



Pioneer Energy Services

Sonic Cement
Bond Log

15-135-25532-00-00

Company Cobalt Energy LLC.
Well Craig A No. 1-27
Field McDonald Northeast
County Ness
State Kansas

Location

1860' FSL & 1190' FEL

Other Services

Sec: 27 Twp: 18 S Rge: 24 W

Elevation

Permanent Datum Ground Level Elevation 2283
Log Measured From Kelly Bushing 5 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 2288
D.F.
G.L. 2283

Run Number	One	
Date Survey	03/16/2013	
Date Cementing	03/07/2013	
Type Cementing Operation	Primary	
Depth Driller	4400	
Depth Logger	4357	
Logged Interval	4356 to 3100	
Casing Driller	5.5 @ TD	
Float Collar -- D.V. Tool	//// 1516	@
Squeeze Depth	////	
Amount & Type Cement	////	
Amount & Type Admix	////	
Type Fluid In Hole	Water	
Fluid Level	360	
Salinity PPM CL	////	
Weight lb/gal -- Vis.	////	////
Approx. Logged Cement Top	3269	
Calculated Cement Top		
Max. Hole Temperature	122	
Tool No.	RBT 71	
Spacing Recorded	3-5	
Equipment -- Location	71 Hays	
Recorded By	Scott Clemons	
Witnessed By	Joe Rupp	

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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

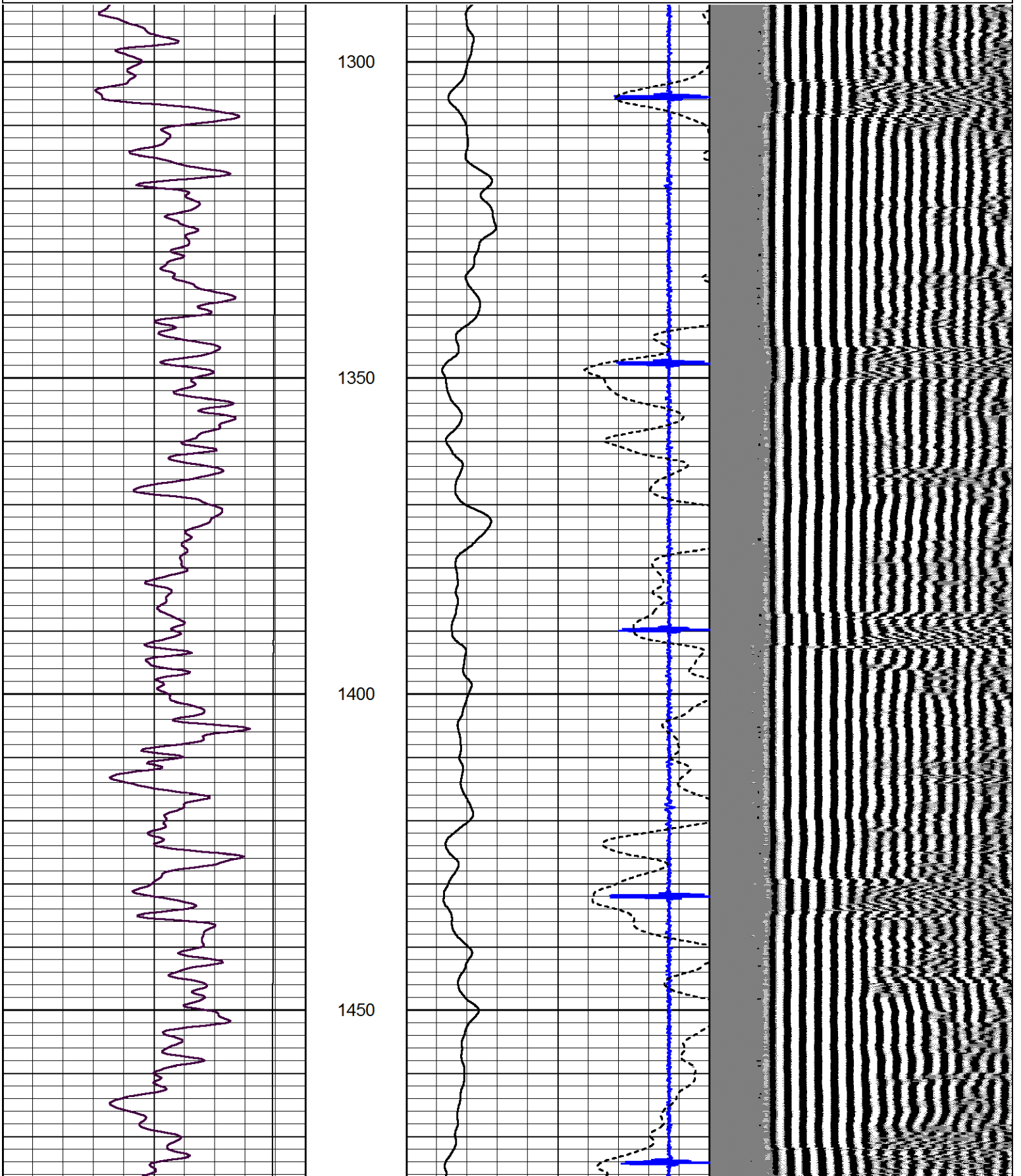
Ness City Ks., 2 West to P Rd. 1/4 North,
West South and East Into

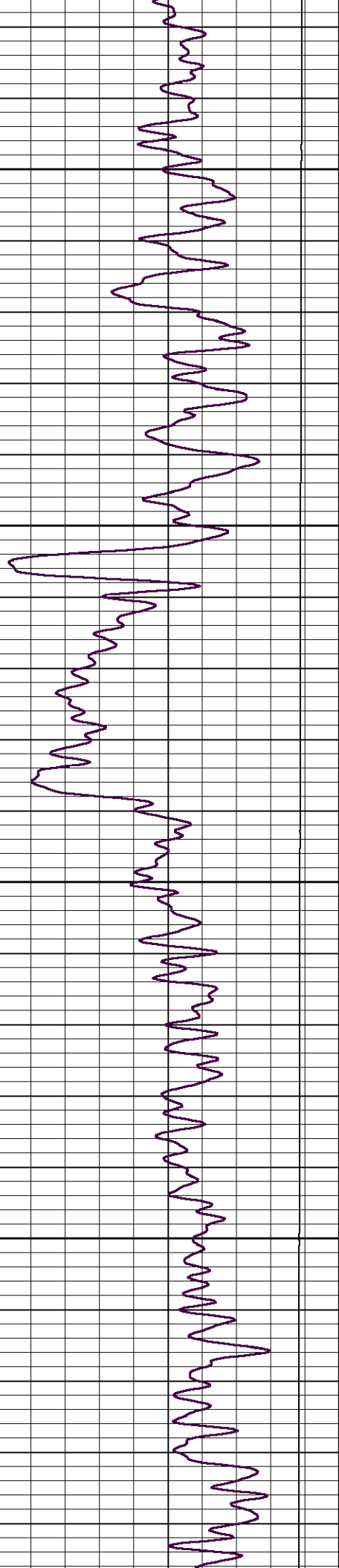


DV Tool @ 1516

Database File: cobaltener_craig_#1-27.db
 Dataset Pathname: grcbl/pass4
 Presentation Format: cbldr
 Dataset Creation: Sat Mar 16 08:51:56 2013 by Log SCH 111116
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150	amp3ft	4	Casing Collars	-0.6	200	wvf5ft	1200
			(mV)	0	Amplified Amplitude (mV)	100			
			-100 10	0	Pipe Amplitude (mV)	20			



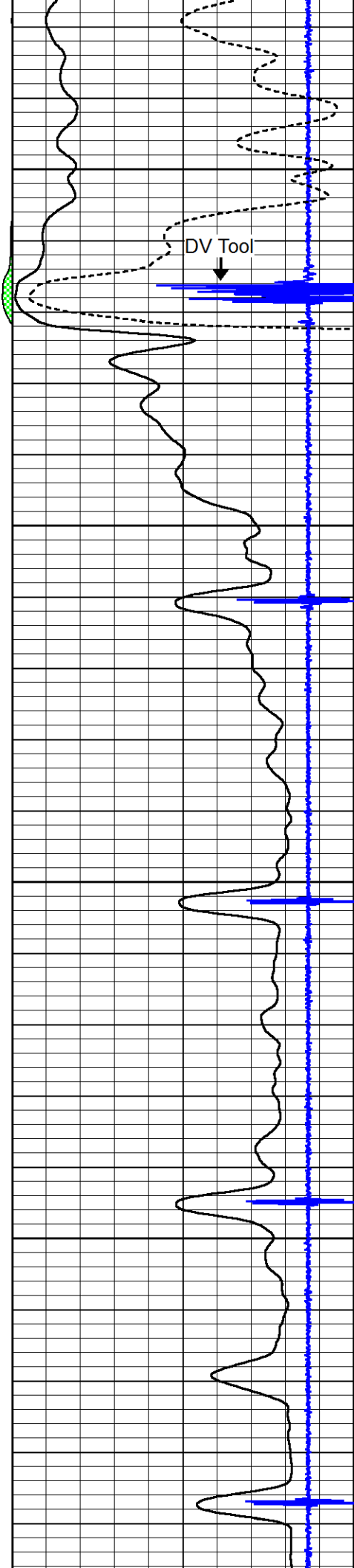


1500

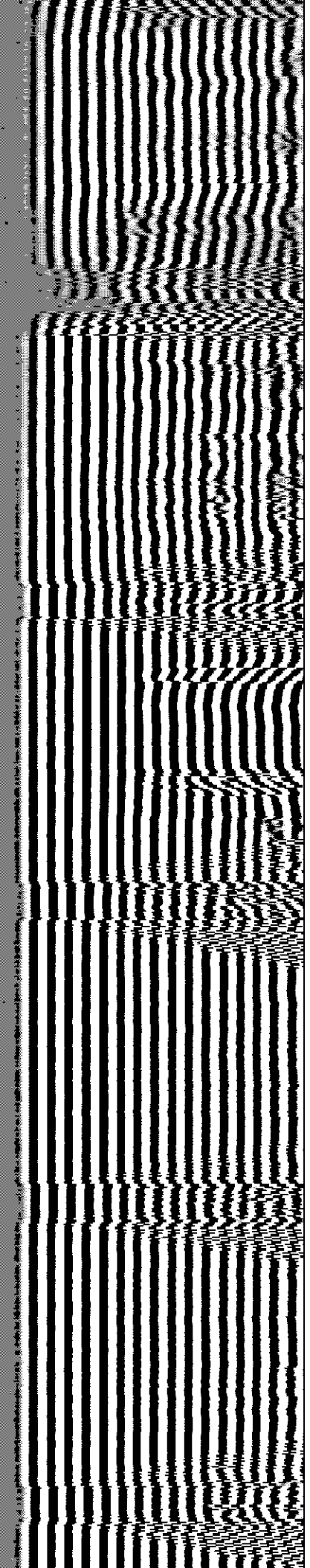
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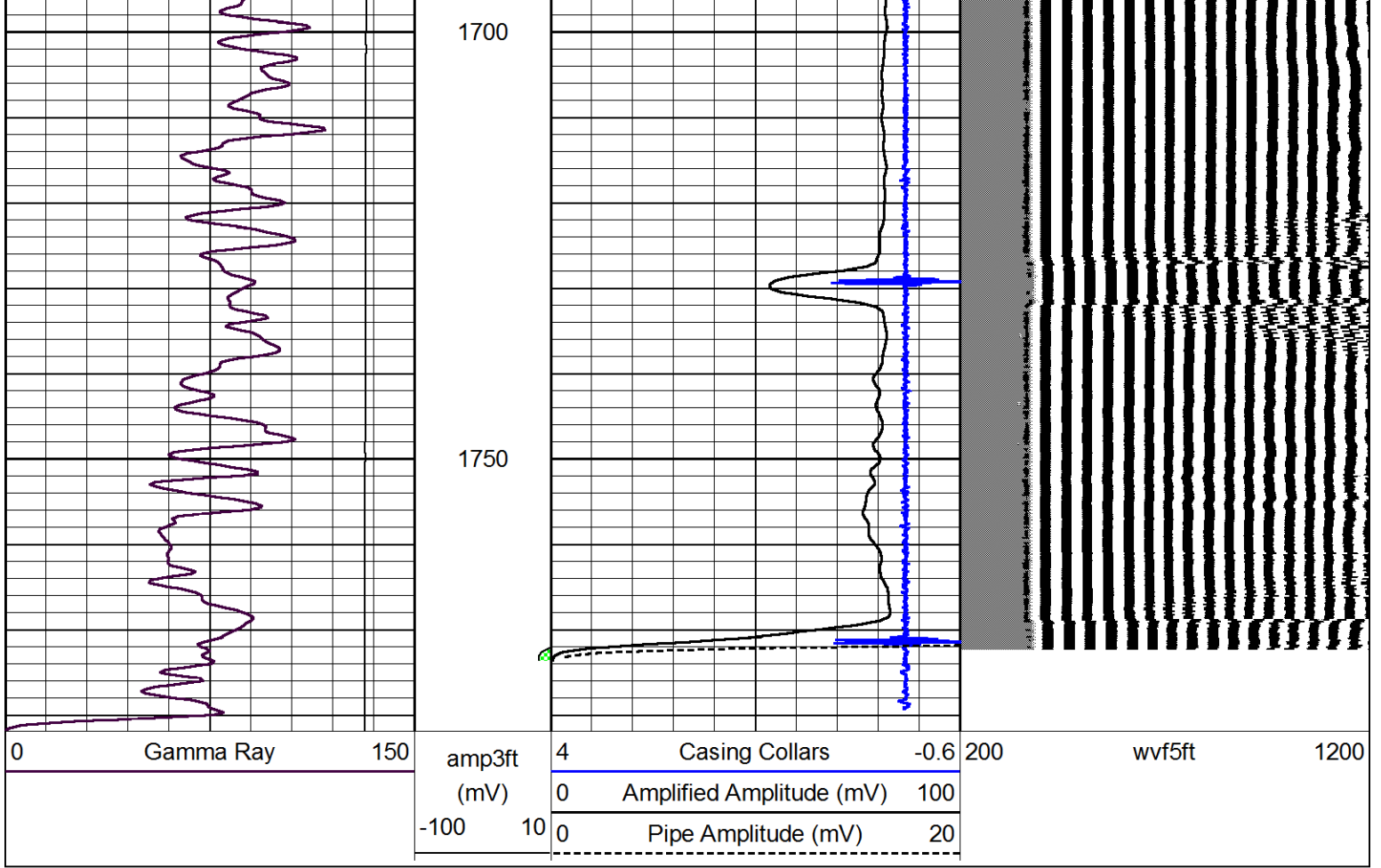
1600

