



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

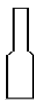
Company	Top Operating Company	
Well	Haley 3	
Field	Wattenberg	
County	Weld	
State	Colorado	Country USA
Company	Top Operating Company	
Well	Haley 3	
Field	Wattenberg	
County	Weld	
State	Colorado	Country USA
Location:	API # : 05-123-36940	Other Services None
SHL: 1957' FSL & 703' FWL SE/NE BHL: 1325' FSL & 1291' FWL NW/SW SEC 20 TWP 3N RGE 68W		
Permanent Datum	Ground Level	Elevation 5078
Log Measured From	Kelly Bushing	
Drilling Measured From	Kelly Bushing	Elevation K.B. 5091 D.F. 5091 G.L. 5078
Date	2-April-2013	
Run Number	One	
Depth Driller	7827	
Depth Logger	7780	
Bottom Logged Interval	7780	
Top Log Interval	6300	
Open Hole Size	7 7/8"	
Type Fluid	Water	
Density / Viscosity	8.34LB/Gal	
Max. Recorded Temp.	---	
Estimated Cement Top	6400	
Time Well Ready	ROA	
Time Logger on Bottom	18:20	
Equipment Number	HD0134	
Location	Fort Lupton, CO	
Recorded By	Patrick Grimes	
Witnessed By	Dean Rogers	
Borehole Record		
Run Number	Bit	From To Size Weight From To
Casing Record	Size	Wgt/Ft Top Bottom
Surface String		
Prot. String		
Production String		
Liner	4.5	11.6 Surface TD

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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

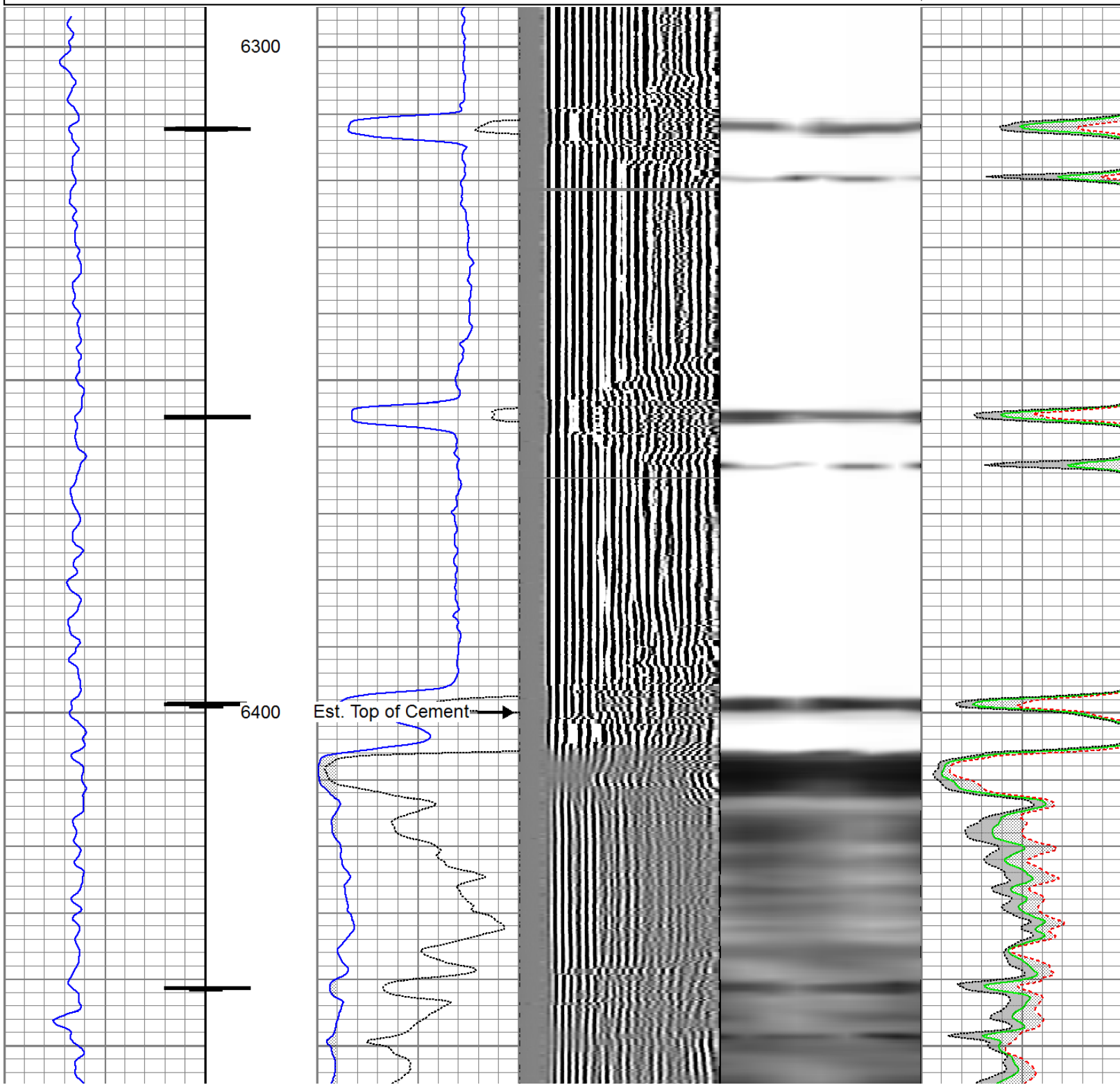
Correlated to High Resolution/ Compensated Density/ Neutron Log  
Ran by Pioneer Energy Services on 3/9/13  
  
