



**RADIAL CEMENT BOND  
GAMMA RAY  
CCL**


Company		KERR MCGEE OIL AND GAS	
Well		GUNZNER 22-13	
Field		WATTENBERG	
County		WELD	
State		CO	
Location:		API # : 05-123-29595	
SHL: 2190' FSL & 1957' FWL NE/SW		Other Services	
SEC 13 TWP 3N RGE 67W			
Permanent Datum		GL	Elevation
Log Measured From		KB 16'	4786'
Drilling Measured From		KB	Elevation
			K.B. 4802'
			D.F. 4801'
			G.L. 4786'
Date	1-23-2015		
Run Number	ONE		
Depth Driller	7540'		
Depth Logger	2036'		
Bottom Logged Interval	2027'		
Top Log Interval	SURFACE		
Open Hole Size	7.875		
Type Fluid	WATER		
Density / Viscosity	1.0		
Max. Recorded Temp.	86 DEG F		
Estimated Cement Top	588'		
Time Well Ready	N/A		
Time Logger on Bottom	N/A		
Equipment Number	4310		
Location	GREELEY		
Recorded By	N. BREHMER		
Witnessed By	C. EVERHART		
Borehole Record		Tubing Record	
Run Number	Bit	From	To
		Size	Weight
		From	To
Casing Record	Size	Wgt/Ft	Top
Surface String	8.63	24#	SURFACE
Prot. String			
Production String	4.5	11.6#	SURFACE
Liner			7528'

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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.

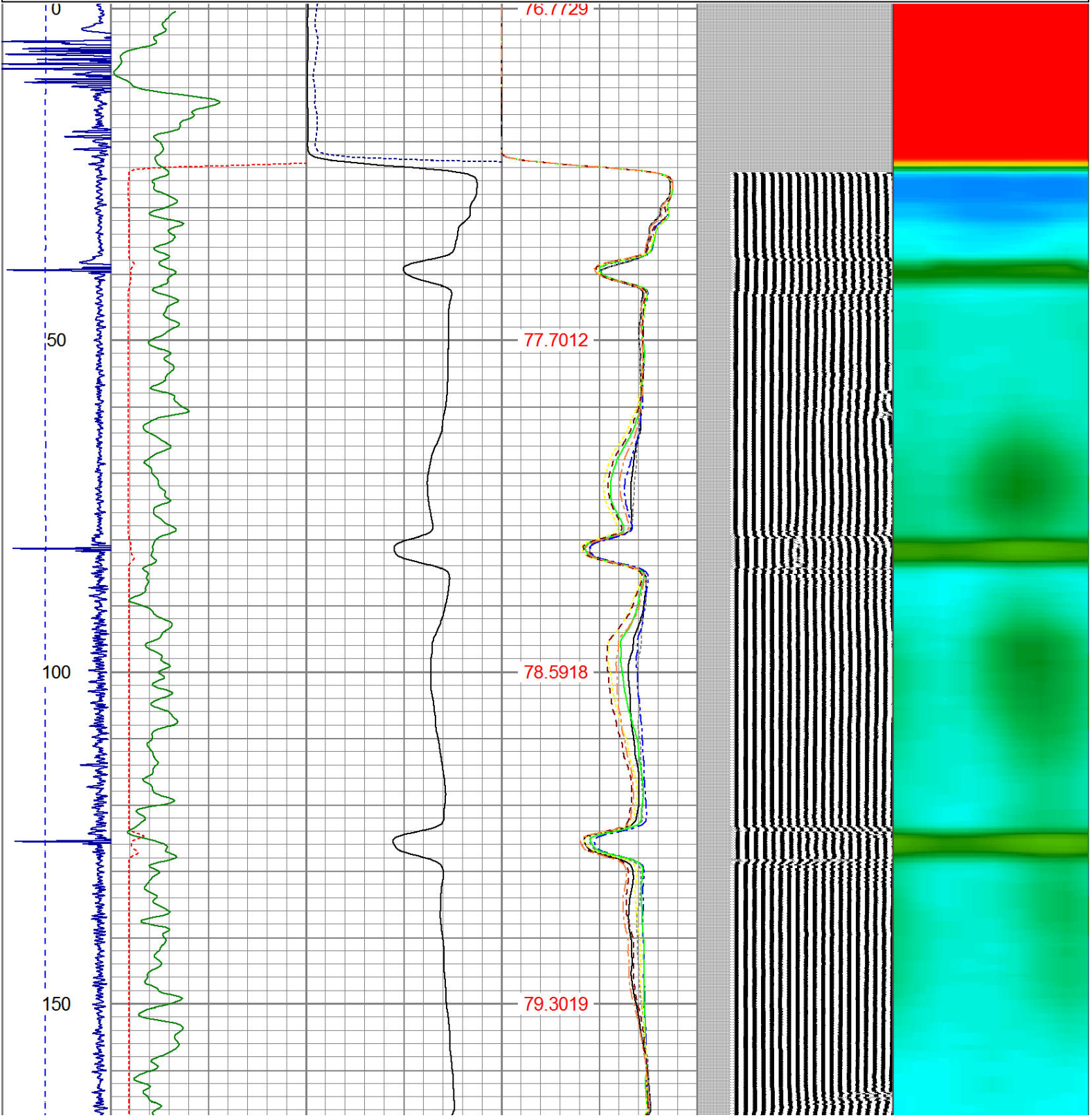
Comments

RAN CBL TO VERIFY CEMENT BOND  
HOLE WAS LOADED ON ARRIVAL FLUID@10'  
CALIBRATED FREE PIPE @30' ON WAY IN HOLE 81AMP  
  
THANK YOU FOR USING WARRIOR !!!!!!!

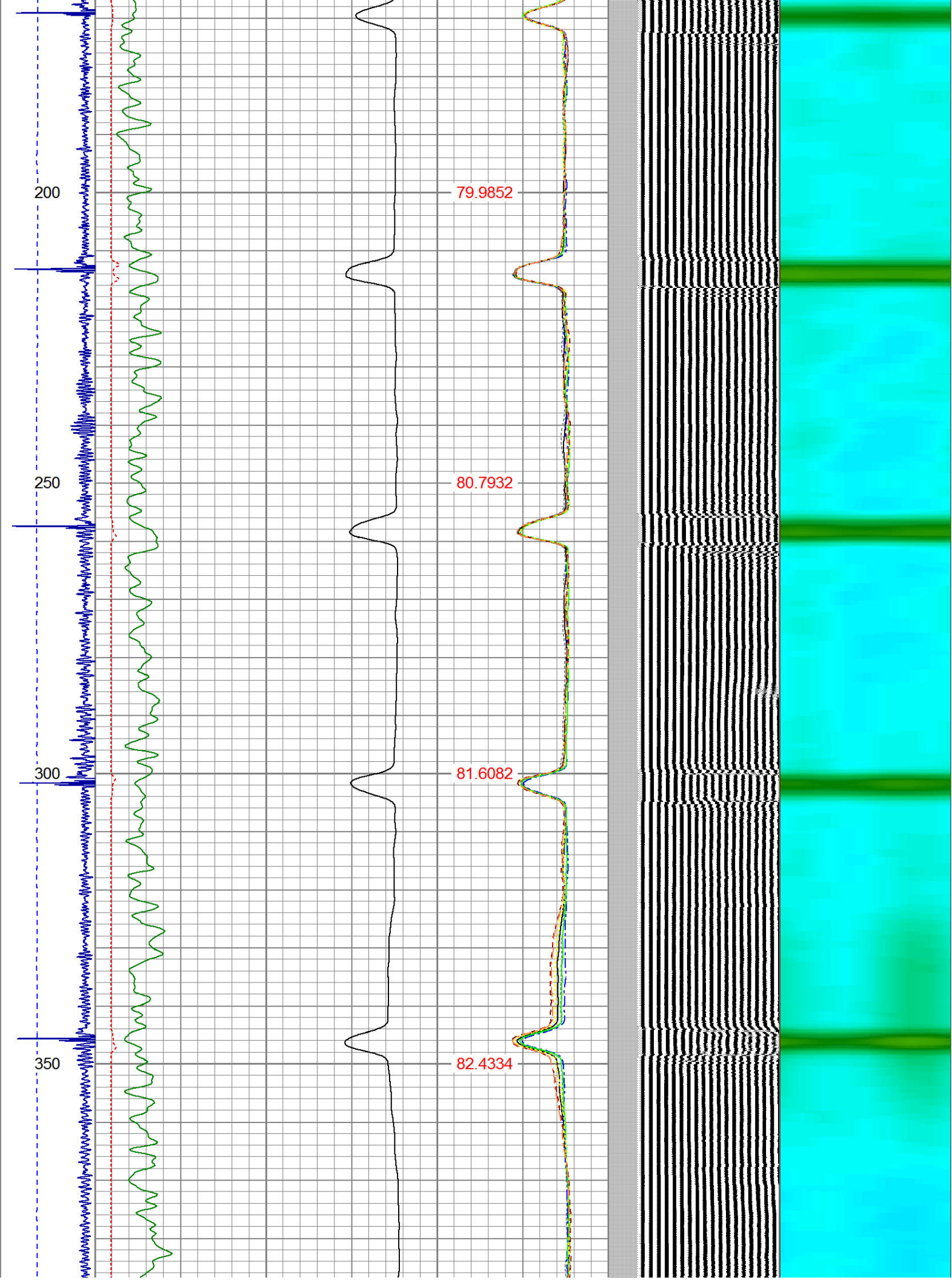
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1_4	1.00	1.36	5.00

				PTS275	2.83	2.75	
HEADVOLT	16.13						
IntTemp	14.71						
WVF3FT	11.46			RBT-Probe (Base)	8.92	2.75	90.00
WVFCAL	11.46			Probe Radii Bond Tool with Digital Telemetry			
WVFS1	11.46						
WVFS2	11.46						
WVFS3	11.46						
WVFS4	11.46						
WVFS5	11.46						
WVFS6	11.46						
WVFS7	11.46						
WVFS8	11.46						
WVF5FT	10.46						
CNLSC	6.00			CNT-Probe_B (275)	2.88	2.75	40.00
CNSSC	5.17			6 bow centralizer			
CCL	3.64						
				GR-Probe (275)	4.33	2.75	30.00
				Probe 2.75"			
GR	0.90						
Dataset: gunzner 22-13.db: field/well/run1/pass2 Total Length: 19.96 ft Total Weight: 165.00 lb O.D. 2.75 in							

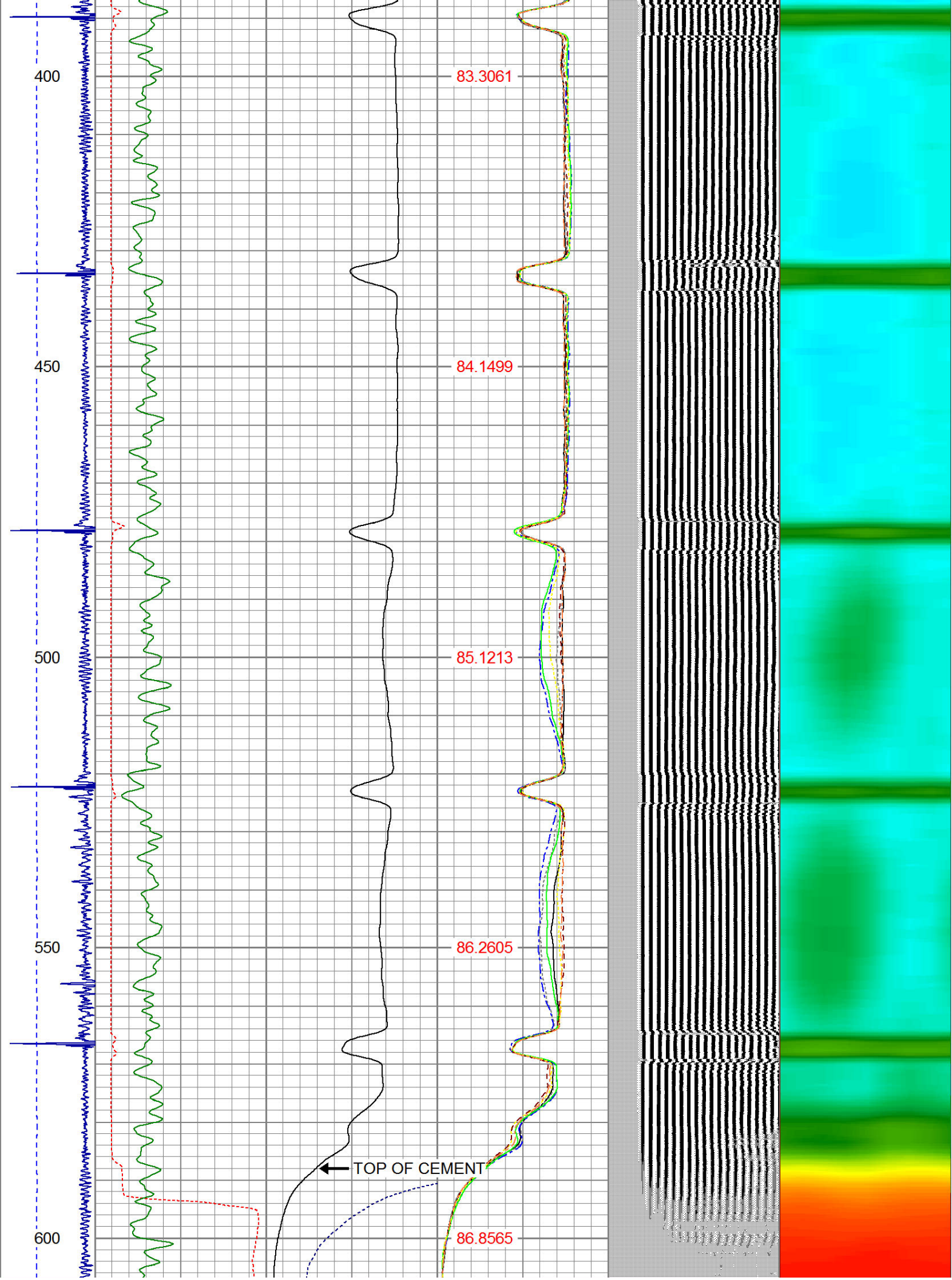
-9	CCL	1	200	TT (usec)	950	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8
LSPD			0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPS2	100				1		100
(ft/min)			200	GR (GAPI)	400				0	AMPS4	100						
0		250							0	AMPS5	100						
									0	AMPS6	100						
									0	AMPS7	100						
									0	AMPS8	100						
										IntTemp							
										(degF)							



