PEAK WIRELINE SERVICES, INC.

DUAL SPACED CEMENT BOND LOG

Company	PRONGHORN OPERATING, LLC.		
Well	HANAVAN #1		
Field	SMOKY CREEK		
County	CHEYENNE	State	COLORADO

Company PRONGHORN OPERATING, LLC.
Well HANANVAN #1
Field SMOKY CREEK
County CHEYENNE
State COLORADO

Location
610' FNL & 610' FWL
SEC 21 TWP 13S RGE 44W

Other Services

Permanent Datum	GROUND LEVEL	Elevation	4262	Elevation K.B. 4274 D.F. G.L. 4262
Log Measured From	KELLY BUSHING 12' AGL			
Drilling Measured From	KELLY BUSHING			

Date	11-14-2013		
Run Number	ONE		
Depth Driller	5504		
Depth Logger	5458		
Bottom Logged Interval	5454	4450	2727
Top Log Interval	5030	3050	900
Casing Size	5 1/2"		
Type Fluid	WATER		
Density / Viscosity			
Max. Recorded Temp.			
Estimated Cement Top			
Time Well Ready			
Time Logger on Bottom			
Equipment Number	TR-8		
Location	CHEYENNE WELLS, CO.		
Recorded By	HENDERSON		
Witnessed By	JAKE FLORA	ROB KLIESEN	

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	17 1/2"	0	471				
TWO	12 1/4"	471	1657				
THREE	7 7/8"	1657	5504				

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	13 3/8"	54#	0	471
Prot. String				
Production String	5 1/2"	15.5#	0	5502
Liner				

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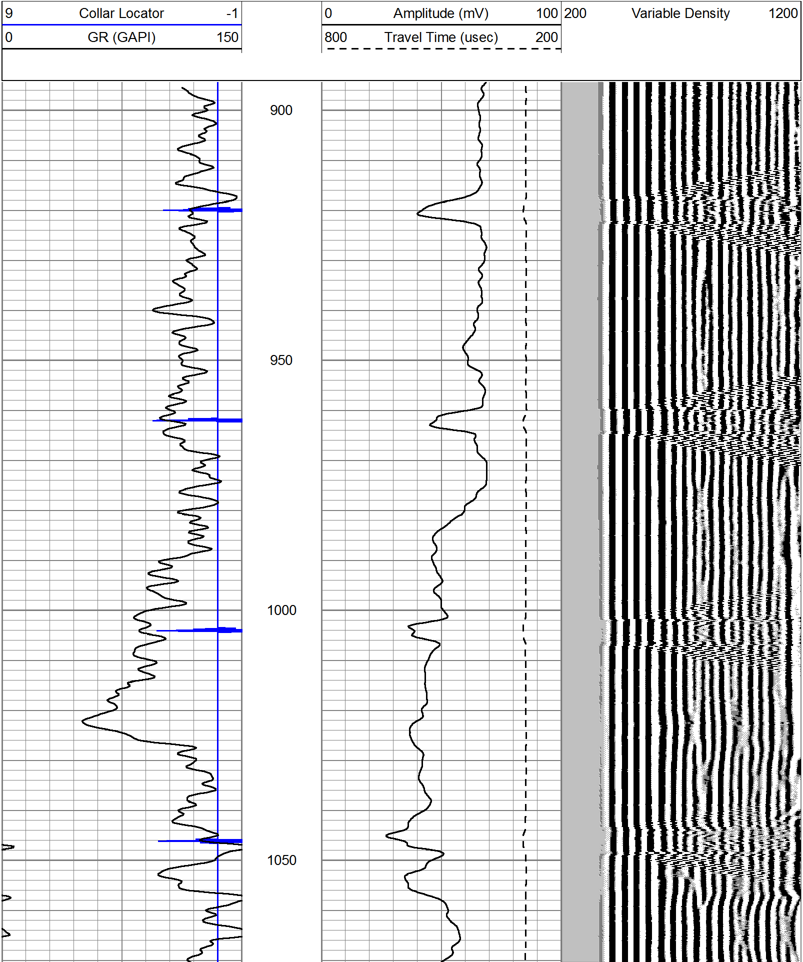
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

