Company	TEP Rocky Mountain LLC
Well	Federal RG 344-7-297
Field	Sulphur Creek
County	Rio Blanco
State	Colorado

Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	TEP Rocky Mountain LLC		
Well	Federal RG 344-7-297		
Field	Sulphur Creek		
County	Rio Blanco	State	Colorado

Location: API # : 05-103-12463

SEC 18 TWP 2S RGE 97W

Other Services
PN

Permanent Datum	Ground Level	Elevation	6621'	Elevation K.B. 6651' D.F. 6650' G.L. 6621'
Log Measured From	Kelly Bushing	30 FT		
Drilling Measured From	Kelly Bushing			

Date	09-AUG-2021		
Run Number	One		
Depth Driller	12199 FT		
Depth Logger	12138 FT		
Bottom Logged Interval	12123 FT		
Top Log Interval	Surface		
Open Hole Size	8.75"		
Type Fluid	Water		
Density / Viscosity	8.34 lb/gal		
Max. Recorded Temp.	274°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	---		

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	13 3/8	54.5	J-55	Surface	1423 FT
Intermediate #1	9 5/8	36	J-55	Surface	3317 FT
Intermediate #2	4 1/2	11.6	P-110	Surface	12157 FT
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

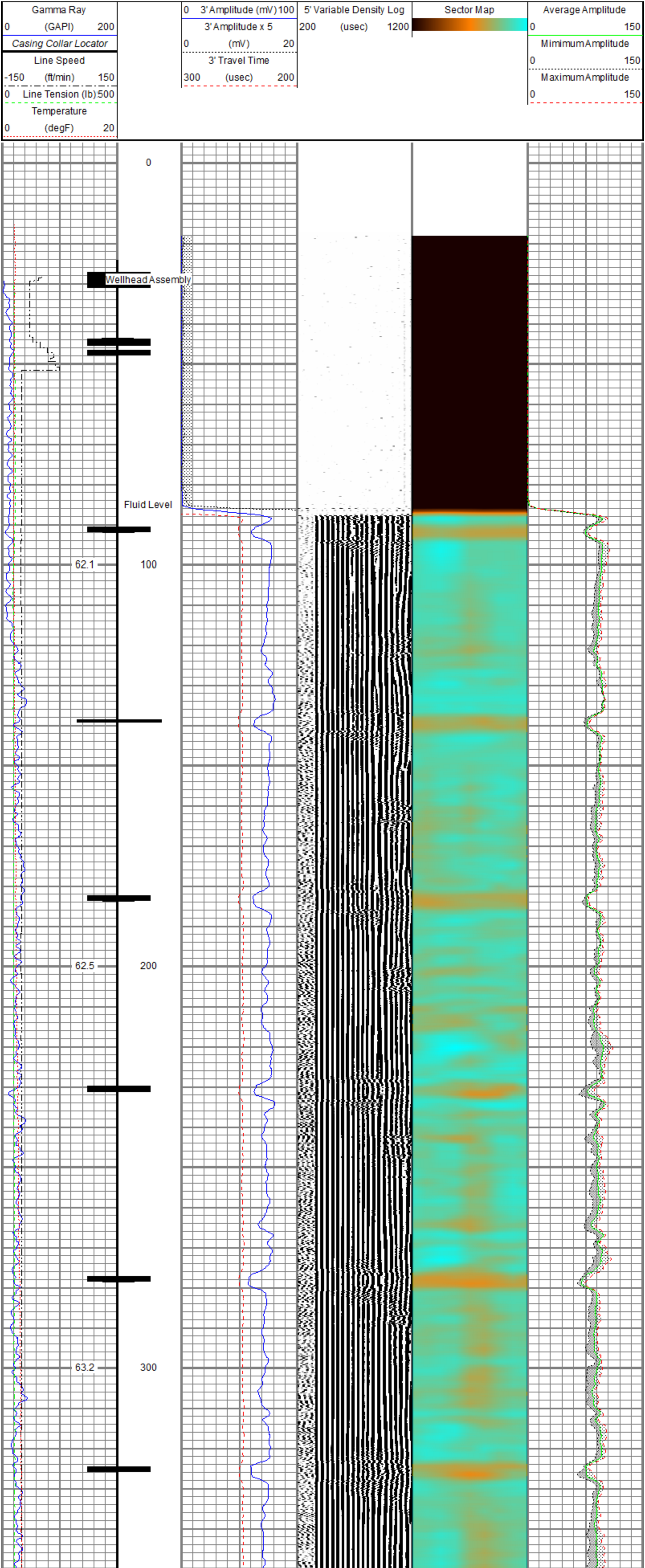
Log ran as per customer request
Depth referenced to Kelly Bushing at 30 FT
Marker Joint recorded from 6464 to 6474 FT
Recorded with 0 PSI Surface Induced Pressure

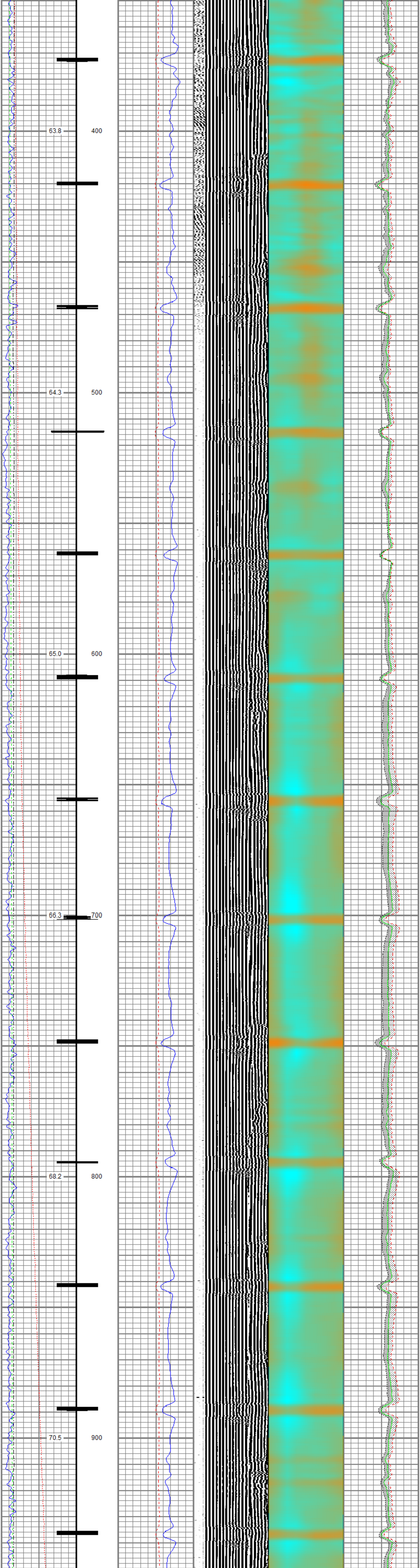
Thank you for choosing Reliance Oilfield Services, LLC!

