



# PIONEER

Pioneer Energy Services

## RADIAL BOND LOG WITH GAMMA RAY

Comp. ANADARKO PETROLEUM CORP.  
Well UPRR 22 PAN AM O TRUE 1  
Field WATTENBERG  
Co. WELD  
State COLORADO

Company **ANADARKO PETROLEUM CORP.**  
Well **UPRR 22 PAN AM O TRUE 1**  
Field **WATTENBERG**  
County **WELD** State **COLORADO**

Location: API #: 05-123-11255  
SHL: NWNW 1180' FNL & 1020' FWL  
LAT: 40.199767/LONG: -104.806908  
SEC 29 TWP 3N RGE 66W  
Permanent Datum GL Elevation 4860  
Log Measured From GL 0 Above Perm. Datum  
Drilling Measured From KB  
CCL  
Elevation  
K.B. 4875  
D.F. 4875  
G.L. 4860

Date of Service	7-JAN-2020		
Run Number	ONE		
Depth Driller or PBTD	7966		
Depth Logger	5000		
Bottom Log Interval	5000		
Top Log Interval	0		
Open Hole Size	7.875		
Type Fluid	H2O		
Fluid Level	FULL		
Fluid Density	8.4		
Max. Recorded Temperature	N/A		
Max. Wellhead Pressure	500 PSI		
Wellhead Connection	TUBING HANGER		
Estimated Cement Top	N/A		
Unit Number	P-57		
Wireline Size	9/32		
Location	FORT MORGAN		
Recorded By	MAX PACE		
Witnessed By	JEREMY DUTY		
	Size	Wt/Ft	Top
Tubing Record			Bottom
Surface Casing	9.625	36	0 818
Production Casing	4.5	11.6	0 7966
Liner Record			

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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.  
PROBE RBL-DC 1304-33 CALIBRATED ON 1-3-2020  
FREE PIPE CALIBRATION PERFORMED AT 630 FEET

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew

Engineer: MAX PACE  
Operator: MICK O'DOHERTY  
Operator: GABE SOTO  
Operator:

Tool Data - Services

PROBE RBL-DC

Serial Number

1304-44

Top - Bottom

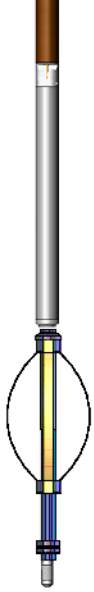
BOREID in 7.875	BOTTEMP degF 100	CASEOD in 4.5	CASETHCK in 0	CASEWGHT lb/ft 11.6	MAXAMPL mV 0	MINAMPL mV 1
MINATTN db/ft 0.08	PERFS 0	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0		


Variable Description

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)
			Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00
			Centralizer-275 TekCo 2 3/4" TekCo Centralizer	2.88	2.75	20.00
			PROBE-RBT-DIGITAL-RBL-DC (FW1304-38.75 Probe 2 3/4" Radii Bond-Corrosion Package	38.75	2.75	100.00
WVFS8	15.03					
WVFS7	15.03					
WVFS6	15.03					
WVFS5	15.03					
WVFS4	15.03					
WVFS3	15.03					
WVFS2	15.03					
WVFS1	15.03					
WVFCAL	15.03					
WVF3FT	15.03					
WVF5FT	14.03					
HEADVOLT	10.84		Centralizer-275 TekCo 2 3/4" TekCo Centralizer	2.88	2.75	20.00

CCL	7.09				
GCT_TEMP	6.30				
GR	5.71				
			PROBE-GR/CCL-DIGITAL-275 Probe GCT 4.75608) 2.75 60.00 Probe 2 3/4" Gamma Ray/Temp/CCL		
			Centralizer-275 TekCo 2 3/4" TekCo Centralizer		
			Bullnose-PROBE Probe Go Pin Pressure Cap		
Dataset: 1-7-20-1.db: field/well/run1/pass4 Total length: 23.50 ft Total weight: 223.00 lb O.D.: 2.75 in			2.88	2.75	20.00
			0.33	1.38	1.00

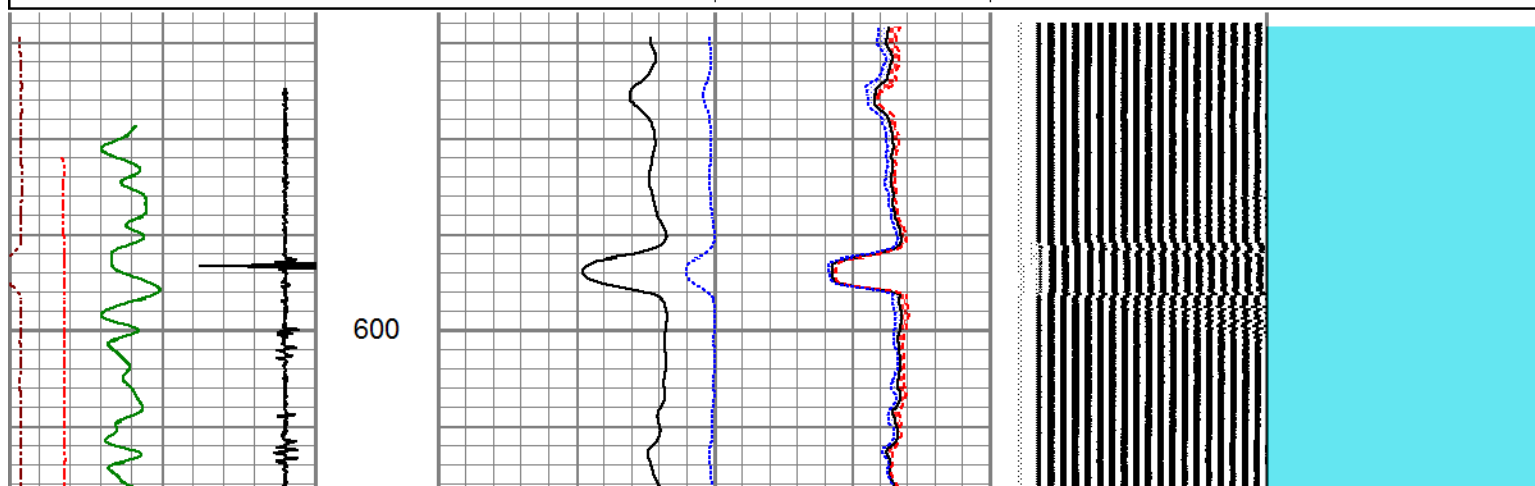


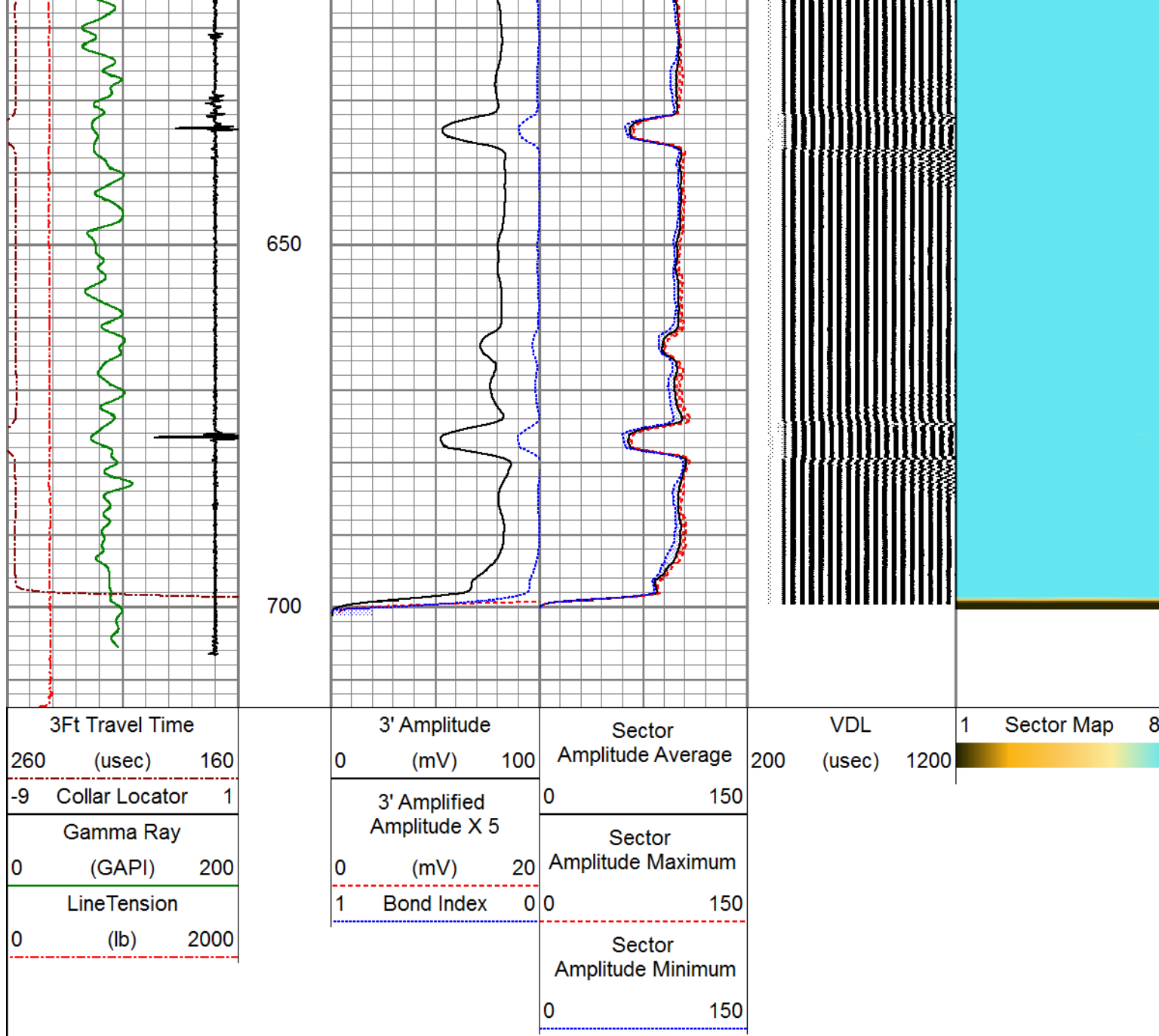
## FREE PIPE SECTION


### ZERO PSI APPLIED AT SURFACE

Database File	1-7-20-1.db
Dataset Pathname	pass3
Presentation Format	pinr_scbl
Dataset Creation	Tue Jan 07 10:52:45 2020
Charted by	Depth in Feet scaled 1:240

3Ft Travel Time	3' Amplitude	Sector	VDL	1	Sector Map	8
260 (usec) 160	0 (mV) 100	Amplitude Average	200 (usec) 1200			
-9 Collar Locator 1	3' Amplified Amplitude X 5	0 150				
Gamma Ray	0 (mV) 20	Sector Amplitude Maximum				
0 (GAPI) 200	1 Bond Index 0	0 150				
LineTension		Sector Amplitude Minimum				
0 (lb) 2000		0 150				





