HALLIBURTON

CEMENT BOND LOG

Company	CARRIZO
Well	BRINGELSON 2-32-9-58
Field	WILDCAT
County	WELD State CO

Company CARRIZO
Well BRINGELSON 2-32-9-58
Field WILDCAT
County WELD State CO

API No.: 05-123-36625 Serv #: 900304169
Location: SHL 650' FFSLL 650' FFELL
BHL 650' FFNLL 650' FFELL

Other Services
N/A

Sec: 32 Twp: N9 Rge: 58W

Permanent Datum	GL	Elevation 4785	Elevation
Log Measured From	KB , 17 Ft. above perm. datum		K.B. 4802
Drilling Measured From	KB		D.F. 4801 G.L. 4785
Date @ Time Logged	22-MAR-2013	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.33
Depth - Driller	10177	Fluid Level	SURFACE
Depth - Logger	5381	Cement Top Est. Logged	1950
Bottom - Logged Interval	5269	Equipment / Location	11874896 / BRIGHTON
Top - Log Interval	380	Recorded by	JOSHUA MCDANIEL
Max. Recorded Temp.	117	Witnessed by	KIRK WILLIAMS

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	534 SACKS	552 SACKS		
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

	Borehole Record			Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
	12.25	0	1400	9.625	36	O	1400
	8.75	0	5983	7	23	0	5983
	6.25	5245	10177	4.5	11.6	5245	10177

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

FIRST LOG IN THE WELL

GAMMA CALLIBRATED TO BLANKET VALUE 241 GAPI
TOL @ 5160'
FREE PIPE CAL @ 687' HYDROSTATIC ONLY
ESTIMATED TOP OF CEMENT 1950'

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES!
YOUR CREW TODAY: JOSHUA MCDANIEL, NOLAN RADFORD, BRANDON RIEDEL, JAMESON W

HALLIBURTON

MAIN PASS 1000 PSI

SCALE:5"=100'

Database File:	bringelson 2-32.db
Dataset Pathname:	run2/pass12
Presentation Format:	1cbl
Dataset Creation:	Fri Mar 22 11:21:35 2013 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

9 Collar Locator -1

0 Gamma Ray (GAPI) 150

LTEN

0 (lb) 2500

TEMP (degF)

