



# RADIAL BOND LOG WITH GAMMA RAY

Comp. HIGHPOINT OPERATING CORP. Well CRITTER CREEK 15-6302D Field HEREFORD Co. WELD State COLORADO	Company	HIGHPOINT OPERATING CORP.			
	Well	CRITTER CREEK 15-6302D			
	Field	HEREFORD			
	County	WELD		State	COLORADO
	Location:	API # : 05-123-47299		Other Services	
	400' FSL & 1115' FWL SW SW		NONE		
	SEC 15	TWP 11N	RGE 63W		
	Permanent Datum	GL	Elevation	5242'	
	Log Measured From	KB 16.5'	Above Perm. Datum	K.B. 5259'	
	Drilling Measured From	KB		D.F. N/A	
				G.L. 5242'	
Date of Service	09 NOVEMBER 2018				
Run Number	ONE				
Depth Driller or PBTD	17,967'				
Depth Logger	7630'				
Bottom Log Interval	7624'				
Top Log Interval	SURFACE				
Open Hole Size	8.75"				
Type Fluid	WATER				
Fluid Level					
Fluid Density	N/A				
Max. Recorded Temperature	N/A				
Max. Wellhead Pressure	ZERO				
Wellhead Connection	PACKOFF				
Estimated Cement Top	1090'				
Unit Number	P-57				
Wireline Size	9/32"				
Location	FORT MORGAN				
Recorded By	P. LOPEZ				
Witnessed By	MR. BRUCE KELSCH				
	Size	Wt/Ft	Top	Bottom	
Tubing Record					
Surface Casing	9.625"	36#	SURFACE	1549.5'	
Production Casing	7"	23#	SURFACE	7970.5	
Liner Record	4.5"	11.6#	7597.8'	17960'	

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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.  
CORRELATED TO PBR

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: LOPEZ	RBL-D	070151
Operator: MARSHALL	GR CCL	070237
Operator: ESTRADA		
Operator: GARCIA		

# Log Variables

DatabaseE:\highpoint\_creek 15-6302d\_0512347299\_20181109\_scbl.db  
Dataset field/well/run1/pass8/\_vars\_



## Top - Bottom


BOREID in 7.875	BOTTEMP degF 180	CASEOD in 7	CASETHCK in 0	CASEWGHT lb/ft 23	MAXAMPL mV 0	MINAMPL mV 1
MINATTN db/ft 0.08	PERFS 0	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0		


## Variable Description

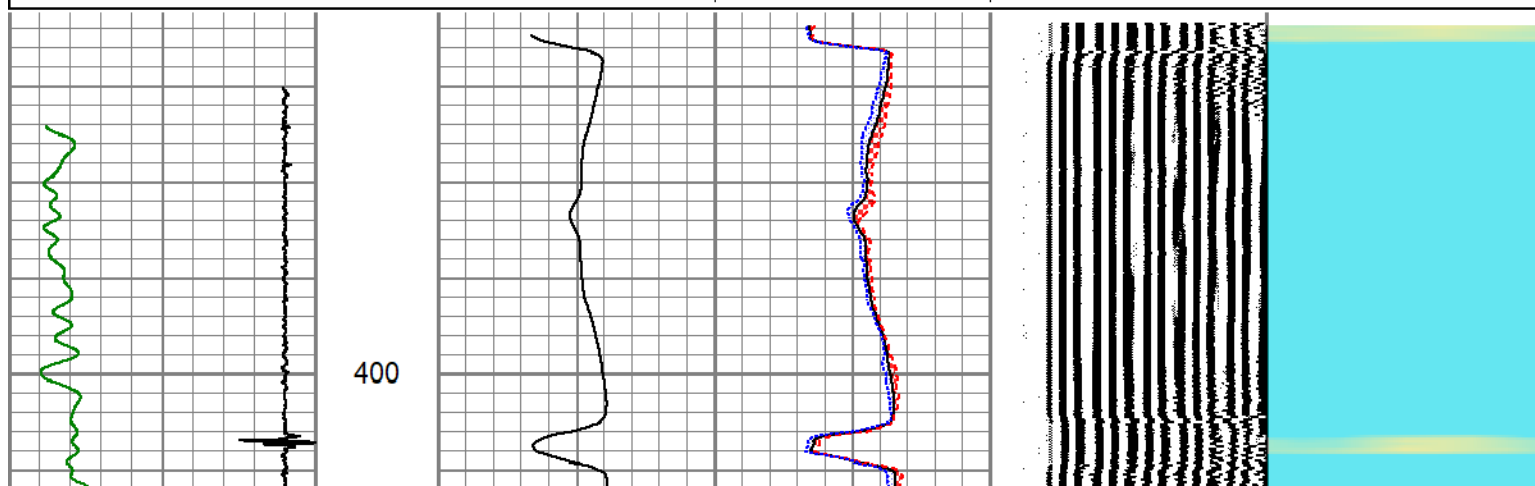
BOREID : Borehole I.D.  
BOTTEMP : Bottom Hole Temperature  
CASEOD : Casing O.D.  
CASETHCK : Casing Thickness  
CASEWGHT : Casing Weight  
MAXAMPL : Maximum Amplitude

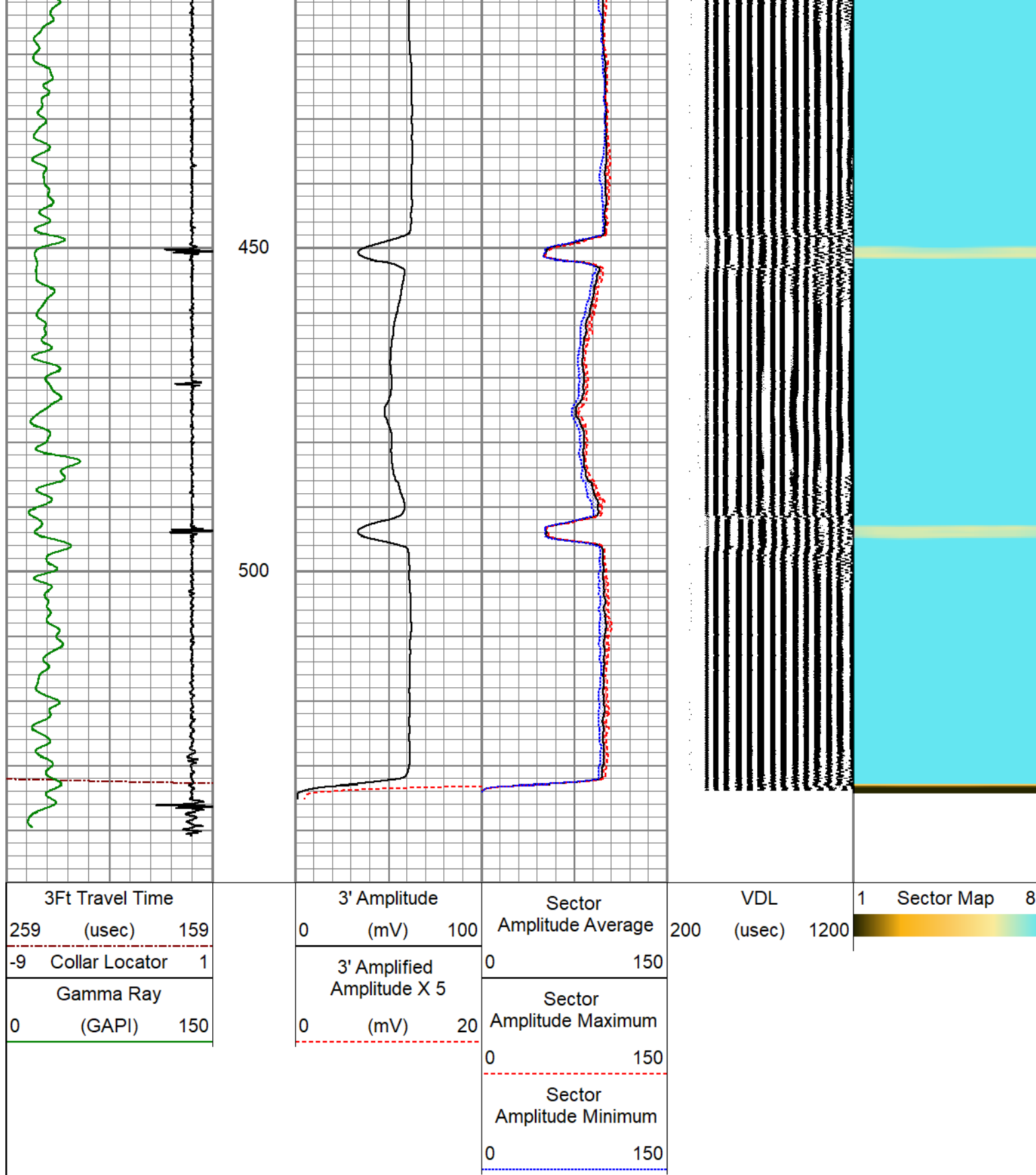
MINAMPL : Minimum Amplitude  
MINATTN : Minimum Attenuation  
PERFS : Perforation Flag  
PPT : Predicted Pipe Time  
SRFTEMP : Surface Temperature  
TDEPTH : Total Depth

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 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
WVFS8	15.11		PROBE-RBT-DIGITAL-RBL-D (070151) Probe 2 3/4" Radii Bond-Digital	8.75	2.75	100.00
WVFS7	15.11					
WVFS6	15.11					
WVFS5	15.11					
WVFS4	15.11					
WVFS3	15.11					
WVFS2	15.11					
WVFS1	15.11					
WVFCAL	15.11					
WVF3FT	15.11					
WVF5FT	14.11					
HEADVOLT	10.93		Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00

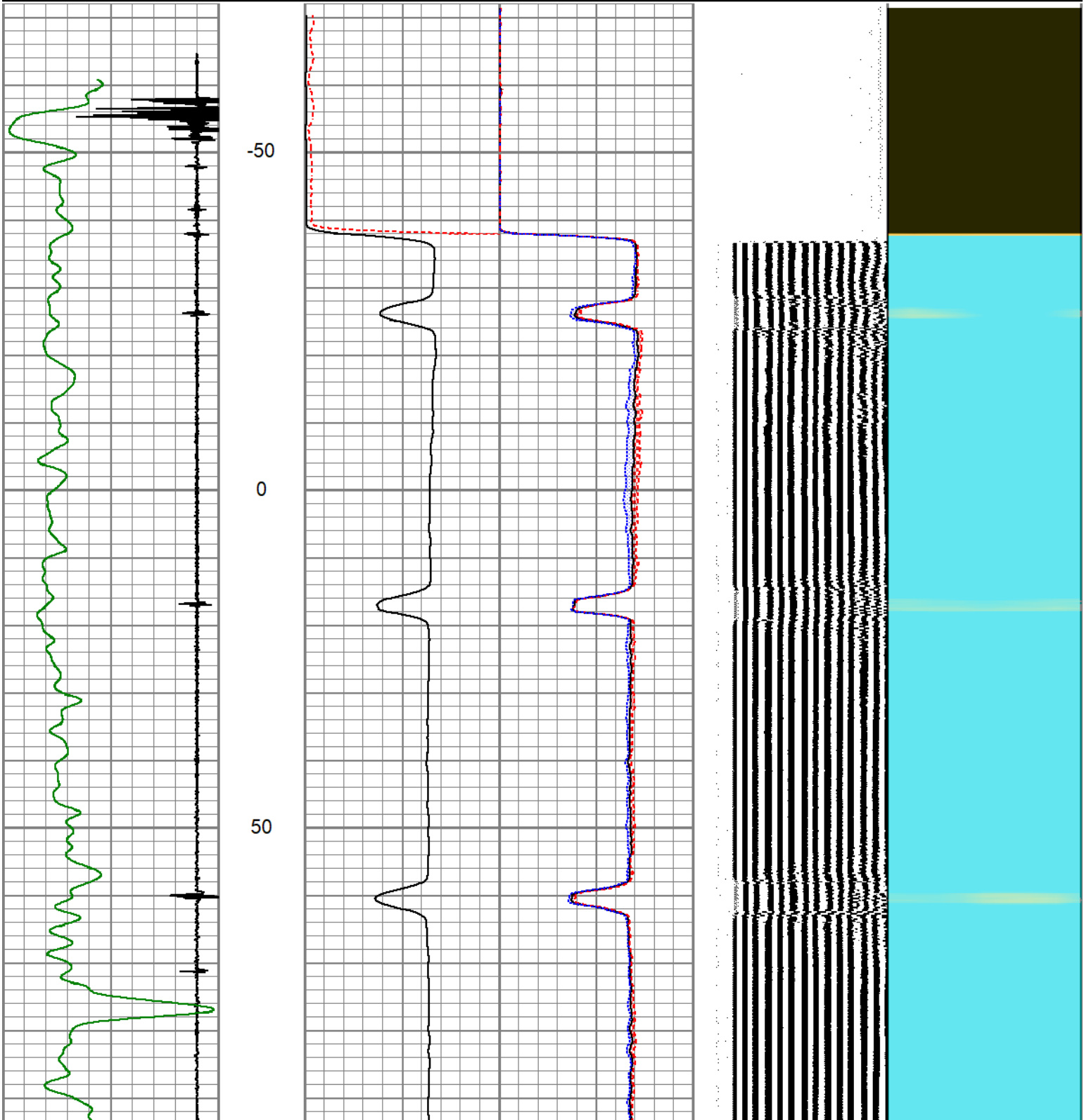
CCL	7.13					
GR	5.80		PROBE-GR/CCL-DIGITAL-275_6-PIN (120) Probe 2 3/4" Gamma CCL 6-pin Bottom for CNT	4.83	2.75	50.00
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
			Bullnose-PROBE Probe Go Pin Pressure Cap	0.33	1.38	1.00
Dataset:		highpoint_critter creek 15-6302d_0512347299_20181109_scbl.db: field/well/run1/pass8				
Total length:		23.59 ft				
Total weight:		198.00 lb				
O.D.:		2.75 in				

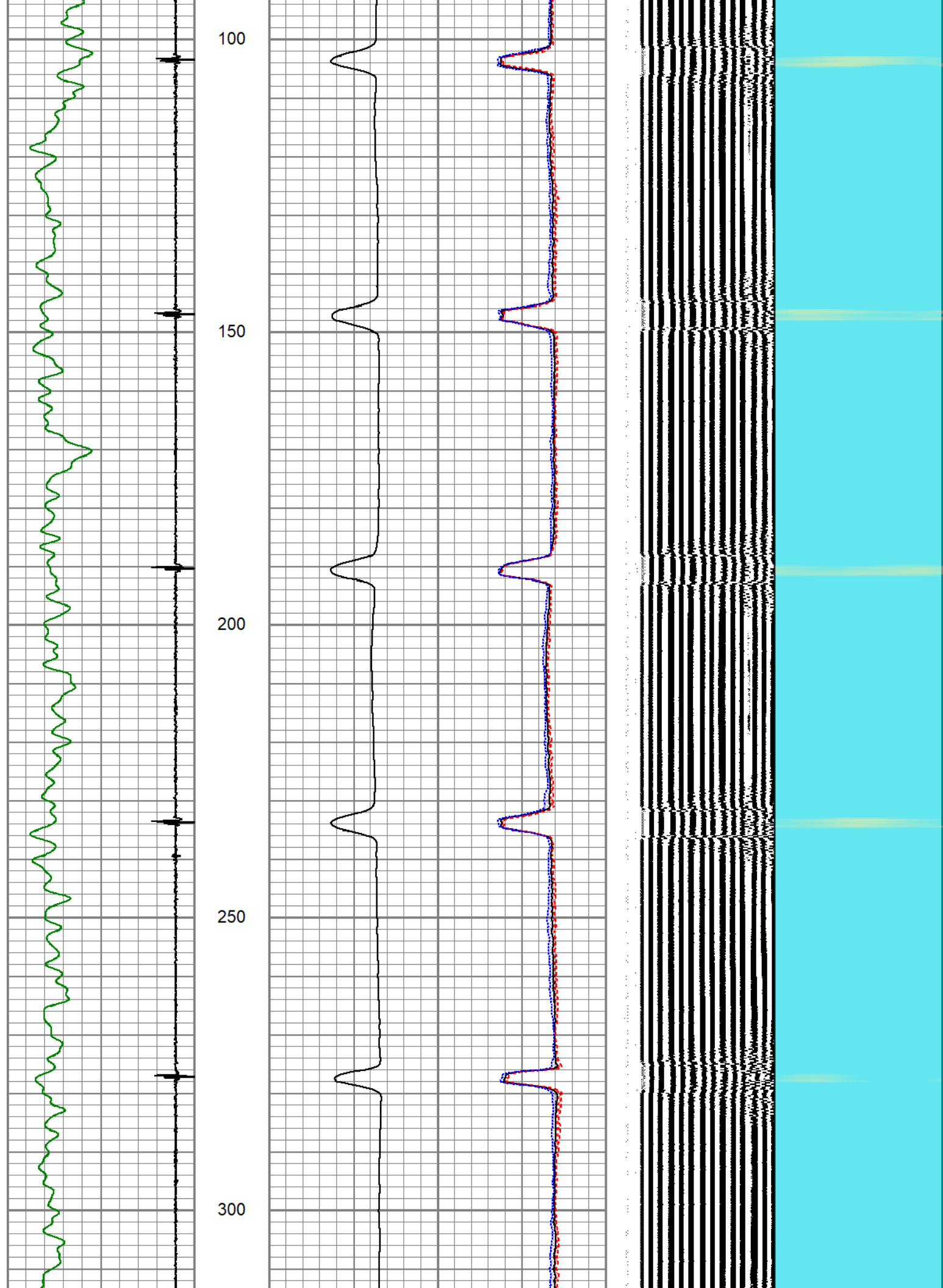
		FREE PIPE SECTION  ZERO PSI APPLIED AT SURFACE				
Database File e:\highpoint_critter creek 15-6302d_0512347299_20181109_scbl.db Dataset Pathname pass4 Presentation Format pinr_scbl Dataset Creation Fri Nov 09 12:51:58 2018 Charted by Depth in Feet scaled 1:240						
3Ft Travel Time 259 (usec) 159 -9 Collar Locator 1 Gamma Ray 0 (GAPI) 150		3' Amplitude 0 (mV) 100 3' Amplified Amplitude X 5 0 (mV) 20		Sector Amplitude Average 0 150 Sector Amplitude Maximum 0 150 Sector Amplitude Minimum 0 150		VDL 200 (usec) 1200 1 Sector Map 8

