RELIANCE
OILFIELD SERVICES

Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Tri State Trucking PA 343-26
Field	Parachute
County	Garfield
State	Colorado

Location: API # : 05-045-23662
SEC 25 TWP 6S RGE 95W

Other Services

			Elevation
Permanent Datum	Ground Level	Elevation 5224'	K.B. 5248'
Log Measured From	Kelly Bushing	24 FT	D.F. 5247'
Drilling Measured From	Kelly Bushing		G.L. 5224'

Date	11-DEC-2017
Run Number	One
Depth Driller	8345 FT
Depth Logger	8280 FT
Bottom Logged Interval	8275 FT
Top Log Interval	Surface
Open Hole Size	8.750"
Type Fluid	Fresh Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	241°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	23:00
Equipment Number	HD-359
Location	Grand Junction, CO
Recorded By	Z.Fisher
Witnessed By	C. Applegate

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	1109 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	8305 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 4283-4305 FT
Log ran from 8280 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 343-26_rbl_12-11-17\processed_tep_tri state trucking pa 343-26_rbl_12-11-17.db
Dataset Pathname	main.1
Presentation Format	ros_rbt004_tep
Dataset Creation	Tue Dec 12 15:27:07 2017
Charted by	Depth in Feet scaled 1:240

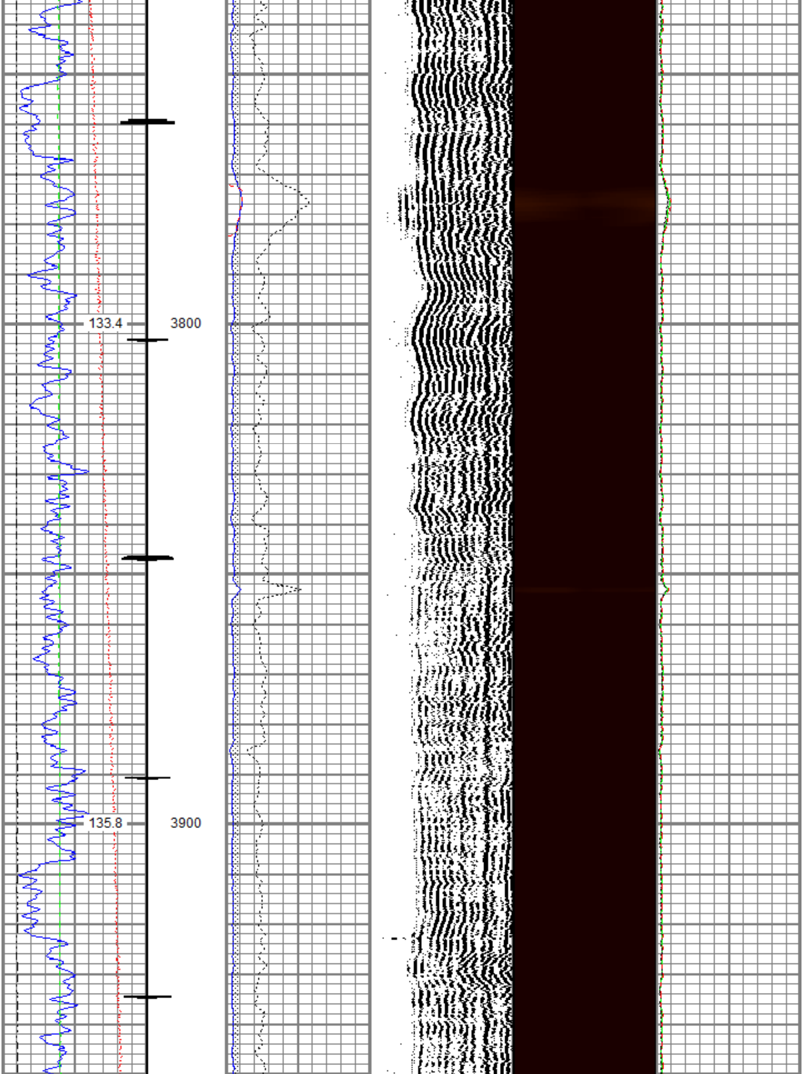
Gamma Ray 0 (GAPI) 200
Casing Collar Locator
Line Speed -150 (ft/min) 150
Line Tension 0 (lb) 2000
Temperature 0 (degF) 20

3' Amplitude 0 (mV) 100
3' Amplitude x 5 0 (mV) 20
3' Travel Time 300 (usec) 200

5' Variable Density Log 200 1200

Sector Map 10 110

Average Amplitude 0 150
Mimimum Amplitude 0 150
Maximum Amplitude 0 150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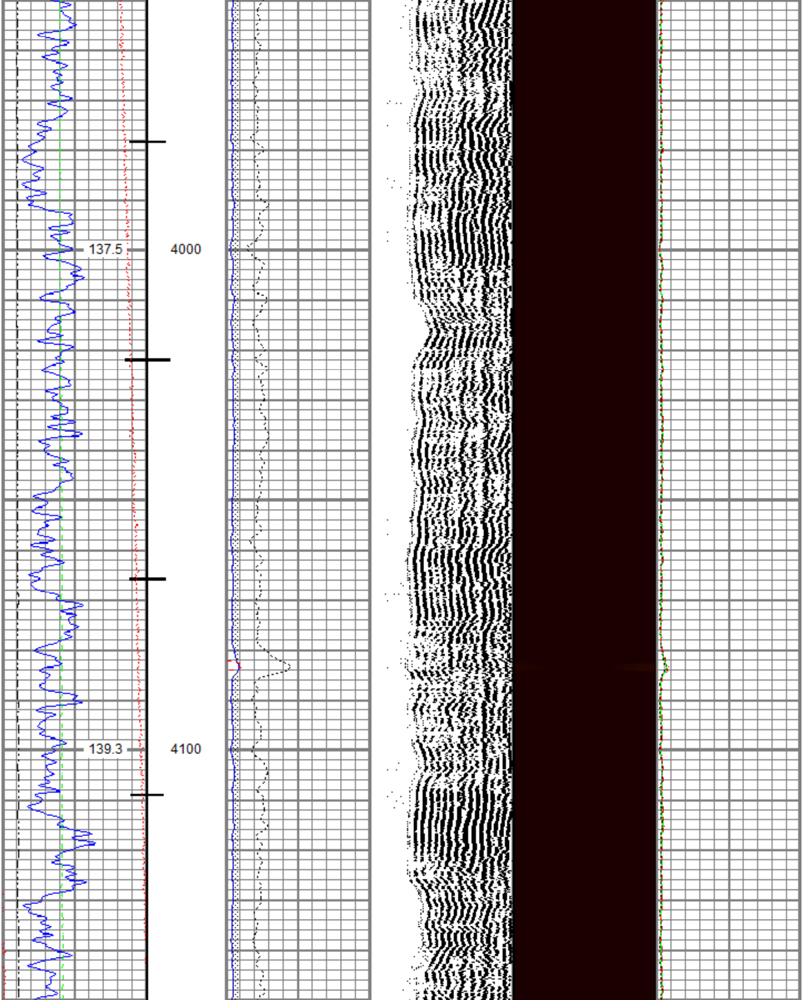
3900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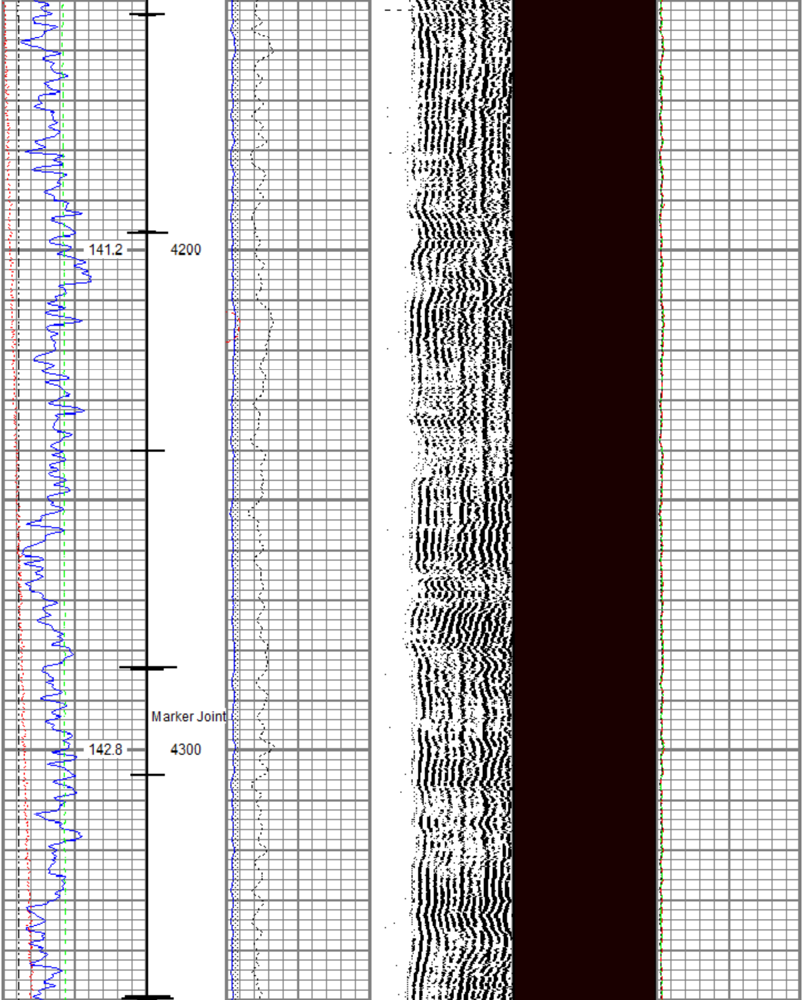
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Marker Joint
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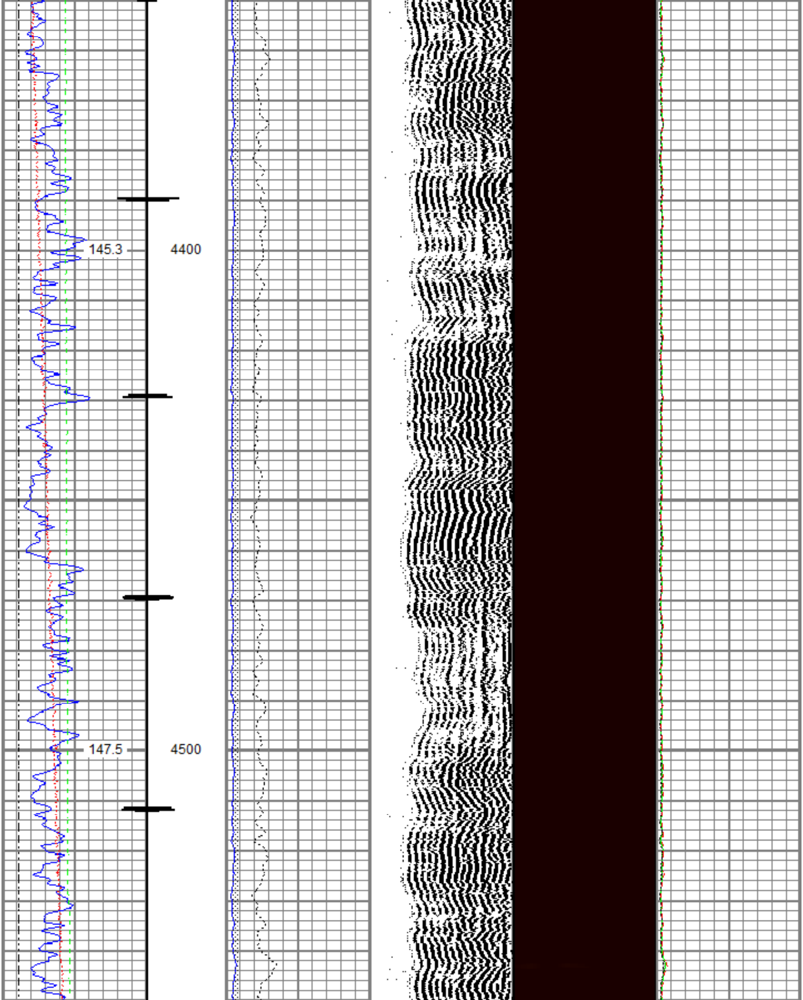
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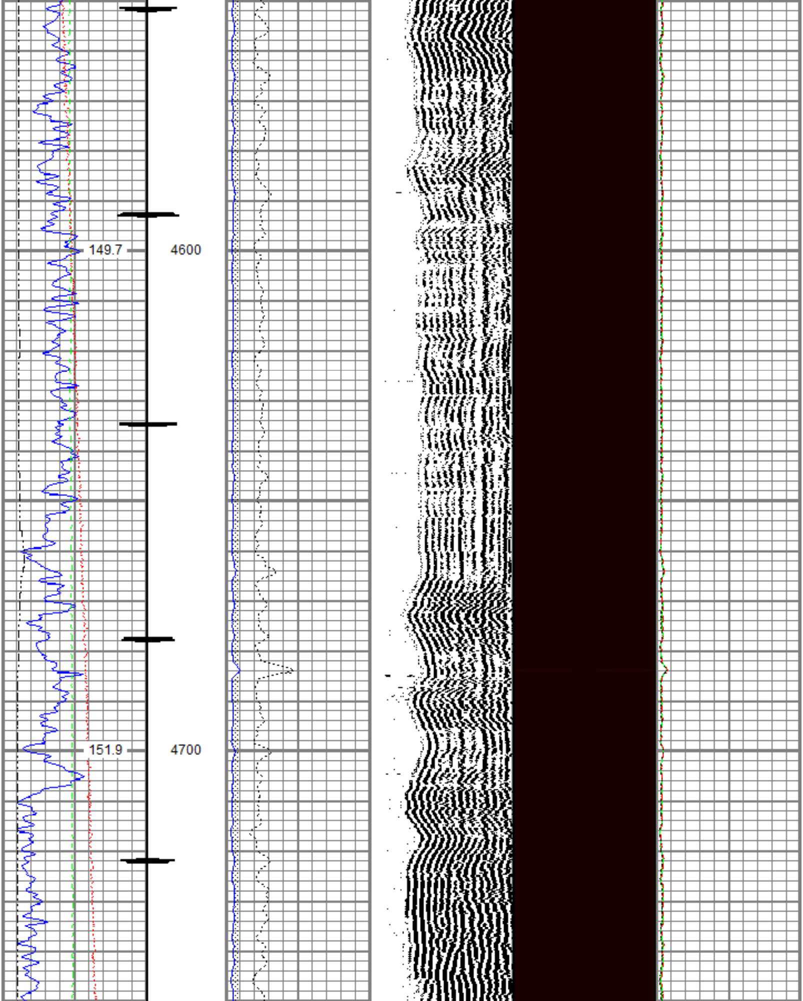
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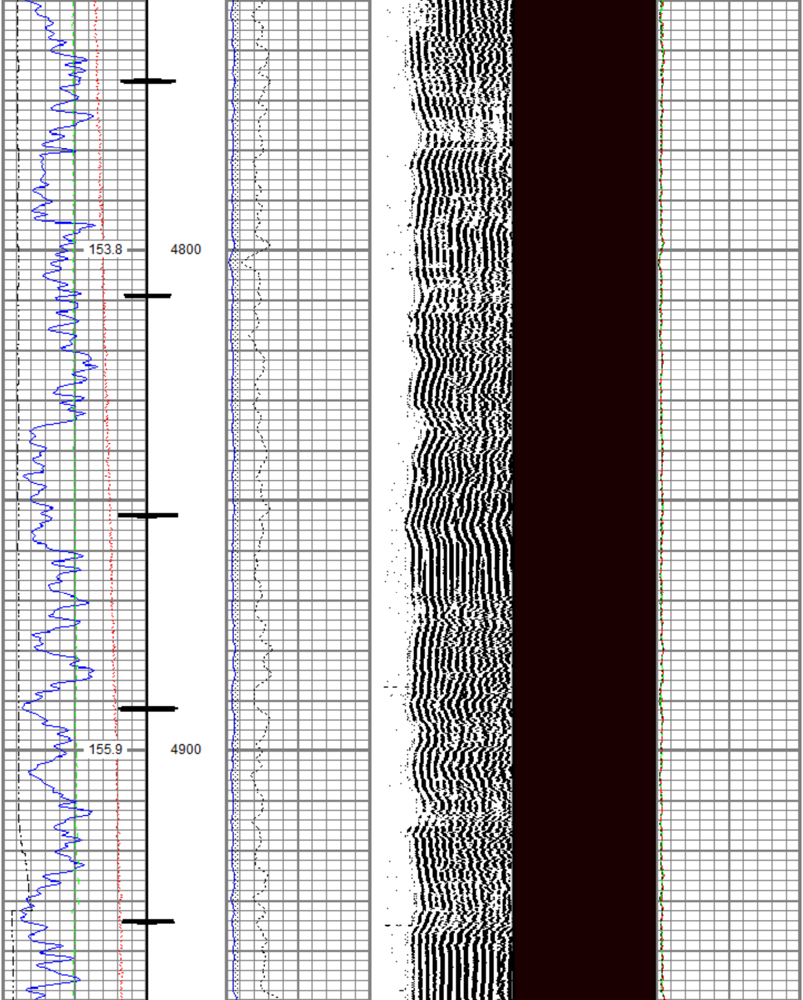
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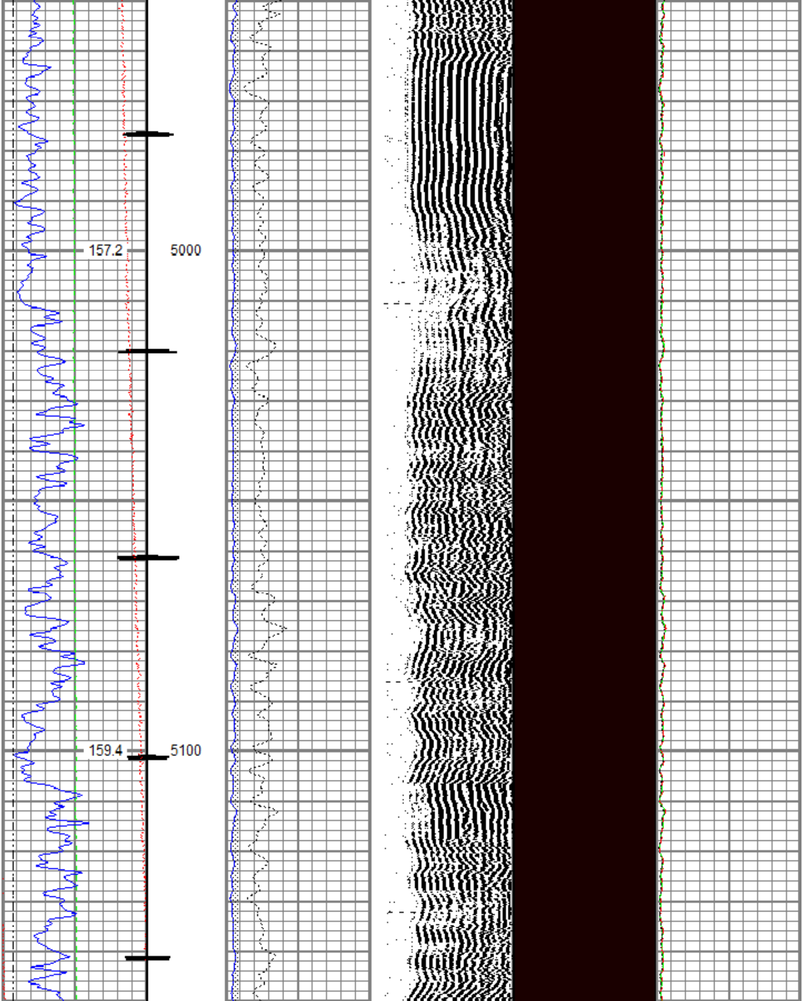
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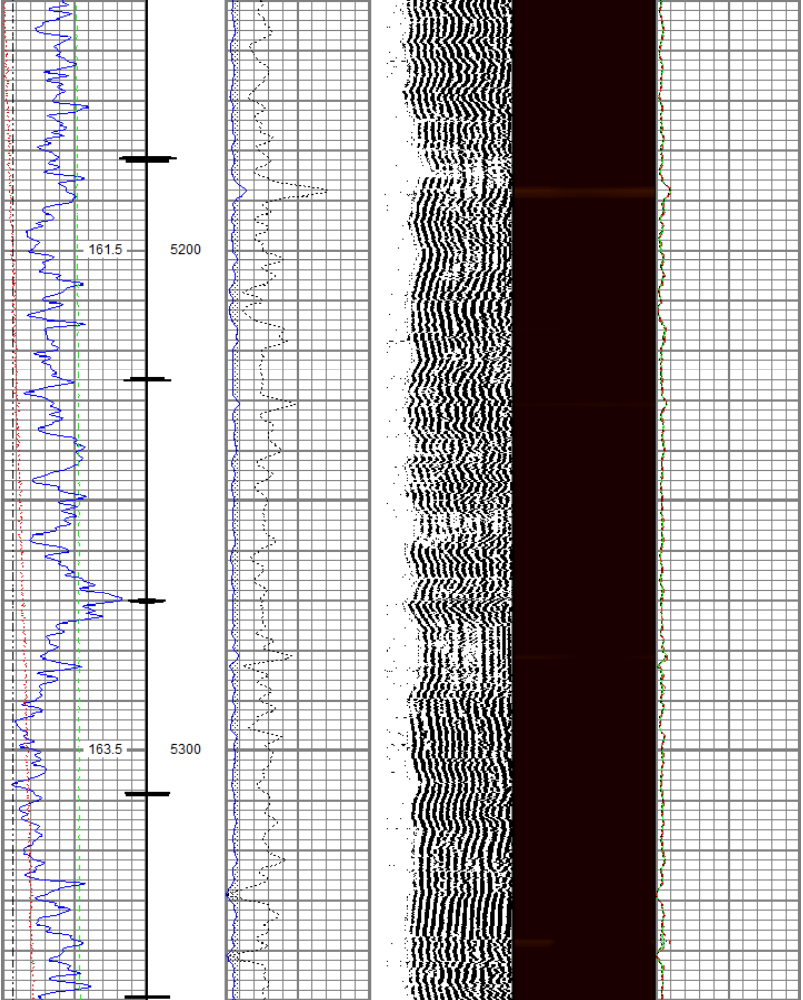
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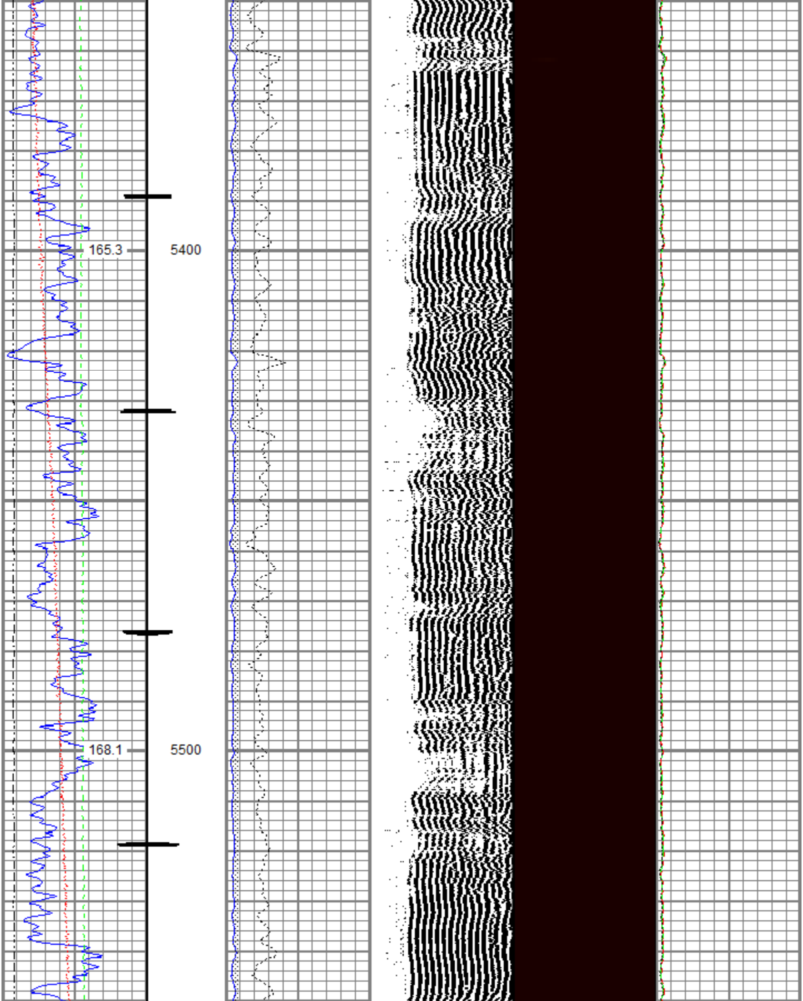