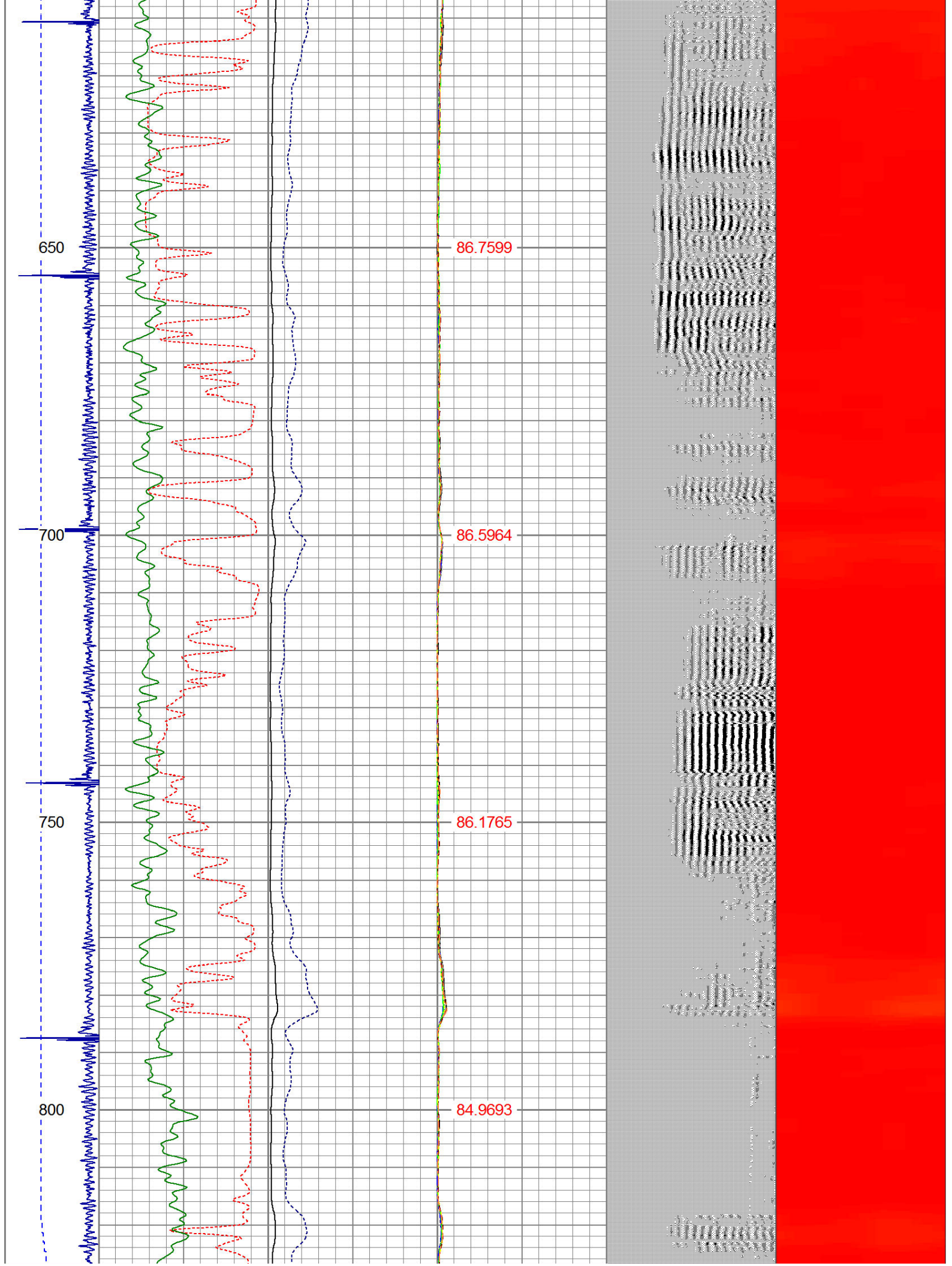




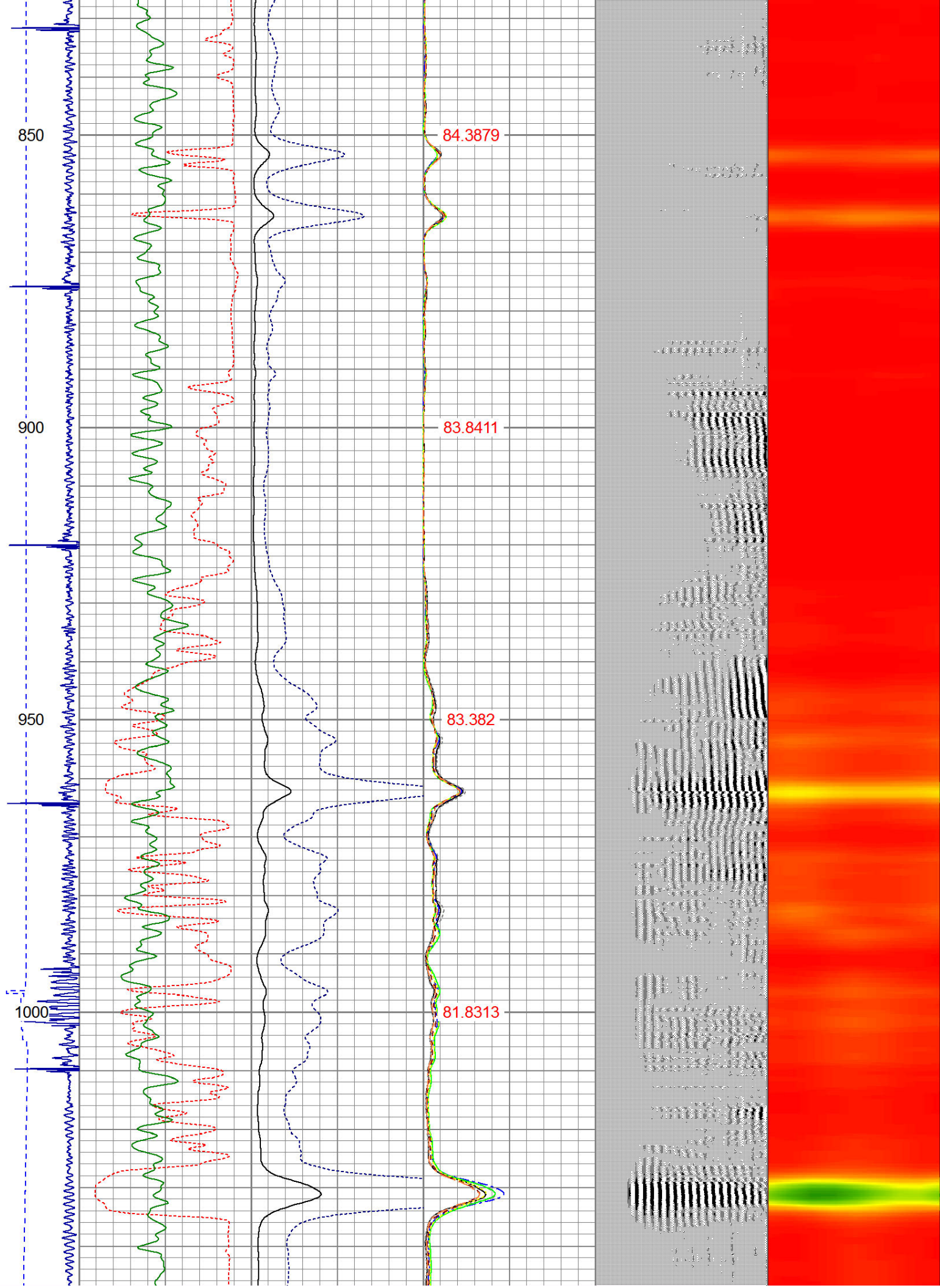




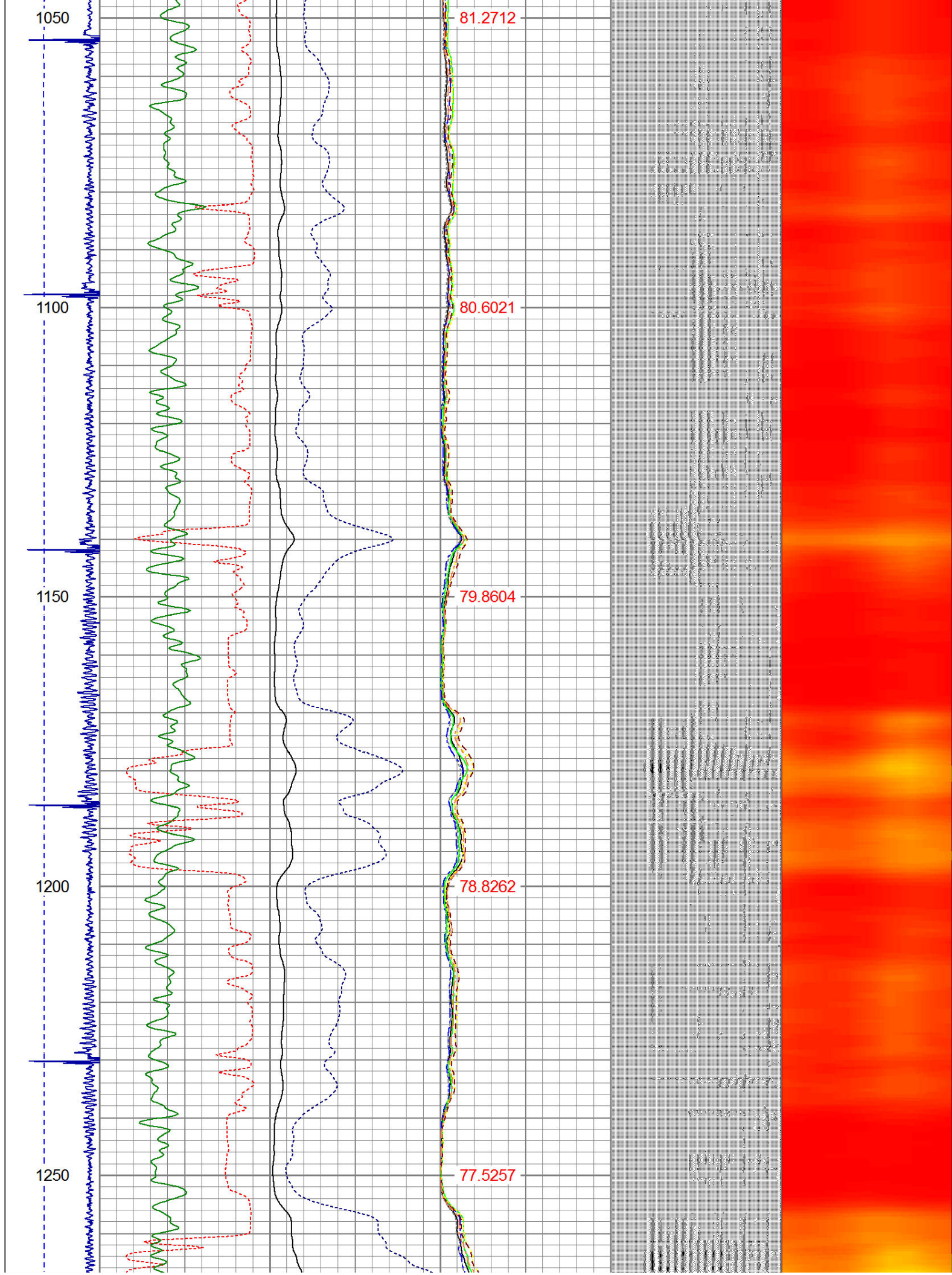




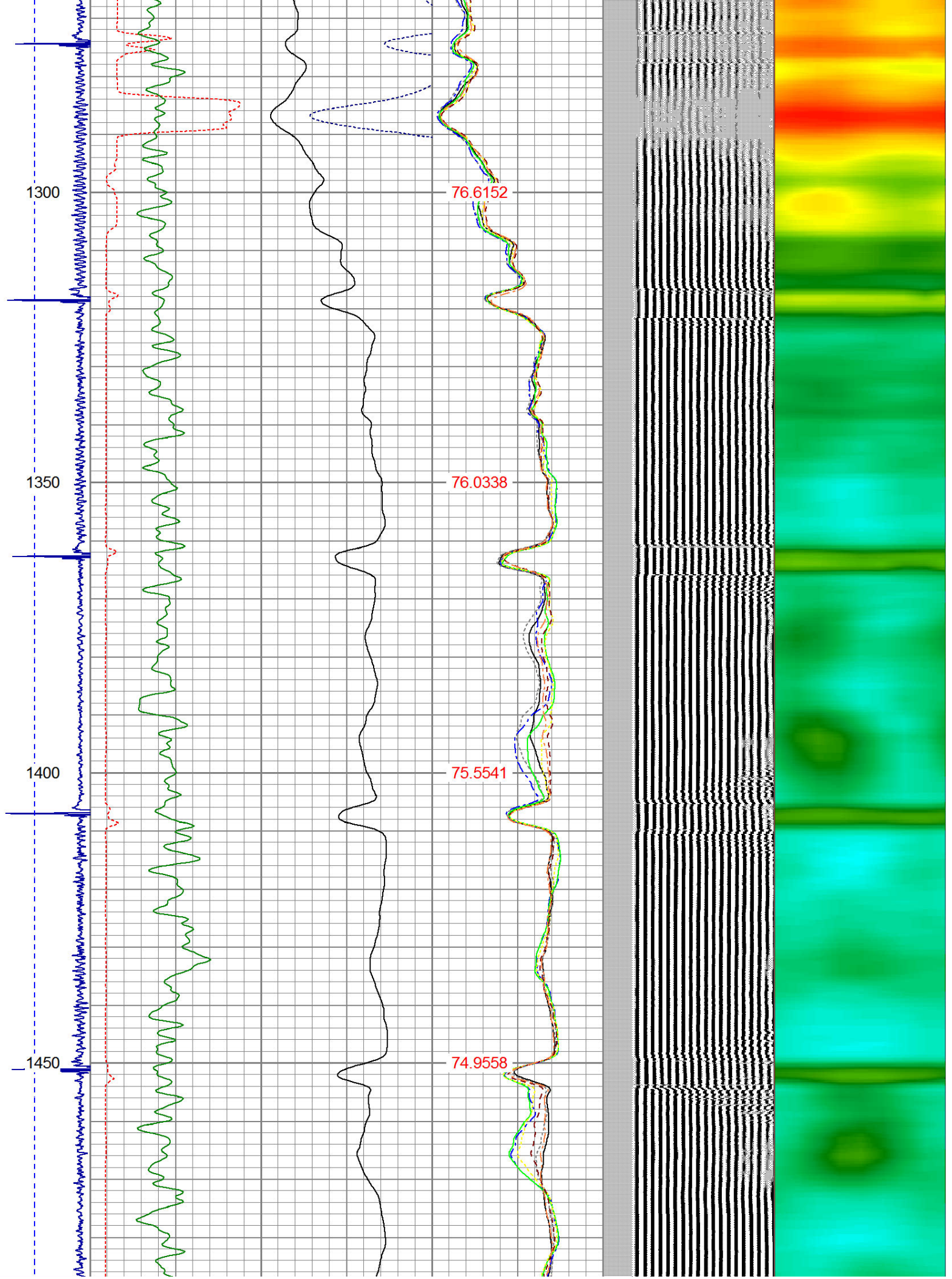




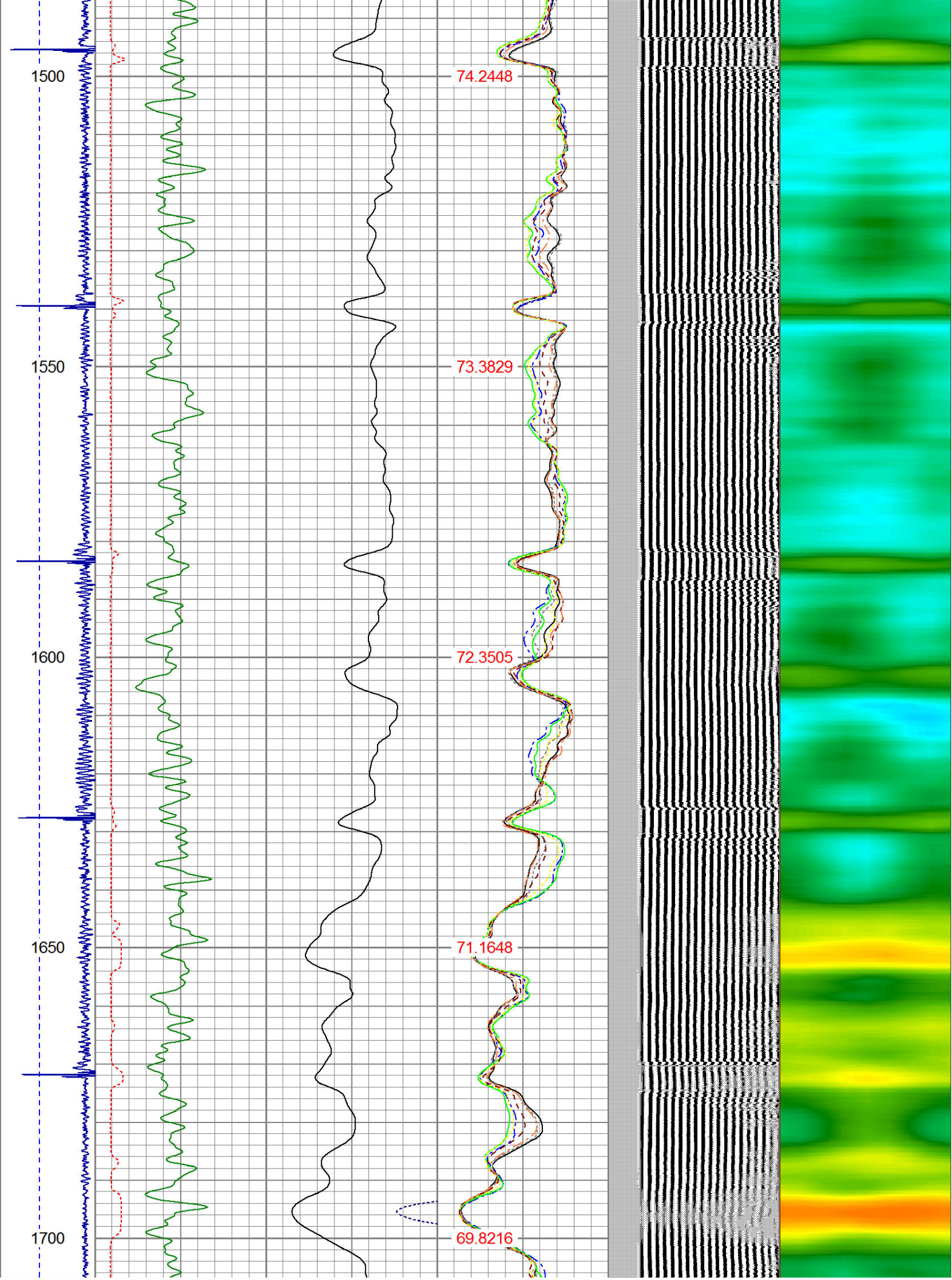




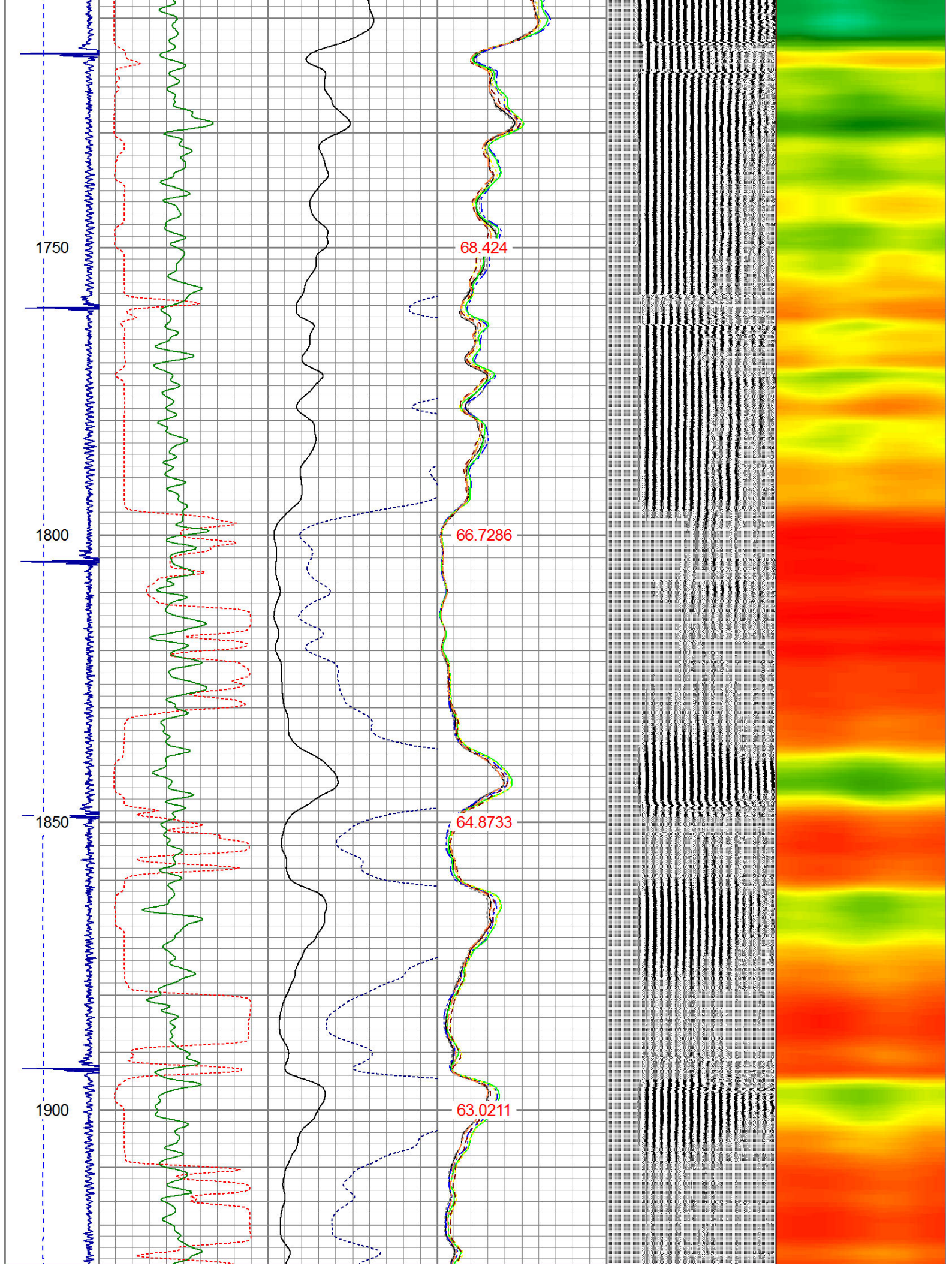




