

**RADIAL CEMENT BOND
GAMMA RAY
CCL**

Company	ANADARKO PETROLEUM CORPORATION		
Well	GOLDSMITH 11-31		
Field	WATTENBERG		
County	WELD	State	CO
Location:	API # : 05-123-16696 NE/SW LAT:40.26590 & LONG: -104.82230		Other Services
Permanent Datum	GL	Elevation	4771'
Log Measured From	KB 10'		
Drilling Measured From	KB		
Date	1-7-2016		
Run Number	ONE		
Depth Driller	7430'		
Depth Logger	1521'		
Bottom Logged Interval	1512'		
Top Log Interval	SURFACE		
Open Hole Size	7.875		
Type Fluid	WATER		
Density / Viscosity	1.0		
Max. Recorded Temp.	92 DEG F		
Estimated Cement Top	155'		
Time Well Ready	N/A		
Time Logger on Bottom	N/A		
Equipment Number	4310		
Location	GREELEY		
Recorded By	N. BREHMER		
Witnessed By	T. DEAL		
Borehole 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			7401'


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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

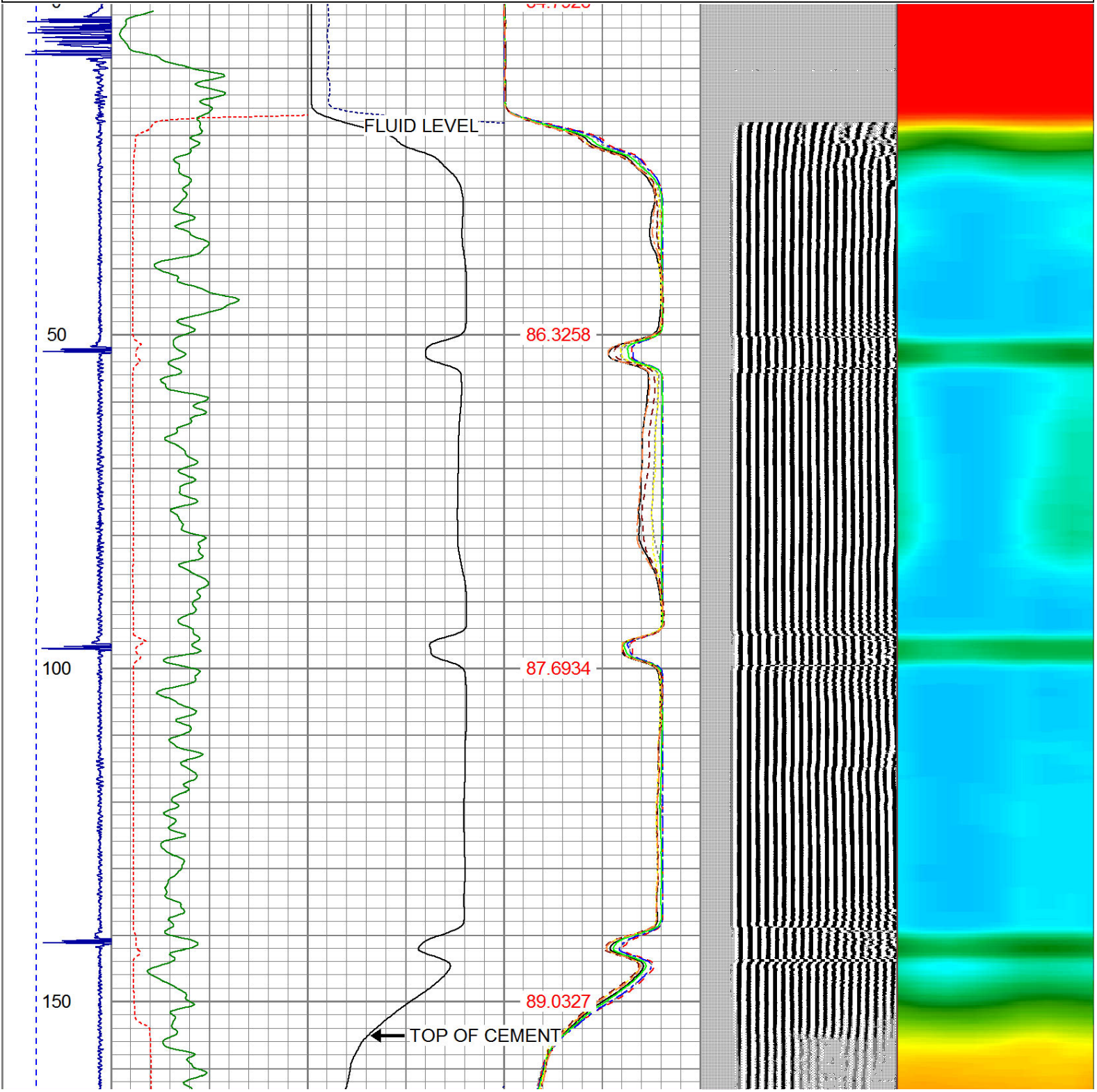
RAN CBL TO VERIFY CEMENT BOND
HOLE WAS LOADED NIGHT BEFORE LOG
LOG RAN OFF K.B. DEPTH 10'
CALIBRATED FREE PIPE @1510', 81mA IN 4.5"

