

HALLIBURTON

CEMENT BOND LOG
GR-CCL

Company		BILL BARRETT CORPORATION					
Well	FIDUCIAL 06-62-34-6457BH2						
Field	WATTENBERG						
County	WELD	State	CO				
Permanent Datum Log Measured From Drilling Measured From	Company BILL BARRETT CORPORATION						
	Well FIDUCIAL 06-62-34-6457BH2						
	Field WATTENBERG						
	County WELD State CO						
Sec: 34 Twp: 6N Rge: 62W		API No.: 05-123-392960000	Serv #: 901778984	Other Services			
GROUND LEVEL		Elevation	4677'				
KB , 22 Ft. above perm. datum		K.B. 4699'					
KB		D.F. 4677'					
		G.L. 4677'					
Date @ Time Logged	29-OCT-2014	Type Fluid in Hole	WATER				
Run No.	ONE	Density of Fluid	8.3 PPG				
Depth - Driller	16273'	Fluid Level	FULL				
Depth - Logger	5780'	Cement Top Est. Logged	N/A				
Bottom - Logged Interval	5760'	Equipment / Location	11808537 / RS				
Top - Log Interval	surface	Recorded by	Pedro Gonzalez Baquero				
Max. Recorded Temp.	N/A	Witnessed by	Matt Minnick				
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		Casing & Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To
				9.625"	36#	0	800'
				7"	26#	0	6616'
				4.5"	11.6#	6000'	16172'

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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

HES CEMENT BOND LOG CORRELATED BY KB HEIGHT OF 22' LOG INTERVAL PER CUSTOMER REQUEST

CREW : Charles Simons, Bradley Bruderer
THANK YOU FOR CHOOSING HALLIBURTON ENERGY ROCK SPRING WY

Service Ticket No.	901778984	API No.	05-123-392960000	PGM Ver	warrior_8
The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client					
EQUIPMENT DATA					
TELEMETRY		XHU		CEMENT BOND TOOL	
Run No.	ONE	Run No.	ONE	Run No.	ONE
Serial No.	10000538	Serial No.	10008856	Serial No.	12253831
Model No.	TTTC-U002	Model No.	XHU003	Model No.	CBL-M
Diameter	1.69"	Diameter	1.69"	Diameter	2.75"
LOGGING DATA					
General Data					
Pass	Depths		Well Head	Speed	Logging Run Comments
No	From	To	Pressure	Ft/Min	

No.	MAIN	5760'	SURFACE	Pressure	0	Temperature		
	TT (usec)		MSG		GAMMA RAY		AMP (mV)	
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
	400	200	200	1160	0	150	0	100
DIRECTIONAL INFORMATION								
Maximum Deviation			deg. @		KOP			

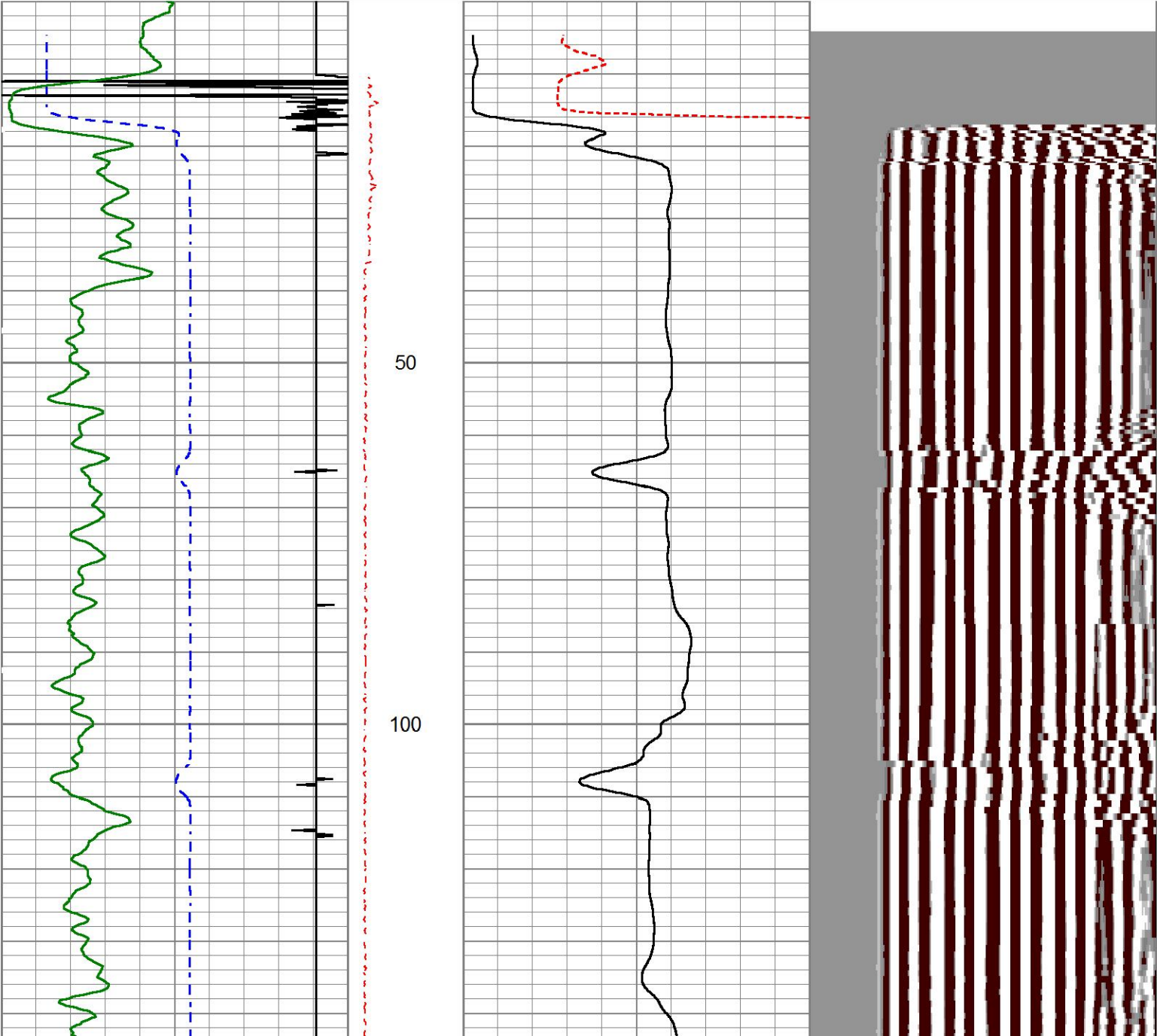
MAINPASS

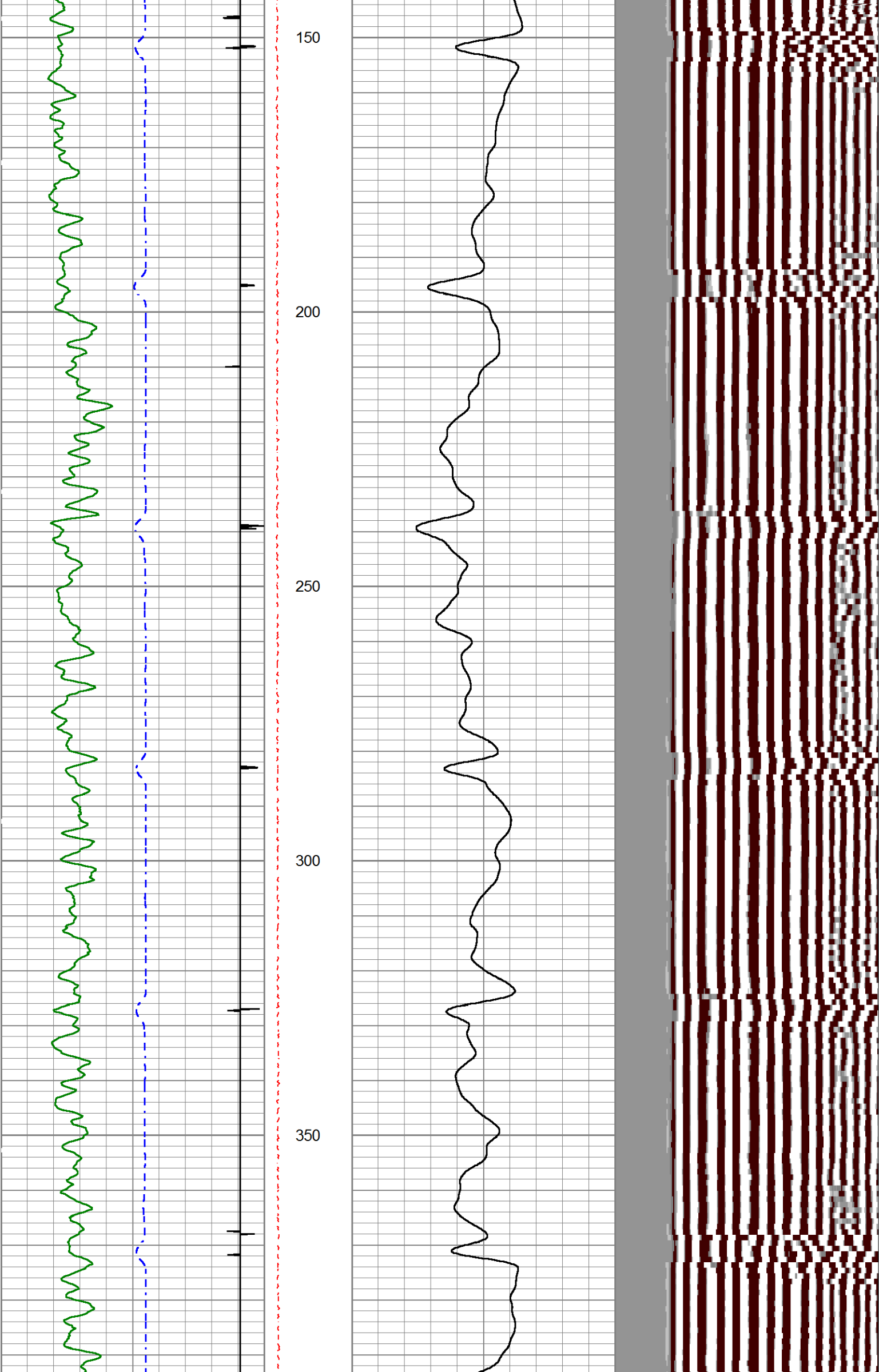
HALLIBURTON

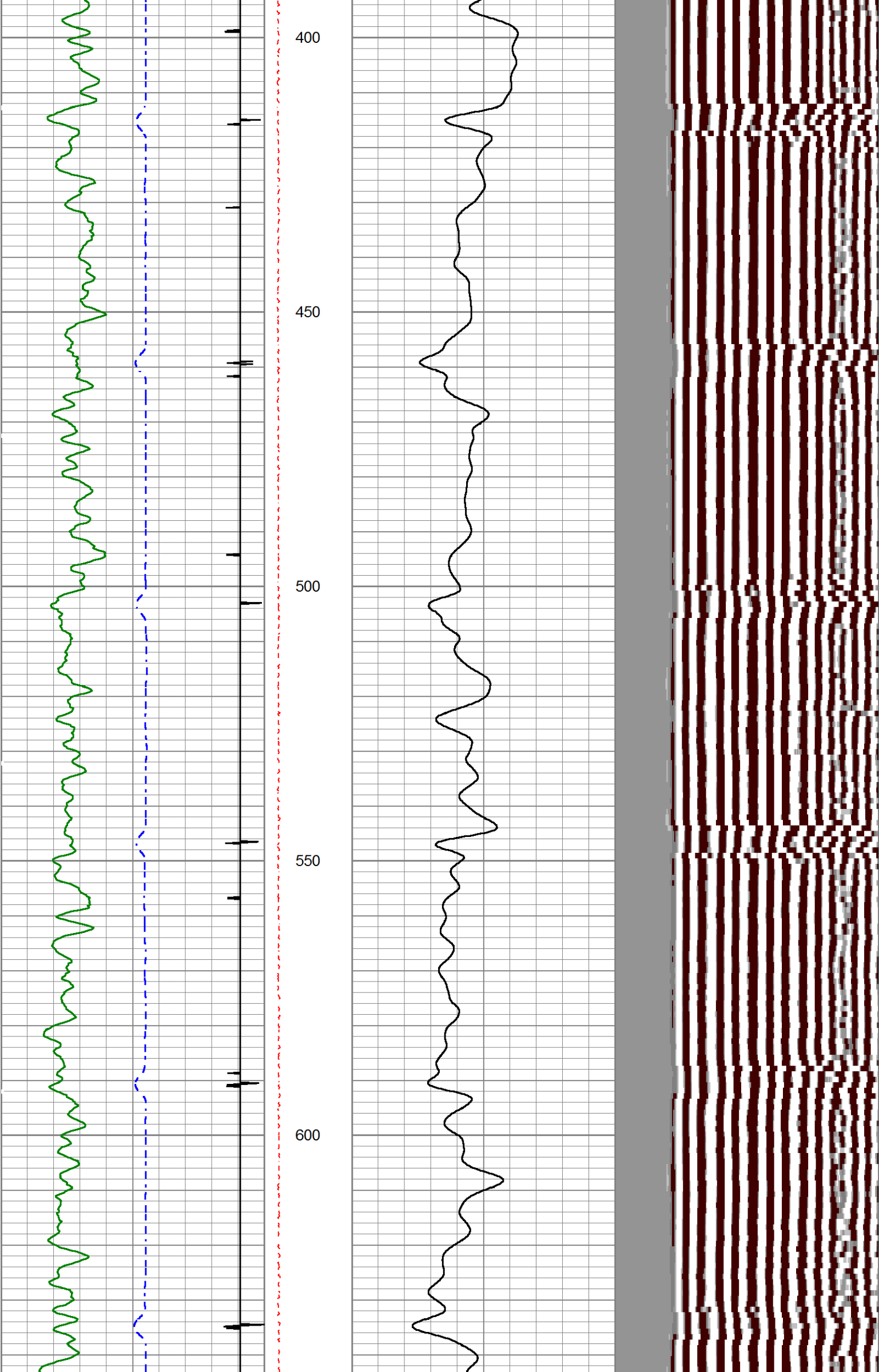
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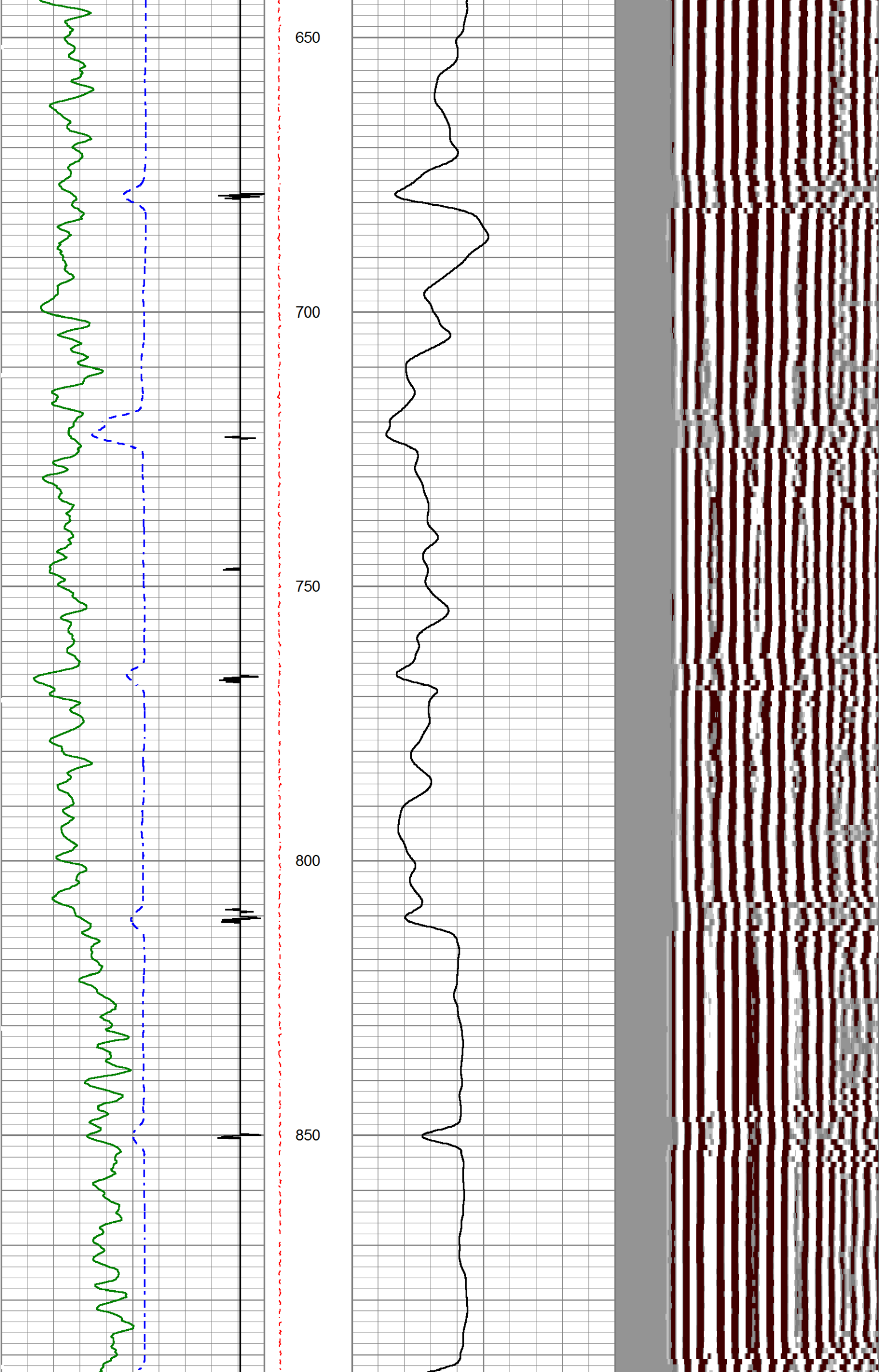
Database File old jobs\fiducial 06-62-34-6457bh2.db
Dataset Pathname WATTENBURG/Fiducial_06-62-34-6457BH2/run1/MAIN2
Presentation Format cbl_main
Dataset Creation Wed Oct 29 19:38:11 2014
Charted by Depth in Feet scaled 1:240

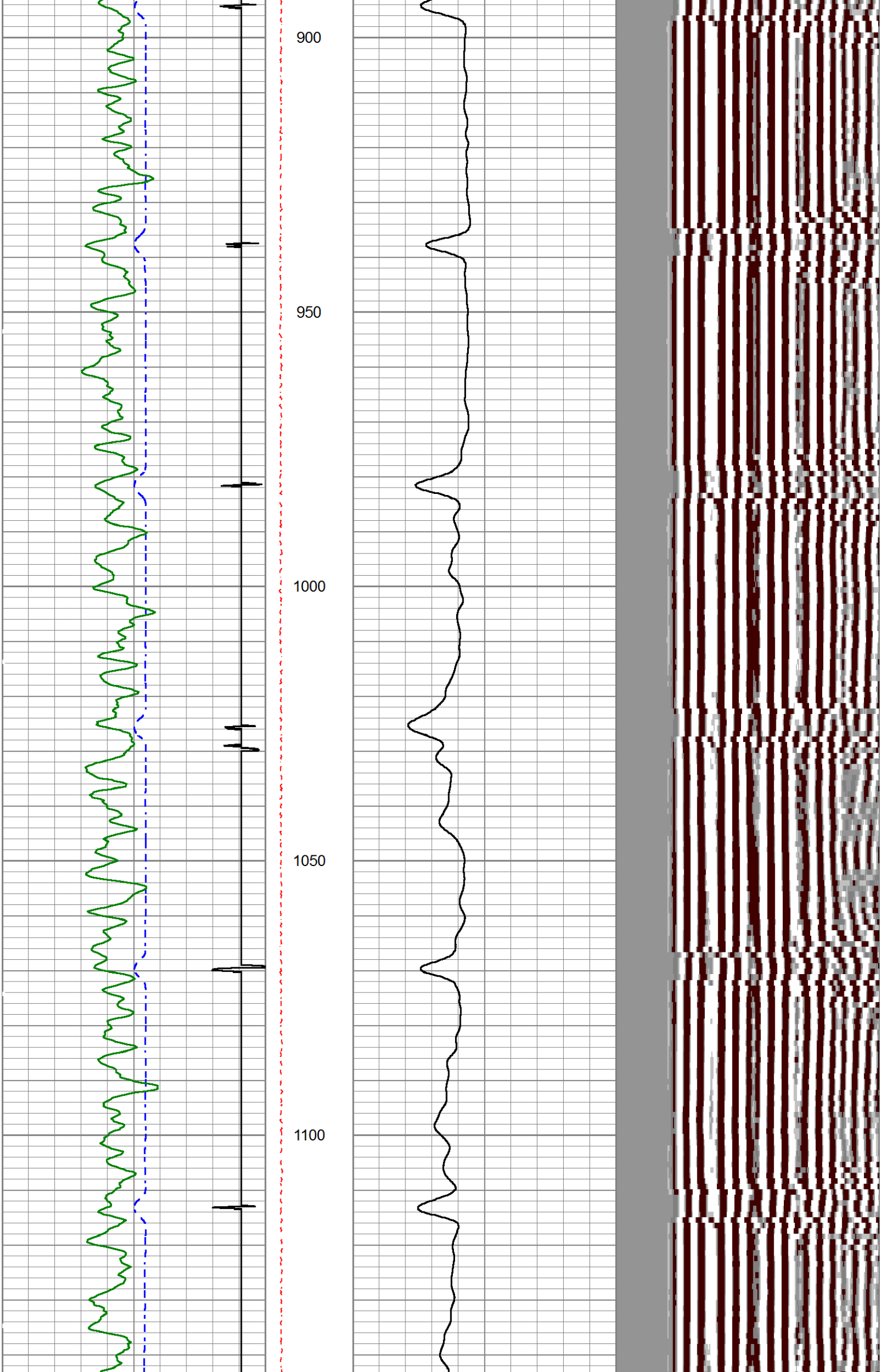
400	TRAVEL TIME (usec)	200	LTEN	0	AMP AMPLITUDE (mV)	10	200	MSG	1160
-500	Collar Locator	50	0	(lb2200	0	AMPLITUDE (mV)	100		
0	Gamma Ray (GAPI)	150							

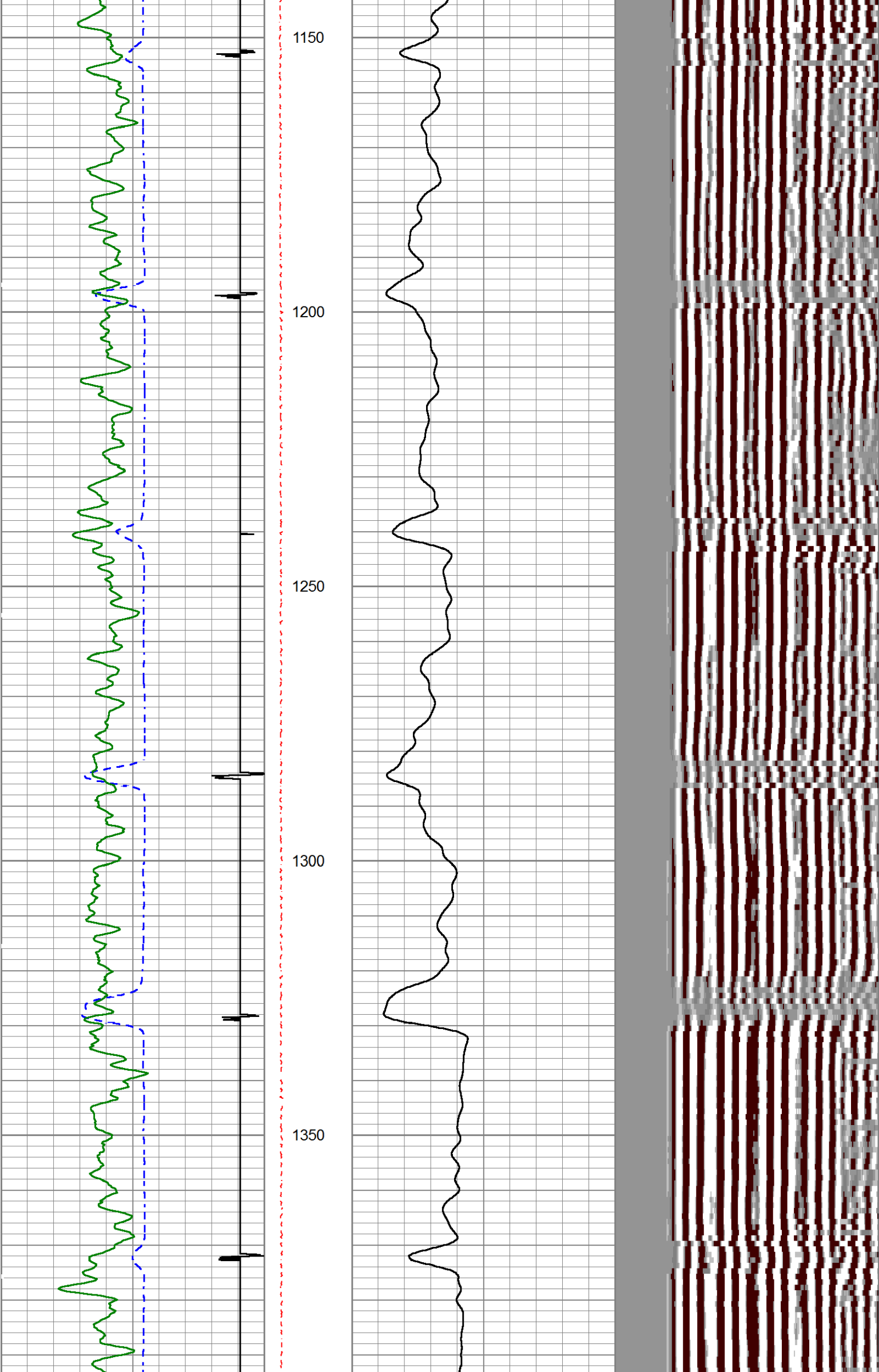


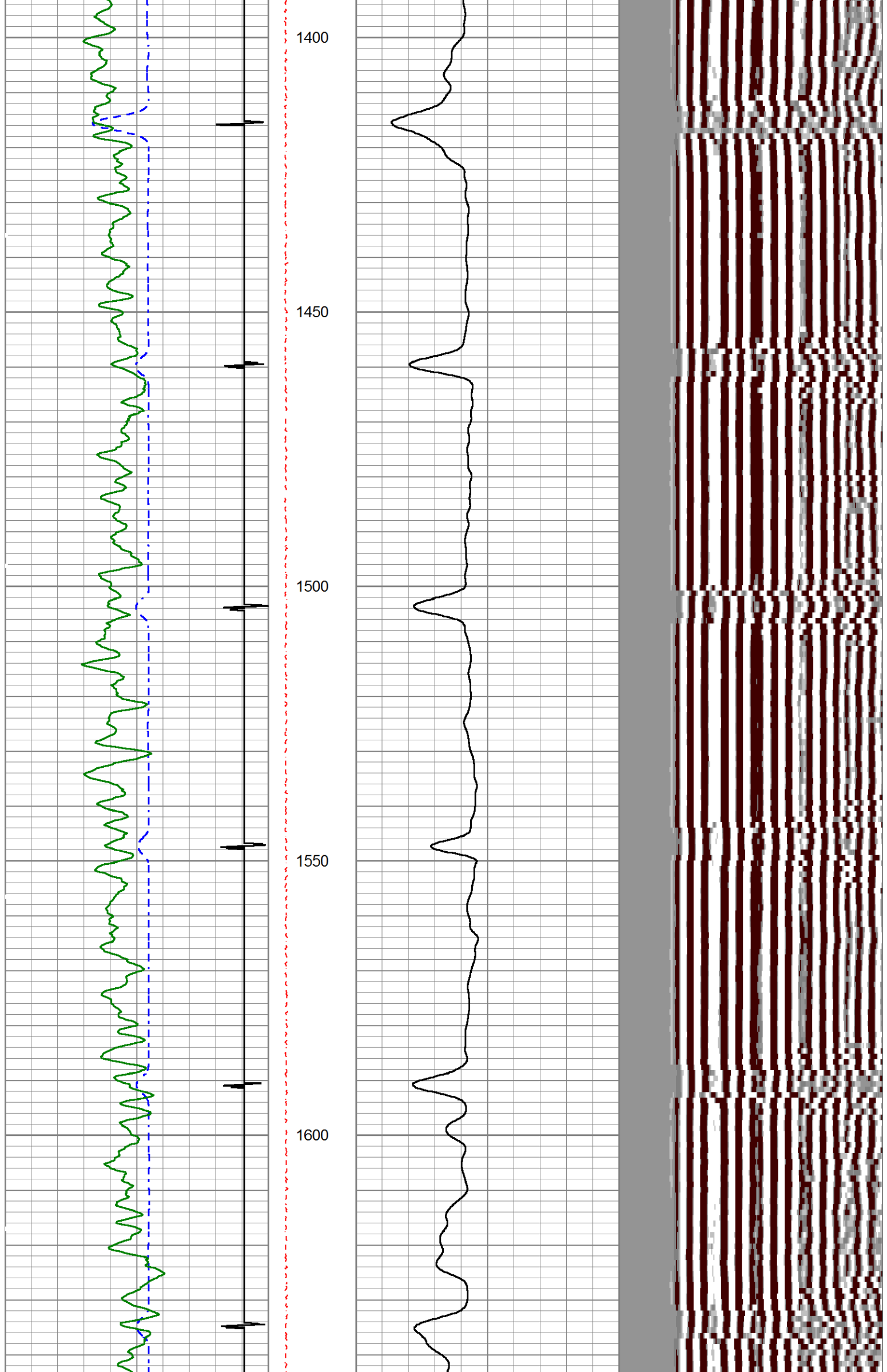


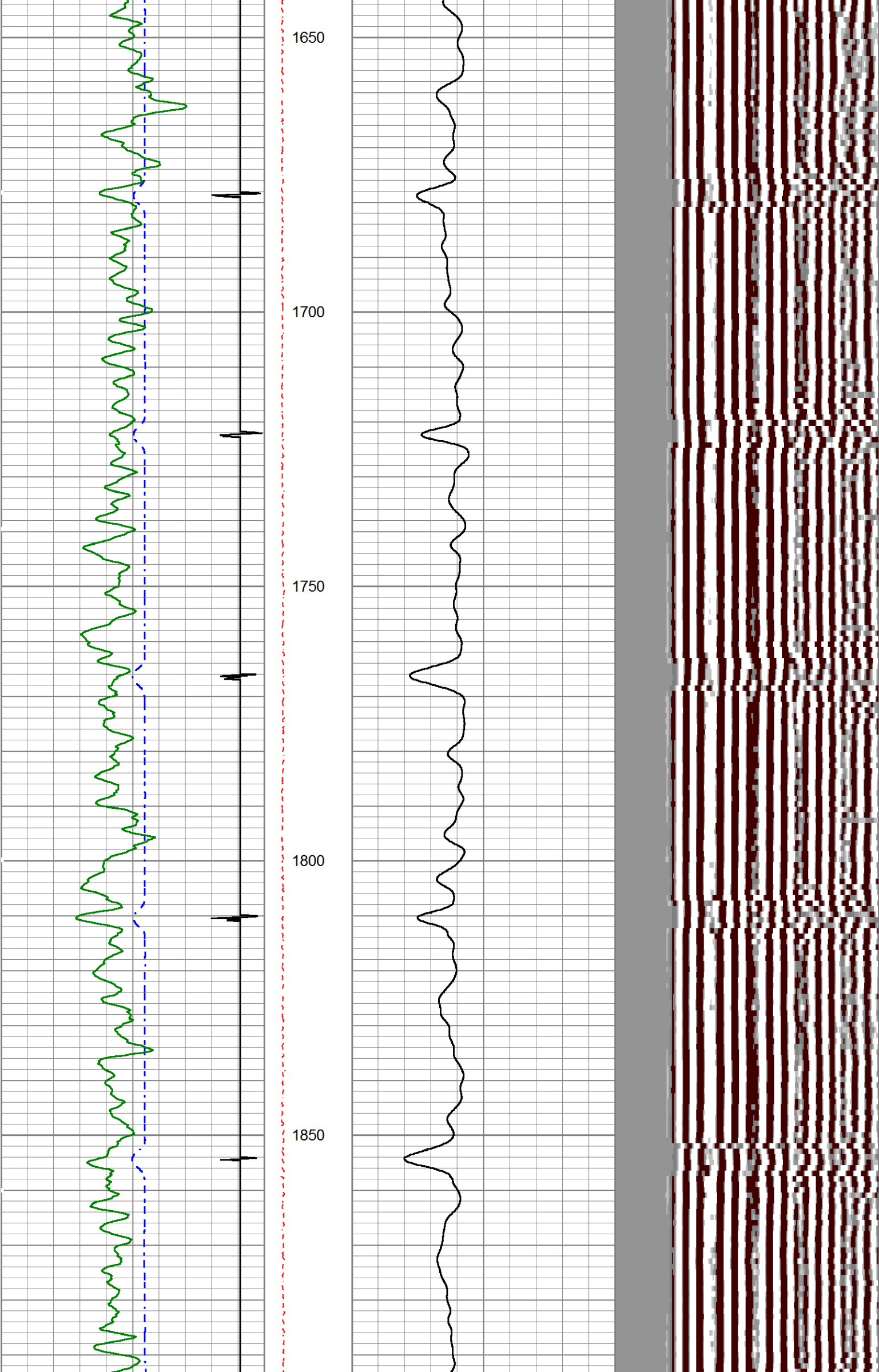


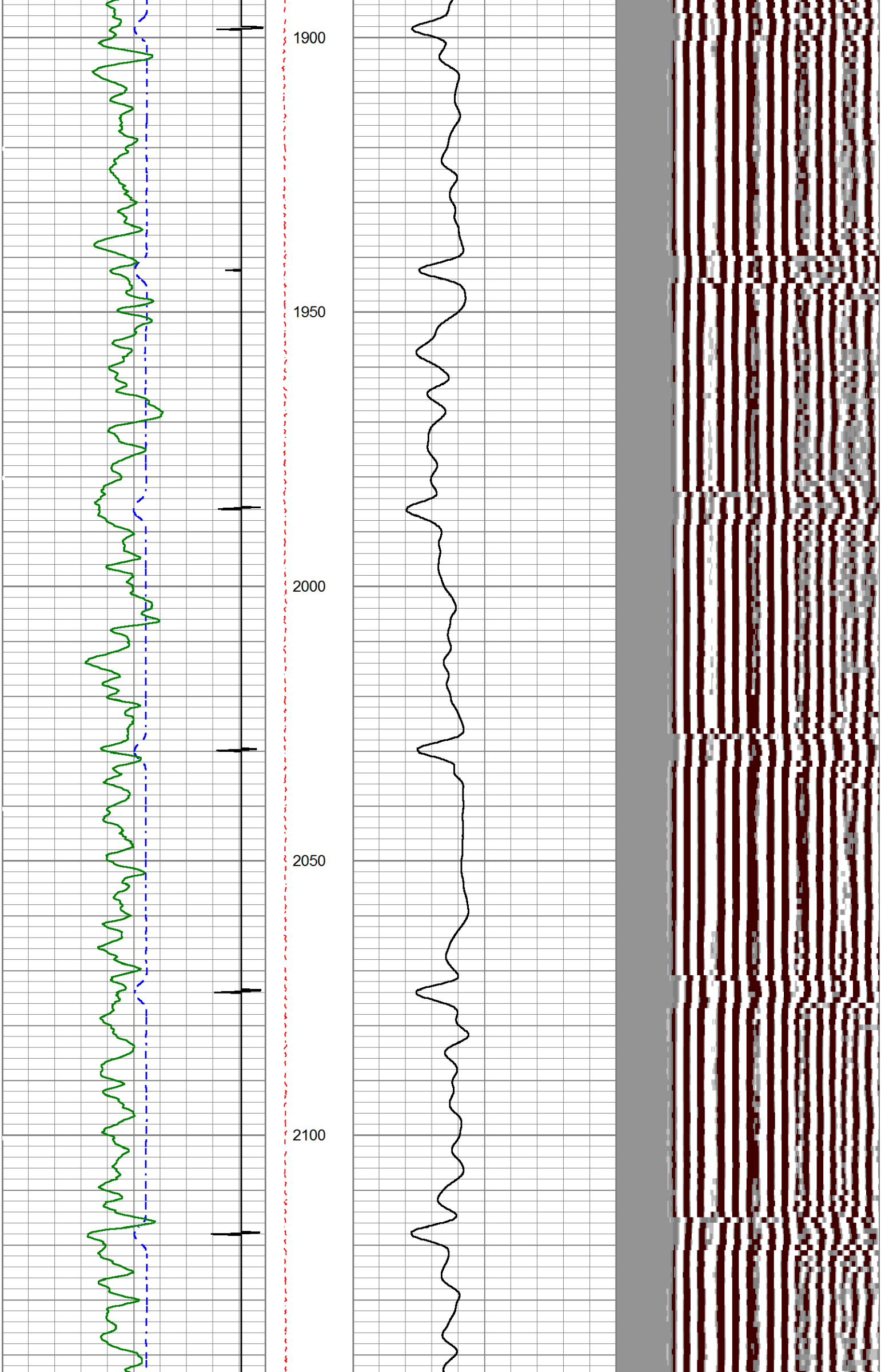


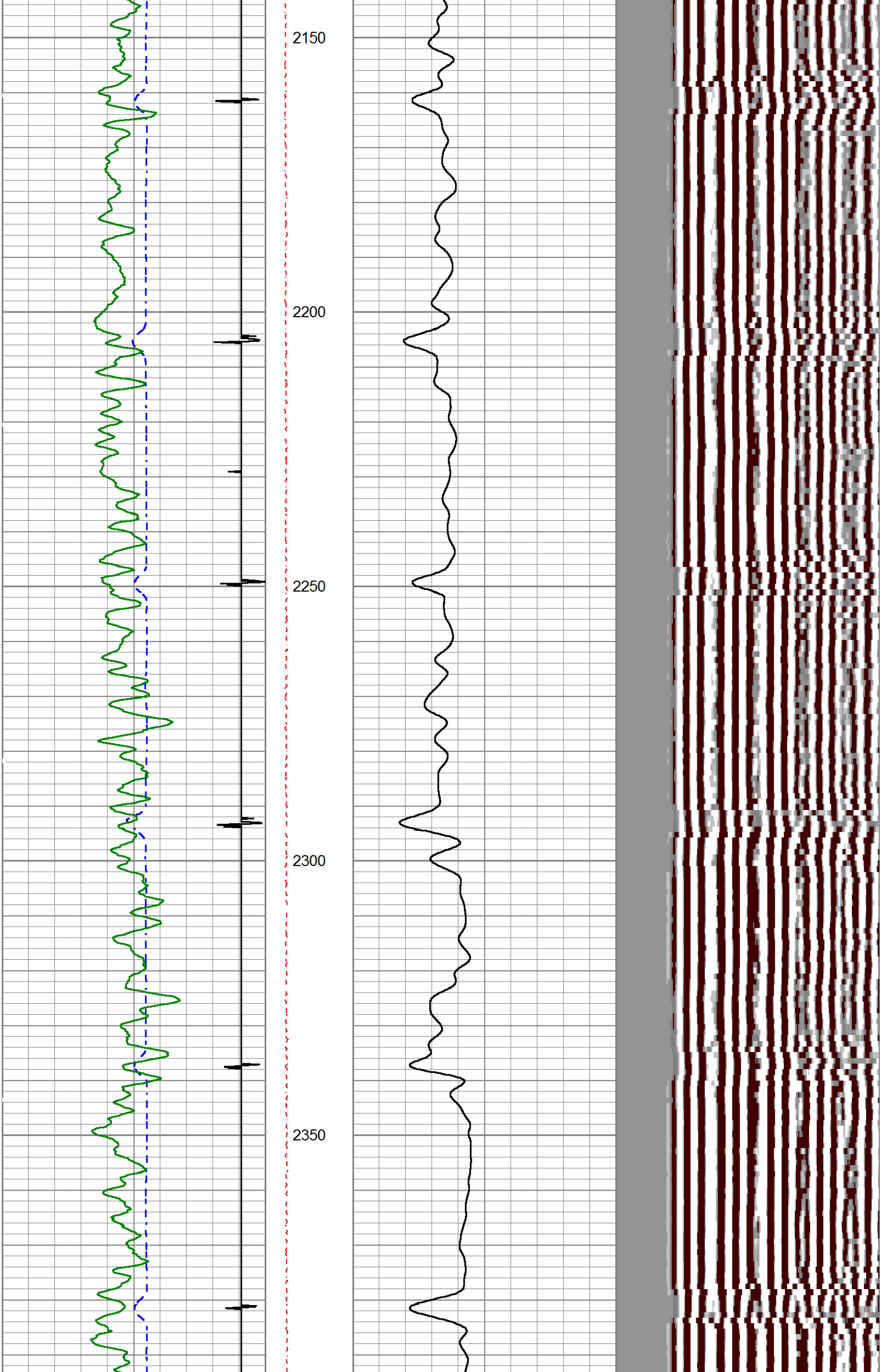


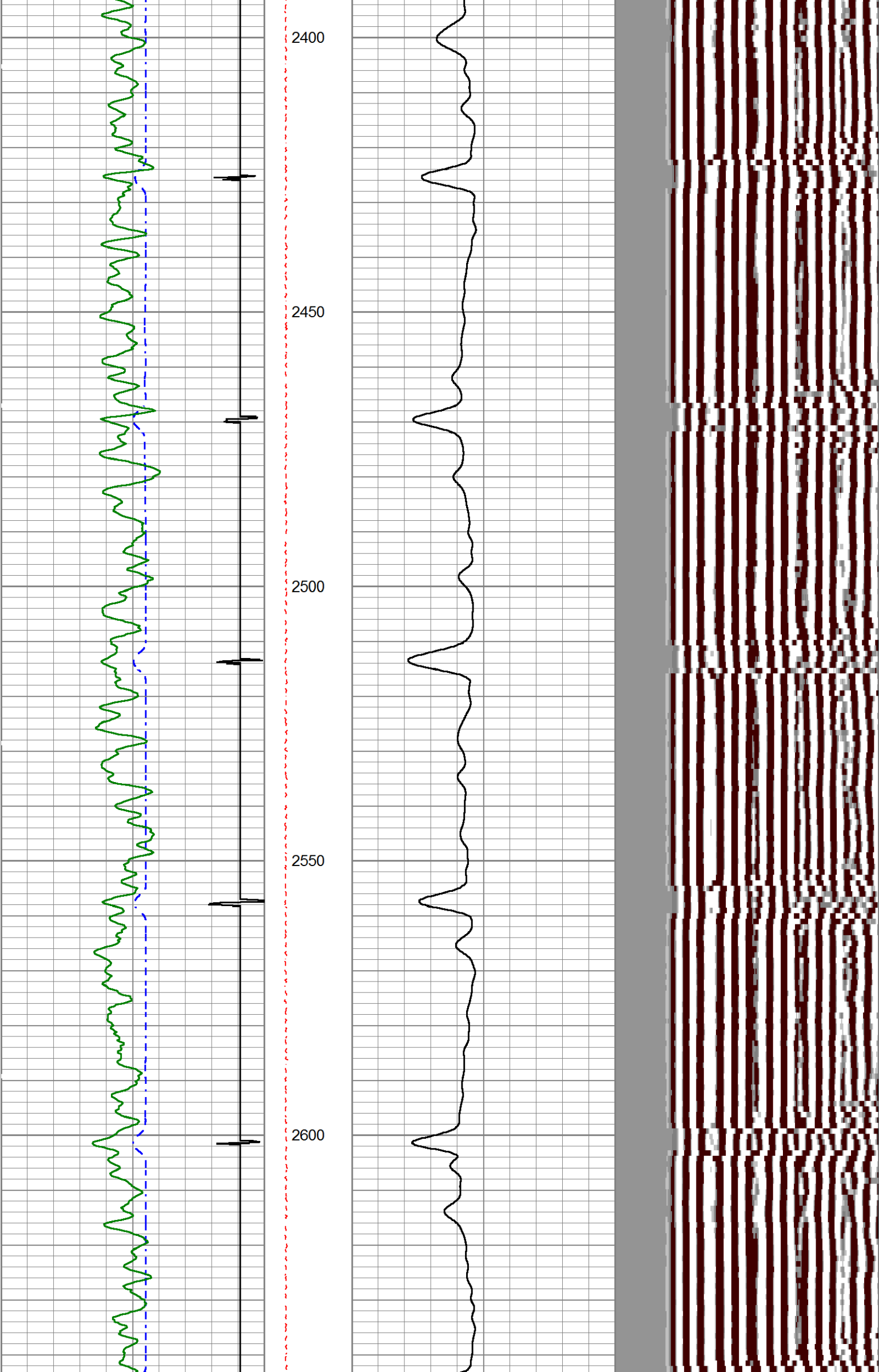


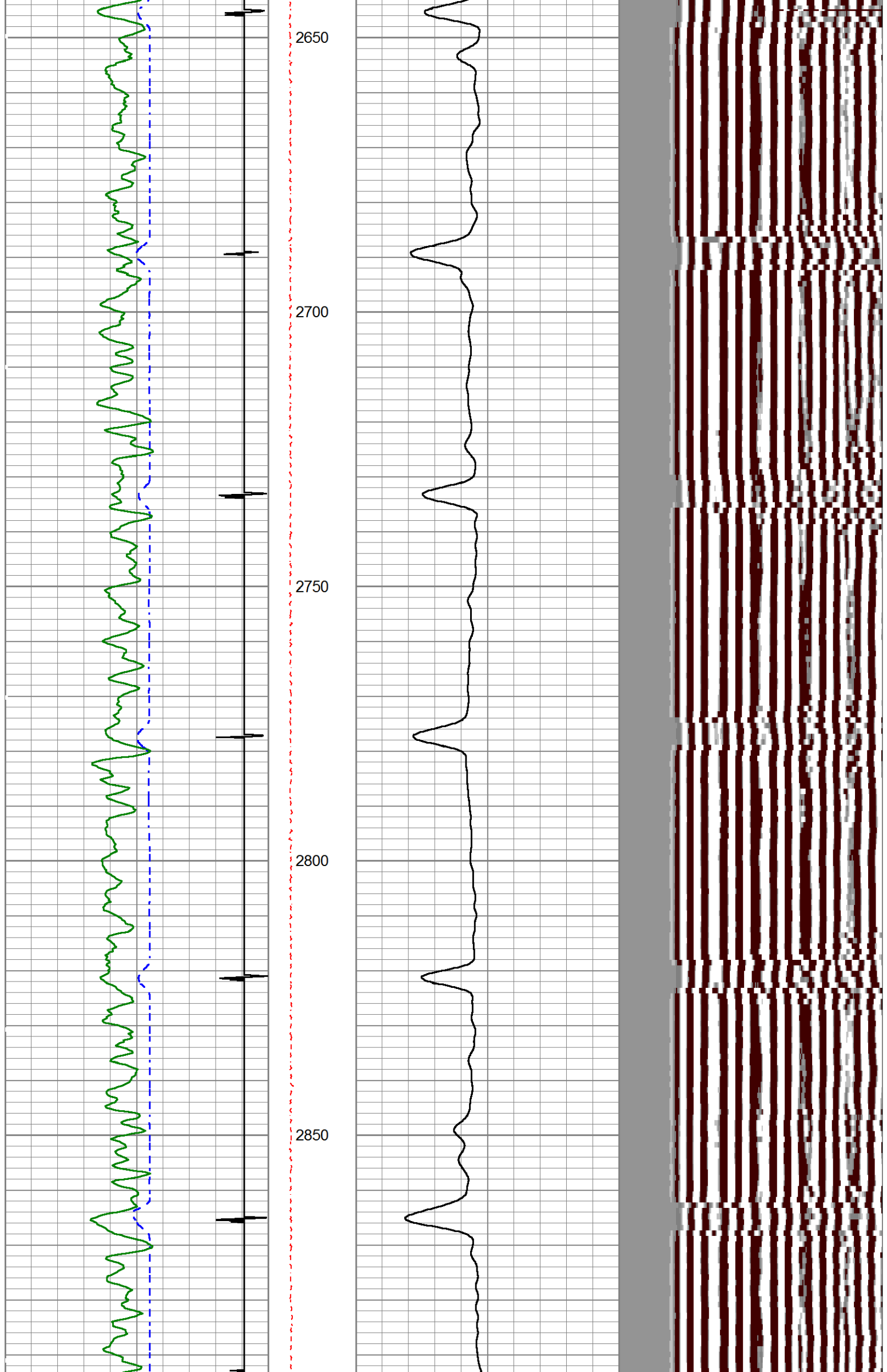


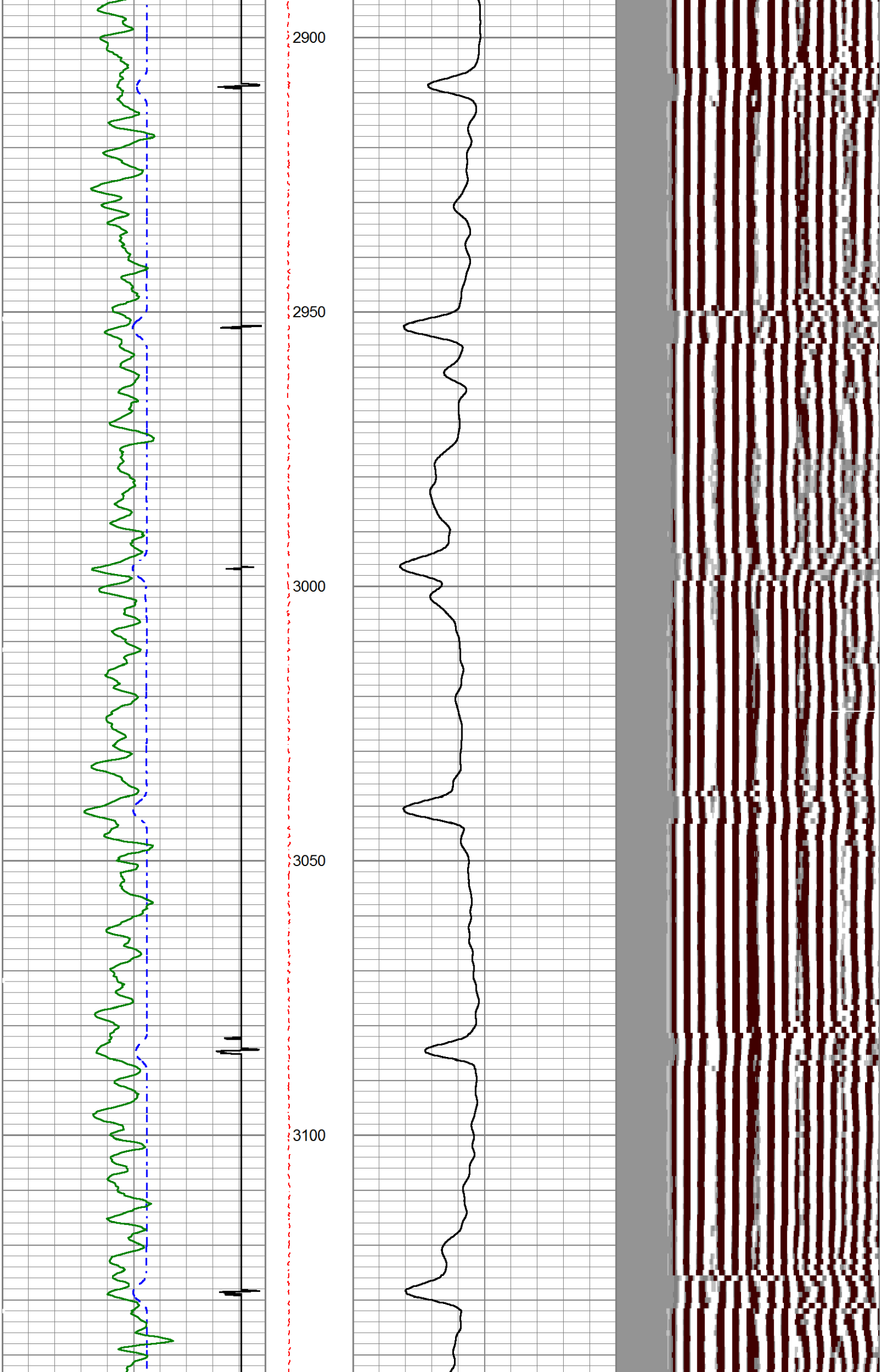


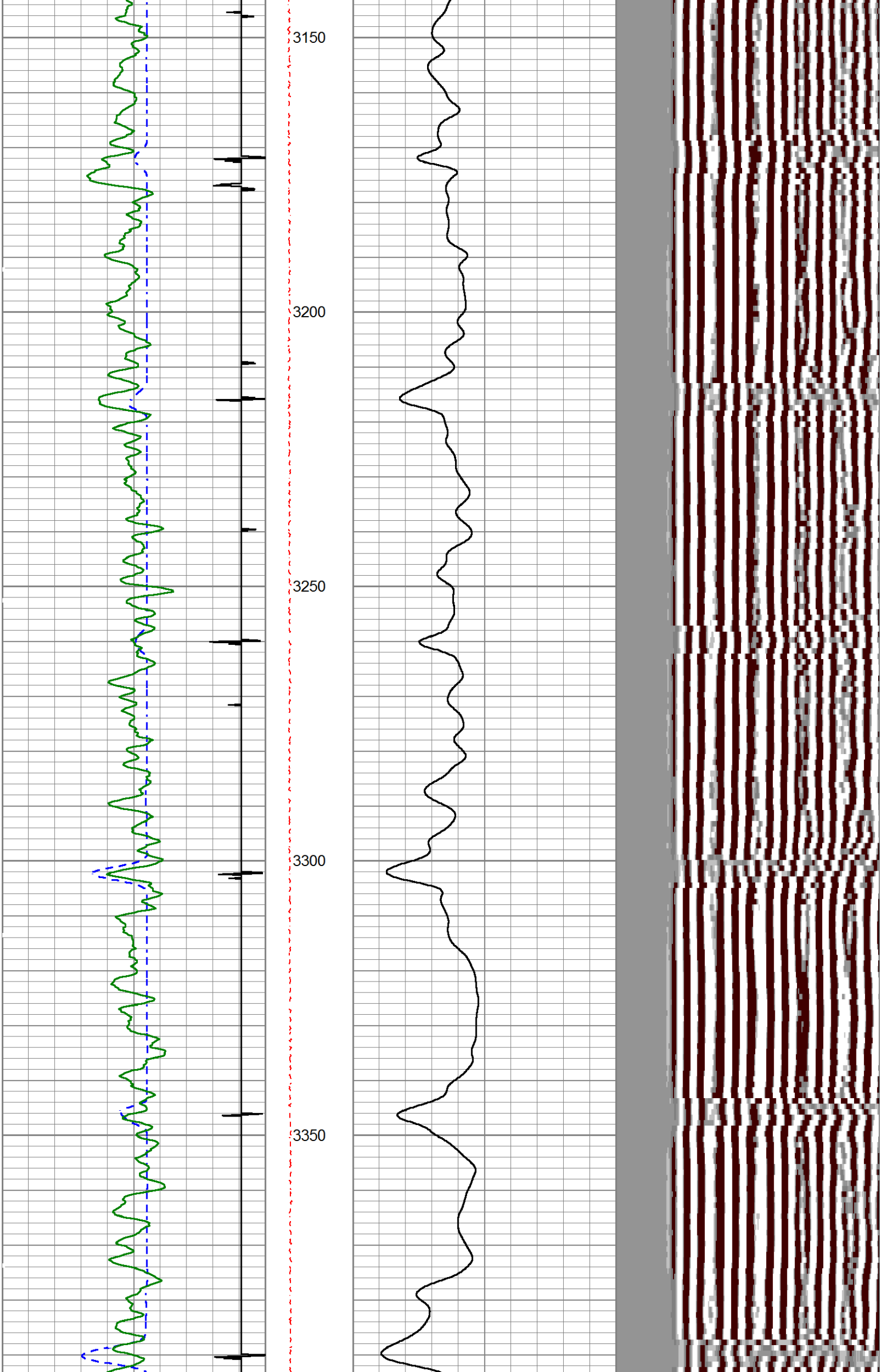


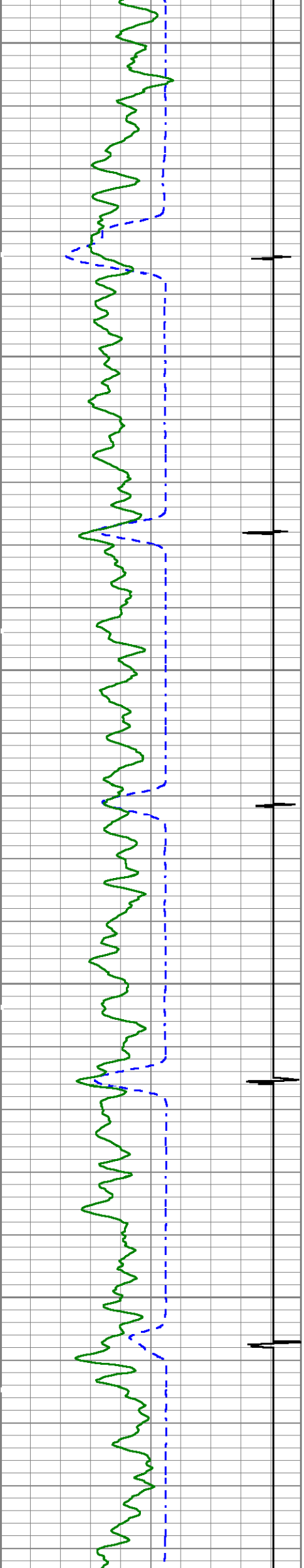












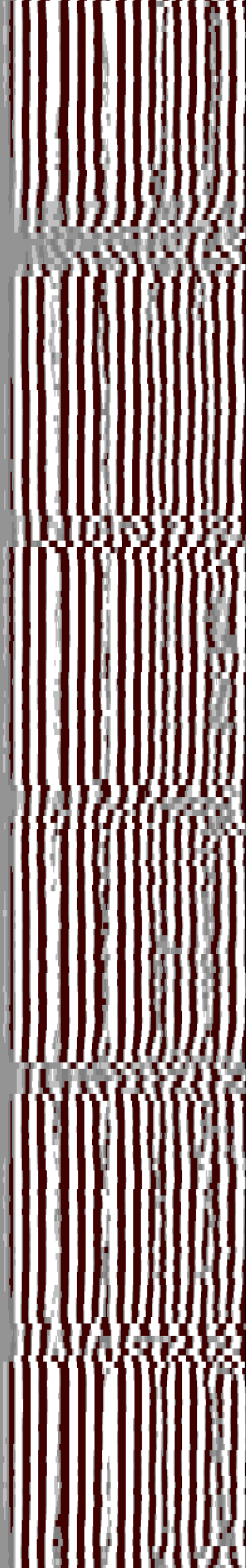
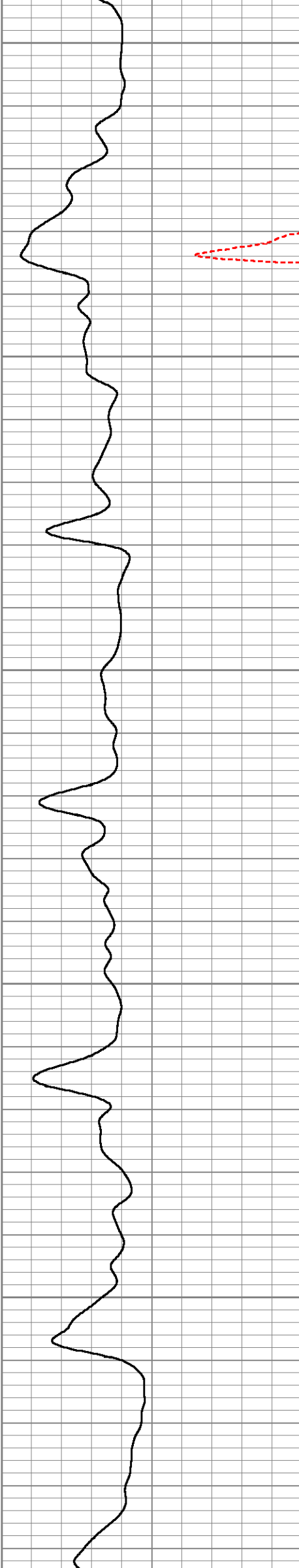
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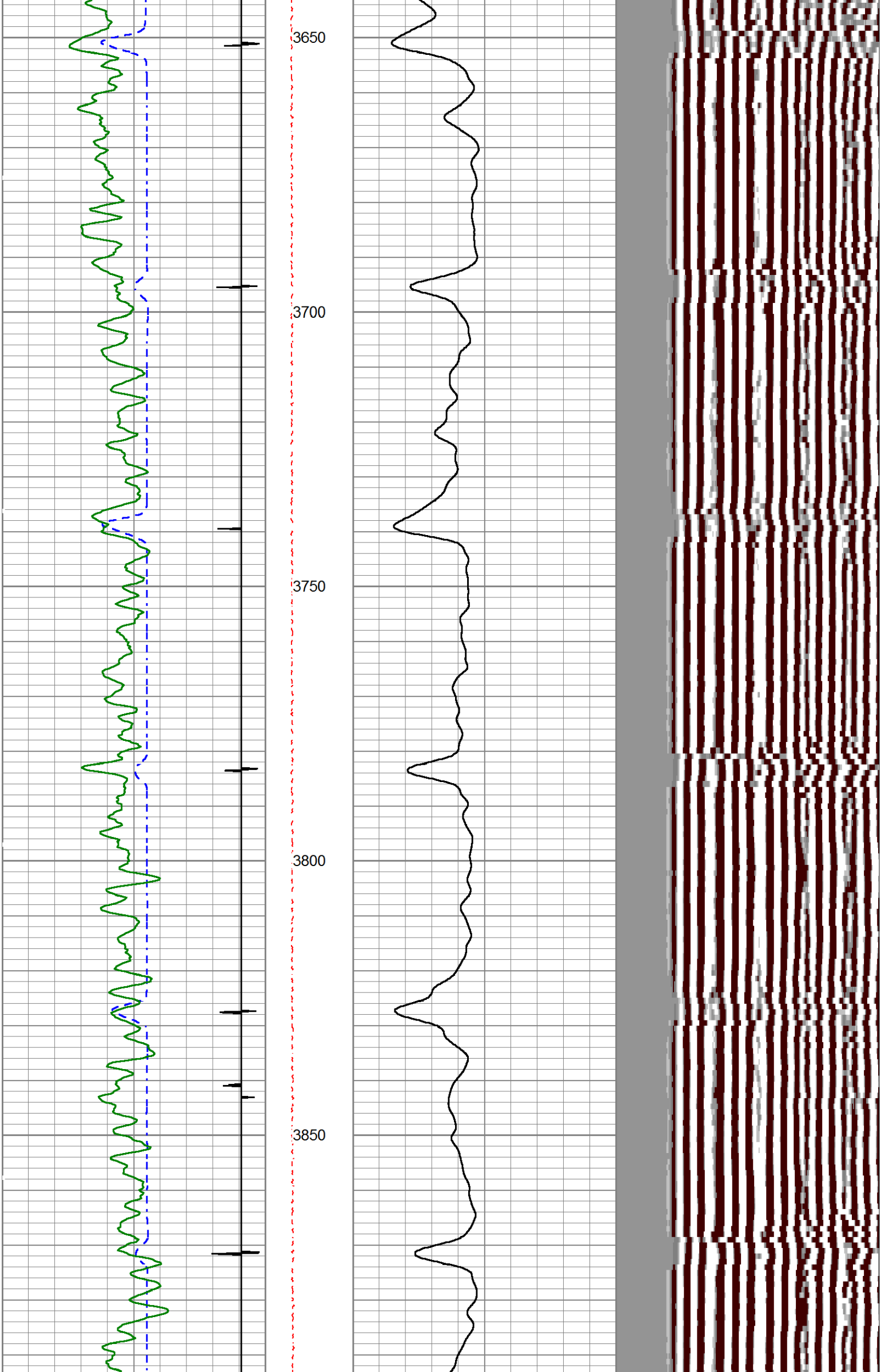
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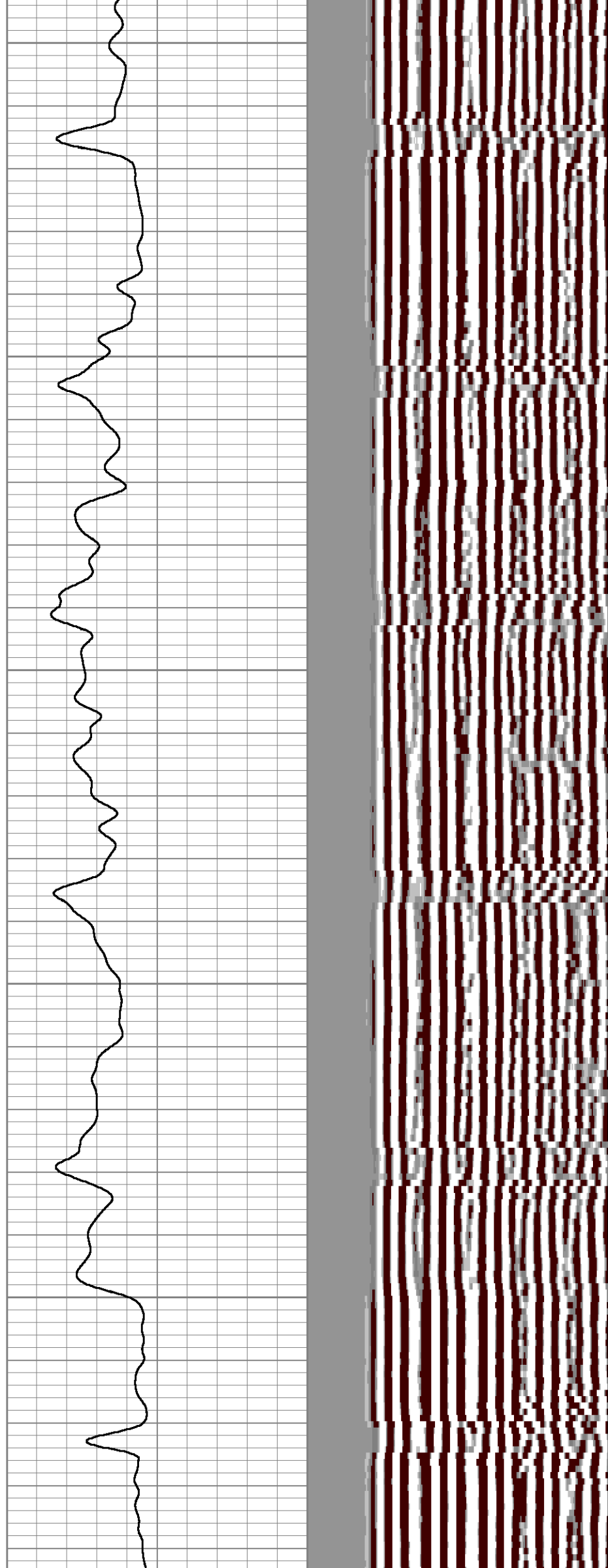
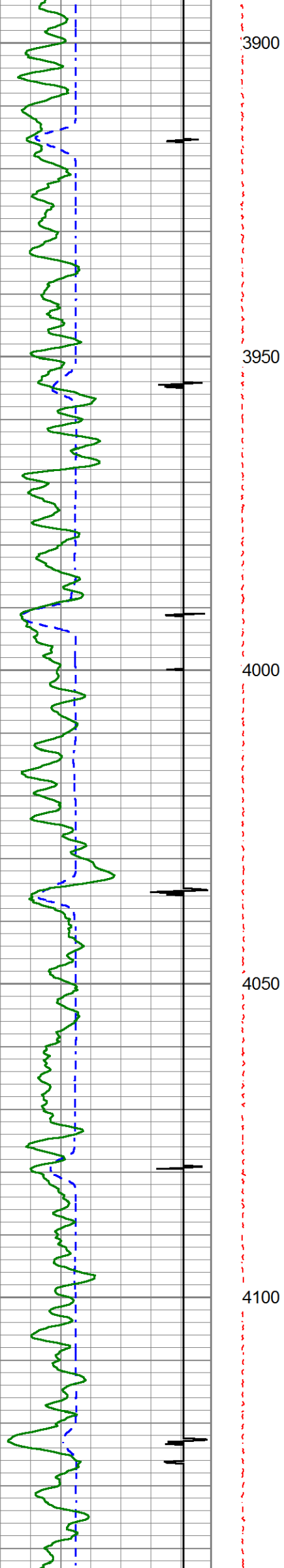
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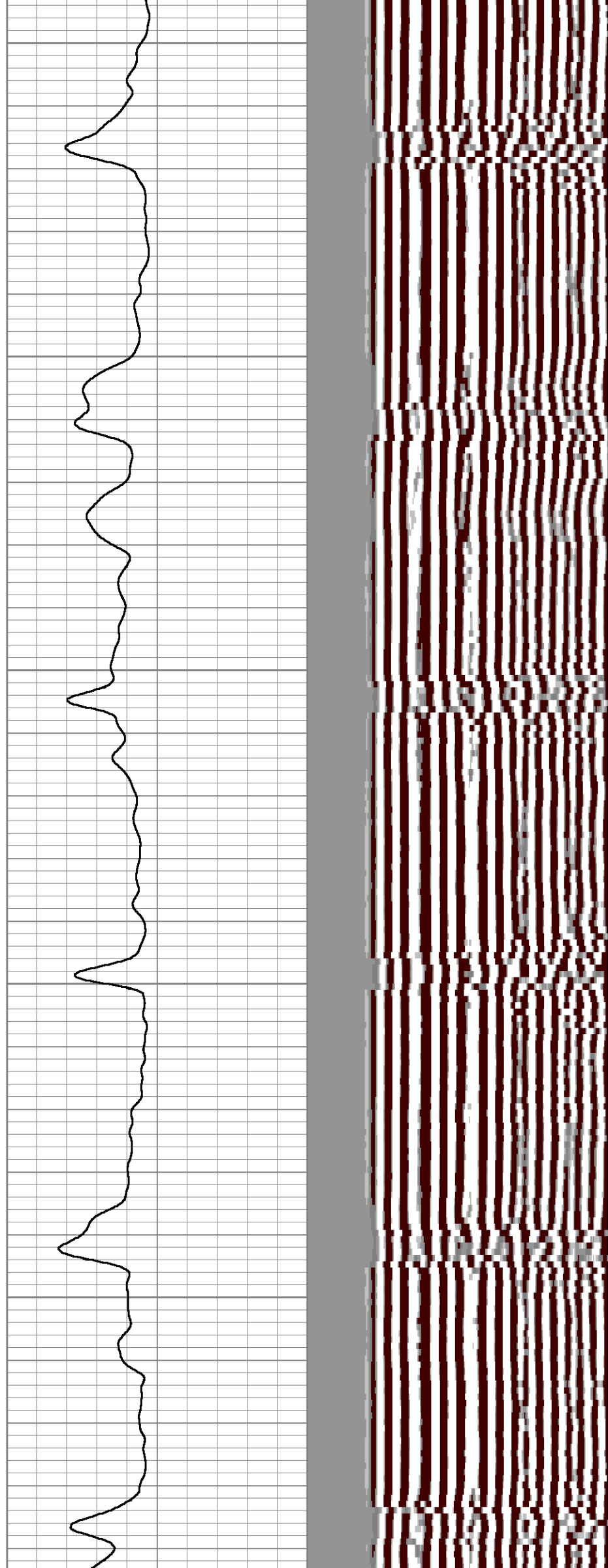
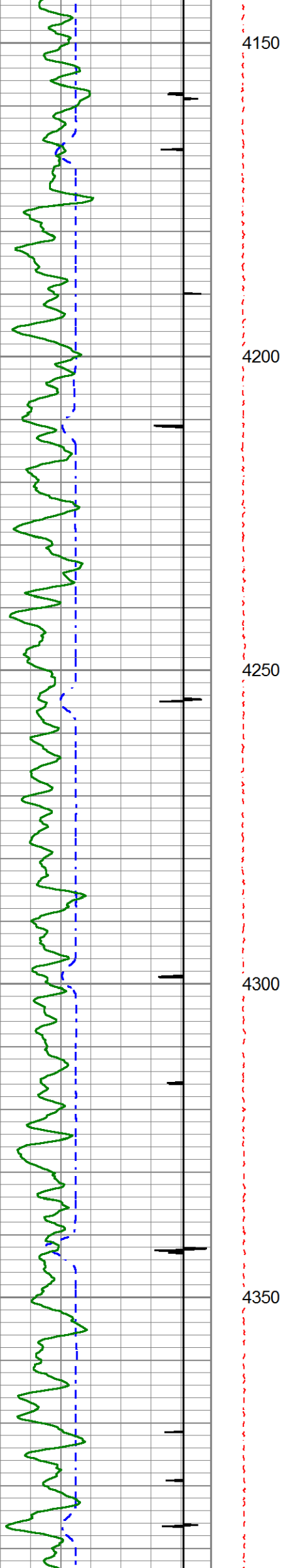
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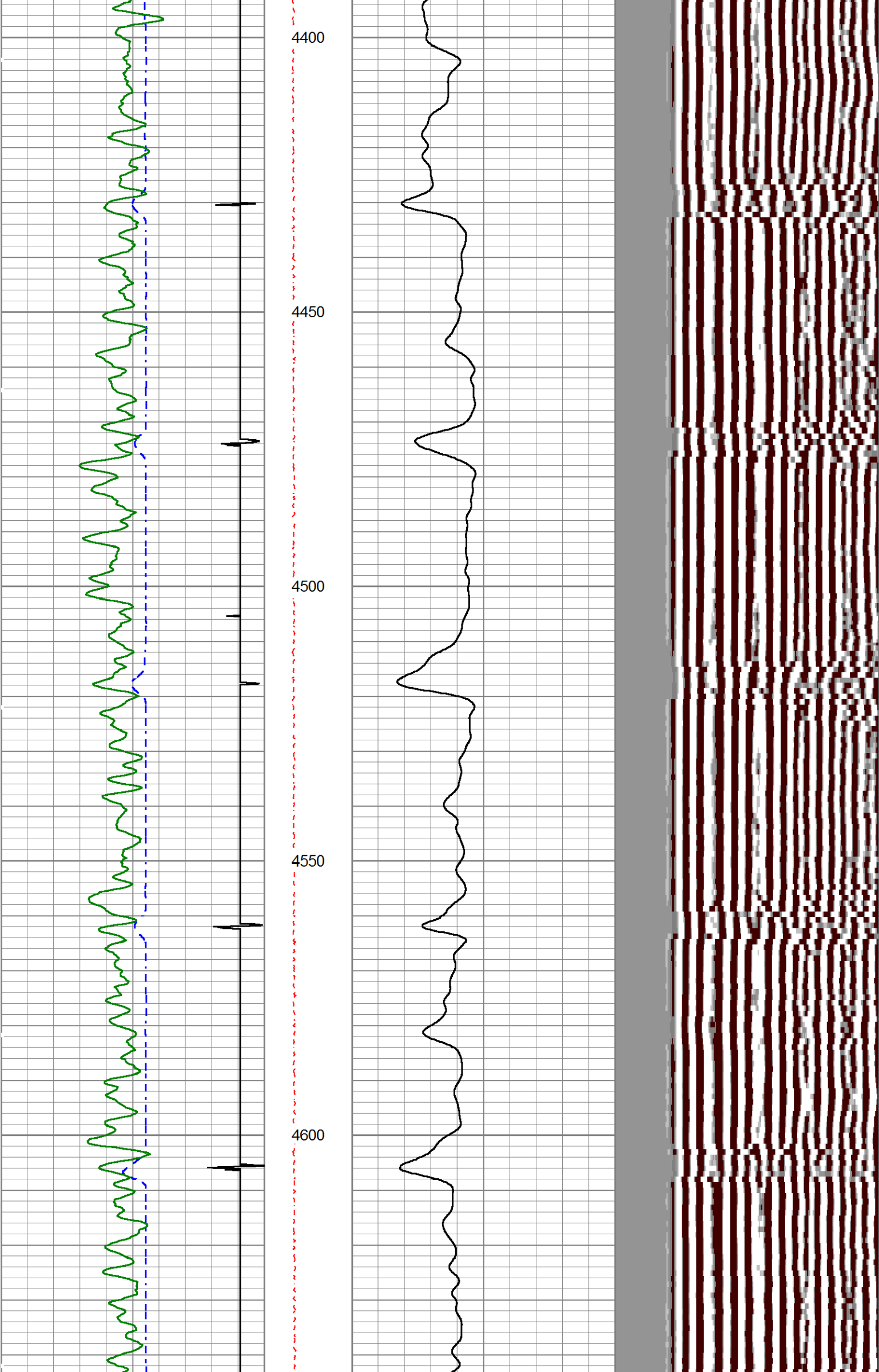
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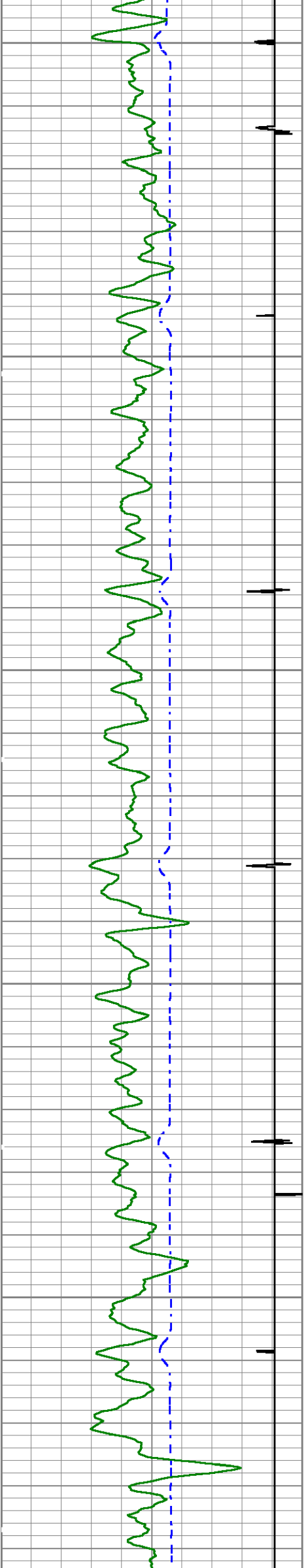












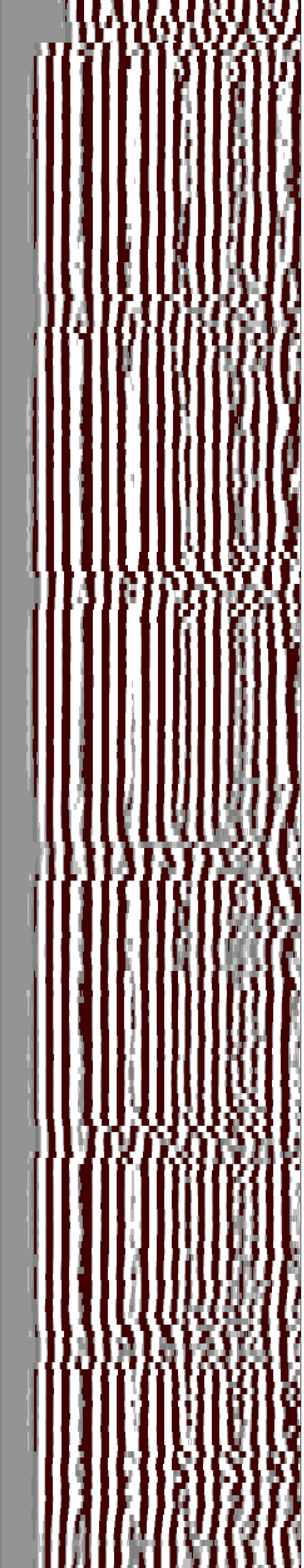
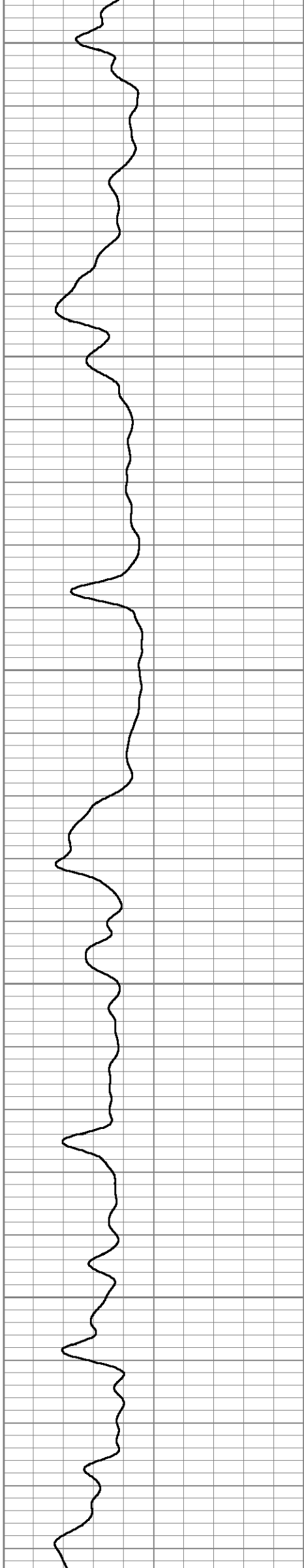
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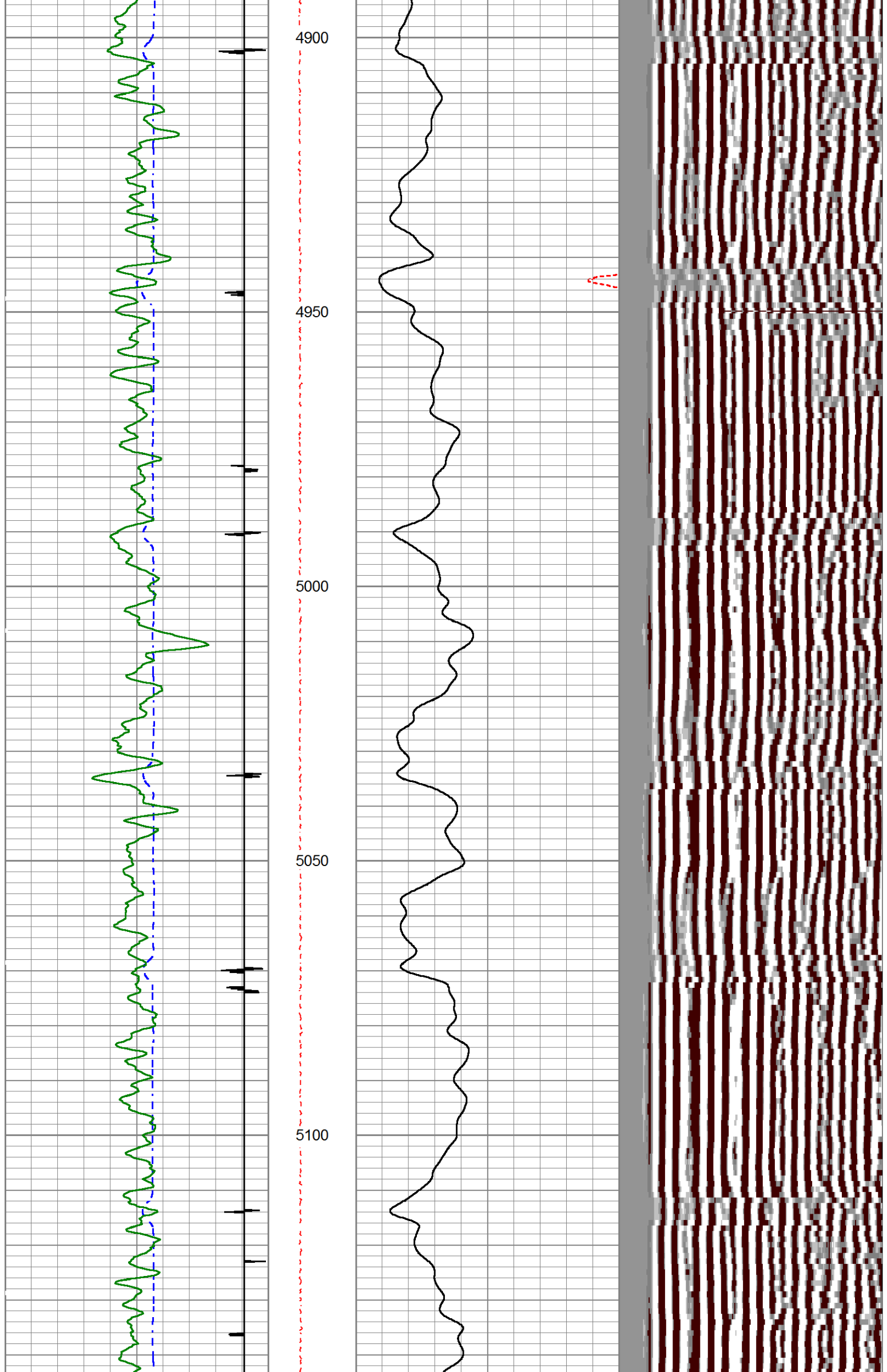
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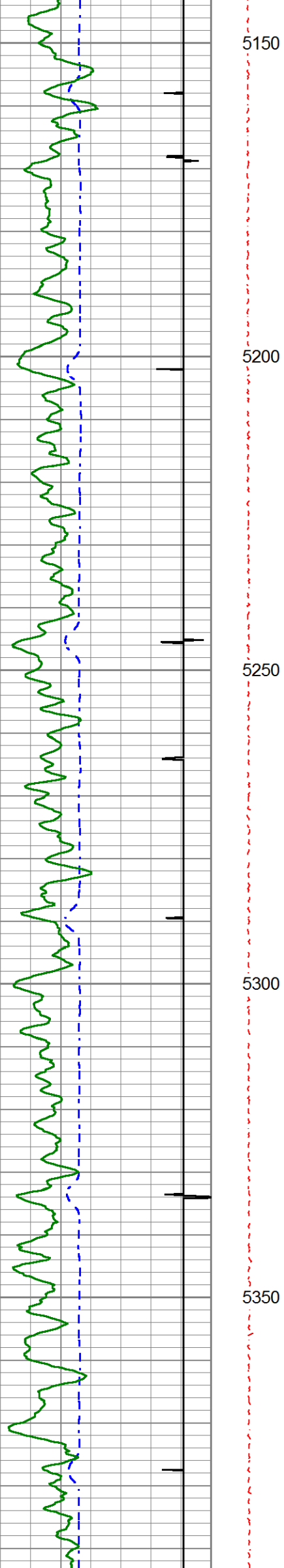
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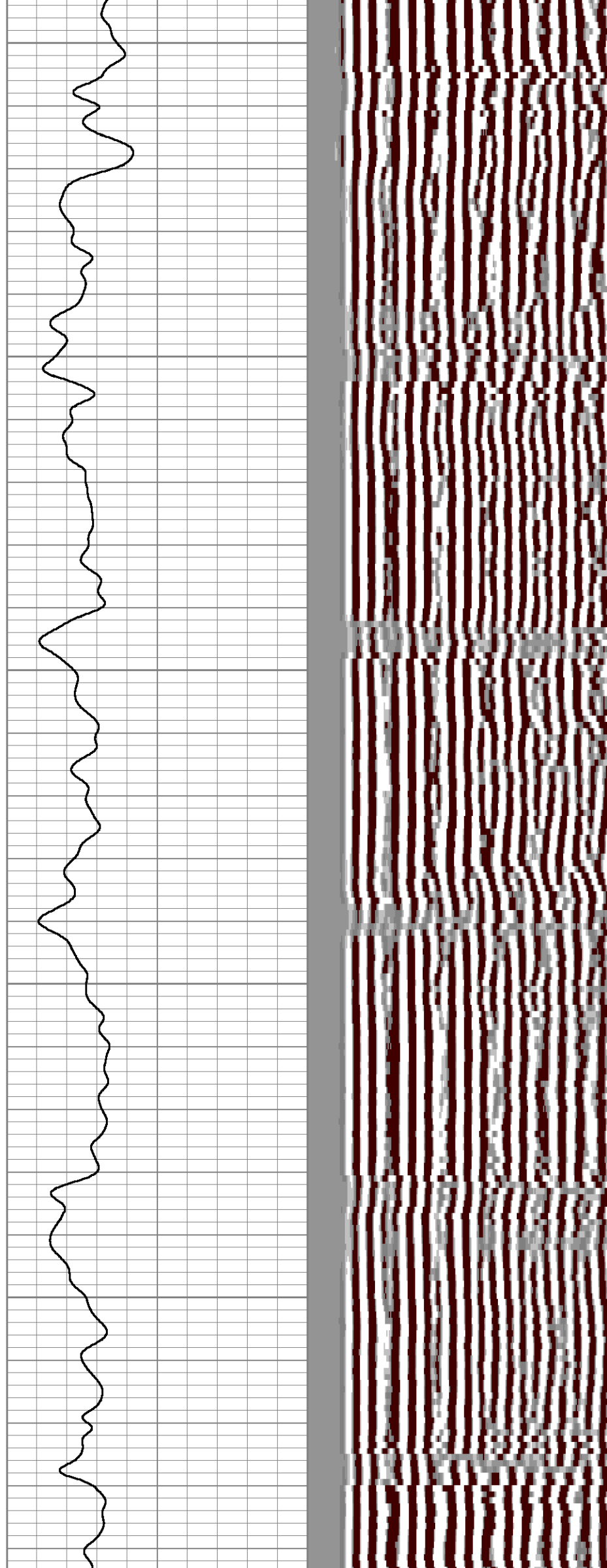
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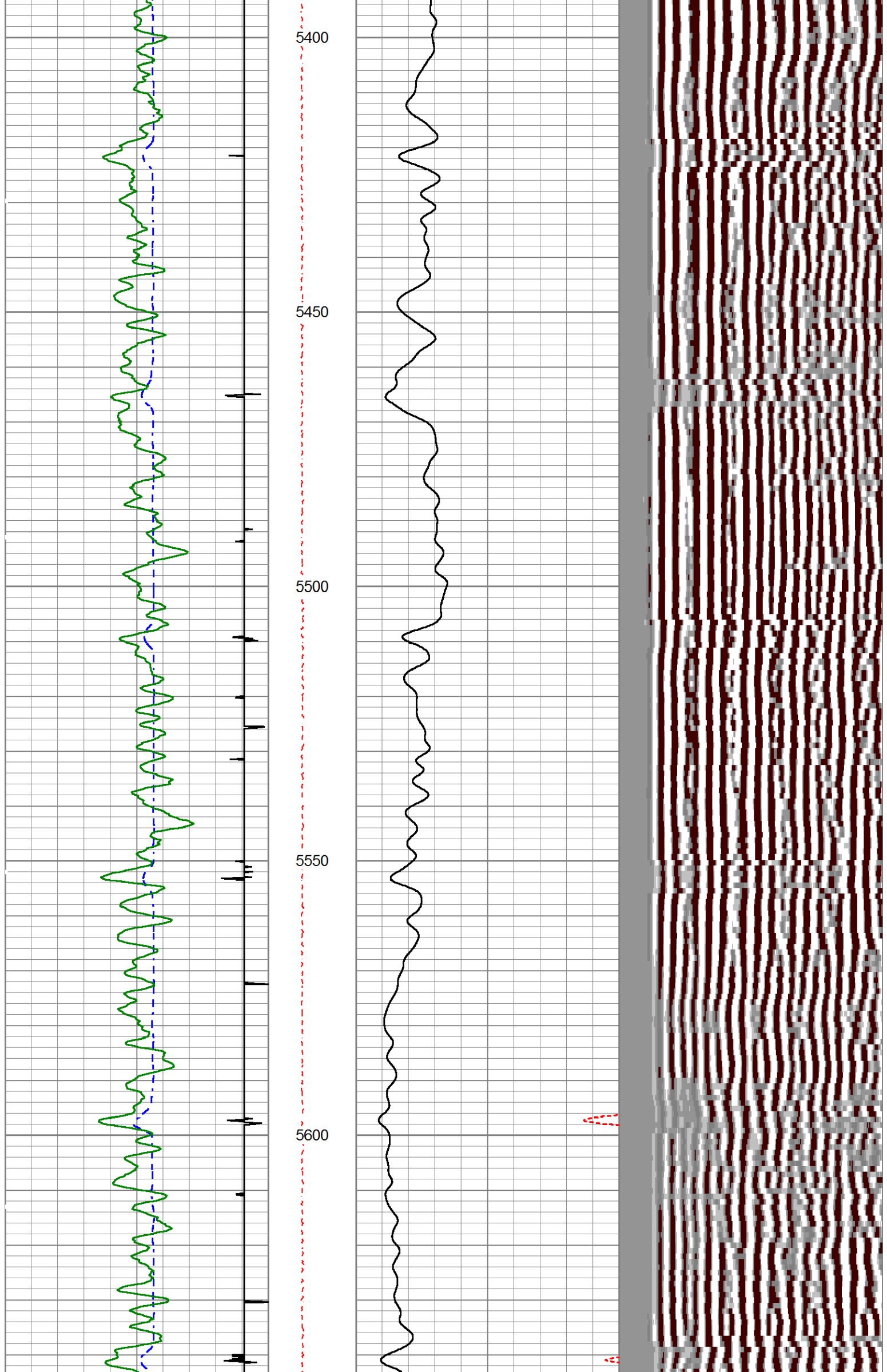
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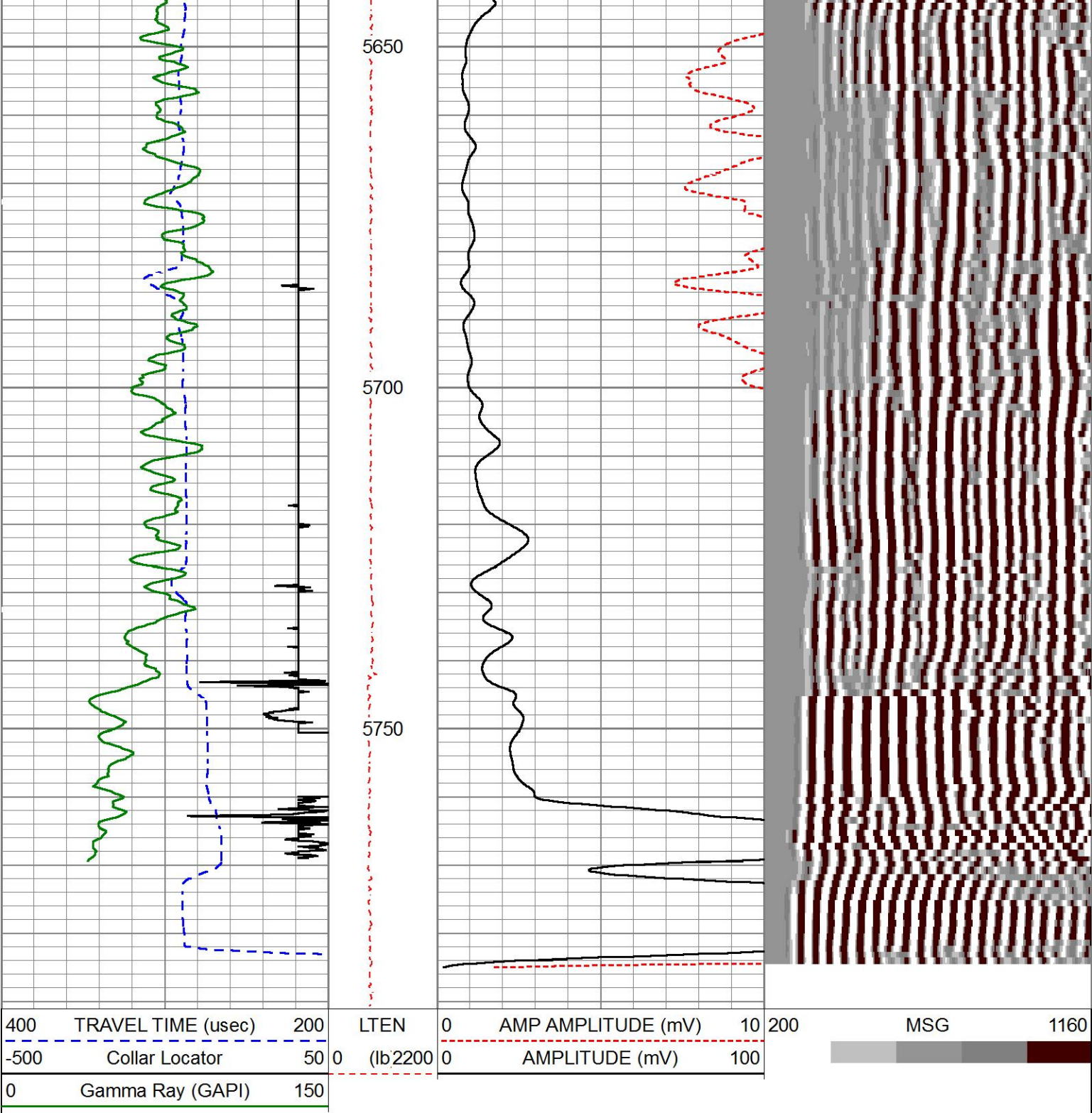
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5300

5350







MAINPASS

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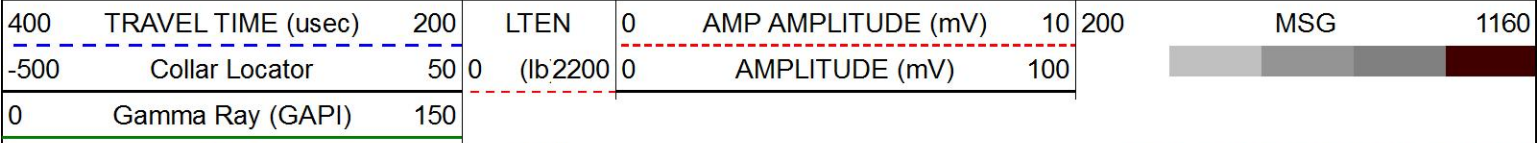
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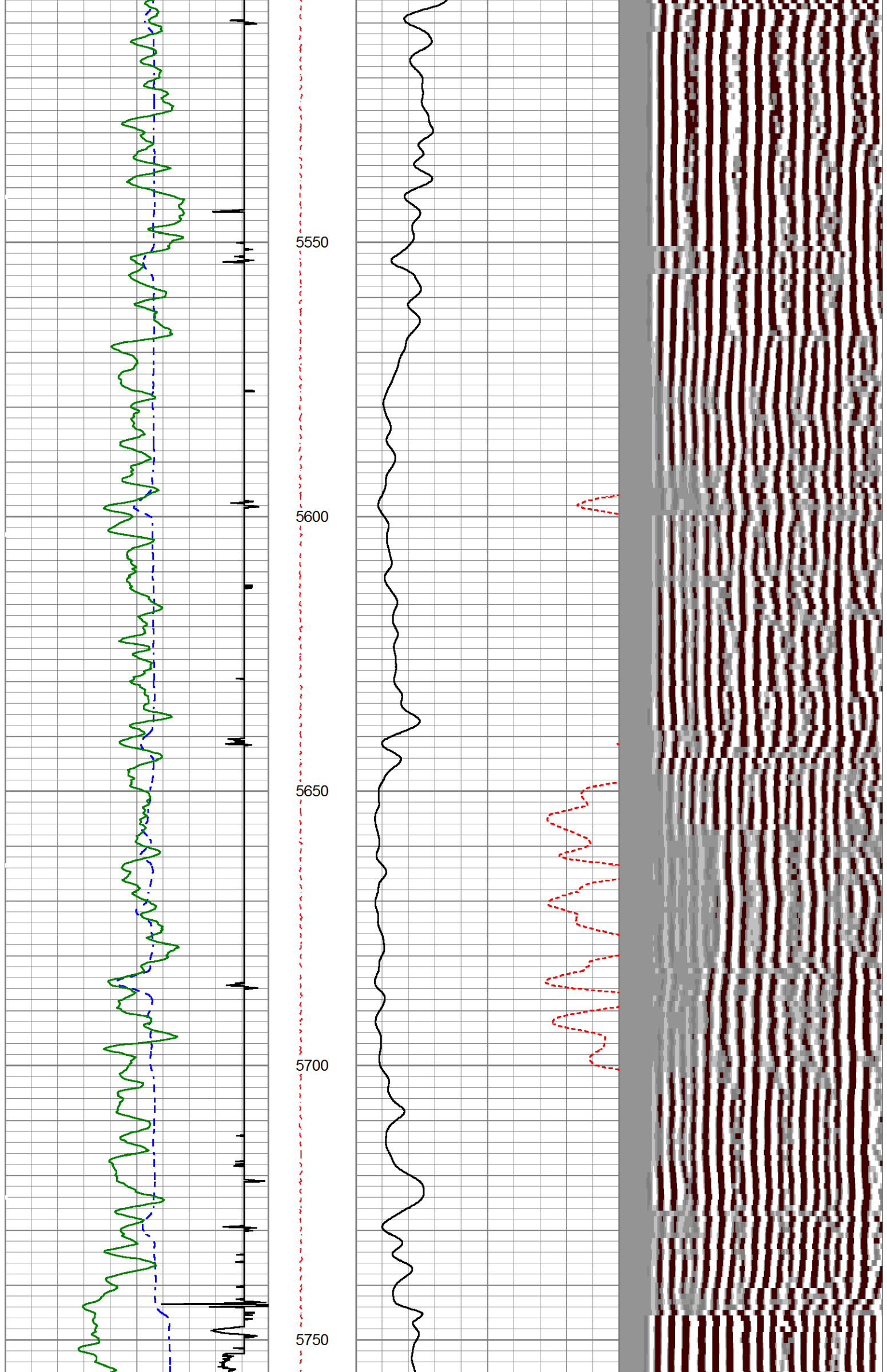
REPEAT PASS

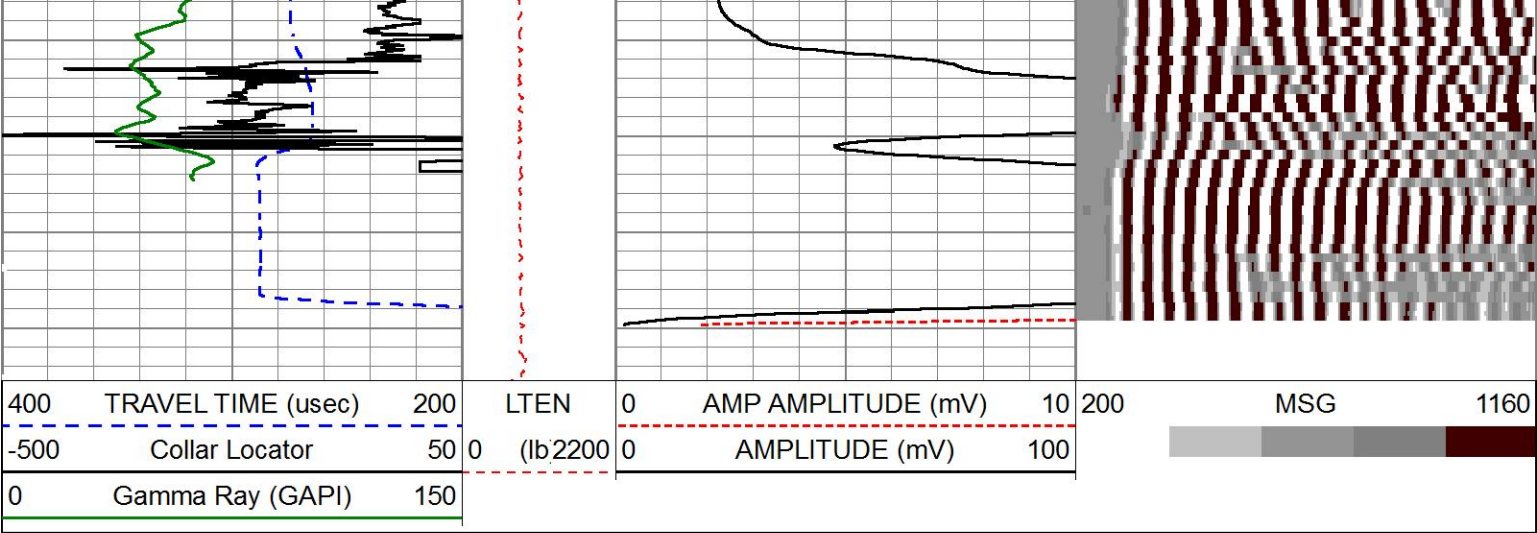
HALLIBURTON

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Presentation Format cbl_main
Dataset Creation Wed Oct 29 17:38:55 2014
Charted by Depth in Feet scaled 1:240







REPEAT PASS

5"=100'

Calibration Report

Database File d:\warrior_data\old jobs\fiducial 06-62-34-6457bh2.db
Dataset Pathname WATTENBURG/Fiducial_06-62-34-6457BH2/run1/MAIN2
Dataset Creation Wed Oct 29 19:38:11 2014

Cement Bond Log Shop Calibration Report

Serial-Model: 12253831-A
Calibration Performed: Sat Aug 16 09:11:10 2014

Free Pipe Calibration

	Measured	Units
TT	261.0	uSec
Amplitude	558.1	mV
Log Base Line	-11.7	mV

Calibration References and Gain

Name	Value	Units
Pipe O.D.	5.500	in
Pipe Weight	17.0	lb/ft
Pipe Ref. Amp.	71.9	mV
Amp. Gain	0.126	

Gamma Ray Calibration Report

Type / Serial: 002 / 10000538

SHOP CALIBRATION Mon Oct 27 16:34:54 2014

	Counts/Sec.	Gain	Offset	Jig	Units
Background	29.0				cps
Calibrator	179.7				cps
		1.6128			GAPI/cps

PRIMARY VERIFICATION


Background	48.4				cps
Calibrator	292.6				cps
Difference				244.1	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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CCL	21.47		STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
			TTTCU-002 (10000538) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00
GR	19.21					
Temp	9.49		XHU-003 (10008856) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00
TT3FT	7.24					
AMP3FT	7.24					
WVF5FT	6.28					
FrameCnt	2.76		CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
TLINITCNT	2.76					
CblCTT	2.76					
CblCCsgWgt	2.76					
CblCCsgOD	2.76					
CblCAmp	2.76					
CblBLine	2.76					
CblTTThresh	2.76					
CblAGate	2.76					
CblLWvCnt	2.76					
CblCStat	2.76					
CblIVolt	2.76					
CblITemp	2.76					
CblSeqNum	2.76		HCBLM-A (12253831) Halliburton HCBLM Tool	9.38	2.75	116.00
CblTStat	2.76					
WVF3FT	2.76					
HVOLTX	0.00					
ITEMPX	0.00					
TSTAMP	0.00					
XHUCUR4	0.00					
XHUCUR3	0.00					
XHUCUR2	0.00					
XHUCUR1	0.00					
XHUSTAT	0.00					
XHUTEMP	0.00					
XHUERR2	0.00		CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
XHUERR1	0.00		AUH-001 (000001) Adaptor Ultrawire/Halliburton	0.38	1.69	3.00
LOCTIM	0.00					
UTCTIM	0.00		BUL-006 (000002) Bullnose Terminator	0.22	1.69	1.20
LLMTEN	0.00					

	Dataset:	fiducial 06-62-34-6457bh2.db: WATTENBURG/Fiducial_06-62-34-6457BH2/run1/MAIN2			
	Total length:	25.04 ft			
	Total weight:	278.20 lb			
	O.D.:	3.13 in			

Company	BILL BARRETT CORPORATION				
Well	FIDUCIAL 06-62-34-6457BH2				
Field	WATTENBERG				
County	WELD	State	CO		
HALLIBURTON	CEMENT BOND LOG GR-CCL				