



**RADIAL BOND LOG  
WITH GAMMA RAY**

Pioneer Energy Services

**Company Andarko Petroleum Corp.**  
**Well Ballantine 4-30A**  
**Field Wattenberg**  
**County Weld** State **Colorado**

Location: API #: 05-123-20764  
 SEC 30 TWP 2N RGE 68W  
 Log Measured From KB Elevation NA  
 Drilling Measured From KB Above Perm. Datum  
 Other Services  
 Squeeze Hole  
 Elevation  
 K.B. NA  
 D.F. ---  
 G.L. NA

Comp. Andarko Petroleum Corp.  
 Well Ballantine 4-30A  
 Field Wattenberg  
 Co. Weld  
 State Colorado

Date of Service	26-March-2021			
Run Number	ONE			
Depth Driller or PBTD	---			
Depth Logger	956			
Bottom Log Interval	954			
Top Log Interval	500			
Open Hole Size	7 7/8			
Type Fluid	WATER			
Fluid Level	Full			
Fluid Density	8.33 PPG			
Max. Recorded Temperature	0			
Max. Wellhead Pressure	---			
Wellhead Connection	SEE LOG			
Estimated Cement Top	133			
Unit Number	133			
Wireline Size	9/32			
Location	FT MORGAN			
Recorded By	HAYES			
Witnessed By	Dave Magruder			
Tubing Record	Size	WFt	Top	Bottom
Surface Casing				
Production Casing	4.5	11.6	Surface	Total Depth
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.  
 Bond Tool Calibrated @ 100' Ft.  
 Logged With 0 PSI Surface Induced Pressure

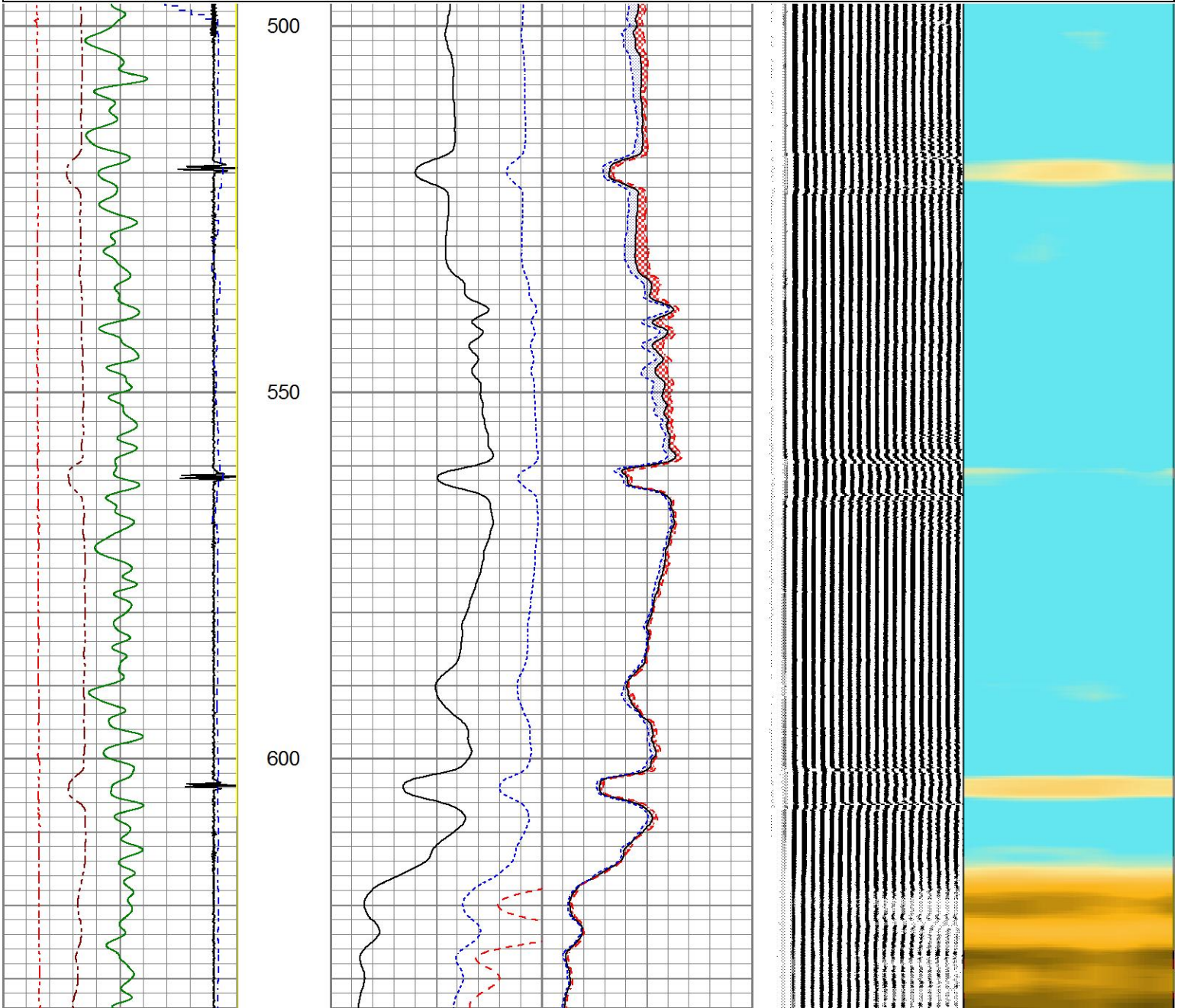
THANK YOU FOR USING PIONEER ENERGY SERVICES!