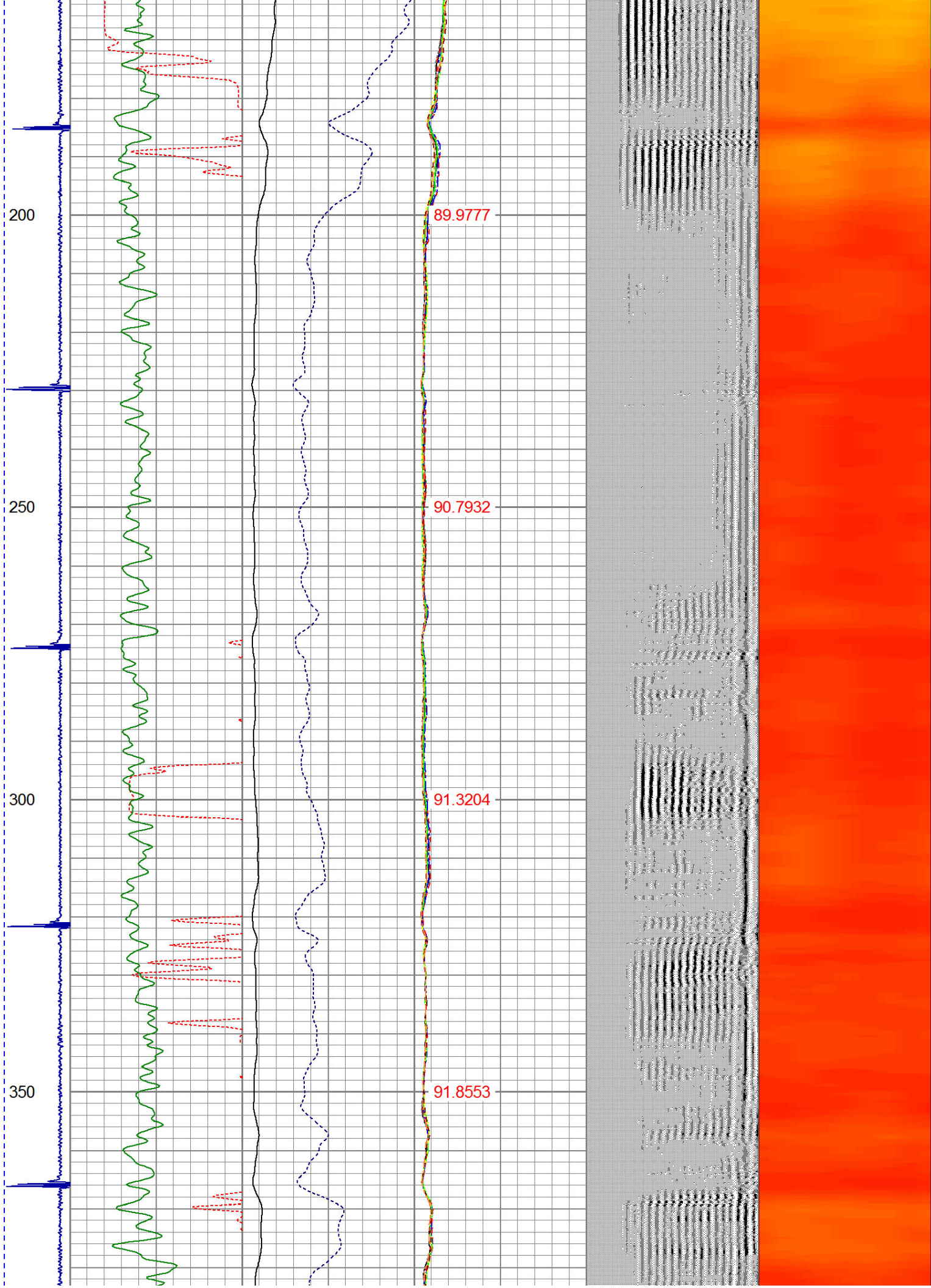
THANK YOU FOR USING WARRIOR !!!!!!!

