

HALLIBURTON

RADIAL CEMENT  
BOND LOG

Company		EXTRACTION OIL & GAS INC	
Well		COYOTE TRAILS 33S-20-1N	
Field		WATTENBERG	
County		WELD	State CO
Company		EXTRACTION OIL & GAS INC	
Well		COYOTE TRAILS 33S-20-1N	
Field		WATTENBERG	
County		WELD	State CO
API No.: 051234991400		Serv #: 905846057	
Location: SURFACE HOLE LOCATION: 1149' FSL & 2301' FEL SWSE		Other Services	
LATITUDE: 40.017977 LONGITUDE: -105.007281		NONE	
Sec: 28 Twp: 1N Rge: 68W			
Permanent Datum		GROUND LEVEL Elevation 5273	
Log Measured From		KB , 20 Ft. above perm. datum	
Drilling Measured From		KB	
Date @ Time Logged		22-JUL-Y-19 @19:00	
Run No.		ONE	
Depth - Driller		17872	
Depth - Logger		7452	
Bottom - Logged Interval		7444	
Top - Log Interval		1500	
Max. Recorded Temp.		226 F	
CEMENTING DATA		Surface String	
Date / Time Cemented		Protection String	
Primary / Squeeze		Production String	
Expected Compressive Strength		Liner	
Cement Volume			
Cement Type / Weight			
Formulation			
Mud Type / Mud Wgt.			
Borehole Record		Casing & Tubing Record	
Run Number		Bit From To Size Weight From To	
ONE		12.25 0 1500 9.625 36# 0 1500	
TWO		8.5 1500 16768 5.5 20 1500 16768	

<<< Fold Here >>>

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

CBL - GR - CCL RAN IN COMBINATION.

LOG RECORDED WITH 0 PSI WELLHEAD PRESSURE.

LOG CORRELATED TO GROUND LEVEL.

BOND INDEX CALCULATED FOR 3000 PSI COMPRESSIVE STRENGTH CEMENT.

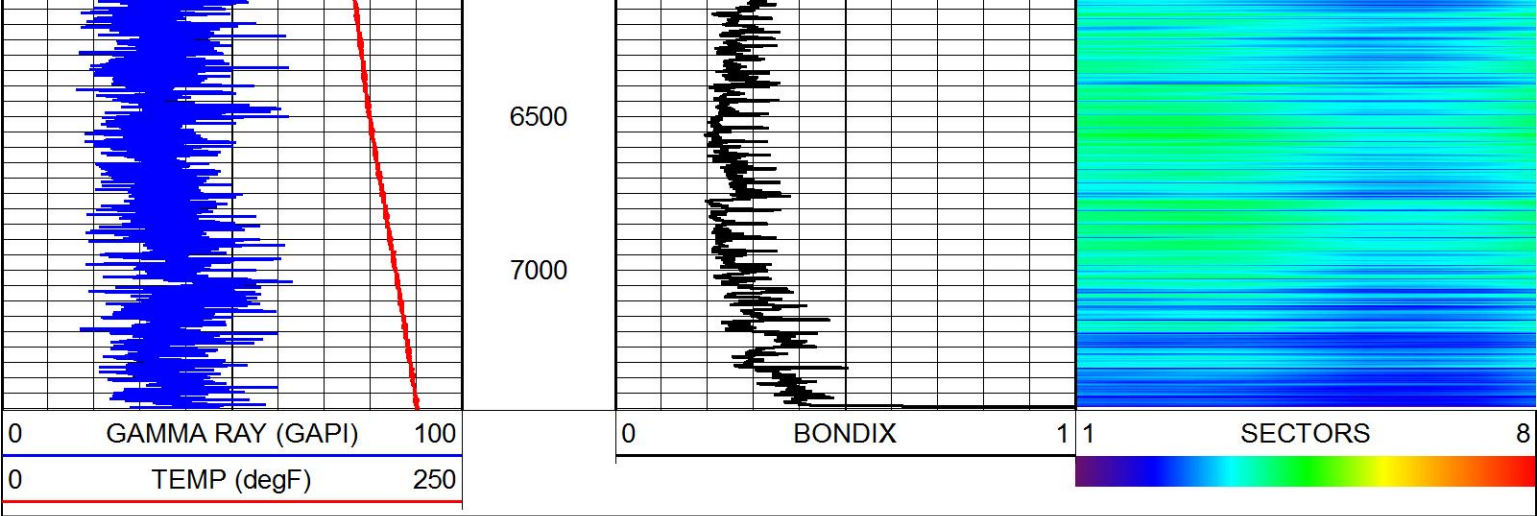
\*\*\*THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES.\*\*\*

YOUR CREW TODAY WAS:

A.NICCOLI, R.MATHE, C.COOPER, J.SCHMIDT

Service Ticket No.	905846057	API No.	051234991400	PGM Ver	WARRIOR 8
The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client					
EQUIPMENT DATA					
RCBL		GAMMA CCL			
Run No.	ONE	Run No.	ONE	Run No.	
Serial No.	11577056	Serial No.	11021927	Serial No.	
Model No.	PROBE	Model No.	PROBE	Model No.	
Diameter	2.75	Diameter	2.75	Diameter	
LOGGING DATA					
General Data					
Pass	Depths		Well Head	Speed	Logging Run Comments
No	From	To	Pressure	Ft/Min	





