SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.
Well	SLW STATE PC BB18-67HN
Field	Wattenberg
County	Weld
State	Colorado

Company Noble Energy INC.
Well SLW STATE PC BB18-67HN
Field Wattenberg
County Weld State Colorado

Location: API # : 05123346740000

BHL: 1365' FNL & 535' FEL

SEC 18 TWP 5N RGE 63W

Permanent Datum GL Elevation 4589
Log Measured From KB 24'
Drilling Measured From KB

Other Services

Elevation
K.B. 4613
D.F. 4612
G.L. 4589

Date	June 22, 2012		
Run Number	One		
Depth Driller	10,895		
Depth Logger	6810		
Bottom Logged Interval	6809		
Top Log Interval	Surface		
Casing Size	7.0"		
Type Fluid	Water		
Max. Recorded Temp.	206 deg F		
Estimated Cement Top	1053		
Time Well Ready	Crane		
Time Logger On Bottom	AM		
Unit Number	4367	3839	
Tool Size / ID Number	2.75 Probe 101010	2.75 Probe 110802	
Location	45		
Recorded By	K. Monaghan		
Witnessed By	B. Mansfield		

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"	36 lb/ft P-110	Surface	575.9
Prot. String				
Production String	7.0"	26 lb/ft P-110	Surface	6969.6
Liner	4 1/2"	11.6 lb/ft P-110	6850.3	10,880

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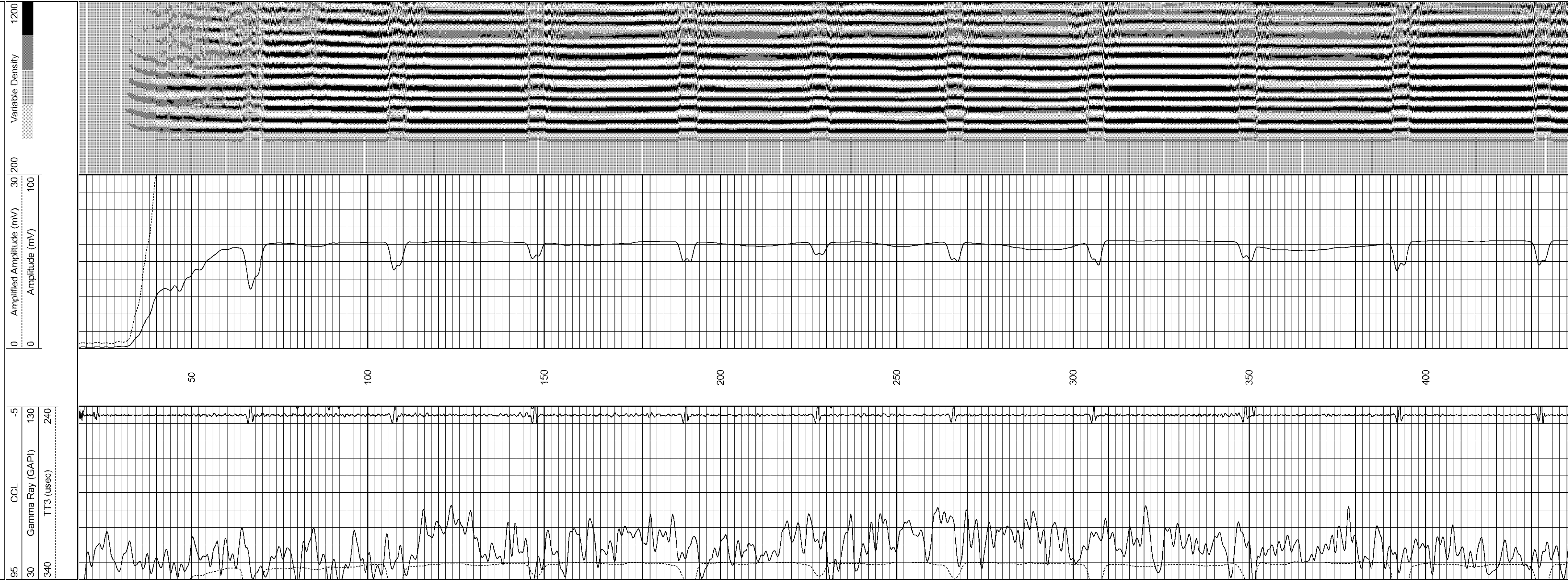
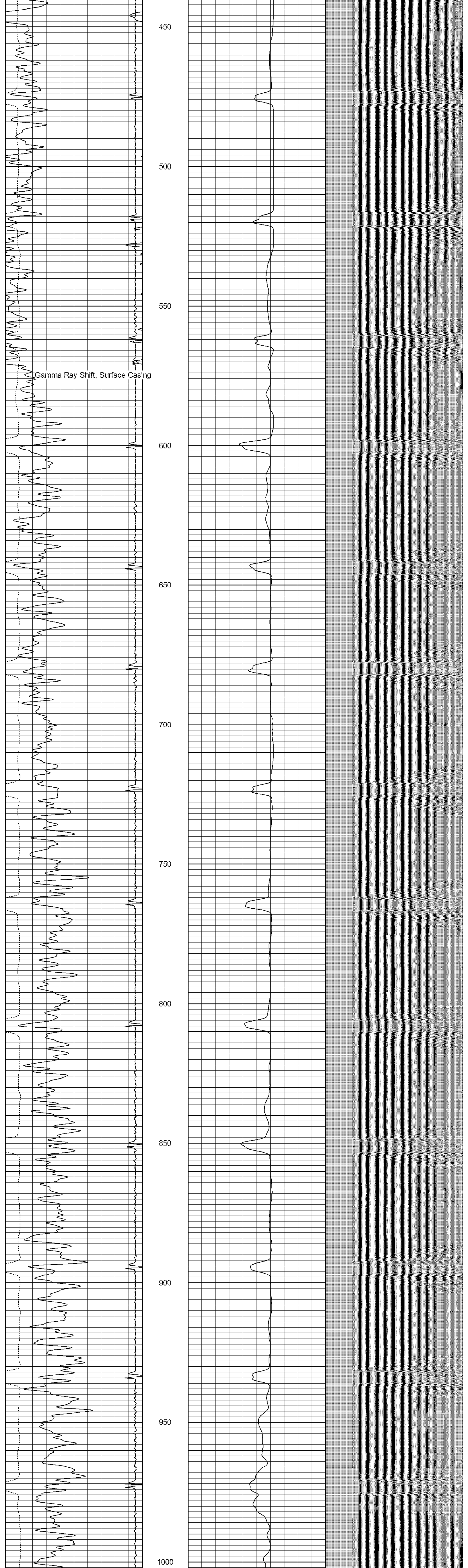
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