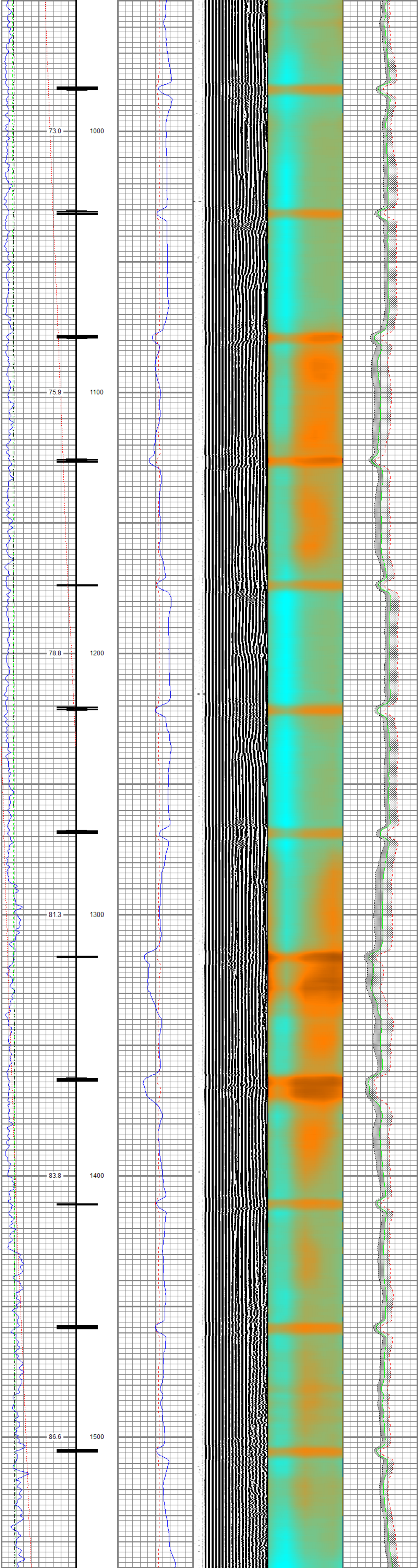
Main Pass

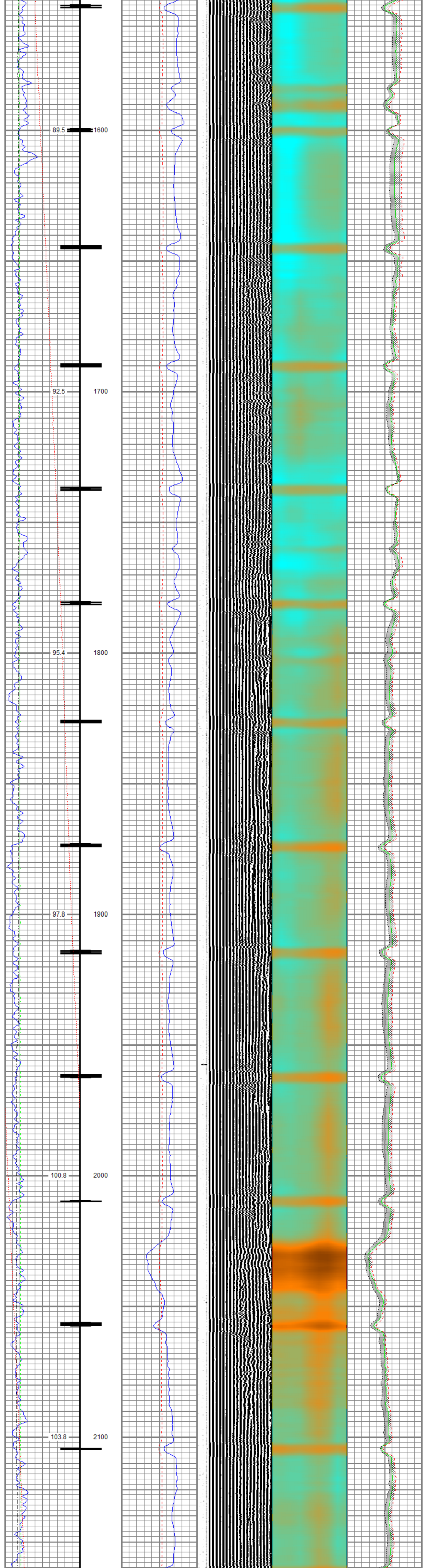
Recorded With 0 PSI Surface Induced Pressure

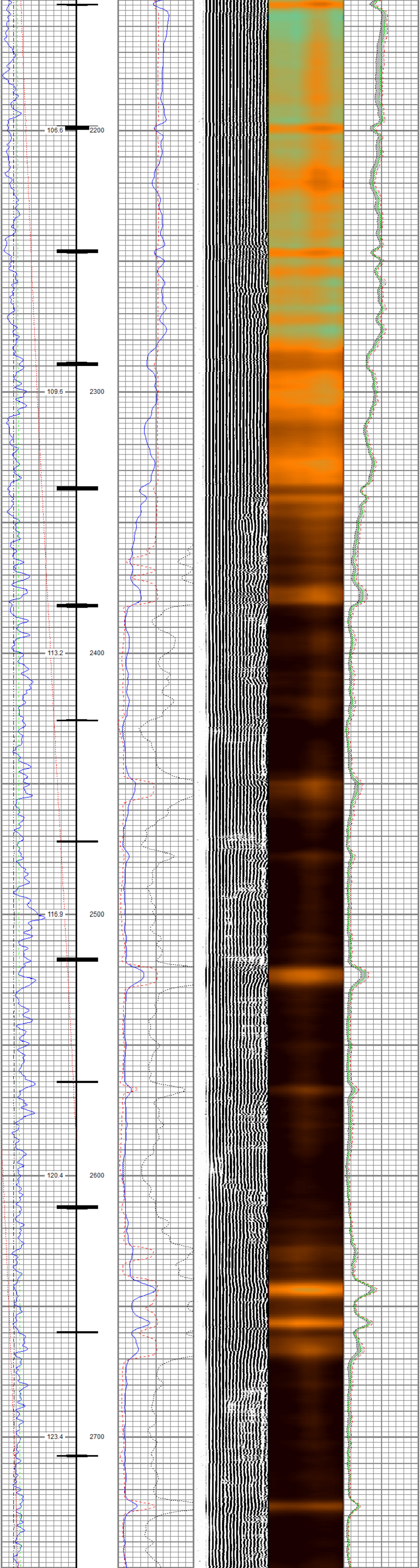
Database File	tep_federal 344-7-297_rbl_08-09-21\tep_federal 344-7-297_rbl_08-09-21.db
Dataset Pathname	main.7
Presentation Format	ros_radii_tep
Dataset Creation	Wed Aug 11 11:15:43 2021
Charted by	Depth in Feet scaled 1:240

