Company	NOBLE ENERGY INC.
Well	MARIE D04-74-1HN
Field	WATTENBERG
County	WELD
State	COLORADO

J-W WIRELINE COMPANY

SECTOR BOND
GAMMA RAY
COLLAR LOG

Company	NOBLE ENERGY INC.		
Well	MARIE D04-74-1HN		
Field	WATTENBERG		
County	WELD	State	COLORADO

Location: API # : 05-123-38305-00
SW SE
SEC. 4 TWP. 3N RGE. 64W
BHL: 535' FNL & 1560' FEL
SEC TWP RGE

Other Services
NONE

Permanent Datum	GROUND LEVEL	Elevation	4720
Log Measured From	KELLY BUSHING		
Drilling Measured From	KELLY BUSHING		

Elevation
K.B. 4744
D.F. 4743
G.L. 4720

Date	12-FEBUARY-2014		
Run Number	ONE		
Depth Driller	11217		
Depth Logger	6829		
Bottom Logged Interval	6830		
Top Log Interval	SURFACE		
Open Hole Size	8 3/4		
Type Fluid	WATER		
Density / Viscosity	---		
Max. Recorded Temp.	230		
Estimated Cement Top	570		
Time Well Ready	---		
Time Logger on Bottom	---		
Equipment Number	2405/TECKO		
Location	BRIGHTON		
Recorded By	HAYES		
Witnessed By	MR. BILL MANSFIELD		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9 5/8	36#	SURFACE	677
Prot. String				
Production String	4.5	11.6#	7037.9	11207
Liner	7.0	26#	SURFACE	7193.5

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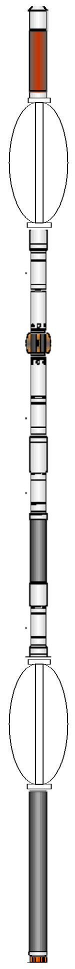
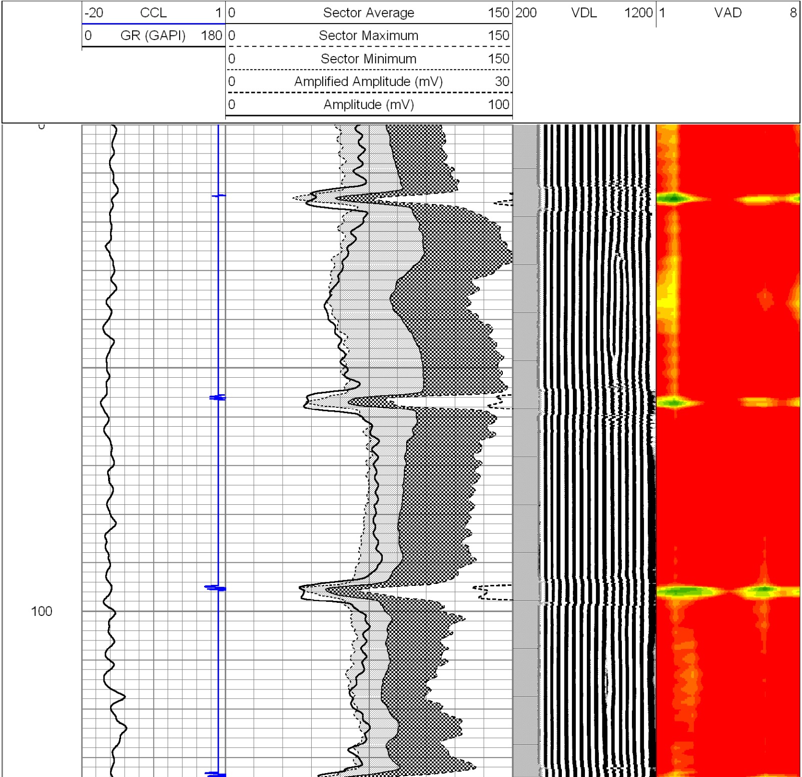
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

