



**Sonic Cement
Bond Log**

Pioneer Energy Services

API No.

15-109-21330-00-00

Company **Black Tea Oil,LLC.**
Well **Pahls "A" No. 1**
Field **Wildcat**
County **Logan**

State **Kansas**

Location **1980' FSL & 2300' FEL**

Other Services
Mast Trailer

Sec: **20** Twp: **13 S** Rge: **34 W**

Elevation

Permanent Datum **Ground level** Elevation **2949**
Log Measured From **Kelly Bushing** 9' Ft. Above Perm. Datum
Drilling Measured From **Kelly Bushing**

K.B. 2958
D.F. 2957
G.L. 2949

Run Number	One
Date Survey	8/16/2014
Date Cementing	8/13/2014
Type Cementing Operation	Primary
Depth Driller	4600
Depth Logger	4524
Logged Interval	4524 to 3000
Casing Driller	5.5" @ T.D.
Float Collar -- D.V. Tool	2355 @
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	3170
Calculated Cement Top	////
Max. Hole Temperature	122
Tool No.	RBT 4-4
Spacing Recorded	3-5
Equipment -- Location	12 A Drilling Hays
Recorded By	Mr Gerald Achatz
Witnessed By	

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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

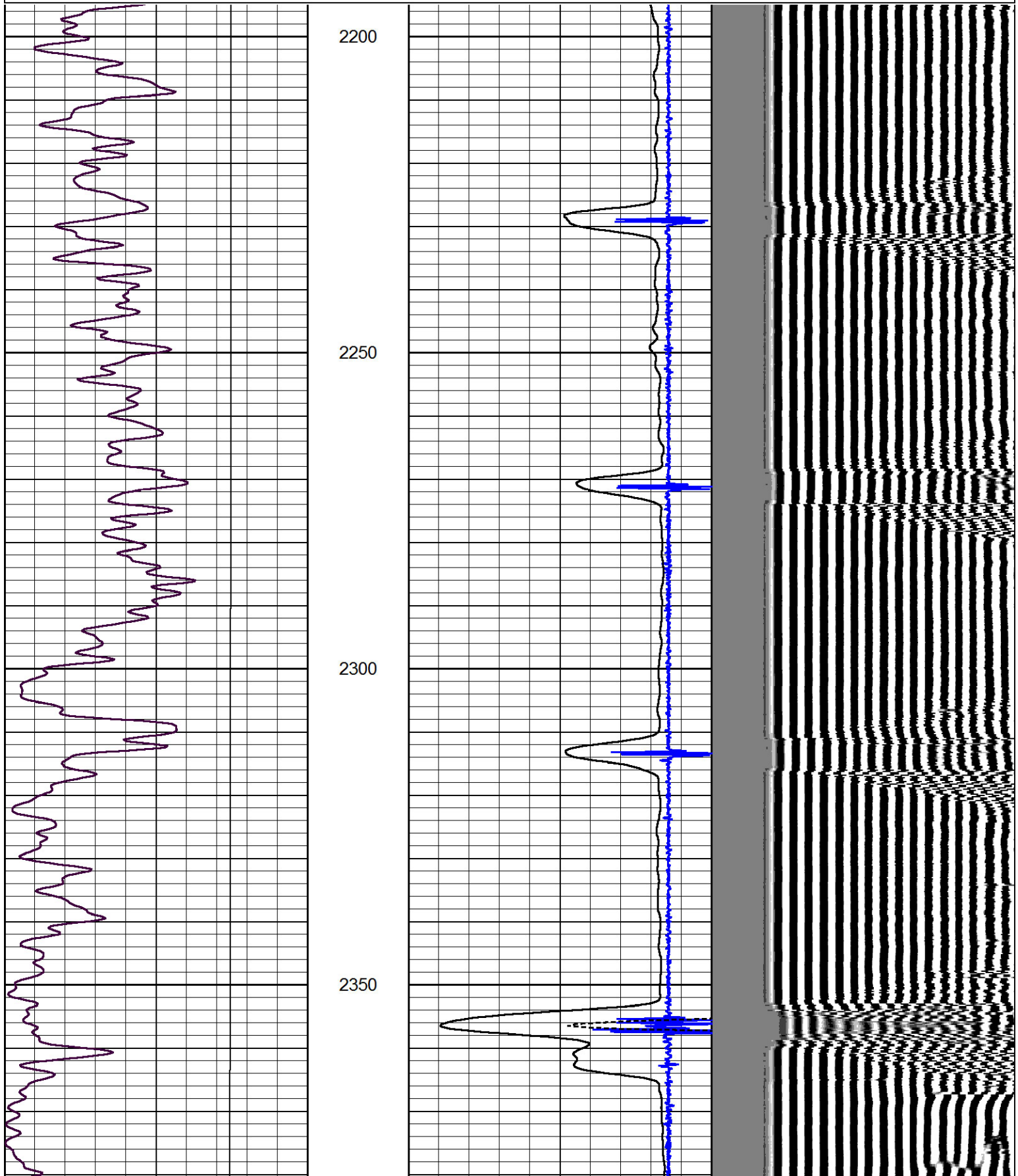
Thank you for using Pioneer Energy Services
785.625.3858
Monumant Ks.,
S On 350 rd. to Plains Rd,
5 W, 3/4 S,
E Into

