SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy Inc.
Well	BERG #01
Field	Wattenberg
County	Weld
State	Colorado

Company Noble Energy Inc.

Well BERG #01

Field Wattenberg

County Weld State Colorado

Location: API # : 051231128000

NE NE

SEC 15 TWP 6N RGE 66W

Other Services

Permanent Datum	GL	Elevation	4790
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4790
D.F.
G.L. 4777

Date	October 26, 2009		
Run Number	One		
Depth Driller			
Depth Logger	6900		
Bottom Logged Interval	6899		
Top Log Interval	1720		
Casing Size	4 1/2"	11.6#	
Type Fluid	Water		
Density / Viscosity	Not Recorded		
Max. Recorded Temp.	Not Recorded		
Estimated Cement Top	6529		
Time Well Ready	AM		
Time Logger on Bottom	AM		
Equipment Number	T5 (3344)	2.75 Tool 1 BLK	
Location	Platteville, CO		
Recorded By	K. Monaghan		
Witnessed By	C. Ruppel		

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8 5/8"	24#	Surface	330
Prot. String				
Production String	4 1/2"	11.6 #	Surface	
Liner				

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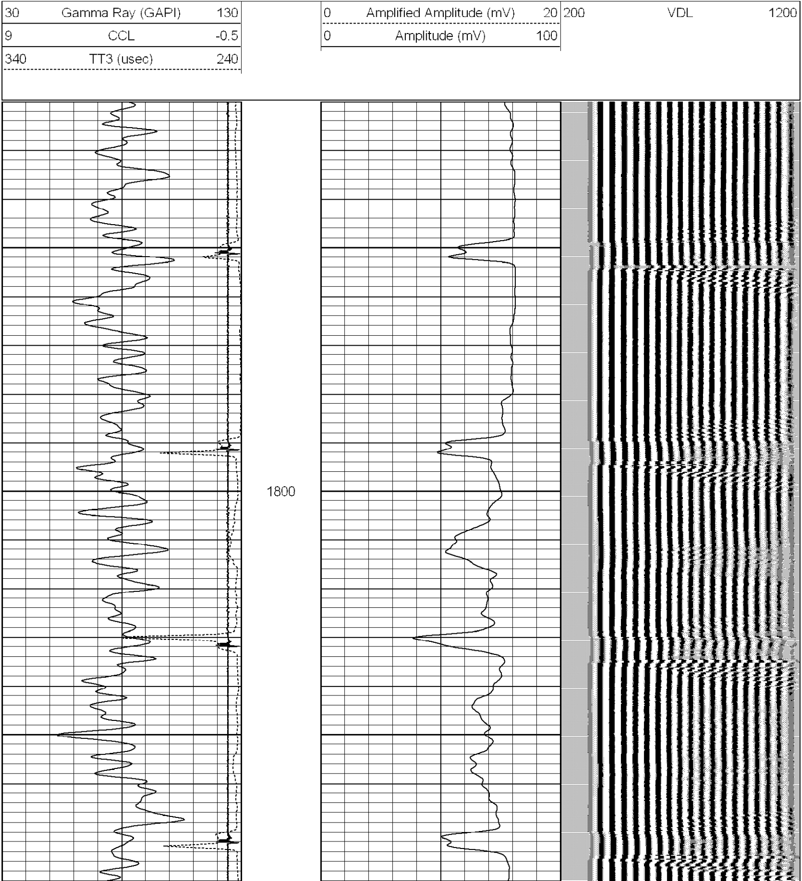
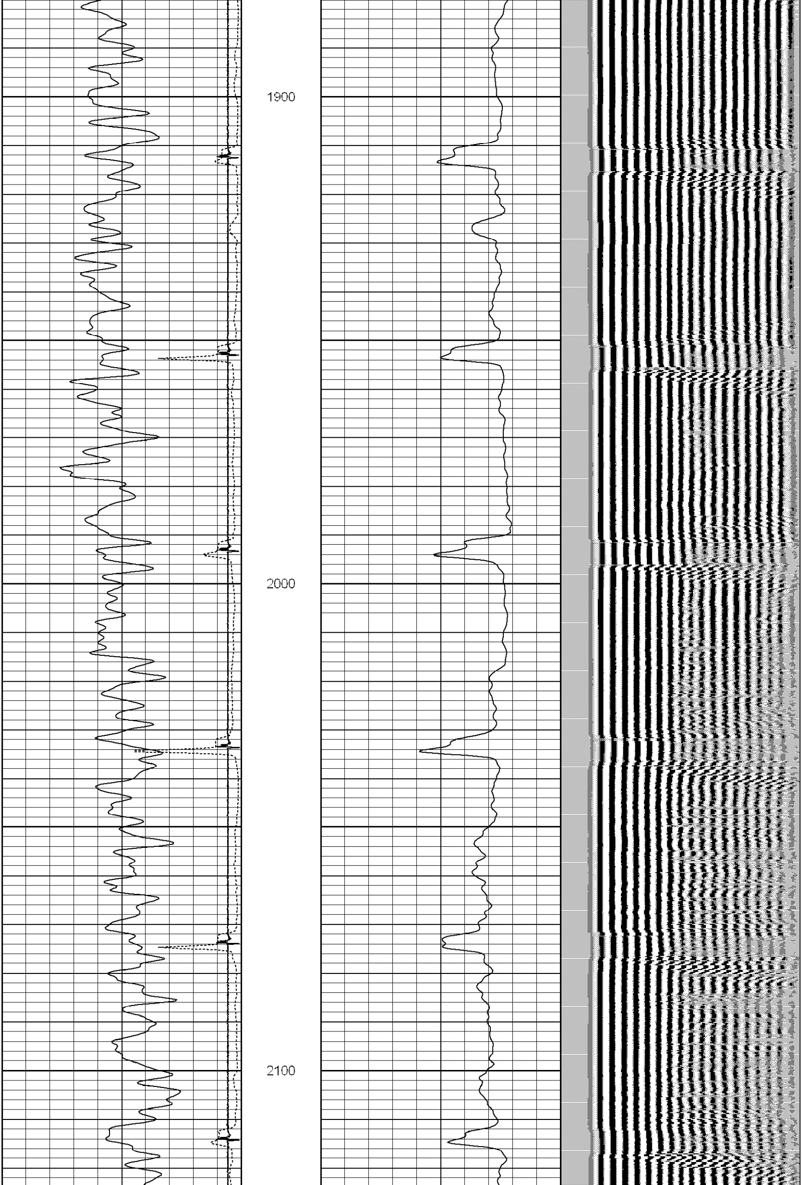
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

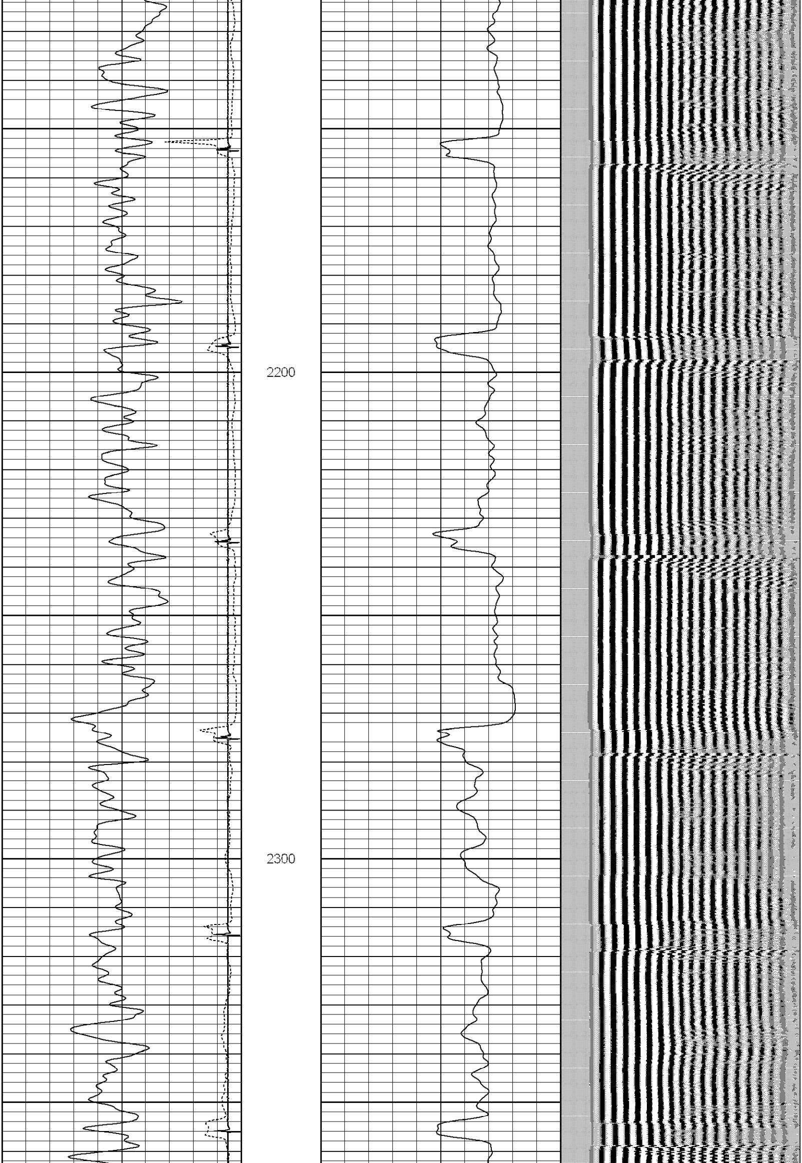
Comments

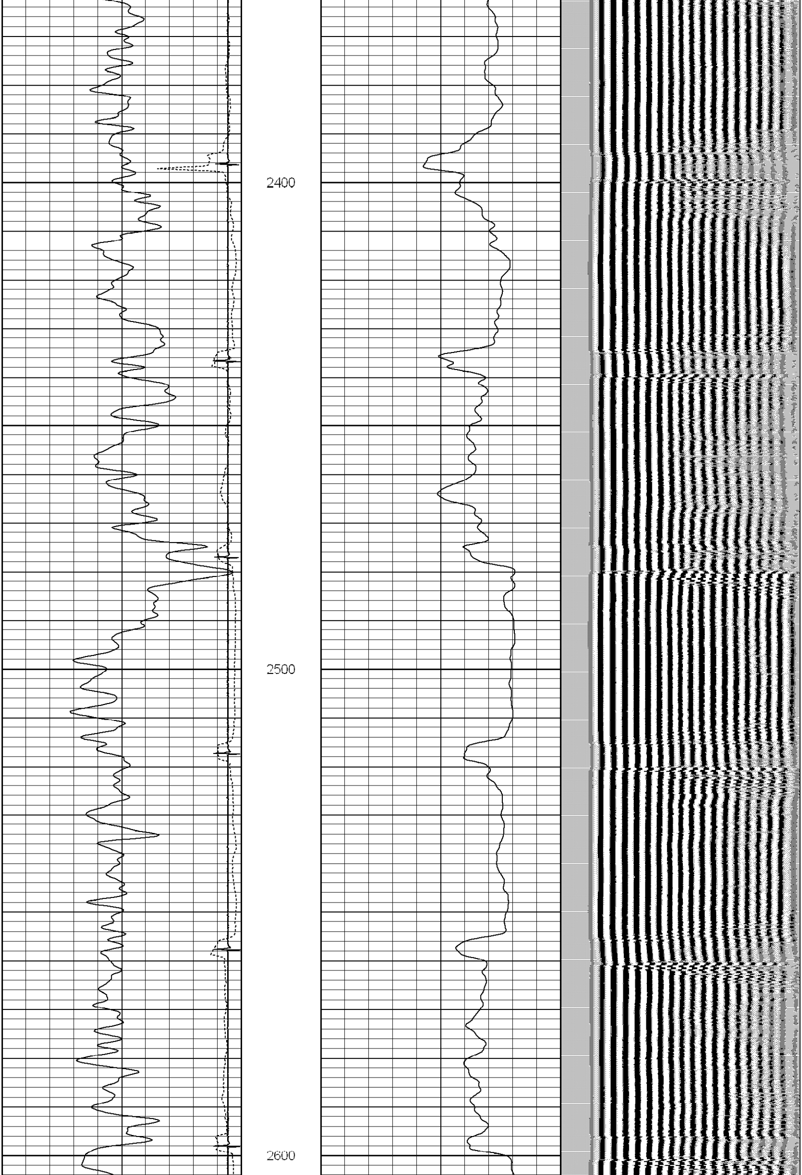
Thank You For Choosing Superior Well Services!!!
API# 05-123-11280-00
LOG NOT CORRELATED!! DID NOT HAVE ANY LOG CASED/OPEN HOLE
TO CORRELATE WITH.

