SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.
Well	WELLS RANCH USX AE31-15P
Field	Wattenberg
County	Weld
State	Colorado

Company Noble Energy INC.
Well WELLS RANCH USX AE31-15P
Field Wattenberg
County Weld State Colorado

Location: API #: 051233048300
612' FSL & 1925' FEL
LAT: 40.437478 DEG
LONG: -104.363747 DEG
SEC 31 TWP 6N RGE 62W

Other Services
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Permanent Datum GL Elevation 4681
Log Measured From KB 16'
Drilling Measured From KB

Elevation
K.B. 4697
D.F. 4697
G.L. 4681

Date	May 26, 2010	
Run Number	One	
Depth Driller	6795	
Depth Logger	6720	
Bottom Logged Interval	6719	
Top Log Interval	1615	
Casing Size	4 1/2"	
Type Fluid	Water	
Density / Viscosity	Not Recorded	
Max. Recorded Temp.	226 deg F	
Estimated Cement Top	2254	
Time Well Ready	Mast Truck	
Time Logger on Bottom	7:14am	
Equipment Number	T5 (3344)	1 11/16 Tool 1 RED
Location	Platteville, CO	
Recorded By	K. Monaghan	
Witnessed By	E. Zwaagstra	

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	4 1/2"	11.6 lb/ft N-80	Surface	6778.5
Liner				

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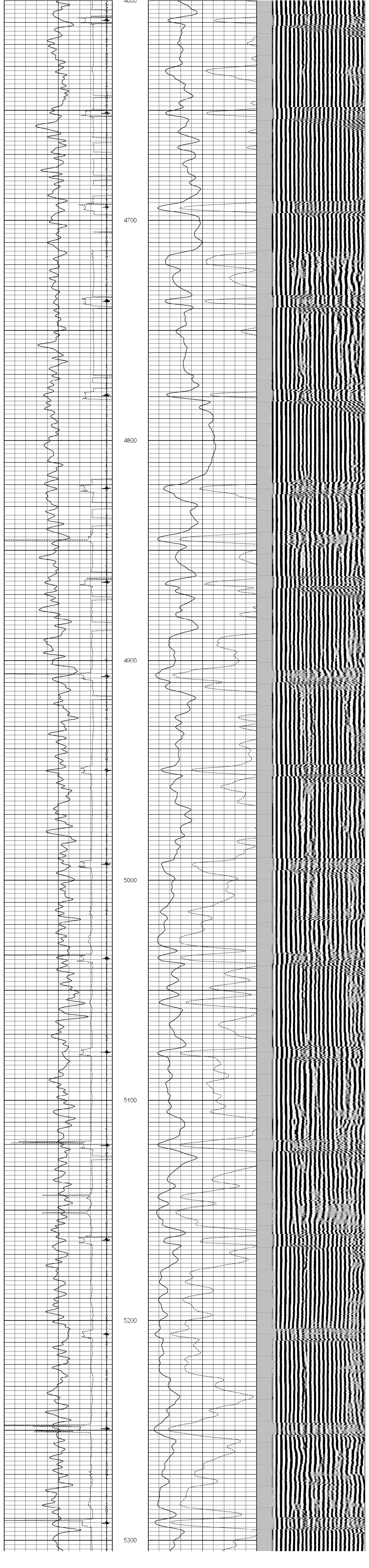
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

Thank You For Choosing Superior Well Services!!!
API# 05-123-30483-00
Correlated to Halliburton's
Spectral Density / Dual Spaced Neutron / Array Compensated / True Resistivity / Gamma Ray Log
Dated: May 11, 2010
Directions: 67 & 68, E.2, S 1.75, E 2.75, S 1, E.5, SW INTO

Database File:	cblwells ranch usx ae31-15p.db
Dataset Pathname:	pass5
Presentation Format:	nuexcbl
Dataset Creation:	Wed May 26 07:40:32 2010 by Log Std Casedhole 09061
Charted by:	Depth in Feet scaled 1:240

