Company	EXTRACTION OIL & GAS
Well	DIAMOND VALLEY EAST #2
Field	WATTENBERG
County	WELD State CO

CEMENT BOND LOG

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Company	EXTRACTION OIL & GAS
Well	DIAMOND VALLEY EAST #2
Field	WATTENBERG
County	WELD
State	CO

API No.: 05-123-38566 Serv#: 1346

Location: 816' FSL & 156' FWL
LAT. 40.467440
LONG. -104.869810

Other Services
TEMPERATURE
CCL

Sec: 23 Twp: 6N Rge: 67W

Elevation
K.B. 4793'
D.F. 4792'
G.L. 4769'

Permanent Datum	GROUND LEVEL	Elevation	4769'
Log Measured From	KB , 24 Ft. above perm. datum		
Drilling Measured From	KB		

Date @ Time Logged	29-OCT-14 @ 1130HRS	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.4#GL
Depth - Driller	16736'	Fluid Level	Full
Depth - Logger	6900'	Cement Top Est. Logged	Surface
Bottom - Logged Interval	6888'	Equipment / Location	GD-129 / CASPER WY
Top - Log Interval	SURFACE	Recorded by	B. Kennicker/Graham
Max. Recorded Temp.	208° F	Witnessed by	H. MCGRAW

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	802'
				7"	26#	SURFACE	7419'
				4 1/2"	13.5#	7222'	16736'

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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 dated10/28/2014
The second log pass was ran with pressure and the cement top was estimated to have reached surfac
Cement bond log was ran a second time under 2000 psi to establish a cement top due to lack of signal attenuation.
Durring the pressure pass formation arrivals were apperant near surface which indicates cement is p
Pressure truck on location was Schlumberger.
Max temp on bottom was 208°F

Your crew today was Adam Carpentar and John Baker.
Thank you for using Gyrodata Logging Services, Casper, WY

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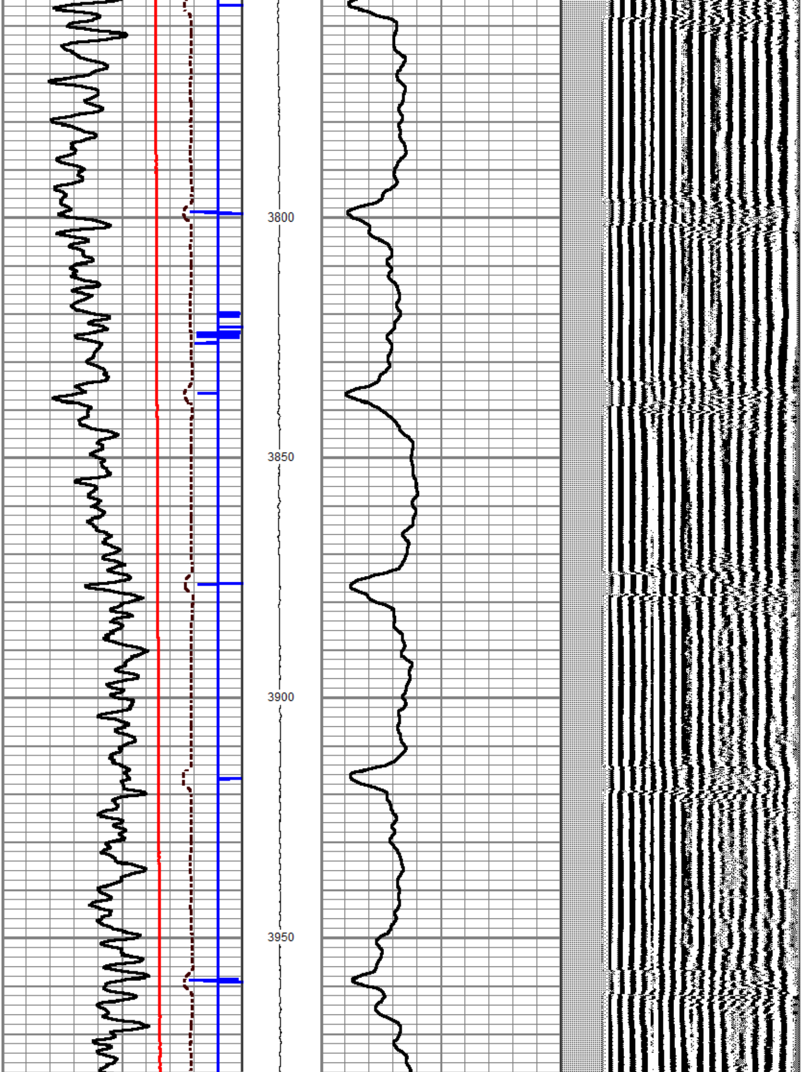
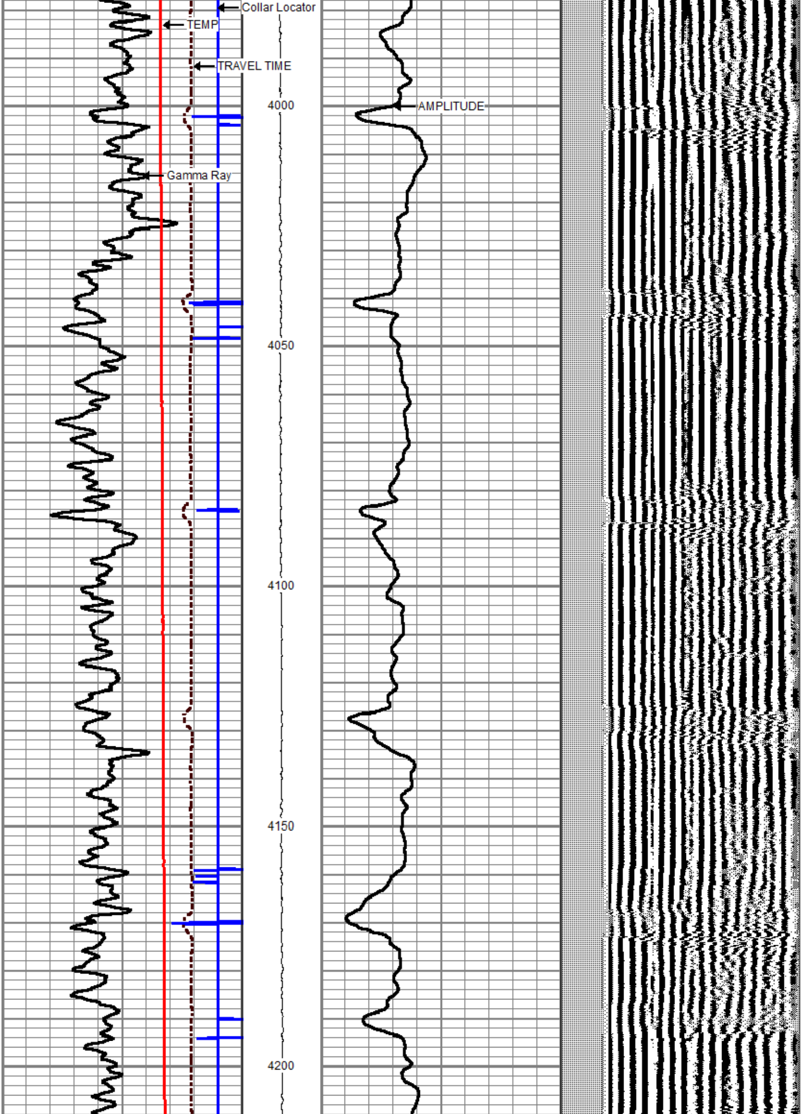
Cement Bond Presentation

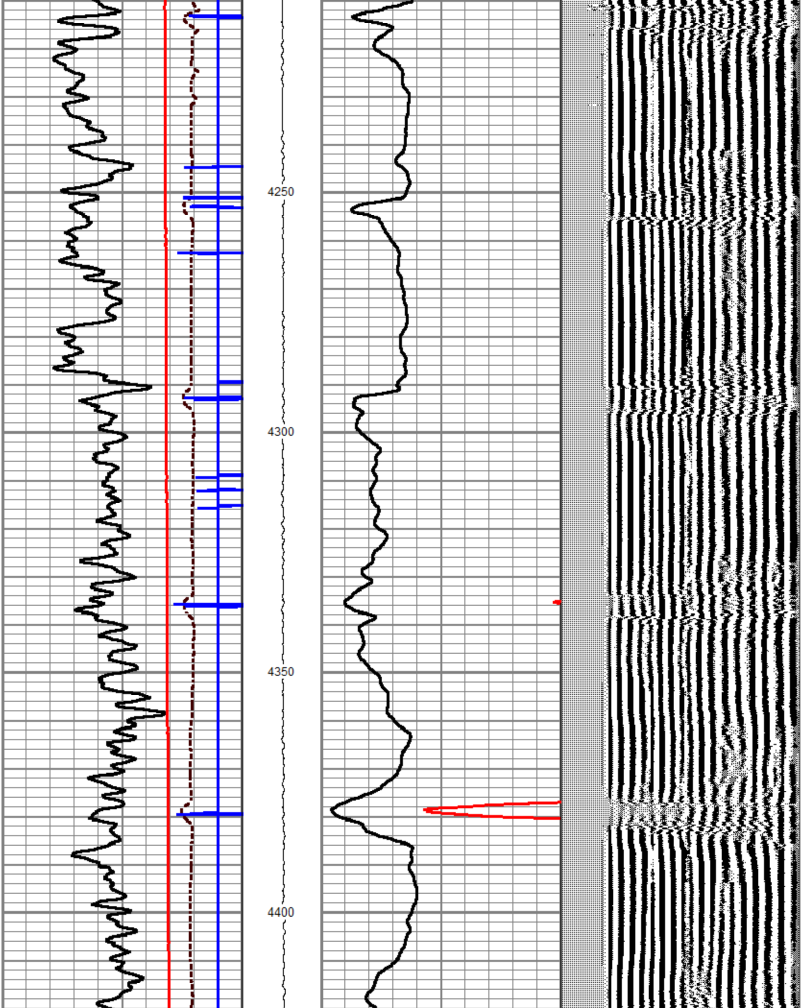
Main Log Pass 2000 PSI
5" = 100'

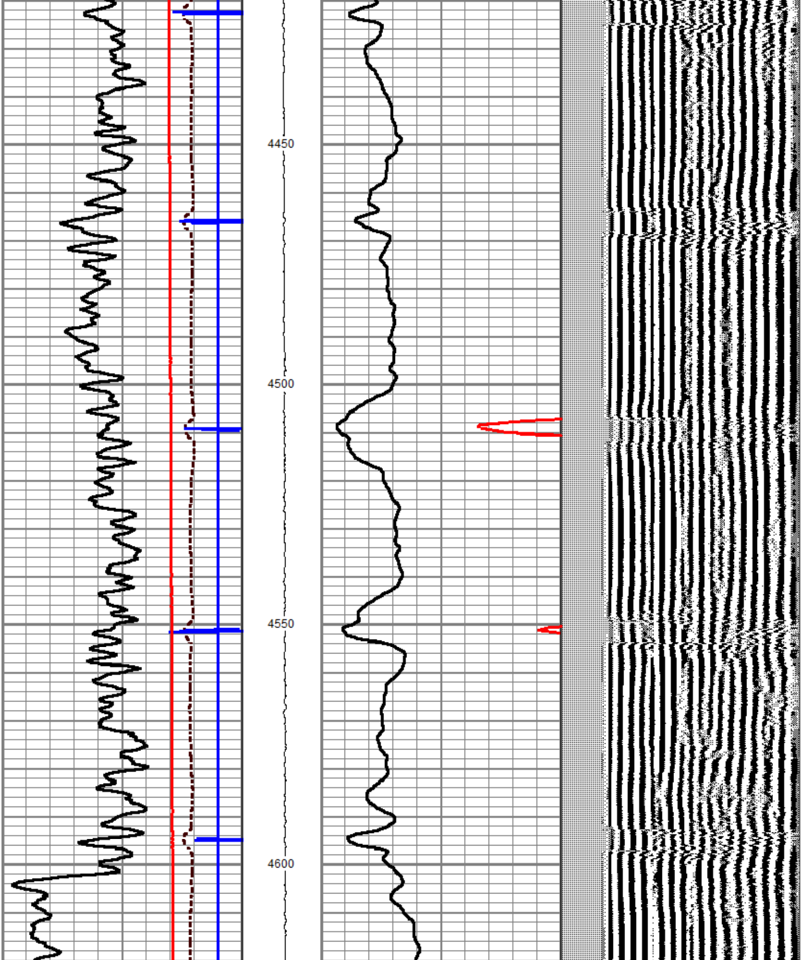
Database File	2014_extraction_diamondvalleyeast_2.db
Dataset Pathname	merge1.1
Presentation Format	cbl_drs
Dataset Creation	Wed Oct 29 15:04:14 2014
Charted by	Depth in Feet scaled 1:240

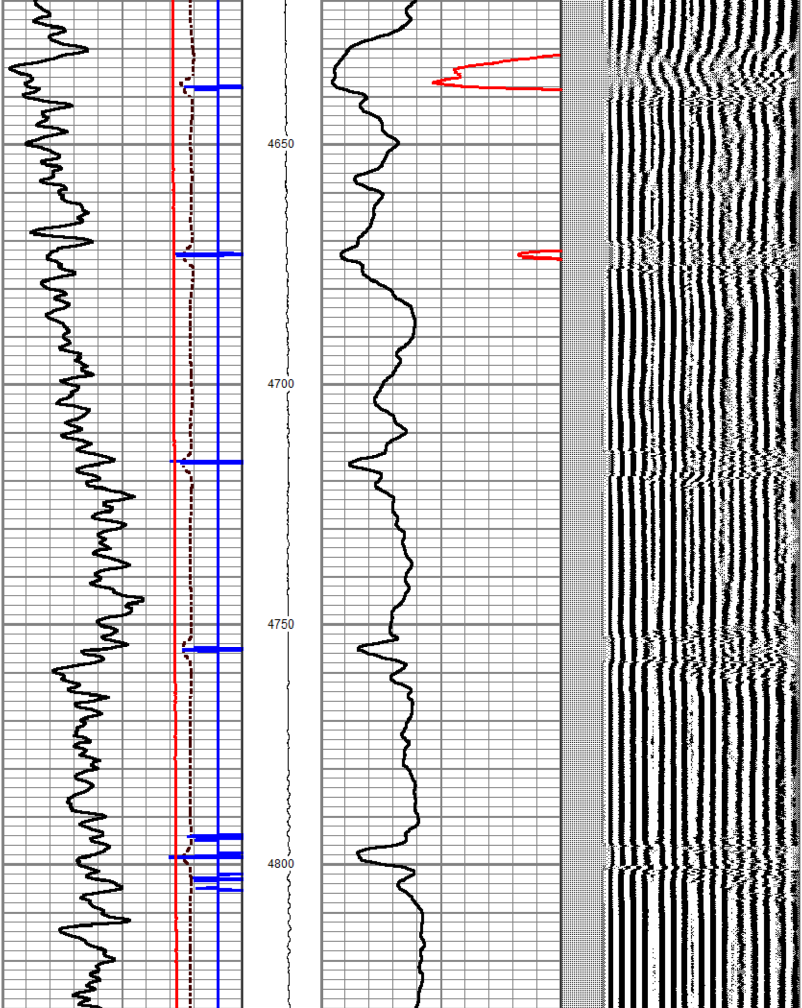
425	TRAVEL TIME (usec)	225	LTEN		0	AMP AMPLITUDE x 10 (mV)	10	200	VDL	1200
9	Collar Locator	-1	0	(lb) 2000	0	AMPLITUDE (mV)	100			
0	Gamma Ray	150								
0	TEMP (degF)	240								

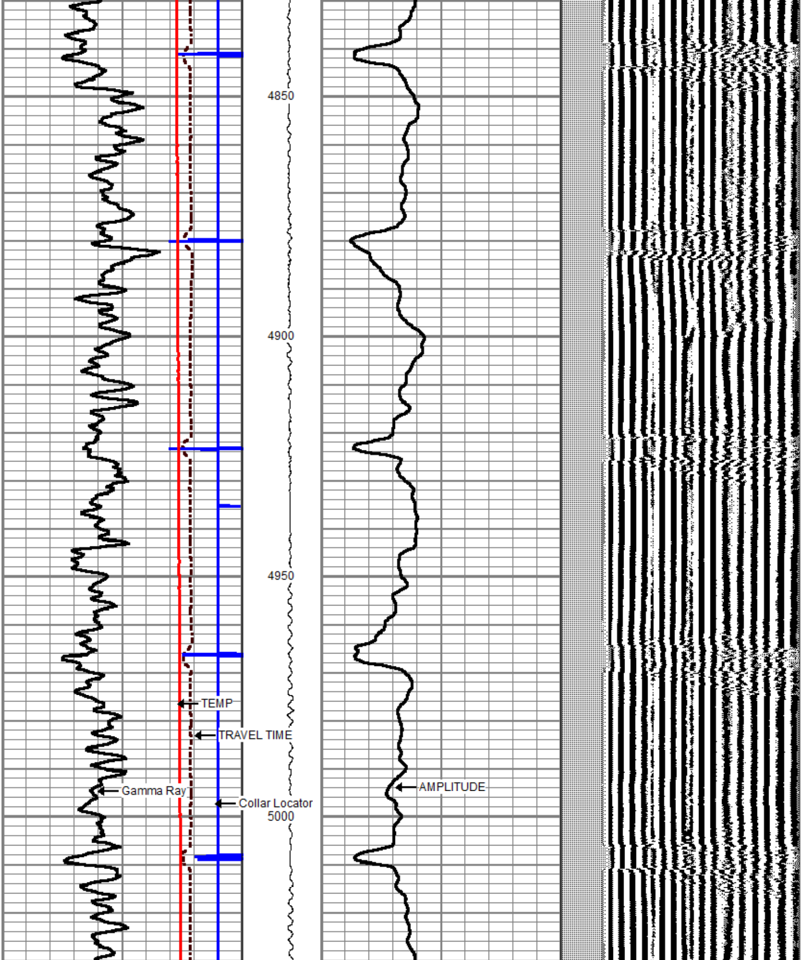


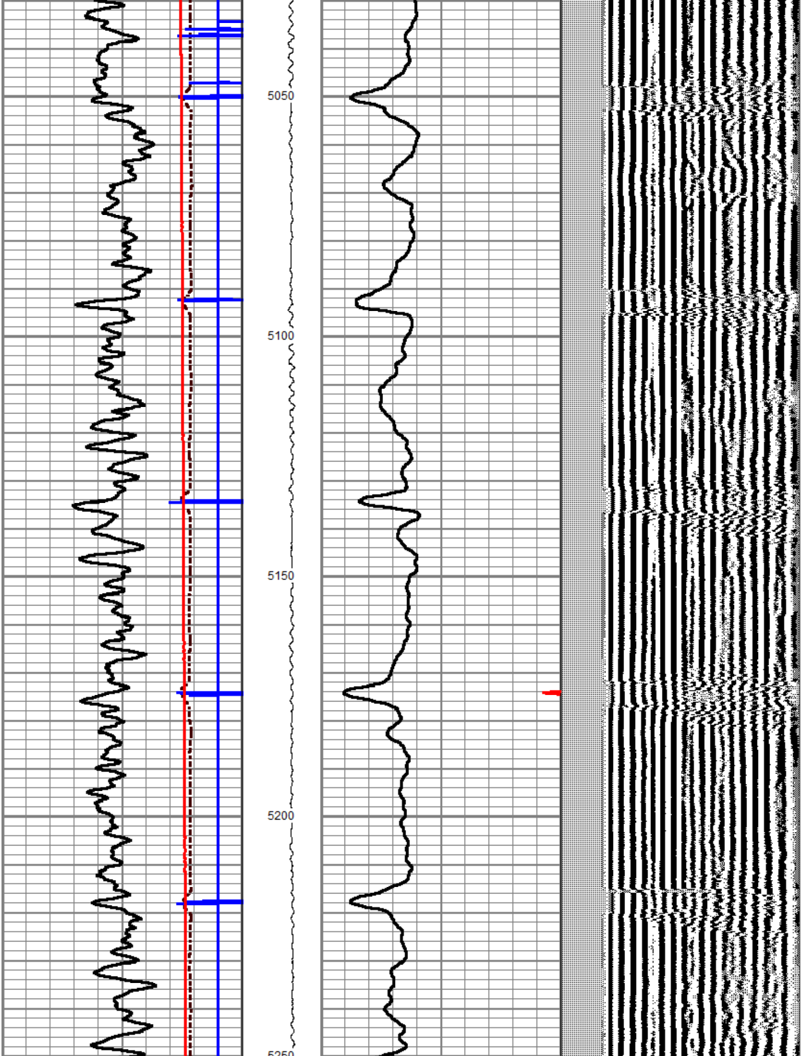


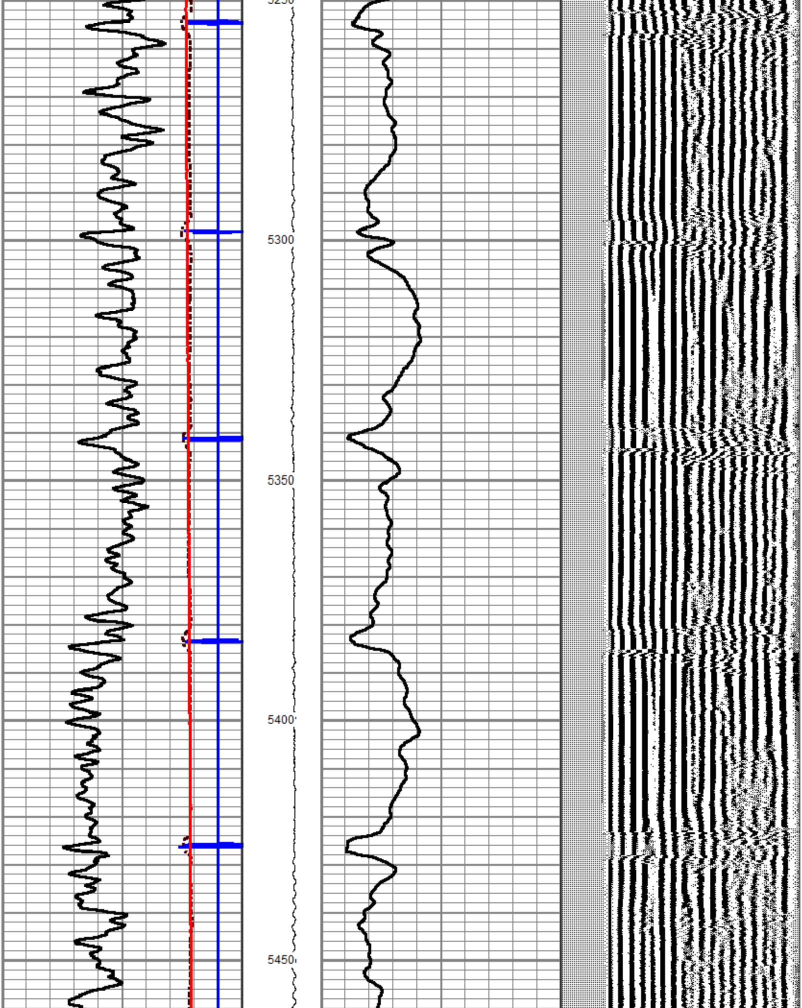


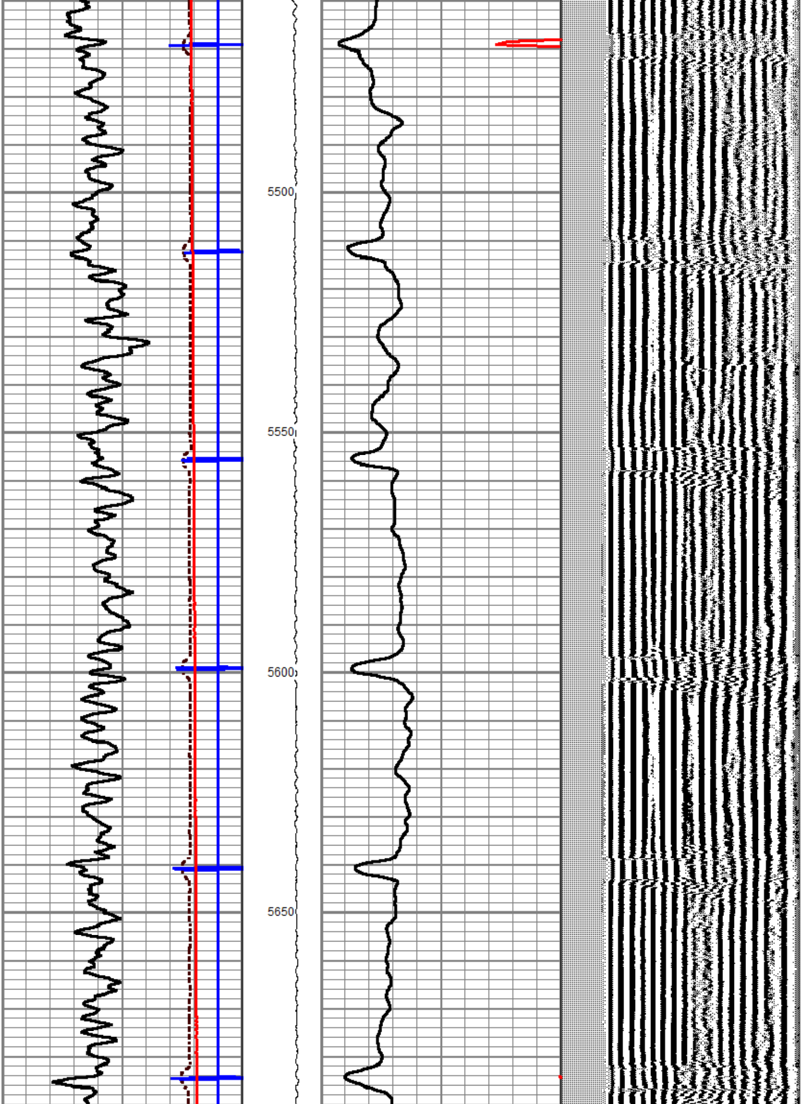


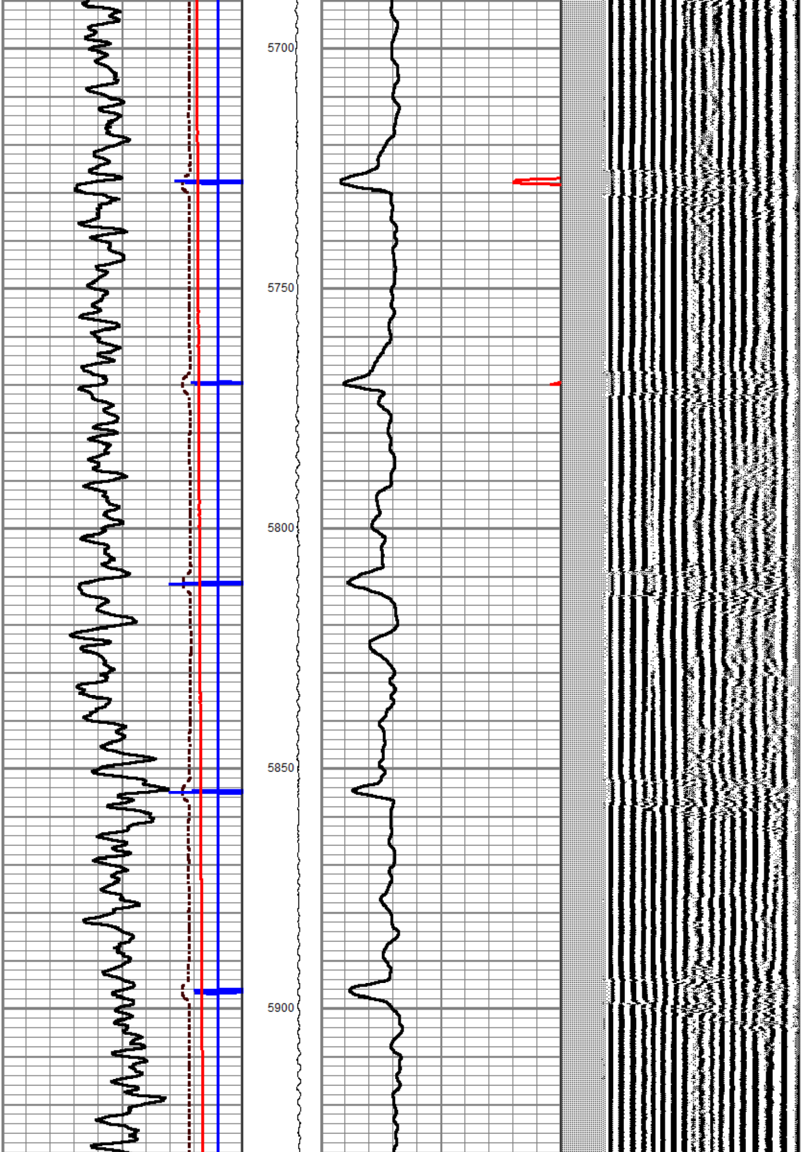


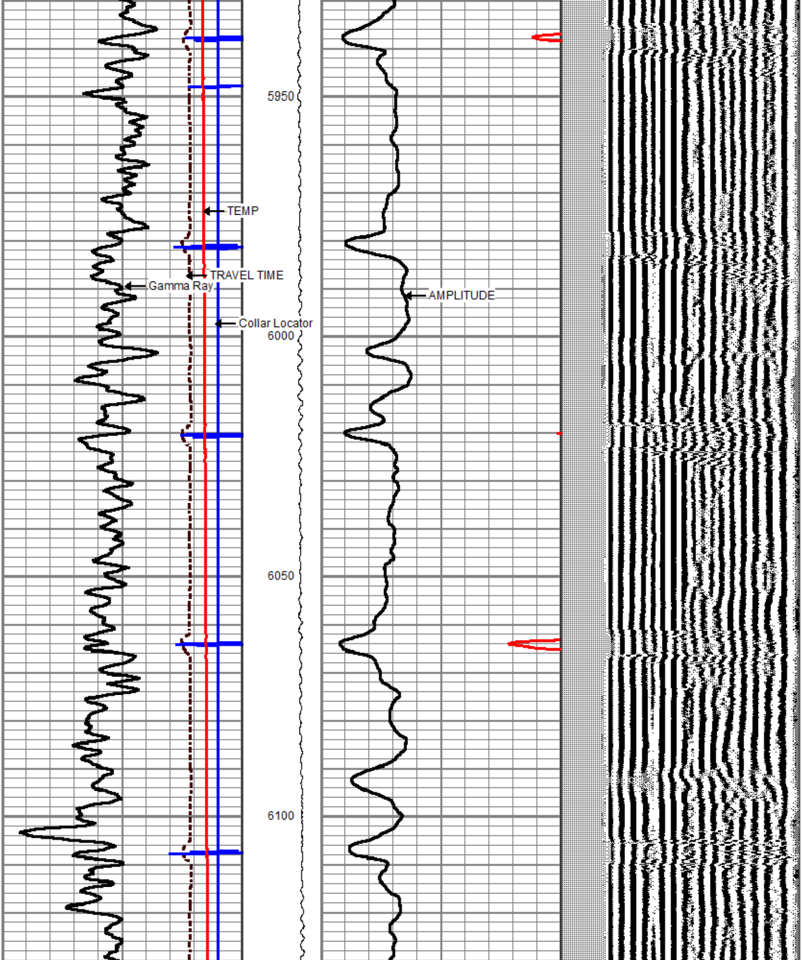


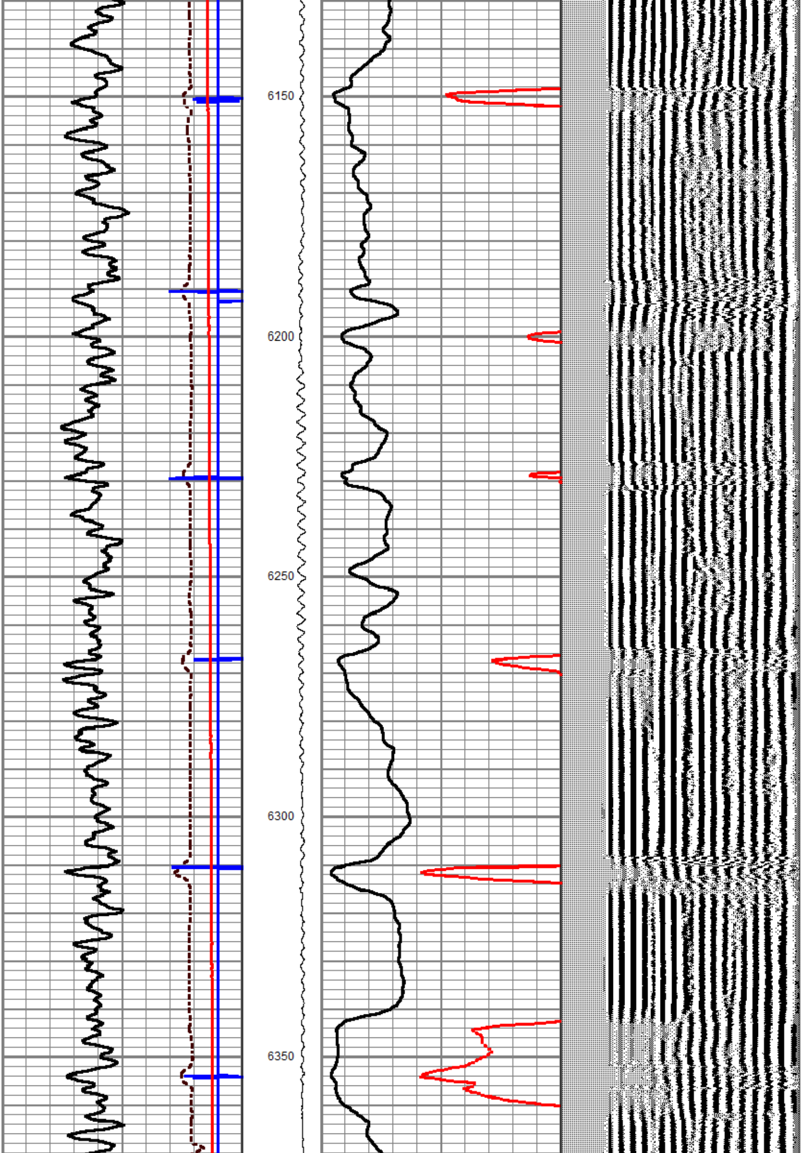


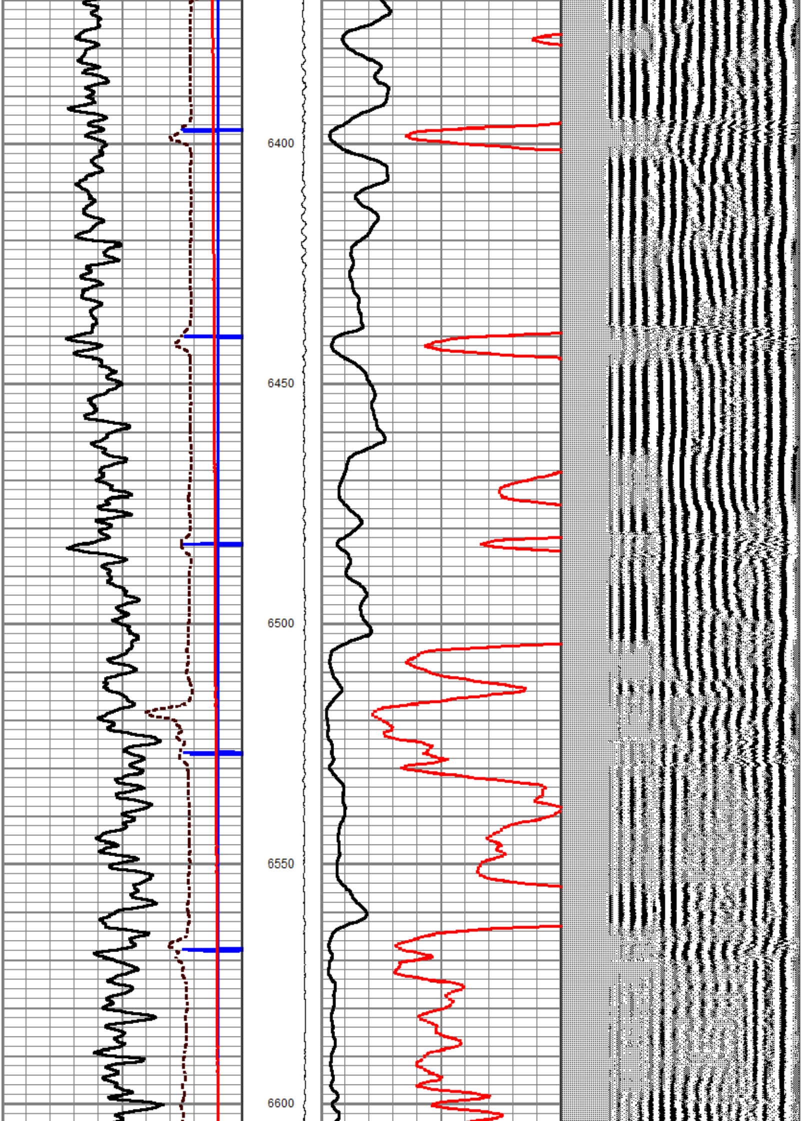


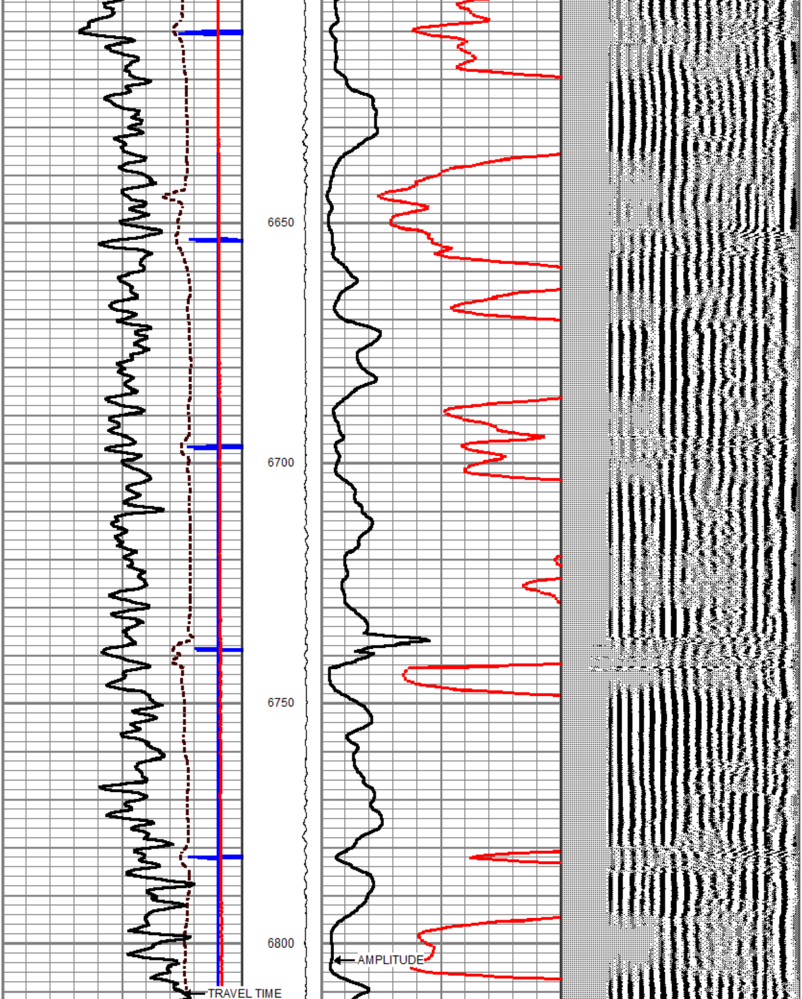


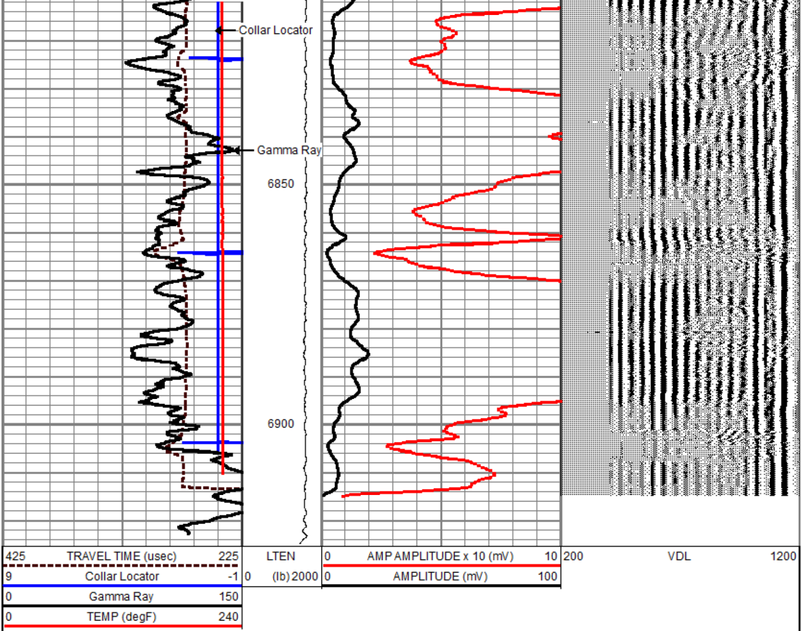












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Cement Bond Presentation

Main Log Pass 2000 PSI
5" = 100'

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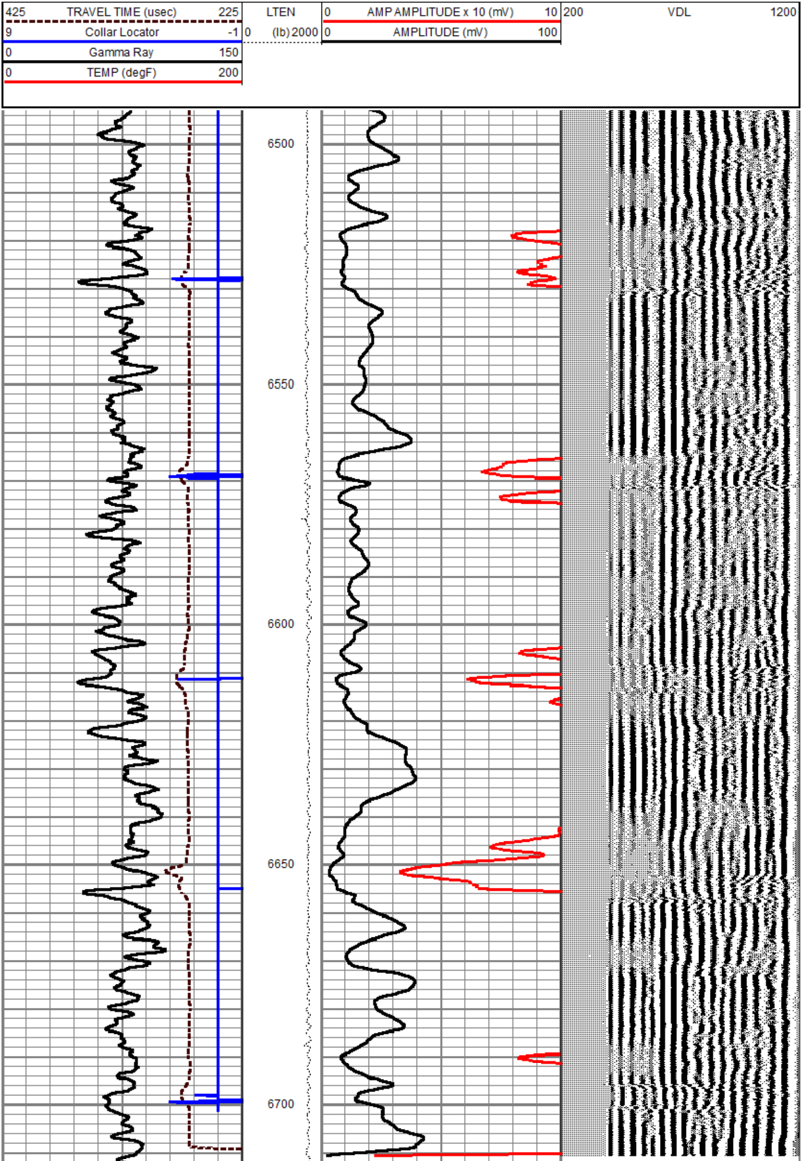
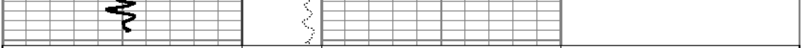
CEMENT BOND PRESENTATION

REPEAT PASS / 0 PSI
5" = 100'

Database File	2014_extraction_diamondvalleyeast_2.db
Dataset Pathname	pass4
Presentation Format	cbl_drs
Dataset Creation	Tue Oct 28 10:49:15 2014
Charted by	Depth in Feet scaled 1:240





425	TRAVEL TIME (usec)	225	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	150							
0	TEMP (degF)	200							

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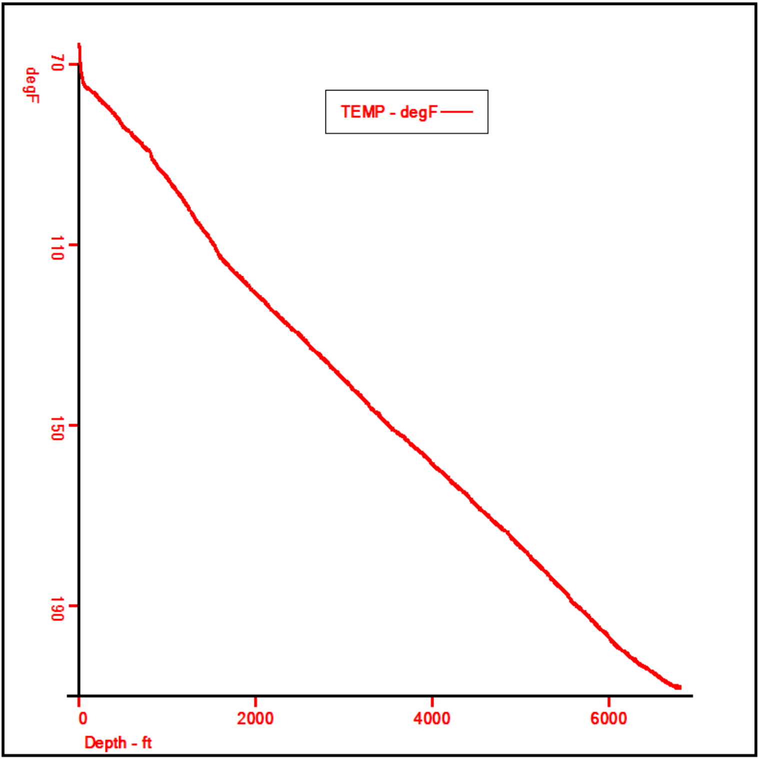
CEMENT BOND PRESENTATION

REPEAT PASS / 0 PSI
5" = 100'



Log Variables

DatabaseC:\ProgramData\Warrior\Data\2014_extraction_diamondvalleyeast_2.db
Dataset field/well/run1/pass5.1

Top - Bottom

BHTEMP_Src	PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	SRFTEMP degF	CASEOD in	PERFS	TDEPTH ft
1	257	26	62	1	0.8	0	7	0	8000

BOTTEMP degF	BOREID in
100	7.875

Calibration Report

Database File	2014_extraction_diamondvalleyeast_2.db
Dataset Pathname	pass5.1
Dataset Creation	Tue Oct 28 13:09:18 2014

Gamma Ray Calibration Report

Serial Number:	234GR-IPCD9-02	
Tool Model:	GR-Tek-Co	
Performed:	Wed Feb 12 16:49:51 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-1PP02-02	
Tool Model:	275 H/T RIB with I/E Temp	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	1939.758	ft

Master Calibration, performed Tue Oct 28 13:08:49 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.013	0.931	1.000	62.165	64.807	1.858
CAL	0.704	0.703				
5'	-0.016	1.401	1.000	62.165	43.155	1.711
SUM						
S1	-0.011	0.831	0.000	100.000	118.754	1.293
S2	-0.014	0.845	0.000	100.000	116.389	1.653
S3	-0.017	0.724	0.000	100.000	134.824	2.344
S4	-0.013	0.720	0.000	100.000	136.334	1.800
S5	-0.012	0.784	0.000	100.000	125.555	1.510
S6	-0.013	0.838	0.000	100.000	117.452	1.532
S7	-0.013	0.884	0.000	100.000	111.393	1.499
S8	-0.013	0.801	0.000	100.000	122.837	1.558

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.704	0.703	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 17:00:00 1969:

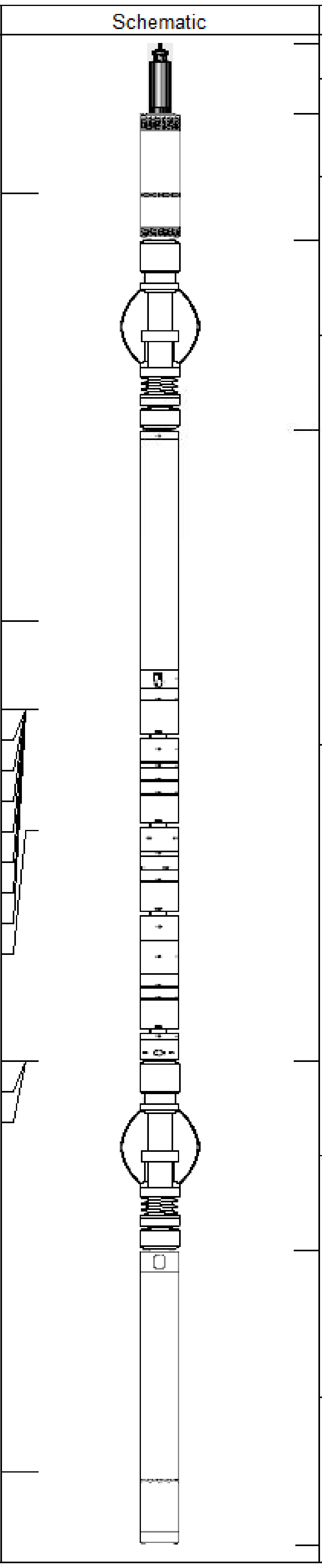
	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Temperature Calibration Report

Serial Number:	234RIBT-1PP02-02			
Tool Model:	275 H/T RIB with I/E Temp			
Performed:	Wed Sep 04 00:06:58 2013			
	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)
CCL	19.54
TEMP	13.36
WVFS8	12.07
WVFS7	12.07
WVFS6	12.07
WVFS5	12.07
WVFS4	12.07
WVFS3	12.07
WVFS2	12.07
WVFS1	12.07
WVF5FT	10.32
WVFSYNC	6.99
WVFTEMP	6.99
WVFCAL	6.99
GR	1.04

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-275tekco (234CCL-1PSN7-03) 2 3/4" 450 Deg. "F" TekCo CCL Earth Mag	1.83	2.75	20.00
2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00
275 H/T RIB with I/E Temp (234RIBT-1PP02-02 Tekco 2.75" 450 Deg. F RIB with I/E Temp	9.13	2.75	102.00
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	4.26	2.75	53.00

Dataset: 2014_extraction_diamondvalleyeast_2.db: field/well/run1/pass5.1
Total length: 21.72 ft
Total weight: 228.60 lb
O.D.: 2.75 in

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Company	**EXTRACTION OIL & GAS**		
Well	**DIAMOND VALLEY EAST #2**		
Field	**WATTENBERG**		
County	**WELD**		
State	**CO**	**Country**	**USA**