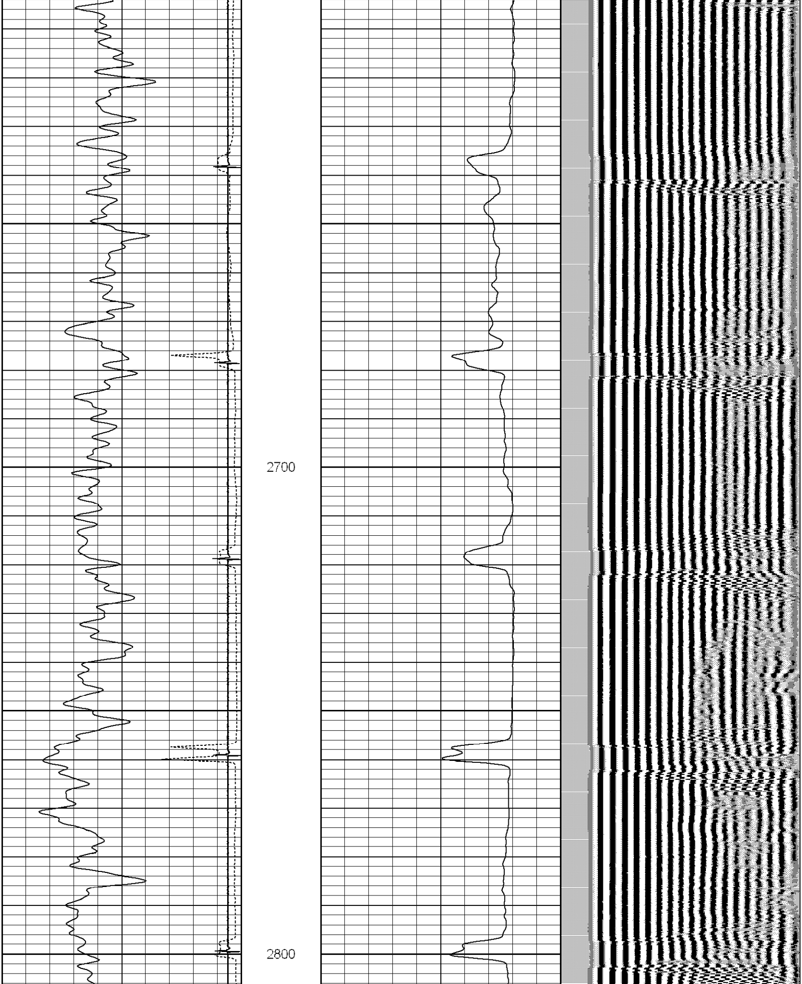
Database File:	cblberg #1.db
Dataset Pathname:	pass5
Presentation Format:	nuexbond
Dataset Creation:	Mon Oct 26 11:33:32 2009 by Log Std Casedhole 09061
Charted by:	Depth in Feet scaled 1:240

