

HALLIBURTON

RADIAL  
CEMENT BOND LOG

Company	SANDRIDGE ENERGY		
Well	PATRIOT 0880 15-32H5		
Field	NORTH PARK		
County	JACKSON	State	CO
Company SANDRIDGE ENERGY			
Well PATRIOT 0880 15-32H5			
Field NORTH PARK			
County JACKSON State CO			
API No.:	5-057-06616	Serv. #:	
Location: SHL: 92' FSL: 2109' FEL		Other Services	
Sec: 29 Twp: 8N Rge: 80W		GR / CCL	

Permanent Datum	GROUND LEVEL Elevation 8086'			Elevation
Log Measured From	KB , 26 Ft. above perm. datum			K.B. 8112'
Drilling Measured From	KB			D.F. 8111'
				G.L. 8086'
Date @ Time Logged	15:30 13-JUN-2019	Type Fluid in Hole	WATER	
Run No.	ONE	Density of Fluid	8.4	
Depth - Driller	18458'	Fluid Level	26	
Depth - Logger	8100'	Cement Top Est. Logged	3476'	
Bottom - Logged Interval	8100'	Equipment / Location	RS06 / R.S. WY	
Top - Log Interval	SURFACE	Recorded by	ADAM WHITE	
Max. Recorded Temp.	NOT RECORDED	Witnessed by	Q. STRUCKMEYER	
CEMENTING DATA	Surface	Protection	Production	Liner
	String	String	String	
Date / Time Cemented				
Primary / Squeeze				
Expected				
Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/
Borehole Record				
Run Number	Bit	From	To	Size
SURFACE	12.25"	SURFACE	2407'	9.625"
PROD.	8.75"	SURFACE	18525'	5.5"
Casing & Tubing Record				
		Weight	36#	
		From	SURFACE	2407'
				18505'

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

LOG RAN PER CLIENT REQUEST  
FREE PIPE AND REPEAT = 0PSI  
MAIN = 1000 PSI

CORRELATED TO MJ @ 7208'

CREW; HIBBARD, HOVEY, ROPER

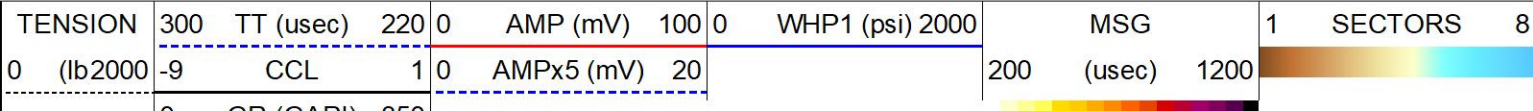
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES

MAIN PASS 1000 PSI

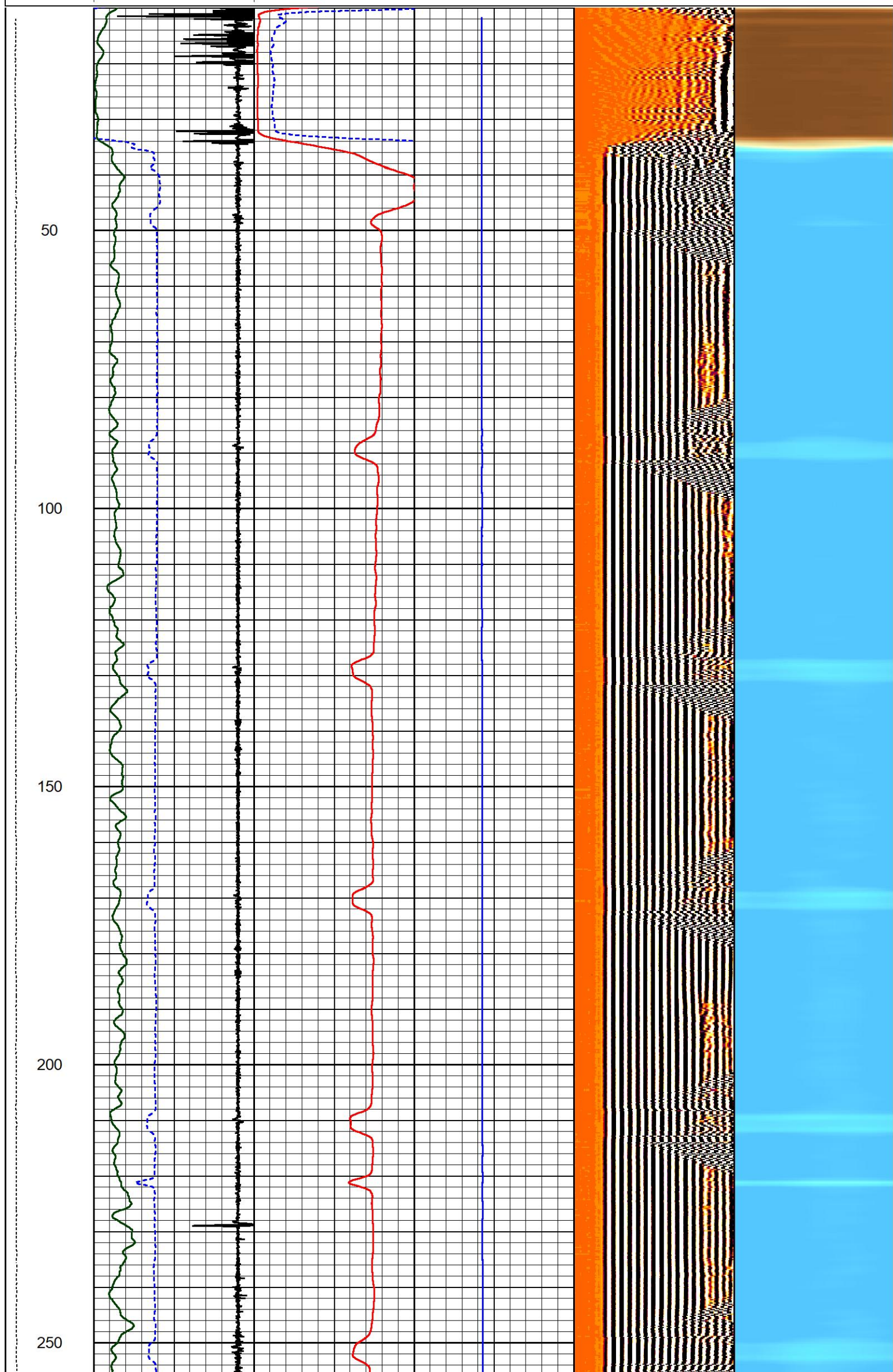
HALLIBURTON

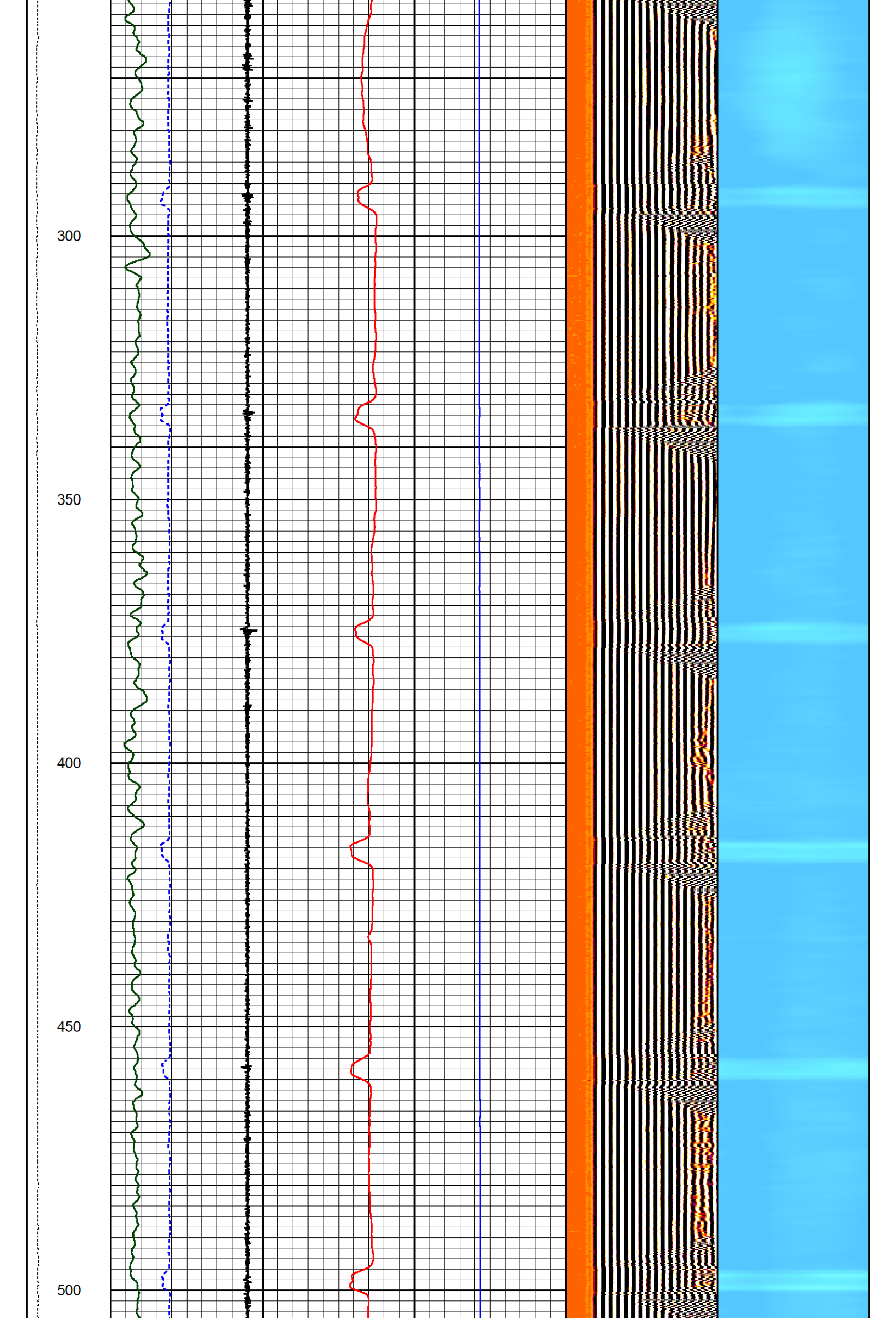
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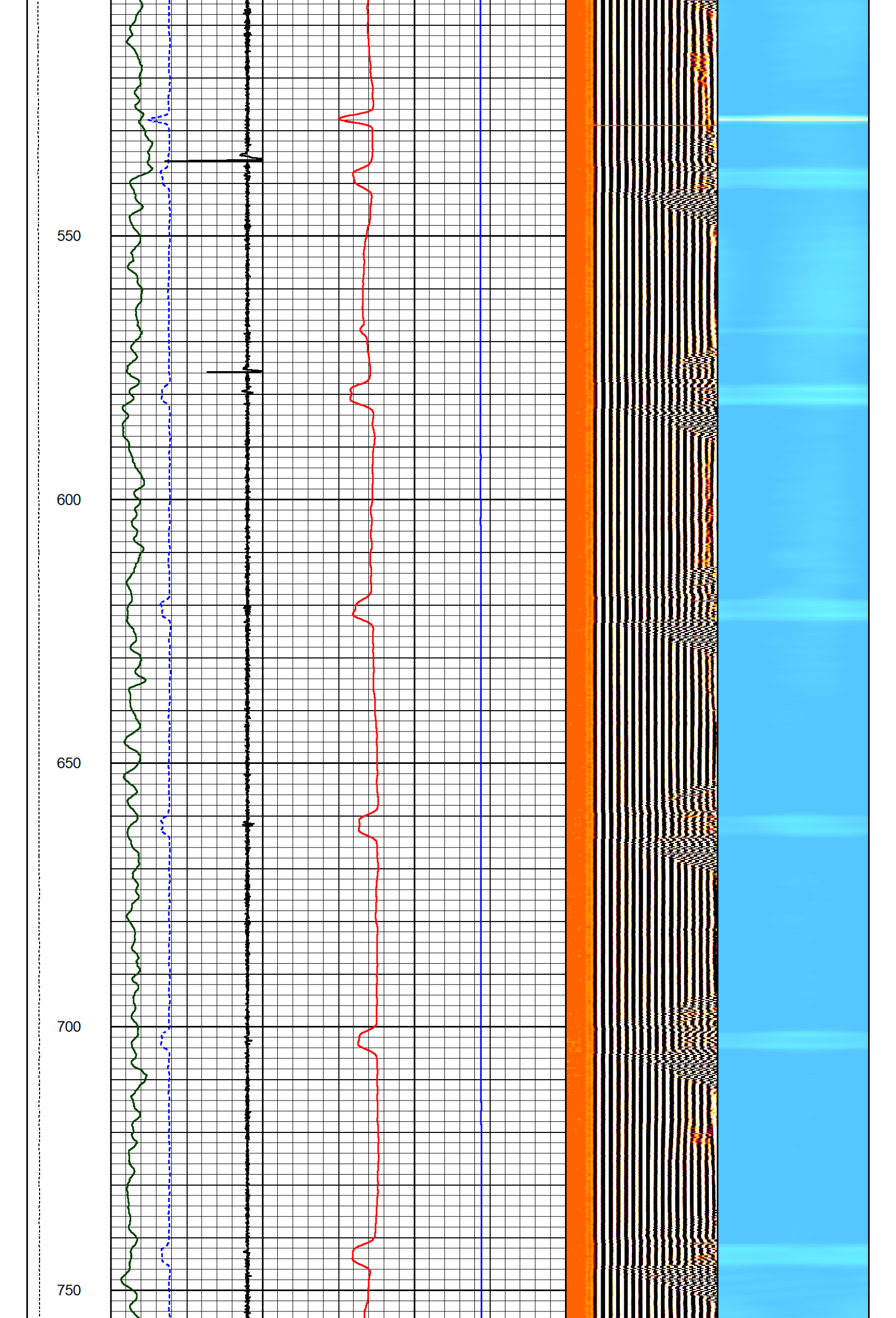
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Dataset Pathname RCBL/MAIN1  
Presentation Format rcbl\_macy  
Dataset Creation Thu Jun 13 17:51:57 2019  
Charted by Depth in Feet scaled 1:240



