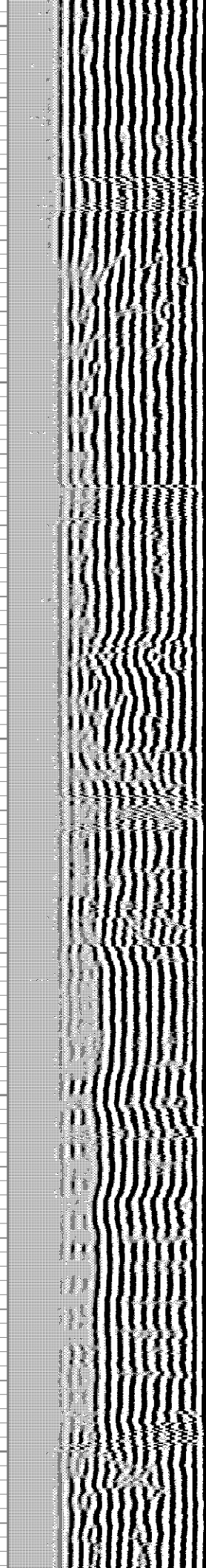
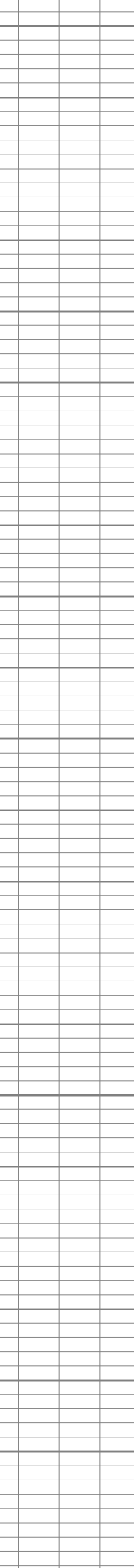
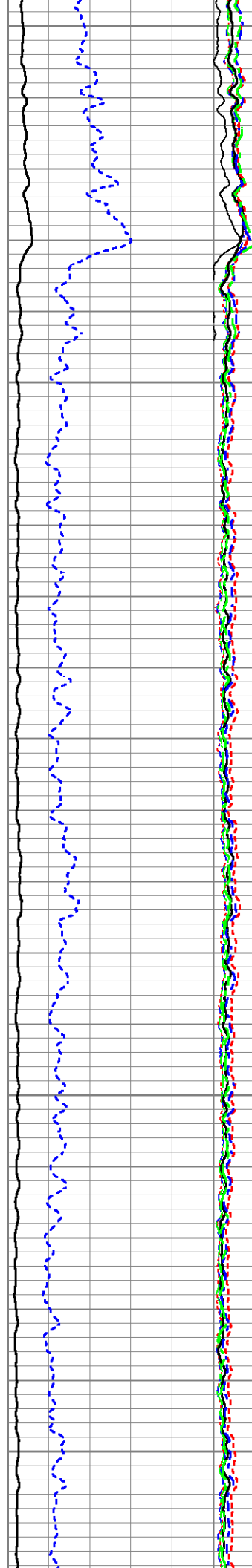
4100
4150
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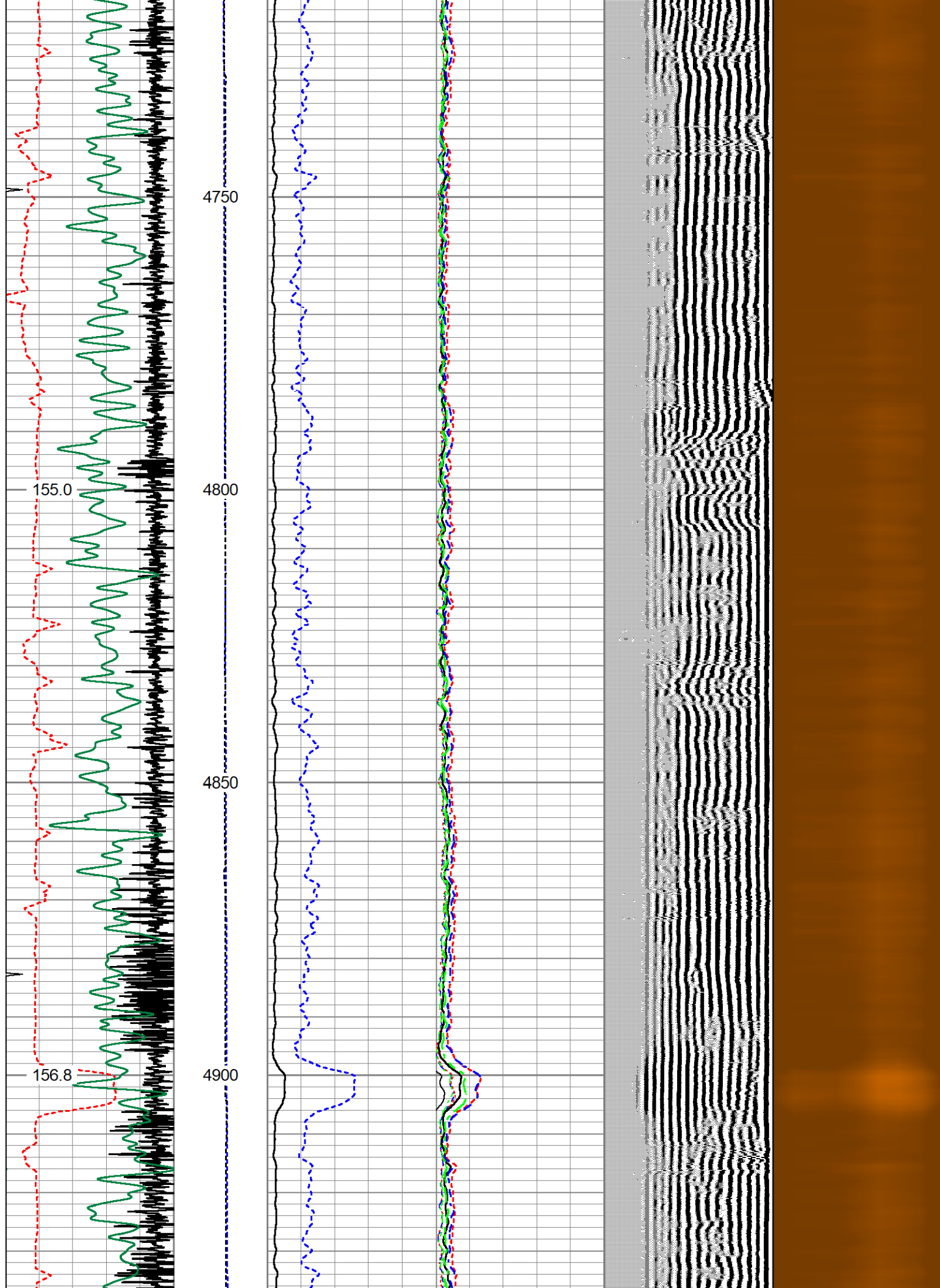


