J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY
COLLAR CORRELATION LOG

Company	NOBLE ENERGY INC.		
Well	ANNIE B 03-23		
Field	WATTENBERG		
County	WELD	State	COLORADO

Location: API # : 05-123-32630-00
1450' FSL & 1463' FEL
NW SE
SEC. 03 TWP. 5N RGE. 64W
SEC TWP RGE

Other Services
NONE

Permanent Datum	GROUND LEVEL	Elevation	4613
Log Measured From	KELLY BUSHING		
Drilling Measured From	KELLY BUSHING		

Elevation
K.B. 4626
D.F. 4626
G.L. 4613

Company	NOBLE ENERGY INC.
Well	ANNIE B 03-23
Field	WATTENBERG
County	WELD
State	COLORADO

Date	24-MARCH-2011		
Run Number	ONE		
Depth Driller	7000		
Depth Logger	6931		
Bottom Logged Interval	6924		
Top Log Interval	1810		
Open Hole Size	7 7/8		
Type Fluid	WATER		
Density / Viscosity	---		
Max. Recorded Temp.	240		
Estimated Cement Top	1980		
Time Well Ready	---		
Time Logger on Bottom	---		
Equipment Number	2405/YELLOW		
Location	BRIGHTON		
Recorded By	HAYES		
Witnessed By	MR. CASEY RUPPEL		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8 5/8	24#	SURFACE	608
Prot. String				
Production String	4.5	11.6#	SURFACE	6990
Liner				

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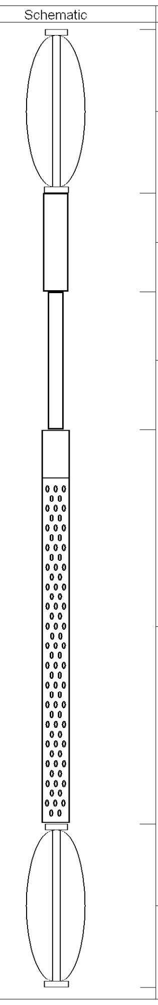
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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

