



Radial Cement Bond
Gamma Ray CCL
Temperature Log

Company Antero Resources Corporation Well McKean Unit 2H Field South Canton County Doddridge State WV	Company Antero Resources Corporation			
	Well McKean Unit 2H			
	Field South Canton			
	County Doddridge		State WV	
	API # : 47-017-06915-00-00 AFE # : A11775 Location (LAT,LON): 39.314661, -80.762677 Township: West Union			Other Services None
Permanent Datum Ground Level Elevation 1216' Log Measured From KB = 30' Drilling Measured From KB			Elevation K.B. 1246' D.F. 1246' G.L. 1216'	
Date	16 JUL 2022			
Run Number	One			
Depth Driller (ft)	22956			
Depth Logger (ft)	7462			
Bottom Logged Interval (ft)	7450			
Top Log Interval	Surface			
Open Hole Size (in)	8.5			
Type Fluid	Water			
Density / Viscosity (lb/gal)	8.4			
Max. Recorded Temp. (°F)	151.6			
Estimated Cement Top (ft)	4700			
Time Well Ready	11:00 AM			
Time Logger on Bottom	02:57 PM			
Equipment Number	8018			
Location	Delmont, PA			
Recorded By	T. Trump			
Witnessed By	D. Fenstermaker			
Casing Record	Size (in)	Weight (lb/ft)	Top (ft)	Bottom (ft)
Conductor String	20	78.67	Surface	130
Surface String	13.375	54.5	Surface	364
Intermediate String	9.625	36	Surface	2642
Production String	5.5	23	Surface	22936
Inclination Information (Approximated Values from Directional Survey)				
KOP	30°	60°	90°	
800'	6880'	7250'	7600'	
THANK YOU FOR USING GR ENERGY SERVICES				

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 Correlated to Bottom Log Marker Joint
Log Adjusted + 0.25'
Marker Joint Located @ 6260' - 6271'

Maximum Temperature Recorded was 151.6°F
Maximum Tension 1466 lbs

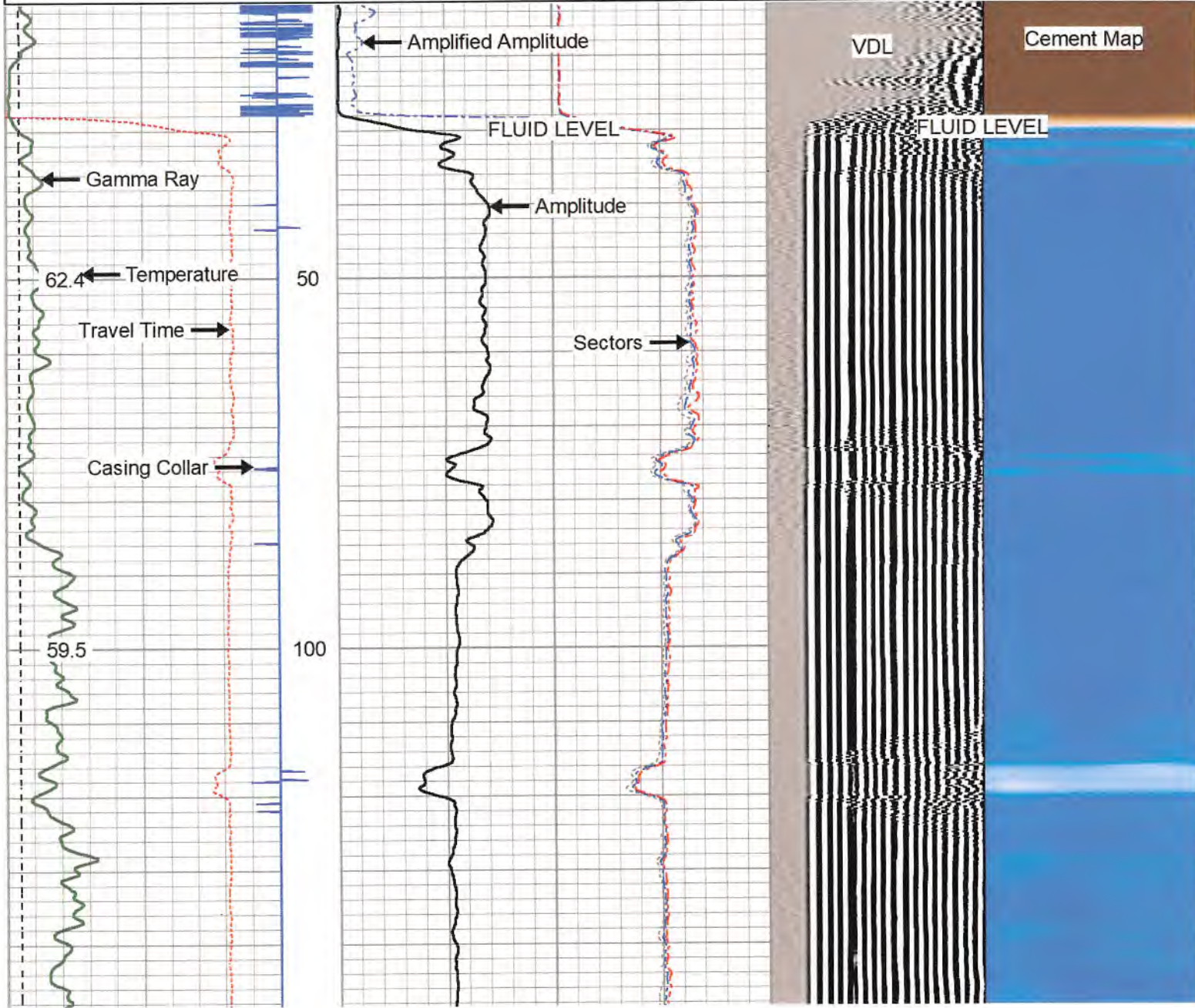
Estimated Top of Cement @ 4700'

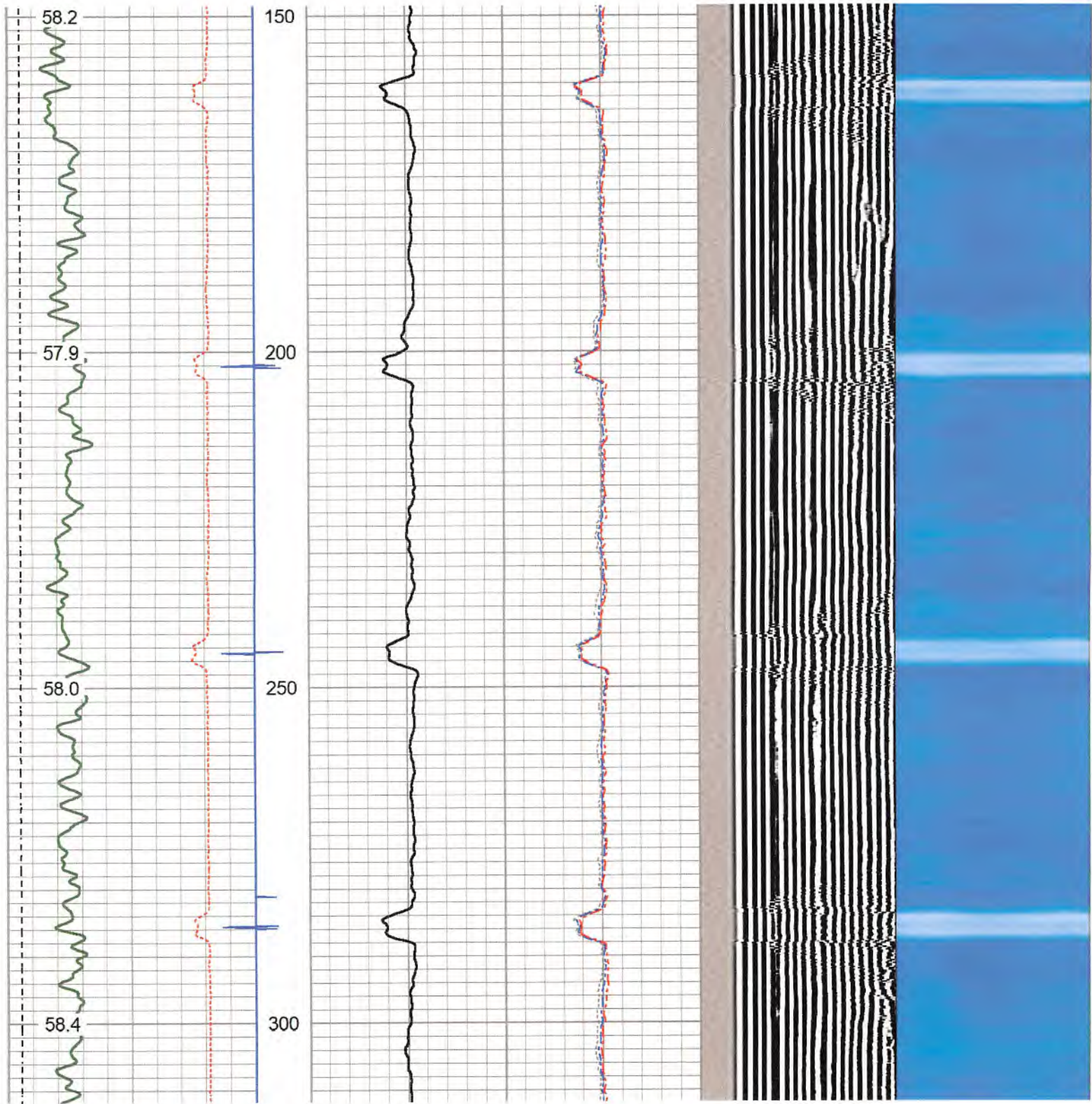


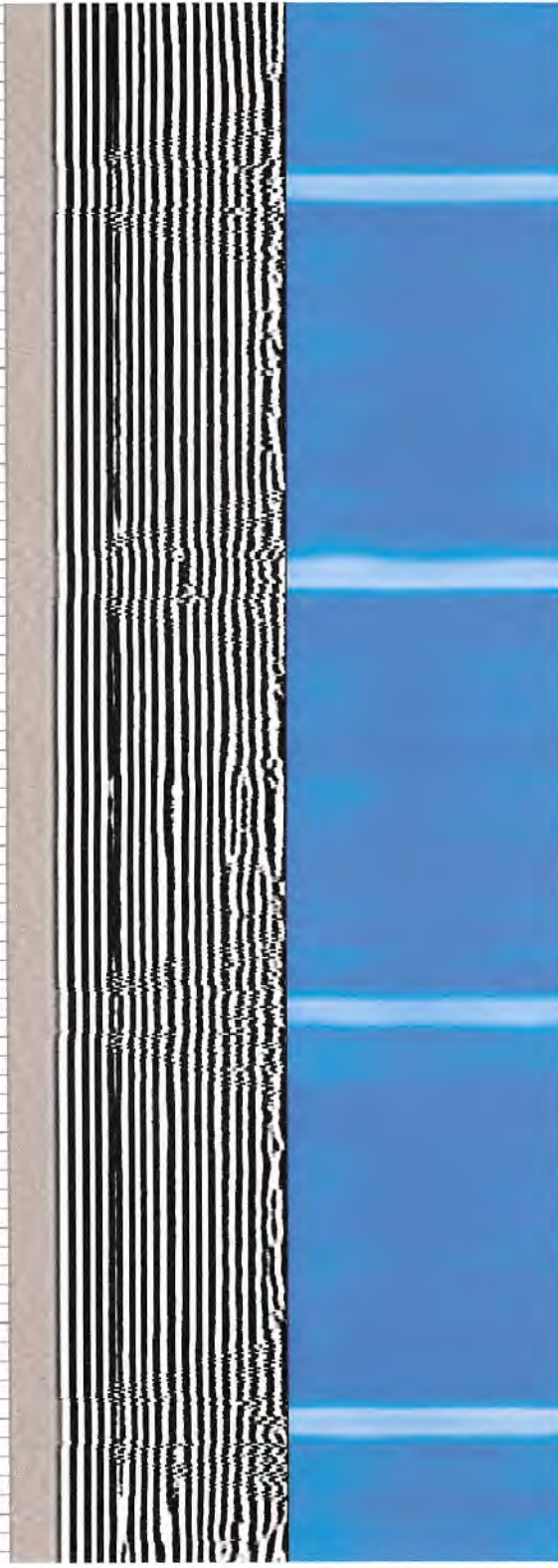
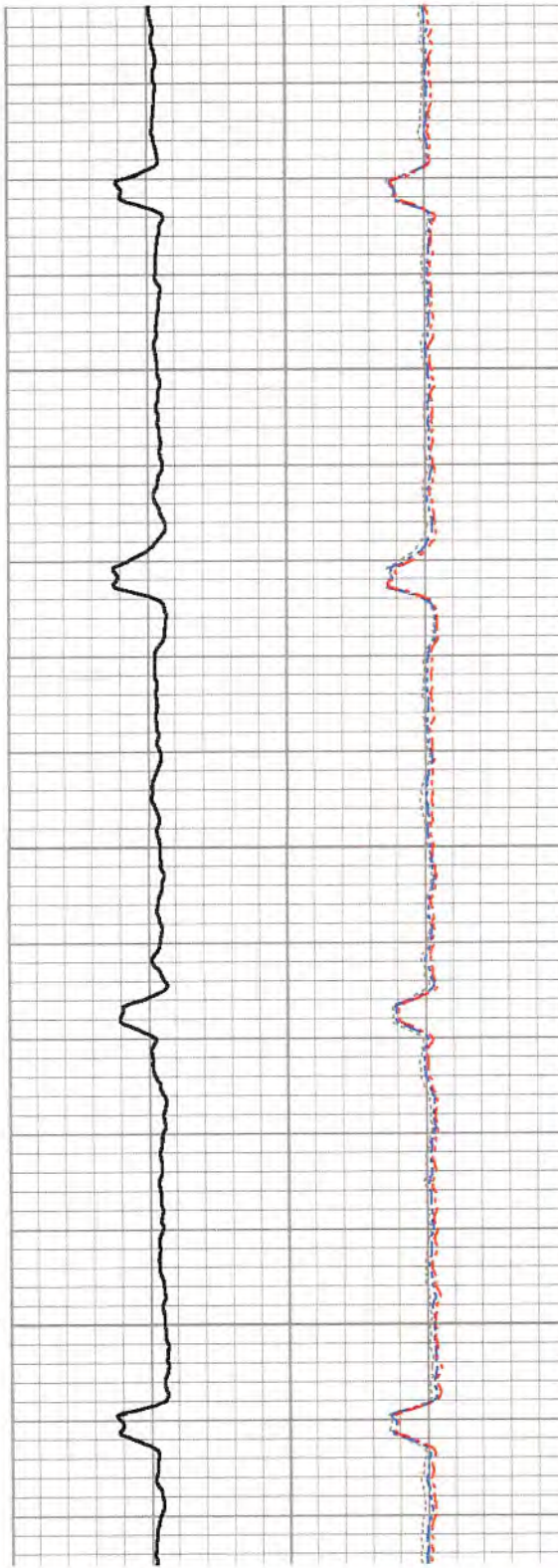
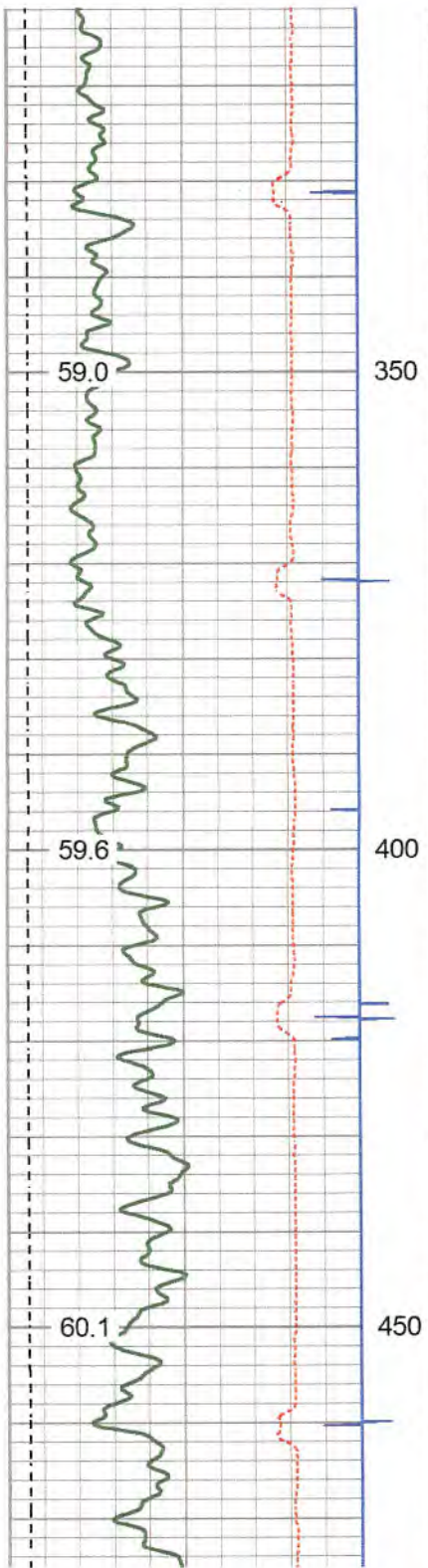
Main Pass (1500 PSI)

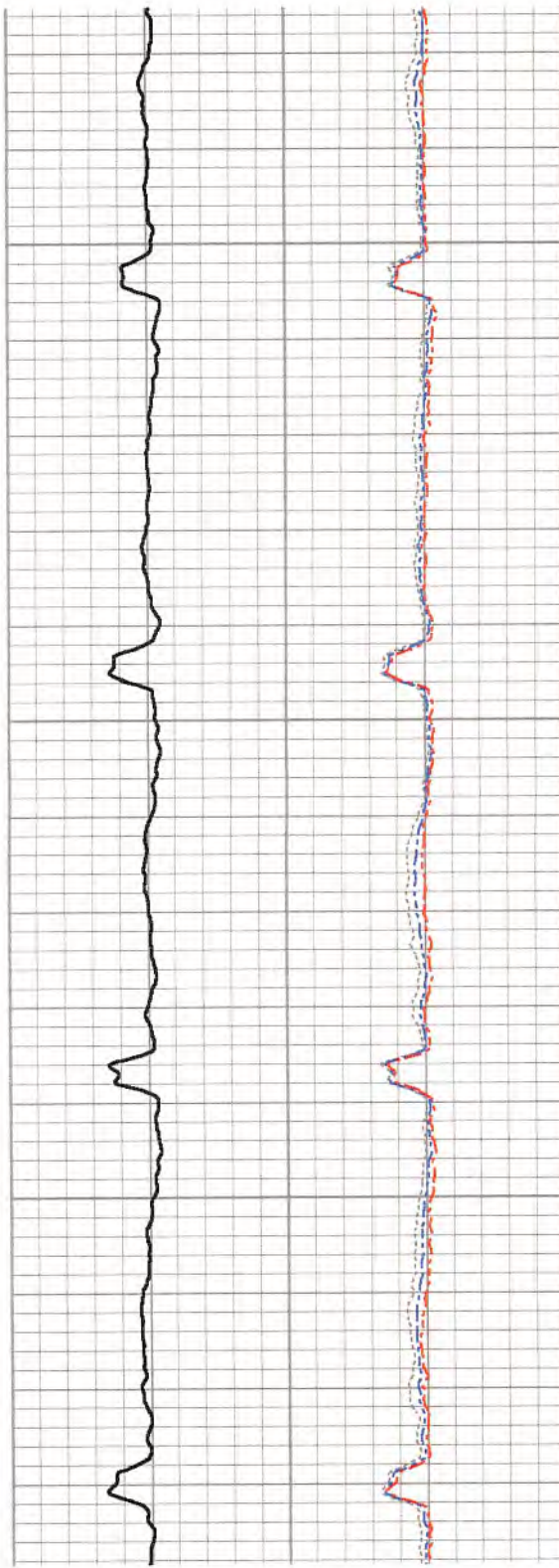
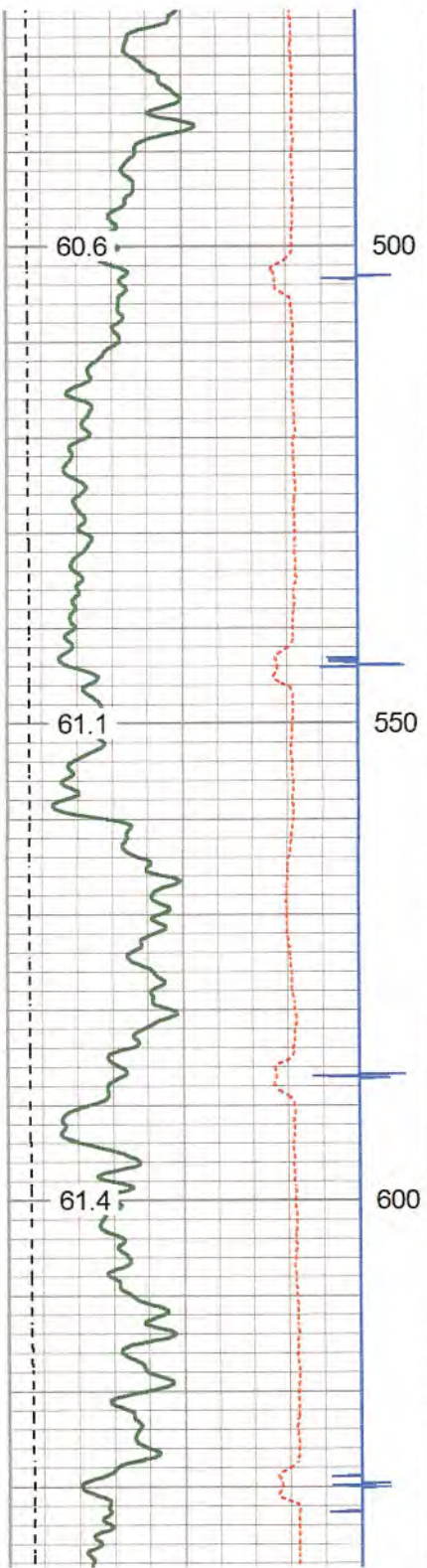
Database File	c:\users\logbox\desktop\antero gaspar\ant_gaspar_mckean_2h.db
Dataset Pathname	rcbl/pass9
Presentation Format	tt_rcbl_std_bw
Dataset Creation	Sat Jul 16 18:10:05 2022
Charted by	Depth in Feet scaled 1:240

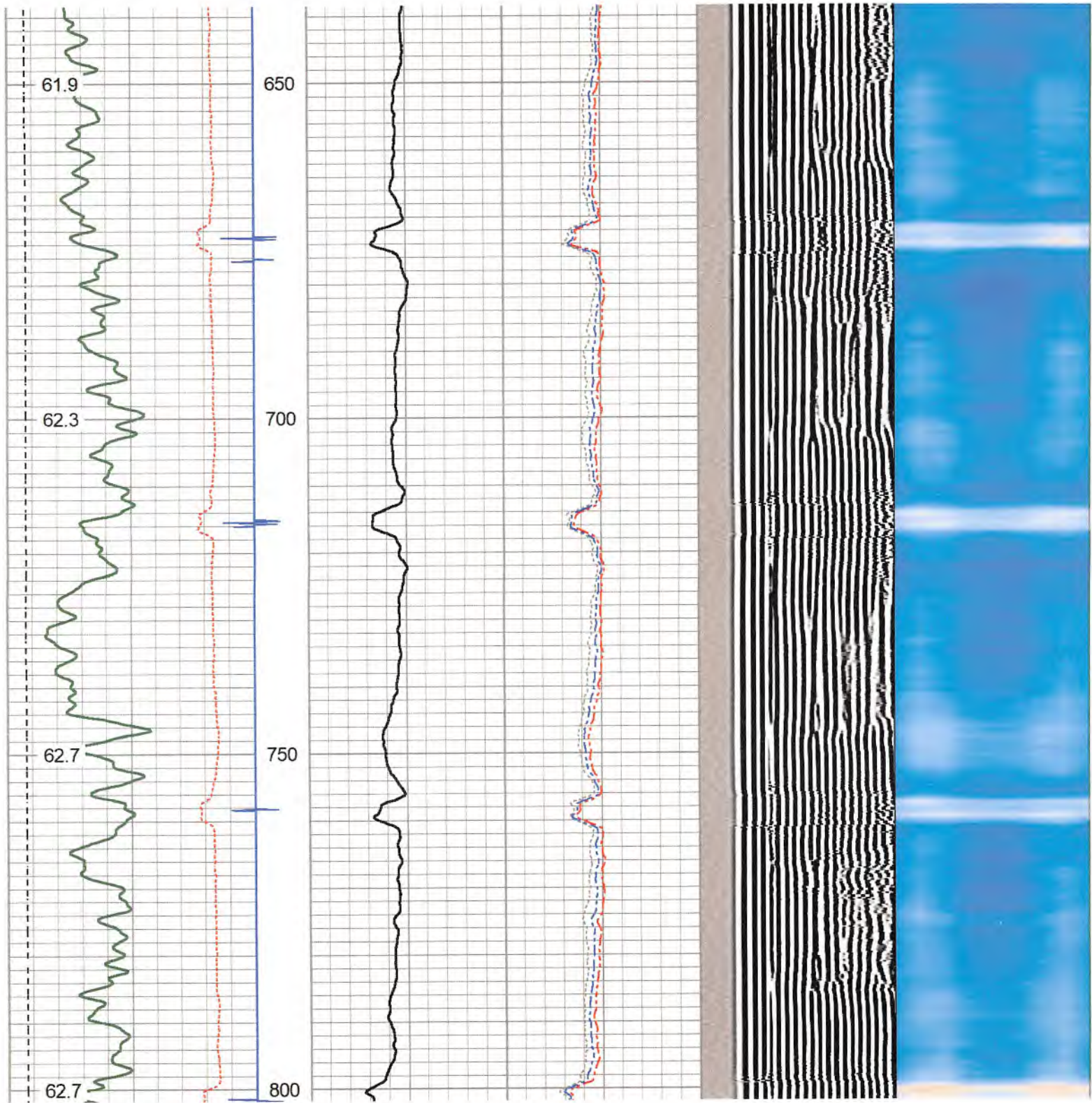
340	Travel Time (usec)	240	0	Amplitude (mV)	100	-5	AMPMin	150	200	VDL (usec)	1200	Cement Map
0	Gamma Ray (GAPI)	150		Amplified Amplitude		-5	AMPAvg	150				
0	Line Tension (lb)	3000	0	(mV)	10	-5	AMPMax	150				
TEMP (degF)		CCL										

