NABORS
COMPLETION
& PRODUCTION
SERVICES CO.

GAMMA RAY CCL
CEMENT BOND VDL

Company	NOBLE ENERGY INC.
Well	TREBOR B11-66-1HN
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well TREBOR B11-66-1HN
Field WATTENBERG
County WELD State COLORADO

Location: API #: 0512336304
BHL: 2310' FNL & 535' FEL
SW/NW
SEC 11 TWP 5N RGE 64W

Other Services

Permanent Datum	GL	Elevation 4601	Elevation
Log Measured From	KB		K.B. 4627
Drilling Measured From	KB		D.F.
			G.L. 4601

Date	JULY 22, 2013
Run Number	ONE
Depth Driller	11040
Depth Logger	6870
Bottom Logged Interval	6870
Top Log Interval	SURFACE
Open Hole Size	8-3/4
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	234°F
Estimated Cement Top	1060
Time Well Ready	PORTABLE MAST
Time Logger on Bottom	2-3/4 PROBE 101020
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	26	660
Prot. String				
Production String	7	26# P-110-IC	26	7009
Liner	4-1/2	11.6# P-110-IC	7015	11035

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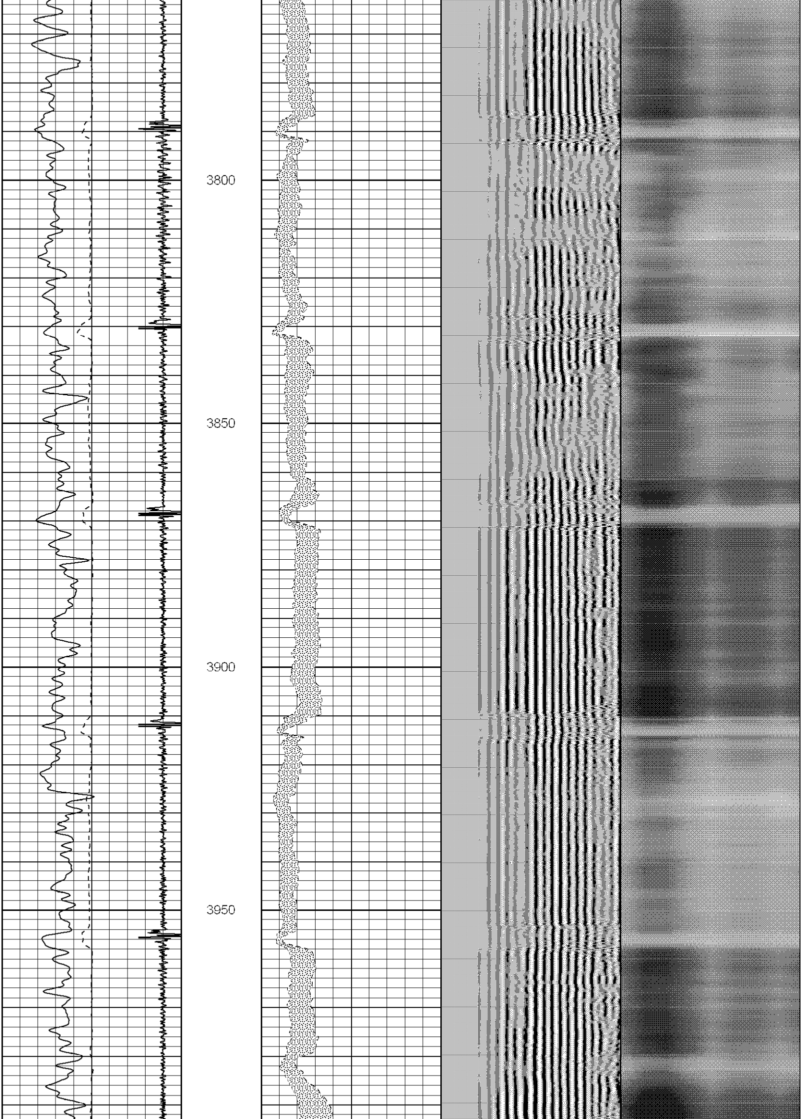
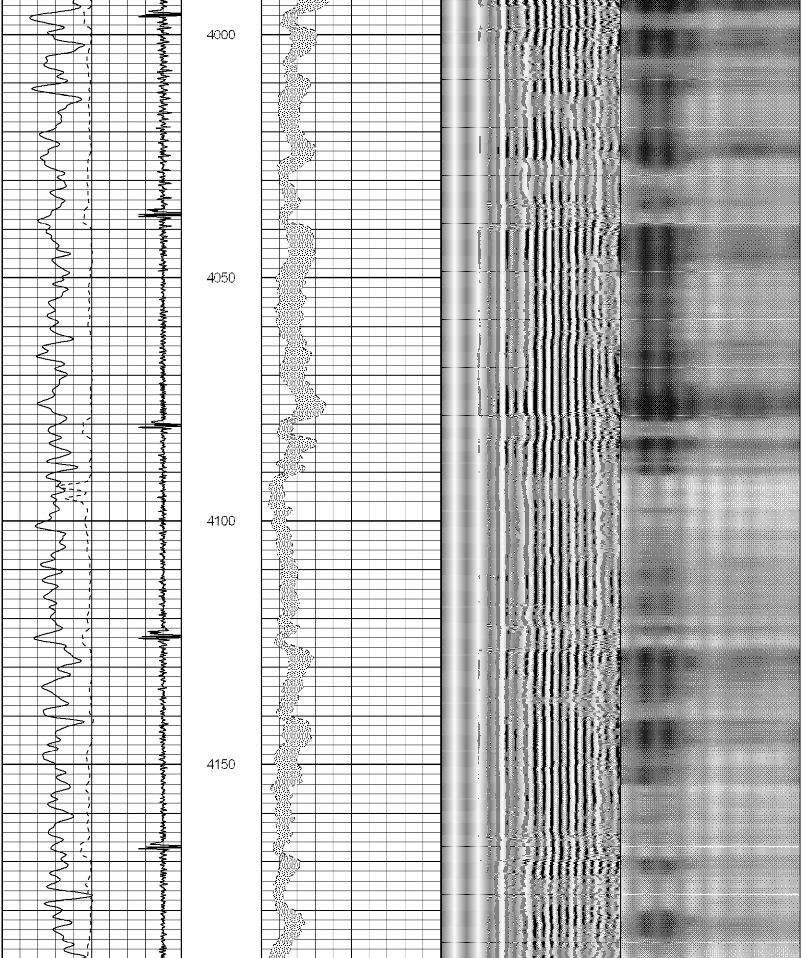
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

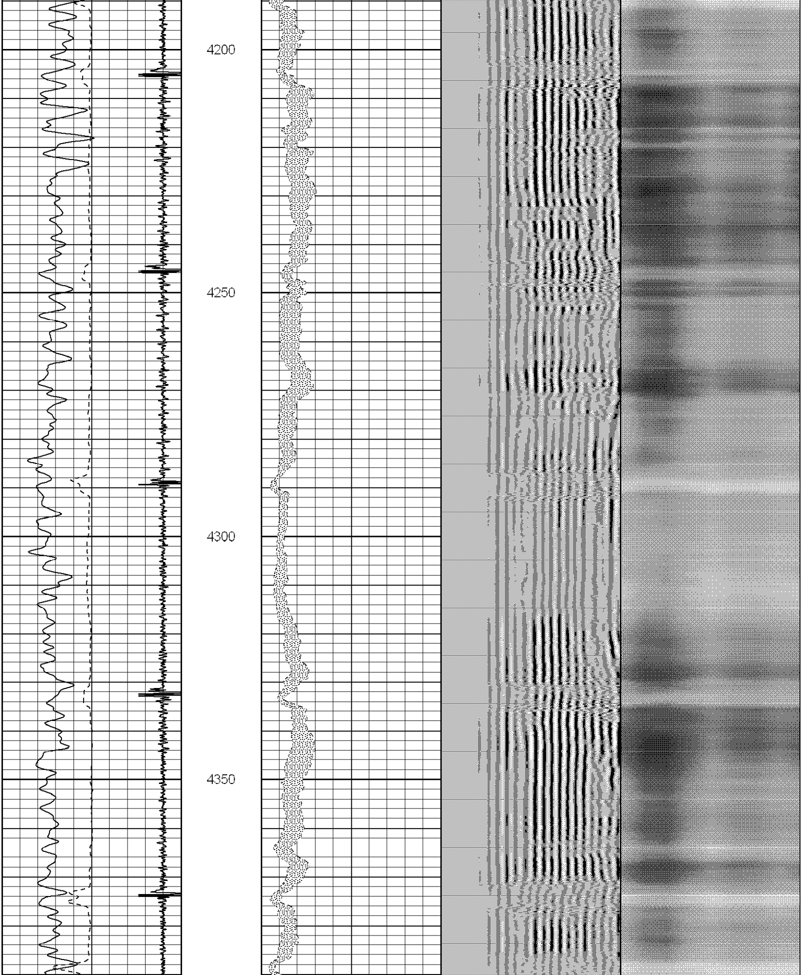
Comments

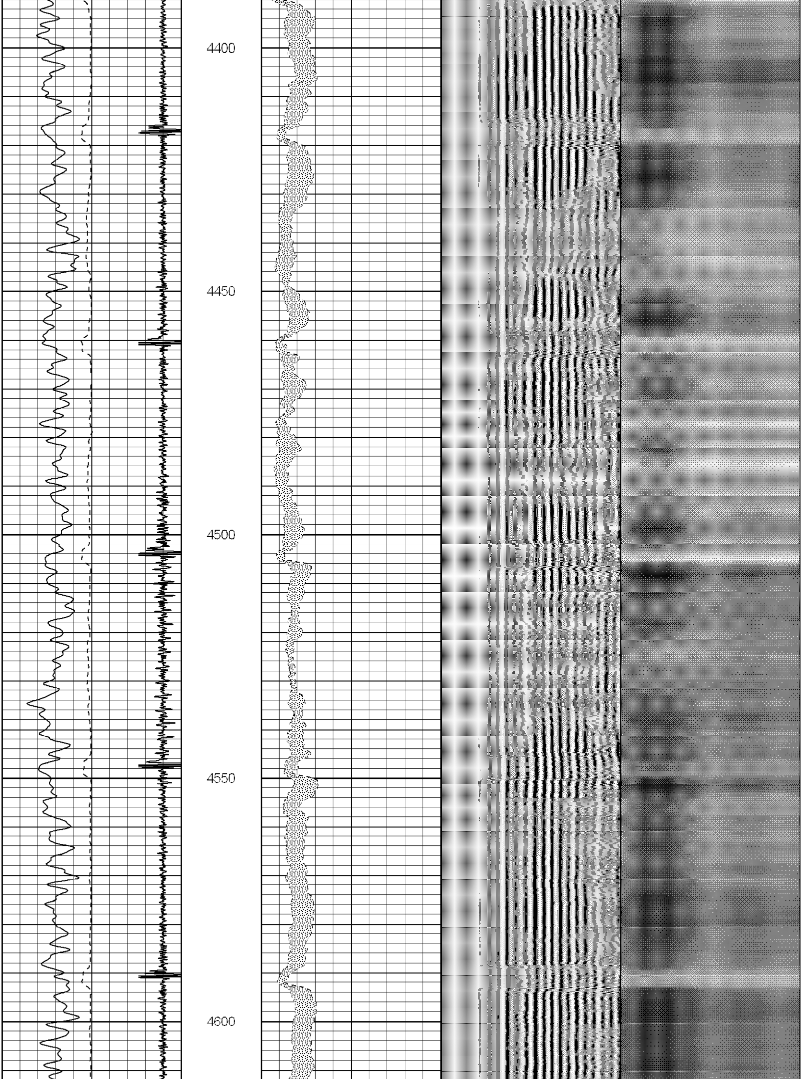
THANK YOU FOR CHOOSING NCPS!!!!
LOG NOT CORRELATED
WCR 57-1/2 & WCR 58-1/2, W.8, N INTO
CENTER WELL OF A 3 WELL PAD