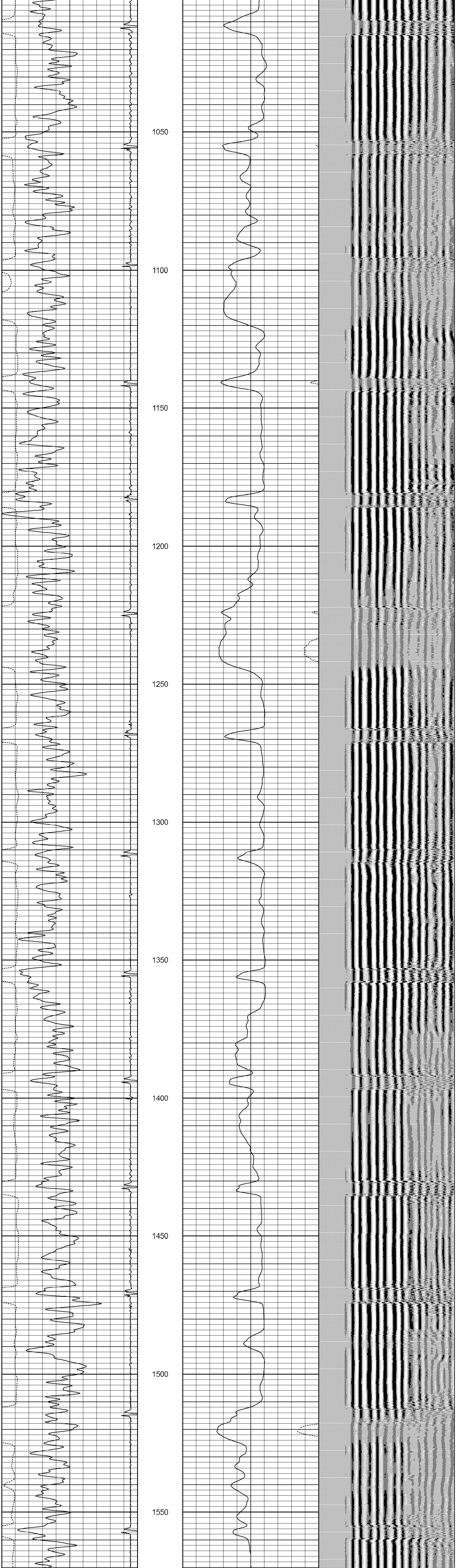
Comments

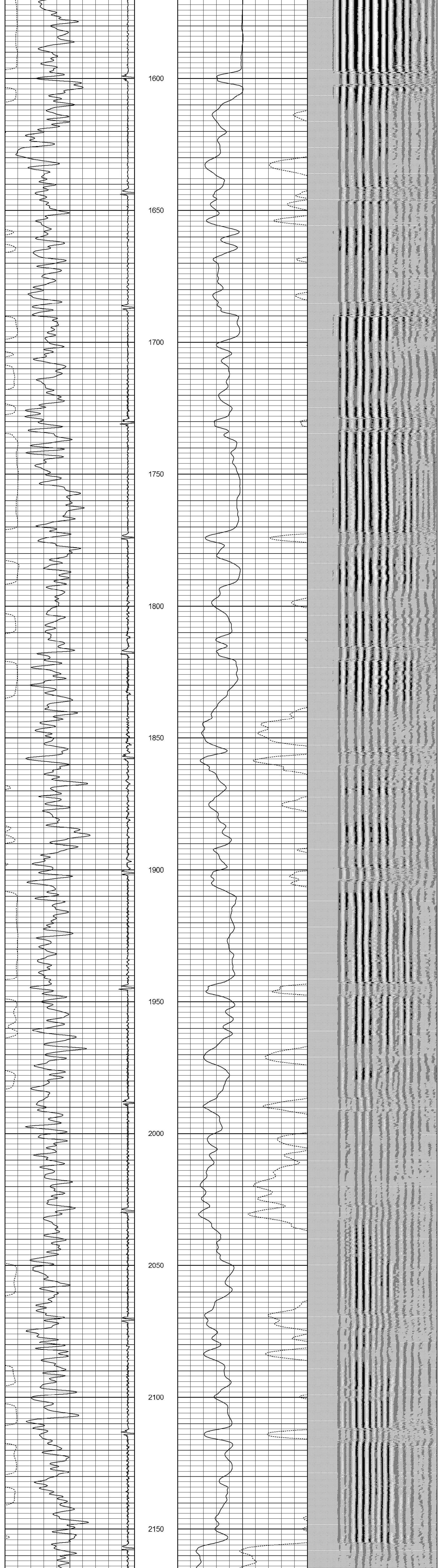
Thank You For Choosing Superior Well Services!!!
API# 05-123-34674-0000
Wireline Zero @ 24' KB
Directions: 388 & 61, N 1/2, E Into
(North Well of 2 Well Pad)