BOND INDEX

HALLIBURTON

1 : 7500

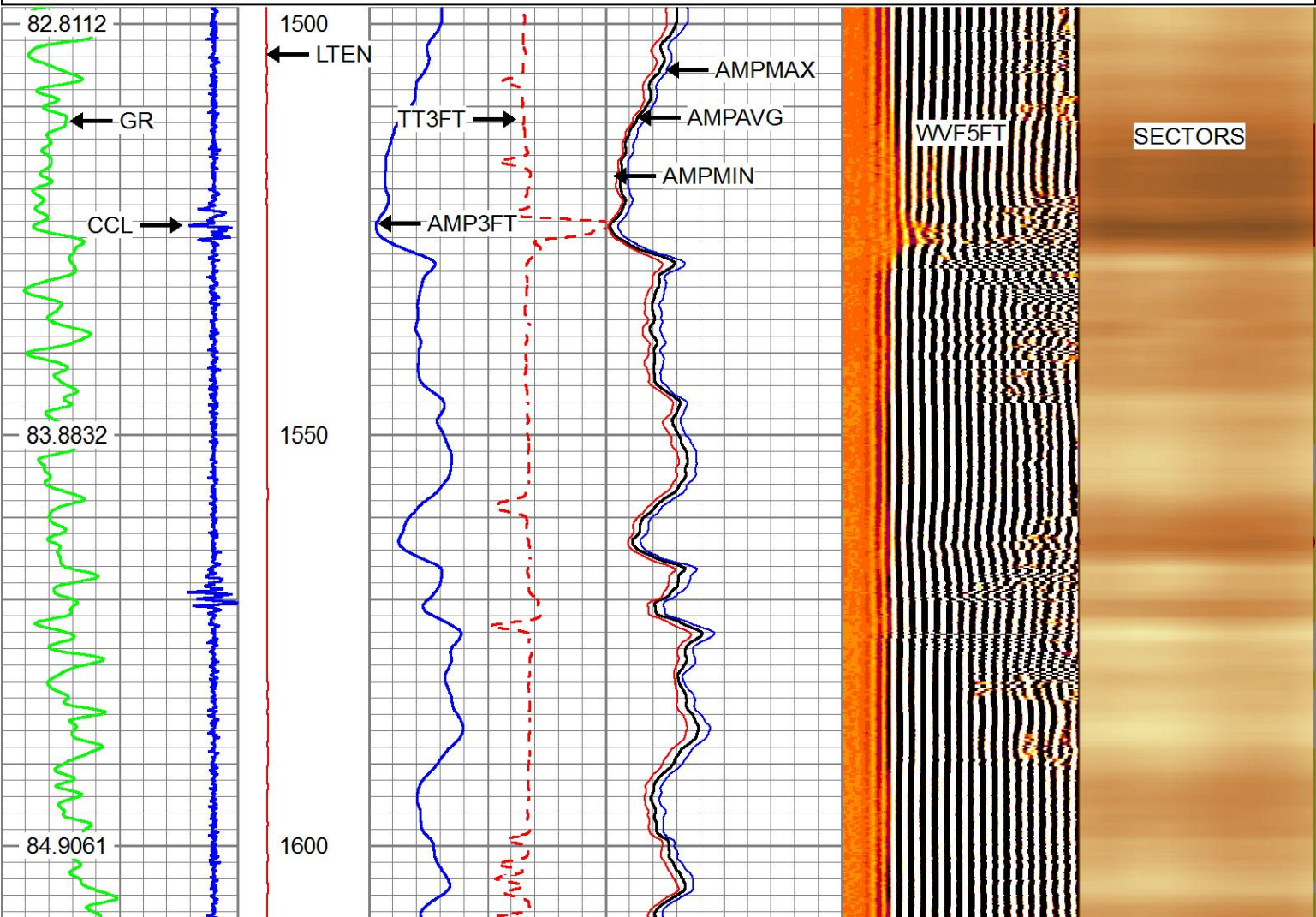
MAIN PASS

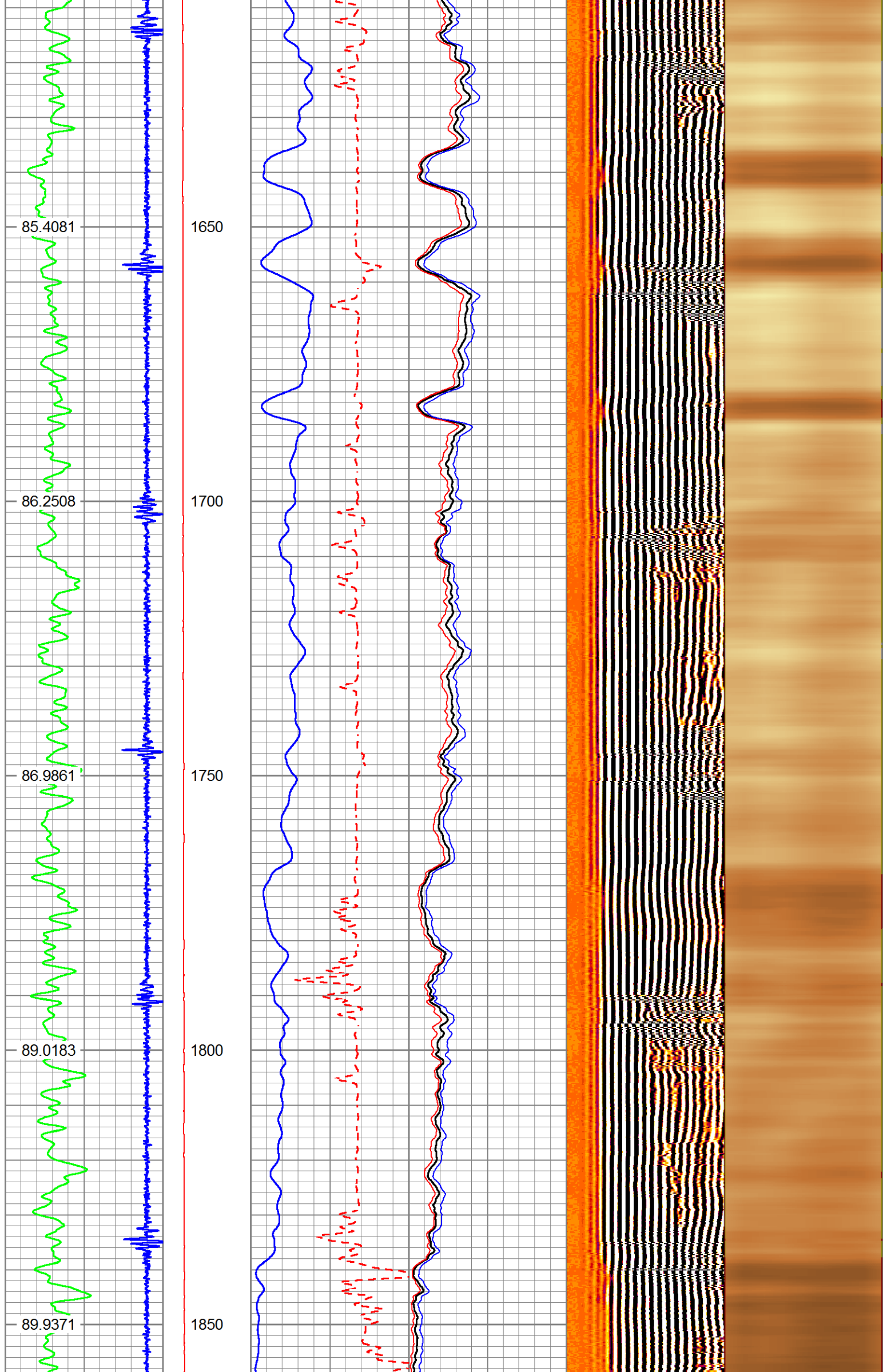
HALLIBURTON

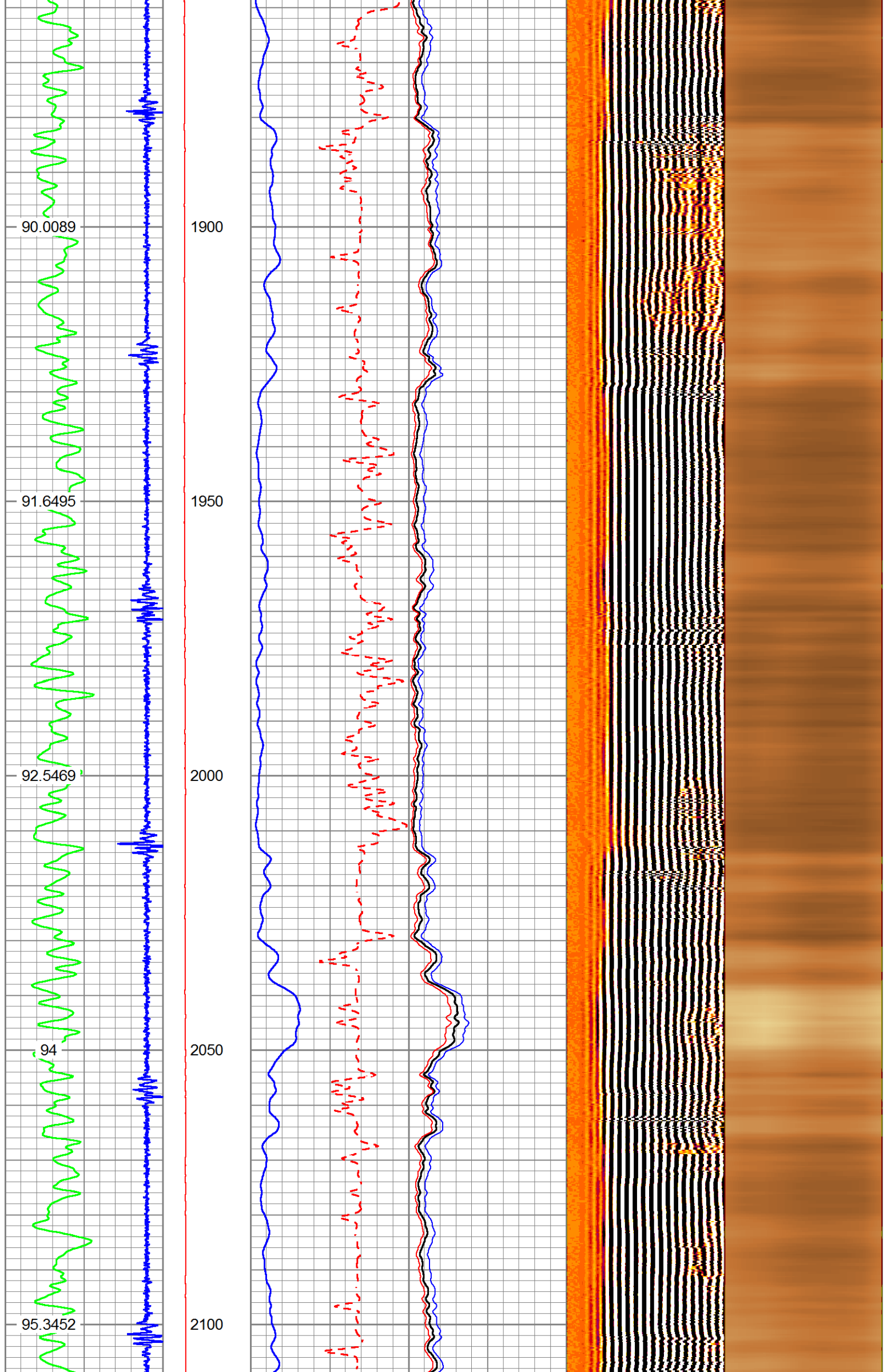
5" = 100'

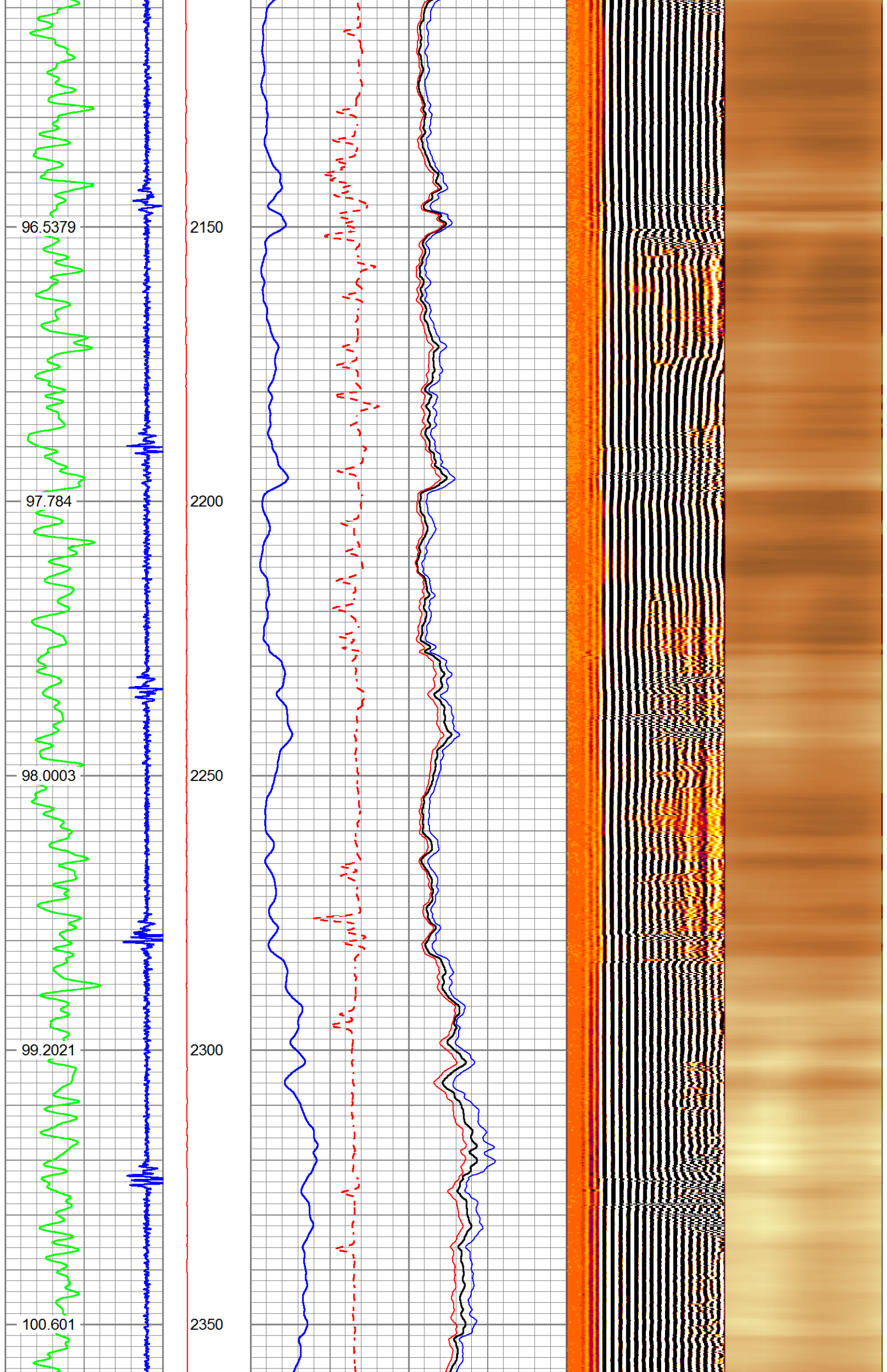
Database File extraction coyote trails 33s\_20\_1n.db  
Dataset Pathname Coyote\_Trails/33S-20-1N/run1/MAIN FINAL  
Presentation Format EXTRAC~1  
Dataset Creation Mon Jul 22 21:19:23 2019  
Charted by Depth in Feet scaled 1:240

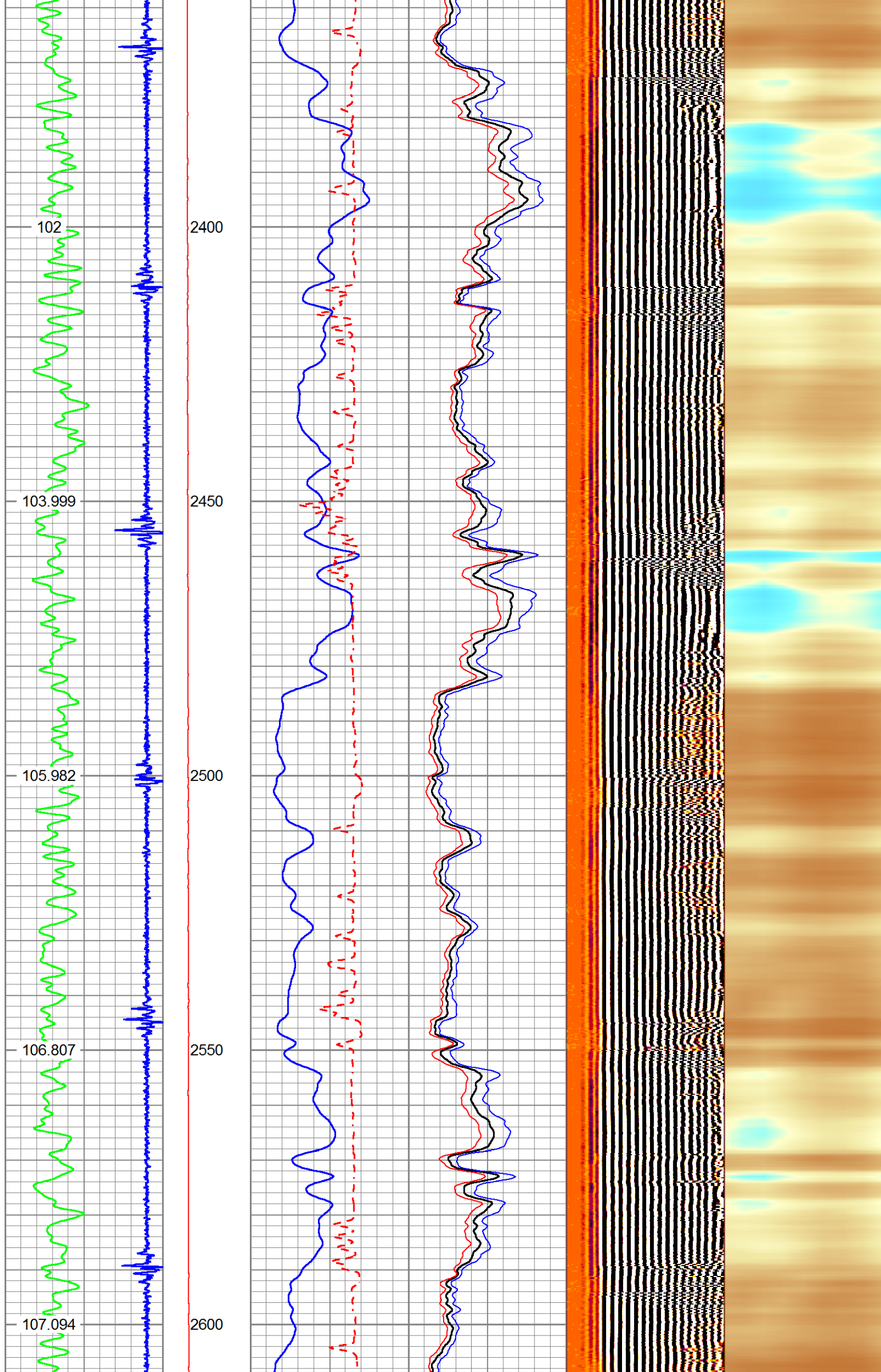
9	CCL	-1	LTEN	0	AMP (mV)	100	0	AMPAVG	100	200	VDL (usec)	1200	1	RADIAL MAP	8
0	GR (GAPI)	100	0	(lb/2000)	Travel Time		0	AMPMAX	100						
	TEMP				(usec)	200	300	0	AMPMIN	100					
	(degF)														