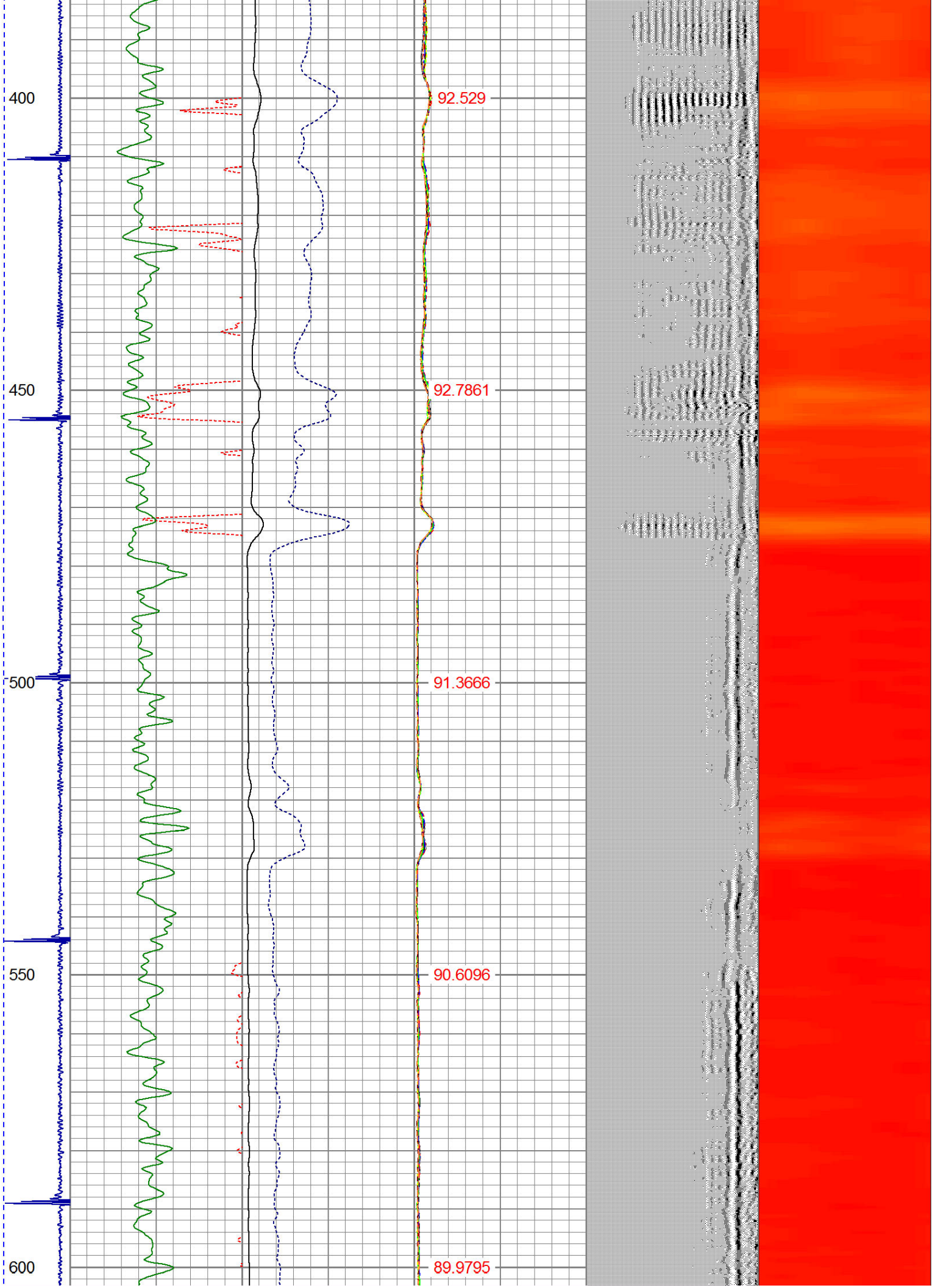
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1_4	1.00	1.36	5.00