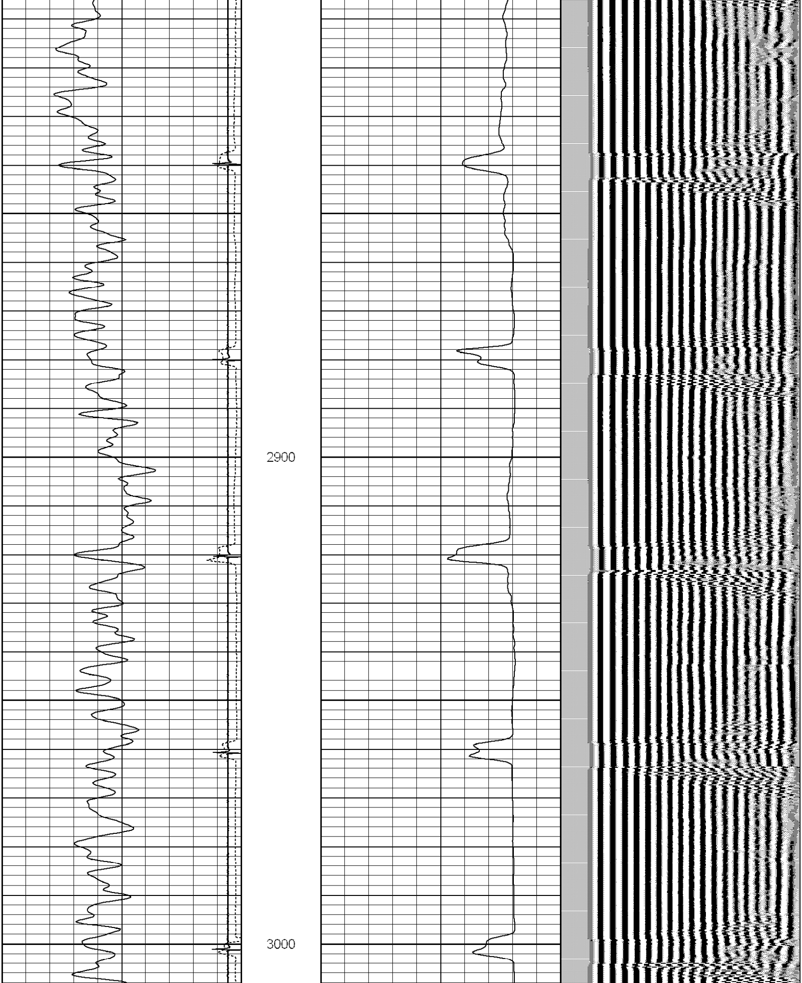


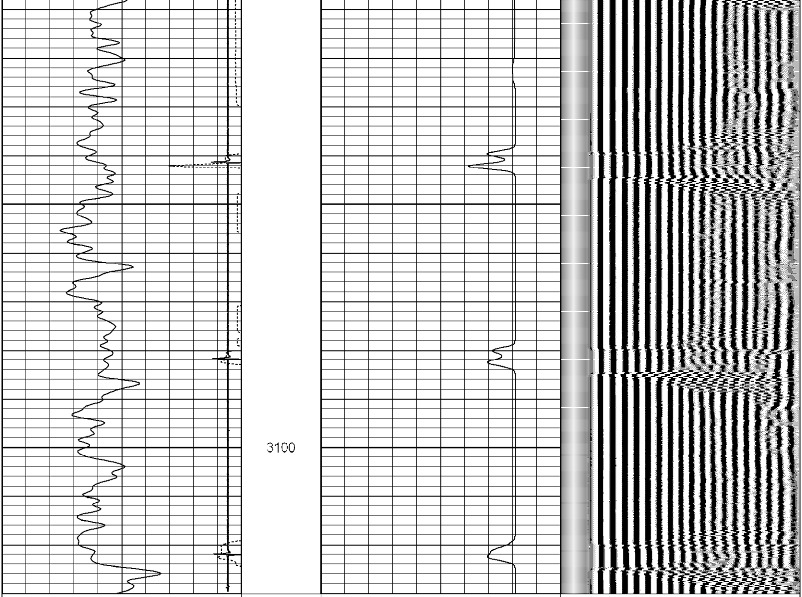












30 Gamma Ray (GAPI) 130
9 CCL -0.5
340 TT3 (usec) 240

0 Amplified Amplitude (mV) 20
0 Amplitude (mV) 100

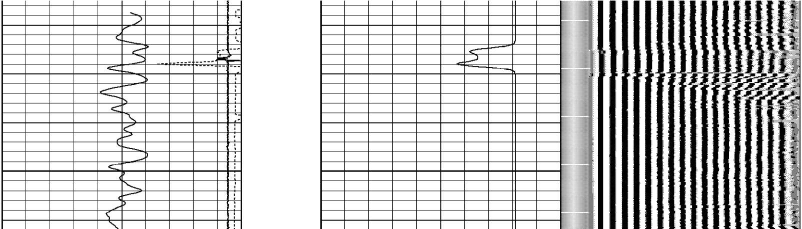
