

HALLIBURTON				GAMMA RAY COLLAR CEMENT BOND LOG (GR-CBL)			
Company URSA OPERATING CO., LLC.		Company URSA OPERATING CO., LLC.		Company URSA OPERATING CO., LLC. Well TOMPKINS 21B-08-07-95 Field PARACHUTE County GARFIELD State CO			
Well TOMPKINS 21B-08-07-95		Well TOMPKINS 21B-08-07-95					
Field PARACHUTE		Field PARACHUTE					
County GARFIELD		County GARFIELD					
State CO		State CO					
API No.: 05045228210000		Serv #: 903507548		Other Services			
Location:							
N/A		N/A		GR-CBL			
Sec: 8 Twp: 7S Rge: 95W		G.L. Elevation 5532.0'		Elevation 5549.0'			
Log Measured From K.B. , 17.0 Ft. above perm. datum		K.B. , 17.0 Ft. above perm. datum		K.B. 5549.0'			
Drilling Measured From K.B.		K.B.		D.F. -----			
				G.L. 5532.0'			
Date @ Time Logged 8/30/2016		Type Fluid in Hole WATER					
Run No. ONE		Density of Fluid 8.45#					
Depth - Driller 7628'		Fluid Level SURFACE					
Depth - Logger 7535'		Cement Top Est. Logged N/A					
Bottom - Logged Interval 7533'		Equipment / Location 11591000 / BKSFD					
Top - Log Interval 1800'		Recorded by BRIAN PEDERSEN					
Max. Recorded Temp. N/A		Witnessed by MR. O. MOLINAR					
CEMENTING DATA		Surface Protection String		Liner			
Date / Time Cemented		String					
Primary / Squeeze							
Expected Compressive Strength		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
ONE	24.0"	SURF	77'	16.0"	75.5#	SURF.	77'
TWO	12.25"	77'	1855'	8.625"	32.0#	SURF.	1855'
THREE	7.875"	1855'	7628'	4.5"	11.6#	SURF.	7628'
				FLOAT	COLLAR		7585'

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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

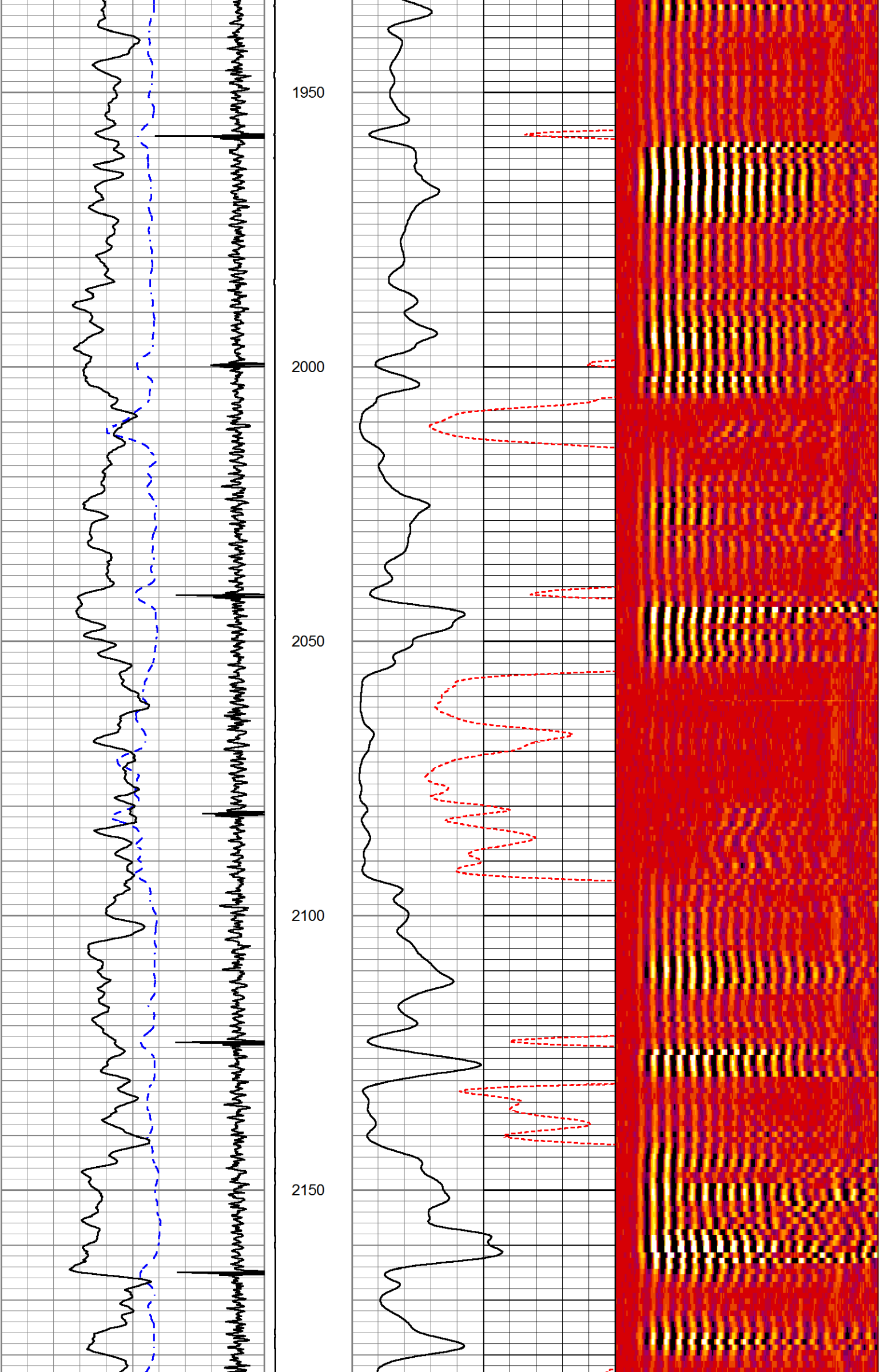
NO OPEN HOLE LOGS RUN ON THIS WELL USED 17' K.B. FOR DEPTH CONTROL
RMTI LOGGED TD TO 500' ABOVE WILLAMS FORK AS PER CUSTOMERS REQUEST
CBL LOGGED TO BOTTOM OF SURFACE CASING PER CUSTOMERS REQUEST

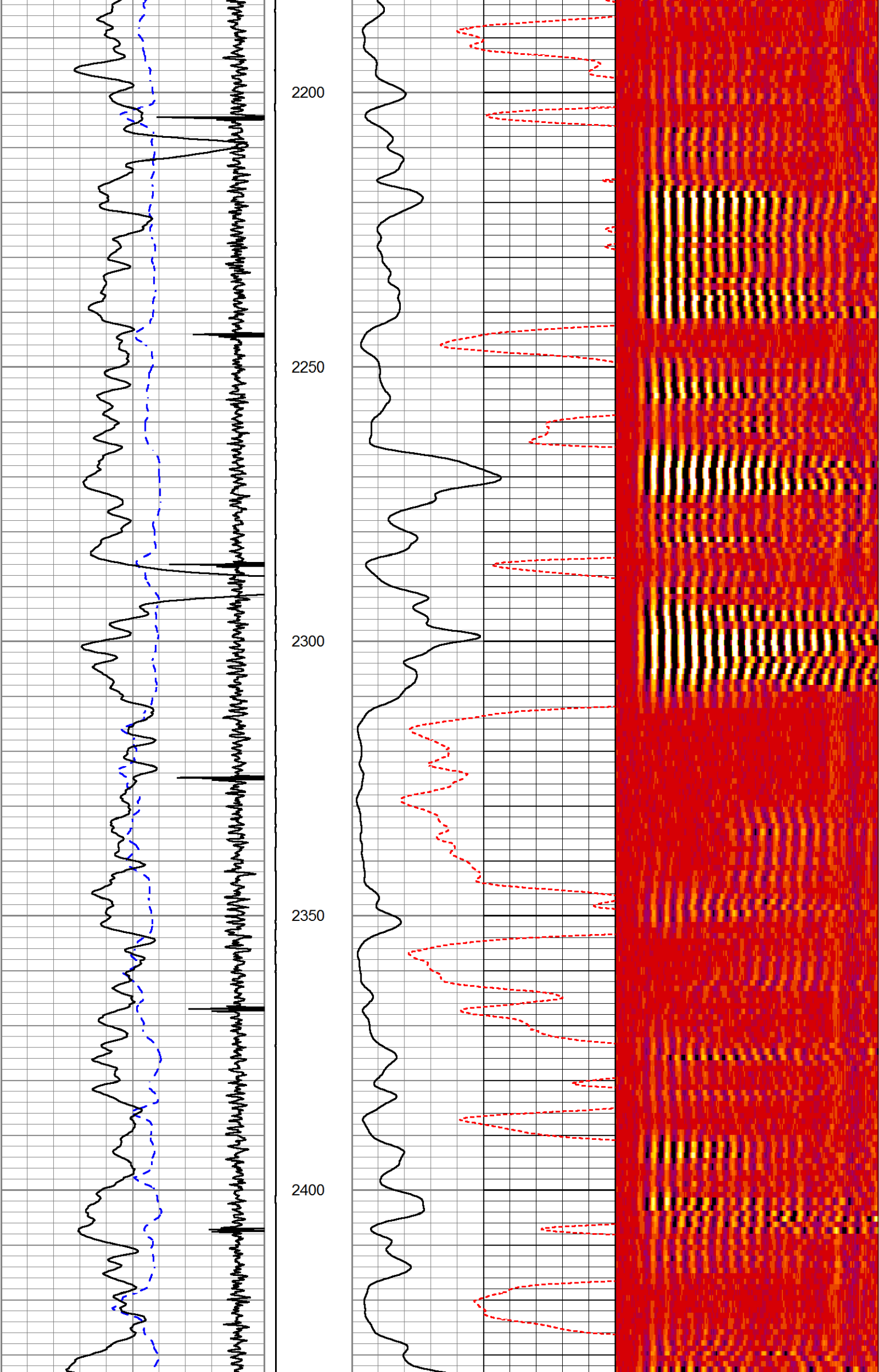
" THANK YOU FOR USING HALLIBURTON ENERGY SERVICES "
YOUR CREW FOR TODAY: F. ALIAS; F. NAVARRO

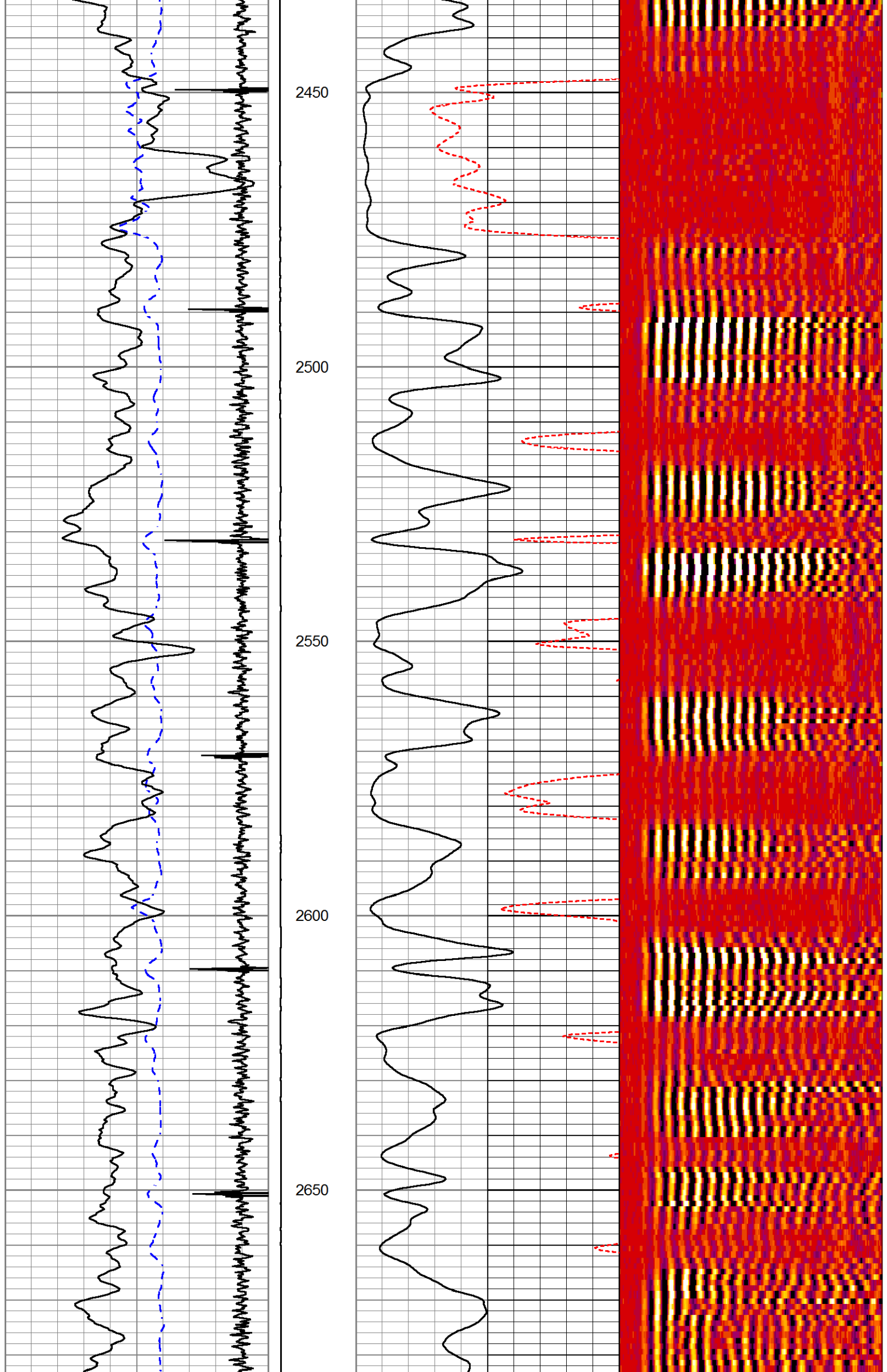
MBU. #BK0606

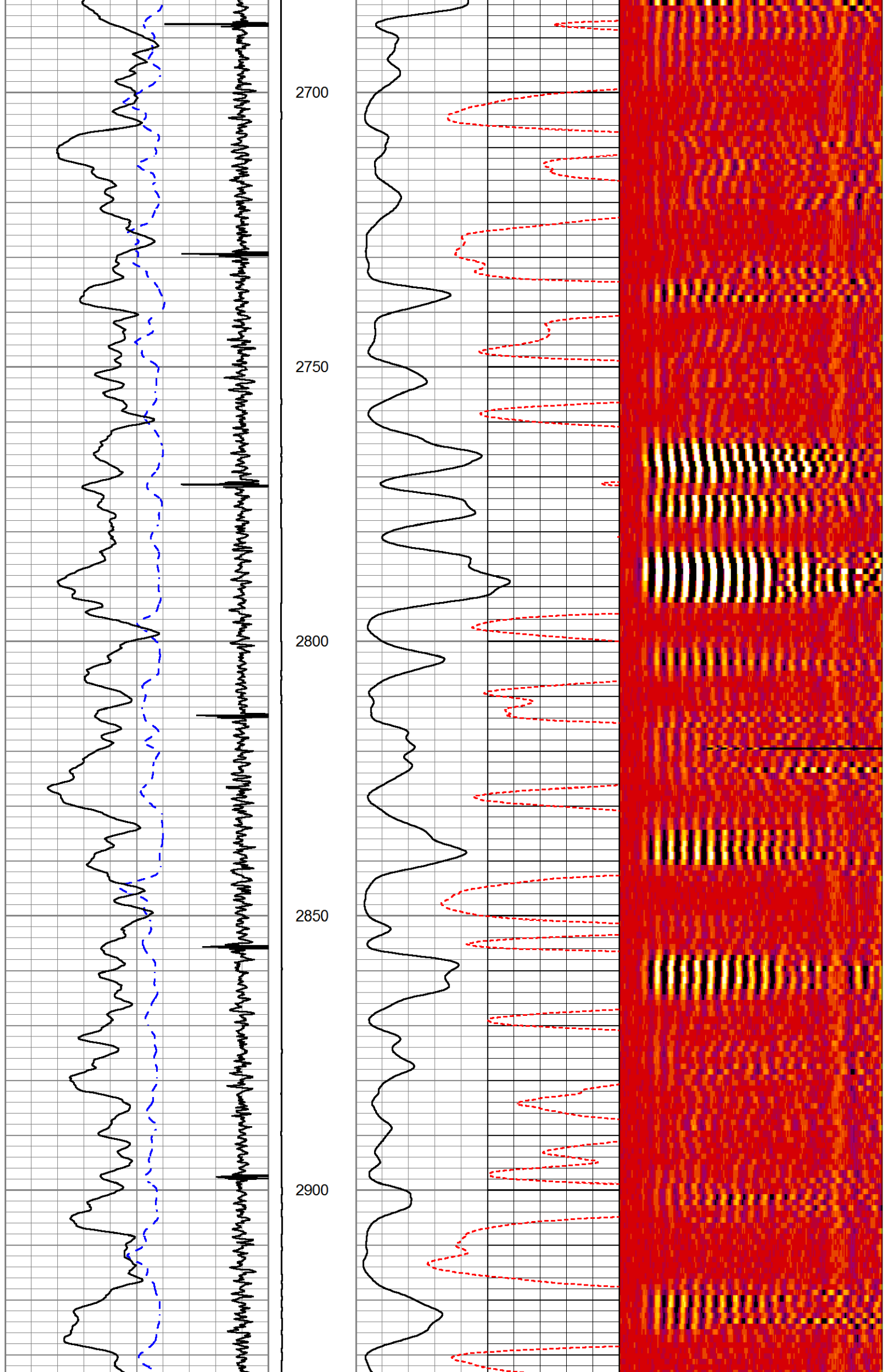
RIG: HES CRANE

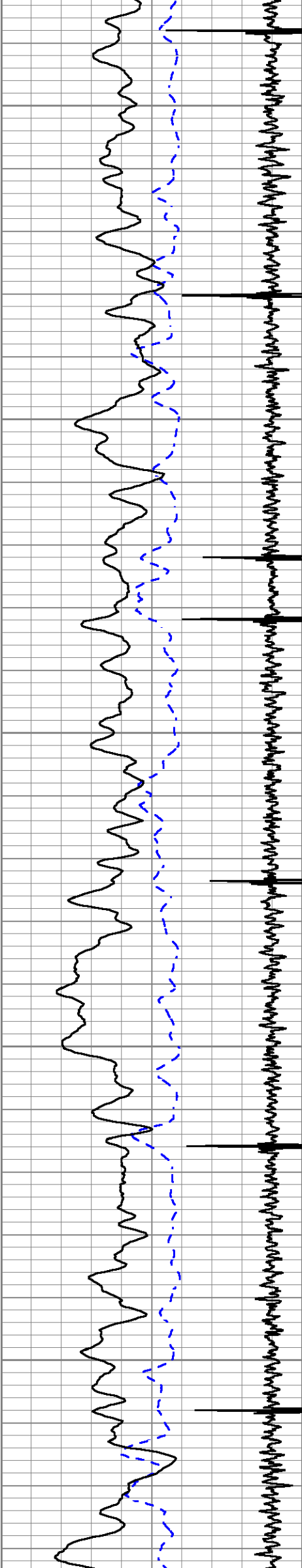
Service Ticket No.	903507548	API No.	045-22821	PGM Ver	15.10.29001
The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client					
EQUIPMENT DATA					
XHU		GAMMA		RMTI	
Run No.	ONE	Run No.	ONE	Run No.	ONE
Serial No.	12029128	Serial No.	12157979	Serial No.	11680597
Model No.	XHU-3	Model No.	TTTC-U2	Model No.	RMTI
Diameter	1 11/16"	Diameter	1 11/16"	Diameter	2.25"
LOGGING DATA					
General Data					
Pass	Depths		Well Head	Speed	Logging Run Comments
No	From	To	Pressure	Ft/Min	











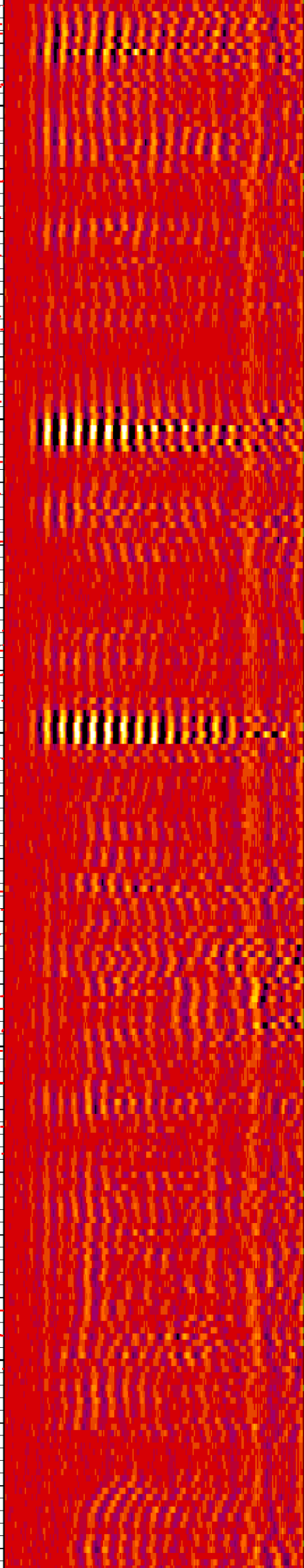
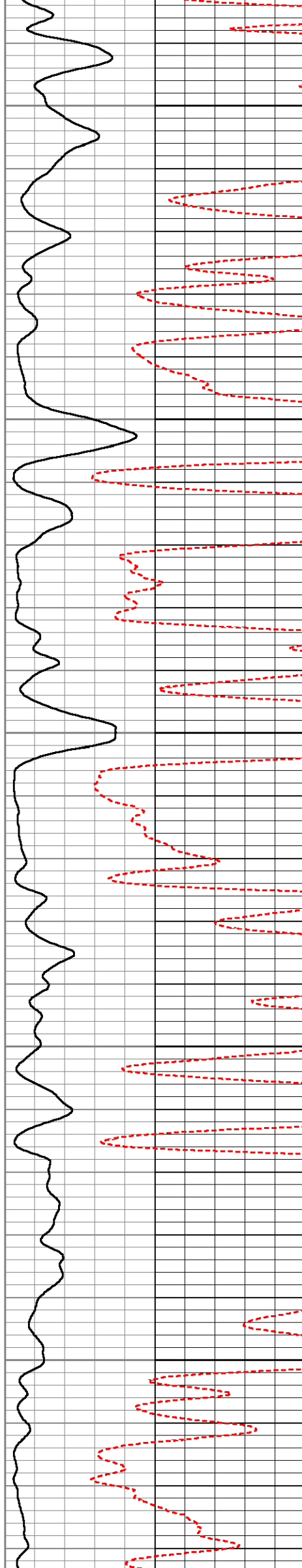
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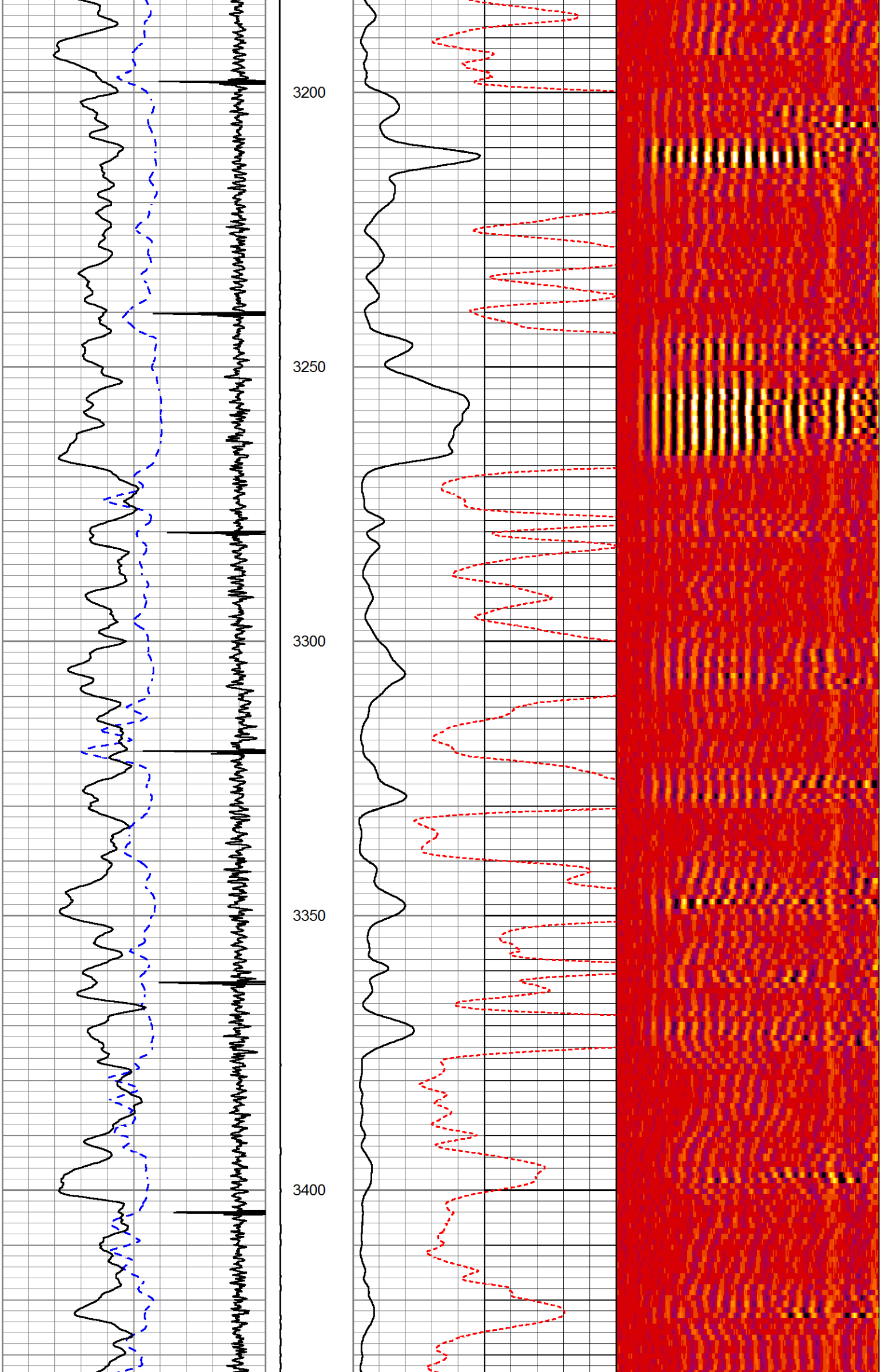
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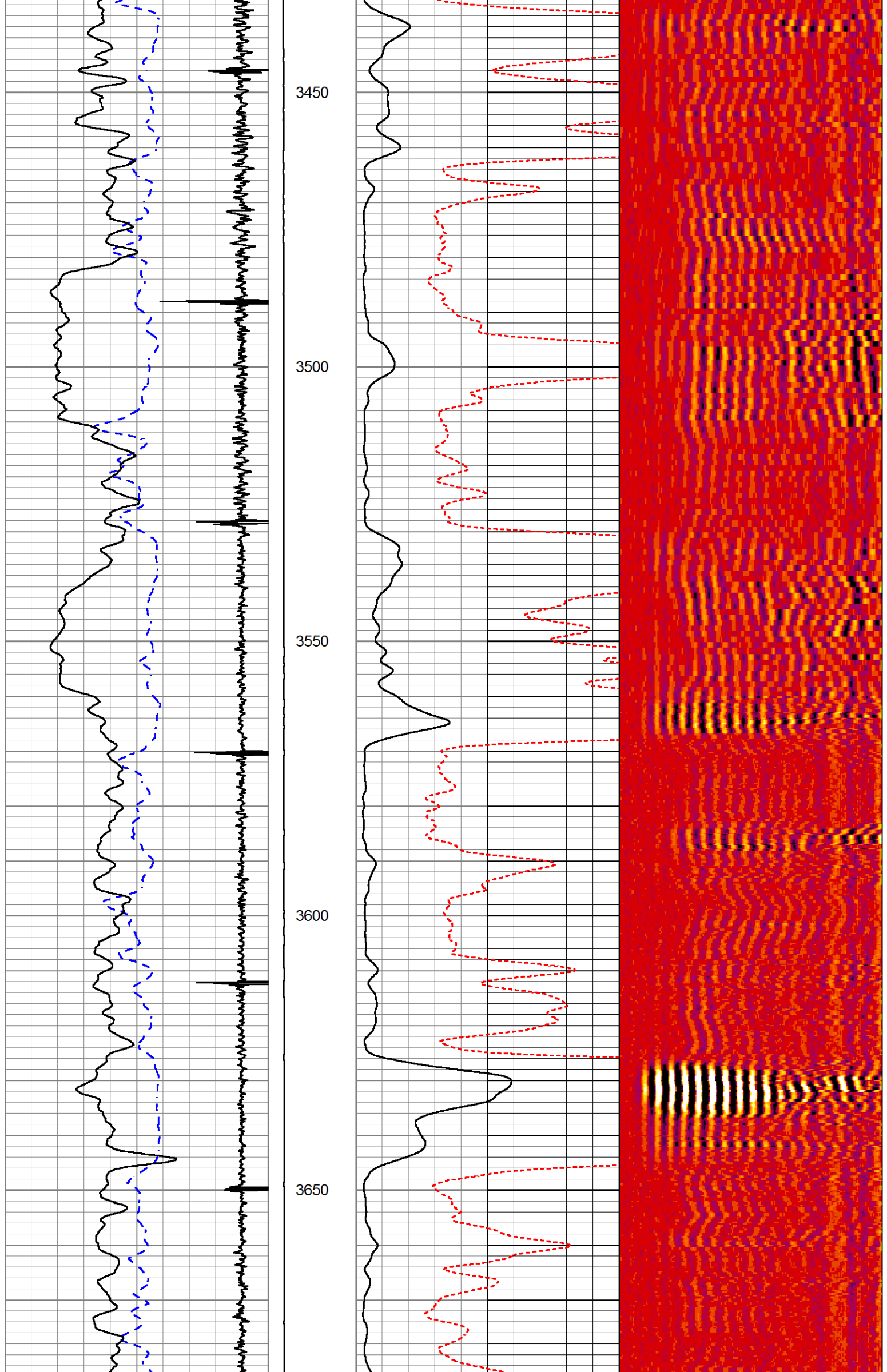
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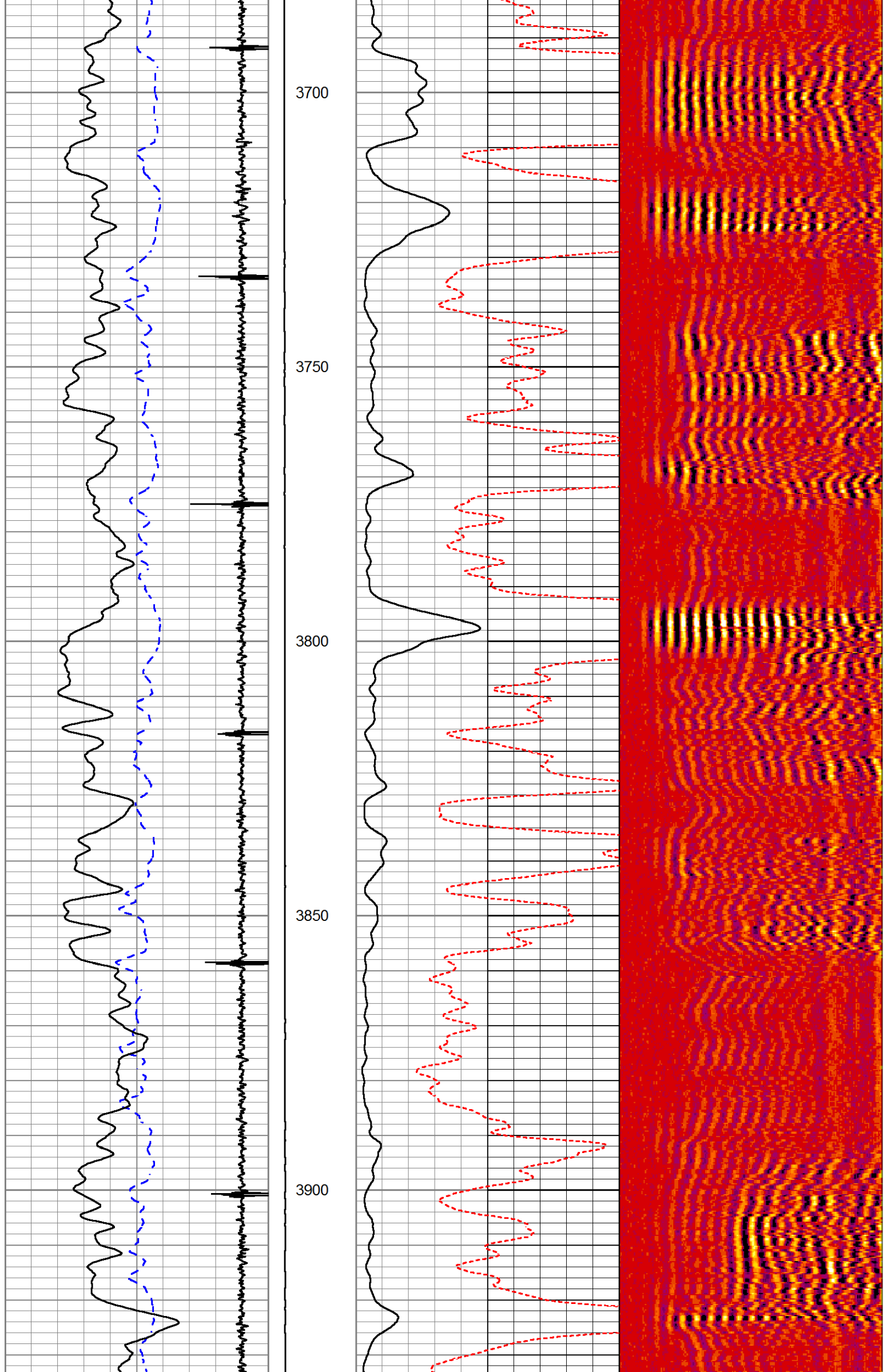
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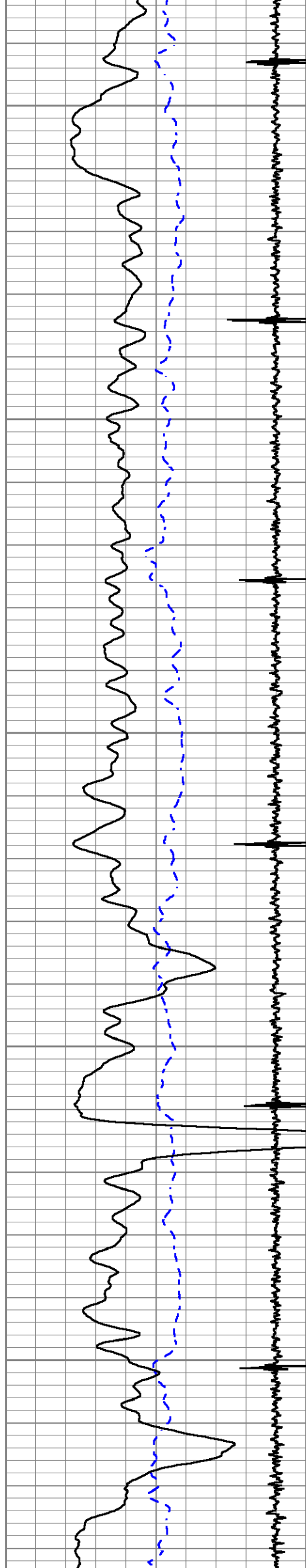
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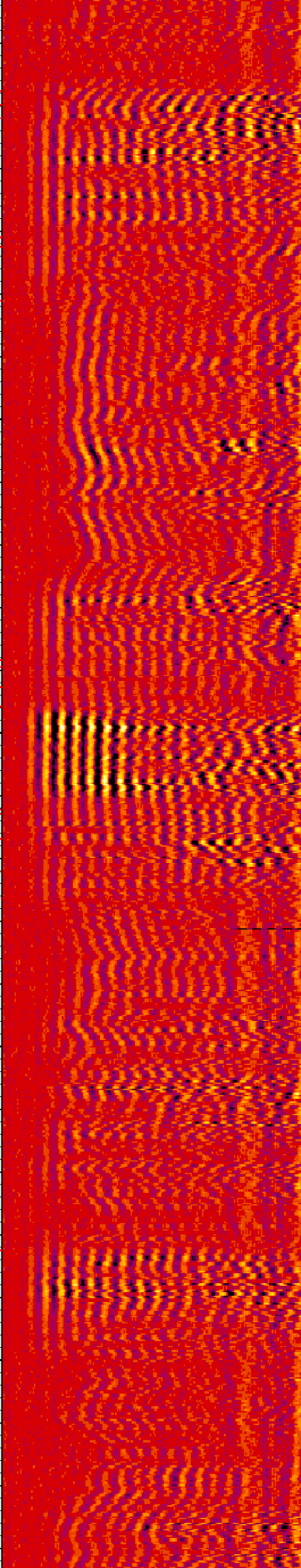
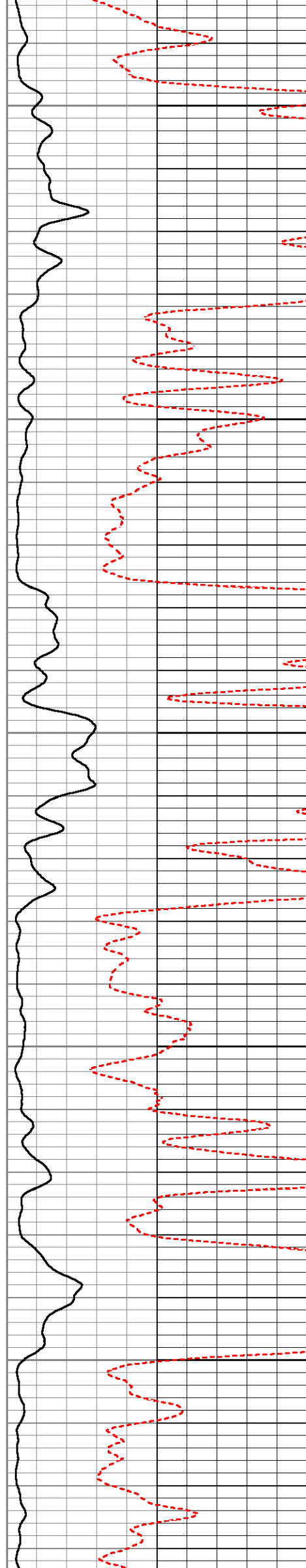
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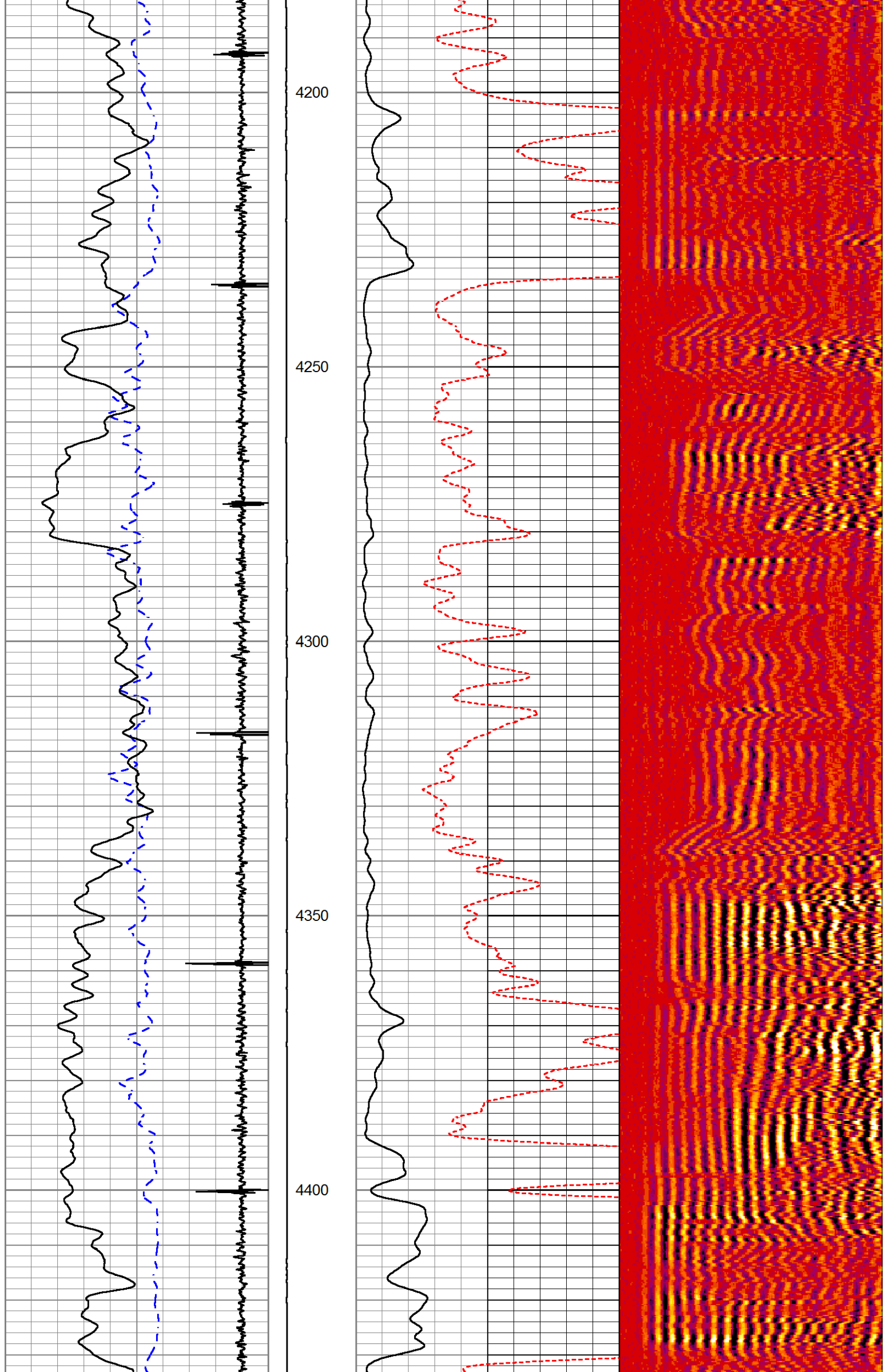
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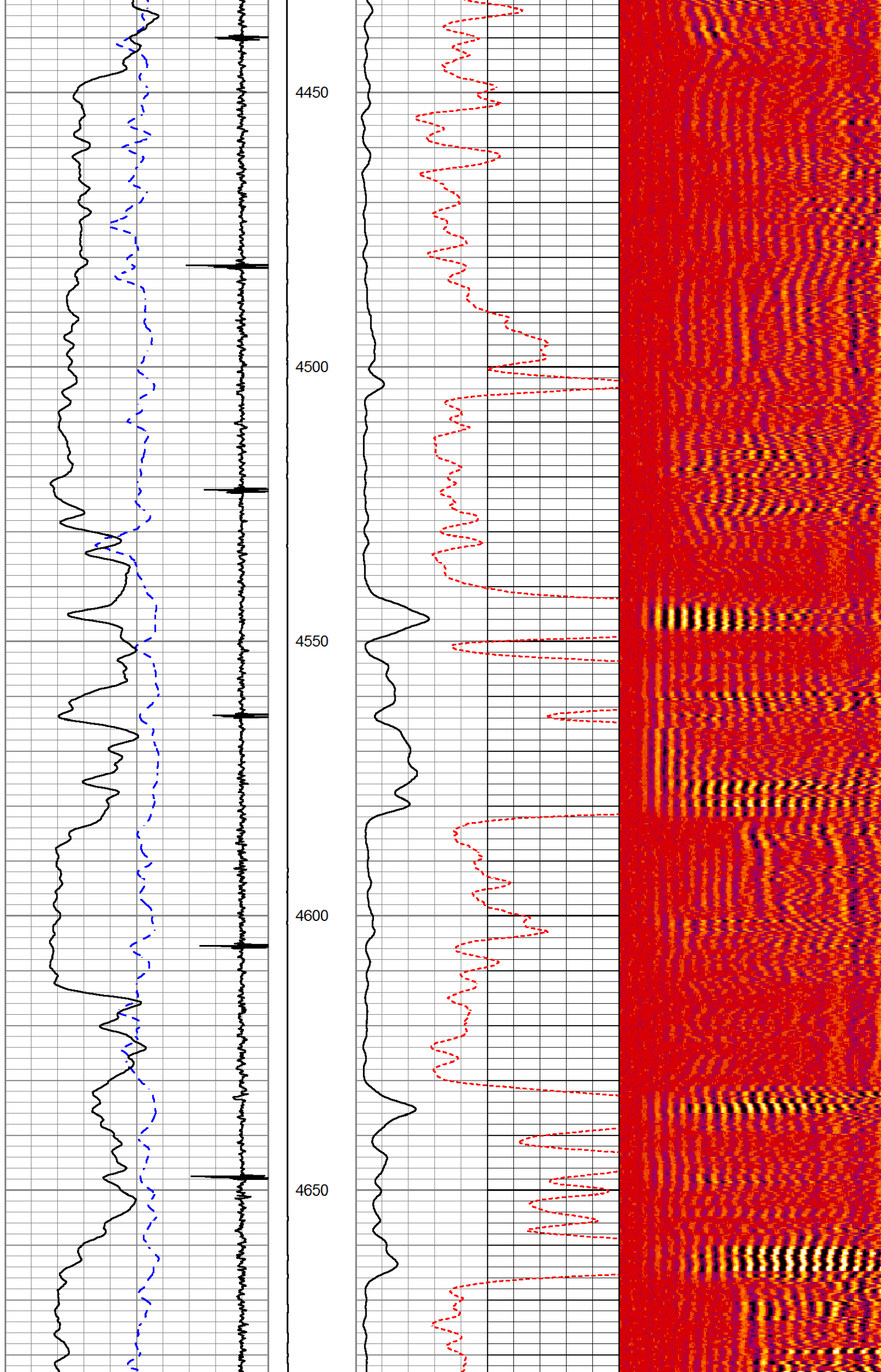
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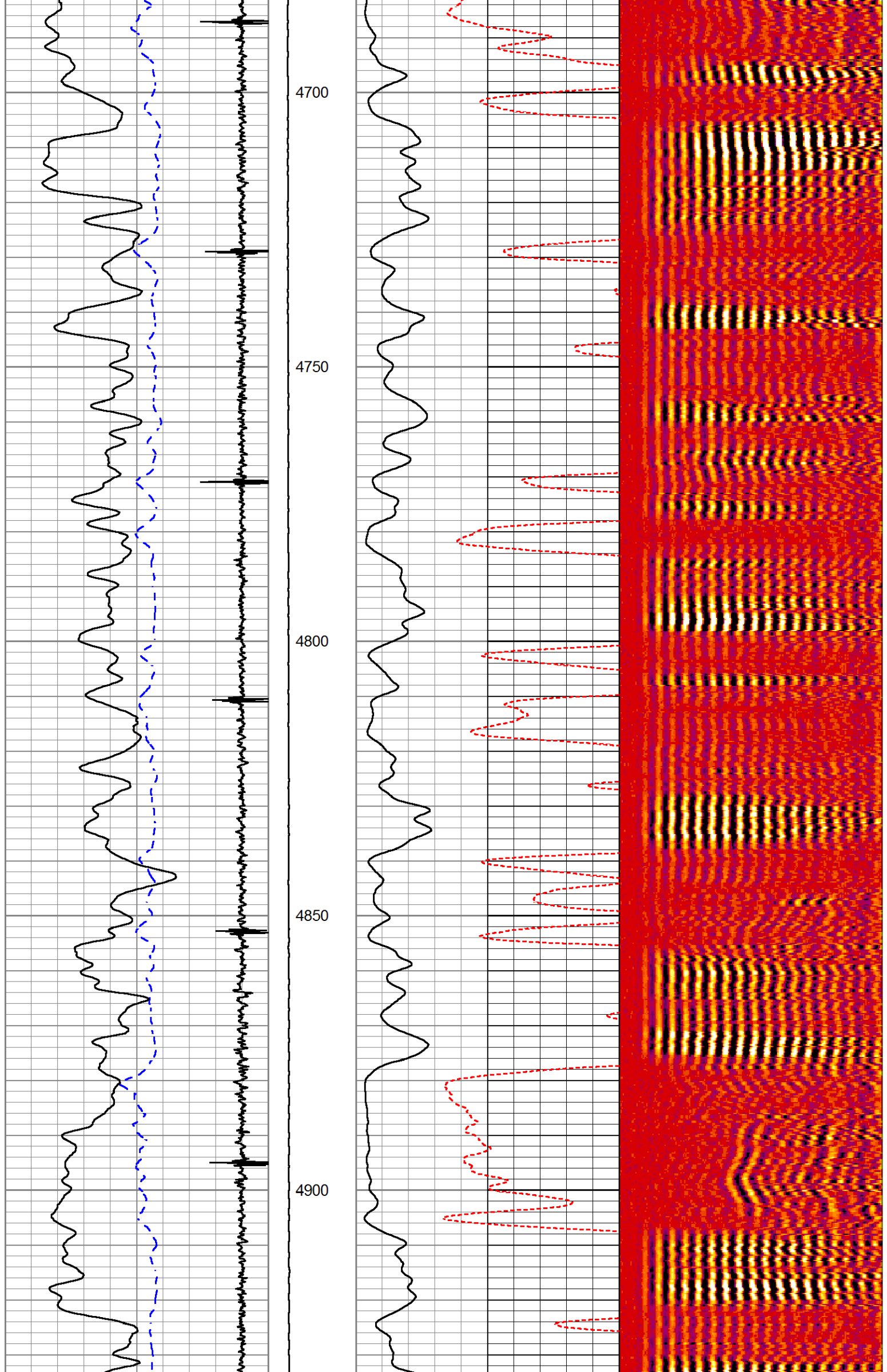
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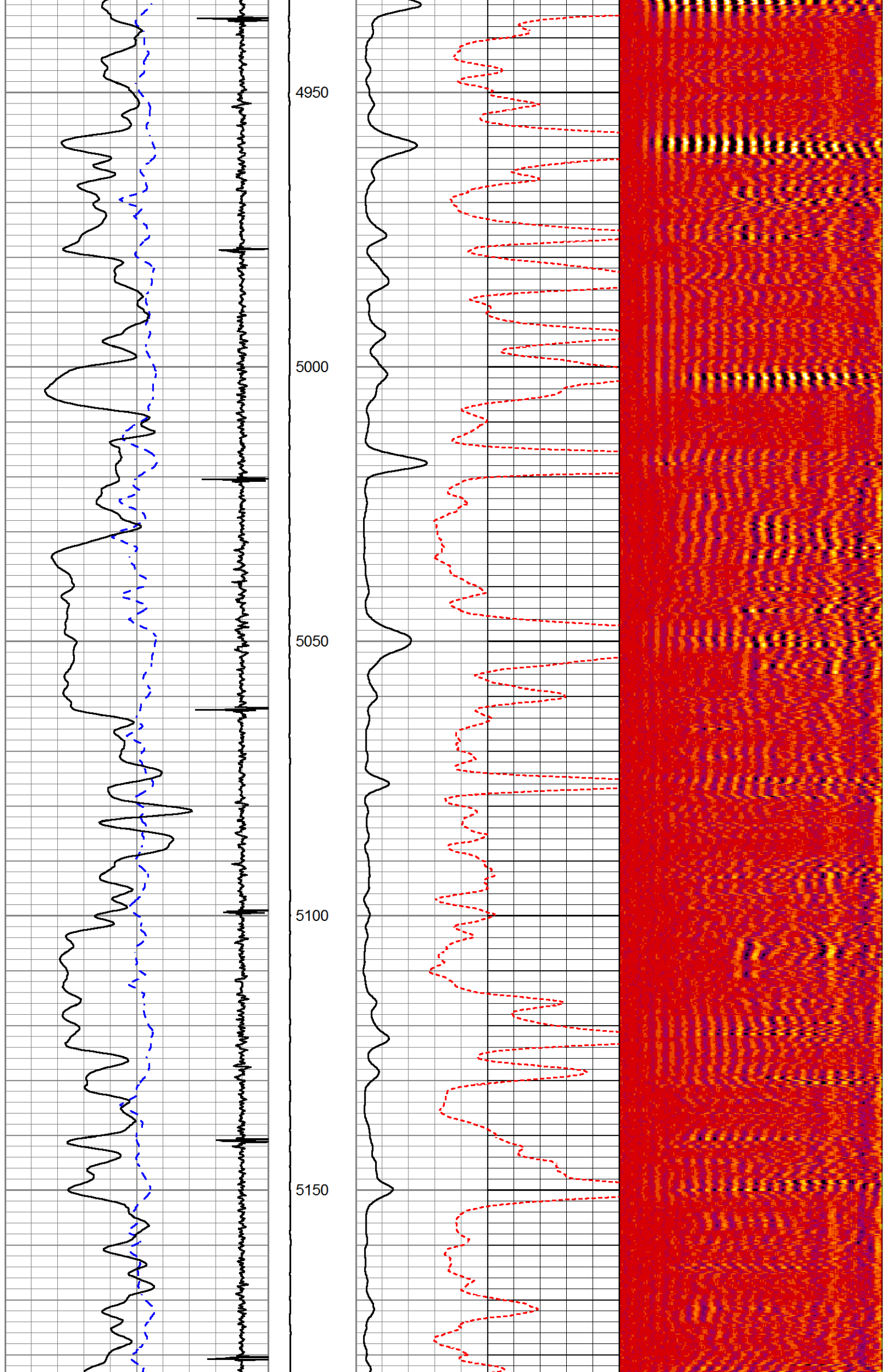
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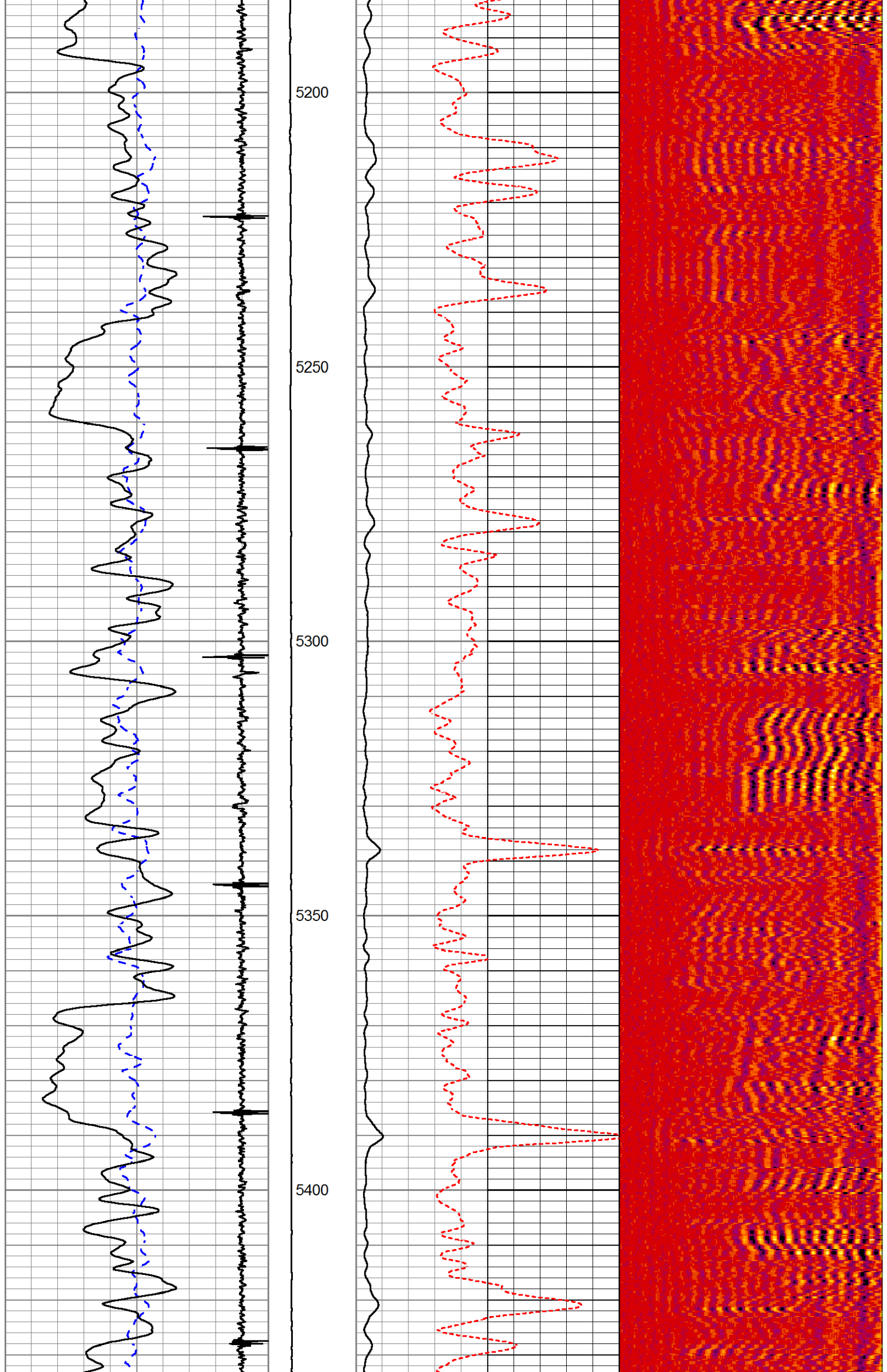


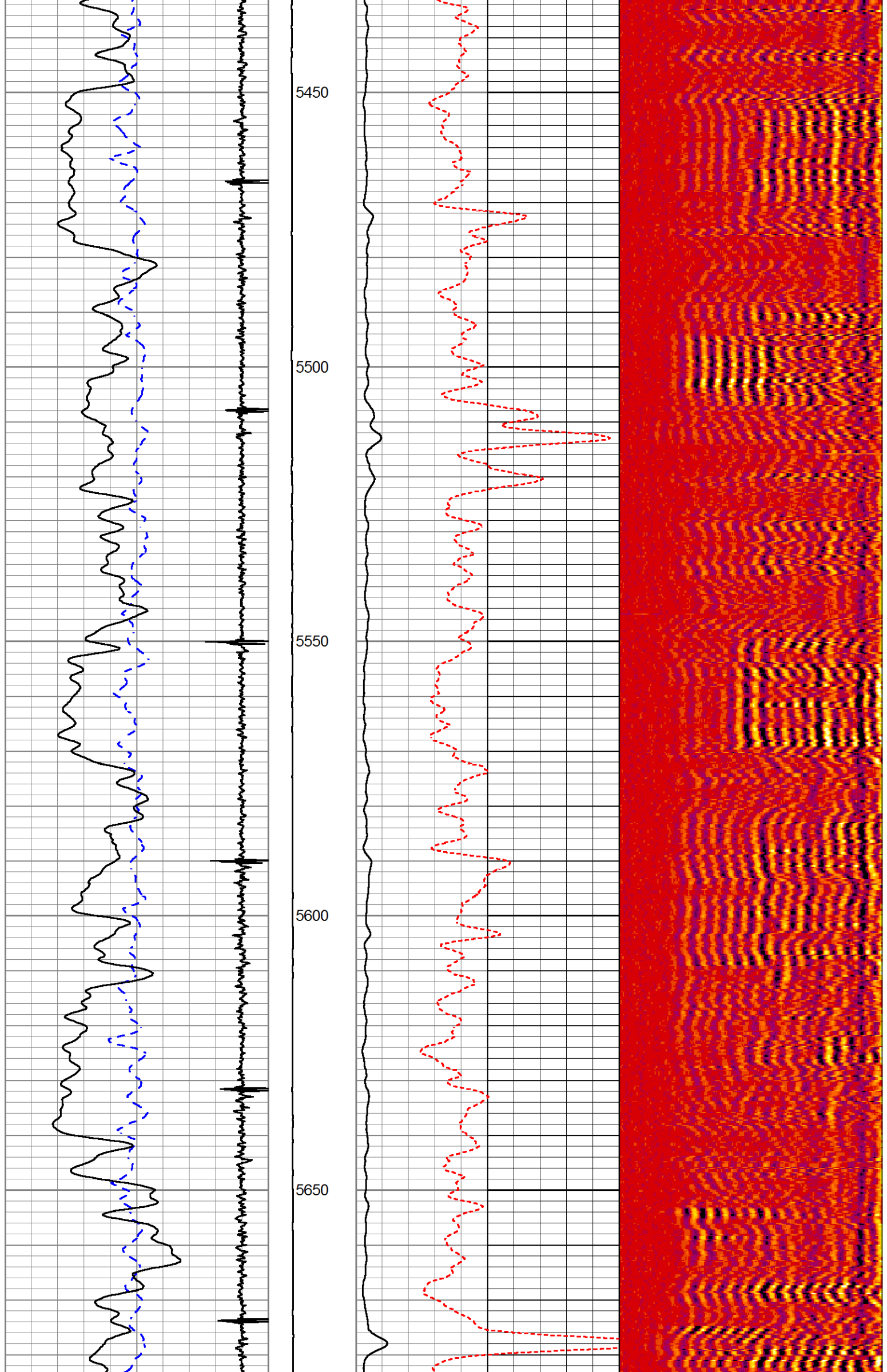


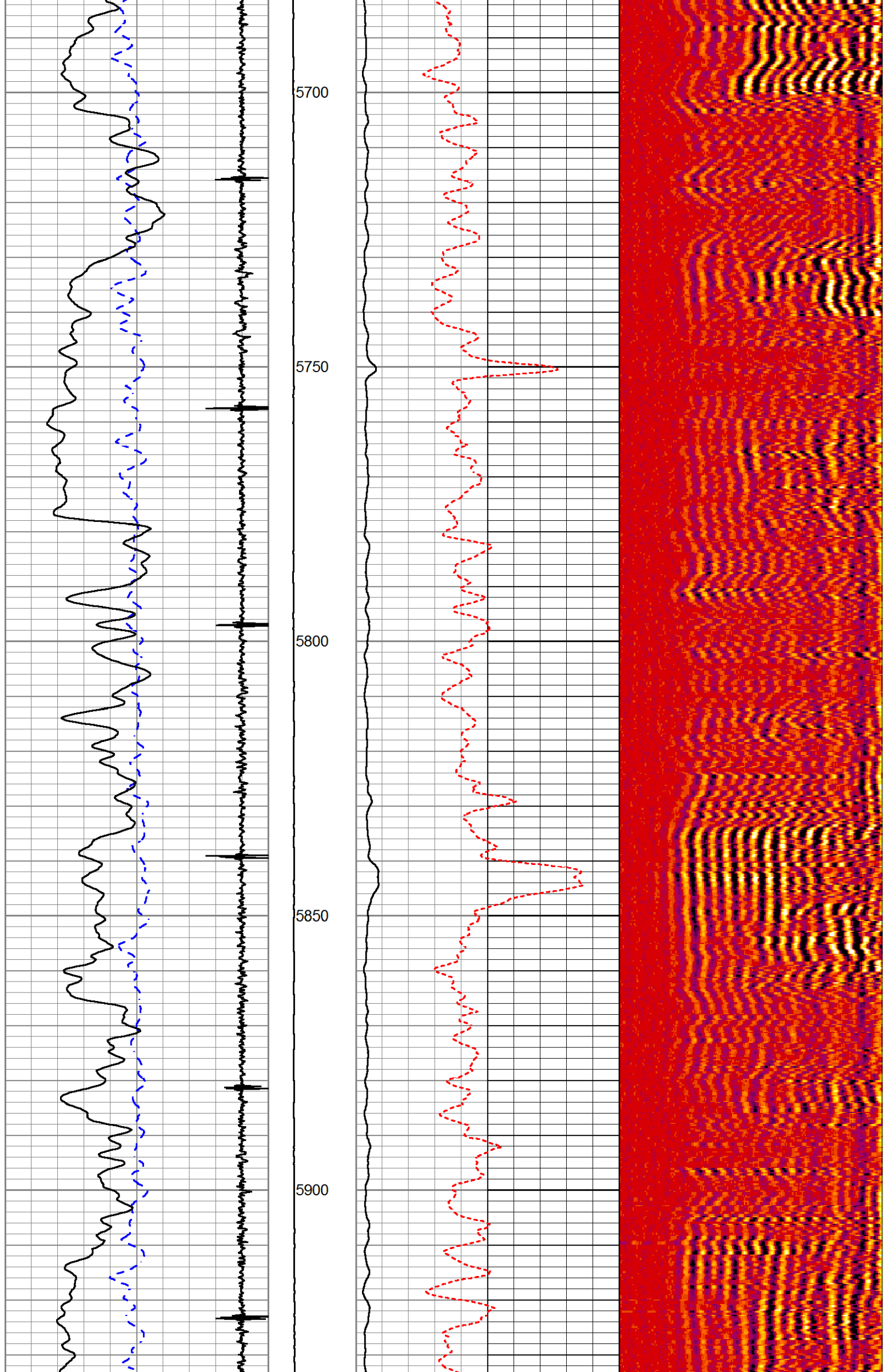


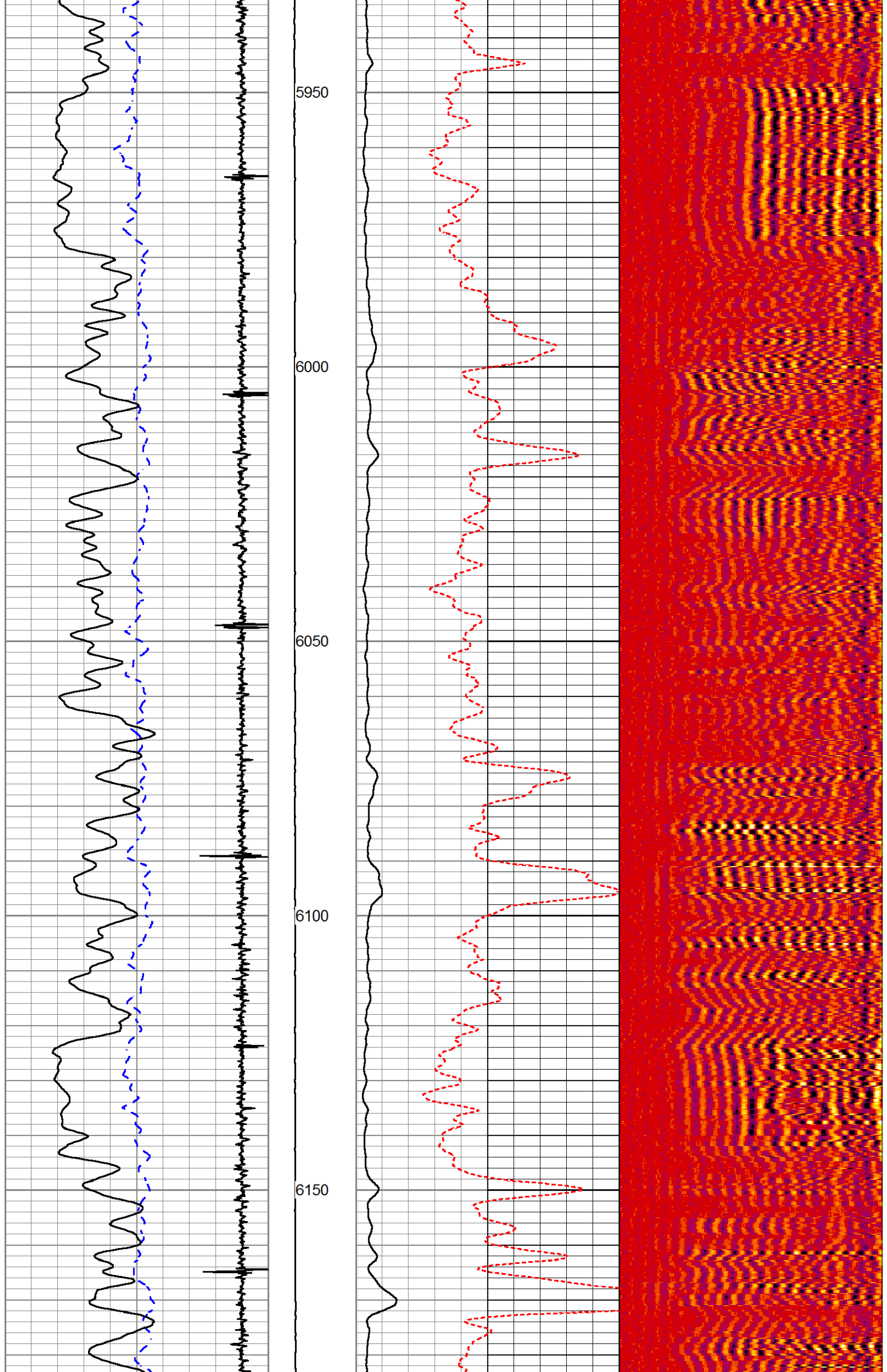


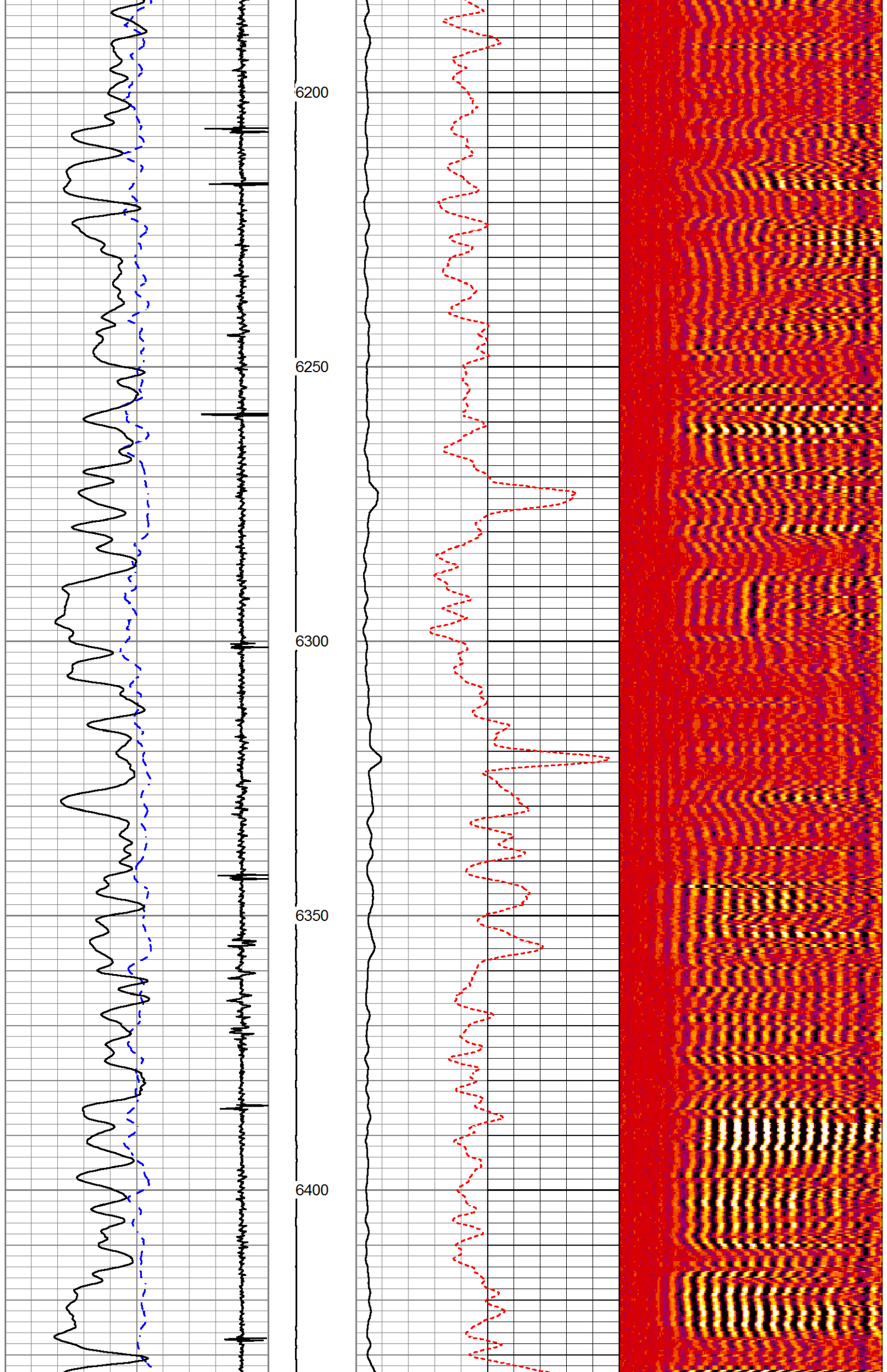


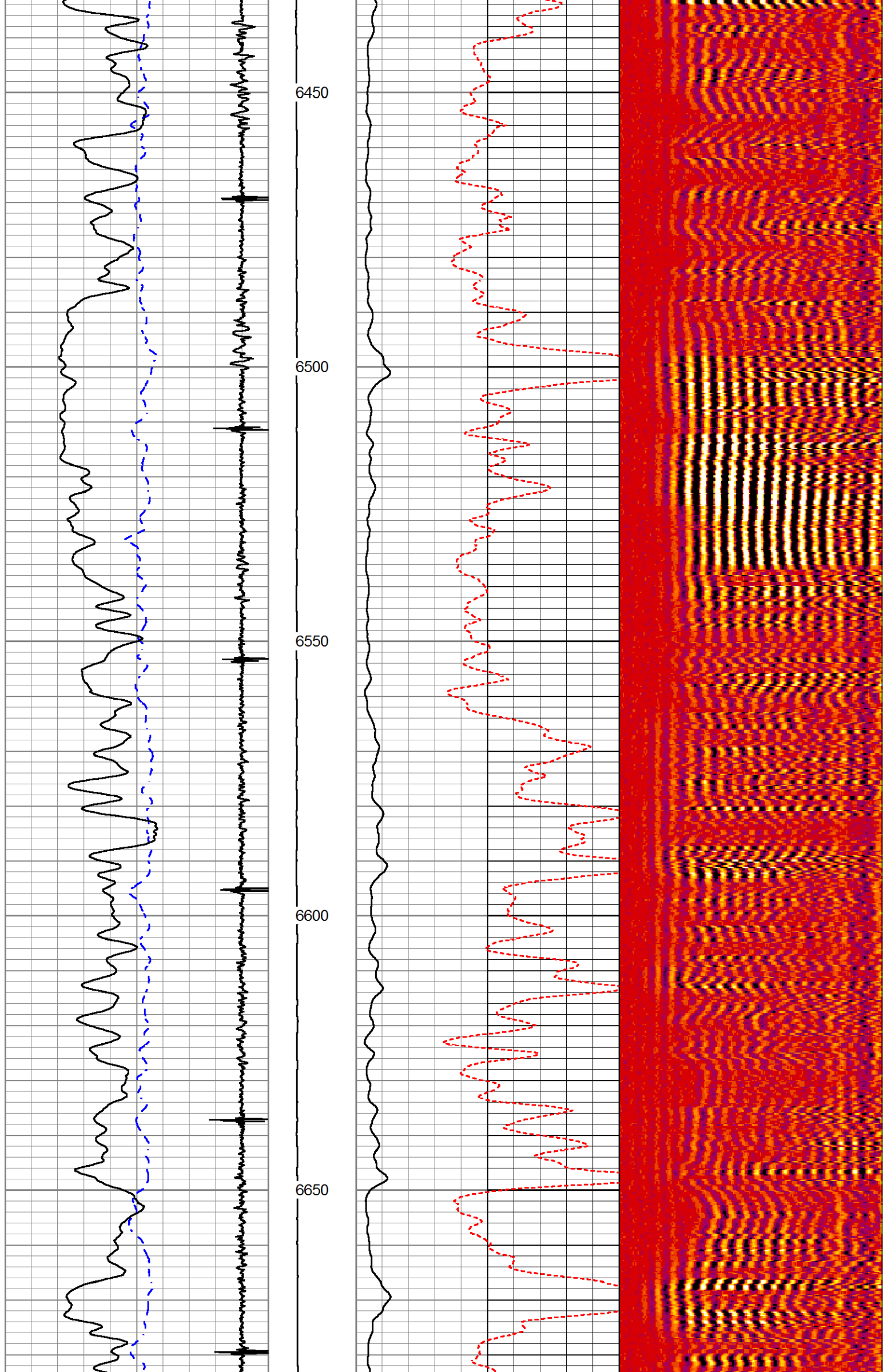