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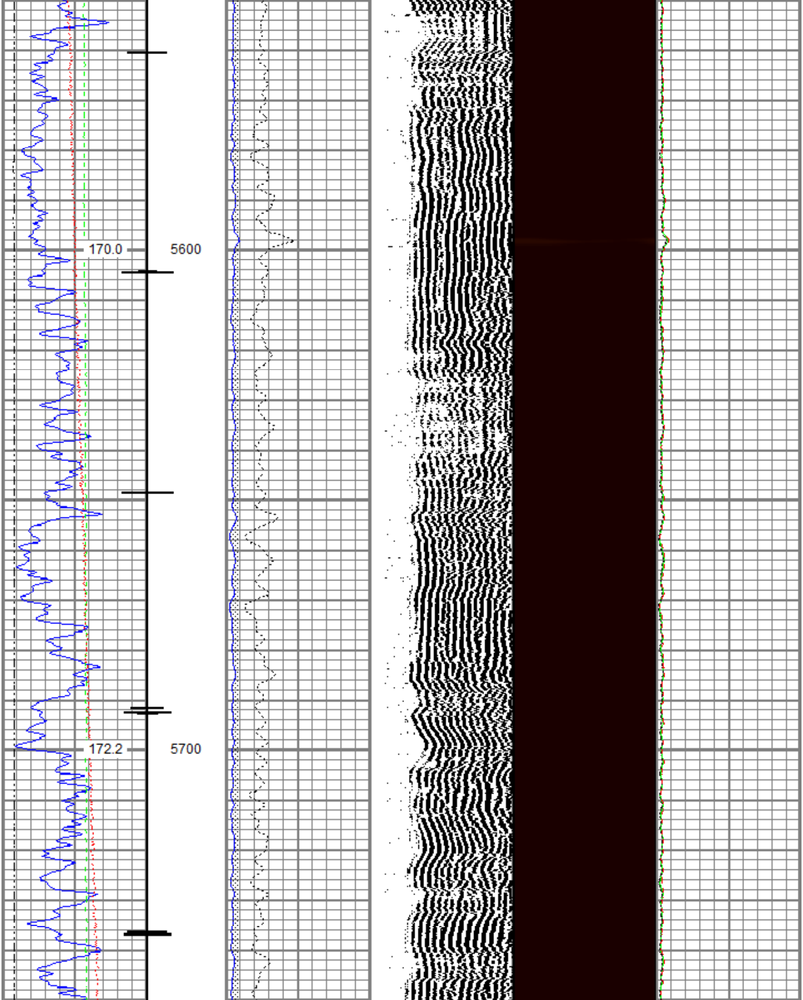
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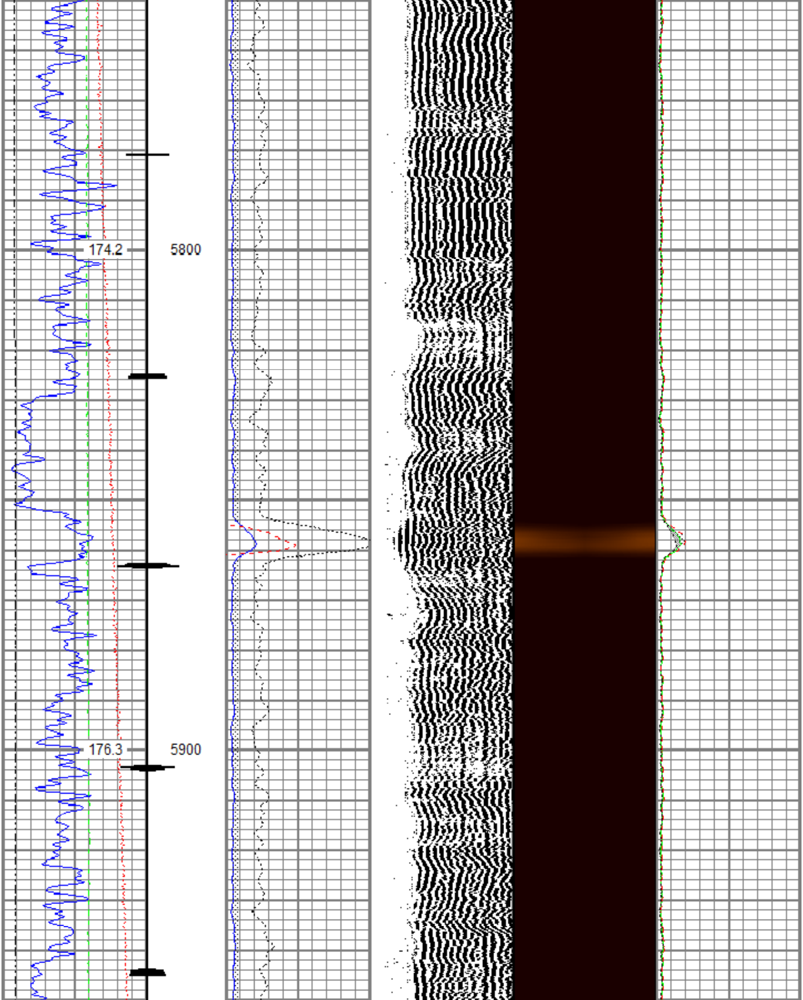
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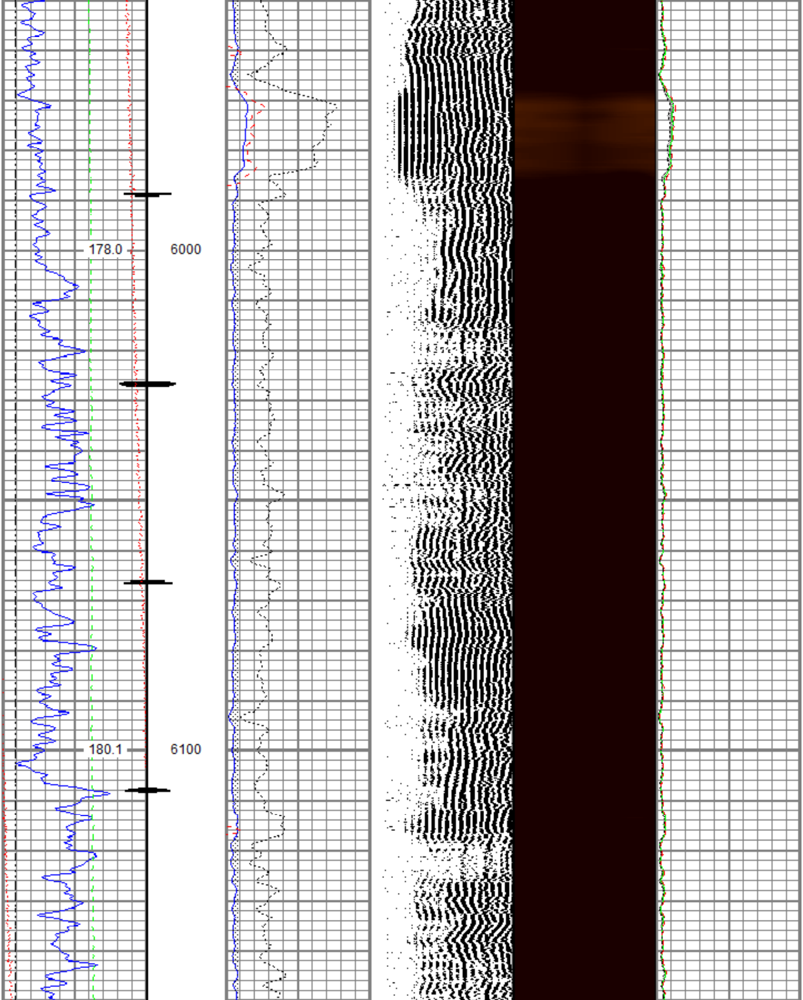
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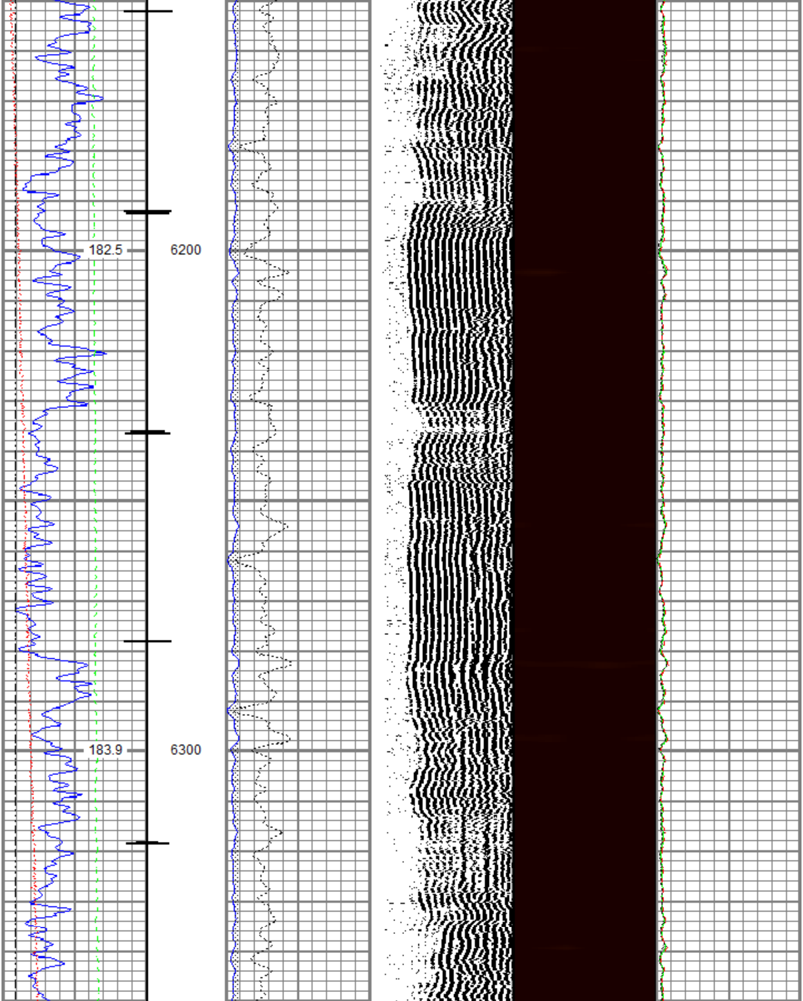
