HALLIBURTON

CEMENT BOND LOG

Company	CARRIZO OIL & GAS
Well	CASTOR 3-36-11-9-59
Field	WILDCAT
County	WELD State CO

Company CARRIZO OIL & GAS
Well CASTOR 3-36-11-9-59
Field WILDCAT
County WELD State CO
API No.: 05123370730000 Serv #: 900524603
Location: LAT: 40.712120 LONG: -103.930850
835' FNL & 1270' FWL NWNW
Other Services
N/A
Sec:36 Twp:9N Rge:59W

Permanent Datum	GL	Elevation	4889
Log Measured From	KB , 17 Ft. above perm. datum		
Drilling Measured From			

Elevation
K.B. 4906'
D.F. 4905'
G.L. 4889'

Date @ Time Logged	18-JUN-13	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.33
Depth - Driller	9917'	Fluid Level	100'
Depth - Logger	6022'	Cement Top Est. Logged	486'
Bottom - Logged Interval	6022'	Equipment / Location	11014931 / BRIGHTON
Top - Log Interval	SURFACE	Recorded by	C. CRADDOCK
Max. Recorded Temp.	207°F	Witnessed by	K. WILLIAMS

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented	N/A	N/A	N/A	N/A
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
ONE	12.25"	0	1400'	9.625"	36	0	1400'
ONE	8.75"	0	6181'	7"	23	0	5316'
ONE	6.25"	5484'	9917'	4.5"	11.6	5316'	9917'

<<< 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

ESTIMATED TOP OF CEMENT @ 486'
LINER TOP @ 5316'
USED INTERNAL CAL FOR 4.5"
FREE PIPE IN 7" CALIBRATED @300'
NO OPENHOLE LOGS AVAVLIABLE

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES
CREW TODAY E. THOMAS, C. CRADDOCK, K. PRIEST, TURBO THOMAS

Service Ticket No. 9005246036 API No. 05123370730000 PGM Ver WARRIOR 7.0

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

GR		CBL		N/A		TEMP	
Run No.	ONE	Run No.	ONE	Run No.		Run No.	ONE
Serial No.	GR275	Serial No.	CBL275	Serial No.		Serial No.	TIT1.3
Model No.	PROBE	Model No.	PROBE	Model No.		Model No.	TITAN
Diameter	2.75	Diameter	2.75	Diameter		Diameter	1.3875

LOGGING DATA

General Data

Pass No.	Depths From	Depths To	Well Head Pressure	Speed Ft/Min	Logging Run Comments
	6022	SURFACE	1000 PSI	70	4.5" TO 7"

Pass No.	GR Scale L	GR Scale R	AMP Scale L	AMP Scale R	MSG Scale L	MSG Scale R	TEMP Scale L	TEMP Scale L
	0	150	0	100	200	1200	0	500
	150	300	0	10				

DIRECTIONAL INFORMATION

Maximum Deviation		deg. @		KOP	

HALLIBURTON

MAIN PASS

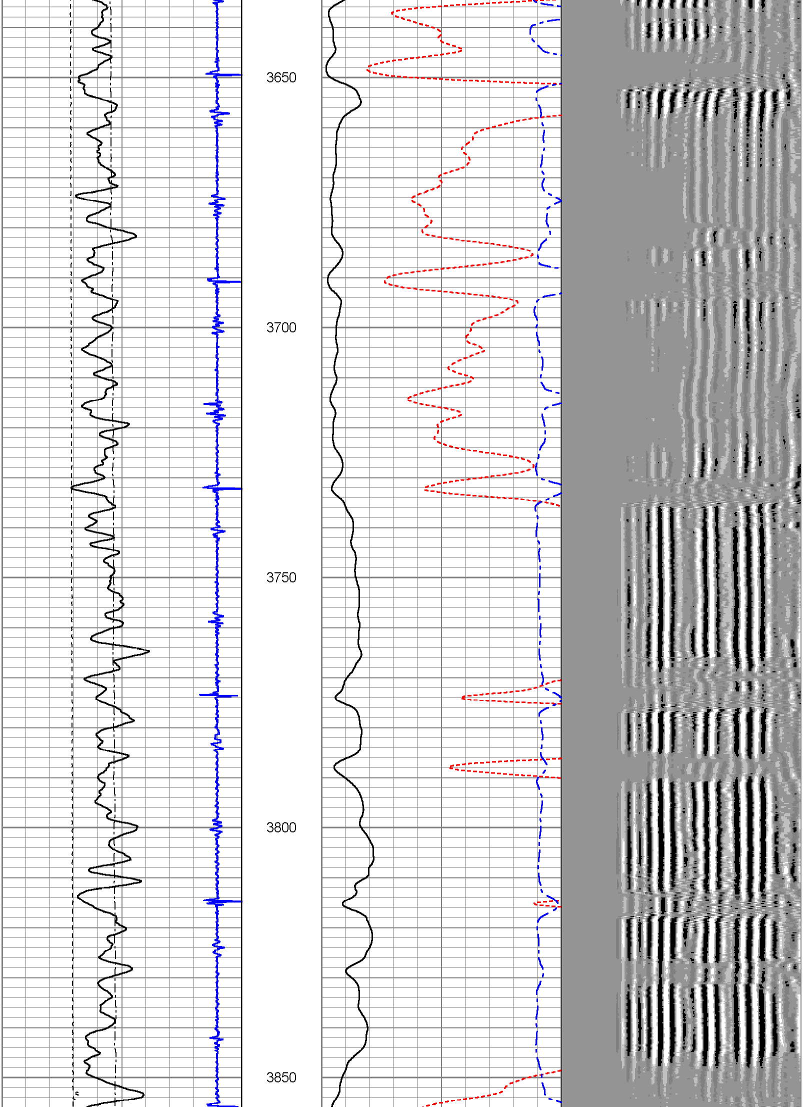
1000 PSI

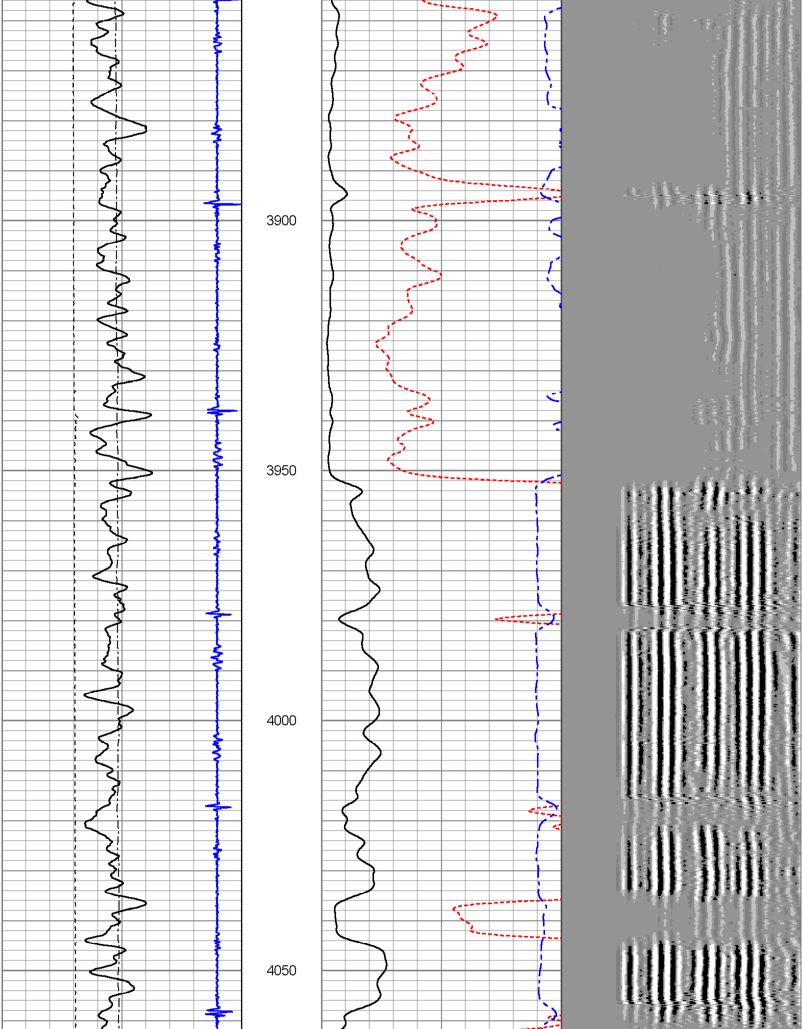
Database File: carrizo_caster_north.db
Dataset Pathname: pass4.2
Presentation Format: 1katcbl
Dataset Creation: Tue Jun 18 15:18:51 2013 by Calc Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

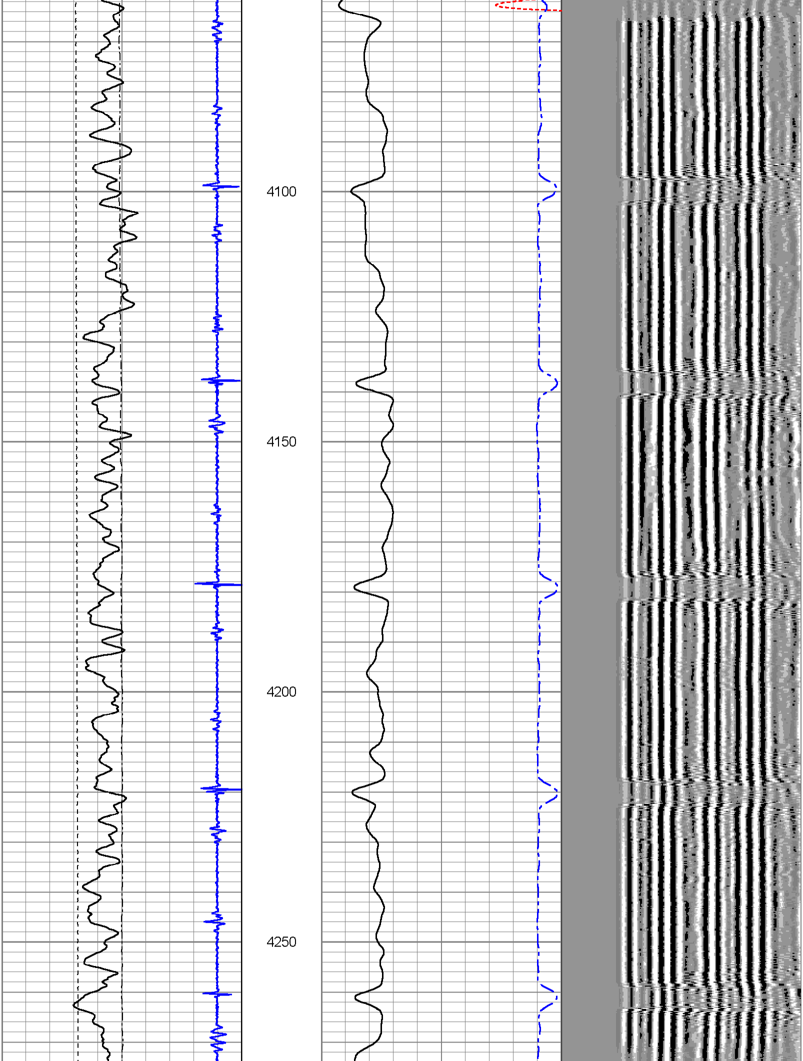
9	Collar Locator	-1
0	Gamma Ray (GAPI)	150
0	LTEN (lb)	2000
0	TEMP (degF)	500

