Radial Cement Bond Gamma Ray Casing Collar Log

RELIANCE OILFIELD SERVICES

Company	TEP Rocky Mountain LLC
Well	Tri State Trucking PA 524-24
Field	Parachute
County	Garfield
State	Colorado

Company TEP Rocky Mountain LLC
Well Tri State Trucking PA 524-24
Field Parachute
County Garfield State Colorado
Location: API # : 05-045-23660
SEC 25 TWP 6S RGE 95W

Other Services: --

		Elevation	Elevation
Permanent Datum	Ground Level	5223.8'	K.B. 5247.8'
Log Measured From	Kelly Bushing	24 FT	D.F. 5246.8'
Drilling Measured From	Kelly Bushing		G.L. 5223.8'

Date	23-MAR-2018
Run Number	One
Depth Driller	8568 FT
Depth Logger	8520 FT
Bottom Logged Interval	8515 FT
Top Log Interval	Surface
Open Hole Size	8.750"
Type Fluid	Fresh Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	238°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	8:05
Equipment Number	HD-359
Location	Grand Junction, CO
Recorded By	J. Donnelly
Witnessed By	D. Welsh

Borehole Record				Tubing Record		
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom
Surface Casing	9 5/8	32.3	H-40	Surface	1137 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	8525 FT
Intermediate #2					
Liner					

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Log ran as per customer request
Depth referenced to Kelly Bushing at 24 FT
Marker Joint logged at 3926-3947 FT
Log ran from 8520 FT to Surface
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!!

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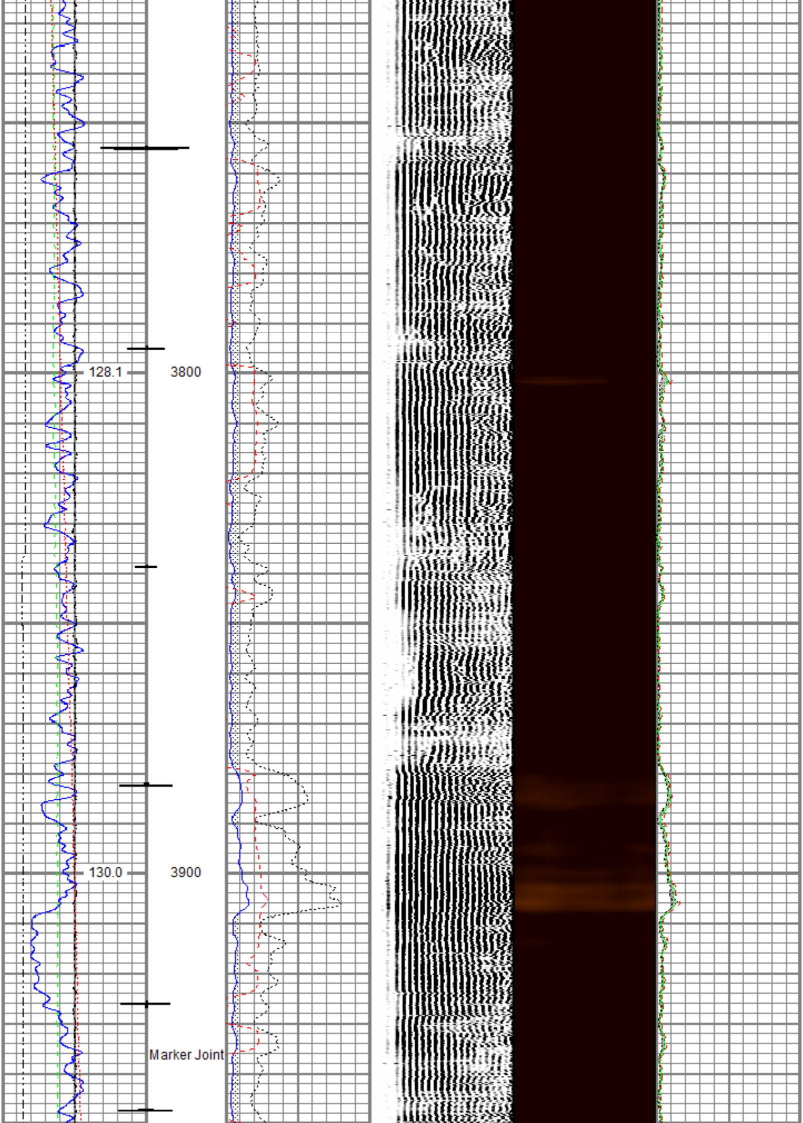
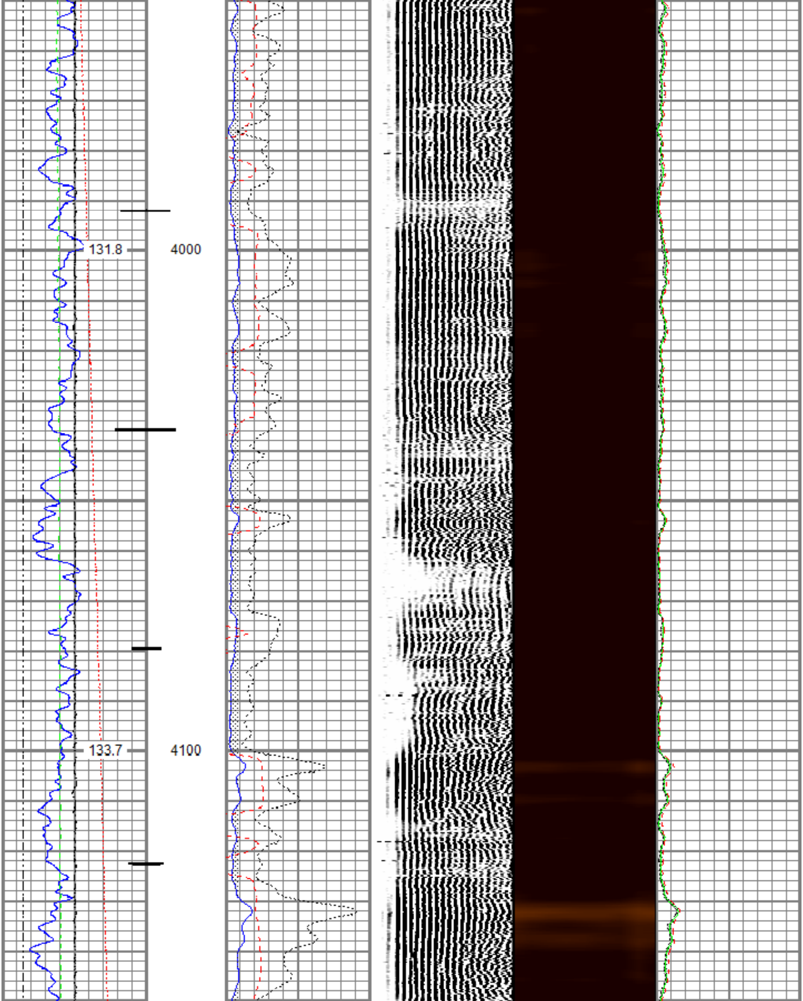
Main Pass

Recorded with 0 PSI Surface Induced Pressure

Database File	tep_tri state trucking pa 524-24_rbl_03-23-18\processing_tep_tri state trucking pa 524-24_rbl_03-23-18.db
Dataset Pathname	main.1
Presentation Format	ros_rbt004_tep
Dataset Creation	Fri Mar 23 15:10:32 2018
Charted by	Depth in Feet scaled 1:240

Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200	0 (mV) 100	200 (usec) 1200		0 150
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Line Speed	0 (mV) 20			0 150
-150 (ft/min) 150	3' Travel Time			Maximum Amplitude
Line Tension	300 (usec) 200			0 150
0 (lb) 2000				
Differential Temperature				
-2 (degF) 2				
Temperature				
0 (degF) 20				