LOG CORRELATED TO CD, CN, ML LOG
DATED 15-MARCH-2011

LOG SPLIT FOR CORRELATION PURPOSES

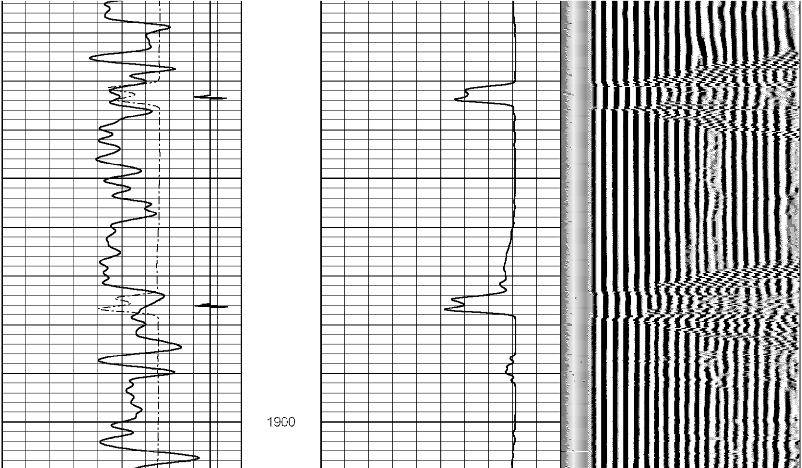


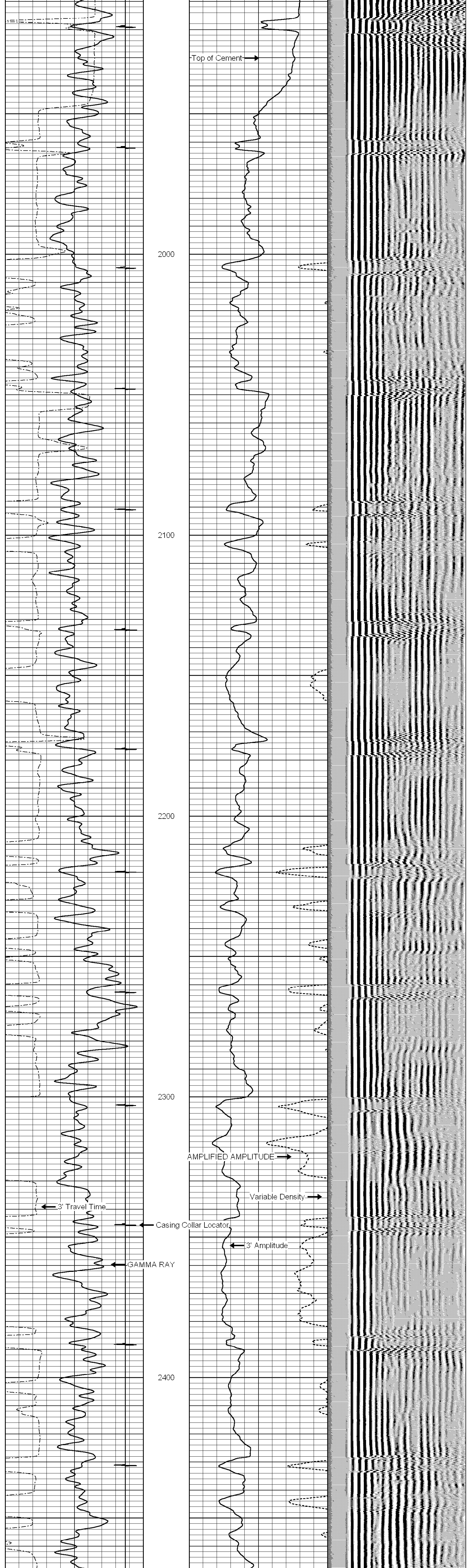
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CENT-A (1)	3.00	1.69	10.00
CCL	13.46		CCL-TEKCO (TEK101)	1.81	2.75	10.00
GR	11.49		GR-s_t001 (t001)	2.52	1.69	30.00
WVF5 WVF3	7.34 6.34		CBL-3_5 (001)	7.23	2.44	127.00
			CENT-B (2)	3.00	1.69	10.00

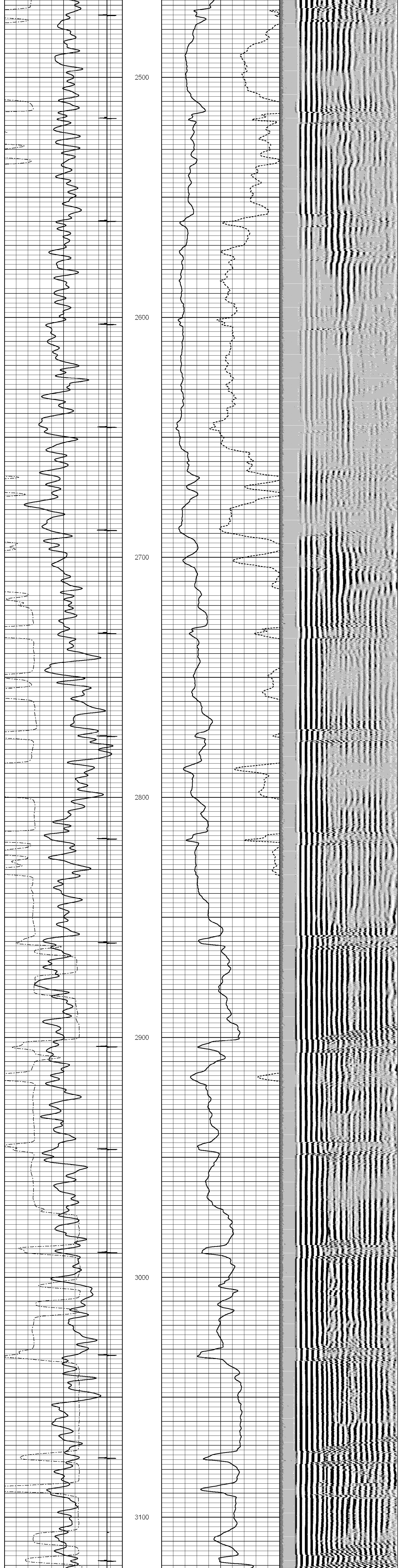
Dataset: annie b 03-23.db: field/well/run1/pass2
Total Length: 17.56 ft
Total Weight: 187.00 lb
O.D. 2.75 in

