SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.
Well	STROHAUER F32-23
Field	Wattenberg
County	Weld
State	Colorado

Location: API # : 05123313440 0

1269' FSL & 1292' FEL
LAT: 40.35196 DEG N
LONG: 104.68285 DEG W
SEC 32 TWP 5N RGE 65W

Other Services

Permanent Datum	GL	Elevation	4668
Log Measured From	KB 15'		
Drilling Measured From	KB		

Elevation
K.B. 4683
D.F. 4682
G.L. 4668

Company	Noble Energy INC.
Well	STROHAUER F32-23
Field	Wattenberg
County	Weld
State	Colorado

Date	December 13, 2010	
Run Number	ONE	
Depth Driller	7280	
Depth Logger	7217	
Bottom Logged Interval	7216	
Top Log Interval	1300	
Casing Size	4 1/2"	
Type Fluid	Water	
Max. Recorded Temp.	250 deg F	
Estimated Cement Top	2380	
Time Well Ready	Mast Truck	
Time Logger On Bottom	AM	
Unit Number	3344	
Tool Size / ID Number	2.75 Tool 1 BLK	
Location	Platteville, CO	
Recorded By	K. Monaghan	
Witnessed By	M. Trimble	

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	4 1/2"	11.6 lb/ft M-80	Surface	7270
Liner				

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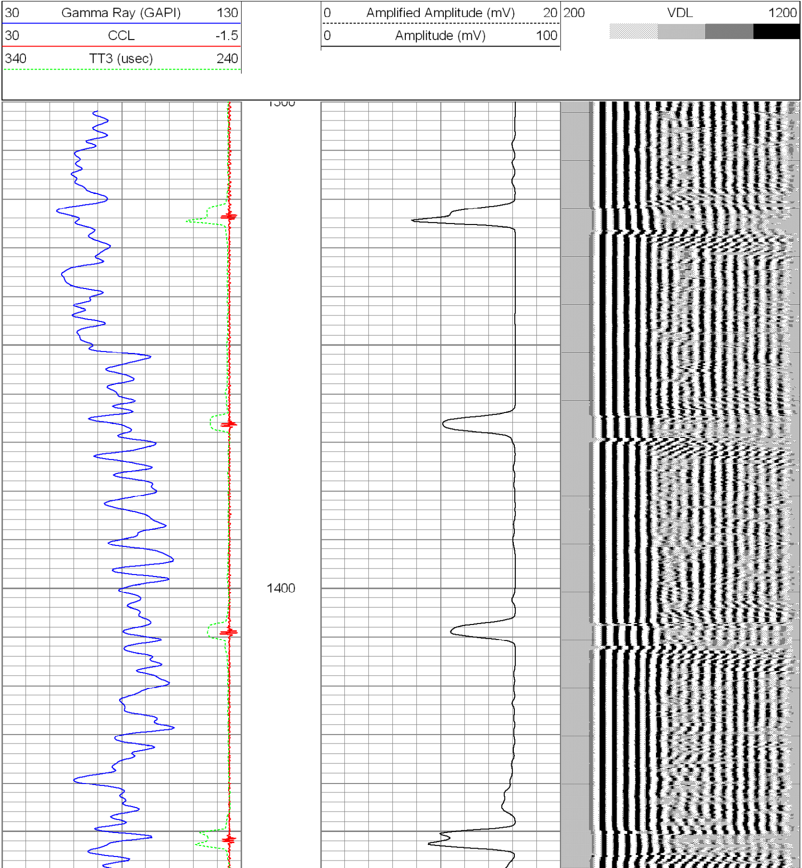
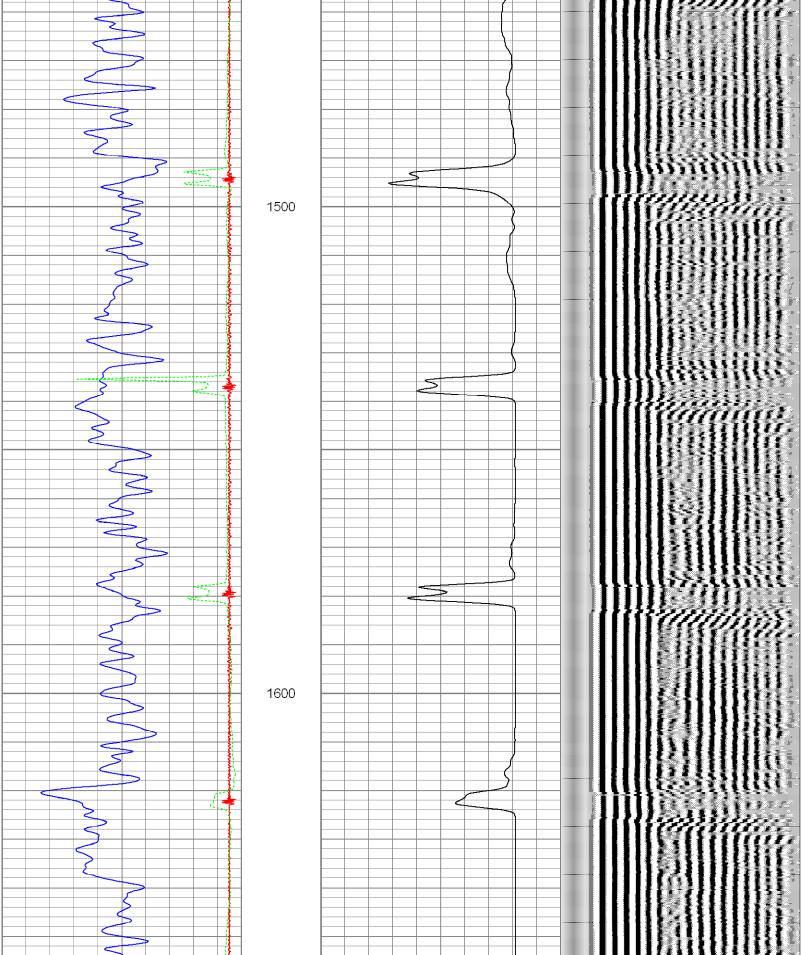
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