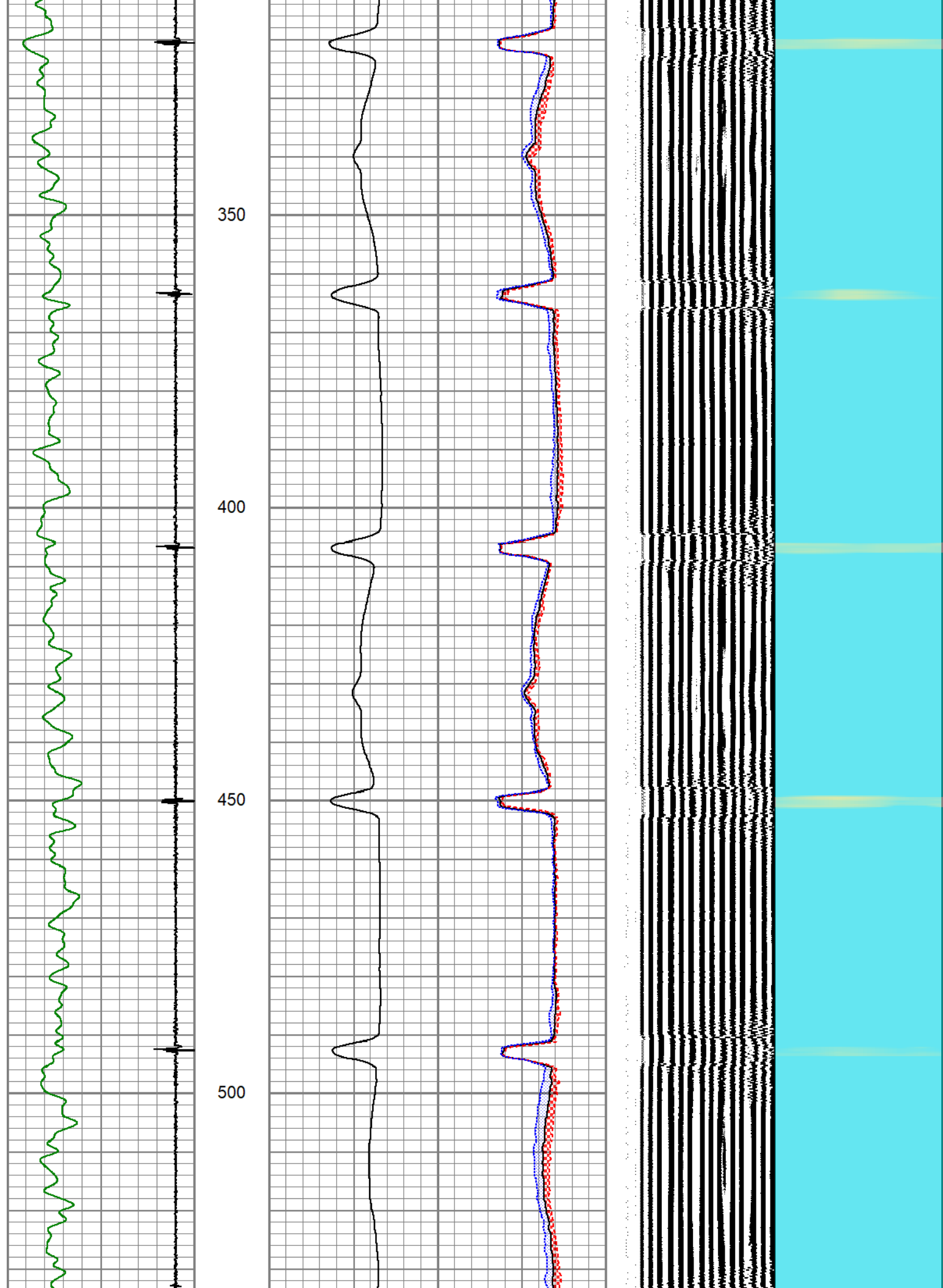




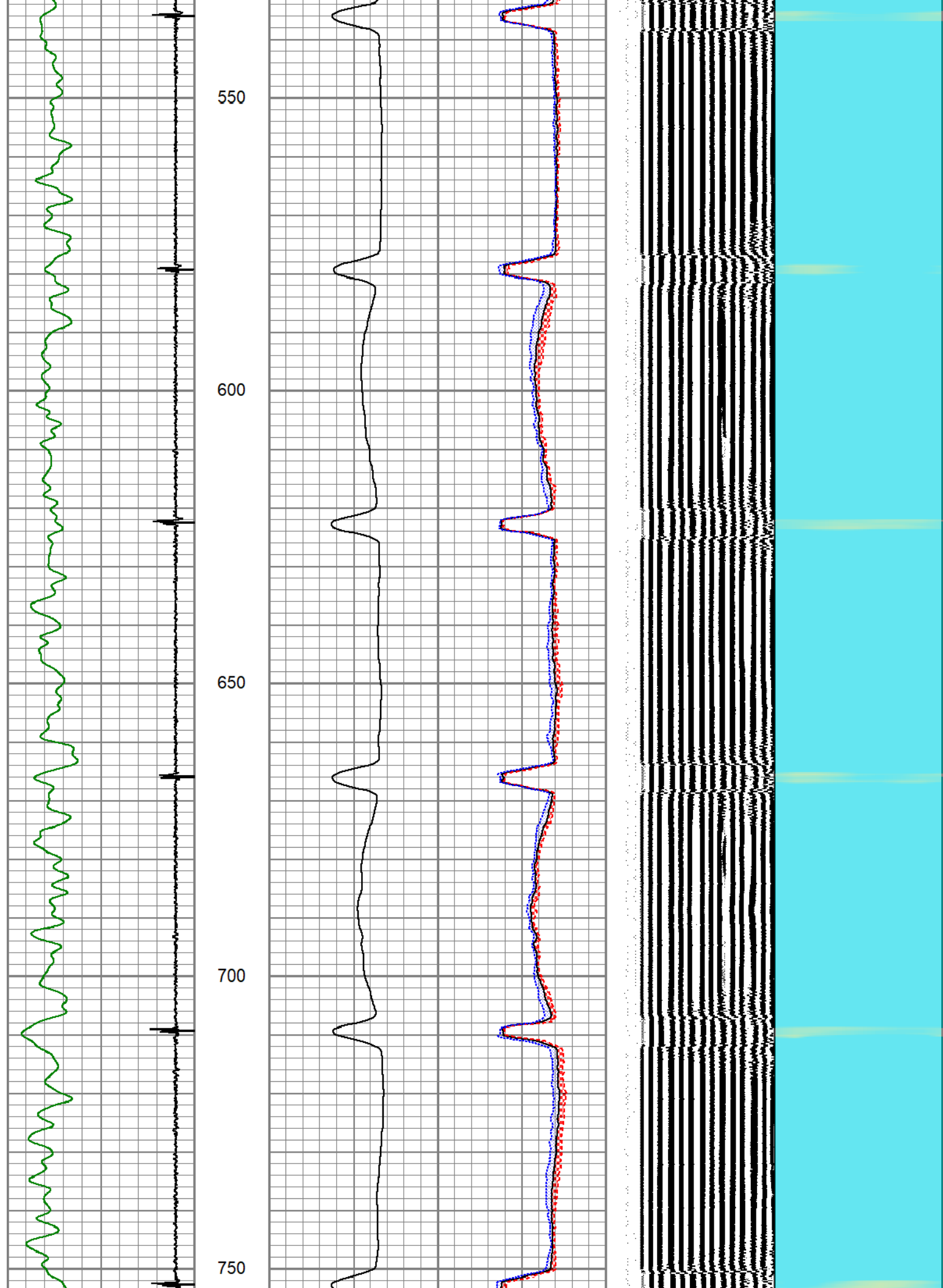
Dataset Creation		Fri Nov 09 13:26:01 2018											
Charted by		Depth in Feet scaled 1:240											
3Ft Travel Time		3' Amplitude		Sector		VDL		1		Sector Map		8	
259 (usec) 159		0 (mV) 100		Amplitude Average		200 (usec) 1200							
-9 Collar Locator 1		3' Amplified Amplitude X 5		0 150									
Gamma Ray		0 (mV) 20		Sector Amplitude Maximum									
0 (GAPI) 150				0 150									
				Sector Amplitude Minimum									
				0 150									



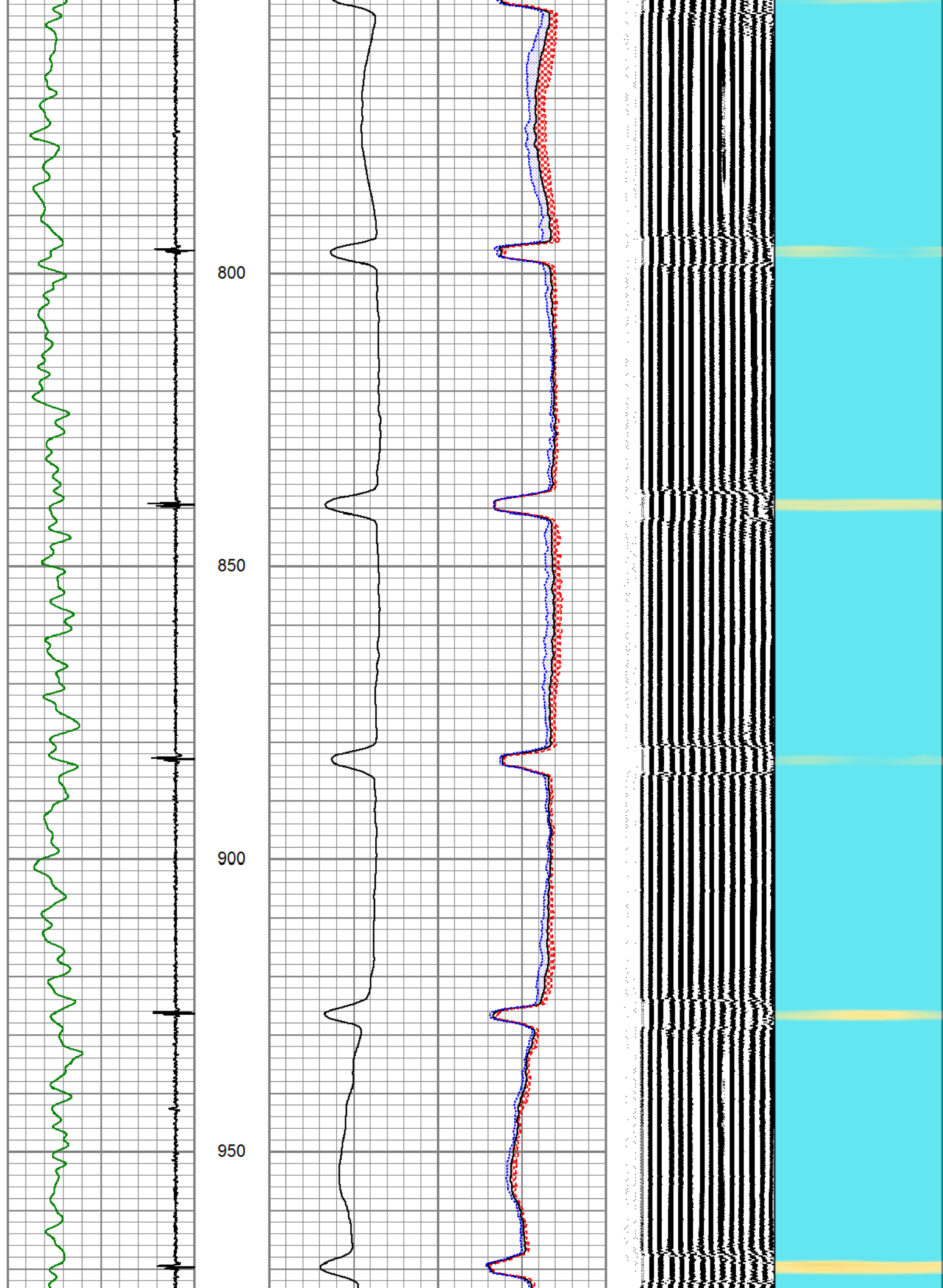


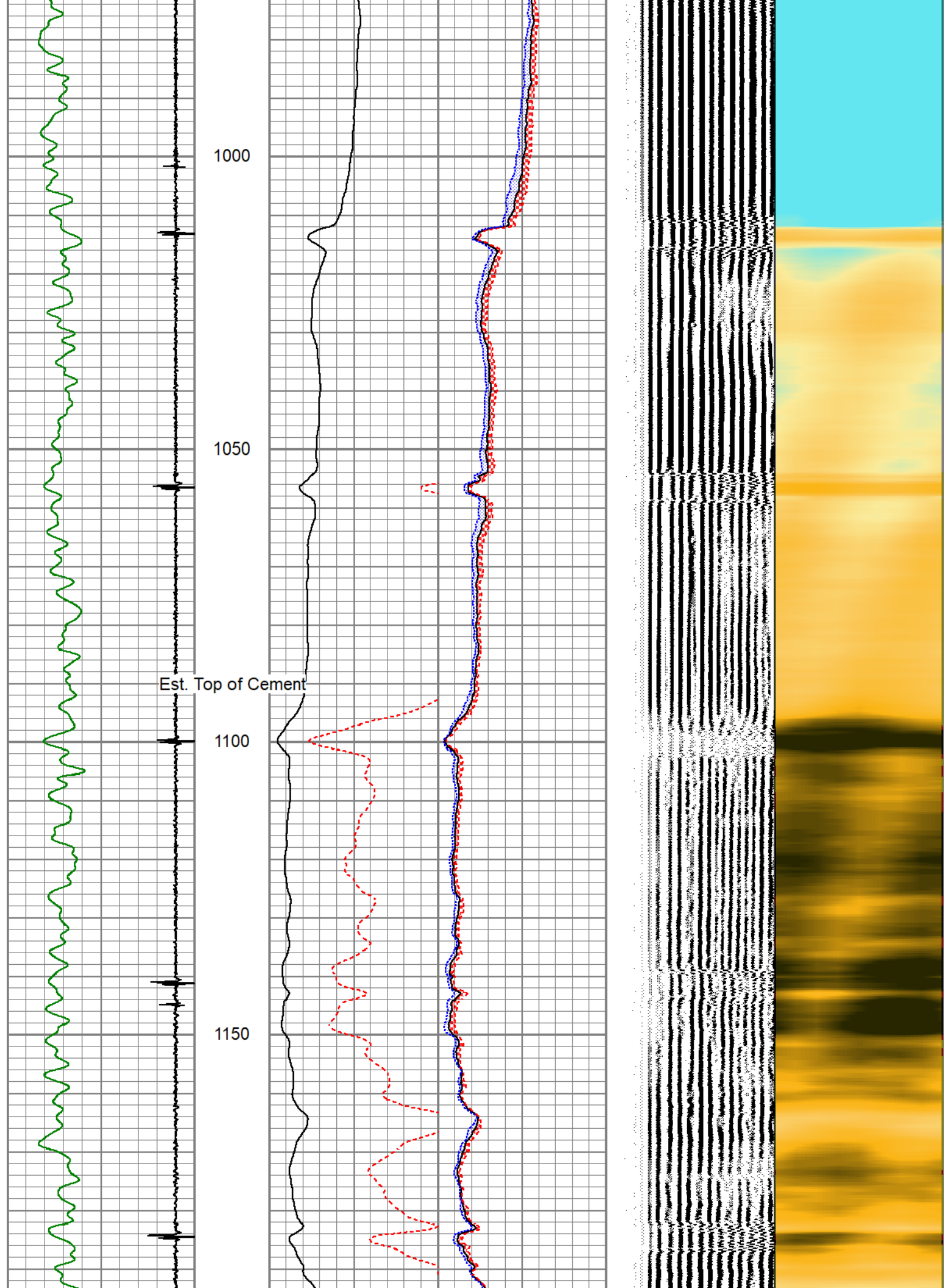


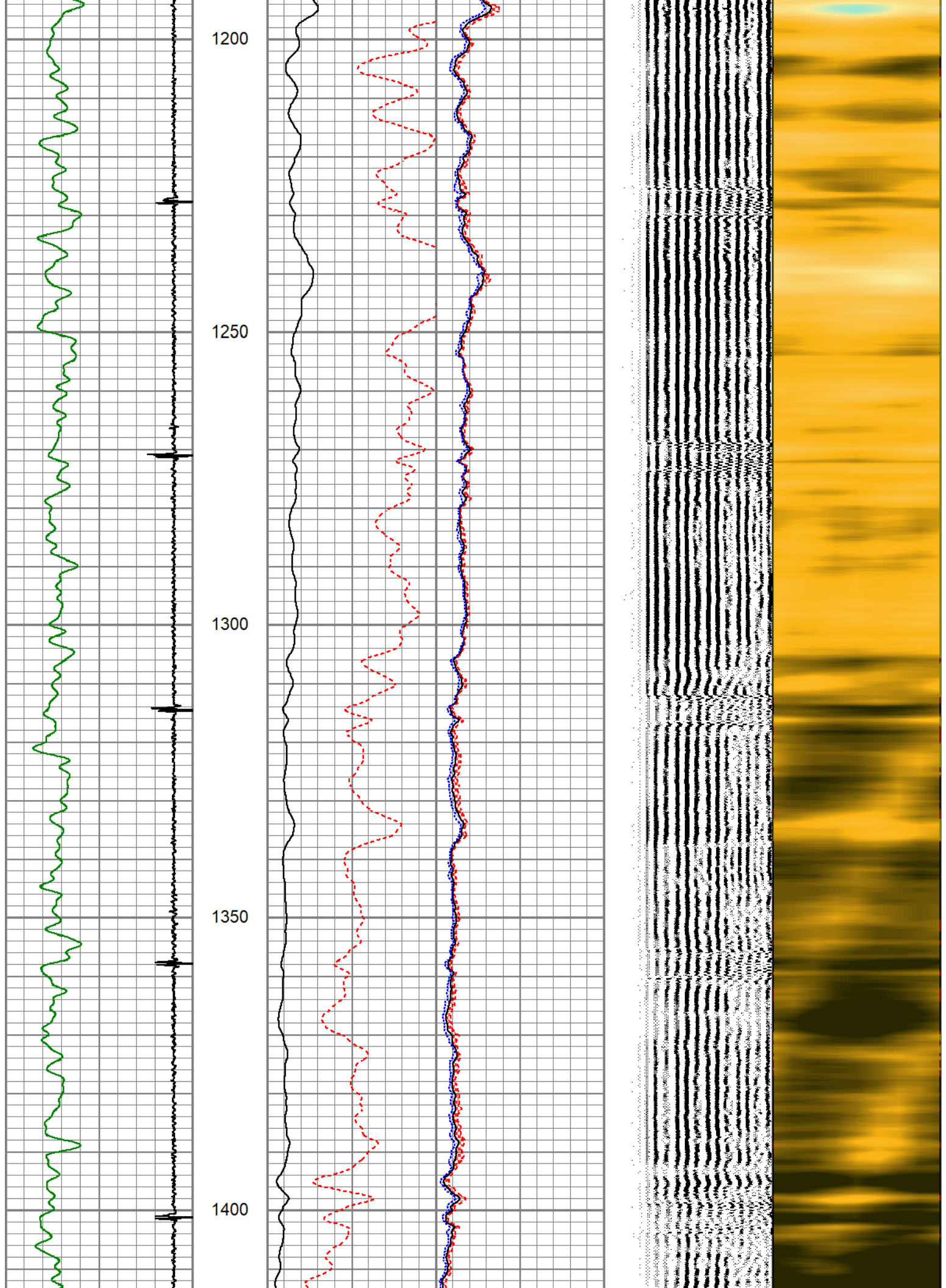


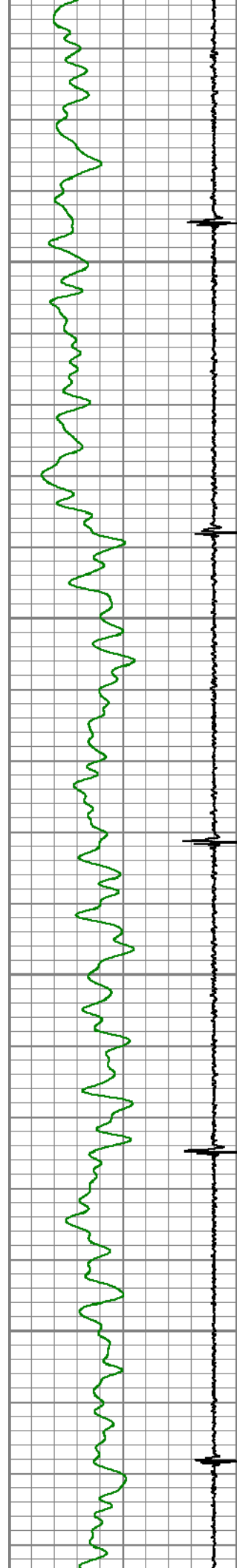










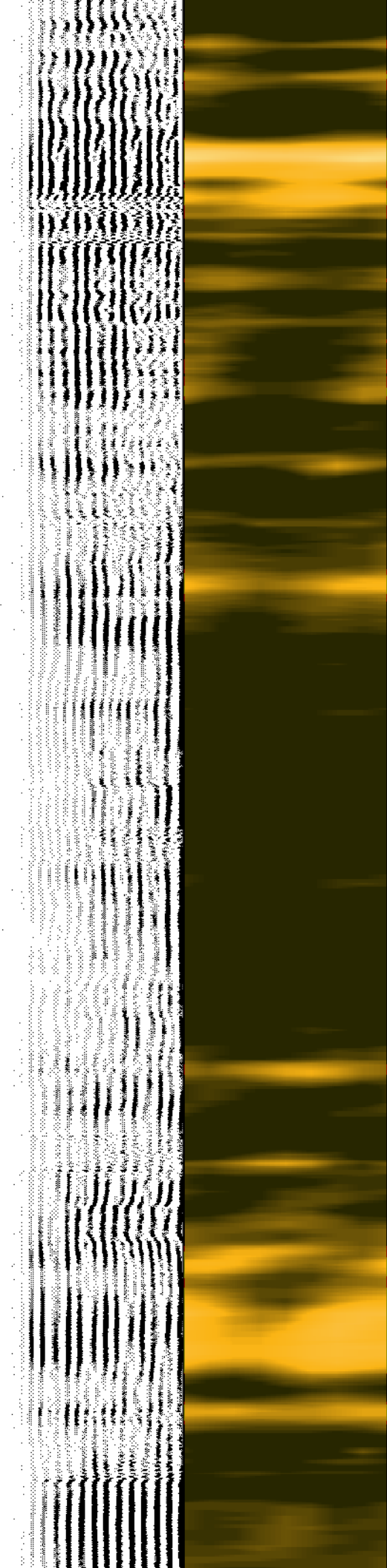
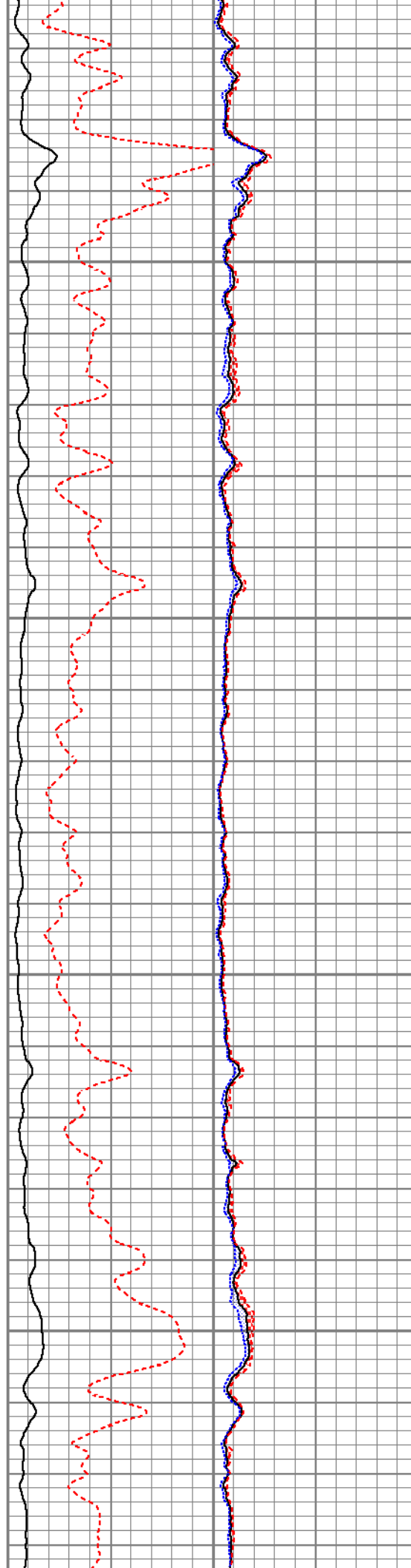


