Company	Noble Energy INC.
Well	BASHOR PC AA 17-17
Field	Wattenberg
County	Weld
State	Colorado

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.		
Well	BASHOR PC AA 17-17		
Field	Wattenberg		
County	Weld	State	Colorado

Location: API # : 051233235700
1390' FNL & 1350' FEL
SW NE
SEC 17 TWP 6N RGE 63W

Other Services

Permanent Datum	GL	Elevation	4683	Elevation
Log Measured From	KB 13'			K.B. 4696
Drilling Measured From	KB			D.F. 4695 G.L. 4683

Date	November 18, 2010
Run Number	One
Depth Driller	6930
Depth Logger	6837
Bottom Logged Interval	6836
Top Log Interval	1130
Casing Size	4 1/2"
Type Fluid	Water
Max. Recorded Temp.	232 deg F
Estimated Cement Top	1882
Time Well Ready	Mast Truck
Time Logger On Bottom	AM
Unit Number	3344
Tool Size / ID Number	2.75 Tool 1 BLK
Location	Platteville, CO
Recorded By	K. Monaghan
Witnessed By	M. Trimble

Borehole Record			Tubing Record		
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	4 1/2"	11.6 lb/ft M-80	Surface	6921
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

Thank You For Choosing Superior Well Services!!!
API# 05-123-32357-00
Correlated to P.S.I's
Compensated Density / Compensated Neutron / Gamma Ray Microlog
Dated: November 8, 2010
Directions: Hwy 392 & CR 61.5
NE 1MI, S 50' PAST TANK BATTERY, E 2/10, S INTO

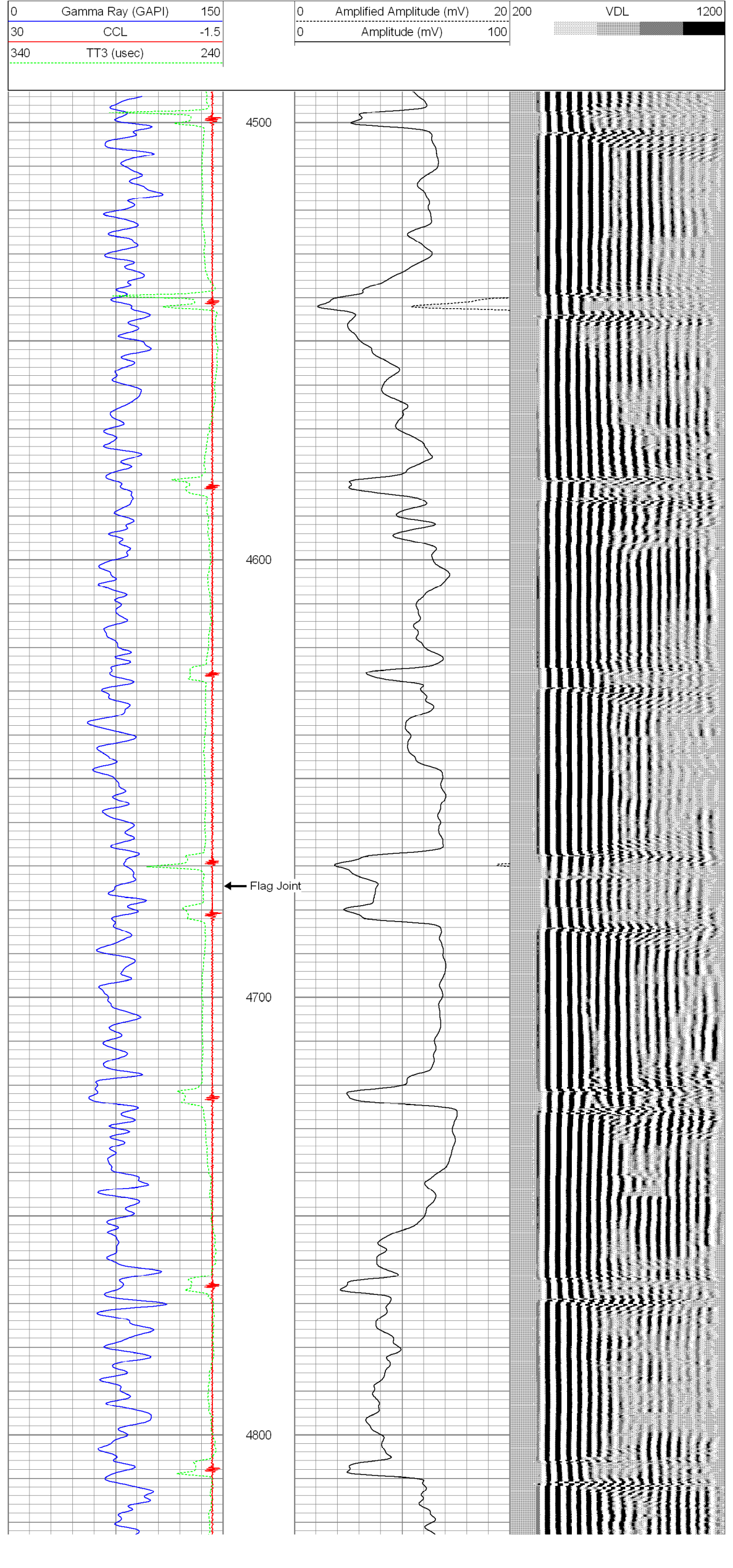
Database File:	cblbashor pc aa 17-17.db
Dataset Pathname:	pass4
Presentation Format:	nuexbond
Dataset Creation:	Thu Nov 18 08:28:32 2010 by Log Std Casedhole 10081
Charted by:	Depth in Feet scaled 1:240