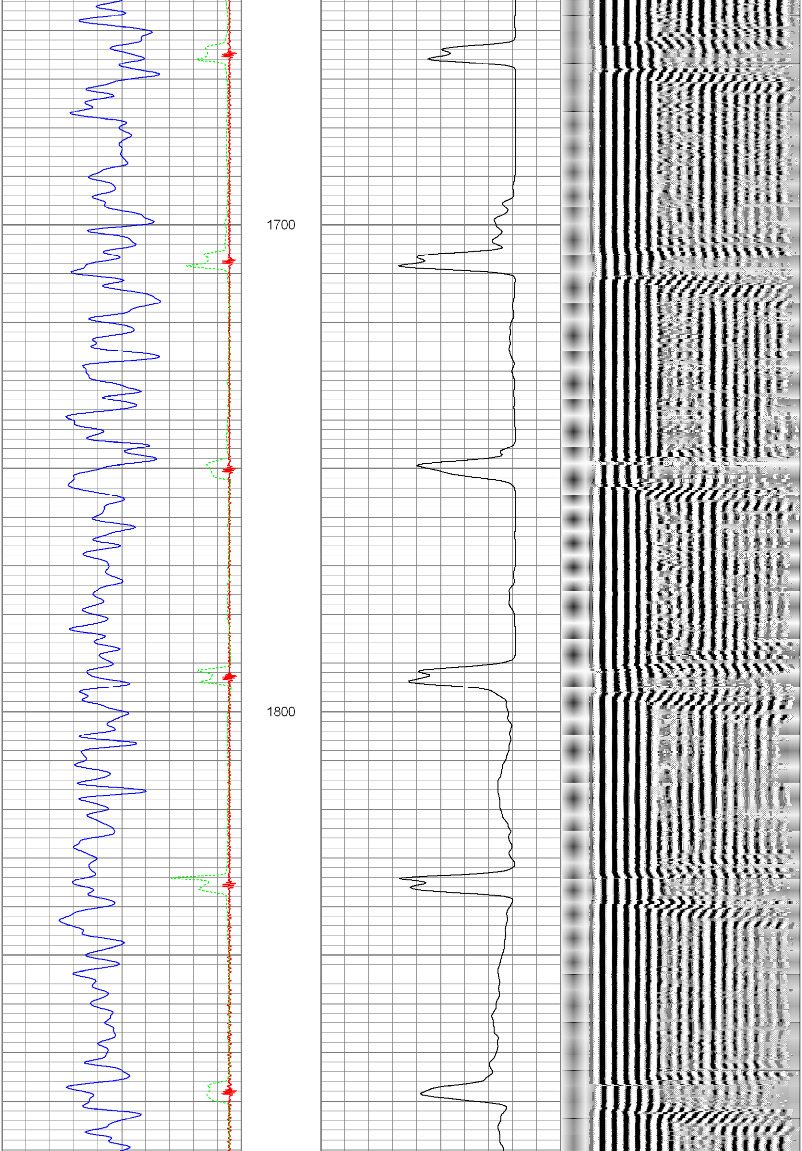
Comments

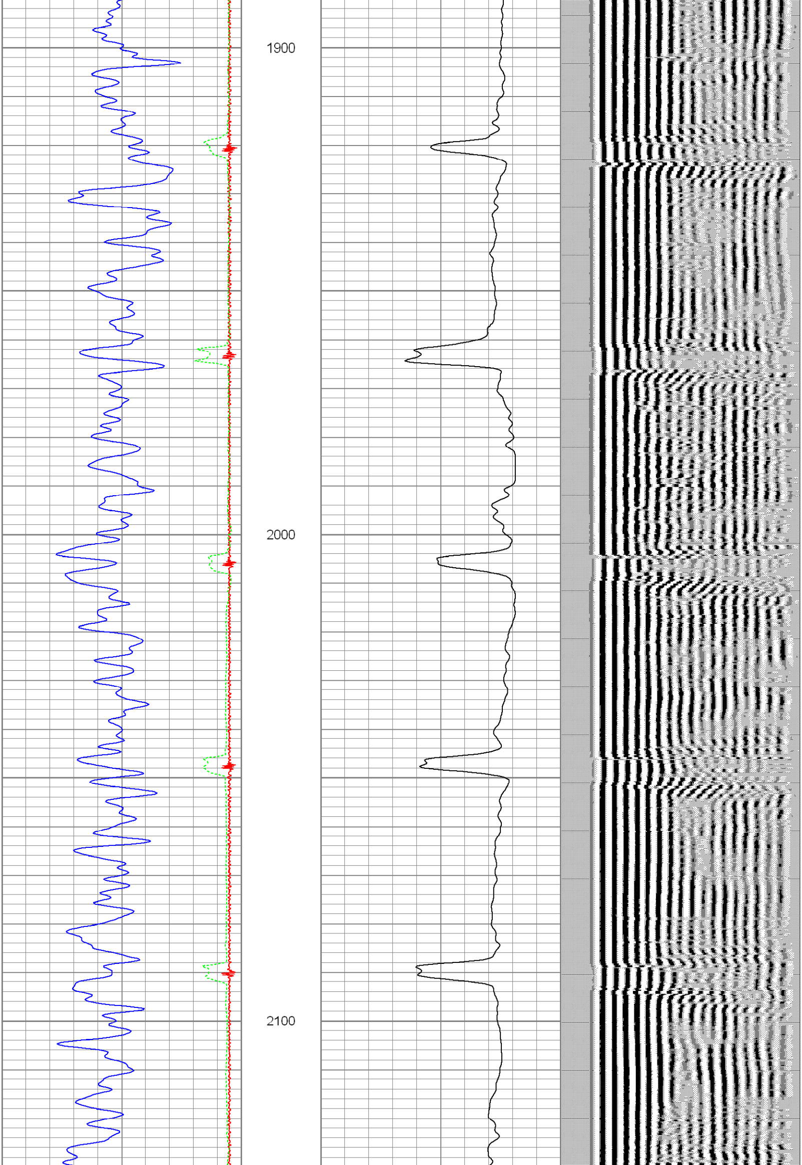
Thank You For Choosing Superior Wel Services!!!
API# 05-123-31344-00
Correlated to H.E.S's
Dual Spaced Neutron / Spectral Density / Array Compensated / True Resistivity / Gamma Ray Log
Dated: November 30, 2010
SOUTHERN MOST WELL OF 2 WELL PAD

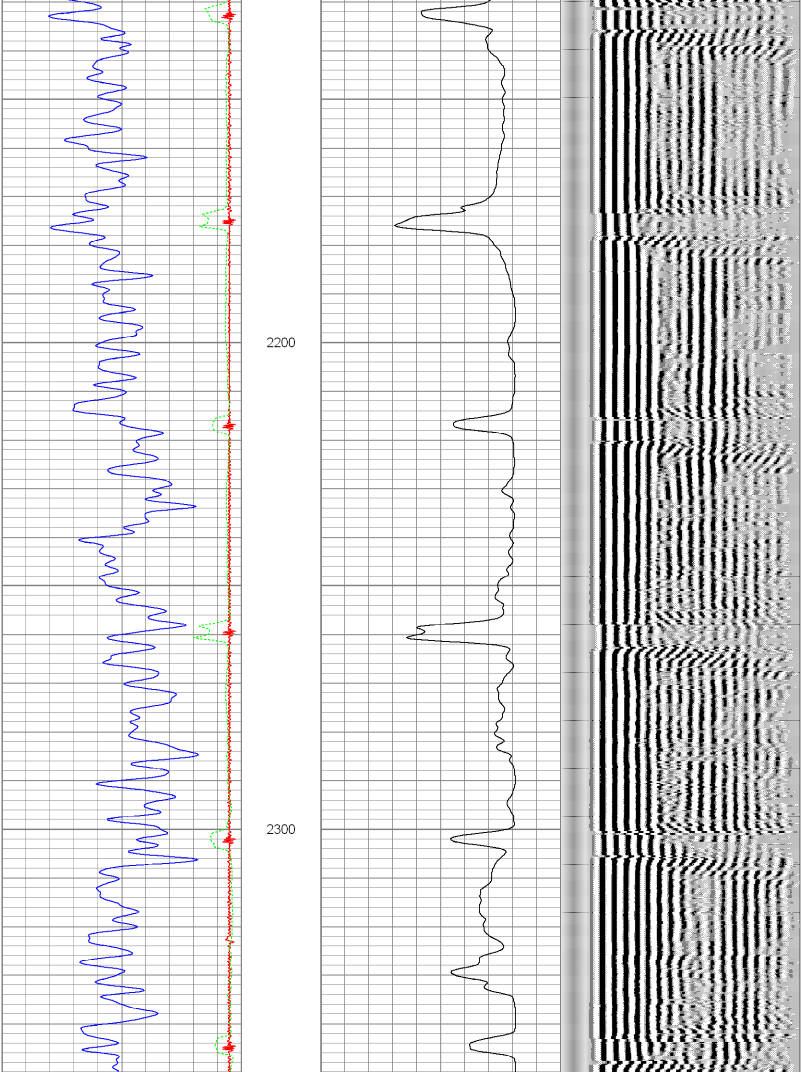
Database File: cblstrohauer f32-23.db
Dataset Pathname: pass9
Presentation Format: nuexbond
Dataset Creation: Mon Dec 13 12:03:29 2010 by Log Std Casedhole 10081
Charted by: Depth in Feet scaled 1:240