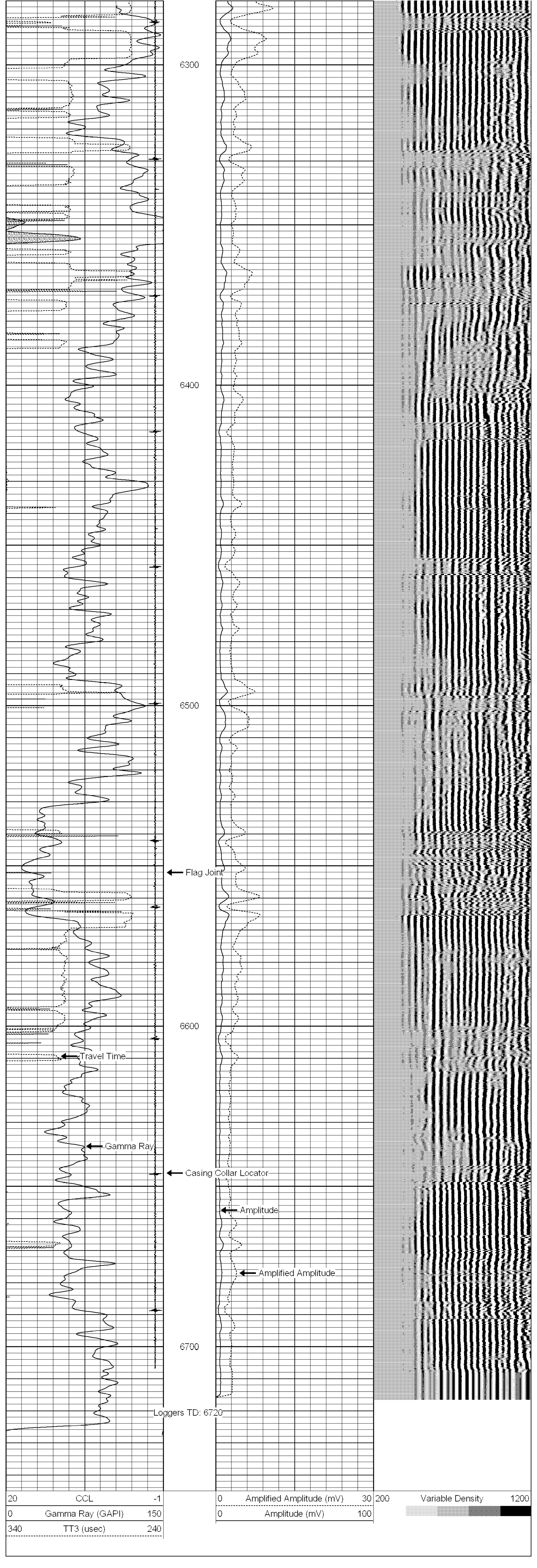
Database File:	cblwells ranch usx ae31-15p.db
Dataset Pathname:	pass4
Presentation Format:	nuexcbl
Dataset Creation:	Wed May 26 07:23:24 2010 by Log Std Casedhole 09061
Charted by:	Depth in Feet scaled 1:240



20	CCL	-1	0	Amplified Amplitude (mV)	30	200	Variable Density	1200
0	Gamma Ray (GAPI)	150	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

Database File: cblwells ranch usx ae31-15p.db
Dataset Pathname: pass3
Presentation Format: nuexcbl
Dataset Creation: Wed May 26 07:16:41 2010 by Log Std Casedhole 09061
Charted by: Depth in Feet scaled 1:240

20	CCL	-1	0	Amplified Amplitude (mV)	30	200	Variable Density	1200
0	Gamma Ray (GAPI)	150	0	Amplitude (mV)	100			
340	TT3 (usec)	240						



20	CCL	-1	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: cblwells ranch usx ae31-15p.db
Dataset Pathname: pass2
Dataset Creation: Wed May 26 07:00:01 2010 by Log Std Casedhole 09061

Gamma Ray Calibration Report

Serial Number:	tit/temp	
Tool Model:	temp/tit	
Performed:	Wed Dec 16 07:15:29 2009	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	TEKCO-01		
Tool Model:	TEKCO-1x2		
Performed:	Wed May 26 06:59:47 2010		
Depth:	323.4	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	0	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.0320312	0.013208	V
Reading in Free Pipe:	2.5	2.5	V
Gain:	32.9	32.6509	
Offset:	-1.05383	-0.431254	