J-W WIRELINE COMPANY

SECTOR BOND GAMMA RAY COLLAR LOG

Company	NOBLE ENERGY INC.
Well	STROH H 12-99 HZ
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well STROH H 12-99 HZ
Field WATTENBERG
County WELD State COLORADO

Location: API #: 05-123-30926-00
BHL: 850' FNL & 480' FWL
NW NW
SEC. 12 TWP.3N RGE. 65W
SEC TWP RGE

Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 4834
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 4847
D.F.
G.L. 4834

Date	03-DECEMBER-2010
Run Number	ONE
Depth Driller	10914
Depth Logger	6039
Bottom Logged Interval	6038
Top Log Interval	SURFACE
Open Hole Size	8 3/4
Type Fluid	WATER
Density / Viscosity	--
Max. Recorded Temp.	220
Estimated Cement Top	1010
Time Well Ready	--
Time Logger on Bottom	--
Equipment Number	2405/TECKO MAP
Location	BRIGHTON
Recorded By	HAYES
Witnessed By	MR. BILL MANSFIELD

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 #	SURFACE	692
Prot. String				
Production String	4.5	11.6 #	6041	10899
Liner	7.0	26 #	SURFACE	7267

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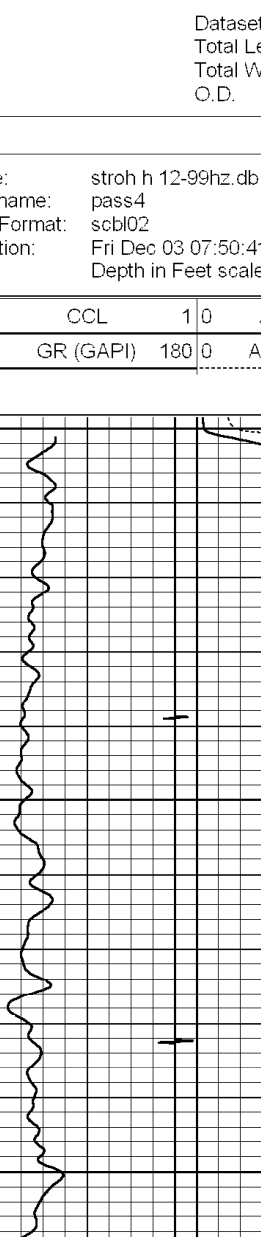
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

NO OPENHOLE LOGS TO CORRELATE

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
CCL	19.57		CCL-275tekco (2.75TEKCO) 2 3/4 TEK CCL Earth Mag	1.96	2.75	20.00
			CENT-TEKCO (101)	2.73	2.75	10.00
TEMP	12.78					
WVFS1	11.49		275CTEKSECWTWSLCANS-275RIB (1239.13 2 3/4" (R.I.B.) TOOL 3FT, 5FT and 8EA RIB SIGNALS 400 DEG "F" @20K PSI With Sliding Cans For Pressure Ballance		2.75	102.00
WVFS2	11.49					
WVFS3	11.49					
WVFS4	11.49					
WVFS5	11.49					
WVFS6	11.49					
WVFS7	11.49					
WVFS8	11.49					
WVF3FT	10.74					
WVFCAL	10.74					
WVFSYNC	10.74					
WVF5FT	9.74					
WVFTEMP	6.41					
			CENT-TEKCO (101)	2.73	2.75	10.00
			GR-TEKCO (101sgr)	3.68	2.75	30.00
GR	1.06					

Dataset: stroh h 12-99hz.db: field/well/run1/pass4
Total Length: 20.22 ft
Total Weight: 172.00 lb
O.D. 2.75 in

Database File: stroh h 12-99hz.db
Dataset Pathname: pass4
Presentation Format: scbl02
Dataset Creation: Fri Dec 03 07:50:41 2010 by Log Std Casedhole 08121
Charted by: Depth in Feet scaled 1:240

-9 CCL 1	0 AMP (mV) 100	-2 AMPAVG 200	200 VDL 1200	1 Cement Map 8
0 GR (GAPI) 180	0 AMPx5 (mV) 20	-2 AMPMAX 200		
		-2 AMPMIN 200		

Calibration Report

Database File: stroh h 12-99hz.db
Dataset Pathname: pass4
Dataset Creation: Fri Dec 03 07:50:41 2010 by Log Std Casedhole 08121

Gamma Ray Calibration Report

Serial Number:	101sgr	
Tool Model:	TEKCO	
Performed:	Mon Jun 14 15:52:18 2010	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	1234	
Tool Model:	275RIB	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	698.575	ft

Master Calibration, performed Fri Dec 03 07:25:27 2010:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	2.305	3.000	62.165	25.669	3.000
CAL	0.000	0.028				
5'	0.000	2.500	3.000	62.165	23.666	3.000
SUM						
S1	0.000	1.031	0.000	100.000	96.958	0.000
S2	0.000	0.814	0.000	100.000	122.885	0.000
S3	0.000	0.476	0.000	100.000	209.927	0.000
S4	0.000	0.301	0.000	100.000	332.144	0.000
S5	0.000	0.309	0.000	100.000	323.360	0.000
S6	0.000	0.358	0.000	100.000	279.533	0.000
S7	0.000	0.523	0.000	100.000	191.205	0.000
S8	0.000	0.797	0.000	100.000	125.498	0.000

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	0.000	0.028	1.000	0.000

Air Zero Calibration, performed Mon Sep 11 12:40:00 2006:

	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

Temperature Calibration Report

Serial Number:	1234	
Tool Model:	275RIB	
Performed:	Tue Jan 13 08:08:36 2009	
	Reference	Reading
Low Reference:	75.00 degF	300.00 usec
High Reference:	400.00 degF	1282.00usec
Gain:	0.33	
Offset:	-30.00	
Delta Spacing	1	