NABORS
COMPLETION & PRODUCTION SERVICES CO.

GAMMA RAY CCL CEMENT BOND VDL

Company	NOBLE ENERGY INC.
Well	WELLS RANCH USX AA 16-64-1HNL
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well WELLS RANCH USX AA 16-64-1HNL
Field WATTENBERG
County WELD State COLORADO
Location: API #: 0512336043
BHL: 1650' FSL & 535' FWL
NW/SW
SEC 14 TWP 6N RGE 63W
Other Services

Permanent Datum	GL	Elevation 4756	Elevation
Log Measured From	KB		K.B. 4780
Drilling Measured From	KB		D.F.
			G.L. 4856

Date	MARCH 7, 2013
Run Number	ONE
Depth Driller	16319
Depth Logger	6732
Bottom Logged Interval	6731
Top Log Interval	SURFACE
Open Hole Size	8-3/4
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	208 DEG. F
Estimated Cement Top	580
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	24	656.7
Prot. String				
Production String	7	26# P-110	24	7092.9
Liner	4-1/2	11.6# P-110	6928.4	16304

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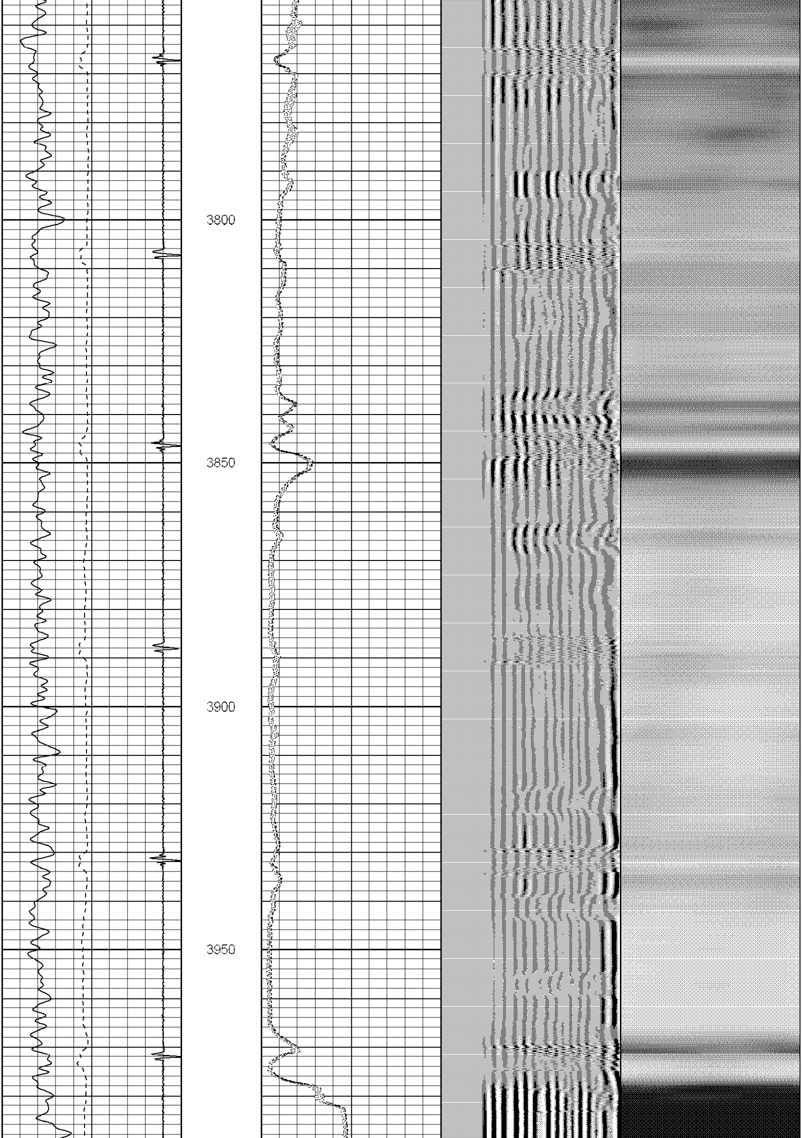
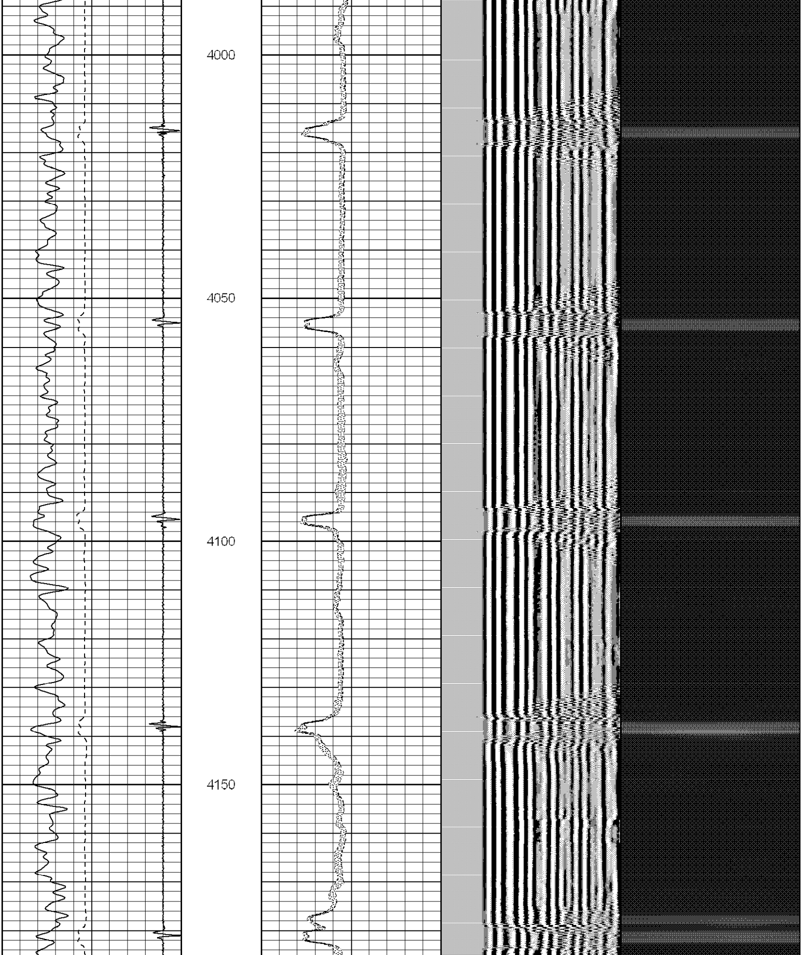
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

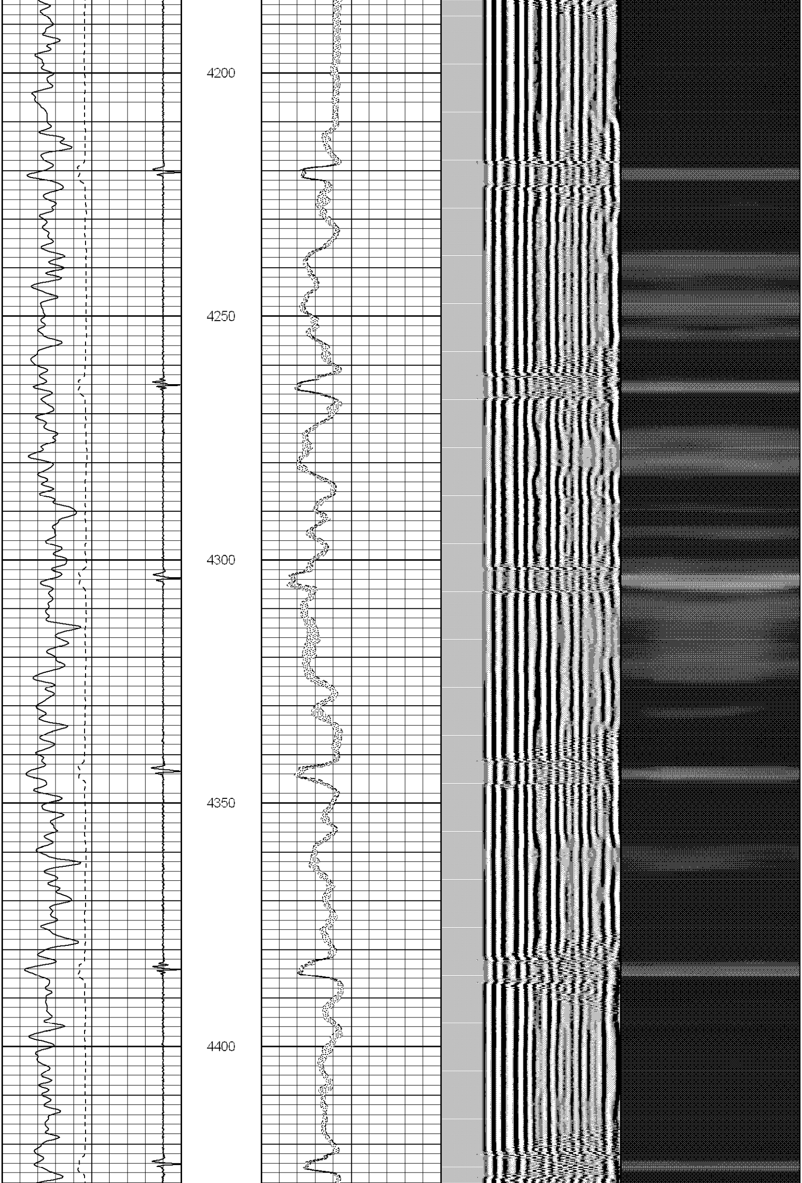
Comments

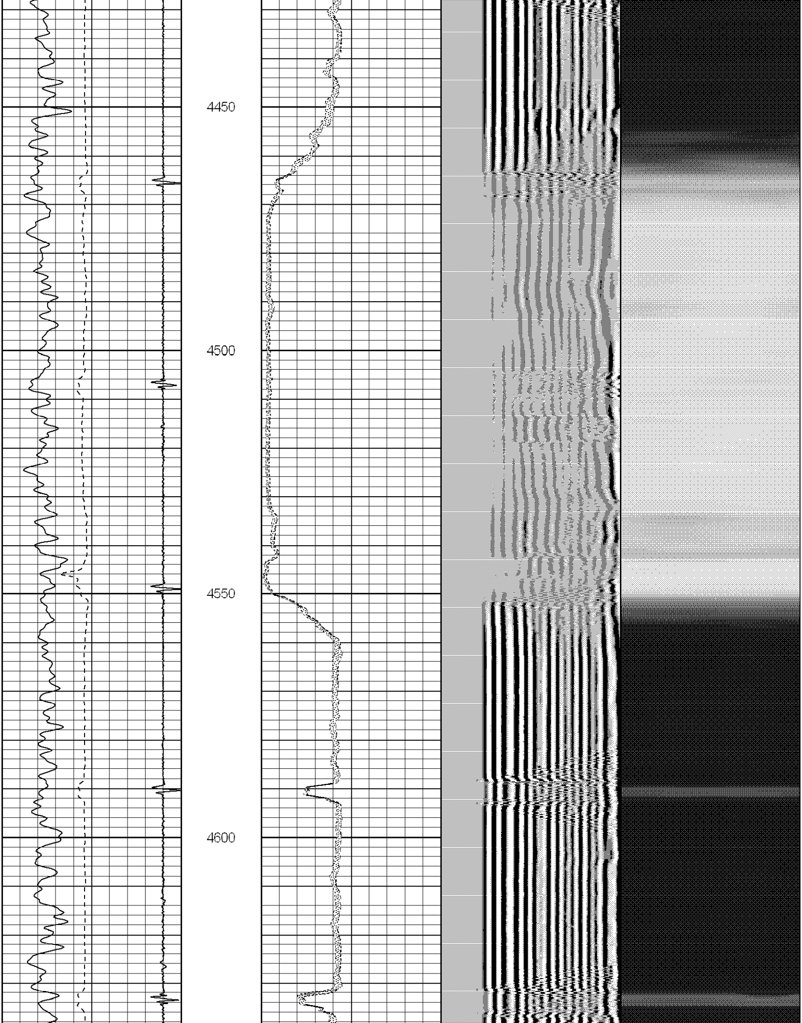
THANK YOU FOR CHOOSING NCPS!!!!
LOG NOT CORRELATED
WCR 69 & WCR 68, E1.25, N1.25, W1, SW.25, S .5 INTO
SOUTH WELL OF A 2 WELL PAD