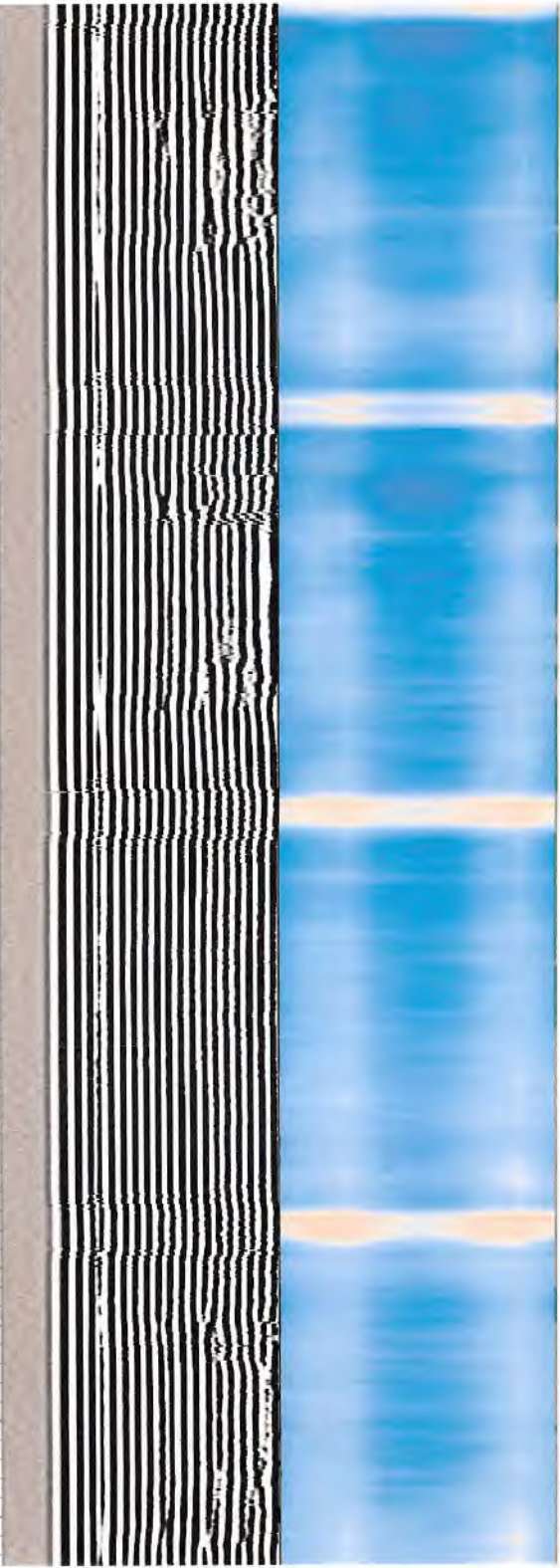
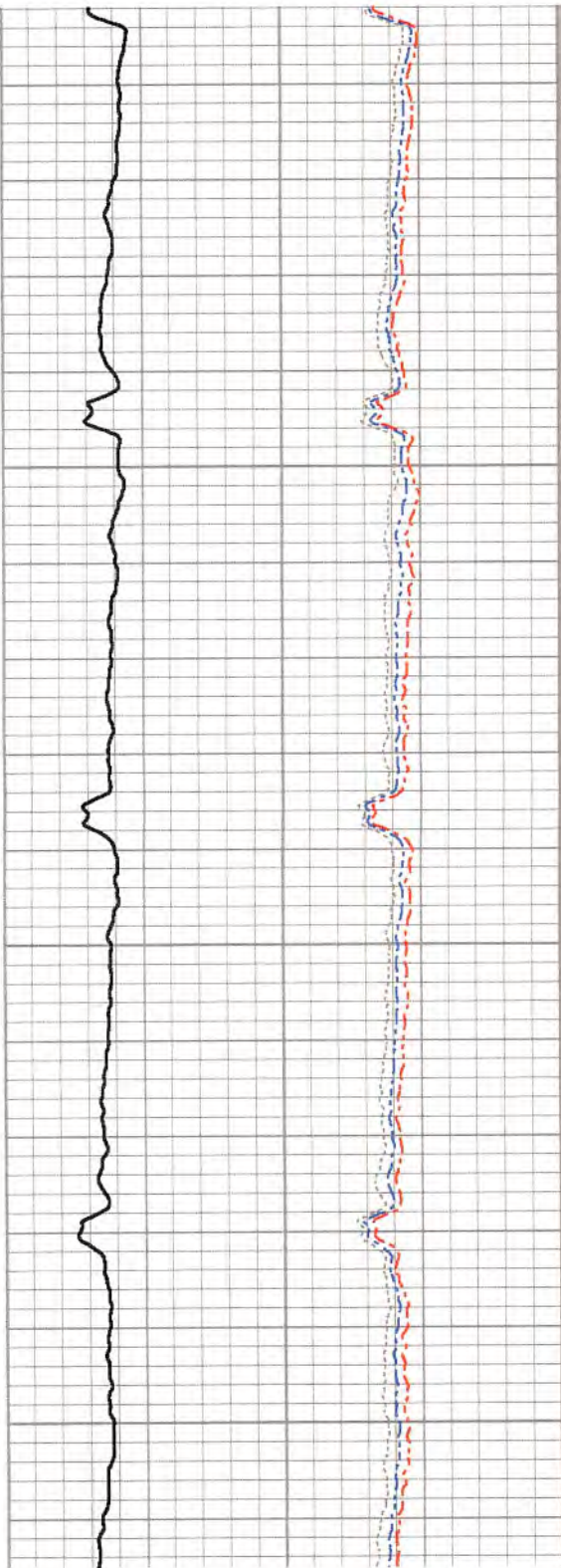
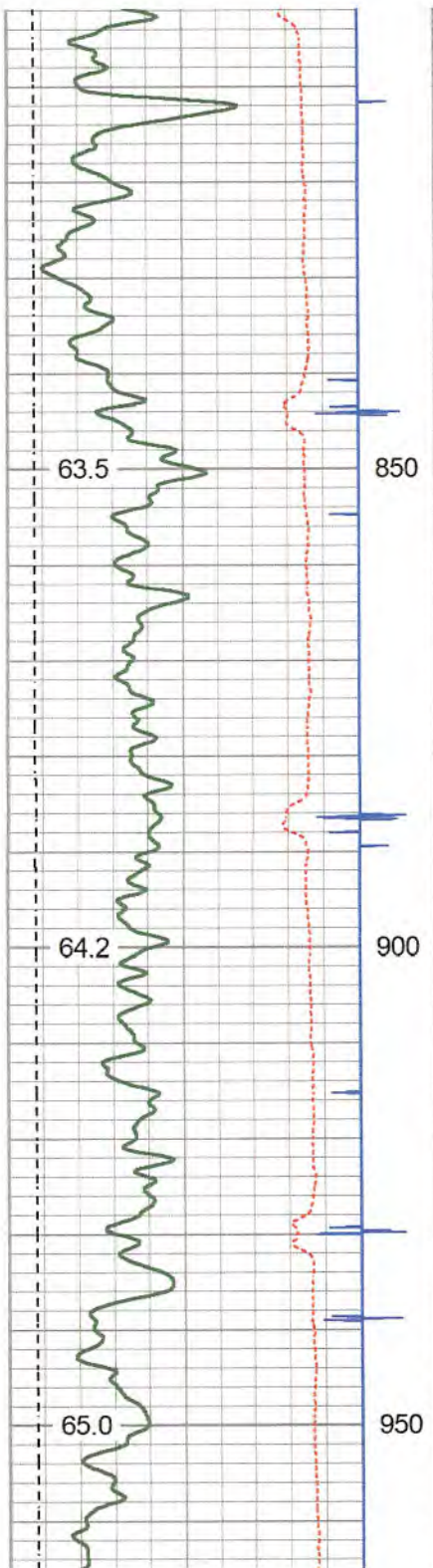


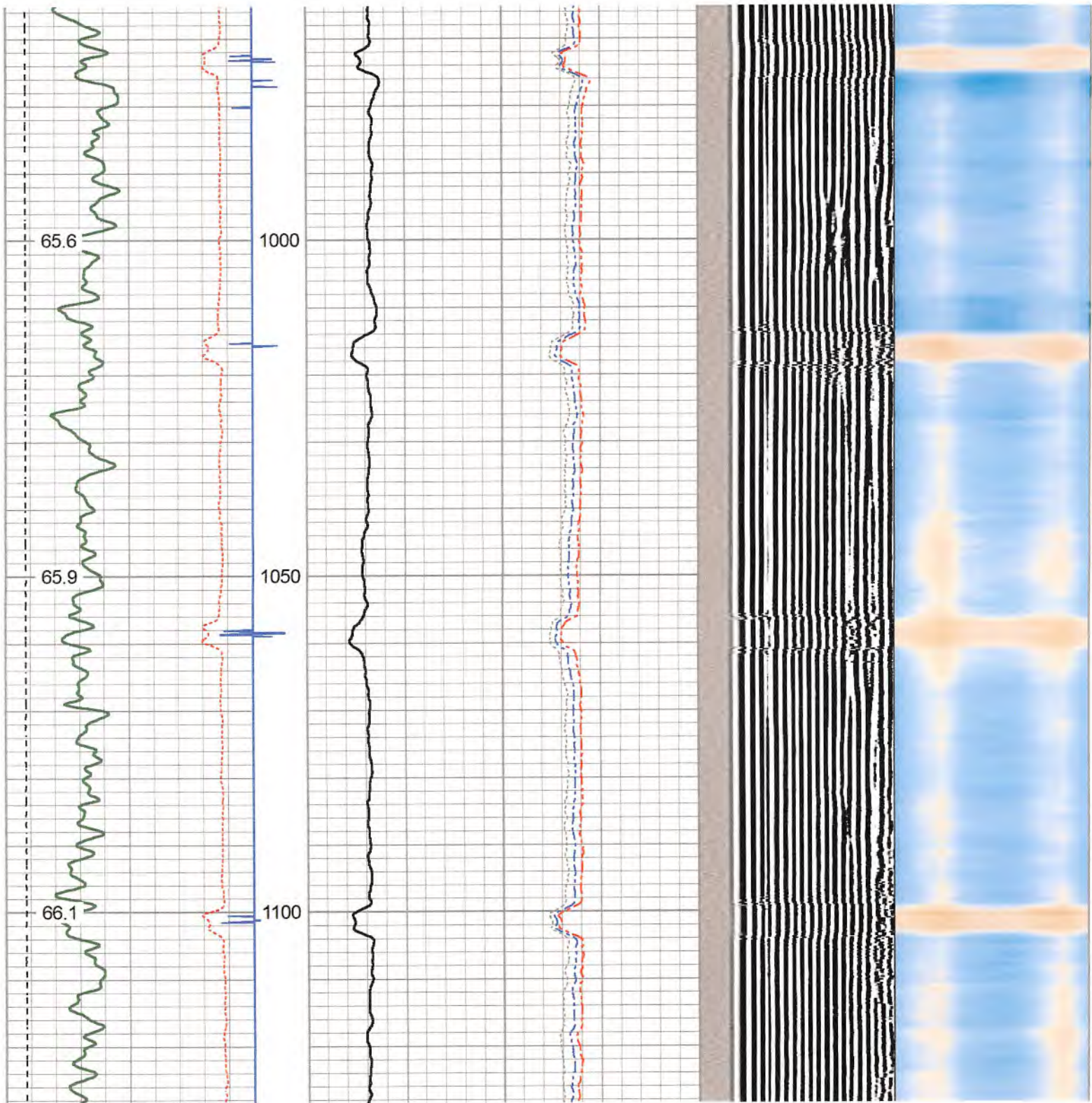


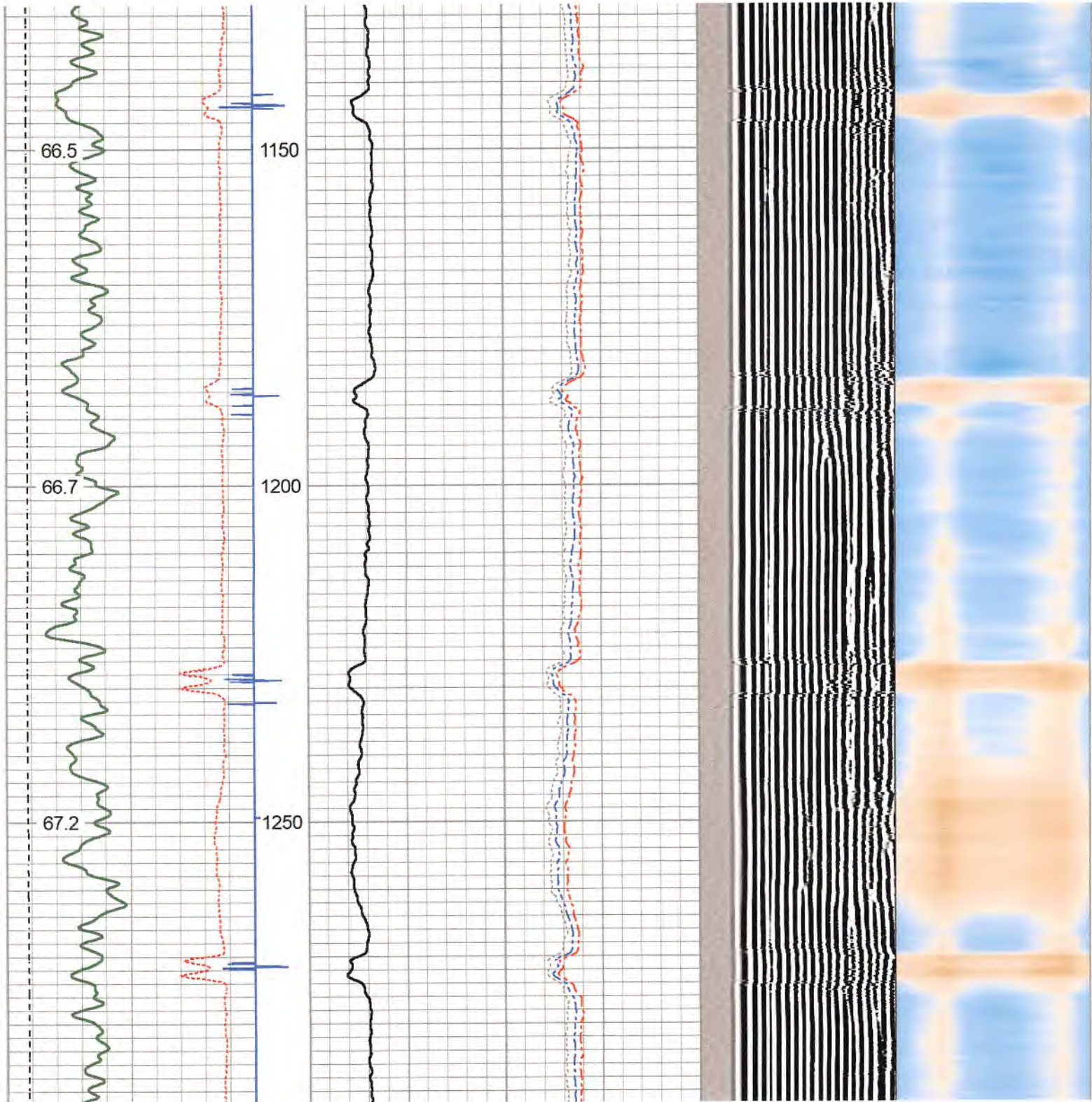


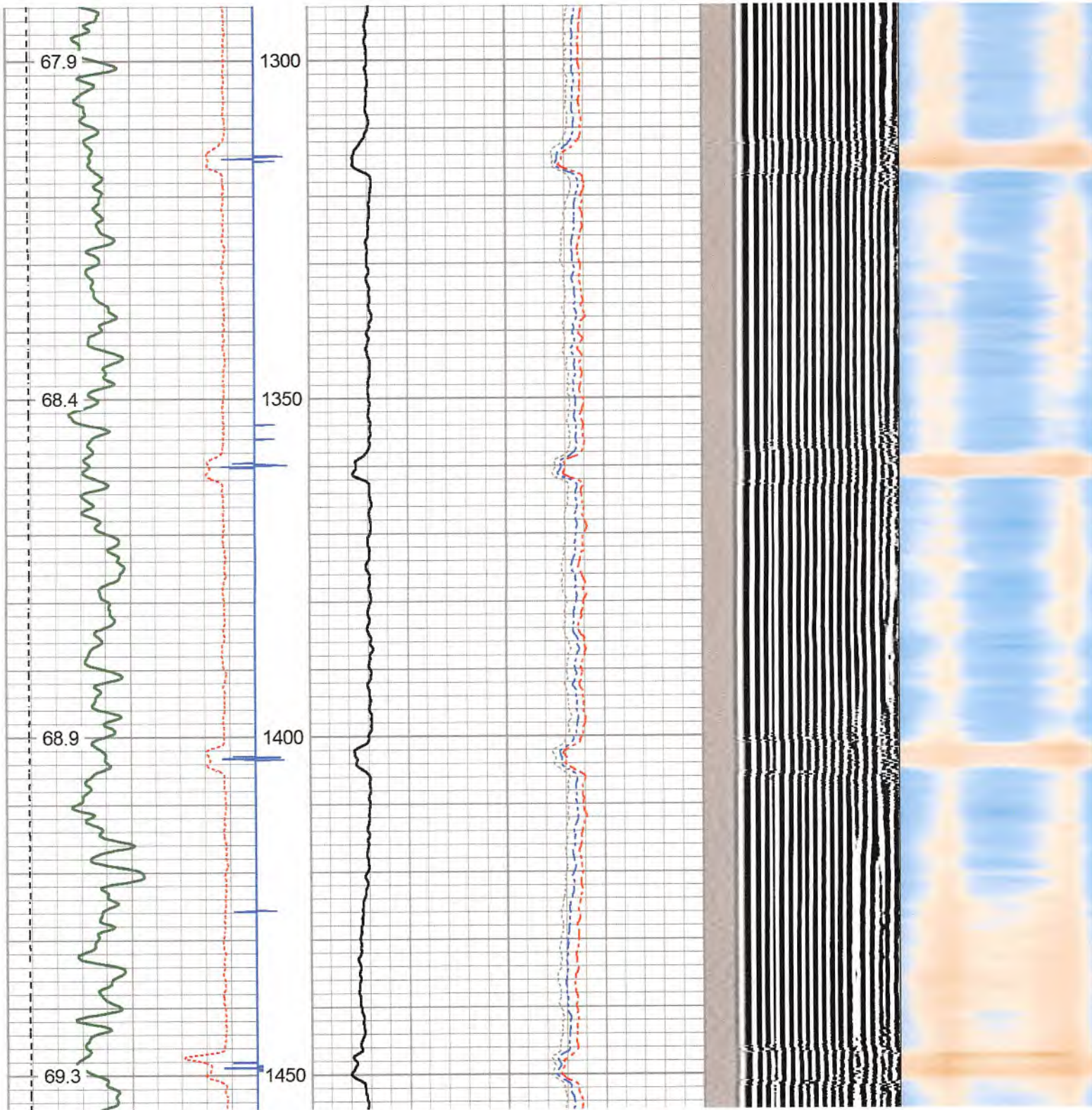


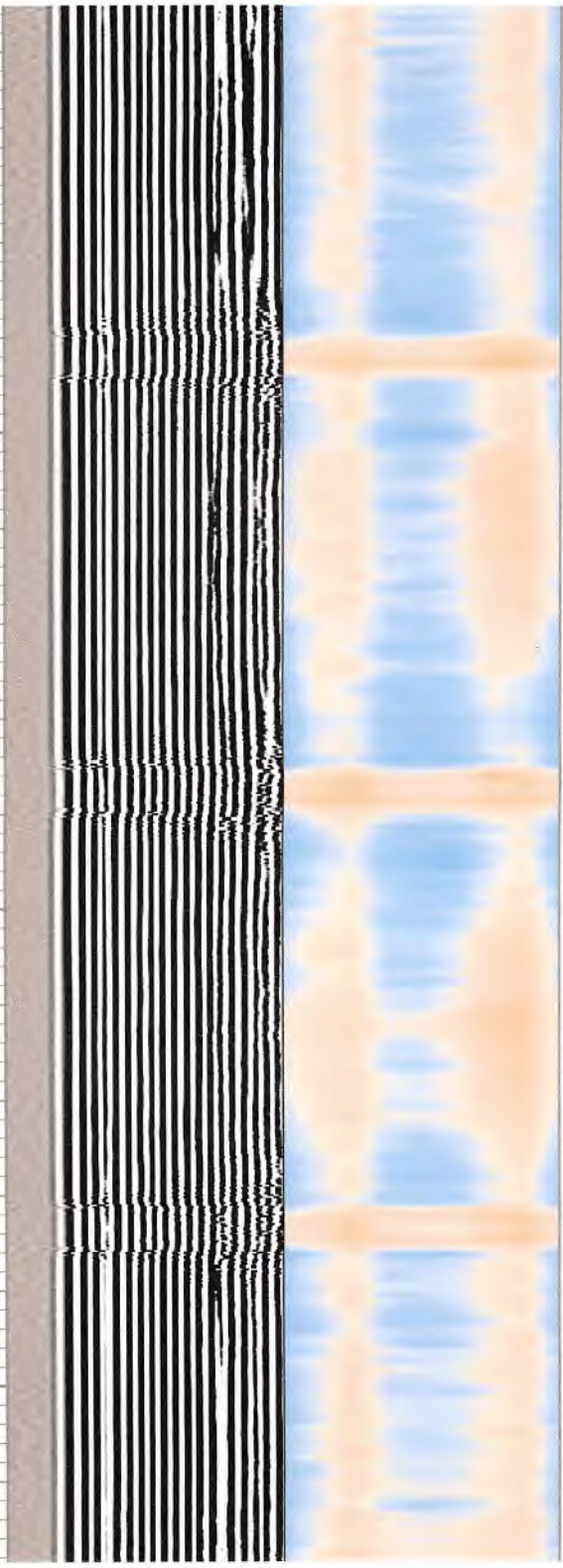
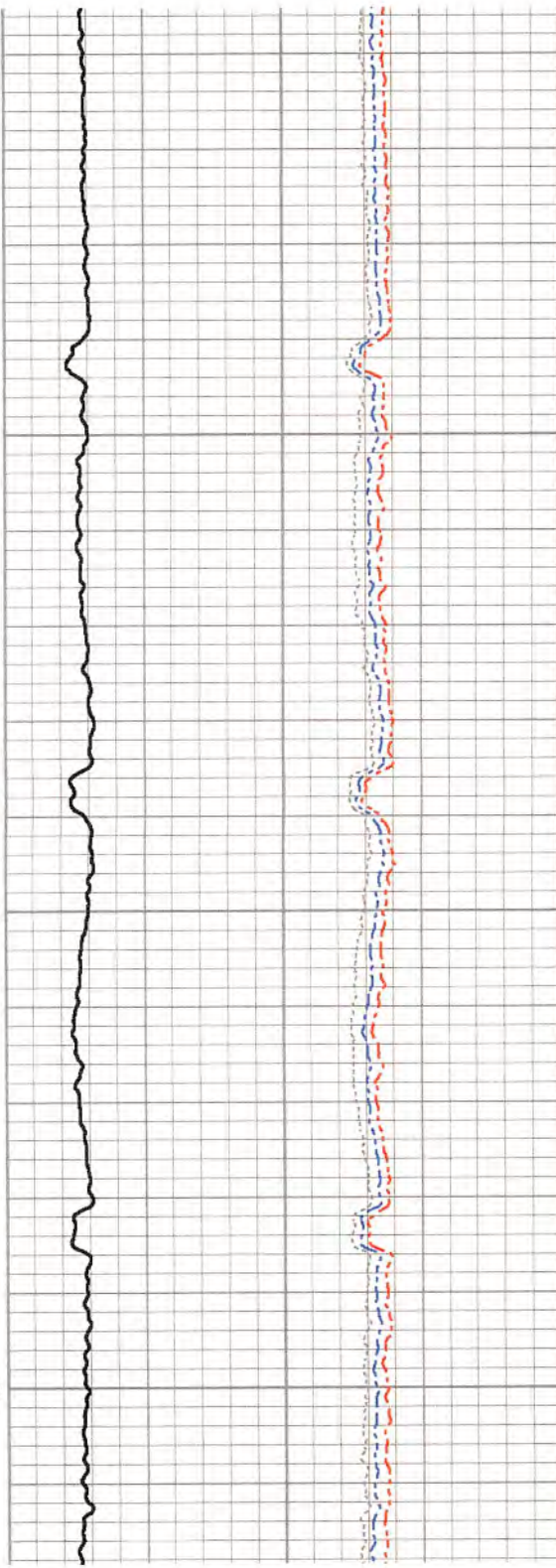
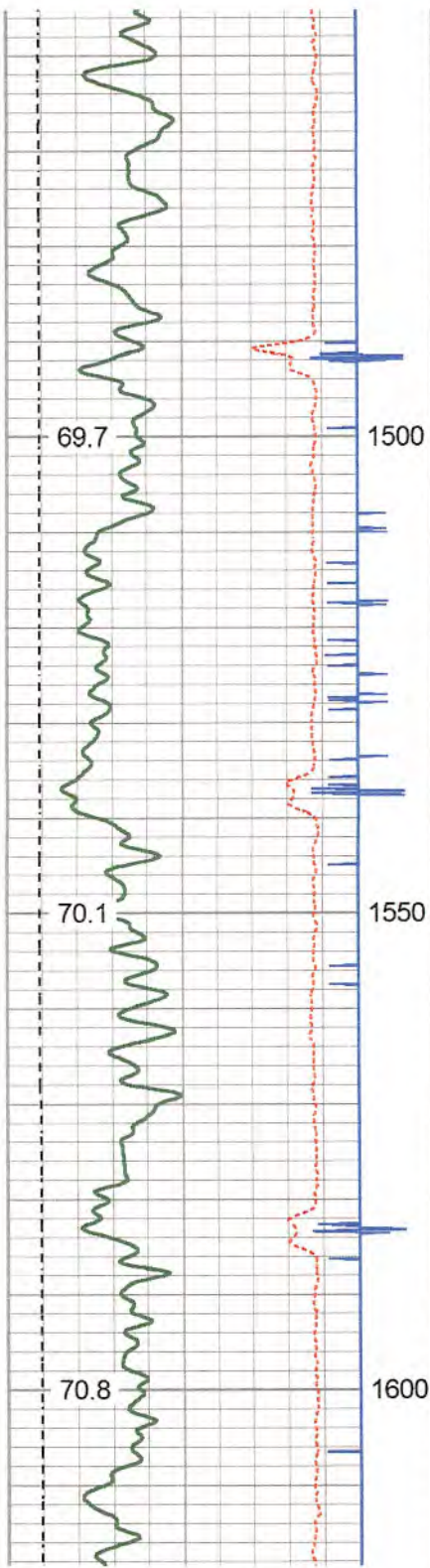