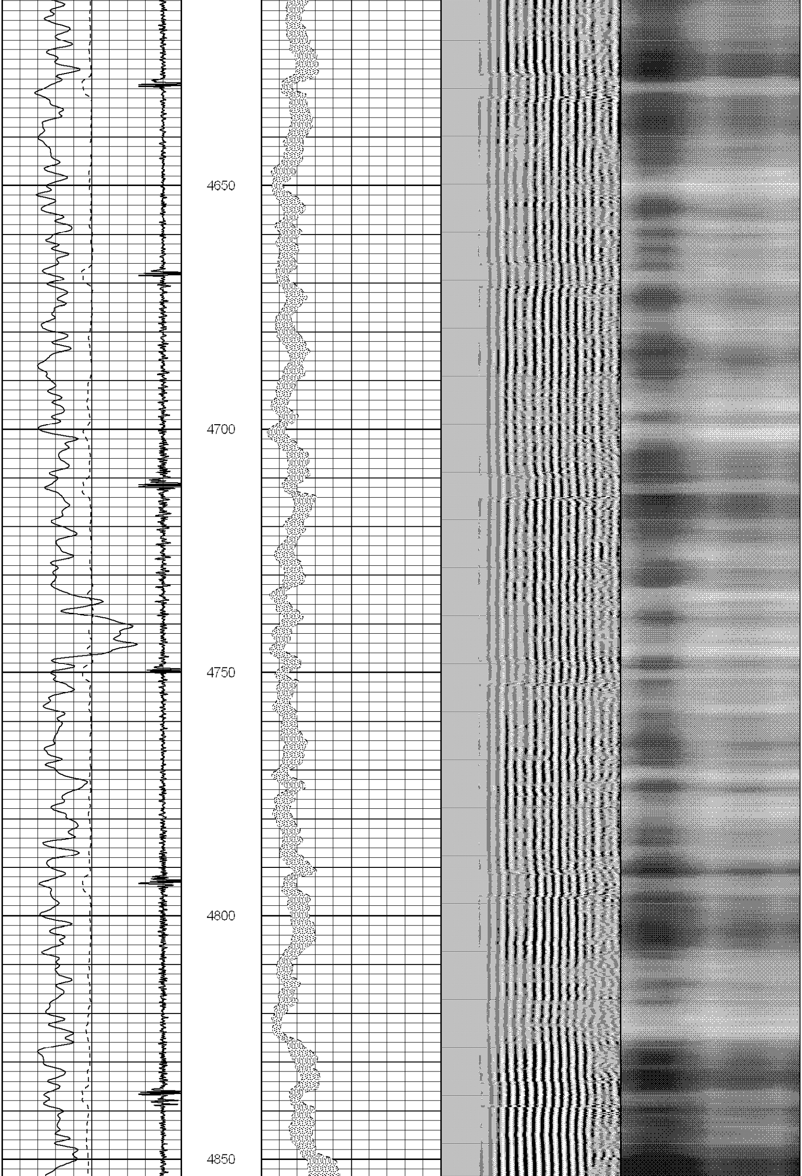
Database File:	cbl noble trebor b11-66-1hn.db
Dataset Pathname:	pass3
Presentation Format:	sector2
Dataset Creation:	Mon Jul 22 09:07:07 2013 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

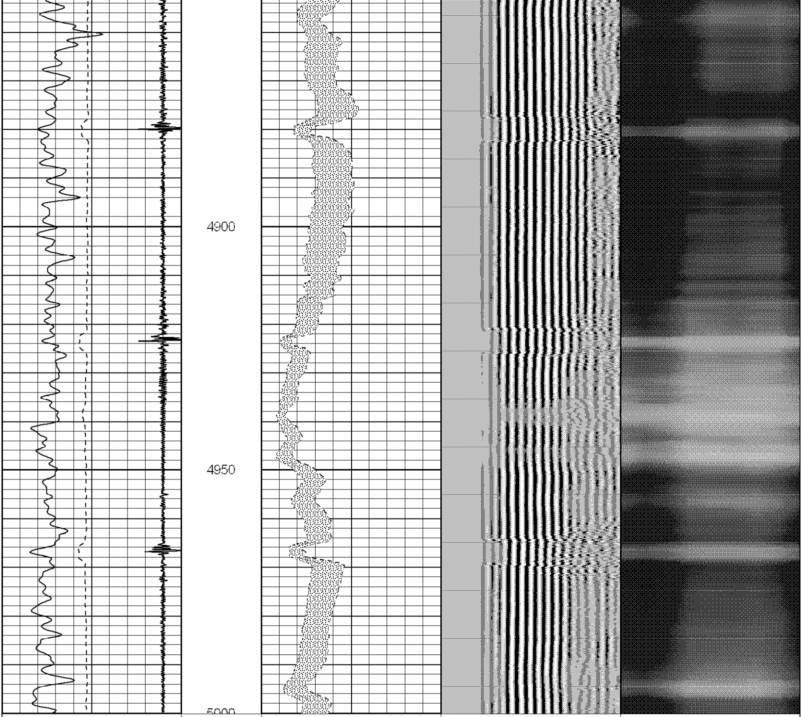








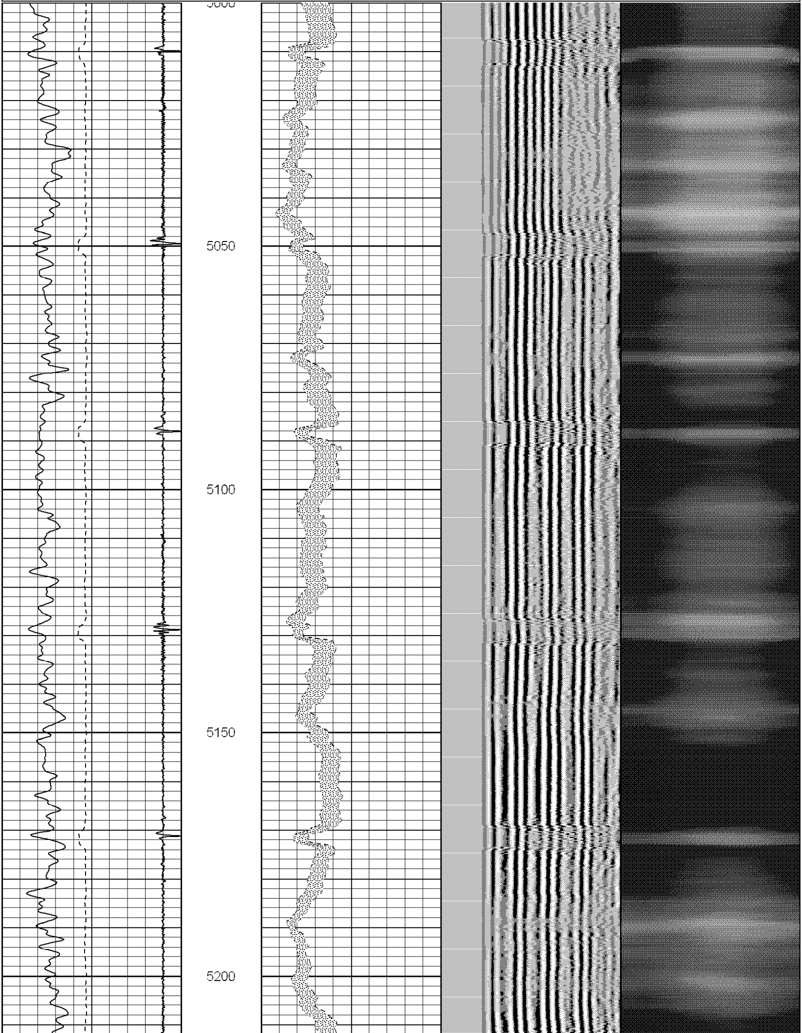


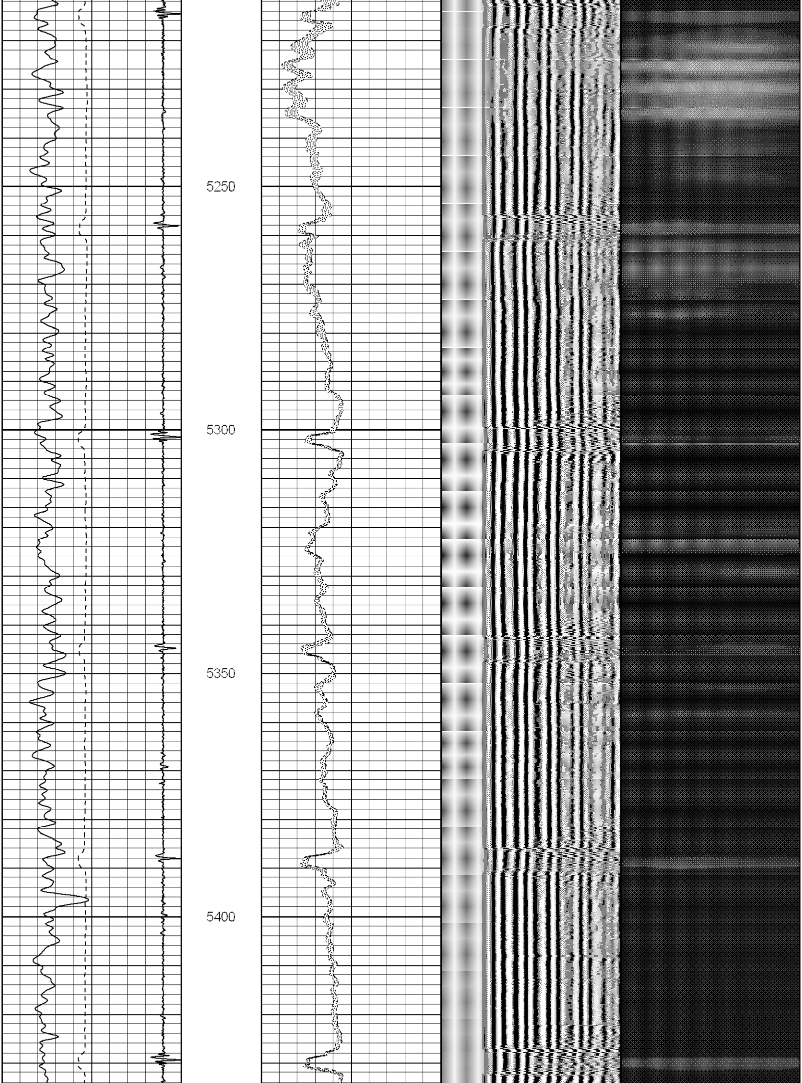


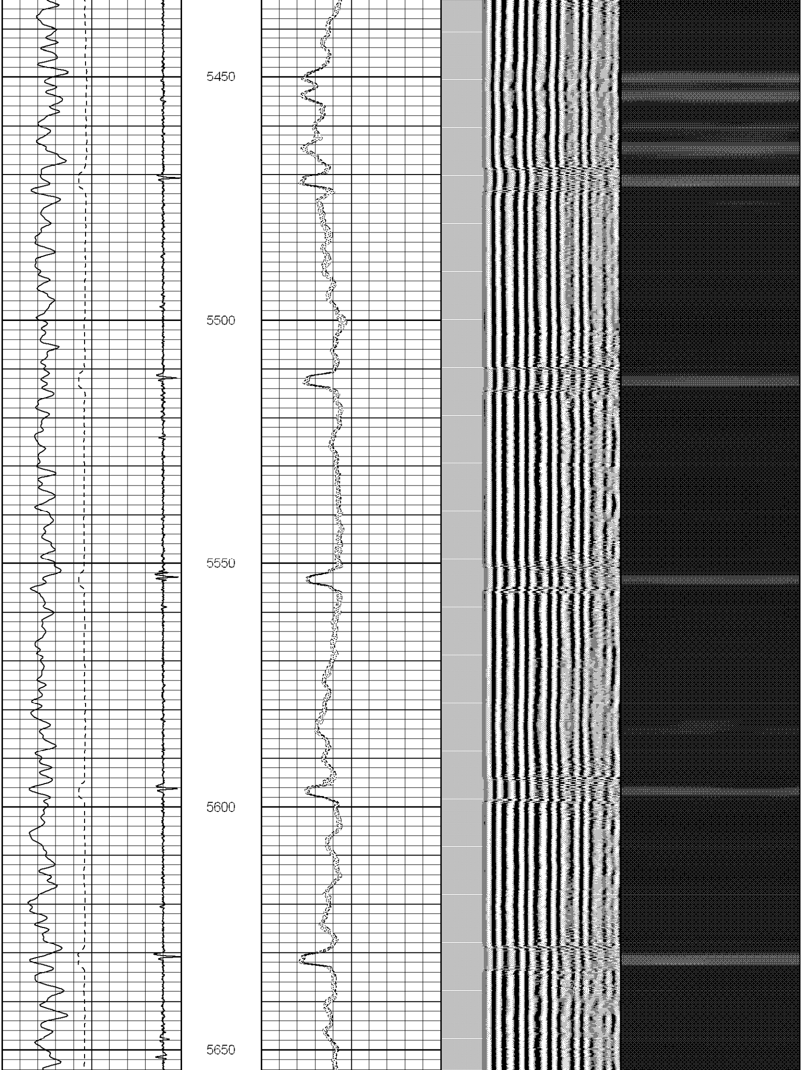
0 GR (GAPI) 150	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200	0 AMPAVG 100		
50 CCL -5.5	0 AMPMIN 100		
	0 AMP3FT (mV) 100		

