

HALLIBURTON										CEMENT BOND LOG									
Company URSA OPERATING COMPANY LLC Well MONUMENT RIDGE B 32A-17-7-95 Field PARACHUTE County GARFIELD State CO										Company URSA OPERATING COMPANY LLC Well MONUMENT RIDGE B 32A-17-7-95 Field PARACHUTE County GARFIELD State CO									
API No.: 05045229040000    Serv #: 903683365    Other Services										RMT-1									
Location: SHL: 880' FSL & 144' FEL BHL: 1665' FNL & 1979' FEL																			
Sec: 8    Twp: 7S    Rge: 95W																			
Permanent Datum GROUND LEVEL    Elevation 5702'										Elevation									
Log Measured From KB    ,    17' Ft. above perm. datum										K.B. 5719' D.F. 5719' G.L. 5702'									
Drilling Measured From KB																			
Date @ Time Logged 2 DEC 2016 @ 10:36										Type Fluid in Hole FRESH WATER									
Run No. ONE										Density of Fluid 8.4 PPG									
Depth - Driller 8035'										Fluid Level SURFACE									
Depth - Logger 7812'										Cement Top Est. Logged 1840'									
Bottom - Logged Interval 7806'										Equipment / Location 11808537 / RS. WY									
Top - Log Interval 1821'										Recorded by B. RIDDEL									
Max. Recorded Temp. 226 degF										Witnessed by R. TOLLE									
CEMENTING DATA										Protection String									
Date / Time Cemented String										Production String									
Primary / Squeeze N/A										N/A									
Expected Compressive Strength N/A										psi@ N/A hrs									
Cement Volume N/A										N/A									
Cement Type / Weight N/A										N/A									
Formulation N/A										N/A									
Mud Type / Mud Wgt. N/A										N/A									
Borehole Record										Casing & Tubing Record									
Run Number Bit From To Size Weight From To																			
ONE 24" SURFACE 60' 16" 75.5 # SURFACE 60'																			
TWO 12.25" 60' 1871' 8.625" 32.0 # SURFACE 1871'																			
THREE 7.875" 1871' 8035' 4.5" 11.6 # SURFACE 8035'																			
<<< Fold Here >>>																			
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																			
ESTIMATED TOP OF CEMENT : 1840' GAMMA BLANKET : 408 GAPI FREE PIPE CALIBRATION DEPTH : 281'																			
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SVCS. YOUR CREW TODAY: B. RIDDEL, D. FLINDERS, B. BURDERER																			

ONE	4460'	4212'	0 PSI	20	REPEAT			
TWO	7812'	1821'	0 PSI	20	MAIN			
	GAMMA		SIGMA		AMPLITUDE			
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
ONE	0	200	60	0	0	100		
TWO	0	200	60	0	0	100		
DIRECTIONAL INFORMATION								
Maximum Deviation			deg. @		KOP			

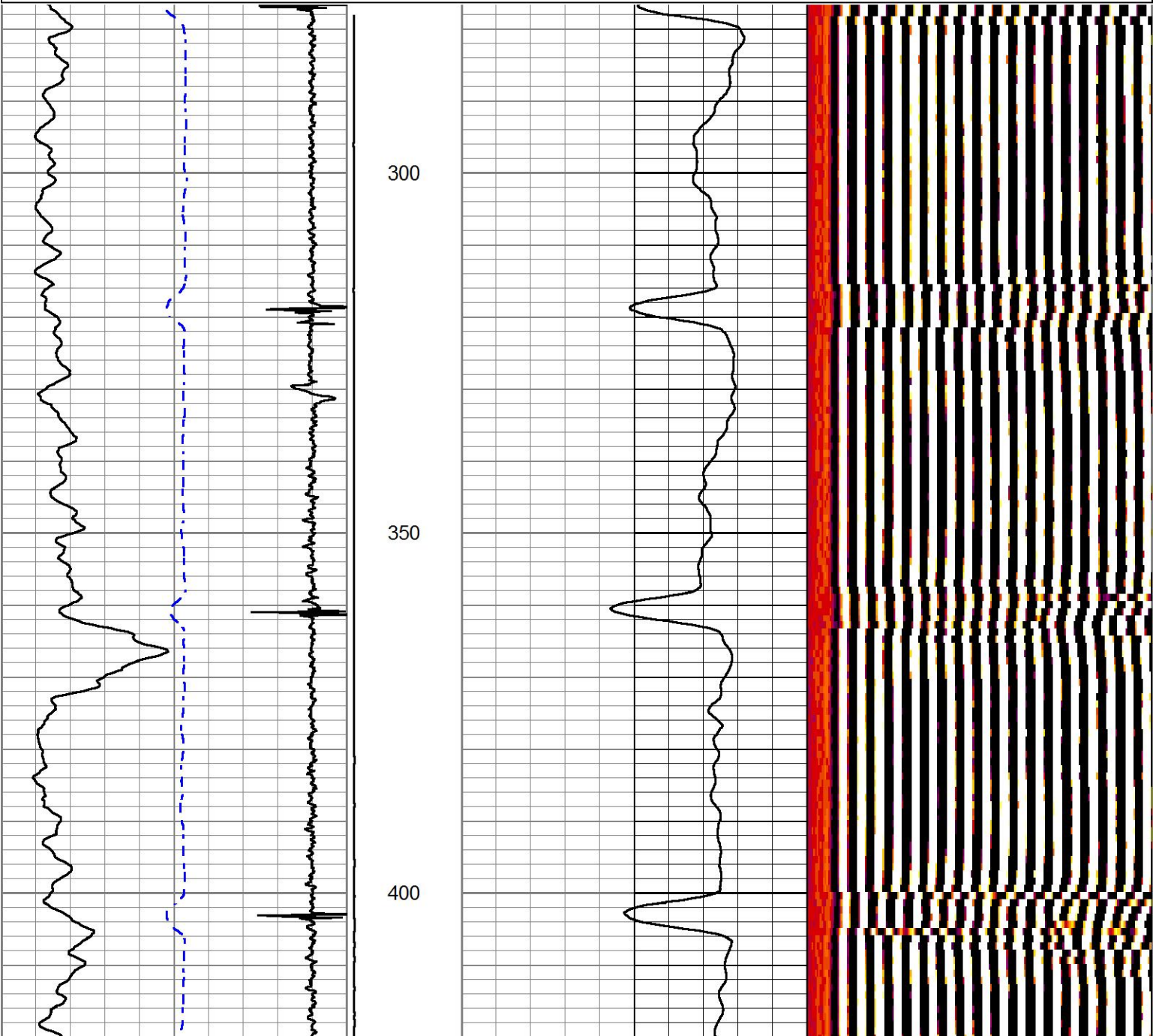
HALLIBURTON

FREE PIPE SECTION

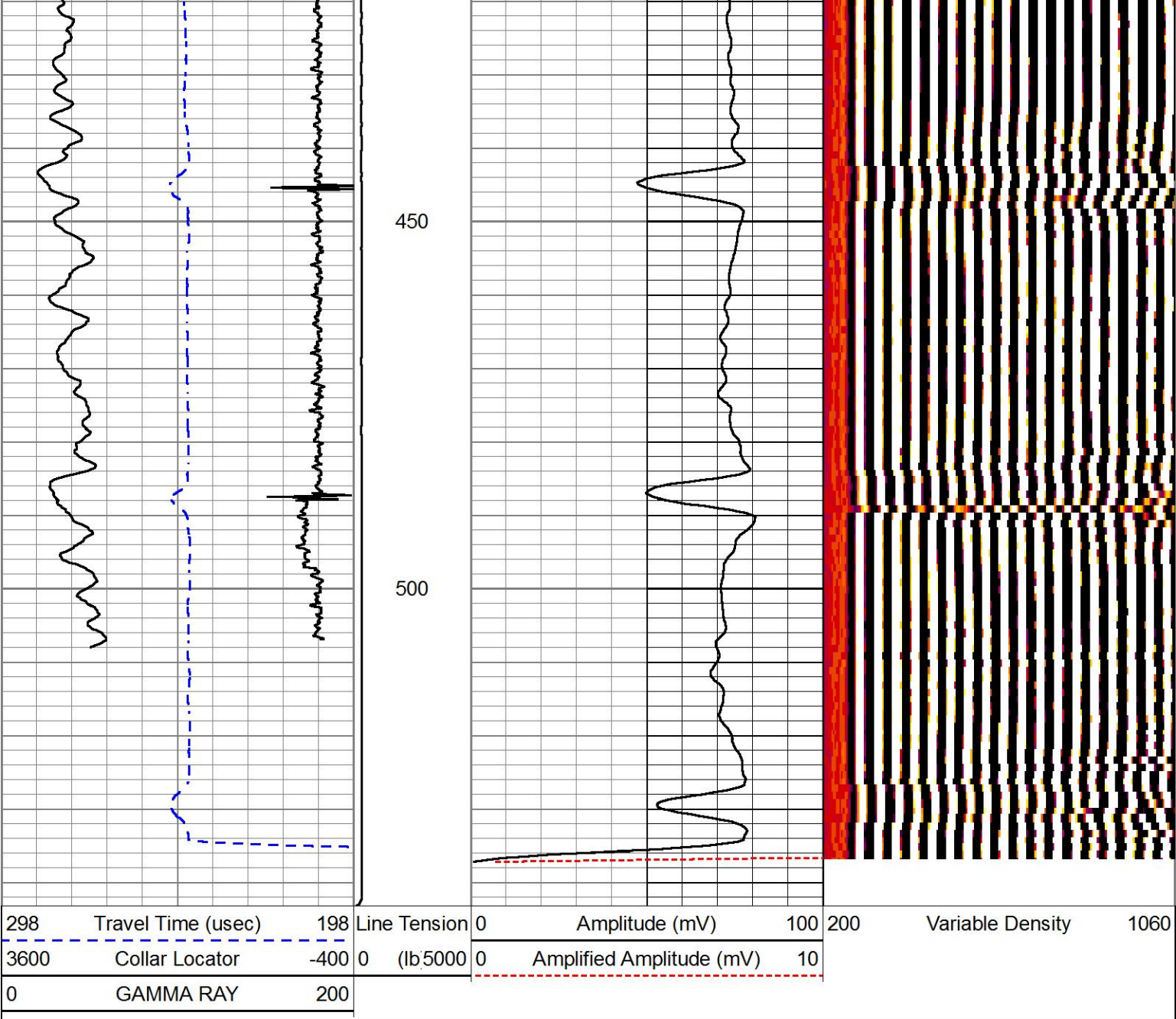
5" = 100'

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Dataset Pathname	FREE
Presentation Format	!1!!cbl_rmti
Dataset Creation	Fri Dec 02 09:23:07 2016
Charted by	Depth in Feet scaled 1:240

298	Travel Time (usec)	198	Line Tension	0	Amplitude (mV)	100	200	Variable Density	1060
3600	Collar Locator	-400	0 (lb/5000	0	Amplified Amplitude (mV)	10			
0	GAMMA RAY	200							







FREE PIPE SECTION

HALLIBURTON

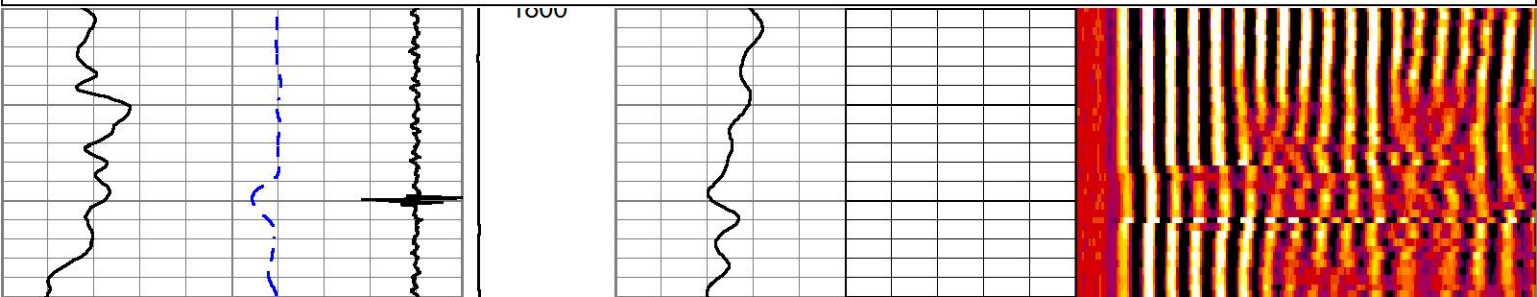
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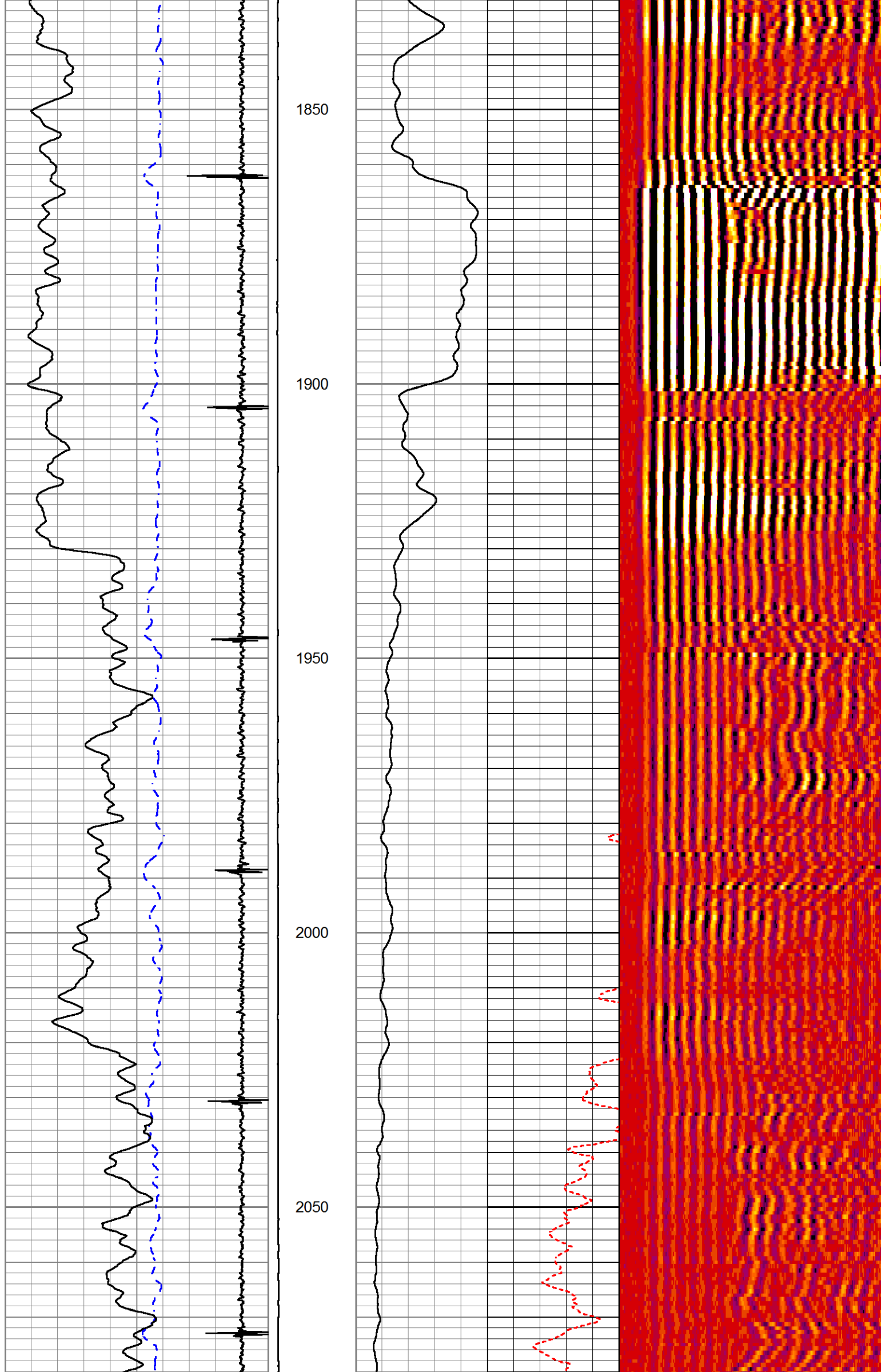
MAIN PASS