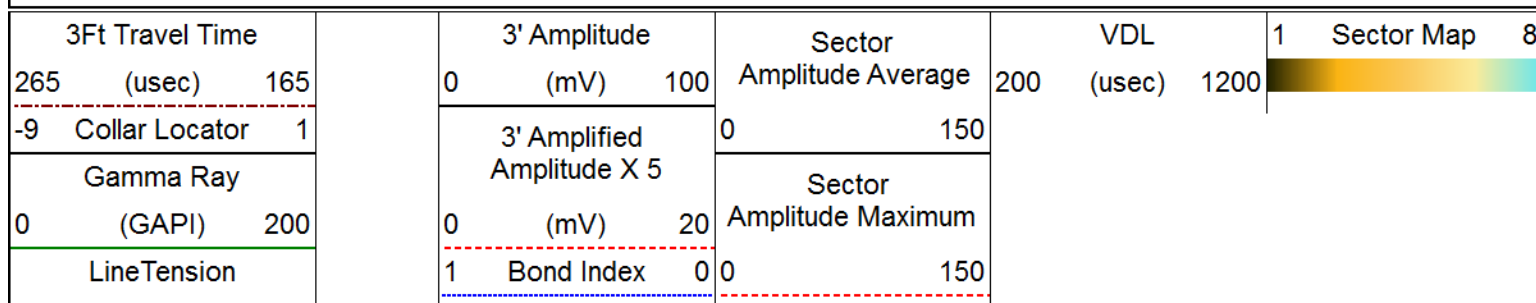


**PIONEER**  
Pioneer Energy Services

## MAIN LOG

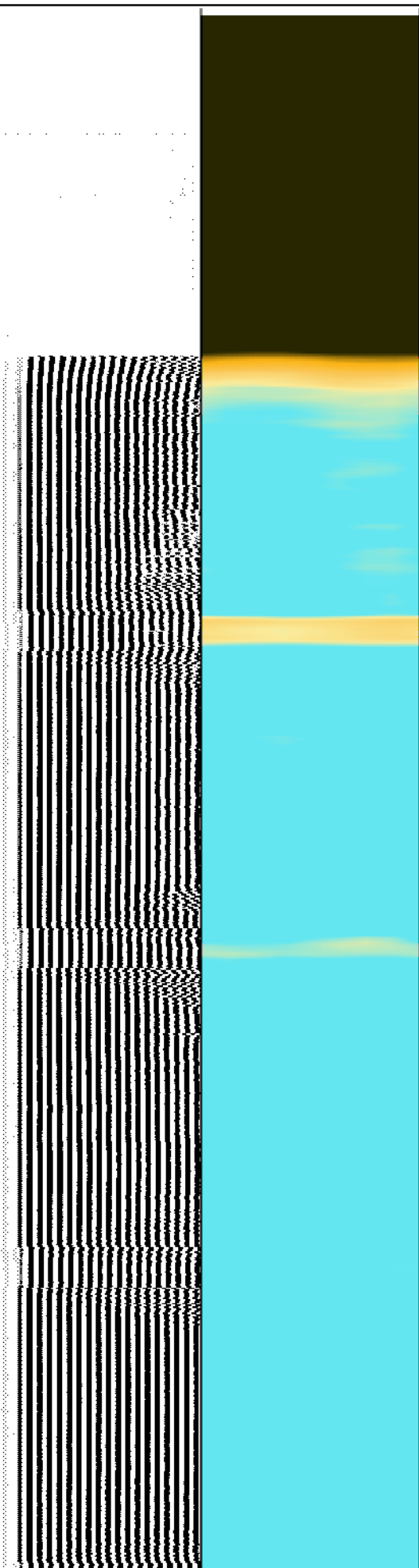
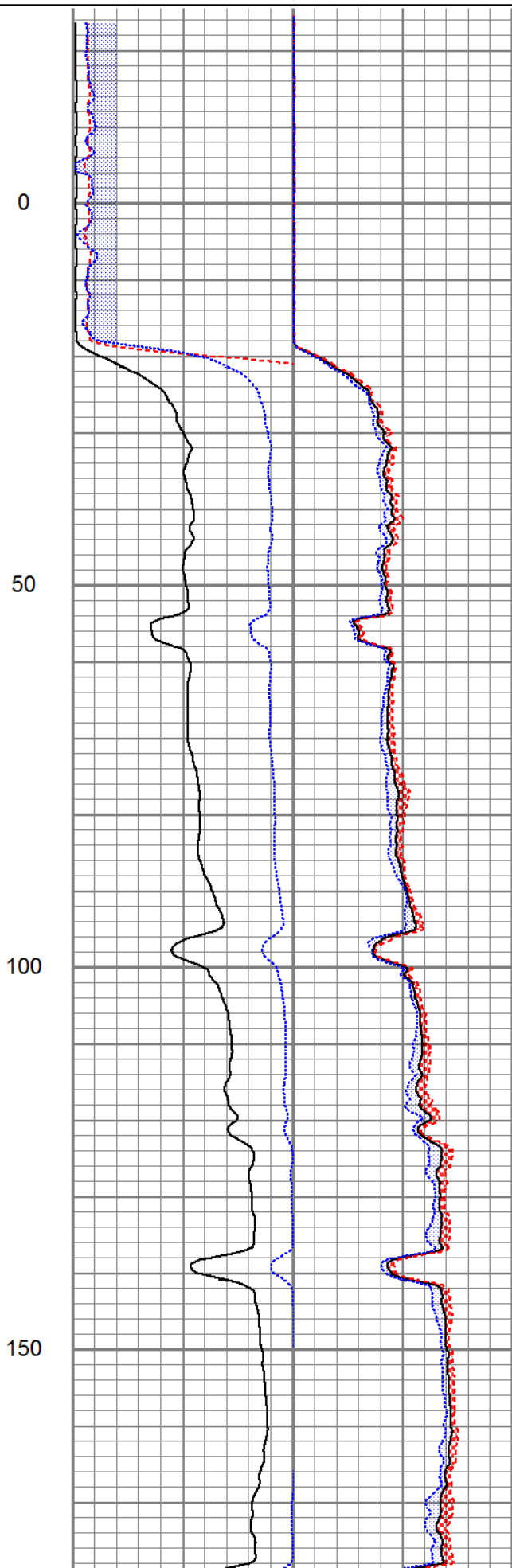
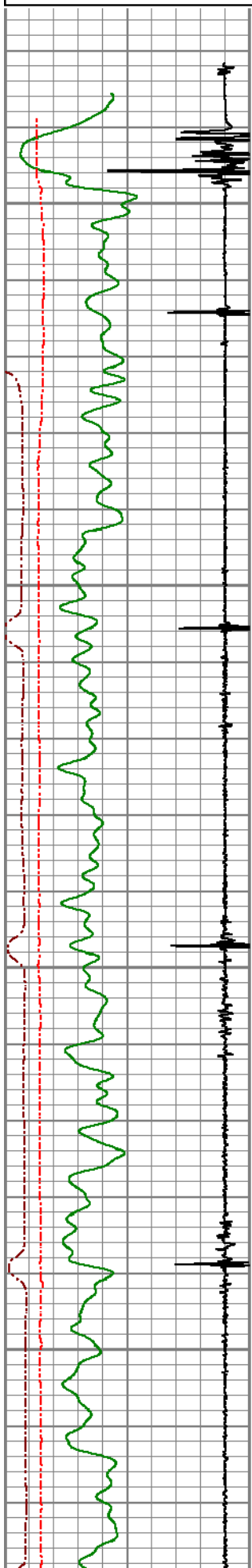
500 PSI APPLIED AT SURFACE

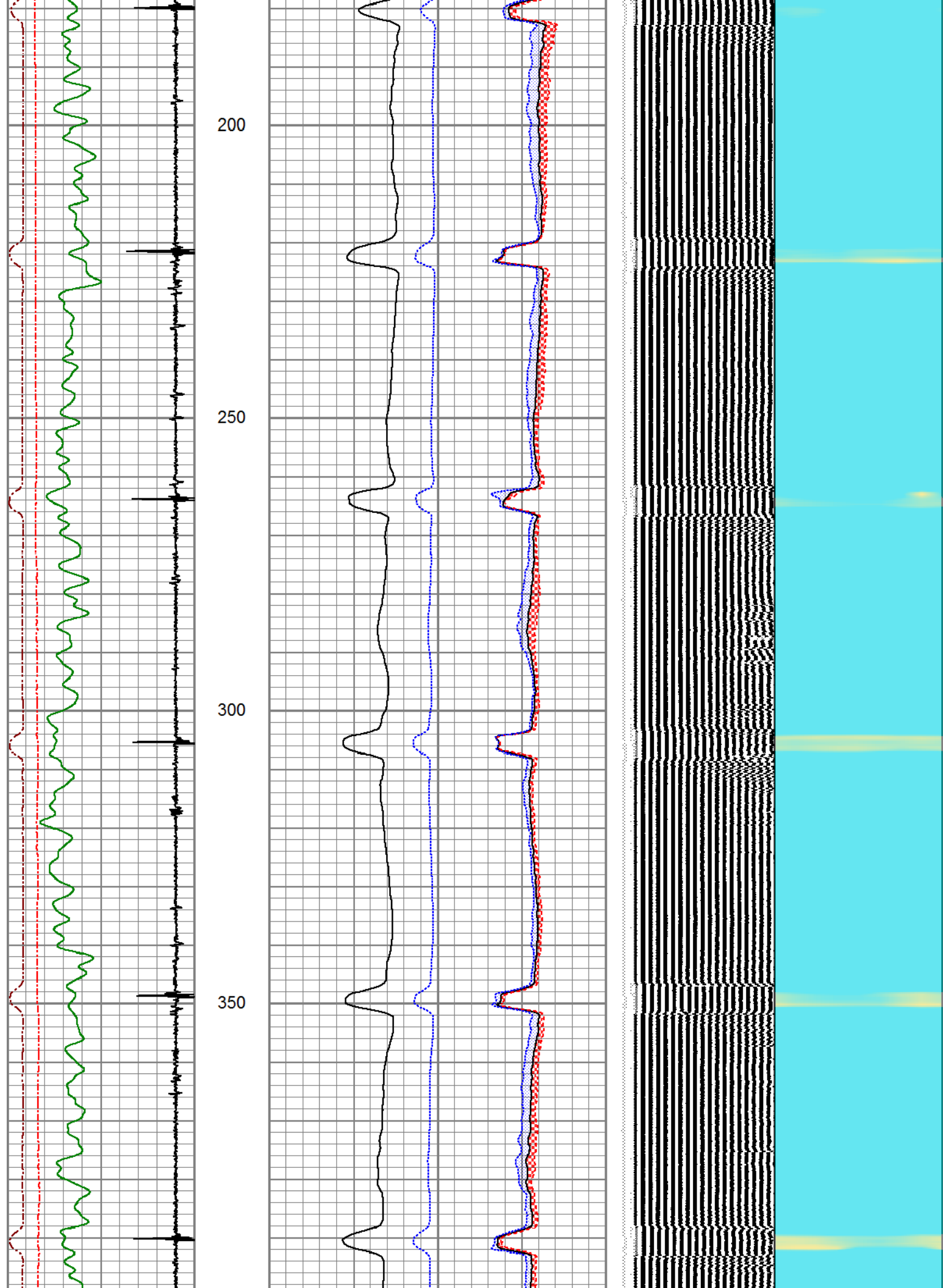
Database File	1-7-20-1.db
Dataset Pathname	pass6
Presentation Format	pinr_scbl
Dataset Creation	Tue Jan 07 11:12:59 2020
Charted by	Depth in Feet scaled 1:240



