HALLIBURTON

CEMENT BOND LOG

Company	CARRIZO OIL & GAS
Well	STATE 3-36-9-61
Field	WILDCAT
County	WELD
State	CO

Company CARRIZO OIL & GAS
Well STATE 3-36-9-61
Field WILDCAT
County WELD State CO

API No.: 05-123-37896 Serv #: 900858915
Location: LAT: 40.7118 LONG: -104.14949

Other Services
NONE

Sec: 36 Twp: 9N Rge: 61W

Permanent Datum	GL	Elevation	4939'	Elevation
Log Measured From	KB	15 Ft. above perm. datum		K.B. 4954'
Drilling Measured From	KB			D.F. 4953' G.L. 4939'

Date @ Time Logged	10/30/13 @ 16:45	Type Fluid in Hole	FRESH WATER
Run No.	01	Density of Fluid	8.33
Depth - Driller	10773'	Fluid Level	SURFACE
Depth - Logger	6416'	Cement Top Est. Logged	850'
Bottom - Logged Interval	6404'	Equipment / Location	11014931 / BRIGHTON
Top - Log Interval	50'	Recorded by	F. KUMA
Max. Recorded Temp.	212 DEG F @ 6416'	Witnessed by	B. SHABALL

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

Borehole Record			Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	8.75	0	5912	7	23	0	5912
LINER	6.25	6636	10773	4.5	11.60	6636	10773

<<< Fold Here >>>

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

PRIMARY DEPTH OF REFERENCE

ESTIMATED TOP OF CEMENT @ 850'

TOP OF LINER @ 5708'
THORIUM BLANKET VALUE: 237

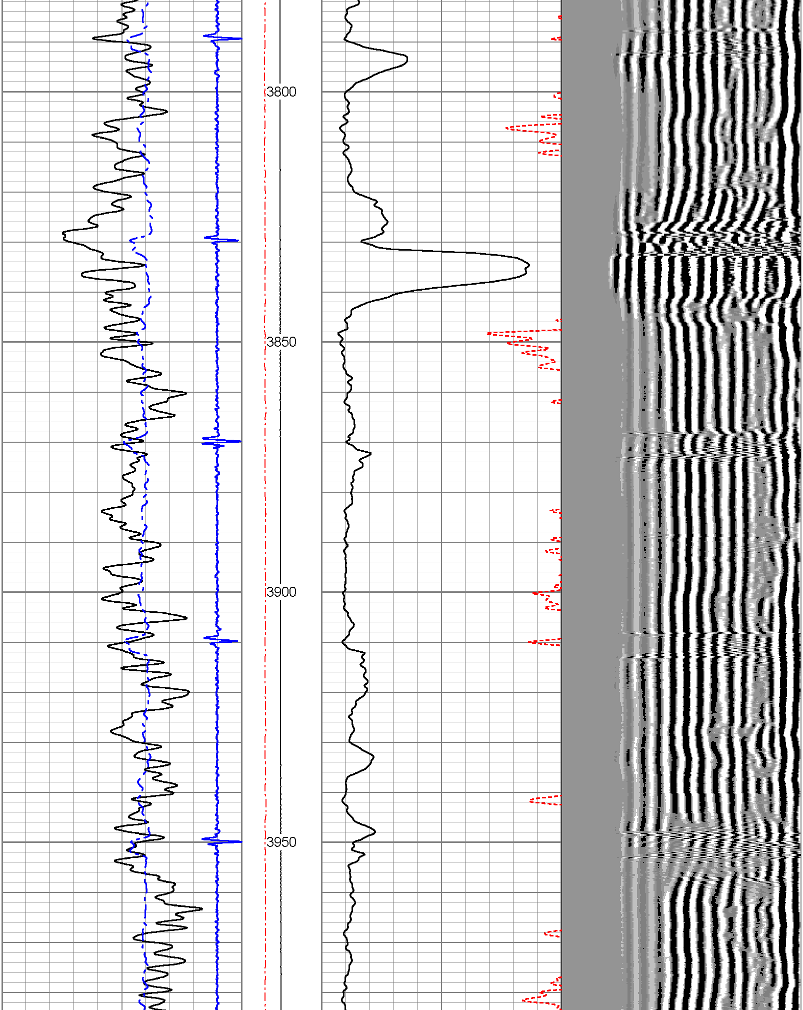
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES
YOUR CREW TODAY: F. KUMA, K. MAGLIETTO, E. WHITTIER

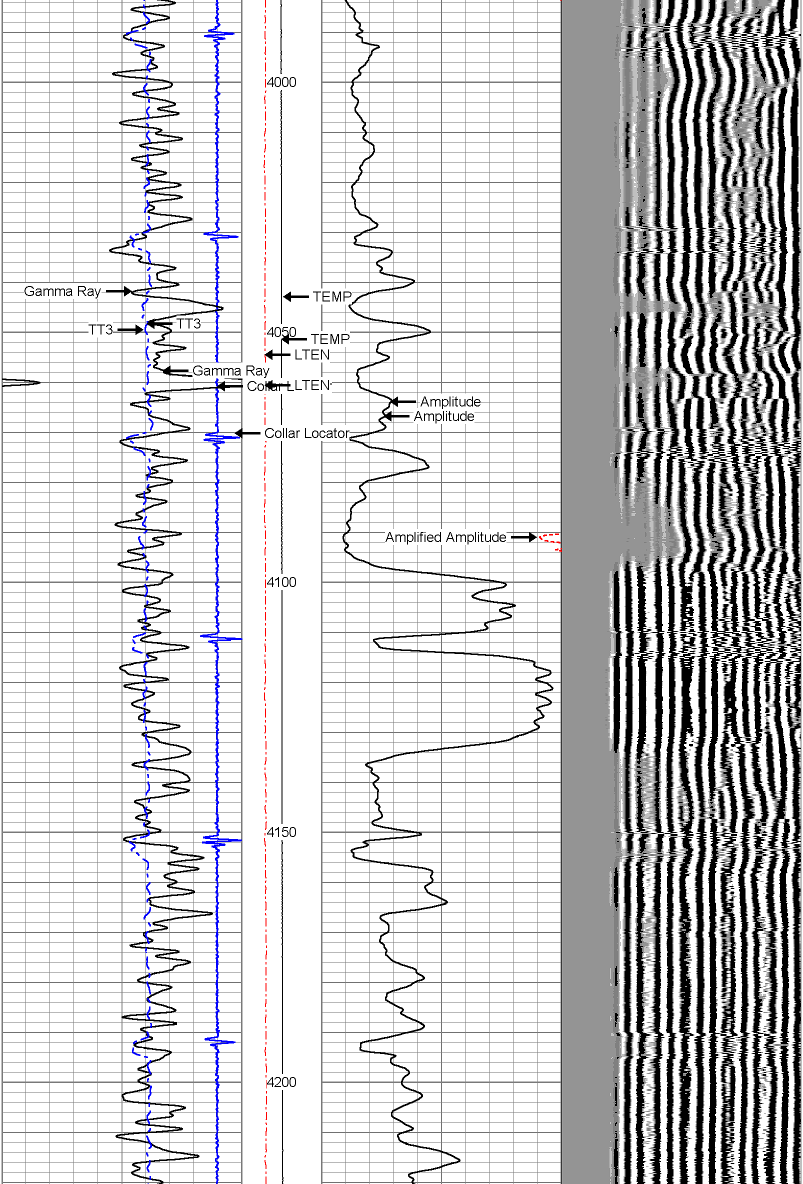
HALLIBURTON

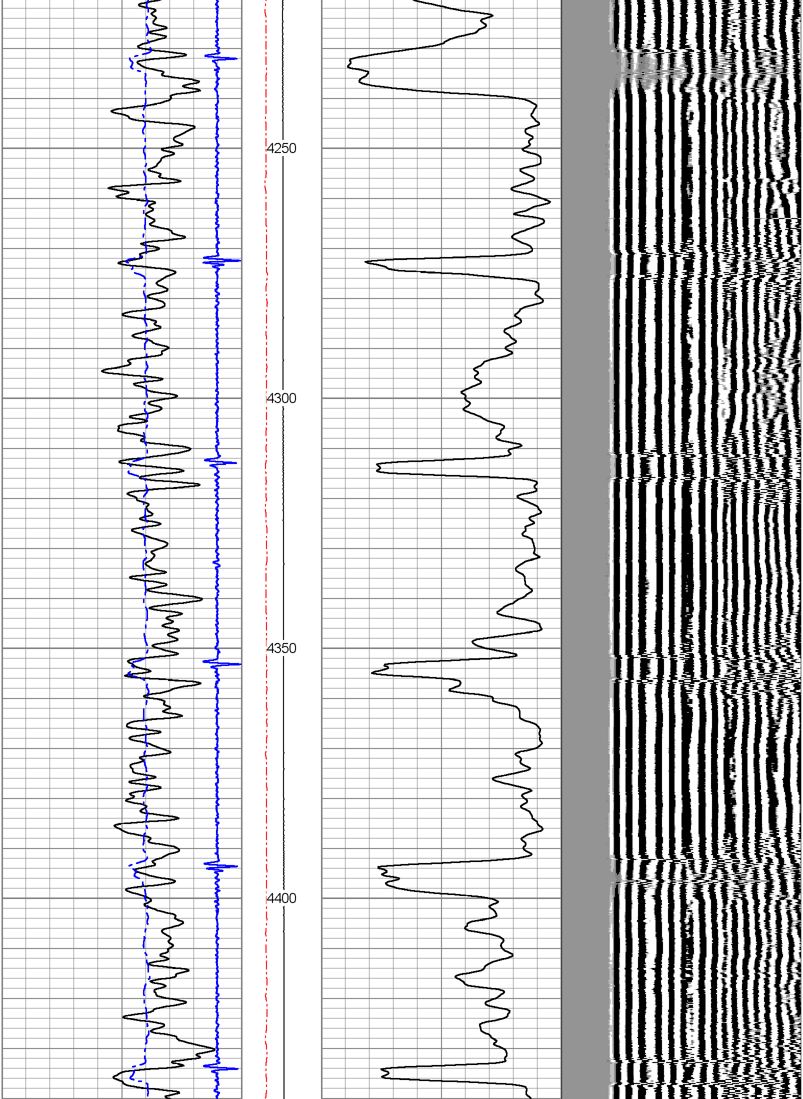
MAIN PASS (1000 PSI)

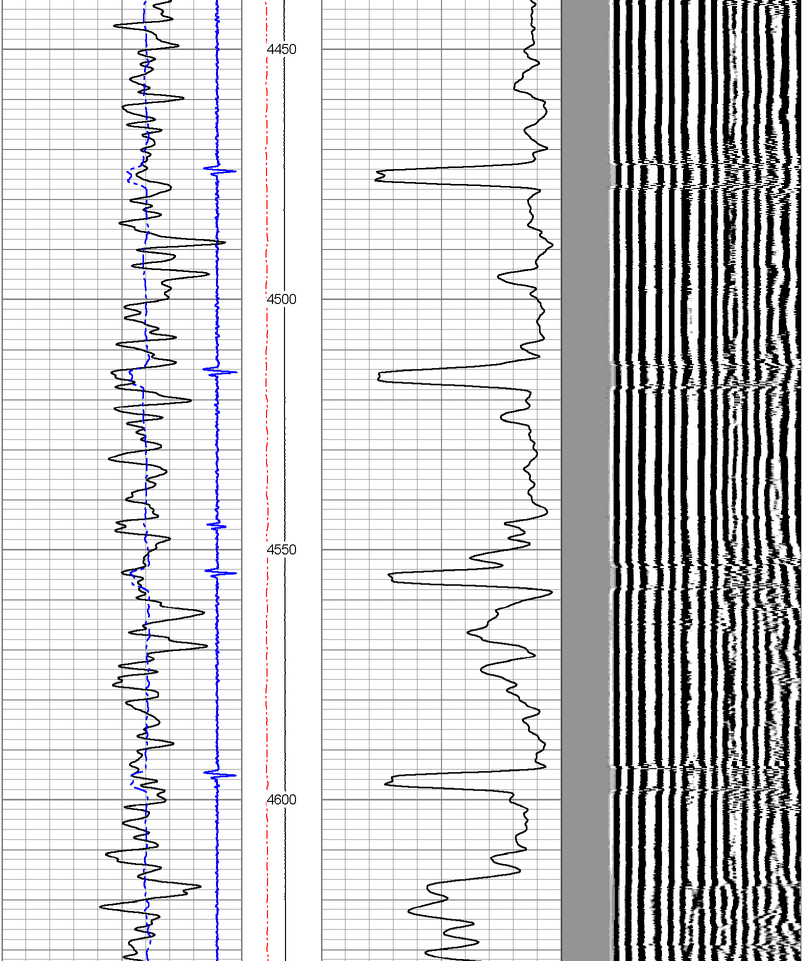
SCALE: 5"=100'

