SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.
Well	MARLEY C01-28D
Field	Wattenberg
County	Weld
State	Colorado

Company Noble Energy INC.
Well MARLEY C01-28D
Field Wattenberg
County Weld State Colorado

Location: API #: 05123150800000
SHL: 613' FNL & 2021' FWL NE NW
BHL: 150' FSL & 2515' FWL SE SW
LAT: 40.346980 / LONG: -104.500900
SEC TWP RGE

Other Services

Permanent Datum	GL	Elevation	4605	Elevation
Log Measured From	KB 15'			K.B. 4620
Drilling Measured From	KB			D.F. 4619 G.L. 4605

Date	May 4, 2011
Run Number	ONE
Depth Driller	7038
Depth Logger	6972
Bottom Logged Interval	6971
Top Log Interval	1940
Casing Size	4 1/2"
Type Fluid	Water
Max. Recorded Temp.	240 deg F
Estimated Cement Top	2110
Time Well Ready	Mast Truck
Time Logger On Bottom	7:30am
Unit Number	3344
Tool Size / ID Number	2.75 PROBE 101020 GR-CCL 101011
Location	Platteville, CO
Recorded By	K. Monaghan
Witnessed By	M. Trimble

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 lb/ft J-55	Surface	577
Prot. String				
Production String	4 1/2"	11.6 lb/ft M-80	Surface	7027
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# 05-123-31508-0000
Calibrated to H.E.S's
Array Compensated / True Resiistivity / Spectral Density / Dual Spaced Neutron / Gamma Ray
Dated: April 25, 2011
Directions: 50 & 59, E 4/10, S into
(Northern Most Well of 3 Well Pad)

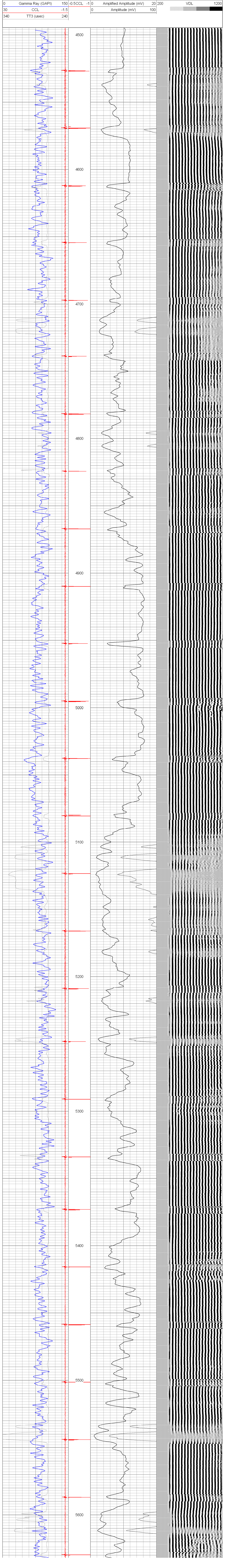
Database File: scblmarley c01-28d.db
Dataset Pathname: pass4
Presentation Format: nuexbond
Dataset Creation: Wed May 04 09:33:56 2011 by Log Std Casedhole 10081
Charted by: Depth in Feet scaled 1:240

30	Gamma Ray (GAPI)	130	-0.5CCL	-1	0	Amplified Amplitude (mV)	20	200	VDL	1200
40	CCL	-1.8			0	Amplitude (mV)	100			
340	TT3 (usec)	240								

30	Gamma Ray (GAPI)	130	-0.5CCL	-1	0	Amplified Amplitude (mV)	20	200	VDL	1200
40	CCL	-1.8			0	Amplitude (mV)	100			
340	TT3 (usec)	240								

Database File: scblmarley c01-28d.db
Dataset Pathname: pass3
Presentation Format: nuexbond
Dataset Creation: Wed May 04 09:10:07 2011 by Log Std Casedhole 10081
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	-0.5CCL	-1	0	Amplified Amplitude (mV)	20	200	VDL	1200
30	CCL	-1.5			0	Amplitude (mV)	100			
340	TT3 (usec)	240								



Calibration Report

Database File: scblmarley c01-28d.db
Dataset Pathname: pass4
Dataset Creation: Wed May 04 09:33:56 2011 by Log Std Casedhole 10081

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101011

SHOP CALIBRATION	Wed May 04 08:11:02 2011				
	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.7000			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

Segmented Cement Bond Log Calibration Report

Serial Number: 101020
Tool Model: Probe

Calibration Casing Diameter: 4.500 in
Calibration Depth: 751.500 ft

Master Calibration, performed Wed May 04 08:47:50 2011:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.011	1.692	0.900	81.196	47.163	1.419
CAL	-0.011	1.941				
5'	-0.011	1.705	0.900	81.196	46.787	1.415
SUM						
S1	-0.011	1.911	0.000	81.196	42.237	0.464
S2	-0.011	1.892	0.000	81.196	42.657	0.468
S3	-0.011	1.785	0.000	81.196	45.213	0.493
S4	-0.011	1.603	0.000	81.196	50.301	0.551
S5	-0.011	1.430	0.000	81.196	56.328	0.620
S6	-0.011	1.420	0.000	81.196	56.749	0.627
S7	-0.011	1.625	0.000	81.196	49.626	0.546
S8	-0.011	1.838	0.000	81.196	43.914	0.480

Internal Reference Calibration, performed Wed May 04 08:48:44 2011:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	-0.011	1.941	-0.011	1.941	1.000	-0.000

Air Zero Calibration, performed Mon May 02 07:13:01 2011:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000