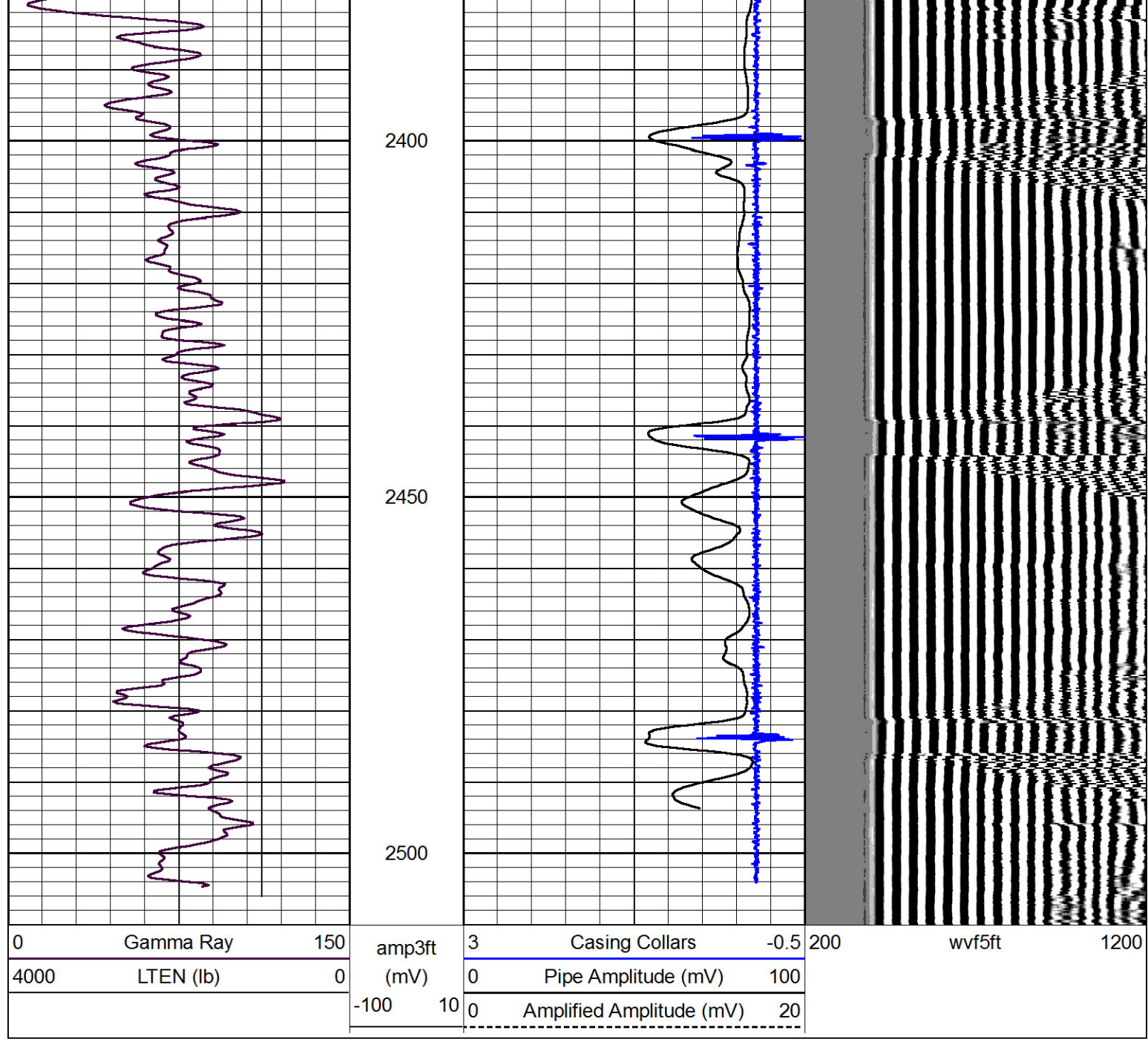


Port Collar @ 2355

Database File: black_tea-pahls_a-1.db
 Dataset Pathname: grcbl/pass 1.1
 Presentation Format: cbldr
 Dataset Creation: Sat Aug 16 11:47:42 2014 by Calc 7.0 B1
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	amp3ft	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	(mV)	0	Pipe Amplitude (mV)	100			
			-100 10	0	Amplified Amplitude (mV)	20			

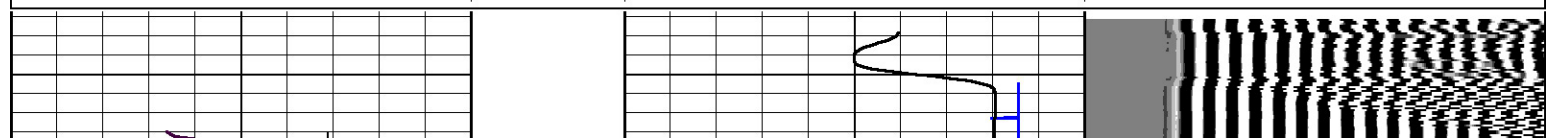
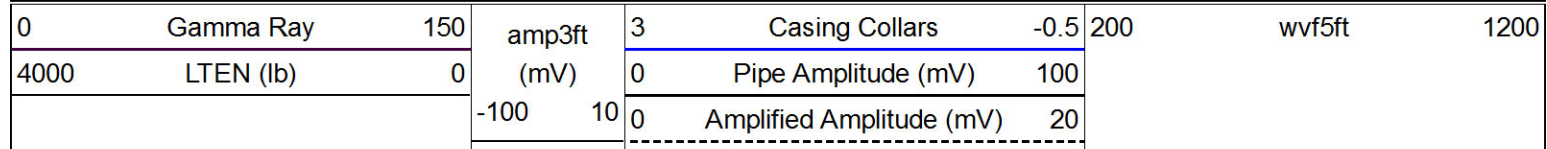


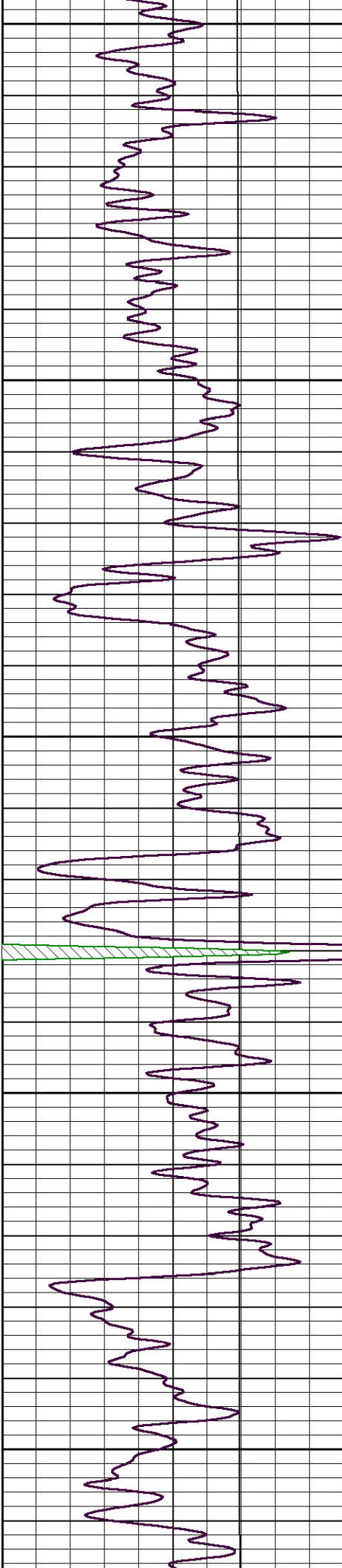


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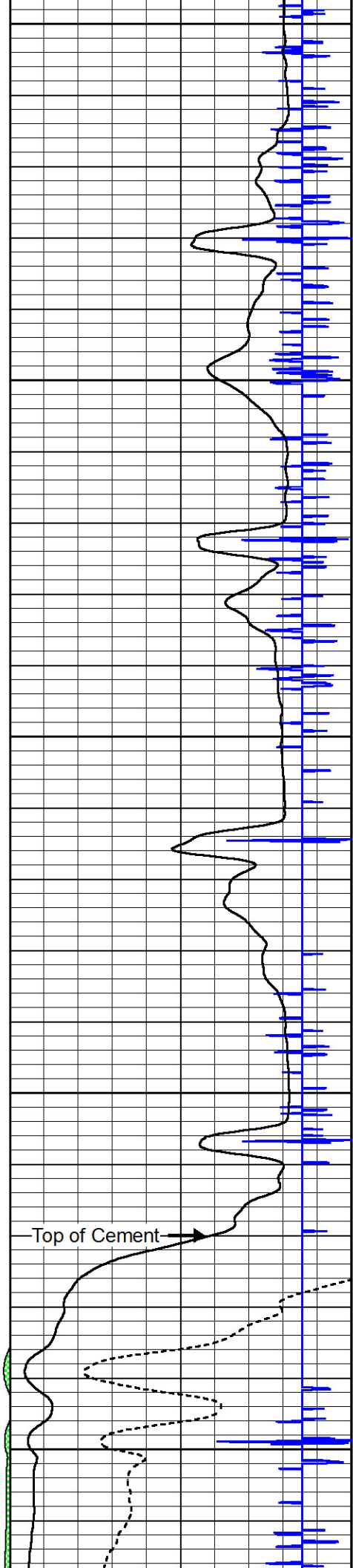
Main Pass

Database File: black_tea-pahls_a-1.db
 Dataset Pathname: grcbl/pass7
 Presentation Format: cbldr
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 Charted by: Depth in Feet scaled 1:240

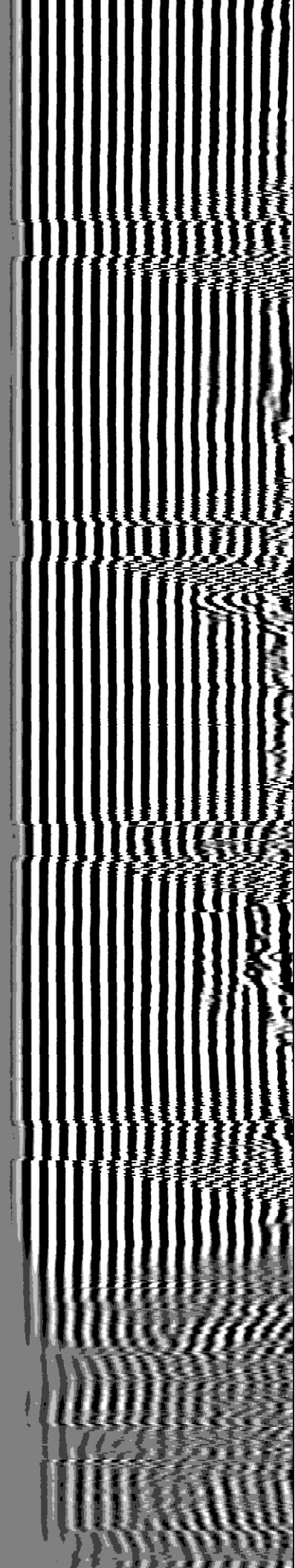


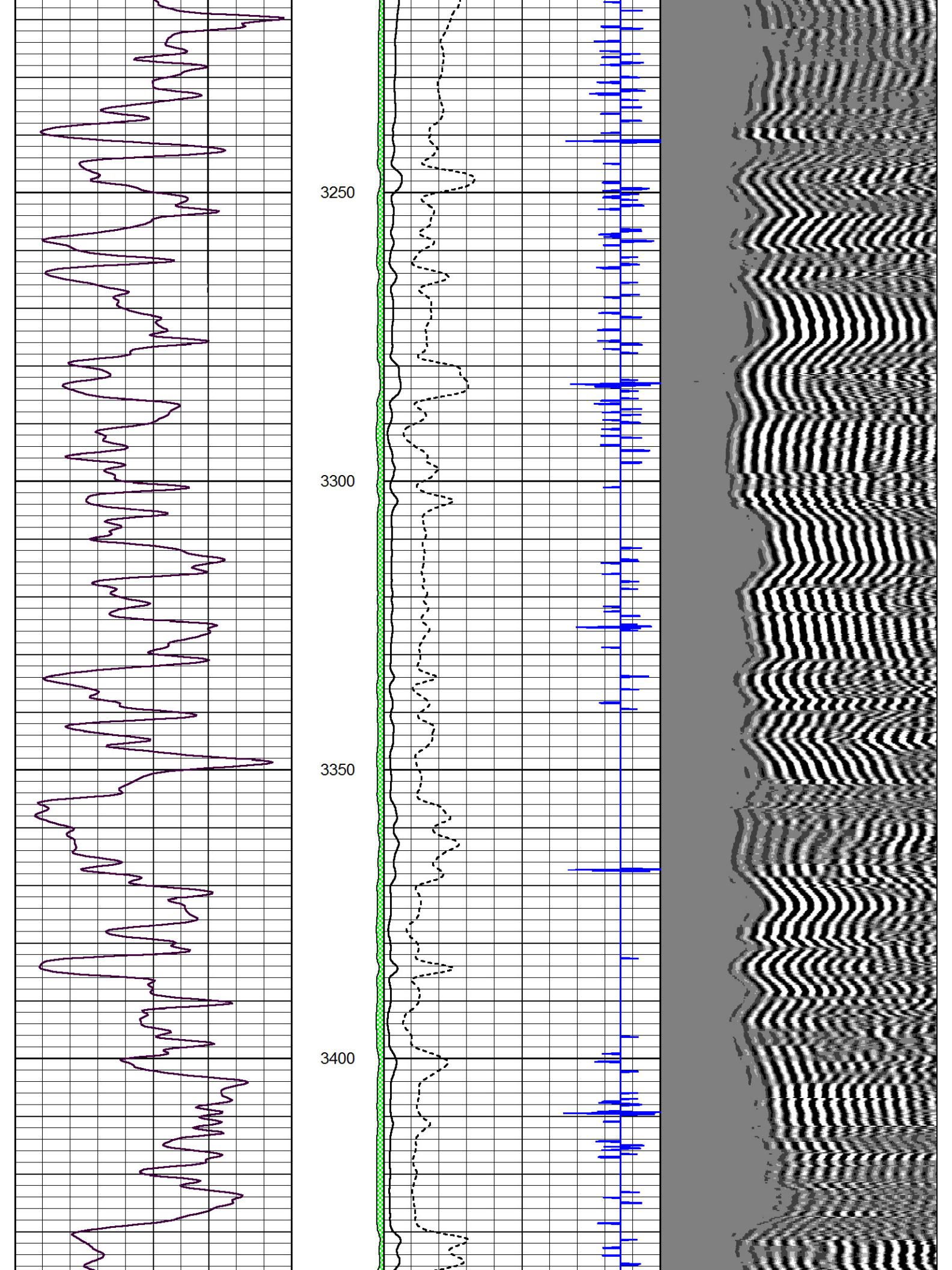


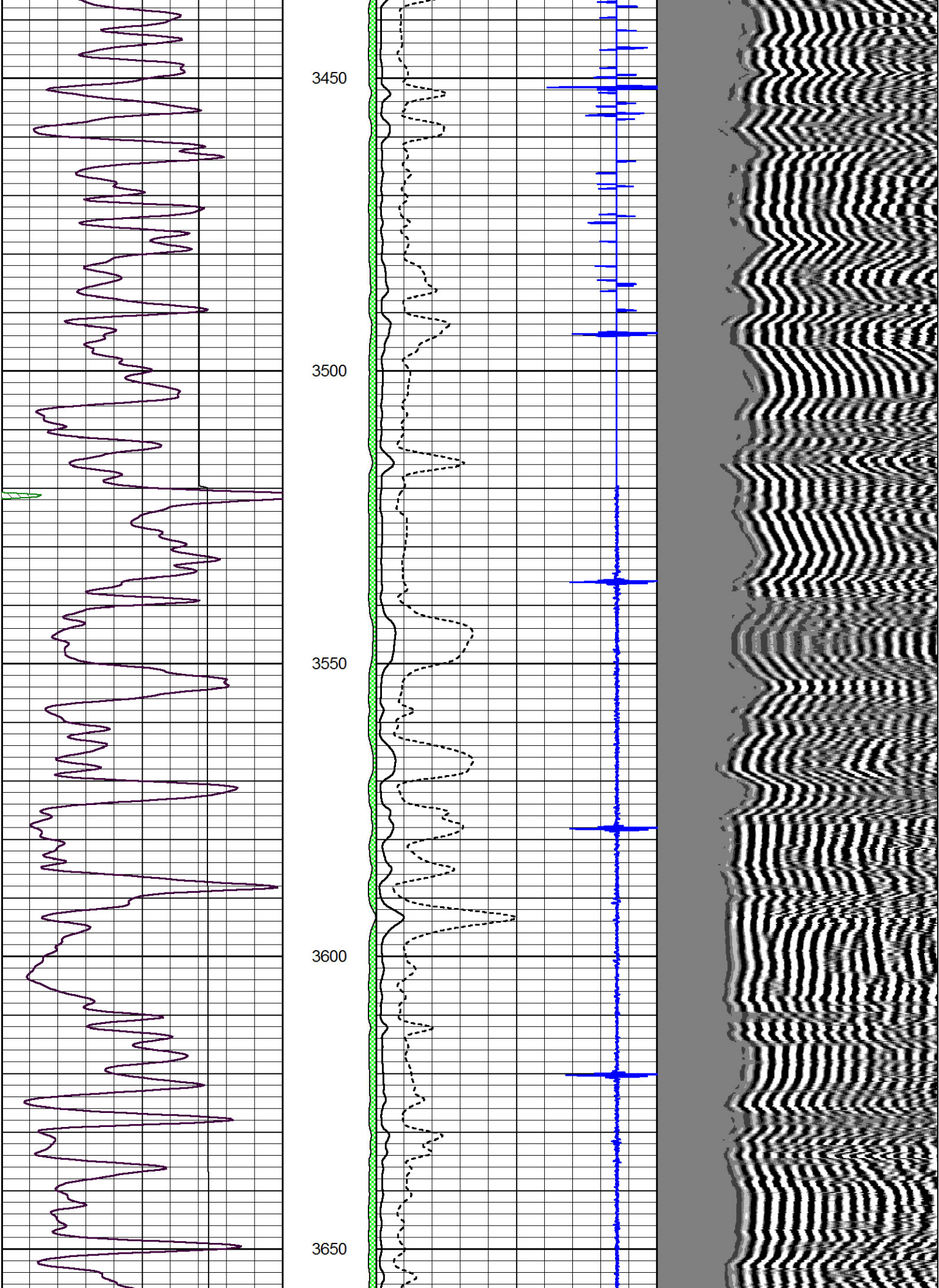