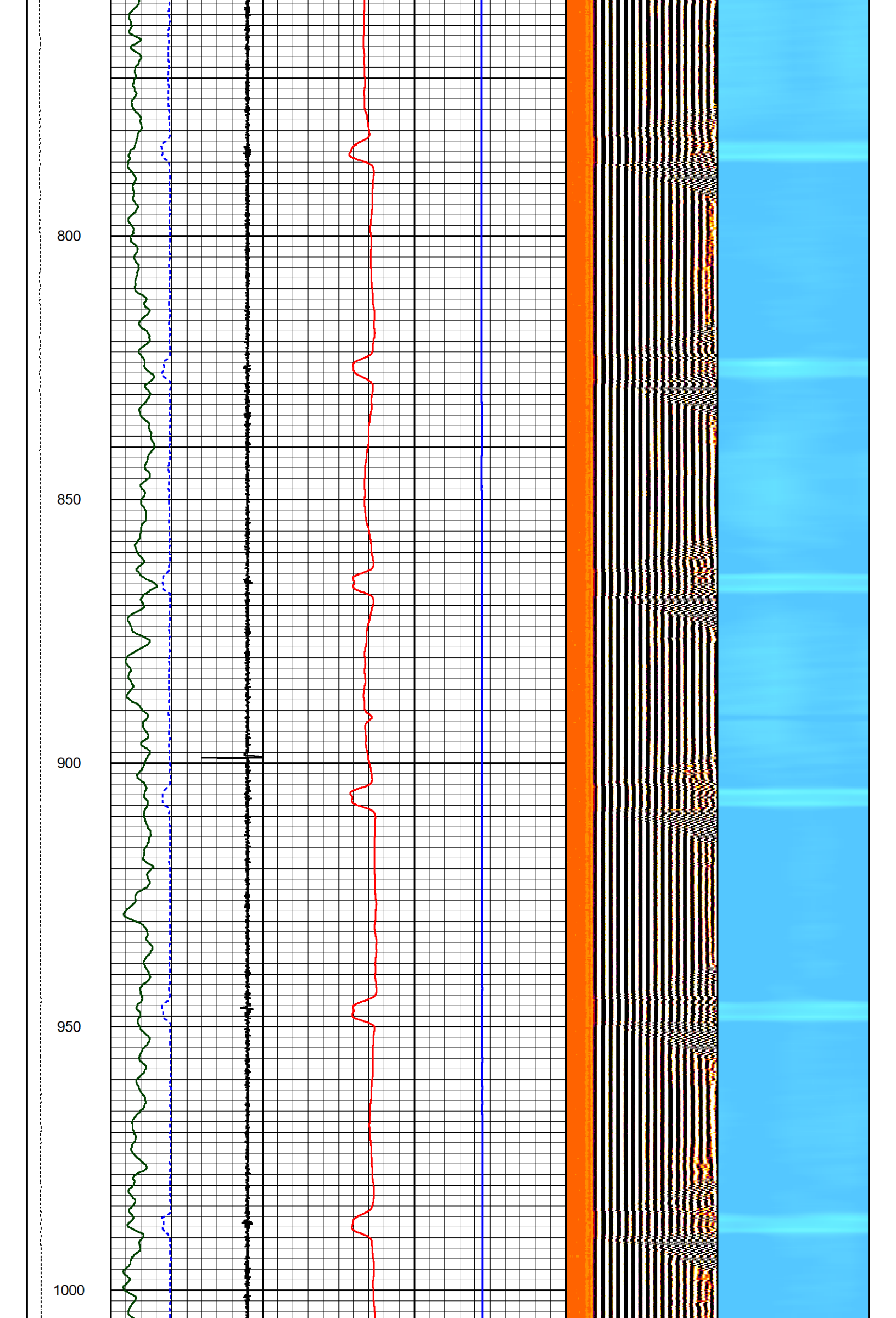


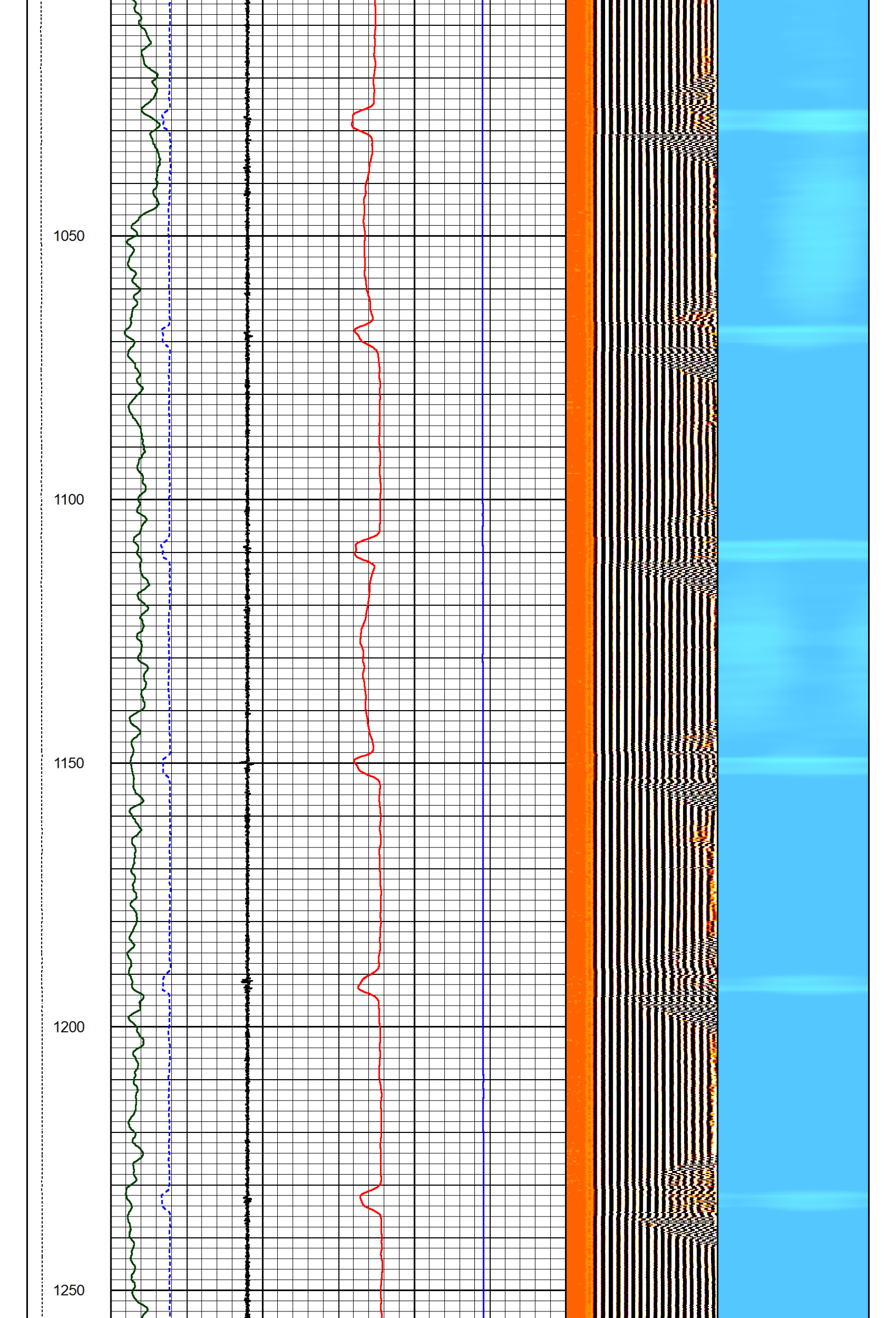


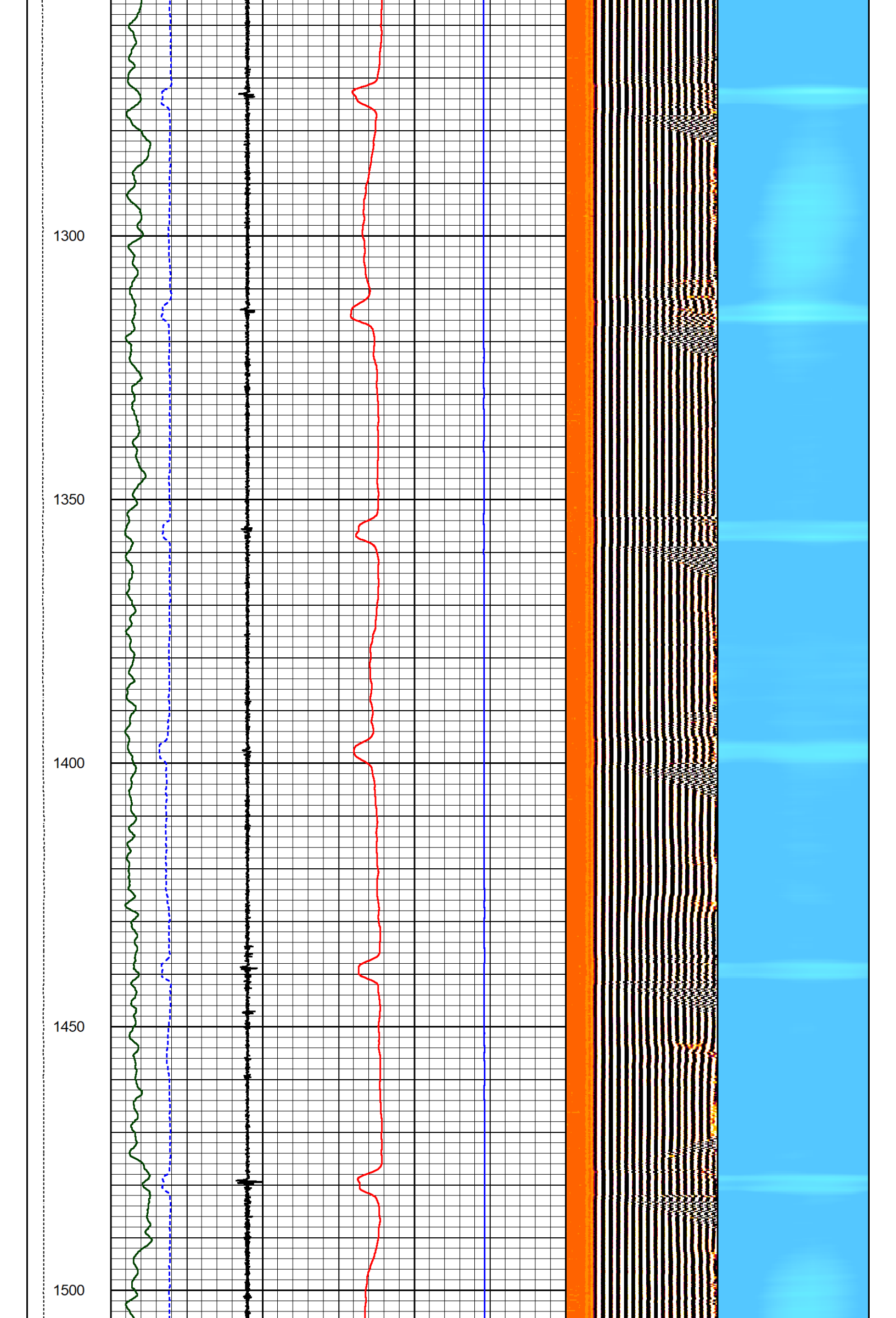


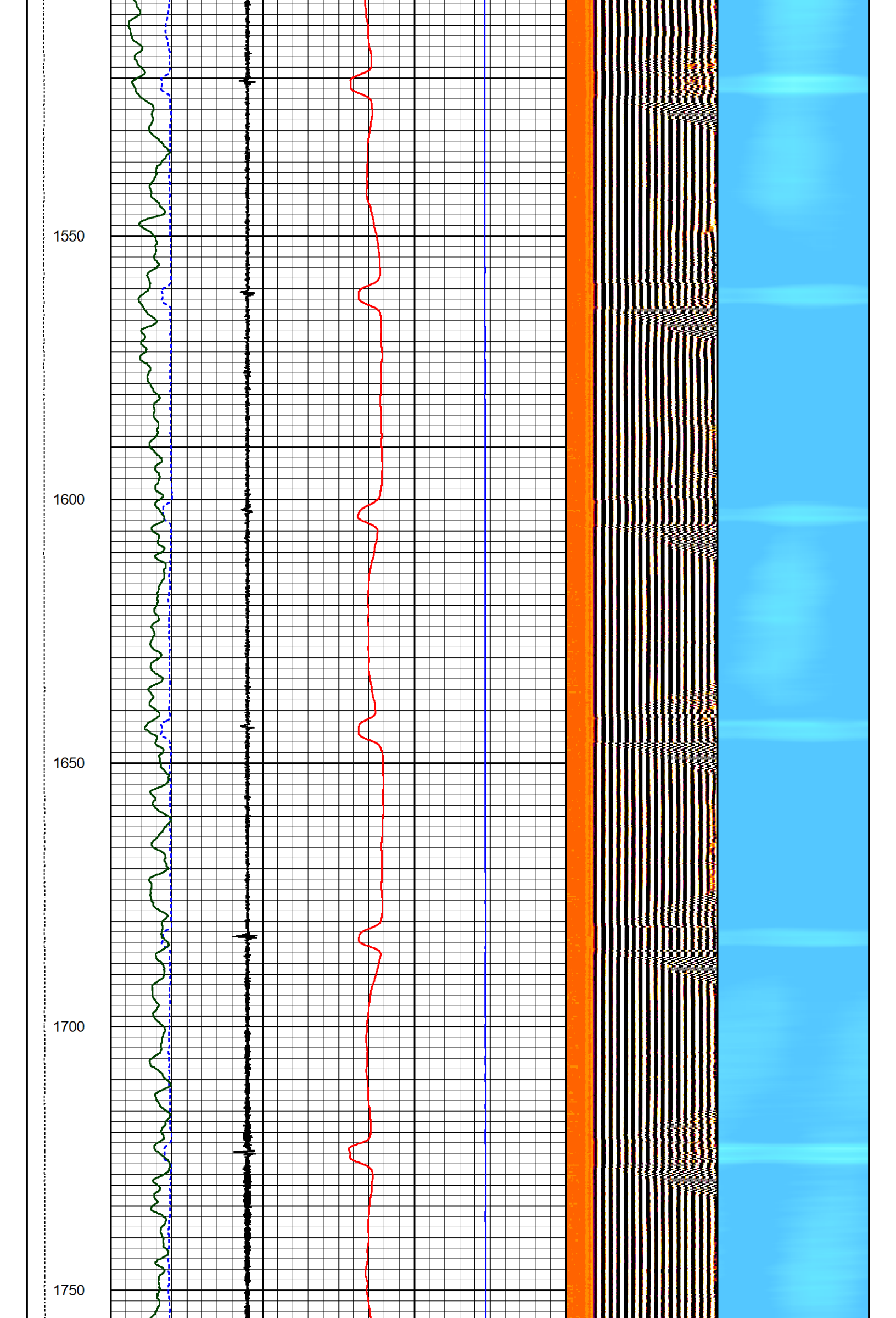




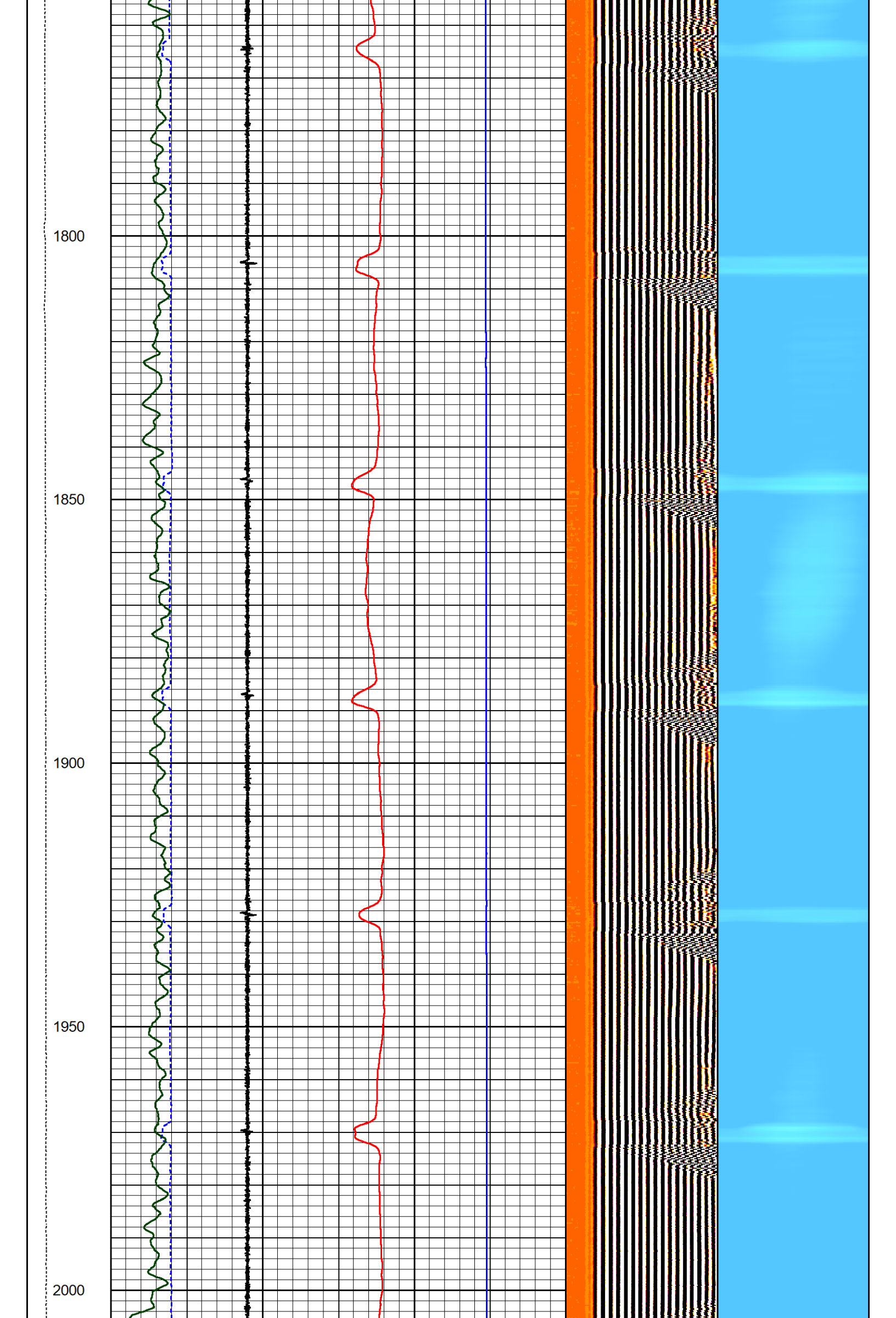


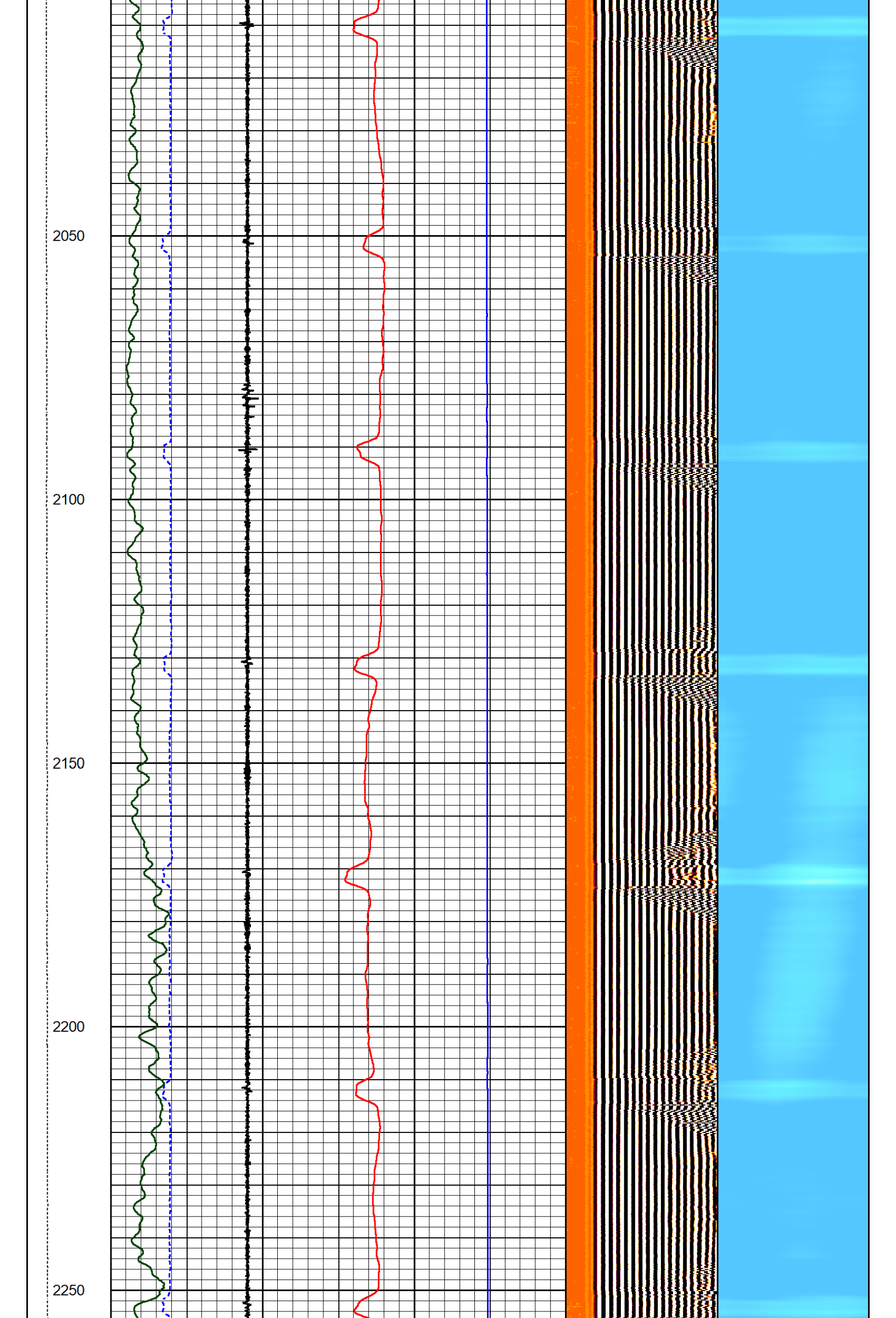


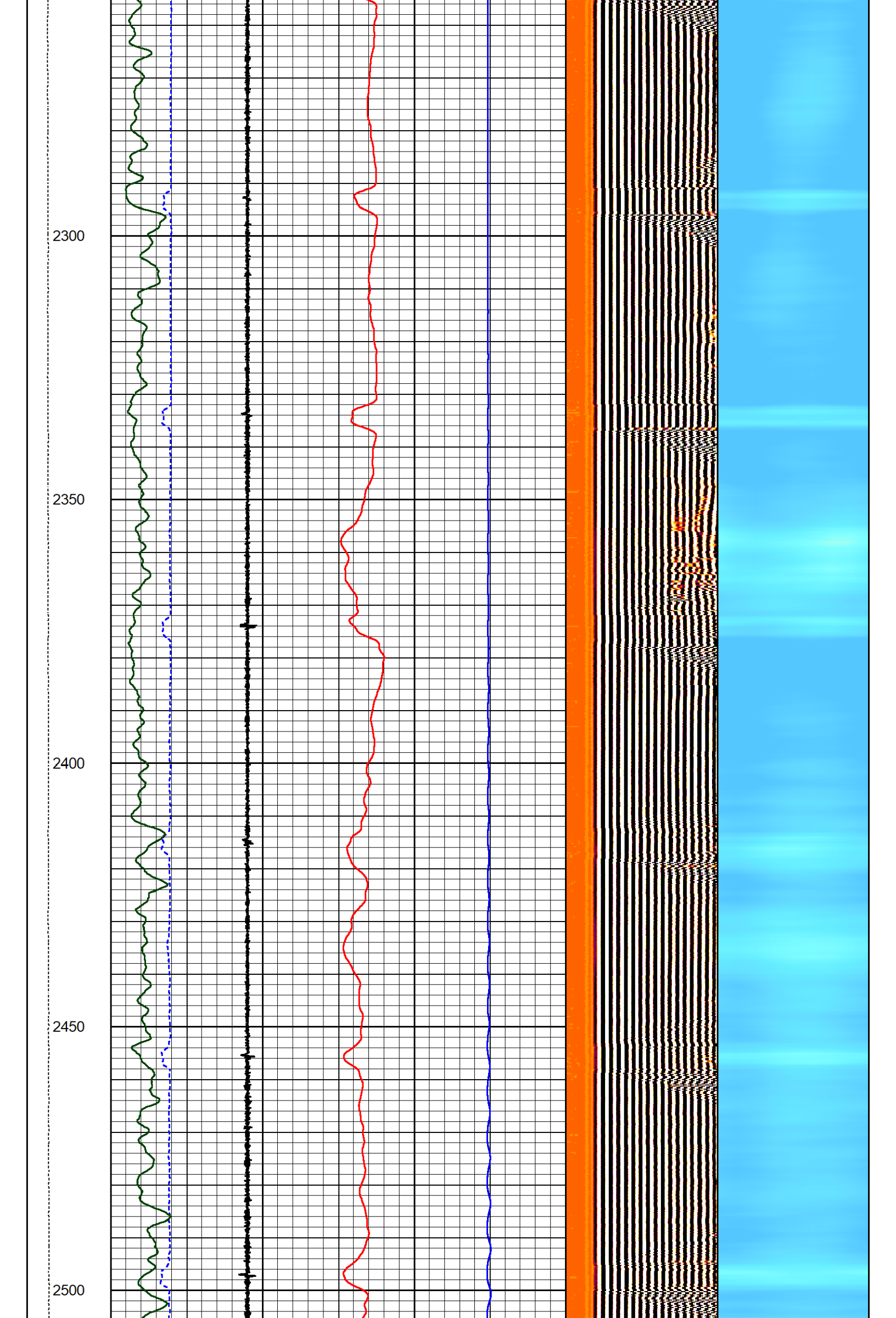




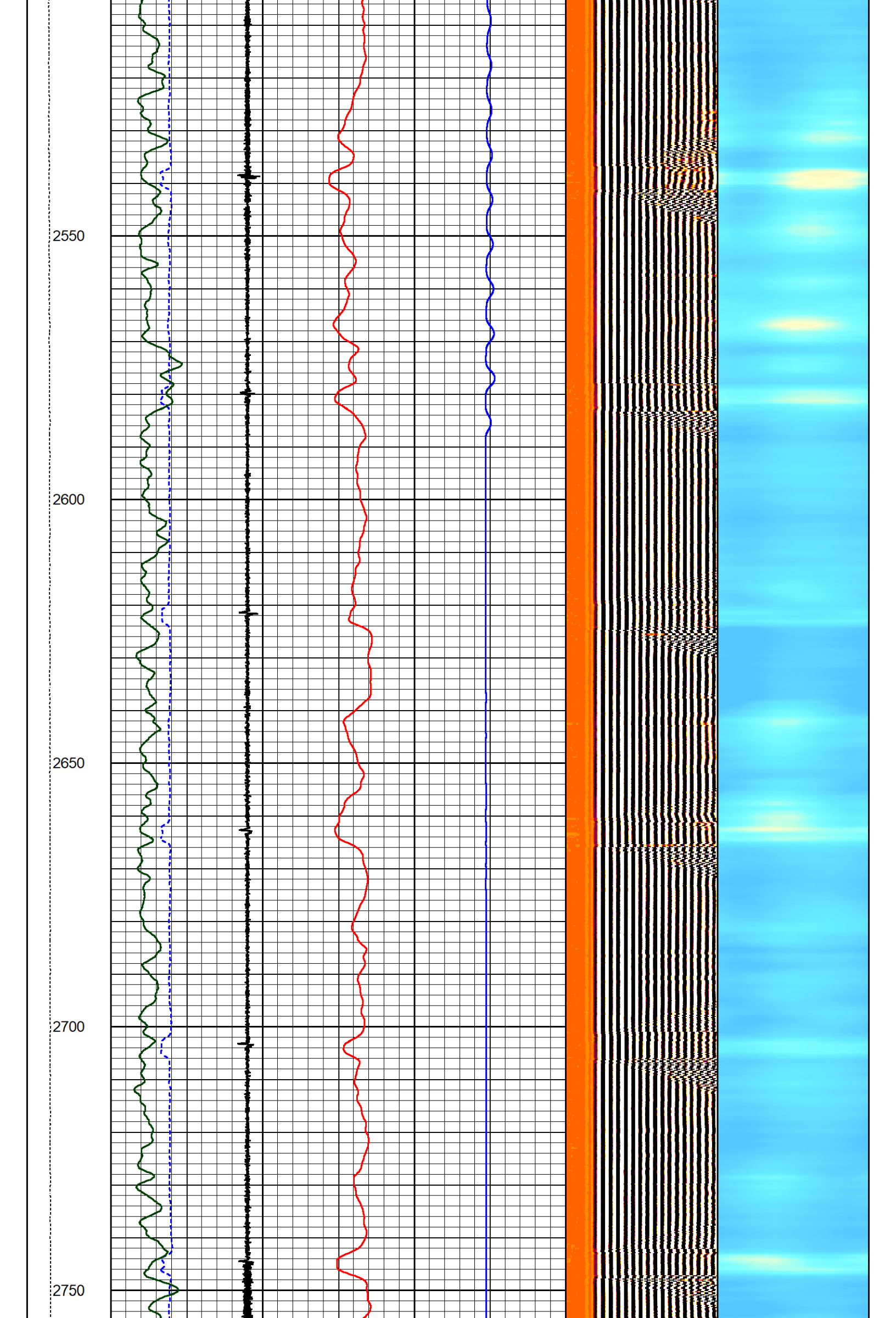


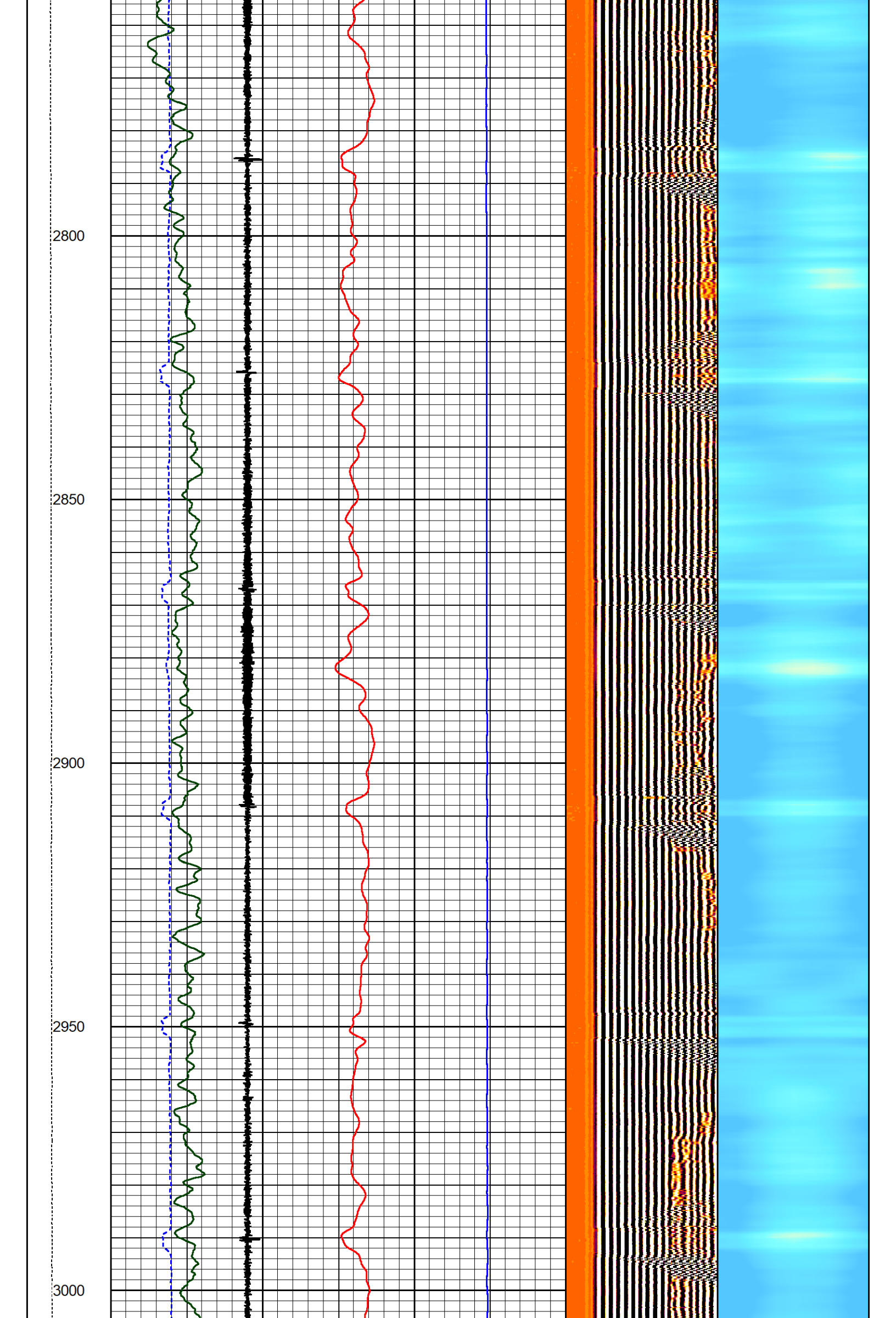


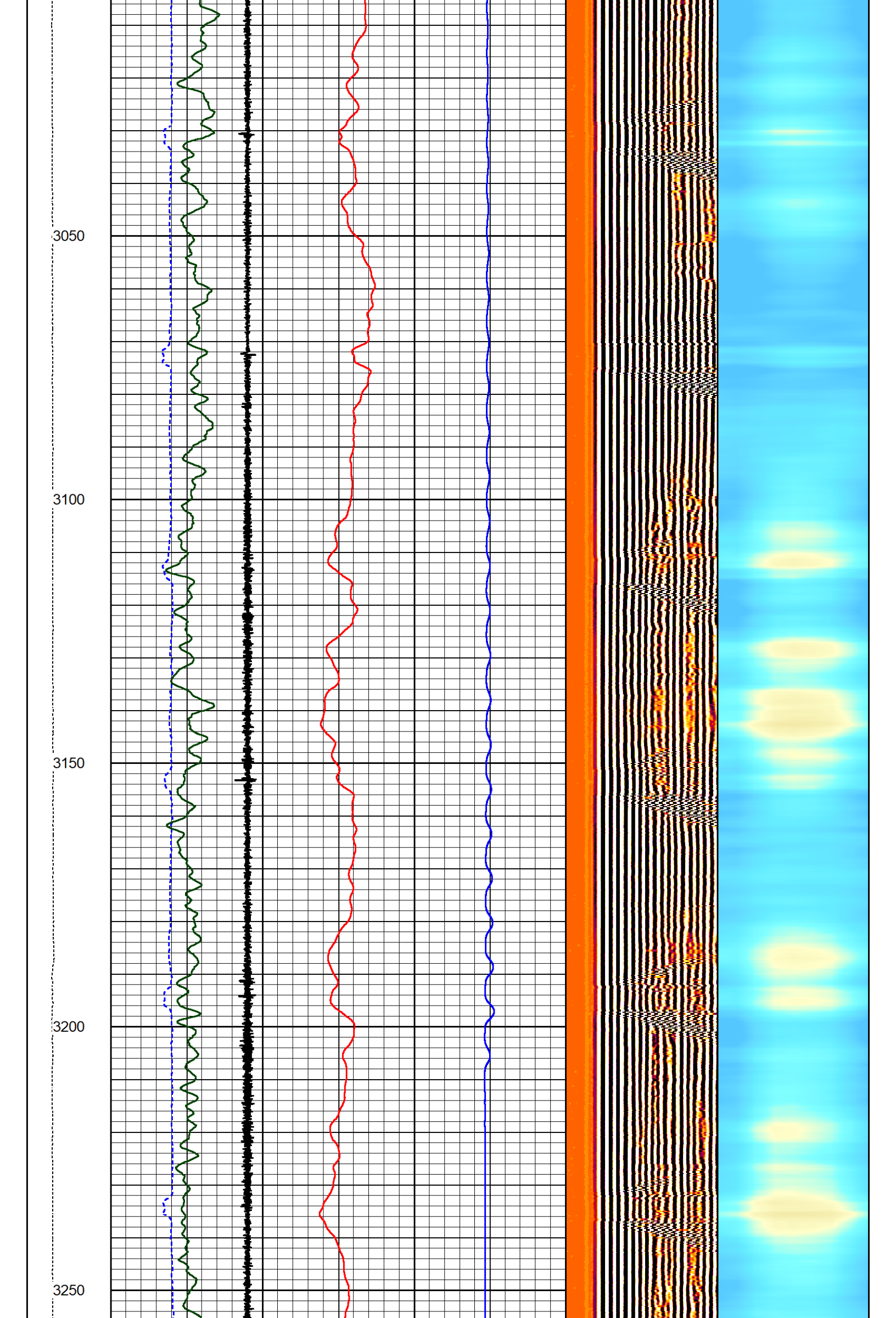






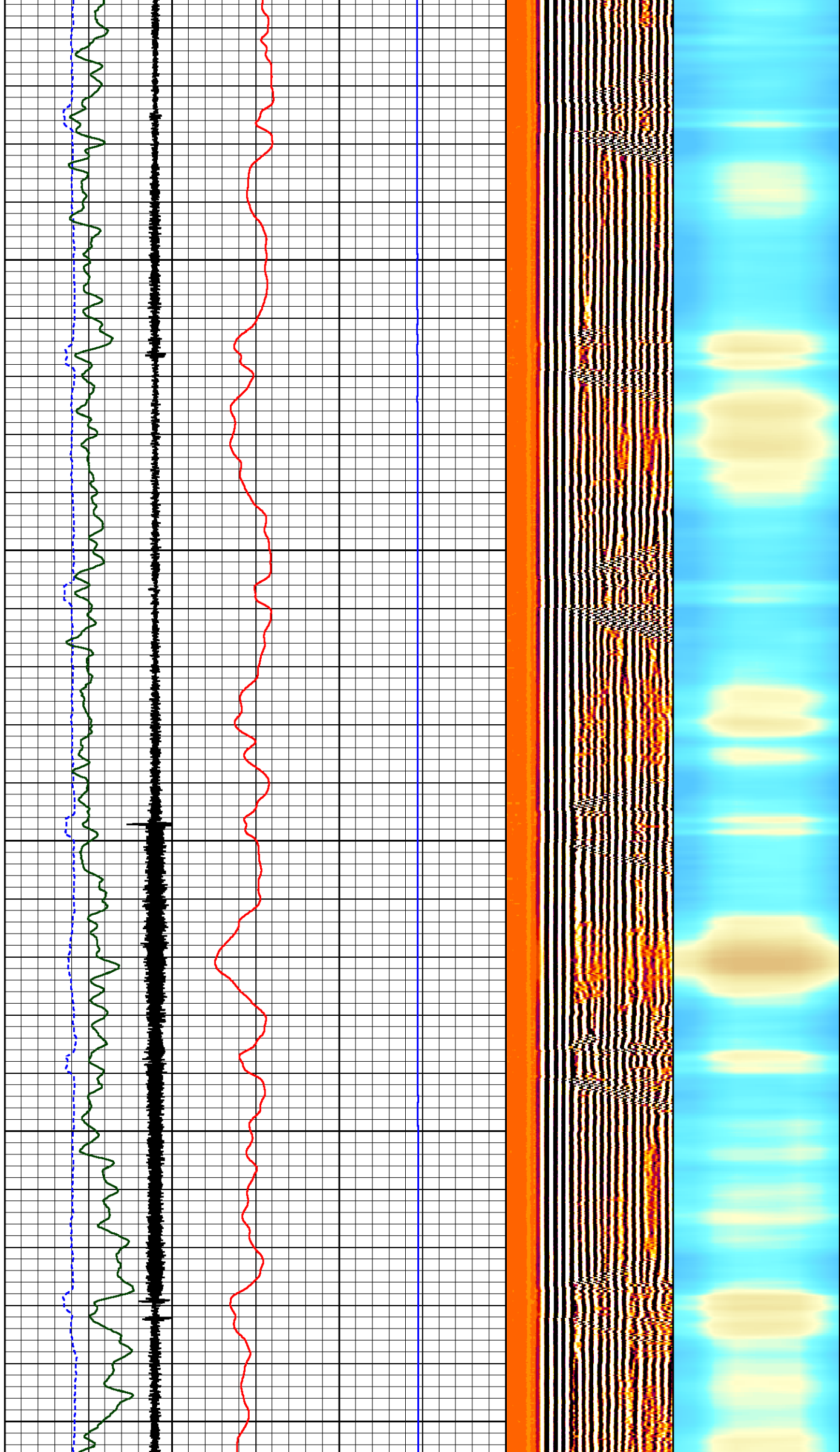