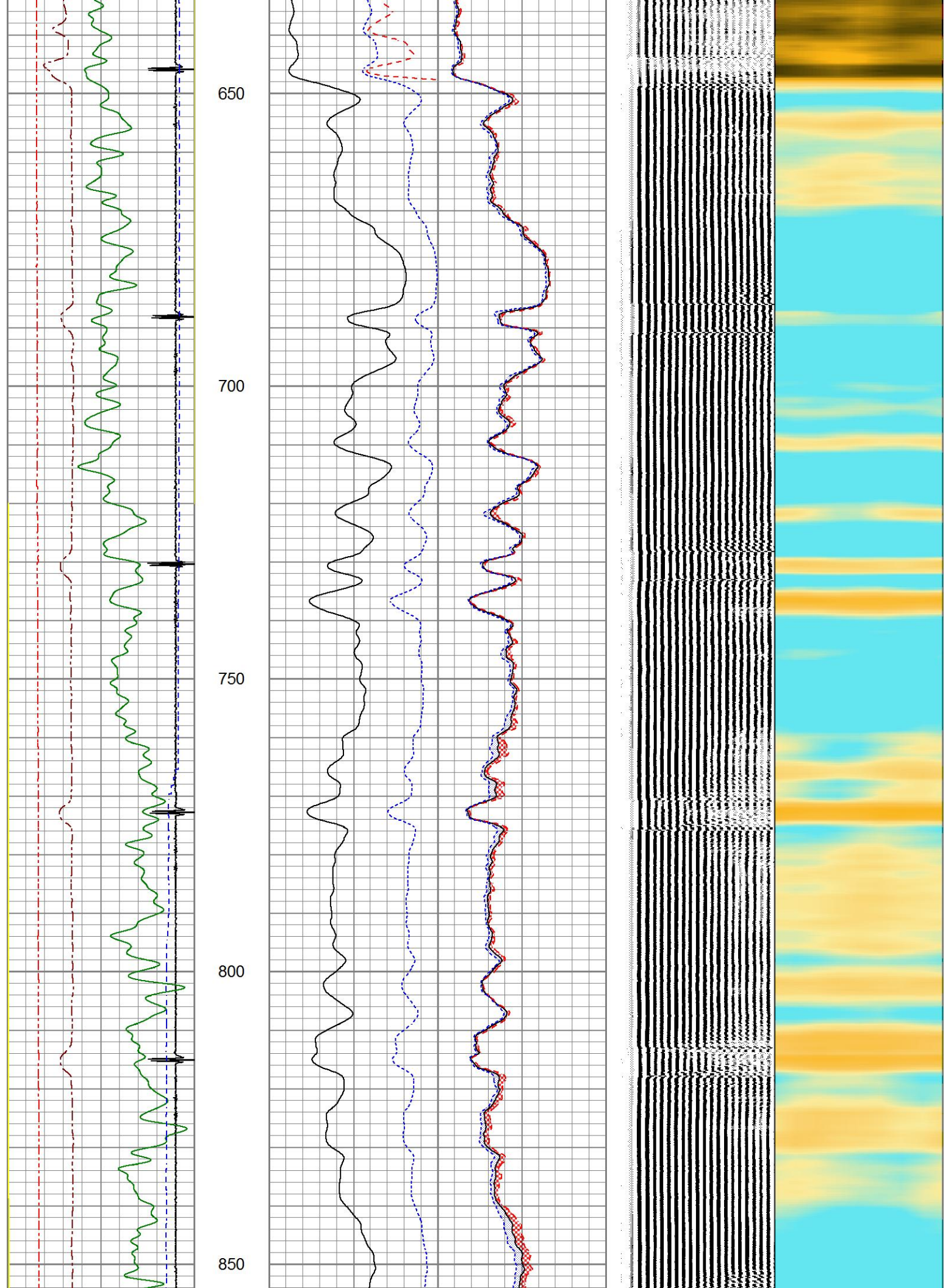
Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: HAYES Operator: Cooper Operator: Spillman Operator:		

