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CEMENT BOND LOG

Company	EXTRACTION OIL & GAS
Well	WINDSOR LV B-14H
Field	WATTENBERG
County	WELD State CO

Company EXTRACTION OIL & GAS
Well WINDSOR LV B-14H
Field WATTENBERG
County WELD State CO

API No.: 05-123-38168 Serv #: 1002
Location: 1245' FNL & 265' FEL
LAT: 40.490860
LONG: -104.852250

Other Services
TEMPERATURE
CCL

Sec: 14 Twp: 6N Rge: 67W

Permanent Datum	GROUND LEVEL	Elevation	4845'
Log Measured From	KB , 24 Ft. above perm. datum	Elevation	K.B. 4867' D.F. 4866' G.L. 4845'
Drilling Measured From	KB		

Date @ Time Logged	4 JAN 2015 @ 1700 HRS	Type Fluid in Hole	WATER
Run No.	ONE	Density of Fluid	8.4 PPG
Depth - Driller	11,721'	Fluid Level	35'
Depth - Logger	7395'	Cement Top Est. Logged	Surface
Bottom - Logged Interval	7383'	Equipment / Location	GD 114 / CASPER,WY
Top - Log Interval	SURFACE	Recorded by	J. BAKER
Max. Recorded Temp.	234°F	Witnessed by	TONY

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented				
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume	/	/	/	/
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt	/	/	/	/

Borehole Record				Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
				9 5/8"	36#	SURFACE	700'
				7"	26#	SURFACE	7700'
				4 1/2"	11.6#	6700'	11,976'

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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

Cement Bond Log was the initial log ran on the well dated1/04/2015
Cement top was estimated @ surface due to intermitent formation arrivals.
Max temp on bottom was 234°F
Kick off Point was unknow to logging crew

Your crew today was B. Kennicker, M. Stewart

Thank you for using Gyrodata Logging Services, Casper, WY

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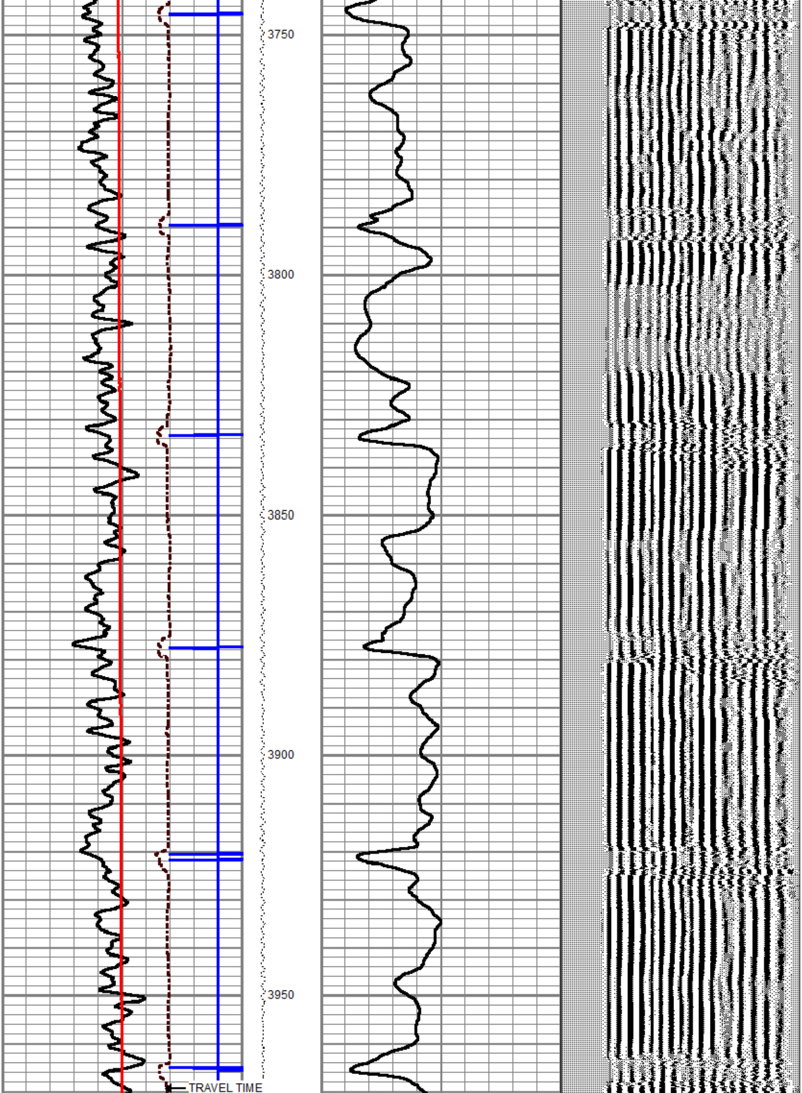
CEMENT BOND PRESENTATION