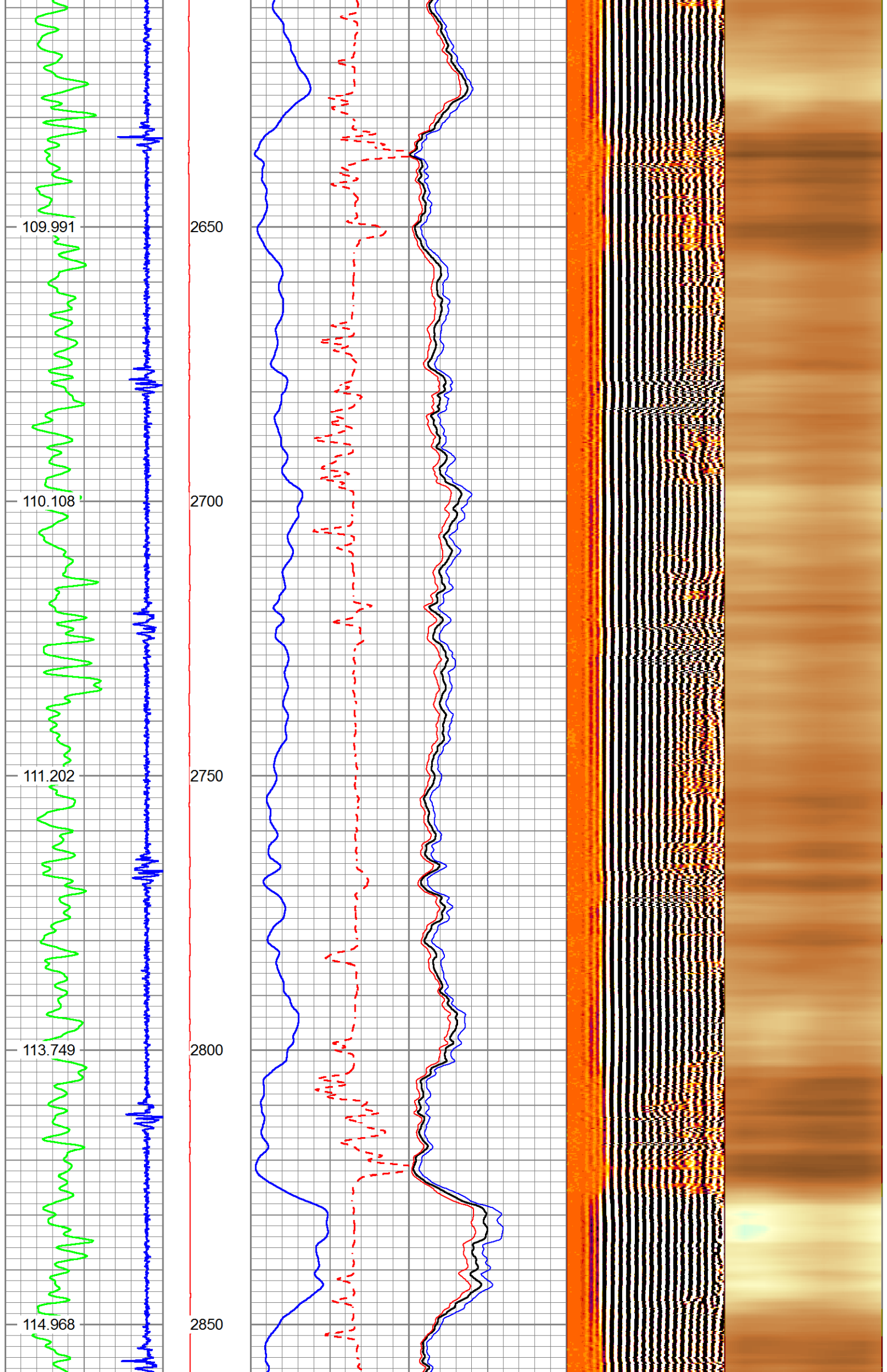


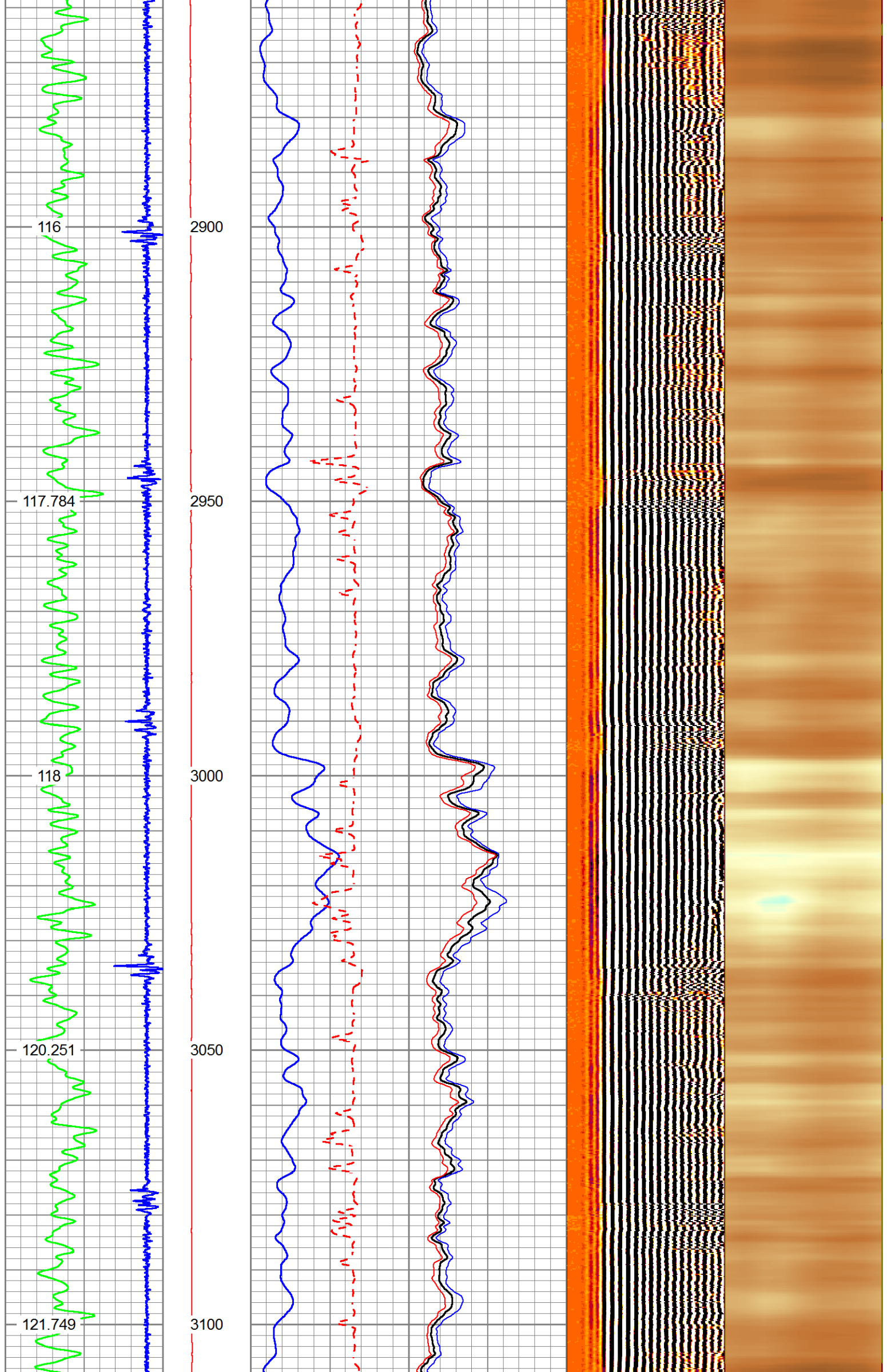


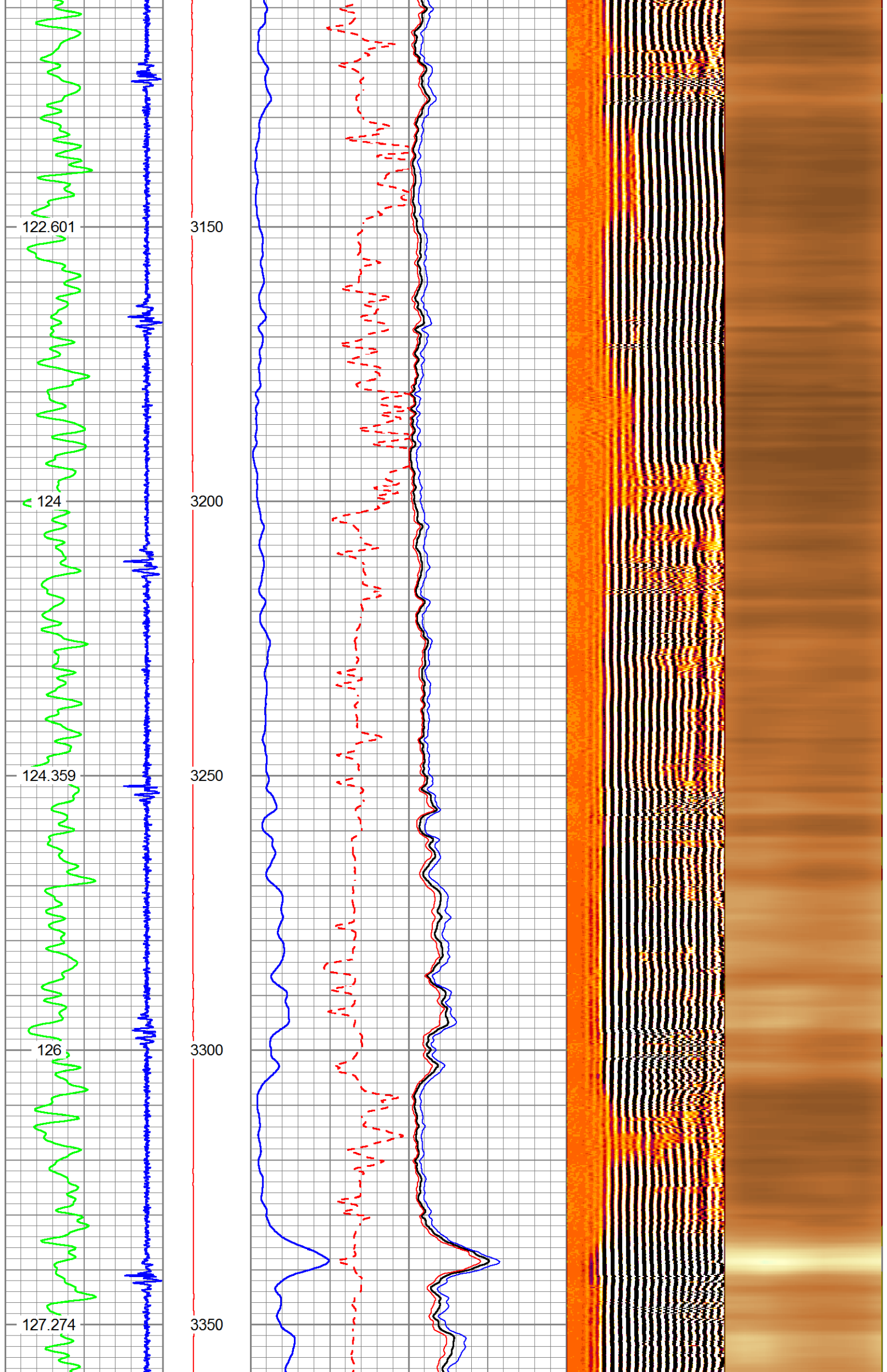


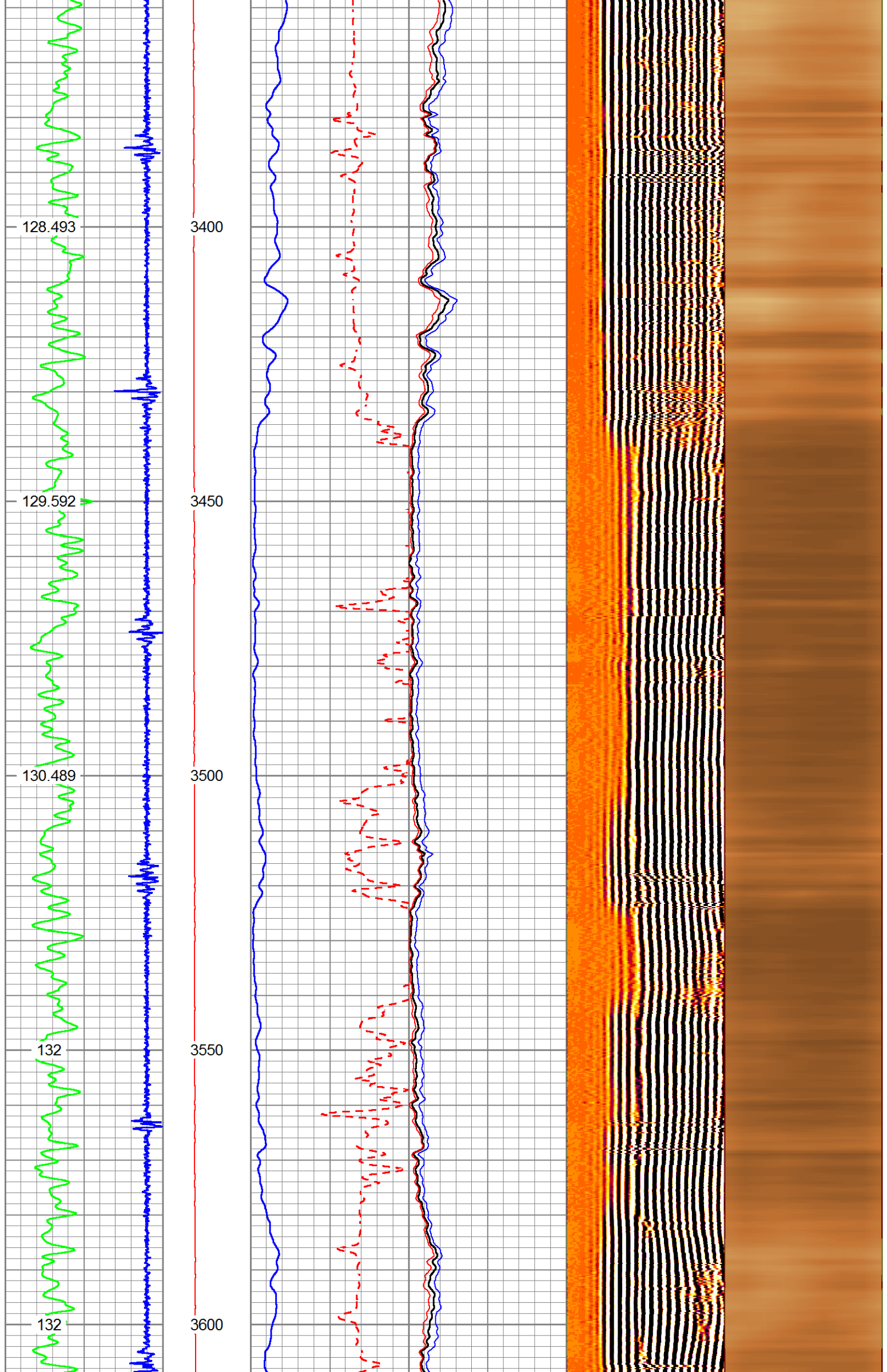


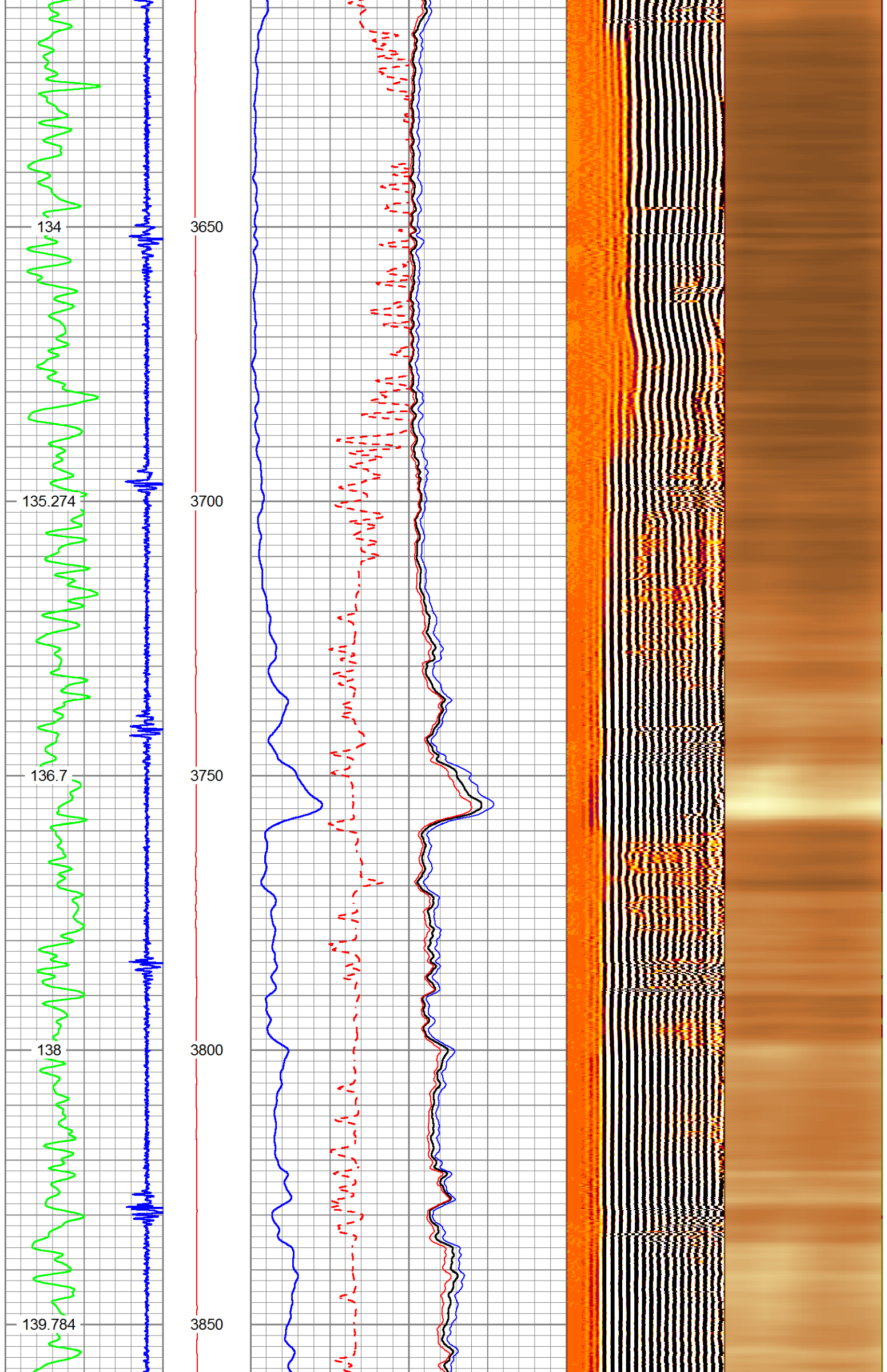


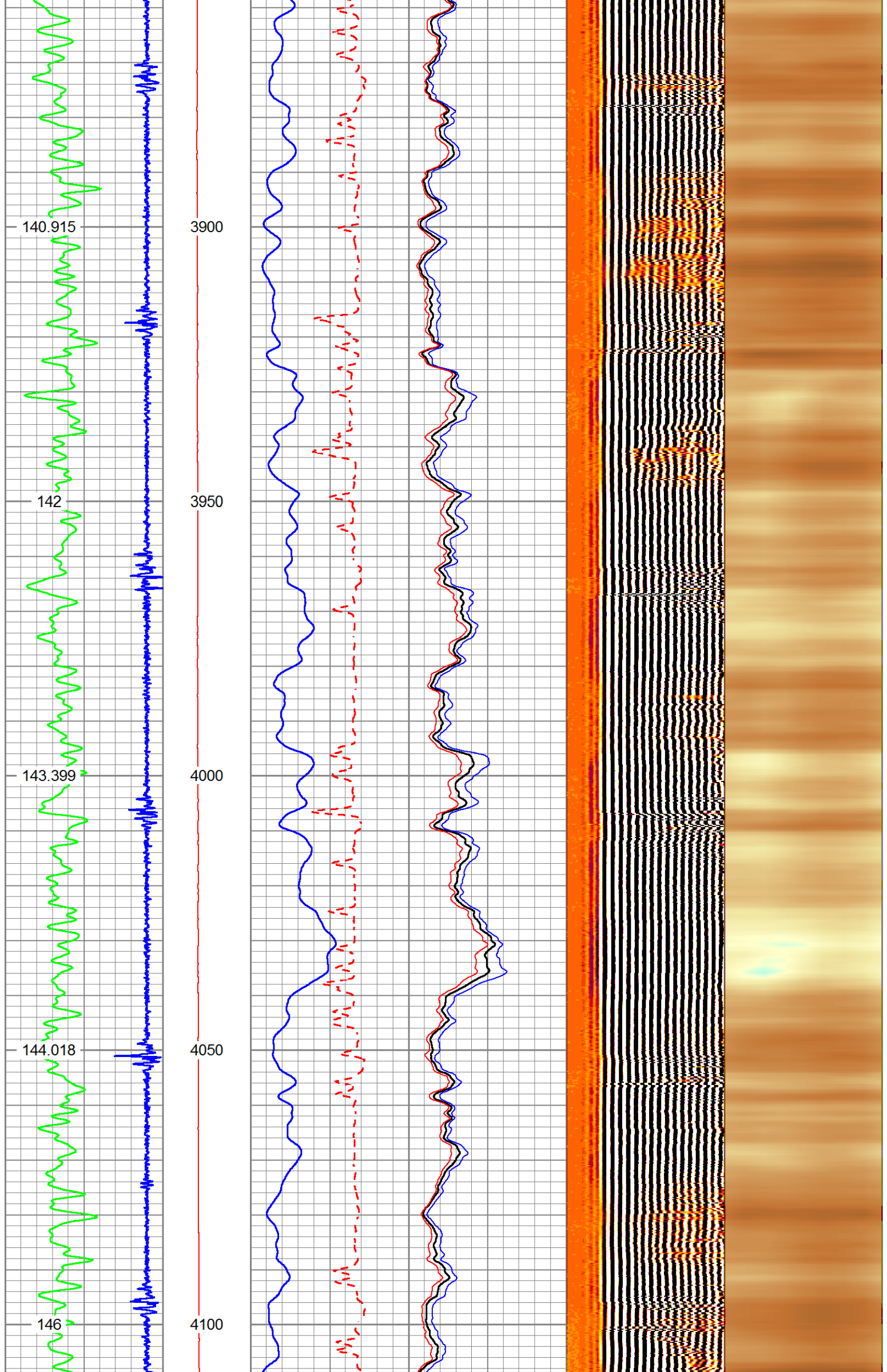


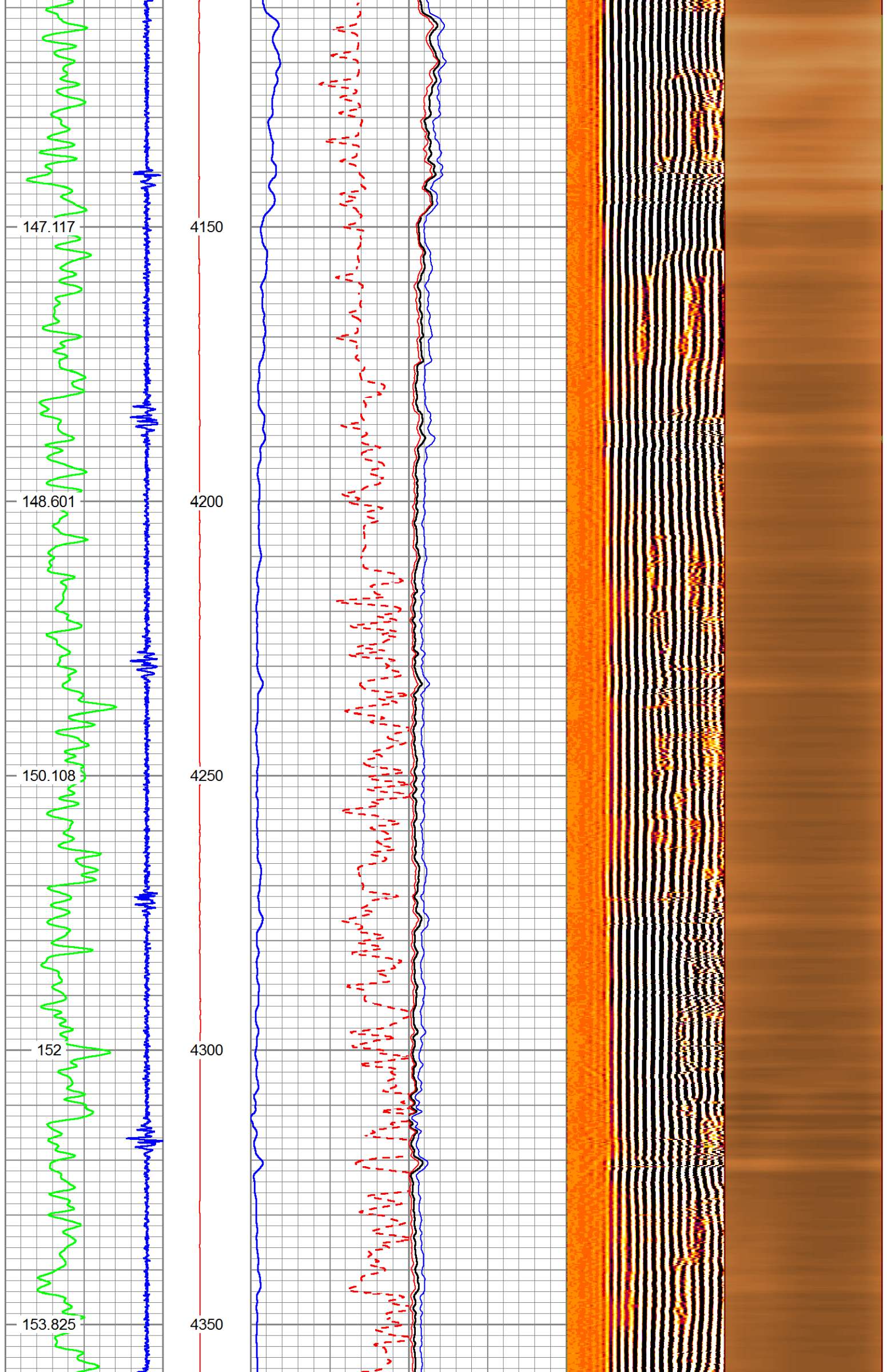


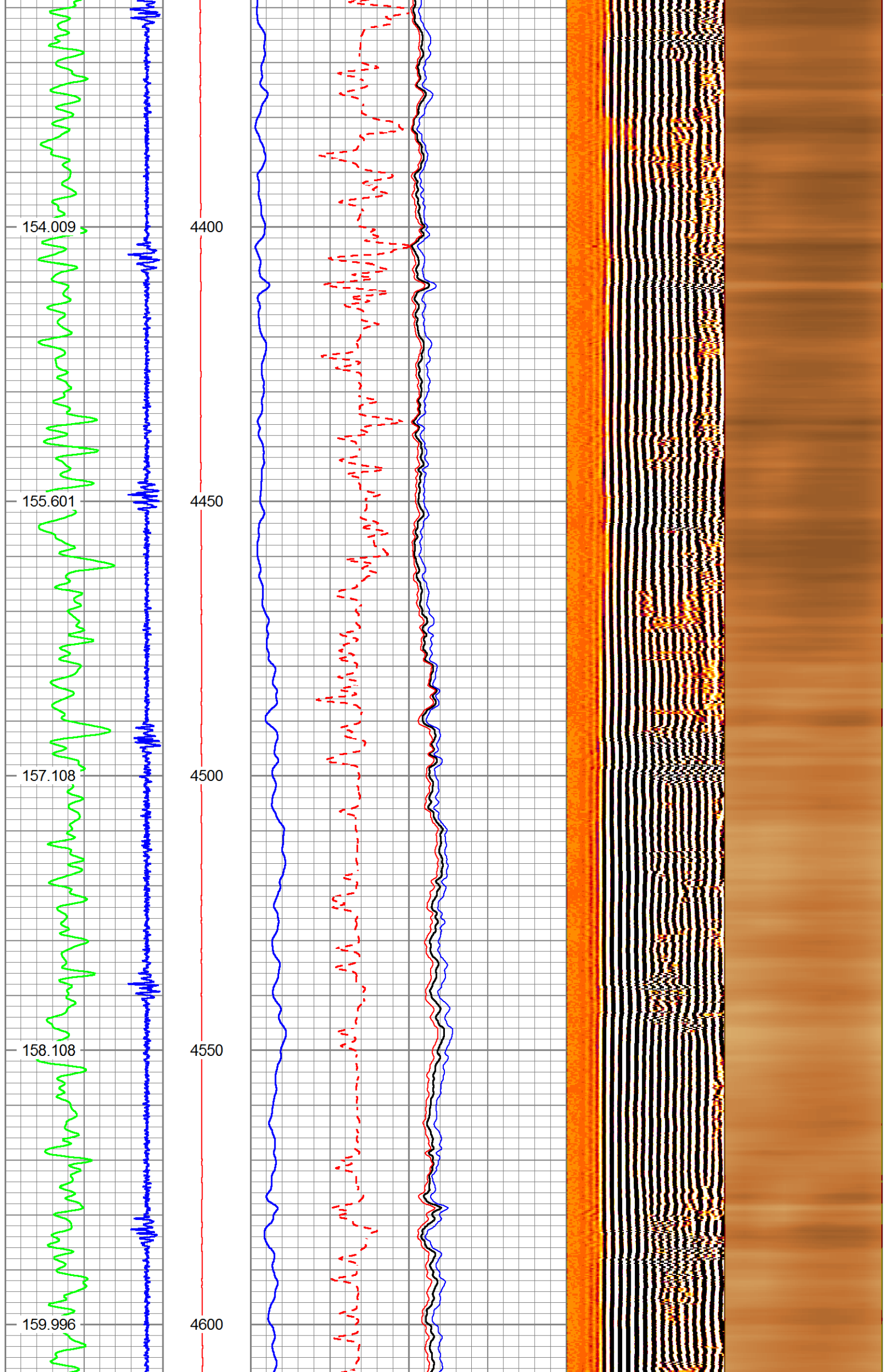


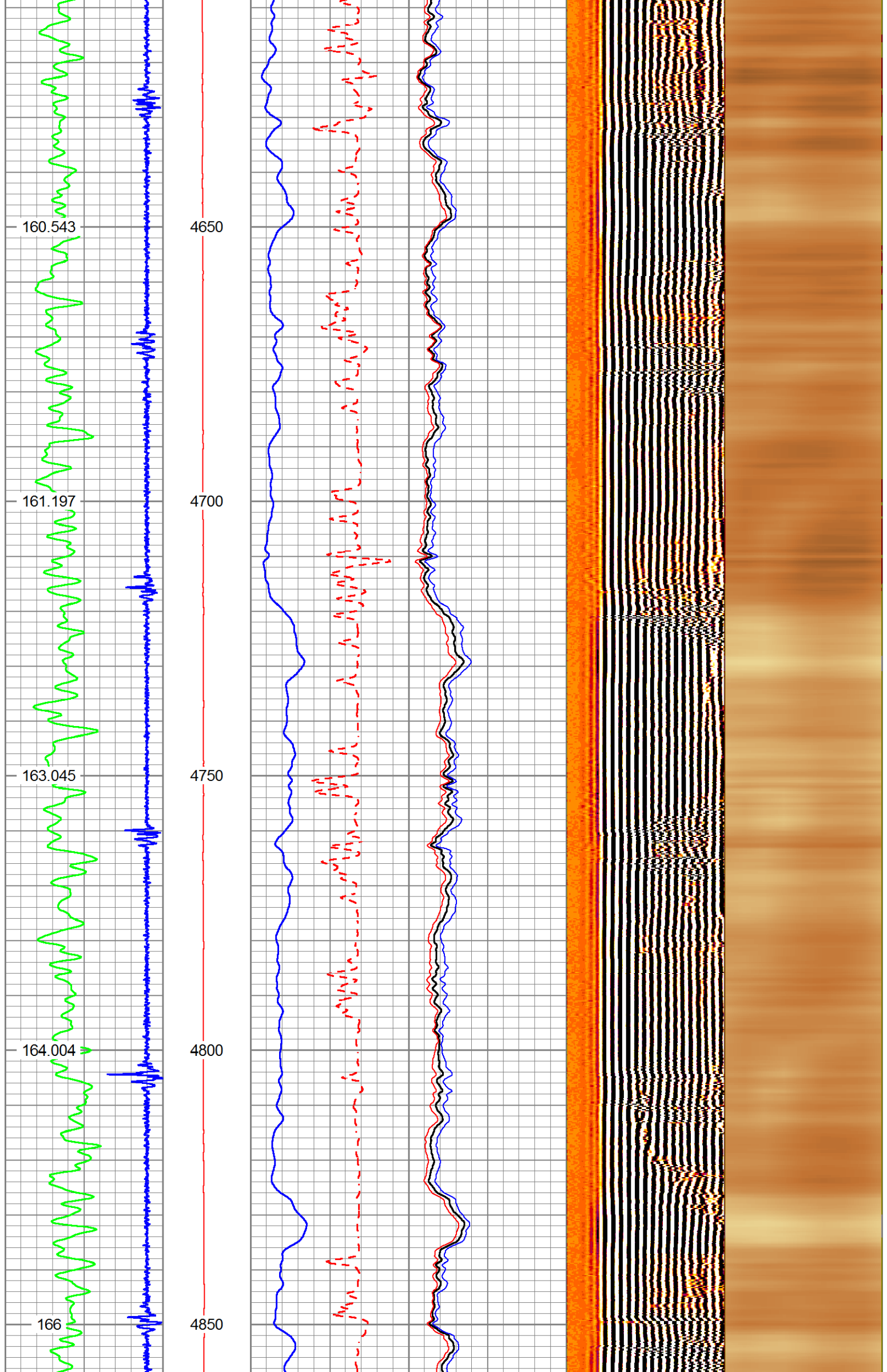


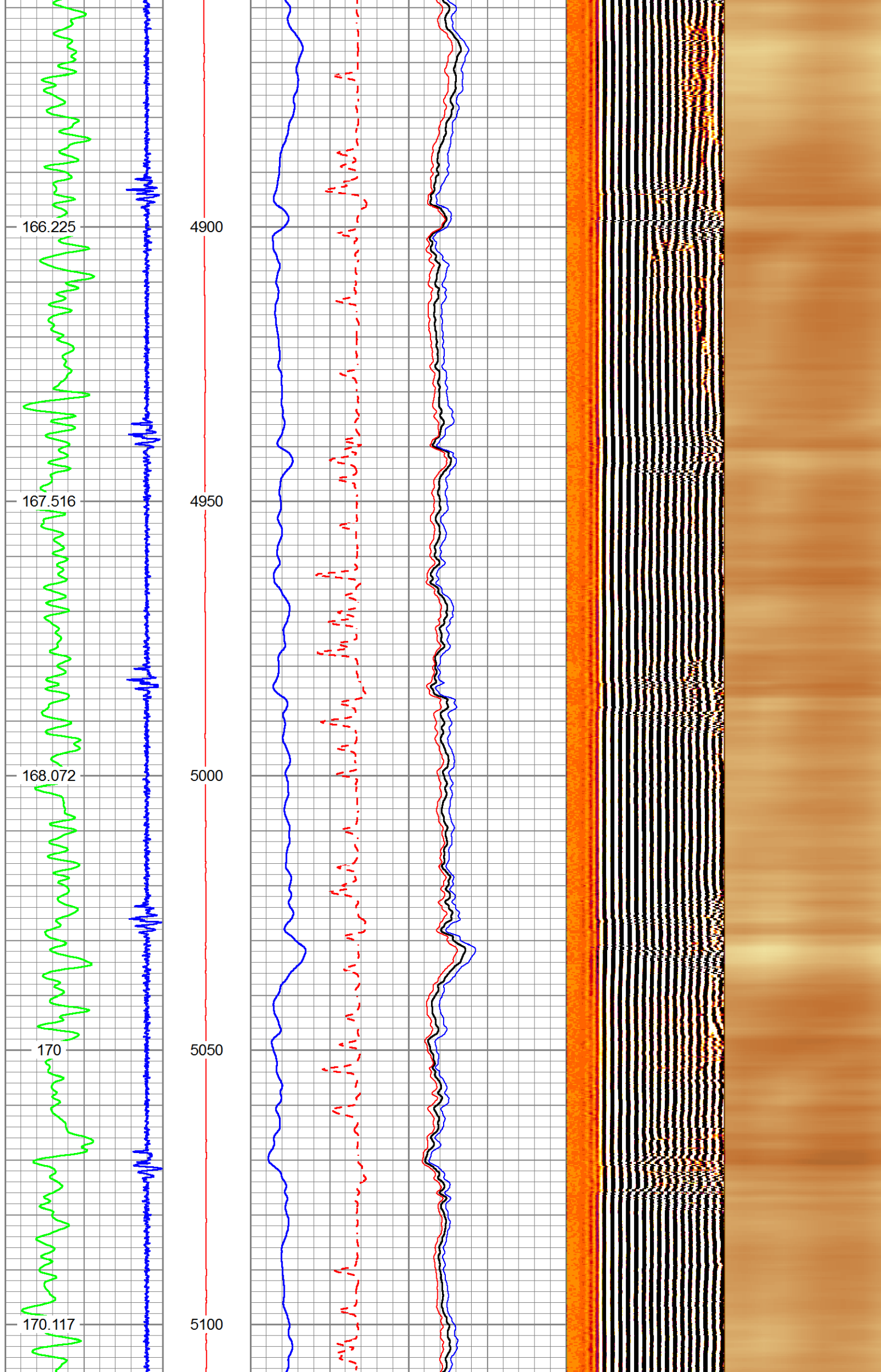


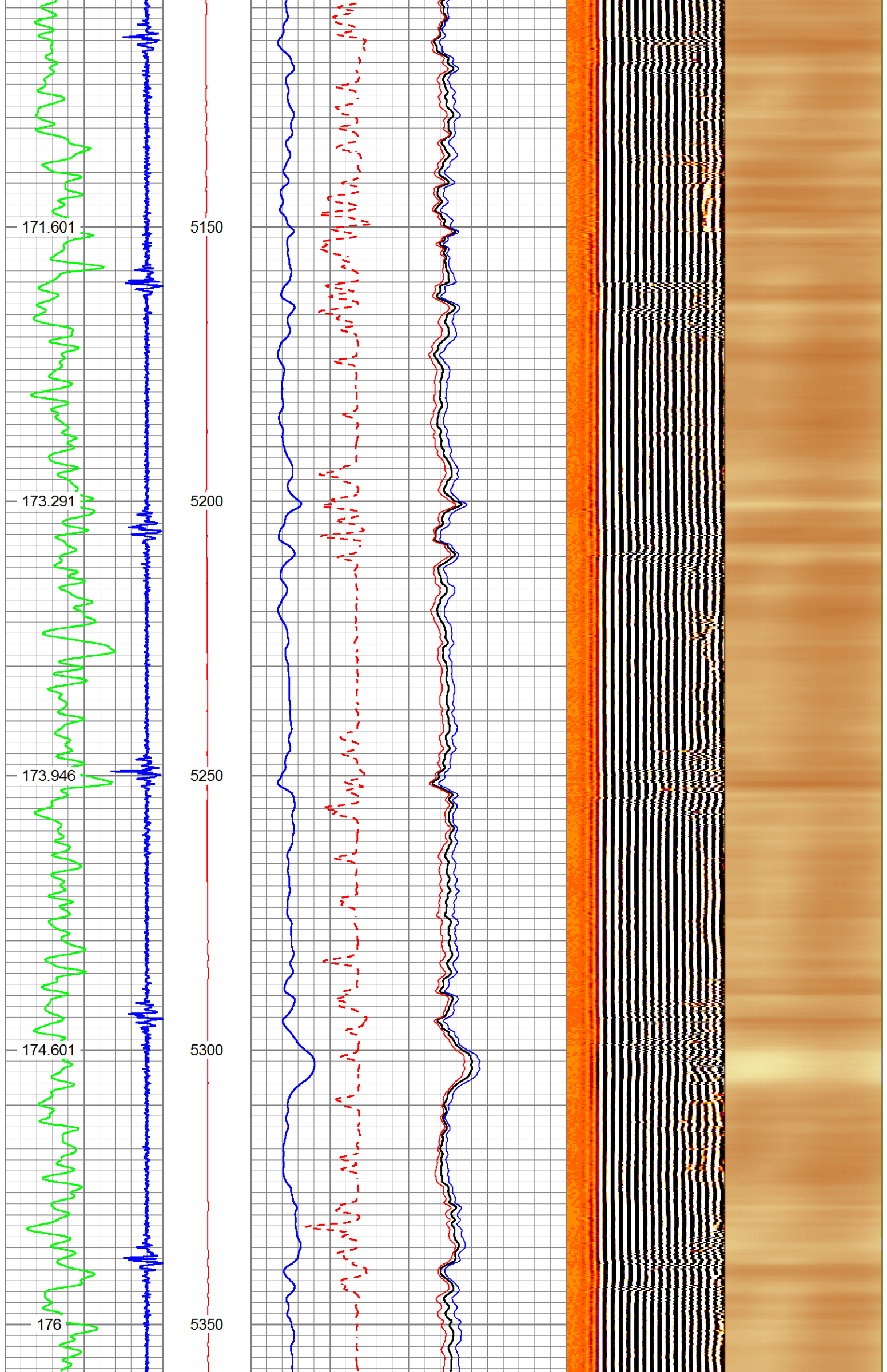


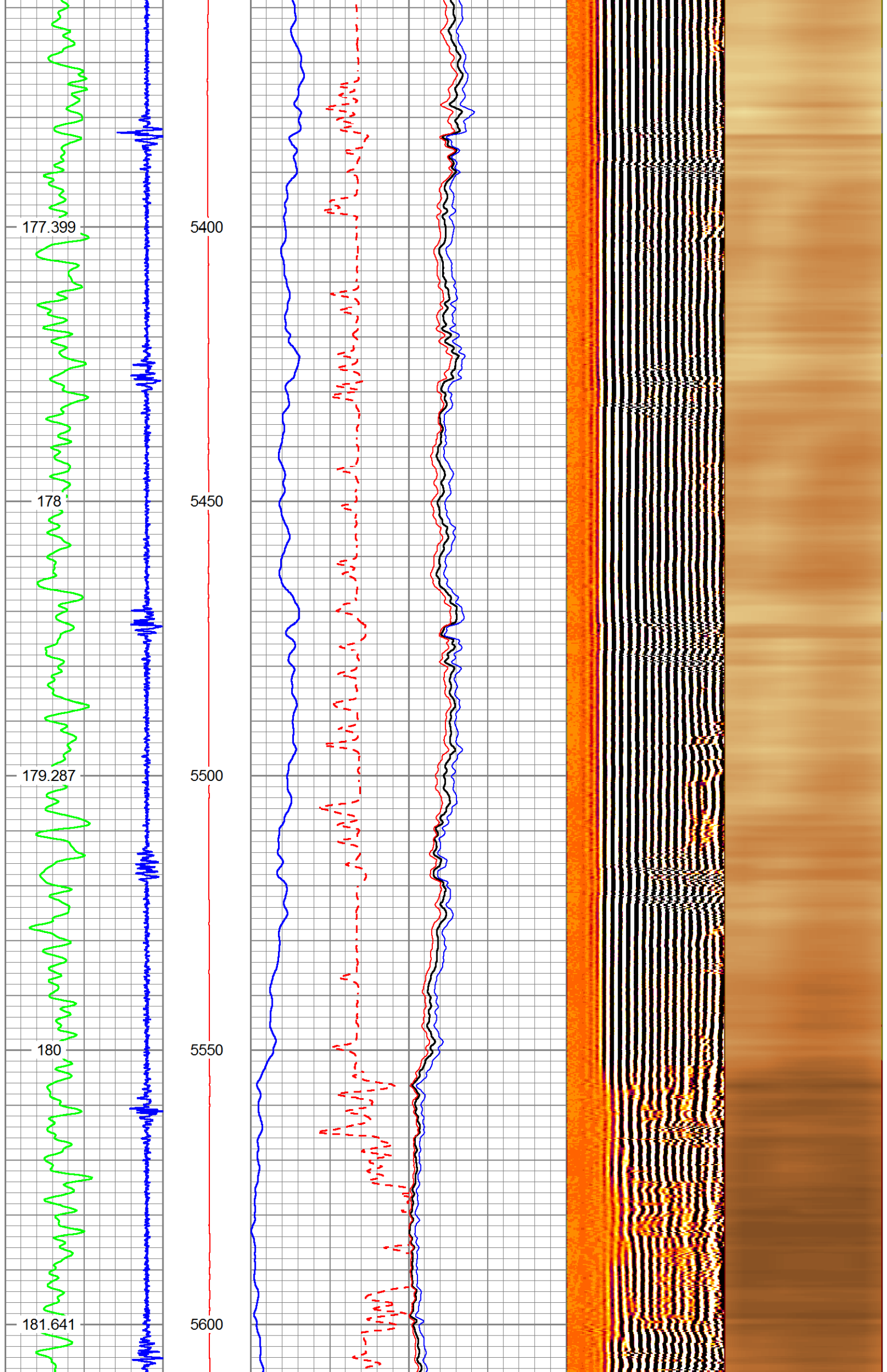


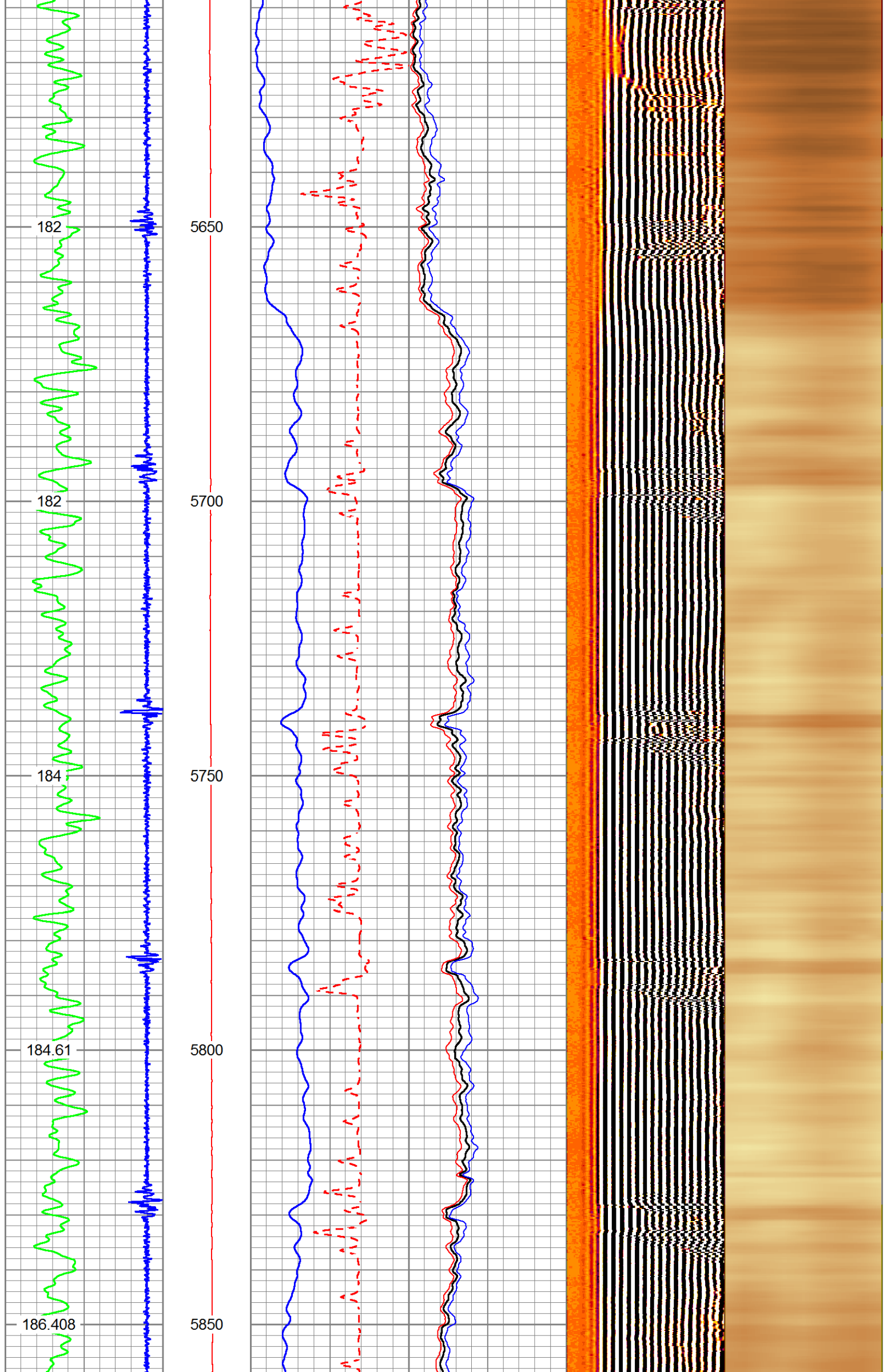


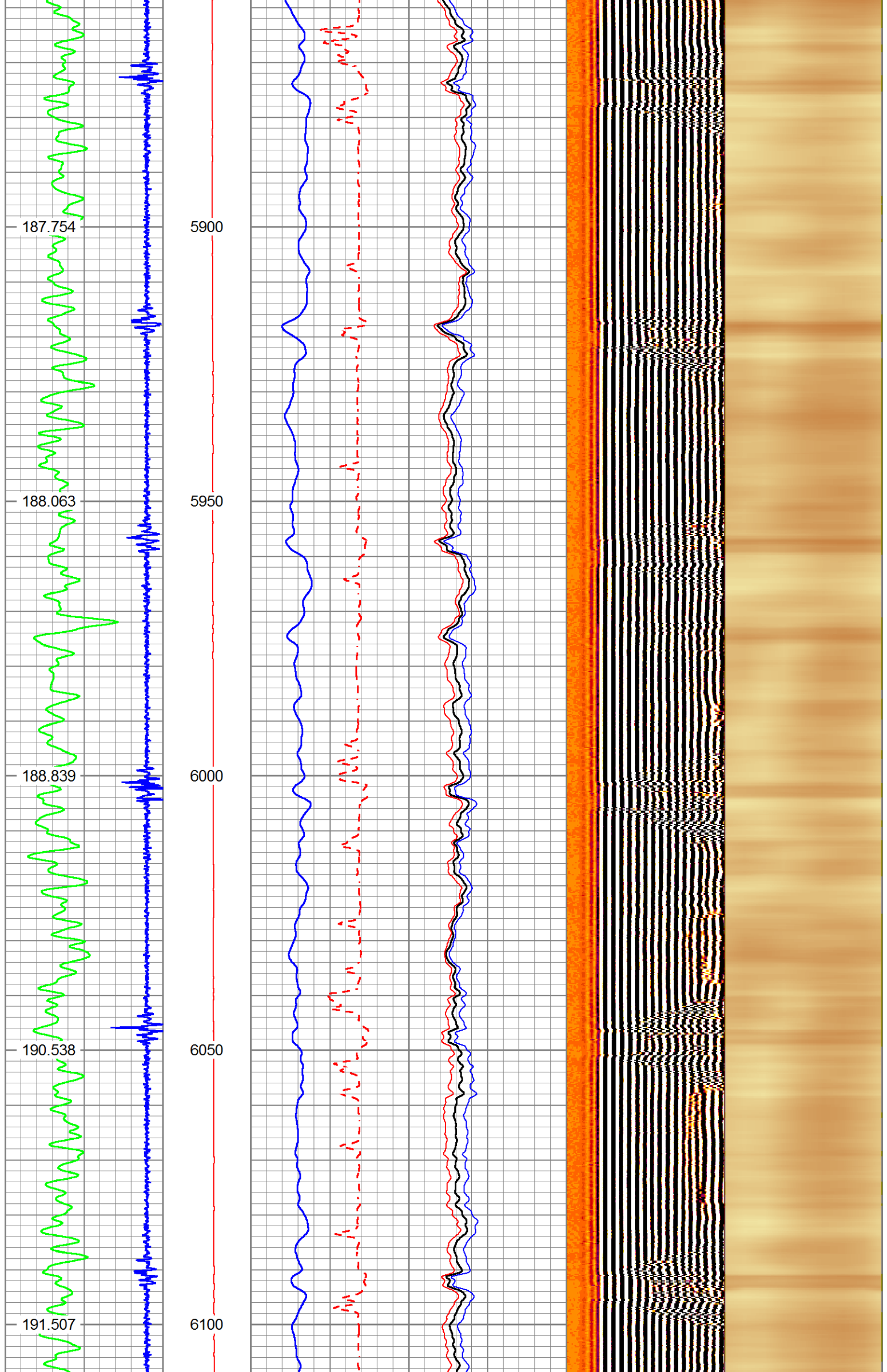


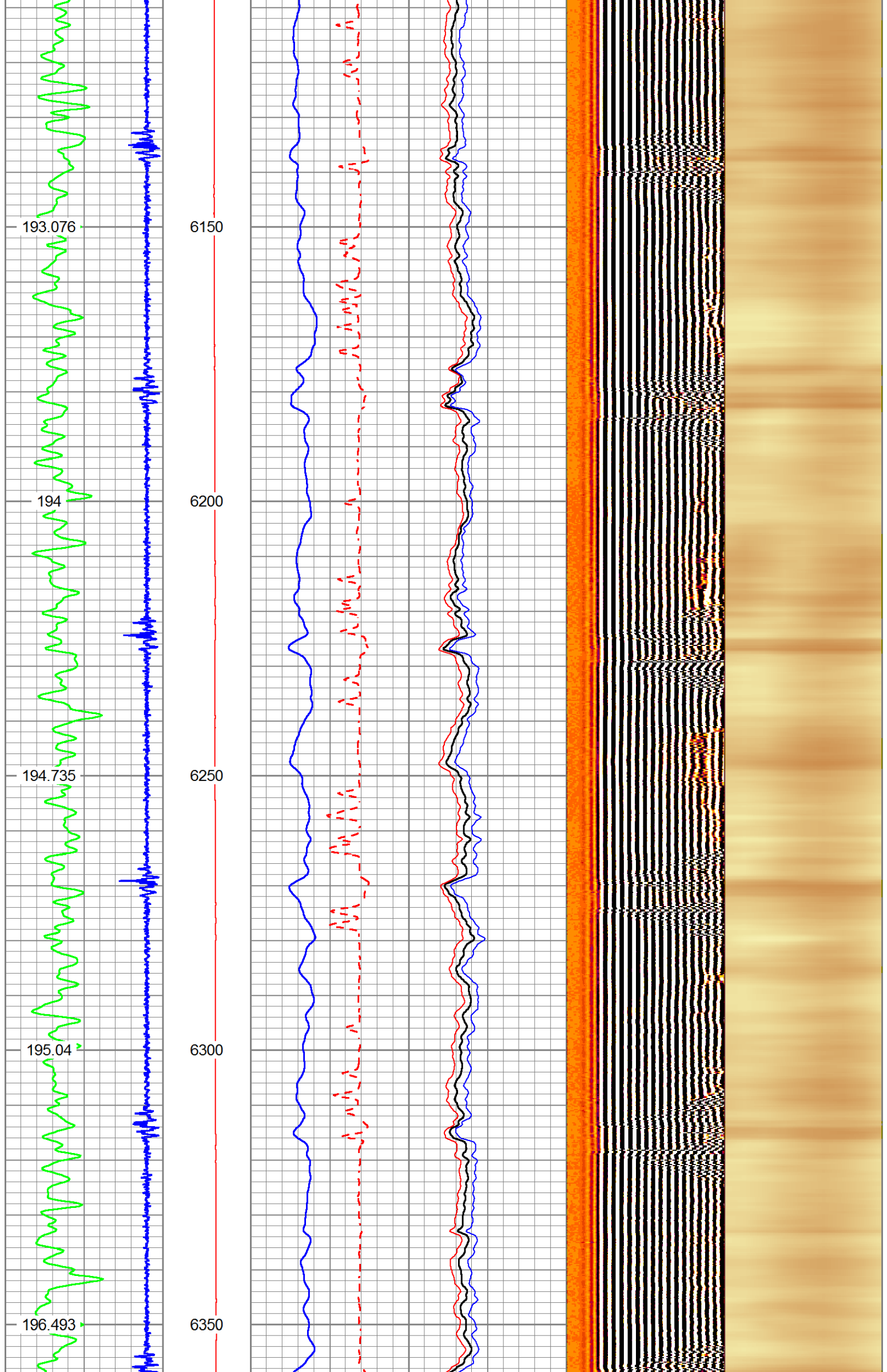


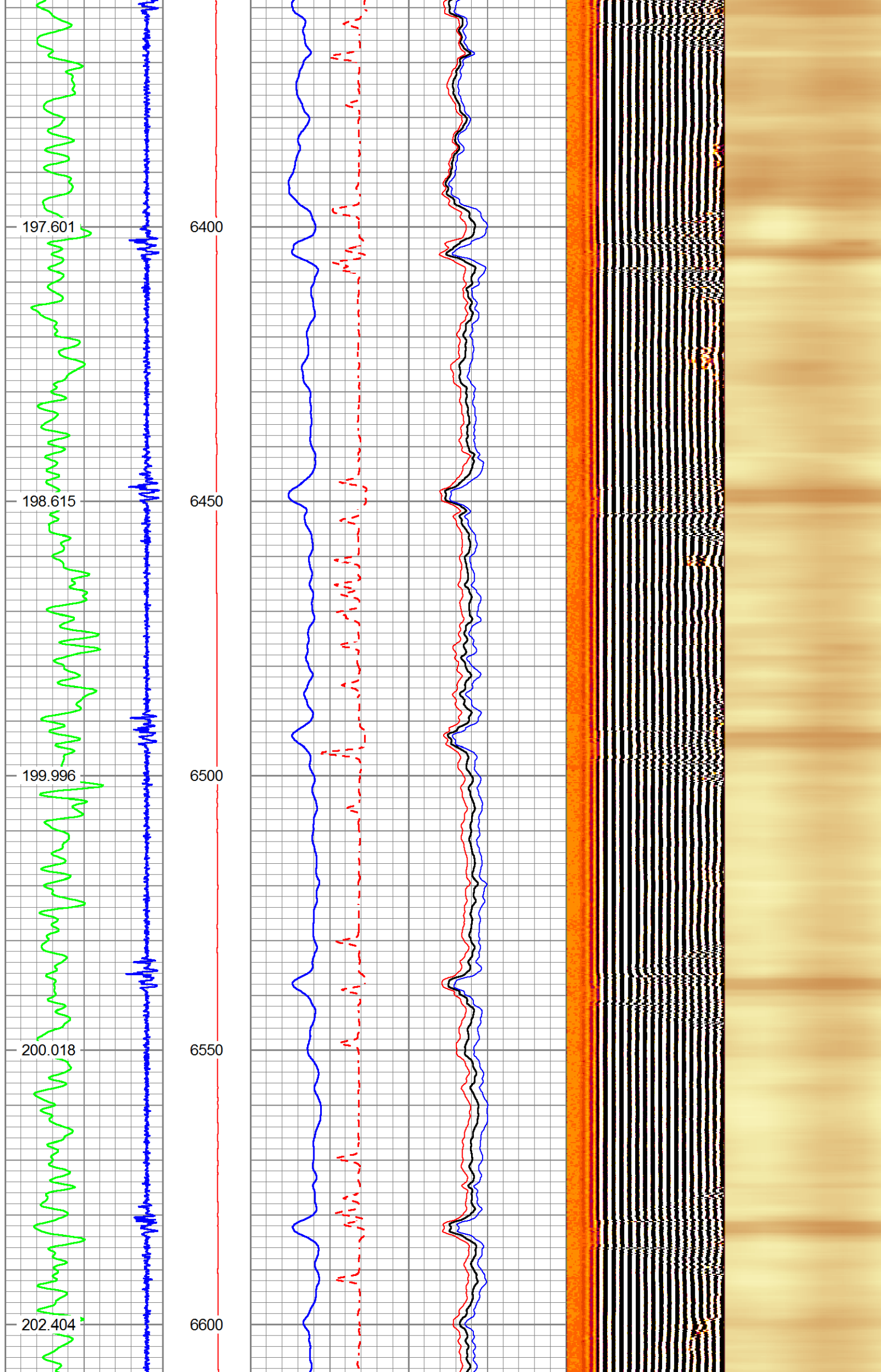


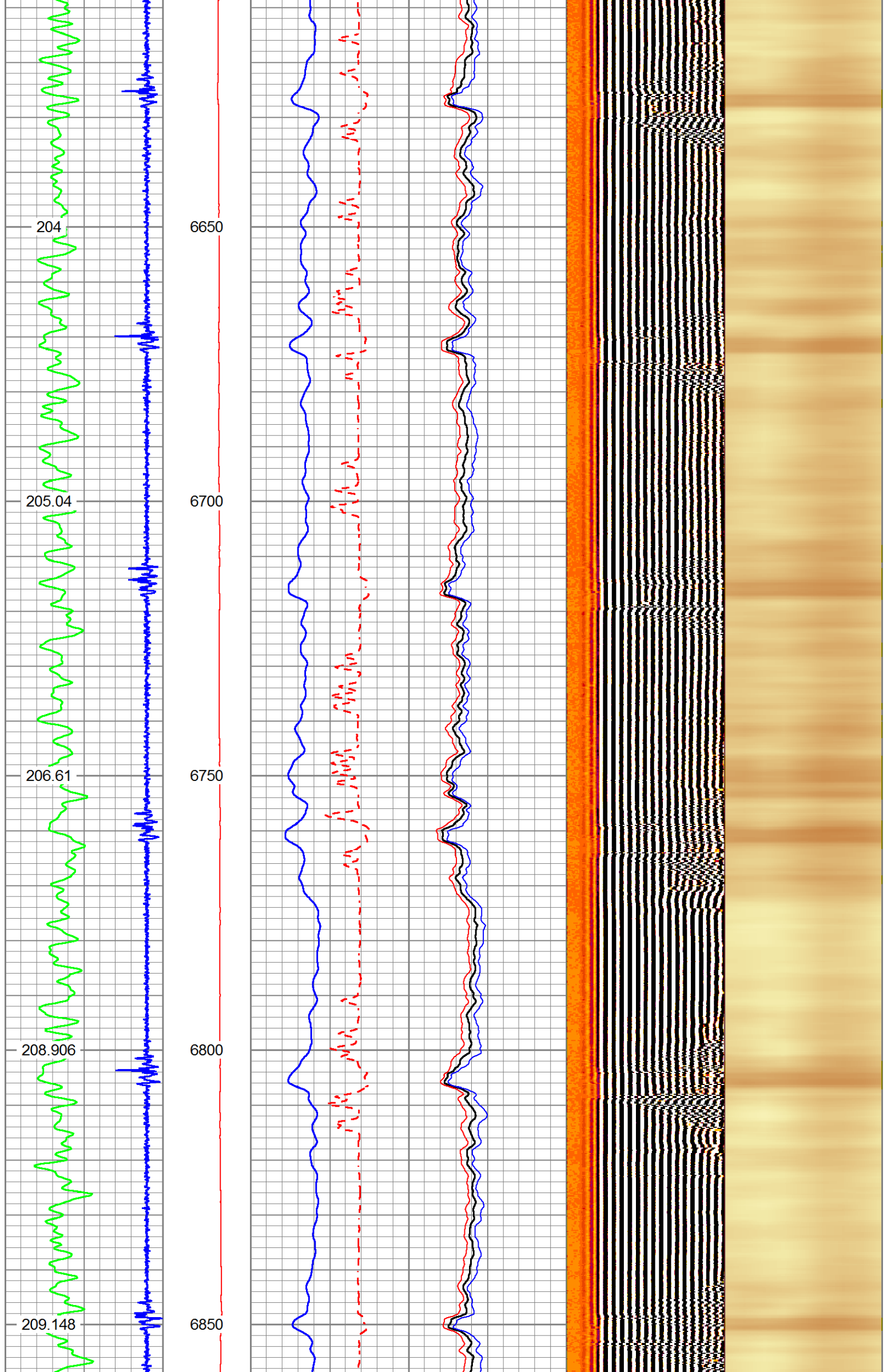


