



**PIONEER**

Pioneer Energy Services

## RADIAL BOND LOG WITH GAMMA RAY

Company **VERDAD RESOURCES**  
Well **MILE HI DUCK CLUB PASCOE #1**  
Field **Wattenberg**  
County **ADAMS** State **Colorado**

Location: API # : 05-001-06992

Other Services

SEC 6 TWP 1S RGE 65W  
Permanent Datum GL Elevation 5017'  
Log Measured From KB 5027' Above Perm. Datum  
Drilling Measured From KB K.B. 5027  
D.F. ---  
G.L. 5017

Comp. VERDAD RESOURCES  
Well MILE HI DUCK CLUB PASCOE #1  
Field Wattenberg  
Co. ADAMS  
State Colorado

Date of Service 23-DECEMBER-2021

Run Number ONE

Depth Driller or PBTD

Depth Logger 7634'

Bottom Log Interval 7630'

Top Log Interval Surface

Open Hole Size 7 7/8

Type Fluid WATER

Fluid Level Full

Fluid Density 8.33 PPG

Max. Recorded Temperature 260

Max. Wellhead Pressure 0

Wellhead Connection ---

Estimated Cement Top SEE LOG

Unit Number 133

Wireline Size 9/32

Location FT MORGAN

Recorded By HAYES

Witnessed By JASON EISENACH

Size

Wt/Ft

Top

Bottom

Tubing Record  
Surface Casing  
Production Casing  
Liner Record

9 5/8  
4.5

36  
11.6

Surface  
Surface

TD  
TD

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

### Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Bond Tool Calibrated @ 5009'

Logged With 0 PSI Surface Induced Pressure

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew

Tool Data - Services

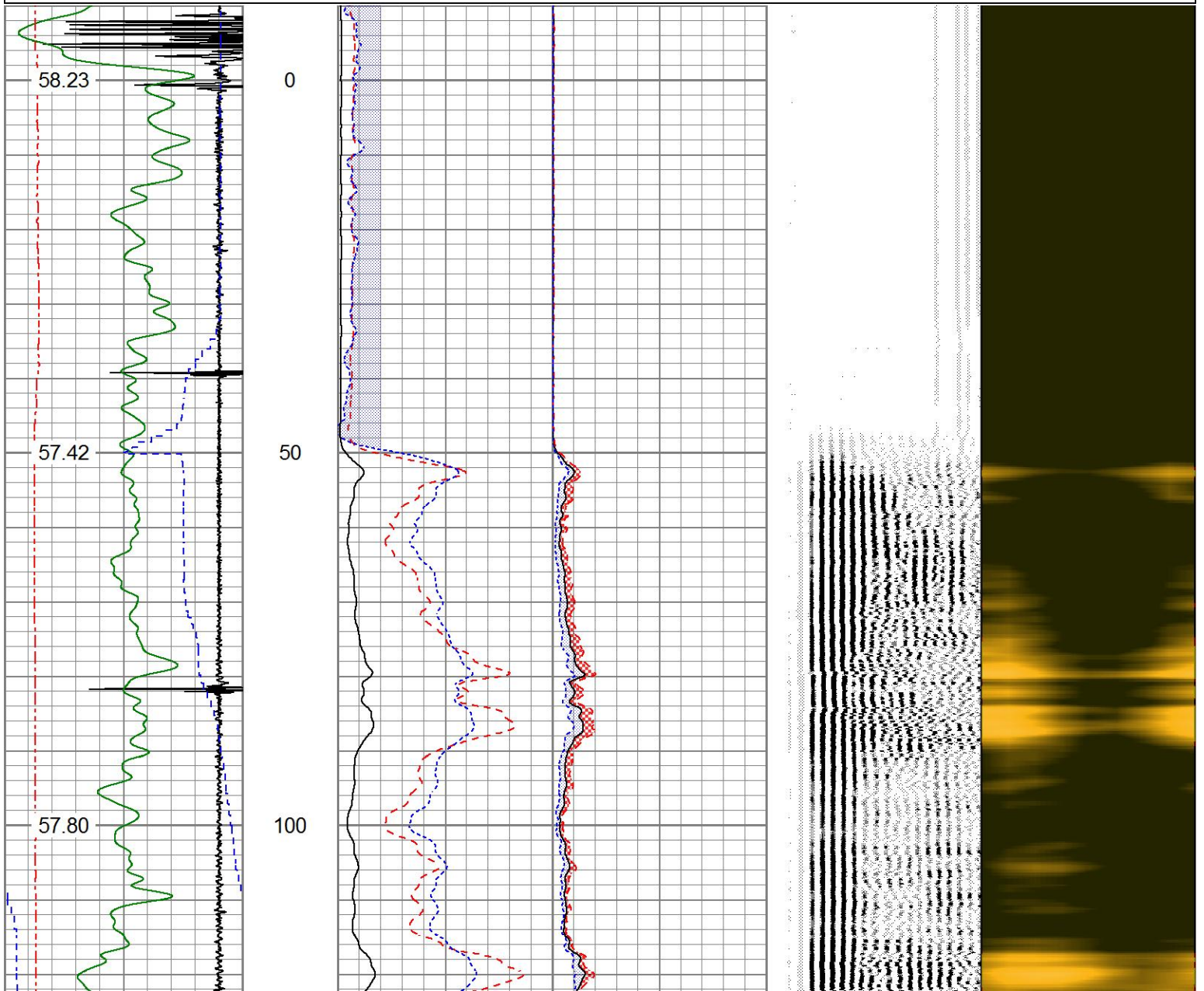
Serial Number

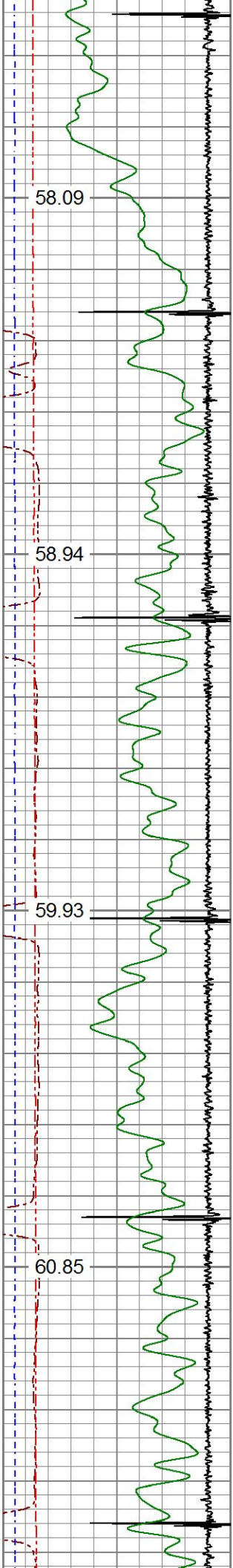
Engineer: HAYES  
Operator: PARRISH  
Operator:  
Operator:

# MAIN LOG

Database File verdad\_mile hi duckclub pscoe#1 rcbl\_05-001-06992\_2021-23-december.db  
 Dataset Pathname pass9  
 Presentation Format pinr\_scbl  
 Dataset Creation Thu Dec 23 14:13:22 2021  
 Charted by Depth in Feet scaled 1:240

3Ft Travel Time	3' Amplitude	Sector	200	VDL (usec)	1200	1	Sector Map	8
270 (usec) 170	0 (mV) 100	Amplitude Average						
-9 Collar Locator 1	3' Amplified Amplitude X 5	0 150						
Gamma Ray	0 (mV) 20	Sector Amplitude Maximum						
0 (GAPI) 150	1 Bond Index 0	0 150						
0 LineTension (lb)2000		Sector Amplitude Minimum						
Line Speed		0 150						
-100 (ft/min) 100								
TEMP								
(degF)								



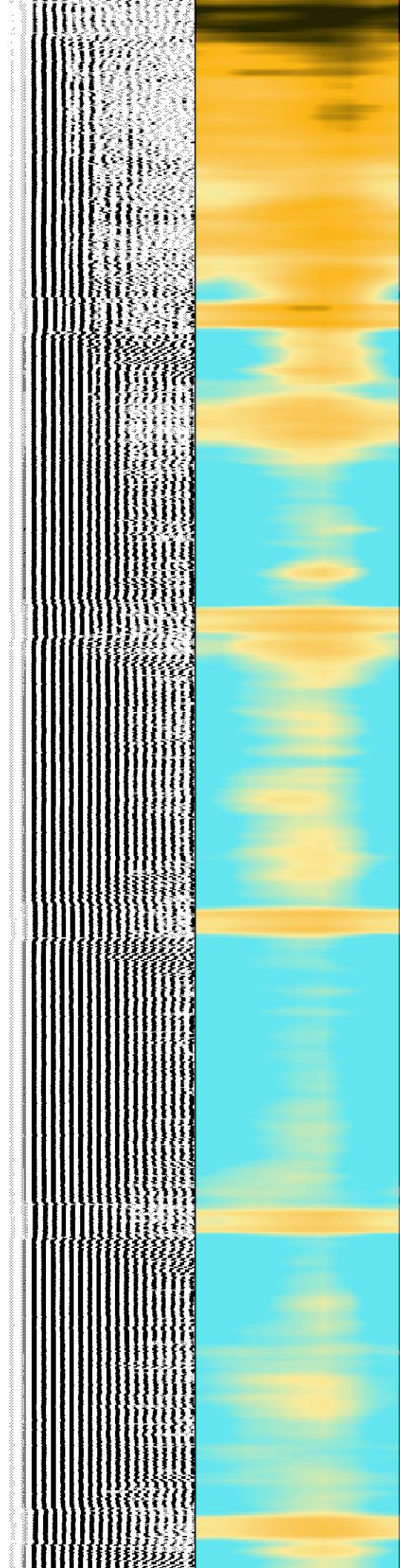
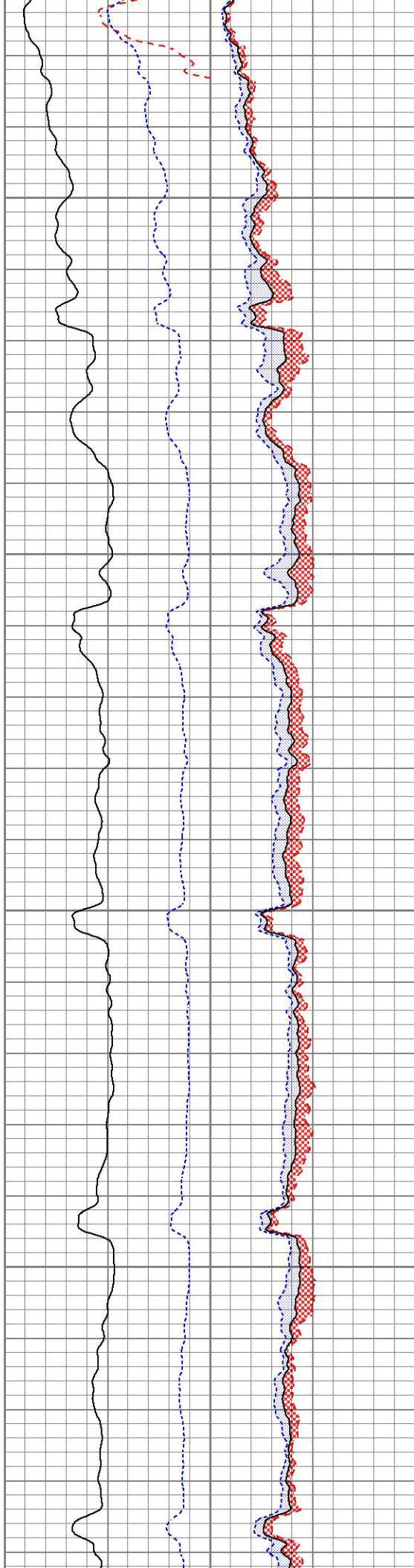


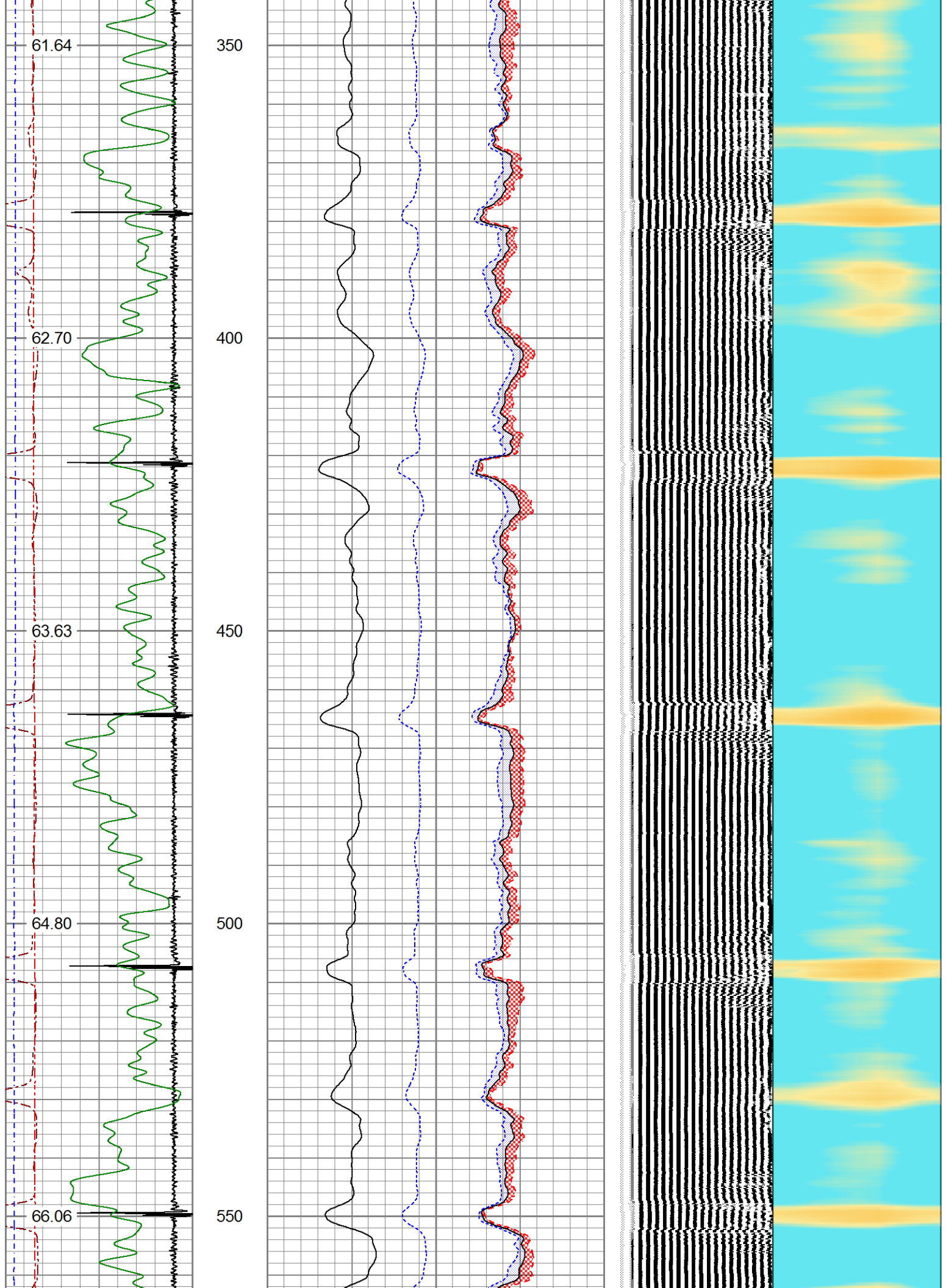
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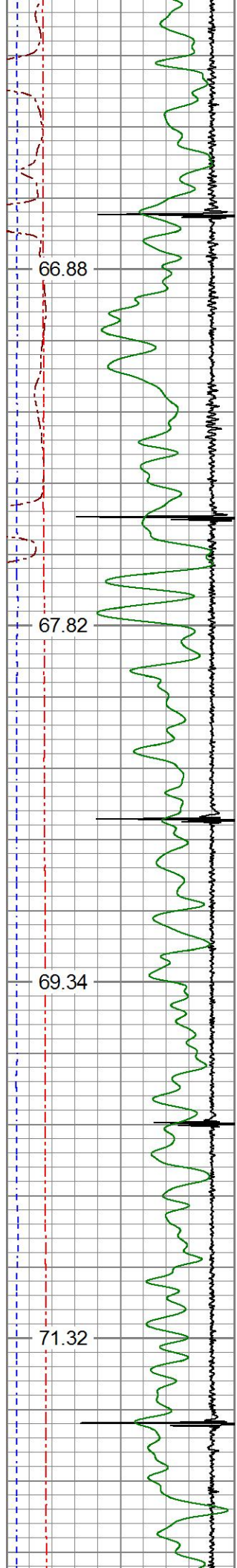
200

250

300





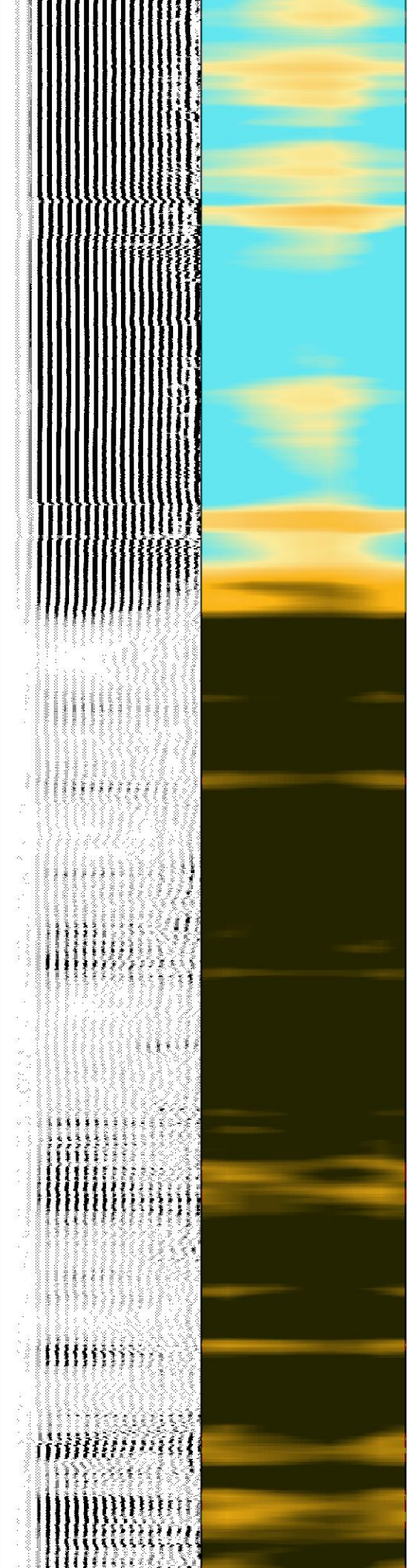
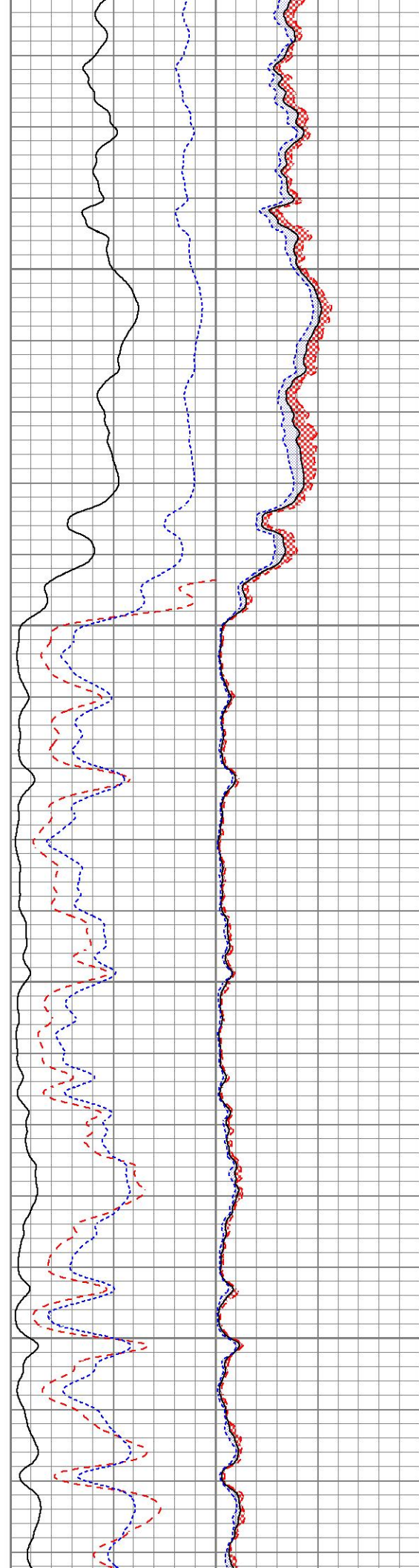