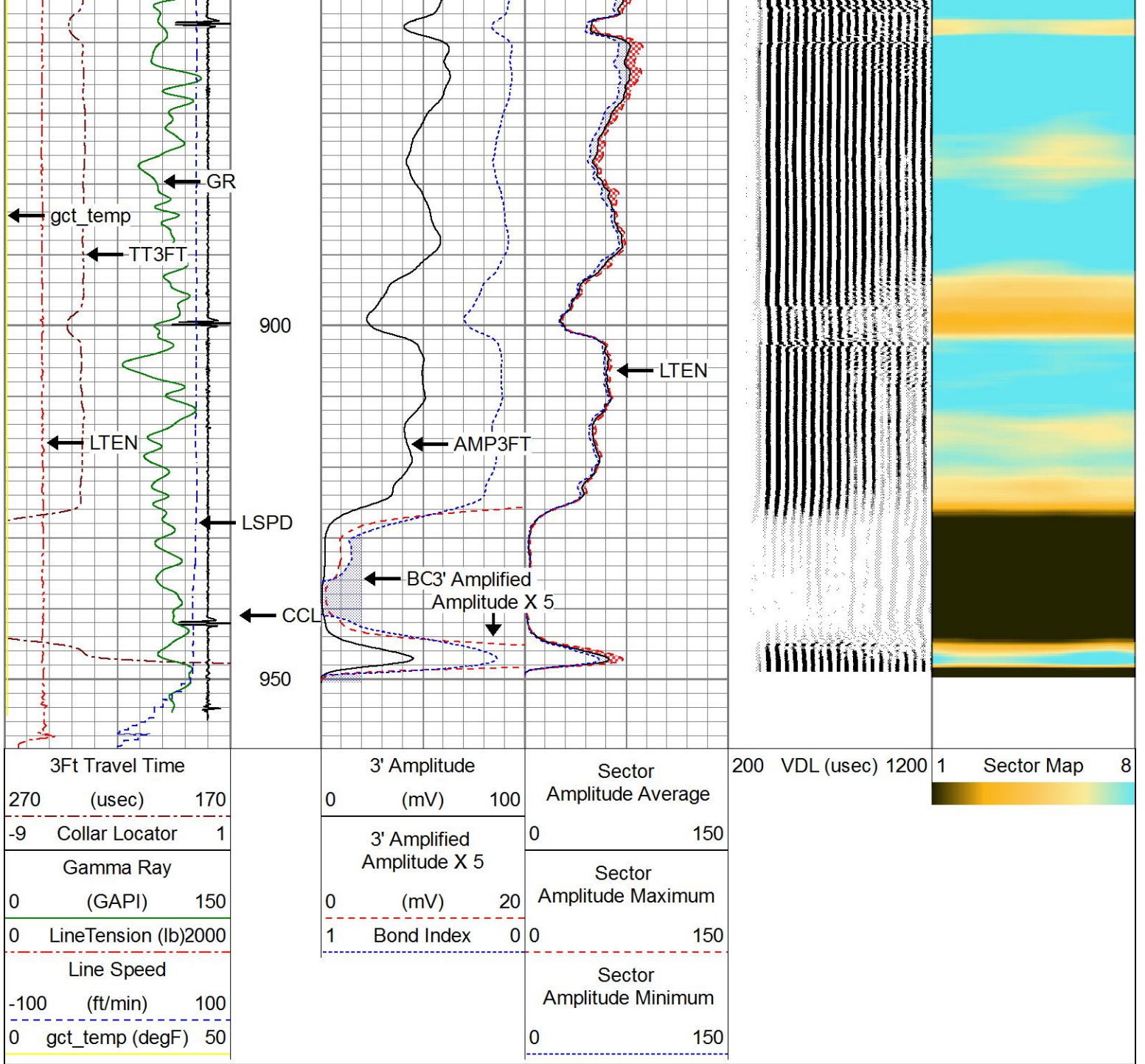
# MAIN LOG

Database File      anadarko\_ballantine 4-30a rcbl\_26-march-2021.db  
 Dataset Pathname    pass9.2  
 Presentation Format   pinr\_scbl  
 Dataset Creation    Wed Mar 31 11:10:47 2021  
 Charted by          Depth in Feet scaled 1:240

3Ft Travel Time 270 (usec) 170	3' Amplitude (mV) 100	Sector Amplitude Average	200	VDL (usec) 1200	1	Sector Map	8
-9 Collar Locator 1		0	150				
Gamma Ray 0 (GAPI) 150	3' Amplified Amplitude X 5 (mV) 20	Sector Amplitude Maximum	0				
0 LineTension (lb)2000	1 Bond Index 0	Sector Amplitude Minimum	0				
Line Speed -100 (ft/min) 100							
0 gct_temp (degF) 50							

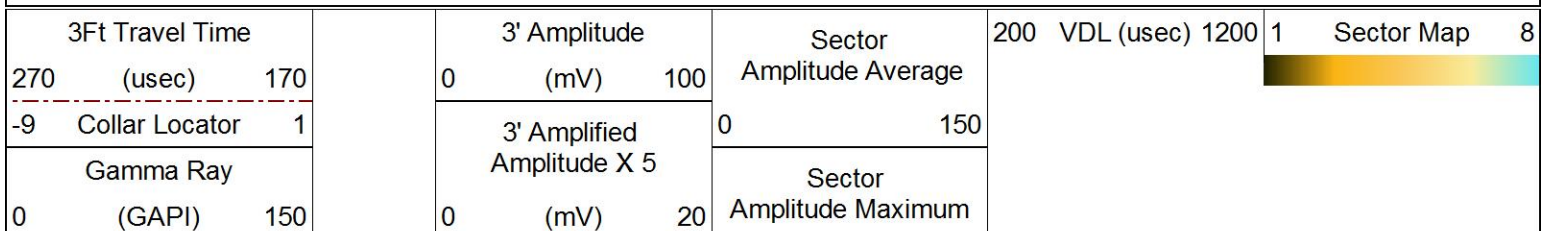


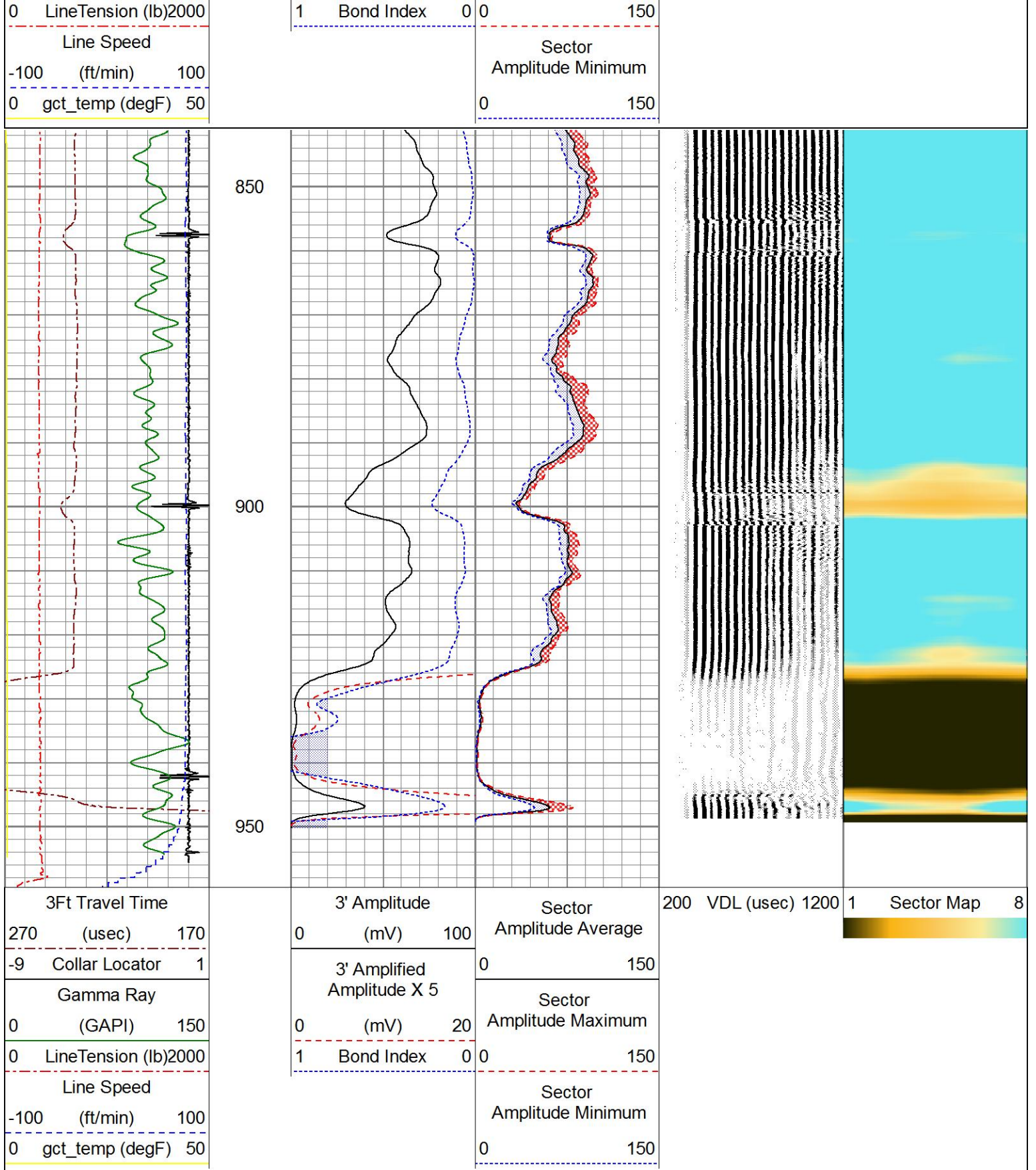




# REPEAT SECTION

Database File      anadarko\_ballantine 4-30a rcbl\_26-march-2021.db  
 Dataset Pathname    pass7.1  
 Presentation Format    pinr\_scbl  
 Dataset Creation      Wed Mar 31 11:12:10 2021  
 Charted by            Depth in Feet scaled 1:240





Calibration Report

Database File      anadarko\_ballantine 4-30a rcbl\_26-march-2021.db  
 Dataset Pathname    pass9  
 Dataset Creation    Fri Mar 26 09:45:22 2021

Gamma Ray Calibration Report

Serial Number:                      140210  
 Tool Model:                            275 Probe GCT

Performed: (Not Performed)

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: FW1305-84  
 Tool Model: RBL-DCT

Calibration Casing Diameter: 4.500 in  
 Calibration Depth: 100.158 ft

Master Calibration, performed Fri Mar 26 09:35:36 2021:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.001	0.735	0.000	81.196	110.279	0.112
CAL	-0.001	1.038				
5'	-0.001	0.759	0.000	81.196	106.781	0.125
SUM						
S1	-0.001	0.792	0.000	100.000	126.017	0.143
S2	-0.001	0.798	0.000	100.000	125.111	0.131
S3	-0.001	0.746	0.000	100.000	133.850	0.149
S4	-0.001	0.743	0.000	100.000	134.465	0.154
S5	-0.001	0.743	0.000	100.000	134.366	0.136
S6	-0.001	0.746	0.000	100.000	133.815	0.149
S7	-0.001	0.781	0.000	100.000	127.868	0.142
S8	-0.001	0.785	0.000	100.000	127.272	0.146

Air Zero Calibration, performed Fri Mar 26 09:36:05 2021:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	-0.001		0.000			0.000
5'	-0.001		0.000			-0.000
SUM						
S1	-0.001		0.000			-0.000
S2	-0.001		0.000			-0.000
S3	-0.001		0.000			-0.000
S4	-0.001		0.000			-0.000
S5	-0.001		0.000			0.000
S6	-0.001		0.000			0.000
S7	-0.001		0.000			-0.000
S8	-0.001		0.000			-0.000

Temperature Calibration Report

Serial Number: FW1305-84  
 Tool Model: RBL-DCT  
 Performed: (Not Performed)

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF
Gain:	1.00	
Offset:	0.00	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
			Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00	
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
TEMP	14.11						
WVFS8	11.82			PROBE-RBT-DIGITAL-RBL-DCT (FW1305-84) Probe 2 3/4" Radii Bond with Temp-Corrosion Package	9.21	2.75	105.00
WVFS7	11.82						
WVFS6	11.82						
WVFS5	11.82						
WVFS4	11.82						
WVFS3	11.82						
WVFS2	11.82						
WVFS1	11.82						
WVFCAL	11.82						
WVF3FT	11.82						
WVF5FT	10.82						
HEADVOLT	7.63						
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
CCL	3.88						
GCT_TEMP	3.08						
GR	2.50		PROBE-GR/CCL-DIGITAL-275 Probe GCT (140210) Probe 2 3/4" Gamma Ray/Temp/CCL	4.75	2.75	60.00	

Total length:	20.75 ft
Total weight:	197.00 lb
O.D.:	2.75 in