



**RADIAL CEMENT BOND
GAMMA RAY
CCL**

Company		KERR MCGEE OIL AND GAS					
Well		MARTIN T HART "E" GAS UNIT #1					
Field		WATTENBERG					
County		WELD					
State		CO					
Location:		API # : 05-123-08464					
Permanent Datum		GL					
Log Measured From		KB 10'					
Drilling Measured From		KB					
SEC 27		TWP 2N					
RGE 67W		Elevation 5009'					
Other Services		K.B. 5019' D.F. 5018' G.L. 5009'					
Date		3-31-14					
Run Number		ONE					
Depth Driller		8116'					
Depth Logger		2061'					
Bottom Logged Interval		2058'					
Top Log Interval		138'					
Open Hole Size		7.875					
Type Fluid		WATER					
Density / Viscosity		1.0					
Max. Recorded Temp.		88					
Estimated Cement Top		340'					
Time Well Ready		N/A					
Time Logger on Bottom		N/A					
Equipment Number		4310					
Location		GREELEY					
Recorded By		N. BREHMER					
Witnessed By		R. SMITH					
Borehole Record		Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size			Wgt/Ft		Top	Bottom
Surface String	8.63			24#		0	730'
Prot. String							
Production String	5.5			15.5#817#		0	TD
Liner							

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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.

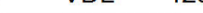

Comments

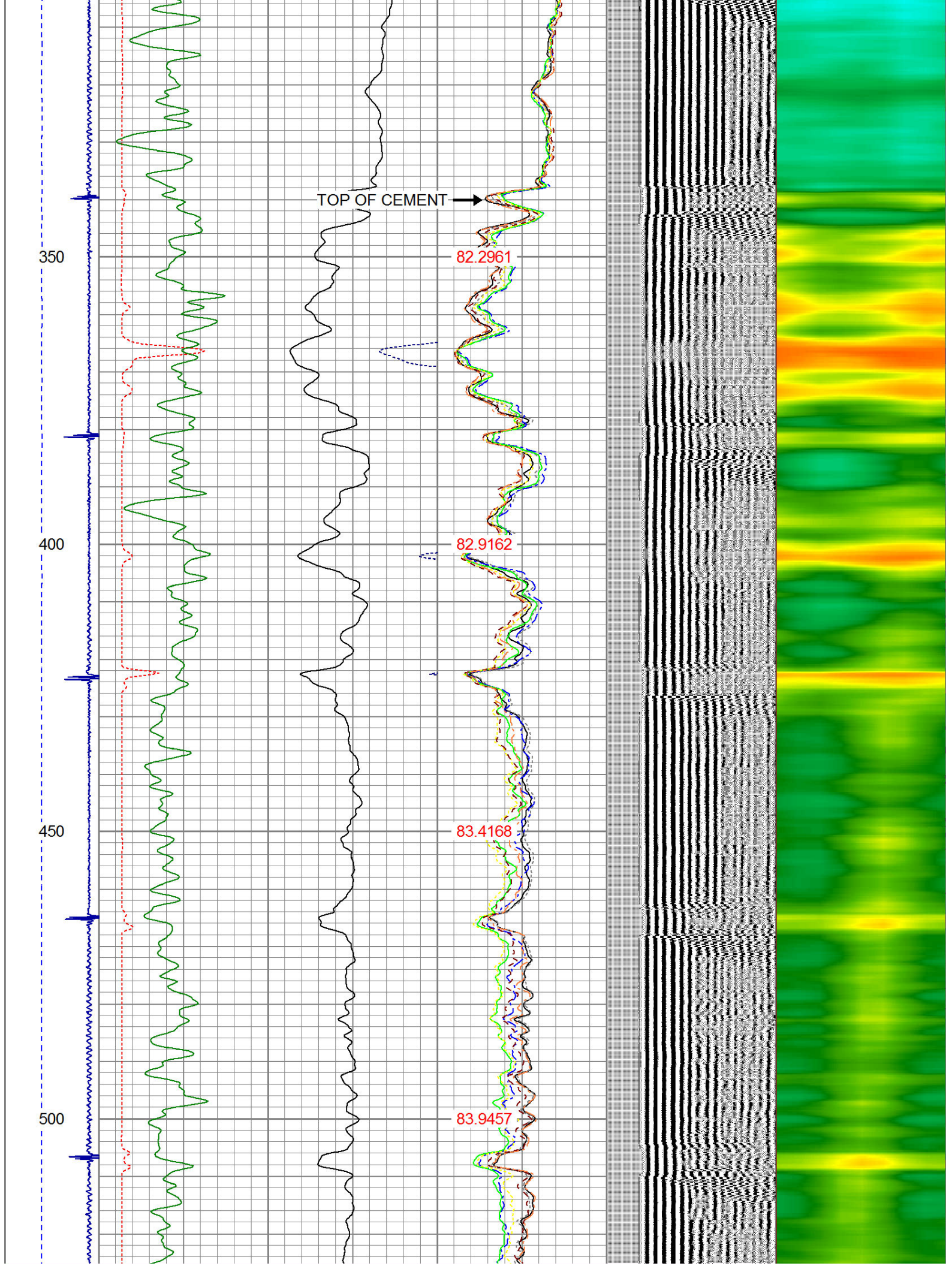
TIED INTO DV TOOL ON PREVIOUSLY RUN LOG
RAN CBL TO VERIFY CEMENT BOND

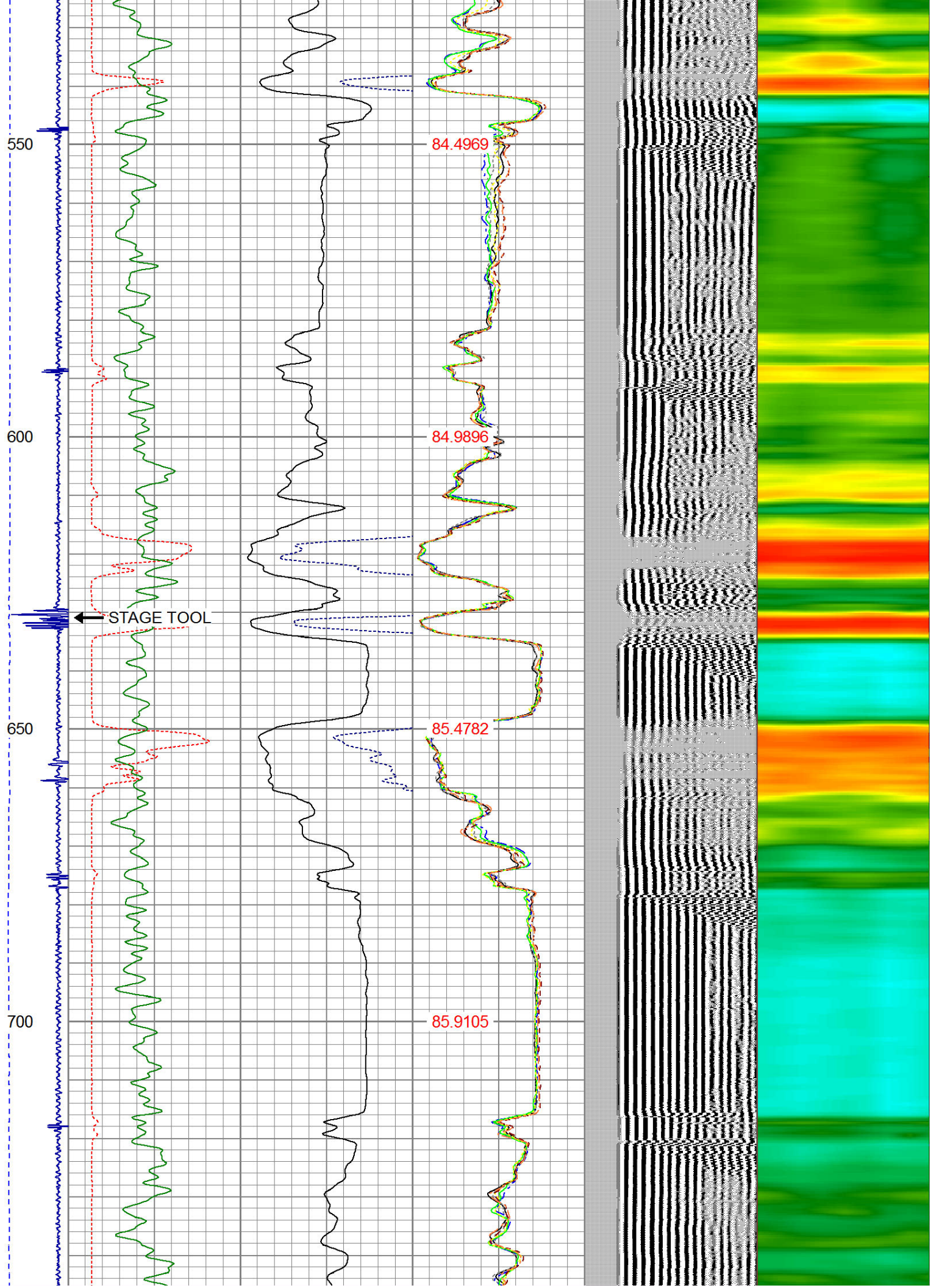
THANK YOU FOR USING WARRIOR !!!!!!!