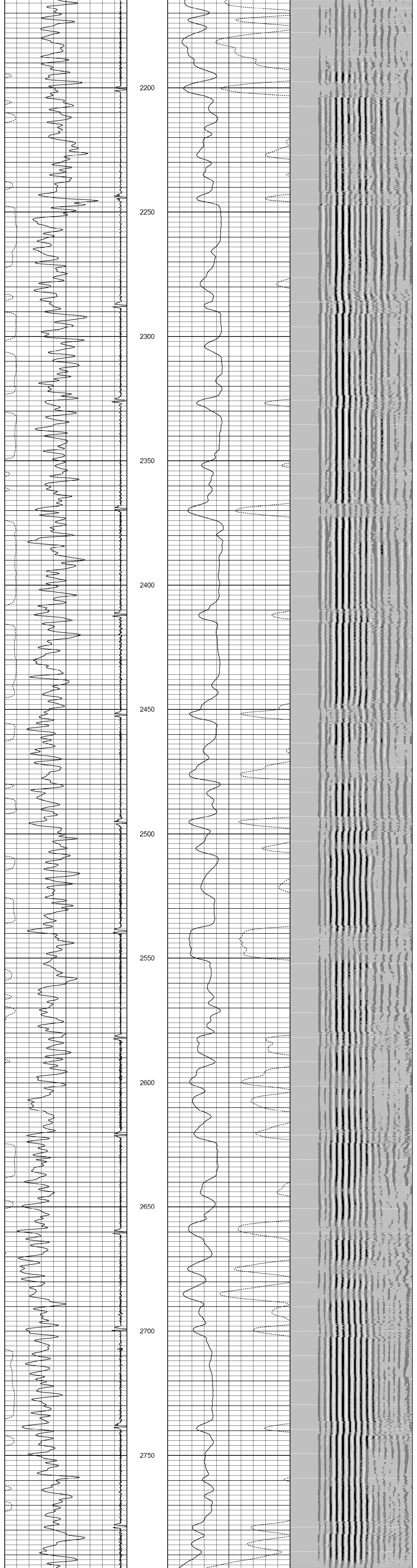
Database File:	cblslw state pc bb18-67hn.db
Dataset Pathname:	pass3
Presentation Format:	noble en
Dataset Creation:	Fri Jun 22 07:47:47 2012 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