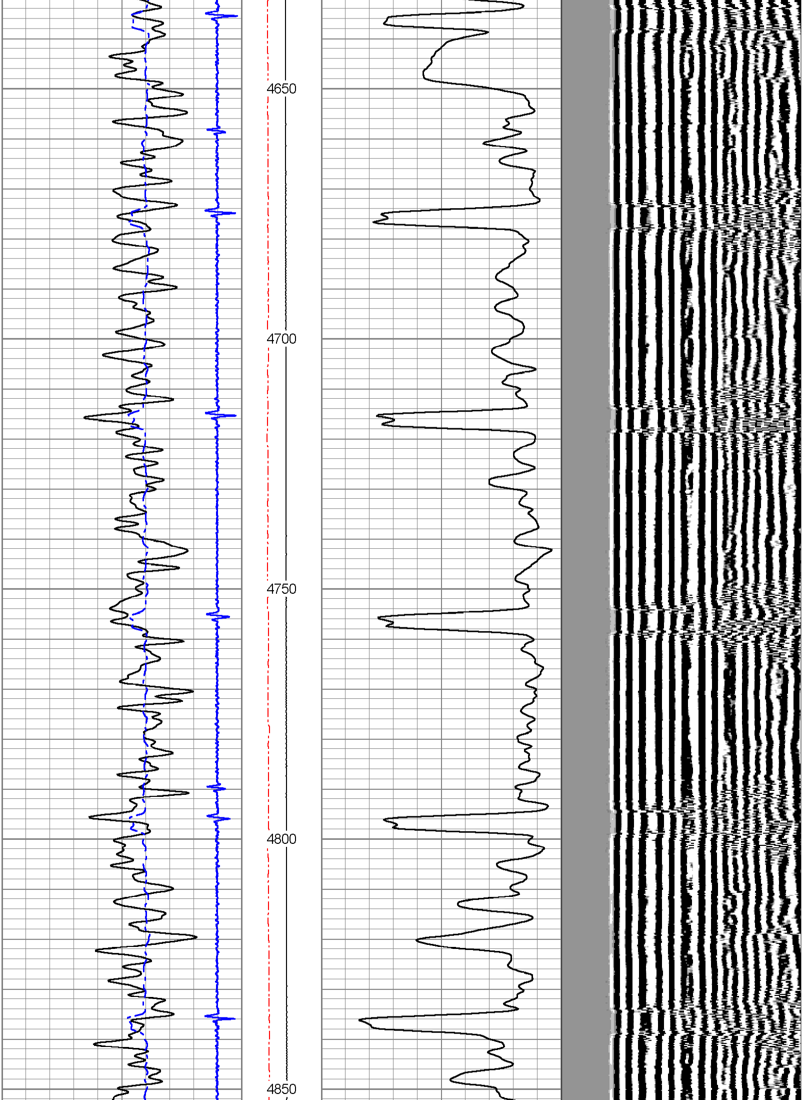
Database File: carrizo3_36_9_61.db
Dataset Pathname: pass6
Presentation Format: 1katcbl
Dataset Creation: Wed Oct 30 17:35:45 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

