NABORS
COMPLETION & PRODUCTION SERVICES CO.

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	NOBLE ENERGY INC.
Well	WELLS RANCH AA24-67-1HN
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well WELLS RANCH AA24-67-1HN
Field WATTENBERG
County WELD State COLORADO
Location: API #: 05123353400000
NW NW
BHL: 1650' FNL & 535' FEL
SEC 24 TWP 6N RGE 63W
Other Services

Permanent Datum GL Elevation 4795
Log Measured From KB 30'
Drilling Measured From KB

Elevation
K.B. 4825
D.F. 4824
G.L. 4795

Date	October 9, 2012	
Run Number	One	
Depth Driller	10,632	
Depth Logger	6635	
Bottom Logged Interval	6634	
Top Log Interval	Surface	
Casing Size	7.00"	
Type Fluid	Water	
Max. Recorded Temp.	199 deg F	
Estimated Cement Top	Surface est.	
Time Well Ready	Crane	
Time Logger On Bottom	AM	
Unit Number	4367	4515
Tool Size / ID Number	2.75 Probe 101010	2.75 Probe 110802
Location	45	Platteville, CO
Recorded By	K. Monaghan	
Witnessed By	E. Klem	

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 J-55	Surface	657.7
Prot. String				
Production String	7.00"	26 lb/ft P-110	Surface	6952.1
Liner	4.50"	11.6 lb/ft P-110	6839.1	10,530

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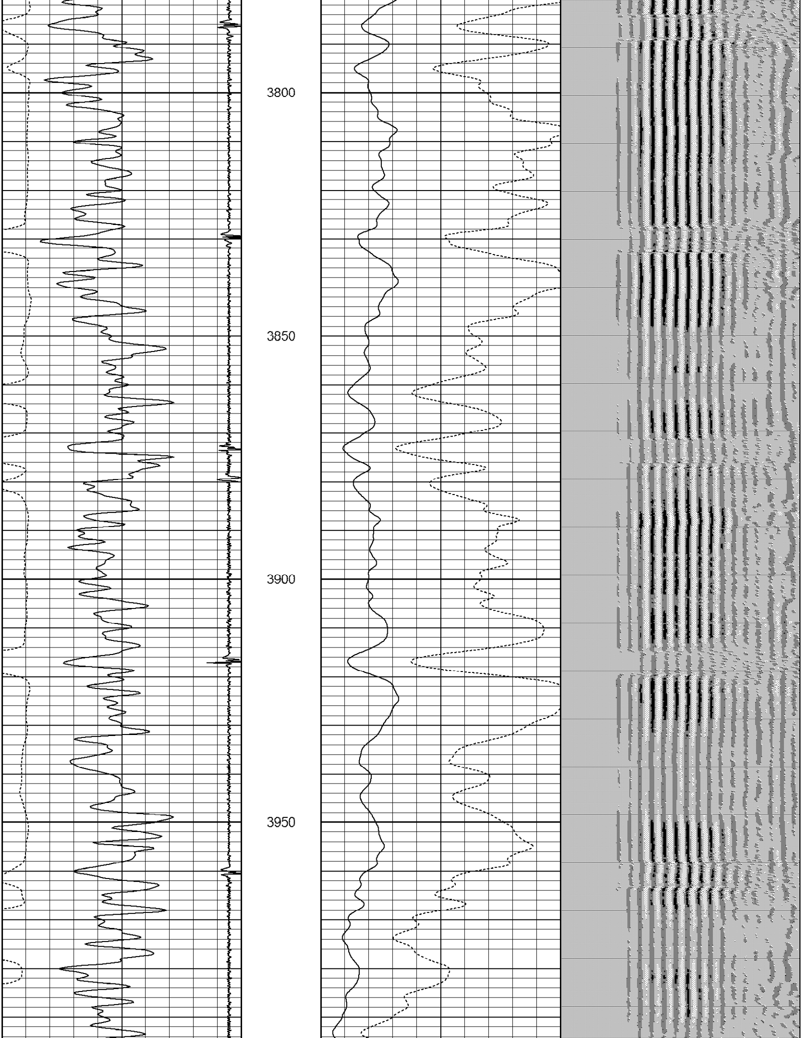
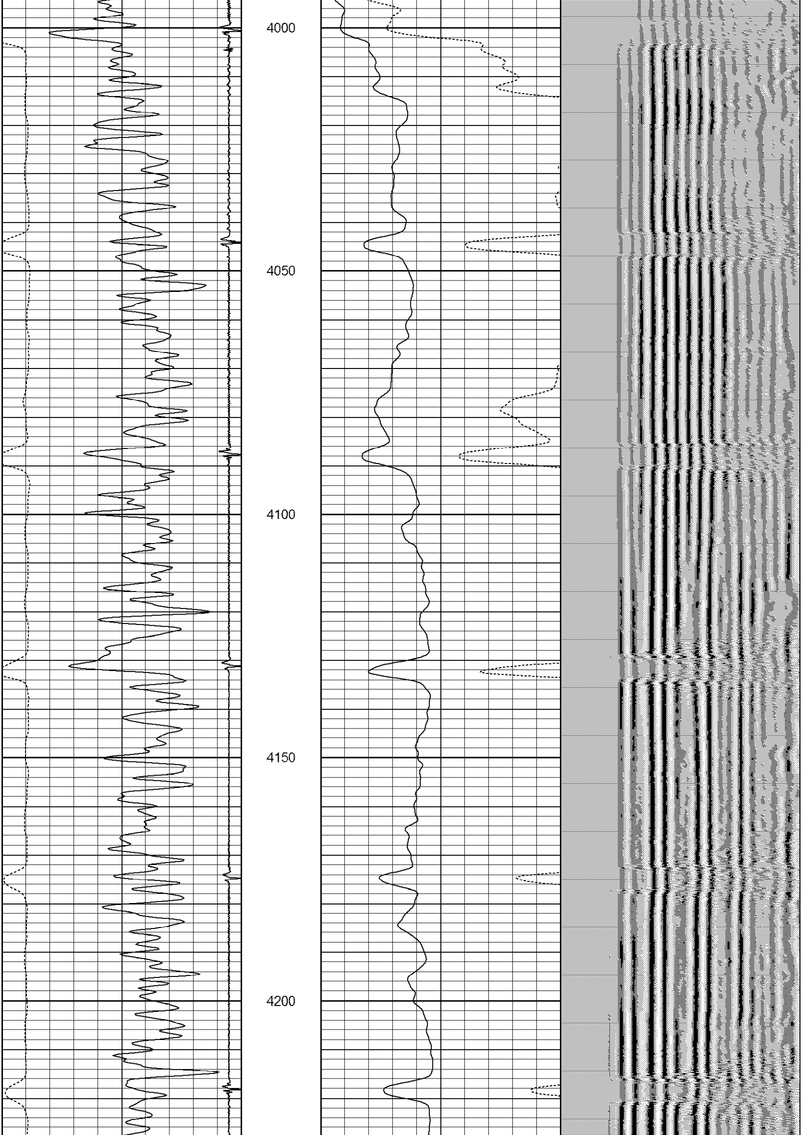
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

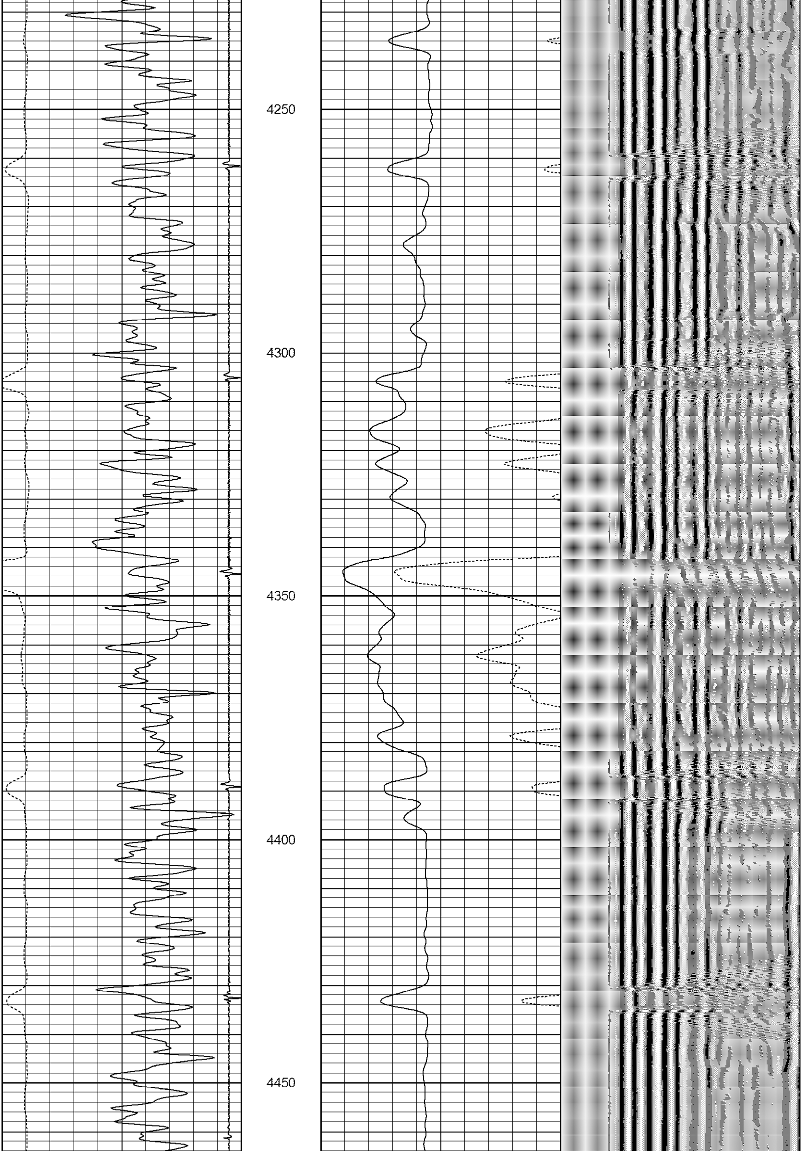
Comments

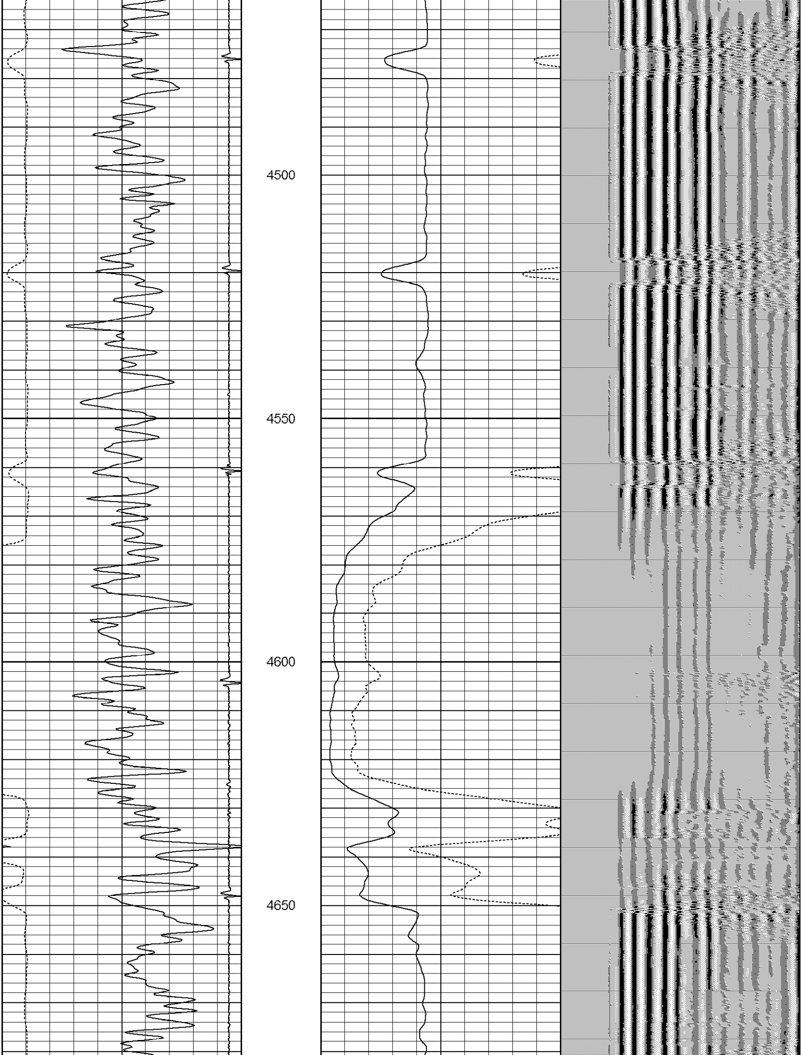
Thank You For Choosing Nabors Completion and Production Services CO!!!
API# 05-123-35340-0000
Wireline Zero @ 30' KB
Directions: 68 & 67, E.2, S .25, E2mi, N Into
(Second Well from South on 5 Well Pad)

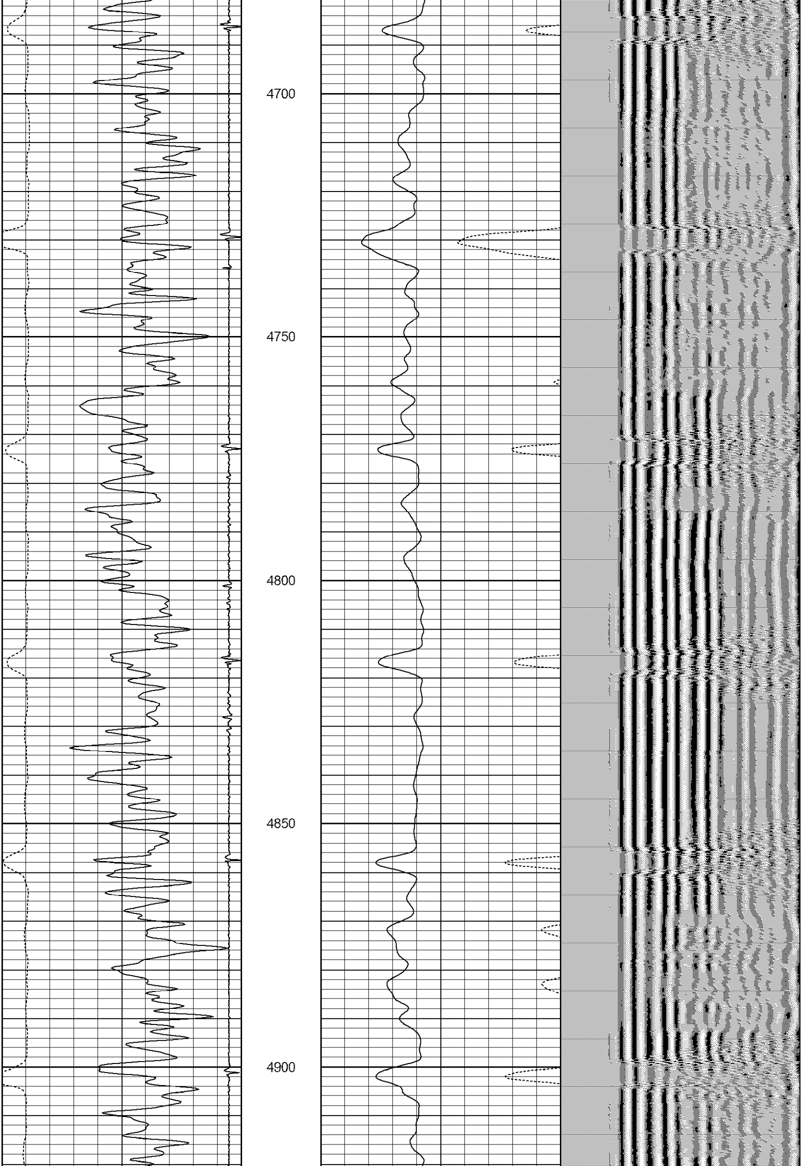
Database File:	cblwells ranch aa24-67-1hn.db
Dataset Pathname:	pass3
Presentation Format:	noblehozo
Dataset Creation:	Tue Oct 09 09:06:17 2012 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

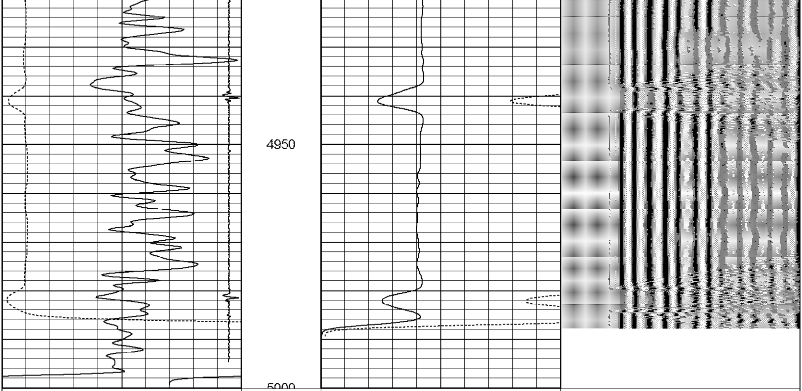












95 CCL -5
30 Gamma Ray (GAPI) 130
340 TT3 (usec) 240

0 Amplified Amplitude (mV) 30
0 Amplitude (mV) 100

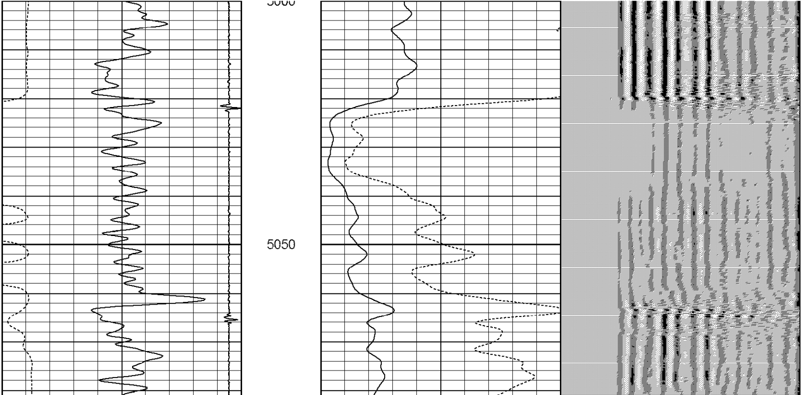
200 Variable Density 1200
░ ▒ ▓ █

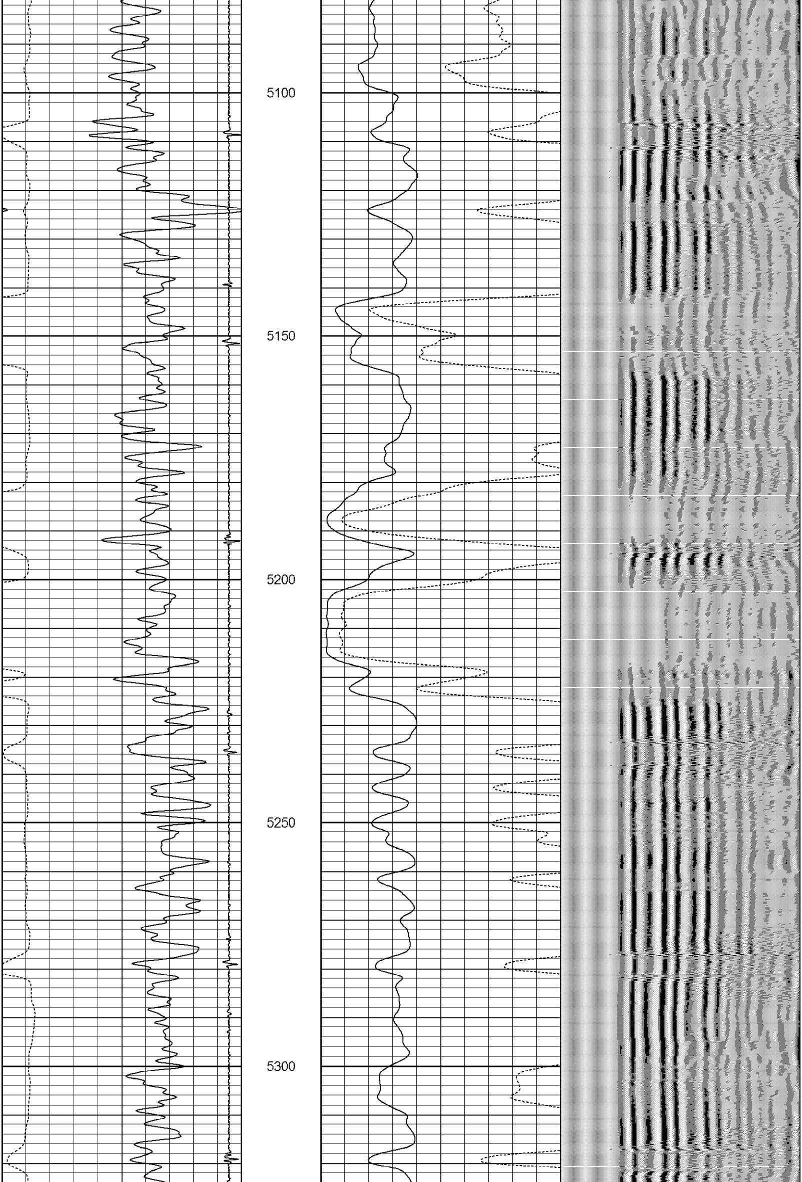
Database File: cblwells ranch aa24-67-1hn.db
Dataset Pathname: pass2
Presentation Format: noblehozo
Dataset Creation: Tue Oct 09 08:51:26 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

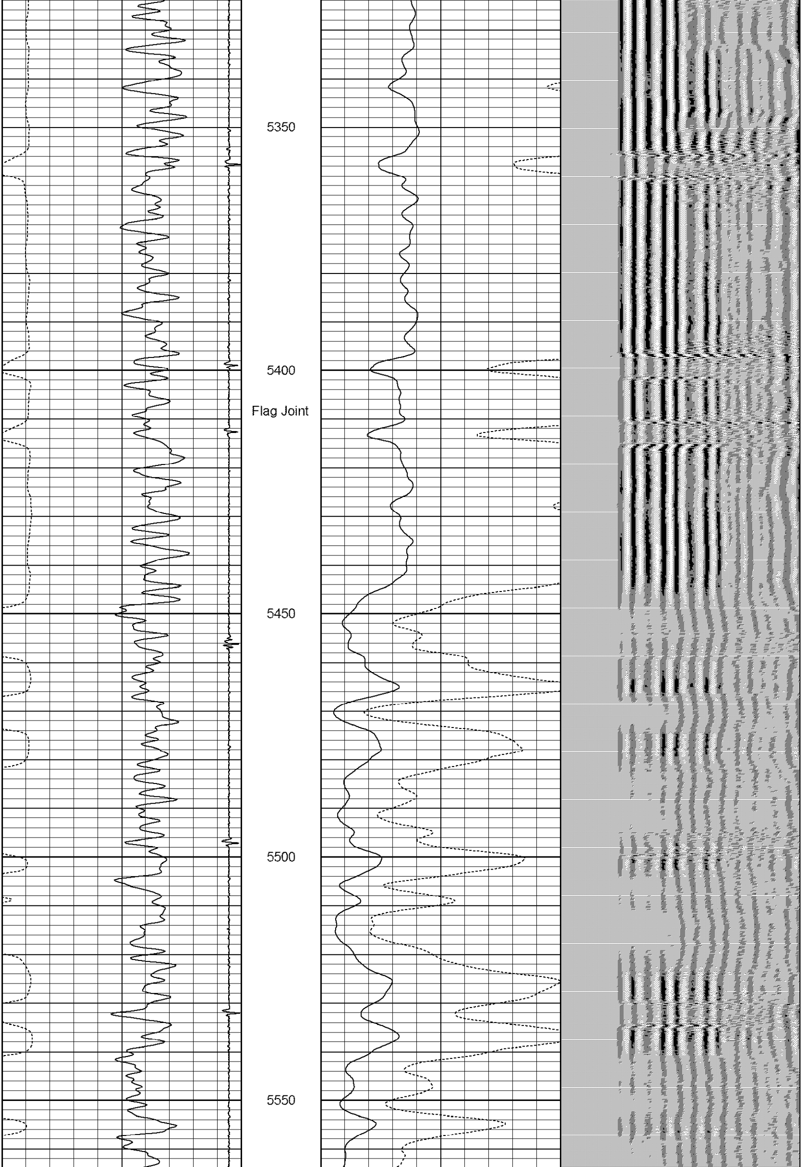
95 CCL -5
0 Gamma Ray (GAPI) 150
340 TT3 (usec) 240

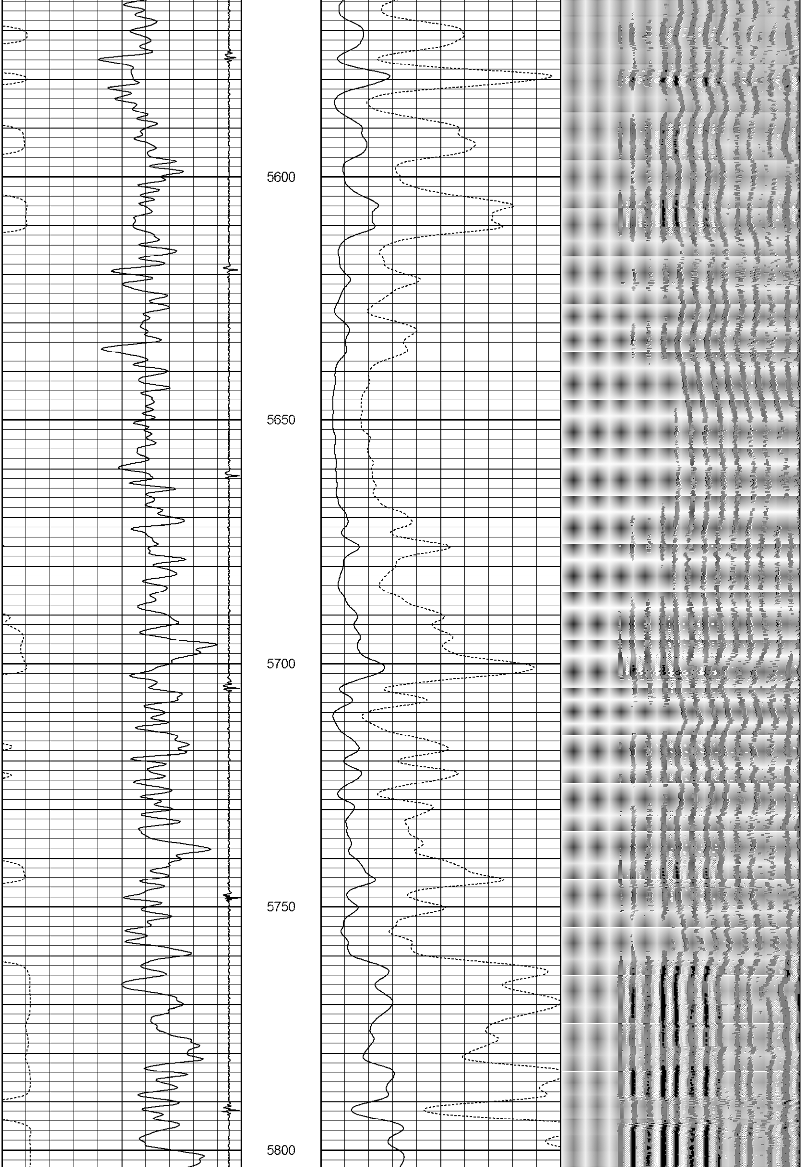
0 Amplified Amplitude (mV) 30
0 Amplitude (mV) 100

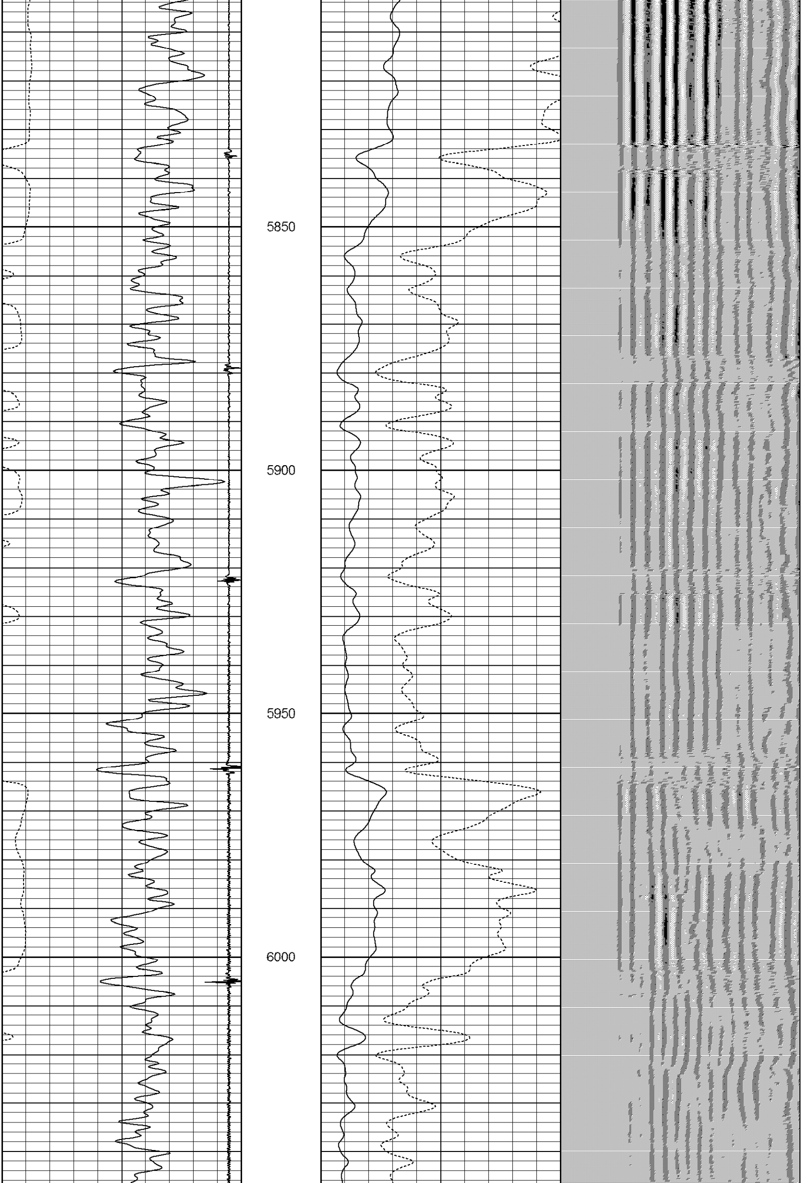
200 Variable Density 1200
░ ▒ ▓ █

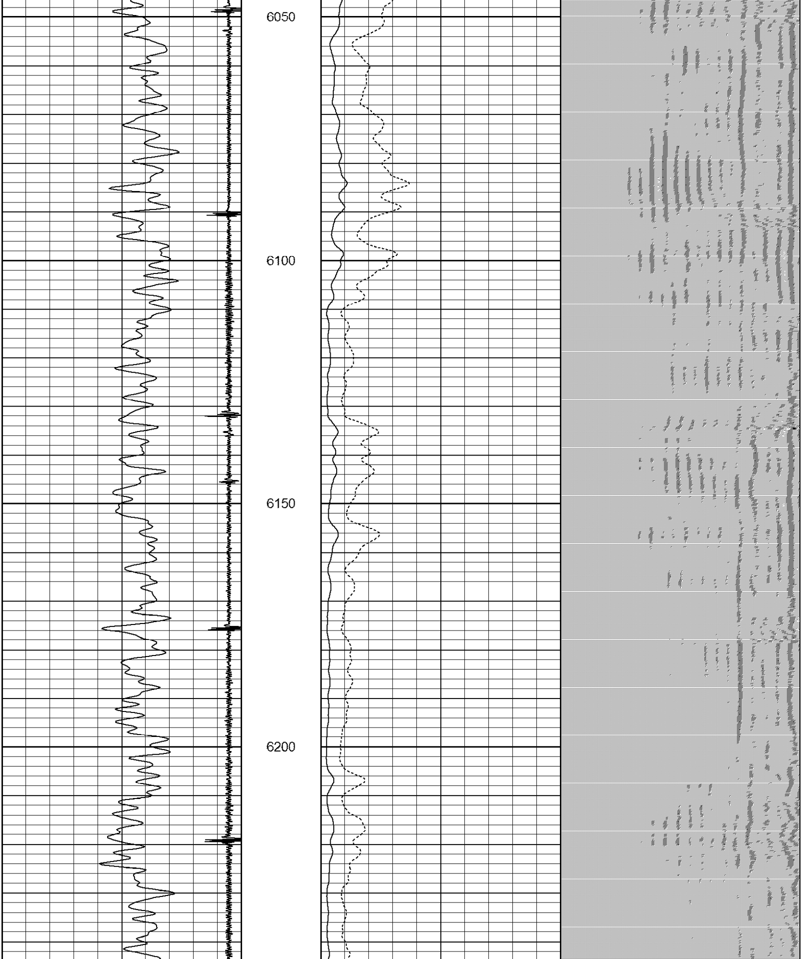


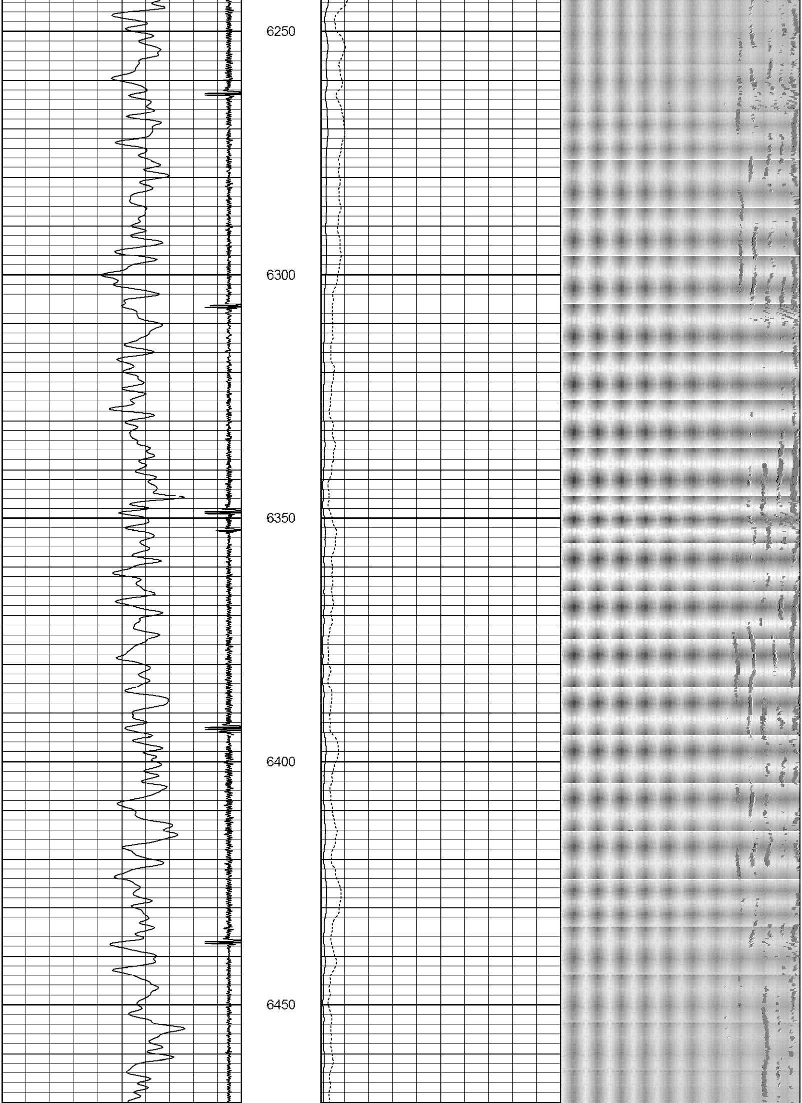


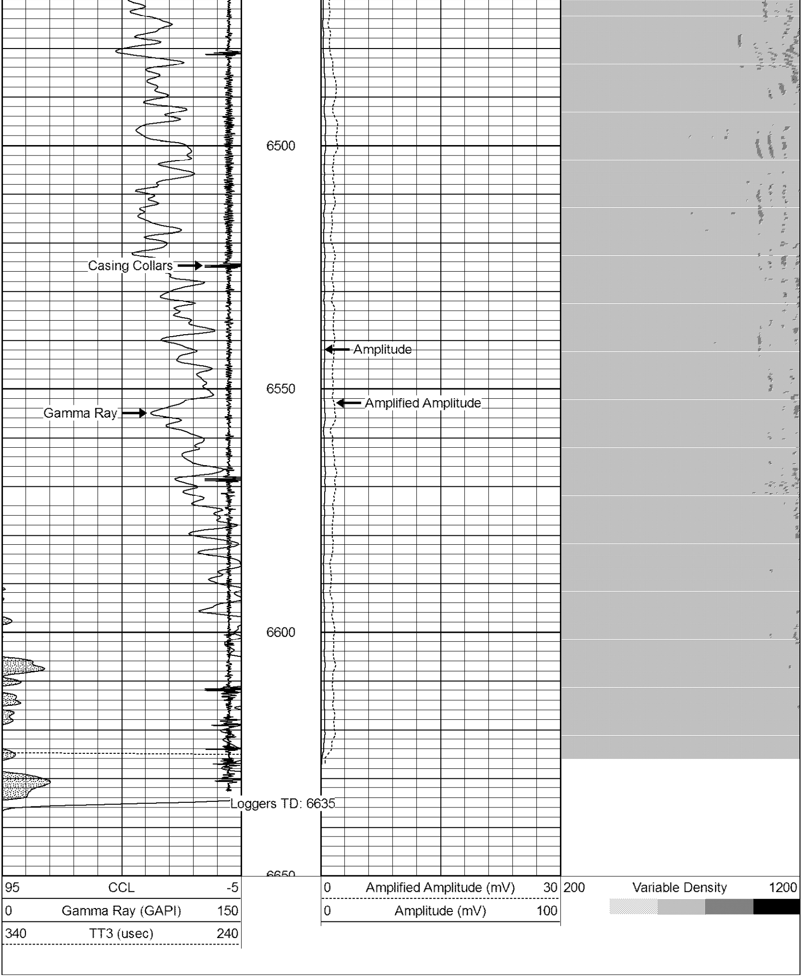












Calibration Report

Database File: cblwells ranch aa24-67-1hn.db
Dataset Pathname: pass3
Dataset Creation: Tue Oct 09 09:06:17 2012 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION

Tue Oct 09 09:51:47 2012

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.9000			GAPI/cps

PRIMARY VERIFICATION

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

BEFORE SURVEY VERIFICATION

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

AFTER SURVEY VERIFICATION

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

Cement Bond Log Calibration Report

Serial Number: 110802
Tool Model: Probe275Digital
Performed: Tue Oct 09 07:00:52 2012

Depth: 143.95 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:	0.0137451	0.0137451	V
Reading in Free Pipe:	2.49878	2.44055	V
Gain:	24.6536	25.616	
Offset:	0.561133	-0.352095	