SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy Inc.
Well	WELLS RANCH USX AA 13-08
Field	Wattenberg
County	Weld
State	Colo

Company Noble Energy Inc.
Well WELLS RANCH USX AA 13-08
Field Wattenberg
County Weld State Colo

Location: API #: 05123290600
2022' FNL & 718' FEL
SE NE
SEC 13 TWP 6N RGE 63W

Other Services: Perforate

Permanent Datum	GL	Elevation	4812	Elevation: K.B. 4825 D.F. 4824 G.L. 4812
Log Measured From	KB			
Drilling Measured From	KB			

Date	May 22, 2009	
Run Number	One	
Depth Driller	6927	
Depth Logger	6849	
Bottom Logged Interval	6848	
Top Log Interval	Surface	
Casing Size	4 1/2"	
Casing Weight	11.6#	
Type Fluid	Water	Full
Density / Viscosity	Not Recorded	
Max. Recorded Temp.	223 deg F	
Estimated Cement Top	150	
Time Well Ready	Portable Mast	
Time Logger on Bottom	AM	
Equipment Number	T5 (3344)	2.75 Tool 2 (BLK)
Location	Platteville	
Recorded By	K. Monaghan	
Witnessed By	C. Hohnstein	

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"	24.0#	Surface	550
Prot. String				
Production String	4 1/2"	11.6#	Surface	6908
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# 05-123-29060-00
Correlated to Phoenix Survey Inc's
Compensated Density / Compensated Neutron
Gamma Ray Microlog
Dated: May 14, 2009

Database File:	cblwells ranch usx aa 13-08.db
Dataset Pathname:	pass3
Presentation Format:	nuexbond
Dataset Creation:	Fri May 22 07:58:23 2009 by Log Std Casedhole 08121
Charted by:	Depth in Feet scaled 1:240

0	Line Speed (ft/min)	-300	0	*Amplified Amplitude (mV)*	20
30	Gamma Ray (GAPI)	130	0	*Amplitude (mV)*	100
9	CCL	-0.1			

200 VDL 1200

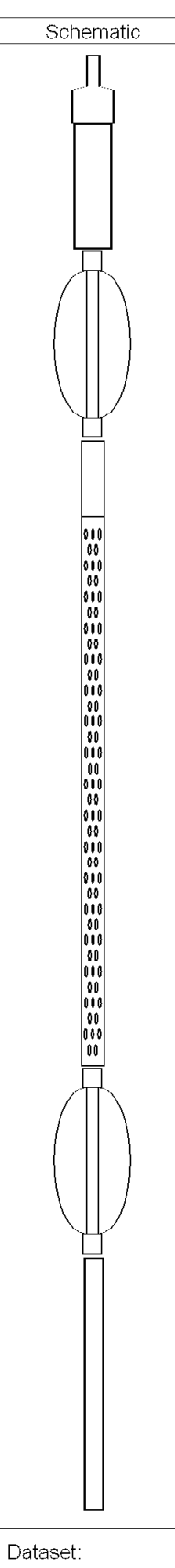
Database File: cblwells ranch usx aa 13-08.db
Dataset Pathname: pass2
Presentation Format: nuexbond
Dataset Creation: Fri May 22 07:42:19 2009 by Log Std Casedhole 08121
Charted by: Depth in Feet scaled 1:240

0	Line Speed (ft/min)	-300	0	Amplified Amplitude (mV)	20
0	Gamma Ray (GAPI)	150	0	Amplitude (mV)	100
9	CCL	-0.1			

200 VDL 1200

0	Line Speed (ft/min)	-300	0	Amplified Amplitude (mV)	20
0	Gamma Ray (GAPI)	150	0	Amplitude (mV)	100
9	CCL	-0.1			

200 VDL 1200

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-STNDRD (1) Standard Cable Head	1.00	1.69	5.00
CCL	18.92		CCL-tekco (234CCL-169) 2 3/4" TEKCO Collar Locator	1.83	2.75	10.00
			CENT-2750-CENT (2750-CENT-LONG) Electric Line Technologies Centrailzer 2.75"	2.75	2.75	10.00
WVF3FT	11.25		SCBL-TEKCO (234B35C-8013) tekco 2 3/4" SCBL tool	9.06	2.75	102.00
WVF5FT	9.25					
WVFCAL	6.42					
			CENT-2750-CENT (2750-CENT-LONG) Electric Line Technologies Centrailzer 2.75"	2.75	2.75	10.00
GR	1.04		GR-TekcoGR (234GR-328) 2 3/4" TEKCO Gamma Ray	3.67	2.75	20.00

Dataset: cblwells ranch usx aa 13-08.db: field/well/run1/pass3
Total Length: 21.06 ft
Total Weight: 157.00 lb
O.D. 2.75 in

Calibration Report

Database File: cblwells ranch usx aa 13-08.db
Dataset Pathname: pass3
Dataset Creation: Fri May 22 07:58:23 2009 by Log Std Casedhole 08121

Gamma Ray Calibration Report

Serial Number:	234GR-328	
Tool Model:	TekcoGR	
Performed:	Thu Aug 02 12:04:45 2007	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	234B35C-8013	
Tool Model:	TEKCO	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	101.075	ft

Master Calibration, performed Fri May 22 07:22:06 2009:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.000	0.000	0.000	32.000	1.400
CAL	0.080	0.075				
5'	0.073	2.500	3.000	71.921	28.403	0.913
SUM						
S1						
S2						
S3						
S4						
S5						
S6						
S7						
S8						

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.080	0.075	1.000	0.000

Air Zero Calibration, performed Fri May 22 07:14:07 2009:

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