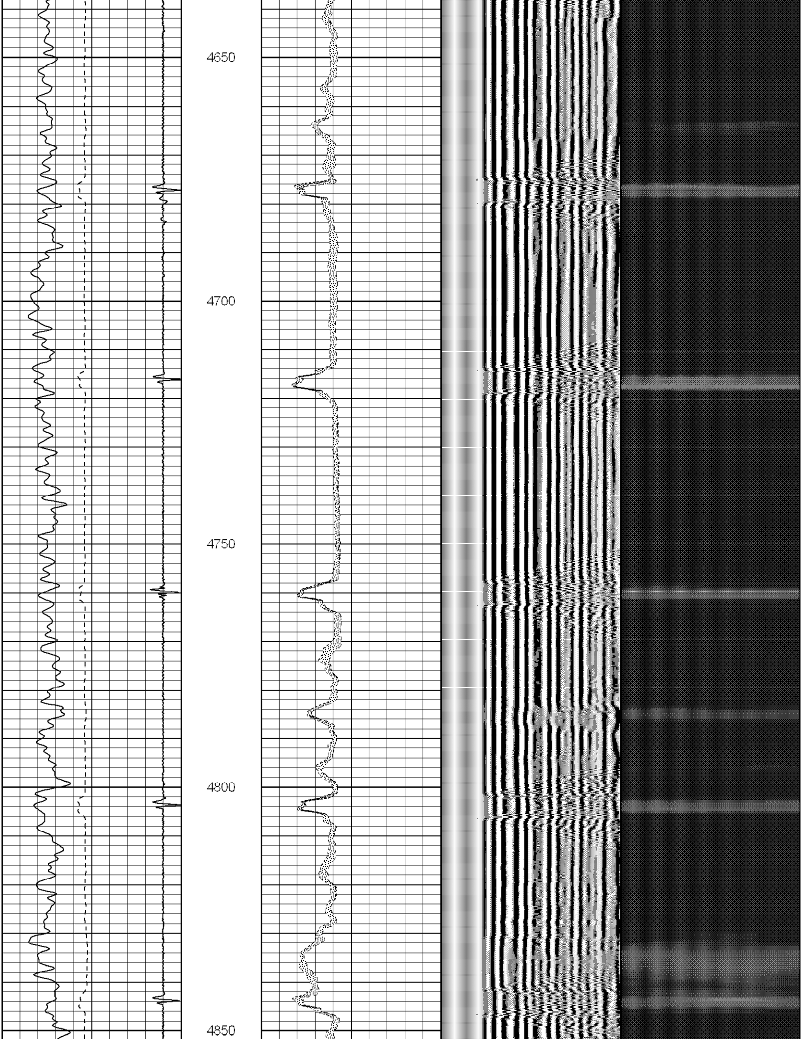
Database File:	cbl noble wells ranch usx aa16-64-1hnl.db
Dataset Pathname:	pass4
Presentation Format:	sector2
Dataset Creation:	Thu Mar 07 08:36:23 2013 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

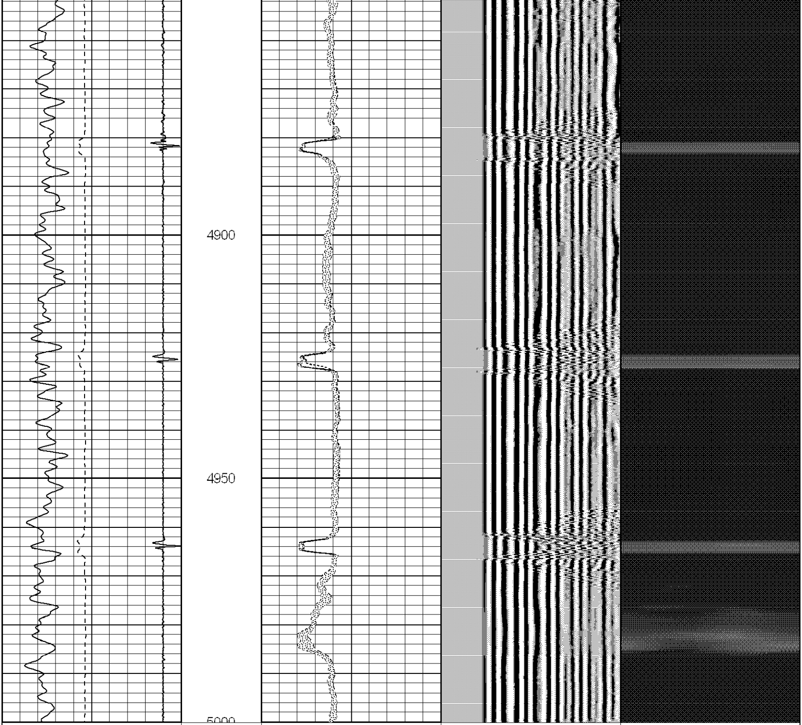








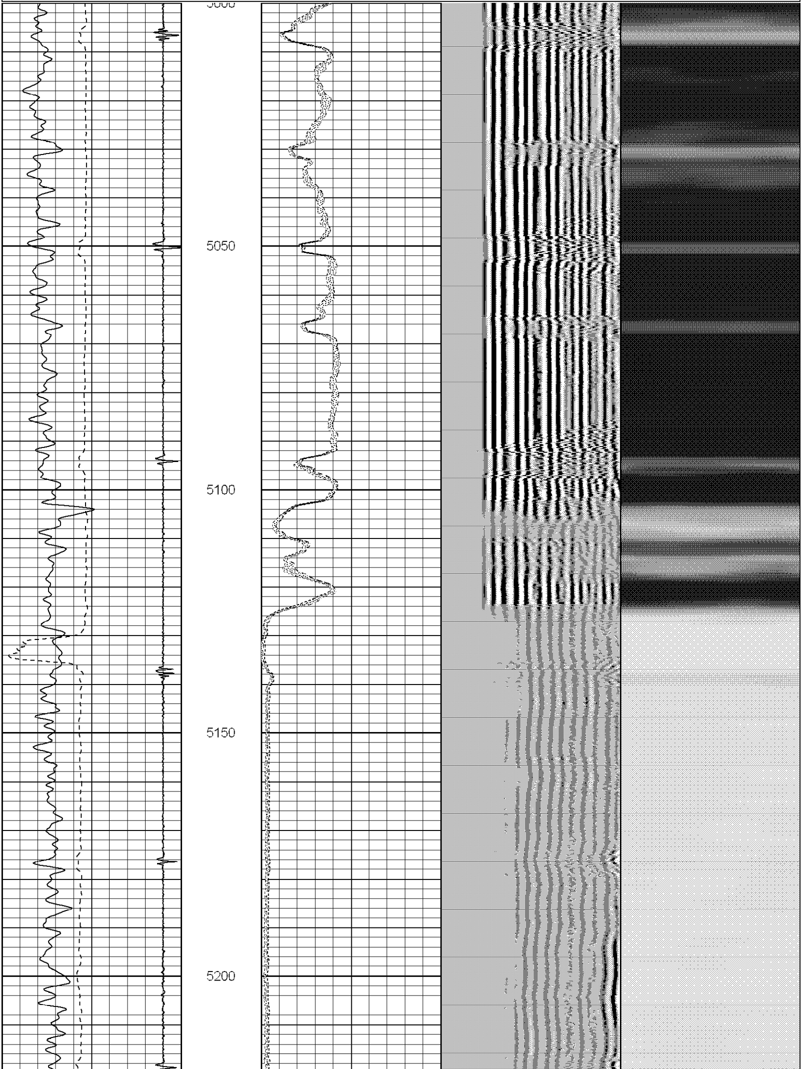


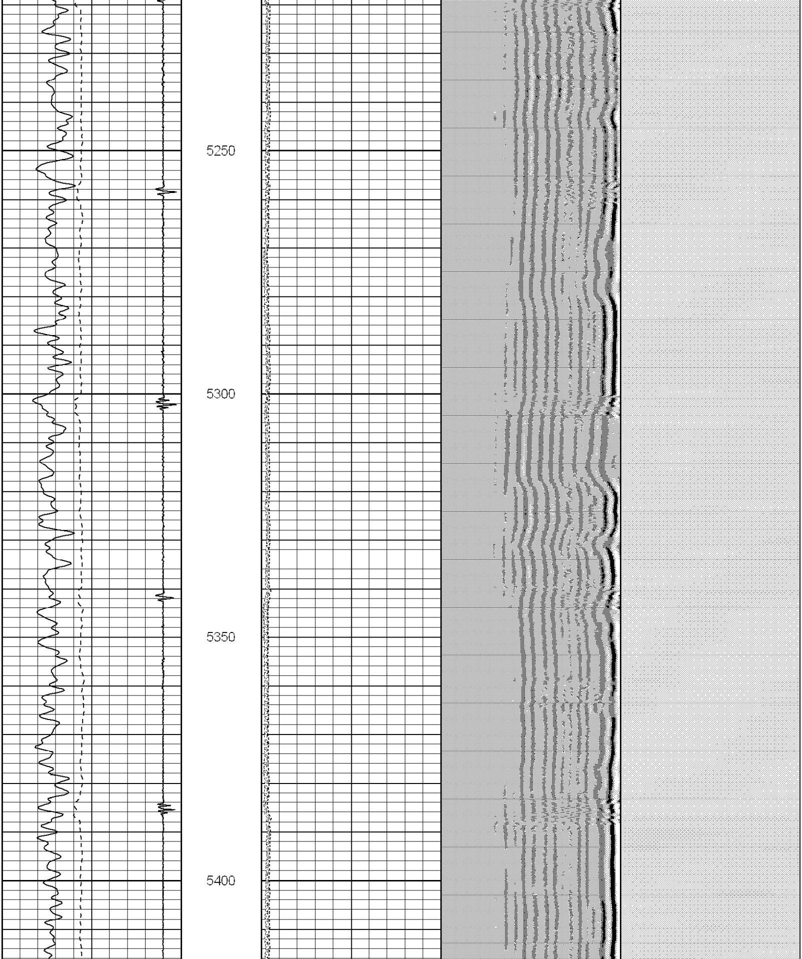


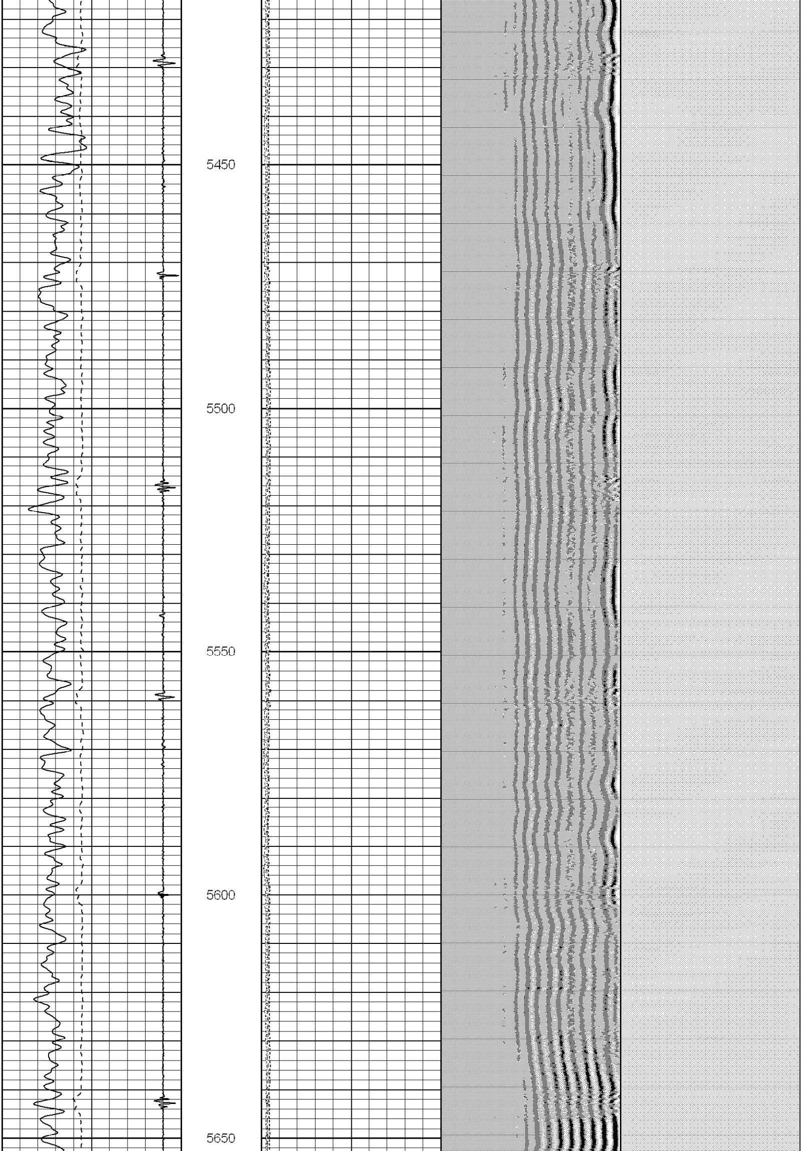
0 GR (GAPI) 200	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200	0 AMPAVG 100		
30 CCL -3.3	0 AMPMIN 100		
	0 AMP3FT (mV) 100		