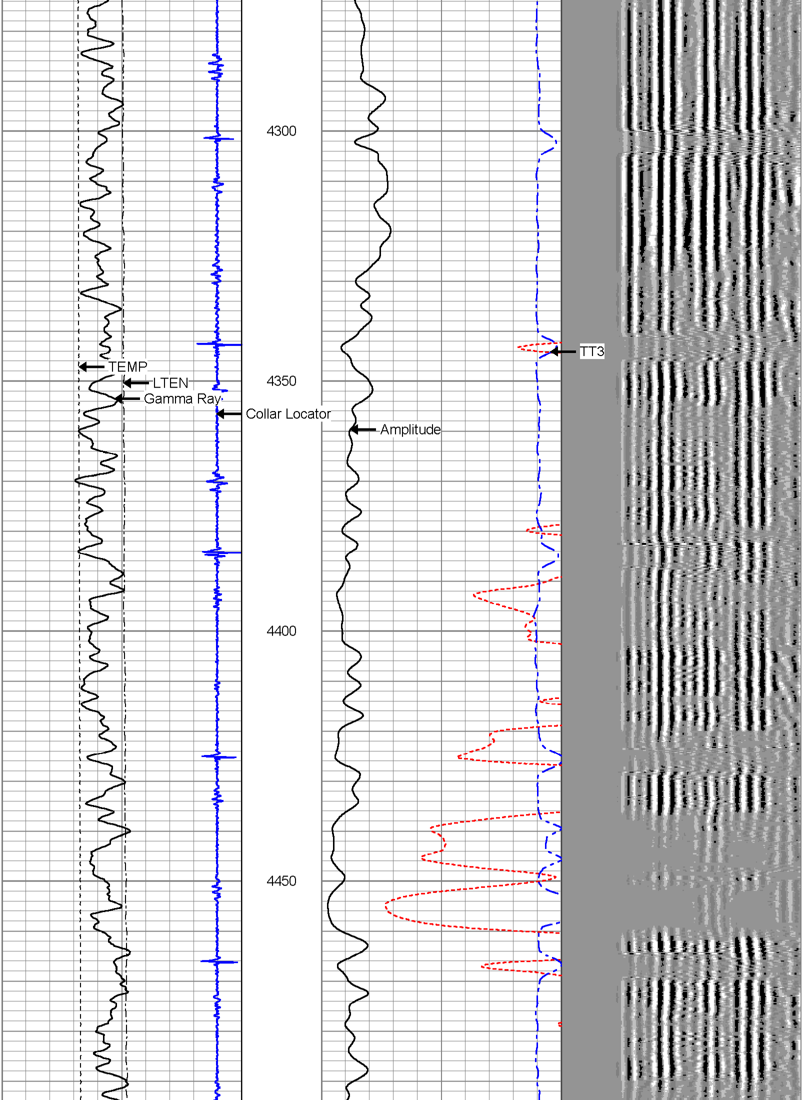
0	Amplified Amplitude (mV)	10
0	Amplitude (mV)	100
195	TT3 (usec)	295

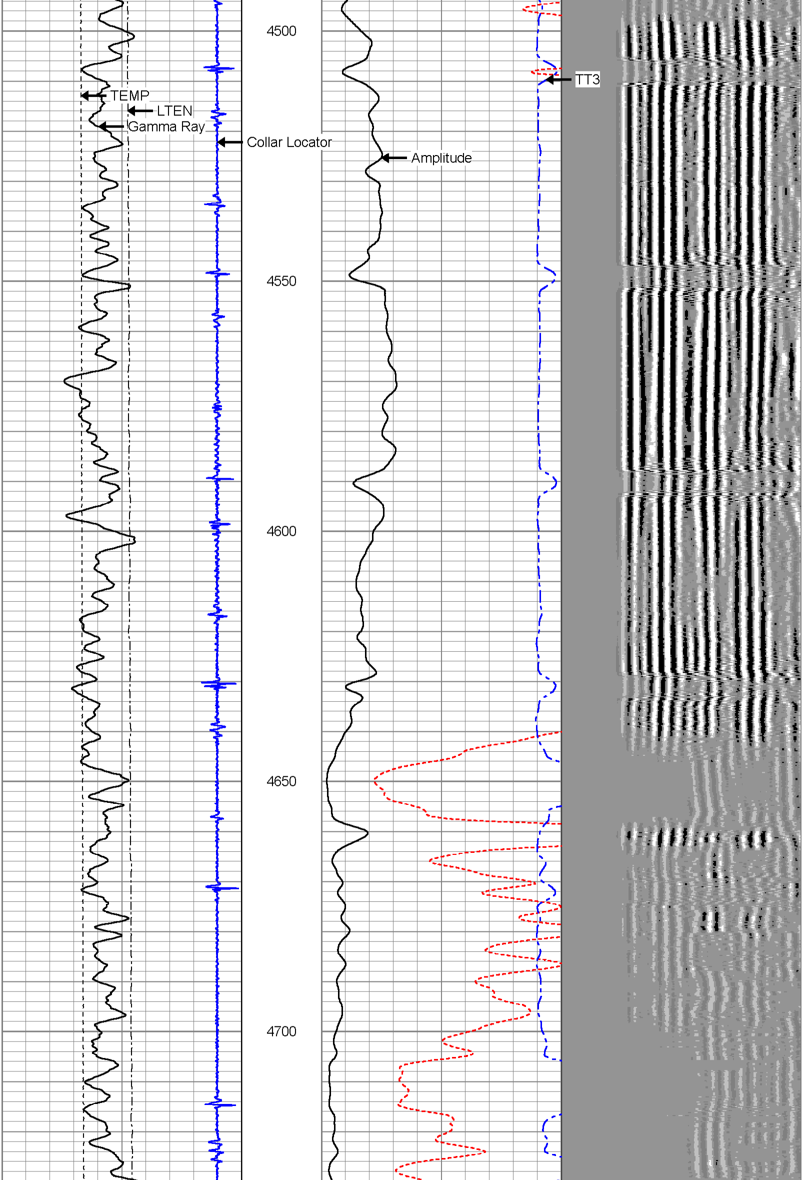
200	MSG	1200

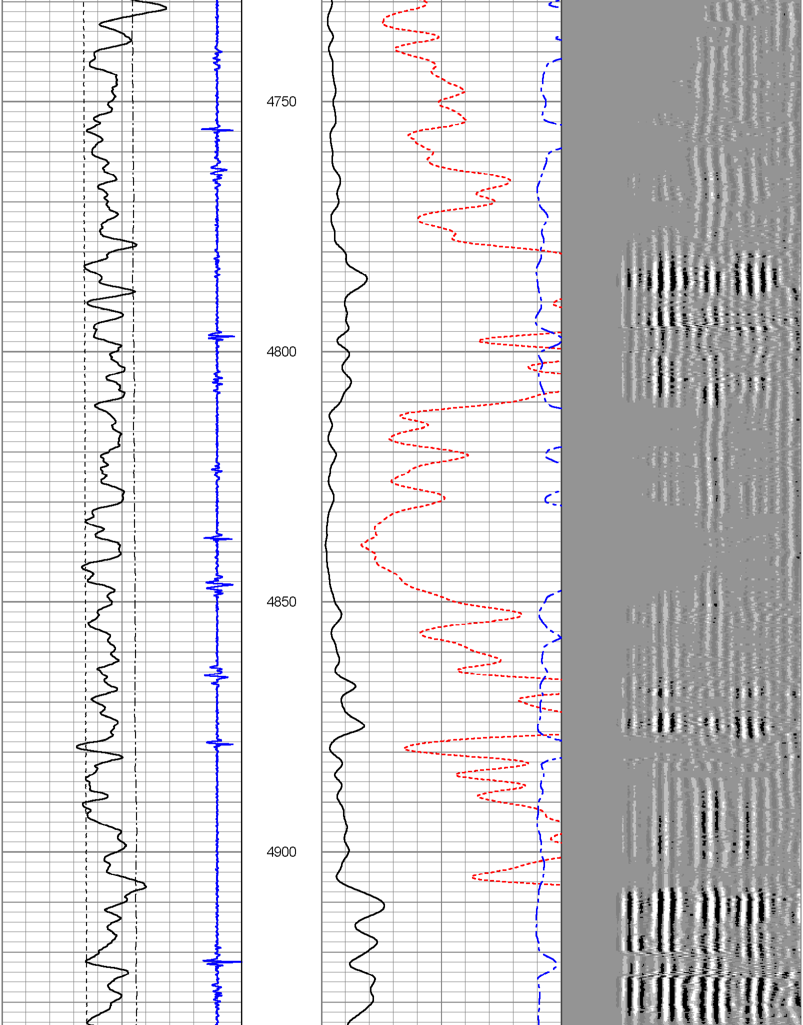


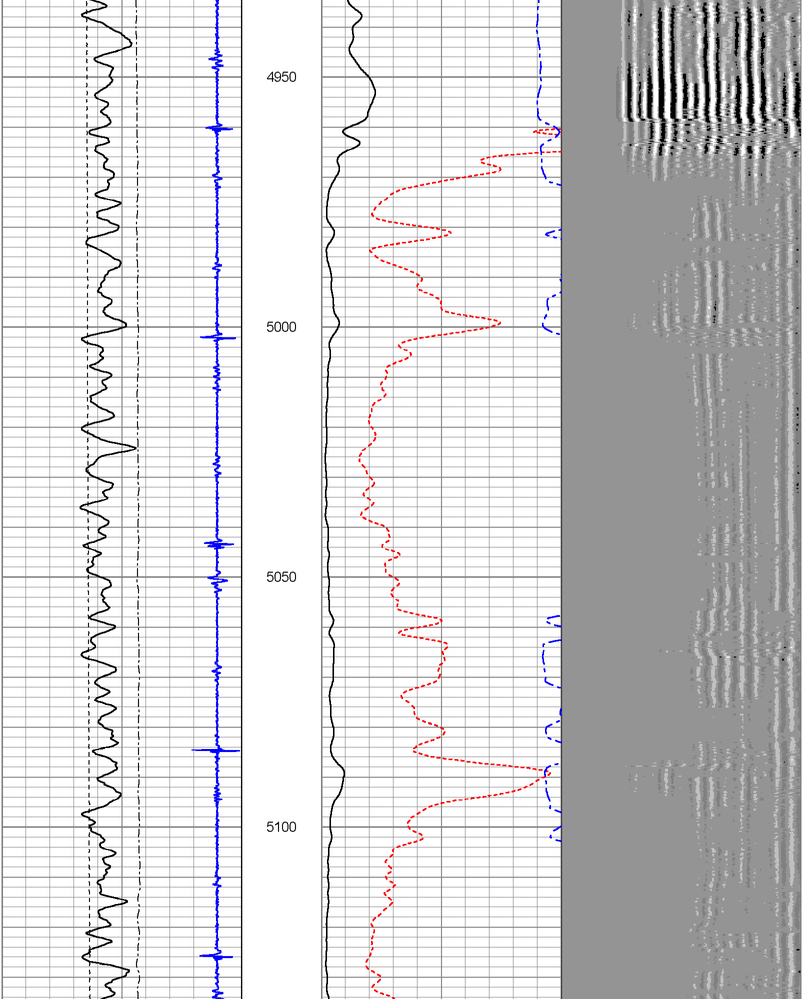


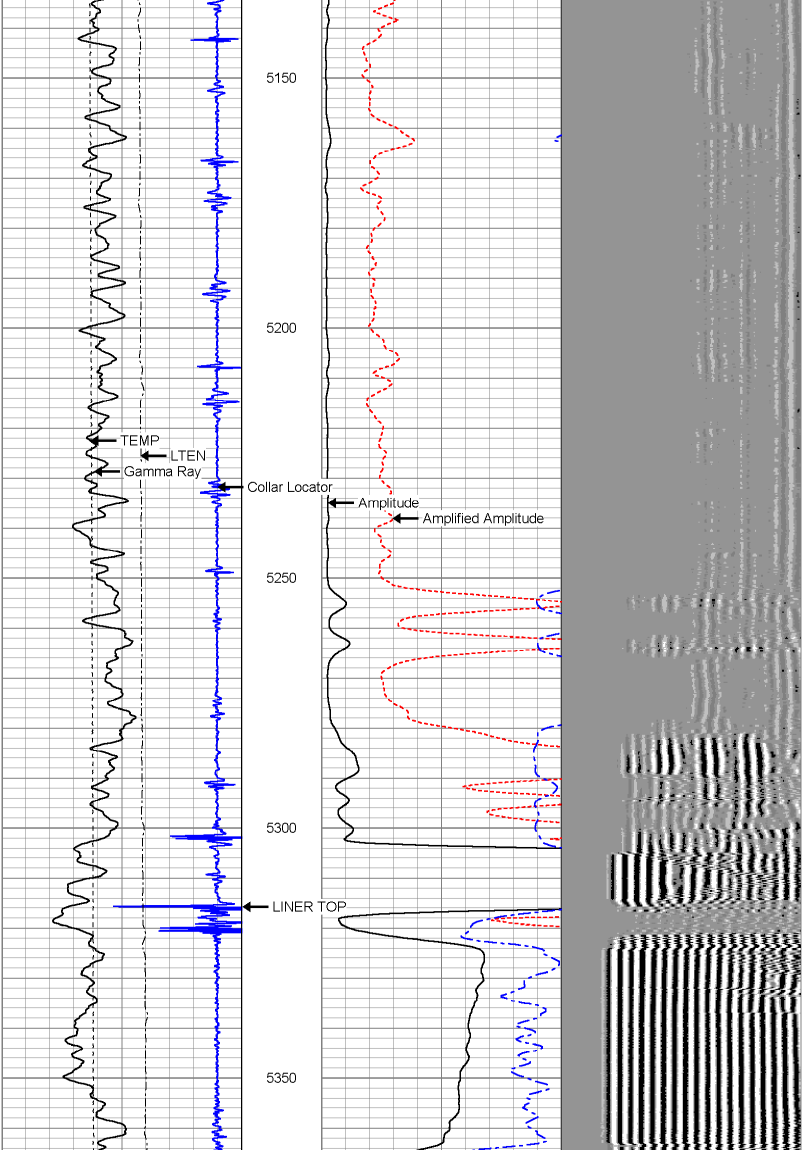


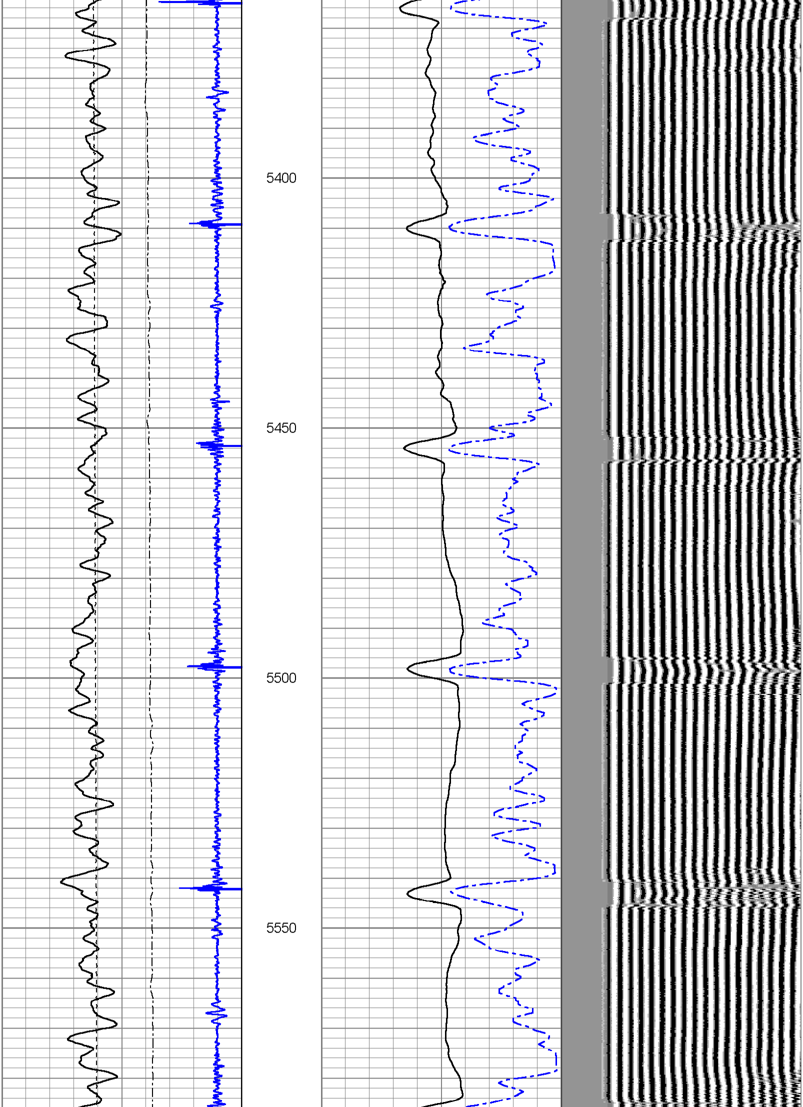


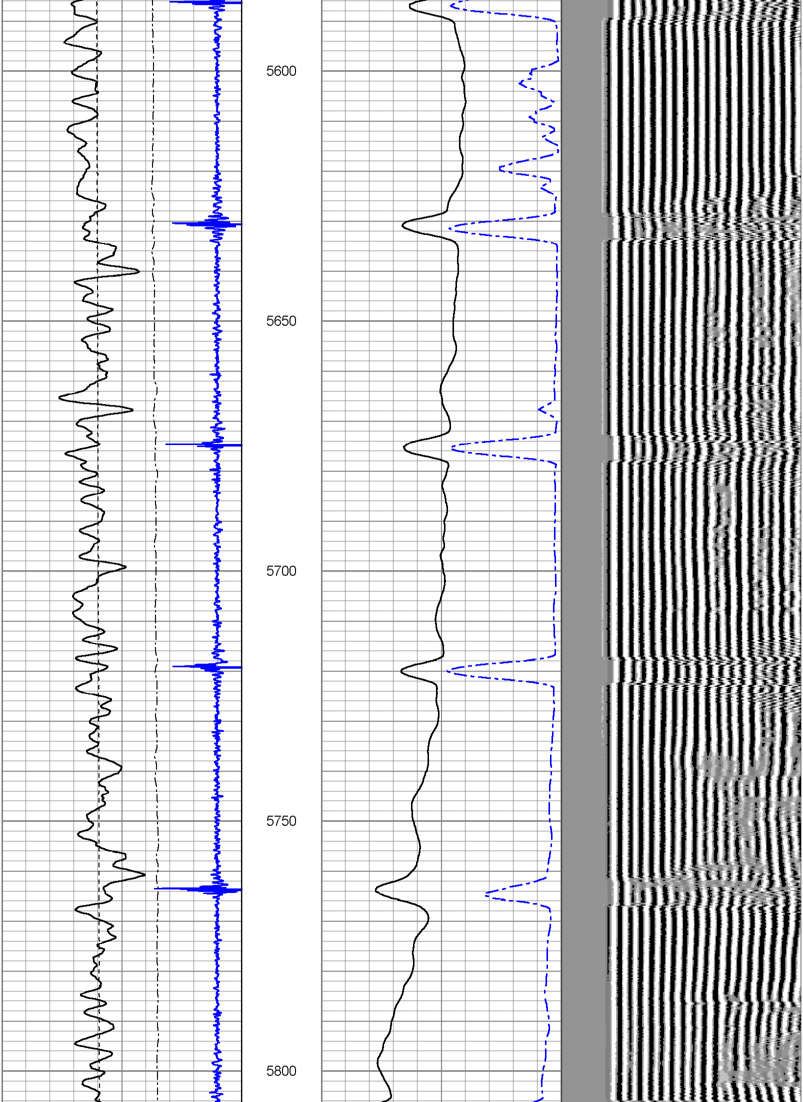


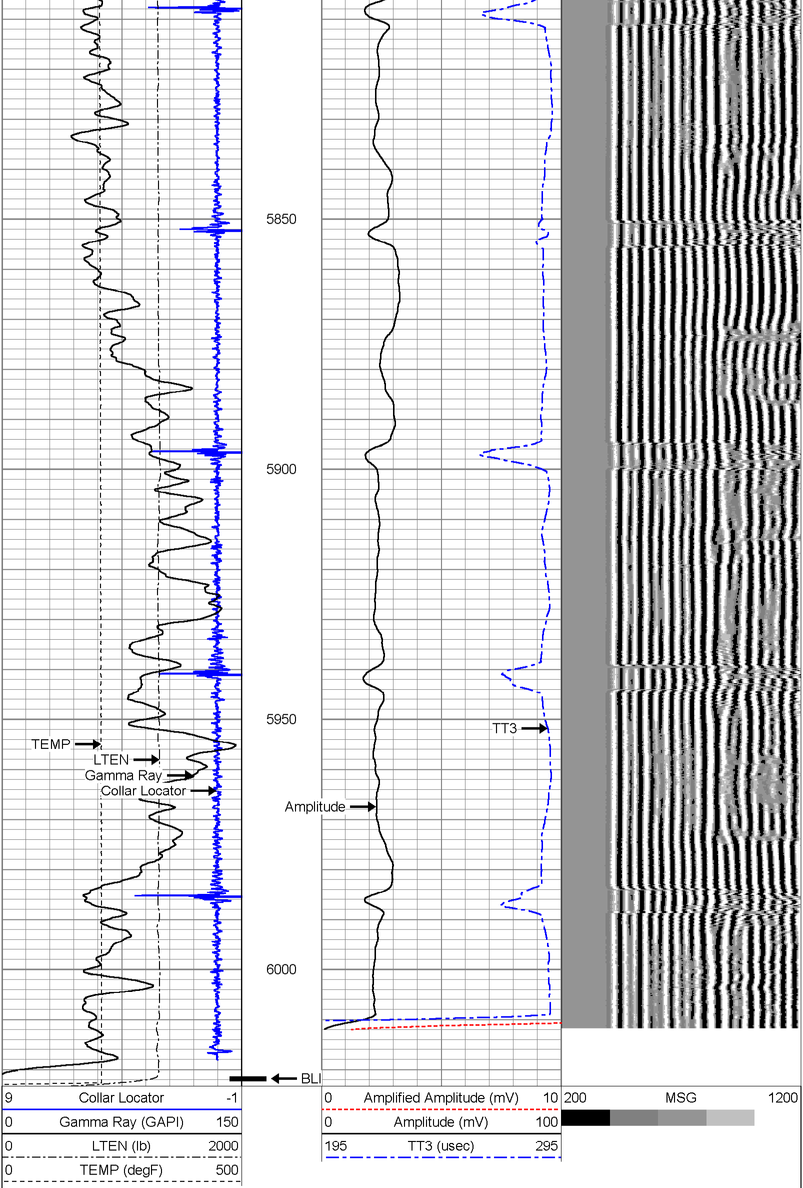












HALLIBURTON

MAIN PASS

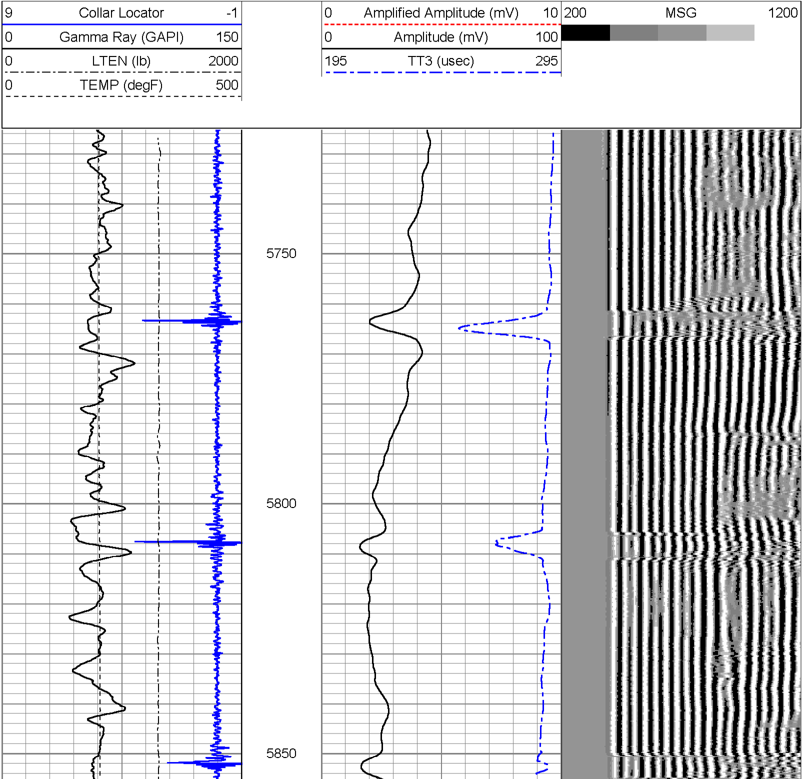
1000 PSI

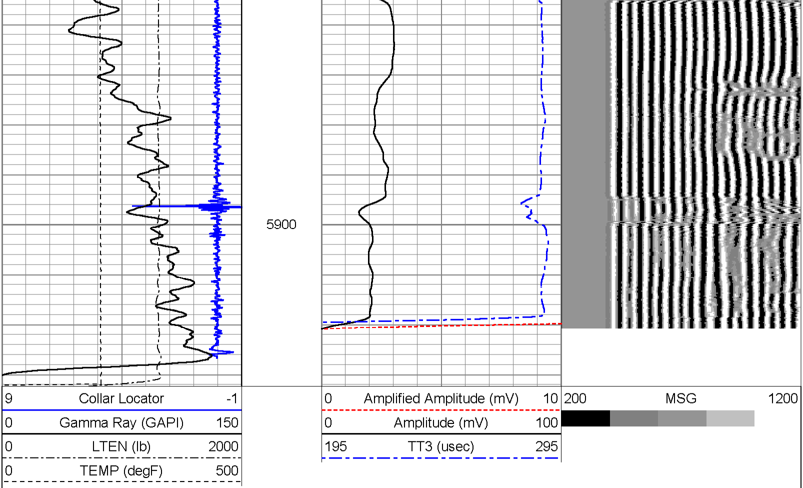
HALLIBURTON

REPEAT PASS

1000 PSI

Database File:	carrizo_caster_north.db
Dataset Pathname:	pass3
Presentation Format:	1katcbl
Dataset Creation:	Tue Jun 18 14:09:02 2013 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240





HALLIBURTON

REPEAT PASS

1000 PSI

Calibration Report

Database File: carrizo_caster_north.db
Dataset Pathname: pass4.2
Dataset Creation: Tue Jun 18 15:18:51 2013 by Calc 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

Serial Number: 275
Tool Model: Probe
Performed: Tue Jun 18 10:33:50 2013

Calibrator Value:	241.0	GAPI
Background Reading:	118.0	cps
Calibrator Reading:	469.9	cps
Sensitivity:	1.0000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	275		
Tool Model:	Probe		
Performed:	Tue Jun 18 13:49:58 2013		
Depth:	287.75	ft	
Casing Diameter:	7	in	
	3' Spacing	5' Spacing	
Signal Zero:	0.1	0.1	mV
Calibrated Amplitude:	62.1651	62.1651	mV
Reading at Signal Zero:	0.0145752	0.0101074	V
Reading in Free Pipe:	0.328247	0.360034	V
Gain:	197.866	177.366	
Offset:	0.78394	-1.69271	

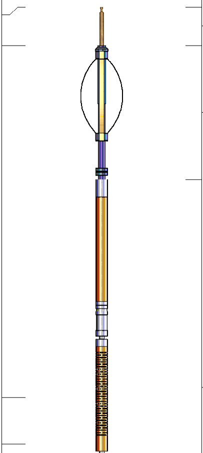
Log Variables

Database:D:\Warrior_data\carrizo_caster_north.db
Dataset: field/well/run1/pass4.2

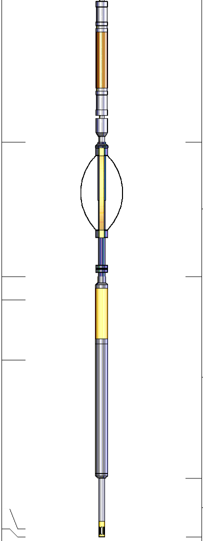
Top - Bottom

PPT usec	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF
0	62	0	0.8	7	0	0	100

BITSIZE in
8.75

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
GR	5.58
CCL	5.08
GR	3.79
TEMP	0.17
LLMTEN	0.00



CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
GR-Probe (275) Probe 2.75" 4 Channel Pulse	4.33	2.75	30.00
TEMP-Titan (Tit1.3_02) Titan Temp 1.3875	1.25	1.39	10.00

Dataset:	carrizo_caster_north.db: field/well/run1/pass4.2
Total Length:	21.10 ft
Total Weight:	173.00 lb
O.D.	2.75 in

Company	CARRIZO OIL & GAS		
Well	CASTOR 3-36-11-9-59		
Field	WILDCAT		
County	WELD	State	CO

HALLIBURTON

CEMENT BOND LOG