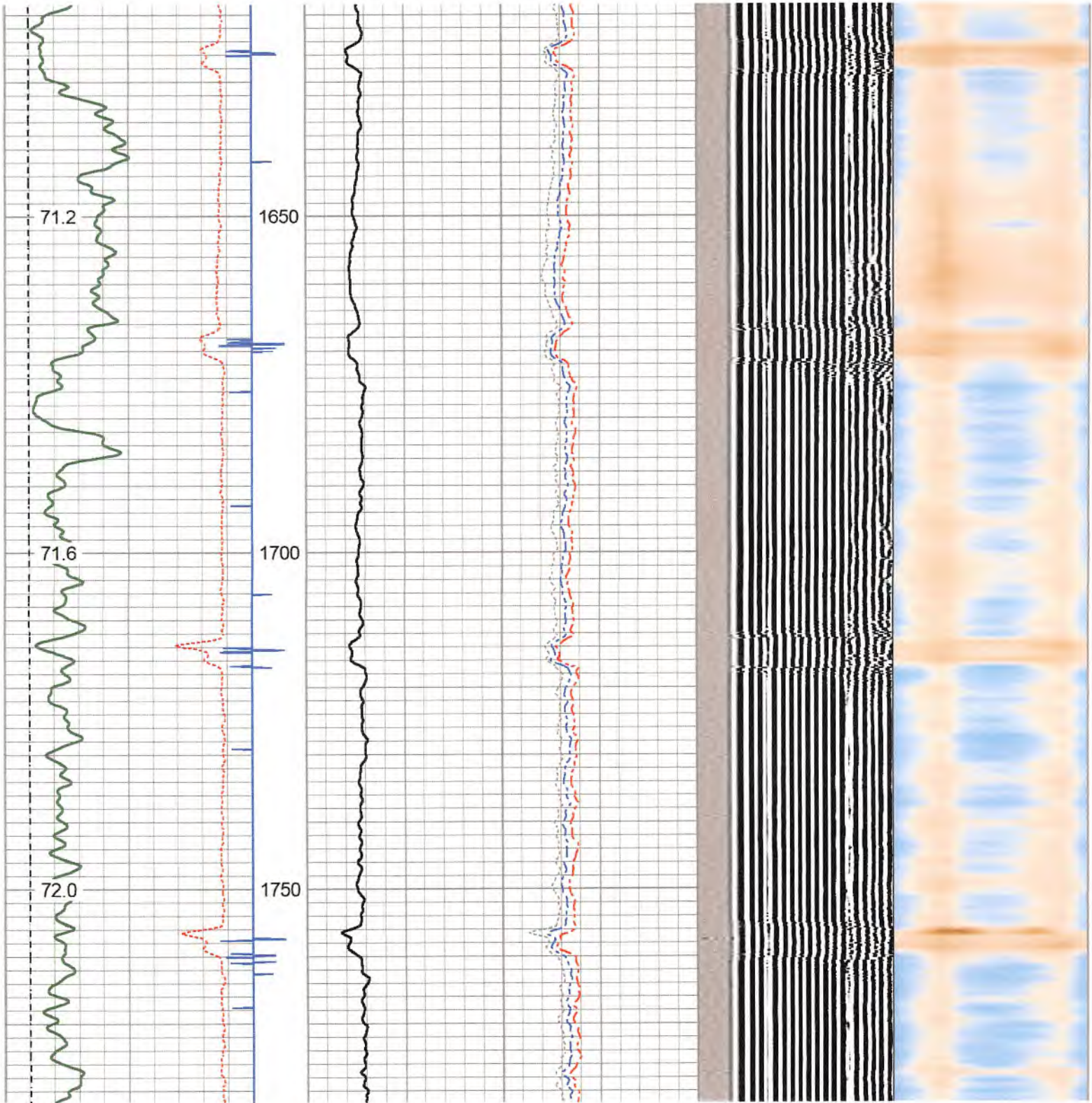


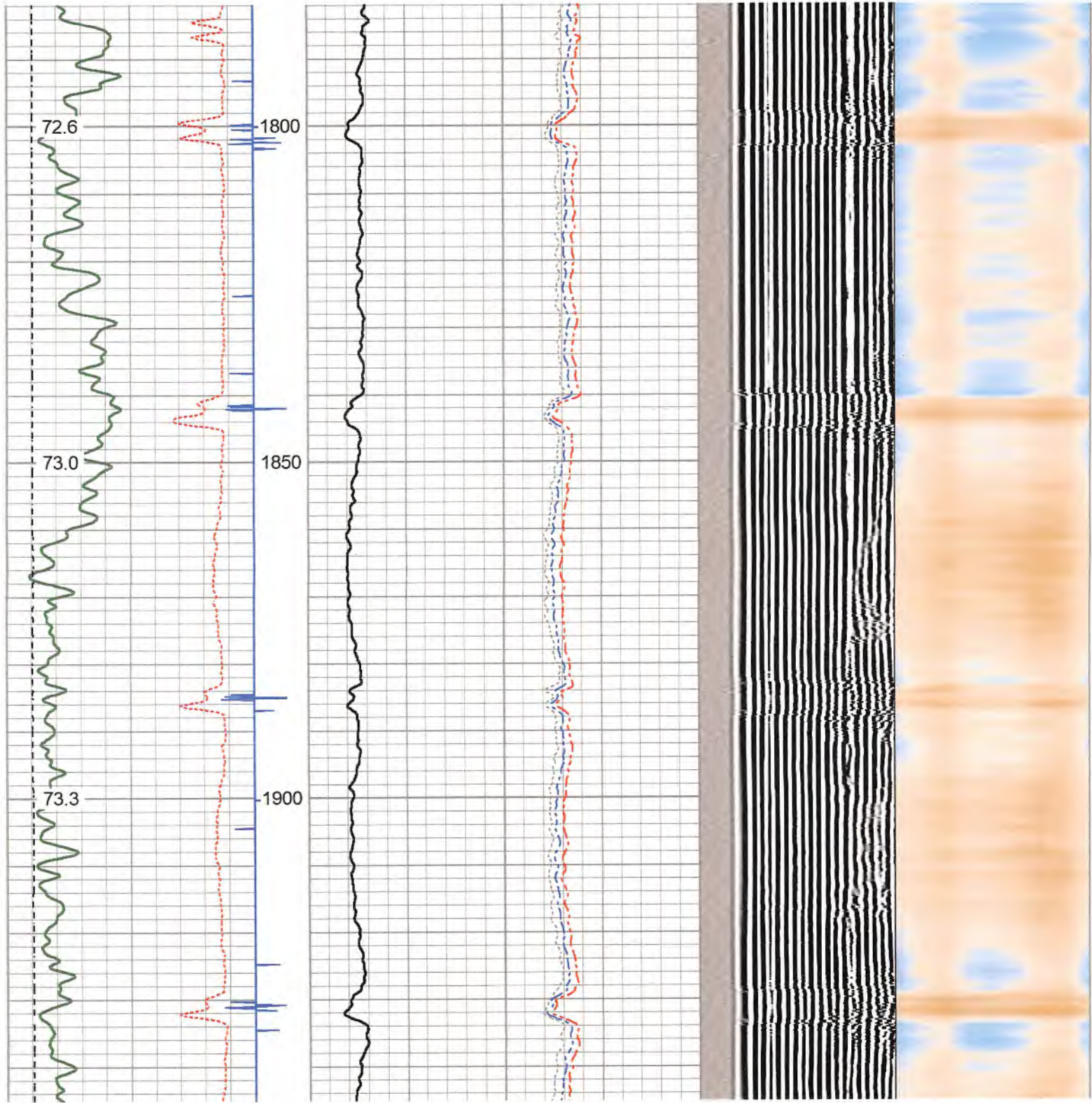


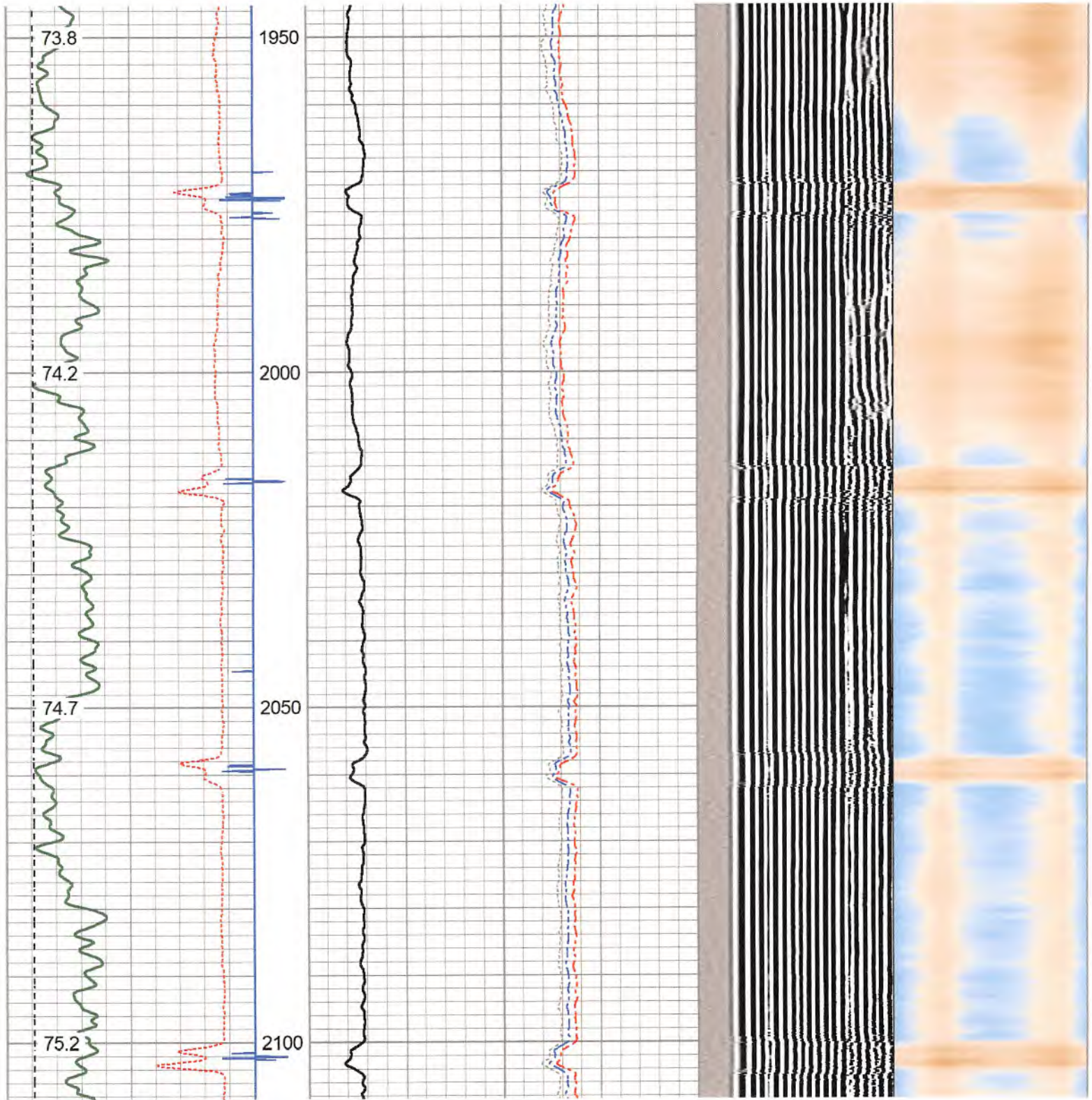


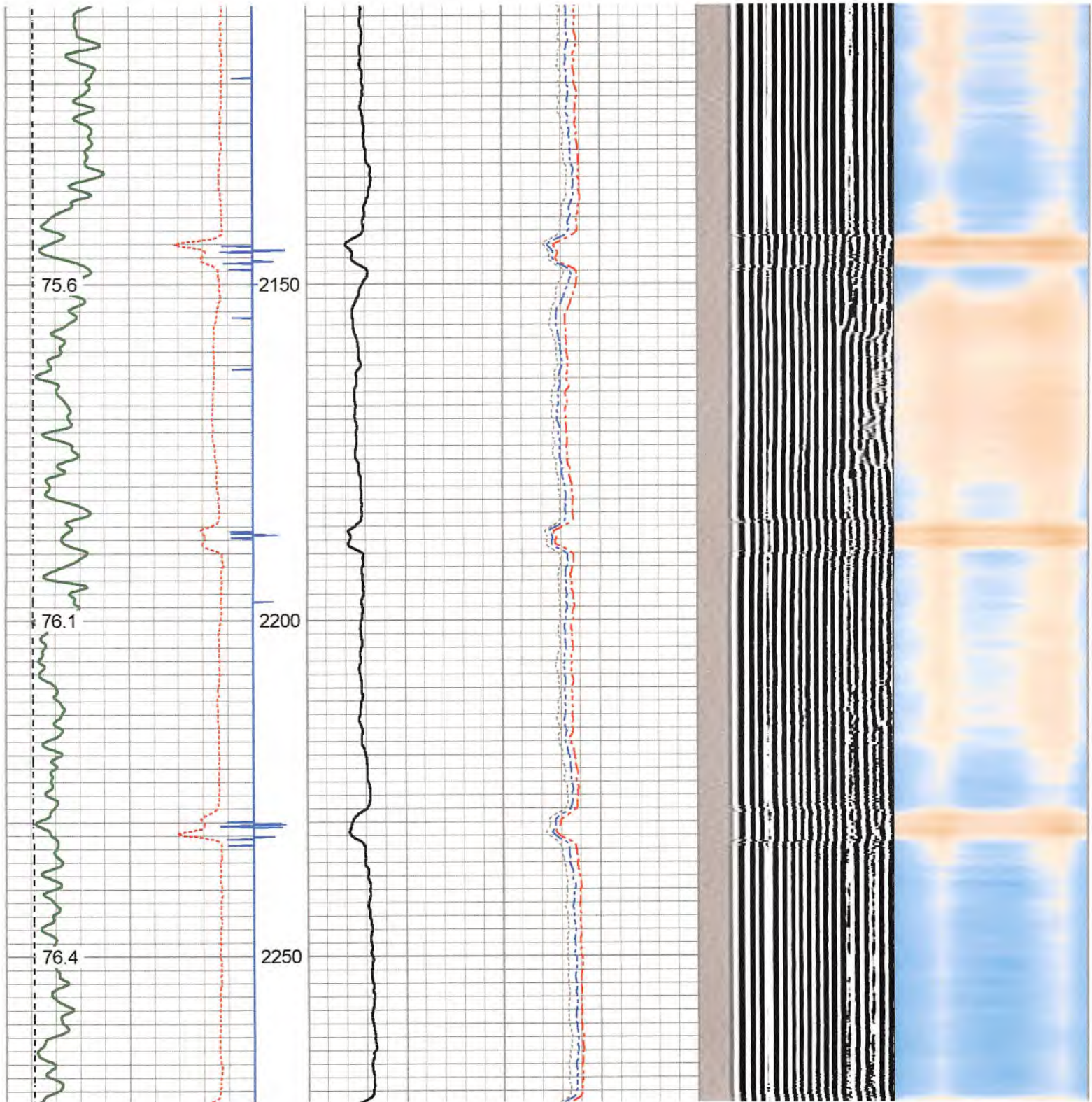


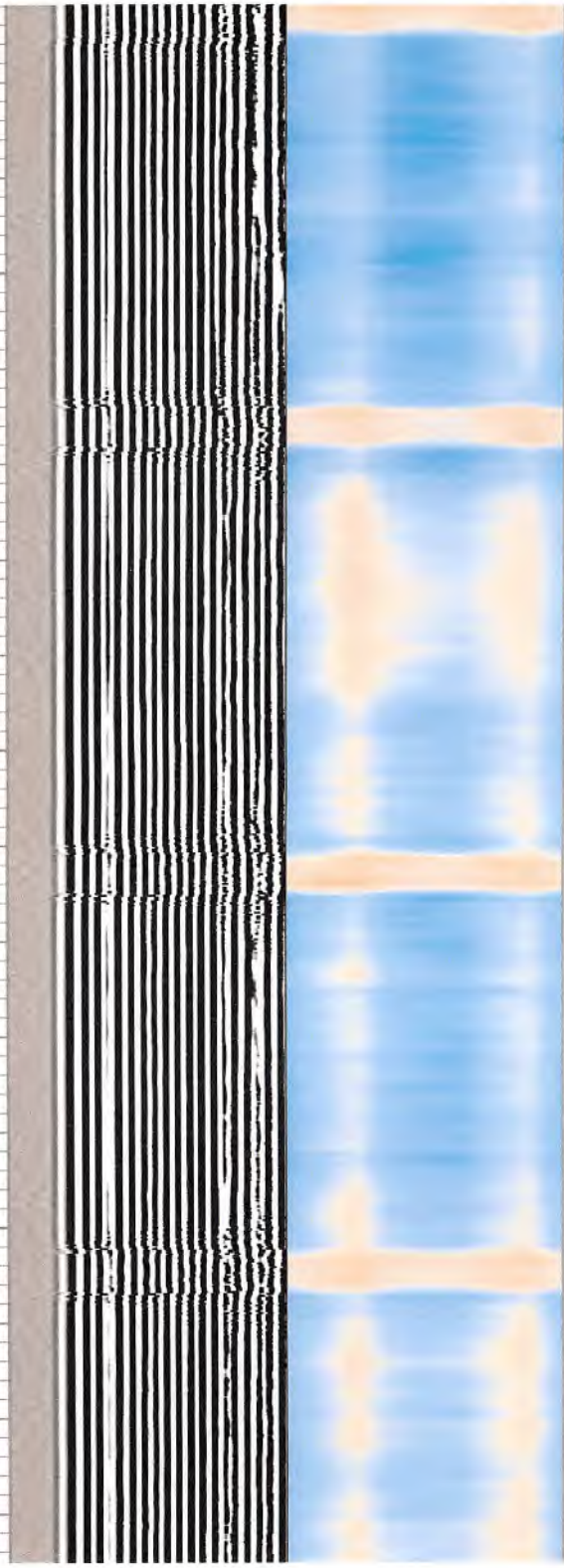
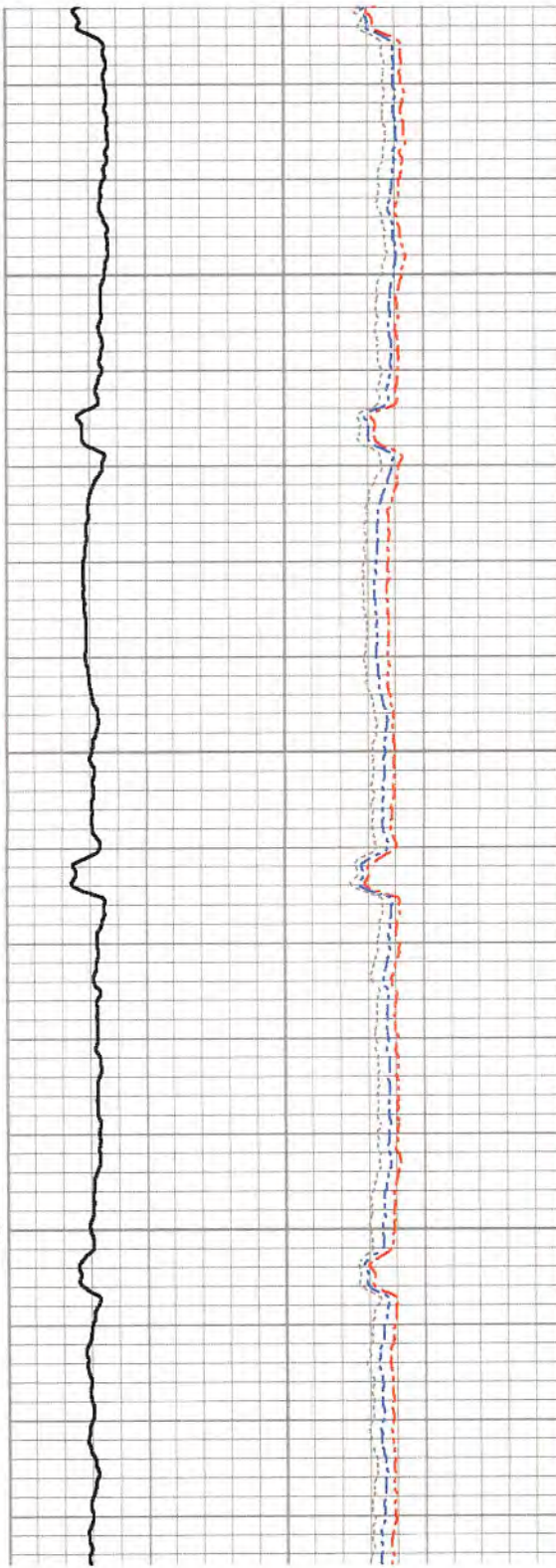
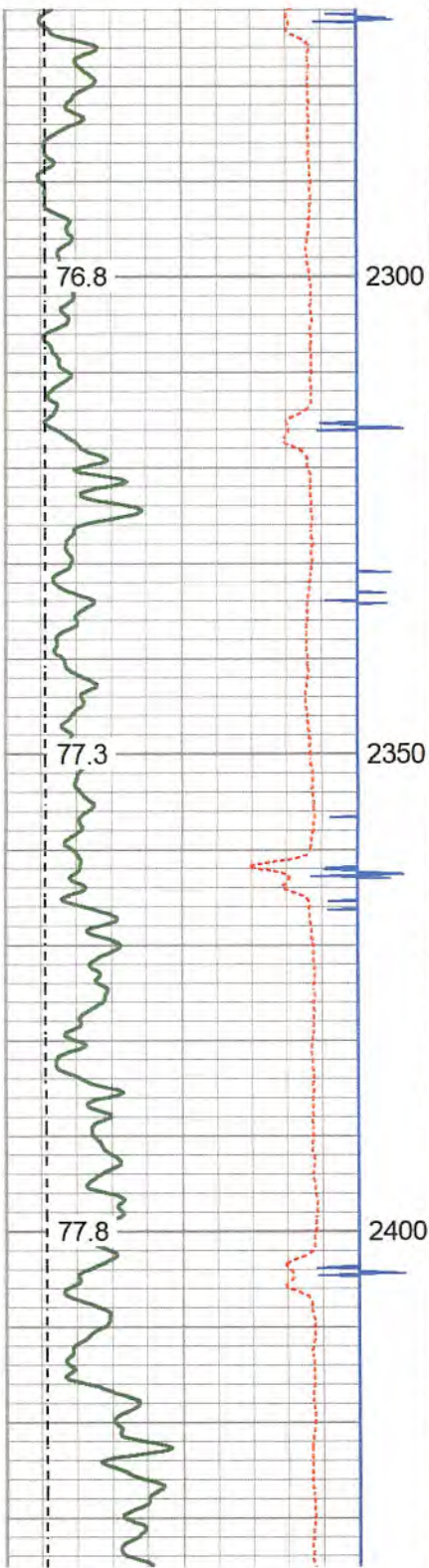