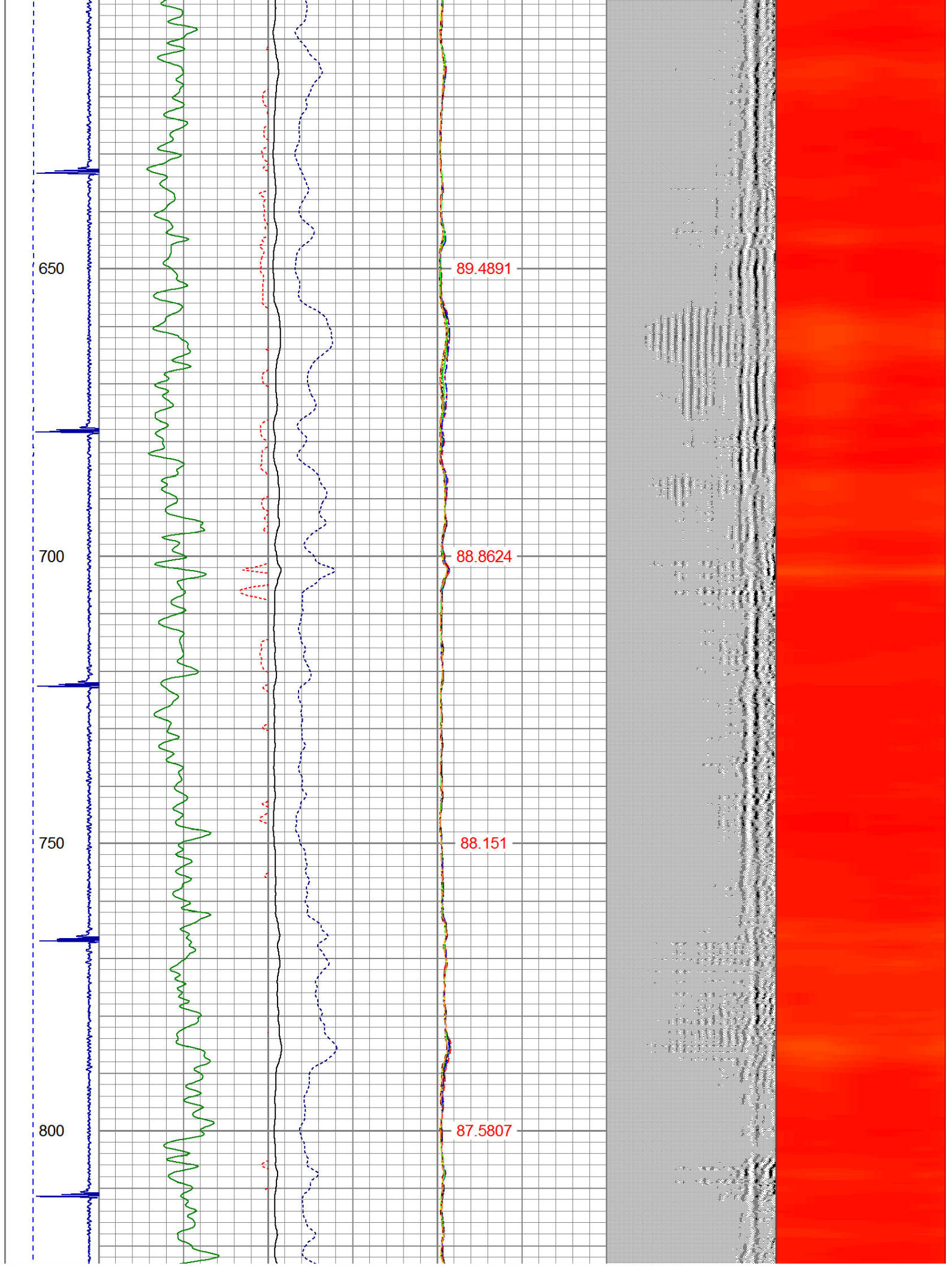
				PTS275	2.83	2.75	
HEADVOLT	16.13						
IntTemp	14.71						
WVF3FT	11.46			RBT-Probe (Base)	8.92	2.75	90.00
WVFCAL	11.46			Probe Radii Bond Tool with Digital Telemetry			
WVFS1	11.46						
WVFS2	11.46						
WVFS3	11.46						
WVFS4	11.46						
WVFS5	11.46						
WVFS6	11.46						
WVFS7	11.46						
WVFS8	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: hrs-goldsmith 11-31.db: field/well/run1/pass3 Total Length: 19.96 ft Total Weight: 165.00 lb O.D. 2.75 in							

-9	CCL	1	200	TT (usec)	800	0	AMP (mV)	100	0	AMPS1	100	200	VDL	1200	1	Cement Map	8			
LSPD (ft/min)	0	250	0	GR (GAPI)	200	0	AMPx5 (mV)	20	0	AMPS2	100				1		100			
			200	GR (GAPI)	400				0	AMPS3	100									
									0	AMPS4	100									
									0	AMPS5	100									
									0	AMPS6	100									
									0	AMPS7	100									
									0	AMPS8	100									
									IntTemp (degF)											









