

# CEMENT BOND LOG GAMMA RAY / CCL

Company	GREAT WESTERN OPERATING			Country	U.S.A.
Well	GREAT WESTERN 26-31				
Field	WATTENBERG				
County	WELD				
State	COLORADO				
Company	GREAT WESTERN OPERATING COMPANY LLC.				
Well	GREAT WESTERN 26-31				
Field	WATTENBERG				
County	WELD				
State	COLORADO				
Country	U.S.A.				
Location:	API # : 05-123-24363			Other Services	
	NENE			NONE	
Permanent Datum	G.L.			Elevation	
Log Measured From	K.B.				
Drilling Measured From	K.B.				
	G.L.				
Date	11-19-2015				
Run Number	ONE				
Depth Driller					
Depth Logger	1500'				
Bottom Logged Interval	1499'				
Top Log Interval	SURFACE				
Open Hole Size	N/A				
Type Fluid	WATER				
Density / Viscosity	N/A				
Max. Recorded Temp.	N/A				
Estimated Cement Top	50'				
Time Well Ready	7:00AM				
Time Logger on Bottom	7:45AM				
Equipment Number	41				
Location	JOHNSTOWN				
Recorded By	WILLIAMS				
Witnessed By	MR. BRINAR				
Run Number	Borehole Record			Tubing Record	
Bit	From	To	Size	Weight	From To
Casing Record	Size	Wgt/Ft	Top	Bottom	
Surface String					
Prot. String					
Production String					
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

NOTE: THIS LOG WAS NOT CORRELATED TO ANY OTHER LOG

MAIN PASS: 5" = 100'  
CSG PSI: STATIC

## Calibration Report

Database File: c:\warrior\data\great western 26-31\11192015\_greatwestern26\_31.db  
Dataset Pathname: D/pass7  
Dataset Creation: Thu Nov 19 07:56:23 2015 by Log Std Casedhole 10081

## Gamma Ray Calibration Report

Type / Serial:

Probe275dig / 080829

## SHOP CALIBRATION

Thu Apr 19 07:51:18 2012

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		1.0000			GAPI/cps

## PRIMARY VERIFICATION

Background	0.0			cps
Calibrator	0.0			cps
Difference			0.0	GAPI

## BEFORE SURVEY VERIFICATION

Background	0.0			cps
Calibrator	0.0			cps
Difference			0.0	GAPI

## AFTER SURVEY VERIFICATION

Background	0.0			cps
Calibrator	0.0			cps
Difference			0.0	GAPI

## Cement Bond Log Calibration Report

Serial Number:	080430		
Tool Model:	Digital		
Performed:	Thu Nov 19 07:47:26 2015		
Depth:	7.45833	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	3	1	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.0109131	0.00583496	V
Reading in Free Pipe:	0.570923	0.529443	V
Gain:	139.633	153.16	
Offset:	1.47617	0.106315	



MAIN PASS

Database File: c:\warrior\data\great western 26-31\11192015\_greatwestern26\_31.db  
 Dataset Pathname: D/pass7  
 Presentation Format: cbldig  
 Dataset Creation: Thu Nov 19 07:56:23 2015 by Log Std Casedhole 10081  
 Charted by: Depth in Feet scaled 1:240

400	Travel Time (usec)	200	0	Amplitude (mV)	100	200	Variable Density	1200
9	Collar Locator	-1	0	Amplified Amplitude (mV)	10			
0	GR (GAPI)	150						

Line Tension (lb)

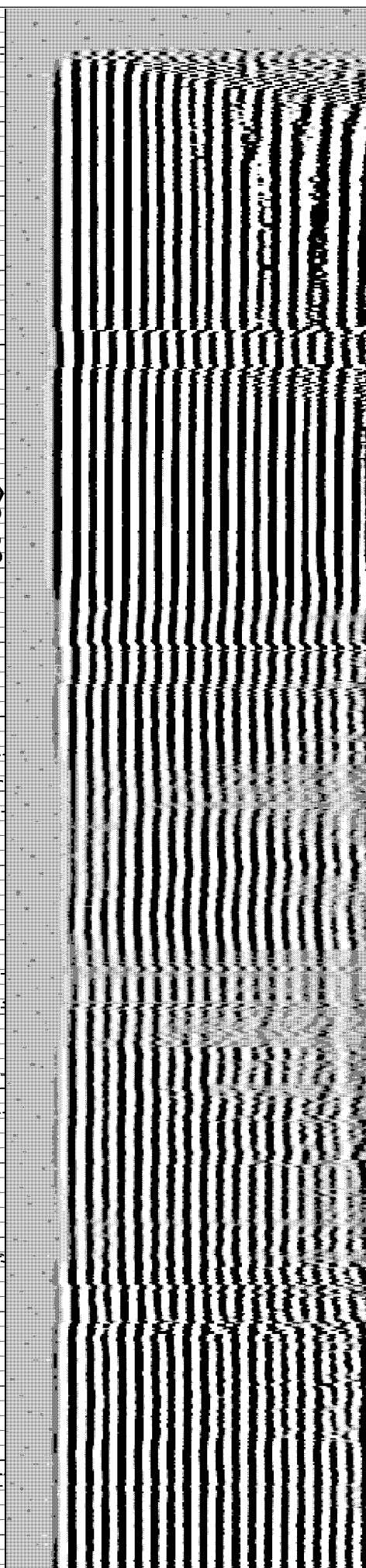
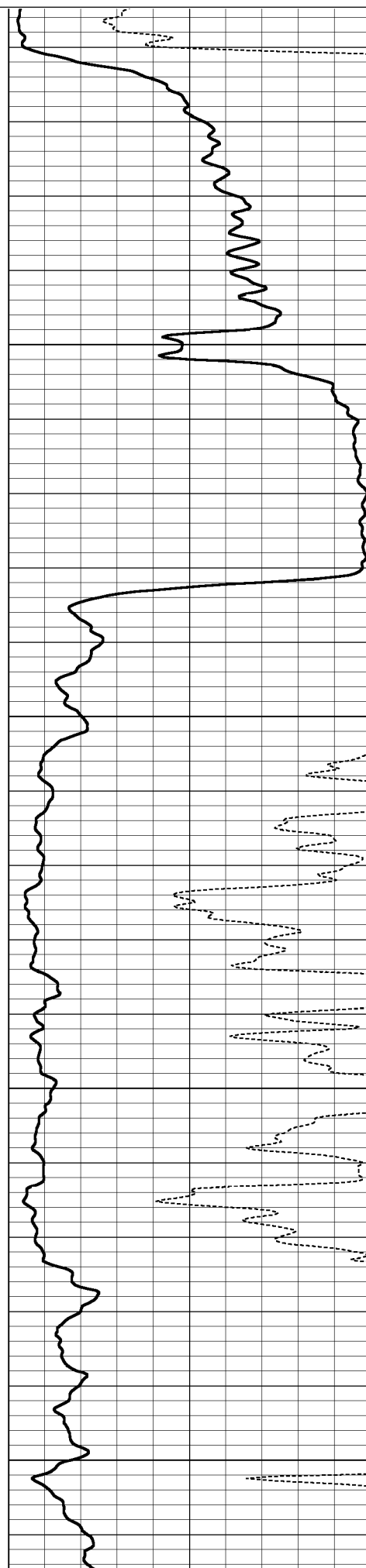
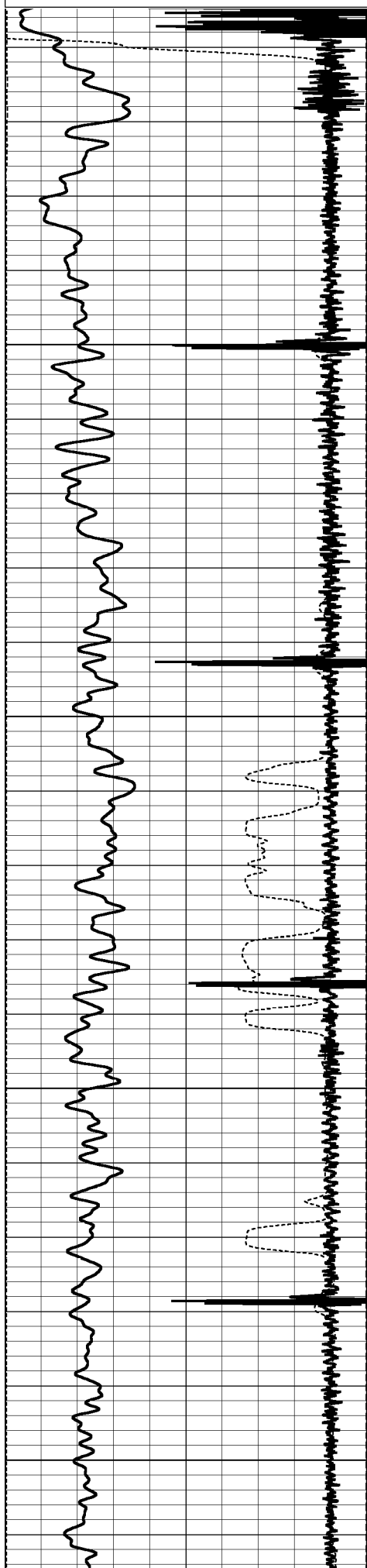
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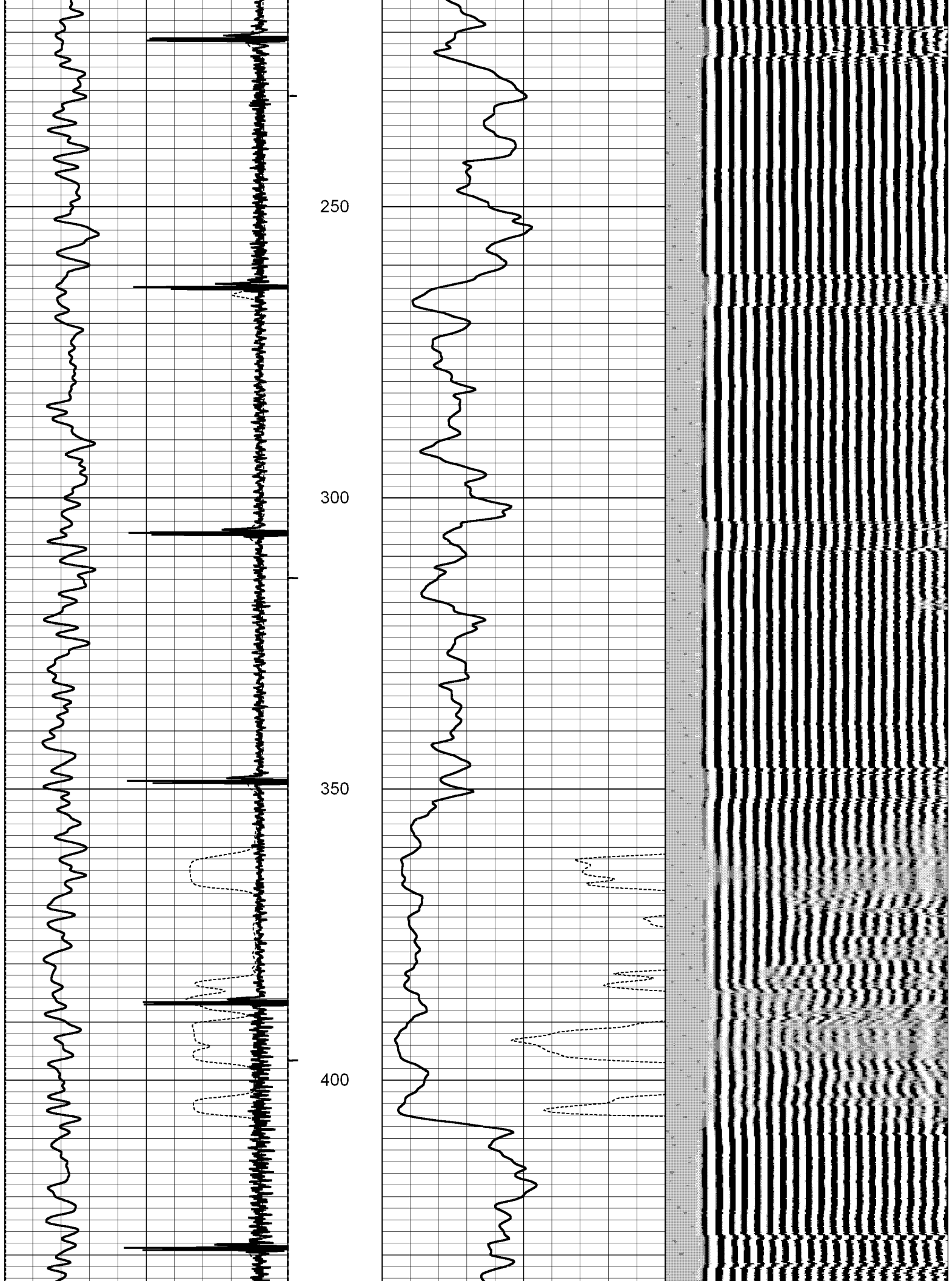
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