J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY
COLLAR CORRELATION LOG

Company NOBLE ENERGY INC.
Well BASHOR PC AA 09-22
Field WATTENBERG
County WELD
State COLORADO

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Well BASHOR PC AA 09-22
Field WATTENBERG
County WELD State COLORADO
Location: API #: 05-123-32643-00
2580' FSL & 1350' FEL
NW SE
SEC. 09 TWP. 6N RGE. 63W
SEC TWP RGE
Other Services NONE

Permanent Datum GROUND LEVEL Elevation 4690
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING
Elevation K.B. 4704 D.F. 4703 G.L. 4690

Date	09-MARCH-2011
Run Number	ONE
Depth Driller	6920
Depth Logger	6818
Bottom Logged Interval	6825
Top Log Interval	1730
Open Hole Size	7 7/8
Type Fluid	WATER
Density / Viscosity	--
Max. Recorded Temp.	230
Estimated Cement Top	1870
Time Well Ready	--
Time Logger on Bottom	--
Equipment Number	2405/YELLOW
Location	BRIGHTON
Recorded By	HAYES
Witnessed By	MR. MITCH 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#	SURFACE	577
Prot. String				
Production String	4.5	11.6#	SURFACE	6905
Liner				

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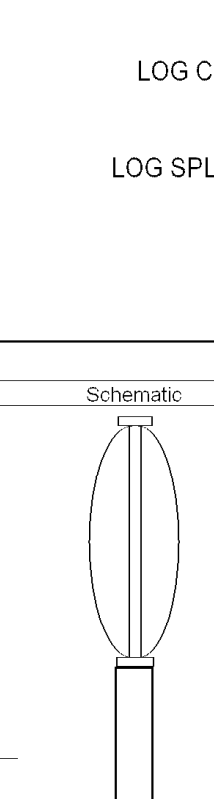
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

