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Office of Oil and Gas

OCT 27 2023

WV Department of
Environmental Protection



Radial Cement Bond
Gamma Ray CCL
Temperature Log

Company		Antero Resources Corporation	
Well	Jenkins Unit 1H	Field	White Oak
County	Doddridge	State	WV
Company	Antero Resources Corporation	Well	Jenkins Unit 1H
Field	White Oak	County	Doddridge
State	WV	Location (LAT, LON)	39.177541, -80.833647
API #	47-017-06942-00-00	Township	N/A
AFE #	A12510-C	Permanent Datum	Ground Level
Location (LAT, LON)	39.177541, -80.833647	Log Measured From	KB = 30' above GL
Drilling Measured From	KB	Elevation	1100'
Other Services	None	Elevation	K.B. 1130' D.F. 1130' G.L. 1100'
Date	10 JUNE 2023	Run Number	One
Depth Driller (ft)	16348	Depth Logger (ft)	7022
Bottom Logged Interval (ft)	7015	Top Log Interval	Surface
Open Hole Size (in)	8.5	Type Fluid	Water
Density / Viscosity (lb/gal)	8.4	Max. Recorded Temp. (°F)	147.3
Estimated Cement Top (ft)	1665	Time Well Ready	12:00 AM
Time Logger on Bottom	12:31 AM	Equipment Number	8018
Location	Smithton, PA	Recorded By	T. Trump
Witnessed By	R. Reed	Casing Record	Size (in)
Conductor String	20	Weight (lb/ft)	91.59
Surface String	13.375	Top (ft)	Surface
Intermediate String	9.625	Bottom (ft)	130
Production String	5.5	Surface	437
		Surface	2848
		Surface	16309
Inclination Information (Approximated Values from Directional Survey)			
KOP	30°	60°	90°
1330'	6370'	6680'	7120'

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

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 -3'

Marker Joint Located @ 5653' - 5663'

Maximum Temperature Recorded was 147.3°F
Maximum Tension was 1104 lbs

Estimated Top of Cement @ 1665'

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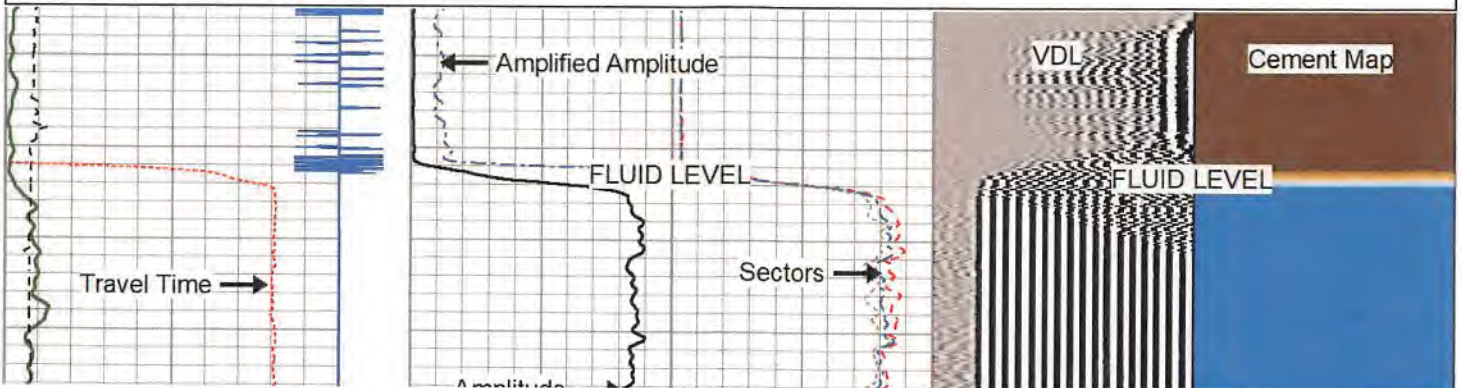


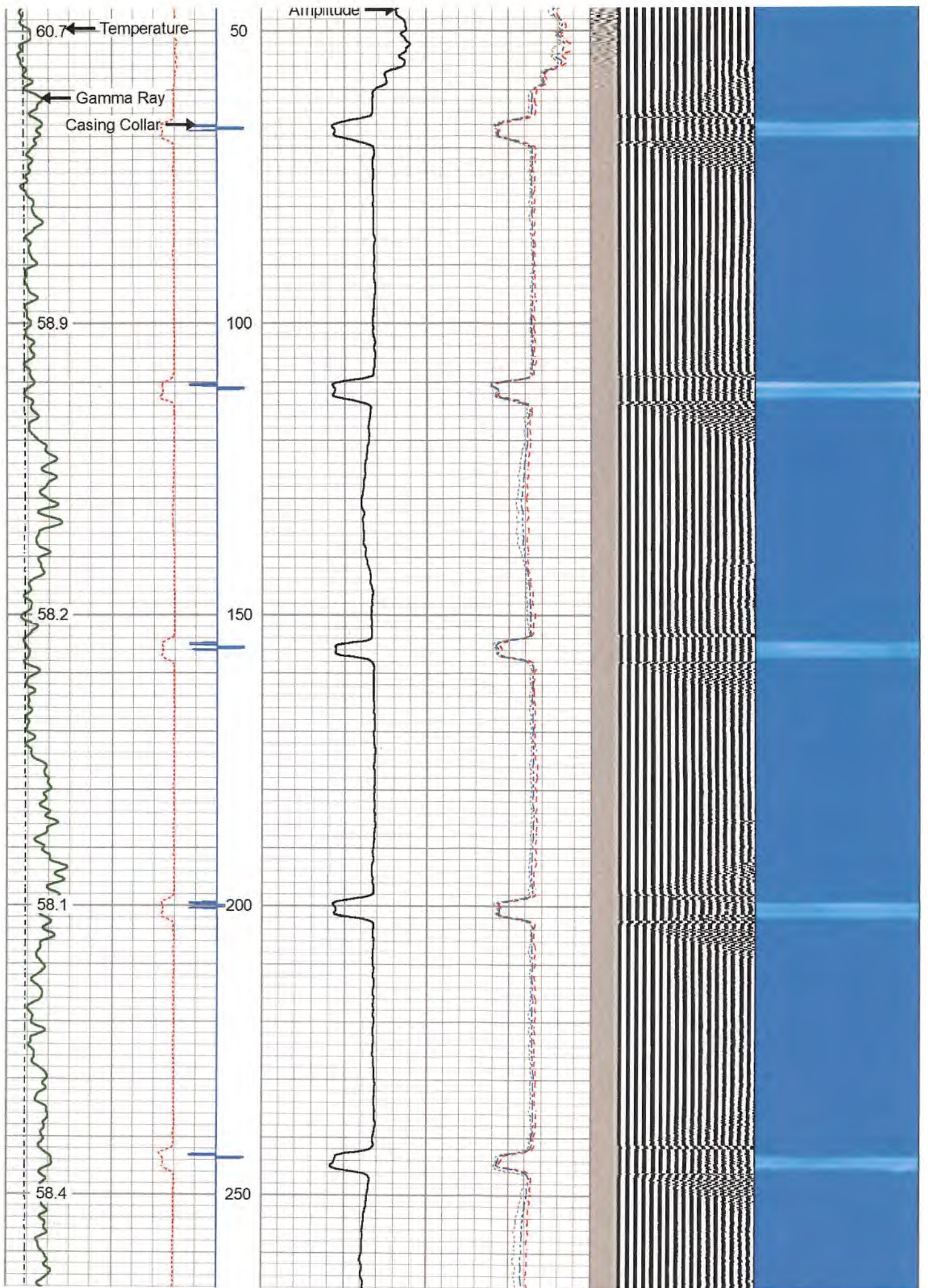
Main Pass

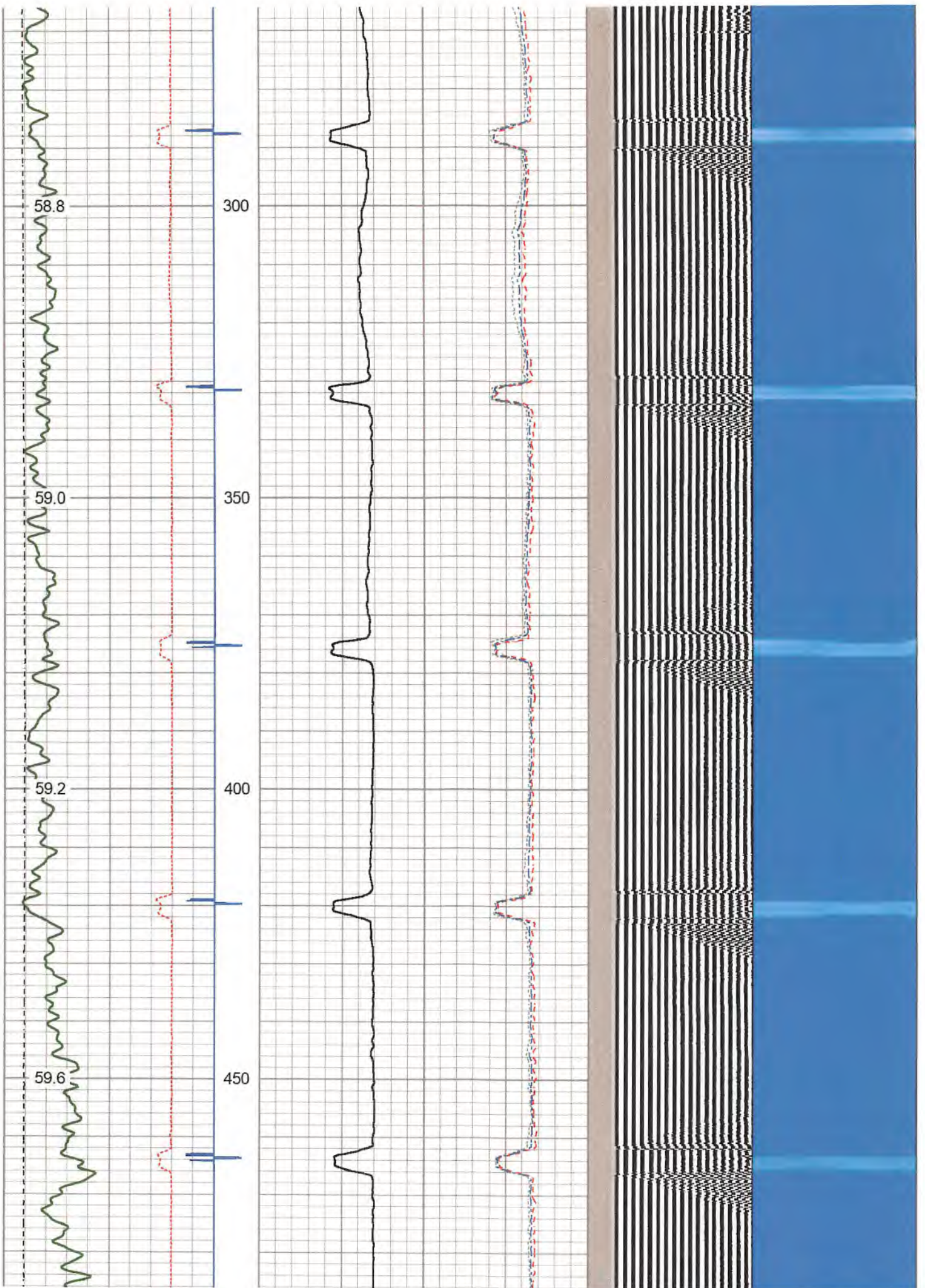
(1500 PSI)

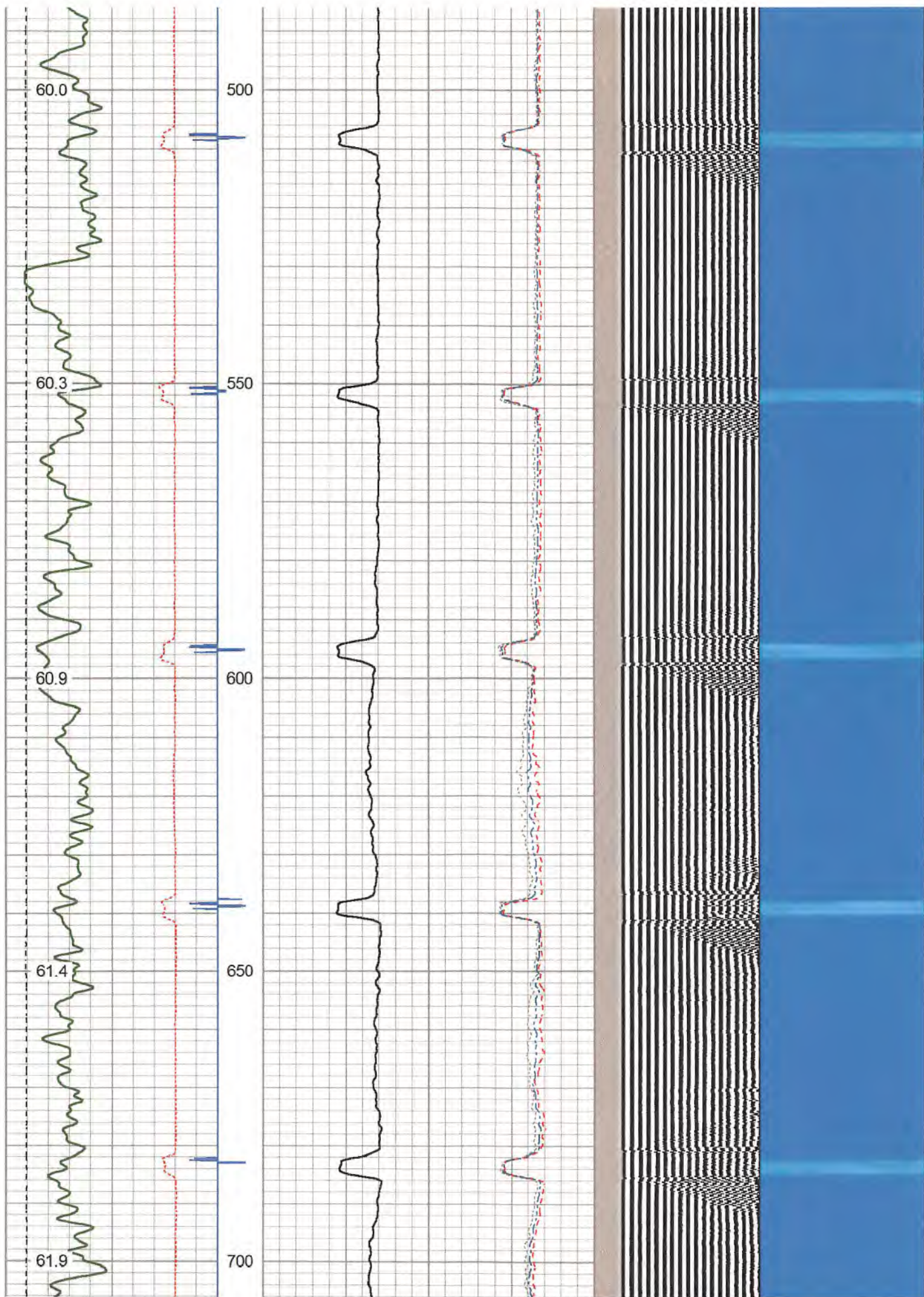
Database File c:\users\logbox\desktop\antero\antero_jenkins_1h.db
Dataset Pathname rcb/pass4
Presentation Format rcb_std_bw_tt
Dataset Creation Sat Jun 10 01:05:29 2023
Charted by Depth in Feet scaled 1:240

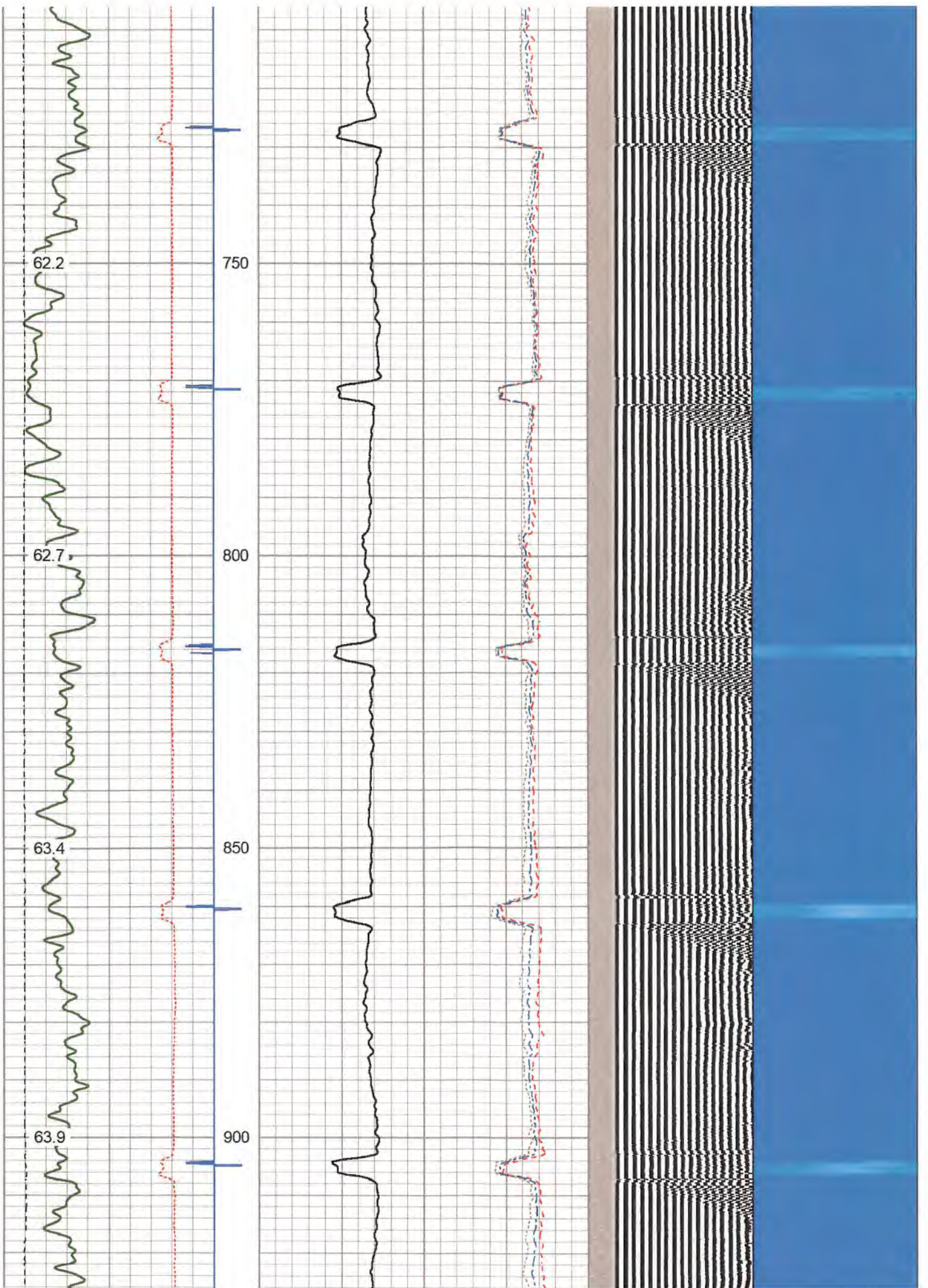
340	TT (usec)	240	Amplitude	-5	AMPMin	150	200	VDL (usec) 1200	Cement Map
0	GR (GAPI)	150	(mV)	100	-5	AMPMax	150		
0	LTEN (lb)	3000	Amplified Amplitude	-5	AMPAvg	150			
	TEMP (degF)		(mV)	10					
		CCL							