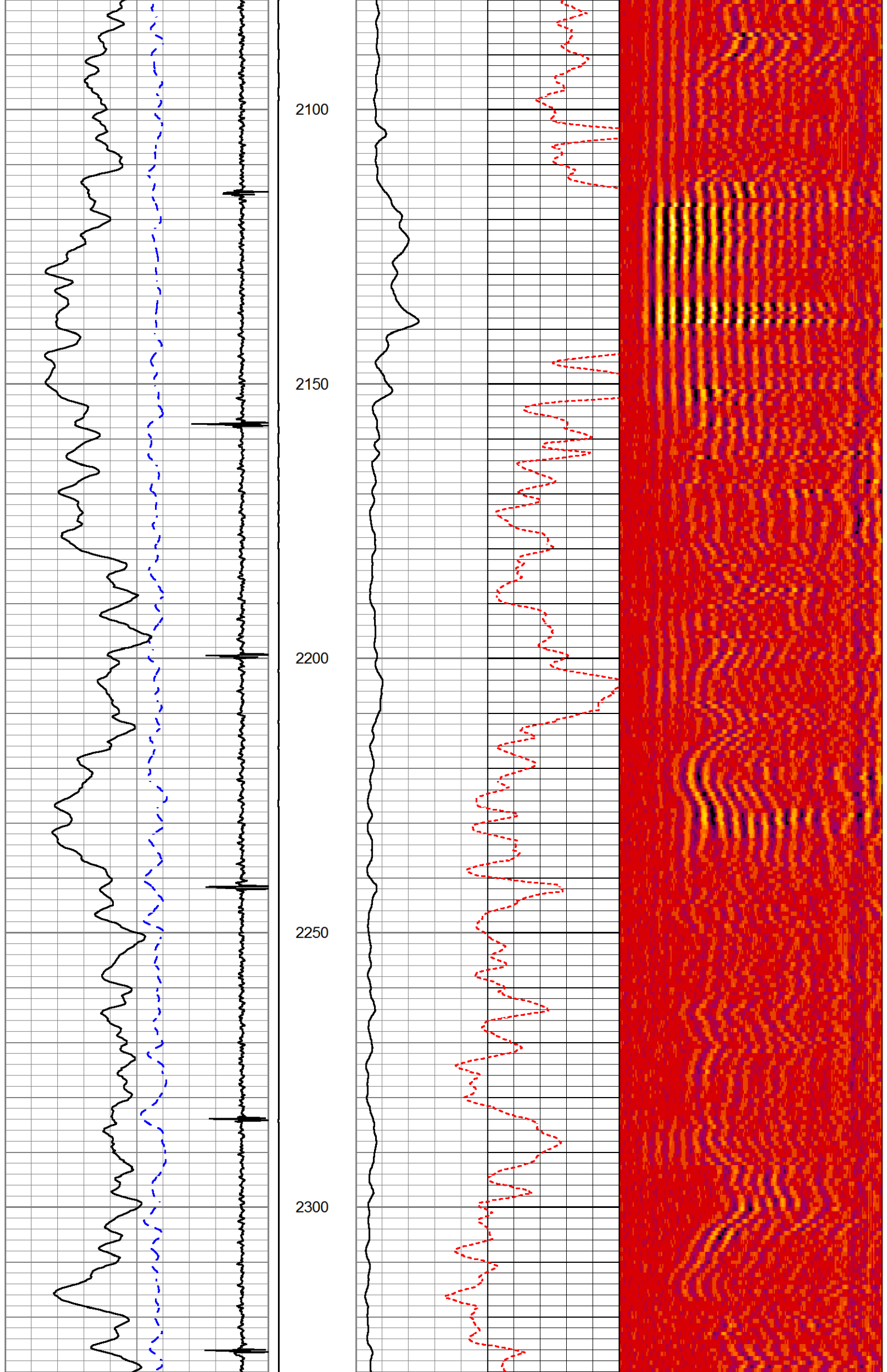
HALLIBURTON

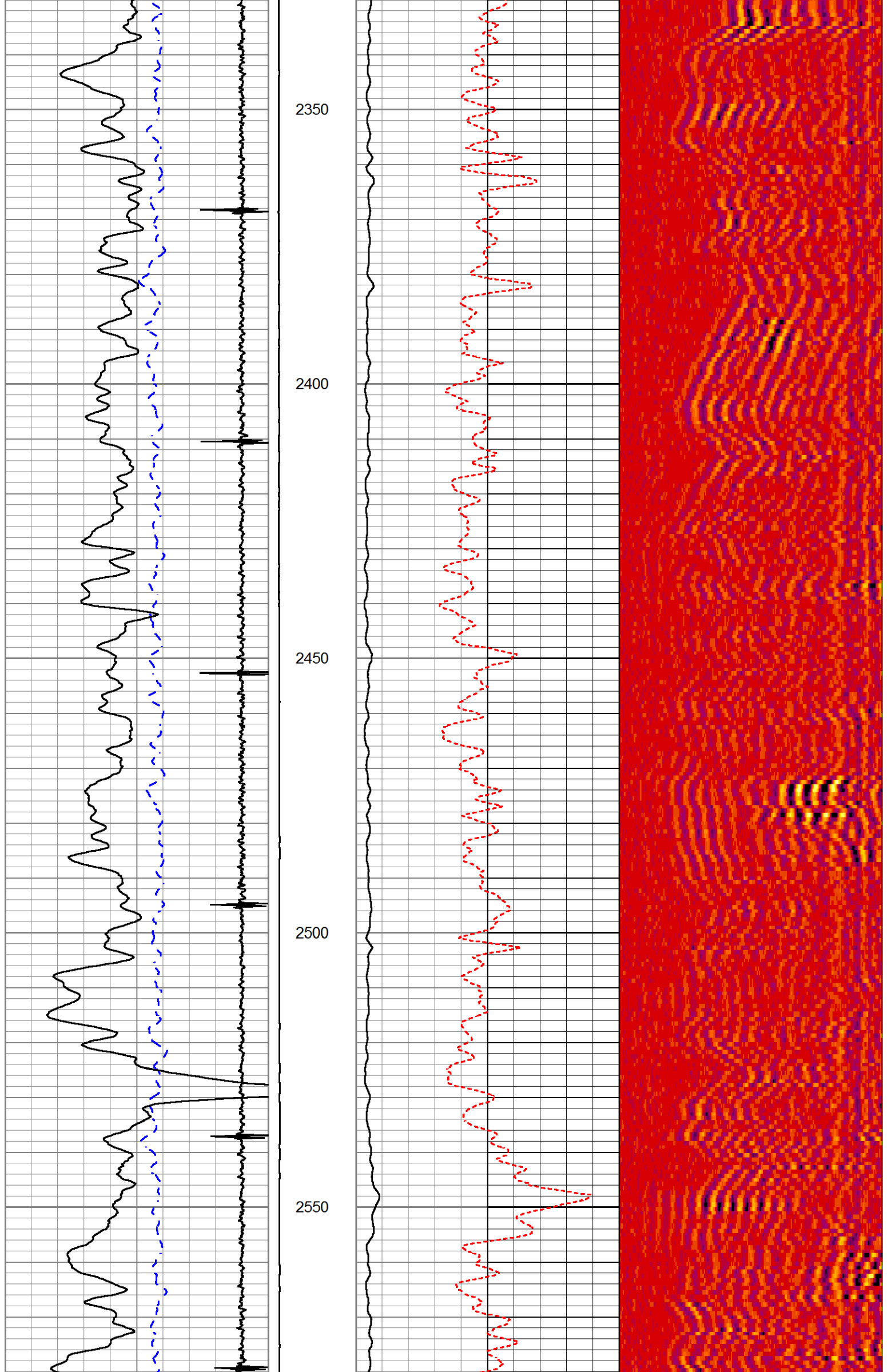
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Presentation Format	!1!!cbl_rmti								
Dataset Creation	Fri Dec 02 10:29:26 2016								
Charted by	Depth in Feet scaled 1:240								
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3600	Collar Locator	-400	0 (lb 5000)	0	Amplified Amplitude (mV)	10			
0	GAMMA RAY	200							

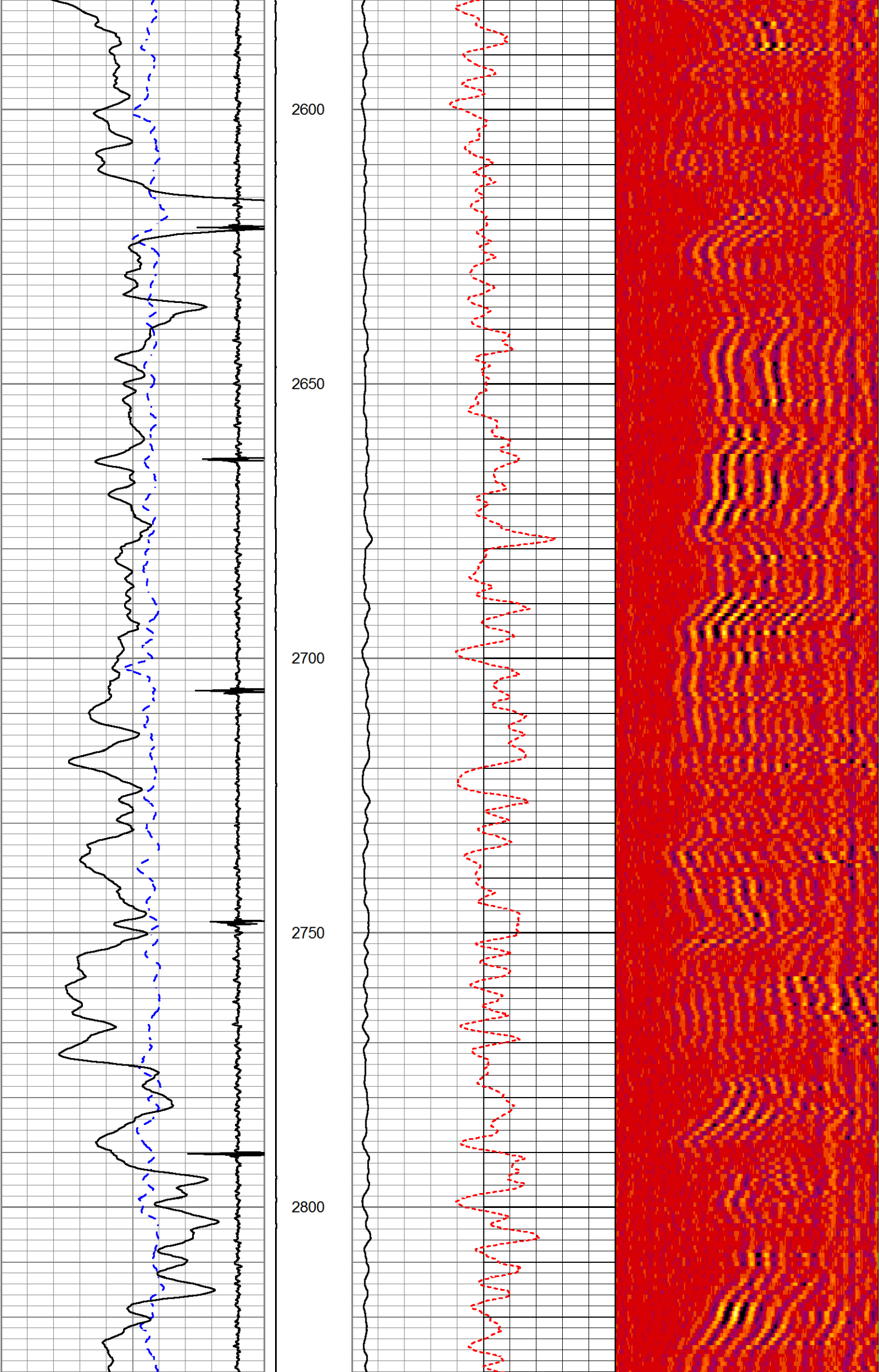


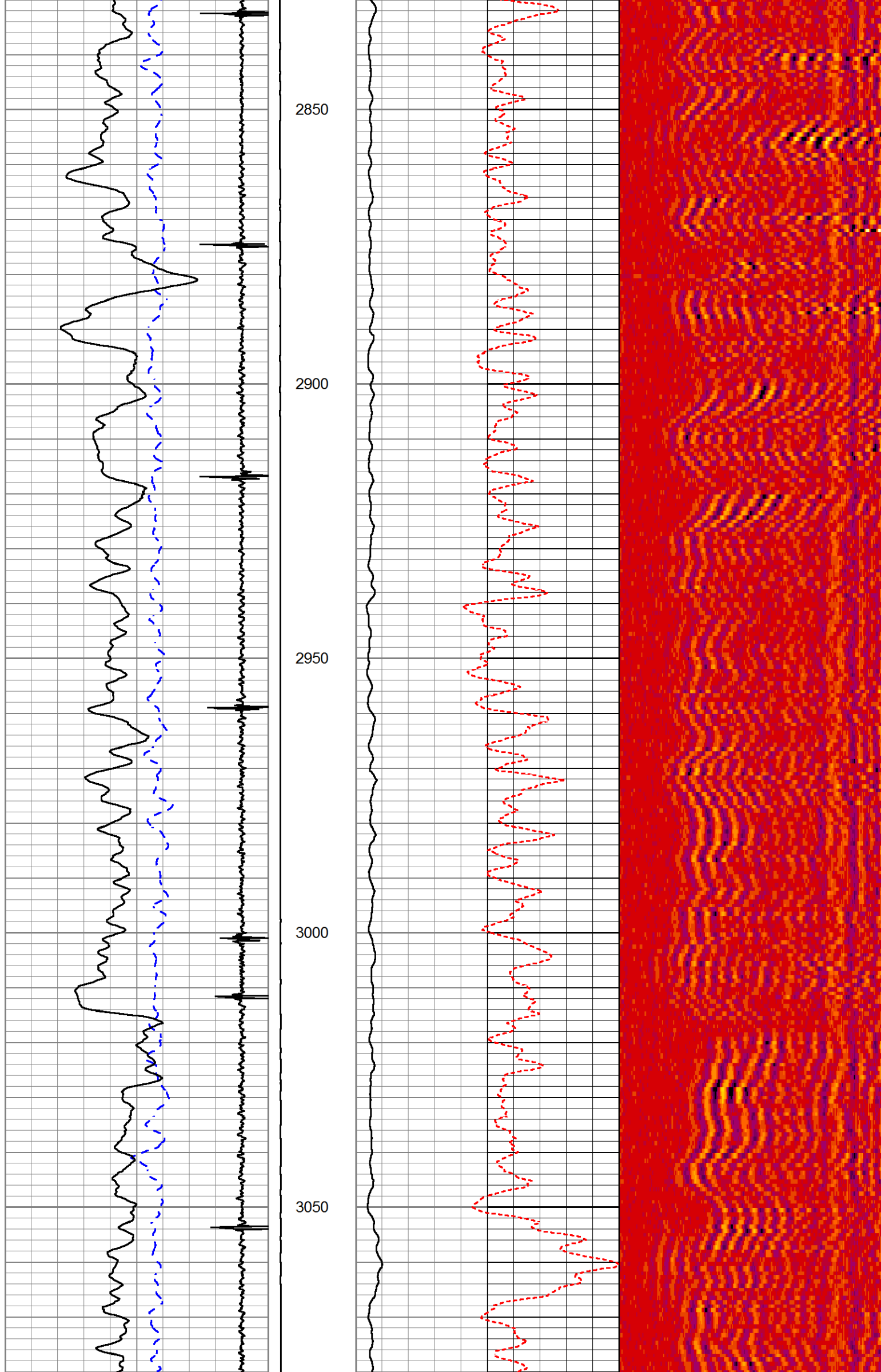




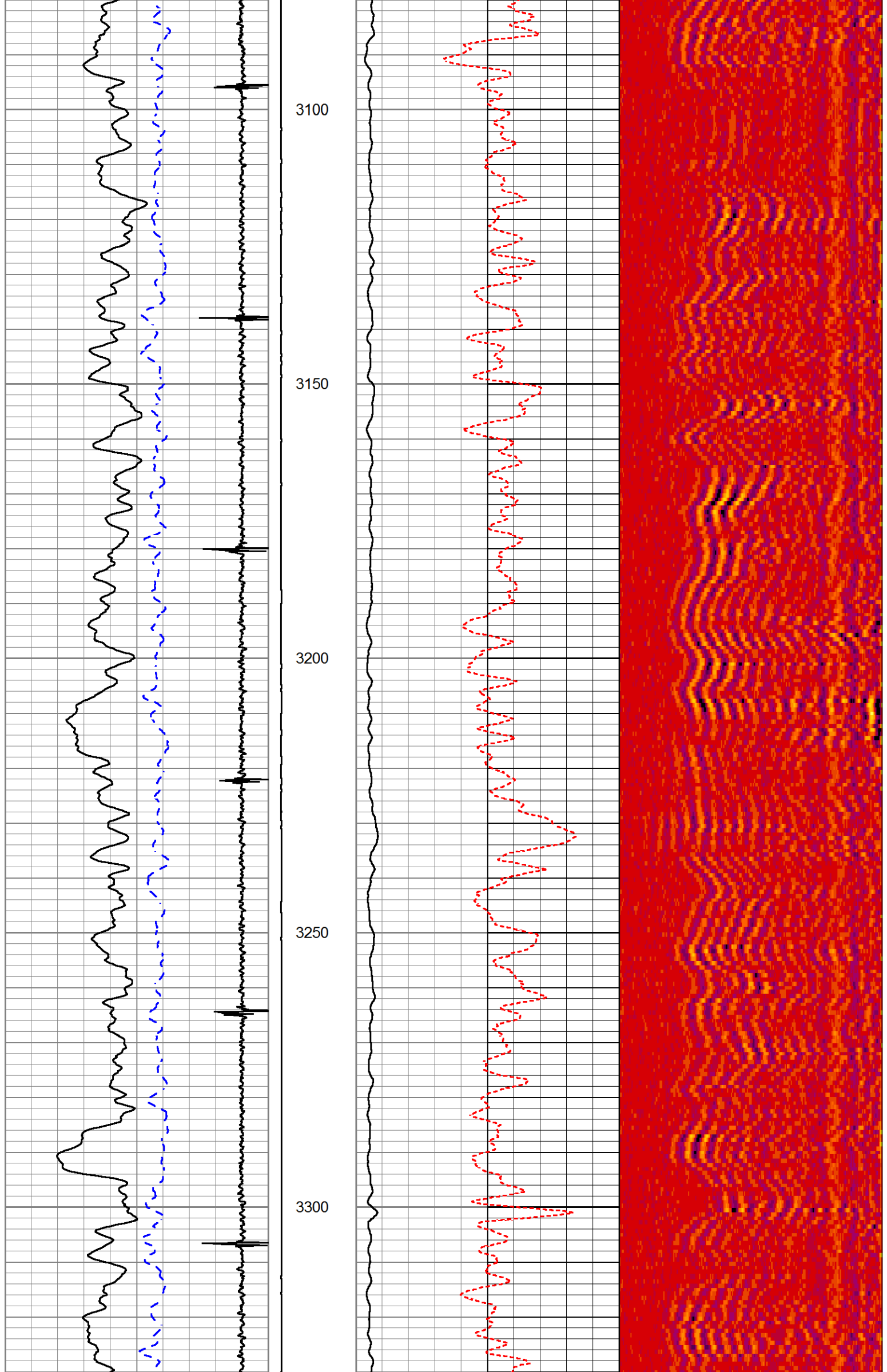


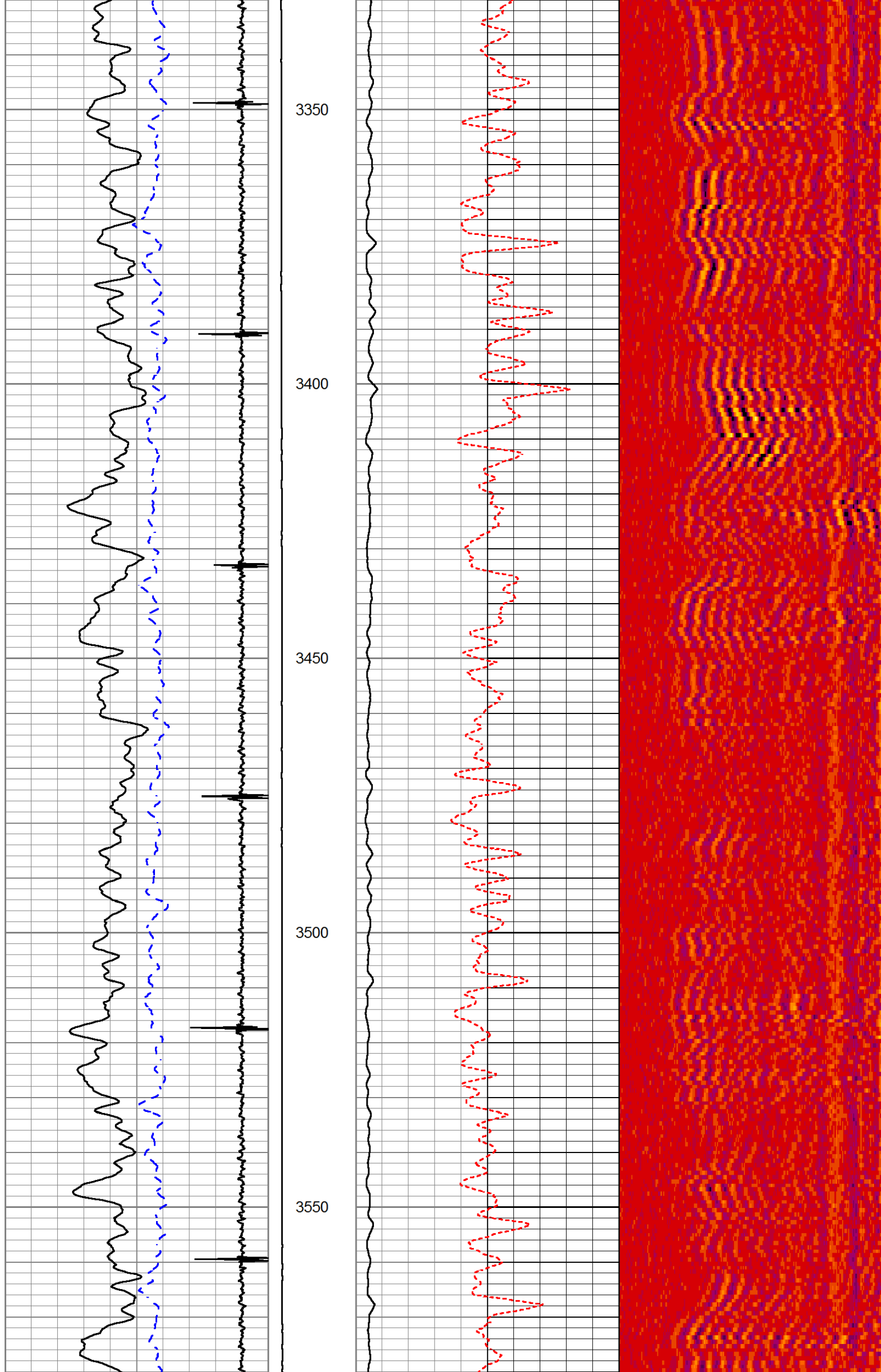


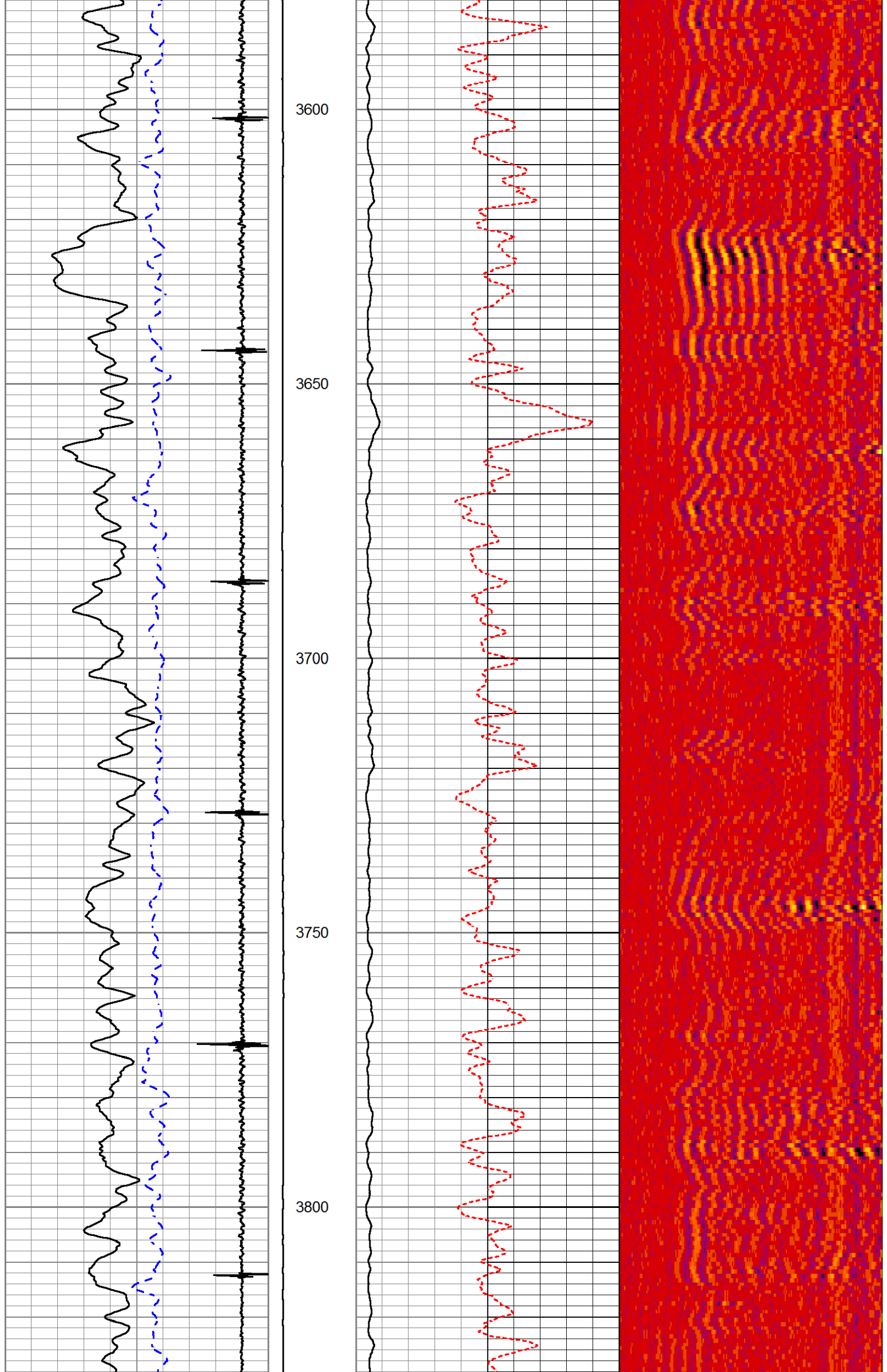




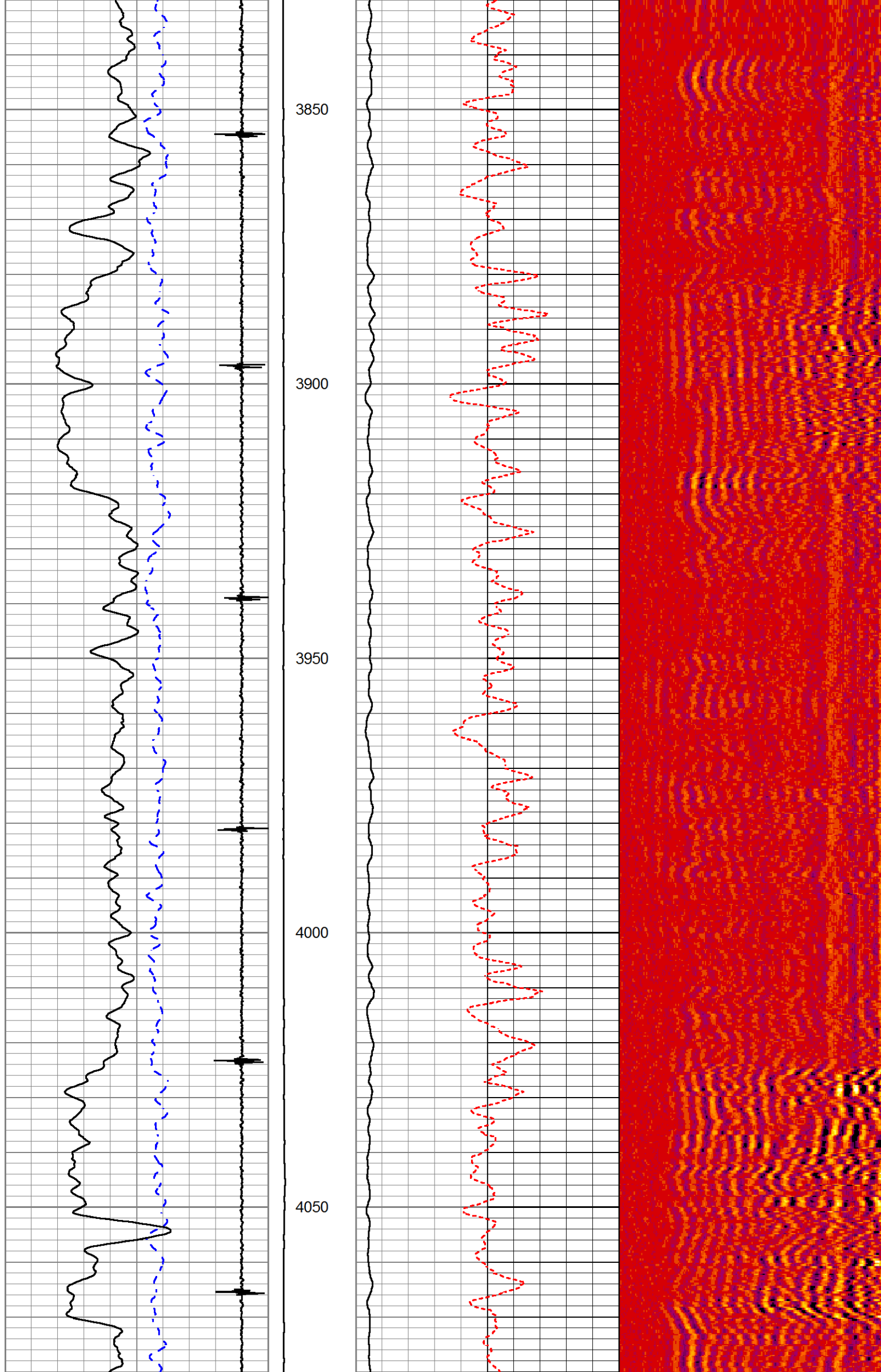


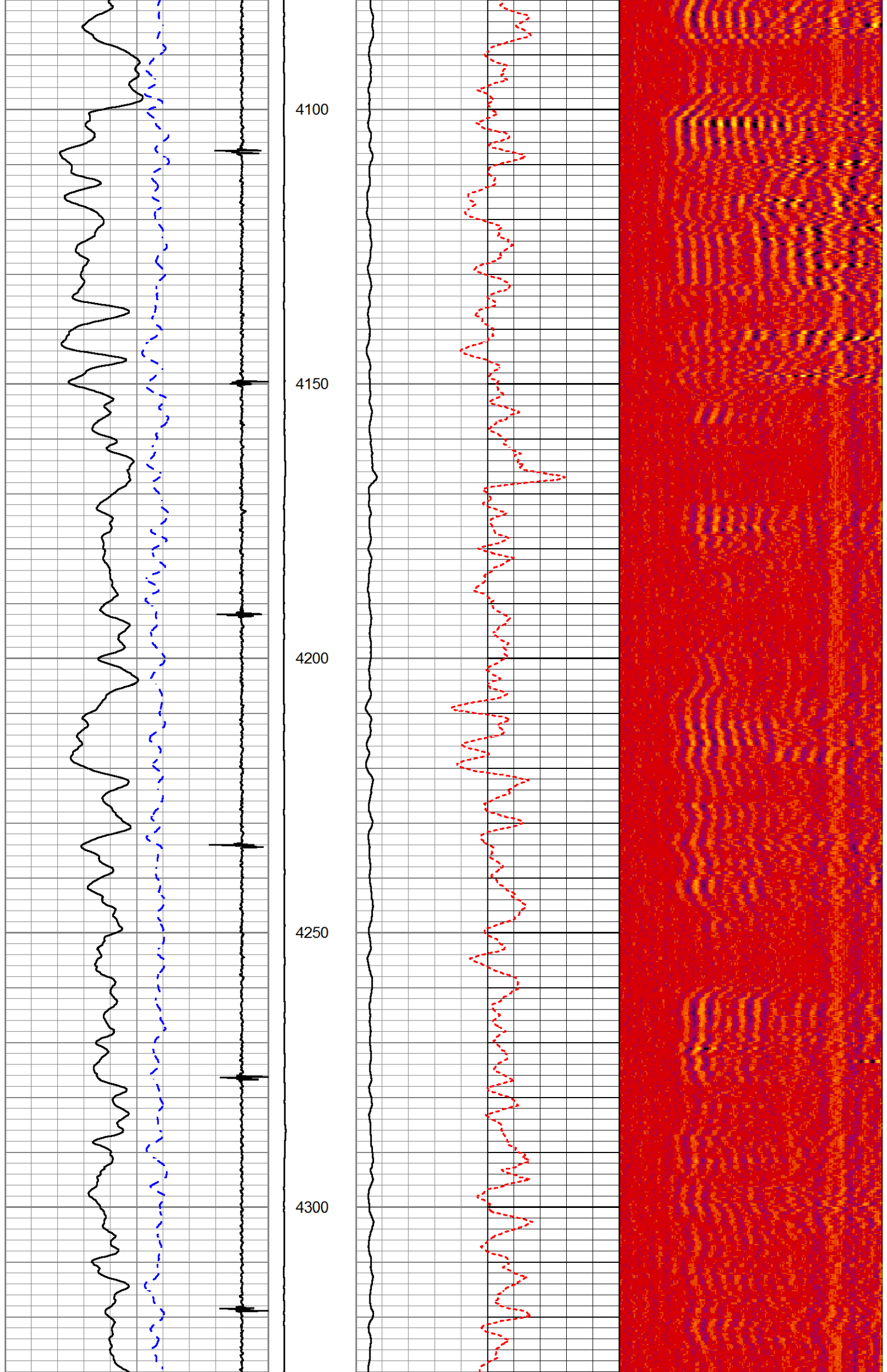


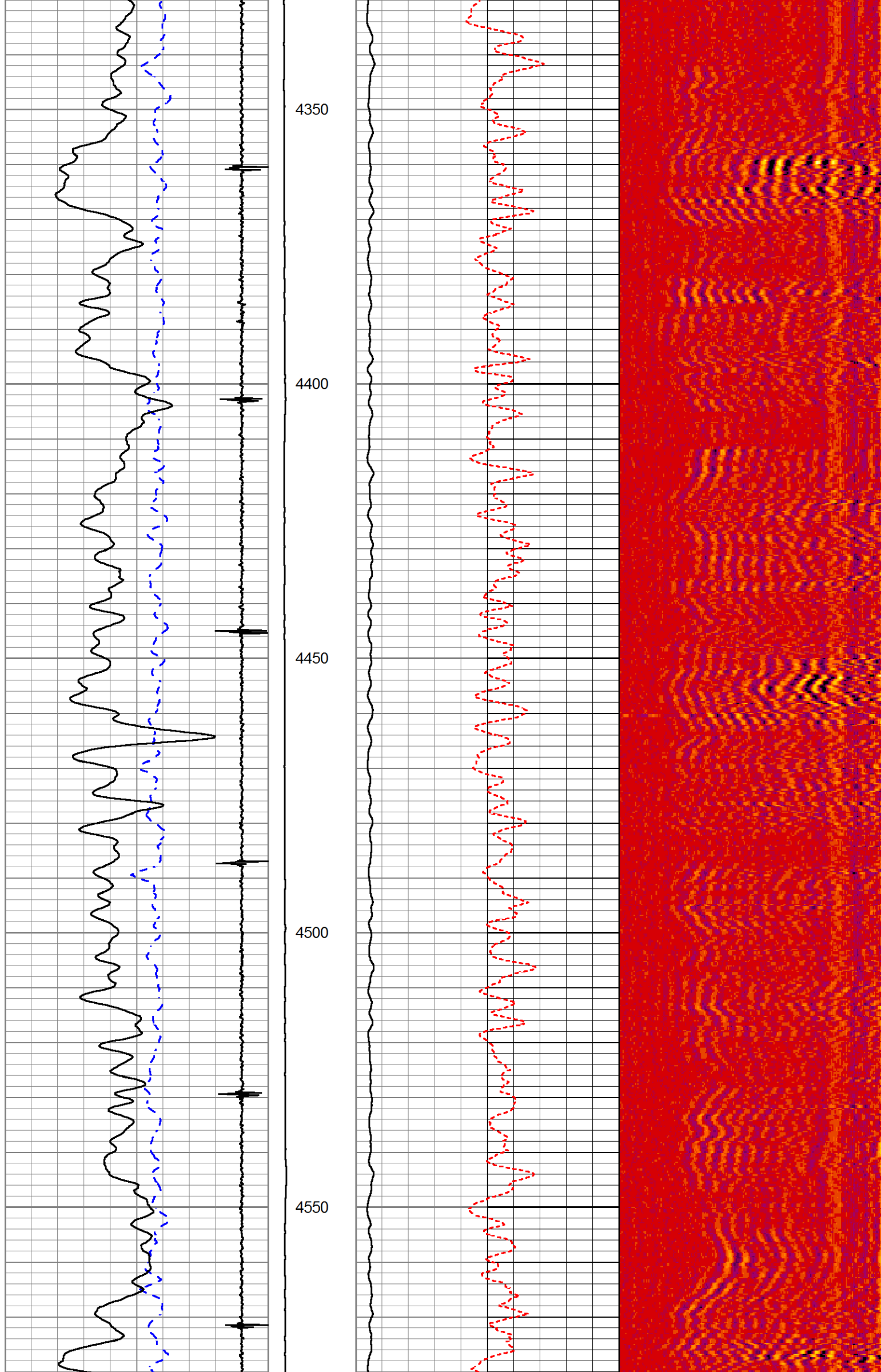




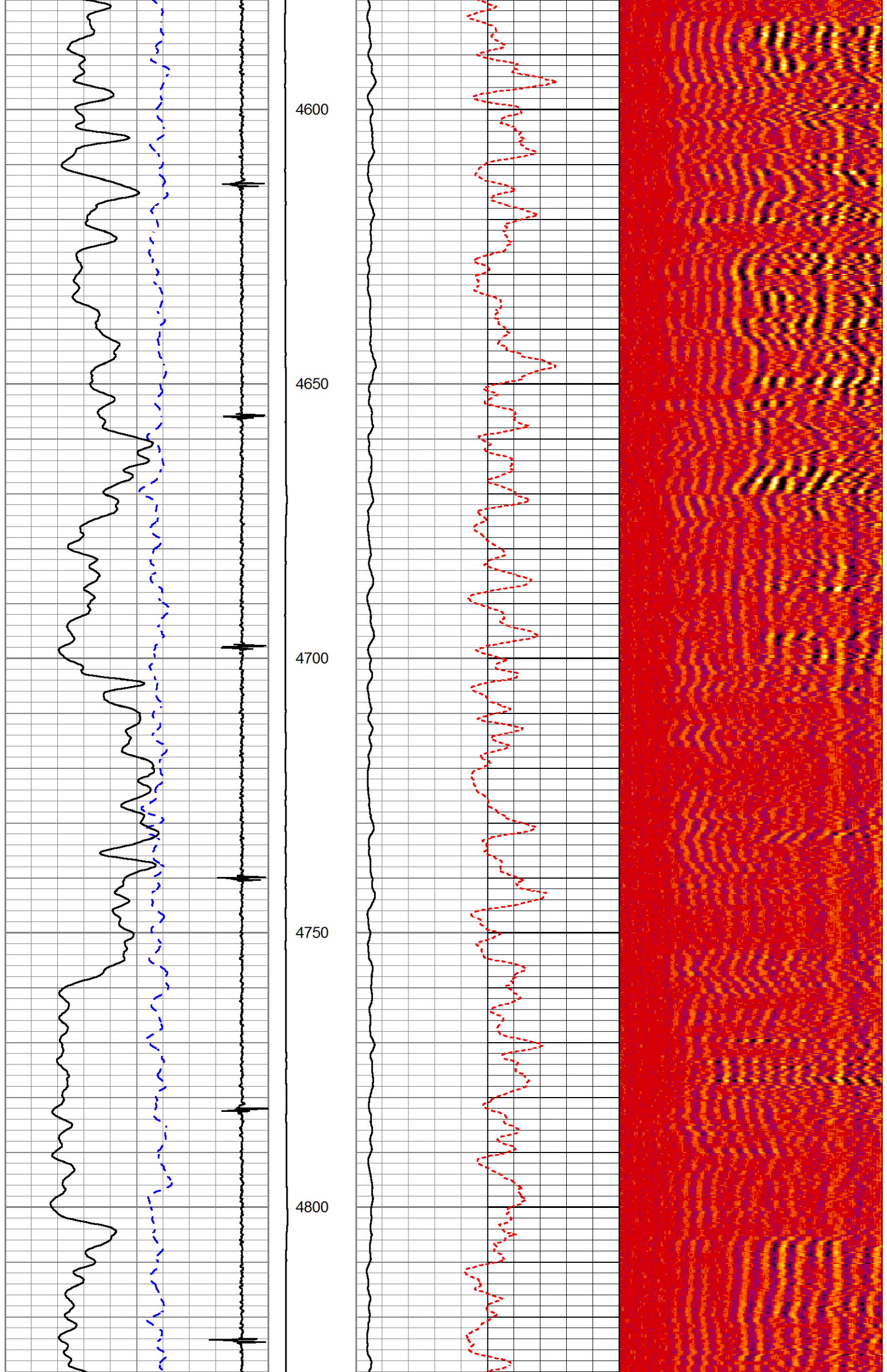


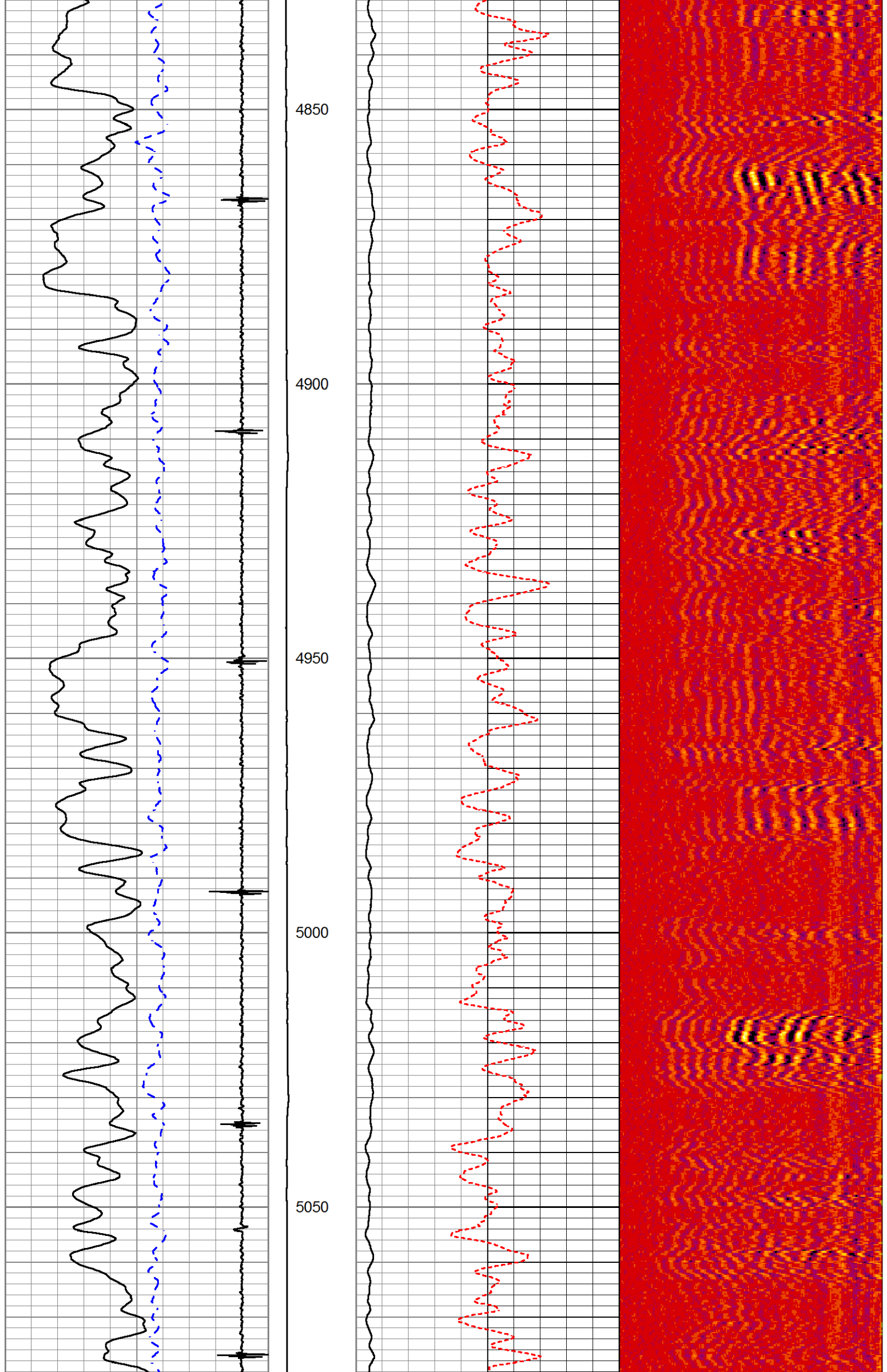


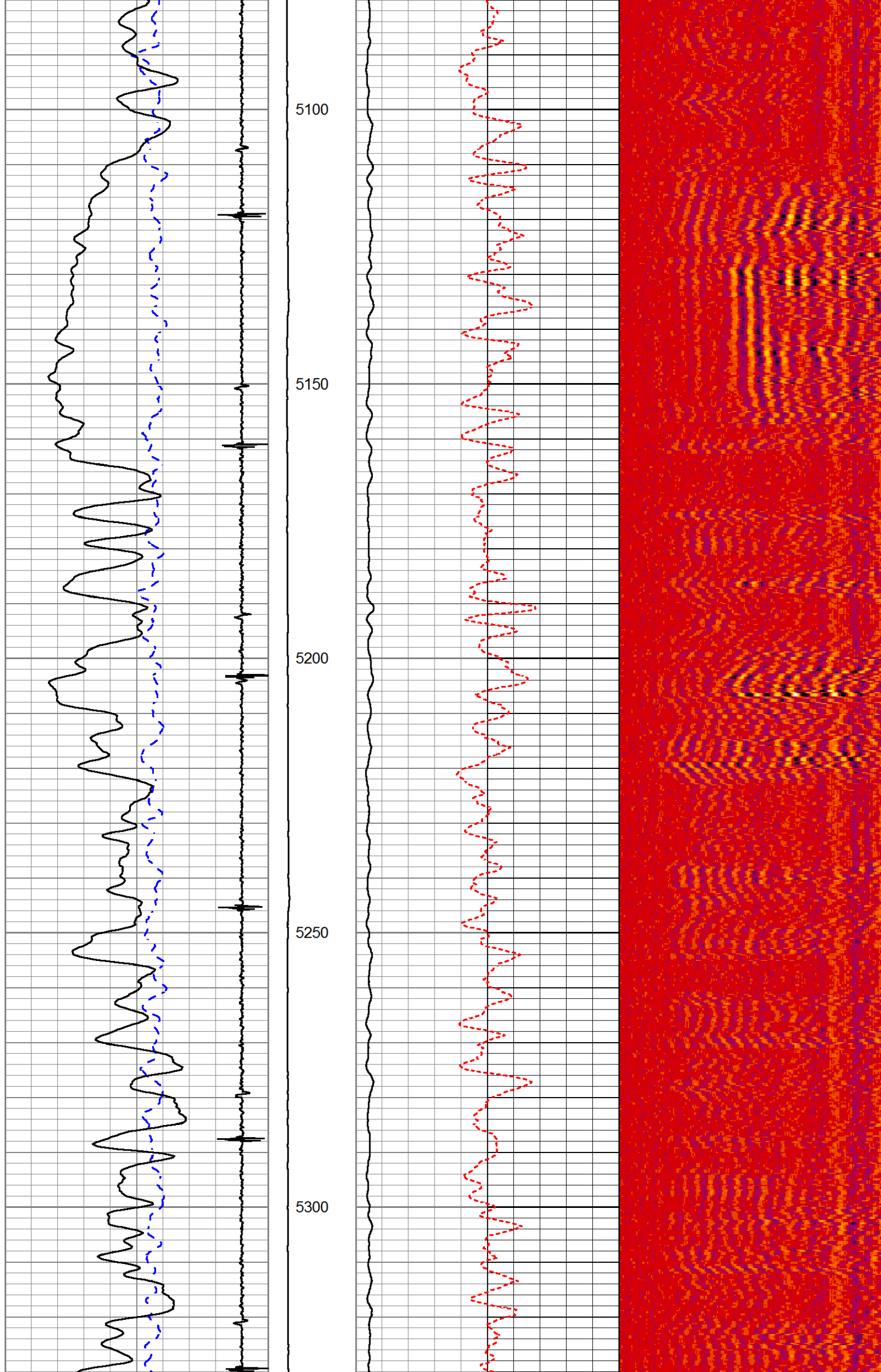




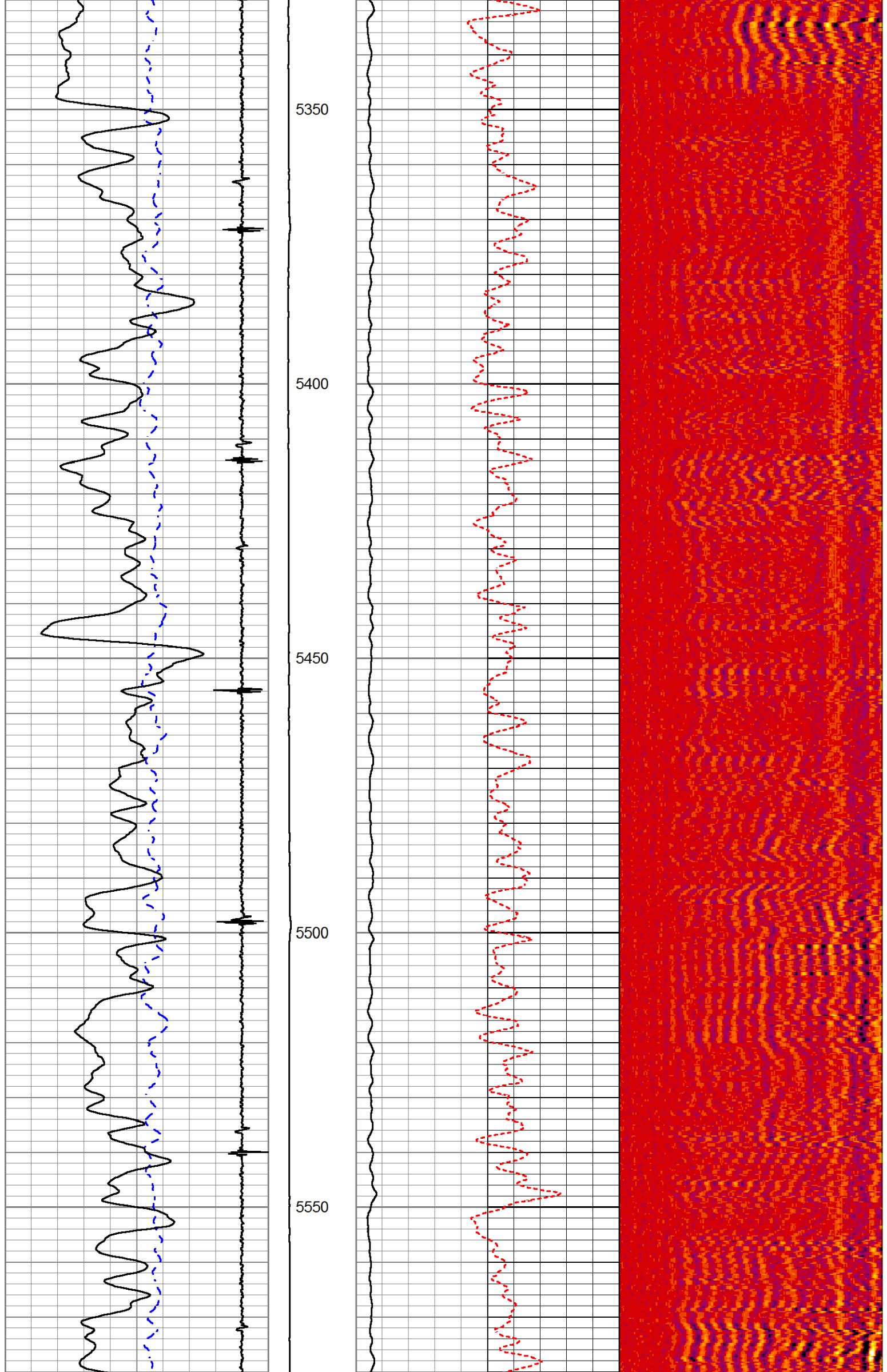


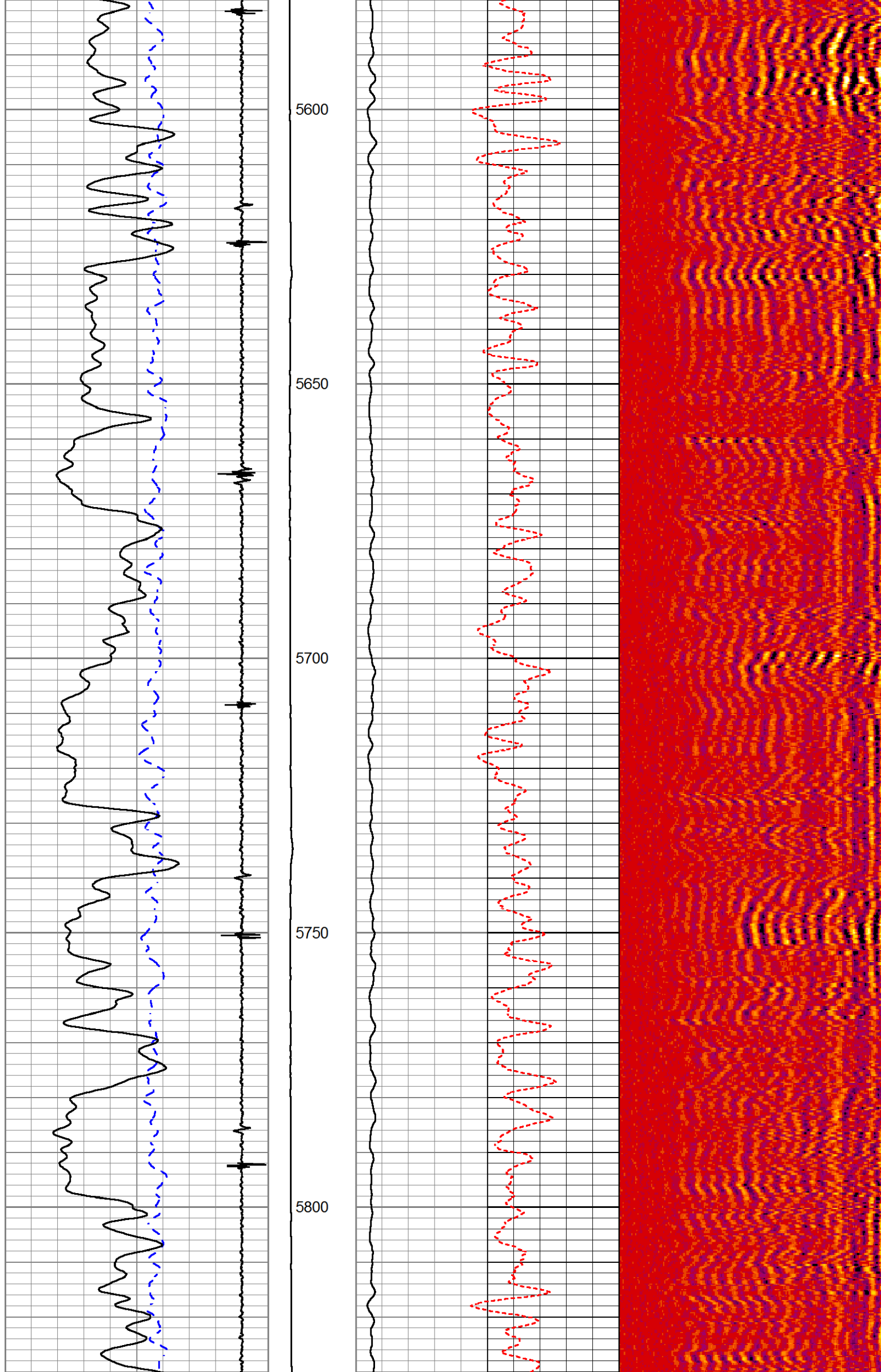


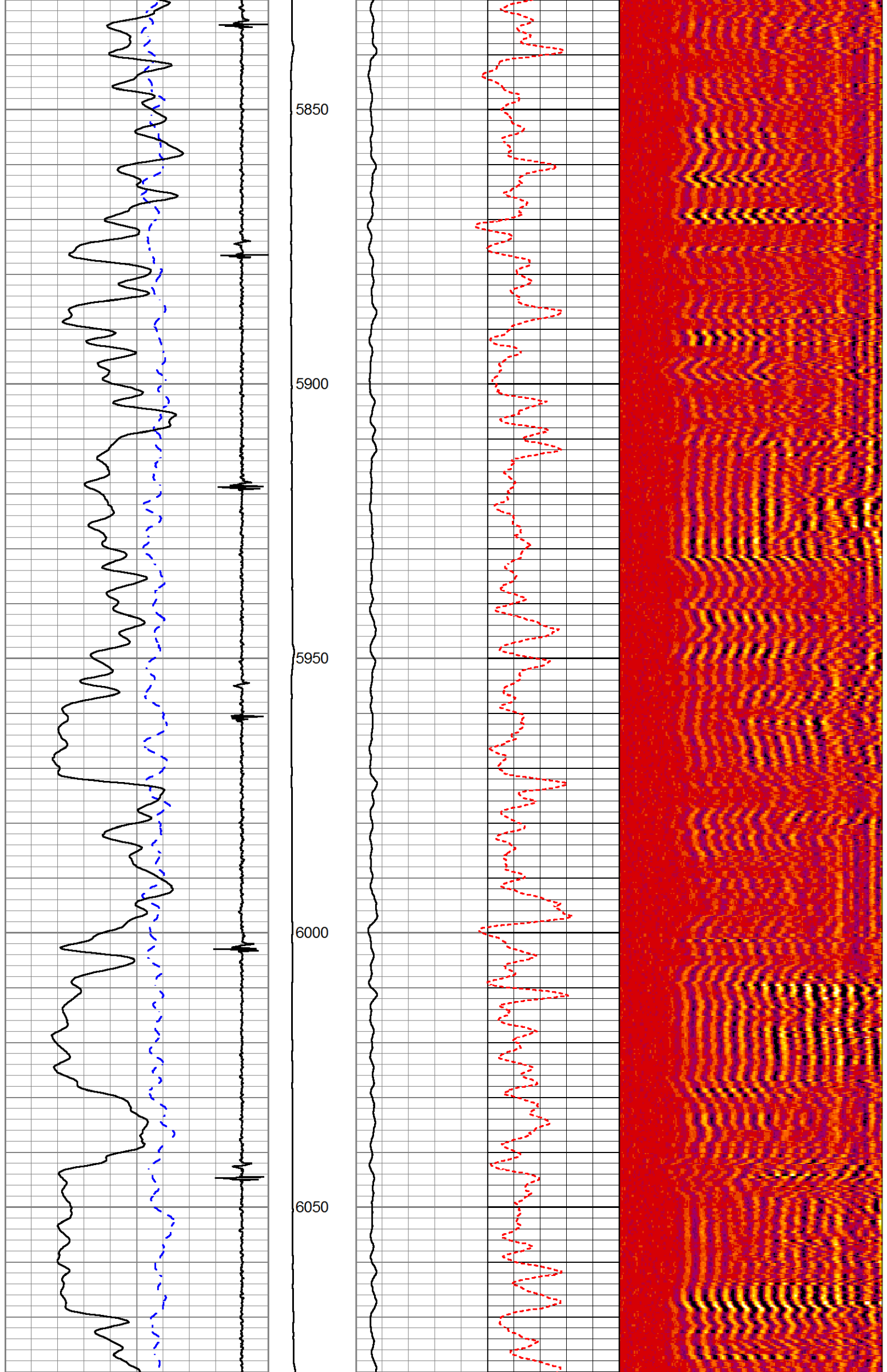




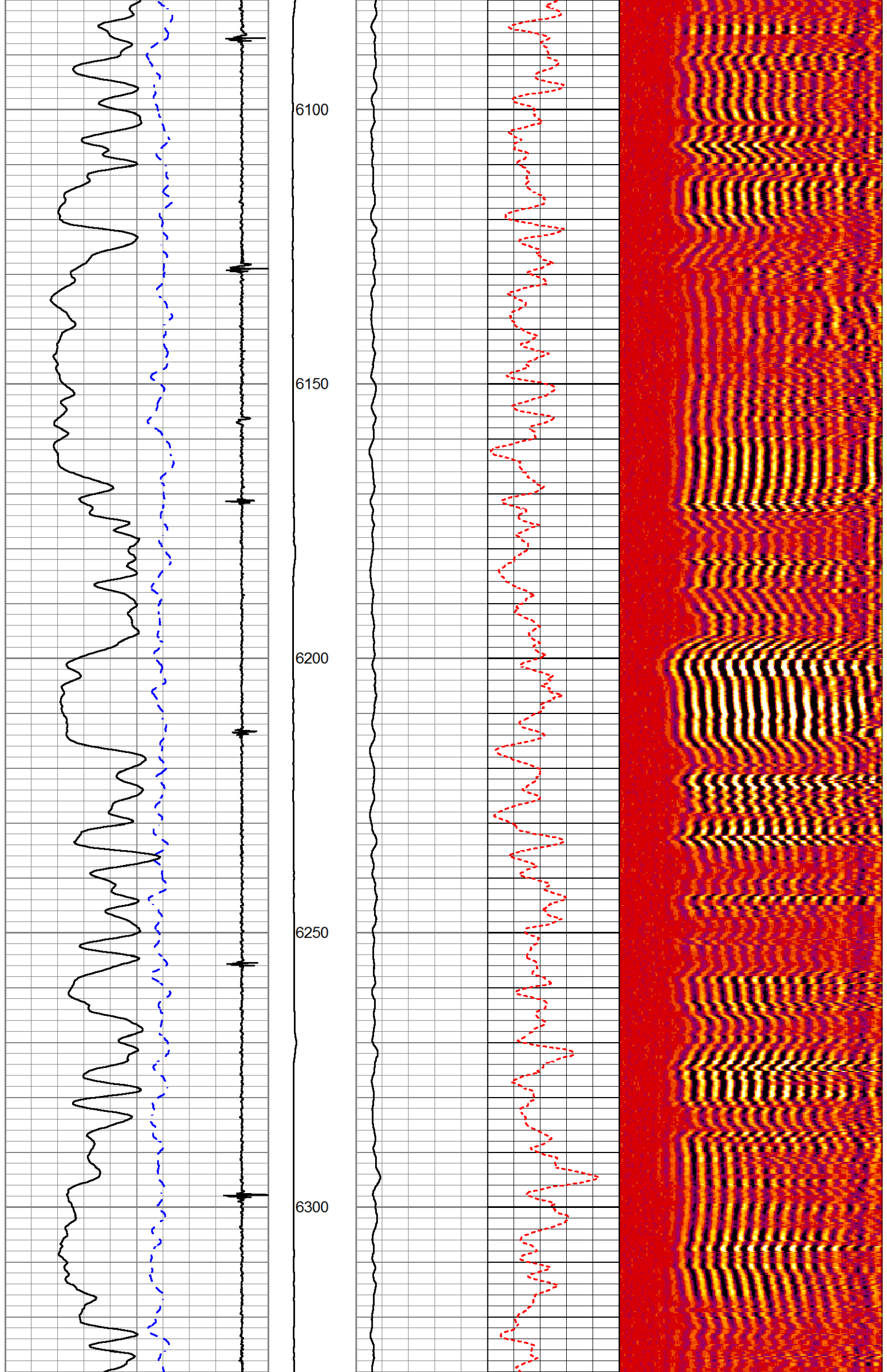


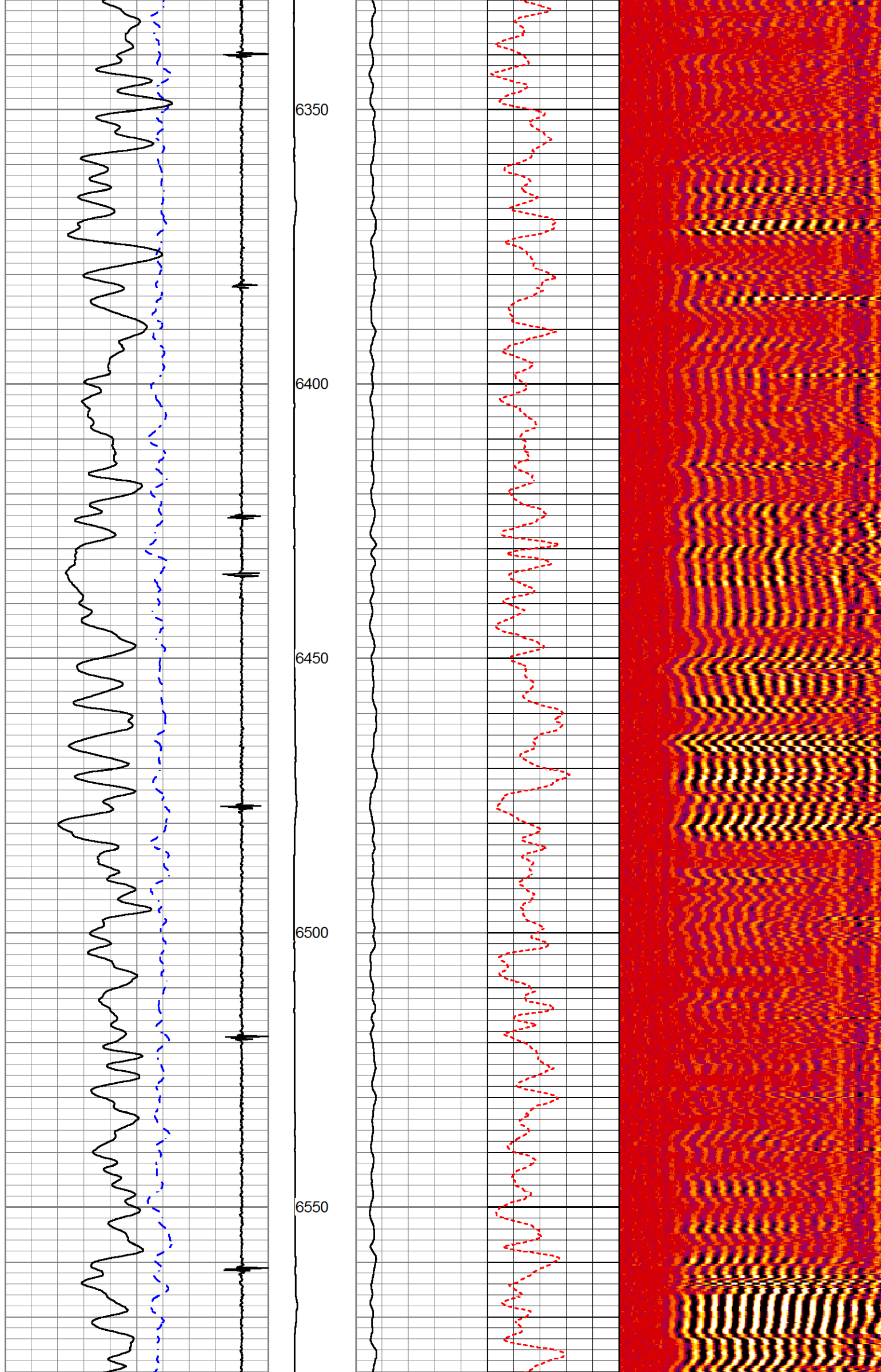


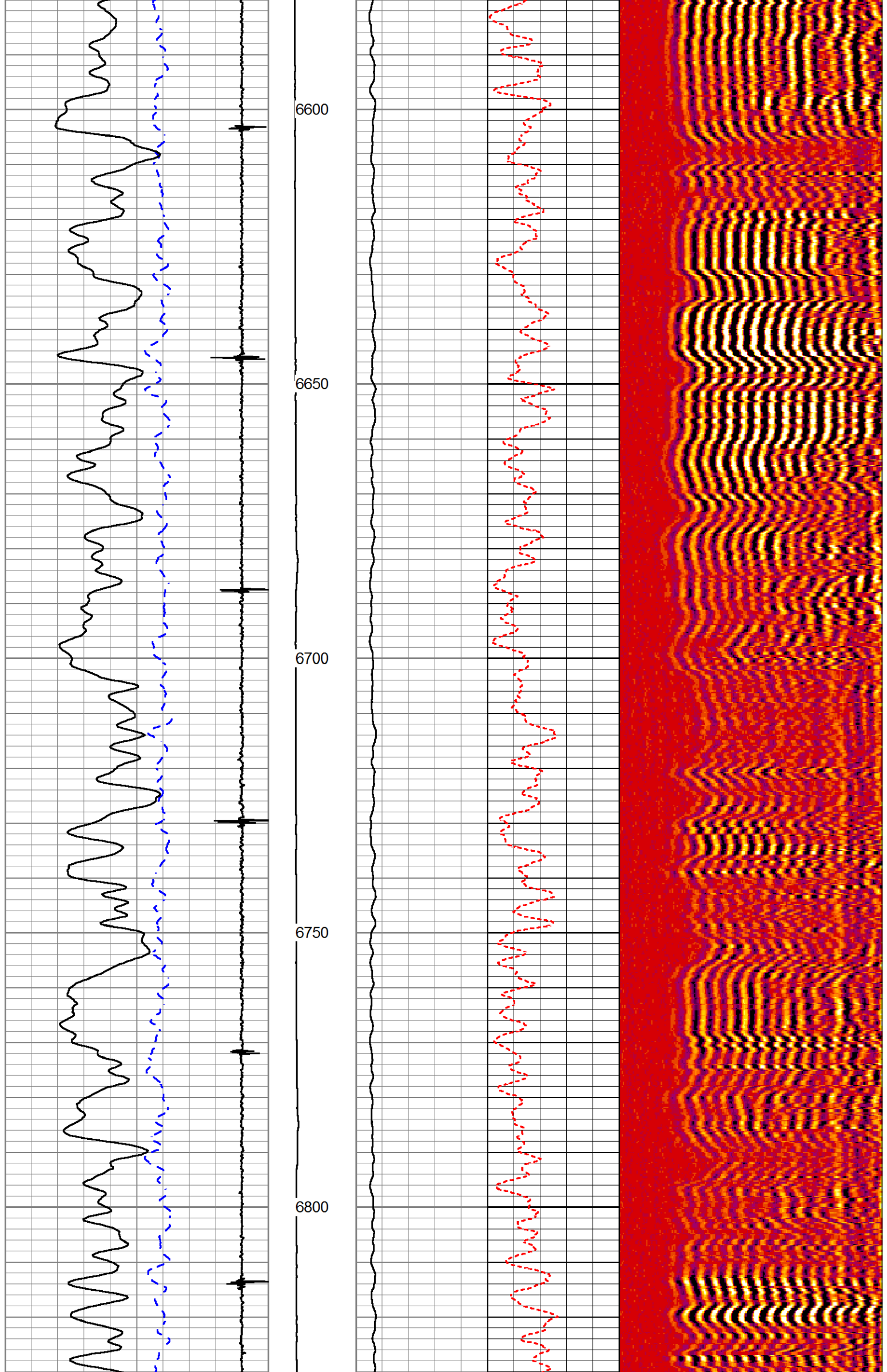




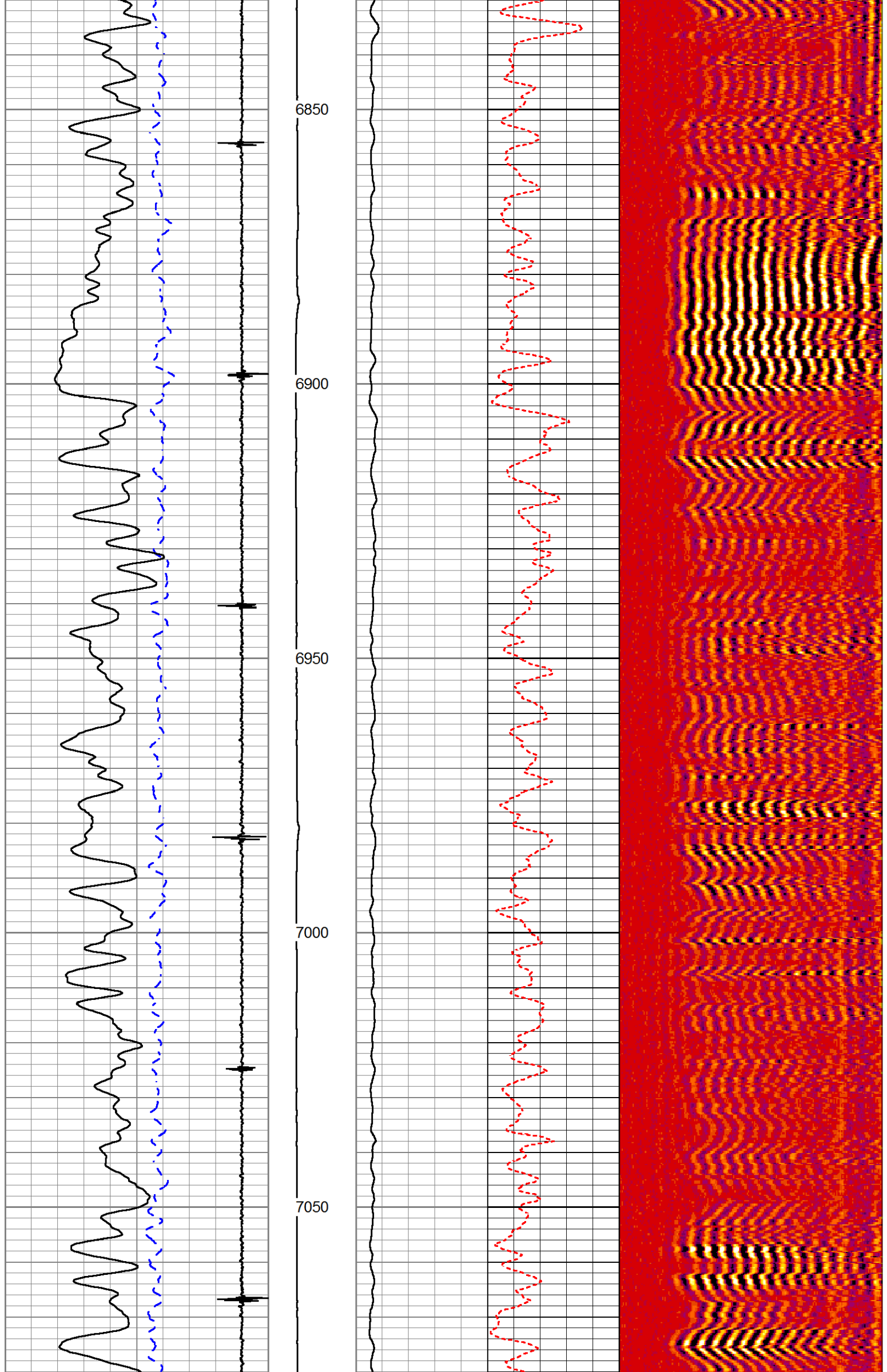


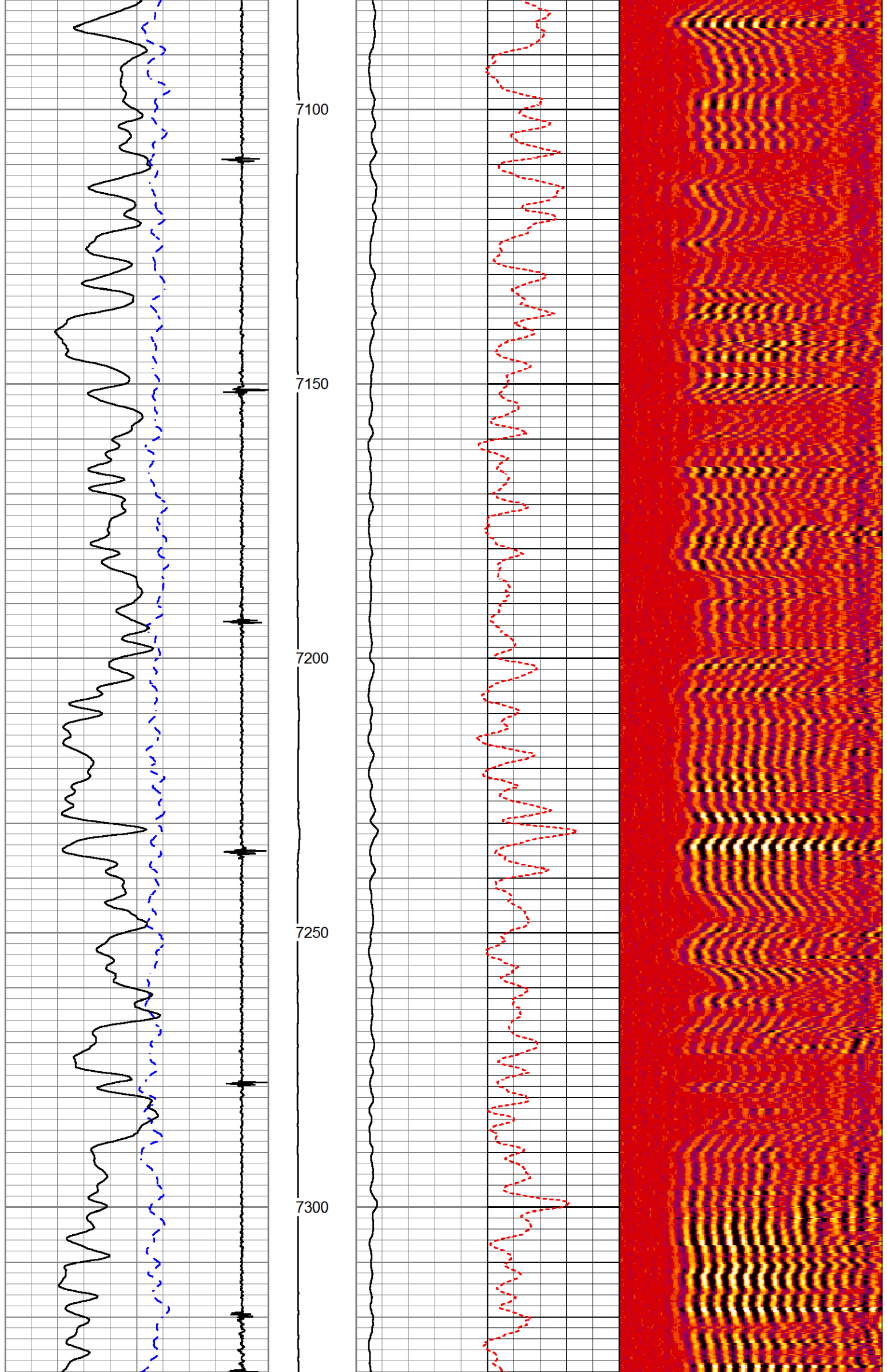


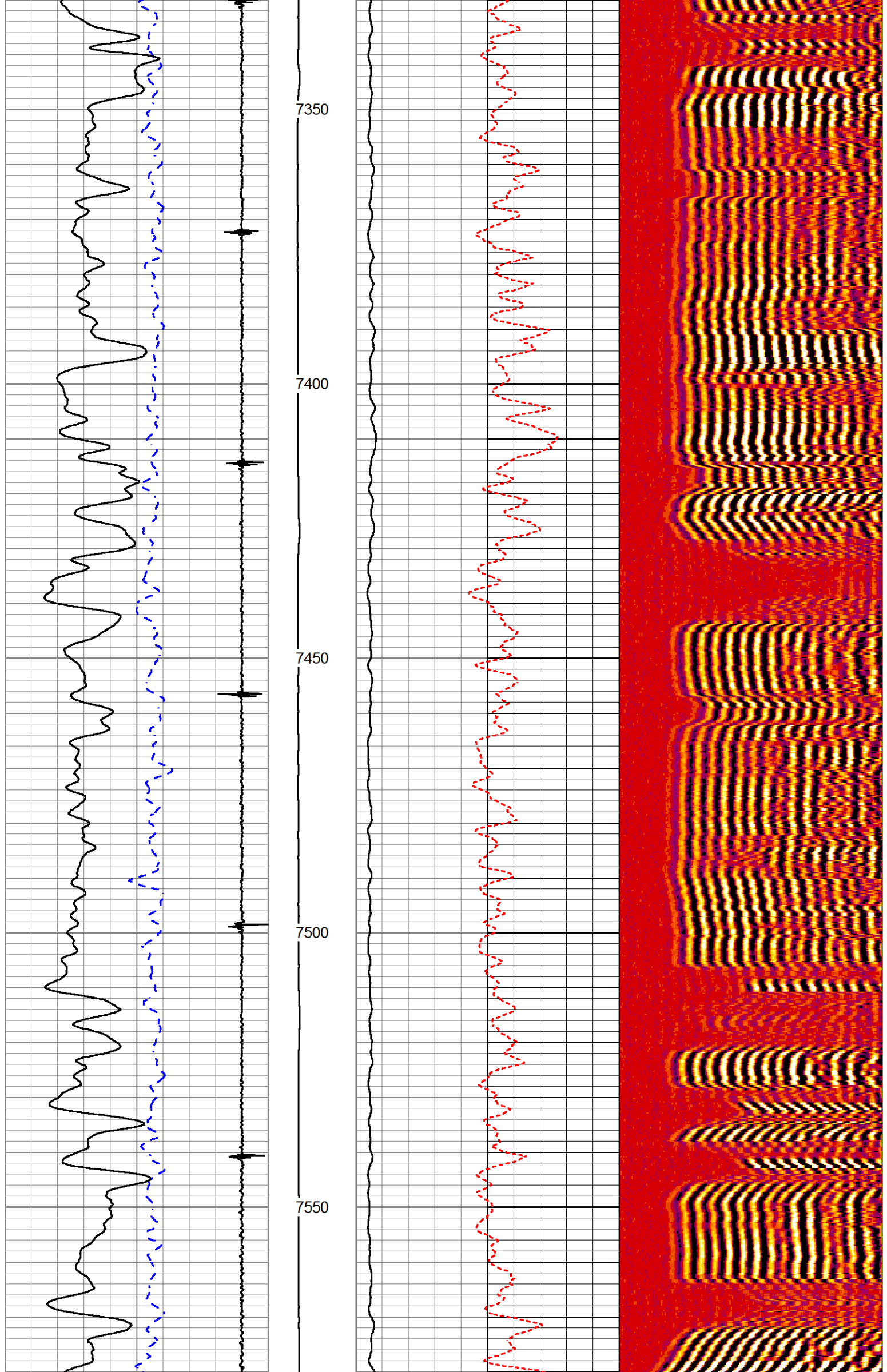




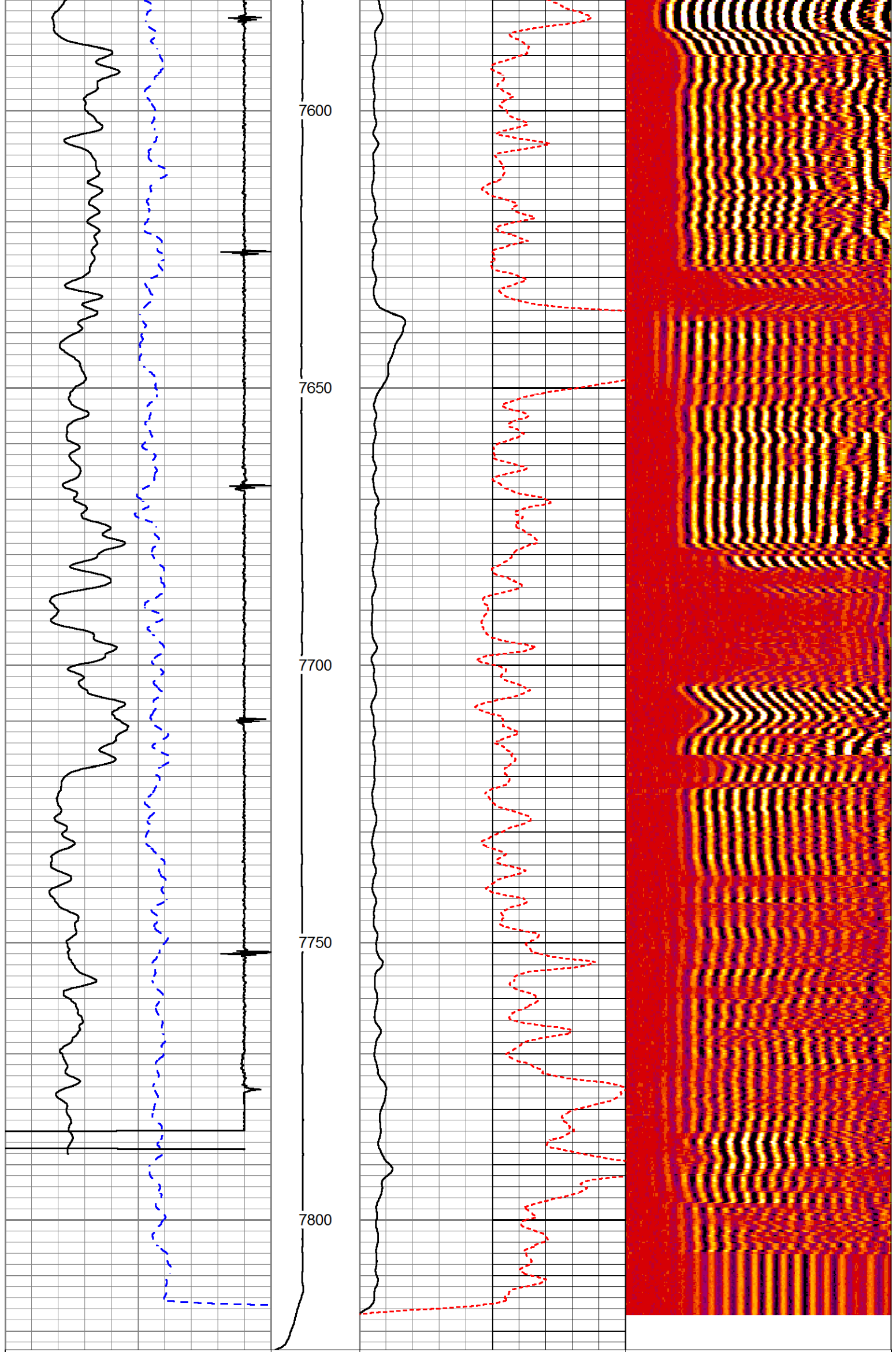












3600	Collar Locator	-400	0	(lb 5000)	0	Amplified Amplitude (mV)	10
0	GAMMA RAY	200					

MAIN PASS

HALLIBURTON

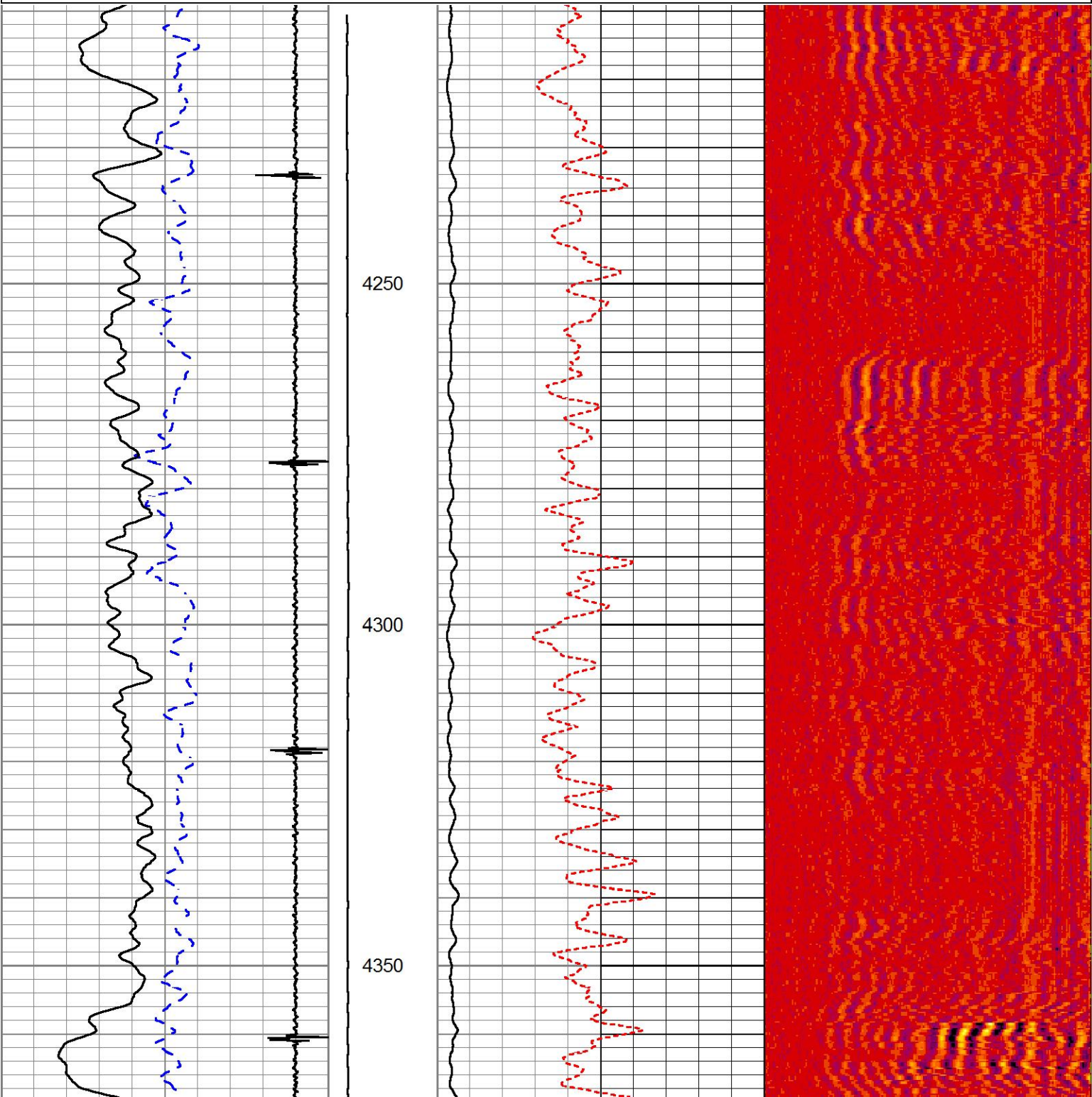
5" = 100'

REPEAT PASS

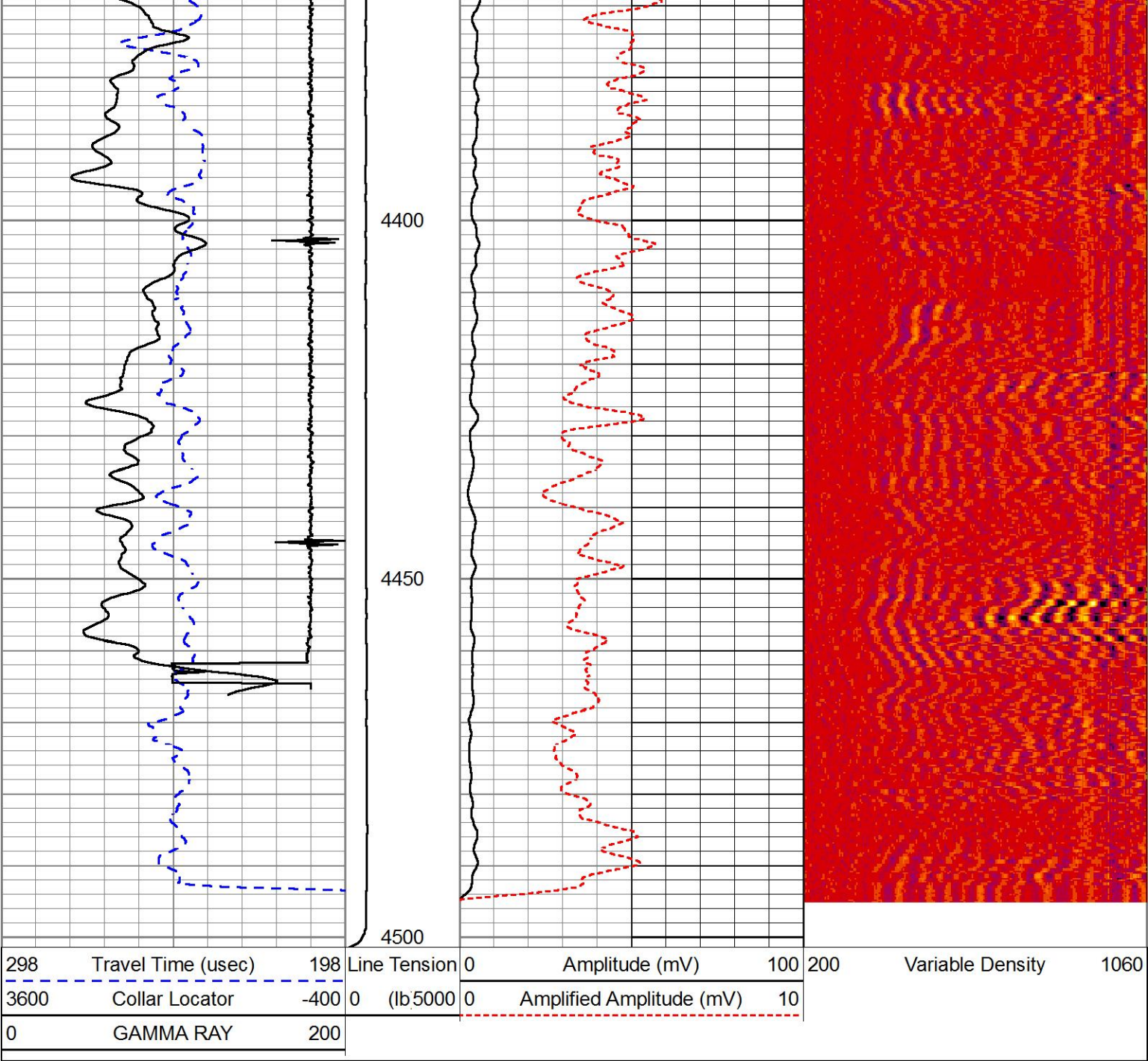
HALLIBURTON

5" = 100'

Database File	c:\users\h180706\desktop\ursa\32a\32a_17_7_95.db						
Dataset Pathname	REPEAT						
Presentation Format	!1!!cbl_rmti						
Dataset Creation	Fri Dec 02 09:48:36 2016						
Charted by	Depth in Feet scaled 1:240						
298	Travel Time (usec)	198	Line Tension	0	Amplitude (mV)	100	200
3600	Collar Locator	-400	0	(lb 5000)	0	Amplified Amplitude (mV)	10
0	GAMMA RAY	200					







REPEAT PASS

HALLIBURTON

5" = 100'

Log Variables

Database:c:\users\h180706\desktop\ursa\32a\32a\_17\_7\_95.db  
Dataset field/well/run1/MAIN/\_vars\_

Top - Bottom

BHSAL1 1	BHSAL2 0	BHTEMP_Src TEMP	BITSIZE in 7.875	BORSAL kppm 150	BOTTEMP degF 220	CASED? Yes	CASEOD in 4.5
CASETHCK in 0.25	CASEWGHT lb/ft 11.6	LTH Sandstone	MSGGN 1	MudWgt lb/gal 8.4	PERFS 0	POROS1 1	POROS2 0