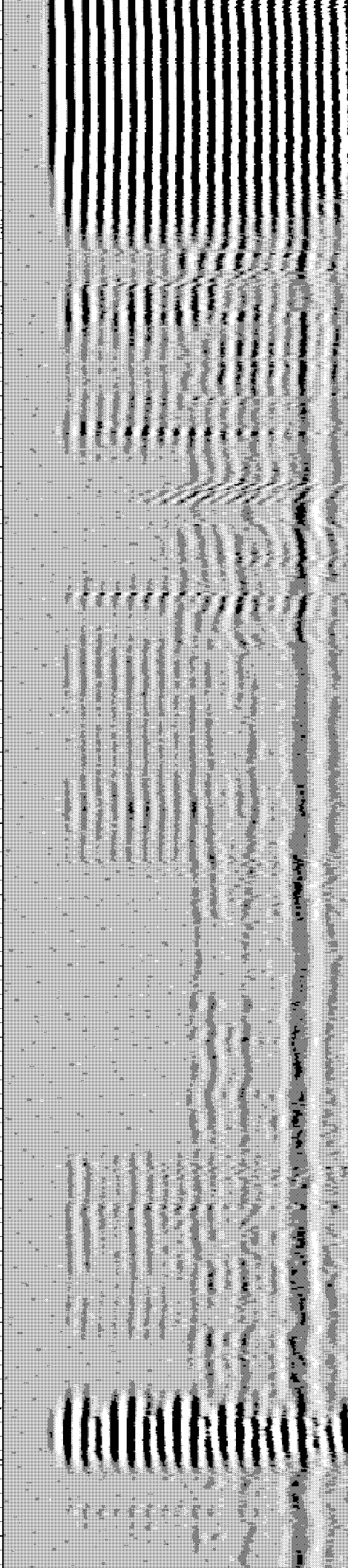
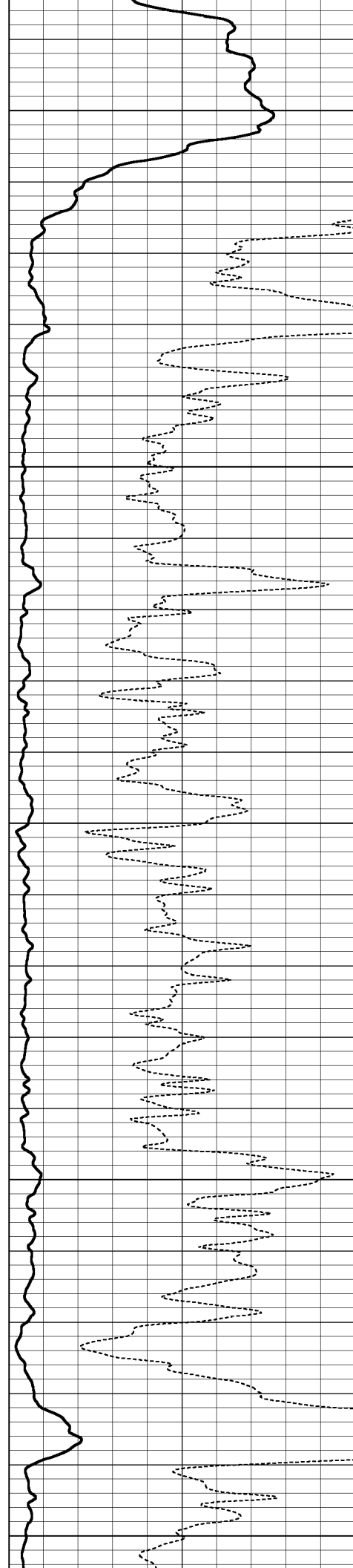
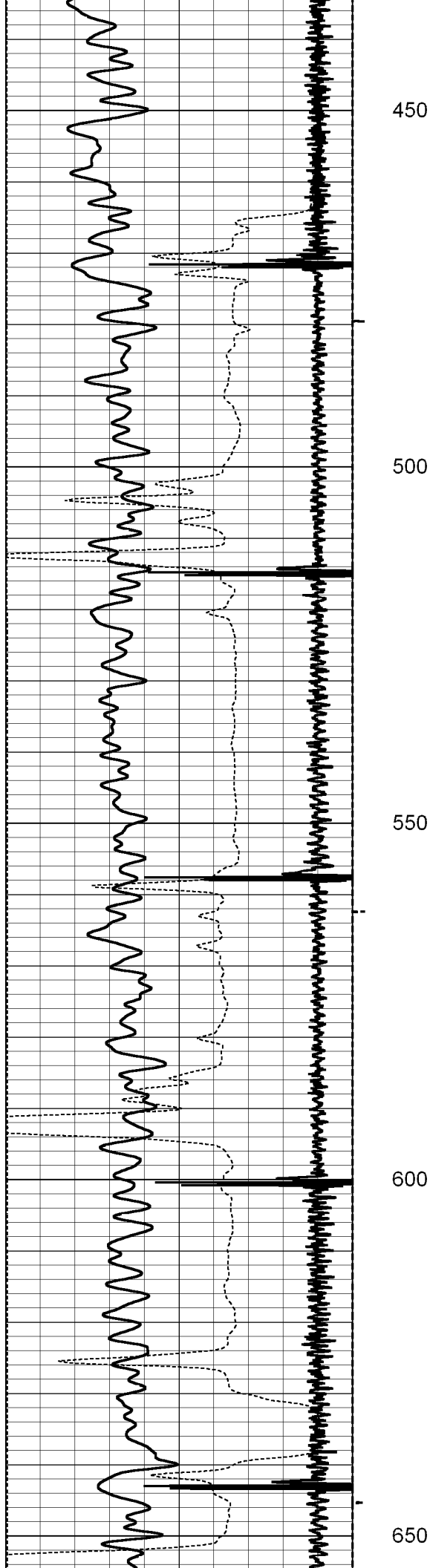
100