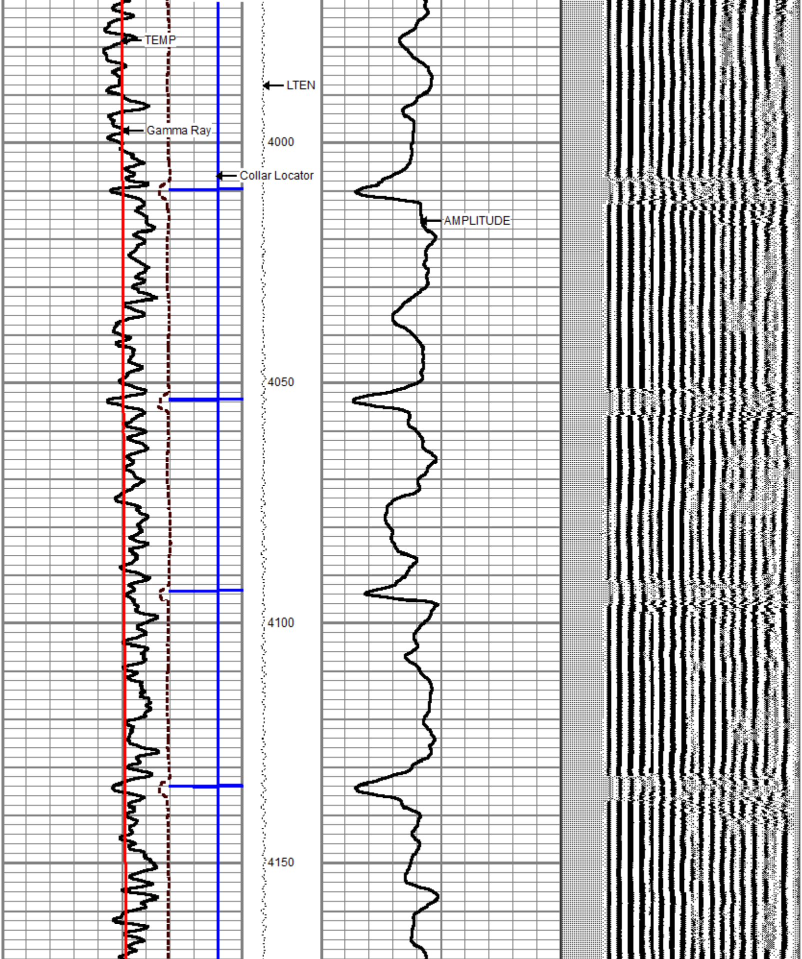
MAIN LOG SECTION / 0 PSI

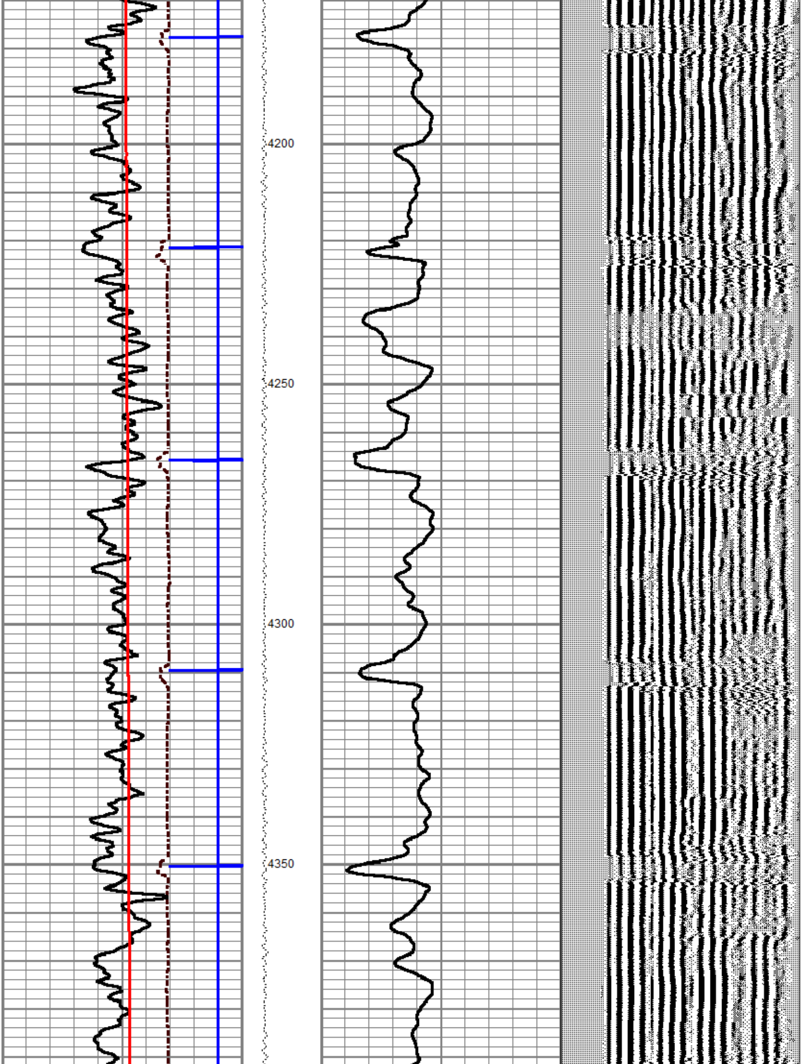
5" = 100'

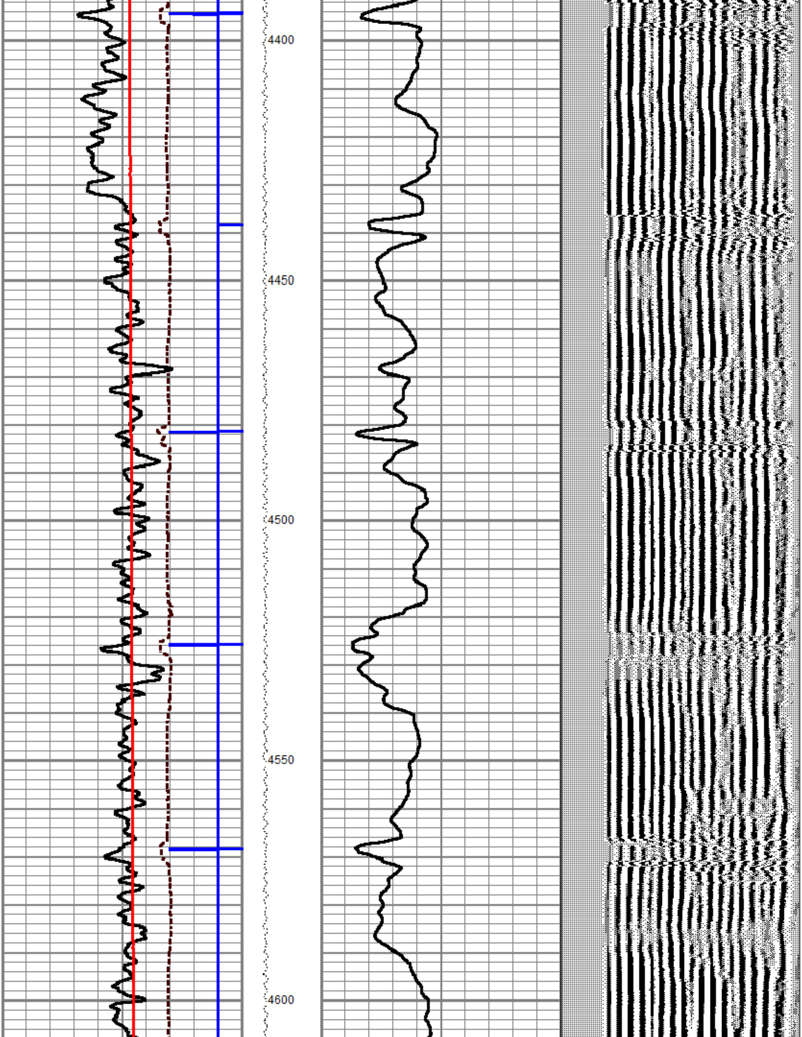
Database File	f:\well database\extraction\2015_extraction_windsor_lv_b_14_h\warrior\2015_extraction_windsor_lv_b_14_h.db
Dataset Pathname	pass1.2
Presentation Format	cbl_drs
Dataset Creation	Sun Jan 04 19:47:59 2015
Charted by	Depth in Feet scaled 1:240

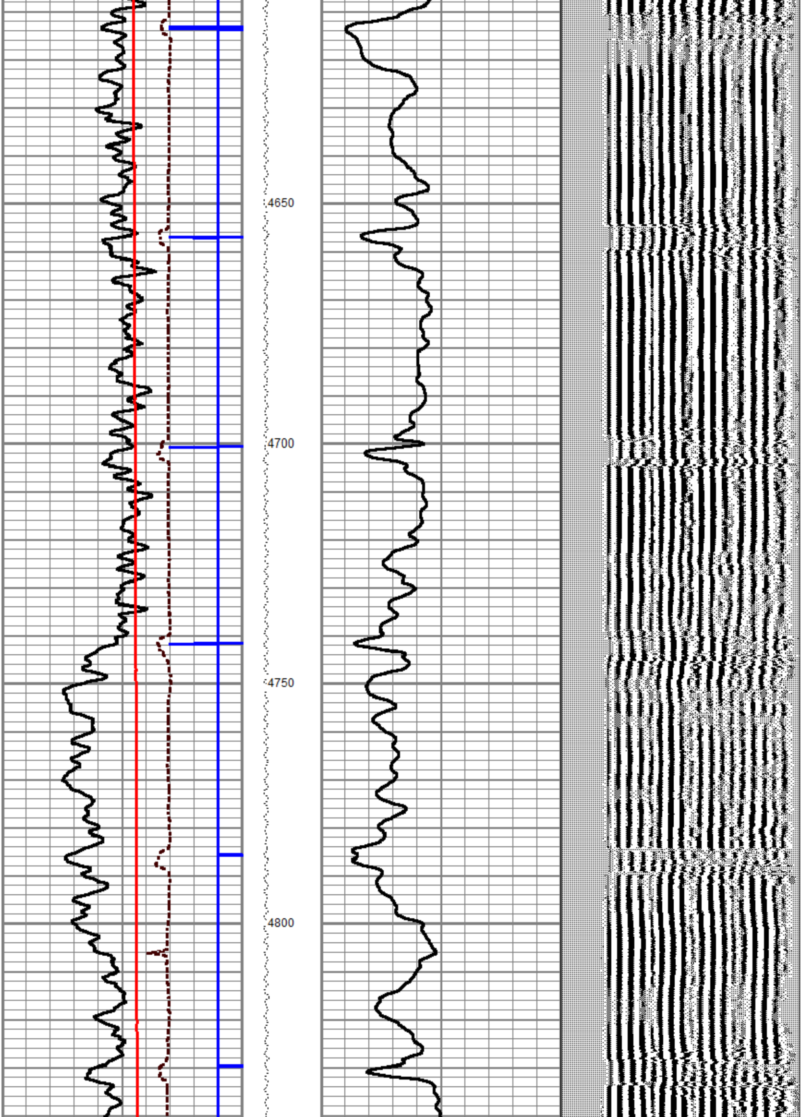
400 TRAVEL TIME (usec) 200
9 Collar Locator -1
0 Gamma Ray 200
0 TEMP (degF) 300
LTEN 0 (lb) 2000
0 AMP AMPLITUDE x 10 (mV) 10
0 AMPLITUDE (mV) 100
200 VDL 1200

