



Pioneer Energy Services

Sonic Cement
Bond Log

15-101-22420-00-00

Company Larson Engineering, Inc.
Well Bockelman No. 2-19
Field Wildcat
County Lane State Kansas

Location 1936' FNL & 2132' FEL
SE-NW-SW-NE

Sec: 19 Twp: 18S Rge: 29W

Permanent Datum Ground Level Elevation 2834
Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Other Services
Perforate
Elevation
K.B. 2841
D.F. 2834
G.L. 2834

Run Number	One
Date Survey	2/11/2013
Date Cementing	2/1/2013
Type Cementing Operation	Primary
Depth Driller	4660
Depth Logger	4615
Logged Interval	4613 to 3550
Casing Driller	5.5 @ T.D.
Float Collar -- D.V. Tool	2132 @
Squeeze Depth	
Amount & Type Cement	
Amount & Type Admix	
Type Fluid In Hole	Water
Fluid Level	Full
Salinity PPM CL	
Weight lb/gal -- Vis.	
Approx. Logged Cement Top	3745
Calculated Cement Top	
Max. Hole Temperature	123
Tool No.	D-1
Spacing Recorded	3-5
Equipment -- Location	72 Hays
Recorded By	K. Ladriagan
Witnessed By	Tom Larson

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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 using Pioneer Energy Services, Inc. 785.625.3858

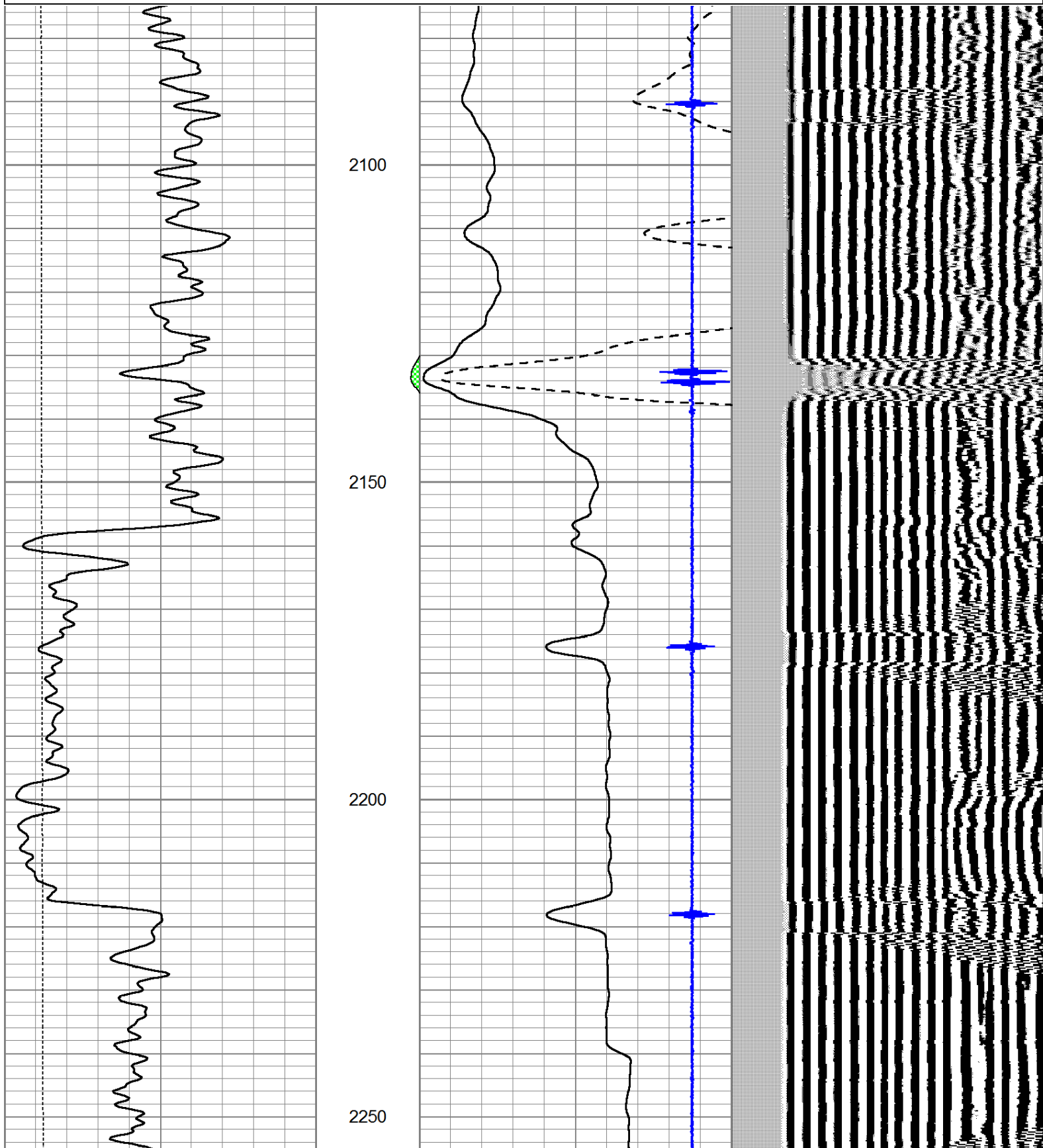
Dighton, KS., 5 West to Gage Road, .5 South
West and North Into.



Port Collar @ 2132

Database File: laron_bockelman2-19.db
 Dataset Pathname: grcb1/run1/pass4
 Presentation Format: cldig
 Dataset Creation: Mon Feb 11 09:24:33 2013 by Log SCH 111116
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150	AMP3	0	Amplitude (mV)	100	200	Variable Density	1200
0	LTEN (lb)	5000	(mV)	0	Amplified Amplitude (mV)	20			
			-100 10	7	Collar Locator	-1			



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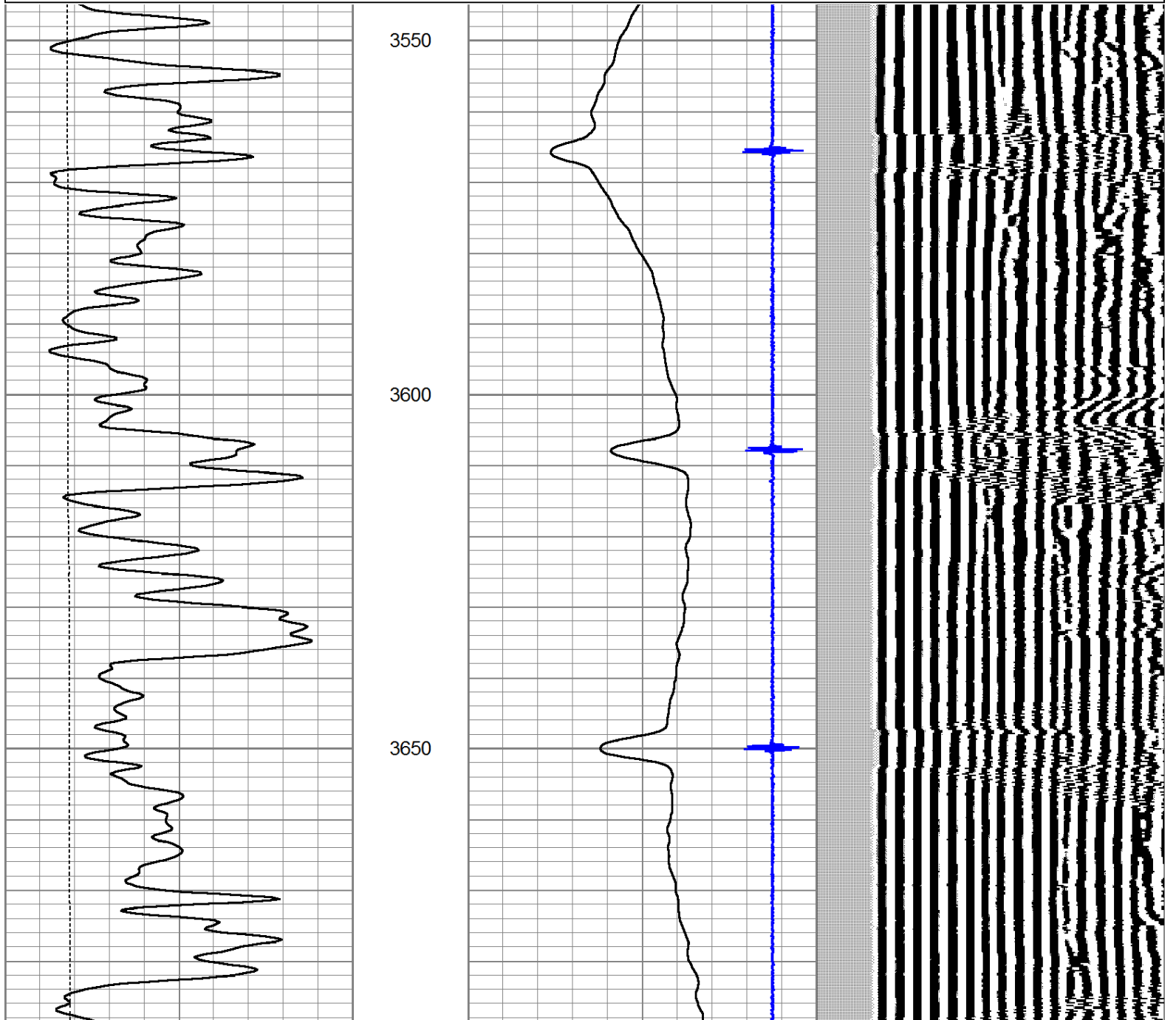