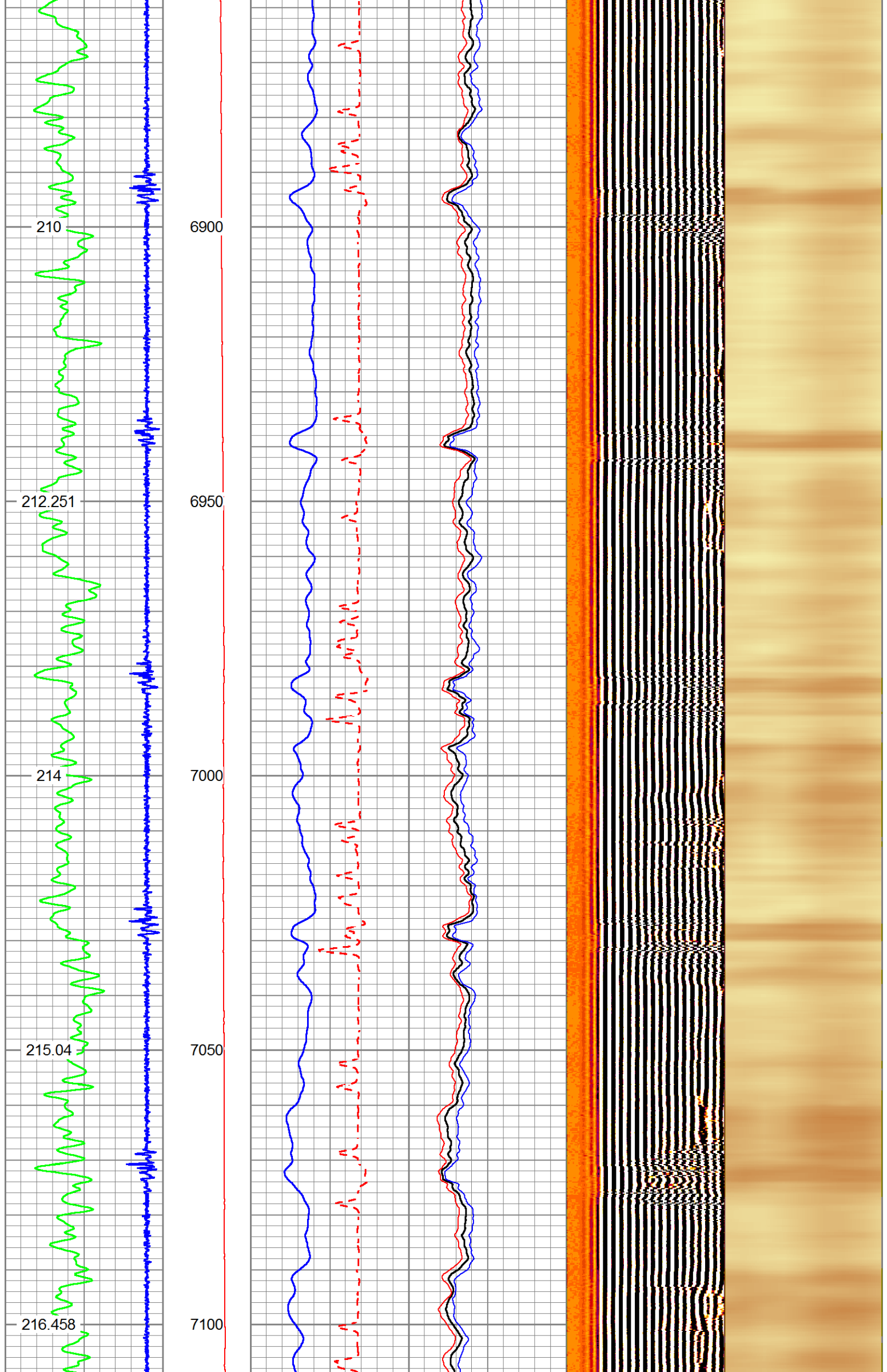


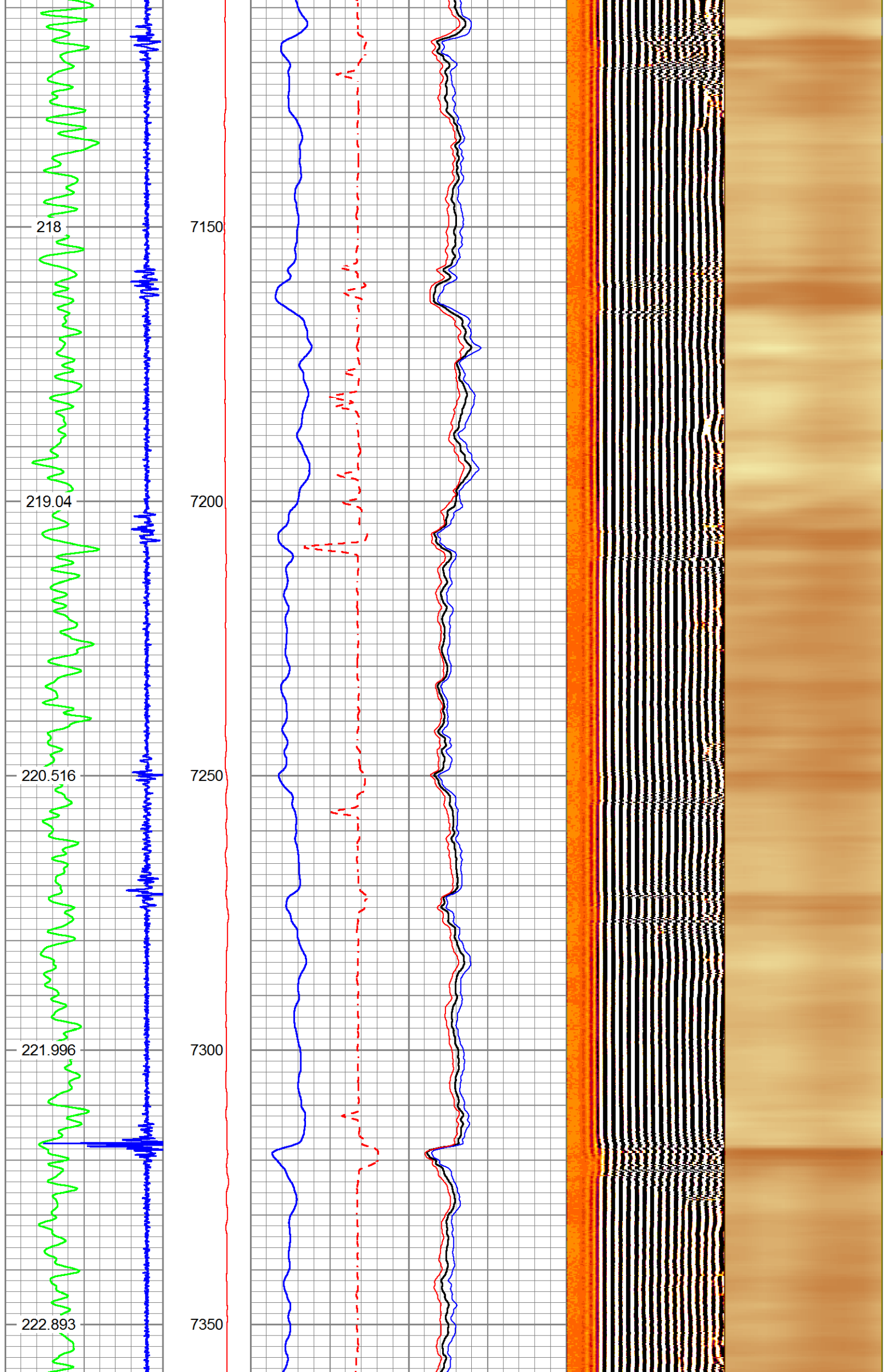


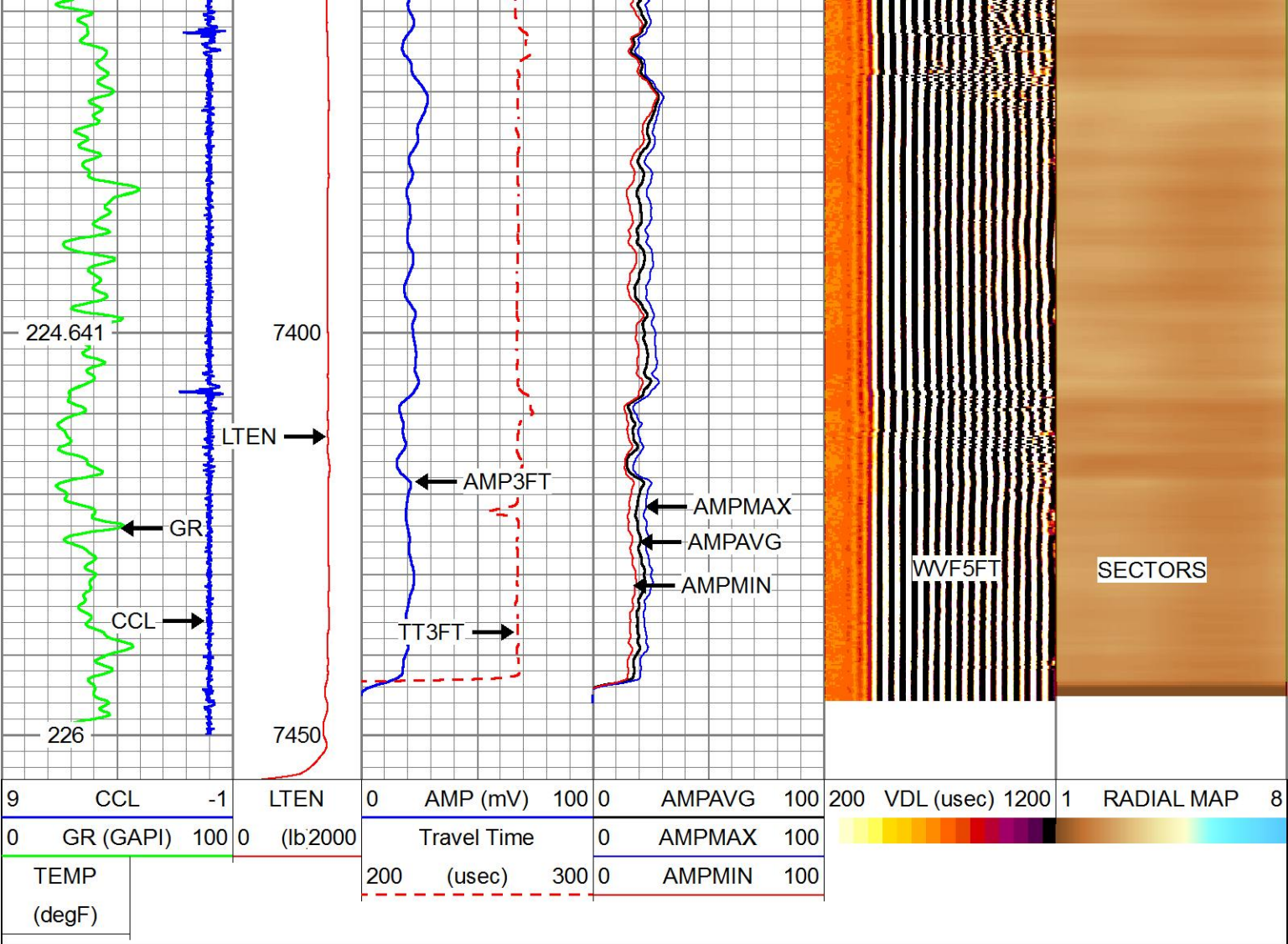












MAIN PASS

HALLIBURTON

5" = 100'

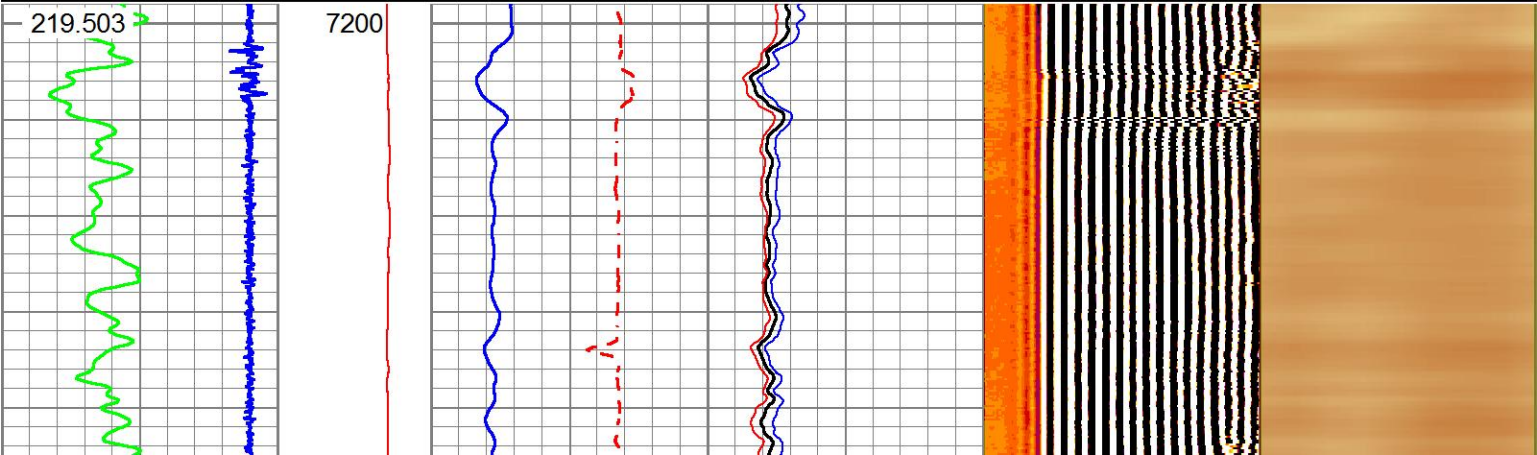
REPEAT PASS

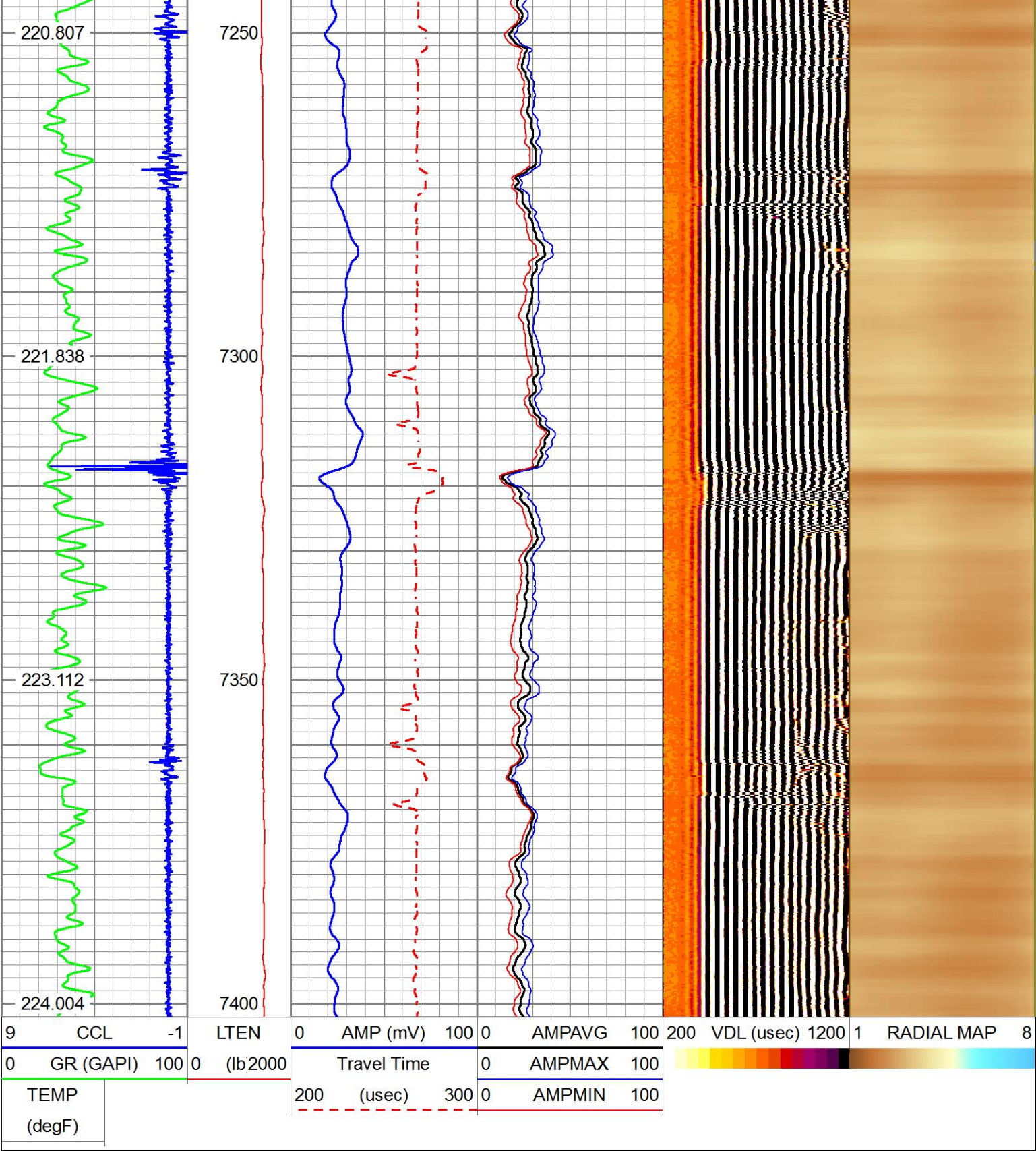
HALLIBURTON

5" = 100'

Database File	extraction coyote trails 33s_20_1n.db
Dataset Pathname	Coyote_Trails/33S-20-1N/run1/RPT.1
Presentation Format	EXTRAC~1
Dataset Creation	Mon Jul 22 21:36:13 2019
Charted by	Depth in Feet scaled 1:240

9	CCL	-1	LTEN	0	AMP (mV)	100	0	AMPAVG	100	200	VDL (usec)	1200	1	RADIAL MAP	8
0	GR (GAPI)	100	0	(lb/2000)	Travel Time		0	AMPMAX	100						
TEMP				200	(usec)	300	0	AMPMIN	100						
(degF)															





REPEAT PASS

HALLIBURTON

5" = 100'

Log Variables