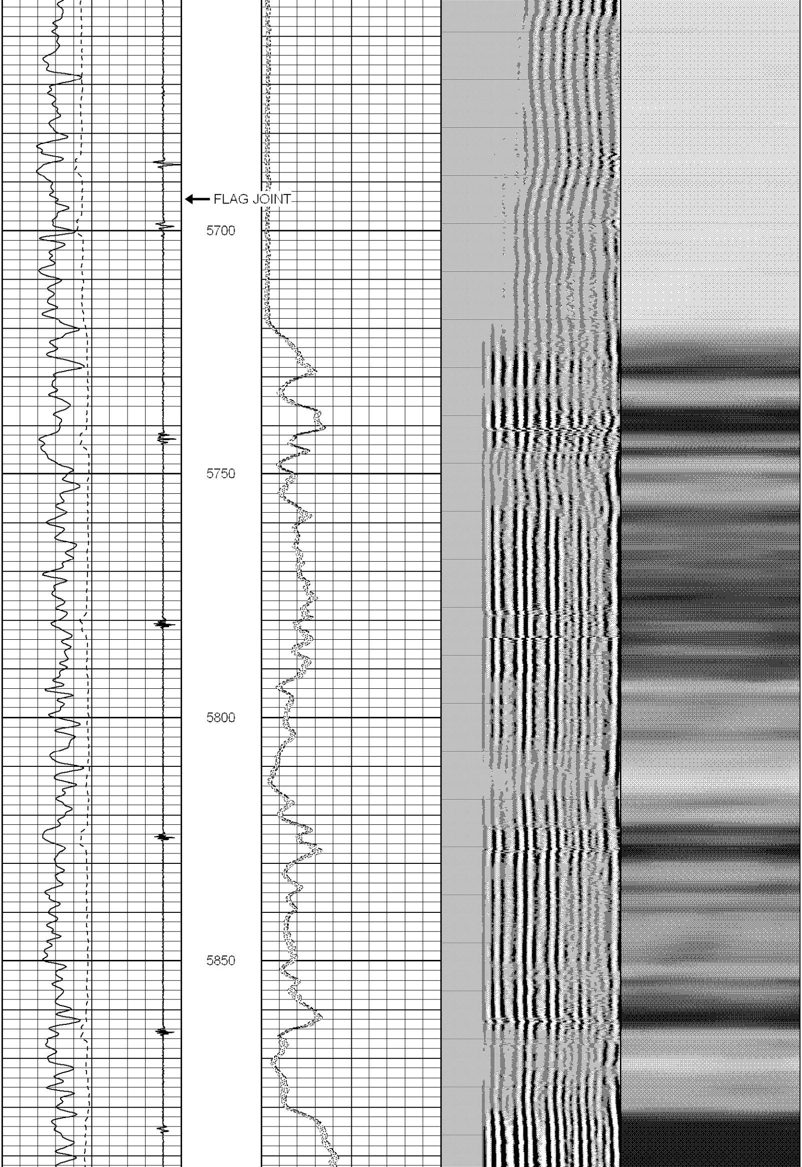
Database File: cbl noble wells ranch usx aa16-64-1hnl.db
Dataset Pathname: pass3
Presentation Format: sector2
Dataset Creation: Thu Mar 07 08:19:06 2013 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

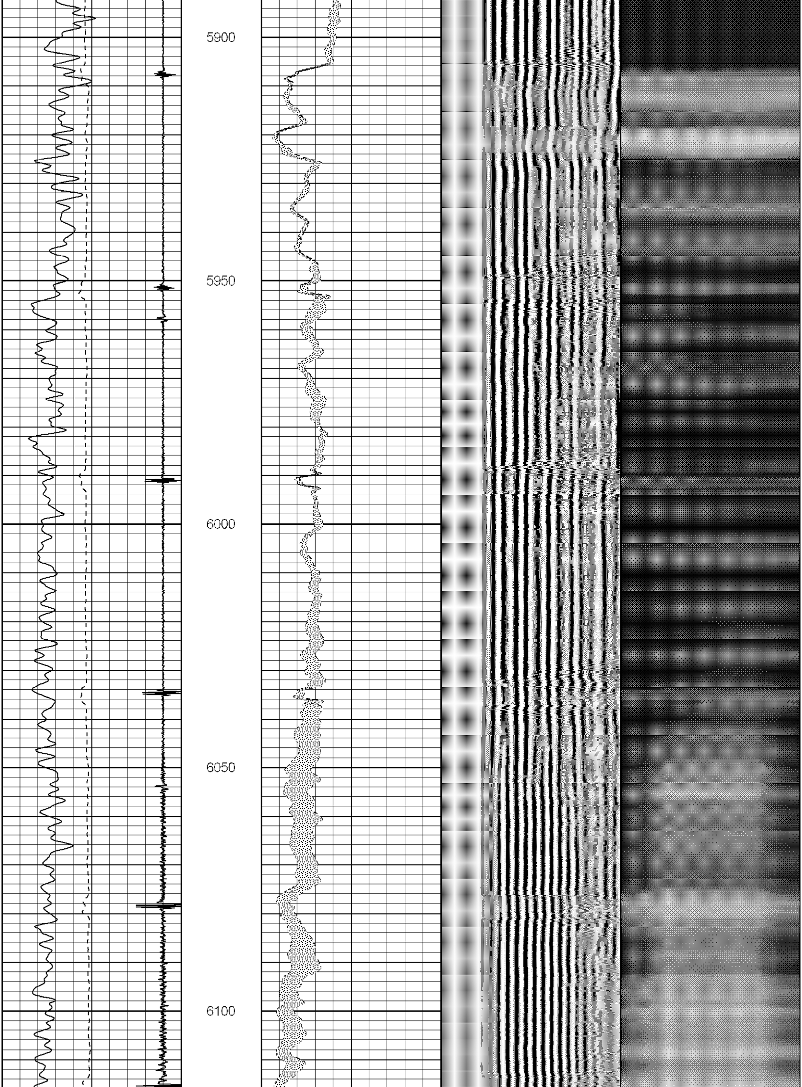
0 GR (GAPI) 200	0 AMPMAX 100	200 WVF5FT 1200	1 Sector Map 8
400 TT3FT (usec) 200	0 AMPAVG 100		
30 CCL -3.3	0 AMPMIN 100		
	0 AMP3FT (mV) 100		