200 VDL 1200

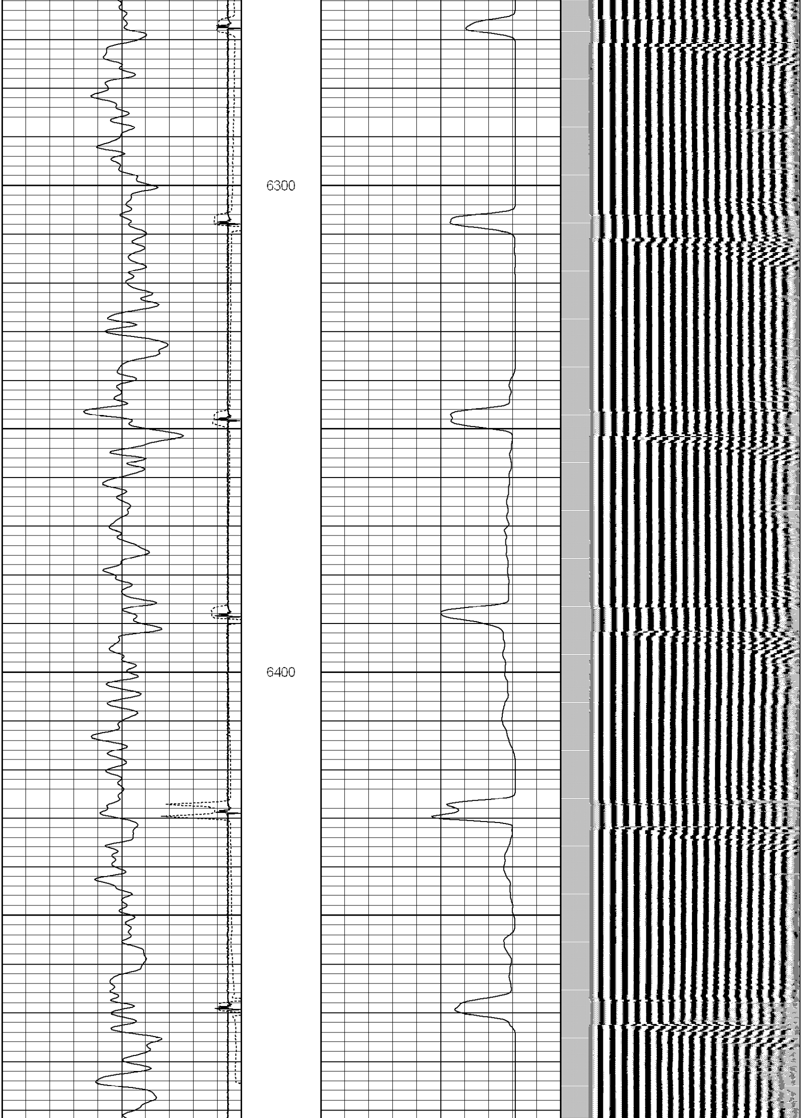
Database File: cblberg #1.db
Dataset Pathname: pass4
Presentation Format: nuexbond
Dataset Creation: Mon Oct 26 11:19:17 2009 by Log Std Casedhole 09061
Charted by: Depth in Feet scaled 1:240