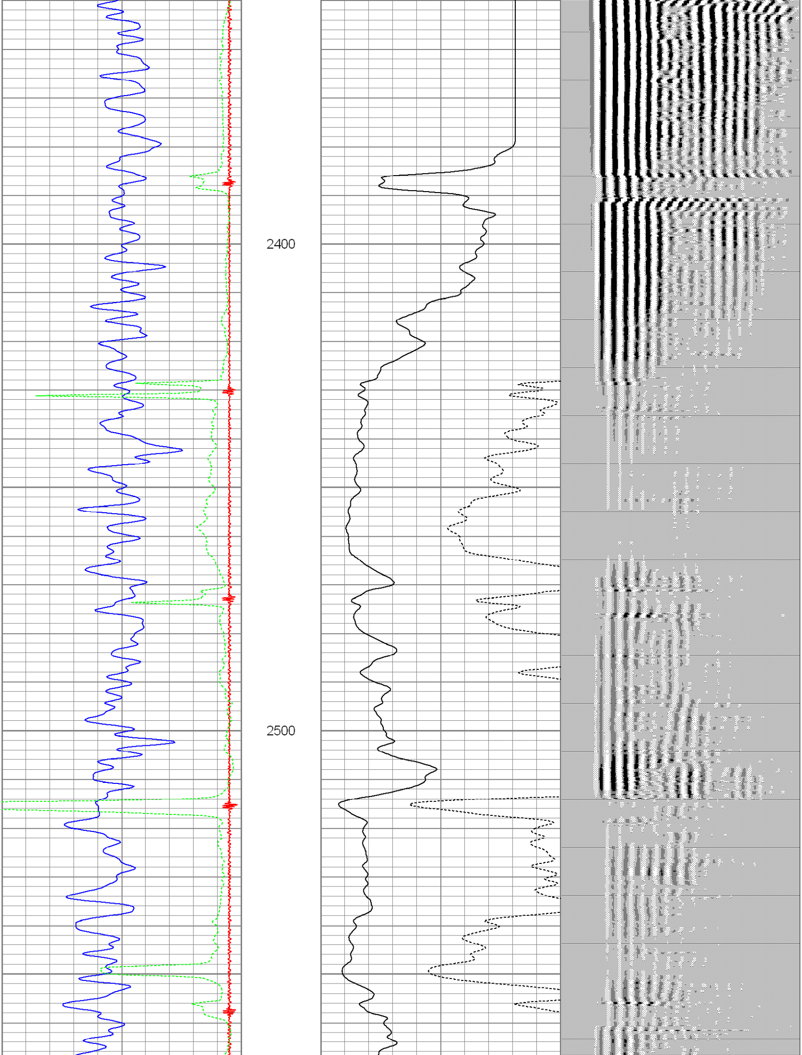


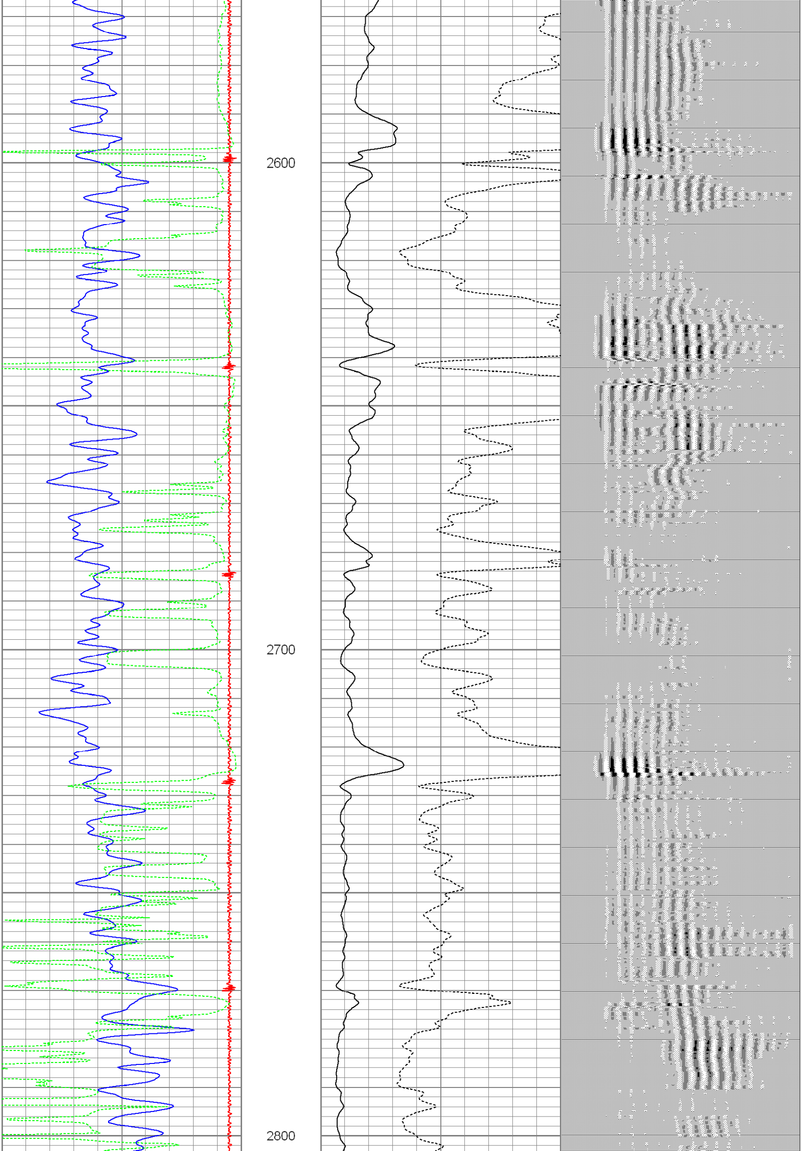


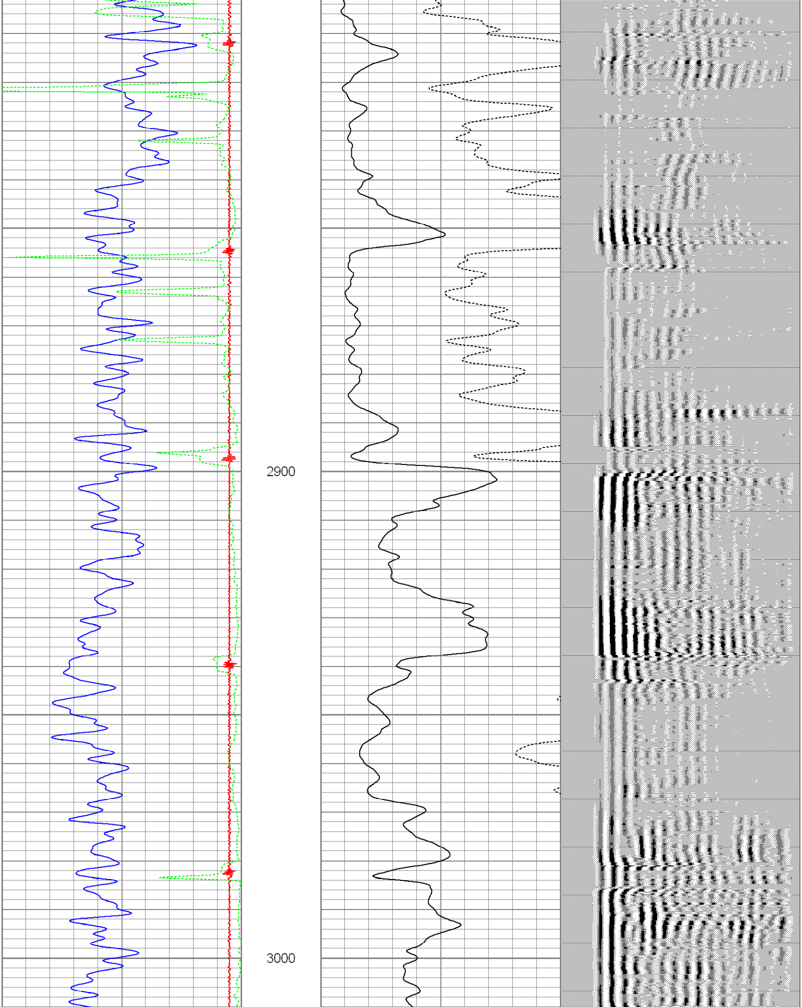


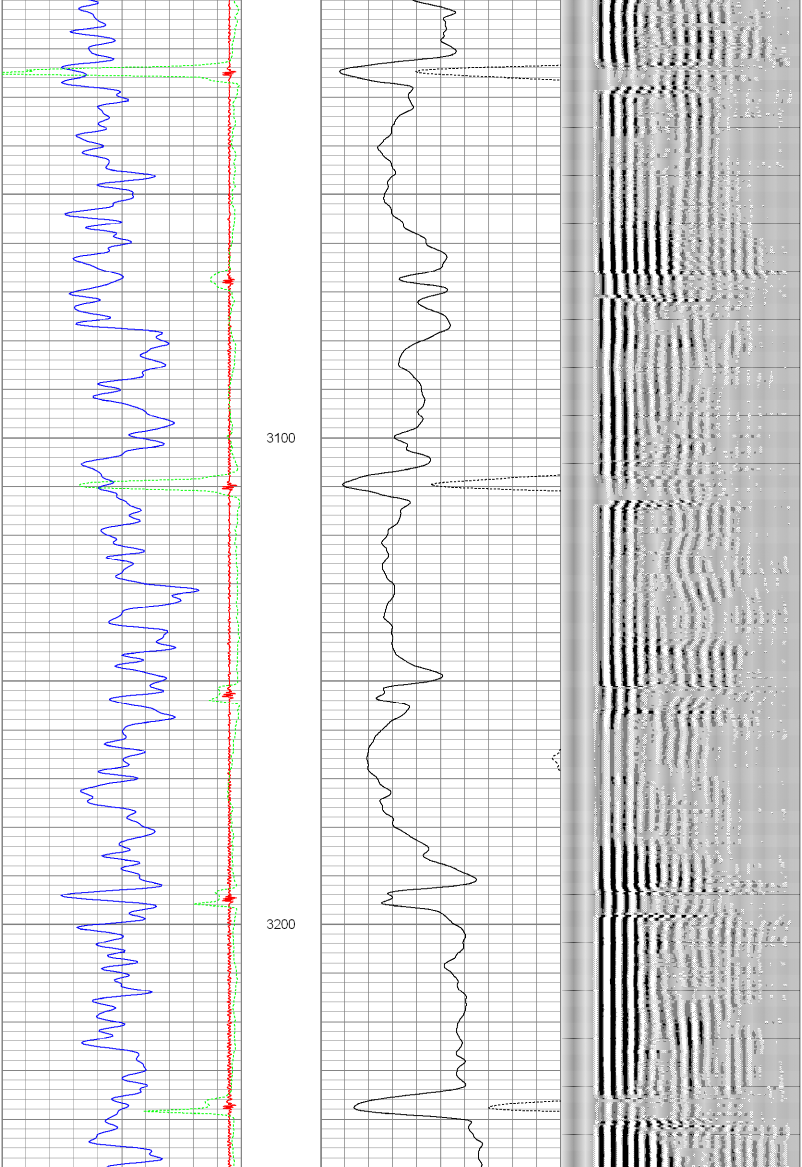


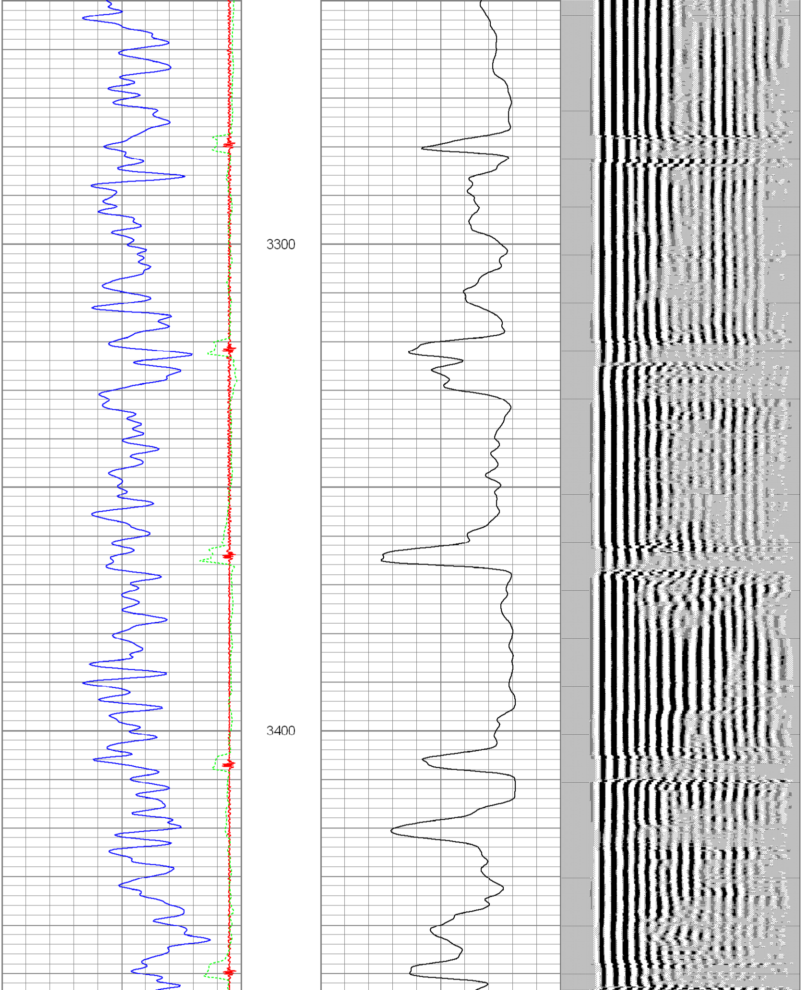


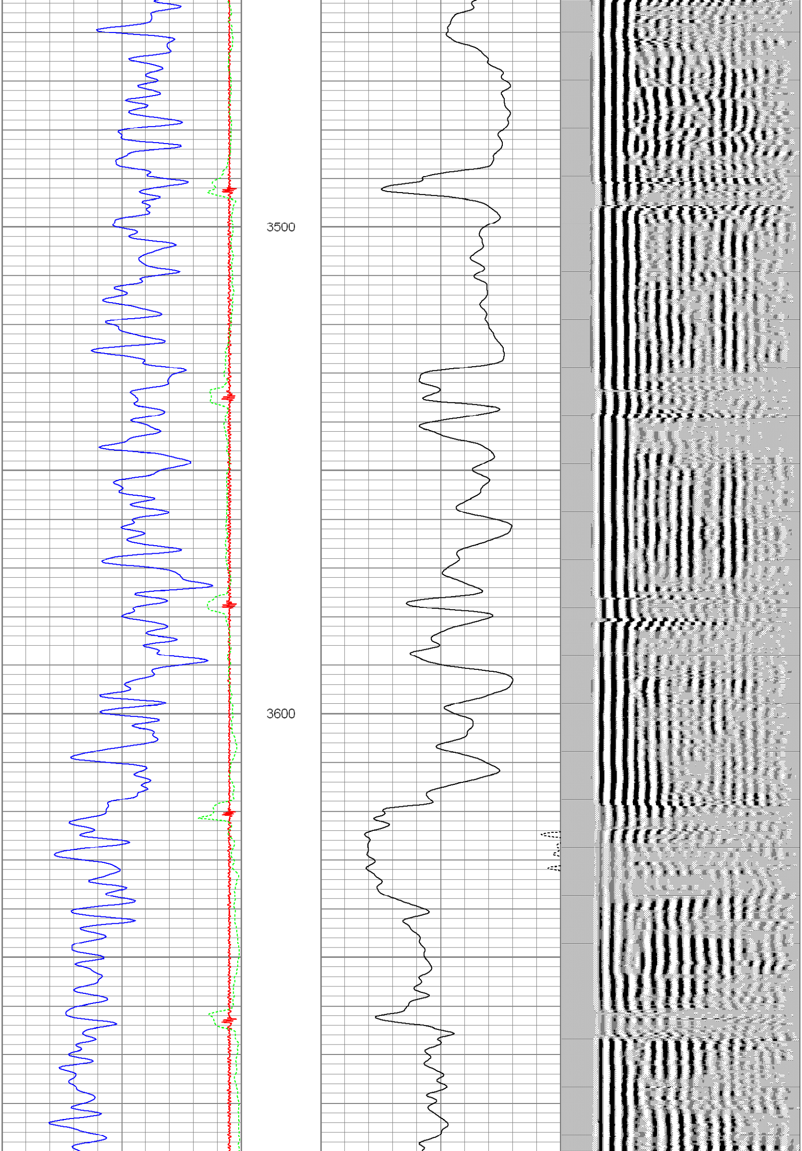


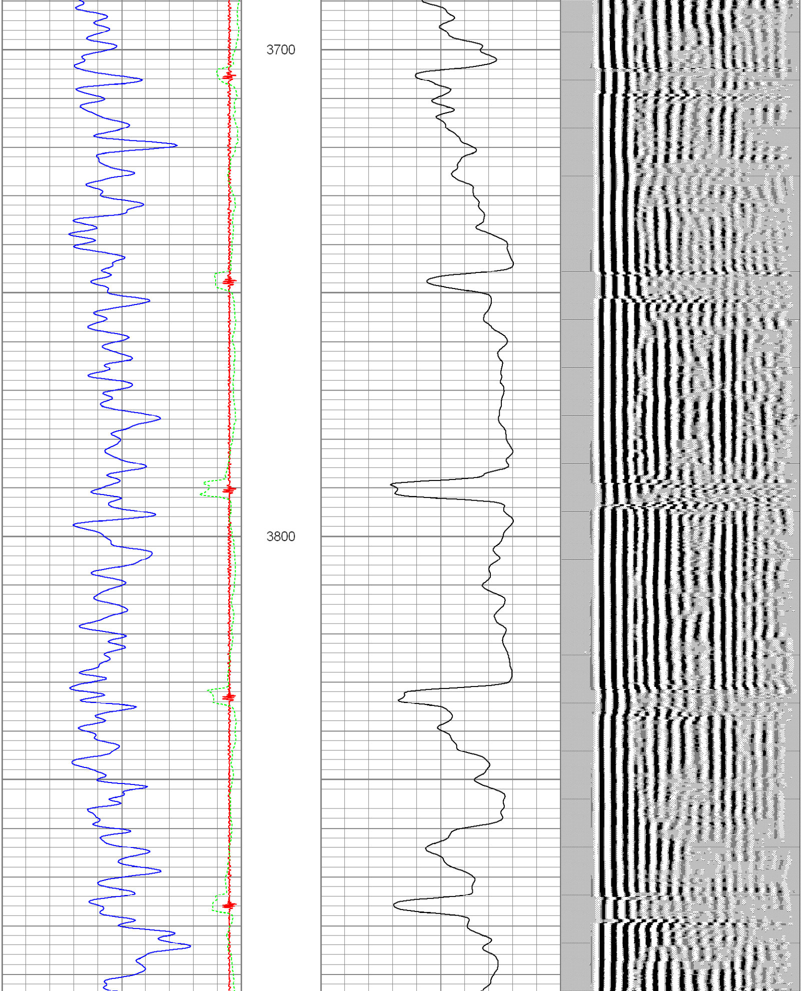


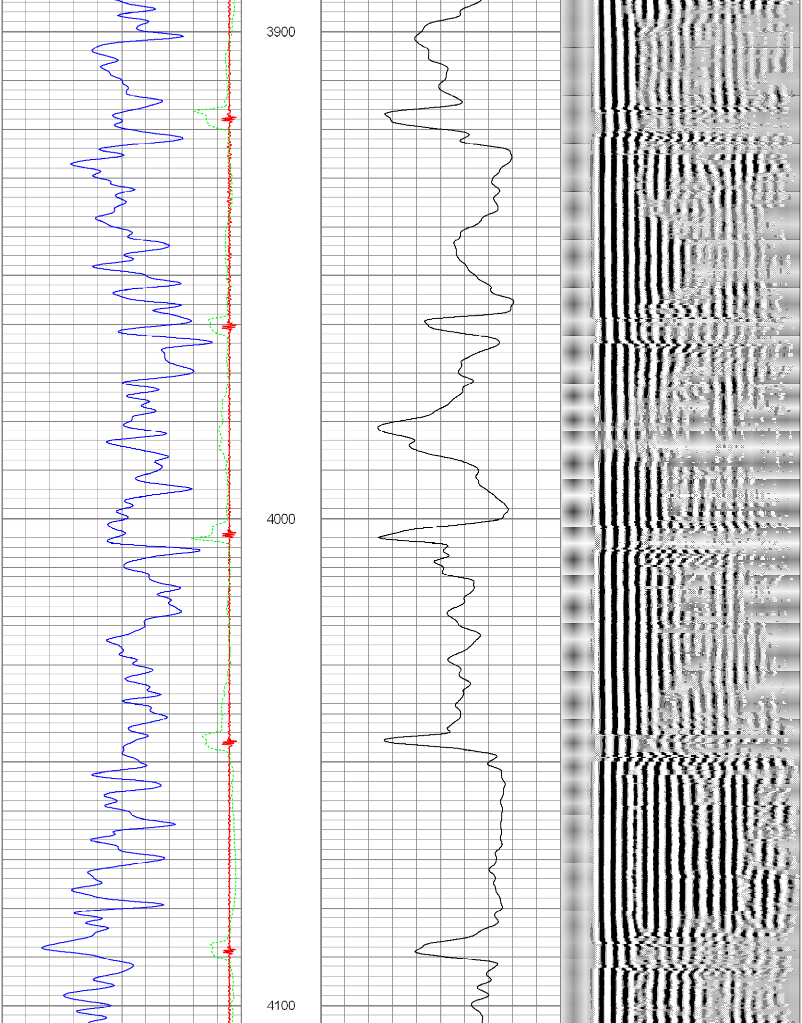


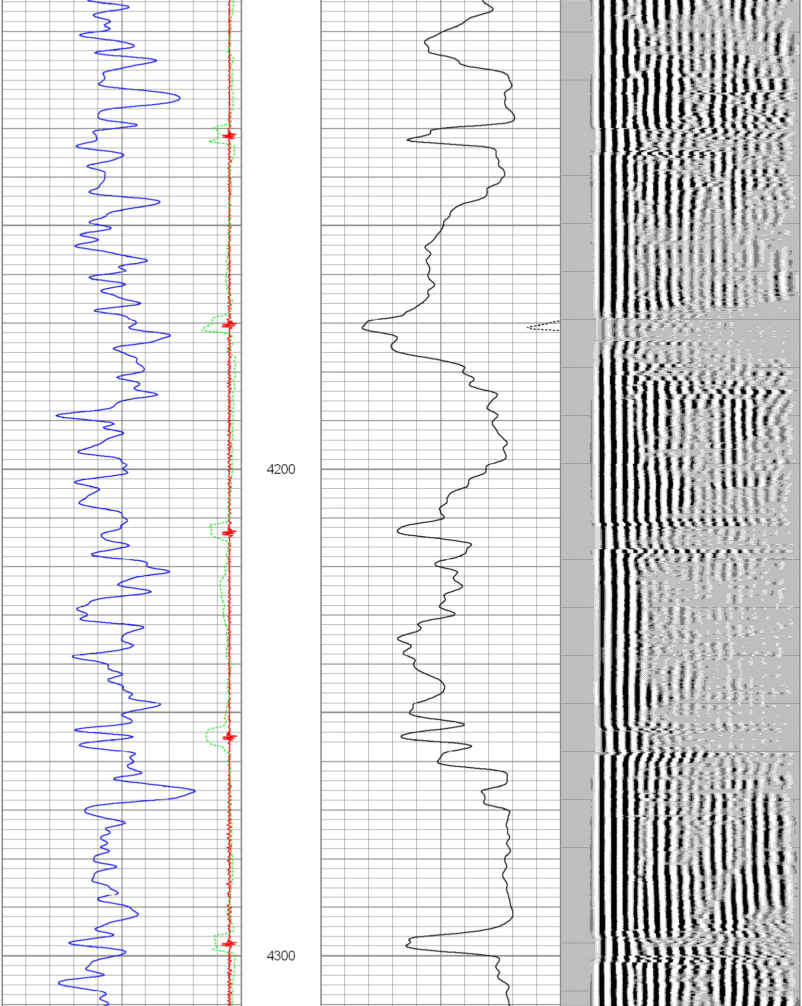


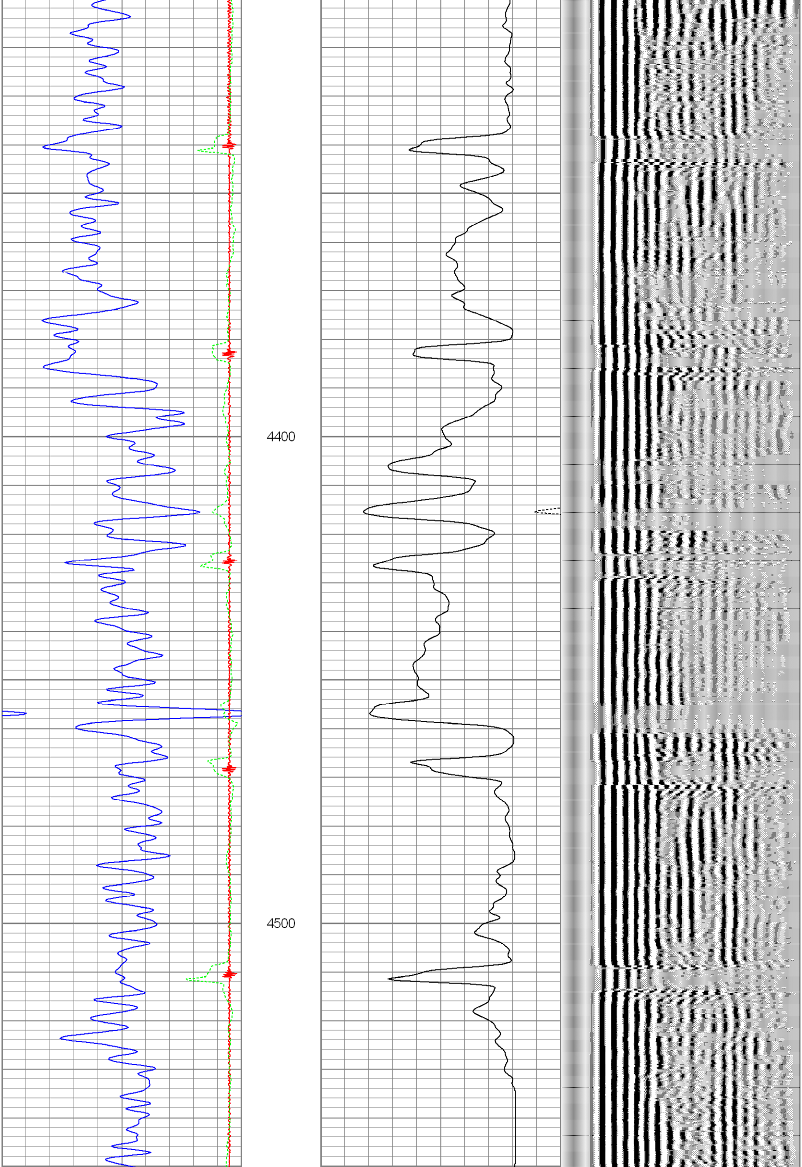


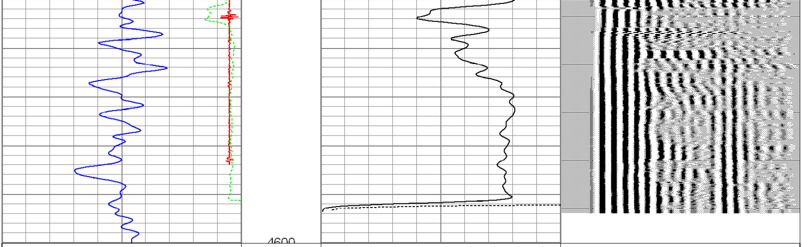








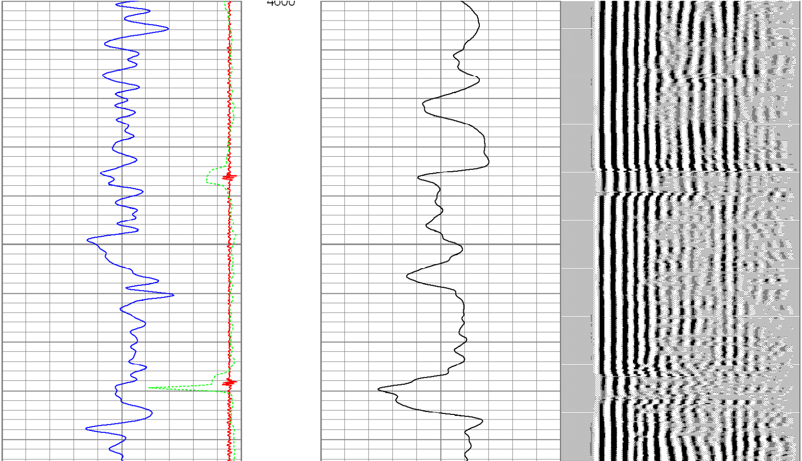


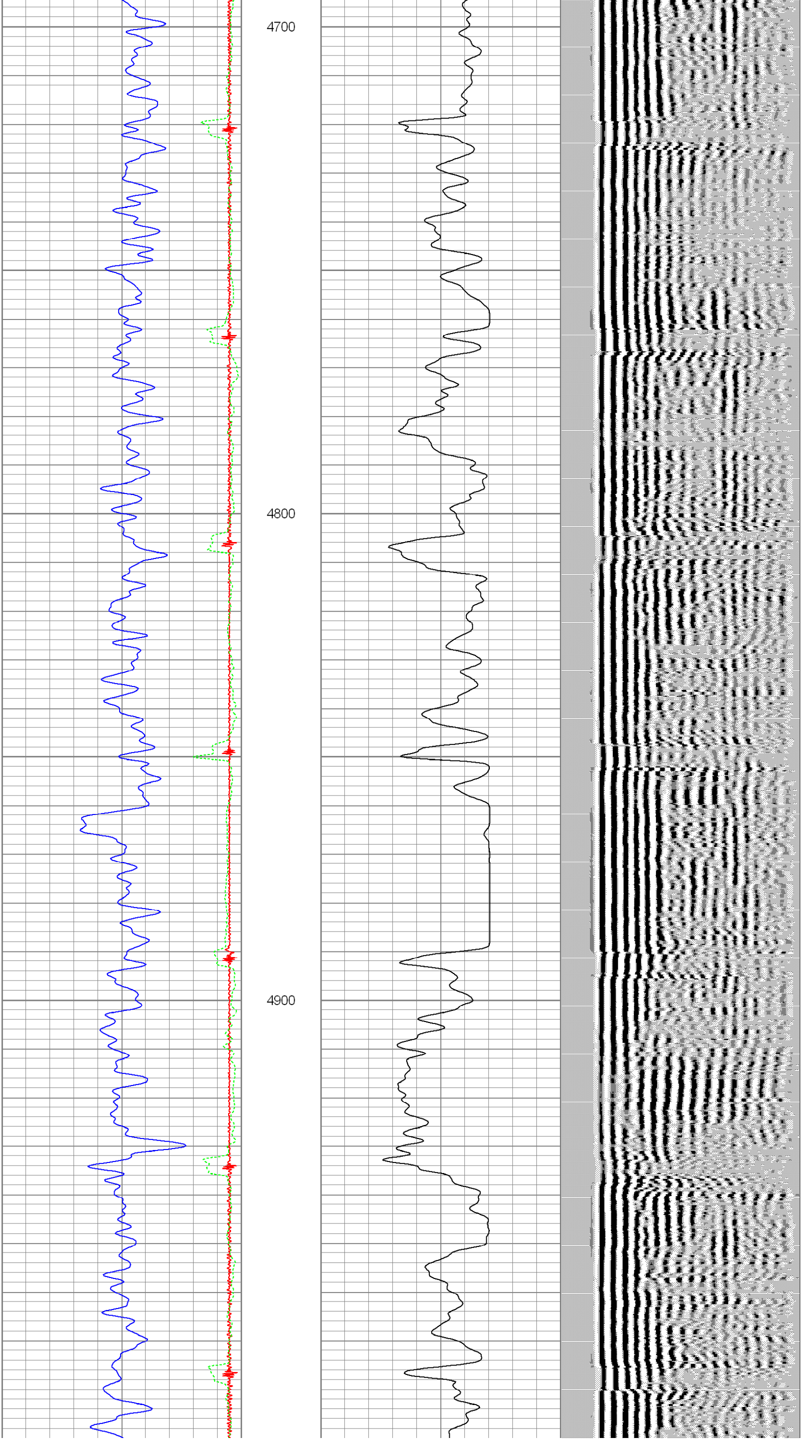


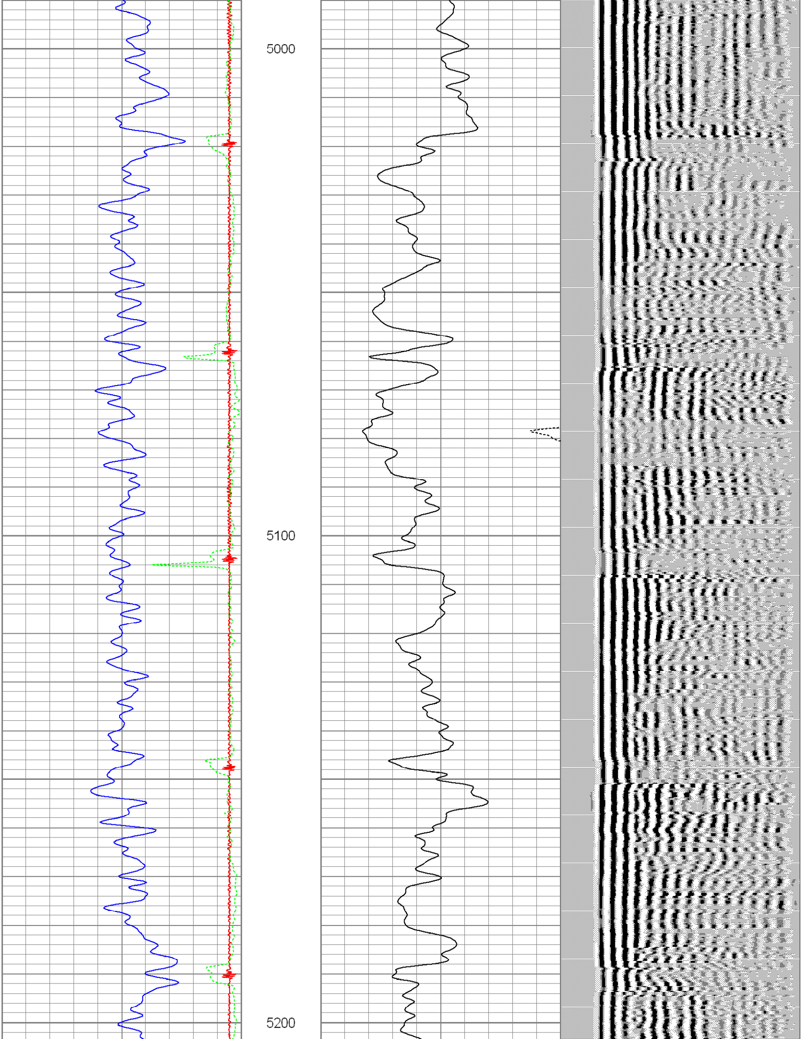
30	Gamma Ray (GAPI)	130	0	Amplified Amplitude (mV)	20	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

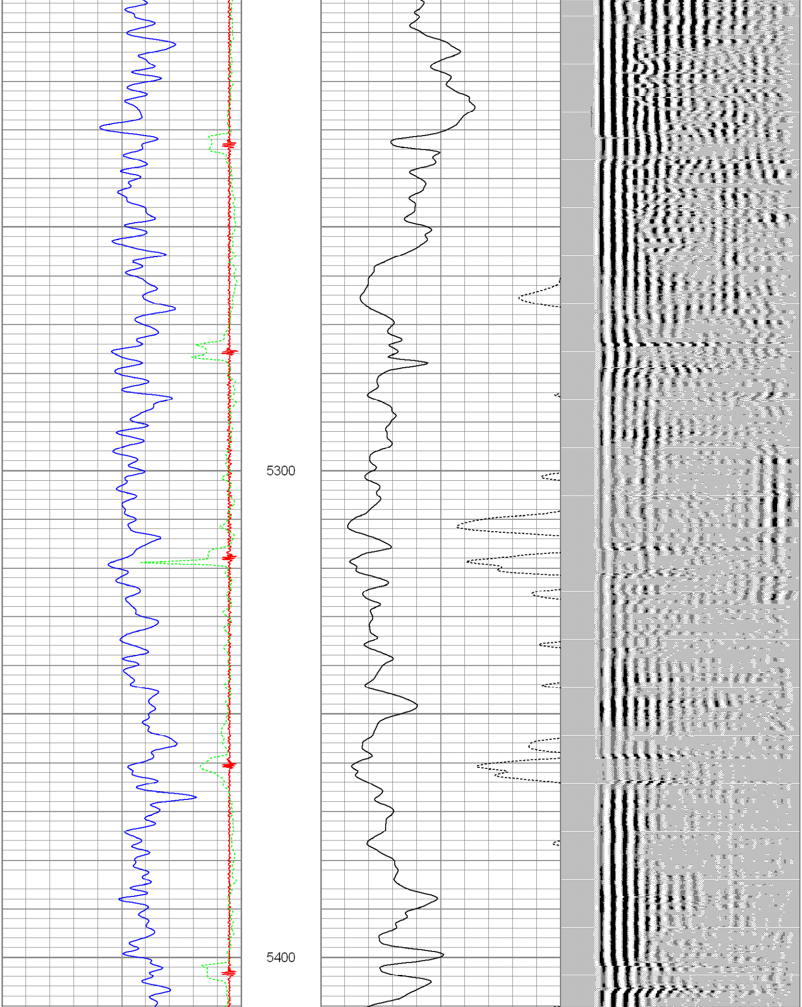
Database File: cblstrohauer f32-23.db
Dataset Pathname: pass5