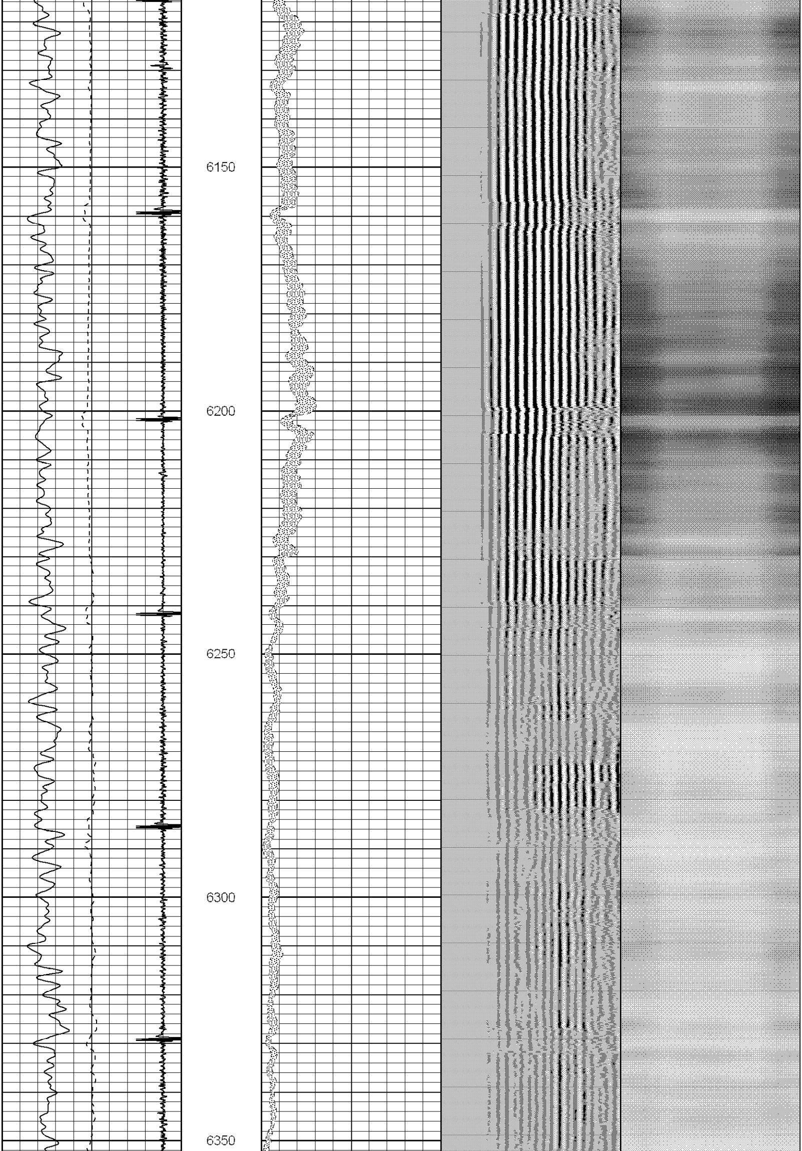


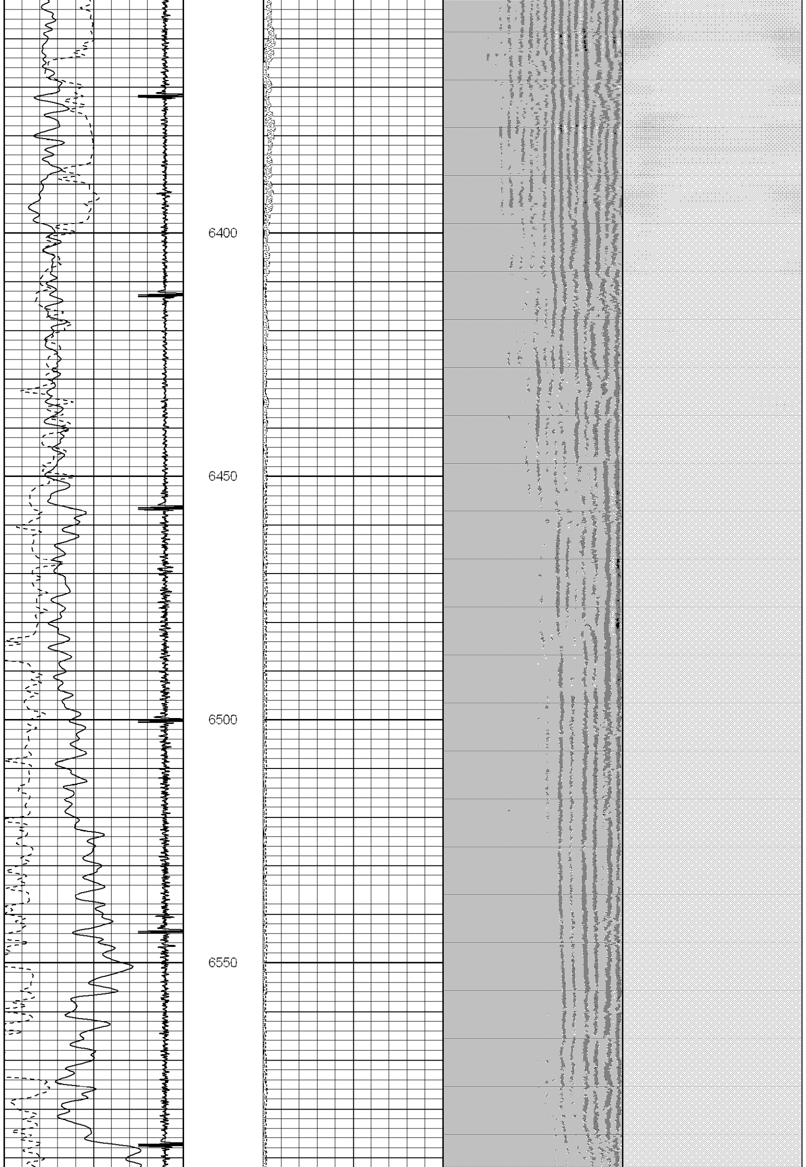


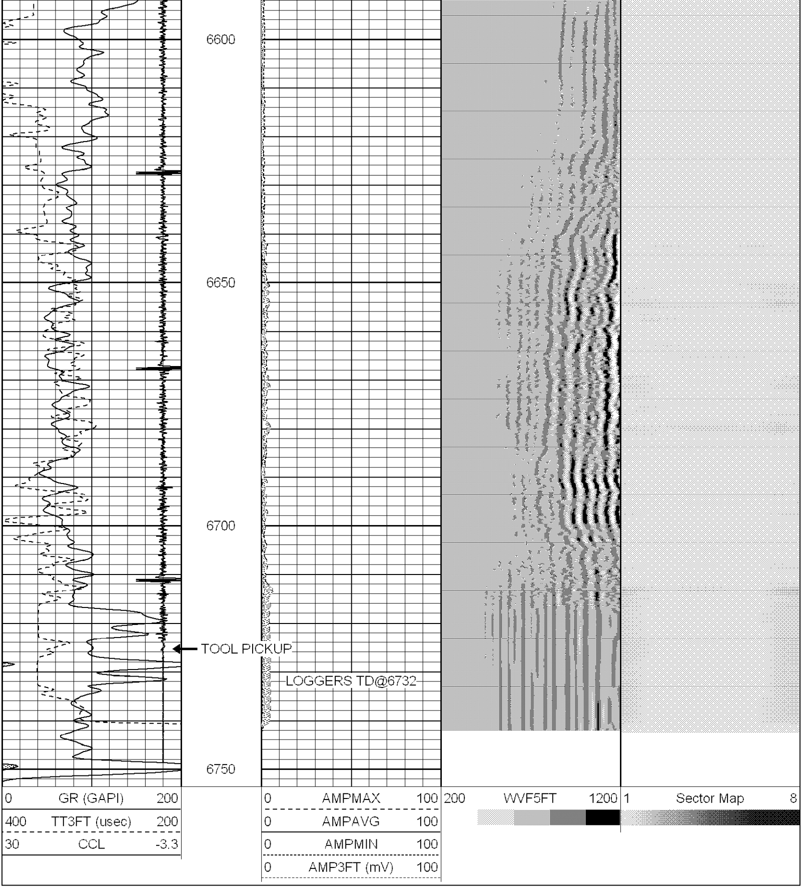












Calibration Report

Database File: cbl noble wells ranch usx aa16-64-1hnl.db
Dataset Pathname: pass3
Dataset Creation: Thu Mar 07 08:19:06 2013 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION Thu Mar 07 06:39:34 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.5000			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:	394.617	ft

Master Calibration, performed Thu Mar 07 08:02:13 2013:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.487	1.300	62.165	41.132	0.986
CAL	0.007	2.010				
5'	0.008	1.691	1.300	62.165	36.152	1.020
SUM						
S1	0.007	1.657	0.000	62.165	37.685	-0.282
S2	0.008	1.659	0.000	62.165	37.639	-0.289
S3	0.007	1.587	0.000	62.165	39.366	-0.293
S4	0.008	1.407	0.000	62.165	44.421	-0.339
S5	0.008	1.246	0.000	62.165	50.182	-0.381
S6	0.008	1.256	0.000	62.165	49.787	-0.376
S7	0.008	1.434	0.000	62.165	43.581	-0.339
S8	0.007	1.594	0.000	62.165	39.196	-0.294

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	2.010	1.000	0.000

Air Zero Calibration, performed Thu Mar 07 08:01:54 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