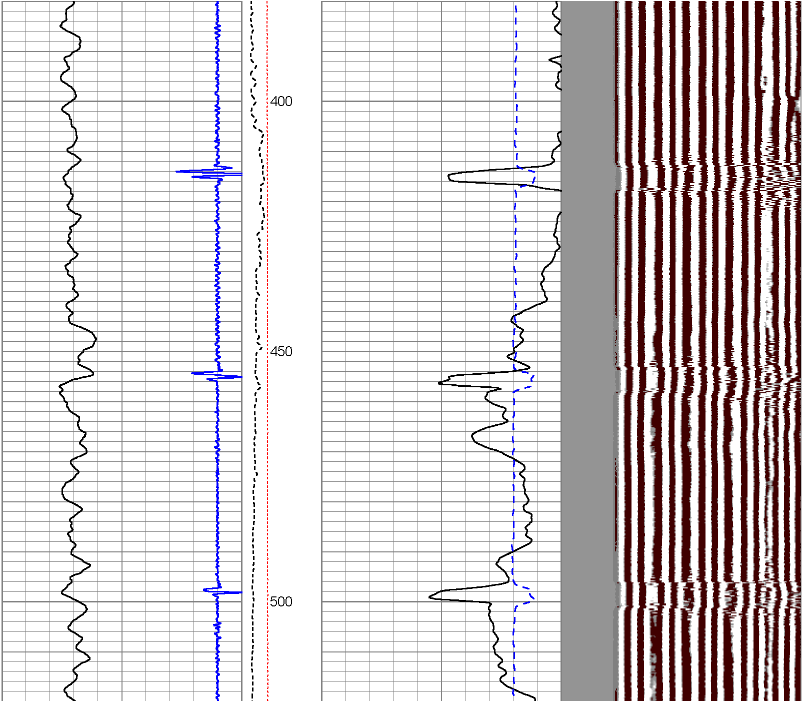
0 200

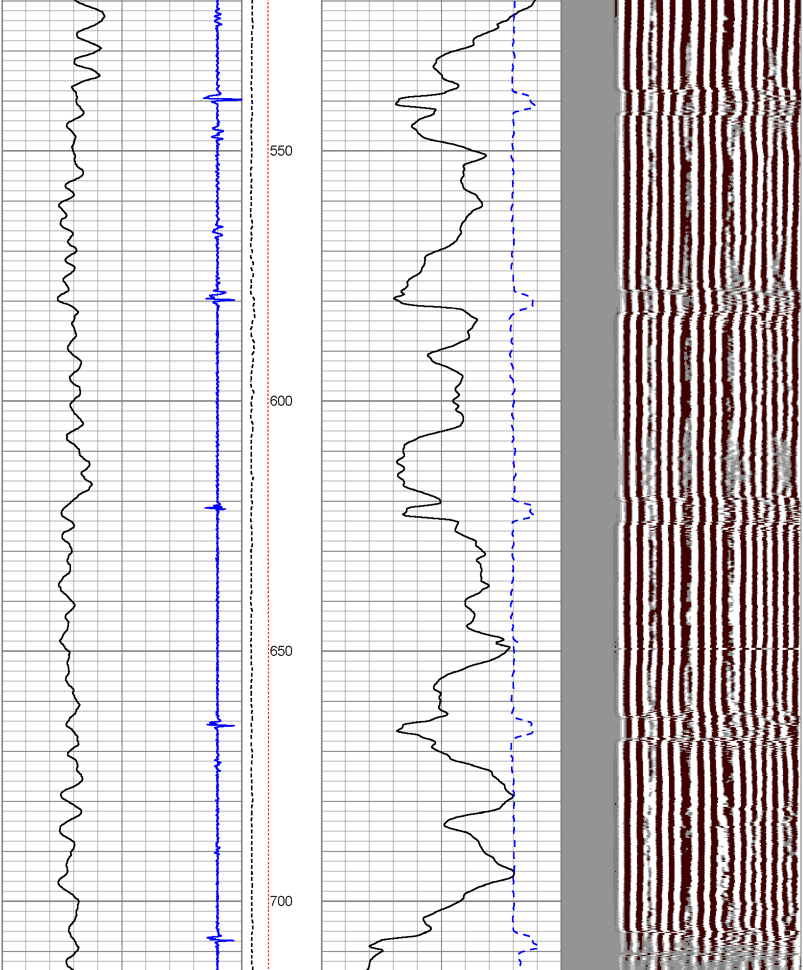
0 Amplified Amplitude (mV) 10

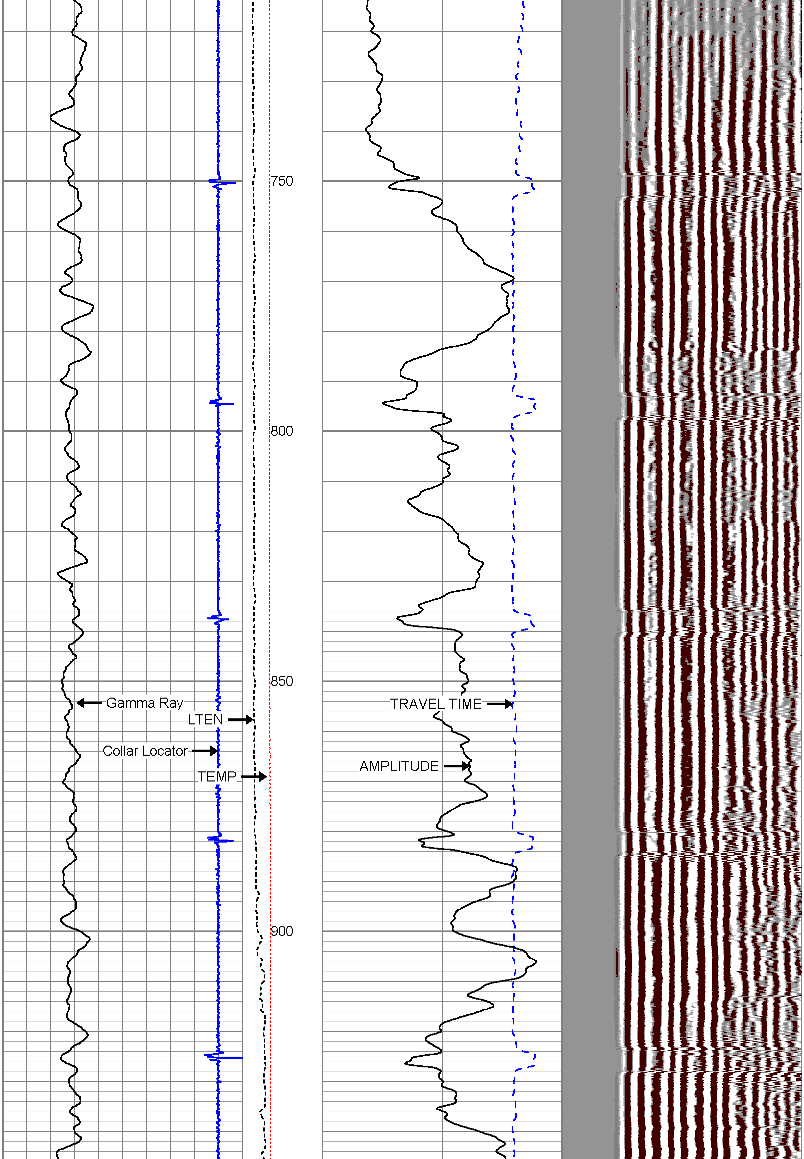
0 AMPLITUDE (mV) 75

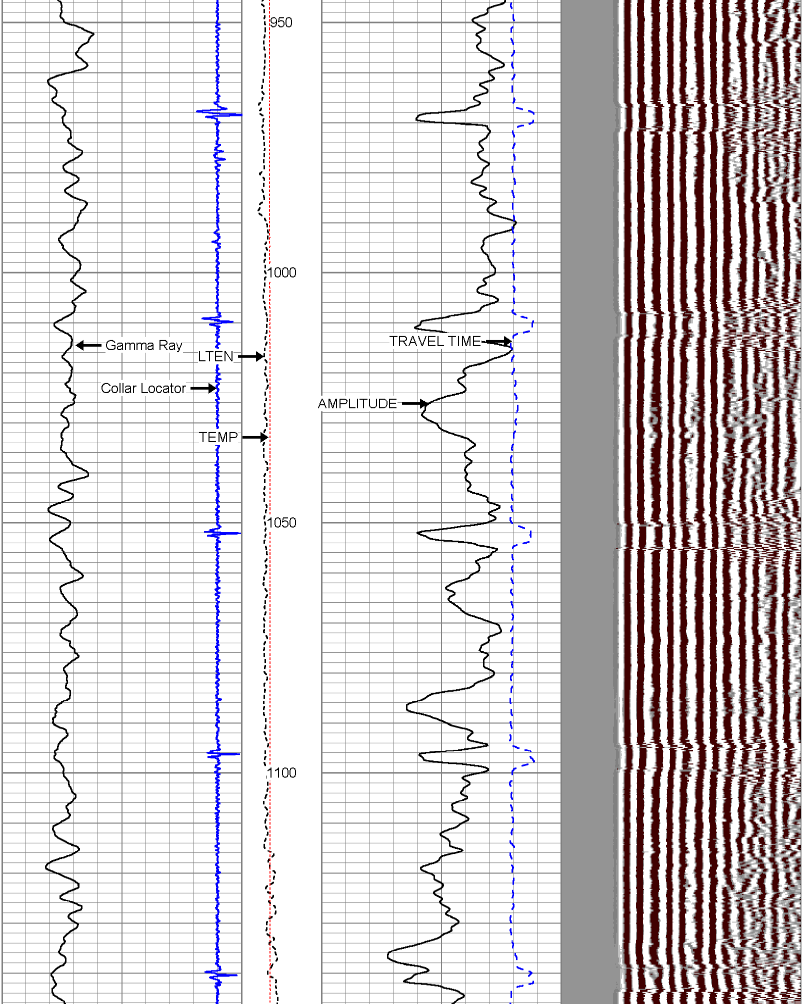
220 TRAVEL TIME (usec) 320

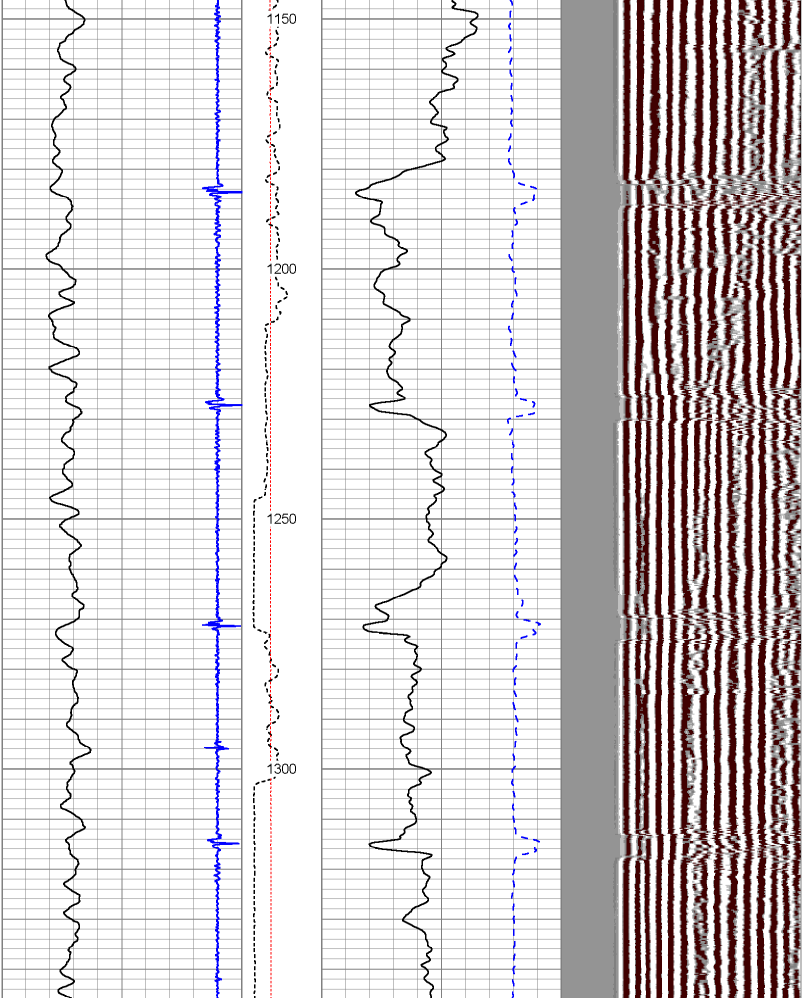
200 MSG 1200

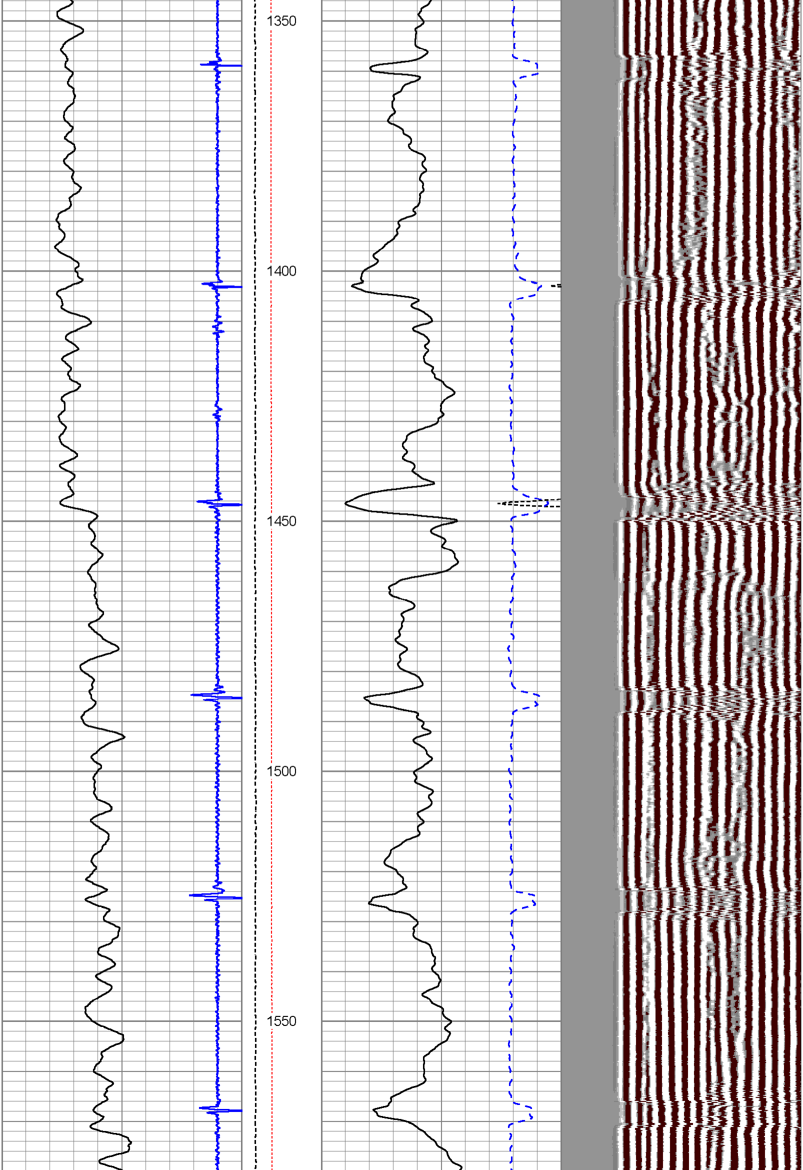


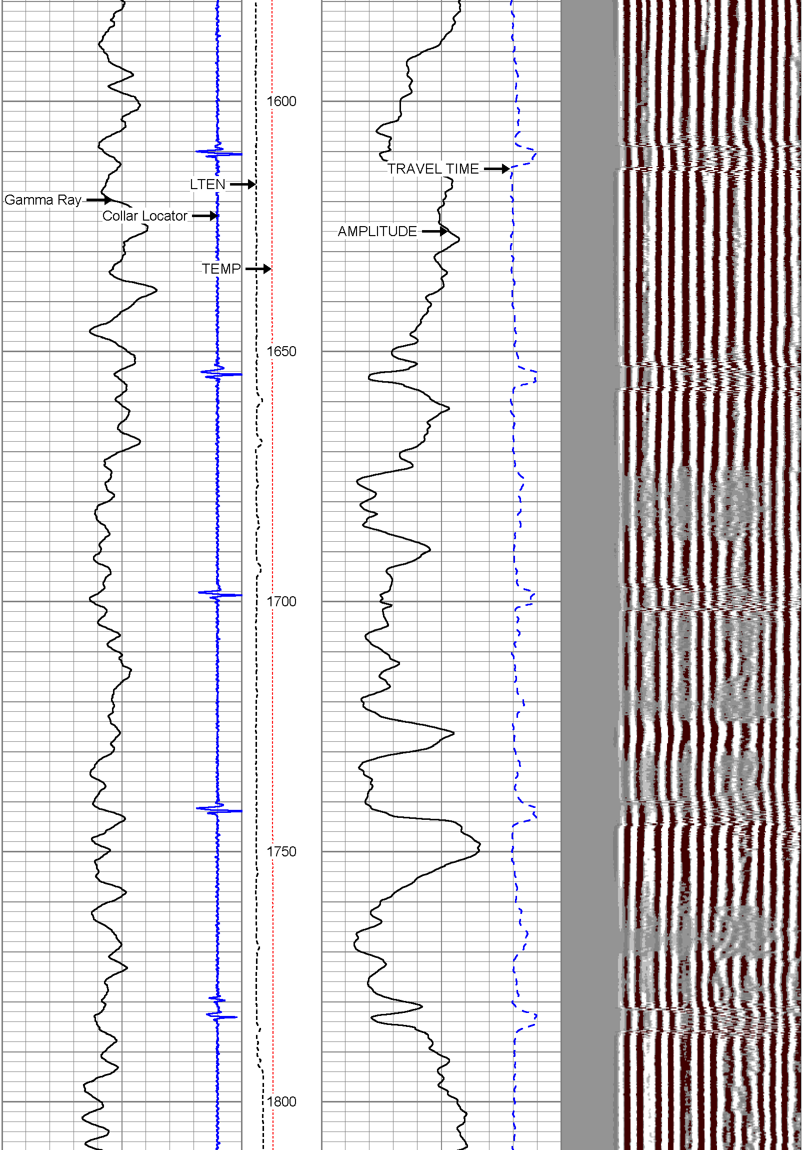


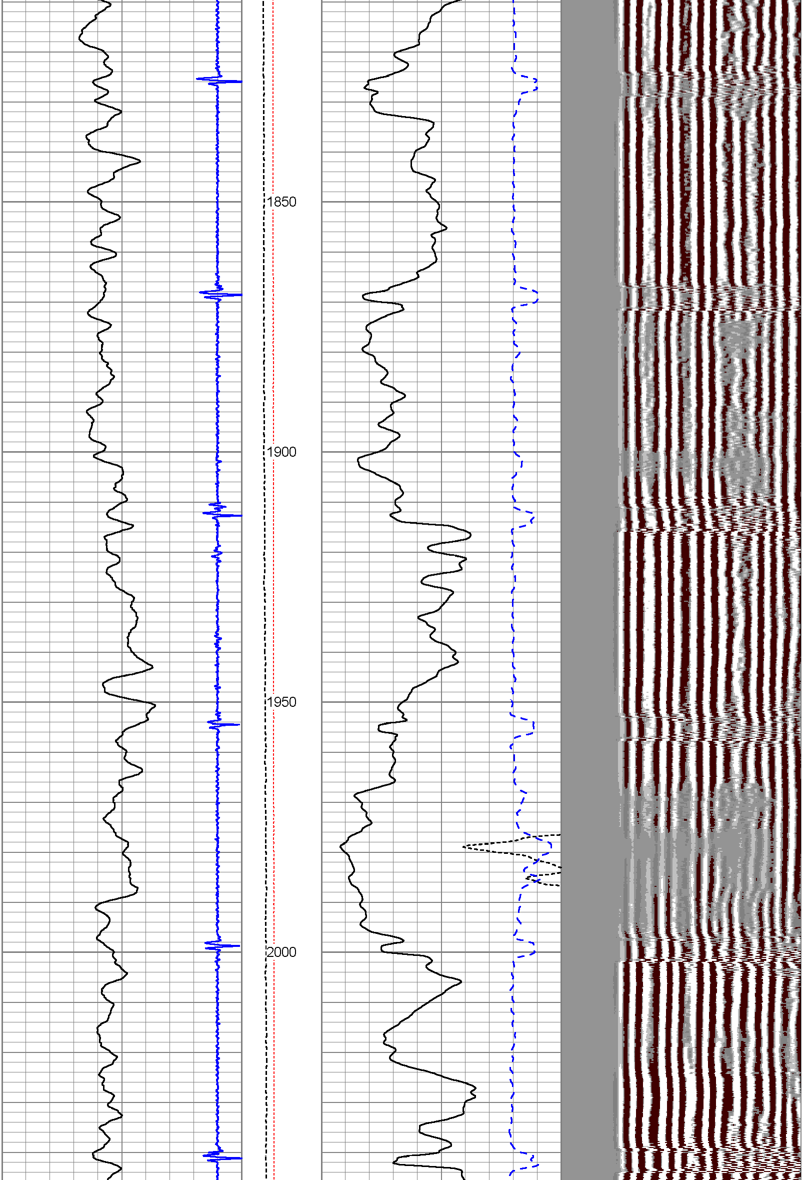


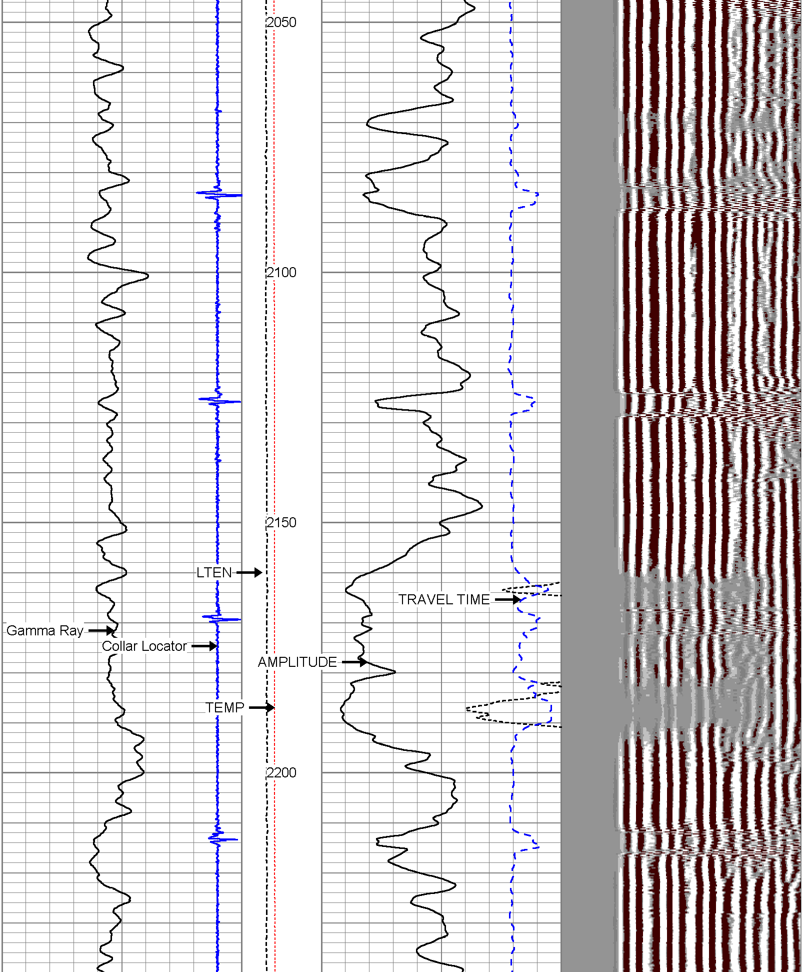


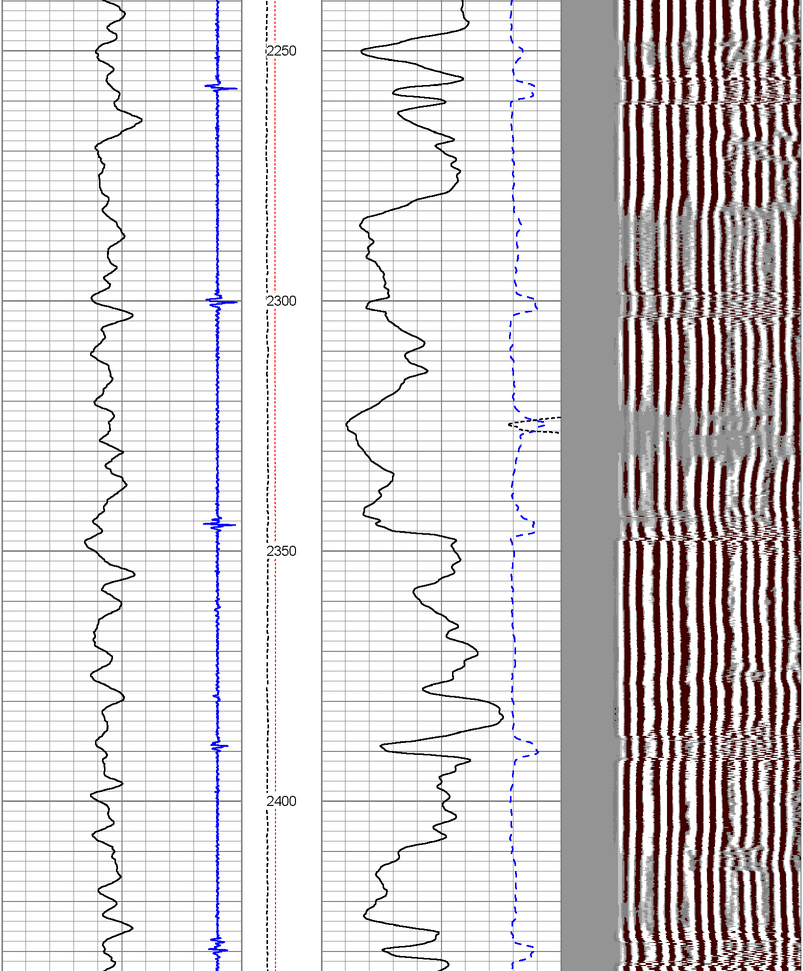


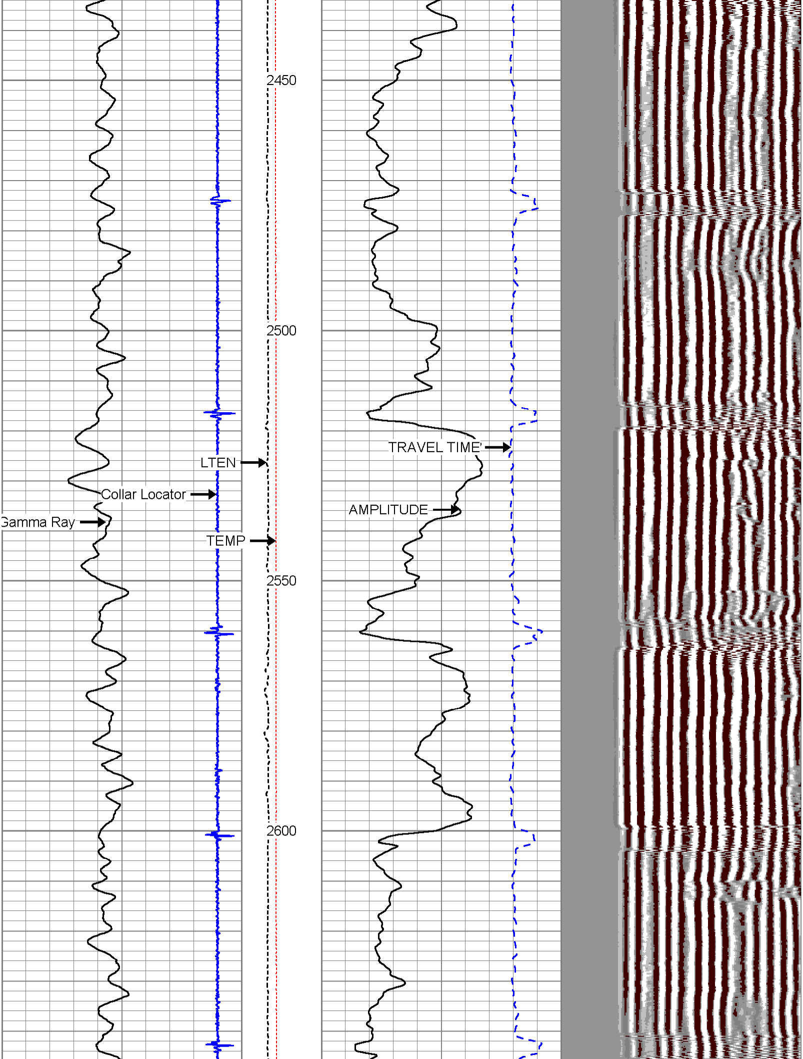


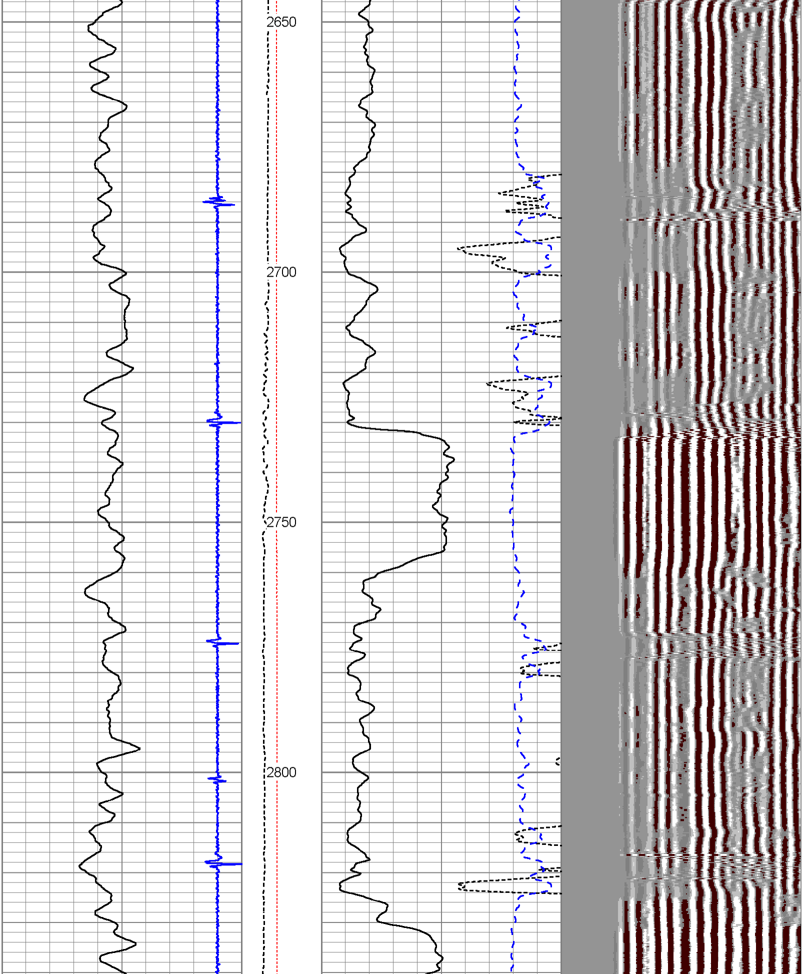