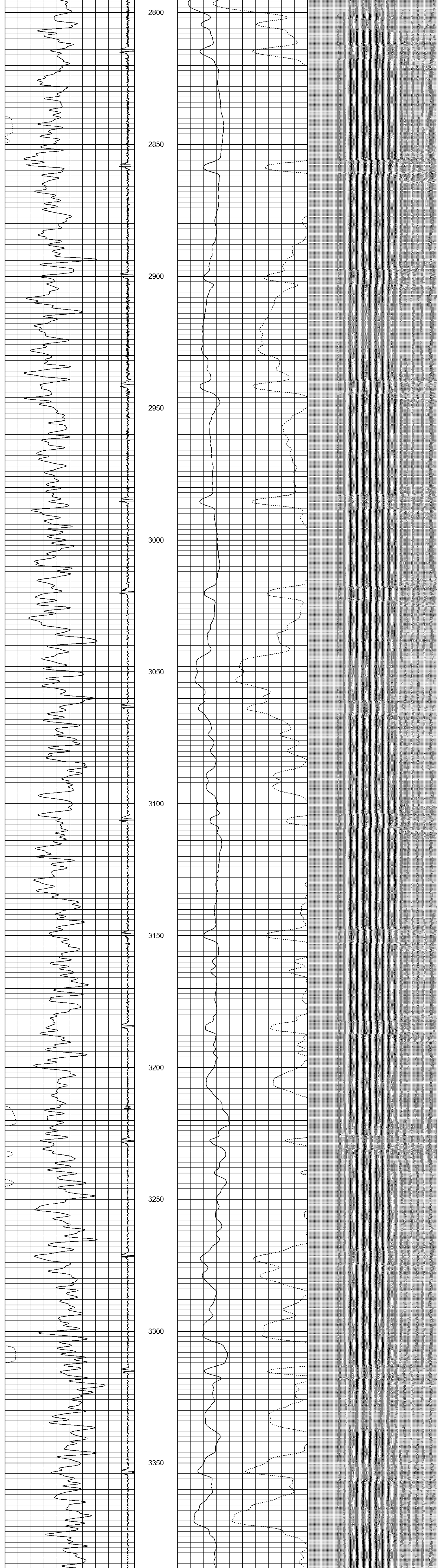


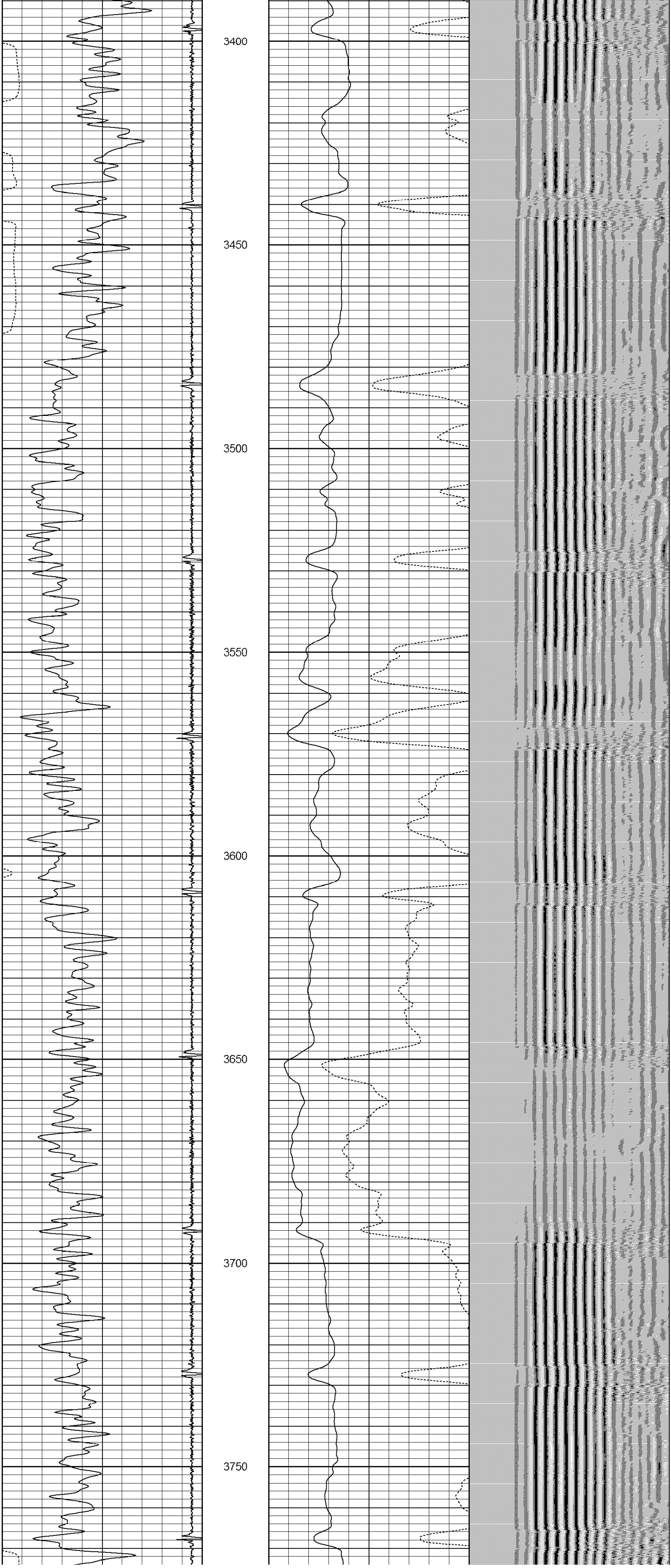


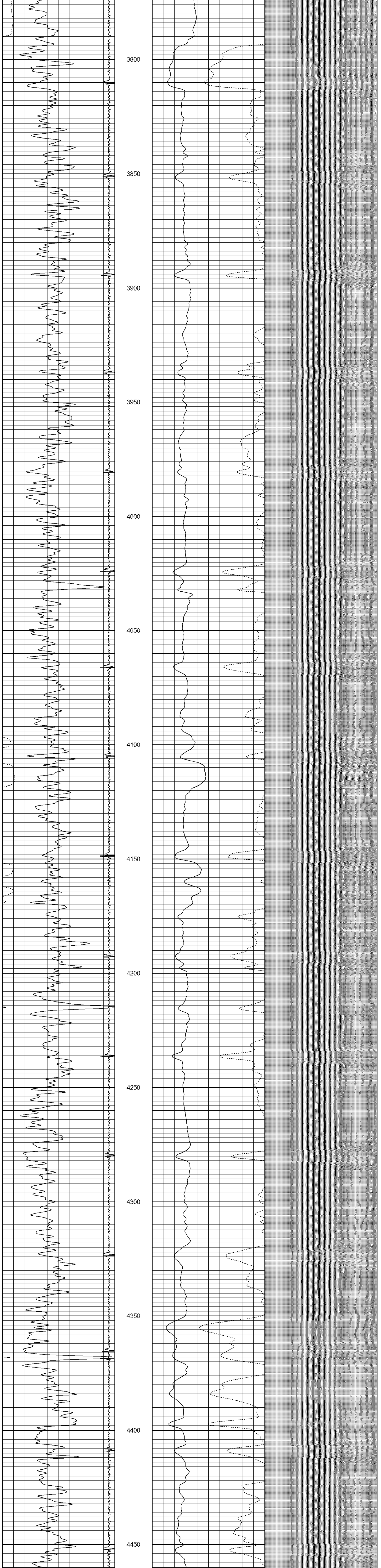