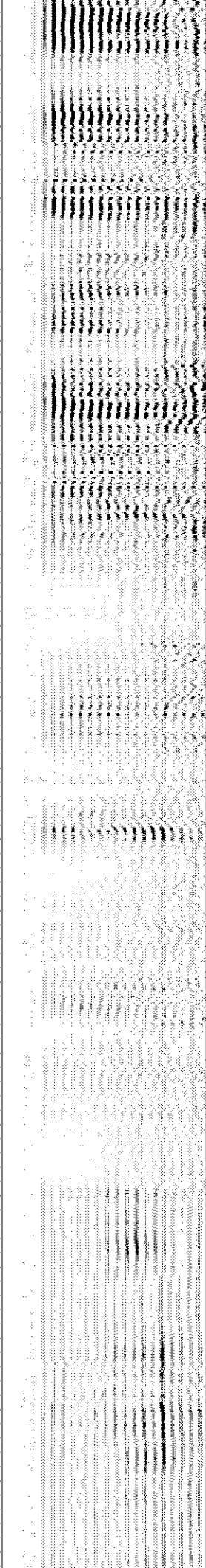
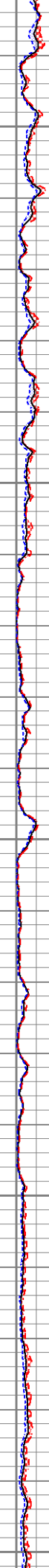
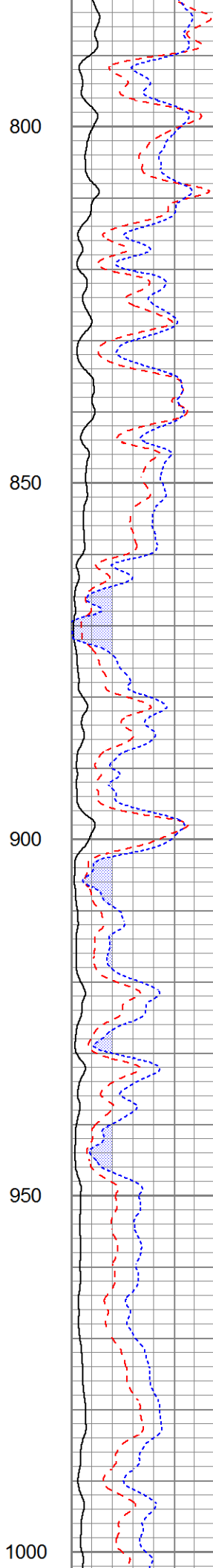
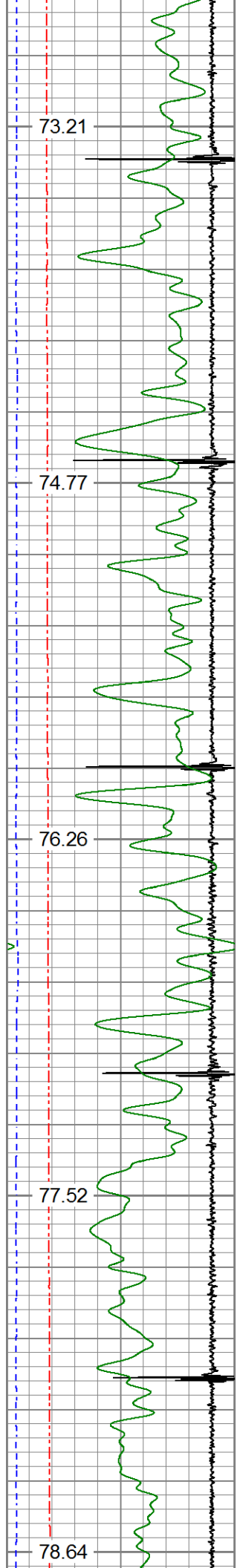
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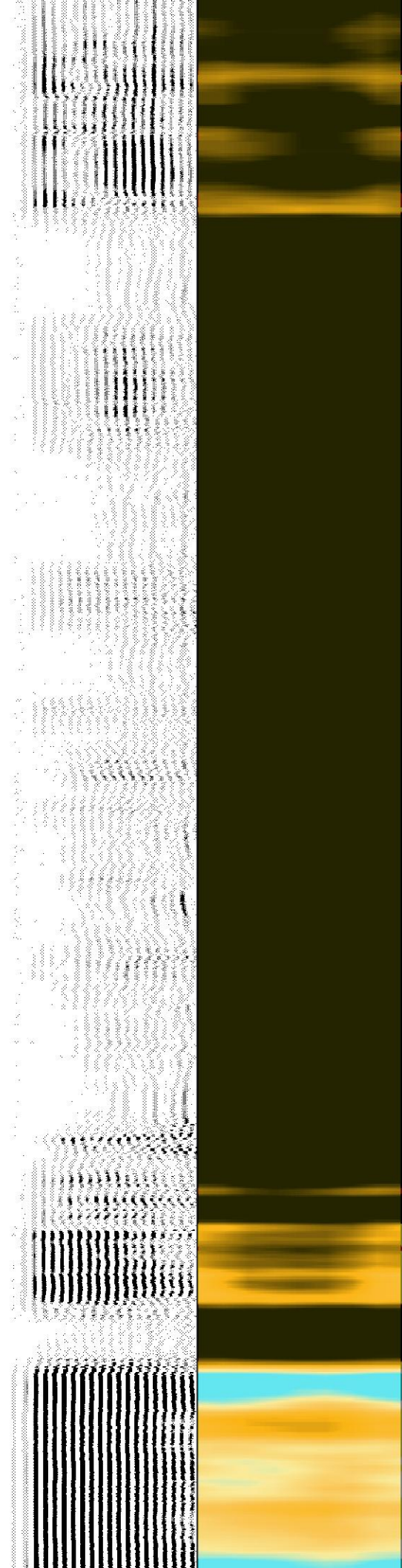
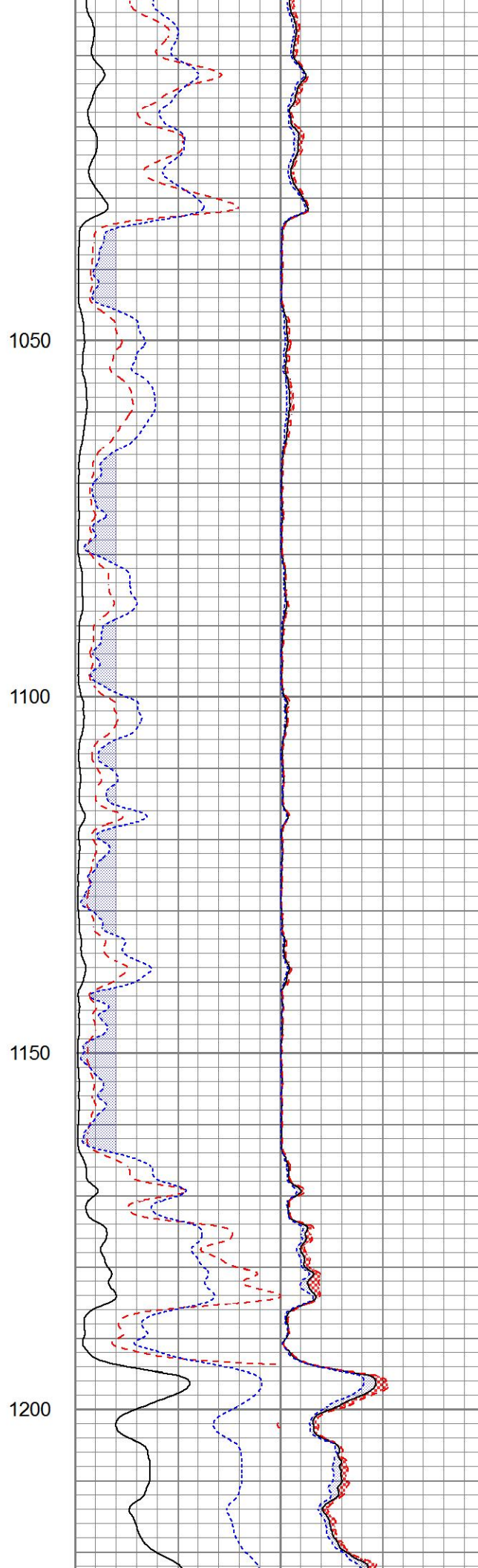
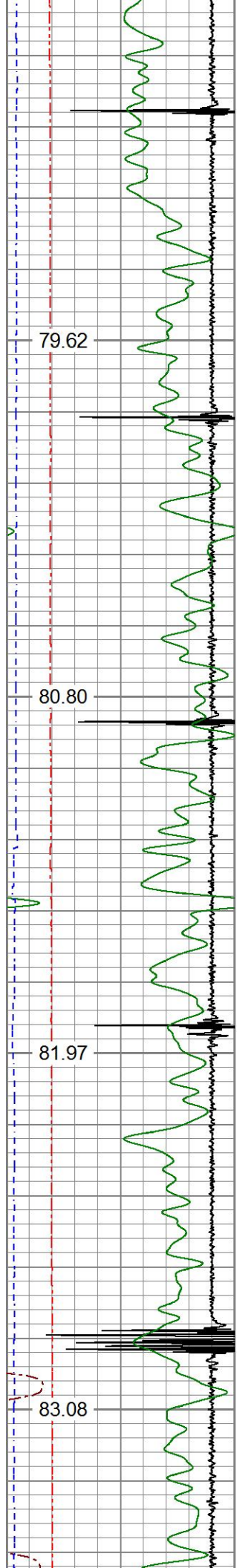
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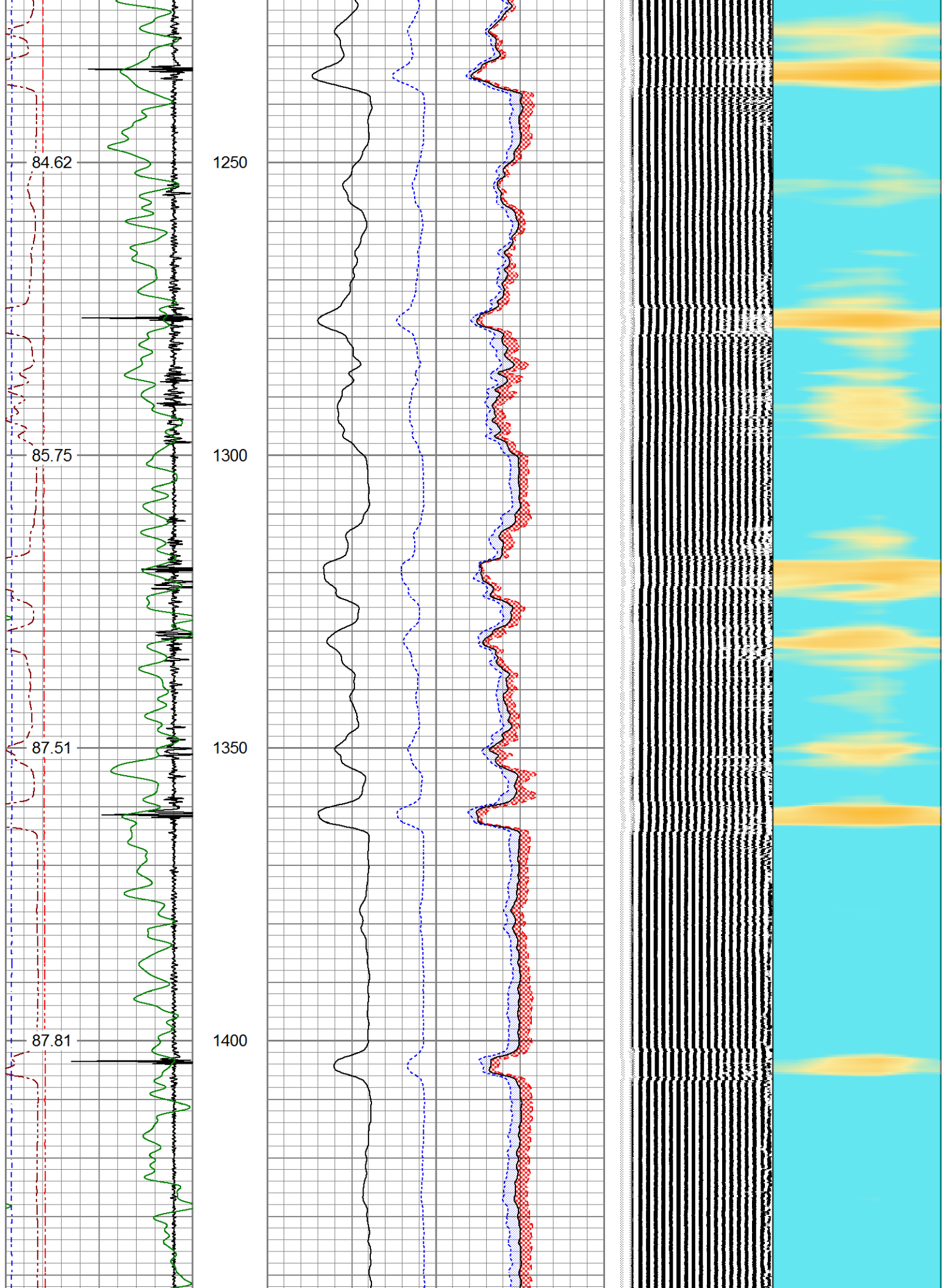
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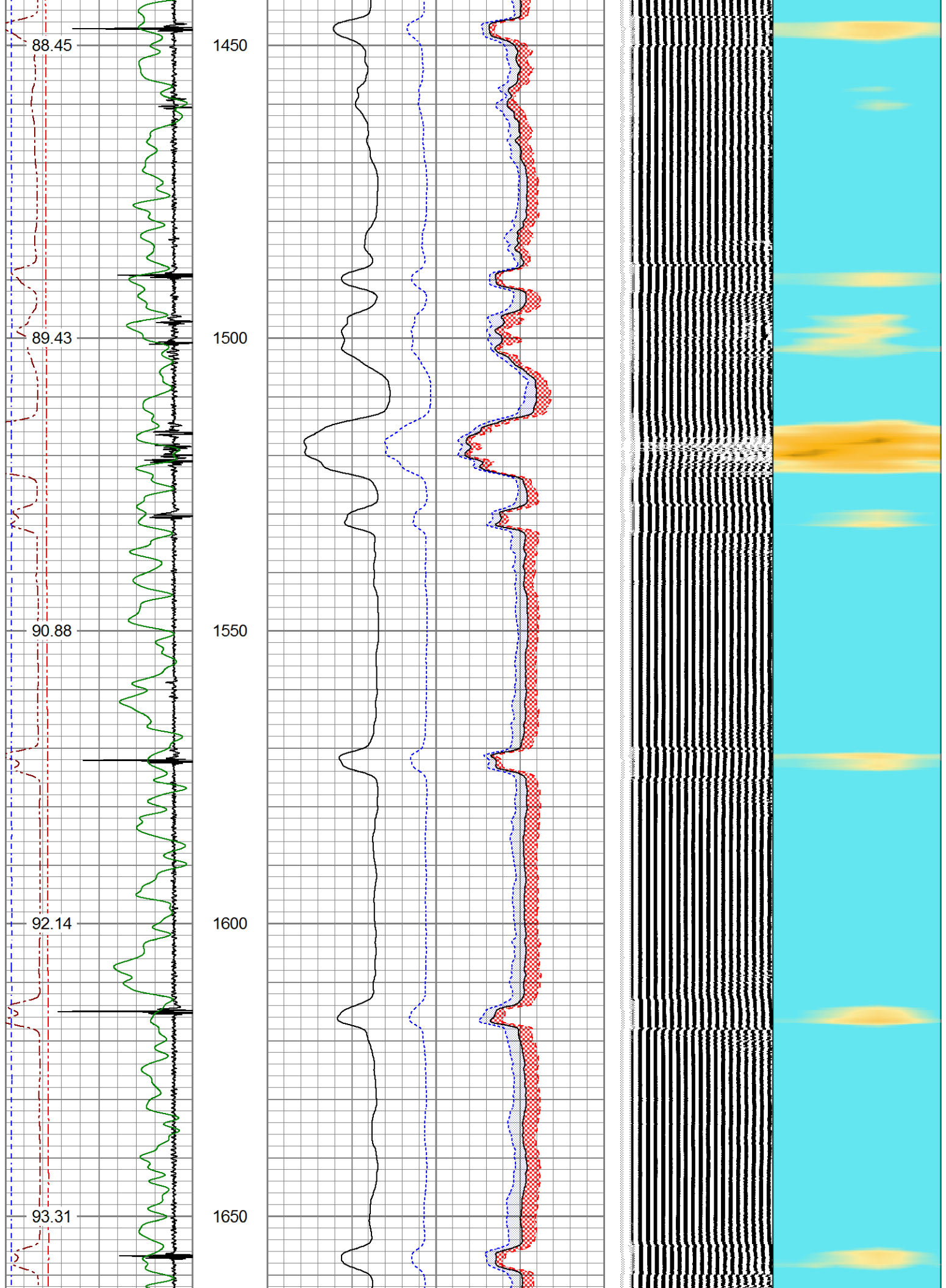
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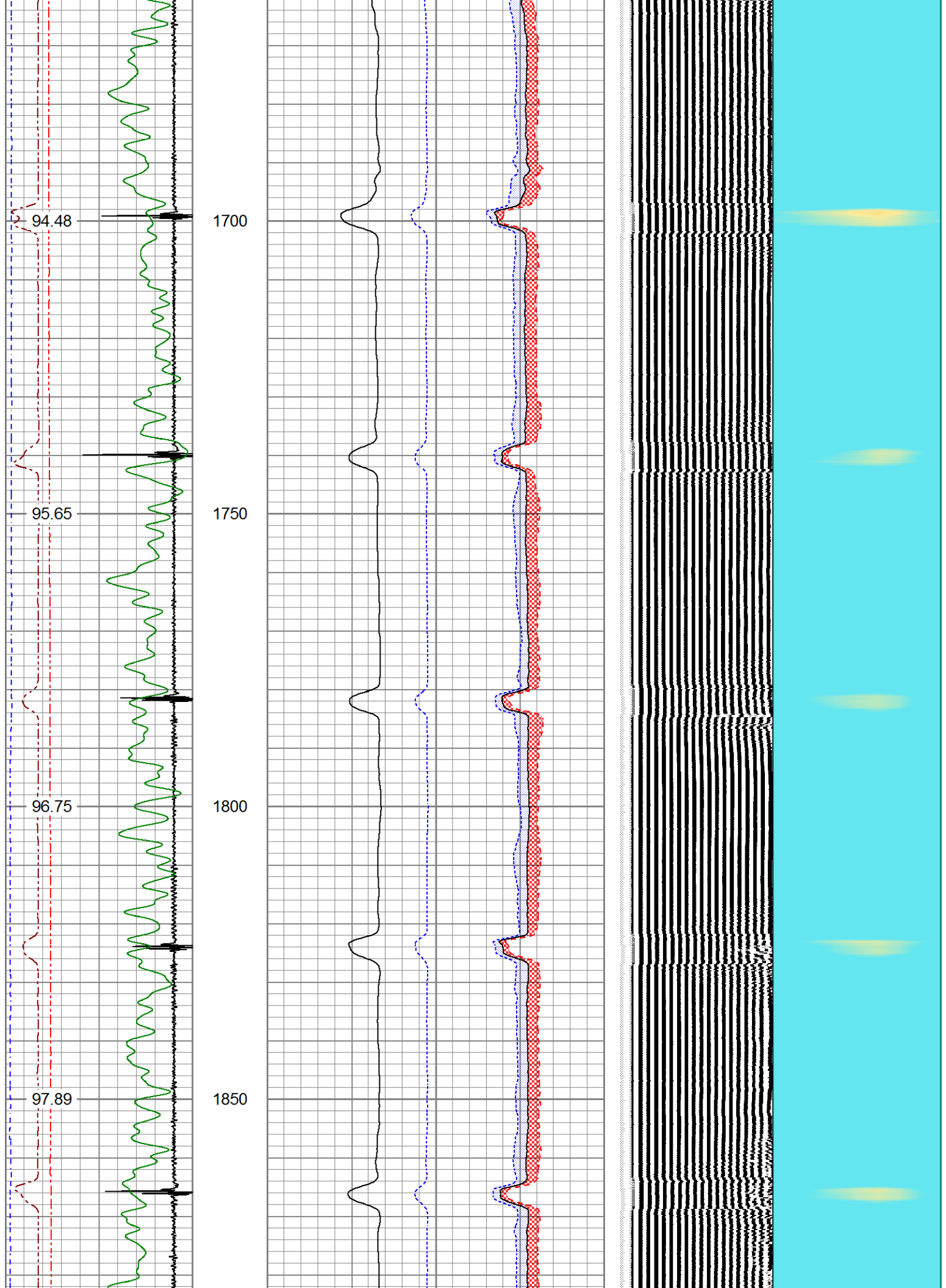


