

**RADIAL CEMENT BOND
GAMMA RAY C.C.L./V.D.L.
LOG**

Company **OCCIDENTAL PETROLEUM INC.**
Well **PINNACLE 2-2HZ**
Field **WATTENBERG**
County **WELD** State **COLORADO**

Location **API# 05-123-32739
SW/SE
SEC 2 TWN 1N RNG 68W**

Permanent Datum **GROUND LEVEL** Elevation **5006'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Other Services
K.B. 5023'
D.F. 5022'
G.L. 5006'

Company **OCCIDENTAL PETROLEUM INC.**
Well **PINNACLE 2-2HZ**
Field **WATTENBERG**
County **WELD**
State **COLORADO**

Date **11 DECEMBER, 2024**

Run Number **ONE**
Depth Driller **12015'**
Depth Logger **5000'**
Bottom Logged Interval **4997'**
Top Log Interval **SURFACE**
Casing Size **7"**
Type Fluid **WATER**
Density / Viscosity **N/A**
Max. Recorded Temp. **N/A**
Estimated Cement Top **N/A**
Time Well Ready **2:30P .M.**
Time Logger on Bottom **2:50P .M.**
Equipment Number **200128**
Location **STERLING, CO**
Recorded By **ADAM GARDNER**
Witnessed By **TRAVIS ROTHE**

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36#	0'	923'
Prot. String	7'	26#	0'	7873'
Production String	4.5"	11.6#	6765'	12000'
Liner				

<<< Fold Here >>>

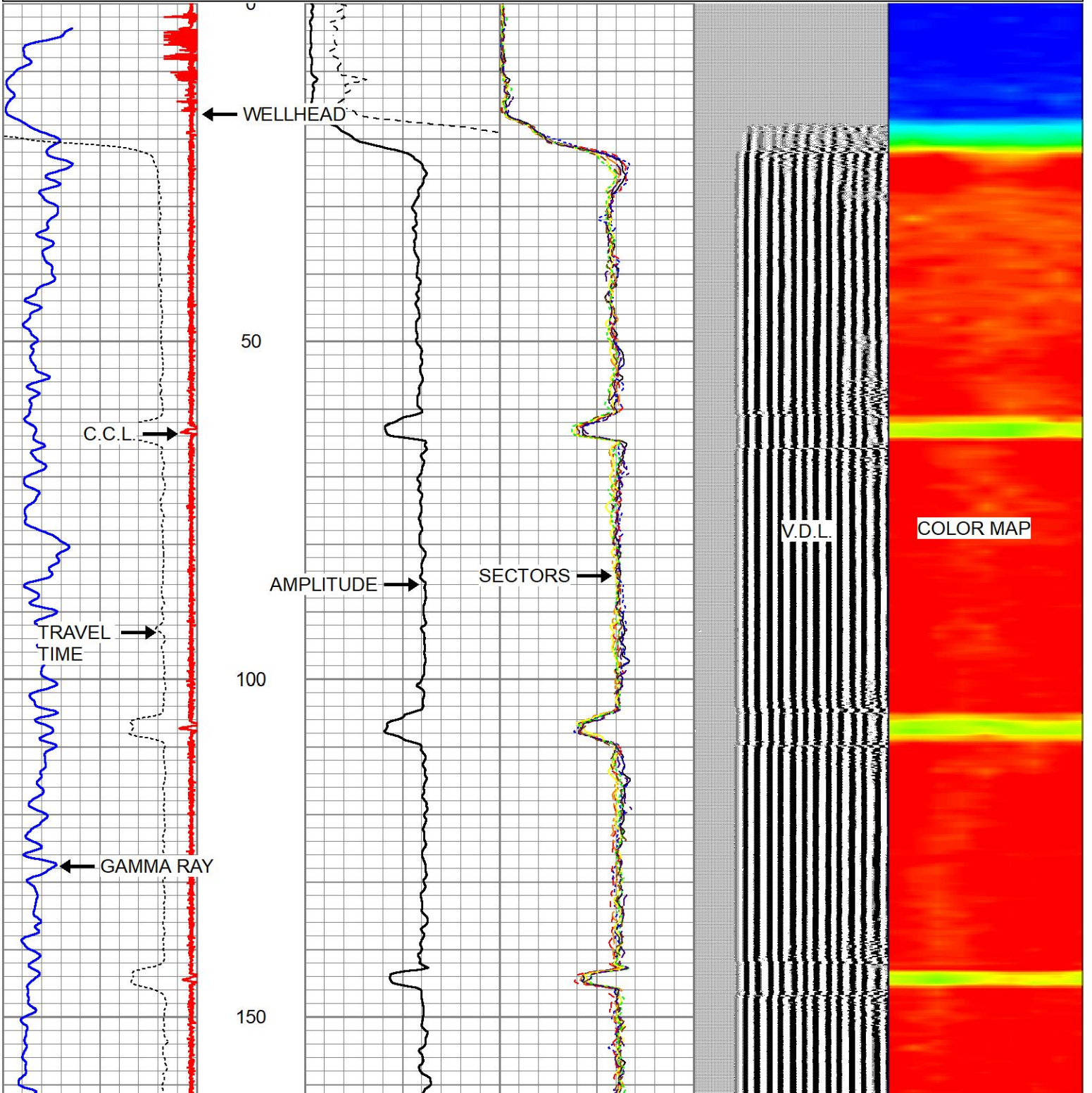
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

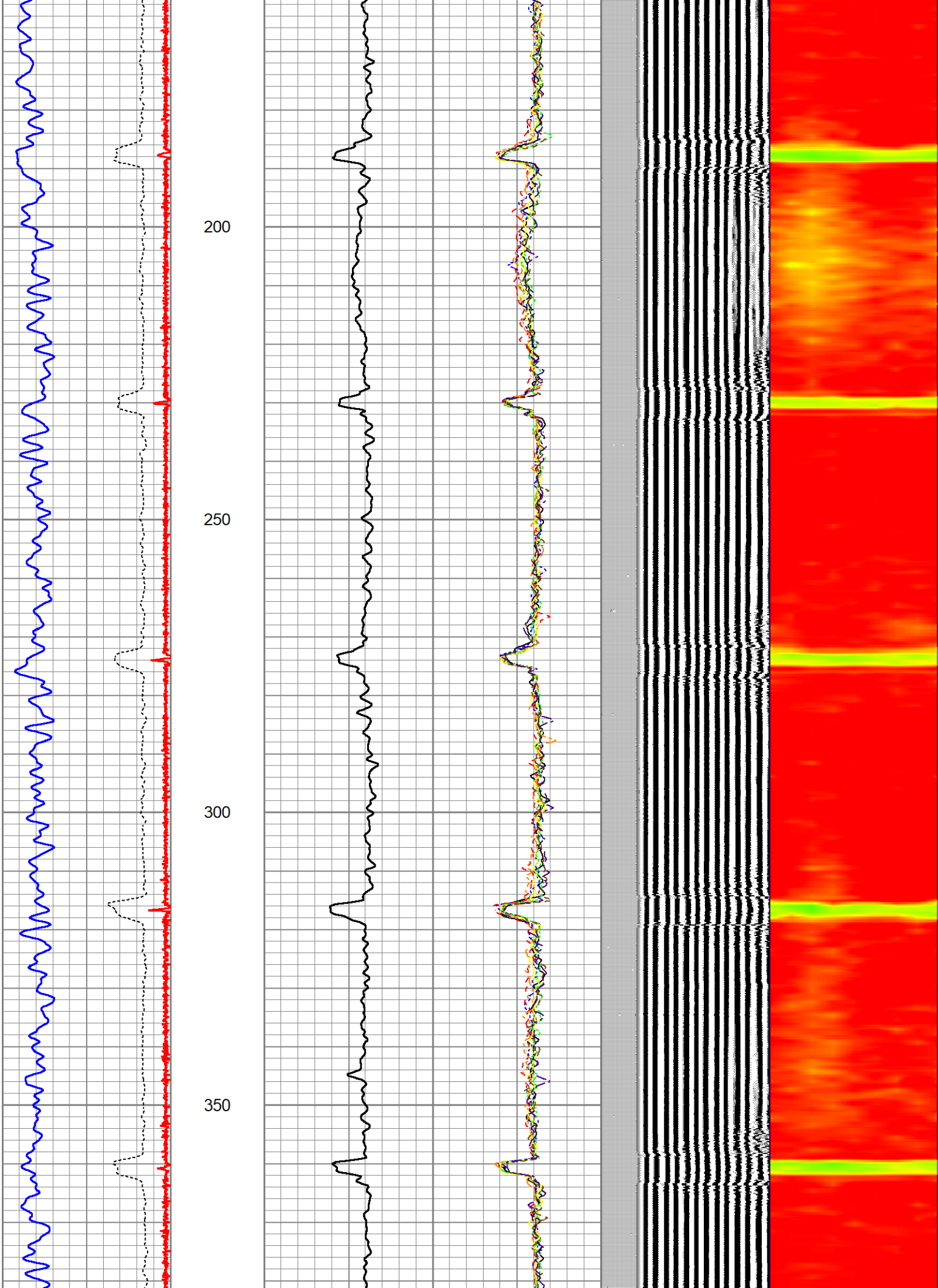
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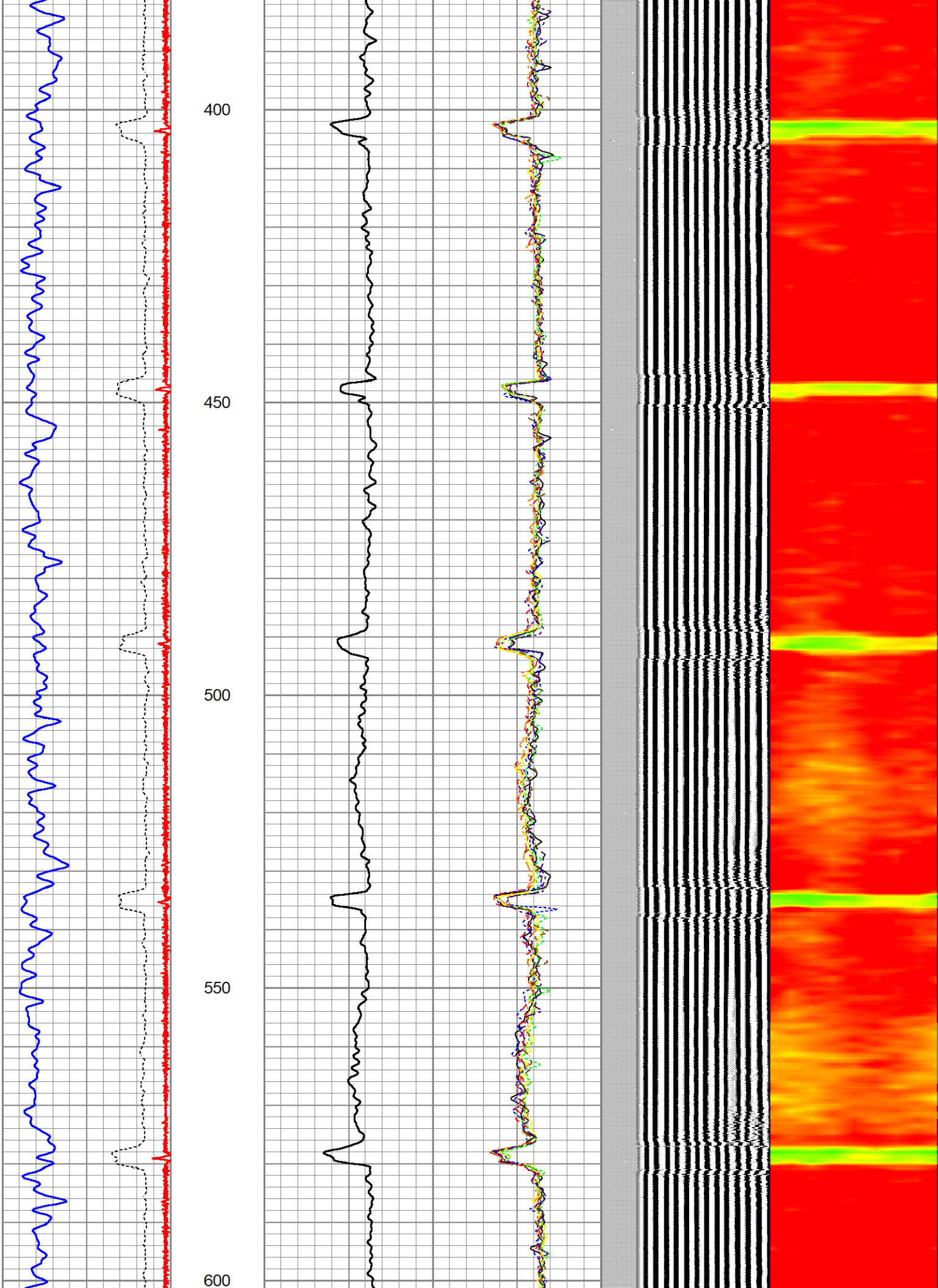
**LOG NOT CORRELATED!!!
LOG RAN WITH 17' K.B.**

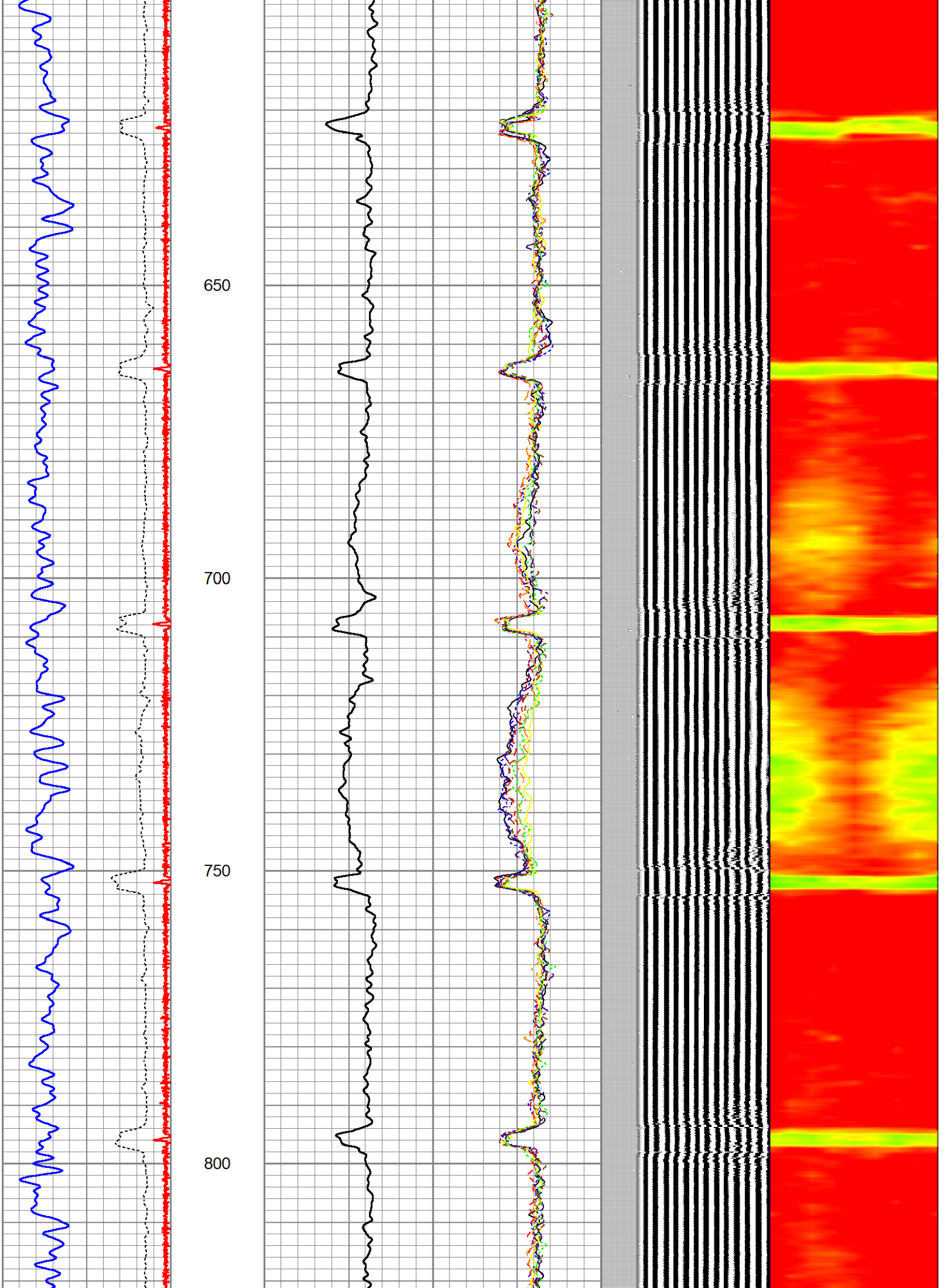
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 Charted by Depth in Feet scaled 1:240

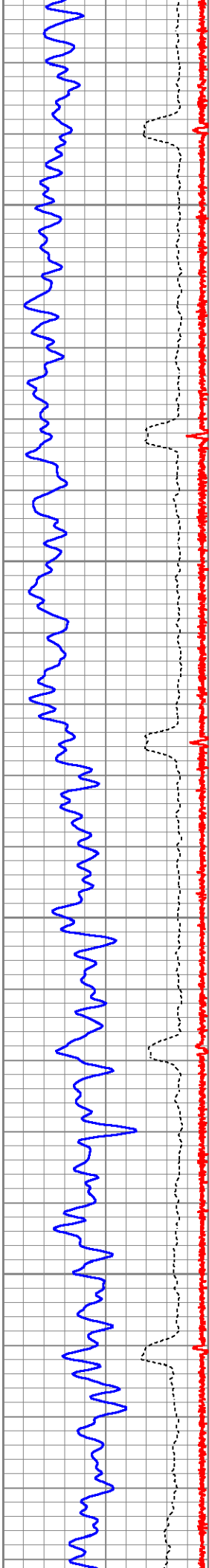
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0	GR (GAPI)	150	AMPLIFIED AMP3			0	AMPS2	100						
340	TT3 (usec)	294	0	(mV)	20	0	AMPS3	100						
						0	AMPS4	100						
						0	AMPS5	100						
						0	AMPS6	100						
						0	AMPS7	100						
						0	AMPS8	100						









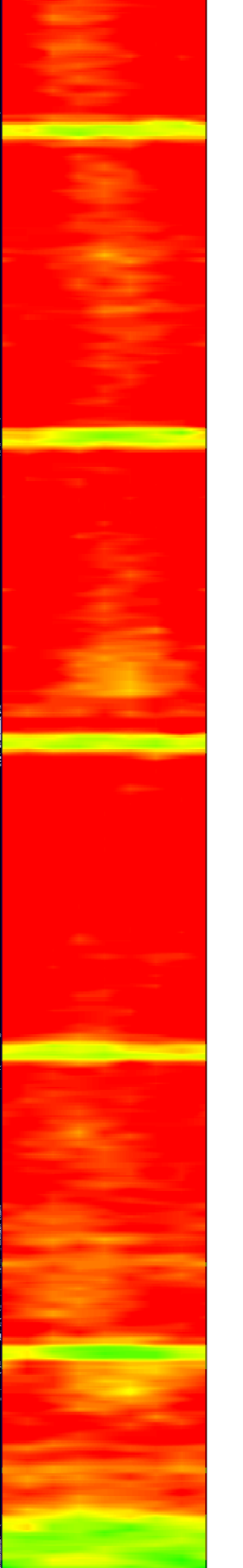
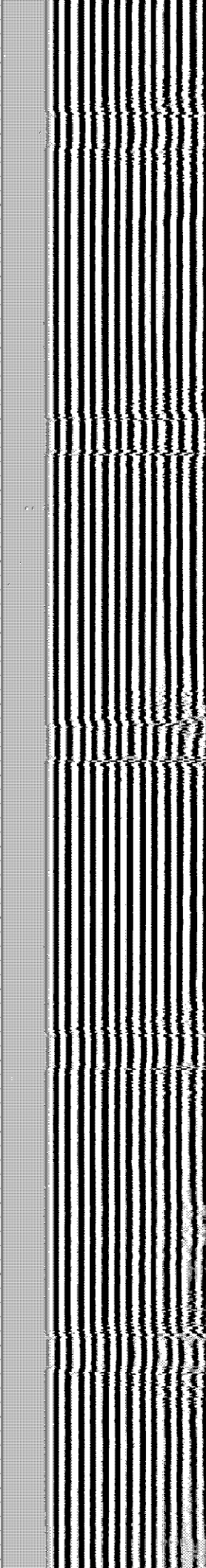
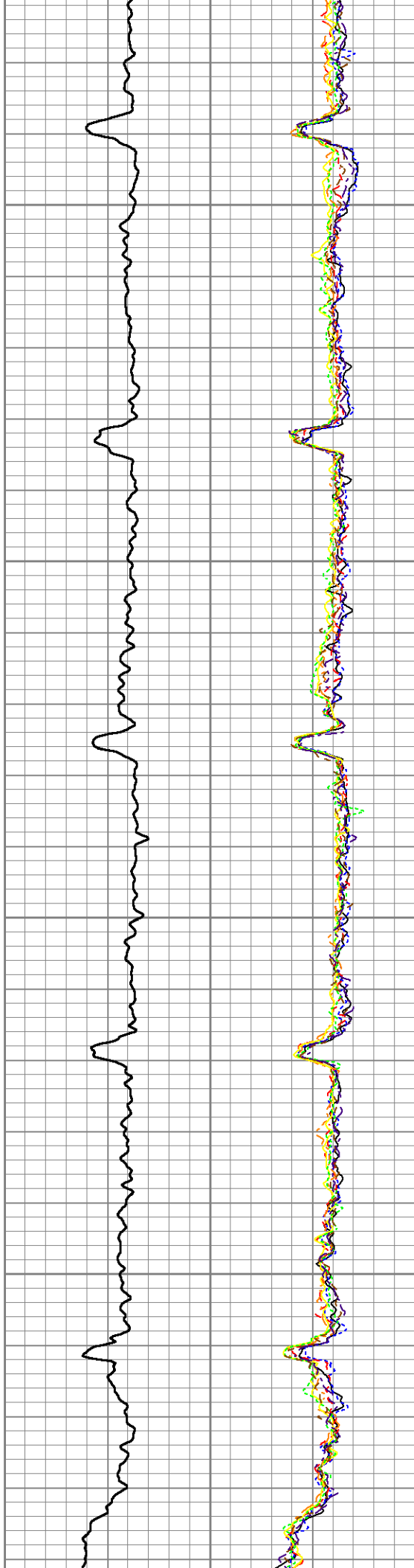


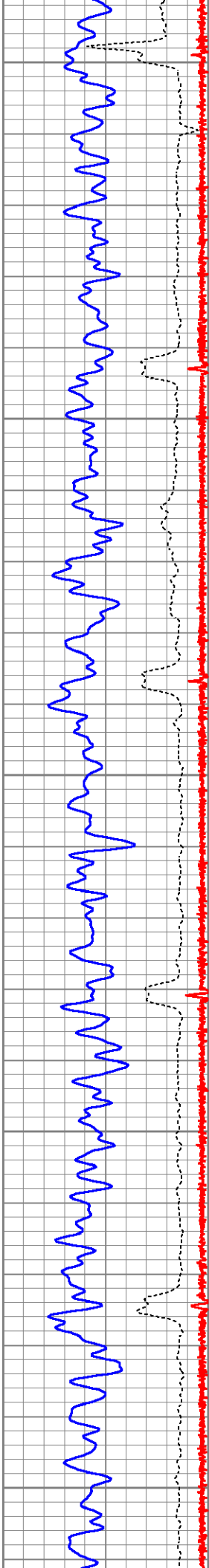
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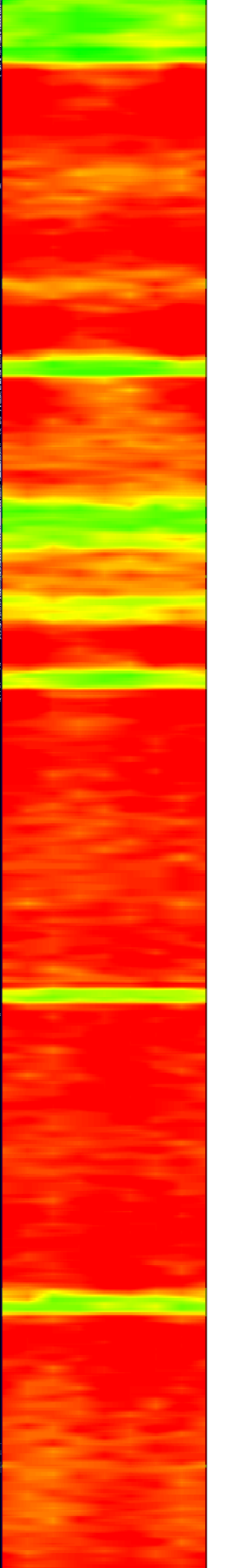
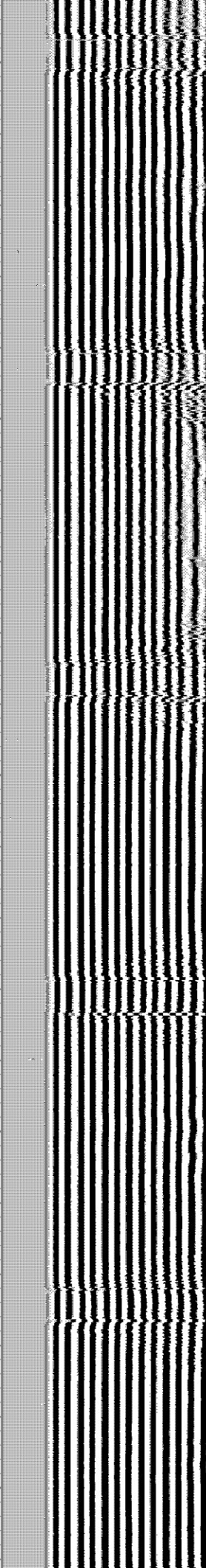
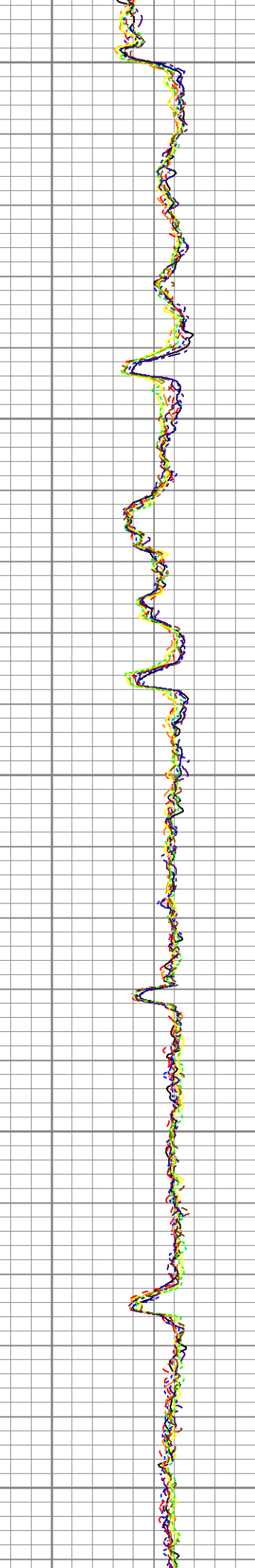
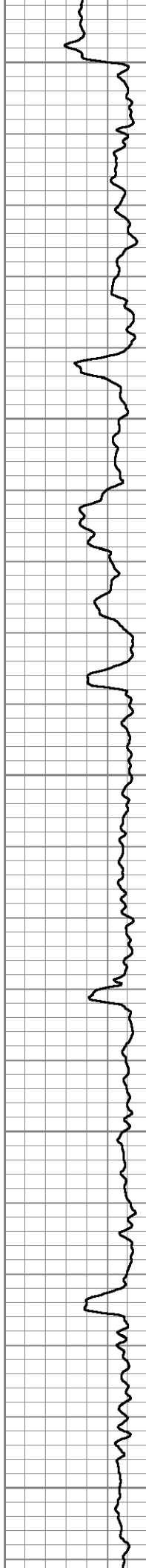
950

1000





1050
1100
1150
1200
1250



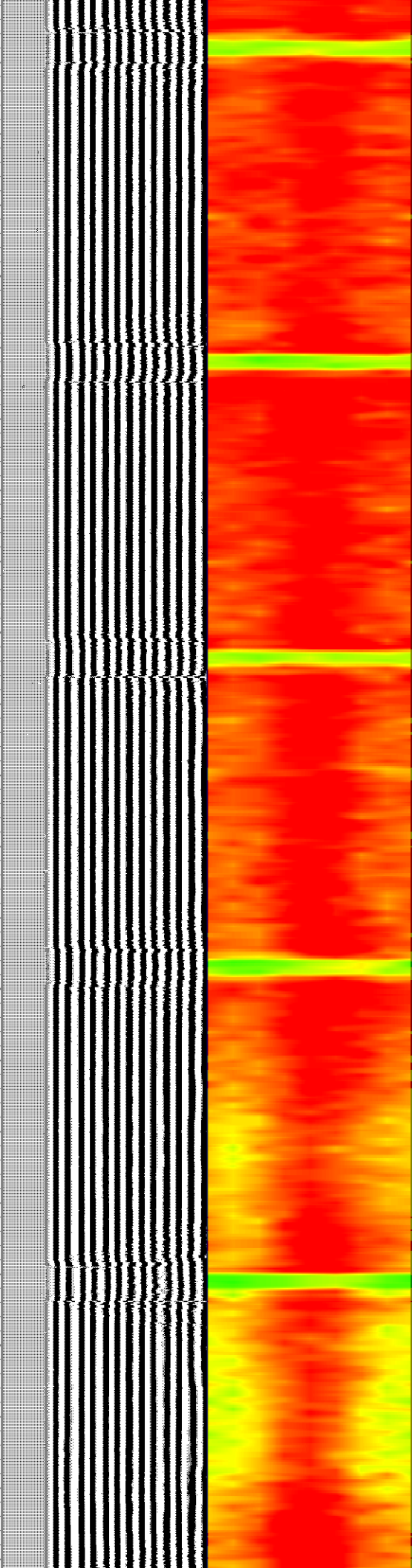
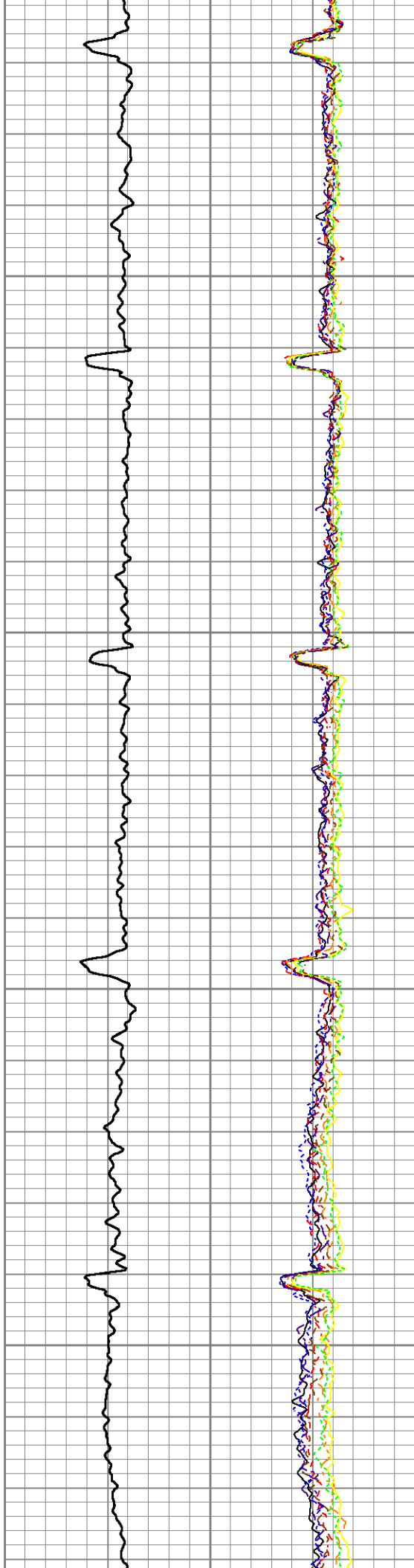