Presentation Format: nuexbond
Dataset Creation: Mon Dec 13 11:33:53 2010 by Log Std Casedhole 10081
Charted by: Depth in Feet scaled 1:240

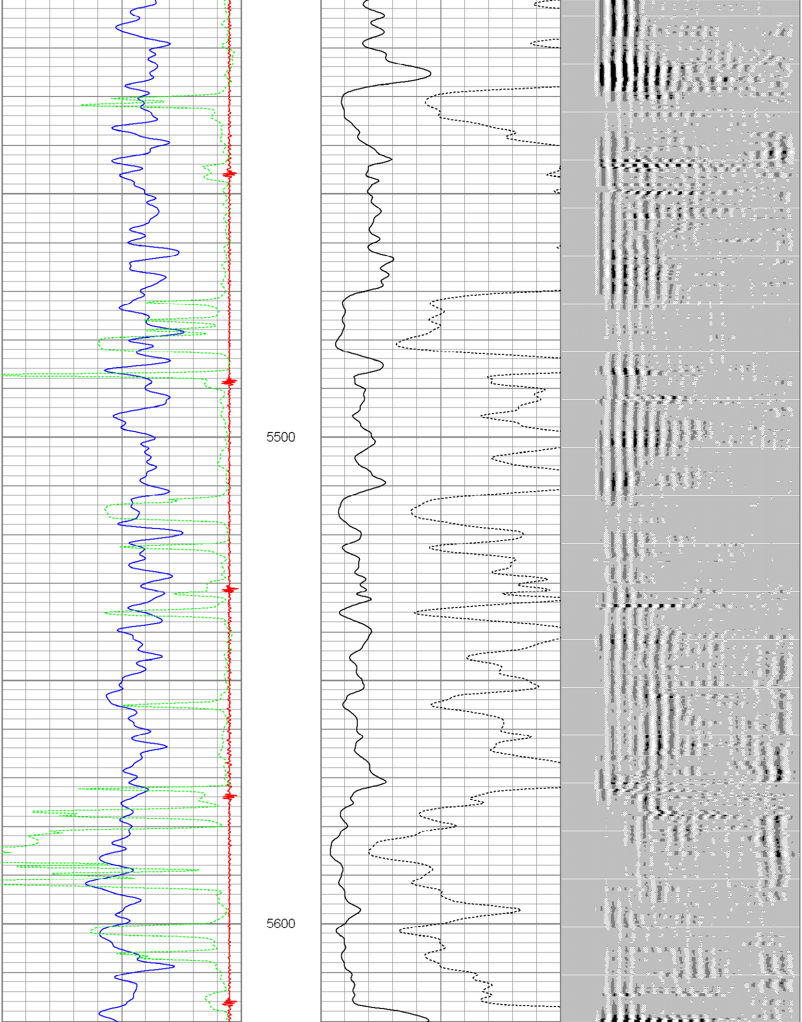
0	Gamma Ray (GAPI)	150	0	Amplified Amplitude (mV)	20	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

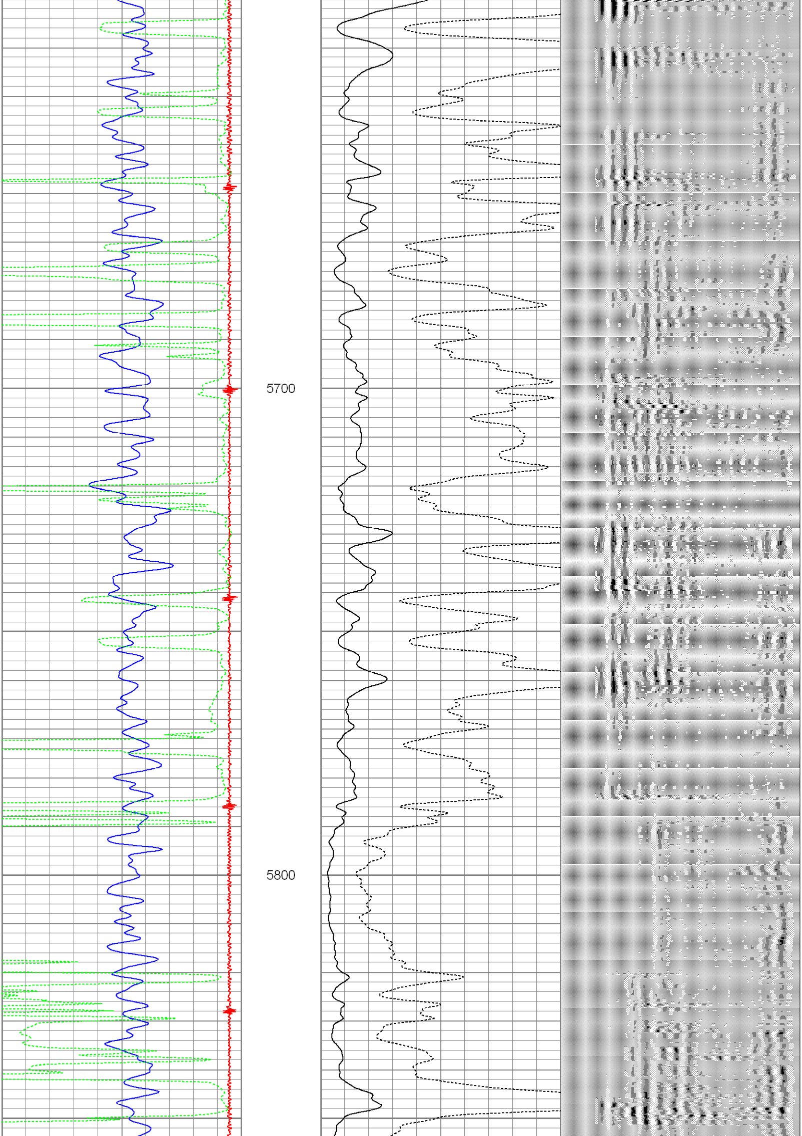


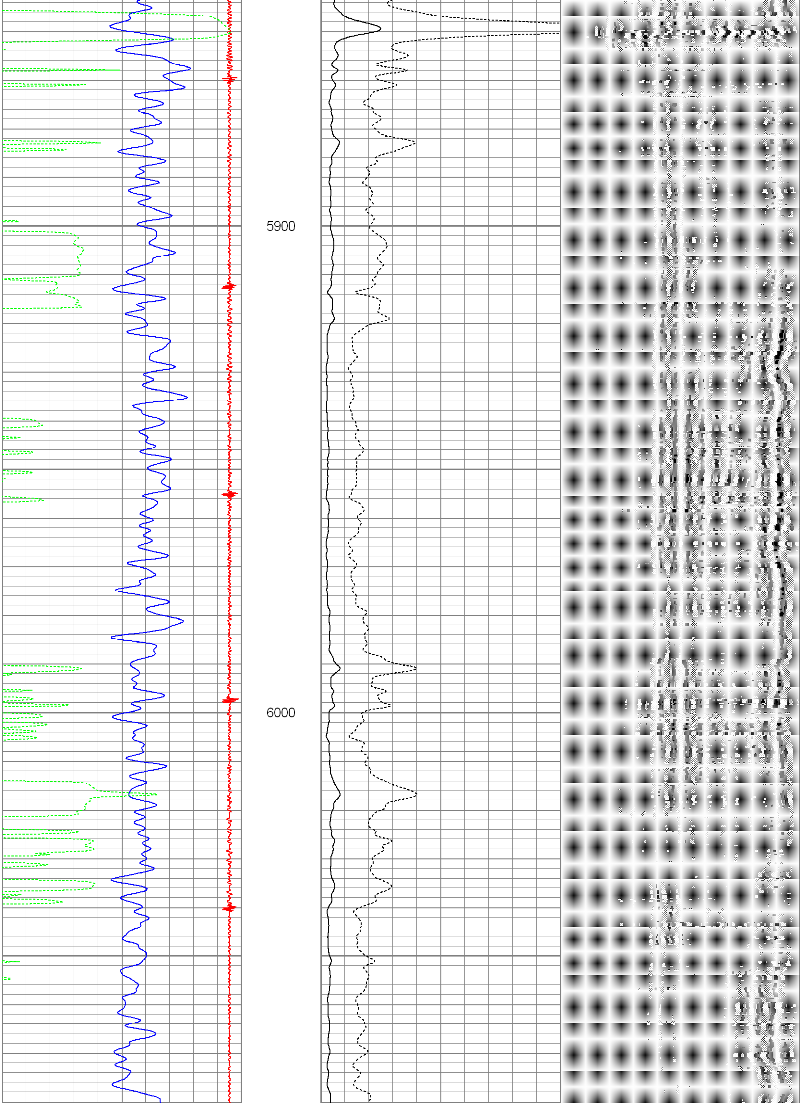


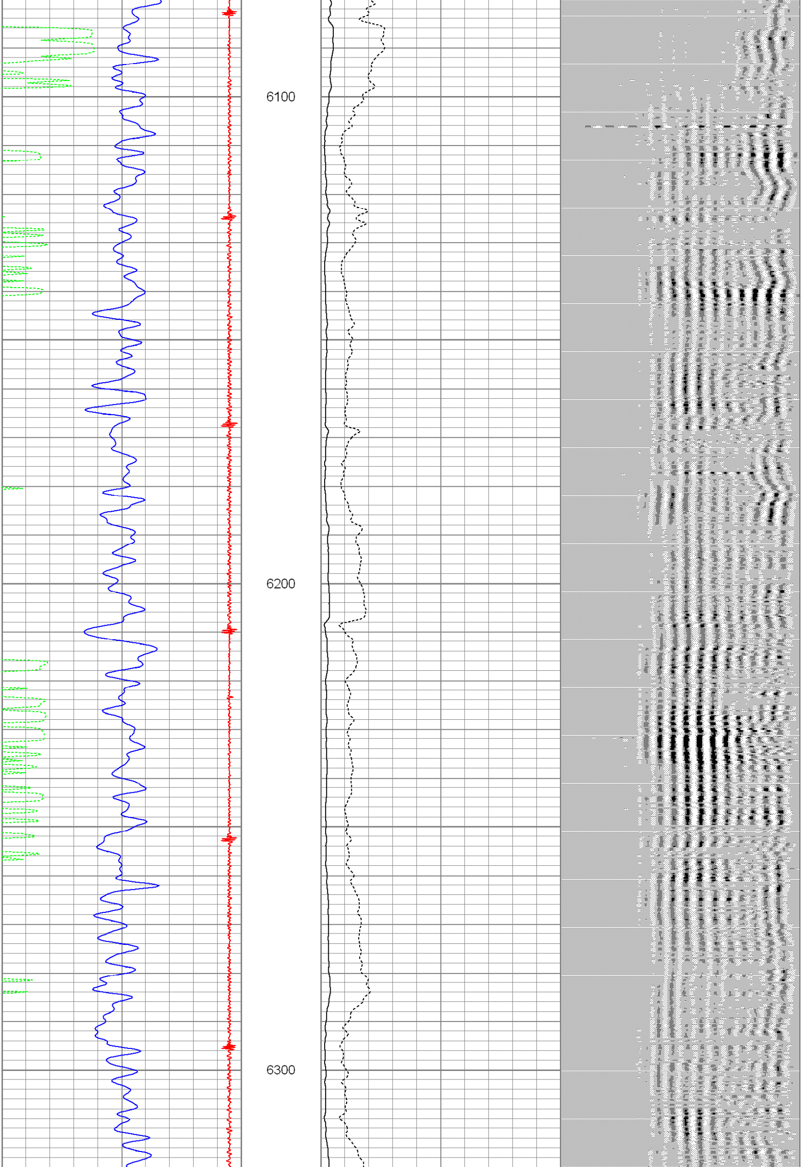


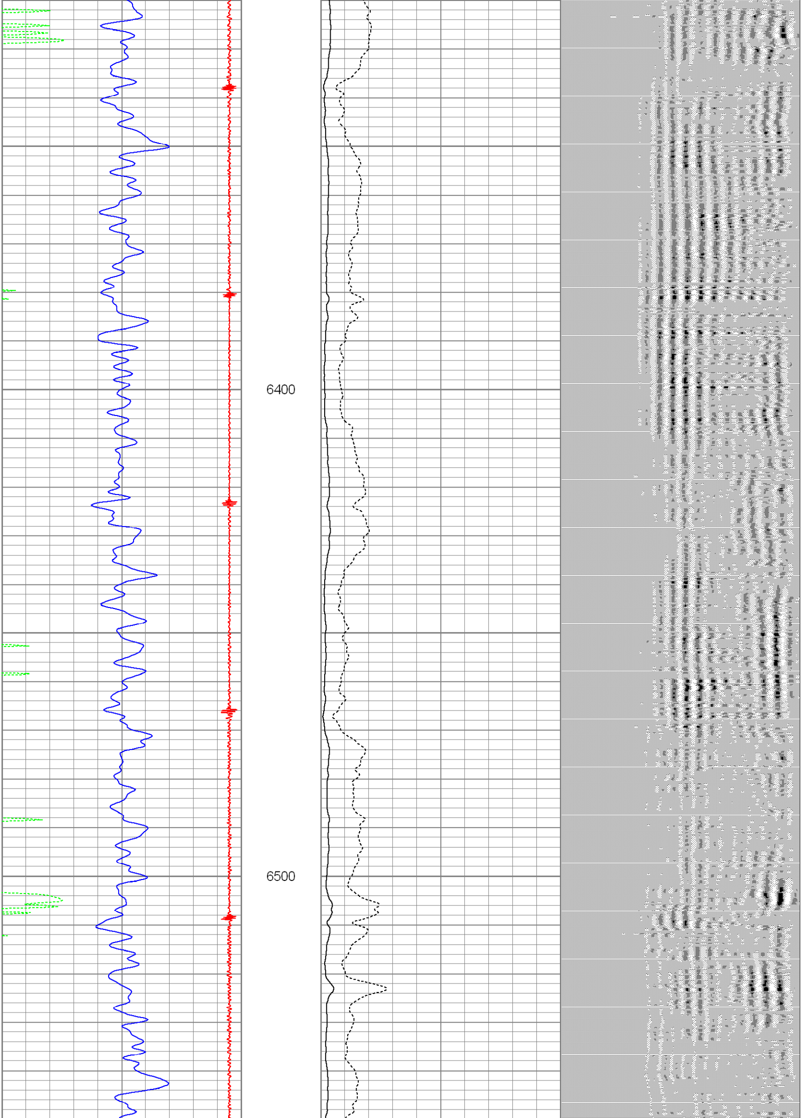


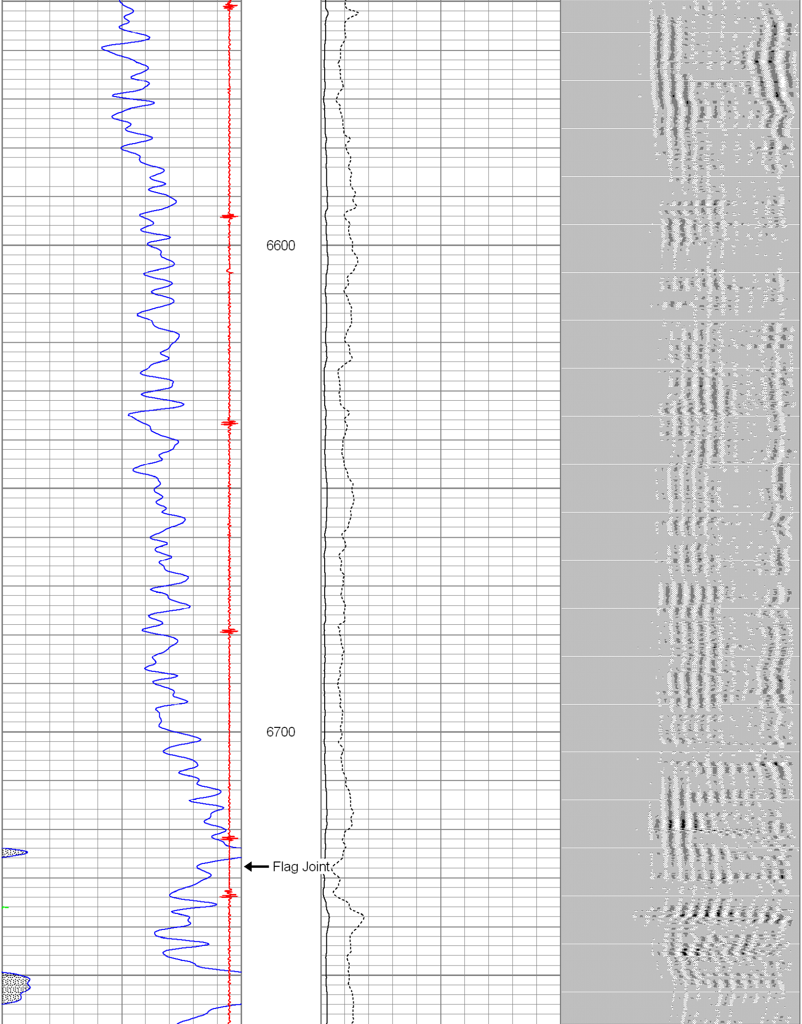


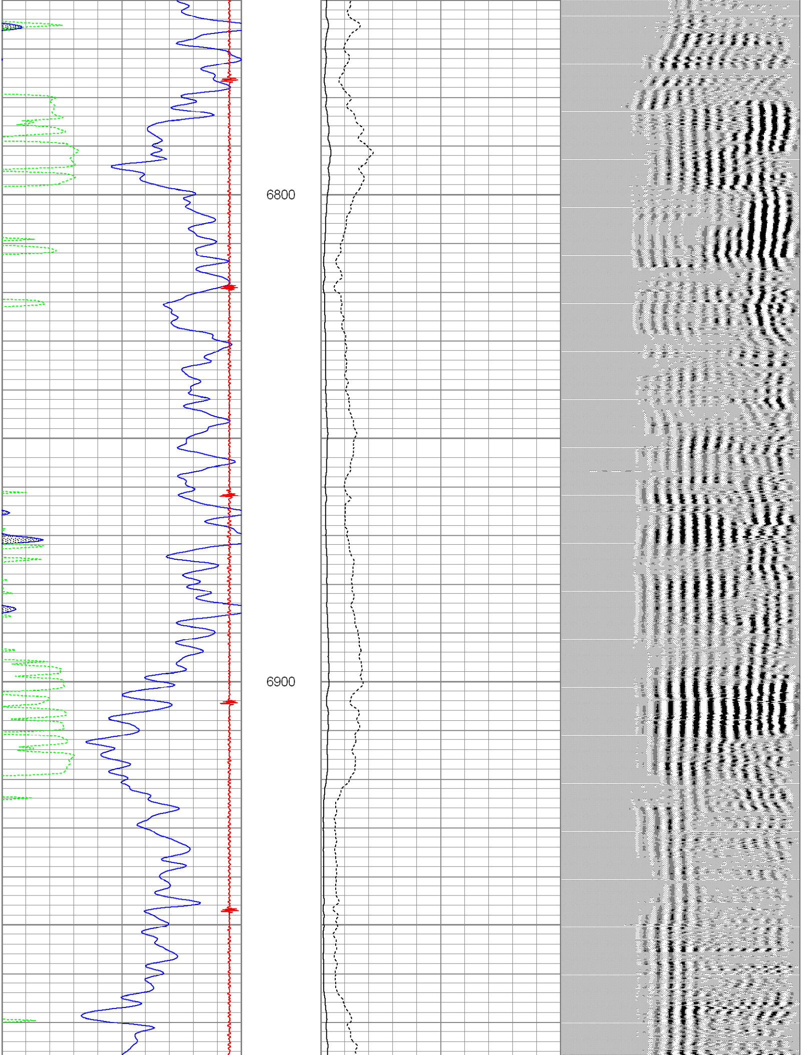


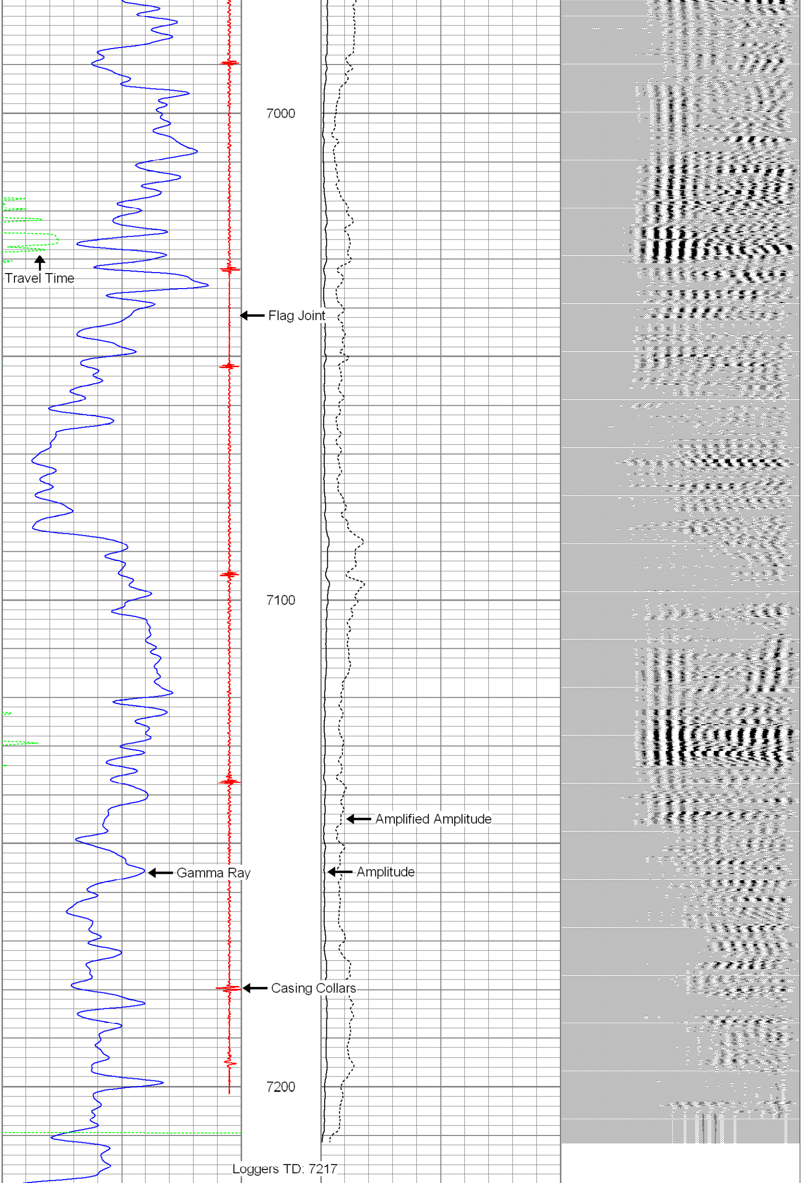












0	Gamma Ray (GAPI)	150	0	Amplified Amplitude (mV)	20	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

Calibration Report

Database File: cblstrohauer f32-23.db
Dataset Pathname: pass9
Dataset Creation: Mon Dec 13 12:03:29 2010 by Log Std Casedhole 10081

Gamma Ray Calibration Report

Serial Number:	234GR-328	
Tool Model:	TekcoGR	
Performed:	Thu Aug 02 12:04:45 2007	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	234B35C-8013	
Tool Model:	TEKCO	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	4601.525	ft

Master Calibration, performed Mon Dec 13 12:03:09 2010:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.010	2.500	0.500	81.196	32.156	0.807
CAL	-0.011	0.848				
5'	-0.009	2.414	0.500	81.196	33.308	0.786
SUM						
S1						
S2						
S3						
S4						
S5						
S6						
S7						
S8						

Internal Reference Calibration, performed Mon Dec 13 11:33:50 2010:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.011	0.848	1.000	0.000

Air Zero Calibration, performed Thu Dec 09 12:50:40 2010:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1			
S2			
S3			
S4			
S5			
S6			
S7			
S8			