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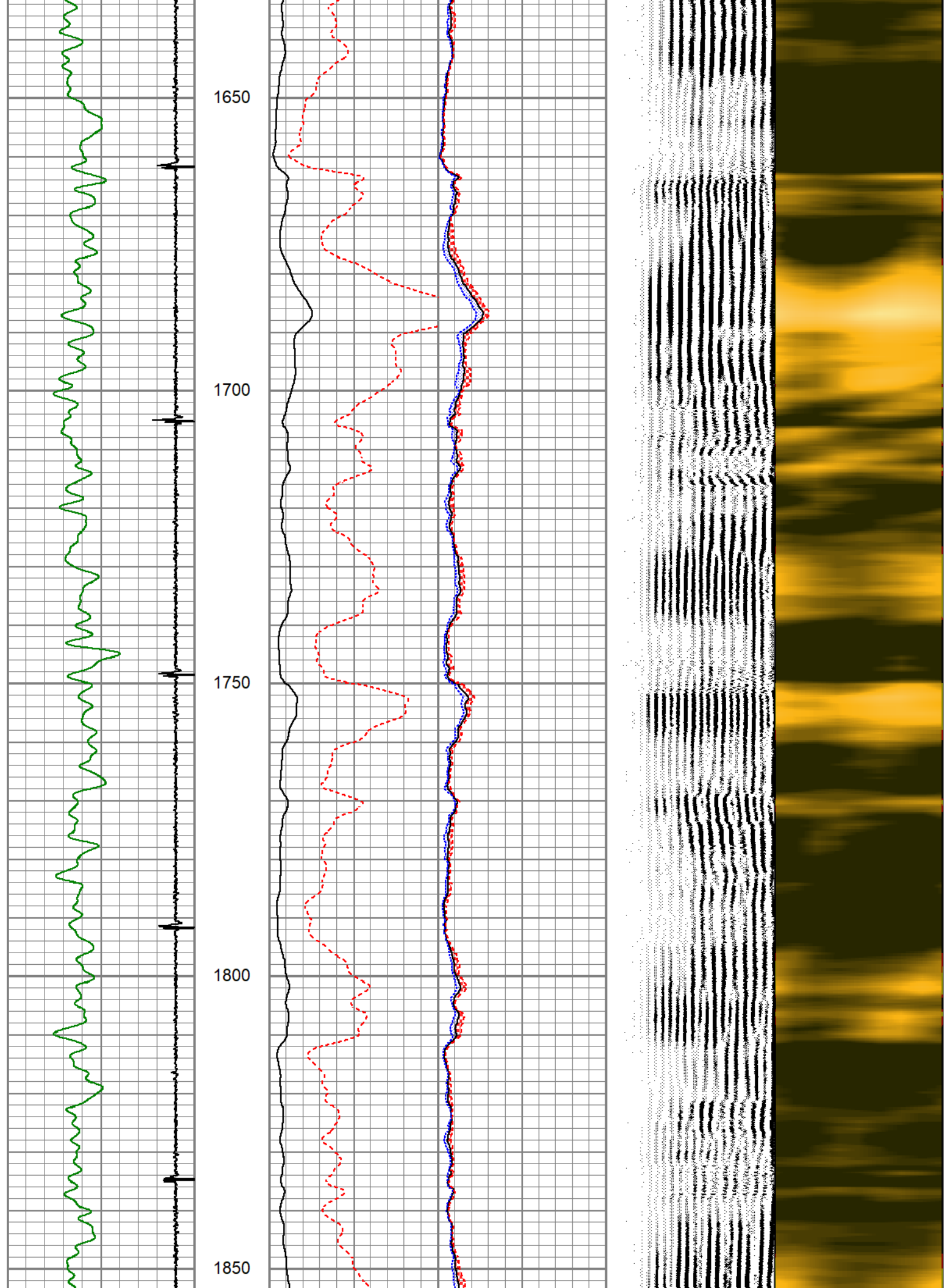
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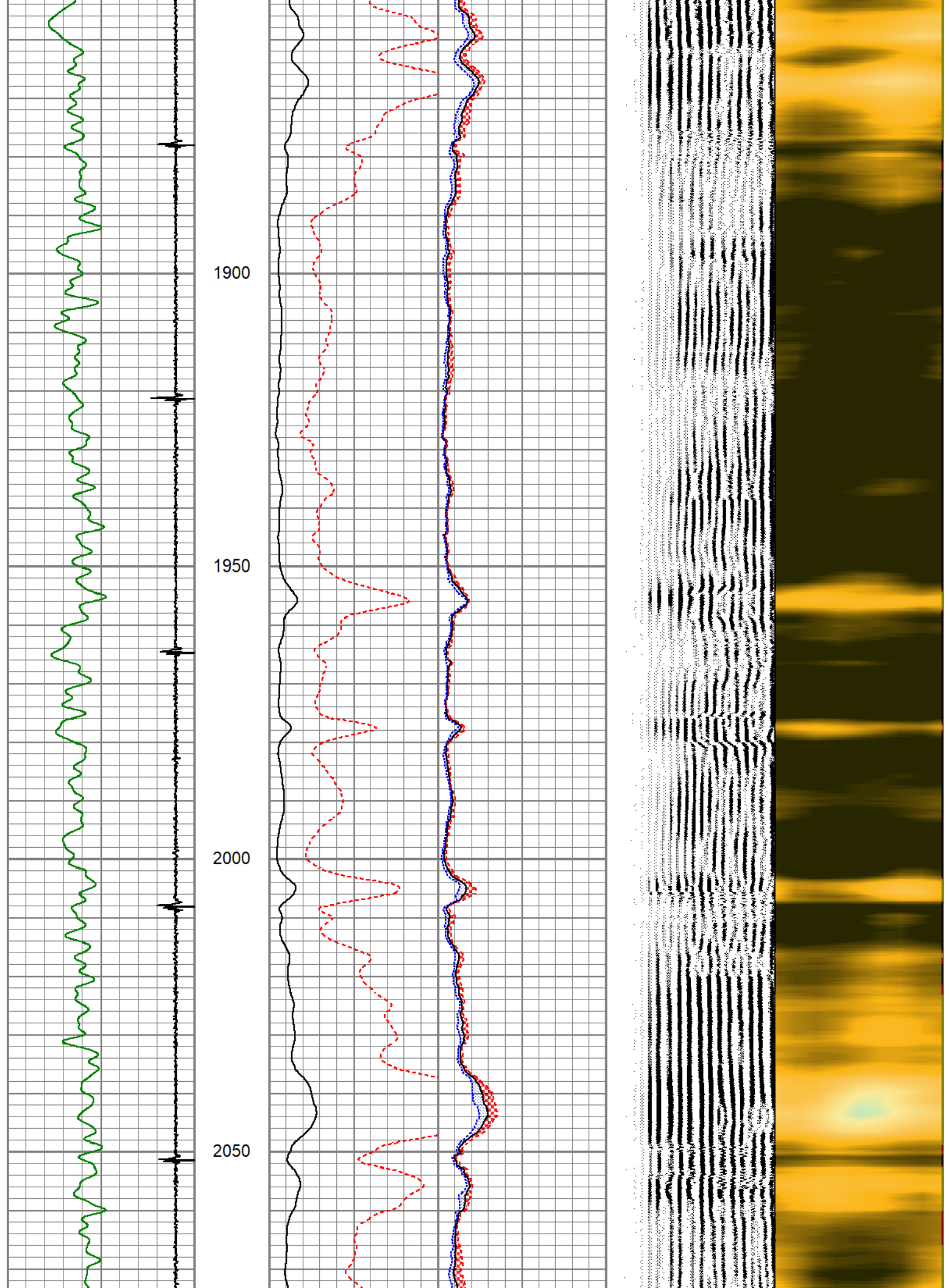
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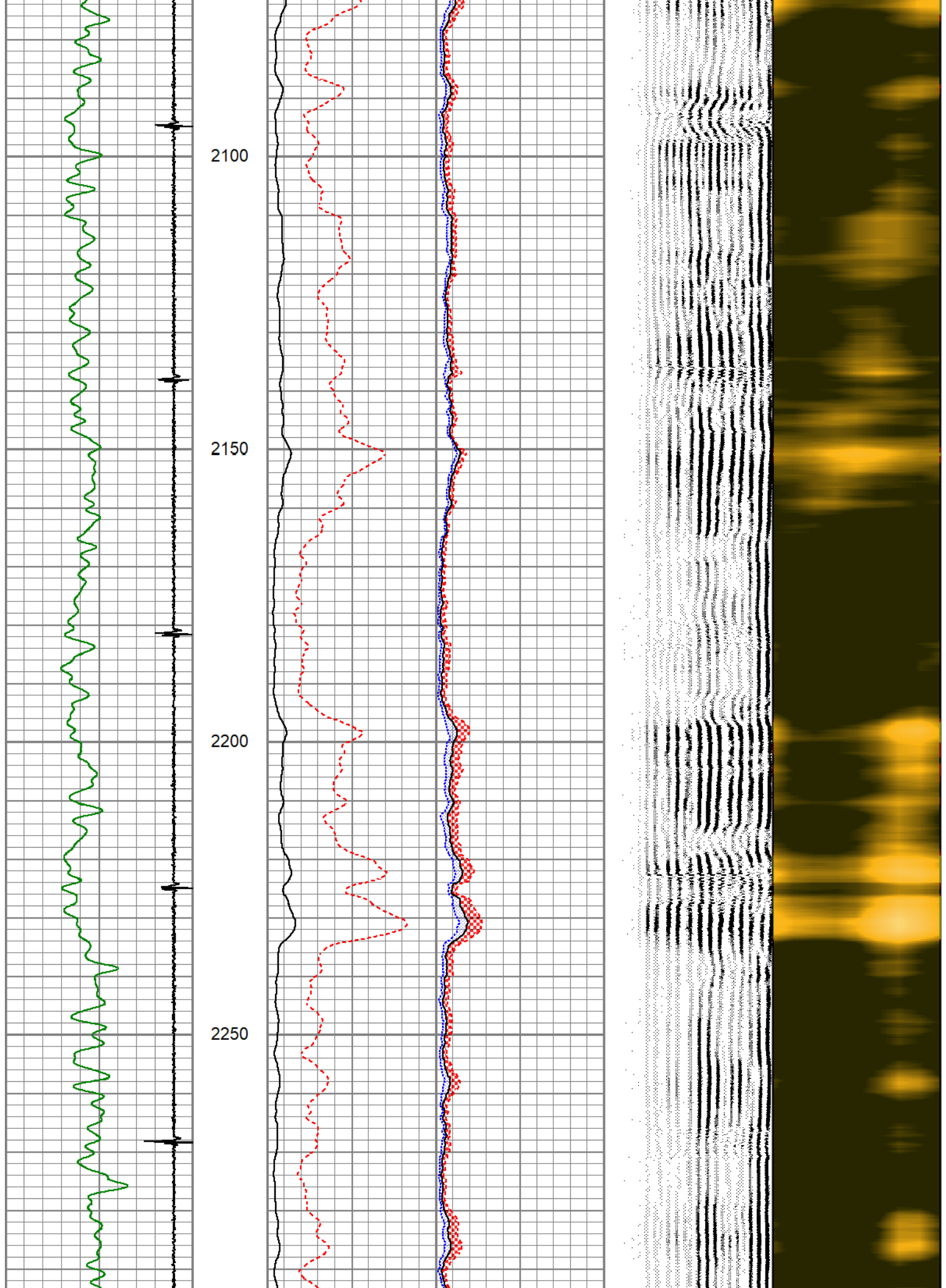
1600













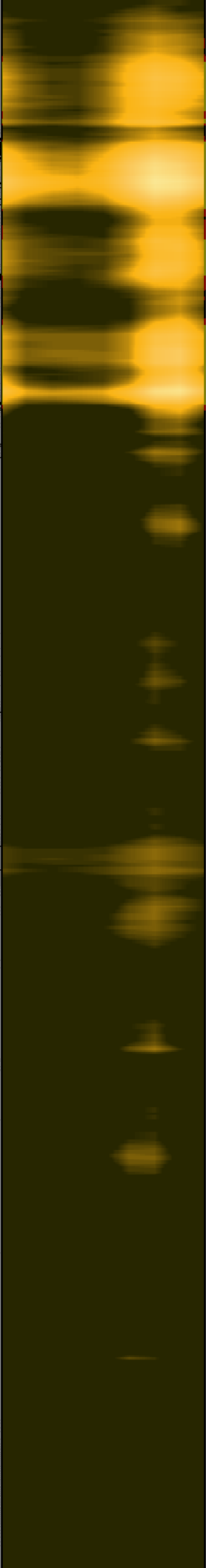
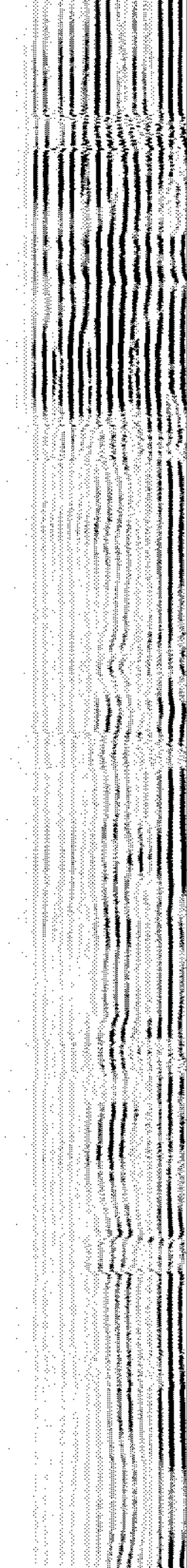
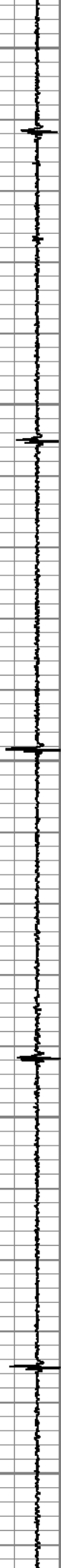
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2350

2400

2450

2500

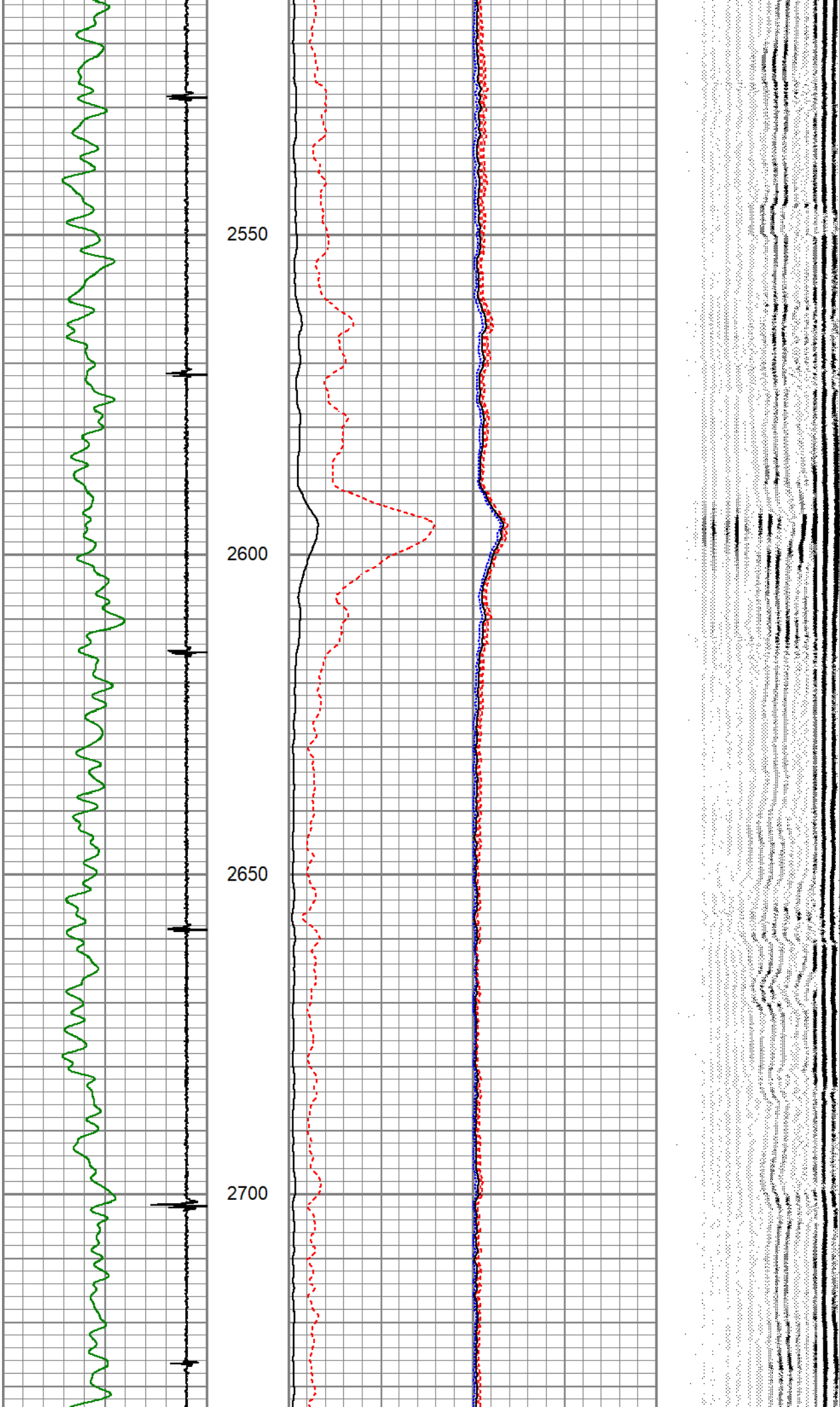


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2600

2650

2700



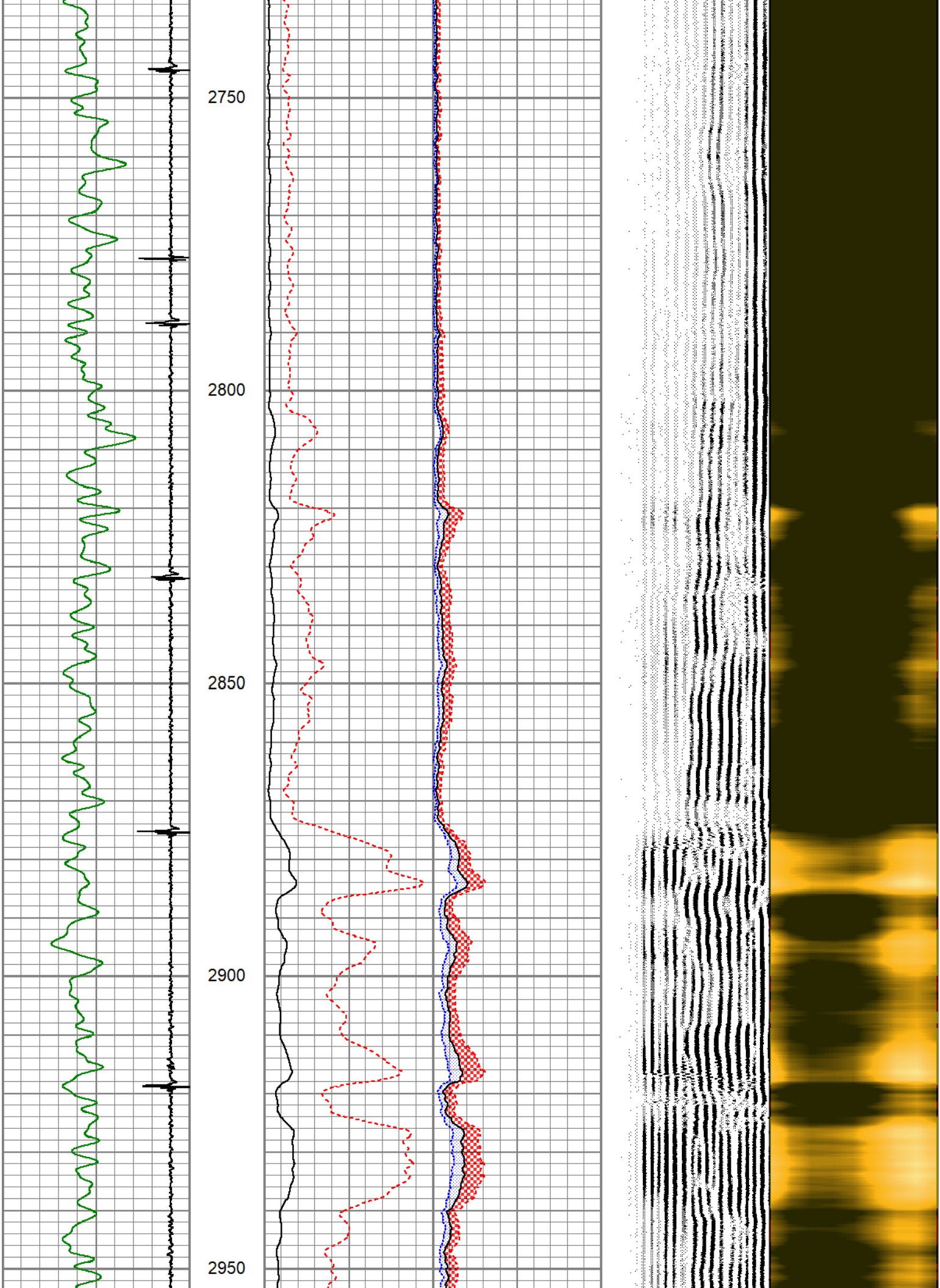
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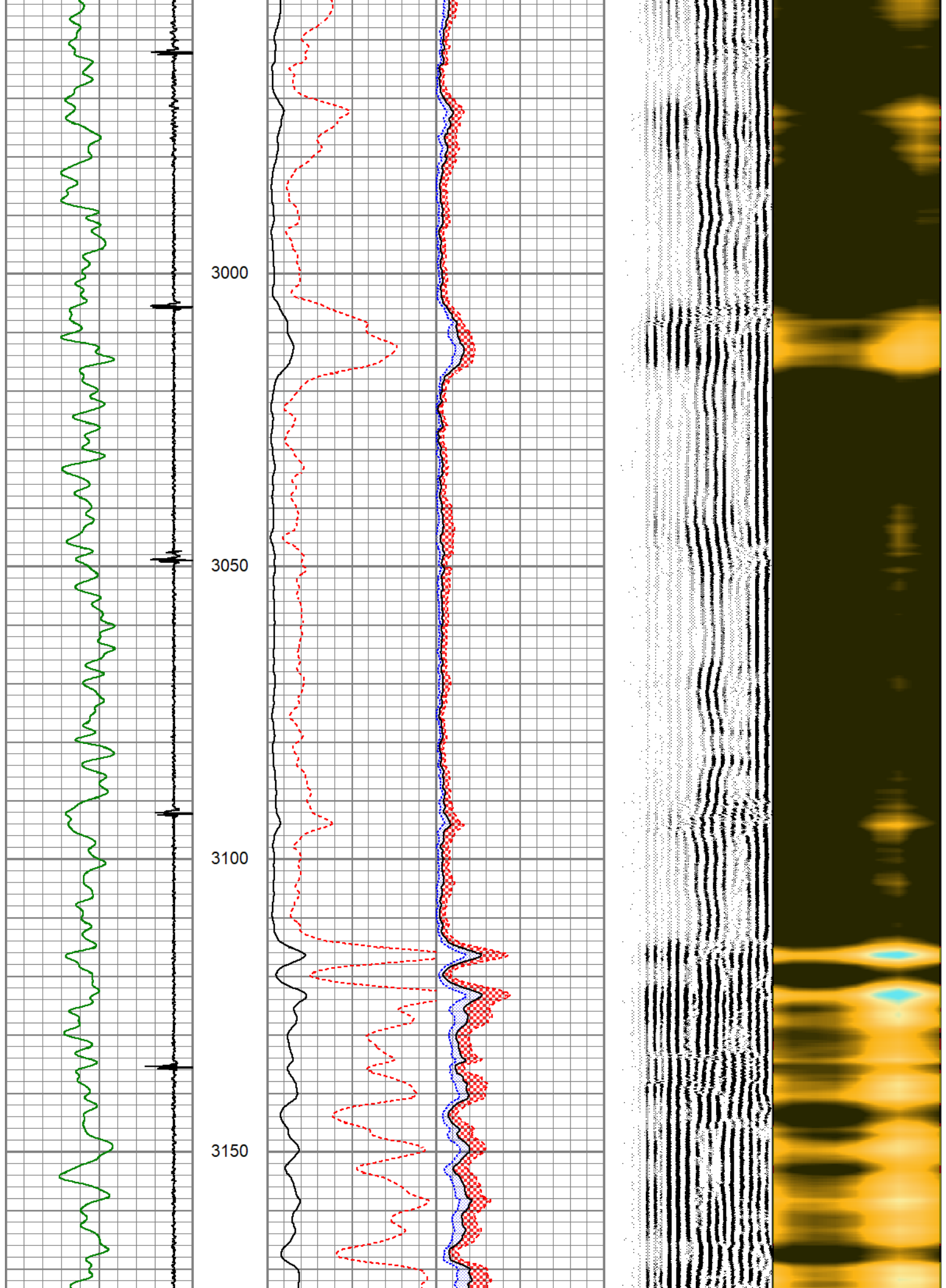
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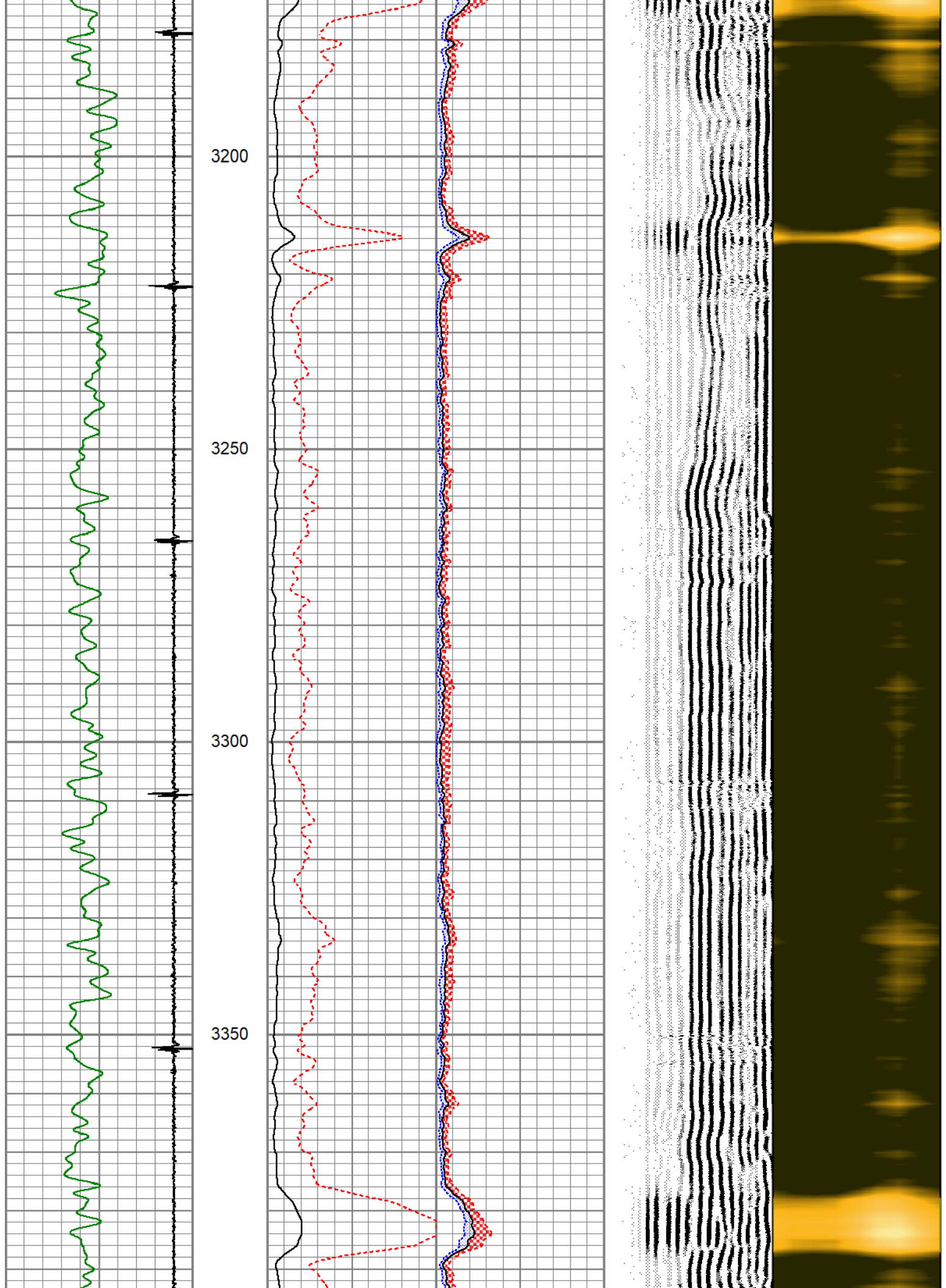
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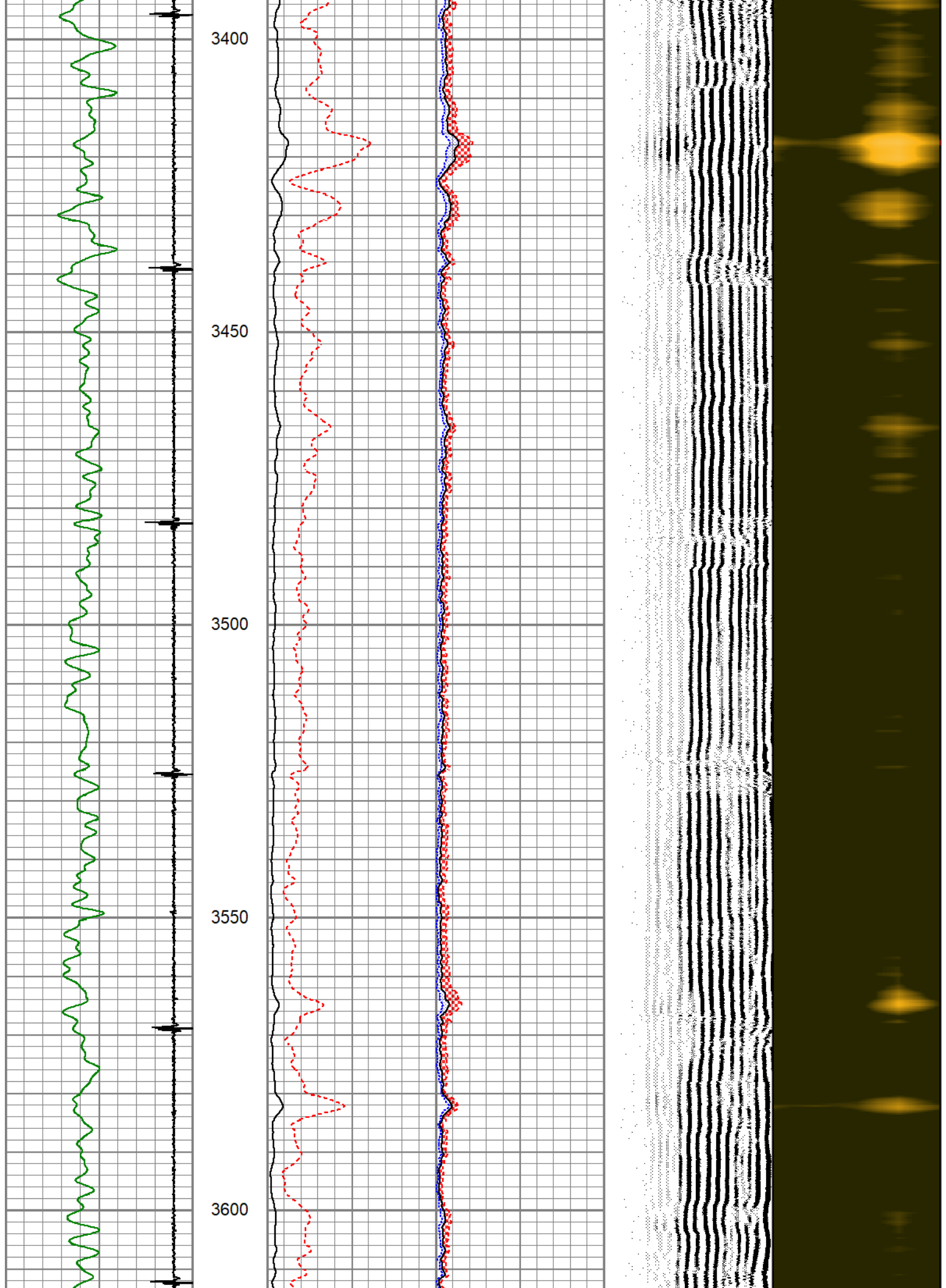
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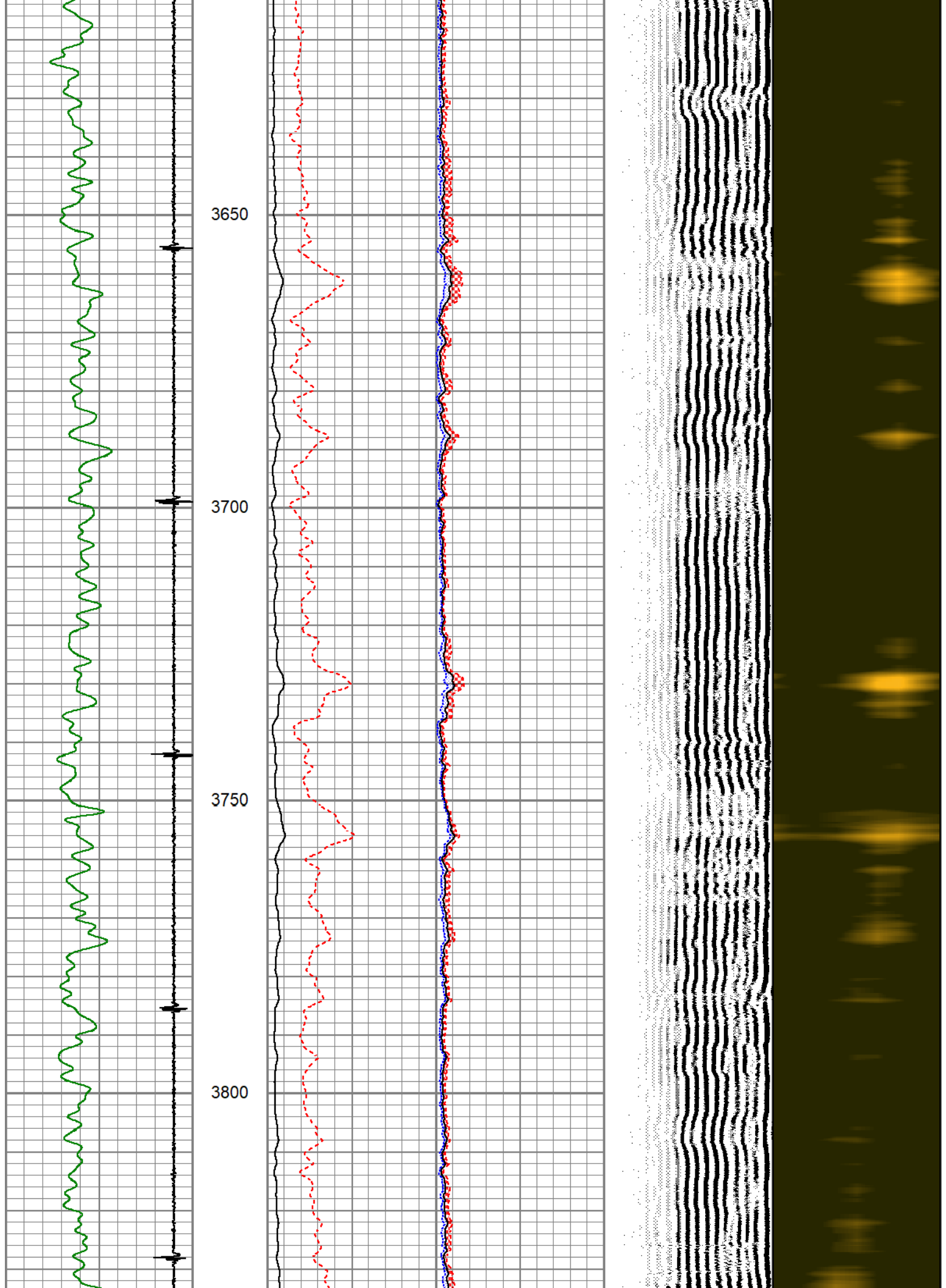