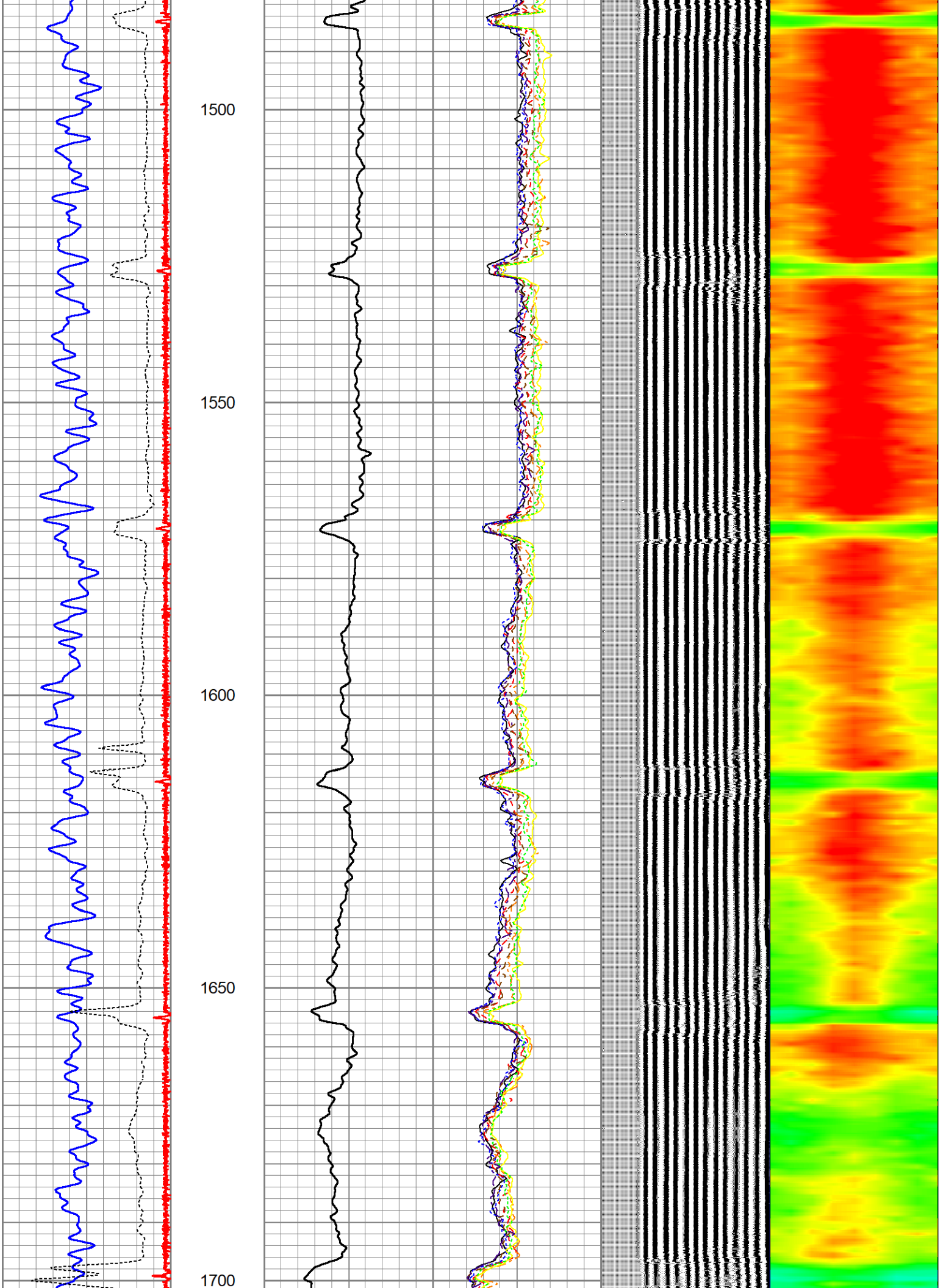
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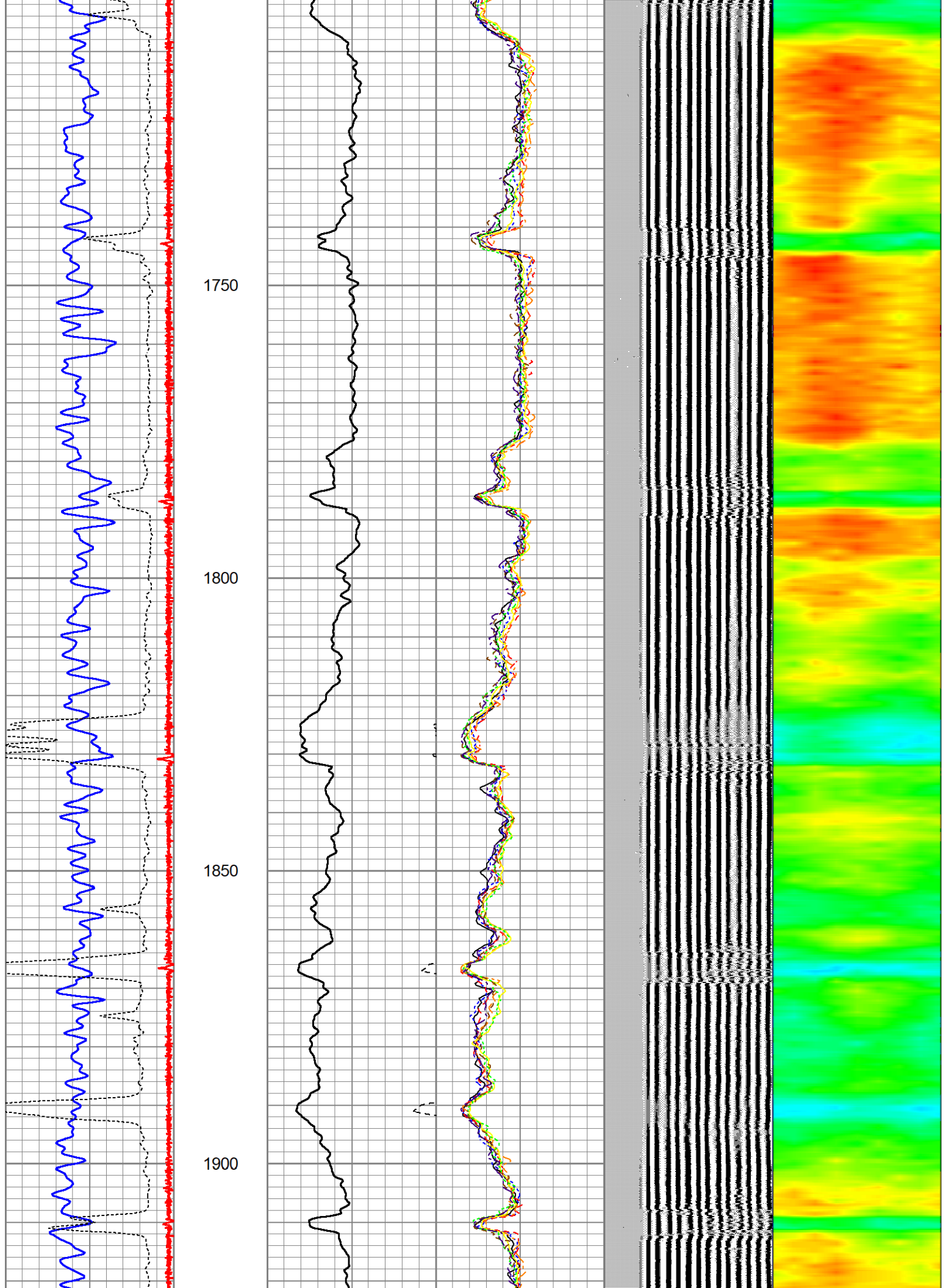
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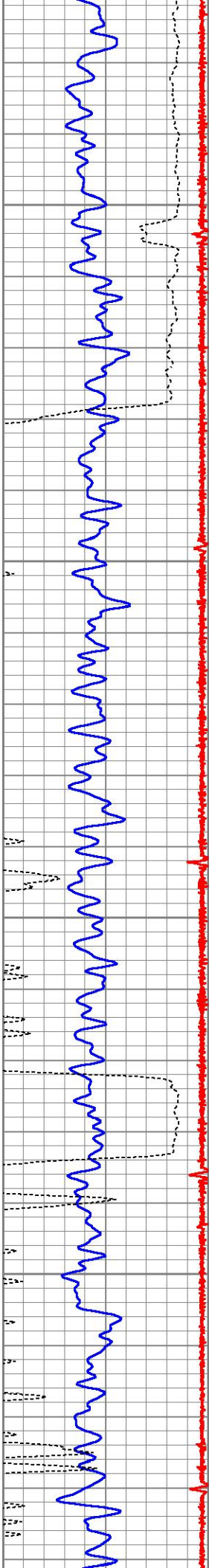
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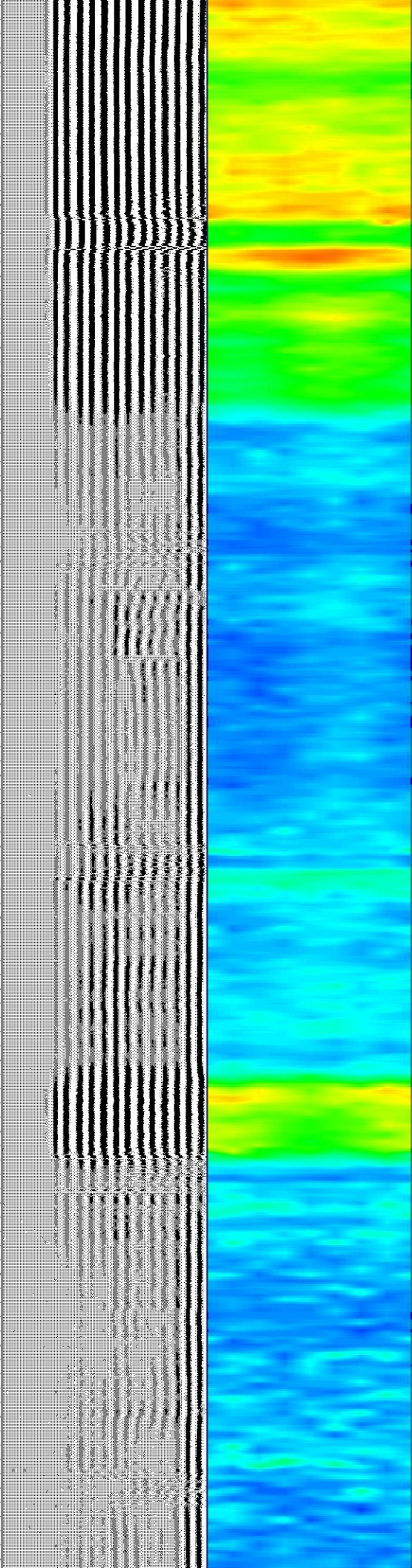
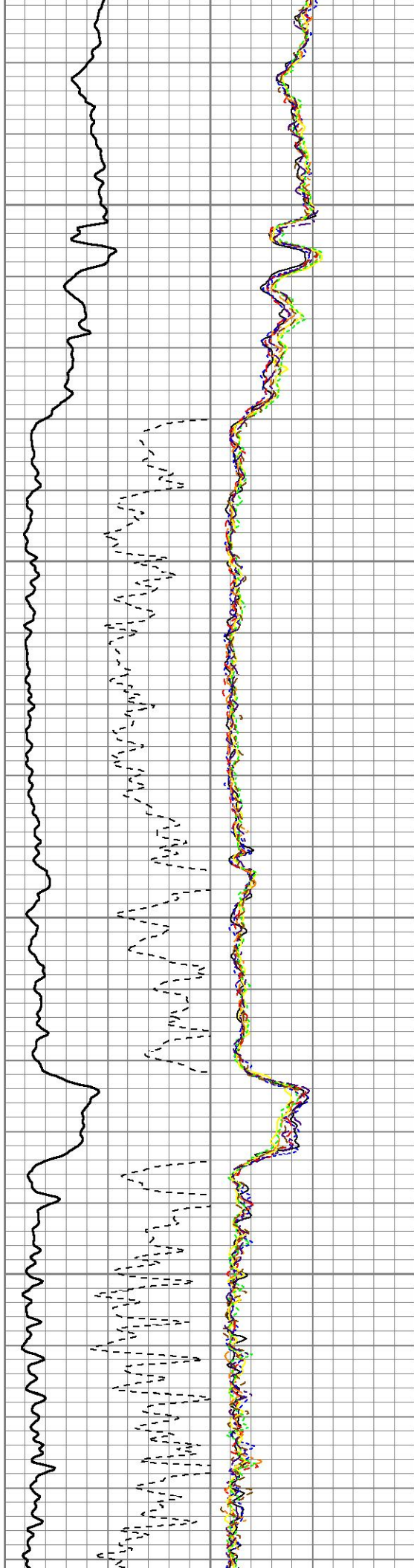


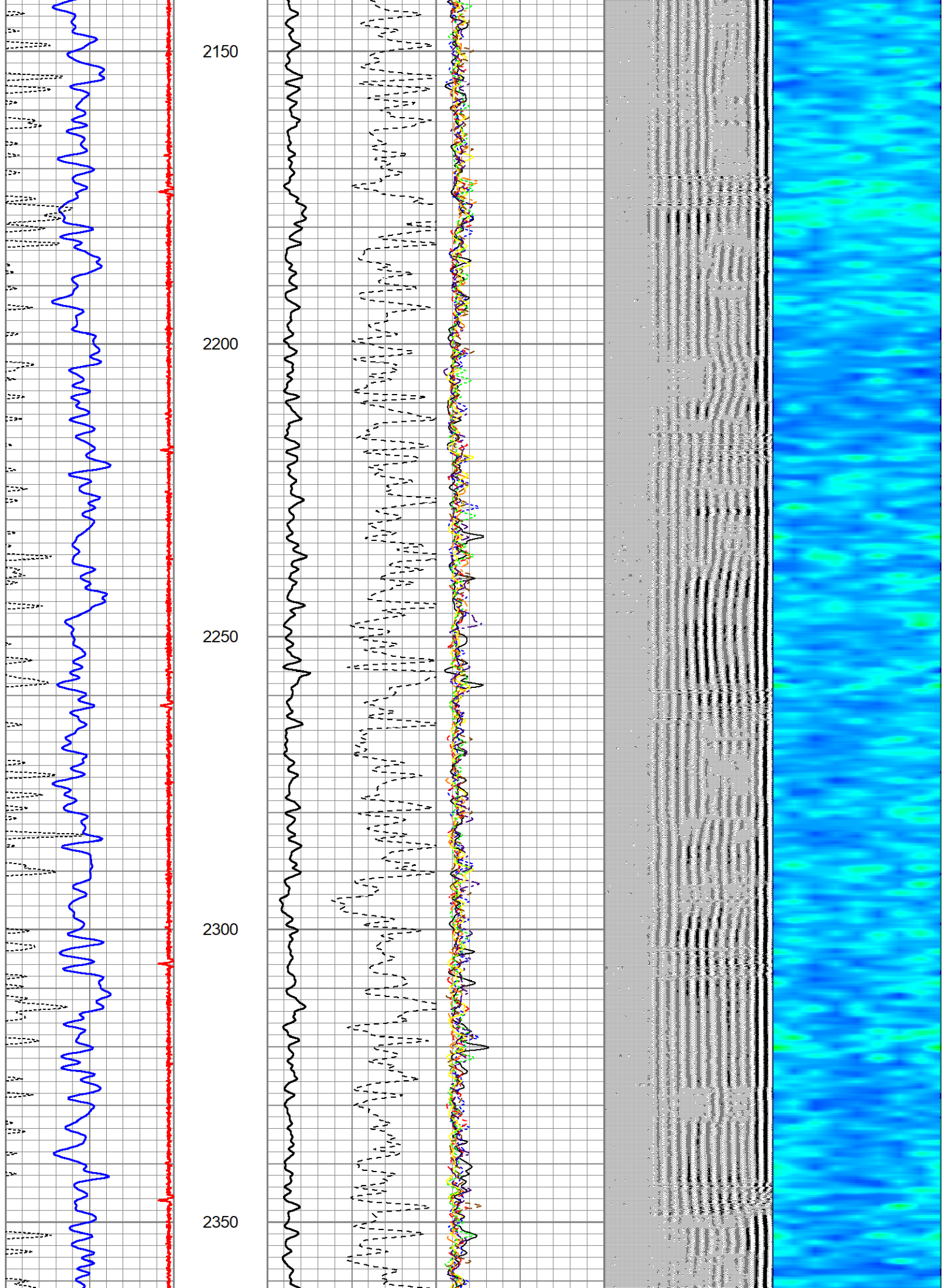
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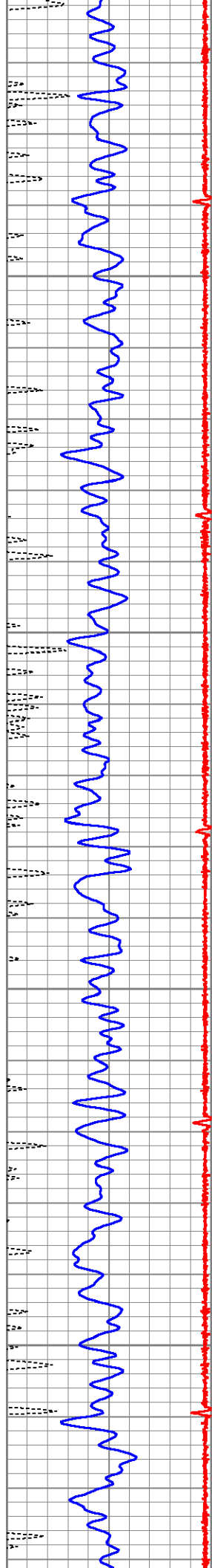
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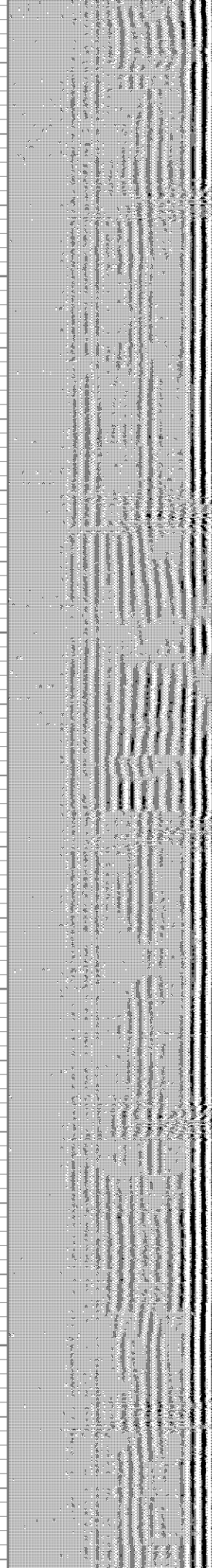
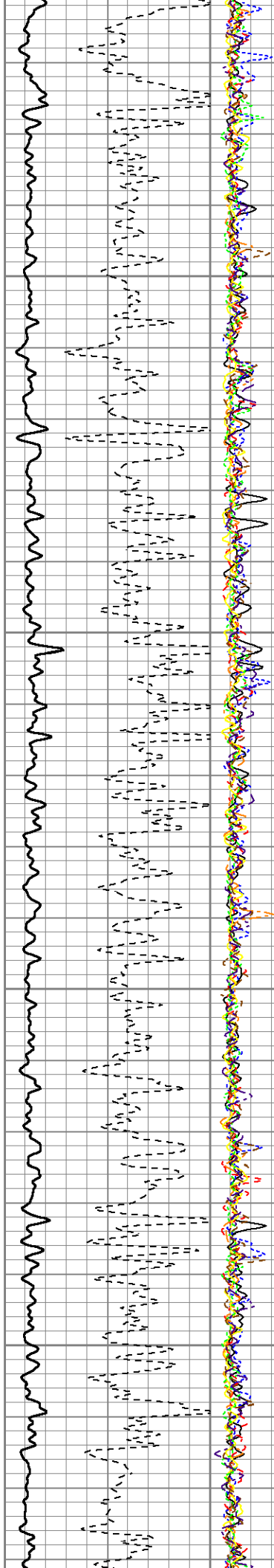


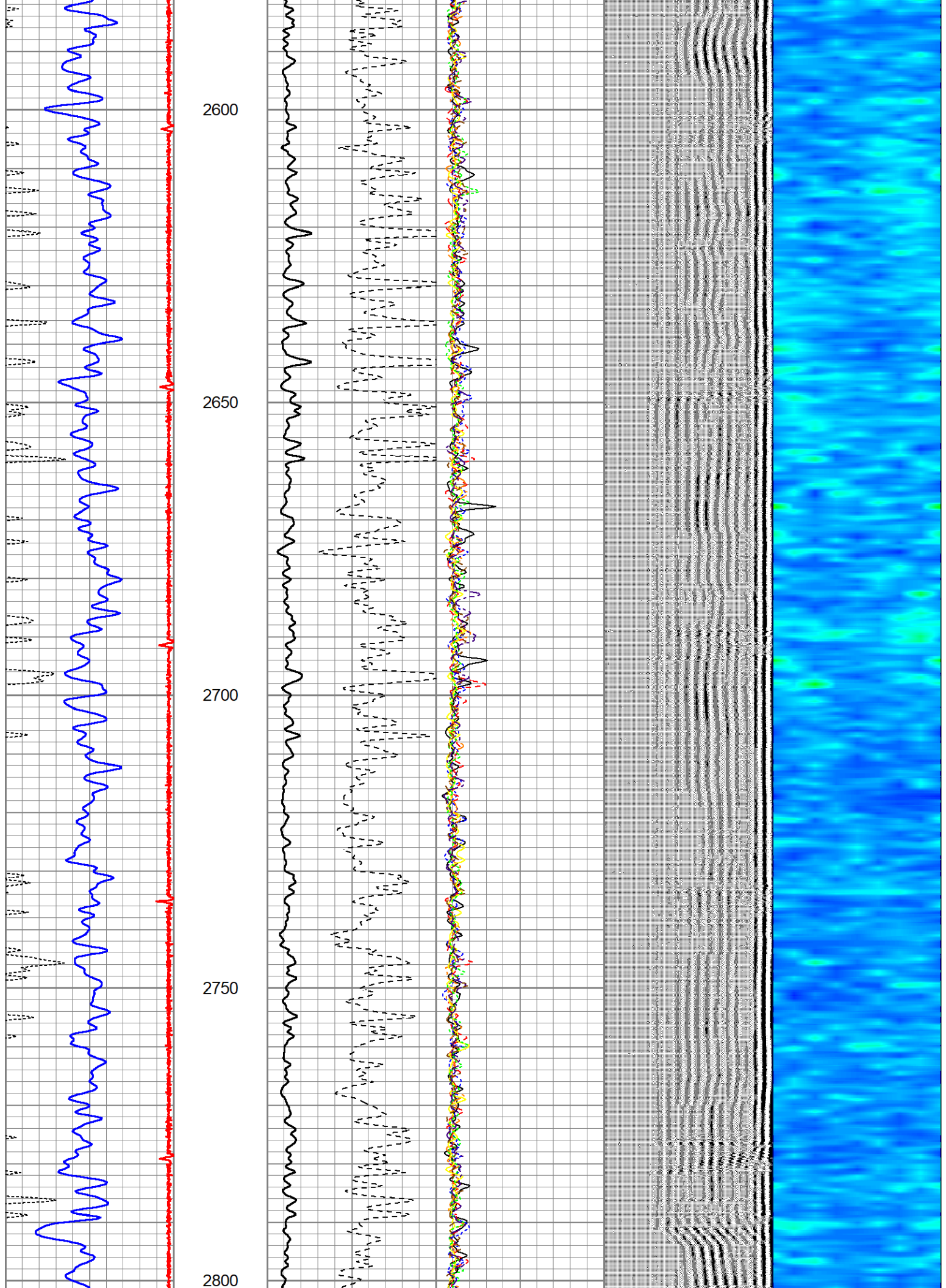
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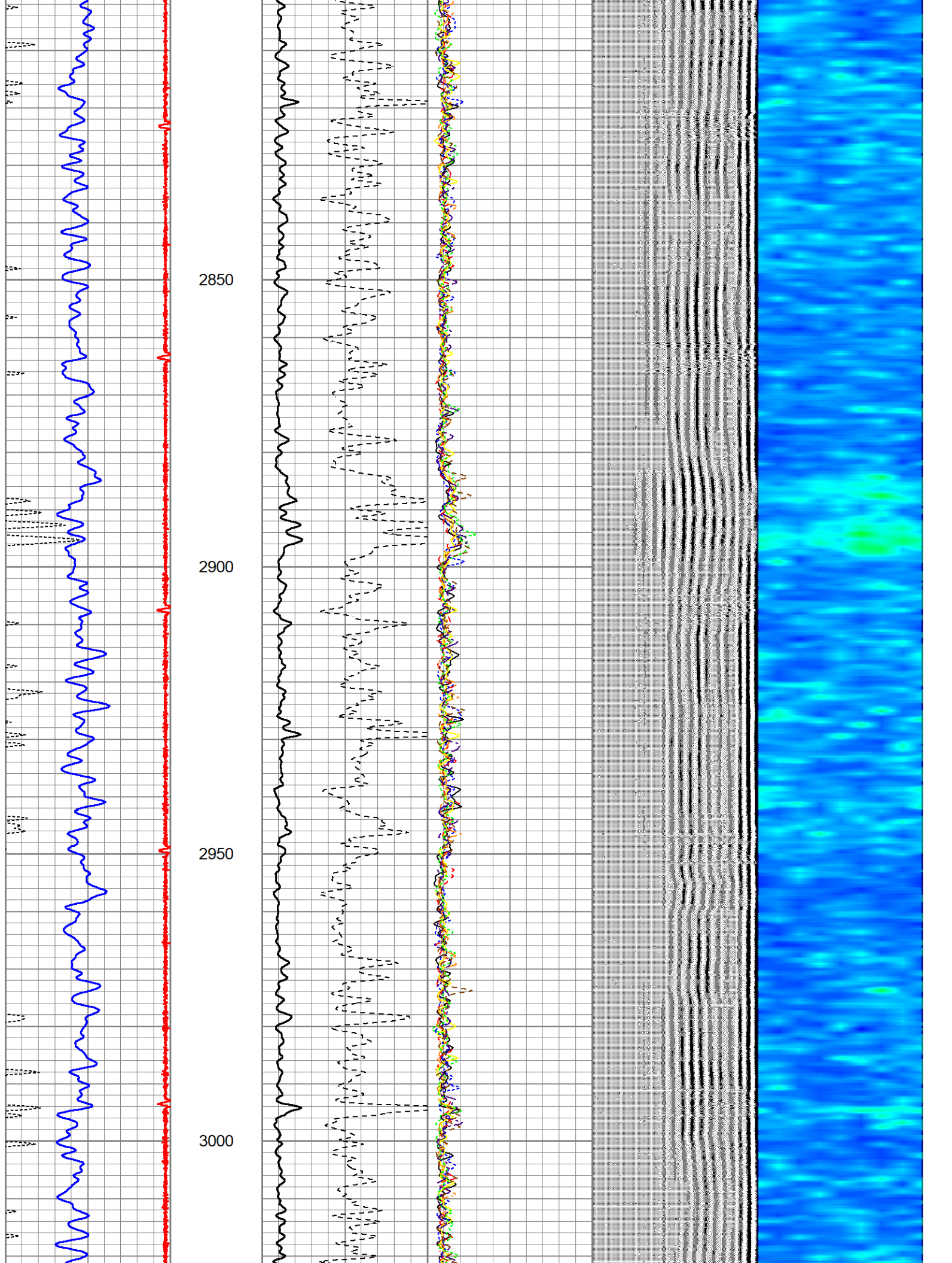
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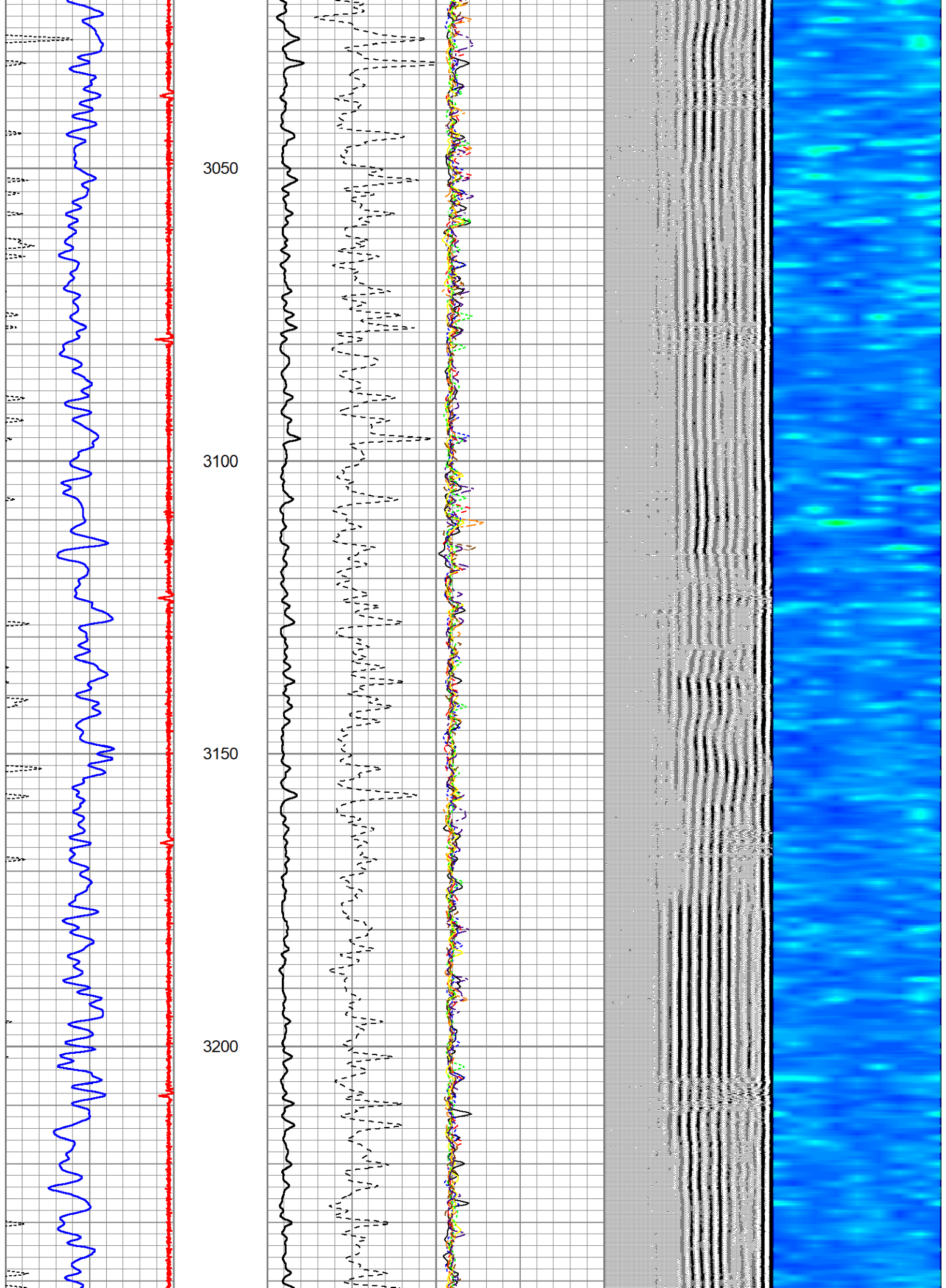
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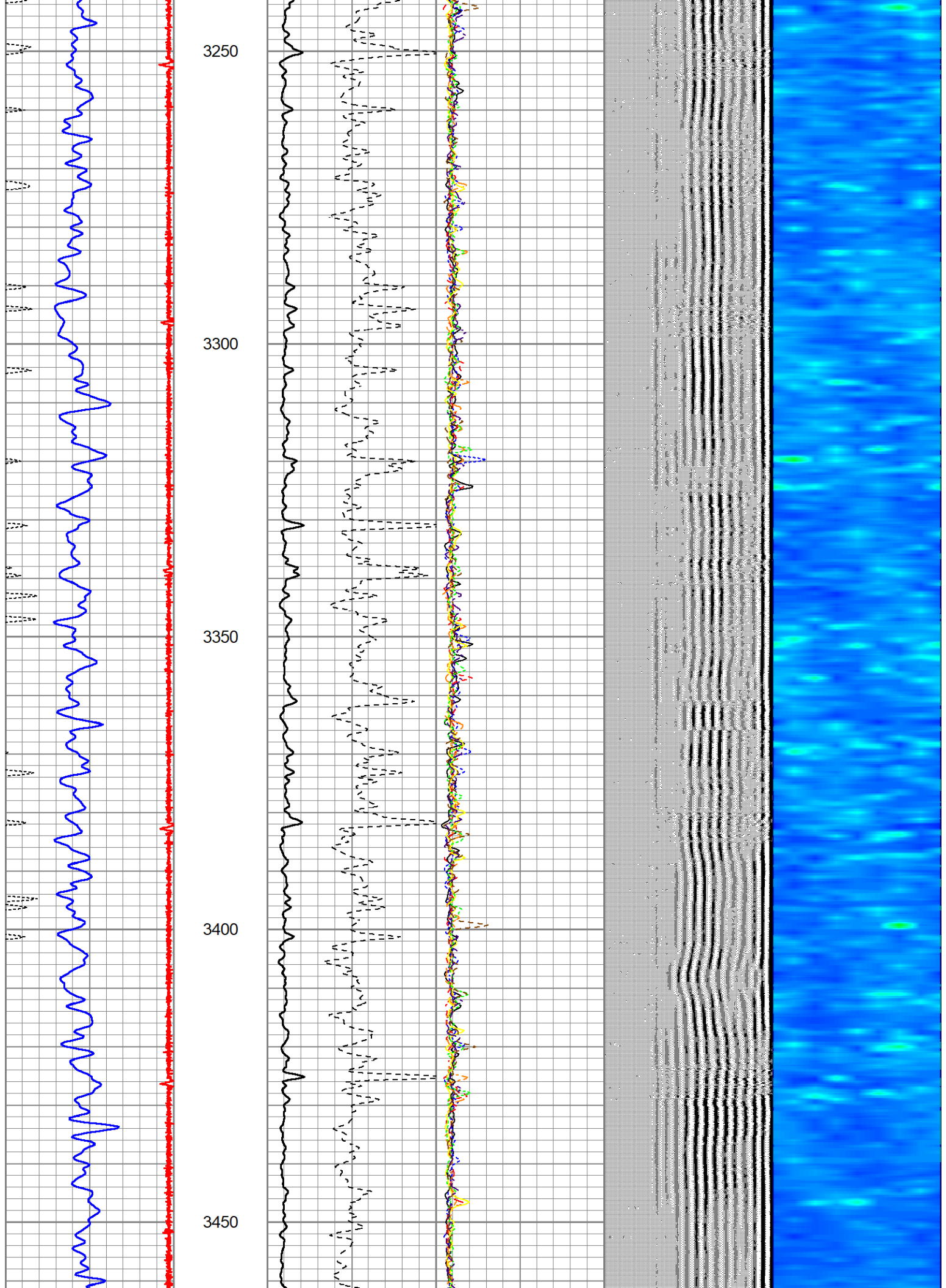
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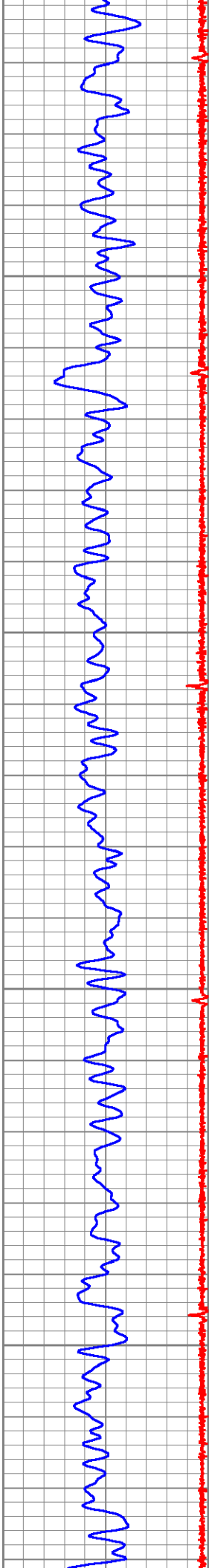










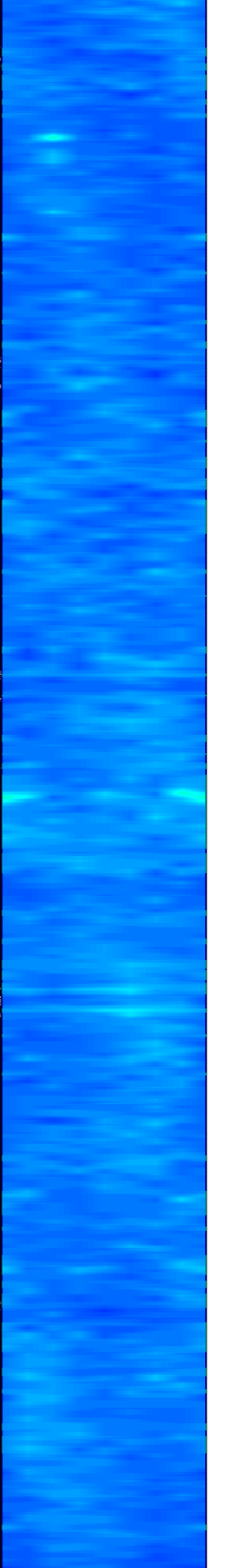
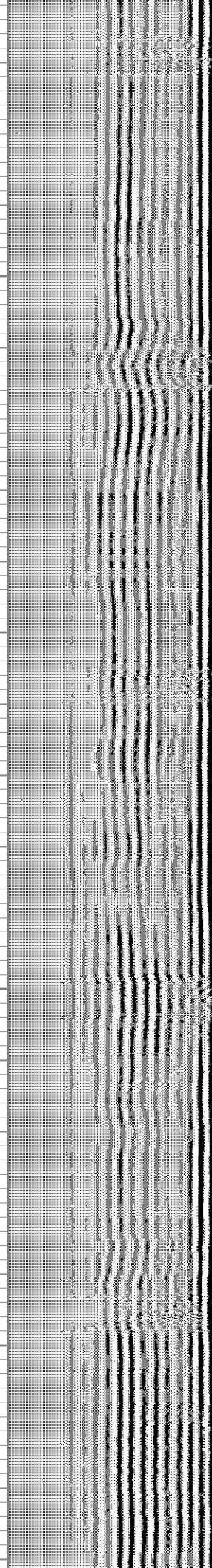
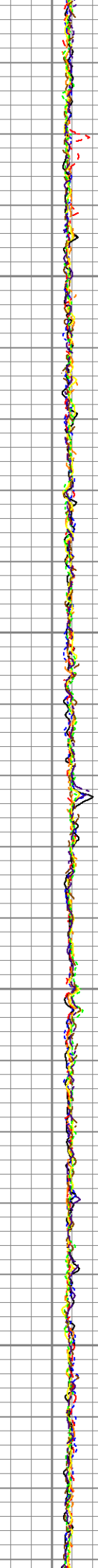
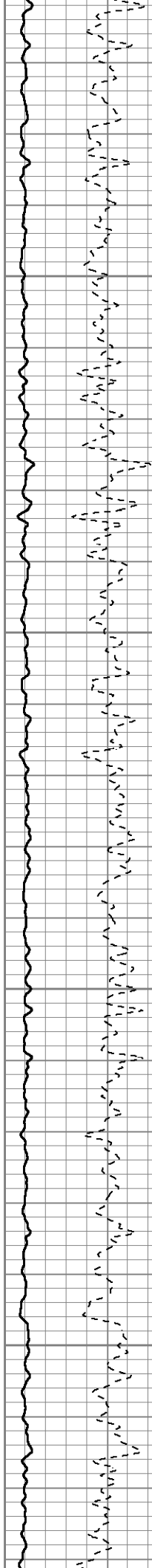


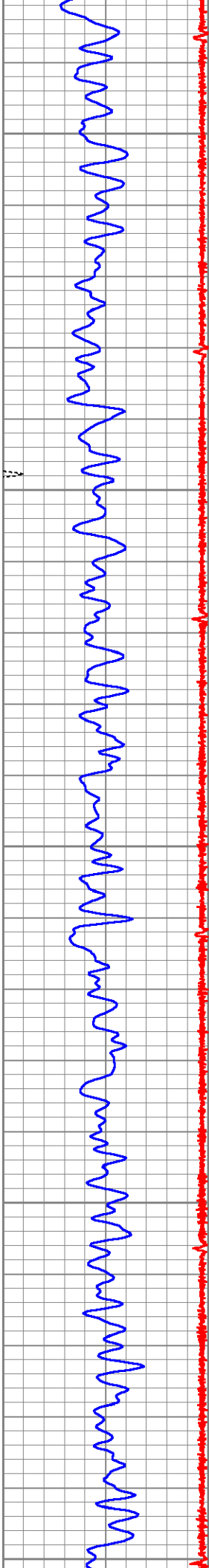
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3650





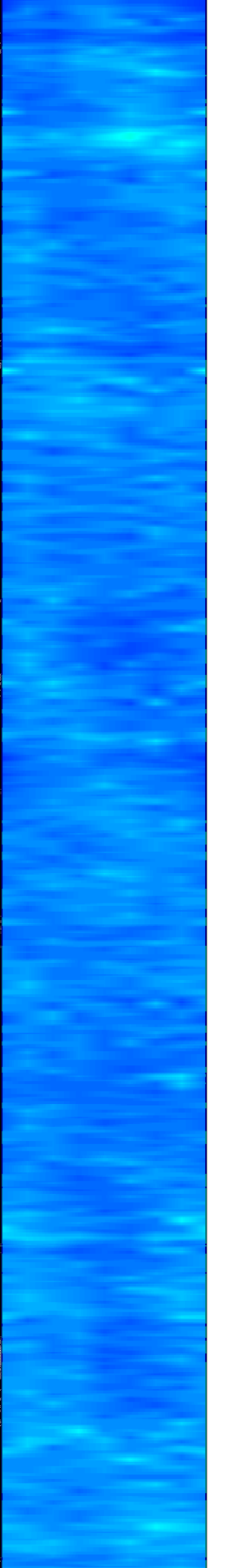
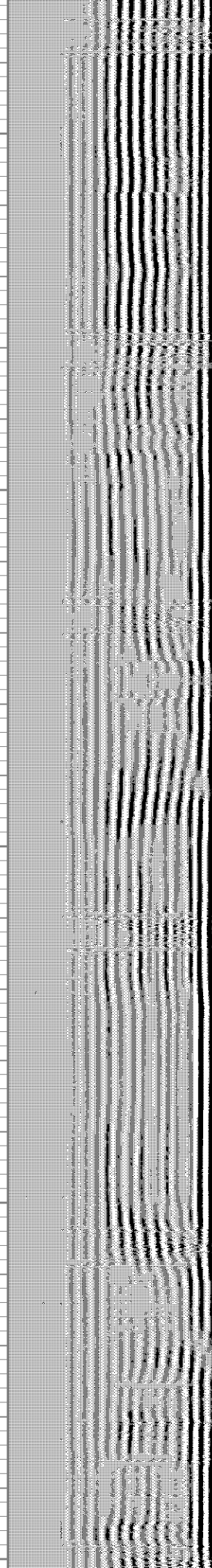
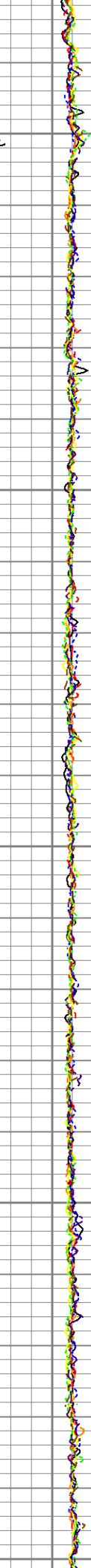
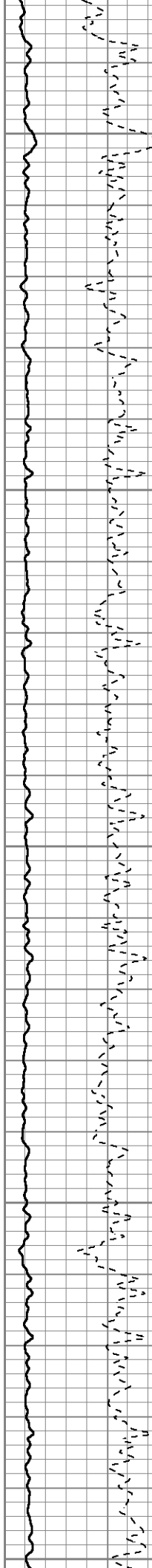
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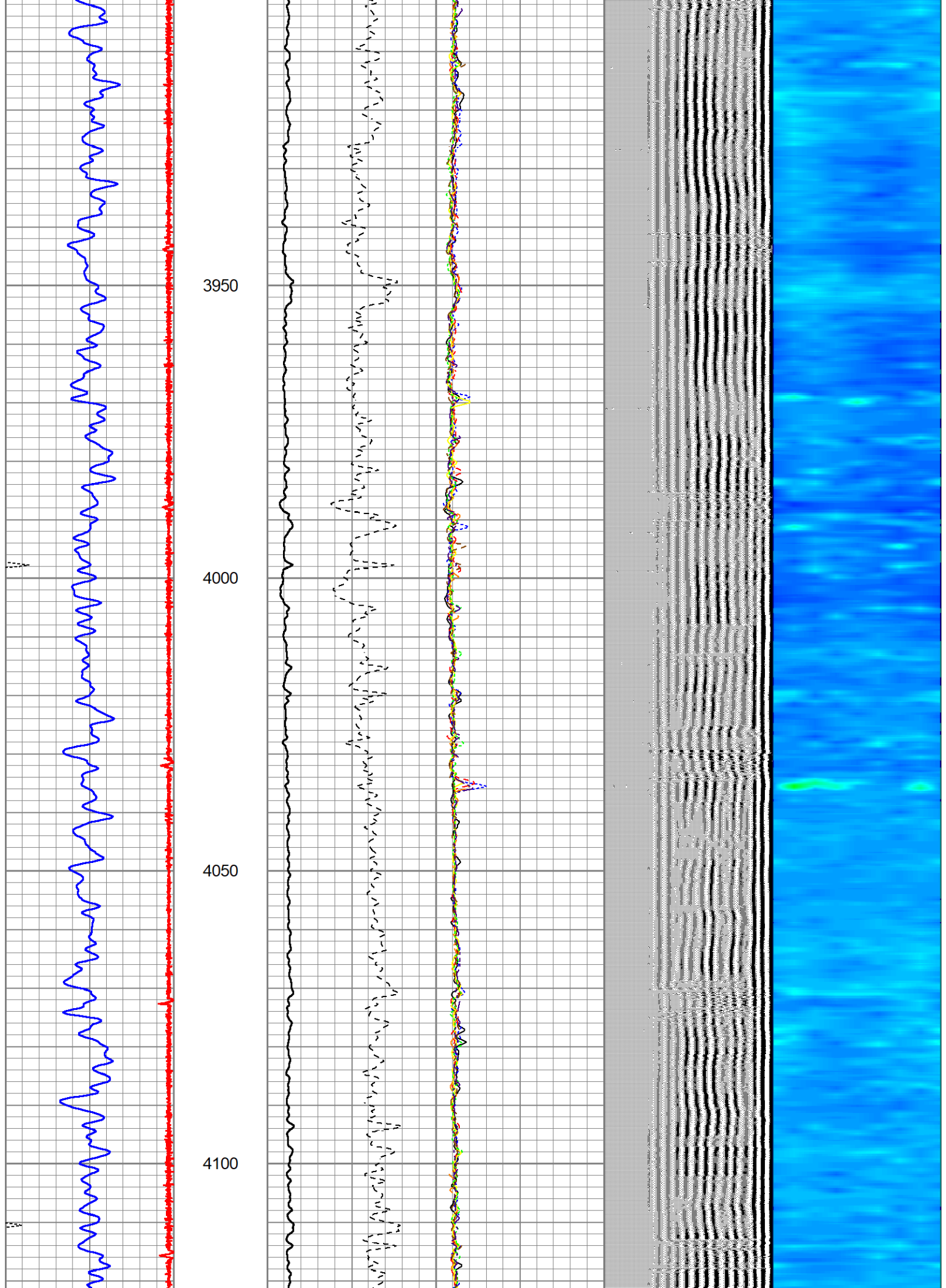
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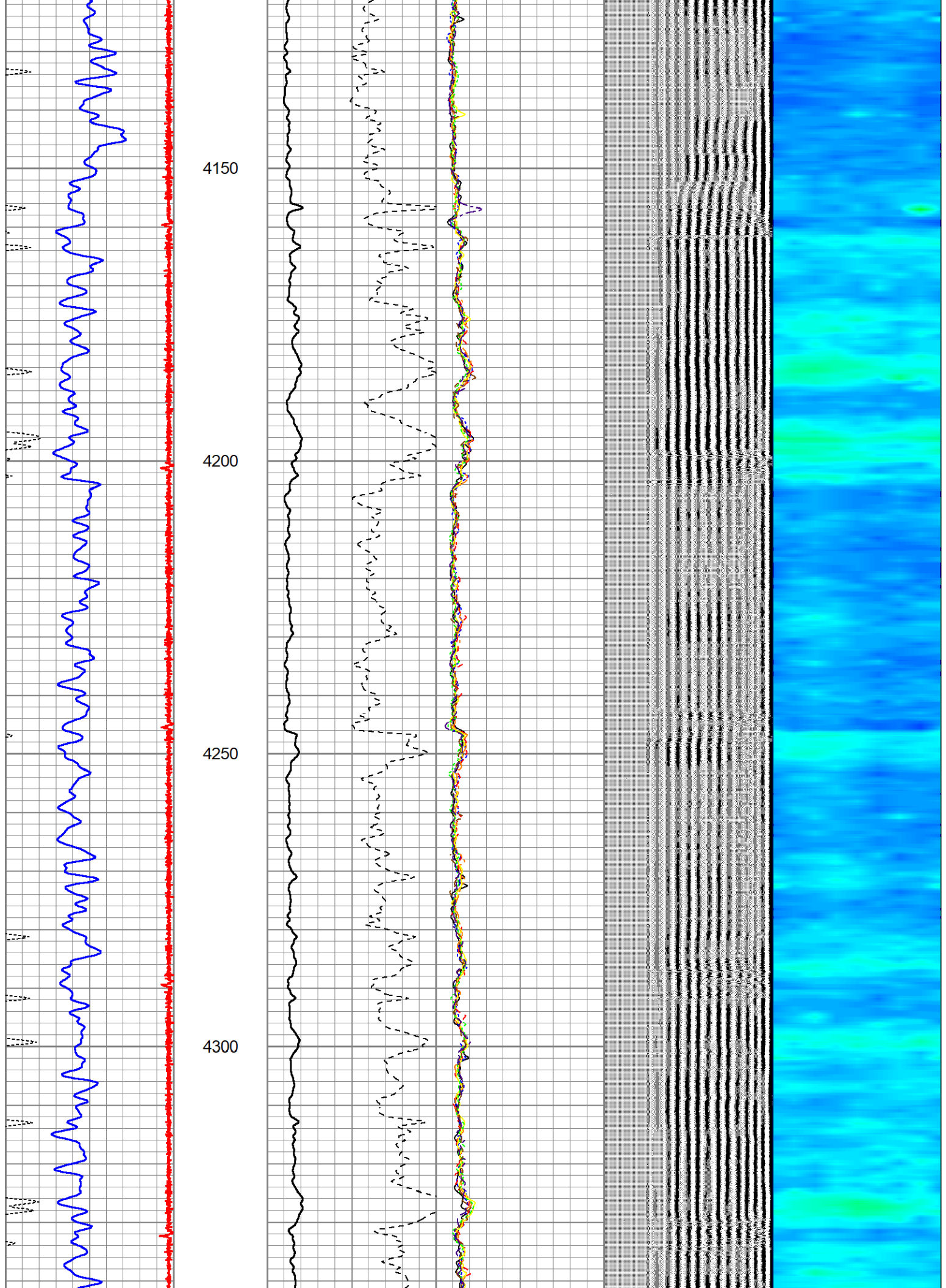
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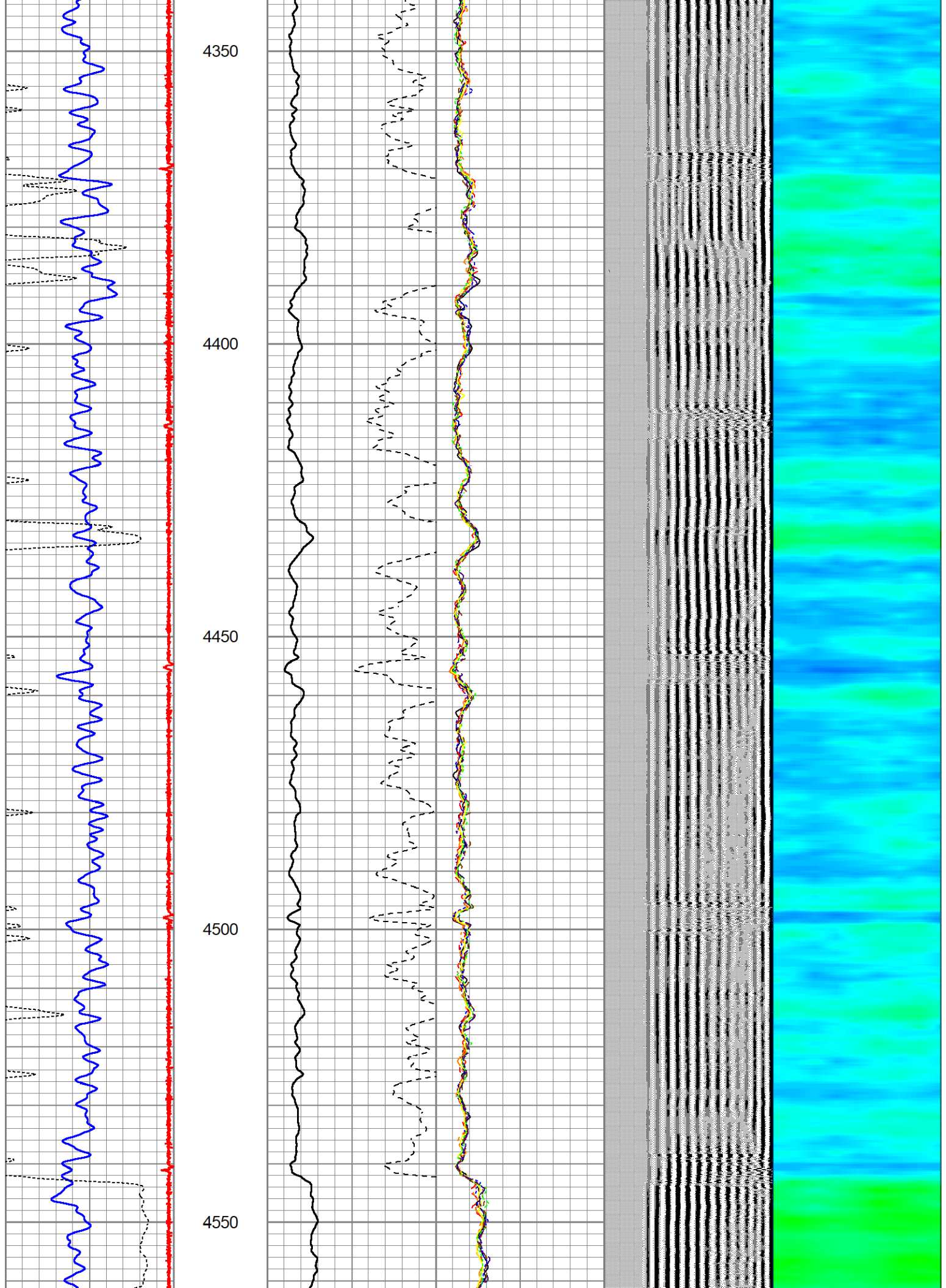
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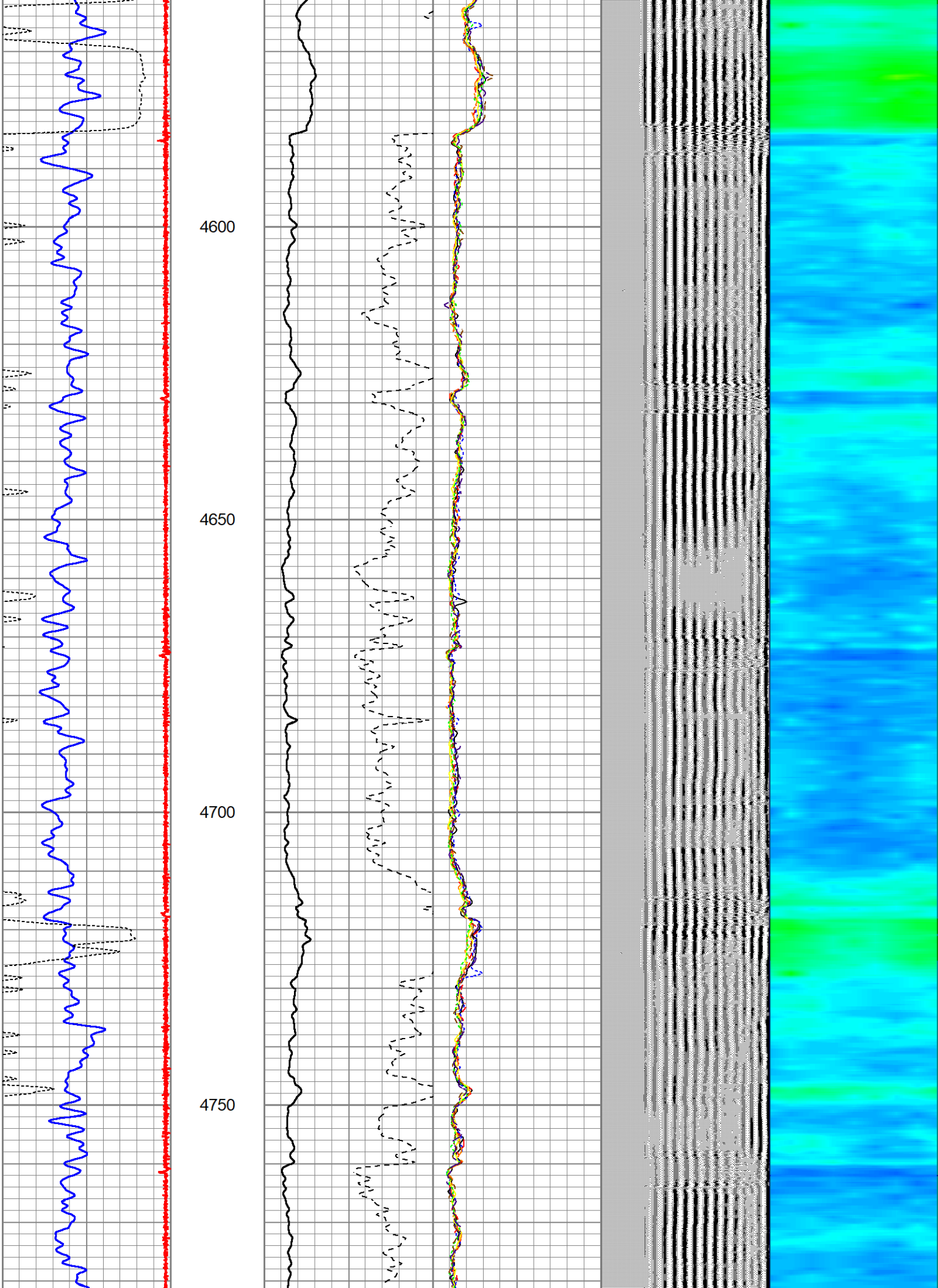
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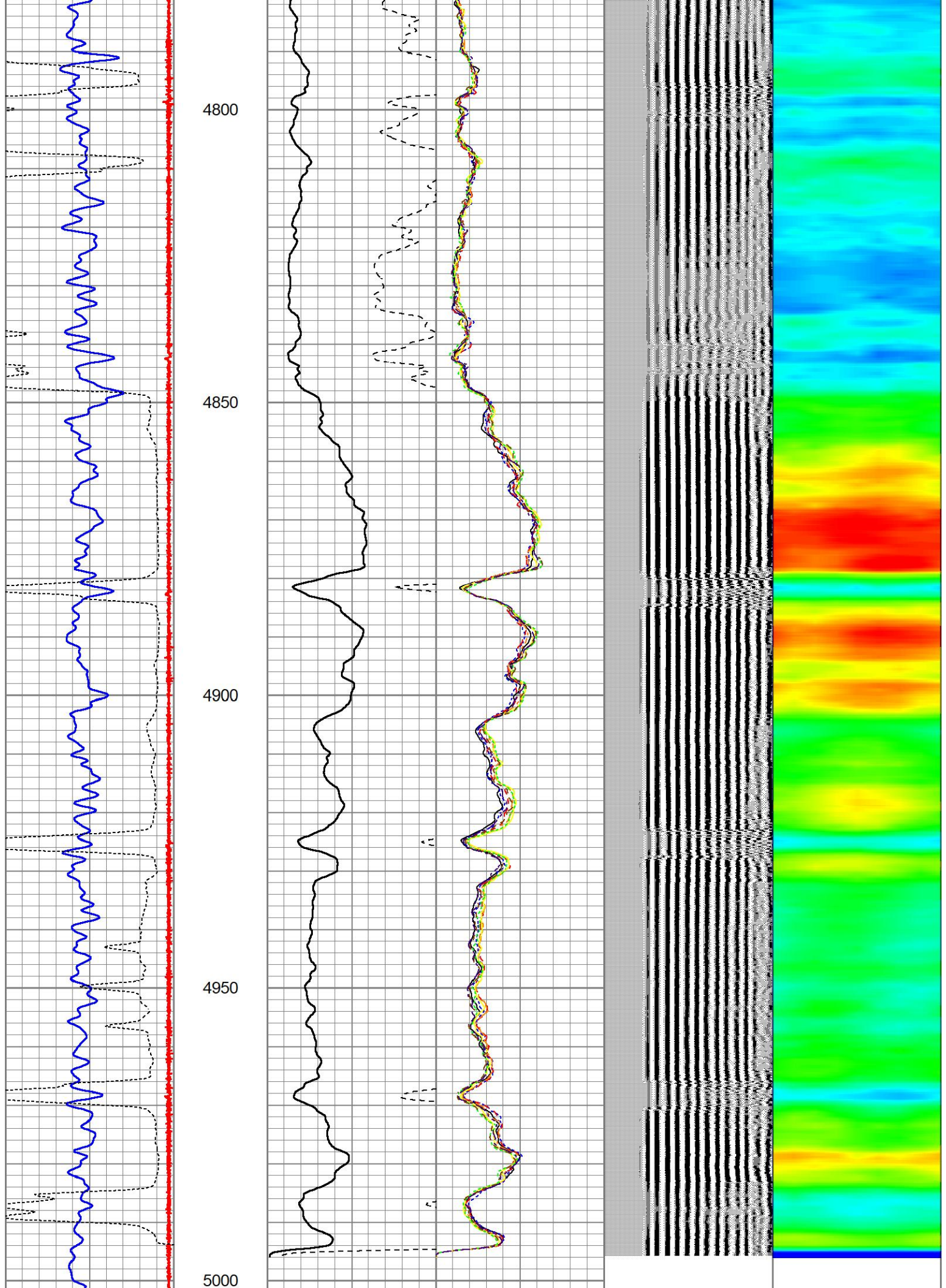












50	CCL	-1.5	0	AMP (mV)	100	0	AMPS1	100	200	VDL (usec)	1200	1	RADIAL MAP	8
0	GR (GAPI)	150	AMPLIFIED AMP3		0	AMPS2	100							
340	TT3 (usec)	294	0	(mV)	20	0	AMPS3	100						
					0	AMPS4	100							
					0	AMPS5	100							
					0	AMPS6	100							
					0	AMPS7	100							
					0	AMPS8	100							

Calibration Report	
Database File	pinnacle 2-2hz rcbl.db
Dataset Pathname	pass5
Dataset Creation	Wed Dec 11 14:49:48 2024

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION		Thu Nov 14 12:19:26 2024			
	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0	0.6000			cps
					GAPI/cps
PRIMARY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Segmented Cement Bond Log Calibration Report

Serial Number:	101020
Tool Model:	Probe
Calibration Casing Diameter:	7.000 in
Calibration Depth:	439.283 ft

Master Calibration, performed Wed Dec 11 14:24:21 2024:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.531	1.800	62.000	113.715	1.624
CAL	0.002	0.875				
5'	0.002	0.559	1.800	62.000	108.052	1.625
SUM						

SUM							
S1	0.002	0.467	0.000	62.000	133.235	-0.244	
S2	0.002	0.517	0.000	62.000	120.228	-0.189	
S3	0.002	0.567	0.000	62.000	109.568	-0.177	
S4	0.002	0.598	0.000	62.000	103.859	-0.156	
S5	0.002	0.586	0.000	62.000	106.141	-0.174	
S6	0.002	0.541	0.000	62.000	115.009	-0.204	
S7	0.002	0.500	0.000	62.000	124.361	-0.208	
S8	0.002	0.480	0.000	62.000	129.690	-0.231	

Internal Reference Calibration, performed Tue Feb 12 13:45:01 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.002	0.875	1.000	0.000

Air Zero Calibration, performed Thu Feb 21 14:40:31 2013:

	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	

Log Variables

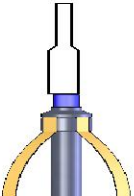
Database: C:\ProgramData\Warrior\Data\pinnacle 2-2hz rcbl.db
 Dataset: field/well/run1/pass5/_vars_

Top - Bottom

BOREID in 9.625	BOTTEMP degF 100	CASEOD in 7	CASETHCK in 0	CASEWGHT lb/ft 26	MAXAMPL mV 62	MINAMPL mV 1.8	MINATTN db/ft 0.8
PERFS No	PPT usec 394	SRFTEMP degF 50	TDEPTH ft 5000				

Variable Description

BOREID : Borehole I.D.	CASEWGHT : Casing Weight	PERFS : Perforation Flag
BOTTEMP : Bottom Hole Temperature	MAXAMPL : Maximum Amplitude	PPT : Predicted Pipe Time
CASEOD : Casing O.D.	MINAMPL : Minimum Amplitude	SRFTEMP : Surface Temperature
CASETHCK : Casing Thickness	MINATTN : Minimum Attenuation	TDEPTH : Total Depth

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-STNDRD Standard Cable Head	1.00	1.69	10.00

			CENT-PTS1.70 (PT0934) Probe 1.70 Centalizer	3.08	1.70	10.00
WVFS8	11.88		RBT-Probe (101020) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFS7	11.88					
WVFS6	11.88					
WVFS5	11.88					
WVFS4	11.88					
WVFS3	11.88					
WVFS2	11.88					
WVFS1	11.88					
WVFCAL	11.88					
WVF3FT	11.88					
WVF5FT	10.88					
			CENT-PTS1.70 (PT0936) Probe 1.70 Centalizer	3.08	1.70	10.00
CCL	3.63					
			GR-Probe275dig (101010) Probe Gamma CCL	4.54	2.75	57.00
GR	0.89					

Dataset: pinnacle 2-2hz rcbl.db: field/well/run1/pass5
 Total length: 20.46 ft
 Total weight: 177.00 lb
 O.D.: 2.75 in