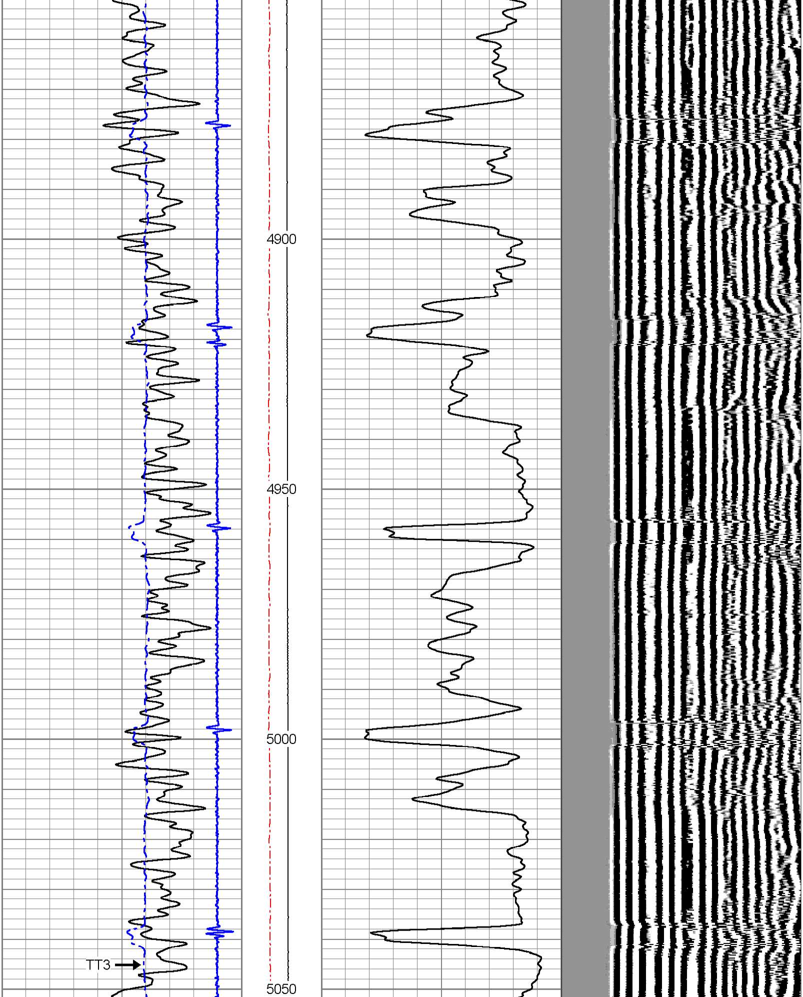


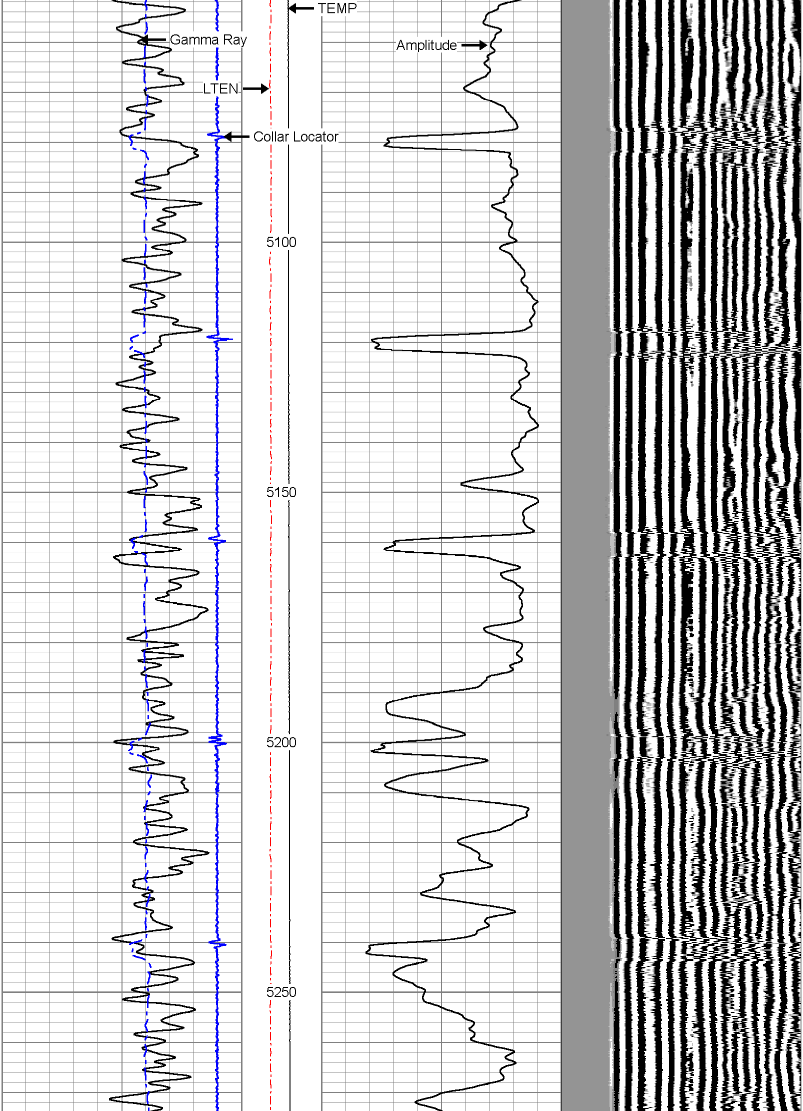


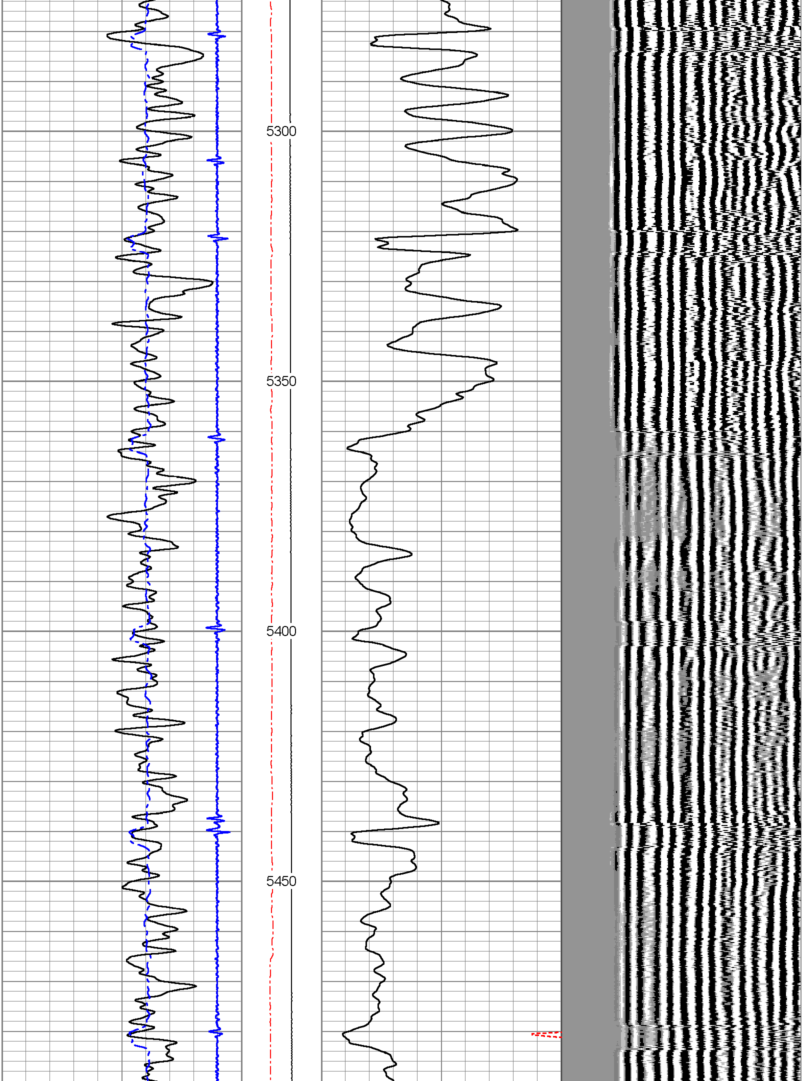


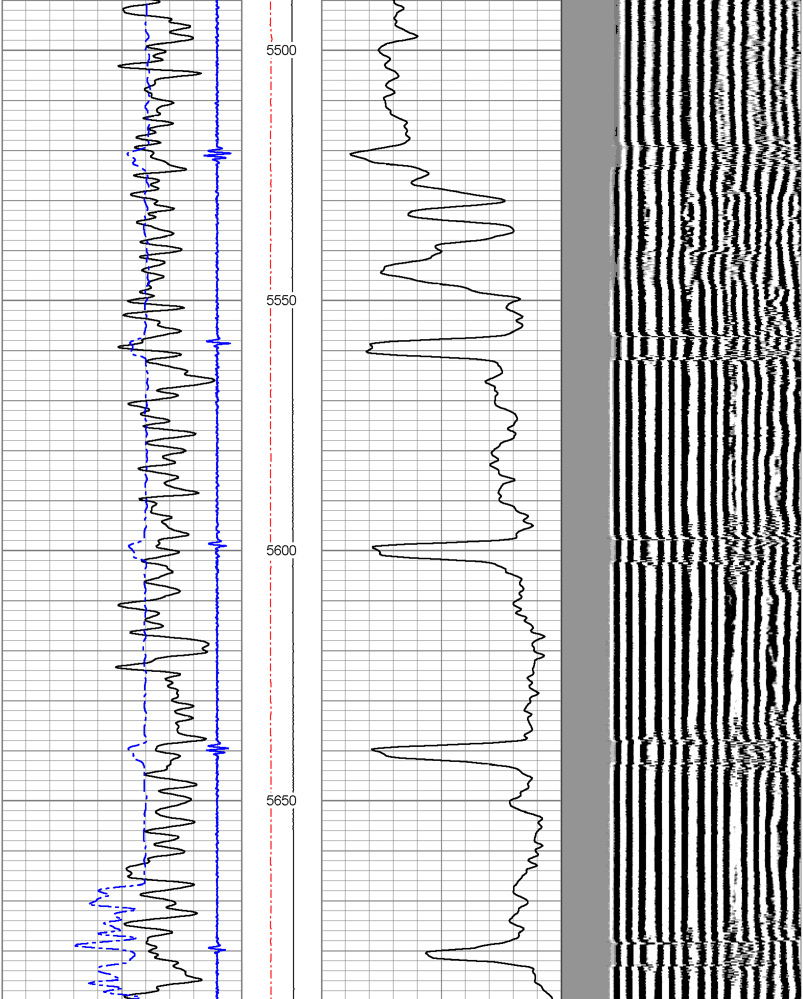


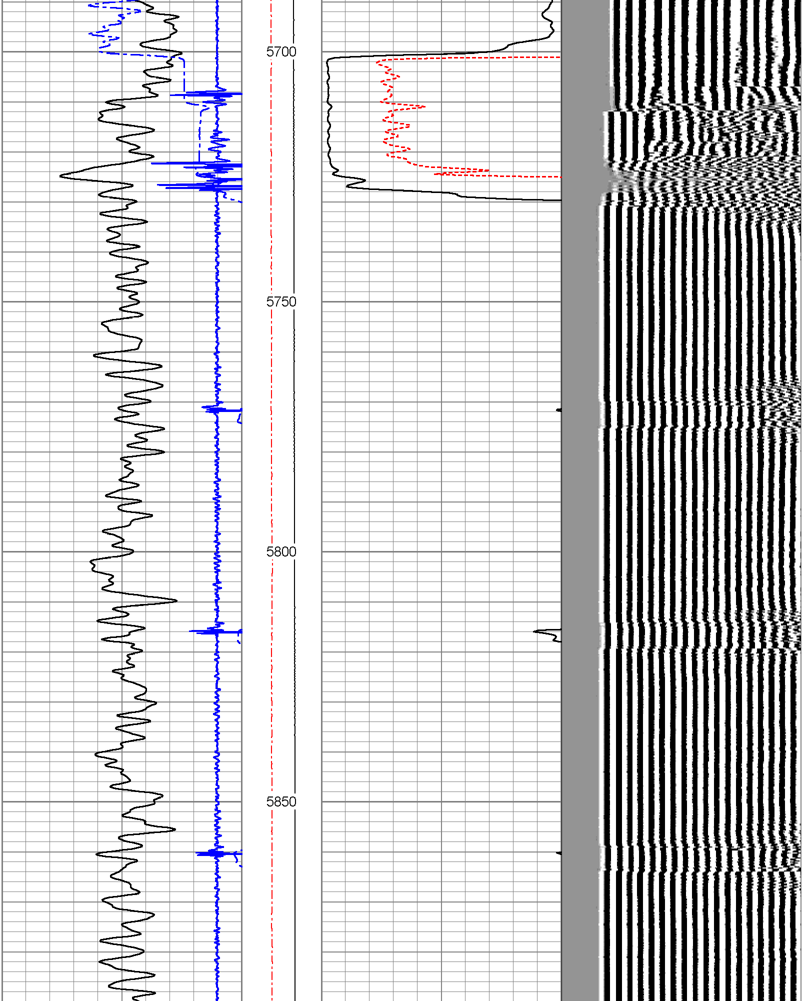


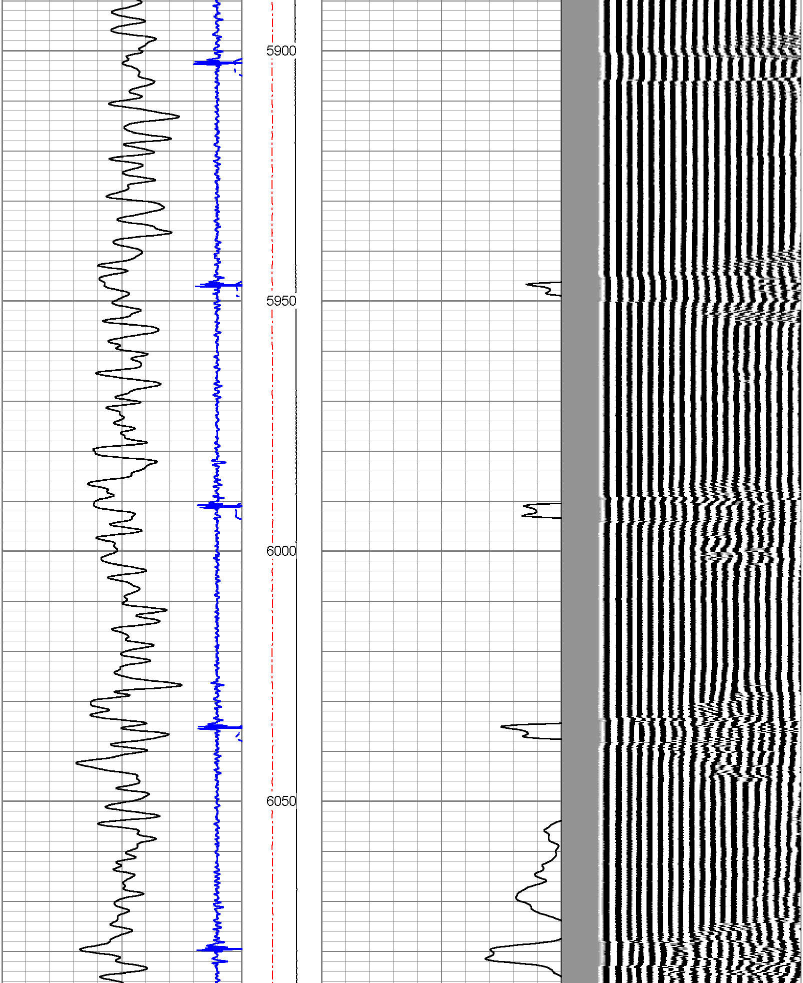


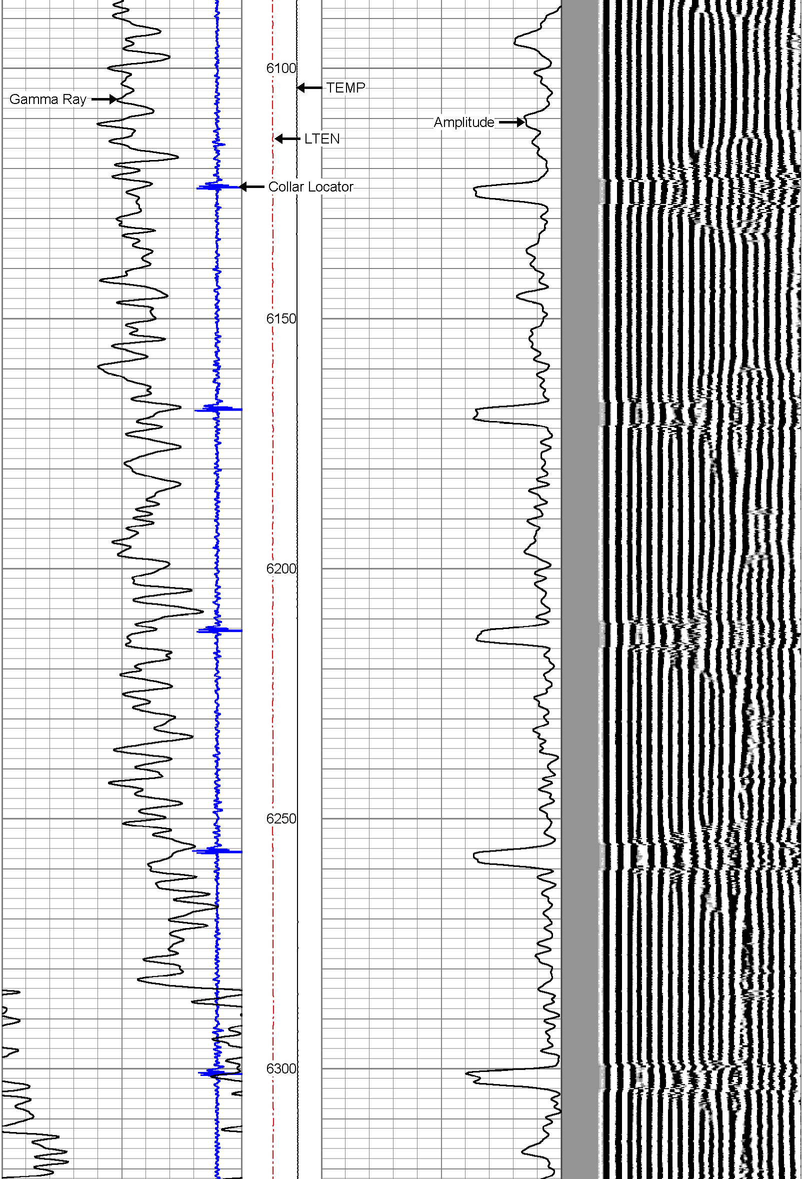


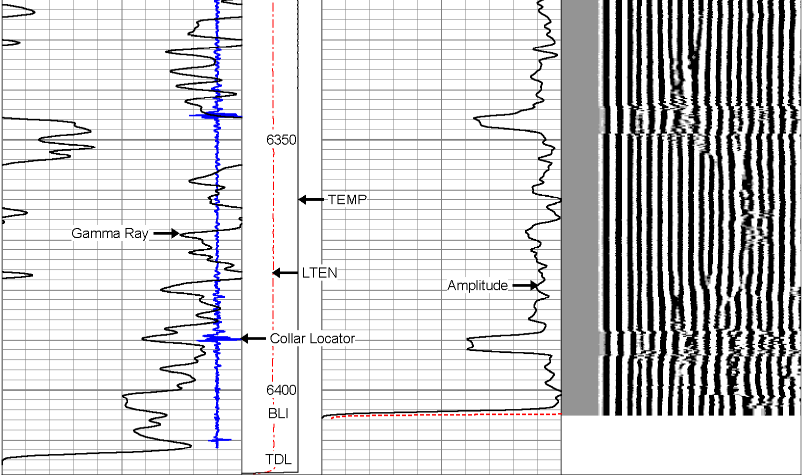












Track 1	Track 2	Track 3	Track 4
9 Collar Locator -1	LTEN	0 Amplified Amplitude (mV) 10	200 MSG 1200
0 Gamma Ray (GAPI) 150	0 (lb) 2000	0 Amplitude (mV) 100	■ ▨ ▨ □
340 TT3 (usec) 240	TEMP (degF) 0 300		

HALLIBURTON

MAIN PASS (1000 PSI)

SCALE: 5"=100'

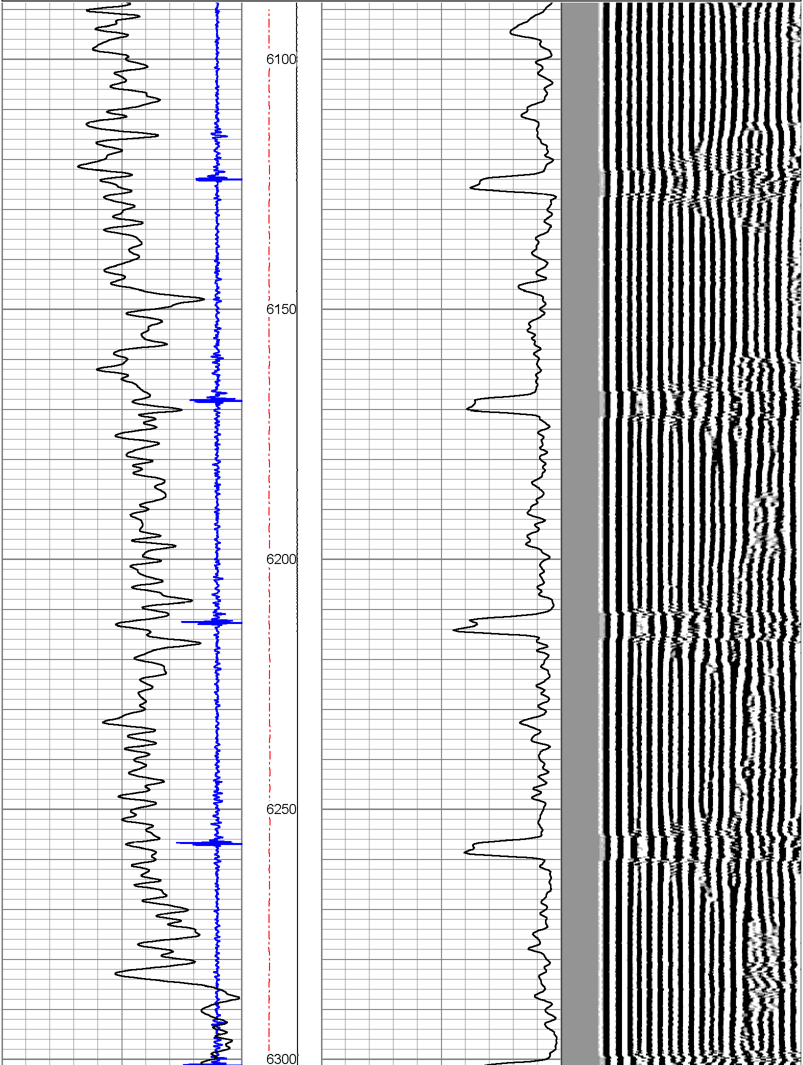
HALLIBURTON

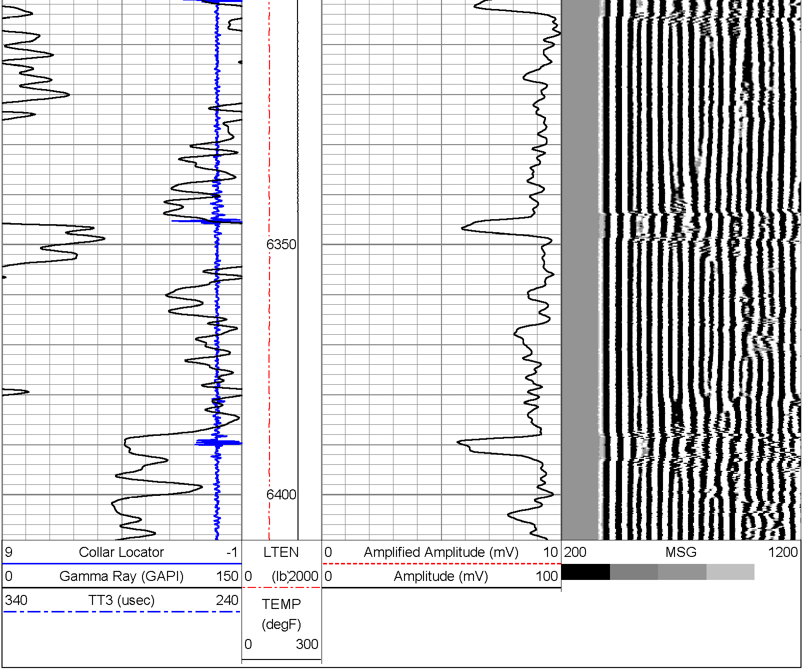
REPEAT PASS

SCALE: 5"=100'

Database File: carrizo3_36_9_61.db
Dataset Pathname: pass4
Presentation Format: 1katcbl
Dataset Creation: Wed Oct 30 17:25:11 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

Track 1	Track 2	Track 3	Track 4
9 Collar Locator -1	LTEN	0 Amplified Amplitude (mV) 10	200 MSG 1200
0 Gamma Ray (GAPI) 150	0 (lb) 2000	0 Amplitude (mV) 100	■ ▨ ▨ □
340 TT3 (usec) 240	TEMP (degF) 0 300		





HALLIBURTON

REPEAT PASS

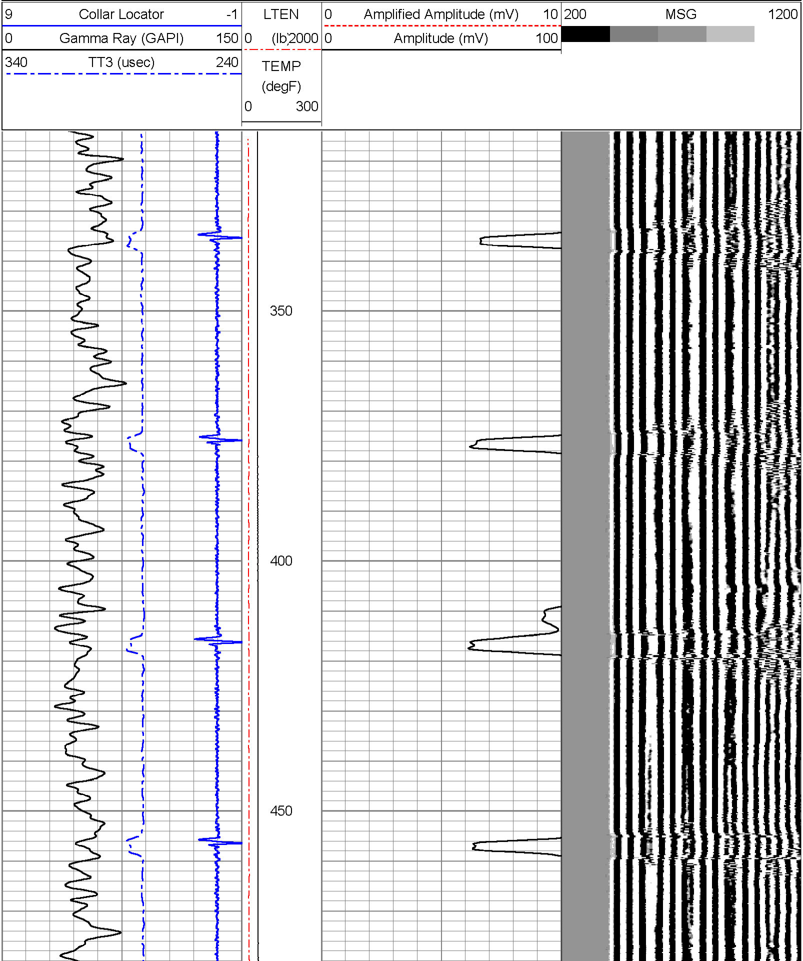
SCALE: 5"=100'

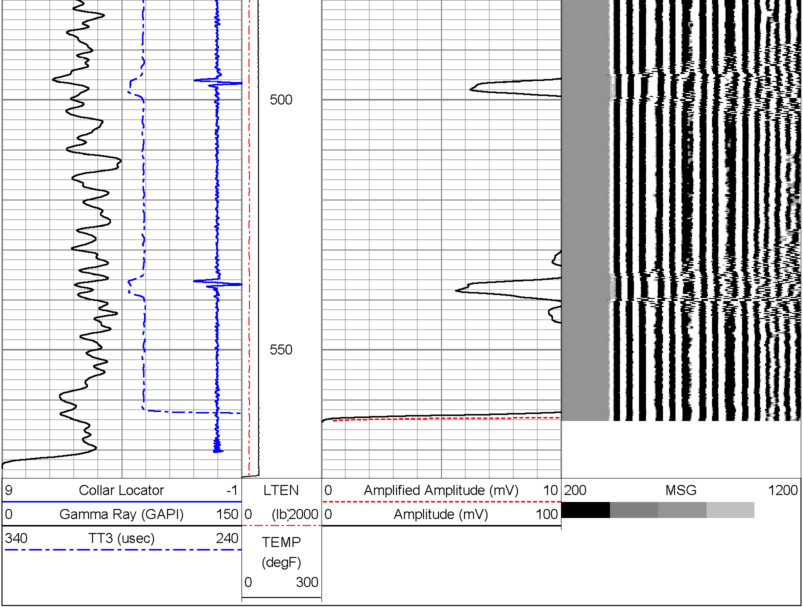
HALLIBURTON

FREE PIPE PASS

SCALE: 5"=100'

Database File:	carrizo3_36_9_61.db
Dataset Pathname:	pass2
Presentation Format:	1katcbl
Dataset Creation:	Wed Oct 30 16:54:27 2013 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240





HALLIBURTON

FREE PIPE PASS

SCALE: 5"=100'

Log Variables

Database:D:\Warrior_data\carrizo3_36_9_61.db
Dataset: field/well/run1/pass6

Top - Bottom

PPT usec	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF
287	65	0	0.8	7	0	10792	175
BITSIZE in							
7.875							

Calibration Report

Database File: carrizostate_2-36-9-61.db
Dataset Pathname: pass12
Dataset Creation: Wed Oct 30 13:26:09 2013 by Log Halliburton Casedho

Temperature Calibration Report

Serial Number: Tit1.3_02
Tool Model: Titan
Performed: Fri Jan 04 06:55:24 2002

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

Gain: 0.10
Offset: 0.00
Delta Spacing 2

Gamma Ray Calibration Report

Type / Serial: Probe / 275

SHOP CALIBRATION

Wed Oct 30 09:19:19 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	71.7				cps
Calibrator	294.3				cps
		1.0649			GAPI/cps

PRIMARY VERIFICATION

Wed Oct 30 09:23:46 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	76.0				cps
Calibrator	309.8				cps
Difference				233.8	GAPI

BEFORE SURVEY VERIFICATION

Wed Oct 30 09:28:38 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	75.6				cps
Calibrator	308.0				cps
Difference				232.5	GAPI

AFTER SURVEY VERIFICATION

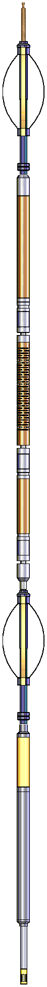
	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number: 275
Tool Model: Probe
Performed: Wed Oct 30 12:40:58 2013

Depth: 321.185 ft
Casing Diameter: 7 in

	3' Spacing	5' Spacing	
Signal Zero:	0	0	mV
Calibrated Amplitude:	62	62	mV
Reading at Signal Zero:	-0.00412598	-0.00227051	V
Reading in Free Pipe:	0.631079	1.26931	V
Gain:	97.6063	48.7582	
Offset:	0.402721	0.110706	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
STNDCH	21.10		1_CABLEHEAD 1"OD CABLE HEAD	0.83	1.00	3.00
CENT	20.27		CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
WVF3	12.72		CBL-Probe (275) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
WVF5	11.72					
CENT	8.47		CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
GR	5.58					
CCL	5.08					
GR	3.79		GR-Probe (275) Probe 2.75" 4 Channel Pulse	4.33	2.75	30.00
TEMP	0.17		TEMP-Titan (Tit1.3_02) Titan Temp 1.3875	1.25	1.39	10.00
LLMTEN	0.00					

Dataset:	carrizo3_36_9_61.db: field/well/run1/pass6
Total Length:	21.10 ft
Total Weight:	173.00 lb
O.D.	2.75 in

Company	CARRIZO OIL & GAS		
Well	STATE 3-36-9-61		
Field	WILDCAT		
County	WELD	State	CO

HALLIBURTON

CEMENT BOND LOG