CEMENT BOND LOG WITH GAMMA RAY

Pioneer Energy Services

Company	BONANZA CREEK ENERGY
Well	PRONGHORN 14-44-28 HNC
Field	WATTENBERG
County	WELD
State	COLORADO

Company **BONANZA CREEK ENERGY**
Well **PRONGHORN 14-44-28 HNC**
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County **WELD** State **COLORADO**

Location: API # : 05123412150000
1250' FSL 349 FWL
SEC 28 TWP 5N RGE 61W

Other Services
NONE

				Elevation
Permanent Datum	GL	Elevation	4597'	K.B. 4614'
Log Measured From	KB	17'		D.F. 4613'
Drilling Measured From	KB			G.L. 4597'

Date of Service	9-9-15
Run Number	ONE
Depth Driller or PBTD	N/A
Depth Logger	5710'
Bottom Log Interval	5710'
Top Log Interval	SURFACE
Open Hole Size	N/A
Type Fluid	FSW
Fluid Level	SURFACE
Fluid Density	N/A
Max. Recorded Temperature	N/A
Max. Wellhead Pressure	N/A
Wellhead Connection	N/A
Estimated Cement Top	SEE LOG
Unit Number	129
Wireline Size	9/32"
Location	FORT MORGAN
Recorded By	C BURNS
Witnessed By	MR. DODGE

	Size	Wt/Ft	Top	Bottom
Tubing Record				
Surface Casing	9 5/8"	36#	SURFACE	757'
Production Casing	7	26#	SURFACE	6588'
Liner Record	4 1/2'	11.6#	5653'	

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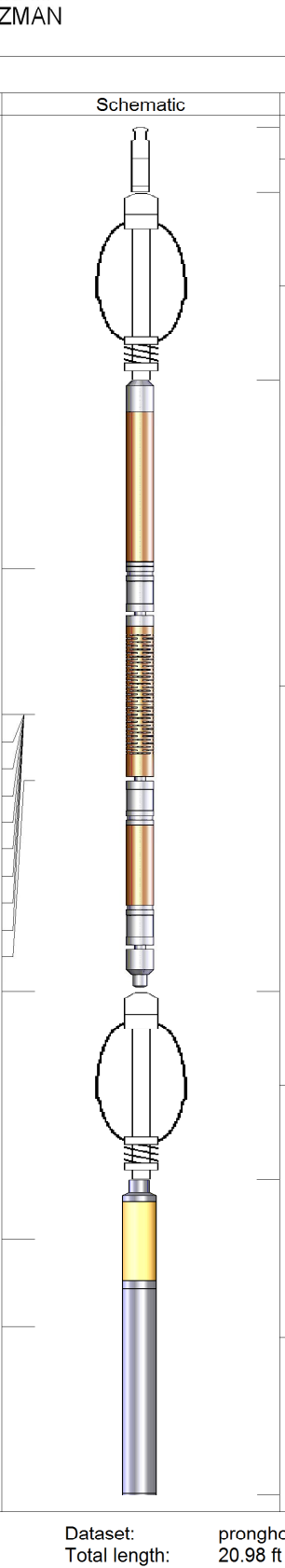
All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages,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

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: C BURNS		
Operator: W DOLPH		
Operator: B GUZMAN		
Operator:		

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			CHD-Titan 1 7/16" Titan Cable Head	1.00	1.44	2.00
			CENT-Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
Temp	14.19					
WVFS8	11.96		RBT-Probe275T (1212-58) Probe 2.75" Radii T with Integral Temperature Sub	9.39	2.75	120.00
WVFS7	11.96					
WVFS6	11.96					
WVFS5	11.96					
WVFS4	11.96					
WVFS3	11.96					
WVFS2	11.96					
WVFS1	11.96					
WVF3FT	11.96					
WVF5FT	10.96					
WVFCAL	7.71					
			CENT-Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00
CCL	3.92					
GR	2.58		GR-PTS275Inv (125010)	4.83	2.75	

Dataset: pronghorn14-44-28hnc.db: field/well/run1/pass12.2
Total length: 20.98 ft
Total weight: 152.00 lb
O.D.: 2.75 in

MAIN LOG

ZERO PSI APPLIED AT SURFACE

Database File	pronghorn14-44-28hnc.db
Dataset Pathname	pass12.2
Presentation Format	cbl
Dataset Creation	Wed Sep 09 10:23:31 2015
Charted by	Depth in Feet scaled 1:240

302	TT3FT (usec)	202	0	Amplified Amplitude (mV)	20	200	VDL	1200
-27	Collar Locator	3	0	Amplitude (mV)	100			
0	Gamma Ray (cps)	250	1	BONDIX	0			

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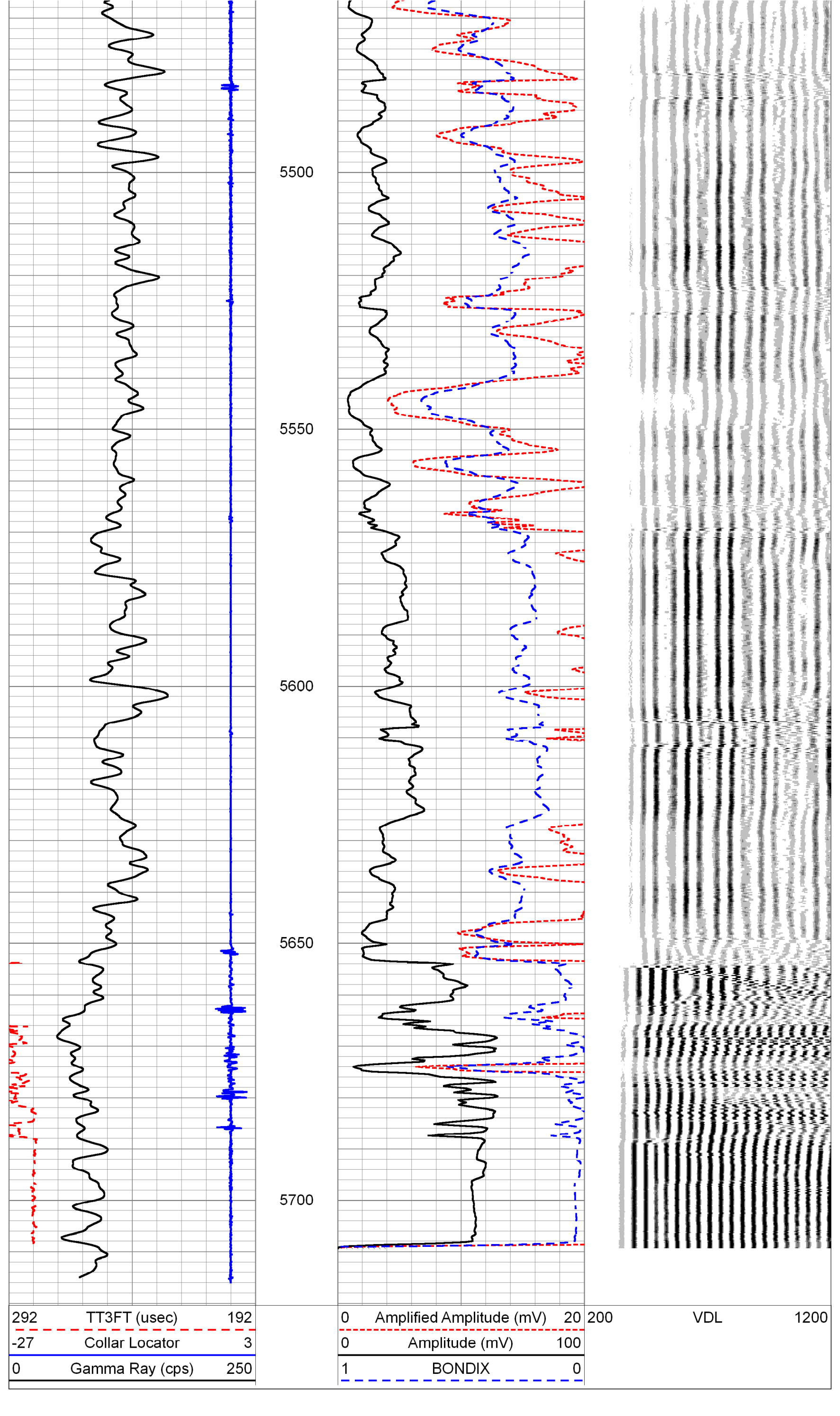
REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File pronghorn14-44-28hnc.db
Dataset Pathname pass11
Presentation Format cbl
Dataset Creation Wed Sep 09 09:09:25 2015
Charted by Depth in Feet scaled 1:240

292	TT3FT (usec)	192	0	Amplified Amplitude (mV)	20	200	VDL	1200
-27	Collar Locator	3	0	Amplitude (mV)	100			
0	Gamma Ray (cps)	250	1	BONDIX	0			



292	TT3FT (usec)	192	0	Amplified Amplitude (mV)	20	200	VDL	1200
-27	Collar Locator	3	0	Amplitude (mV)	100			
0	Gamma Ray (cps)	250	1	BONDIX	0			

Calibration Report

Database File pronghorn14-44-28hnc.db
Dataset Pathname pass12.2
Dataset Creation Wed Sep 09 10:23:31 2015

Gamma Ray Calibration Report

Serial Number:	125010	
Tool Model:	PTS275Inv	
Performed:	Wed Sep 09 09:41:38 2015	
Calibrator Value:	1.0	cps
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	cps/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	1212-58	
Tool Model:	Probe275T	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	597.225	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.029	1.506	1.000	62.165	41.409	-0.205
CAL	0.021	0.371				
5'	0.014	1.552	1.000	62.165	39.754	0.454
SUM						
S1	0.024	1.558	0.000	100.000	65.162	-1.546
S2	0.029	1.579	0.000	100.000	64.503	-1.847
S3	0.033	1.514	0.000	100.000	67.511	-2.226
S4	0.034	1.477	0.000	100.000	69.311	-2.379
S5	0.030	1.474	0.000	100.000	69.282	-2.088
S6	0.028	1.465	0.000	100.000	69.588	-1.952
S7	0.023	1.441	0.000	100.000	70.534	-1.610
S8	0.023	1.509	0.000	100.000	67.311	-1.582

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Country	USA