



**CEMENT BOND
GAMMA RAY
CCL LOG**


Pioneer Energy Services

Company		BAYSWATER		Country USA			
Well		HESTER FARMS K-36HC					
Field		WATTENBURG					
County		WELD					
State		COLORADO		Country USA			
Location:		API # : 051234199500		Other Services			
Permanent Datum		SHL: 1739' FNL AND 202' FWL					
Log Measured From		SEC 31 TWP 7N RGE 66W		Elevation			
Drilling Measured From		GROUND LEVEL		K.B. D.F. G.L. 4913'			
GROUND LEVEL							
Date		17-DEC-2015					
Run Number		ONE					
Depth Driller		1550'					
Depth Logger		1516'					
Bottom Logged Interval		1516'					
Top Log Interval		SURFACE					
Open Hole Size		N/A					
Type Fluid		WATER					
Density / Viscosity		N/A					
Max. Recorded Temp.		N/A					
Estimated Cement Top		SEE LOG					
Time Well Ready		12:00					
Time Logger on Bottom		13:00					
Equipment Number		P-1					
Location		FORT MORGAN, CO					
Recorded By		HARPER					
Witnessed By							
Borehole Record		Tubing Record					
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size			Wgt/Ft		Top	Bottom
Surface String	9-5/8"					SURFACE	1550'
Prot. String							
Production String							
Liner							

<<< Fold Here >>>

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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-STNDRD Standard Cable Head	1.00	1.69	10.00

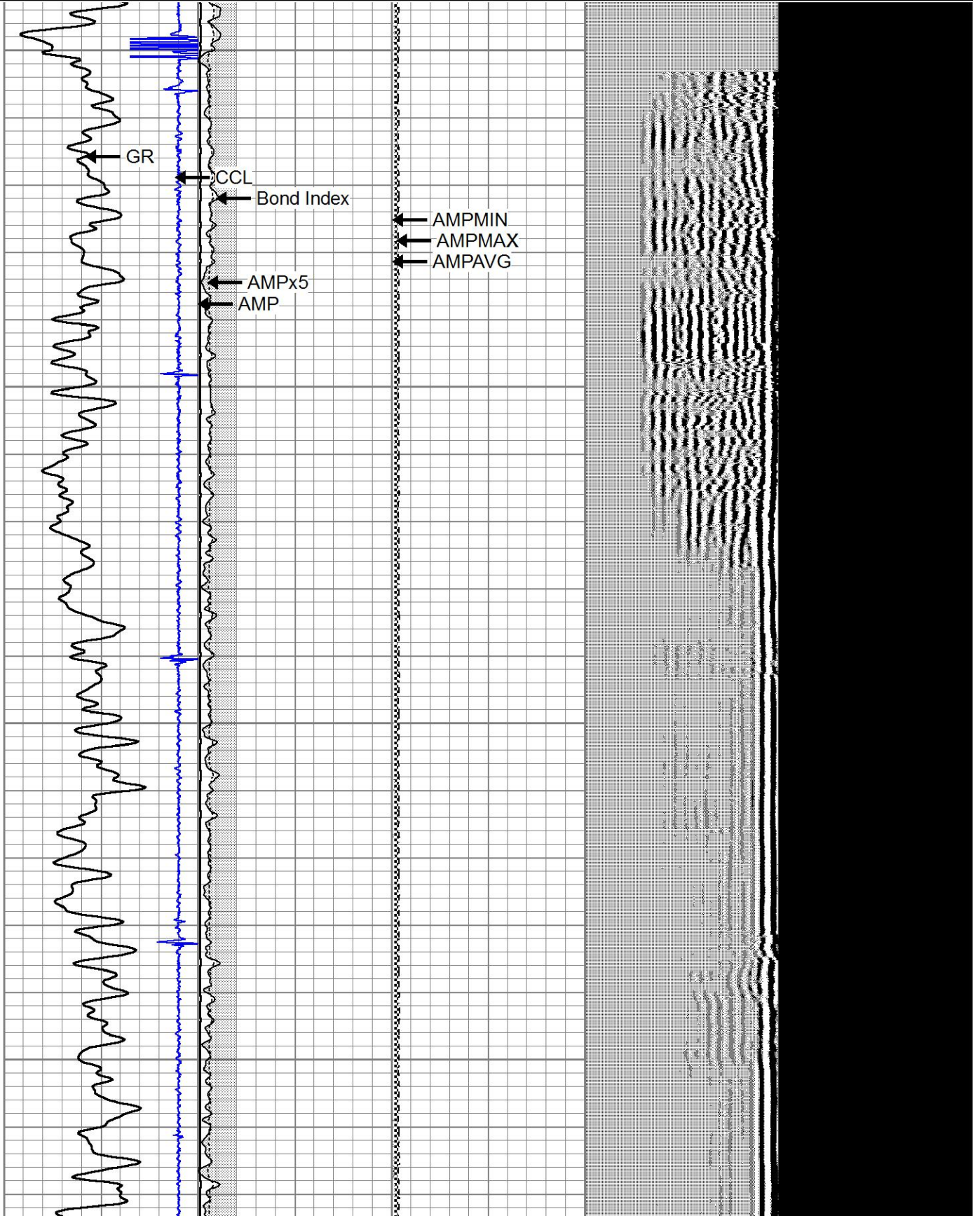
			CENT-PTS275	2.83	2.75	
IntTemp	14.88					
TEMP	13.86					
			RBT-RBT-C3 (141166_4in) Probe Radii Bond Tool with Digital Telemetry	9.40	2.75	90.00
WVFS8	11.63					
WVFS7	11.63					
WVFS6	11.63					
WVFS5	11.63					
WVFS4	11.63					
WVFS3	11.63					
WVFS2	11.63					
WVFS1	11.63					
WVFCAL	11.63					
WVF3FT	11.63					
WVF5FT	10.63					
HEADVOLT	7.38					
			CENT-PTS275	2.83	2.75	
CCL	3.63					
GR	2.30		GR_CCL-Probe (111211) Probe Gamma CCL	4.54	2.75	100.00
Dataset: bayswater hester farms k-36hc_cbl.db: field/well/run1/pass6 Total length: 20.60 ft Total weight: 200.00 lb O.D.: 2.75 in						

Database File bayswater hester farms k-36hc_cbl.db
 Dataset Pathname pass4
 Presentation Format scbl02
 Dataset Creation Thu Dec 17 13:28:41 2015
 Charted by Depth in Feet scaled 1:240

270	TT (usec)	170	0	AMP (mV)	100	-2	AMPAVG	200	200	VDL	1200	1	Cement Map	8
-9	CCL	1	0	AMPx5 (mV)	20	-2	AMPMAX	200						
0	GR (GAPI)	120	1	Bond Index	0	-2	AMPMIN	200						