LOG CORRELATED TO CD, CN, ML LOG
DATED28-FEBUARY-2011

LOG SPLIT FOR CORRELATION PURPOSES

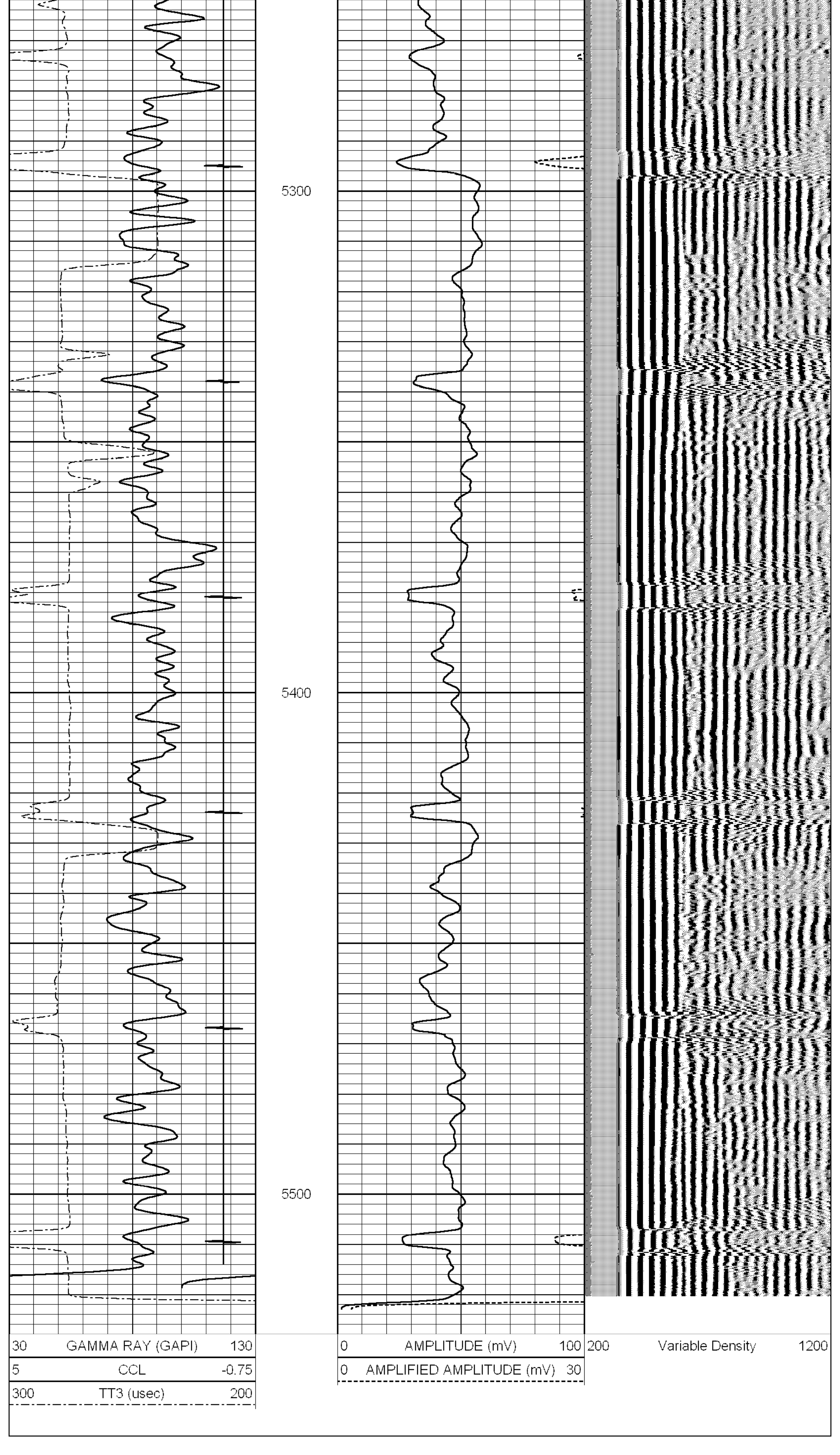


Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CENT-A (1)	3.00	1.69	10.00
CCL	13.46	CCL-TEKCO (TEK101)	1.81	2.75	10.00
GR	11.49	GR-s_t001 (t001)	2.52	1.69	30.00
WVF5	7.34	CBL-3_5 (001)	7.23	2.44	127.00
WVF3	6.34				
		CENT-B (2)	3.00	1.69	10.00

Dataset: bashor pc aa 09-22.db: field/well/run1/pass2
Total Length: 17.56 ft
Total Weight: 187.00 lb
O.D. 2.75 in

Database File: bashor pc aa 09-22.db
Dataset Pathname: pass2
Presentation Format: cblx
Dataset Creation: Wed Mar 09 14:25:21 2011 by Log Std Casedhole 10121
Charted by: Depth in Feet scaled 1:240

30	GAMMA RAY (GAPI)	130	0	AMPLITUDE (mV)	100	200	Variable Density	1200
5	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30			
300	TT3 (usec)	200						



30	GAMMA RAY (GAPI)	130	0	AMPLITUDE (mV)	100	200 Variable Density	1200
5	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30		
300	TT3 (usec)	200					

Database File: bashor pc aa 09-22.db
Dataset Pathname: pass1
Presentation Format: cblx
Dataset Creation: Wed Mar 09 14:04:52 2011 by Log Std Casedhole 10121
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	200	0	AMPLITUDE (mV)	100	200 Variable Density	1200
5	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30		
300	TT3 (usec)	200					

0	GAMMA RAY (GAPI)	200	0	AMPLITUDE (mV)	100	200 Variable Density	1200
5	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30		
300	TT3 (usec)	200					

Calibration Report

Database File: bashor pc aa 09-22.db
Dataset Pathname: pass2
Dataset Creation: Wed Mar 09 14:25:21 2011 by Log Std Casedhole 10121

Cement Bond Log Calibration Report

Serial Number:	001		
Tool Model:	3_5		
Performed:	Wed Mar 09 13:49:52 2011		
Depth:	1429.93 ft		
Casing Diameter:	4.5 in		
	3' Spacing	5' Spacing	
Signal Zero:	3	3	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.04	0	V
Reading in Free Pipe:	2.44949	1.90237	V
Gain:	32.4534	41.1046	
Offset:	1.70186	3	

Gamma Ray Calibration Report

Serial Number:	t001	
Tool Model:	s_t001	
Performed:	Sun Jun 13 13:33:21 1993	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps