PIONEER

Pioneer Energy Services

CEMENT BOND LOG WITH GAMMA RAY / CCL

Company	BONANZA CREEK ENERGY
Well	PRONGHORN O24-15-10XRLNB
Field	WATTENBERG
County	WELD
State	CO

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Well PRONGHORN O24-15-10XRLNB
Field WATTENBERG
County WELD State CO

Location: API # : 05-123-41162
SHL: 270' FSL 1417' FWL SESW
SEC 15 TWP 5N RGE 61W

Other Services
NONE

Permanent Datum	GL	Elevation	4669'
Log Measured From	KB		
Drilling Measured From	BK		

Elevation
K.B. 4686'
D.F. 4686'
G.L. 4669'

Date	APRIL 13, 2015
Run Number	1
Depth Driller	NA
Depth Logger	6268'
Bottom Logged Interval	6268'
Top Log Interval	SURFACE
Open Hole Size	8.75
Type Fluid	WATER
Density / Viscosity	NA
Max. Recorded Temp.	NA
Estimated Cement Top	1115'
Time Well Ready	1130
Time Logger on Bottom	1200
Equipment Number	P-109
Location	FT. MORGAN
Recorded By	SHAUN STUMP
Witnessed By	DARYK BARBEROUSSE

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#	SURFACE	446'
Prot. String				
Production String	7"	26#	SURFACE	6602'
Liner				

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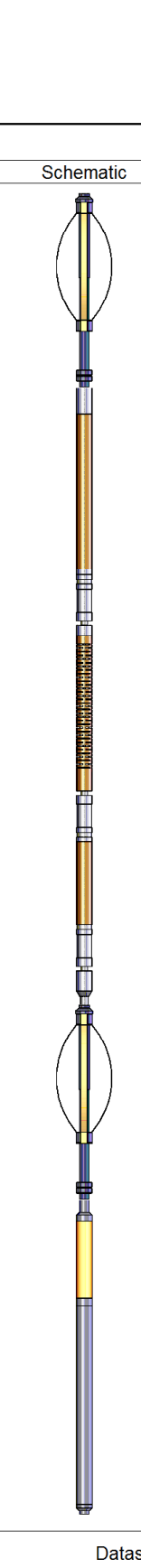
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

0 PSI ON WELL WHILE LOGGING

S.O. 2-014046

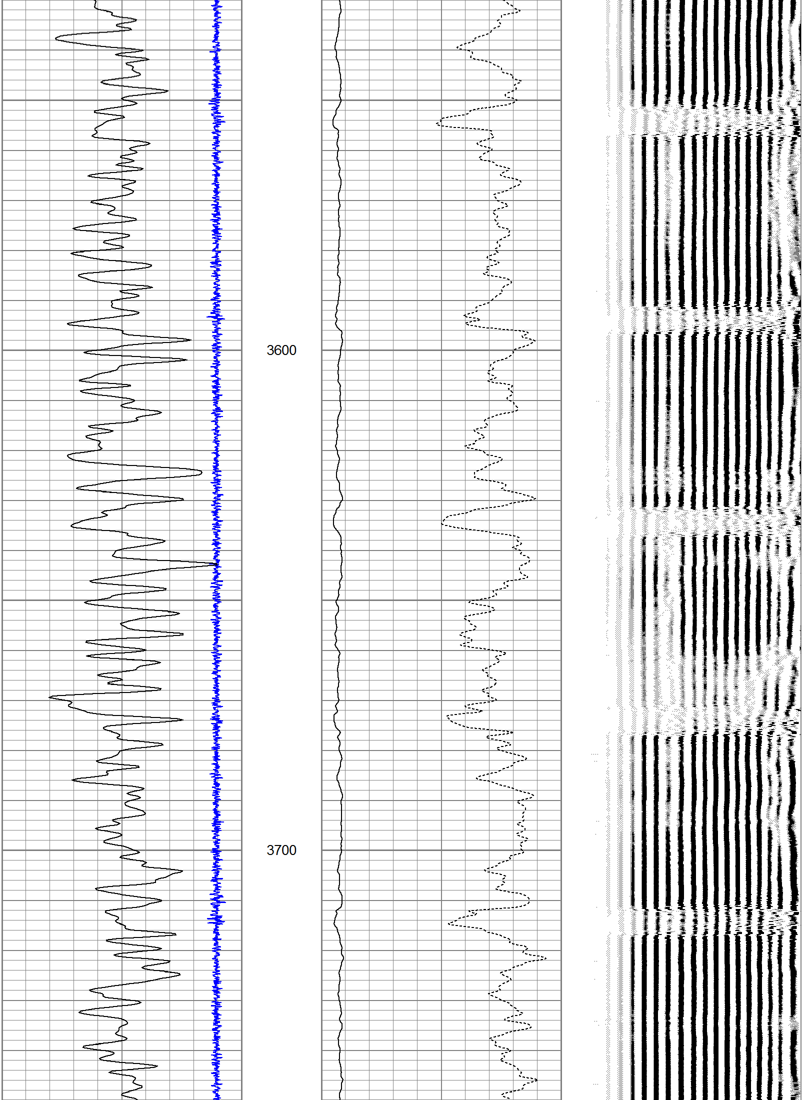


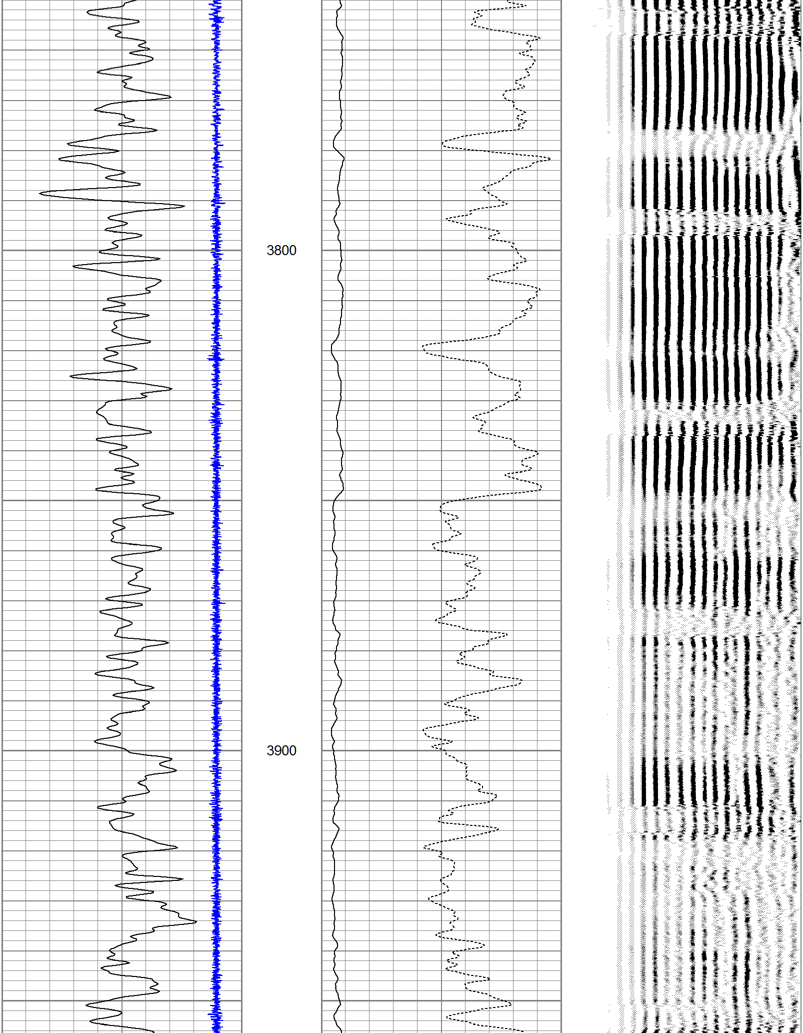
Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		PTS275	2.83	2.75	
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 10.63	RBT-Probe (Base) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
		PTS275	2.83	2.75	
CCL	3.63				
GR	2.30	GR_CCL-Probe (111211) Probe Gamma CCL	4.54	2.75	100.00

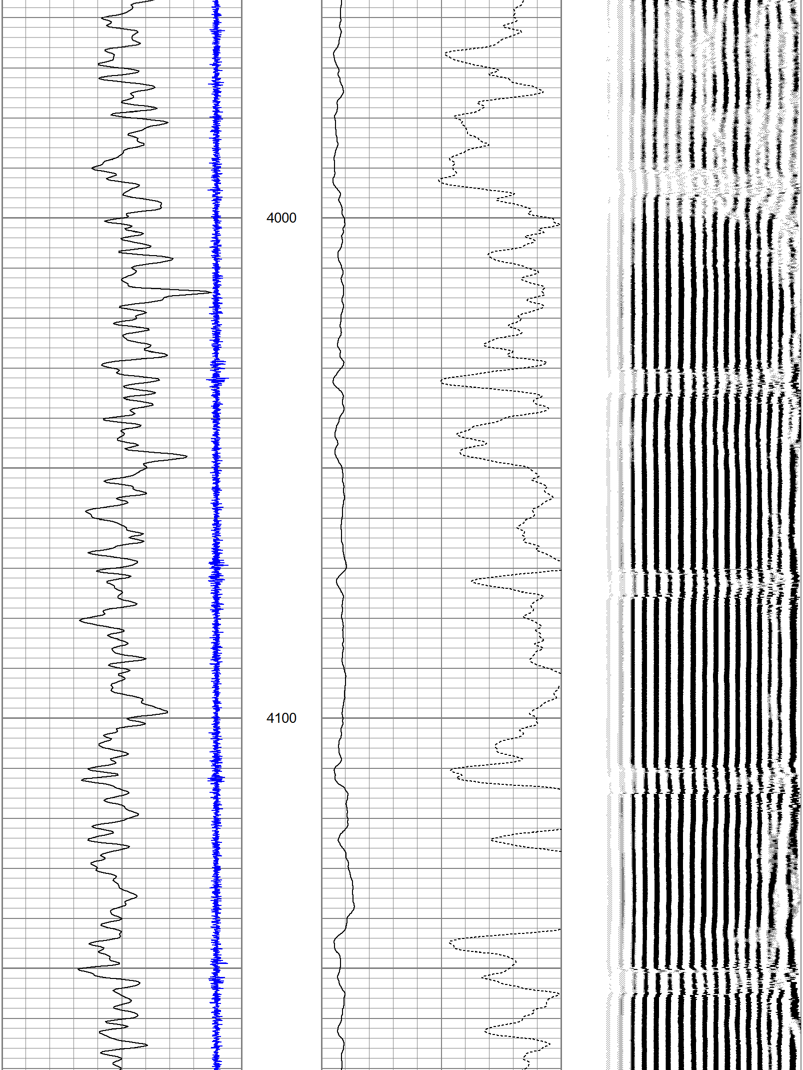
Dataset: 14046.db: field/well/run1/Final
Total Length: 19.13 ft
Total Weight: 190.00 lb
O.D. 2.75 in

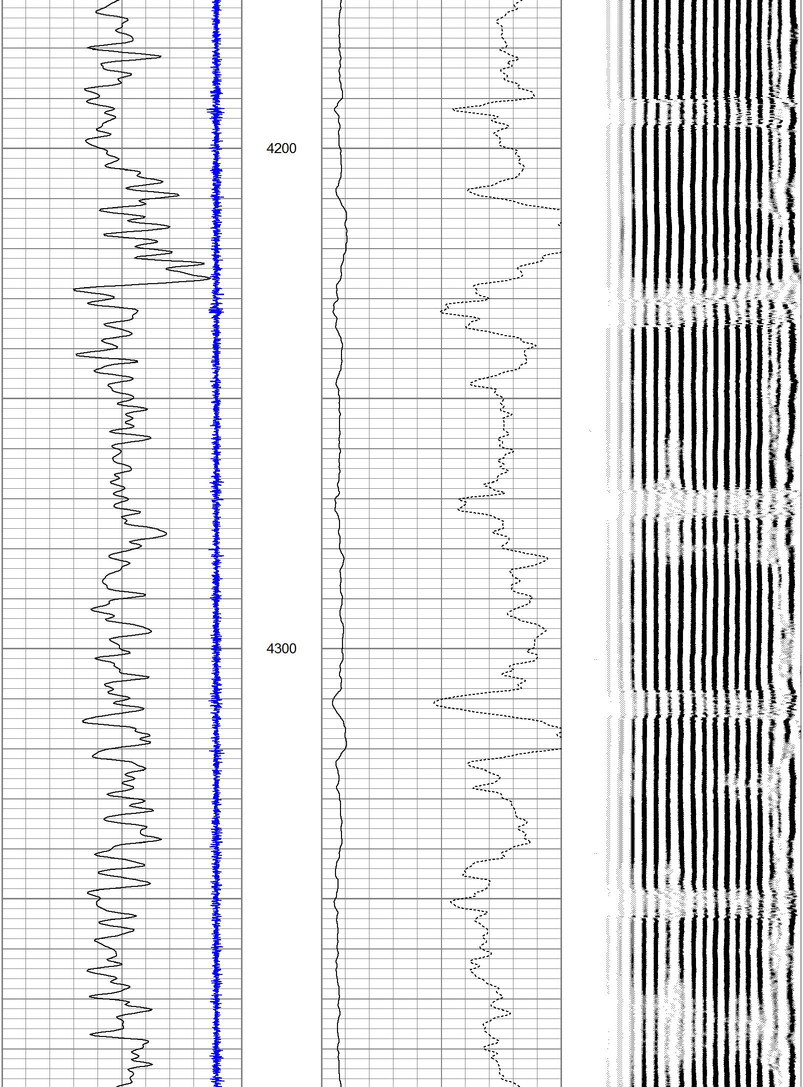
Database File:	14046.db
Dataset Pathname:	Final
Presentation Format:	cbl
Dataset Creation:	Mon Apr 13 13:28:51 2015 by Calc 7.0 B1
Charted by:	Depth in Feet scaled 1:240

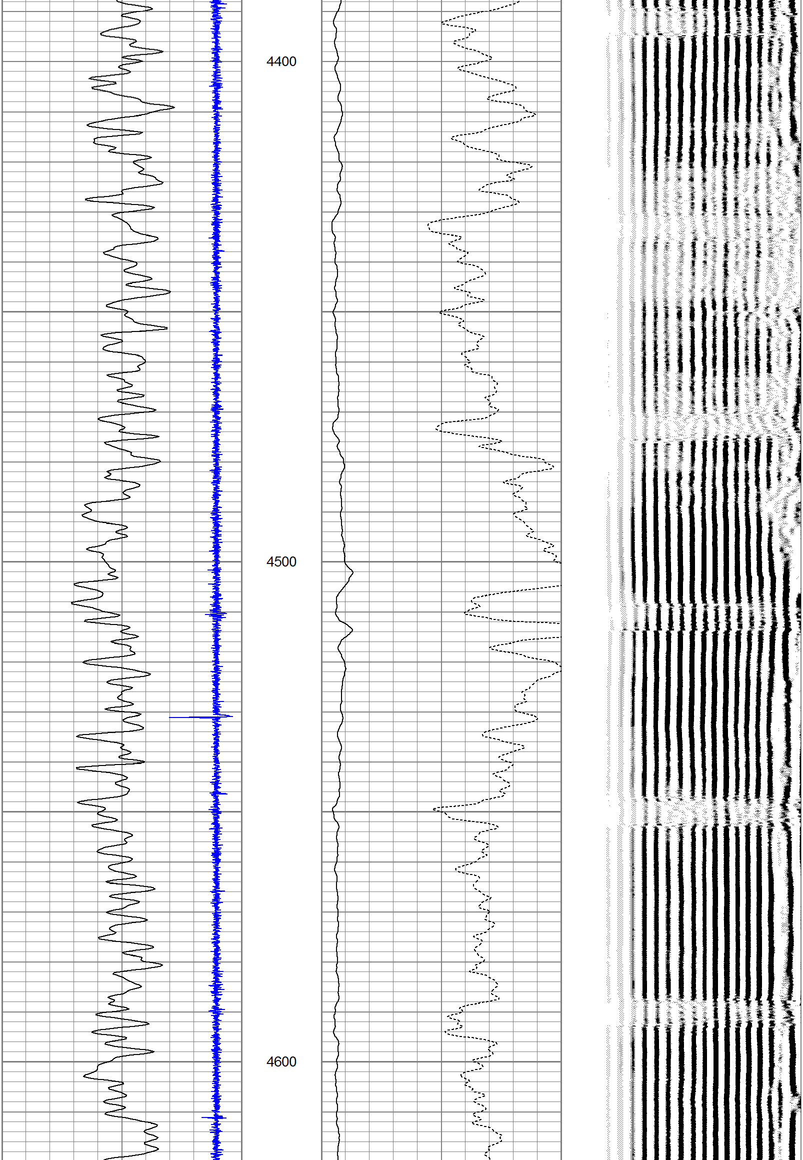
9	Collar Locator	-1	0	AMP AMPLITUDE (mV)	10	200	VDL	1200
0	Gamma Ray (GAPI)	200	0	AMPLITUDE (mV)	100			

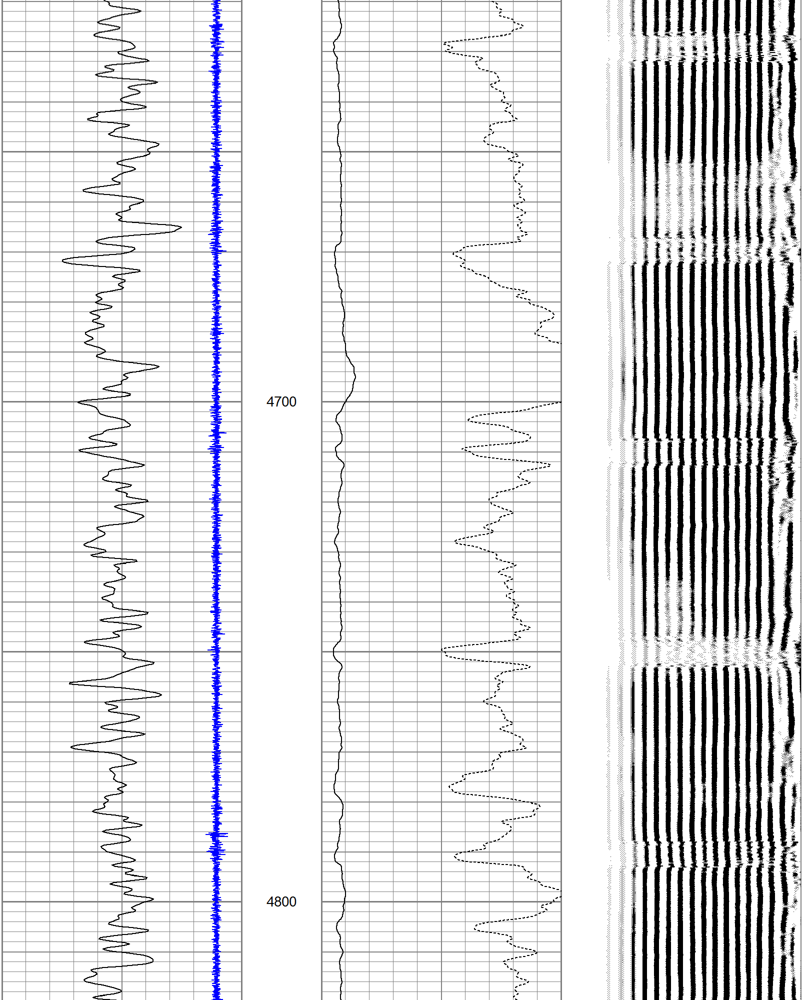


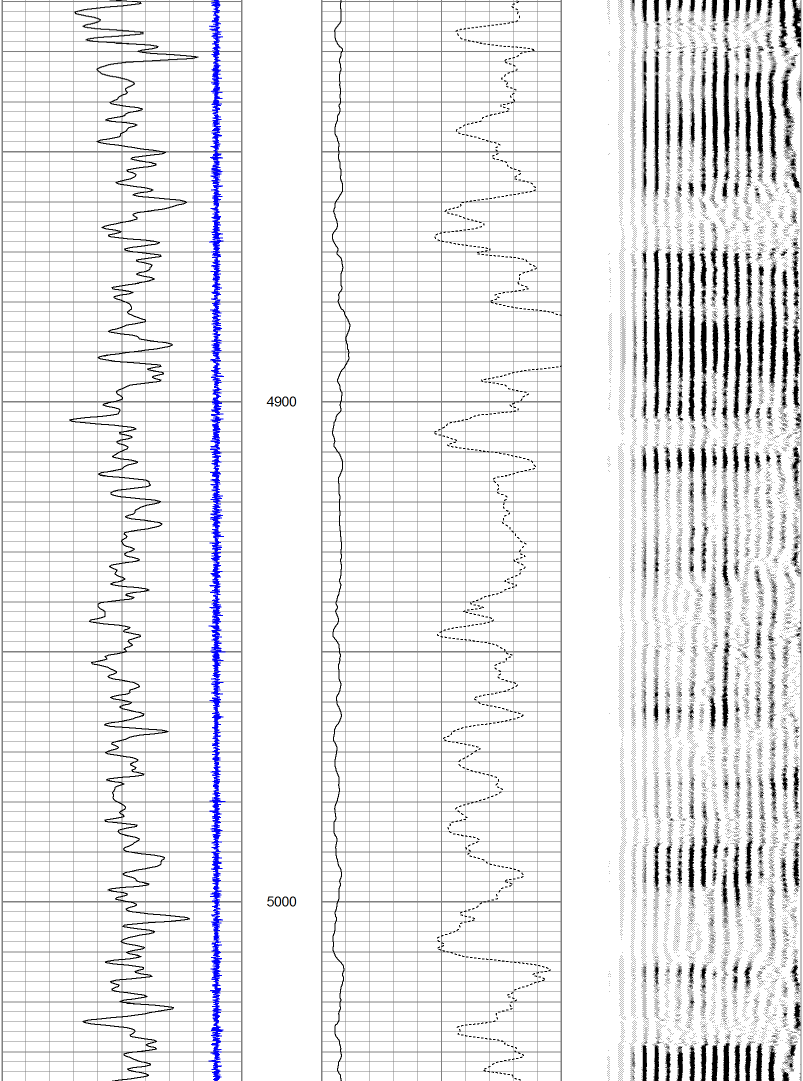


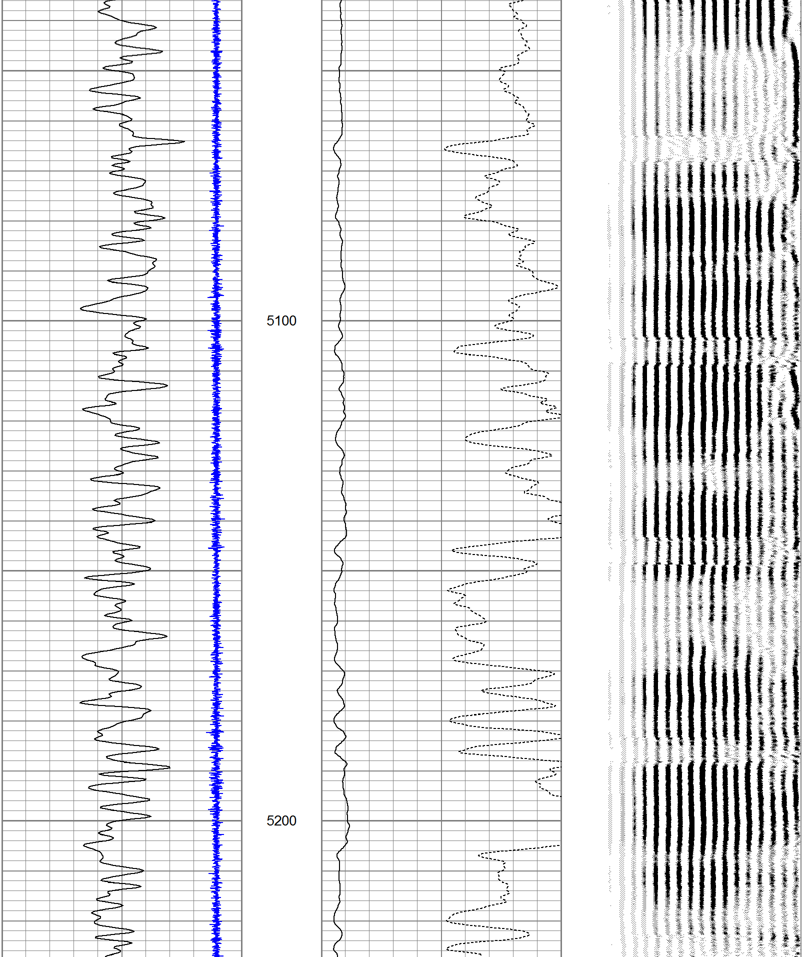


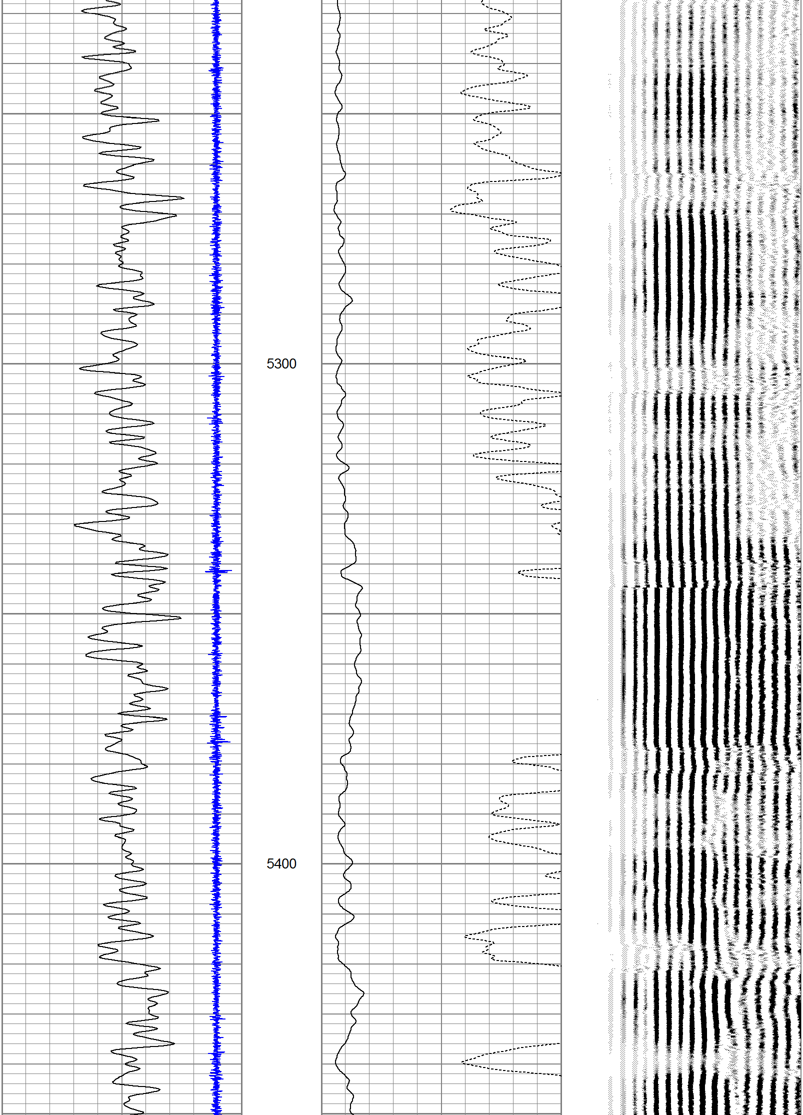


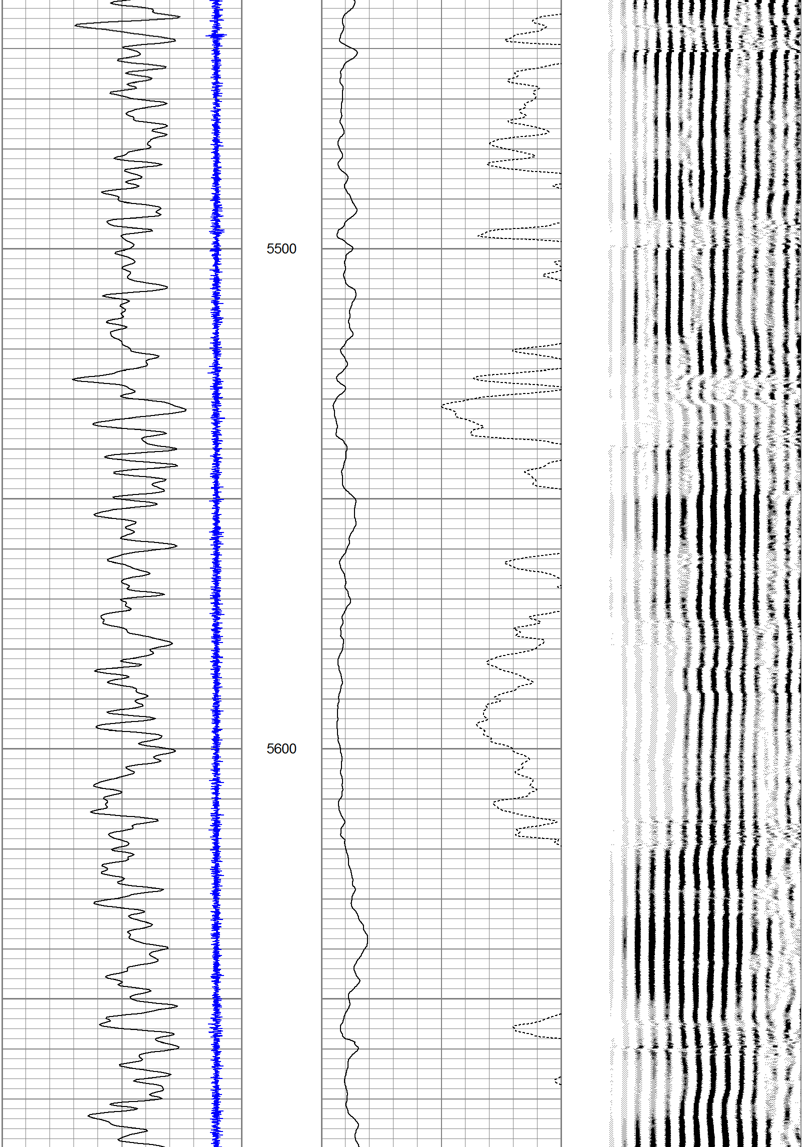


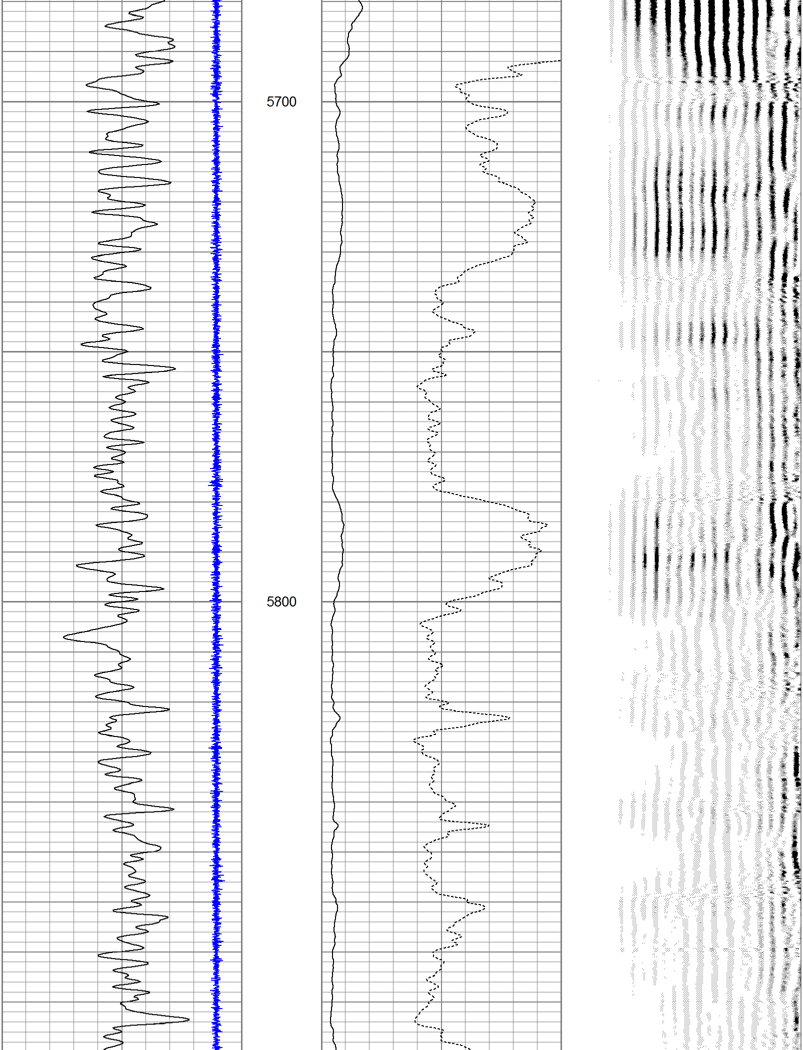


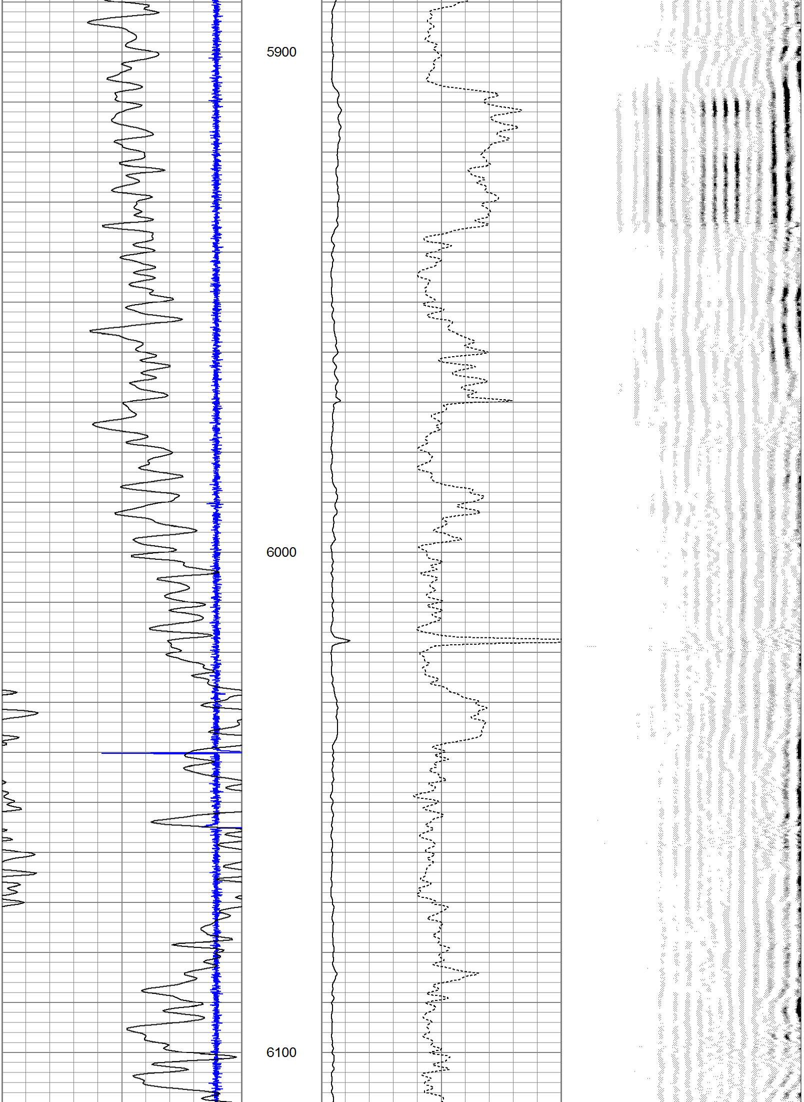


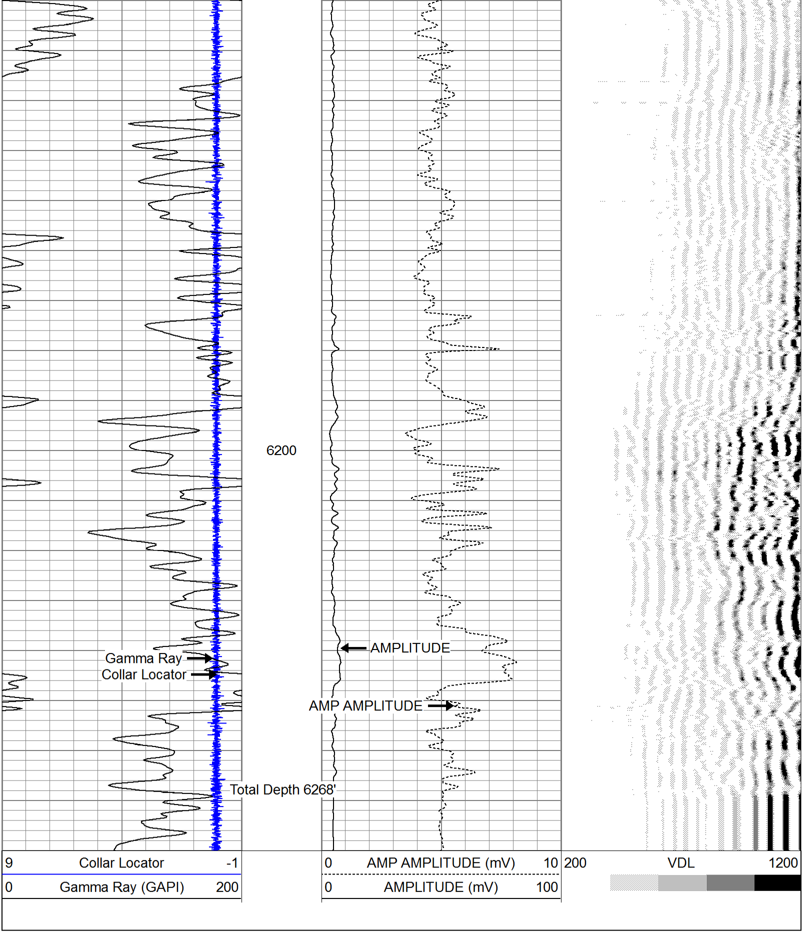












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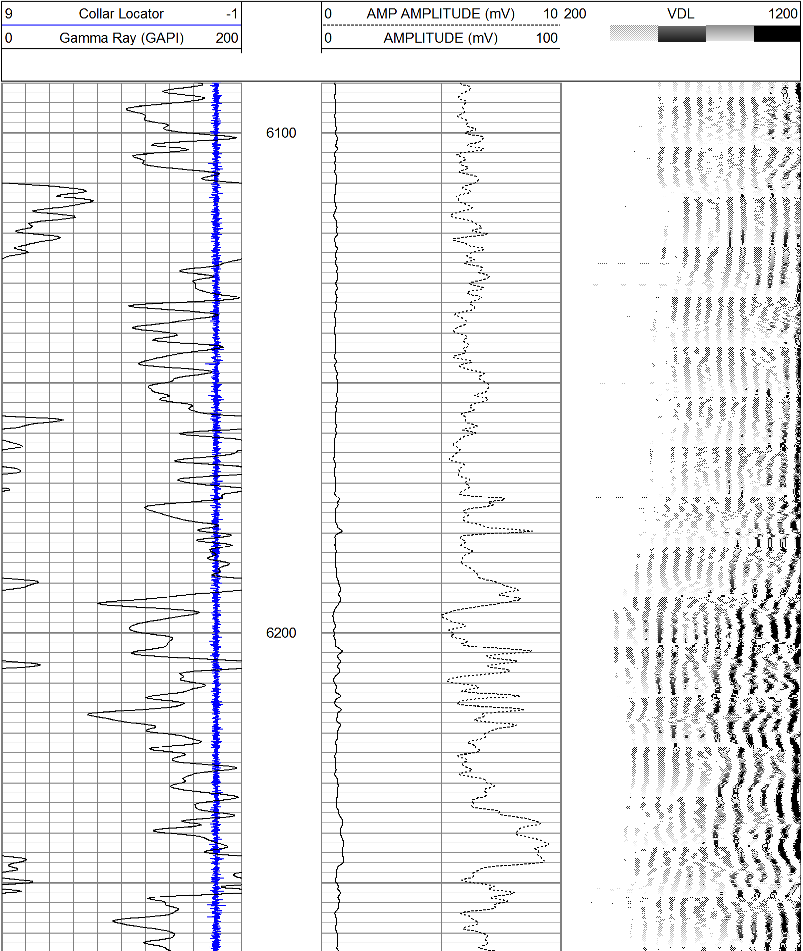
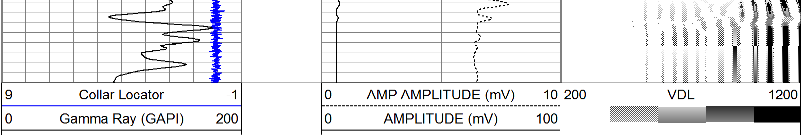
REPEAT SECTION

Database File:	14046.db
Dataset Pathname:	pass2.2
Presentation Format:	cbl
Dataset Creation:	Mon Apr 13 13:26:02 2015 by Calc 7.0 B1
Charted by:	Depth in Feet scaled 1:240





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END OF REPEAT

Calibration Report

Database File:	14046.db
Dataset Pathname:	pass2
Dataset Creation:	Mon Apr 13 12:01:36 2015 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number:	111211	
Tool Model:	Probe	
Performed:	Mon Apr 13 12:15:55 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.8000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	Base	
Tool Model:	Probe	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	320.183	ft

Master Calibration, performed Mon Apr 13 09:54:26 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.014	0.719	2.000	62.165	82.022	3.155
CAL	1.000	1.009				
5'	0.164	0.693	2.000	62.165	113.728	-16.695
SUM						
S1	-0.068	0.632	0.000	100.000	143.042	9.663
S2	-0.077	0.613	0.000	100.000	144.958	11.097
S3	-0.042	0.638	0.000	100.000	147.083	6.173
S4	-0.030	0.709	0.000	100.000	135.402	4.037
S5	-0.043	0.790	0.000	100.000	120.057	5.189
S6	-0.047	0.845	0.000	100.000	112.217	5.231
S7	-0.030	0.792	0.000	100.000	121.622	3.624
S8	-0.077	0.703	0.000	100.000	128.188	9.907

Internal Reference Calibration, performed Wed Aug 21 11:08:58 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	1.000	1.009	1.000	0.000

Air Zero Calibration, performed Mon Apr 13 09:38:39 2015:

	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

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