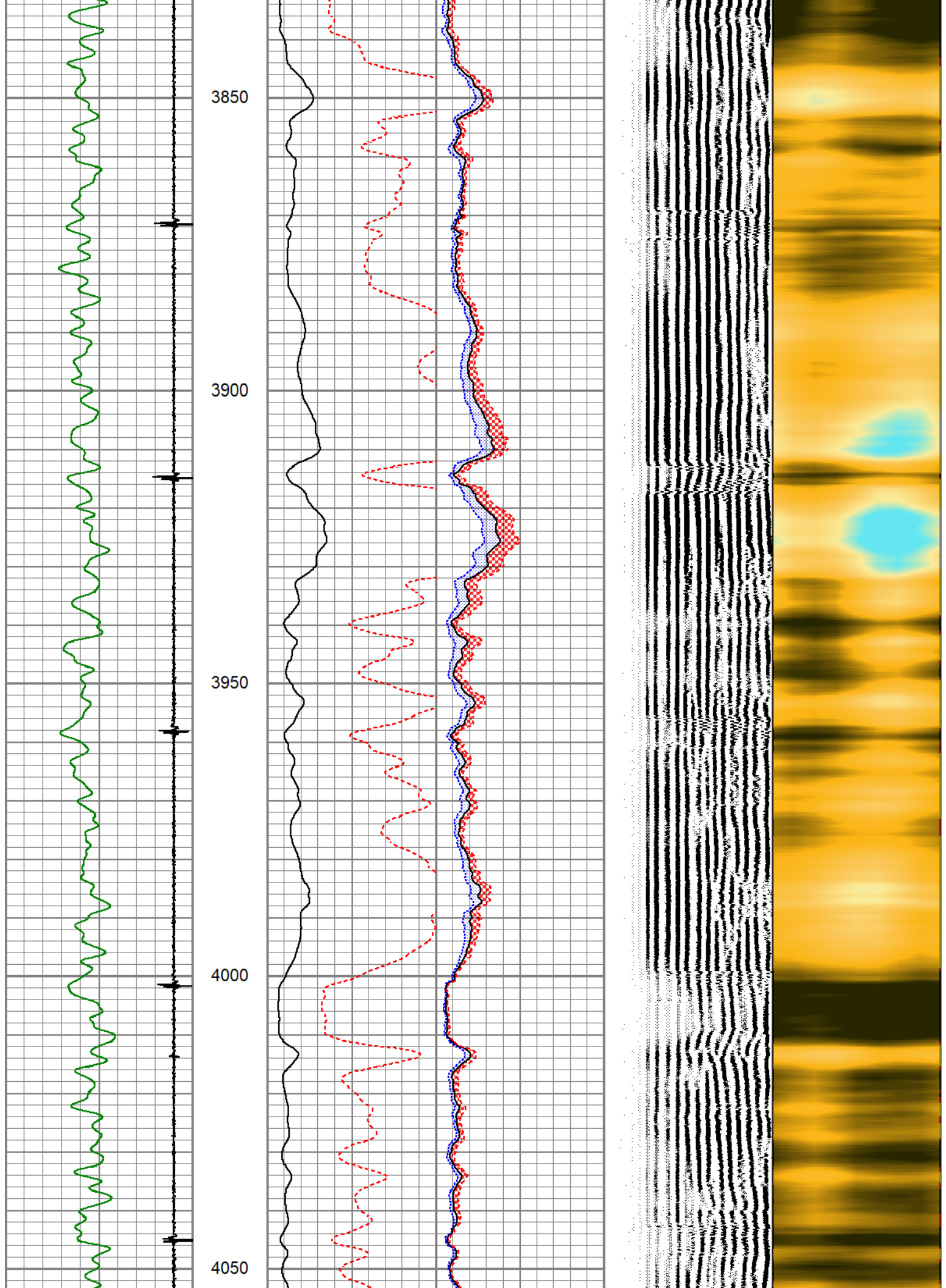


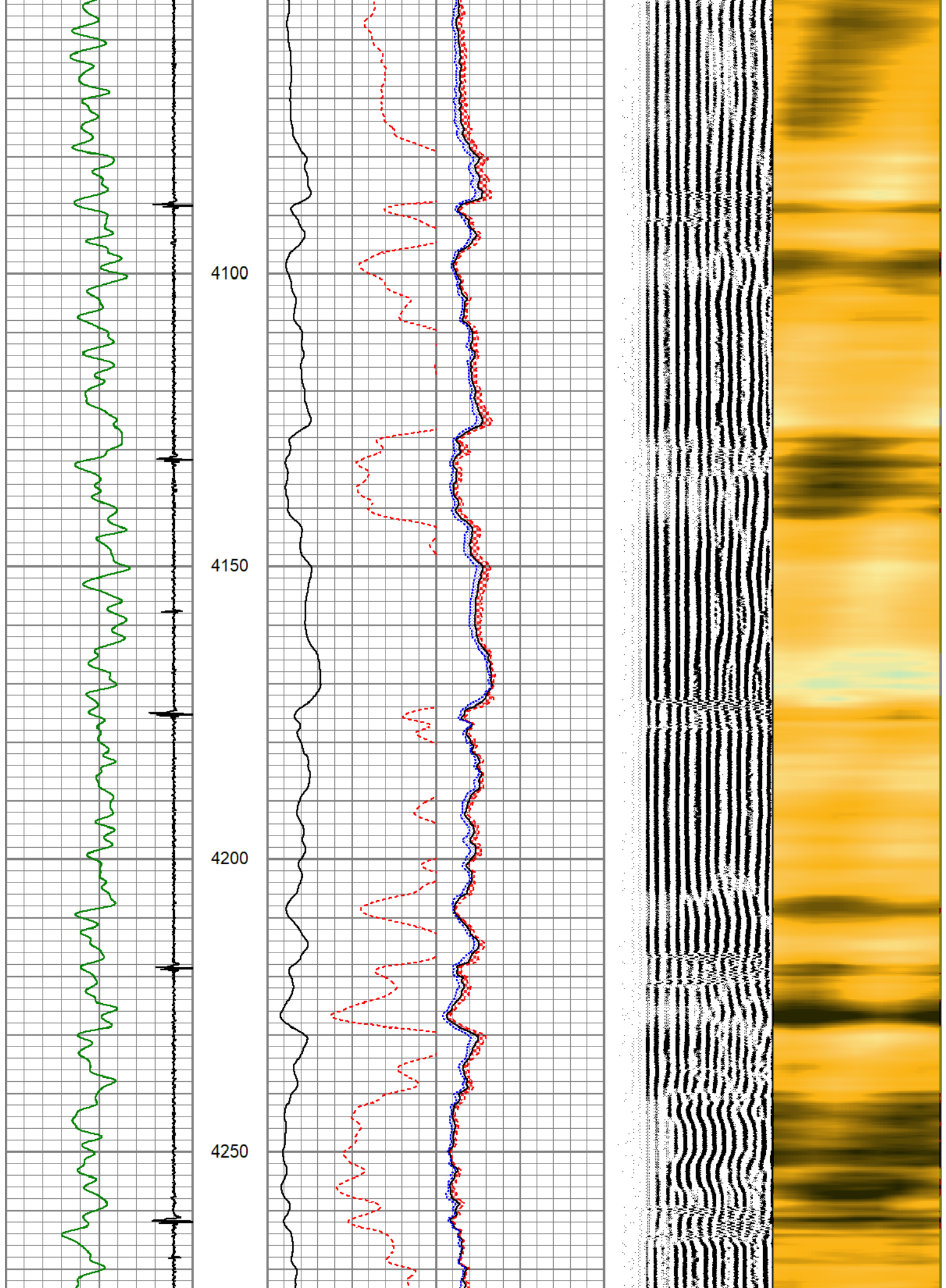


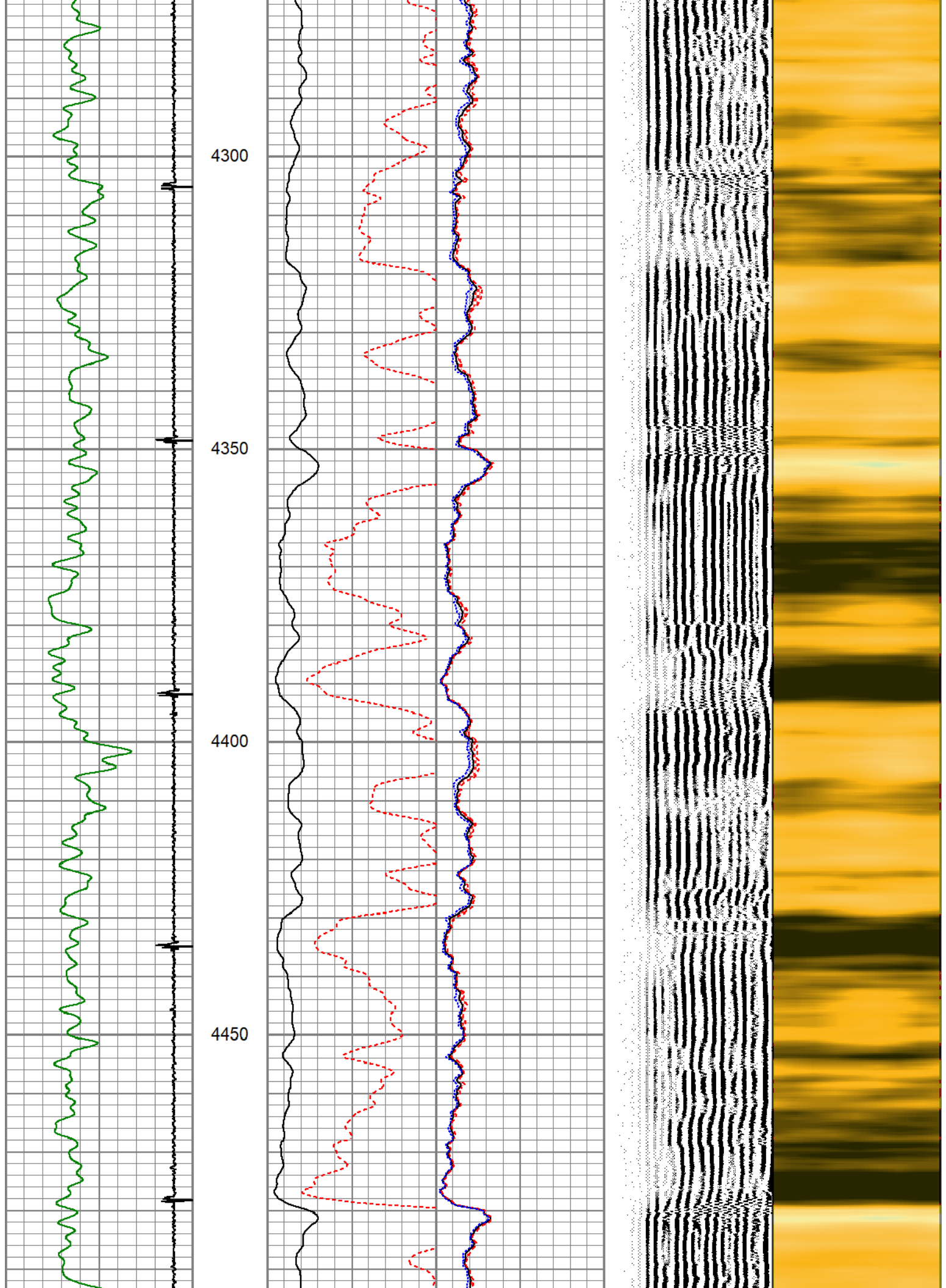


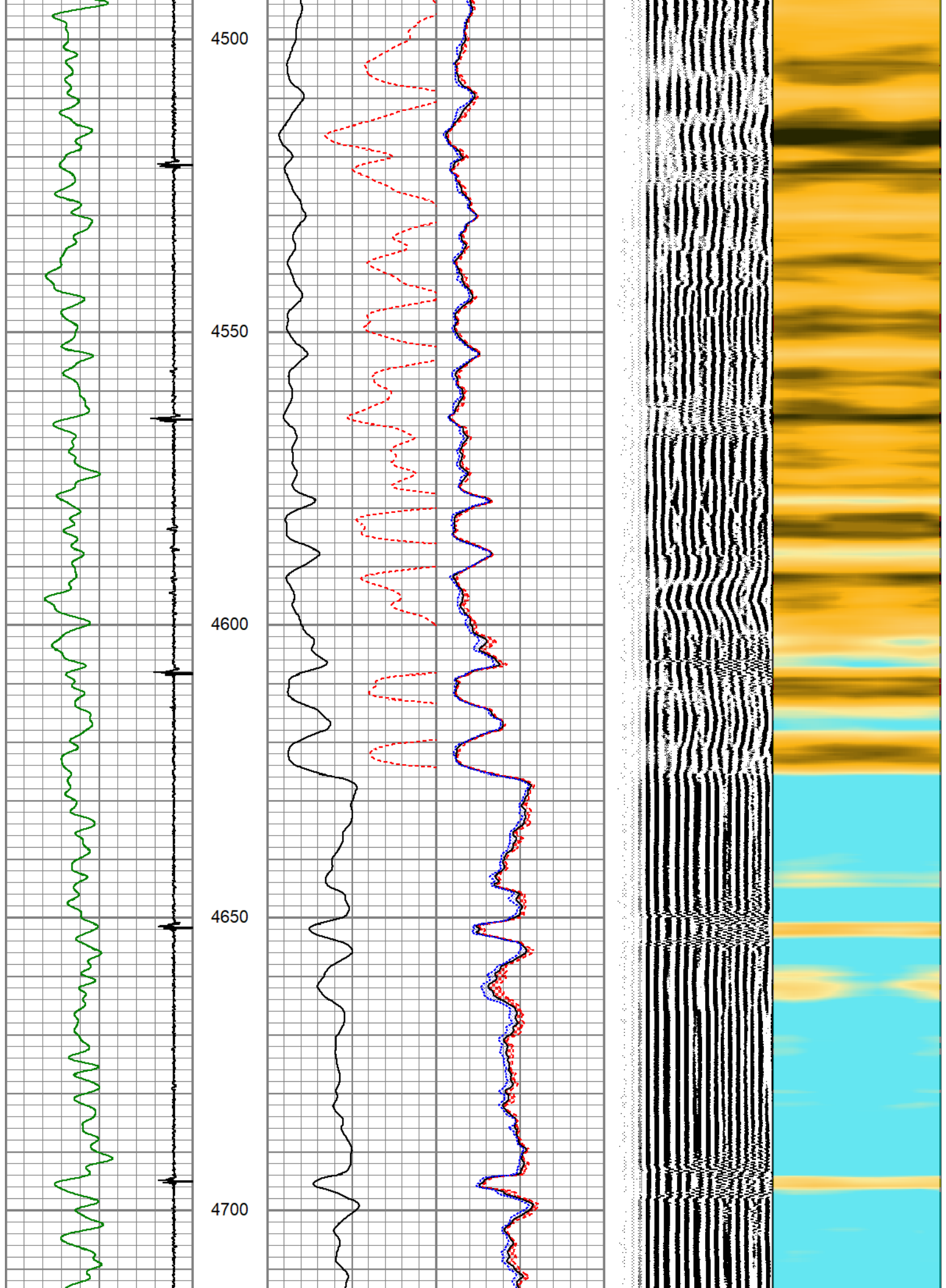




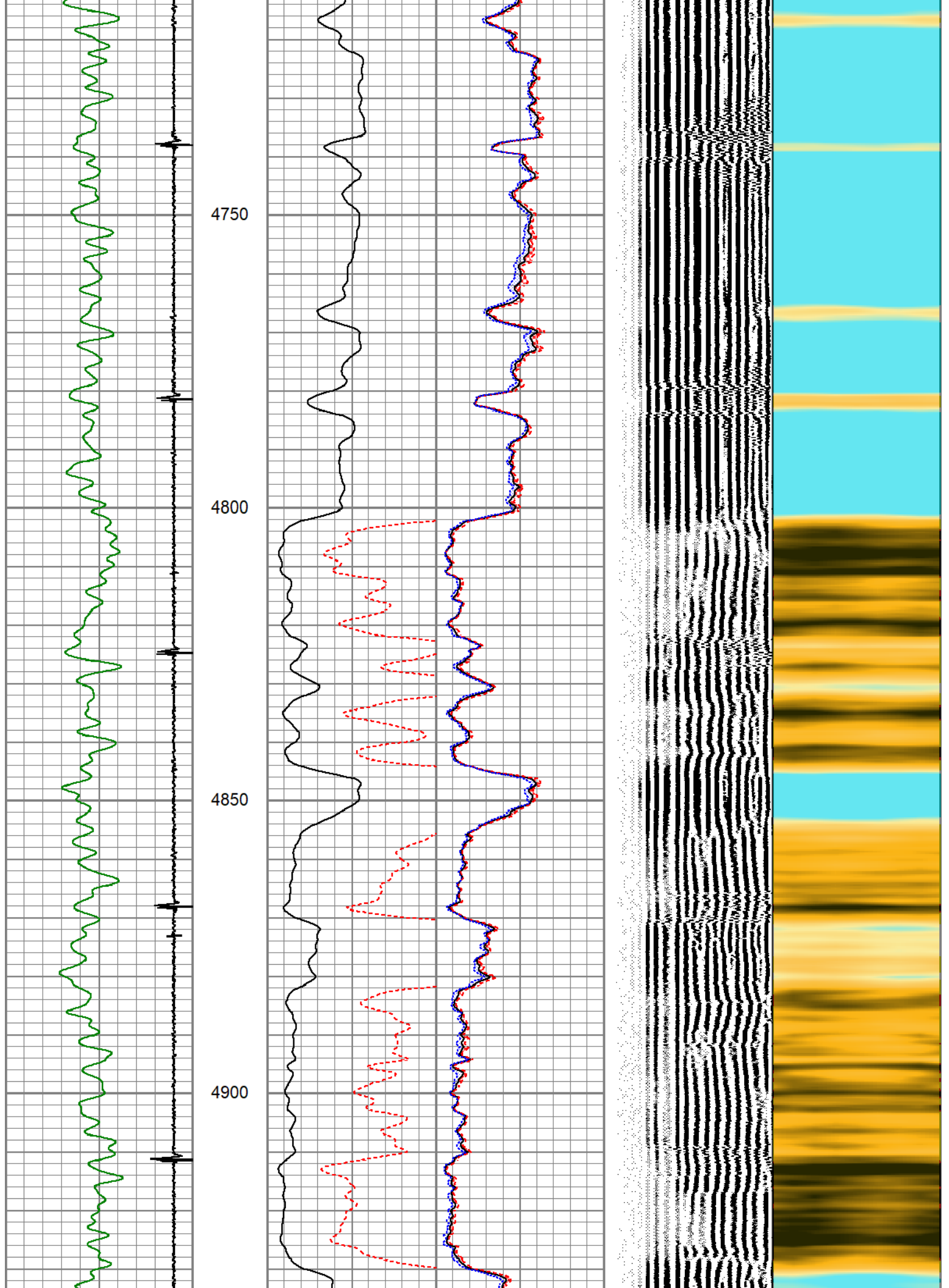


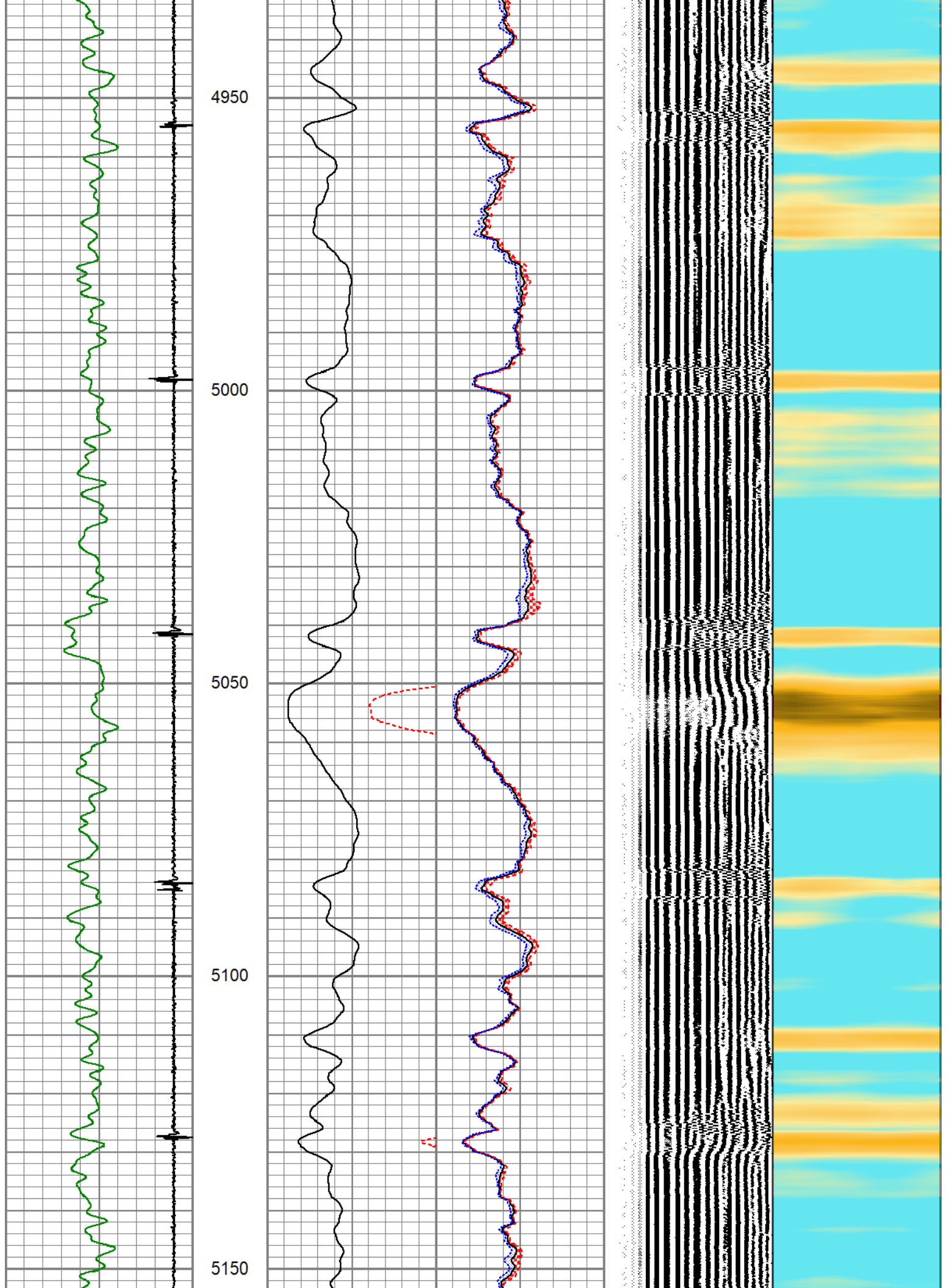