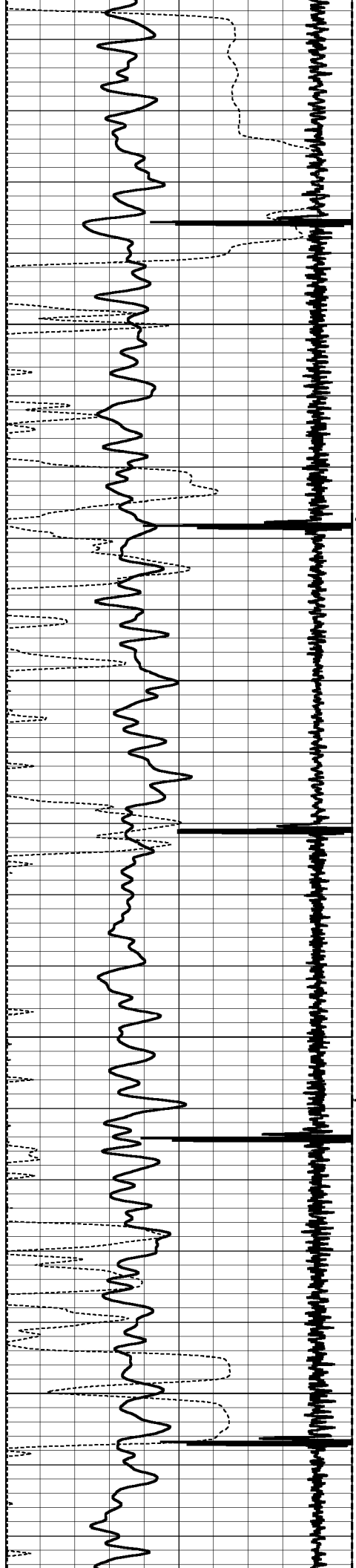
150

200







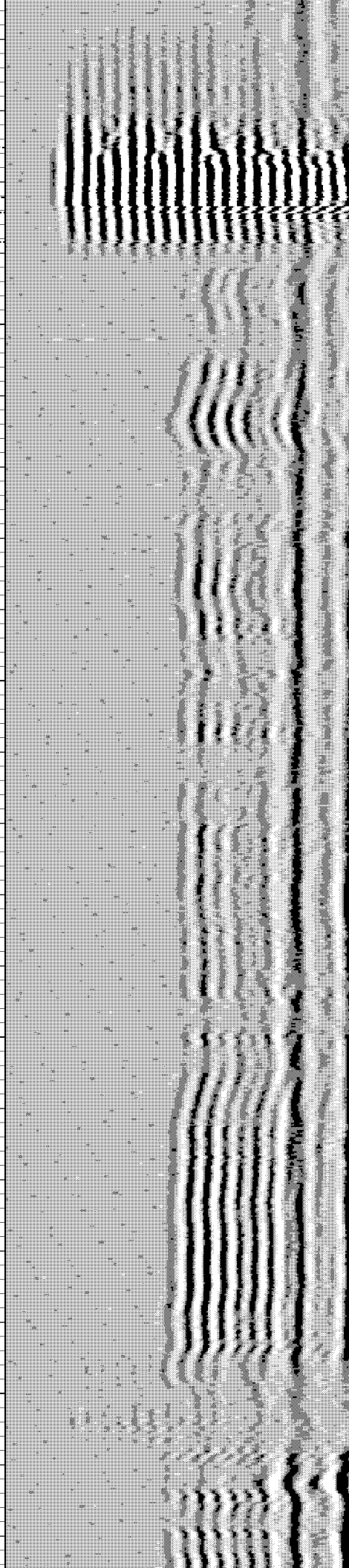
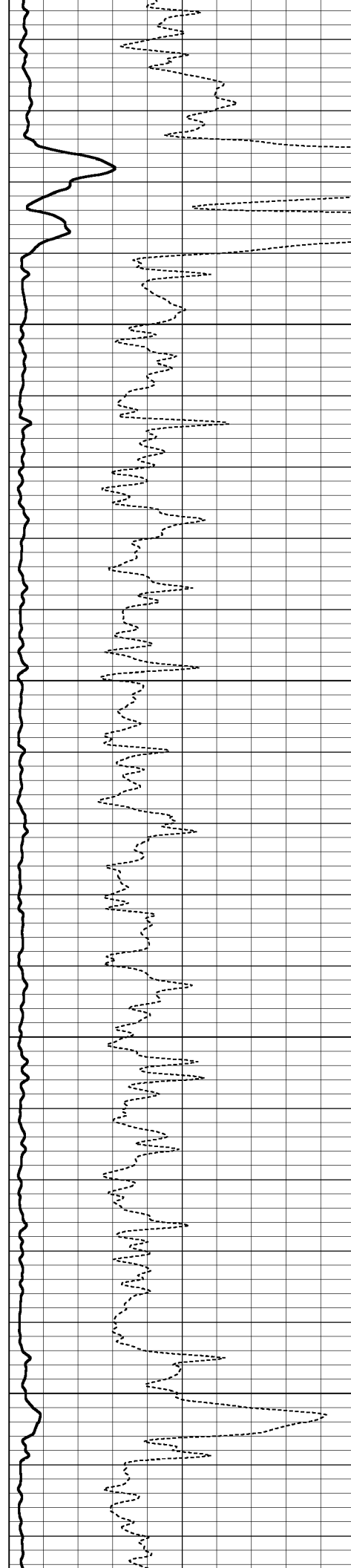


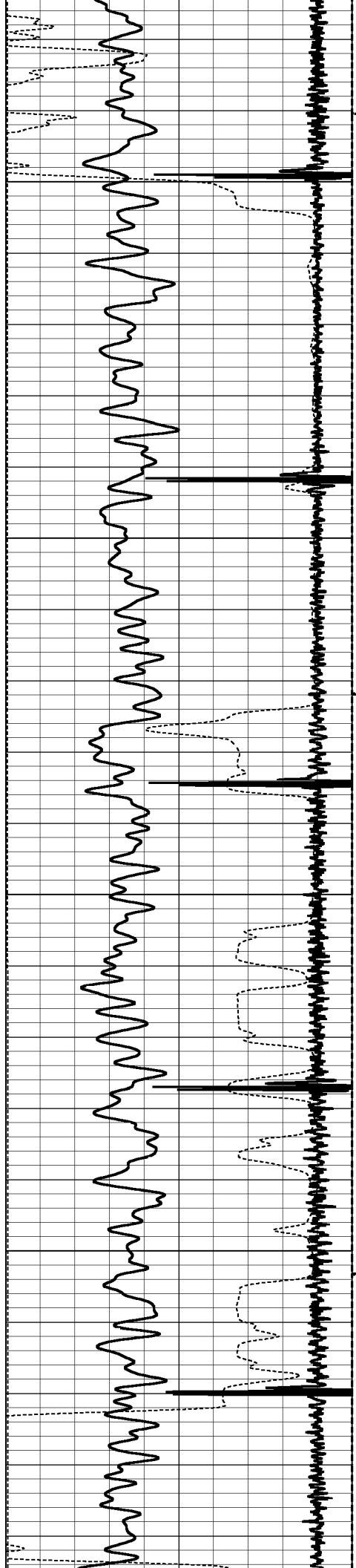
700

750

800

850



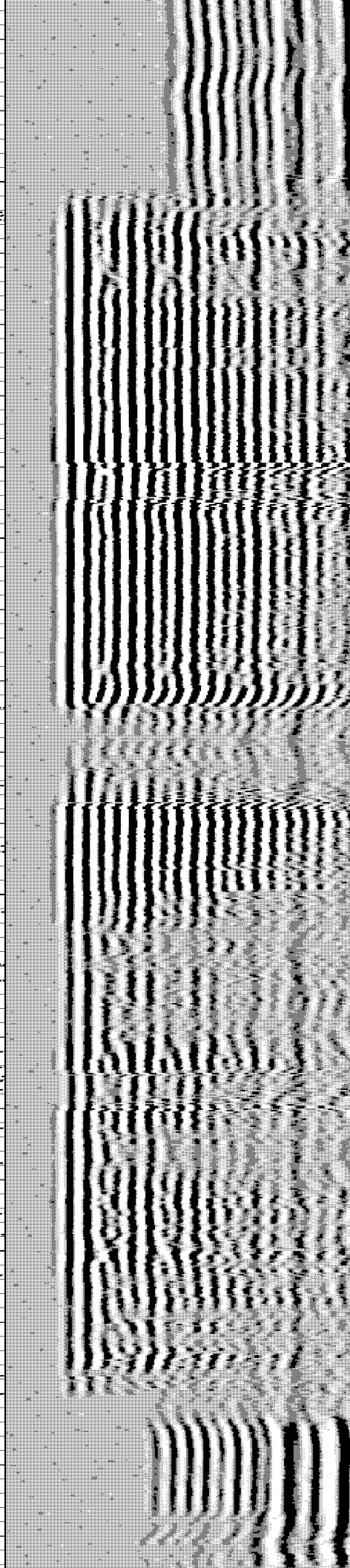
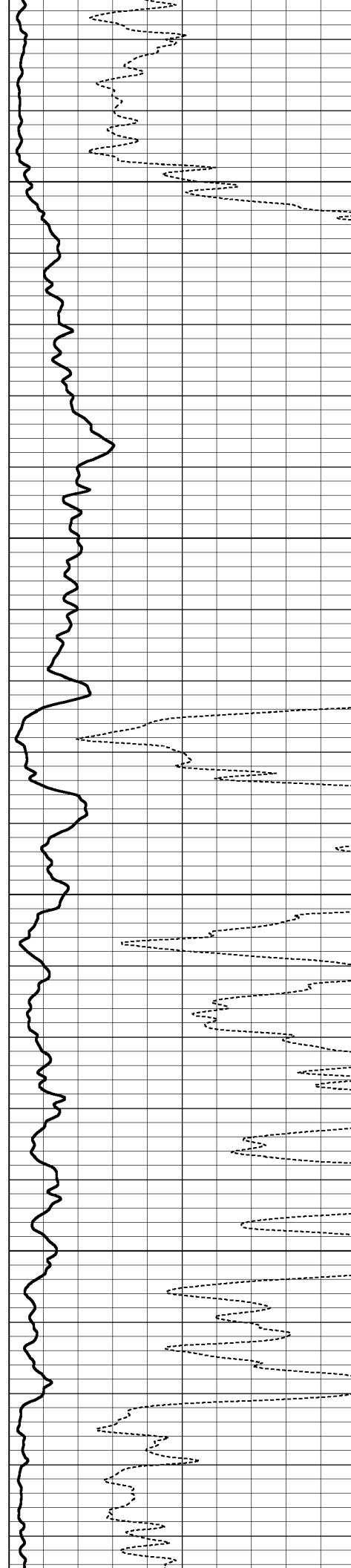


900

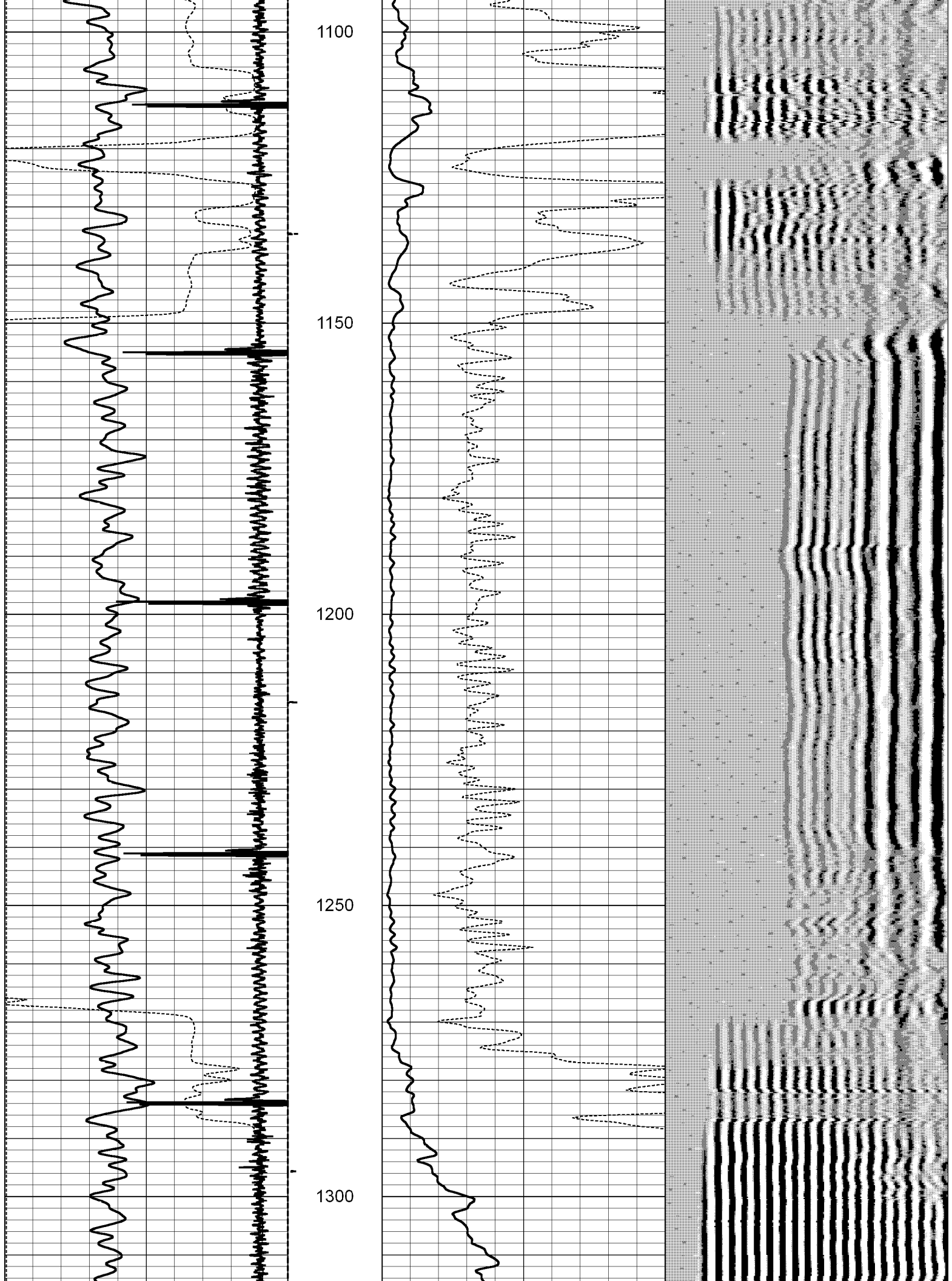
950

1000

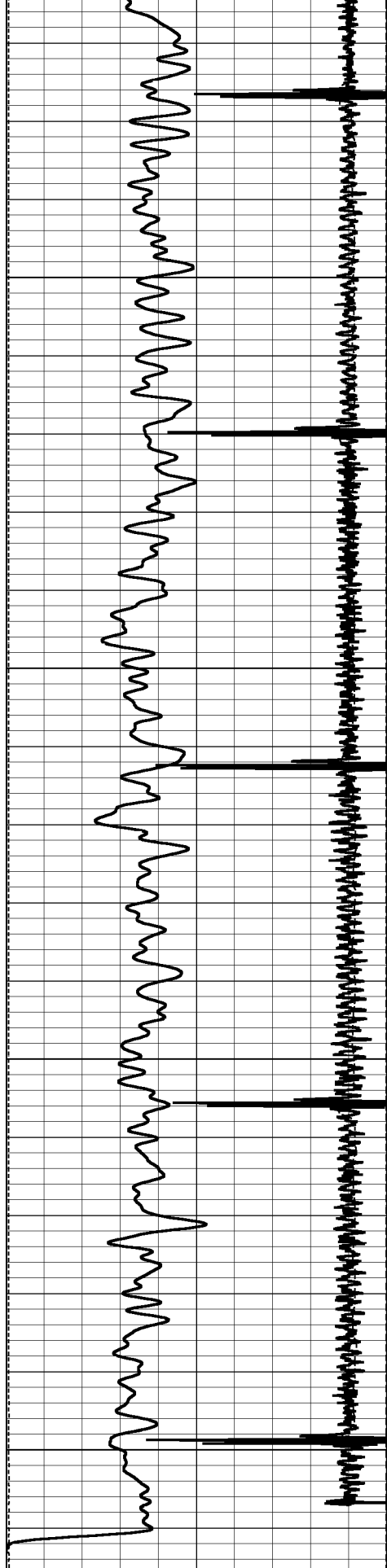
1050











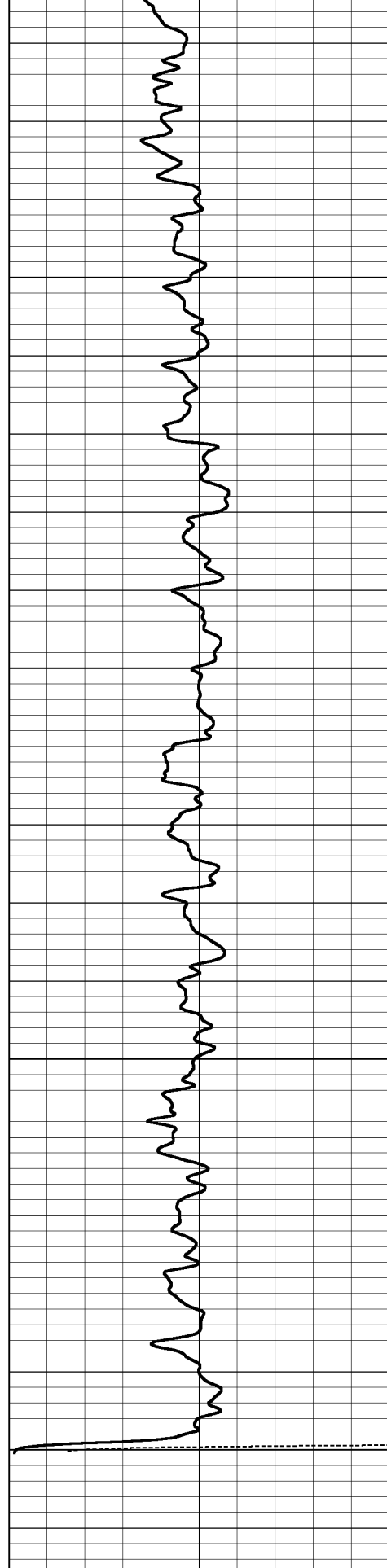
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9	Collar Locator	-1
0	GR (GAPI)	150
0	Line Tension (lb)	5000

1350

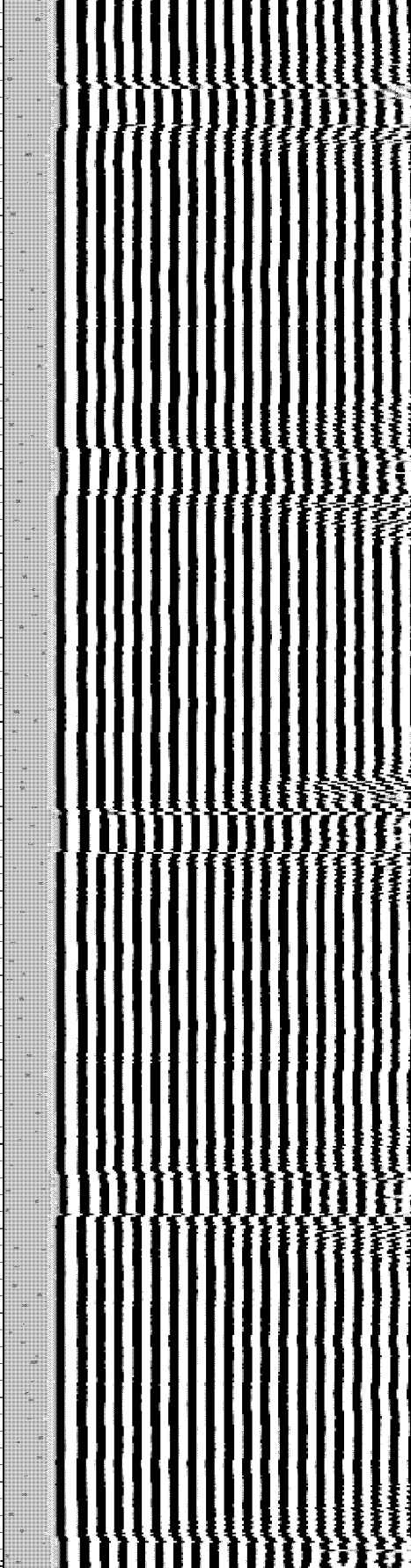
1400

1450

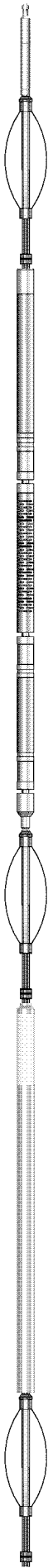
1500



0	Amplitude (mV)	100
0	Amplified Amplitude (mV)	10



200	Variable Density	1200
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Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
WVF3	16.27		1.4375 Titan 1 7/16 Cablehead	1.50	1.44	2.00
			PTS275	2.83	2.75	
			CBL-Digital (080430) Probe 275 CBL Standard	9.17	2.75	100.00
			PTS275	2.83	2.75	
CCL	8.28		GR-Probe275dig (080829) Probe 2.75 High Temperature	6.36	2.75	57.00
GR	4.25		PTS275	2.83	2.75	

Dataset:	11192015_greatwestern20_31.gb: field/well/Dipass/
Total Length:	25.53 ft
Total Weight:	159.00 lb
O.D.	2.75 in



Company	GREAT WESTERN OPERATING COMPANY LLC.		
Well	GREAT WESTERN 26-31		
Field	WATTENBERG		
County	WELD		
State	COLORADO	Country	U.S.A.