DatabaseC:\ProgramData\Warrior\Data\extraction coyote trails 33s\_20\_1n.db  
Dataset Coyote\_Trails\33S-20-1N\run1\MAIN FINAL\\_vars\_

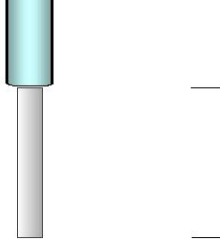
Top - Bottom

BHTEMP_Src	BITSIZE	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL
TEMP	in	degF	in	in	lb/ft	mV	mV
	7.875	100	5.5	0.361	20	72	2
MINATTN	MudWgt	PERFS	PPT	SRFTEMP	TDEPTH		
db/ft	lb/gal		usec	degF	ft		
0.8	8.3	0	212	70	16000		

Calibration Report						
Database File	extraction coyote trails 33s_20_1n.db					
Dataset Pathname	Coyote_Trails/33S-20-1N/run1/RPT.1					
Dataset Creation	Mon Jul 22 21:36:13 2019					
Temperature Calibration Report						
Serial Number:		001				
Tool Model:		T_Temp				
Performed:		Mon Apr 04 13:27:25 2011				
		Reference		Reading		
Low Reference:		0.00	degF	0.00	cps	
High Reference:		1.00	degF	1.00	cps	
Gain:		0.10				
Offset:		0.00				
Delta Spacing		1				
Gamma Ray Calibration Report						
Serial Number:		pr050806				
Tool Model:		probe275dig				
Performed:		Tue Nov 01 09:40:24 2005				
Calibrator Value:		240.0	GAPI			
Background Reading:		79.3	cps			
Calibrator Reading:		459.5	cps			
Sensitivity:		0.6312	GAPI/cps			
Segmented Cement Bond Log Calibration Report						
Serial Number:		051010				
Tool Model:		Probe				
Calibration Casing Diameter:		5.500	in			
Calibration Depth:		526.706	ft			
Master Calibration, performed Mon Jul 22 17:24:06 2019:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.541	1.000	72.000	134.177	-0.559
CAL	0.012	0.660				
5'	0.017	0.246	1.000	72.000	310.369	-4.372
SUM						
S1	0.011	0.641	0.000	72.000	114.296	-1.226
S2	0.010	0.610	0.000	72.000	120.105	-1.248
S3	0.011	0.576	0.000	72.000	127.397	-1.345
S4	0.011	0.554	0.000	72.000	132.482	-1.423
S5	0.011	0.542	0.000	72.000	135.567	-1.519
S6	0.011	0.534	0.000	72.000	137.748	-1.549
S7	0.011	0.538	0.000	72.000	136.752	-1.559
S8	0.011	0.564	0.000	72.000	130.115	-1.415
Internal Reference Calibration, performed Tue Oct 11 09:01:28 2005:						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.012	0.660	1.000	0.000
Air Zero Calibration, performed Mon Jul 22 15:56:42 2019:						
	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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
WVFCAL WVF3FT   WVF5FT	11.94		CHD-1-7/16 (12345678) Monocable Head Assembly	1.28	1.44	1.50
	11.94		CENT-Probe_275 Probe 2 3/4 Centralizer	2.88	2.75	20.00
			RBT_PRB275-Probe (051010) Probe Radii Bond Tool with Digital Telemetry	8.33	2.75	90.00
	9.94		CENT-Probe_275 Probe 2 3/4 Centralizer	2.88	2.75	20.00
			GR_PRB275-probe275dig (pr050806) Probe Digital Gamma CCL	4.75	2.75	57.00
CCL	5.40					
GR	4.02					

TEMP	0.42		TEMP-T_Temp (001) Titan 1.375 Temp Tool	1.48	1.38	5.00
Dataset: extraction coyote trails 33s_20_1n.db: Coyote_Trails/33S-20-1N/run1/RPT.1 Total length: 21.59 ft Total weight: 193.50 lb O.D.: 2.75 in						

Company	EXTRACTION OIL & GAS INC				
Well	COYOTE TRAILS 33S-20-1N				
Field	WATTENBERG				
County	WELD		State	CO	
HALLIBURTON	RADIAL CEMENT BOND LOG				