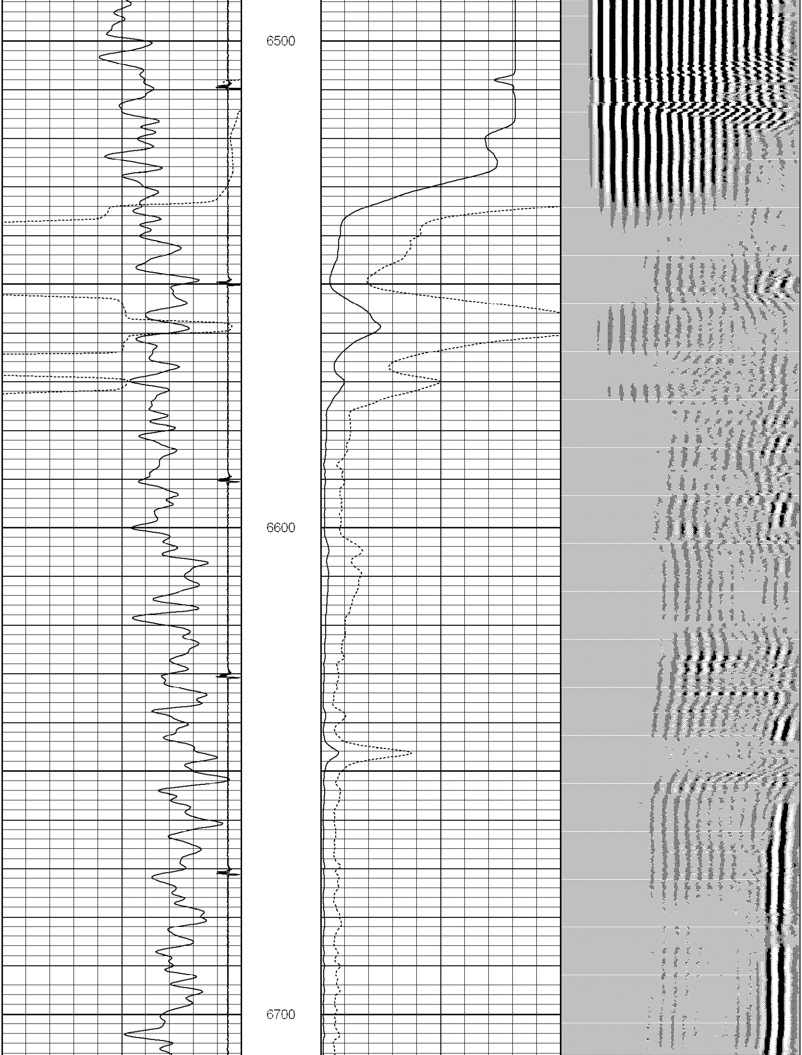
0 Gamma Ray (GAPI) 150
9 CCL -0.5
340 TT3 (usec) 240

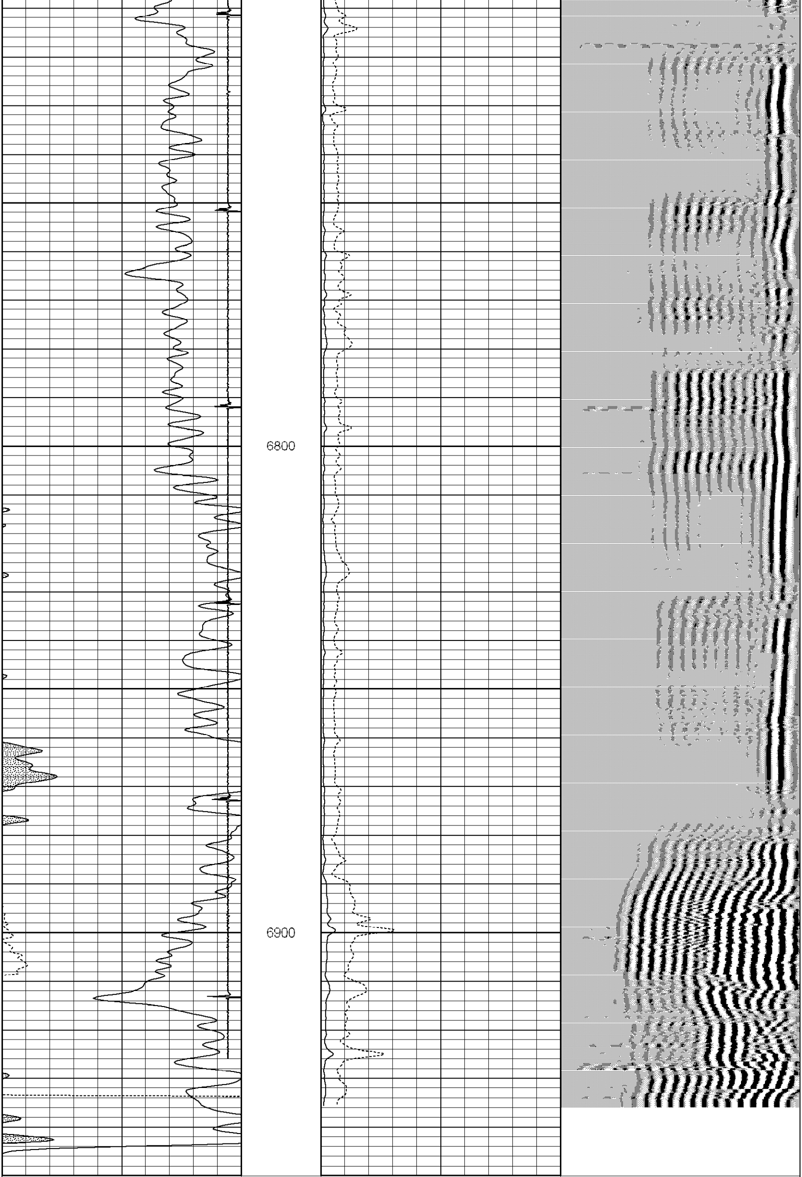
0 Amplified Amplitude (mV) 20
0 Amplitude (mV) 100

200 VDL 1200

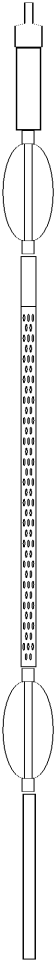








0	Gamma Ray (GAPI)	150
9	CCL	-0.5
340	TT3 (usec)	240
0	Amplified Amplitude (mV)	20
0	Amplitude (mV)	100
200	VDL	1200

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-STNDRD (1) Standard Cable Head	1.00	1.69	5.00
CCL	18.92		CCL-tekco (234CCL-169) 2 3/4" TEKCO Collar Locator	1.83	2.75	10.00
			CENT-2750-CENT (2750-CENT-LONG) Electric Line Technologies Centrailzer 2.75"	2.75	2.75	10.00
WVF3FT	11.25		SCBL-TEKCO (234B35C-8013) tekco 2 3/4" SCBL tool	9.06	2.75	102.00
WVF5FT	9.25					
WVFCAL	6.42					
			CENT-2750-CENT (2750-CENT-LONG) Electric Line Technologies Centrailzer 2.75"	2.75	2.75	10.00
			GR-TekcoGR (234GR-328) 2 3/4" TEKCO Gamma Ray	3.67	2.75	20.00
GR	1.04					

Dataset: cblberg #1.db: field/well/run1/pass1
Total Length: 21.06 ft
Total Weight: 157.00 lb
O.D. 2.75 in

Calibration Report

Database File: cblberg #1.db
Dataset Pathname: pass2
Dataset Creation: Mon Oct 26 11:13:04 2009 by Log Std Casedhole 09061

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: 1769.475 ft

Master Calibration, performed Mon Oct 26 11:12:24 2009:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.000	0.000	0.000	32.000	1.200
CAL	1.418	1.409				
5'	-0.005	2.500	0.100	81.196	32.374	0.260
SUM						
S1						
S2						
S3						
S4						
S5						
S6						
S7						
S8						

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	1.418	1.409	1.000	0.000

Air Zero Calibration, performed Mon Oct 26 10:49:52 2009:

	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			