Thank you for choosing Pure Energy Wireline an FMC Technologies Company

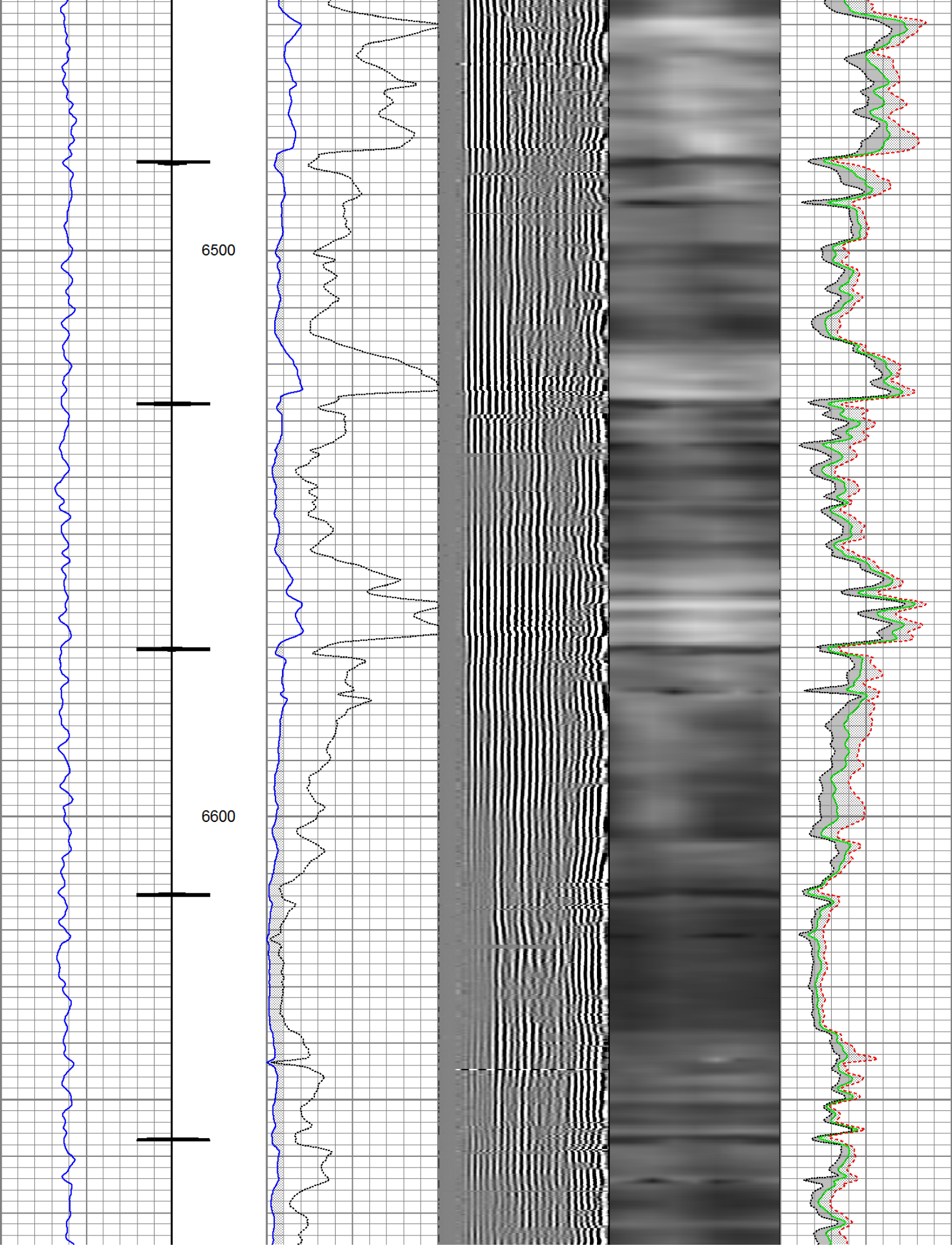
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			AES1563 Applied Science 1-7/16" cablehead with 1" fishing	1.04	1.56	2.00

CCL	18.97		CCL_LOG-TypeC (DDDD) Titan 2-3/4" Logging CCL w/ short body	1.92	2.75	30.00
			Sondex_IL_Cent Sondex bowspring inline electrical centralizer - 32.875"	2.74	2.75	20.00
TEMP	13.10					
WVFS1	11.73					
WVFS2	11.73					
WVFS3	11.73					
WVFS4	11.73					
WVFS5	11.73					
WVFS6	11.73					
WVFS7	11.73					
WVFS8	11.73					
WVF3FT	10.98					
WVF5FT	9.98					
WVFCAL	6.19					
WVFTEMP	6.19					
WVFSYNC	6.19					
			Sondex_IL_Cent Sondex bowspring inline electrical centralizer - 32.875"	2.74	2.75	20.00
			GR-TypeA (AAAA) Comprobe 2-3/4" Scintillating Gamma Ray (Low Temp)	3.45	2.75	38.00
GR	1.04					
Dataset: topoperating.db: field/well/run1/pass3 Total Length: 21.22 ft Total Weight: 233.00 lb O.D. 2.75 in						

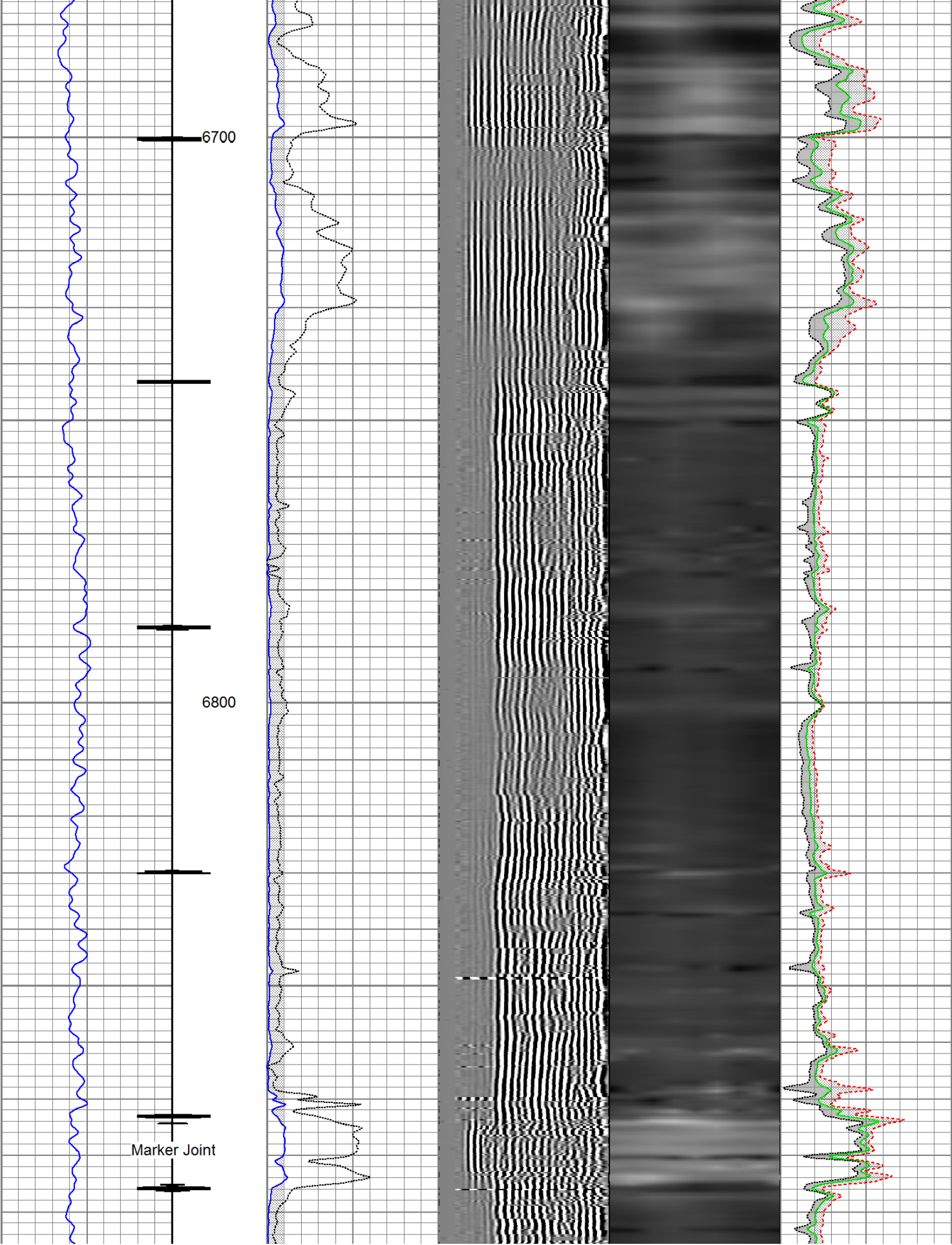
Database File: topoperating.db  
 Dataset Pathname: pass3  
 Presentation Format: rbt  
 Dataset Creation: Tue Apr 02 18:32:56 2013 by Log SCH 111116  
 Charted by: Depth in Feet scaled 1:240

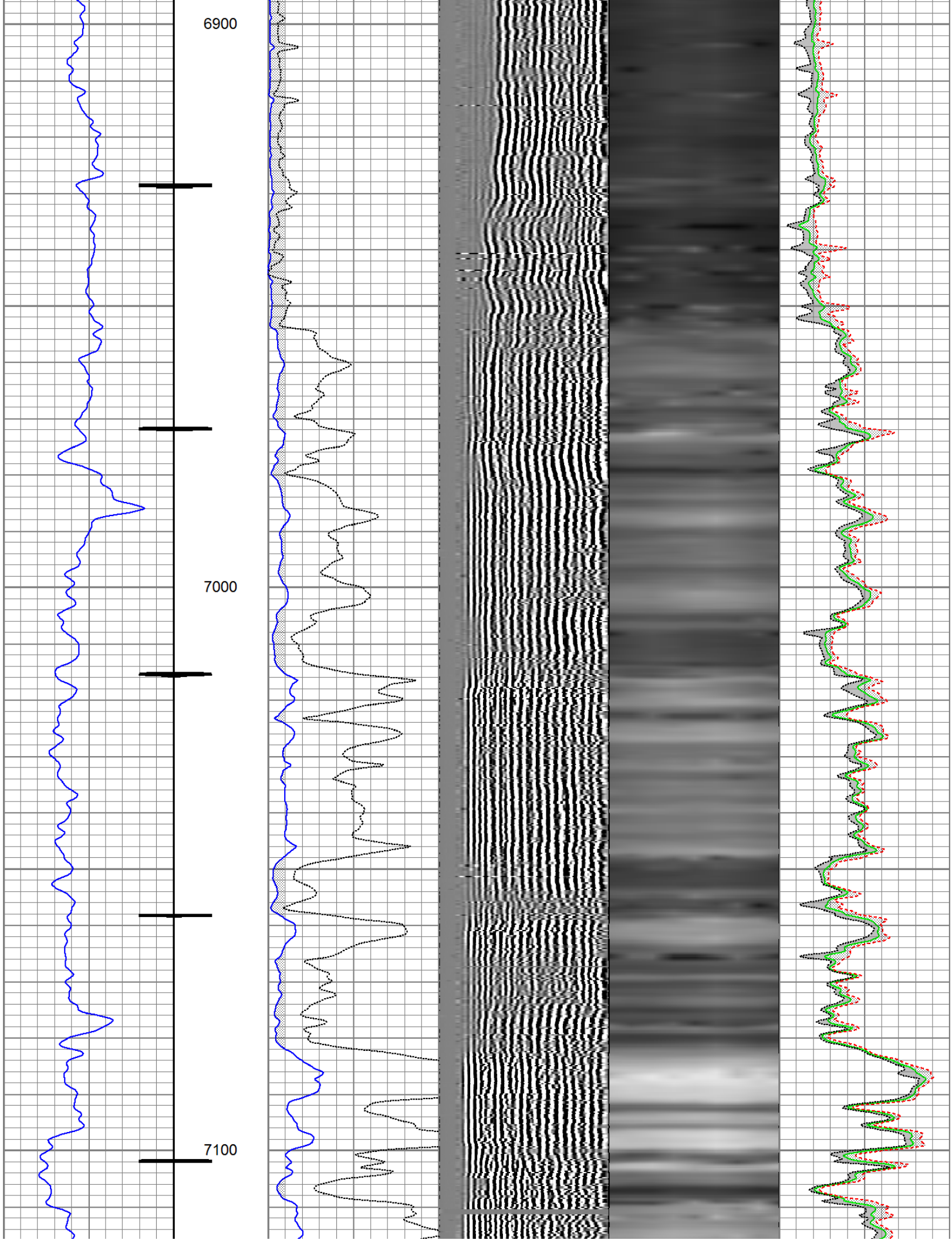
0	Gamma Ray	300	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
	Collar Locator		0 (mV) 100	200 1200		0 100
			3' Amplitude x 5			Minimum Amplitude
			0 (mV) 20			0 100
						Maximum Amplitude
						0 100