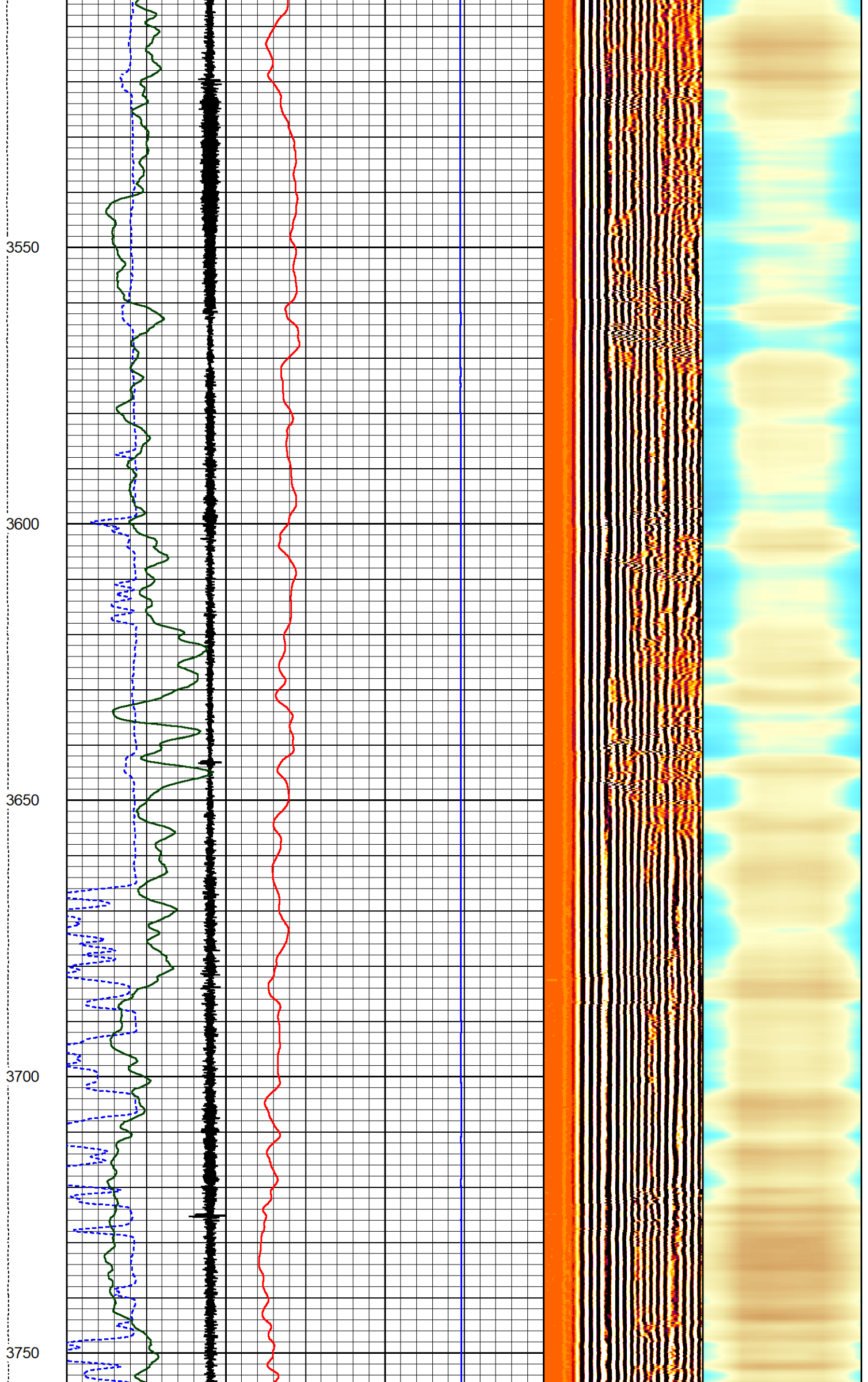


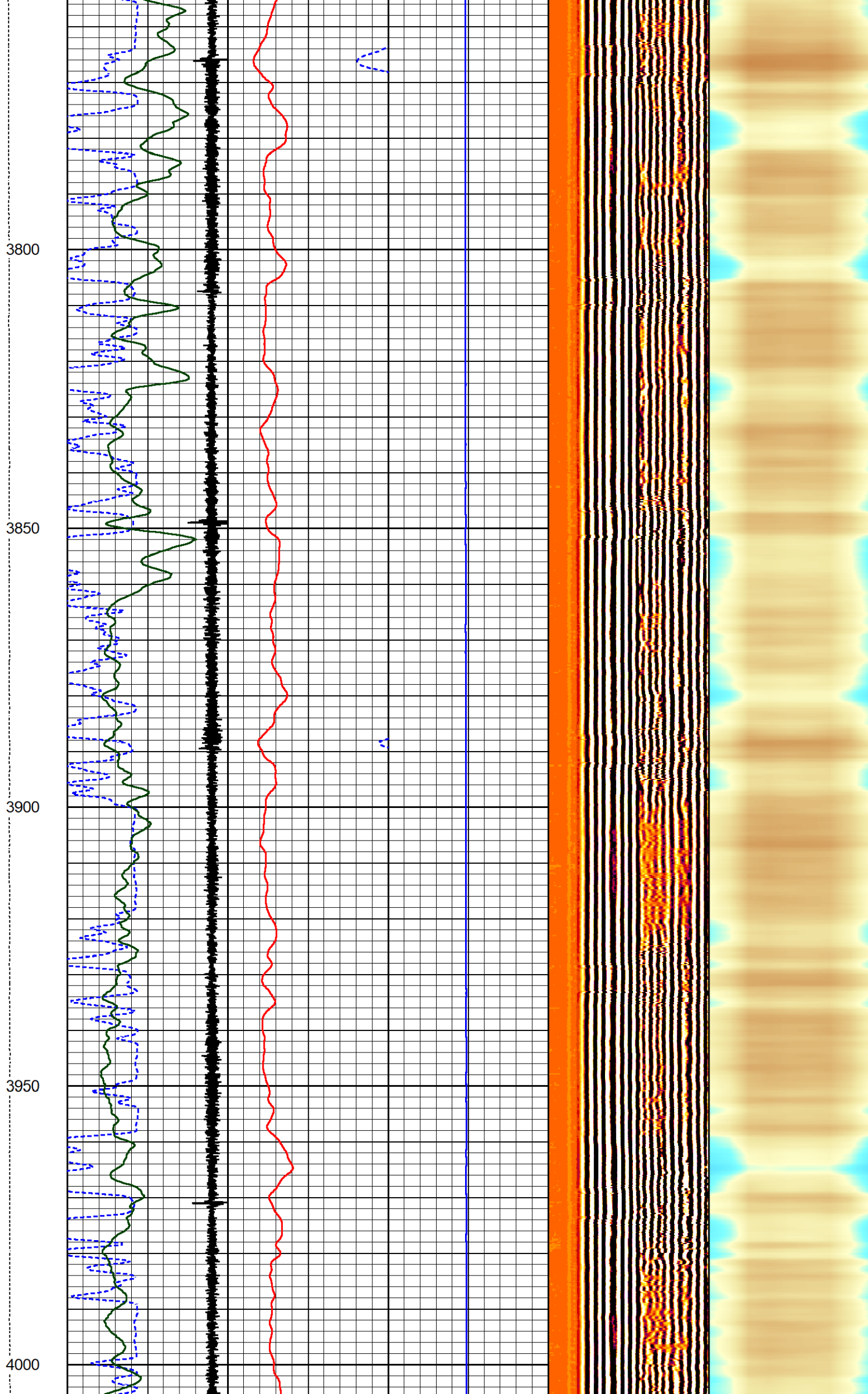




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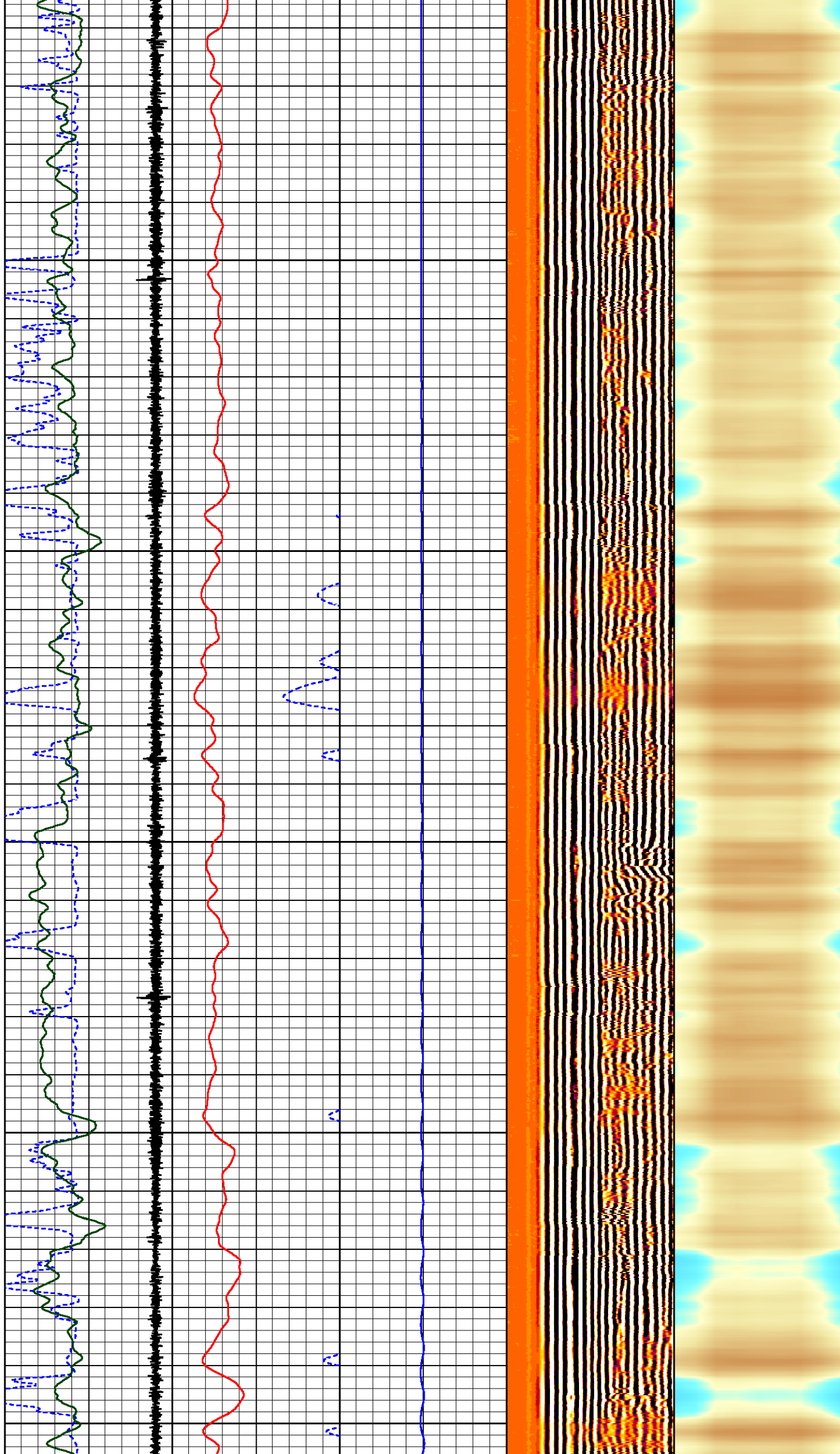
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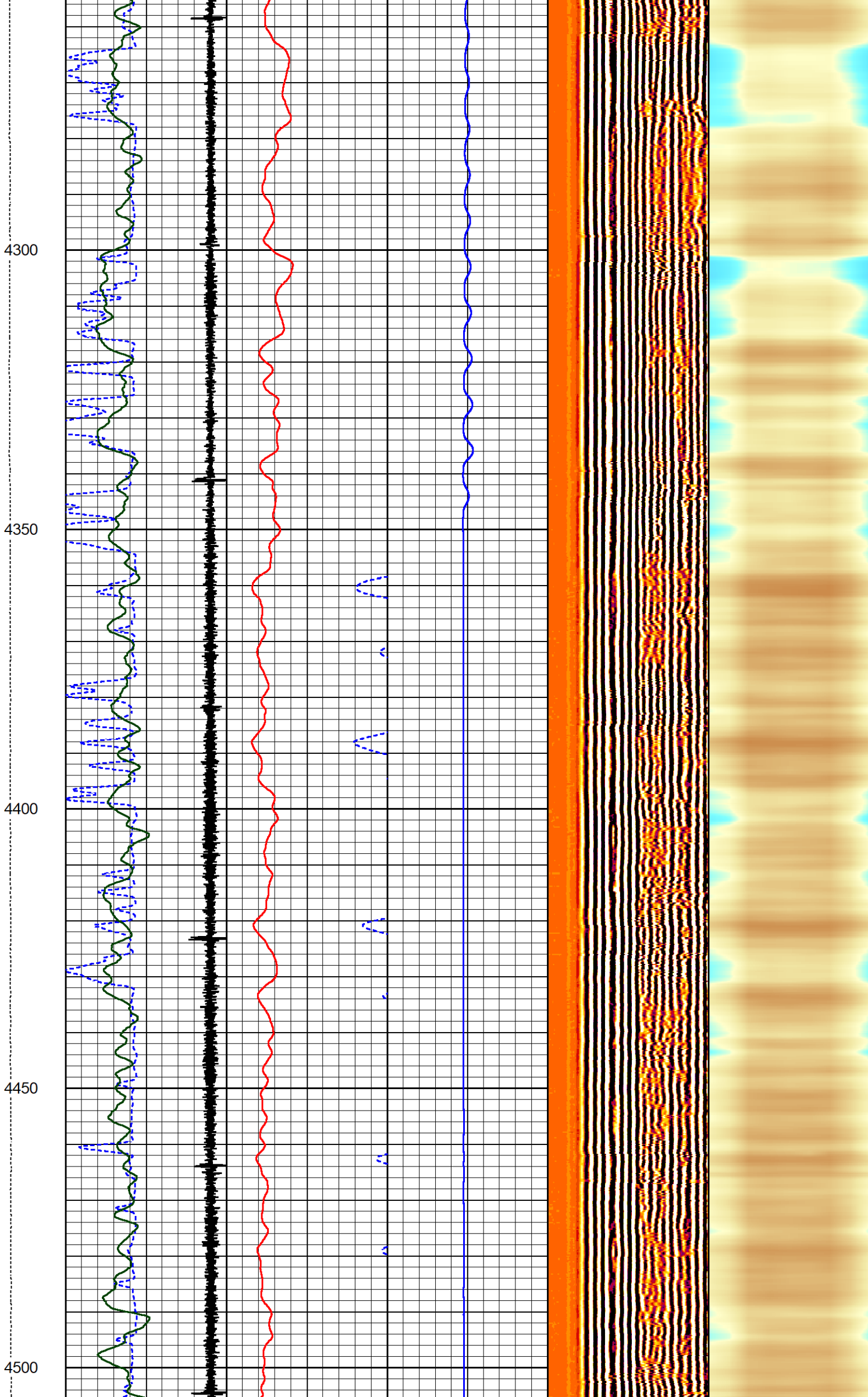
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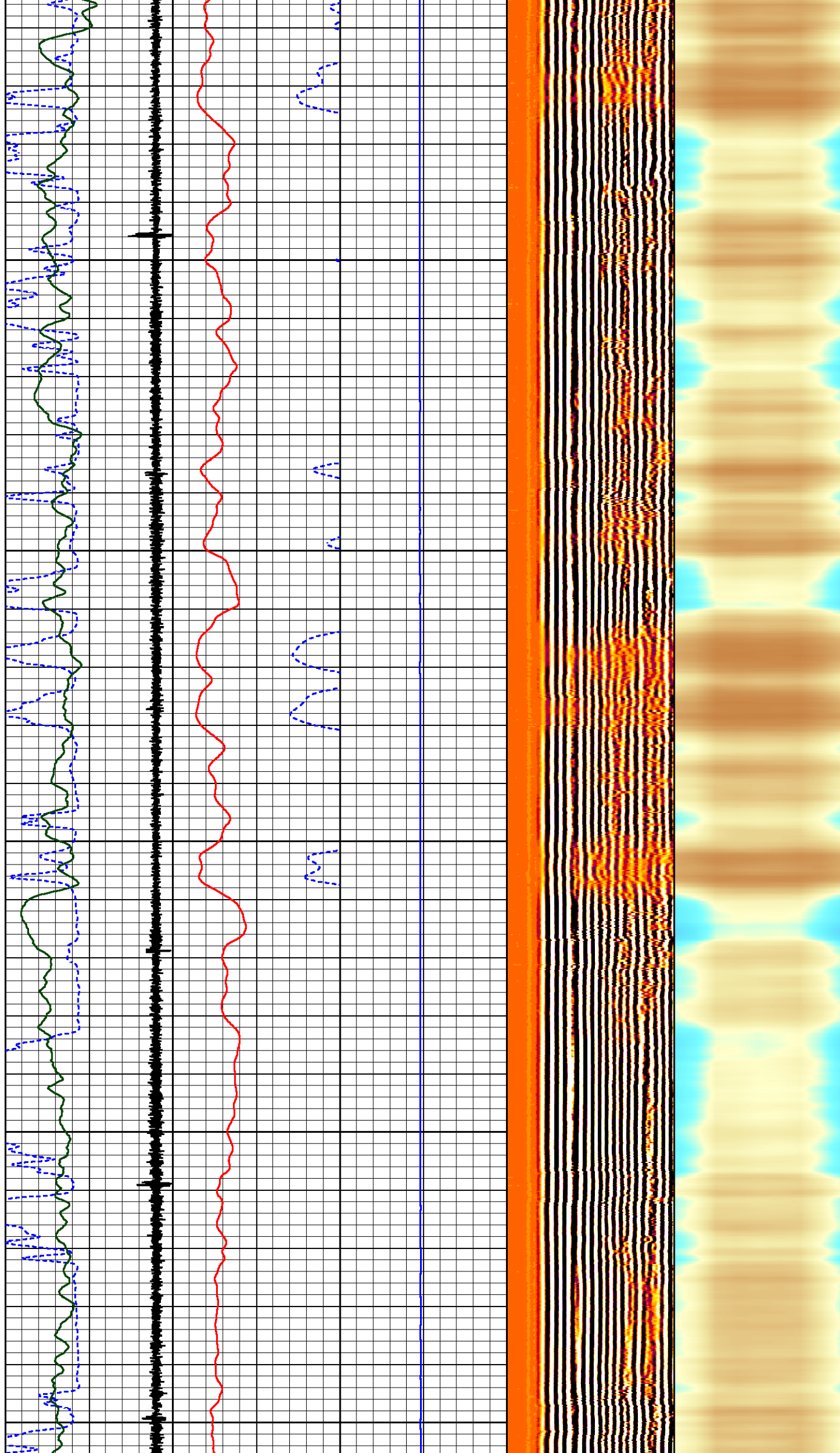
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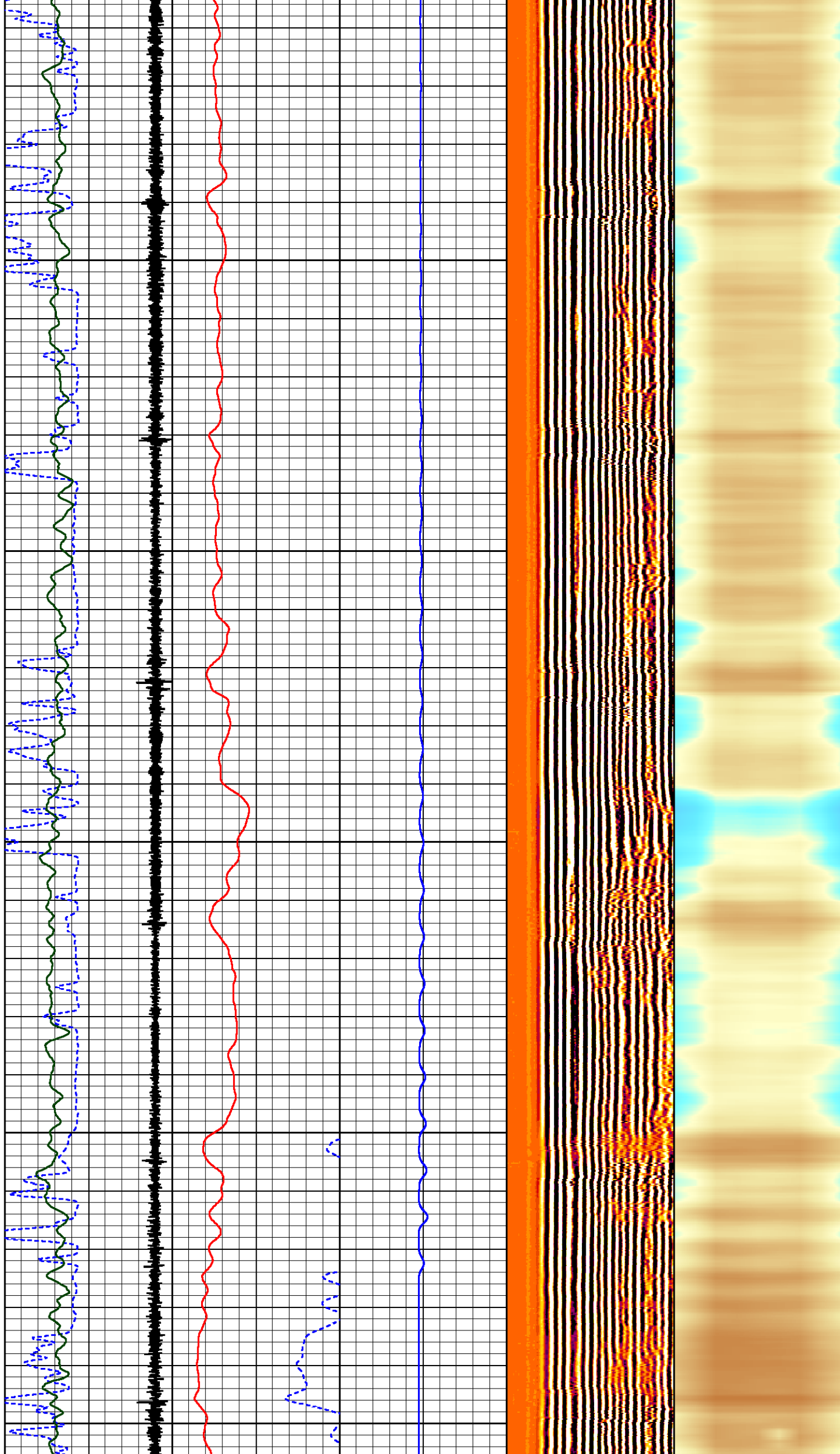