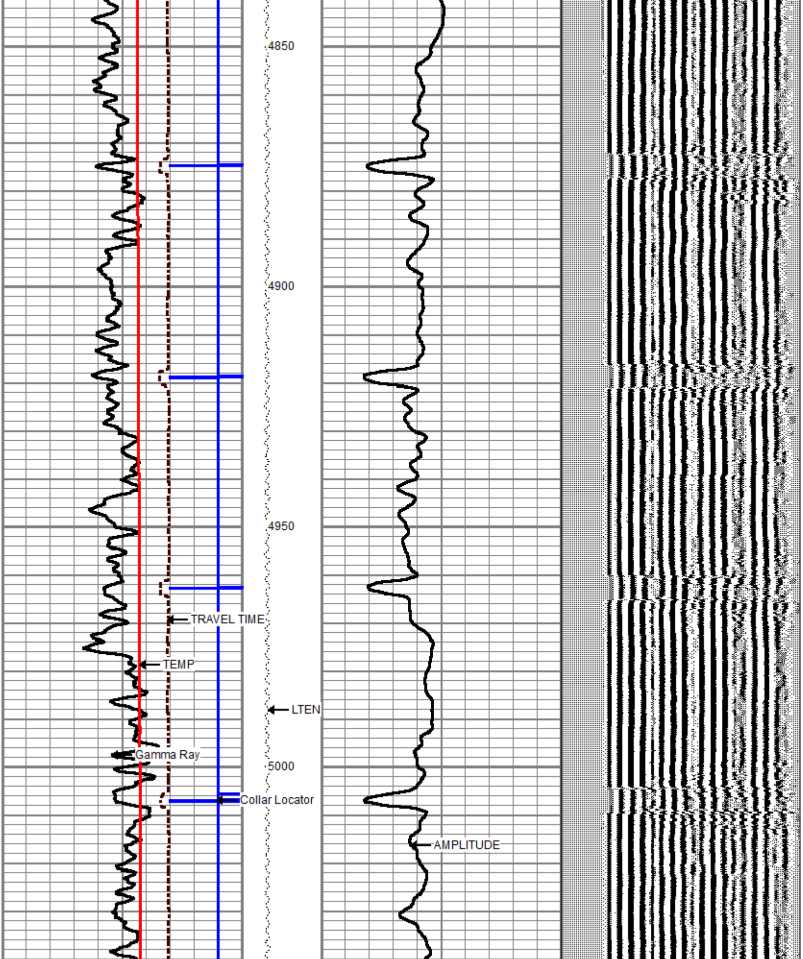


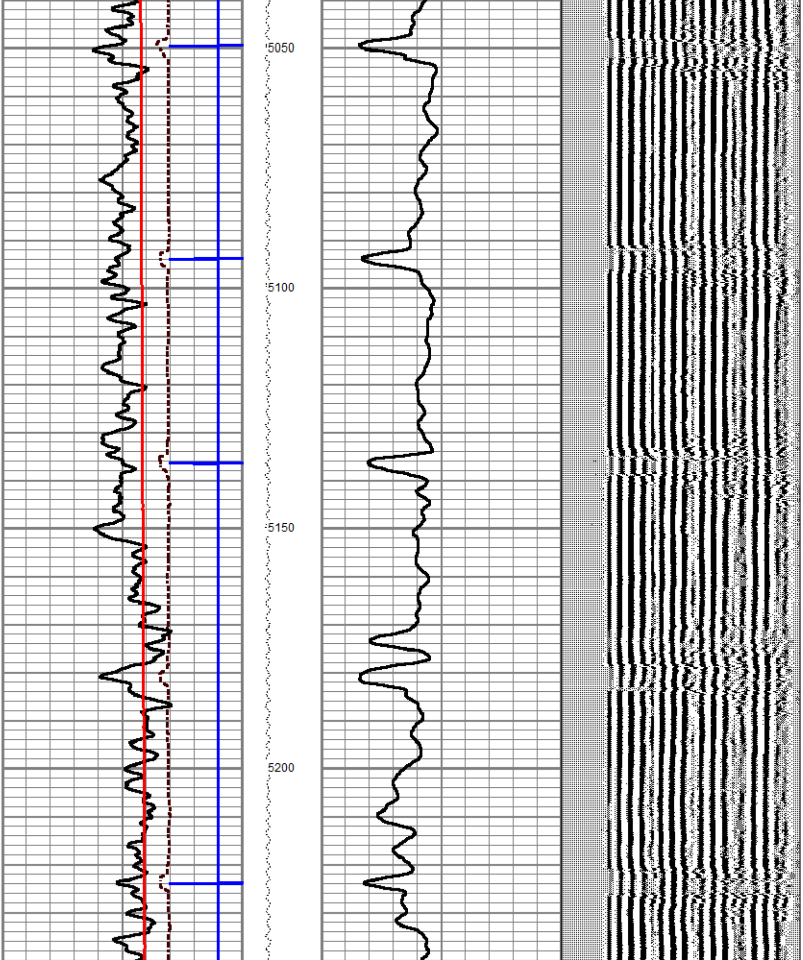


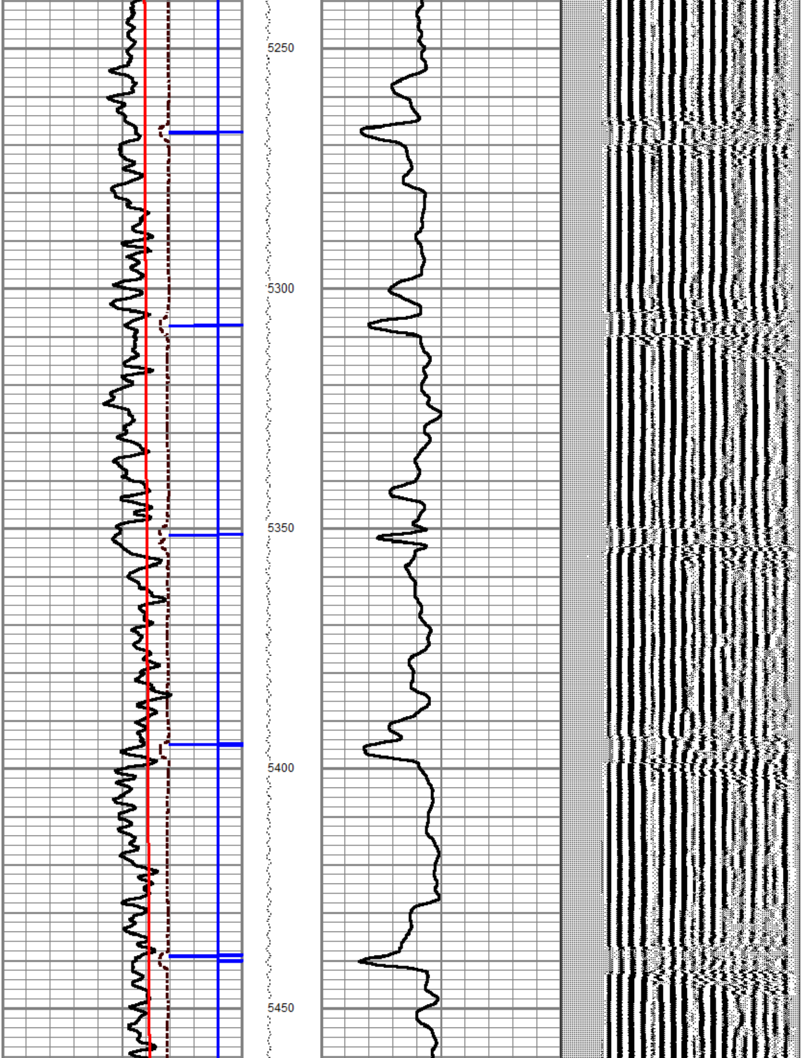


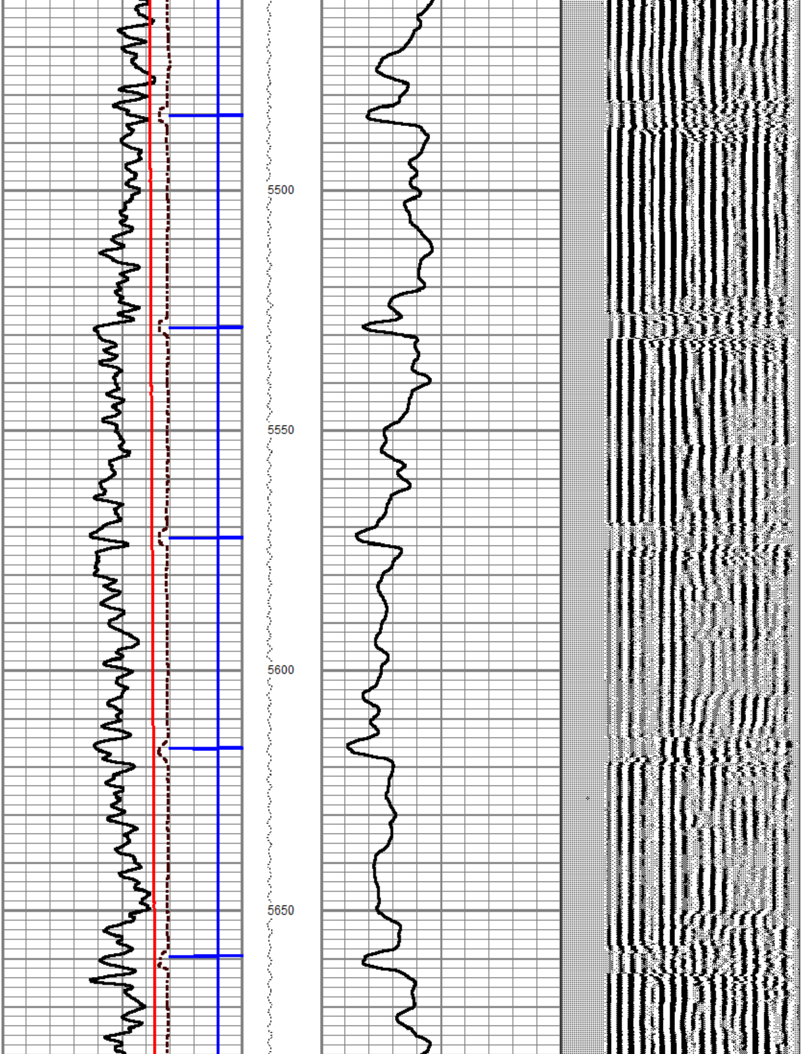


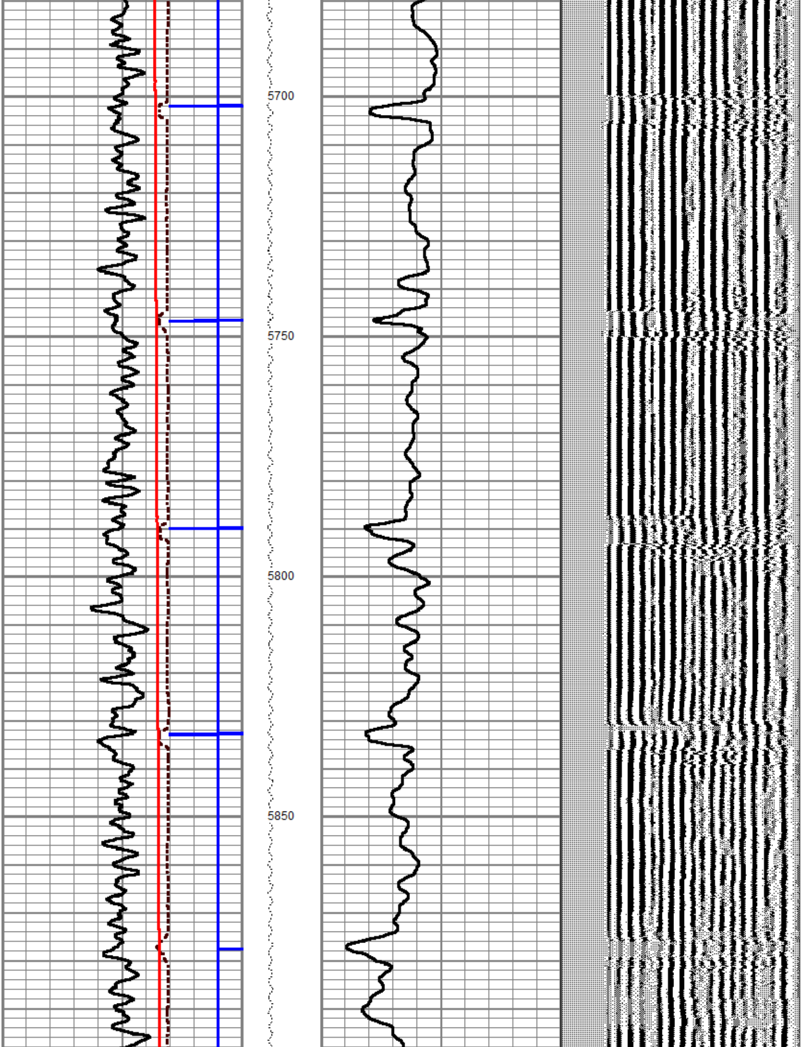


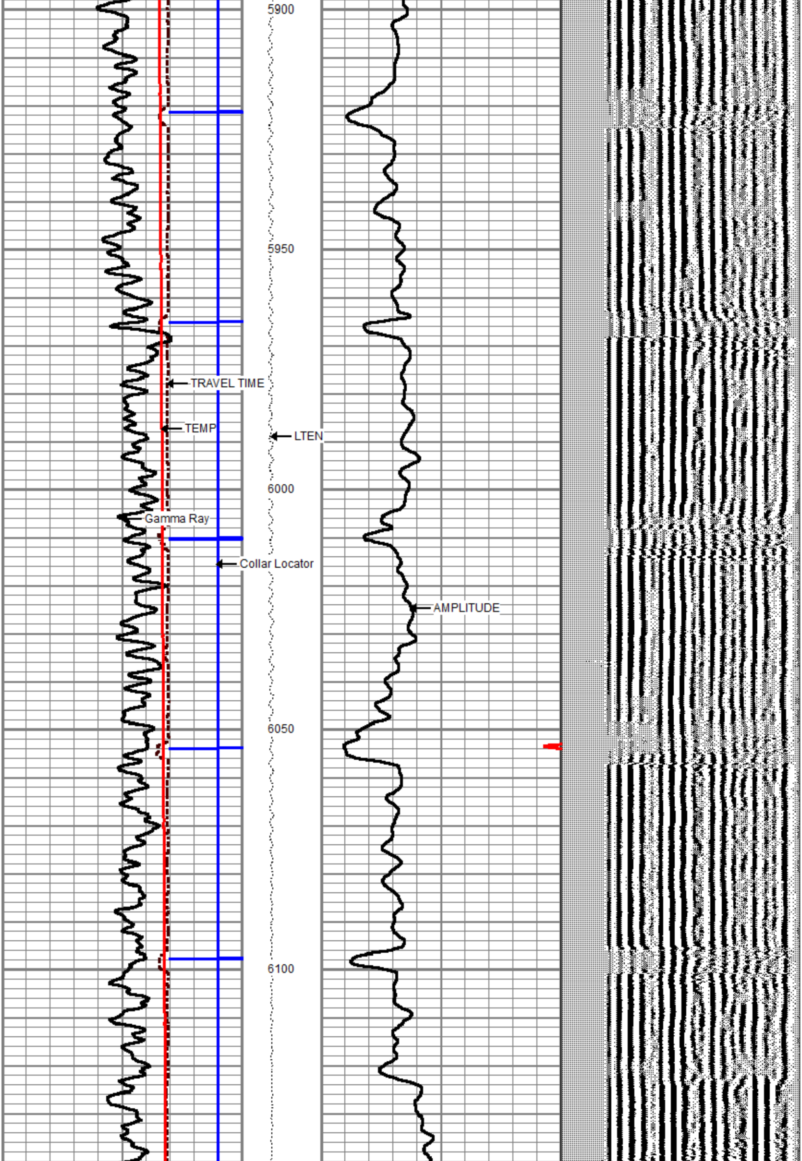


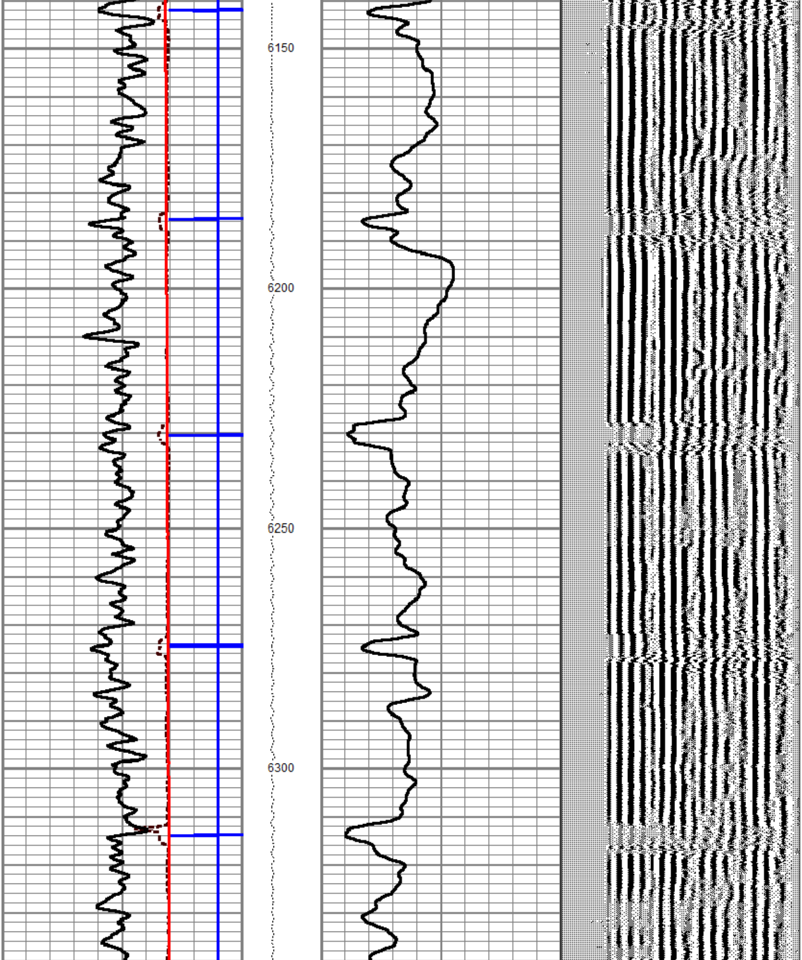


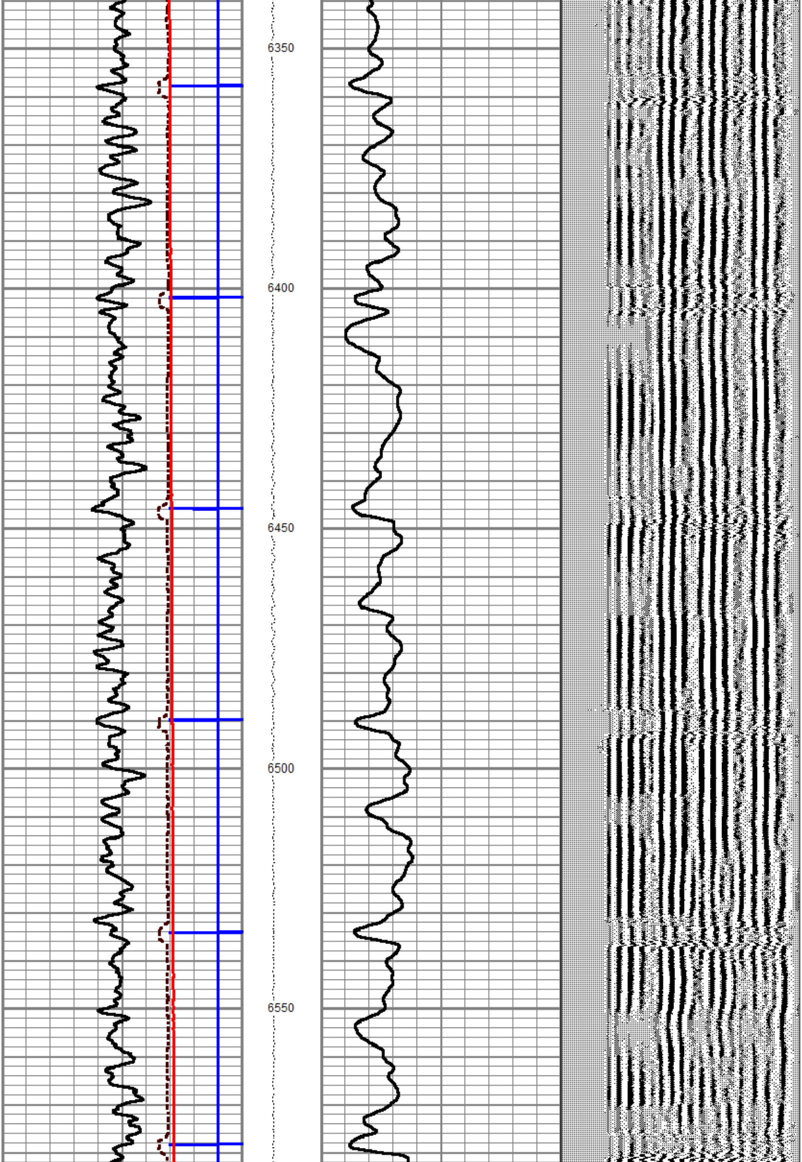


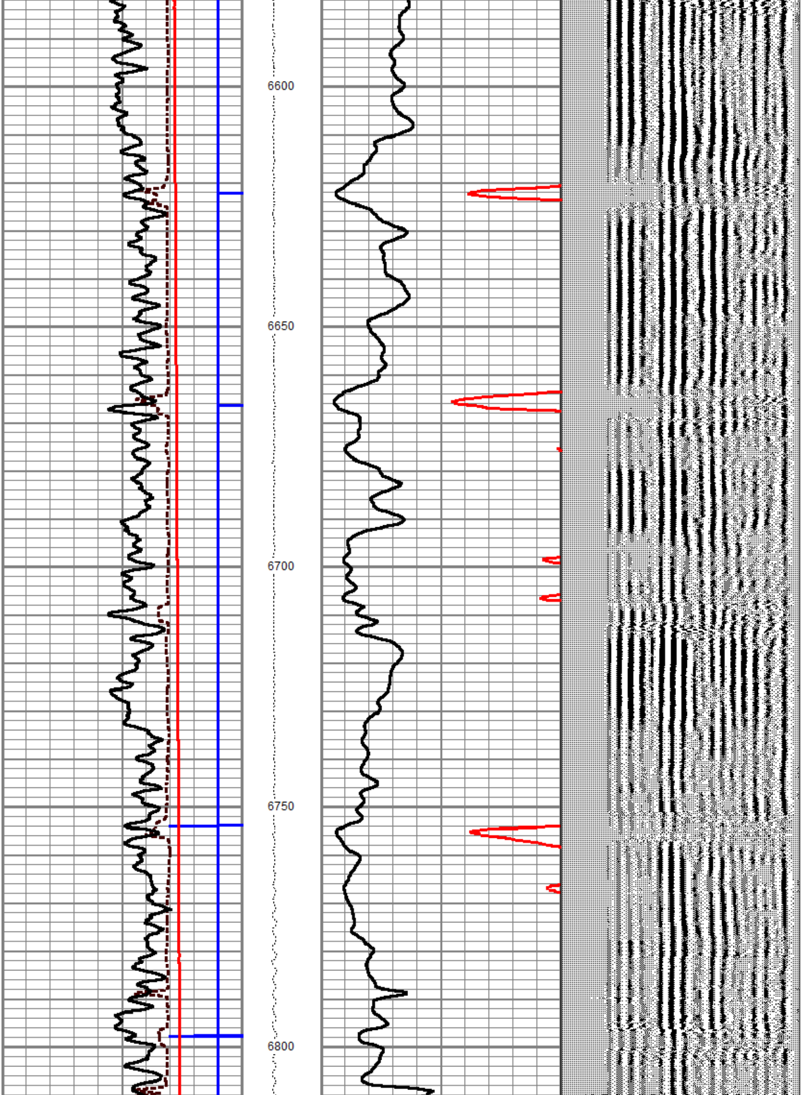


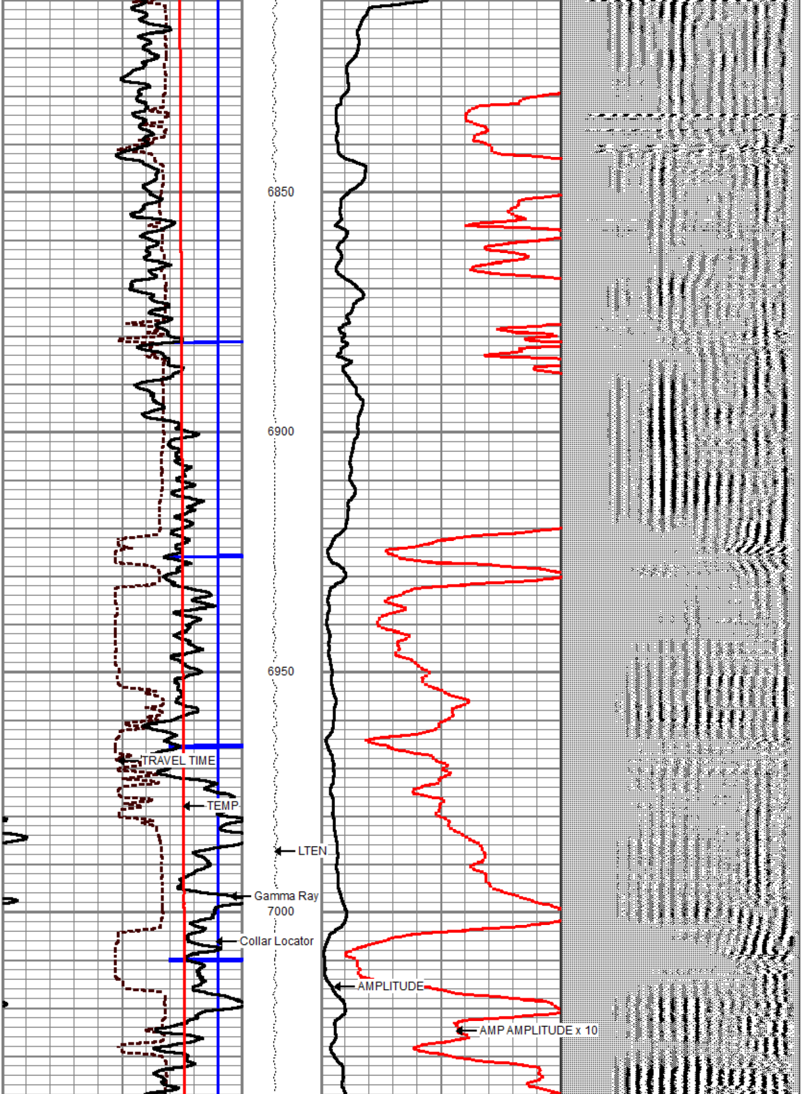


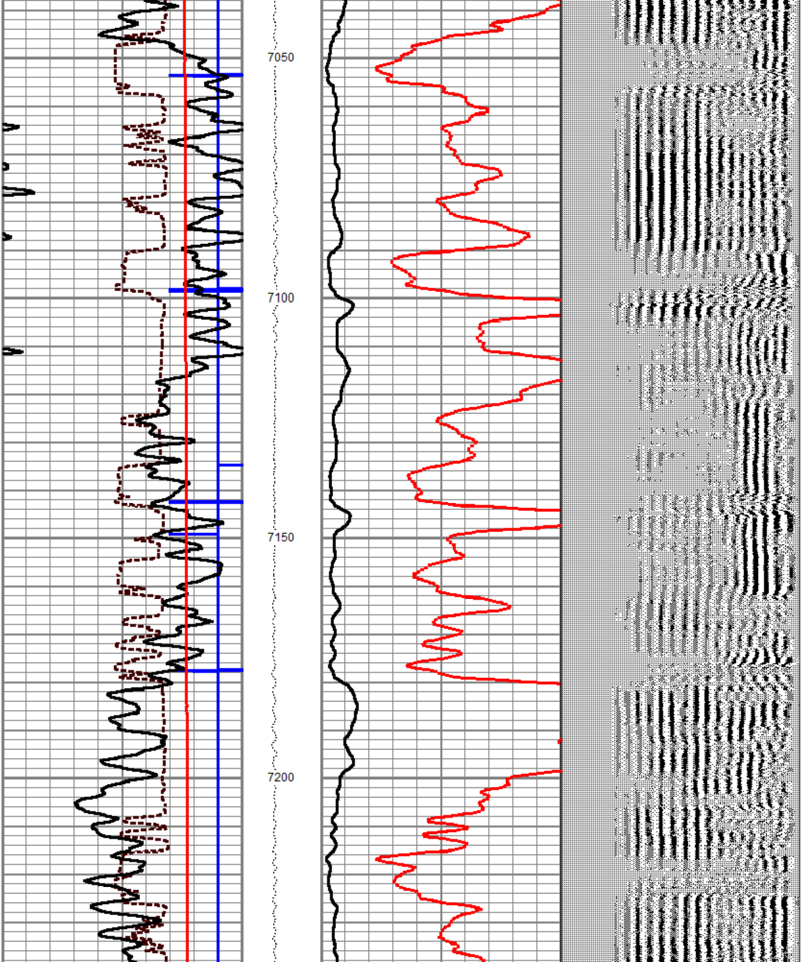