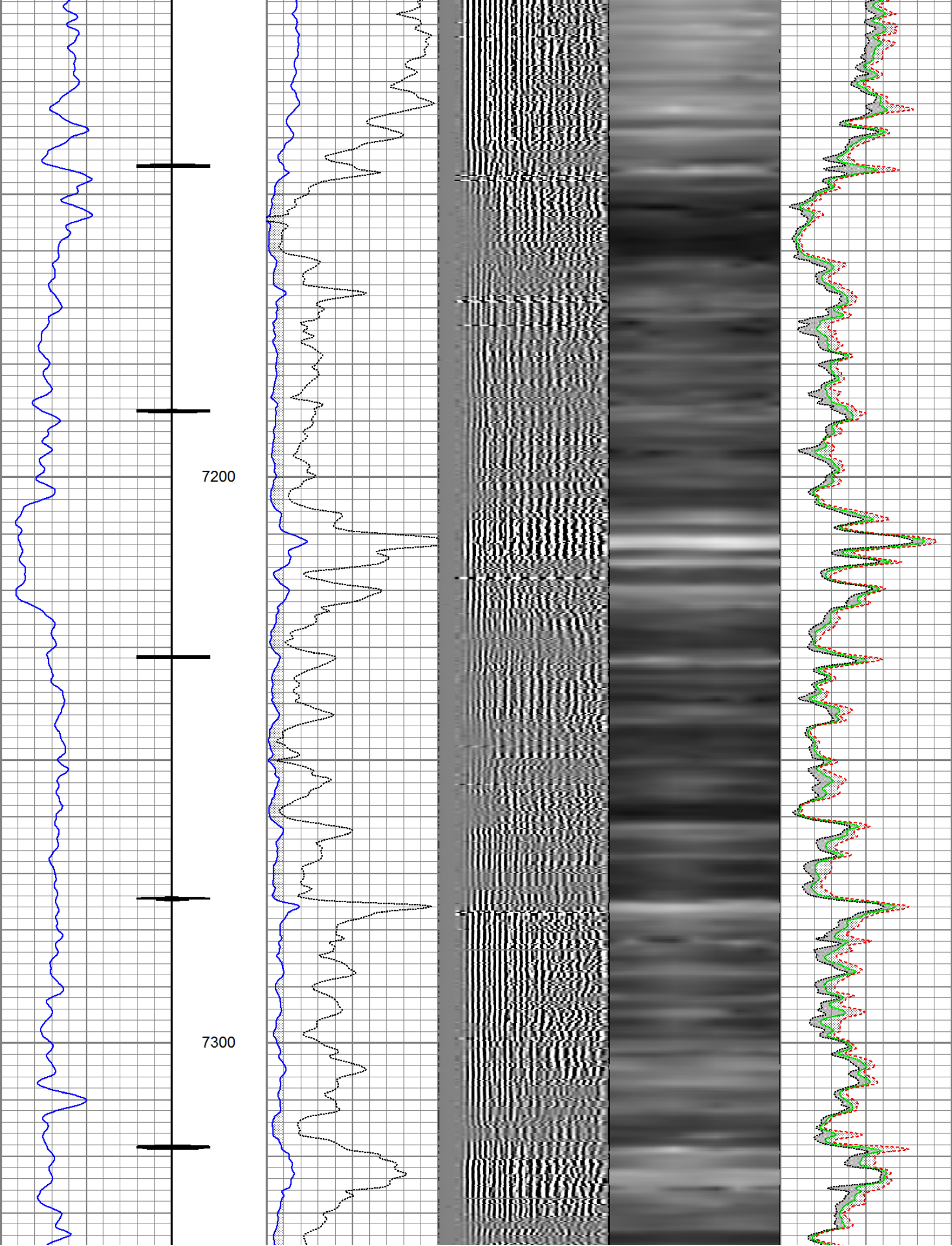




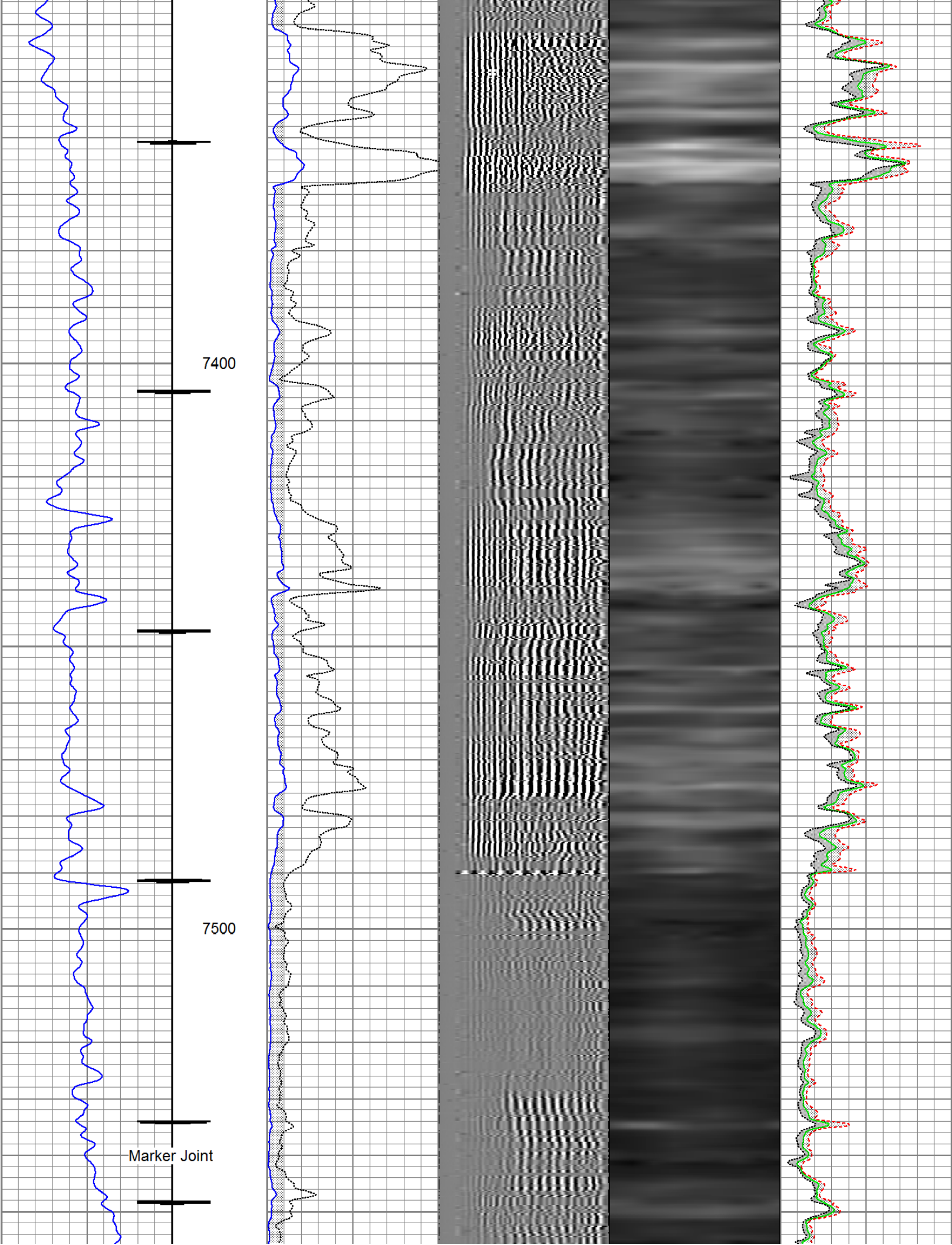




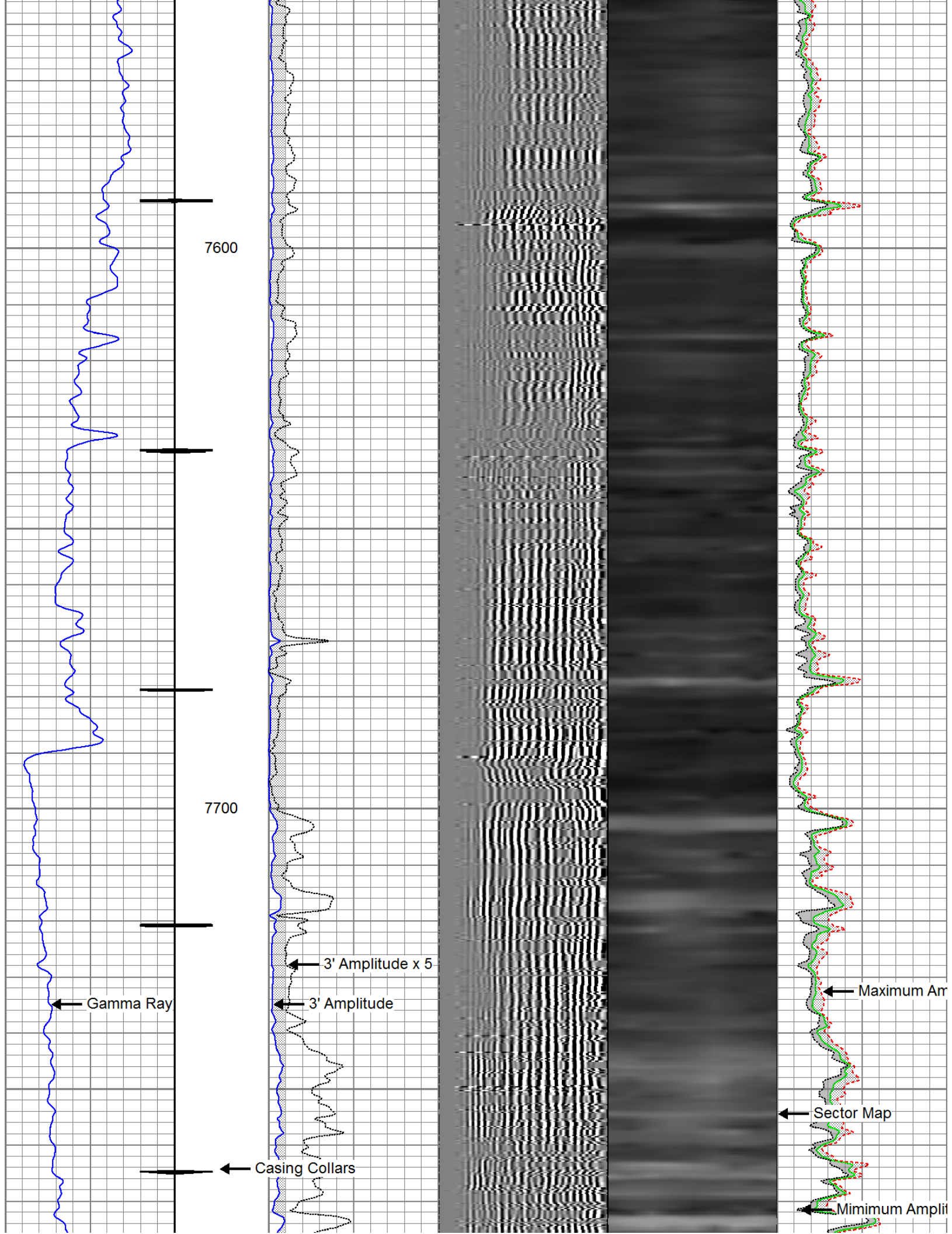


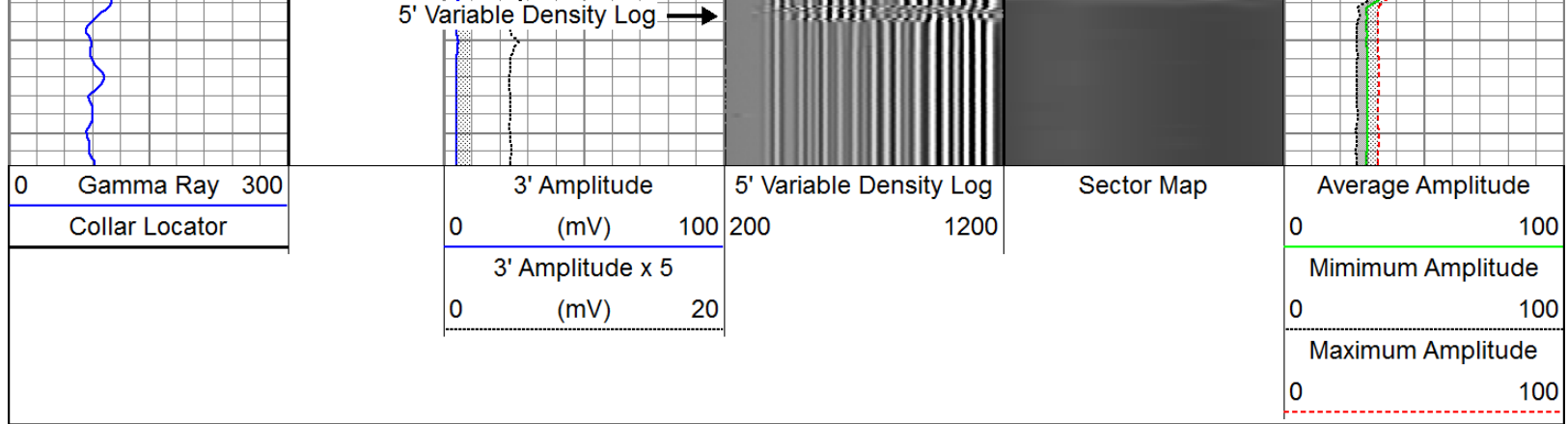












Calibration Report	
Database File:	topoperating.db
Dataset Pathname:	pass3
Dataset Creation:	Tue Apr 02 18:32:56 2013 by Log SCH 111116

Gamma Ray Calibration Report	
Serial Number:	AAAA
Tool Model:	TypeA
Performed:	Sun Feb 10 14:09:25 2013
