NABORS

COMPLETION & PRODUCTION SERVICES CO.

GAMMA RAY CCL CEMENT BOND VDL

Company	NOBLE ENERGY INC.
Well	TIMBRO LC13-76HN
Field	WATTENBERG
County	WELD
State	COLORADO

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Well TIMBRO LC13-76HN
Field WATTENBERG
County WELD State COLORADO

Location: API #: 0512336657

BHL: 660' FNL & 1980' FWL
NE/NW

SEC 24 TWP 9N RGE 59W

Other Services

Permanent Datum	GL	Elevation	4860
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4884
D.F.
G.L. 4860

Date	JUNE 24, 2013		
Run Number	ONE		
Depth Driller	10420		
Depth Logger	6388		
Bottom Logged Interval	6388		
Top Log Interval	SURFACE		
Open Hole Size	8-3/4		
Type Fluid	WATER		
Density / Viscosity	N/A		
Max. Recorded Temp.	238°F		
Estimated Cement Top	680		
Time Well Ready	PORTABLE MAST		
Time Logger on Bottom	2-3/4 PROBE 110803		
Equipment Number	4838		
Location	45		
Recorded By	GREG NOLAN		
Witnessed By	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# J-55	24	635
Prot. String				
Production String	7	26# P-110	24	6463.7
Liner	4-1/2	11.6# P-110	6371.1	10405

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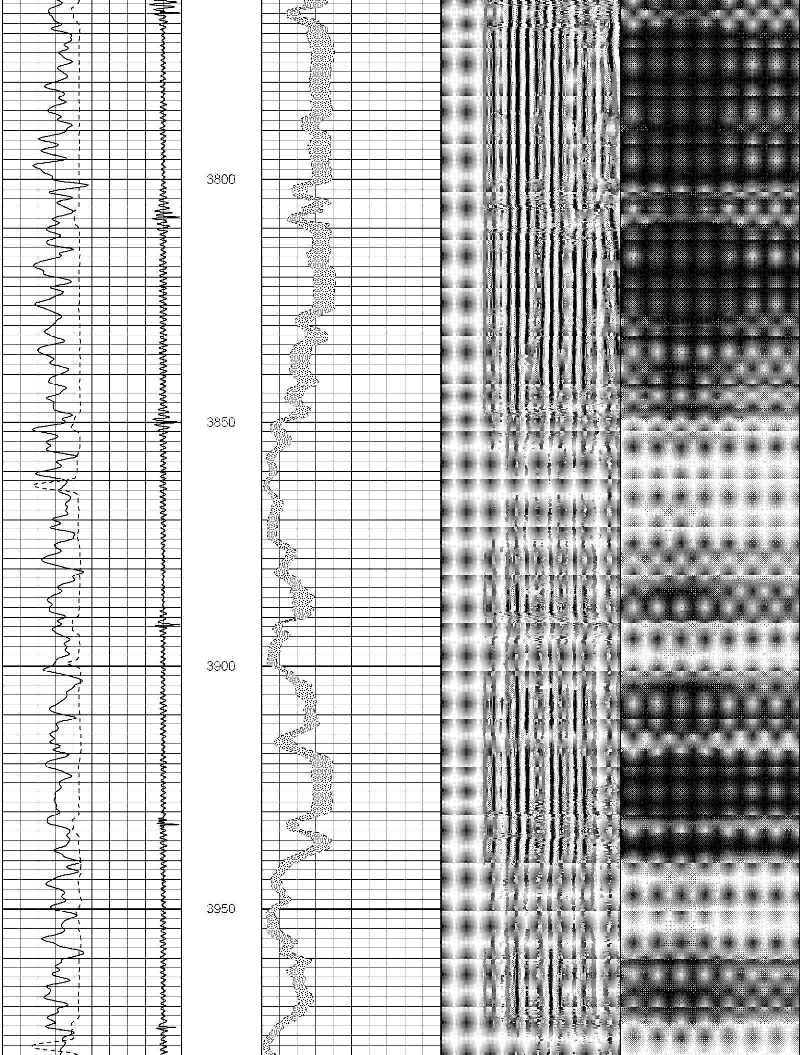
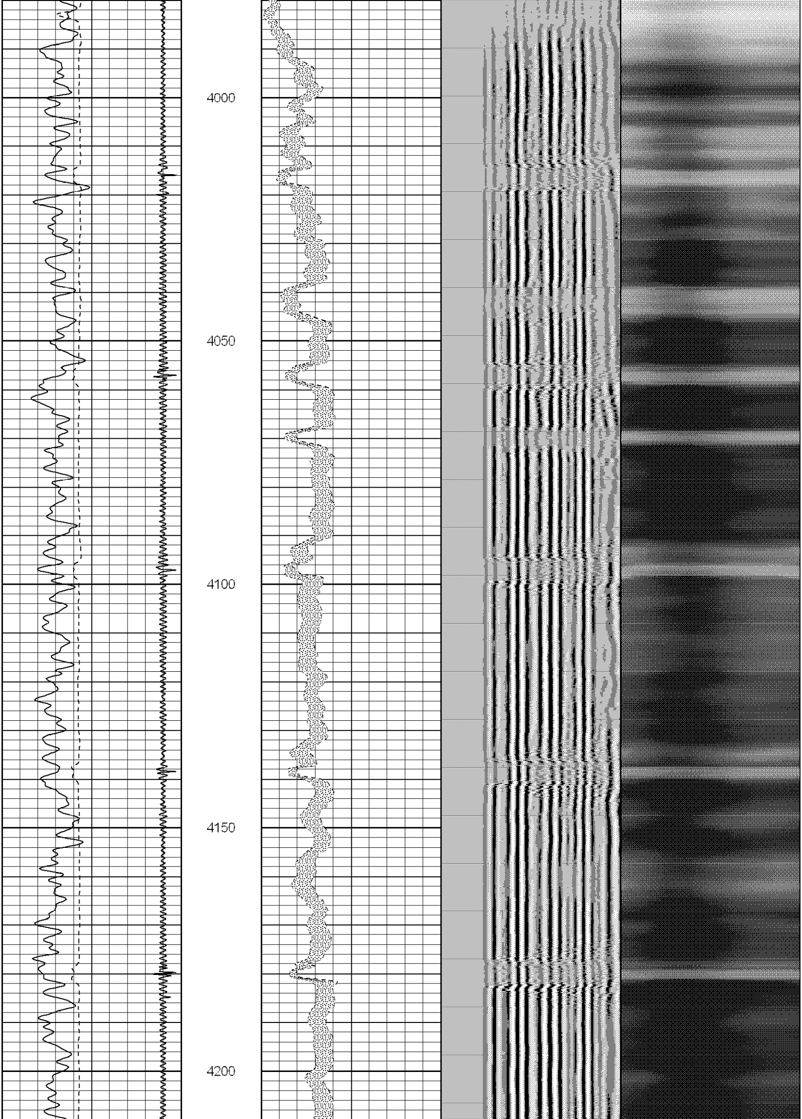
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