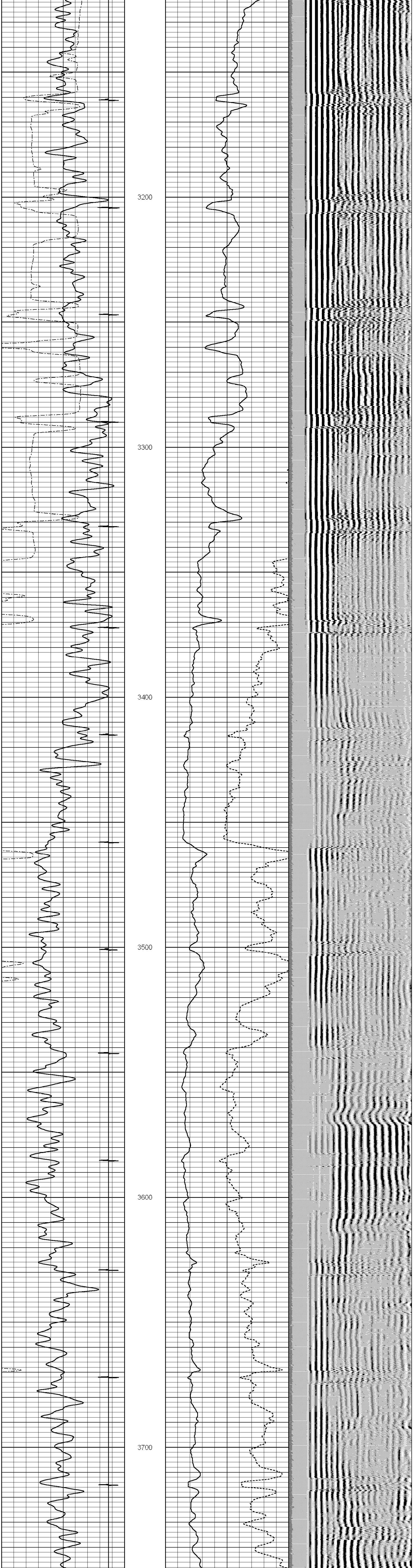
Database File: annie b 03-23.db
Dataset Pathname: pass2
Presentation Format: cblx
Dataset Creation: Thu Mar 24 10:16:27 2011 by Log Std Casedhole 10121
Charted by: Depth in Feet scaled 1:240

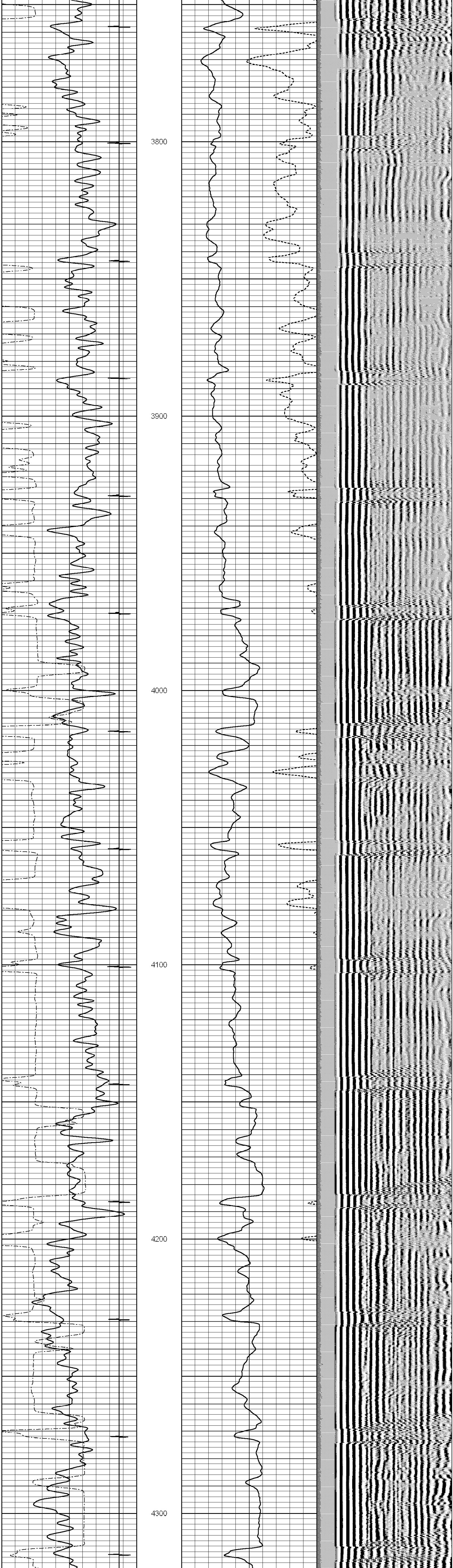
30	GAMMA RAY (GAPI)	130	0	AMPLITUDE (mV)	100	200	Variable Density	1200
5	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30			
300	TT3 (usec)	200						

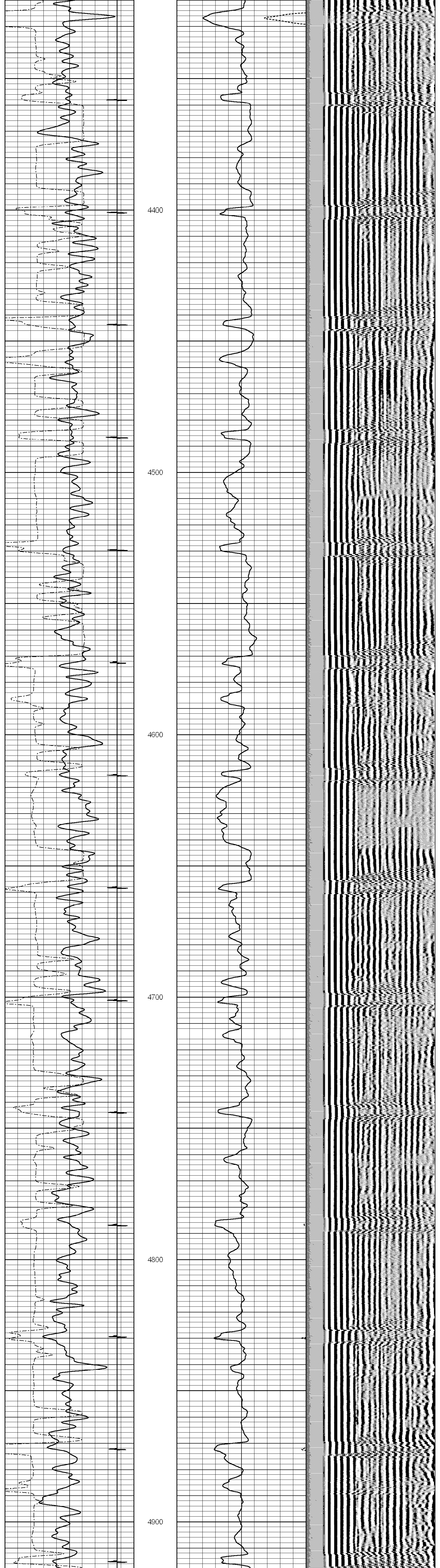


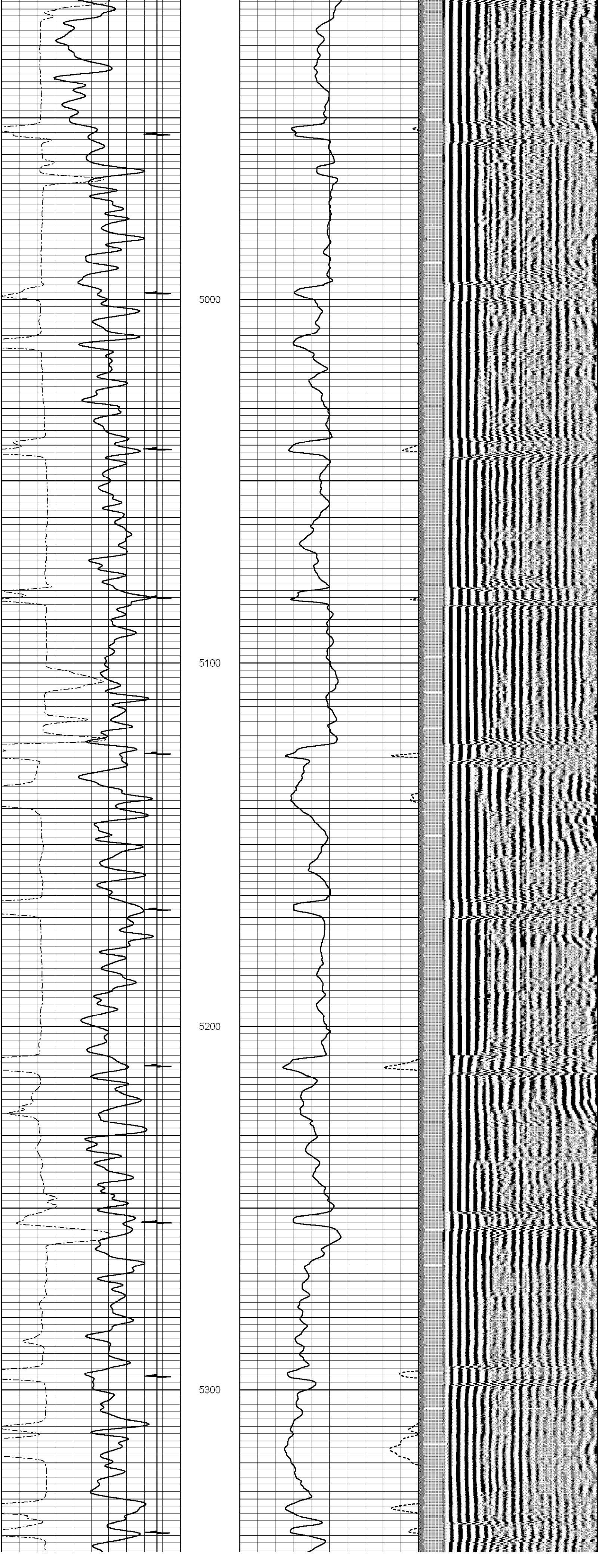


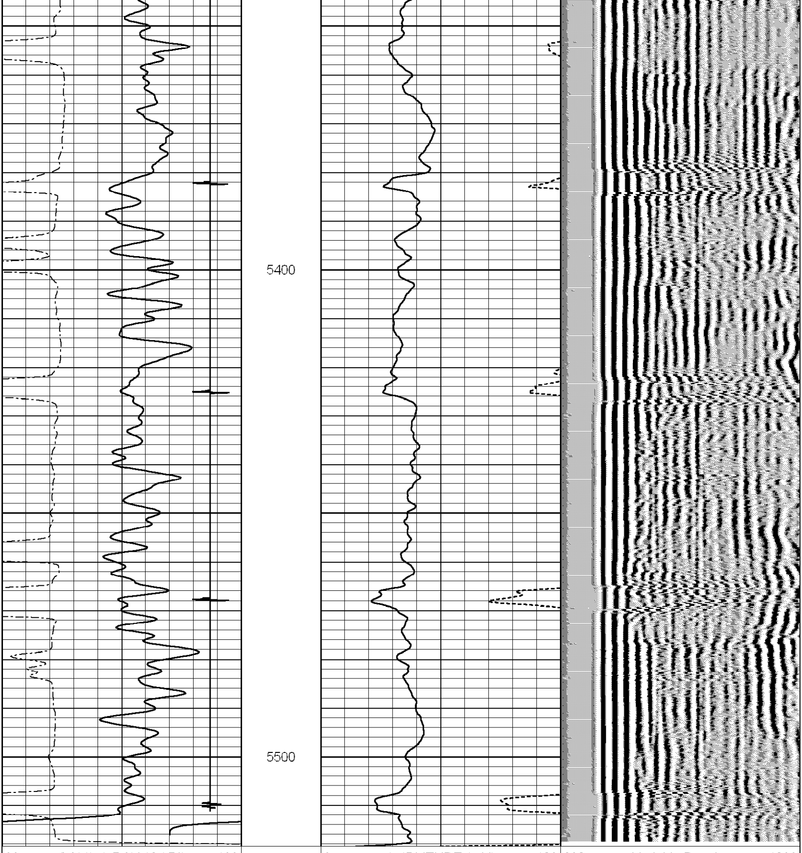








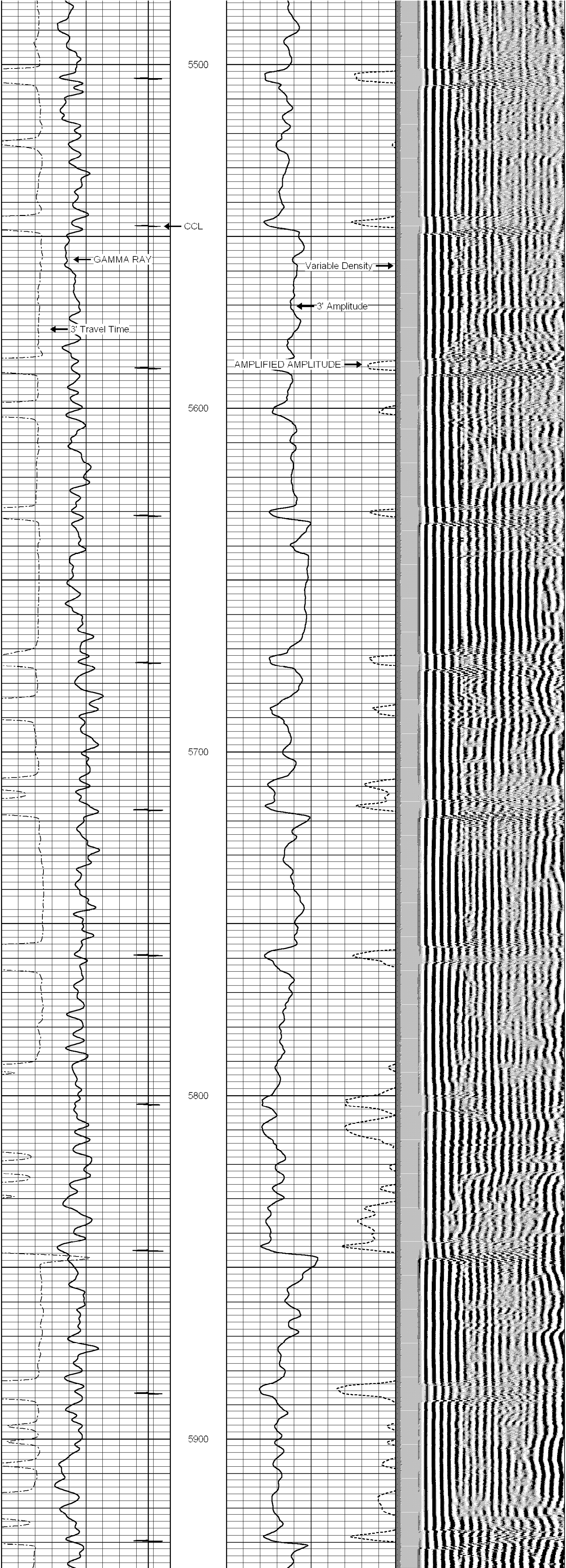


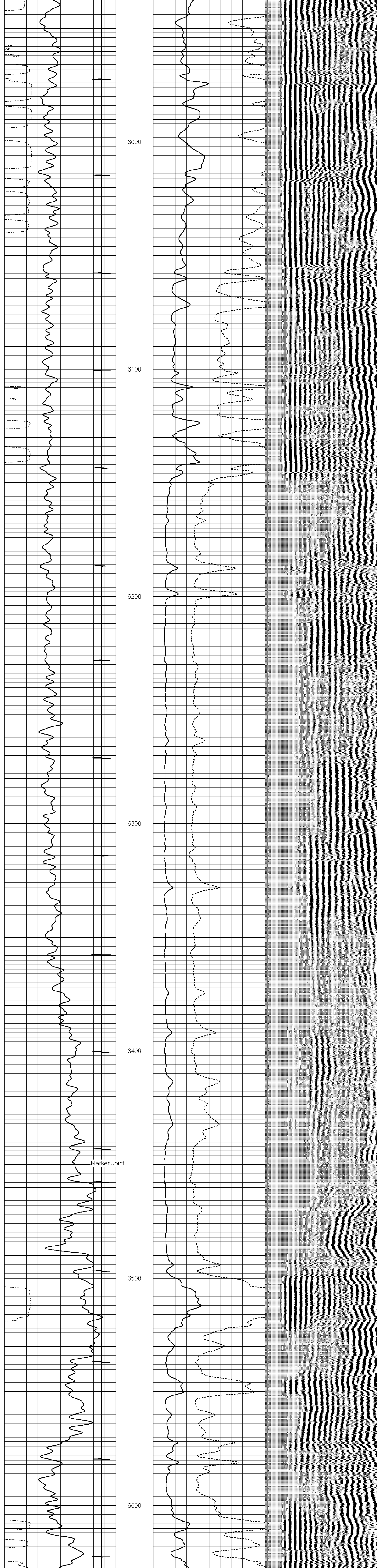


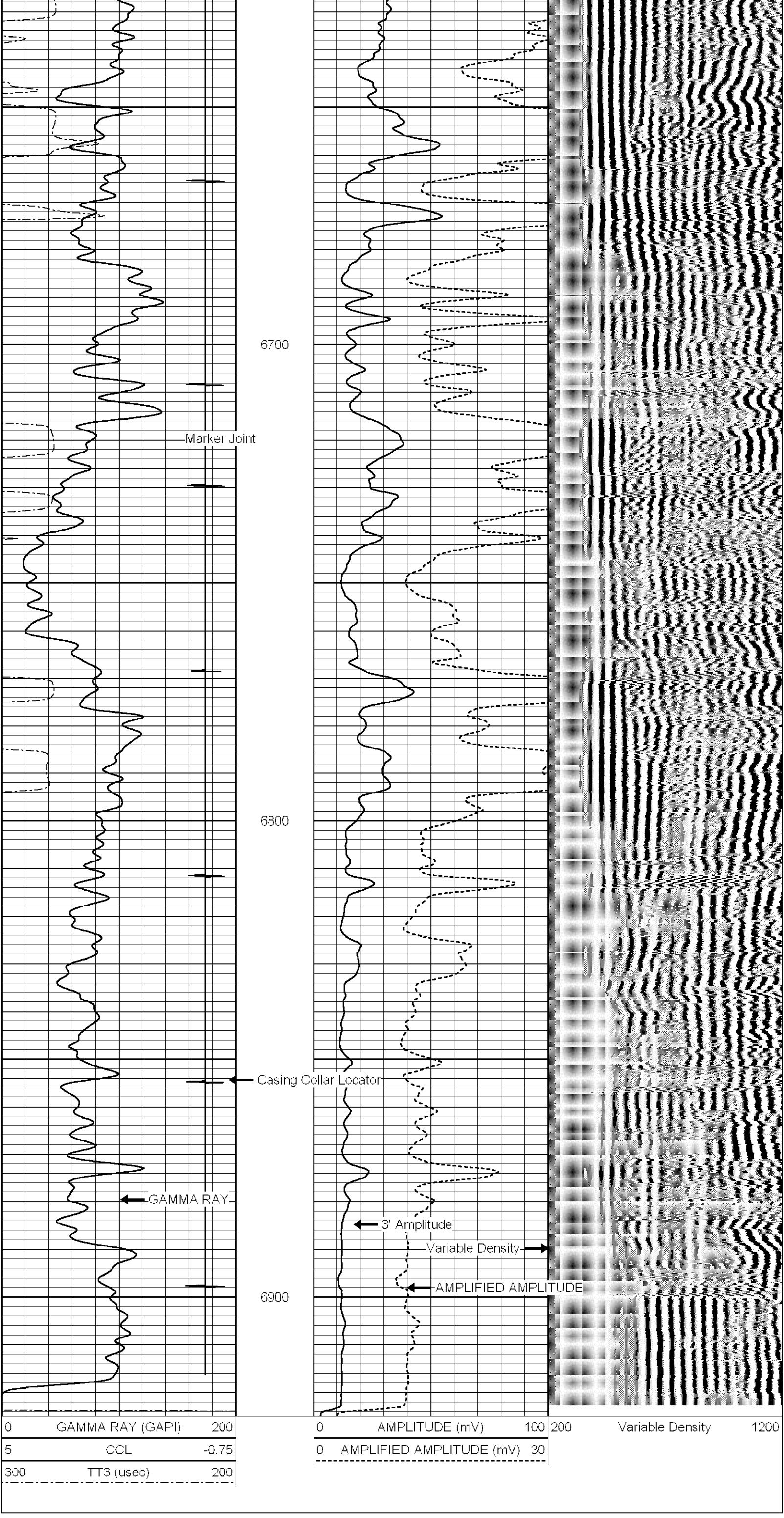
30	GAMMA RAY (GAPI)	130	0	AMPLITUDE (mV)	100	200	Variable Density	1200
5	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30			
300	TT3 (usec)	200						

Database File:	annie b 03-23.db
Dataset Pathname:	pass1
Presentation Format:	cblx
Dataset Creation:	Thu Mar 24 09:56:21 2011 by Log Std Casedhole 10121
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	200	0	AMPLITUDE (mV)	100	200	Variable Density	1200
5	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30			
300	TT3 (usec)	200						







Calibration Report

Database File: annie b 03-23.db
Dataset Pathname: pass2
Dataset Creation: Thu Mar 24 10:16:27 2011 by Log Std Casedhole 10121

Cement Bond Log Calibration Report

Serial Number: 001
Tool Model: 3_5
Performed: Thu Mar 24 09:39:32 2011

Depth: 1178.18 ft
Casing Diameter: 4.5 in

	3' Spacing	5' Spacing	
Signal Zero:	3	3	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0	0	V
Reading in Free Pipe:	2.5	2.13708	V
Gain:	31.2784	36.5901	
Offset:	3	3	

Gamma Ray Calibration Report

Serial Number: t001
Tool Model: s_t001
Performed: Sun Jun 13 13:33:21 1993

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps