RELIANCE
OILFIELD SERVICES

Radial Cement Bond Gamma Ray Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Tri State Trucking PA 43-26
Field	Parachute
County	Garfield
State	Colorado

Company TEP Rocky Mountain LLC
Well Tri State Trucking PA 43-26
Field Parachute
County Garfield State Colorado
Location: API # : 05-045-23640
2285' FNL & 1842' FWL SENW
SEC 25 TWP 6S RGE 95W

Other Services
--

Permanent Datum	Ground Level	Elevation	5224'
Log Measured From	Kelly Bushing	24 FT	
Drilling Measured From	Kelly Bushing		

Elevation
K.B. 5248'
D.F. 5247'
G.L. 5224'

Date	04-DEC-2017
Run Number	One
Depth Driller	8307 FT
Depth Logger	8236 FT
Bottom Logged Interval	8236 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	9:30
Equipment Number	HD-0359
Location	Grand Junction, CO
Recorded By	A. Ellsworth
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	1130 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	8265 FT
Intermediate #2					
Liner					

<<< Fold Here >>>

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 per customer request
Depth referenced to Kelly Bushing at 24 FT
Marker joint from 4235 FT to 4258 FT
Log ran from 8236 FT to Surface

Thank you for choosing Reliance Oilfield Services, LLC!!

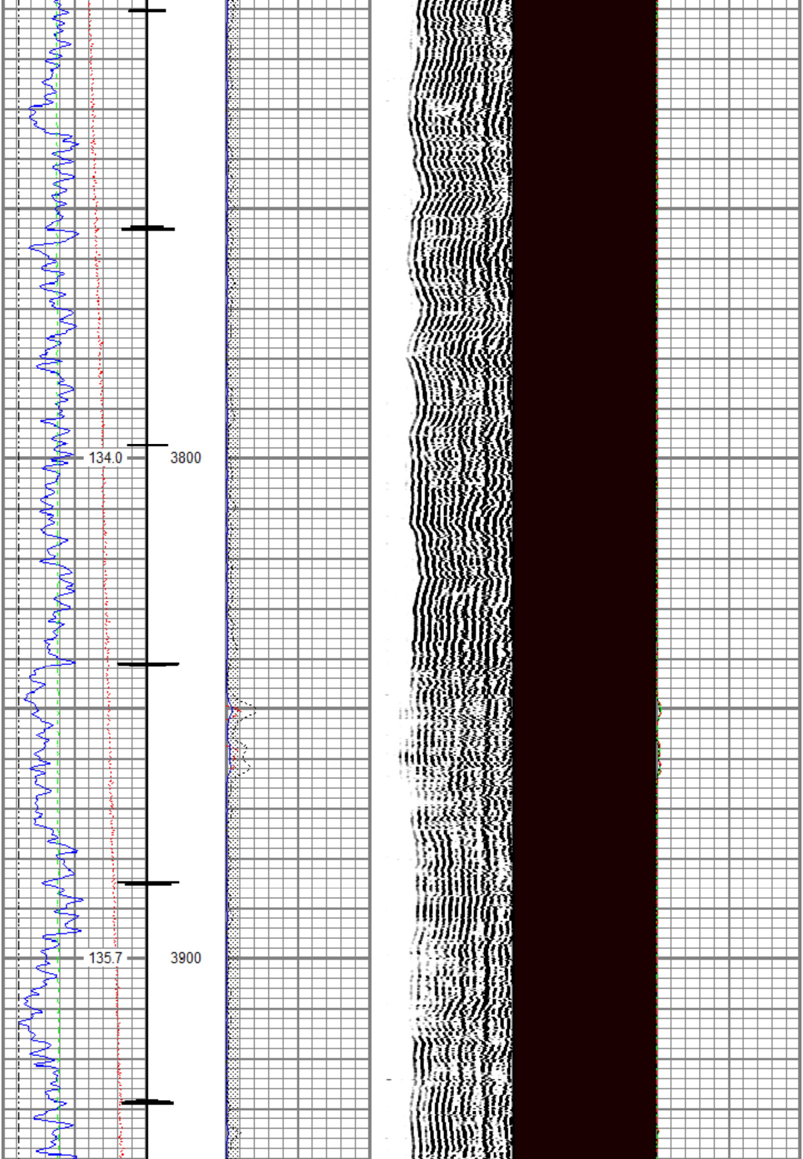
RELIANCE
OILFIELD SERVICES

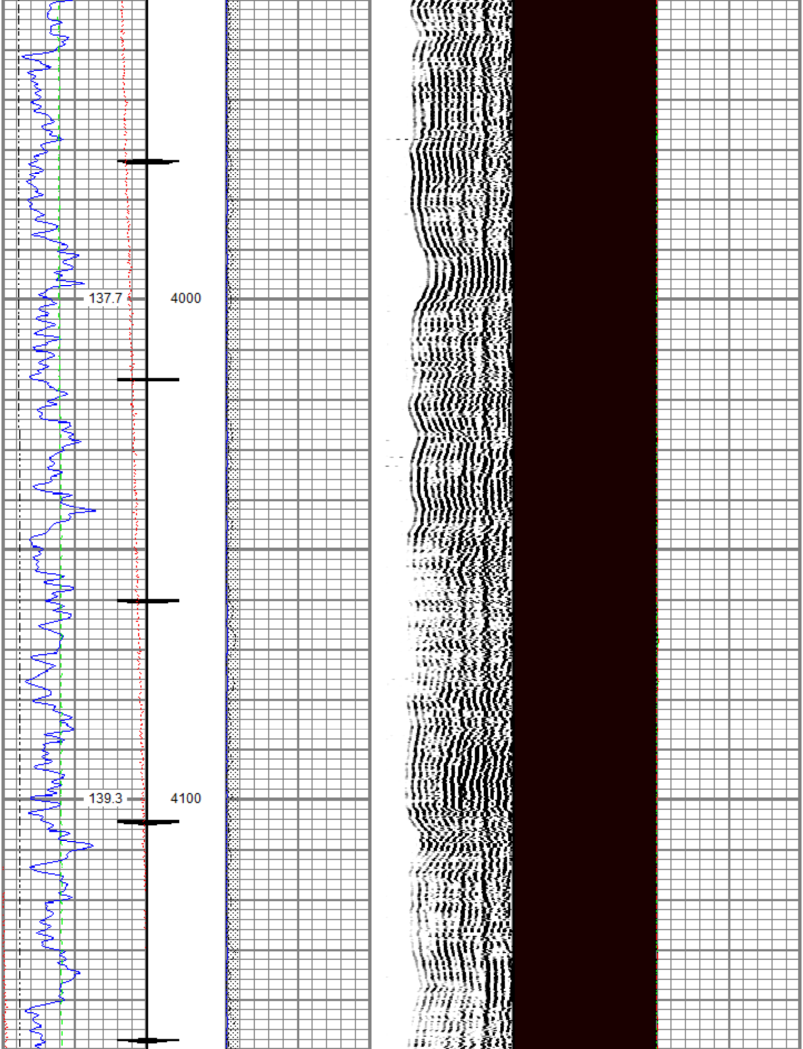
Main Pass

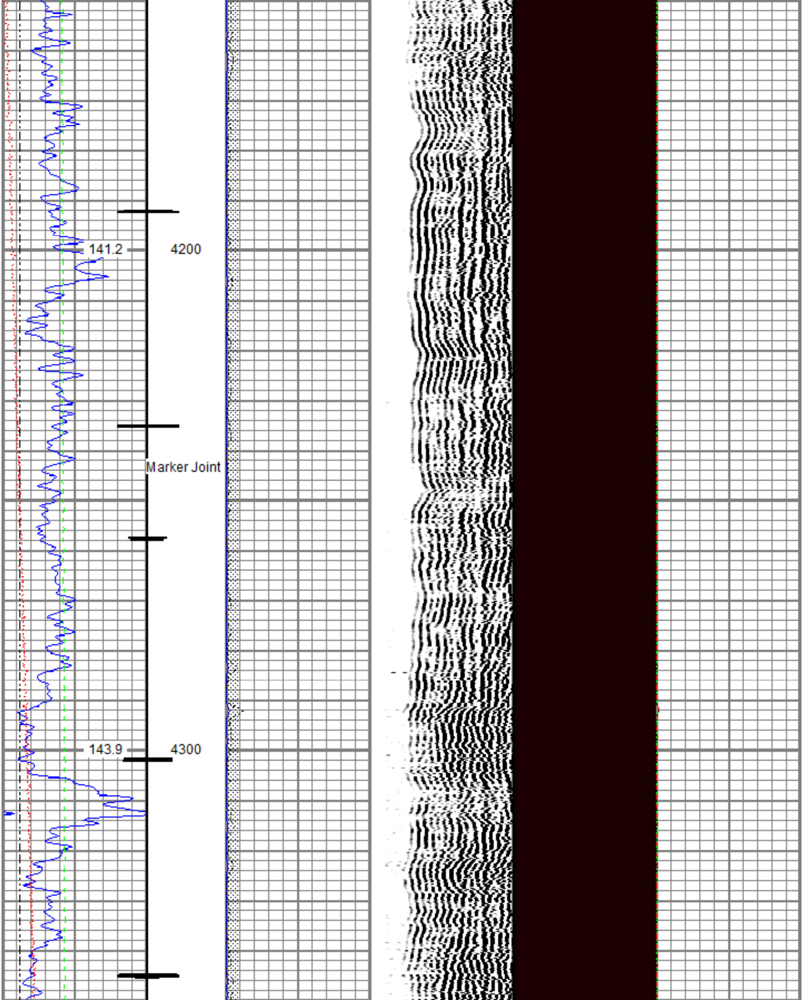
Recorded With 0 PSI Surface Induced Pressure

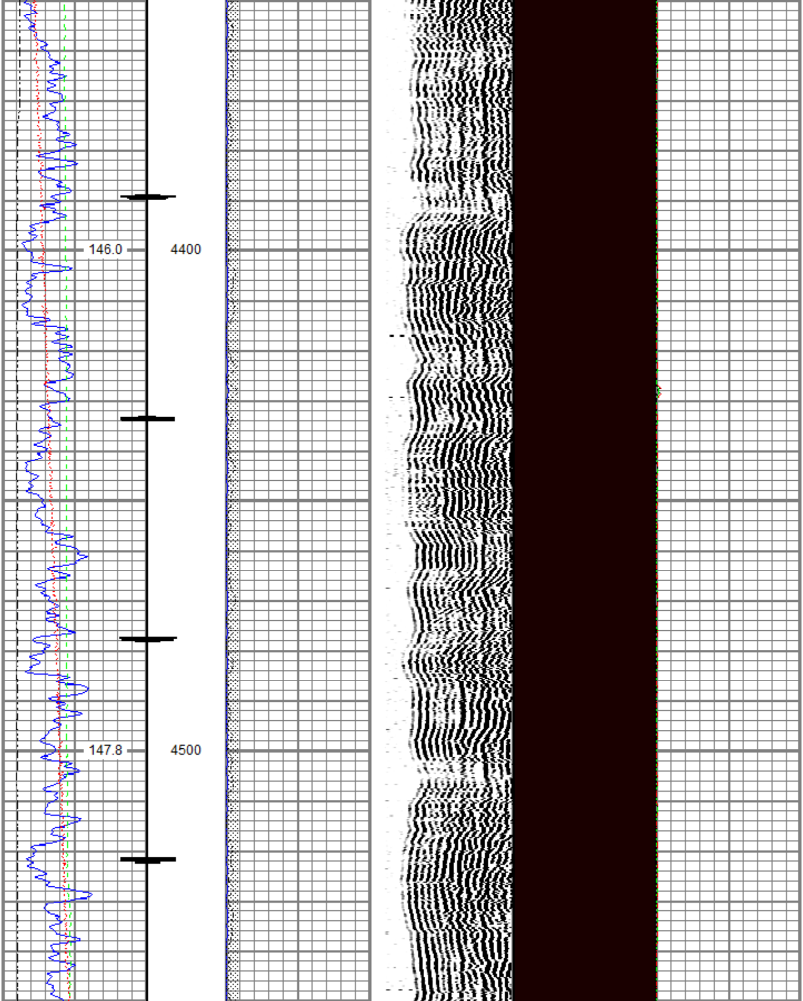
Database File	tep_tri state trucking pa 43-26_rbl_12-04-17\tep_tri state trucking pa 43-26_rbl_12-04-17.db
Dataset Pathname	main
Presentation Format	ros_rbt004_tep
Dataset Creation	Mon Dec 04 09:26:31 2017
Charted by	Depth in Feet scaled 1:240

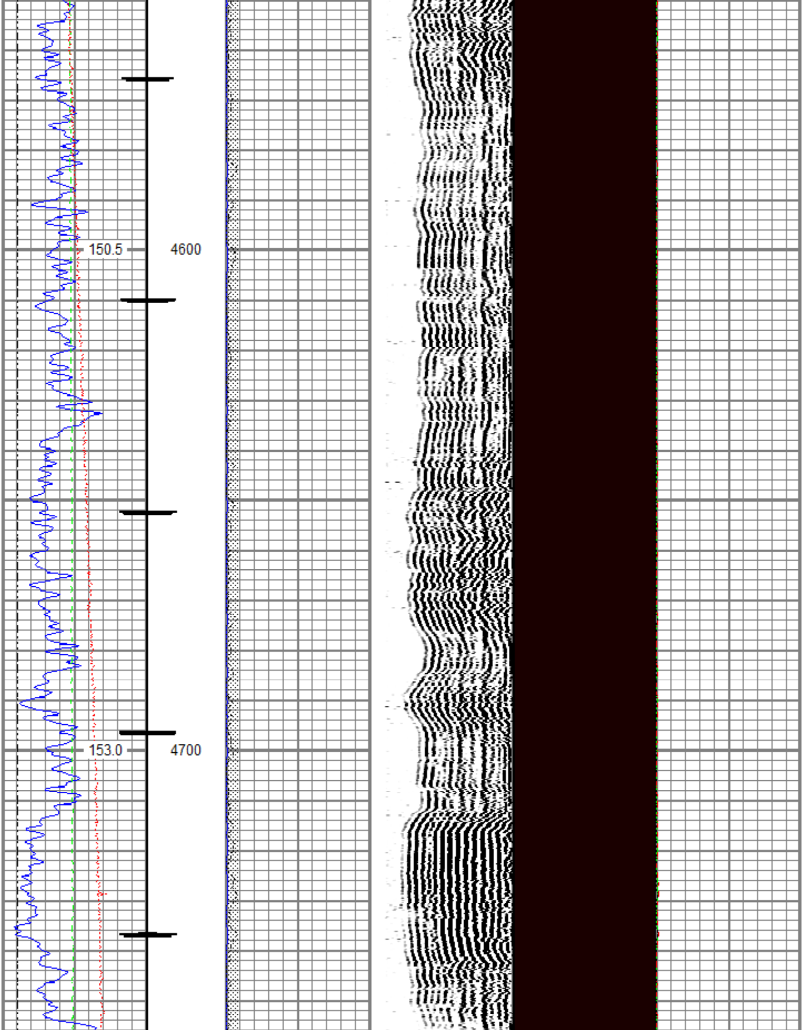
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200	0 (mV) 100	200 1200	10 110	0 150
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Line Speed	0 (mV) 20			0 150
-150 (ft/min) 150	3' Travel Time			Maximum Amplitude
Line Tension	300 (usec) 200			0 150
0 (lb) 2000				
Temperature				
0 (degF) 20				

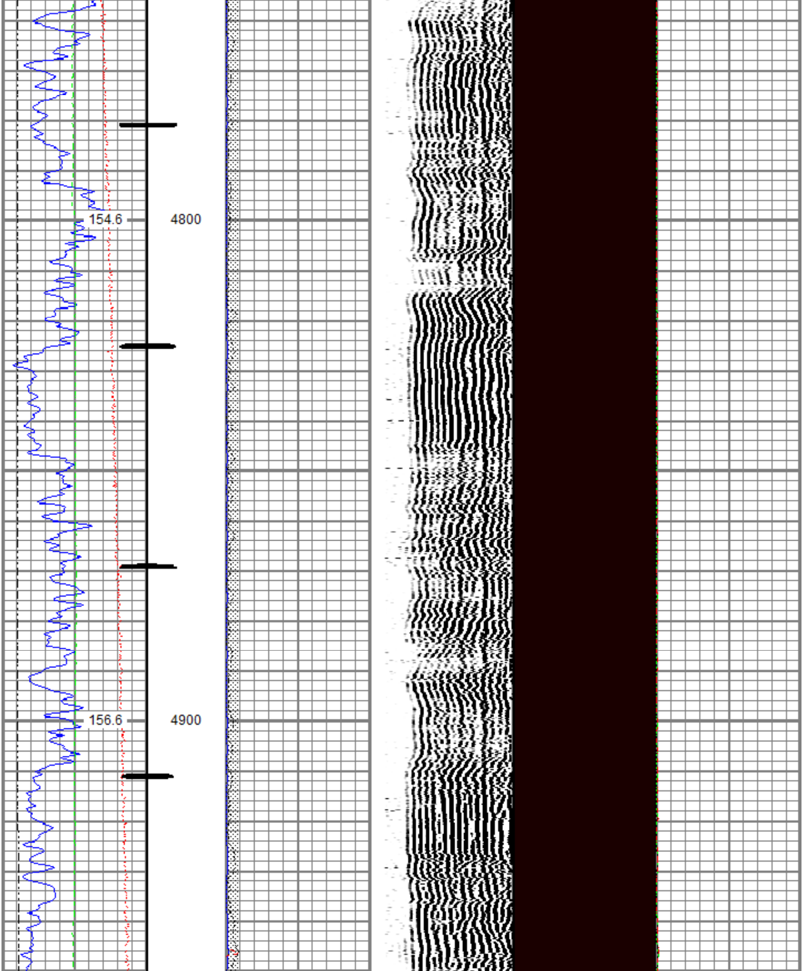

134.0
3800
135.7
3900


137.7
4000
139.3
4100

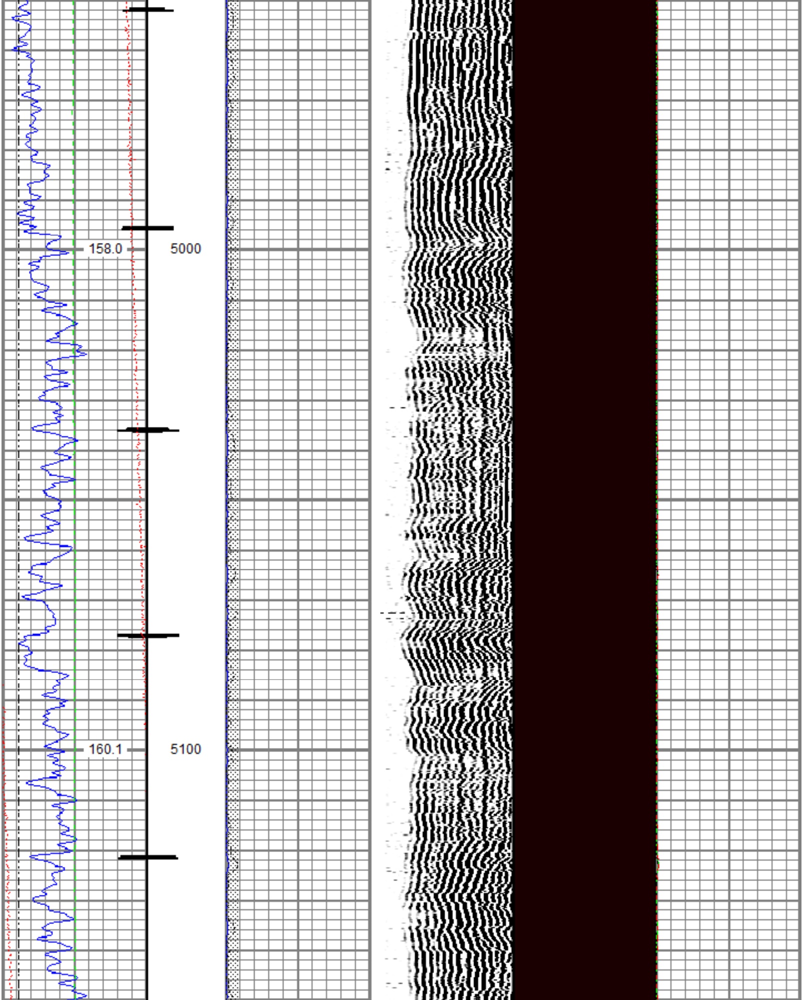

141.2
4200
Marker Joint
143.9
4300

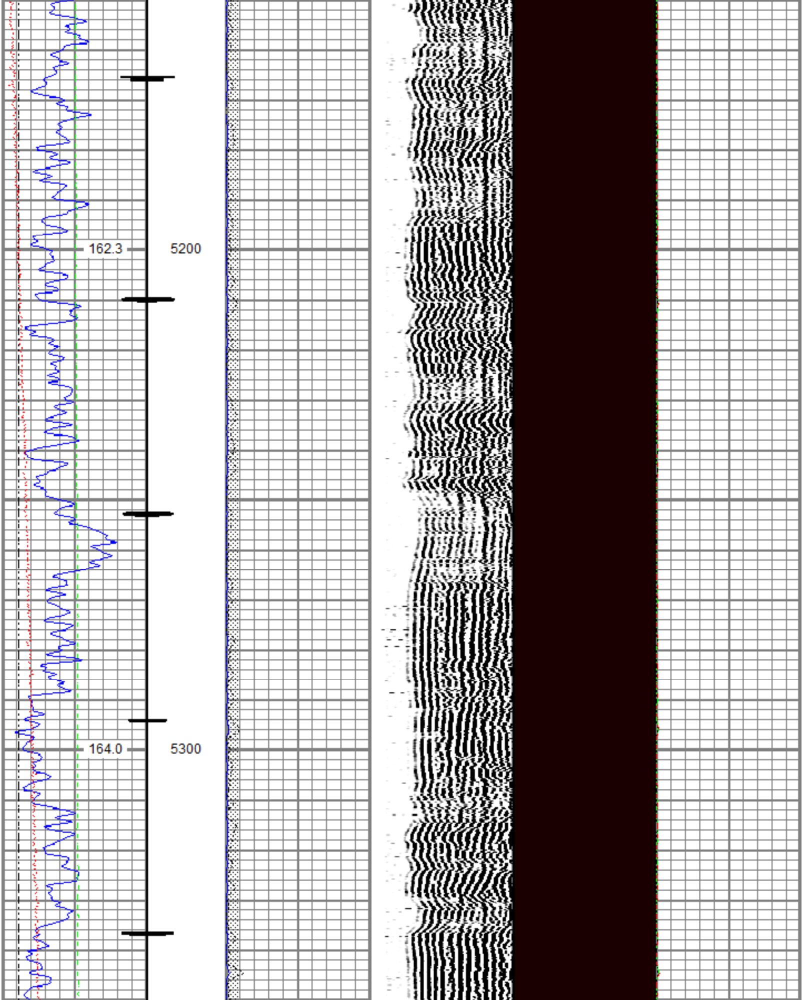

146.0
4400
147.8
4500

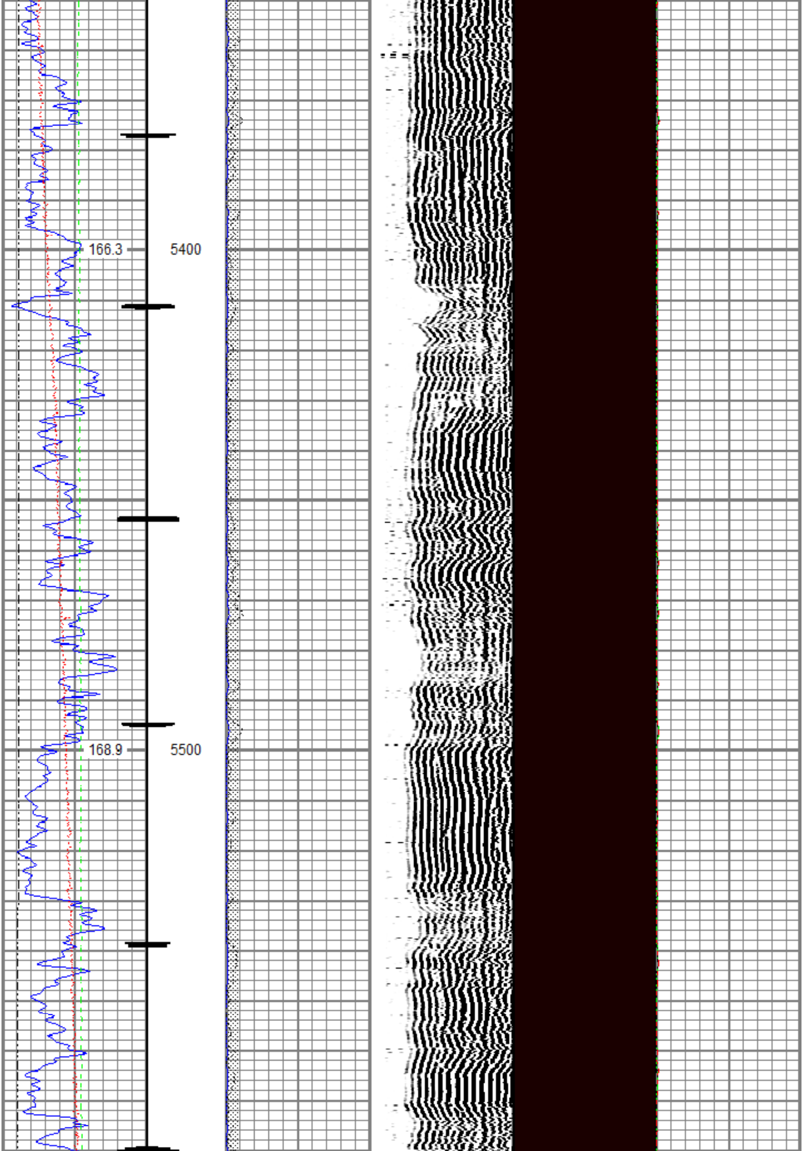

150.5
4600
153.0
4700

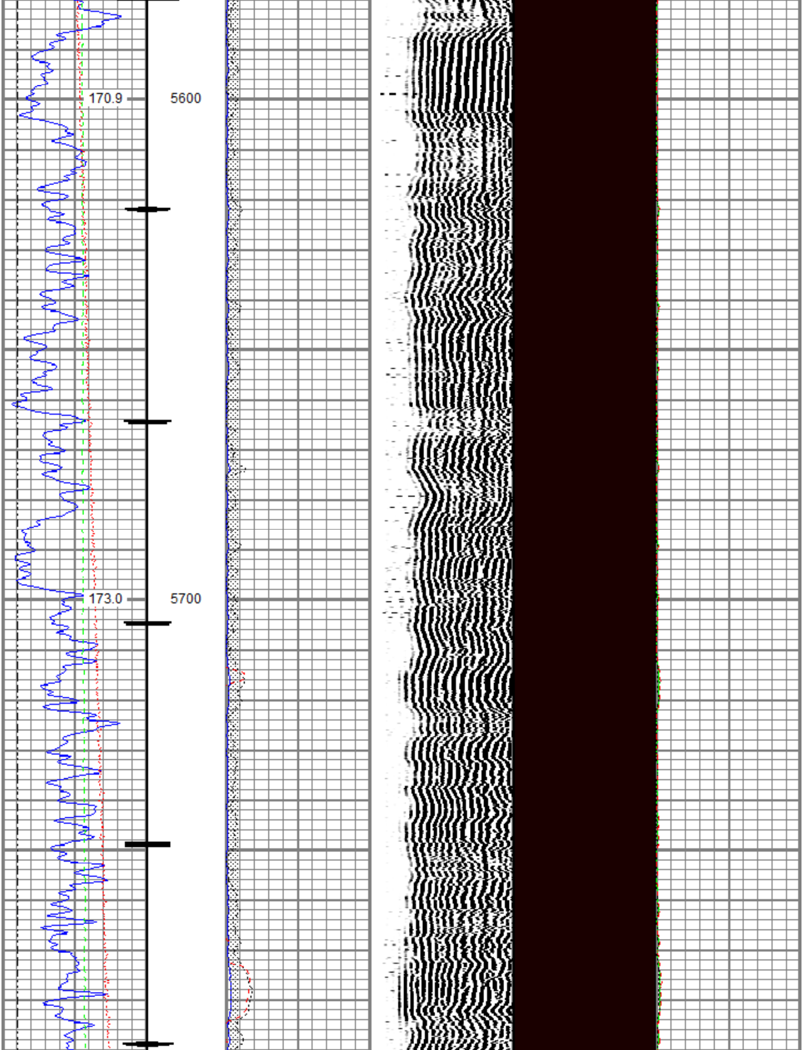


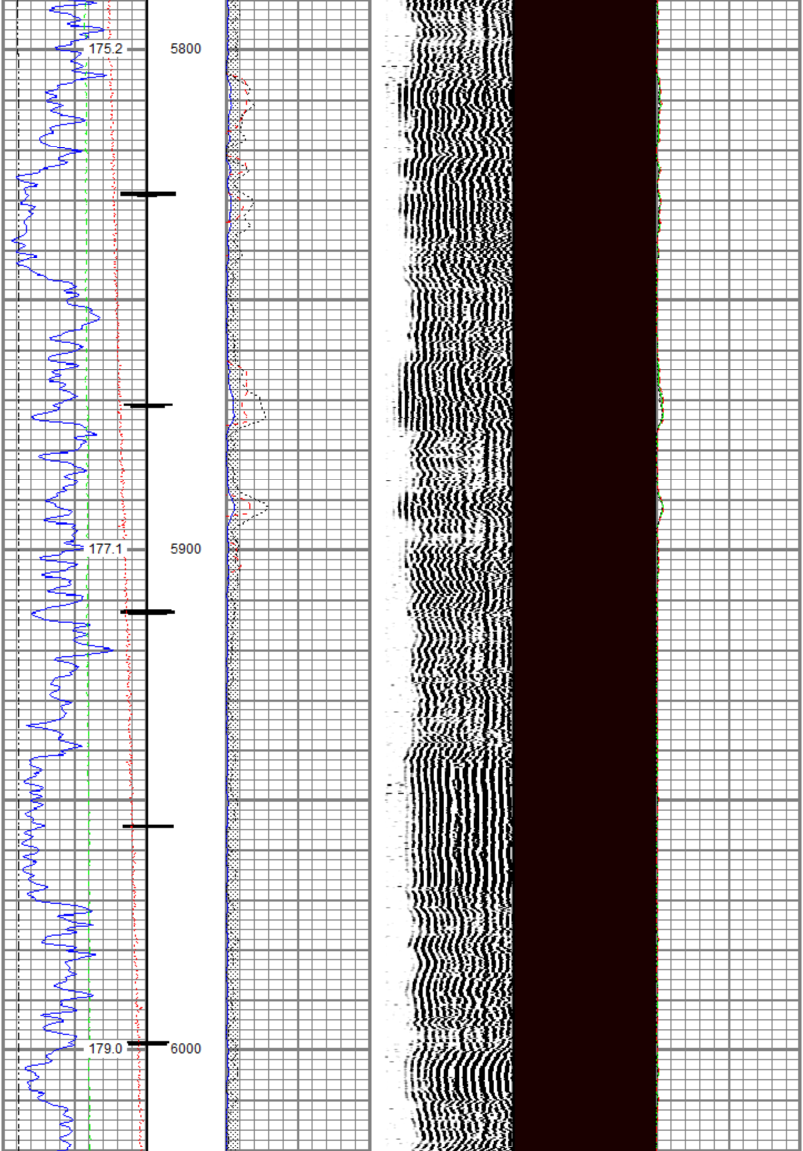
154.6
4800
156.6
4900

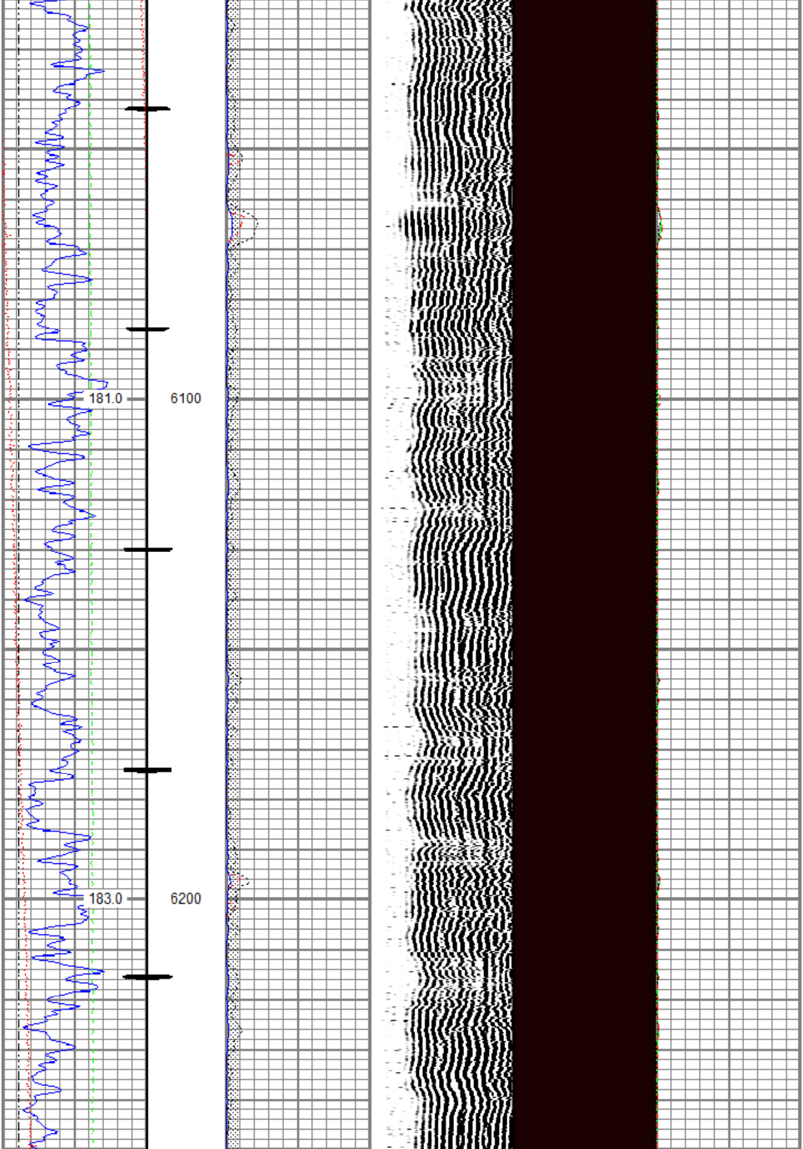

158.0
5000
160.1
5100

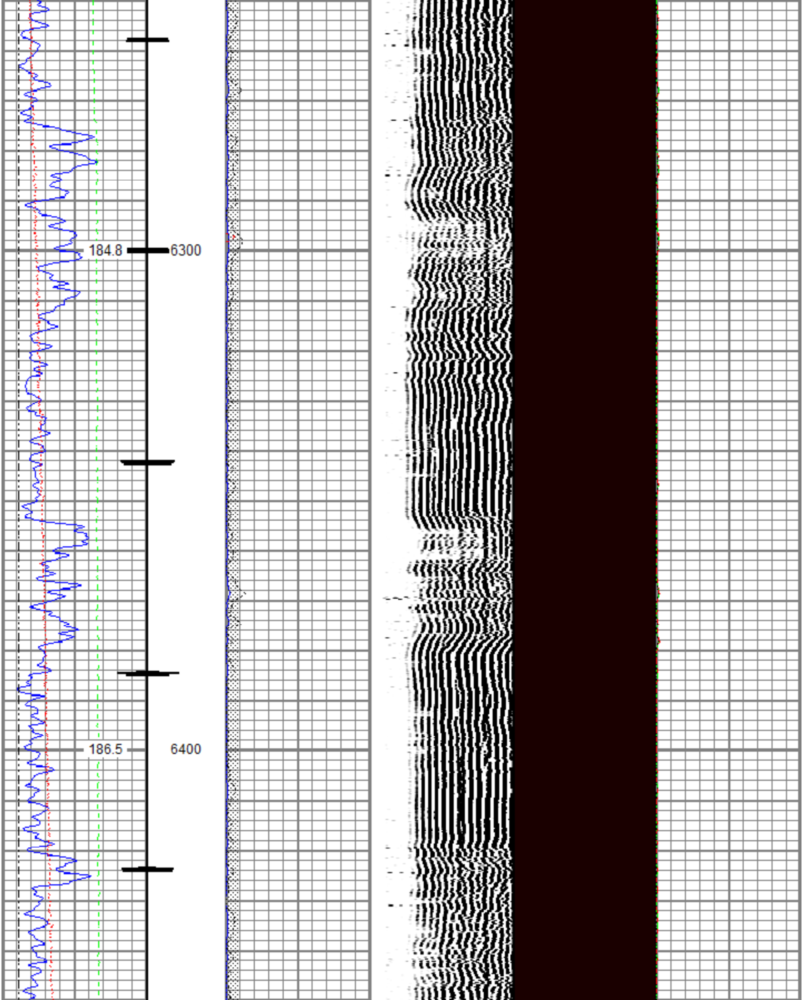

162.3
5200
164.0
5300

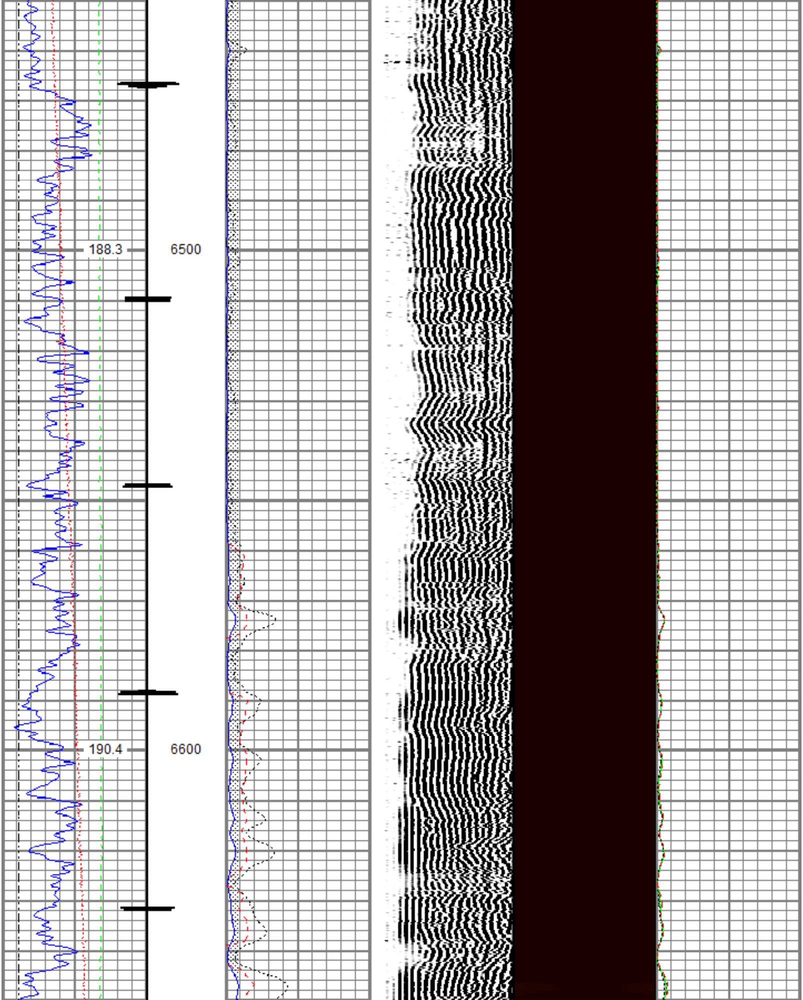

166.3
5400
168.9
5500

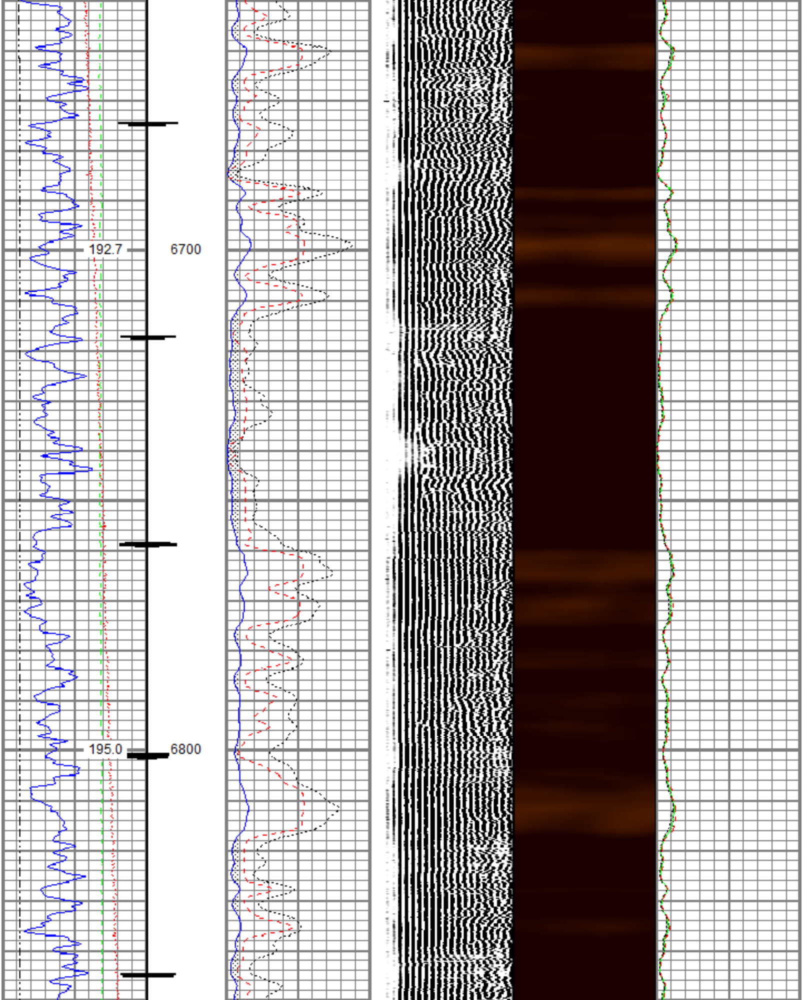

170.9
5600
173.0
5700

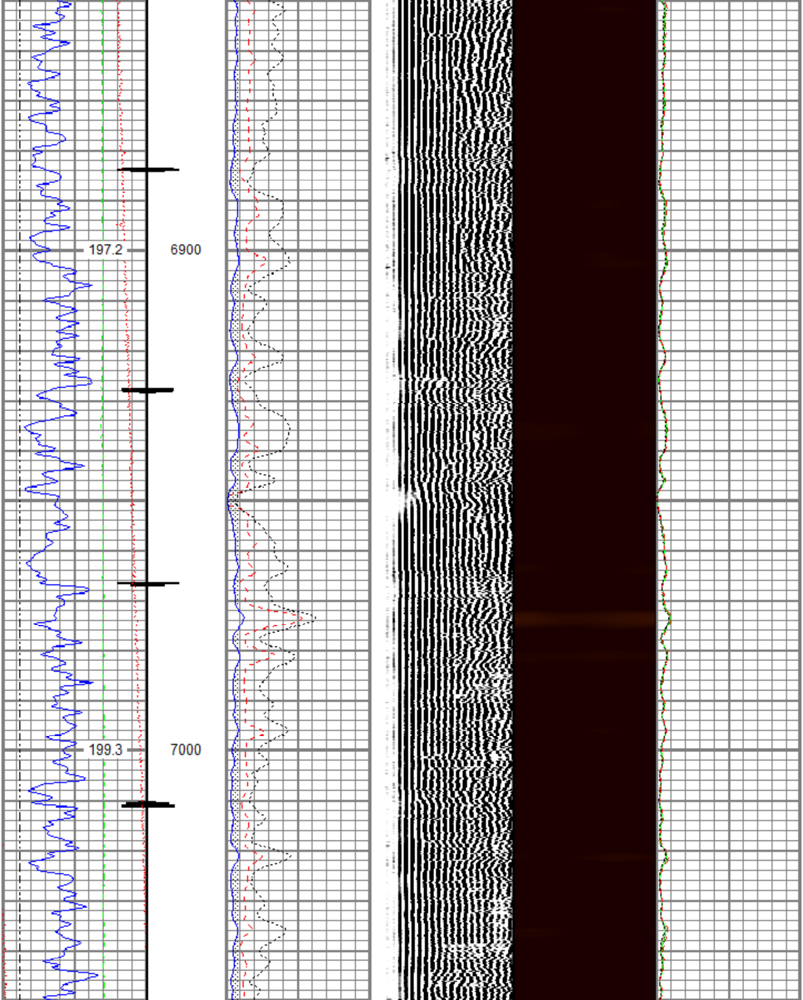

175.2
5800
177.1
5900
179.0
6000

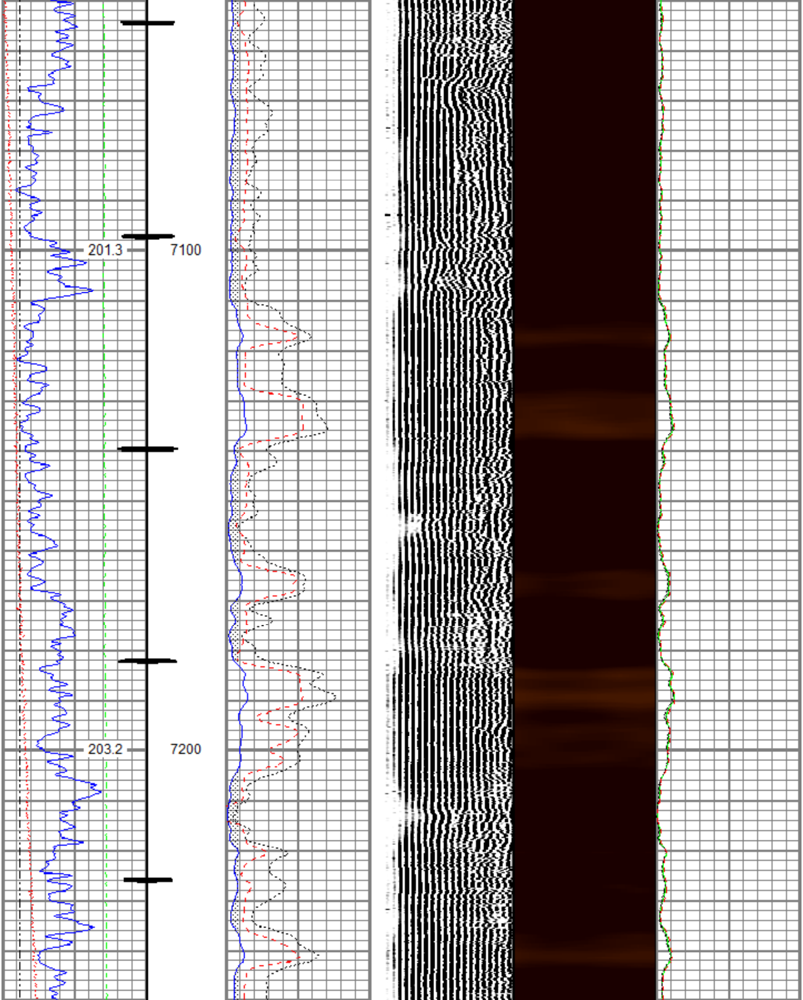

181.0
6100
183.0
6200

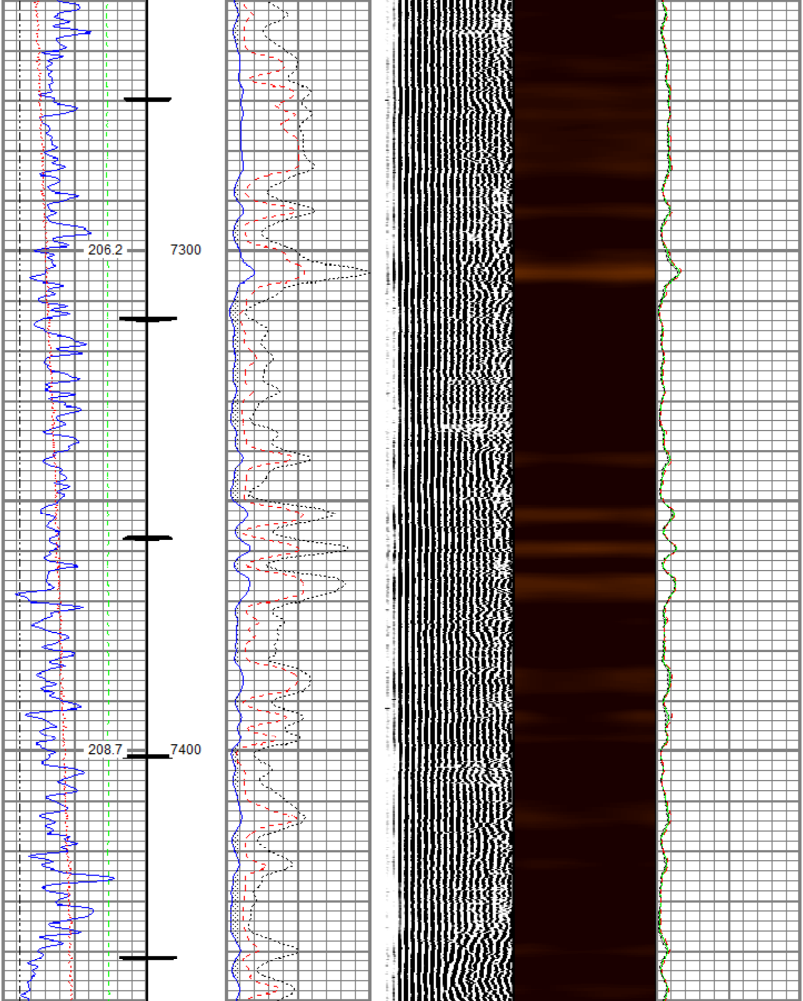

184.8
6300
186.5
6400

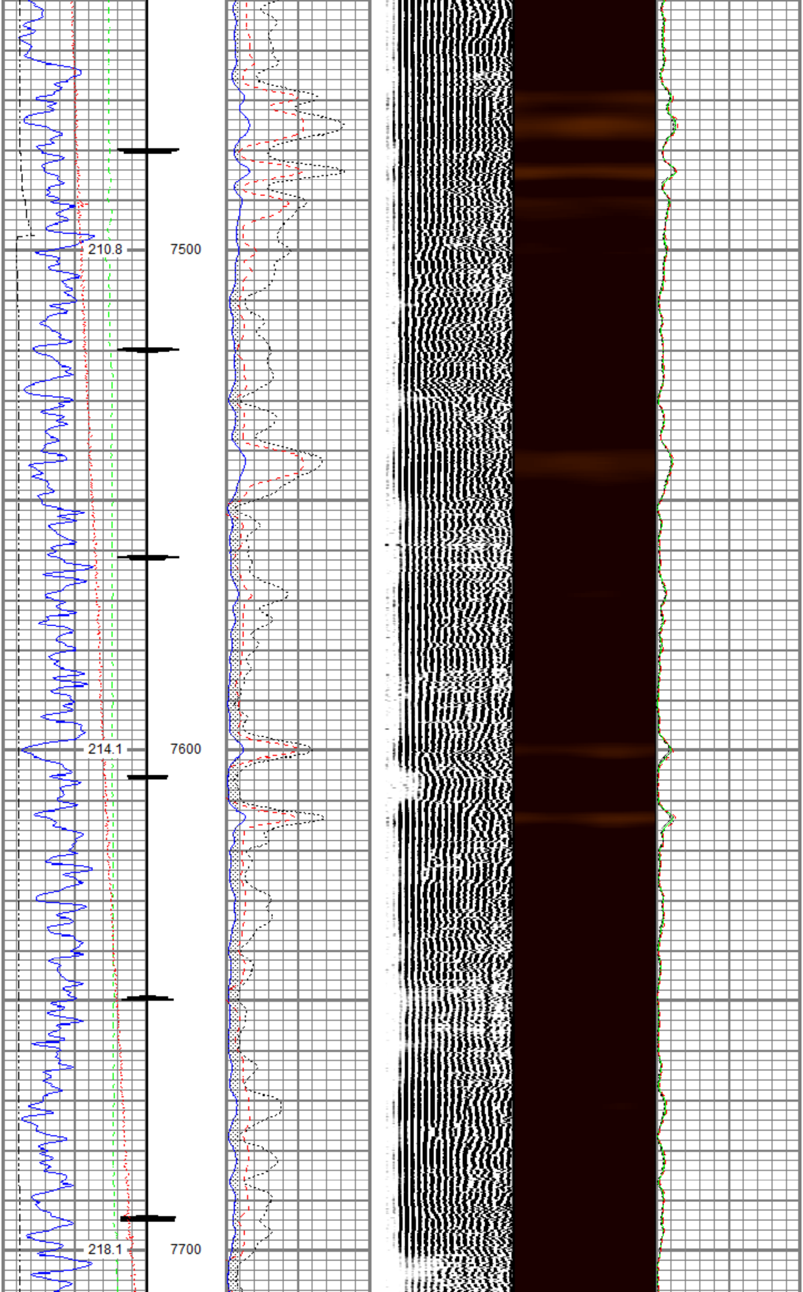

188.3
6500
190.4
6600

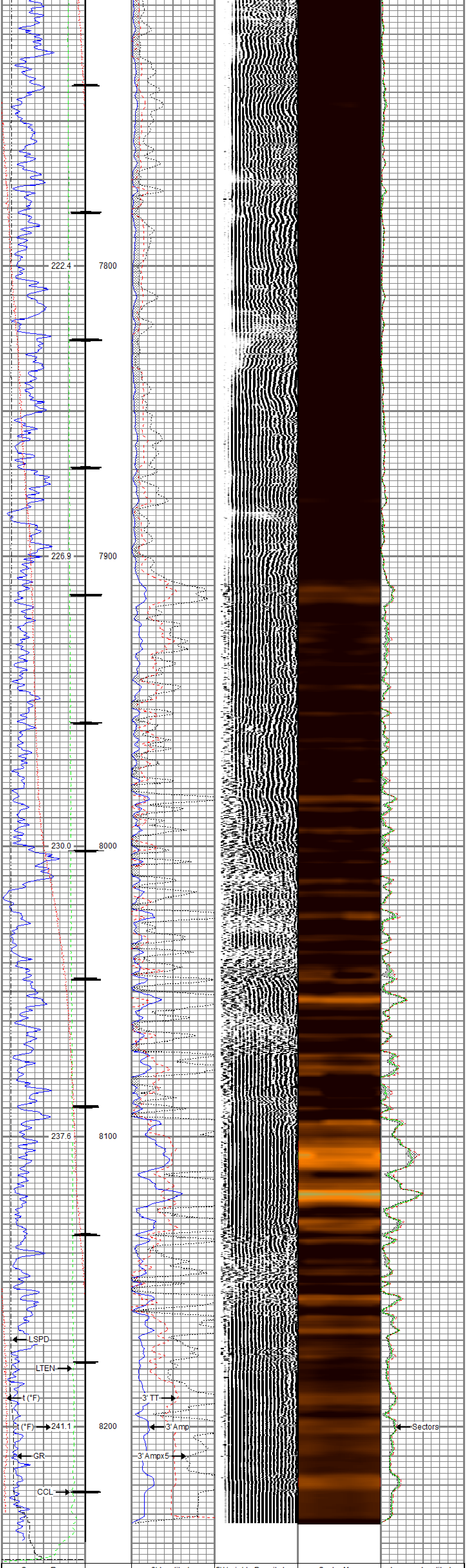

192.7
6700
195.0
6800


197.2
6900
199.3
7000


201.3
7100
203.2
7200


206.2
7300
208.7
7400


210.8
7500
214.1
7600
218.1
7700



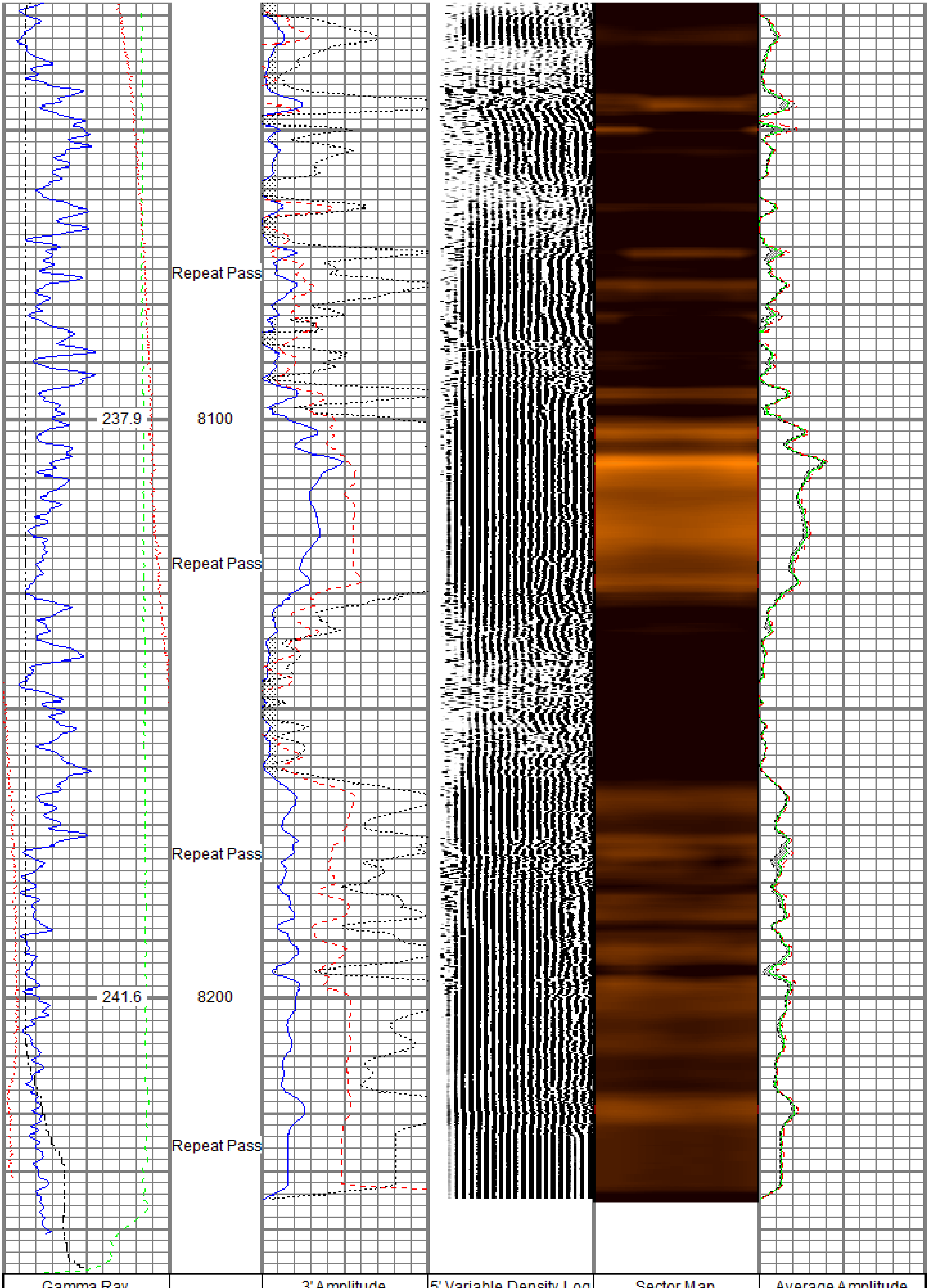
Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map 10 110	Average Amplitude 0 150
Casing Collar Locator	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Line Tension 0 (lb) 2000				
Temperature 0 (degF) 20				

Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File	tep_tri state trucking pa 43-26_rbl_12-04-17\tep_tri state trucking pa 43-26_rbl_12-04-17.db
Dataset Pathname	repeat
Presentation Format	ros_rbt004_tep
Dataset Creation	Mon Dec 04 09:22:18 2017
Charted by	Depth in Feet scaled 1:240

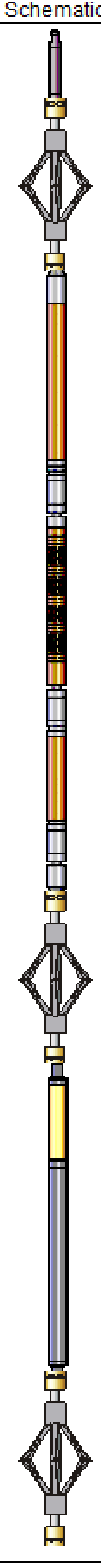
Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map 10 110	Average Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
Line Tension 0 (lb) 2000	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Temperature 0 (degF) 20				



Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map 10 110	Average Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
Line Tension 0 (lb) 2000	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Temperature 0 (degF) 20				

Sensor	Offset (ft)
HeadVolt	18.84
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_1-1/1 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)	4.548)	2.75	55.00
DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00

Probe 2-3/4" Digital CCL / Gamma Ray Combined

Dataset:	TEP_Tri State Trucking PA 43-26_RBL_12-04-17.db: field/well/run1/main
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 43-26_RBL_12-04-17\TEP_Tri State Trucking PA 4
Dataset Pathname	main
Dataset Creation	Mon Dec 04 09:26:31 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:	-3.729	ft

Master Calibration, performed Mon Dec 04 08:54:31 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.004	0.765	0.000	81.196	105.532	0.432
CAL	-0.006	0.750				
5'	-0.001	0.687	0.000	81.196	117.959	0.104
SUM						
S1	-0.003	0.753	0.000	100.000	132.287	0.396
S2	-0.004	0.756	0.000	100.000	131.615	0.493
S3	-0.005	0.743	0.000	100.000	133.660	0.654
S4	-0.003	0.759	0.000	100.000	131.150	0.424
S5	-0.003	0.754	0.000	100.000	132.197	0.361
S6	-0.003	0.759	0.000	100.000	131.133	0.424
S7	-0.004	0.751	0.000	100.000	132.370	0.557
S8	-0.003	0.769	0.000	100.000	129.501	0.398

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.006	0.750	1.000	0.000

Air Zero Calibration, performed Mon Dec 04 08:54:50 2017:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	-0.004	0.000	0.000
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	-0.003	0.000	0.000
S7	-0.004	0.000	0.000
S8	-0.003	0.000	-0.000

Company	TEP Rocky Mountain LLC
Well	Tri State Trucking PA 43-26
Field	Parachute
County	Garfield
State	Colorado