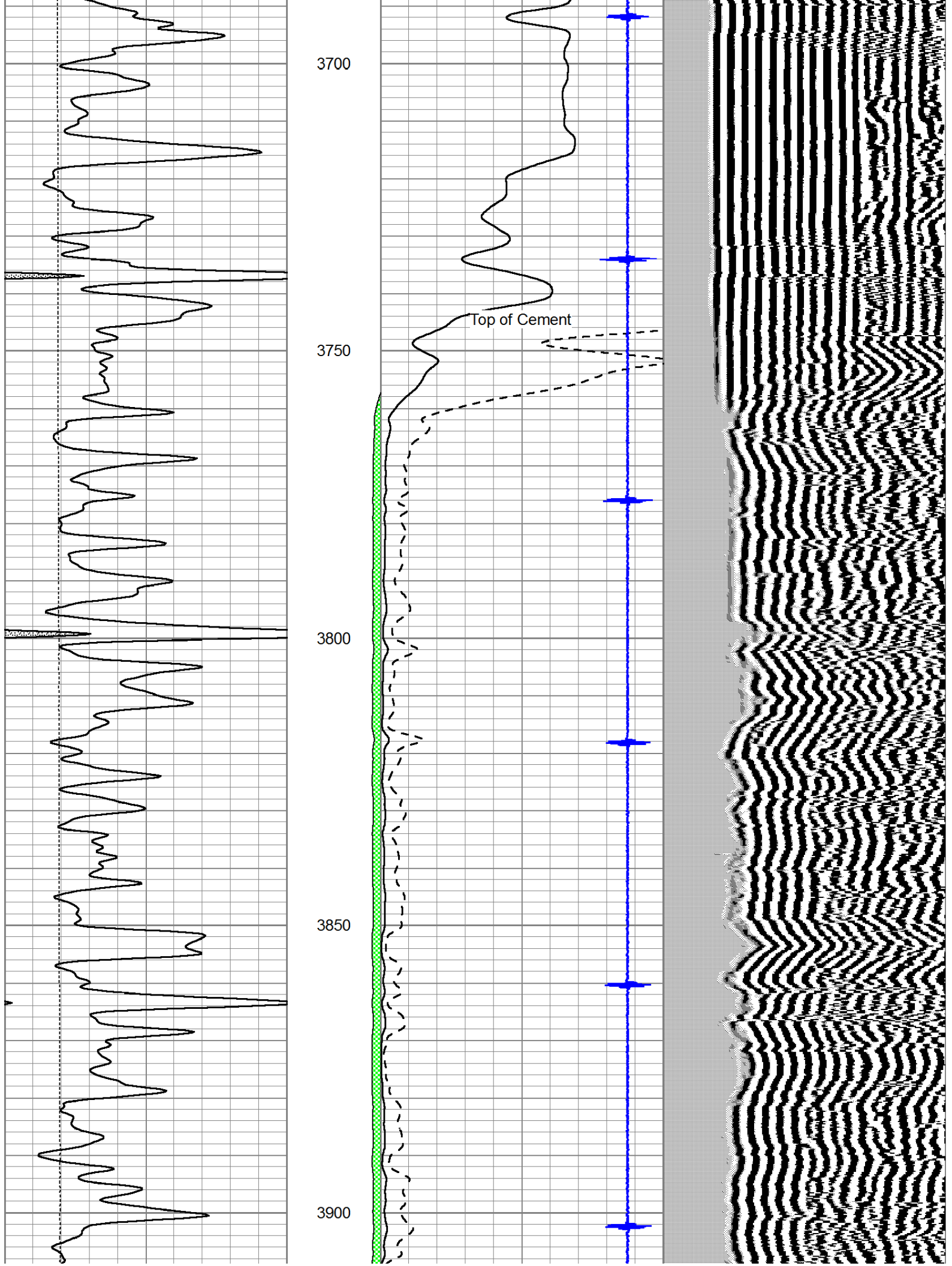
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