Schlumberger

Company: Crestone Peak Resources and Operating LLC

Well: Echeverria 2K-2H-D267

Field: Wattenberg

County: Weld State: Colorado

County: Weld
Field: Wattenberg
Location: NWNW Sec. 2, T2N, R67W
Well: Echeverria 2K-2H-D267
Company: Crestone Peak Resources and Operating LLC

Slim Cement Mapping Tool

Cement Evaluation

Gamma Ray - CCL Log

Location:				
NWNW Sec. 2, T2N, R67W		Elev.:	K.B.	4909.00 ft
SHL: 897' FNL & 659' FWL			G.L.	4881.00 ft
Lat/Long: 40.172030 \ -104.864613			D.F.	4909.00 ft
Permanent Datum:	Ground Level	Elev.:	4881.00 f	
Log Measured From:	Kelly Bushing	28.00 ft	above Perm.Datum	
Drilling Measured From:	Kelly Bushing			

API Serial No.	Section:	Township:	Range:
05-123-48751	2	2N	67W

Logging Date		21-May-2019	
Run Number		Two	
Depth Driller		12425.00 ft	
Schlumberger Depth		12425.00 ft	
Bottom Log Interval		7200.00 ft	
Top Log Interval		90.00 ft	
Casing Fluid Type		Brine	
Salinity			
Density		8.4 lbm/gal	
Fluid Level		8.00 ft	
BIT/CASING/TUBING STRING			
Bit Size		8.50 in	
From		2376.00 ft	
To		12425.00 ft	
Casing/Tubing Size		5.5 in	
Weight		20 lbm/ft	
Grade		N/A	
From		0.00 ft	
To		12412.00 ft	
Max Recorded Temperatures		224 degF	
Logger on Bottom	Time	21-May-2019 20:17:00	
Unit Number	Location:	9111 Fort Morgan	
Recorded By		A.Blochowicz/ A. Alkindi	
Witnessed By		John Ansbor	

Disclaimer

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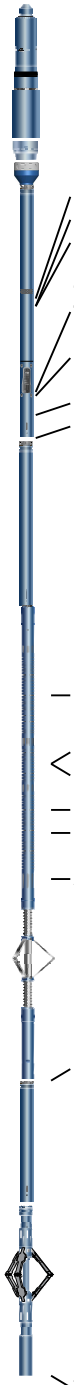
Remarks and Equipment Summary

Two: Toolstring

Equip name	Length
LEH-QT	**32.49**
LEH-QT	
AH-323	**29.00**
AH-329	**28.57**
PSTP-A:1925	**28.27**
PSC-A:2776	
PSTC-A:2776	
PBMS-A:1925	
Sapphire 10kPSI:2776	
SCMT-CB:8258	**20.01**
SECH-CA	
SCMC-CA:8140	
SCMS-CB:8258	
SCMX-CA:8213	
CMIR-AG	



MP name	Offset
GR	**24.57**
PSTC	**24.27**
PSTC Tool String Bottom	**0.00**
Temperature	**21.49**
Sapphire Pressure	**21.37**
CCL	**20.76**
PBMS	**20.01**
DT	**14.48**
CBL5	**12.98**
DTSC	**12.98**
CBL3	**11.98**
MAP	**11.48**
AUX	**10.48**
SCMT	**6.16**
TOOL_ZERO	

Lengths are in ft
Maximum Outer Diameter = 3.375 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Two: Remarks

Thank you for choosing Schlumberger!

Toolstring run centralized as per toolsketch

Three 5" Gemcos for SCMT used for centralization

Log run under 0 psi

Annular Fluid: 10.5 ppg OBM
Spacer: 11 ppg
Lead Cement: 12.5 ppg
Tail Cemnet: 13.5 ppg

Log correlated to Isolation Scanner log at 7000ft

Crew: Alex Schaab

Depth Summary

	Two		
Depth Measuring Device			
Type	IDW-IA		

Type	IDW-3A		
Serial Number	6241		
Calibration Date	30-Apr-2019		
Calibrator Serial Number	IDWC-C-57		
Calibration Cable Type	7-46 PXS		
Wheel Correction 1	-1		
Wheel Correction 2	-2		

Tension Device

Type	CMTD-B/A		
Serial Number	161		
Calibration Date	13-May-2019		
Calibrator Serial Number	1148		
Number of Calibration Points	10		
Calibration Root Mean Square Error	6		
Calibration Peak Error	10		

Logging Cable

Type	7-46P-XS		
Serial Number	U712020		
Length	23245.00 ft		
Conveyance Type	Wireline		
Rig Type	Crane		

Two:Depth Control Parameters		Depth Control Remarks
Log Sequence	Subsequent Log In the Well	All Schlumberger depth control procedures were followed
Reference Log Name	Isolation Scanner	IDW used as primary depth control.
Reference Log Run Number	One	Z-chart used as secondary depth control
Reference Log Date	21-May-2019	Depth correlated to Isolation Scanner Log

Two

Main Pass

Software Version

Acquisition System	Version
Maxwell 2019	9.0.106845.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Two	Log[4]:Up	Up	76.26 ft	7247.19 ft	21-May-2019 7:11:31 PM	21-May-2019 11:22:07 PM	ON	4.74 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Crestone Peak Resources and Operating LLC Well:Echeverria 2K-2H-D267

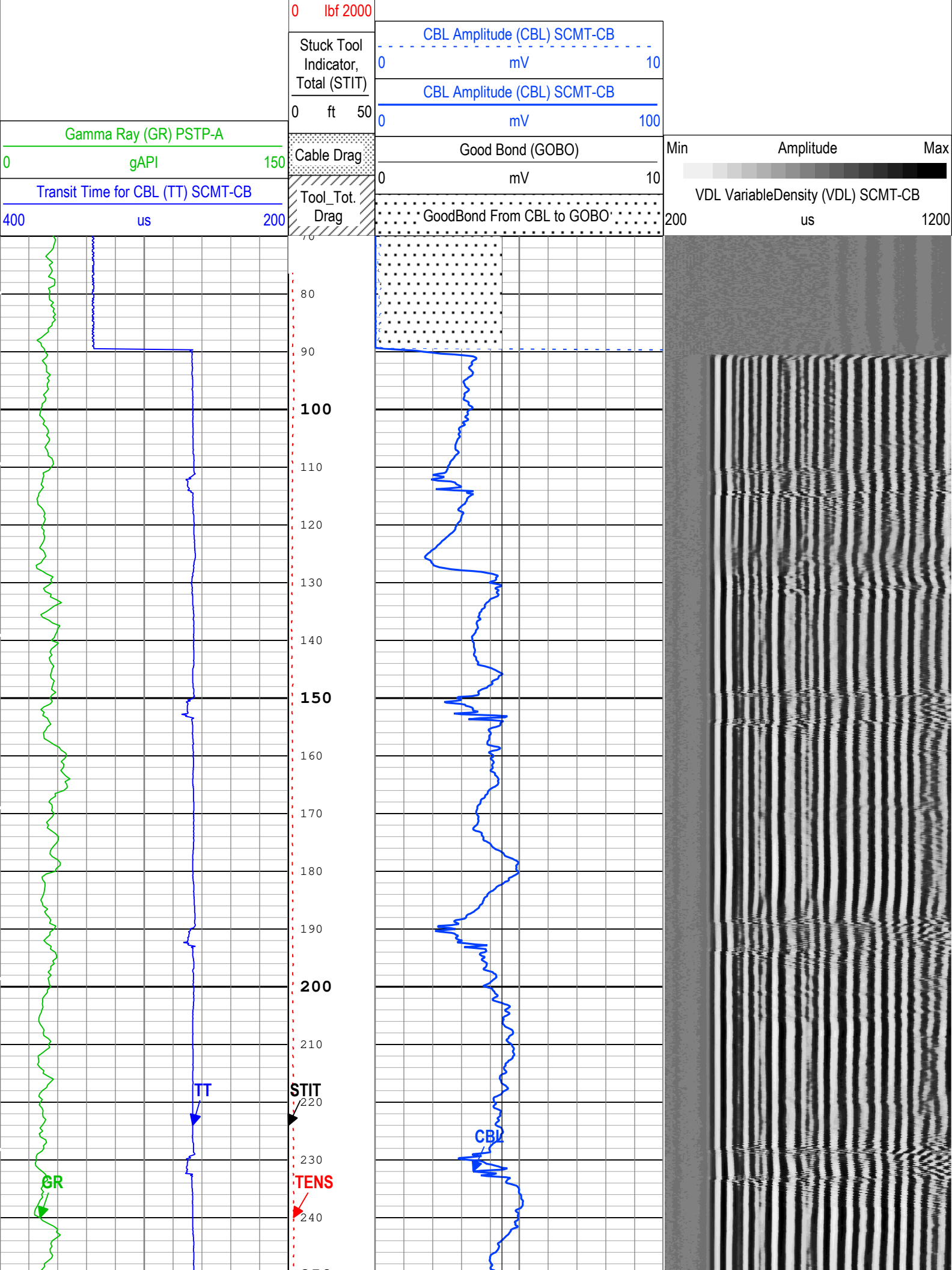
Two: Log[4]:Up:S003

Description: Sonic CBL with VDL Format: Log (Sonic CBL with VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 23-May-2019 13:06:32

TIME_1900 - Time Marked every 60.00 (s)