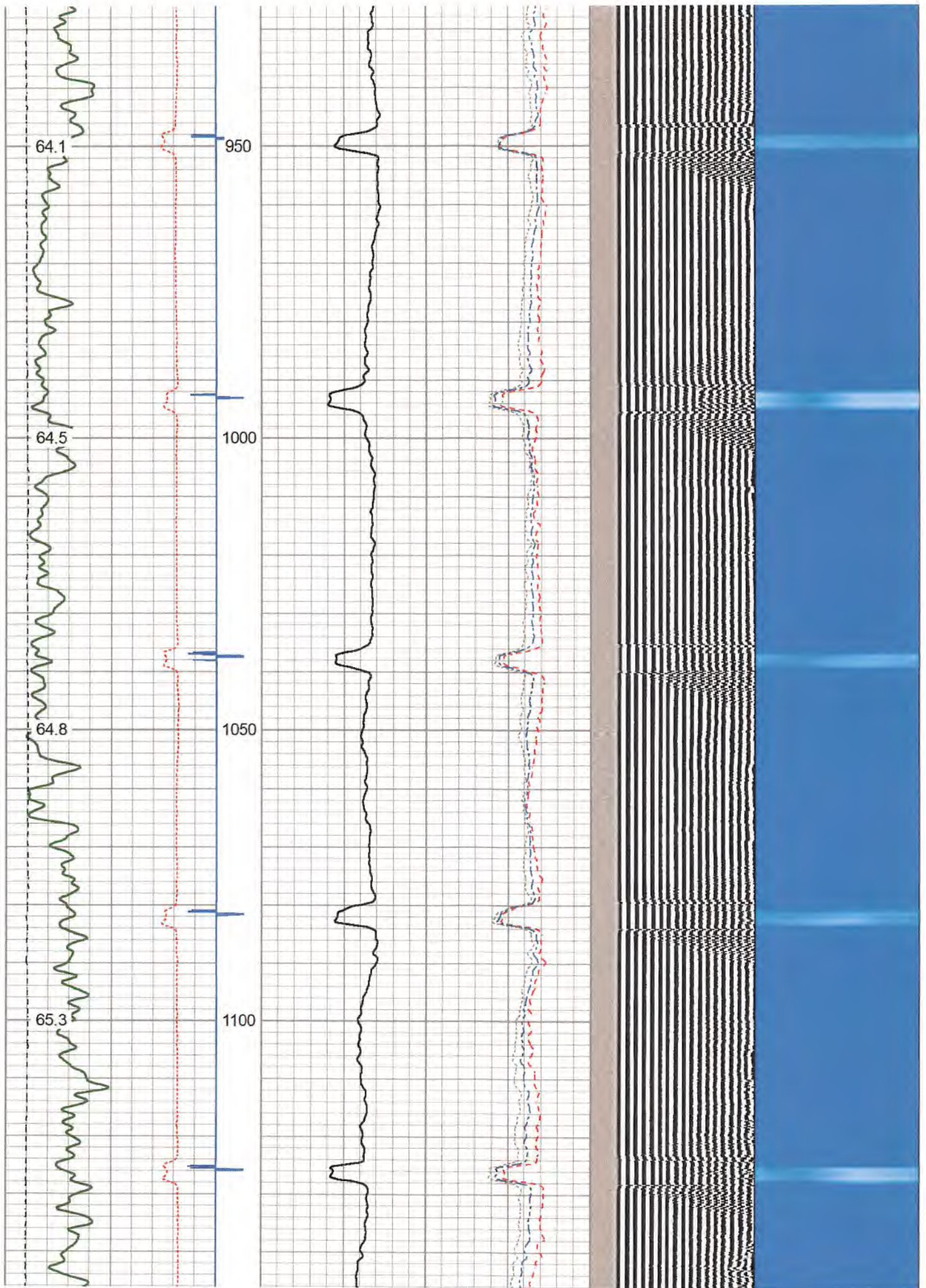


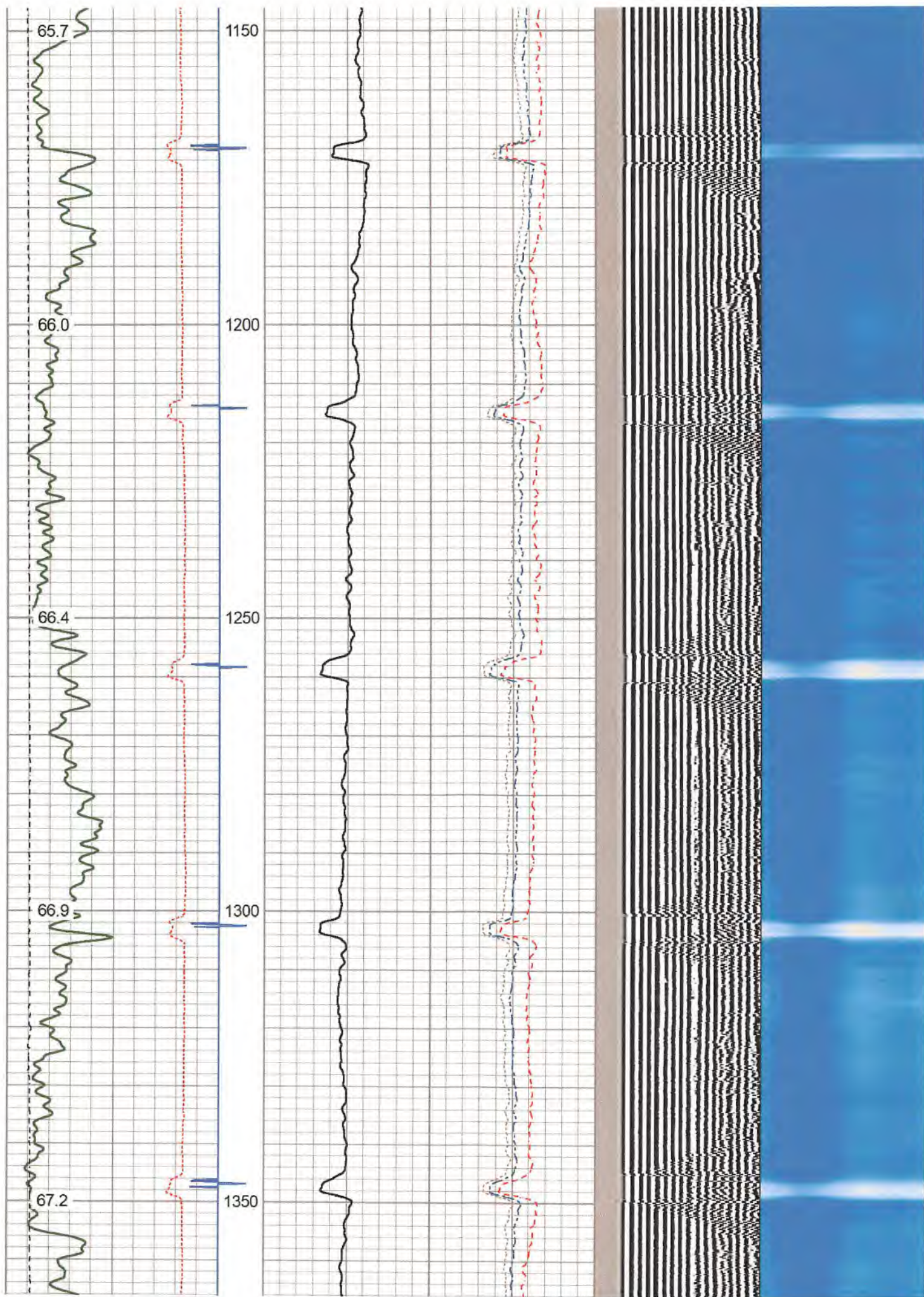


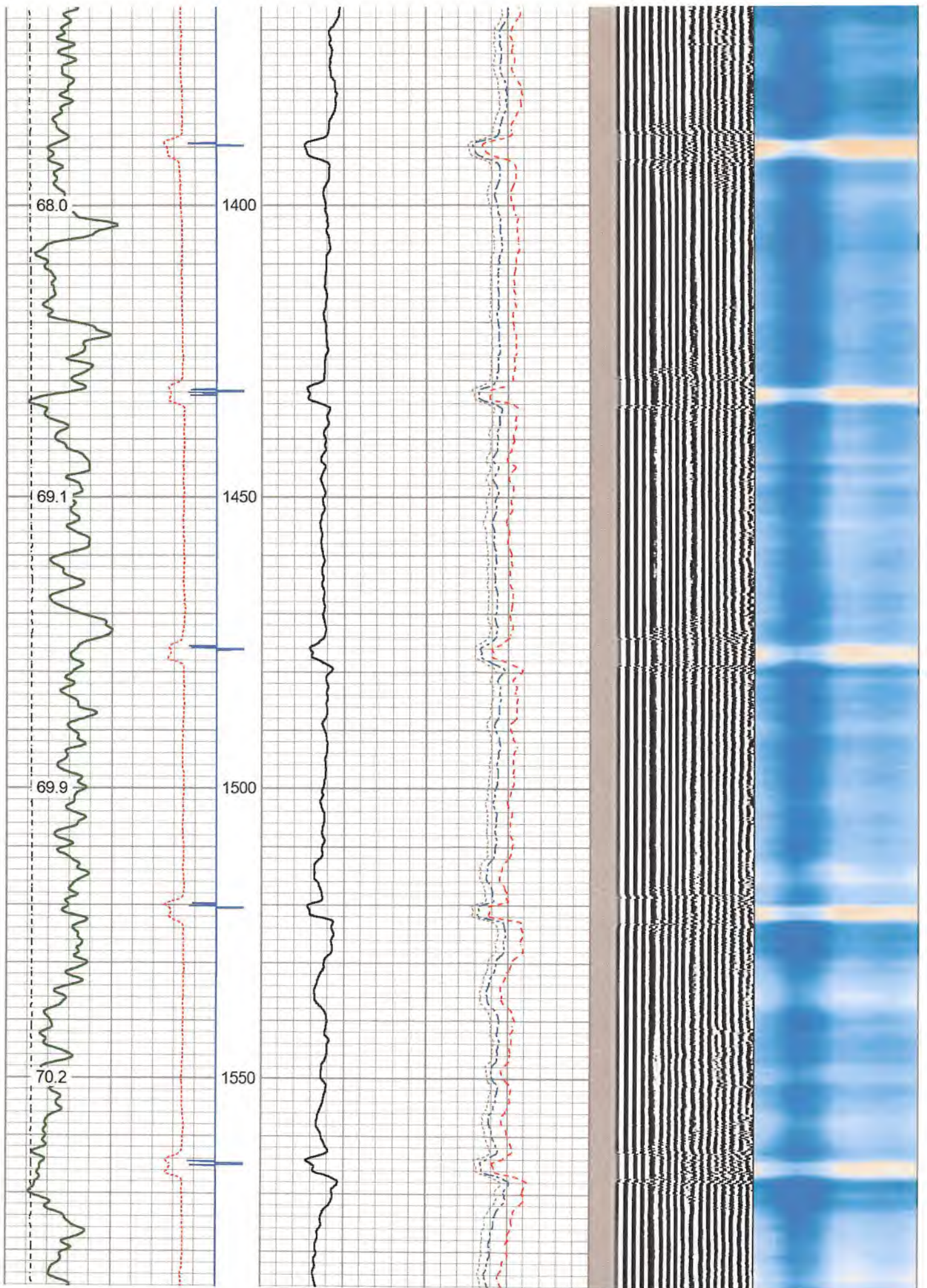


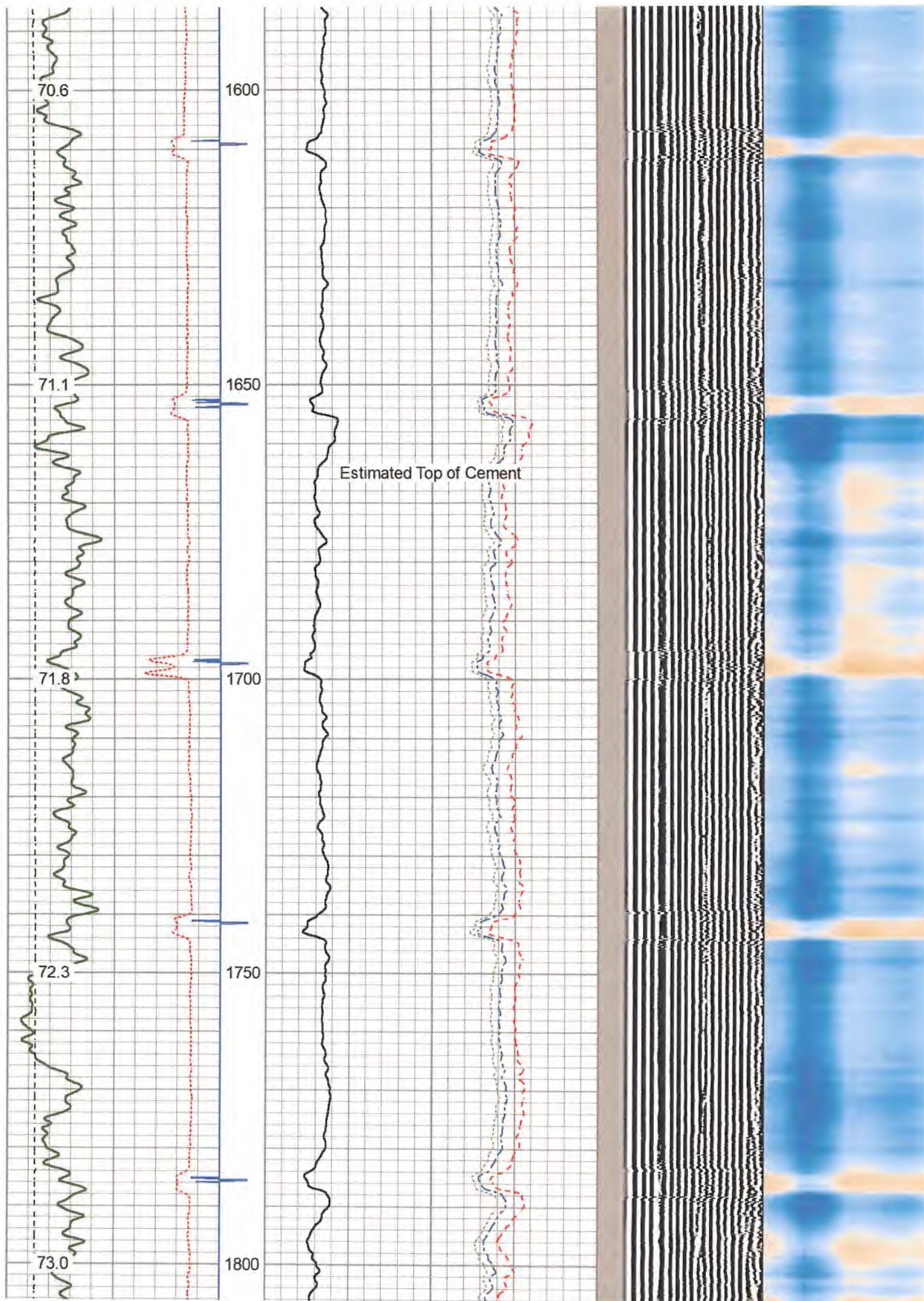


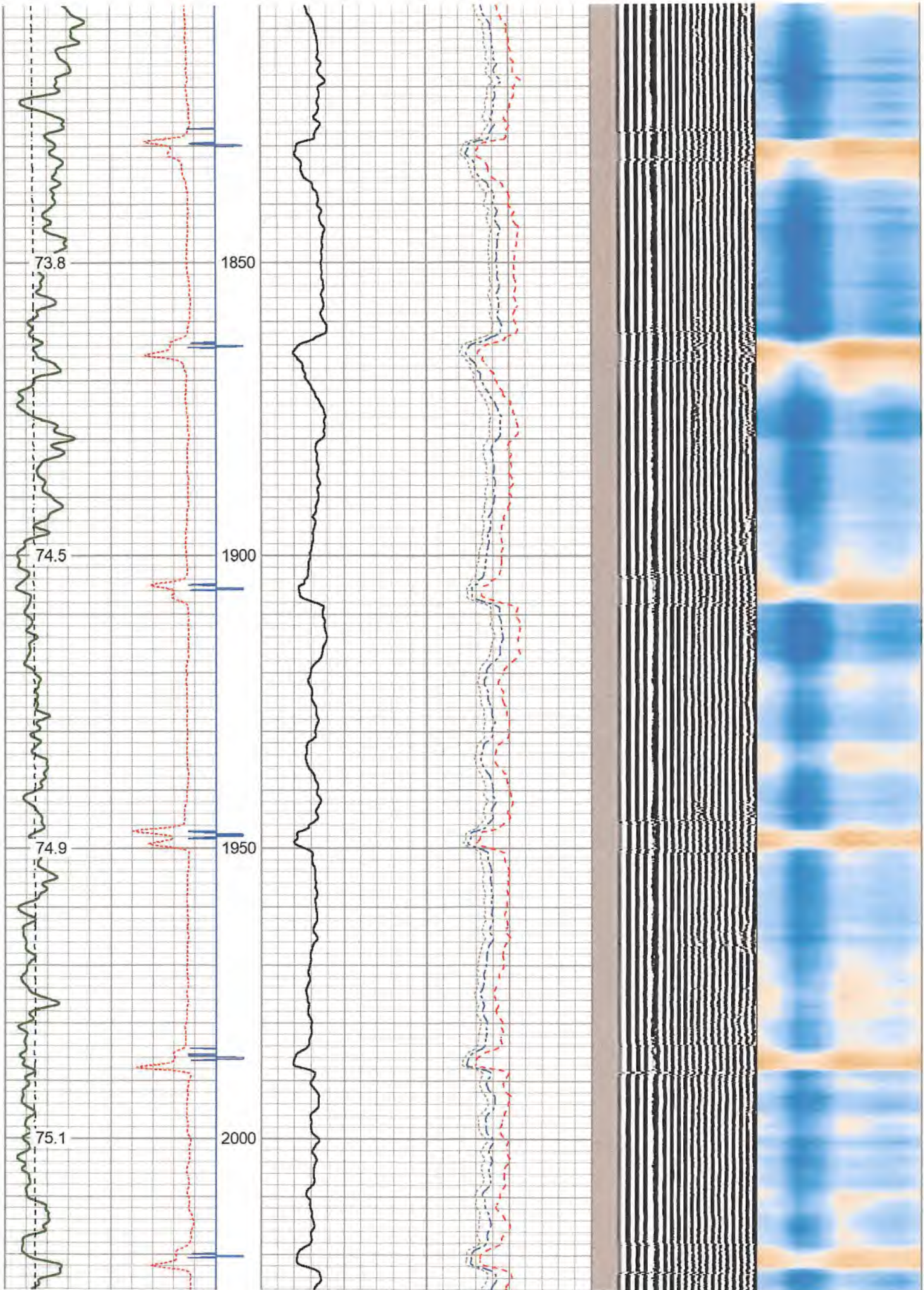


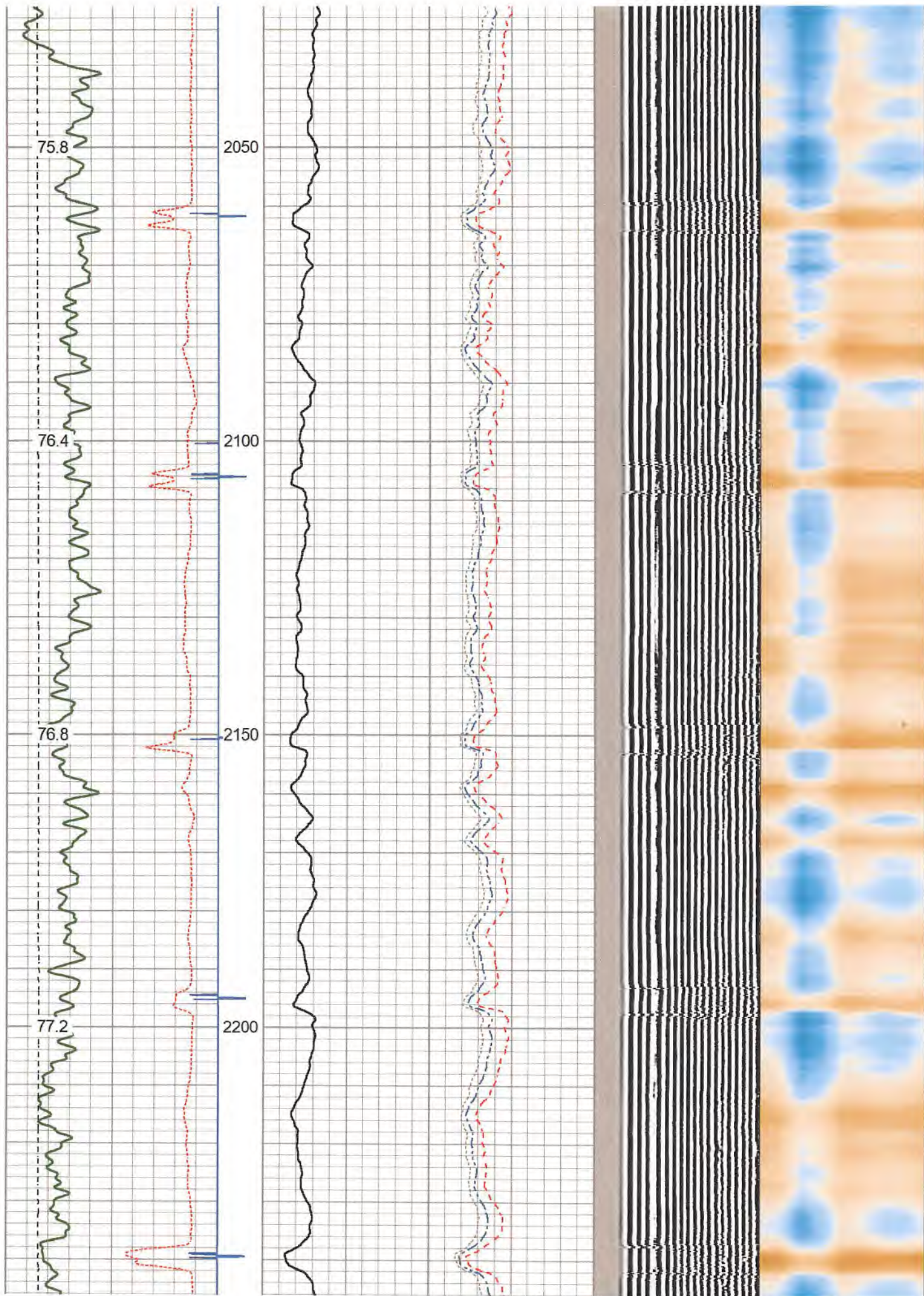


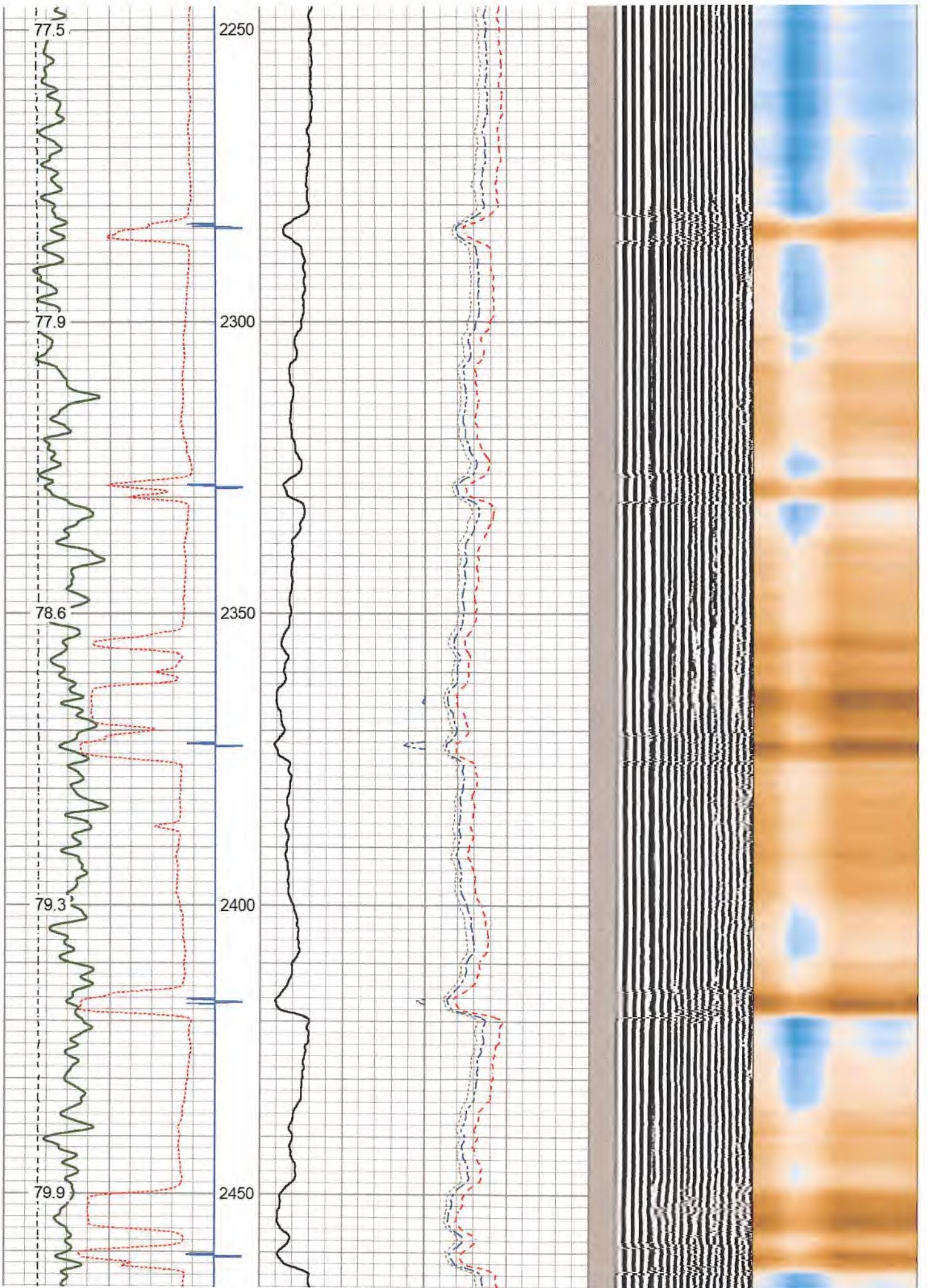


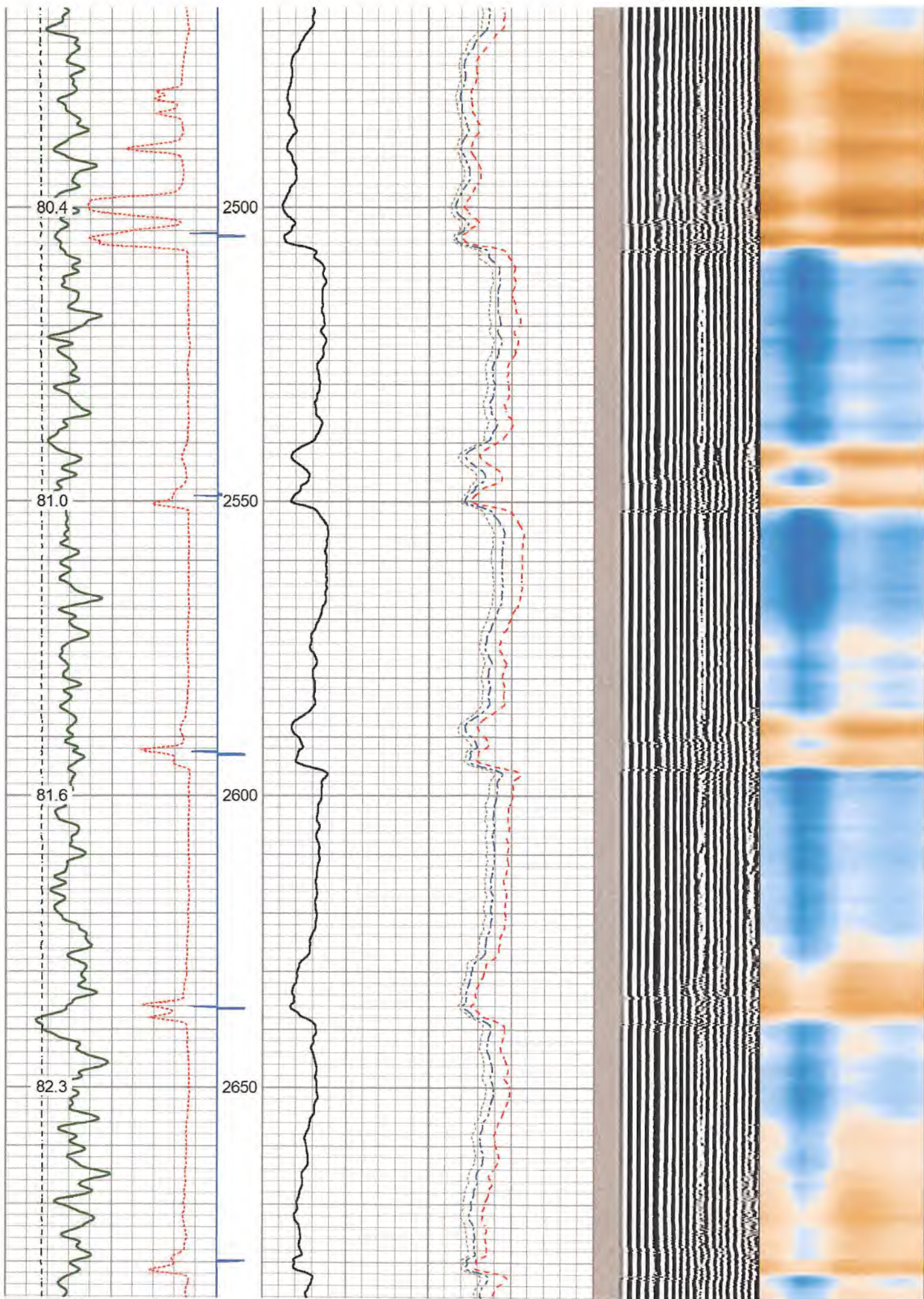


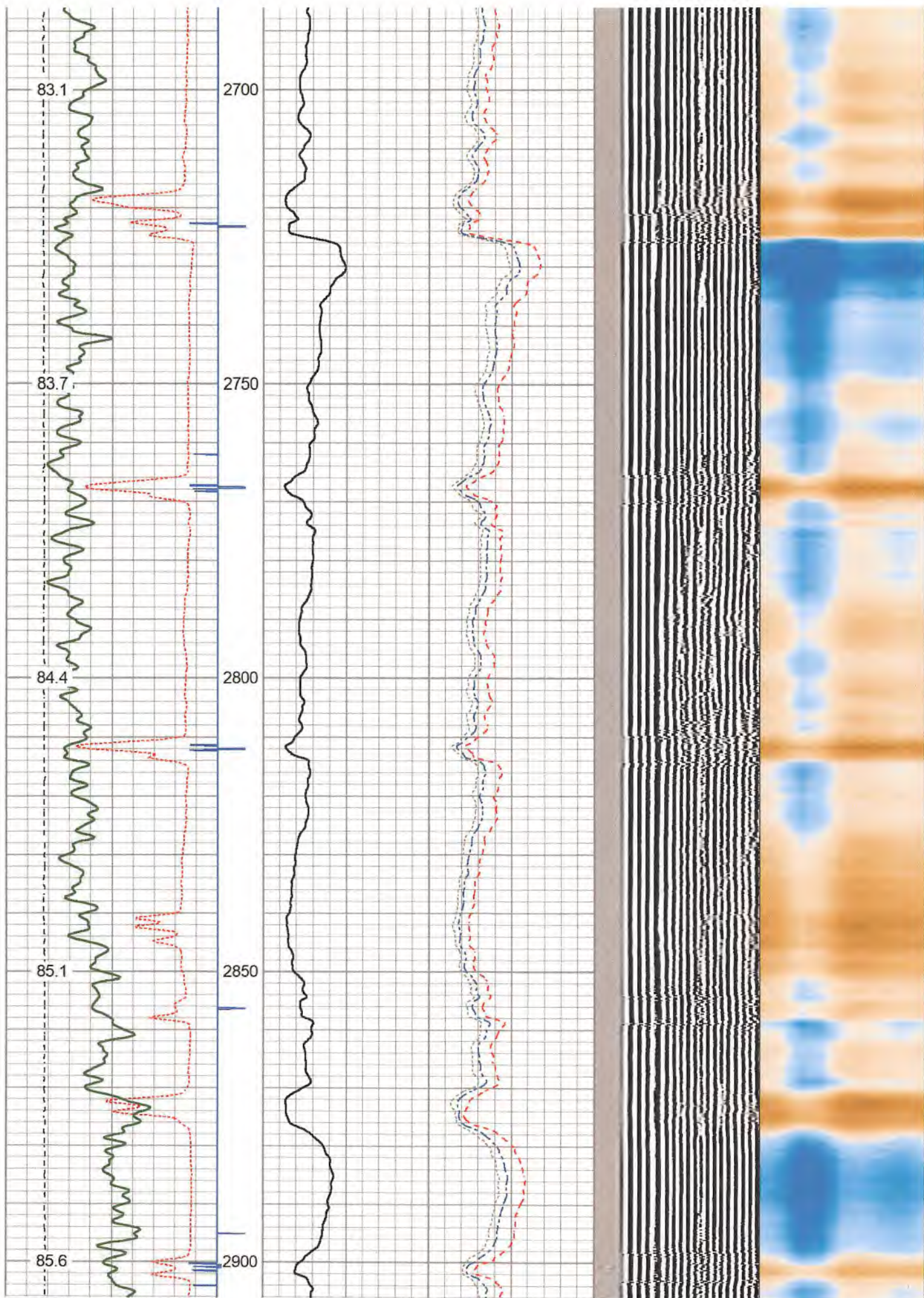


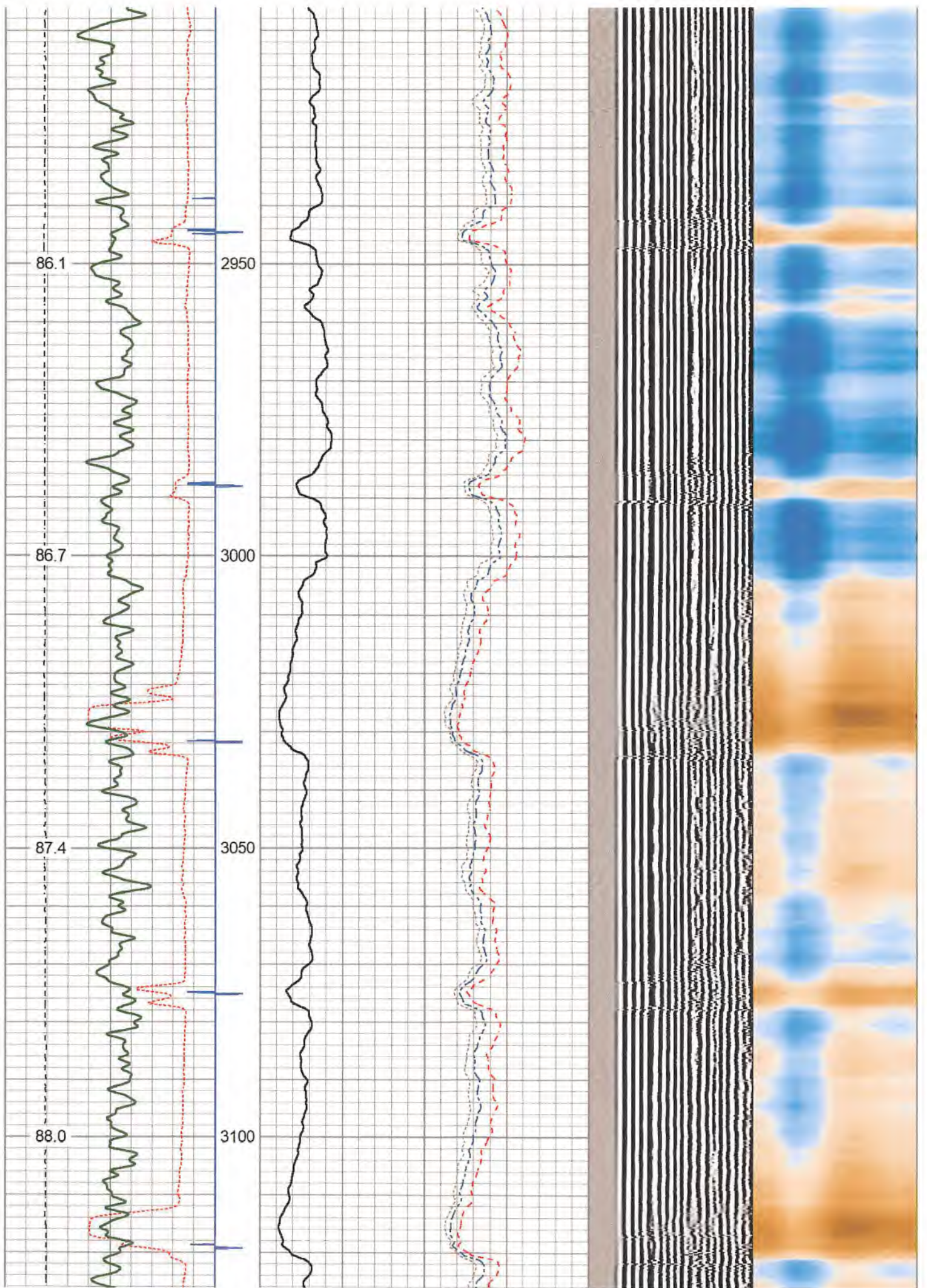


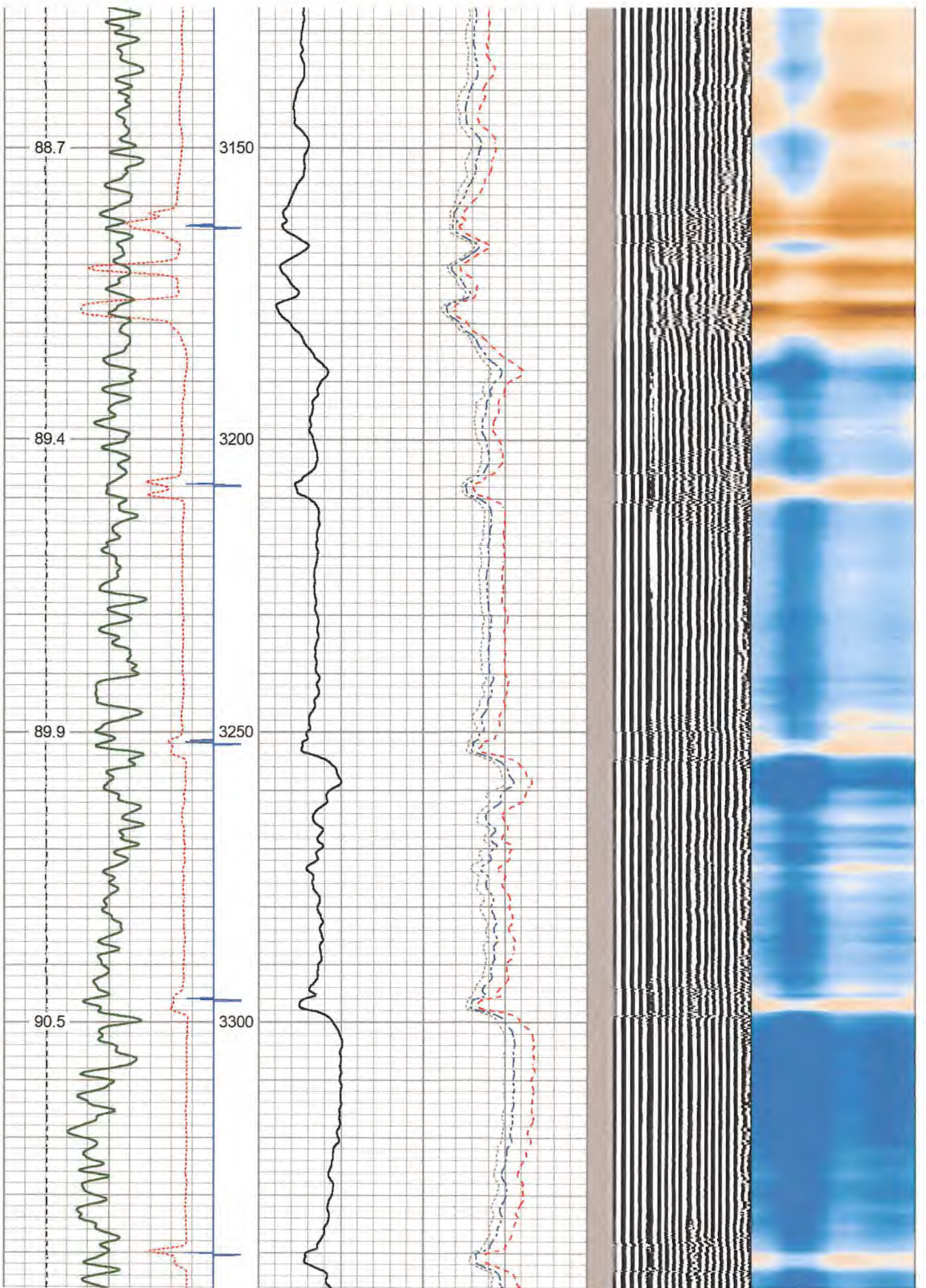


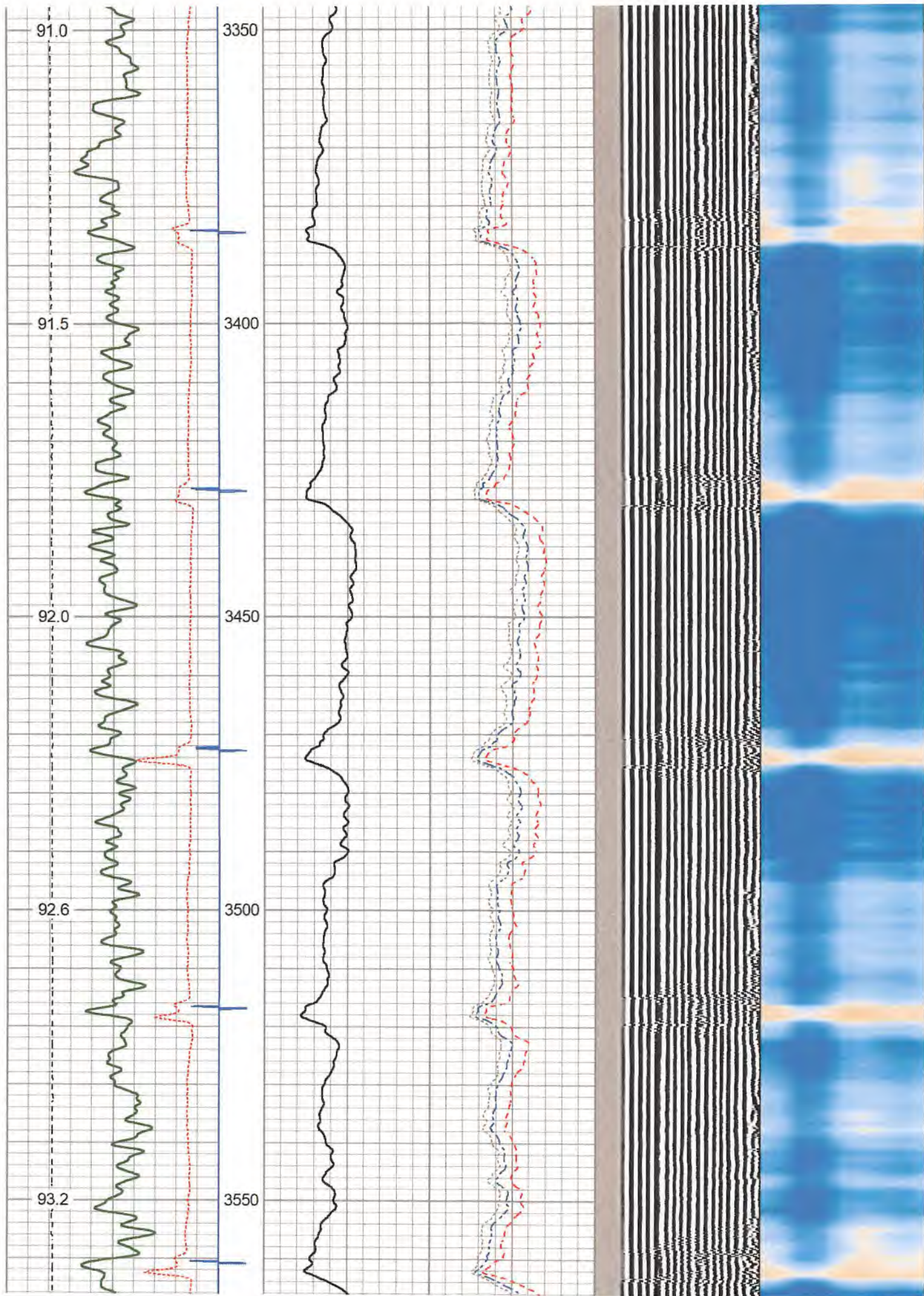


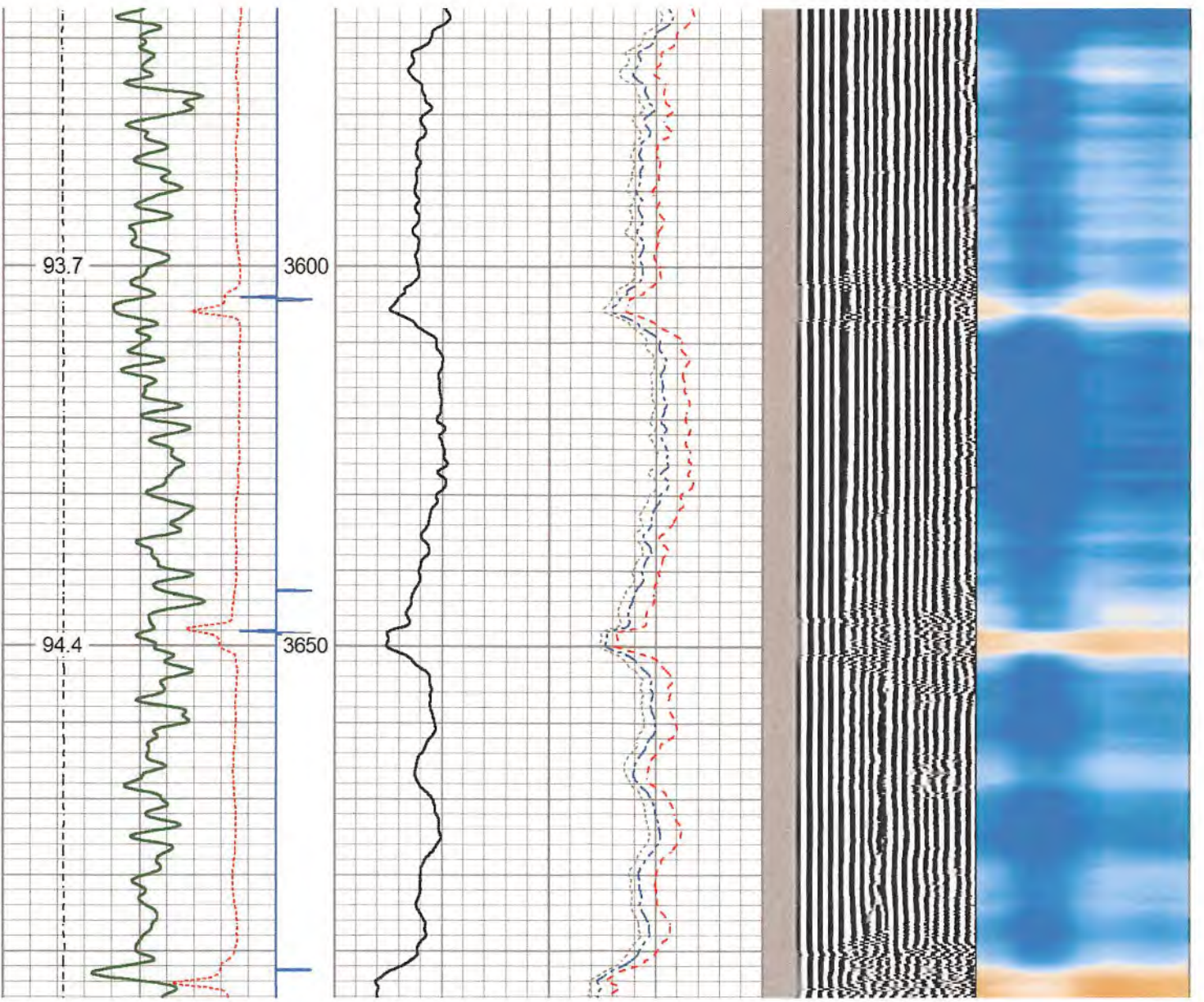


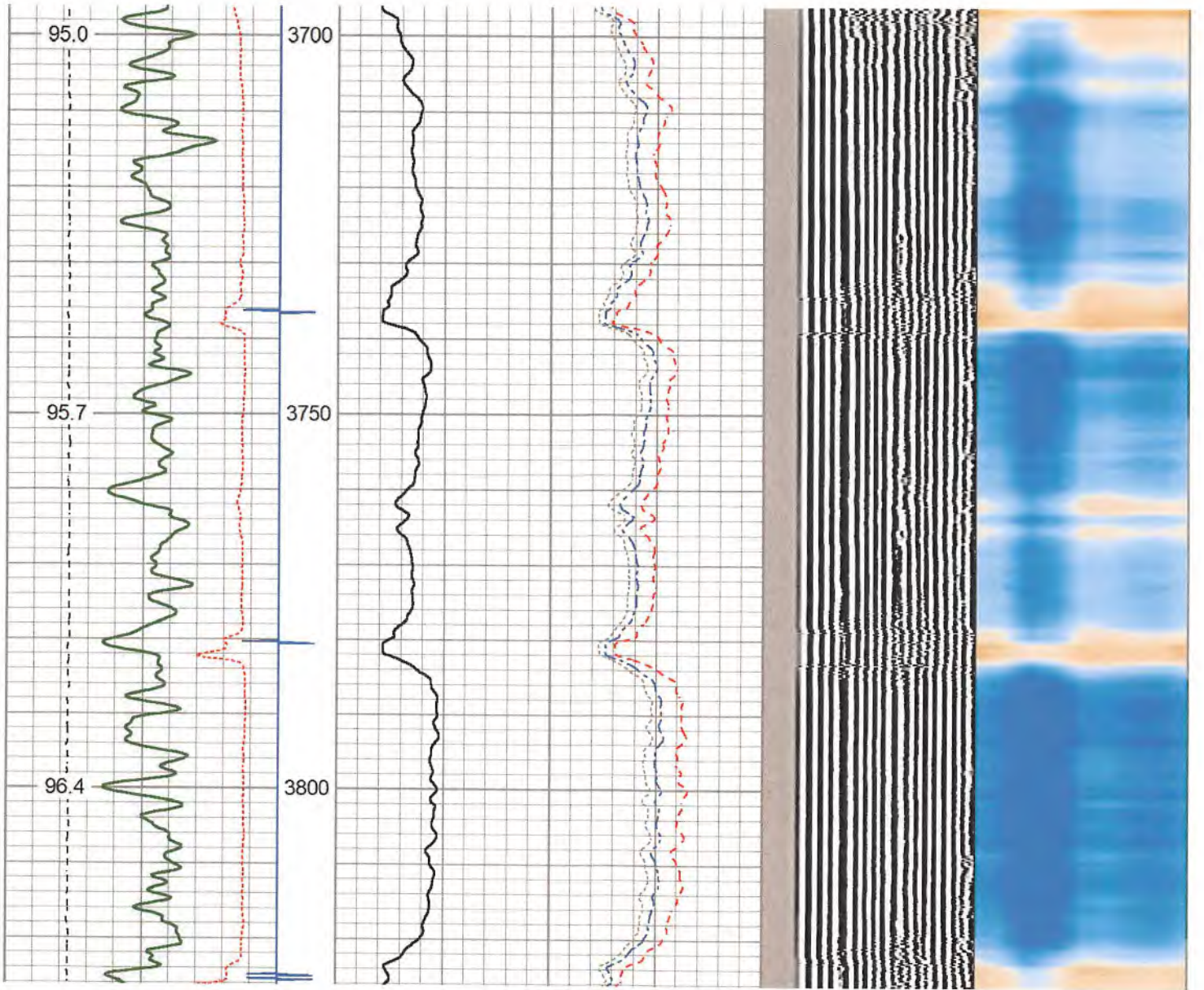


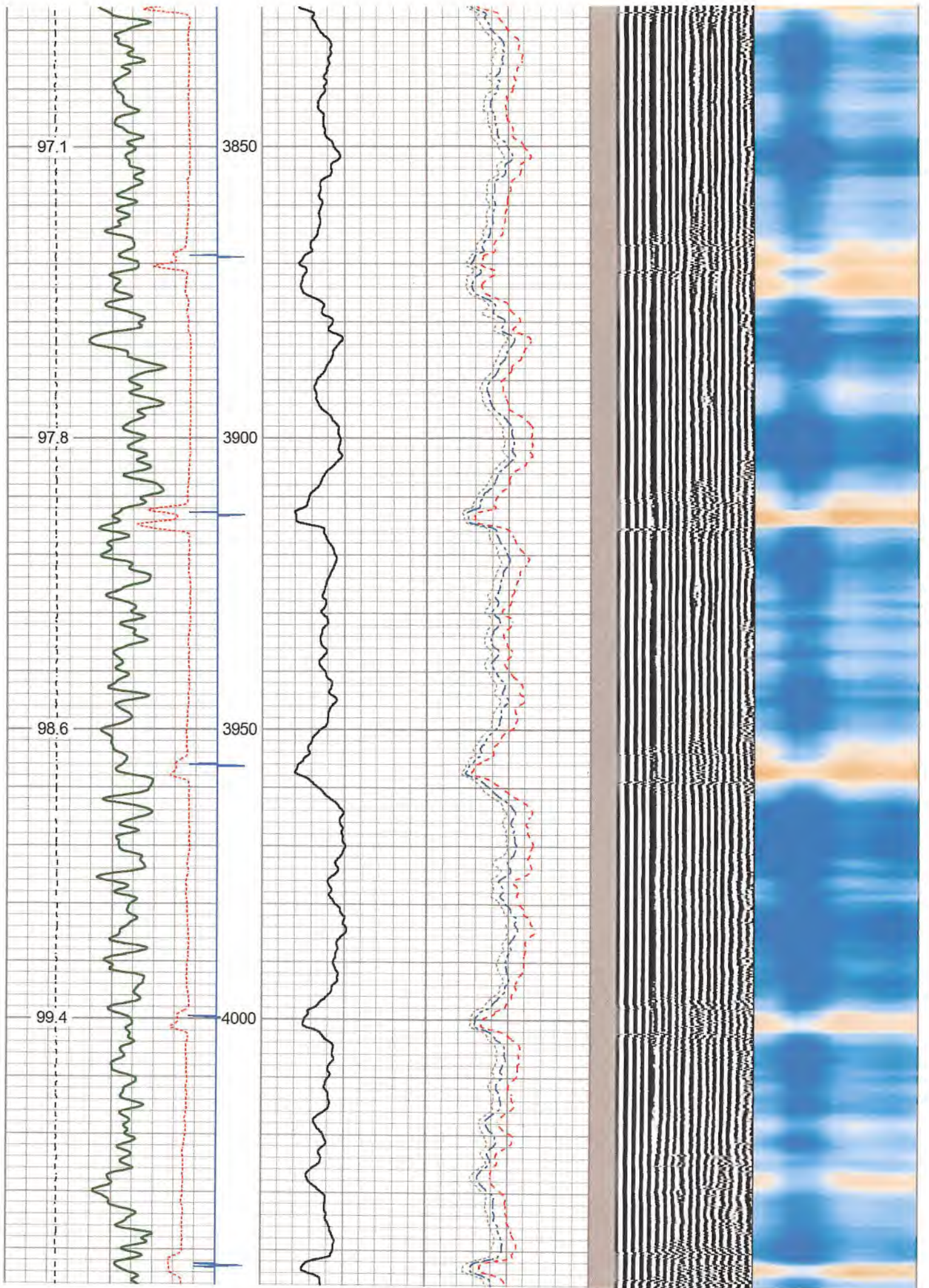


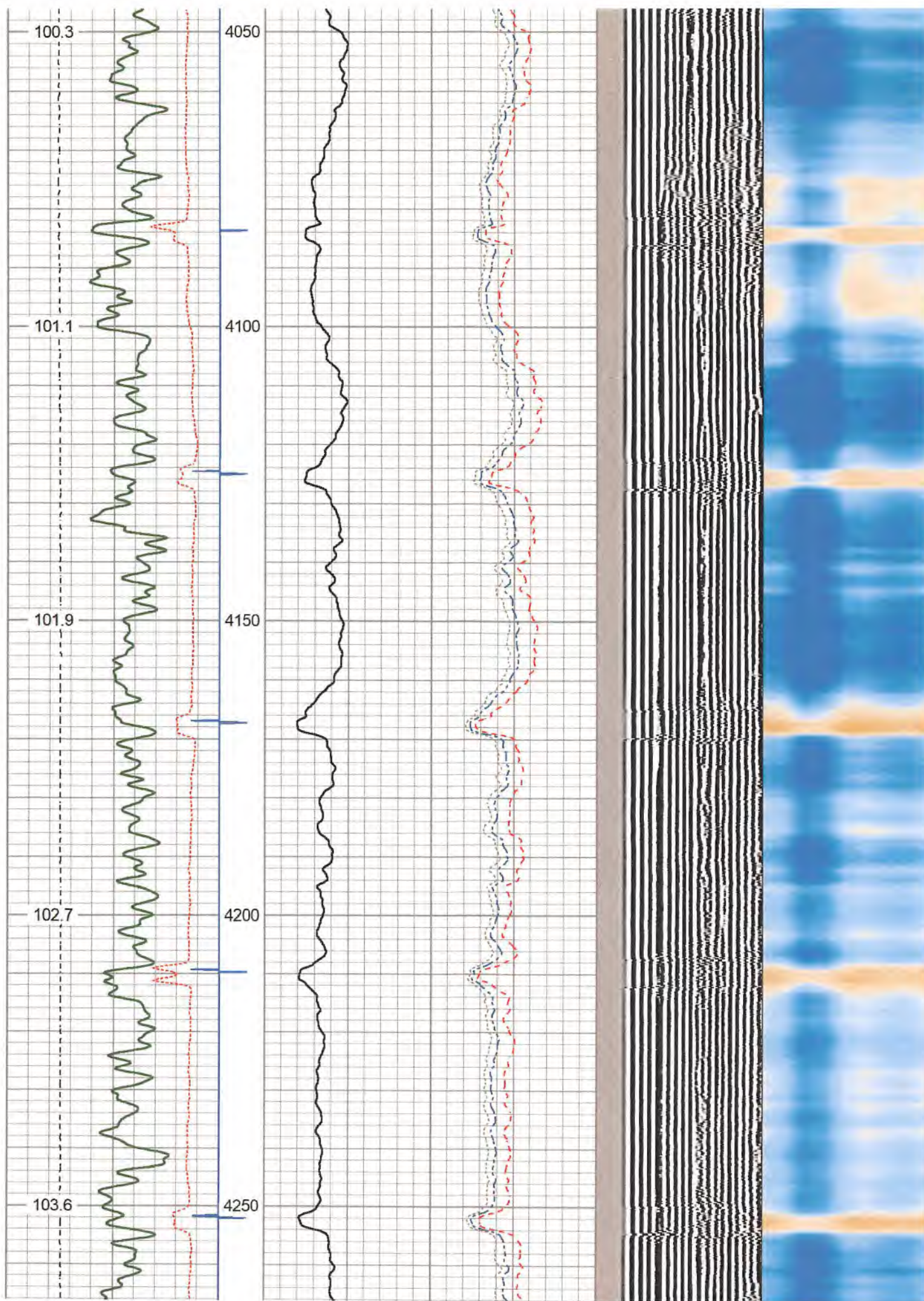


