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Pioneer Energy Services

RADIAL SECTOR BOND LOG WITH GAMMA RAY

Company CARRIZO NIOBRARA LLC
Well SHULL 5-25-9-60
Field WILDCAT
County WELD
State COLORADO

Company	**CARRIZO NIOBRARA LLC**
Well	**SHULL 5-25-9-60**
Field	**WILDCAT**
County	**WELD**
State	**COLORADO**

Location: API # : 05123410380000

265 FSL & 1554' FEL

SEC 25 TWP 9N RGE 60W

Other Services: NONE

Permanent Datum	GROUND LEVEL	Elevation 4887'	Elevation K.B. 4904' D.F. 4903' G.L. 4887'
Log Measured From	KELLY BUSHING	17' A.P.D.	
Drilling Measured From	KELLY BUSHING		

Date of Service	12-FEBRUAUY-2015
Run Number	ONE
Depth Driller or PBTD	11005'
Depth Logger	6355'
Bottom Log Interval	6355'
Top Log Interval	SURFACE
Open Hole Size	8.75"
Type Fluid	N/A
Fluid Level	N/A
Fluid Density	N/A
Max. Recorded Temperature	N/A
Max. Wellhead Pressure	0 PSI
Wellhead Connection	N/A
Estimated Cement Top	1130'
Unit Number	53
Wireline Size	9/32"
Location	FORT MORGAN
Recorded By	B. FONSECA
Witnessed By	MR. MYERS

	Size	Wt/Ft	Top	Bottom
Tubing Record				
Surface Casing	9 5/8"	36#	SURFACE	1400'
Production Casing	7"	23#	SURFACE	6300'
Liner Record				

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

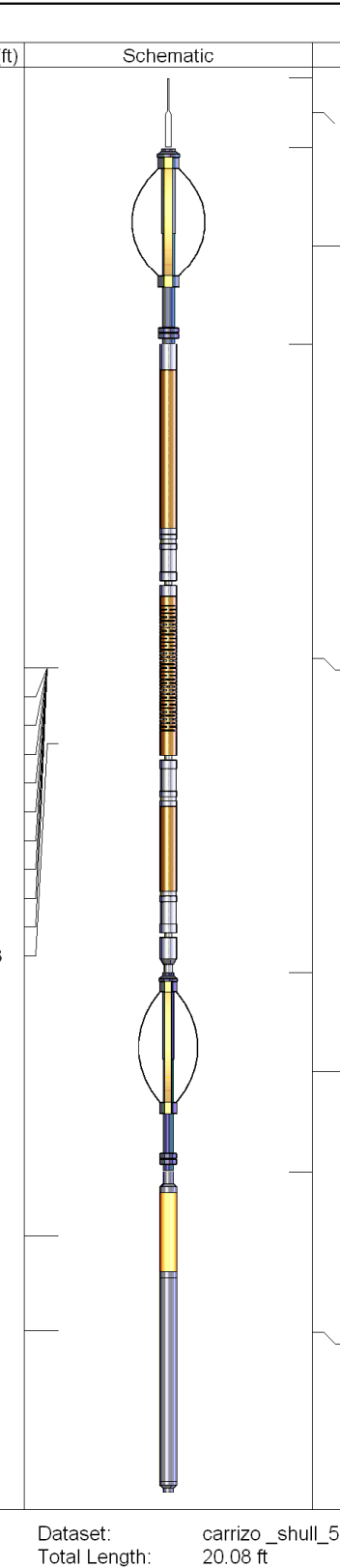
N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

CORRELATED TO KELLY BUSHING

WATER LEVEL AT 360'

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer ENERGY Services Crew	Tool Data - Services	Serial Number
Engineer: FONSECA Operator: DOLPH Operator: KING Operator: ODOHERTY		



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		STNDRD Standard Cable Head	1.00	1.69	10.00
		CSS_MID	2.79	3.00	36.00
WVF3FT WVFCAL WVFS1 WVFS2 WVFS3 WVFS4 WVFS5 WVFS6 WVFS7 WVFS8 WVF5FT	11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 11.71 10.63	RBT-Probe (FW1411-66) Probe Radii Bond Tool with Digital Telemetry	8.92	2.75	90.00
		PTS275	2.83	2.75	
CCL	3.63				
GR	2.30	GR_CCL-Probe (111211) Probe Gamma CCL	4.54	2.75	100.00

Dataset: carrizo _shull_5-25-9-60_2122015_rbl.db: field/well/run1/pass4
Total Length: 20.08 ft
Total Weight: 236.00 lb
O.D. 3.00 in

Calibration Report

Database File: carrizo _shull_5-25-9-60_2122015_rbl.db
Dataset Pathname: pass4
Dataset Creation: Thu Feb 12 16:34:08 2015 by Log SCH 120430

Gamma Ray Calibration Report

Serial Number:	111211	
Tool Model:	Probe	
Performed:	Thu Feb 12 16:27:00 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1411-66	
Tool Model:	Probe	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	887.892	ft

Master Calibration, performed Thu Feb 12 15:58:26 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	0.308	1.000	62.165	200.498	0.347
CAL	0.004	0.493				
5'	0.003	0.325	1.000	62.165	189.826	0.444
SUM						
S1	0.001	0.272	0.000	100.000	368.561	-0.378
S2	0.003	0.288	0.000	100.000	350.625	-1.083
S3	0.003	0.311	0.000	100.000	325.273	-1.036
S4	0.003	0.340	0.000	100.000	297.426	-0.977
S5	0.003	0.363	0.000	100.000	277.902	-0.940
S6	0.004	0.342	0.000	100.000	295.314	-1.035
S7	0.004	0.298	0.000	100.000	339.649	-1.240
S8	0.004	0.275	0.000	100.000	368.395	-1.304

Internal Reference Calibration, performed Thu Feb 12 16:26:45 2015:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.003	0.479	0.004	0.493	1.030	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

Log Variables

Database:C:\Warrior\Data\carrizo _shull_5-25-9-60_2122015_rbl.db
Dataset: field/well/run1/pass4

Top - Bottom

PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft
0	23	65	1	0.8	7	0	0

BOTTEMP degF	BOREID in
100	8.75

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MAIN PASS

Database File: carrizo _shull_5-25-9-60_2122015_rbl.db
Dataset Pathname: pass4.1
Presentation Format: scbl_bf
Dataset Creation: Thu Feb 12 18:02:22 2015 by Calc SCH 120430
Charted by: Depth in Feet scaled 1:240

3' Travel Time	ne Tension (l	3' Amplitude	ector Amplitude Averag	VDL	Sector Map
307 (usec) 207	0 (lb)2000	0 (mV) 100	0 150	200 1200	1 8 10 60
-18 Collor Locator 2		3' Amplified Amplitude 0 (mV) 20	ector Amplitude Maximu 0 150		
Gamma Ray 0 (GAPI) 150		1 Bond Index 0	ector Amplitude Minimu 0 150		

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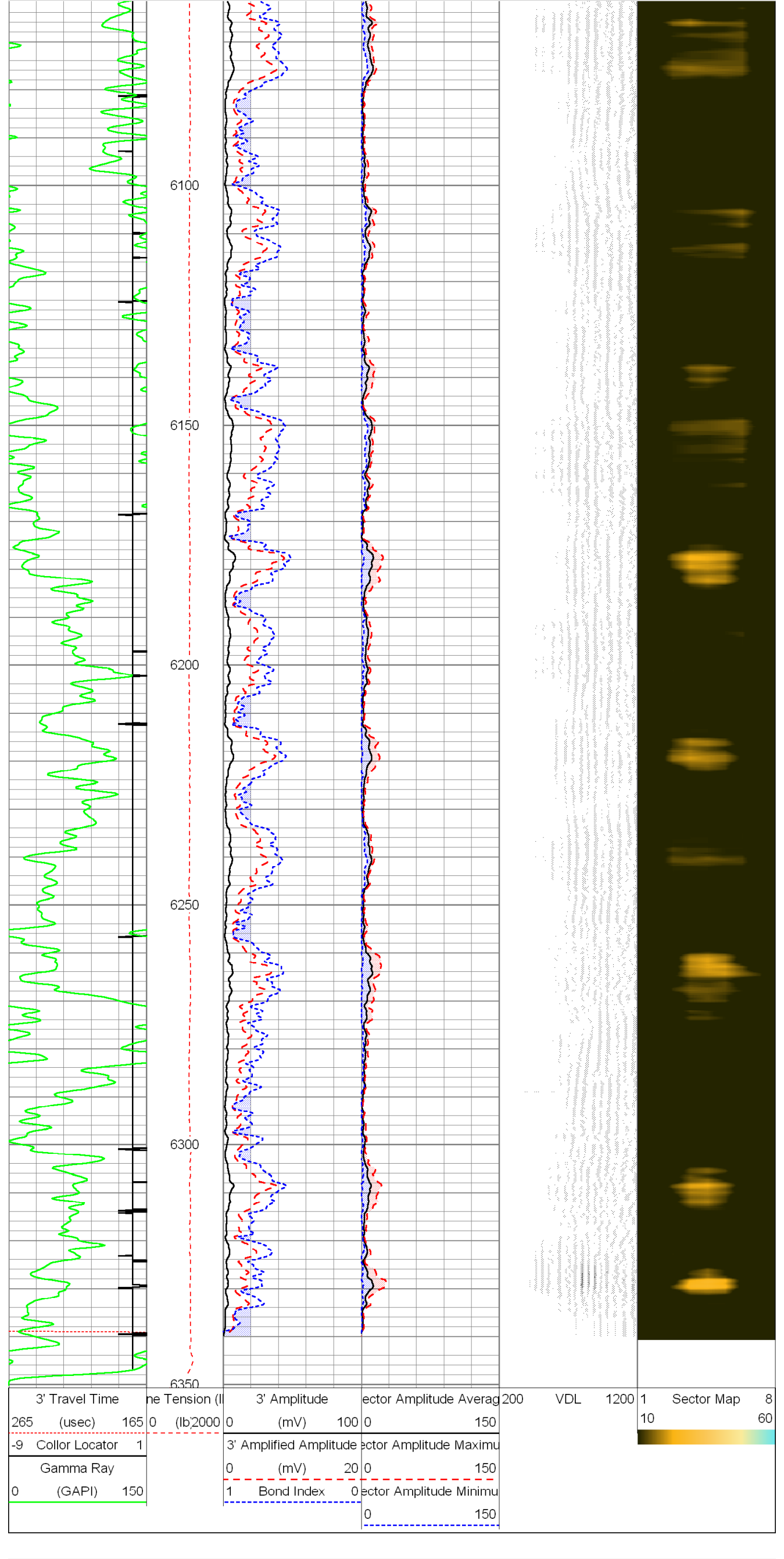
REPEAT PASS

Database File: carrizo _shull_5-25-9-60_2122015_rbl.db
Dataset Pathname: pass3
Presentation Format: scbl_bf
Dataset Creation: Thu Feb 12 16:27:25 2015 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240



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