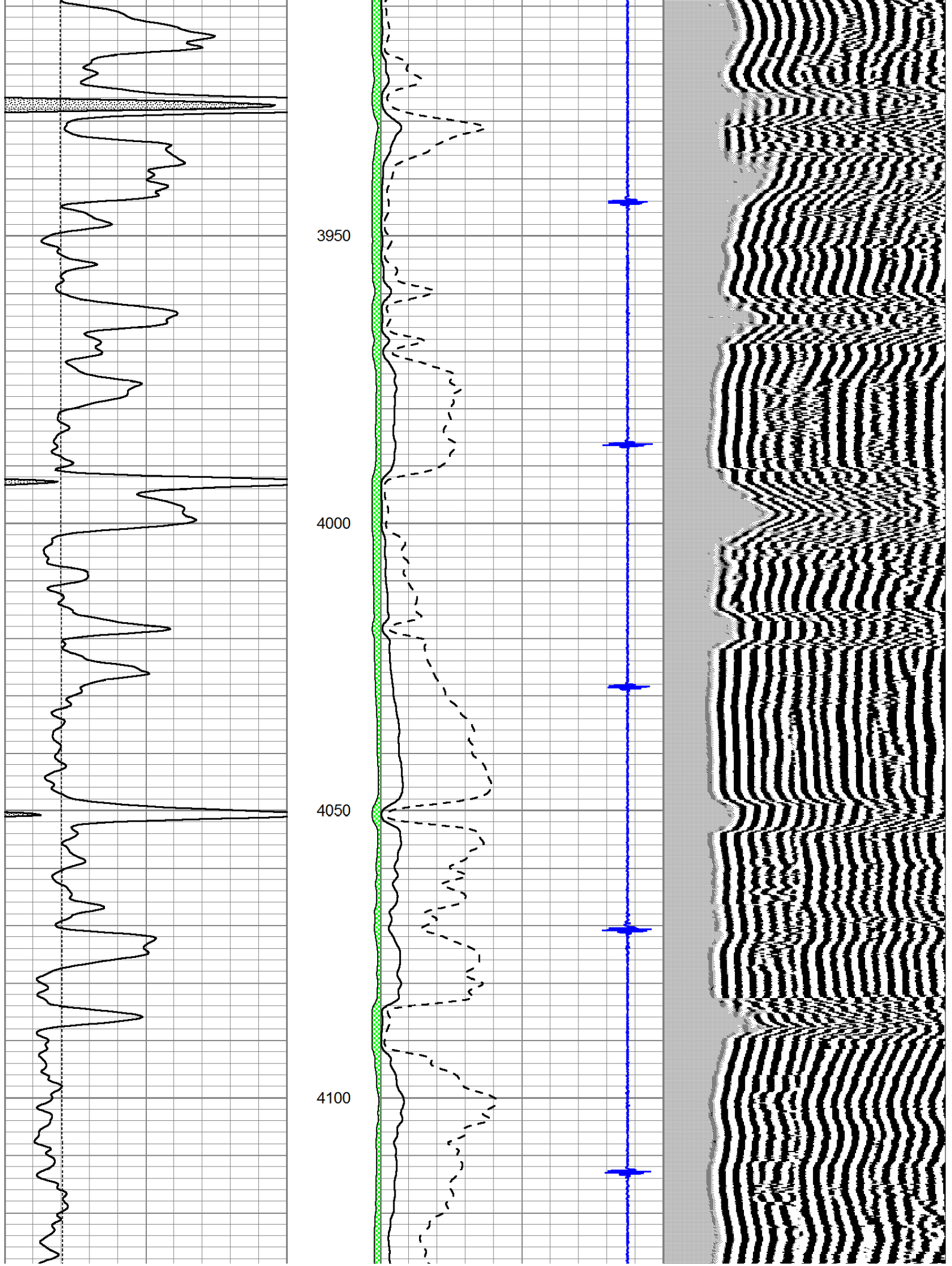
Main Pass

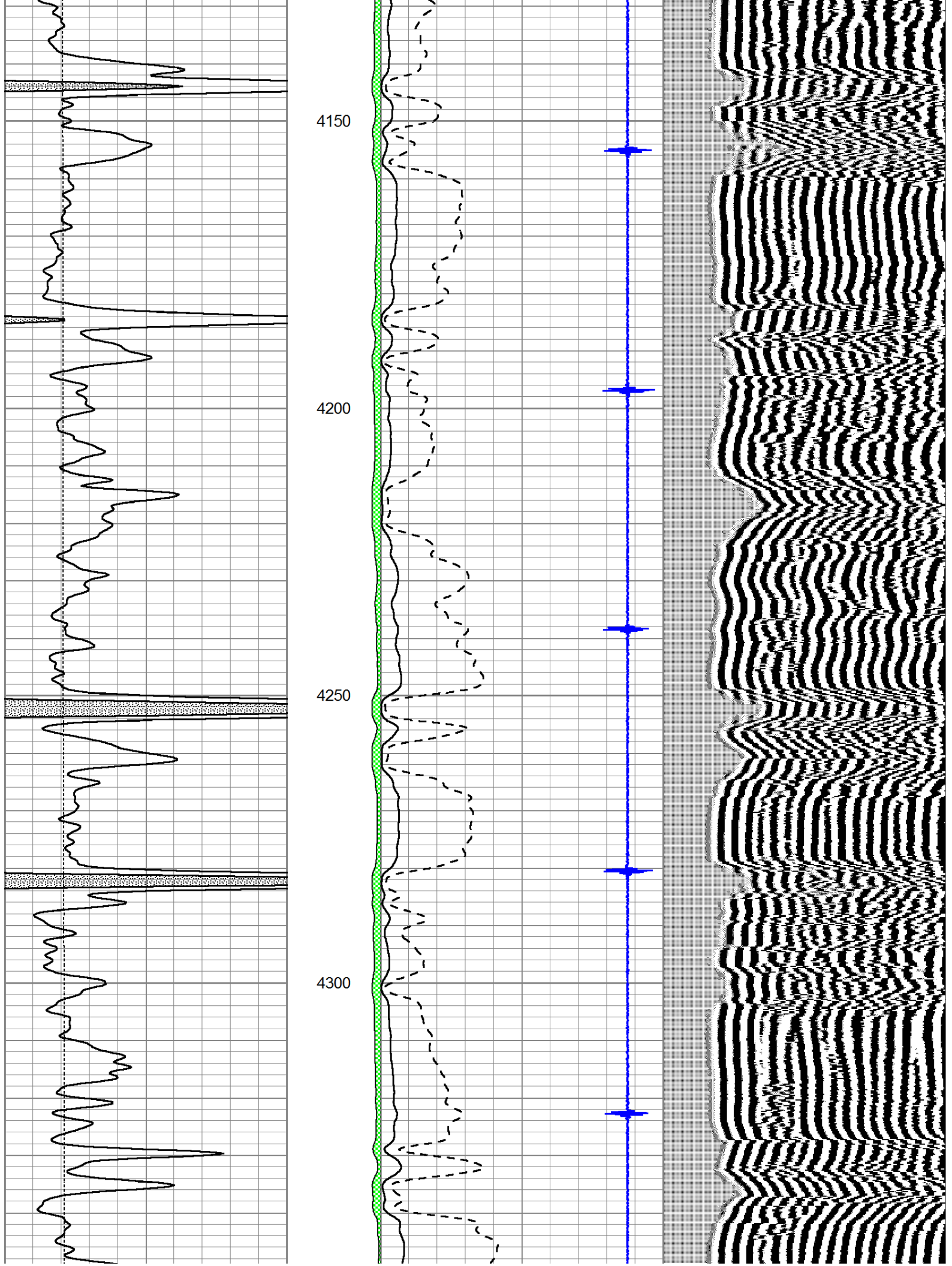
Database File: laron_bockelman2-19.db
 Dataset Pathname: grcb/run1/pass3.1
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 Charted by: Depth in Feet scaled 1:240

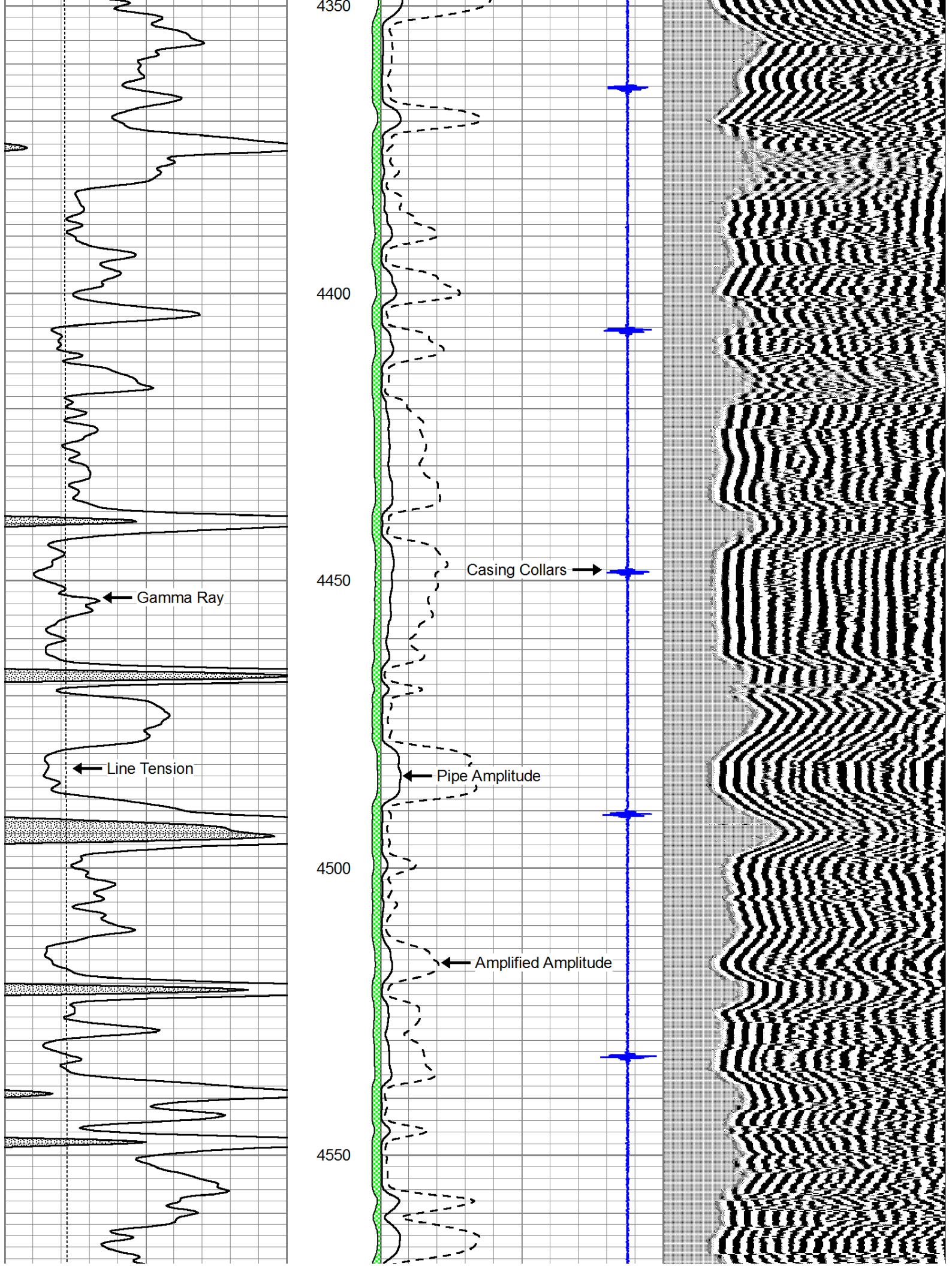
0	GR (GAPI)	150	AMP3	0	Amplitude (mV)	100	200	Variable Density	1200
0	LTEN (lb)	5000	(mV)	0	Amplified Amplitude (mV)	20			
			-100 10	7	Collar Locator	-1			

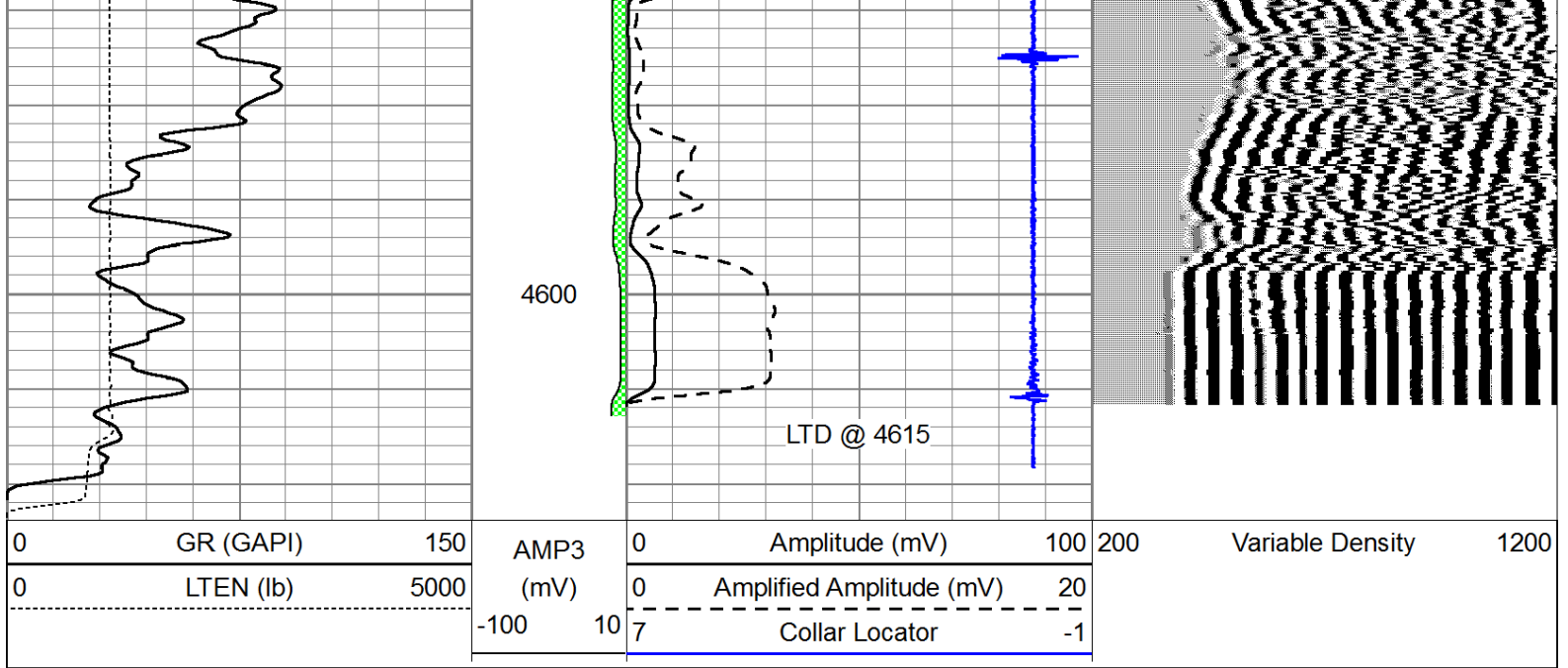












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Repeat Section

Database File: laron_bockelman2-19.db
 Dataset Pathname: grcbl/run1/pass2
 Presentation Format: cldig
 Dataset Creation: Mon Feb 11 08:53:45 2013 by Log SCH 111116
 Charted by: Depth in Feet scaled 1:240

