CEMENT BOND LOG

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Company	EXTRACTION OIL & GAS
Well	DIAMOND VALLEY EAST #13
Field	WATTENBERG
County	WELD
State	CO

Company EXTRACTION OIL & GAS
Well DIAMOND VALLEY EAST #13
Field WATTENBERG
County WELD **State** CO

API No.: 05-123-40317 Serv #: 1398
Location: 992' FSL & 155' FWL
LAT. 40.467930
LONG. -104.869800
Sec: 23 Twp: 6N Rge: 67W

Other Services
TEMPERATURE
CCL

Permanent Datum	GROUND LEVEL	Elevation	4769'	Elevation
Log Measured From	KB , 24 Ft. above perm. datum			K.B. 4793 D.F. 4792 G.L. 4769'
Drilling Measured From	KB			

Date @ Time Logged	3-DEC-14 @ 1530 HRS	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.4#/GL
Depth - Driller	17,123	Fluid Level	41'
Depth - Logger	7515'	Cement Top Est. Logged	460'
Bottom - Logged Interval	7503'	Equipment / Location	GD-114 / CASPER
Top - Log Interval	SURFACE	Recorded by	M.FENN
Max. Recorded Temp.	215°	Witnessed by	L.SIEGEL

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	7547'
				4 1/2"	13.5#	7745'	17123'

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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 dated12/3/2014
Cement top was estimated at 460'
Max temp on bottom was 215°F
KOP 6790' Hole has 60 deg angle at approx. 7440'
Cement on 4 1/2" pipe set atapprox. 0500 Hrs 3-DEC--14
Log run under 700 psi casing pressure
Your crew today was C. Byers, J.Baker

Thank you for using Gyrodata Logging Services, Casper, WY

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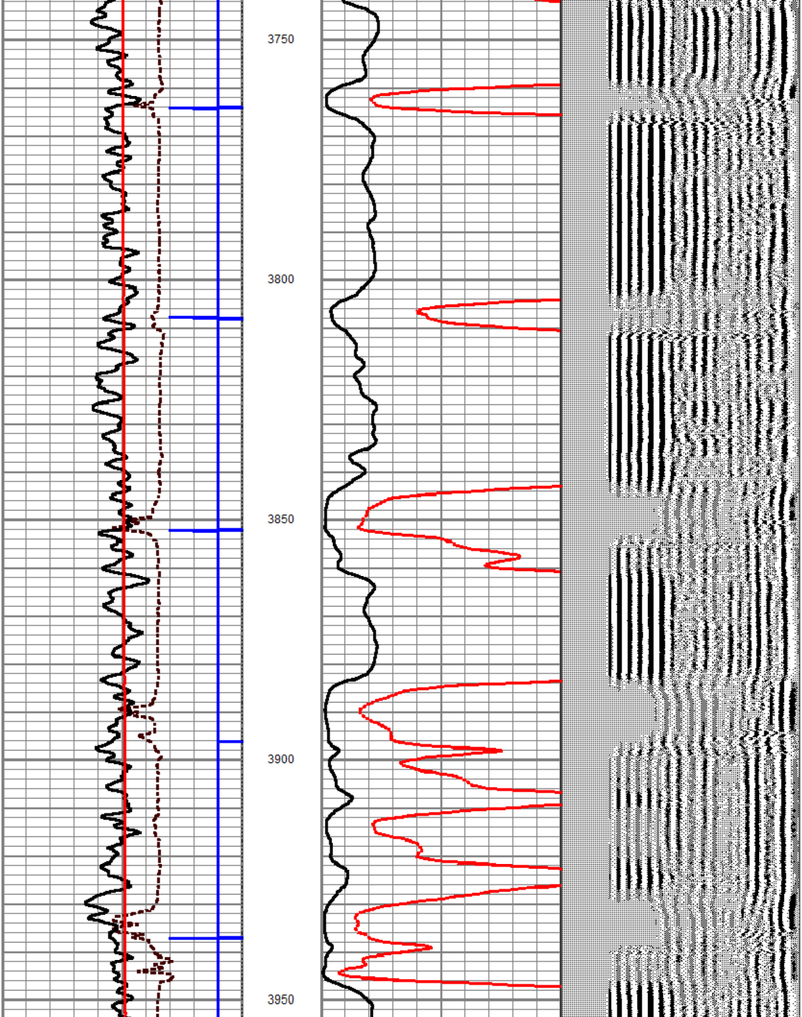
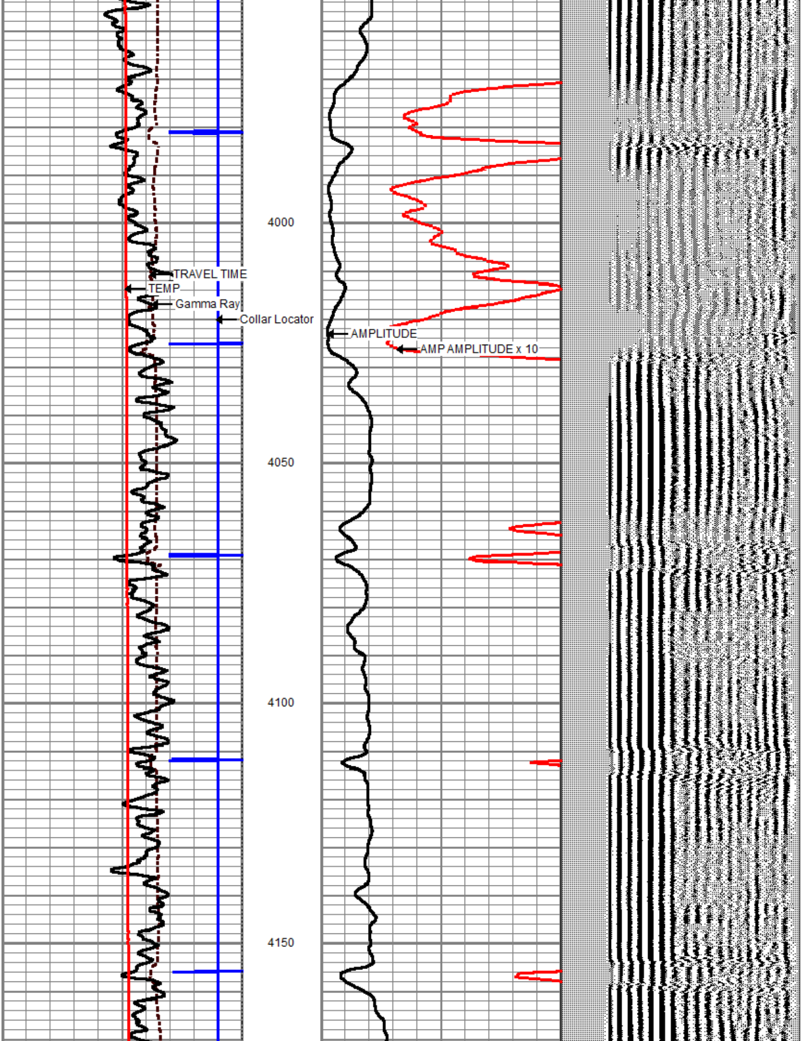
CEMENT BOND LOG PRESENTATION

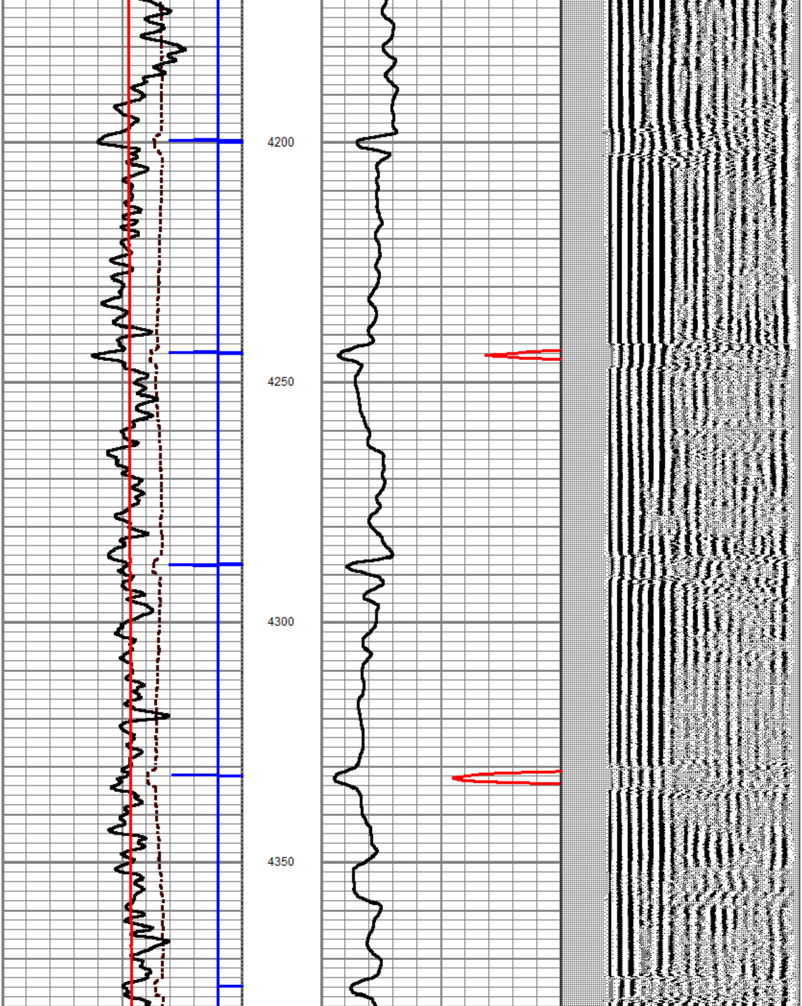
MAIN LOG SECTION / 700 PSI

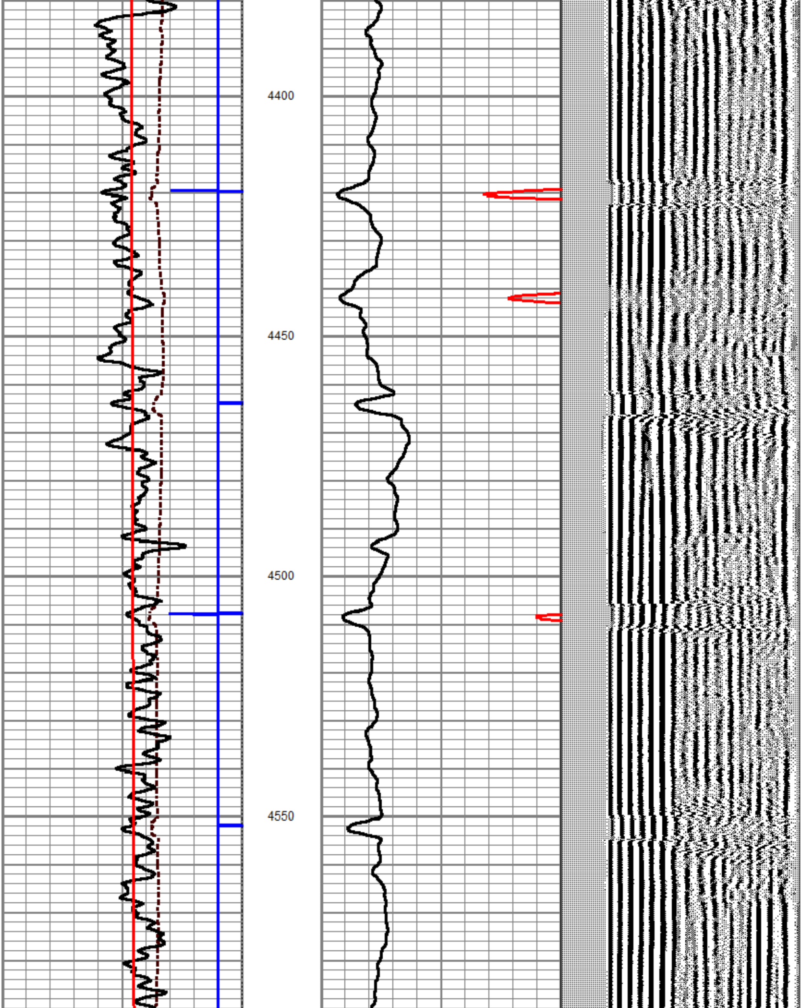
5"=100'

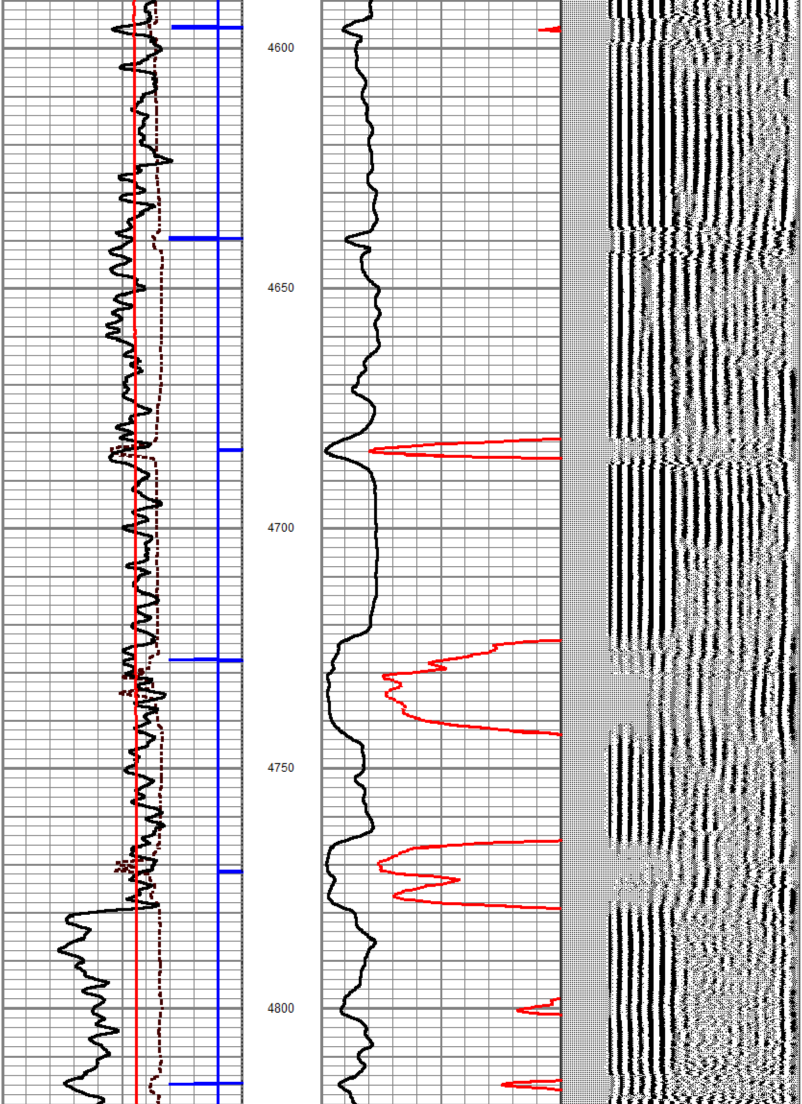
Database File	2014_extraction_diamond_valley_east_13.db
Dataset Pathname	pass3.1
Presentation Format	cbl_drs
Dataset Creation	Wed Dec 03 19:57:40 2014
Charted by	Depth in Feet scaled 1:240

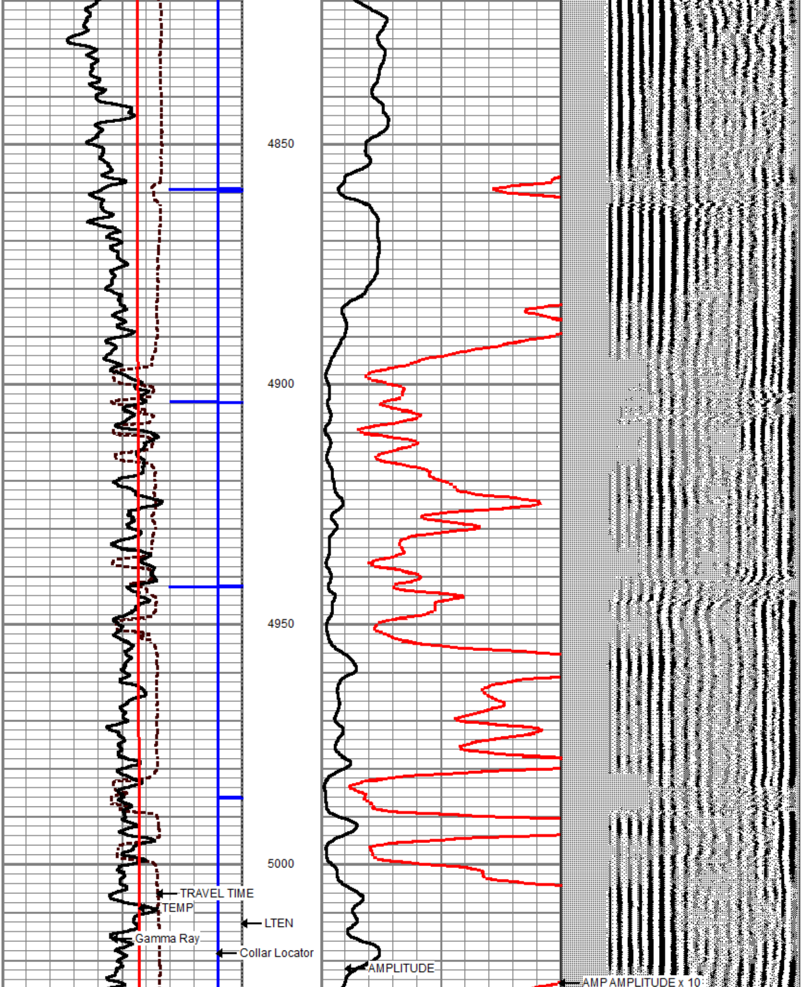


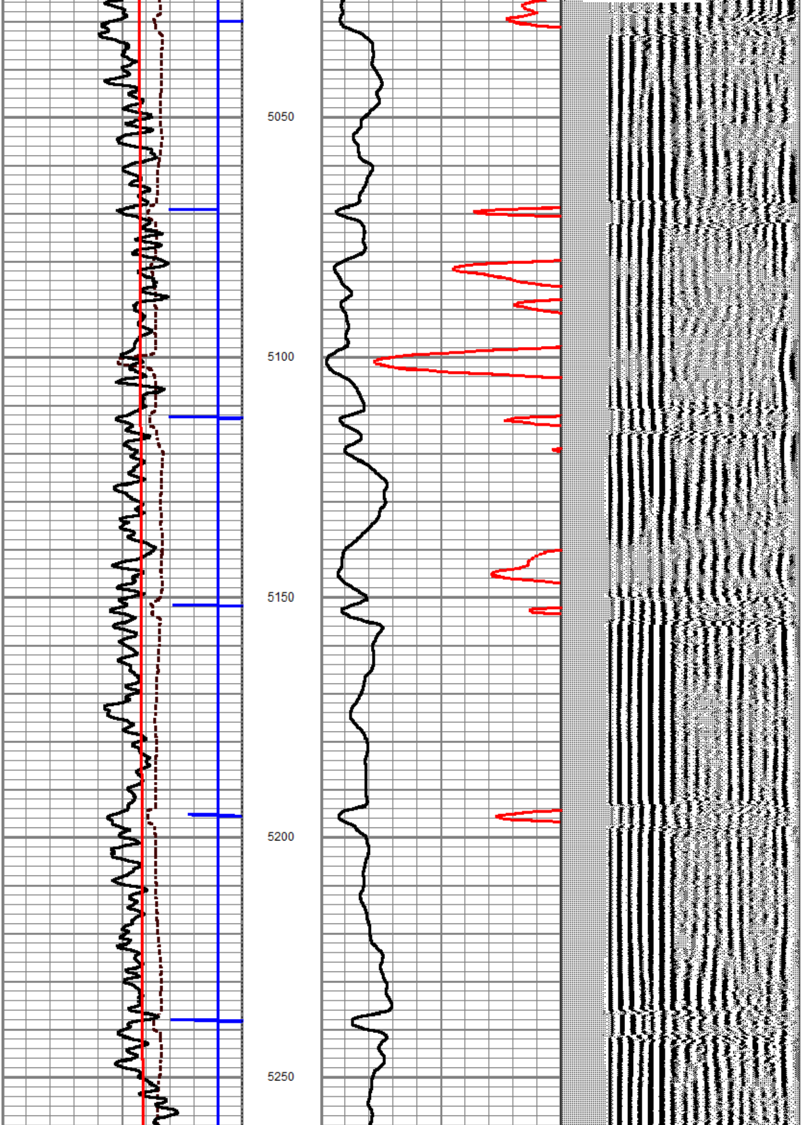


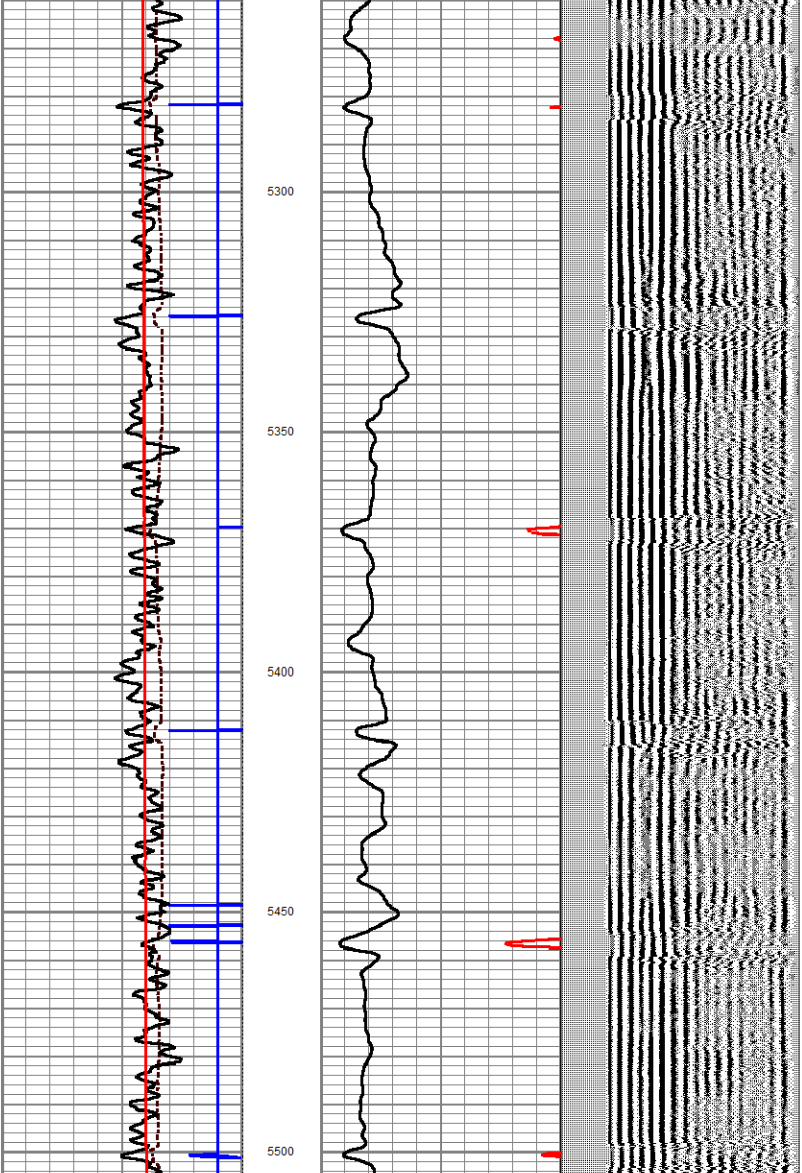


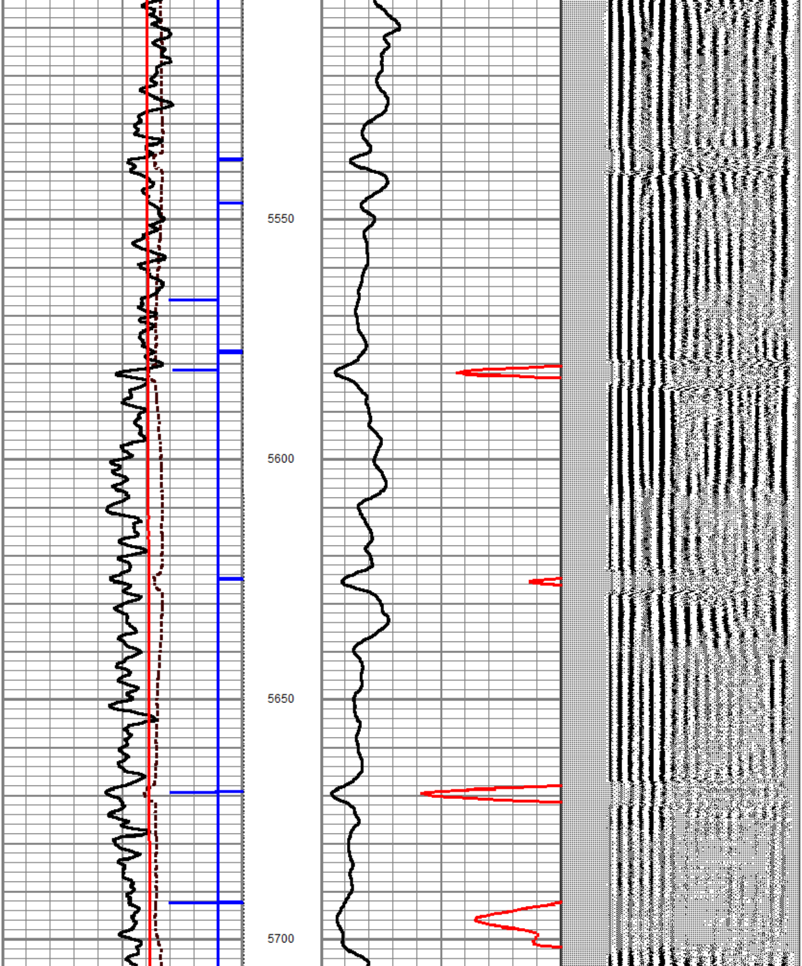


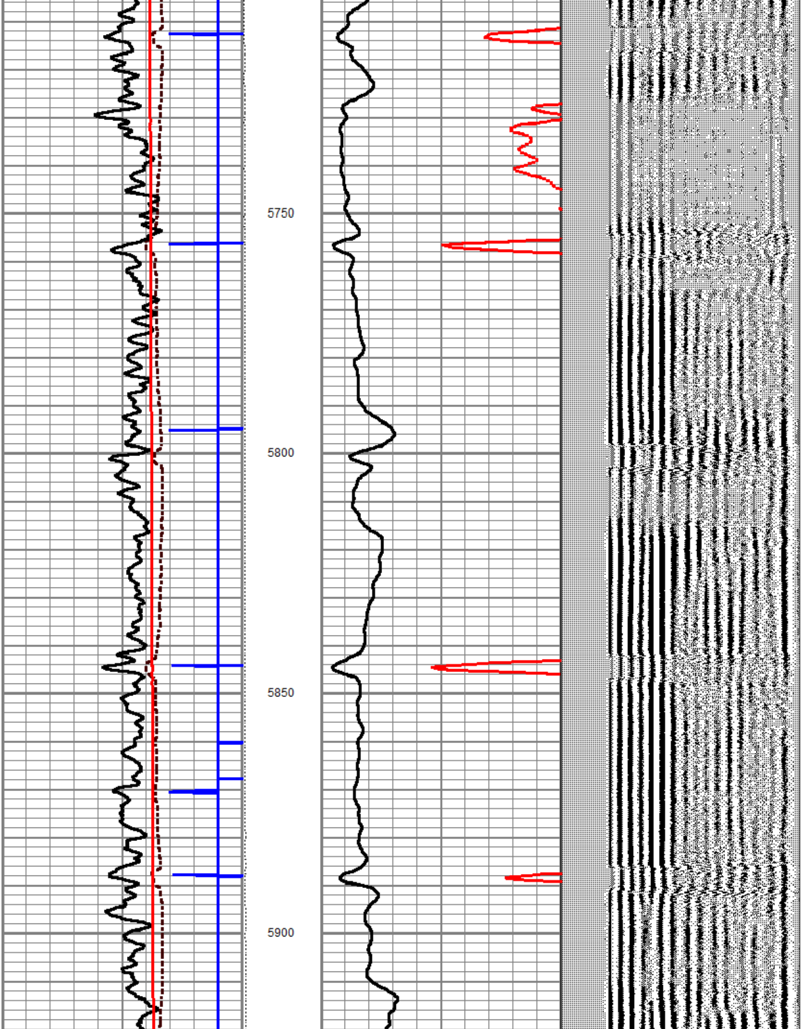


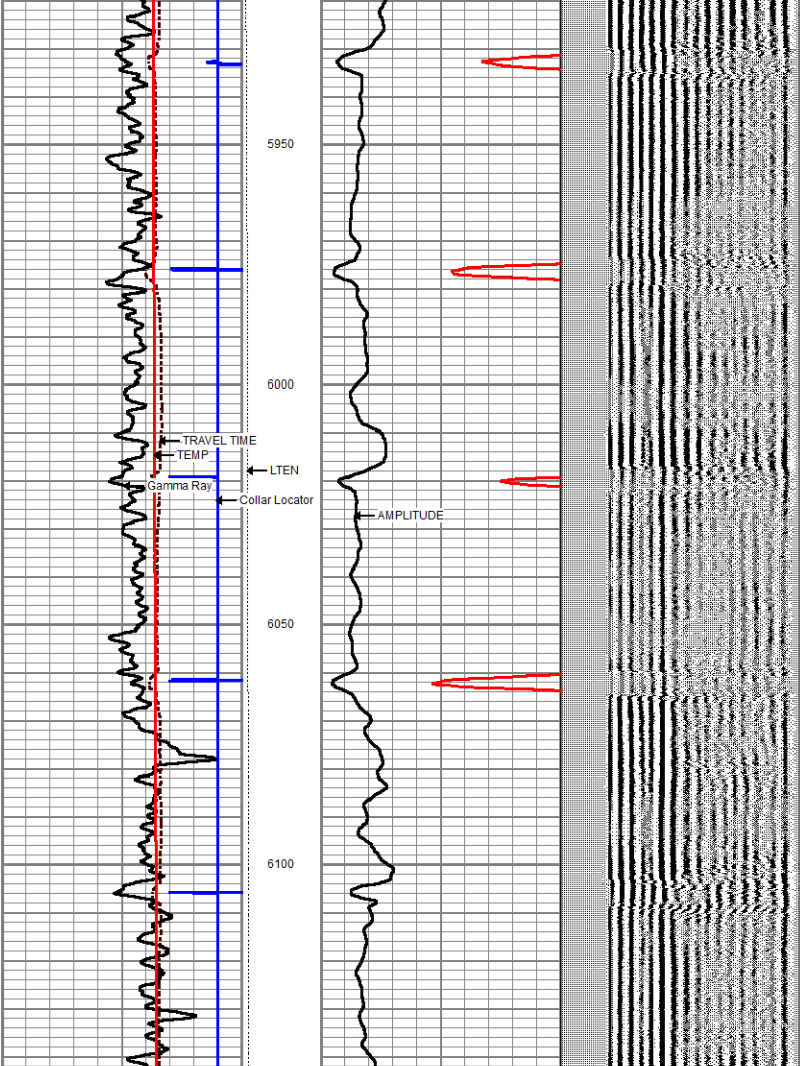


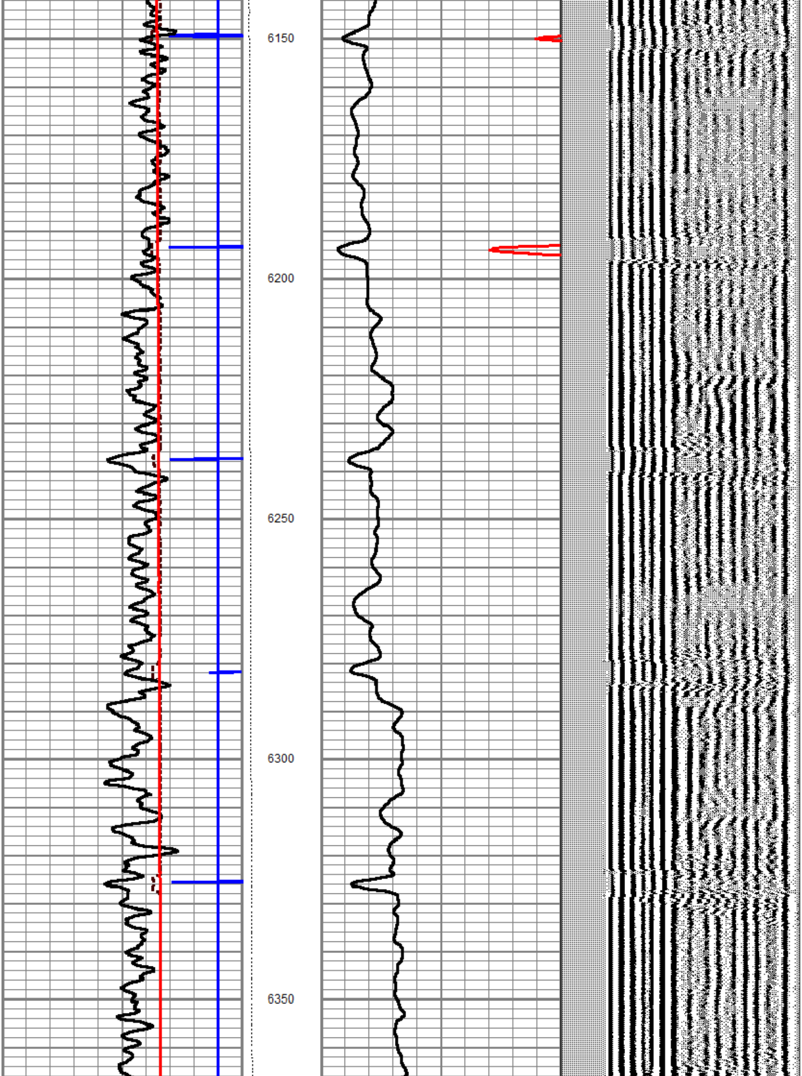


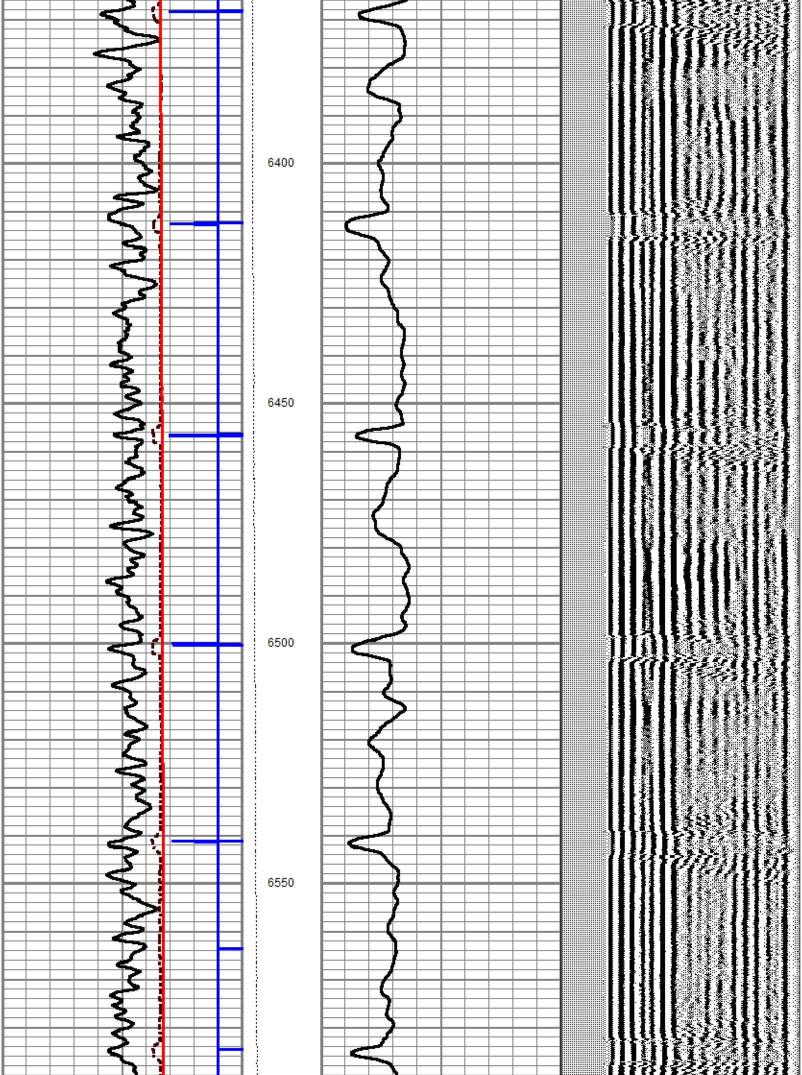


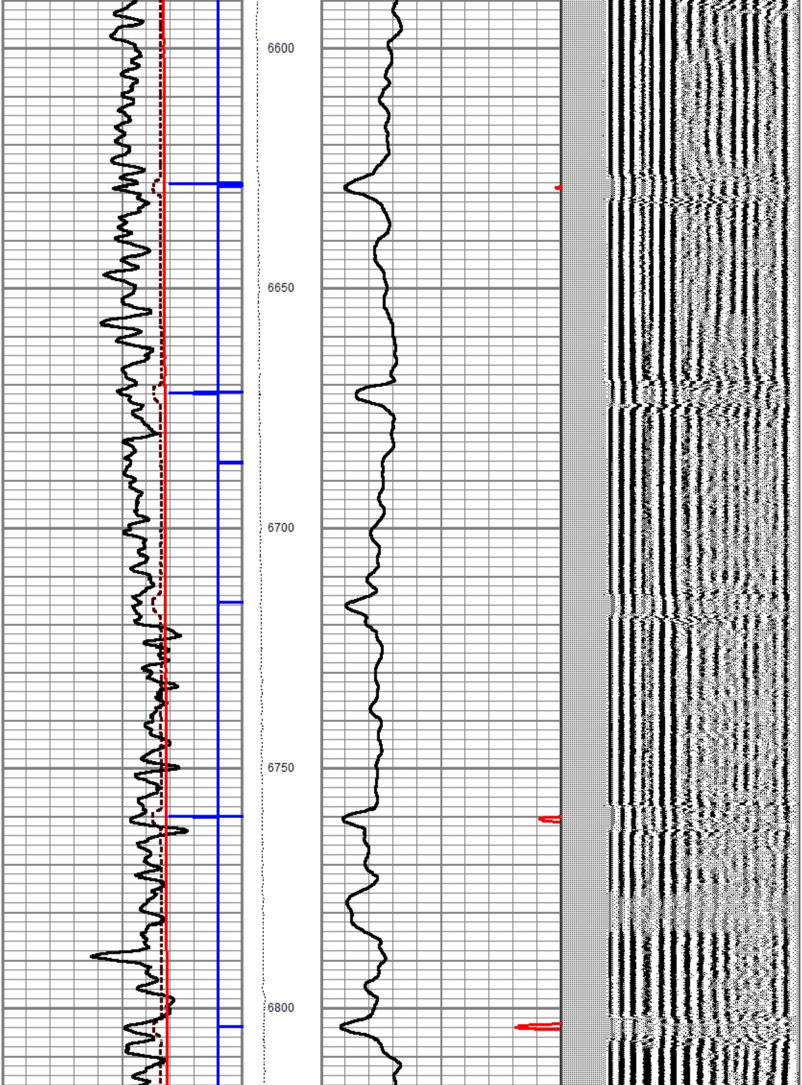


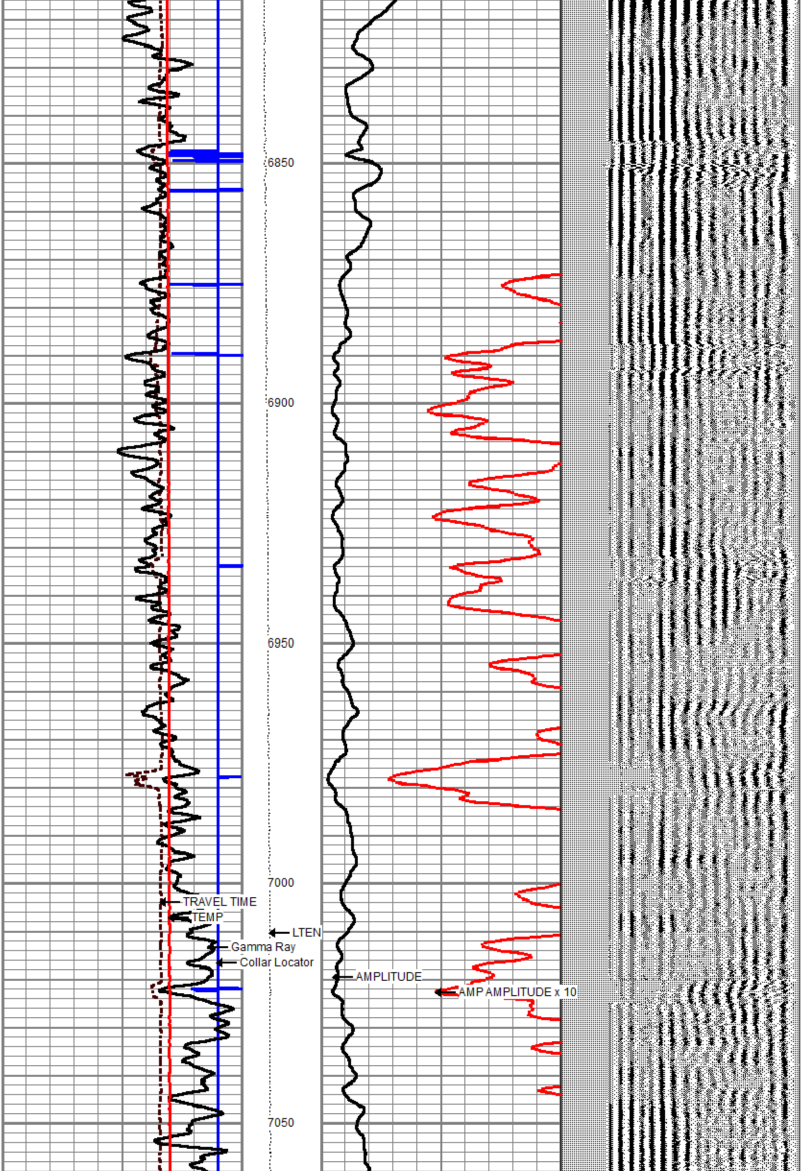


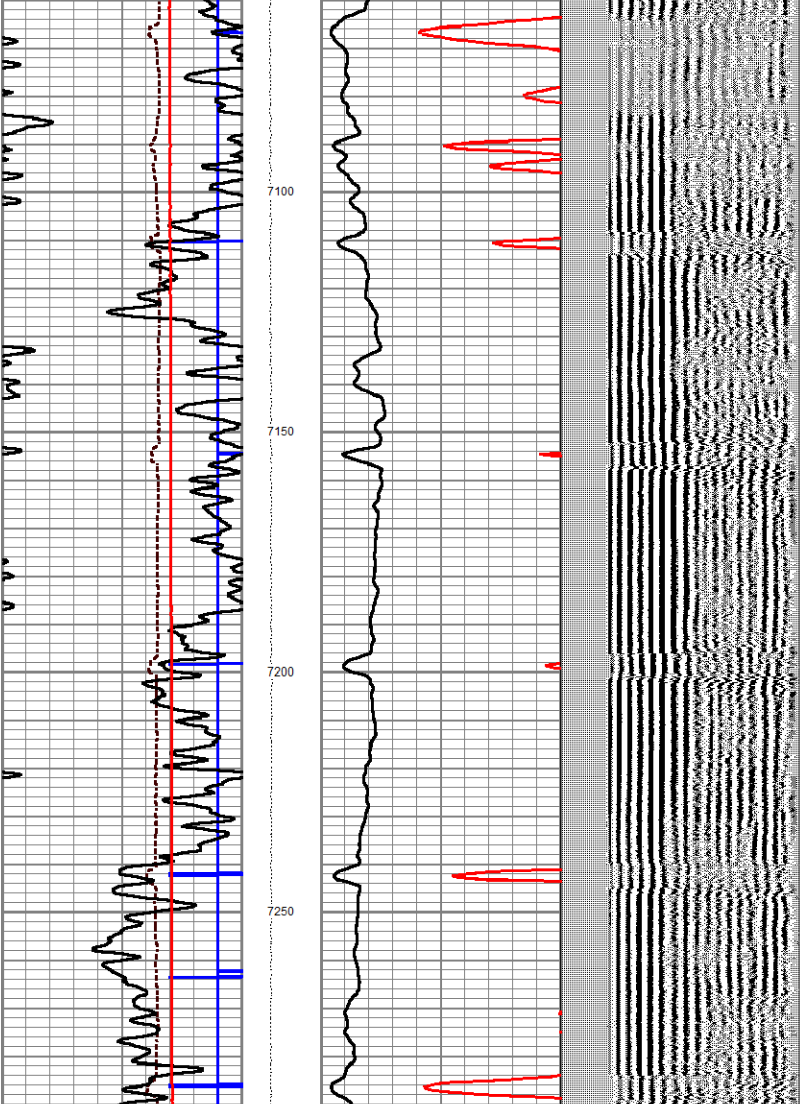


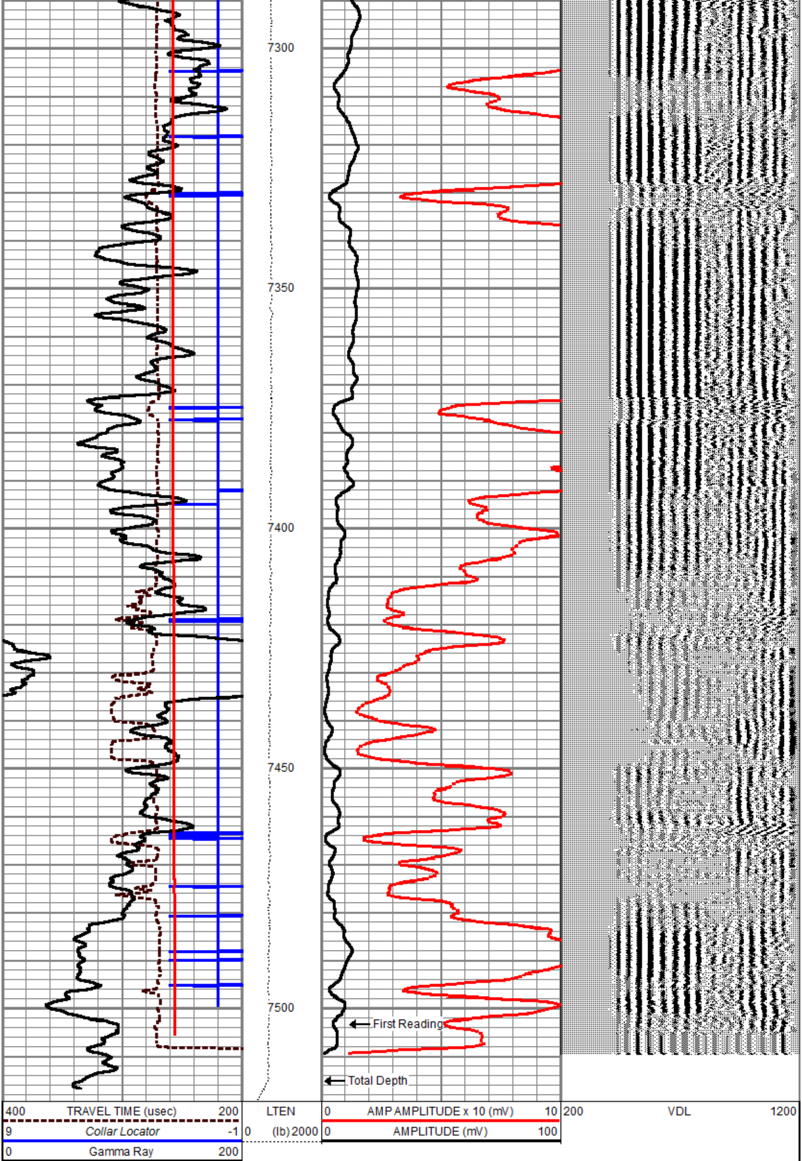












0 TEMP (degF) 300

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CEMENT BOND LOG PRESENTATION

MAIN LOG SECTION / 700 PSI

5"=100'

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CEMENT BOND LOG PRESENTATION

REPEAT LOG SECTION / 0 PSI

5"=100'

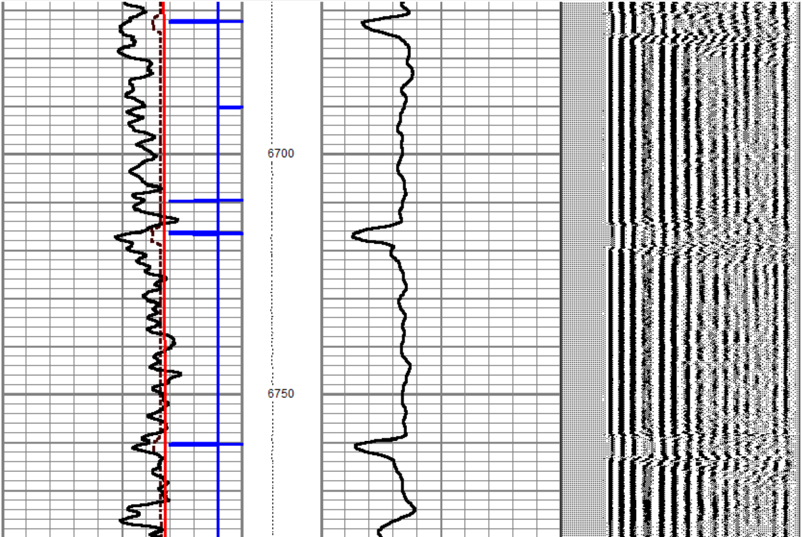
Database File	2014_extraction_diamond_valley_east_13.db
Dataset Pathname	pass1
Presentation Format	cbl_drs
Dataset Creation	Wed Dec 03 16:14:44 2014
Charted by	Depth in Feet scaled 1:240

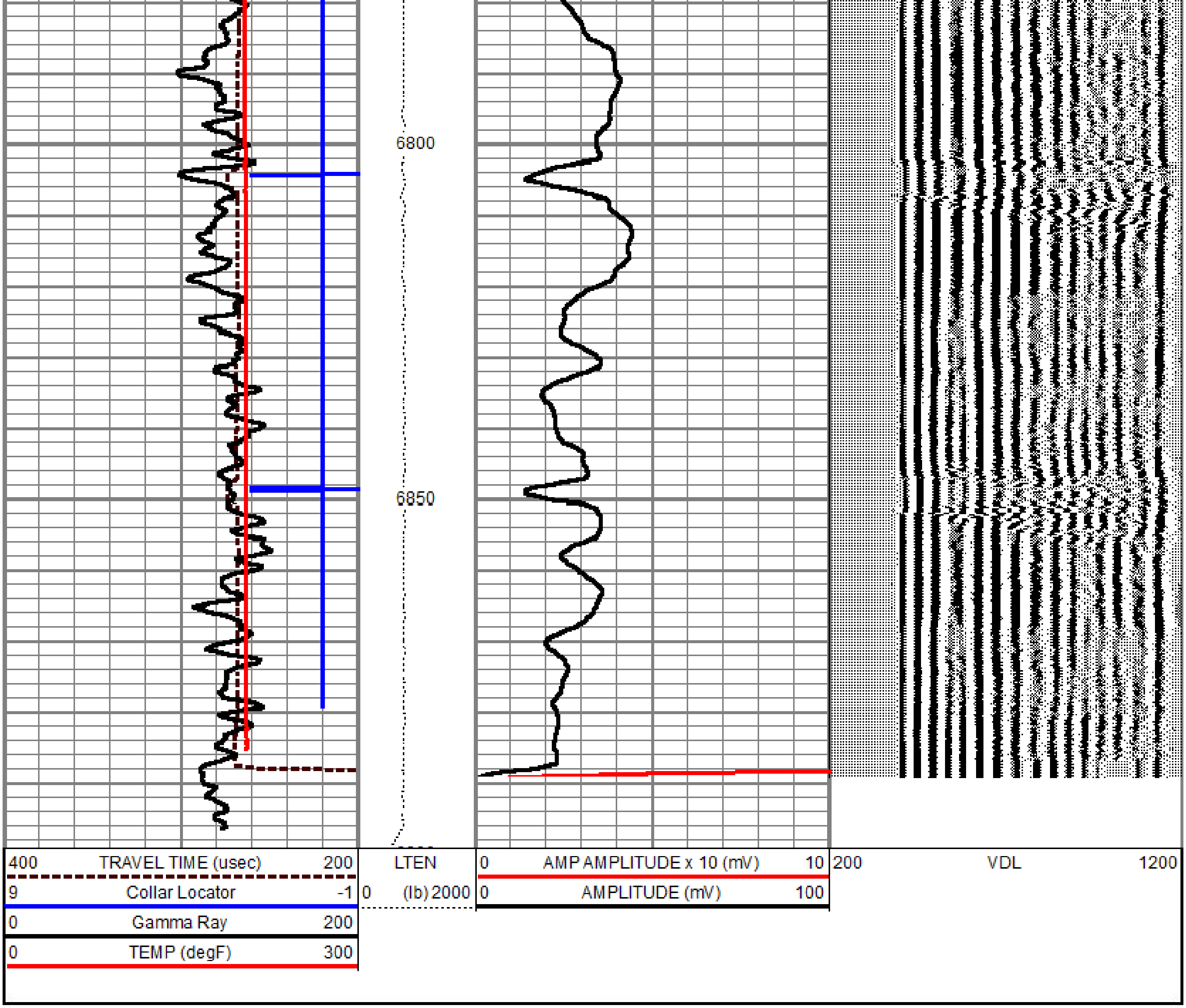
400 TRAVEL TIME (usec) 200
9 Collar Locator -1
0 Gamma Ray 200
0 TEMP (degF) 300

LTEN
0 (lb) 2000

0 AMP AMPLITUDE x 10 (mV) 10
0 AMPLITUDE (mV) 100

200 VDL 1200





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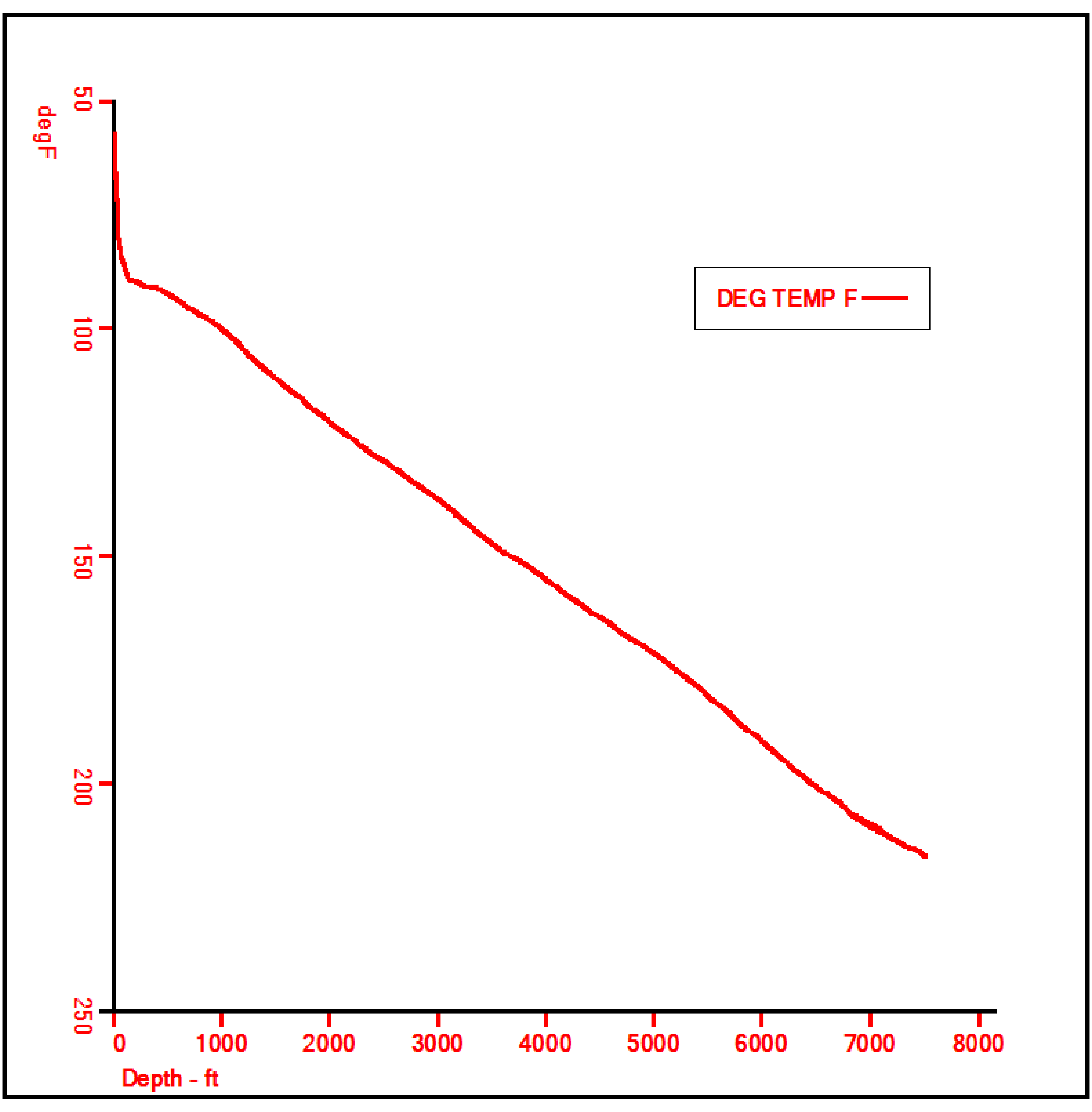
CEMENT BOND LOG PRESENTATION

REPEAT LOG SECTION / 0 PSI
5"=100'



Log Variables

Database C:\ProgramData\Warrior\Data\2014_extraction_diamond_valley_east_13.db
Dataset field/well/run1/pass3.1

Top - 7545.00 ft

CASEWGHT lb/ft	MAXAMPL mV	CASEOD in	TDEPTH ft
26	62	7	7845

7545.00 ft - Bottom

BHTEMP_Src	PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	SRFTEMP degF	CASEOD in	PERFS	TDEPTH ft
1	0	13.5	82	1.5	0.8	60	4.5	0	17211

BOTTEMP degF	BOREID in
255	8.75

Calibration Report

Database File	2014_extraction_diamond_valley_east_13.db
Dataset Pathname	pass3.1
Dataset Creation	Wed Dec 03 19:57:40 2014

Gamma Ray Calibration Report

Serial Number:	234GR4-IPCD9-01	
Tool Model:	GR-Tek-Co	
Performed:	Thu Mar 13 23:43:39 2014	
Calibrator Value:	120.0	
Background Reading:	104.4	cps
Calibrator Reading:	258.9	cps
Sensitivity:	0.8769	/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	234RIBT-IT4B1-01-FIELD-12-3-14	
Tool Model:	275 H/T RIB with I/E Temp	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	301.117	ft

Master Calibration, performed Wed Dec 03 19:57:36 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.008	0.711	0.000	62.165	86.479	0.709
CAL	0.000	0.472				
5'	-0.014	1.084	0.000	62.165	56.626	0.781
SUM						
S1	-0.010	0.627	0.000	100.000	156.790	1.631
S2	-0.008	0.614	0.000	100.000	160.613	1.343
S3	-0.010	0.573	0.000	100.000	171.550	1.703
S4	-0.011	0.632	0.000	100.000	155.631	1.698
S5	-0.012	0.692	0.000	100.000	141.874	1.772
S6	-0.013	0.712	0.000	100.000	137.943	1.783
S7	-0.013	0.705	0.000	100.000	139.277	1.840
S8	-0.012	0.674	0.000	100.000	145.721	1.787

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

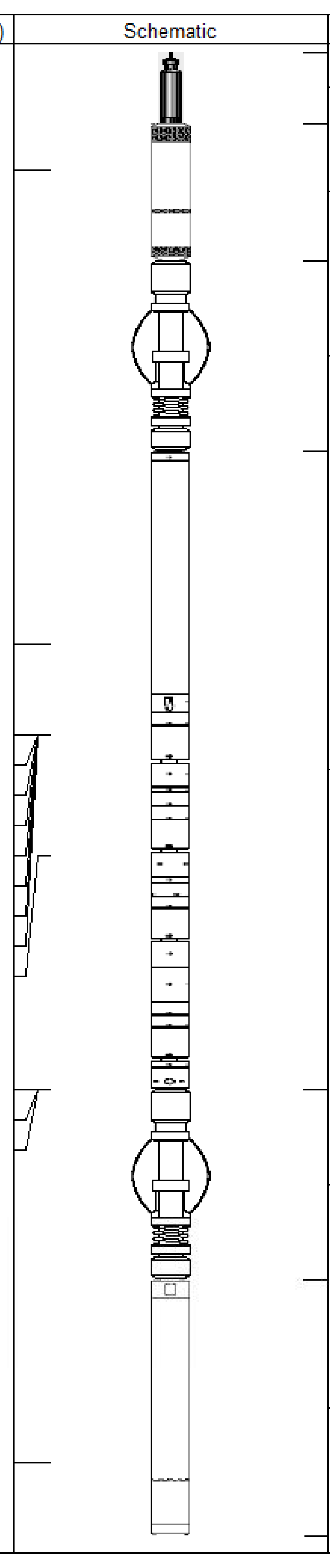
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.472	1.000	0.000

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-IT4B1-01-FIELD-12-3-14			
Tool Model:	275 H/T RIB with I/E Temp			
Performed:	Wed Dec 03 07:38:31 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)	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				
WVFS7	11.48	275 H/T RIB with I/E Temp (234RIBT-IT4B1-01-9.13D-12-3-2.75 Tekco 2.75" 450 Deg. F RIB with I/E Temp			102.00
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 (234GR4-IPCD9-01) Tekco 2 3/4" 400 Deg. F Logging Gamma Ray	3.67	2.75	40.00
GR	1.04				

Dataset:	2014_extraction_diamond_valley_east_13.db: field/well/run1/pass3.1
Total length:	21.25 ft
Total weight:	215.60 lb
O.D.:	2.75 in

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Company	**EXTRACTION OIL & GAS**
Well	**DIAMOND VALLEY EAST #13**
Field	**WATTENBERG**
County	**WELD**
State	**CO**
Country	**USA**