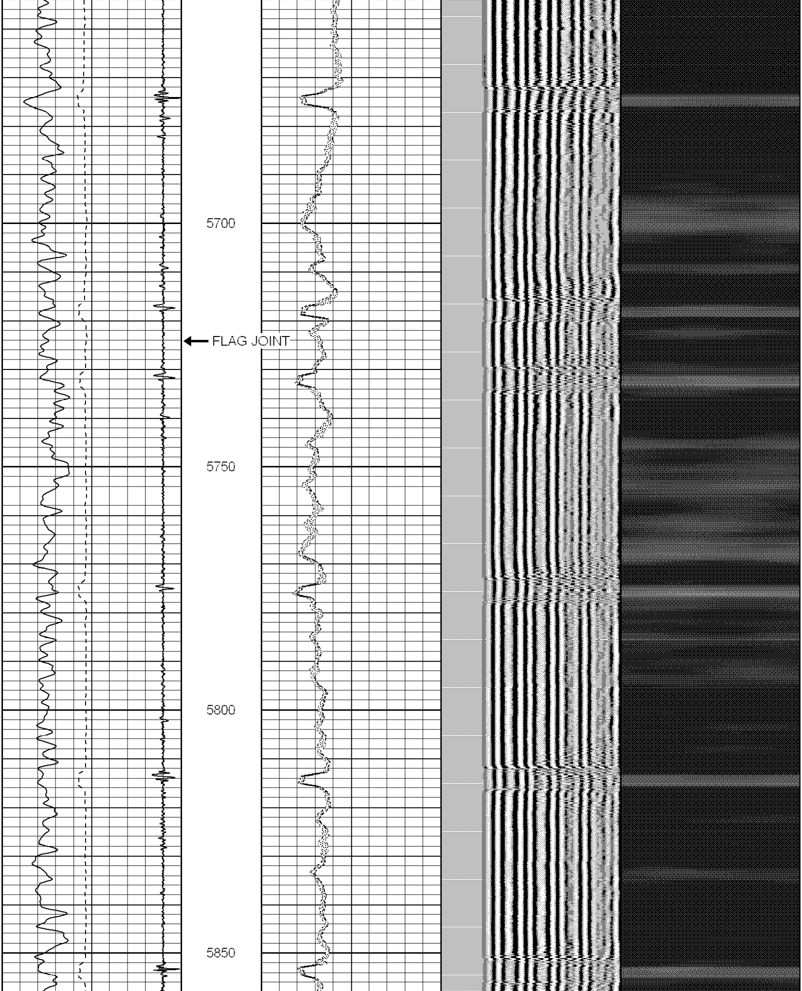
Database File: cbl noble trebor b11-66-1hn.db
Dataset Pathname: pass2
Presentation Format: sector2
Dataset Creation: Mon Jul 22 08:51:08 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

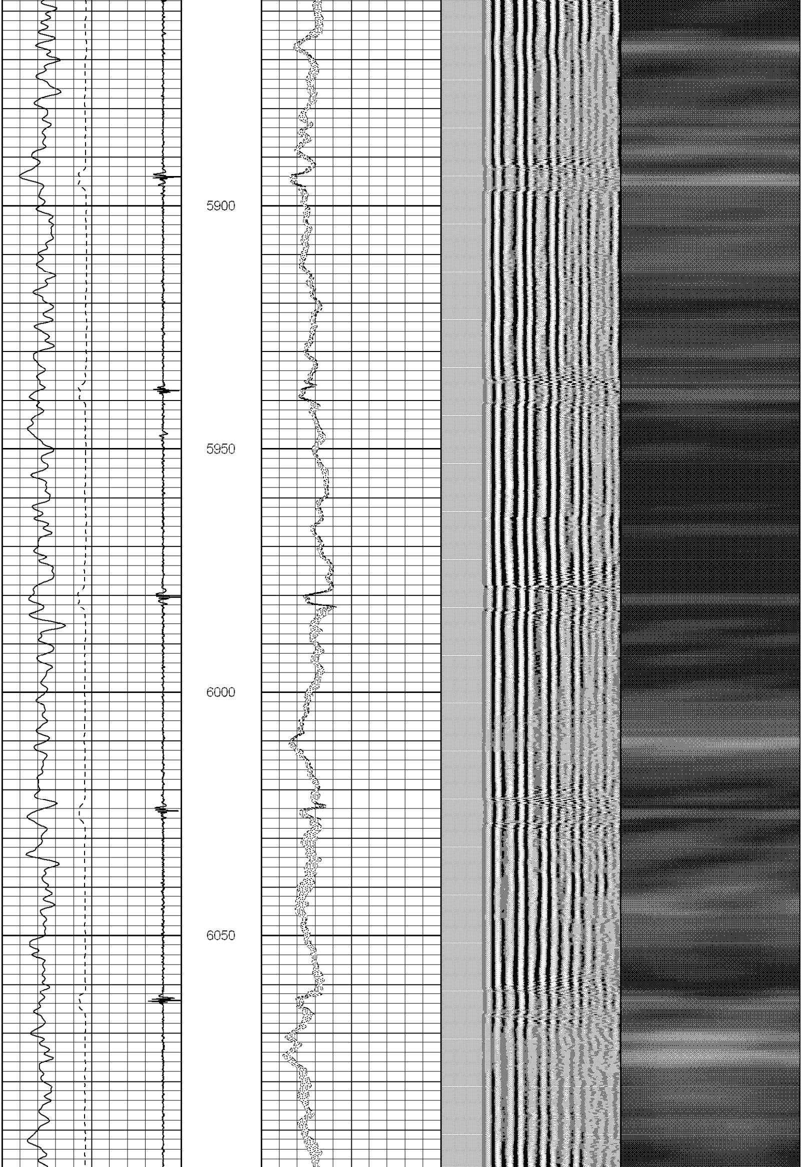
0 GR (GAPI) 200	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200	0 AMPAVG 100		
50 CCL -5.5	0 AMPMIN 100		
	0 AMP3FT (mV) 100		