128.1
3800
130.0
3900
Marker Joint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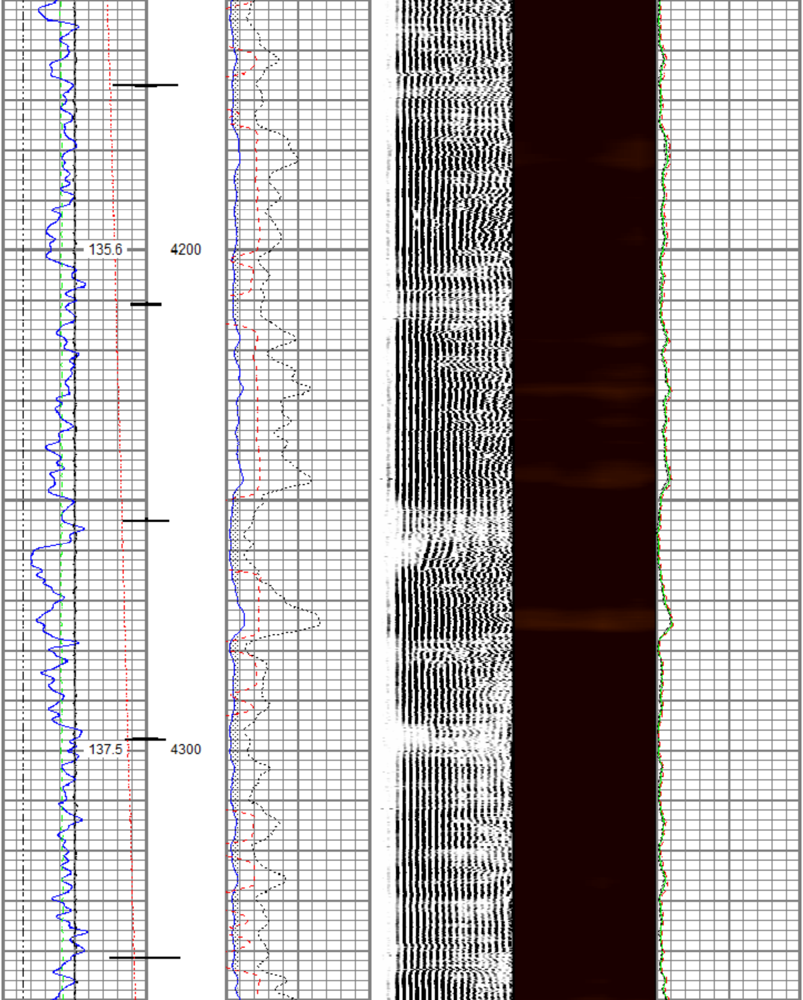
4000
133.7
4100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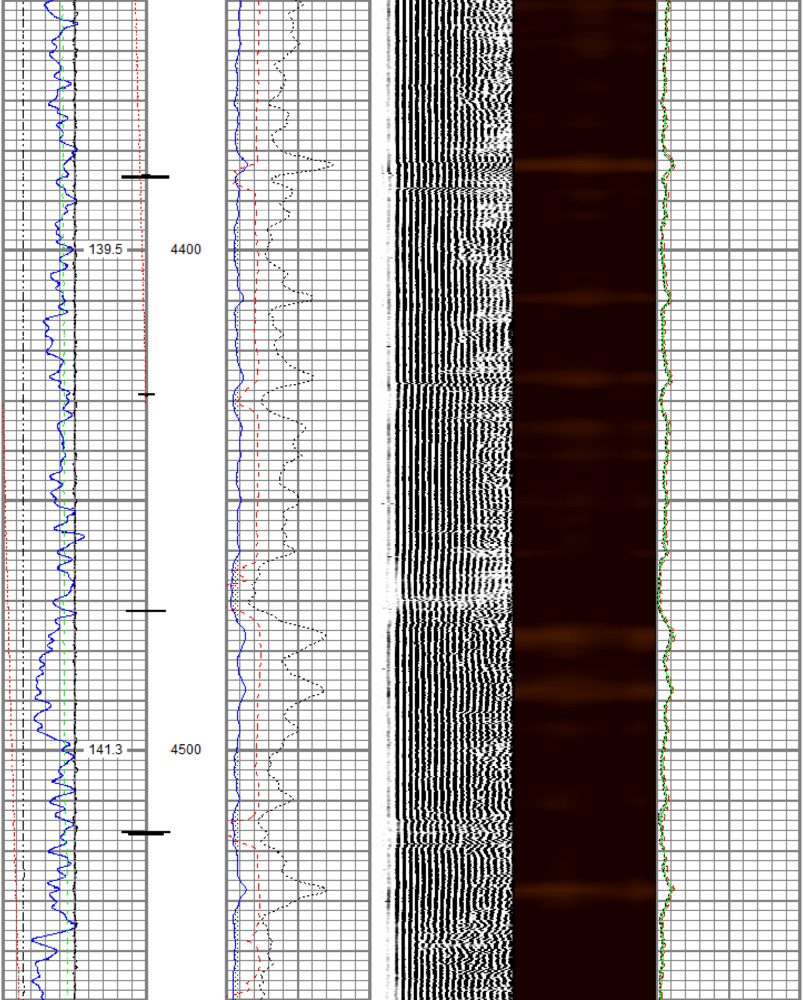
137.5
4300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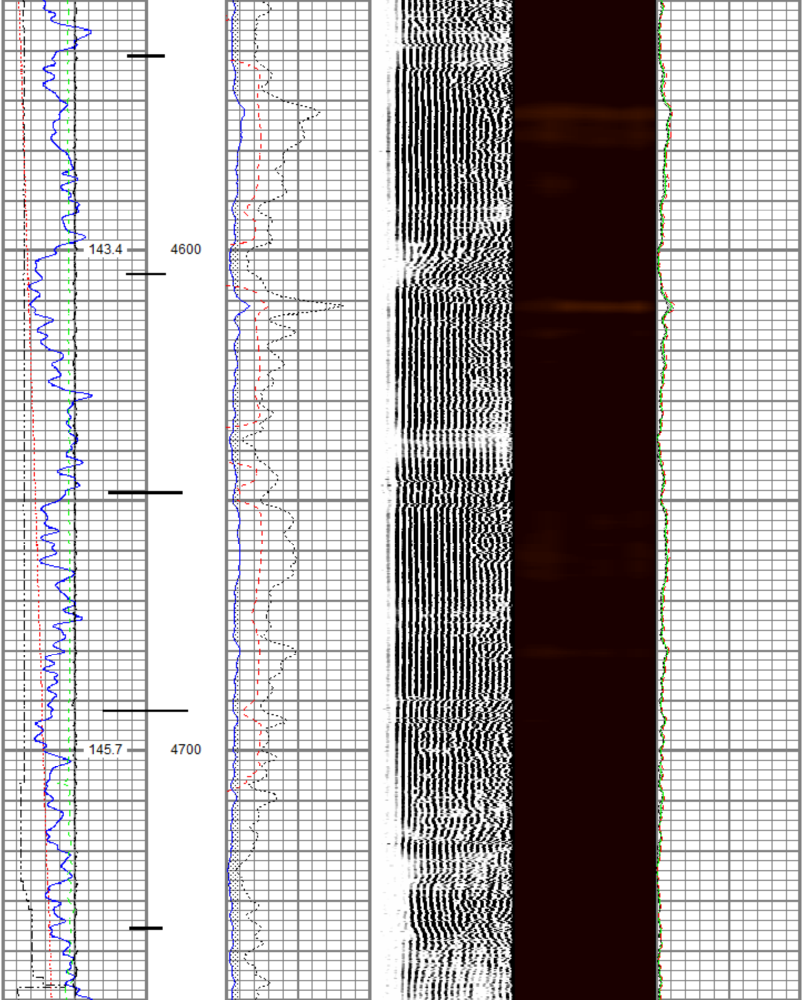
4400
141.3
4500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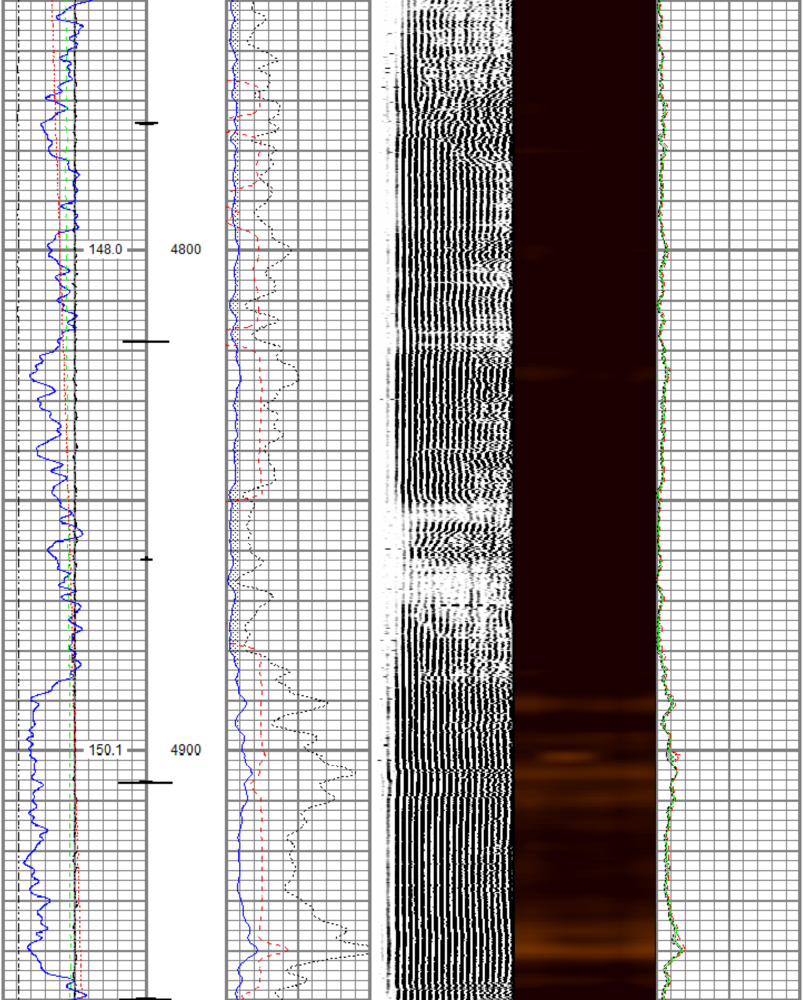
4600
145.7
4700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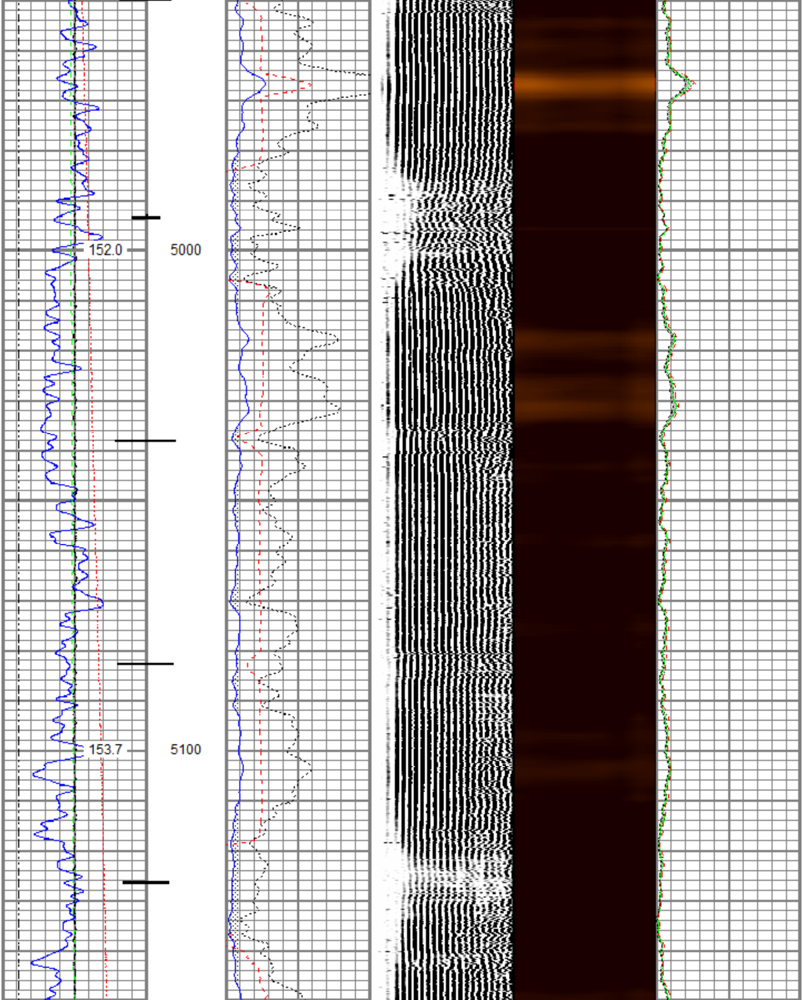
4800
150.1
4900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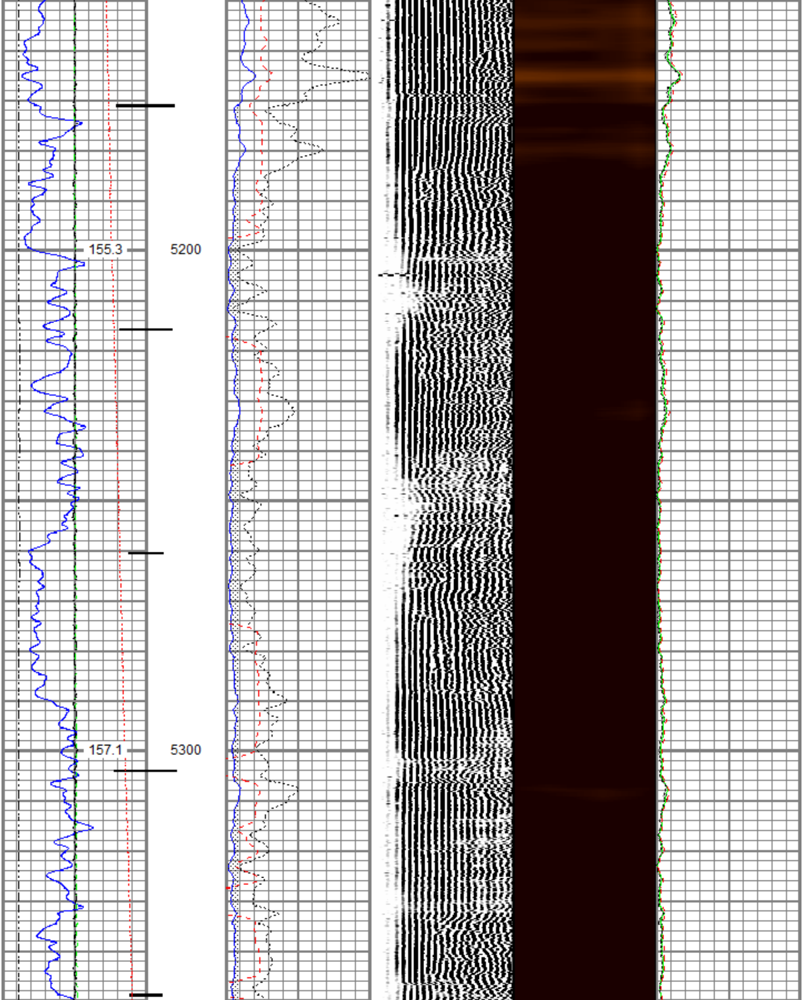
153.7
5100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157.1
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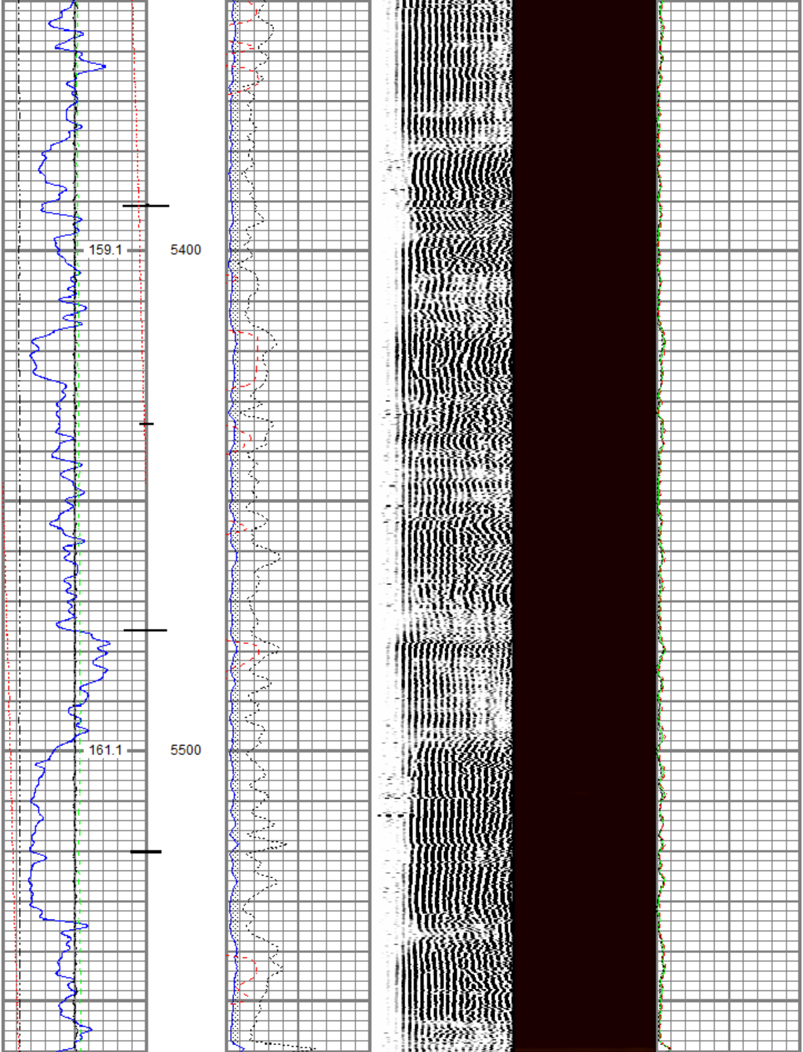