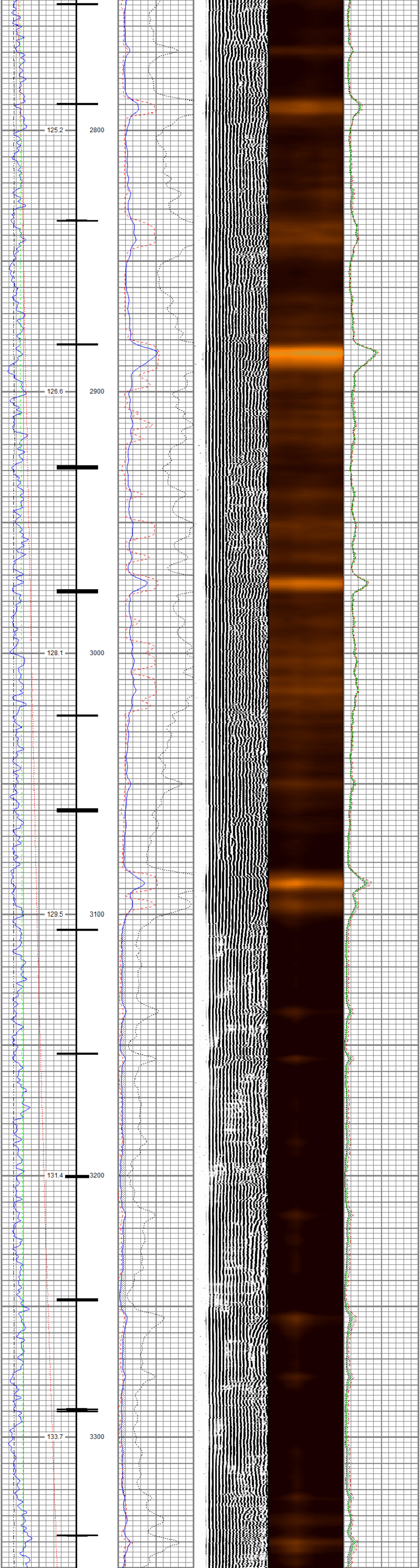


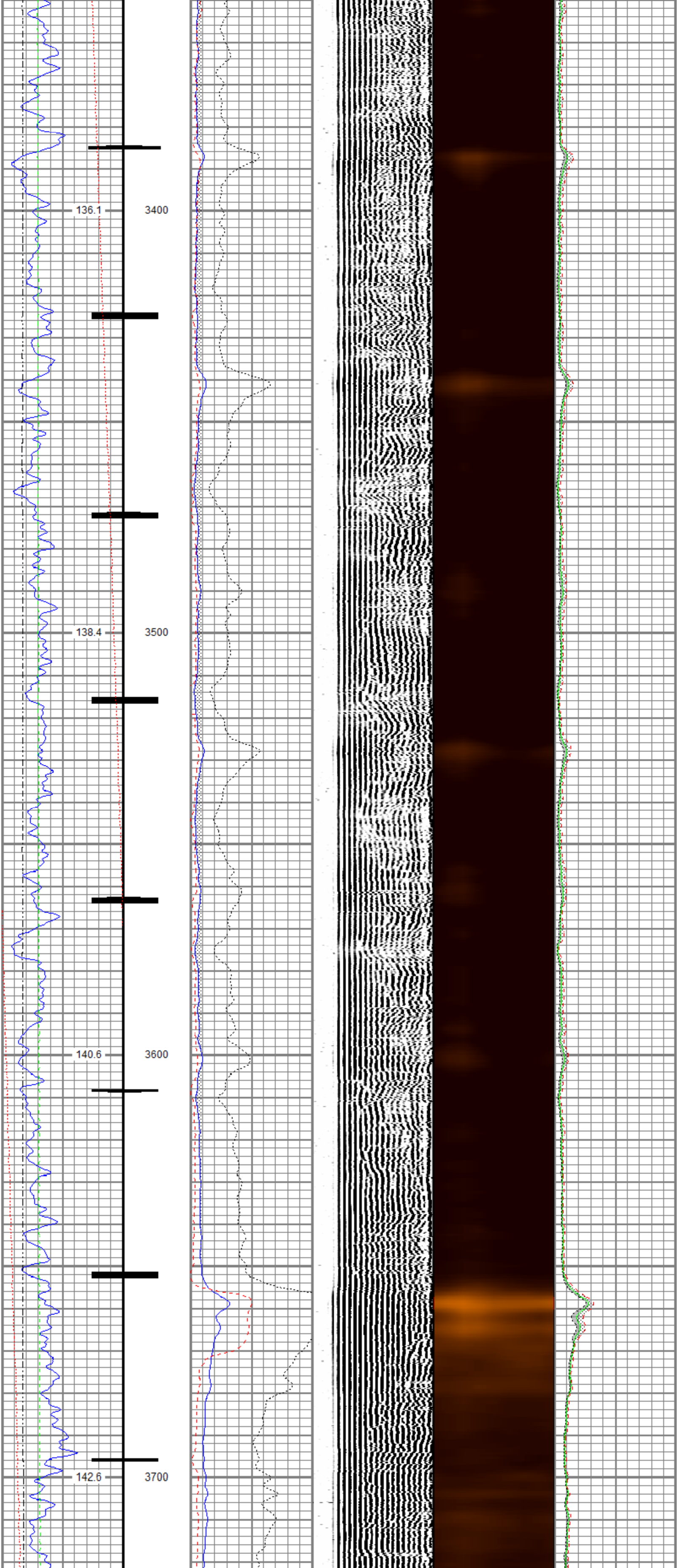


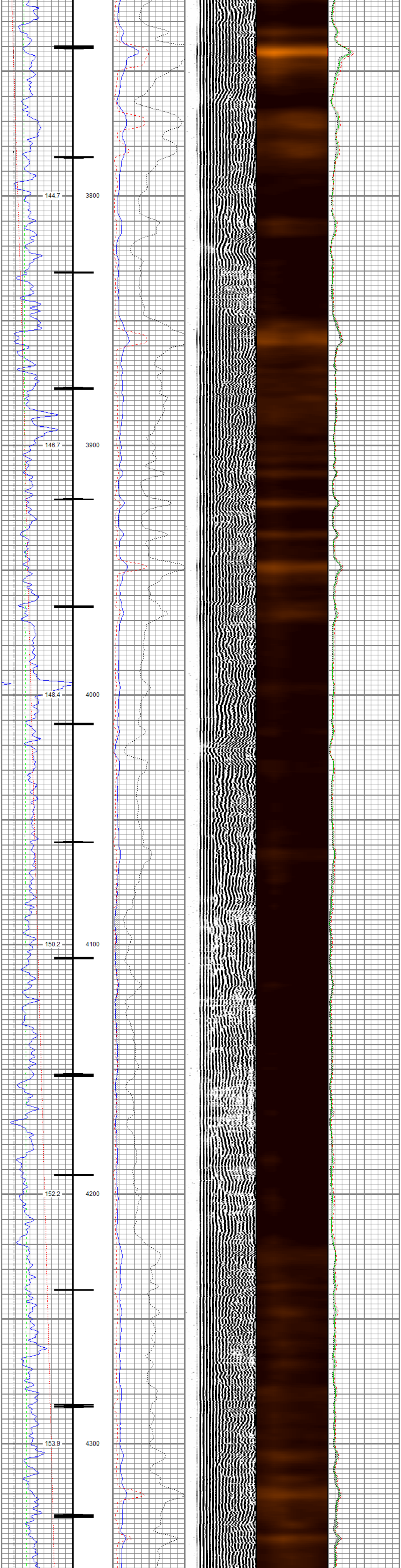








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148.4
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4200
153.9
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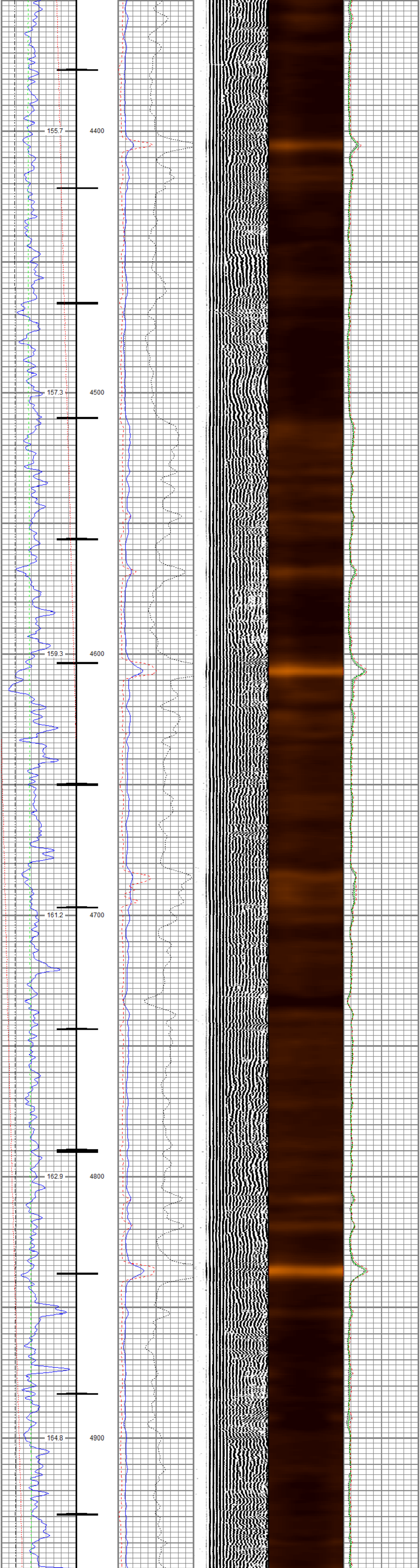
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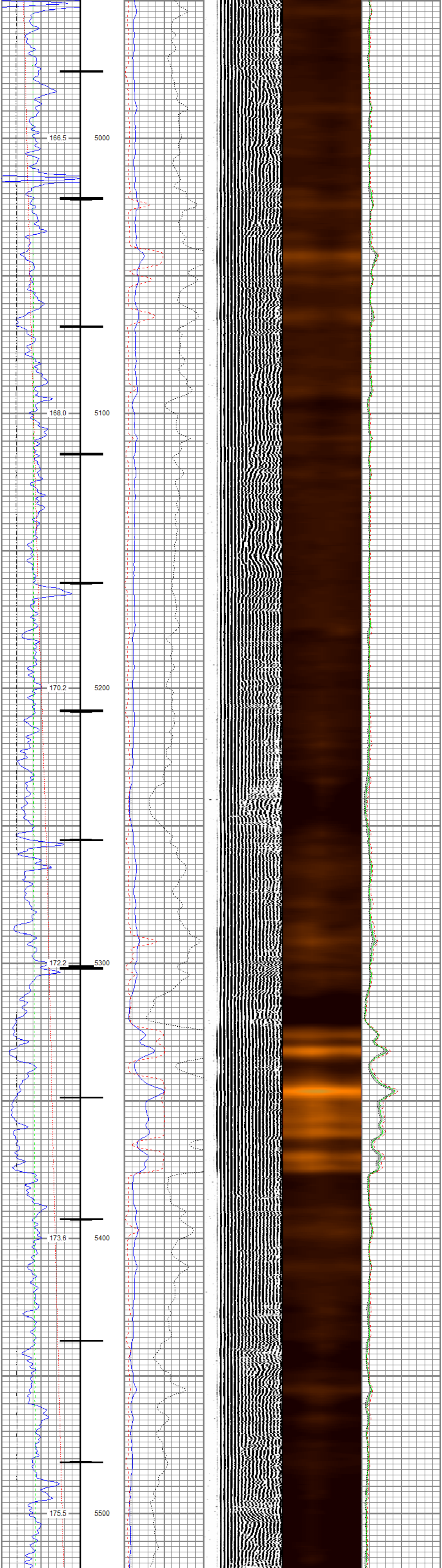
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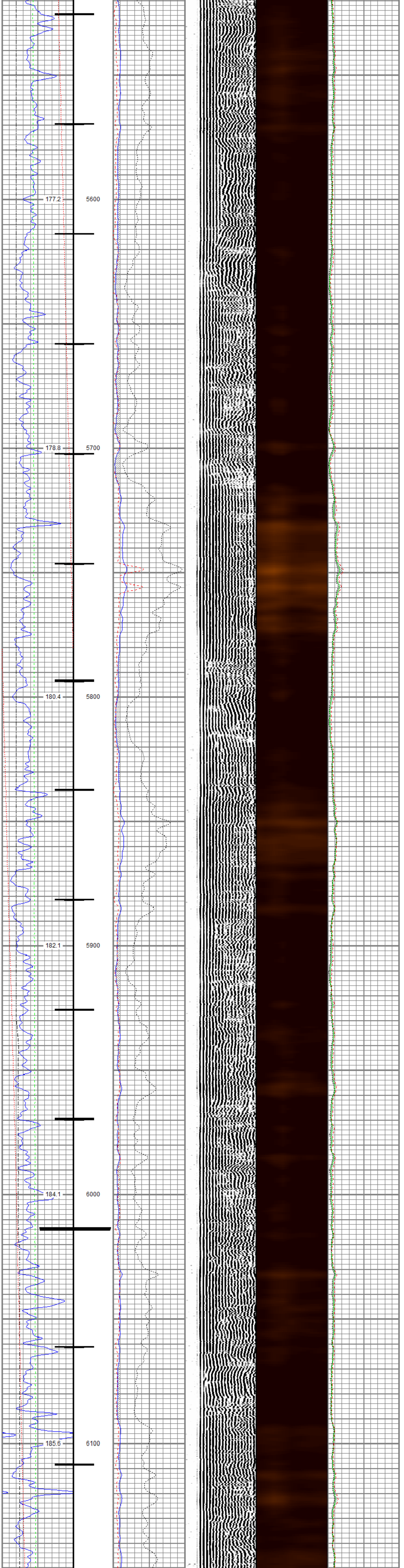
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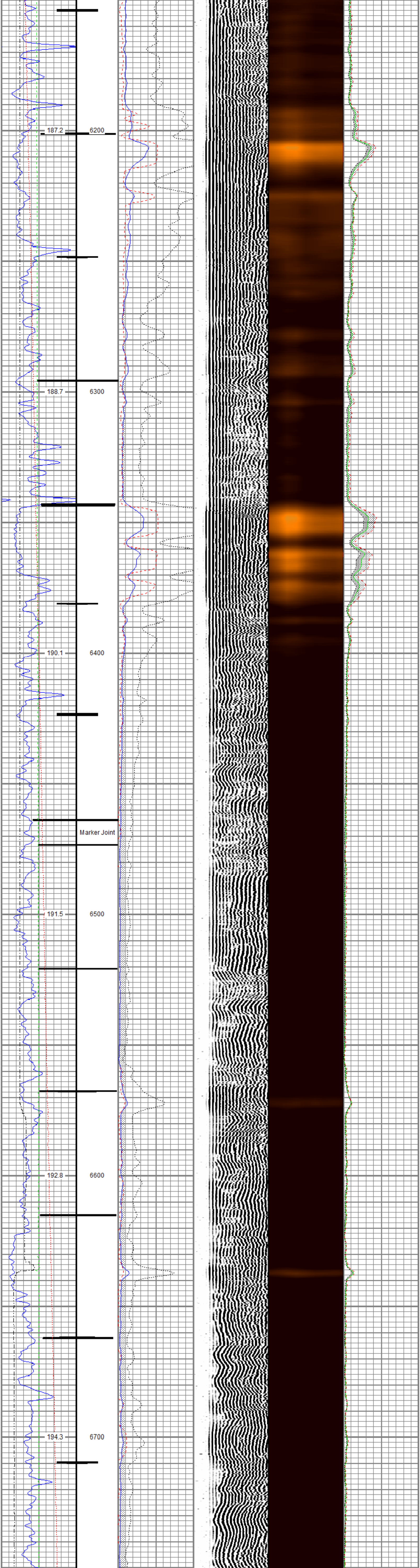
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Marker Joint
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192.8
6600
194.3
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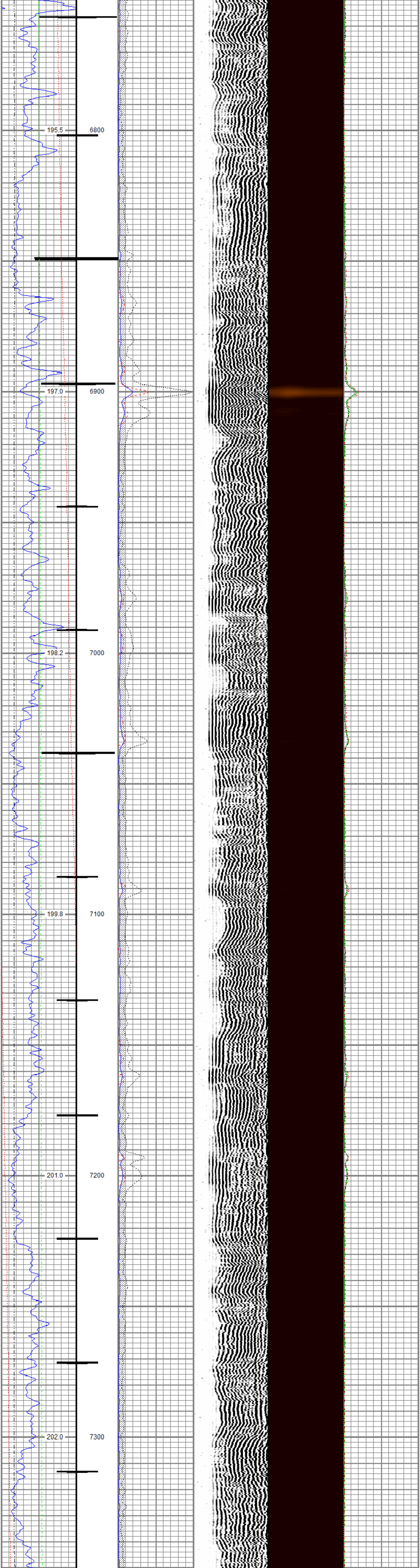
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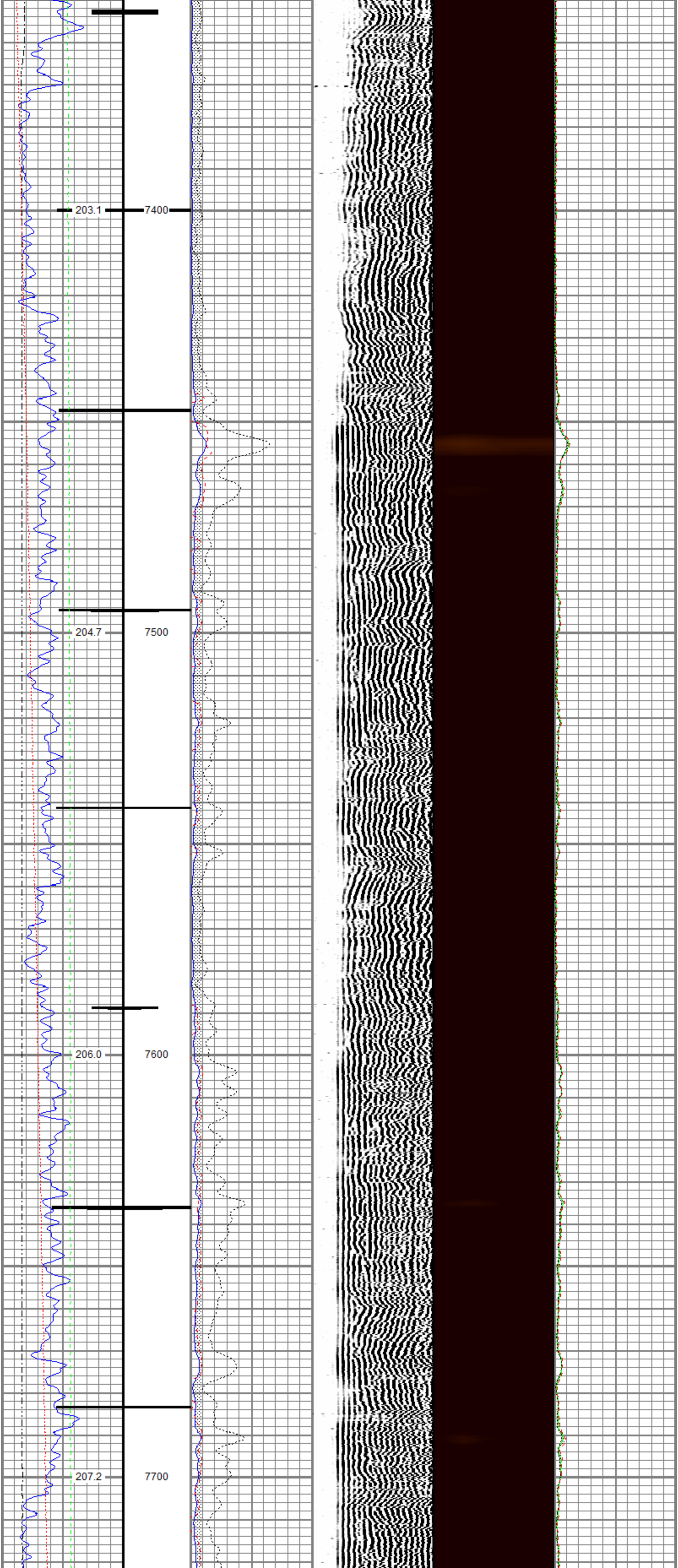
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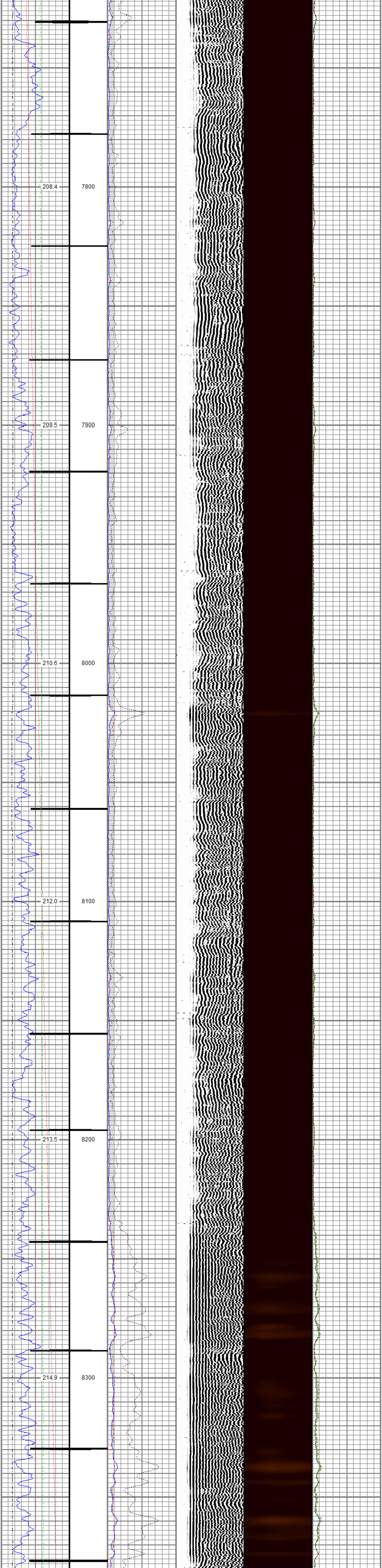
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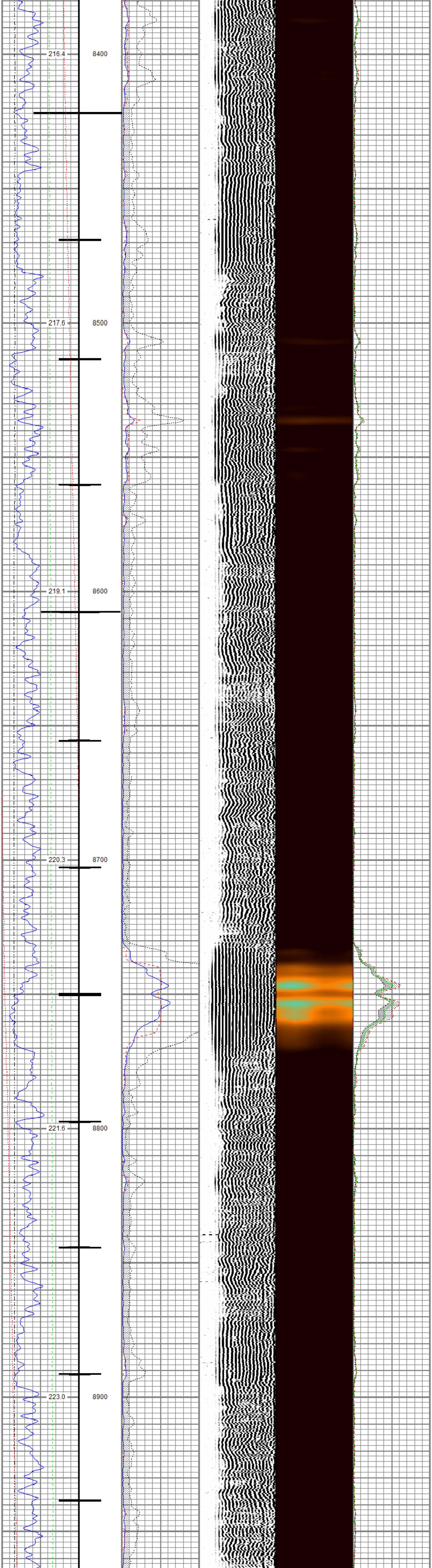
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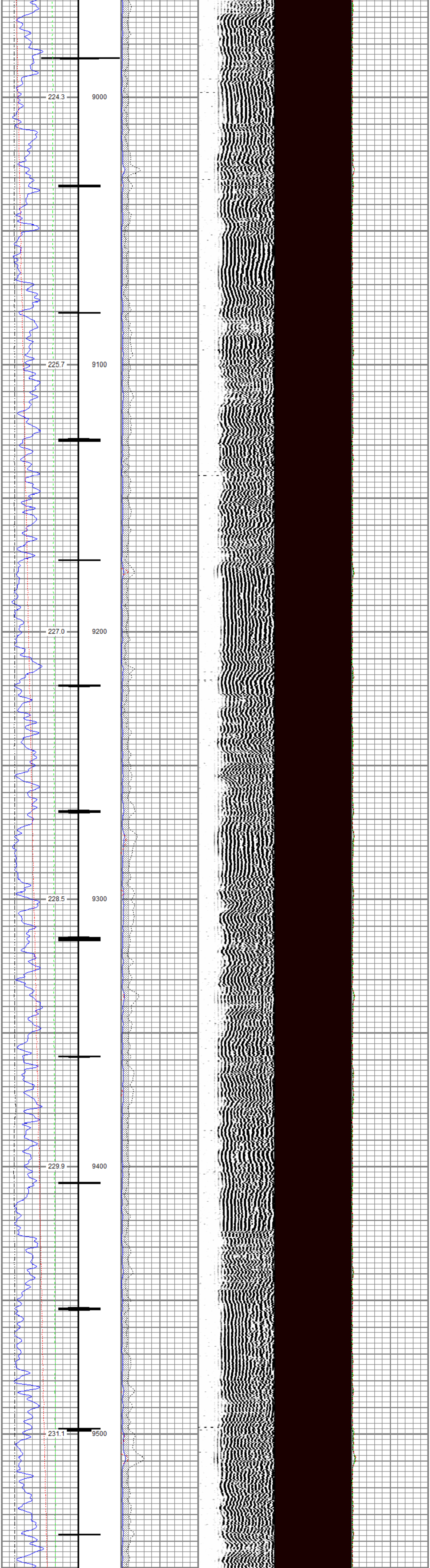
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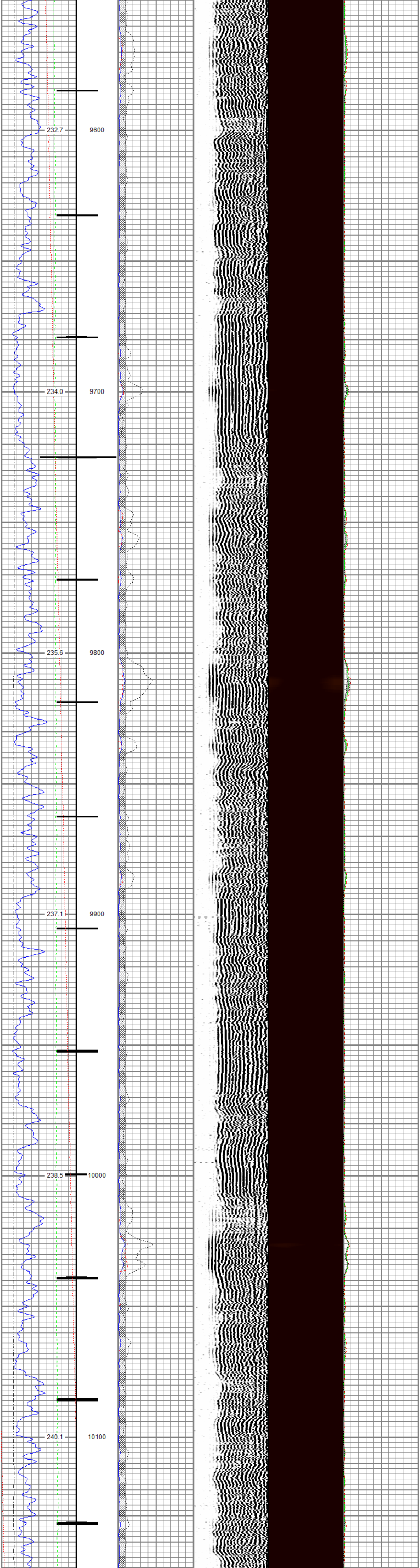
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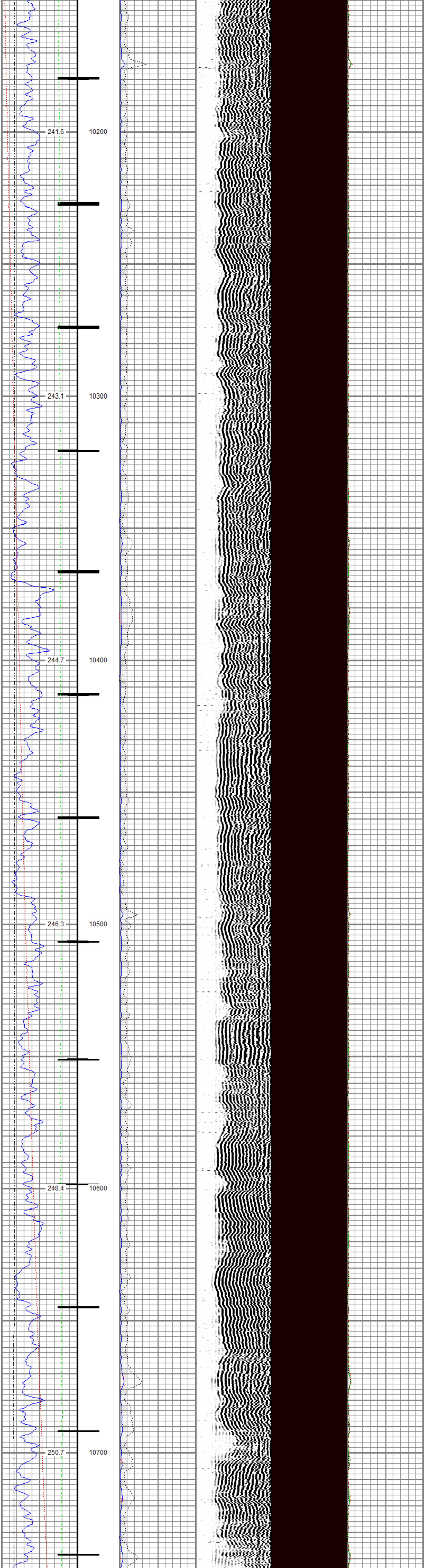

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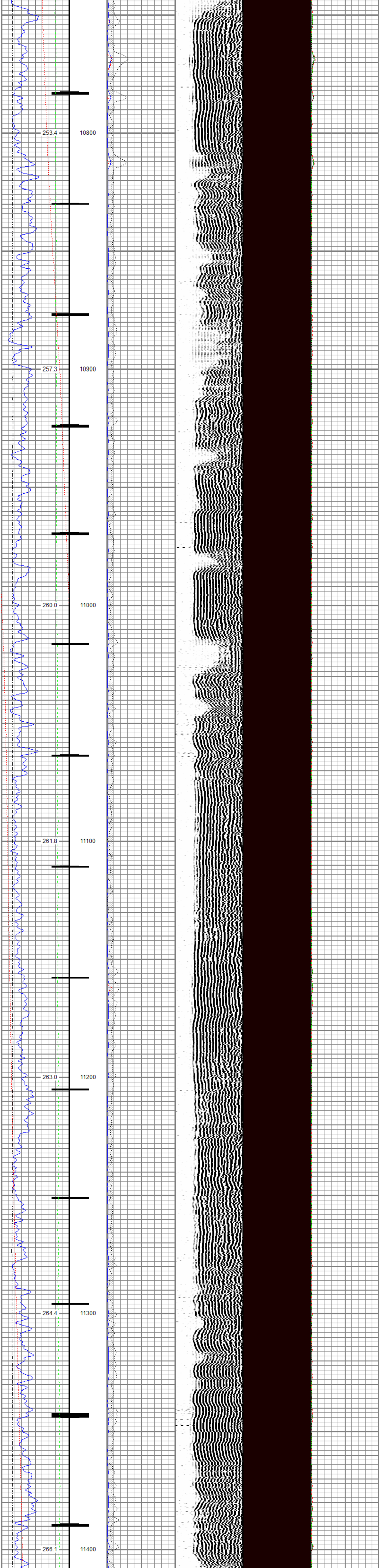
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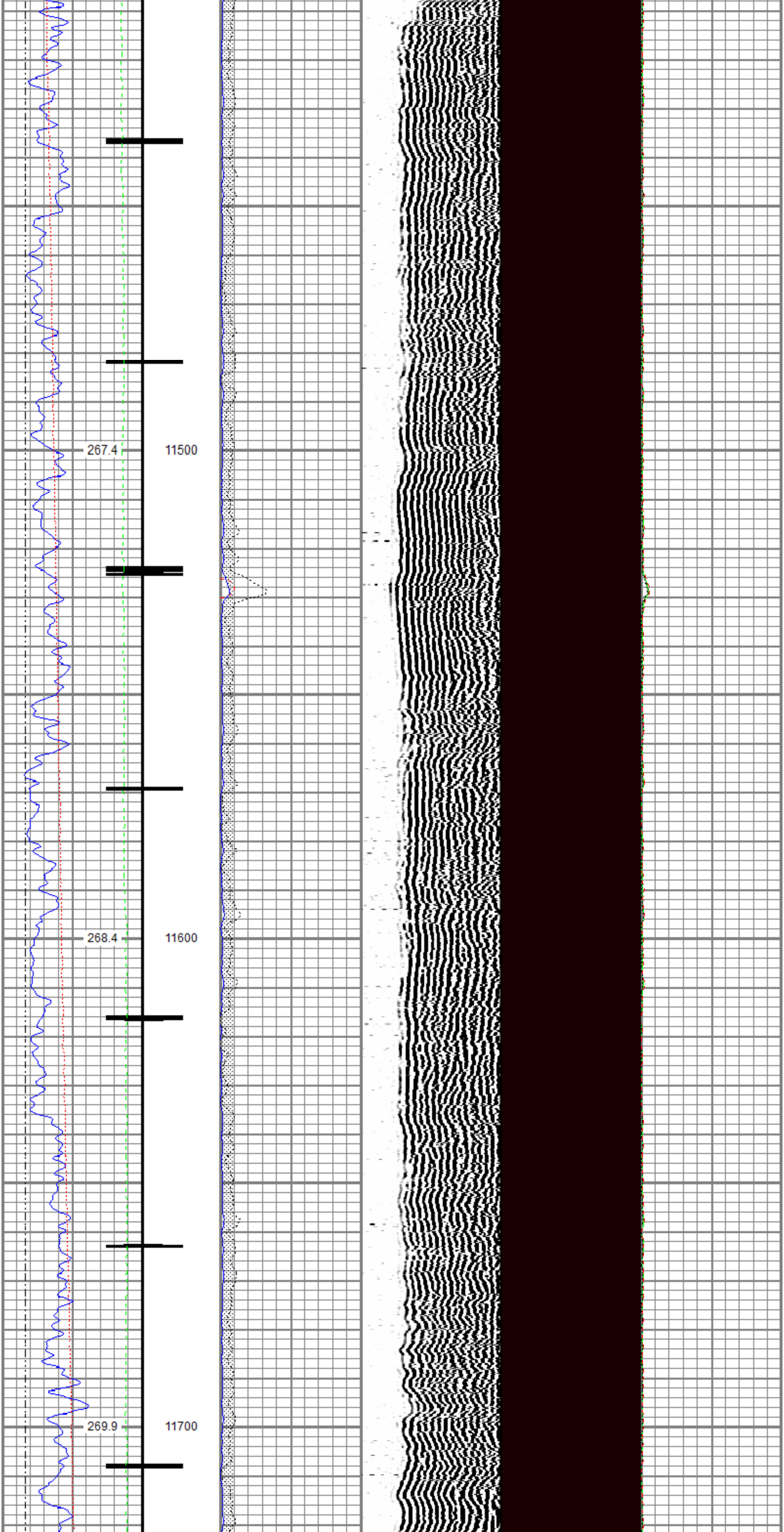
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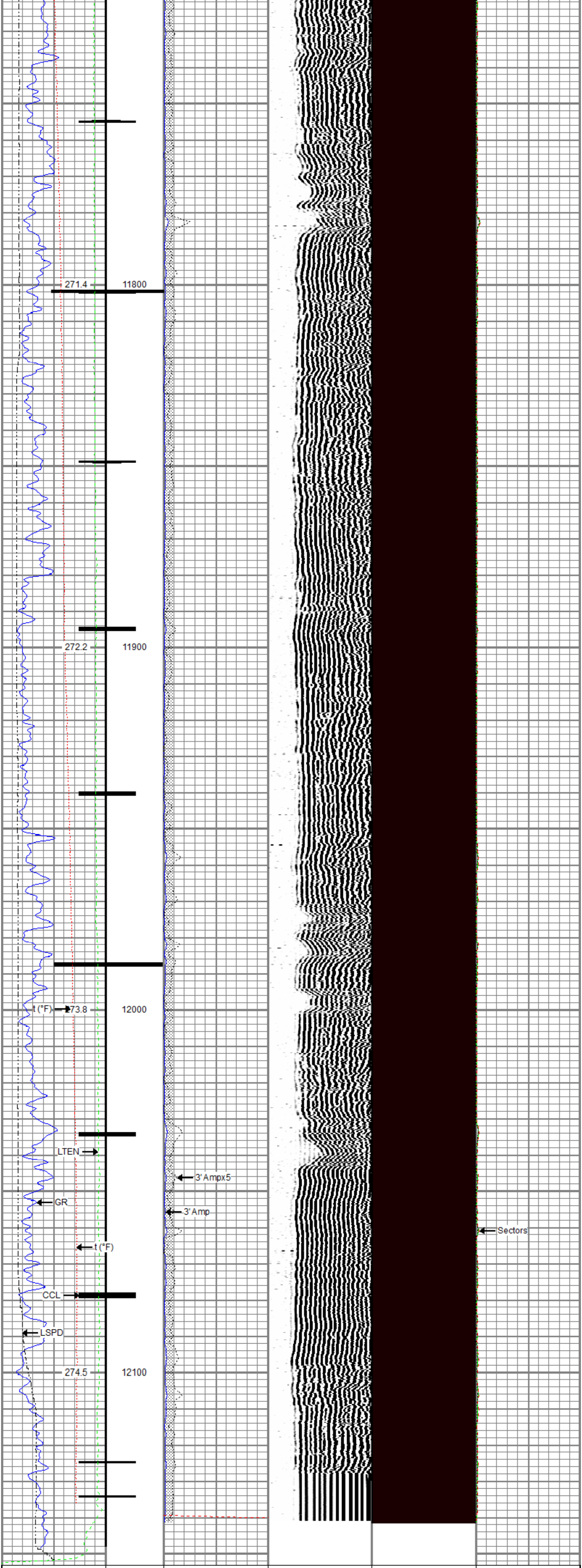


Gamma Ray 0 (GAPI) 200 *Casing Collar Locator* Line Speed -150 (ft/min) 150 0 Line Tension (lb) 500 Temperature 0 (degF) 20	0 3' Amplitude (mV) 100 3' Amplitude x 5 0 (mV) 20 3' Travel Time 300 (usec) 200	5' Variable Density Log 200 (usec) 1200	Sector Map	Average Amplitude 0 150 Mimimum Amplitude 0 150 Maximum Amplitude 0 150

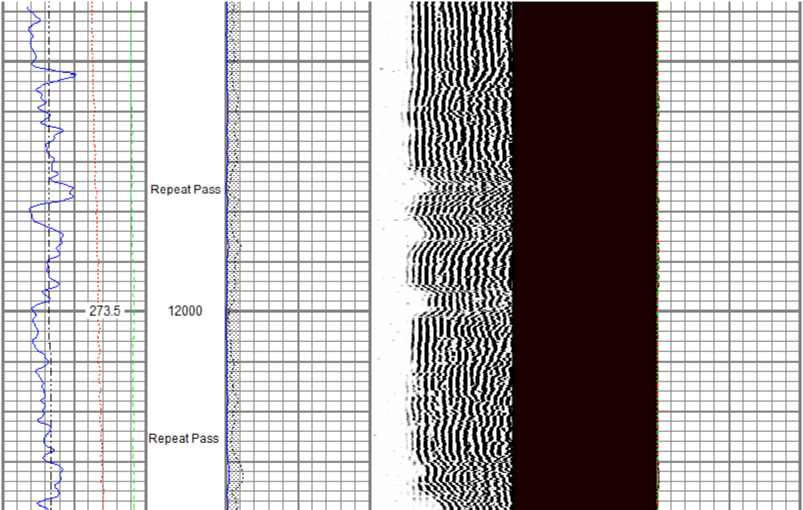
RELIANCE
OILFIELD SERVICES

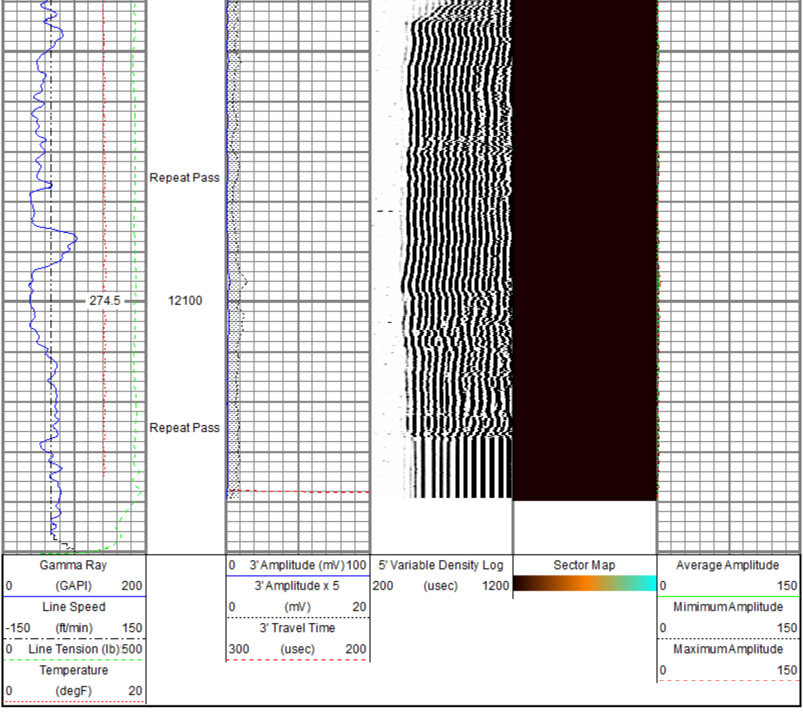
Repeat Pass

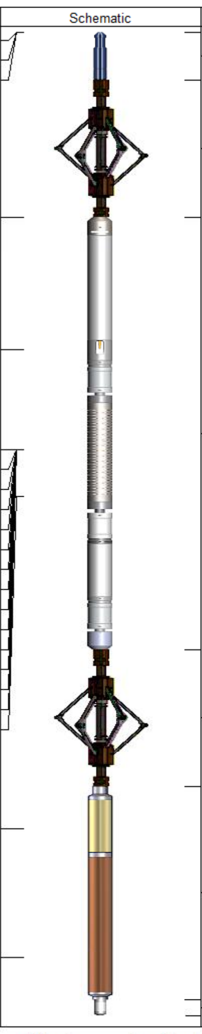
Recorded With 0 PSI Surface Induced Pressure

Database File	tep_federal 344-7-297_rbl_08-09-21\tep_federal 344-7-297_rbl_08-09-21.db
Dataset Pathname	repeat.1.3
Presentation Format	ros_radii_tep
Dataset Creation	Wed Aug 11 14:42:13 2021
Charted by	Depth in Feet scaled 1:240

Gamma Ray 0 (GAPI) 200 Line Speed -150 (ft/min) 150 0 Line Tension (lb) 500 Temperature 0 (degF) 20	0 3' Amplitude (mV) 100 3' Amplitude x 5 0 (mV) 20 3' Travel Time 300 (usec) 200	5' Variable Density Log 200 (usec) 1200	Sector Map	Average Amplitude 0 150 Mimimum Amplitude 0 150 Maximum Amplitude 0 150





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
mSec_Count	20.95		STD BLCH-14375 Standard 1-7/16" Braided Line Cable Head with 1" Fishing Neck	1.04	1.44	1.00
RBT_Status	20.95					
Error_Ct	20.95					
			BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00
RBT_HV	16.99					
RBT_TEMP	14.19					
			RBT8-RADII-275T (RBT275T_Base) Probe 2.75" RADII 8 Sector Bond Tool w/ Temperature	9.20	2.75	
RBT_ACCZ	12.04					
RBT_ACCY	12.04					
RBT_ACCX	12.04					
WVFSYNC	12.04					
WVFS8	12.04					
WVFS7	12.04					
WVFS6	12.04					
WVFS5	12.04					
WVFS4	12.04					
WVFS3	12.04					
WVFS2	12.04					
WVFS1	12.04					
WVFCAL	12.04					
WVF3FT	12.04					
WVF5FT	11.04		BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00
CCL	3.97					
			Probe GR-CCL ANL-2750 A (FW1305-083) Probe 2.75" Analog 4 Channel Pulse Gamma Ray/CCL Combined	4.54	2.75	55.00
GR	1.23					
			Plug-FA108-0000 1.38" Bull Plug	0.33	1.38	1.00

Dataset:	tep_federal 344-7-297_rbl_08-09-21.db: field/well/run1/main.7
Total length:	20.95 ft
Total weight:	107.00 lb
O.D.:	2.75 in

Calibration Report

Database File	c:\programdata\warrior\data\tep_federal 344-7-297_rbl_08-09-21\tep_federal 344-7-297_rbl_08-09-21.db
Dataset Pathname	main.7
Dataset Creation	Wed Aug 11 11:15:43 2021

Gamma Ray Calibration Report

Serial Number:	FW1305-083	
Tool Model:	2750 A	
Performed:	Sun Nov 12 05:37:57 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	95.7	cps
Calibrator Reading:	982.0	cps
Sensitivity:	0.7188	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	RBT275T_Base	
Tool Model:	RADII-275T	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	28.242	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.004	0.615	0.250	81.196	130.688	0.792
CAL	-0.004	0.754				
5'	-0.003	0.538	0.250	81.196	149.720	0.638
SUM						
S1	-0.003	0.650	0.000	100.000	153.207	0.442
S2	-0.003	0.627	0.000	100.000	158.639	0.497
S3	-0.003	0.590	0.000	100.000	168.616	0.571
S4	-0.002	0.569	0.000	100.000	174.865	0.433
S5	-0.003	0.575	0.000	100.000	172.901	0.504
S6	-0.003	0.604	0.000	100.000	164.779	0.443
S7	-0.003	0.628	0.000	100.000	158.342	0.484
S8	-0.004	0.637	0.000	100.000	156.162	0.559

Air Zero Calibration, performed Mon Aug 9 08:10:58 2021:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	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

Inclinometer Calibration Report

Performed: Wed May 22 09:49:34 2019

	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-923.00	912.00	-1.00	1.00	gee
Y Accelerometer	-895.00	877.00	-1.00	1.00	gee
Z Accelerometer	-0.10	860.00	0.00	1.00	gee

RELIANCE
OILFIELD SERVICES

Company	TEP Rocky Mountain LLC
Well	Federal RG 344-7-297
Field	Sulphur Creek
County	Rio Blanco
State	Colorado