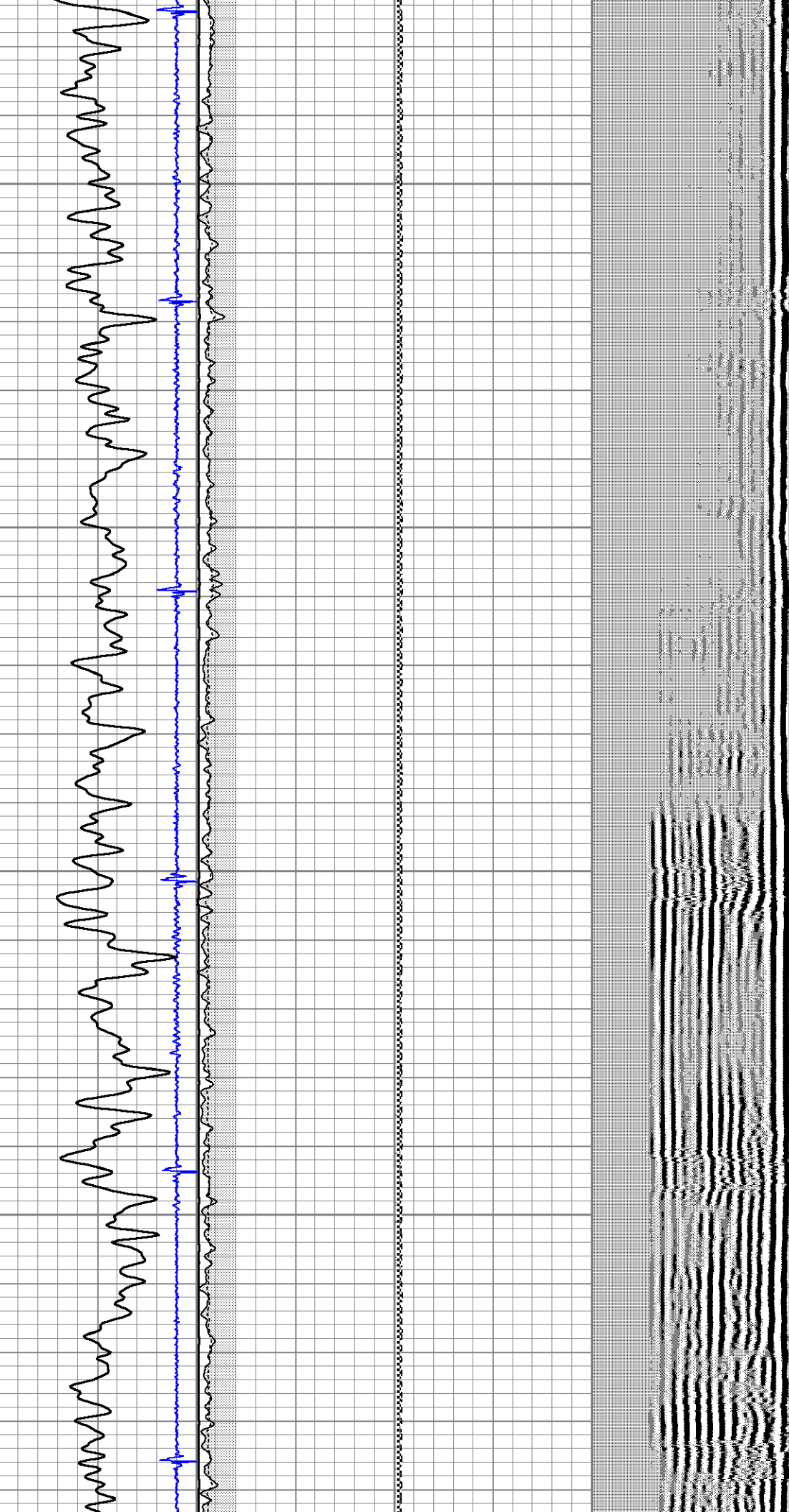
0

100



200

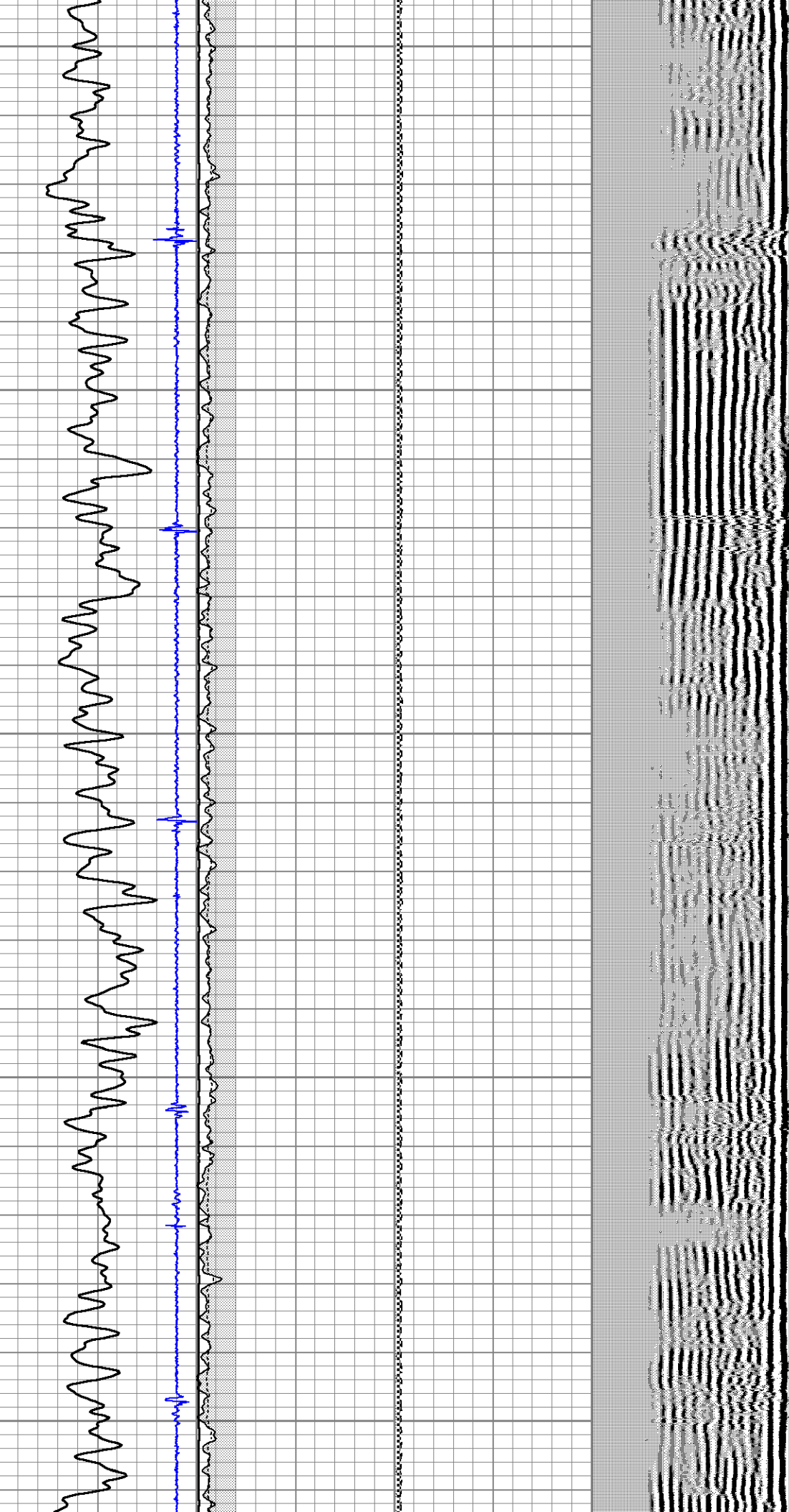
300



400

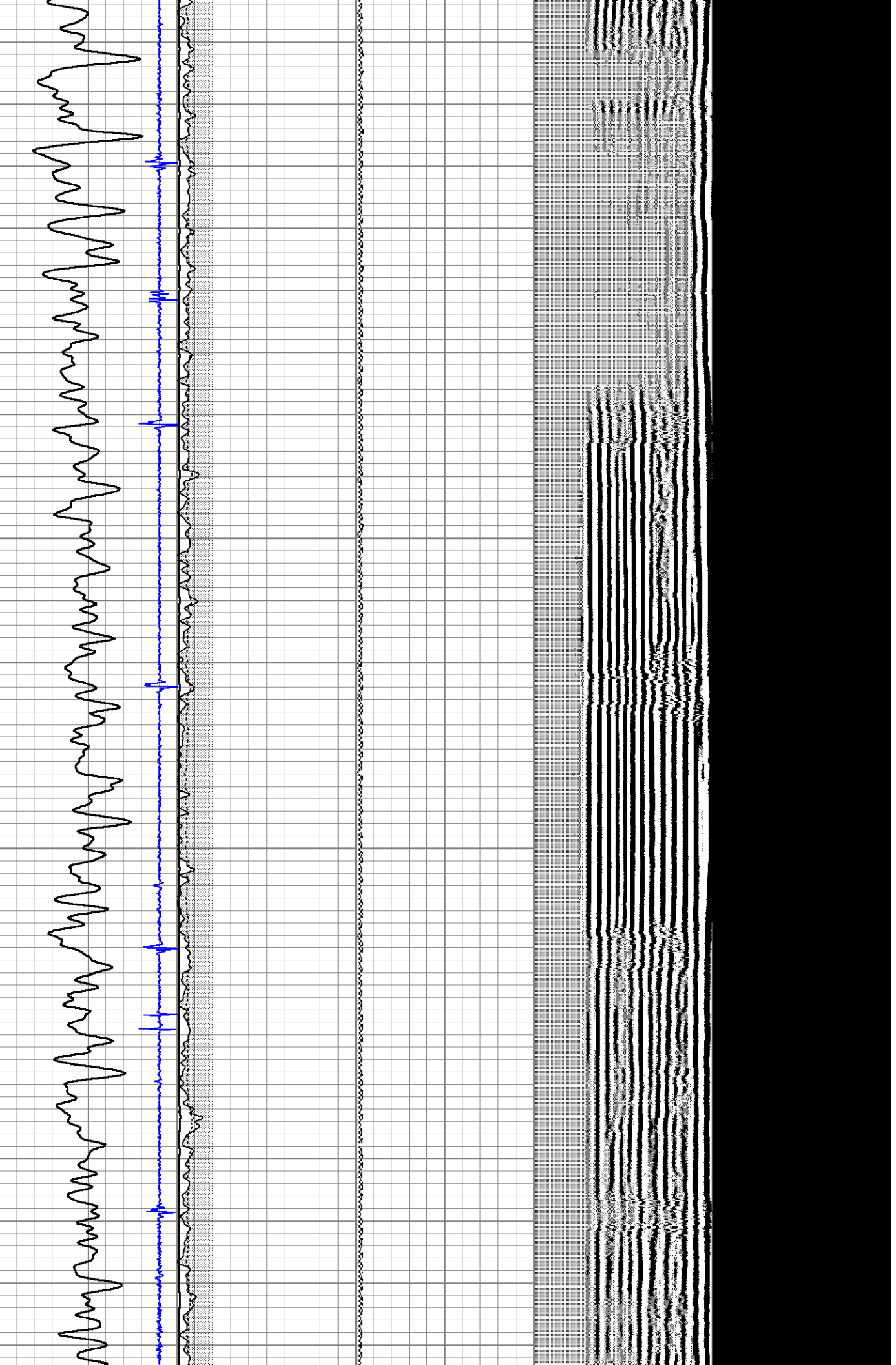
500

600



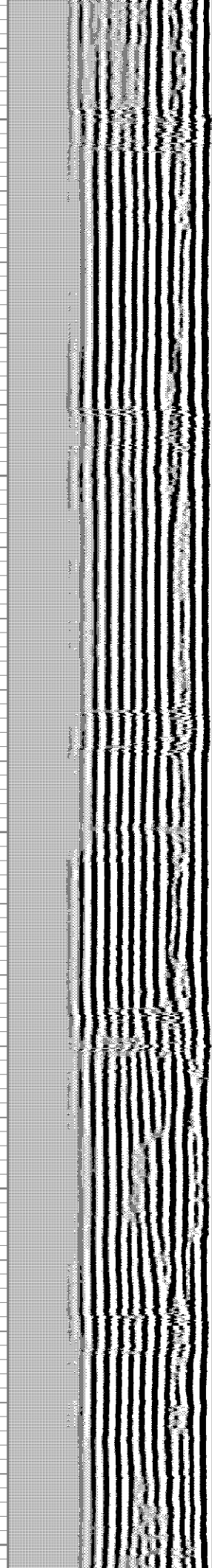
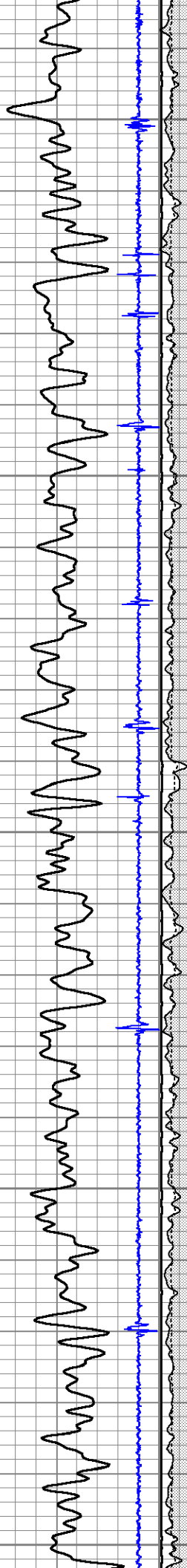
700

800



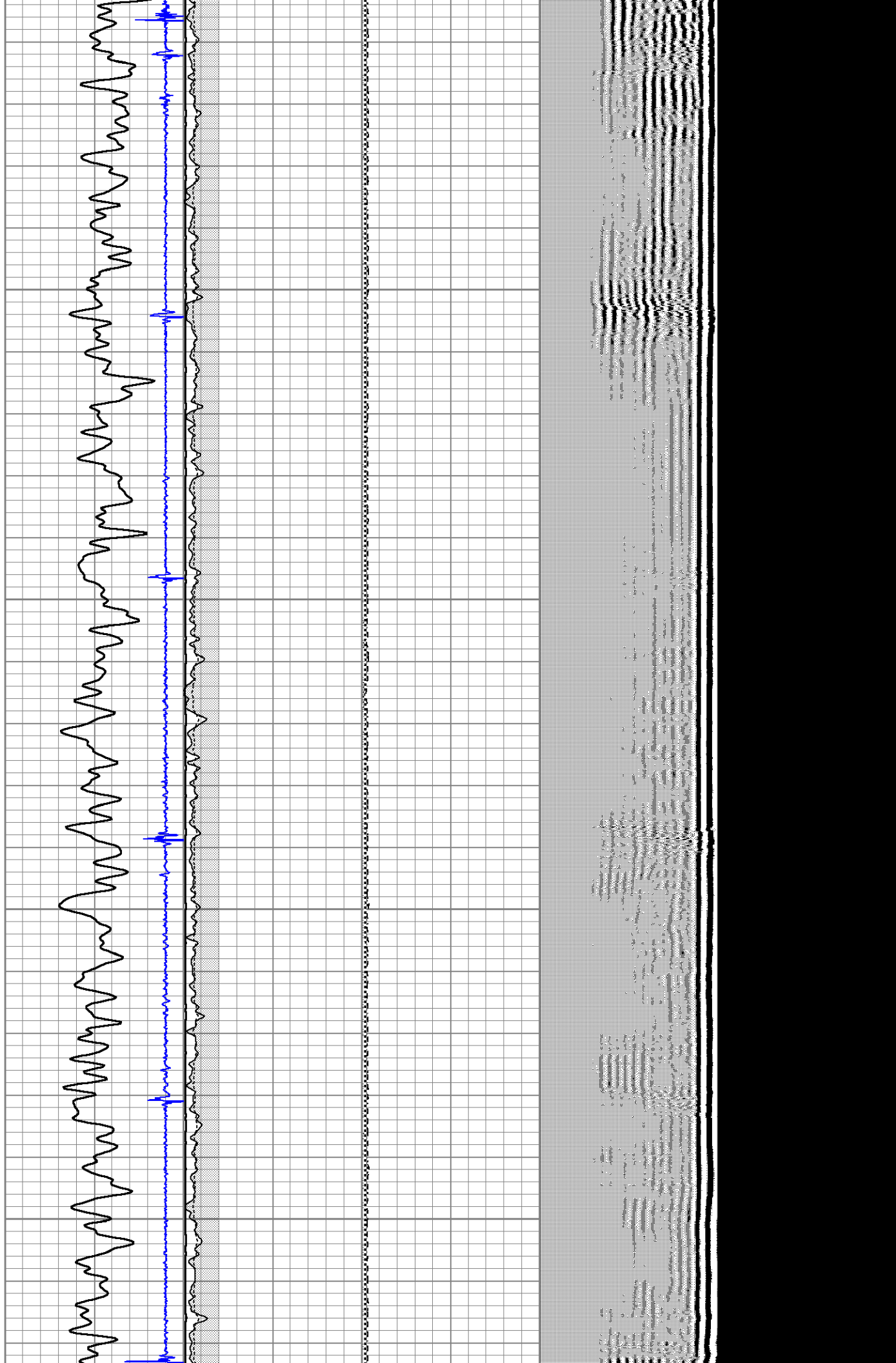
900

1000



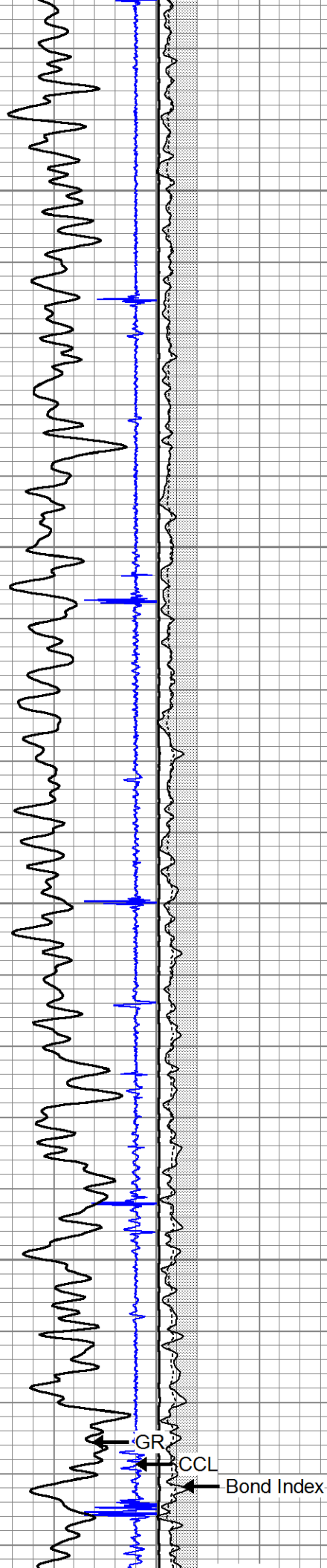
1100

1200



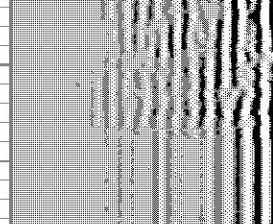
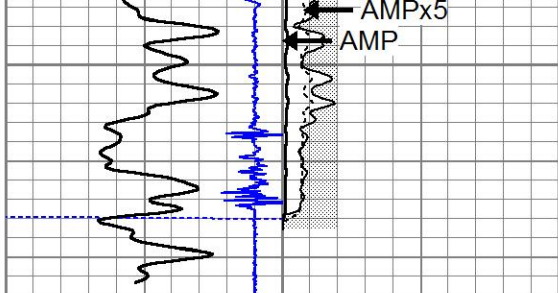
1300

1400



← AMPMIN
← AMPMAX
← AMPAVG

1500



270	TT (usec)	170	0	AMP (mV)	100	-2	AMPAVG	200
-9	CCL	1	0	AMPx5 (mV)	20	-2	AMPMAX	200
0	GR (GAPI)	120	1	Bond Index	0	-2	AMPMIN	200

200 VDL 1200 1 Cement Map 8



MAIN PASS

LOG RAN WITH 0 PSI



REPEAT PASS

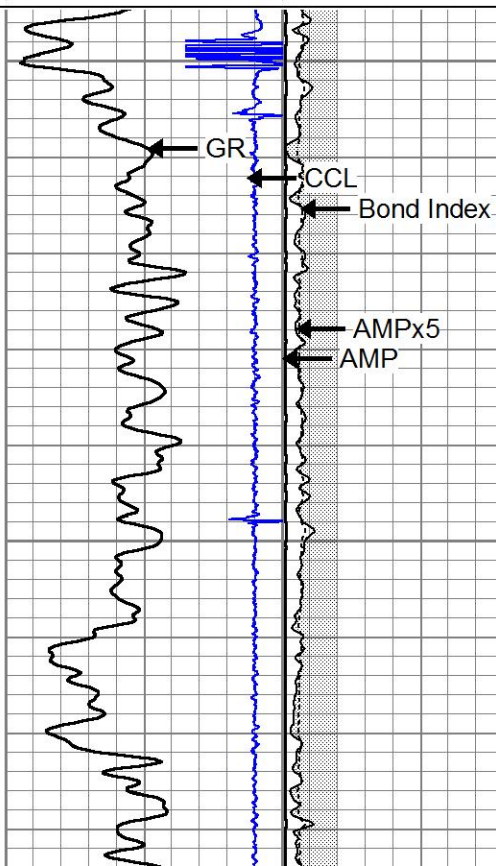
LOG RAN WITH 0 PSI

Database File bayswater hester farms k-36hc_cbl.db
 Dataset Pathname pass6
 Presentation Format scbl02
 Dataset Creation Thu Dec 17 13:51:06 2015
 Charted by Depth in Feet scaled 1:240

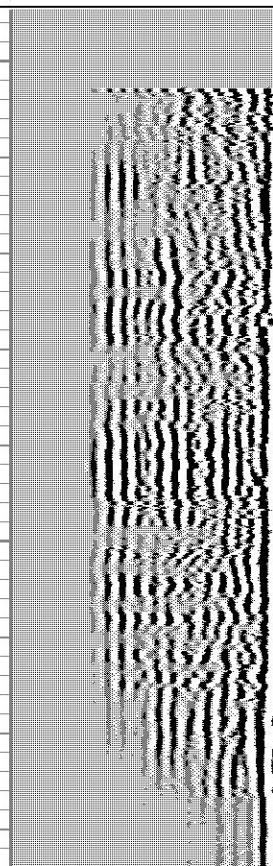
270	TT (usec)	170	0	AMP (mV)	100	-2	AMPAVG	200
-9	CCL	1	0	AMPx5 (mV)	20	-2	AMPMAX	200
0	GR (GAPI)	120	1	Bond Index	0	-2	AMPMIN	200

200 VDL 1200 1 Cement Map 8

0



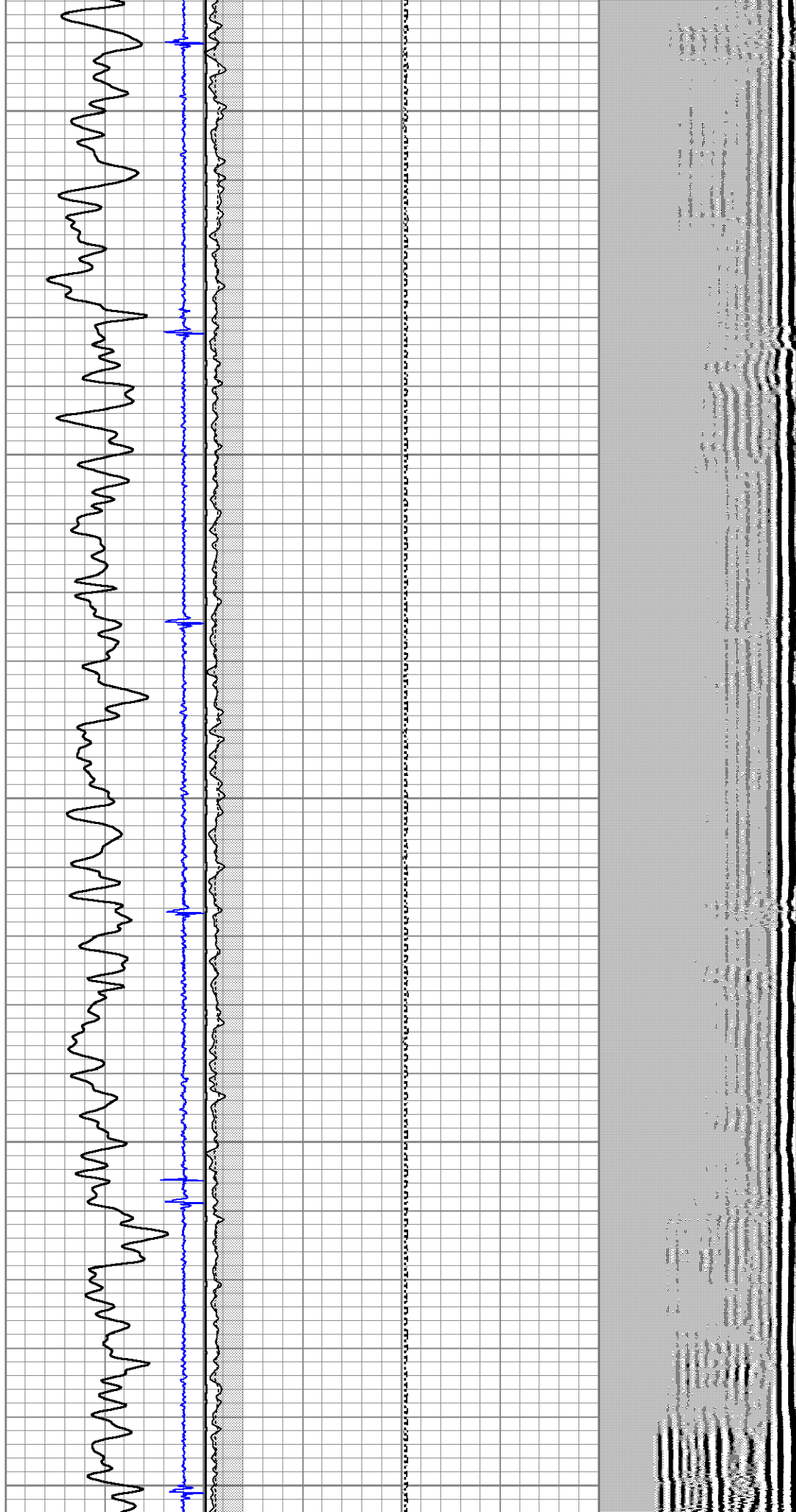
AMPMIN
 AMPMAX
 AMPAVG



100

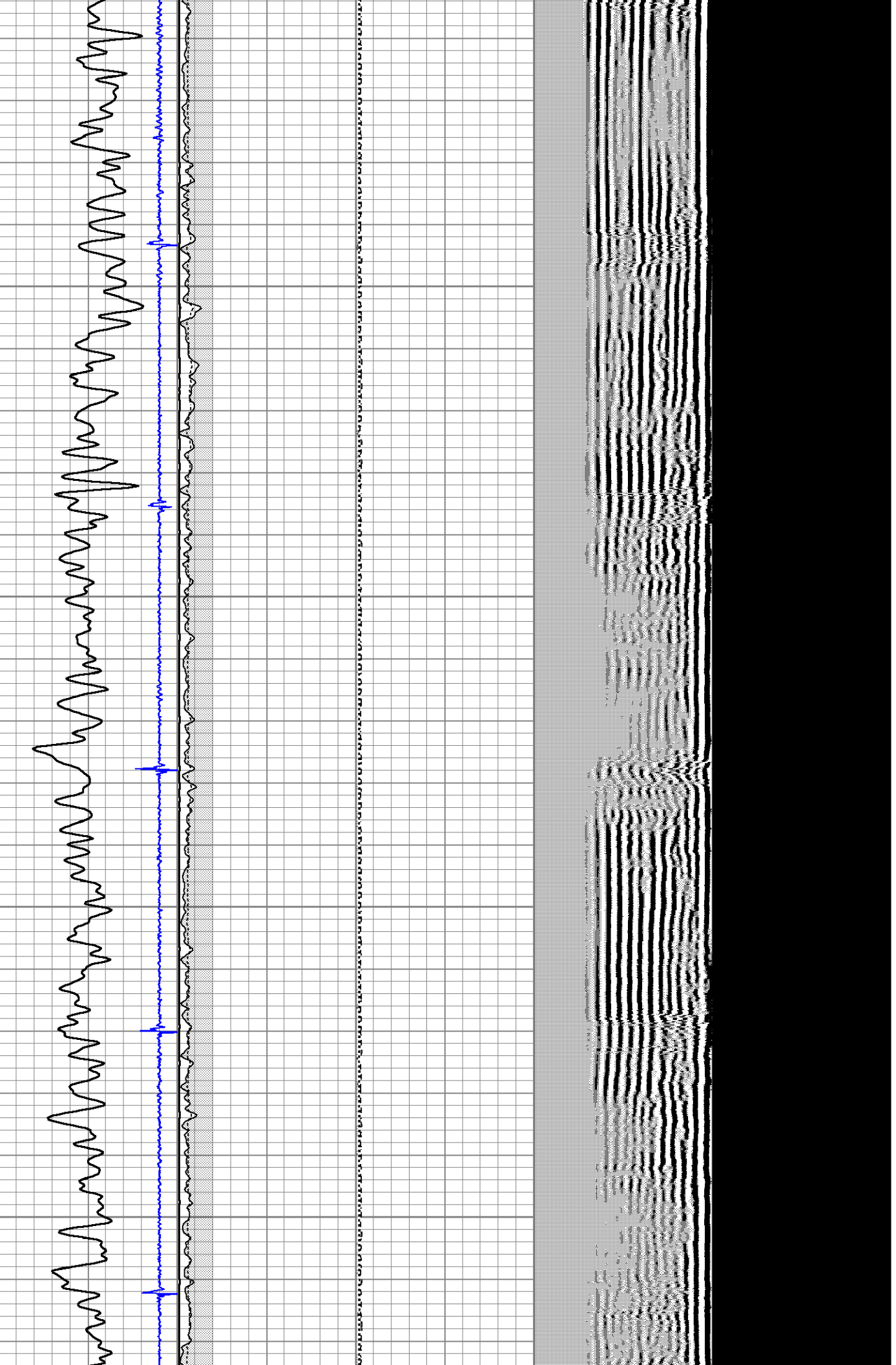
200

300



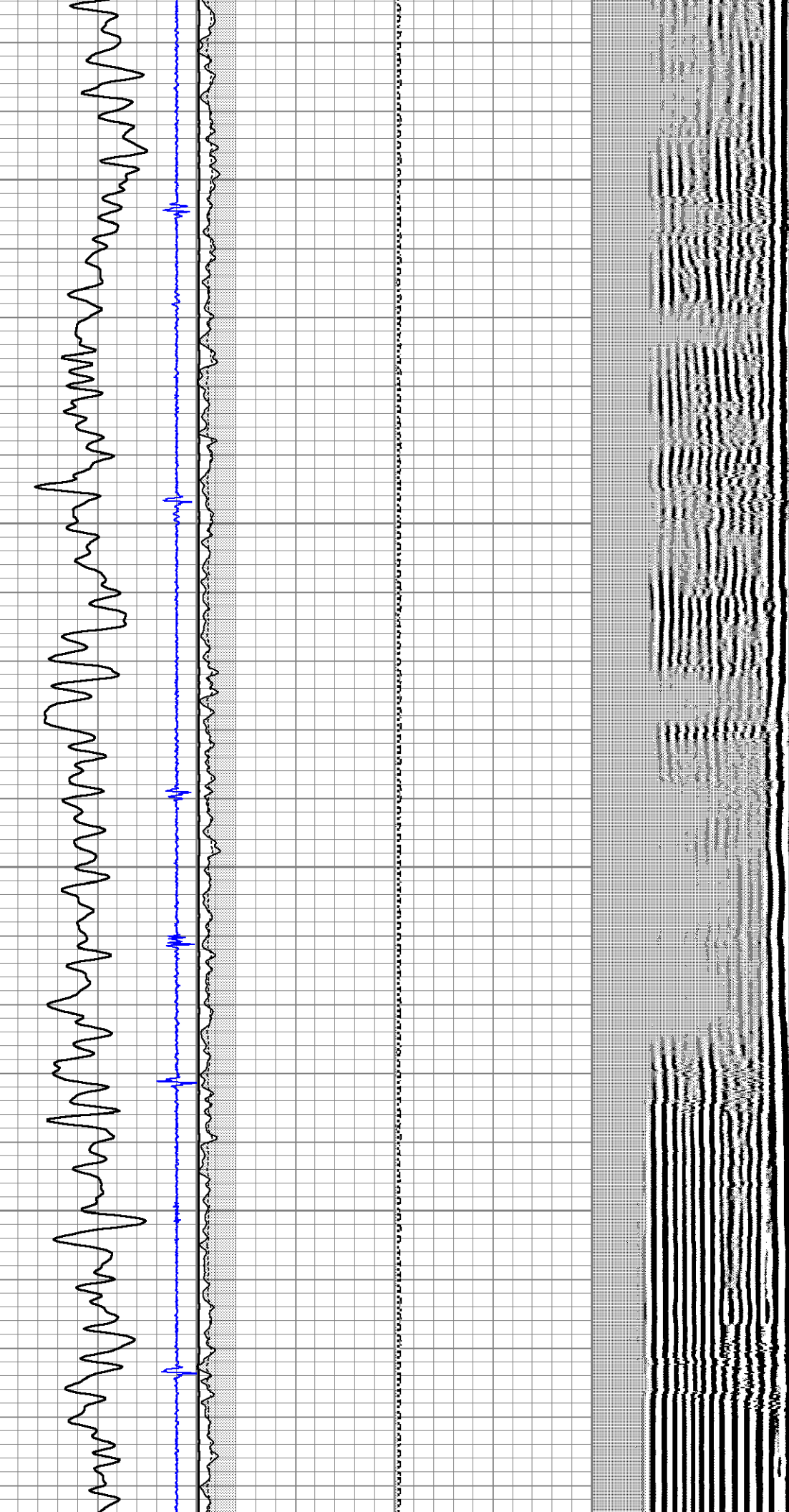
400

500



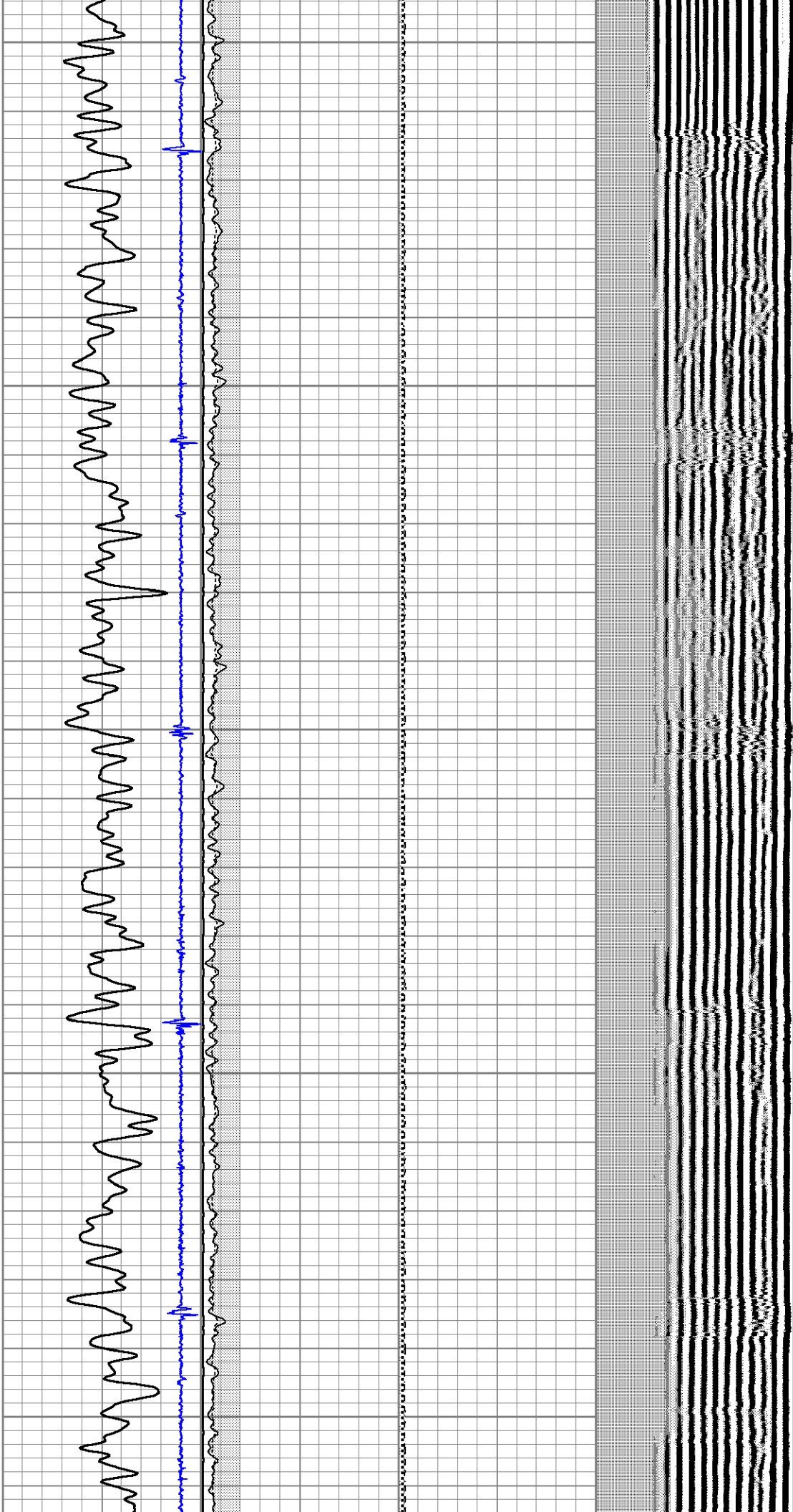
600

700



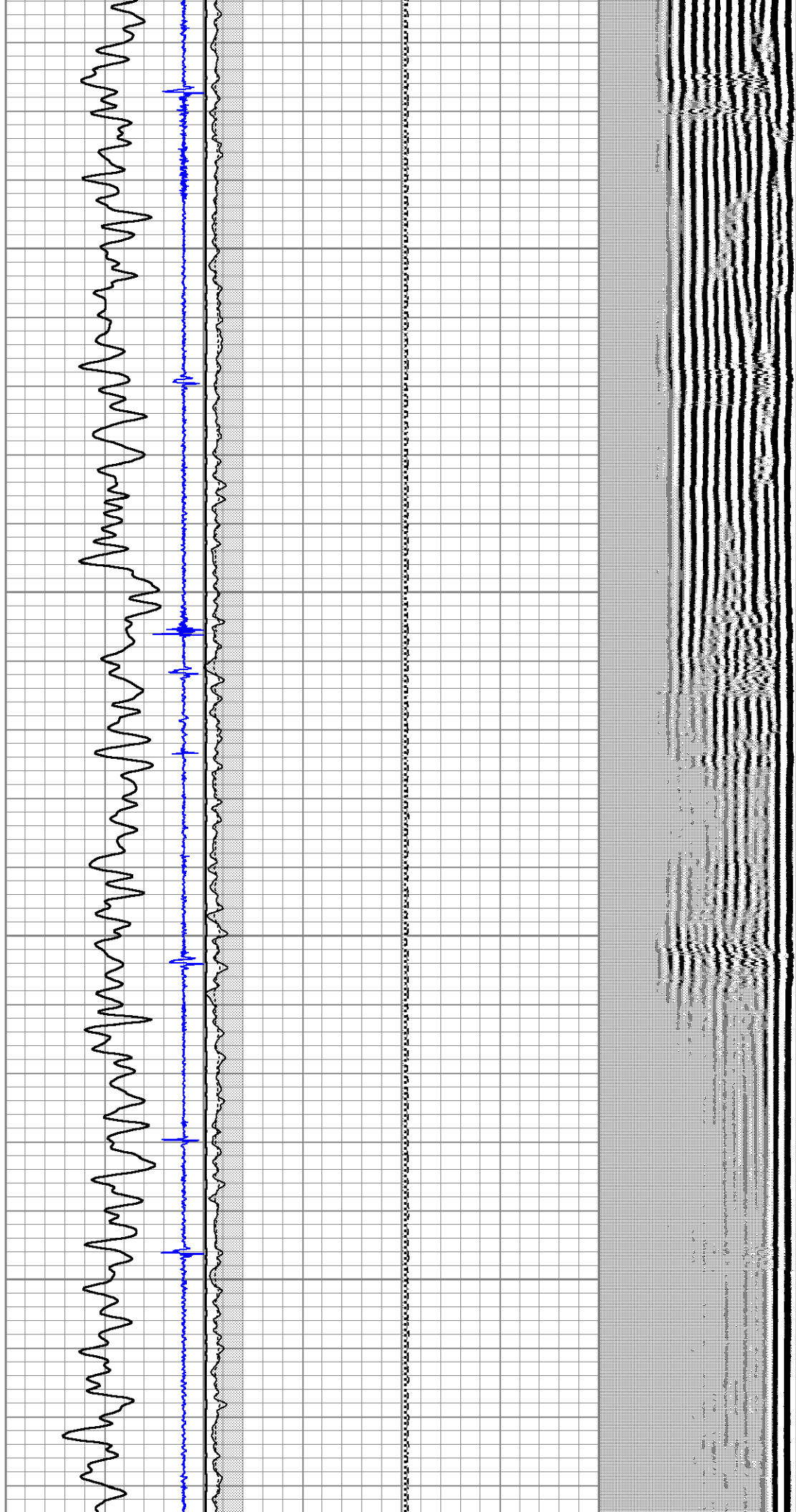
800

900



1000

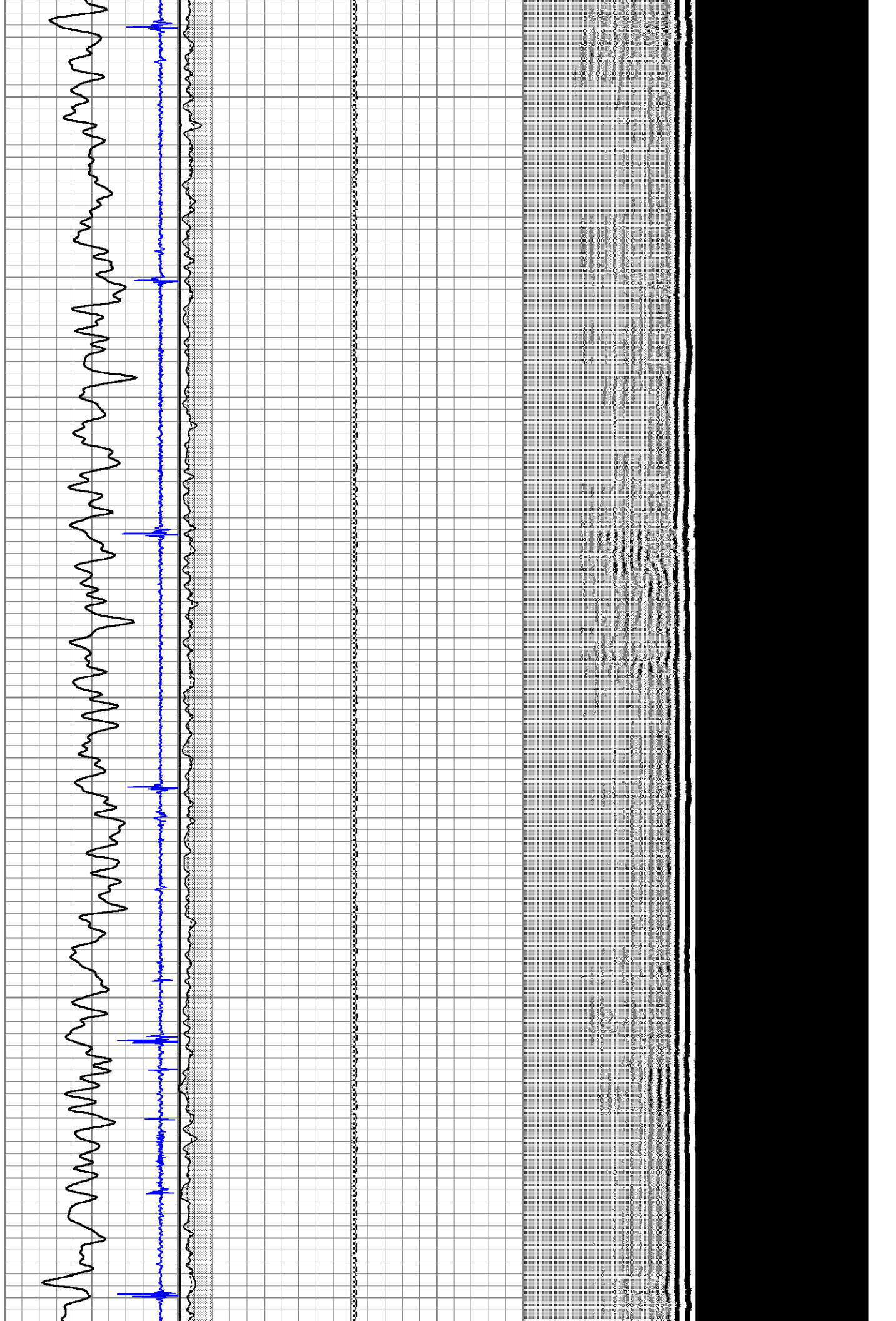
1100



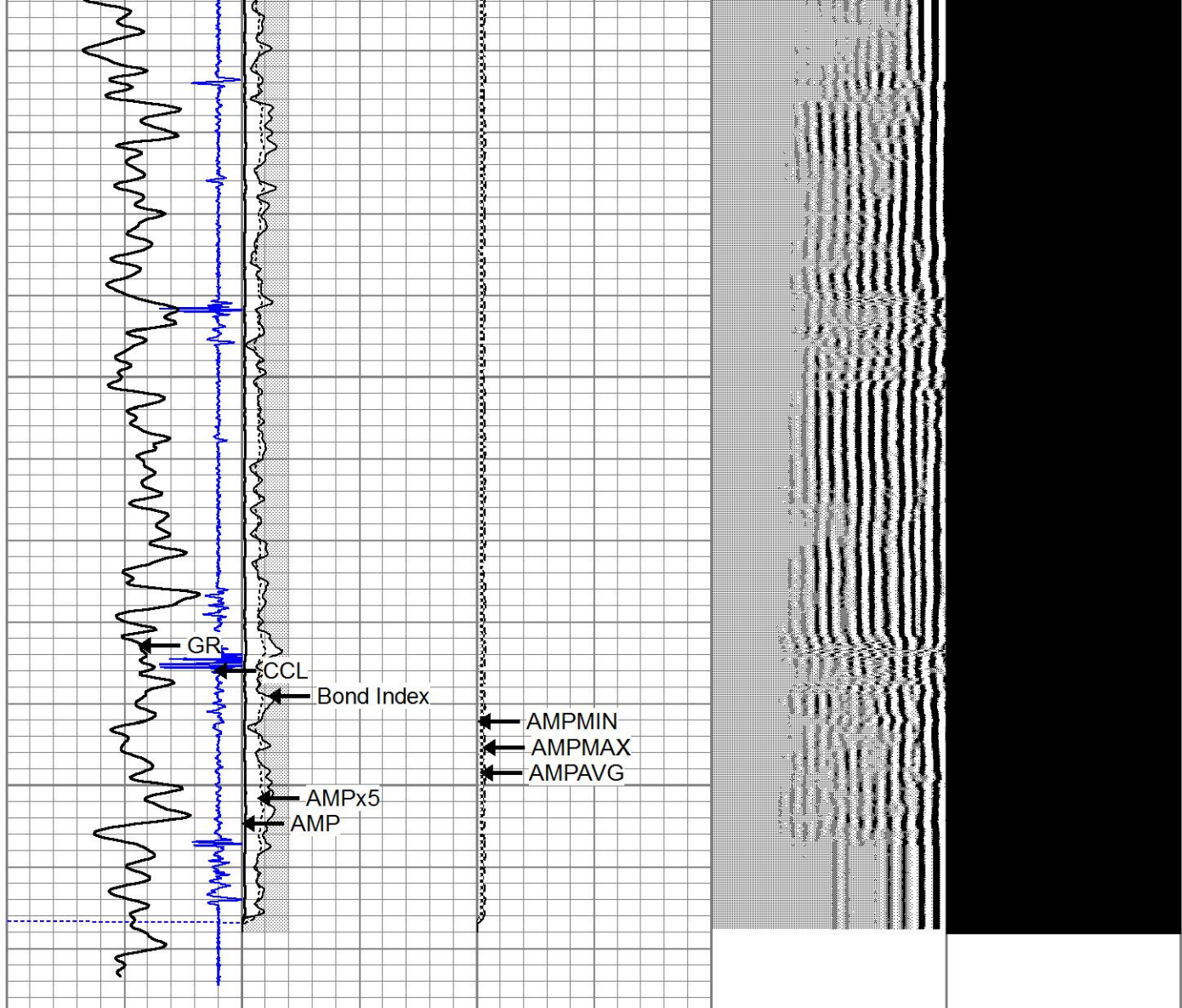
1200

1300

1400



1500



270	TT (usec)	170	0	AMP (mV)	100	-2	AMPAVG	200	200	VDL	1200	1	Cement Map	8
