NABORS
COMPLETION & PRODUCTION SERVICES CO.

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	NOBLE ENERGY INC.
Well	WELLS RANCH AE18-62-1HN
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well WELLS RANCH AE18-62-1HN
Field WATTENBERG
County WELD State COLORADO
Location: SW SW API #: 05123356490000
SEC 18 TWP 6N RGE 62W
Other Services

Permanent Datum	GL	Elevation	4831	K.B. 4855 D.F. 4854 G.L. 4831
Log Measured From	KB 24'			
Drilling Measured From	KB			

Date	December 28, 2012	
Run Number	One	
Depth Driller	11,212	
Depth Logger	6941	
Bottom Logged Interval	6940	
Top Log Interval	Surface	
Casing Size	7.00"	
Type Fluid	Water	
Max. Recorded Temp.	219 deg F	
Estimated Cement Top	1260 est.	
Time Well Ready	Crane	
Time Logger On Bottom	AM	
Unit Number	4367	4515
Tool Size / ID Number	2.75 Probe 110802	2.75 Probe 110785
Location	45	Platteville, CO
Recorded By	K. Monaghan	
Witnessed By	M. Pratt	

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36 lb/ft J-55	Surface	633
Prot. String				
Production String	7.00"	26 lb/ft P-110	Surface	7095
Liner	4.50"	11.6 lb/ft P-110	6954.1	11,192

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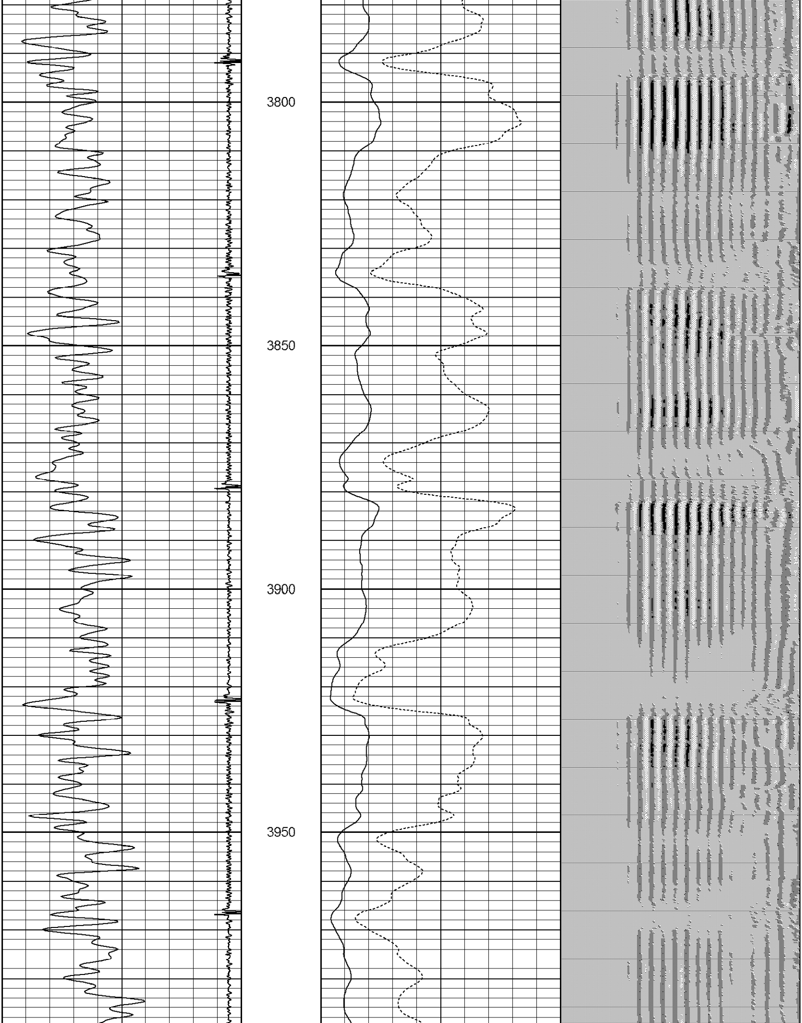
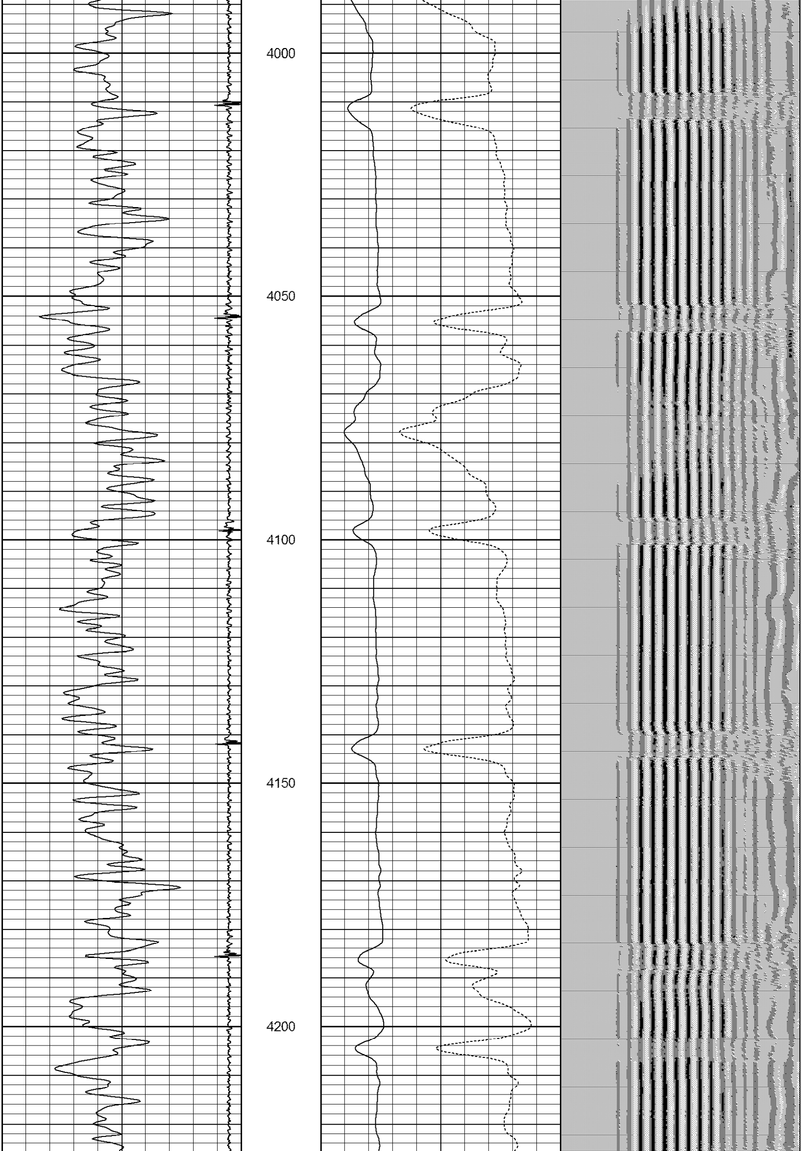
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

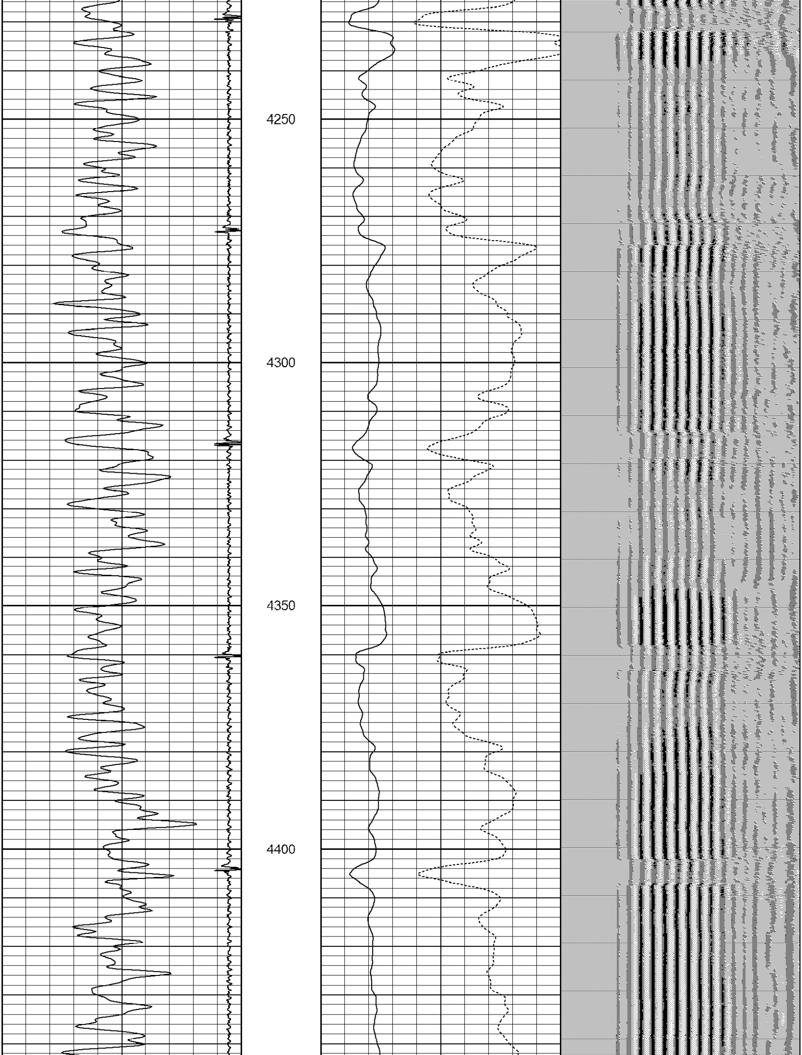
Comments

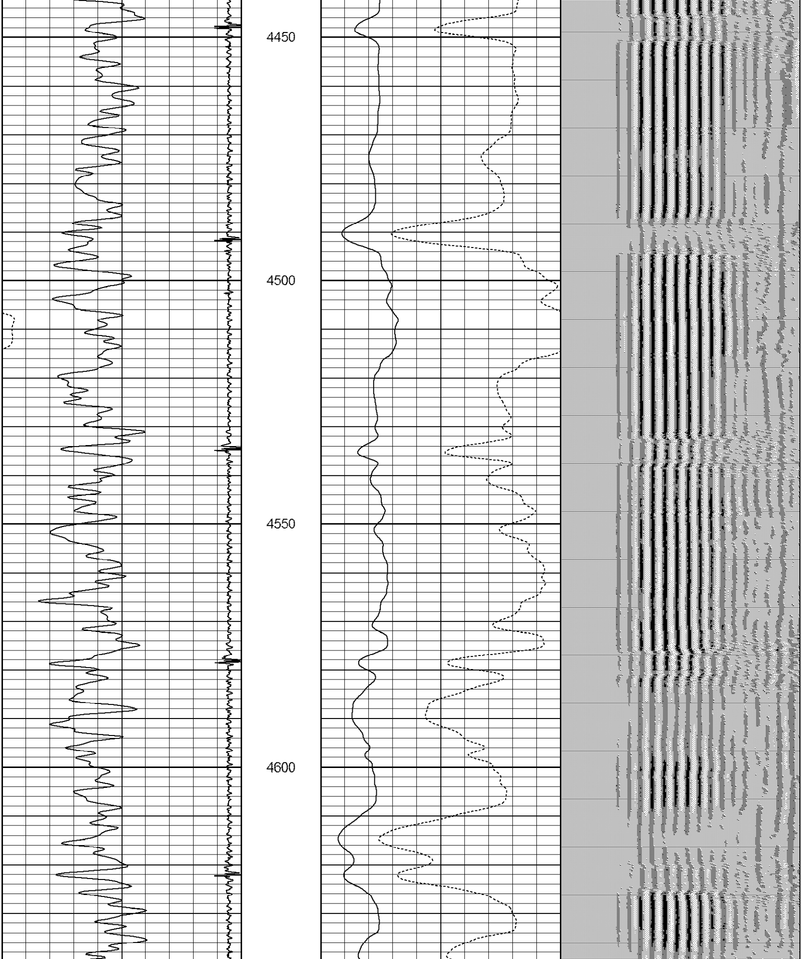
Thank You For Choosing Nabors Completion and Production Services CO!!!
API# 05-123-35649-0000
Wireline Zero @ 24' KB
Directions: 68 & 68, E1.25MI, N.75, E.75, S.5 INTO
(South Well of 4 Well Pad)

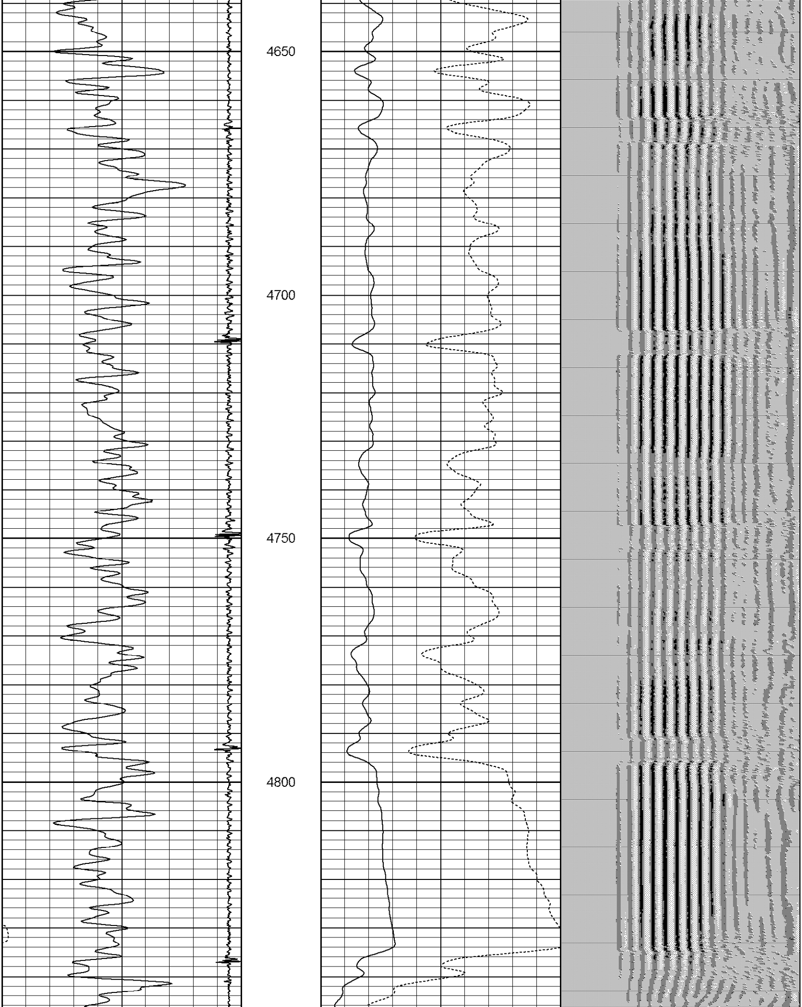
Database File:	cblwells ranch ae18-62-1hn.db
Dataset Pathname:	pass3
Presentation Format:	noblehozo
Dataset Creation:	Fri Dec 28 11:55:26 2012 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

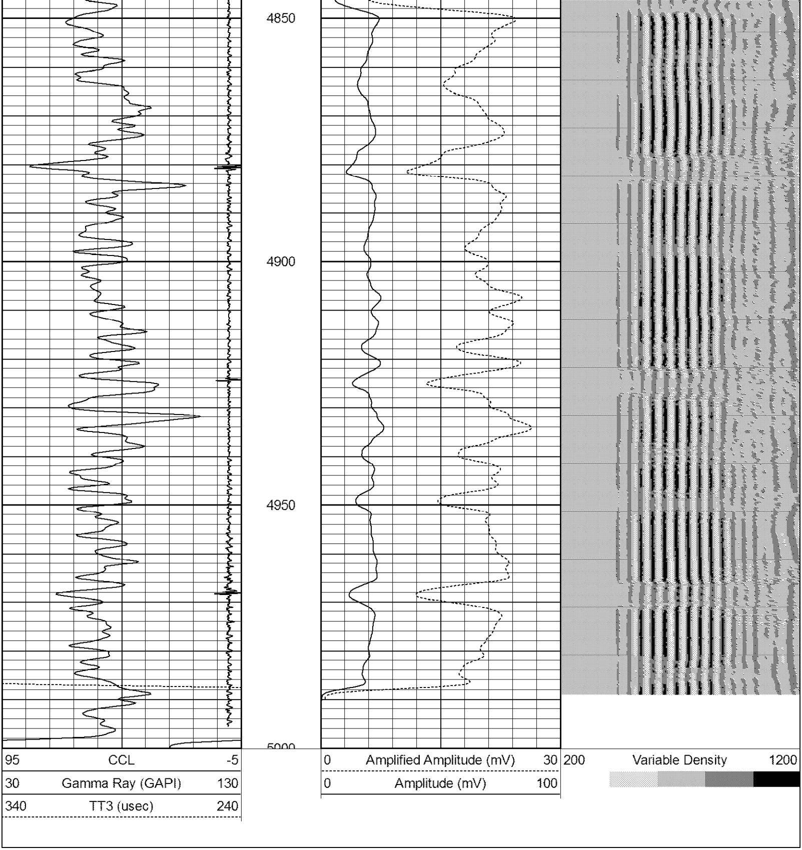




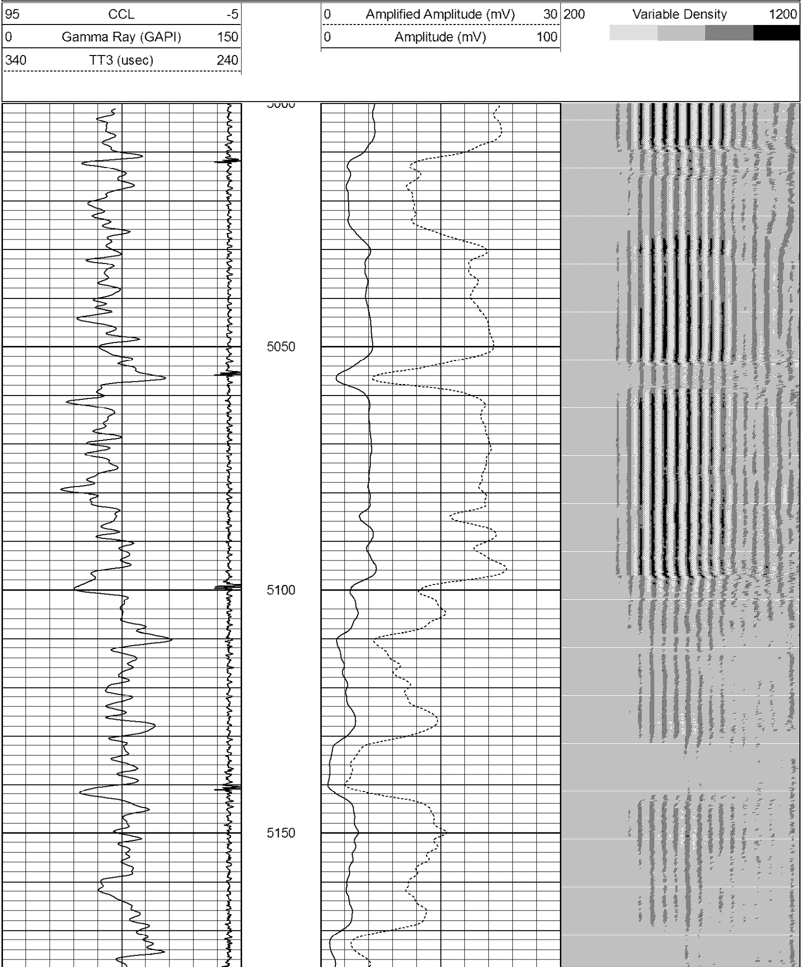


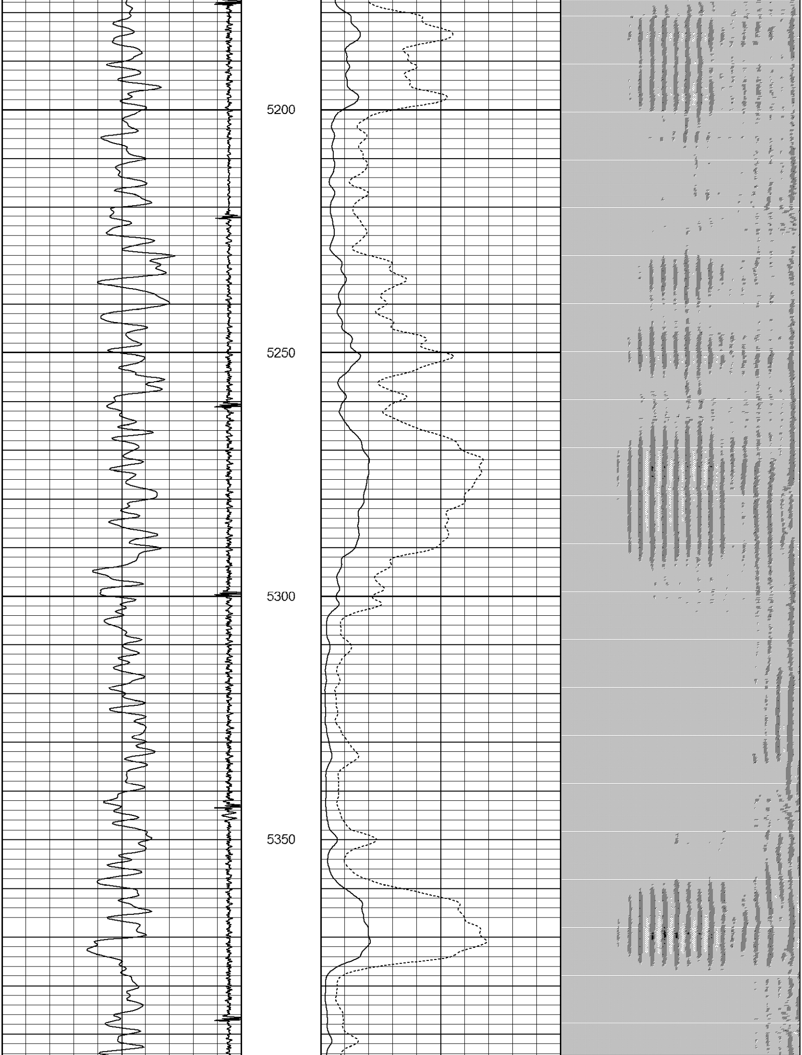


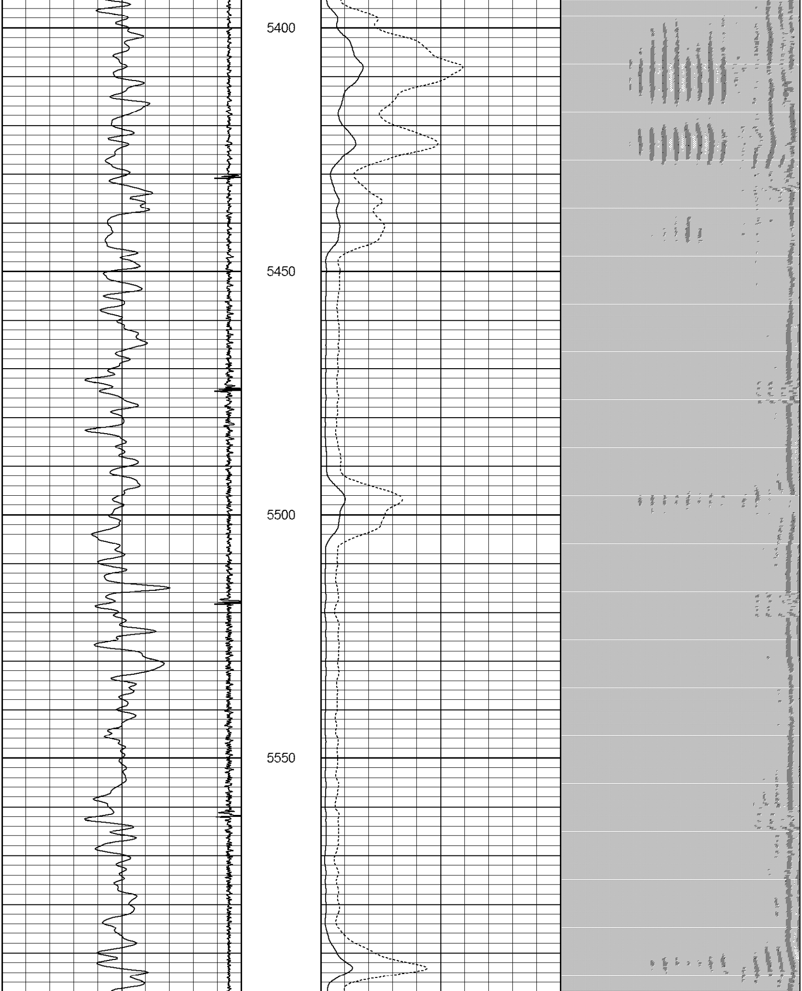


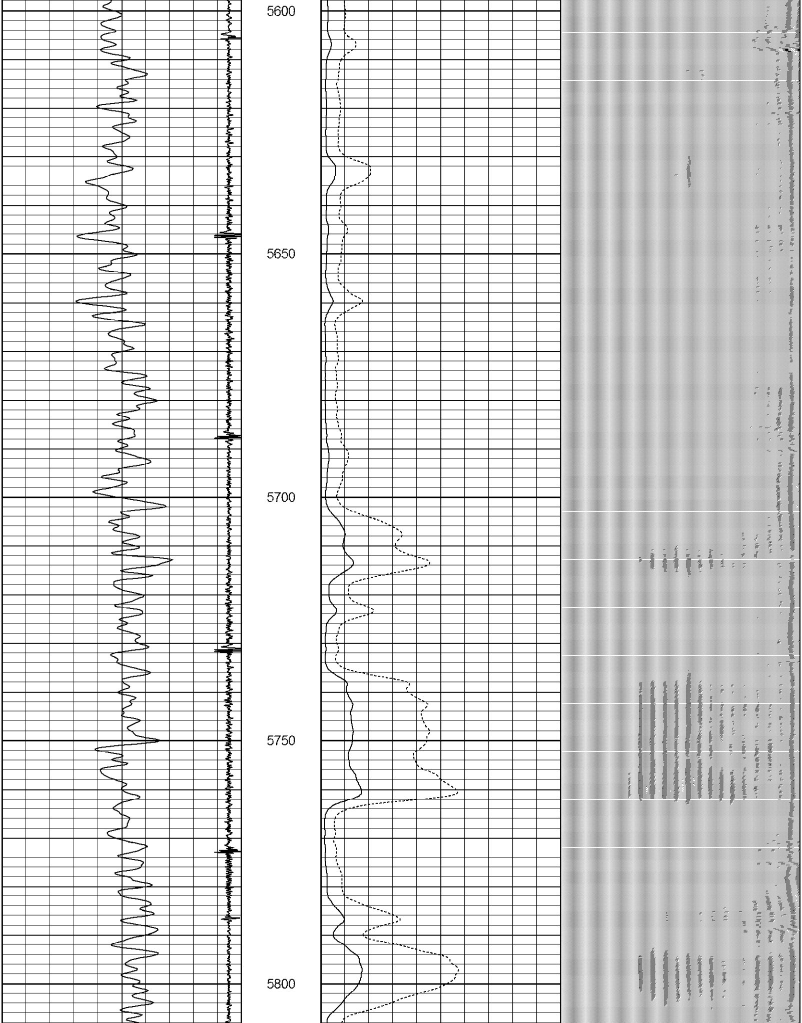


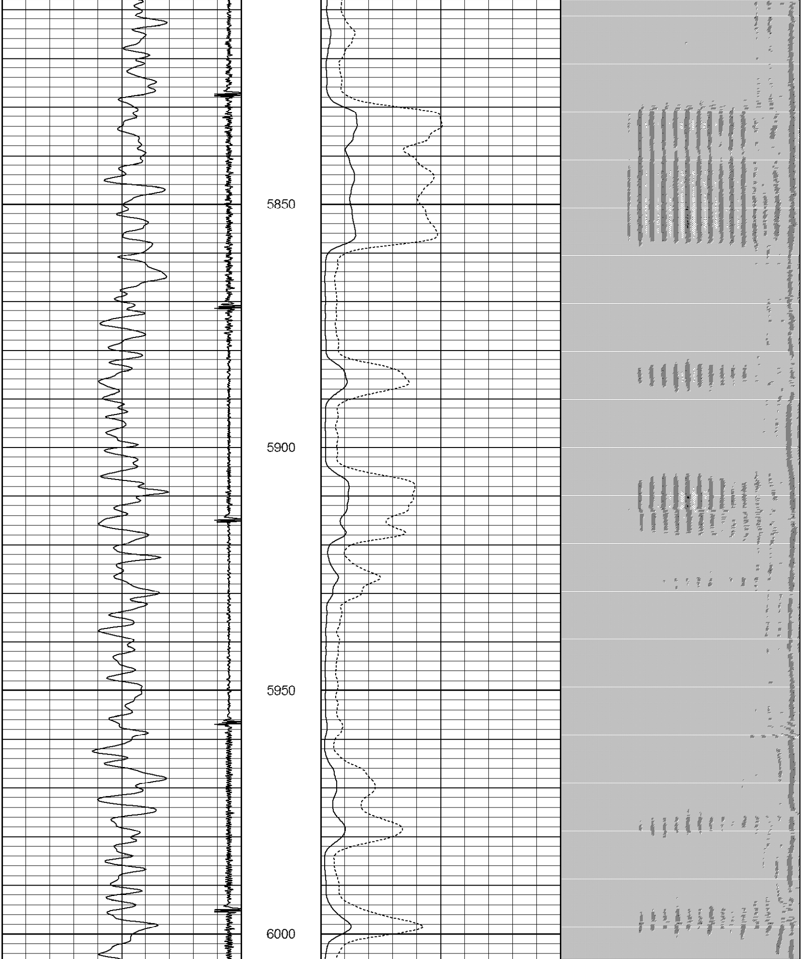
Database File: cblwells ranch ae18-62-1hn.db
Dataset Pathname: pass2
Presentation Format: noblehozo
Dataset Creation: Fri Dec 28 11:38:16 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

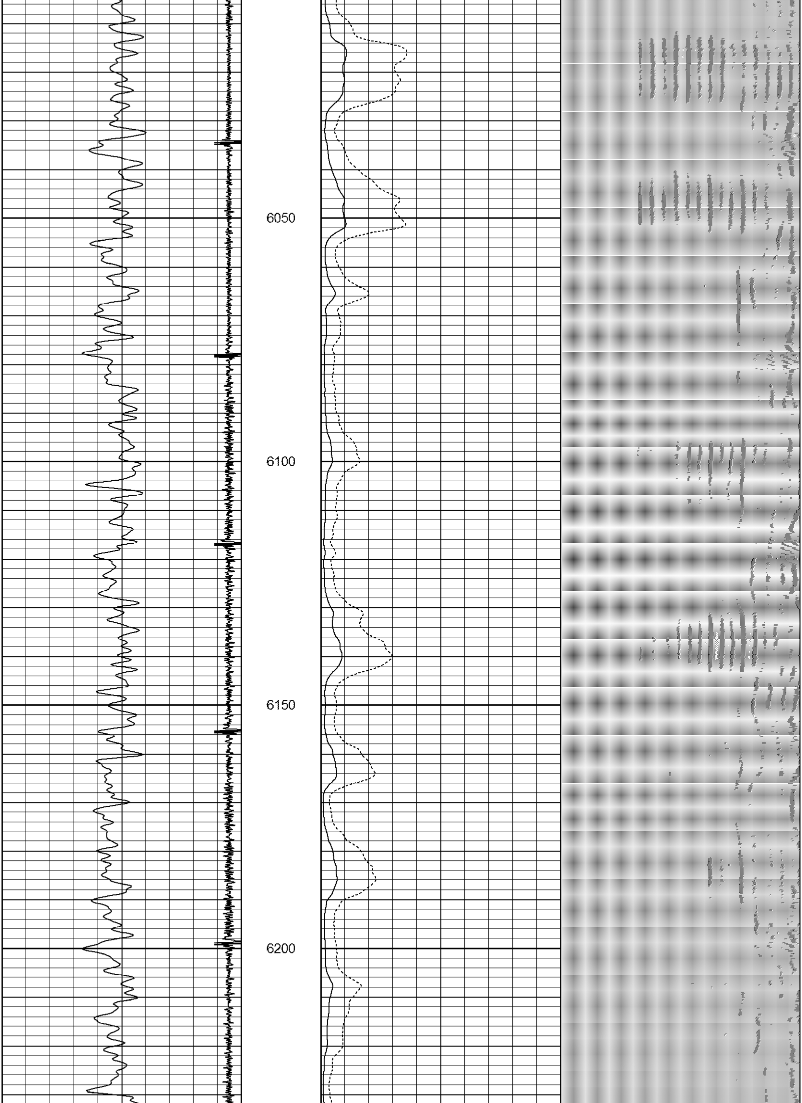


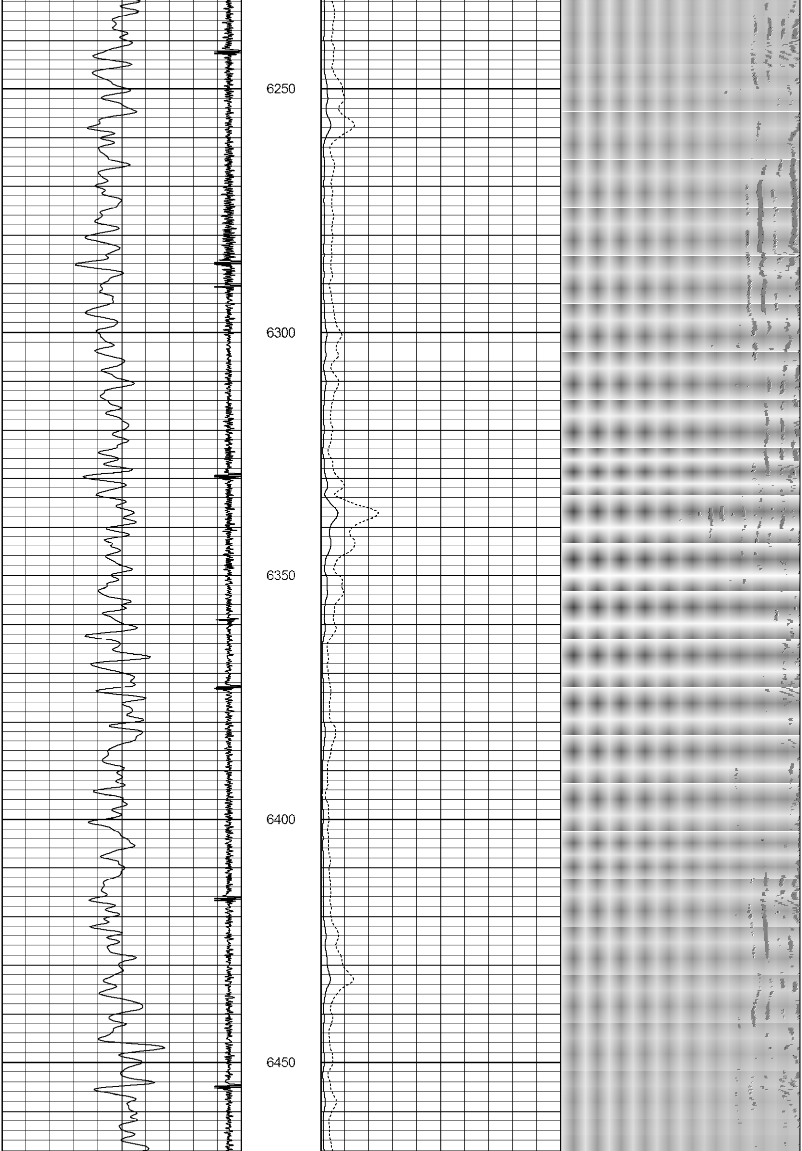


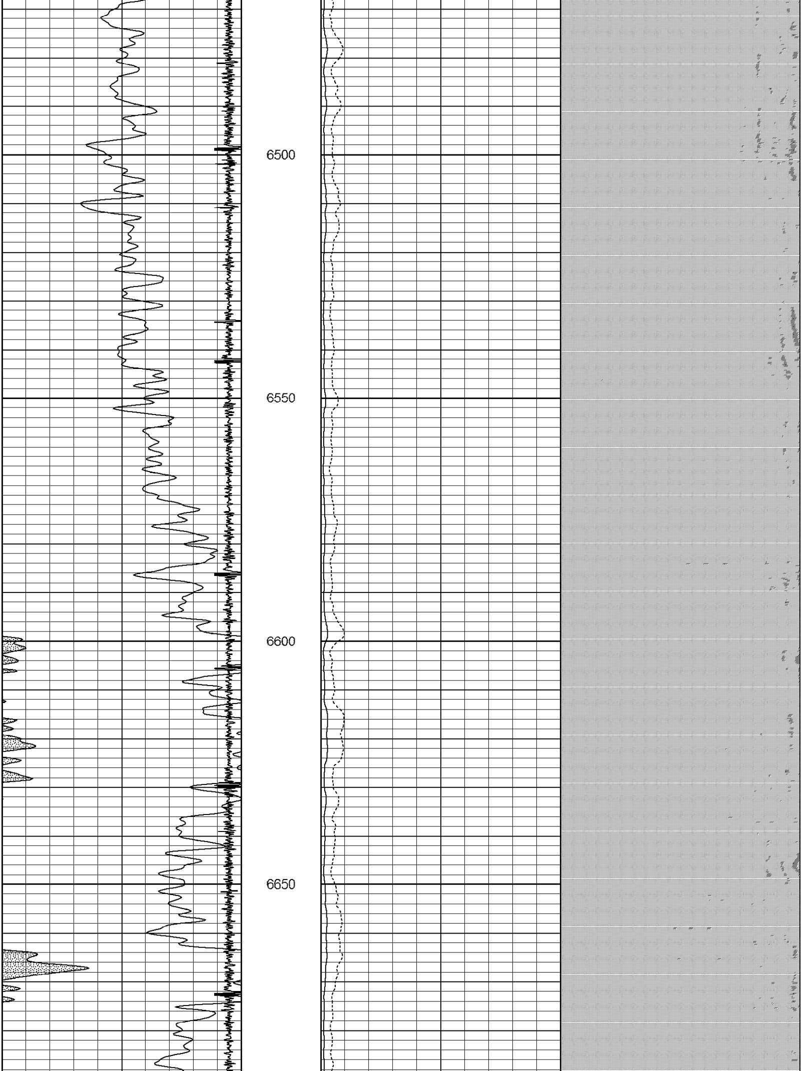


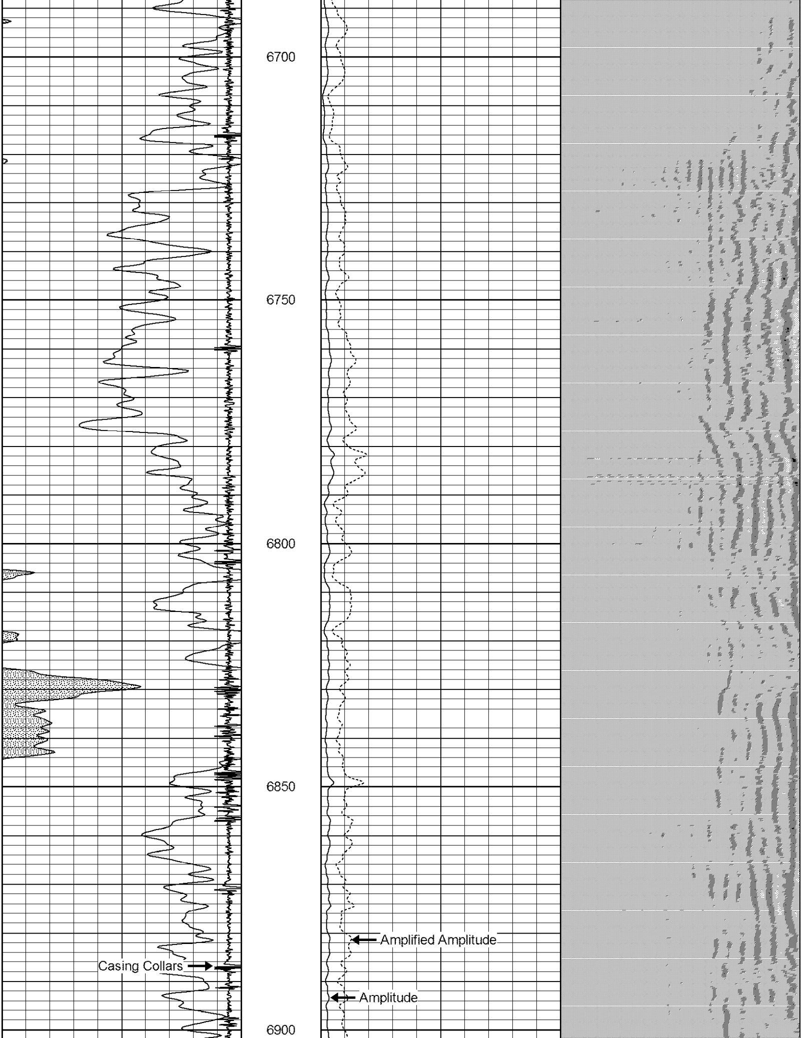


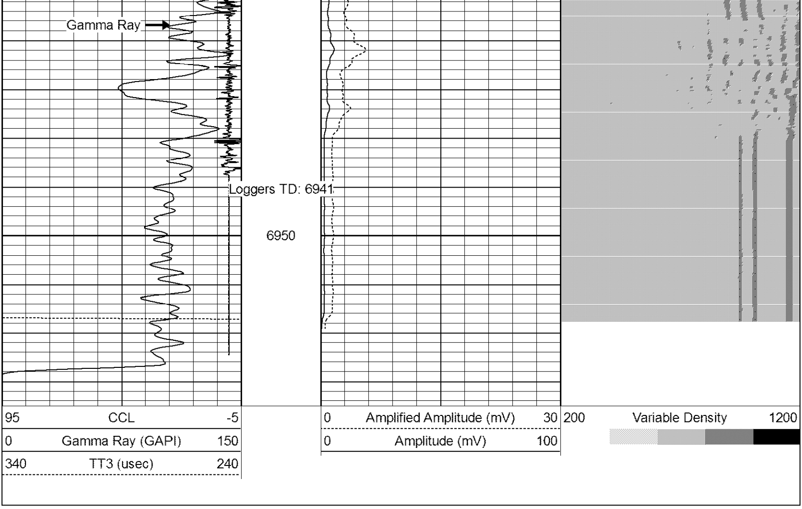












Calibration Report

Database File: cblwells ranch ae18-62-1hn.db
Dataset Pathname: pass3
Dataset Creation: Fri Dec 28 11:55:26 2012 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION

Fri Dec 28 12:27:50 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: Fri Dec 28 07:28:34 2012

Depth: 588.308 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:	0.0141846	0.0145996	V
Reading in Free Pipe:	2.49878	2.4167	V
Gain:	24.658	25.8795	
Offset:	0.550237	-0.37783	