1650



DV Tool

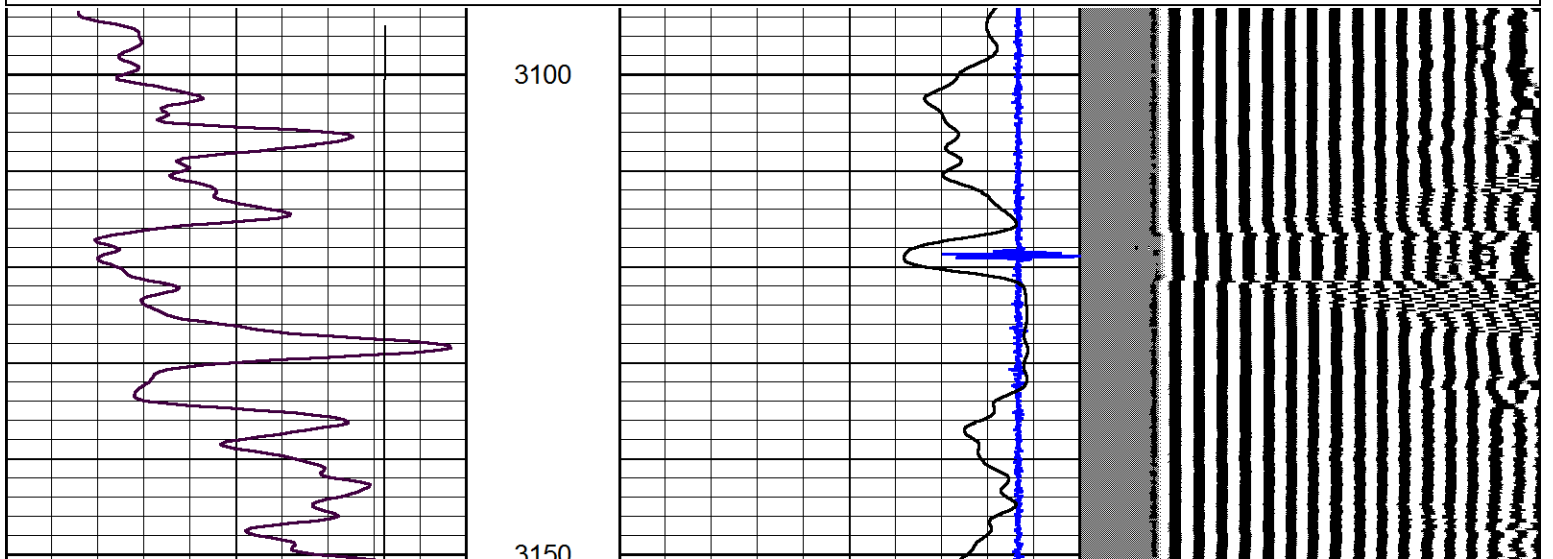
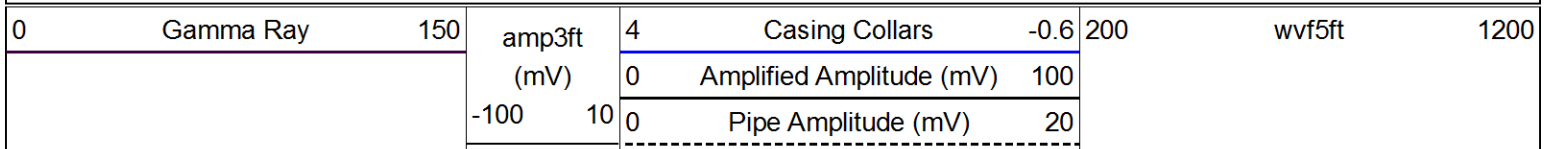


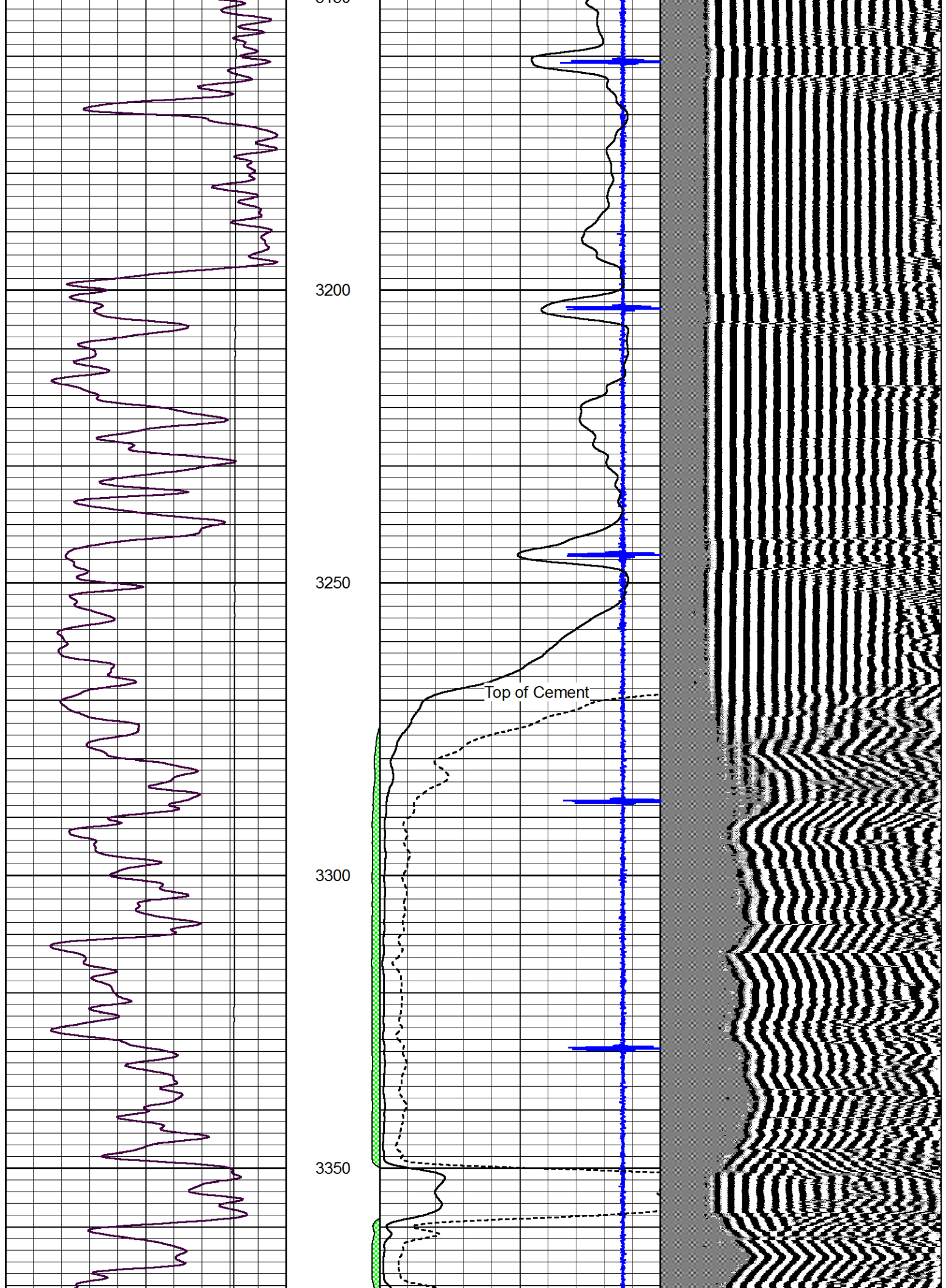


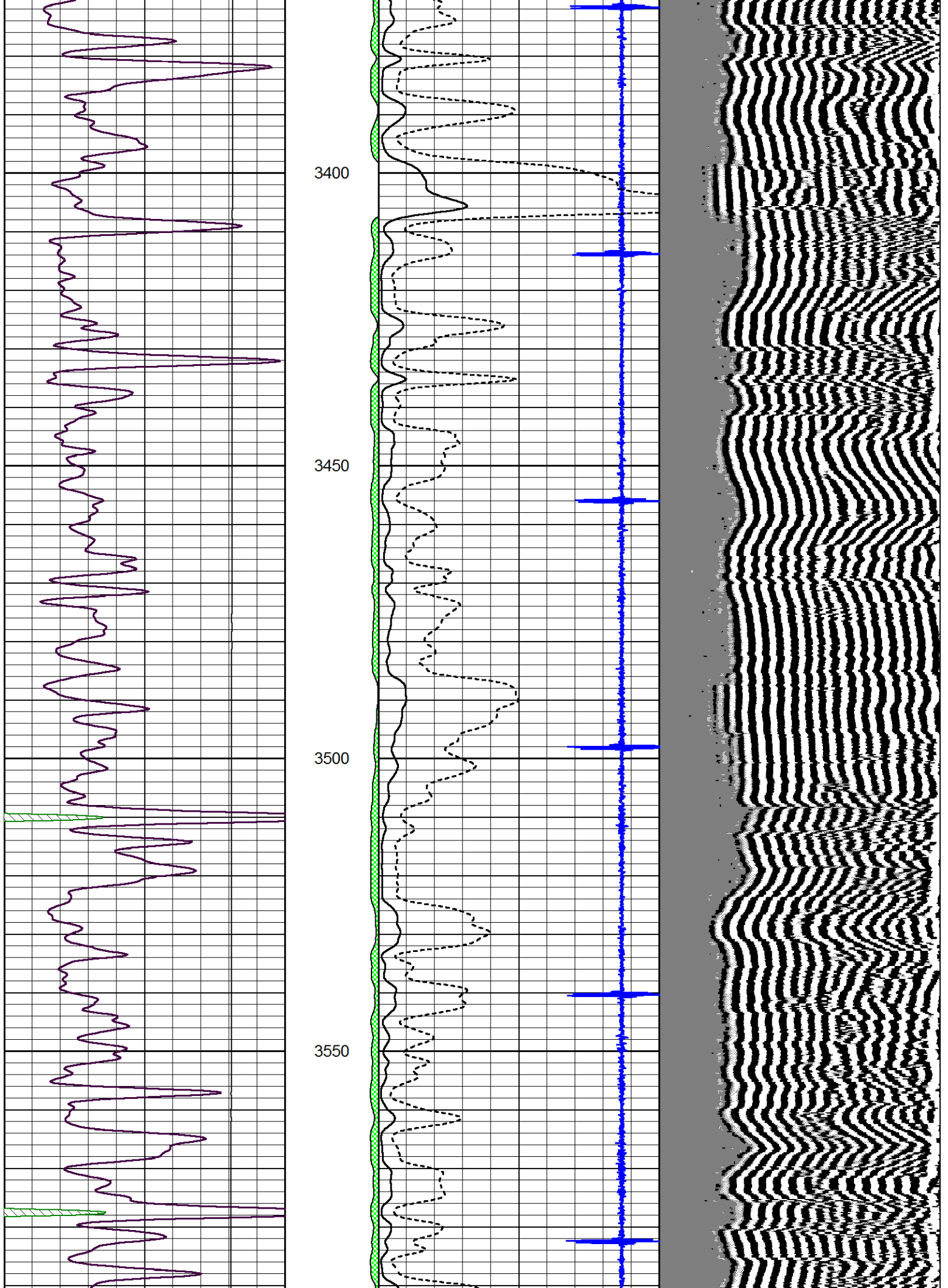
Pioneer Energy Services