850

86.6903

900

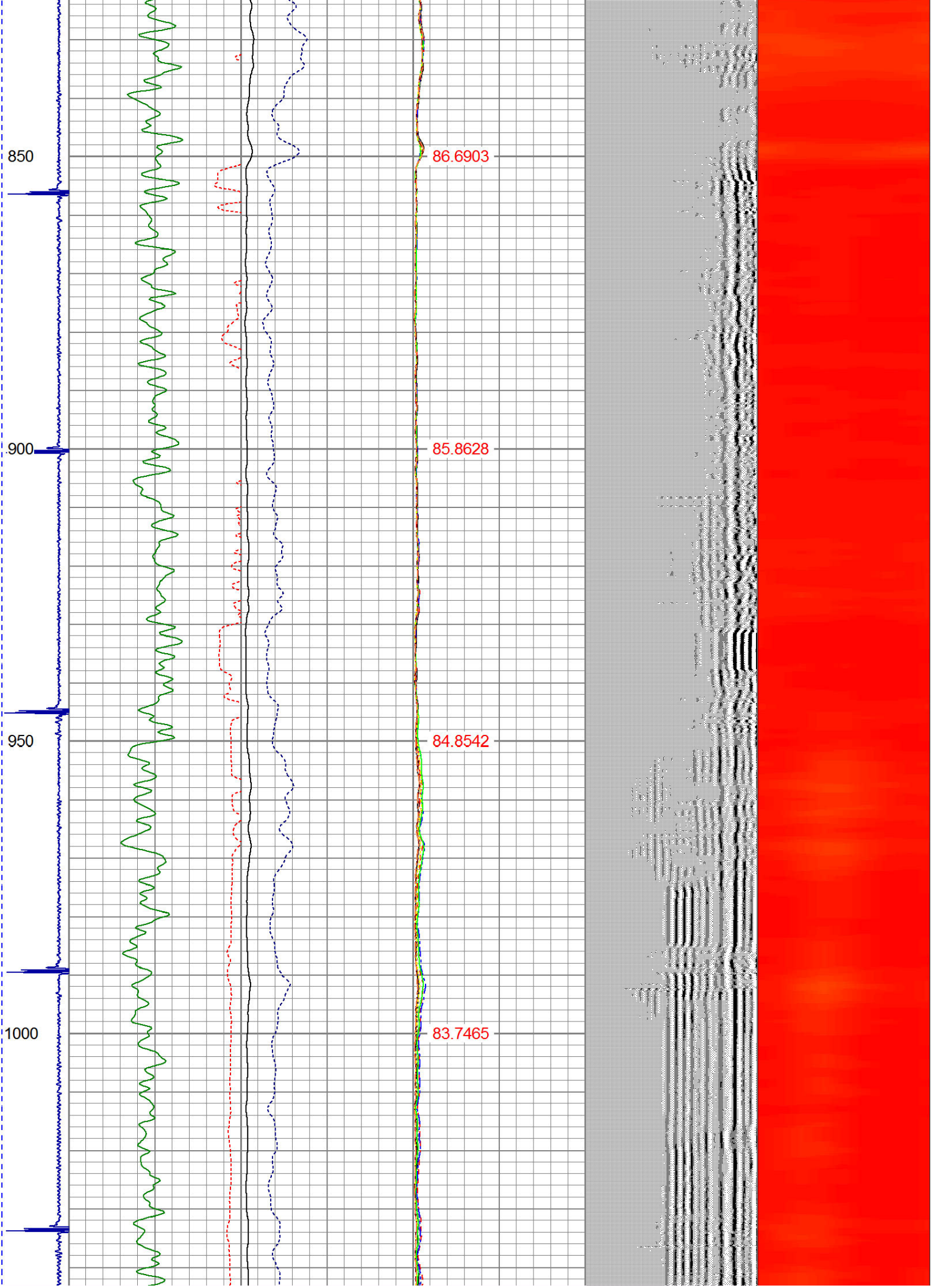
85.8628

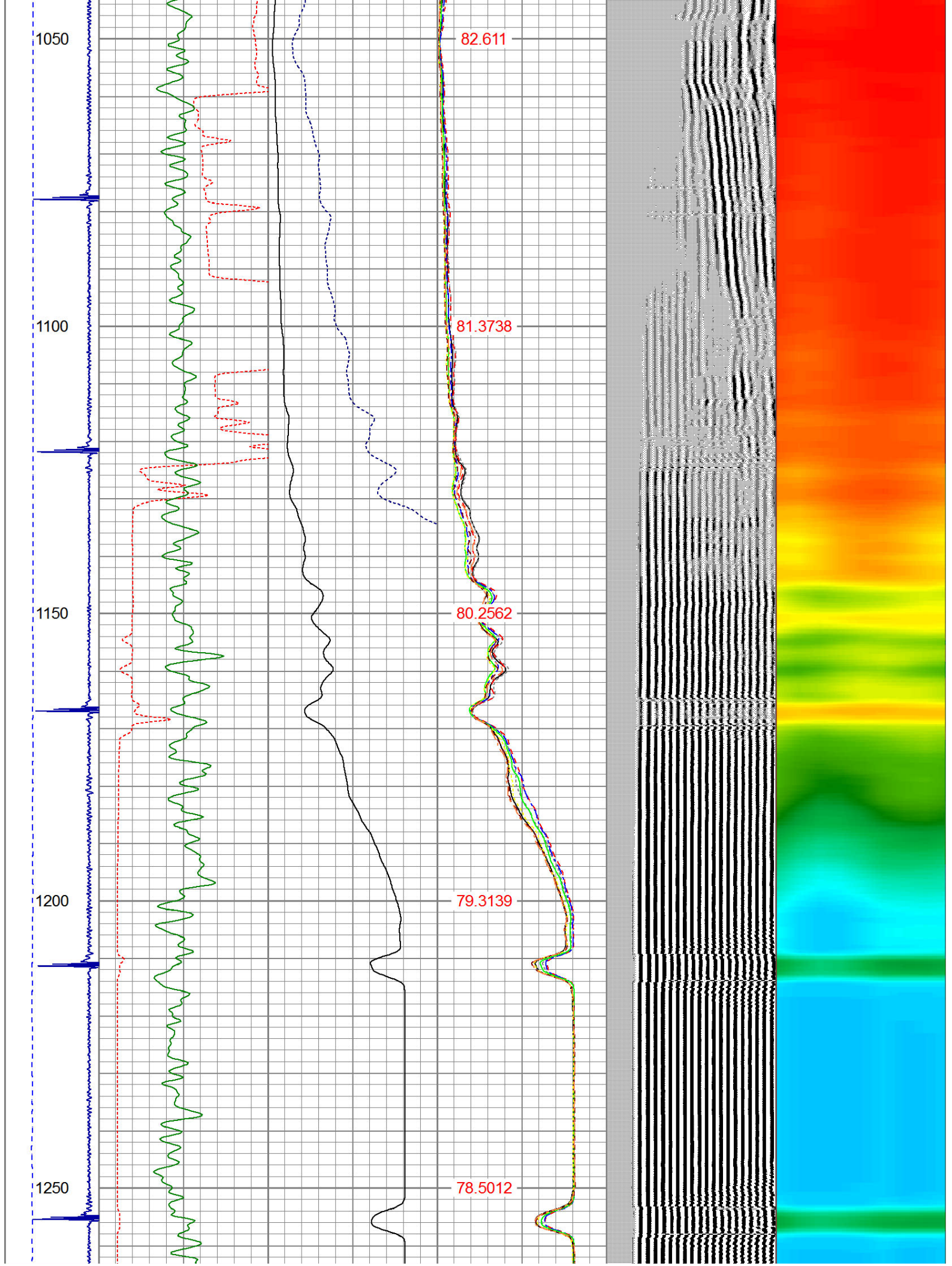
950

84.8542

1000

83.7465





1300

1350

1400

1450

77.5641

76.383

75.1351

73.5173

TEMPERATURE

LSPD

TT

CCL

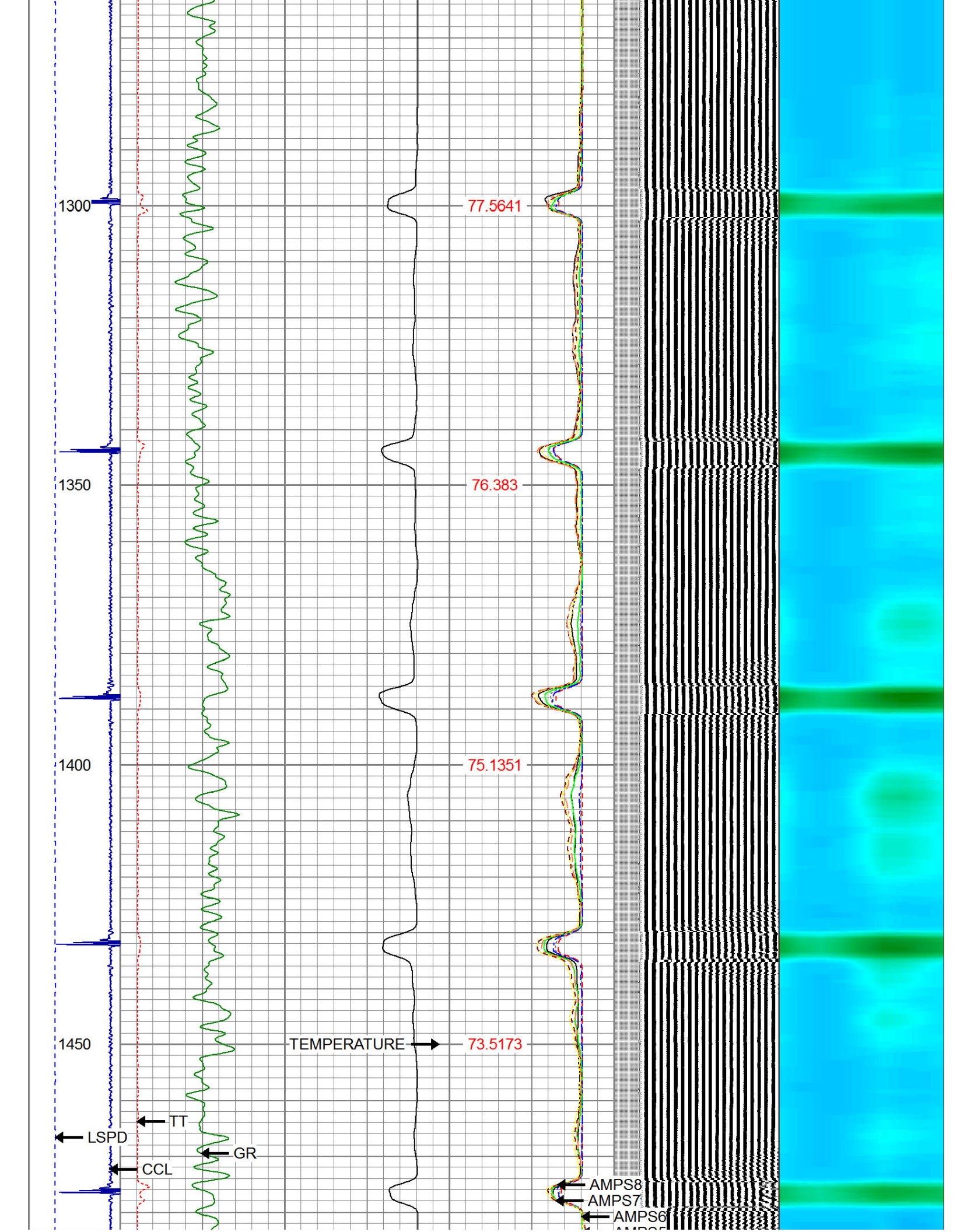
GR

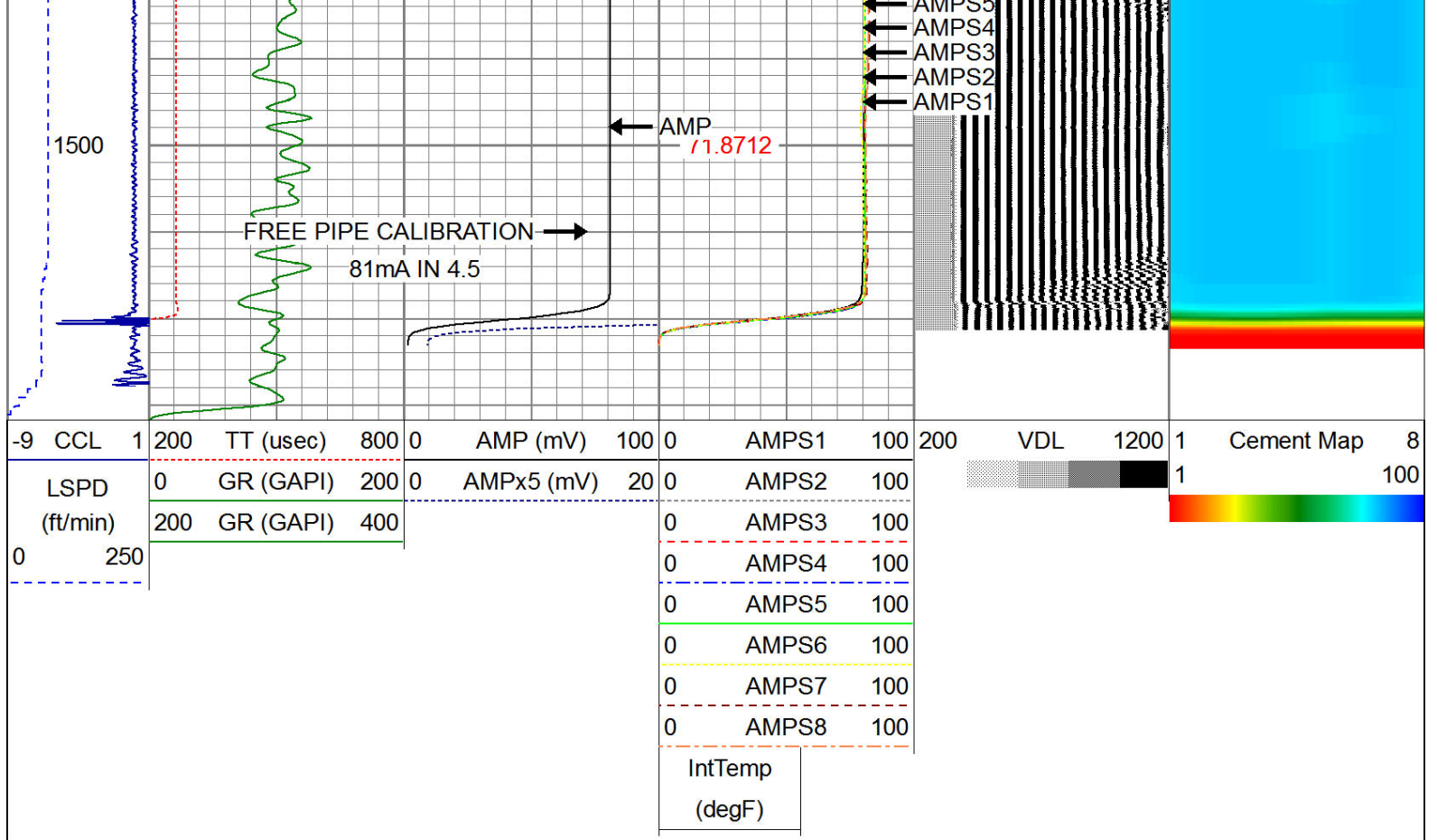
AMPS8

AMPS7

AMPS6

AMPS5





Calibration Report

Database File: hrs-goldsmith 11-31.db
 Dataset Pathname: pass3
 Dataset Creation: Thu Jan 07 20:07:17 2016 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number: 275
 Tool Model: Probe
 Performed: Tue Sep 23 07:13:12 2014

Calibrator Value: 100.0 GAPI