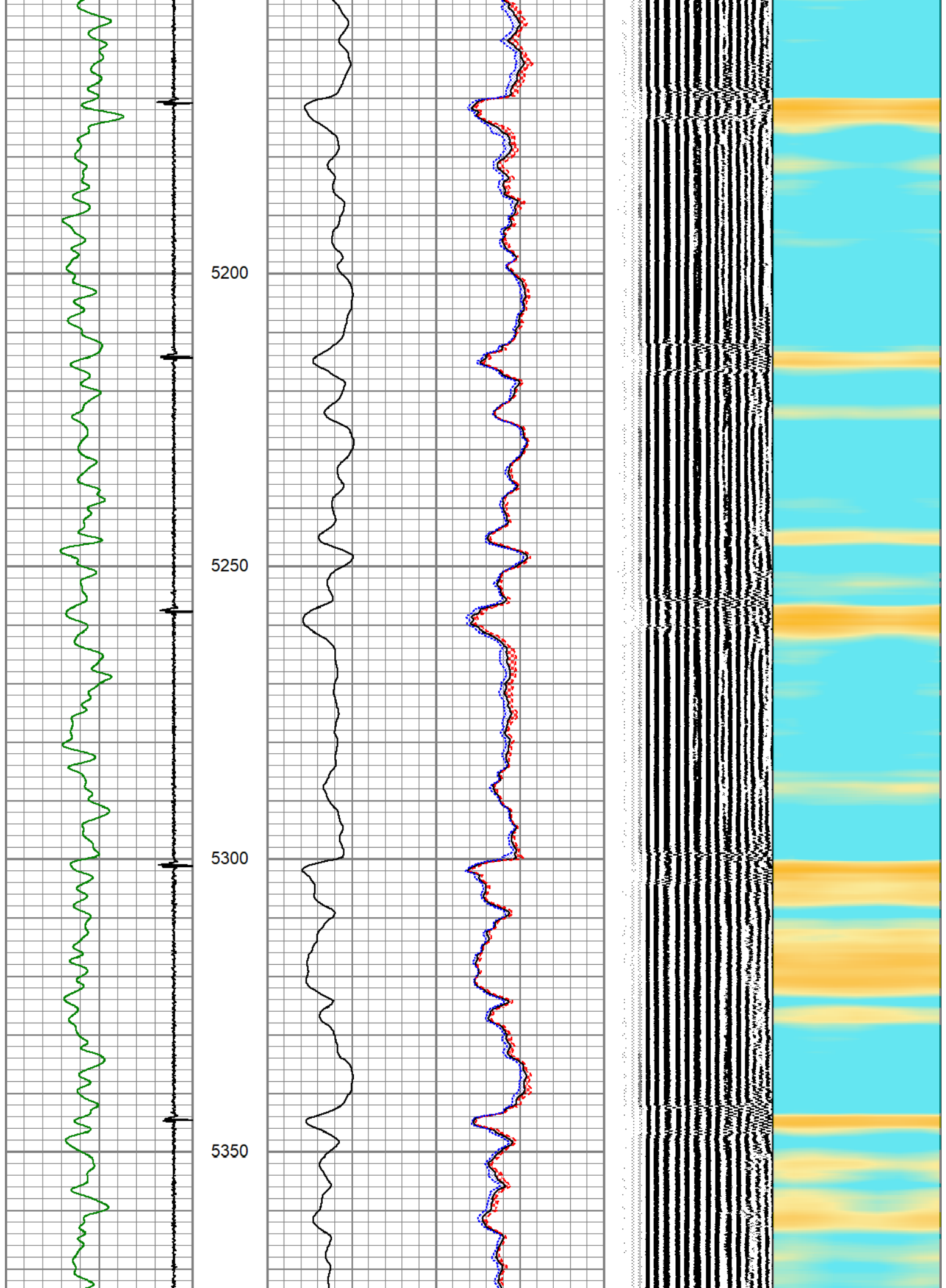




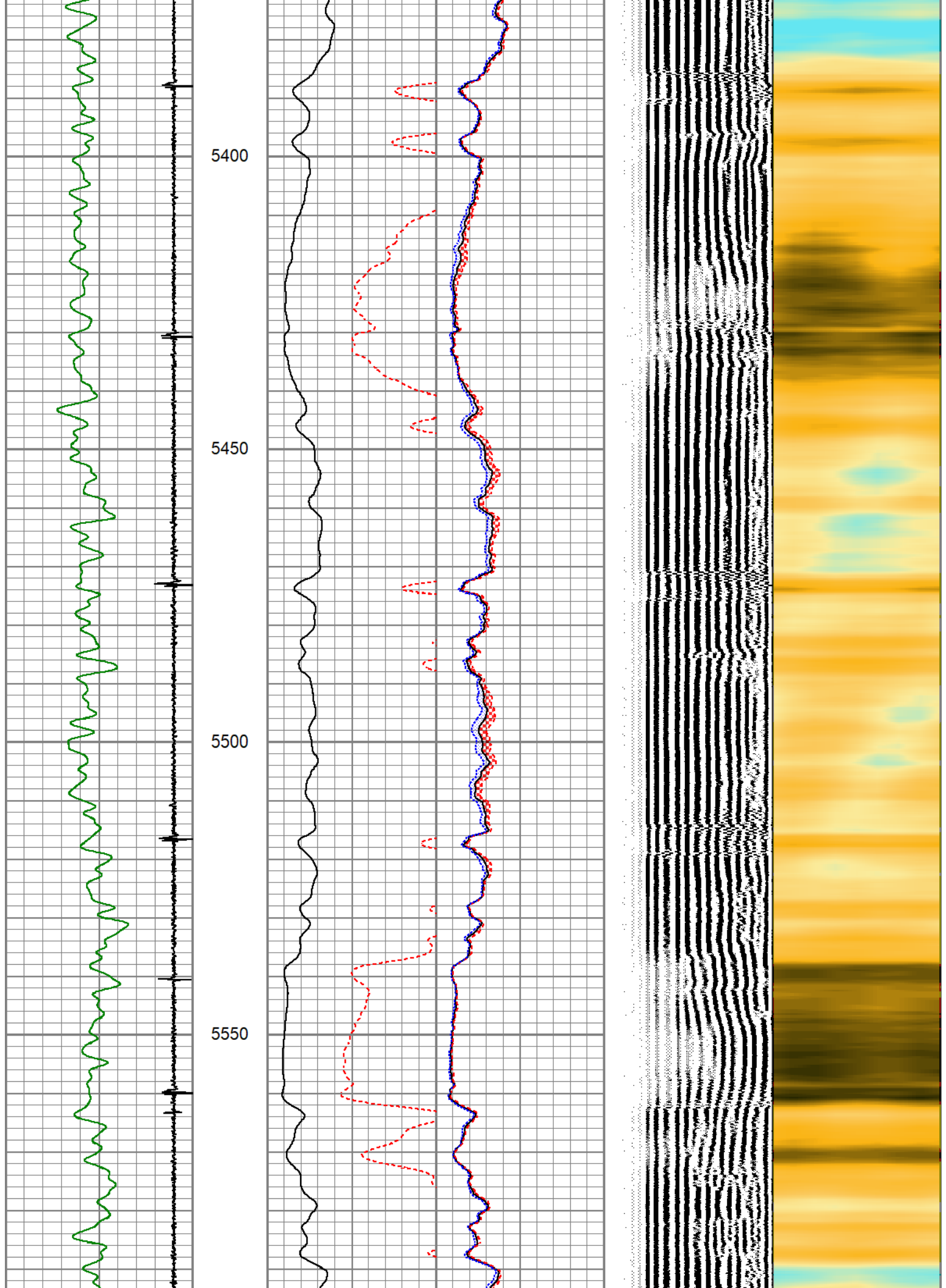


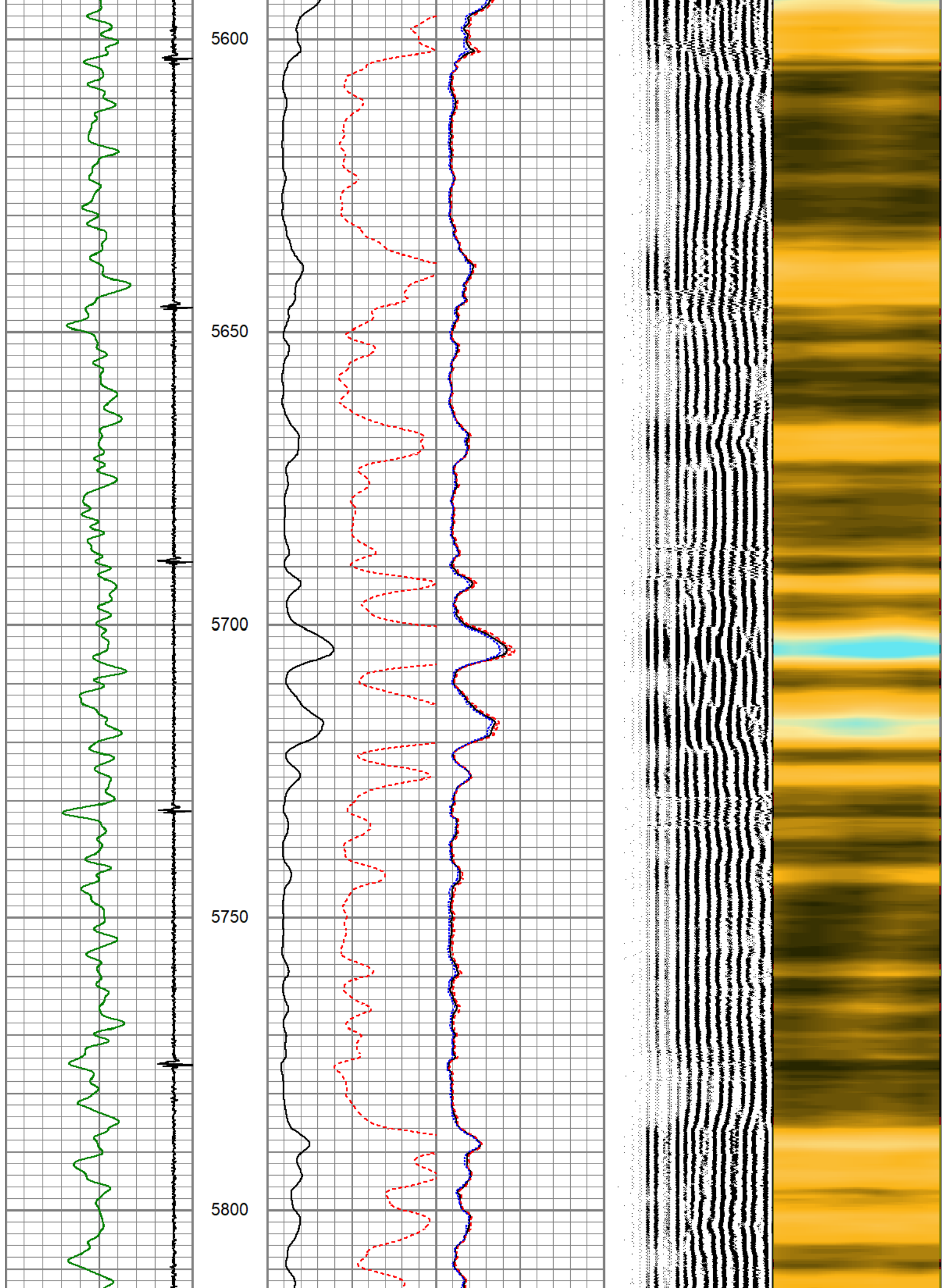


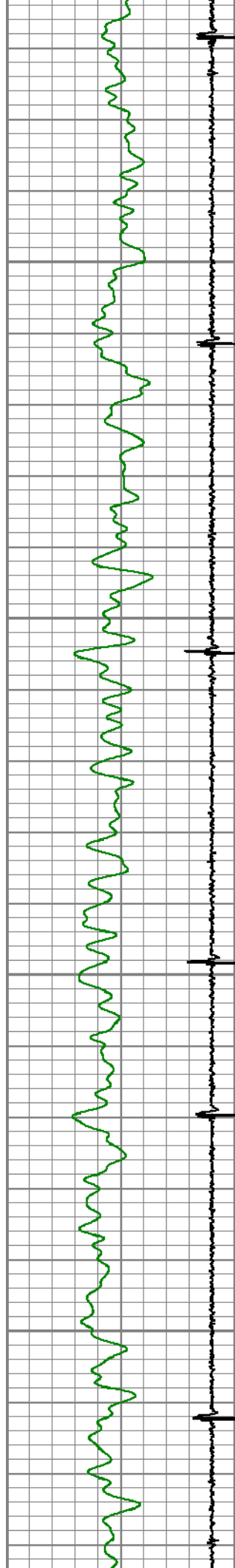










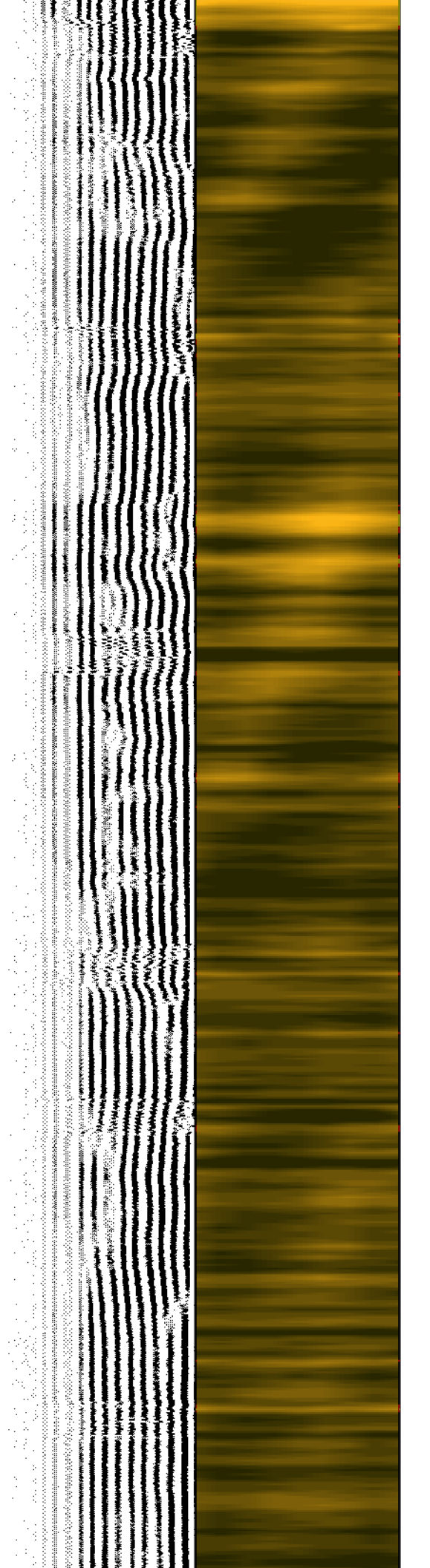
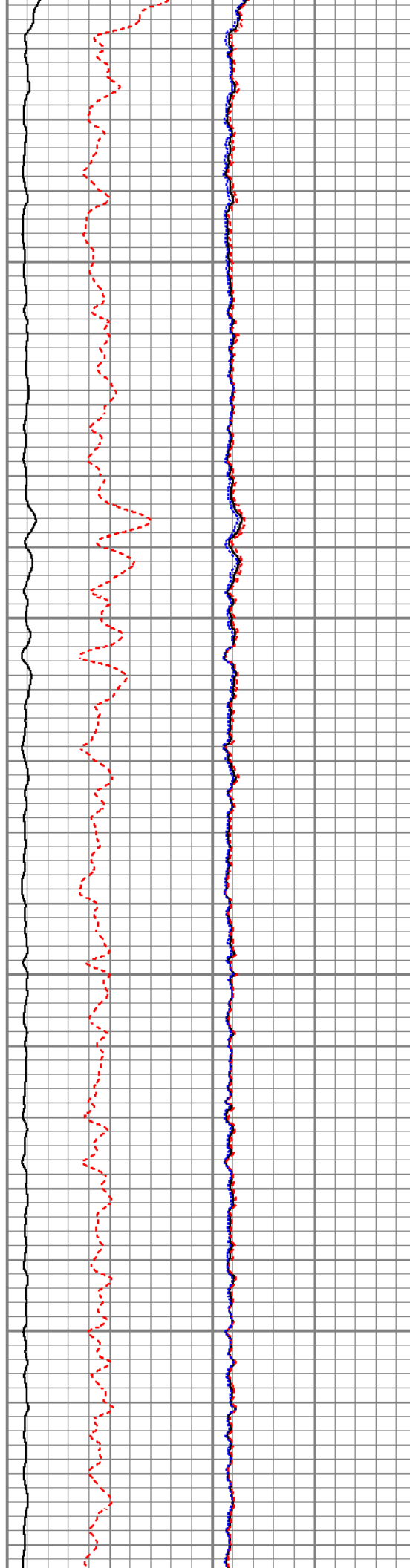


