Company	MULL DRILLING COMPANY, INC.
Well	#2-A THORNBURG "B"
Field	WILDCAT
County	NESS
State	KANSAS
Other Services	NONE
Permanent Datum	GL
Log Measured From	KB
Drilling Measured From	KB
Elevation	KB 2,100 GL 2,097
Date	10-Feb-2013
Run Number	ONE
Depth Driller	4,700
Depth Logger	4,696
Bottom Log Interval	4,690
Top Log Interval	3,000
Casing Driller	8 5/8 @ 224
Casing Logger	224
Bit Size	7 7/8
Type Fluid in Hole	GEL & CHEMICAL
Density / Viscosity	9.0 / 50
PH / Fluid Loss	10.0 / 6.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp.	1.0 @ 70
Rmf @ Meas. Temp.	.75 @ 70
Rmc @ Meas. Temp.	1.5 @ 70
Source: Rmf / Rmc	MEASURED / CALC
Rm @ BHT	.61 @ 120
Time Since Circulation	9 HRS
Time Logger On Bottom	23:45
Equipment / Location	400 / EAST
Recorded By	ROBERT
Witnessed By	MR. BRAD MULL

DUAL SPACED CEMENT BOND LOG

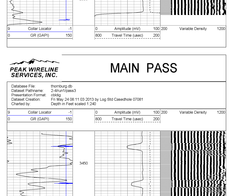
PEAK WIRELINE SERVICES, INC.

CASTOR#75

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 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 forth in our current Price Schedule.

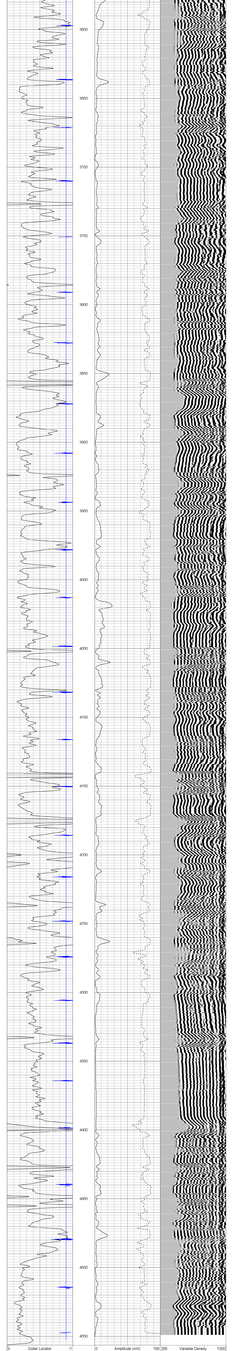
PORT COLLAR

Database File thornburg.db
Dataset Pathname 2-shortspaced
Presentation Format cbl3sg
Dataset Creation Fri May 24 08:18:15 2013 by Log Std Casedhole 07081
Charted by Depth in Feet scaled 1:240



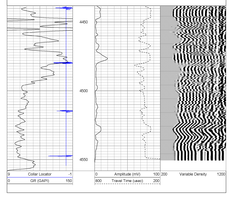
MAIN PASS

Database File thornburg.db
Dataset Pathname 2-shortspaced
Presentation Format cbl3sg
Dataset Creation Fri May 24 08:11:03 2013 by Log Std Casedhole 07081
Charted by Depth in Feet scaled 1:240



REPEAT SECTION

Database File thornburg.db
Dataset Pathname 2-shortspaced
Presentation Format cbl3sg
Dataset Creation Fri May 24 08:07:45 2013 by Log Std Casedhole 07081
Charted by Depth in Feet scaled 1:240



Database File thornburg.db
Dataset Pathname 2-shortspaced
Dataset Creation Fri May 24 08:16:10 2013 by Log Std Casedhole 07081

Calibration Report

Gamma Ray Calibration Report

Serial Number	6910GGR
Tool Model	PROBE
Performed	Tue May 14 08:27:36 2013
Calibration Value	1.0 GAPI
Background Reading	1.0 cps
Calibration Reading	1.0 cps
Sensitivity	1.0000 GAPI/cps

Cement Bond Log Calibration Report

Serial Number	5396BHGR		
Tool Model	PHS6CTDGAM		
Performed	Fri May 24 07:11:52 2013		
Depth	3441.22	ft	
Casing Diameter	5.5	in	
	3 Spacing	5 Spacing	
Spring Zero	0.25	0	mV
Calibrated Amplitude	71.921	71.521	mV
Calibrated Travel Time	2.0000000152	2.0000000098	V
Reading in Free Pipe	2.11078	2.08801	V
Gain	33.7024	34.569	
Offset	0.410954	0.274426	