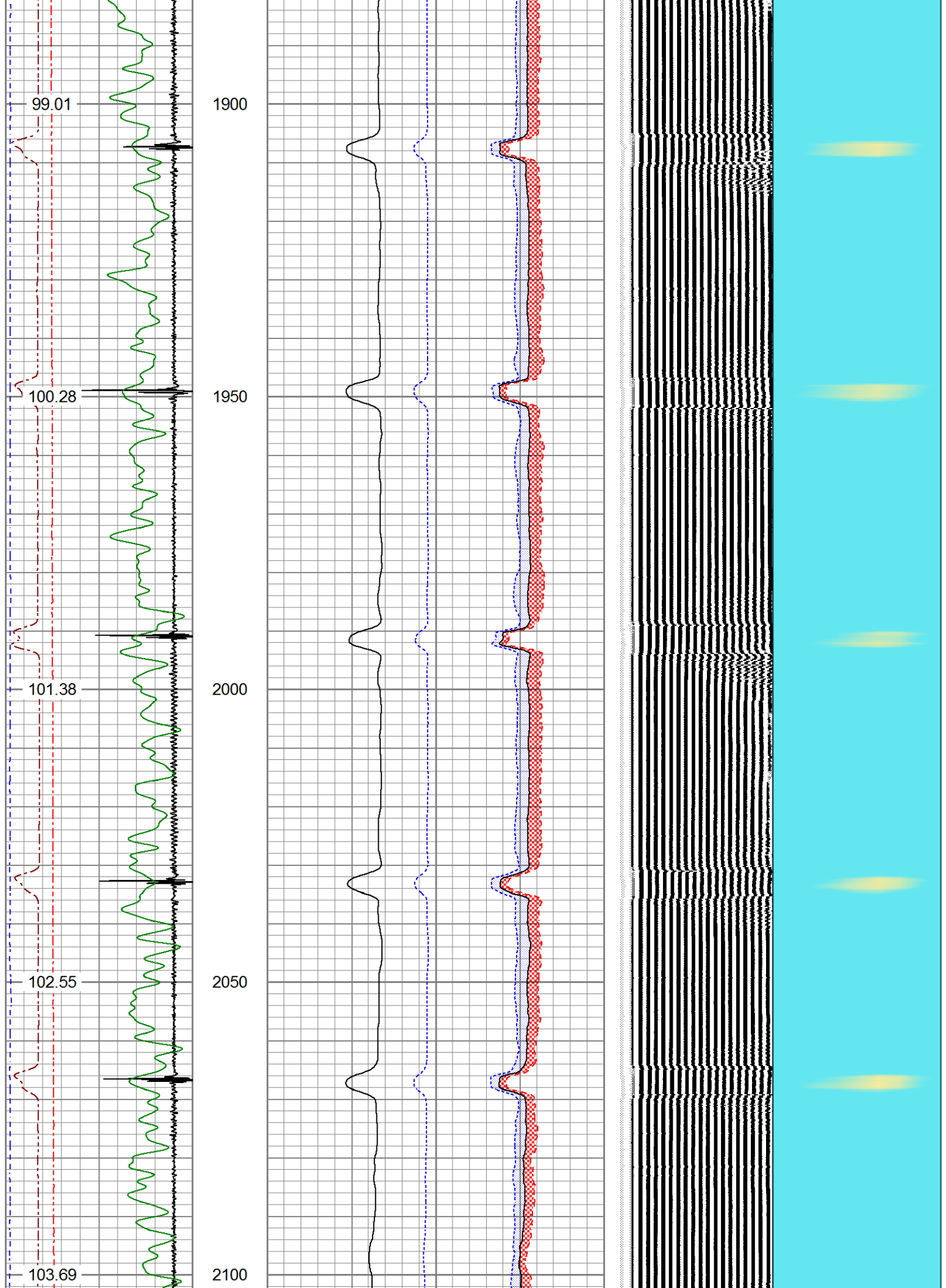


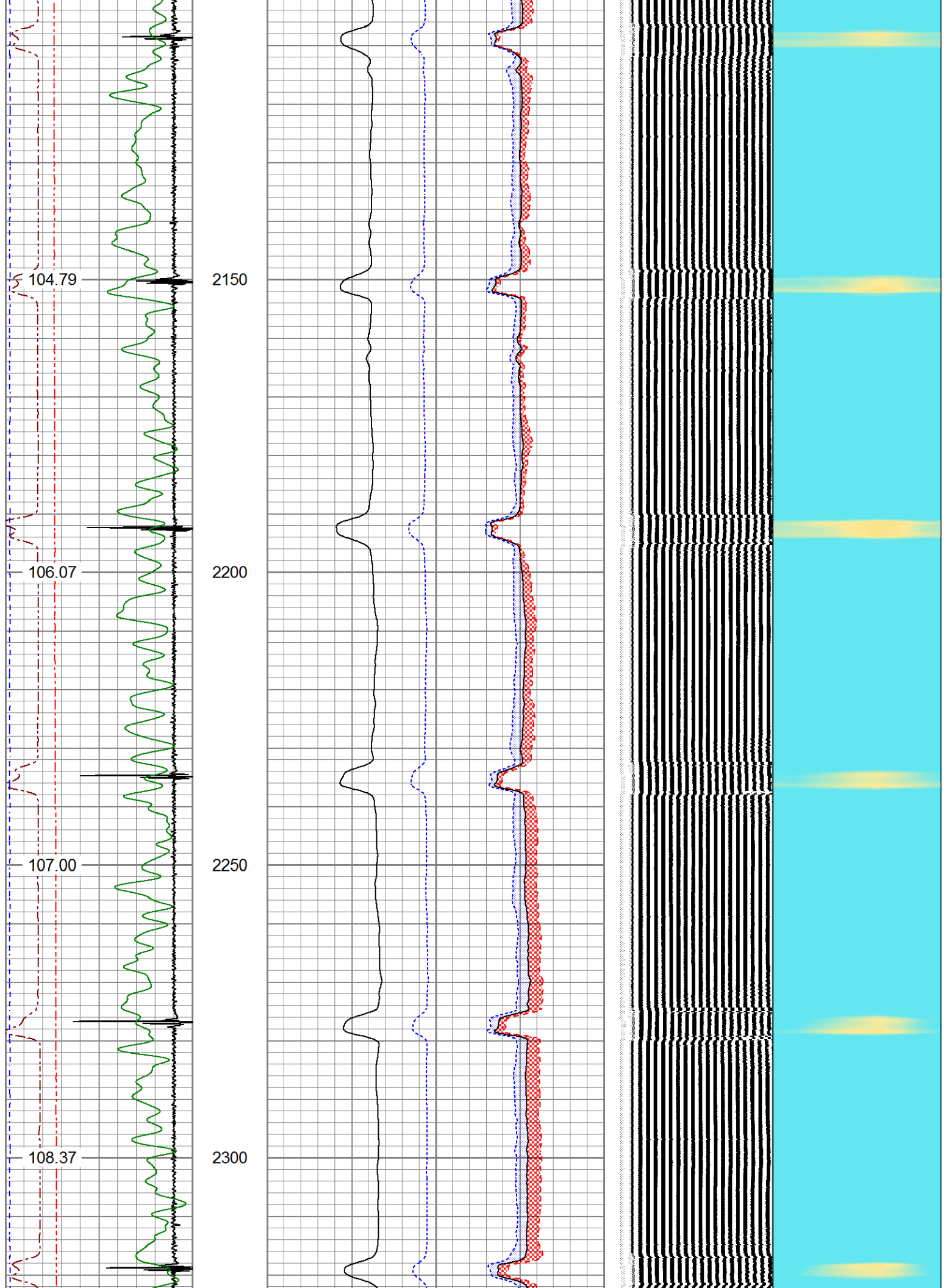


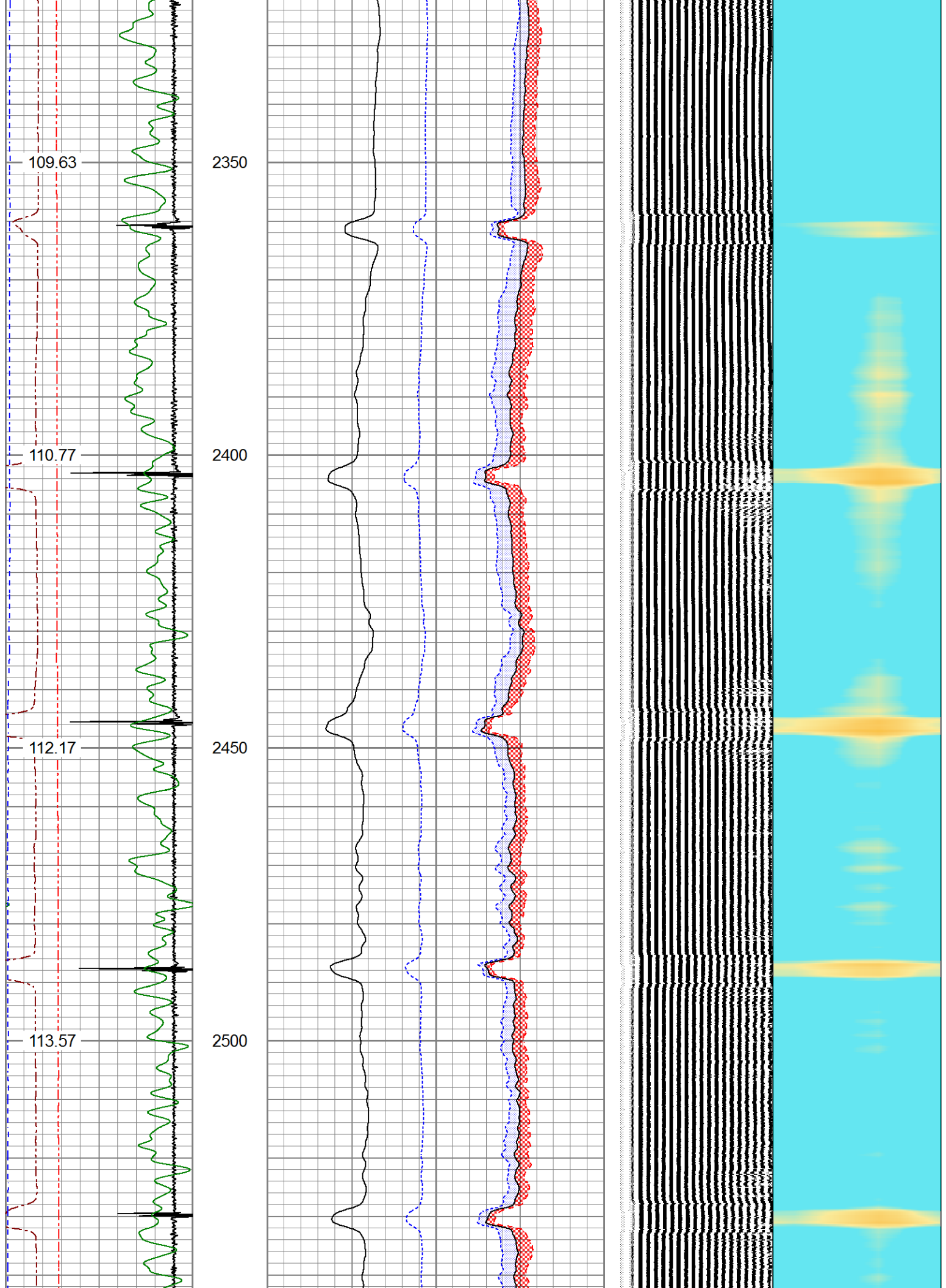


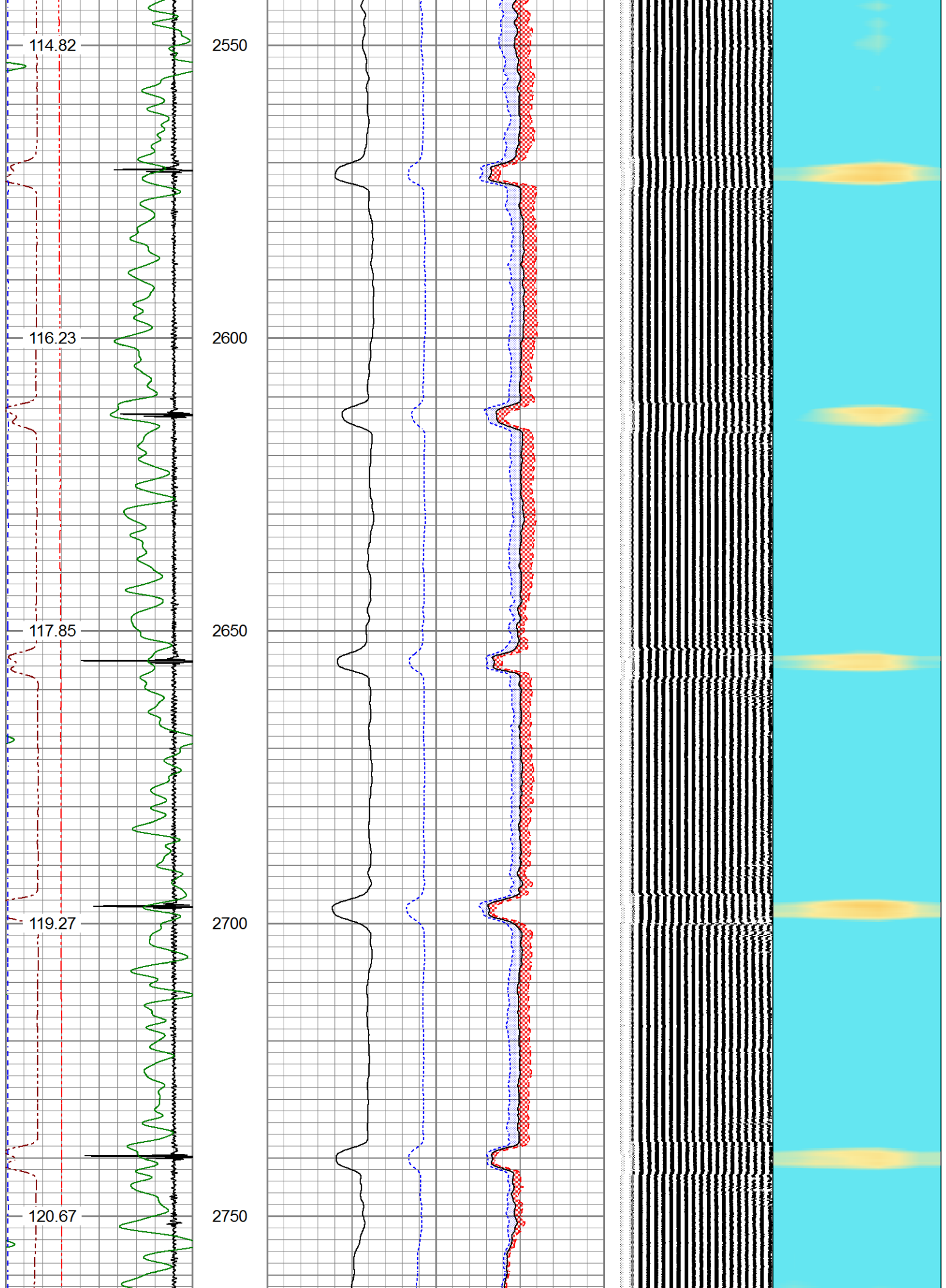


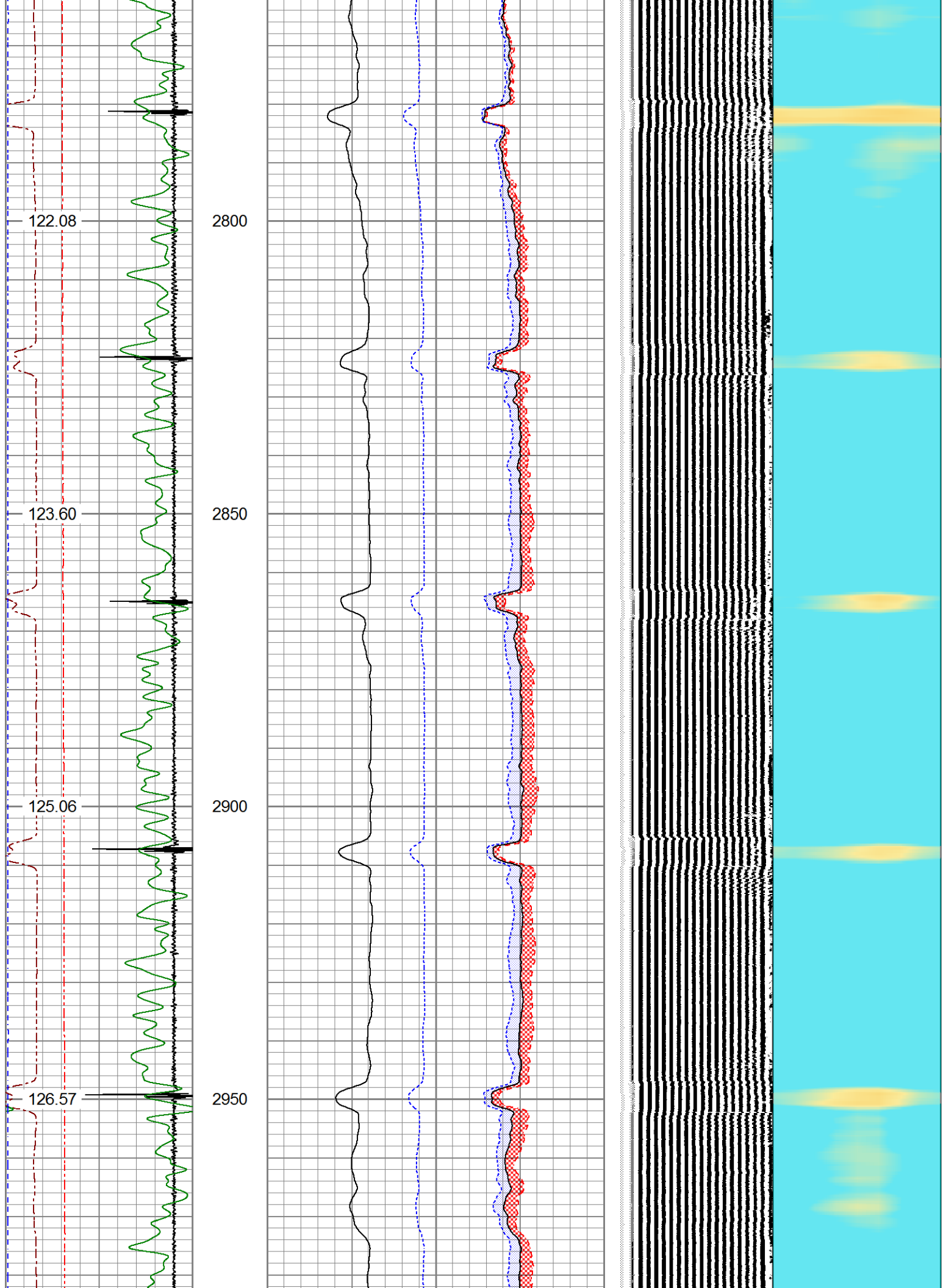


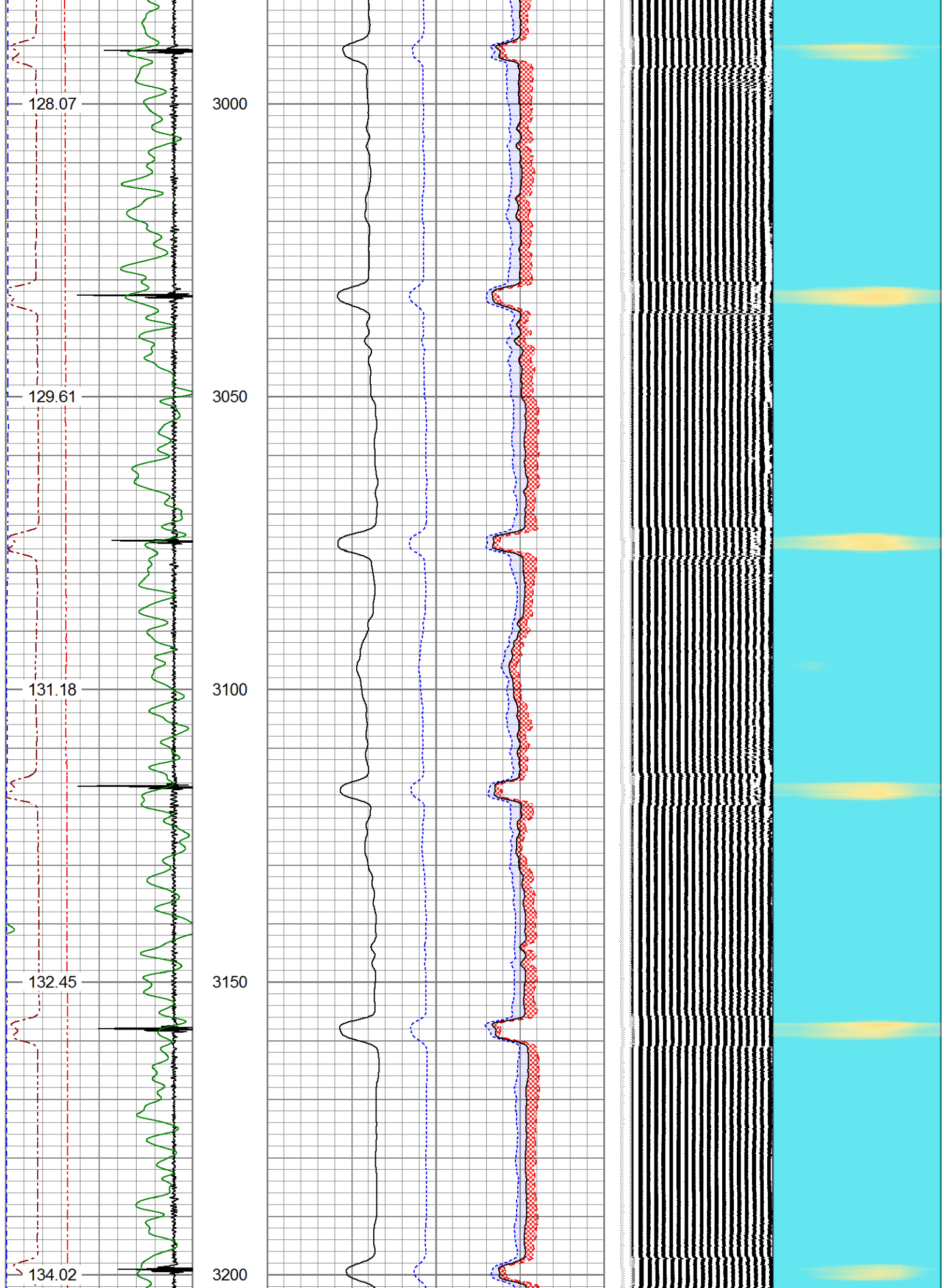


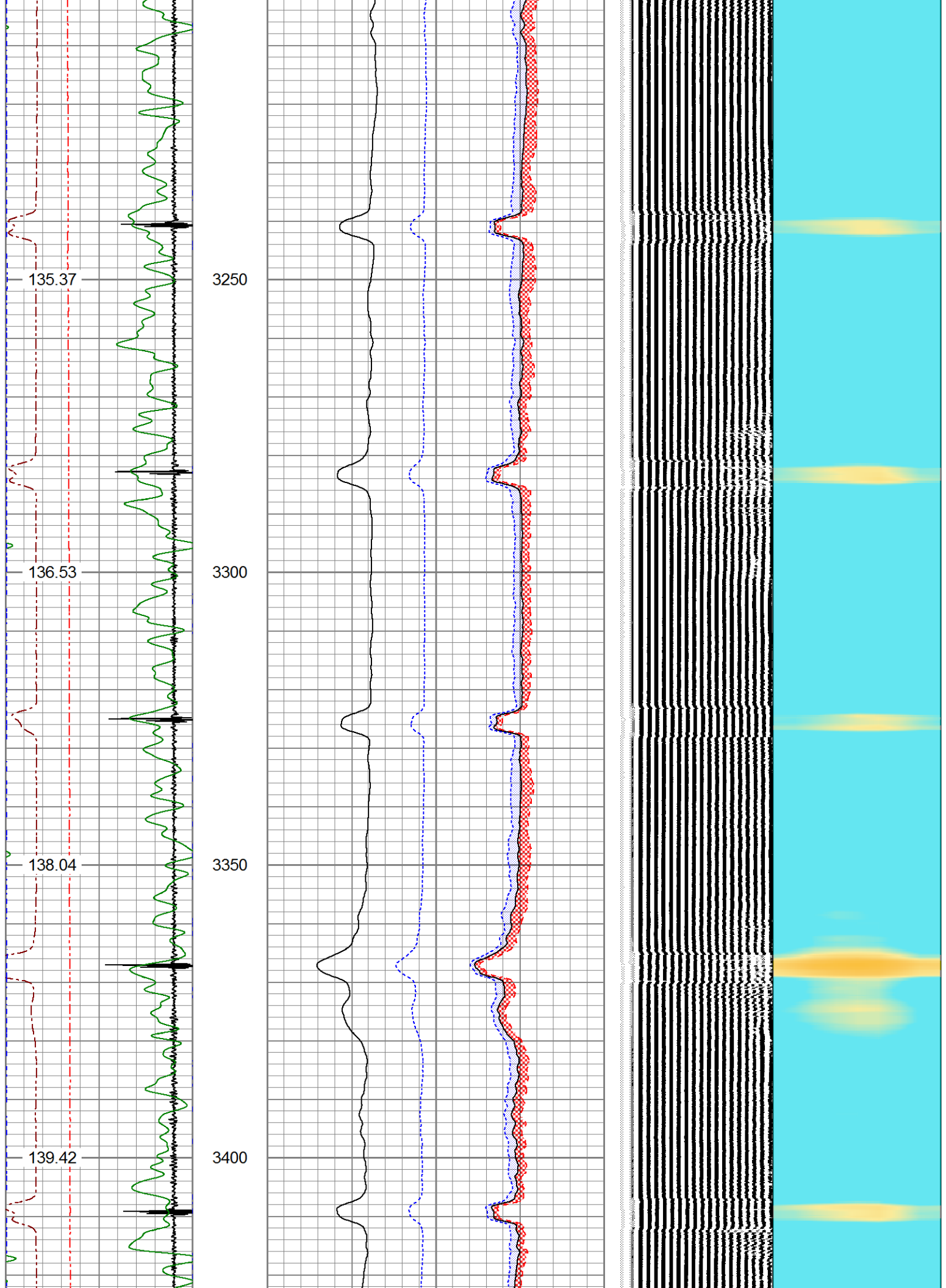


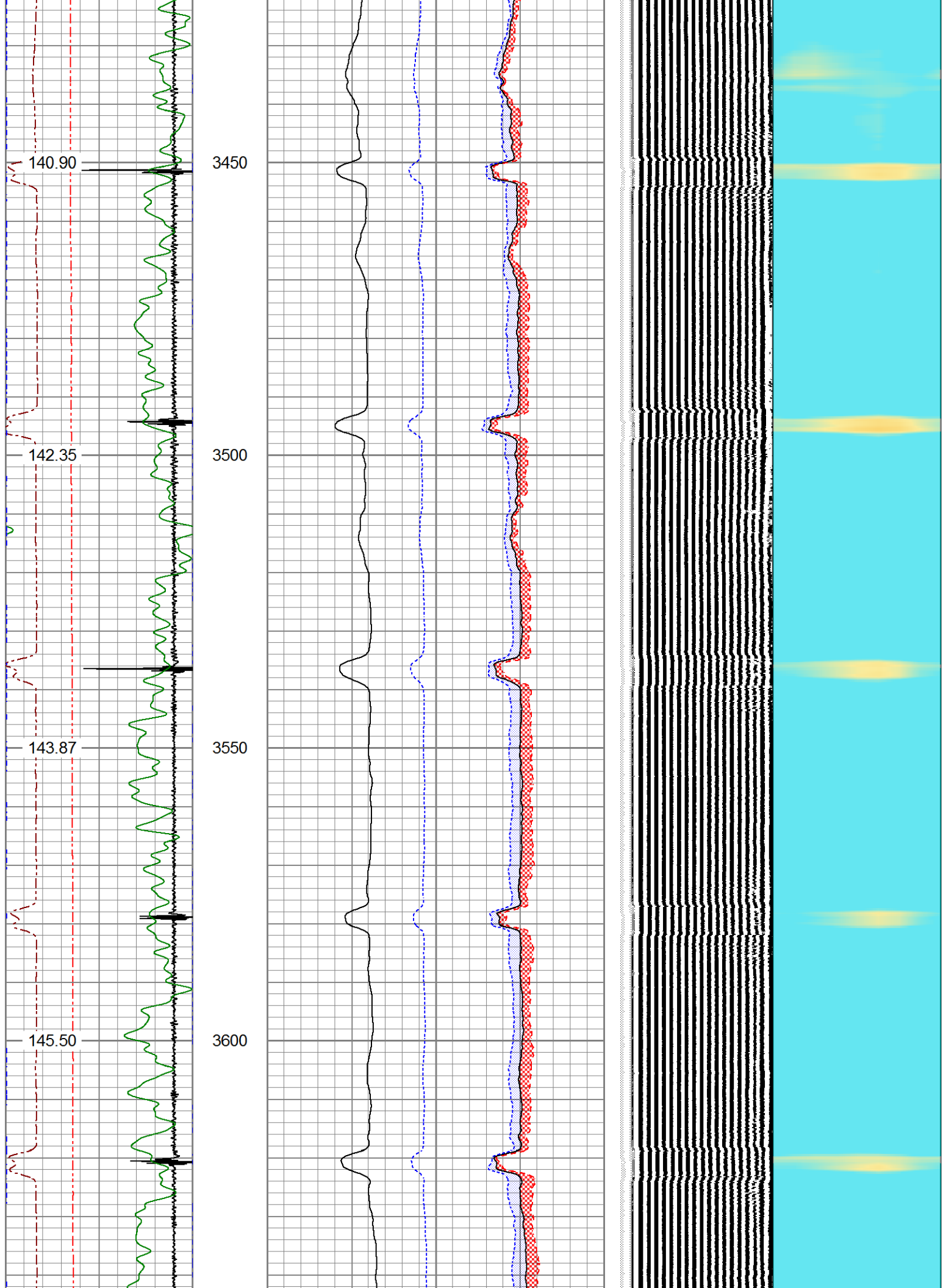


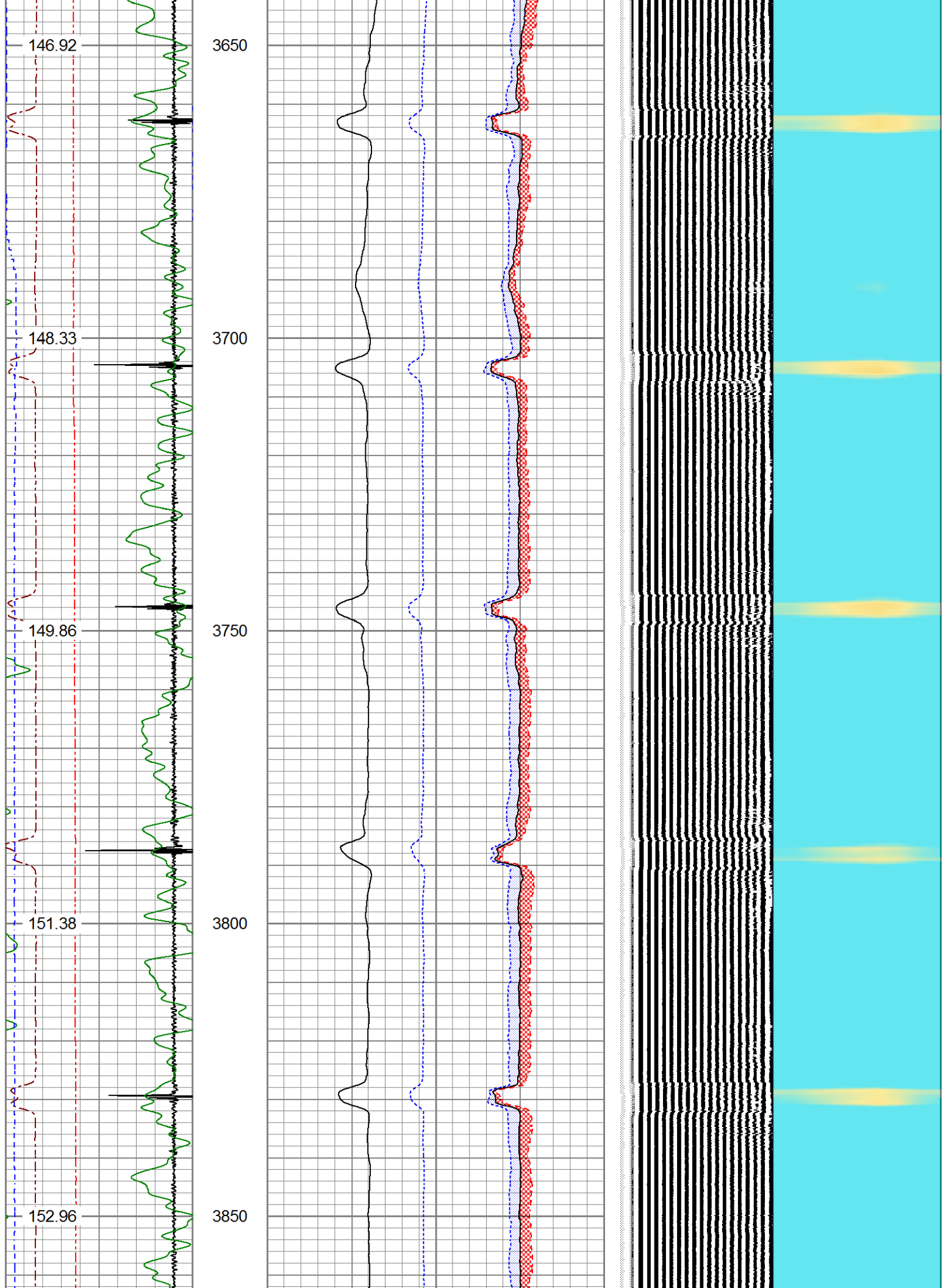


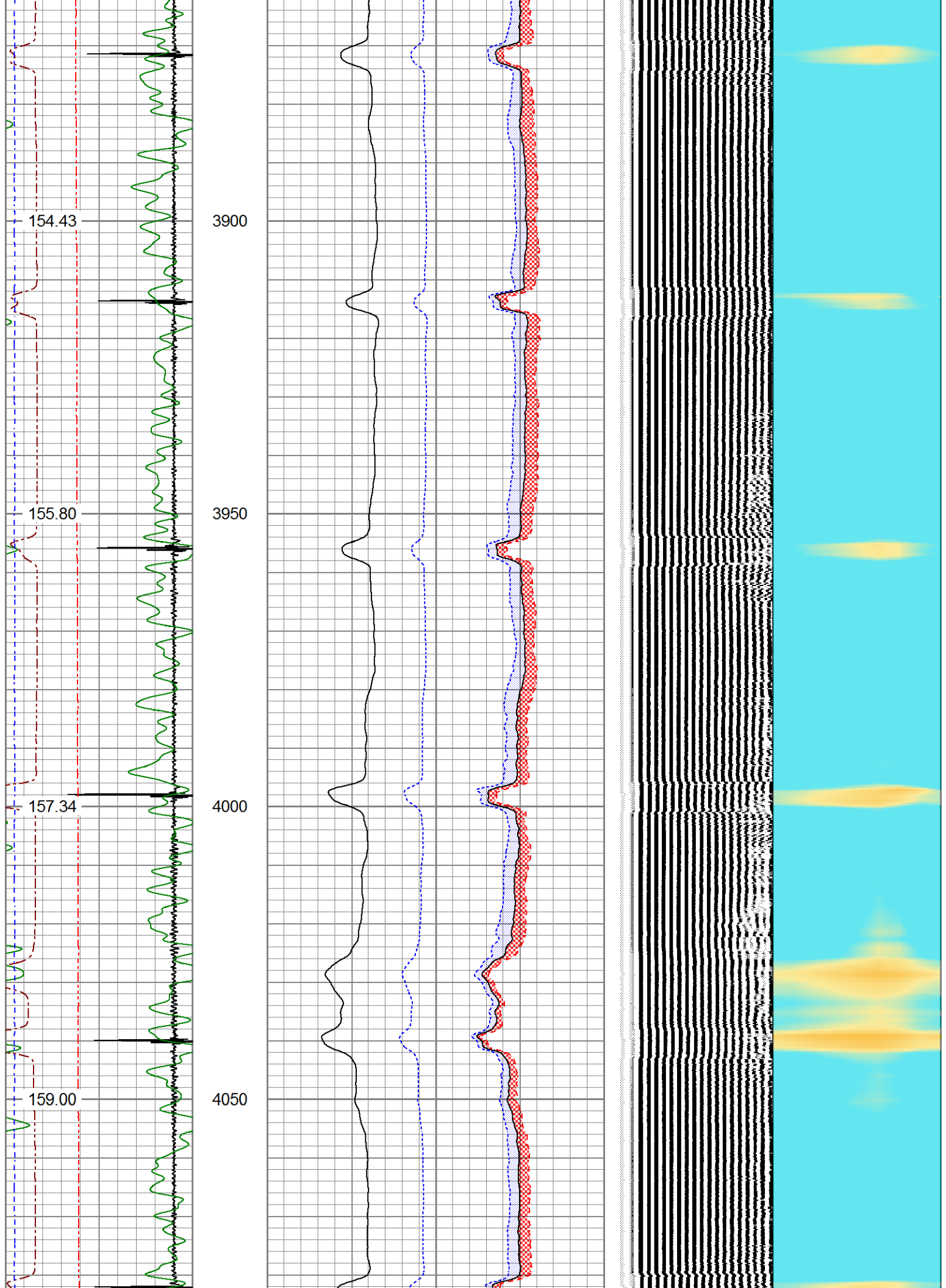


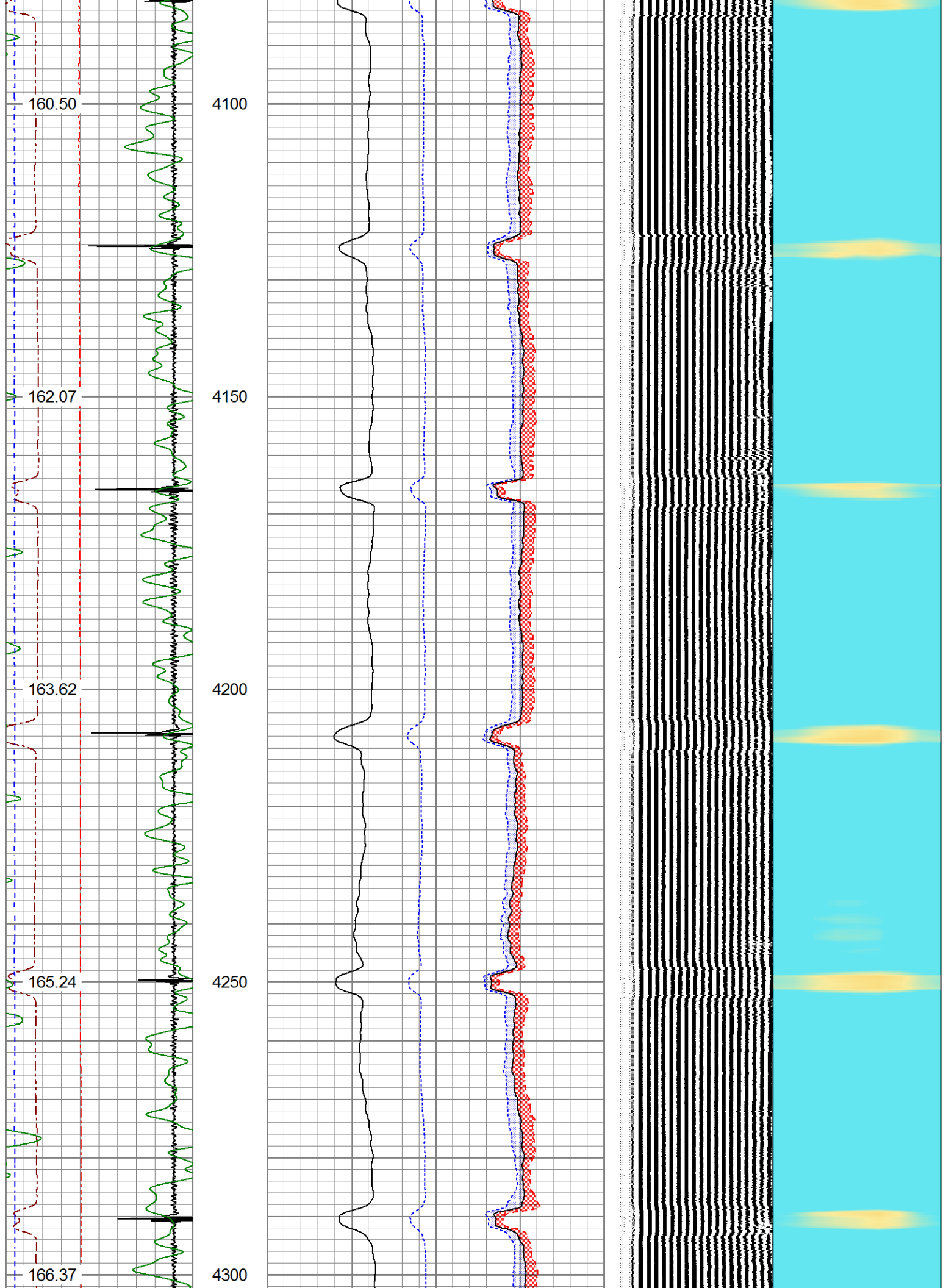


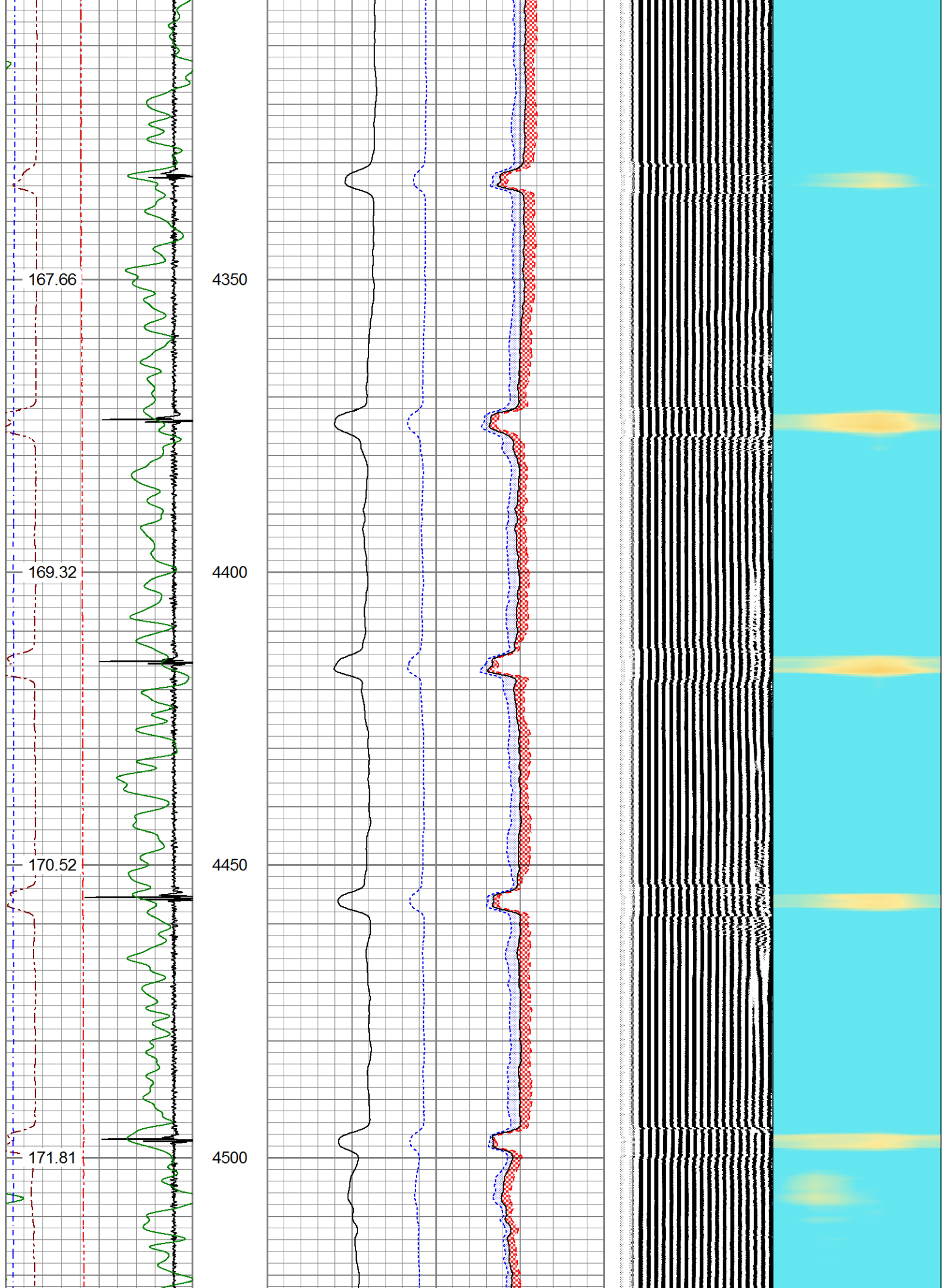


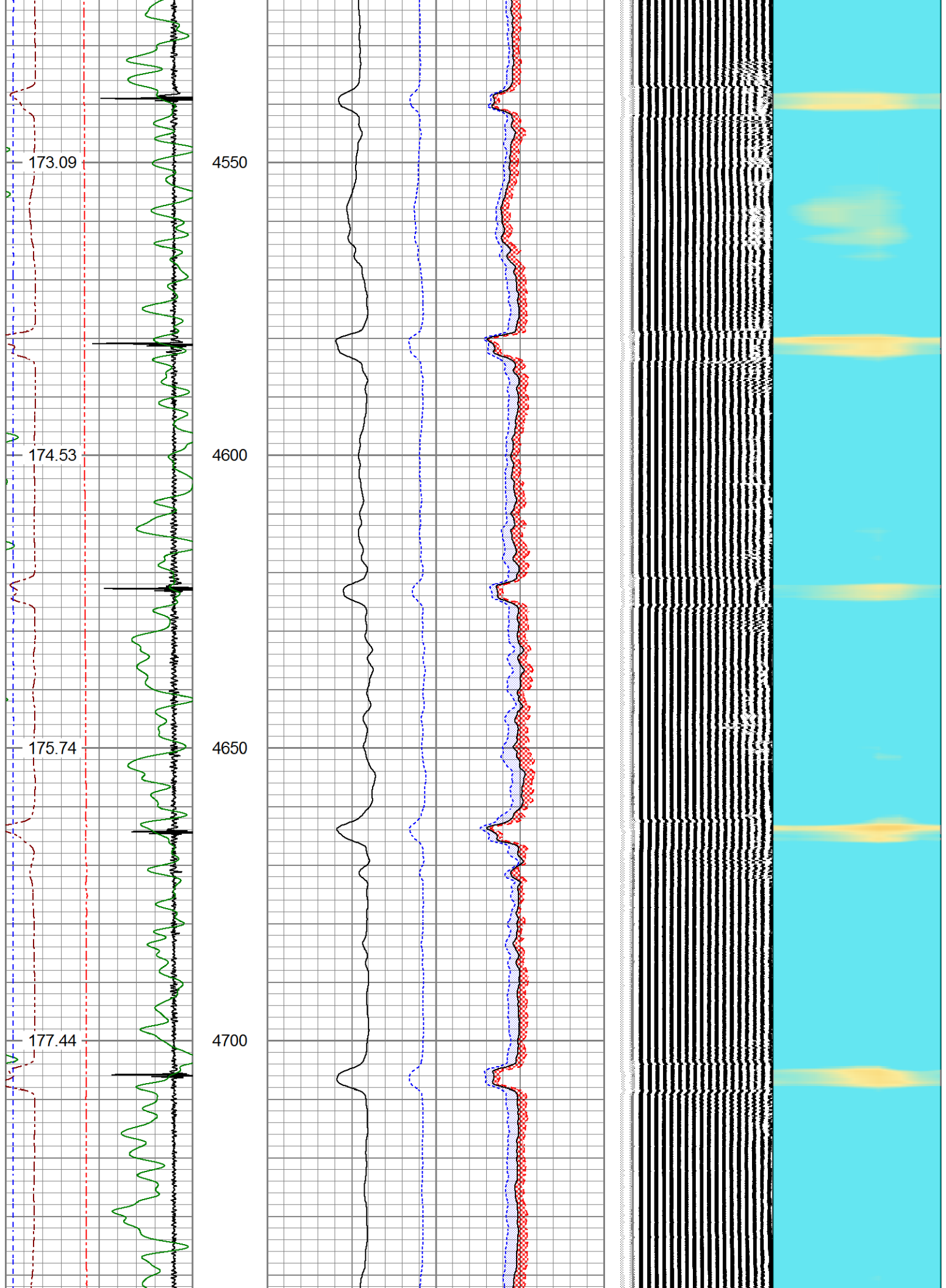


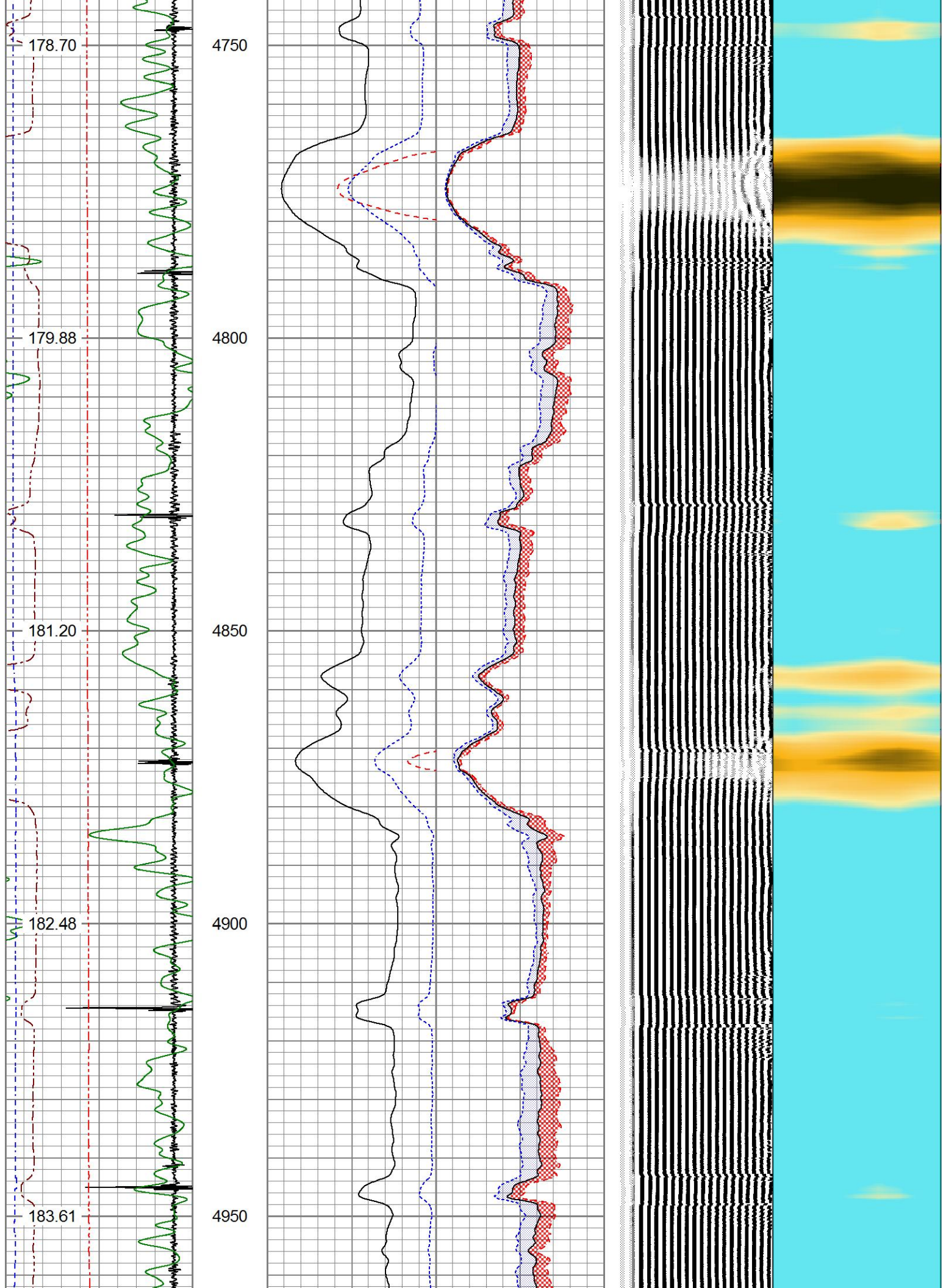


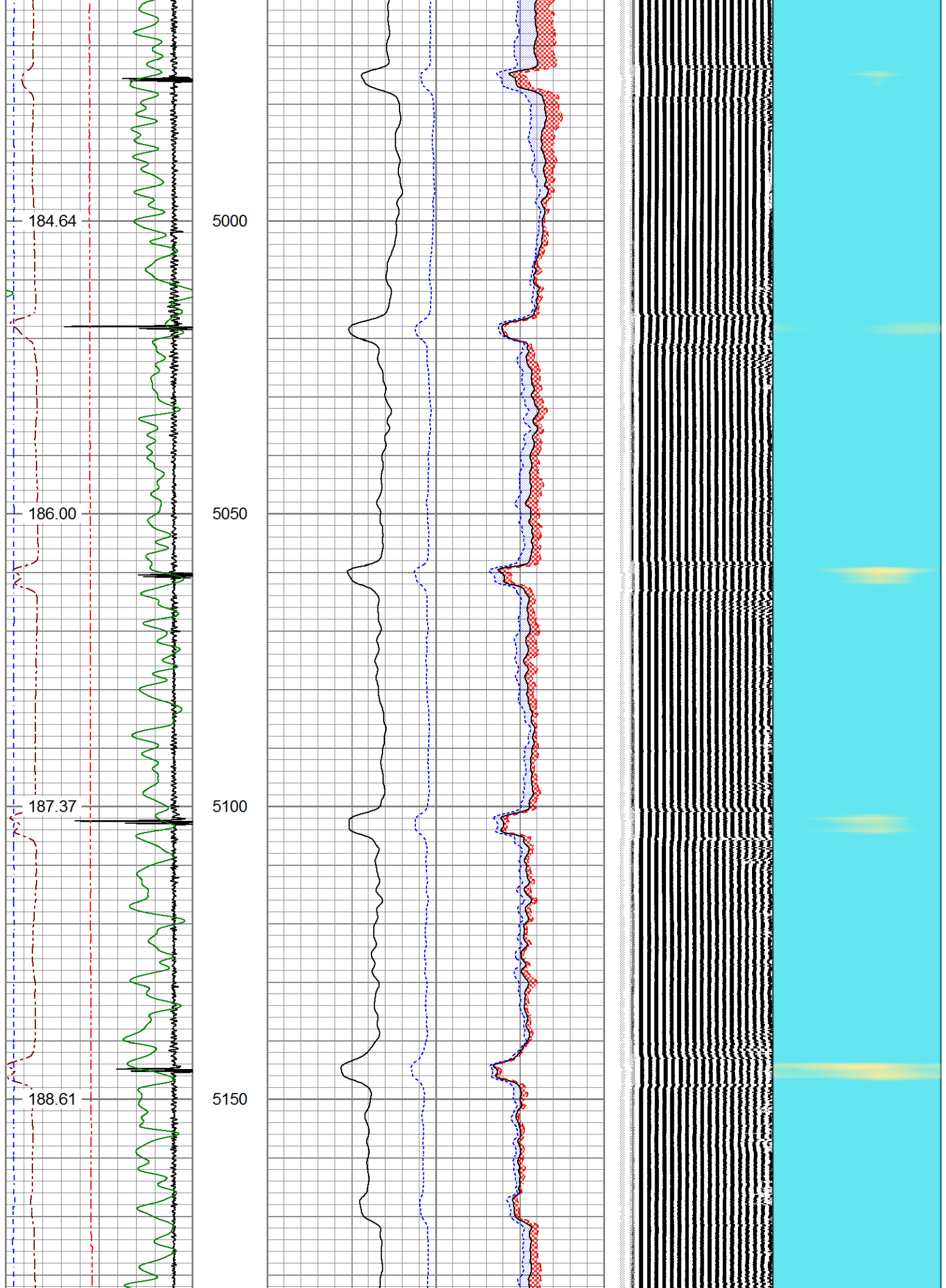


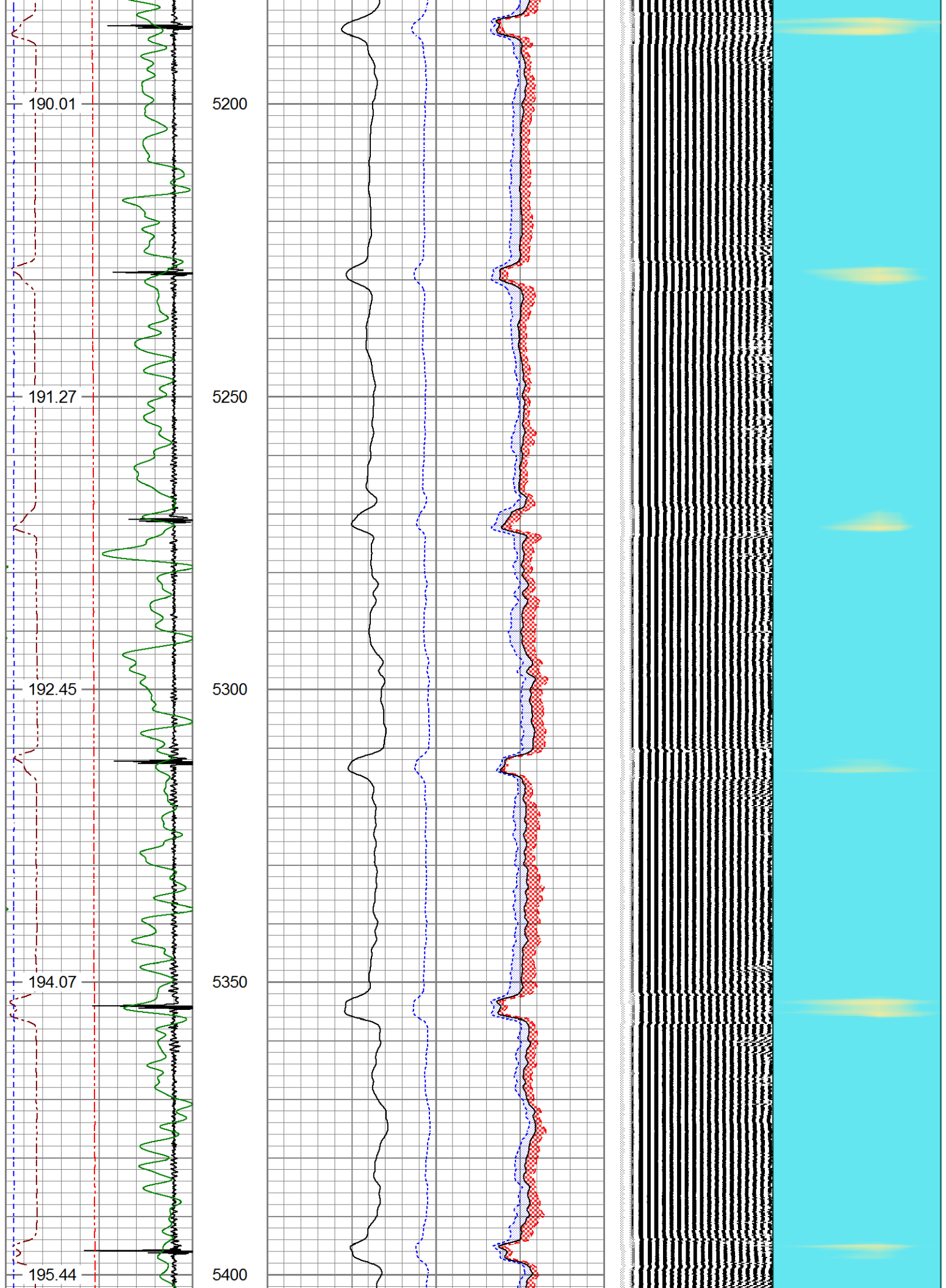