BIEP - Bond Index Event Pips SCMT-CB

Cable Tension (TENS)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Stuck Tool Indicator, Total (STIT)
0 ft 50
Cable Drag
Tool_Tot. Drag
Gamma Ray (GR) PSTP-A
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Transit Time for CBL (TT) SCMT-CB
400 us 200
CBL Amplitude (CBL) SCMT-CB
0 mV 10
CBL Amplitude (CBL) SCMT-CB
0 mV 100
Good Bond (GOBO)
0 mV 10
GoodBond From CBL to GOBO
Min Amplitude Max
VDL VariableDensity (VDL) SCMT-CB
200 us 1200
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240
TT
GR
STIT
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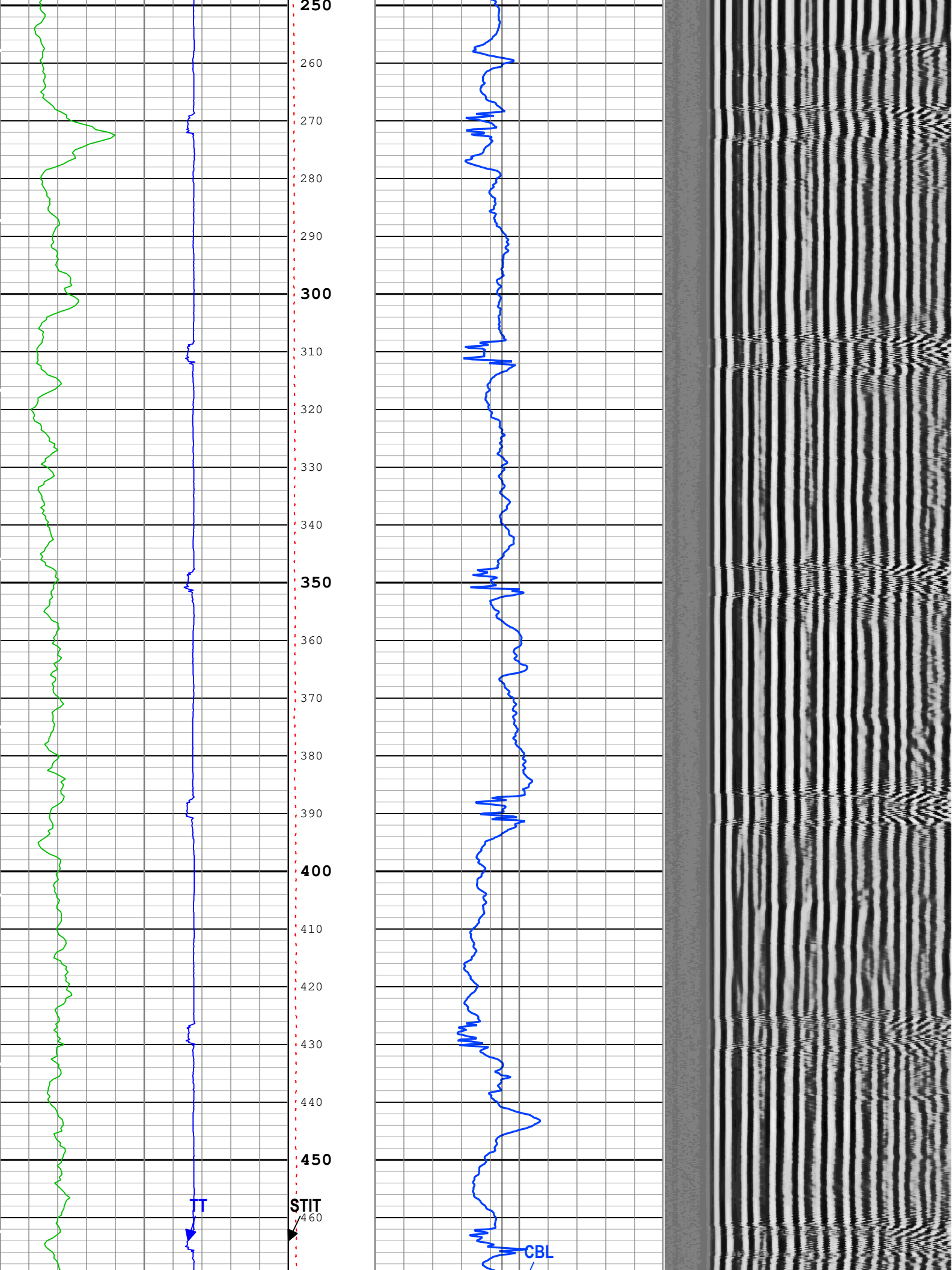
CBL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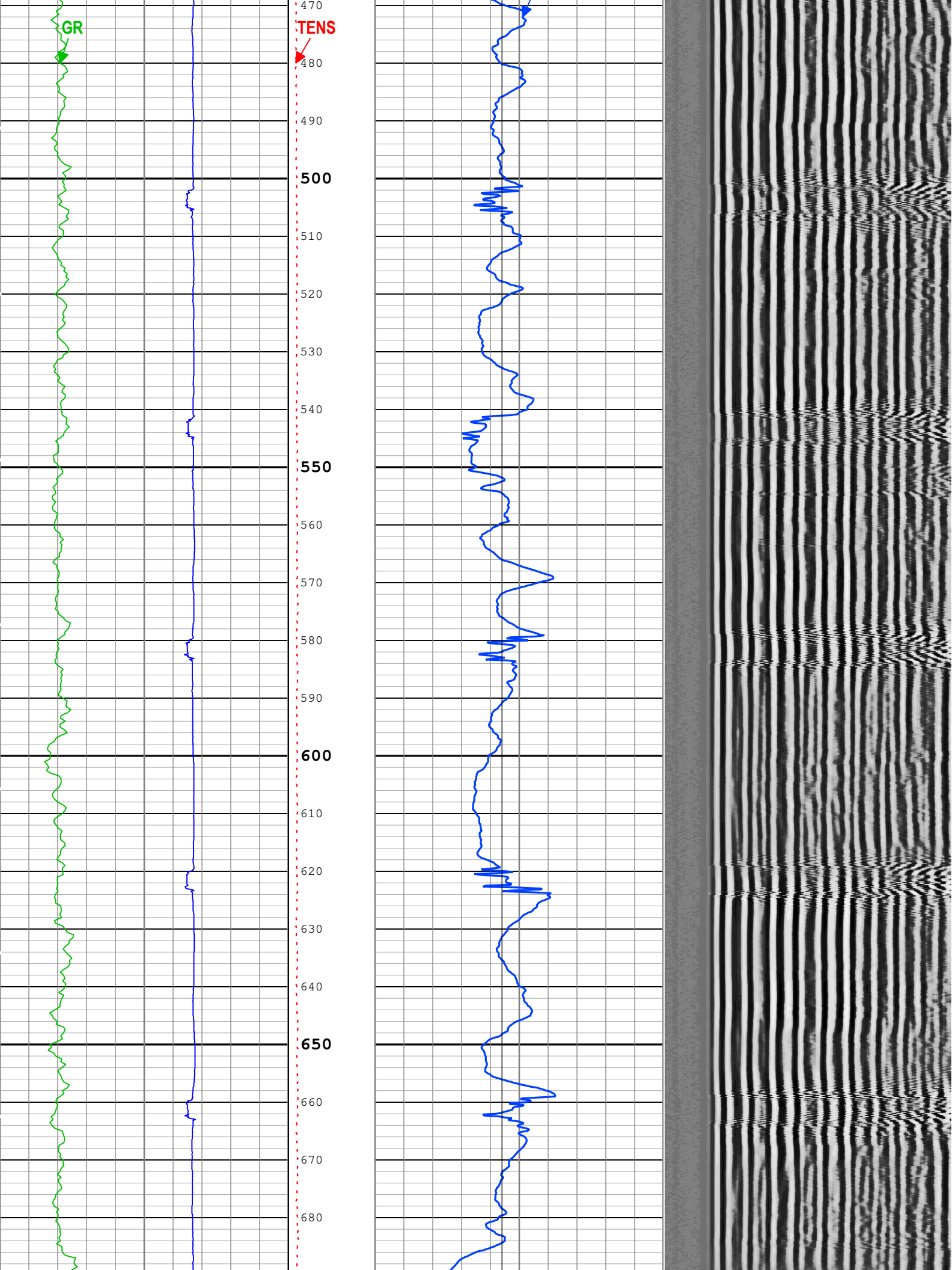
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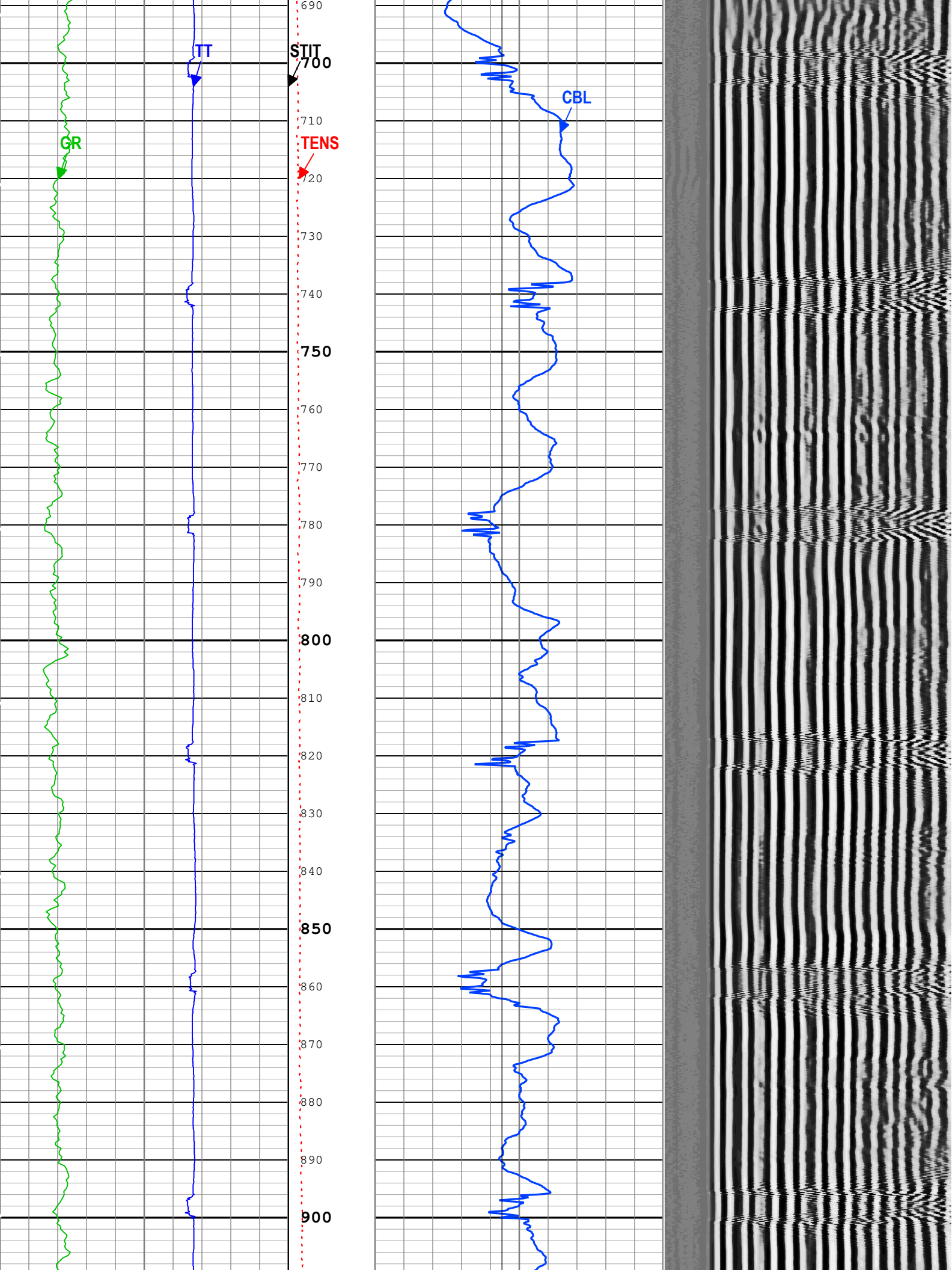
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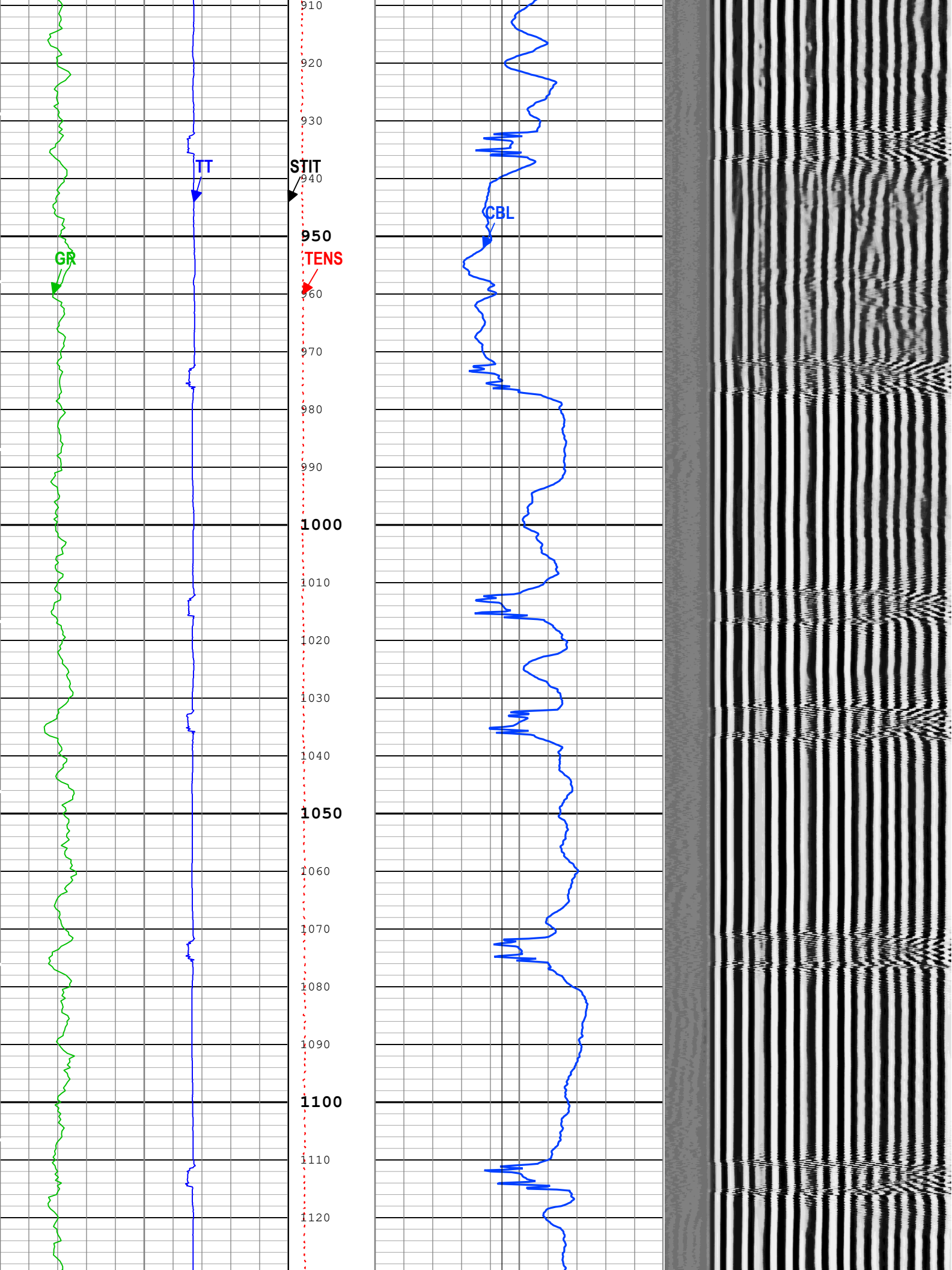
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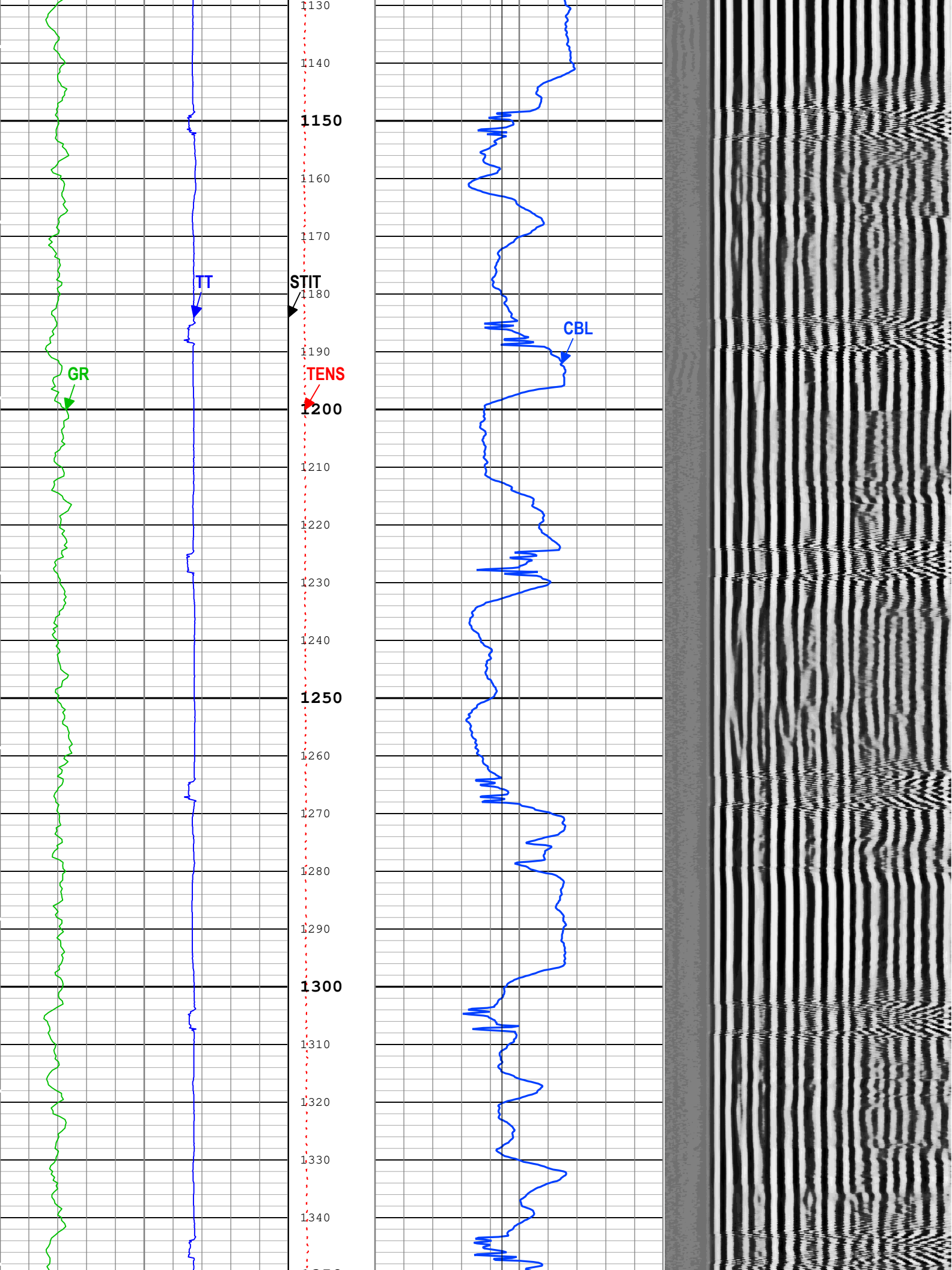
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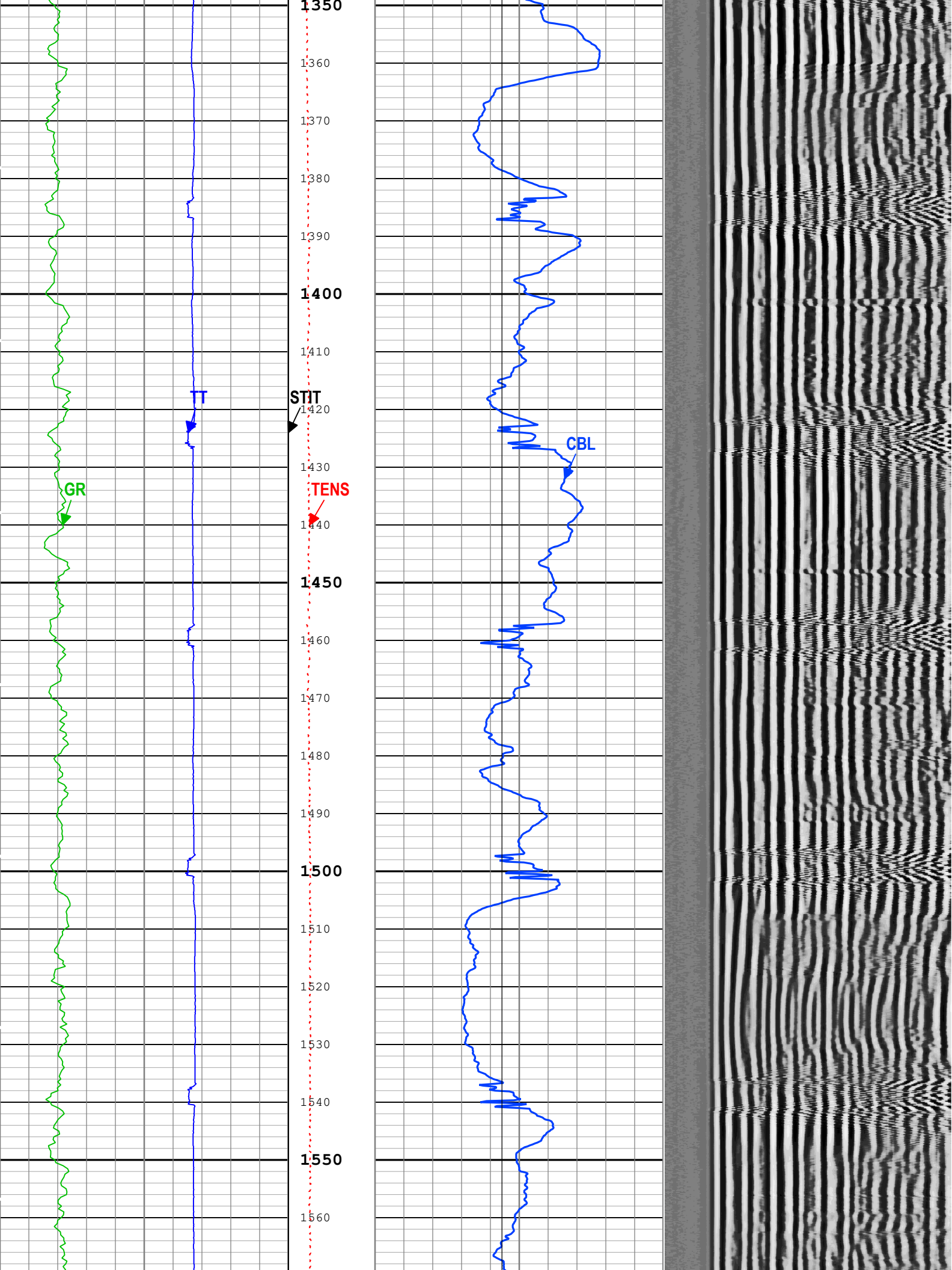
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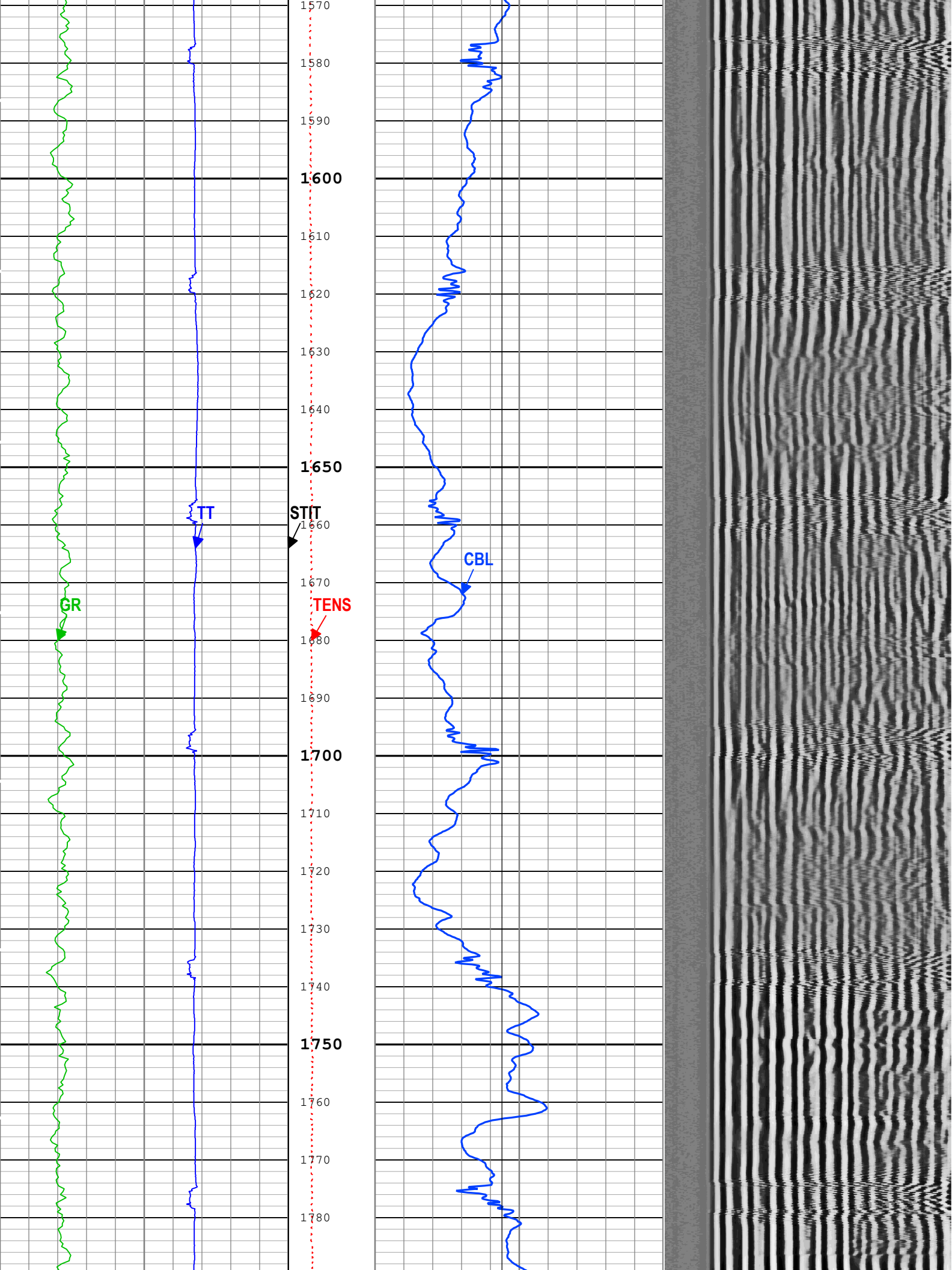
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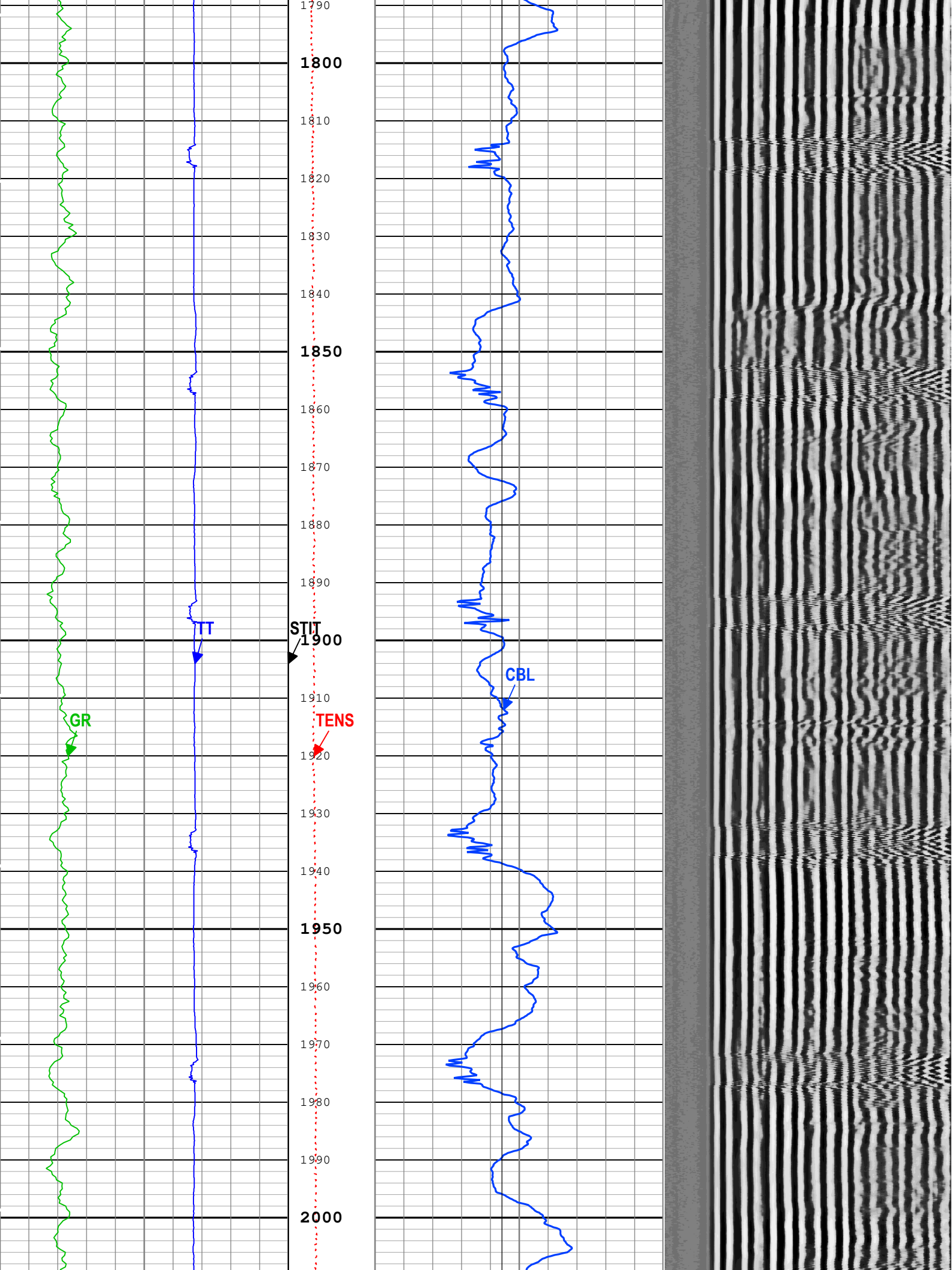
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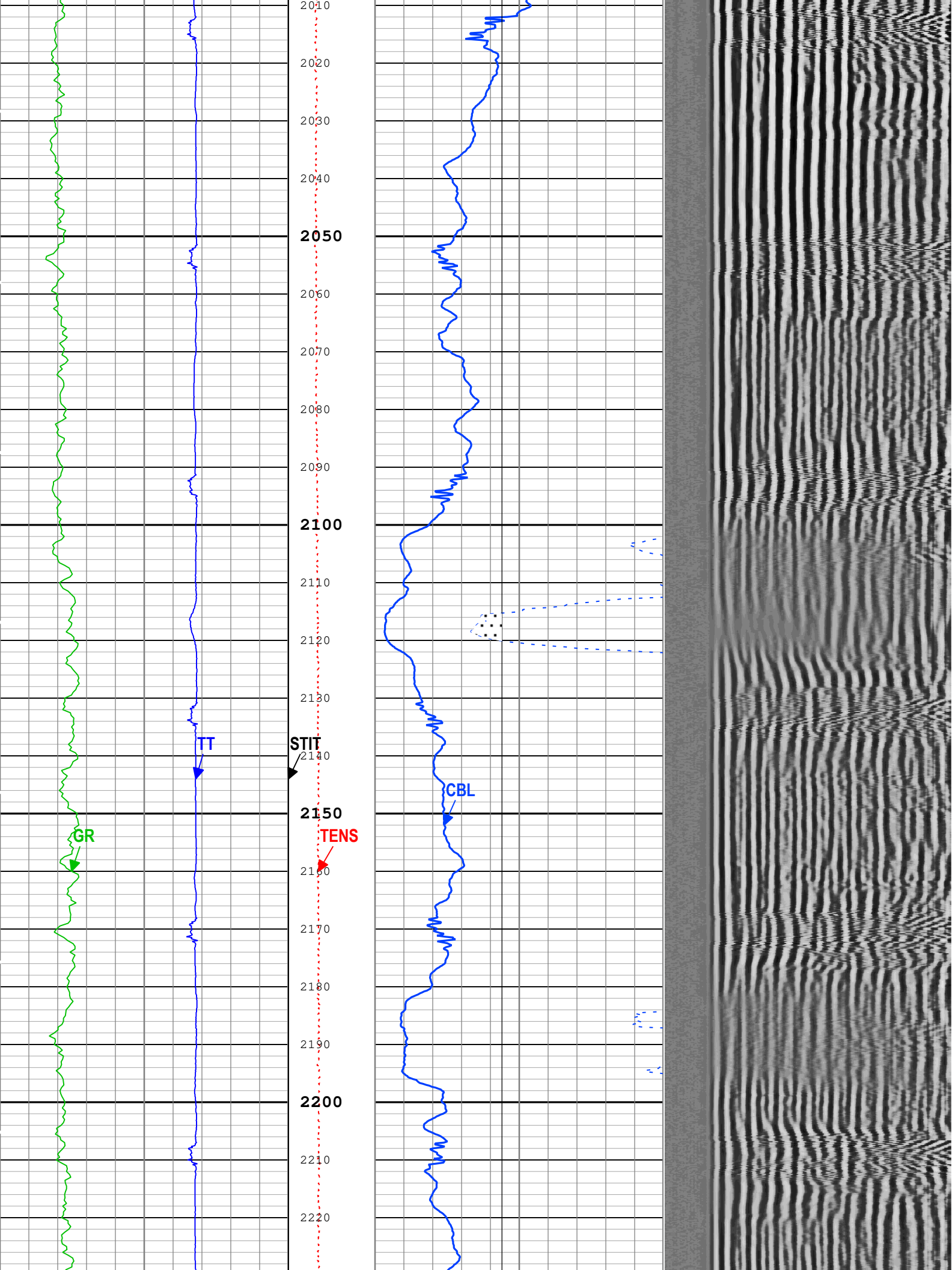
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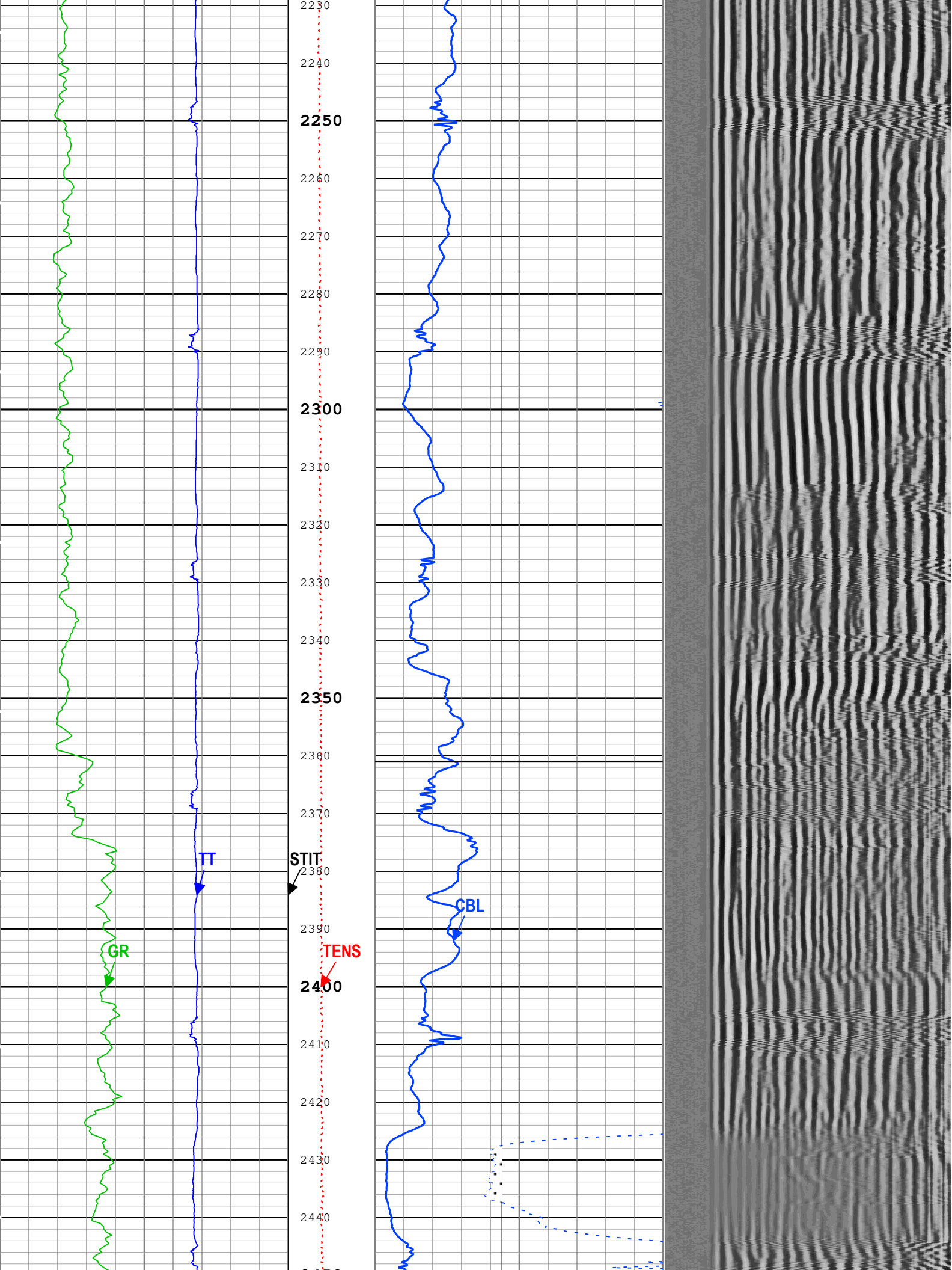
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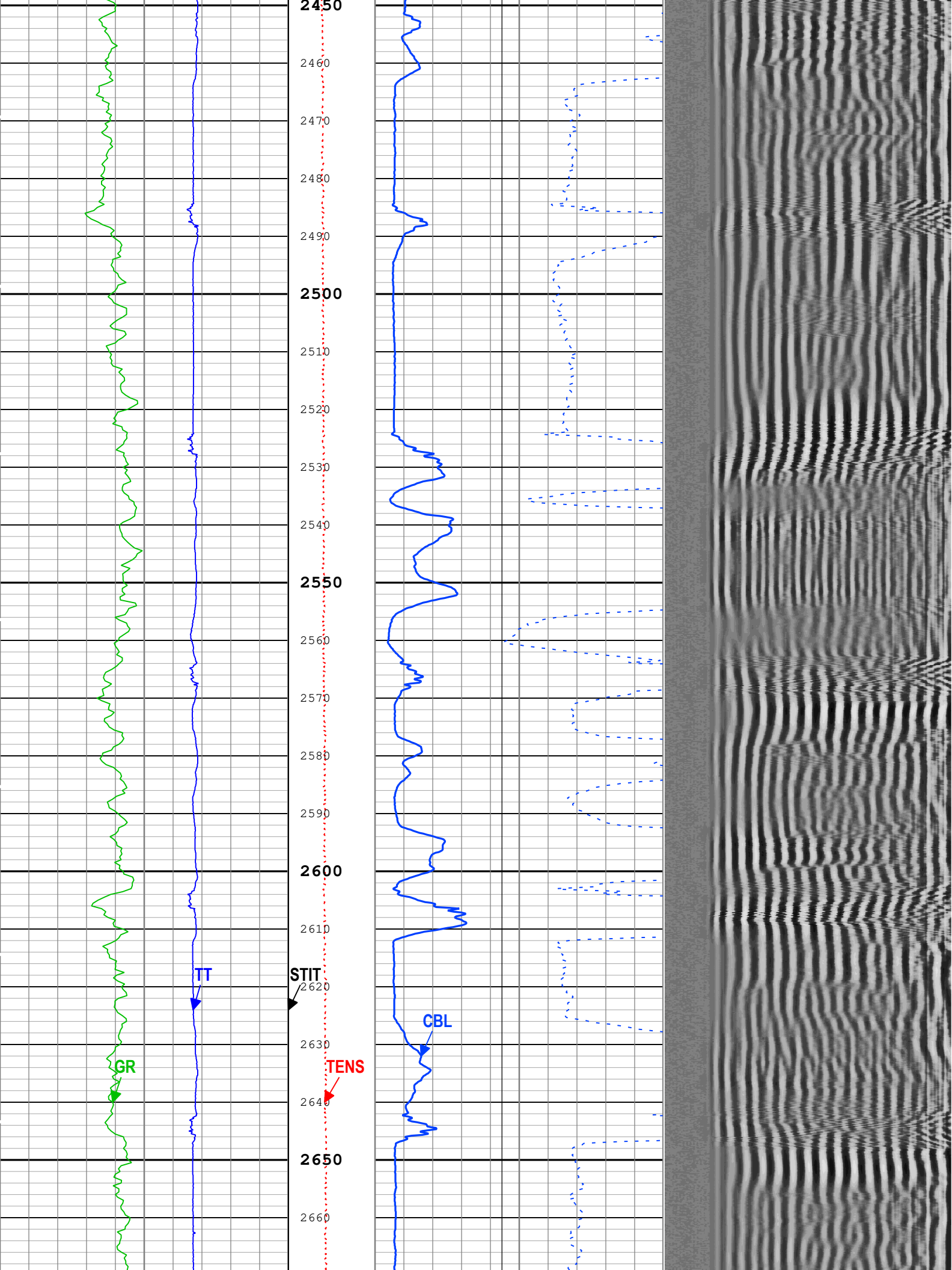
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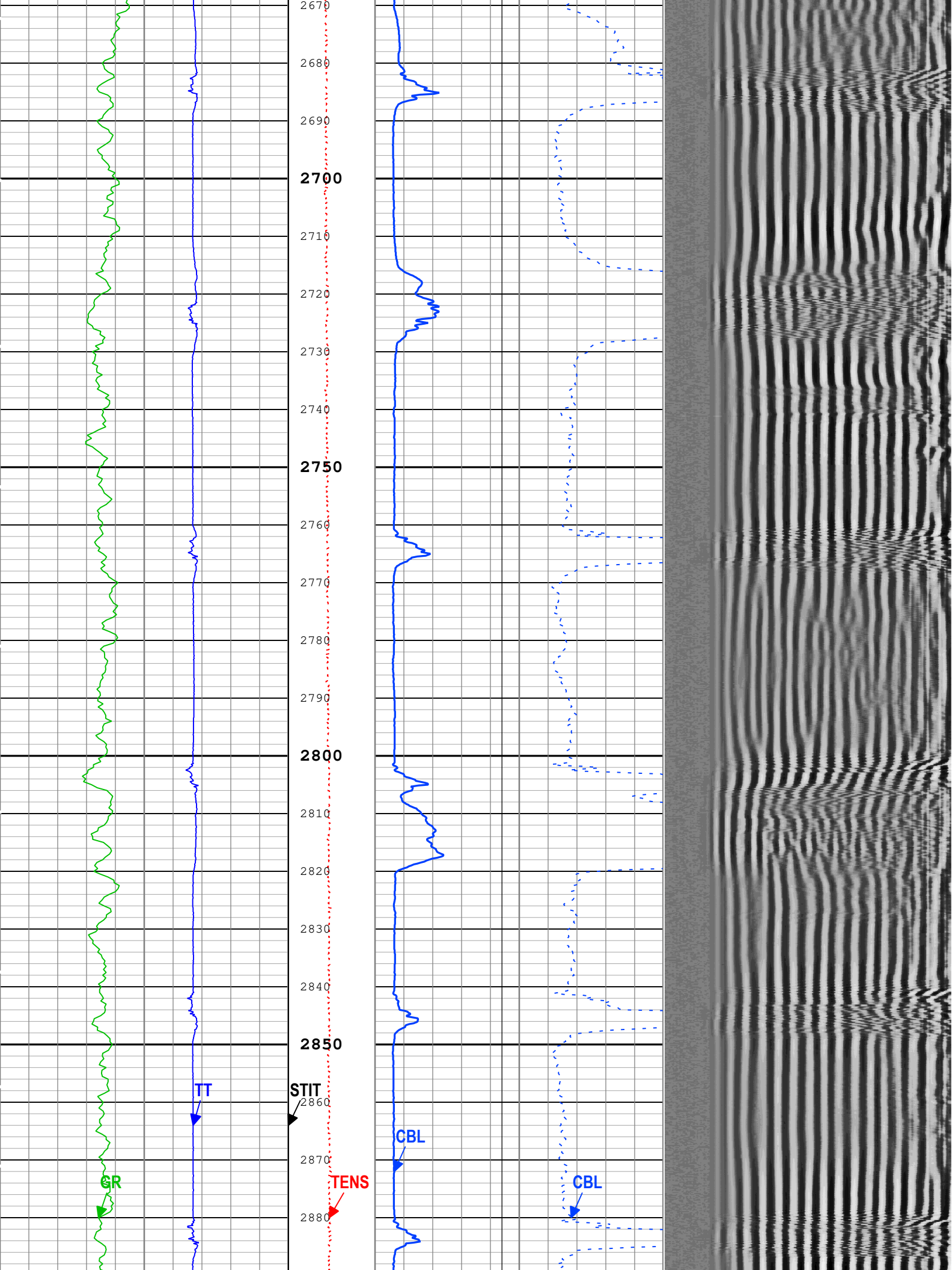
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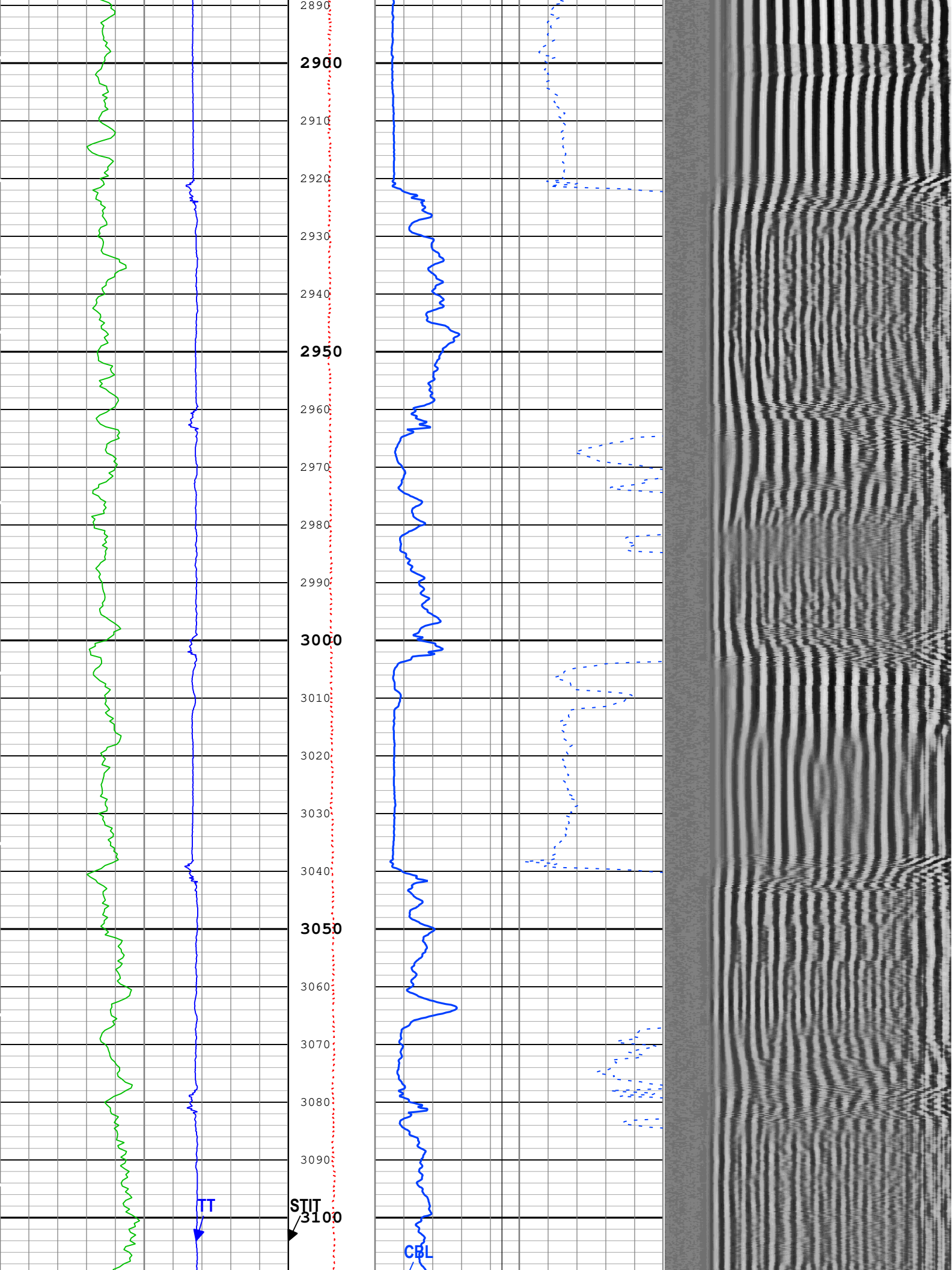
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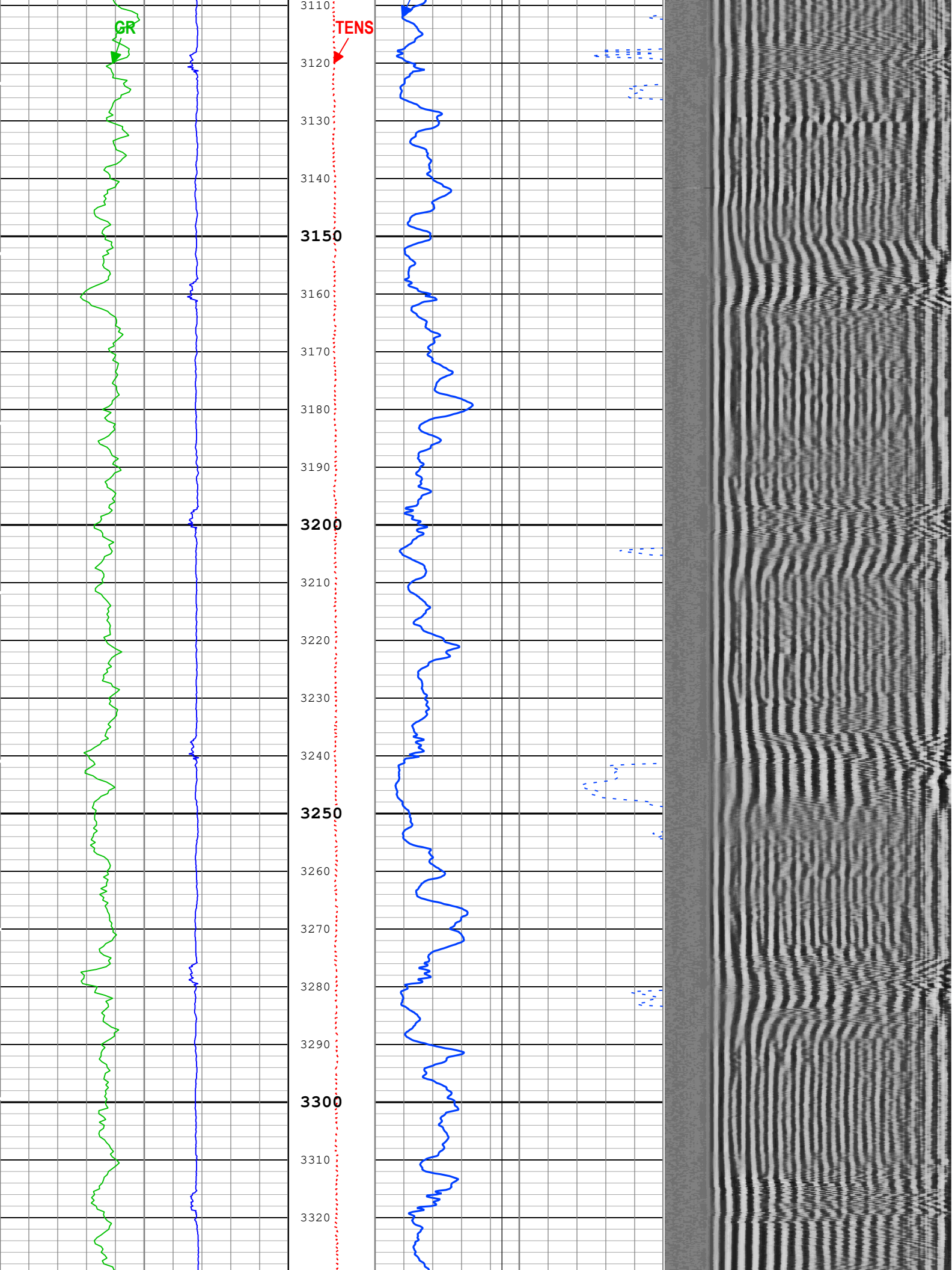
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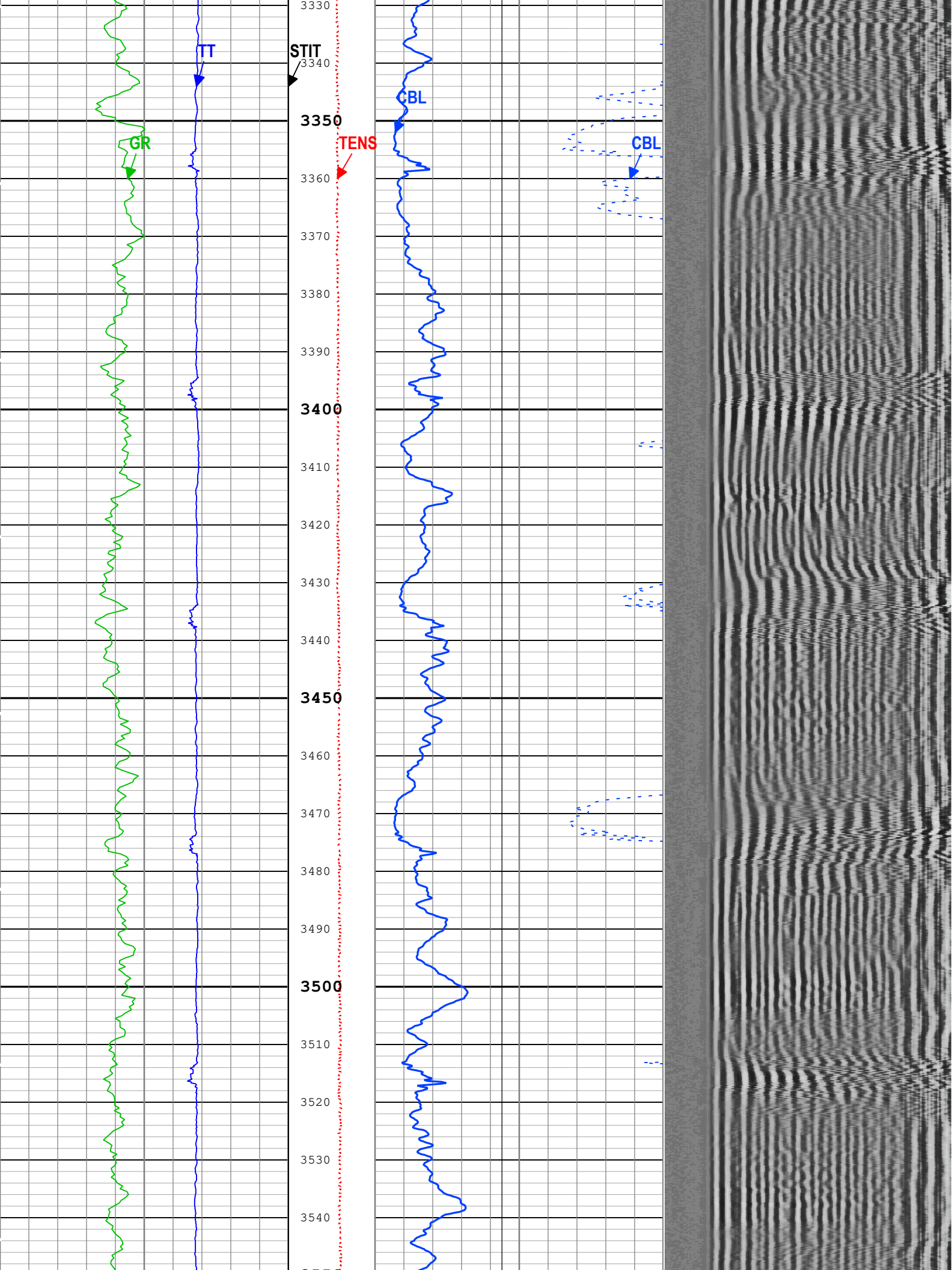
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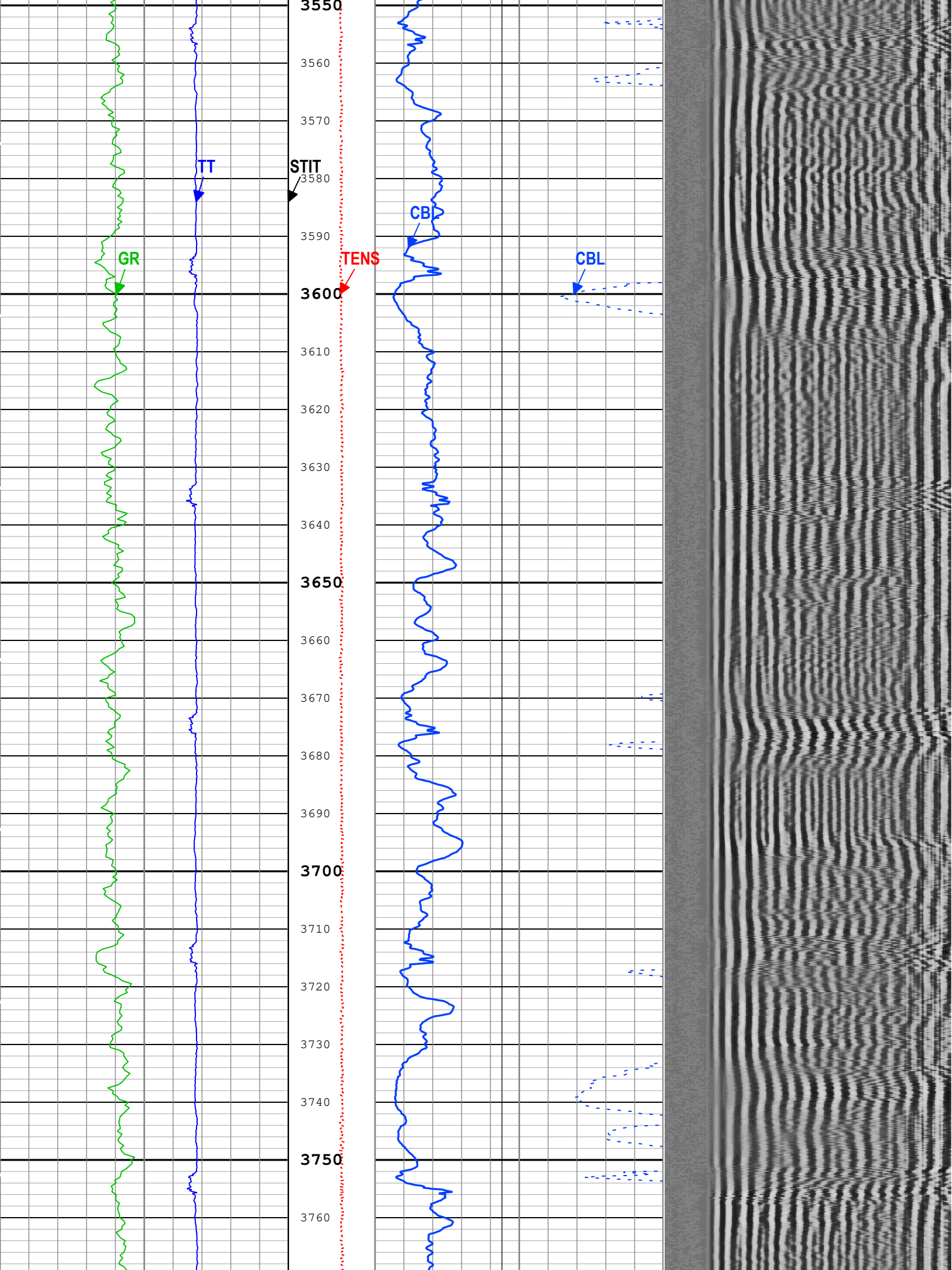
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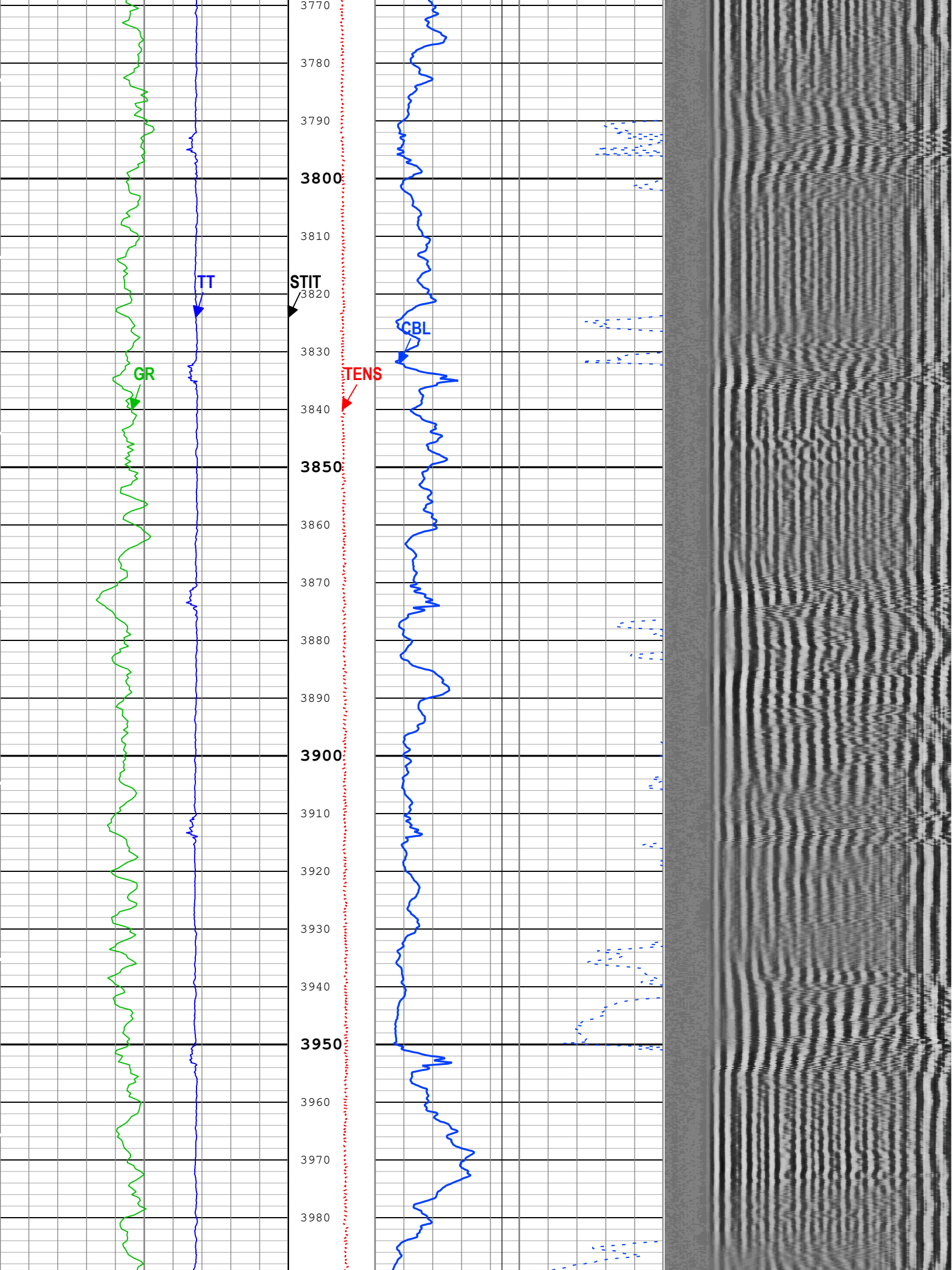
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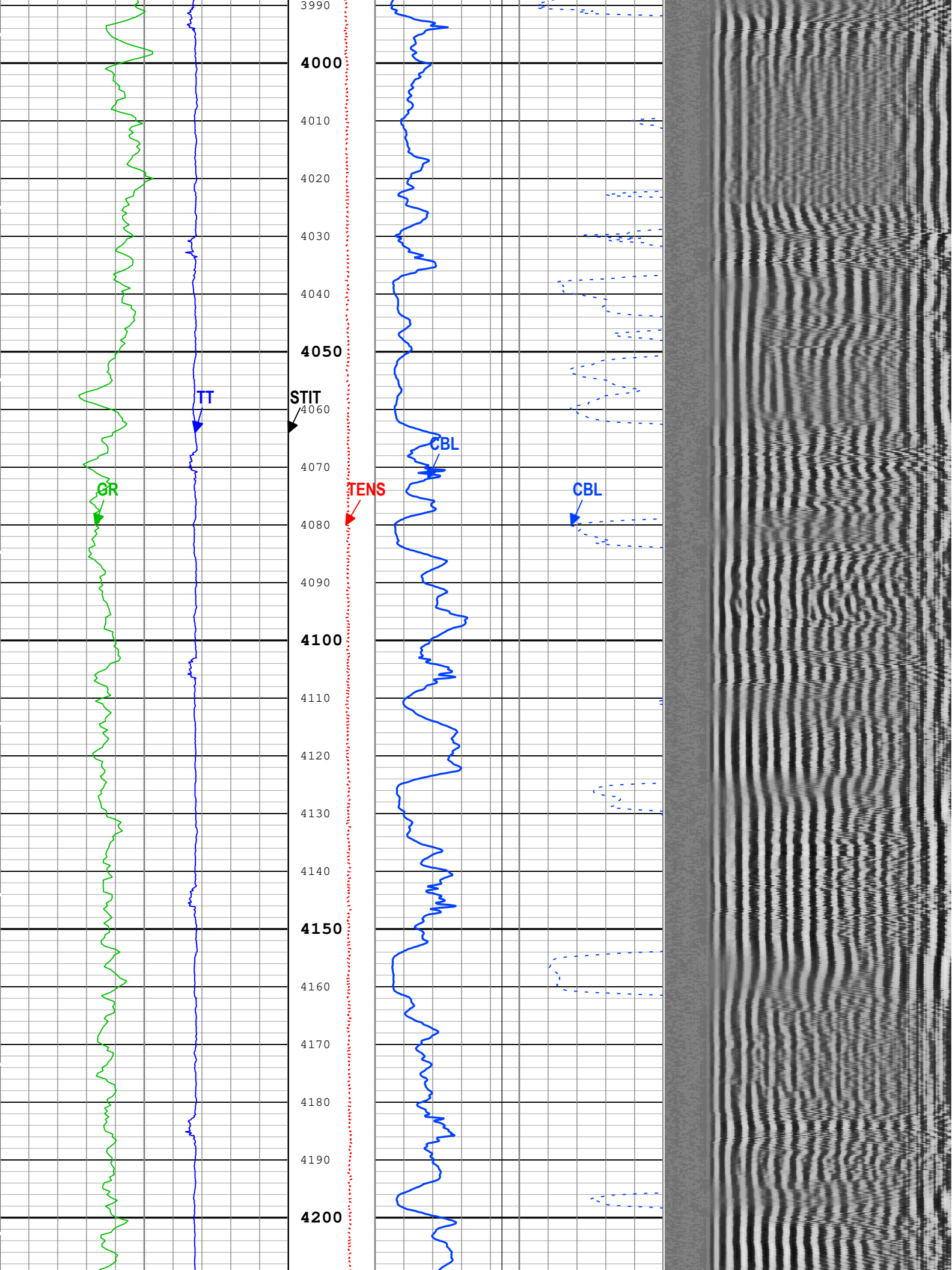
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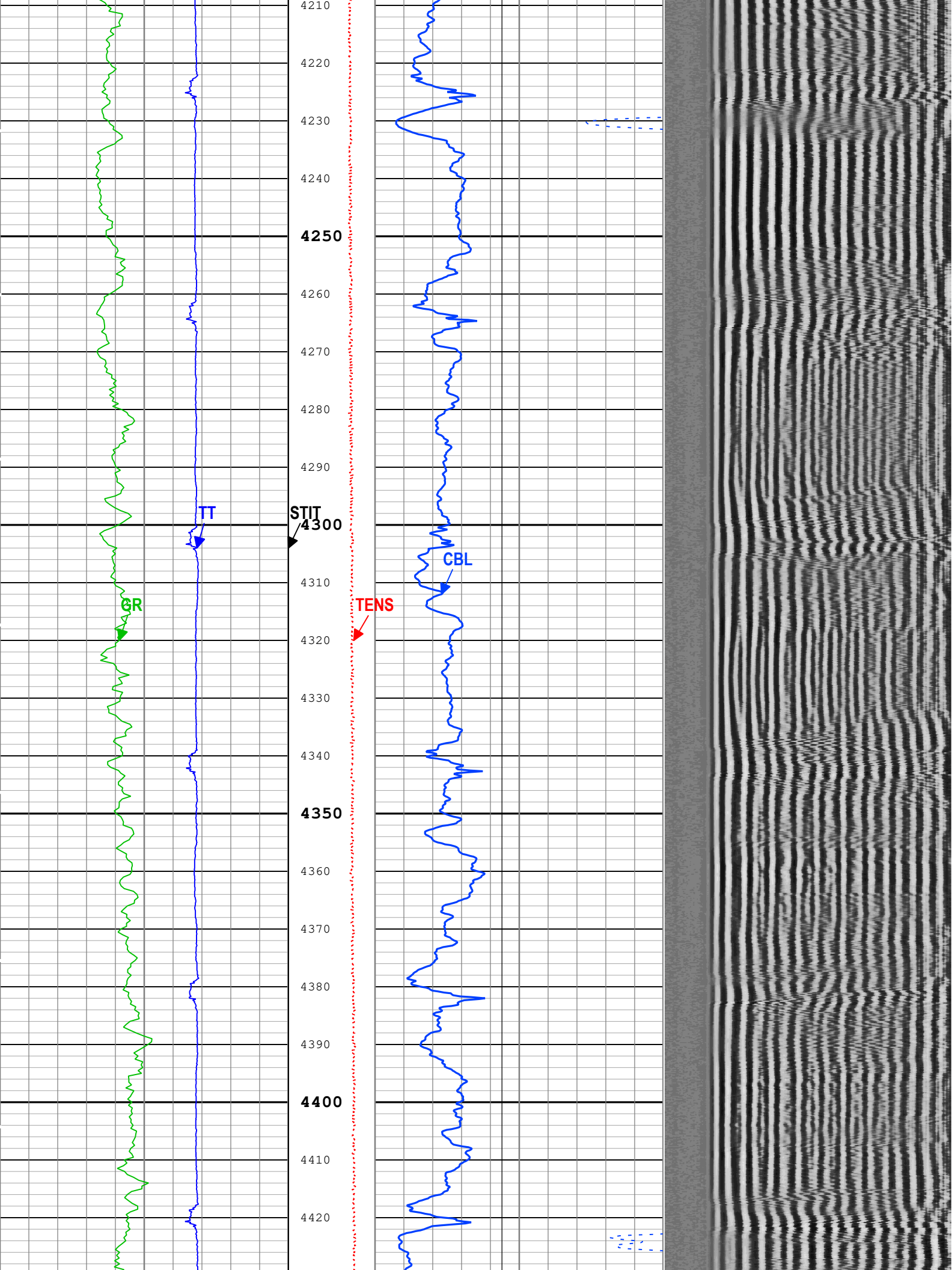
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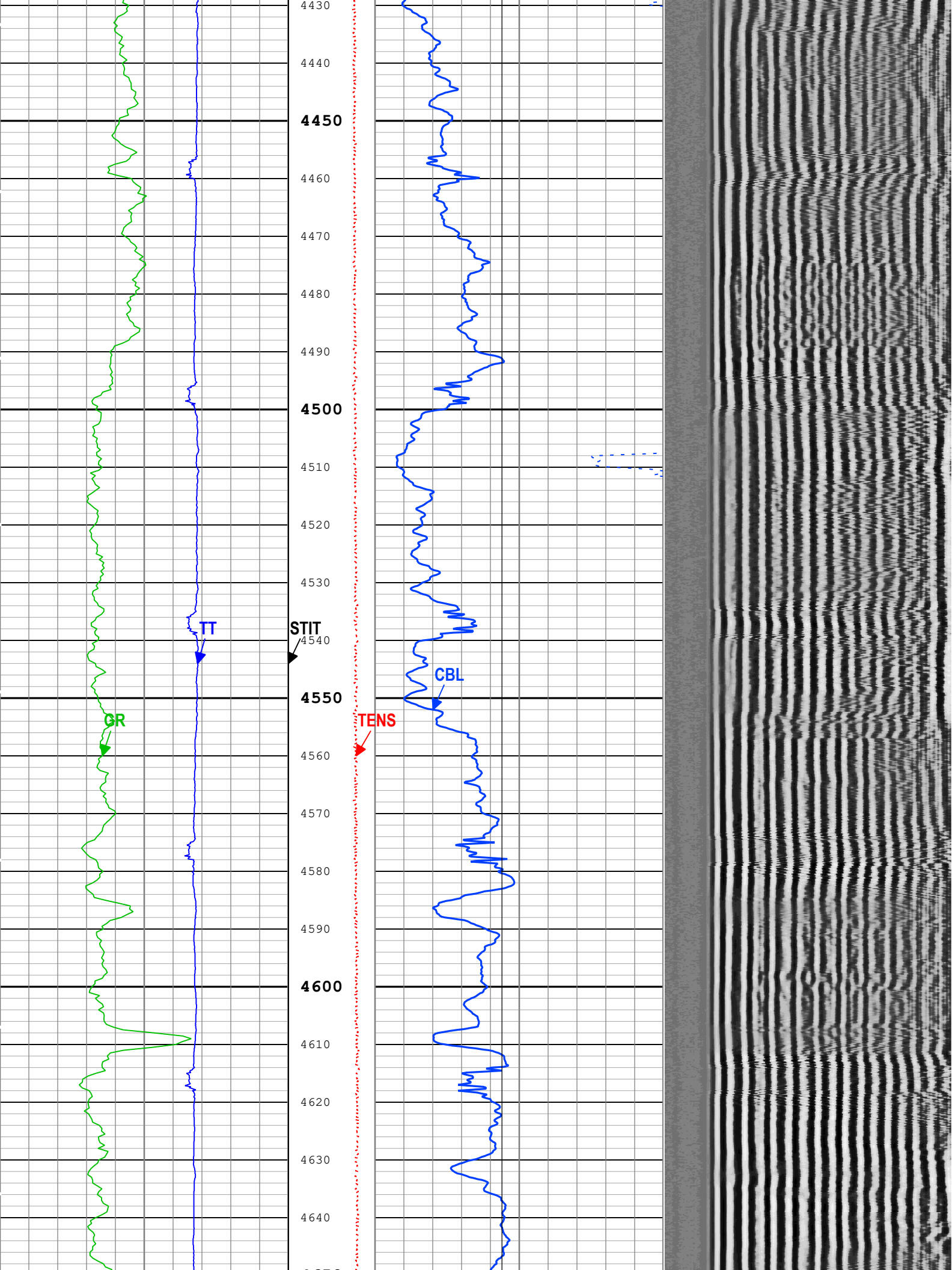
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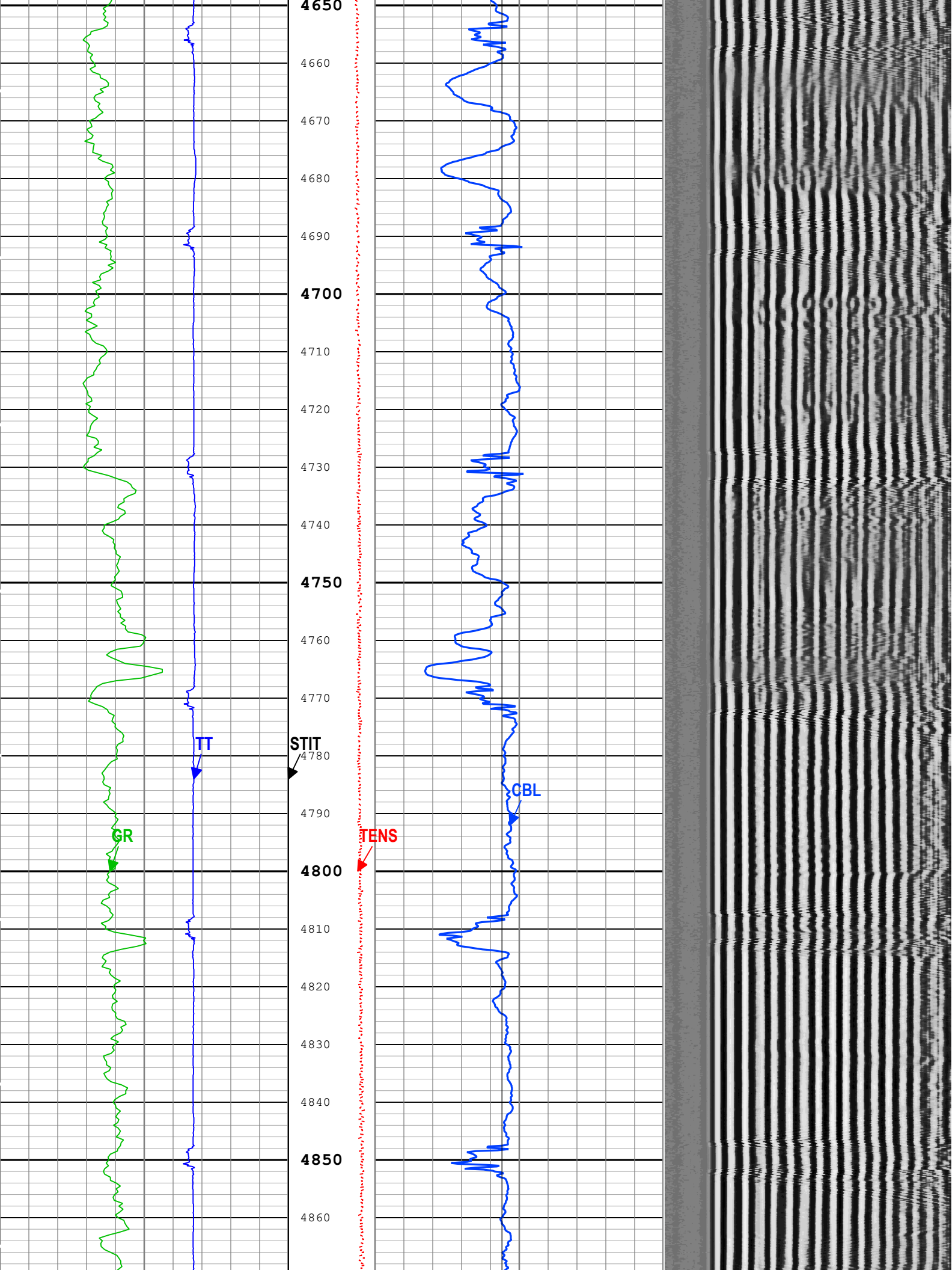
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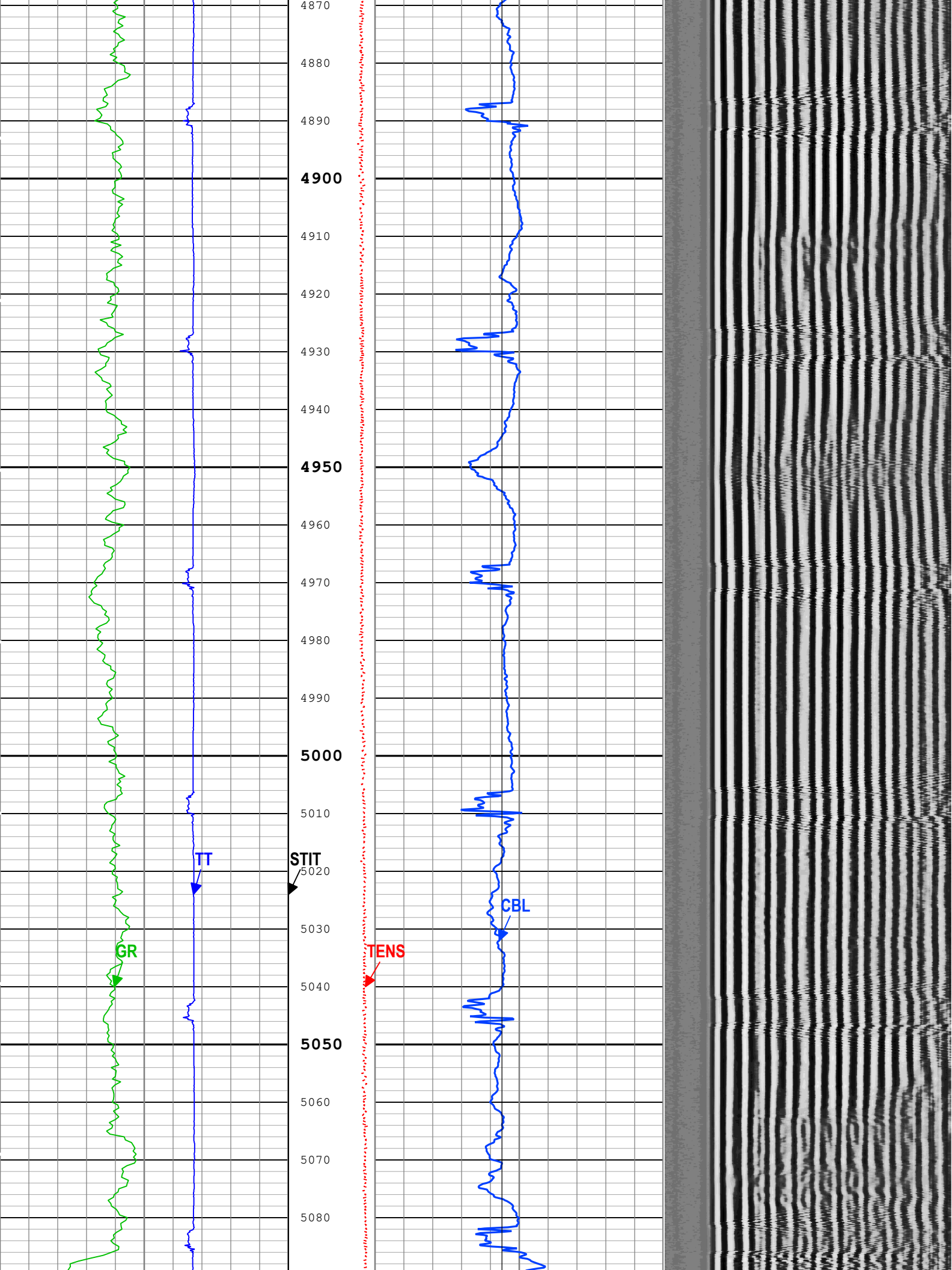
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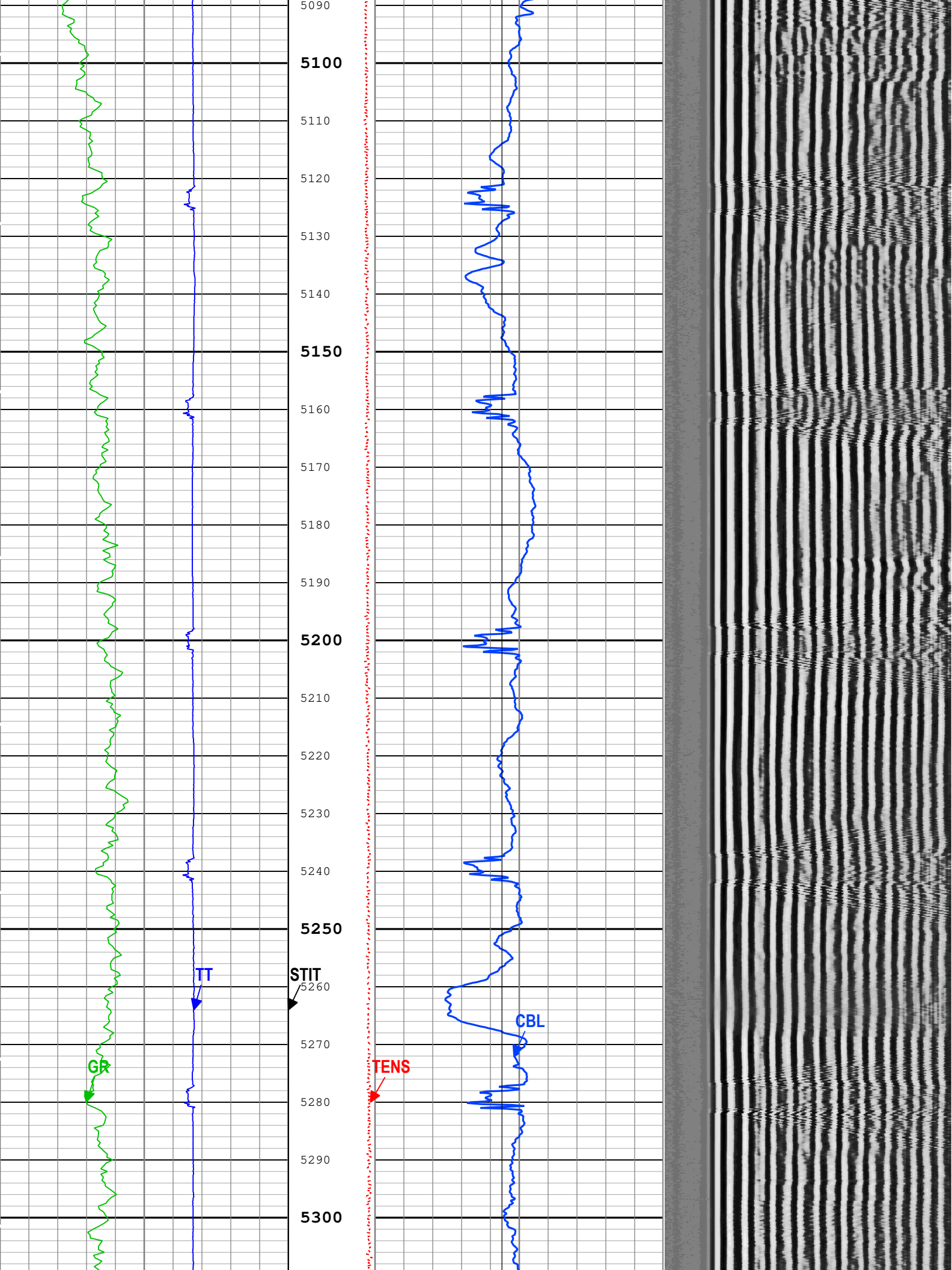
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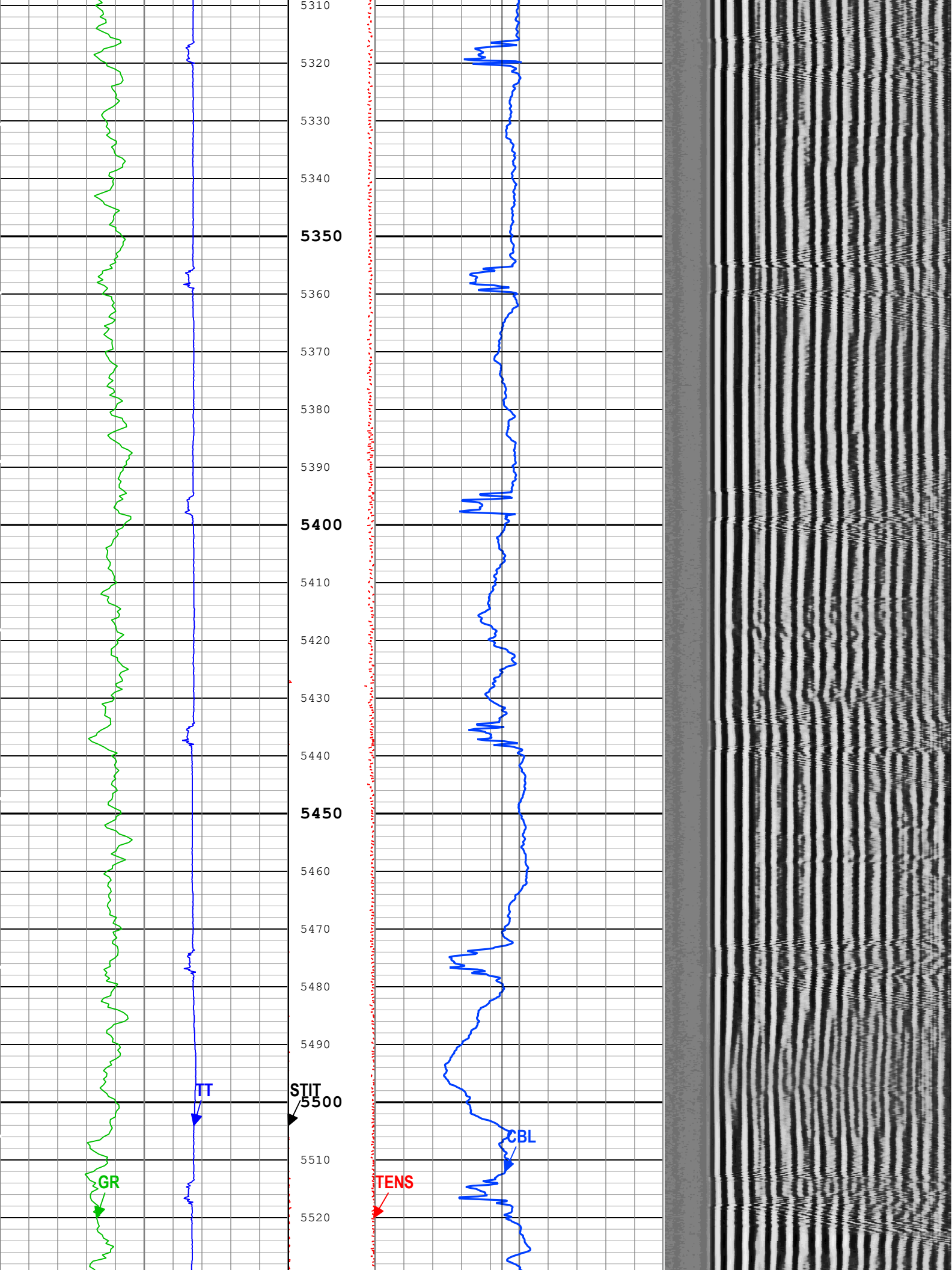
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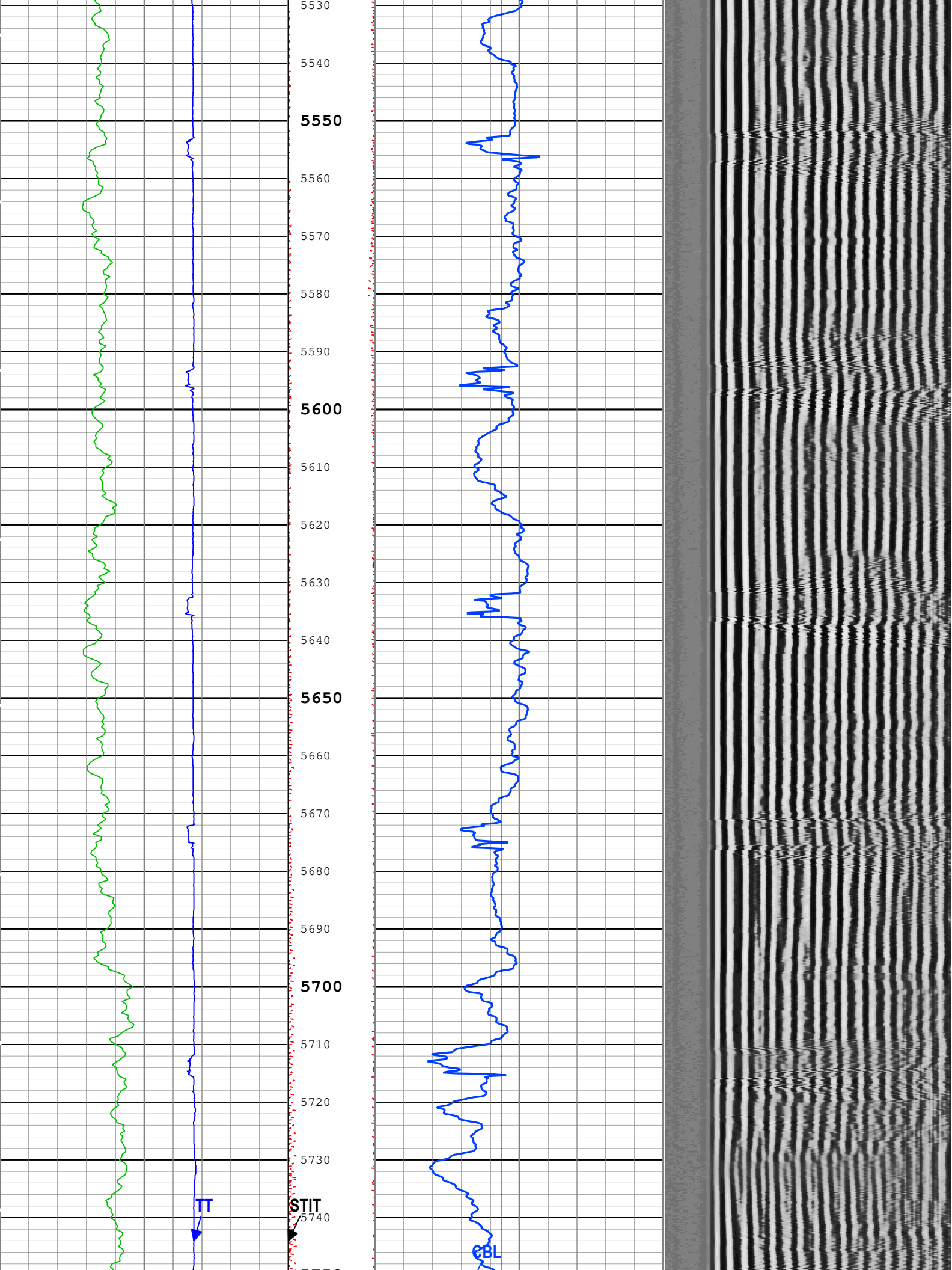
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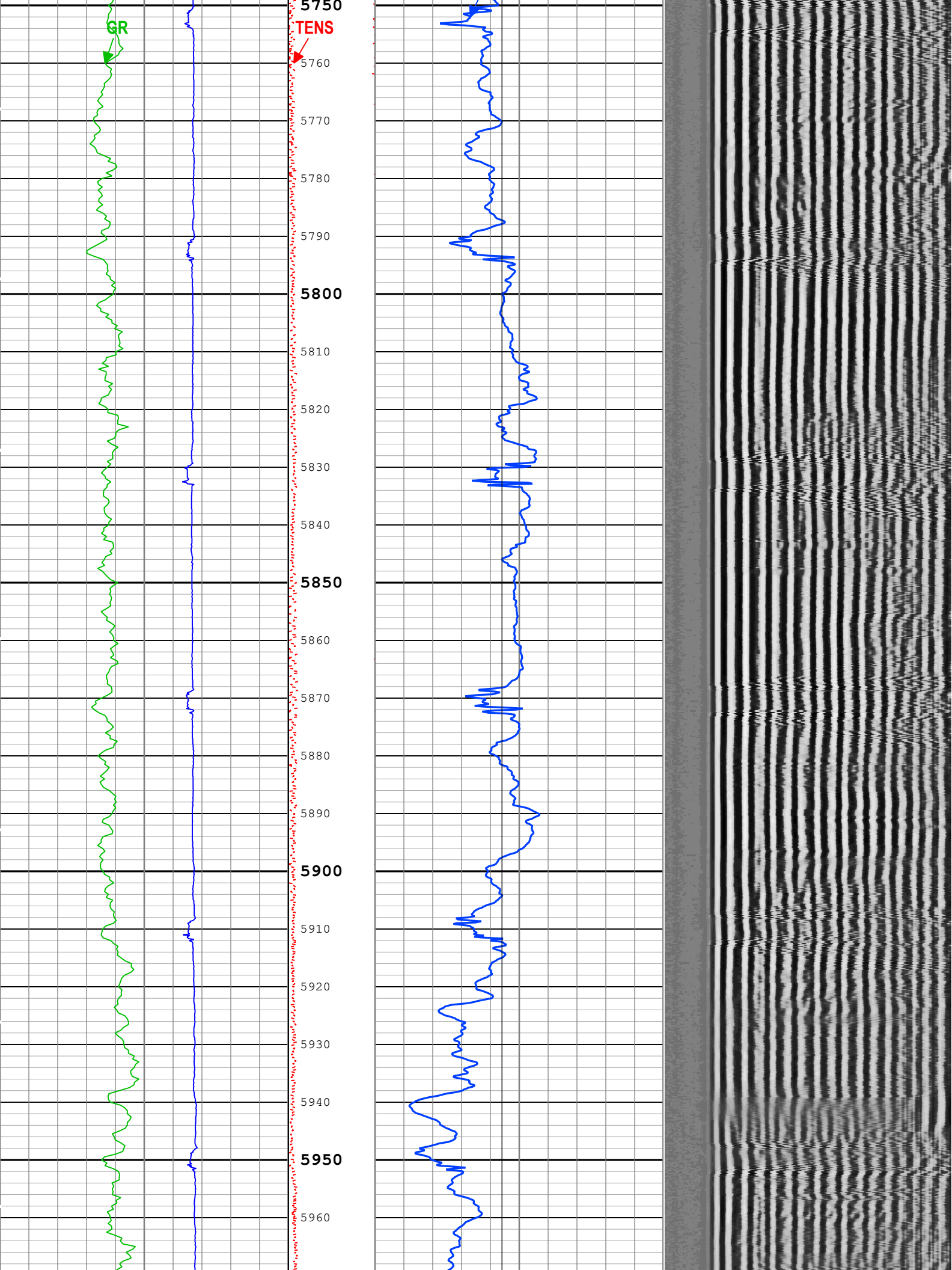
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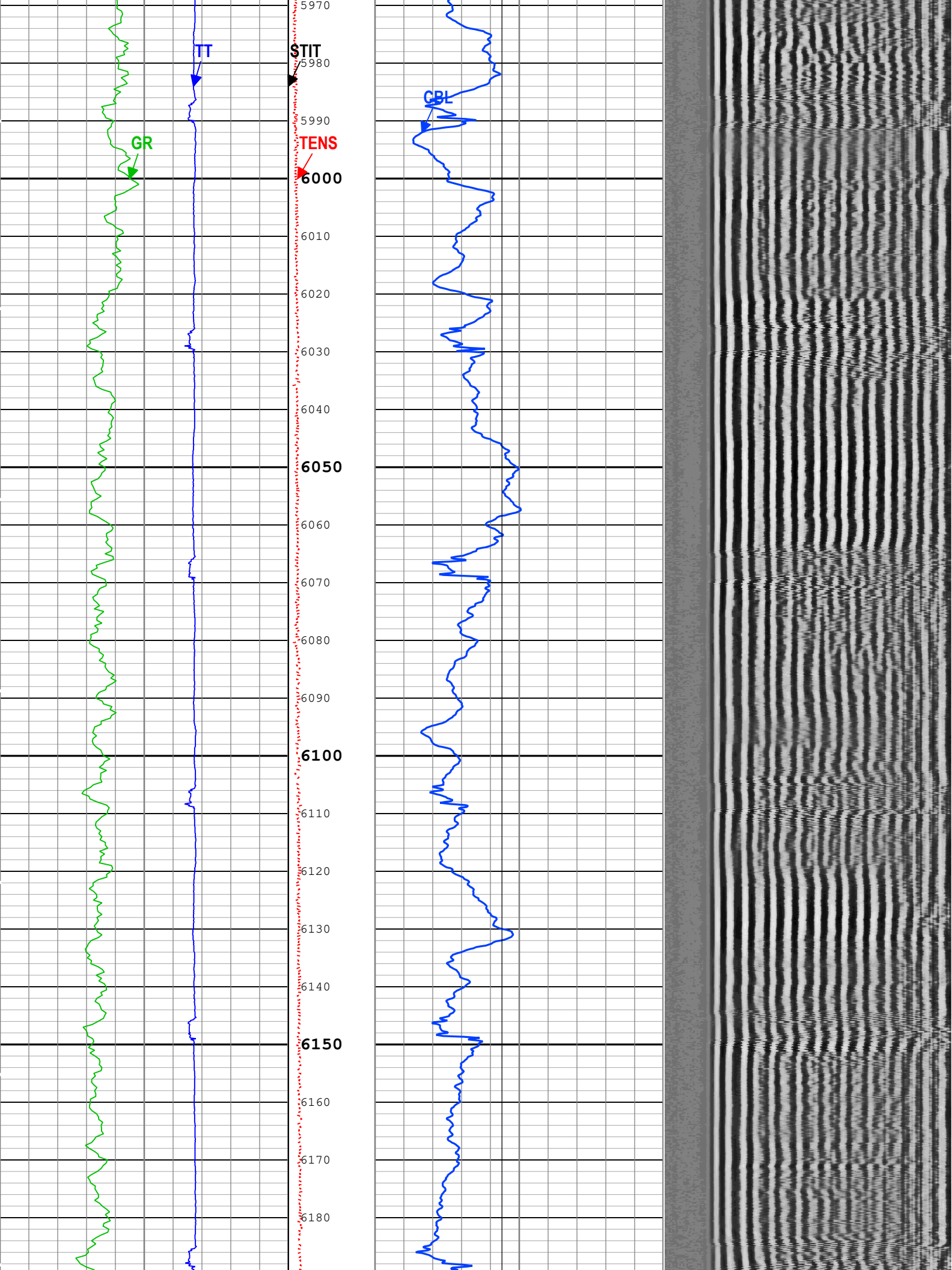
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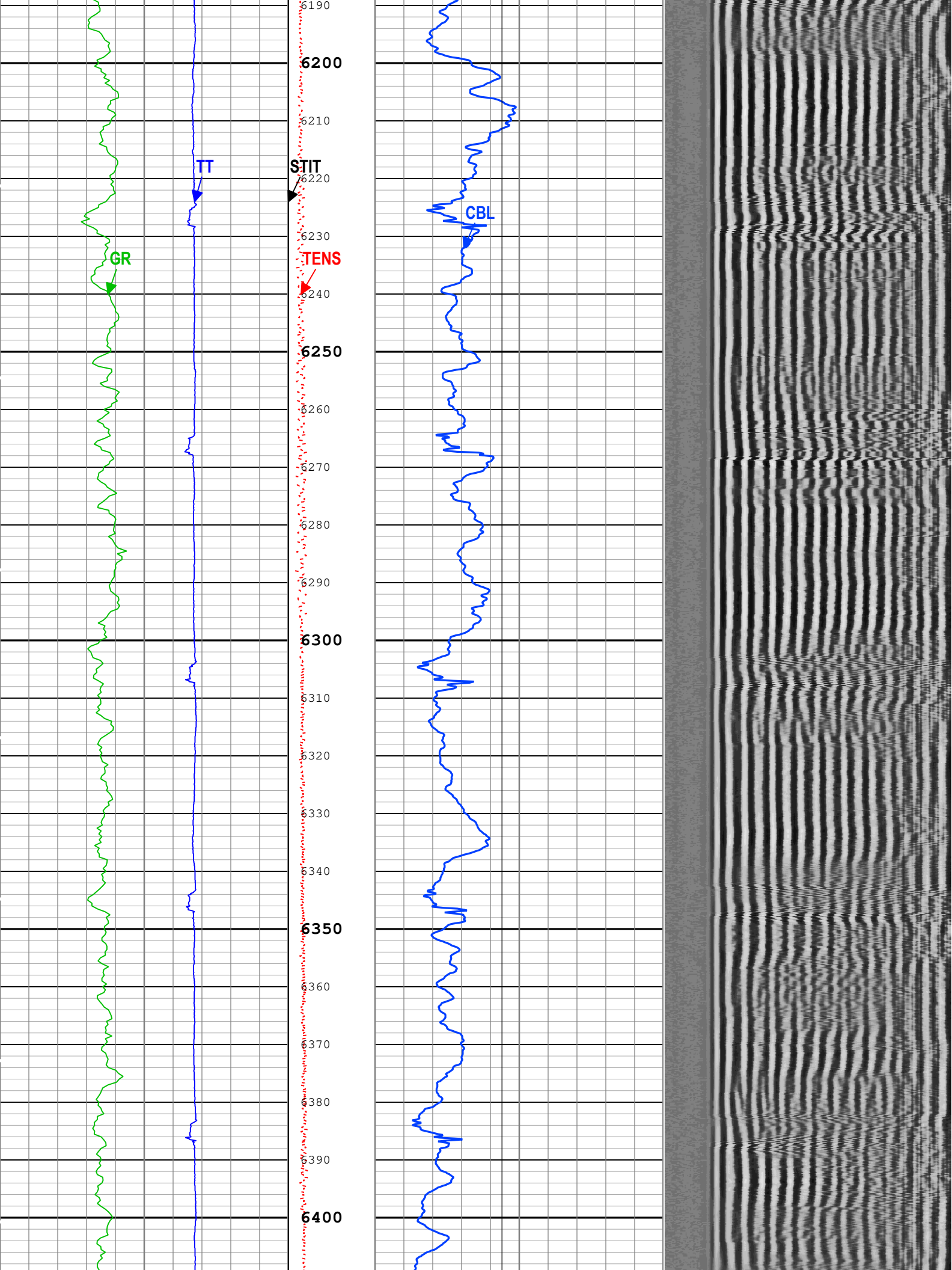
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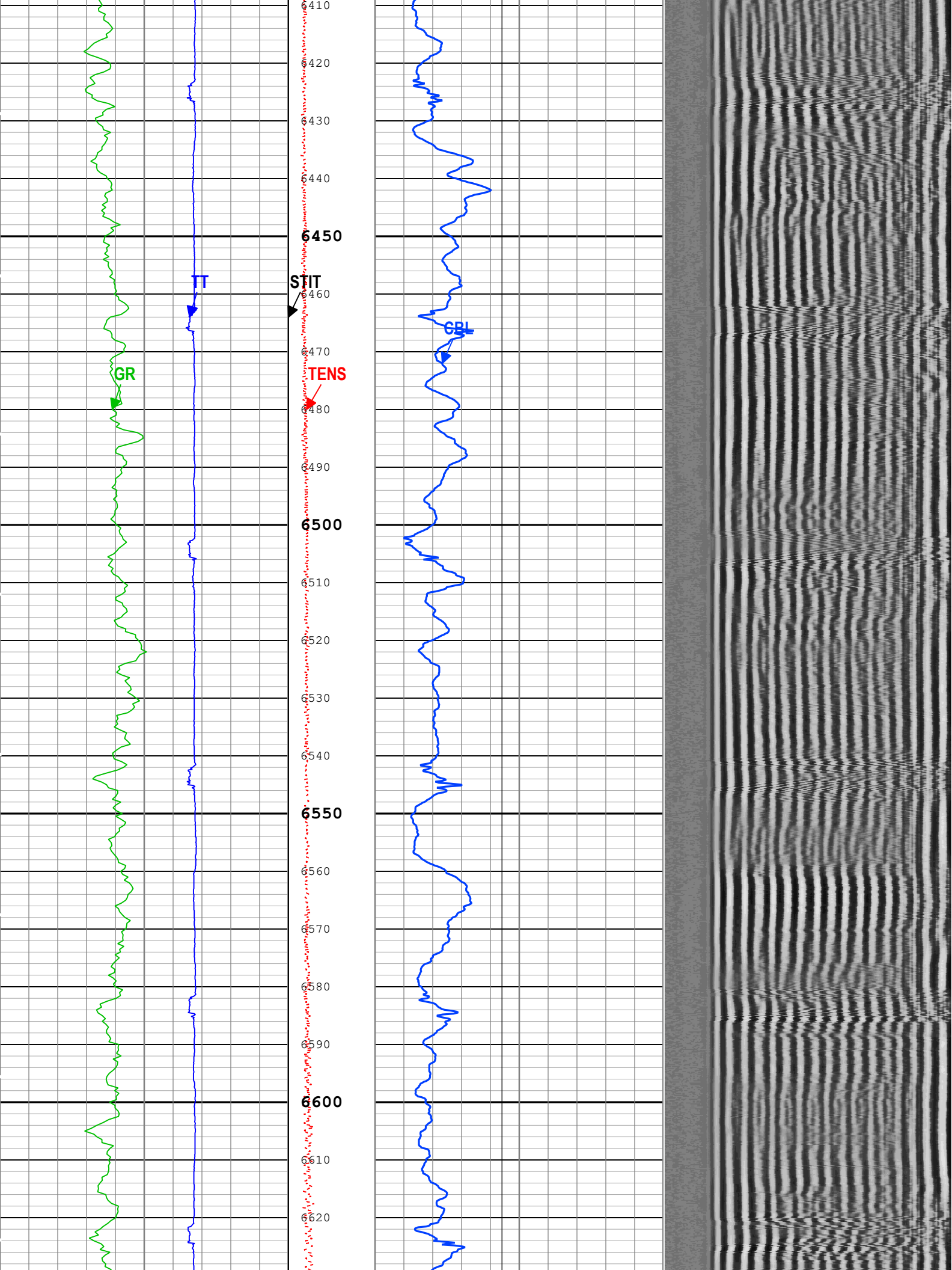
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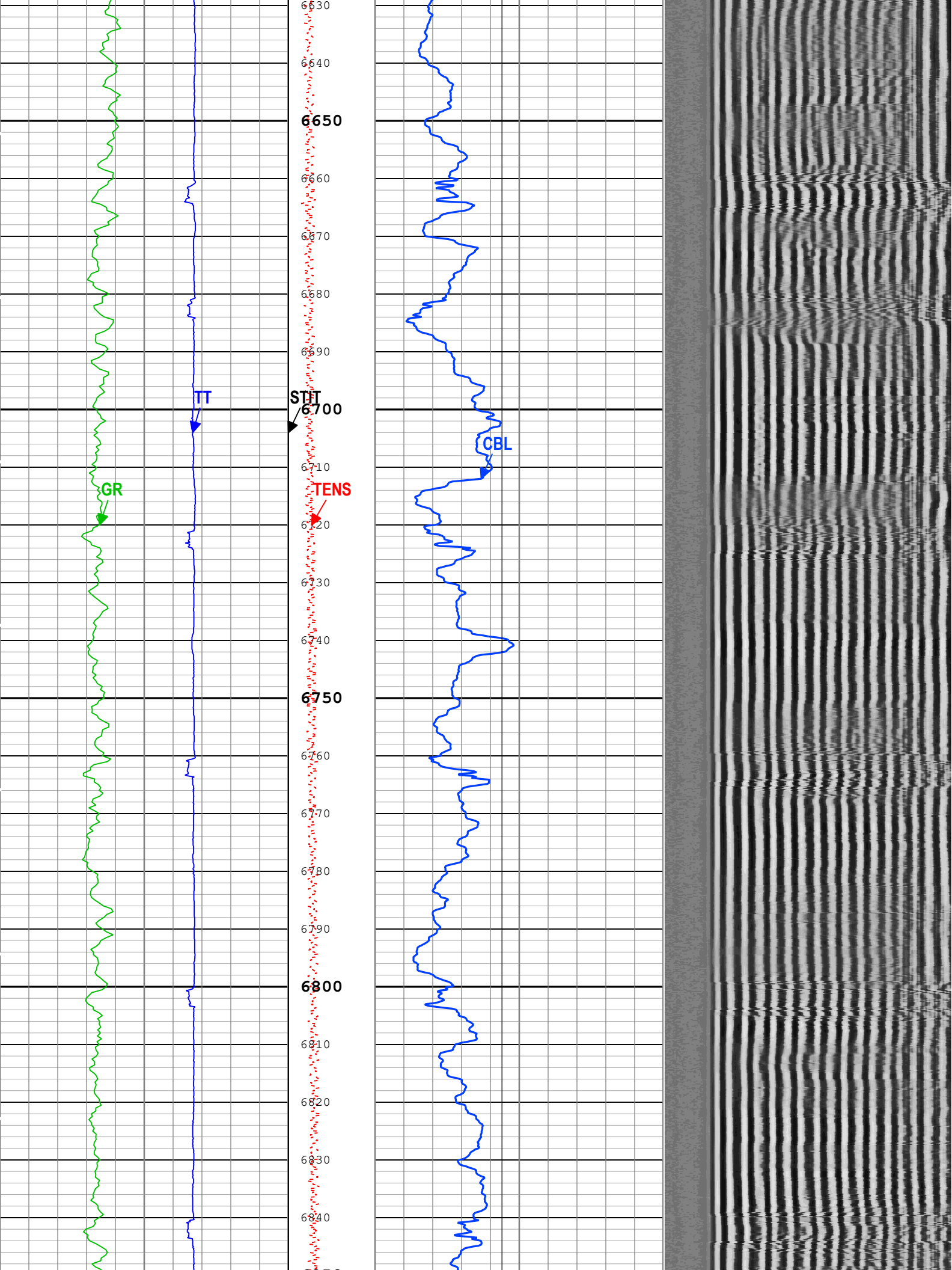
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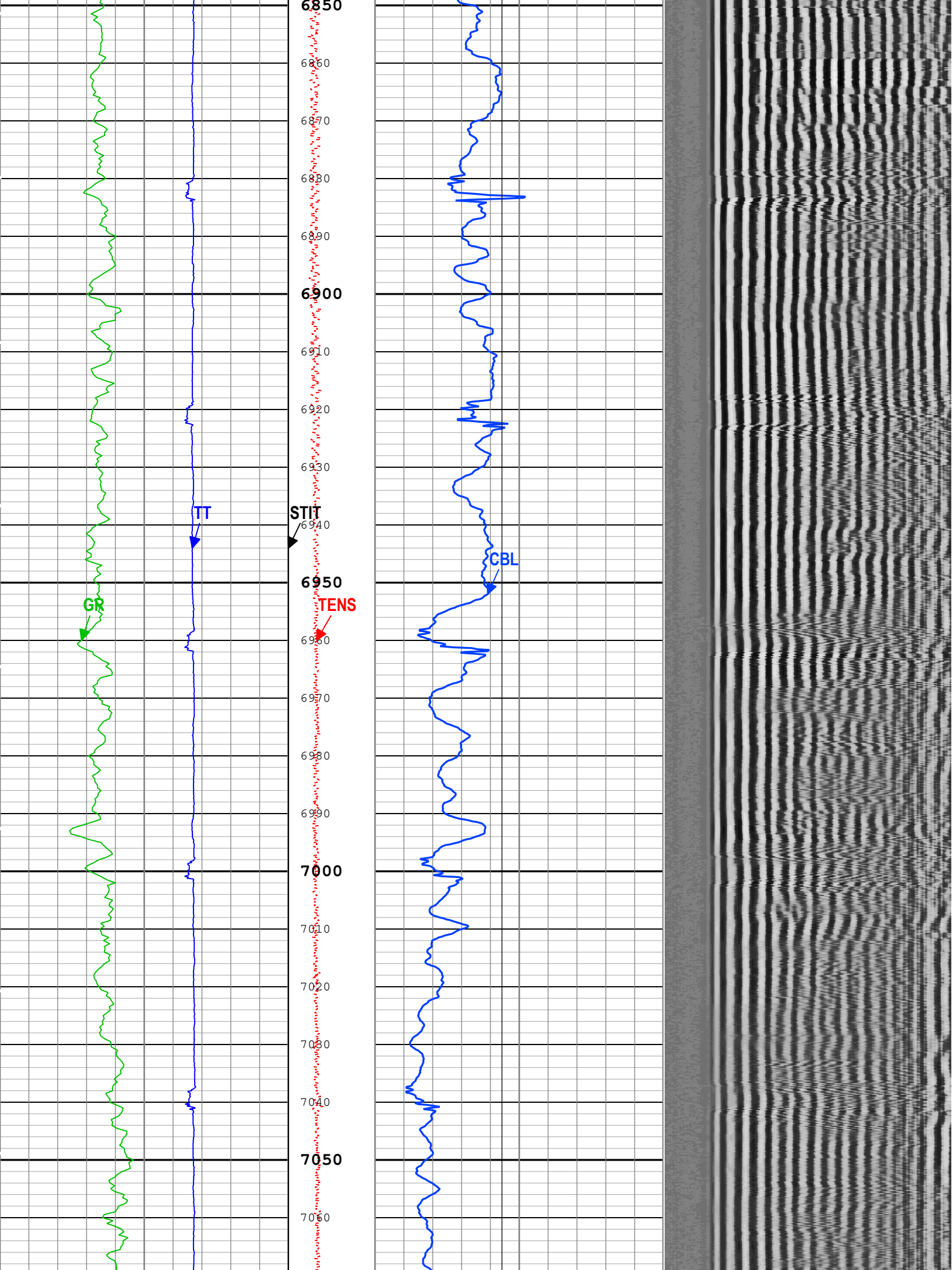
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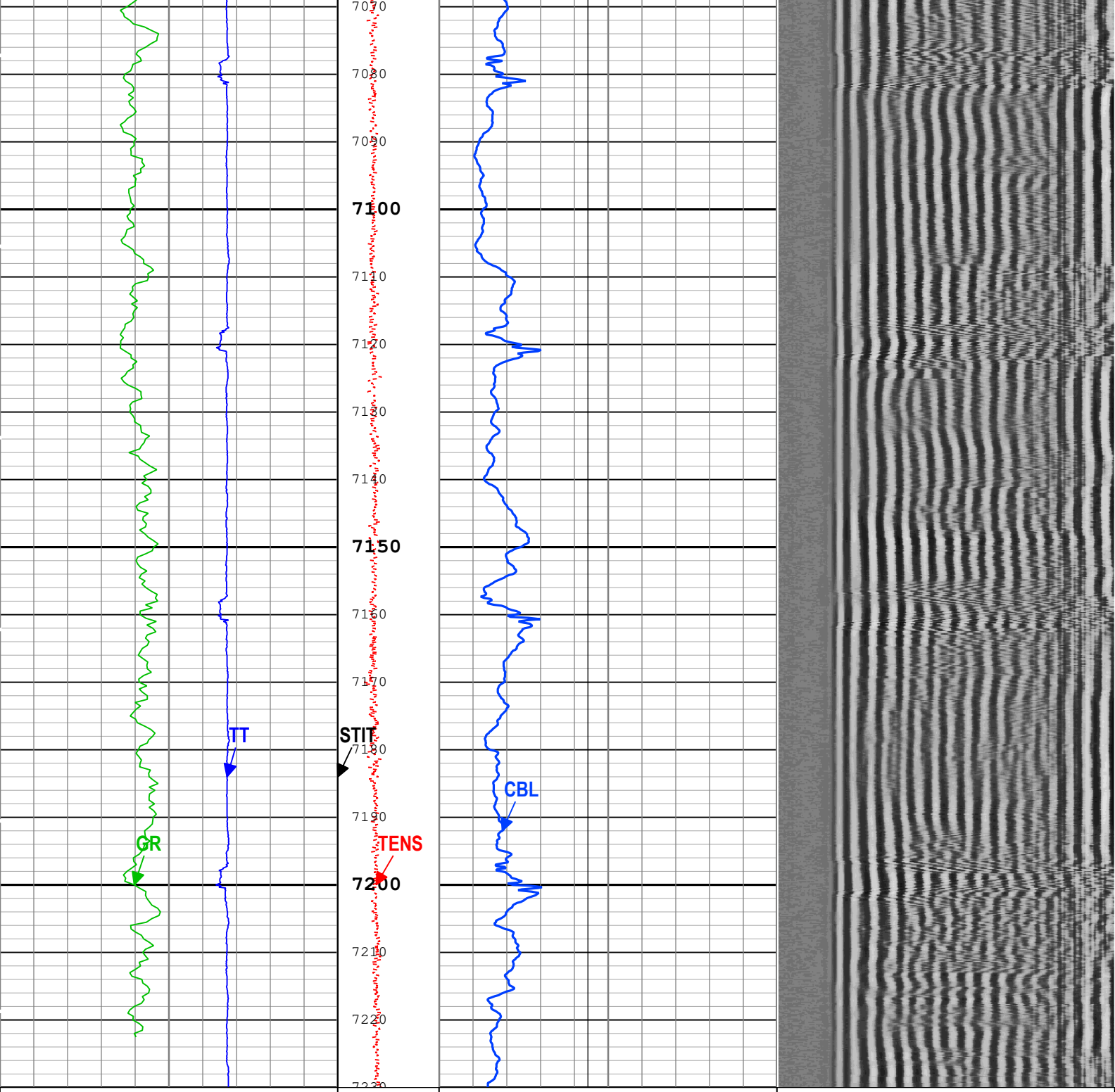


Gamma Ray (GR) PSTP-A

0 gAPI 150

Transit Time for CBL (TT) SCMT-CB

400 us 200

Cable Tension (TENS)

0 lbf 2000

Stuck Tool Indicator, Total (STIT)

0 ft 50

Cable Drag

Tool_Tot. Drag

CBL Amplitude (CBL) SCMT-CB

0 mV 10

CBL Amplitude (CBL) SCMT-CB

0 mV 100

Good Bond (GOBO)

0 mV 10

GoodBond From CBL to GOBO

BIEP - Bond Index Event Pips SCMT-CB

Min Amplitude Max

VDL VariableDensity (VDL) SCMT-CB

200 us 1200

TIME_1900 - Time Marked every 60.00 (s)

Description: Sonic CBL with VDL Format: Log (Sonic CBL with VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 23-May-2019 13:06:32

Channel Processing Parameters

Two: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	212	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	235.09	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	72	mV
THNO	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.361	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	4.4	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	11.85	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	Depth Zoned	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	2.19	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	2.19	mV
RUN_SNUM	Run Sequence Number	WSDRUN	2	

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
MCI	14.81	70	2361
MCI	4.75	2361	7230

All depth are actual.

Tool Control Parameters

Two: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	12 dB	

Two

Main Pass

Software Version

Acquisition System	Version
Maxwell 2019	9.0.106845.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Two	Log[4]:Up	Up	76.26 ft	7247.19 ft	21-May-2019 7:11:31 PM	21-May-2019 11:22:07 PM	ON	4.74 ft	Yes

All depths are referenced to toolstring zero

Log

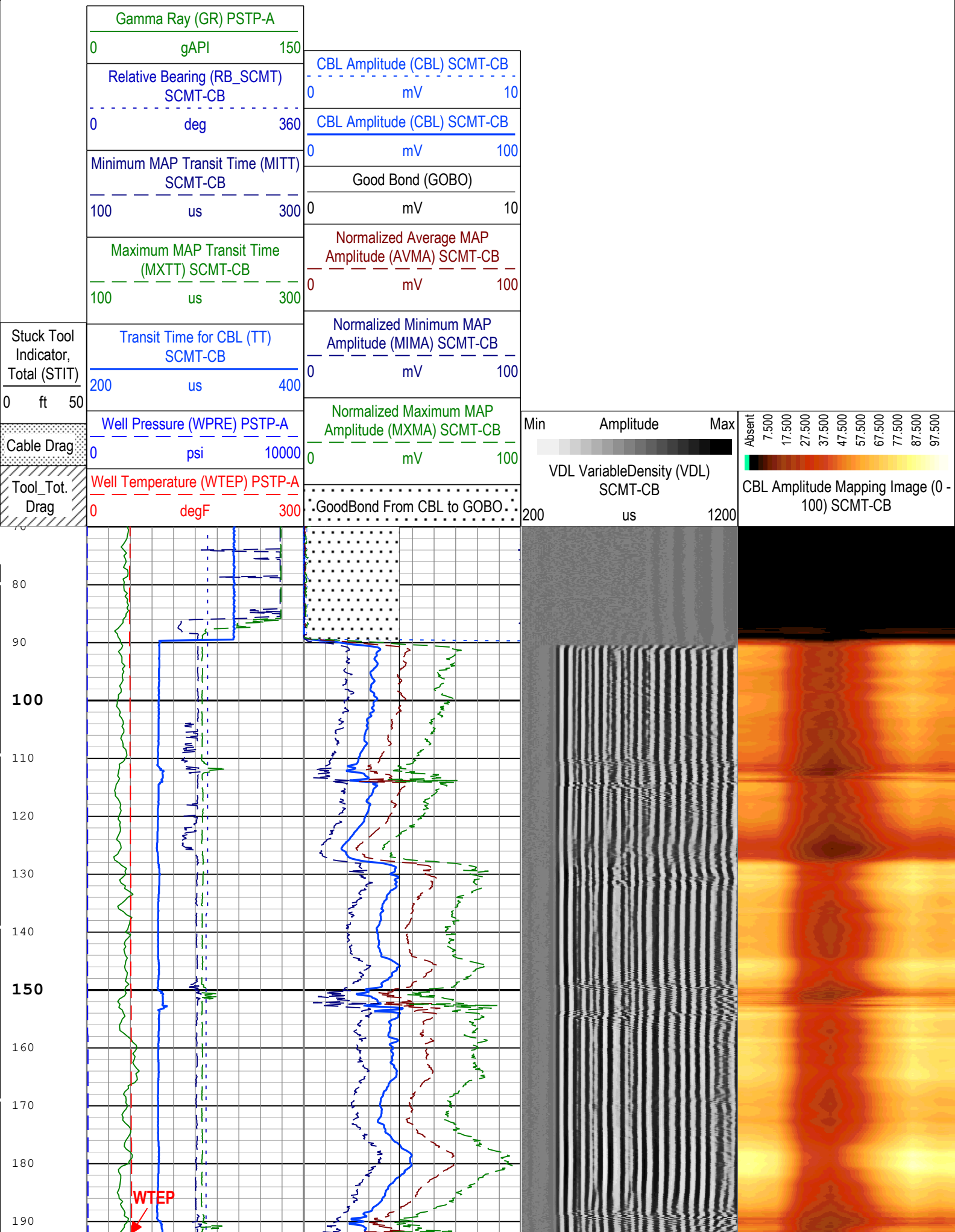
Company:Crestone Peak Resources and Operating LLC Well:Echeverria 2K-2H-D267

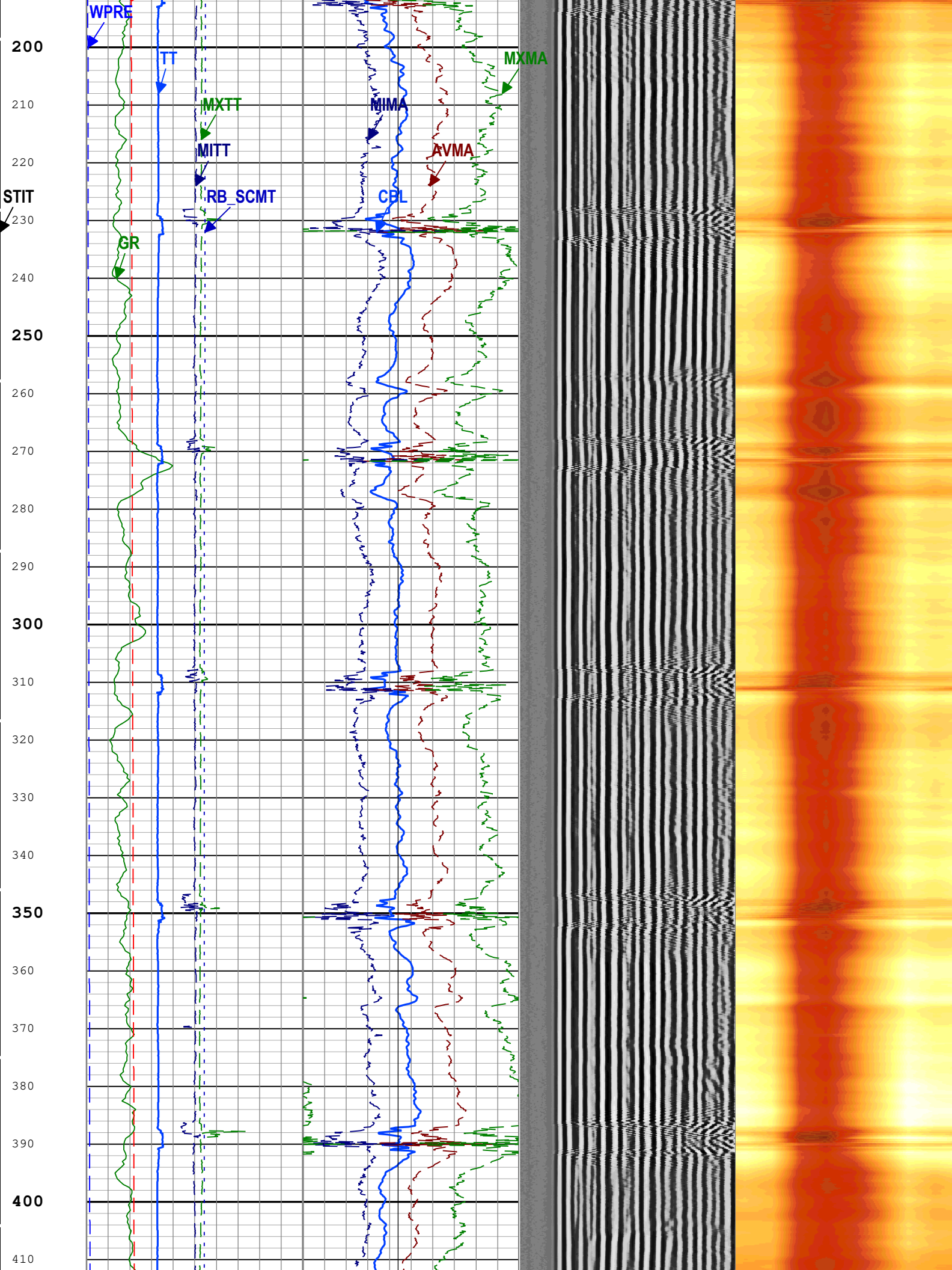
Two: Log[4]:Up:S003

Description: SCMT VDL Image Format: Log (SCMT_VDL_Image) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation

Date: 23-May-2019 13:06:42

TIME_1900 - Time Marked every 60.00 (s)

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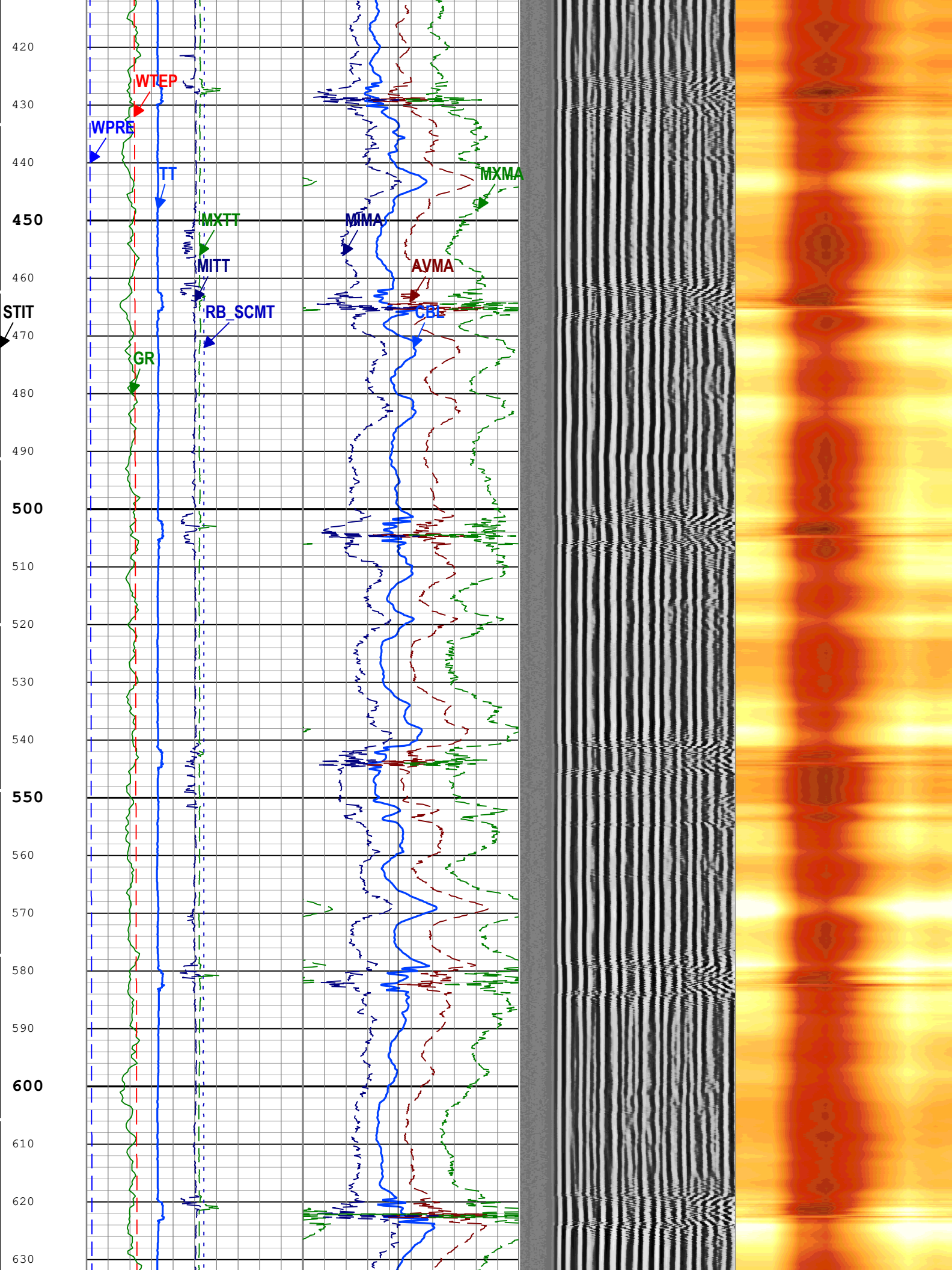
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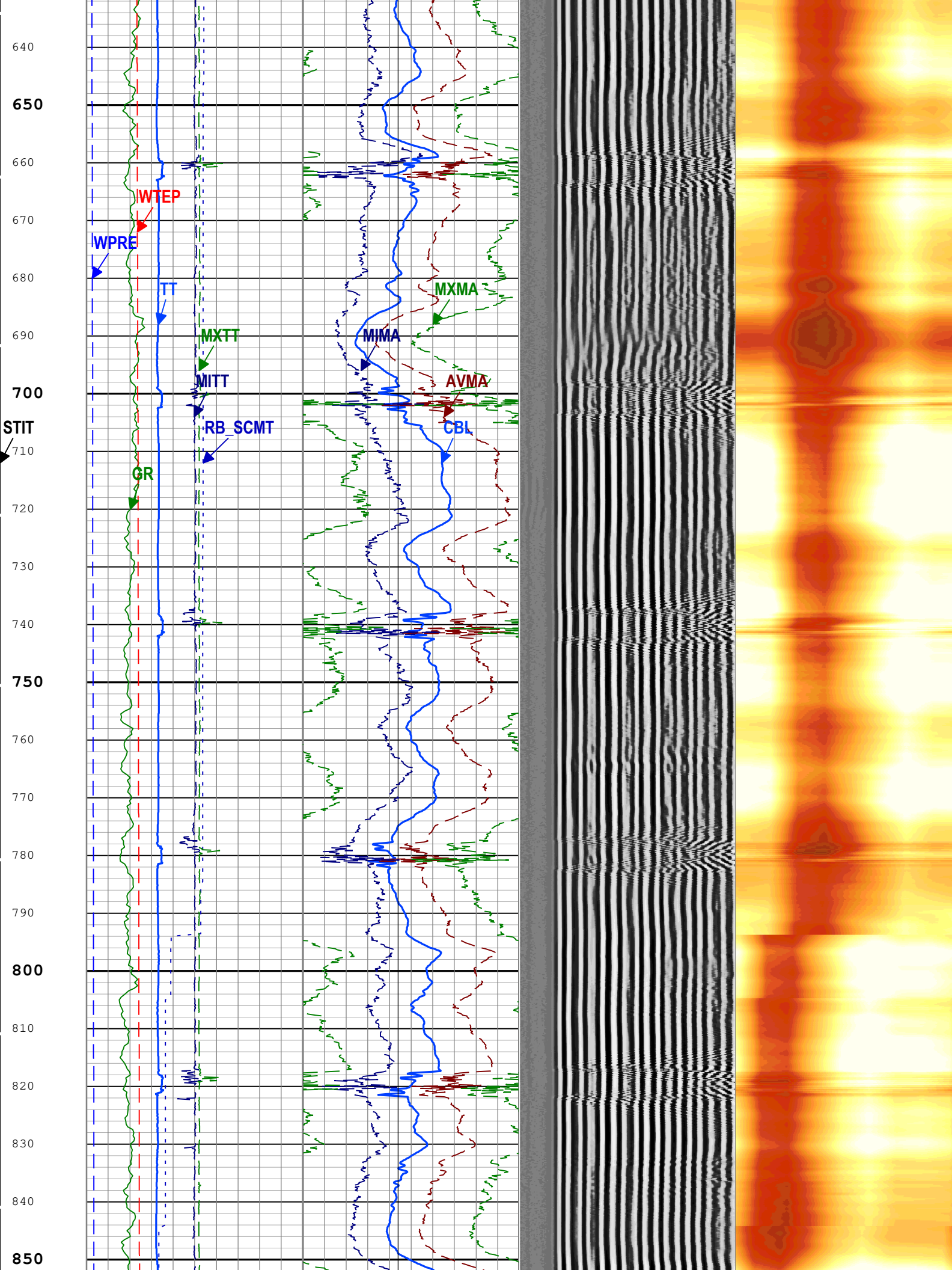
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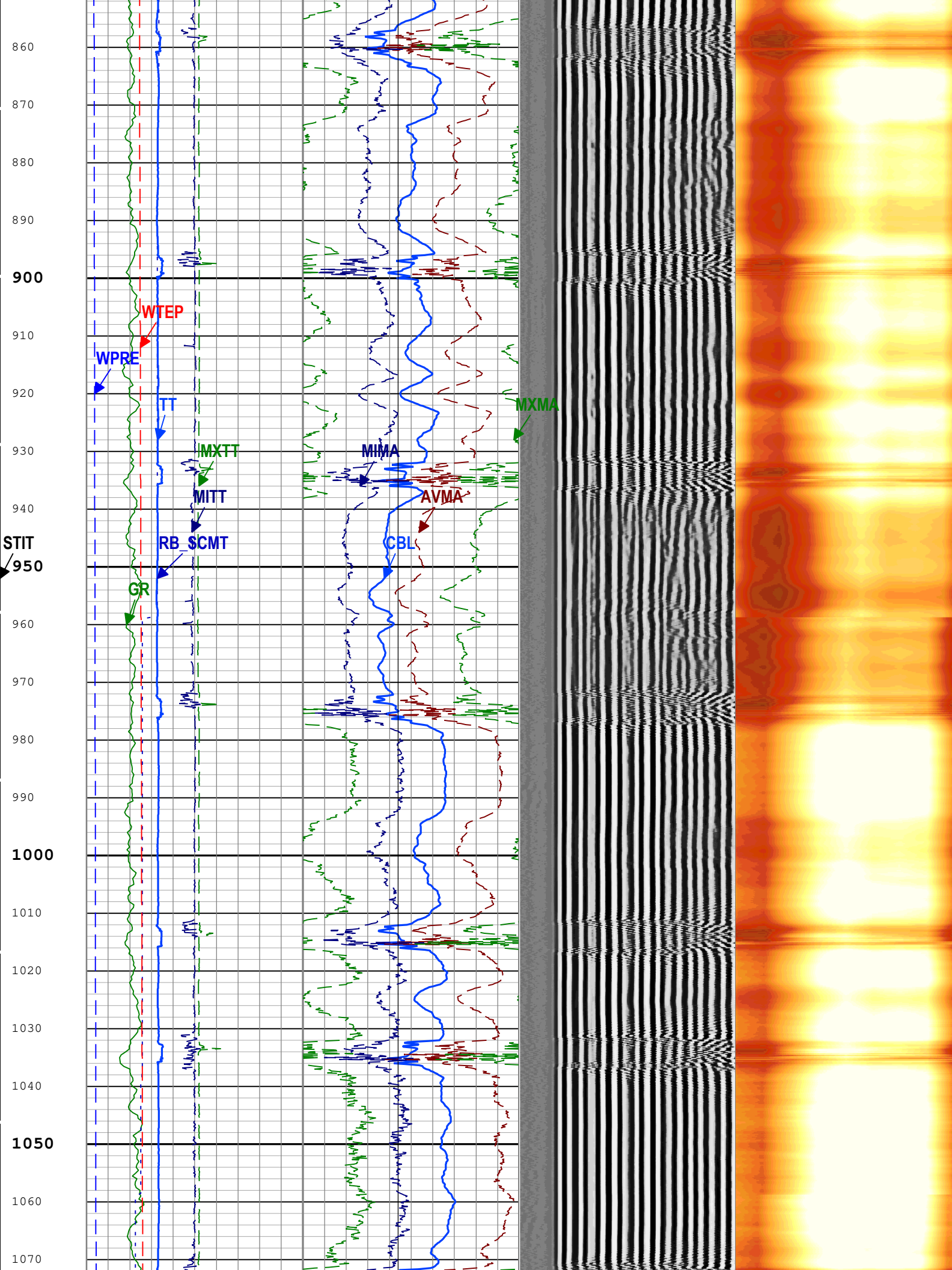
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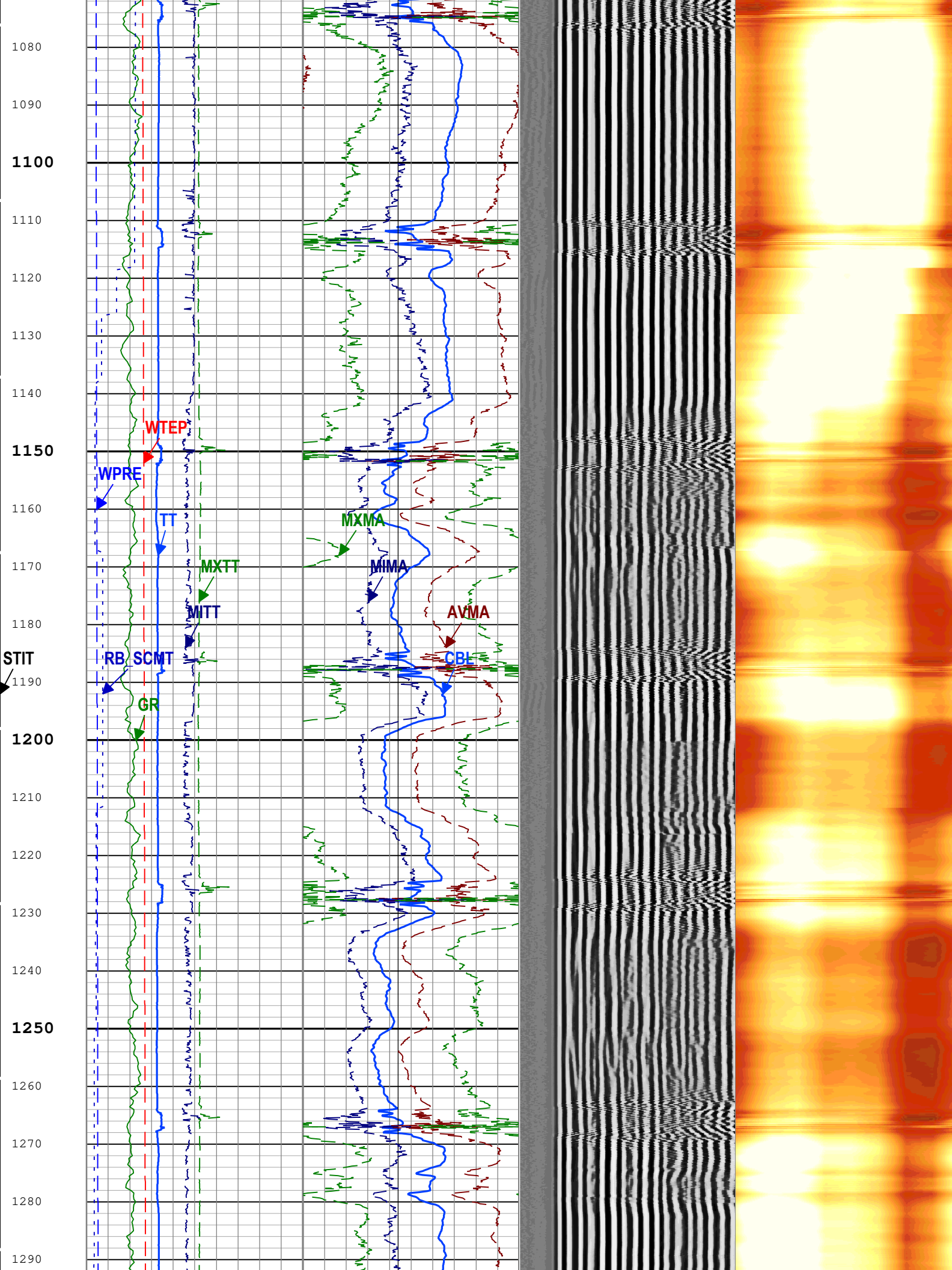
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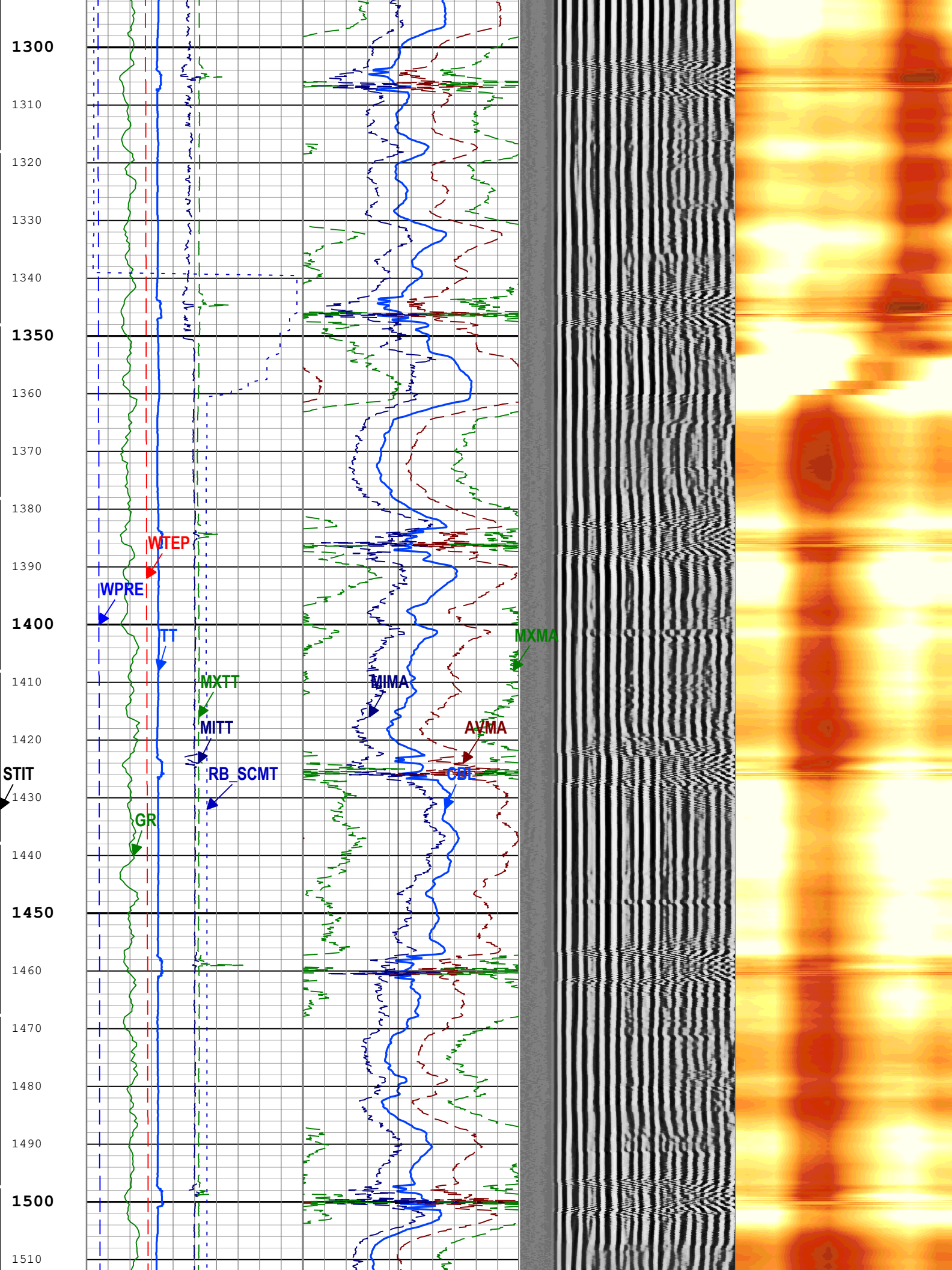
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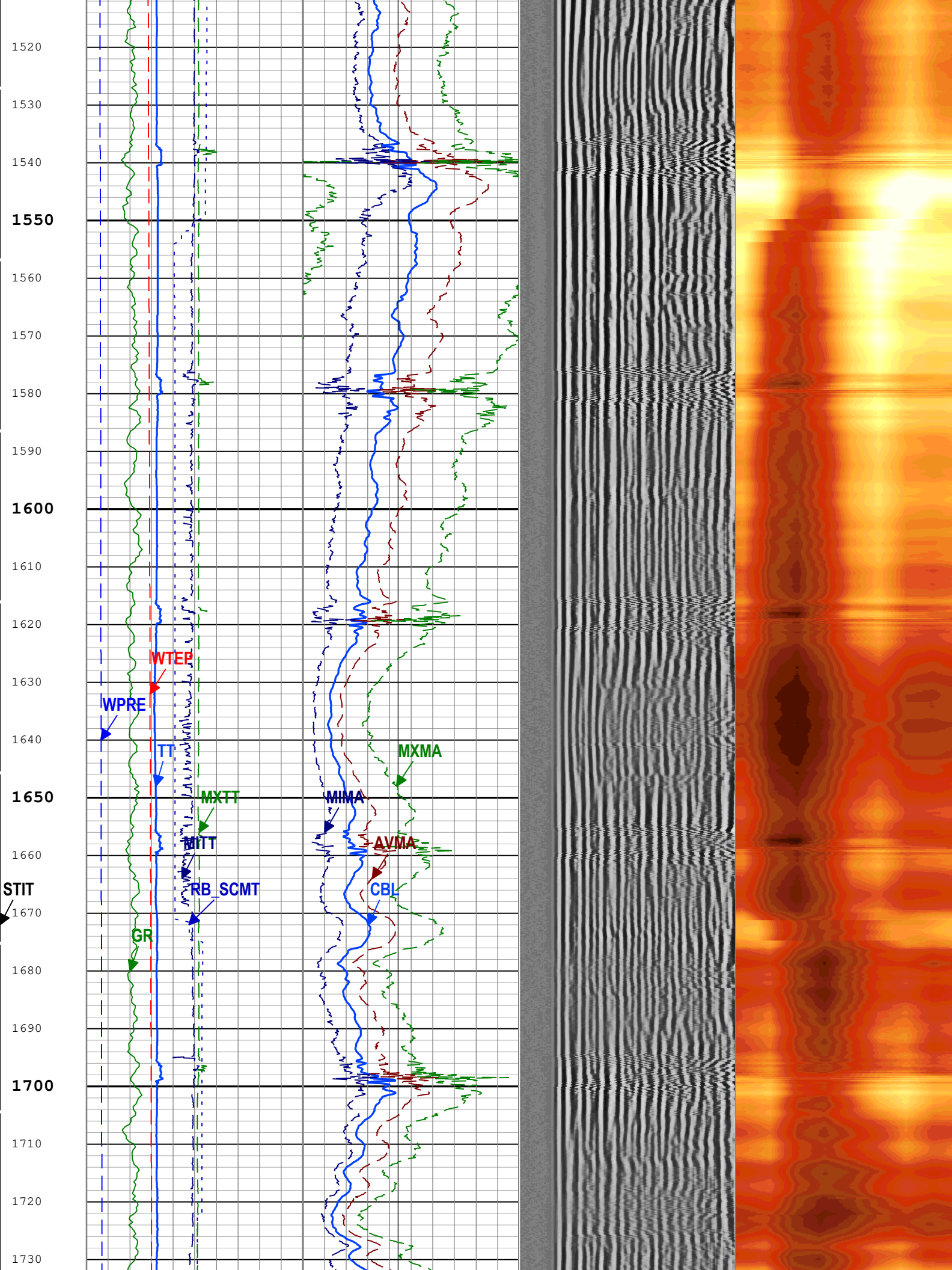
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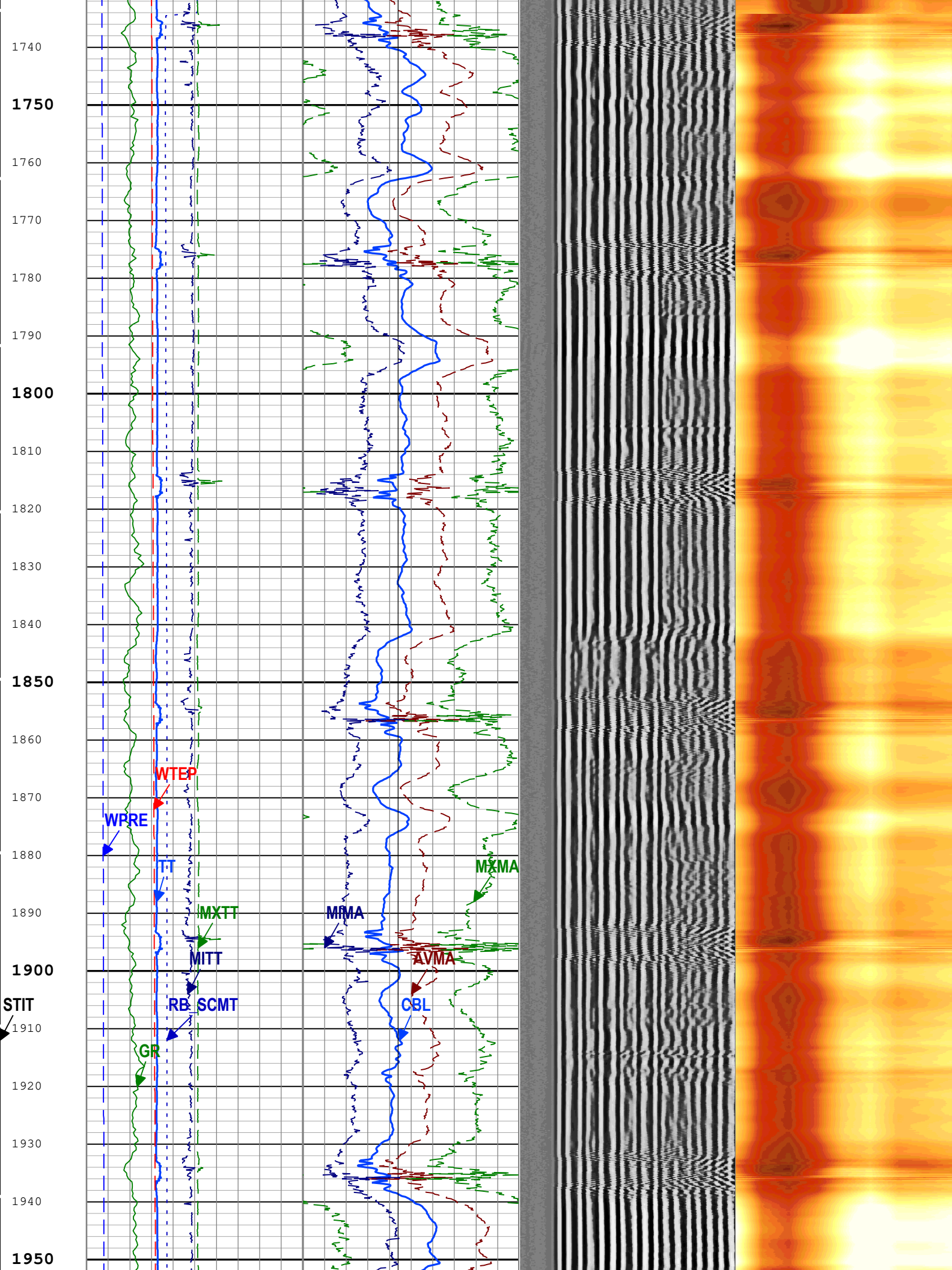
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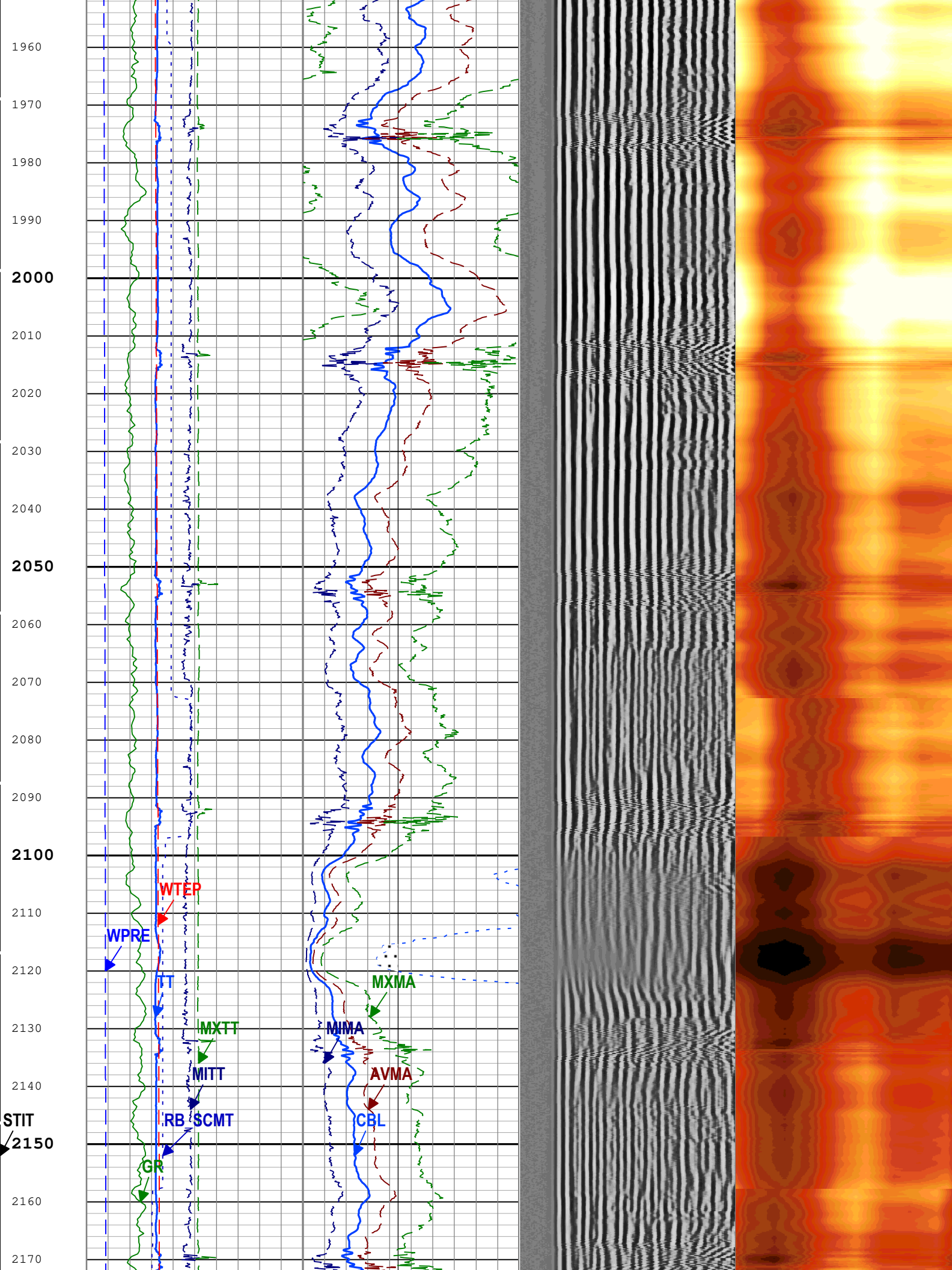
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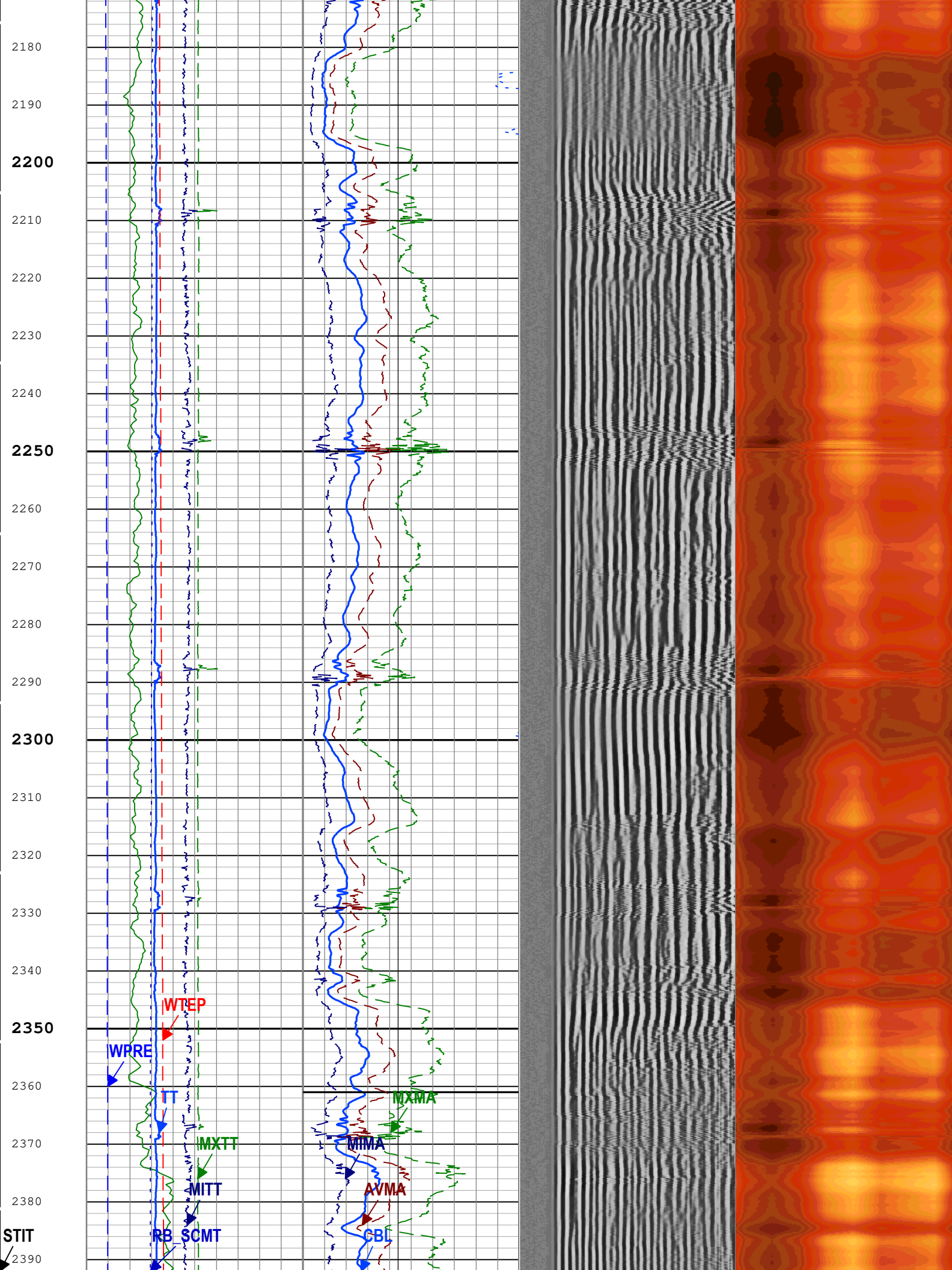
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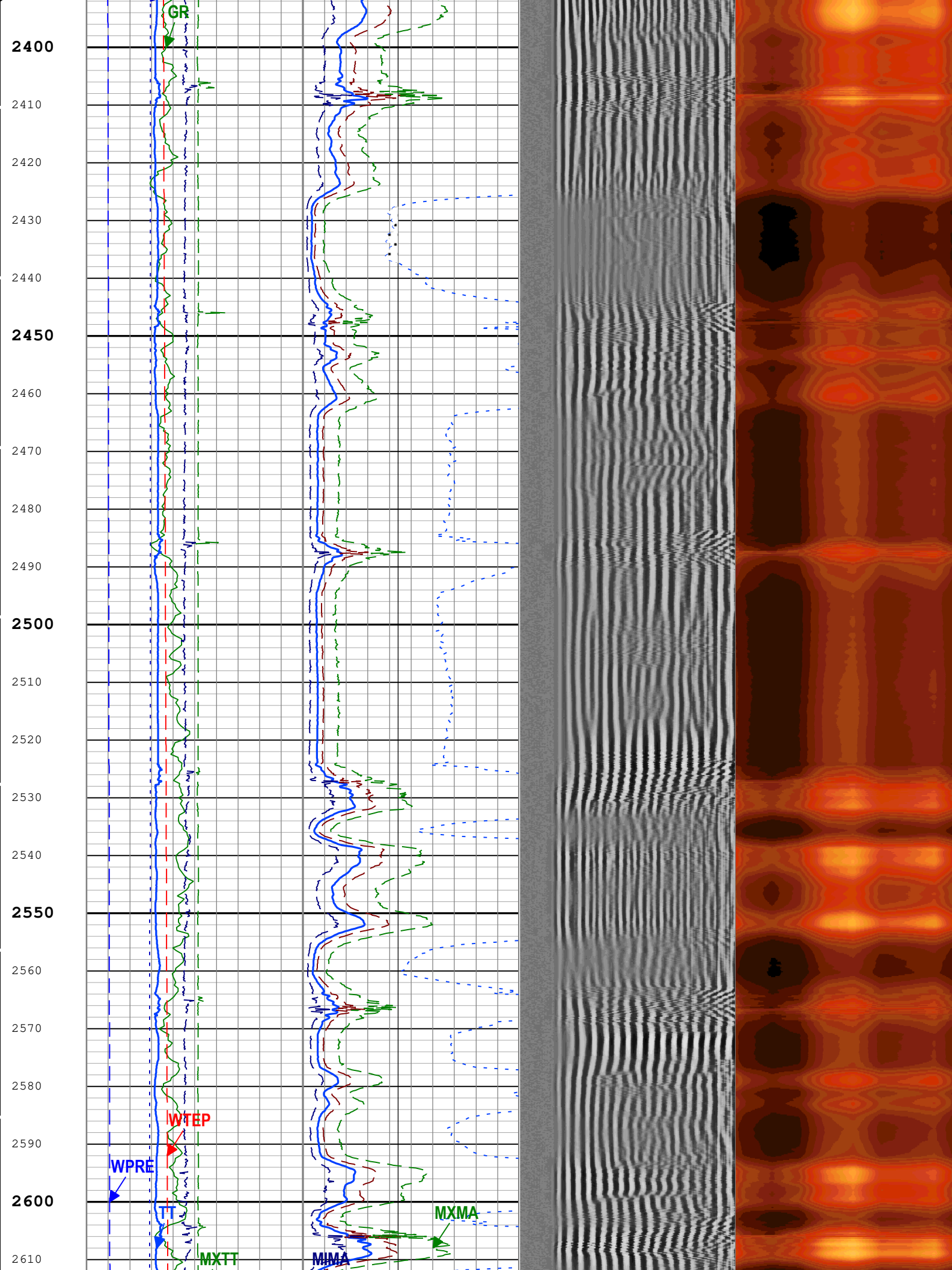
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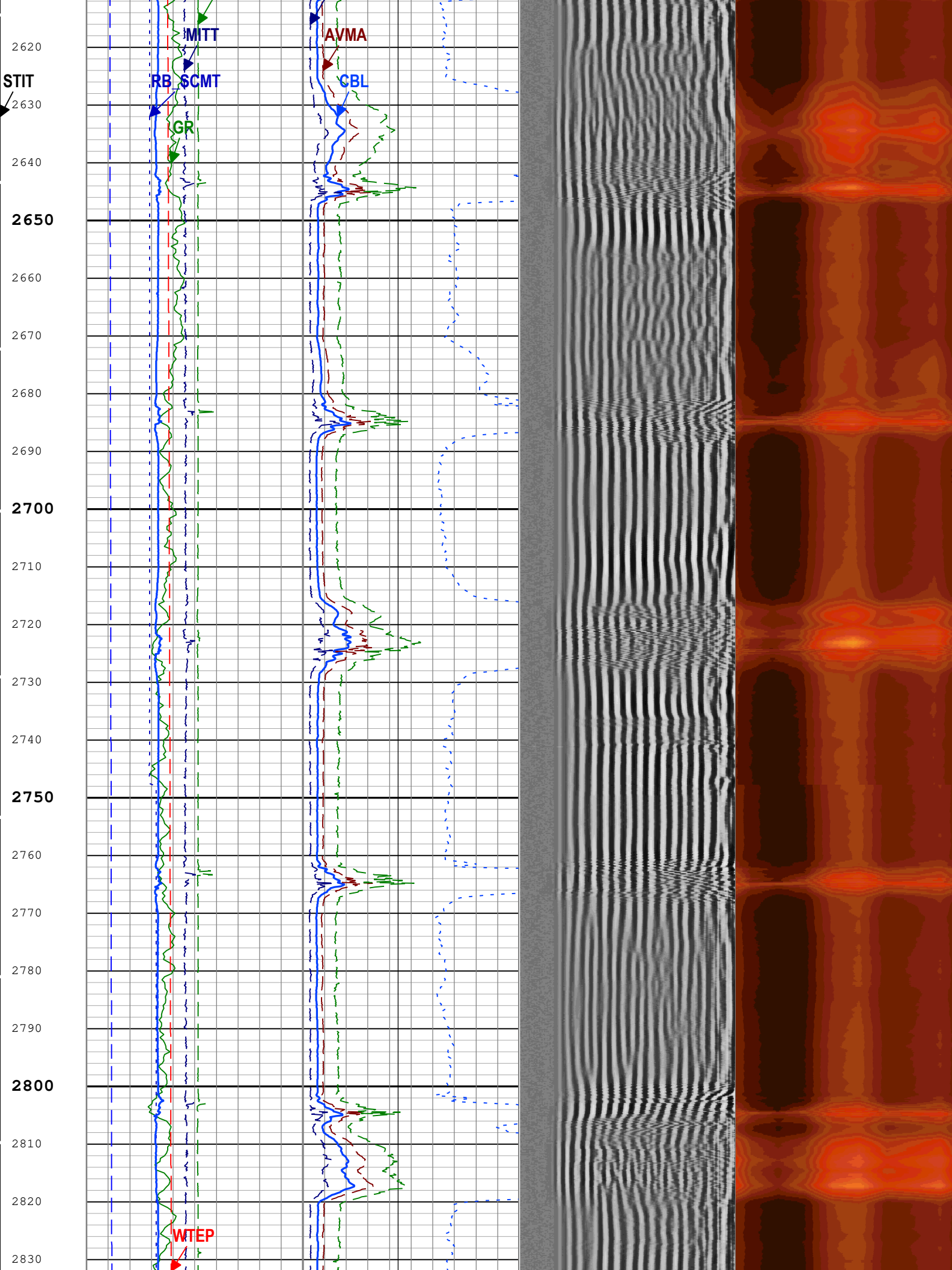
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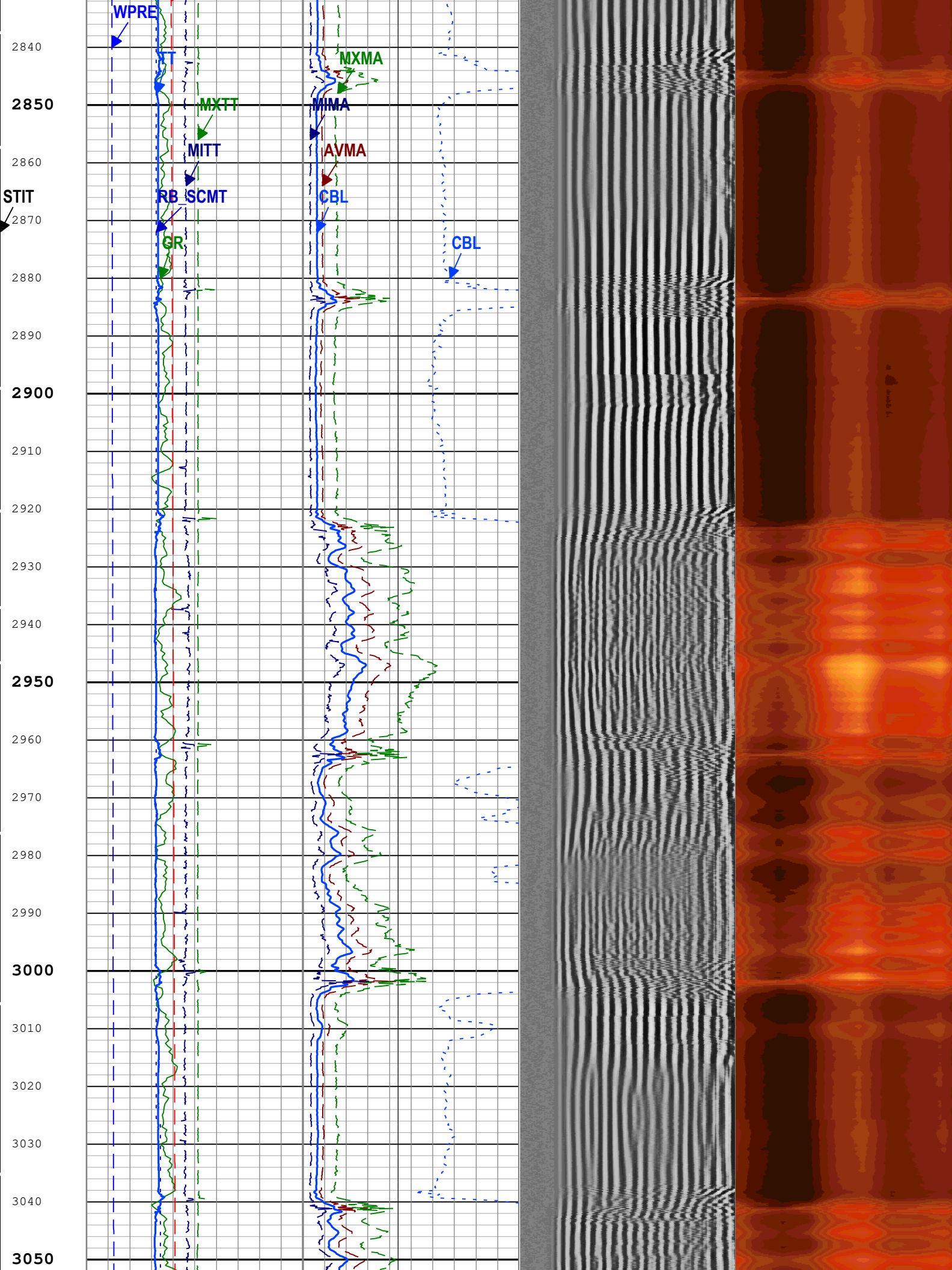
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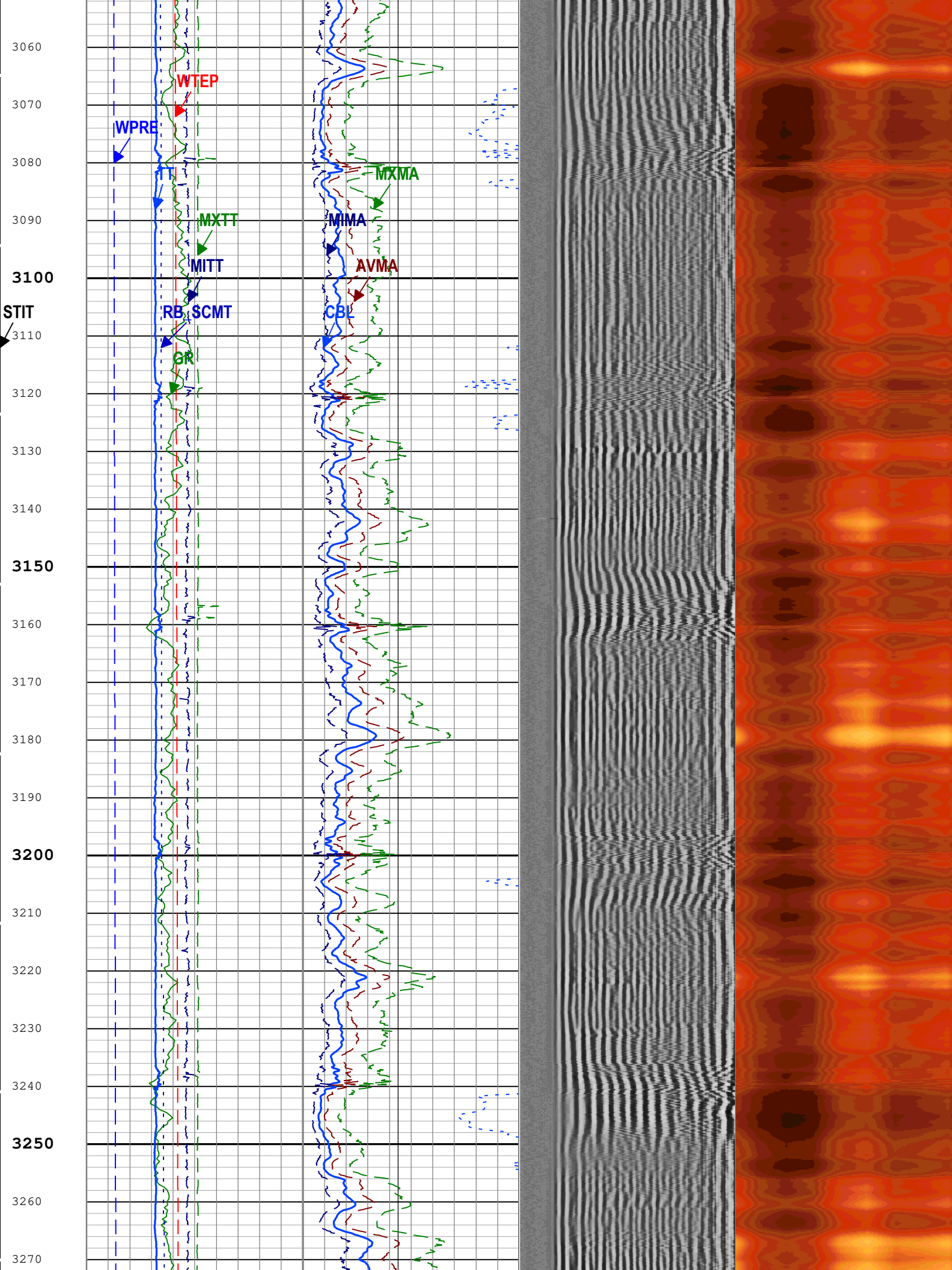
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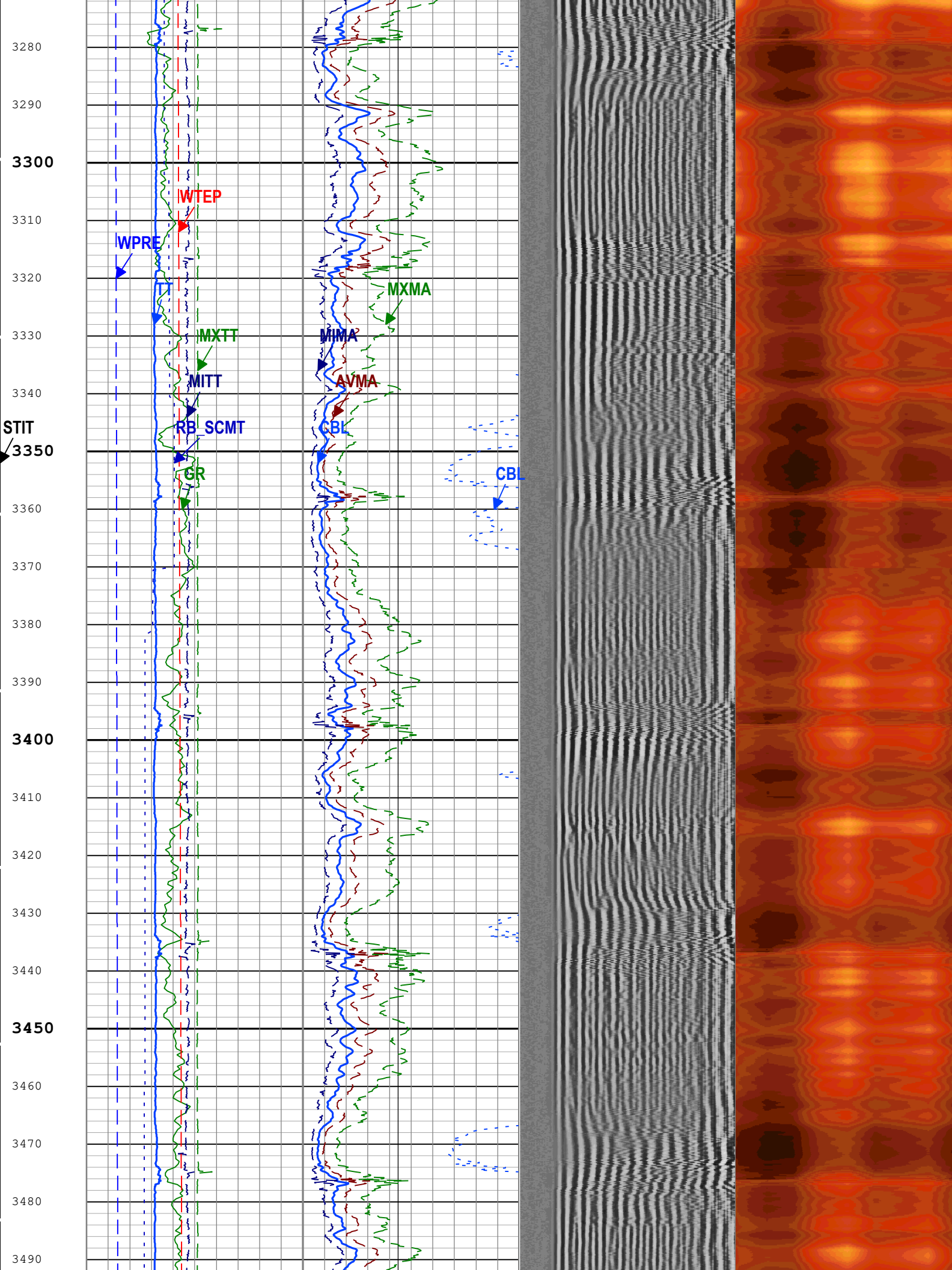
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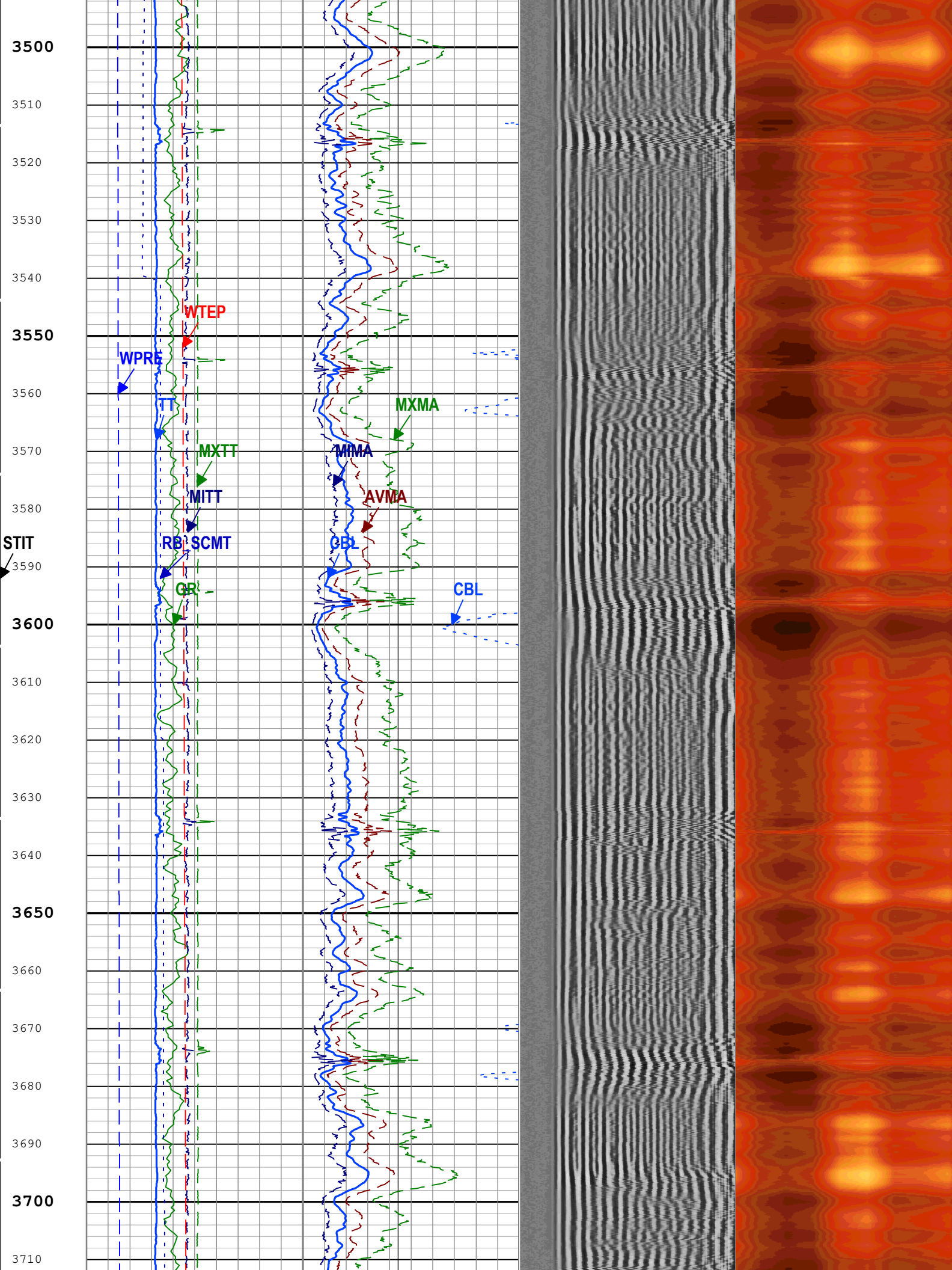
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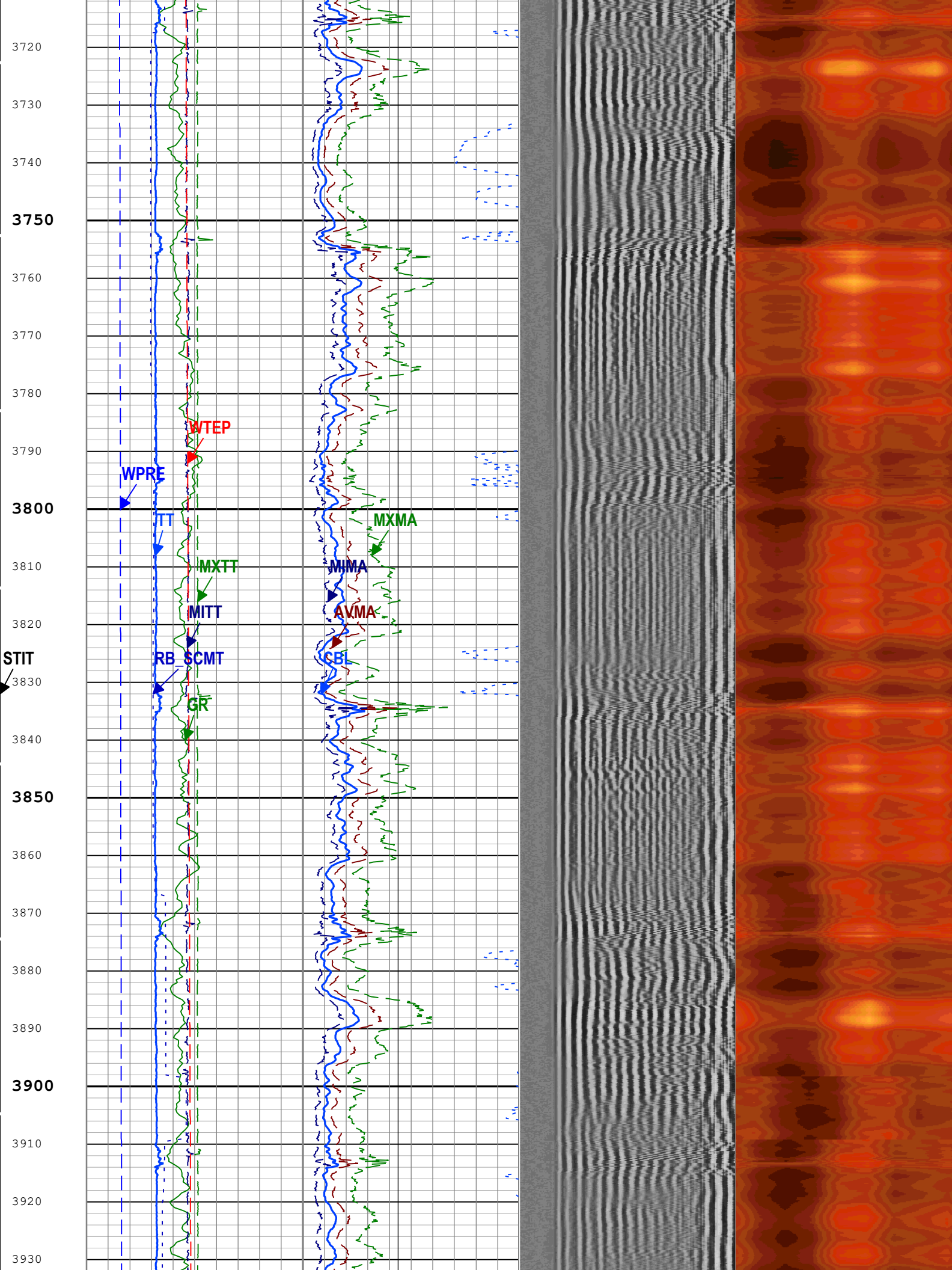
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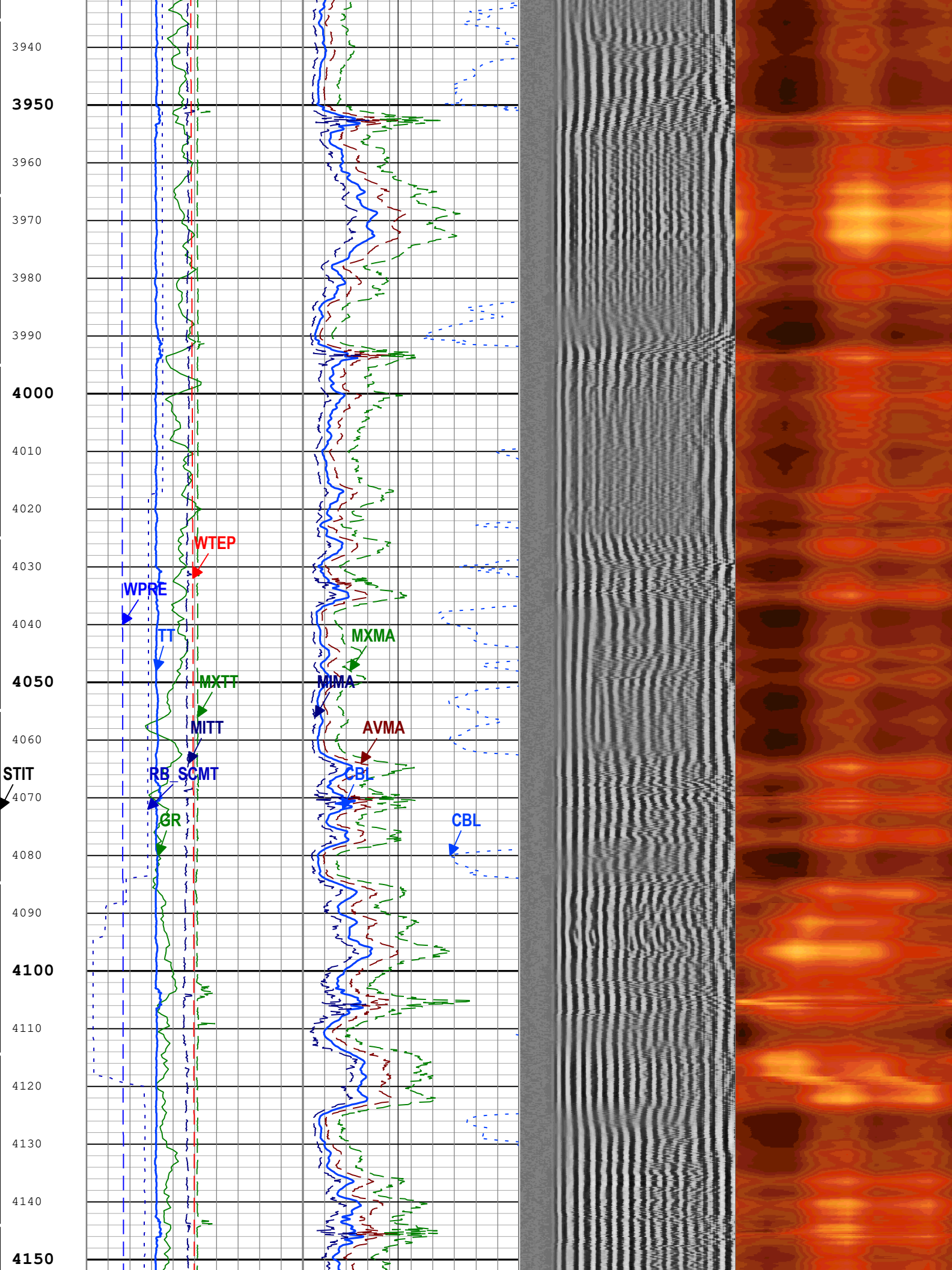
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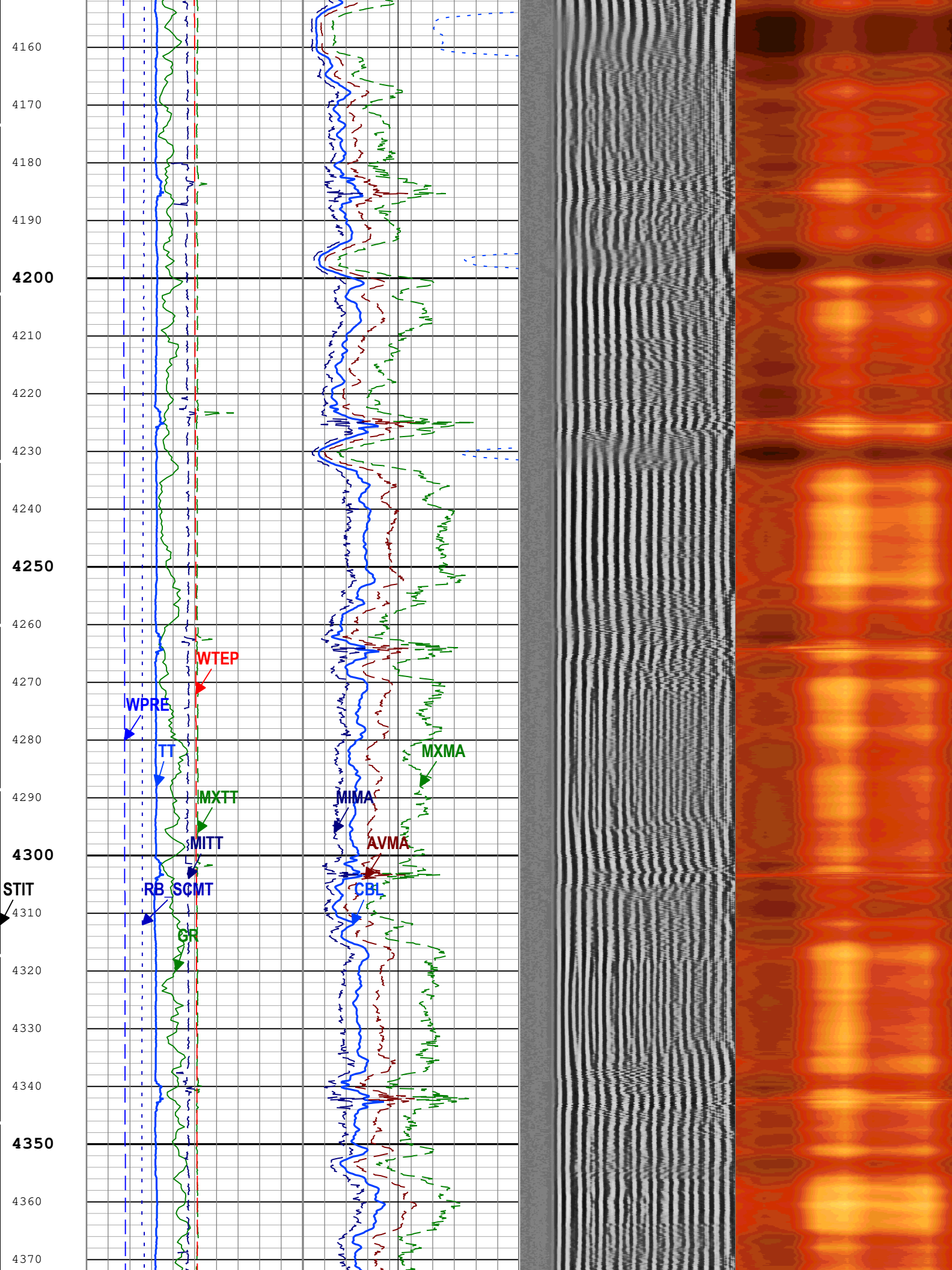
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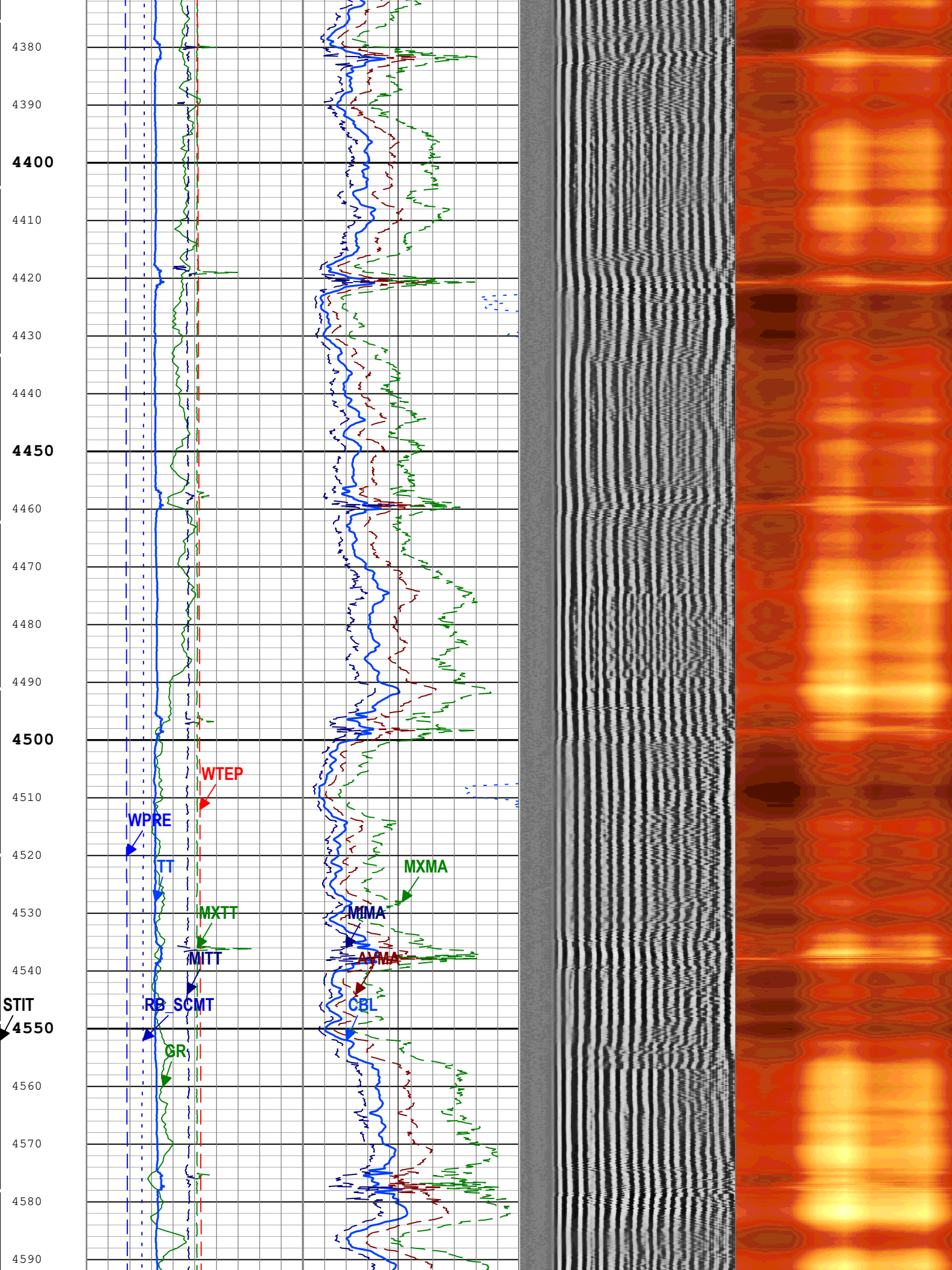
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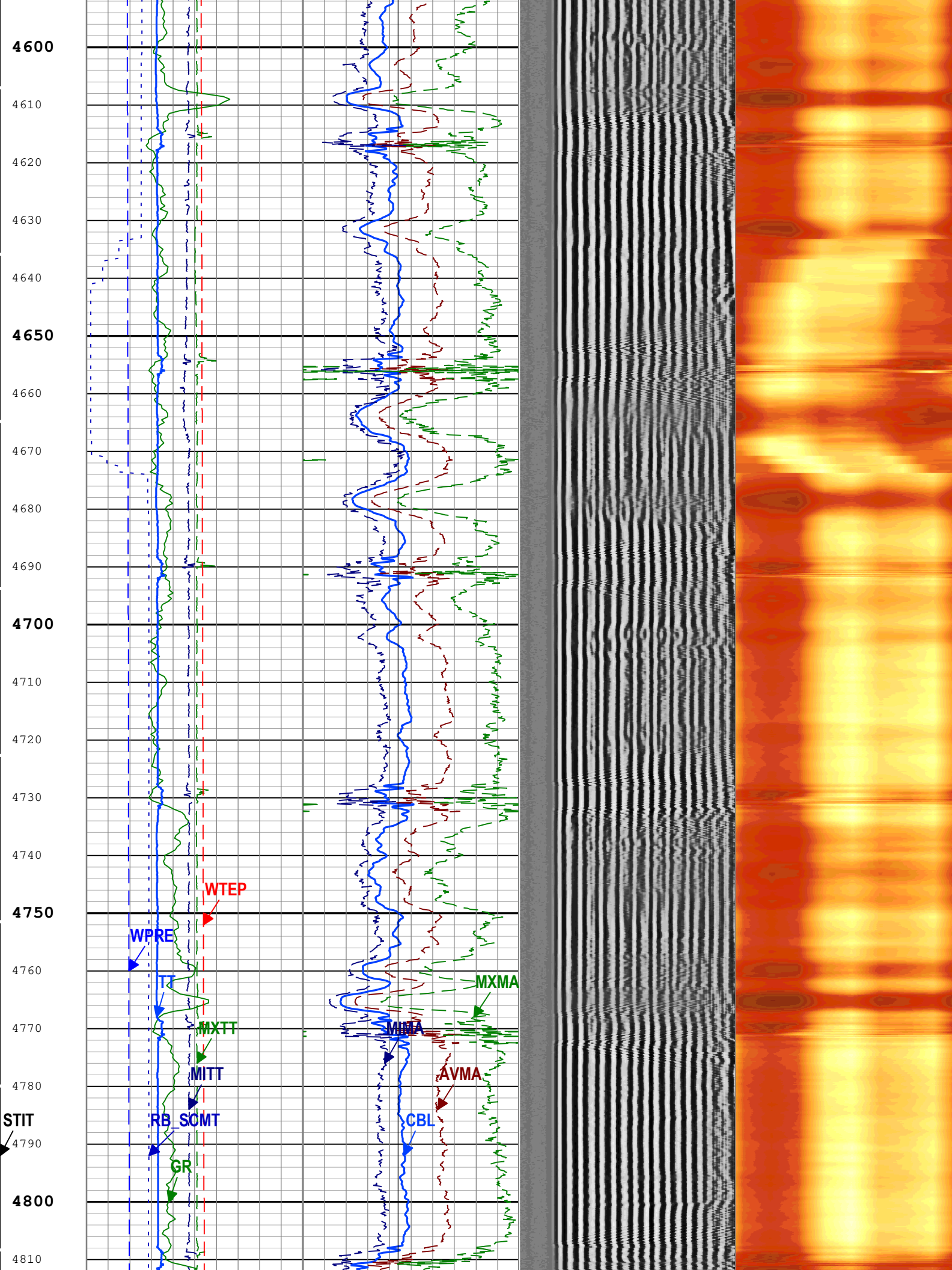
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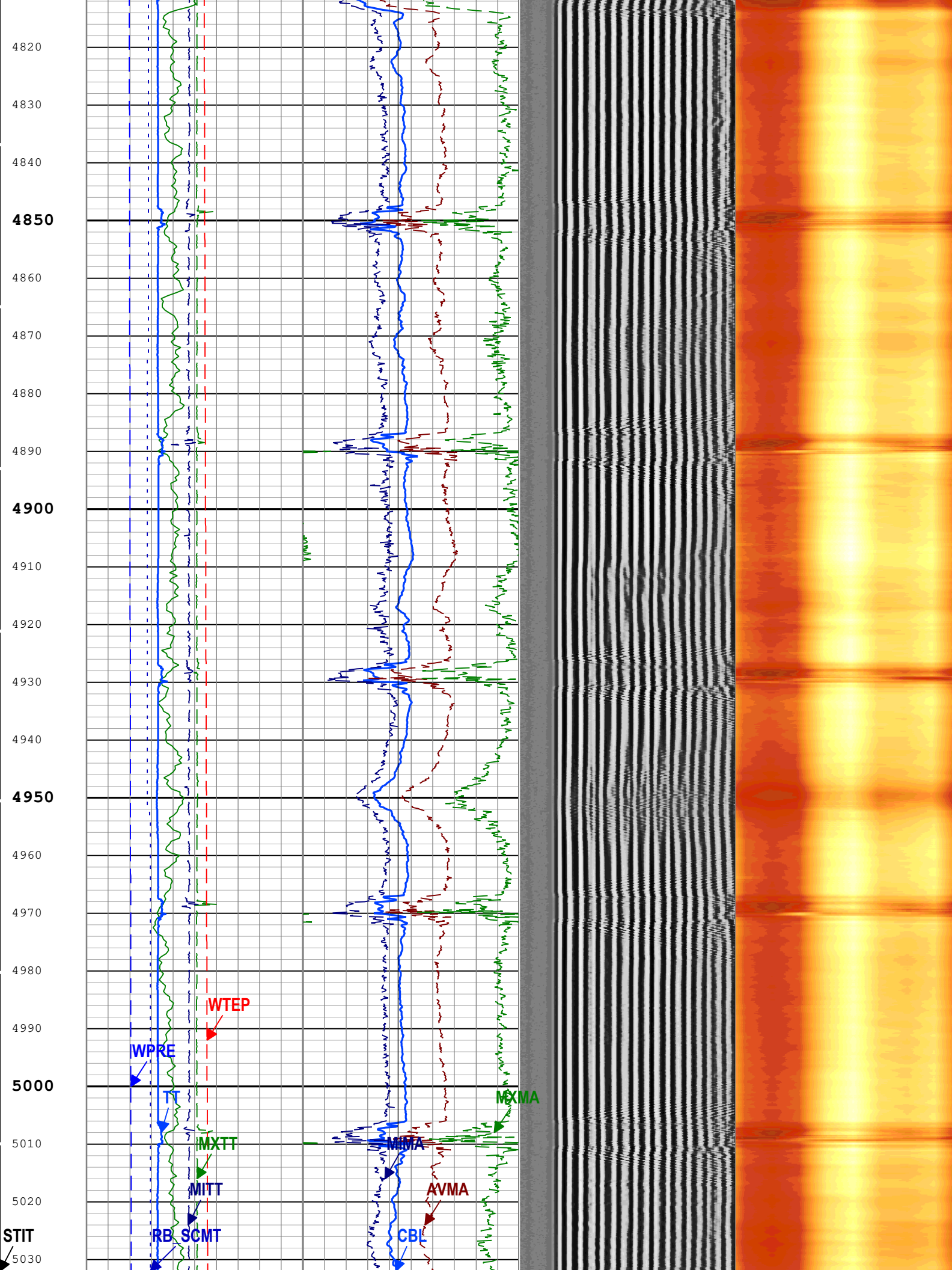
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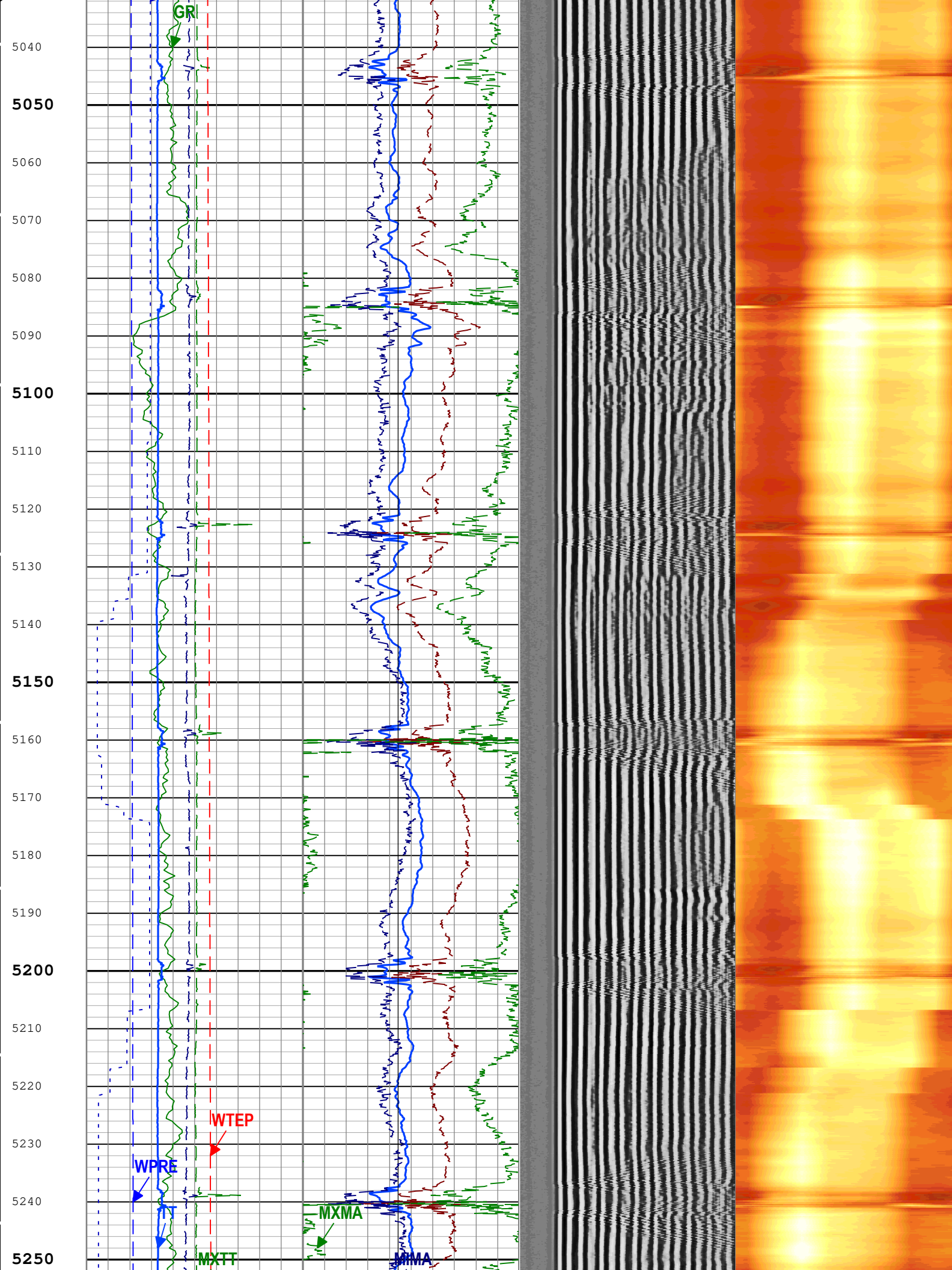
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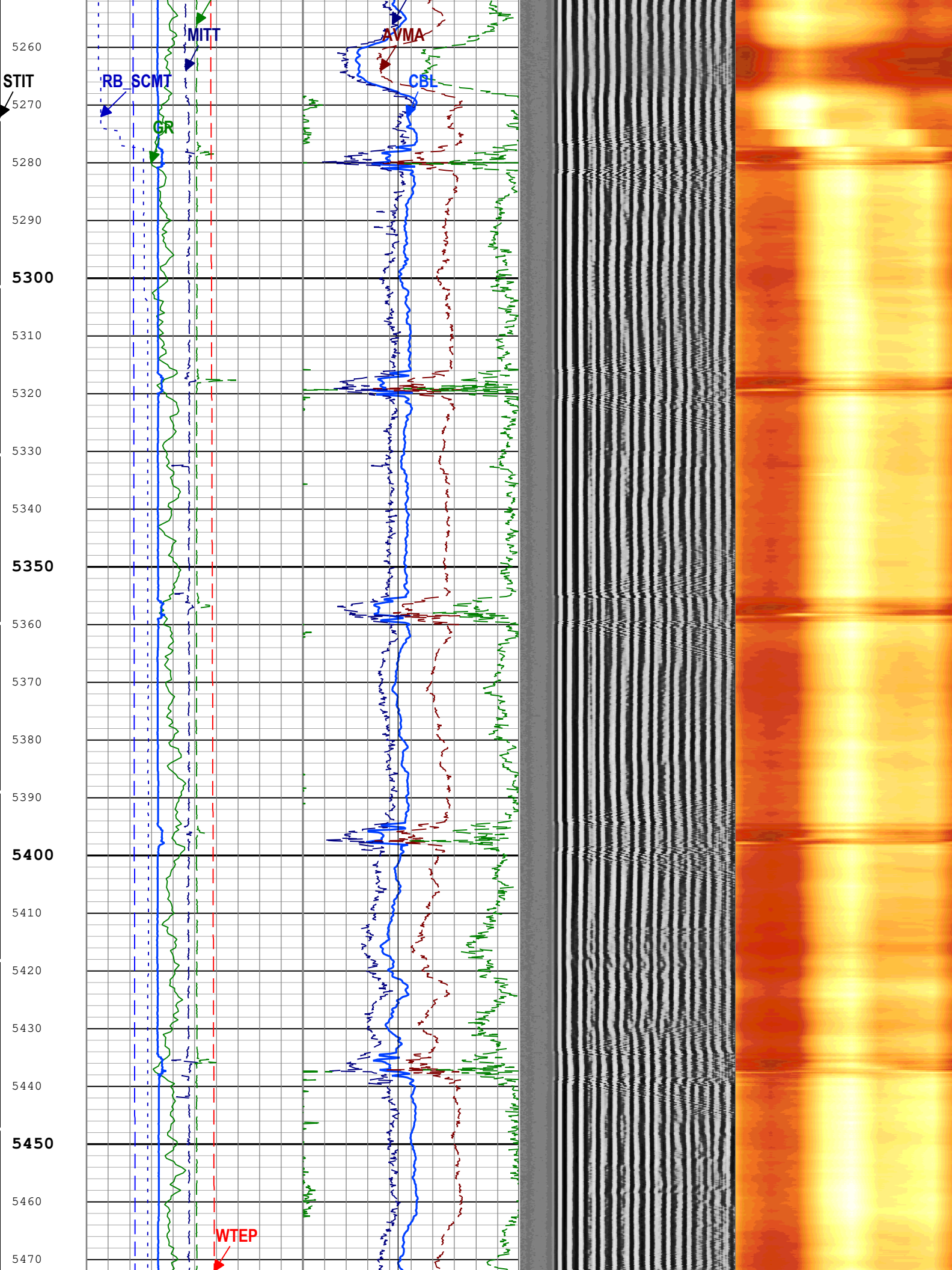
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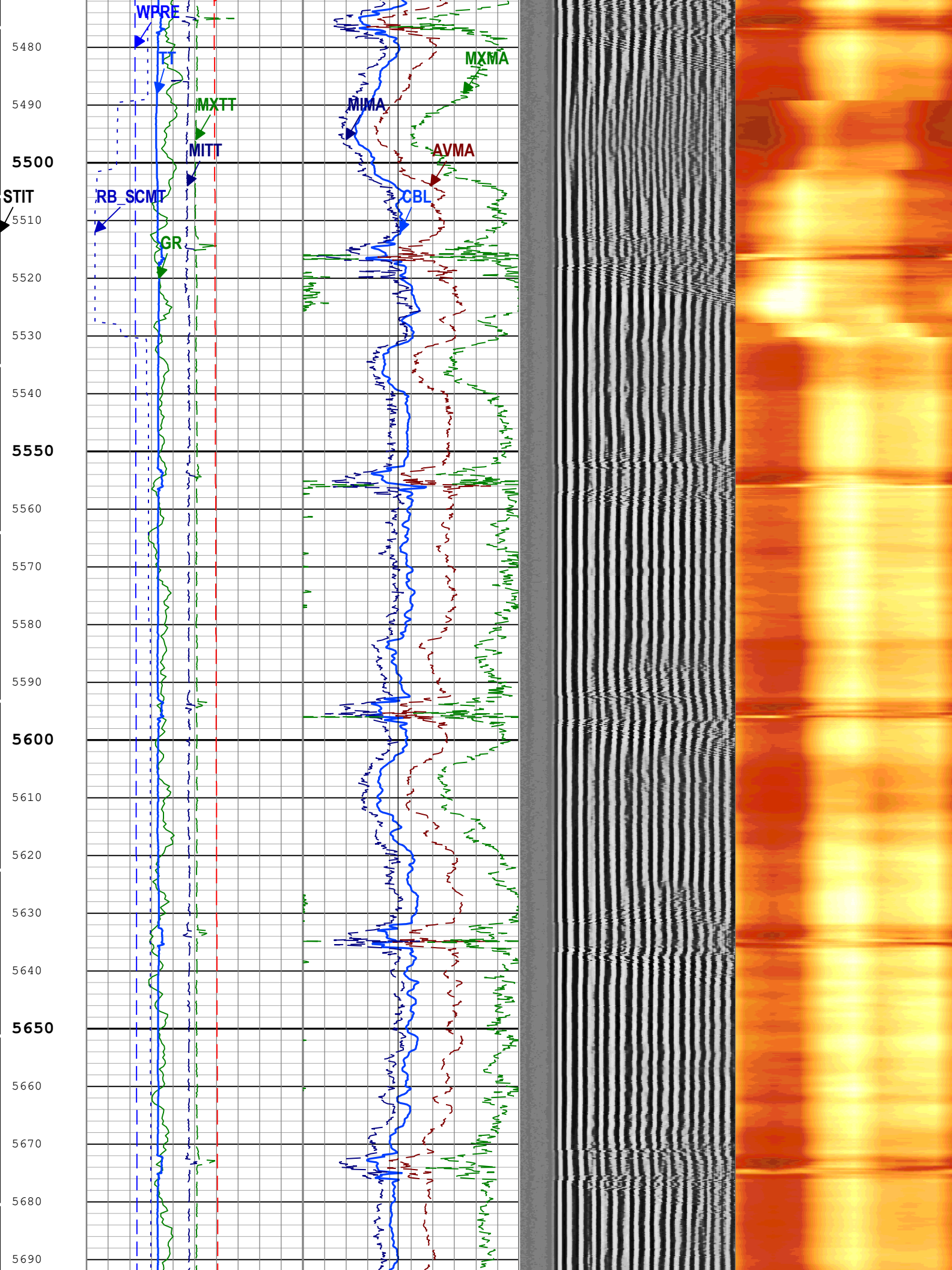
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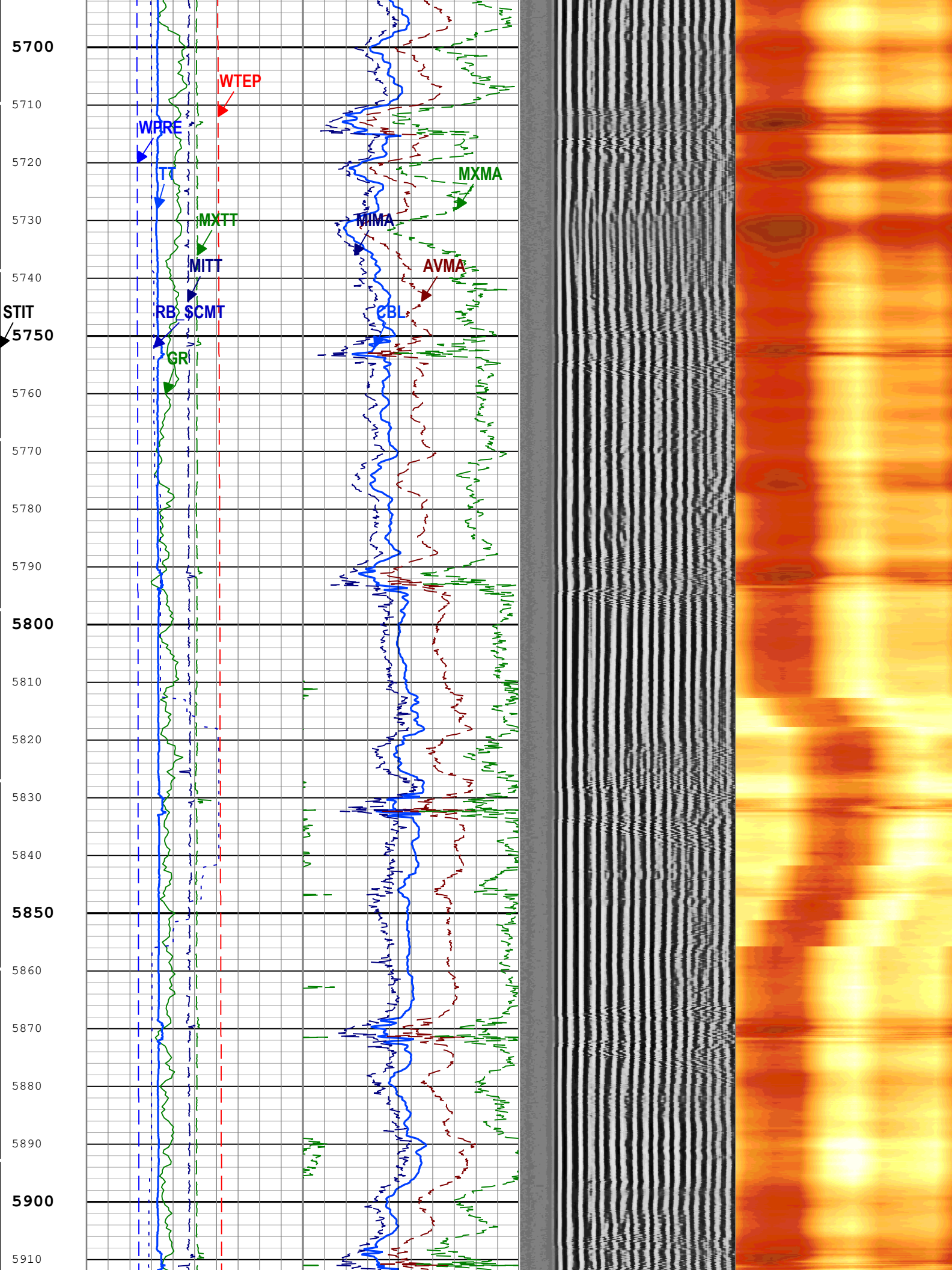
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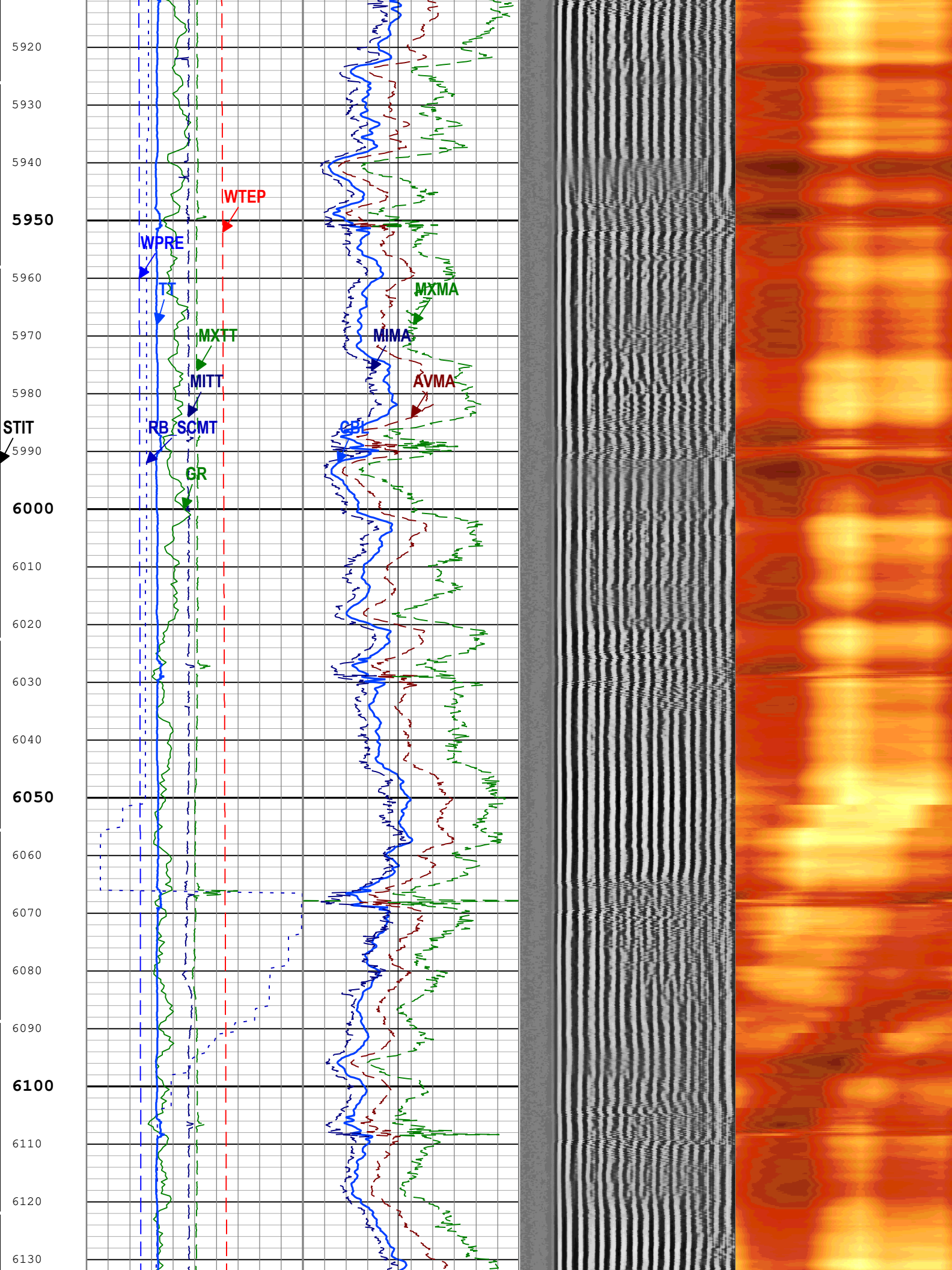
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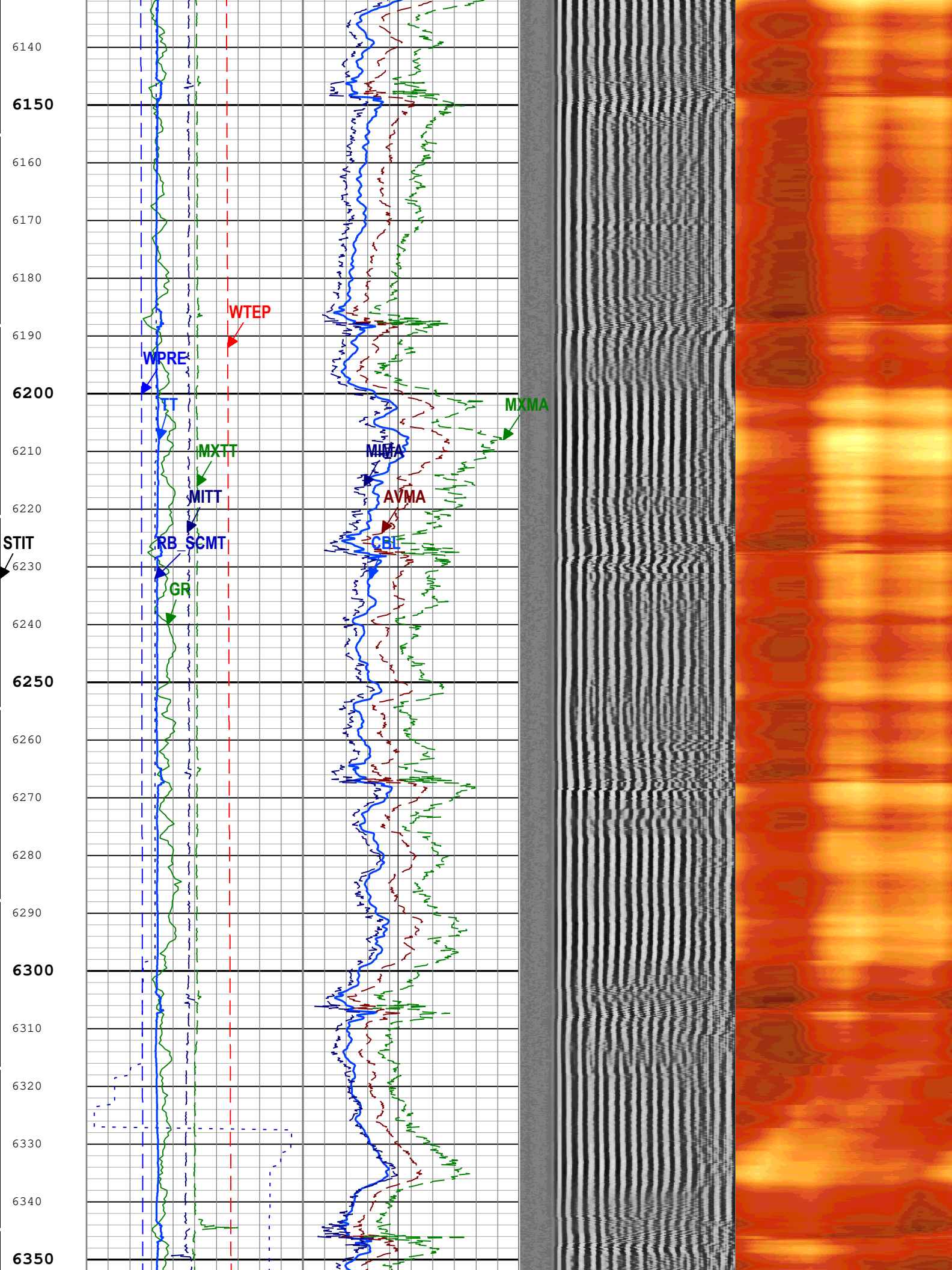
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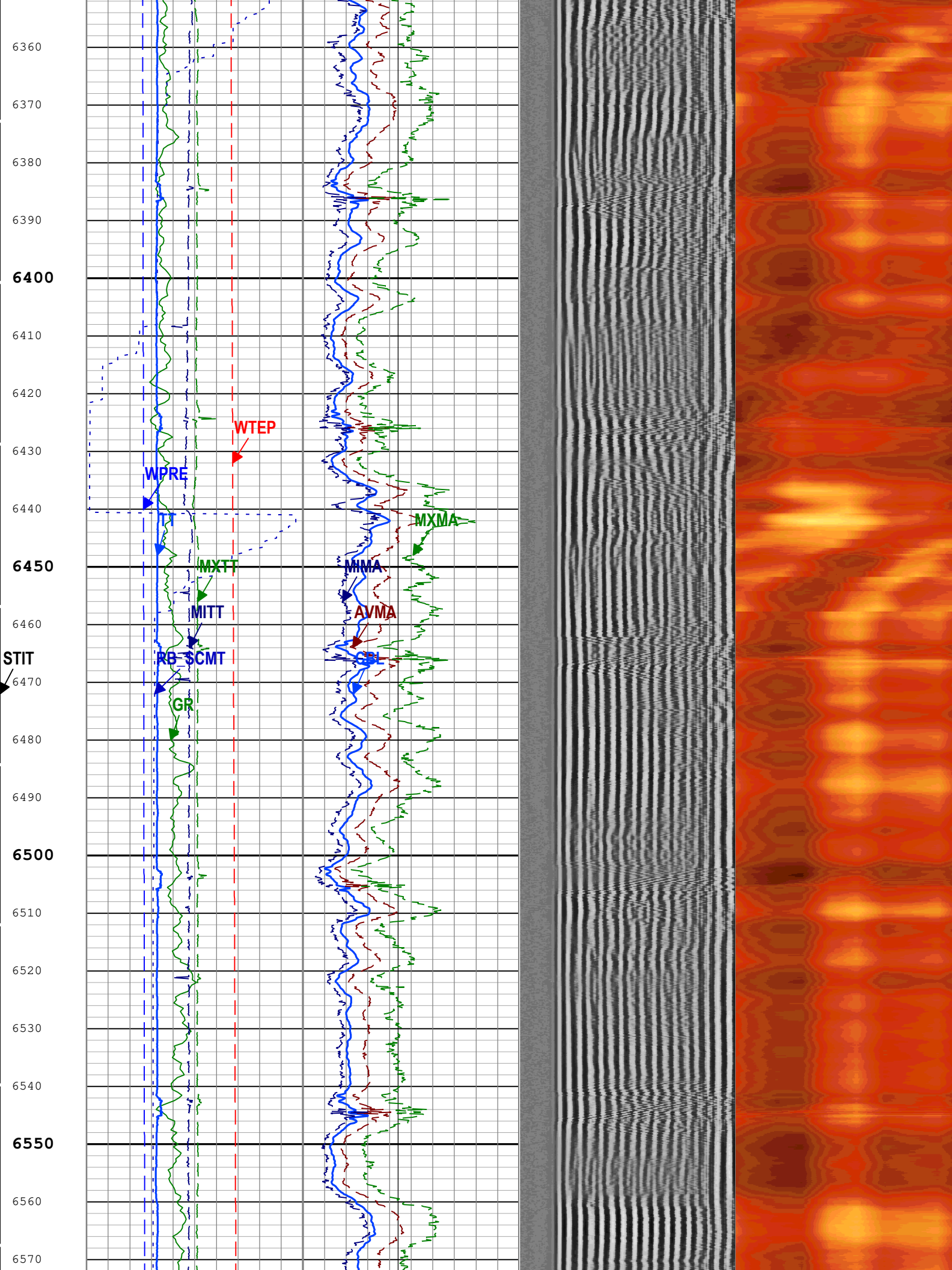
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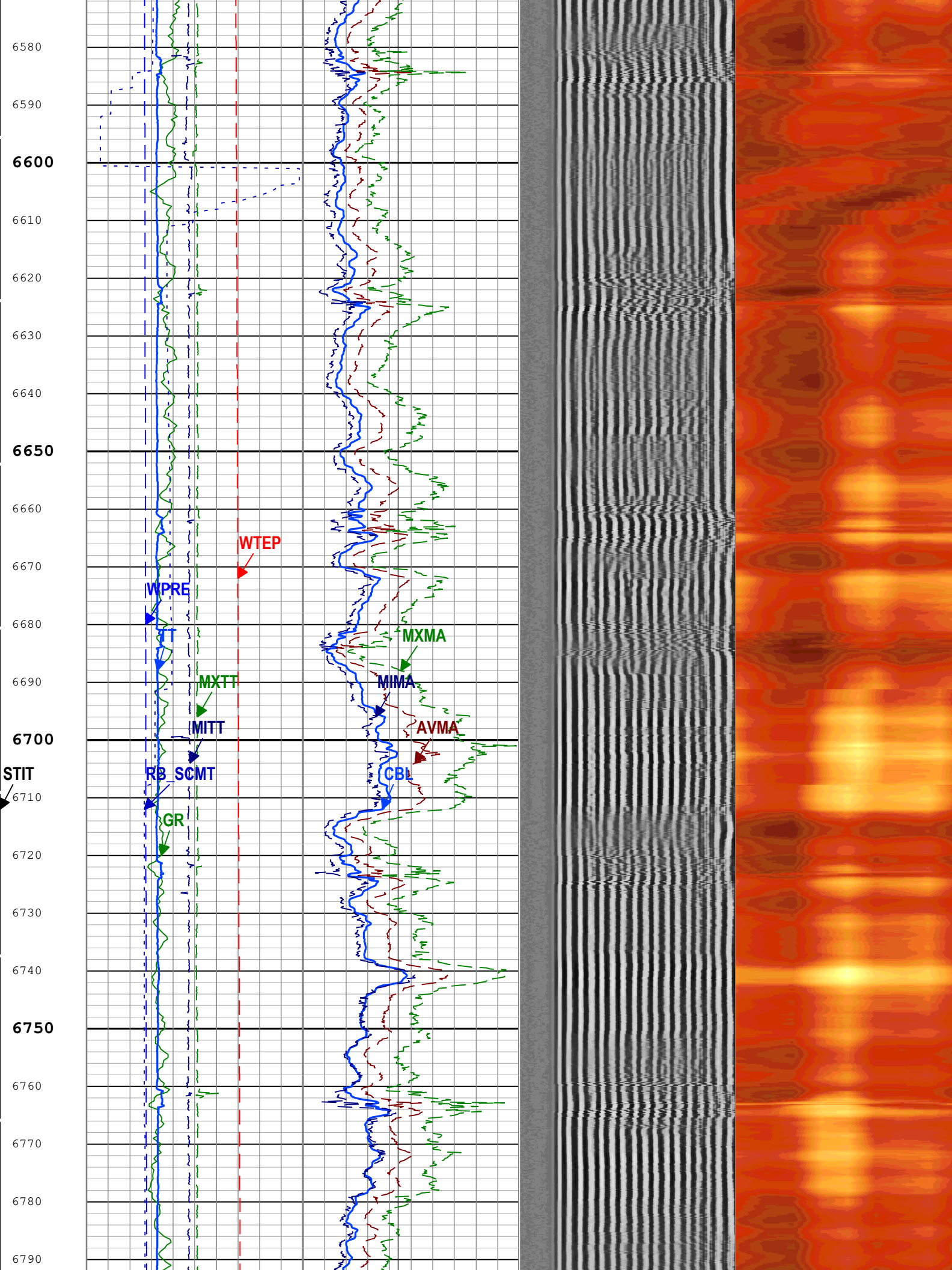
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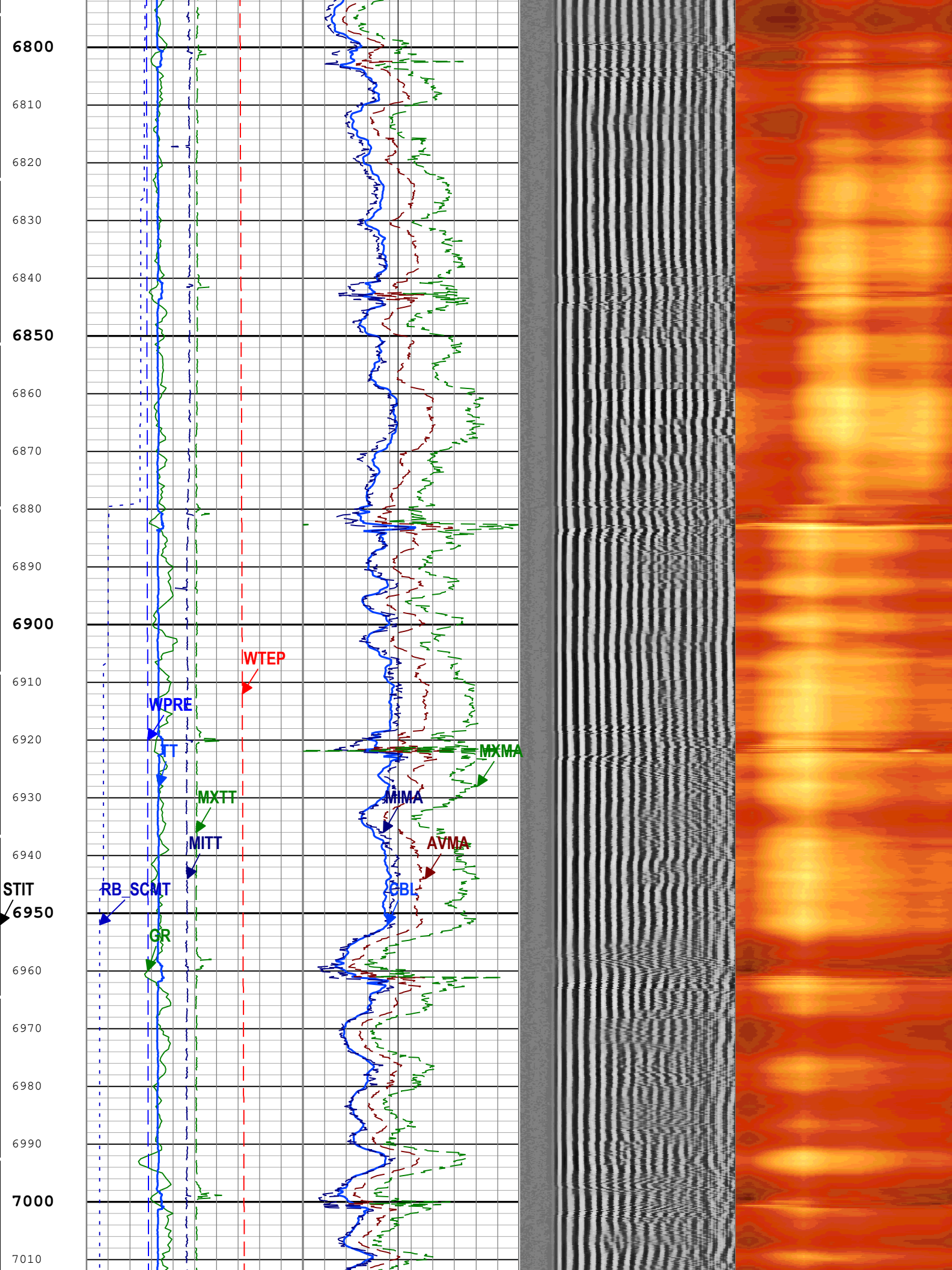
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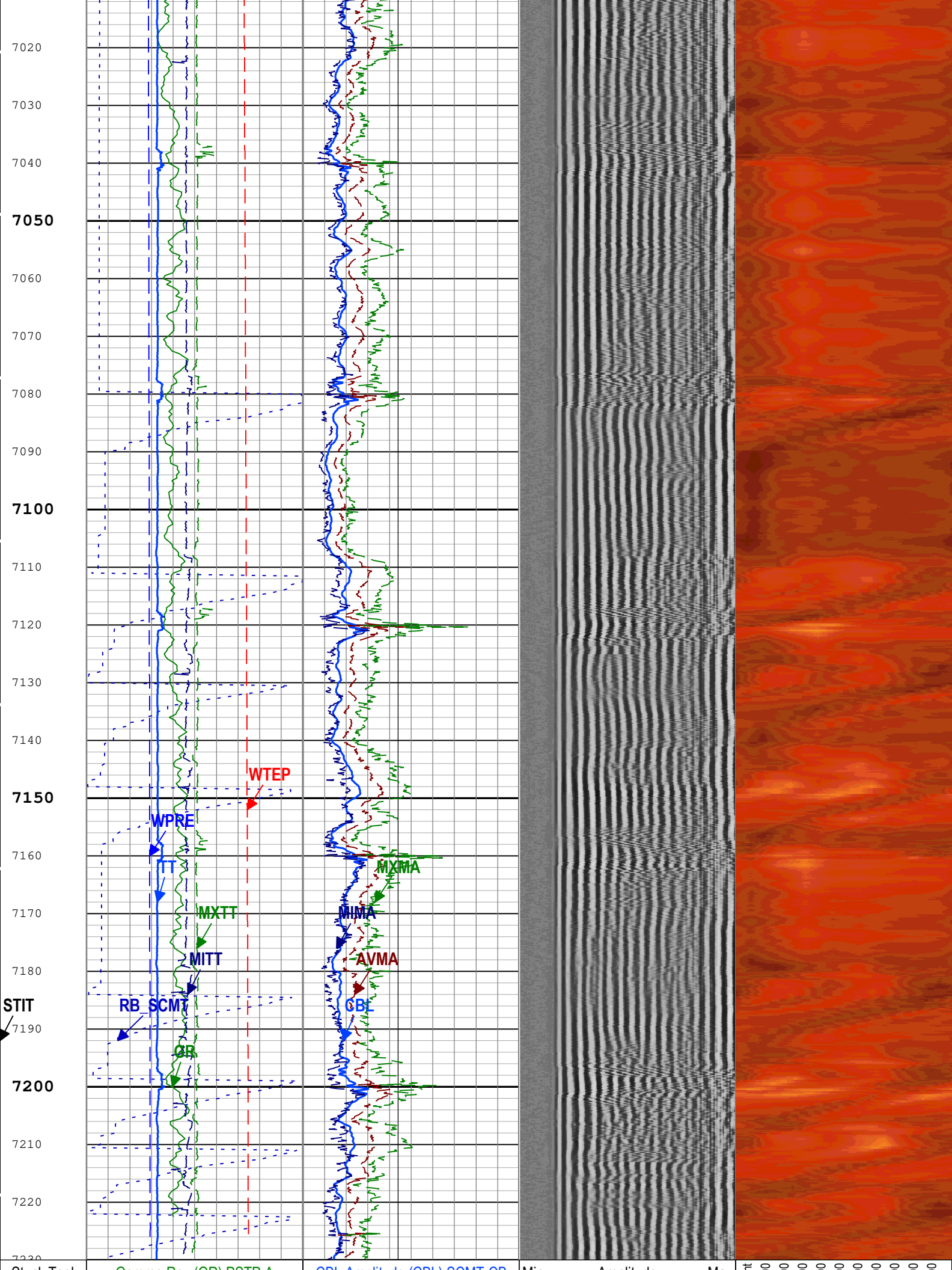
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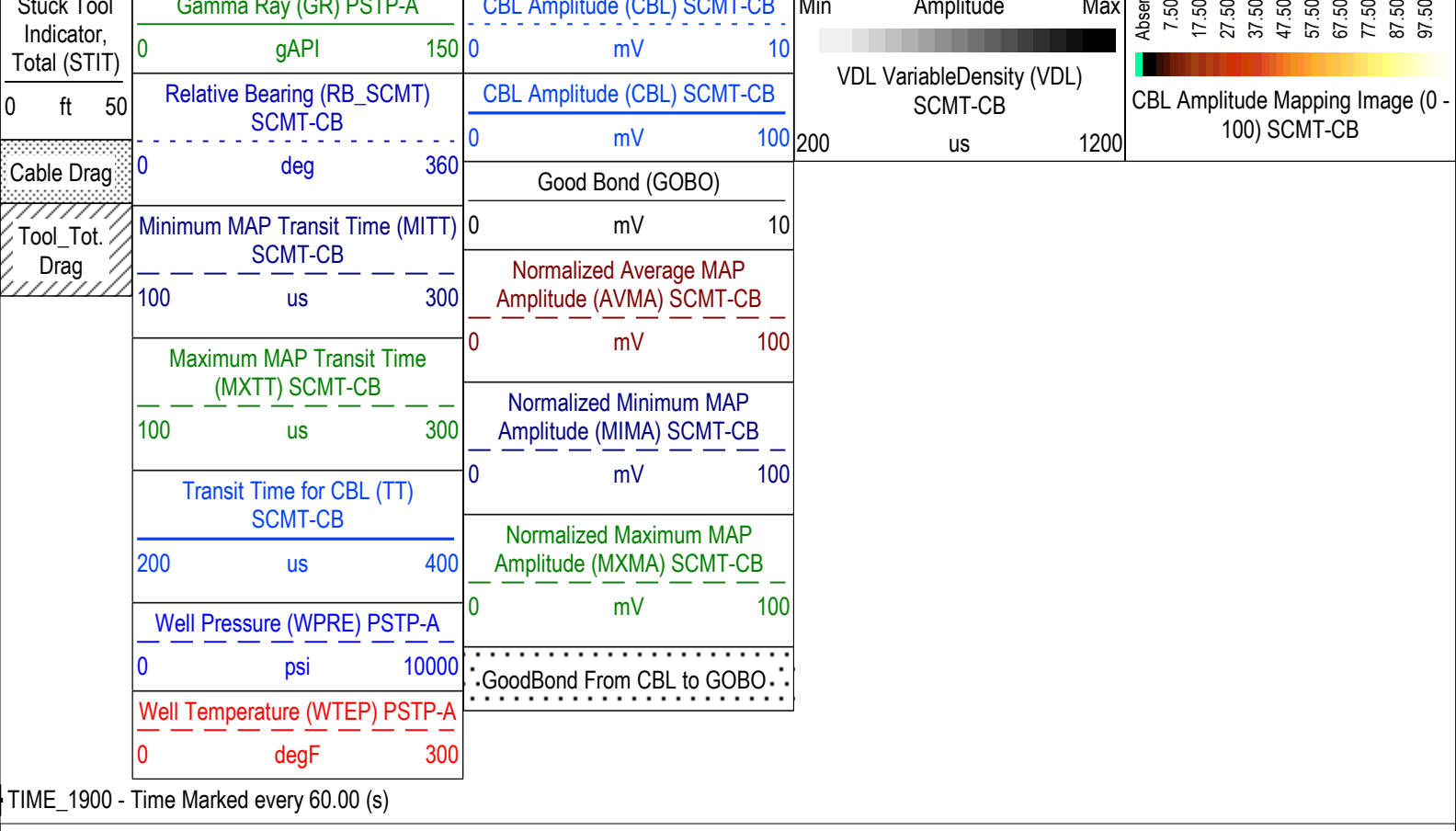


Description: SCMT VDL Image Format: Log (SCMT_VDL_Image) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 23-May-2019 13:06:42

Channel Processing Parameters

Two: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	212	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	235.09	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	72	mV
THNO	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.361	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-CB	178.45	us
MMSA	MAP Minimum Sonic Amplitude	SCMT-CB	10.85	mV
MSA	Minimum Sonic Amplitude	SCMT-CB	2.19	mV
RUN_SNUM	Run Sequence Number	WSDRUN	2	

Tool Control Parameters

Two: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	12 dB	

Repeat Pass

Software Version

Acquisition System	Version
Maxwell 2019	9.0.106845.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Two	Log[2]:Up	Up	2053.59 ft	2482.40 ft	21-May-2019 6:33:37 PM	21-May-2019 6:47:27 PM	ON	4.86 ft	Yes

All depths are referenced to toolstring zero

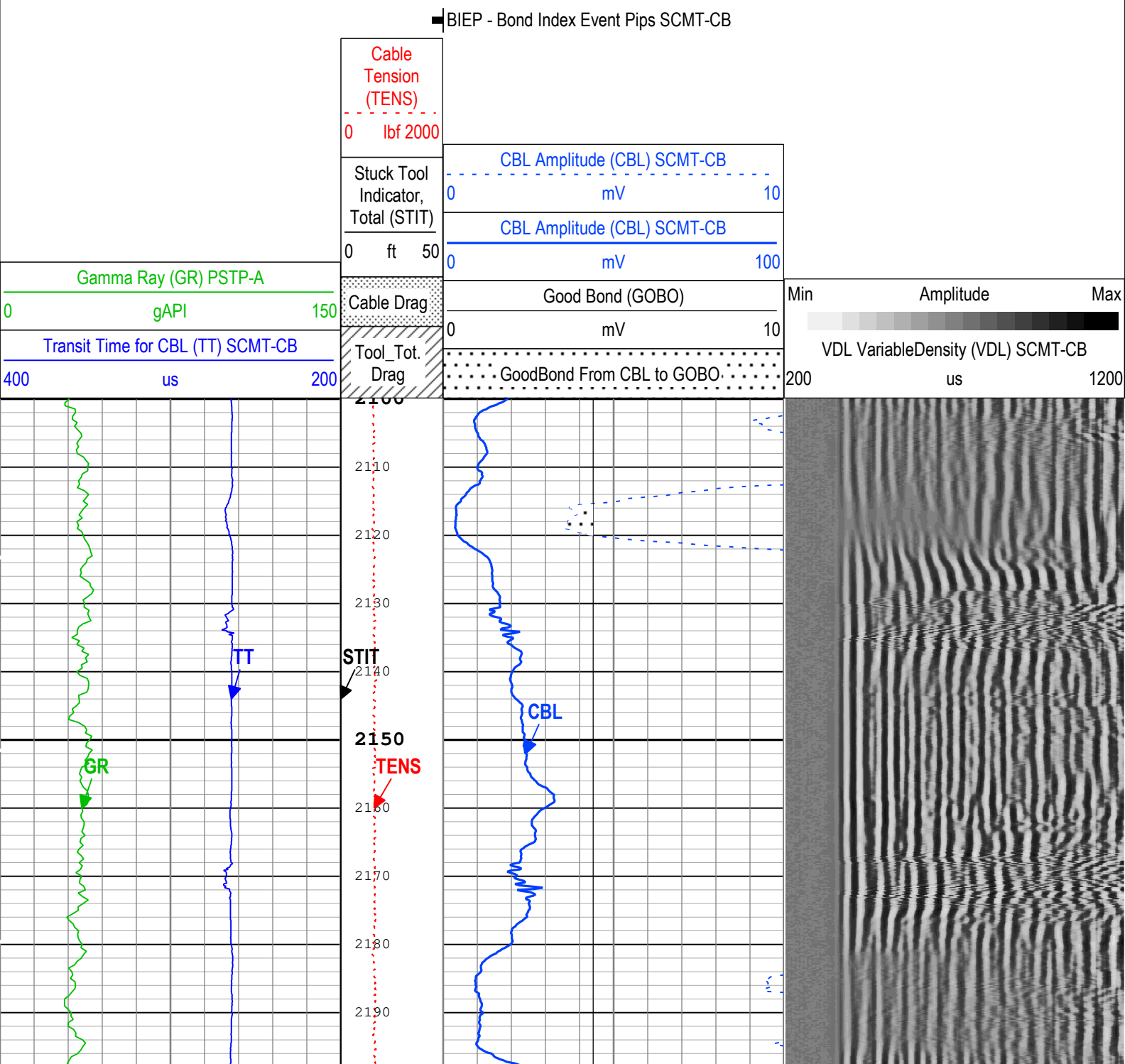
Log

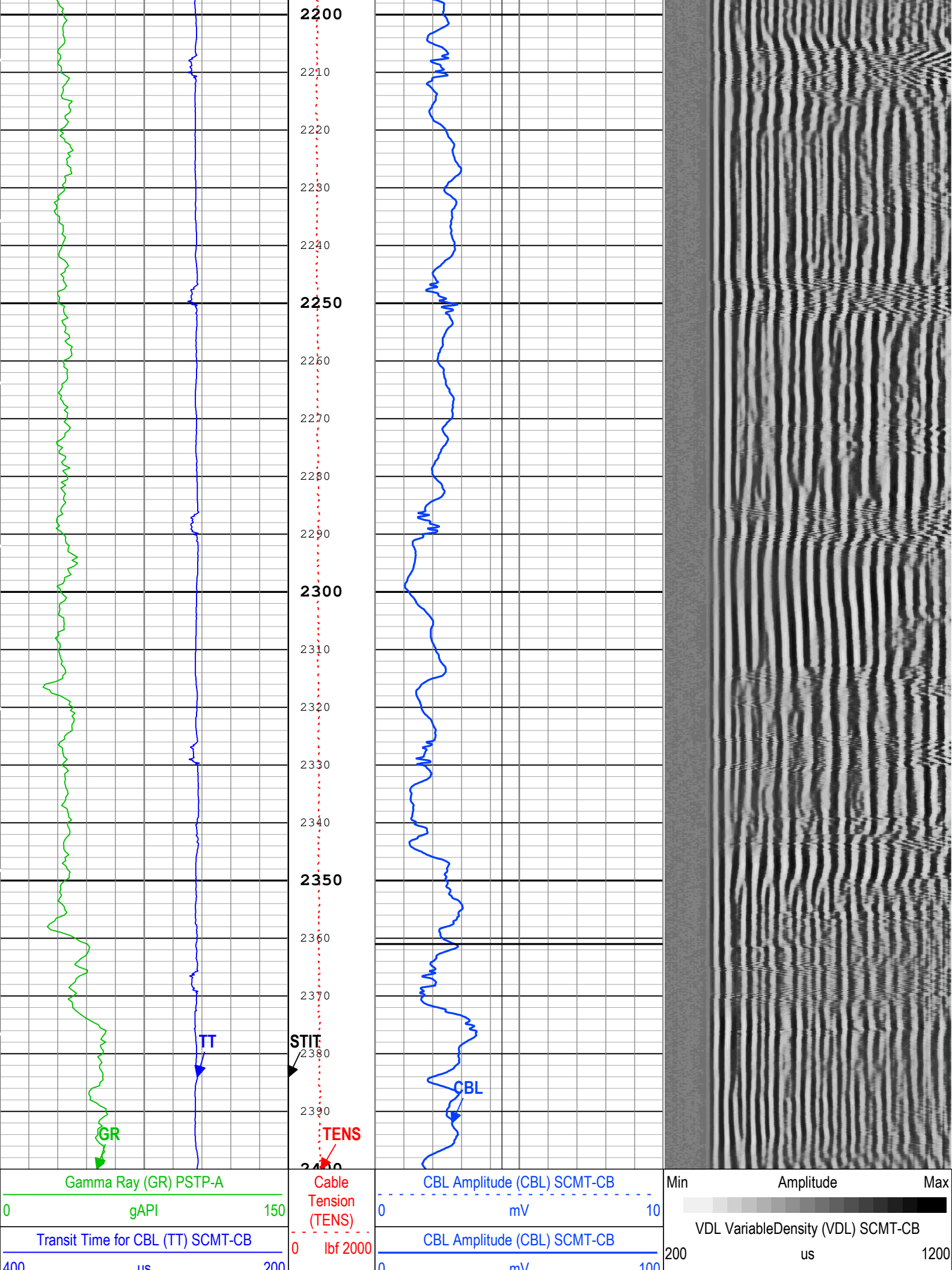
Company:Crestone Peak Resources and Operating LLC Well:Echeverria 2K-2H-D267

Two: Log[2]:Up:S003

Description: Sonic CBL with VDL Format: Log (Sonic CBL with VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 23-May-2019 13:06:54

TIME_1900 - Time Marked every 60.00 (s)

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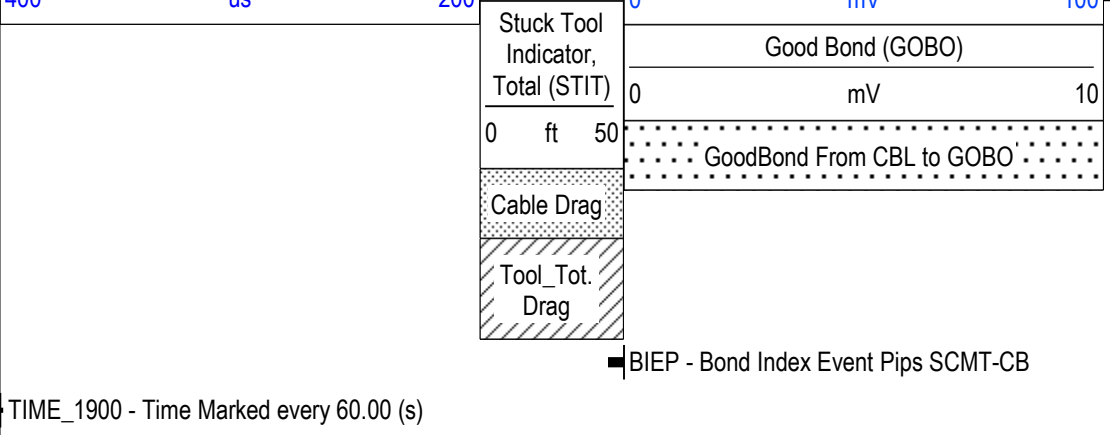


Description: Sonic CBL with VDL Format: Log (Sonic CBL with VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 23-May-2019 13:06:54

Channel Processing Parameters

Two: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	212	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	235.09	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	72	mV
THNO	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.361	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	4.4	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	11.85	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	Depth Zoned	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	2.19	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	2.19	mV
RUN_SNUM	Run Sequence Number	WSDRUN	2	

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
MCI	14.81	2100	2361
MCI	4.75	2361	2400

All depth are actual.

Tool Control Parameters

Two: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	12 dB	

Two

Repeat Pass

Software Version

Acquisition System	Version

Maxwell 2019	9.0.106845.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Two	Log[2]:Up	Up	2053.59 ft	2482.40 ft	21-May-2019 6:33:37 PM	21-May-2019 6:47:27 PM	ON	4.86 ft	Yes

All depths are referenced to toolstring zero

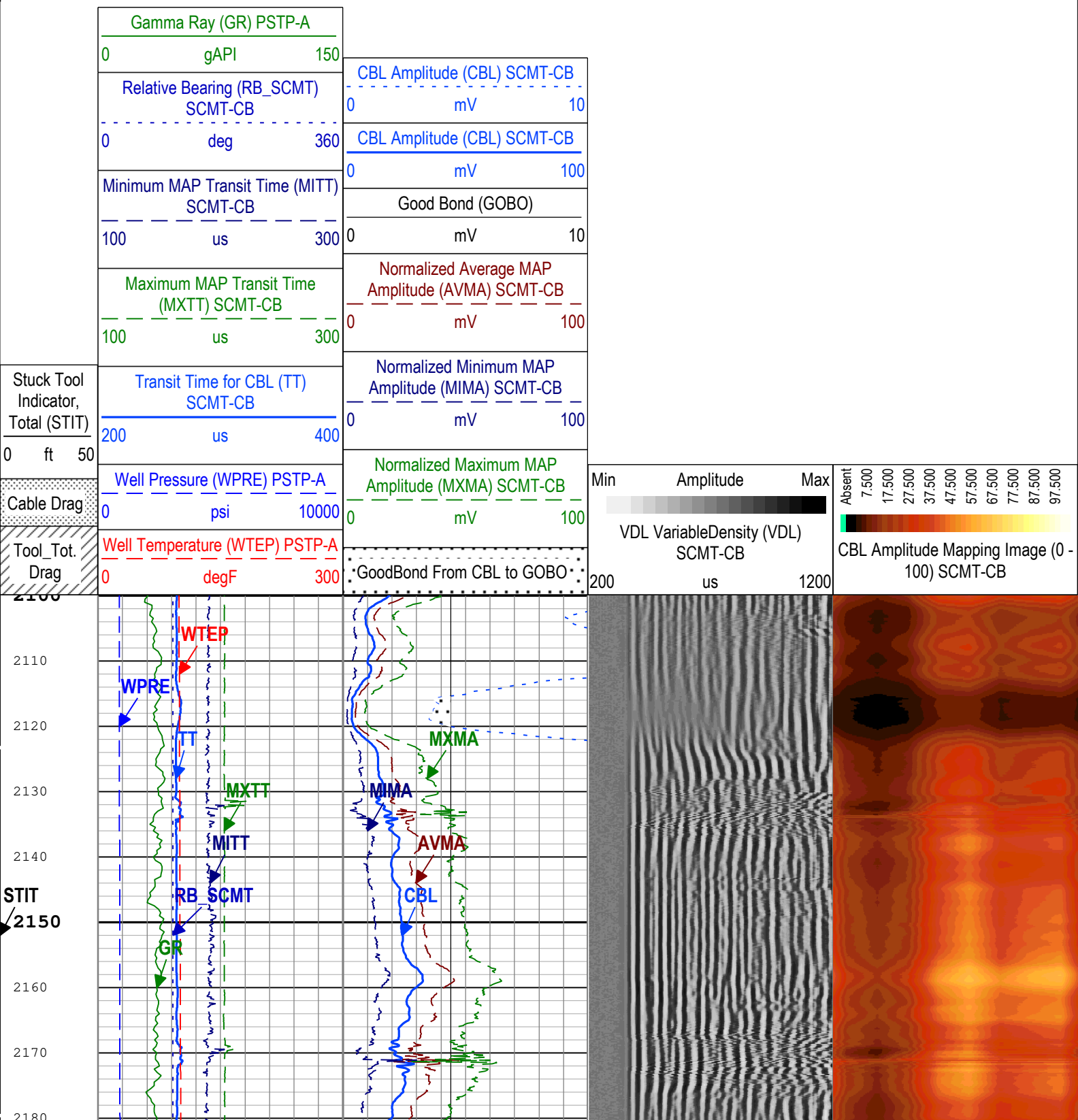
Log

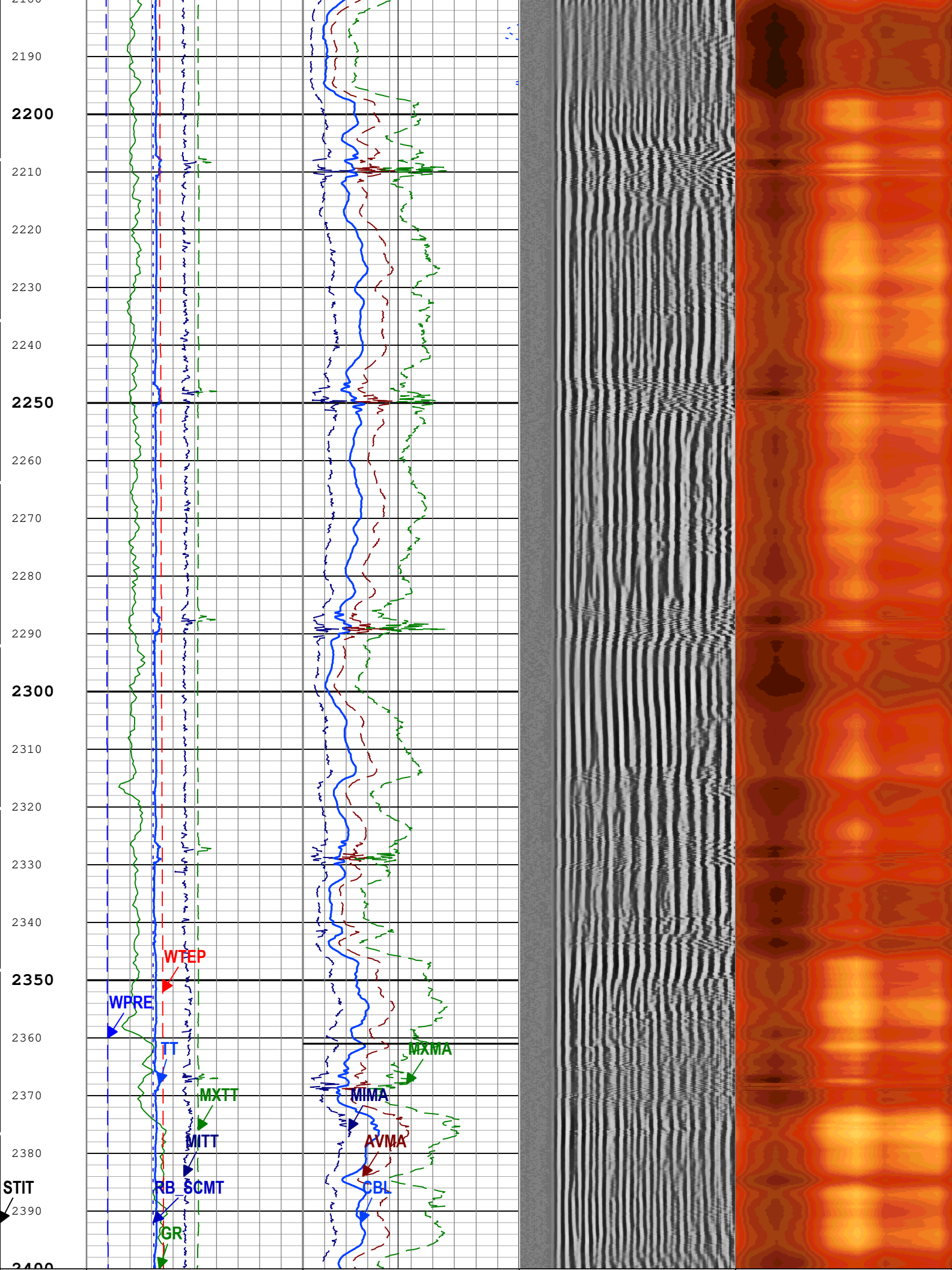
Company:Crestone Peak Resources and Operating LLC Well:Echeverria 2K-2H-D267

Two: Log[2]:Up:S003

Description: SCMT VDL Image Format: Log (SCMT_VDL_Image) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 23-May-2019 13:06:57

TIME_1900 - Time Marked every 60.00 (s)

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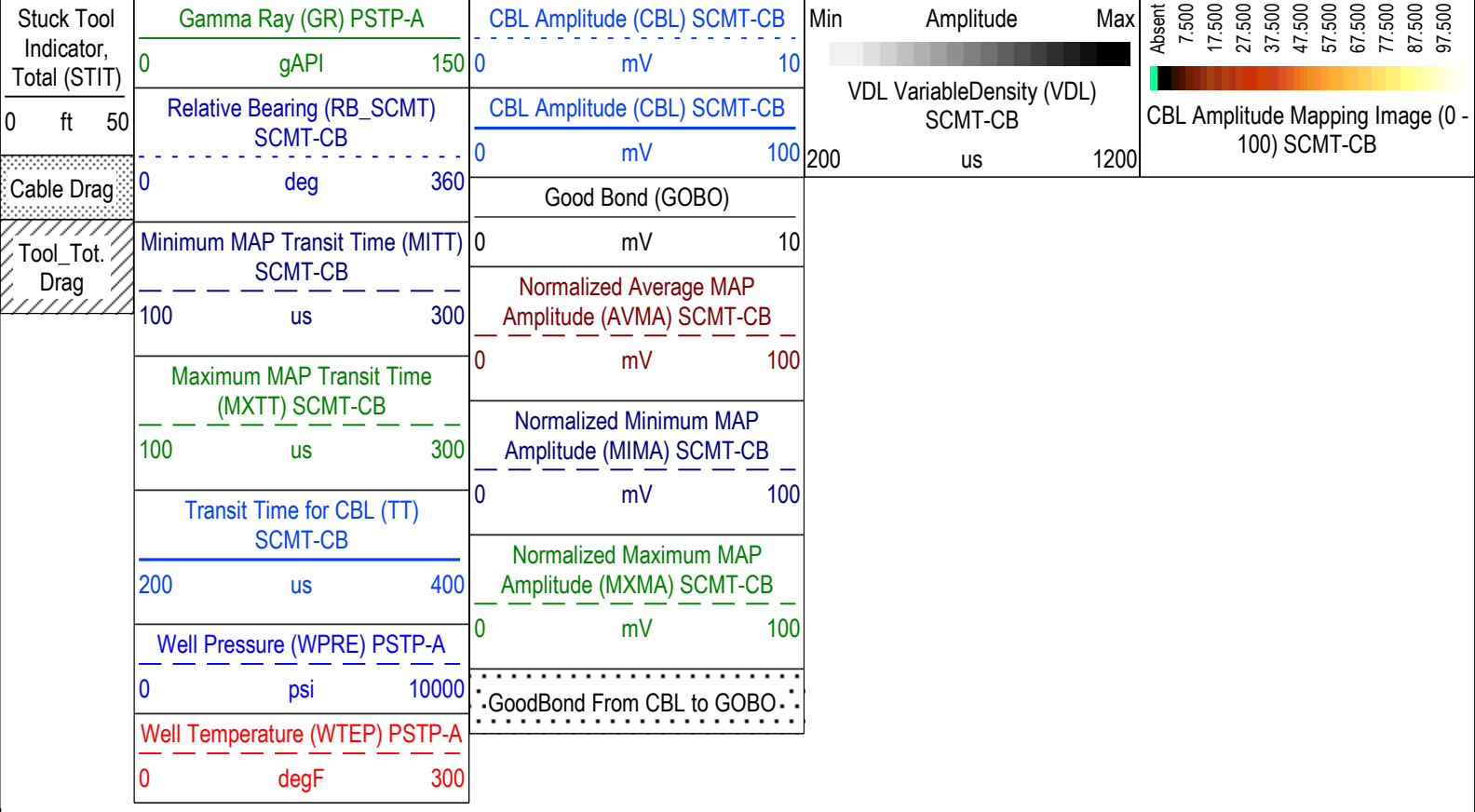

Description: SCMT VDL Image Format: Log (SCMT_VDL_Image) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 23-May-2019 13:06:57

Channel Processing Parameters

Two: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	212	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	235.09	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	72	mV
THNO	Nominal Casing Thickness - Zoned along logger depths	WLSESSION	0.361	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	206	us/ft
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	SCMT-CB	178.45	us
MMSA	MAP Minimum Sonic Amplitude	SCMT-CB	10.85	mV
MSA	Minimum Sonic Amplitude	SCMT-CB	2.19	mV
RUN_SNUM	Run Sequence Number	WSDRUN	2	

Tool Control Parameters

Two: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-A	12 dB	

Calibration Report

SCMT-CB (Slim Cement Mapping Tool, 1-11/16 OD) Calibration - Run Two

SCMT-CB (Slim Cement Mapping Tool, 1-11/16 OD) Calibration - Run Two

Primary Equipment :

Slim Cement Mapping Sonde	SCMS-CB	8258

CBL and MAP Amplitude Normalization - Measurements

Master (Measured): 20:16:15 09-Oct-2018

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
CBL 3 ft Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1350.000	1000.000	1179.675	1700.000
MAP 1 Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1075.000	500.000	1218.098	1650.000
MAP 2 Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1075.000	500.000	1093.785	1650.000
MAP 3 Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1075.000	500.000	807.772	1650.000
MAP 4 Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1075.000	500.000	882.819	1650.000
MAP 5 Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1075.000	500.000	964.949	1650.000
MAP 6 Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1075.000	500.000	1086.432	1650.000
MAP 7 Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1075.000	500.000	1188.836	1650.000
MAP 8 Temperature/Pressure Compensated Raw Amplitude (at 0 degree)	mV	Master	1075.000	500.000	1282.034	1650.000
CBL 3 ft Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1350.000	1000.000	1178.190	1700.000
MAP 1 Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1075.000	500.000	1054.282	1650.000
MAP 2 Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1075.000	500.000	965.417	1650.000
MAP 3 Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1075.000	500.000	760.428	1650.000
MAP 4 Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1075.000	500.000	942.255	1650.000
MAP 5 Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1075.000	500.000	1117.953	1650.000
MAP 6 Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1075.000	500.000	1289.531	1650.000
MAP 7 Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1075.000	500.000	1273.549	1650.000
MAP 8 Temperature/Pressure Compensated Raw Amplitude (at 90 degree)	mV	Master	1075.000	500.000	1172.603	1650.000
CBL 3 ft Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1350.000	1000.000	1177.369	1700.000
MAP 1 Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1075.000	500.000	995.650	1650.000
MAP 2 Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1075.000	500.000	998.660	1650.000
MAP 3 Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1075.000	500.000	861.659	1650.000
MAP 4 Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1075.000	500.000	1085.633	1650.000
MAP 5 Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1075.000	500.000	1238.145	1650.000
MAP 6 Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1075.000	500.000	1300.507	1650.000
MAP 7 Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1075.000	500.000	1172.184	1650.000
MAP 8 Temperature/Pressure Compensated Raw Amplitude (at 180 degree)	mV	Master	1075.000	500.000	1036.327	1650.000
CBL 3 ft Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1350.000	1000.000	1174.563	1700.000
MAP 1 Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1075.000	500.000	1078.665	1650.000
MAP 2 Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1075.000	500.000	1119.866	1650.000
MAP 3 Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1075.000	500.000	955.836	1650.000
MAP 4 Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1075.000	500.000	1120.067	1650.000
MAP 5 Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1075.000	500.000	1171.587	1650.000

Raw Amplitude (at 270 degree)						
MAP 6 Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1075.000	500.000	1166.519	1650.000
MAP 7 Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1075.000	500.000	1067.010	1650.000
MAP 8 Temperature/Pressure Compensated Raw Amplitude (at 270 degree)	mV	Master	1075.000	500.000	1043.943	1650.000

CBL and MAP Amplitude Normalization - Coefficients

Master (Measured): 20:16:15 09-Oct-2018

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Normalization Temperature in SFT Tube	degF	Master			64.00	
CBL Correction Factor		Master	0		0.082	
MAP 1 Correction Factor		Master	0		0.110	
MAP 2 Correction Factor		Master	0		0.115	
MAP 3 Correction Factor		Master	0		0.142	
MAP 4 Correction Factor		Master	0		0.119	
MAP 5 Correction Factor		Master	0		0.107	
MAP 6 Correction Factor		Master	0		0.099	
MAP 7 Correction Factor		Master	0		0.102	
MAP 8 Correction Factor		Master	0		0.106	

CBL and MAP Amplitude Adjustment - Measurements

Before (Manual Entry): 17:51:24 21-May-2019

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
CBL Amplitude - 0	mV	Before	-----	-----	-----	-----
Average MAP Amplitude (Fluid Compensated) - 0	mV	Before	-----	-----	-----	-----
Measurement Depth - 0	ft	Before	-----	-----	-----	-----

CBL and MAP Amplitude Adjustment - Coefficients

Before (Manual Entry): 17:51:24 21-May-2019

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
CBL Adjustment Factor		Before			0.961	
CBL LQC Reference Amplitude in Free Pipe	mV	Before			72.00	
MAP Adjustment Factor		Before			0.621	
Depth of Before Calibration	ft	Before			476.82	

PSTP-A (PSP Telemetry Platform A - Sapphire) Calibration - Run Two

Primary Equipment :

PBMS-A PBMS-A 1925

Calibration Parameter :

JIG-BKGD

PBMS Well Temp Master Calibration

Master (EEPROM): 00:00:00 22-Oct-2018

PBMS_RTD_THERM (Master) RTD Coefficients

	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tt**0	-410.1011	188.1116	-36.84356	7.122567	-0.4733946	0

PBMS Gamma Ray Master Calibration

Master (EEPROM): 00:00:00 07-Mar-2003

PBMS_GR_MODEL (Master) GR Coefficients

	Rt**0	Rt**1
Rt**0	2000	4740

PBMS A Reference Check Master Calibration

PBMS A Reference Clock Master Calibration

Master (EEPROM): 00:00:00 22-Oct-2018

PBMS_REF_CLOCK (Master) PBMS A Clock Coefficients

	Temp**0	Temp**1	Temp**2	Temp**3	Temp**4	Temp**5
Temp**0	-53.18935	-7.201934	-0.02214573	0.0001183733	4.091469E-06	0

PBMS A Sapphire Master Calibration

Master (EEPROM): 00:00:00 22-Oct-2018

PBMS_P_GAUGE_PRES (Master) Sapphire Pressure Model Coefficients

	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tp**0	-25691.09	17029.96	-5075.791	726.4449	-40.75964	0
Tp**1	19132.39	-12381.02	3822.557	-563.1737	32.42202	0
Tp**2	-179.7185	65.96684	-6.392941	0	0	0
Tp**3	3.901225	-0.8302976	0	0	0	0
Tp**4	0	0	0	0	0	0
Tp**5	0	0	0	0	0	0

PBMS_P_GAUGE_TEMP (Master) Sapphire Temperature Model Coefficients

	Tp**0	Tp**1	Tp**2	Tp**3	Tp**4	Tp**5
Tt**0	2139.044	0.9065338	-1.614862	0.4019501	-0.0426815	0
Tt**1	-1249.353	0.4641727	0.3407869	-0.06403436	0.007093906	0
Tt**2	256.6918	-0.2288171	-0.01679745	0	0	0
Tt**3	-18.59611	0.0234225	0	0	0	0
Tt**4	0	0	0	0	0	0
Tt**5	0	0	0	0	0	0

Company:	Crestone Peak Resources and Operating LLC
Well:	Echeverria 2K-2H-D267
Field:	Wattenberg
County:	Weld
State:	Colorado

Schlumberger

Slim Cement Mapping Tool
Cement Evaluation
Gamma Ray - CCL Log