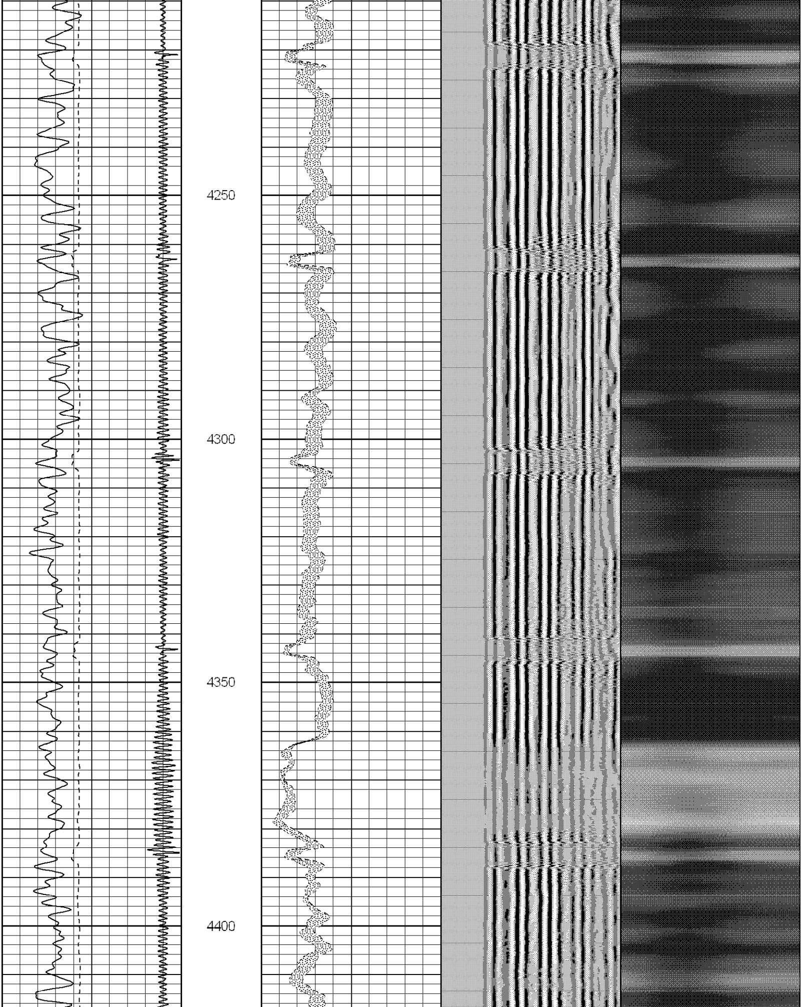
Comments

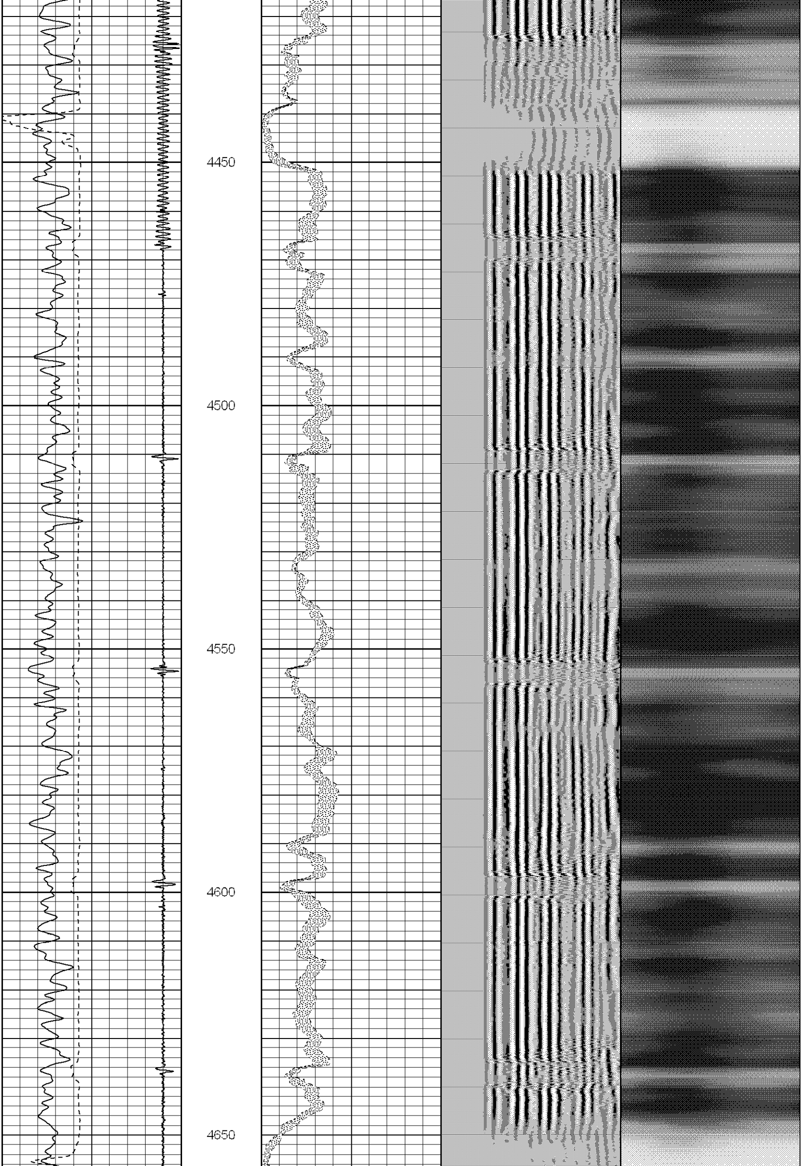
THANK YOU FOR CHOOSING NCPS!!!
LOG NOT CORRELATED
WCR 119 & WCR 104, N1, E.75, S1, W.5, S INTO
SECOND WELL FROM THE WEST OF A 4 WELL PAD