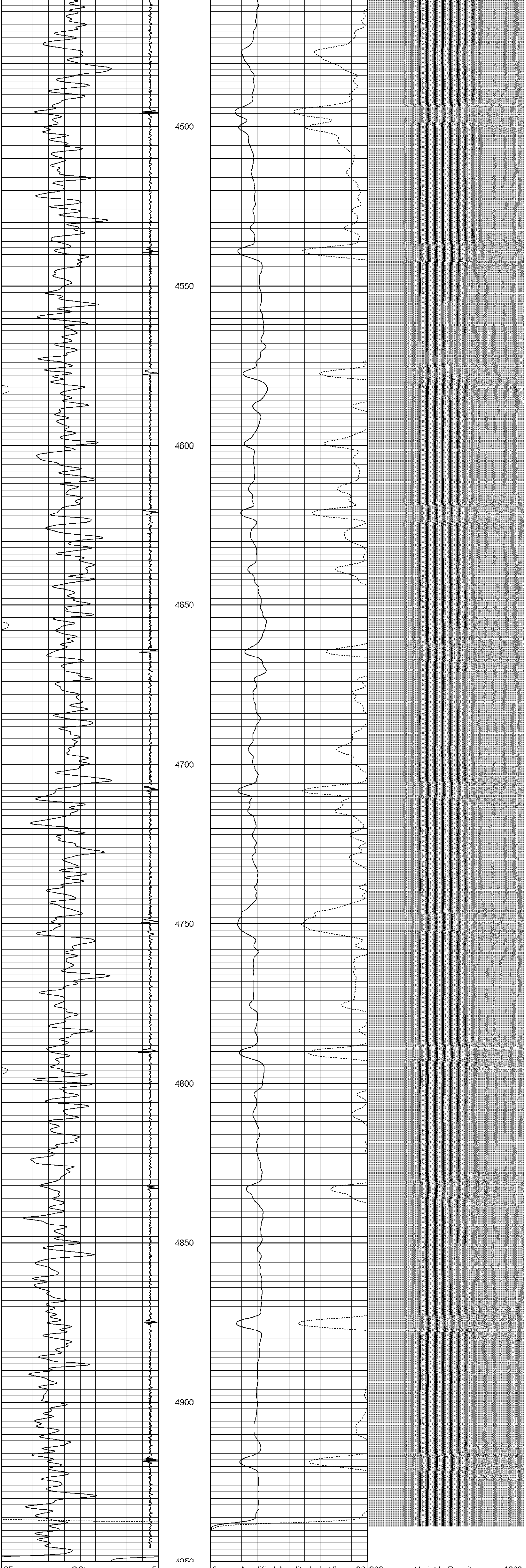








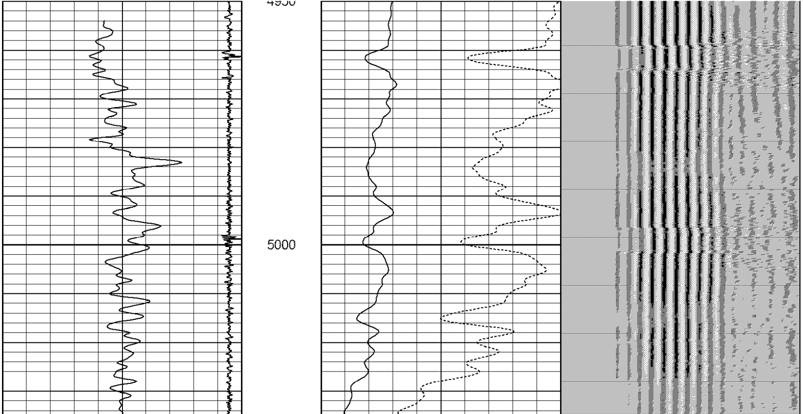


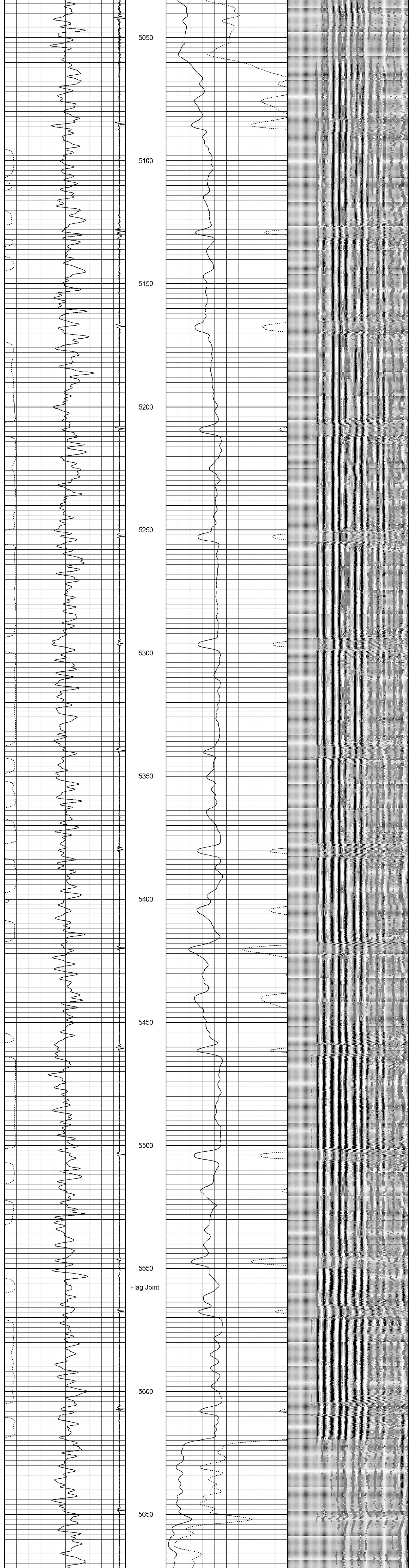


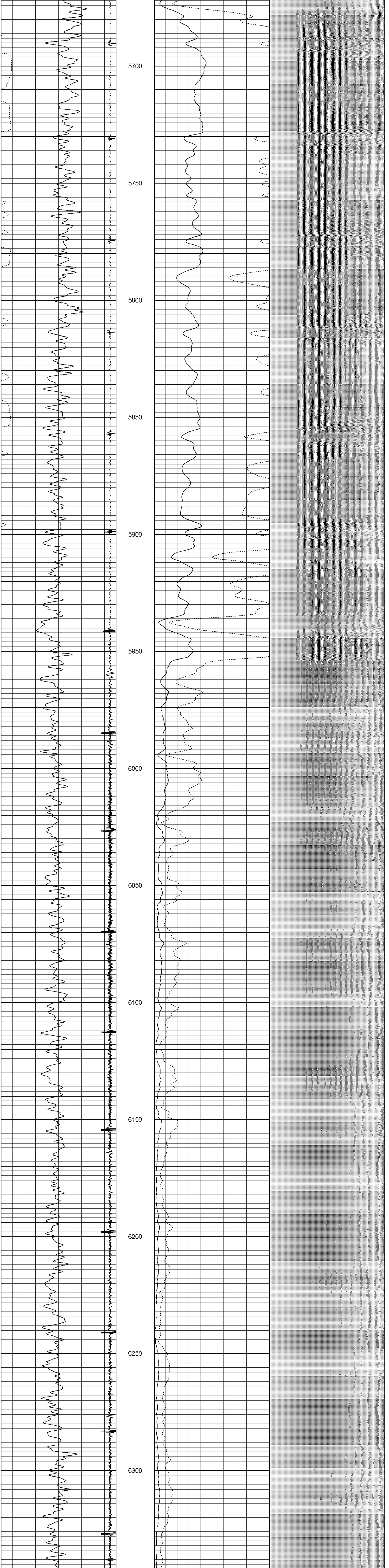
95 CCL -5	0 Amplified Amplitude (mV) 30	200 Variable Density 1200
30 Gamma Ray (GAPI) 130	0 Amplitude (mV) 100	
340 TT3 (usec) 240		