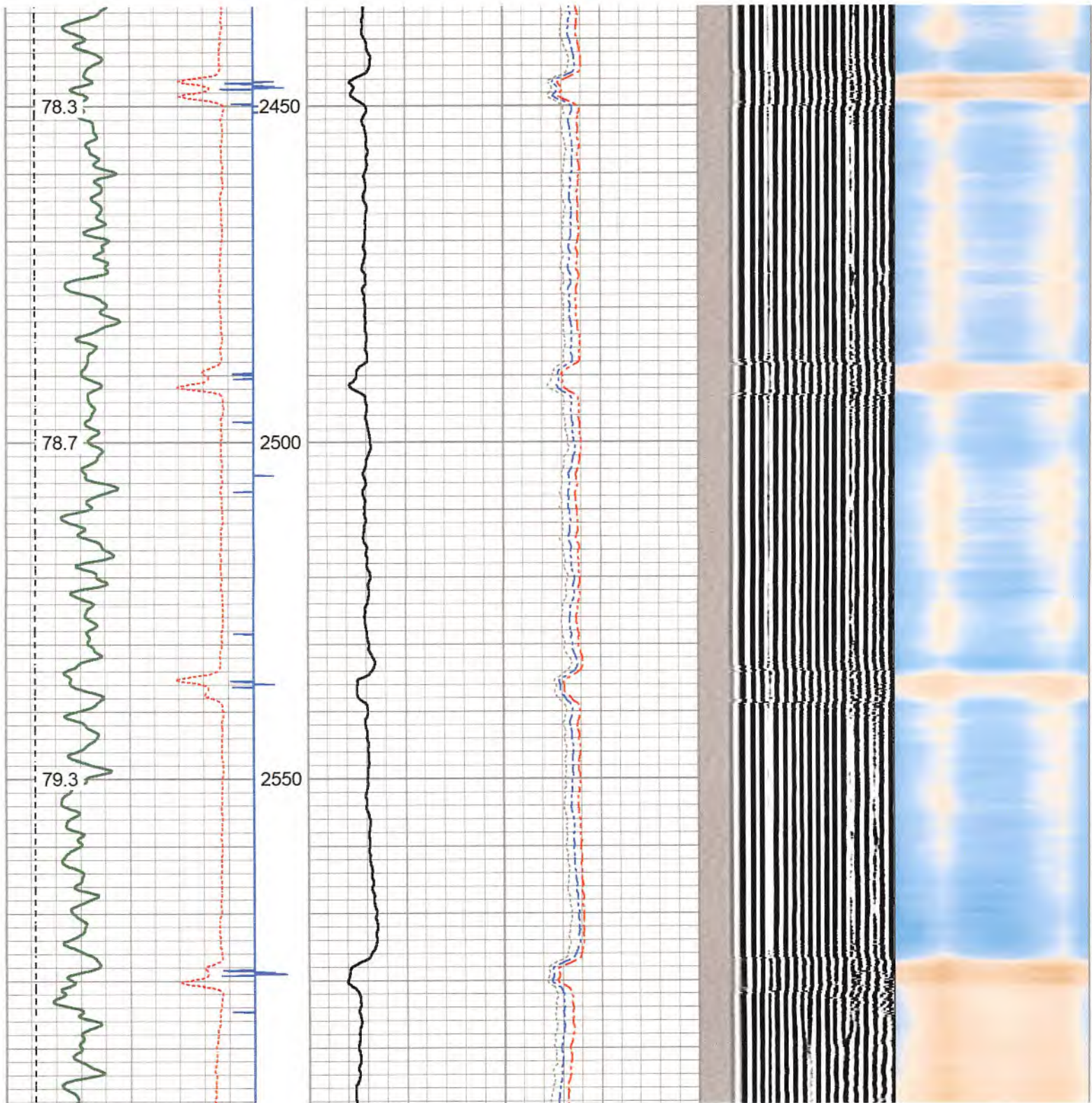


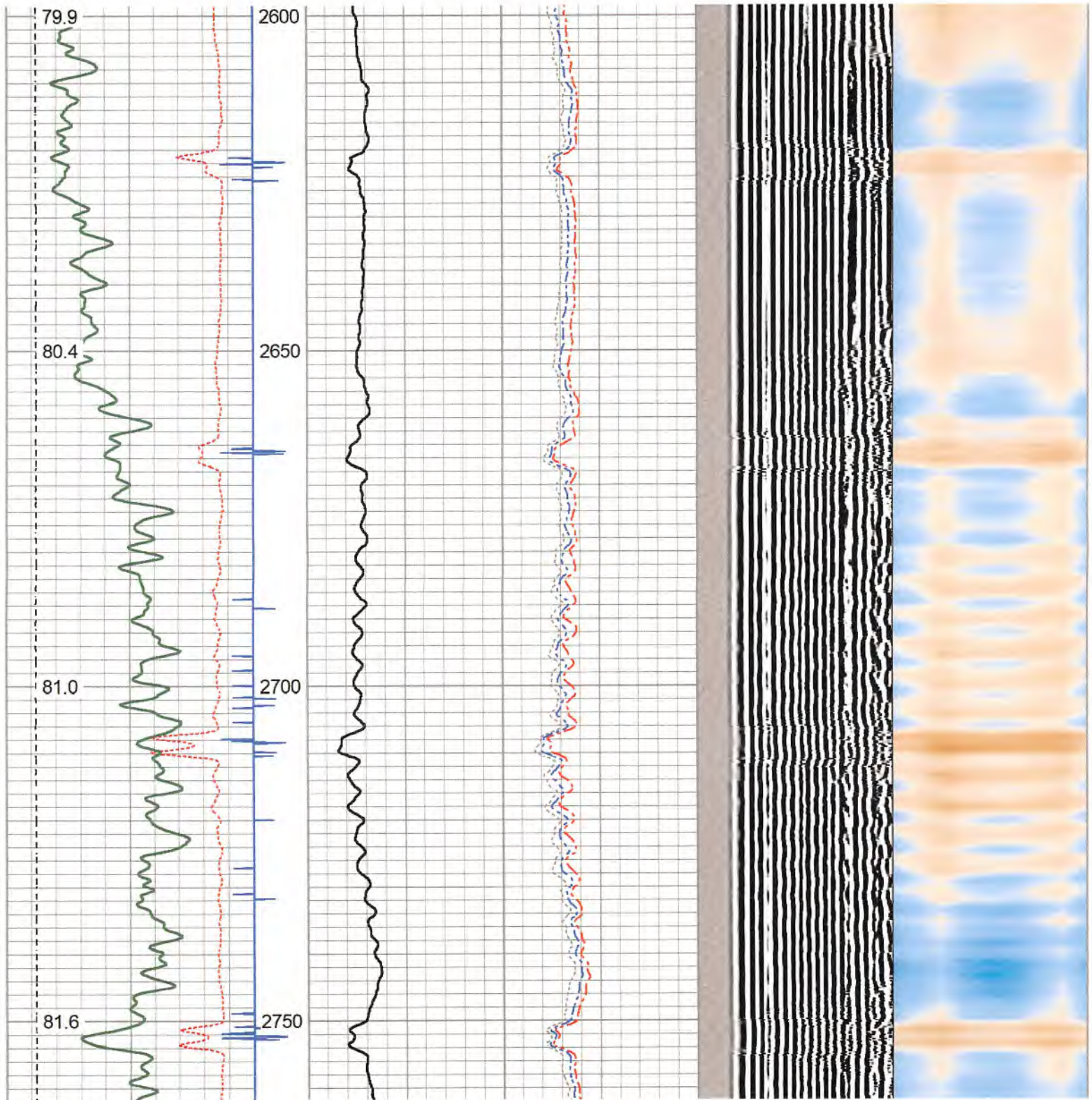


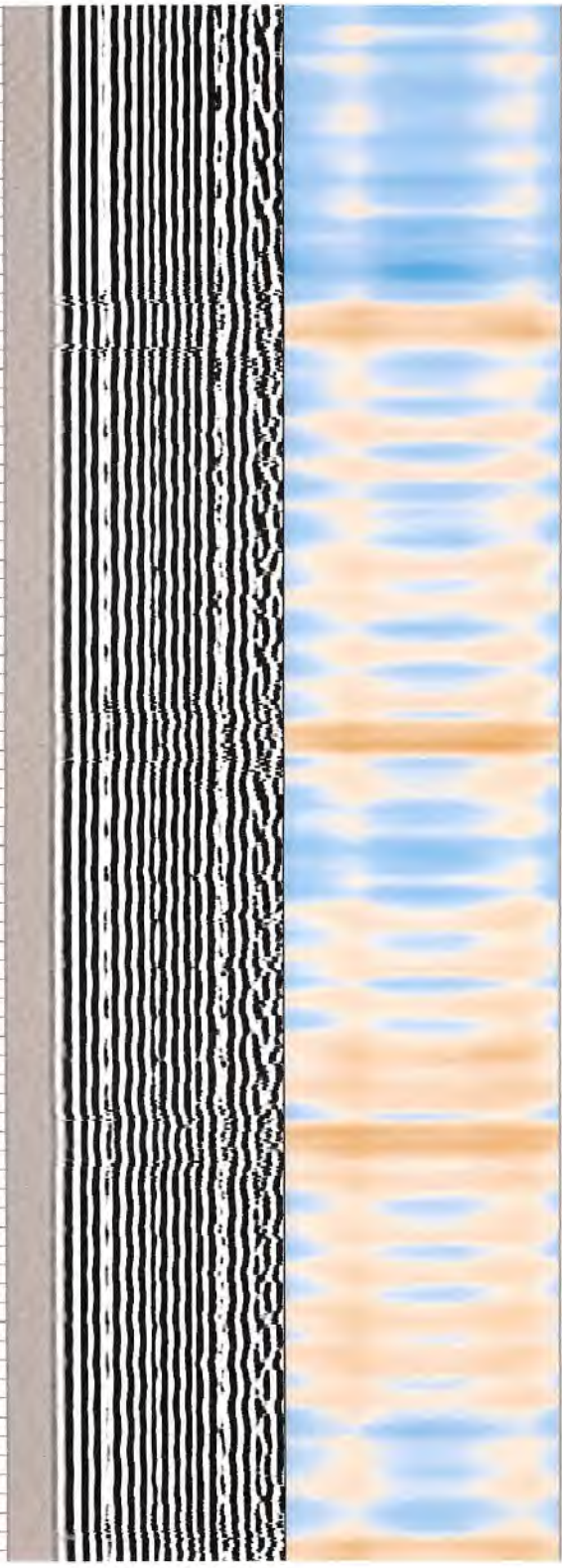
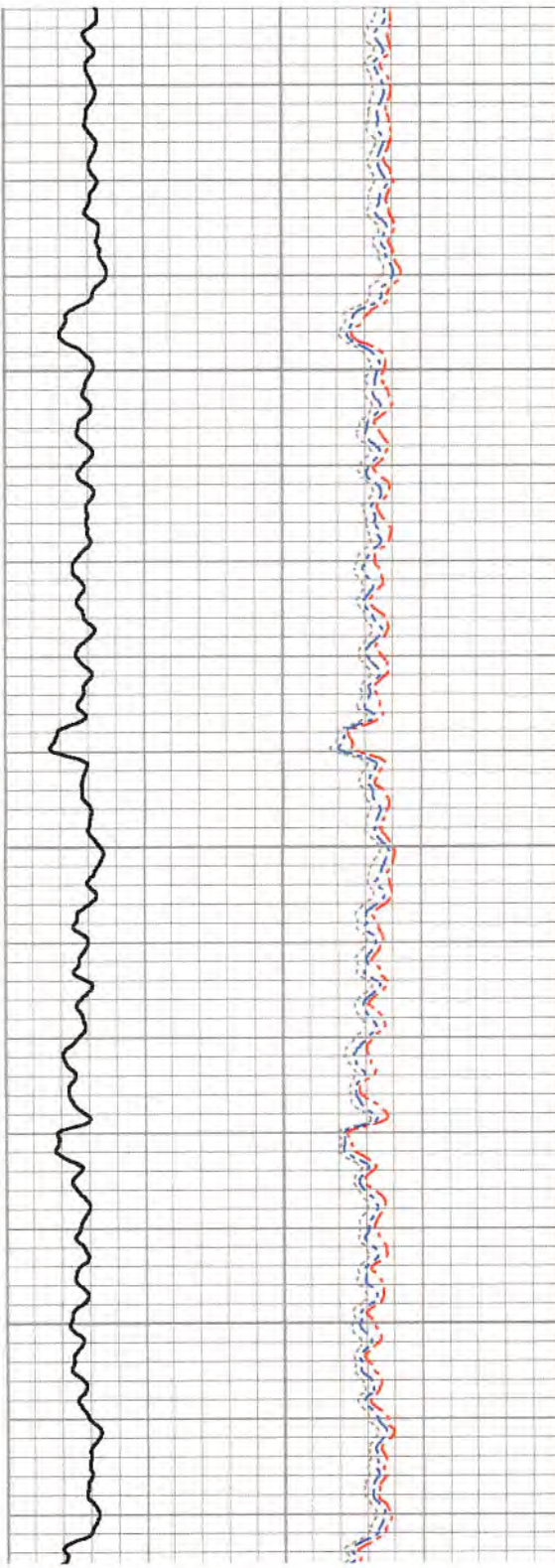
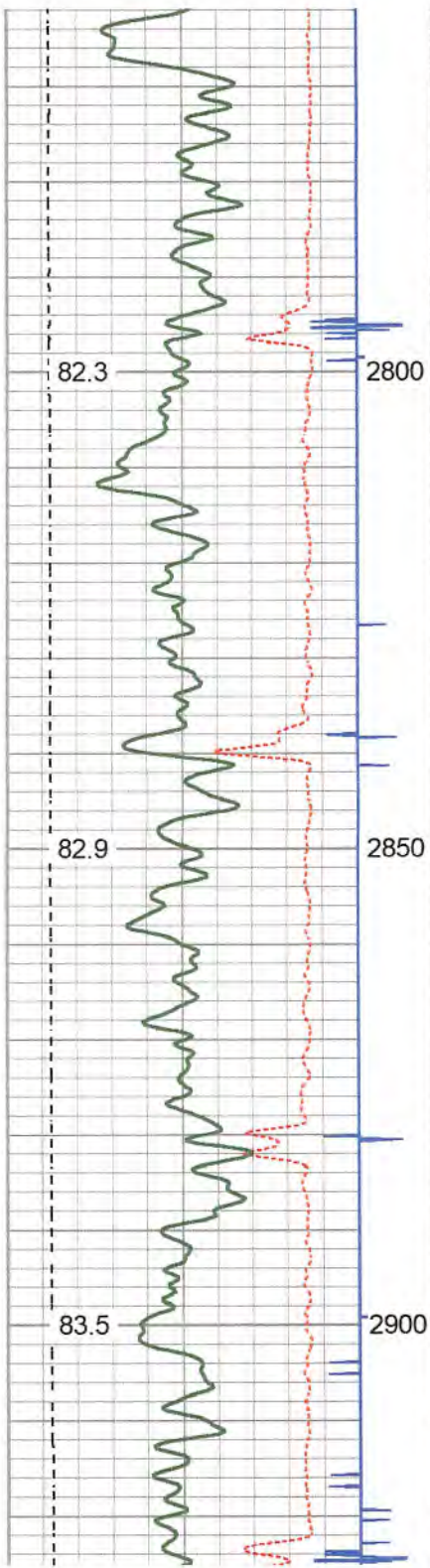


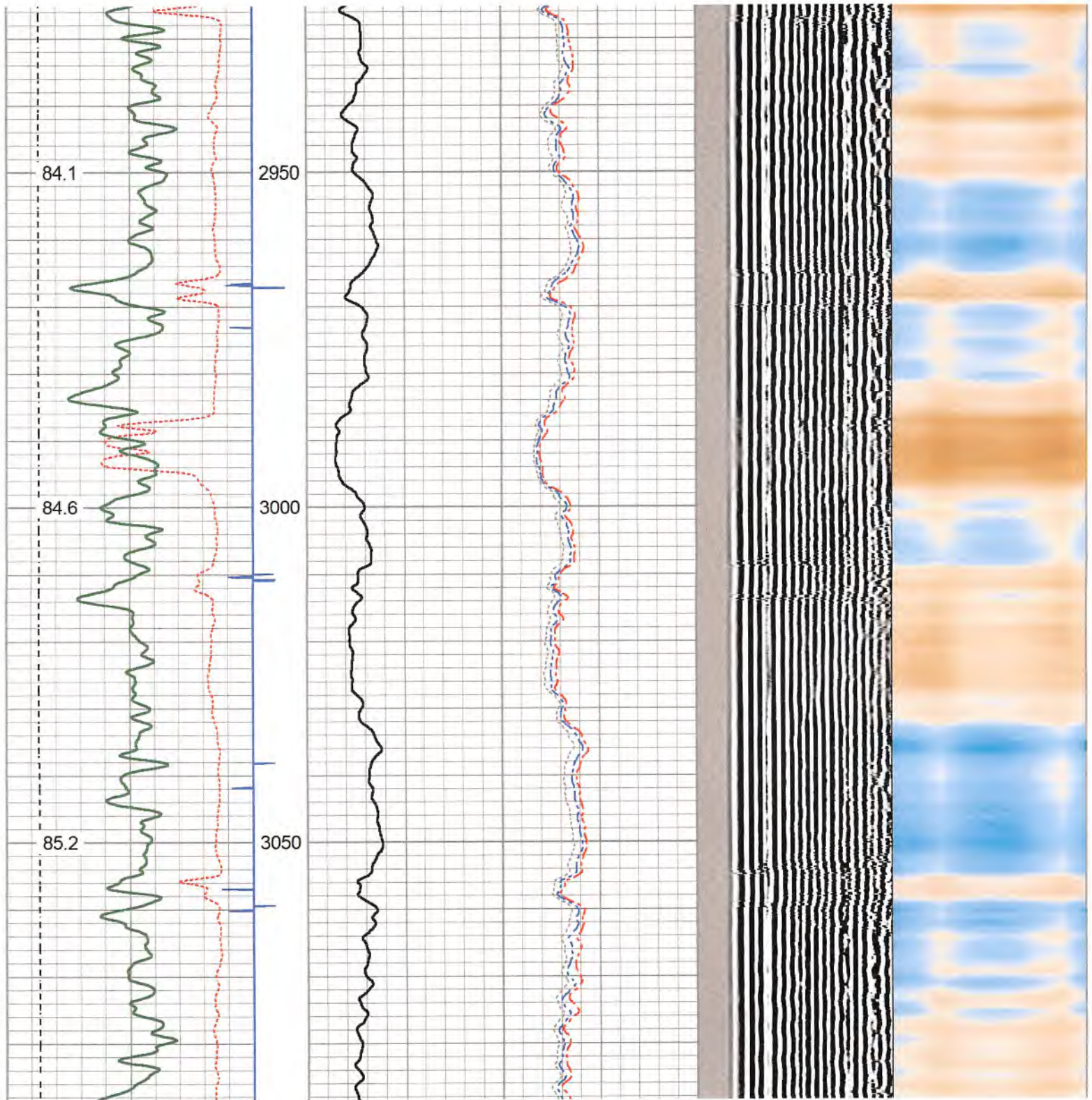


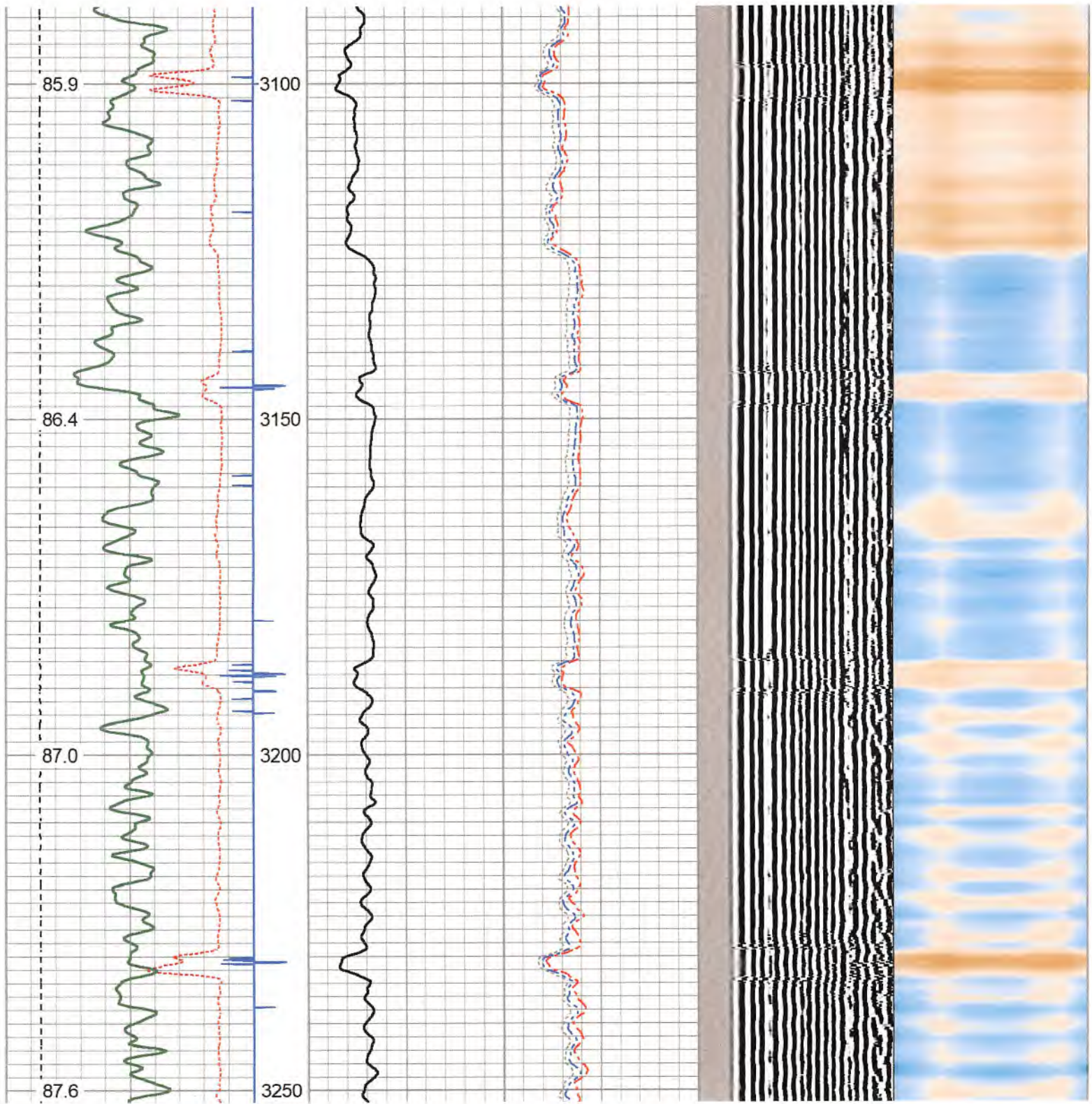


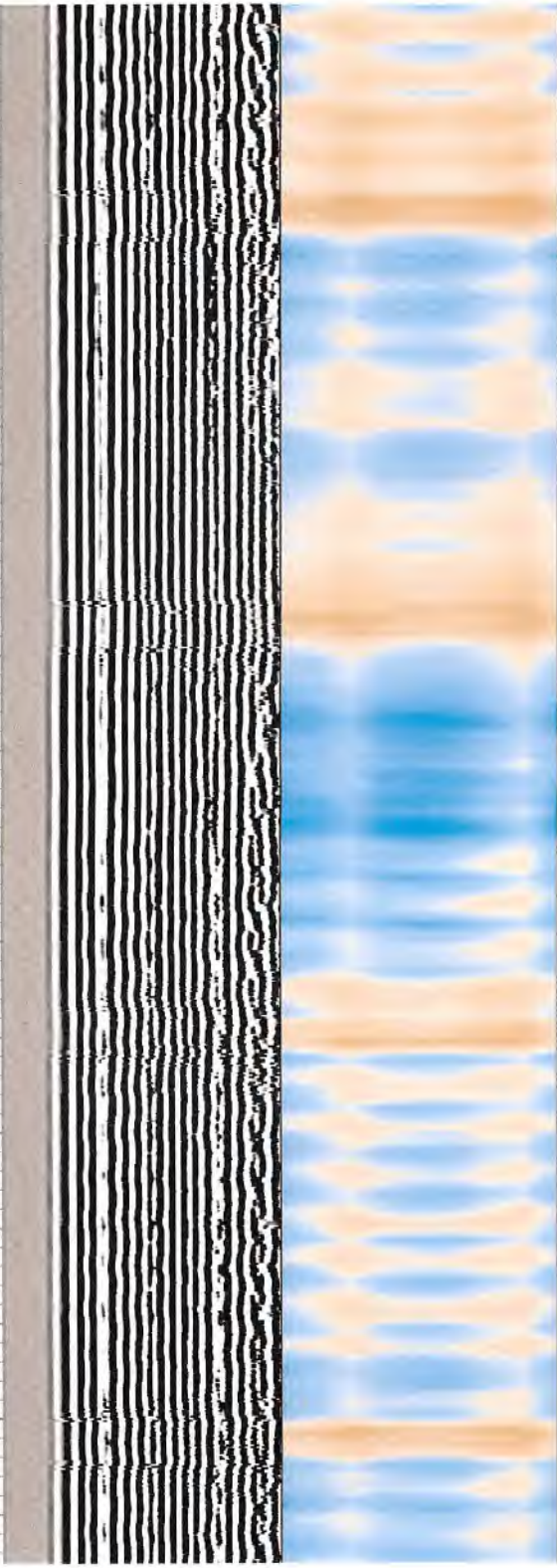
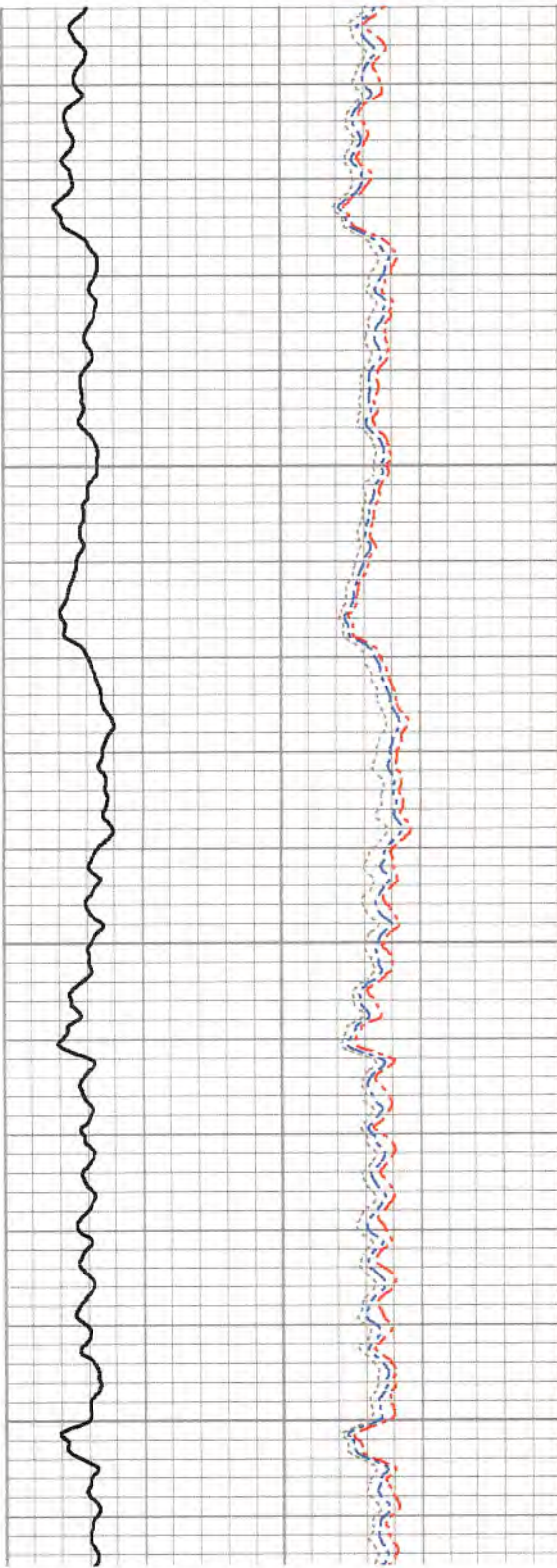
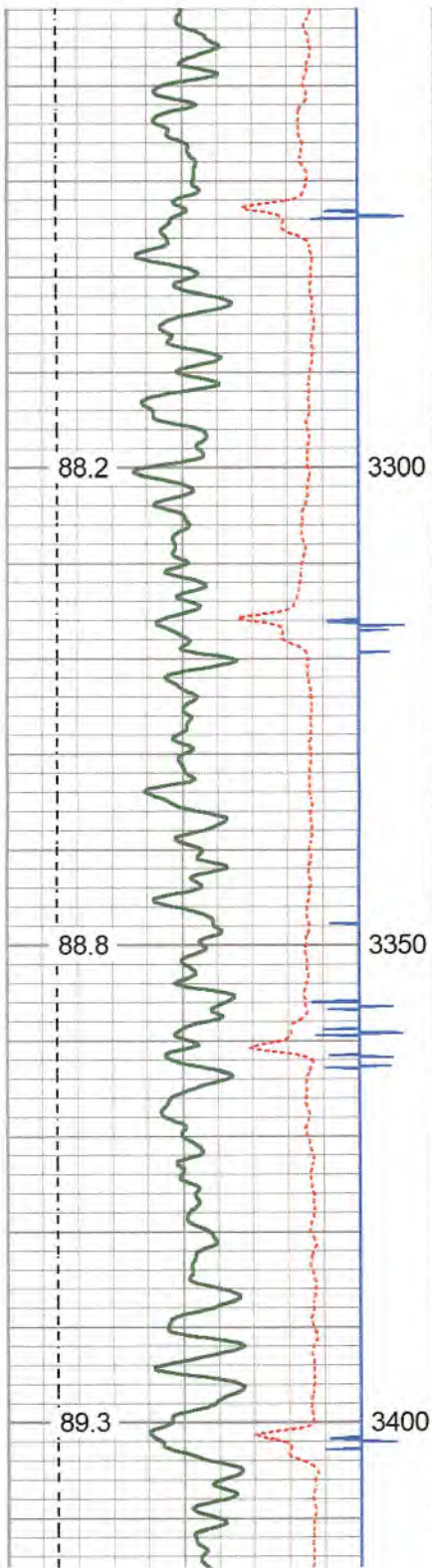


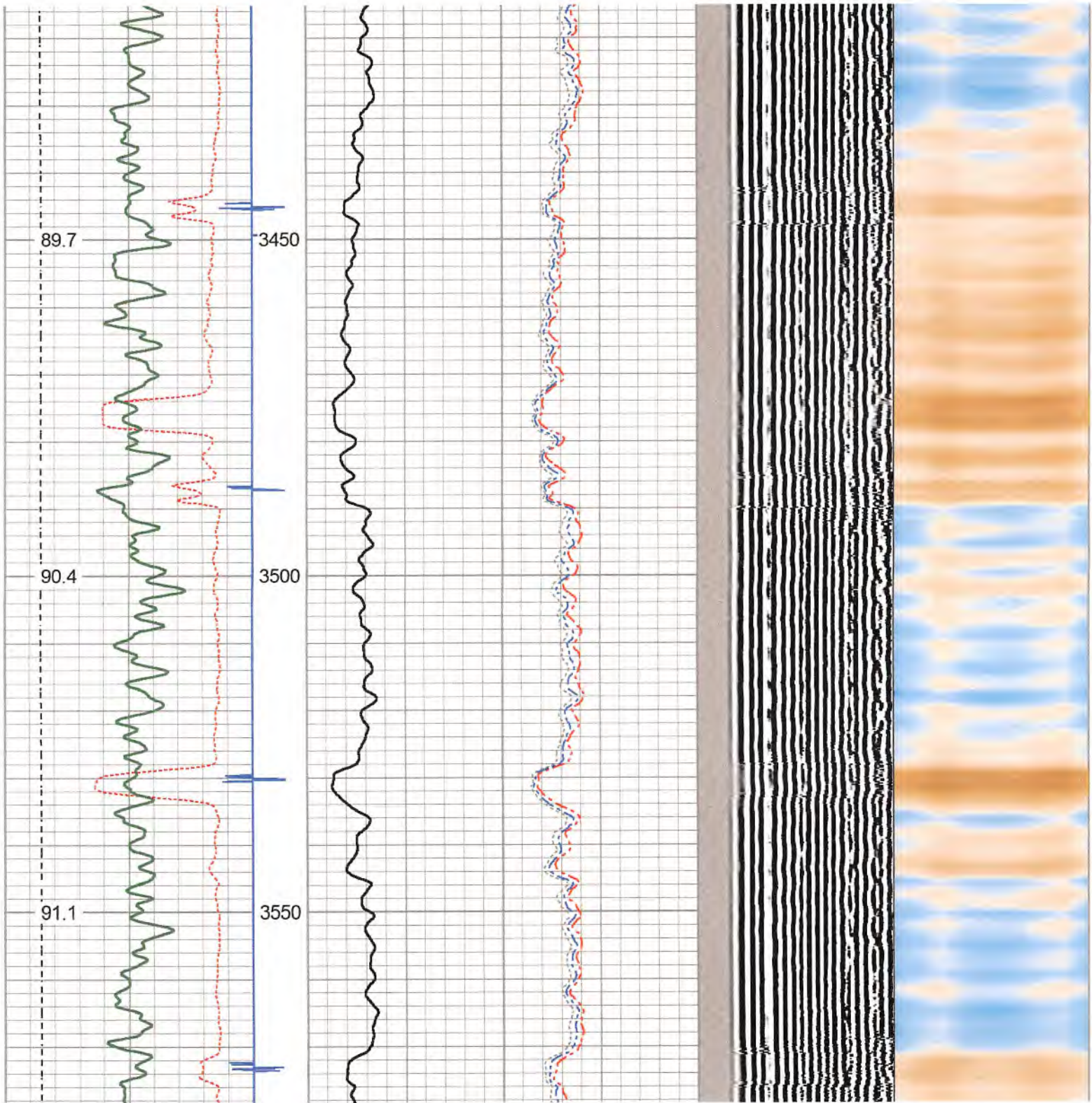


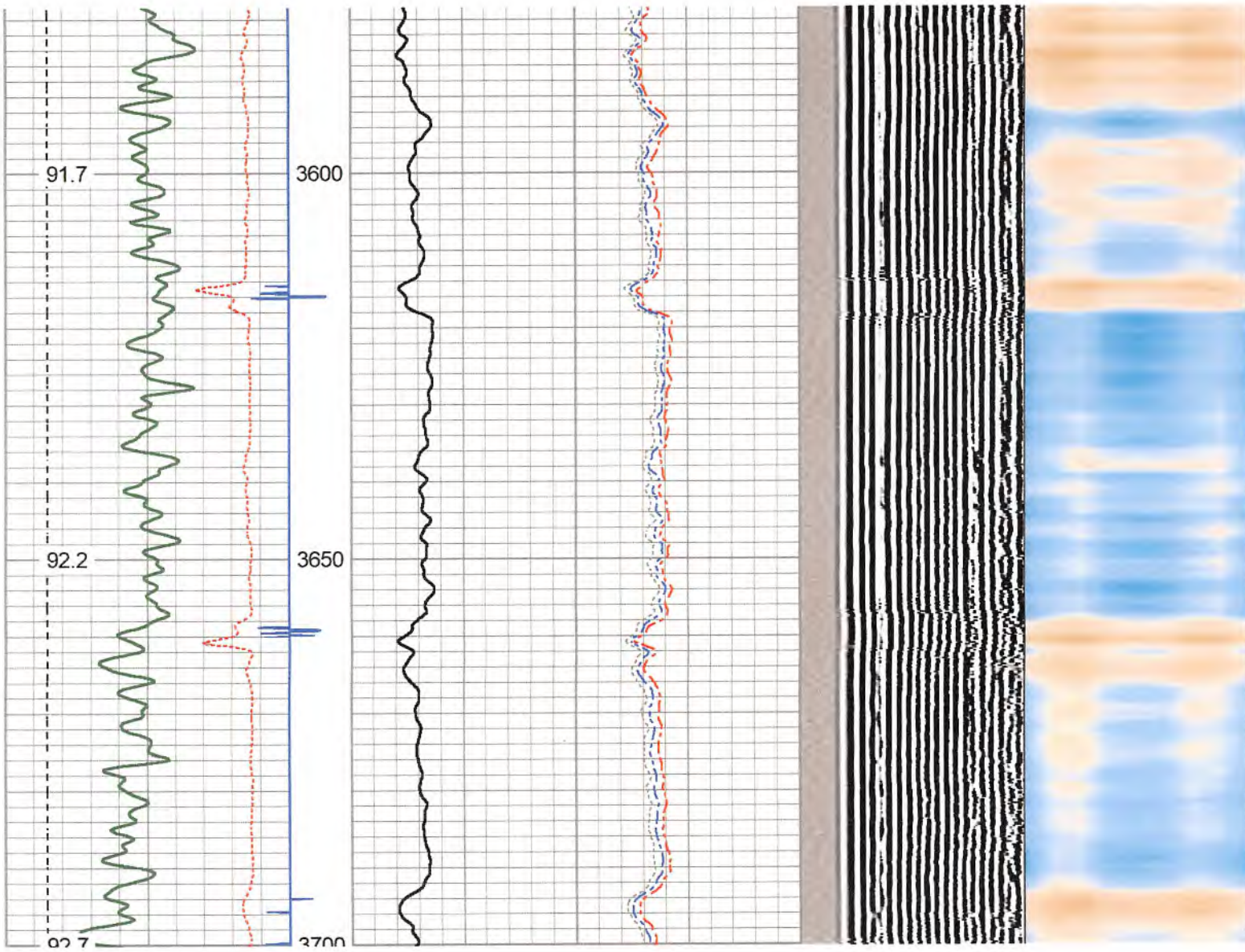


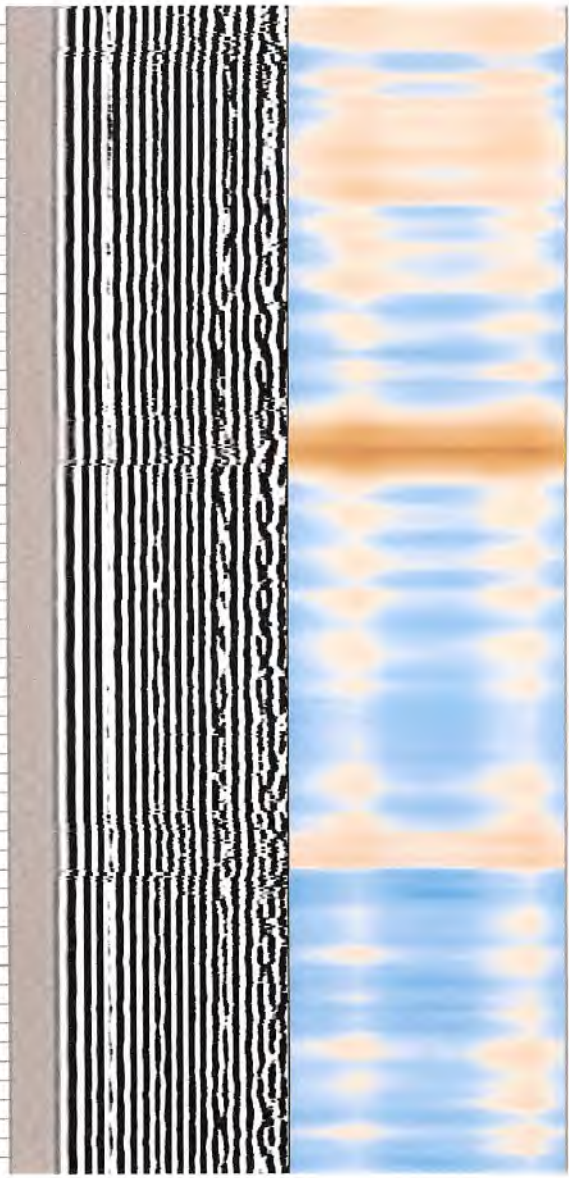
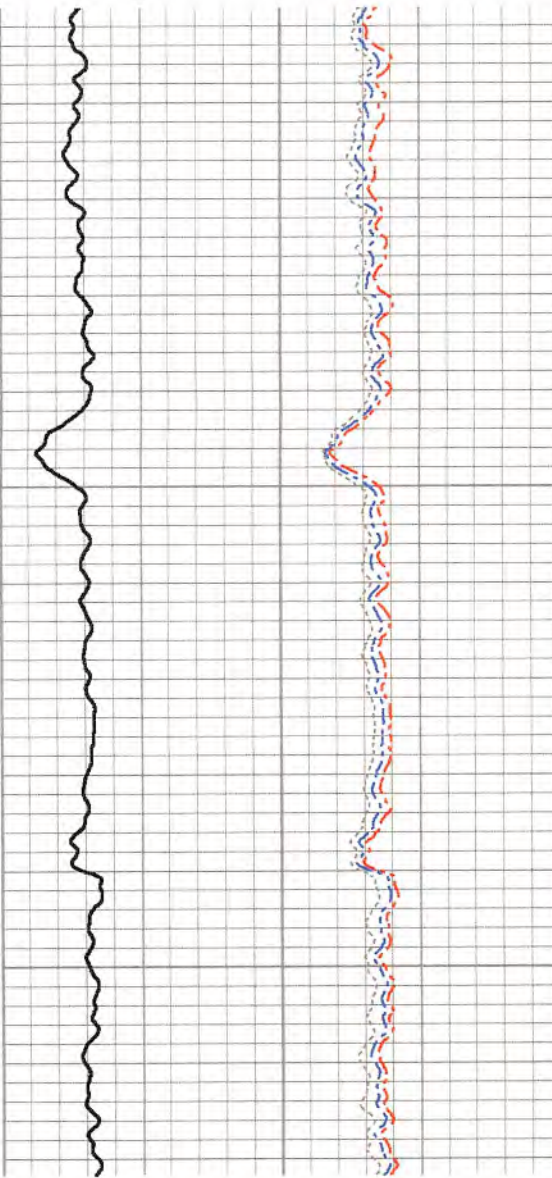
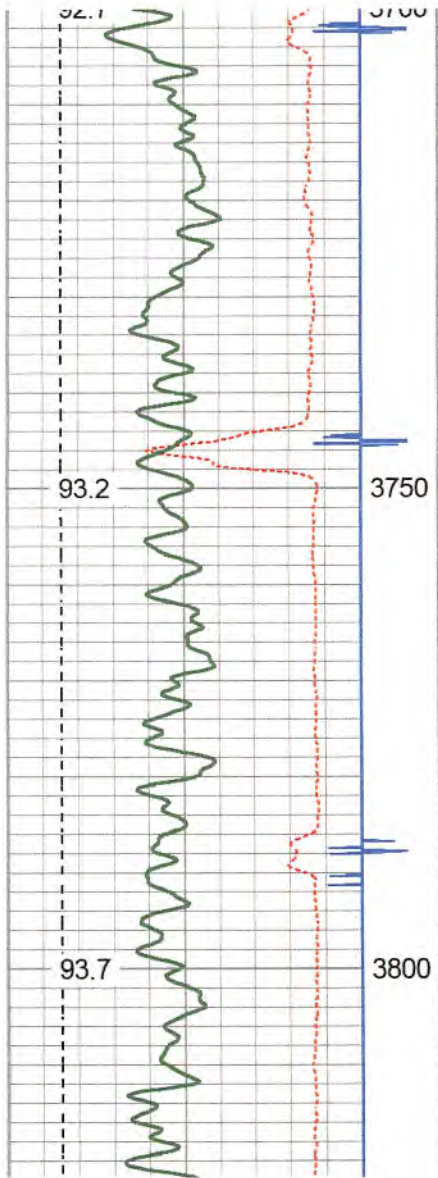


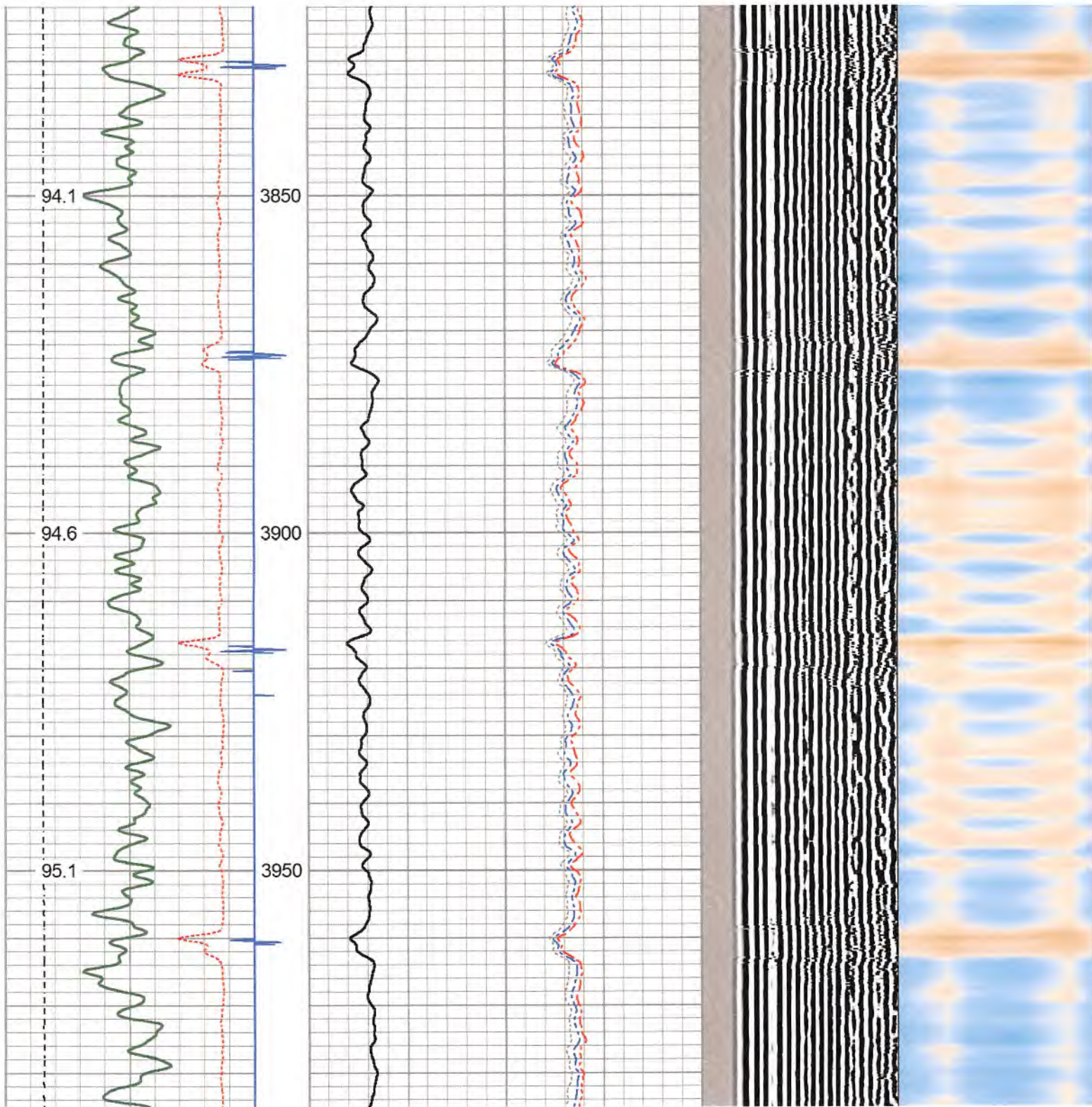


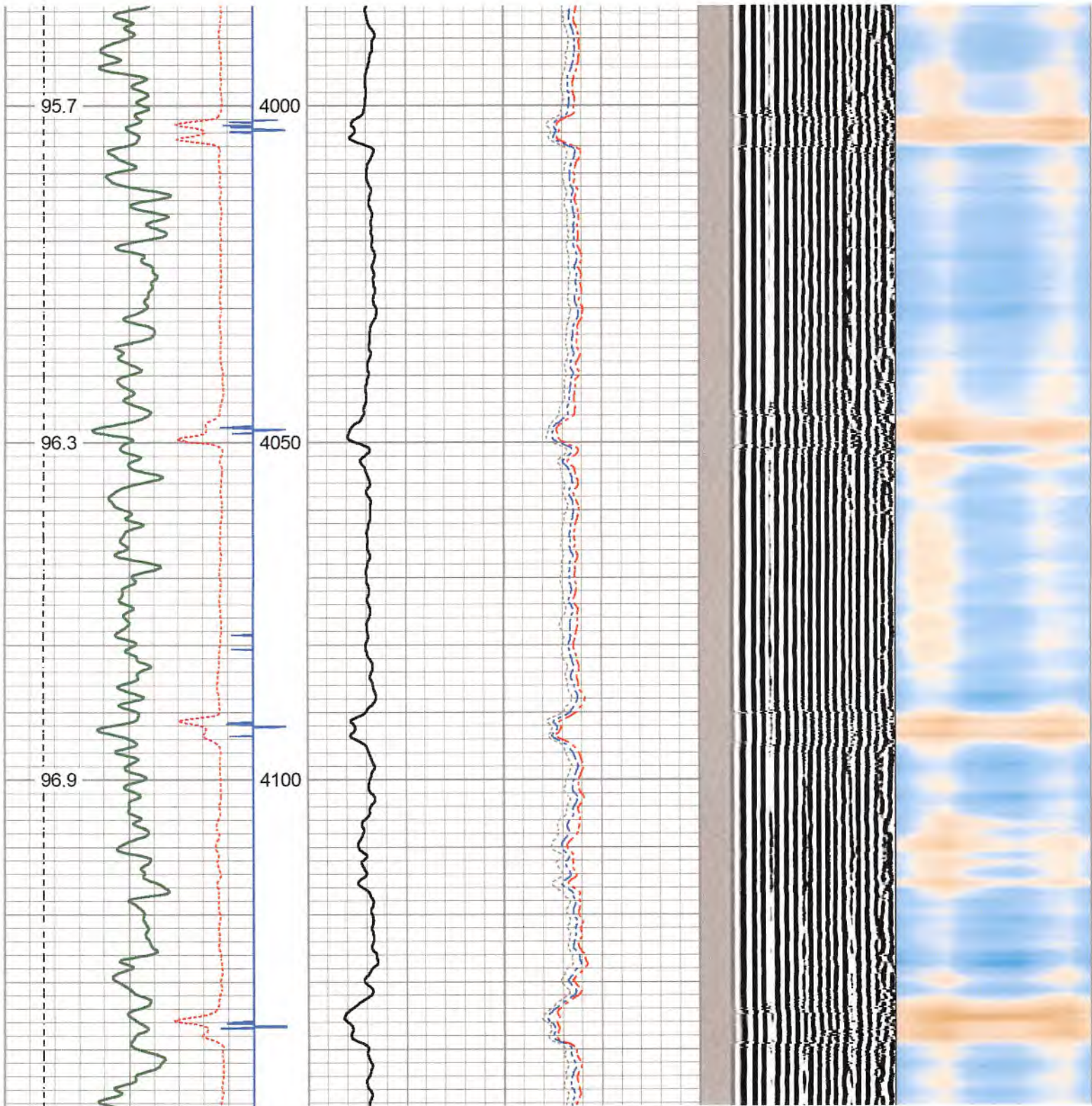


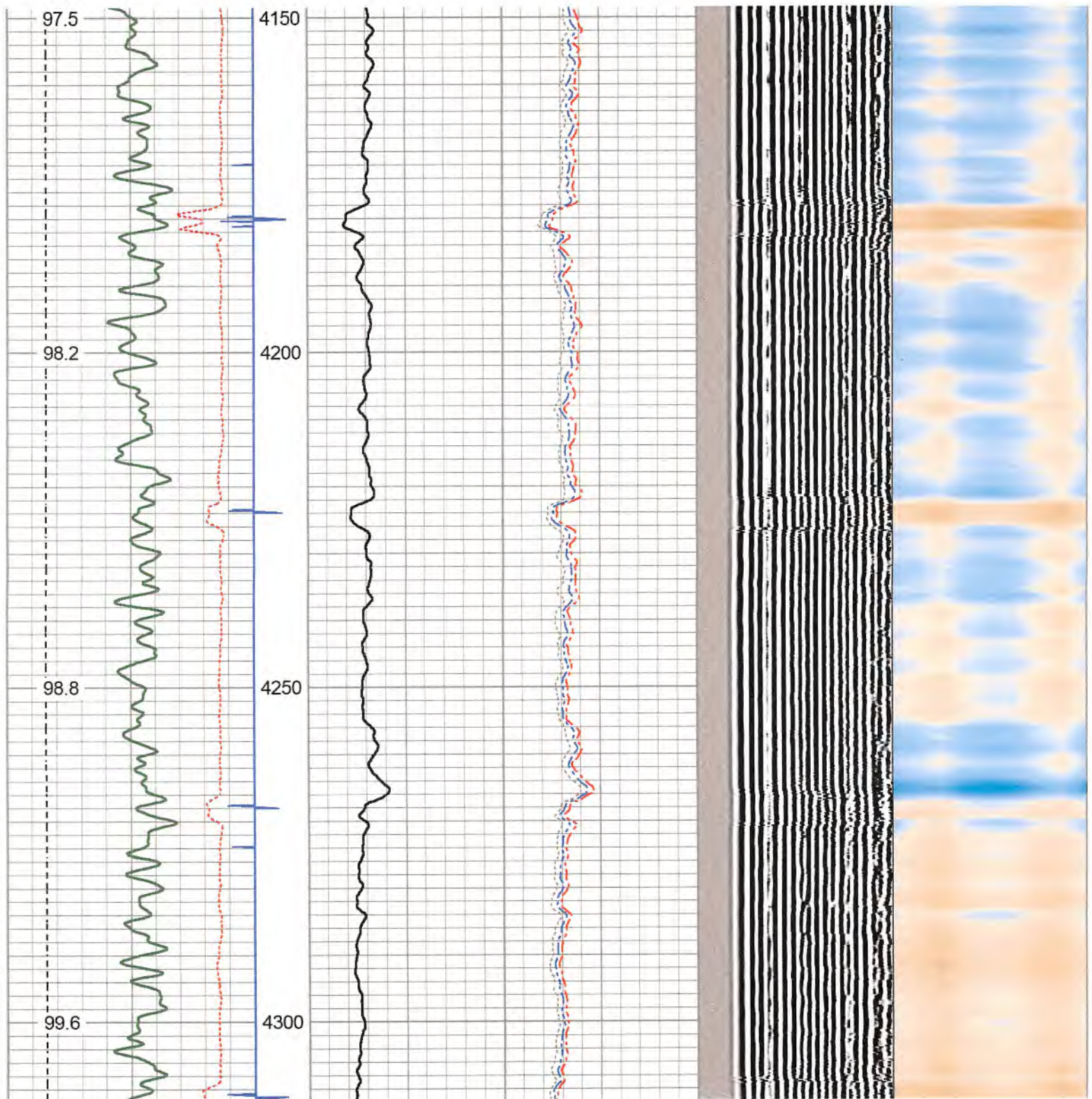


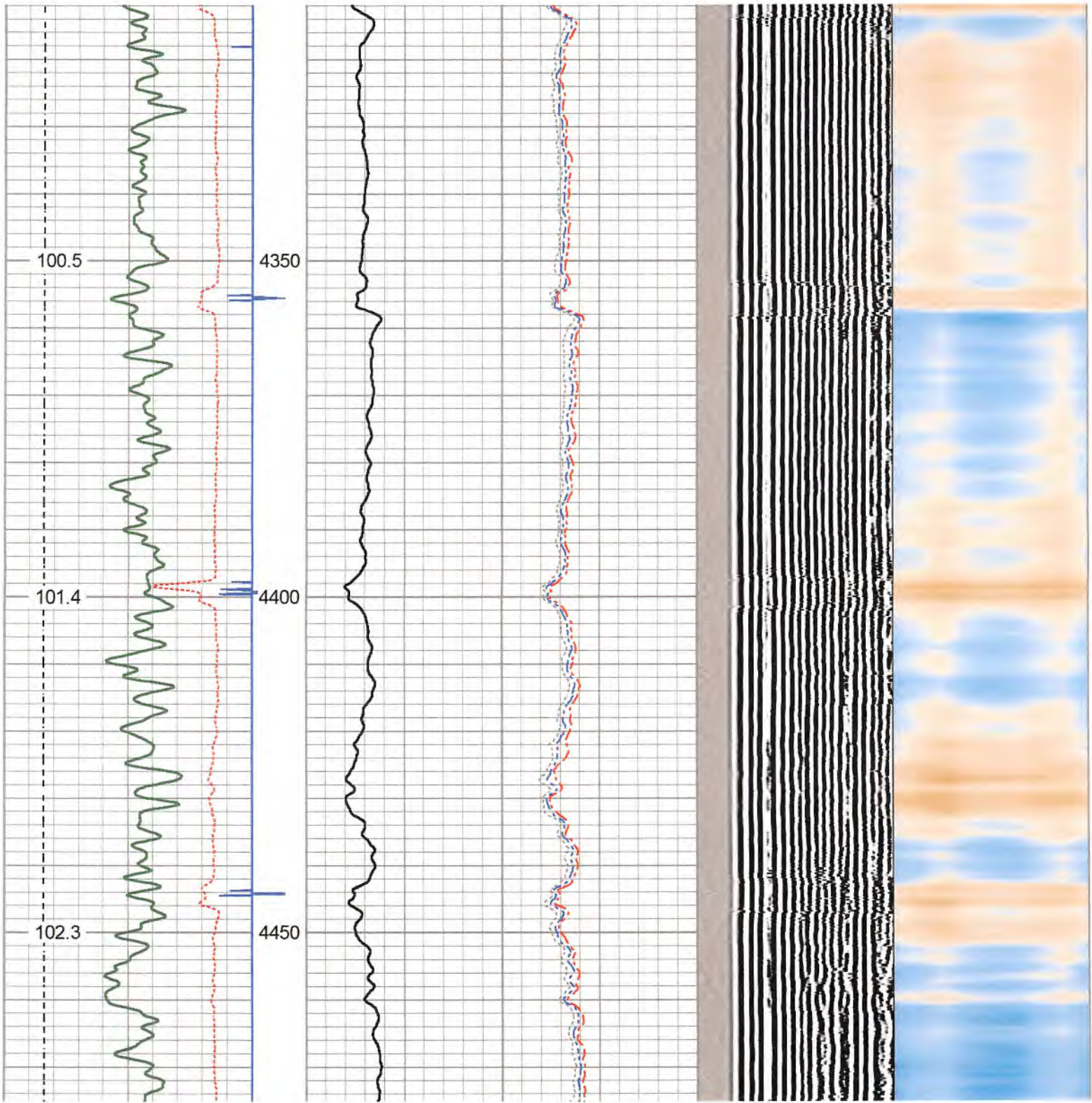


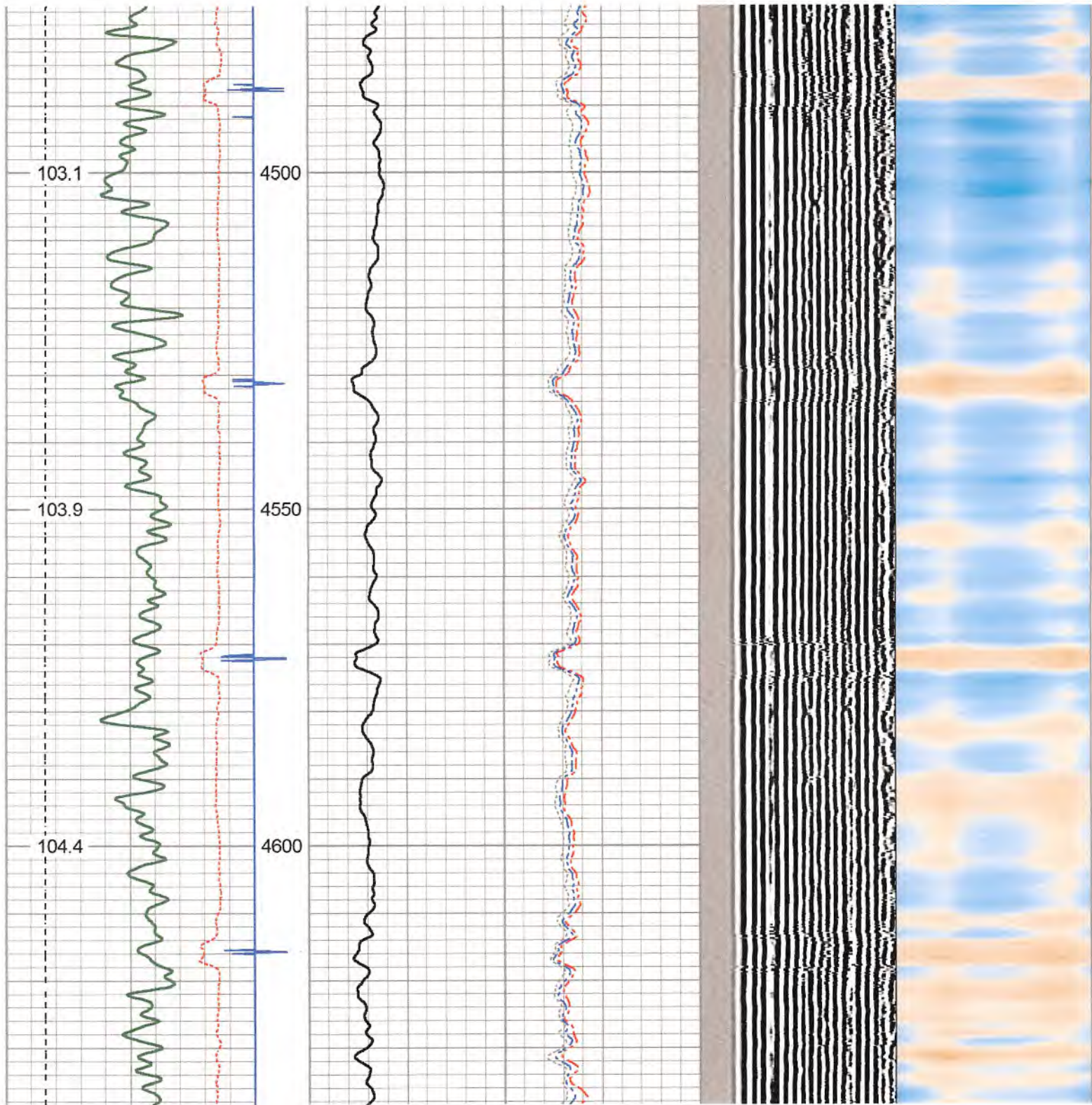


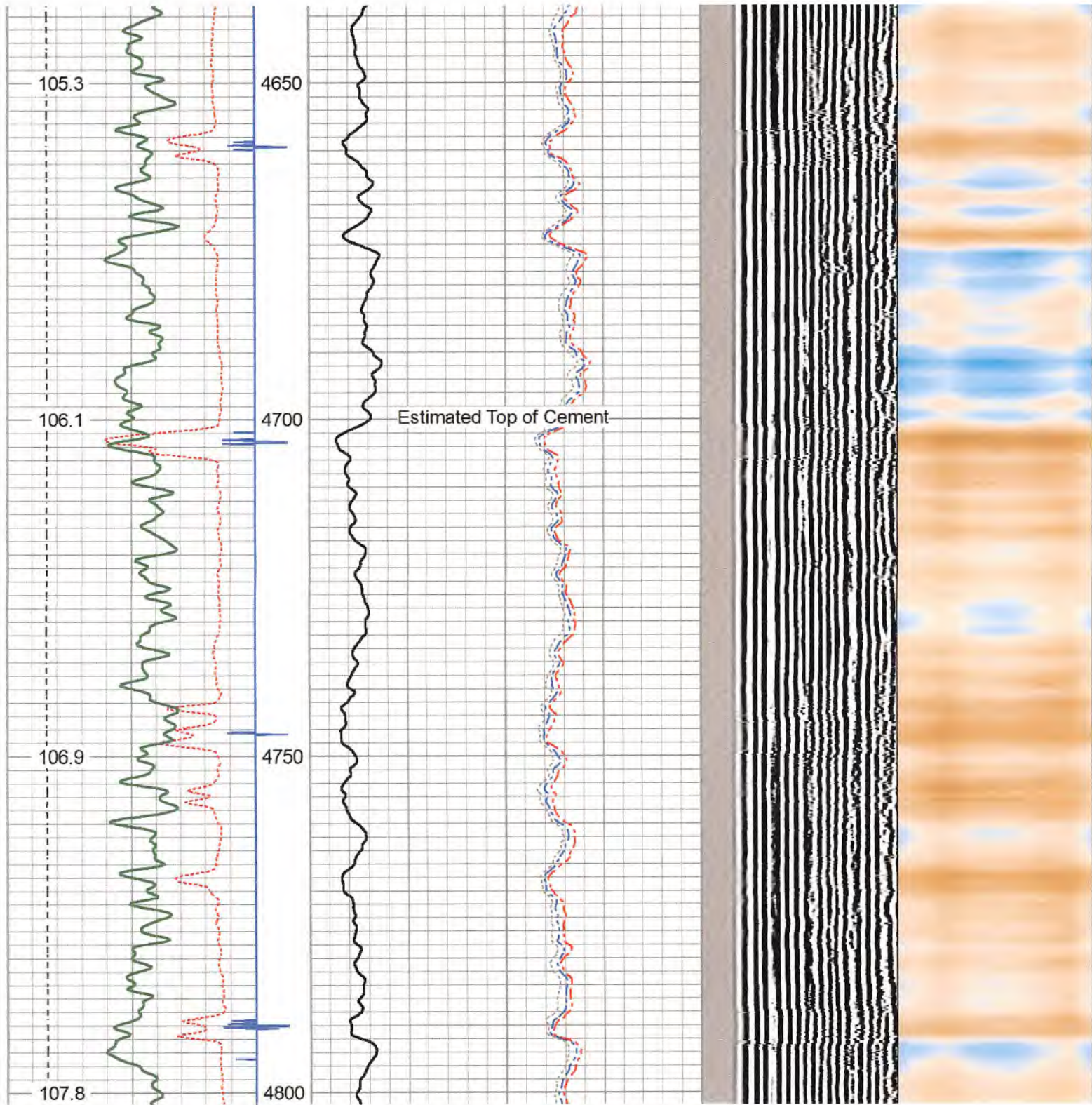


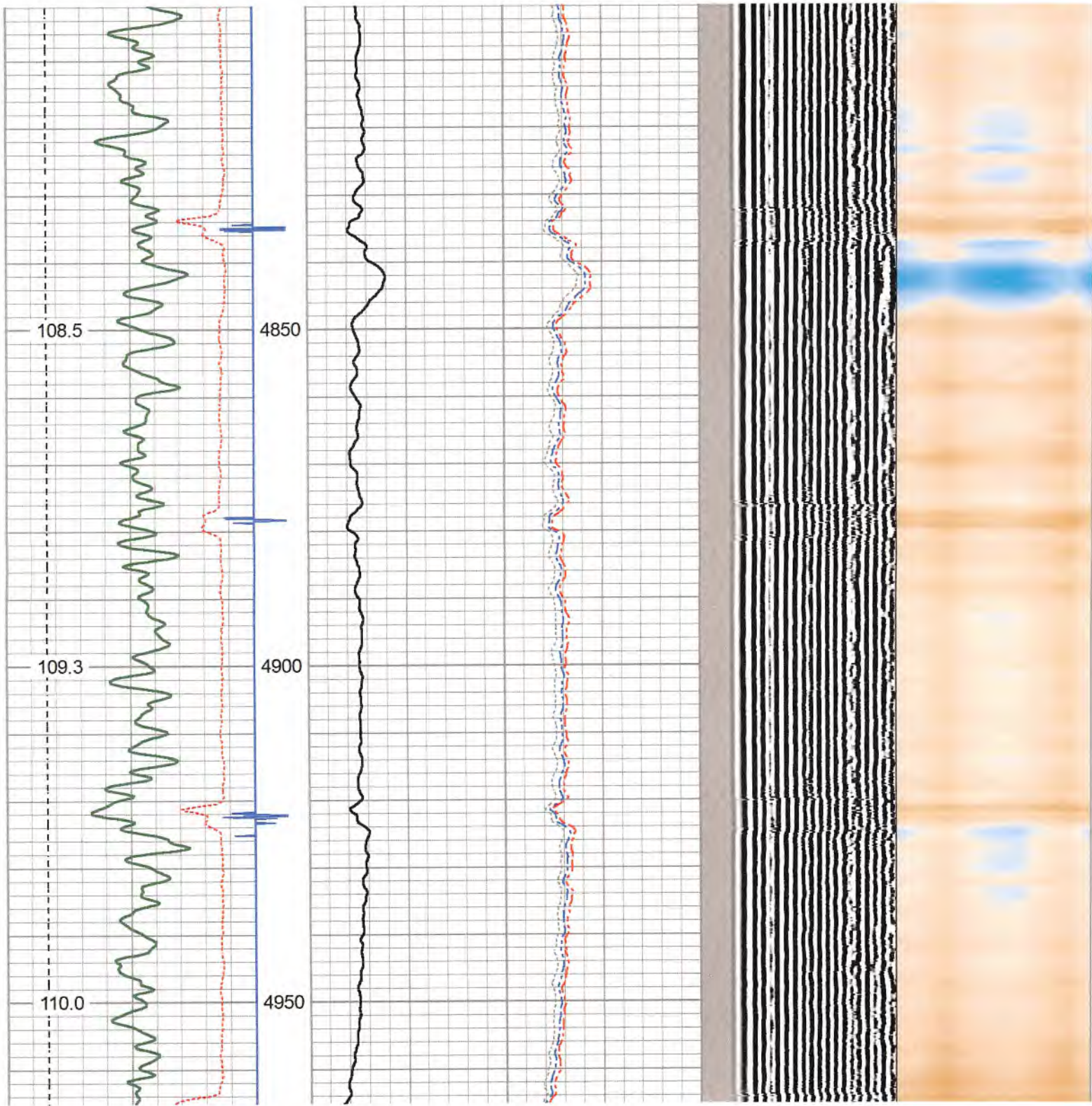


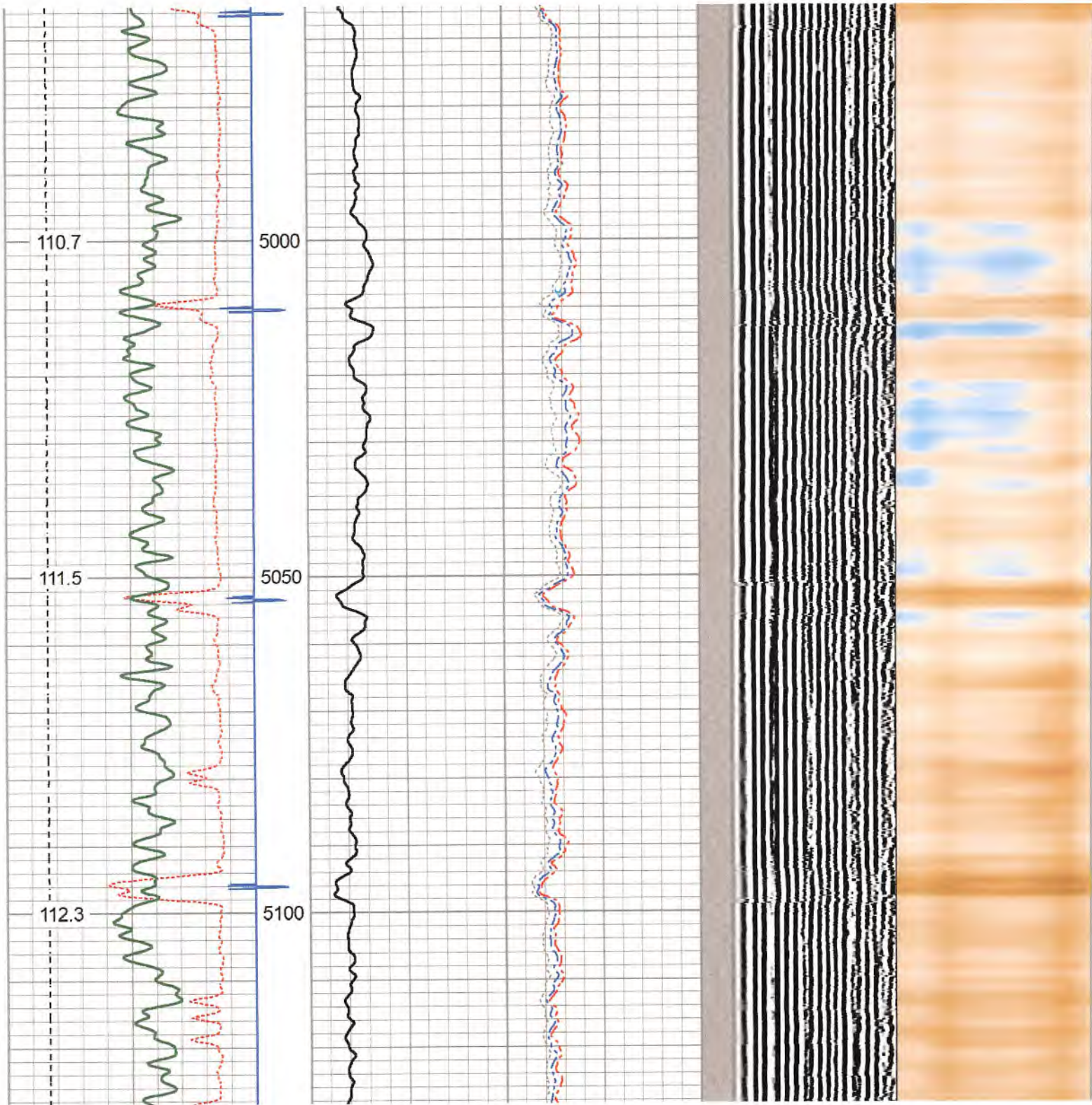