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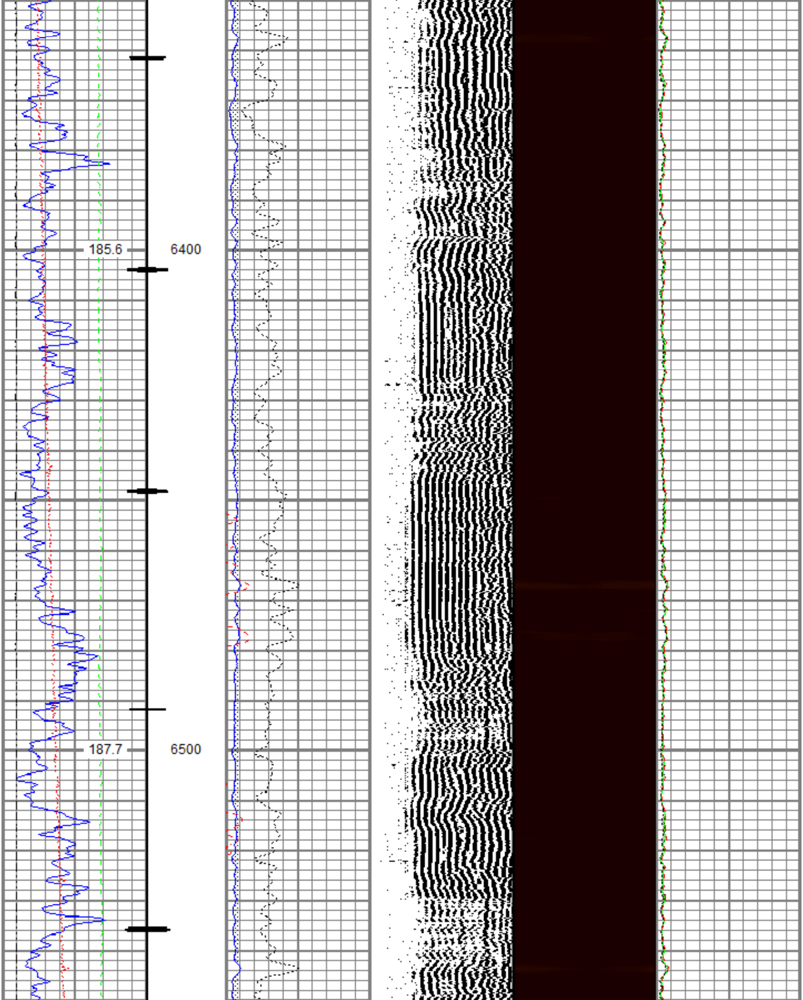
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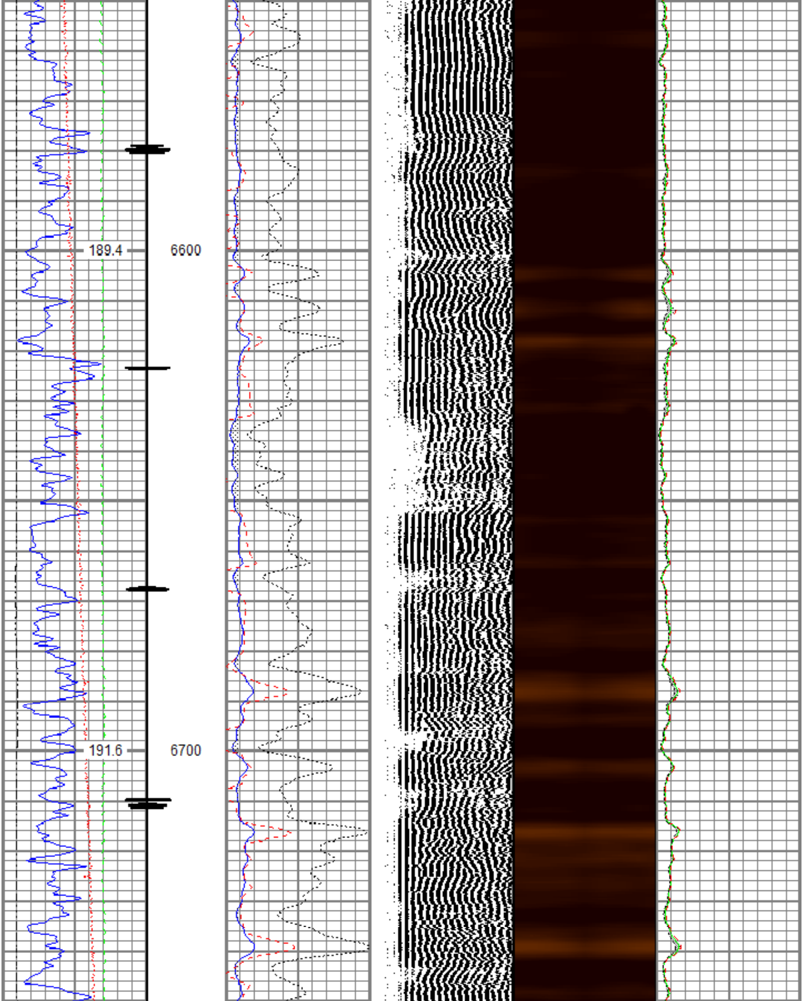
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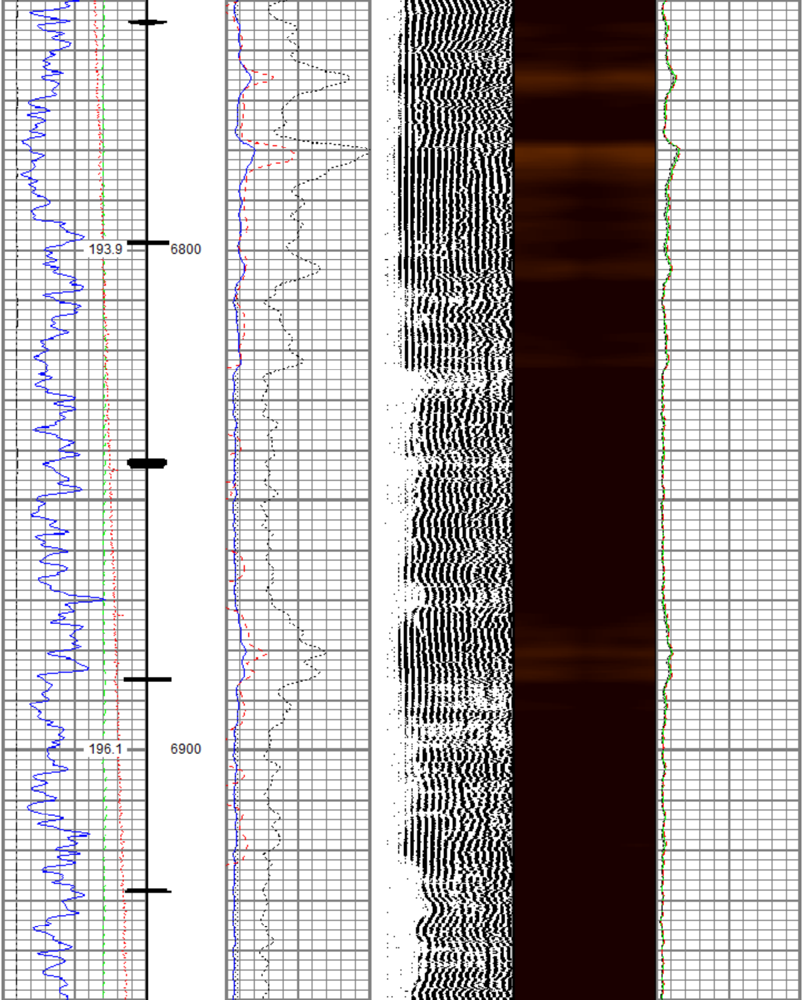
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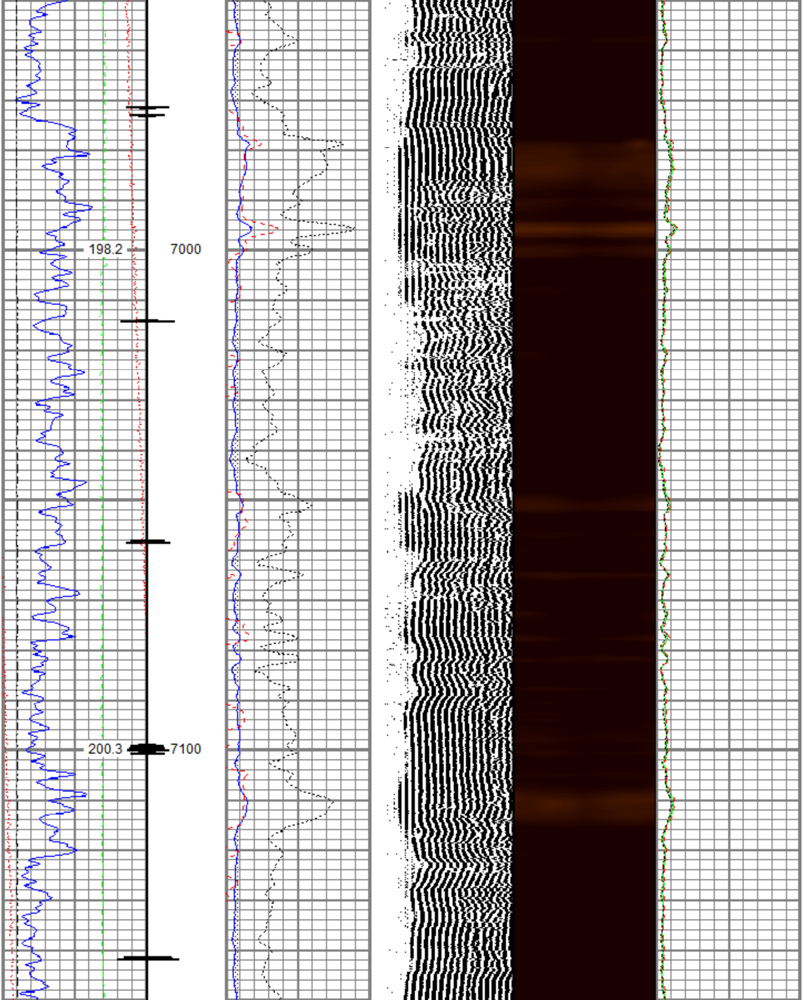
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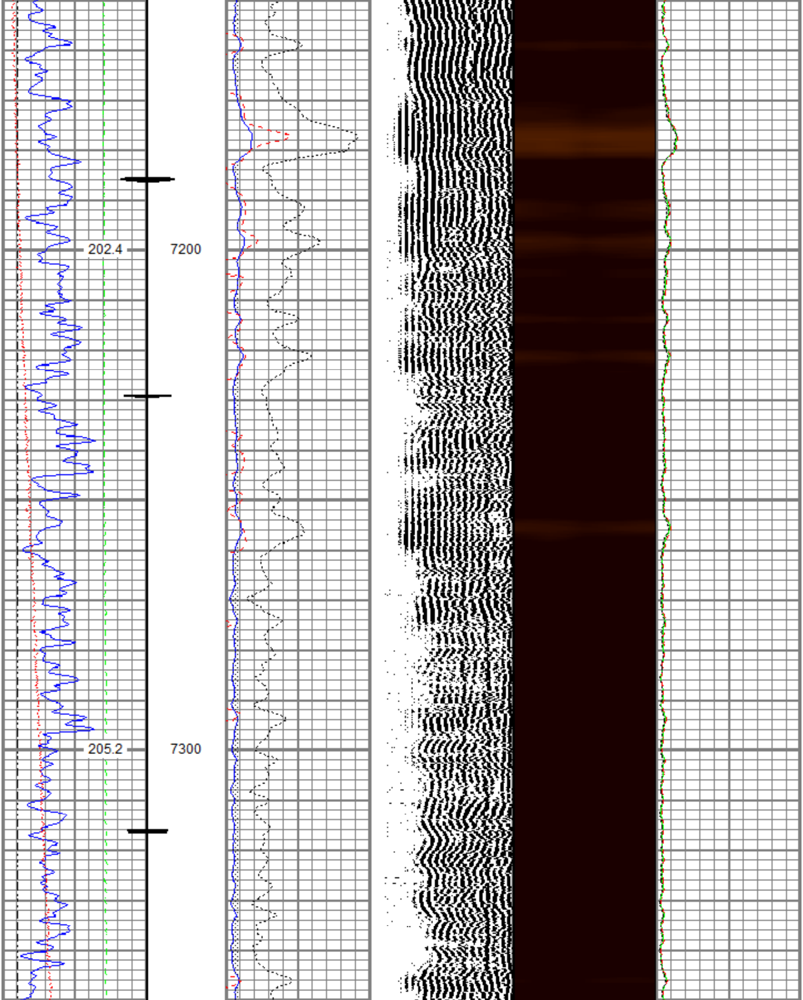
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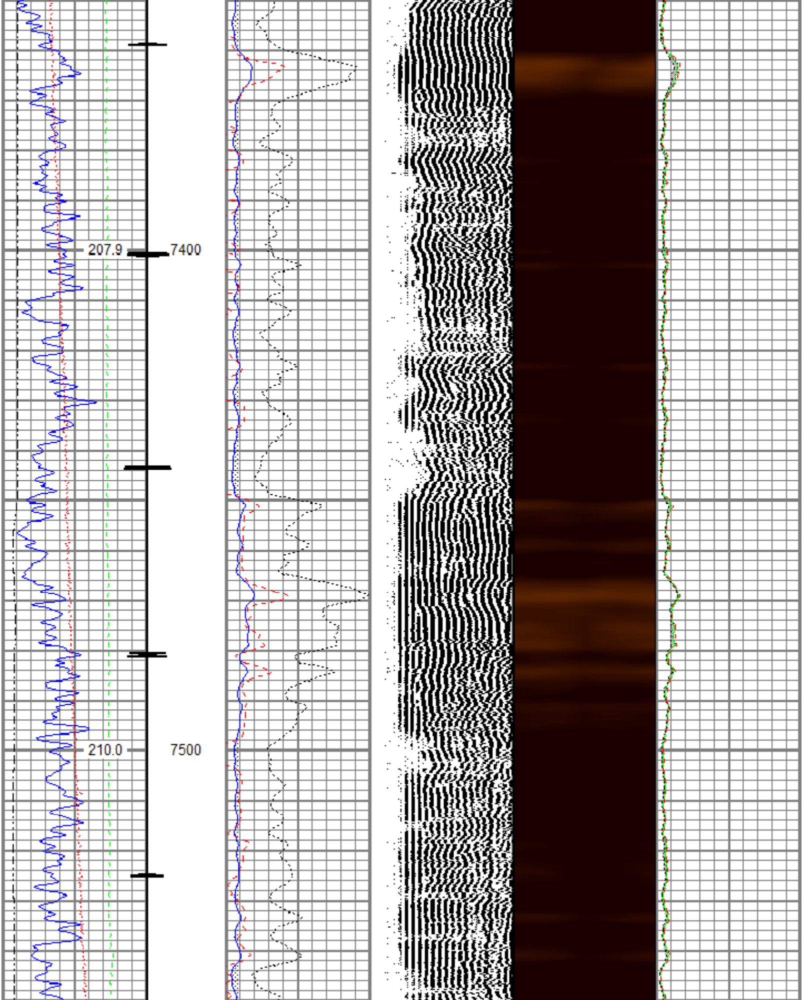
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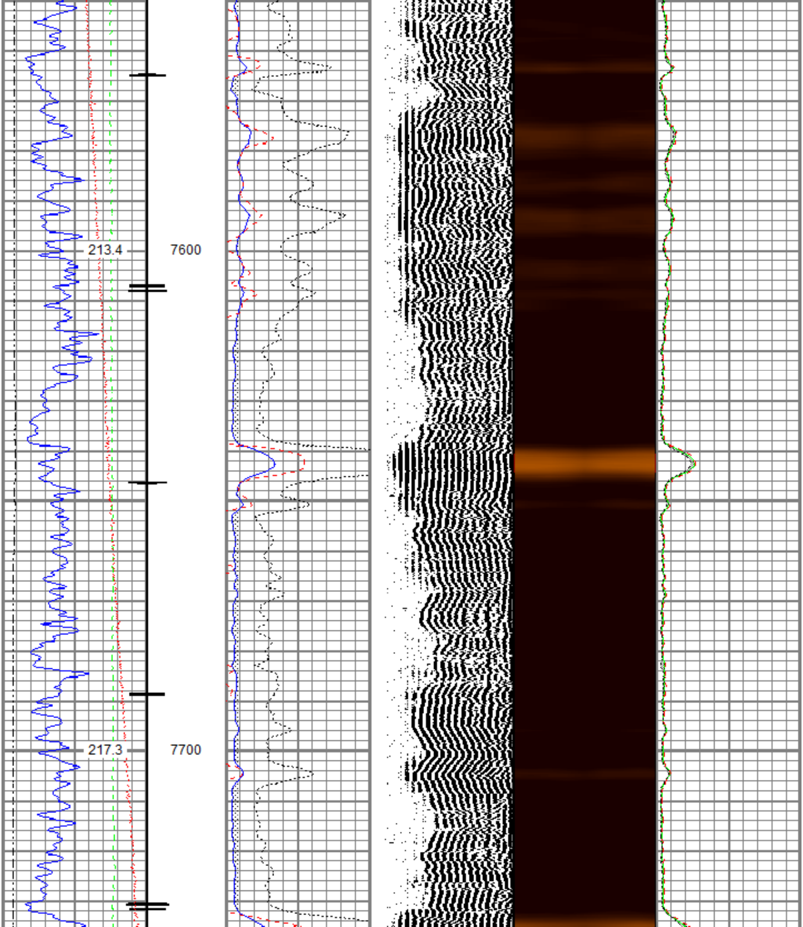
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Repeat Pass