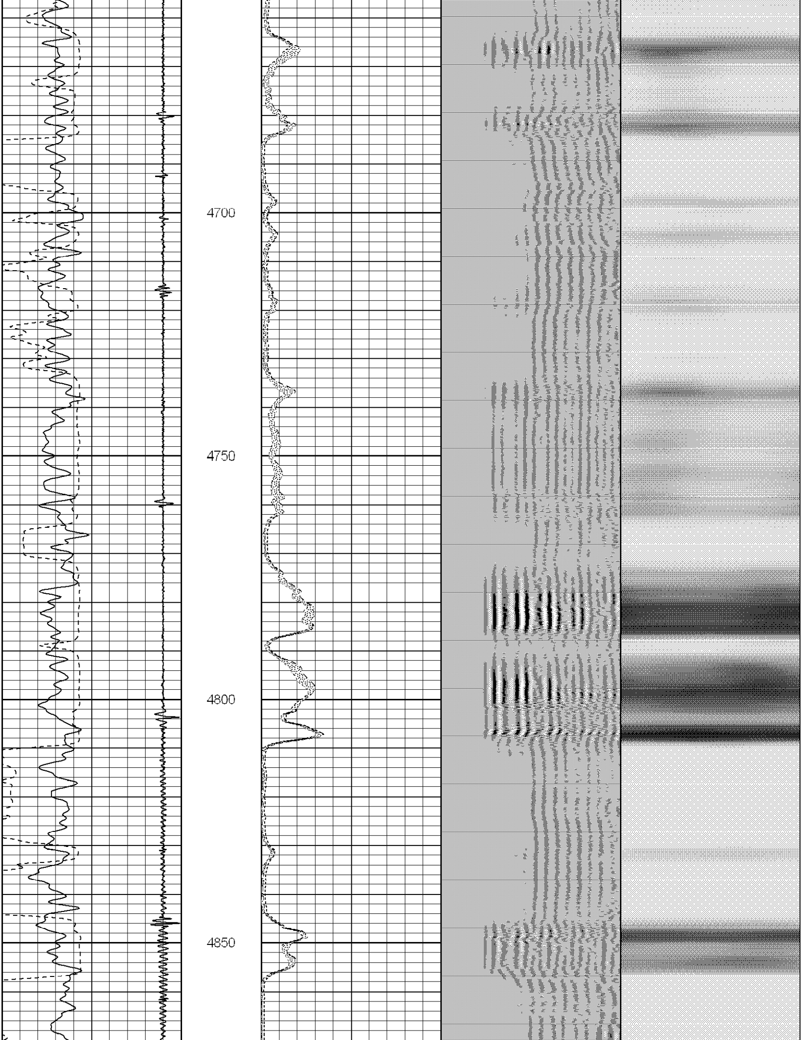
Database File: cbl noble timbro lc13-76hn.db
Dataset Pathname: pass3
Presentation Format: sector2
Dataset Creation: Mon Jun 24 12:23:24 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

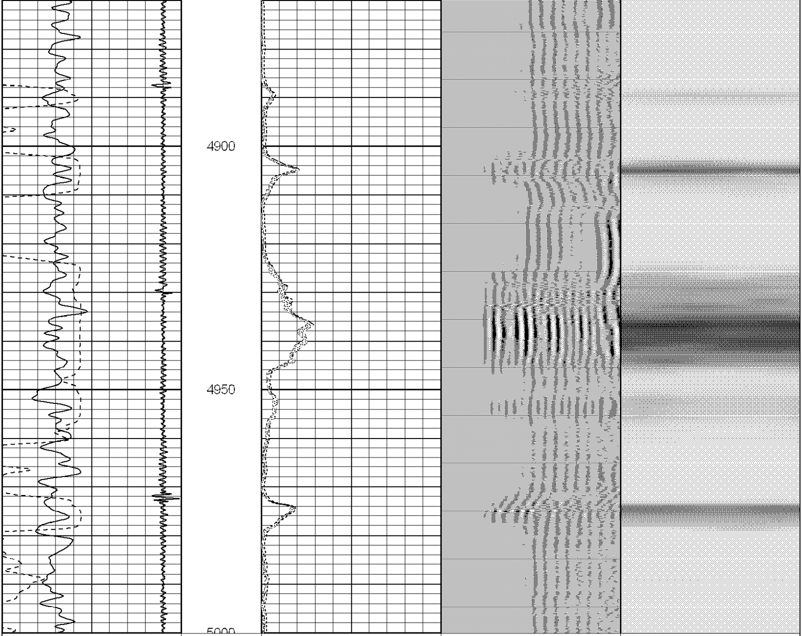








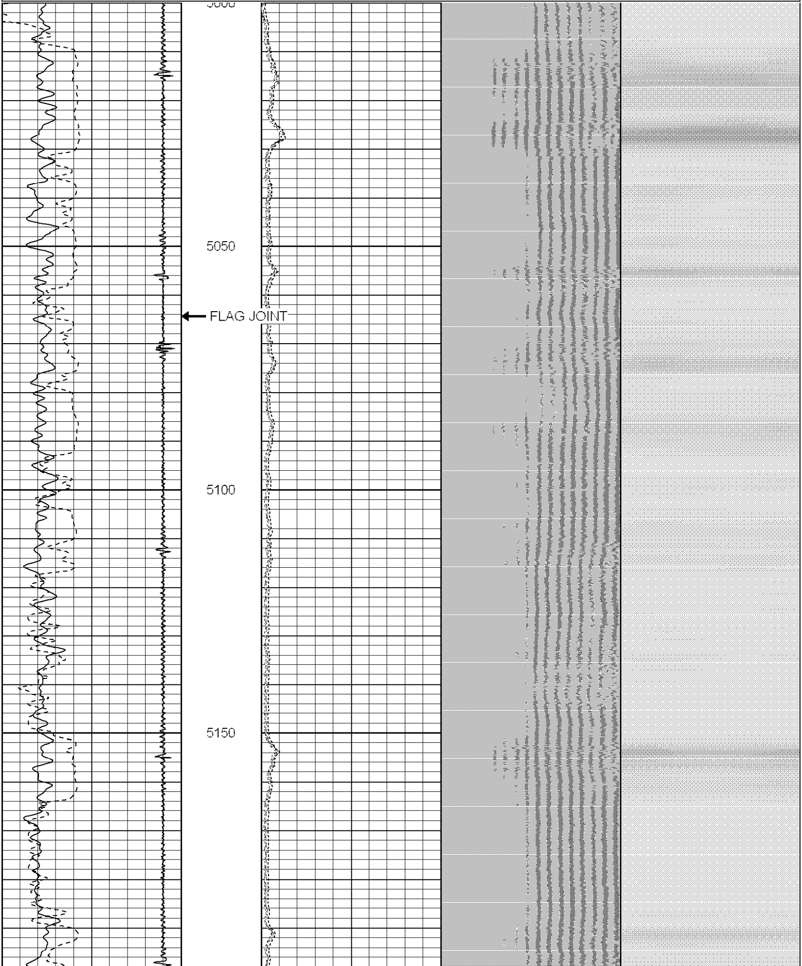


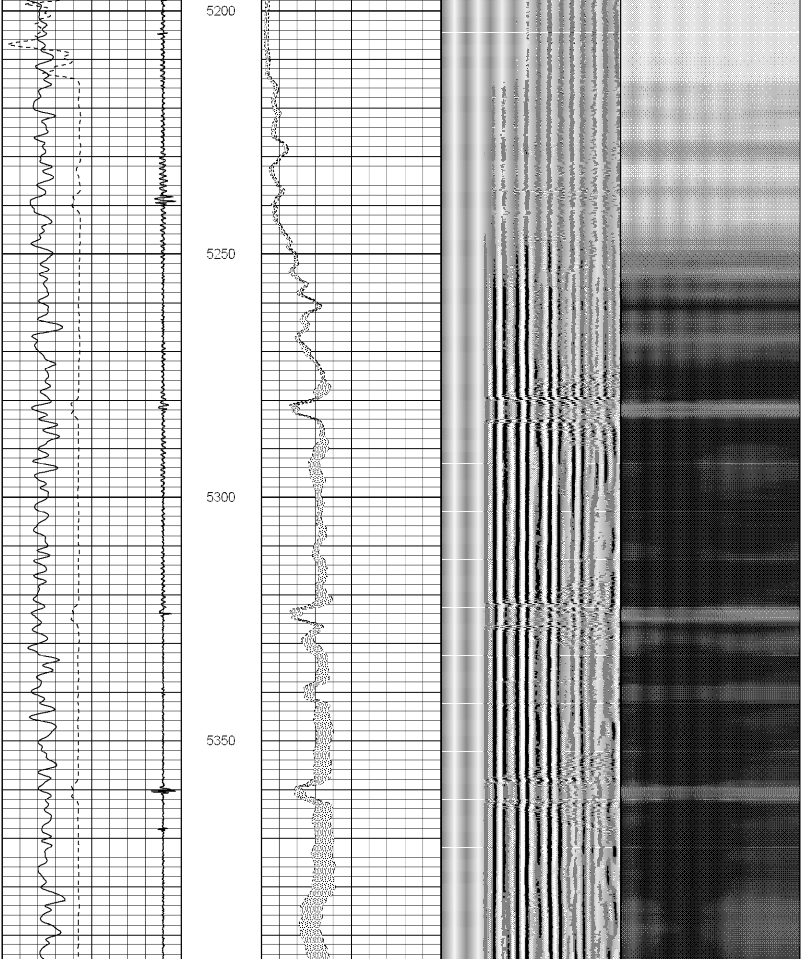


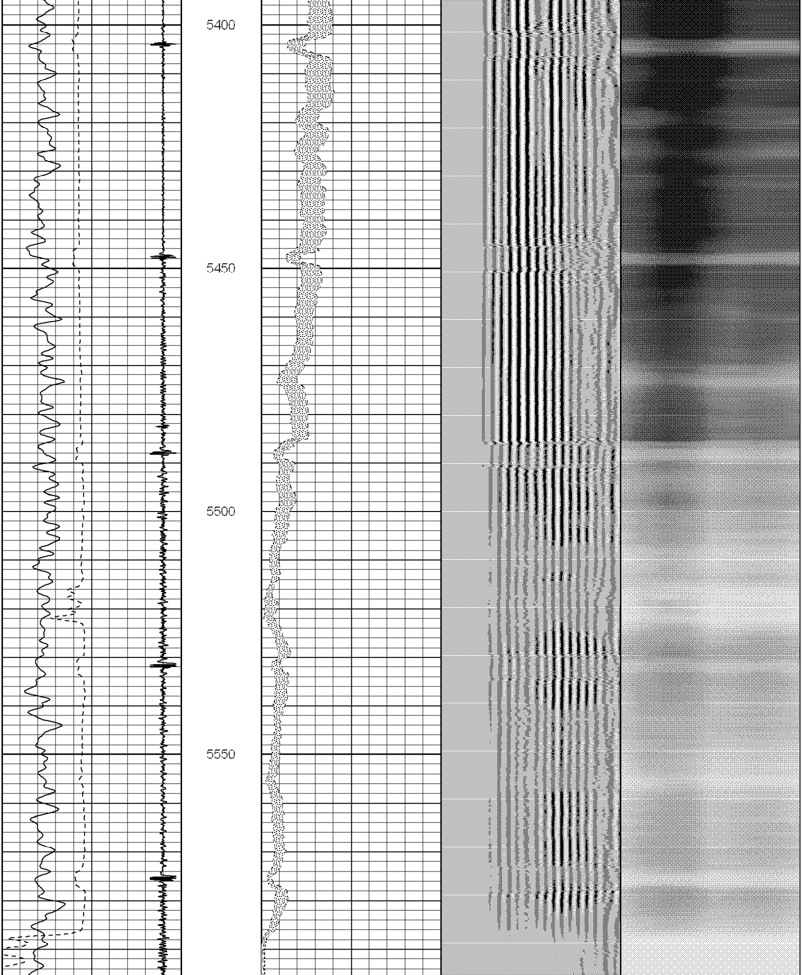
0 GR (GAPI) 150	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200	0 AMPAVG 100	▨	▨
50 CCL -5.5	0 AMPMIN 100		
	0 AMP3FT (mV) 100		

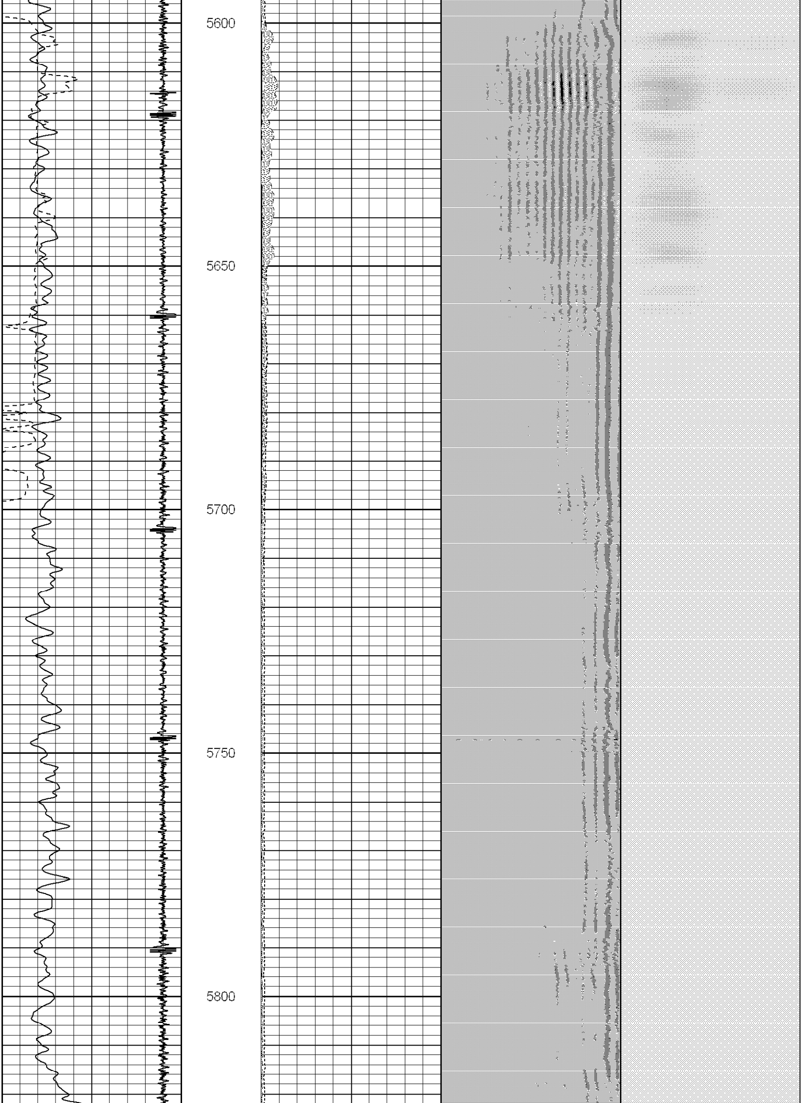
Database File: cbl noble timbro lc13-76hn.db
Dataset Pathname: pass2
Presentation Format: sector2
Dataset Creation: Mon Jun 24 12:09:28 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

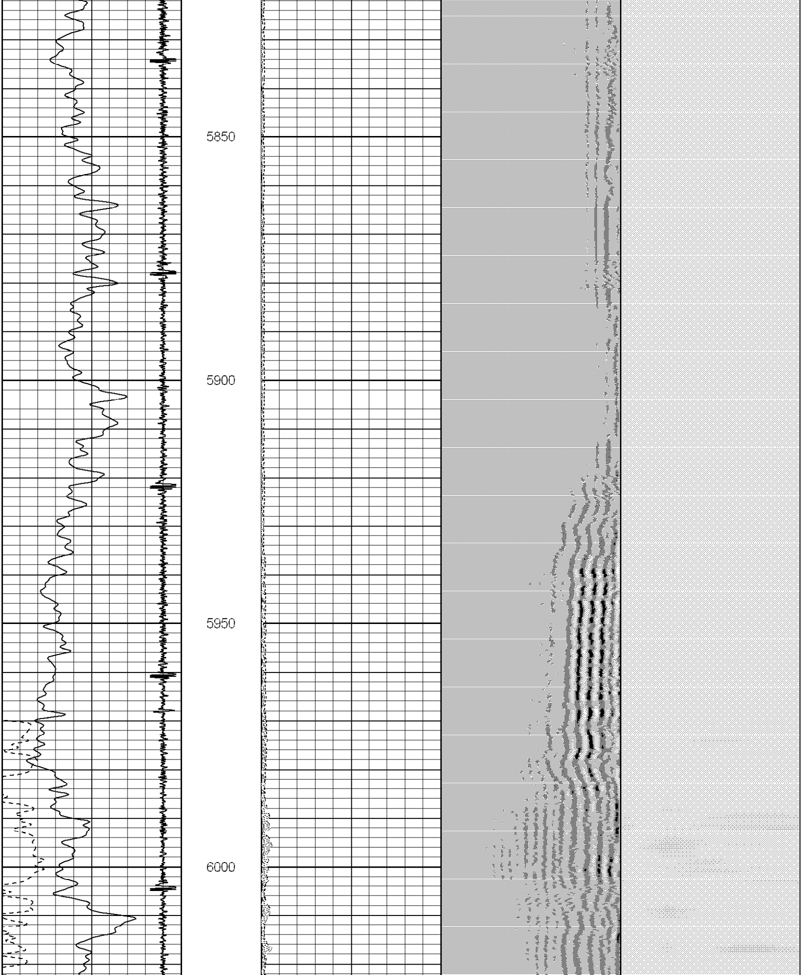
0 GR (GAPI) 200	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200	0 AMPAVG 100	▨	▨
50 CCL -5.5	0 AMPMIN 100		
	0 AMP3FT (mV) 100		