Background Reading: 35.0 cps
 Calibrator Reading: 160.0 cps

Sensitivity: 1.0000 GAPI/cps

Compensated Neutron Calibration Report

Serial Number: 275
 Tool Model: Probe_B

CALIBRATION Wed Jul 30 08:47:19 2008

Detector	Readings	Target	Normalization
Short Space	5001.20 cps	0.00 cps	1.0000
Long Space	1029.31 cps	0.00 cps	1.0000

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
1) Short Space	cps		
Long Space	cps	pu	pu

2)	Short Space	cps	
	Long Space	cps	pu
3)	Short Space	cps	
	Long Space	cps	pu

POST-SURVEY VERIFICATION			
	Detector	Readings	Measured Target
1)	Short Space	cps	
	Long Space	cps	pu pu
2)	Short Space	cps	
	Long Space	cps	pu pu
3)	Short Space	cps	
	Long Space	cps	pu pu


Segmented Cement Bond Log Calibration Report			
Serial Number:		Base	
Tool Model:		Probe	
Calibration Casing Diameter:		4.500	in
Calibration Depth:		102.783	ft

Master Calibration, performed Thu Jan 07 20:02:55 2016:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	2.500	2.000	81.196	31.713	1.915
CAL	1.454	2.500				
5'	0.003	2.500	2.000	81.196	31.712	1.916
SUM						
S1	0.005	2.500	0.500	81.000	32.269	0.328
S2	0.004	2.500	0.500	81.000	32.246	0.385
S3	0.005	2.500	0.500	81.000	32.258	0.354
S4	0.004	2.500	0.500	81.000	32.251	0.372
S5	0.003	2.500	0.500	81.000	32.235	0.412
S6	0.004	2.500	0.500	81.000	32.258	0.359
S7	0.007	2.438	0.500	81.000	33.113	0.281
S8	0.005	2.455	0.500	81.000	32.867	0.328

Internal Reference Calibration, performed Tue Jun 05 07:53:42 2012:						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	1.454	2.500	1.000	0.000

Air Zero Calibration, performed Thu Jan 07 19:53:30 2016:			
	Raw (v)		Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000

S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

<div>  </div>	Company	ANADARKO PETROLEUM CORPORATION
	Well	GOLDSMITH 11-31
	Field	WATTENBERG
	County	WELD
	State	CO