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5400
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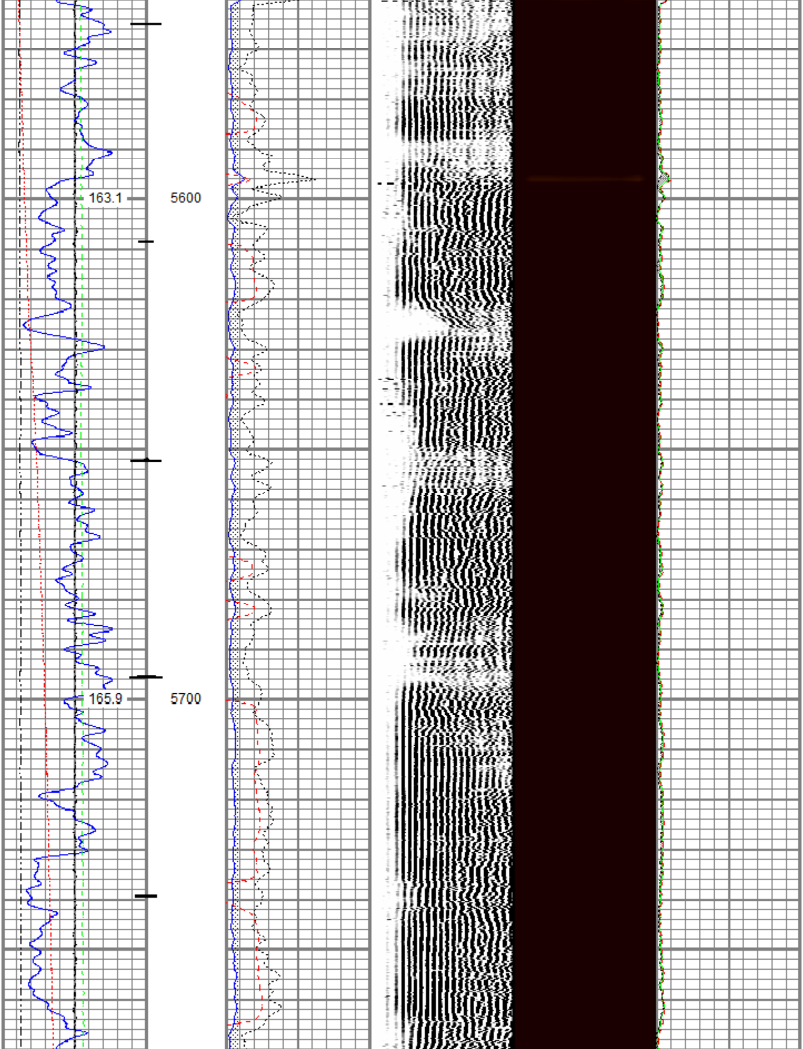
5500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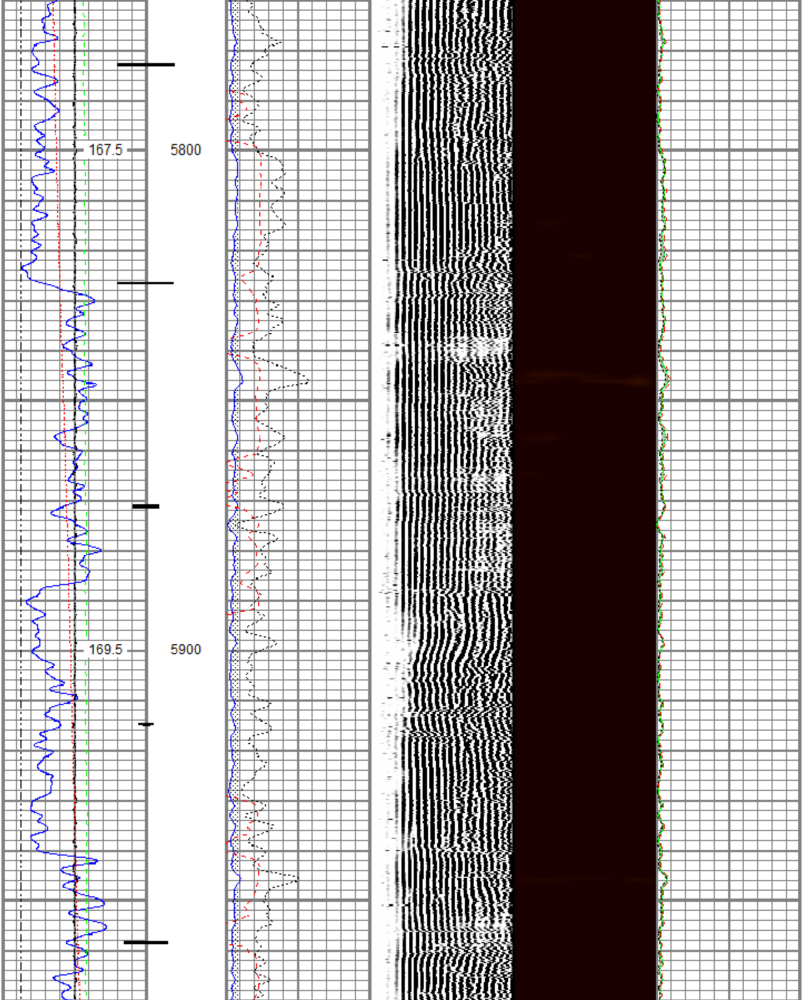
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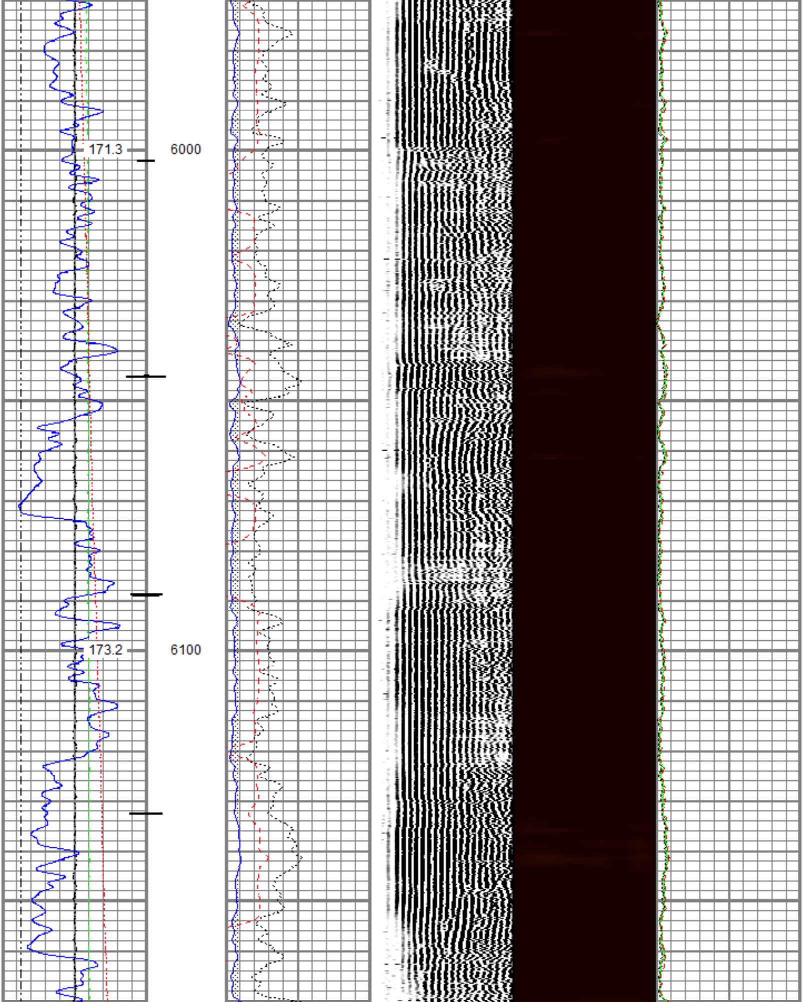
5800
169.5
5900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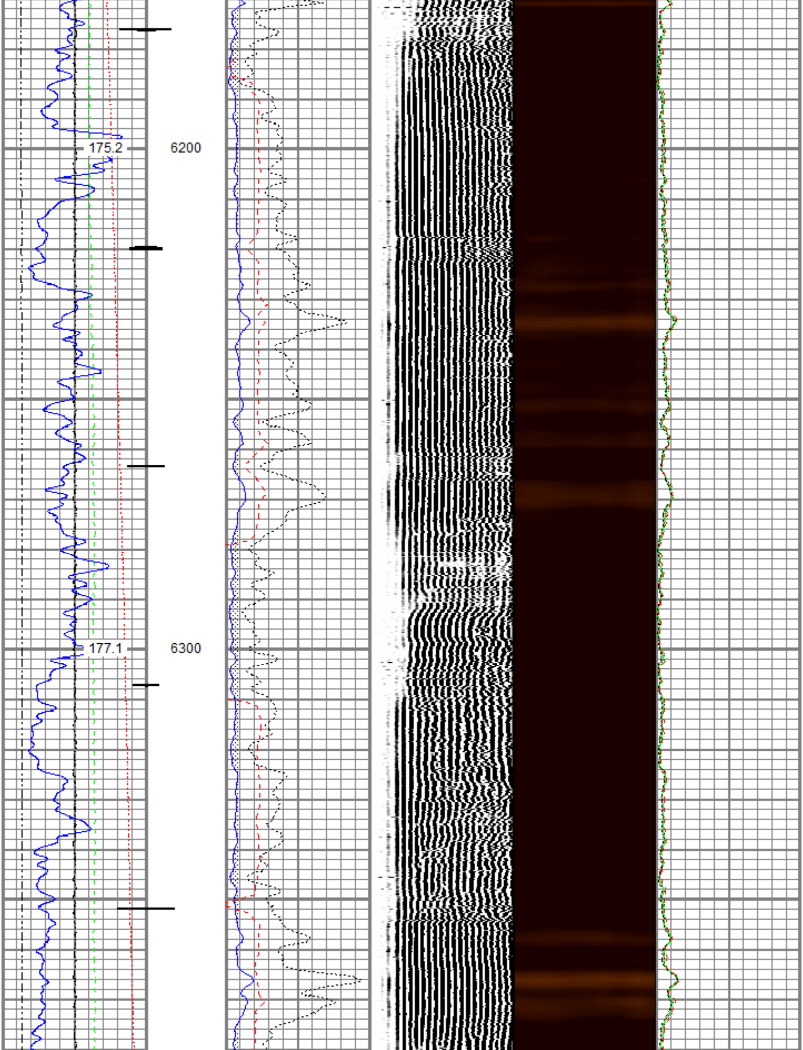
6100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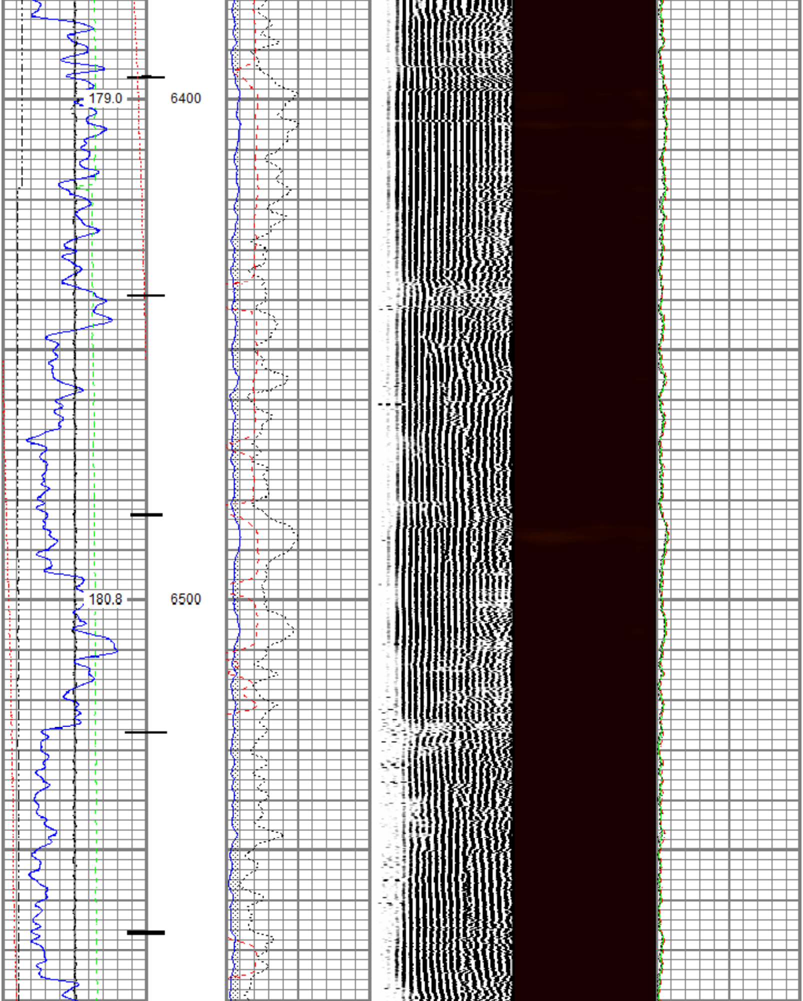
6200
177.1
6300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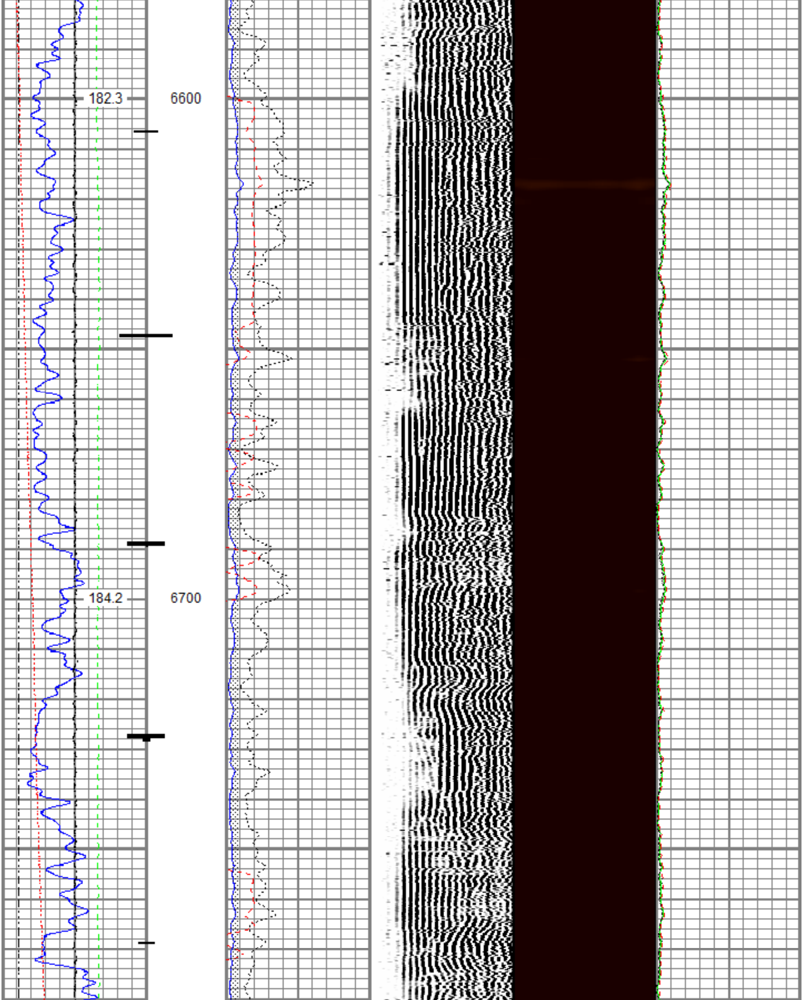
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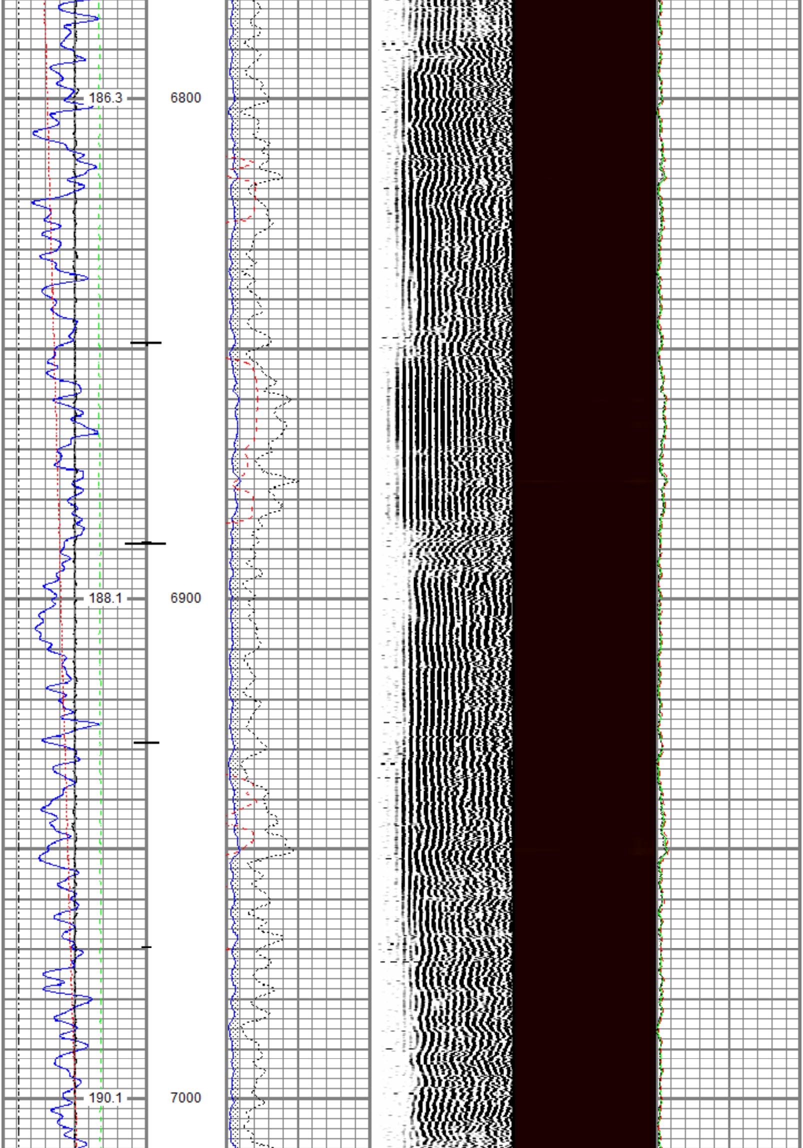