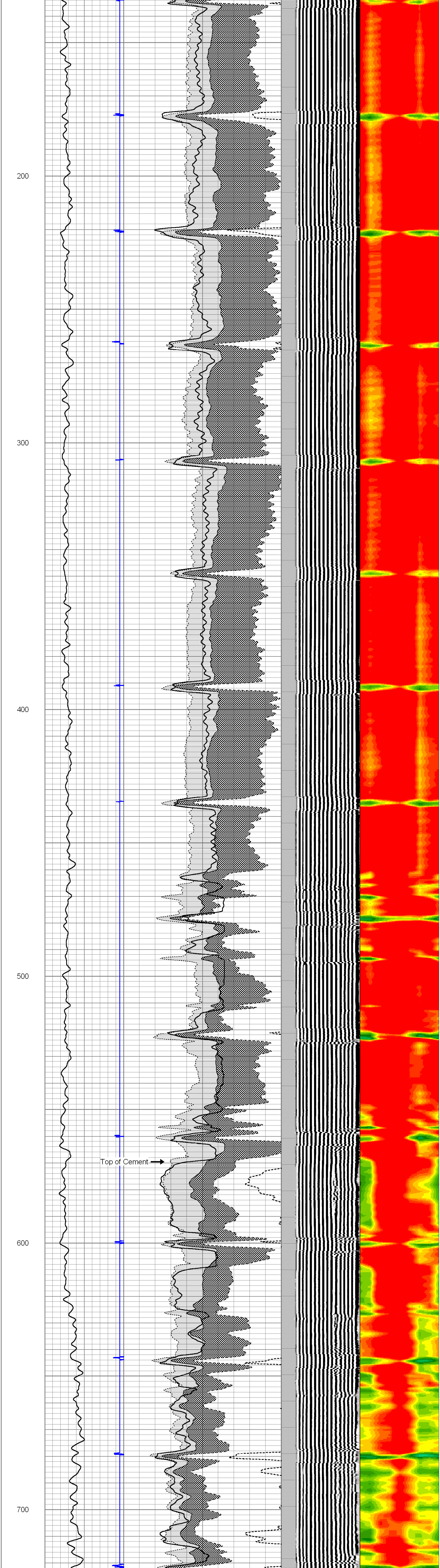
Comments

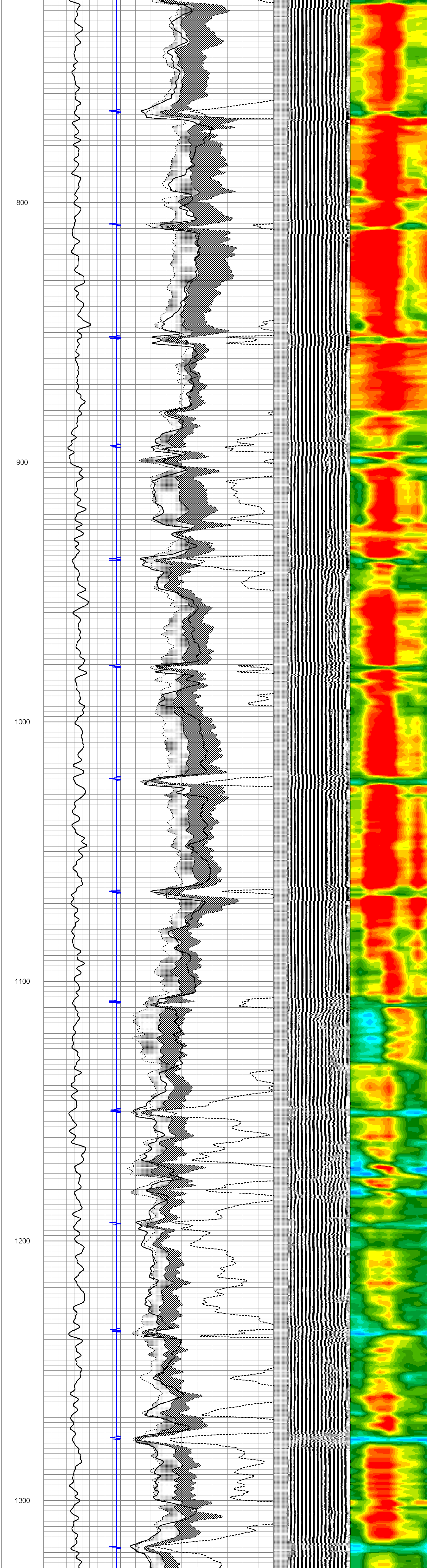
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	19.57		CCL-275tekco (2.75TEKCO) 2 3/4 TEK CCL Earth Mag	1.96	2.75	20.00
			CENT-TEKCO (101)	2.73	2.75	10.00
TEMP	12.78					
WVFS1	11.49					
WVFS2	11.49		275CTEKSECWTWSLCANS-275RIB (123 2 3/4" (R.I.B.) TOOL 3FT, 5FT and 8EA RIB SIGNALS 400 DEG "F" @20K PSI With Sliding Cans For Pressure Ballance	9.13	2.75	102.00
WVFS3	11.49					
WVFS4	11.49					
WVFS5	11.49					
WVFS6	11.49					
WVFS7	11.49					
WVFS8	11.49					
WVF3FT	10.74					
WVFCAL	10.74					
WVFSYNC	10.74					
WVF5FT	9.74					
WVFTEMP	6.41					
			CENT-TEKCO (101)	2.73	2.75	10.00
			GR-TEKCO (101sgr)	3.68	2.75	30.00
GR	1.06					

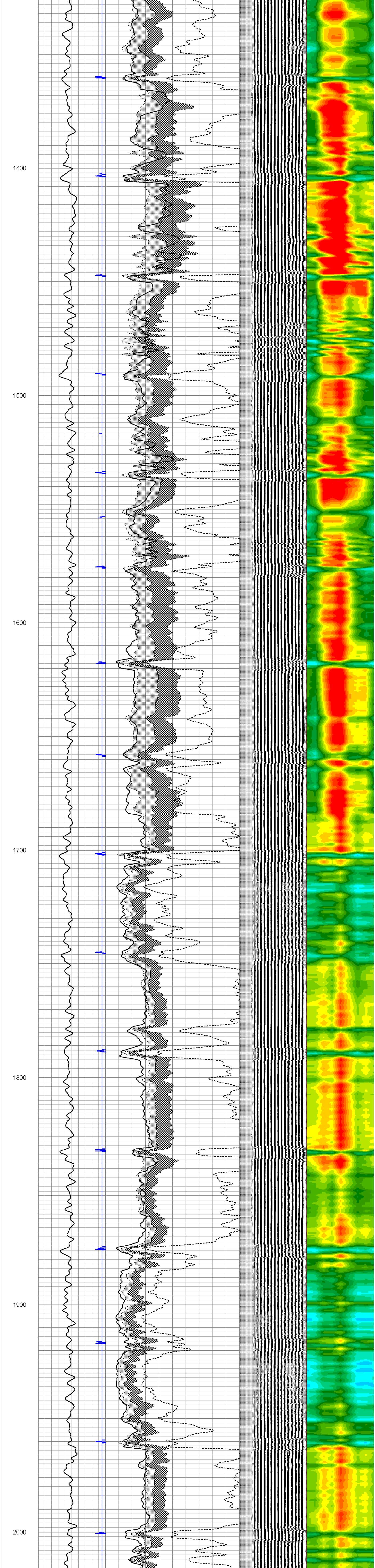
Dataset: marie d04-74-1hn.db: field/well/run1/pass1
Total Length: 20.22 ft
Total Weight: 172.00 lb
O.D. 2.75 in