3000
3050
3100
3150
3200

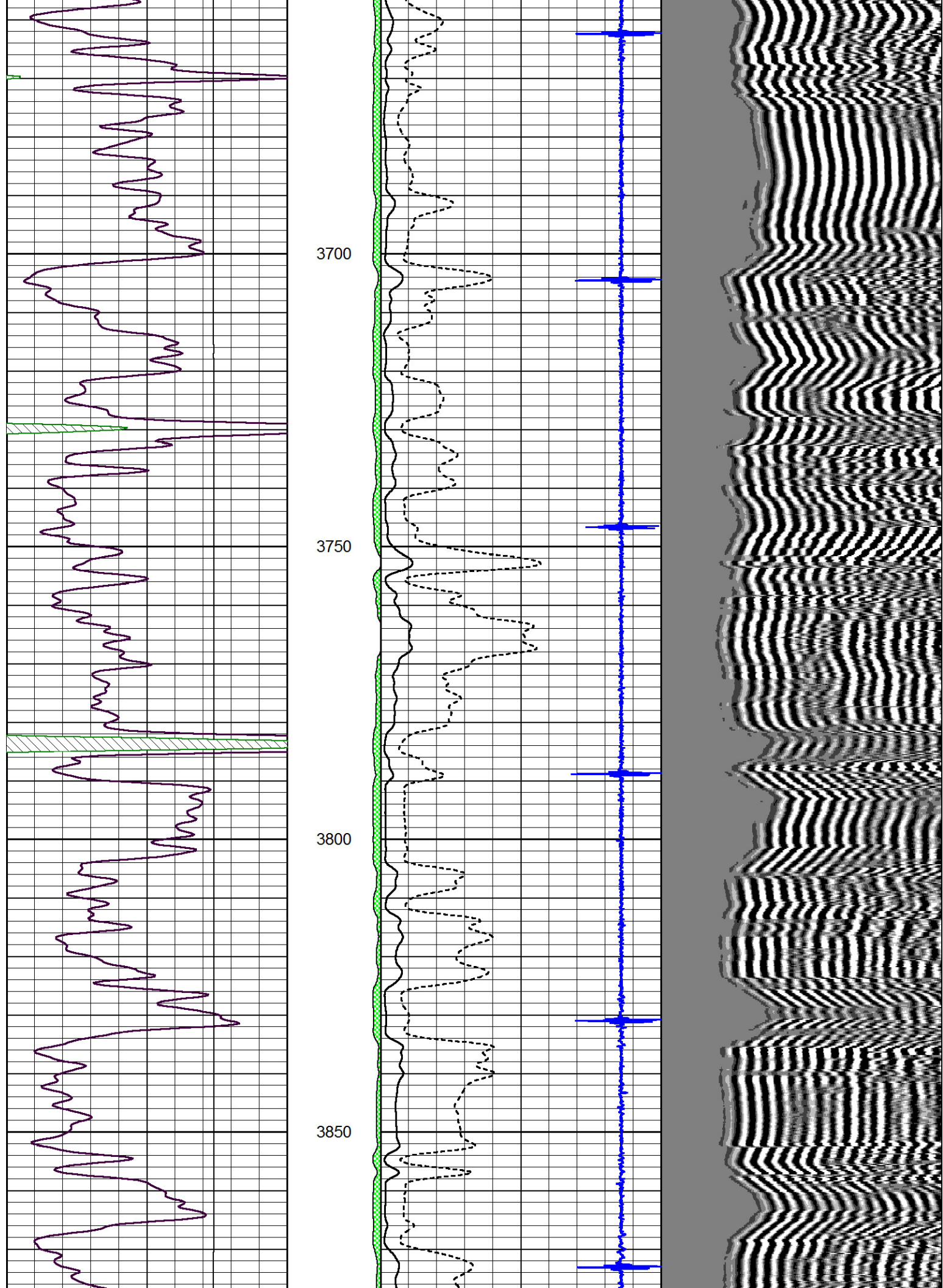


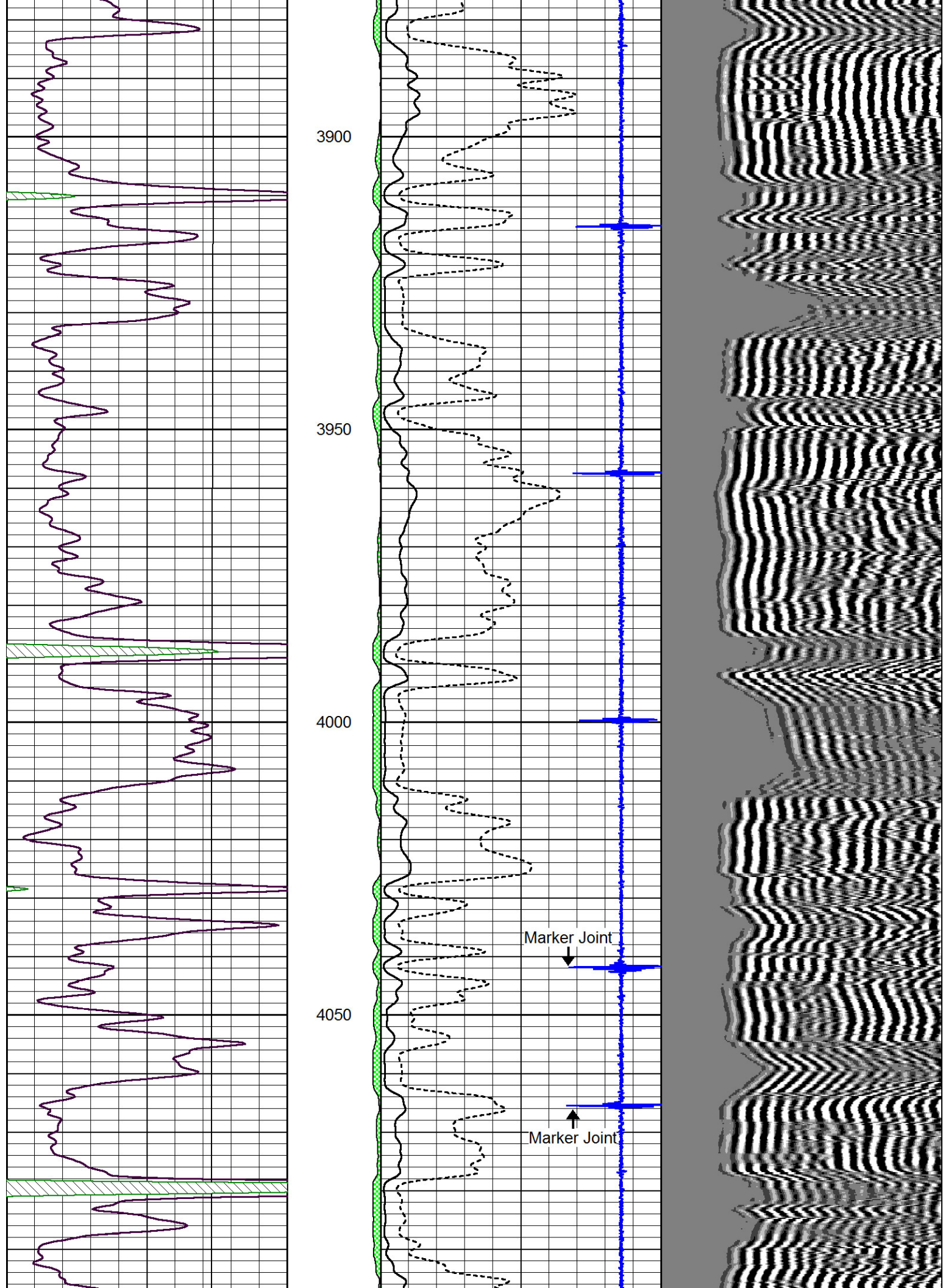
Top of Cement →

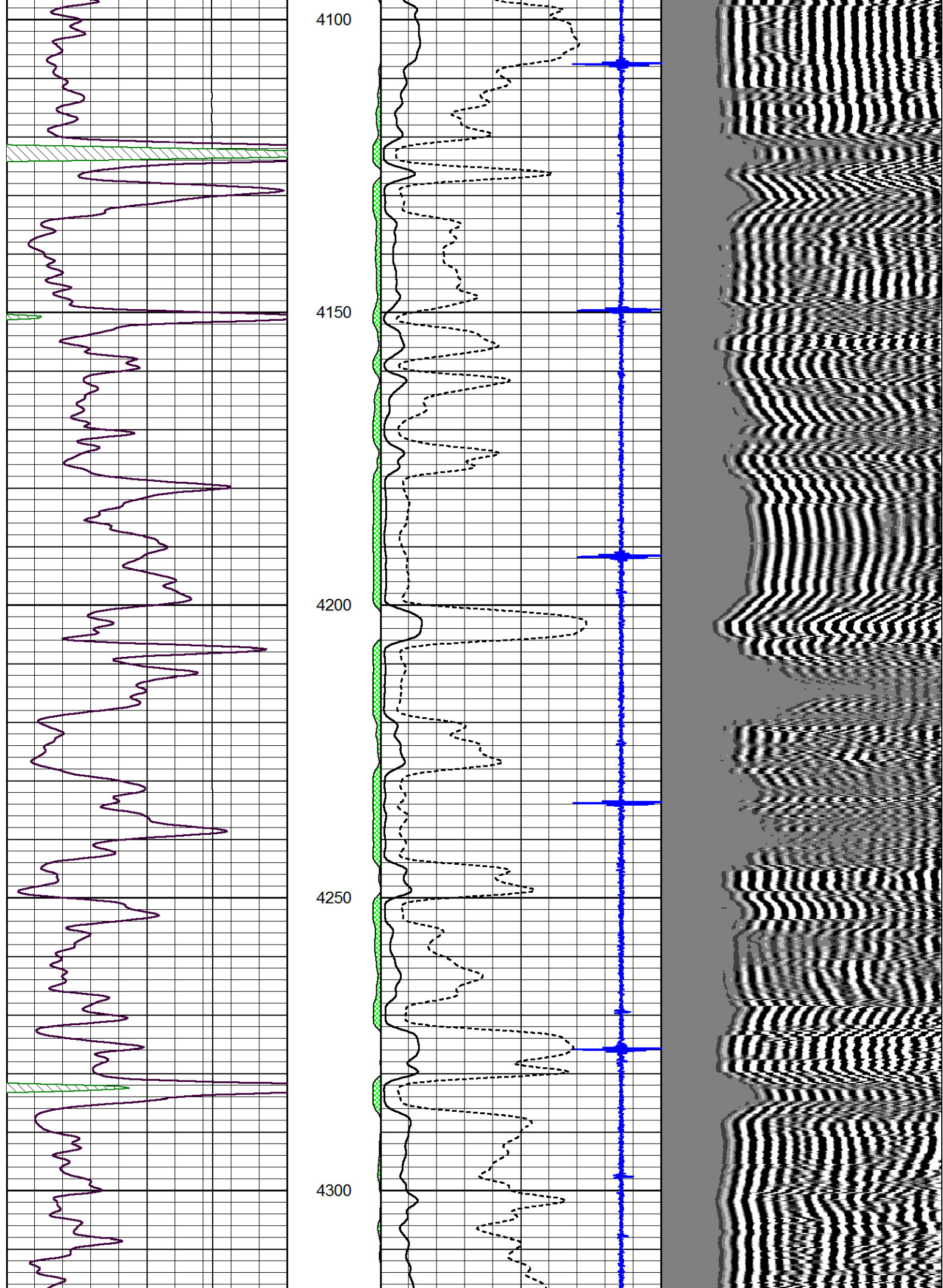


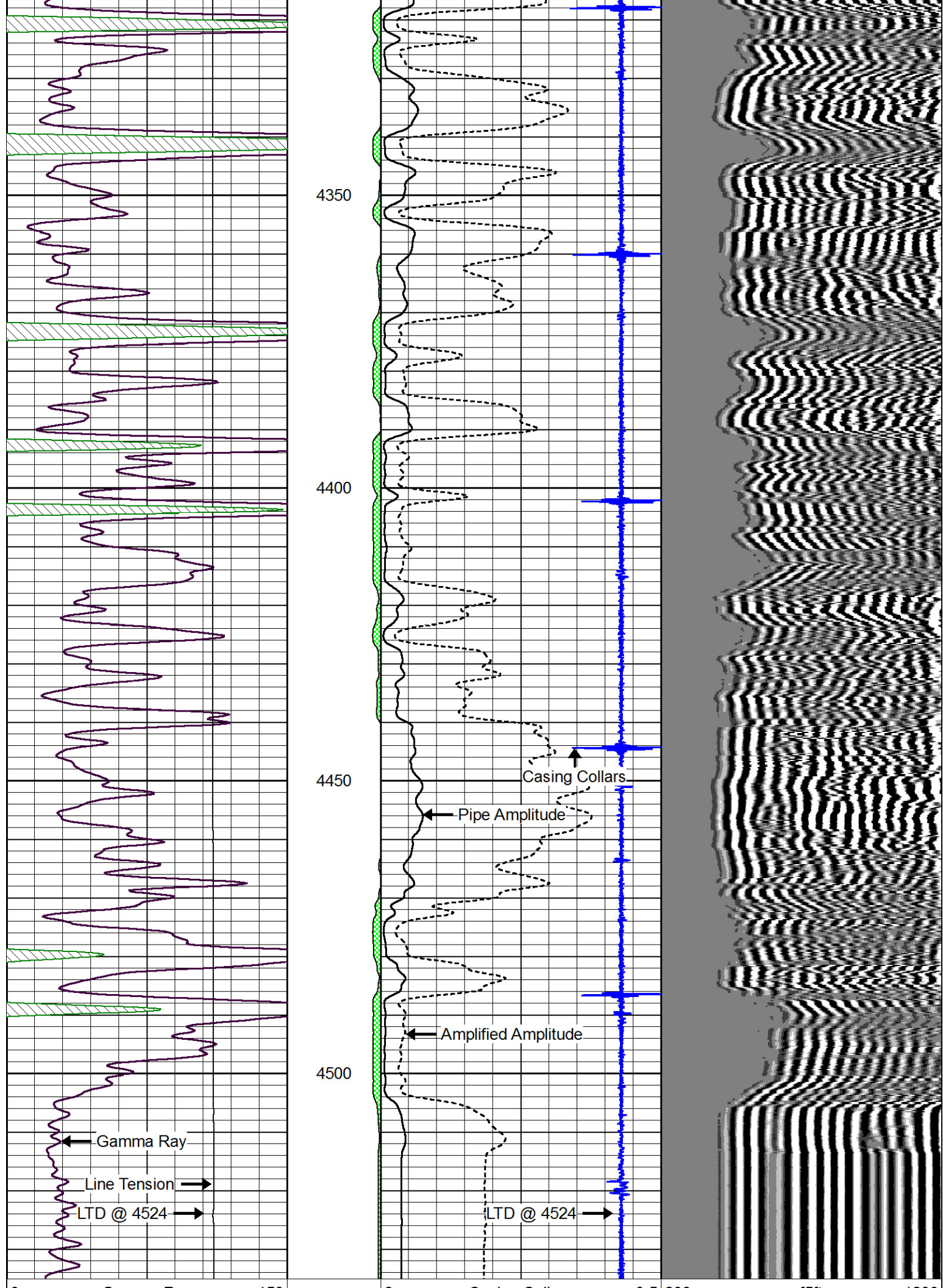












0	Gamma Ray	150	amp3ft	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	(mV)	0	Pipe Amplitude (mV)	100			
			-100 10	0	Amplified Amplitude (mV)	20			