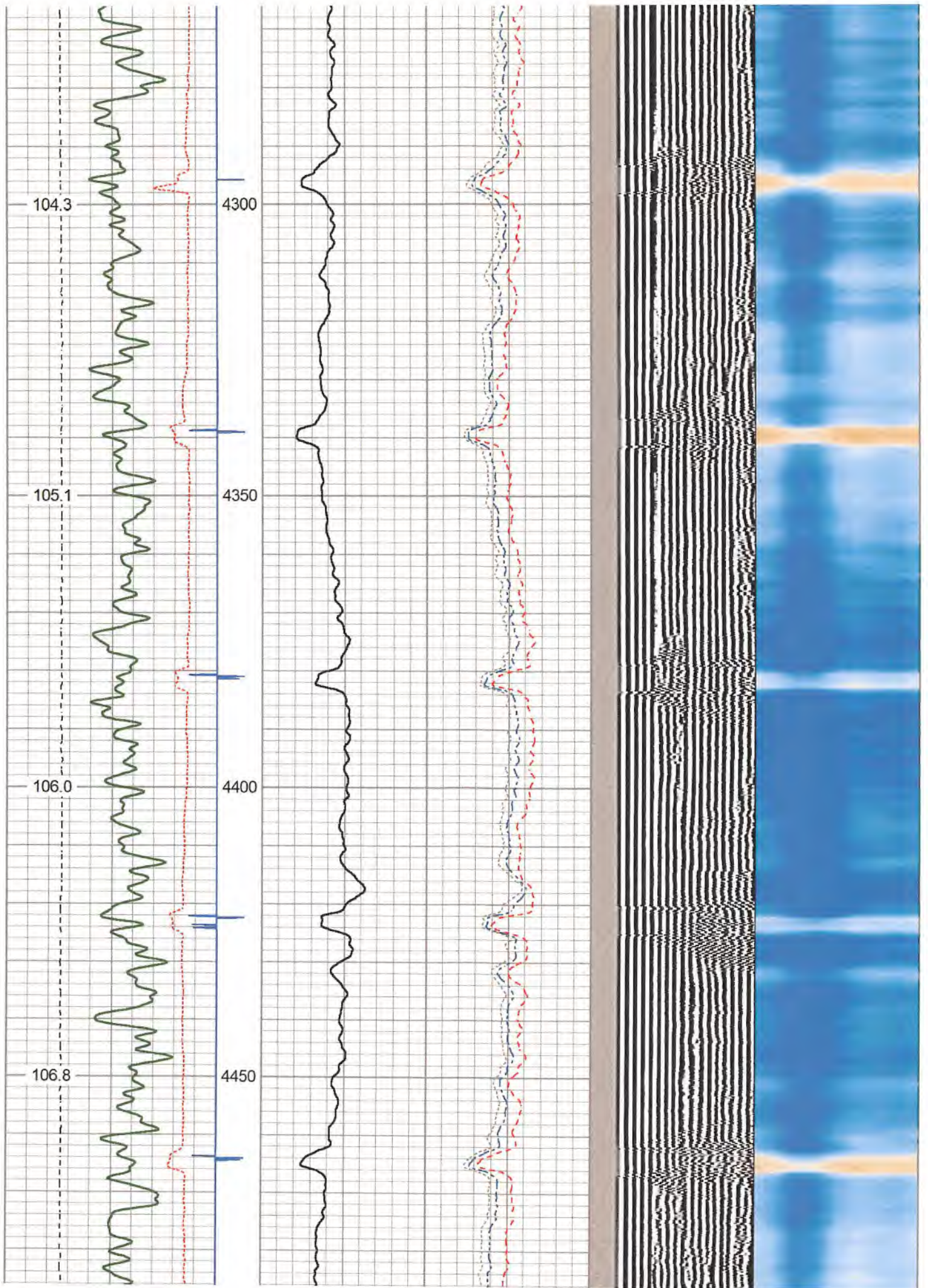


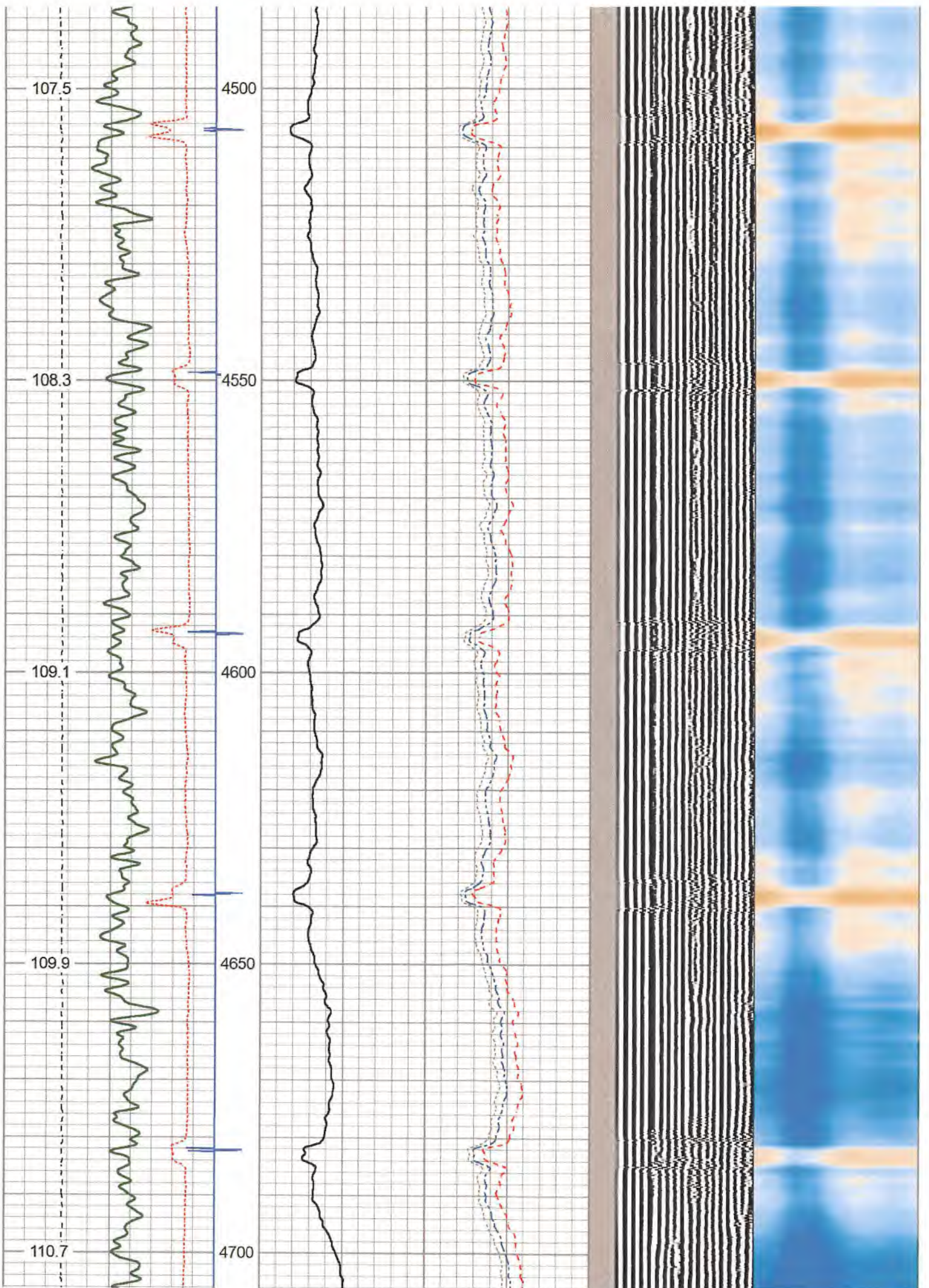


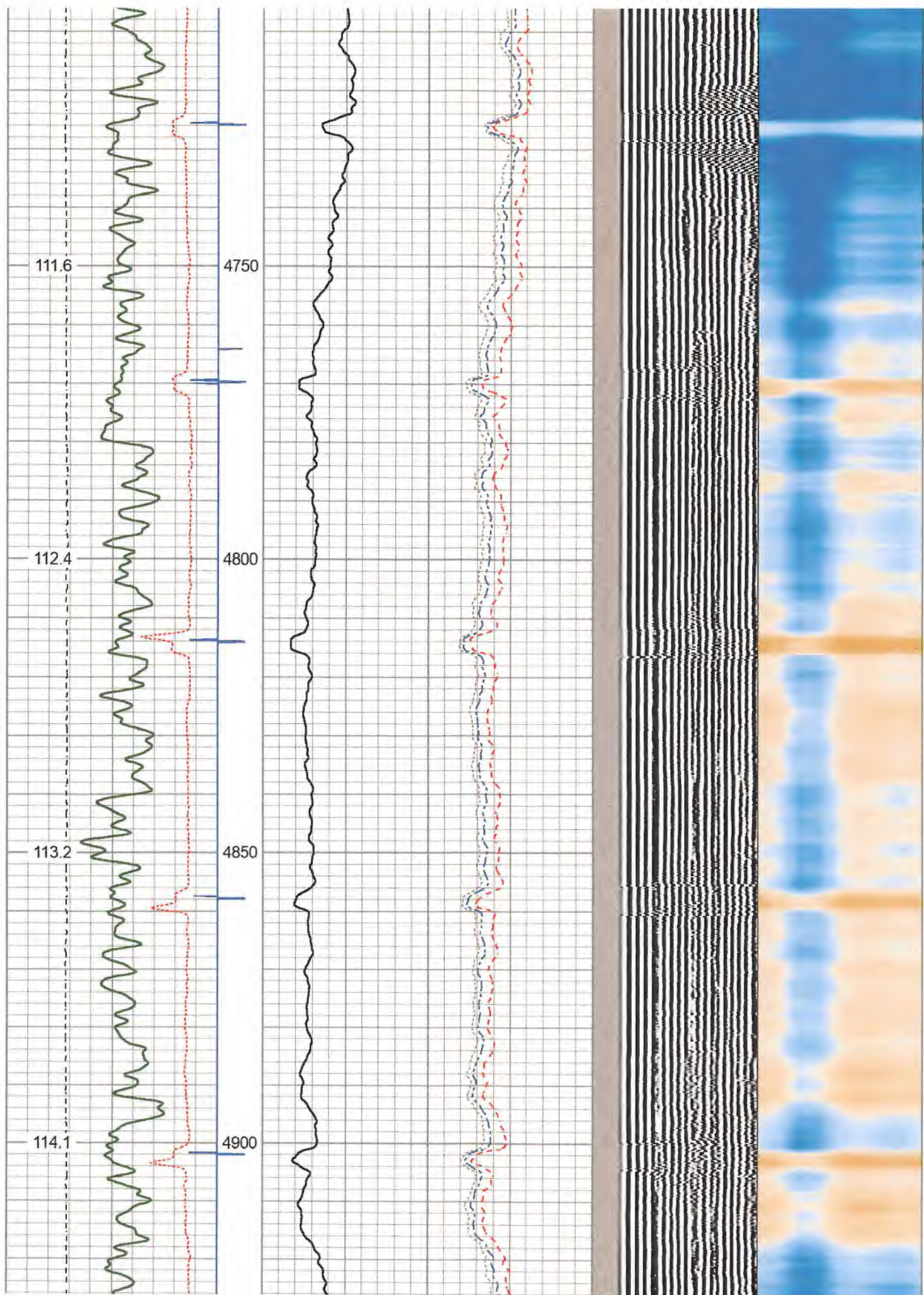


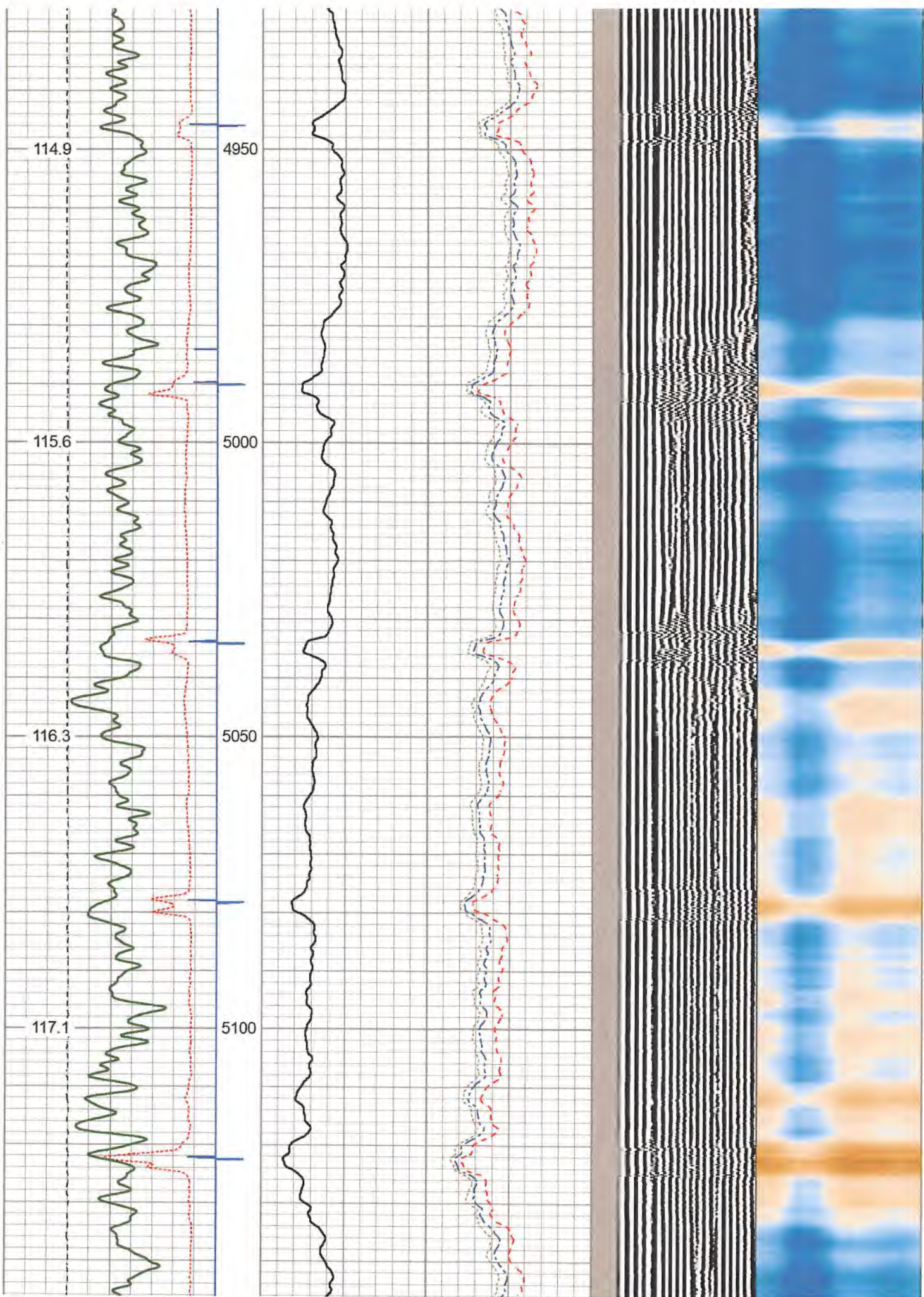


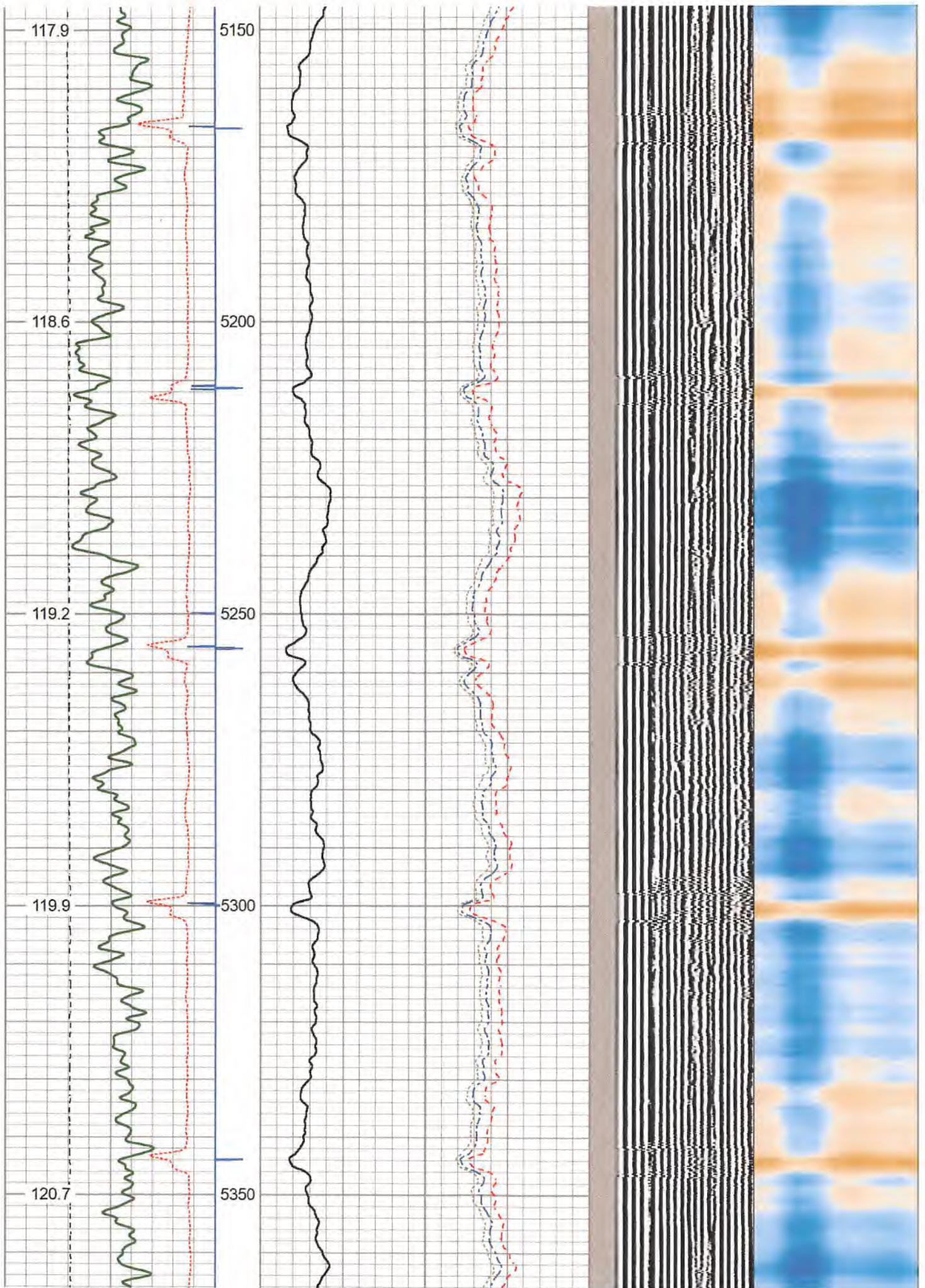


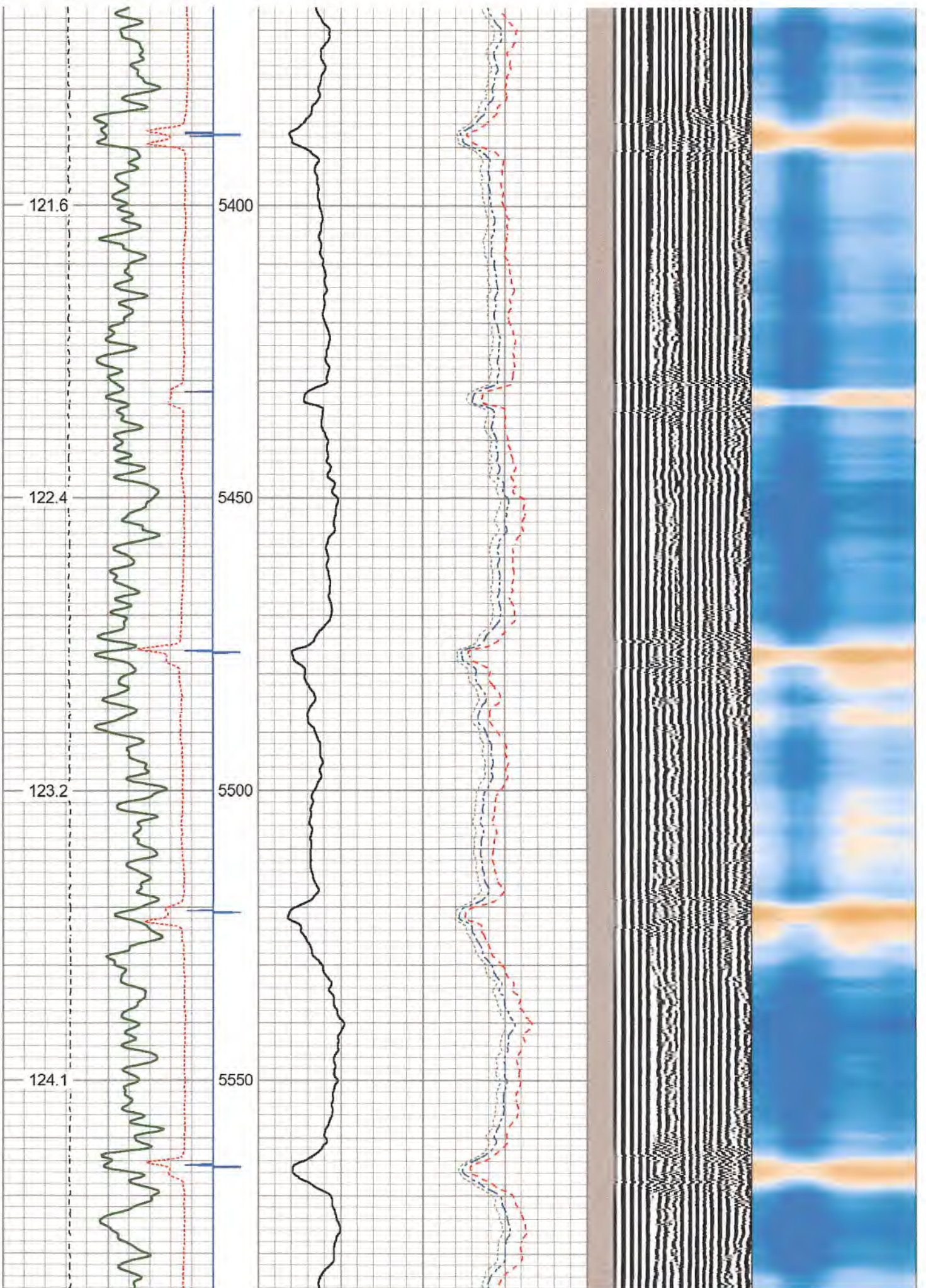


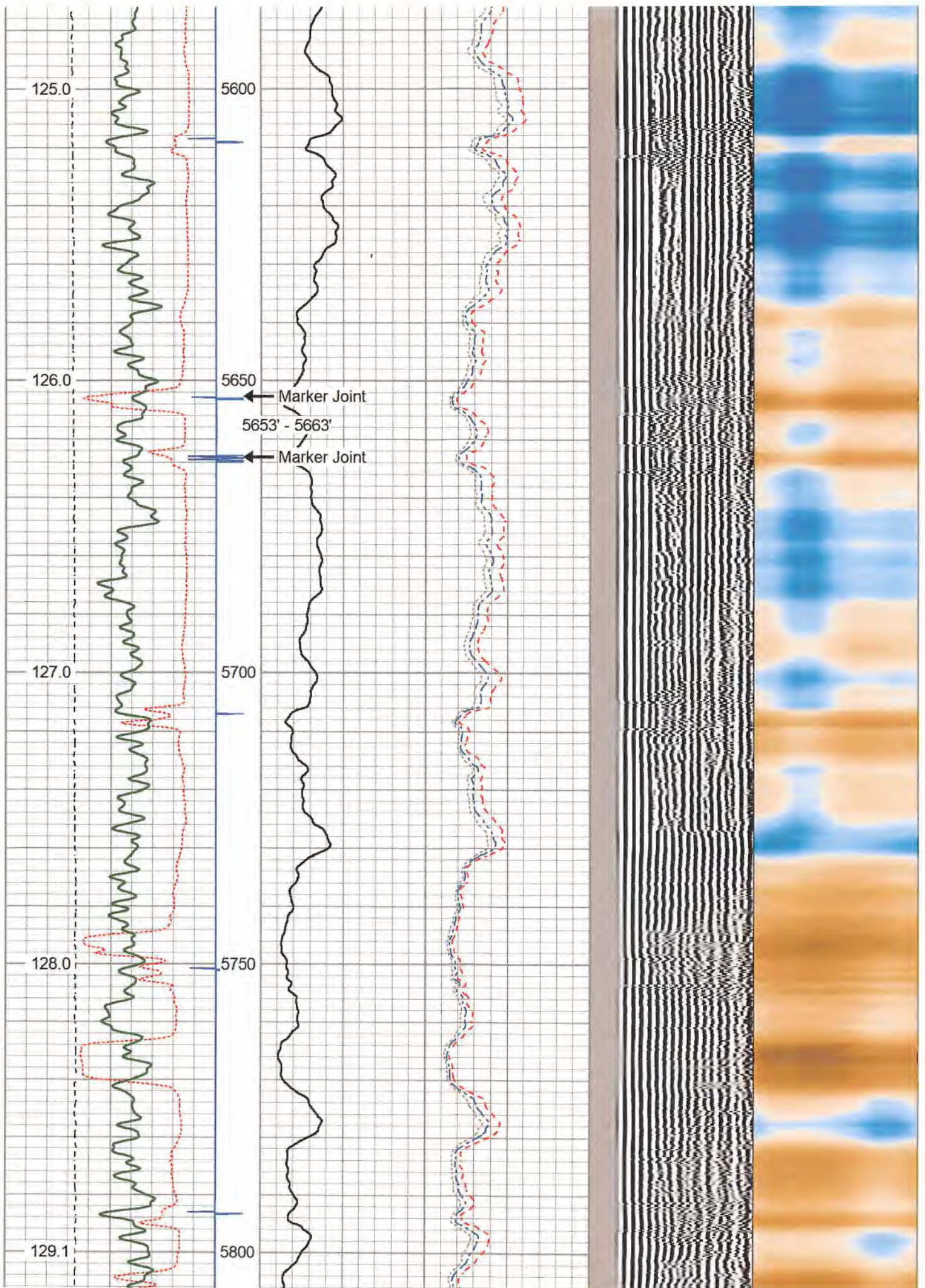


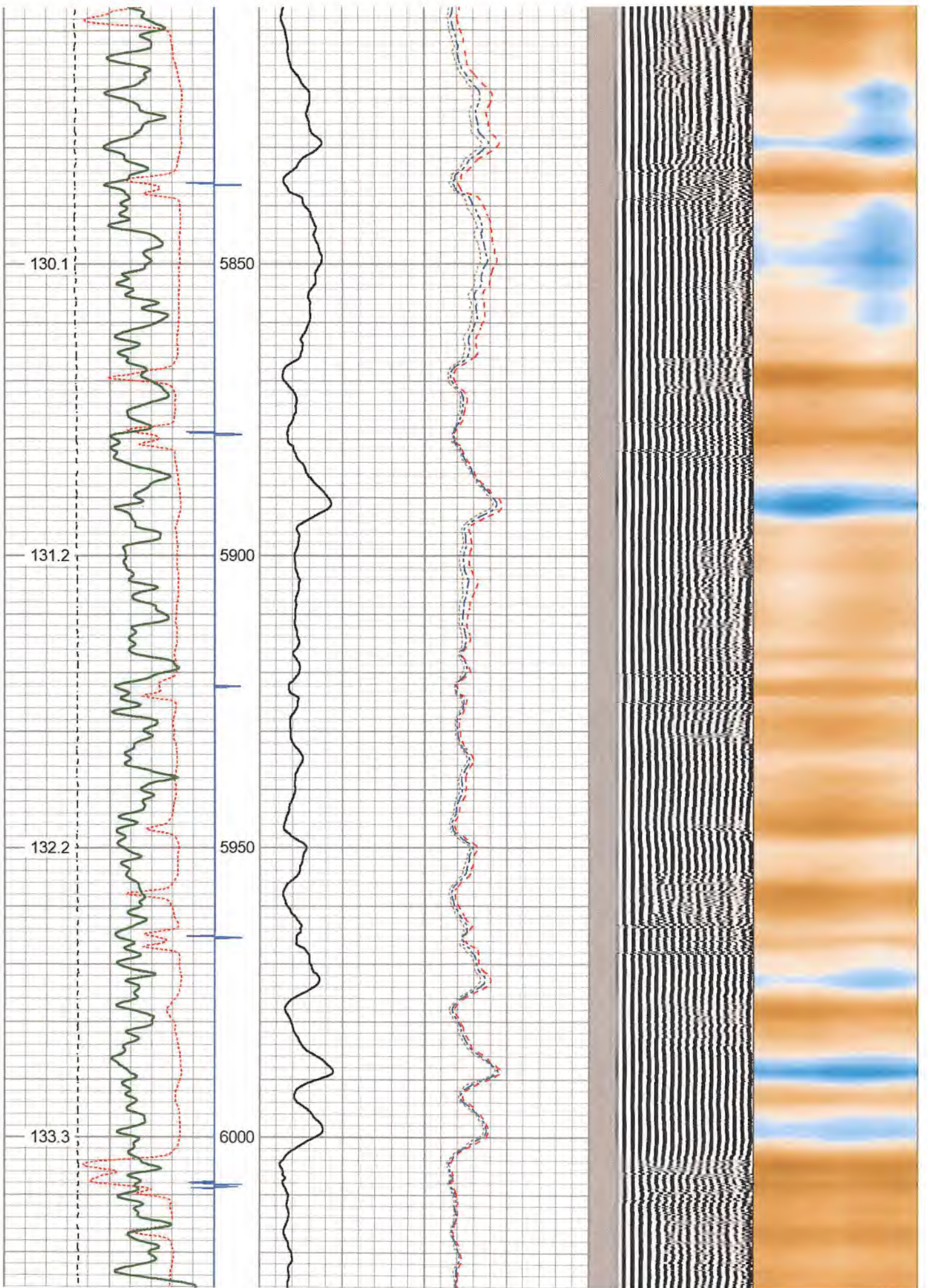


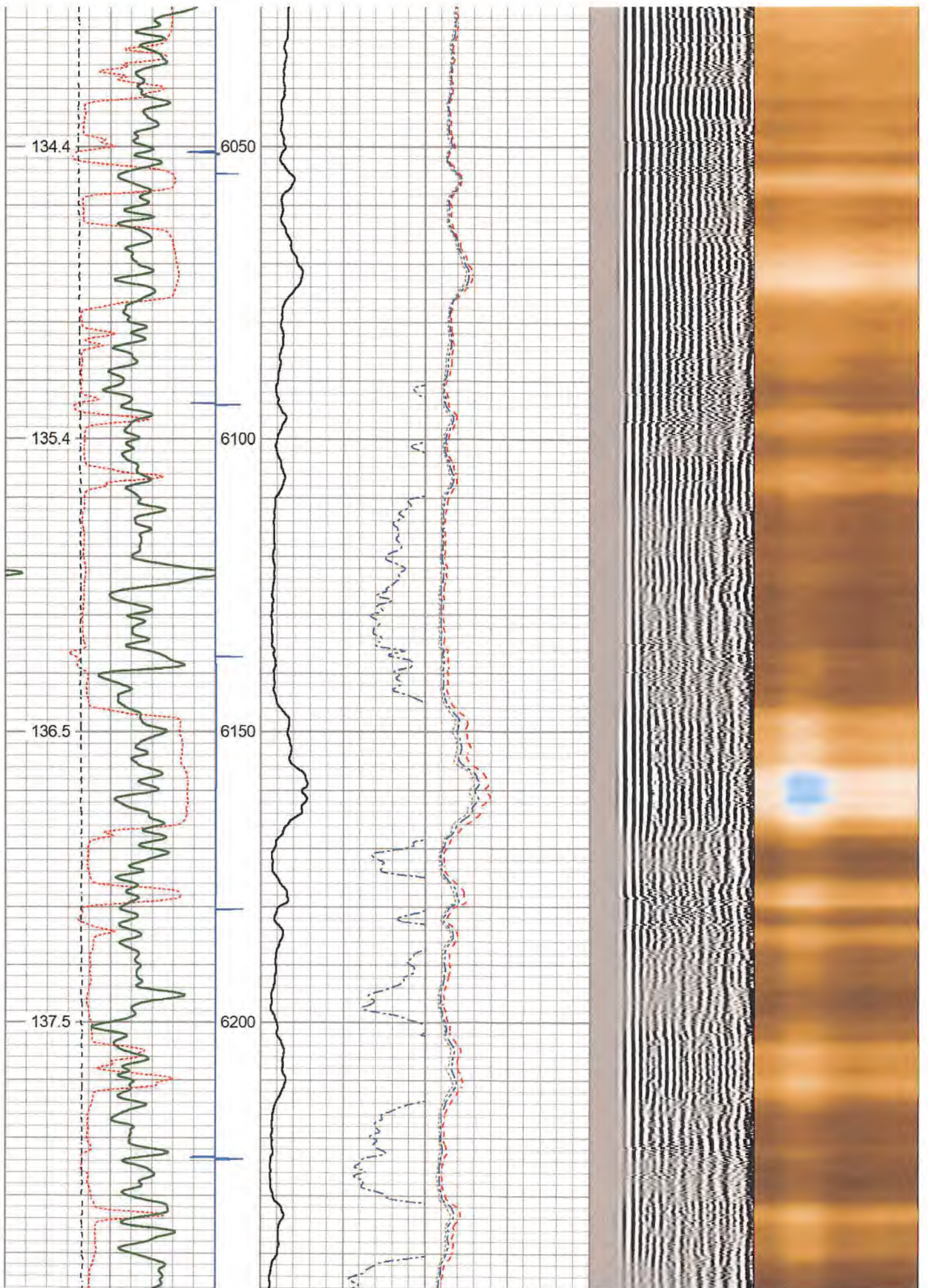


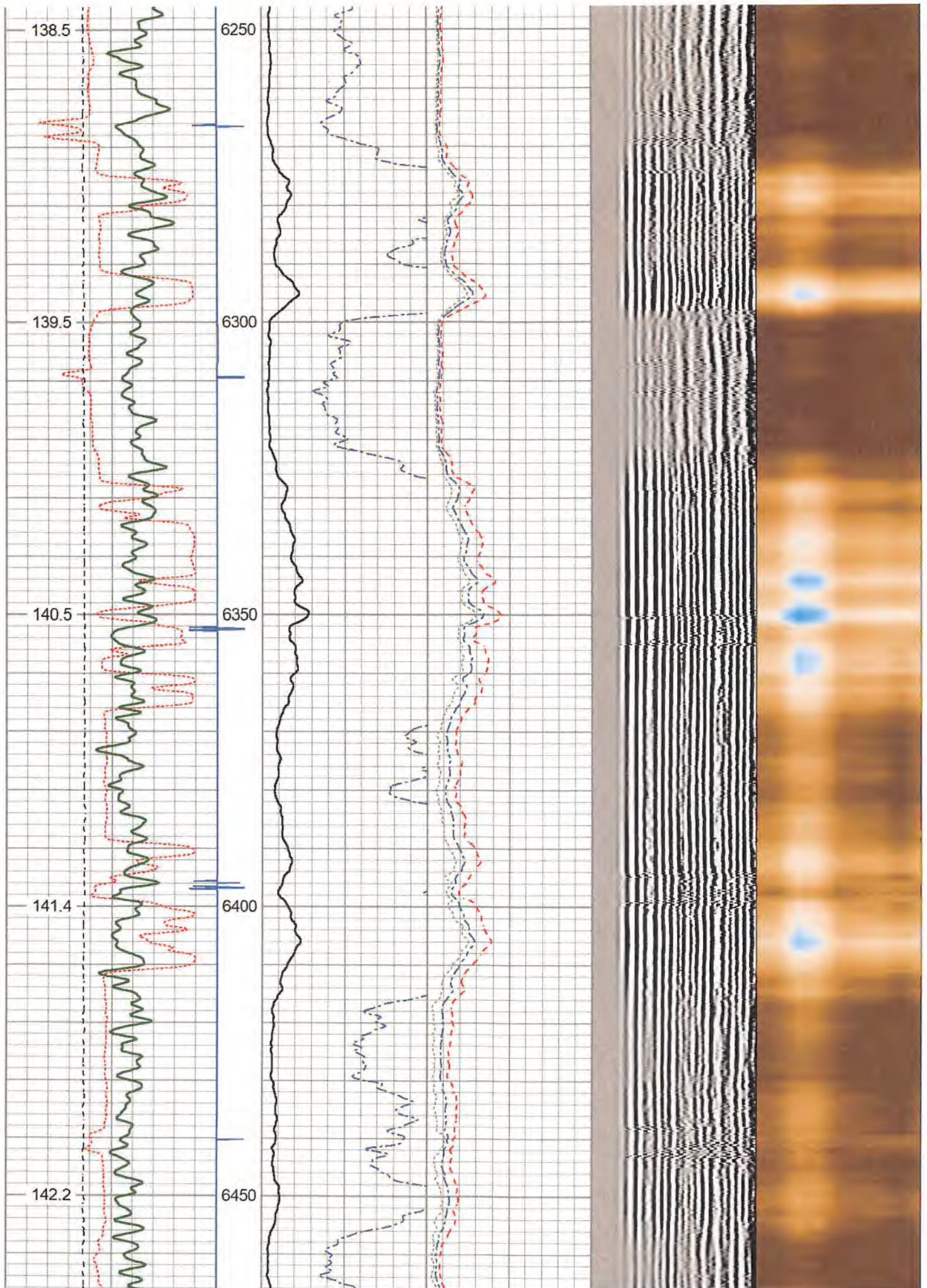


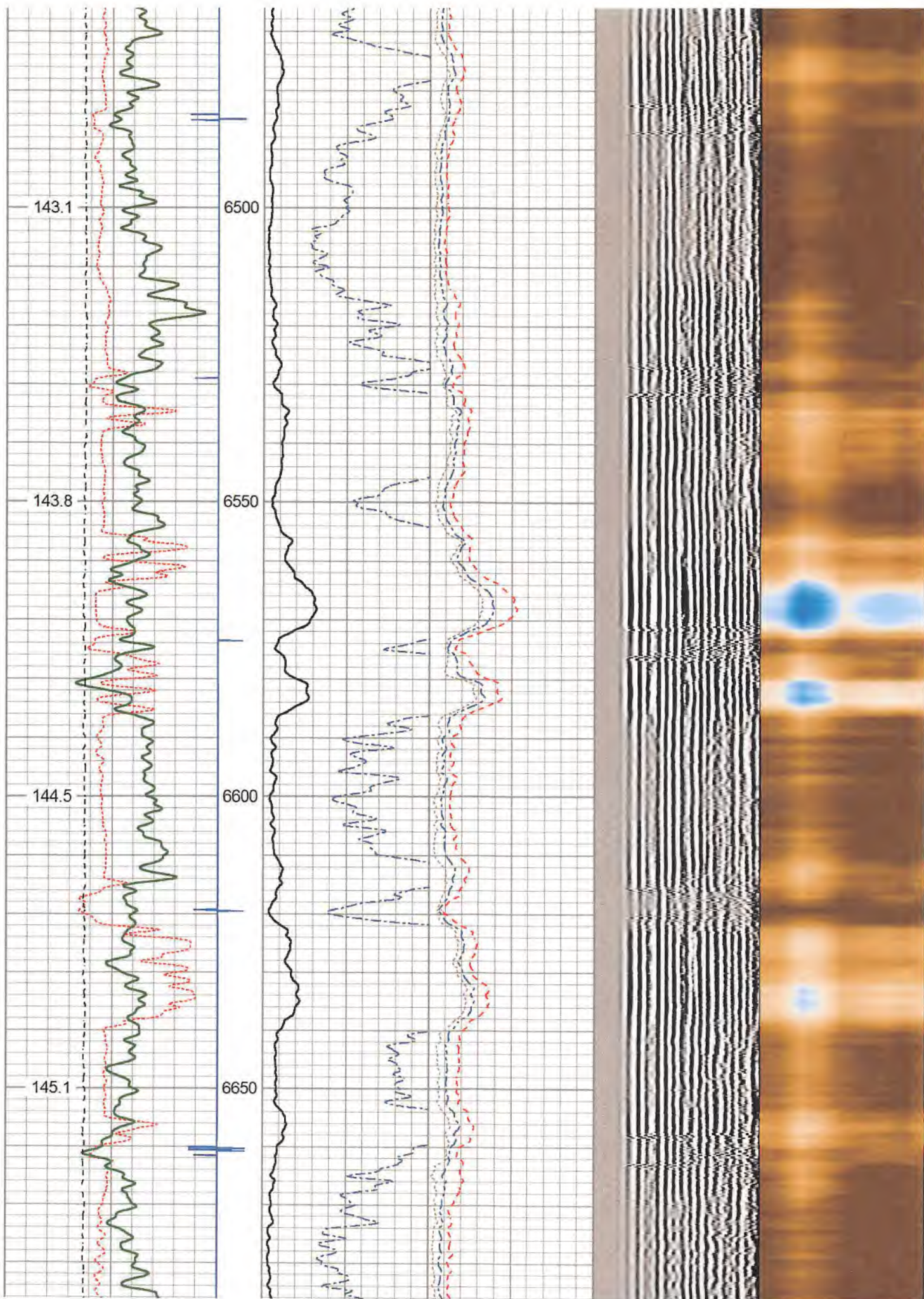


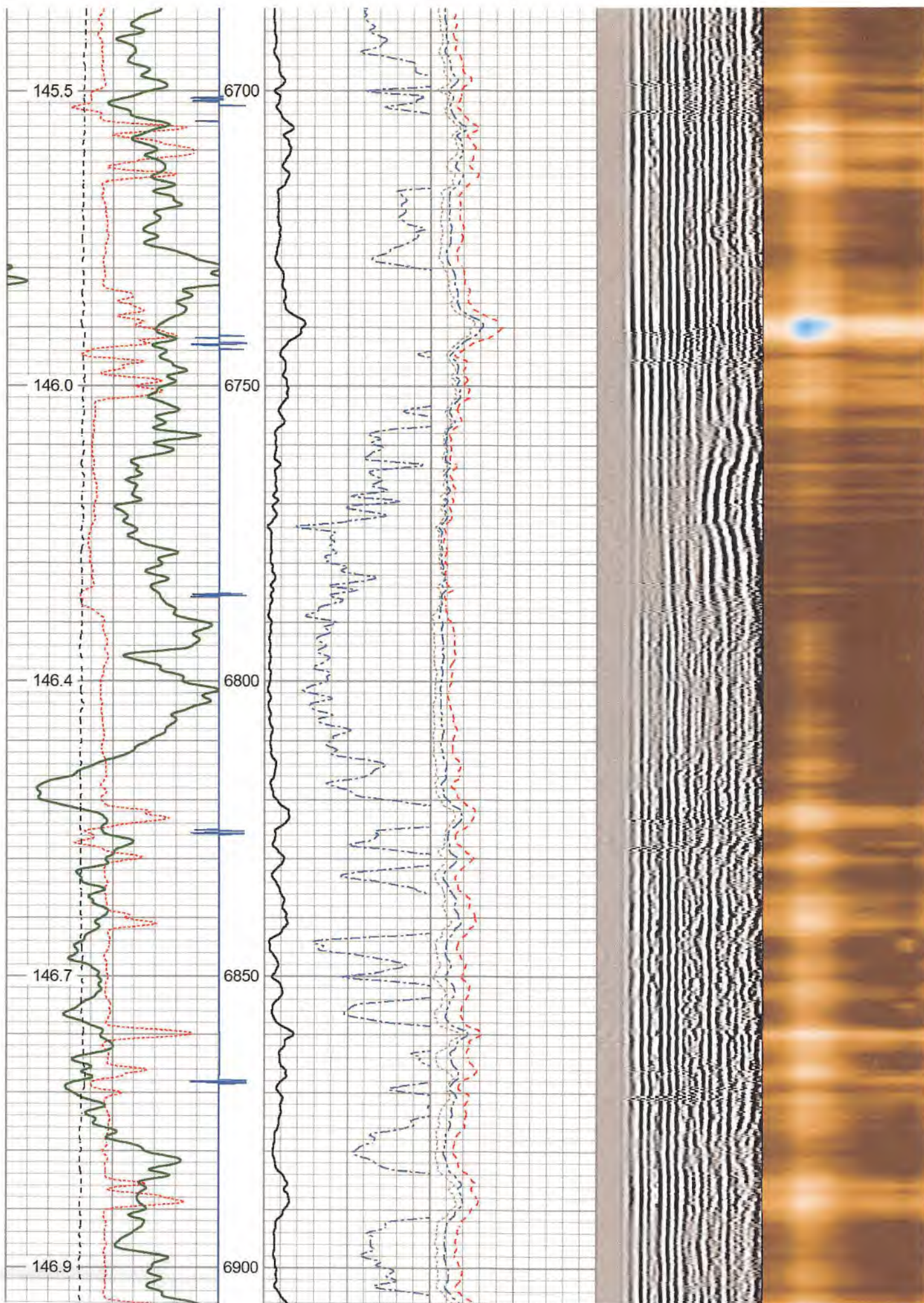


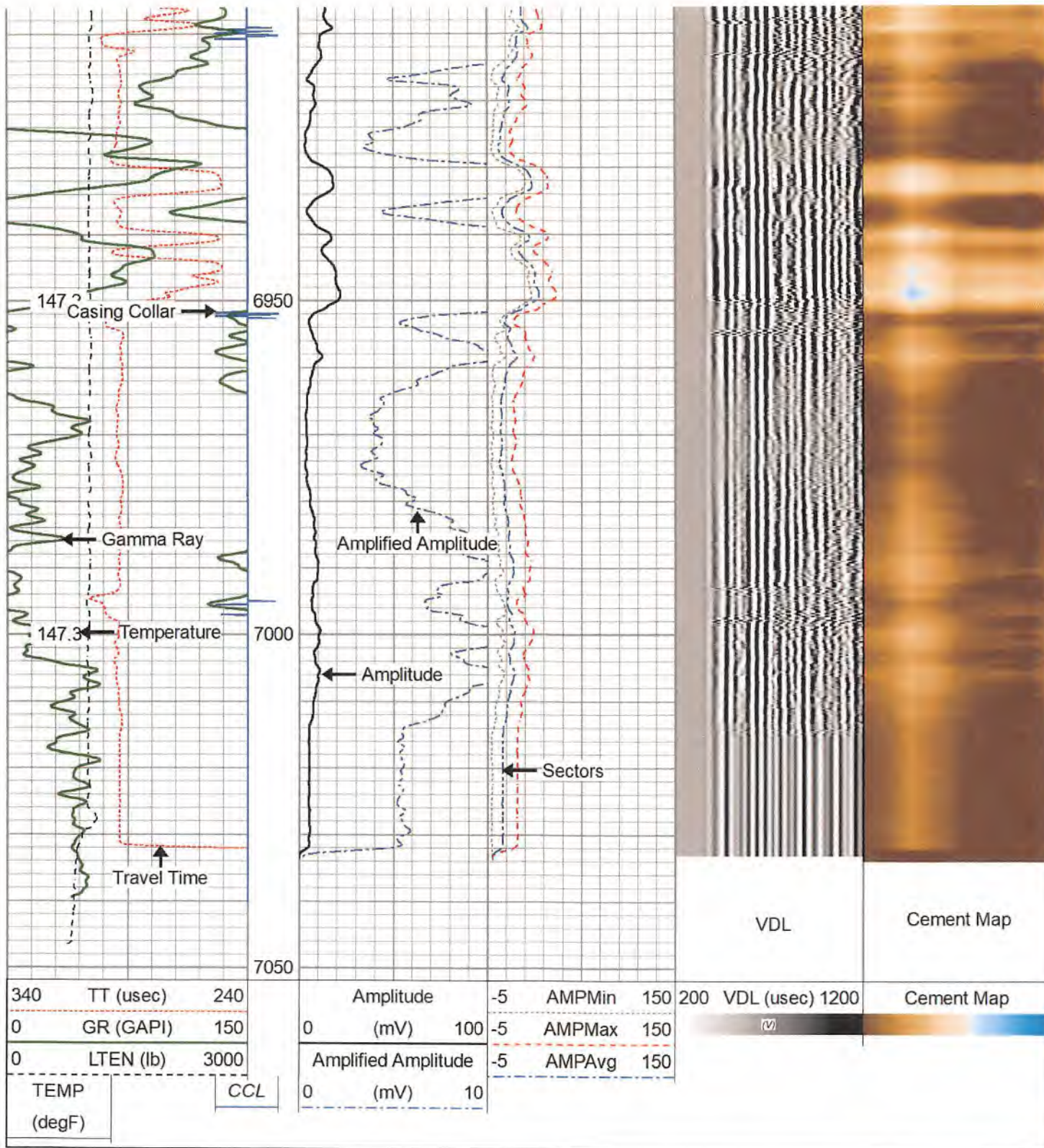












Energy Services

Repeat Pass

(1500 PSI)

Database File c:\users\logbox\desktop\antero\antero_jenkins_1h.db
 Dataset Pathname rcb\pass2
 Presentation Format rcb_std_bw_tt
 Dataset Creation Sat Jun 10 00:55:53 2023
 Charted by Depth in Feet scaled 1:240

0 GR (GAPI) 150

0 LTEN (lb) 3000

TEMP (degF) CCL

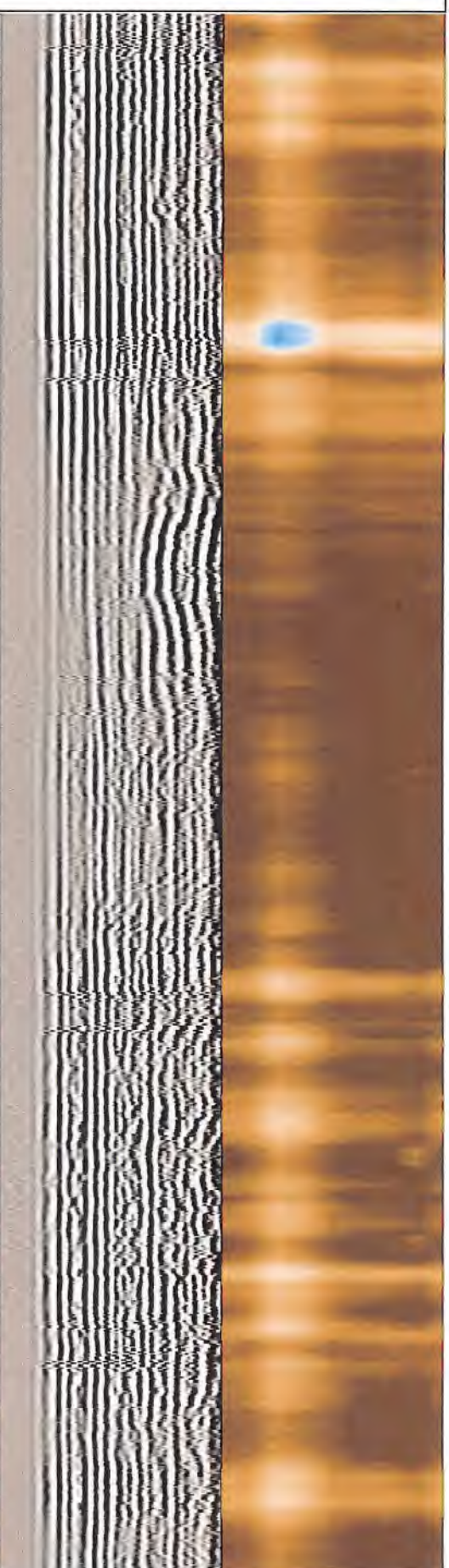
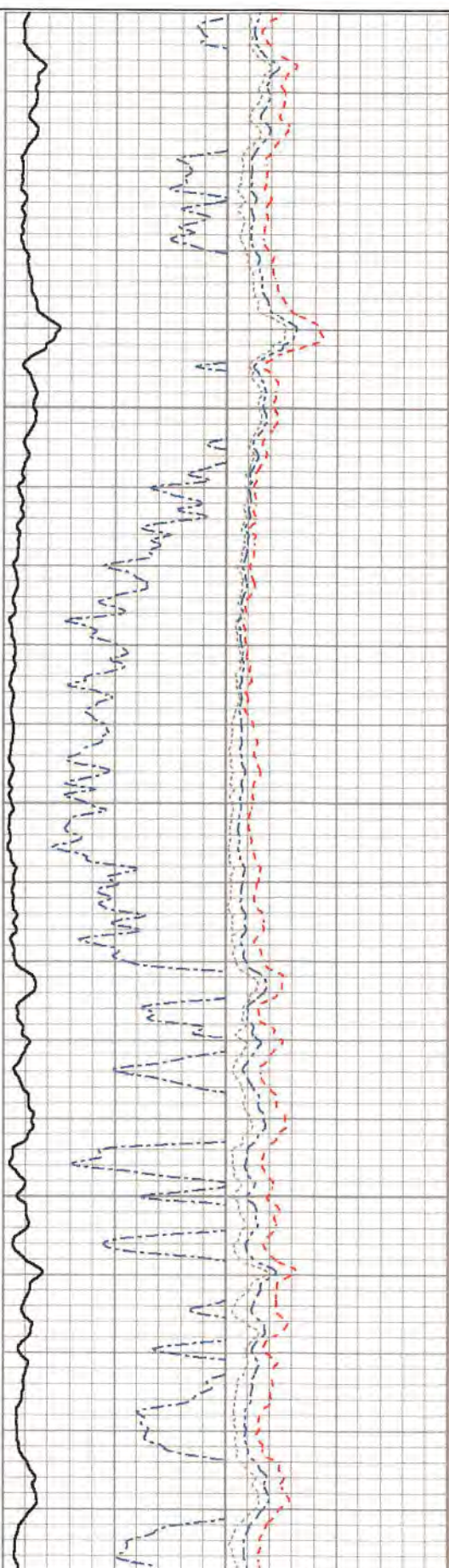
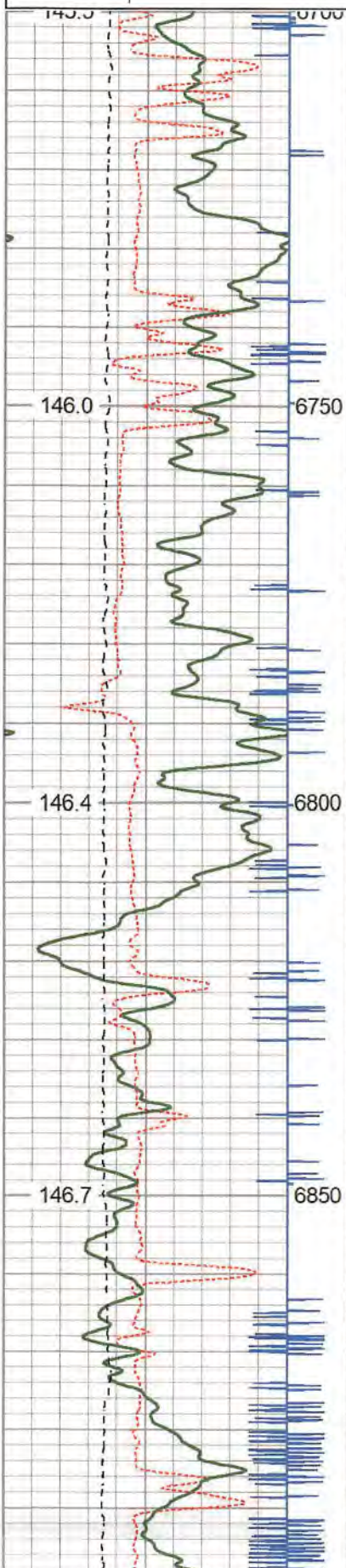
0 (mV) 100

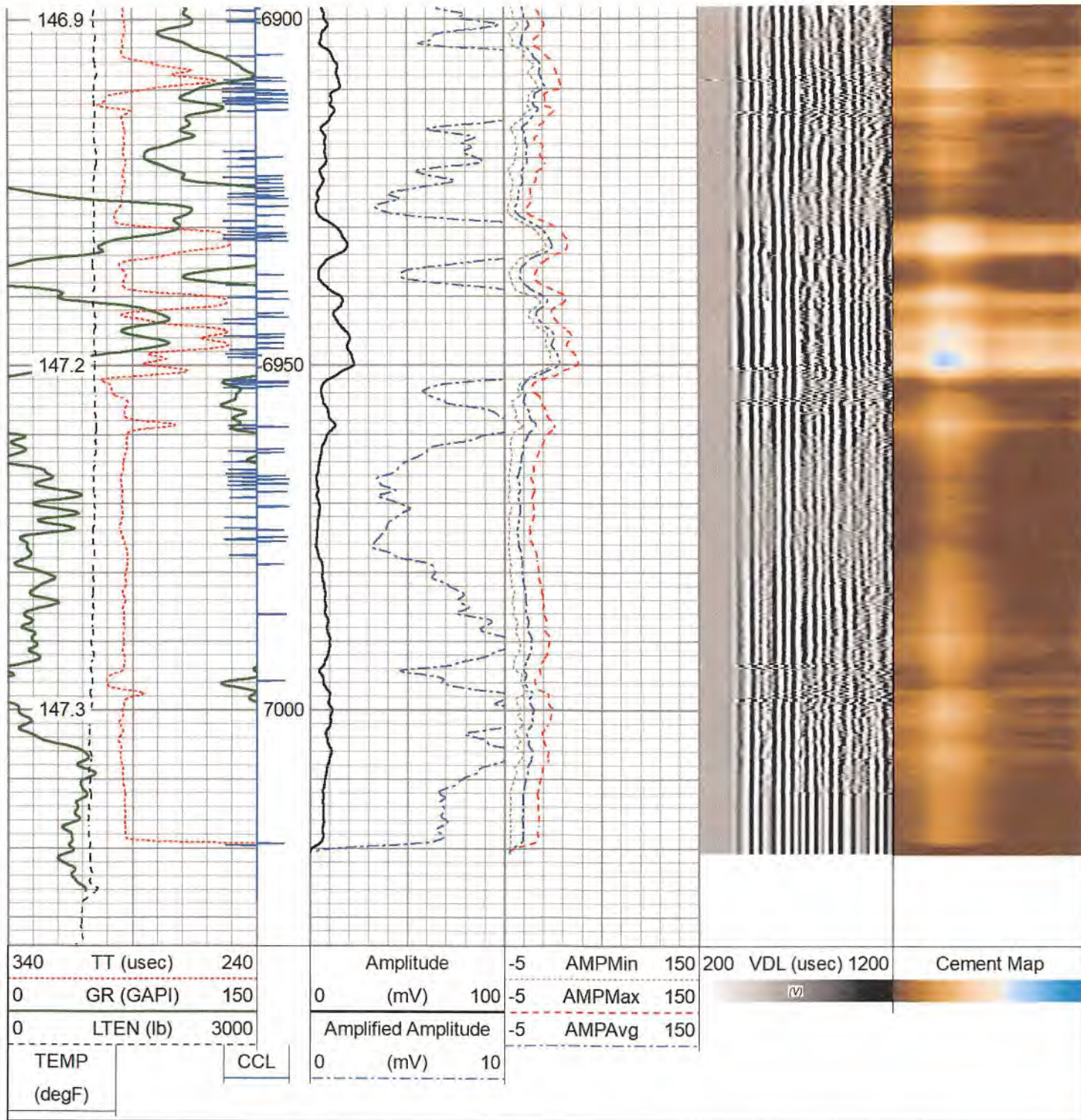
Amplified Amplitude -5 150

0 (mV) 10

-5 AMPMax 150

-5 AMPAvg 150





Log Variables

Database:\users\logbox\desktop\antero\antero_jenkins_1h.db
Dataset field/well/rcbl/pass4/_vars_

Top - Bottom

BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL	MINATTN
in	degF	in	in	lb/ft	mV	mV	db/ft
8.5	147.3	5.5	0.42	23	72	1	0.8
PERFS	PPT	SRFTEMP	TDEPTH	RECEIVED			
No	368	68	7022	Office of Oil and Gas			
				OCT 27 2022			

Variable Description

Environmental Protection

BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 CASEWGHT : Casing Weight
 MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude
 MINATTN : Minimum Attenuation
 PERFS : Perforation Flag
 PPT : Predicted Pipe Time
 SRFTEMP : Surface Temperature
 TDEPTH : Total Depth

Calibration Report

Database File c:\users\logbox\desktop\antero\antero_jenkins_1h.db
 Dataset Pathname rcbl/pass4
 Dataset Creation Sat Jun 10 01:05:29 2023

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:	106.308	ft	

Master Calibration, performed Fri Jun 9 13:58:16 2023:

Raw (v)		Calibrated (mv)		Results	
Zero	Cal	Zero	Cal	Gain	Offset

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3'	0.008	0.656	1.000	71.921	109.366	0.156
CAL	0.007	0.896				
5'	0.006	0.602	1.000	71.921	119.005	0.253
SUM						
S1	0.005	0.650	0.000	100.000	155.187	-0.816
S2	0.008	0.640	0.000	100.000	158.318	-1.343
S3	0.008	0.628	0.000	100.000	161.266	-1.230
S4	0.006	0.620	0.000	100.000	162.908	-0.992
S5	0.008	0.622	0.000	100.000	162.808	-1.238
S6	0.009	0.637	0.000	100.000	159.164	-1.354
S7	0.007	0.650	0.000	100.000	155.526	-1.088
S8	0.006	0.660	0.000	100.000	153.001	-0.945

Internal Reference Calibration, performed Mon Apr 17 11:08:13 2023:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	0.896	1.000	0.000