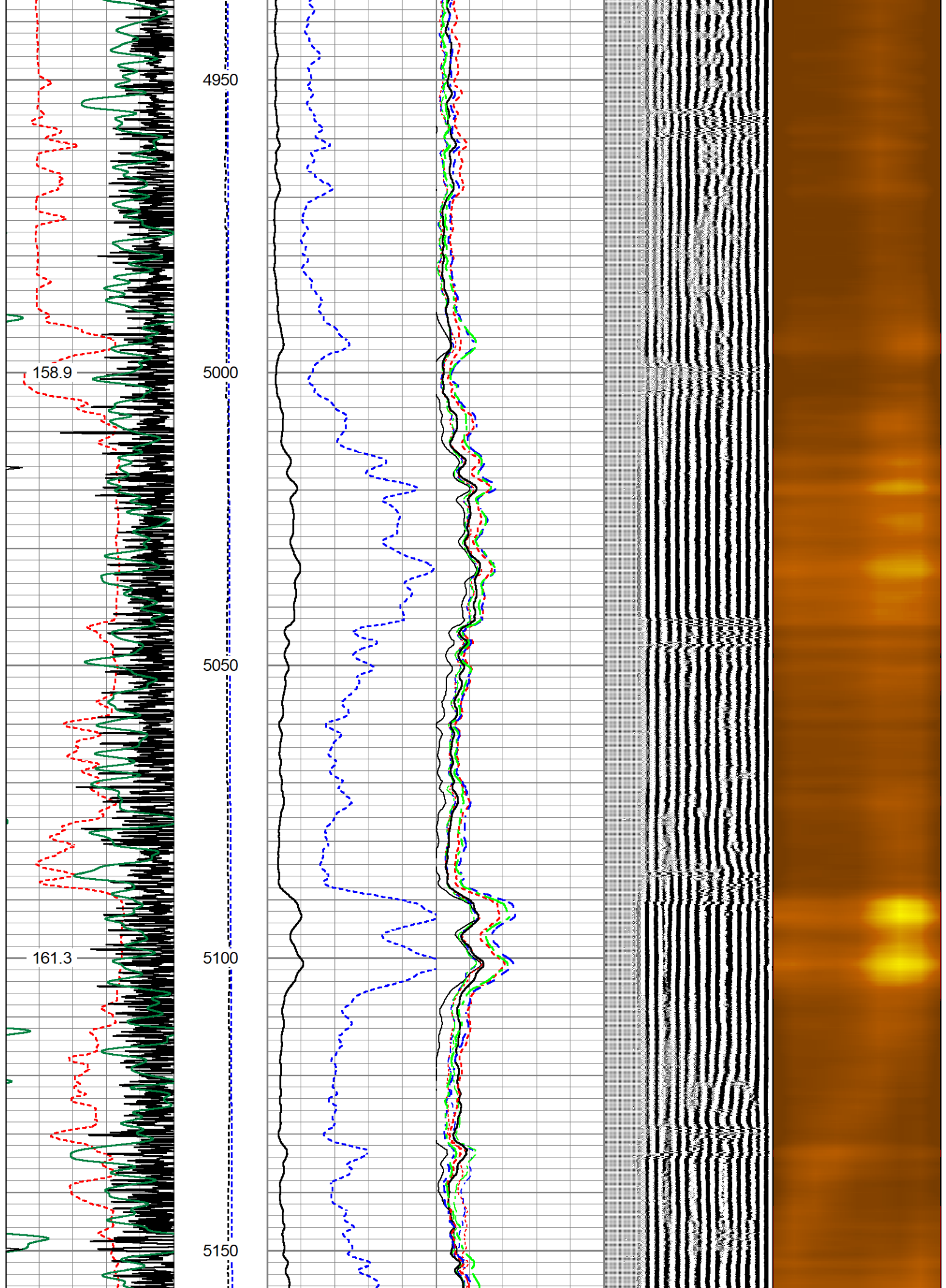


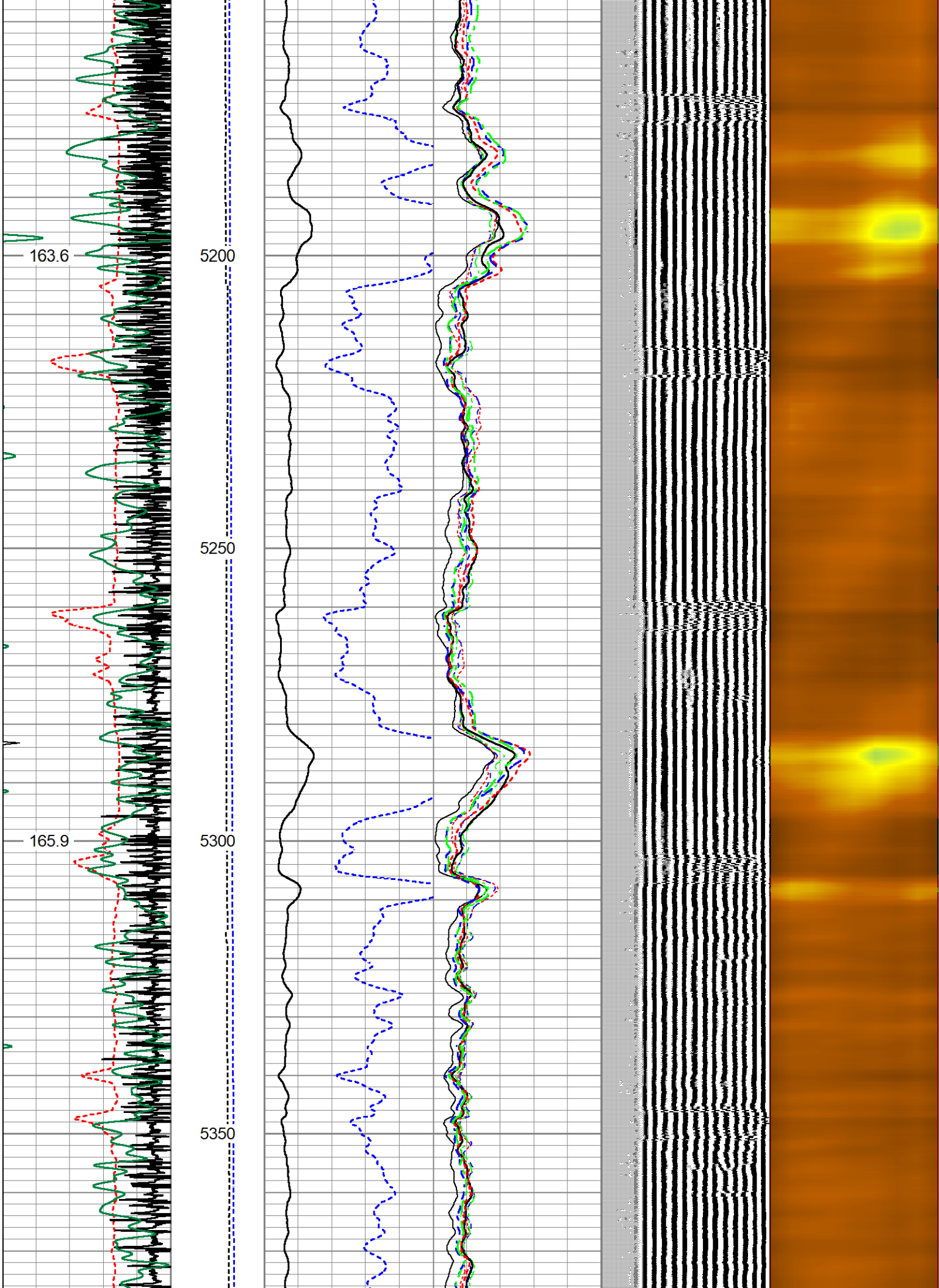


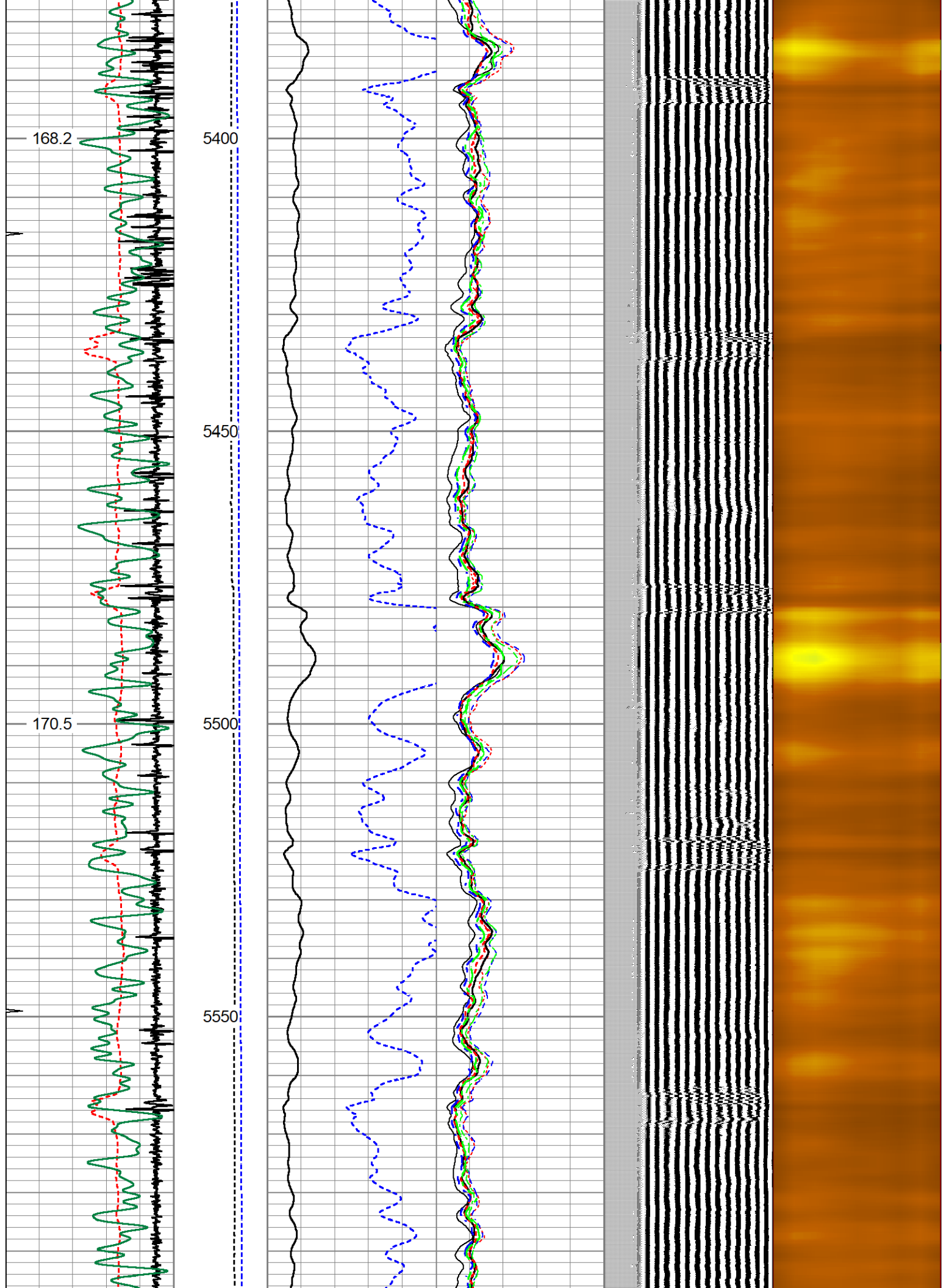
150.0
151.7
153.3
4500
4550
4600
4650
4700

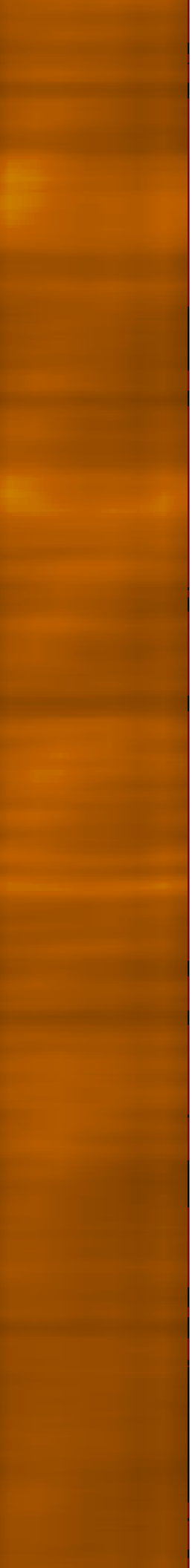
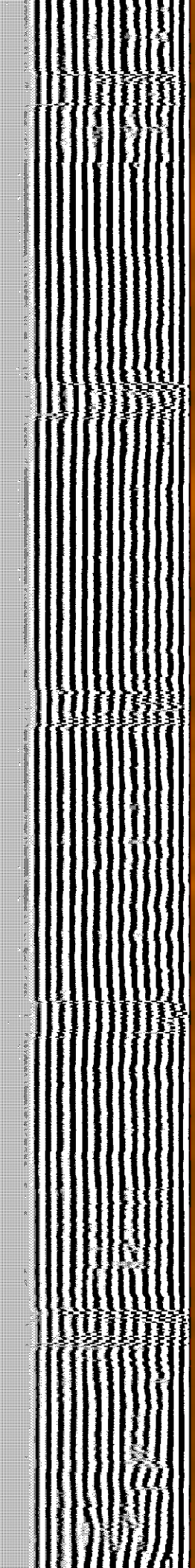
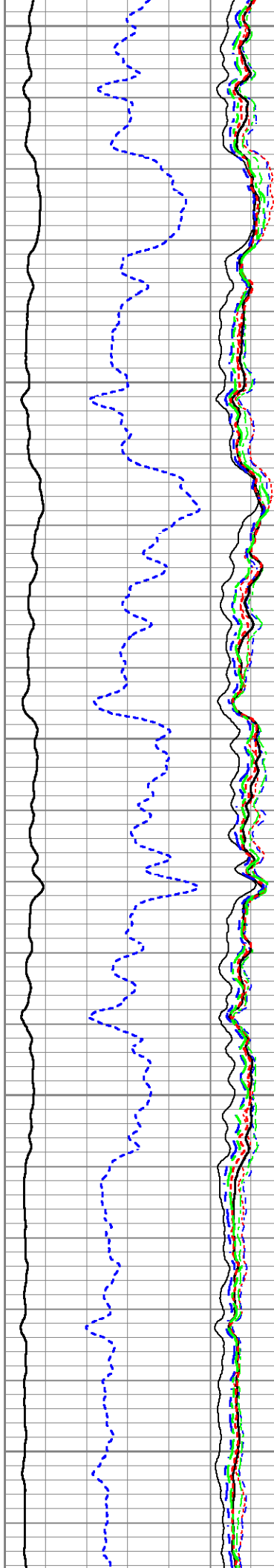
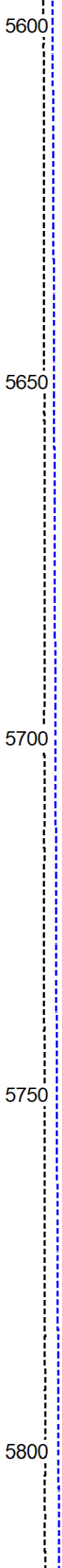
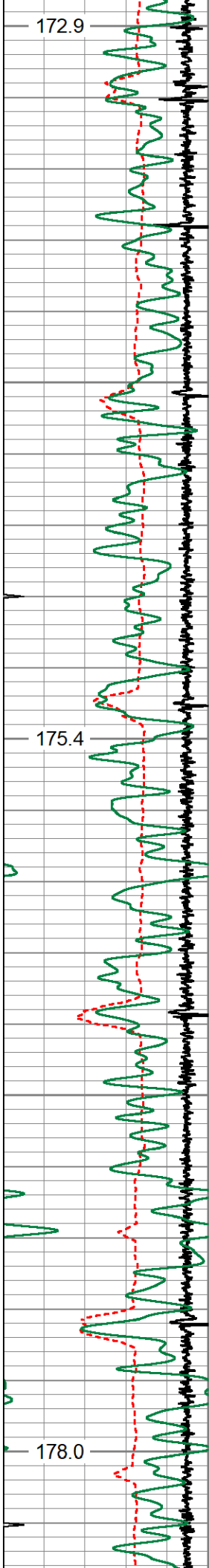


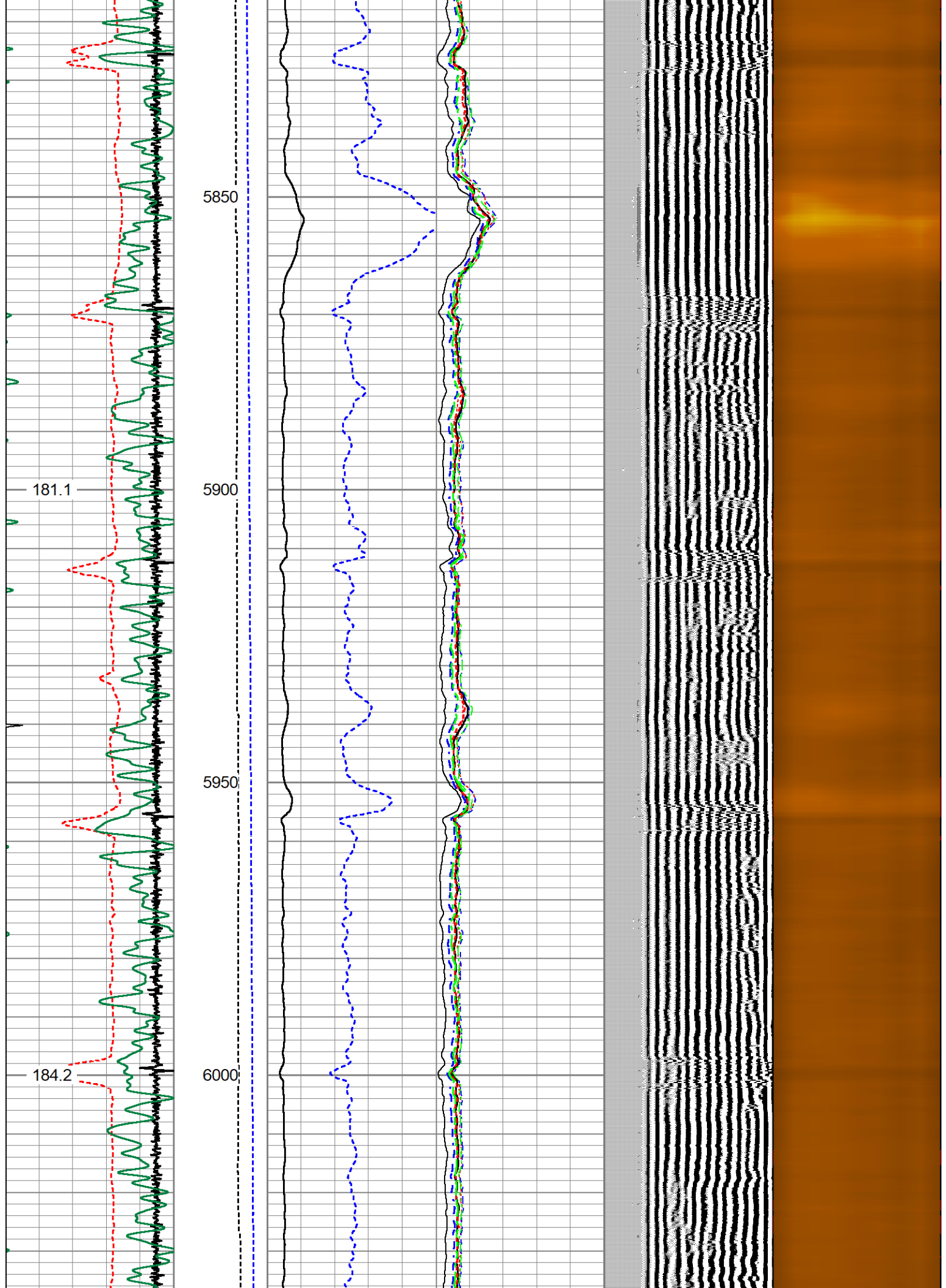


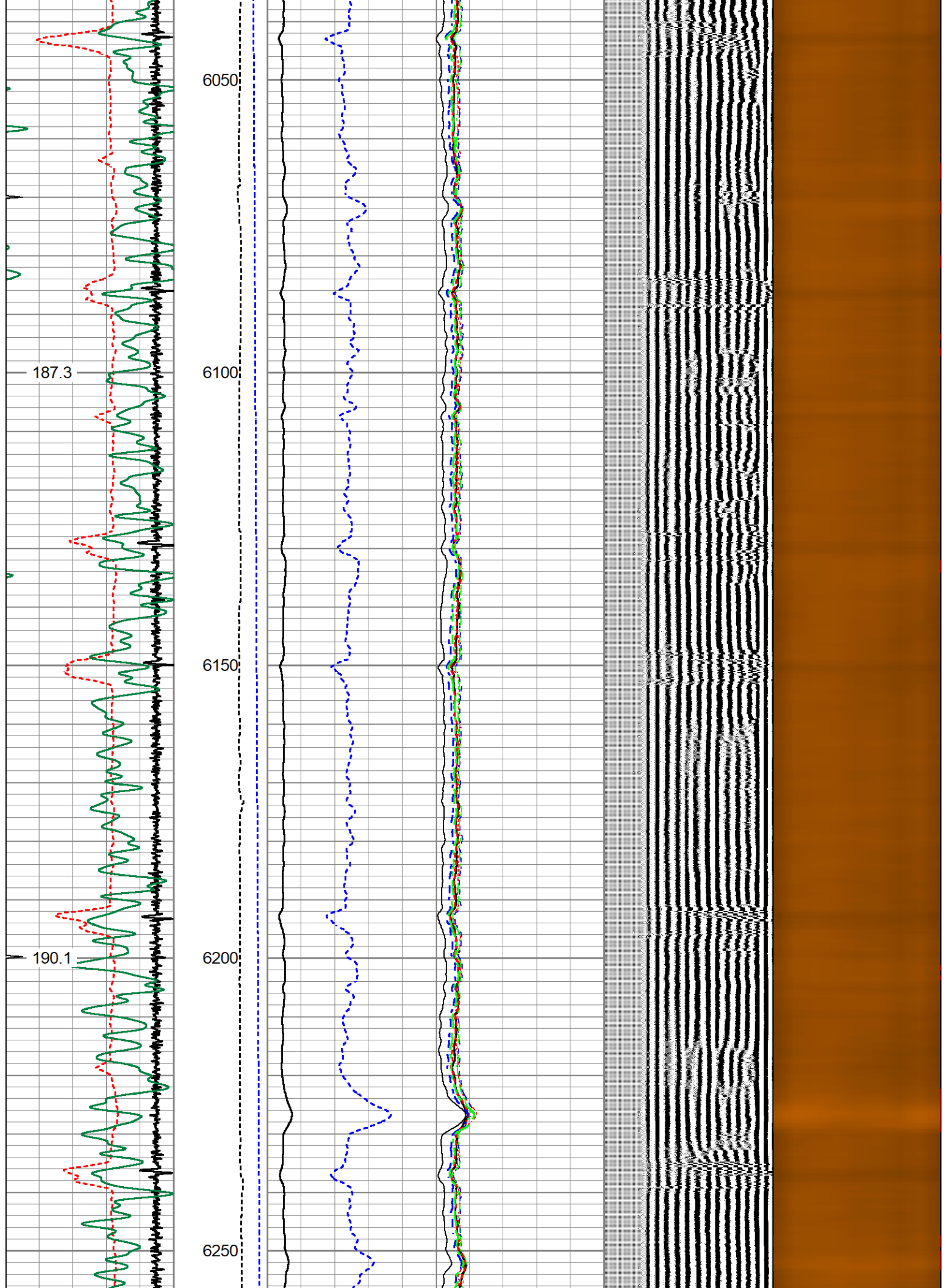


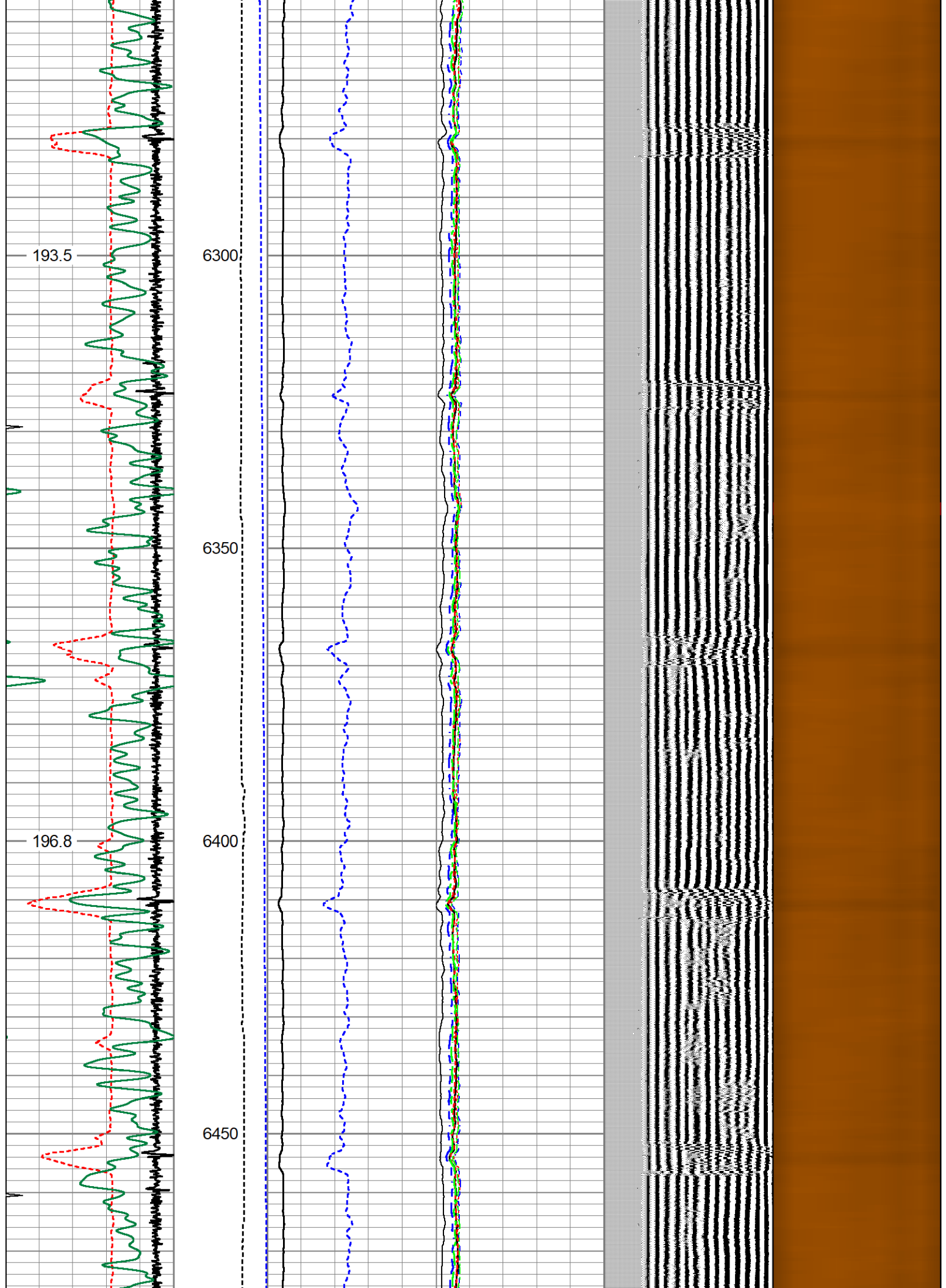


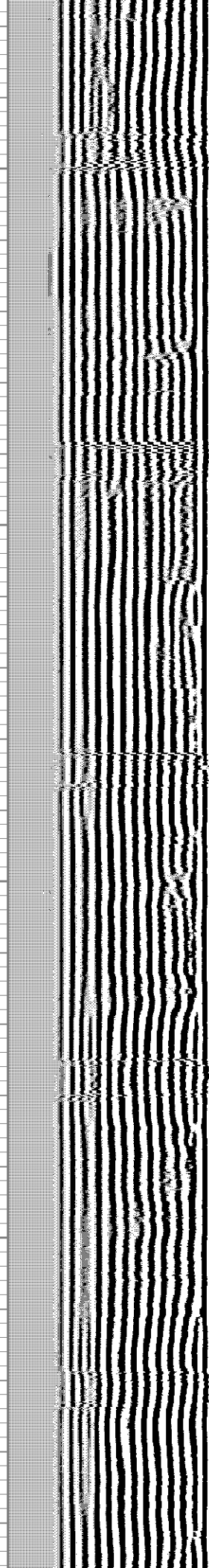
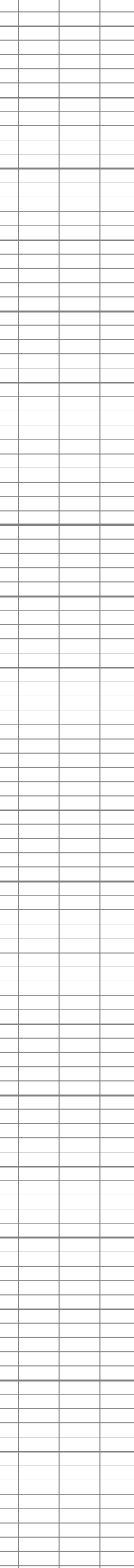