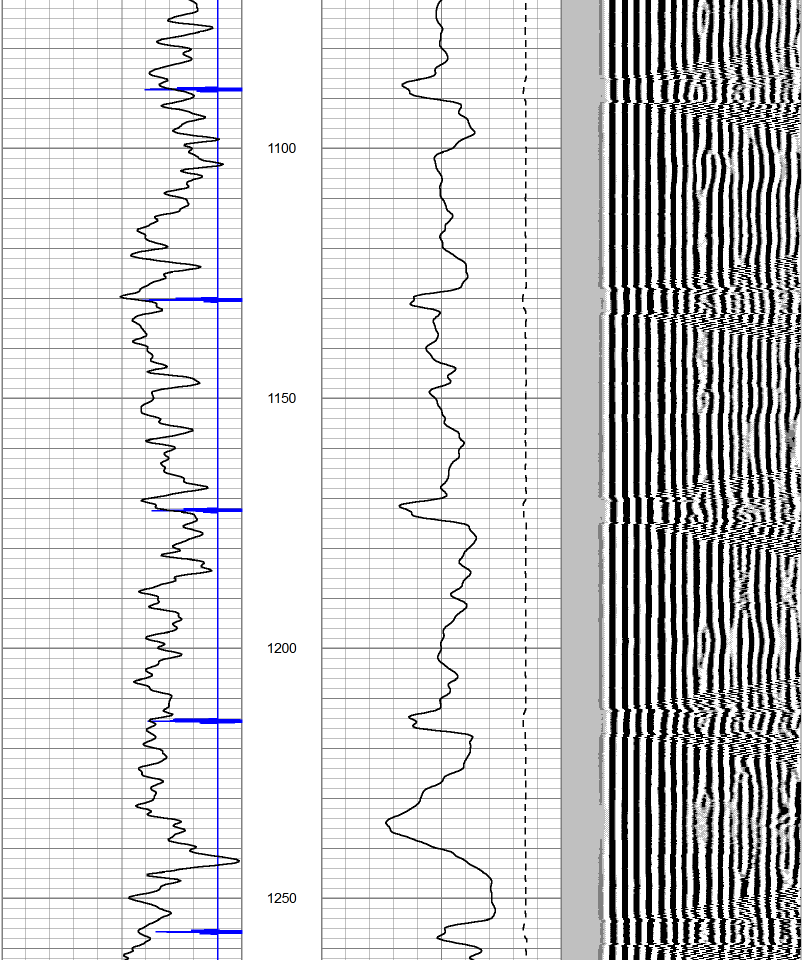
Comments

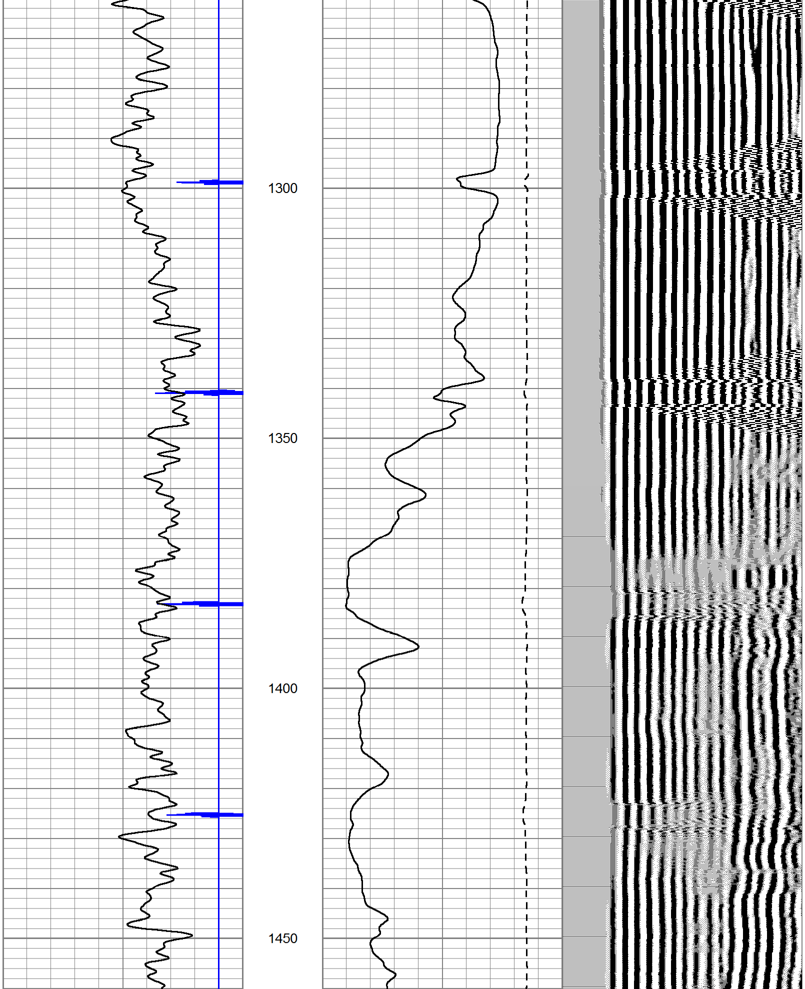
PEAK WIRELINE SERVICES, INC.

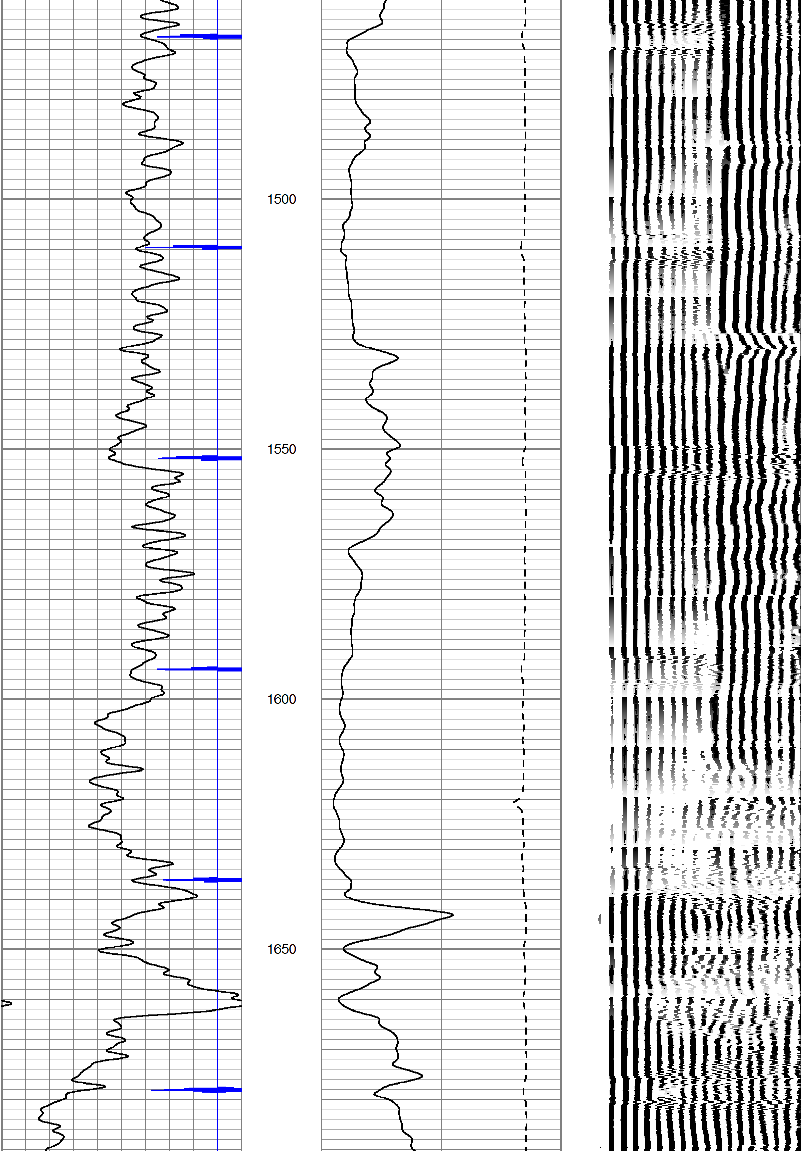
PORT COLLAR

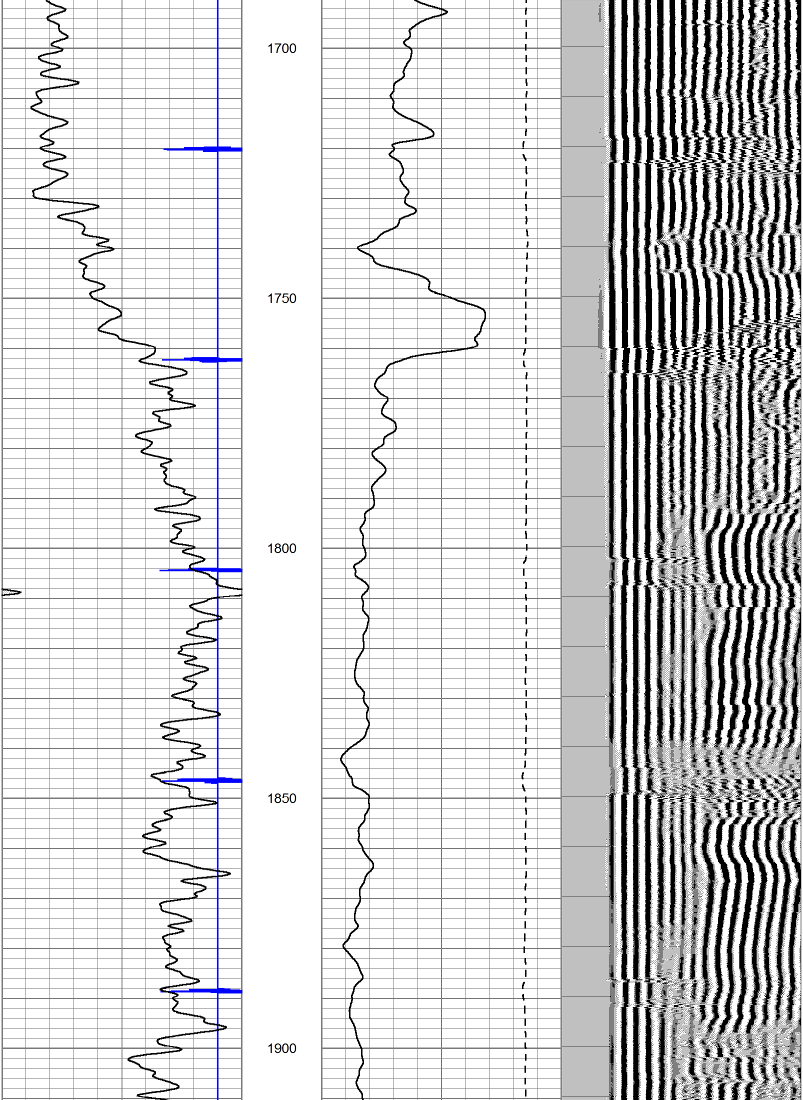
Database File:	hanavan1.db
Dataset Pathname:	pass4
Presentation Format:	cbldig
Dataset Creation:	Thu Nov 14 14:12:33 2013 by Log Std Casedhole 10071
Charted by:	Depth in Feet scaled 1:240

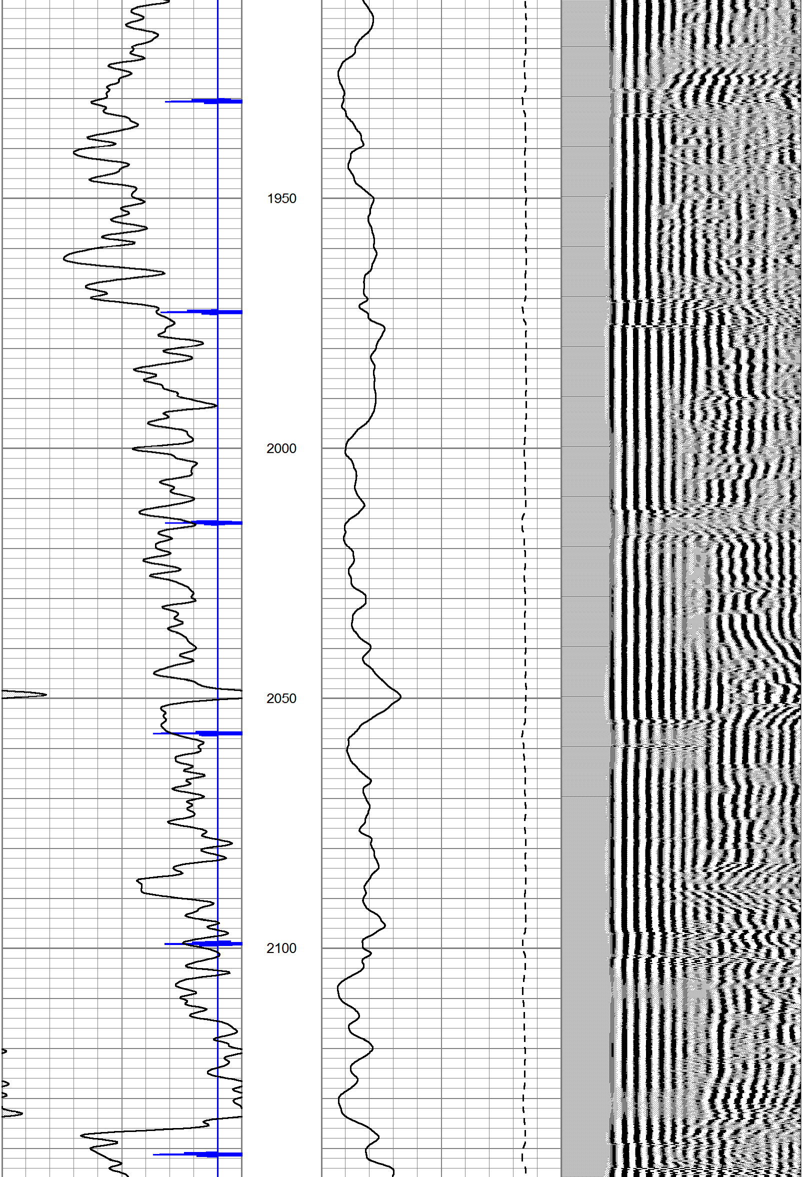


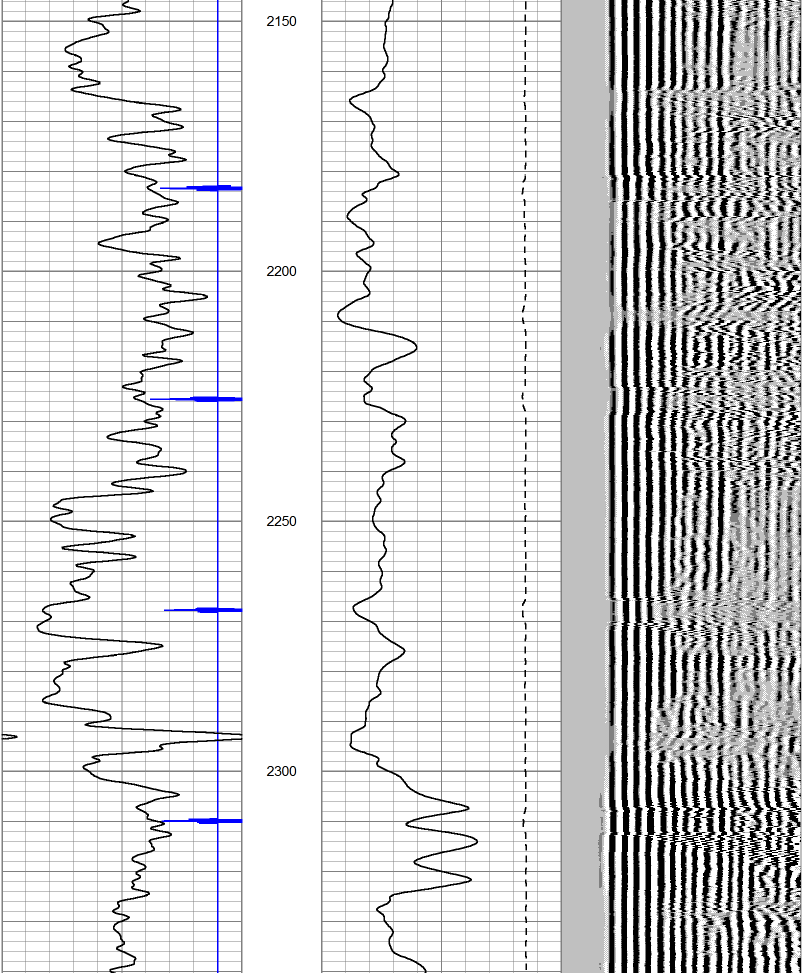


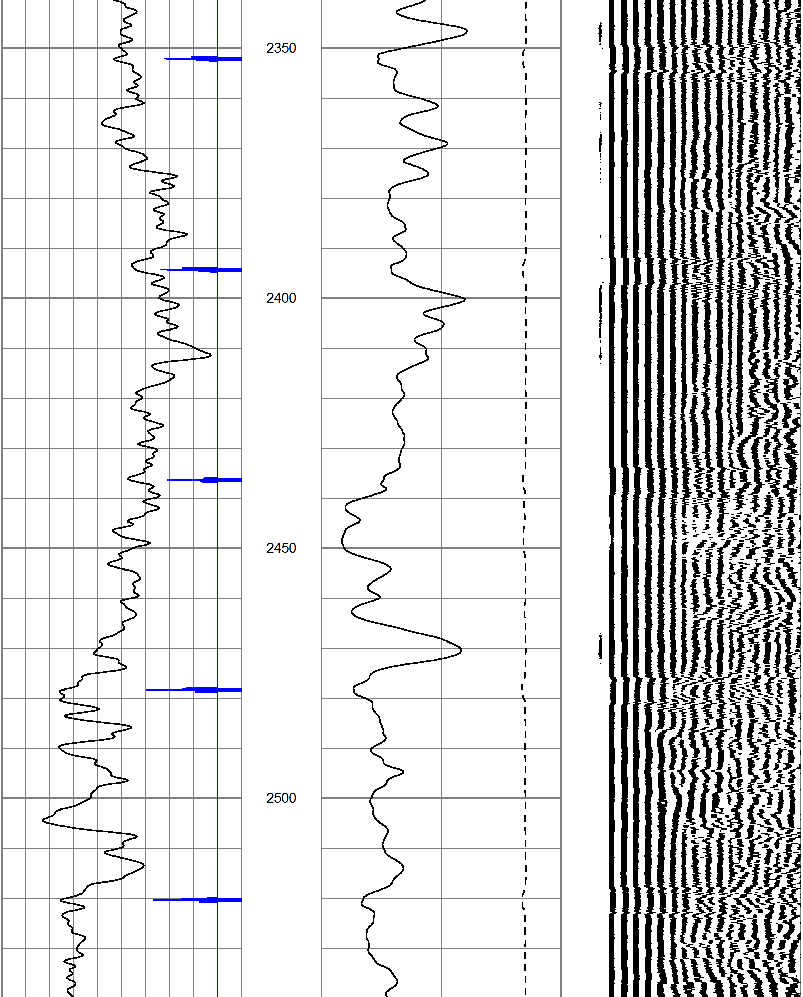


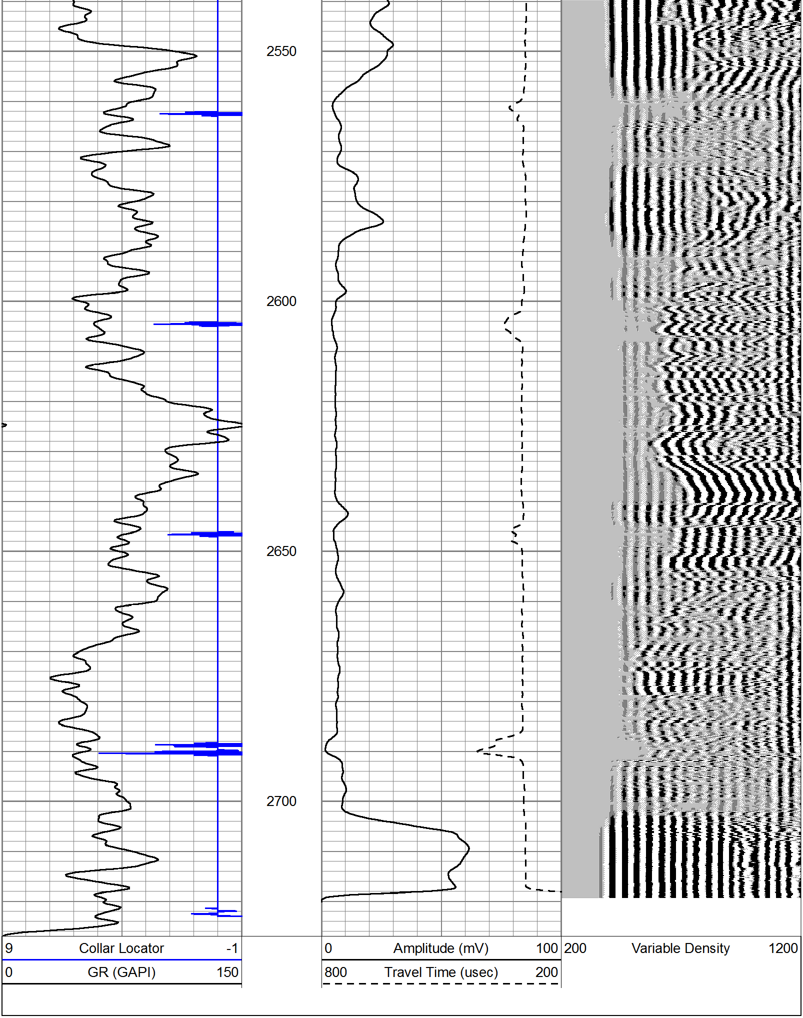












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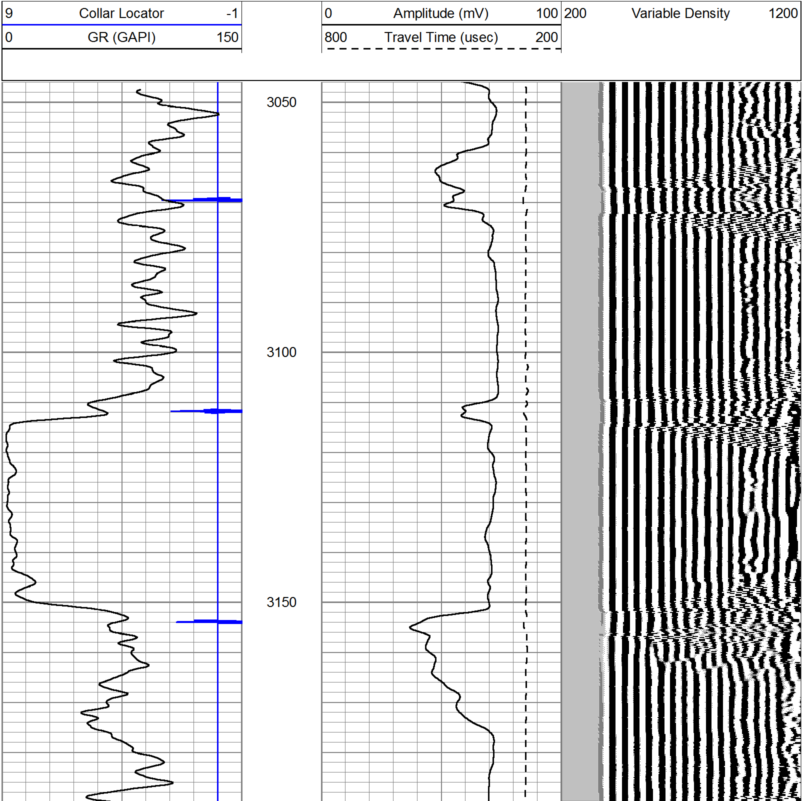
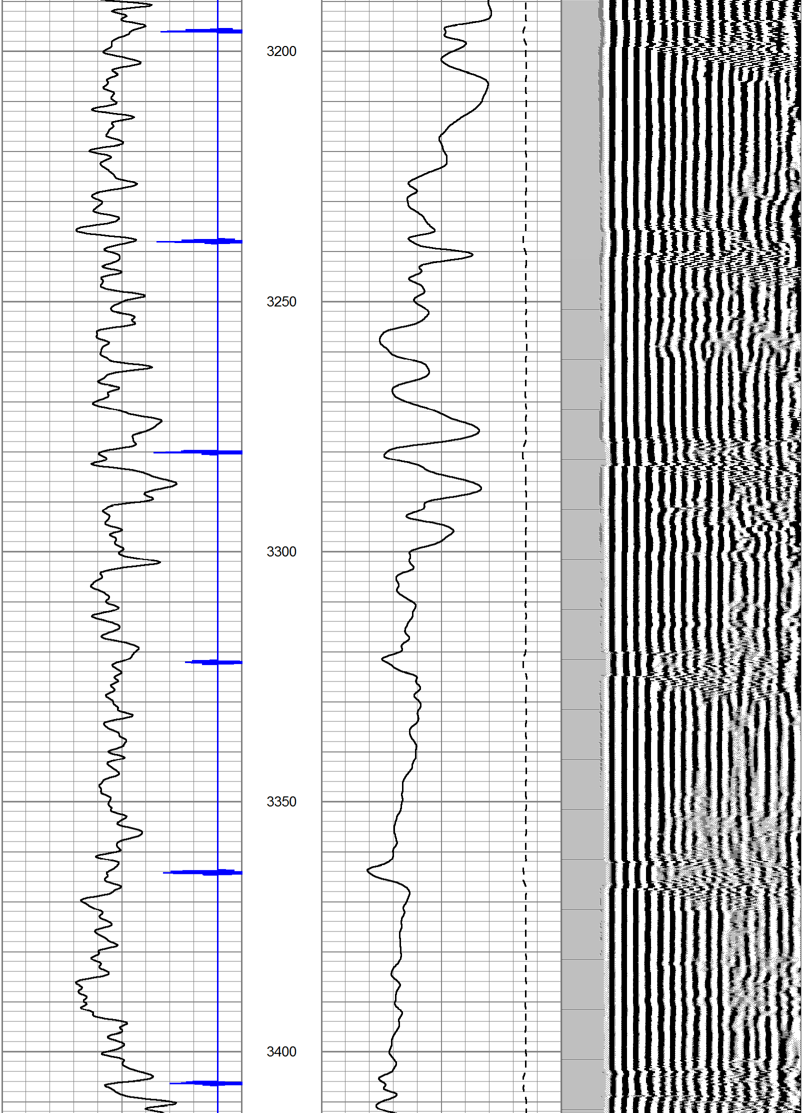
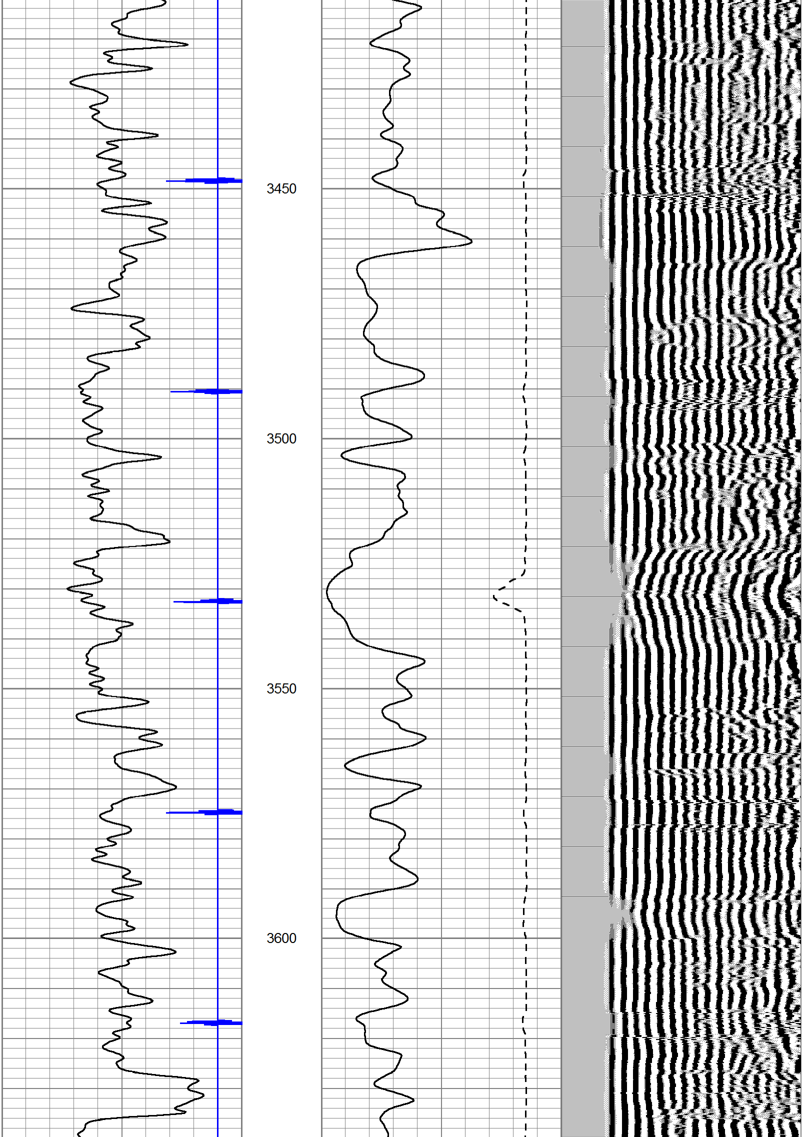
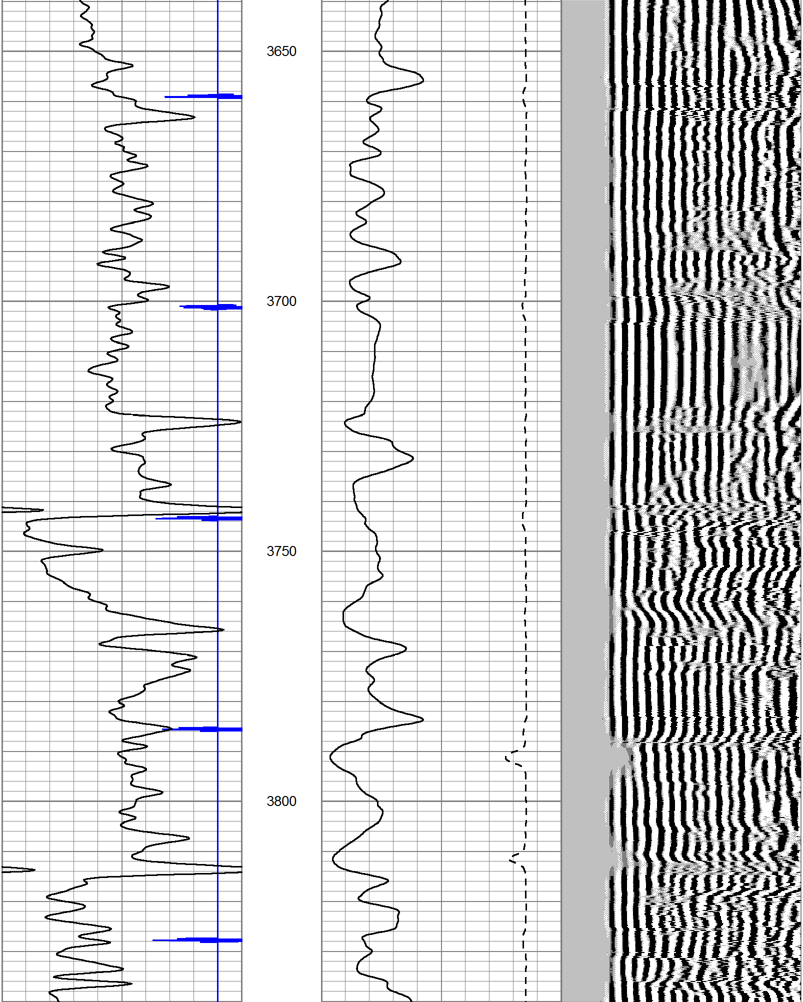
PORT COLLAR