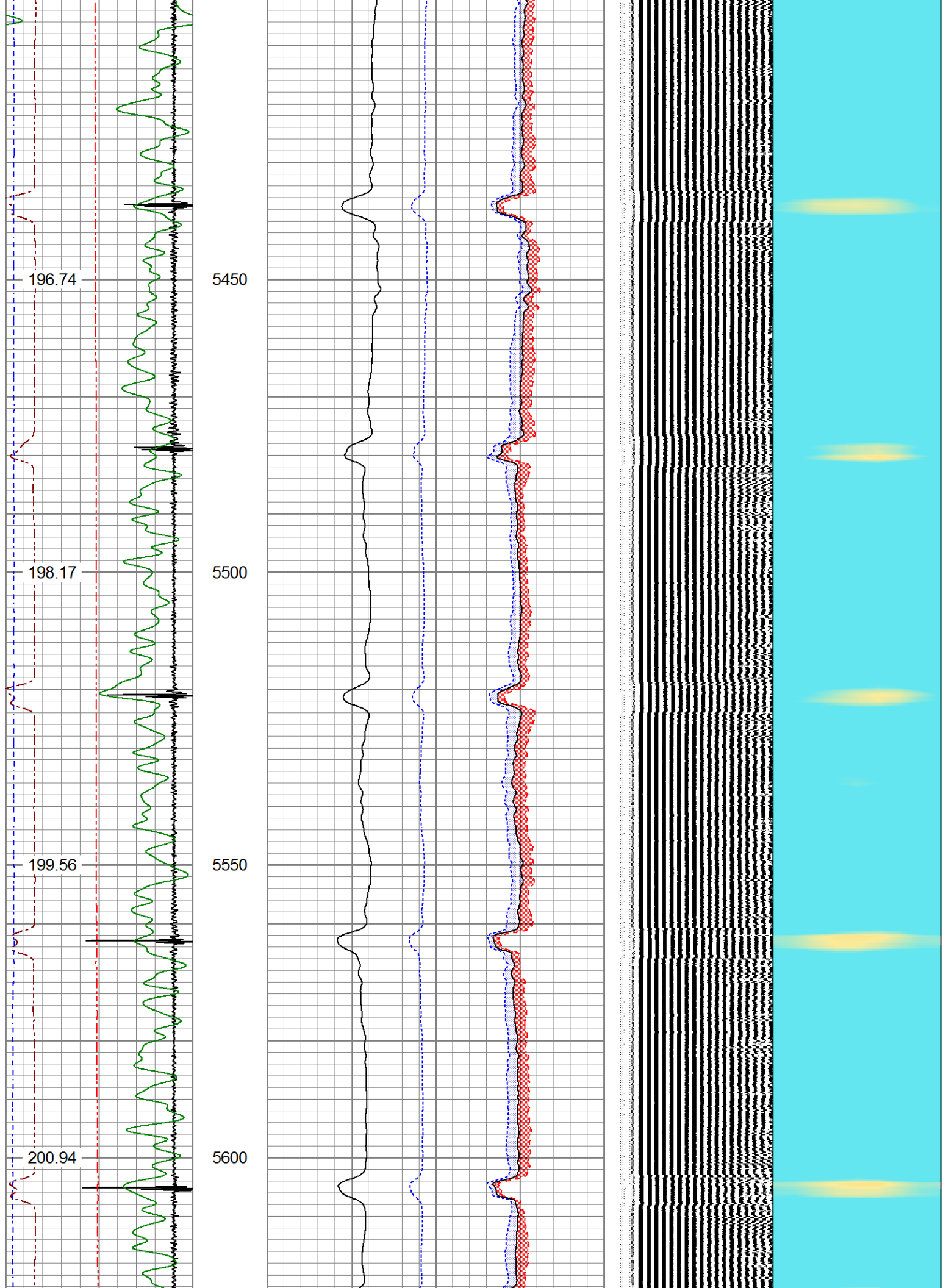


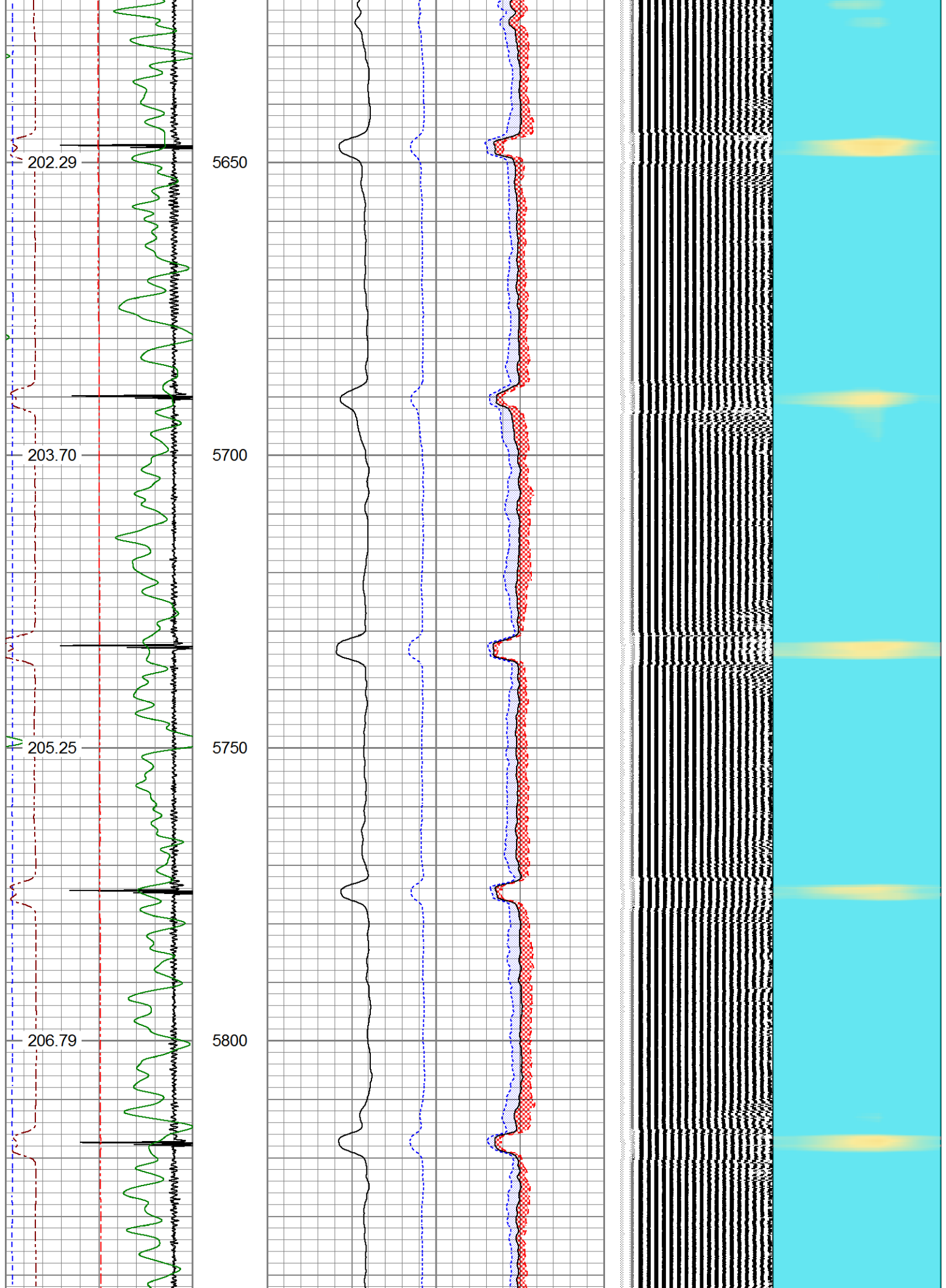


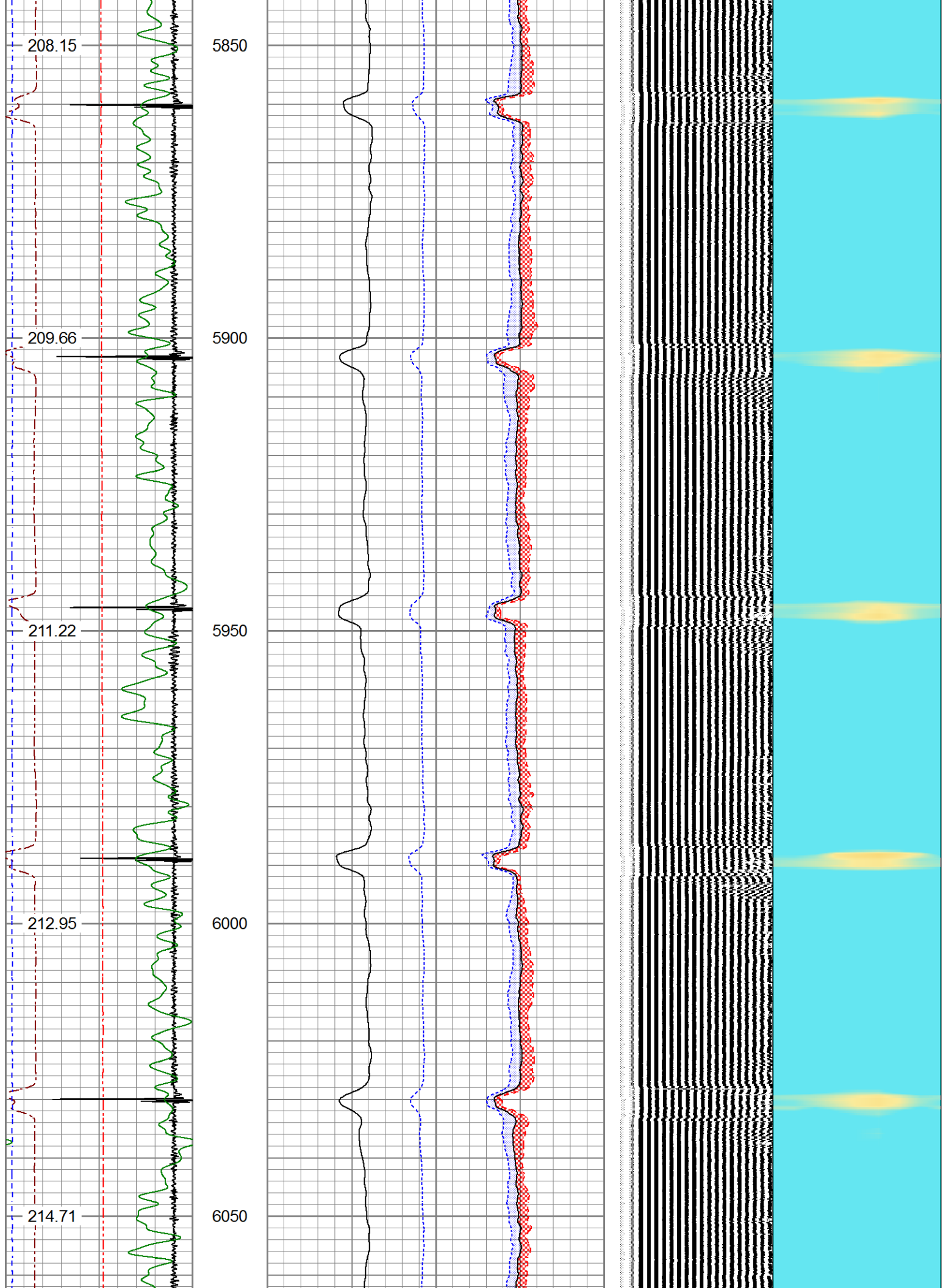


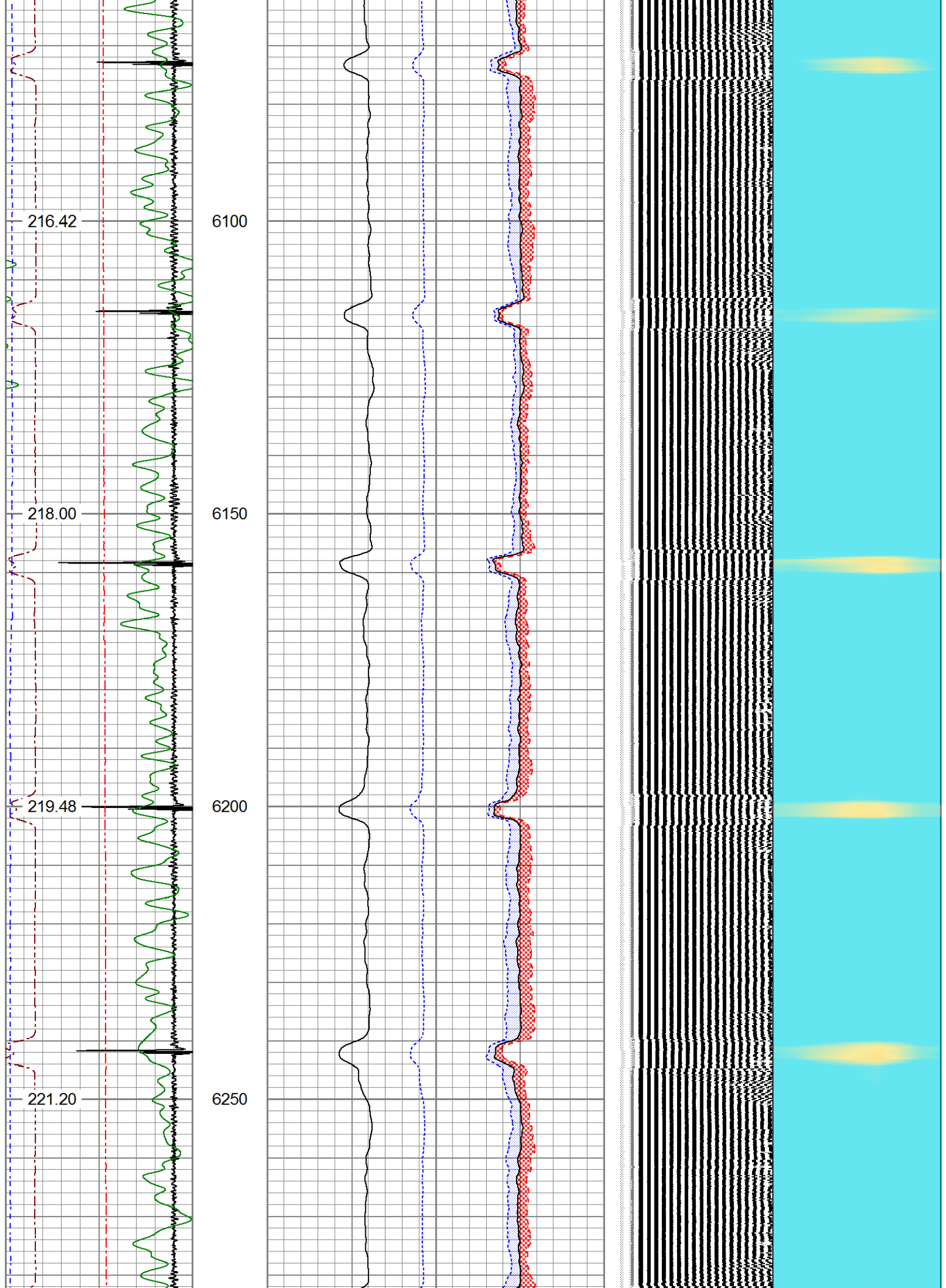


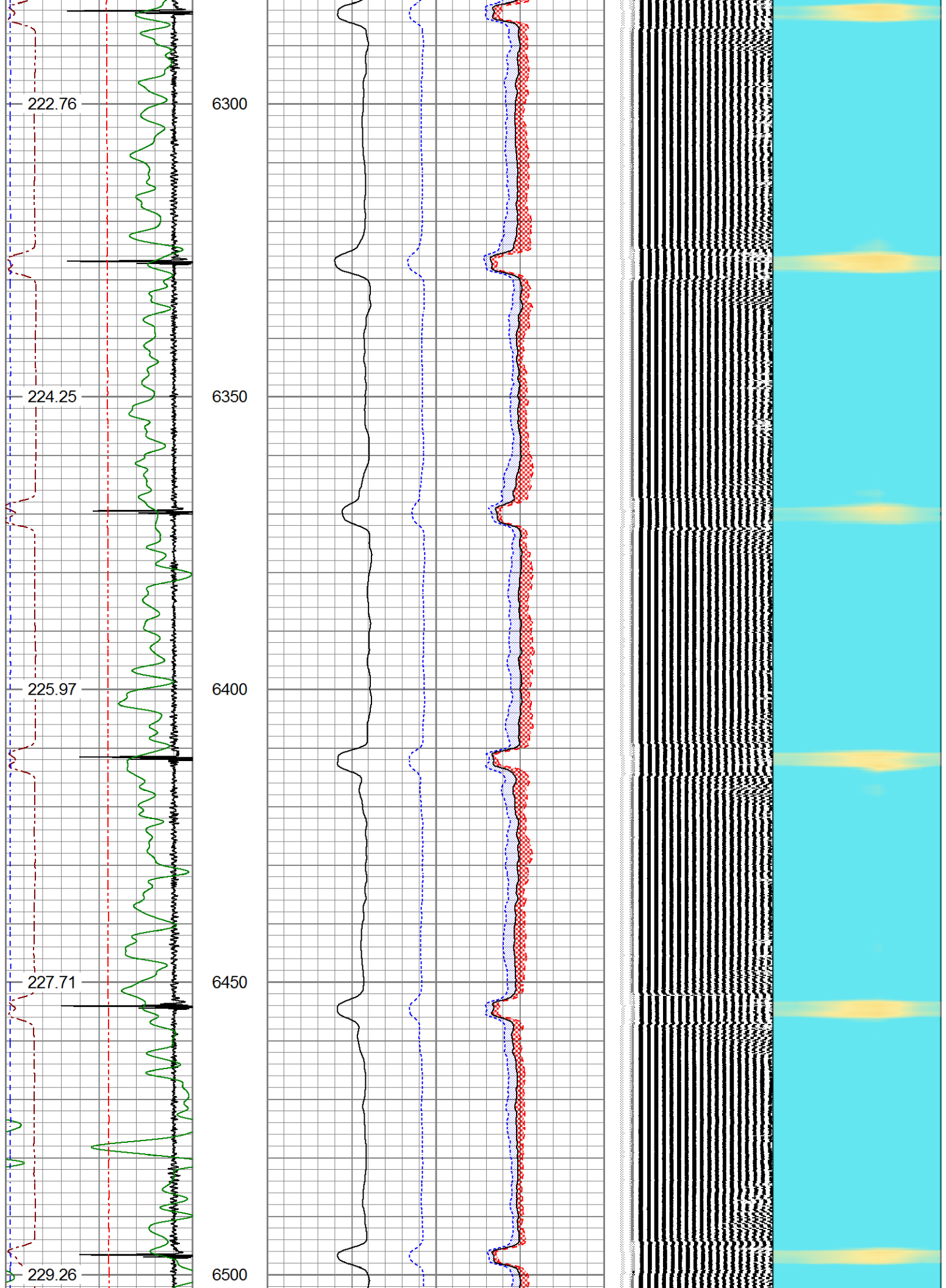


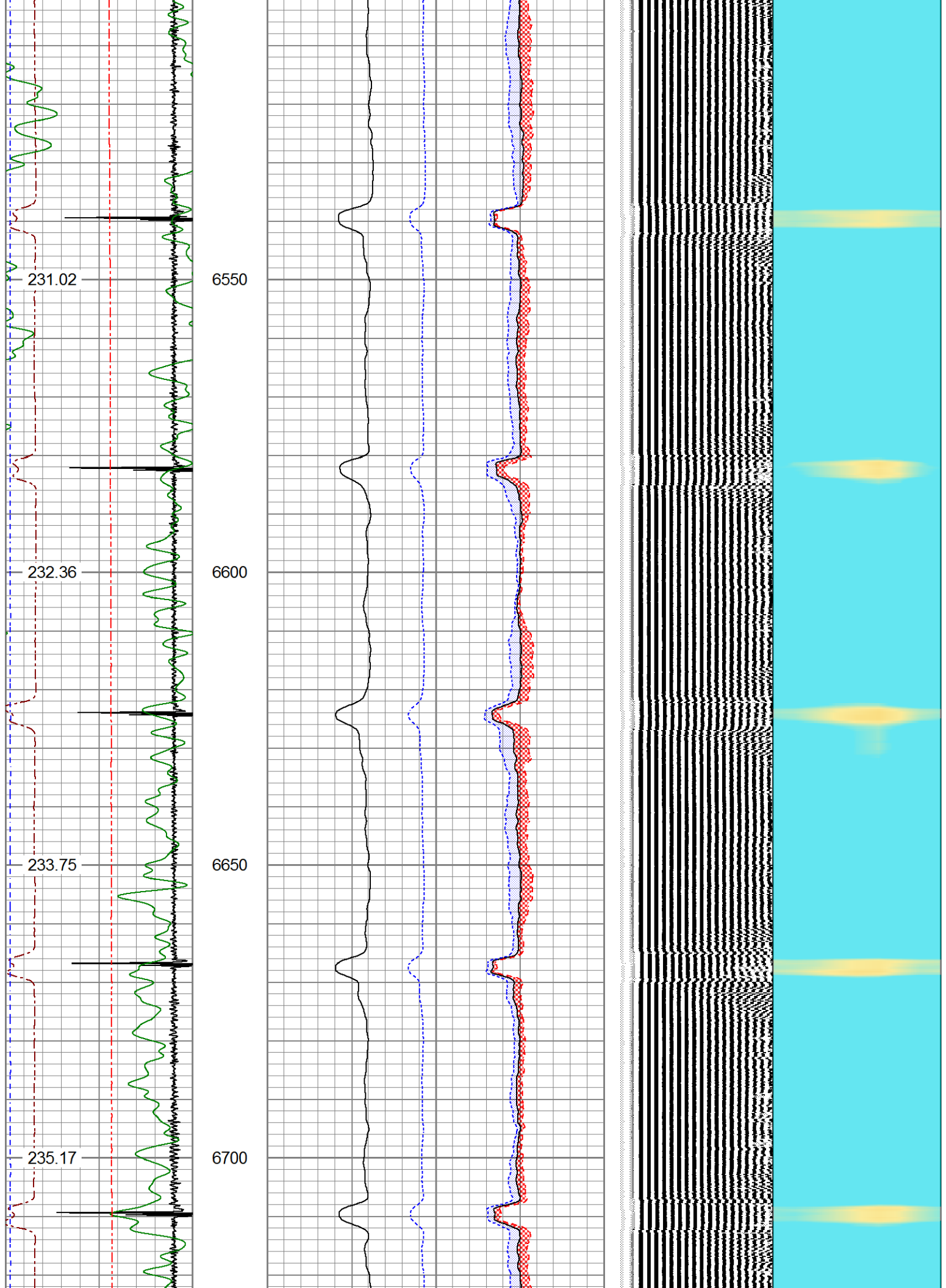


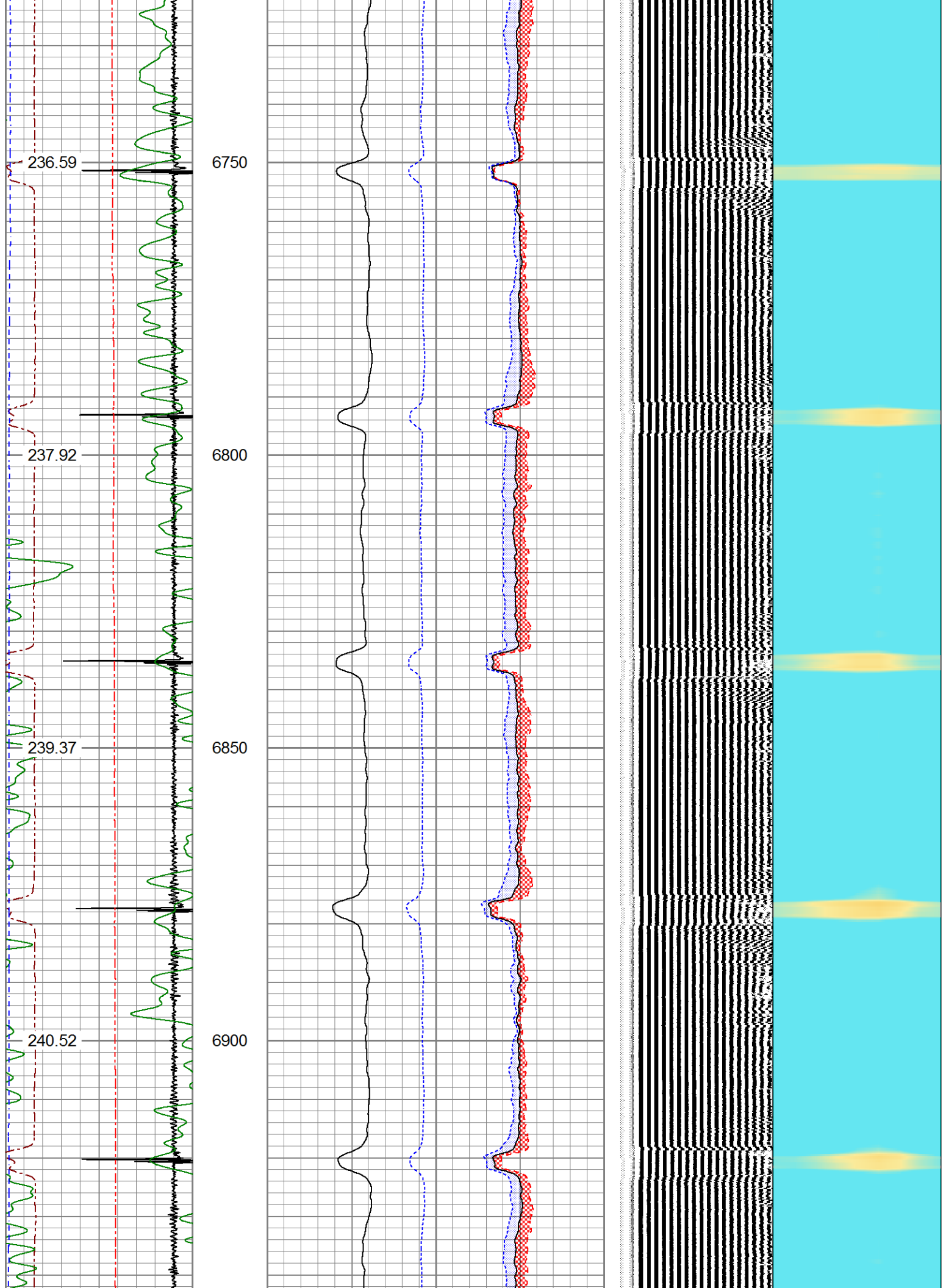


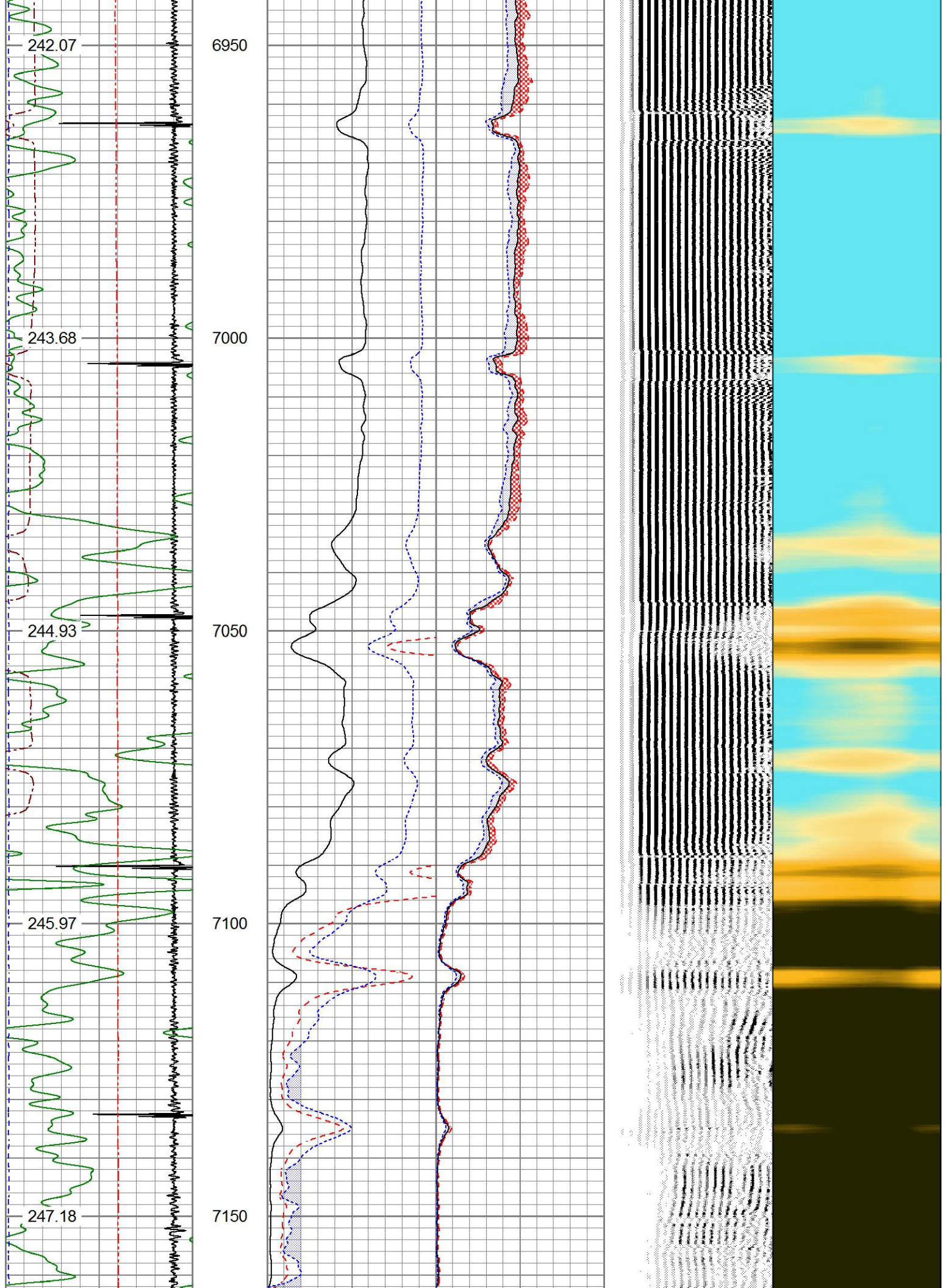


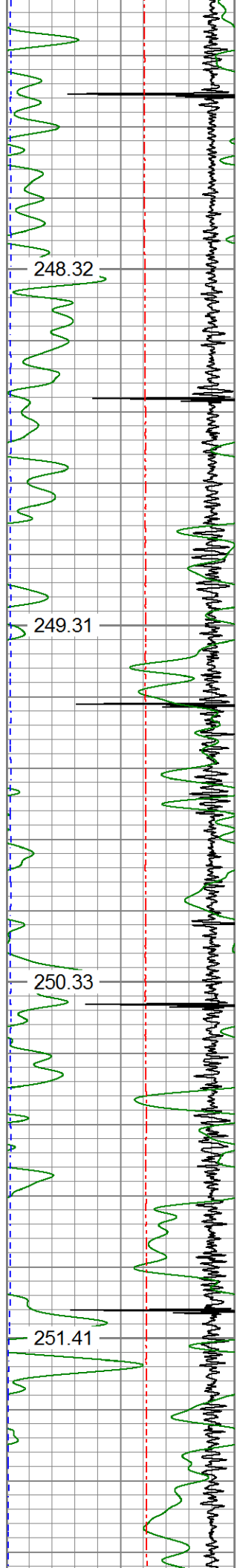










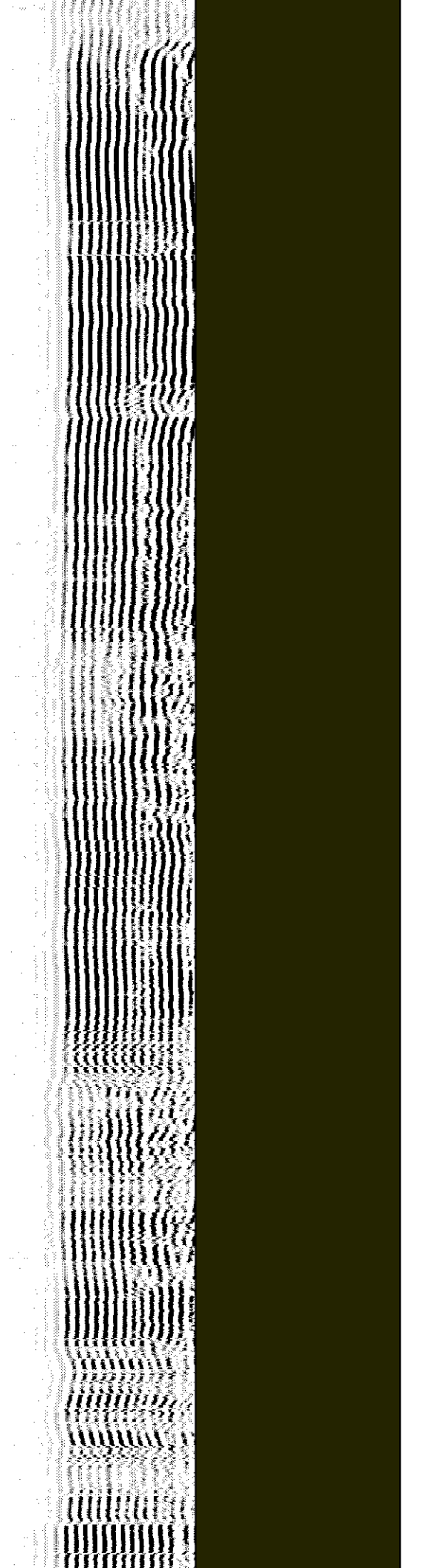
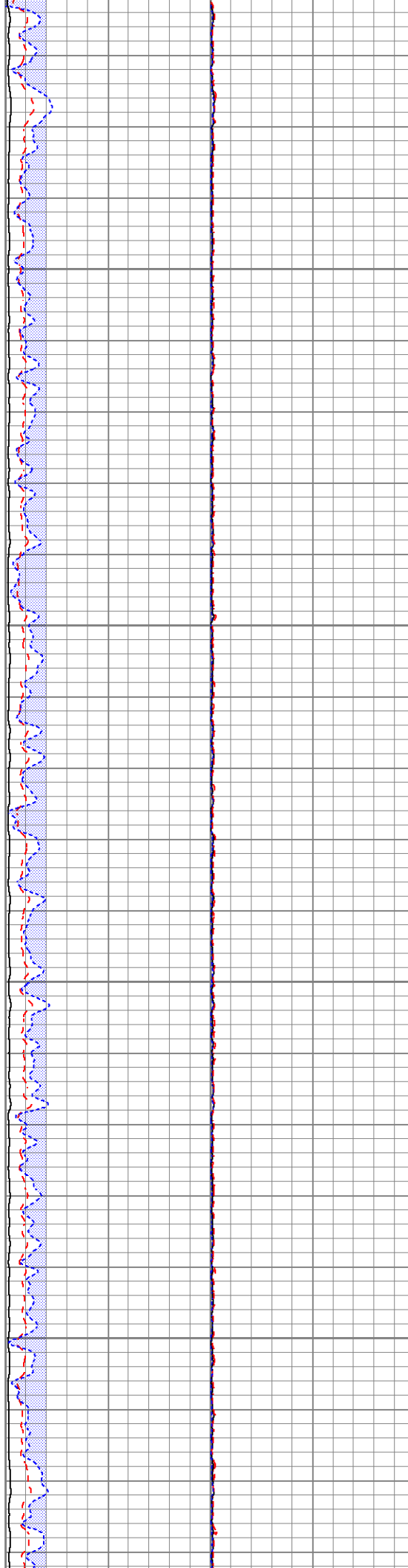