Recorded with 0 PSI Surface Induced Pressure

Database File	tep_tri state trucking pa 343-26_rbl_12-11-17\processed_tep_tri state trucking pa 343-26_rbl_12-11-17.db
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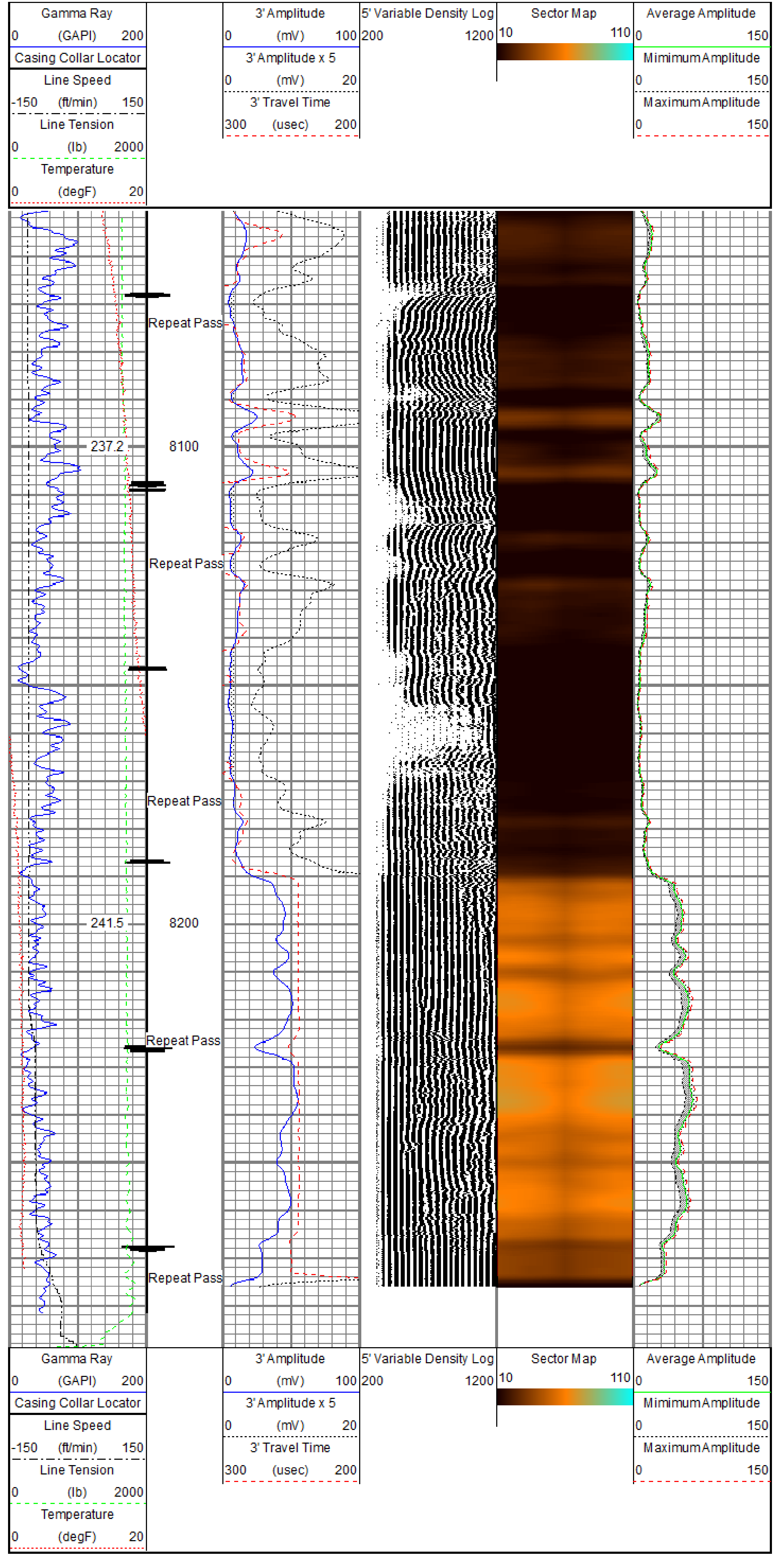
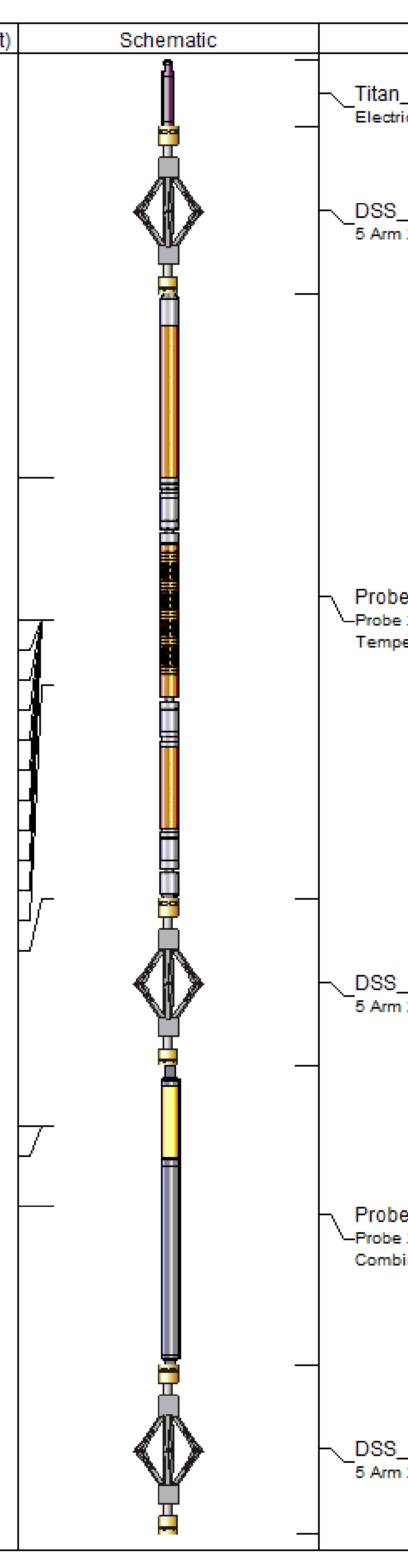
Presentation Format	ros_rbt004_tep
Dataset Creation	Tue Dec 12 15:42:33 2017
Charted by	Depth in Feet scaled 1:240



Sensor	Offset (ft)
Temp	16.05
WVFS8	13.88
WVFS7	13.88
WVFS6	13.88
WVFS5	13.88
WVFS4	13.88
WVFS3	13.88
WVFS2	13.88
WVFS1	13.88
WVFCAL	13.88
WVF3FT	13.88
WVF5FT	12.88
HeadVolt	9.63
DCCL	6.18
CCL	6.18
GR	4.96

Schematic



Description	Length (ft)	O.D. (in)	Weight (lb
Titan_Electric_Cable_Heads-Titan_1-11 Electric Cable Head with 1" Fishing Neck	1.03	1.69	5.40
DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
Probe_RADII-C-P_RBT_2750 (101013) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	9.19	2.75	105.00
DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
Probe_GR_CCL-P_CGR_2750_S (FW1304.548) Probe 2-3/4" Digital CCL / Gamma Ray Combined		2.75	55.00
DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00

Dataset:	processed_tep_tri state trucking pa 343-26_rbl_12-11-17.db: field/well/run1/main.1
Total length:	22.40 ft
Total weight:	261.40 lb
O.D.:	2.75 in

Calibration Report

Database File	c:\programdata\warrior\data\tep_tri state trucking pa 343-26_rbl_12-11-17\processed_tep_tri state trucking p
Dataset Pathname	main.1
Dataset Creation	Tue Dec 12 15:27:07 2017

Gamma Ray Calibration Report

Serial Number:	FW1307-038	
Tool Model:	P_CGR_2750_S	
Performed:	Sat Feb 06 11:43:09 2016	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.6	cps
Sensitivity:	0.6061	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	101013	
Tool Model:	P_RBT_2750	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	32.658	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.032	0.543	0.000	81.196	141.180	4.576
CAL	-0.006	0.767				
5'	-0.006	0.529	0.000	81.196	151.735	0.971
SUM						
S1	-0.035	0.565	0.000	100.000	166.670	5.750
S2	-0.036	0.565	0.000	100.000	166.270	6.002
S3	-0.037	0.550	0.000	100.000	170.471	6.292
S4	-0.033	0.562	0.000	100.000	168.108	5.597
S5	-0.032	0.604	0.000	100.000	157.266	5.044
S6	-0.032	0.563	0.000	100.000	168.087	5.317
S7	-0.034	0.550	0.000	100.000	171.257	5.776
S8	-0.033	0.567	0.000	100.000	166.843	5.431

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.006	0.767	1.000	0.000

Air Zero Calibration, performed Mon Dec 11 22:37:01 2017:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	-0.005	0.000	0.001
5'	-0.001	0.000	0.000
SUM			
S1	-0.003	0.000	-0.000
S2	-0.004	0.000	0.000
S3	-0.005	0.000	0.000
S4	-0.003	0.000	-0.000
S5	-0.003	0.000	0.000
S6	-0.004	0.000	0.000
S7	-0.005	0.000	-0.000
S8	-0.003	0.000	0.000

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