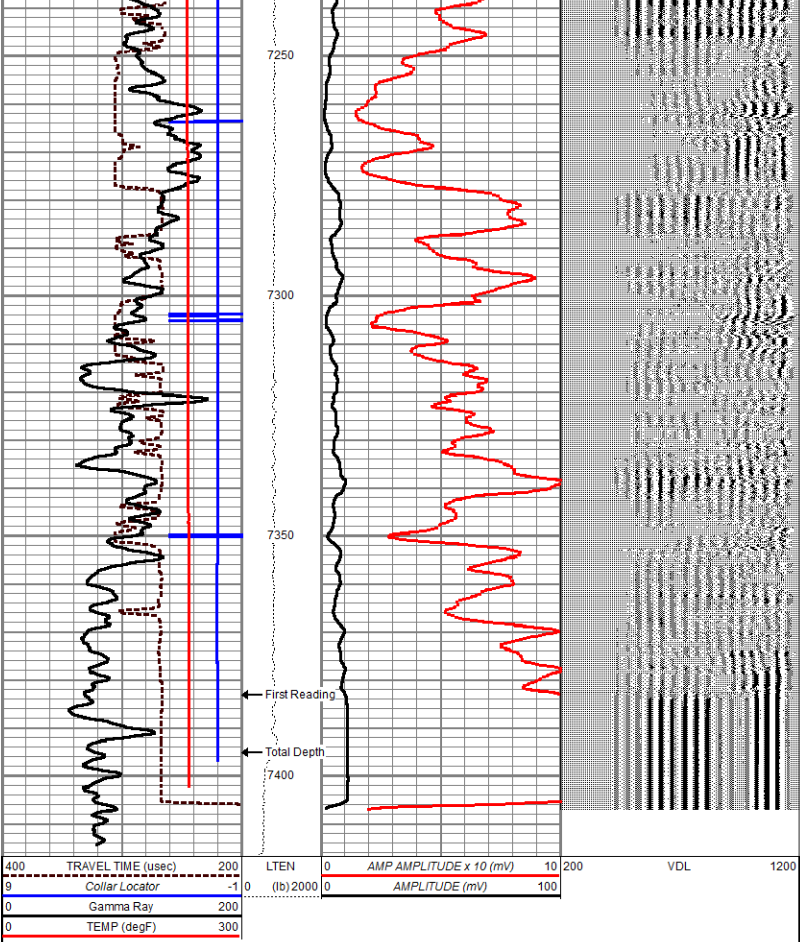












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CEMENT BOND PRESENTATION

MAIN LOG SECTION / 0 PSI
5" = 100'

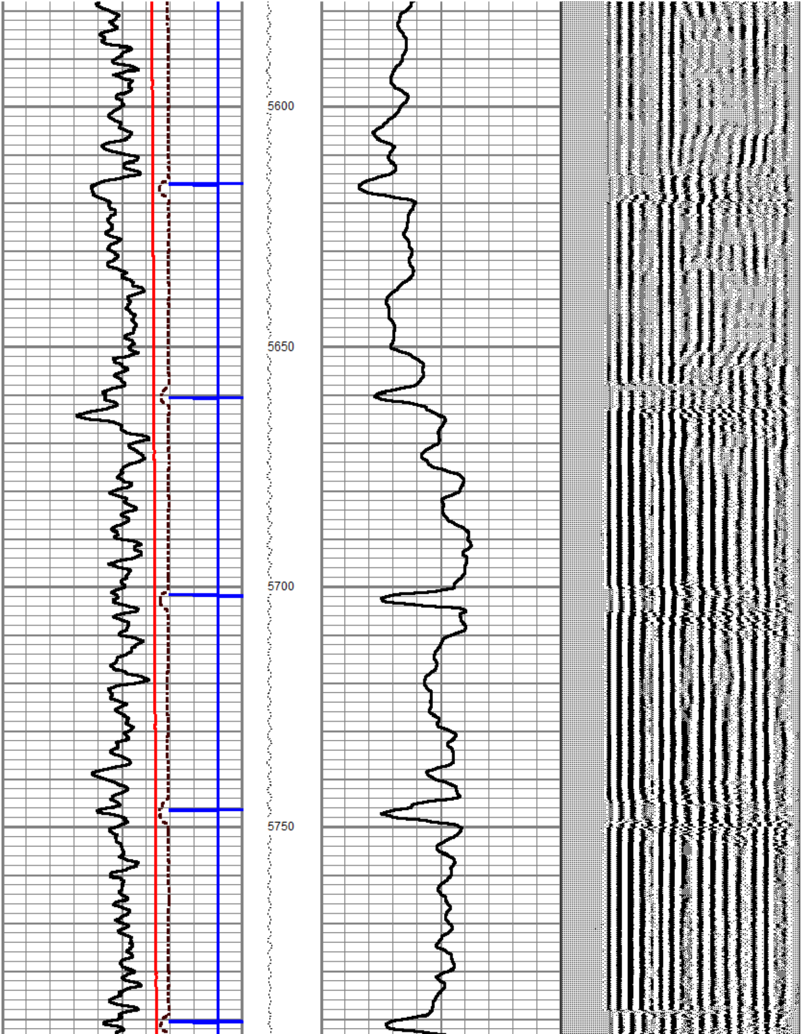
CEMENT BOND PRESENTATION

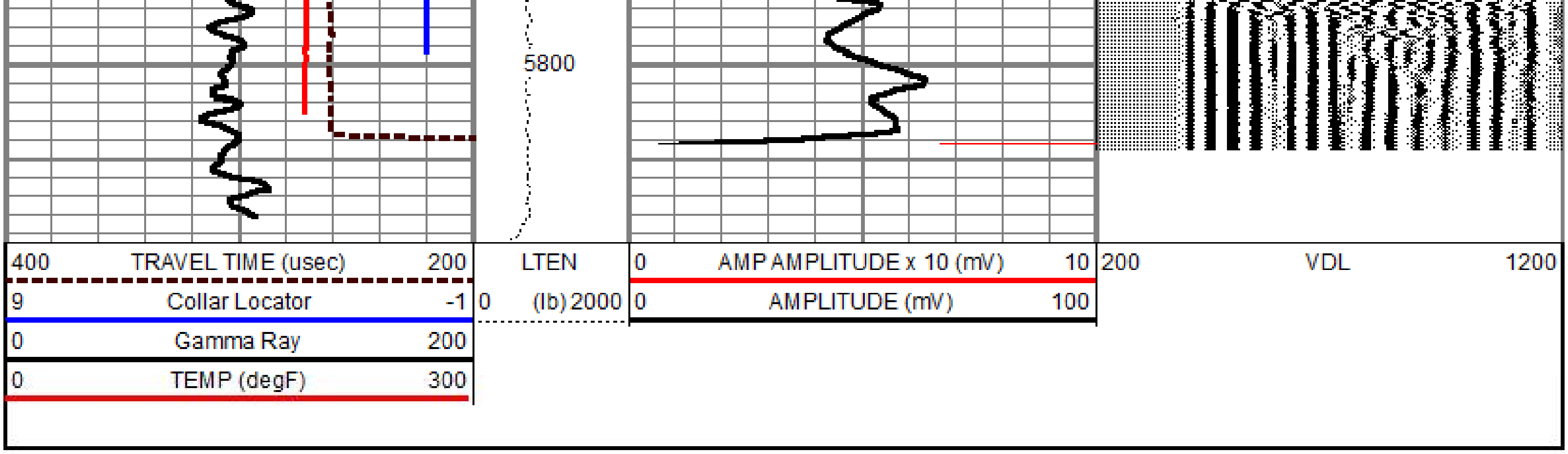
REPEAT LOG SECTION / 0 PSI

5" = 100'

Database File	f:\well database\extraction\2015_extraction_windsor_lv_b_14_h\warrior\2015_extraction_windsor_lv_b_14_h.db
Dataset Pathname	pass3
Presentation Format	cbl_drs
Dataset Creation	Sun Jan 04 17:07:33 2015
Charted by	Depth in Feet scaled 1:240

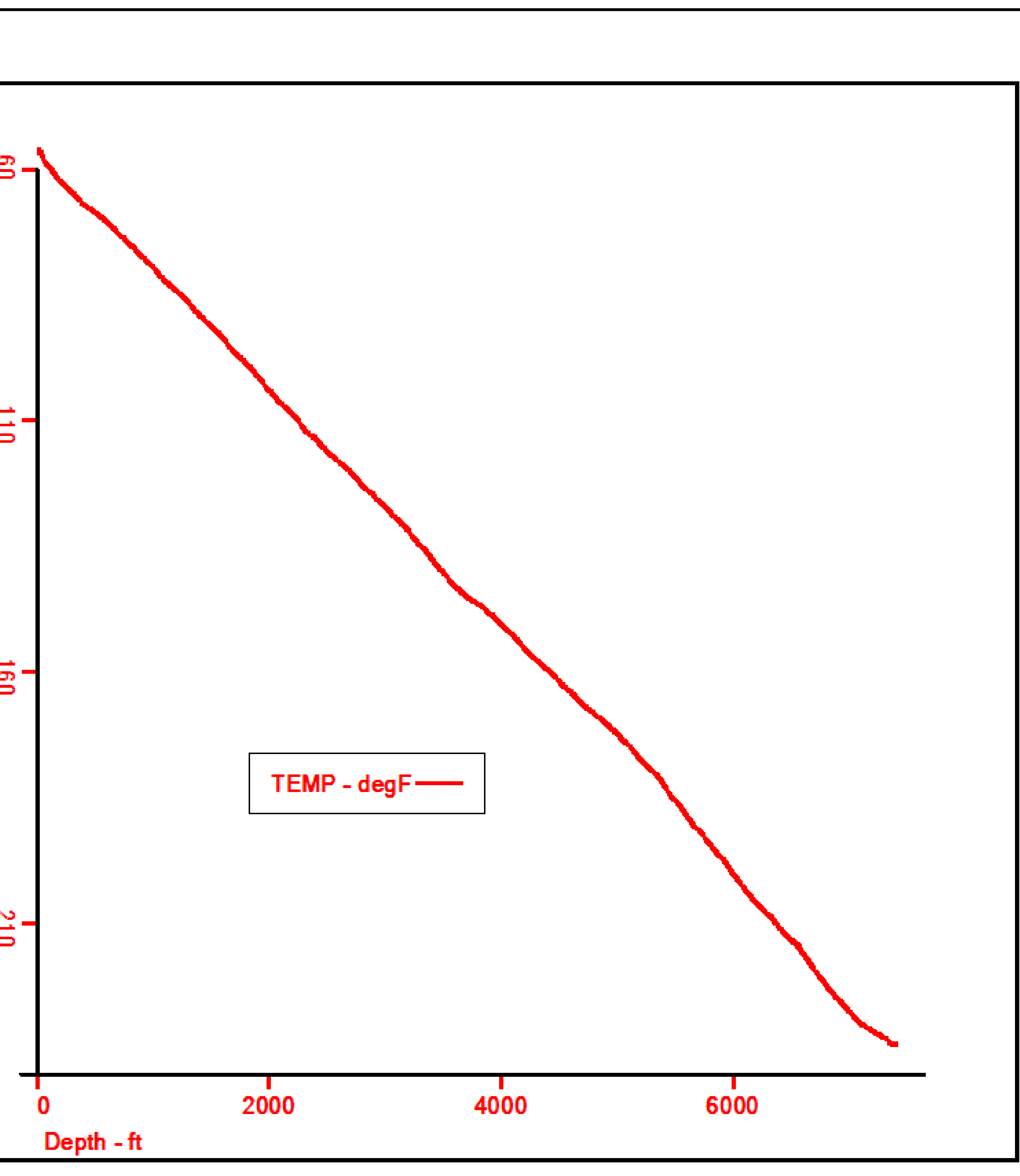
400 TRAVEL TIME (usec) 200	LTEN	0 AMP AMPLITUDE x 10 (mV) 10	200 VDL 1200
9 Collar Locator -1	0 (lb) 2000	0 AMPLITUDE (mV) 100	
0 Gamma Ray 200			
0 TEMP (degF) 300			





CEMENT BOND PRESENTATION

REPEAT LOG SECTION / 0 PSI
5" = 100'



Log Variables

Database F:\Well Database\Extraction\2015_extraction_windsor_lv_b_14_h\WARRIOR\2015_extraction_windsor_lv_b_14
Dataset field/well/run1/pass1.2

Top - Bottom

BHTEMP_Src	PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	SRFTEMP degF	CASEOD in	PERFS	TDEPTH ft
1	0	26	62	1	0.8	0	7	0	0

BOTTEMP degF	BOREID in
250	7.875

Calibration Report

Database File F:\Well Database\Extraction\2015_extraction_windsor_lv_b_14_h\WARRIOR\2015_extraction_windsor_lv_b_14_h.db
Dataset Pathname pass1.2
Dataset Creation Sun Jan 04 19:47:59 2015

Gamma Ray Calibration Report

Serial Number: 234GR-IPCD9-02
Tool Model: GR-Tek-Co
Performed: Tue Feb 25 16:32:03 2014

Calibrator Value: 120.0

Background Reading: 100.8 cps
Calibrator Reading: 244.7 cps

Sensitivity: 0.8337 /cps

Segmented Cement Bond Log Calibration Report

Serial Number: 234RIBT-IPPO2-02 FIELD
Tool Model: 275 H/T RIB with I/E Temp

Calibration Casing Diameter: 7.000 in
Calibration Depth: 629.283 ft

Master Calibration, performed Sun Jan 04 19:47:57 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.003	0.373	1.000	62.165	162.873	1.477
CAL	0.000	0.305				
5'	-0.166	0.712	1.000	62.165	69.668	12.554
SUM						
S1	-0.022	0.294	0.000	100.000	316.881	6.929
S2	-0.063	0.355	0.000	100.000	238.904	15.126
S3	-0.013	0.382	0.000	100.000	253.337	3.255
S4	0.000	0.381	0.000	100.000	262.686	-0.005
S5	0.000	0.412	0.000	100.000	242.826	-0.006
S6	-0.088	0.389	0.000	100.000	209.658	18.502
S7	-0.003	0.381	0.000	100.000	260.049	0.814
S8	-0.011	0.419	0.000	100.000	233.005	2.483

Internal Reference Calibration, performed Thu Dec 25 20:11:00 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.305	1.000	0.000

Air Zero Calibration, performed Thu Dec 25 19:19:50 2014:

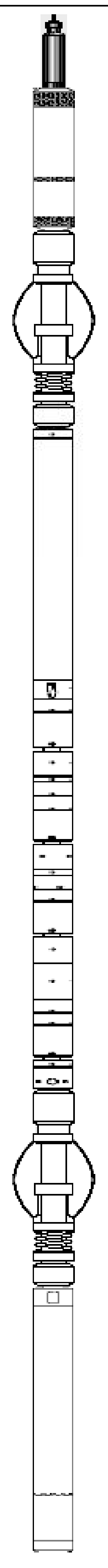
	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Temperature Calibration Report

Serial Number: 234RIBT-IPPO2-02 FIELD
Tool Model: 275 H/T RIB with I/E Temp
Performed: Tue Nov 25 12:50:38 2014

	Reference		Reading	
Low Reference:	0.00	degF	0.00	usec
High Reference:	1.00	degF	1.00	usec

Gain: 0.33
Offset: 0.00
Delta Spacing 1

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			TitanConeType2 Cable Head 1 7/16 Cone Type II	1.03	1.44	3.60
CCL	19.56		CCL-275tekco (234CCL-IS2T1-08) 2 3/4" 450 Deg. "F" TekCo CCL Earth Mag	1.96	2.75	20.00
			2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
TEMP	12.77					
WVFS8	11.48		275 H/T RIB with I/E Temp (234RIBT-IPPO2-029.13_D) Tekco 2.75" 450 Deg. F RIB with I/E Temp		2.75	102.00
WVFS7	11.48					
WVFS6	11.48					
WVFS5	11.48					
WVFS4	11.48					
WVFS3	11.48					
WVFS2	11.48					
WVFS1	11.48					
WVF5FT	9.73					
WVFSYNC	6.40					
WVFTEMP	6.40					
WVFCAL	6.40		2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
			GR-GR-Tek-Co (234GR-IPCD9-02) Tekco 2 3/4" 400 Deg. F Logging Gamma Ray	3.67	2.75	40.00
GR	1.04					

Dataset: 2015_extraction_windsor_lv_b_14_h.db: field/well/run1/pass1.2
Total length: 21.25 ft
Total weight: 215.60 lb
O.D.: 2.75 in

CEMENT BOND LOG

Company	EXTRACTION OIL & GAS
Well	WINDSOR LV B-14H
Field	WATTENBERG
County	WELD
State	CO
API No.:	05-123-38168
Serv#:	1002
Location:	1245' FNL & 265' FEL LAT: 40.490860 LONG: -104.852250
Other Services	TEMPERATURE CCL
Sec: 14	Twp:6N Rge: 67W

Company EXTRACTION OIL & GAS
Well WINDSOR LV B-14H
Field WATTENBERG
County WELD State CO

Permanent Datum	GROUND LEVEL	Elevation	4845'
Log Measured From	KB , 24 Ft. above perm. datum	Elevation	K.B. 4867' D.F. 4866' G.L. 4845'
Drilling Measured From	KB		
Date @ Time Logged	4 JAN 2015 @ 1700 HRS	Type Fluid in Hole	WATER
Run No.	ONE	Density of Fluid	8.4 PPG
Depth - Driller	11,721'	Fluid Level	35'
Depth - Logger	7395'	Cement Top Est. Logged	1668'
Bottom - Logged Interval	7383'	Equipment / Location	GD 114 / CASPER,WY
Top - Log Interval	SURFACE	Recorded by	J. BAKER
Max. Recorded Temp.	234°F	Witnessed by	TONY

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented				
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume	/	/	/	/
Cement Type / Weight	/	/	/	/
Formulation	/	/	/	/
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record				Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
				9 5/8"	36#	SURFACE	700'
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Comments

Cement Bond Log was the initial log ran on the well dated1/04/2015
Cement top was estimated at 1668'
Max temp on bottom was 234°F
Kick off Point was unknow to logging crew

Your crew today was B. Kennicker, M. Stewart

Thank you for using Gyrodata Logging Services, Casper, WY