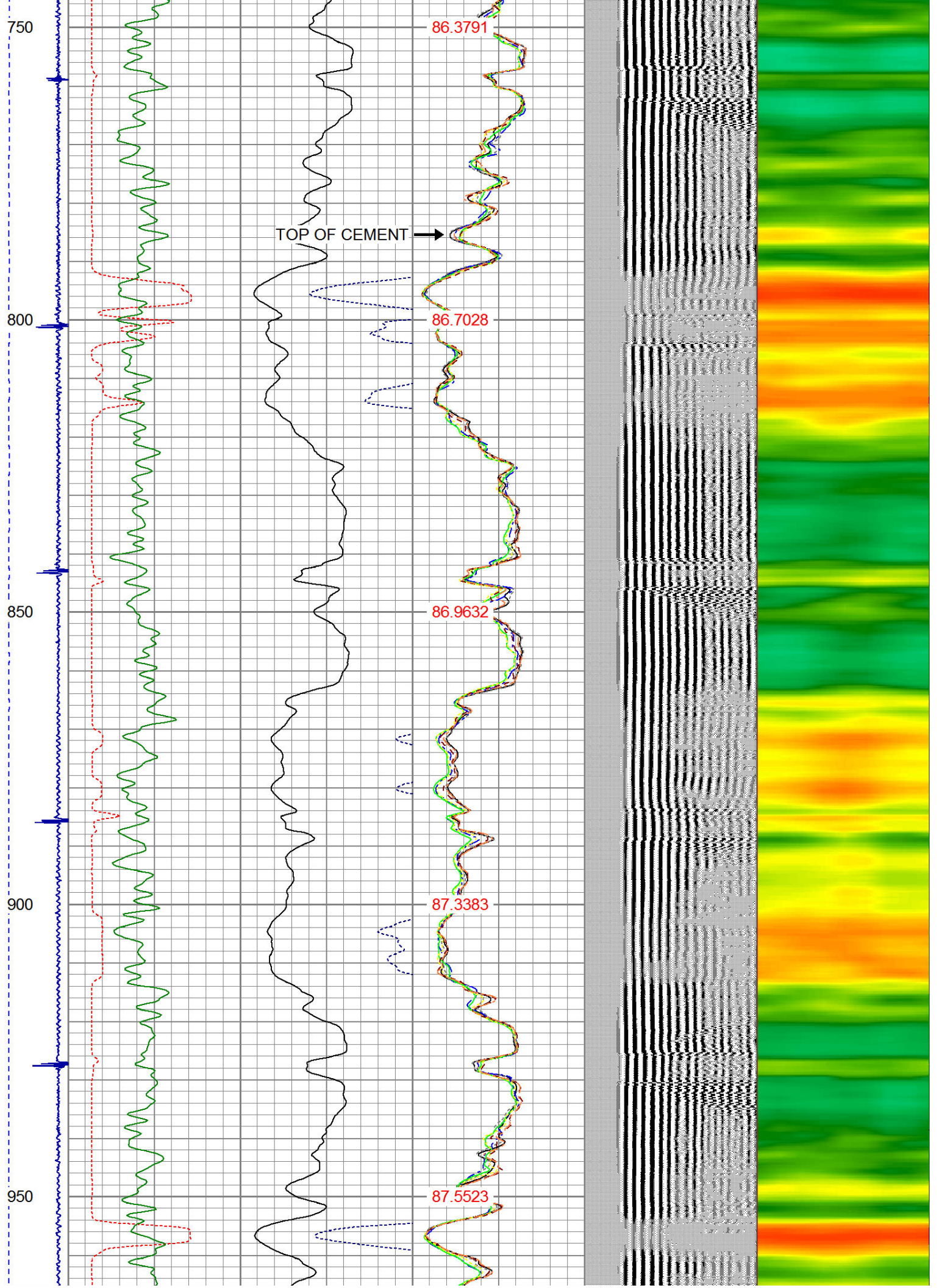
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)

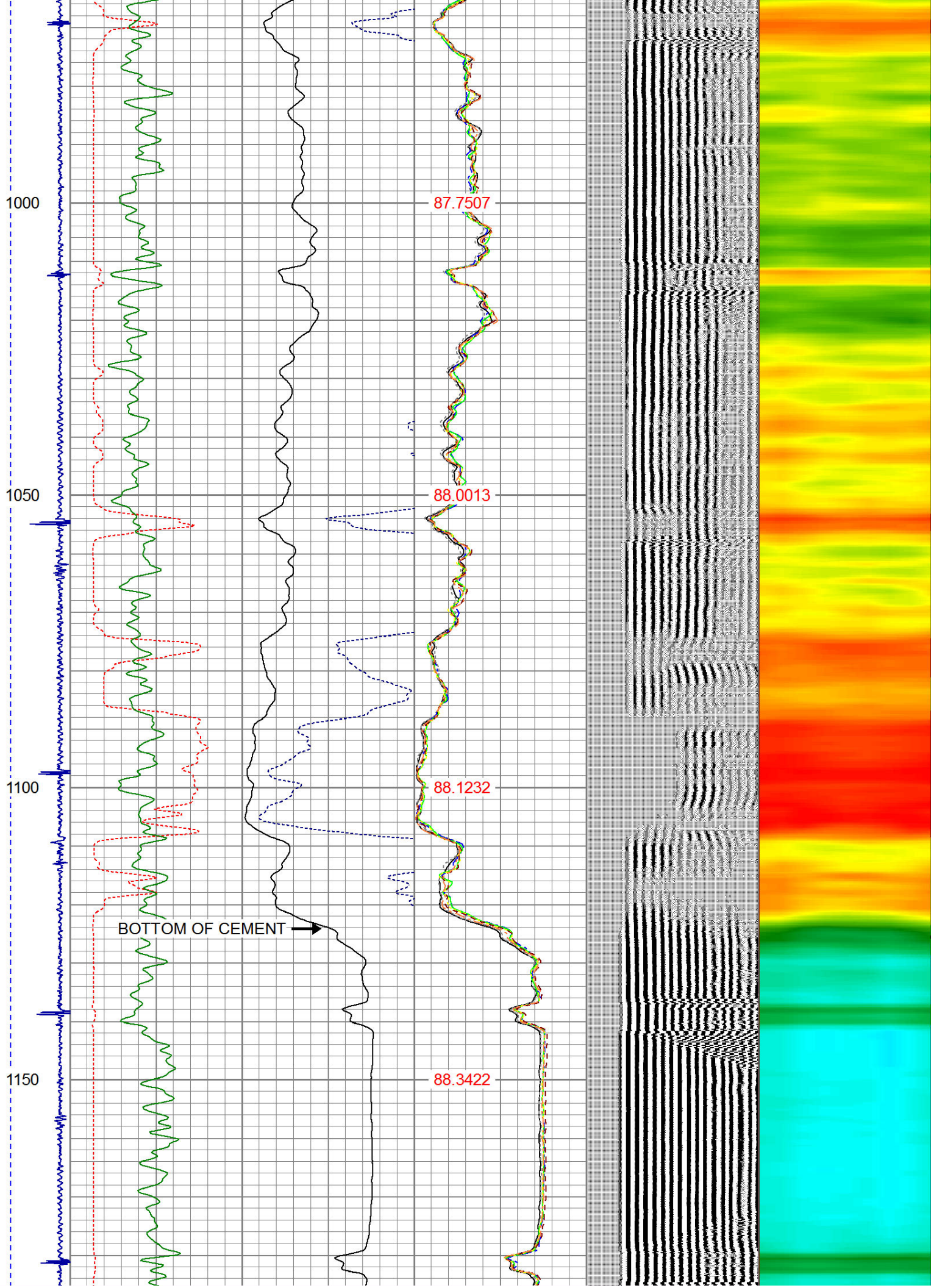
			PTS275	2.83	2.75	
HEADVOLT	16.13					
IntTemp	14.71					
WVF3FT	11.46		RBT-Probe (Base)	8.92	2.75	90.00
WVFCAL	11.46		Probe Radii Bond Tool with Digital Telemetry			
WVFS1	11.46					
WVFS2	11.46					
WVFS3	11.46					
WVFS4	11.46					
WVFS5	11.46					
WVFS6	11.46					
WVFS7	11.46					
WVFS8	11.46					
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: martin t hart e gas unit #1.db: field/well/run1/pass4 Total Length: 18.96 ft Total Weight: 160.00 lb O.D. 2.75 in						

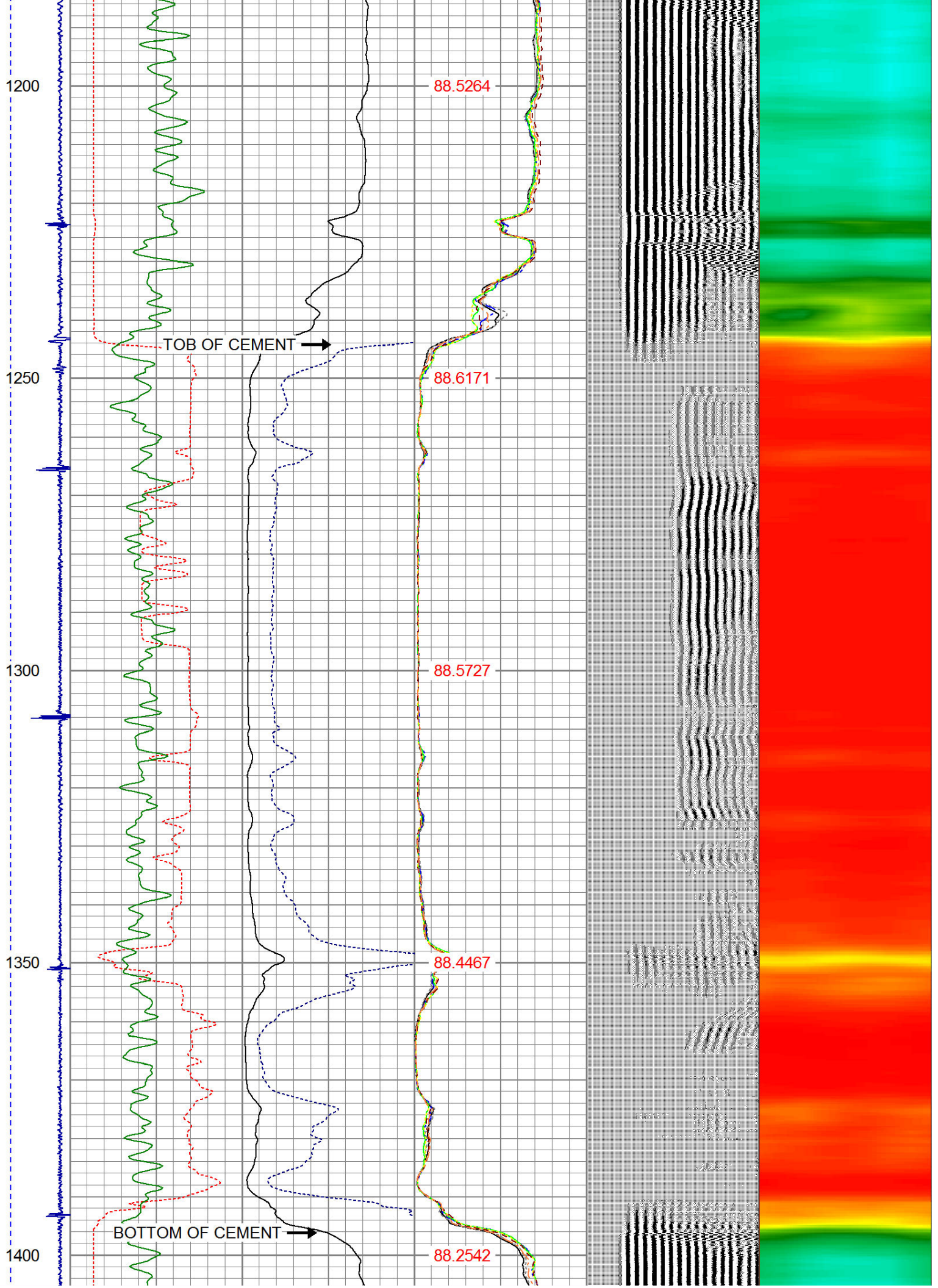
-9	CCL	1	200	TT (usec)	1000	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8
LSPD (ft/min)			0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPS2	100				1		
			200	GR (GAPI)	400				0	AMPS4	100						
0	250							0	AMPS5	100							
									0	AMPS6	100						
									0	AMPS7	100						
									0	AMPS8	100						
									IntTemp (degF)								

