NABORS

COMPLETION & PRODUCTION SERVICES CO.

Gammar Ray / CCL
Cement Bond / VDL

Company	Noble Energy Inc.
Well	Five Rivers K16-30D
Field	Wattenberg
County	Weld
State	Colorado

Company Noble Energy Inc.

Well Five Rivers K16-30D

Field Wattenberg

County Weld **State** Colorado

Location: API # : 05-123-32442

SW/SE

SEC 8 TWP 4N RGE 66W

Other Services

Permanent Datum Elevation 4703'
Log Measured From
Drilling Measured From

Elevation
K.B. 4719'
D.F. 4718'
G.L. 4703'

Date	September 15, 2014		
Run Number	One		
Depth Driller			
Depth Logger	2000'		
Bottom Logged Interval	2000'		
Top Log Interval	Surface		
Open Hole Size			
Type Fluid	Water		
Density / Viscosity			
Max. Recorded Temp.			
Estimated Cement Top			
Time Well Ready			
Time Logger on Bottom	1 11/16 Tecko		
Equipment Number	92-3376		
Location	CR46&29,N1/4,W1/4into		
Recorded By	Adam Frank		
Witnessed By	John Hull		

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#		
Prot. String				
Production String	4 1/2	11.6#		
Liner				

<<< Fold Here >>>

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

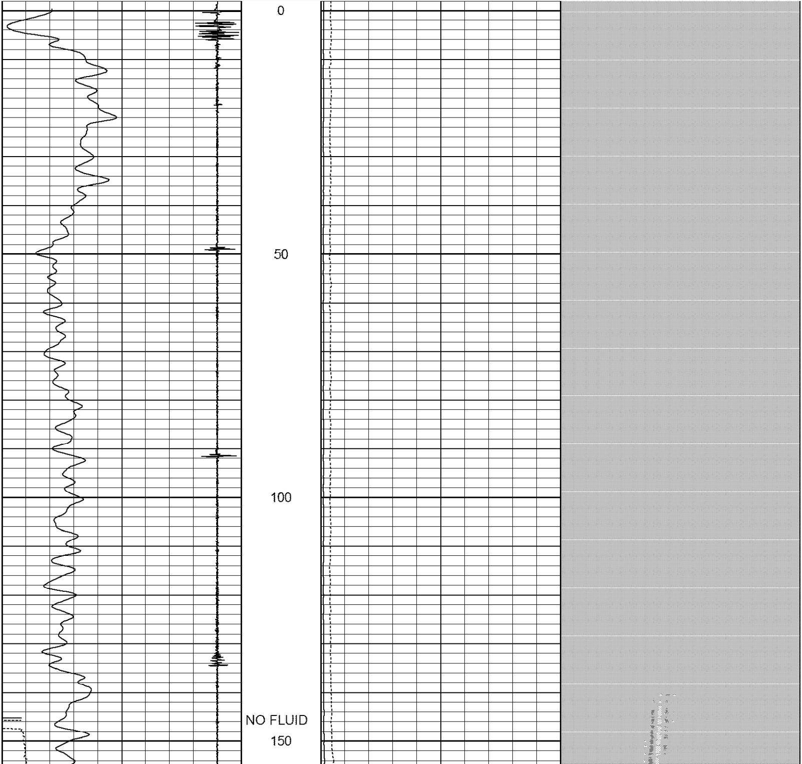
Thank you for using Nabors!
Log NOT correlated

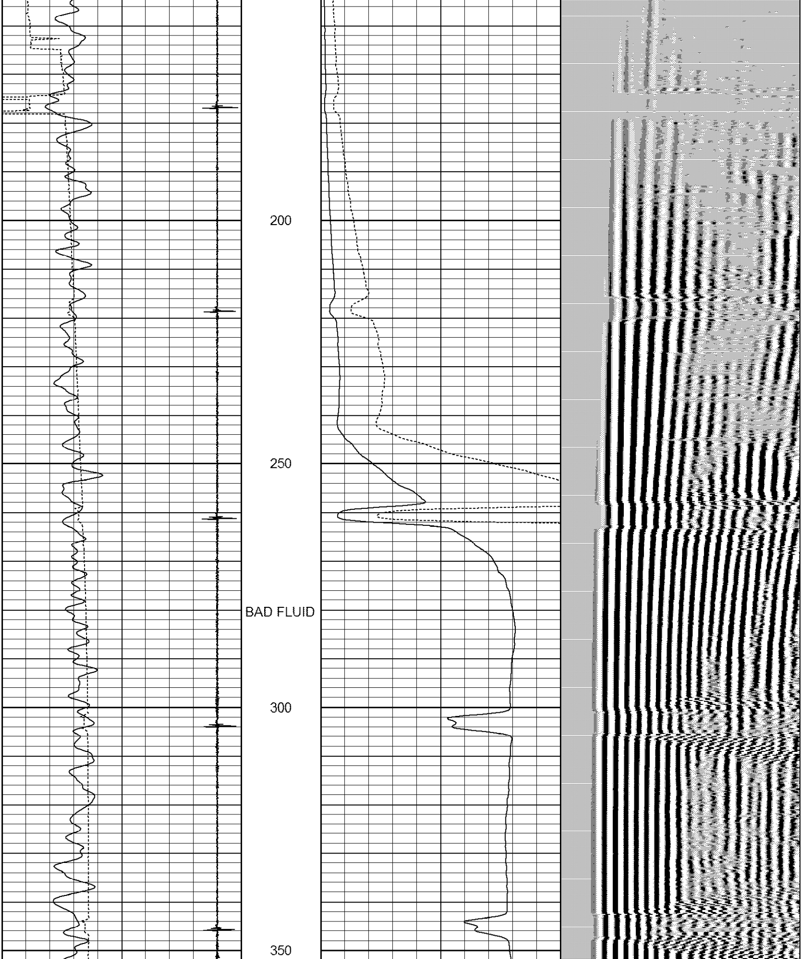
Database File:	five rivers k16-30d.db
Dataset Pathname:	pass3
Presentation Format:	nuexcbl
Dataset Creation:	Mon Sep 15 08:00:34 2014 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

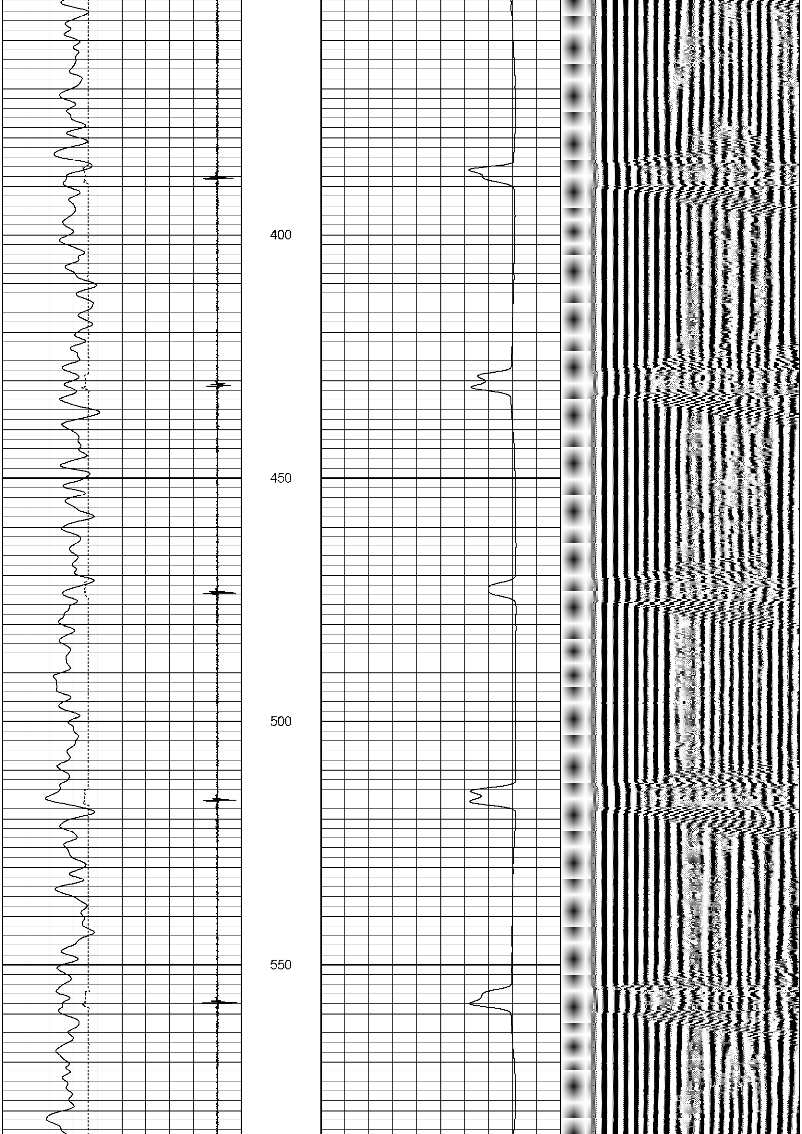
30 CCL -3.3
0 Gamma Ray (GAPI) 150
400 TT3 (usec) 0

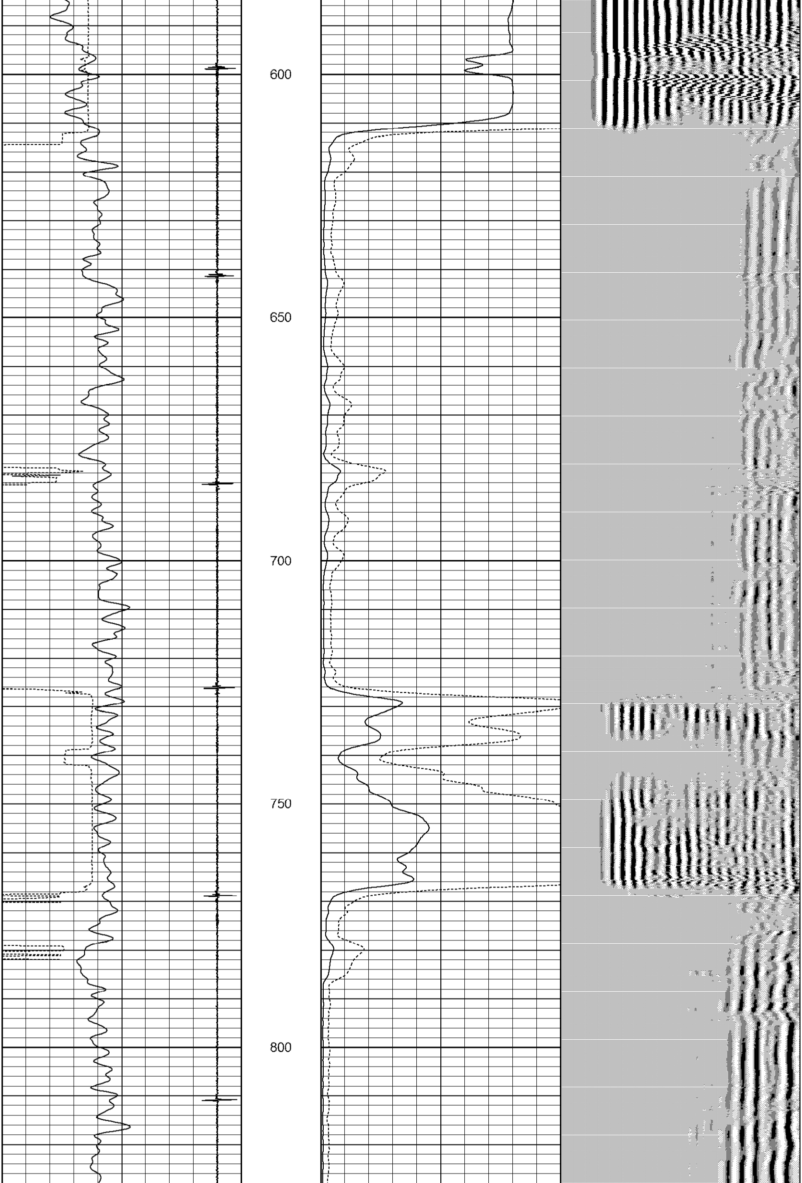
0 Amplified Amplitude (mV) 30
0 Amplitude (mV) 100

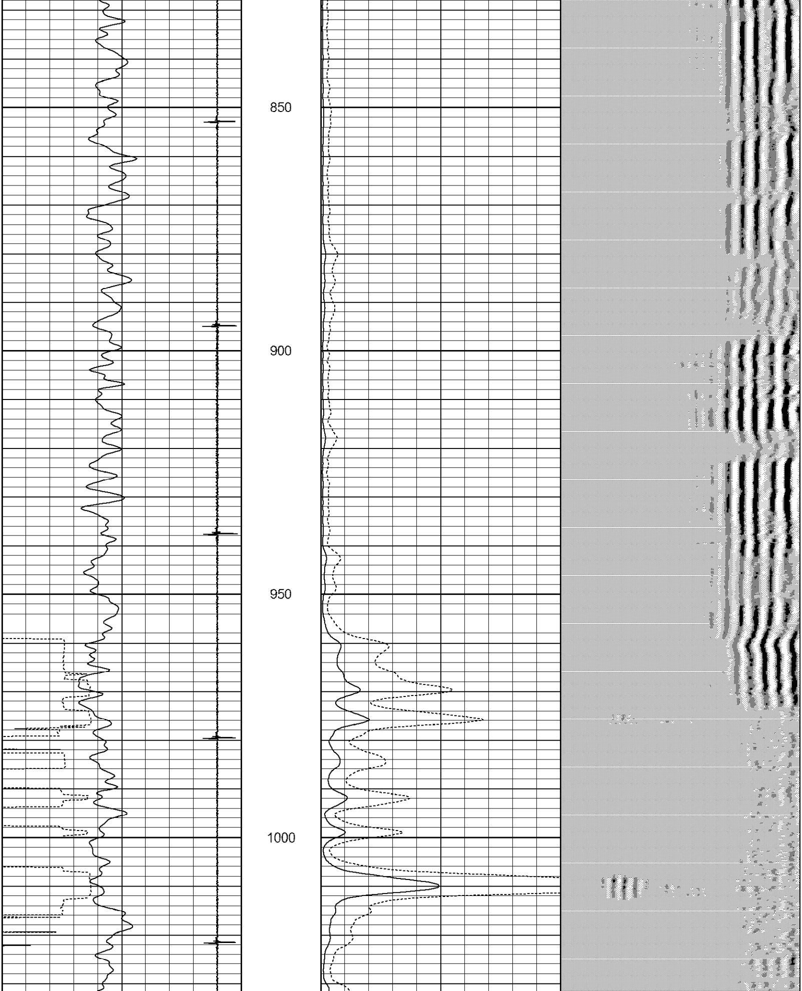
200 Variable Density 1200

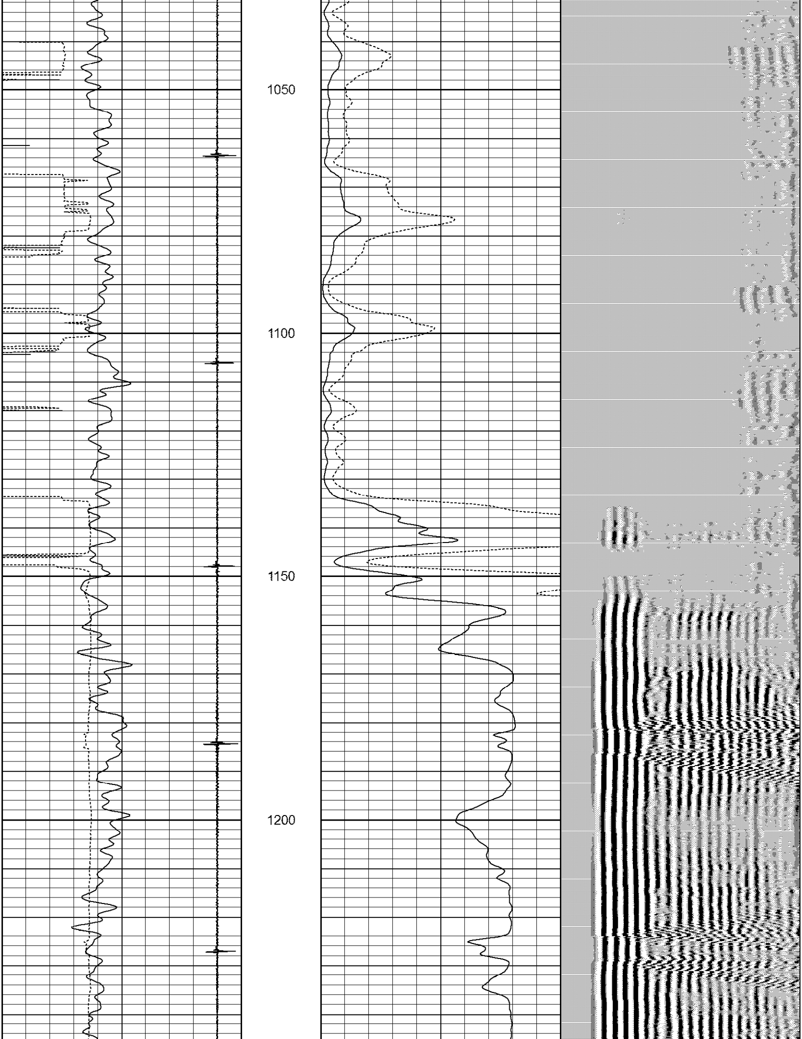


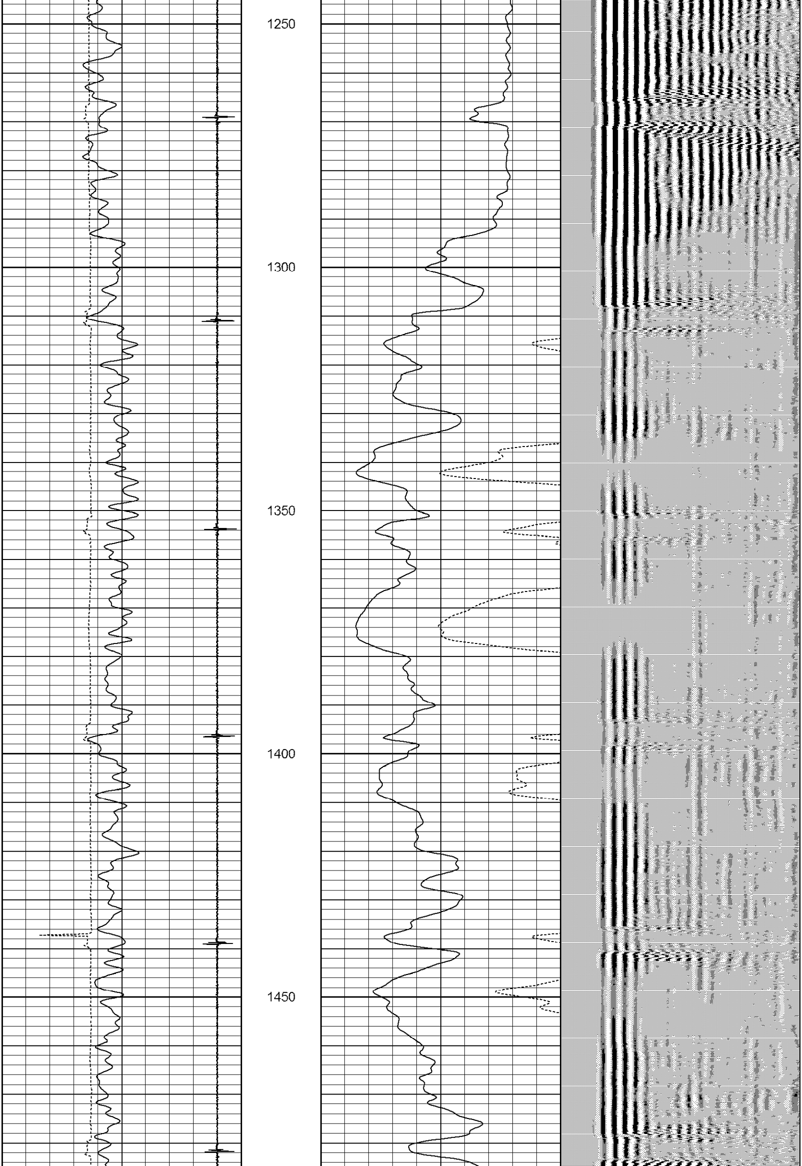


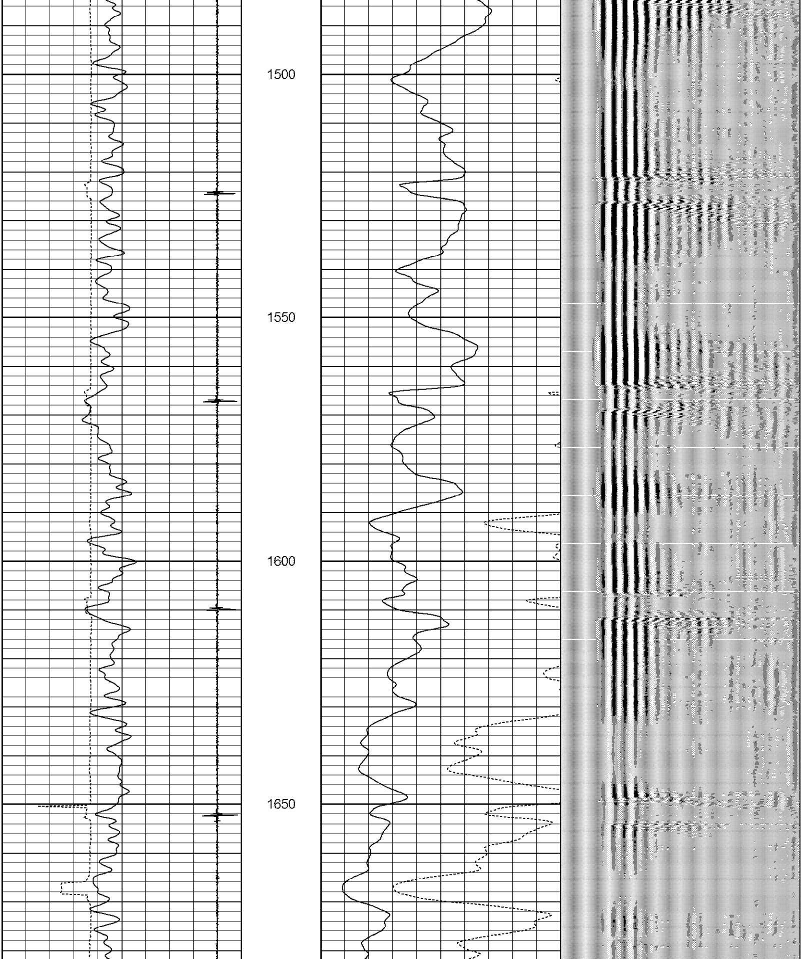


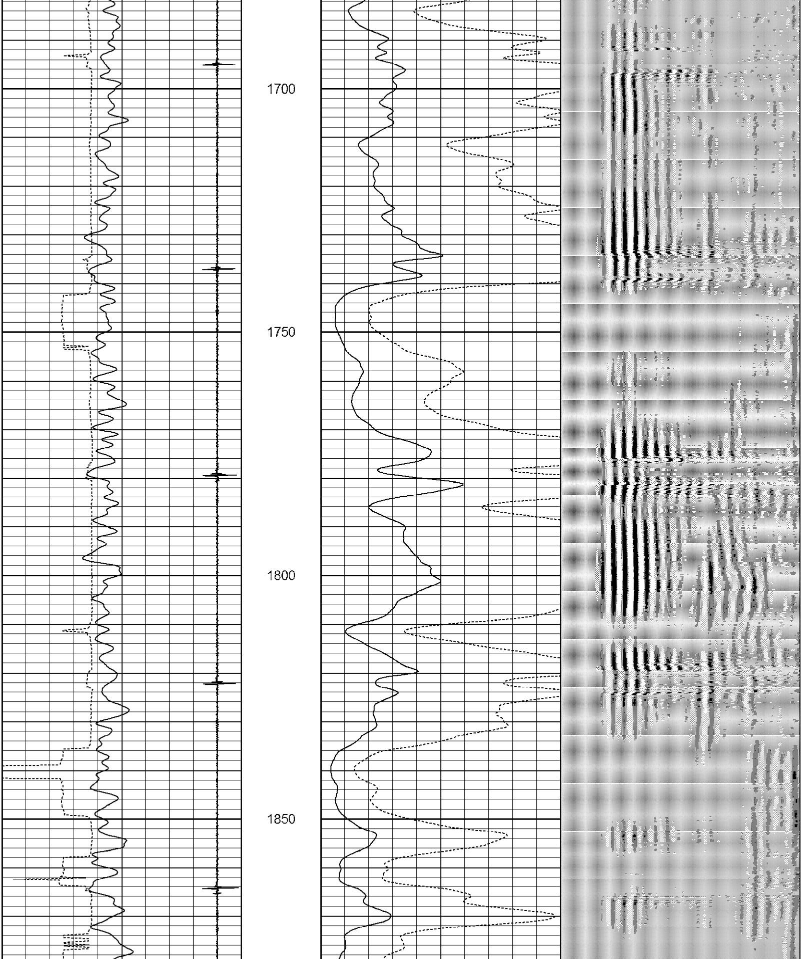


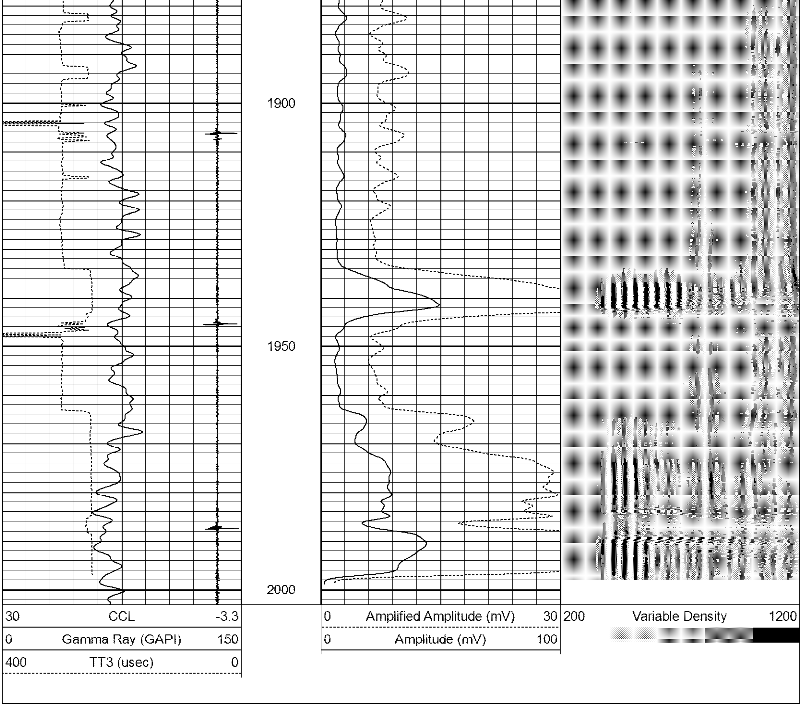












Calibration Report

Database File:	five rivers k16-30d.db
Dataset Pathname:	pass3
Dataset Creation:	Mon Sep 15 08:00:34 2014 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number:	tit/temp	
Tool Model:	temp/tit	
Performed:	Wed Oct 09 07:50:28 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.7000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	TEKCO-01		
Tool Model:	TEKCO-1x2		
Performed:	Mon Sep 15 07:55:55 2014		
Depth:	500.367	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	1.5	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	-0.00488281	-0.00498047	V
Reading in Free Pipe:	2.47131	2.48259	V
Gain:	32.1849	32.6407	
Offset:	1.65715	0.162566	