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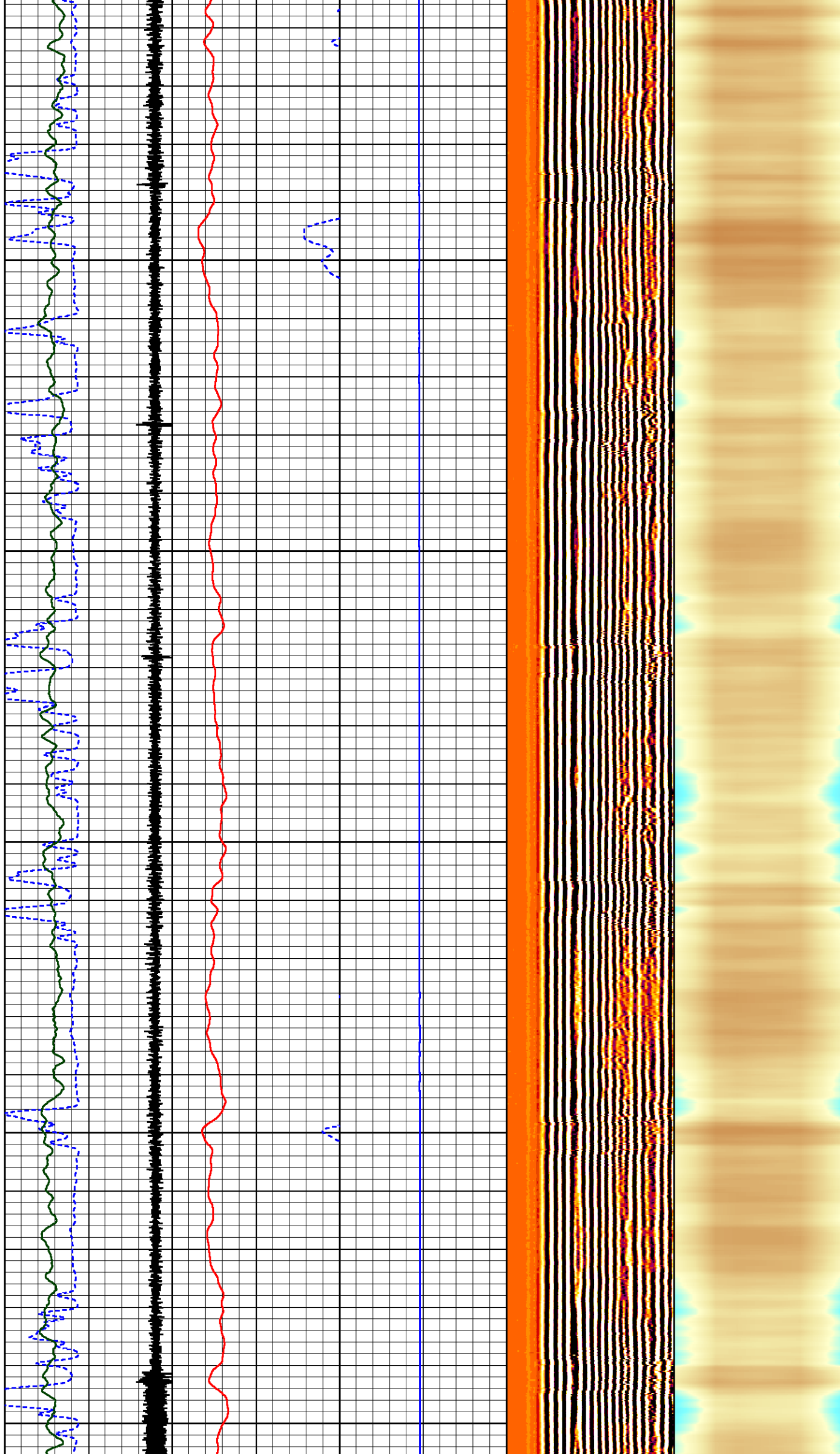
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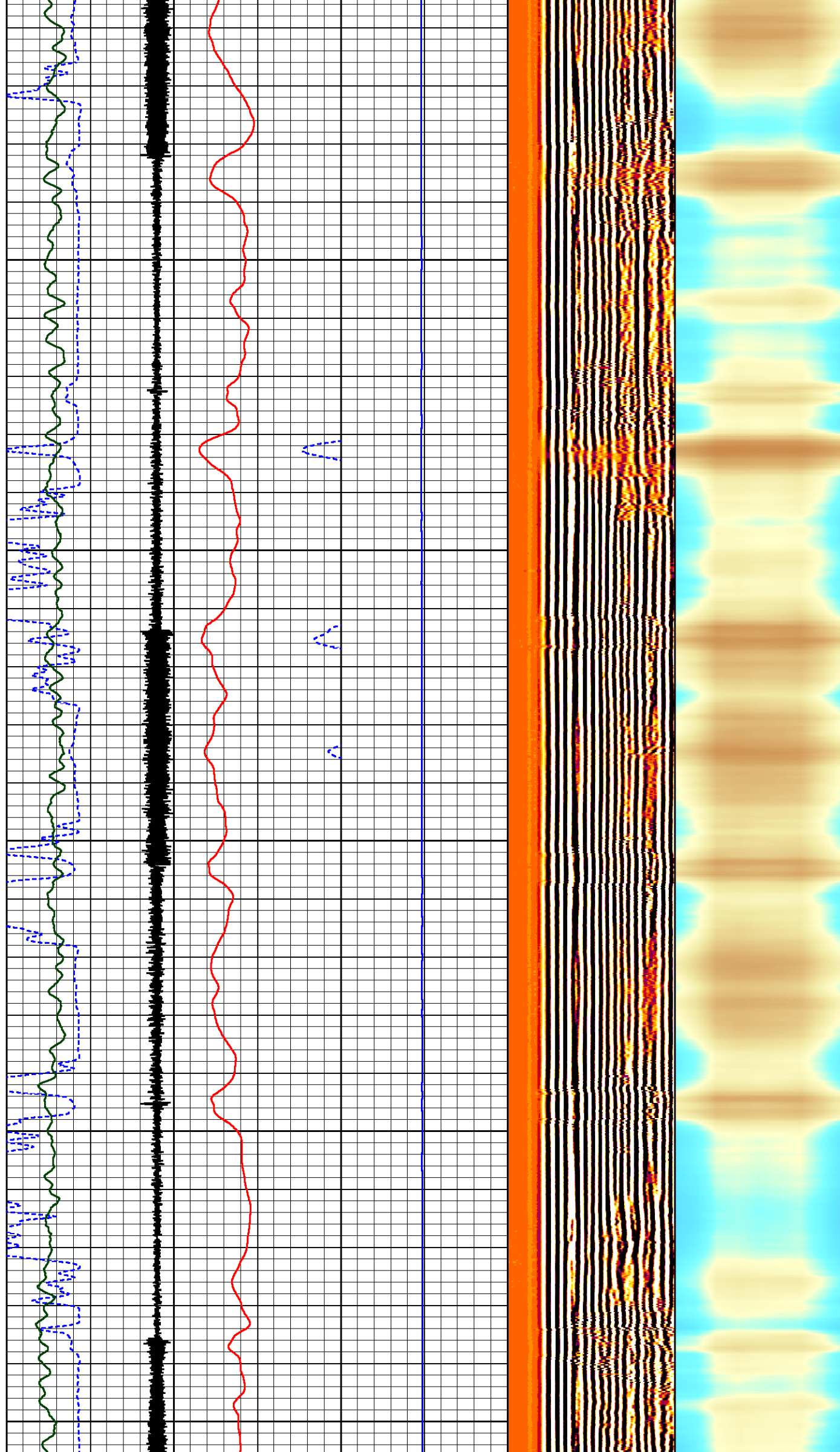
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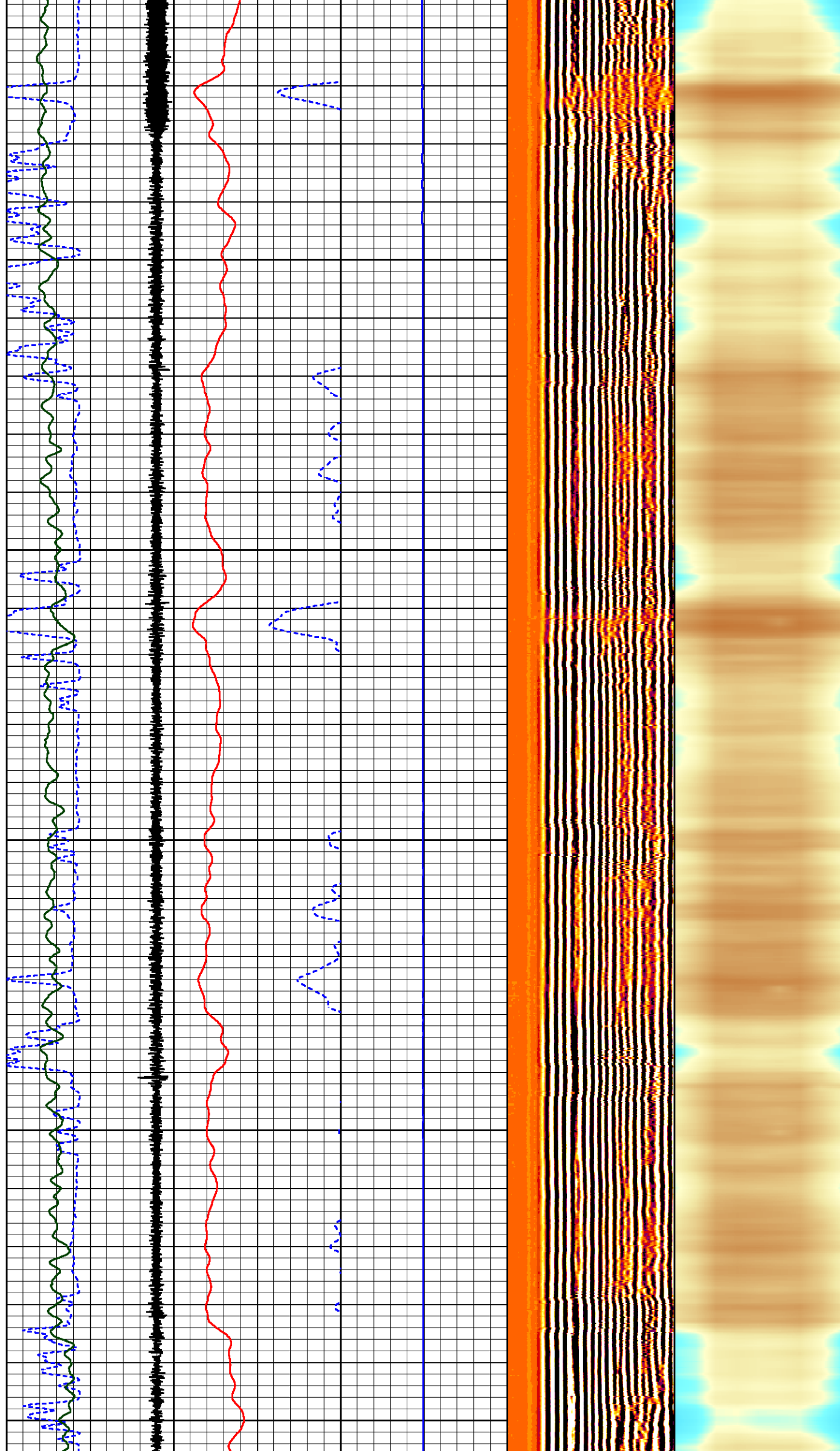
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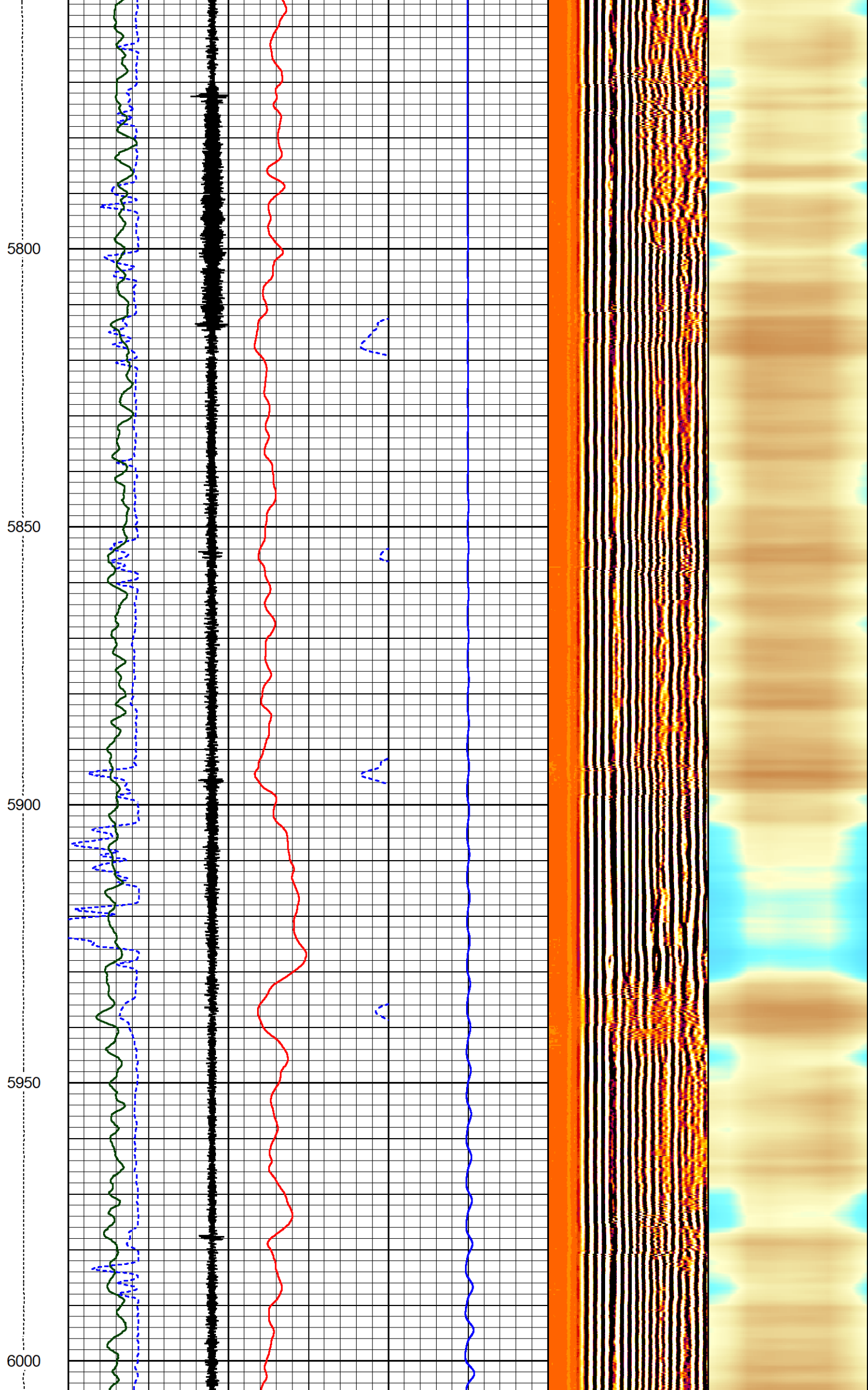
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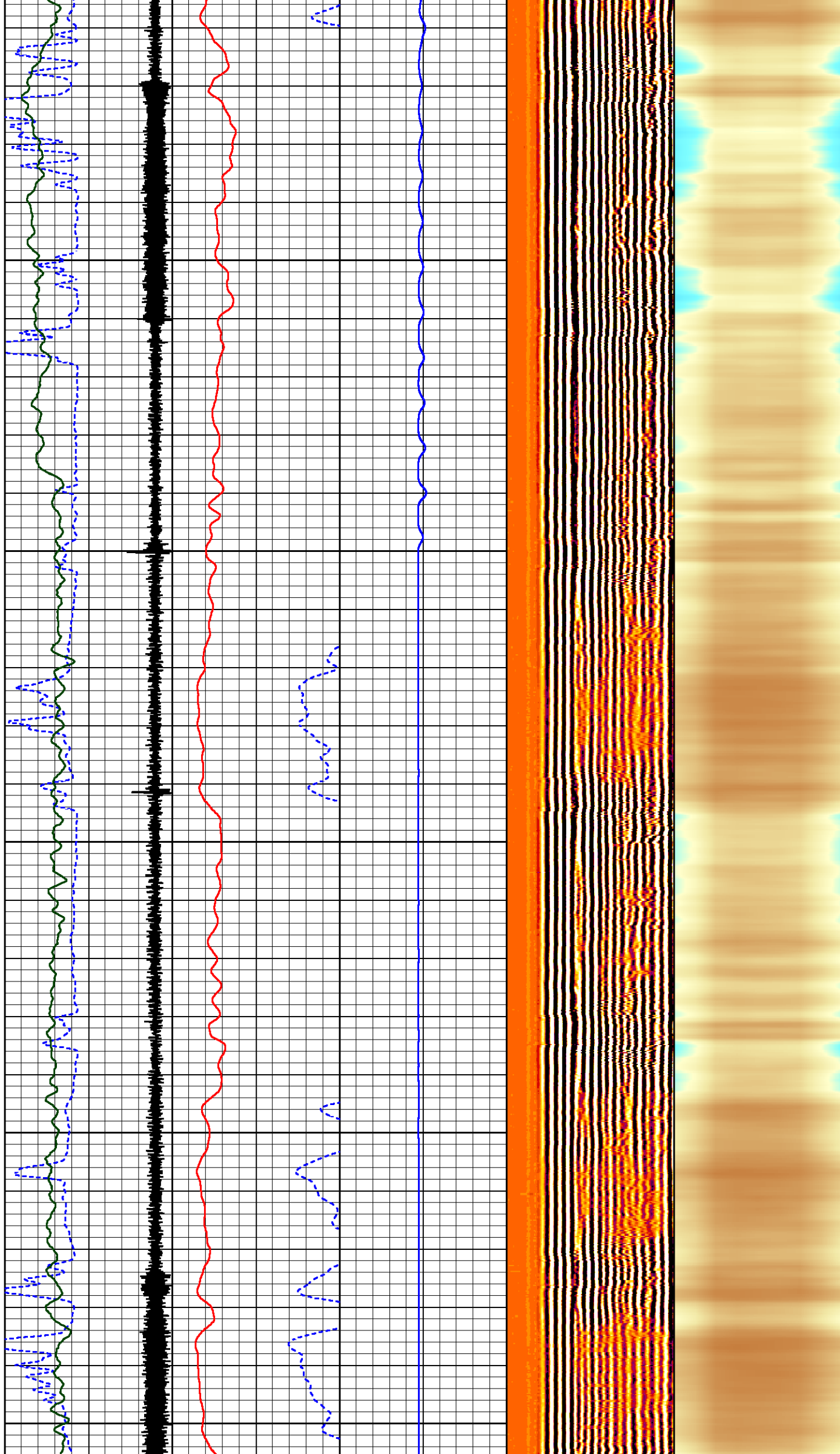
