NABORS
COMPLETION
& PRODUCTION
SERVICES CO.

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	NOBLE ENERGY INC.
Well	WELLS RANCH AA12-67-1HN
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well WELLS RANCH AA12-67-1HN
Field WATTENBERG
County WELD State COLORADO
API #: 05123356330000
Location: NE NE
BHL: 1650' FNL & 535' FWL
SEC 12 TWP 6N RGE 63W

Other Services

Permanent Datum	GL	Elevation	4893	Elevation K.B. 4917 D.F. 4916 G.L. 4893
Log Measured From	KB 24'			
Drilling Measured From	KB			

Date	October 22, 2012	
Run Number	One	
Depth Driller	11,364	
Depth Logger	7056	
Bottom Logged Interval	7055	
Top Log Interval	Surface	
Casing Size	7.00"	
Type Fluid	Water	
Max. Recorded Temp.	205 deg F	
Estimated Cement Top	225 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	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 J-55	Surface	672
Prot. String				
Production String	7.00"	26 lb/ft P-110	Surface	7178
Liner	4.50"	11.6 lb/ft P-110	7035.3	11,344

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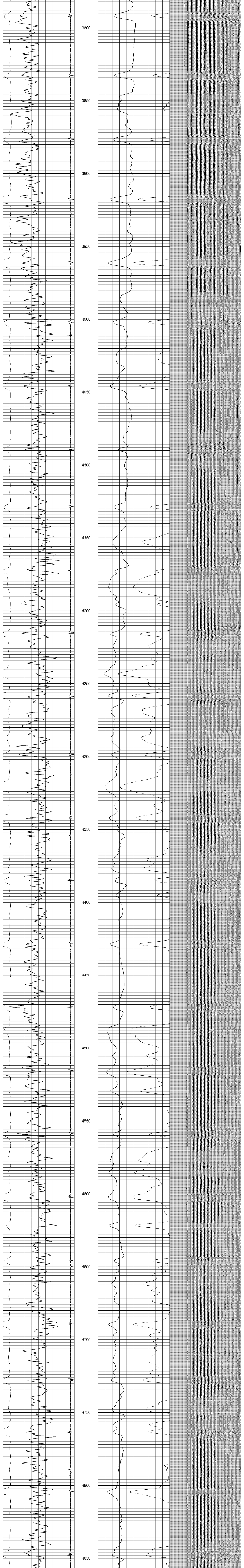
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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# 05-123-35633-0000
Wireline Zero @ 24' KB
Directions: 68 7 69, E 1.25MI, N 1.25MI, E.75, N .75, W INTO
(Center / South Well of 4 Well Pad)

Database File:	cblwells ranch aa12-67-1hn.db
Dataset Pathname:	pass3
Presentation Format:	noblehozo
Dataset Creation:	Mon Oct 22 09:21:13 2012 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240



Database File: cblwells ranch aa12-67-1hn.db
Dataset Pathname: pass2
Presentation Format: noblehozo
Dataset Creation: Mon Oct 22 09:02:55 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: cblwells ranch aa12-67-1hn.db
Dataset Pathname: pass3
Dataset Creation: Mon Oct 22 09:21:13 2012 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION	Mon Oct 22 08:56:57 2012				
	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.9000			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: Mon Oct 22 07:17:05 2012

Depth: 262.917 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:	0.0137695	0.0136475	V
Reading in Free Pipe:	2.49753	2.39077	V
Gain:	24.6662	26.1514	
Offset:	0.560358	-0.3569	