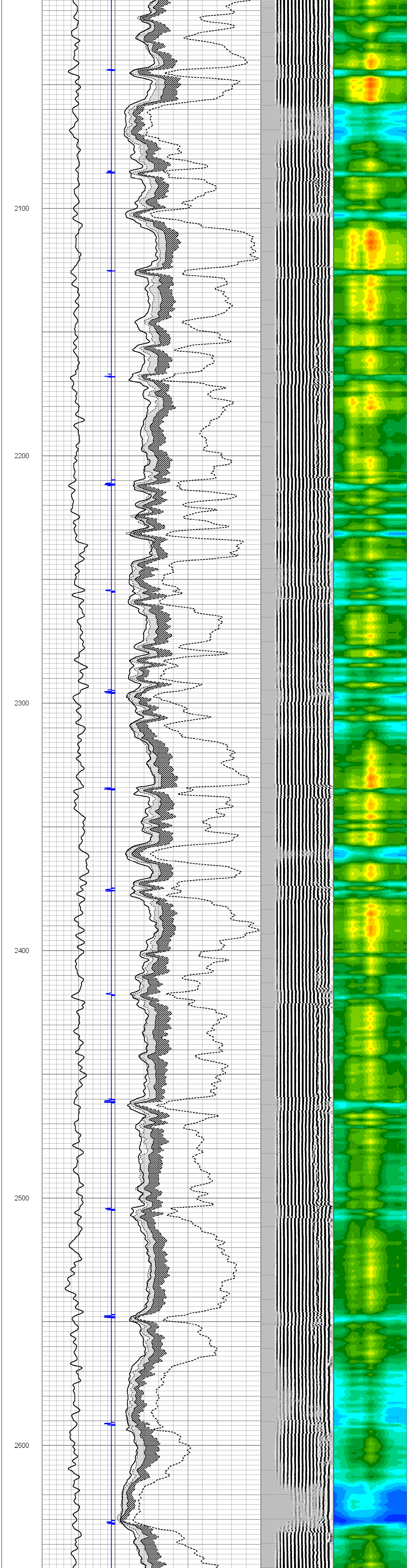
Database File: marie d04-74-1hn.db
Dataset Pathname: pass1
Presentation Format: scbl01
Dataset Creation: Thu Feb 13 03:05:30 2014 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

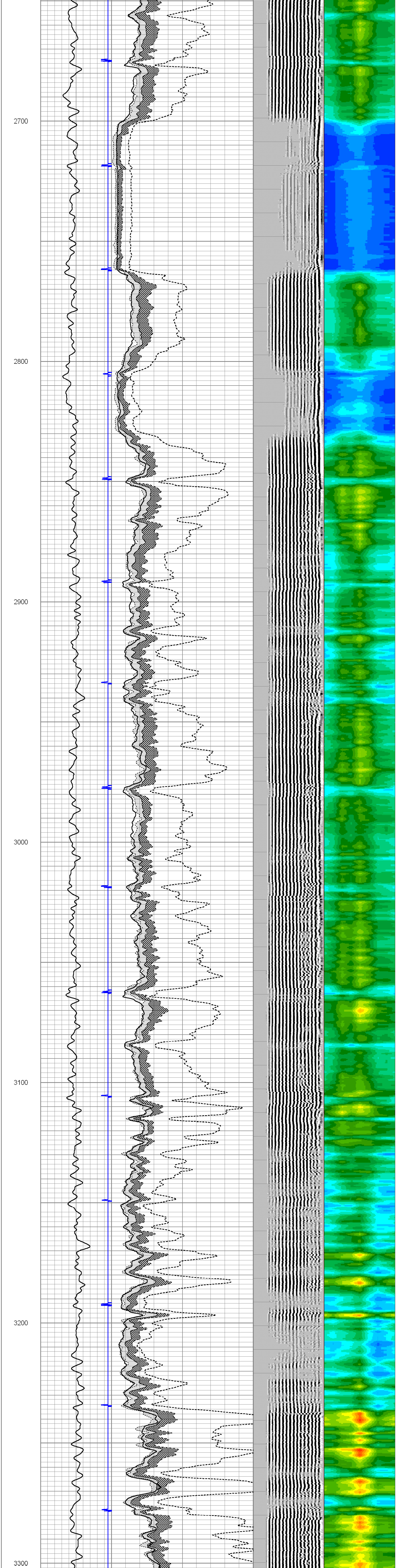


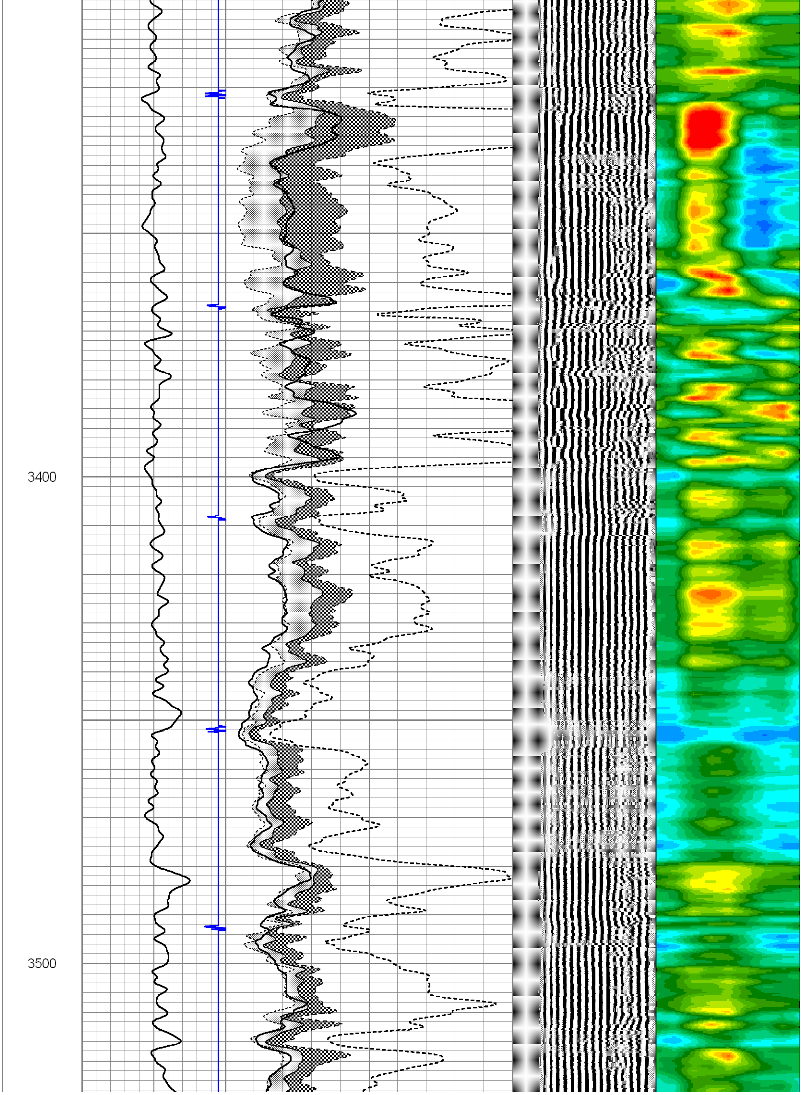


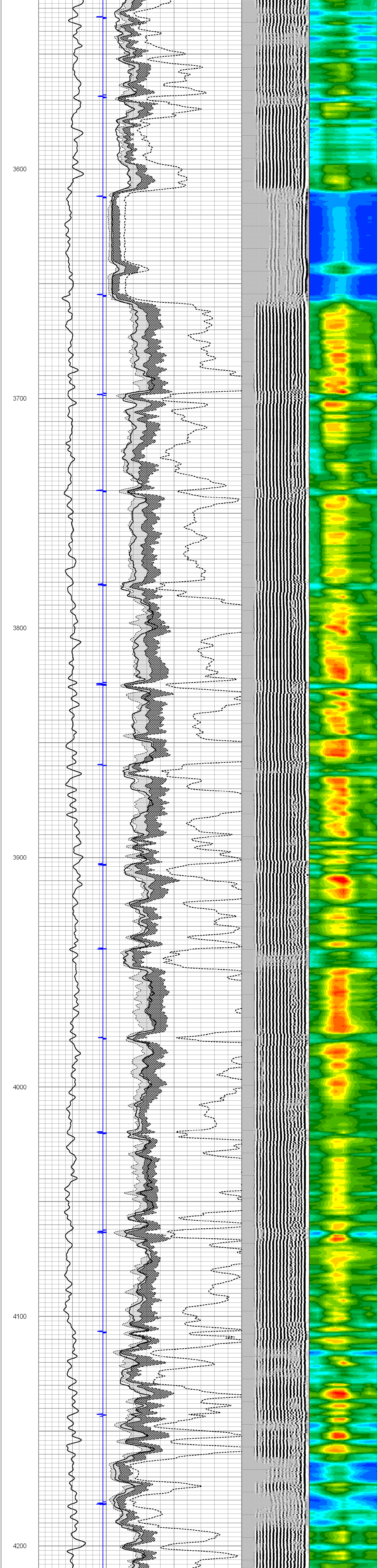


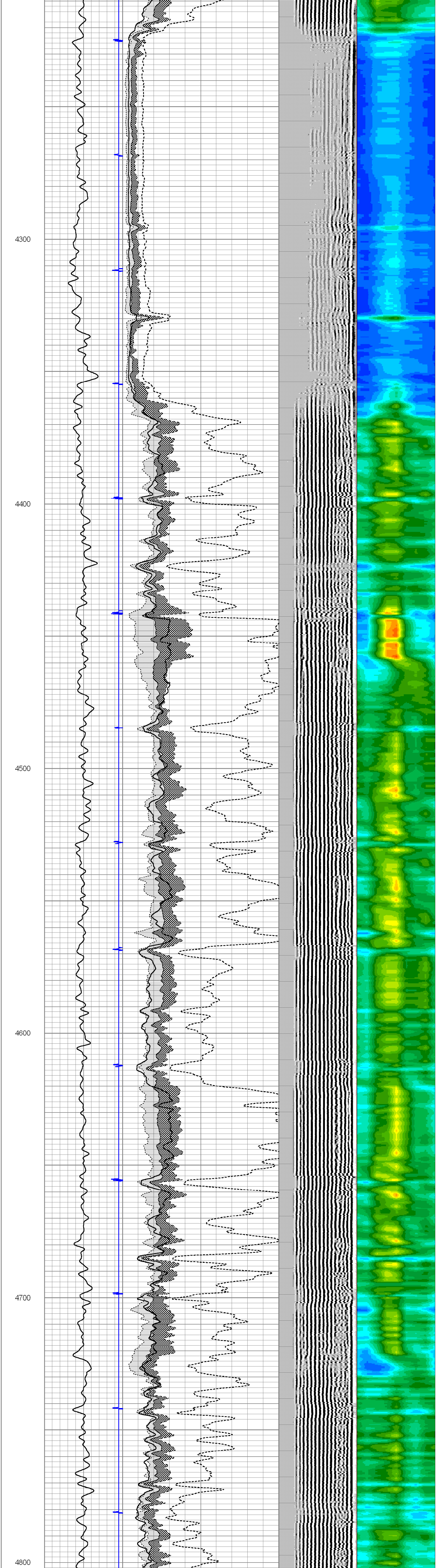


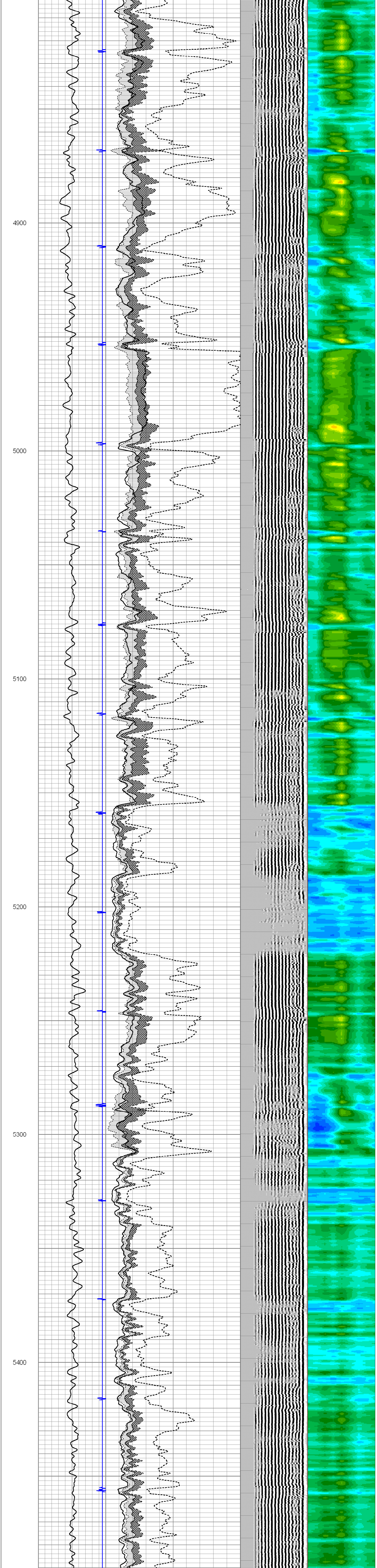


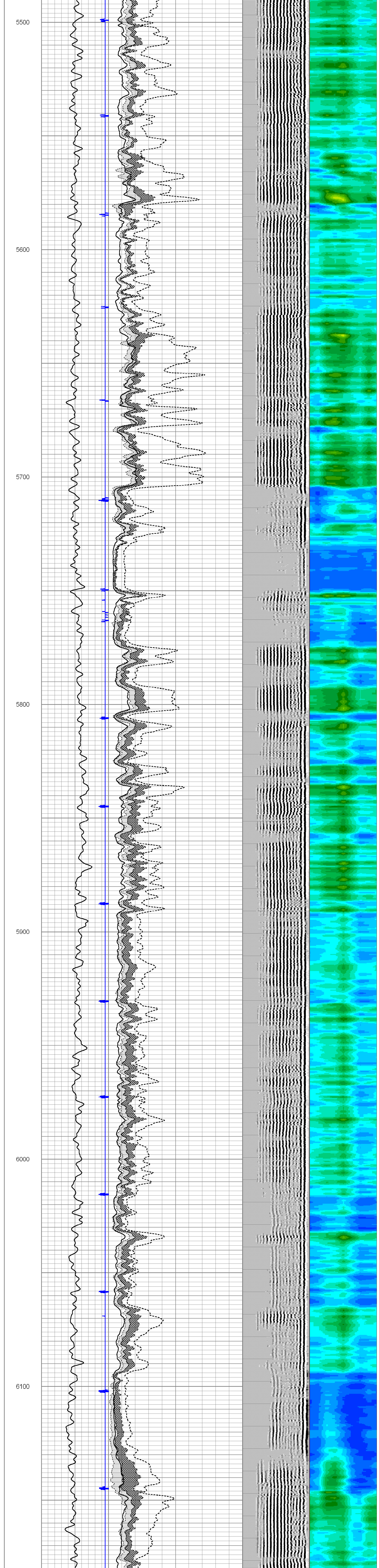


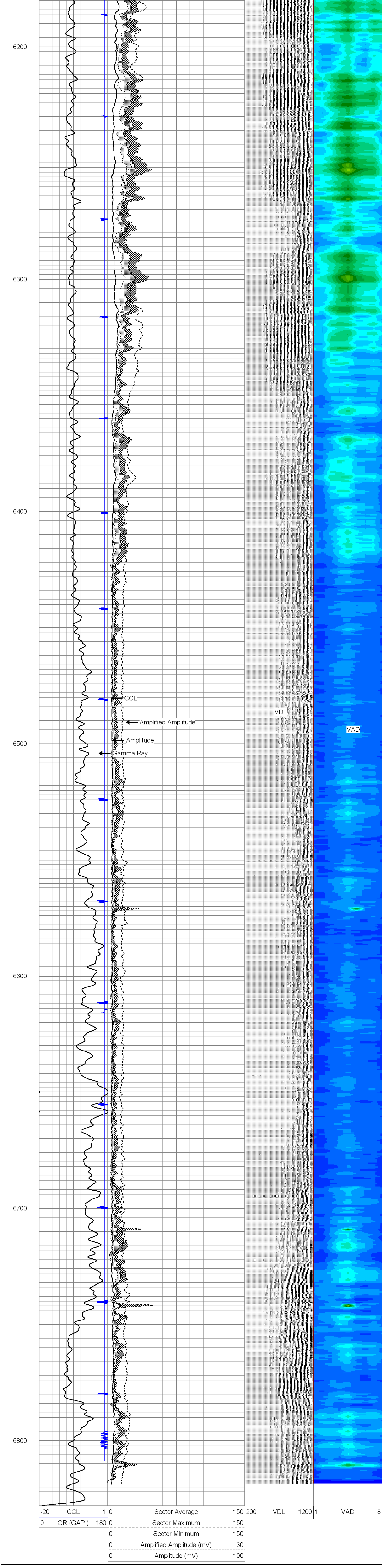












Calibration Report

Database File: marie d04-74-1hn.db
Dataset Pathname: pass1
Dataset Creation: Thu Feb 13 03:05:30 2014 by Log SCH 111116

Gamma Ray Calibration Report

Serial Number: 101sgr
Tool Model: TEKCO
Performed: Sun Jun 13 14:33:21 1993

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 1234
Tool Model: 275RIB

Calibration Casing Diameter: 7.000 in
Calibration Depth: 398.767 ft

Master Calibration, performed Wed Feb 12 23:57:53 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	2.427	3.000	62.165	24.377	3.000
CAL	0.000	0.221				
5'	0.000	2.330	3.000	62.165	25.392	3.000
SUM						
S1	0.000	1.575	0.000	100.000	63.510	0.000
S2	0.000	1.587	0.000	100.000	63.015	0.000
S3	0.000	1.051	0.000	100.000	95.131	0.000
S4	0.000	0.944	0.000	100.000	105.975	0.000
S5	0.000	0.992	0.000	100.000	100.842	0.000
S6	0.000	1.279	0.000	100.000	78.216	0.000
S7	0.000	1.353	0.000	100.000	73.899	0.000
S8	0.000	1.184	0.000	100.000	84.449	0.000

Internal Reference Calibration, performed Wed Dec 31 18:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.221	1.000	0.000

Air Zero Calibration, performed Thu Oct 24 21:04:44 2013:

	Raw (v)	Calibrated (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

Temperature Calibration Report

Serial Number: 1234
Tool Model: 275RIB
Performed: Fri Apr 19 20:17:41 2013

	Reference	Reading
Low Reference:	300.00 degF	50.00 usec
High Reference:	400.00 degF	300.00 usec

Gain: 0.40
Offset: 2.50
Delta Spacing 1