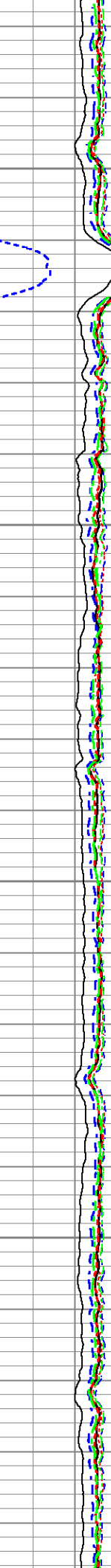
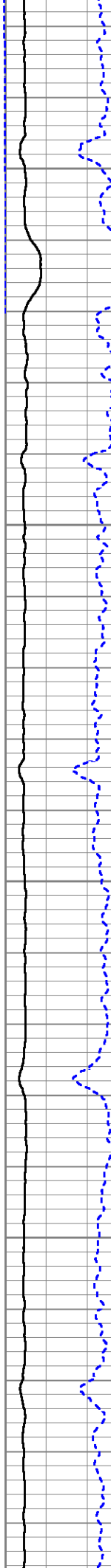
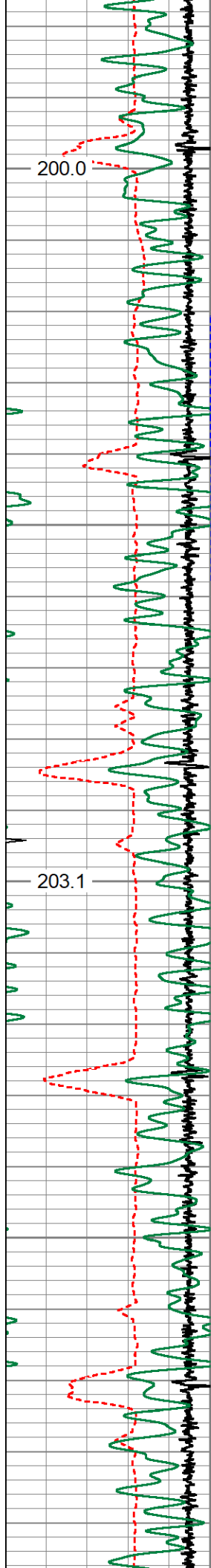


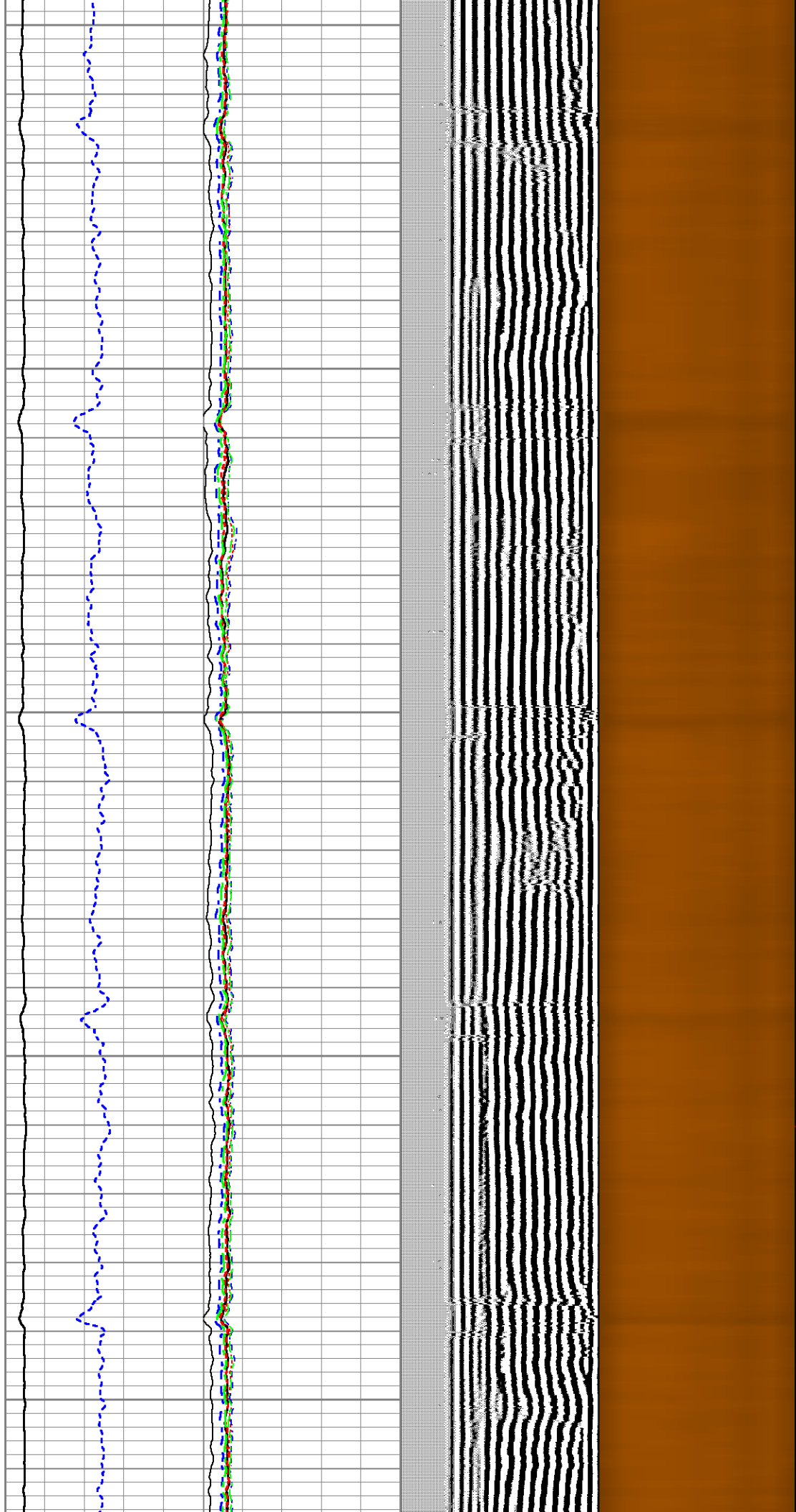
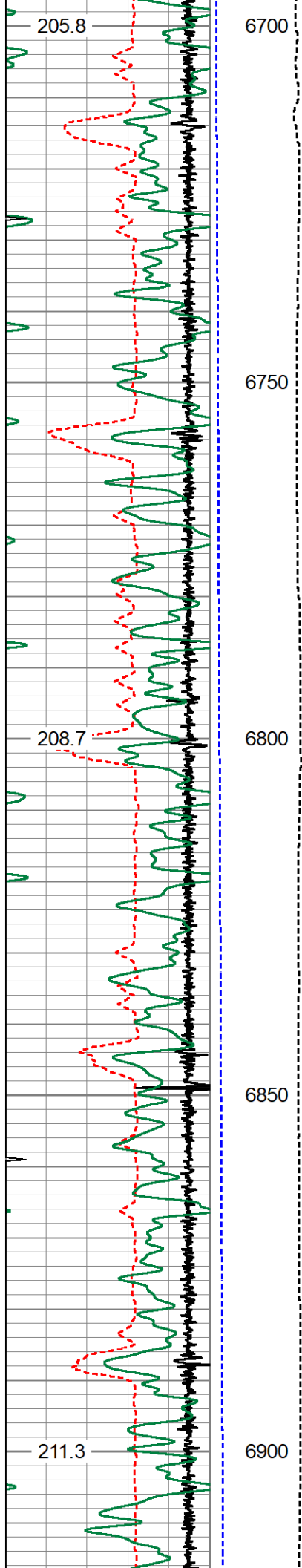


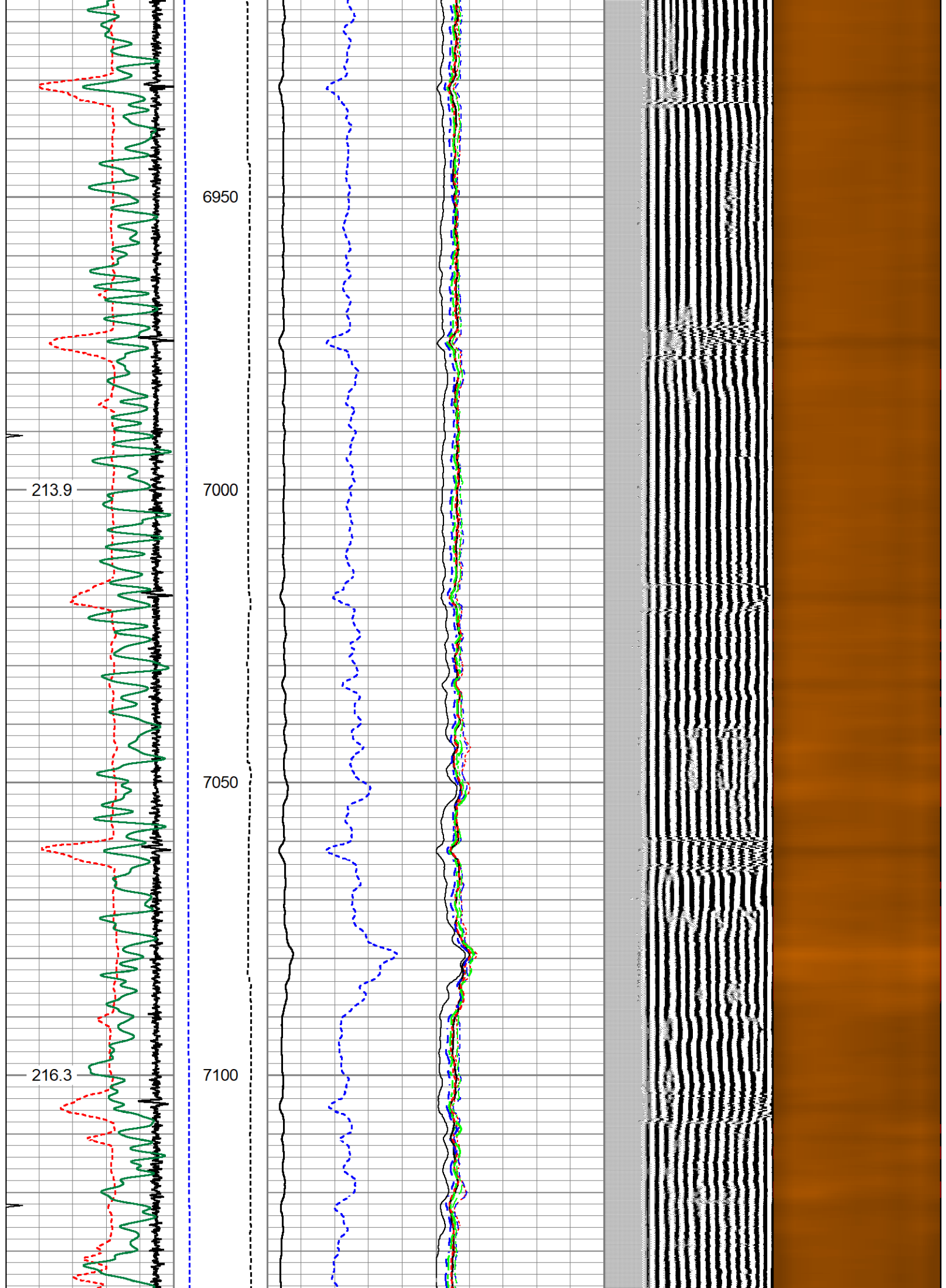


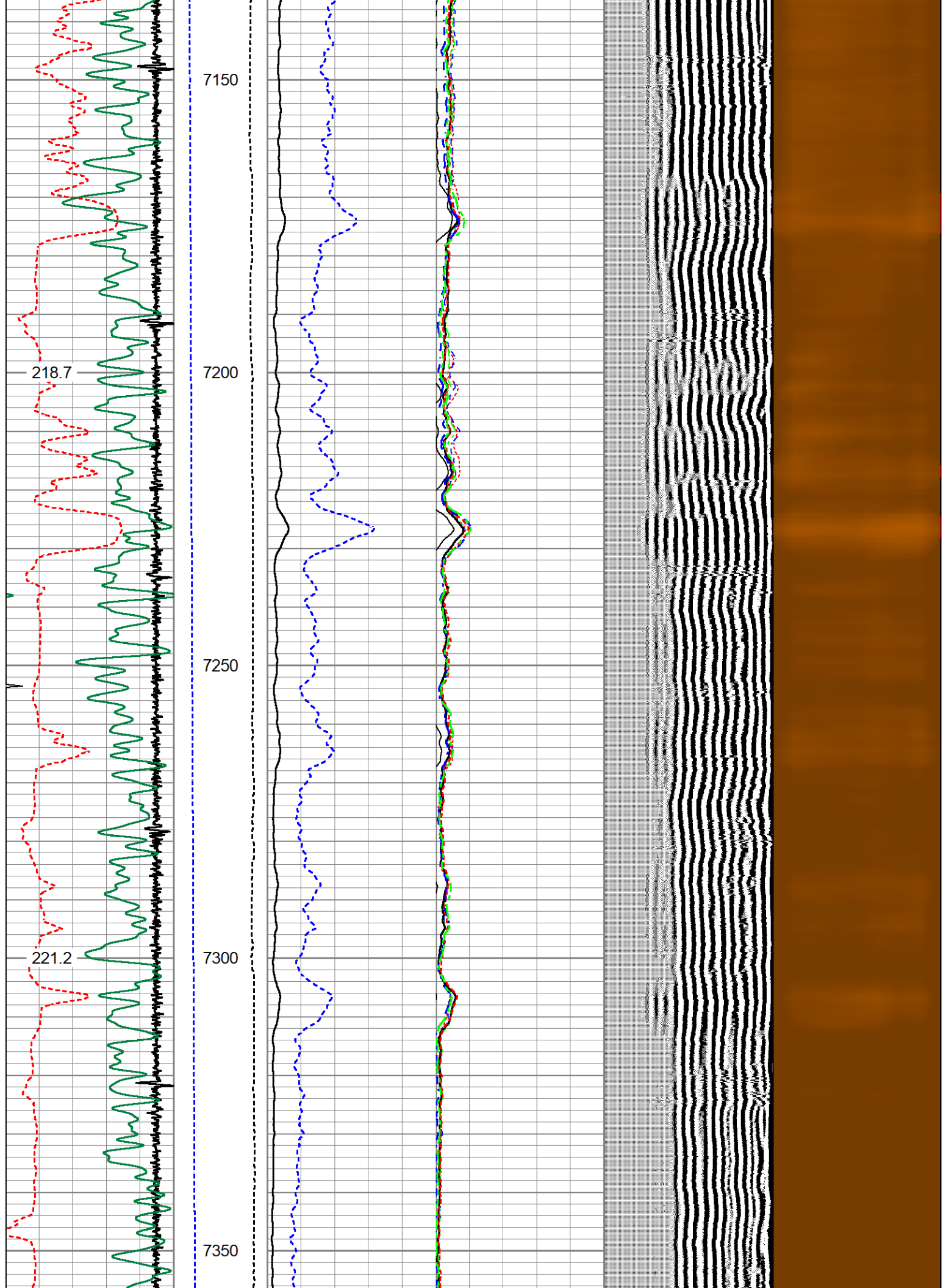


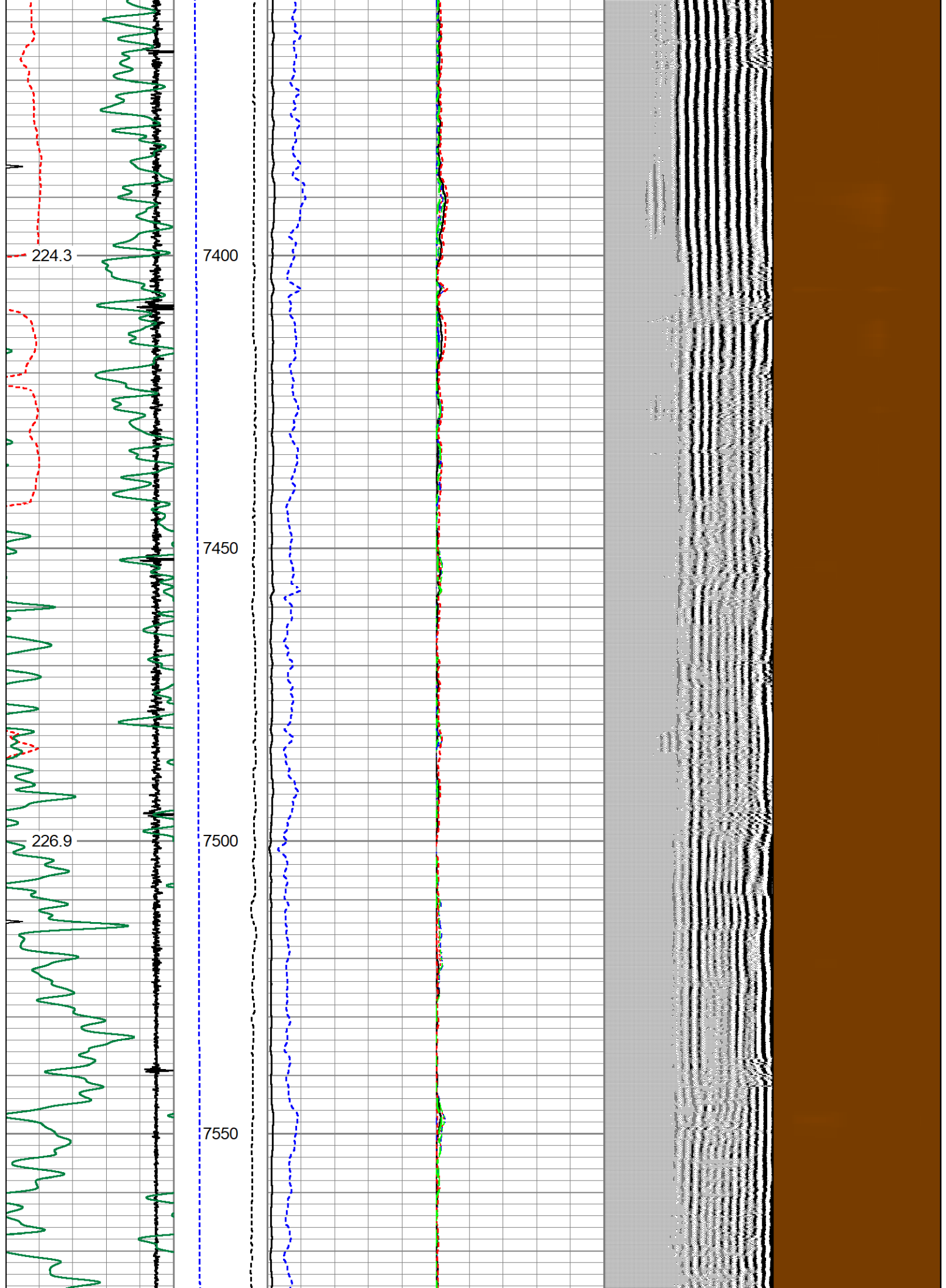


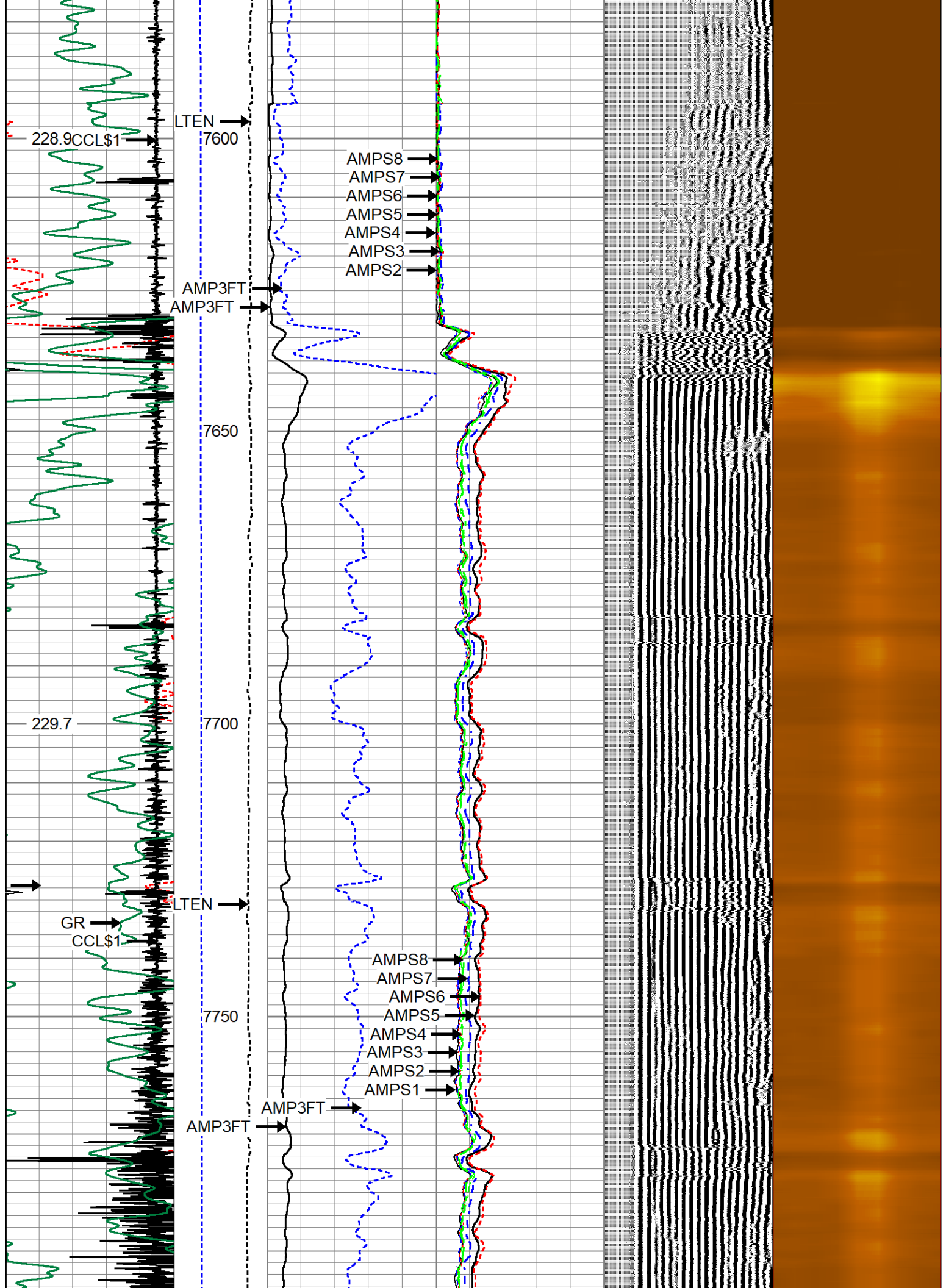


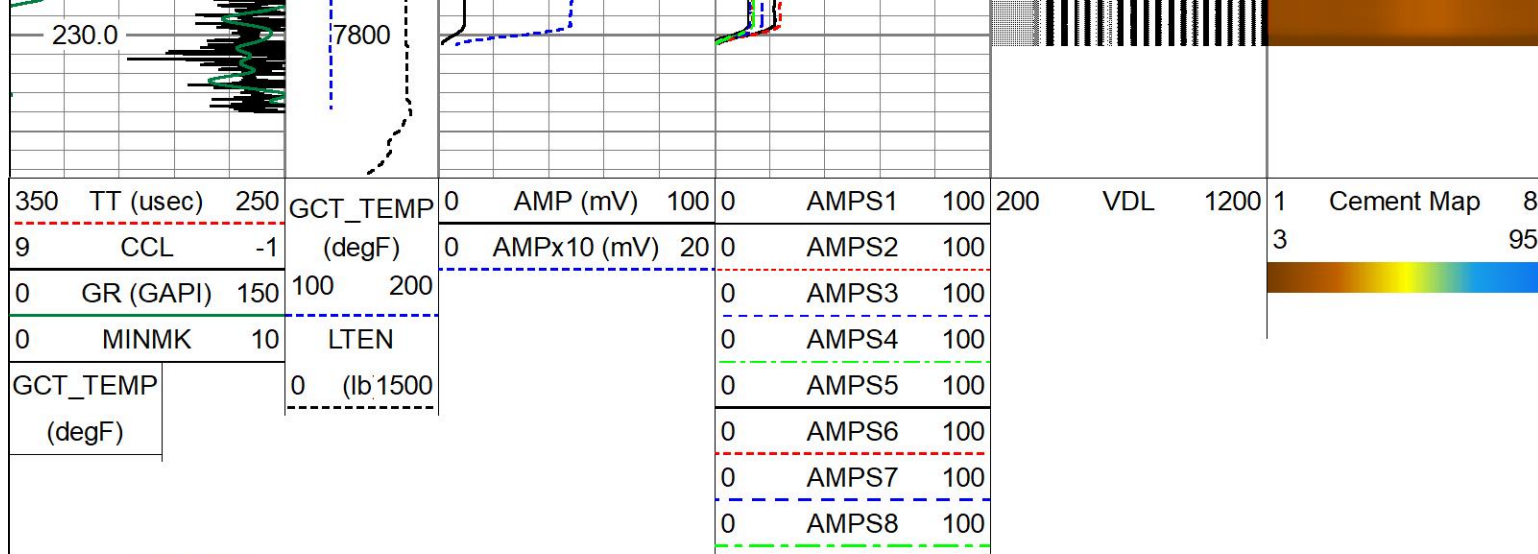










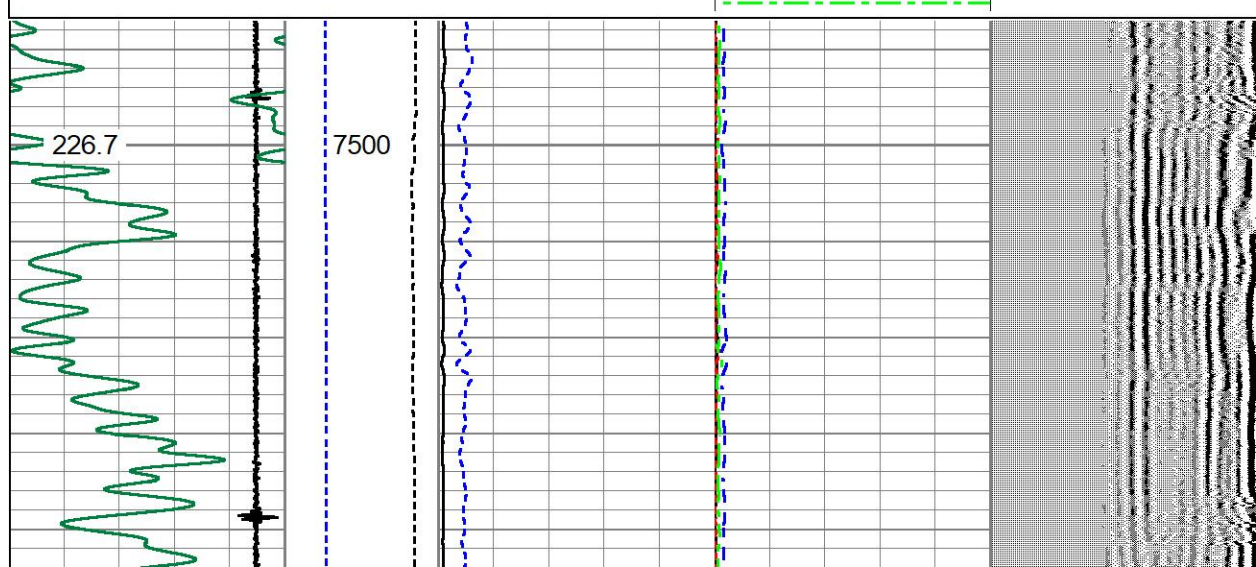
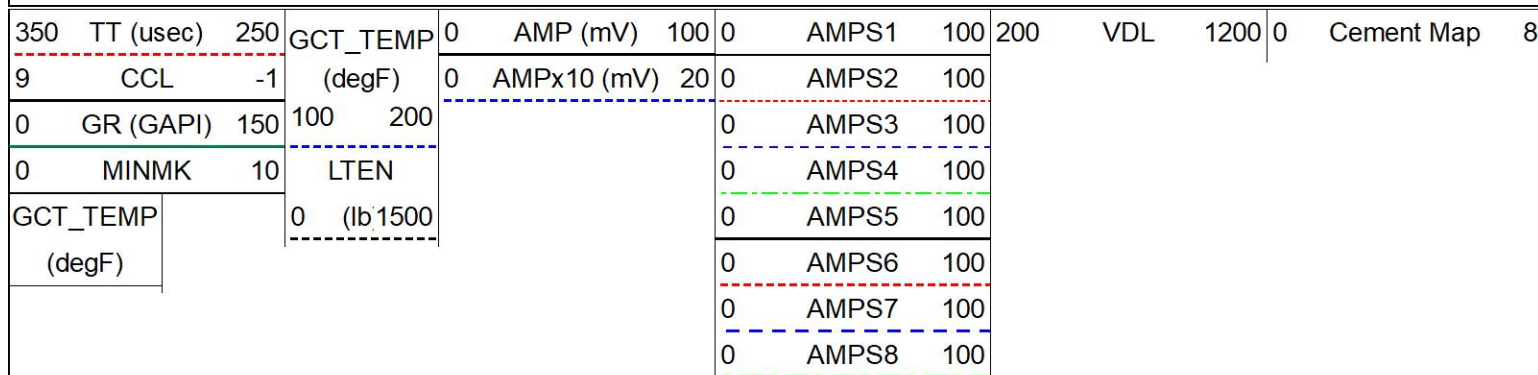


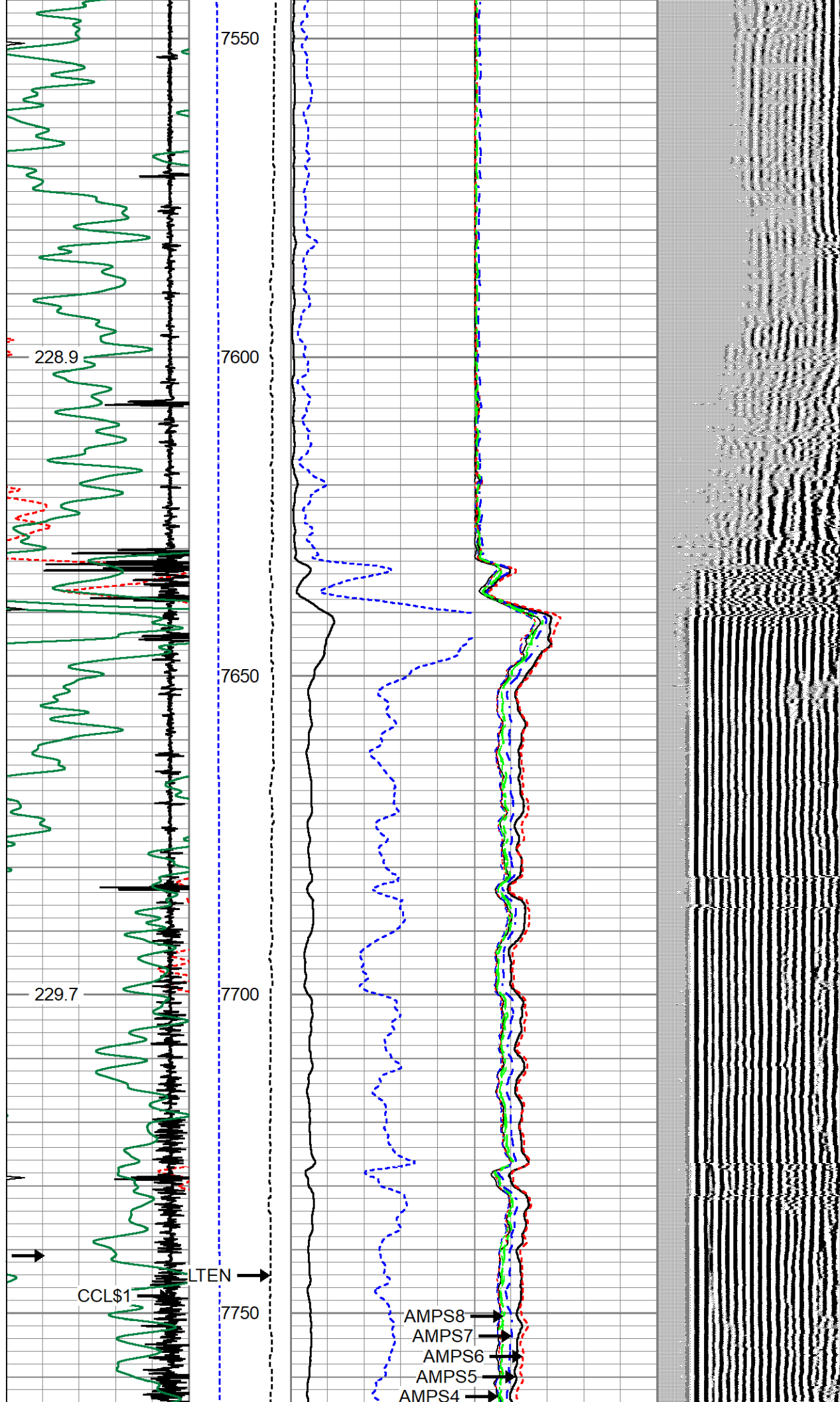
MAIN PASS



REPEAT PASS

Database File 1003-0173_hpo_240-1411h_cbl.db
 Dataset Pathname pass3
 Presentation Format 1patriot_radri_8sec_dccl
 Dataset Creation Sat Aug 11 10:14:31 2018
 Charted by Depth in Feet scaled 1:240





3'	0.001	0.935	1.000	71.921	75.999	0.895
CAL	0.994	0.994				
5'	-0.000	0.806	1.000	71.921	87.988	1.019
SUM						
S1	0.045	0.956	0.000	100.000	109.709	-4.884
S2	0.002	0.975	0.000	100.000	102.731	-0.188
S3	0.002	0.960	0.000	100.000	104.359	-0.159
S4	0.002	0.956	0.000	100.000	104.829	-0.179
S5	0.001	0.954	0.000	100.000	104.923	-0.142
S6	0.002	0.956	0.000	100.000	104.722	-0.166
S7	0.002	0.970	0.000	100.000	103.301	-0.168
S8	0.001	0.959	0.000	100.000	104.379	-0.121

Internal Reference Calibration, performed Sat Aug 11 10:30:51 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.994	0.994	1.000	0.000

Air Zero Calibration, performed Thu Aug 02 08:01:03 2018:

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



Company	HIGHPOINT RESOURCES	
Well	CRITTER CREEK 240-1411H	
Field	HEREFORD	
County	WELD	
State	COLORADO	Country USA