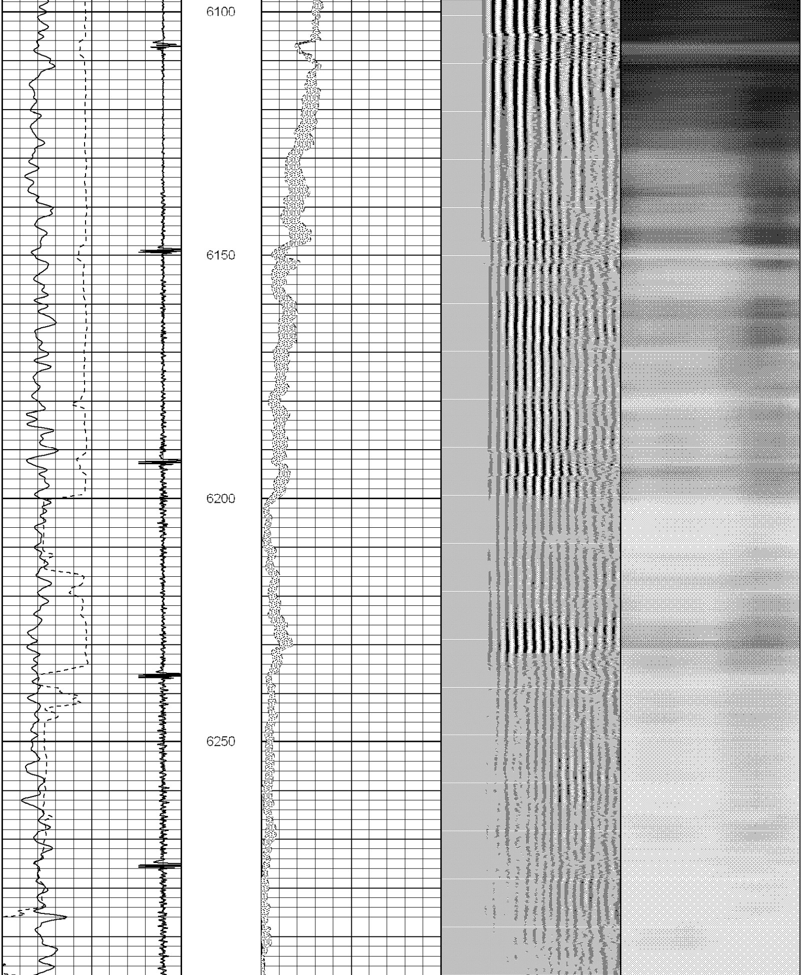


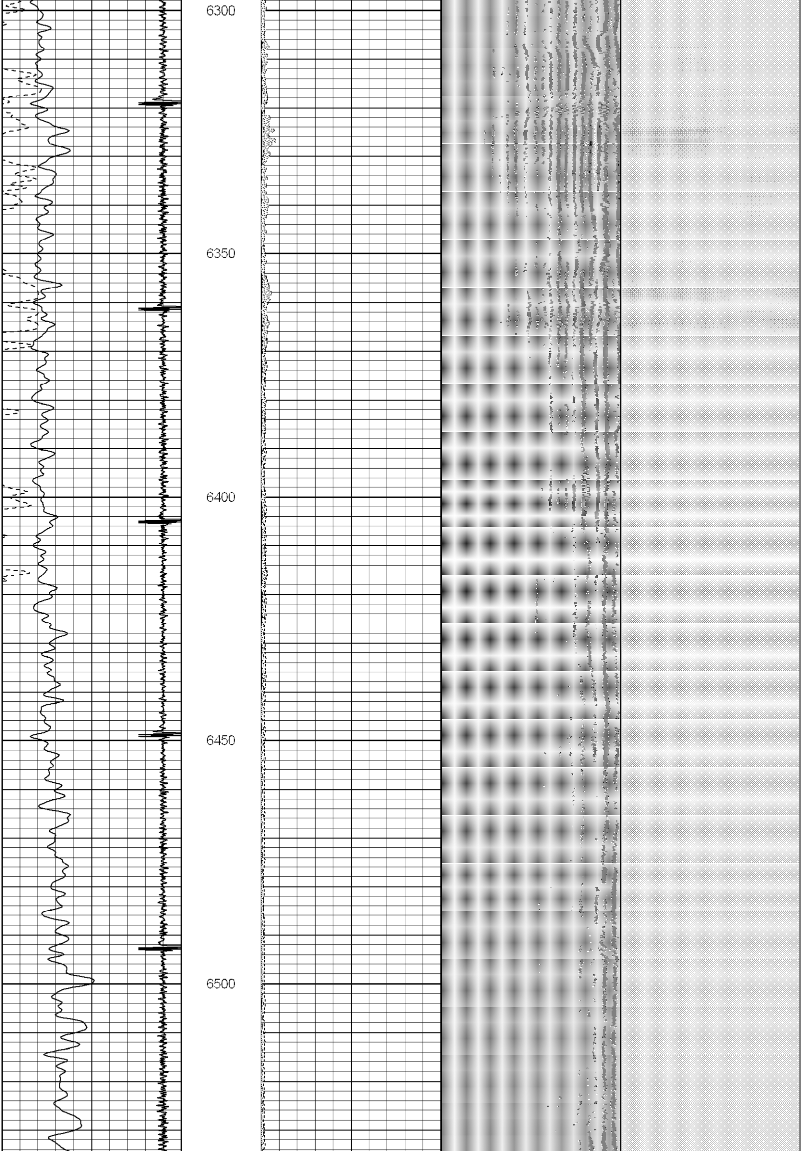


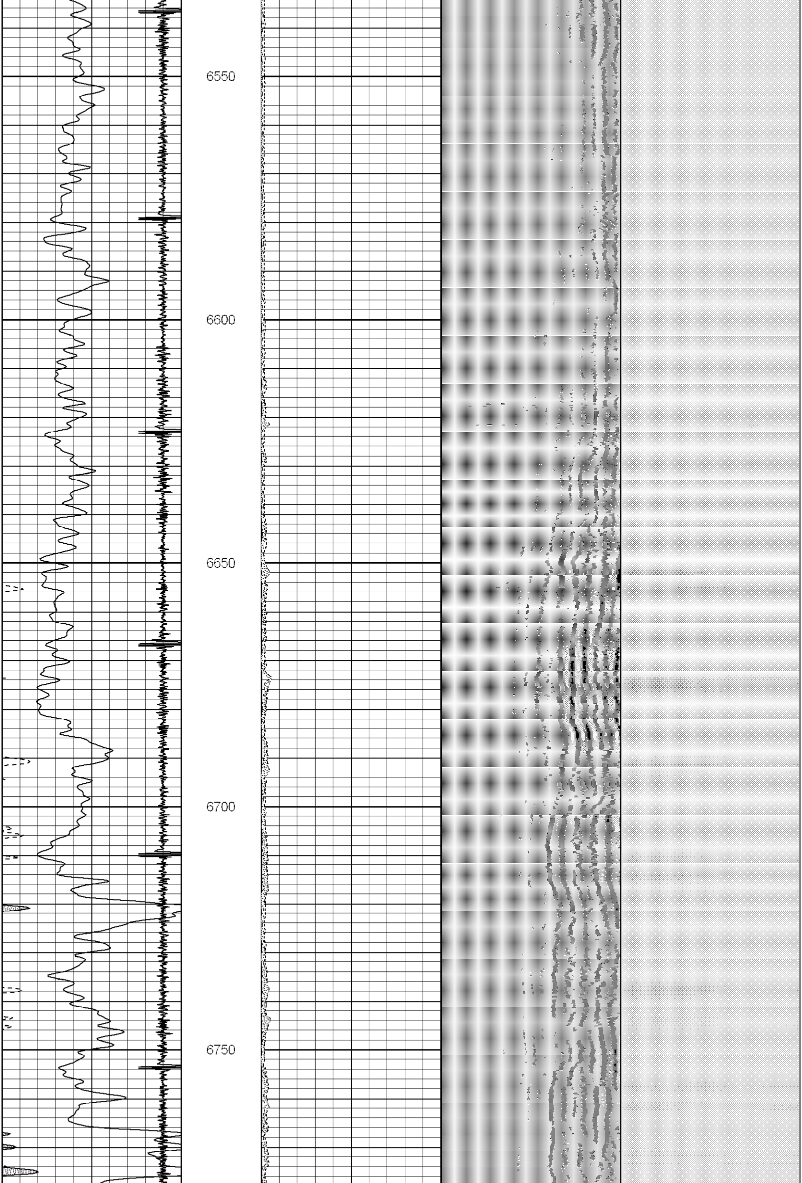


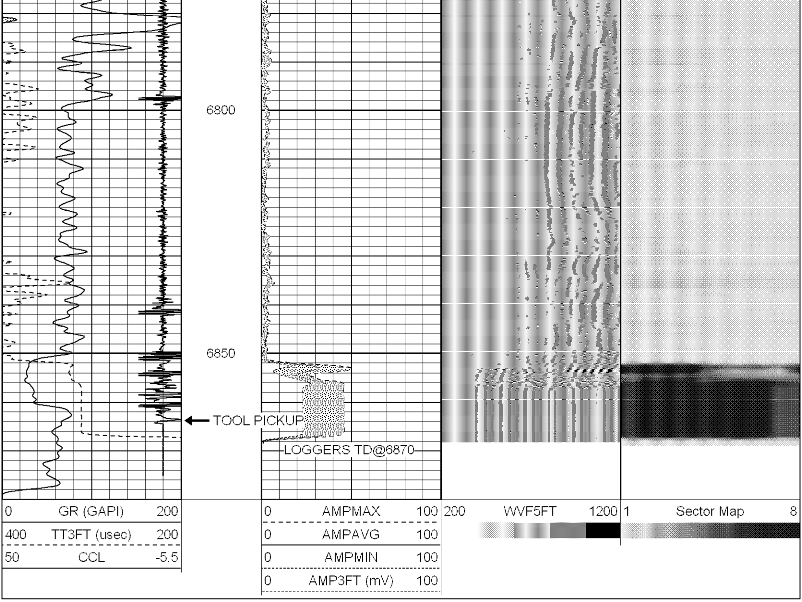












Calibration Report

Database File: cbl noble trebor b11-66-1hn.db
Dataset Pathname: pass2
Dataset Creation: Mon Jul 22 08:51:08 2013 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION

Wed Jul 17 08:28:59 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.4200			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:	432.942	ft

Master Calibration, performed Mon Jul 22 08:34:02 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.029	1.500	62.165	59.398	1.054
CAL	0.007	1.293				
5'	0.007	1.152	1.500	62.165	52.979	1.111
SUM						
S1	0.007	1.142	0.000	62.165	54.794	-0.401
S2	0.007	1.119	0.000	62.165	55.941	-0.418
S3	0.007	1.071	0.000	62.165	58.465	-0.425
S4	0.007	0.979	0.000	62.165	63.982	-0.478
S5	0.007	0.879	0.000	62.165	71.349	-0.523
S6	0.007	0.870	0.000	62.165	72.050	-0.529
S7	0.007	0.993	0.000	62.165	63.072	-0.468
S8	0.007	1.126	0.000	62.165	55.581	-0.404

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	1.293	1.000	0.000

Air Zero Calibration, performed Mon Jul 22 08:31:58 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