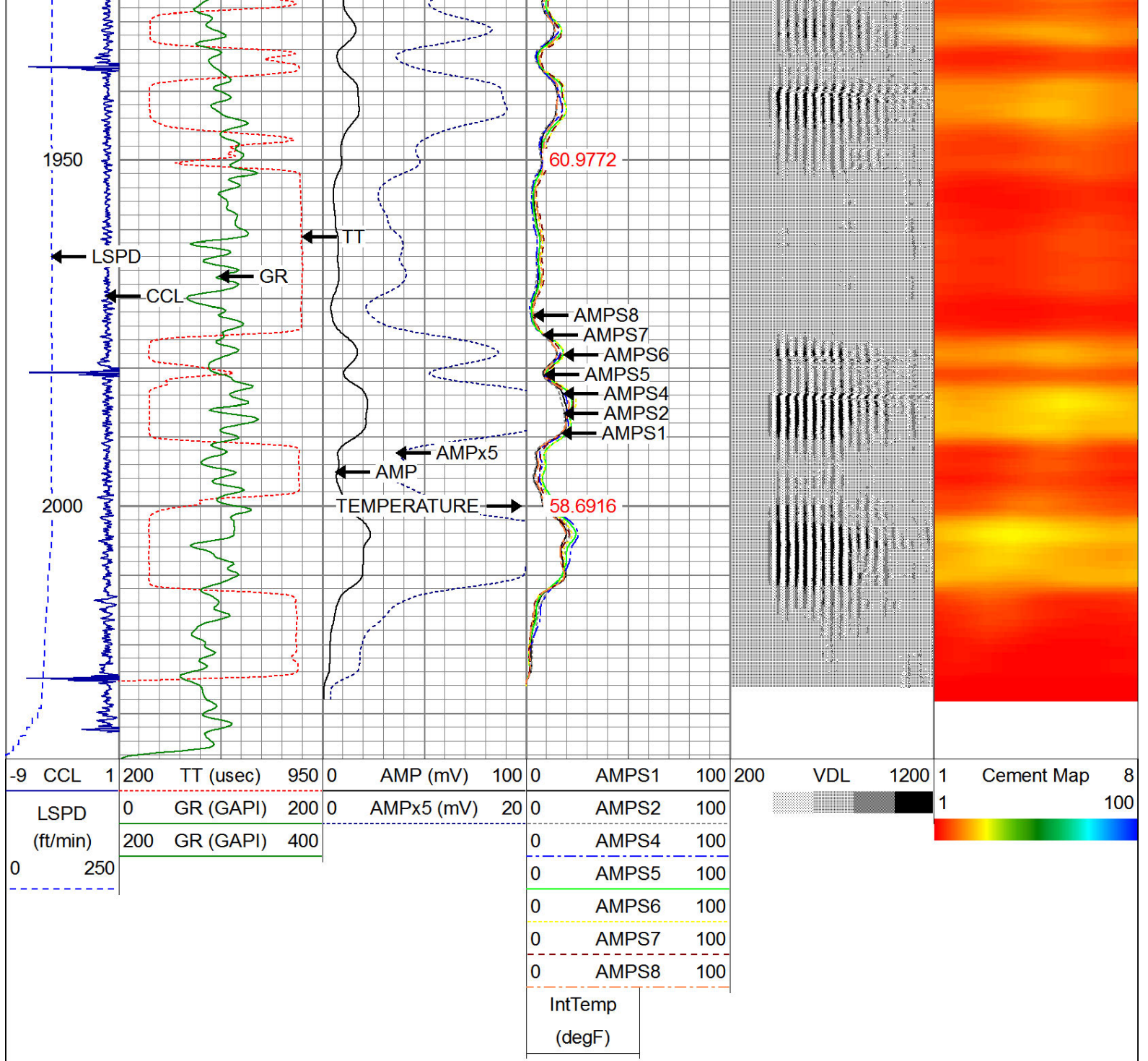












**WARRIOR**  
ENERGY SERVICES

Company KERR McGEE OIL AND GAS

Well GUNZNER 22-13

Field WATTENBERG

County WELD

State CO