-9	CCL	1	0	AMPx5 (mV)	20	-2	AMPMAX	200						
0	GR (GAPI)	120	1	Bond Index	0	-2	AMPMIN	200						



REPEAT PASS

LOG RAN WITH 0 PSI

Calibration Report

Database File bayswater hester farms k-36hc_cbl.db
 Dataset Pathname pass4
 Dataset Creation Thu Dec 17 13:28:41 2015

Gamma Ray Calibration Report

Serial Number: 111211
 Tool Model: Probe
 Performed: Fri Dec 11 07:20:48 2015

Calibrator Value: 693.0 GAPI

Background Reading: 338.5 cps
 Calibrator Reading: 1057.0 cps

Sensitivity: 0.9506 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 141166_4in
 Tool Model: RBT-C3

Calibration Casing Diameter: 9.625 in
 Calibration Depth: 920.217 ft

Master Calibration, performed Thu Dec 17 13:25:30 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.618	1.000	51.280	82.933	-0.008
CAL	0.012	0.636				
5'	0.012	0.535	1.000	51.280	96.080	-0.148
SUM						
S1	0.012	0.626	0.000	100.000	162.733	-1.937
S2	0.012	0.633	0.000	100.000	160.880	-1.917
S3	0.012	0.638	0.000	100.000	159.660	-1.857
S4	0.012	0.635	0.000	100.000	160.527	-1.918
S5	0.012	0.629	0.000	100.000	162.032	-1.932
S6	0.012	0.622	0.000	100.000	163.919	-1.939
S7	0.012	0.618	0.000	100.000	164.859	-1.950
S8	0.012	0.622	0.000	100.000	163.843	-1.962

Temperature Calibration Report

Serial Number: 141166_4in
 Tool Model: RBT-C3
 Performed: Thu Feb 19 10:06:23 2015

	Reference		Reading	
Low Reference:	0.00	degF	0.00	degF
High Reference:	1.00	degF	1.00	degF
Gain:	0.86			
Offset:	-2.00			
Delta Spacing	1			



Company BAYSWATER
 Well HESTER FARMS K-36HC
 Field WATTENBURG
 County WELD
 State COLORADO

Country USA