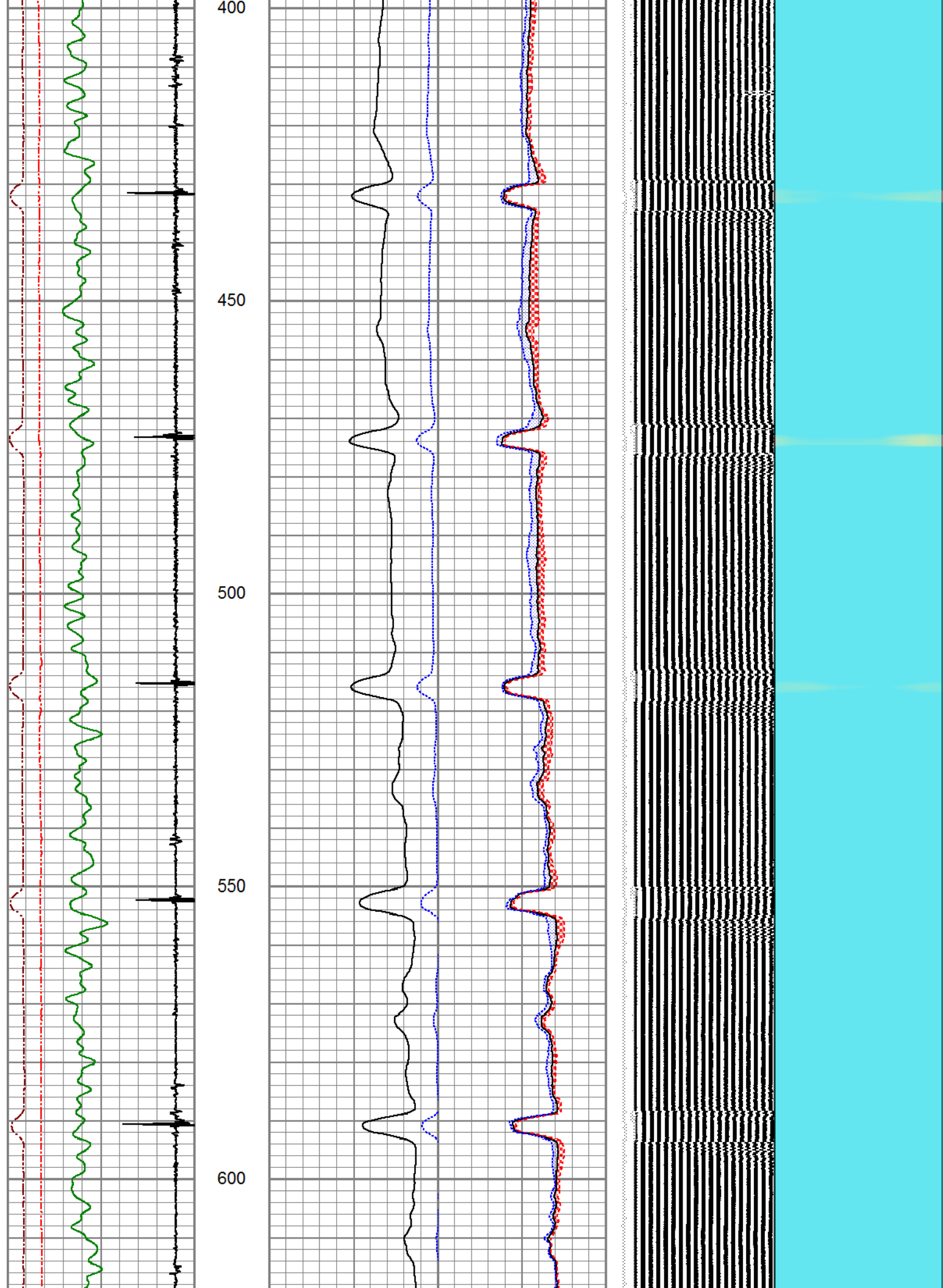
0 (lb) 2000

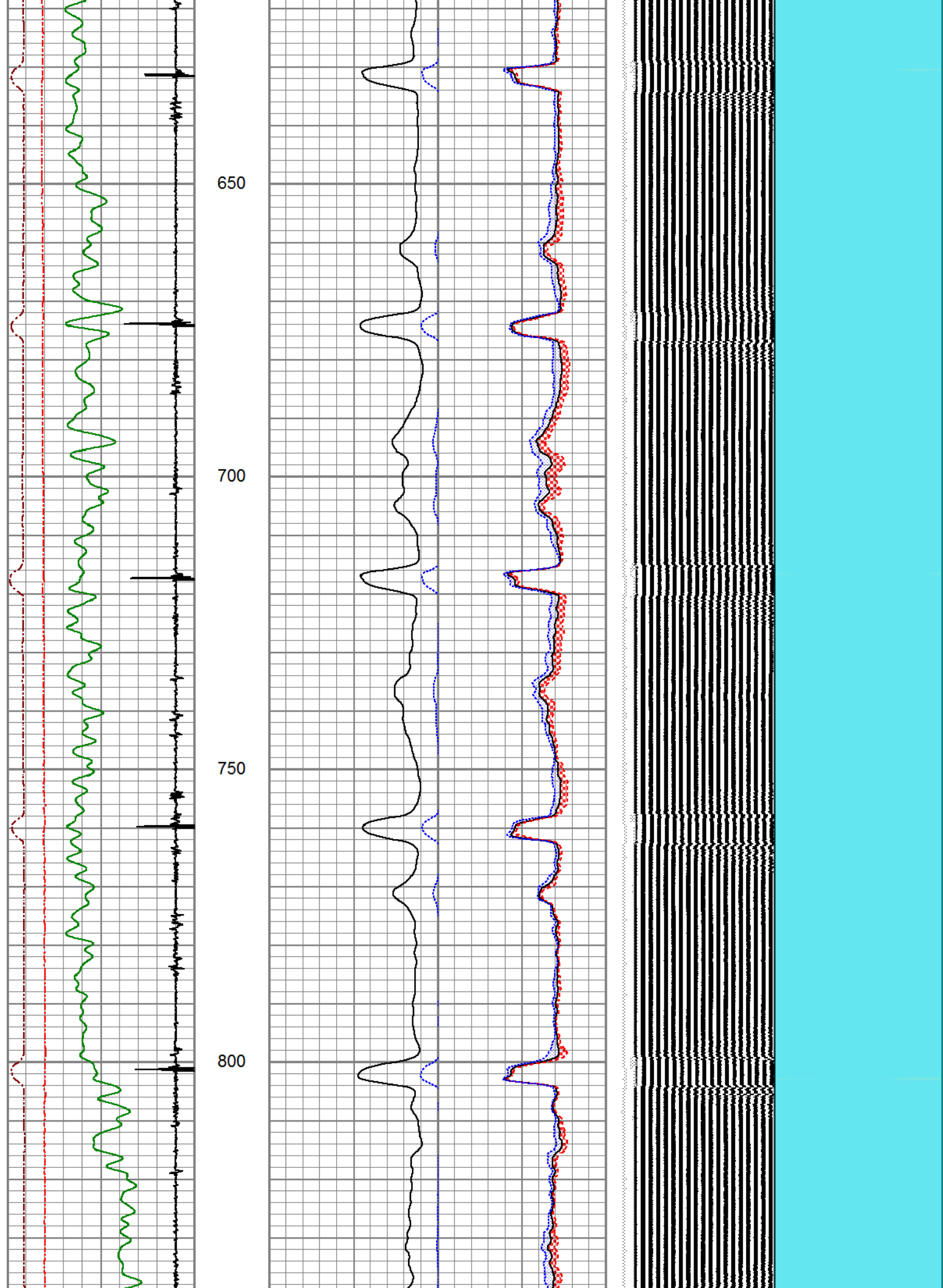
Sector  
Amplitude Minimum  
0 150



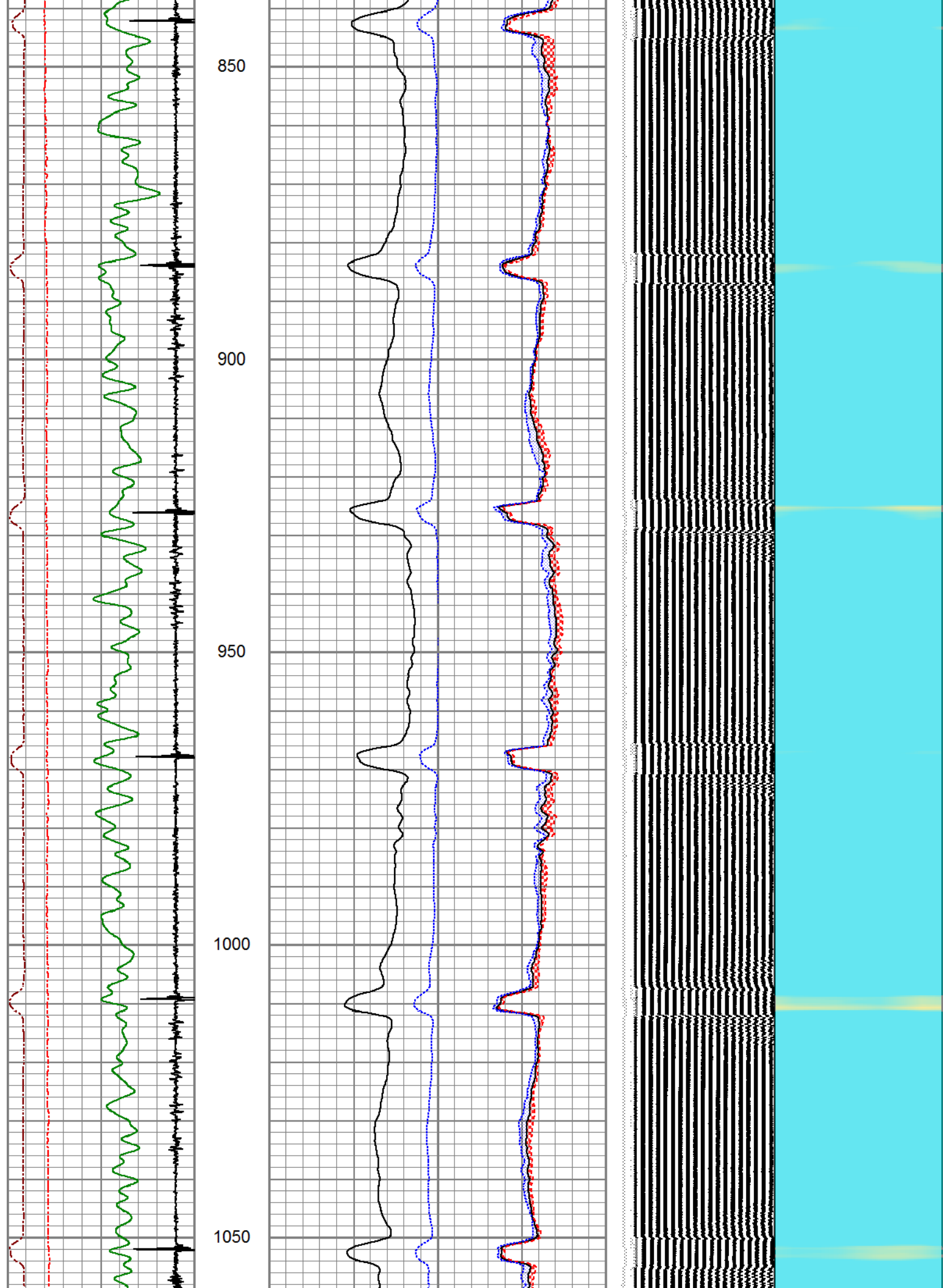


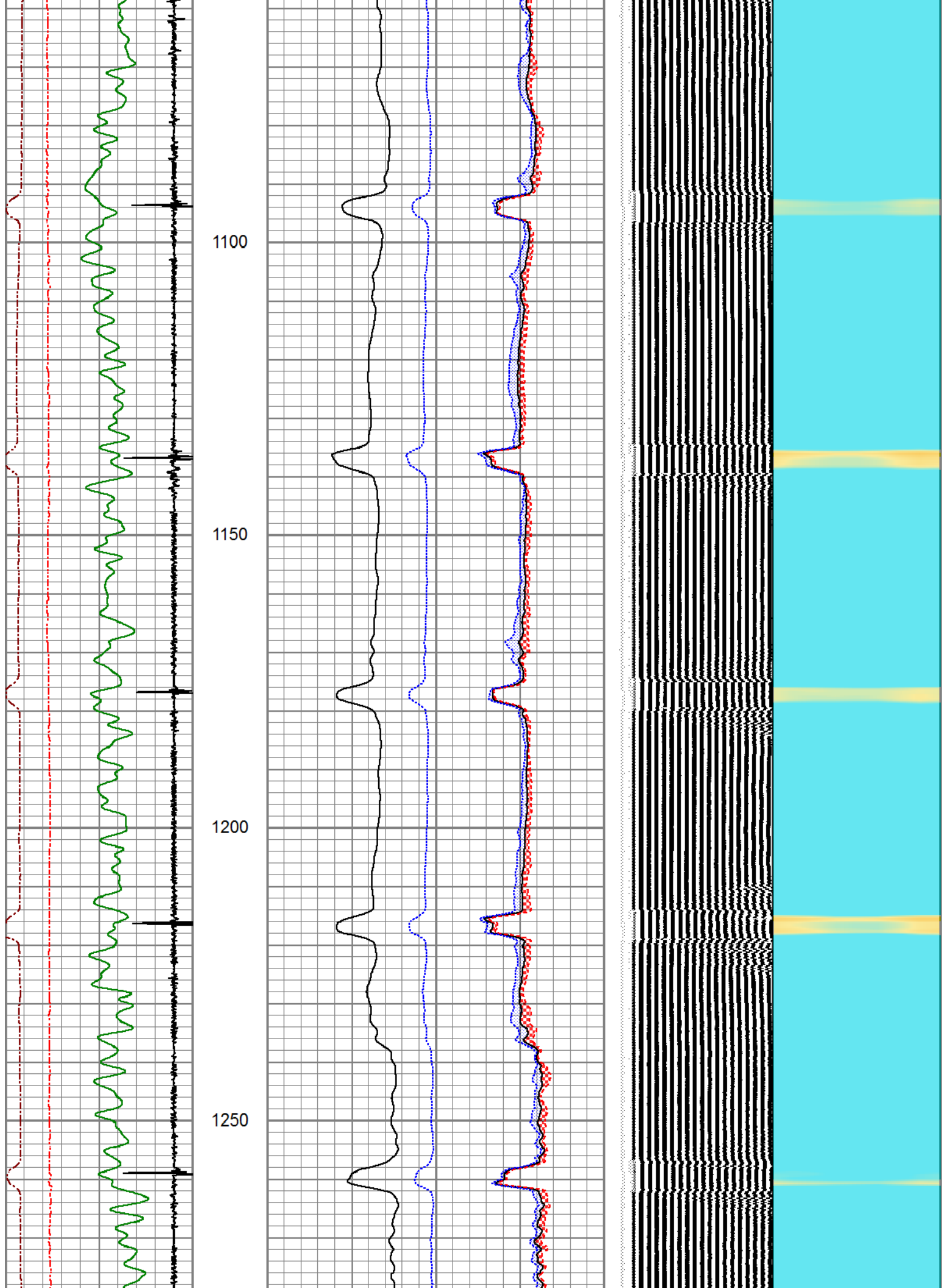


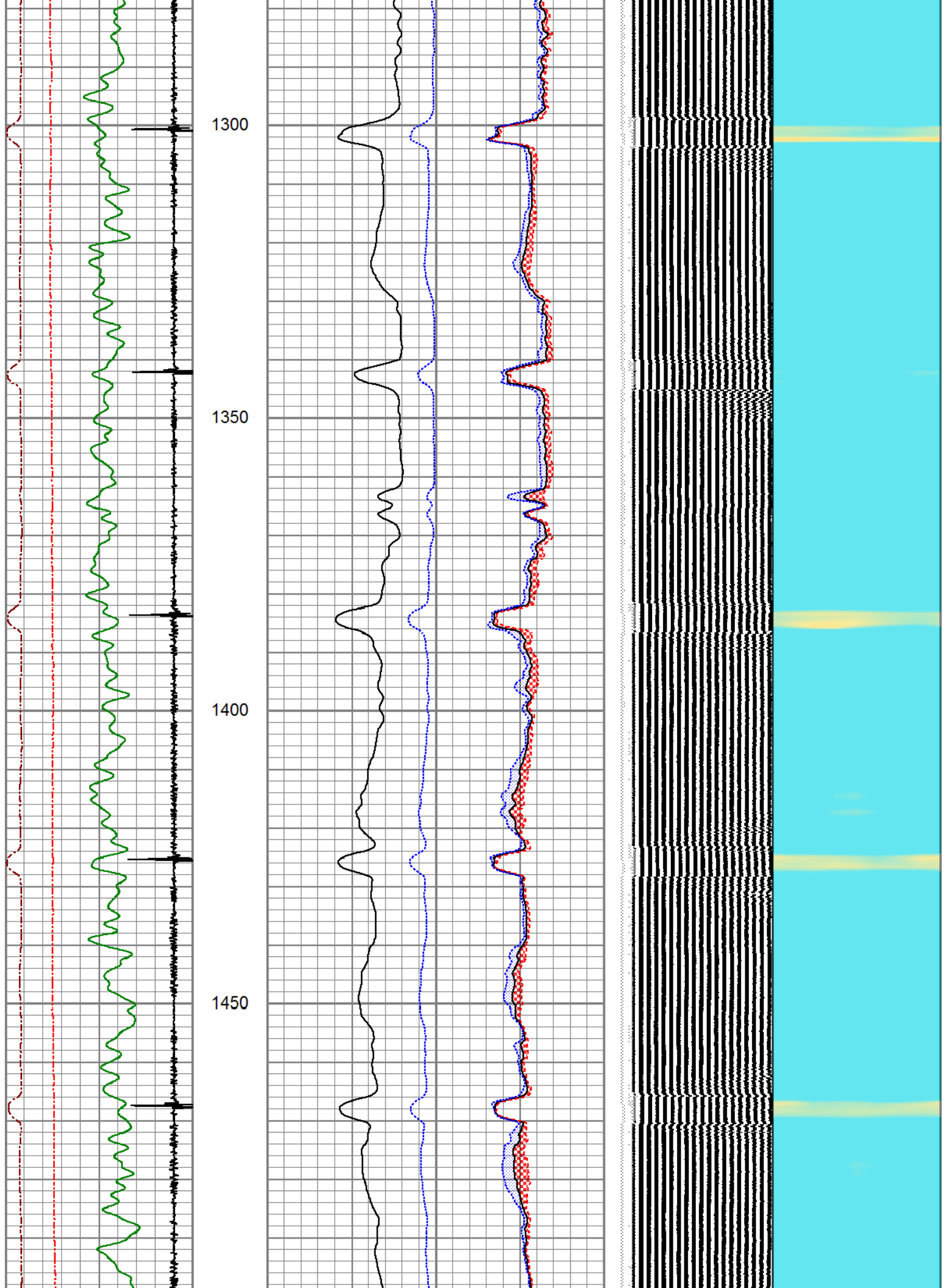


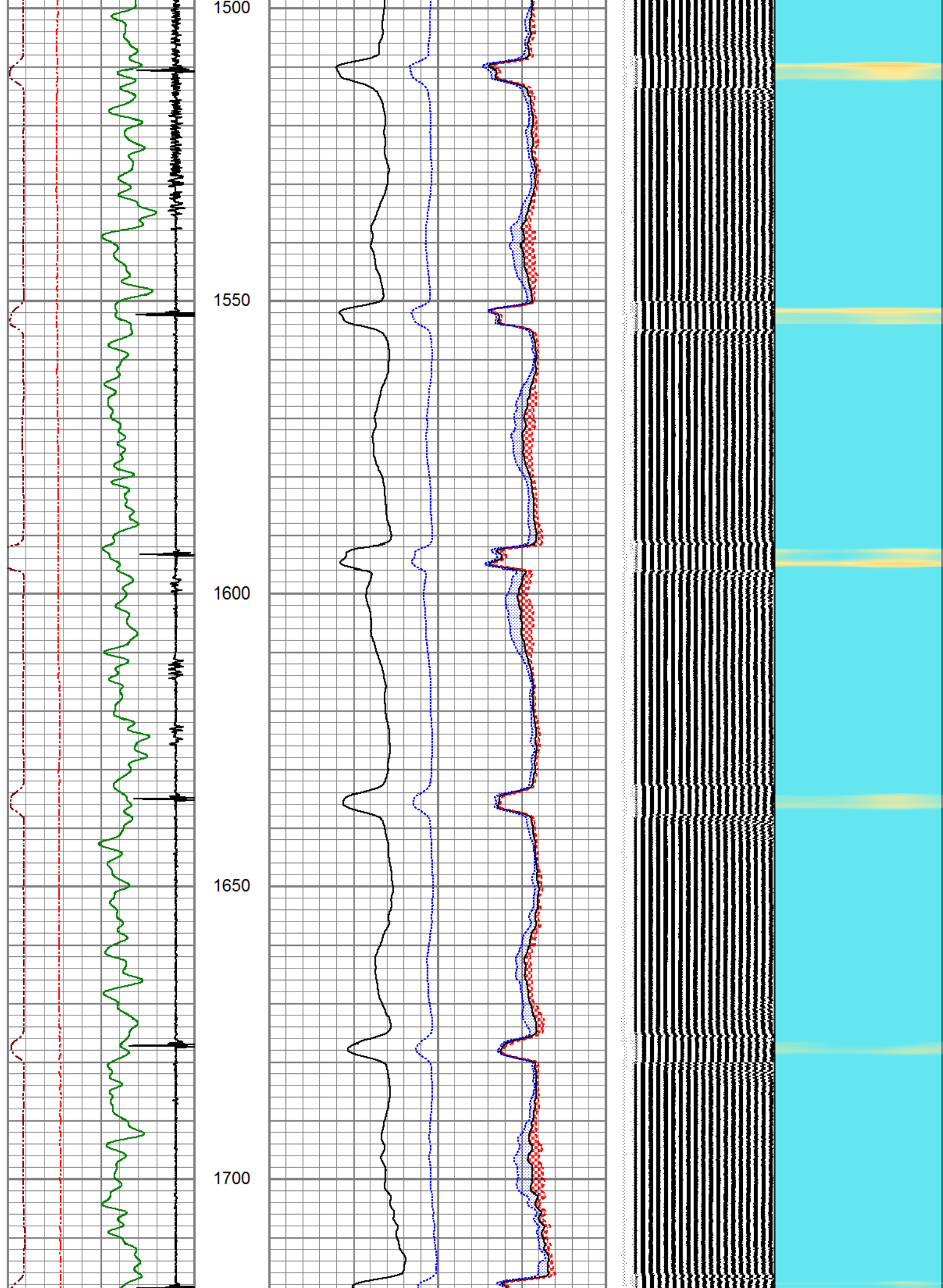


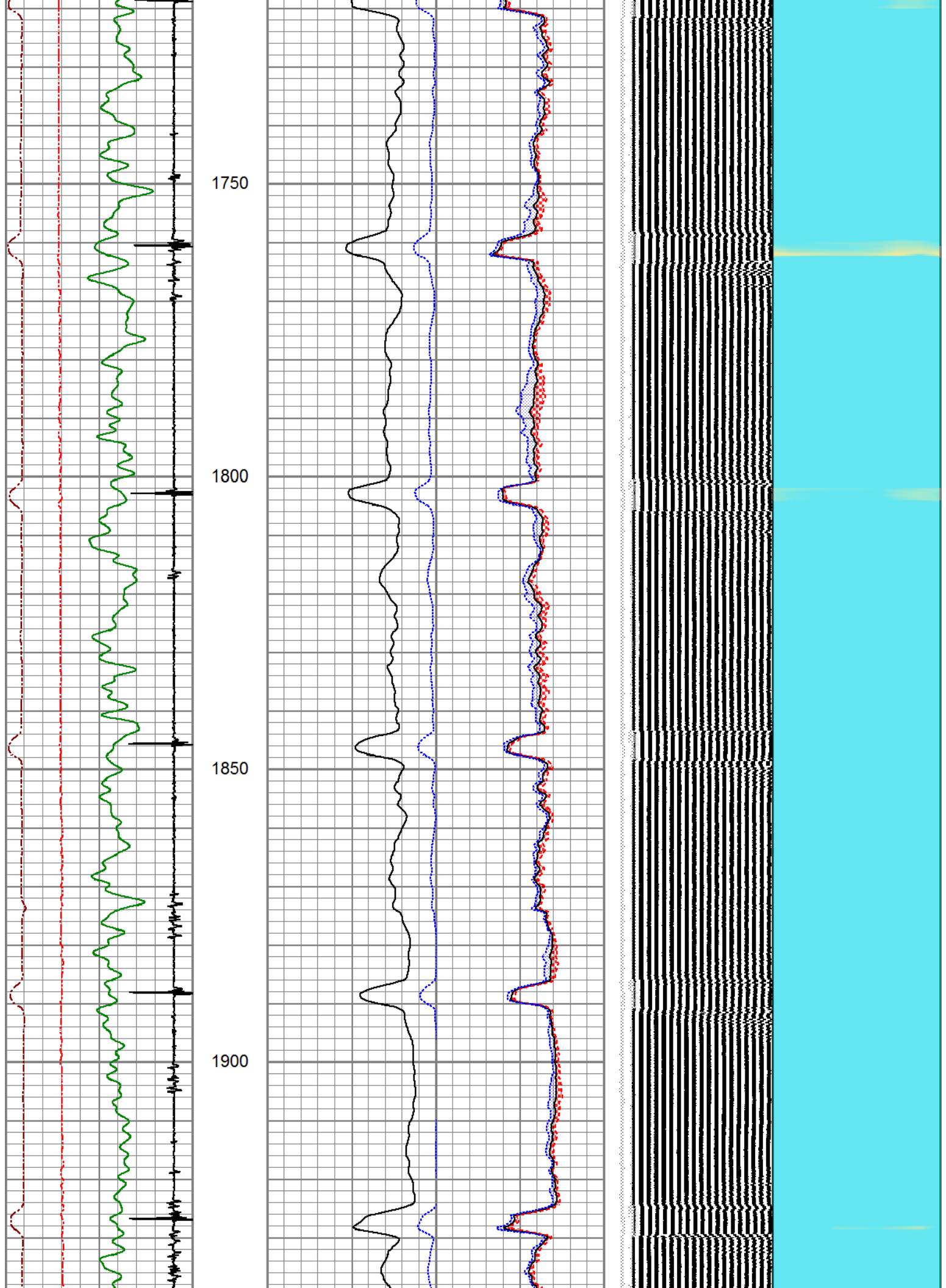




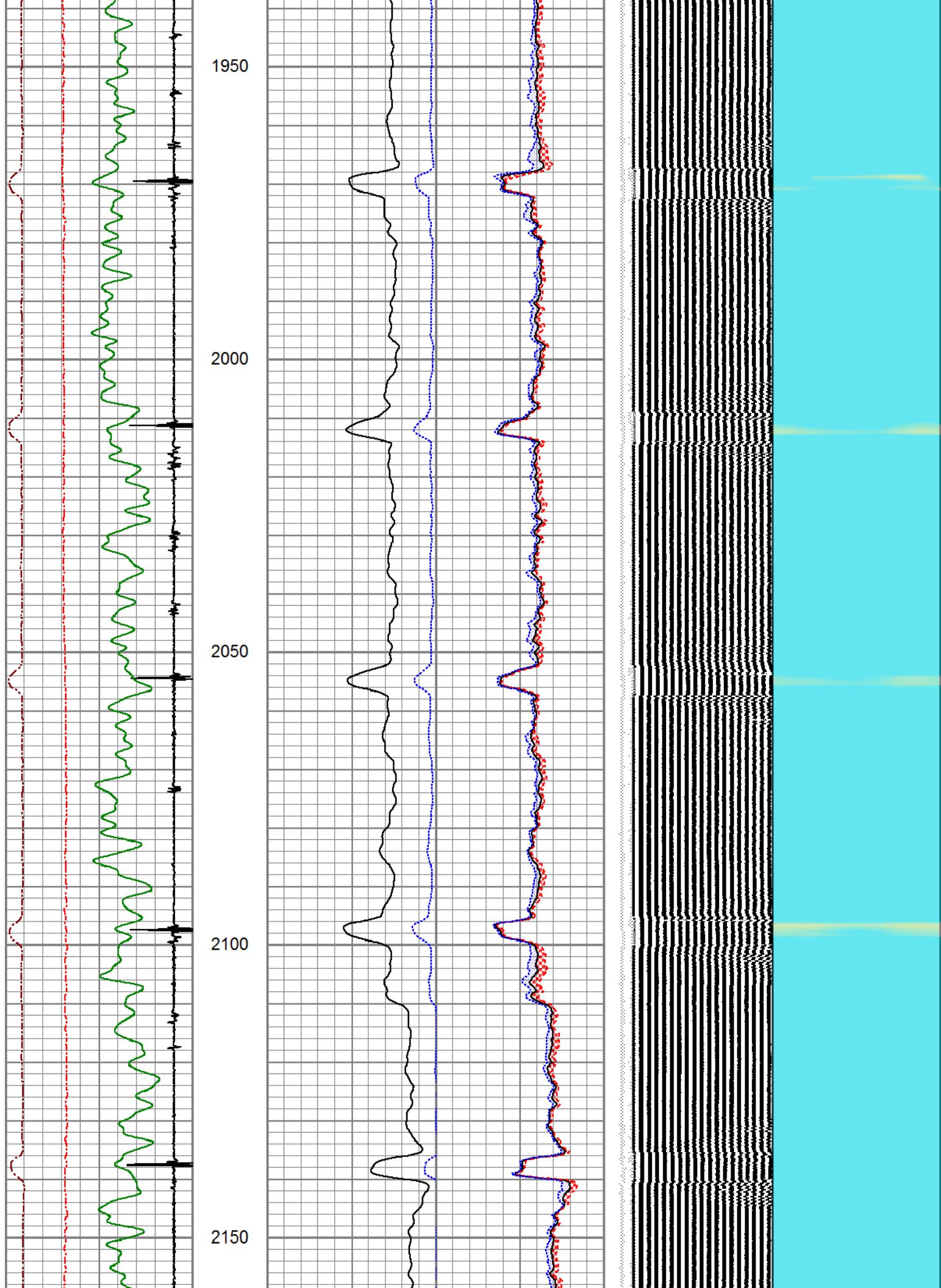




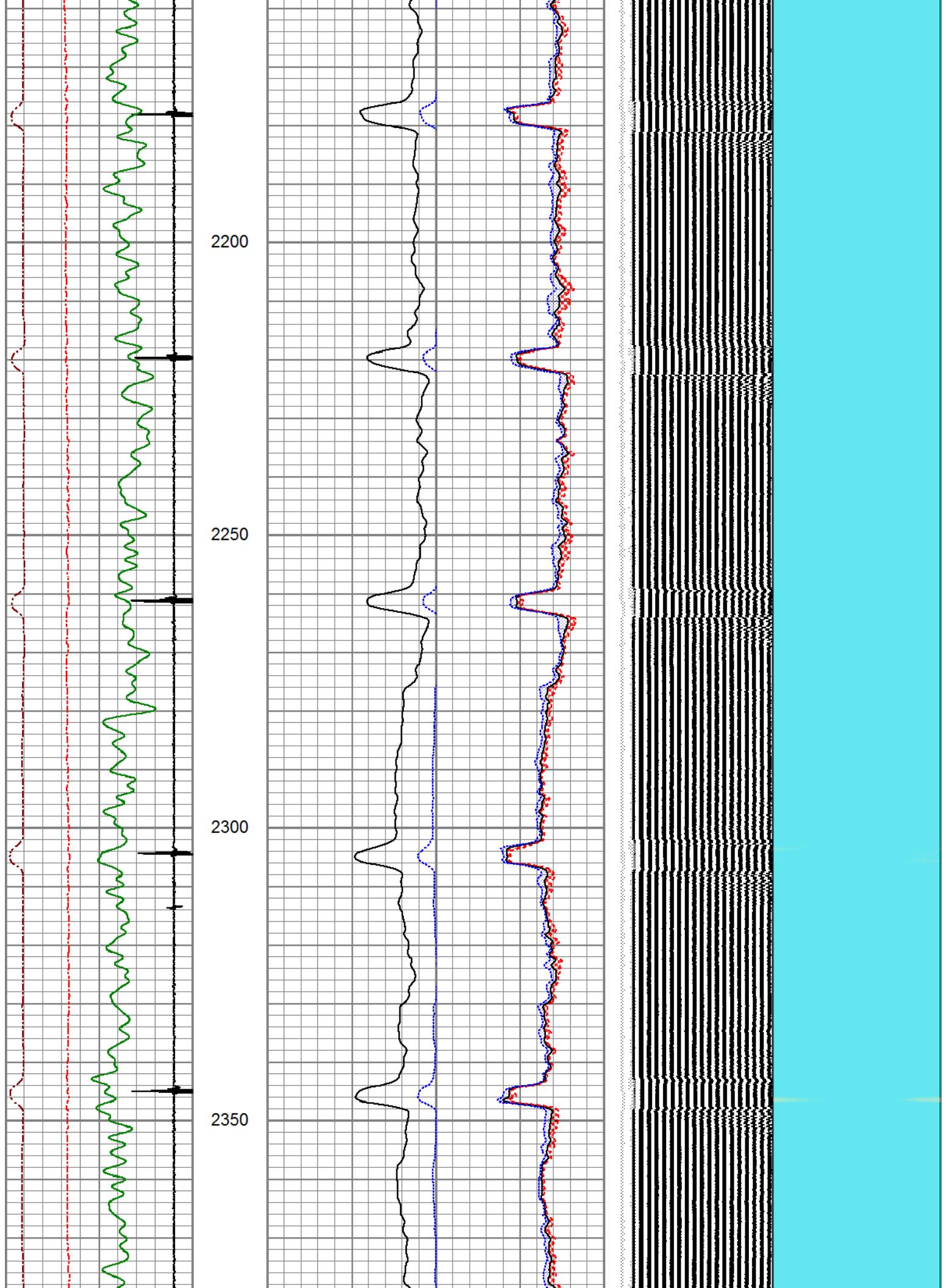