RHOCF 0.25	SO in 0	SRFTEMP degF 0	TDEPTH ft 7700	UHSGC NONE	USERFTT uSec/ft 0	ZREF MRayl 1.7	


Calibration Report

Database File c:\users\h180706\desktop\ursa\32a\32a\_17\_7\_95.db  
Dataset Pathname MAIN  
Dataset Creation Fri Dec 02 10:29:26 2016



Dataset Creation: Fri Dec 02 10:29:20 2016					
Cement Bond Log Shop Calibration Report					
Serial-Model:			12091451-A		
Calibration Performed:			Thu Dec 01 13:19:47 2016		
Free Pipe Calibration					
TT	Measured	Units			
	244.6	usec			
Amplitude	552.0	mV			
Log Base Line	5.9	mV			
Calibration References and Gain					
Name	Value	Units			
Pipe O.D.	4.500	in			
Pipe Weight	11.6	lb/ft			
Pipe Ref. Amp.	81.2	mV			
Amp. Gain	0.149				
Reservoir Monitor Tool I Calibration Report					
Serial-Model:			12095949-A		
Shop Calibration Performed:			Thu Nov 24 11:32:44 2016		
Carbon/Oxygen Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	90.00	80.00	10.00	+/-15.00	V
ITCR2	3153	3250	-97	+/-250	cps
Near Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0259	5.51	<6.00
Fe	206	206 +/-2	0.0966	-----	-----
NGAIN = 0.996	NZOFF = 0.5				
Far Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0356	5.76	<6.50
Fe	210	208 +/-2	0.0903	-----	-----
FGAIN = 0.990	FZOFF = 0.5				
Flask Temperature	50.0 degF				
Result	Logged	Expected Value	Diff.	Tol.	Units
COIR2	0.45	0.45	-0.00	+/-0.02	
LIRI2	1.36	1.36	0.00	+/-0.05	
TCCR2	5059	5000	59	+/-1000	cps
ITCR2	3123	3200	-77	+/-250	cps
Sigma Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	90.00	80.00	10.00	+/-15.00	V
FCAP	9856	10000	-144	+/-500	cps
Main Control Unit Test					

Horizontal Water Tank						
Result	Logged	Expected Value		Diff.	Tol.	Units
N/F Normalizer	0.96	0.95		0.01		
N/F Inel Norm	0.62	0.61		0.01		
RNF	1.04	1.07		-0.03	+/-0.12	
RINC	1.61	1.64		-0.03	+/-0.18	
SGFN	24.07	24.00		0.07	+/-0.50	cu
SGFF	22.92	22.85		0.07	+/-0.50	cu
FSIN	23621	24000		-379	+/-2000	cps
FCAP	9956	10000		-44	+/-1000	cps
NFTR	0.82				<5.00	
FFTR	0.92				<5.00	
NBKG	190				<500	cps
FBKG	97				<500	cps
RTN	0.40	0.40		-0.00	+/-0.10	usec
RTF	0.42	0.40		0.02	+/-0.10	usec
Calibration Software Modules						
HRMTI Module	2015.5.4.0					
RMTI Module	2015.10.16.1					
Log Data Acquisition Software Modules						
HRMTI Module	2015.5.4.0					
RMTI Module	2015.10.16.1					
Gamma Ray Calibration Report						
Type / Serial:		002 / 11214503				
SHOP CALIBRATION		Wed Nov 09 16:25:32 2016				
Background Calibrator	Counts/Sec.	Gain	Offset	Jig	Units	
	34.1				cps	
	297.9				cps	
		1.3950			GAPI/cps	
PRIMARY VERIFICATION						
Background Calibrator Difference	42.3				cps	
	413.8				cps	
				371.5	GAPI	
BEFORE SURVEY VERIFICATION						
Background Calibrator Difference	0.0				cps	
	0.0				cps	
				0.0	GAPI	
AFTER SURVEY VERIFICATION						
Background Calibrator Difference	0.0				cps	
	0.0				cps	
				0.0	GAPI	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CCL	35.82		STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
			TTTCU-002 (11214503) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00
GR	33.56					

				XHU-003 (000001) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00
RmtTFGT	22.91						
RmtTNGT	22.41			RMTI-A (12095949) Halliburton RMTI Tool	14.00	2.13	77.00
RmtFP5V	14.66			X-OVER-GoxSondex Go Box x Sondex Pin CrossOver	0.27	1.69	1.00
RmtNFwvMcsPI	14.66			CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
RmtCommFWa	14.66						
Temp	9.57						
TT3FT	7.32			HCBLM-A (12091451) Halliburton HCBLM Tool	9.38	2.75	116.00
AMP3FT	7.32						
WVF5FT	6.36						
WVF3FT	2.84			CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
				AUH-001 (11072111) Adaptor Ultrawire/Halliburton	0.38	1.69	3.00
LLMTEN	0.00			BUL-001 (000001) Bullnose	0.30	1.69	1.50
Dataset: 32a_17_7_95.db: field/well/run1/MAIN Total length: 39.39 ft Total weight: 356.50 lb O.D.: 3.13 in							

Company	URSA OPERATING COMPANY LLC				
Well	MONUMENT RIDGE B 32A-17-7-95				
Field	PARACHUTE				
County	GARFIELD		State	CO	
HALLIBURTON	CEMENT BOND LOG				