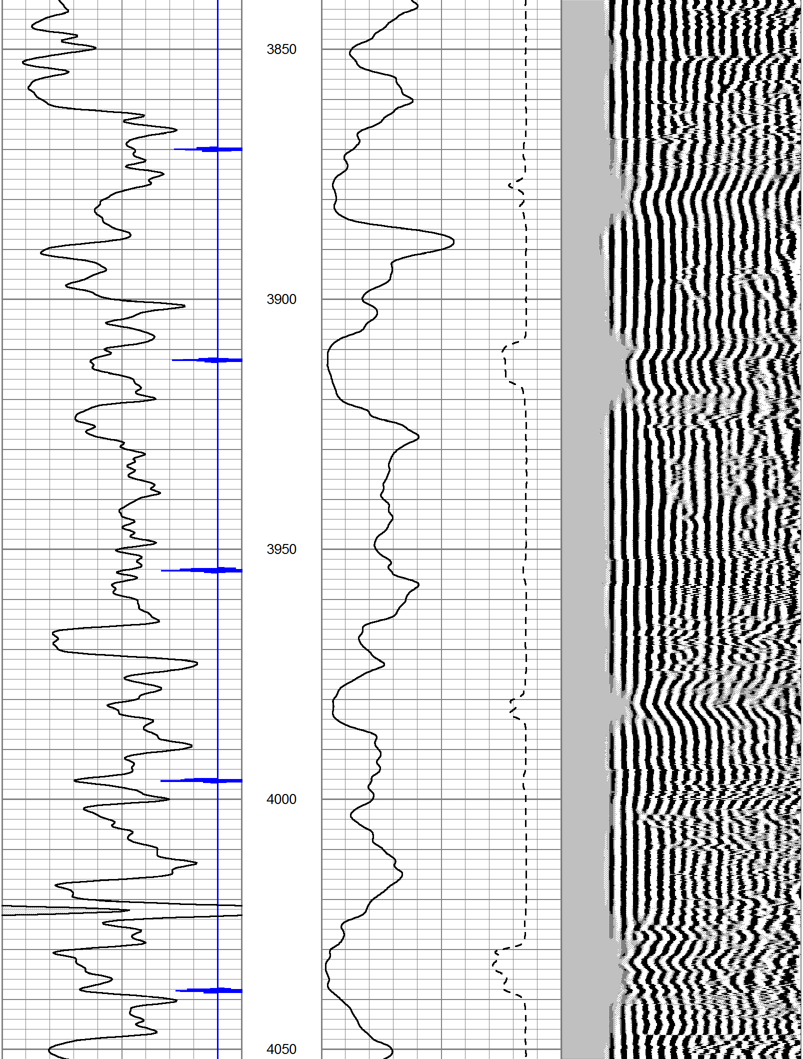
Database File: hanavan1.db
Dataset Pathname: pass3
Presentation Format: cbldig
Dataset Creation: Thu Nov 14 13:43:08 2013 by Log Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240

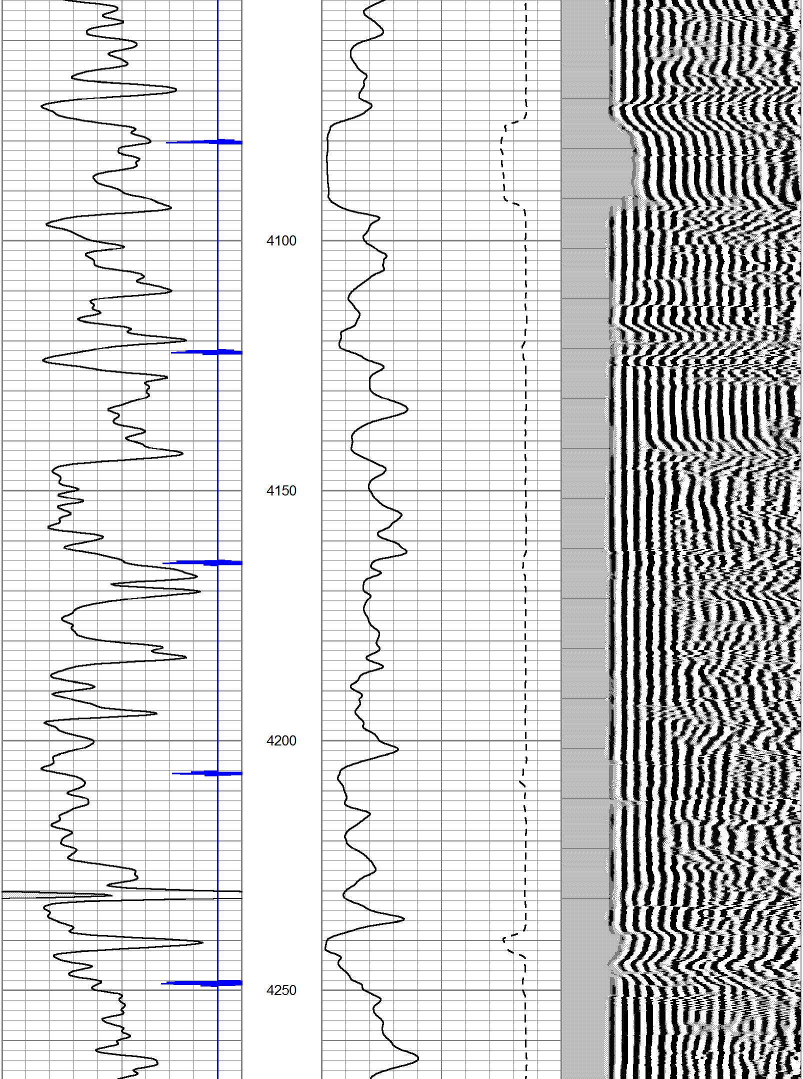


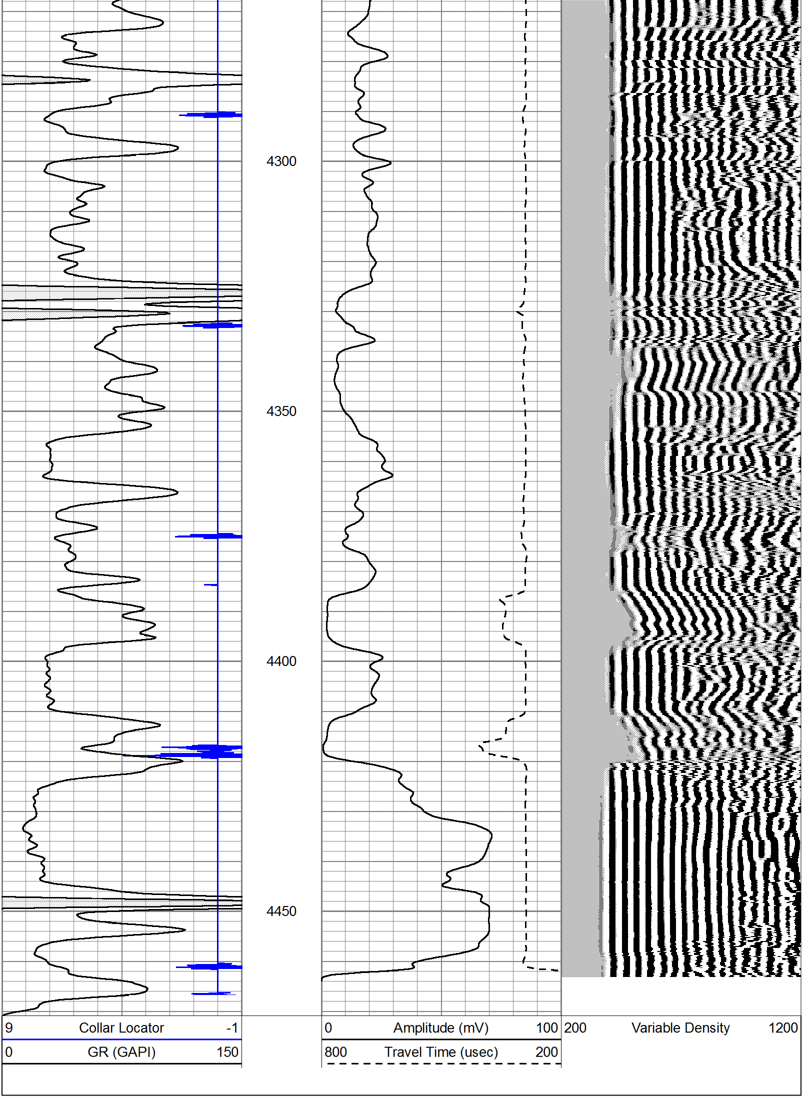












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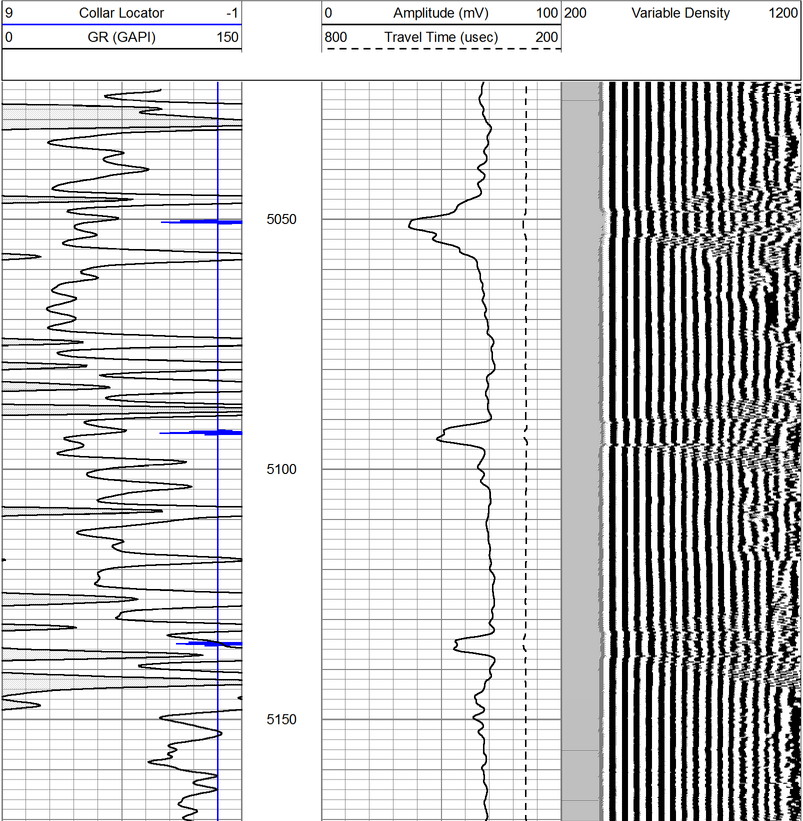
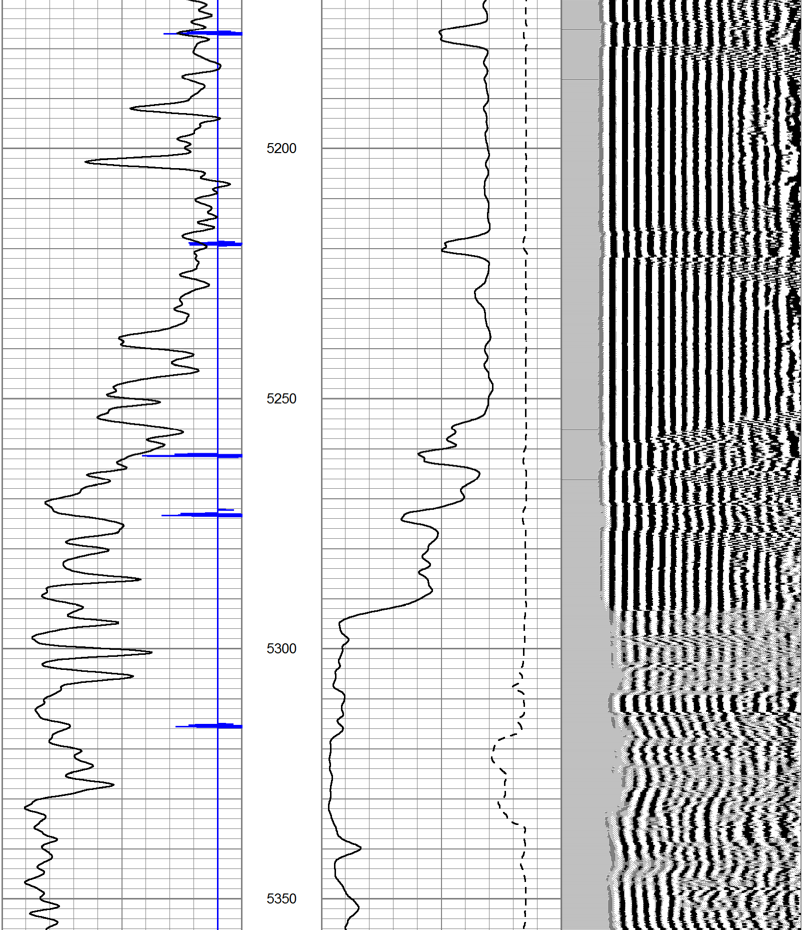
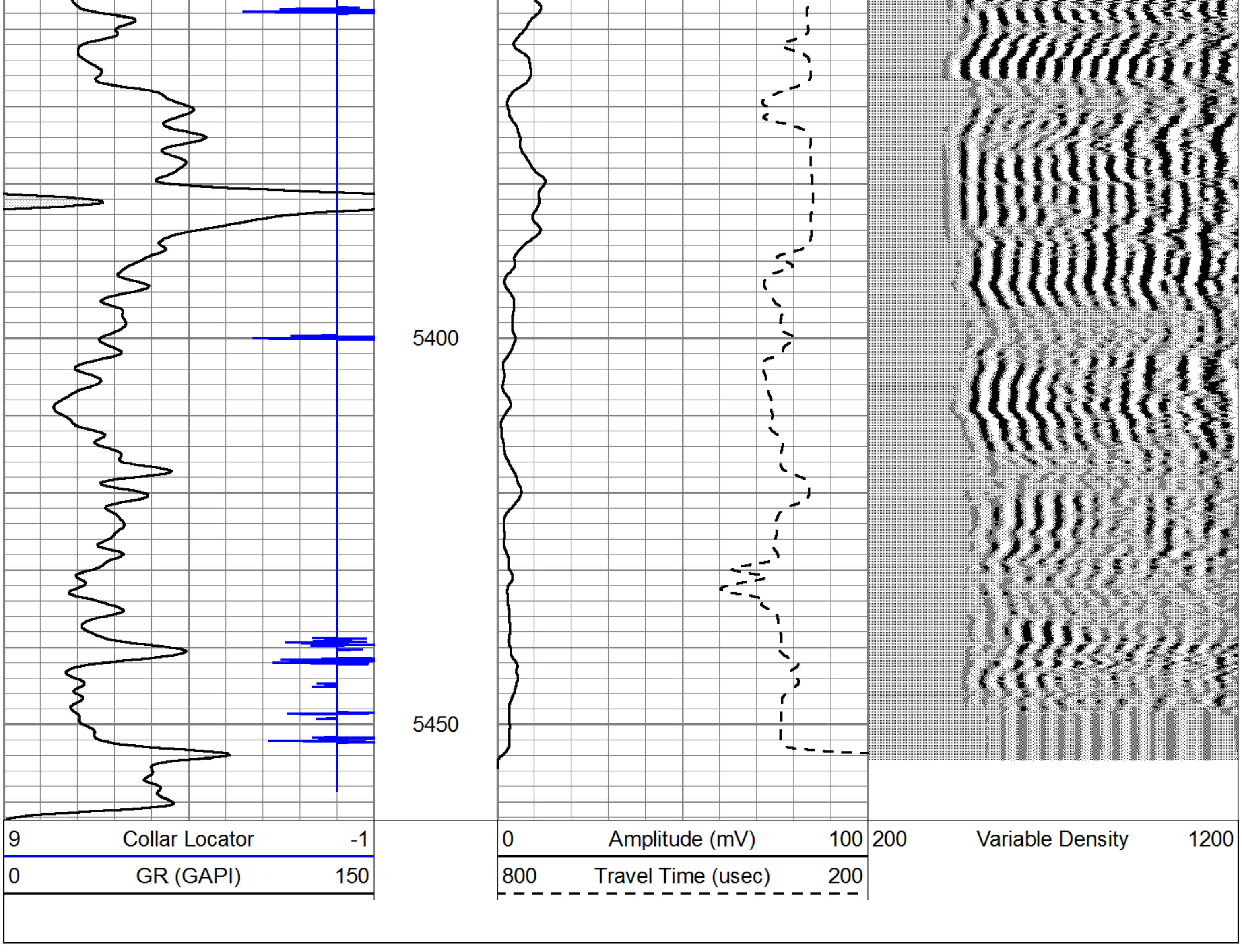
MAIN PASS

Database File: hanavan1.db
Dataset Pathname: pass2
Presentation Format: cbldig
Dataset Creation: Thu Nov 14 13:29:27 2013 by Log Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240







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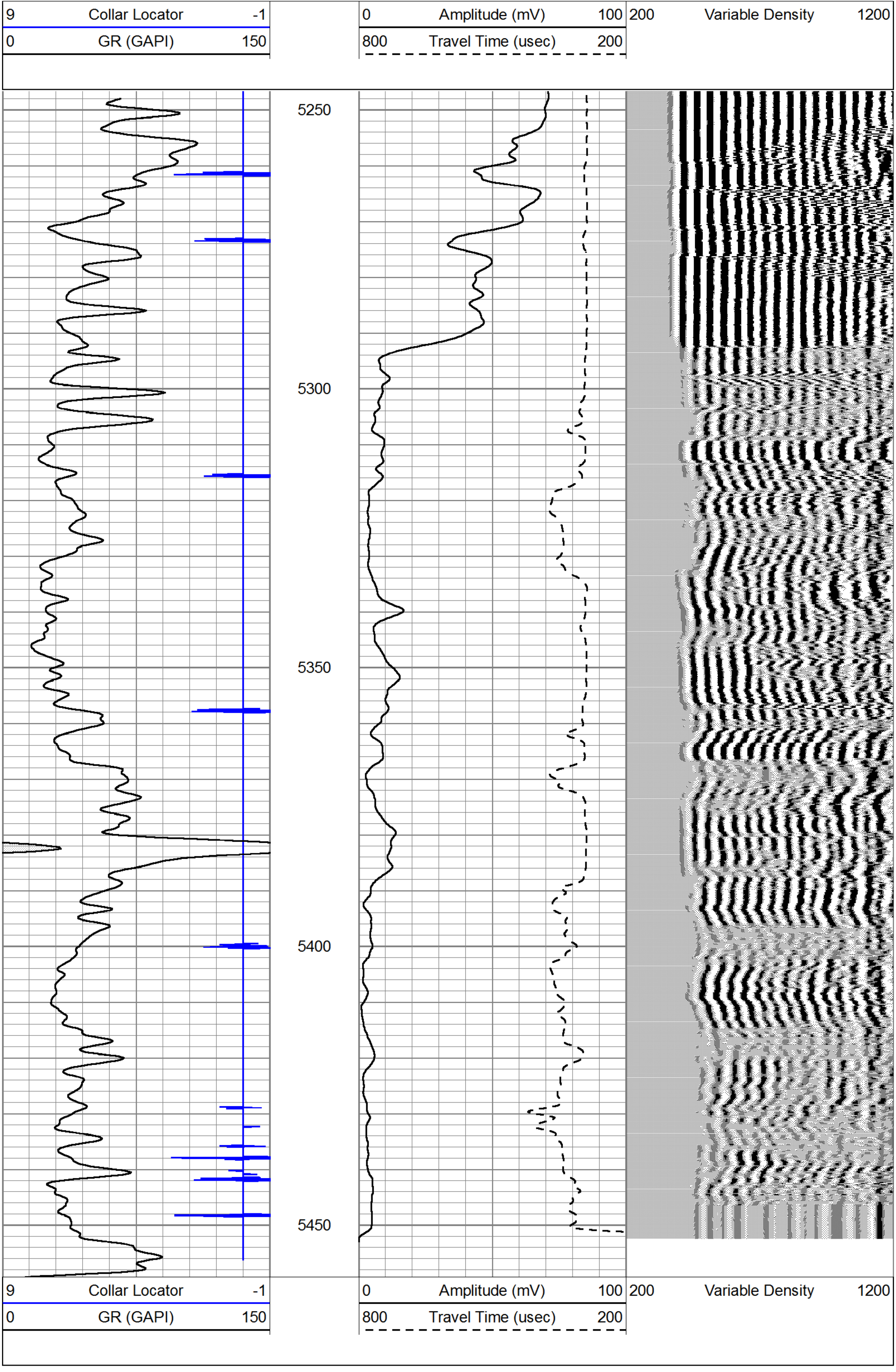
REPEAT SECTION

Database File: hanavan1.db
Dataset Pathname: pass1
Presentation Format: cbldig
Dataset Creation: Thu Nov 14 13:22:08 2013 by Log Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240



Calibration Report

Database File: hanavan1.db
Dataset Pathname: pass2
Dataset Creation: Thu Nov 14 13:29:27 2013 by Log Std Casedhole 10071

Gamma Ray Calibration Report

Serial Number:	061120GR	
Tool Model:	PROBE	
Performed:	Mon Nov 11 11:12:24 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	5.5dig040201		
Tool Model:	Probe275Digital		
Performed:	Thu Nov 14 13:14:13 2013		
Depth:	11	ft	
Casing Diameter:	5.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	0.25	0	mV
Calibrated Amplitude:	71.921	71.921	mV
Reading at Signal Zero:	0.00905762	0.0149902	V
Reading in Free Pipe:	2.32	2.32632	V
Gain:	31.0138	31.1167	
Offset:	-0.0309113	-0.466447	