J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY
COLLAR CORRELATION LOG

Company NOBLE ENERGY INC.
Well LDS E 25-33D
Field WATTENBERG
County WELD
State COLORADO

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Field WATTENBERG
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Location: API #: 05-123-32109-00
SHL: 2395' FSL & 255' FWL NW/SW
BHL: 1378' FSL & 84' FWL NW/SW
SEC. 25 TWP. 6N RGE. 65W
SEC TWP RGE

Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 4684
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 4697
D.F. 4697
G.L. 4684

Date	16-DECEMBER-2010
Run Number	ONE
Depth Driller	7280
Depth Logger	7233
Bottom Logged Interval	7226
Top Log Interval	1950
Open Hole Size	7 7/8
Type Fluid	WATER
Density / Viscosity	--
Max. Recorded Temp.	240
Estimated Cement Top	2090
Time Well Ready	--
Time Logger on Bottom	--
Equipment Number	2405/YELLOW
Location	BRIGHTON
Recorded By	HAYES
Witnessed By	MR. CASEY RUPPEL

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8 5/8	24#	SURFACE	612
Prot. String				
Production String	4.5	11.6#	SURFACE	7267
Liner				

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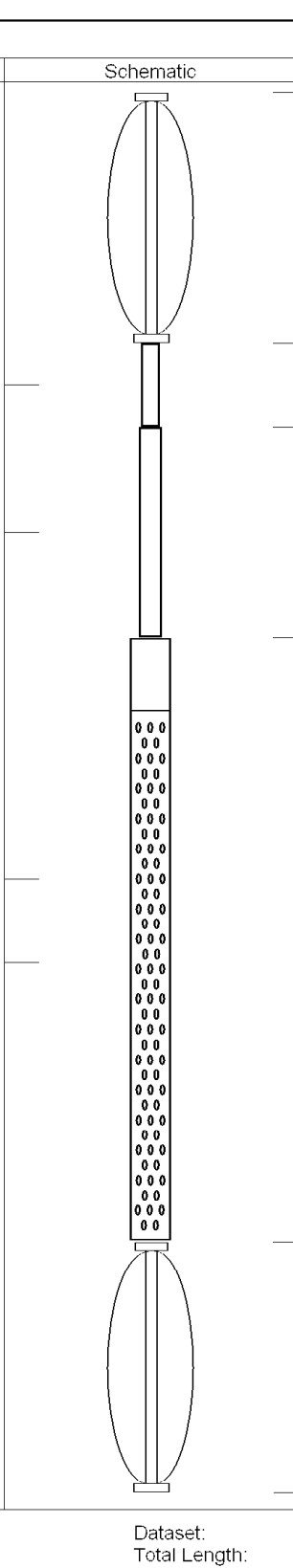
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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
DATED 02-DECEMBER-2010