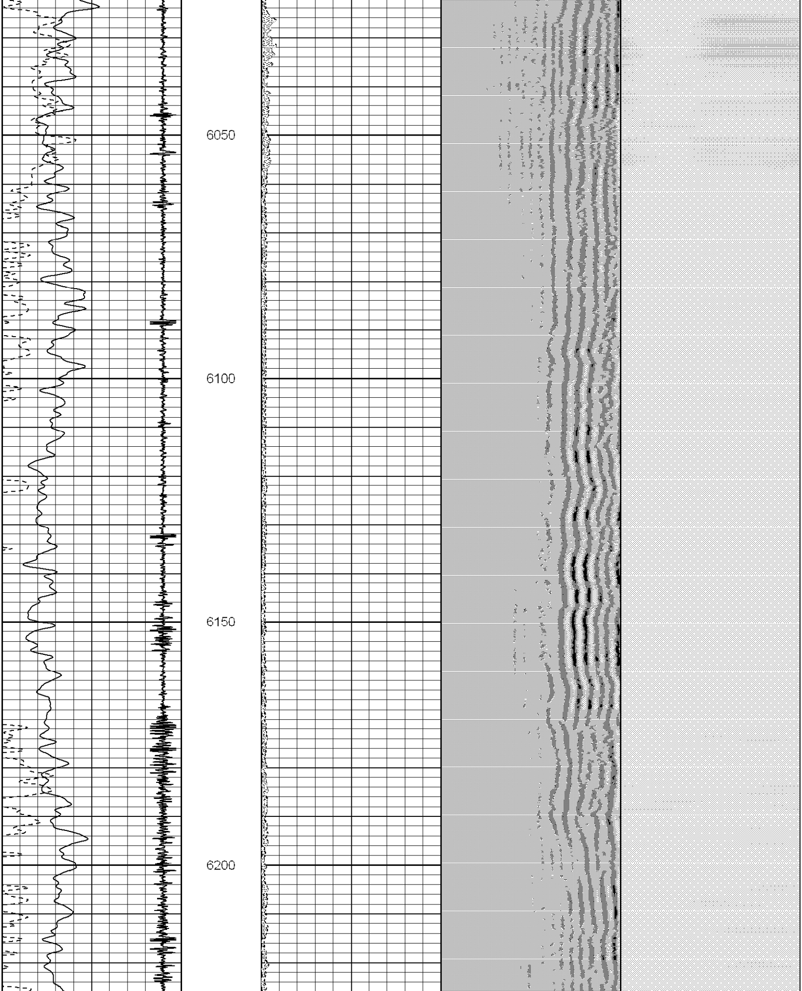


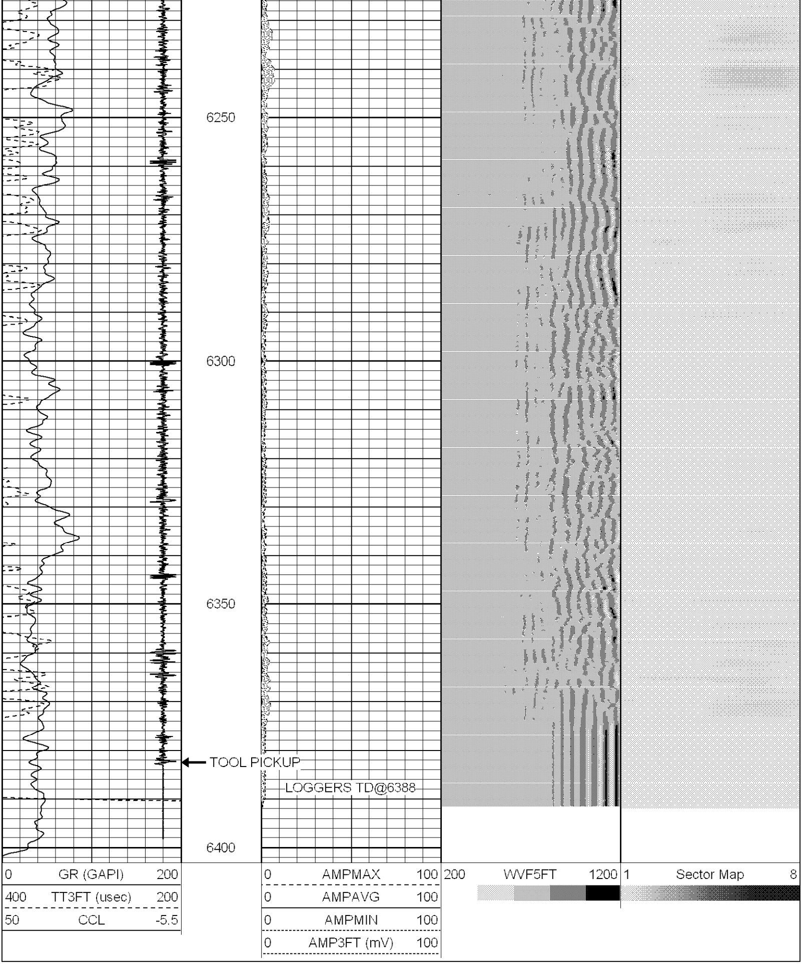












Calibration Report

Database File: cbl noble timbro lc13-76hn.db
Dataset Pathname: pass2
Dataset Creation: Mon Jun 24 12:09:28 2013 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION

Mon Jun 24 10:17:03 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.4600			GAPI/cps

PRIMARY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

BEFORE SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Segmented Cement Bond Log Calibration Report

Serial Number:	101020	
Tool Model:	Probe	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	464.075	ft

Master Calibration, performed Mon Jun 24 11:52:14 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	1.021	1.500	62.165	59.838	1.057
CAL	0.007	1.325				
5'	0.007	1.147	1.500	62.165	53.230	1.103
SUM						
S1	0.007	1.156	0.000	62.165	54.124	-0.394
S2	0.007	1.134	0.000	62.165	55.171	-0.409
S3	0.007	1.052	0.000	62.165	59.521	-0.437
S4	0.007	0.947	0.000	62.165	66.144	-0.484
S5	0.007	0.868	0.000	62.165	72.265	-0.535
S6	0.007	0.863	0.000	62.165	72.624	-0.527
S7	0.007	0.976	0.000	62.165	64.214	-0.480
S8	0.007	1.108	0.000	62.165	56.499	-0.410

Internal Reference Calibration, performed Fri Jan 13 14:30:16 2012:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.007	1.325	1.000	0.000

Air Zero Calibration, performed Mon Jun 24 11:48:33 2013:

	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