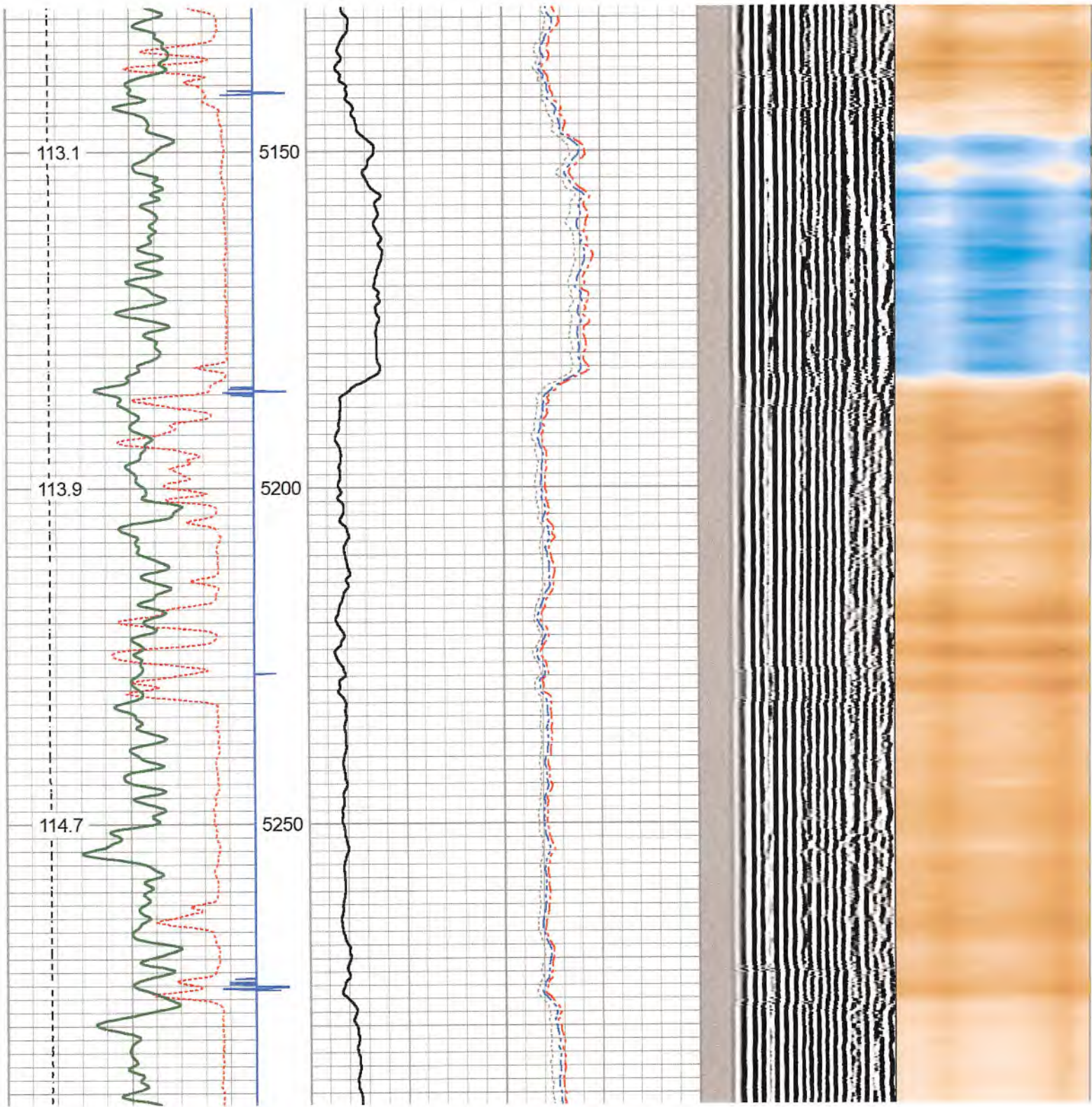


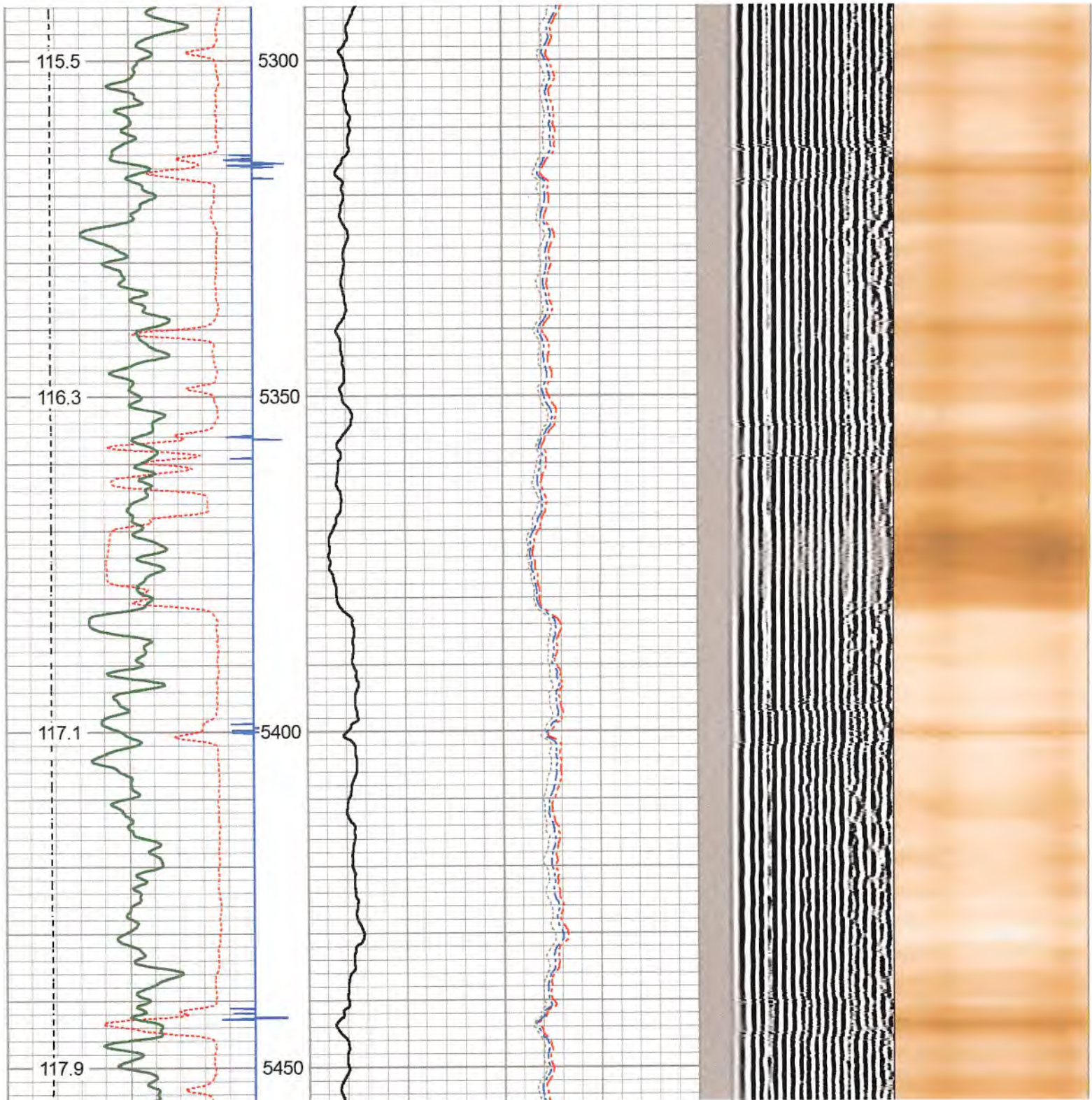


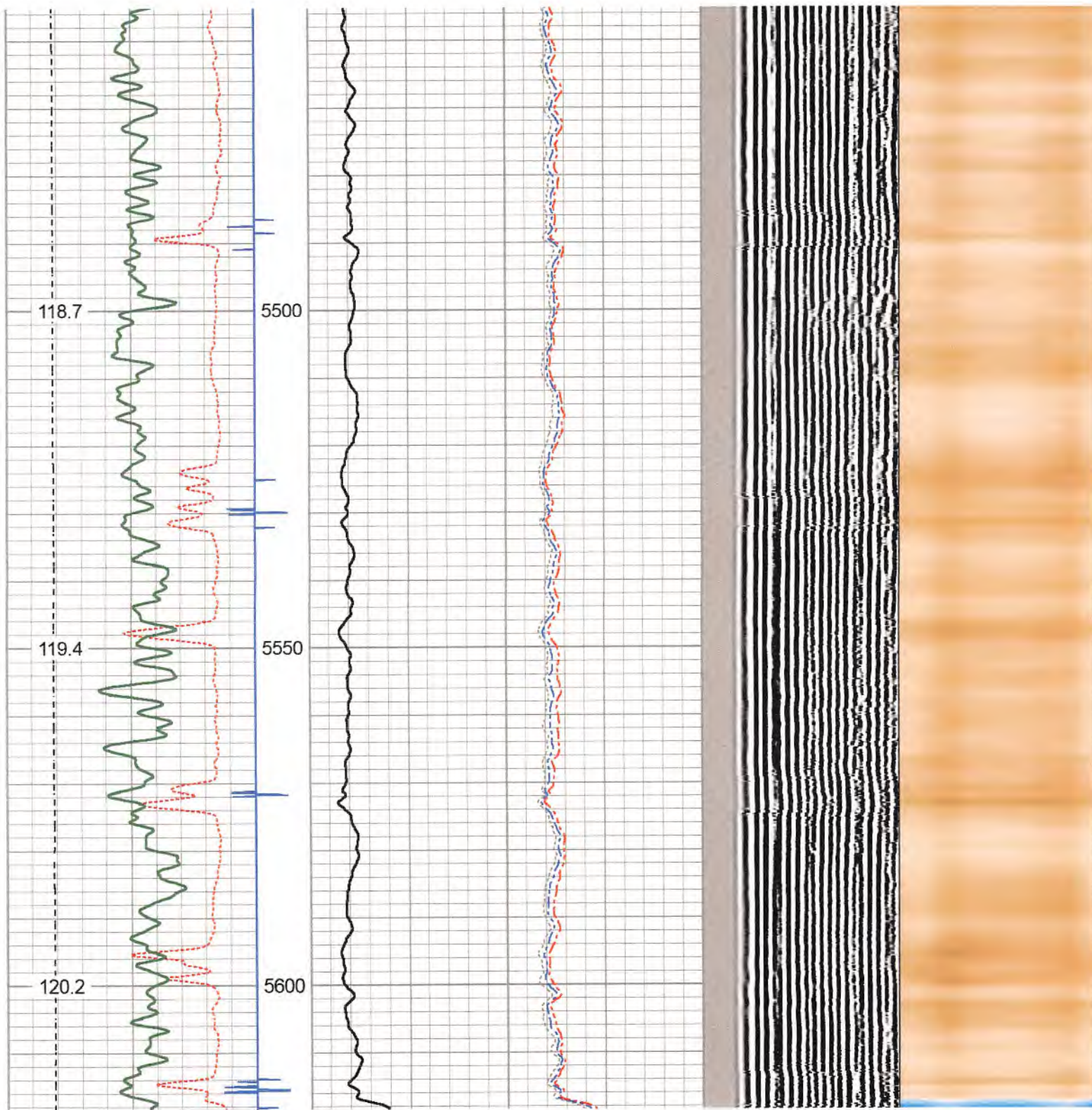


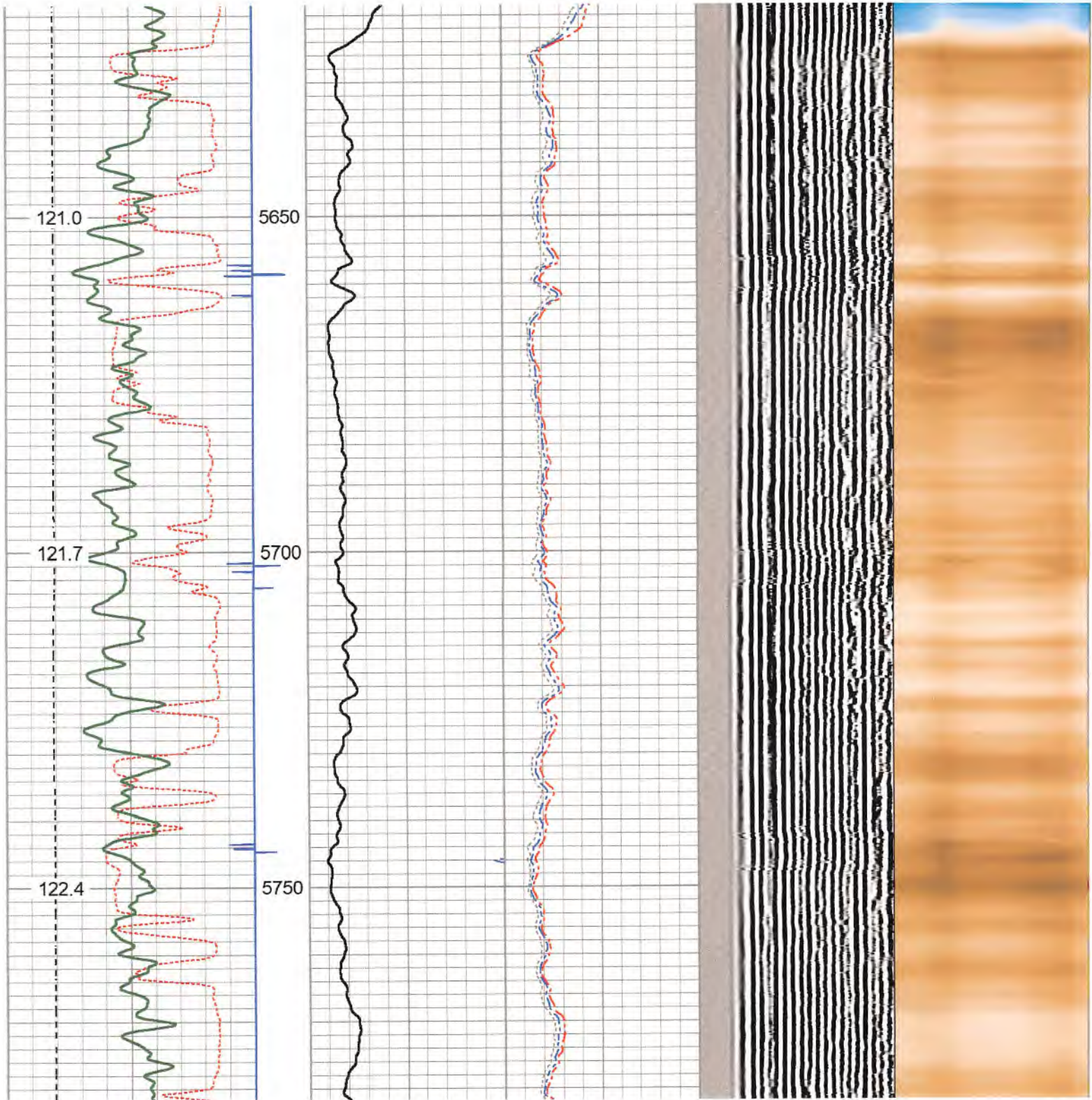


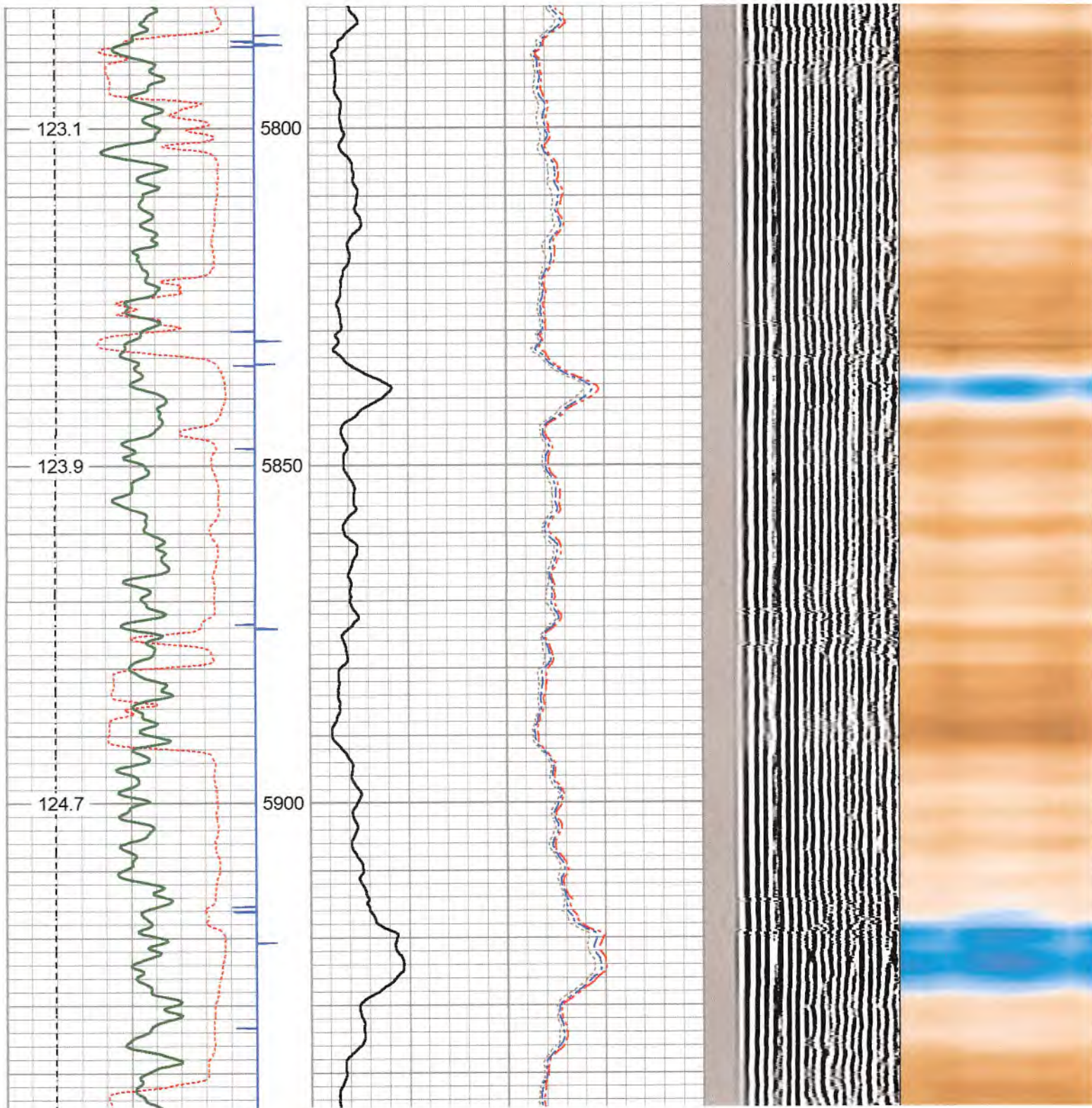


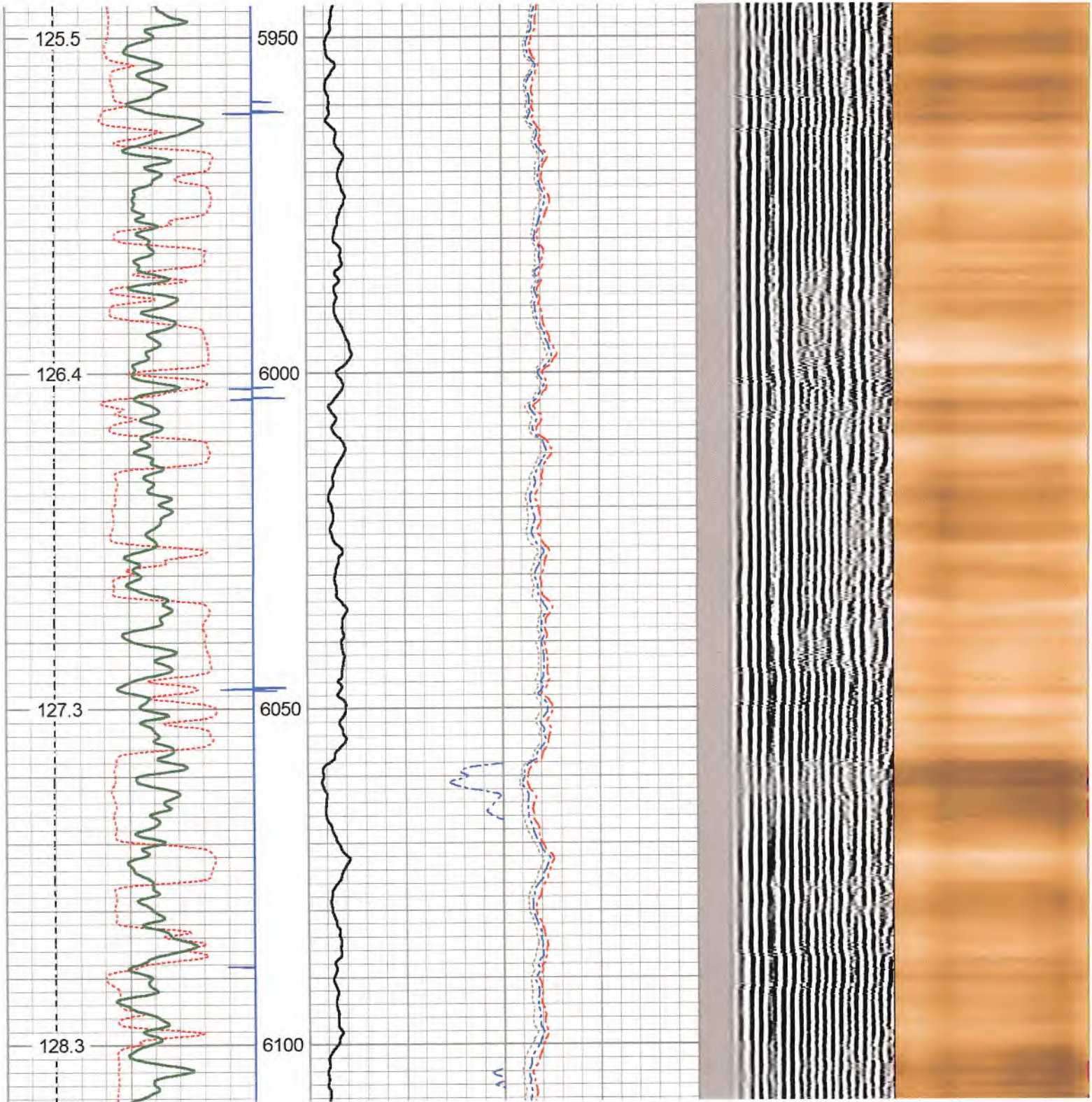


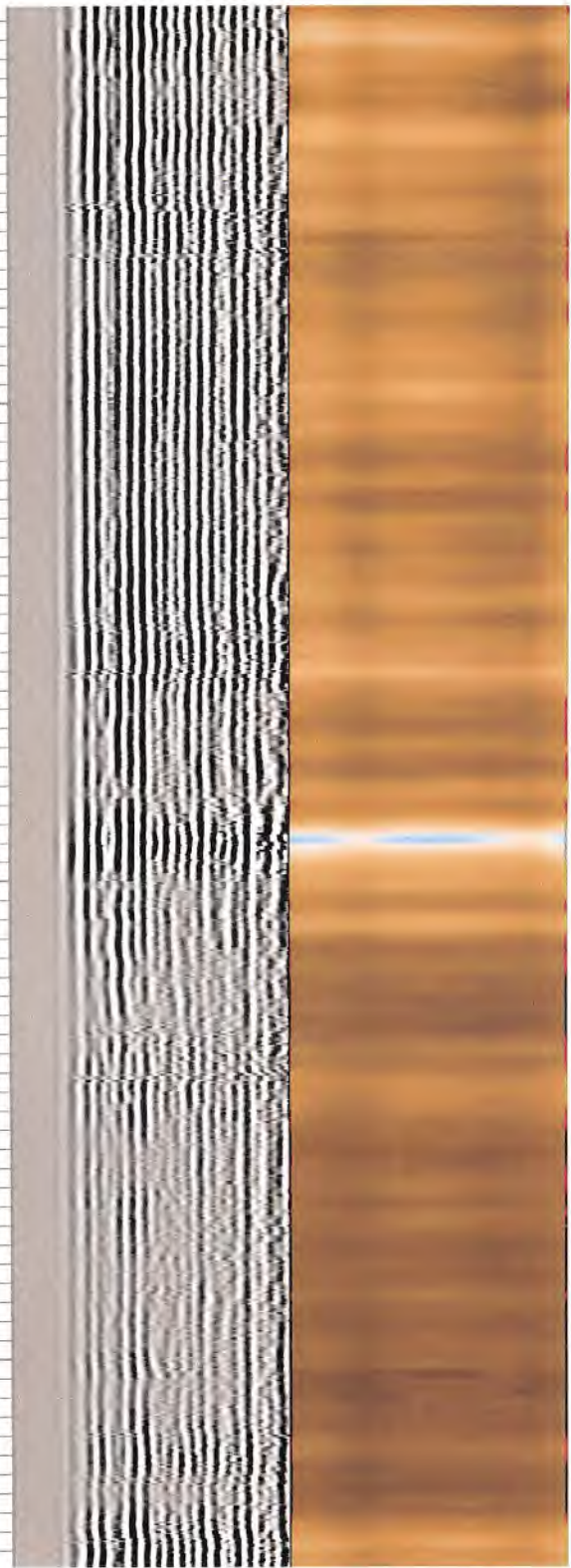
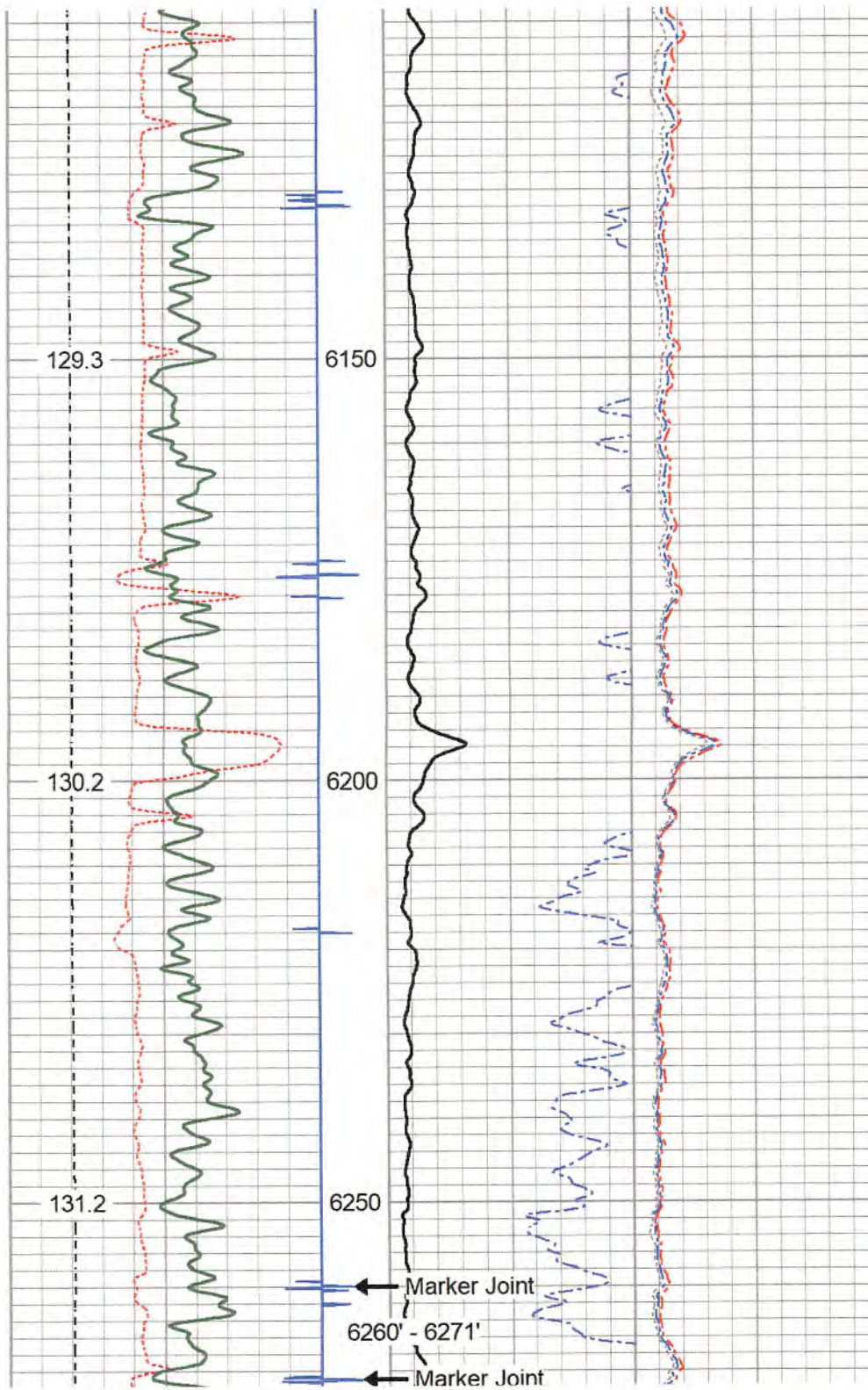


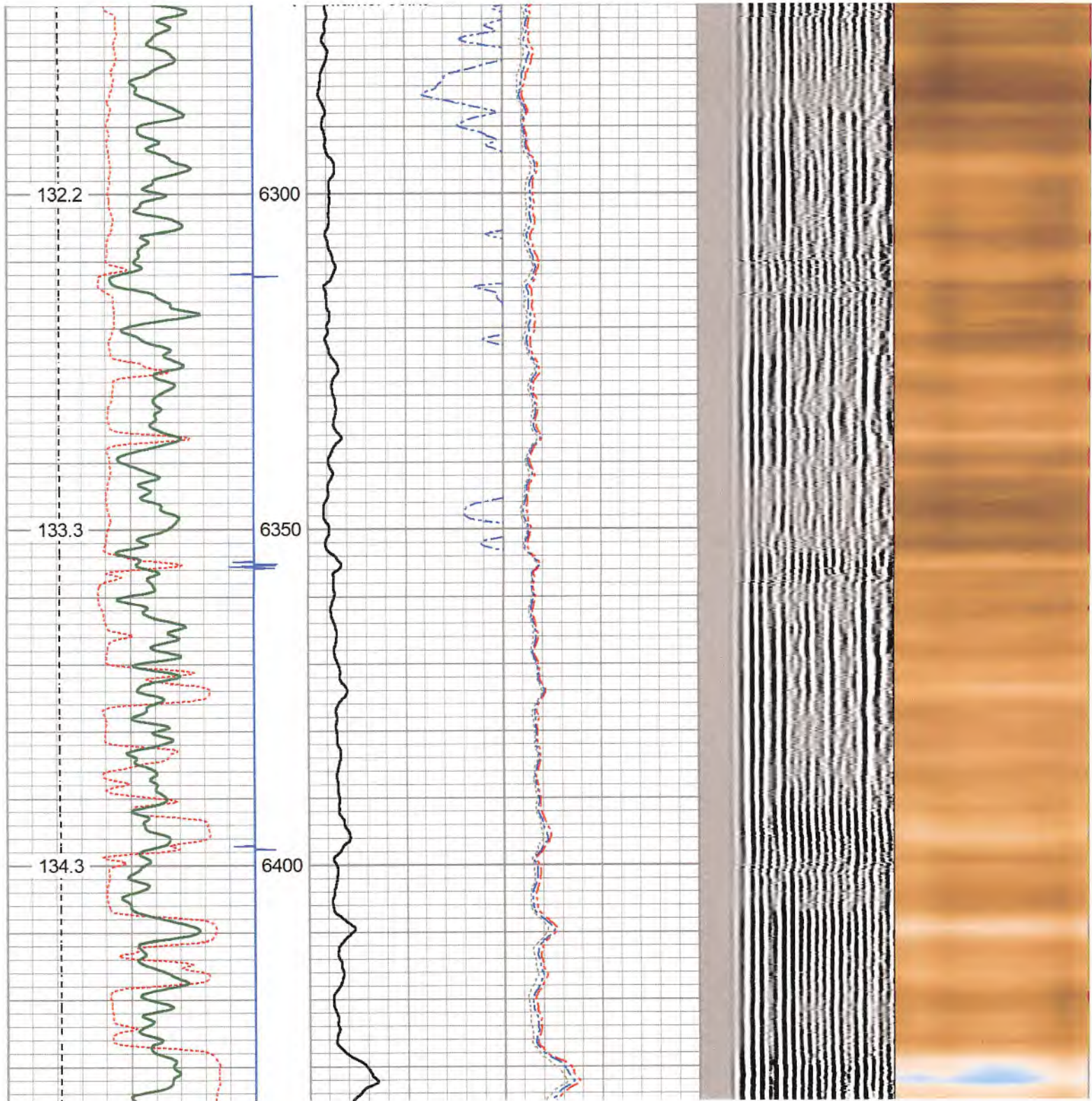


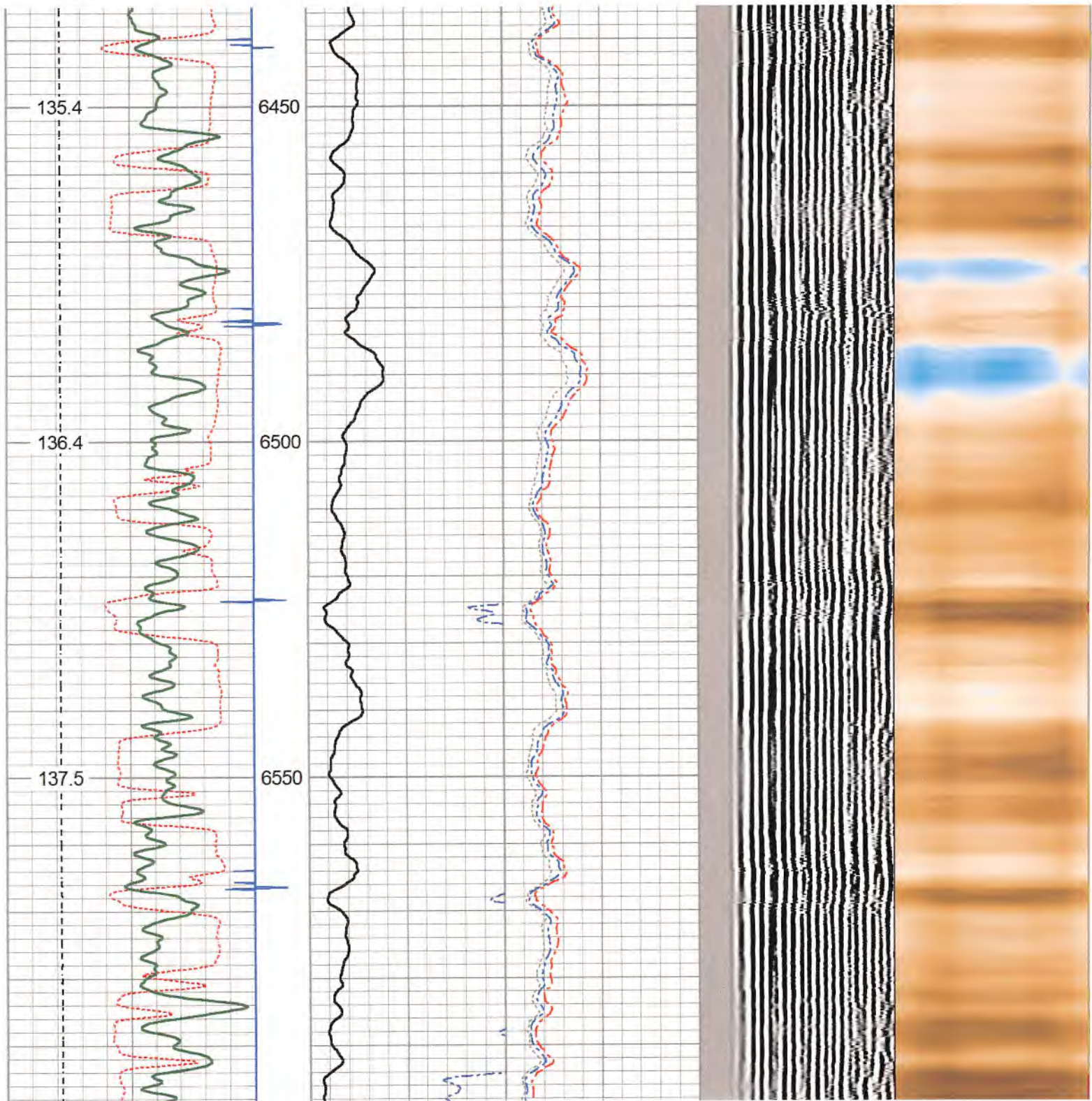


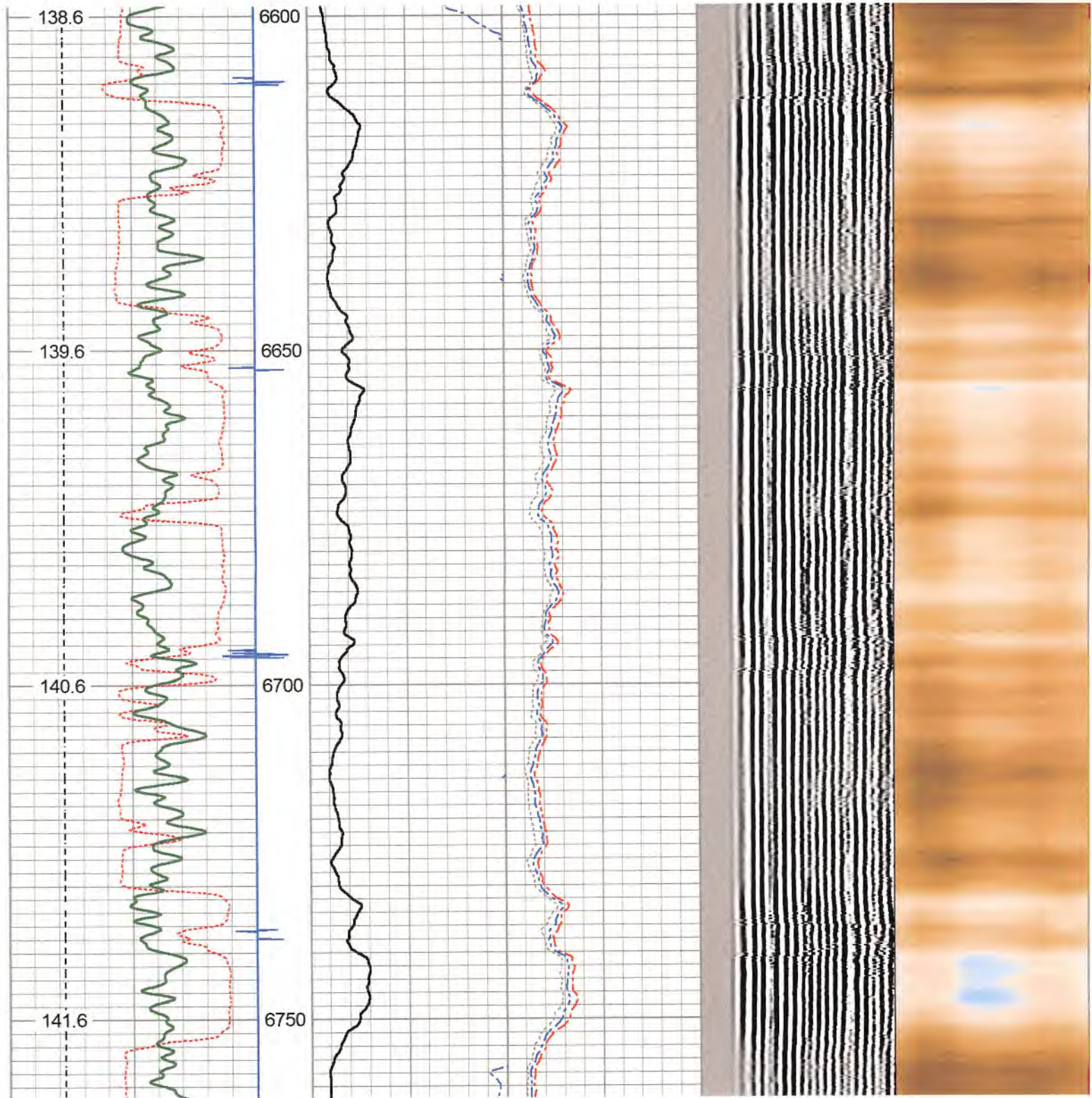


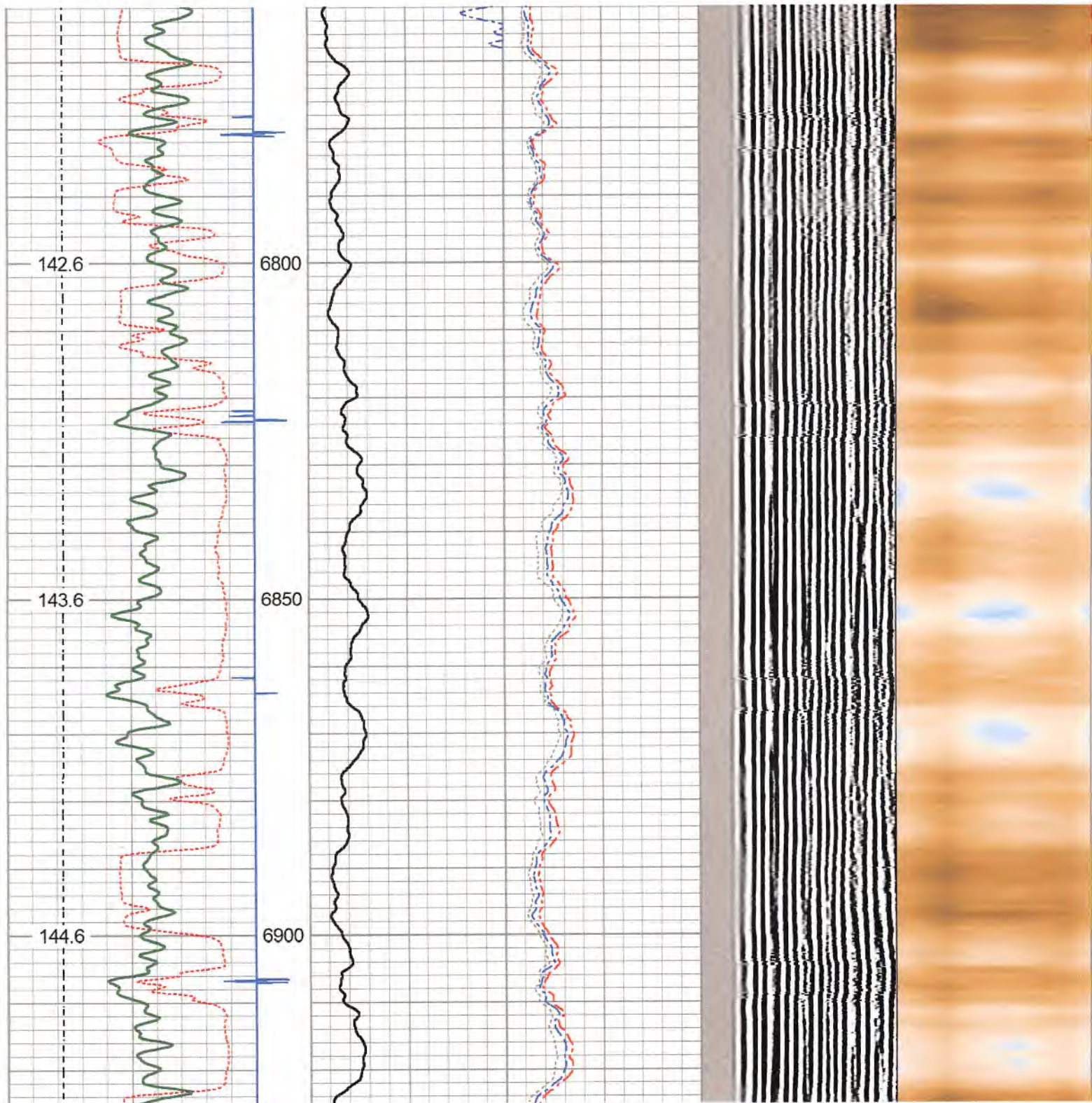


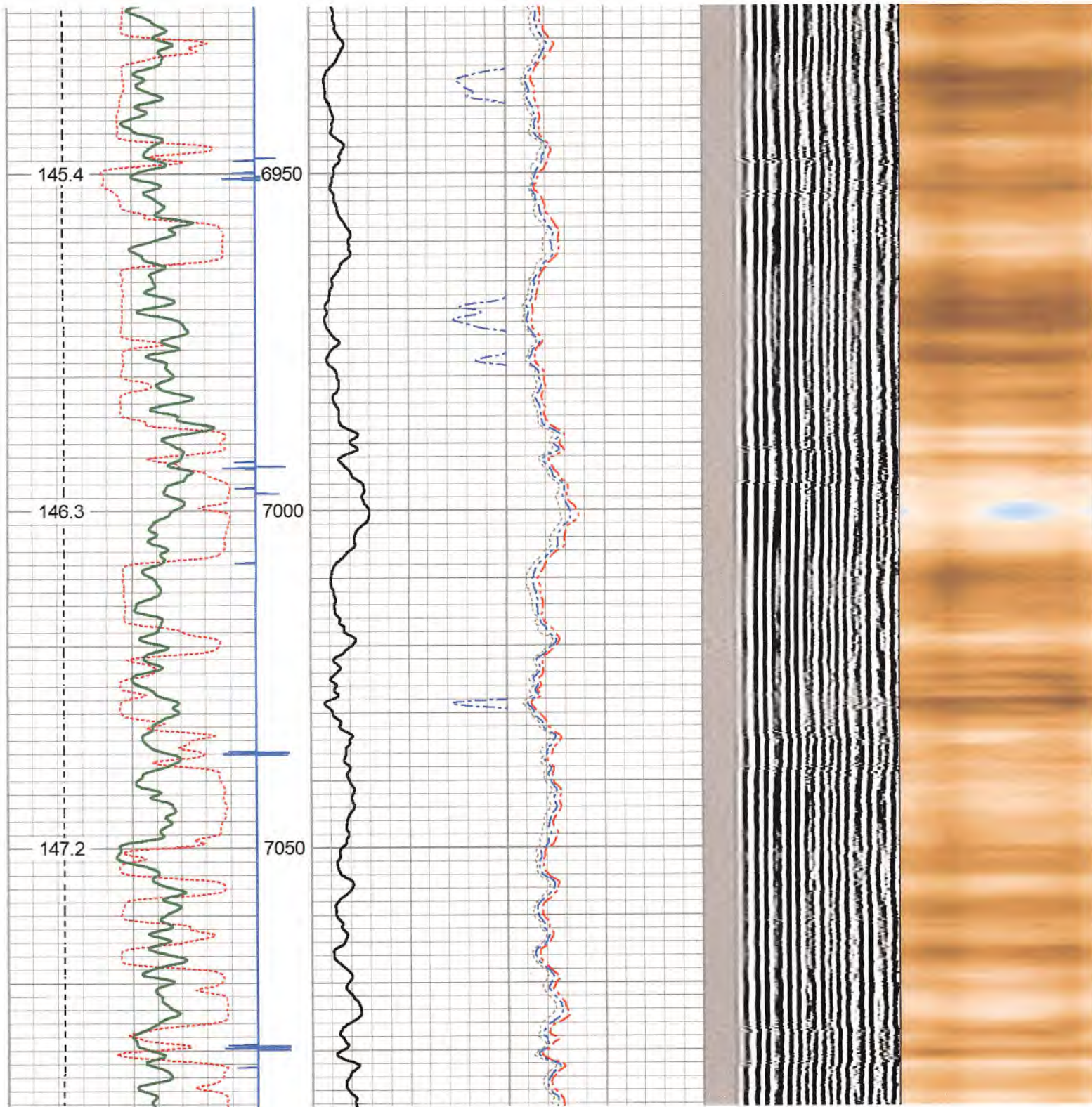


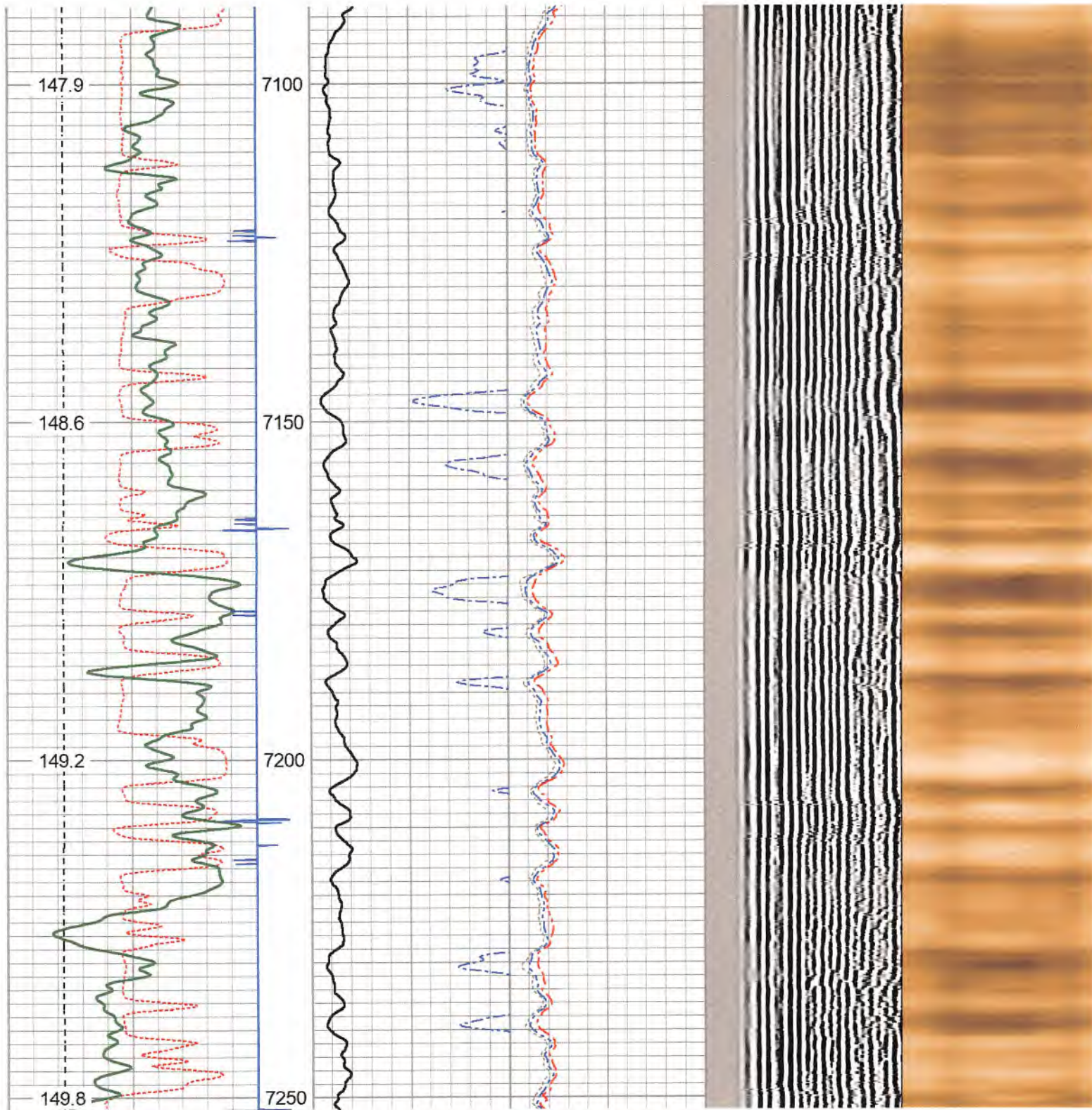


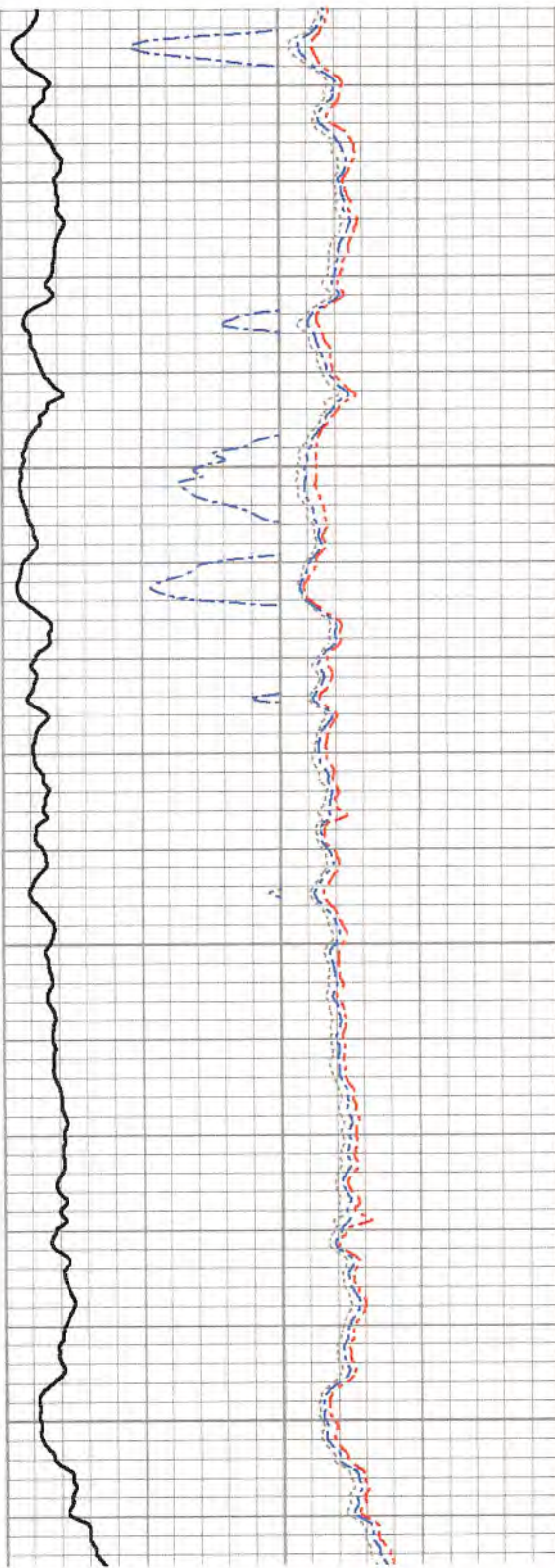
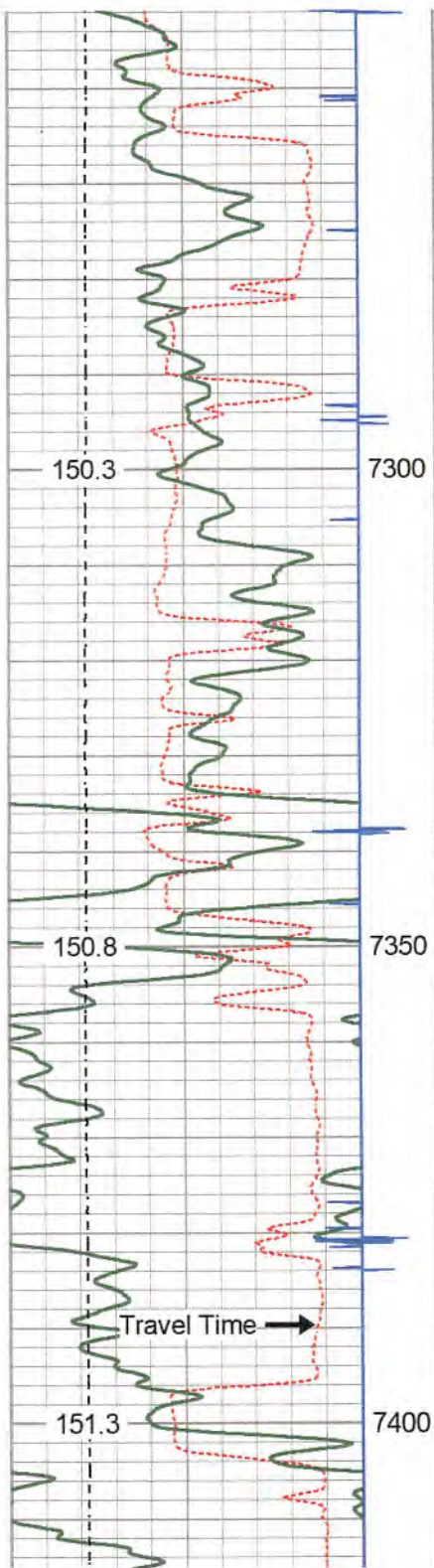


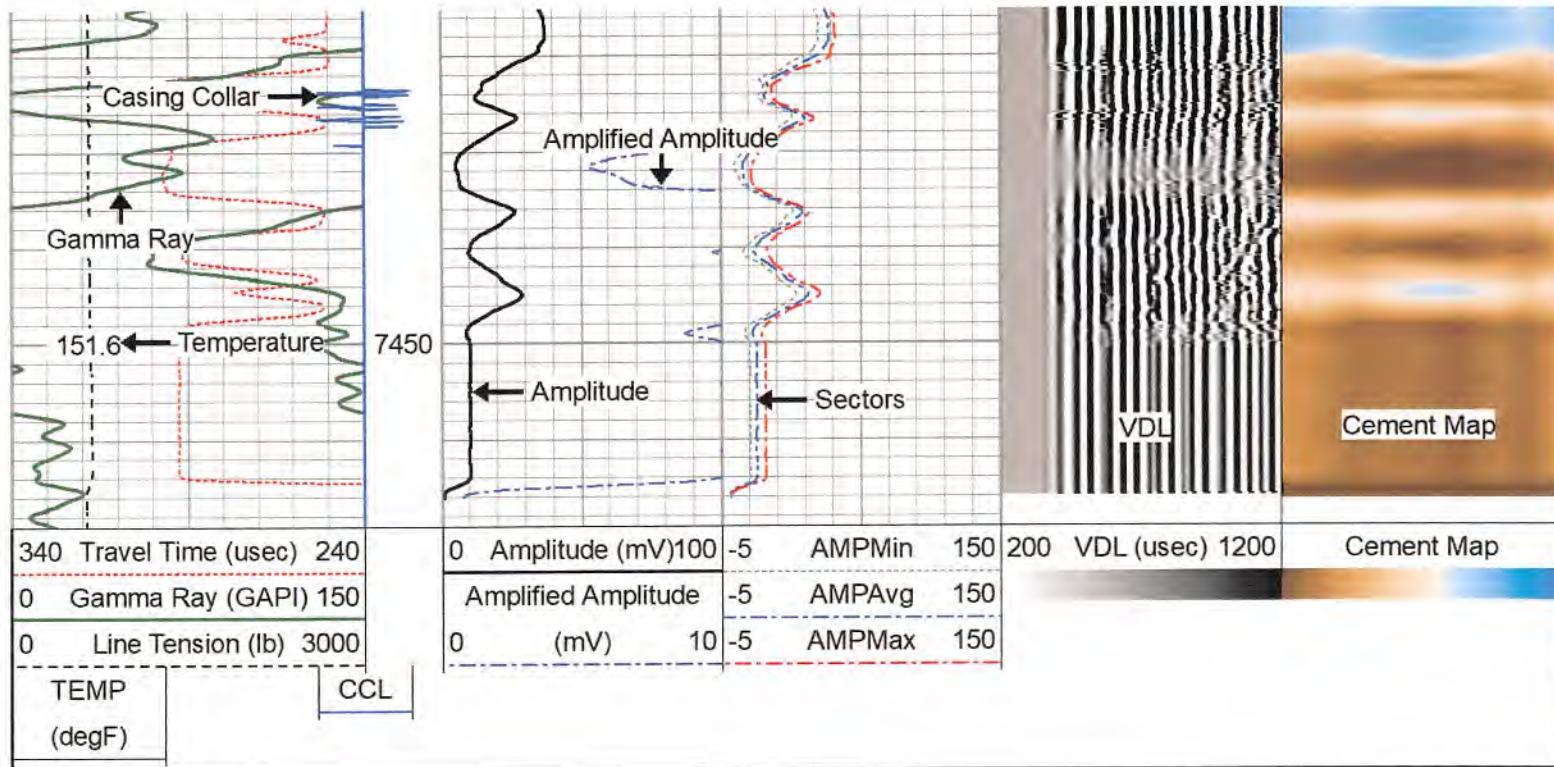








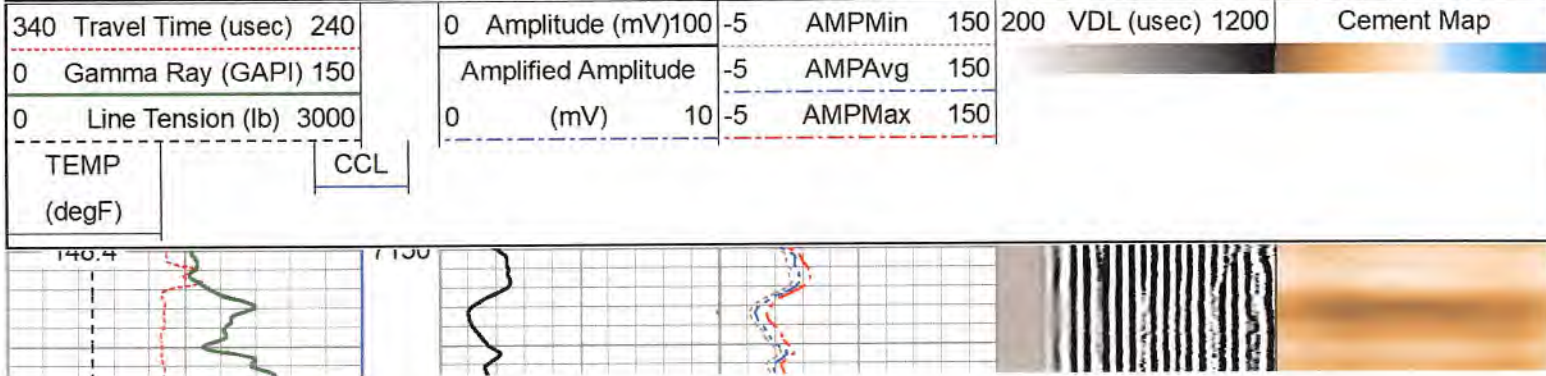


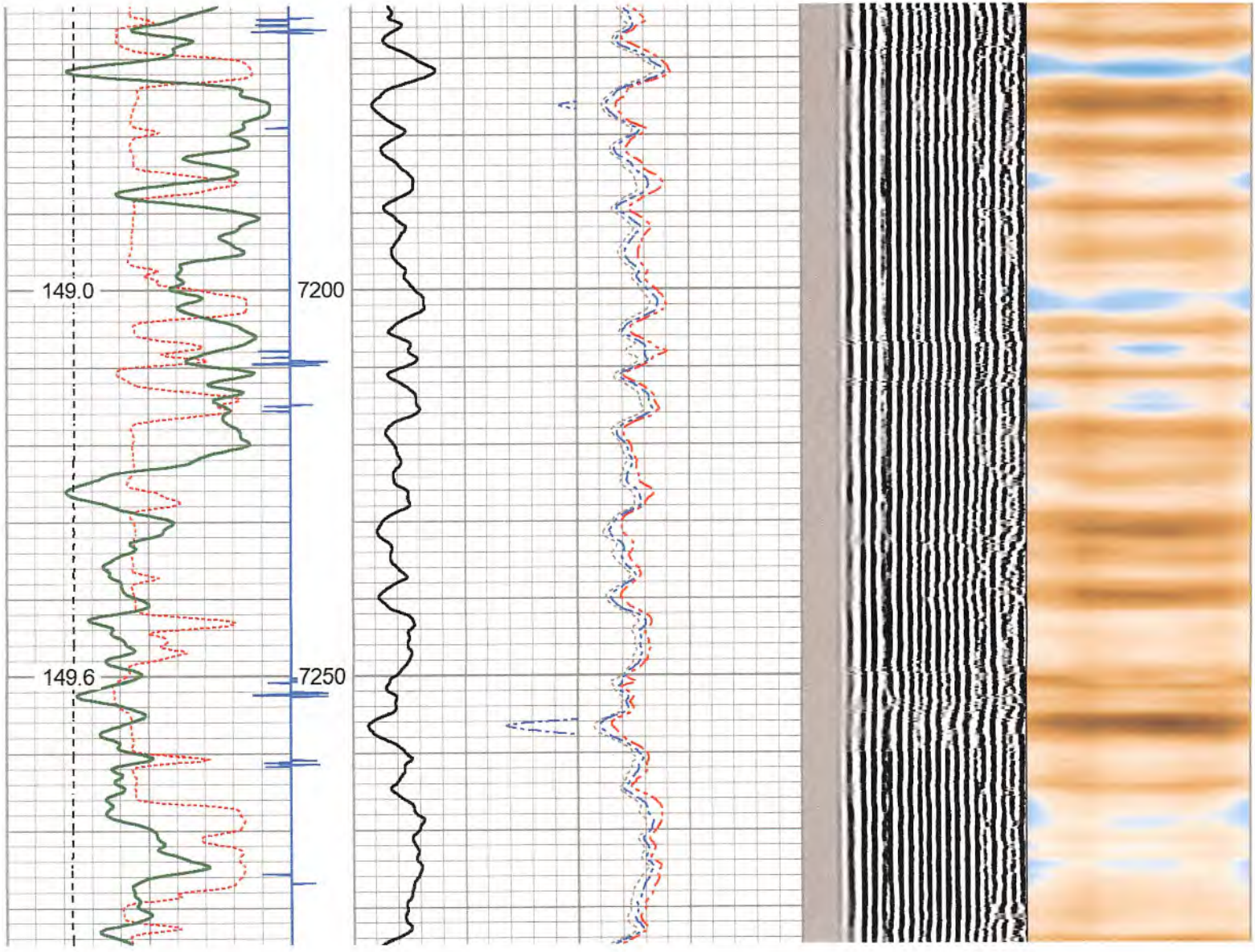


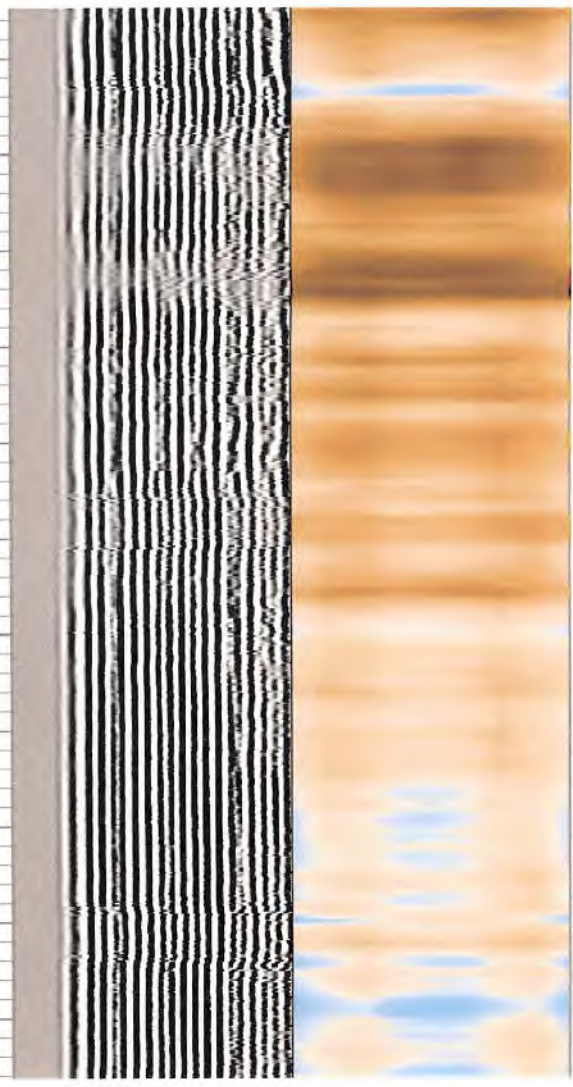
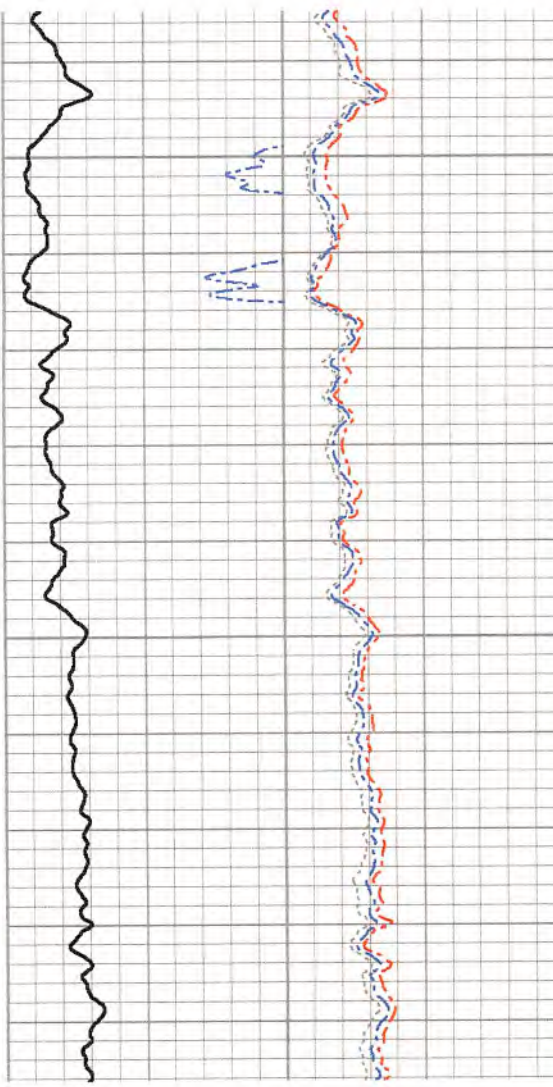
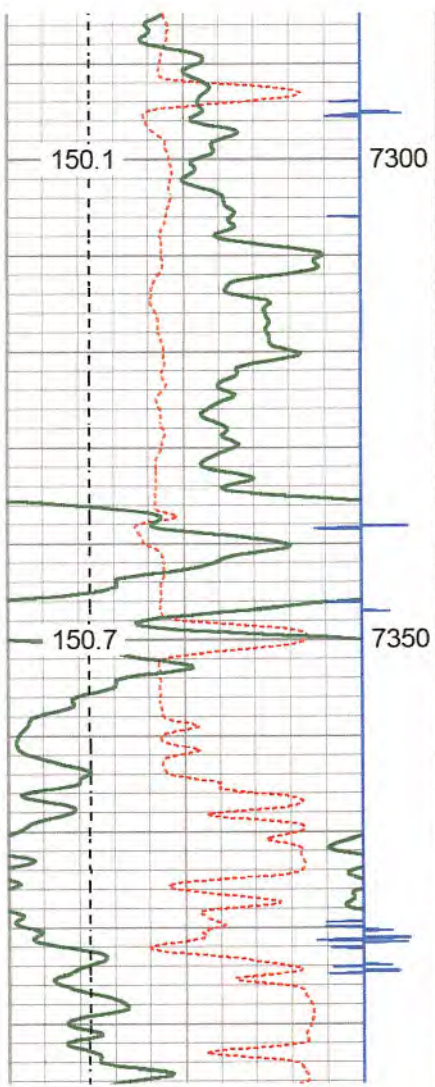
GR Energy Services

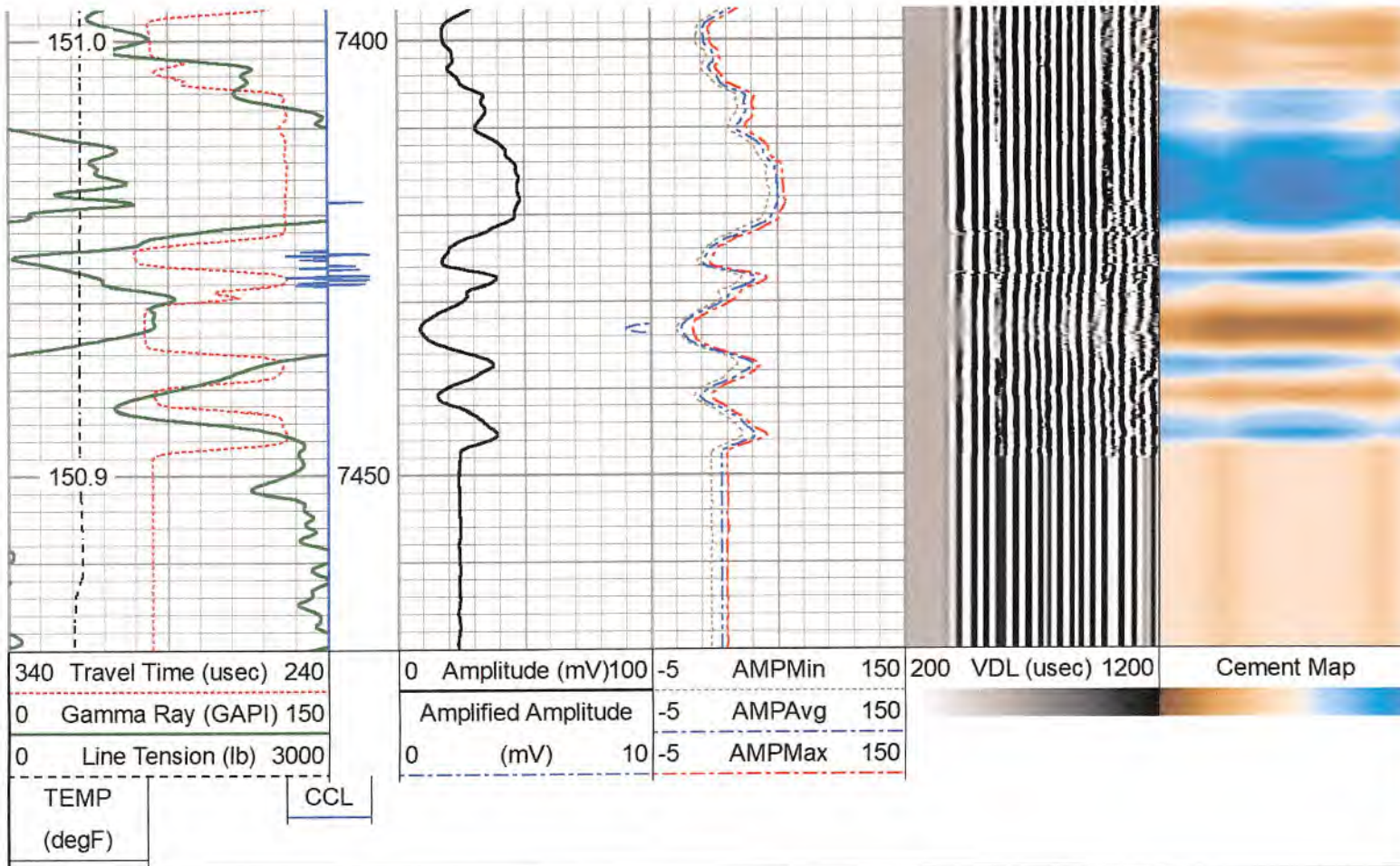
Repeat Pass (0 PSI)

Database File c:\users\logbox\desktop\antero gaspar\ant_gaspar_mckean_2h.db
 Dataset Pathname rcb/pass5
 Presentation Format tt_rcbl_std_bw
 Dataset Creation Sat Jul 16 14:30:27 2022
 Charted by Depth in Feet scaled 1:240









Log Variables

Database: \users\logbox\desktop\antero gaspar\ant_gaspar_mckean_2h.db
 Dataset field/well/rcbl/pass5/_vars_

Top - Bottom

BOREID in 8.5	BOTTEMP degF 151.6	CASEOD in 5.5	CASETHCK in 0.42	CASEWGHT lb/ft 23	MAXAMPL mV 72	MINAMPL mV 1	MINATTN db/ft 0.8
PERFS No	PPT uSec 368	SRFTEMP degF 82	TDEPTH ft 7462				

Variable Description

BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature

CASEWGHT : Casing Weight
 MAXAMPL : Maximum Amplitude

PERFS : Perforation Flag
 PPT : Predicted Pipe Time

CASEOD : Casing O.D.
CASETHCK : Casing Thickness

MINAMPL : Minimum Amplitude
MINATTN : Minimum Attenuation

SRFTEMP : Surface Temperature
TDEPTH : Total Depth

Calibration Report

Database File c:\users\logbox\desktop\antero gaspar\ant_gaspar_mckean_2h.db
Dataset Pathname rcb/pass5
Dataset Creation Sat Jul 16 14:30:27 2022

Gamma Ray Calibration Report

Serial Number: GCT275-0000_base
Tool Model: GCT275-0000
Performed: Wed May 29 12:12:35 2019

Calibrator Value: 1094.2 GAPI

Background Reading: 55.7 cps
Calibrator Reading: 1704.2 cps

Sensitivity: 0.6638 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: RBT275C_Base
Tool Model: RADII-275C

Calibration Casing Diameter: 5.500 in
Calibration Depth: 458.492 ft

Master Calibration, performed Sat Jul 16 13:58:01 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.356	1.000	71.921	200.333	0.680
CAL	-0.000	0.871				
5'	0.001	0.264	1.000	71.921	269.711	0.826
SUM						
S1	-0.005	0.556	0.000	100.000	178.137	0.870
S2	0.002	0.471	0.000	100.000	213.156	-0.429
S3	0.001	0.368	0.000	100.000	272.867	-0.403
S4	0.001	0.373	0.000	100.000	268.978	-0.263
S5	0.001	0.389	0.000	100.000	257.691	-0.186
S6	0.002	0.384	0.000	100.000	261.441	-0.514
S7	0.001	0.382	0.000	100.000	262.775	-0.391
S8	0.001	0.468	0.000	100.000	214.226	-0.160

Internal Reference Calibration, performed Sat Jul 16 09:45:49 2022:


	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.000	0.871	1.000	0.000

Air Zero Calibration, performed Sat Jul 16 09:42:35 2022:


	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	


Inclinometer Calibration Report

Performed:	(Not Performed)				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	0.00	1.00	0.00	1.00	gee
Y Accelerometer	0.00	1.00	0.00	1.00	gee
Z Accelerometer	0.00	1.00	0.00	1.00	gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31

RBT_HV	19.19		CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
WVFS8	14.69		RBT8-RADII-275C (RBT275C_Base) Probe 2.75" RADII 8 Sector Bond Tool	8.75	2.75	
WVFS7	14.69					
WVFS6	14.69					
WVFS5	14.69					
WVFS4	14.69					
WVFS3	14.69					
WVFS2	14.69					
WVFS1	14.69					
WVF3FT	14.69					
WVF5FT	13.69					
RBT_ACCZ	10.44		CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
RBT_ACCY	10.44					
RBT_ACCX	10.44					
WVFSYNC	10.44					
WVFCAL	10.44					
GCT_HV	7.60					
CCL\$2	6.64					
CCL\$1	6.64					
GCT_Temp	6.09					

GR	5.22		<p>GC-GCT275-0000 (GCT275-0000_base) Probe Gamma Ray - CCL w/ Temp</p> <p>CENT-BC275-0000 Probe 2.75" Bowspring Centralizer</p>	4.77	2.75	55.00
<p>Dataset: ant_gaspar_mckean_2h.db: field/well/rcbl/pass5 Total length: 23.04 ft Total weight: 130.31 lb O.D.: 2.75 in</p>						

	Company	Antero Resources Corporation	
	Well	McKean Unit 2H	
Field	South Canton		
County	Doddridge		
State	WV	Country	USA