LOG SPLIT FOR CORRELATION PURPOSES

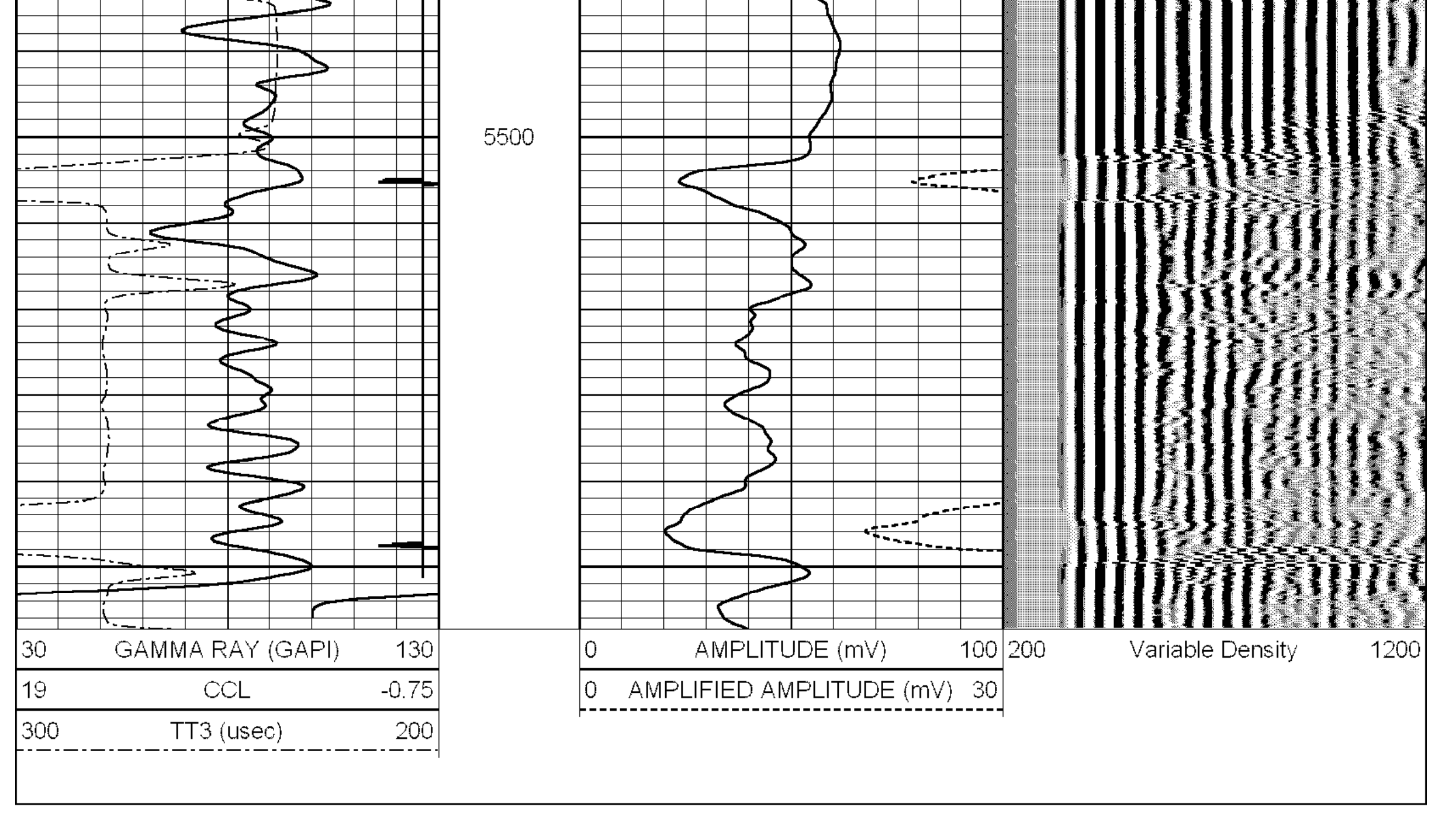


Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CENT-A (1)	3.00	1.69	10.00
CCL	13.25	CCL-GR_1_3/8 (001) 1 3/8 titan ccl	1.00	1.38	11.00
GR	11.49	GR-s_t001 (t001)	2.52	1.69	30.00
WVF5	7.34	CBL-3_5 (001)	7.23	2.44	127.00
WVF3	6.34				
		CENT-B (2)	3.00	1.69	10.00

Dataset: lds e 25-33d.db: field/well/run1/pass2
Total Length: 16.75 ft
Total Weight: 188.00 lb
O.D. 2.44 in

Database File: lds e 25-33d.db
Dataset Pathname: pass2
Presentation Format: cblx
Dataset Creation: Thu Dec 16 12:02:04 2010 by Log Std Casedhole 08121
Charted by: Depth in Feet scaled 1:240

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



Database File: lds e 25-33d.db
Dataset Pathname: pass1
Presentation Format: cblx
Dataset Creation: Thu Dec 16 11:34:39 2010 by Log Std Casedhole 08121
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: lds e 25-33d.db
Dataset Pathname: pass2
Dataset Creation: Thu Dec 16 12:02:04 2010 by Log Std Casedhole 08121

Cement Bond Log Calibration Report

Serial Number:	001		
Tool Model:	3_5		
Performed:	Thu Dec 16 11:20:56 2010		
Depth:	1451.44	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	0	V
Reading in Free Pipe:	2.5	2.02815	V
Gain:	31.2784	38.5554	
Offset:	3	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