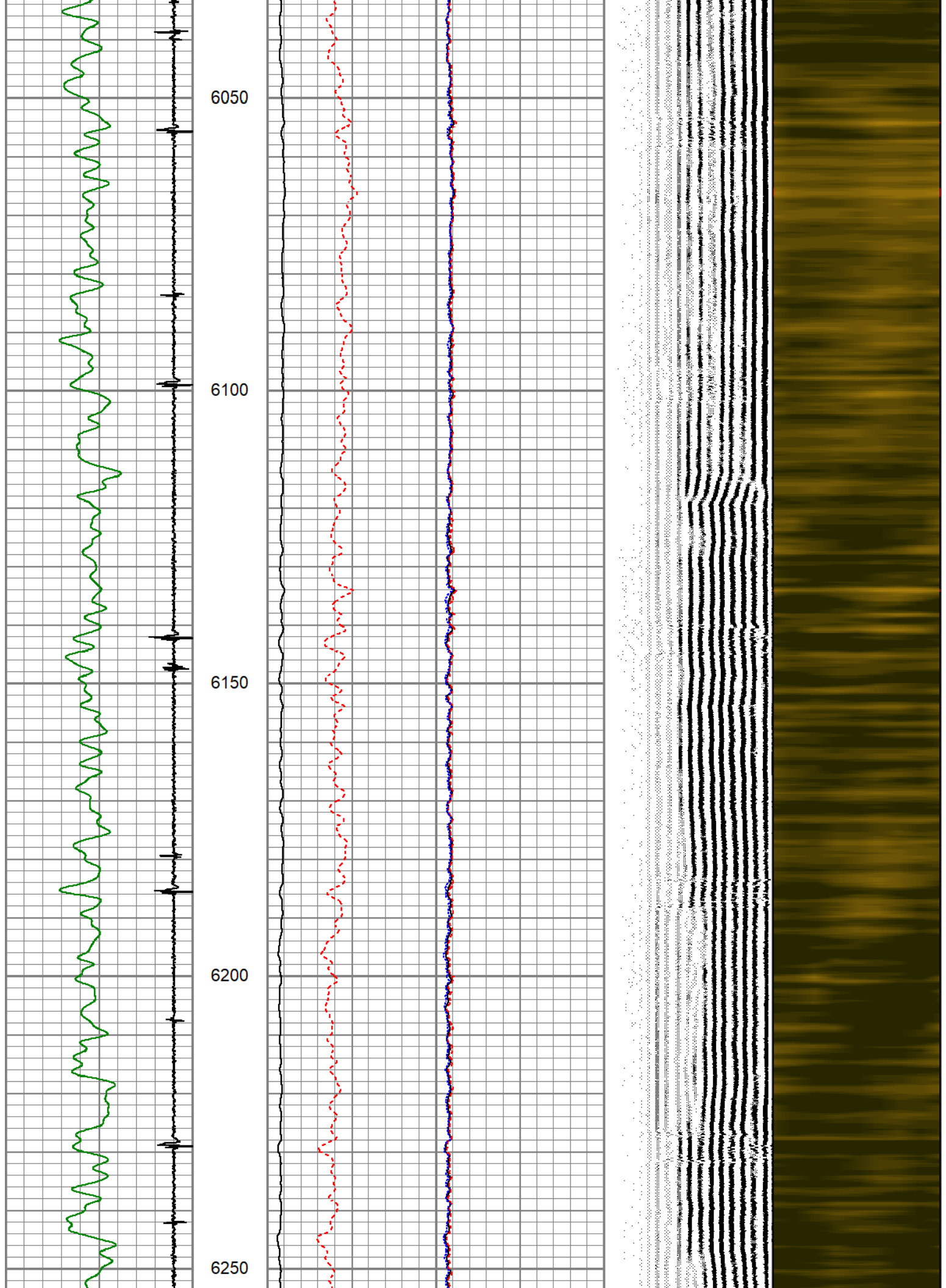
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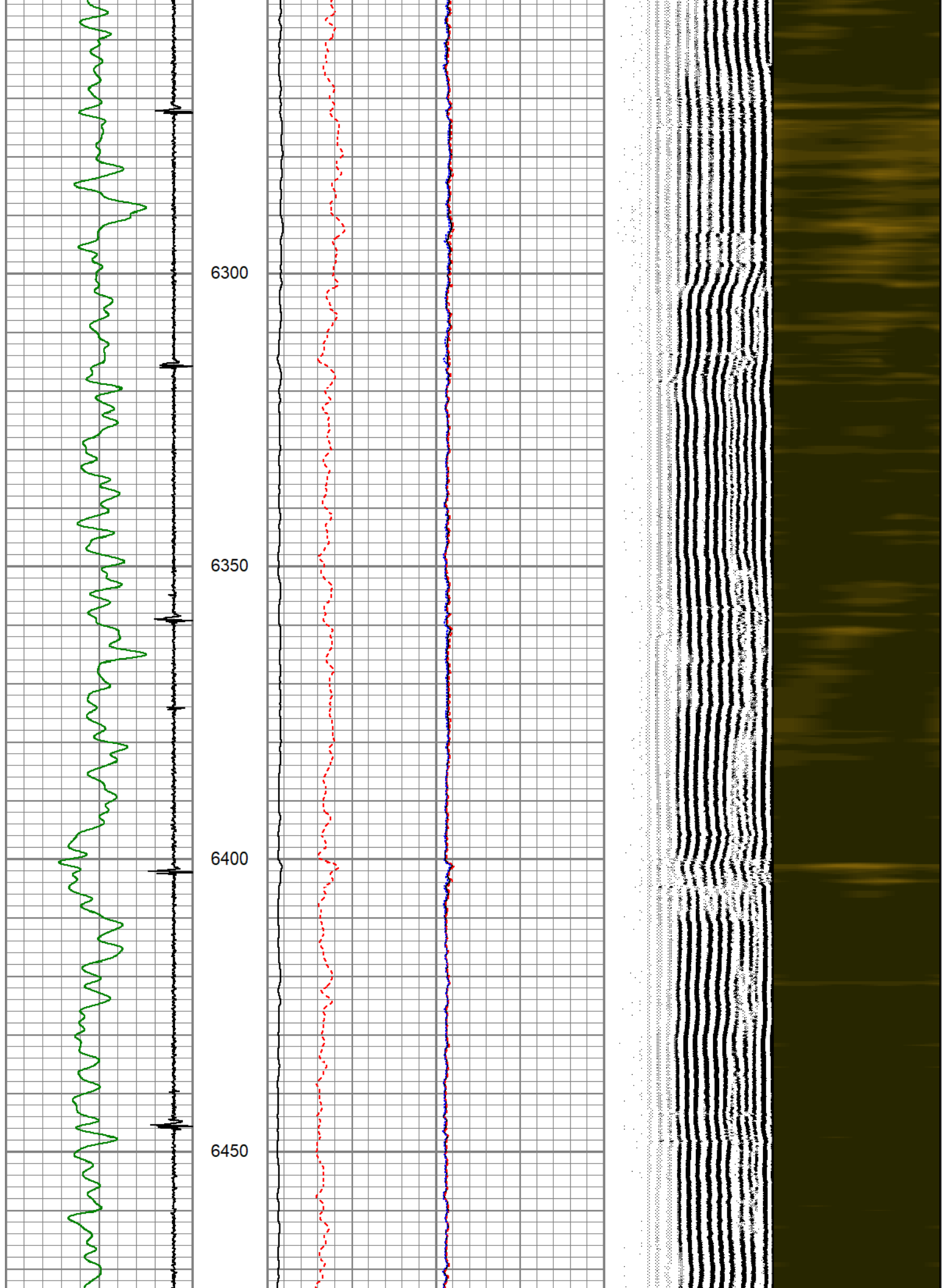
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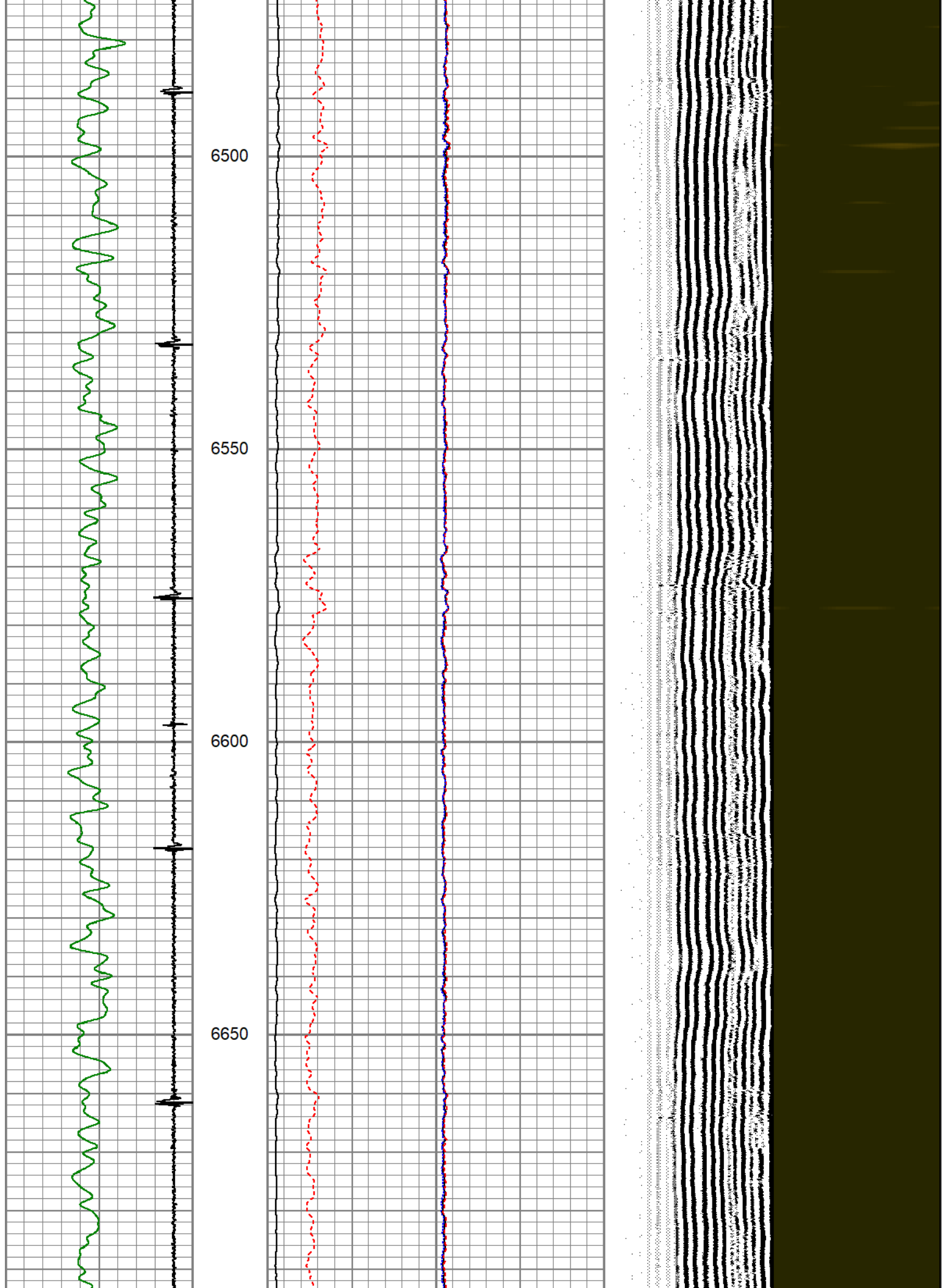
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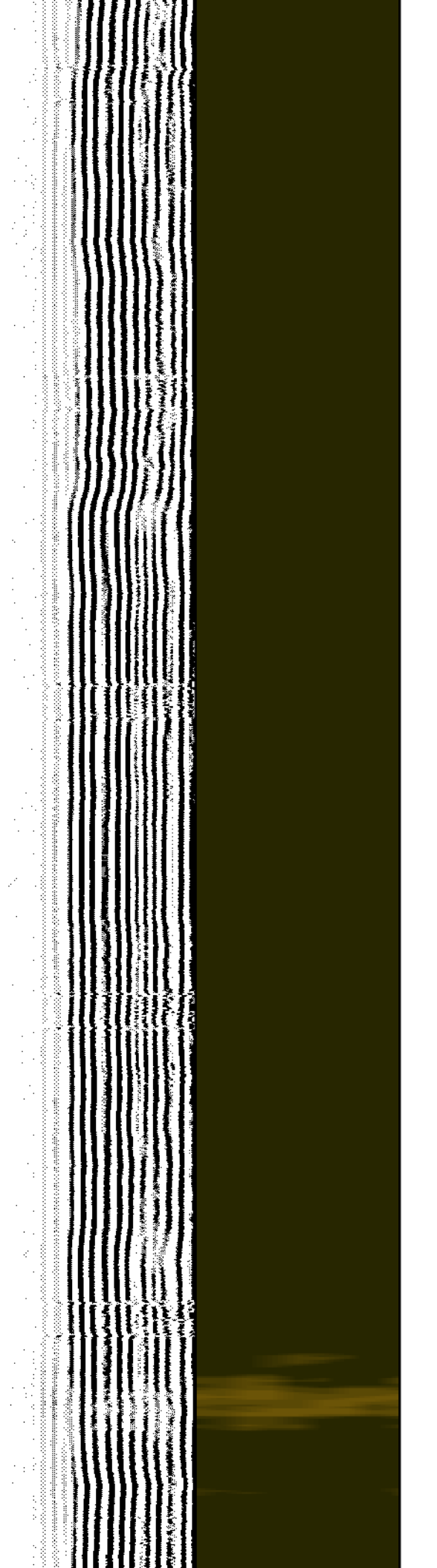
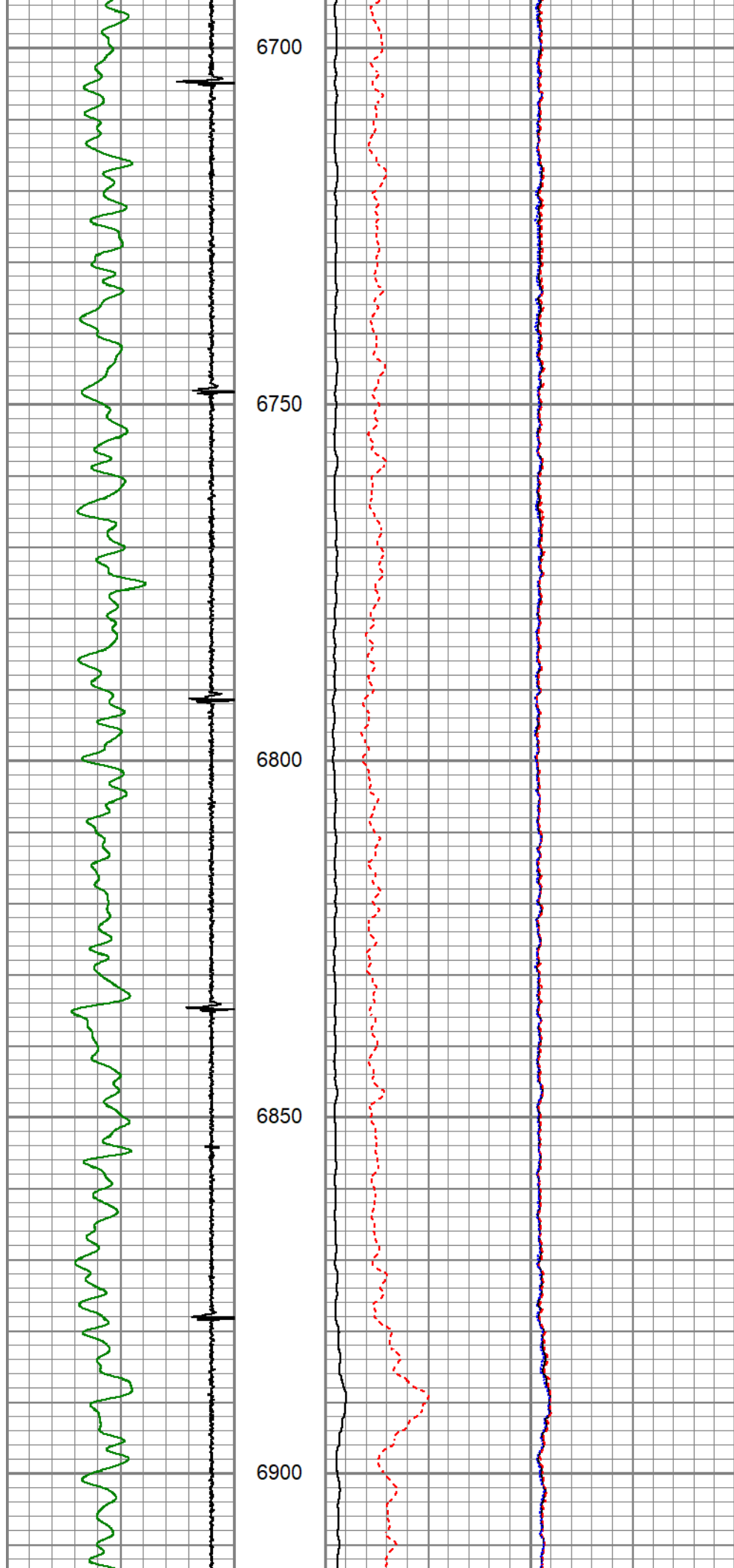




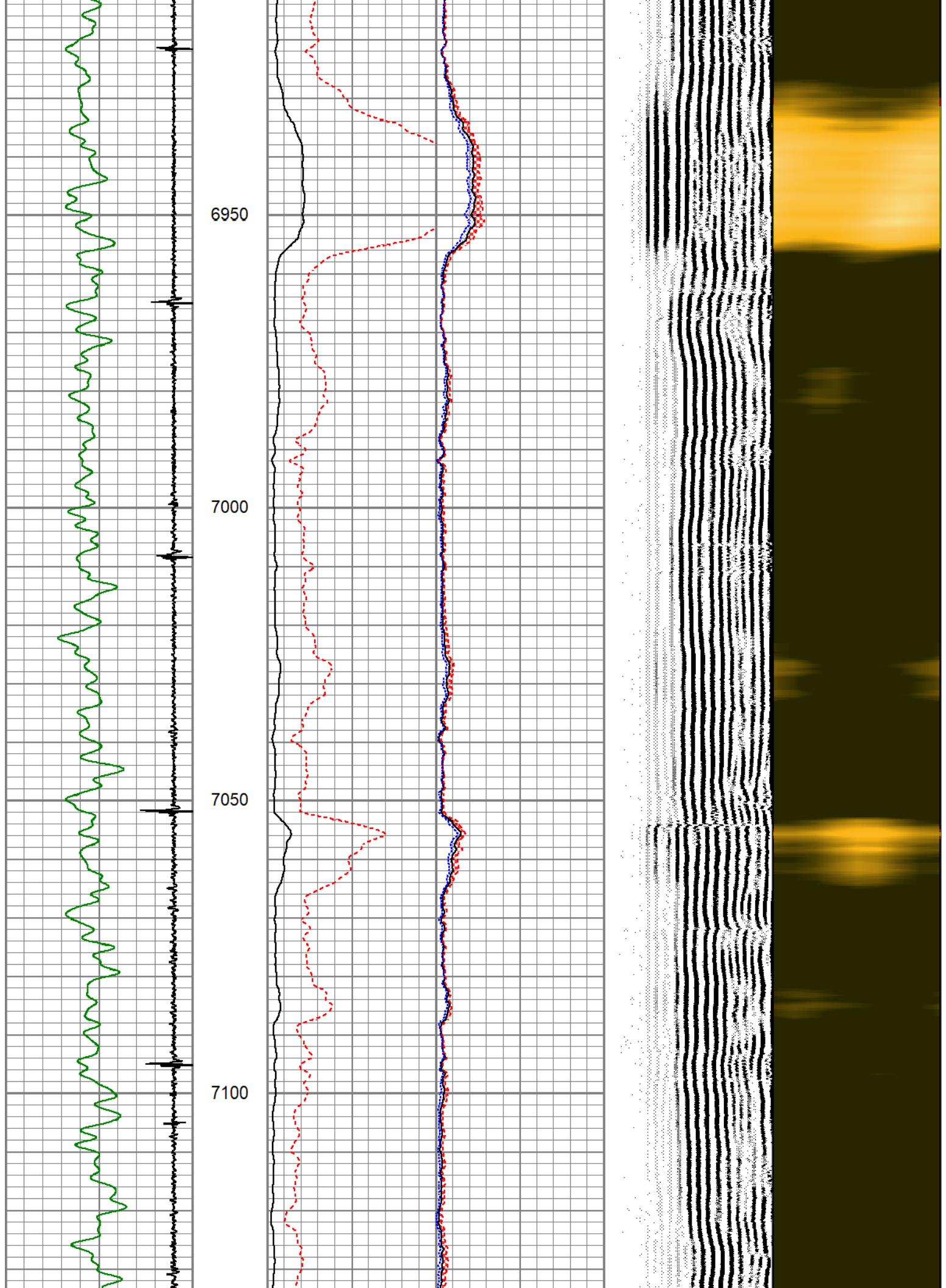


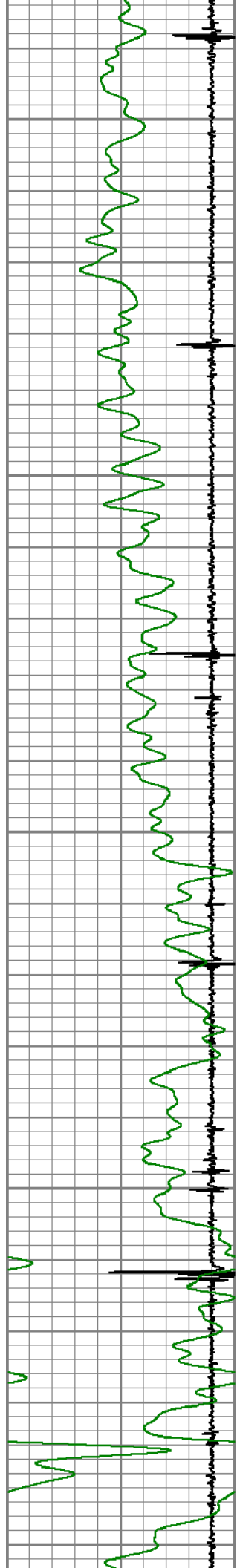












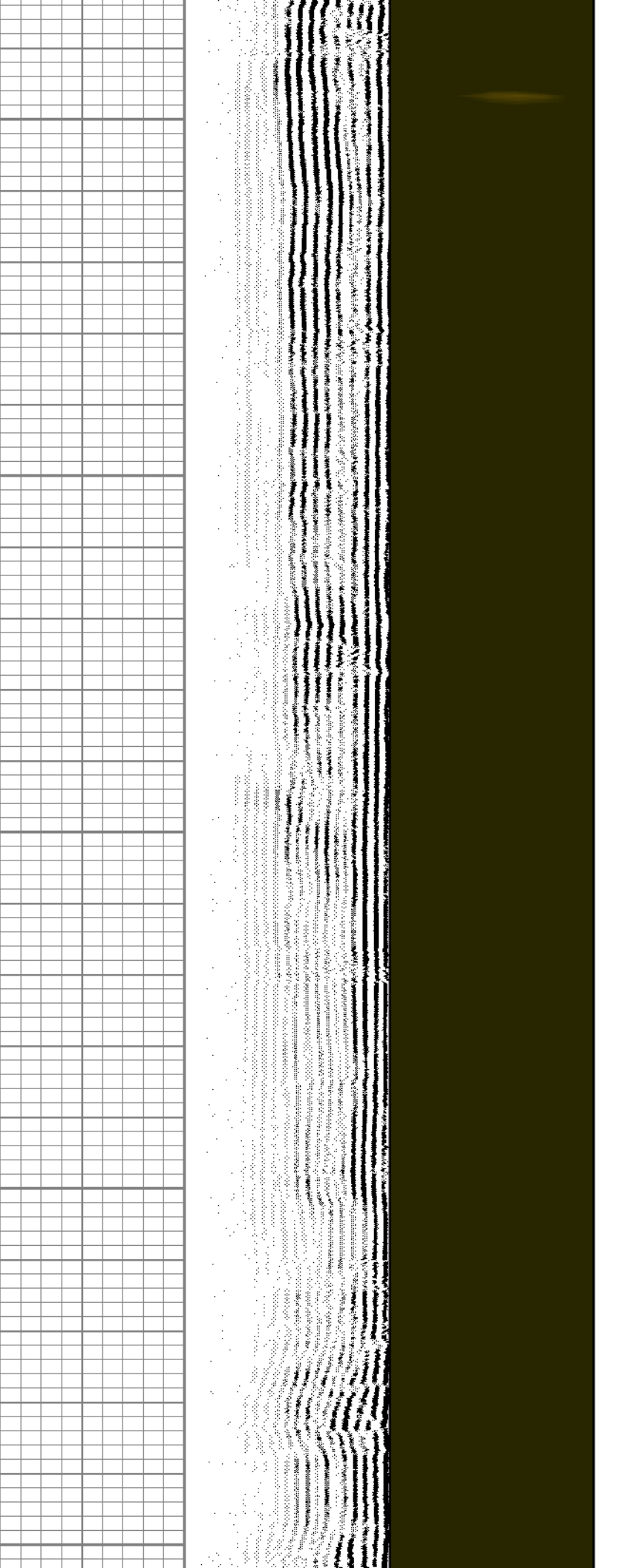
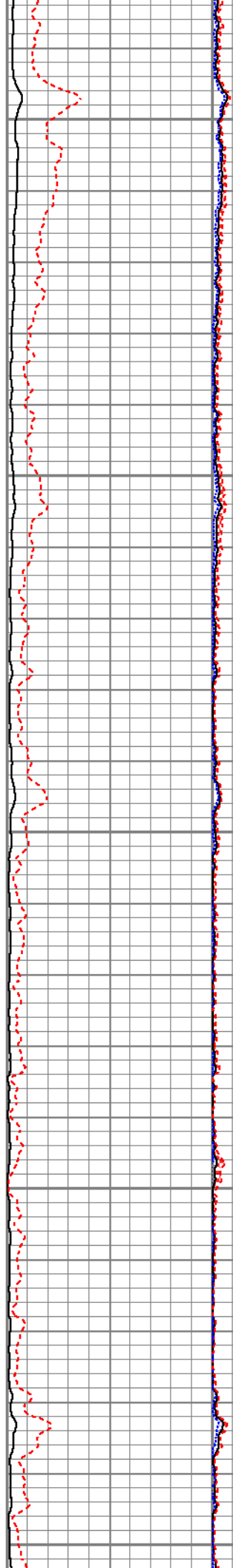
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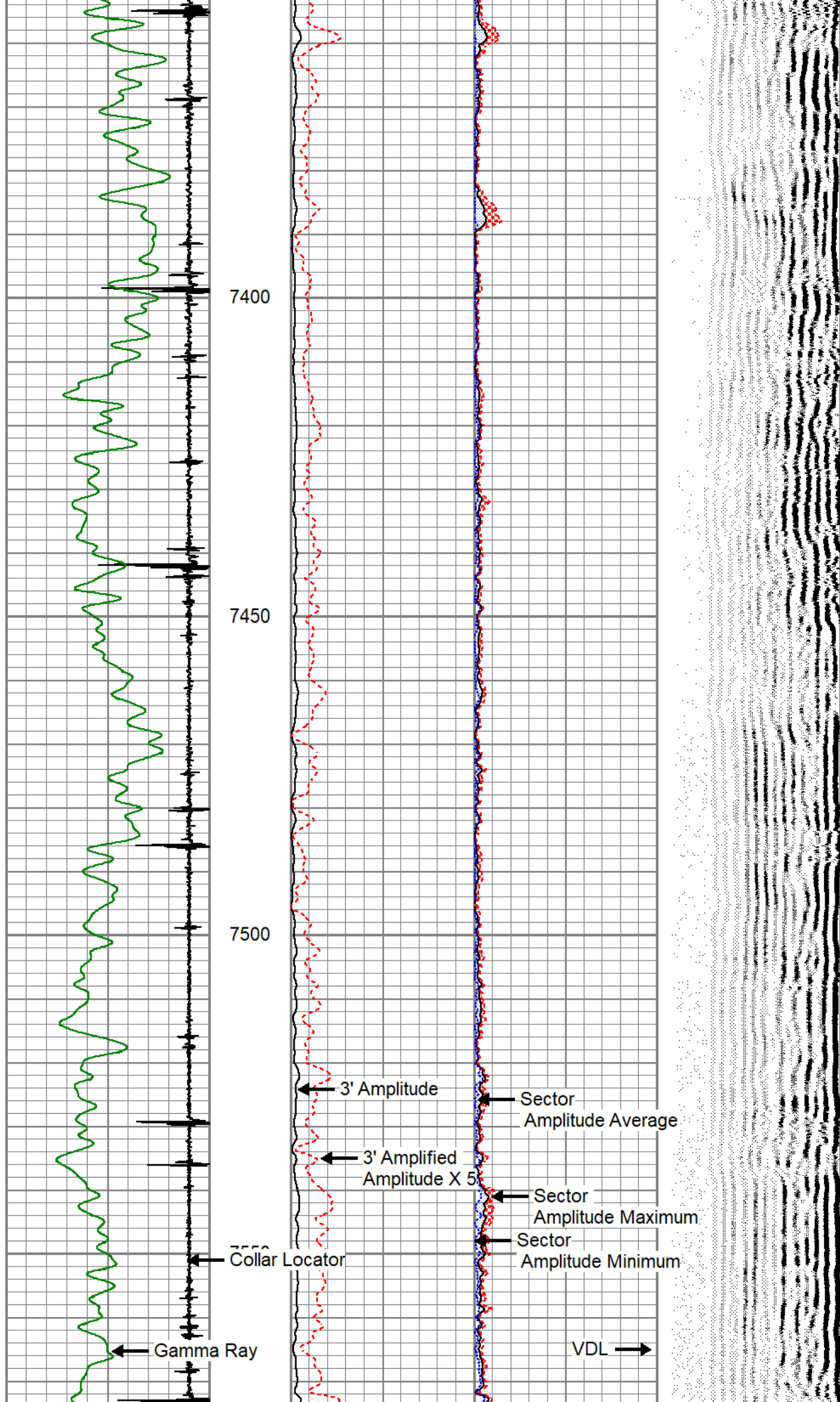
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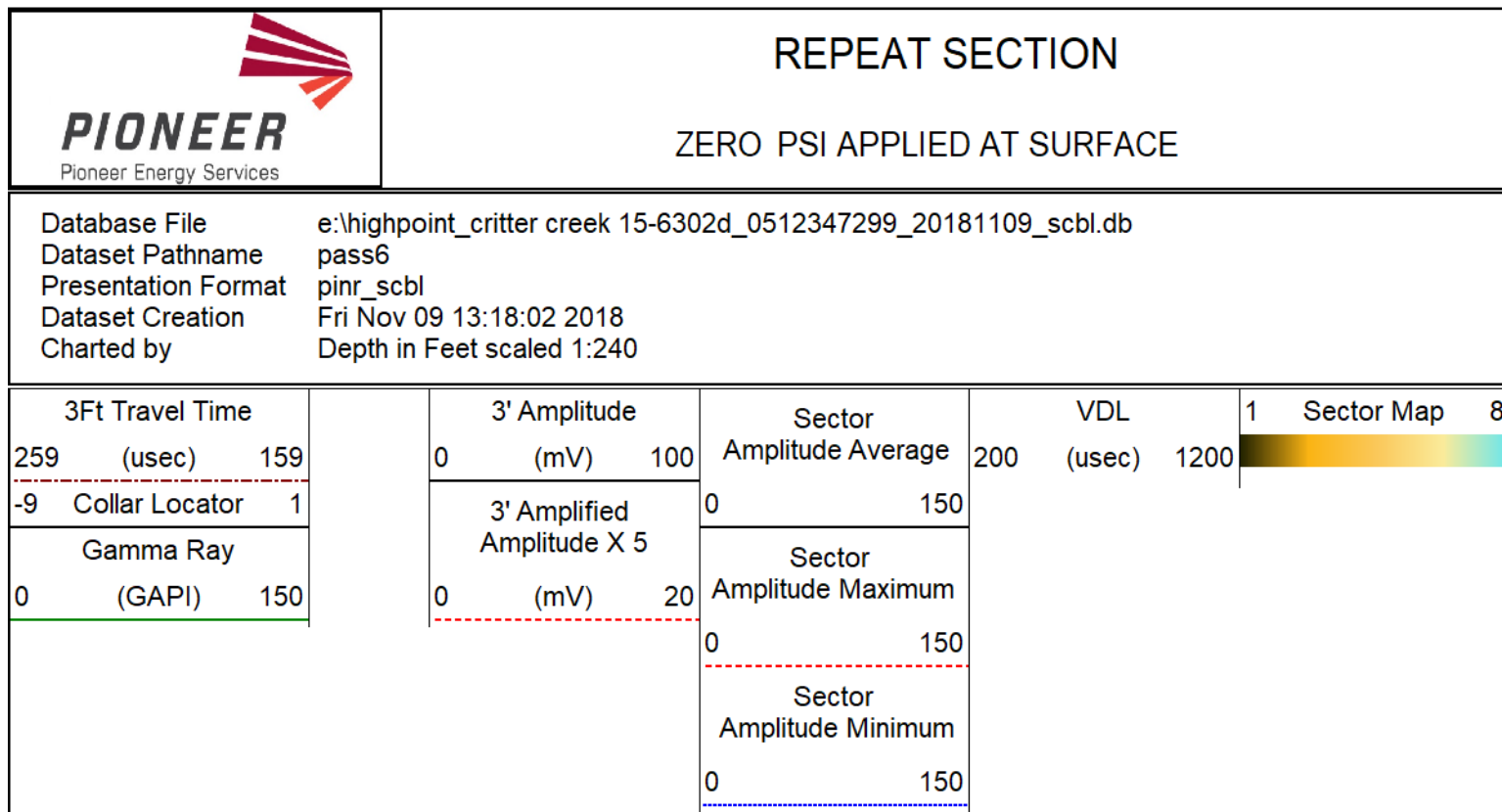
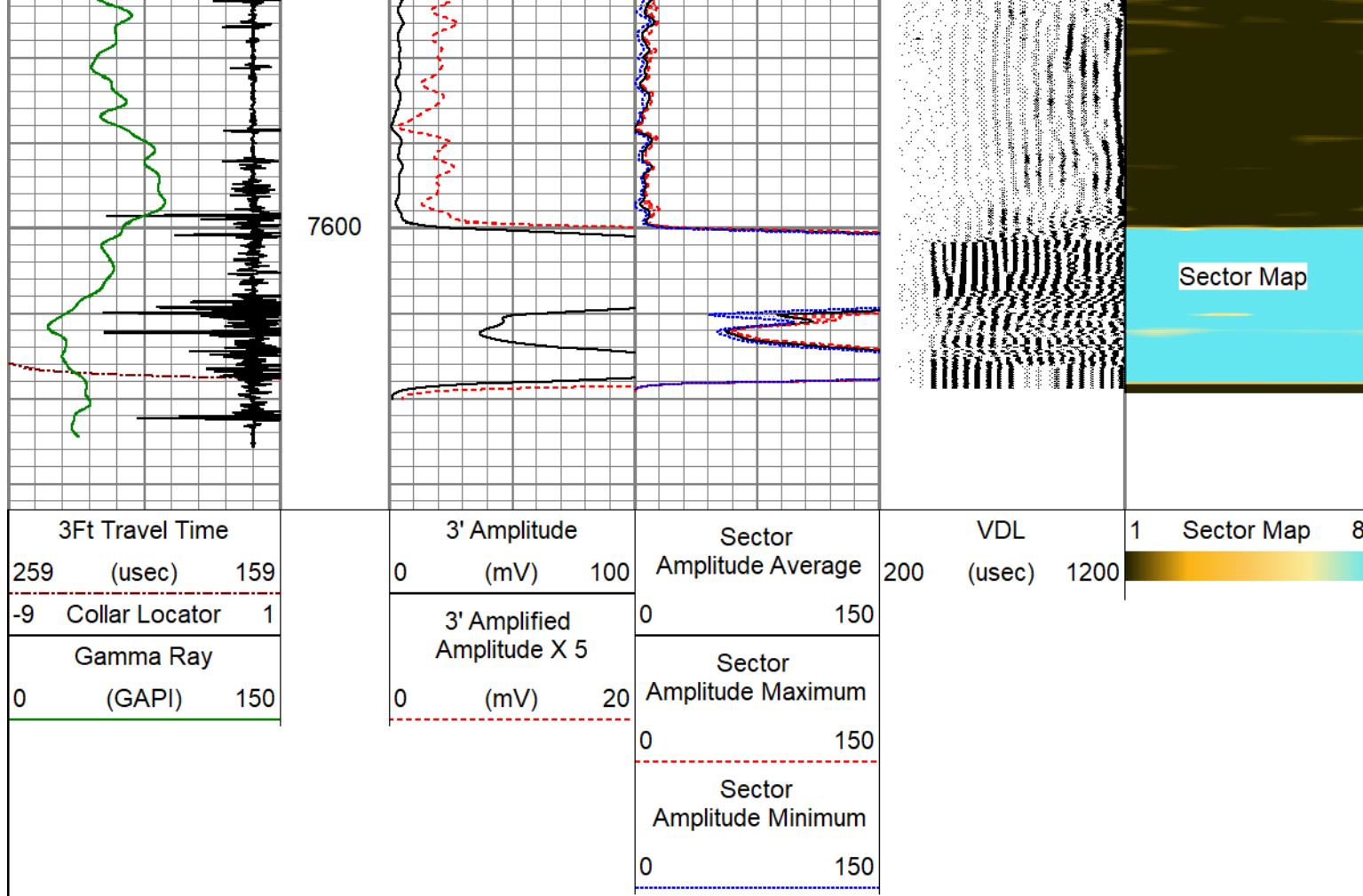
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7350





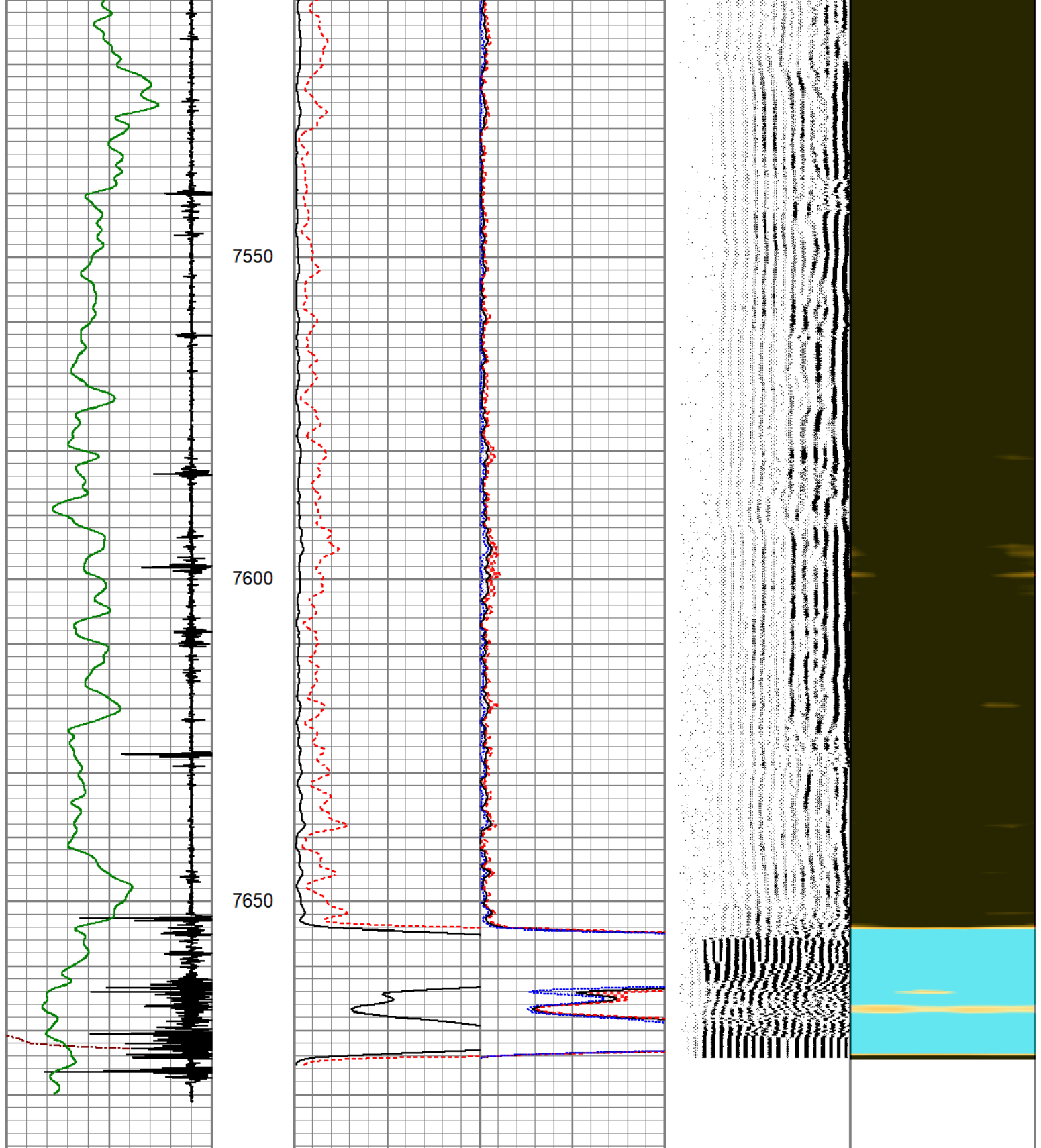


## REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File e:\highpoint\_critter creek 15-6302d\_0512347299\_20181109\_scbl.db  
 Dataset Pathname pass6  
 Presentation Format pinr\_scbl  
 Dataset Creation Fri Nov 09 13:18:02 2018  
 Charted by Depth in Feet scaled 1:240





3Ft Travel Time	259 (usec) 159	3' Amplitude	0 (mV) 100	Sector Amplitude Average	0 150	VDL	200 (usec) 1200	1 Sector Map 8
Collar Locator	-9 1	3' Amplified Amplitude X 5	0 (mV) 20	Sector Amplitude Maximum	0 150			
Gamma Ray	0 (GAPI) 150			Sector Amplitude Minimum	0 150			

# Calibration Report

Database File E:\highpoint\_critter creek 15-6302d\_0512347299\_20181109\_scbl.db  
 Dataset Pathname pass8  
 Dataset Creation Fri Nov 09 13:26:01 2018

## Gamma Ray Calibration Report

Serial Number: 120926  
 Tool Model: 275\_6-PIN  
 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: 070151  
 Tool Model: RBL-D

Calibration Casing Diameter: 7.000 in  
 Calibration Depth: 472.375 ft

Master Calibration, performed Fri Nov 09 11:51:10 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	1.027	1.000	62.165	59.548	1.000
CAL	0.000	1.783				
5'	0.000	1.153	1.000	62.165	53.028	1.000
SUM						
S1	0.000	0.951	0.000	100.000	105.142	0.000
S2	0.000	1.021	0.000	100.000	97.906	0.000
S3	0.000	1.102	0.000	100.000	90.717	0.000
S4	0.000	1.138	0.000	100.000	87.909	0.000
S5	0.000	1.132	0.000	100.000	88.315	0.000
S6	0.000	1.078	0.000	100.000	92.783	0.000
S7	0.000	1.008	0.000	100.000	99.231	0.000
S8	0.000	0.923	0.000	100.000	108.363	0.000

Air Zero Calibration, performed (Not Performed):

	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	

S7  
S8

0.000  
0.000

0.000  
0.000

0.000  
0.000



**PIONEER**

Pioneer Energy Services

Company	HIGHPOINT OPERATING CORP.
Well	CRITTER CREEK 15-6302D
Field	HEREFORD
County	WELD
State	COLORADO