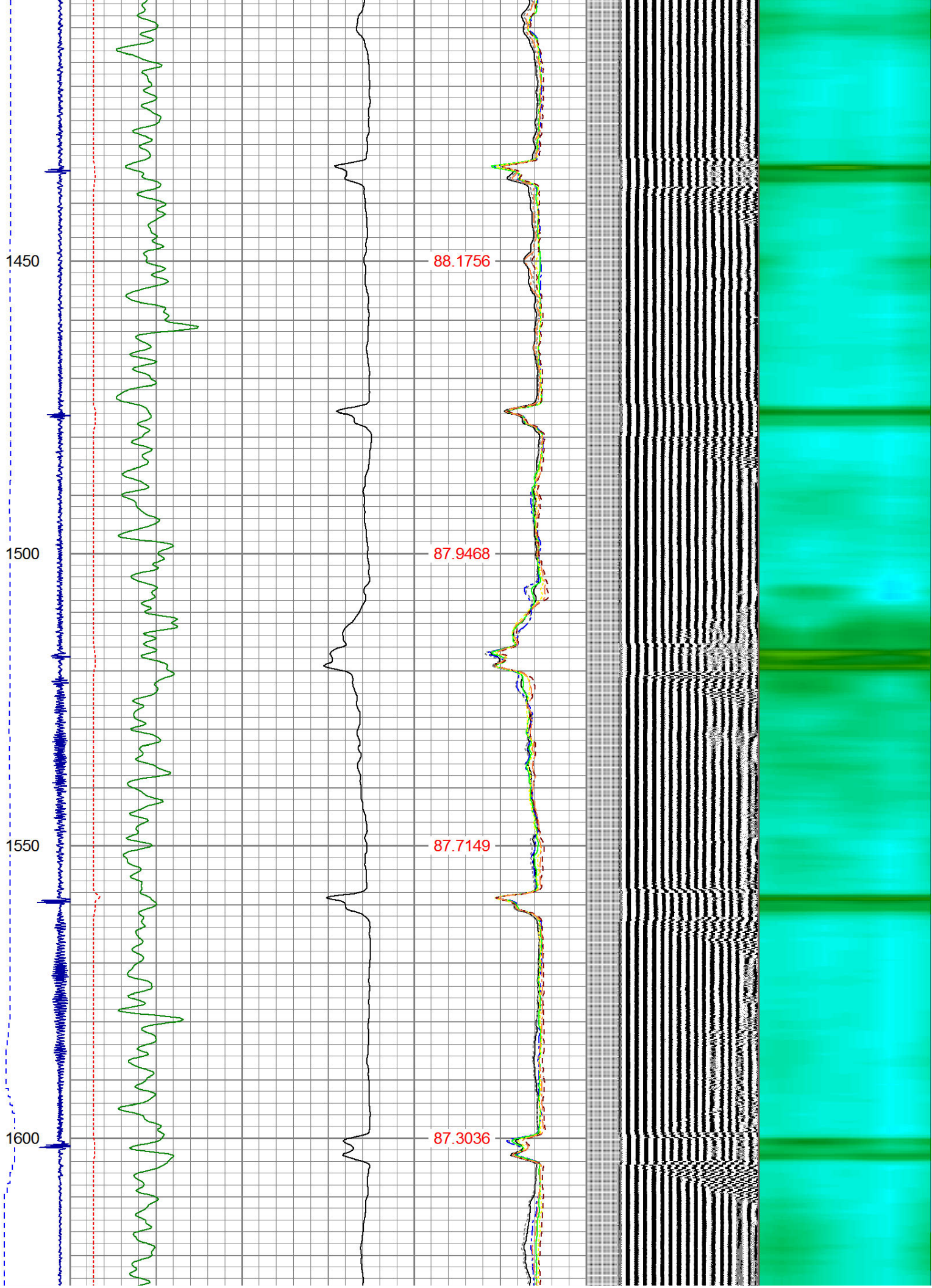


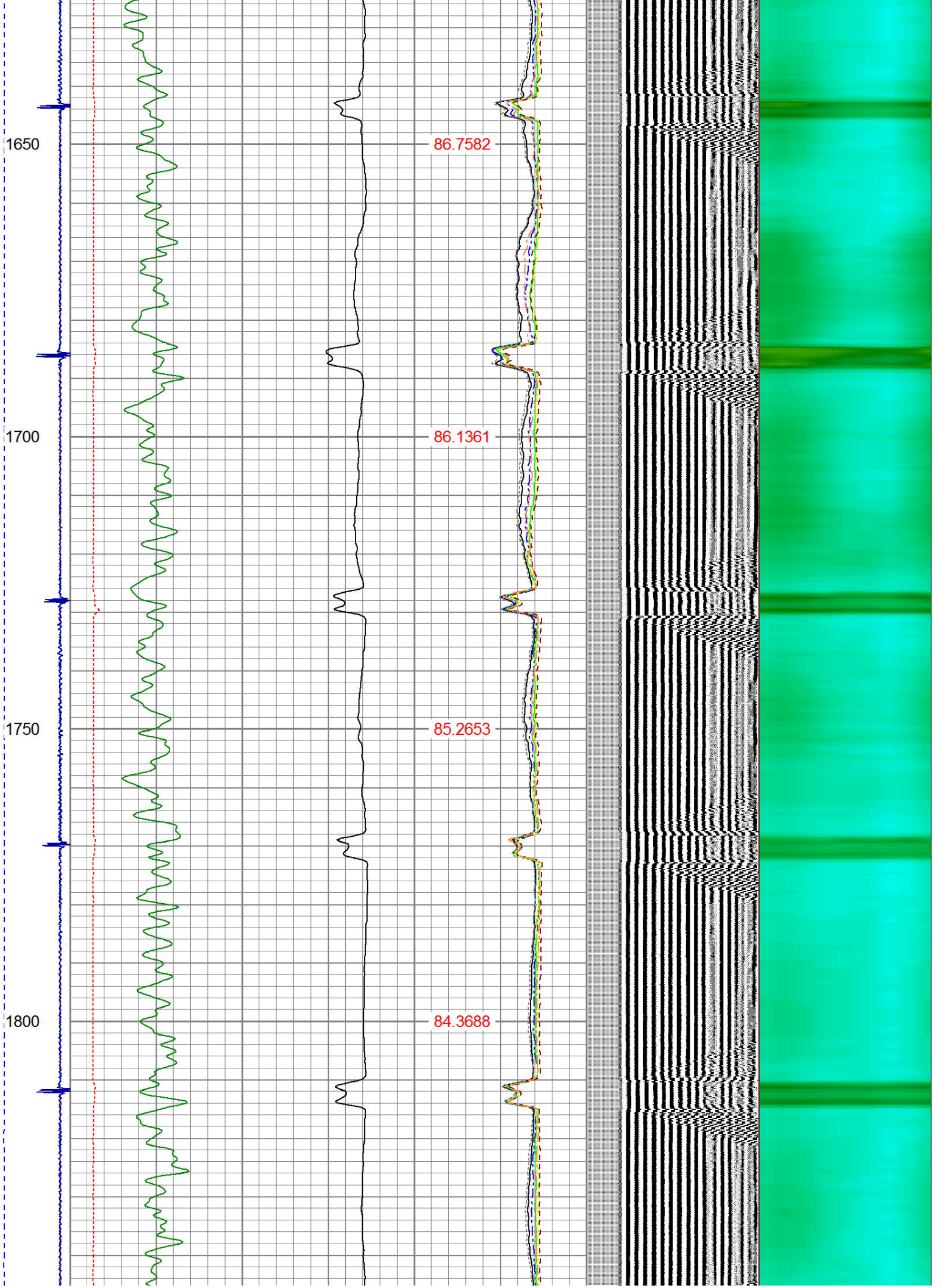












1850
1900
1950
2000
2050

83.2923
82.0812
80.5885
78.9693
