Company	NOBLE ENERGY INC.
Well	LOEFFLER K01-66-1HN
Field	WATTENBERG
County	WELD
State	COLORADO

NABORS
COMPLETION
& PRODUCTION
SERVICES CO.

GAMMA RAY CCL
CEMENT BOND SECTOR VDL

Company	NOBLE ENERGY INC.		
Well	LOEFFLER K01-66-1HN		
Field	WATTENBERG		
County	WELD	State	COLORADO

Location: API #: 0512335834   Other Services

SW/NW

SEC 1 TWP 4N RGE 66W

Permanent Datum	GL	Elevation 4667	Elevation
Log Measured From	KB		K.B. 4683
Drilling Measured From	KB		D.F.
			G.L. 4667

Date	NOVEMBER 10, 2014
Run Number	ONE
Depth Driller	11303
Depth Logger	1500
Bottom Logged Interval	1500
Top Log Interval	SURFACE
Open Hole Size	8-3/4
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	800
Time Well Ready	BAYOU RIG
Time Logger on Bottom	2-3/4 PROBE
Equipment Number	4838
Location	45
Recorded By	GREG NOLAN
Witnessed By	MITCH TRIMBLE

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# J-55	16	634.5
Prot. String				
Production String	7	26# P-110 IC	16	7386.1
Liner	4-1/2	11.6# P-110 IC	7283.1	11288

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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 FOR CHOOSING NCPS!!!!
LOG CORRELATED TO NABORS GAMMA RAY CCL,
CEMENT BOND SECTOR VDL LOG DATED NOVEMBER 26, 2013
WCR 394 & WCR 35, S.3, E INTO
SECOND WELL FROM THE EAST OF 5 WELL PAD

Database File:	loeffler k01-66-1hn third log.db
Dataset Pathname:	pass3
Presentation Format:	sector2
Dataset Creation:	Mon Nov 10 07:22:07 2014 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

Calibration Report

Database File:	loeffler k01-66-1hn third log.db
Dataset Pathname:	pass3
Dataset Creation:	Mon Nov 10 07:22:07 2014 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION Tue Feb 25 11:27:35 2014

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.4000			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:	7.000	in
Calibration Depth:	201.042	ft

Master Calibration, performed Mon Nov 10 07:16:24 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	2.500	1.500	62.165	24.339	1.318
CAL	0.007	2.500				
5'	0.007	2.500	1.500	62.165	24.339	1.318
SUM						
S1	0.007	2.500	0.000	62.165	24.939	-0.183
S2	0.007	2.500	0.000	62.165	24.940	-0.185
S3	0.007	2.500	0.000	62.165	24.940	-0.185
S4	0.007	2.446	0.000	62.165	25.490	-0.187
S5	0.007	2.311	0.000	62.165	26.988	-0.200
S6	0.007	2.305	0.000	62.165	27.059	-0.197
S7	0.007	2.468	0.000	62.165	25.269	-0.187
S8	0.007	2.500	0.000	62.165	24.940	-0.184

Internal Reference Calibration, performed Fri Jan 13 14:30:16 2012:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	2.500	1.000	0.000

Air Zero Calibration, performed Wed Nov 05 09:06:04 2014:

	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