30	Gamma Ray (GAPI)	130	0	Amplified Amplitude (mV)	20	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

30	Gamma Ray (GAPI)	130	0	Amplified Amplitude (mV)	20	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

Database File:	cblbashor pc aa 17-17.db
Dataset Pathname:	pass3
Presentation Format:	nuexbond
Dataset Creation:	Thu Nov 18 08:06:49 2010 by Log Std Casedhole 10081
Charted by:	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0	Amplified Amplitude (mV)	20	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

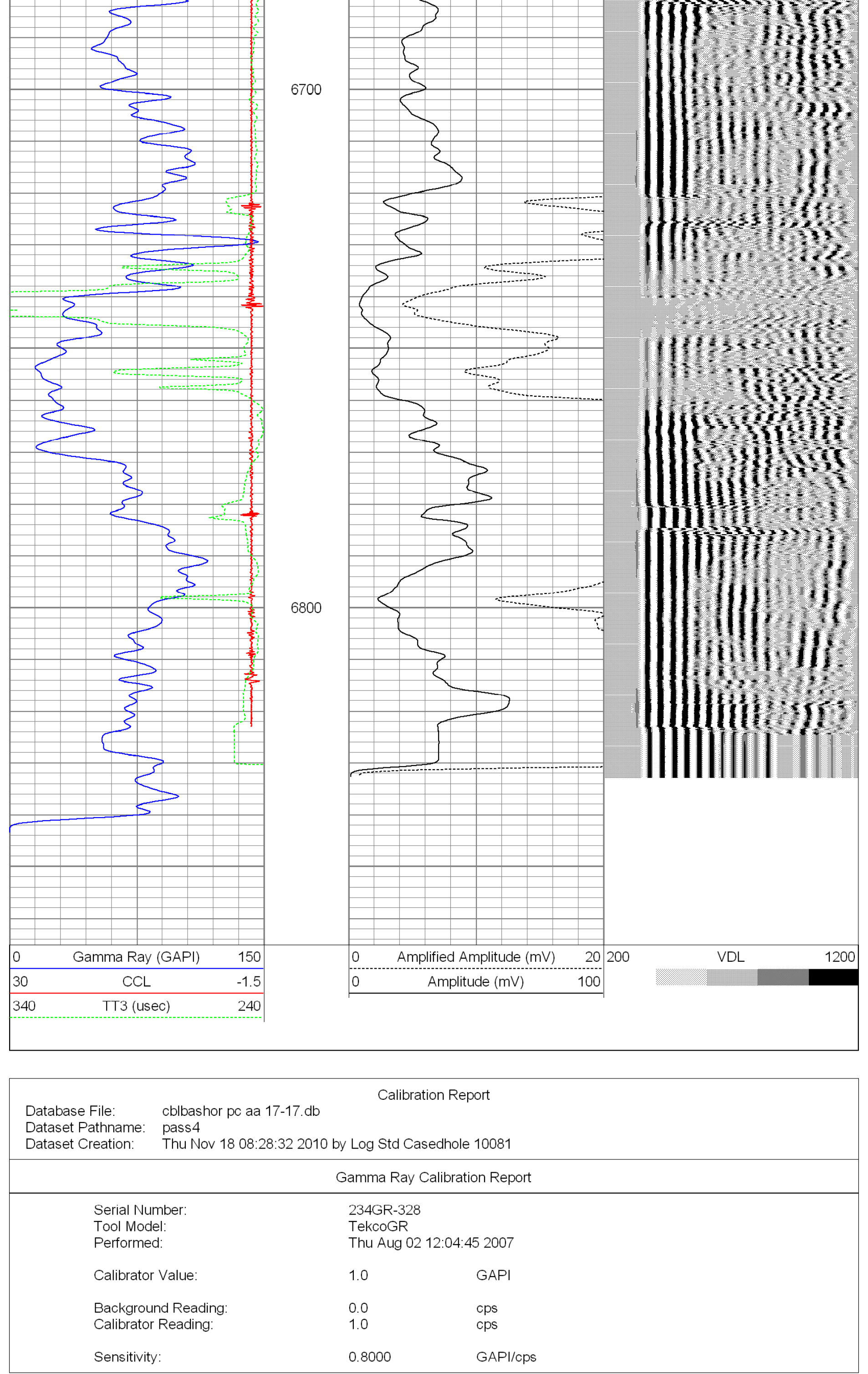


SUPERIOR WELL SERVICES

BASHOR PC AA 17-17

(REPEAT SECTION)

Database File: cblbashor pc aa 17-17.db
Dataset Pathname: pass2
Presentation Format: nuexbond
Dataset Creation: Thu Nov 18 08:02:53 2010 by Log Std Casedhole 10081
Charted by: Depth in Feet scaled 1:240



Calibration Report

Database File: cblbashor pc aa 17-17.db
Dataset Pathname: pass4
Dataset Creation: Thu Nov 18 08:28:32 2010 by Log Std Casedhole 10081

Gamma Ray Calibration Report

Serial Number:	234GR-328	
Tool Model:	TekcoGR	
Performed:	Thu Aug 02 12:04:45 2007	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	234B35C-8013	
Tool Model:	TEKCO	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	543.700	ft

Master Calibration, performed Thu Nov 18 07:46:31 2010:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.010	2.468	0.500	81.196	32.571	0.821
CAL	-0.013	0.842				
5'	-0.009	2.494	0.500	81.196	32.237	0.790
SUM						
S1						
S2						
S3						
S4						
S5						
S6						
S7						
S8						

Internal Reference Calibration, performed Thu Nov 18 07:41:39 2010:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.013	0.842	1.000	0.000

Air Zero Calibration, performed Fri Oct 22 10:38:31 2010:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1			
S2			
S3			
S4			
S5			
S6			
S7			
S8			