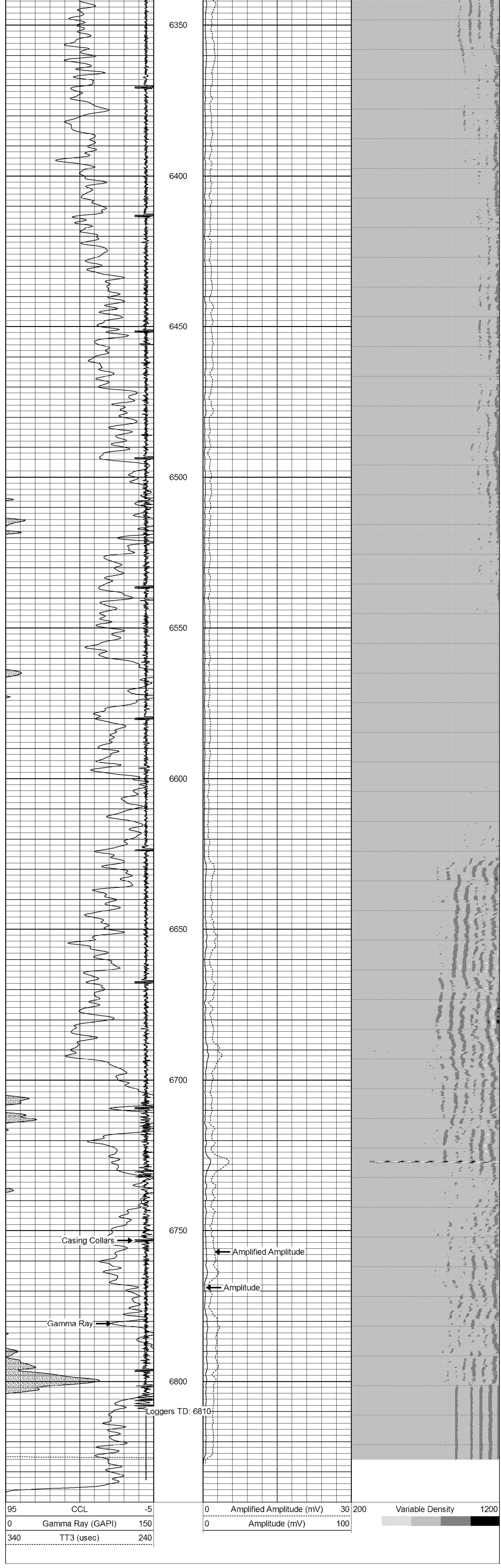
Database File: cblslw state pc bb18-67hn.db
Dataset Pathname: pass2
Presentation Format: noble en
Dataset Creation: Fri Jun 22 07:31:27 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

95 CCL -5	0 Amplified Amplitude (mV) 30	200 Variable Density 1200
0 Gamma Ray (GAPI) 150	0 Amplitude (mV) 100	
340 TT3 (usec) 240		









Calibration Report

Database File:	cblslw state pc bb18-67hn.db
Dataset Pathname:	pass1
Dataset Creation:	Fri Jun 22 07:14:41 2012 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION Tue May 08 12:44:30 2012

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.6800			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:	110802		
Tool Model:	Probe275Digital		
Performed:	Fri Jun 22 07:12:32 2012		
Depth:	192.133	ft	
Casing Diameter:	7	in	
	3' Spacing	5' Spacing	
Signal Zero:	0.9	0	mV
Calibrated Amplitude:	62.1651	62.1651	mV
Reading at Signal Zero:	0.0134277	0.0134033	V
Reading in Free Pipe:	2.49414	2.3812	V
Gain:	24.6966	26.2544	
Offset:	0.568381	-0.351896	