Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Federal RG 44-7-297
Field	Sulphur Creek
County	Rio Blanco
State	Colorado

Company TEP Rocky Mountain LLC
Well Federal RG 44-7-297
Field Sulphur Creek
County Rio Blanco State Colorado

Location: API # : 05-103-12471
SEC 18 TWP 2S RGE 97W

Other Services
PN

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

Date	09-AUG-2021			
Run Number	One			
Depth Driller	12240 FT			
Depth Logger	12196 FT			
Bottom Logged Interval	12181 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	15:50			
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	1417 FT
Intermediate #1	9 5/8	36	J-55	Surface	3401 FT
Intermediate #2	4 1/2	11.6	P-110	Surface	12196 FT
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 30 FT
Marker Joint recorded from 6431 to 6441 FT
Recorded with 0 PSI Surface Induced Pressure

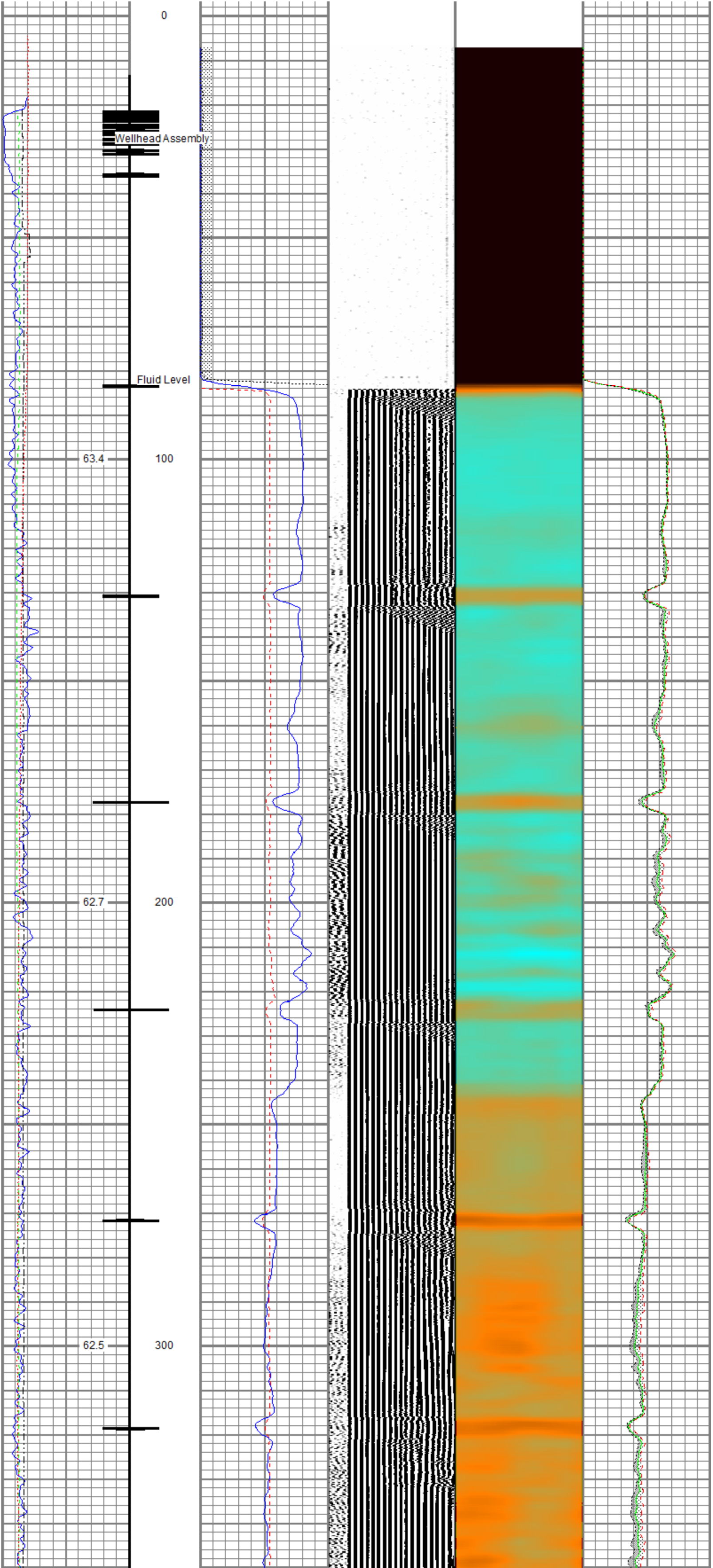
Thank you for choosing Reliance Oilfield Services, LLC!

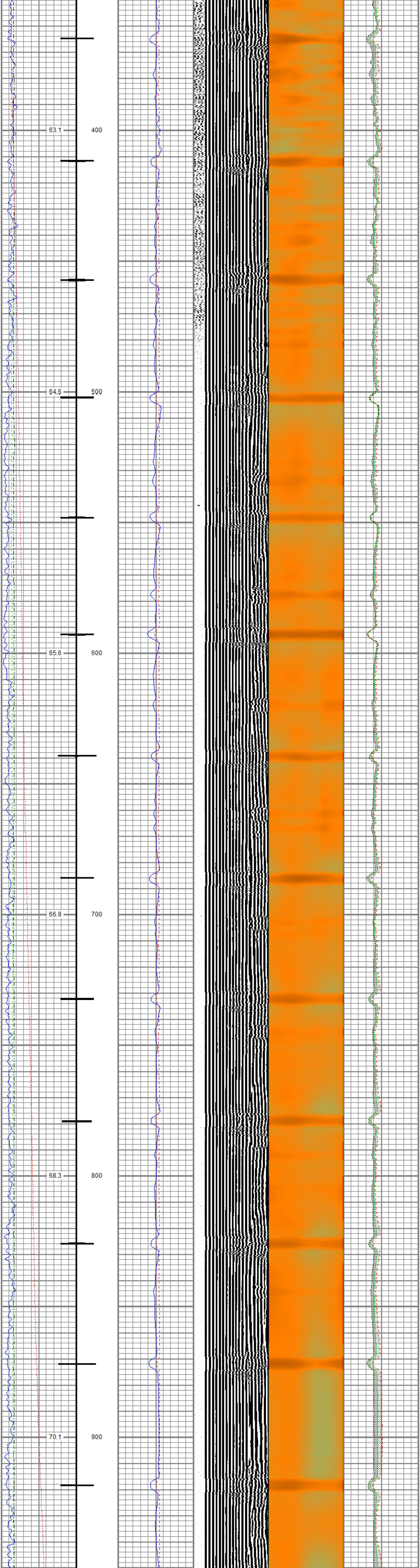
Main Pass

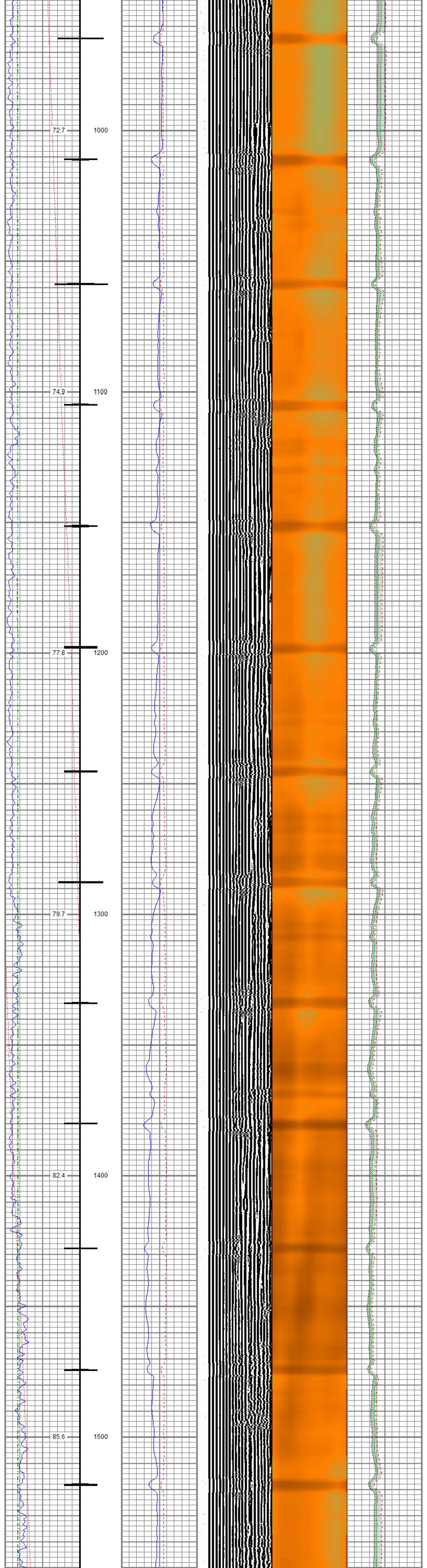
Recorded With 0 PSI Surface Induced Pressure

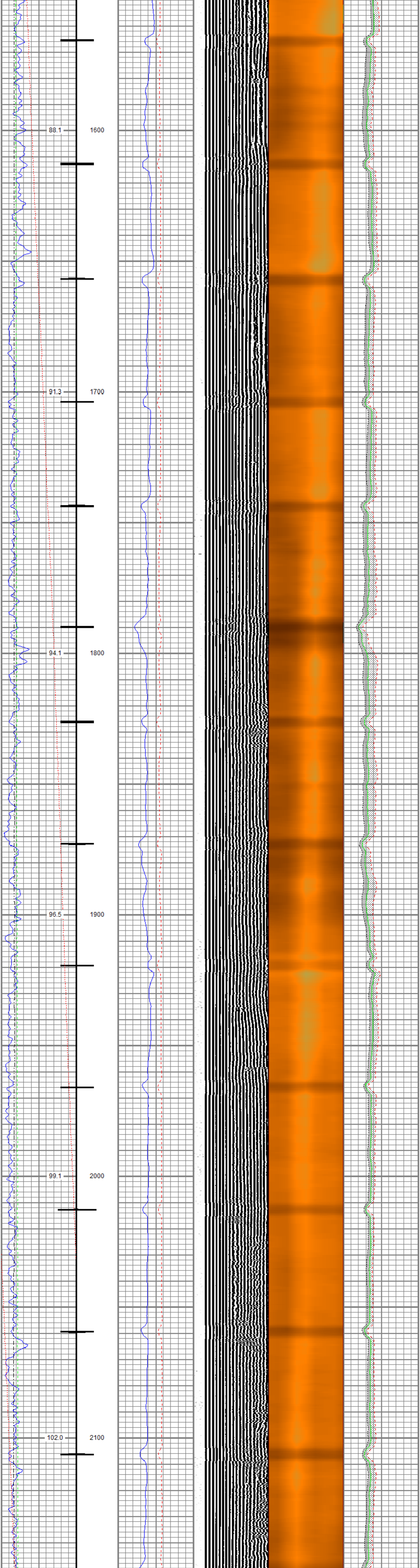
Database File	tep_rg 44-7-297_rcbl_8-9-2021_1\tep_federal rg 44-7-297_rbl_08-09-21.db
Dataset Pathname	main.5
Presentation Format	ros_radii_tep
Dataset Creation	Tue Aug 10 11:14:01 2021
Charted by	Depth in Feet scaled 1:240

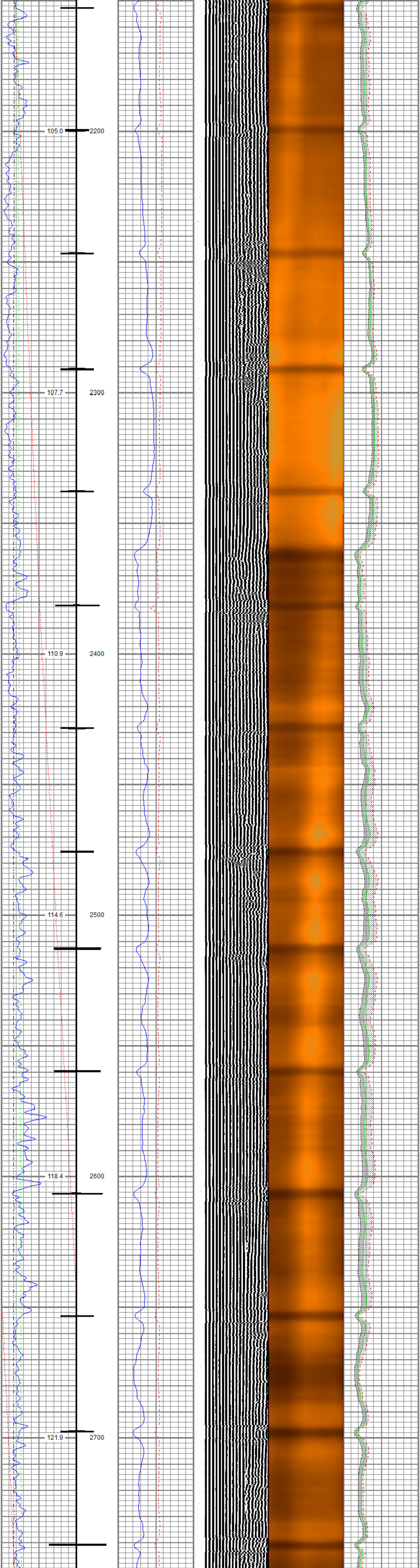
Track 1	Track 2	Track 3	Track 4	Track 5
Gamma Ray 0 (GAPI) 200	0 3' Amplitude (mV) 100	5' Variable Density Log 200 (usec) 1200	Sector Map	Average Amplitude 0 150
Casing Collar Locator	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
0 Line Tension (lb) 500				
Temperature 0 (degF) 20				

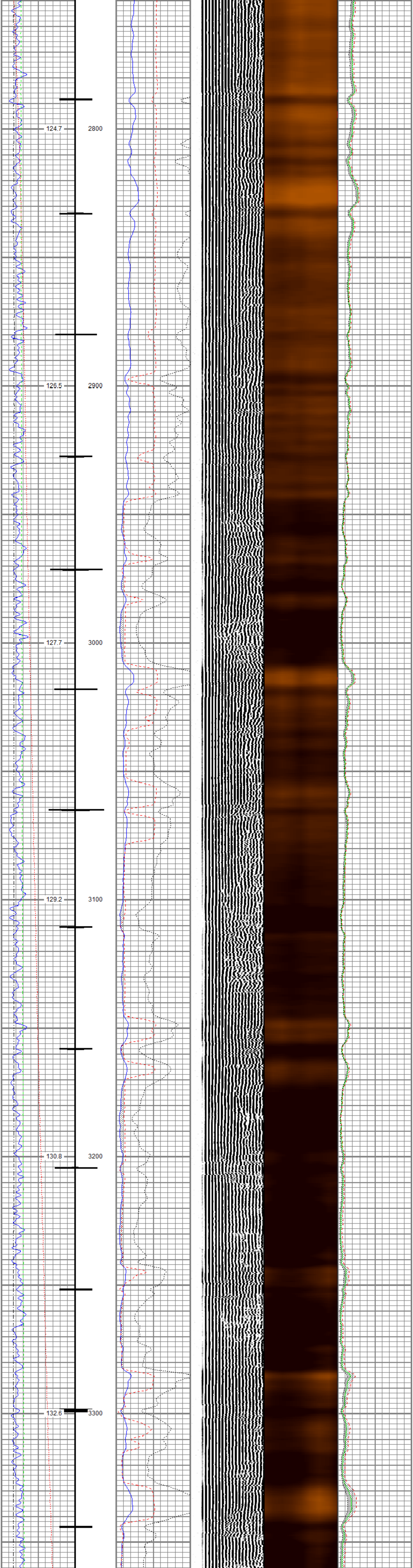


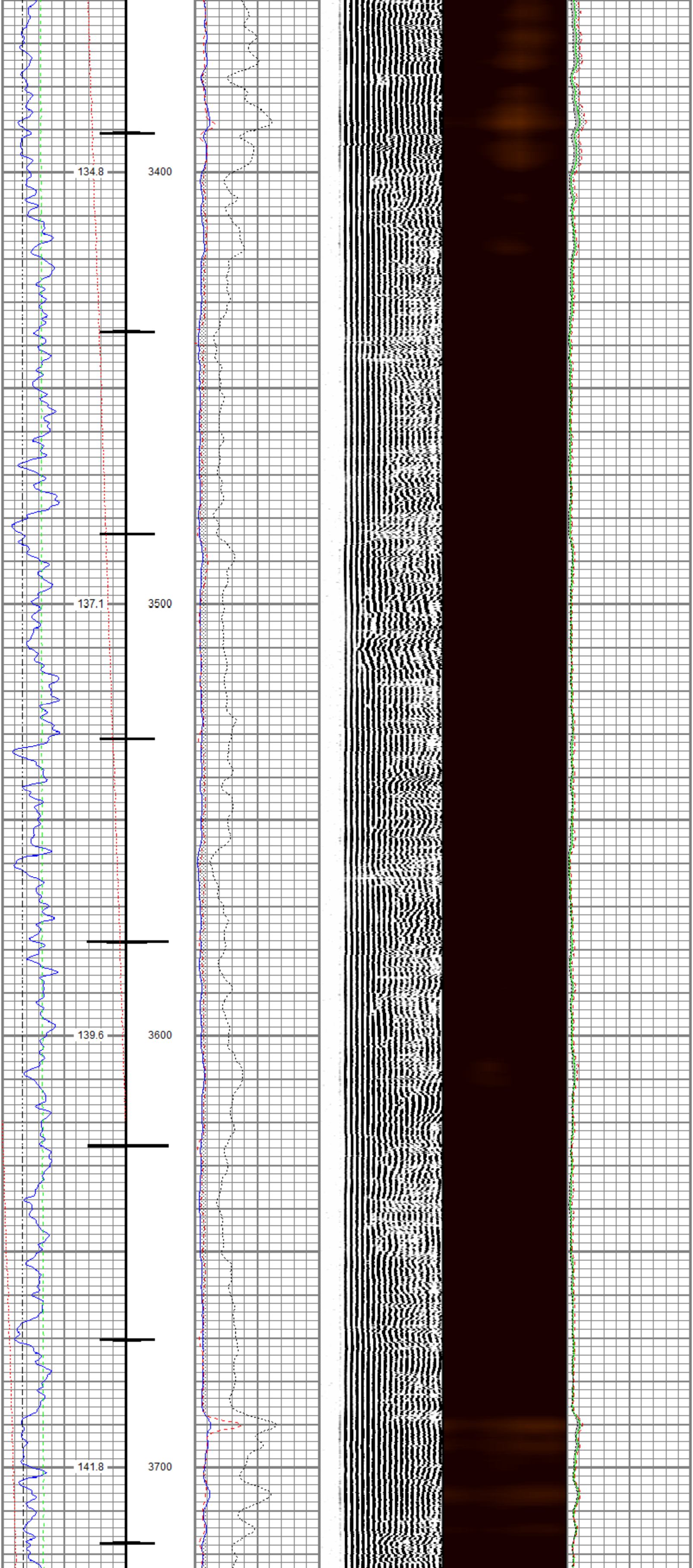


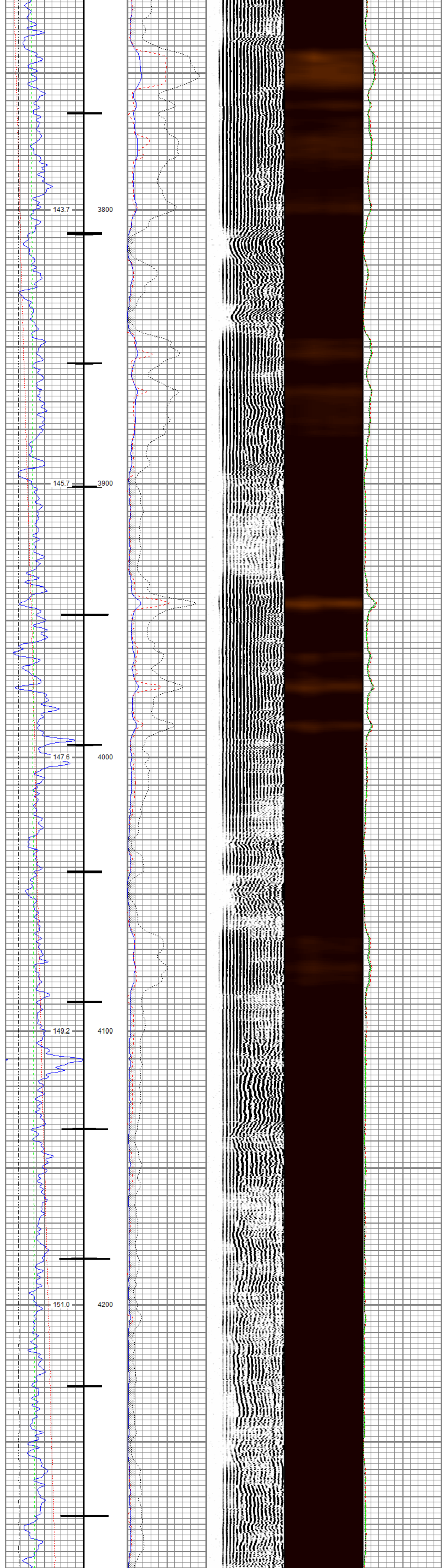








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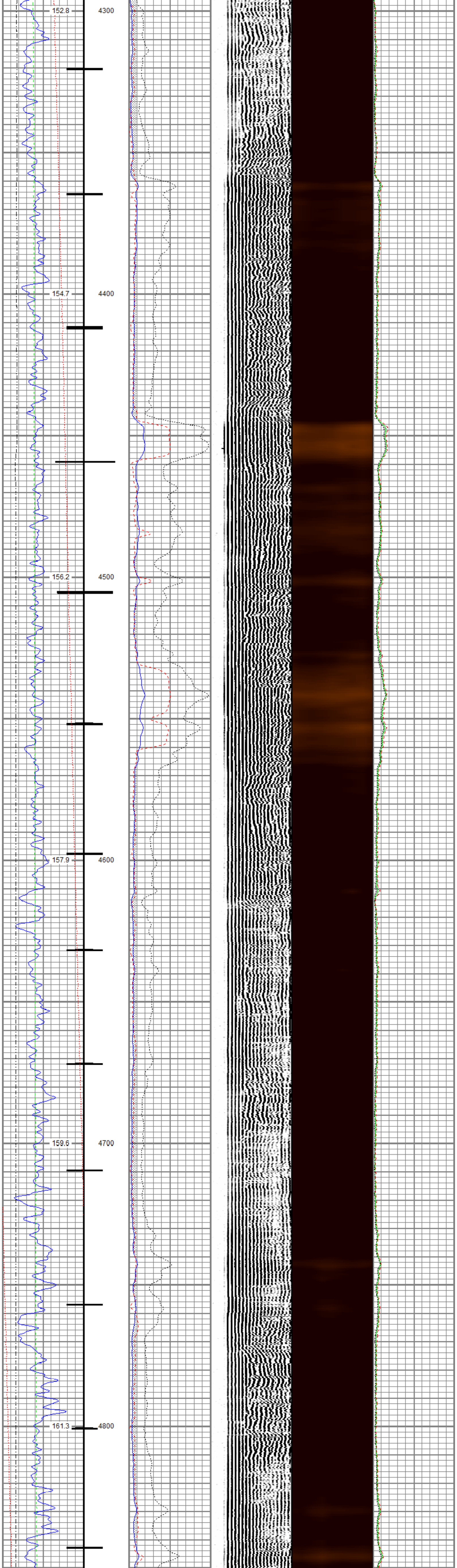
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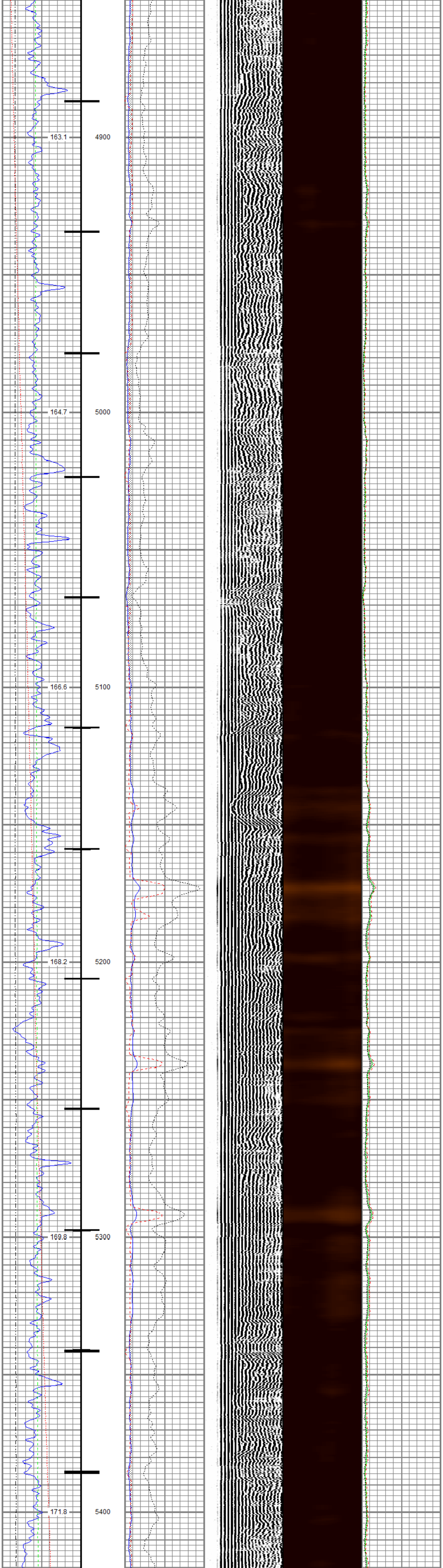
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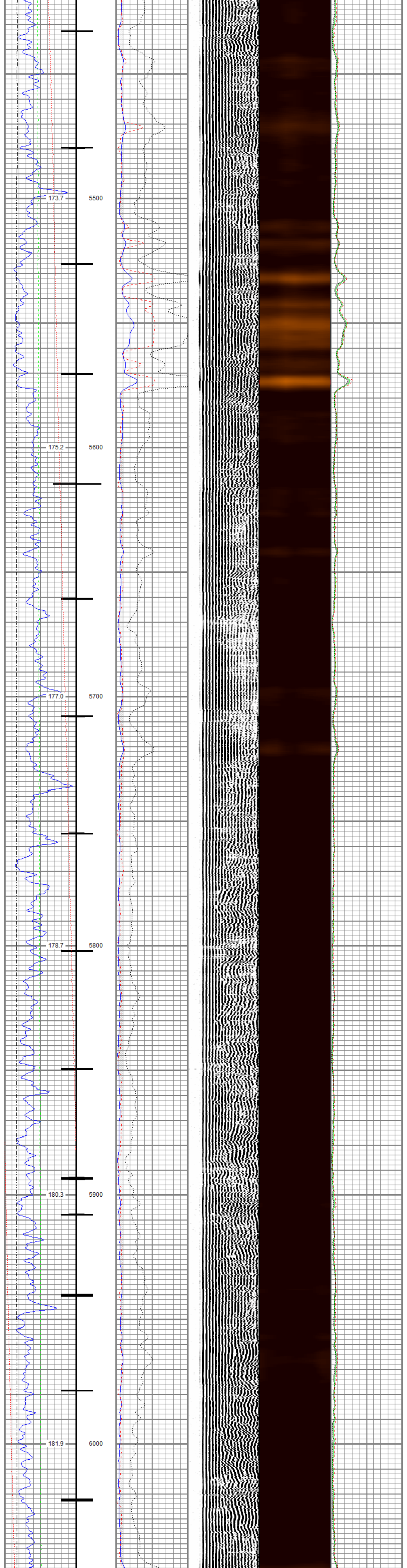
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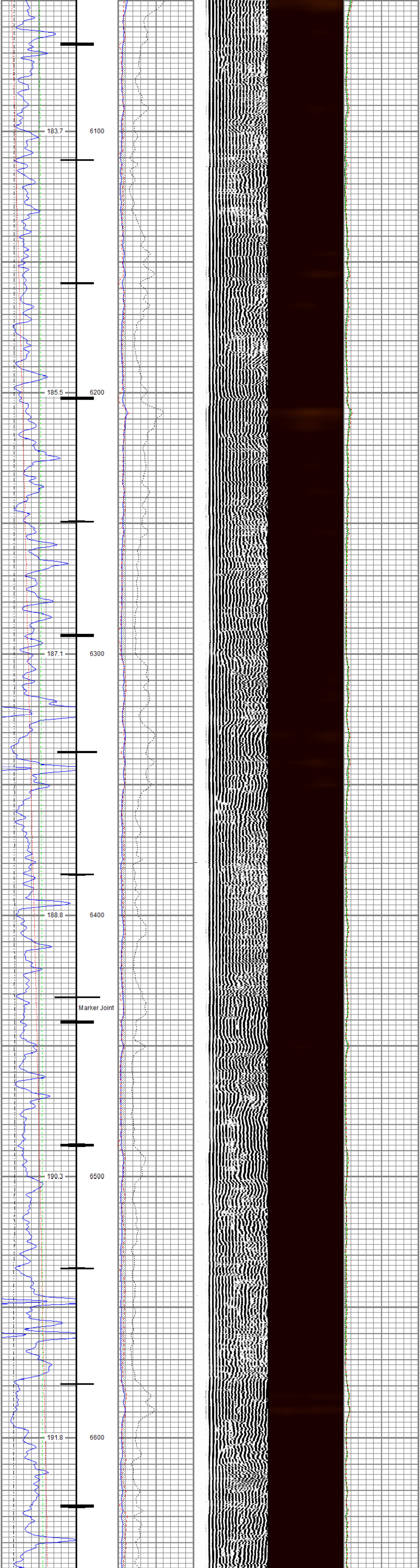
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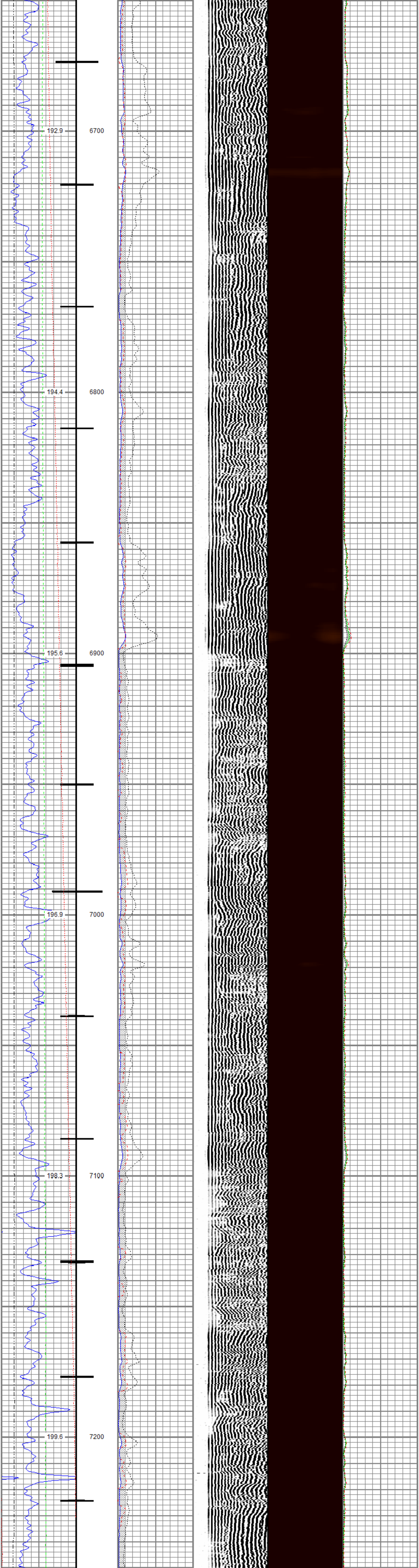
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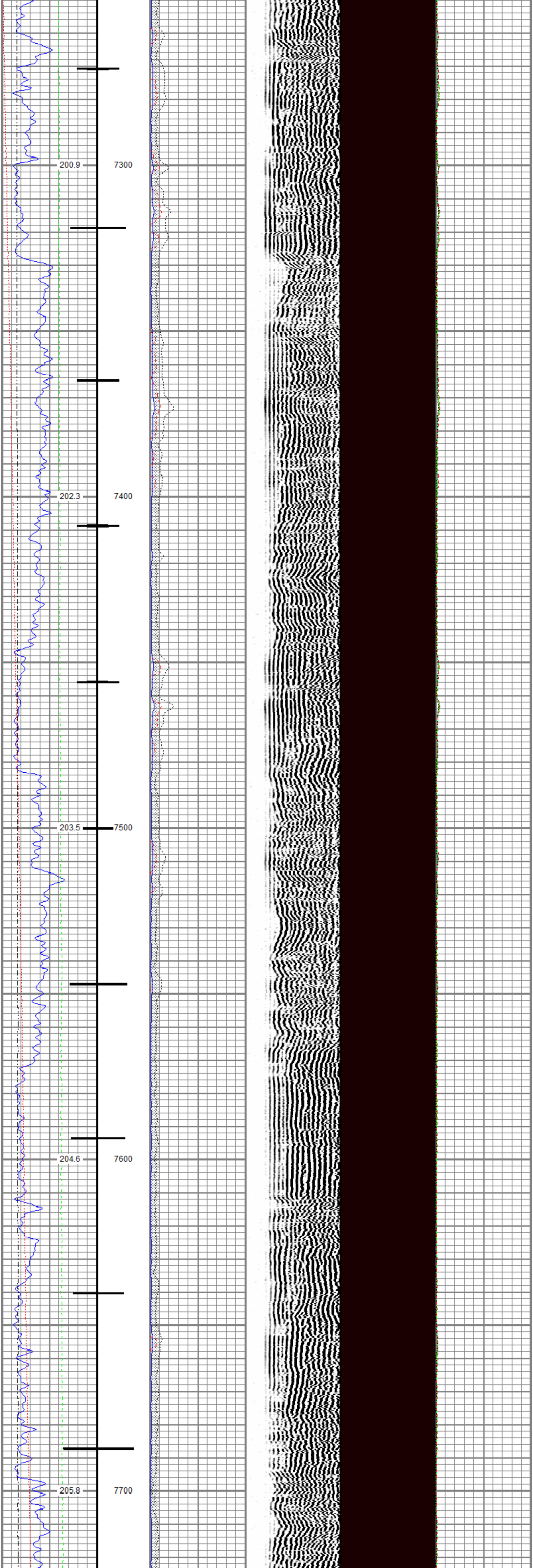
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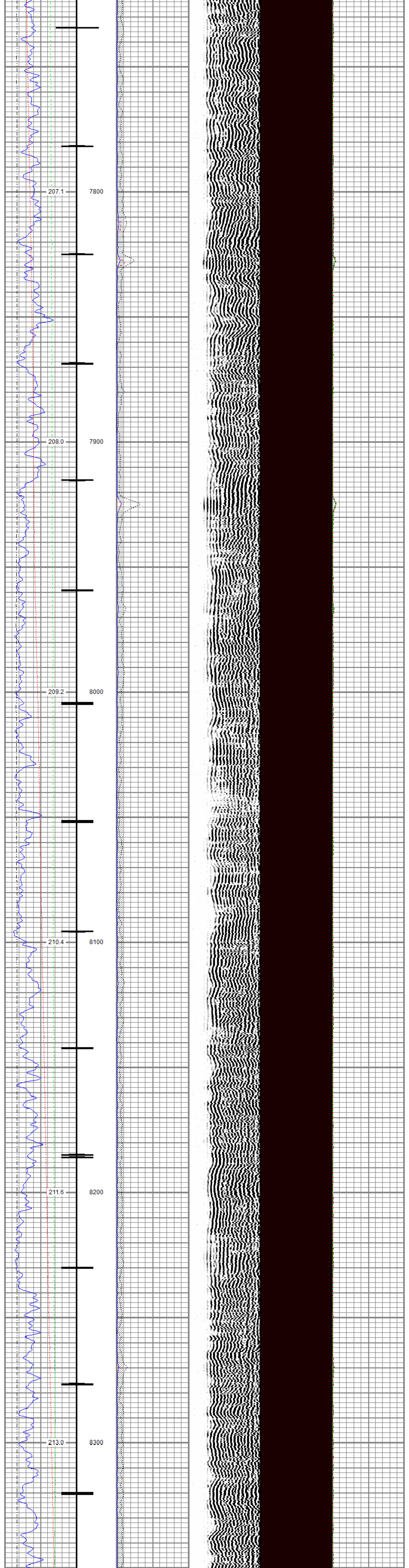
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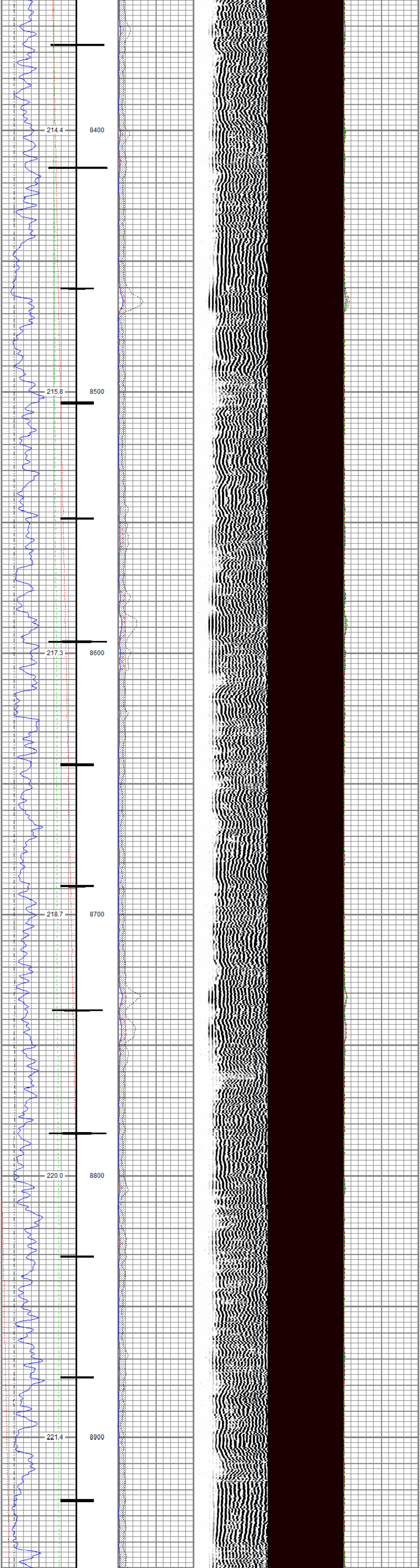
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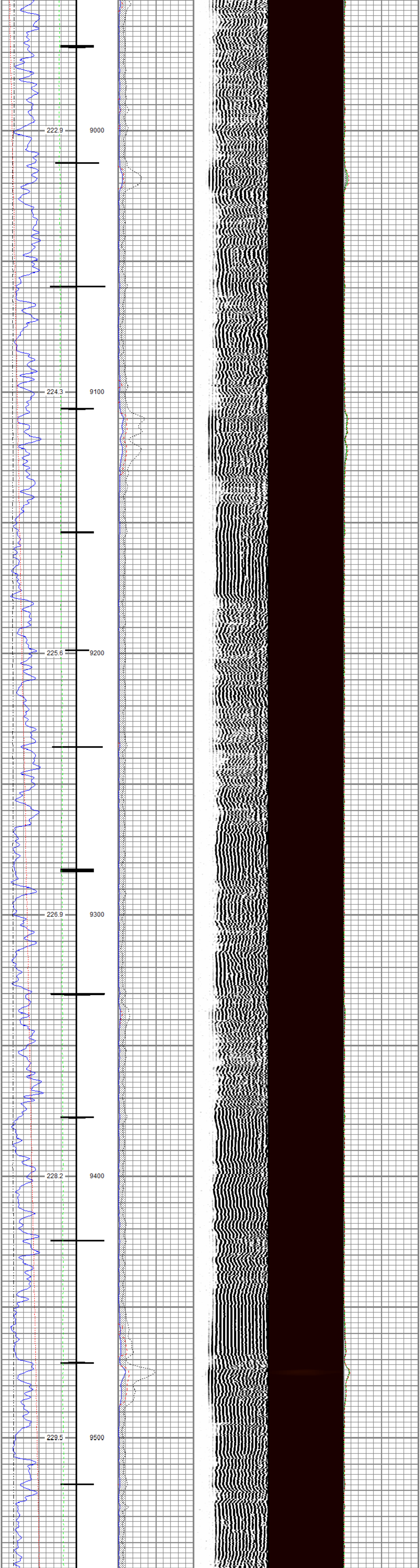
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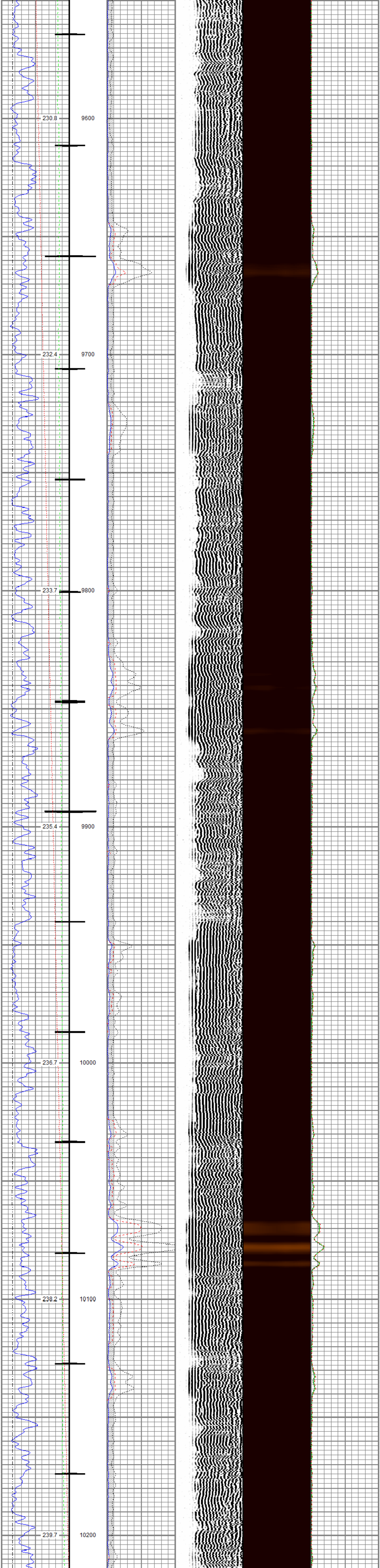
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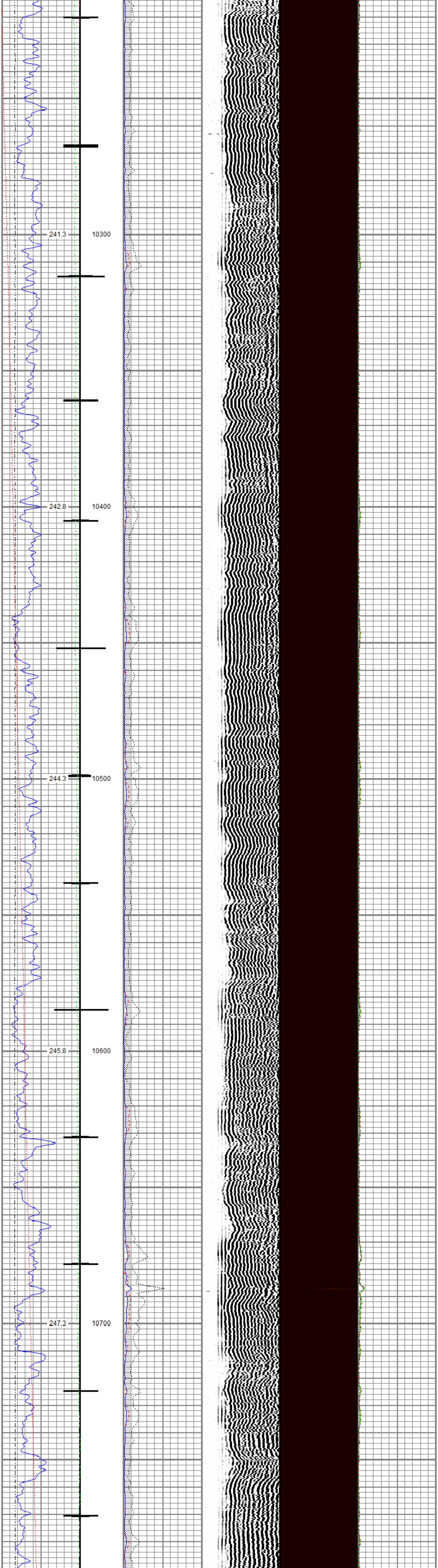
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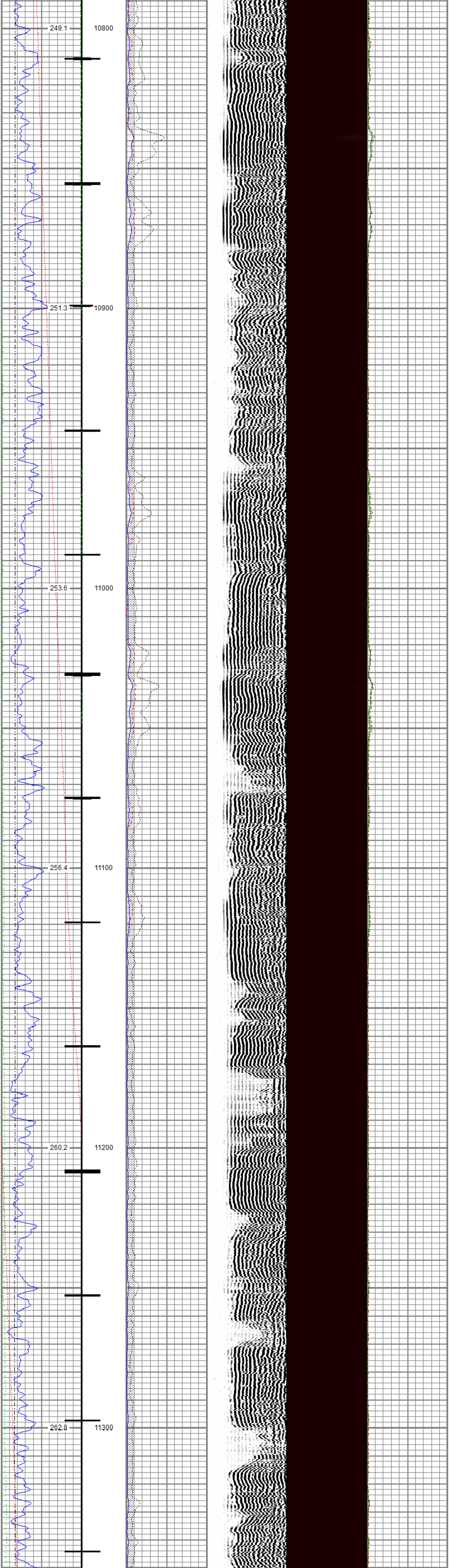
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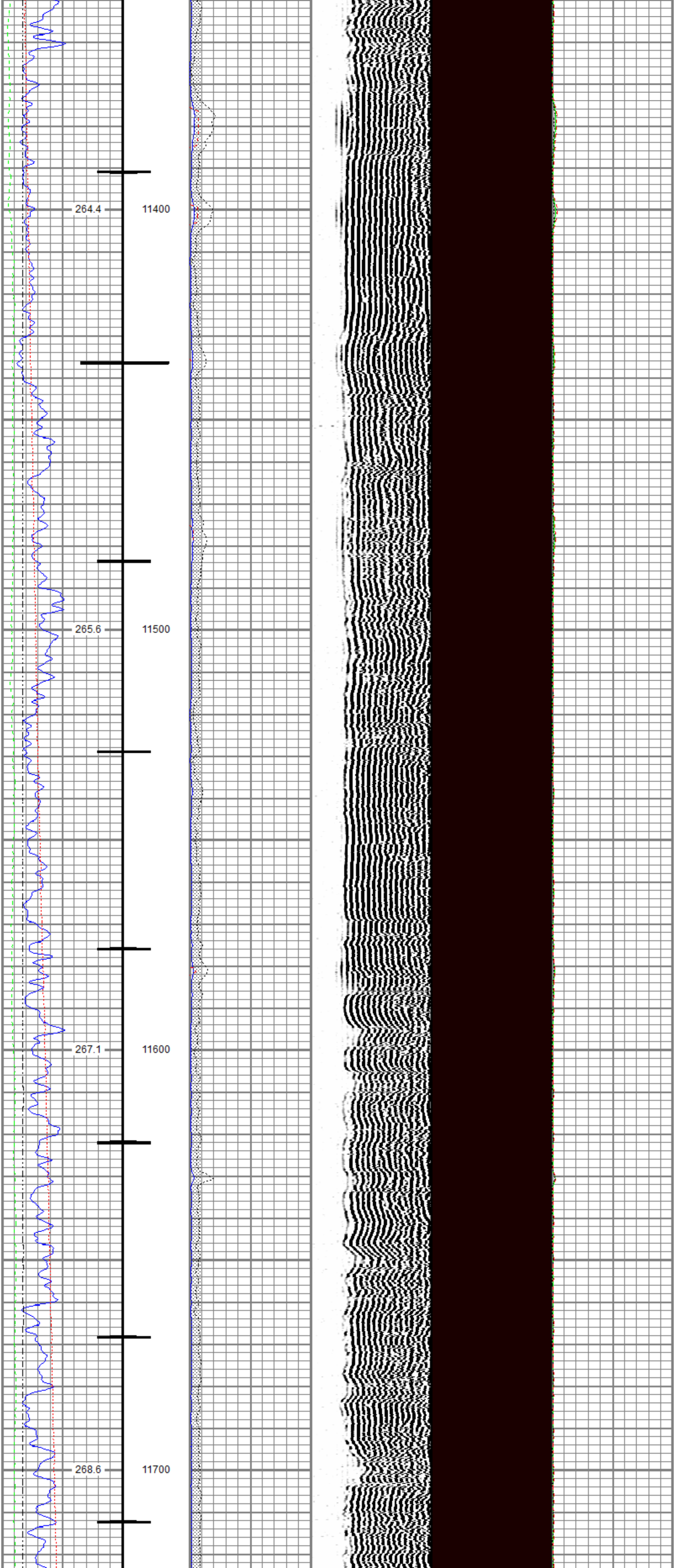
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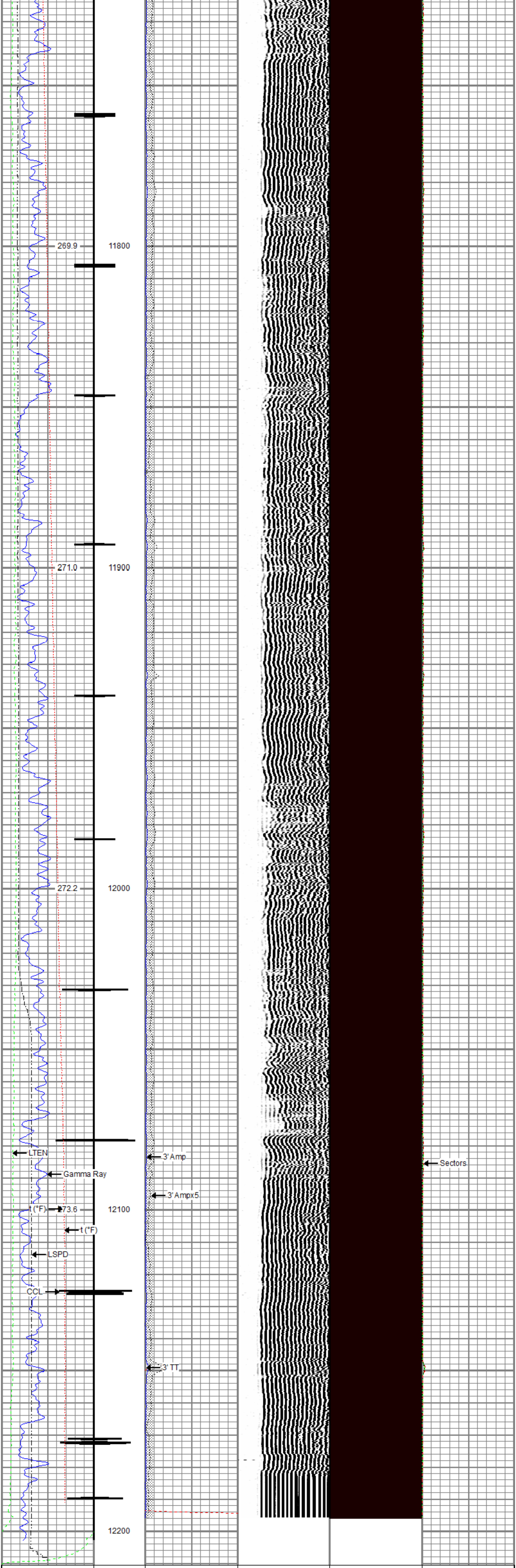


Gamma Ray
0 (GAPI) 200
Casing Collar Locator
Line Speed
-150 (ft/min) 150
0 Line Tension (lb) 500
Temperature
0 (degF) 20

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

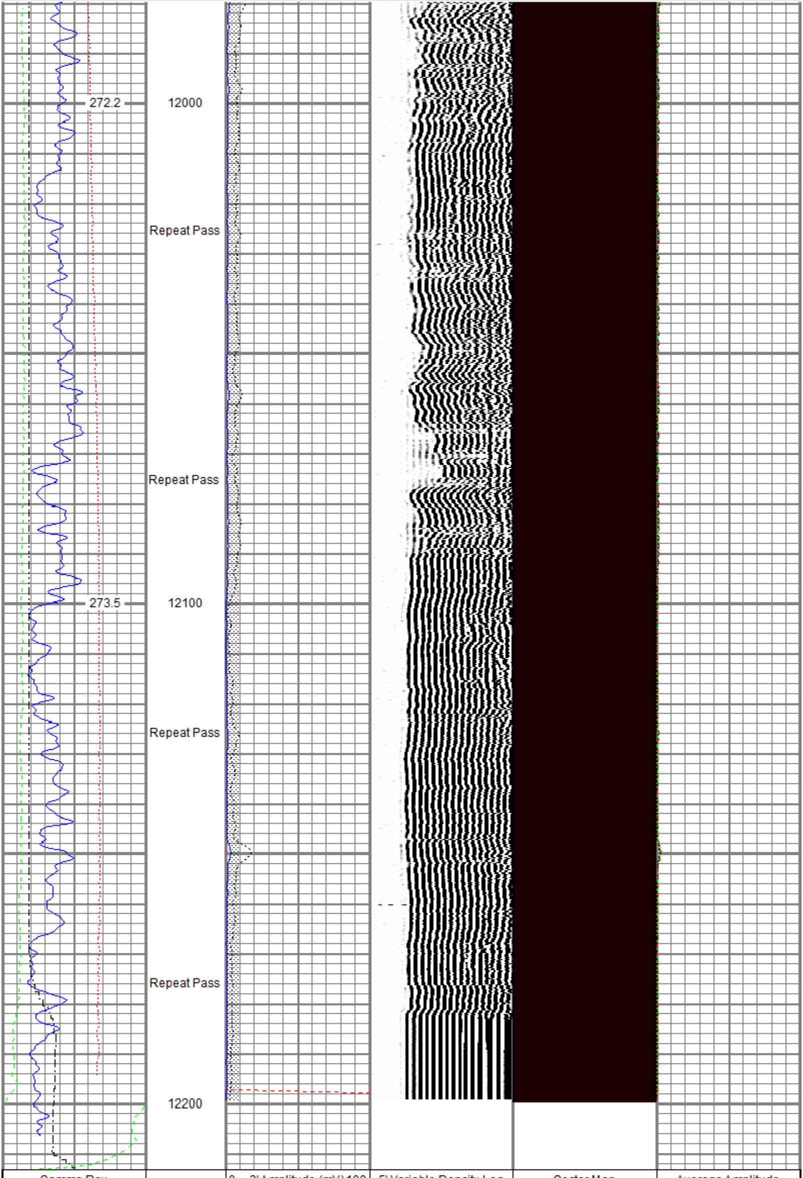
RELIANCE
OILFIELD SERVICES

Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File	tep_rg 44-7-297_rcbl_8-9-2021_1\tep_federal rg 44-7-297_rbl_08-09-21.db
Dataset Pathname	repeat.3
Presentation Format	ros_radii_tep
Dataset Creation	Tue Aug 10 13:20:33 2021
Charted by	Depth in Feet scaled 1:240

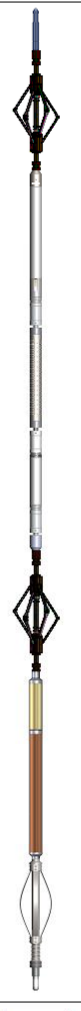
Gamma Ray	3' Amplitude (mV)	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200	0 100	200 (usec) 1200		0 150
Line Speed -150 (ft/min) 150	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
0 Line Tension (lb) 500	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Temperature 0 (degF)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



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

Sensor	Offset (ft)
mSec_Count	23.78
RBT_Status	23.78
Error_Ct	23.78
RBT_HV	19.83
RBT_TEMP	17.02
RBT_ACCZ	14.88
RBT_ACCY	14.88
RBT_ACCX	14.88
WVFSYNC	14.88
WVFS8	14.88
WVFS7	14.88
WVFS6	14.88
WVFS5	14.88
WVFS4	14.88
WVFS3	14.88
WVFS2	14.88
WVFS1	14.88
WVFCAL	14.88
WVF3FT	14.88
WVF5FT	13.88
CCL	6.80
GR	4.06

Schematic



Description	Length (ft)	O.D. (in)	Weight (lb)
STD BLCH-14375 Standard 1-7/16" Braided Line Cable Head with 1" Fishing Neck	1.04	1.44	1.00
BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00
RBT8-RADII-275T (RBT275T_Base) Probe 2.75" RADII 8 Sector Bond Tool w/ Temperature	9.20	2.75	
BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00
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
CENT-BC275-0000 Probe 2.75" Bowspring Centralizer	2.83	2.75	24.00
Plug-FA108-0000 1.38" Bull Plug	0.33	1.38	1.00

Dataset: tep_federal rg 44-7-297_rbl_08-09-21.db: field/well/run1/main.5
Total length: 23.78 ft
Total weight: 131.00 lb
O.D.: 2.75 in

Calibration Report

Database File c:\programdata\warrior\data\tep_rg 44-7-297_rcbl_8-9-2021_1\tep_federal rg 44-7-297_rbl_08-09-21.db
Dataset Pathname main.5
Dataset Creation Tue Aug 10 11:14:01 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'	-0.003	0.813	0.250	81.196	99.149	0.557
CAL	-0.004	0.754				
5'	-0.005	0.617	0.250	81.196	130.092	0.930
SUM						
S1	-0.004	0.834	0.000	100.000	119.308	0.457
S2	-0.001	0.844	0.000	100.000	118.344	0.144
S3	-0.002	0.844	0.000	100.000	118.170	0.224
S4	-0.003	0.821	0.000	100.000	121.368	0.304
S5	-0.002	0.780	0.000	100.000	127.804	0.276
S6	-0.003	0.770	0.000	100.000	129.274	0.443
S7	-0.000	0.788	0.000	100.000	126.807	0.035
S8	-0.006	0.799	0.000	100.000	124.242	0.692

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 44-7-297
Field	Sulphur Creek
County	Rio Blanco
State	Colorado