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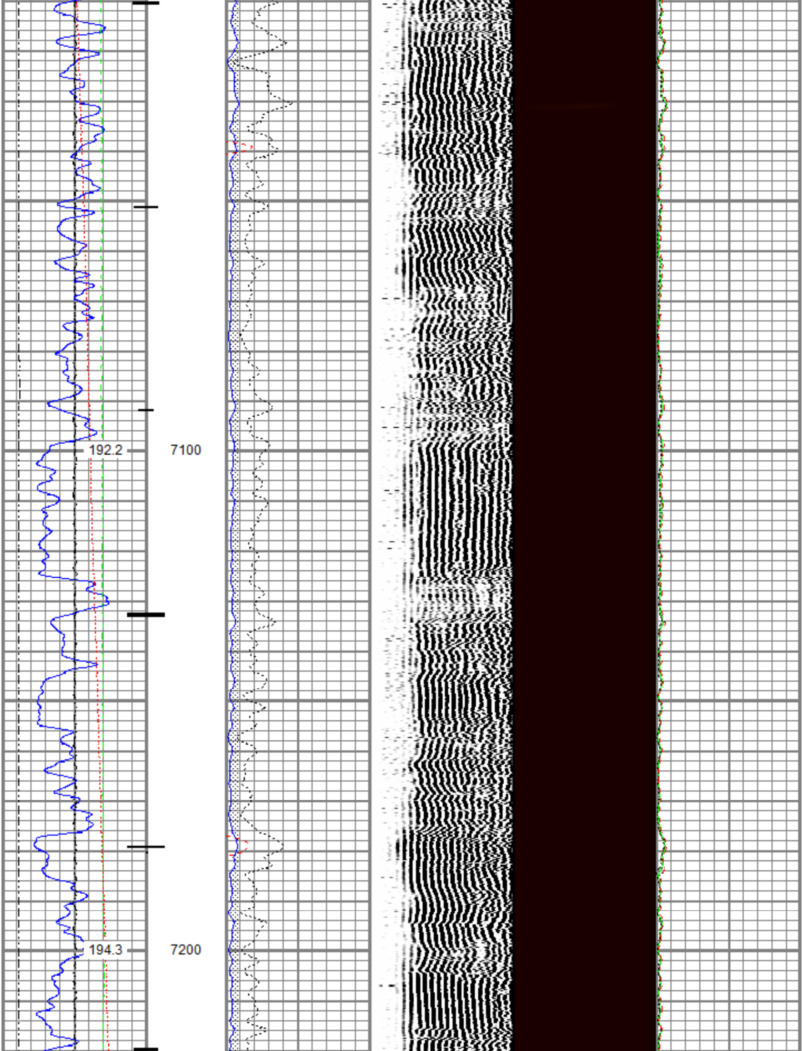
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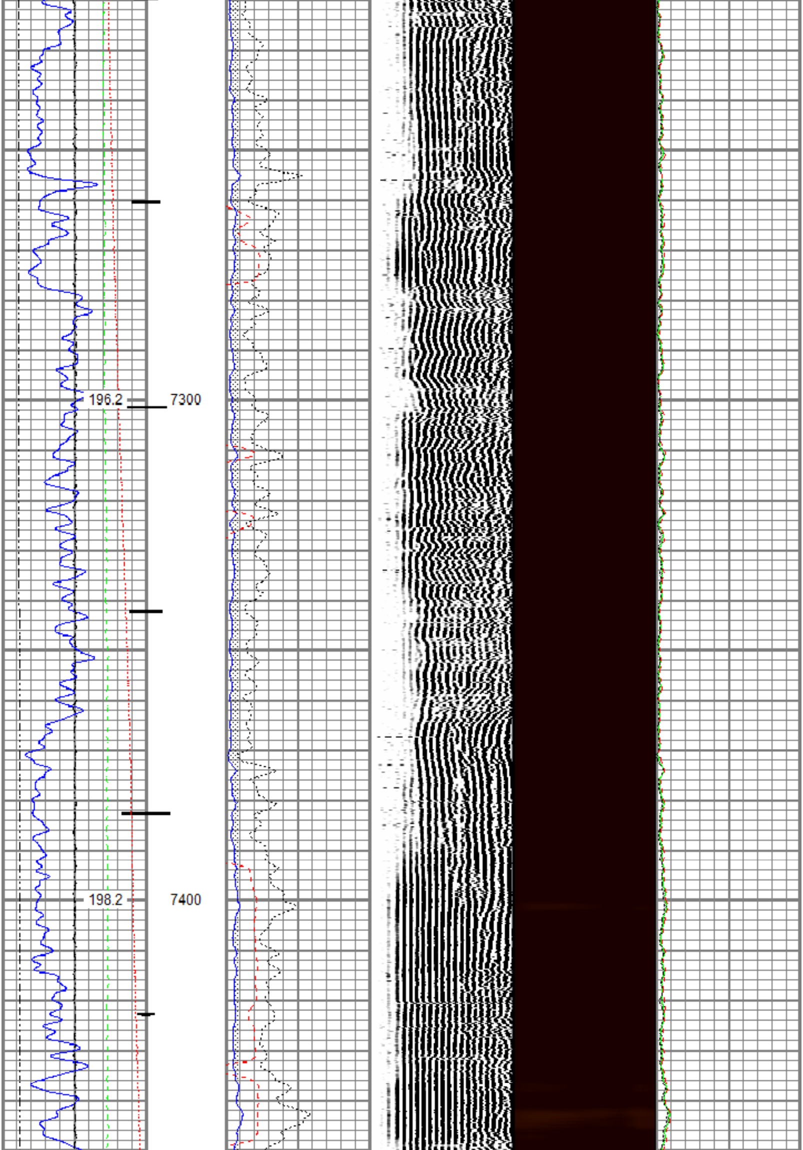
7100
194.3
7200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7300
198.2
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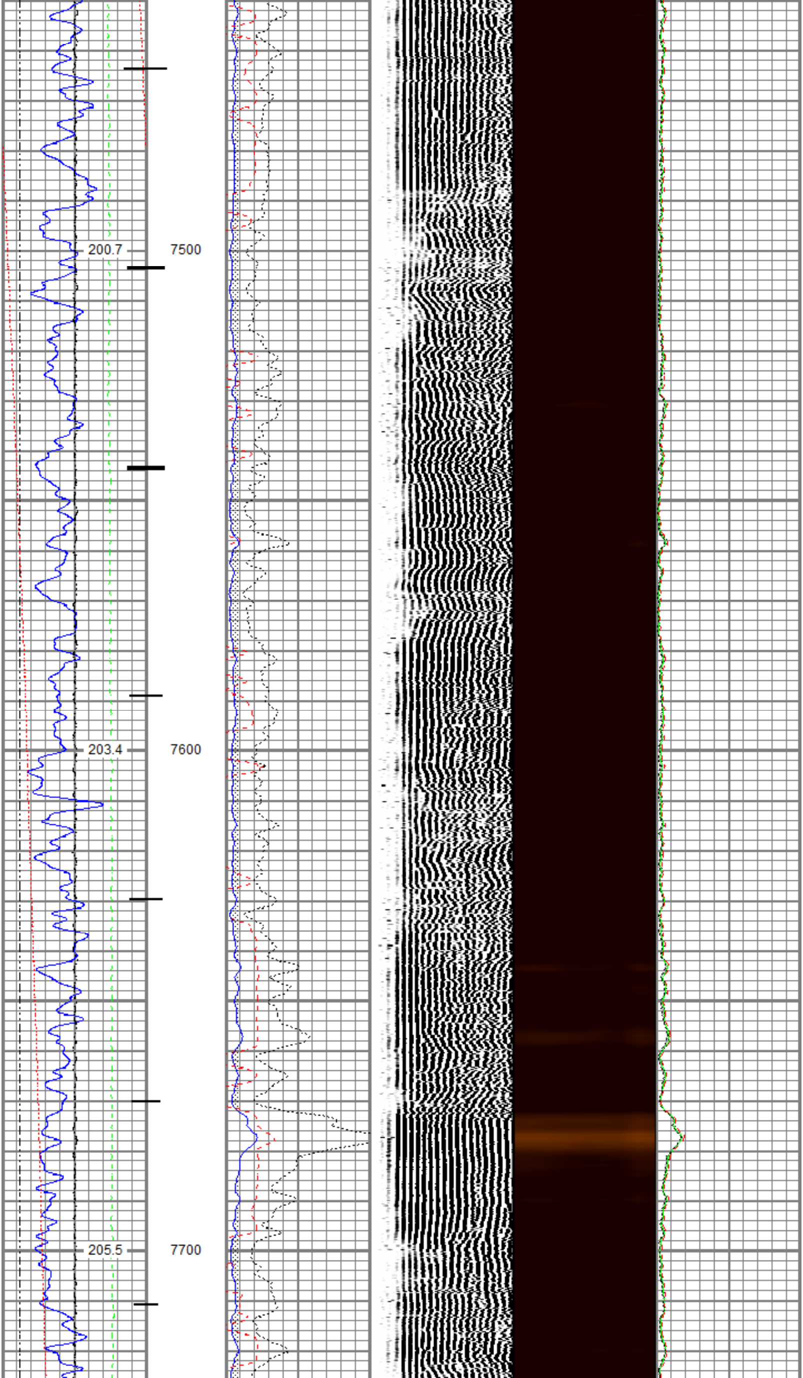
200.7
7500
203.4
7600
205.5
7700

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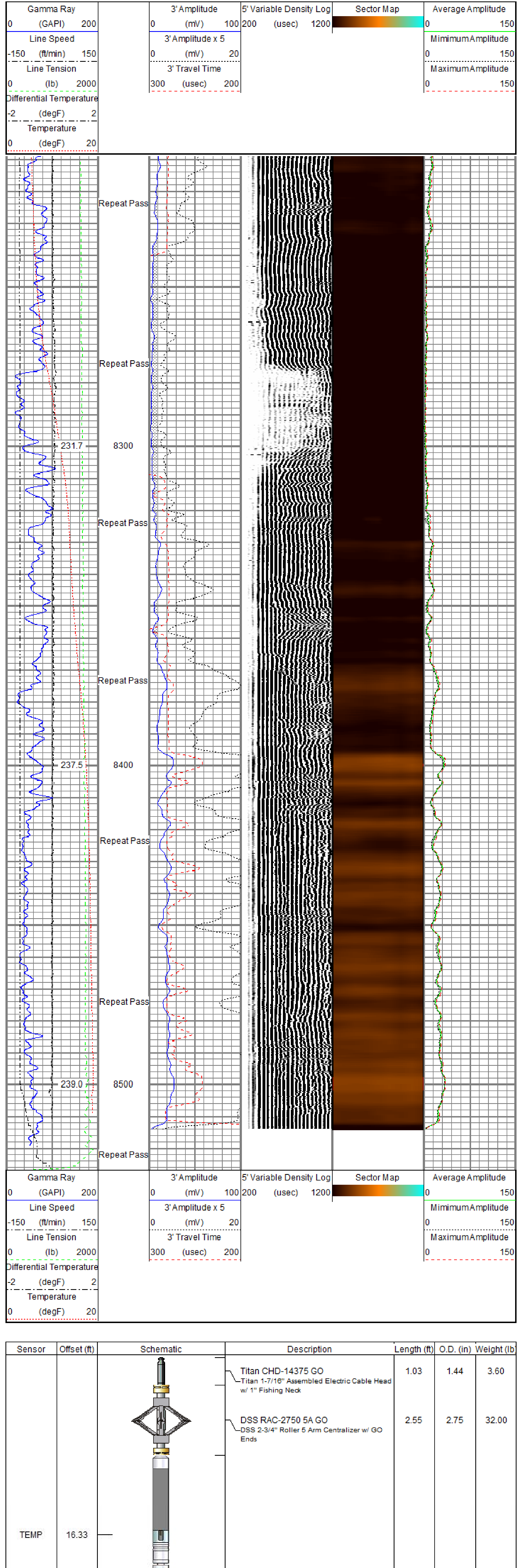
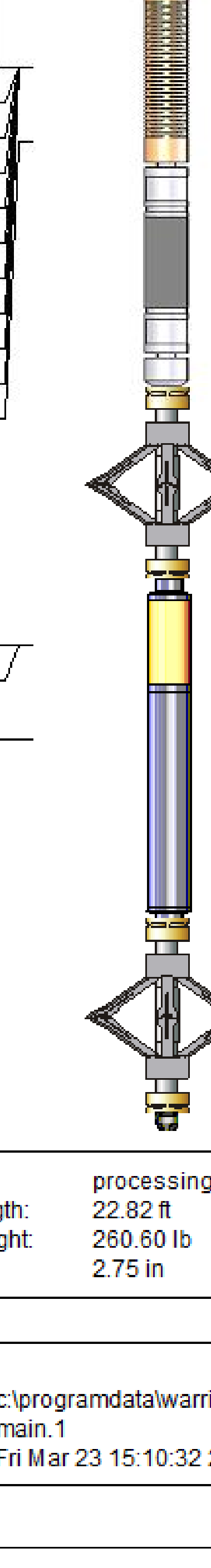
Repeat Pass

Recorded with 0 PSI Surface Induced Presssure

Database File	tep_tri state trucking pa 524-24_rbl_03-23-18\processing_tep_tri state trucking pa 524-24_rbl_03-23-18.db
Dataset Pathname	repeat1.1
Presentation Format	ros_rbt004_tep
Dataset Creation	Fri Mar 23 15:18:21 2018
Charted by	Depth in Feet scaled 1:240



Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends	2.55	2.75	32.00
TEMP WVFS8 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVFCAL WVF3FT WVF5FT	16.33 14.10 14.10 14.10 14.10 14.10 14.10 14.10 14.10 14.10 14.10 13.10		Probe Radii-2750 RBT (FW1305-098) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
			DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends	2.55	2.75	32.00
CCL$2 CCL$1 GR	6.42 6.42 5.18		Probe GR-CCL-2750 GOB (FW1307-038) Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined	4.51	2.75	55.00
			DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends	2.55	2.75	32.00
			GO BN-14375 GO 1-7/16" Bull Nose with Go Box Top	0.25	1.44	1.00

Dataset: processing_tep_tri state trucking pa 524-24_rbl_03-23-18.db: field/well/run1/main.1
Total length: 22.82 ft
Total weight: 260.60 lb
O.D.: 2.75 in

Calibration Report

Database File	c:\programdata\warrior\data\tep_tri state trucking pa 524-24_rbl_03-23-18\processing_tep_tri state trucking p
Dataset Pathname	main.1
Dataset Creation	Fri Mar 23 15:10:32 2018

Gamma Ray Calibration Report

Serial Number:	FW1307-038	
Tool Model:	2750 GOB	
Performed:	Sun Nov 12 12:44:12 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	113.2	cps
Calibrator Reading:	1022.4	cps
Sensitivity:	0.7007	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1305-098	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	230.589	ft

Master Calibration, performed (Derived):

	Raw (v) Zero	Raw (v) Cal	Calibrated (mv) Zero	Calibrated (mv) Cal	Results Gain	Results Offset
3'	-0.009	0.481	0.800	81.196	164.357	2.209
CAL	0.478	0.747				
5'	-0.042	0.337	0.800	81.196	211.742	9.741
SUM						
S1	-0.011	0.445	0.000	100.000	219.348	2.333
S2	-0.010	0.459	0.000	100.000	213.436	2.068
S3	-0.009	0.490	0.000	100.000	200.294	1.886
S4	-0.011	0.547	0.000	100.000	179.312	1.943
S5	-0.017	0.564	0.000	100.000	172.072	2.894
S6	-0.012	0.531	0.000	100.000	184.327	2.149
S7	-0.016	0.486	0.000	100.000	199.190	3.255
S8	-0.006	0.456	0.000	100.000	216.427	1.267

Internal Reference Calibration, performed (Not Performed):

	Raw (v) Zero	Raw (v) Cal	Calibrated (v) Zero	Calibrated (v) Cal	Results Gain	Results Offset
CAL	0.000	0.000	0.478	0.747	1.000	0.000

Air Zero Calibration, performed Fri Mar 23 06:17:36 2018:

	Raw (v) Zero	Calibrated (v) Zero	Results 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

Temperature Calibration Report

Serial Number:	FW1305-098	
Tool Model:	2750 RBT	
Performed:	Sun Nov 12 13:43:57 2017	
	Reference	Reading
Low Reference:	100.00 degF	109.43 degF
High Reference:	350.00 degF	405.87 degF
Gain:	0.84	
Offset:	7.72	
Delta Spacing	1	

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Company	TEP Rocky Mountain LLC
Well	Tri State Trucking PA 524-24
Field	Parachute
County	Garfield
State	Colorado