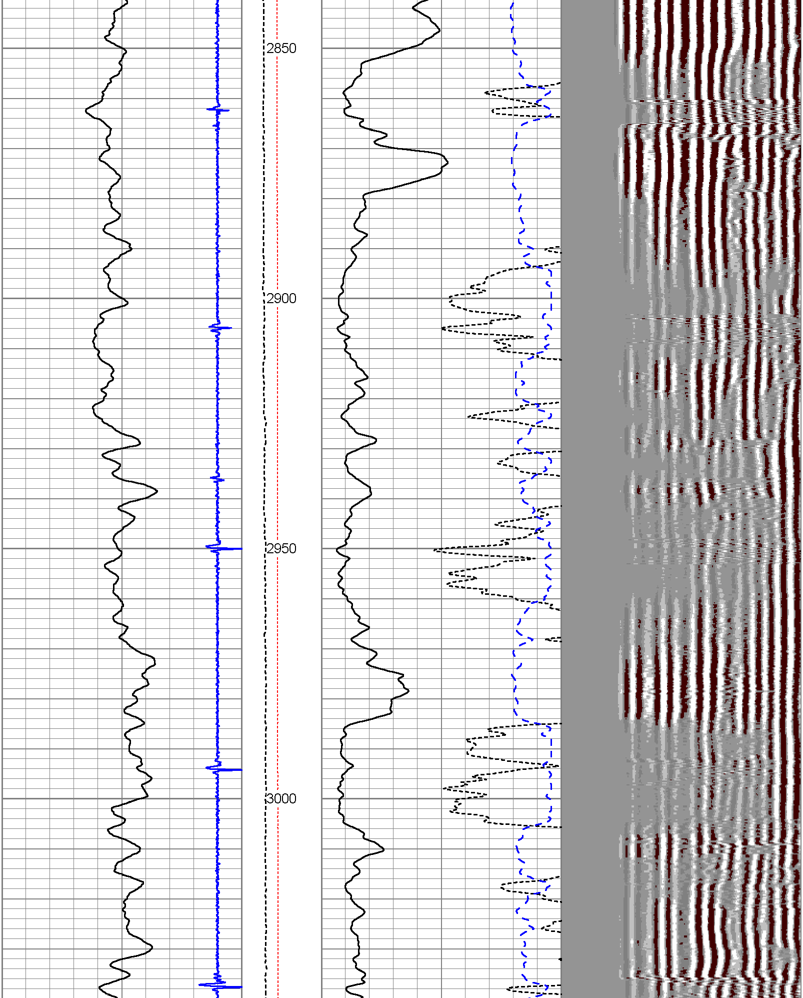


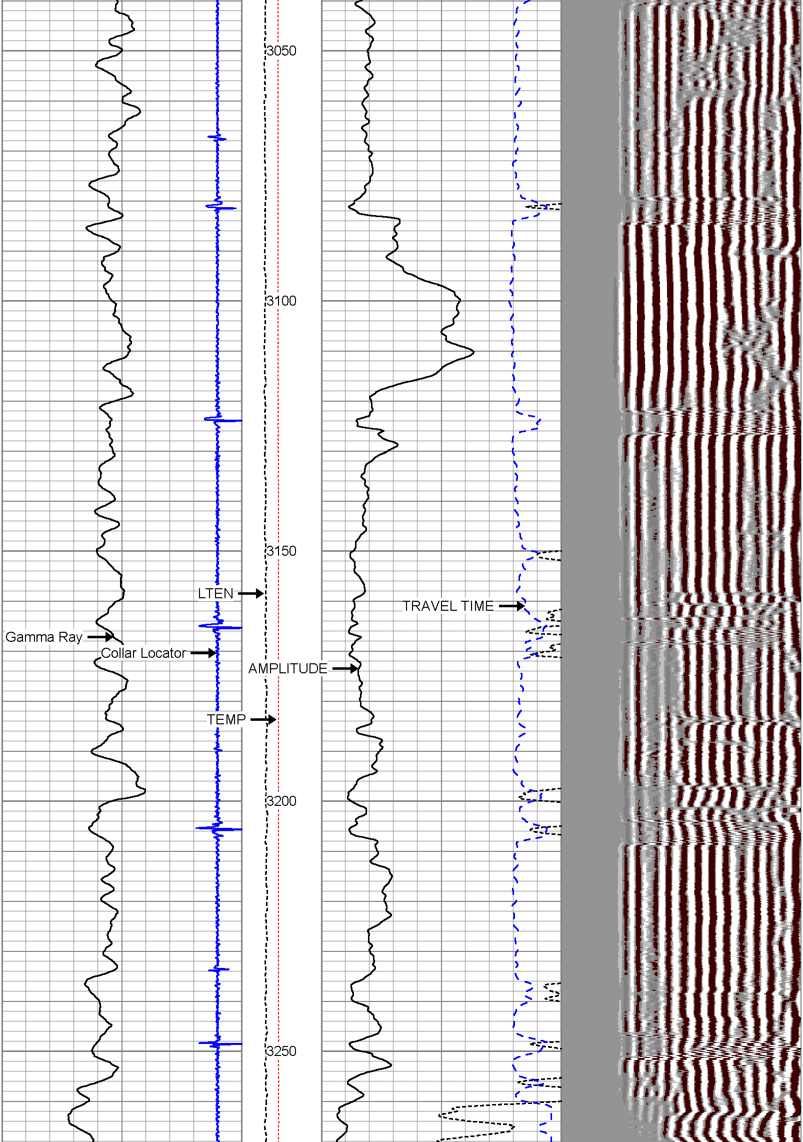


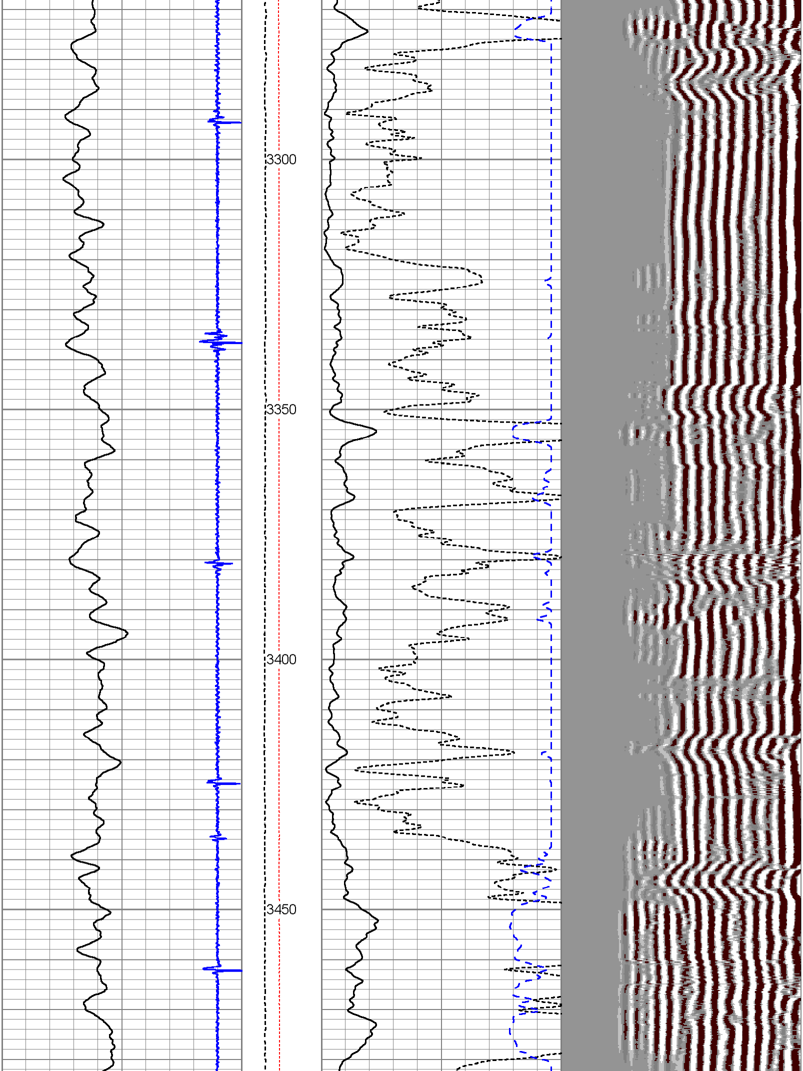


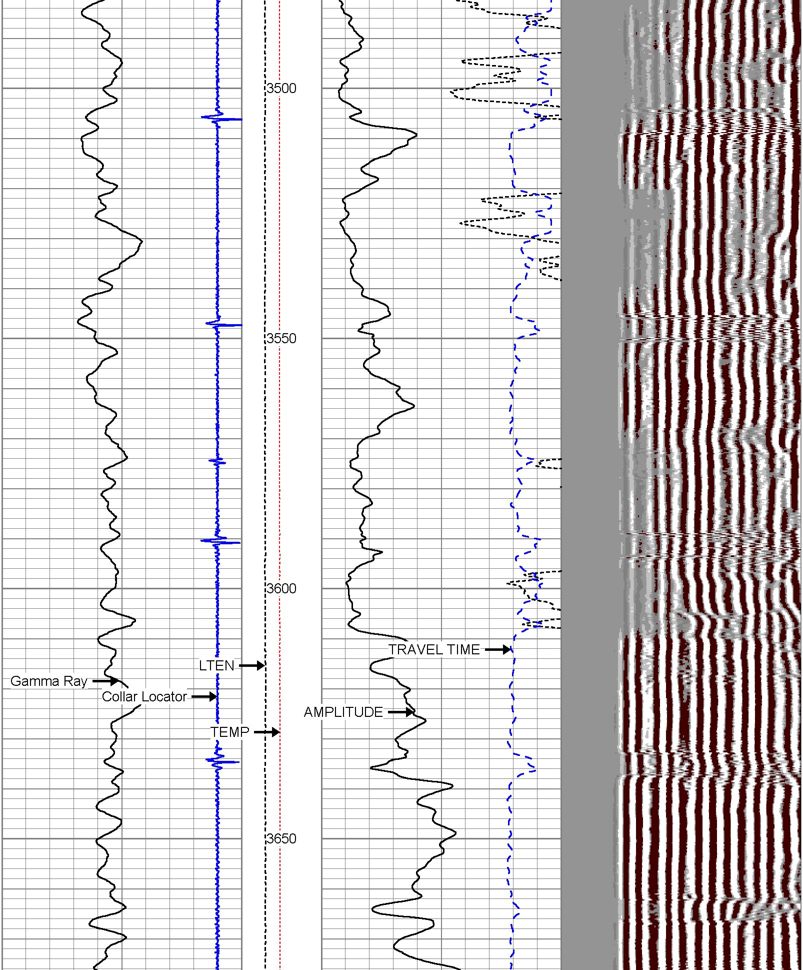


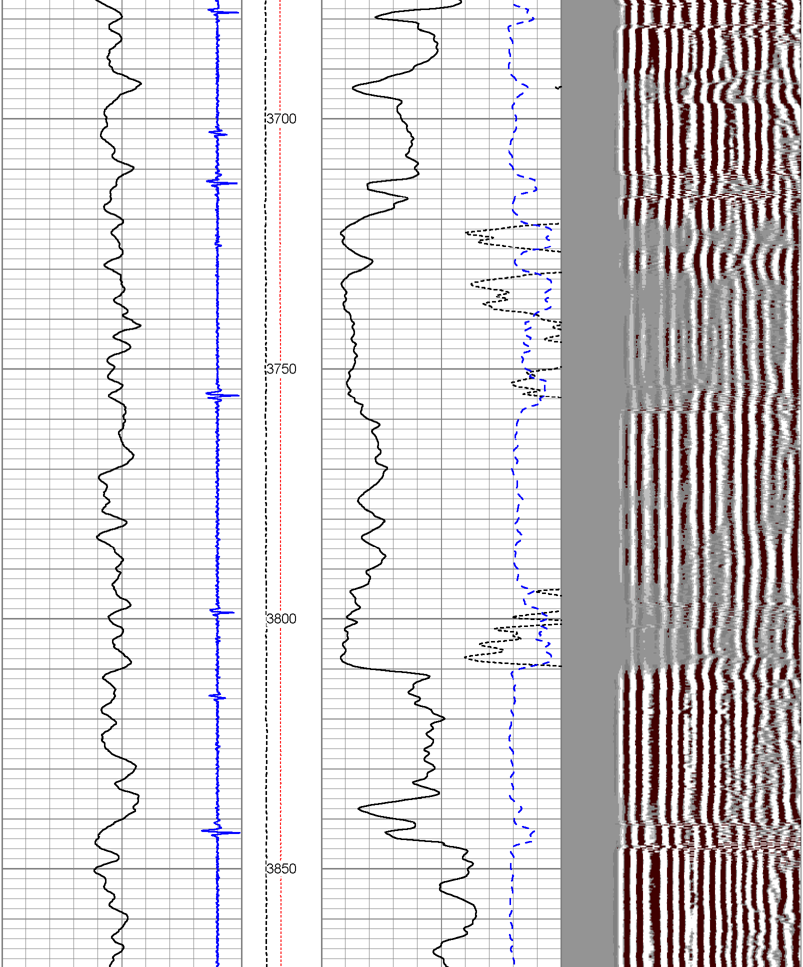


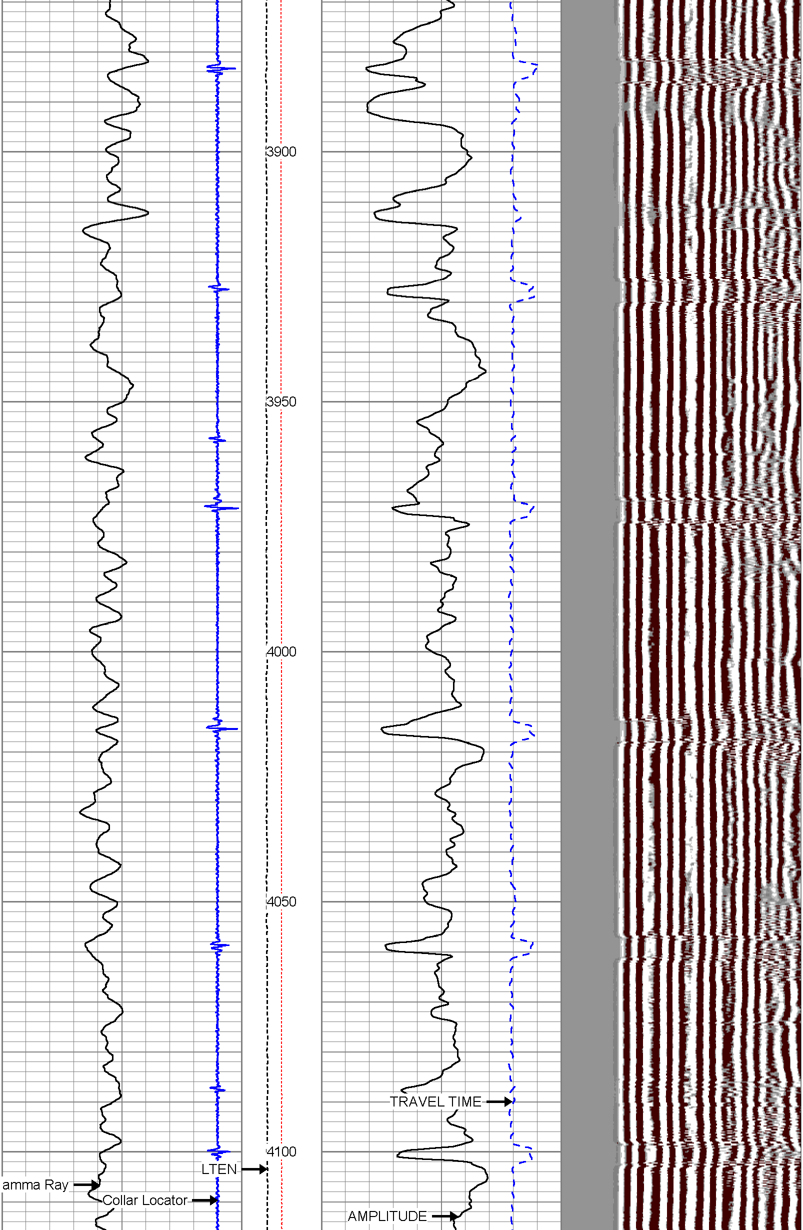












9 Collar Locator -1	LTEN	0 Amplified Amplitude (mV) 10	200 MSG 1200
0 Gamma Ray (GAPI) 150	0 (lb) 2500	0 AMPLITUDE (mV) 75	
	TEMP (degF) 0 200	220 TRAVEL TIME (usec) 320	

HALLIBURTON

MAIN PASS 1000 PSI

SCALE: 5"=100'

HALLIBURTON

CORRELATION PASS

SCALE: 5"=100'

Database File: bringelson 2-32.db