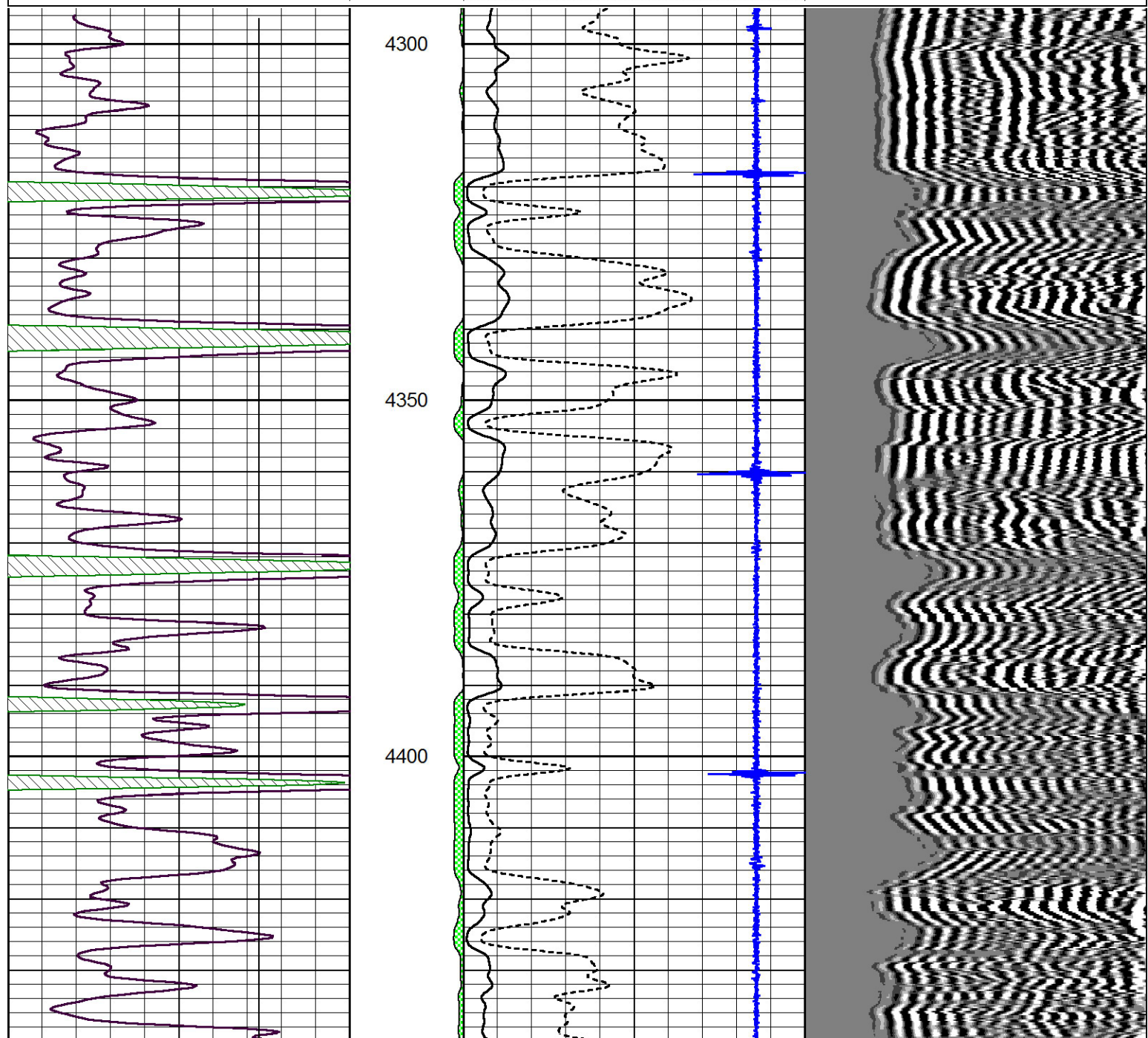


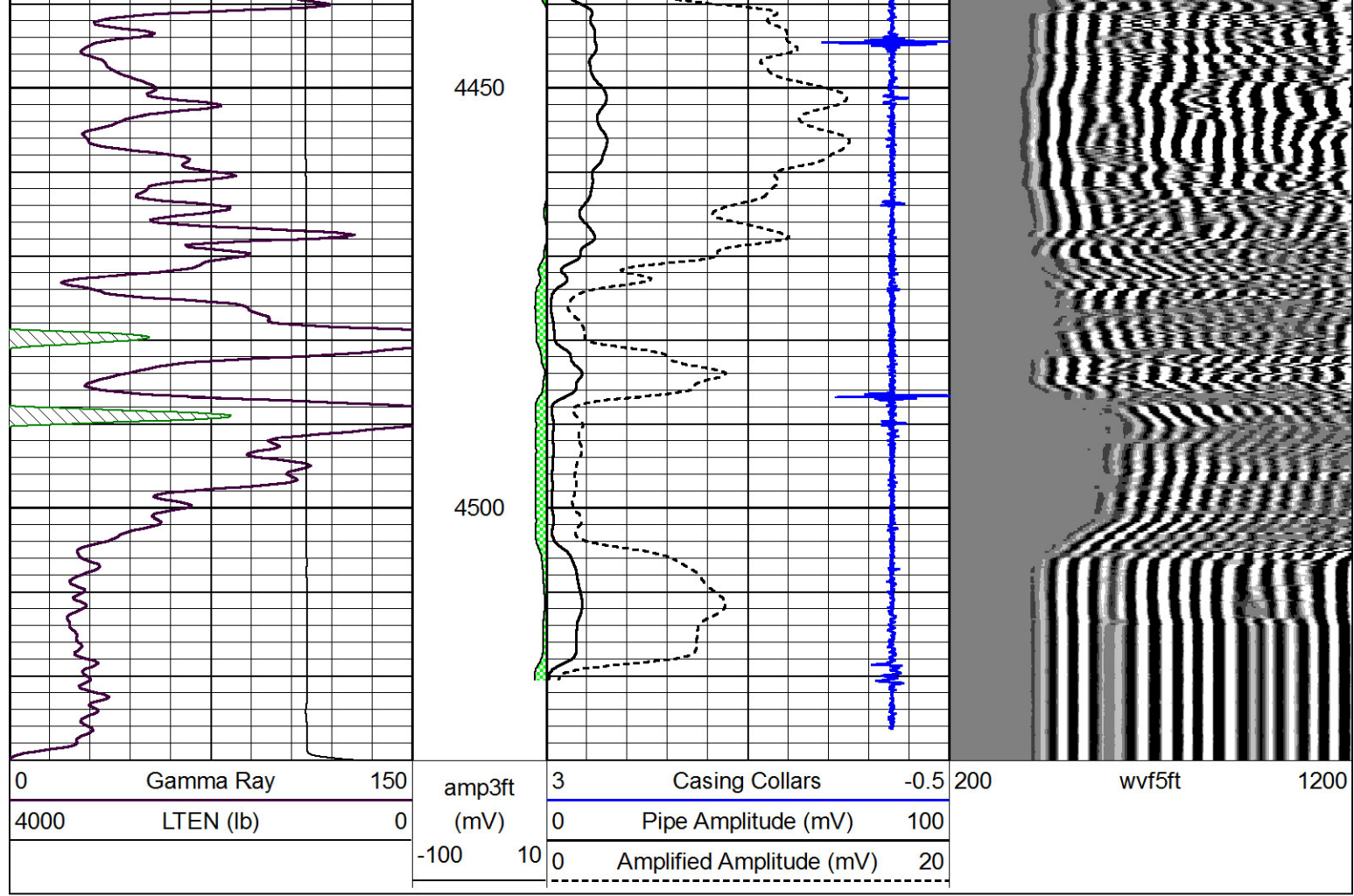
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Repeat Section

Database File: black_tea-pahls_a-1.db
 Dataset Pathname: grcbl/pass1.2
 Presentation Format: cbldr
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 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	amp3ft	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	(mV)	0	Pipe Amplitude (mV)	100			
			-100 10	0	Amplified Amplitude (mV)	20			





0	Gamma Ray	150	amp3ft	3	Casing Collars	-0.5	200	wvf5ft	1200
4000	LTEN (lb)	0	(mV)	0	Pipe Amplitude (mV)	100			
			-100 10	0	Amplified Amplitude (mV)	20			