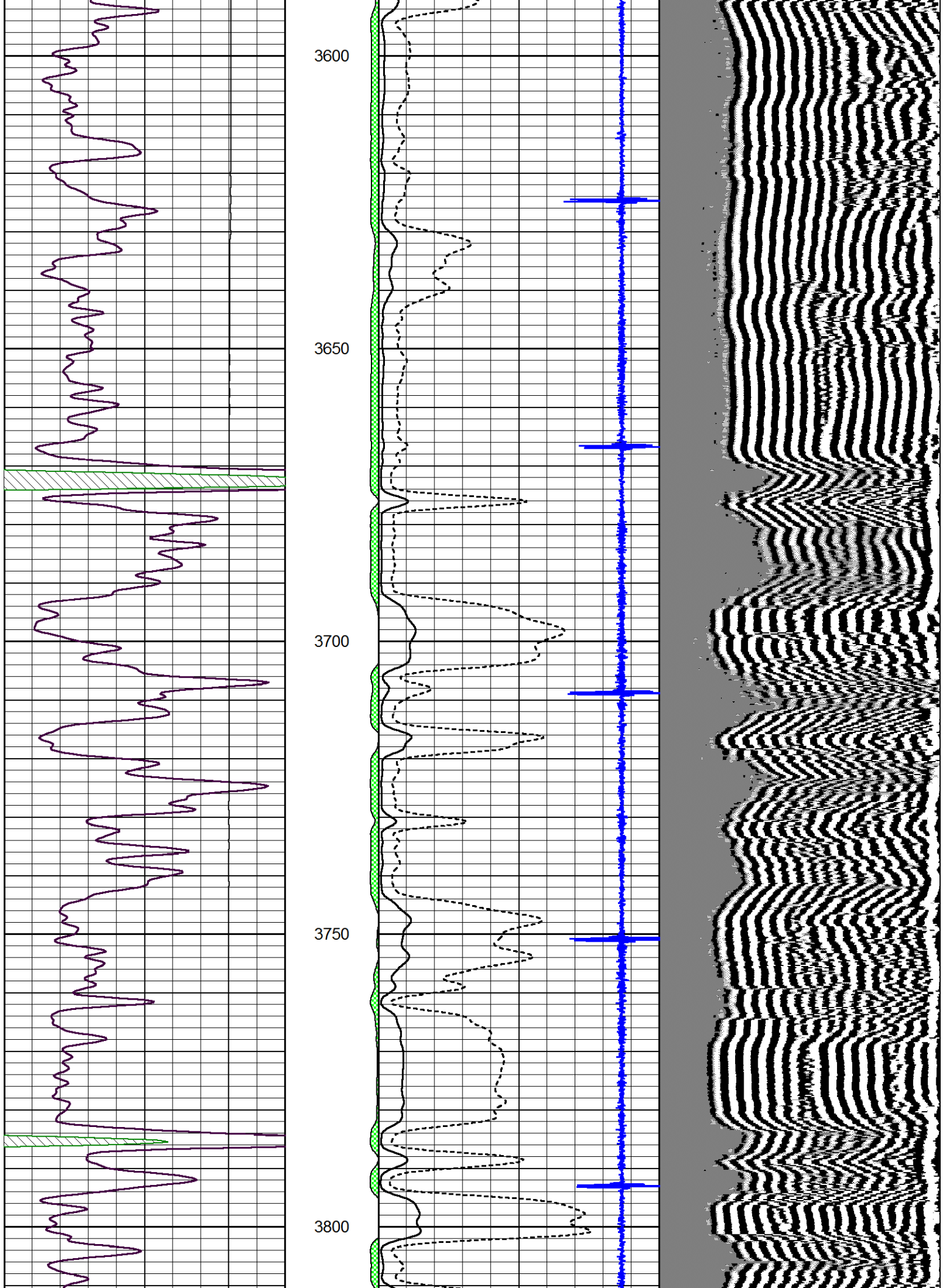
Main Pass

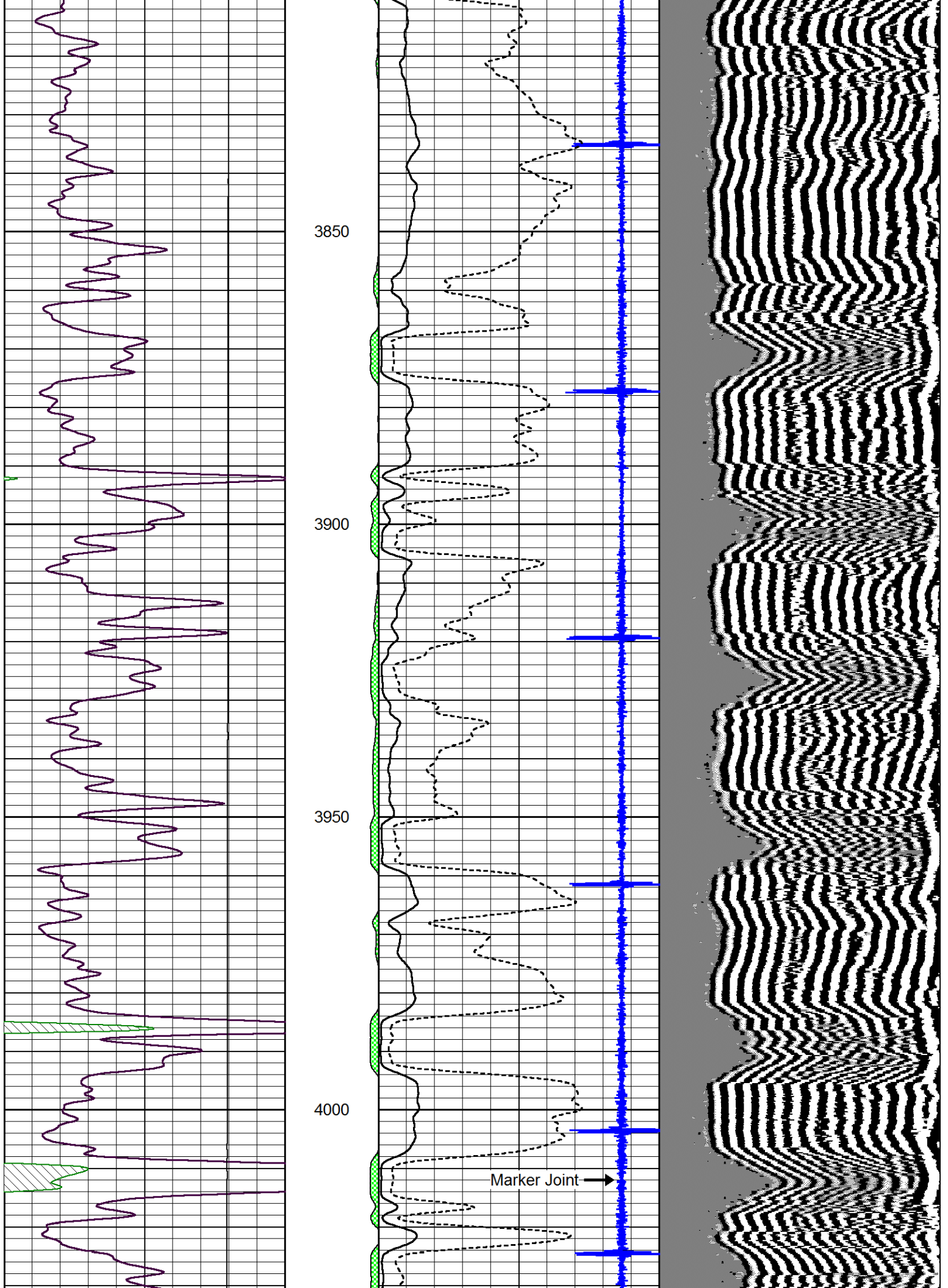
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 Charted by: Depth in Feet scaled 1:240

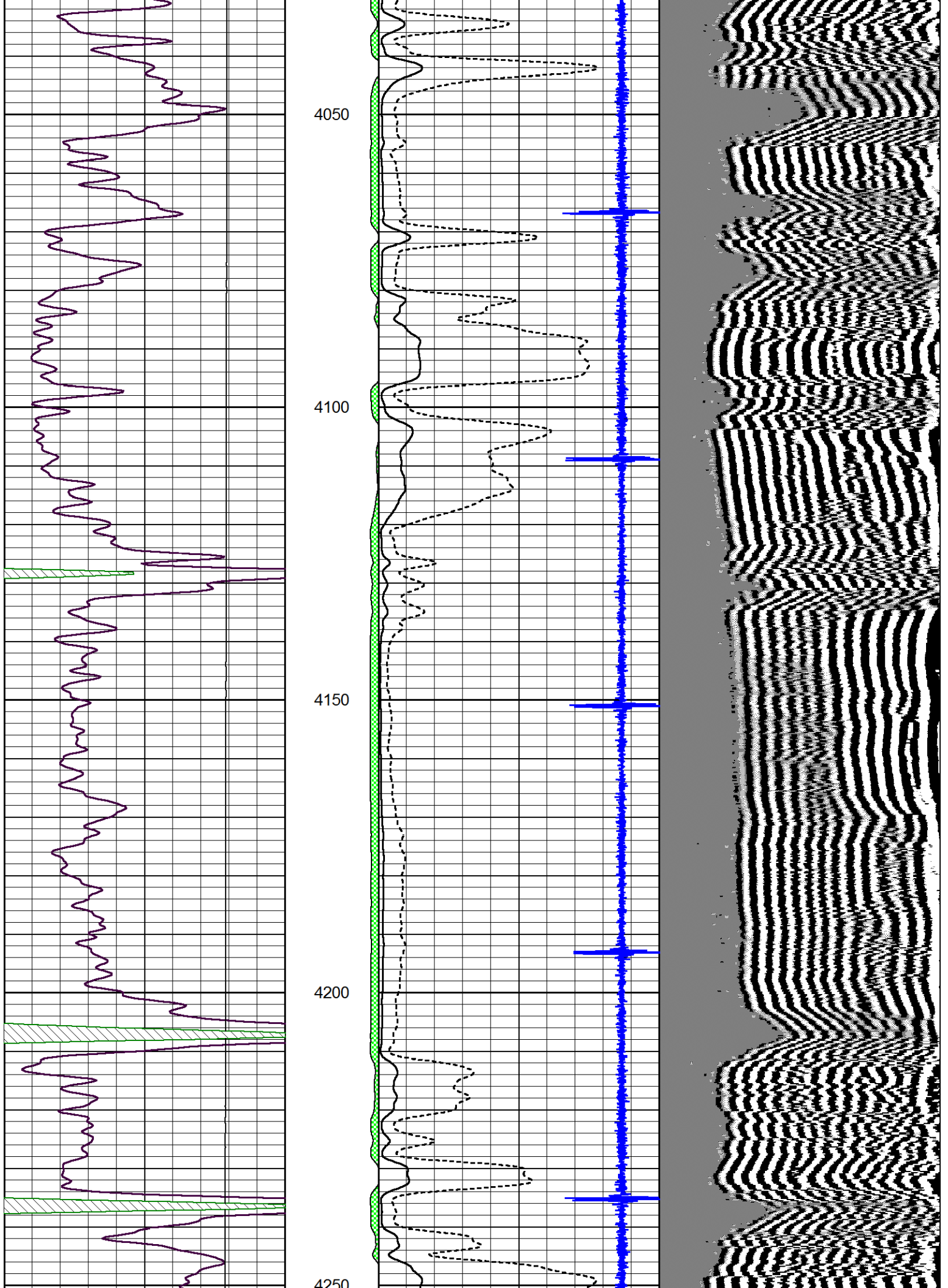


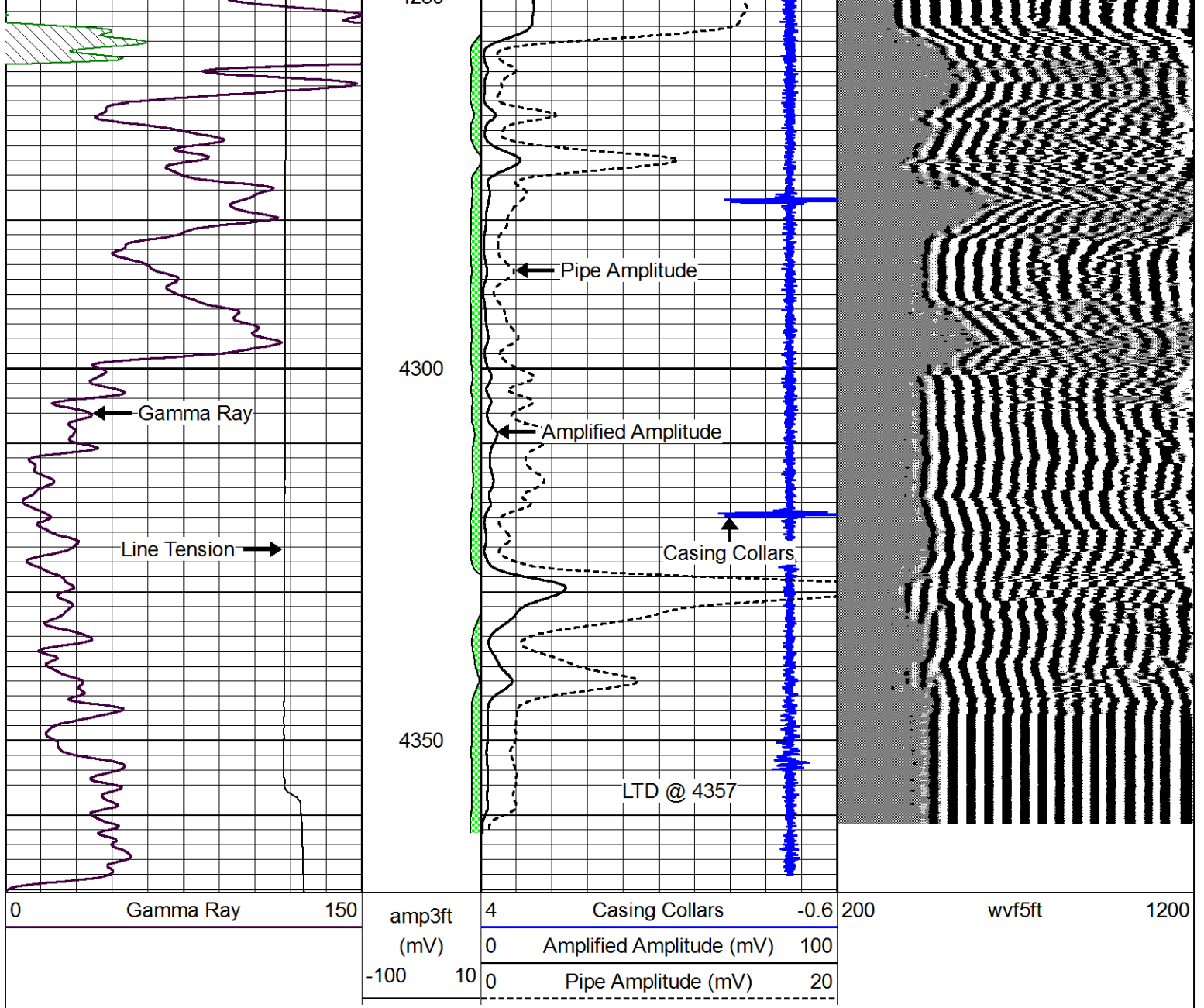












Repeat Section

Database File: cobaltener_craig_#1-27.db
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 Presentation Format: cblcr
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 Charted by: Depth in Feet scaled 1:240