76.8825

TEMPERATURE

LSPD

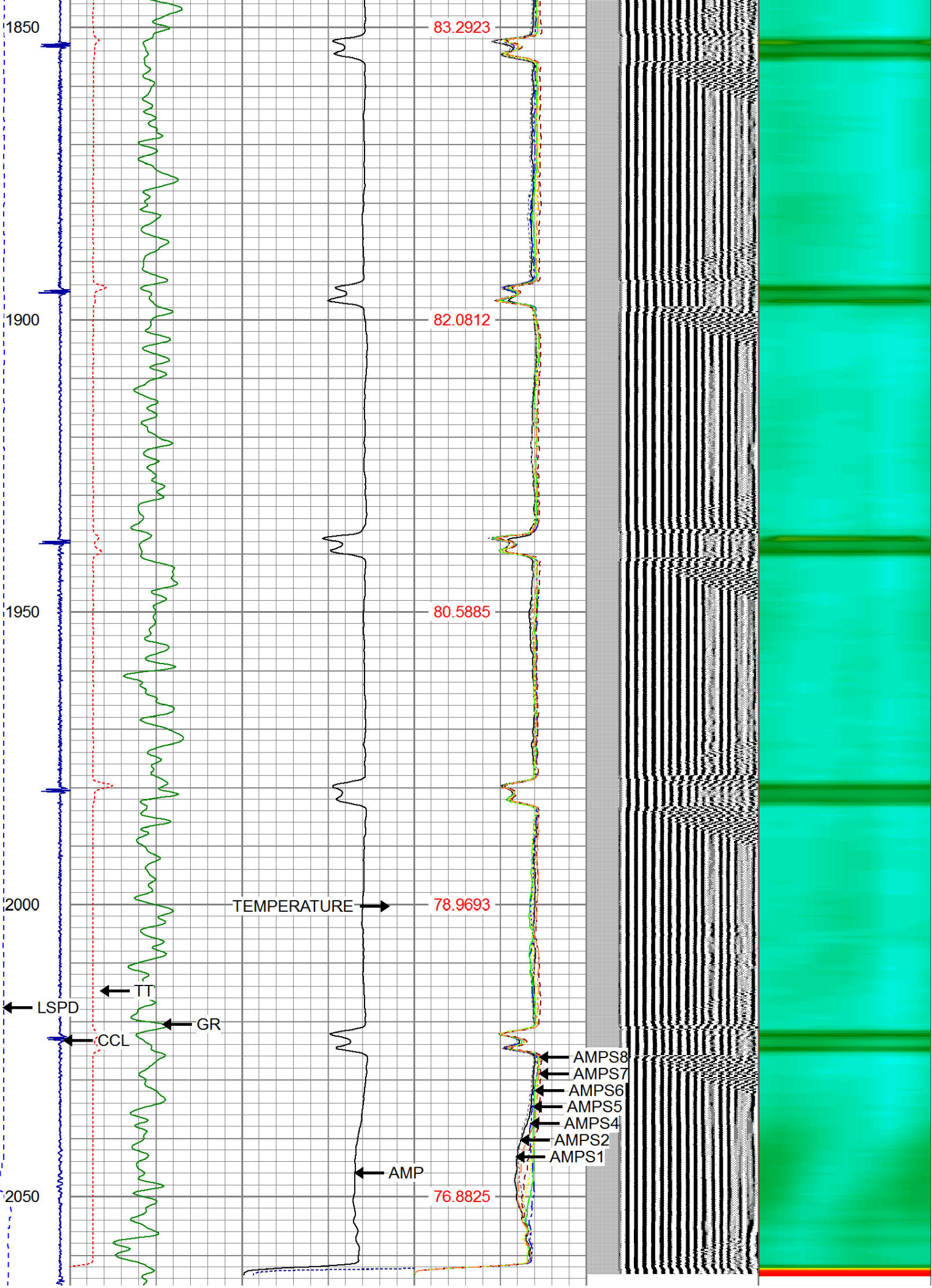
TT

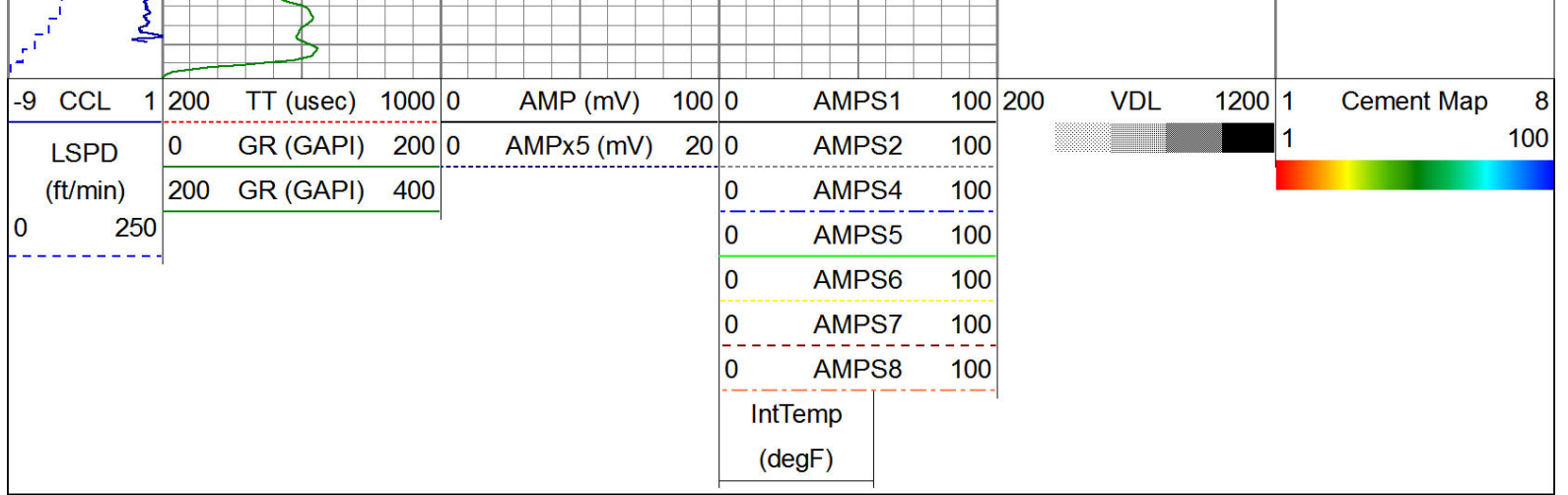
GR

CCL

AMP

AMPS8
AMPS7
AMPS6
AMPS5
AMPS4
AMPS2
AMPS1





WARRIOR
ENERGY SERVICES

Company KERR McGEE OIL AND GAS
Well MARTIN T HART "E" GAS UNIT #1
Field WATTENBERG
County WELD
State CO