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Air Zero Calibration, performed Fri Jun 9 09:32:12 2023:

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

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S8

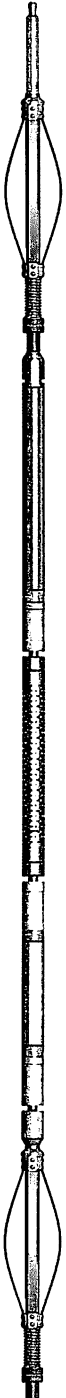
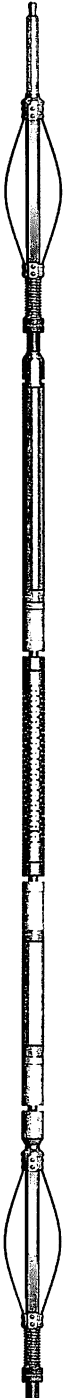
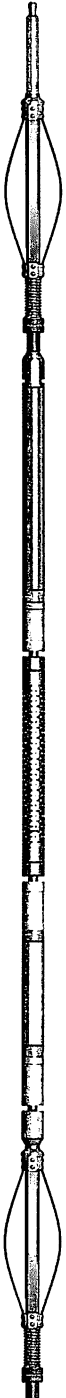
0.000
0.000

0.000
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)
RBT_HV	19.19		Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
WVFS2	14.69		RBT8-RADII-275C (RBT275C_Base) Probe 2.75" RADII 8 Sector Bond Tool	8.75	2.75	130.00
WVFS1	14.69					
WVFS8	14.69					
WVFS7	14.69					
WVFS6	14.69					
WVFS5	14.69					
WVFS4	14.69					
WVFS3	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					

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CCL\$2	6.64					
CCL\$1	6.64					
GCT_Temp	6.09					
GR	5.22					
			GC-GCT275-0000 (GCT275-0000_base) Probe Gamma Ray - CCL w/ Temp	4.77	2.75	55.00
			CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00

Dataset: antero_jenkins_1h.db: field/well/rcbl/pass4
 Total length: 23.04 ft
 Total weight: 260.31 lb
 O.D.: 2.75 in



Company	Antero Resources Corporation	
Well	Jenkins Unit 1H	
Field	White Oak	
County	Doddridge	
State	WV	Country USA

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