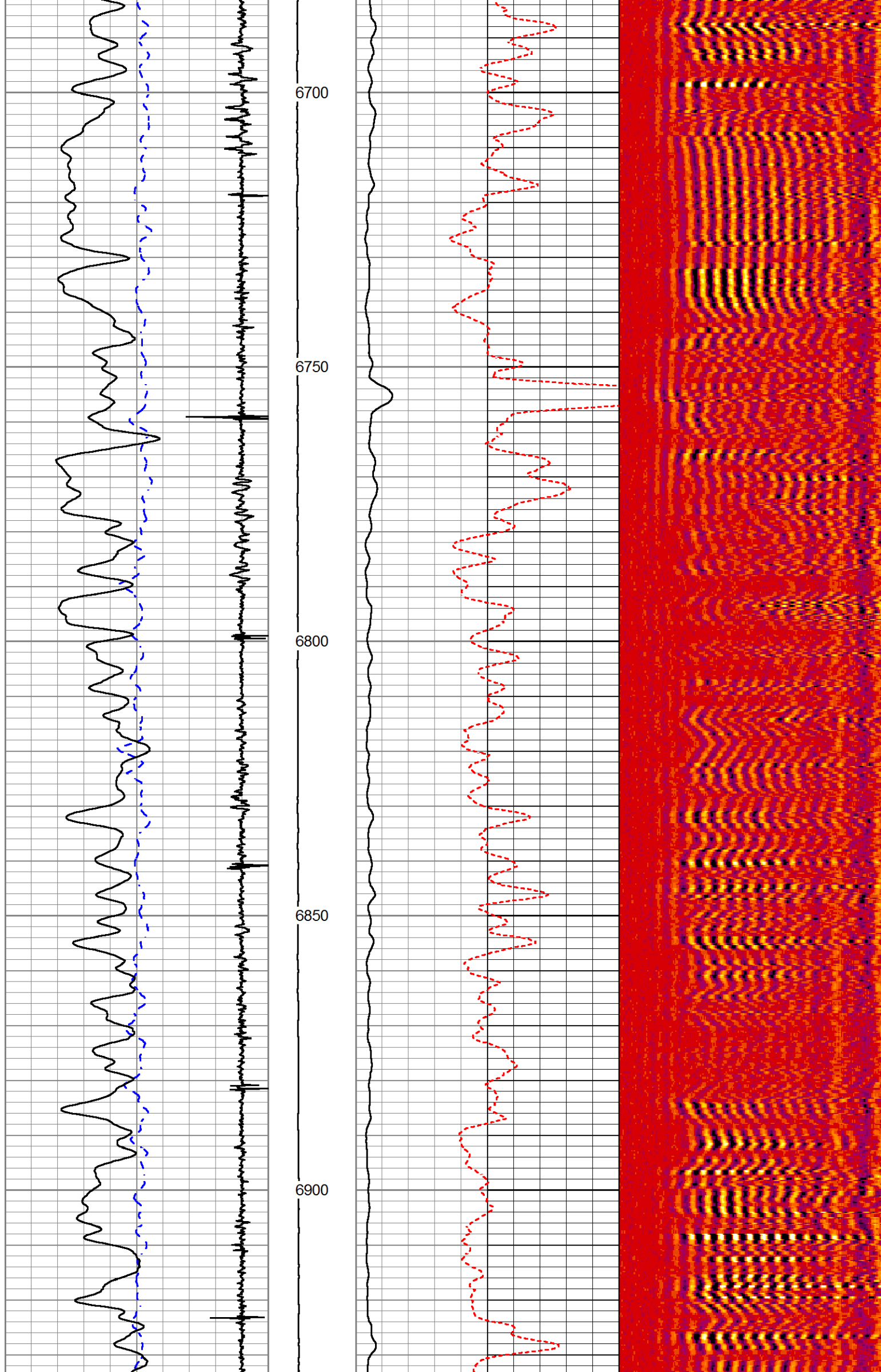


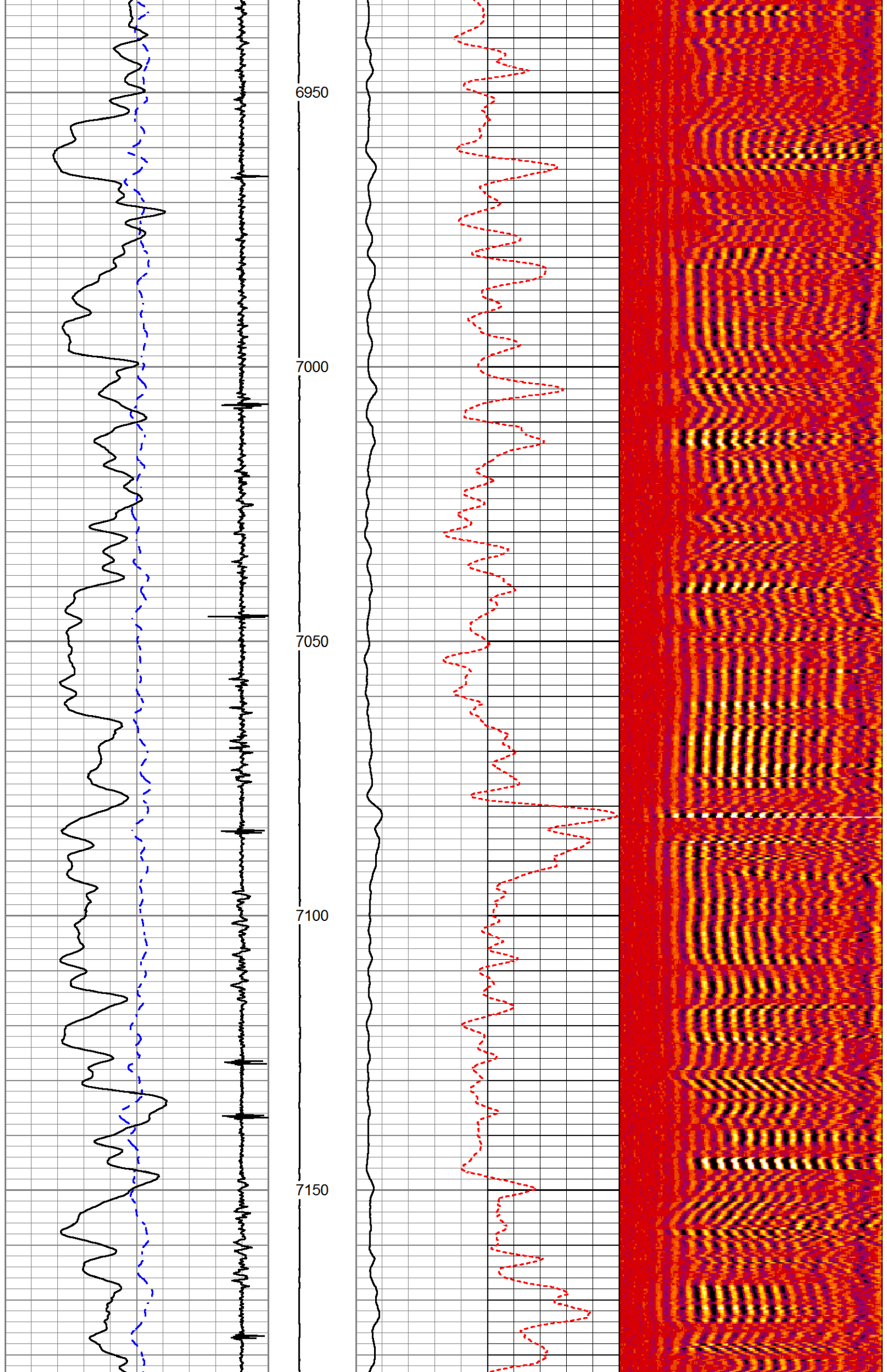


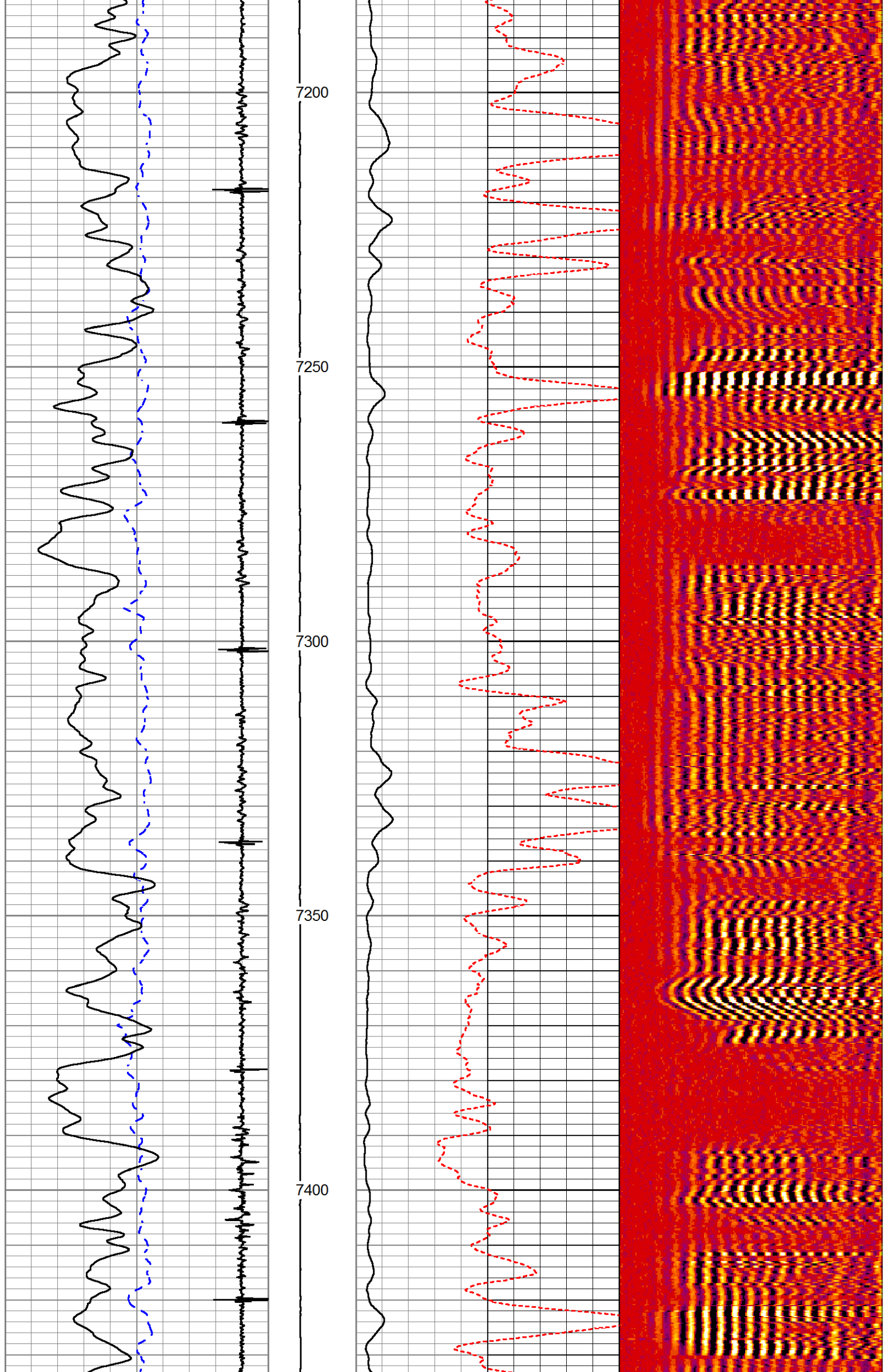


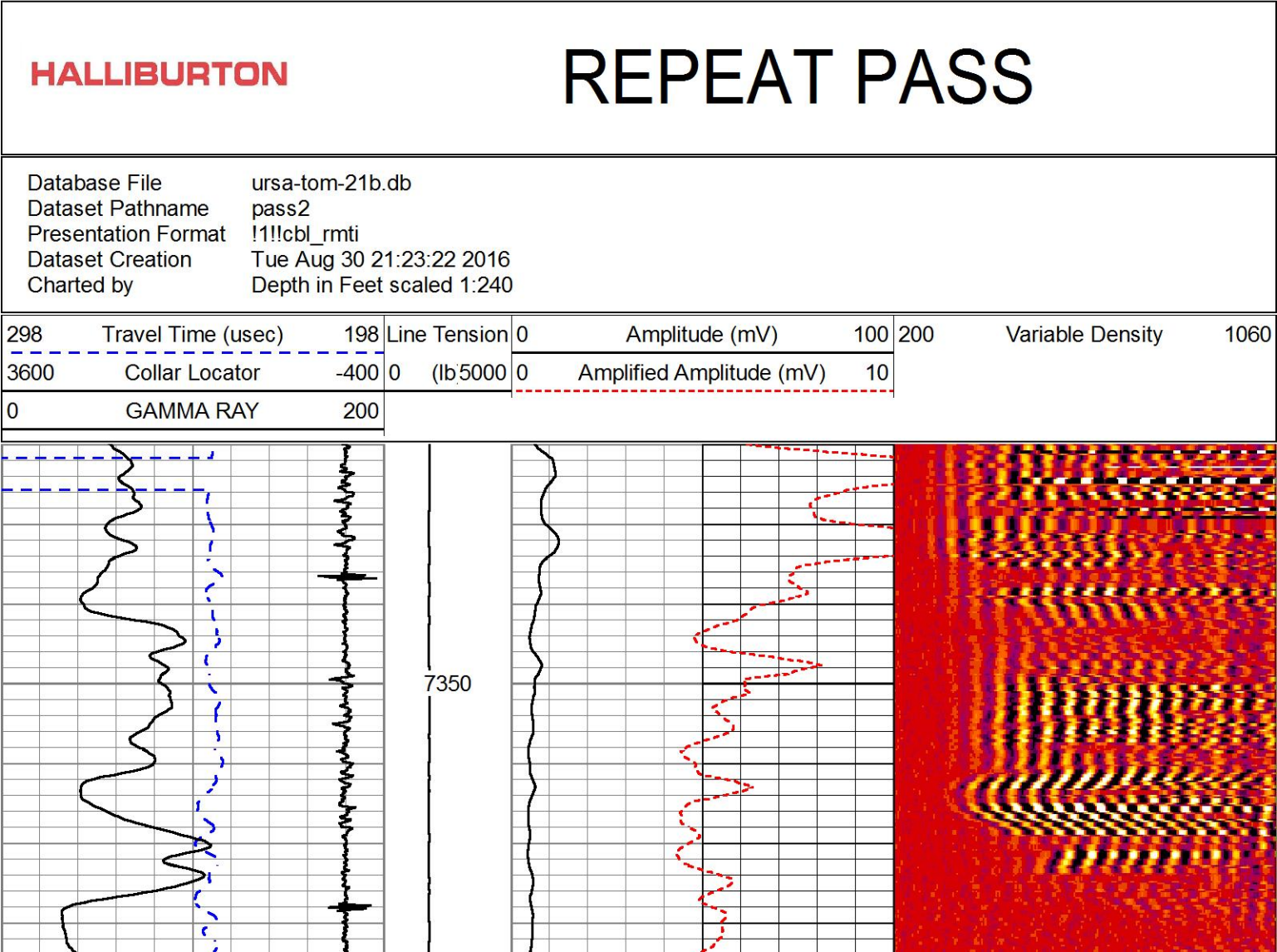
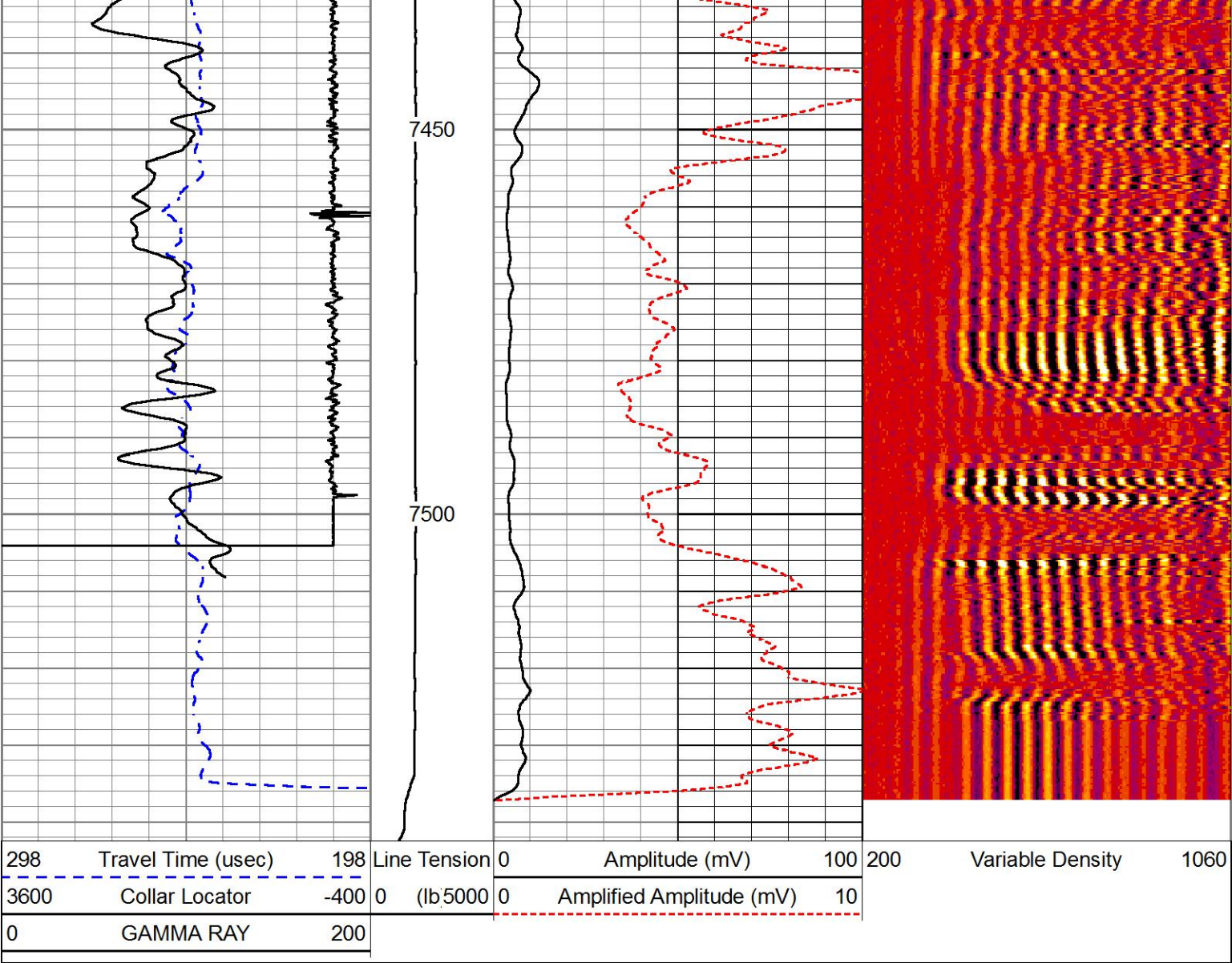


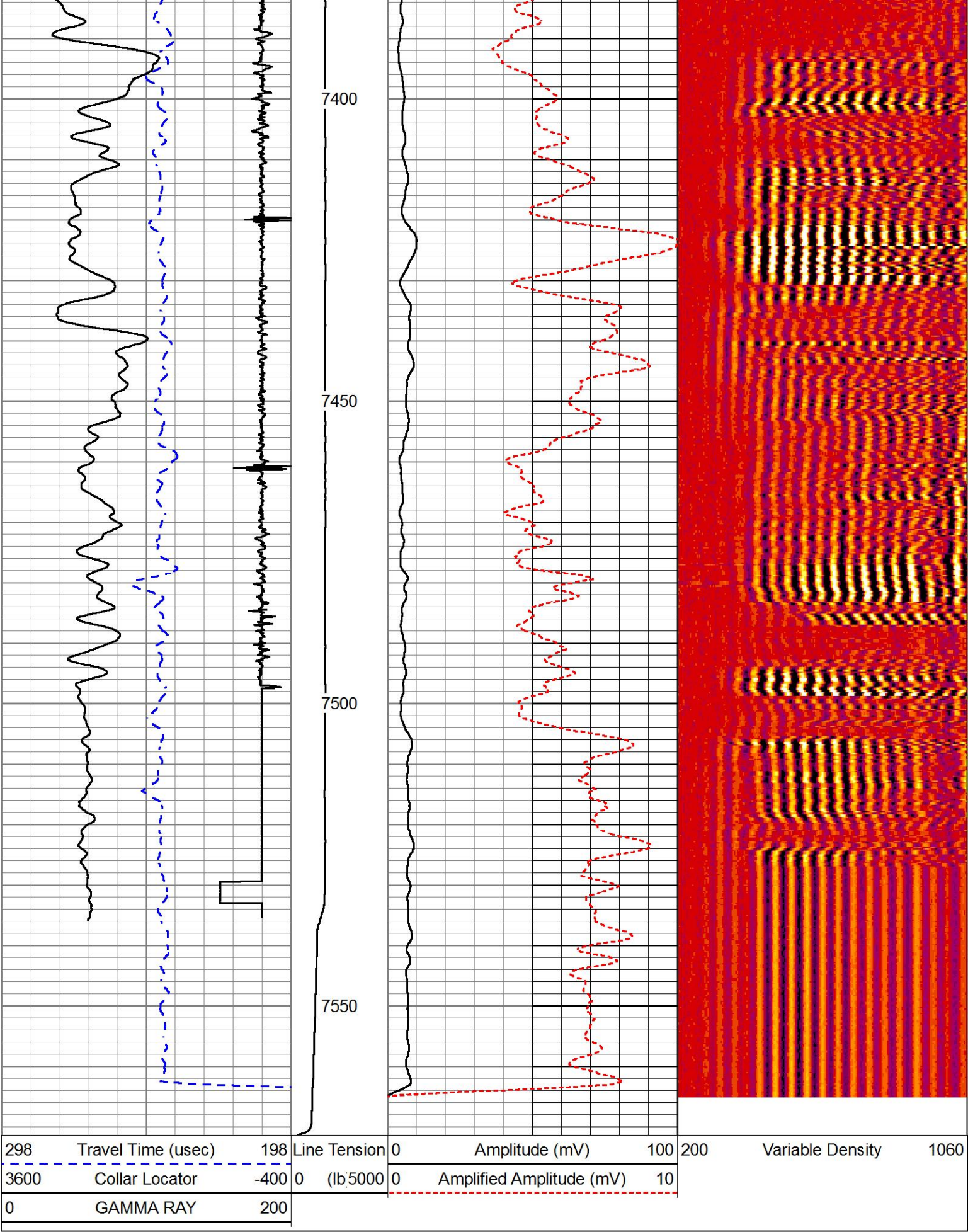








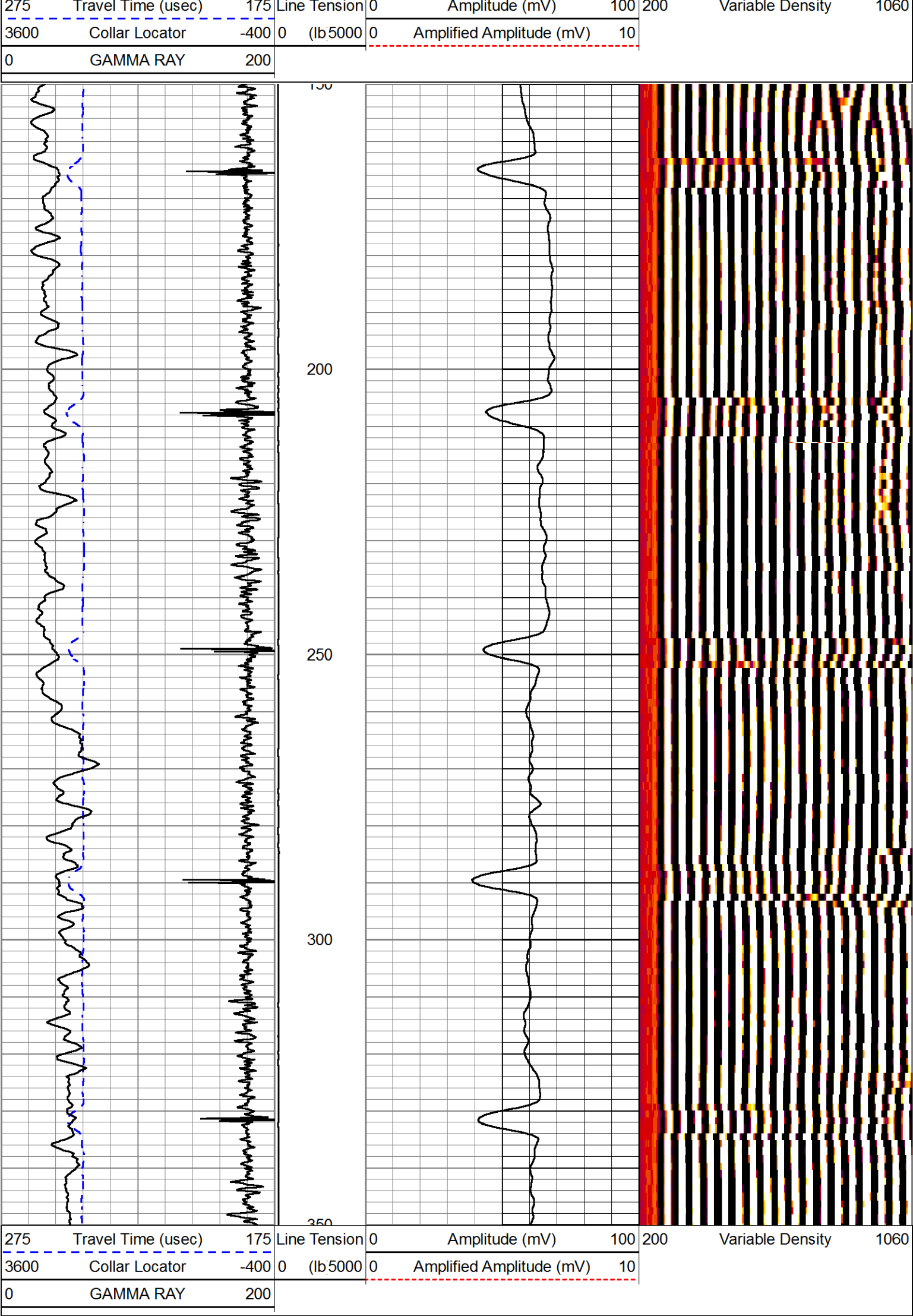




HALLIBURTON

FREE PIPE

Database File ursa-tom-21b.db
Dataset Pathname pass1
Presentation Format !1!!cbl_rmti
Dataset Creation Tue Aug 30 20:44:45 2016
Charted by Depth in Feet scaled 1:240



BHSAL1 1	BHSAL2 0	BHTEMP_Src TEMP	BITSIZE in 7.875	BORSAL kppm 150	BOTTEMP degF 120	CASED? Yes	CASEOD in 4.5
CASETHCK in 0.5	CASEWGHT lb/ft 11.6	LTH Sandstone	MSGGN 1	MudWgt lb/gal 8.34	PERFS 0	POROS1 1	POROS2 0
RHO�F 0.25	SO in 0	SRFTEMP degF 0	TDEPTH ft 0	UHSGC NONE	USERFTT usec/ft 0	ZREF MRayl 1.7	

Calibration Report		
Database File	ursa-tom-21b.db	
Dataset Pathname	pass1	
Dataset Creation	Tue Aug 30 20:44:45 2016	
Cement Bond Log Shop Calibration Report		
Serial-Model:	12091451-A	
Calibration Performed:	Tue Aug 30 10:10:25 2016	
Free Pipe Calibration		
TT	Measured	Units
	245.6	usec
Amplitude	573.8	mV
Log Base Line	7.6	mV
Calibration References and Gain		
Name	Value	Units
Pipe O.D.	4.500	in
Pipe Weight	11.6	lb/ft
Pipe Ref. Amp.	79.0	mV
Amp. Gain	0.120	
Reservoir Monitor Tool I Calibration Report		
Serial-Model:	11680597-A	
Shop Calibration Performed:	Sat Aug 27 17:21:57 2016	

Carbon/Oxygen Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	84.00	80.00	4.00	+/-15.00	V
ITCR2	3130	3250	-120	+/-250	cps
Near Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0278	5.69	<6.00
Fe	207	206 +/-2	0.0967	-----	-----
NGAIN = 0.992	NZOFF = 0.8				
Far Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0382	5.90	<6.50
Fe	209	208 +/-2	0.0926	-----	-----
FGAIN = 0.992	FZOFF = 0.8				
Flask Temperature	57.6 degF				

Result	Logged	Expected Value	Diff.	Tol.	Units
COIR2	0.44	0.45	-0.01	+/-0.02	
LIRI2	1.37	1.36	0.01	+/-0.05	
TCCR2	3766	4000	-234	+/-1000	cps
ITCR2	3102	3200	-98	+/-250	cps

Sigma Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	84.00	80.00	4.00	+/-15.00	V
FCAP	9744	10000	-256	+/-500	cps
Horizontal Water Tank					
Result	Logged	Expected Value	Diff.	Tol.	Units
N/F Normalizer	0.92	0.95	-0.03		
N/F Inel Norm	0.60	0.61	-0.01		
RNF	1.09	1.07	0.02	+/-0.12	
RINC	1.68	1.64	0.04	+/-0.18	
SGFN	24.13	24.00	0.13	+/-0.50	cu
SGFF	22.93	22.85	0.08	+/-0.50	cu
FSIN	23037	24000	-963	+/-2000	cps
FCAP	9704	10000	-296	+/-1000	cps
NFTR	0.80			<5.00	
FFTR	0.91			<5.00	
NBKG	216			<500	cps
FBKG	105			<500	cps
RTN	0.37	0.40	-0.03	+/-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 / 12105780
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SHOP CALIBRATION		Wed Aug 17 17:47:54 2016			
	Counts/Sec.	Gain	Offset	Jig	Units
Background	27.8				cps
Calibrator	295.2				cps
		1.3760			GAPI/cps
PRIMARY VERIFICATION					
Background	39.3				cps
Calibrator	407.7				cps
Difference				368.5	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	35.78		STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00	
			TTTCU-002 (12105780) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00	
GR	33.52		XHU-003 (000001) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00	
			RMTI-A (11680597) Halliburton RMTI Tool	14.00	2.13	77.00	
RmtTFGT	22.87		X-OVER-SondexxGo Sondex Box x Go Pin Cross Over	0.31	1.69	1.00	
RmtTNGT	22.37						
RmtFP5V	14.62		CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00	
			HCBLM-A (12091451) Halliburton HCBLM Tool	9.38	2.75	116.00	
Temp	9.49		CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00	
TT3FT	7.24		AUH-001 (000001) Adaptor Ultrawire/Halliburton	0.38	1.69	3.00	
AMP3FT	7.24		BUL-006 (000002) Bullnose Terminator	0.22	1.69	1.20	
WVF5FT	6.28						
WVF3FT	2.76						
LLMTEN	0.00						

Total weight: 356.20 lb
O.D.: 3.13 in

Company	URSA OPERATING CO., LLC.		
Well	TOMPKINS 21B-08-07-95		
Field	PARACHUTE		
County	GARFIELD	State	CO
HALLIBURTON	GAMMA RAY COLLAR		
	CEMENT BOND LOG		
	(GR-CBL)		