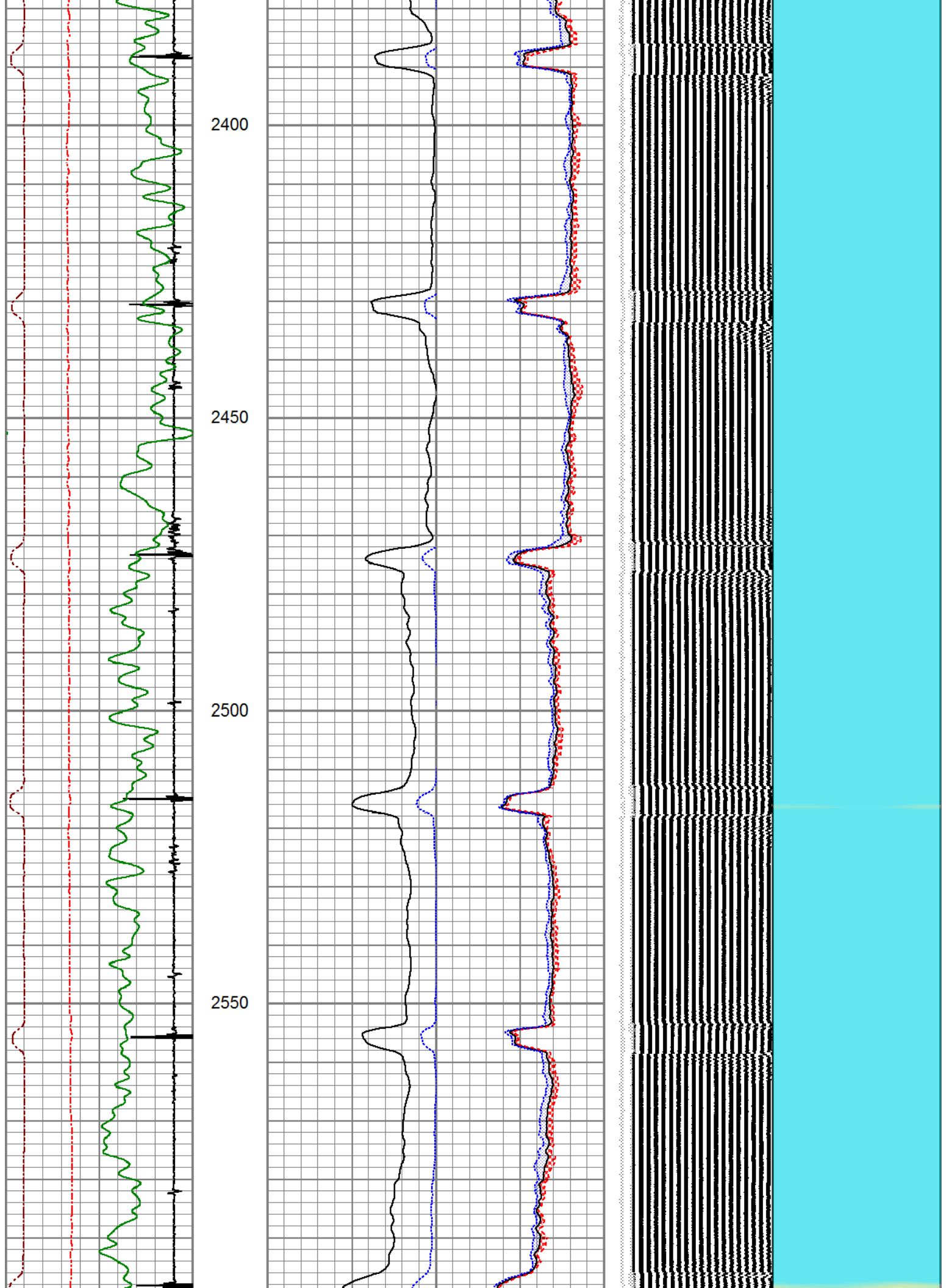


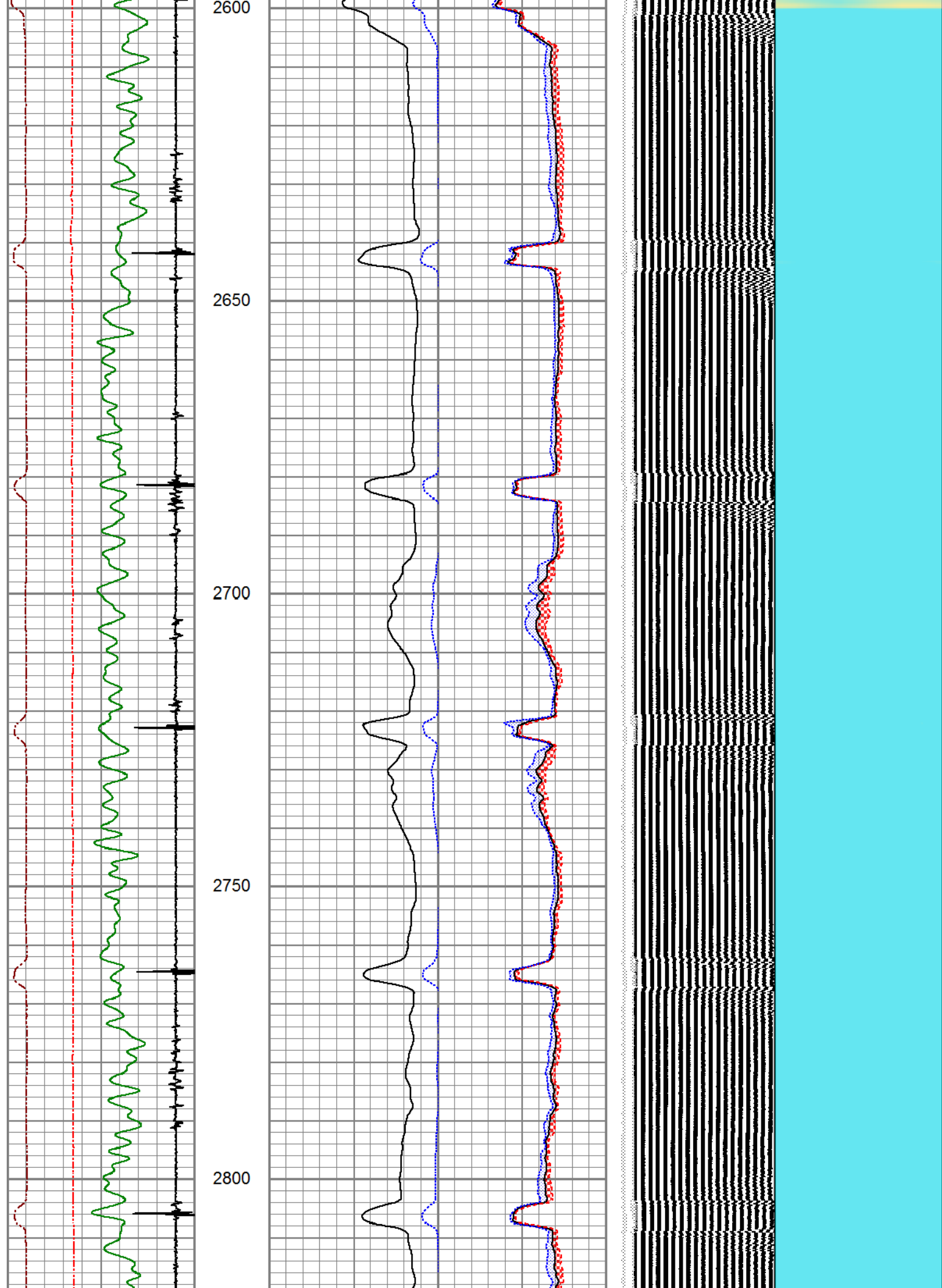


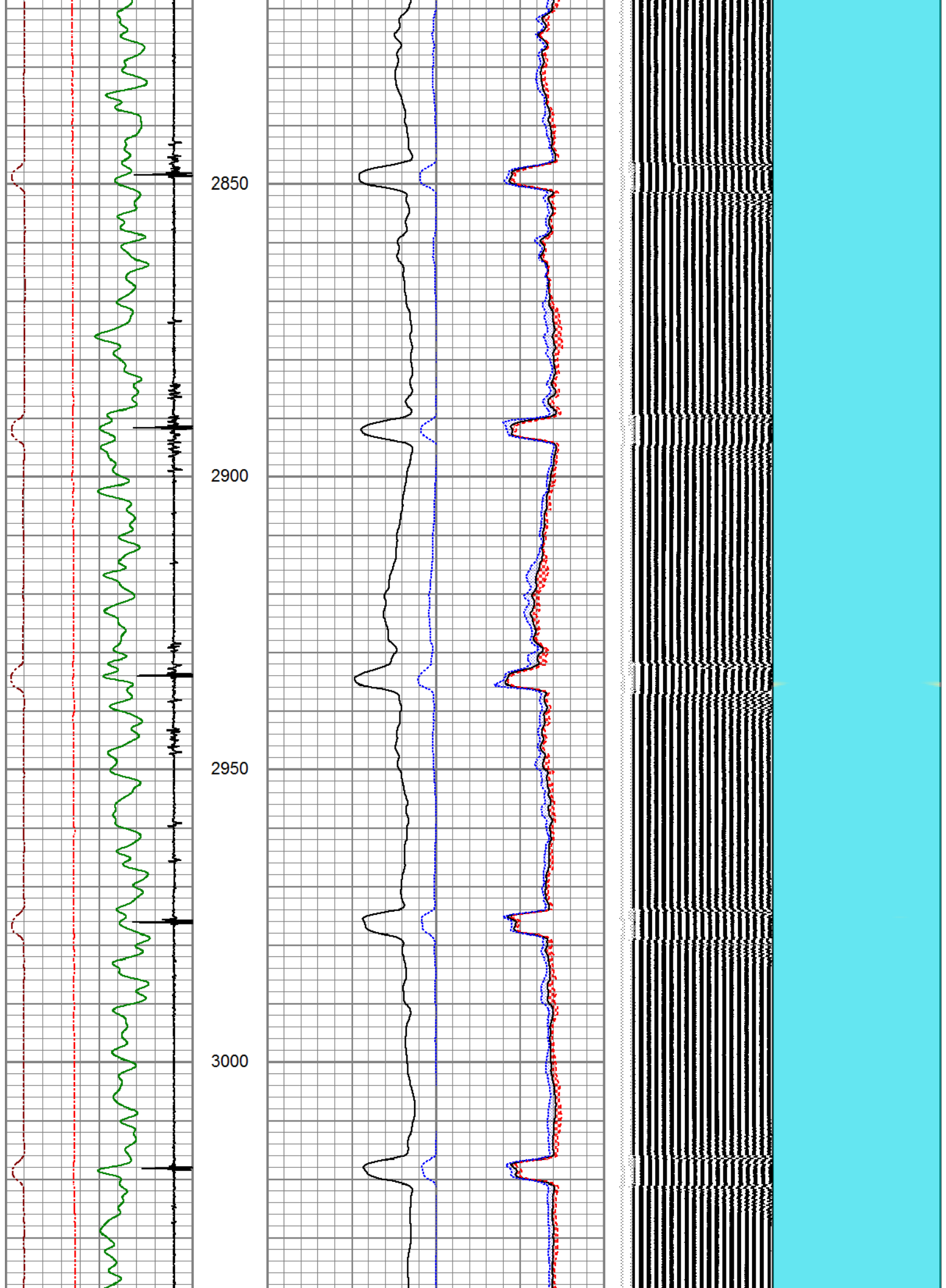


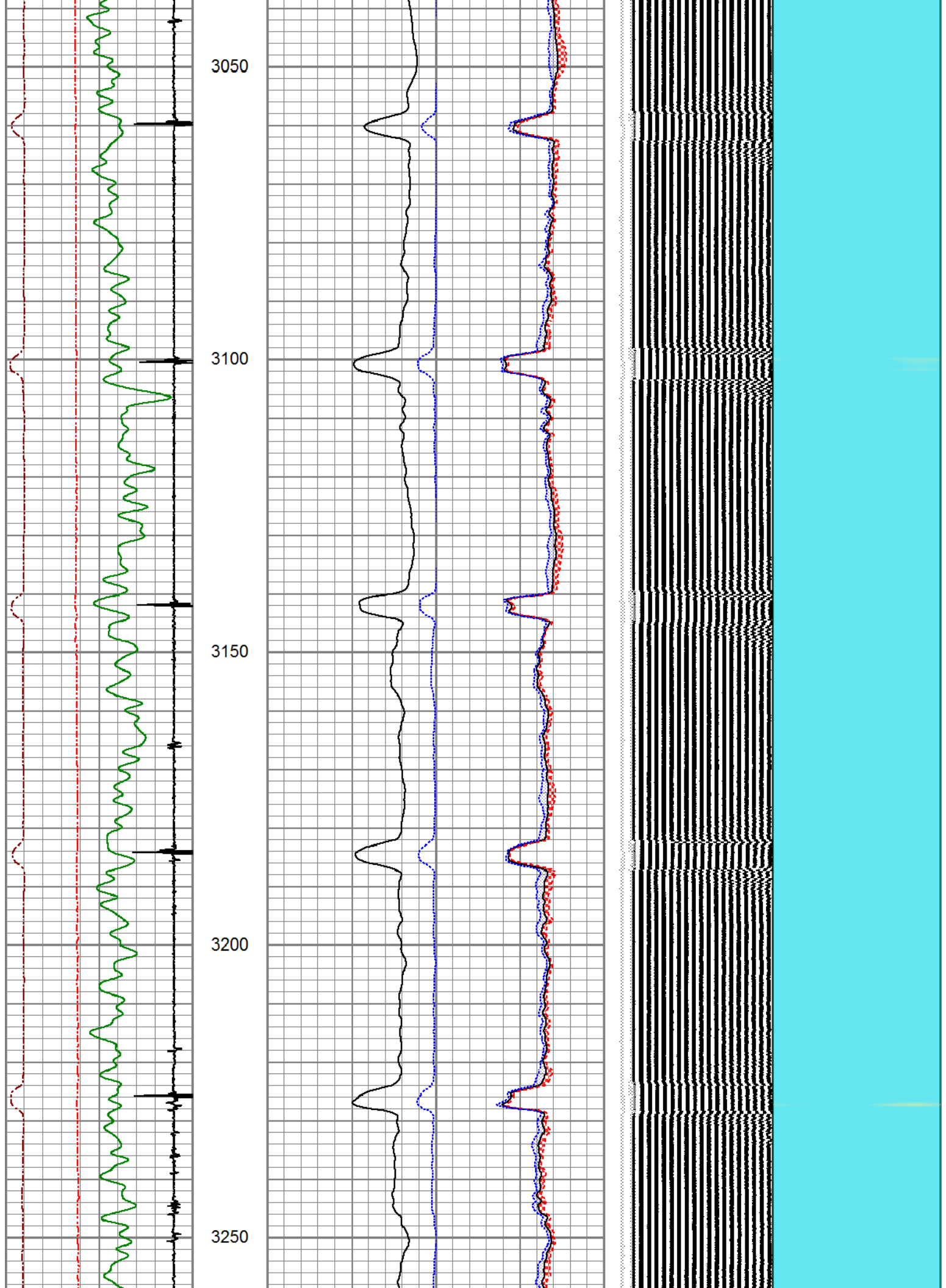


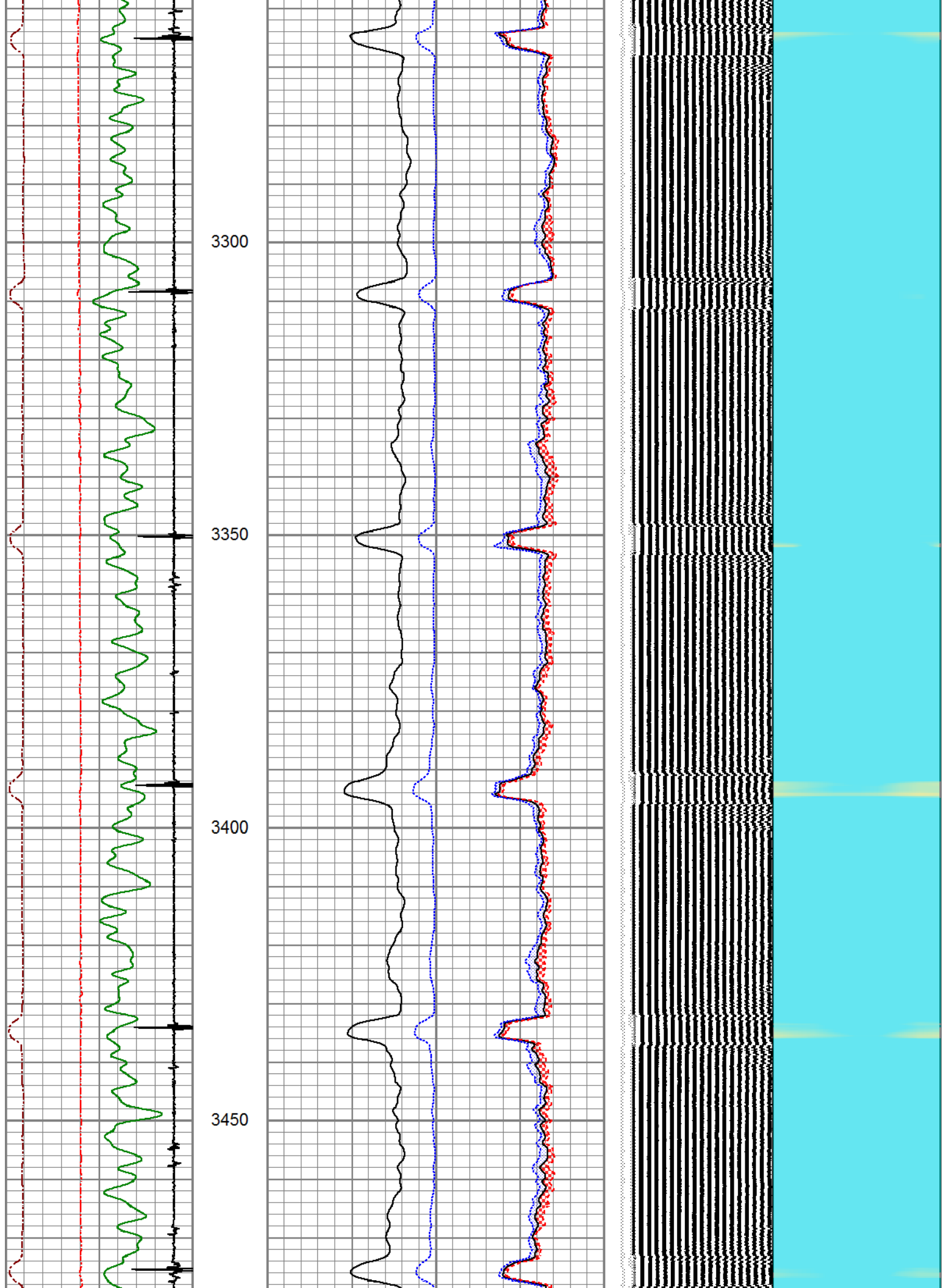