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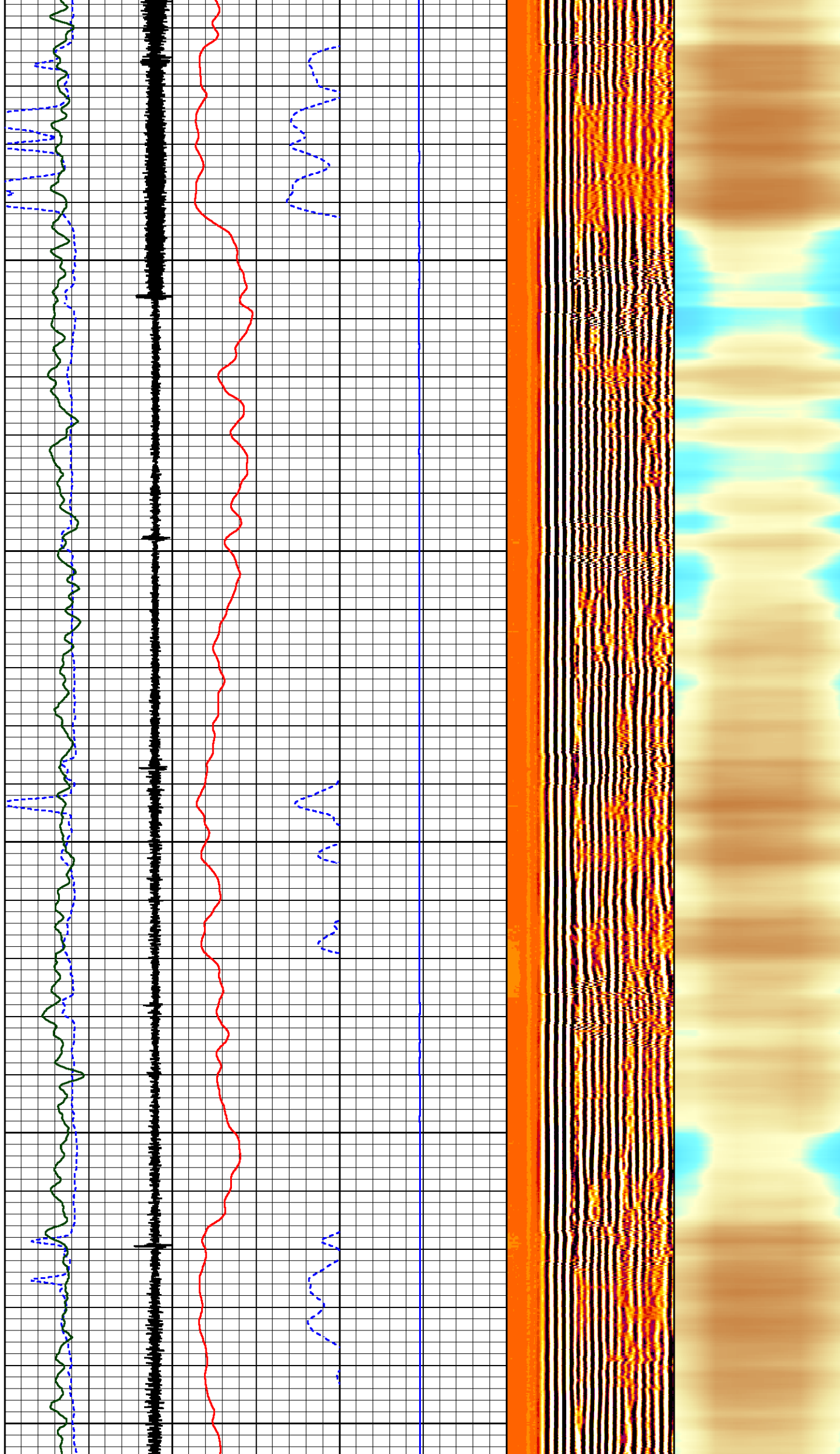
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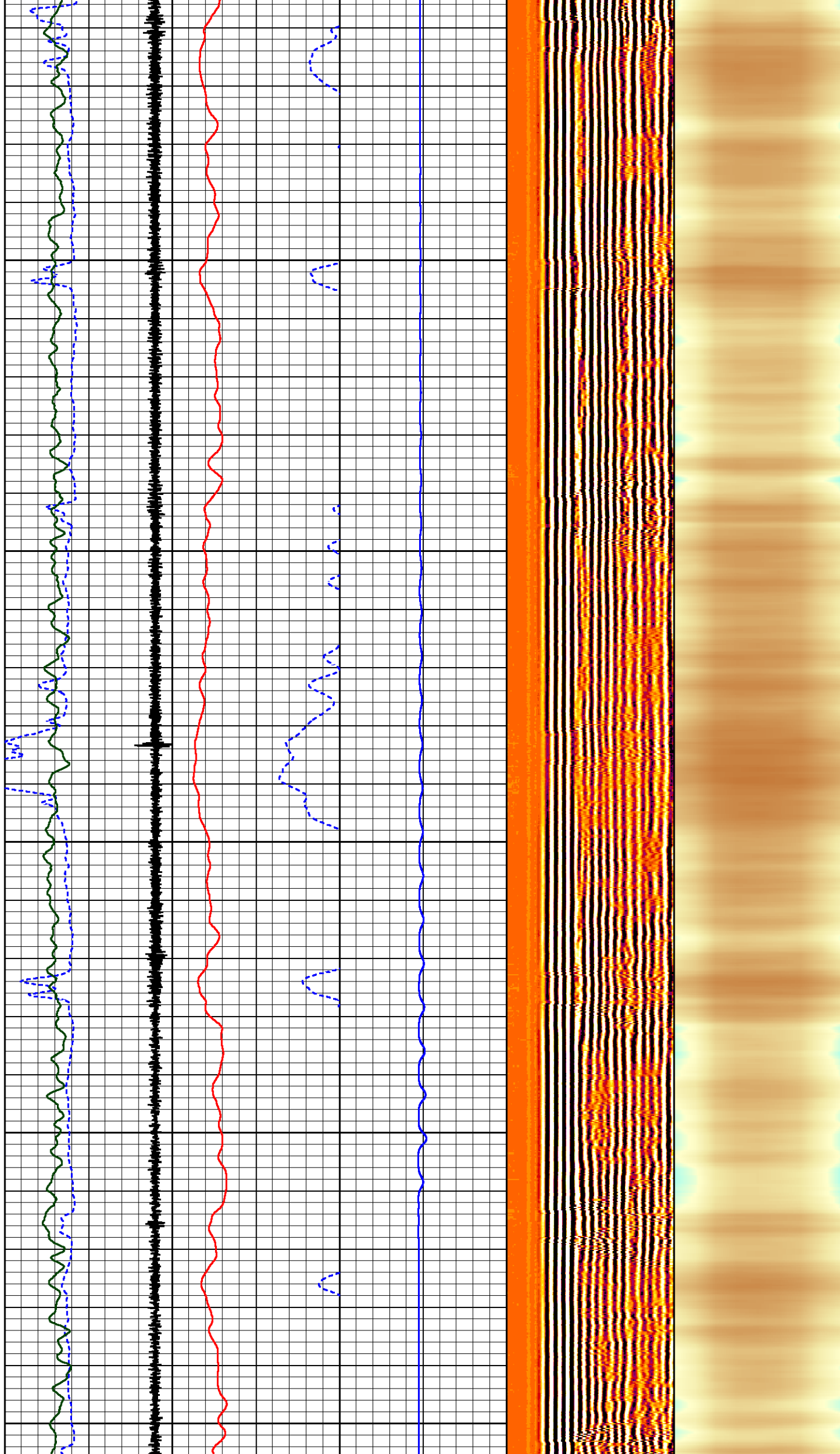
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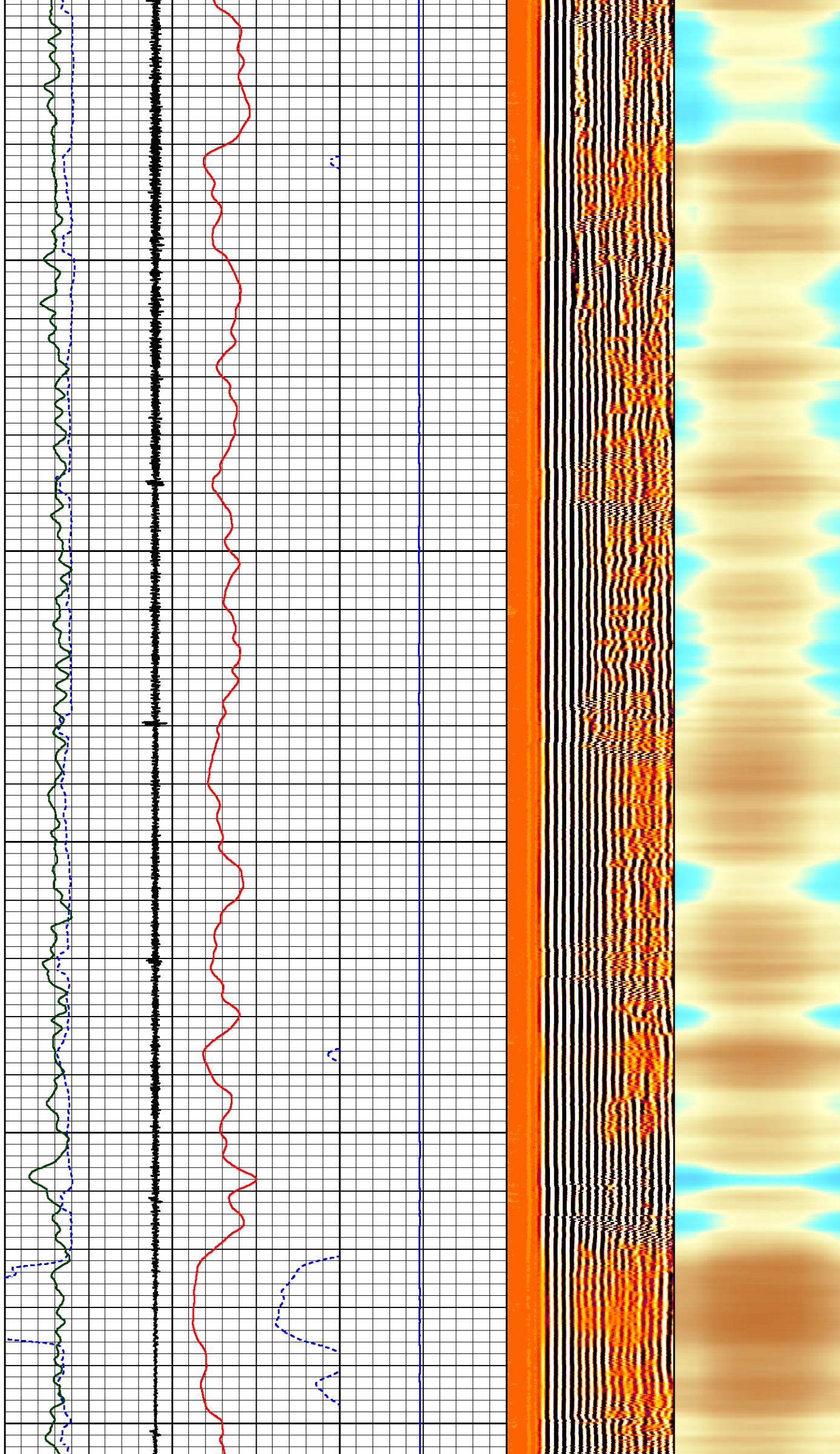
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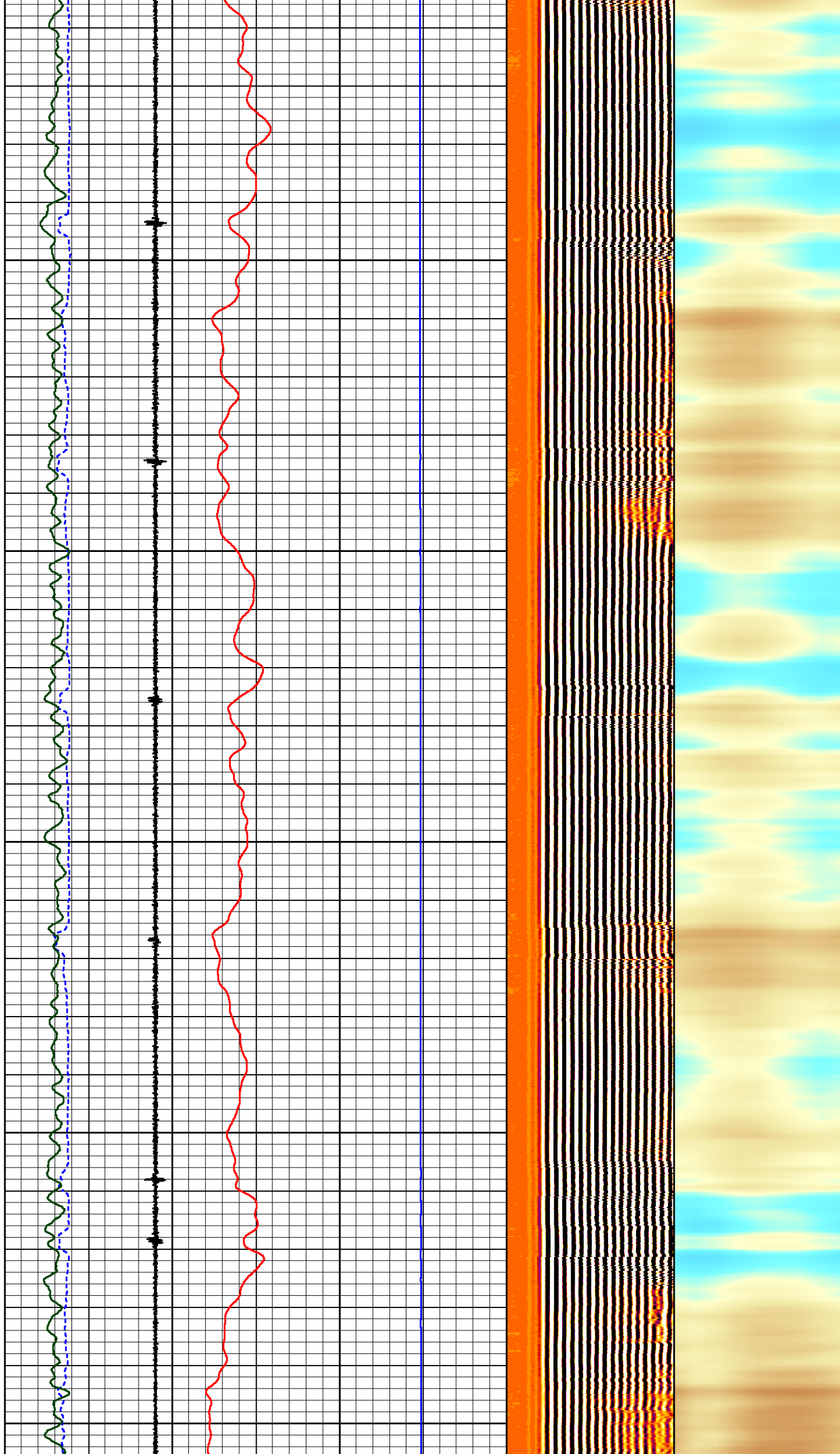
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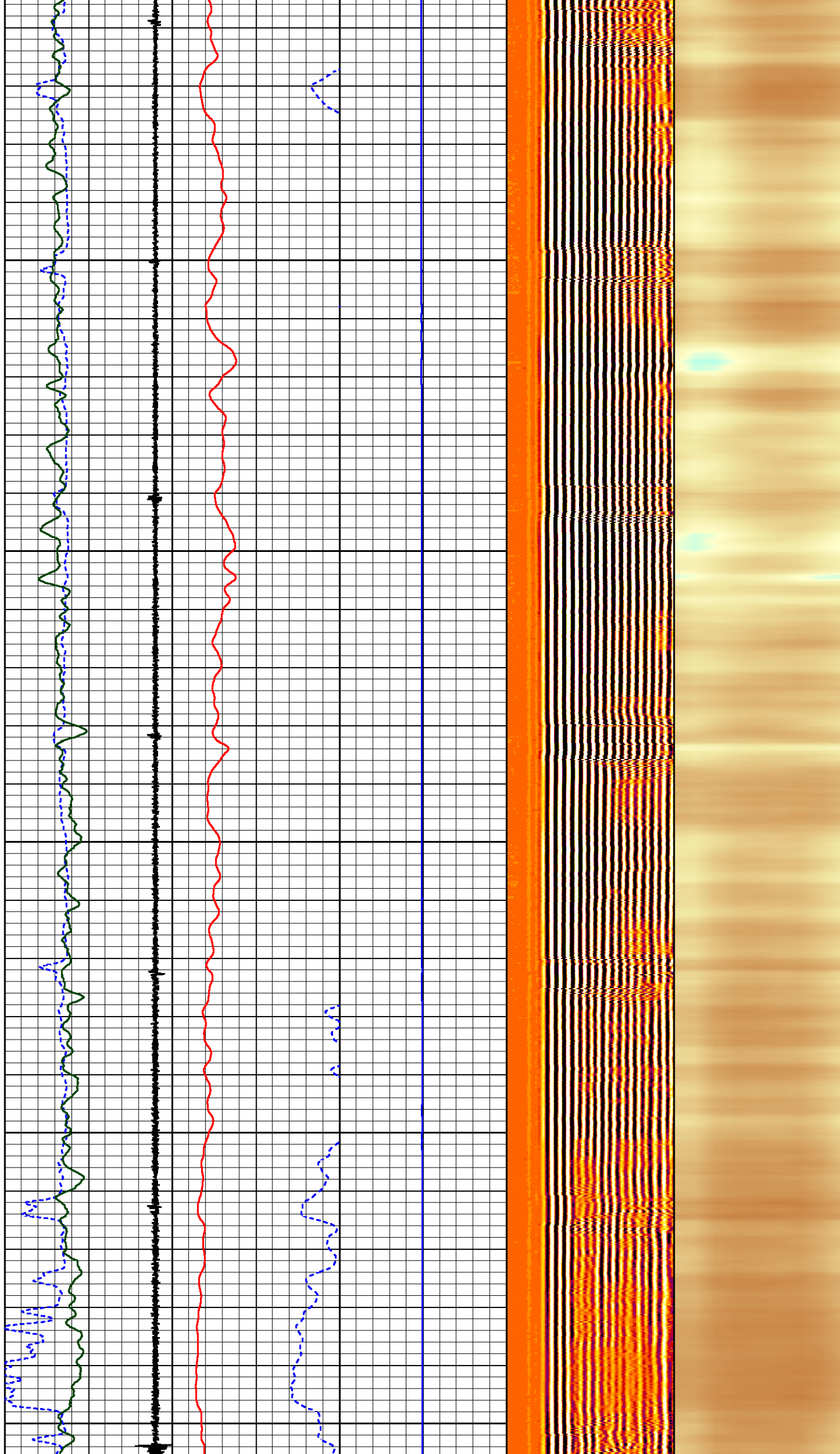
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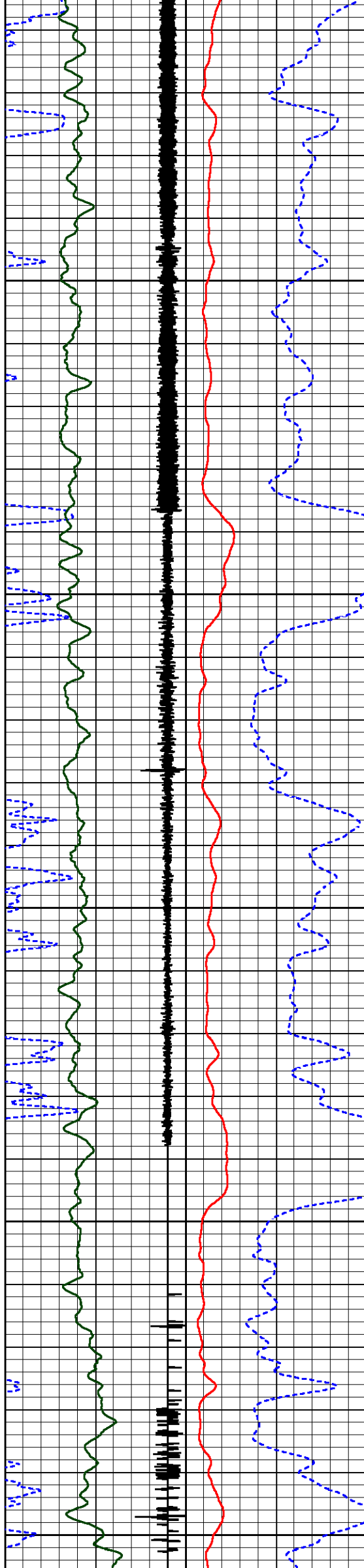
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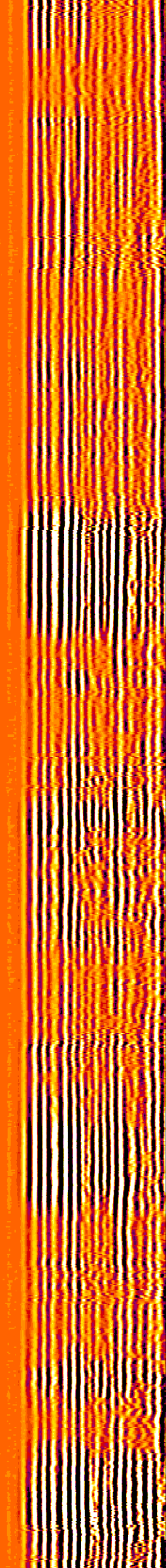
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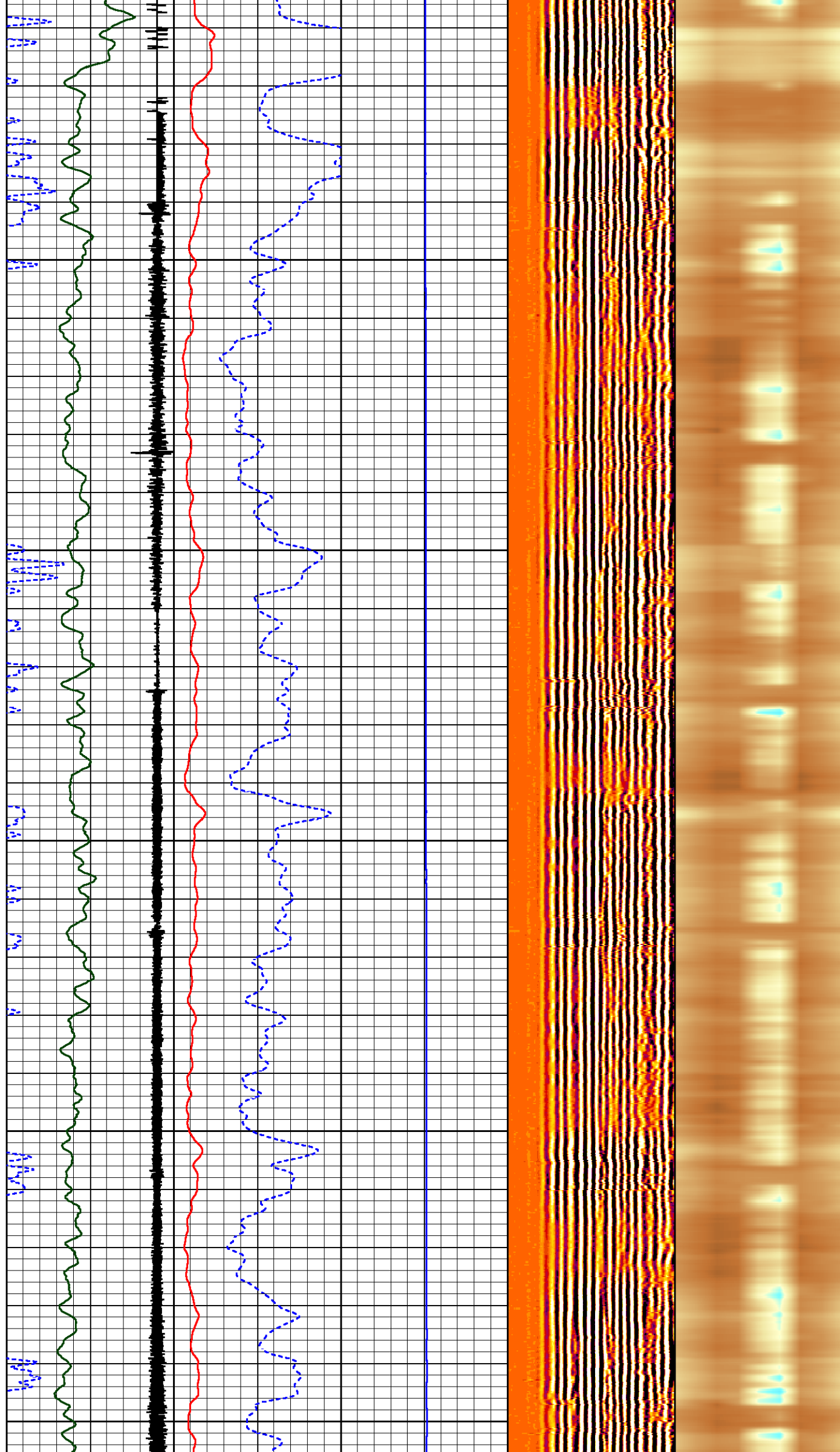
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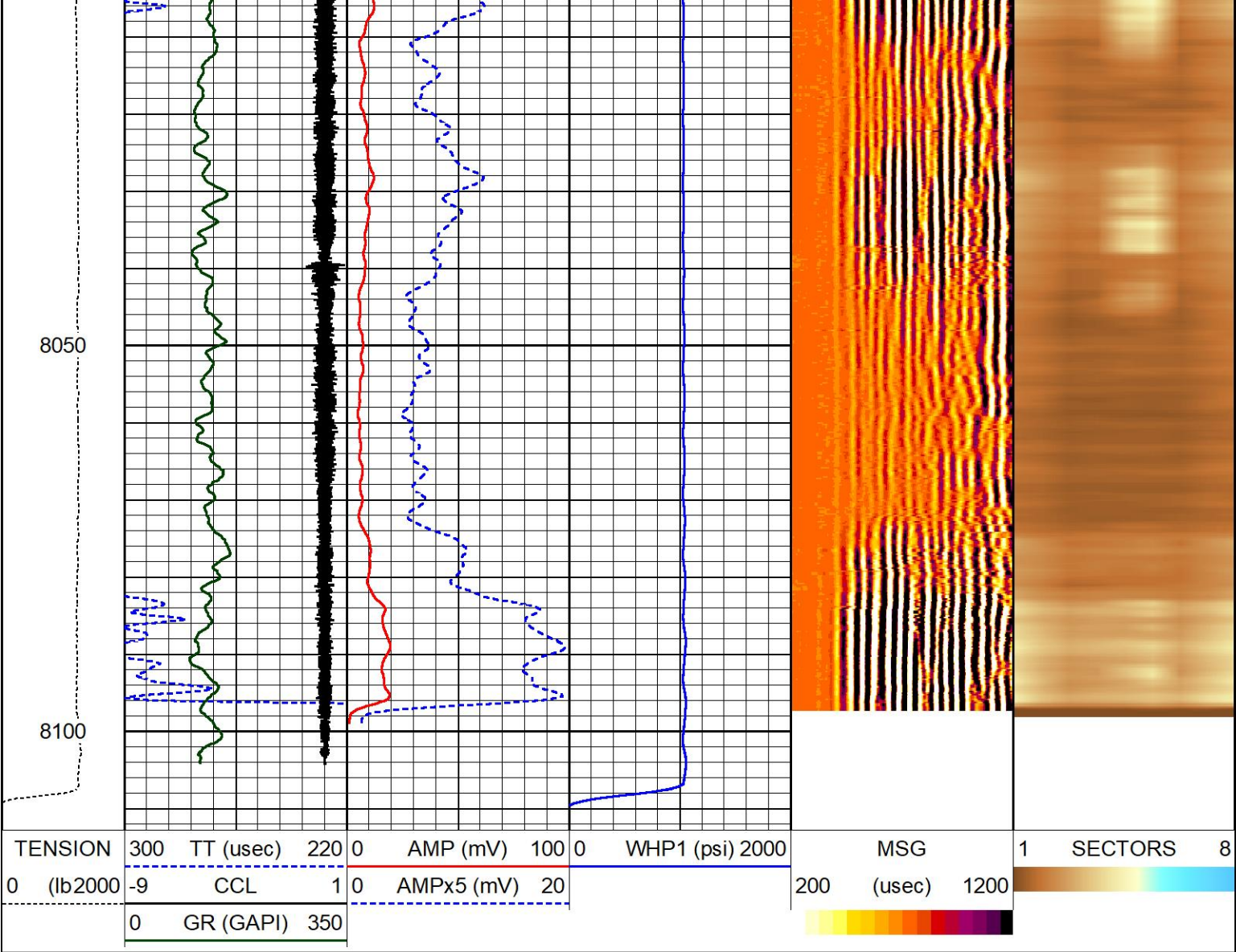
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MAIN PASS 1000 PSI

HALLIBURTON

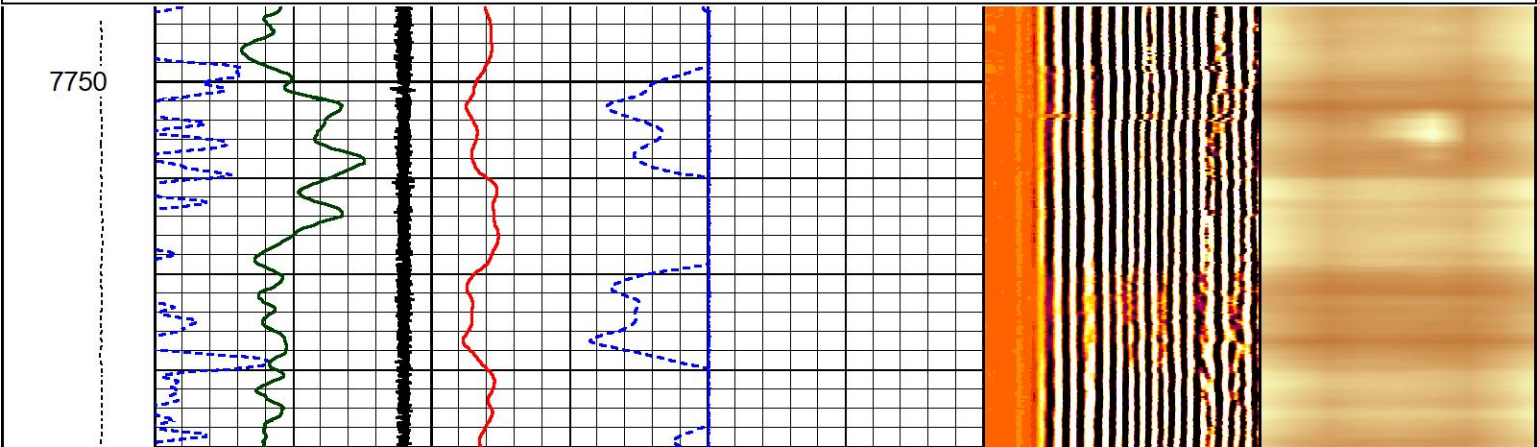
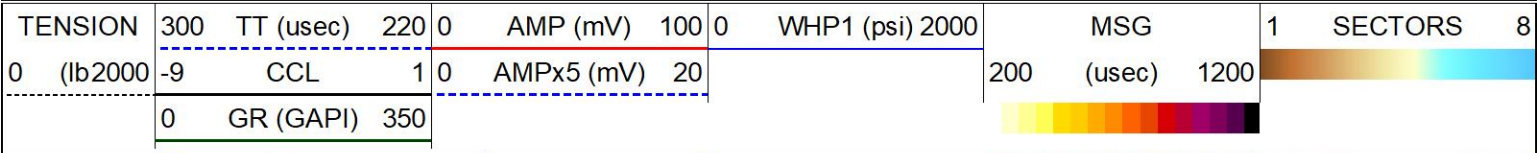
5" = 100'