Dataset Pathname: run2/pass11
Presentation Format: 1cbl
Dataset Creation: Fri Mar 22 11:10:00 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

9 Collar Locator -1	LTEN	0 Amplified Amplitude (mV) 10	200 MSG 1200
0 Gamma Ray (GAPI) 150	0 (lb) 2500	0 AMPLITUDE (mV) 75	
	TEMP (degF) 0 200	220 TRAVEL TIME (usec) 320	

9 Collar Locator -1	LTEN	0 Amplified Amplitude (mV) 10	200 MSG 1200
0 Gamma Ray (GAPI) 150	0 (lb) 2500	0 AMPLITUDE (mV) 75	
	TEMP (degF) 0 200	220 TRAVEL TIME (usec) 320	

HALLIBURTON

CORRELATION PASS

SCALE: 5"=100'

Log Variables

Database C:\Warrior\Data\bringelson 2-32.db
Dataset: field/well/run2/pass12

Top - Bottom

PPT usec	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF
0	0	1	0.8	7	0	0	100

BITSIZE in
7.875

Calibration Report

Database File: bringelson 2-32.db
Dataset Pathname: run2/pass12
Dataset Creation: Fri Mar 22 11:21:35 2013 by Log Halliburton Casedho

Temperature Calibration Report

Serial Number: Tit1 3_02
Tool Model: Titan
Performed: Sun Jan 20 14:20.13 2013

	Reference	Reading
Low Reference:	61.00 degF	558.10 cps
High Reference:	120.00 degF	1975.90cps

Gain: 0.04
Offset: 37.78
Delta Spacing: 2

Gamma Ray Calibration Report

Type / Serial: Probe / 275

	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION	Thu Mar 21 09:43:41 2013				
Background	59.1				cps
Calibrator	264.9				cps
		1.1714			GAPI/cps
PRIMARY VERIFICATION	Thu Mar 21 09:47:23 2013				
Background	68.7				cps
Calibrator	309.1				cps
Difference				240.3	GAPI
BEFORE SURVEY VERIFICATION	Thu Mar 21 09:51:41 2013				
Background	69.6				cps
Calibrator	304.8				cps
Difference				235.2	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number: 275
Tool Model: Probe
Performed: Fri Mar 22 10:53:26 2013

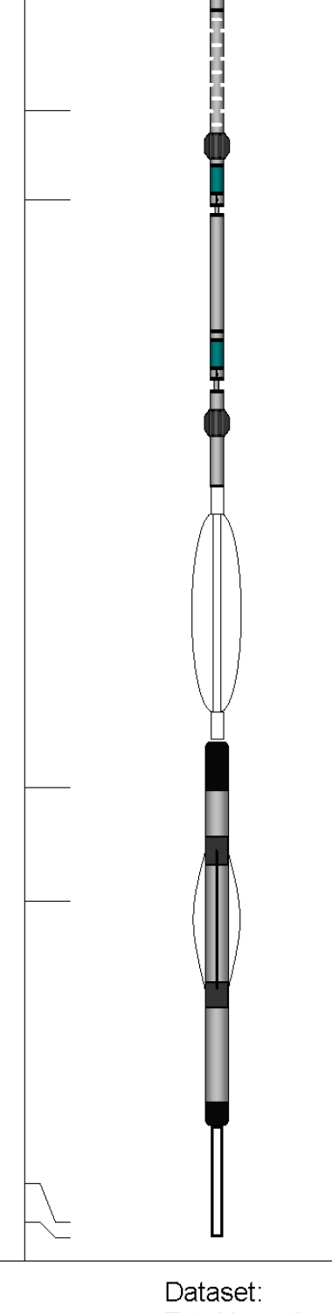
Depth: 687.002 ft
Casing Diameter: 7 in

	3' Spacing	5' Spacing	
Signal Zero:	0.15	0.15	mV
Calibrated Amplitude:	62	62	mV
Reading at Signal Zero:	0.00344238	0.00349121	V
Reading in Free Pipe:	0.378296	0.403101	V
Gain:	164.998	154.776	
Offset:	-0.417986	-0.390356	

Sensor Report

Database File: bringelson 2-32.db
Dataset Pathname: run2/pass12
Dataset Creation: Fri Mar 22 11:21:35 2013 by Log Halliburton Casedho

Sensor Name	Offset (ft)
WVF3	12.72
WVF5	11.72
CCL	5.08
GR	3.79
TEMP	0.17
LLMTEN	0
Telemetry	0

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1_CABLEHEAD 1"OD CABLE HEAD	1.02	1.44	3.00
			CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
WVF3 WVF5	12.72 11.72		CBL-Probe (275) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
			CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
CCL GR	5.08 3.79		GR-Probe (275) Probe 2.75" 4 Channel Pulse	4.33	2.75	30.00
TEMP LLMTEN	0.17 0.00		TEMP-Titan (Tit1.3_02) Titan Temp 1.3875	1.25	1.39	10.00

Dataset: bringelson 2-32.db: field/well/run2/pass12
Total Length: 21.29 ft
Total Weight: 173.00 lb
O.D.: 2.75 in

Company	CARRIZO
Well	BRINGELSON 2-32-9-58
Field	
County	WELD
State	CO

CEMENT BOND LOG

HALLIBURTON