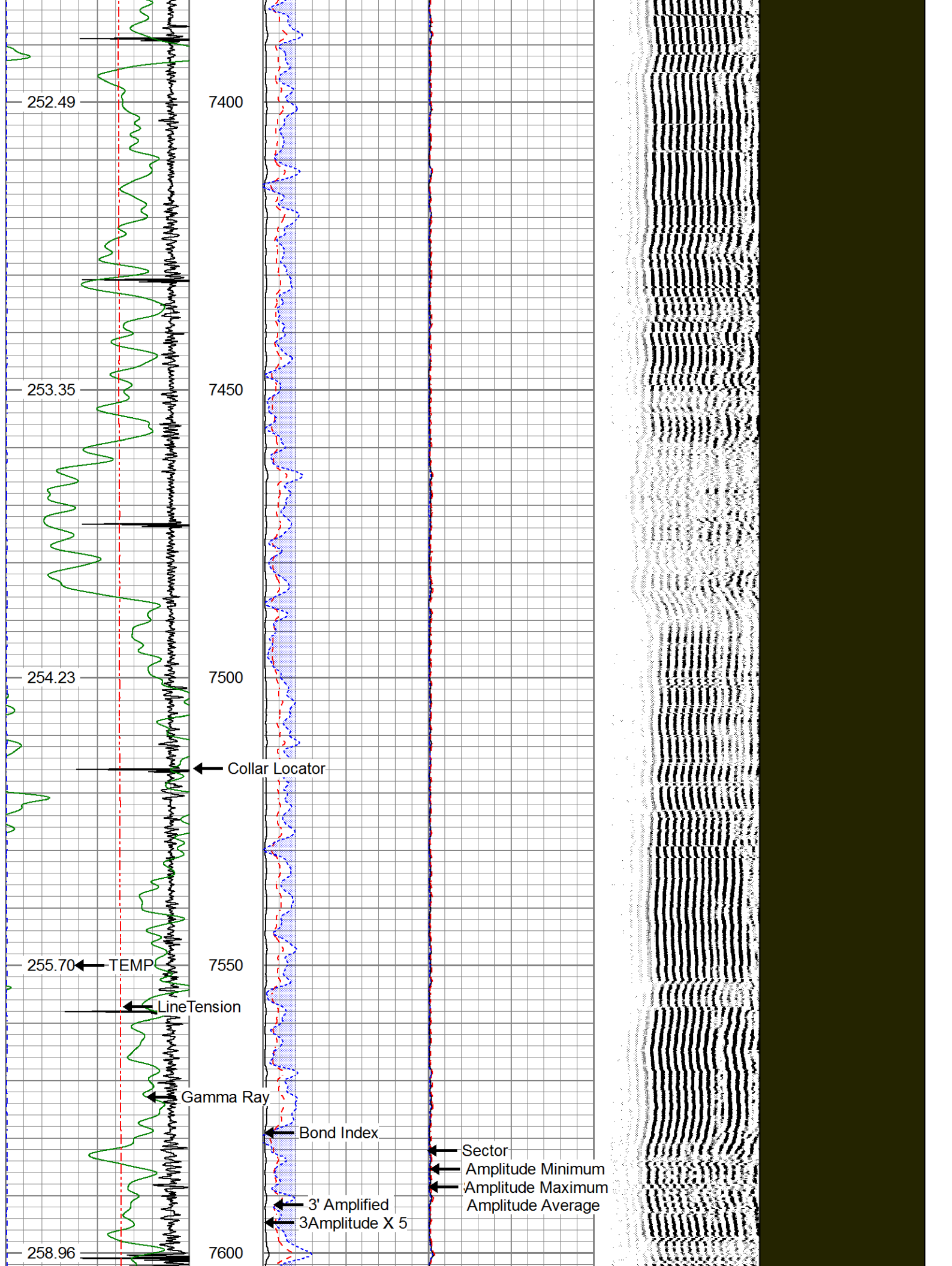
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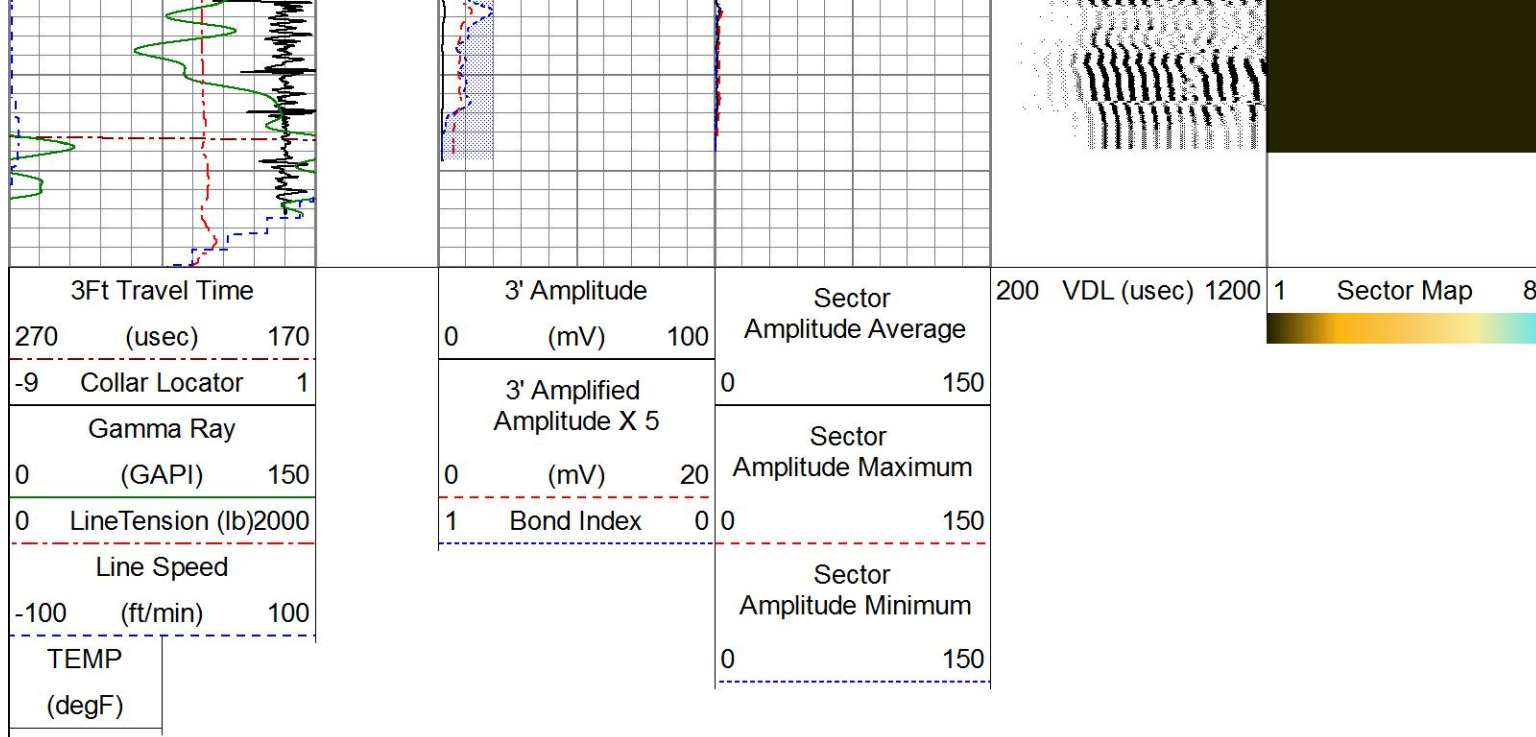
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7300

7350



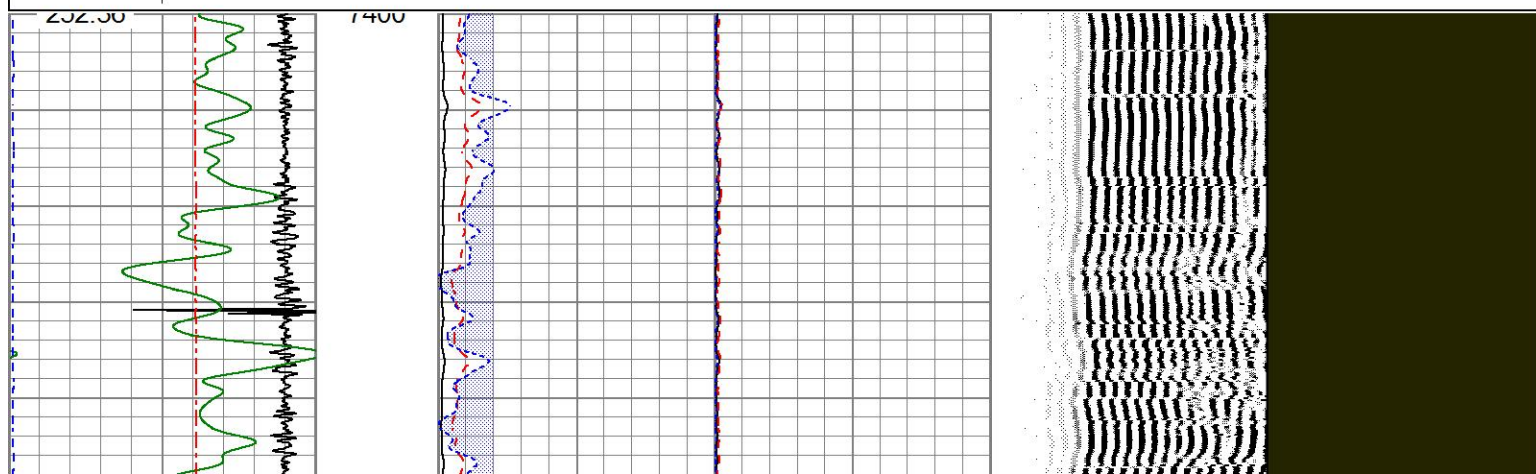
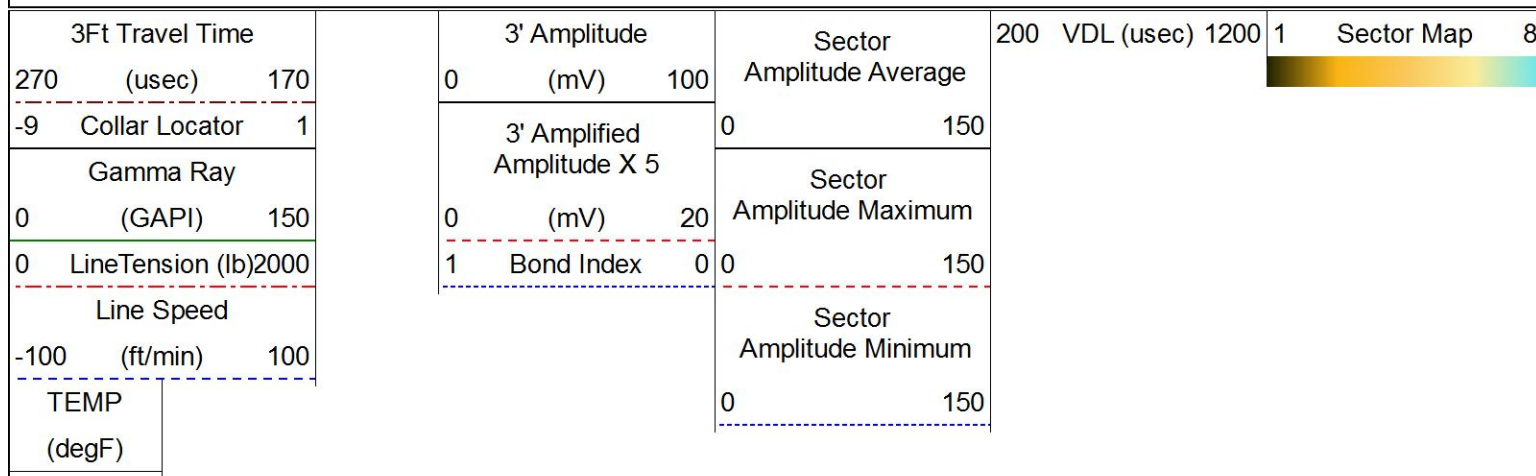


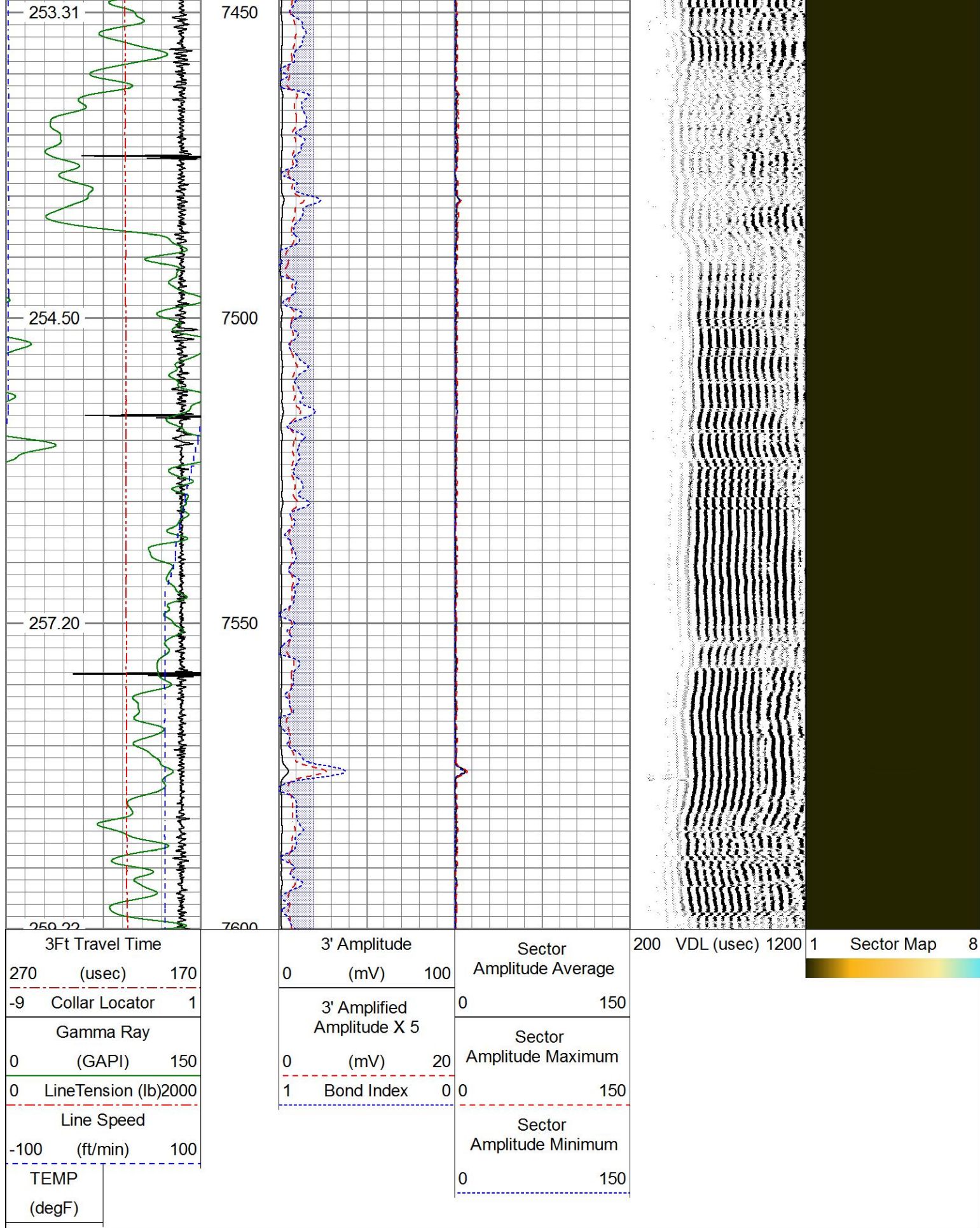




# REPEAT SECTION

Database File verdad\_mile hi duckclub pscoe#1 rcbl\_05-001-06992\_2021-23-december.db  
 Dataset Pathname pass7  
 Presentation Format pinr\_scbl  
 Dataset Creation Thu Dec 23 14:08:45 2021  
 Charted by Depth in Feet scaled 1:240





## Log Variables

DatabaseC:\ProgramData\Warrior\Data\verdad\_mile hi duckclub pscoe#1 rcbl\_05-001-06992\_2021  
Dataset field/well/run1/pass9/\_vars\_

Top - Bottom

BHTEMP_Src TEMP	BOREID in 7.875	BOTTEMP degF 100	CASEOD in 4.5	CASETHCK in 0	CASEWGHT lb/ft 11.6	MAXAMPL mV 81.2	MINAMPL mV 1
MINATTN db/ft 0.08	PERFS No	PPT usec 242	SRFTEMP degF 0	TDEPTH ft 0			

Variable Description

BHTEMP\_Src : BHTEMP Input Source Selector

BOREID : Borehole I.D.

BOTTEMP : Bottom Hole Temperature

CASEOD : Casing O.D.

CASETHCK : Casing Thickness

CASEWGHT : Casing Weight

MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude

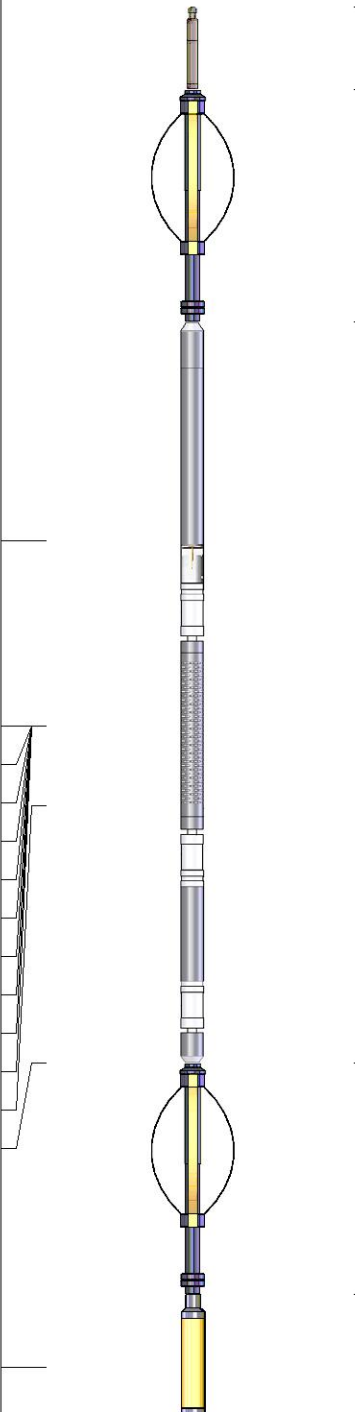
MINATTN : Minimum Attenuation


PERFS : Perforation Flag

PPT : Predicted Pipe Time

SRFTEMP : Surface Temperature

TDEPTH : Total Depth

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	16.78		Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
WVFS8	14.49		PROBE-RBT-DIGITAL-RBL-DCT (FW1411-68) Probe 2 3/4" Radii Bond with Temp-Corrosion Package	9.21	2.75	105.00
WVFS7	14.49					
WVFS6	14.49					
WVFS5	14.49					
WVFS4	14.49					
WVFS3	14.49					
WVFS2	14.49					
WVFS1	14.49					
WVFCAL	14.49					
WVF3FT	14.49					
WVF5FT	13.49					
HEADVOLT	10.30					
CCL	6.51		Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00

GR	3.78		PROBE-GR/CCL-ANALOG-GR/CCL-A (120672) 2 3/4" Gamma with CCL-Analog	4.54	2.75	60.00
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
Dataset:           verdad_mile hi duckclub pscoe#1 rcbl_05-001-06992_2021-23-december.db: field/well/run1/pass9 Total length:       23.42 ft Total weight:       212.00 lb O.D.:                2.75 in						

Calibration Report		
Database File	verdad_mile hi duckclub pscoe#1 rcbl_05-001-06992_2021-23-december.db	
Dataset Pathname	pass9	
Dataset Creation	Thu Dec 23 14:13:22 2021	

Gamma Ray Calibration Report		
Serial Number:	120672	
Tool Model:	GR/CCL-A	
Performed:	Fri Jul 23 09:22:20 2021	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1411-68	
Tool Model:	RBL-DCT	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	5009.242	ft

Master Calibration, performed Thu Dec 23 13:59:31 2021:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.001	1.311	1.000	81.196	61.109	1.063
CAL	-0.001	1.495				
5'	-0.001	0.867	1.000	81.196	92.345	1.091
SUM						
S1	-0.001	1.165	0.000	100.000	85.733	0.091
S2	-0.001	1.149	0.000	100.000	86.981	0.099
S3	-0.001	1.228	0.000	100.000	81.350	0.082
S4	-0.001	1.331	0.000	100.000	75.085	0.082
S5	-0.001	1.472	0.000	100.000	67.879	0.073
S6	-0.001	1.589	0.000	100.000	62.904	0.062
S7	-0.001	1.502	0.000	100.000	66.516	0.069
S8	-0.001	1.309	0.000	100.000	76.332	0.077

Air Zero Calibration, performed Thu Dec 09 10:26:51 2021:

	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

#### Temperature Calibration Report

Serial Number: FW1411-68  
Tool Model: RBL-DCT  
Performed: (Not Performed)

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF

Gain: 1.00  
Offset: 0.00  
Delta Spacing 1



Company	VERDAD RESOURCES
Well	MILE HI DUCK CLUB PASCOE #1
Field	Wattenberg
County	ADAMS
State	Colorado