REPEAT PASS 0 PSI

HALLIBURTON

5" = 100'

Database File patriot\_15.db  
Dataset Pathname RCBL/REPEAT  
Presentation Format rcbl\_macy  
Dataset Creation Thu Jun 13 16:12:15 2019  
Charted by Depth in Feet scaled 1:240





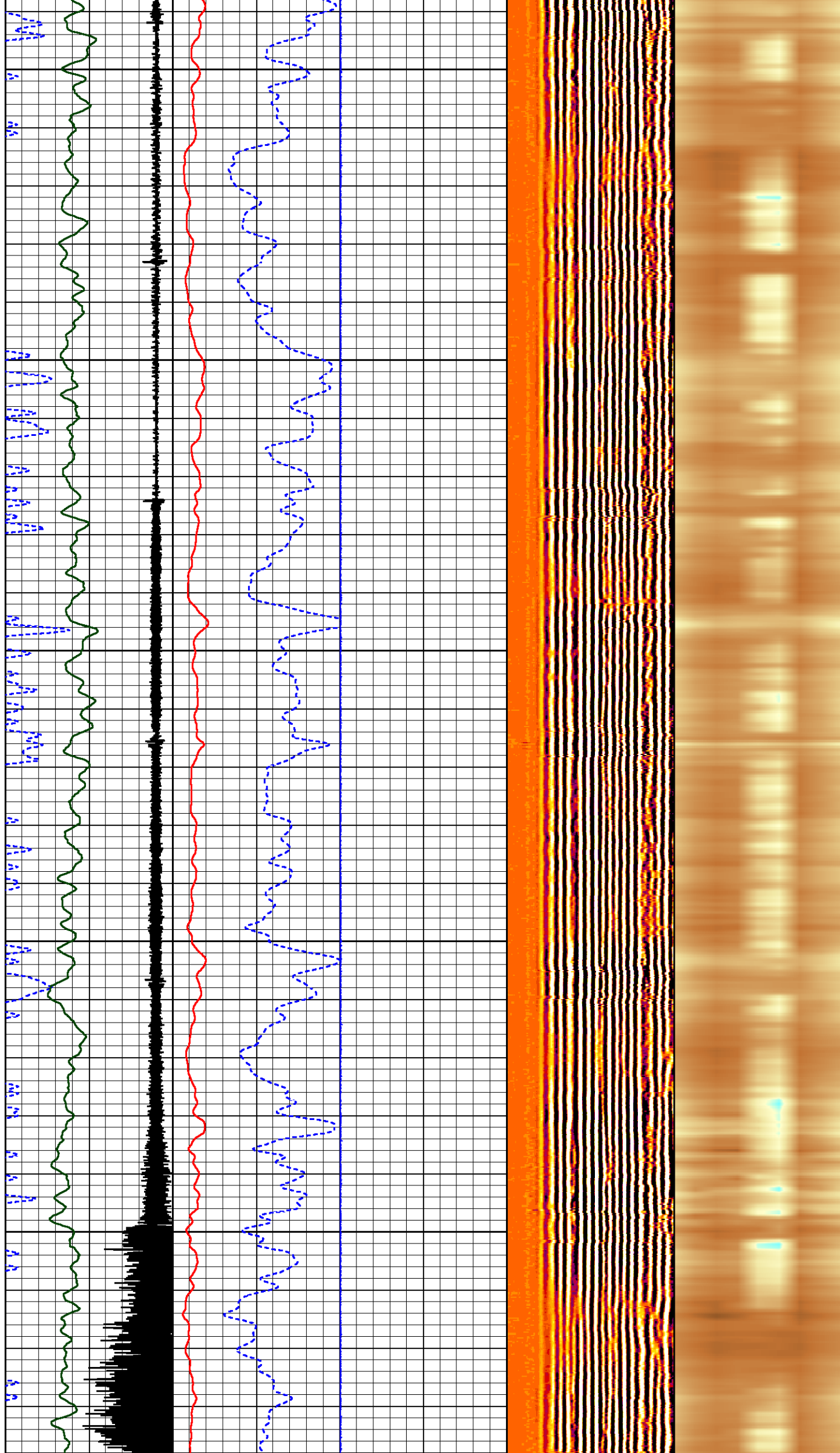
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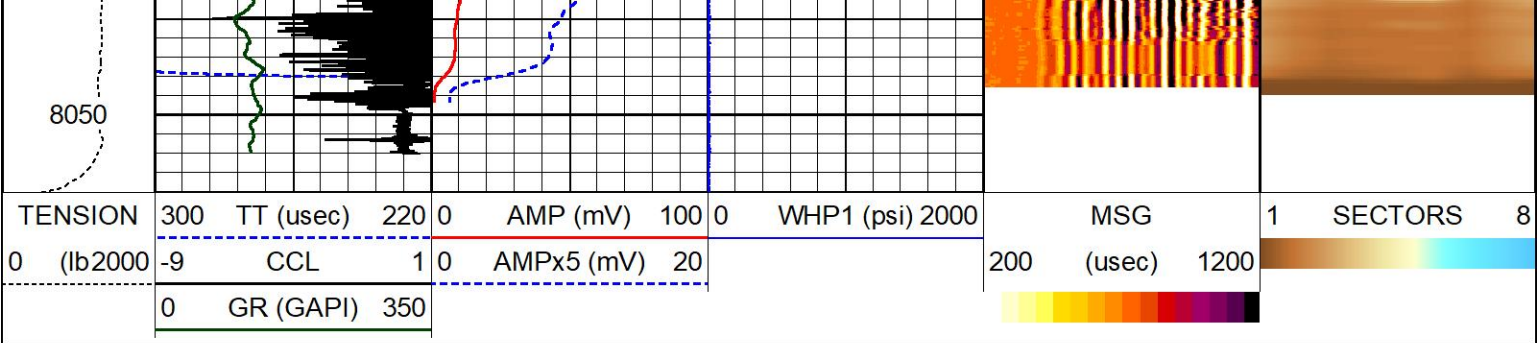
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REPEAT PASS 0 PSI

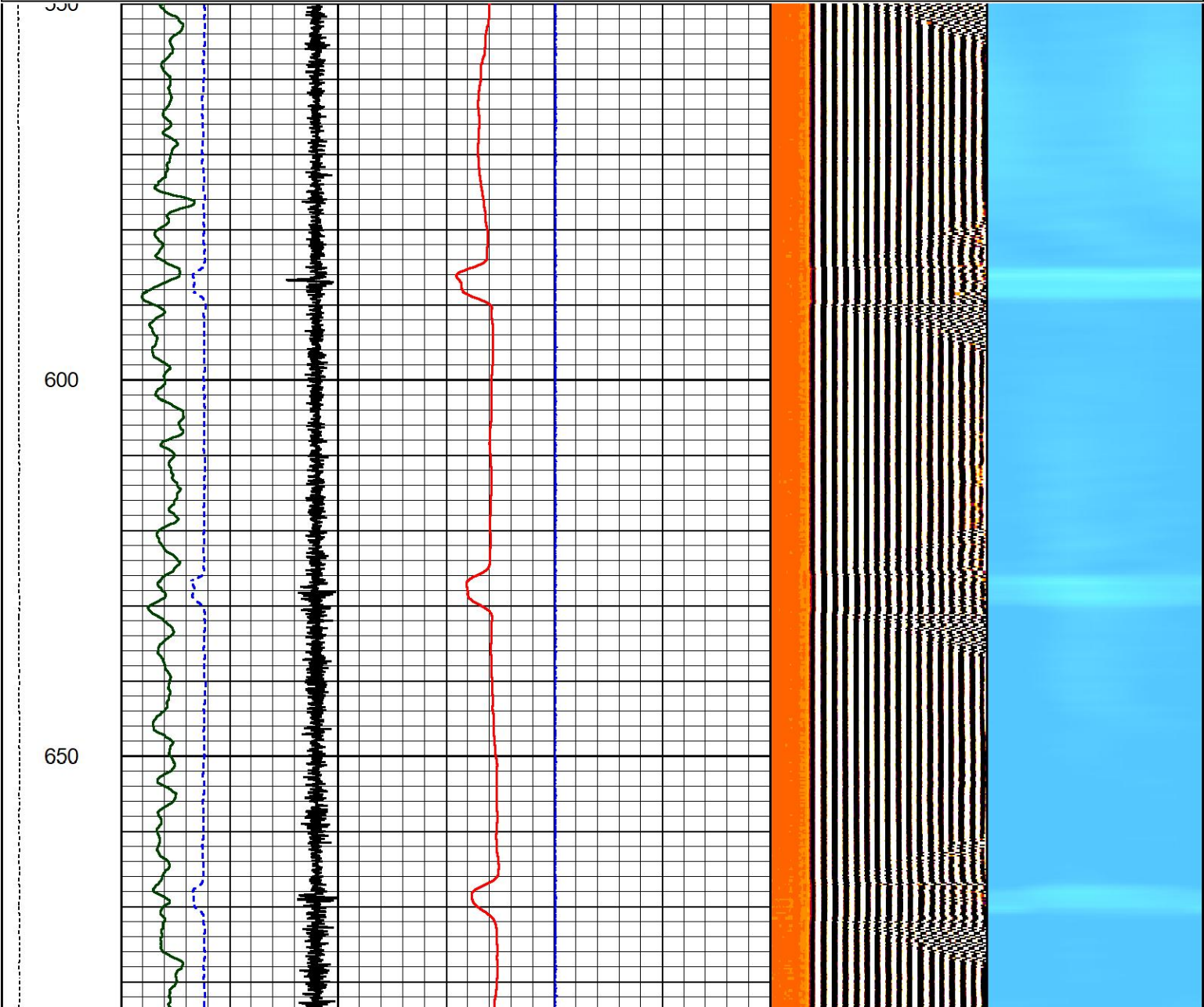
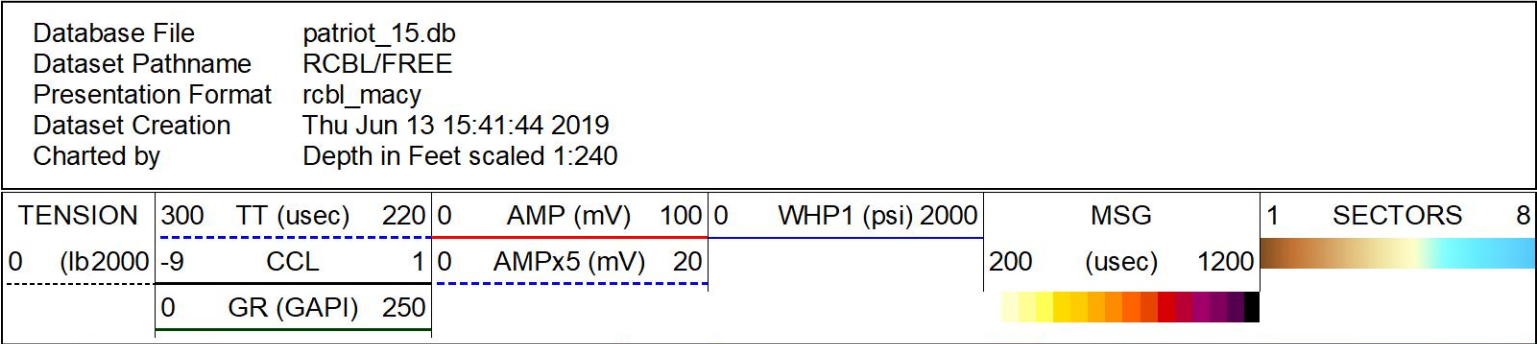
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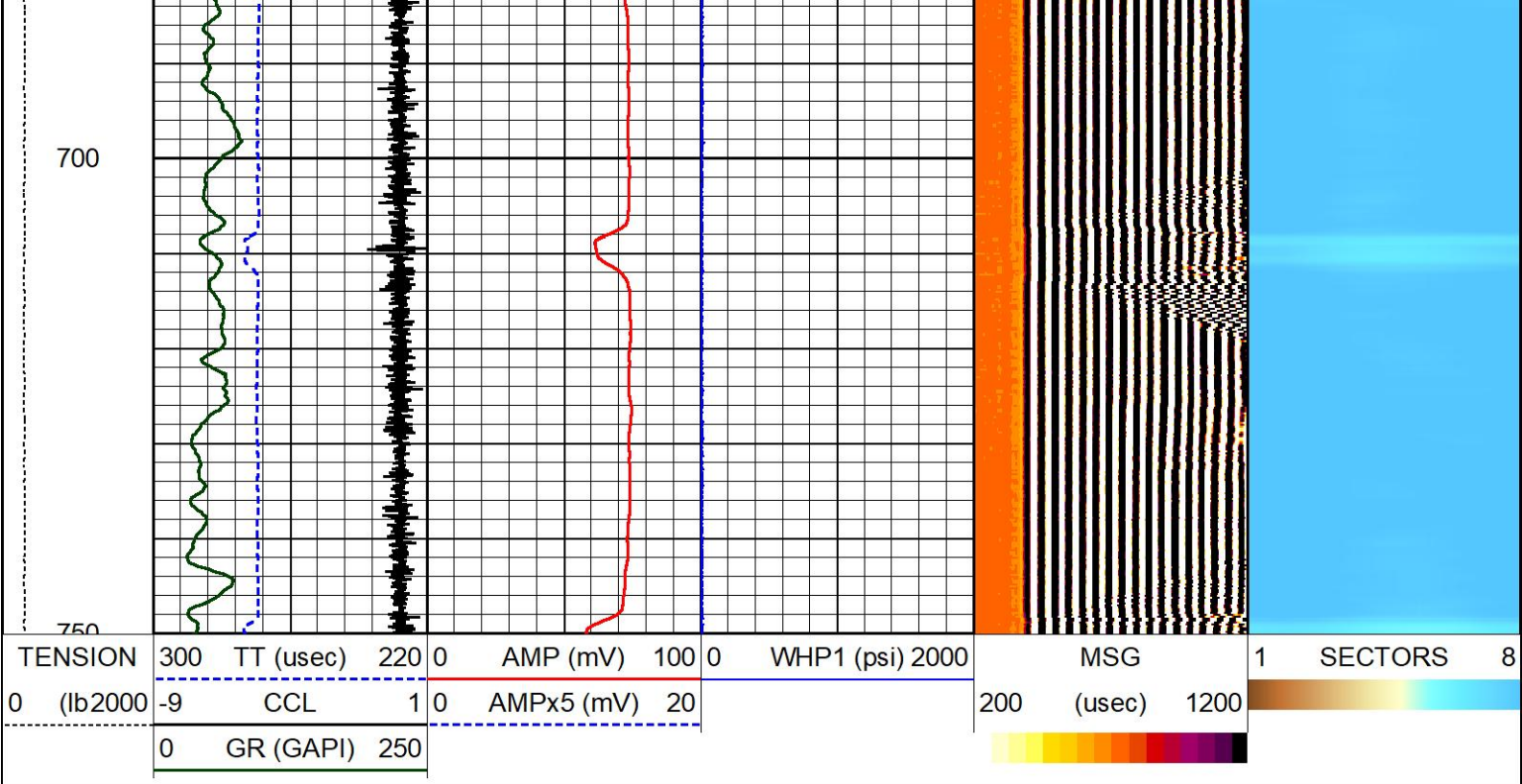
5" = 100'

FREE PIPE PASS 0 PSI

HALLIBURTON

5"=100'





FREE PIPE PASS 0 PSI

HALLIBURTON

5"=100'



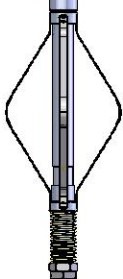
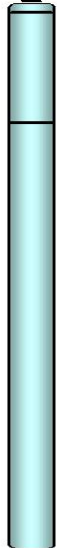
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CENT-Probe_275 Probe 2 3/4 Centralizer	2.88	2.75	20.00
WVFCAL WVF3FT	11.81 11.81		RBT_PRB275-Probe (110667) Probe Radii Bond Tool with Digital Telemetry	8.33	2.75	90.00
WVF5FT	10.81					

		Diagram		Log Data		
						
		CENT-Probe_275 Probe 2 3/4 Centralizer		2.88	2.75	20.00
CCL	3.92			4.75	2.75	57.00
GR	2.54					
LLMTEN	0.00					
Dataset: patriot_15.db: field/well/RCBL/MAIN Total length: 18.83 ft Total weight: 187.00 lb O.D.: 2.75 in						

Segmented Cement Bond Log Calibration Report			
Serial Number:	110667		
Tool Model:	Probe		
Calibration Casing Diameter:	5.500	in	
Calibration Depth:	604.810	ft	



Master Calibration, performed Thu Jun 13 14:40:12 2019:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.002	0.382	1.000	71.921	184.627	1.322
CAL	-0.007	0.518				
5'	0.005	0.374	1.000	71.921	192.265	-0.002
SUM						
S1	0.019	0.385	0.000	100.000	272.903	-5.194
S2	0.003	0.397	0.000	100.000	253.740	-0.774
S3	0.001	0.427	0.000	100.000	235.031	-0.341
S4	-0.000	0.438	0.000	100.000	228.107	0.111
S5	0.000	0.401	0.000	100.000	249.505	-0.018
S6	-0.001	0.353	0.000	100.000	282.035	0.327
S7	-0.001	0.330	0.000	100.000	302.723	0.225
S8	-0.001	0.335	0.000	100.000	297.620	0.171

Internal Reference Calibration, performed Wed Jun 12 15:23:02 2019:						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.007	0.518	1.000	0.000

Air Zero Calibration, performed Tue Oct 11 09:00:43 2005:						
	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	SANDRIDGE ENERGY				
Well	PATRIOT 0880 15-32H5				
Field	NORTH PARK				
County	JACKSON		State	CO	
HALLIBURTON	RADIAL CEMENT BOND LOG				