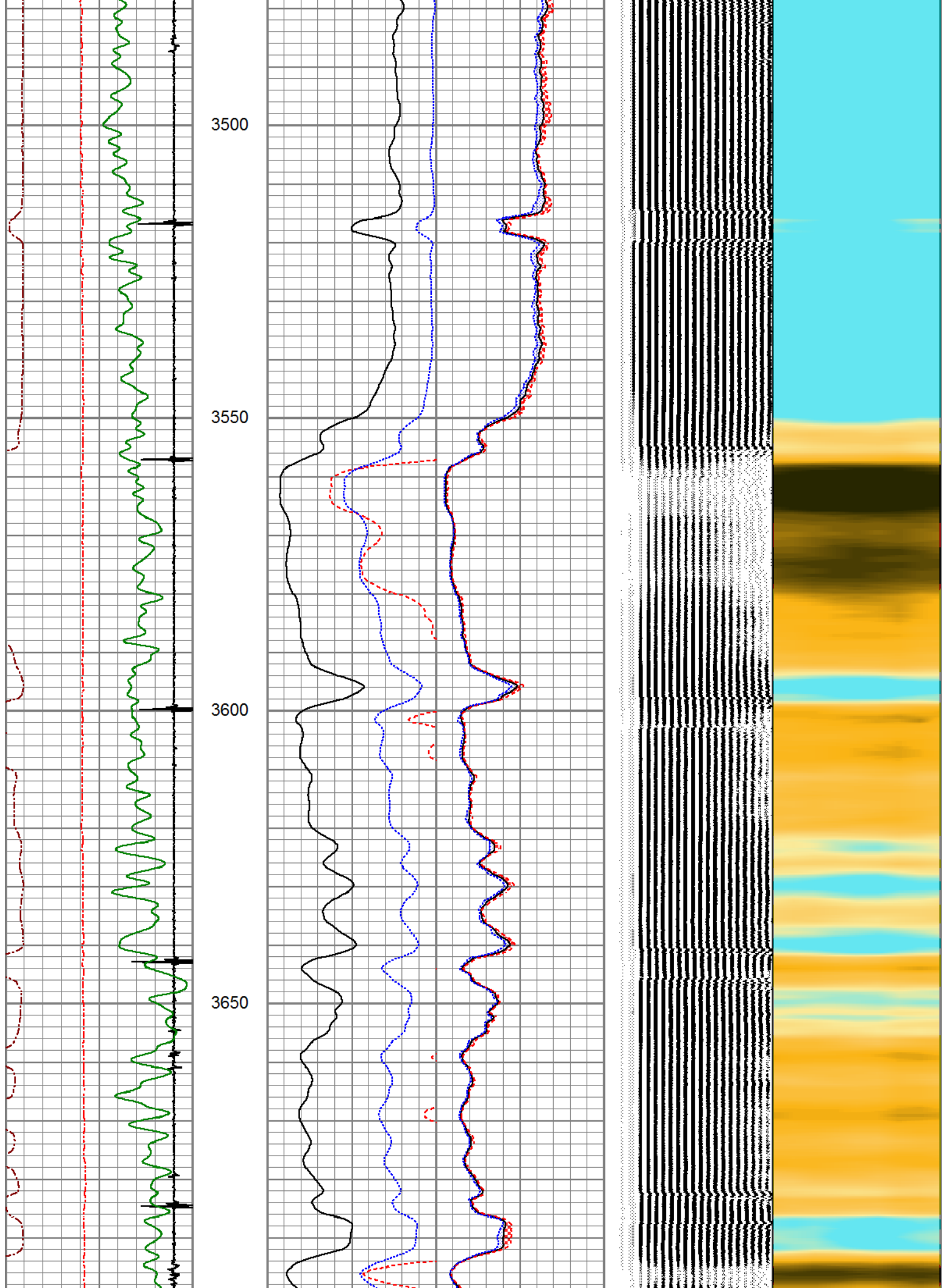


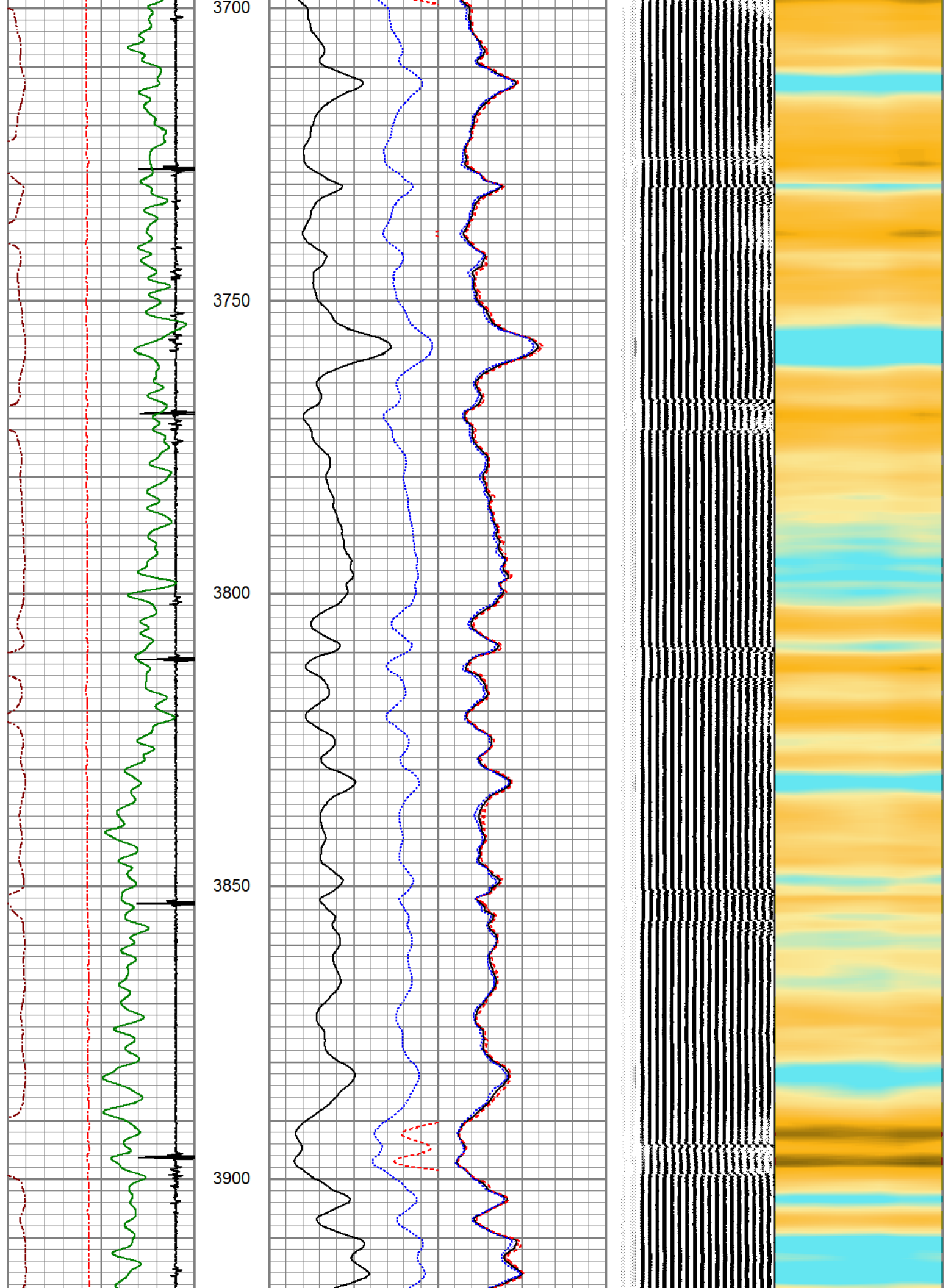


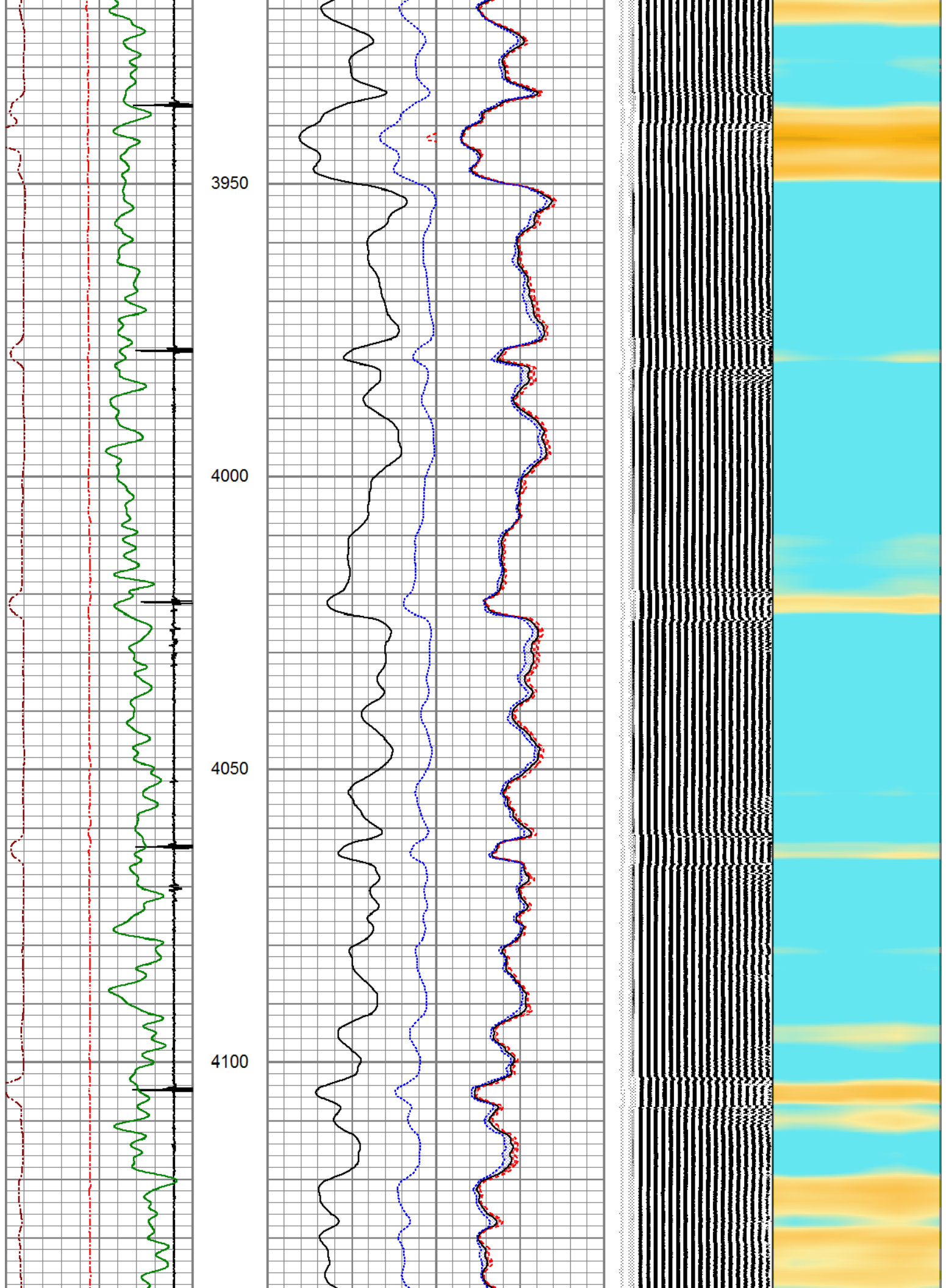


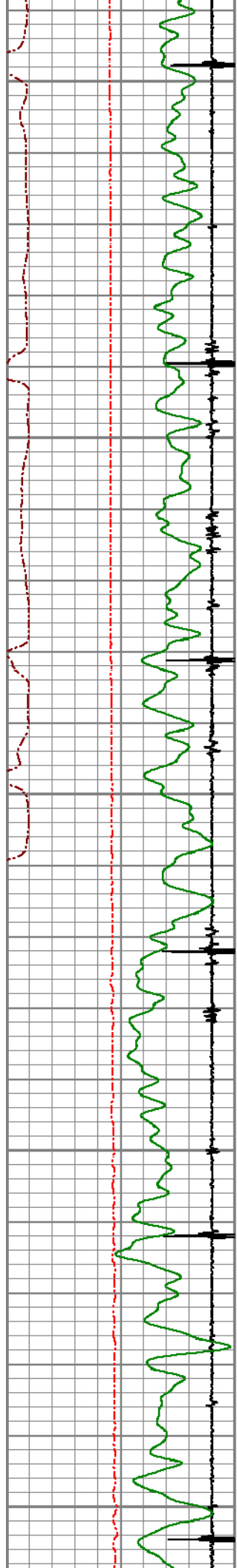












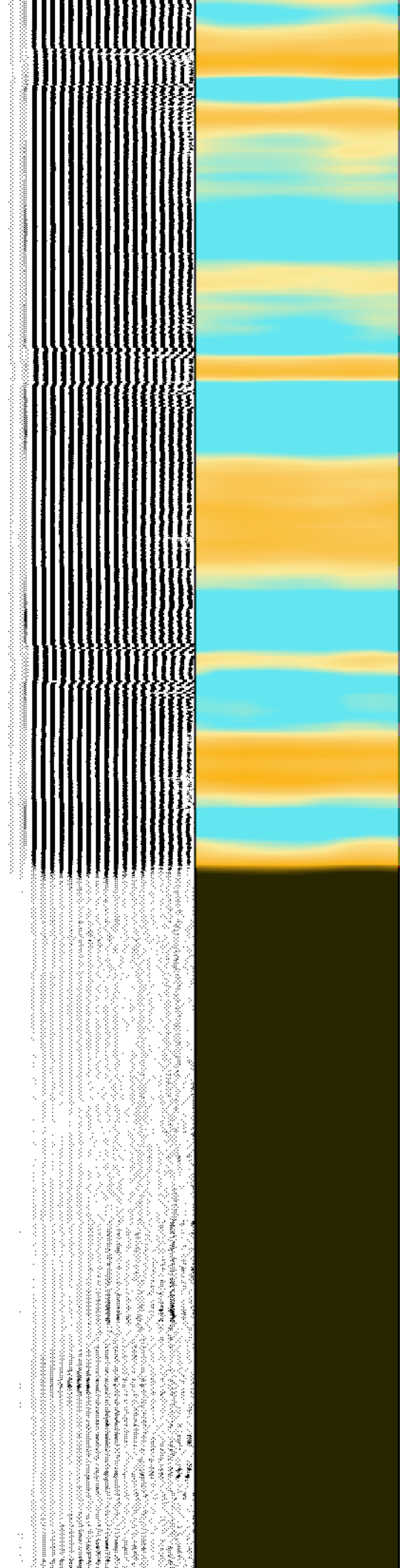
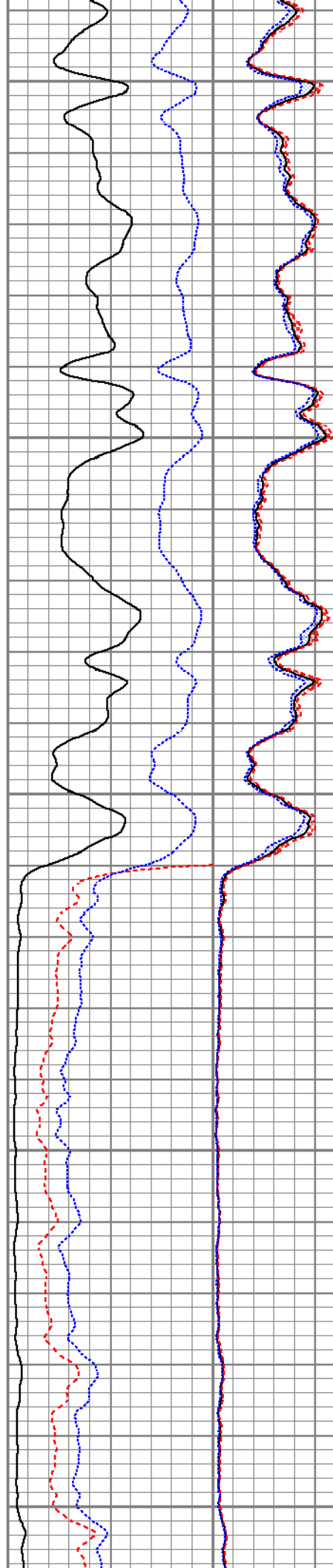
4150

4200

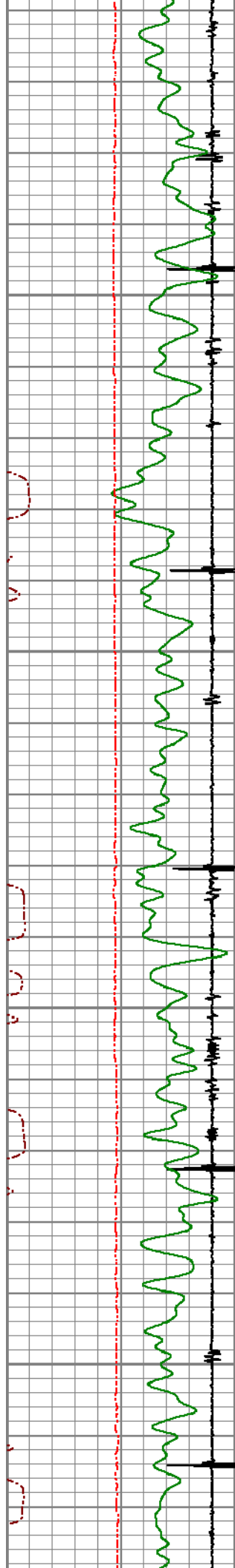
4250

4300

4350





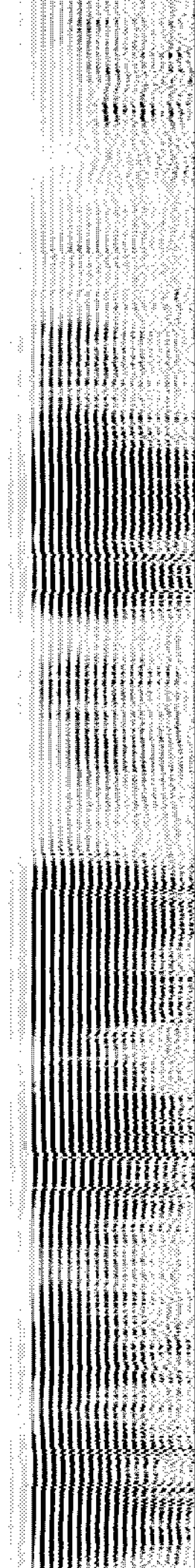
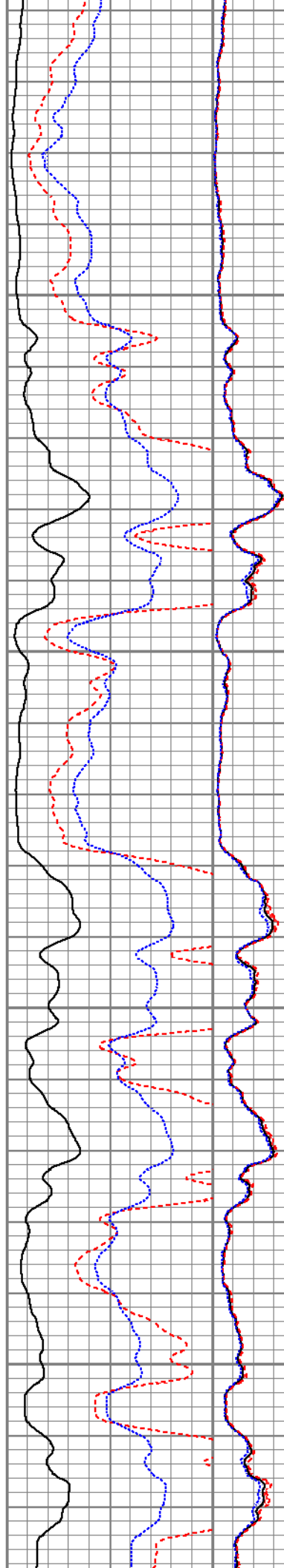


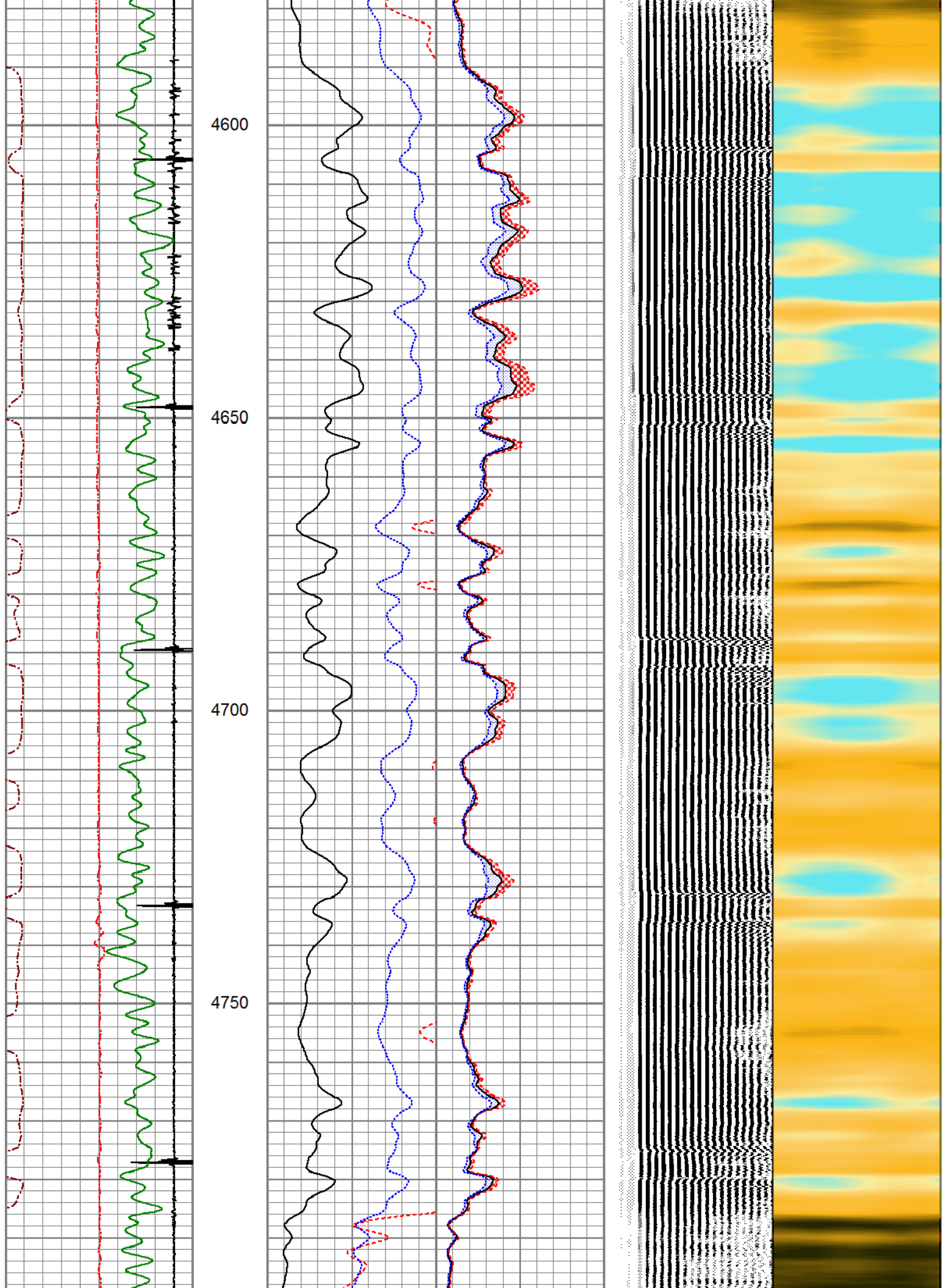
4400

4450

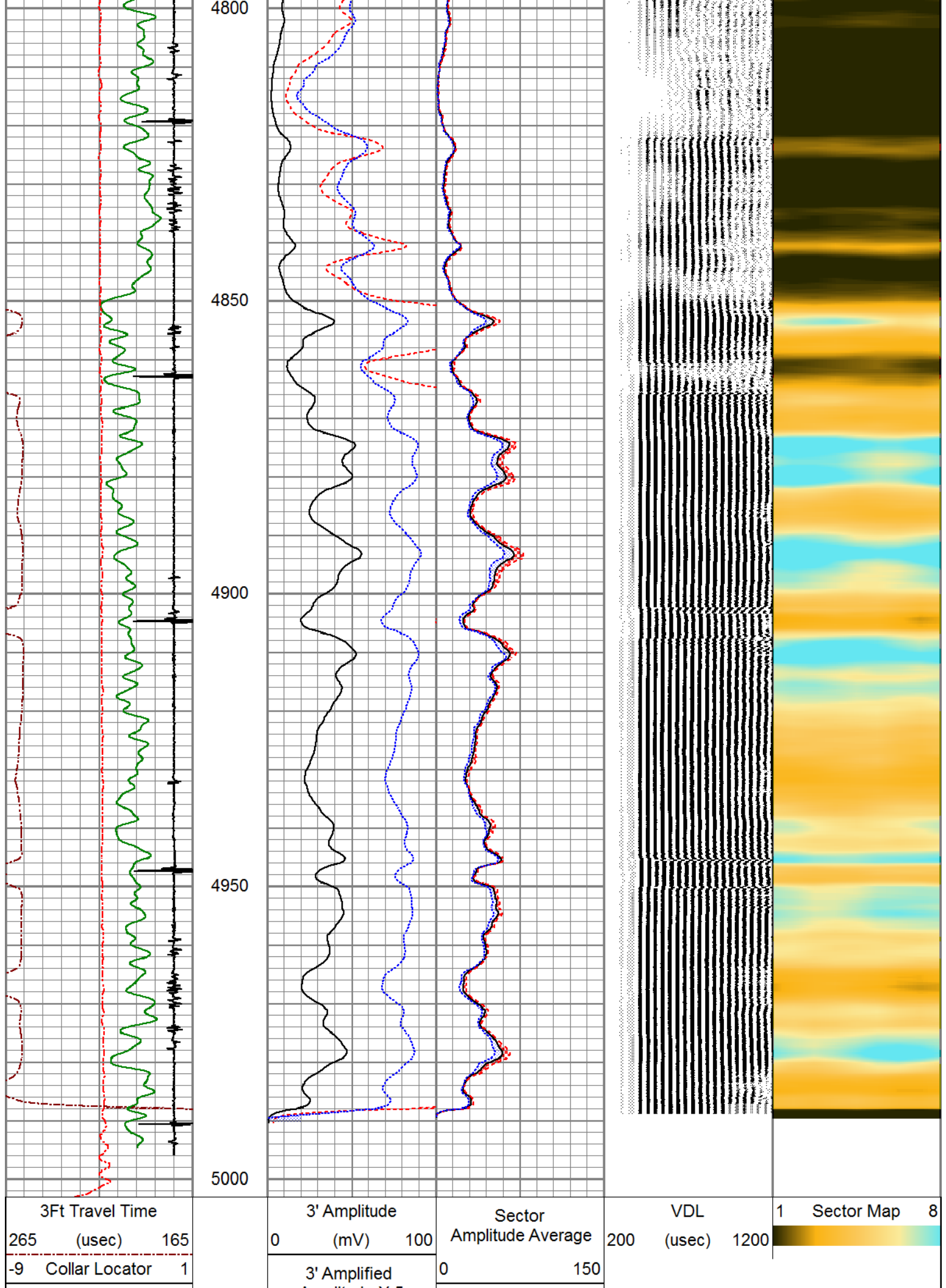
4500

4550









3Ft Travel Time  
265 (usec) 165  
-9 Collar Locator 1


3' Amplitude  
(mV) 0 100  
3' Amplified  
0 150

Sector  
Amplitude Average  
0 150

VDL  
(usec) 200 1200


1 Sector Map 8

Gamma Ray	Amplitude X 5	Sector
0 (GAPI) 200	0 (mV) 20	Amplitude Maximum
LineTension	1 Bond Index 0	0 150
0 (lb) 2000		Sector
		Amplitude Minimum
		0 150



# MAIN LOG

500 PSI APPLIED AT SURFACE

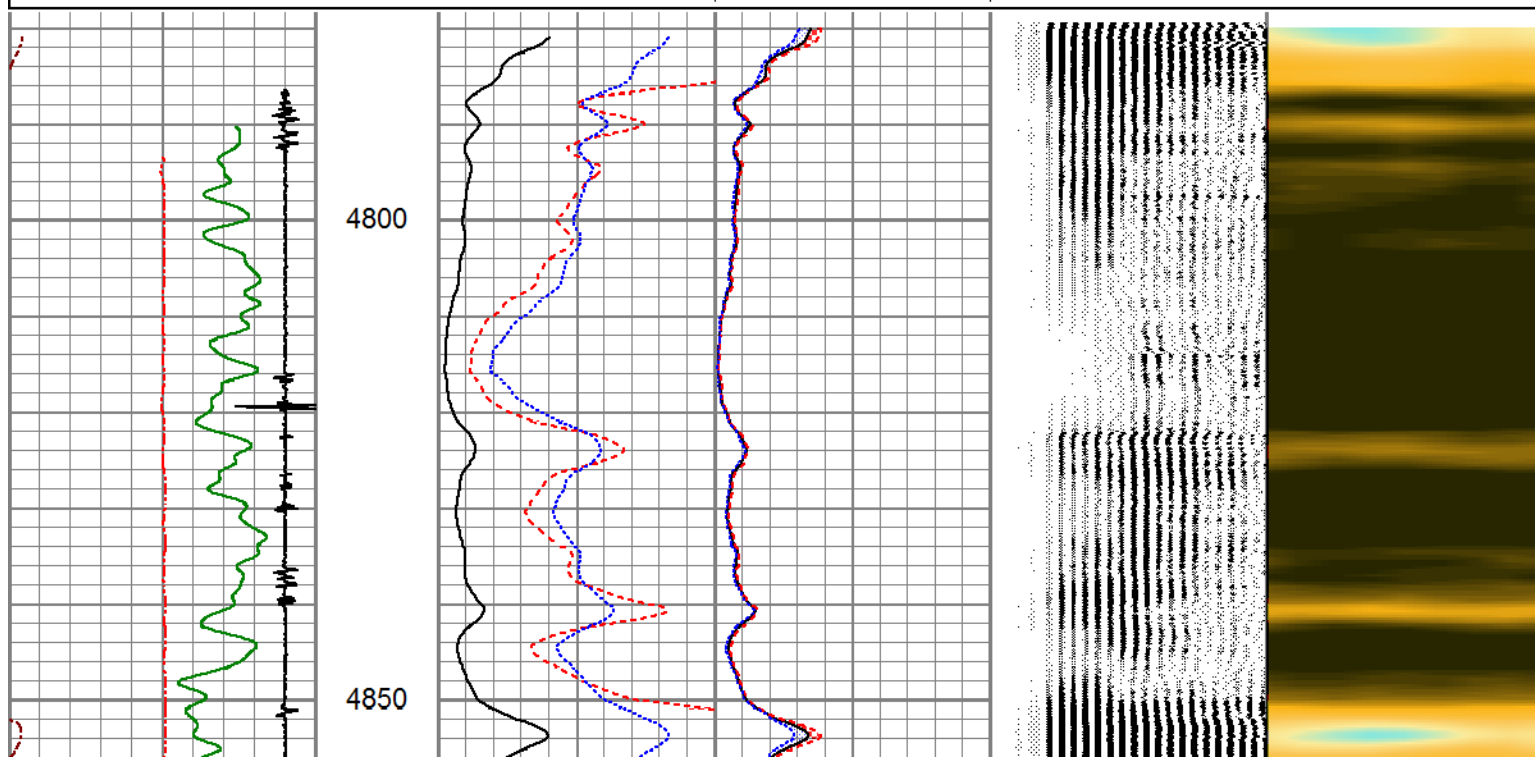


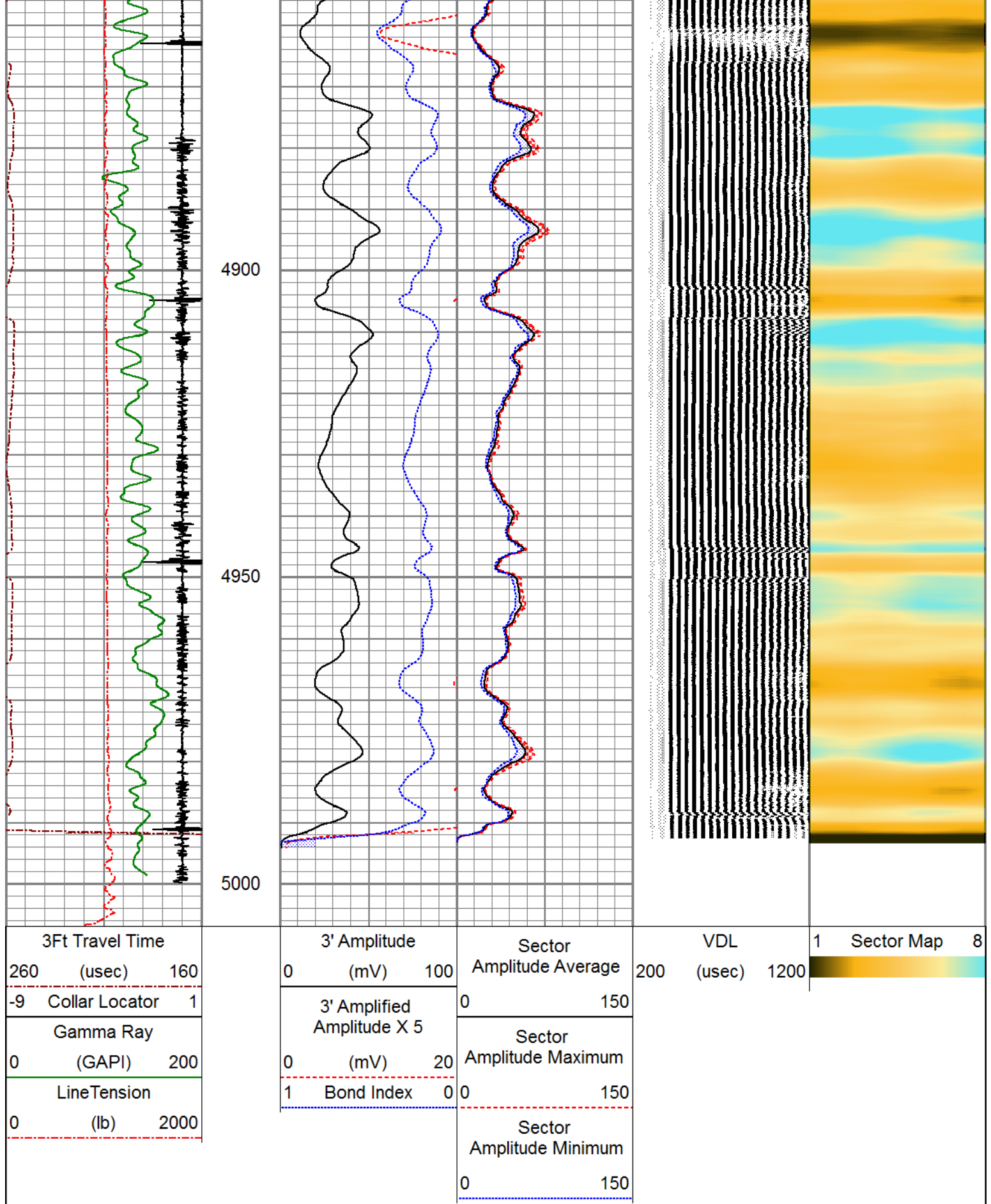
# REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File	1-7-20-1.db
Dataset Pathname	pass5
Presentation Format	pinr_scbl
Dataset Creation	Tue Jan 07 11:09:11 2020
Charted by	Depth in Feet scaled 1:240

3Ft Travel Time	3' Amplitude	Sector	VDL	1	Sector Map	8
260 (usec) 160	0 (mV) 100	Amplitude Average	200 (usec) 1200			
-9 Collar Locator 1	3' Amplified Amplitude X 5	0 150				
Gamma Ray	0 (mV) 20	Sector				
0 (GAPI) 200	1 Bond Index 0	Amplitude Maximum				
LineTension		0 150				
0 (lb) 2000		Sector				
		Amplitude Minimum				
		0 150				





### Calibration Report

Database File 1-7-20-1.db  
 Dataset Pathname pass5  
 Dataset Creation Tue Jan 07 11:09:11 2020

# Gamma Ray Calibration Report

Serial Number: 130608  
 Tool Model: 275 Probe GCT  
 Performed: (Not Performed)  
 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: FW1304-33-T  
 Tool Model: RBL-DC  
 Calibration Casing Diameter: 4.500 in  
 Calibration Depth: 644.279 ft

Master Calibration, performed Tue Jan 07 10:51:55 2020:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	1.513	0.700	81.196	53.238	0.656
CAL	1.510	1.509				
5'	0.000	1.326	0.700	81.196	60.711	0.696
SUM						
S1	-0.008	1.560	0.000	100.000	63.785	0.523
S2	0.001	1.519	0.000	100.000	65.877	-0.050
S3	0.001	1.453	0.000	100.000	68.866	-0.047
S4	0.000	1.443	0.000	100.000	69.343	-0.031
S5	0.001	1.466	0.000	100.000	68.267	-0.046
S6	0.001	1.505	0.000	100.000	66.482	-0.042
S7	0.001	1.616	0.000	100.000	61.917	-0.040
S8	0.001	1.666	0.000	100.000	60.060	-0.055

Air Zero Calibration, performed Tue Jan 07 08:49:45 2020:

	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 ANADARKO PETROLEUM CORP.  
 Well UPRR 22 PAN AM O TRUE 1  
 Field WATTENBERG

**PIONEER**

Pioneer Energy Services

Field

WATTENBERG

County

WELD

State

COLORADO