Calibrator Value:	1.0
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.5000 /cps

Segmented Cement Bond Log Calibration Report	
Serial Number:	xxin9.625
Tool Model:	Type_B
Calibration Casing Diameter:	4.500 in
Calibration Depth:	986.902 ft

Master Calibration, performed Tue Apr 02 17:37:19 2013:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	2.483	0.000	81.196	32.702	0.000
CAL	0.000	2.207				
5'	0.000	2.500	0.000	81.196	32.478	0.000
SUM						
S1	0.000	2.498	0.000	100.000	40.033	0.000
S2	0.000	2.466	0.000	100.000	40.552	0.000
S3	0.000	2.355	0.000	100.000	42.466	0.000
S4	0.000	2.384	0.000	100.000	41.941	0.000
S5	0.000	2.446	0.000	100.000	40.890	0.000
S6	0.000	2.496	0.000	100.000	40.060	0.000
S7	0.000	2.500	0.000	100.000	40.001	0.000
S8	0.000	2.500	0.000	100.000	40.000	0.000

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	2.207	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 17:00:00 1969:

	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:	xxin9.625			
Tool Model:	Type_B			
Performed:	Sun Jun 13 13:33:21 1993			
	Reference		Reading	
Low Reference:	0.00	degF	0.00	usec
High Reference:	1.00	degF	1.00	usec
Gain:	1.00			
Offset:	0.00			
Delta Spacing	1			



Company	Top Operating Company		
Well	Haley 3		
Field	Wattenberg		
County	Weld		
State	Colorado	Country	USA