J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY
COLLAR LOG

Company	NOBLE ENERGY INC.
Well	GUTTERSEN STATE D 16-65-1HN
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well GUTTERSEN STATE D 16-65-1HN
Field WATTENBERG
County WELD State COLORADO

Location: API #: 05-123-35209-00
SHL: NE/SE
BHL: 2310' FSL & 535' FWL
SEC. 16 TWP. 3N RGE. 64W
SEC TWP RGE

Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 4791
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 4804
D.F. 4804
G.L. 4791

Date	21-AUGUST-2012
Run Number	ONE
Depth Driller	11090
Depth Logger	7103
Bottom Logged Interval	7097
Top Log Interval	SURFACE
Open Hole Size	8 3/4
Type Fluid	WATER
Density / Viscosity	--
Max. Recorded Temp.	NOT RECORDED
Estimated Cement Top	1208
Time Well Ready	--
Time Logger on Bottom	--
Equipment Number	2405/WHITE
Location	BRIGHTON
Recorded By	HAYES
Witnessed By	MR. BILL MANSFIELD

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9 5/8	36#	SURFACE	771.2
Prot. String				
Production String	7.0	23#	SURFACE	7226
Liner	4.5	11.6#	7107.4	11075

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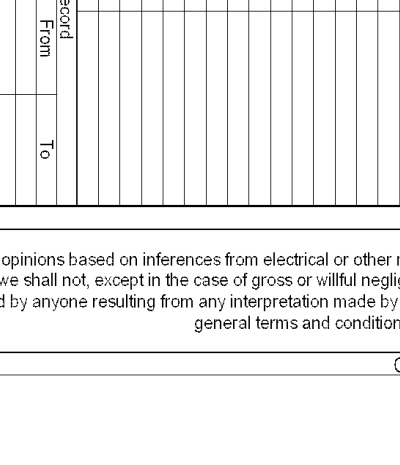
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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



Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CENT-A (1)	3.00	1.69	10.00
CCL	14.06		CCL-275tekco (2.75TEKCO) 2 3/4 TEK CCL Earth Mag	1.96	2.75	20.00
GR	11.49		GR-s_t001 (t001)	2.52	1.69	30.00
WVF5 WVF3	7.34 6.34		CBL-3_5 (001)	7.23	2.44	127.00
			CENT-B (2)	3.00	1.69	10.00

Dataset: guttersen state d 16-65-1hn.db: field/well/run1/pass3
Total Length: 17.71 ft
Total Weight: 197.00 lb
O.D. 2.75 in

Database File: guttersen state d 16-65-1hn.db
Dataset Pathname: pass3
Presentation Format: cblx
Dataset Creation: Tue Aug 21 18:43:56 2012 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: guttersen state d 16-65-1hn.db
Dataset Pathname: pass3
Dataset Creation: Tue Aug 21 18:43:56 2012 by Log SCH 111116

Cement Bond Log Calibration Report

Serial Number:	001		
Tool Model:	3_5		
Performed:	Tue Aug 21 18:23:46 2012		
Depth:	828.117	ft	
Casing Diameter:	7	in	
	3' Spacing	5' Spacing	
Signal Zero:	3	3	mV
Calibrated Amplitude:	62.1651	62.1651	mV
Reading at Signal Zero:	0	0	V
Reading in Free Pipe:	2.5	2.32585	V
Gain:	23.666	25.438	
Offset:	3	3	

Gamma Ray Calibration Report

Serial Number:	t001	
Tool Model:	s_t001	
Performed:	Sun Jun 13 14:33:21 1993	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps