Schlumberger

Company: **ENCANA OIL & GAS (USA) INC.**

Well: **FEDERAL 29−4C (PA30)**
Field: **PARACHUTE**
County: **GARFIELD** State: **COLORADO**

County: GARFIELD
Field: PARACHUTE
Location: SHL: 567' FNL & 370' FEL
Well: FEDERAL 29−4C (PA30)
Company: ENCANA OIL & GAS (USA) INC.

CEMENT BOND LOG
CBL − VDL
GAMMA RAY − CCL

LOCATION

SHL: 567' FNL & 370' FEL
BHL: NWNW 1322' FNL & 649' FWL

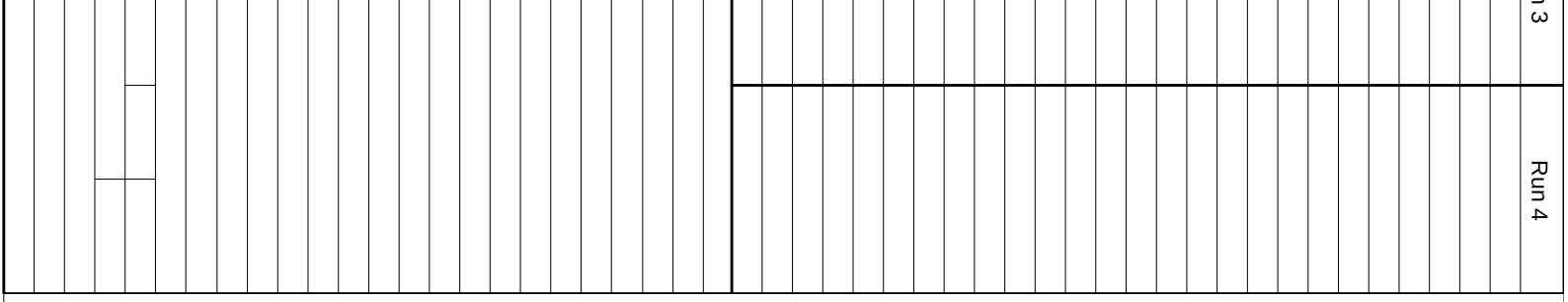
Elev.: K.B. 5828.00 ft
G.L. 5806.00 ft
D.F. 5827.00 ft

Permanent Datum: GROUND LEVEL Elev.: 5806.00 ft
Log Measured From: KELLY BUSHING 22.00 ft above Perm. Datum
Drilling Measured From: KELLY BUSHING

API Serial No.	Section	Township	Range
05−045−20784−0000	30	7S	95W

	Run 1	Run 2	Run
PVT DATA			
Oil Density			
Water Salinity			
Gas Gravity			
Bo			
Bw			
1/Bg			
Bubble Point Pressure			
Bubble Point Temperature			
Solution GOR			
Maximum Deviation			
CEMENTING DATA			
Primary/Squeeze	Primary		
Casing String No			
Lead Cement Type			
Volume			
Density			
Water Loss			
Additives			
Tail Cement Type			
Volume			
Density			
Water Loss			
Additives			
Expected Cement Top			
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Fluid Type			
Salinity			
Density			
Fluid Level			
BIT/CASING/TUBING STRING			
Bit Size			
From			
To			
Casing/Tubing Size			
Weight			
Grade			
From			
To			
Maximum Recorded Temperatures			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			

Logging Date	21−Nov−2011		
Run Number	TWO		
Depth Driller	6700 ft		
Schlumberger Depth	6558 ft		
Bottom Log Interval	6549.4 ft		
Top Log Interval	200 ft		
Casing Fluid Type	WATER		
Salinity			
Density	8.4 lbm/gal		
Fluid Level	22 ft		
BIT/CASING/TUBING STRING			
Bit Size	8.750 in		
From	22 ft		
To	6700 ft		
Casing/Tubing Size	4.500 in		
Weight	11.6 lbm/ft		
Grade	S−80		
From	22 ft		
To	6675 ft		
Maximum Recorded Temperatures	196 degF		
Logger On Bottom / Time	21−Nov−2011	8:38	
Unit Number / Location	391	GRAND JUNCTION	
Recorded By	SHOWKAT HOSSAIN		
Witnessed By	UNATTENDED		



DEPTH SUMMARY LISTING

Date Created: 21−NOV−2011 9:42:20

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW−JA	Type:	CMTD−C	Type:	1−25ZT
Serial Number:	6322	Serial Number:	5006	Serial Number:	391
Calibration Date:	07−APR−2011	Calibration Date:	04−OCT−2011	Length:	14200 FT
Calibrator Serial Number:	33	Calibrator Serial Number:	174878		
Calibration Cable Type:	1−25P	Number of Calibration Points:	10	Conveyance Method:	Wireline
Wheel Correction 1:	−6	Calibration RMS:	4	Rig Type:	LAND
Wheel Correction 2:	−5	Calibration Peak Error:	8		

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	COMPACT TRIPLE COMBO
Reference Log Run Number:	ONE
Reference Log Date:	02−OCT−2011
Subsequent Trip Down Log Correction:	2.00 FT

Depth Control Remarks

1. ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES FOLLOWED.
2. IDW USED AS PRIMARY DEPTH CONTROL.
3. Z−CHART AND DRUM COUNTER USED AS SECONDARY DEPTH CONTROL.
4.
5.
6.

OTHER SERVICES1	OTHER SERVICES2
OS1: RST − SIGMA	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
THIS IS A SUBSEQUENT TRIP IN WELL.	
TOOL RAN AS PER TOOL SKETCH.	
CORRELATED TO WEATHERFORD COMPACT TRIPLE COMBO DATED 02−OCT−2011 AS RUN ONE.	
TD TAGGED AT: 6558 FT	
MAXIMUM RECORDED PRESSURE AT TD: 2701.9 PSIA	
MAXIMUM RECORDED TEMPERATURE AT TD: 195.7 DEGF	

MAXIMUM RECORDED TEMPERATURE AT TD: 250F DEG

SHORT JOINT: 3892 FT − 3915 FT & 4903 FT − 4925 FT

EXPECTED FREE PIPE AMPLITUDE: 80 mV

CBL TRANSIT TIME CYCLE SKIPPING IN ZONES OF GOOD CEMENT DUE TO LOW SIGNAL AMPLITUDE.

AFE: 11155190

THANK YOU FOR CHOOSING SCHLUMBERGER.

CREW: 391−W. AZIZ & J. ROSA

RUN 1		RUN 2	
SERVICE ORDER #:	BOC2−00182	SERVICE ORDER #:	
PROGRAM VERSION:	19C0−187	PROGRAM VERSION:	
FLUID LEVEL:	22 ft	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT

WITM−A 3412
PSC_16MHZ 3412

DOWNHOLE EQUIPMENT

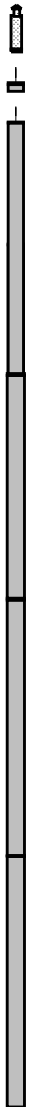
MH−22 53.4
MH−22 391

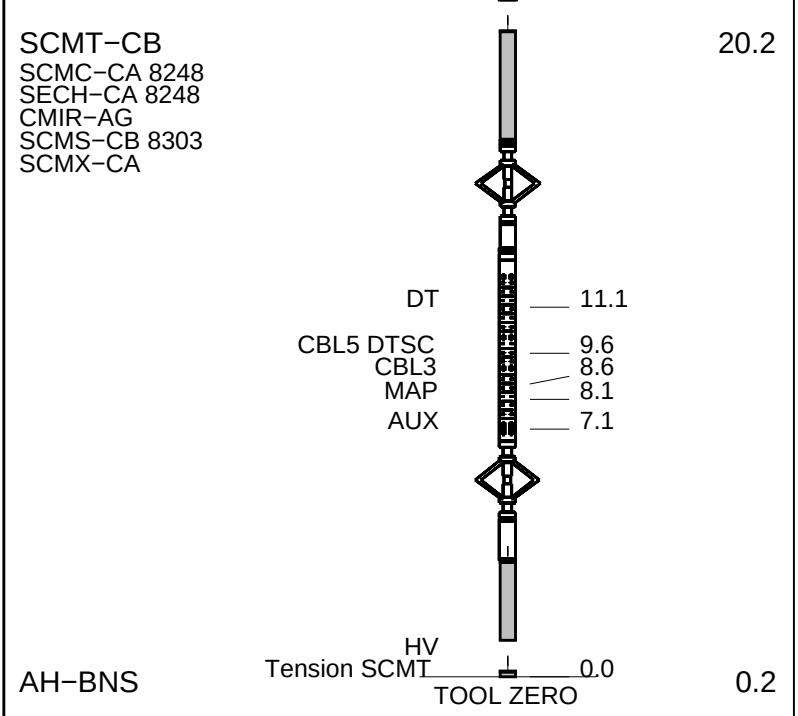
Detail MT
TelStatus
AH−38 51.8
CTEM 51.5
PSPT 51.5
PSC−A 3779
PSPT−A 3779
PSTC−A 1921
PBMS−A 3779
10k_Sapphire_Mano 3779
RTD_Thermometer 3779
GR 34552
CCL 3779
PBMS 3779

GR 47.8
Well_Temp 44.7
Manometer 44.6
CCL 44.0
PBMS PSTC 43.2

RST−C 43.2
RSCH−A 429
RSC−E 430
RSS−A 373
RSXH−A 425
RSX−E 413

RSC−A Far 34.1
RSC−A PNG
RSC−A Nea
RSX−A PNG 33.6





MAXIMUM STRING DIAMETER 1.72 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

MAIN PASS 0 PSI

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC. **Well: FEDERAL 29−4C (PA30)**

Output DLIS Files

DEFAULT	**SCMT_RST_PSP_005LUP**	**FN:4**	**PRODUCER**	**21−Nov−2011 08:38**	**6576.0 FT**	**132.5 FT**

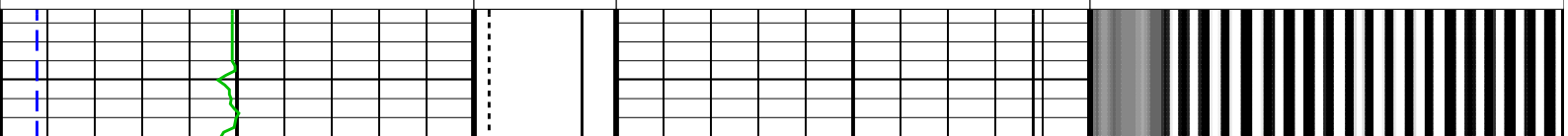
OP System Version: 19C0−187

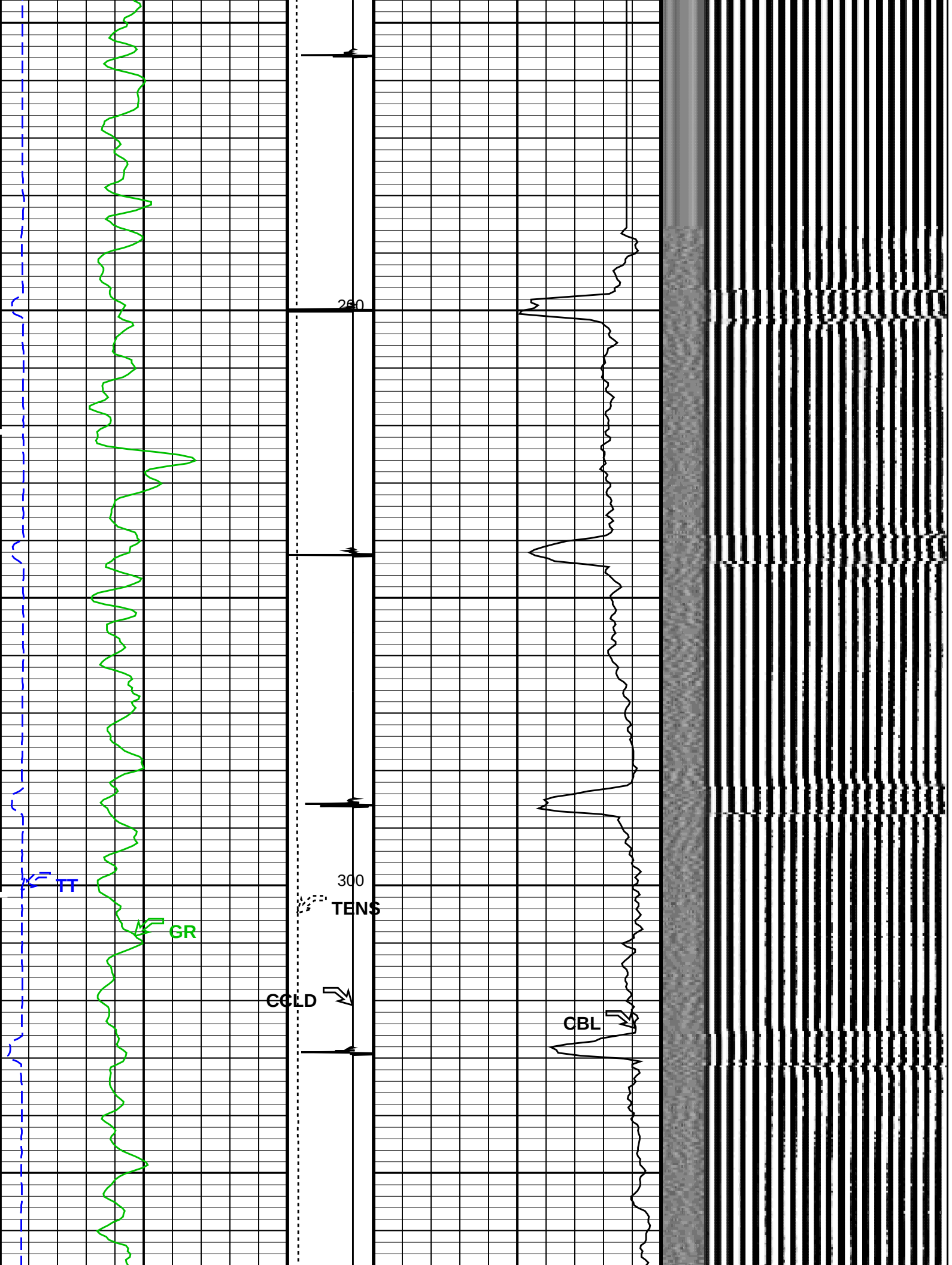
SCMT−CB	**SRPC−5095−H2−2011−OP19_b**	**RST−C**	**SRPC−5095−H2−2011−OP19_b**
PSPT	**19C0−187**		

PIP SUMMARY

Time Mark Every 60 S

Transit Time (TT) 260 (US) 160	**Discriminated CCL (CCLD)** 3 (V) −1	**CBL Amplitude (CBL)** 0 (MV) 10
Gamma Ray (GR) 0 (GAPI) 150	**Tension (TENS)** (LBF) 0 2000	**CBL Amplitude (CBL)** 0 (MV) 100
		Min Amplitude Max **VDL VariableDensity (VDL)** 200 (US) 1200

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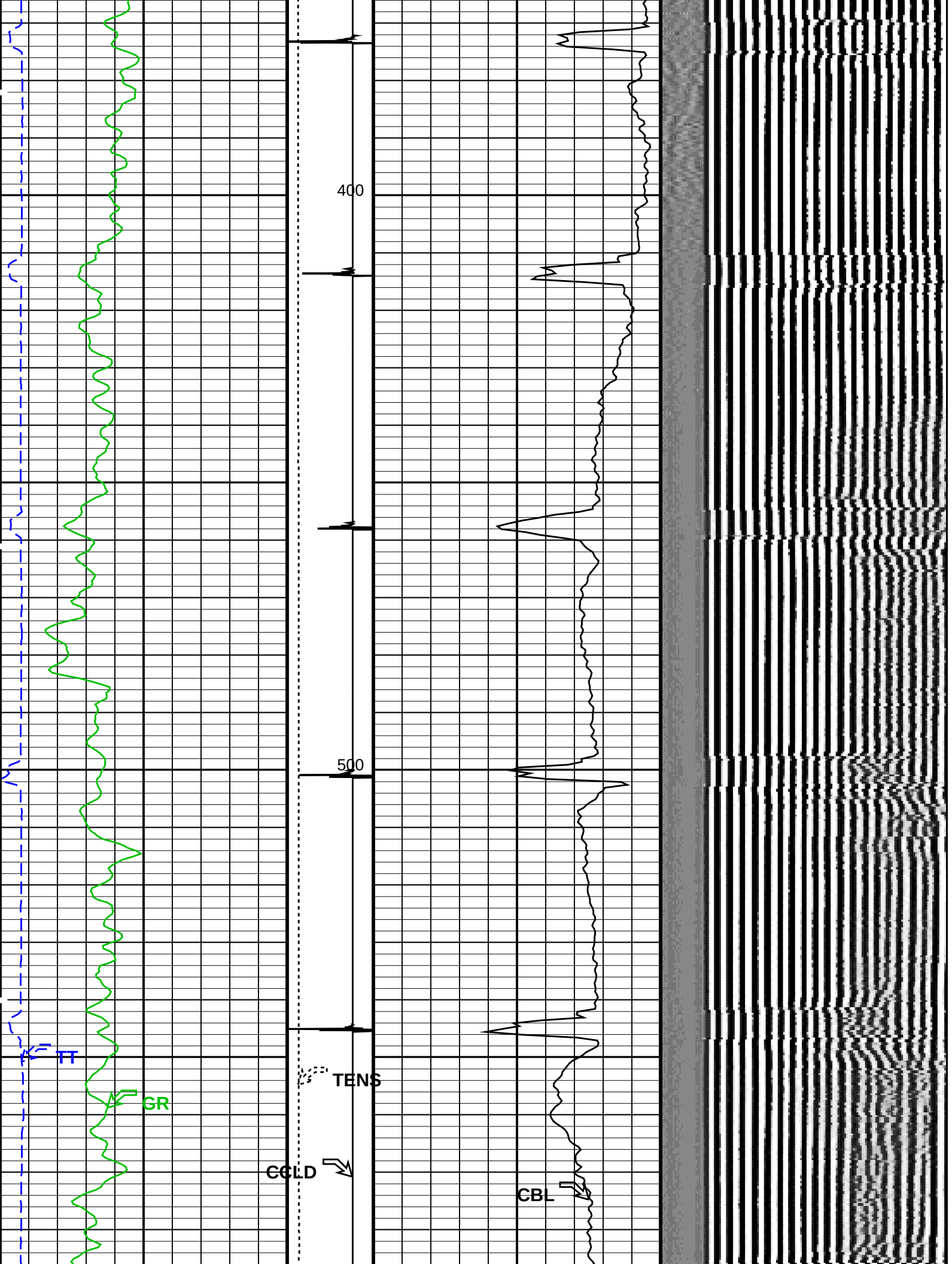
GR
TENS
CCLD
CBL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CCLD
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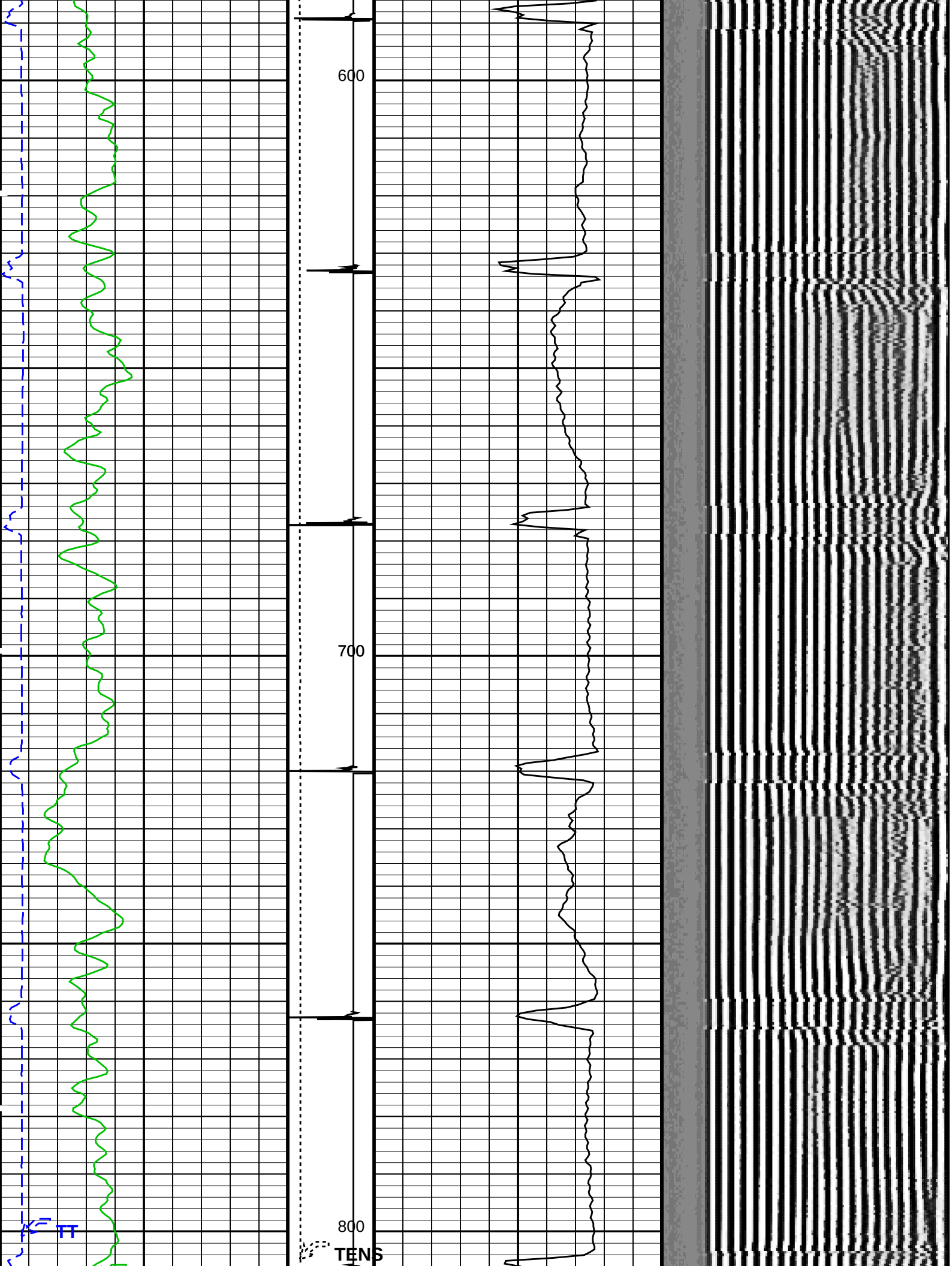
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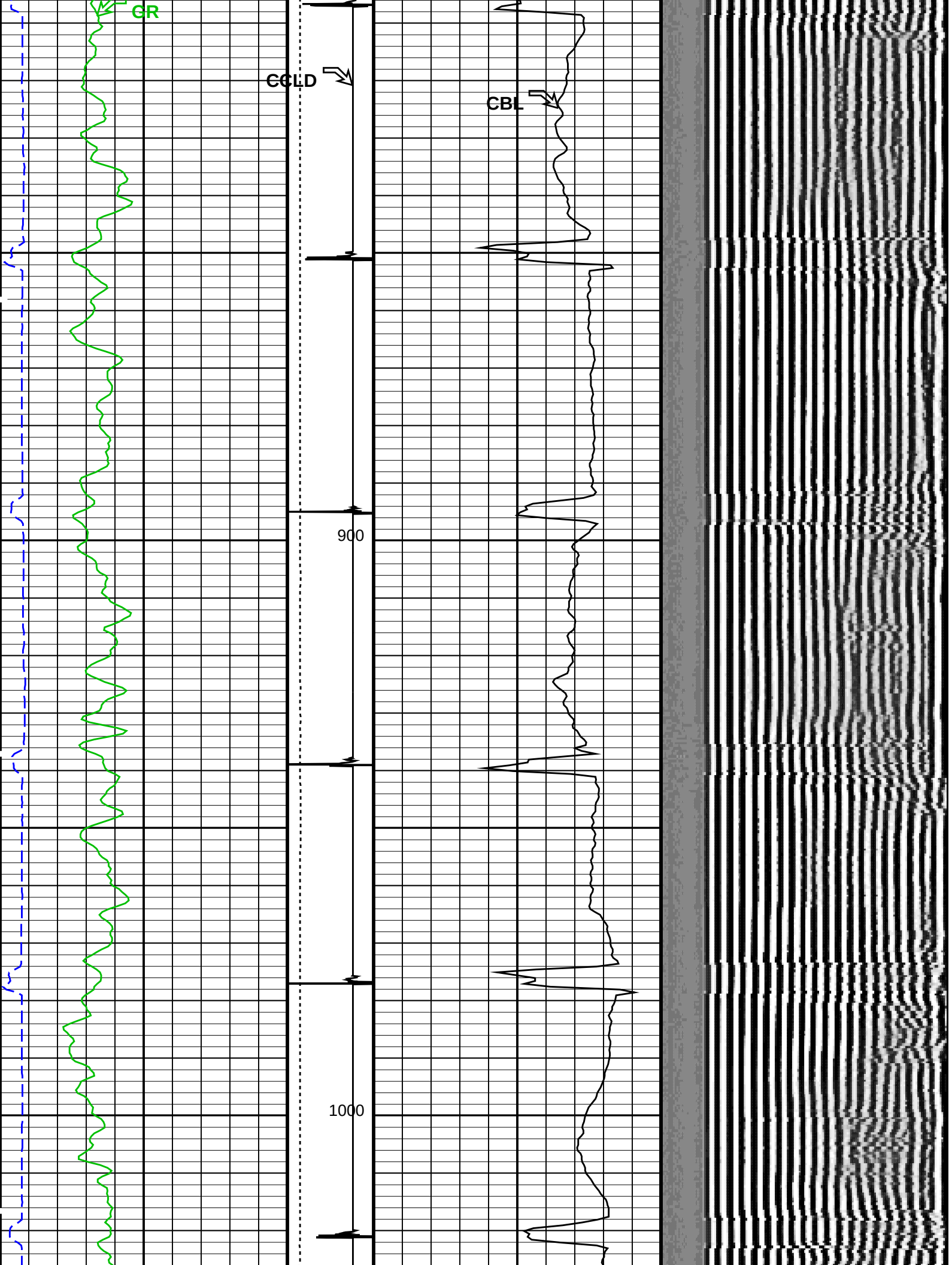
700
800
TT
TENS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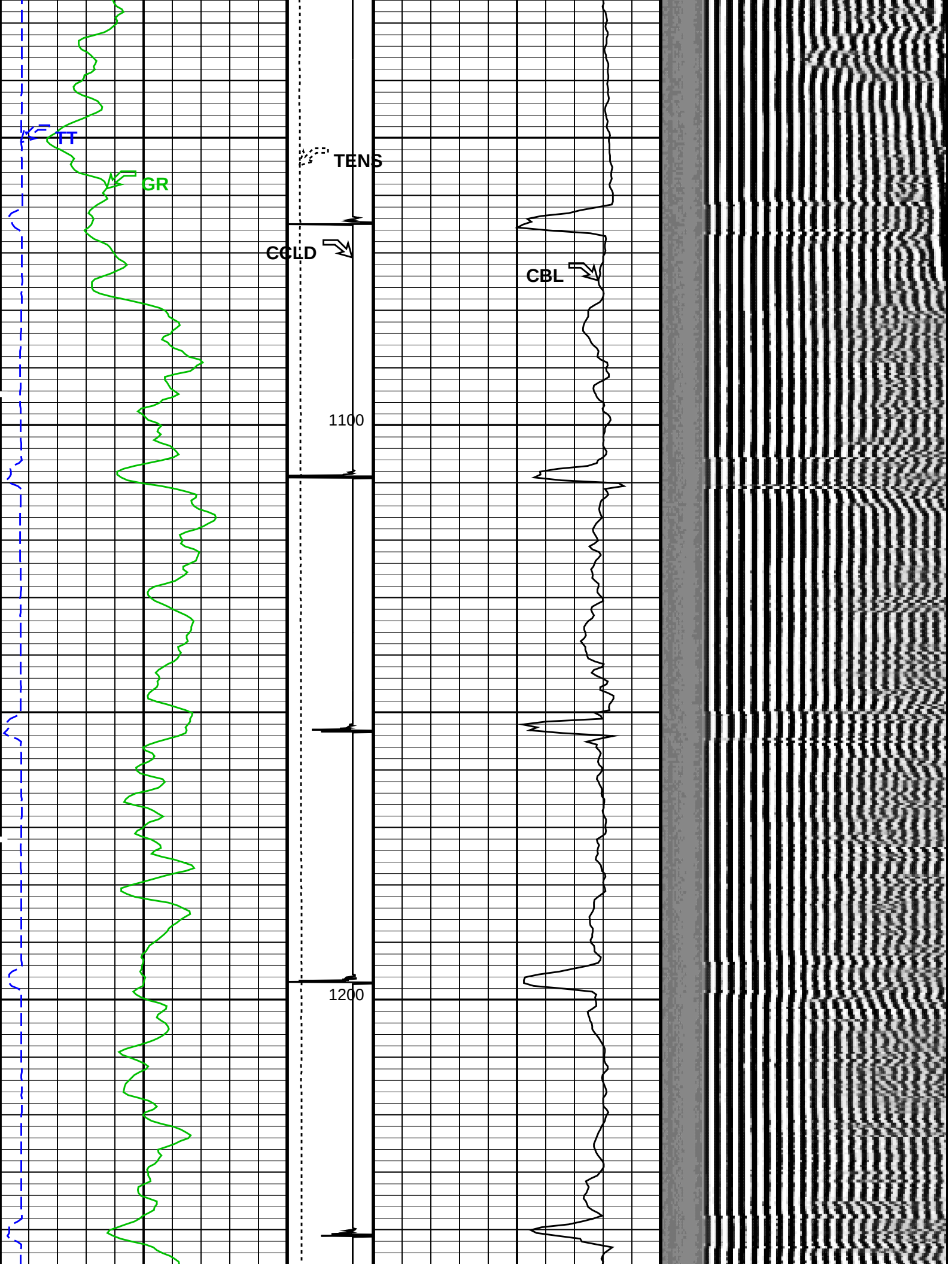
CCLD
CBL
900
1000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1100
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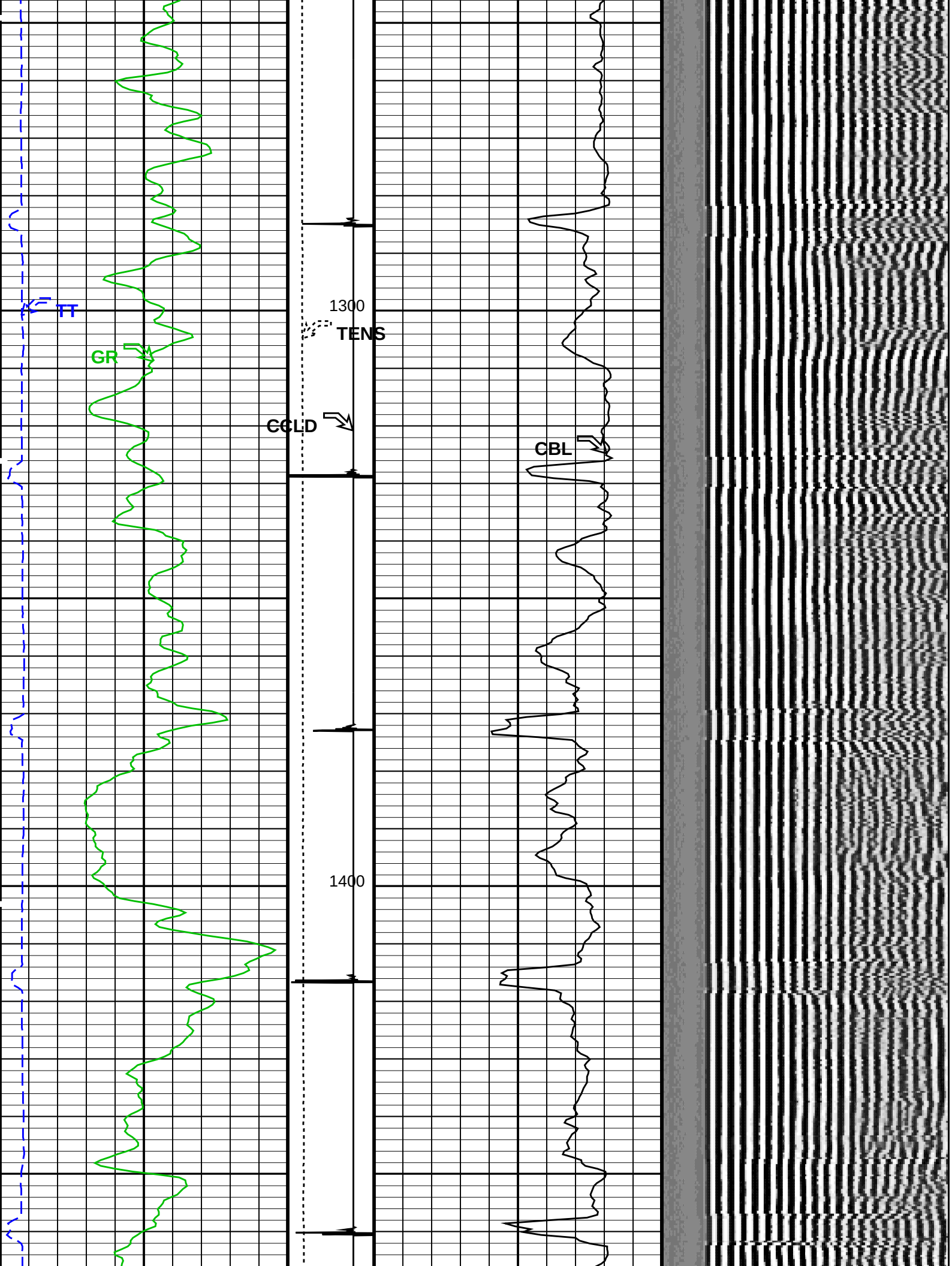
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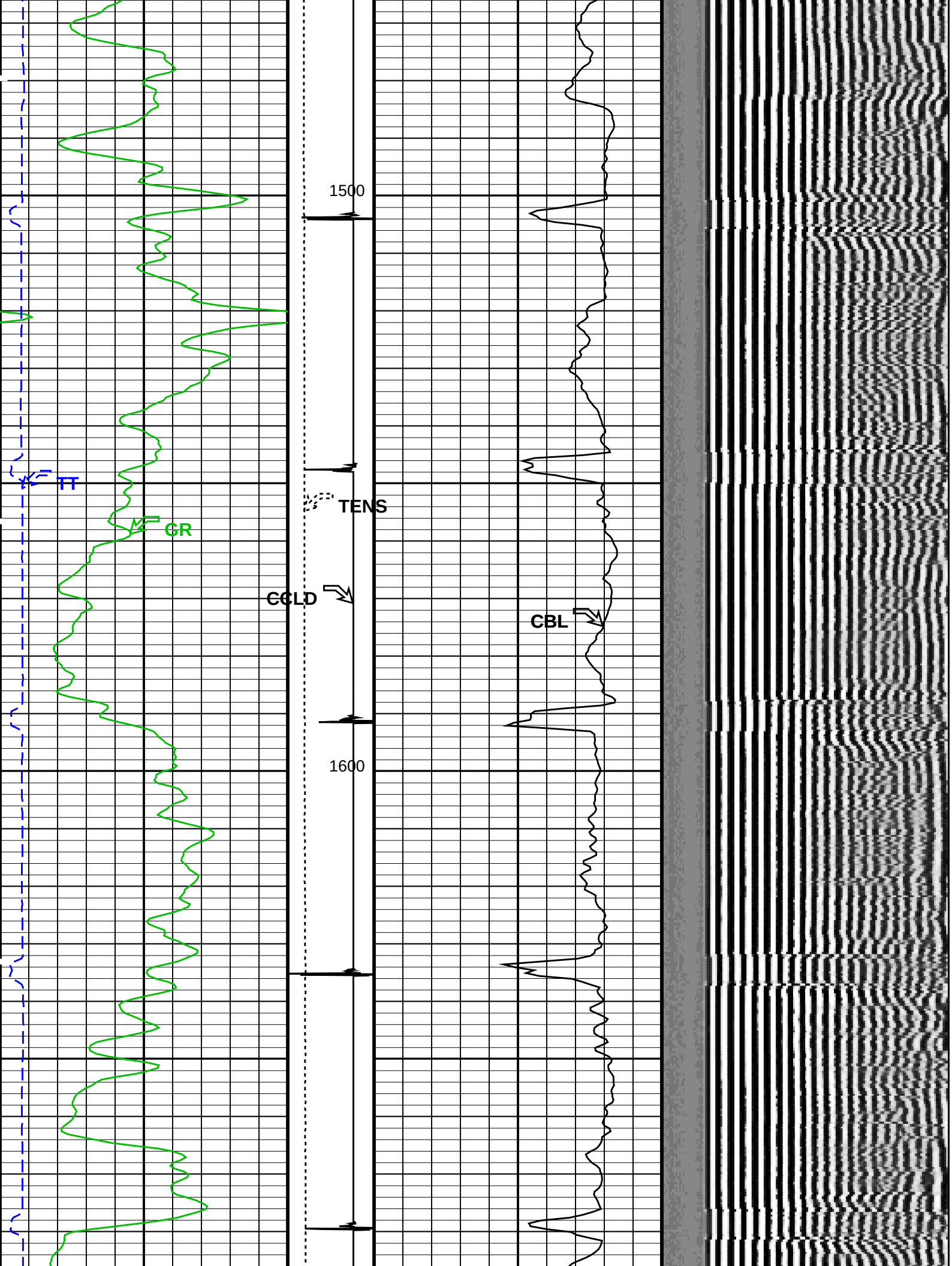
TENS
CCLD
CBL
1400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GR
CCLD
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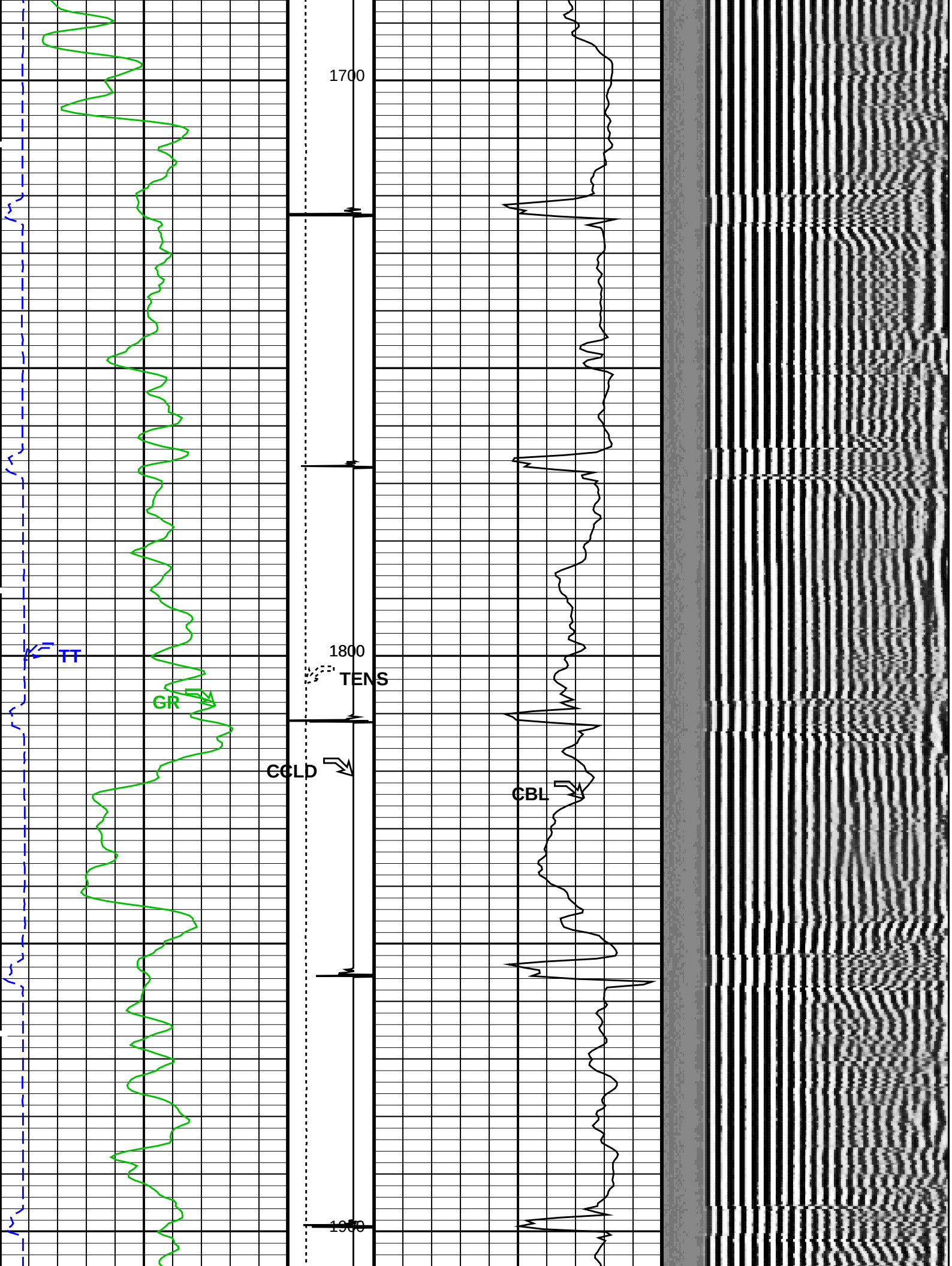
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TT
GR
TENS
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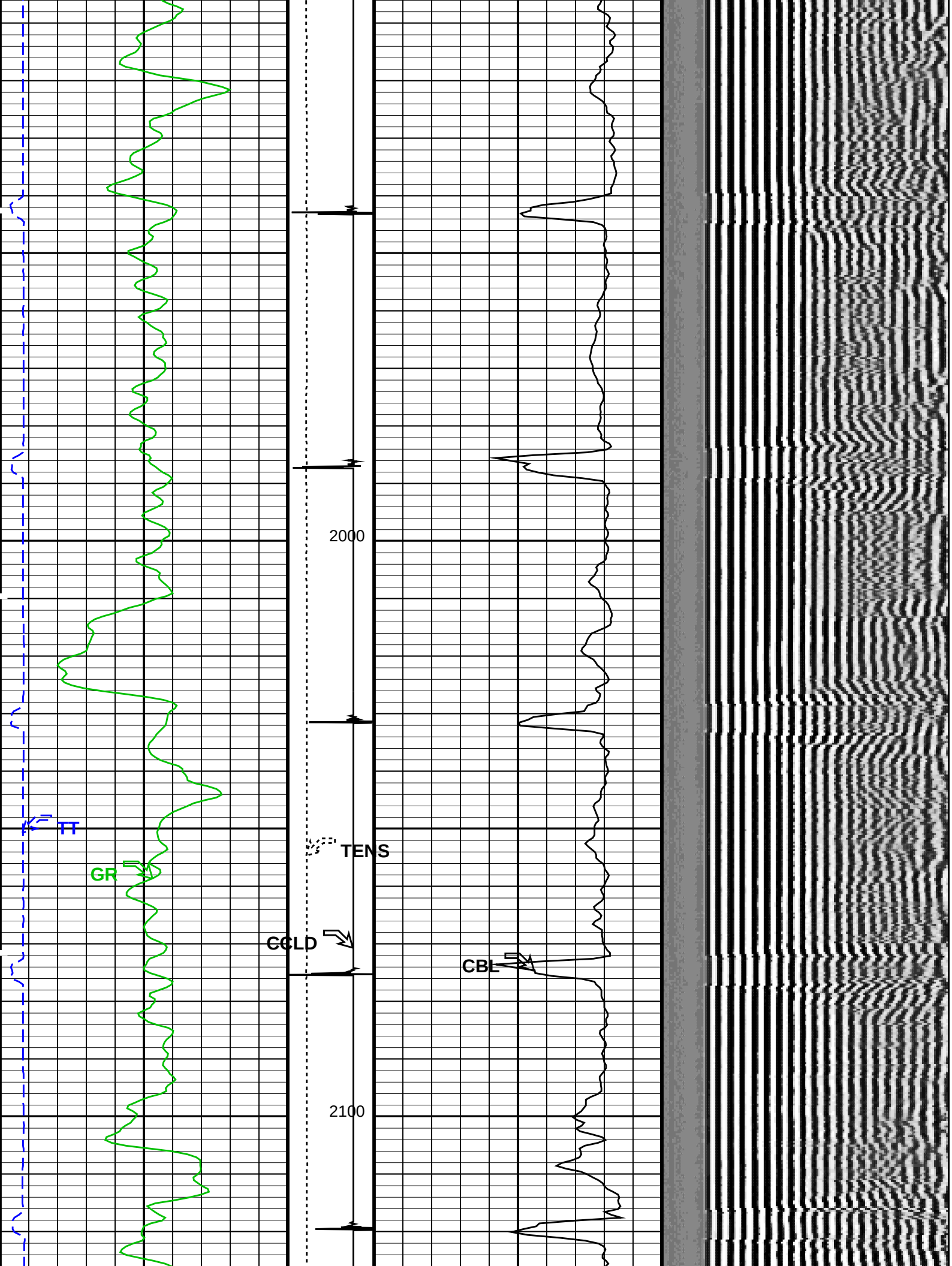
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2000
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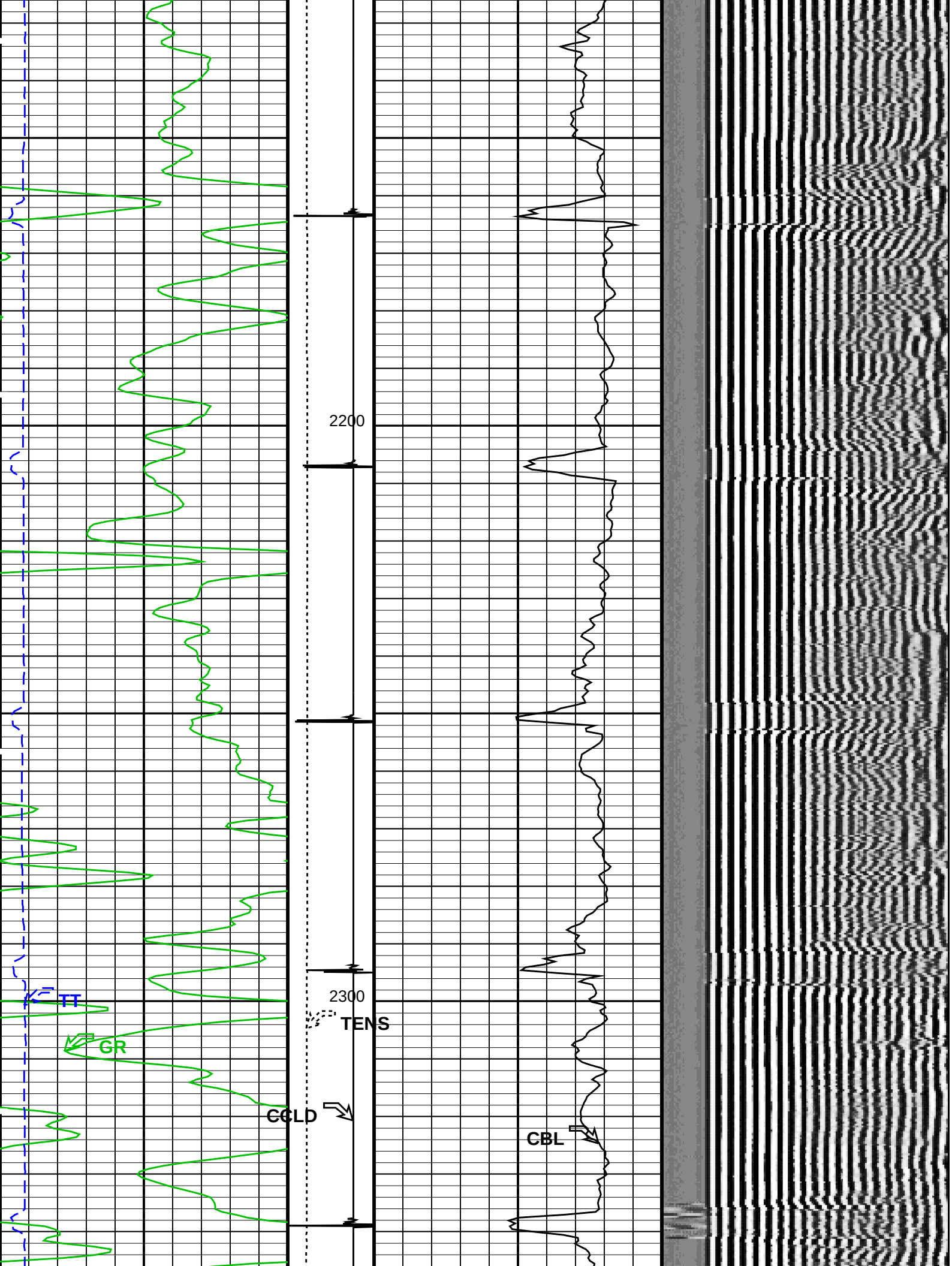
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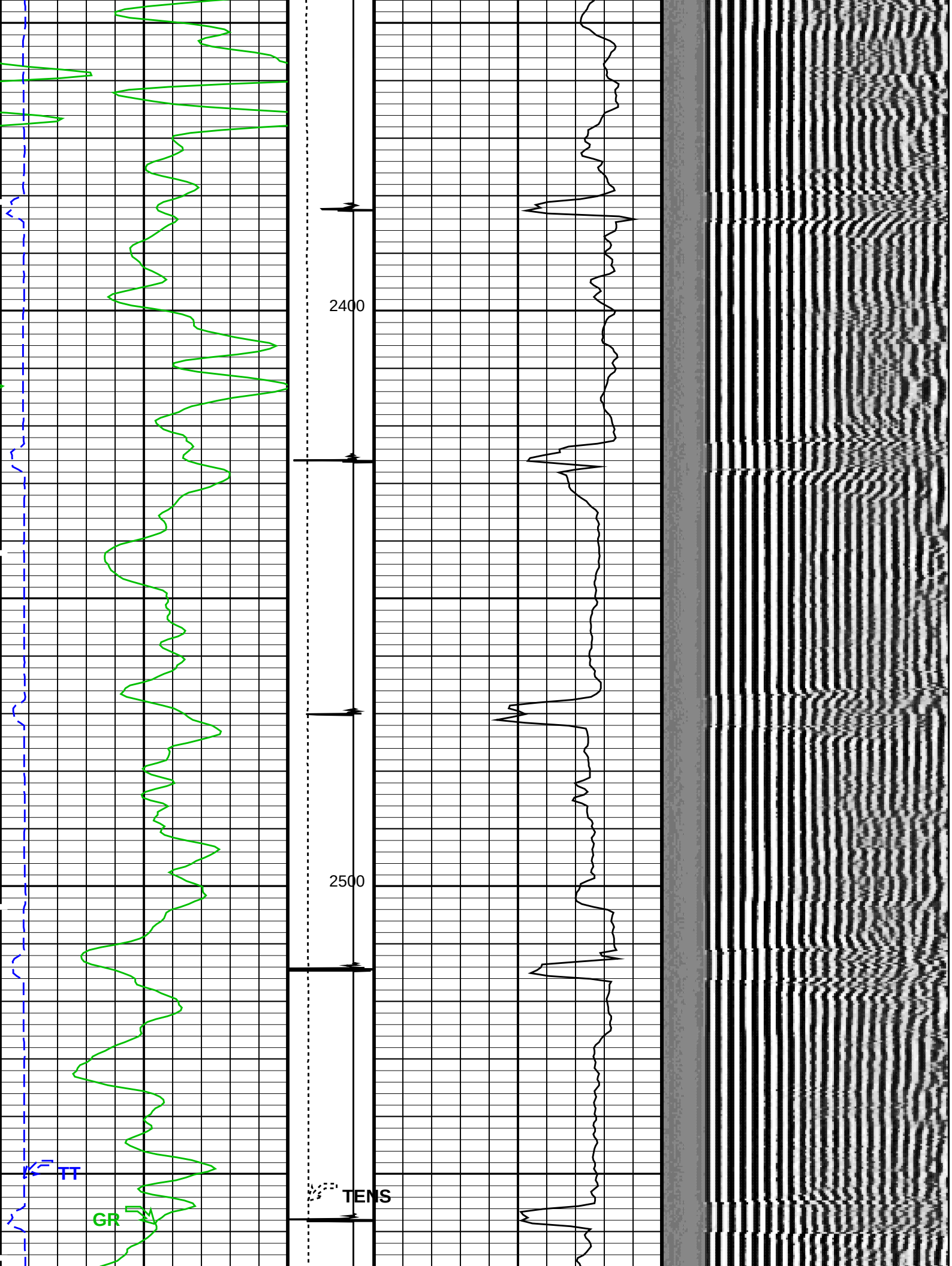
TENS
CCLD
CBL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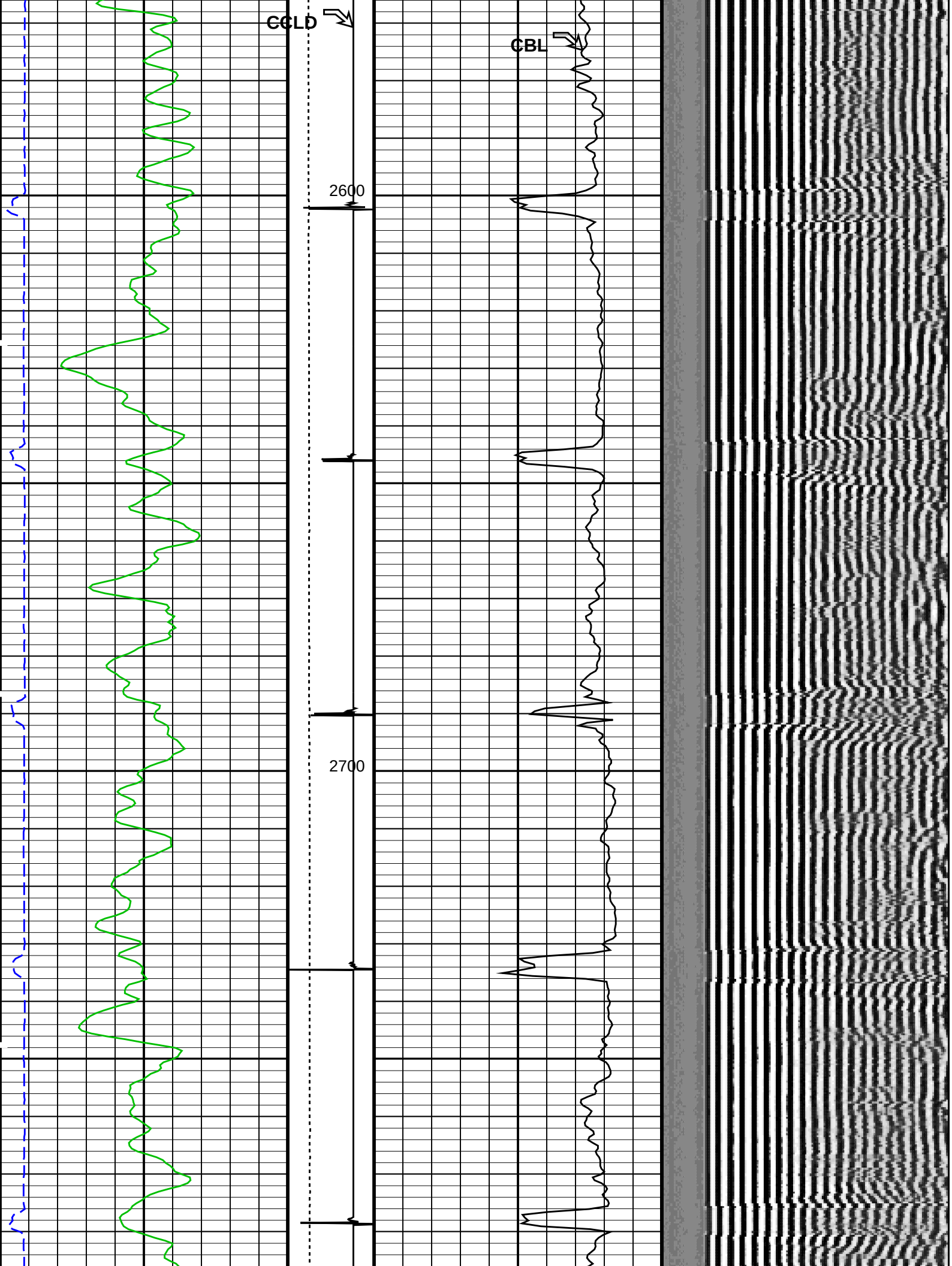
2500
TT
GR
TENS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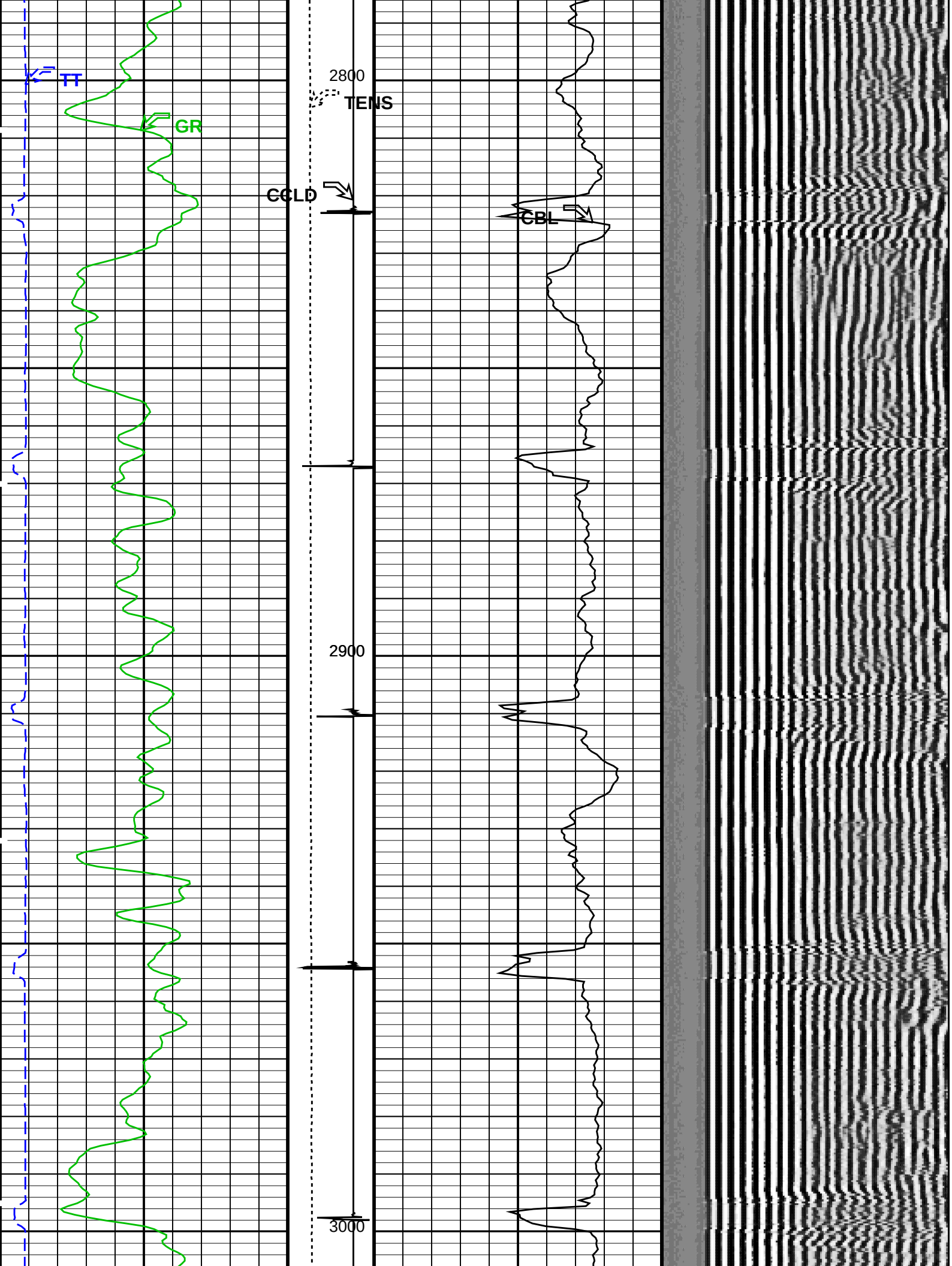
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TENS
CCLD
CBL
2900
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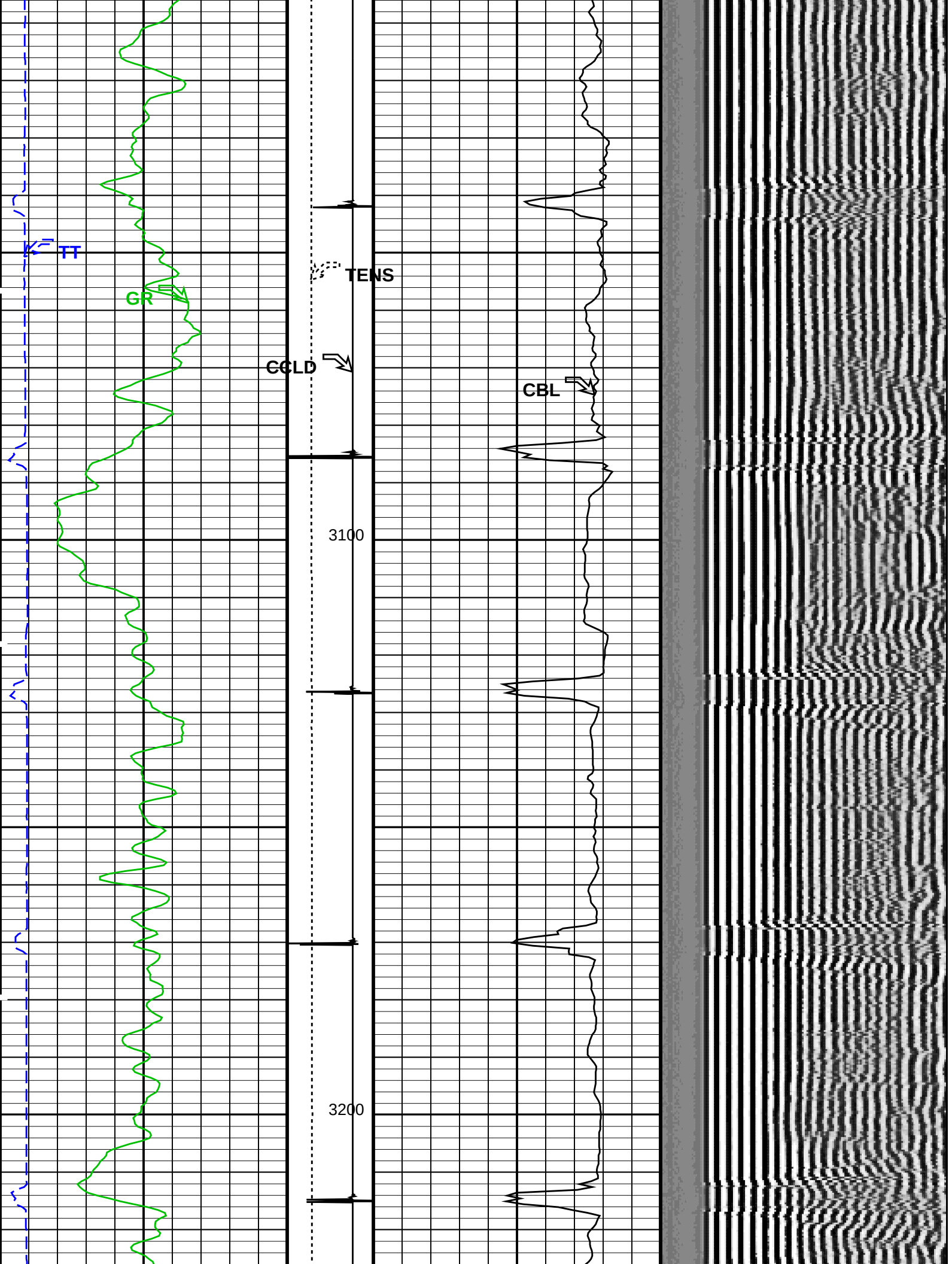
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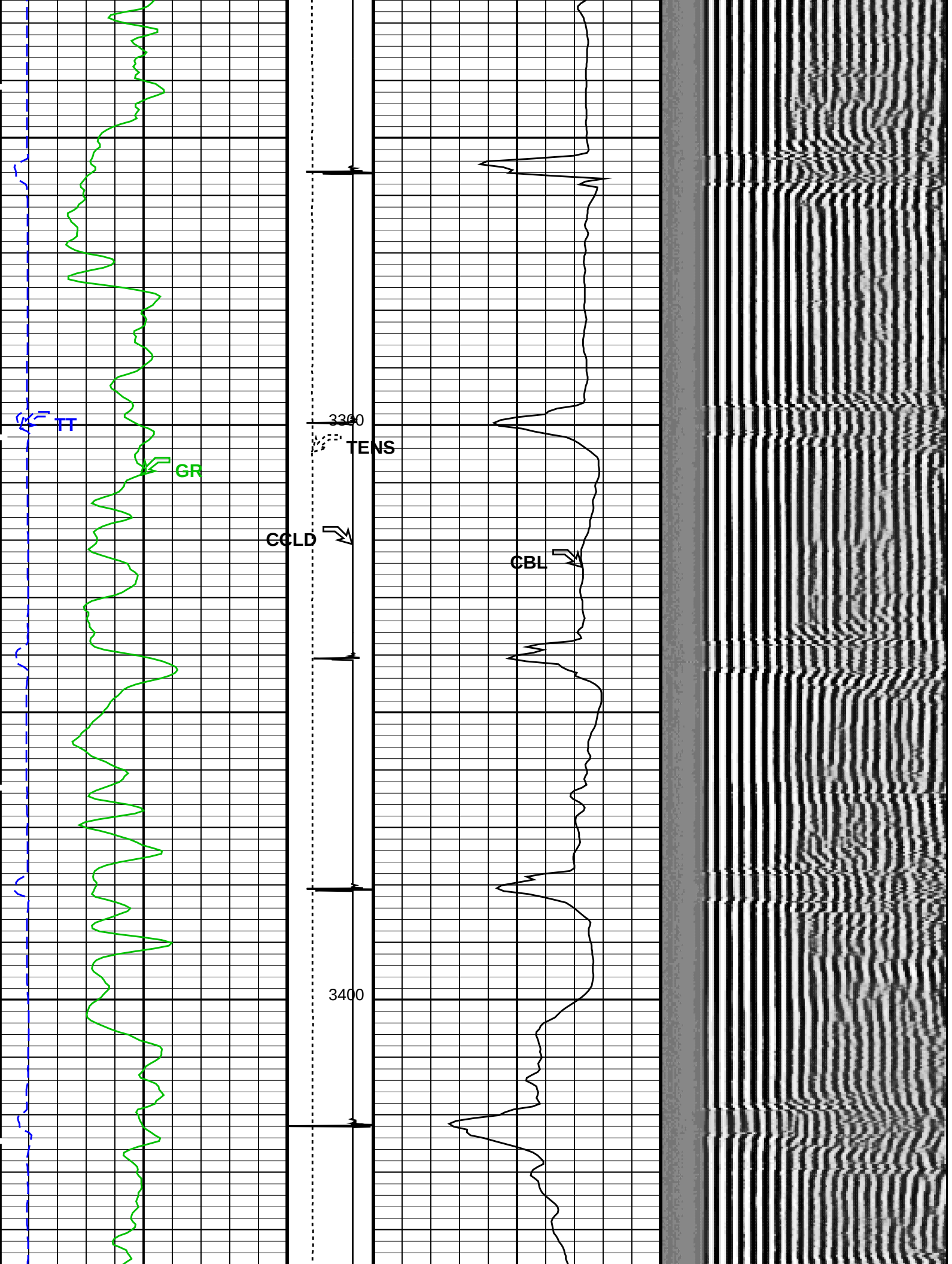
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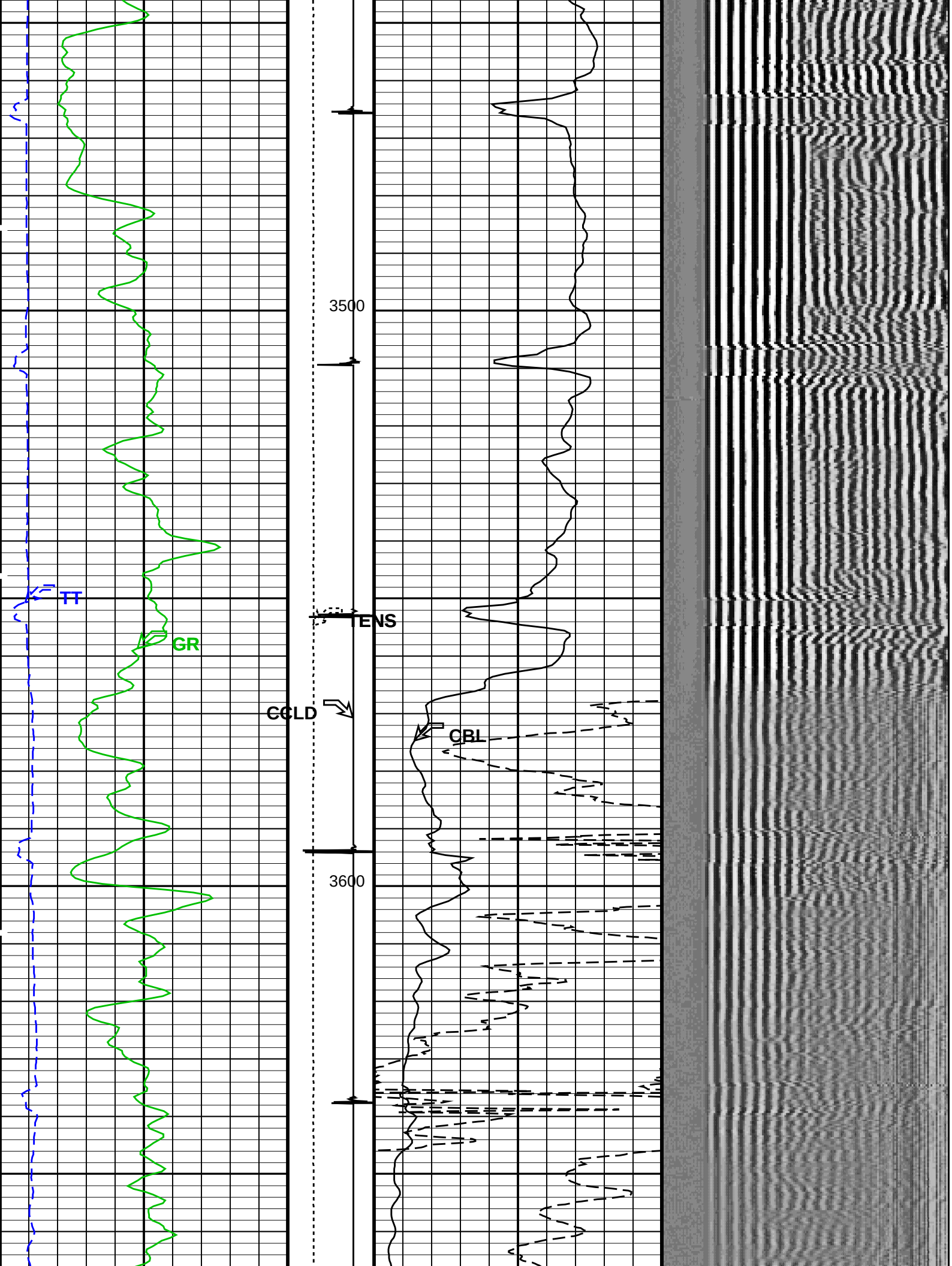
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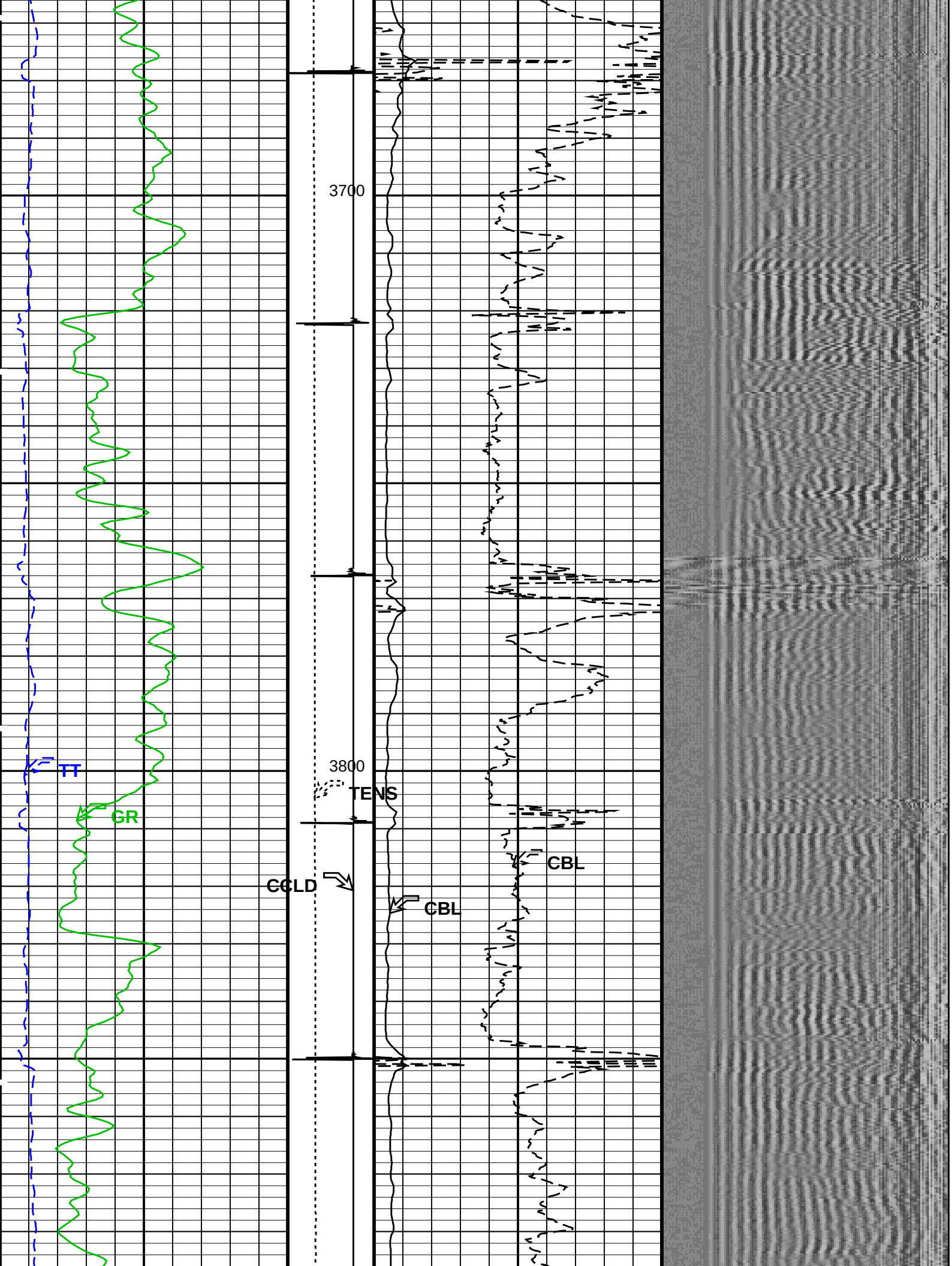
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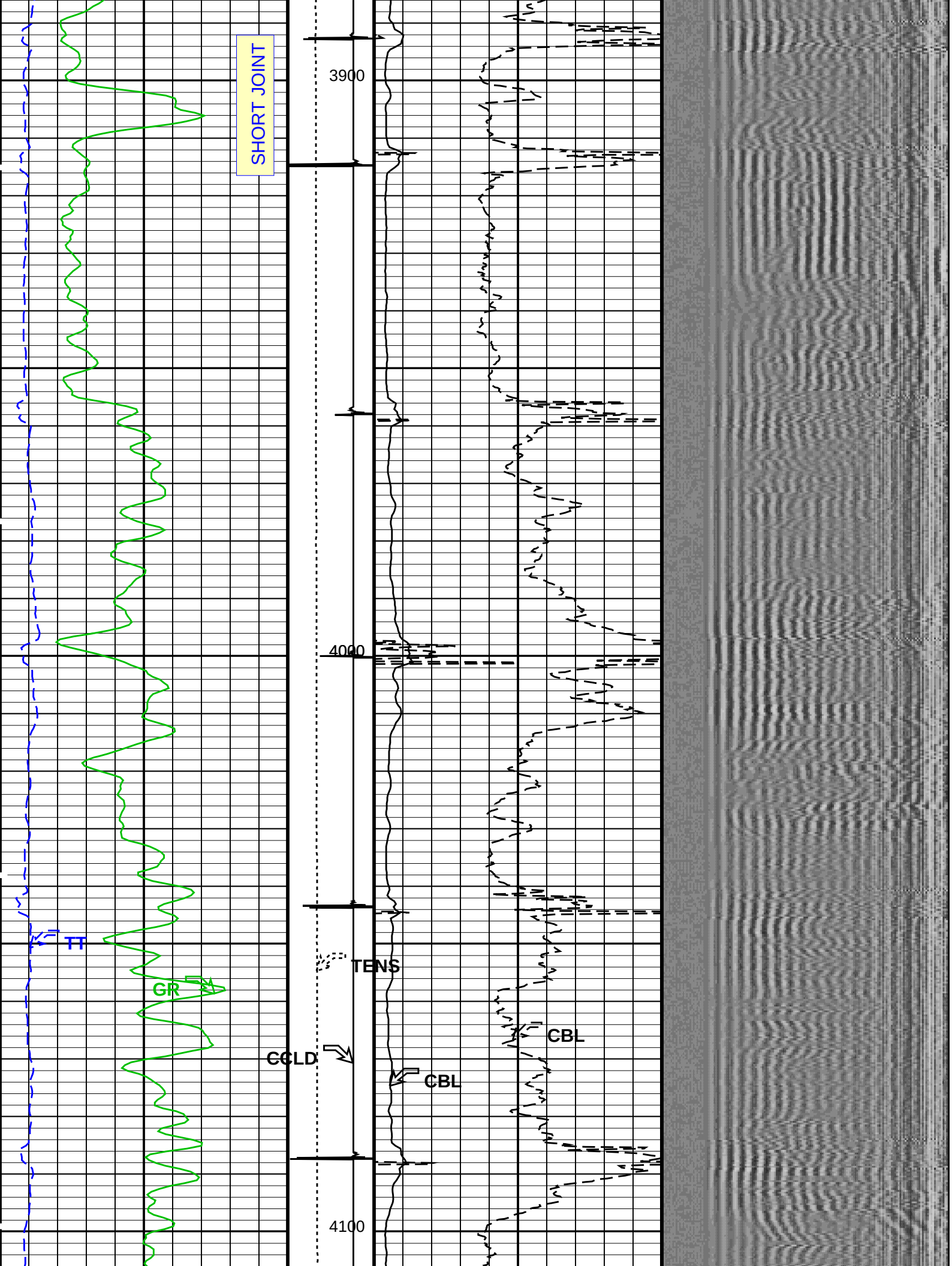
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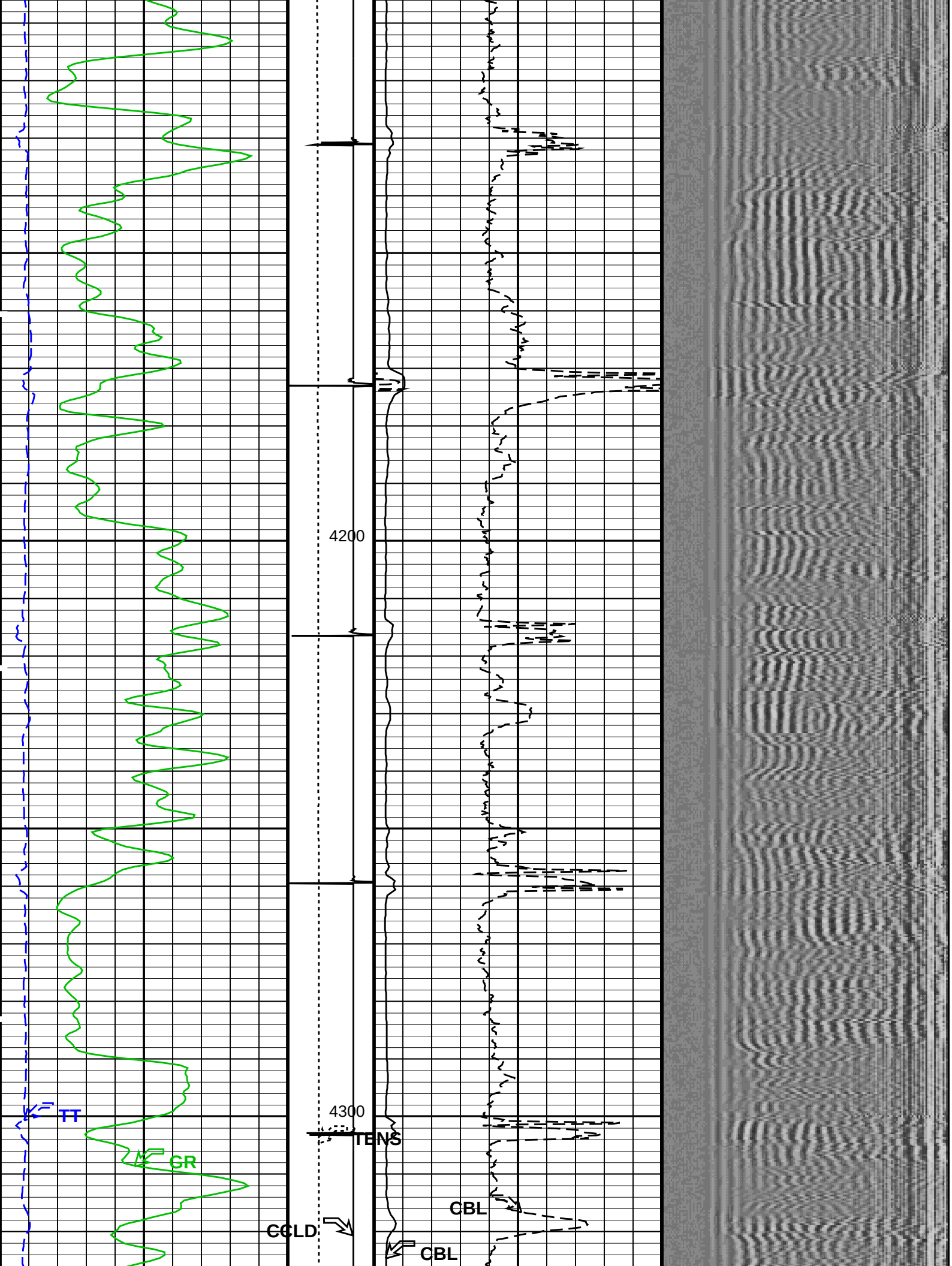
CBL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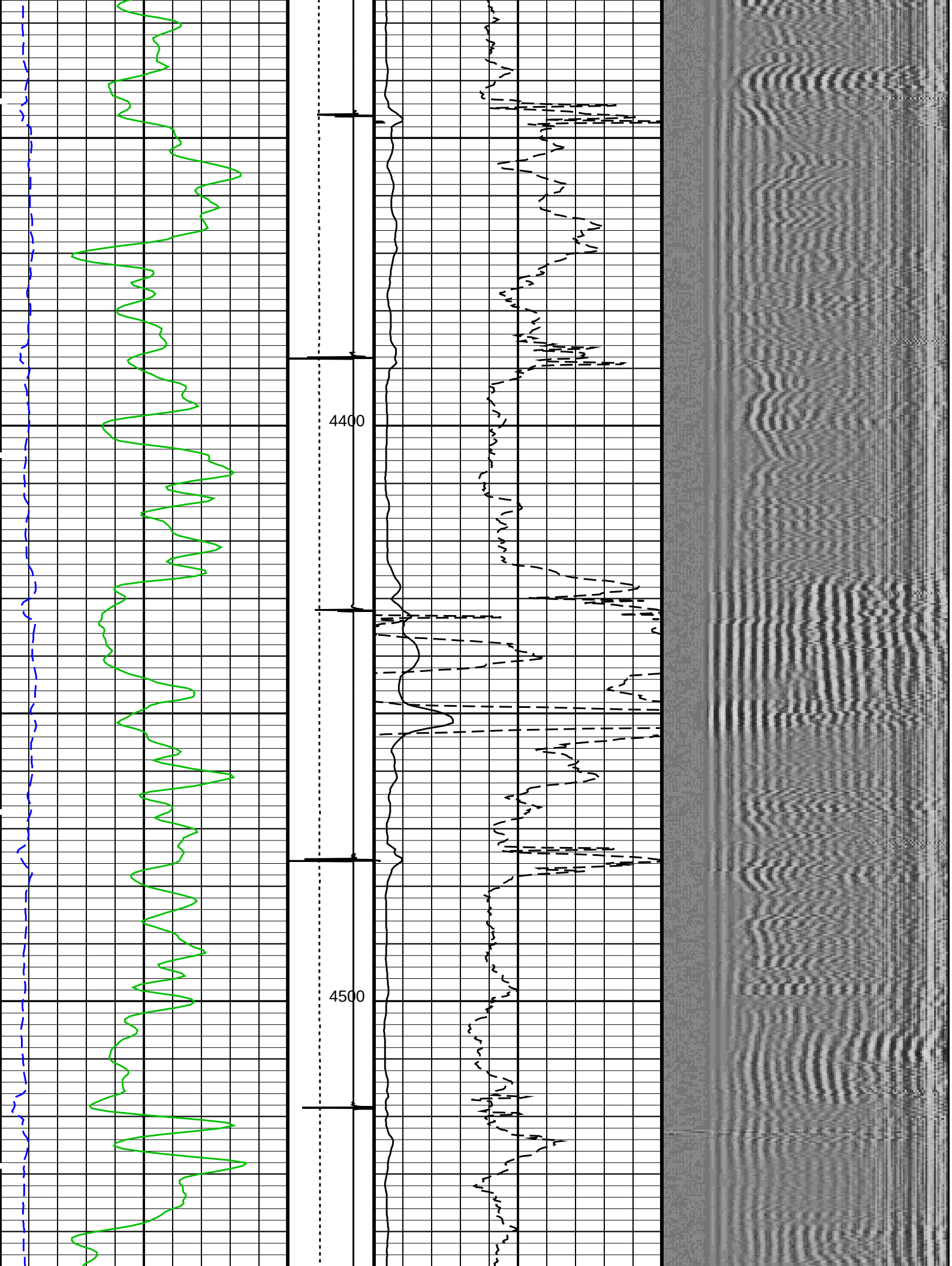
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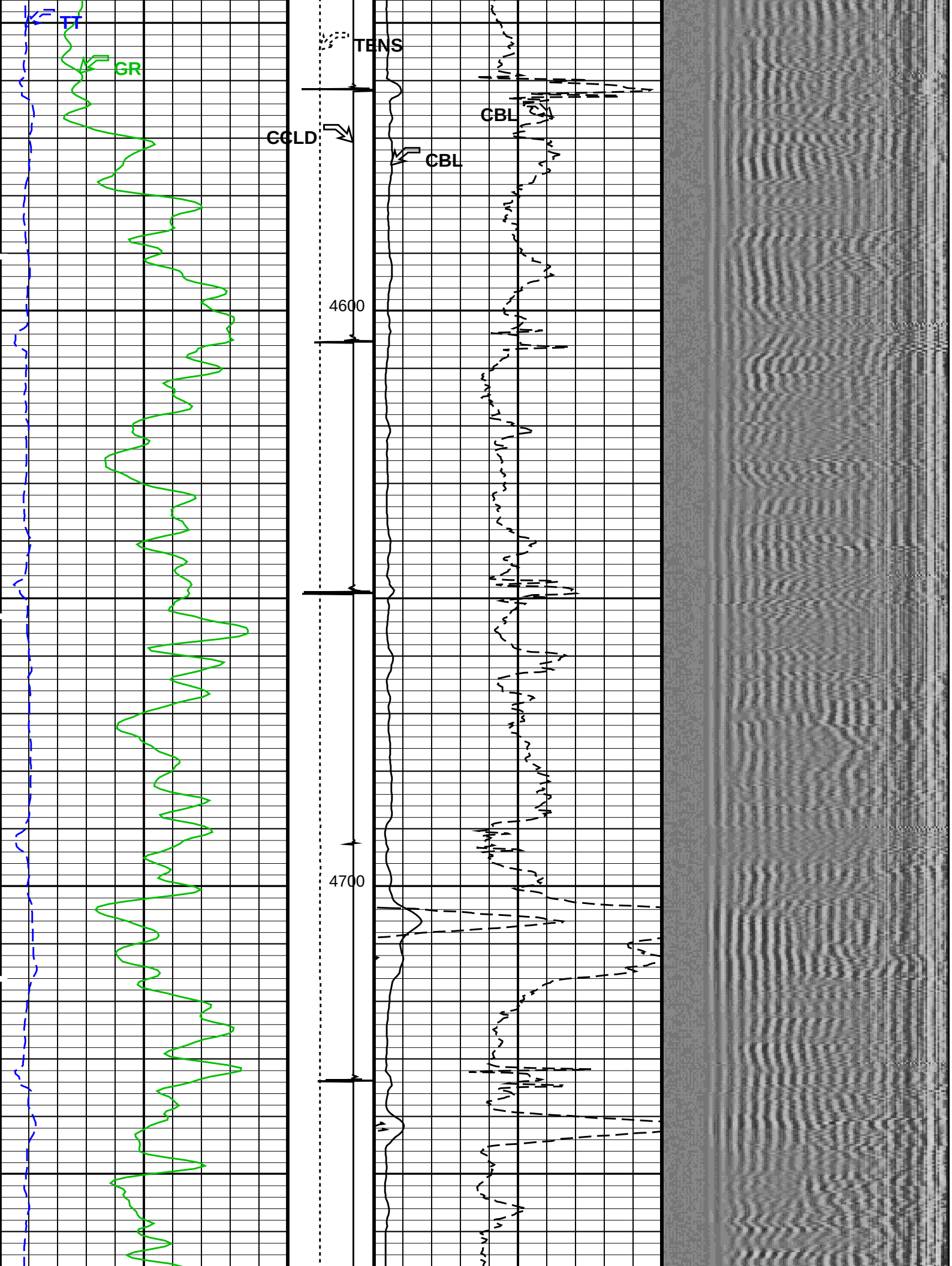
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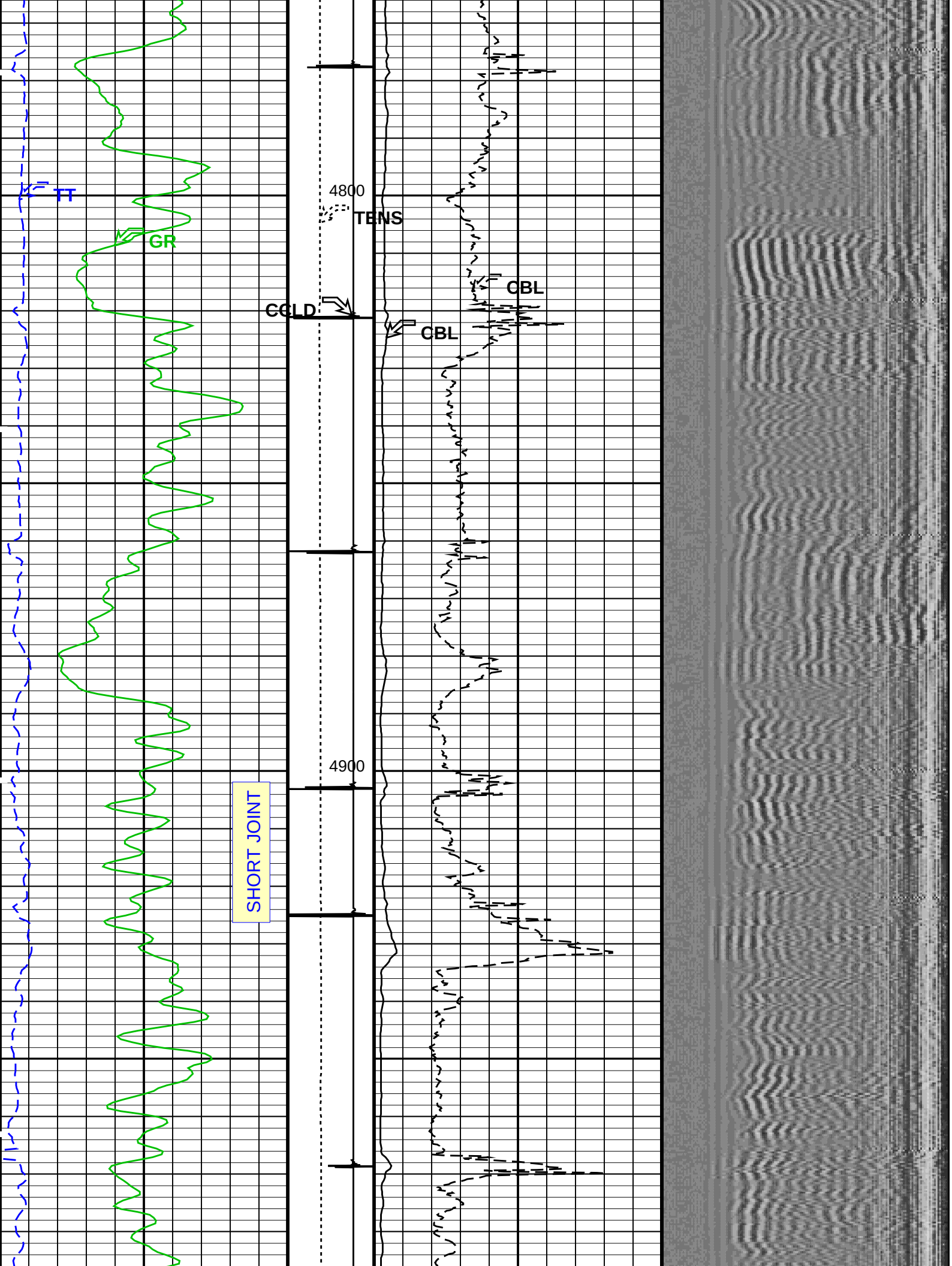
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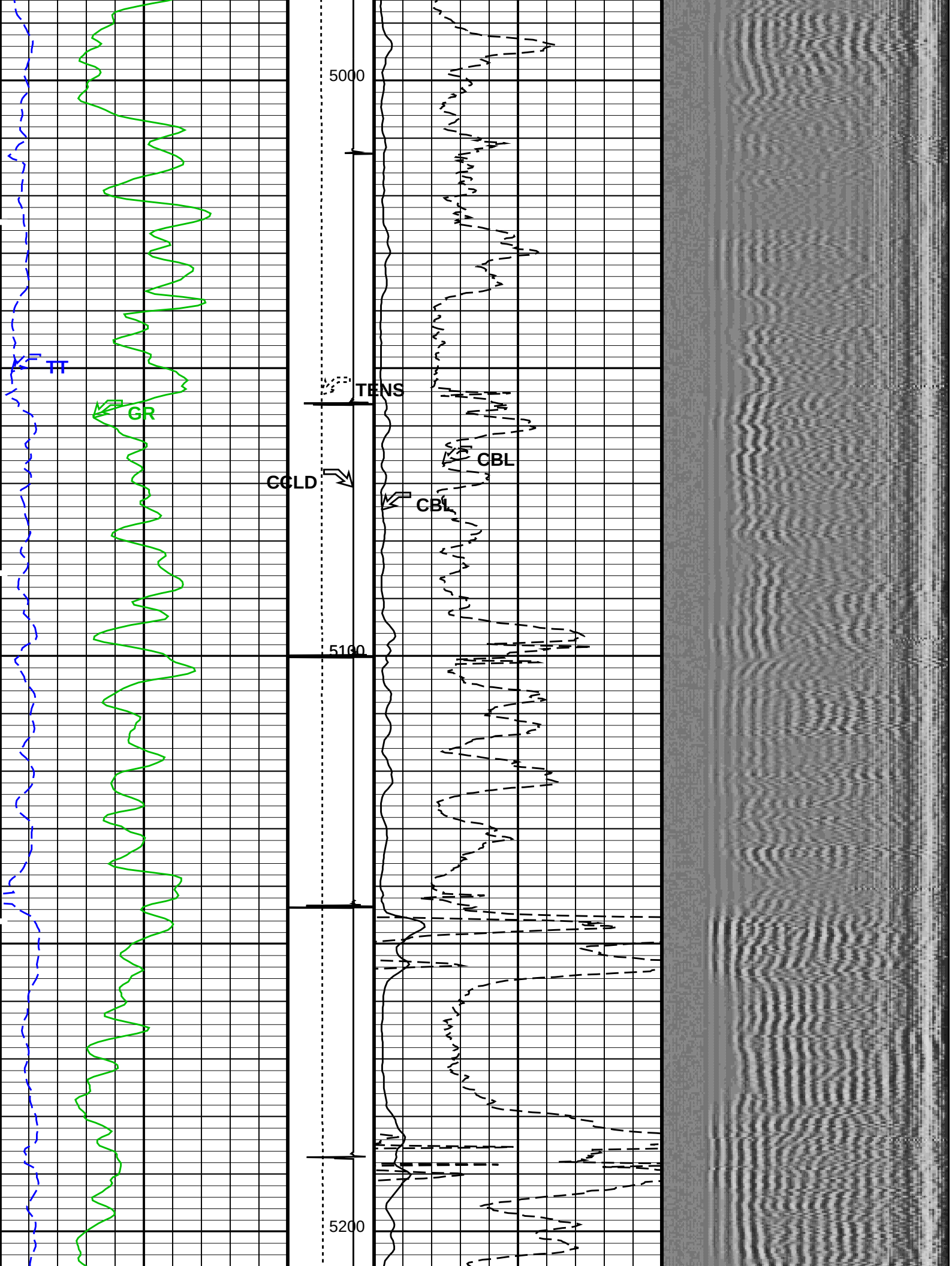
SHORT JOINT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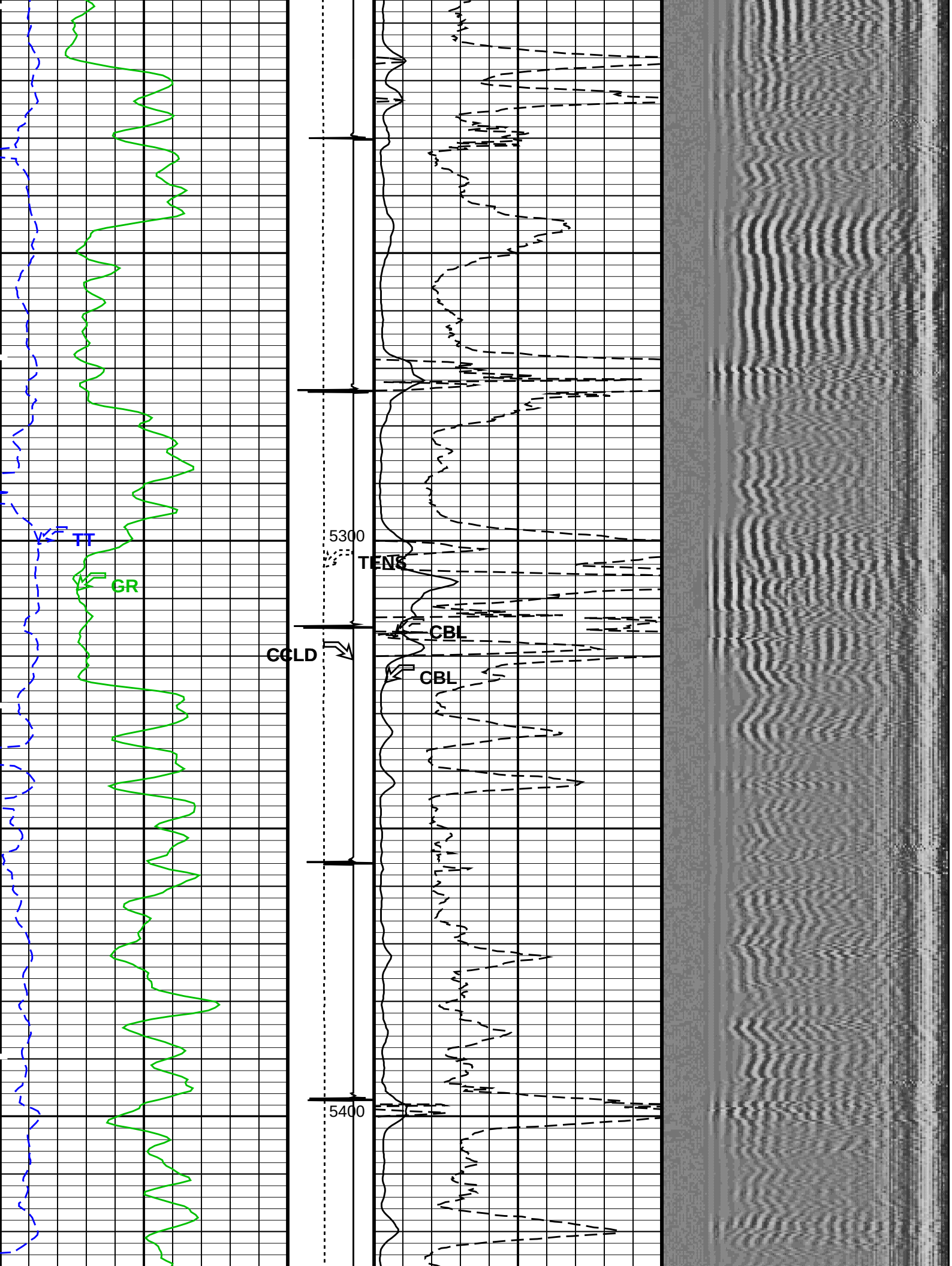
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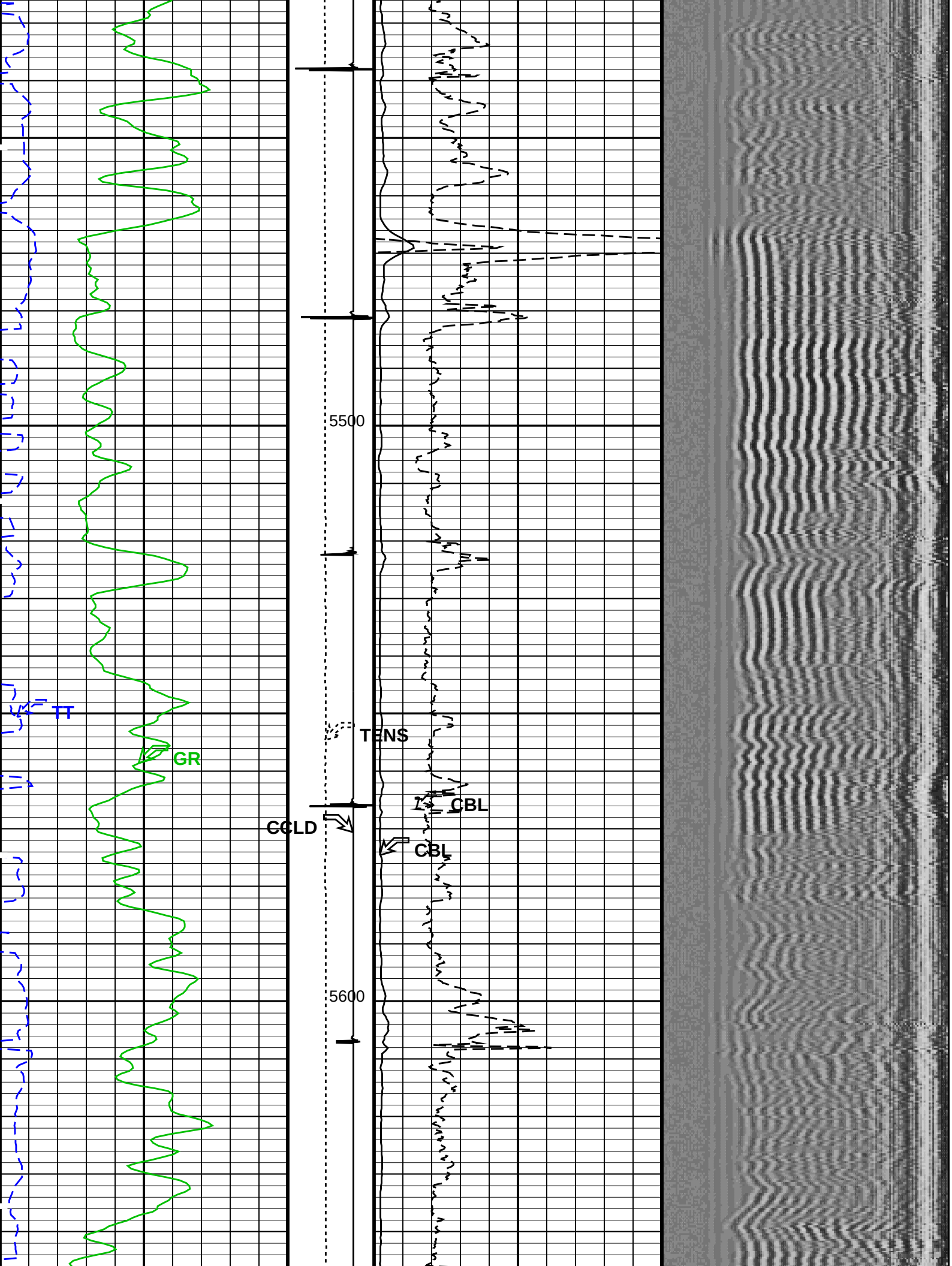
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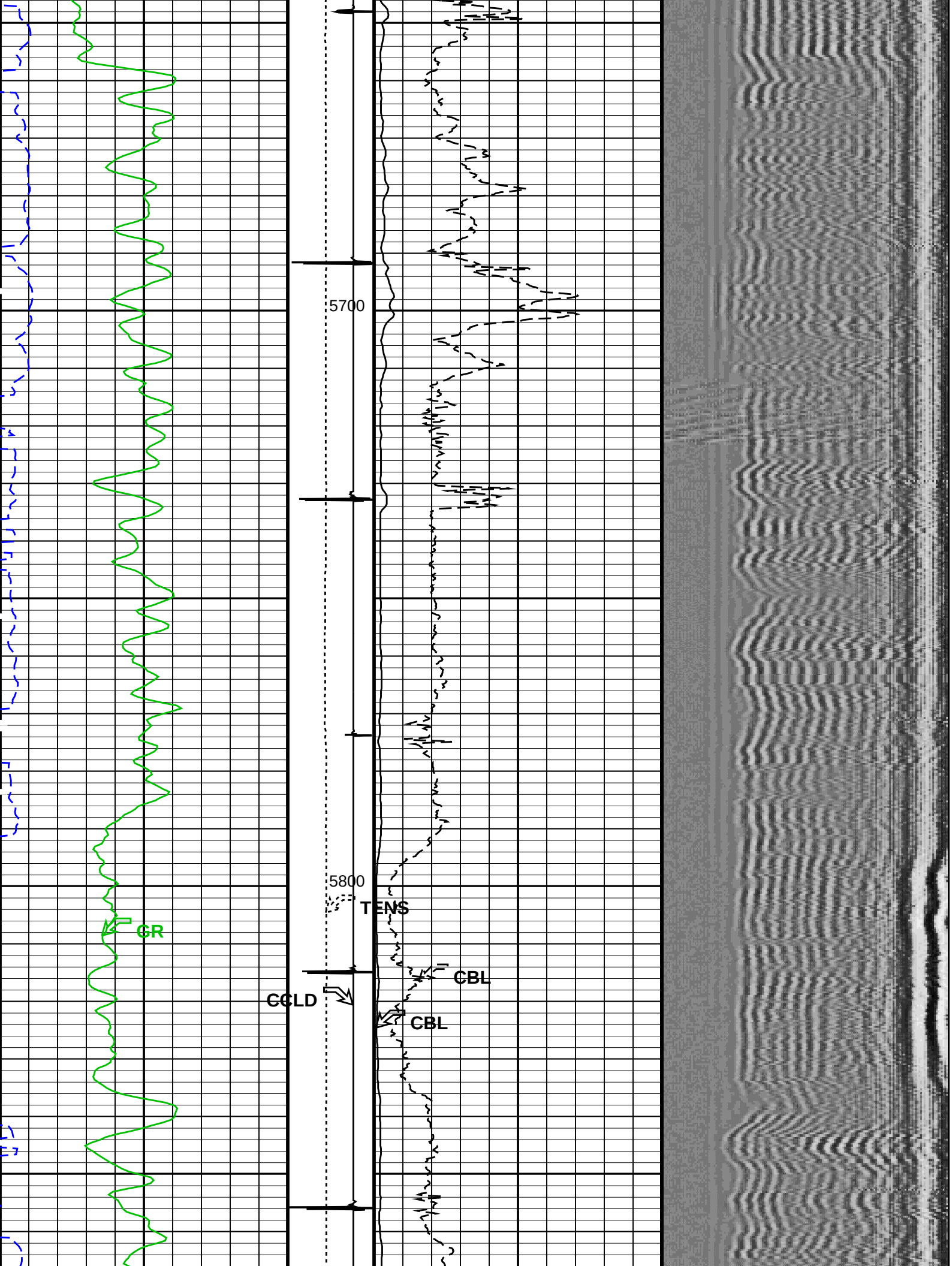
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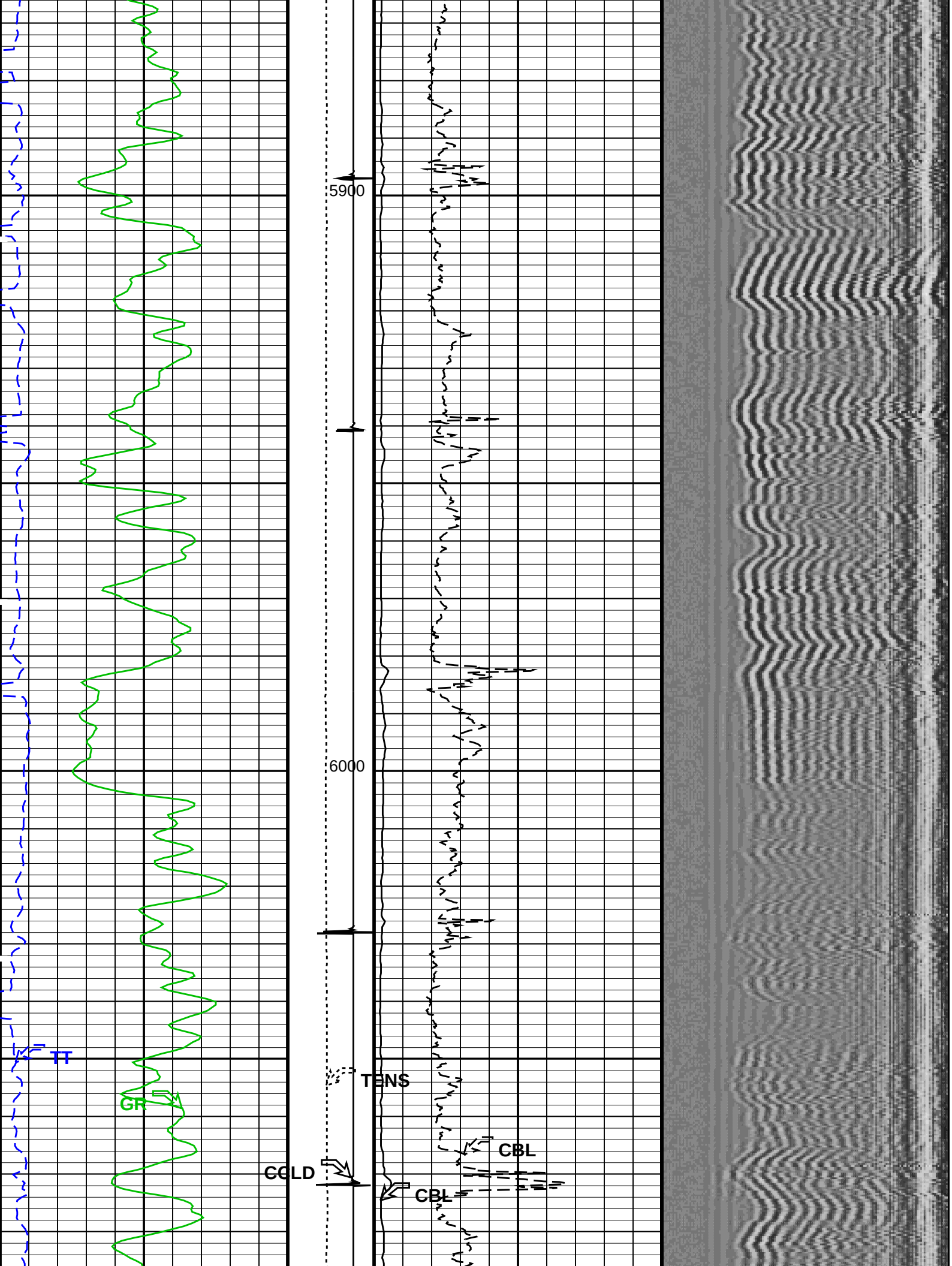
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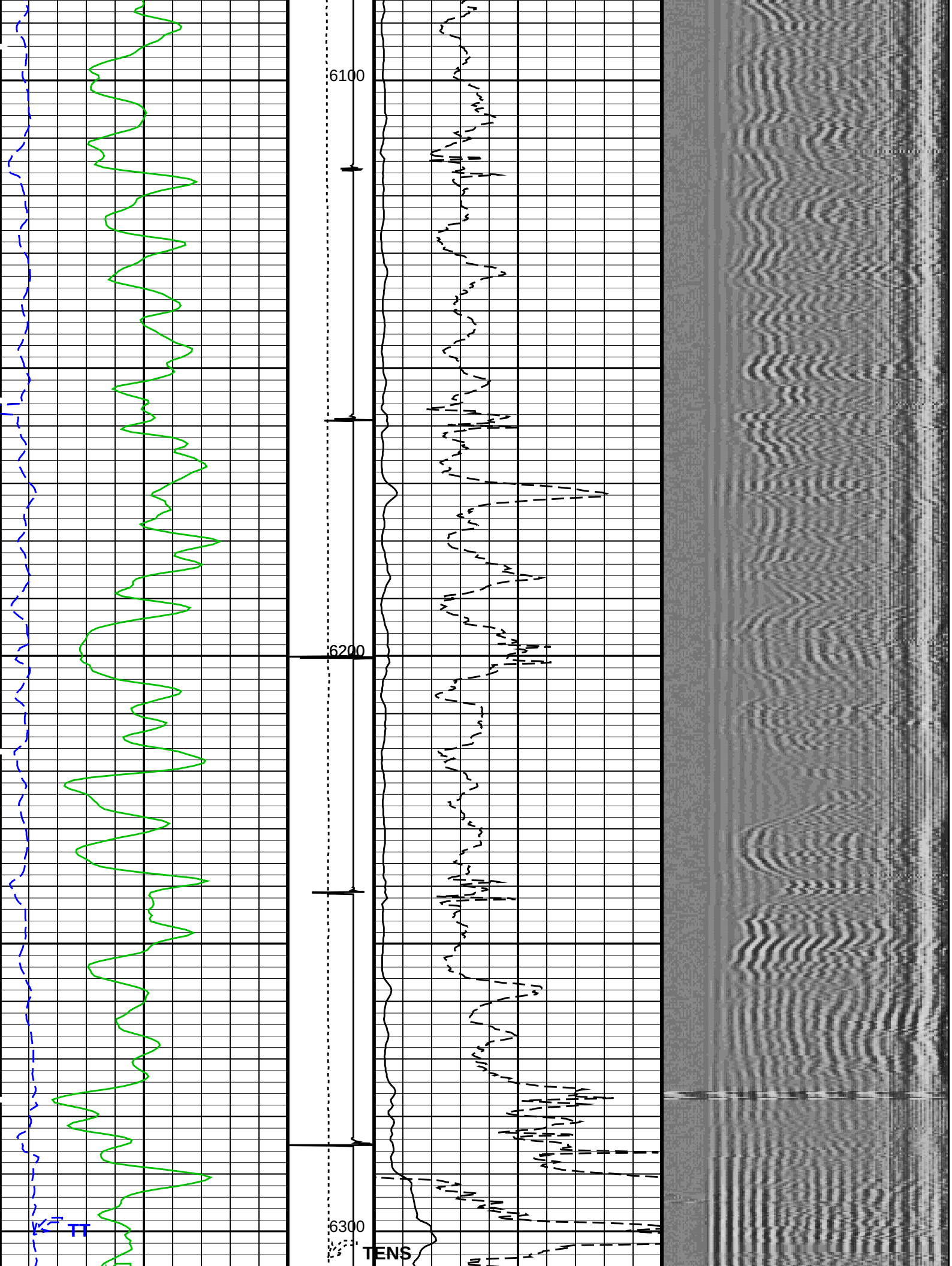
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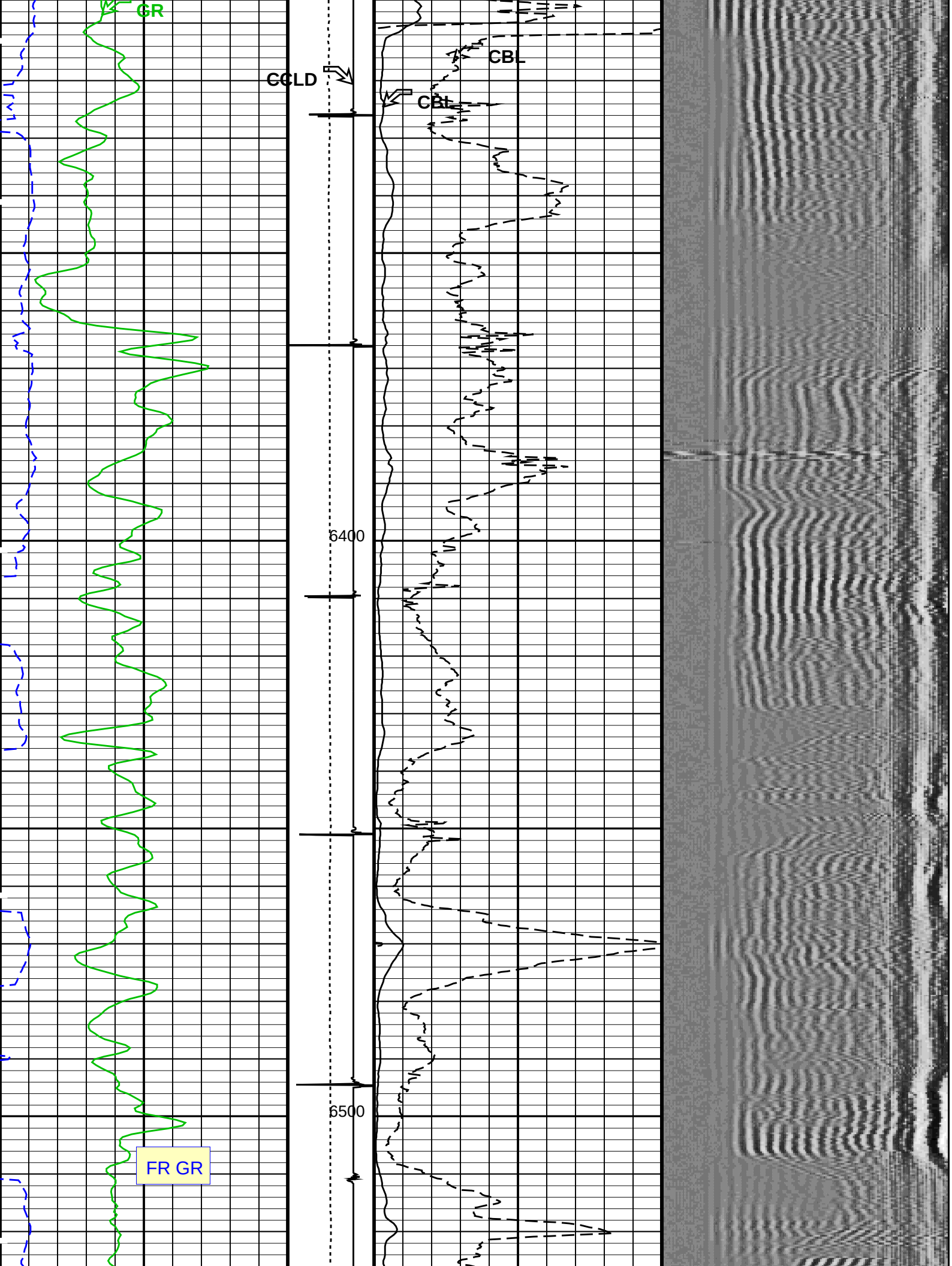
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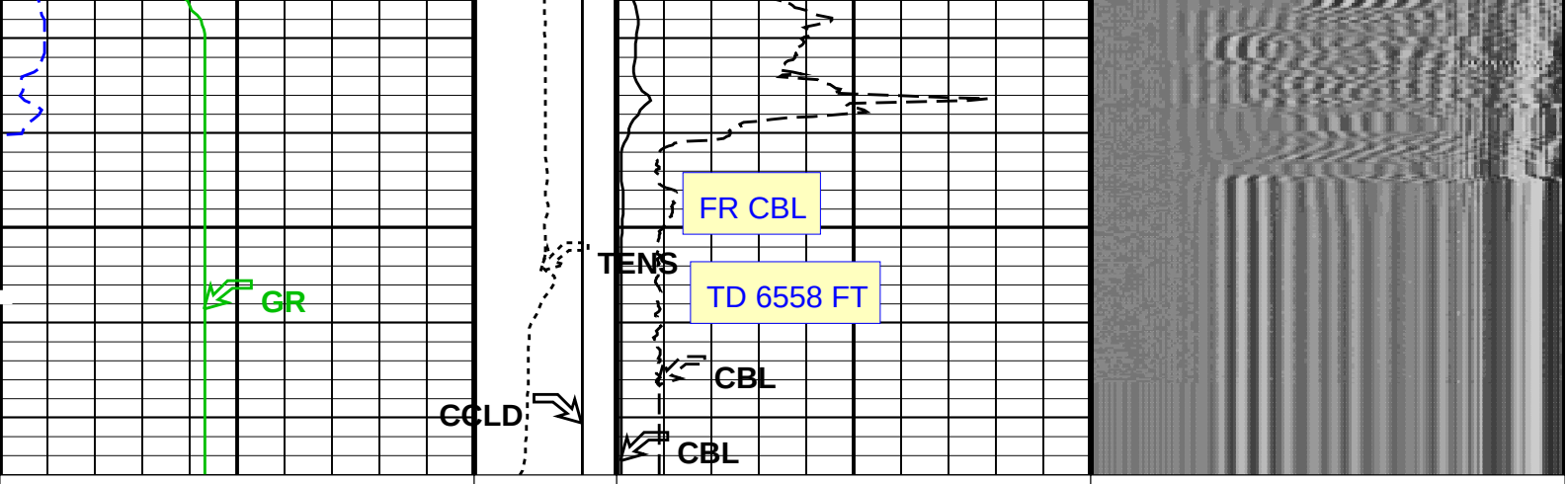

Gamma Ray (GR)	Tension (TENS)	CBL Amplitude (CBL)	Min Amplitude Max
0 (GAPI) 150	(LBF) 0 2000	0 (MV) 100	VDL VariableDensity (VDL) 200 (US) 1200
Transit Time (TT) 260 (US) 160	Discriminated CCL (CCLD) 3 (V) −1	CBL Amplitude (CBL) 0 (MV) 10	

PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL Vertical Scale: 5" per 100' Graphics File Created: 21−Nov−2011 08:38

OP System Version: 19C0−187

SCMT−CB	SRPC−5095−H2−2011−OP19_b	RST−C	SRPC−5095−H2−2011−OP19_b
PSPT	19C0−187		

<<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number	SCMS−CB 8303		
Current Casing Size	4.50000 IN		
Casing Weight	11.6000 LB/F		
Expected CBL Amplitude in Free Pipe Section	80 MV	Minimum Sonic Amplitude	0.579149 MV (100% Cement) 1.55185 MV (80% Cement)
		MAP Minimum Sonic Amplitude	4.32284 MV (100% Cement) 8.10244 MV (80% Cement)
Master Calibration (Normalization)		Before Calibration (Adjustment)	
Date of Master Calibration	17−JAN−2011		
CBL Correction Factor	0.0743637	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.165722	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.192039		
MAP 3 Correction Factor	0.132977		
MAP 4 Correction Factor	0.175062		
MAP 5 Correction Factor	0.161562		
MAP 6 Correction Factor	0.177685		
MAP 7 Correction Factor	0.144065		
MAP 8 Correction Factor	0.233552		

Parameters

DLIS Name	Description	Value
	SCMT−CB: Slim Cement Mapping Tool, 1−11/16 OD	
BILI	Bond Index Level for Zone Isolation	0.8
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK

CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	224.559	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	338.559	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	40	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.255617	IN
DTF	Delta−T Fluid	189	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	0.924277	
GOBO	Good Bond	1.55185	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	167.559	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	16.5449	DB/F
MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.32284	MV
MSA	Minimum Sonic Amplitude	0.579149	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
System and Miscellaneous			
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DORL	Depth Offset for Repeat Analysis	0.0	FT
TD	Total Depth	−50000	FT

Output DLIS Files

DEFAULT	SCMT_RST_PSP_005LUP	FN:4	PRODUCER	21−Nov−2011 08:38	

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REPEAT ANALYSIS

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC. **Well: PAD PA30**

Input DLIS Files

DEFAULT	SCMT_RST_PSP_004PUP	FN:3	PRODUCER	21−Nov−2011 08:31	5073.0 FT	4663.5 FT

Output DLIS Files

DEFAULT	SCMT_RST_PSP_005LUP	FN:4	PRODUCER	21−Nov−2011 08:38	

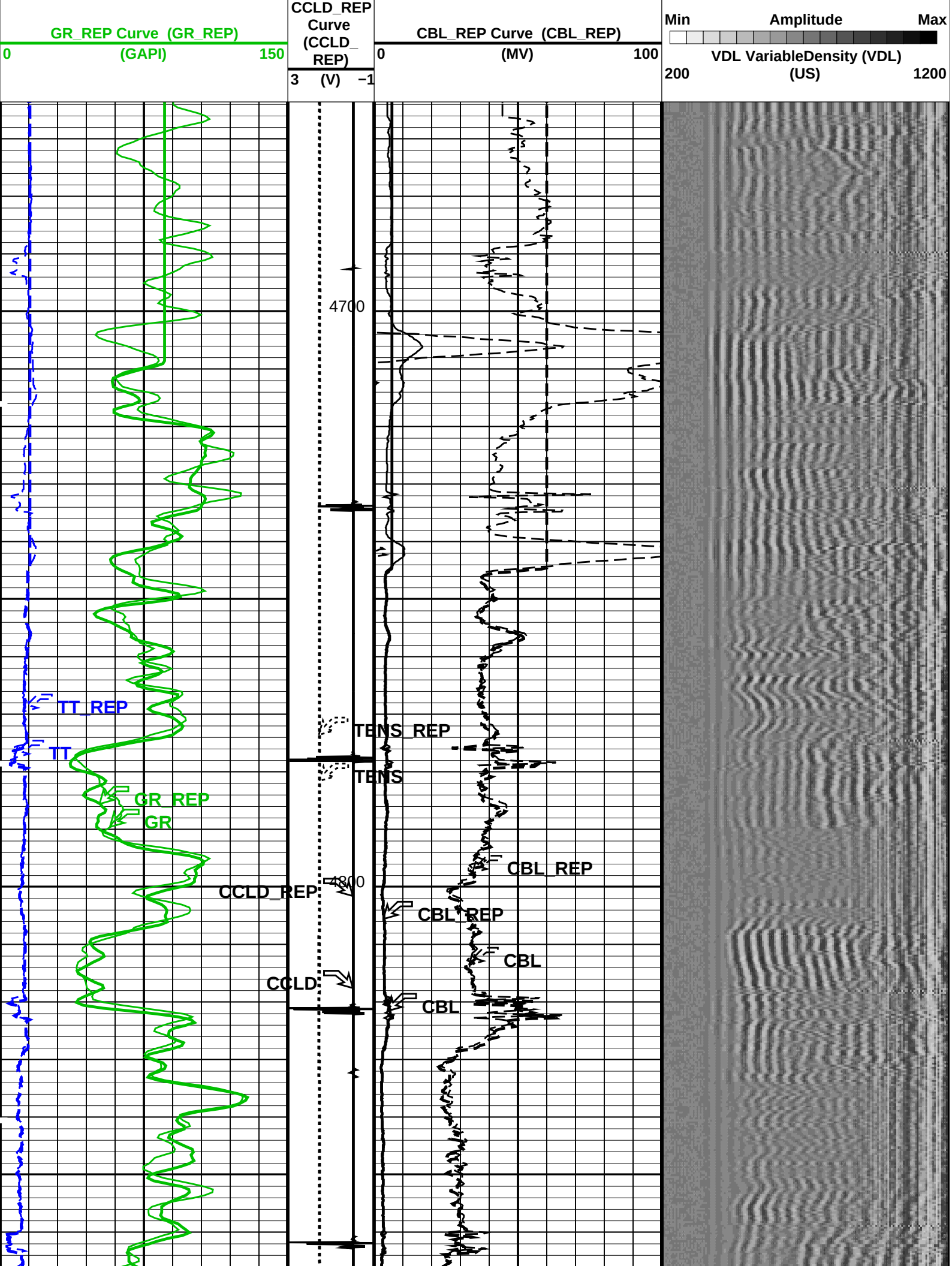
OP System Version: 19C0−187

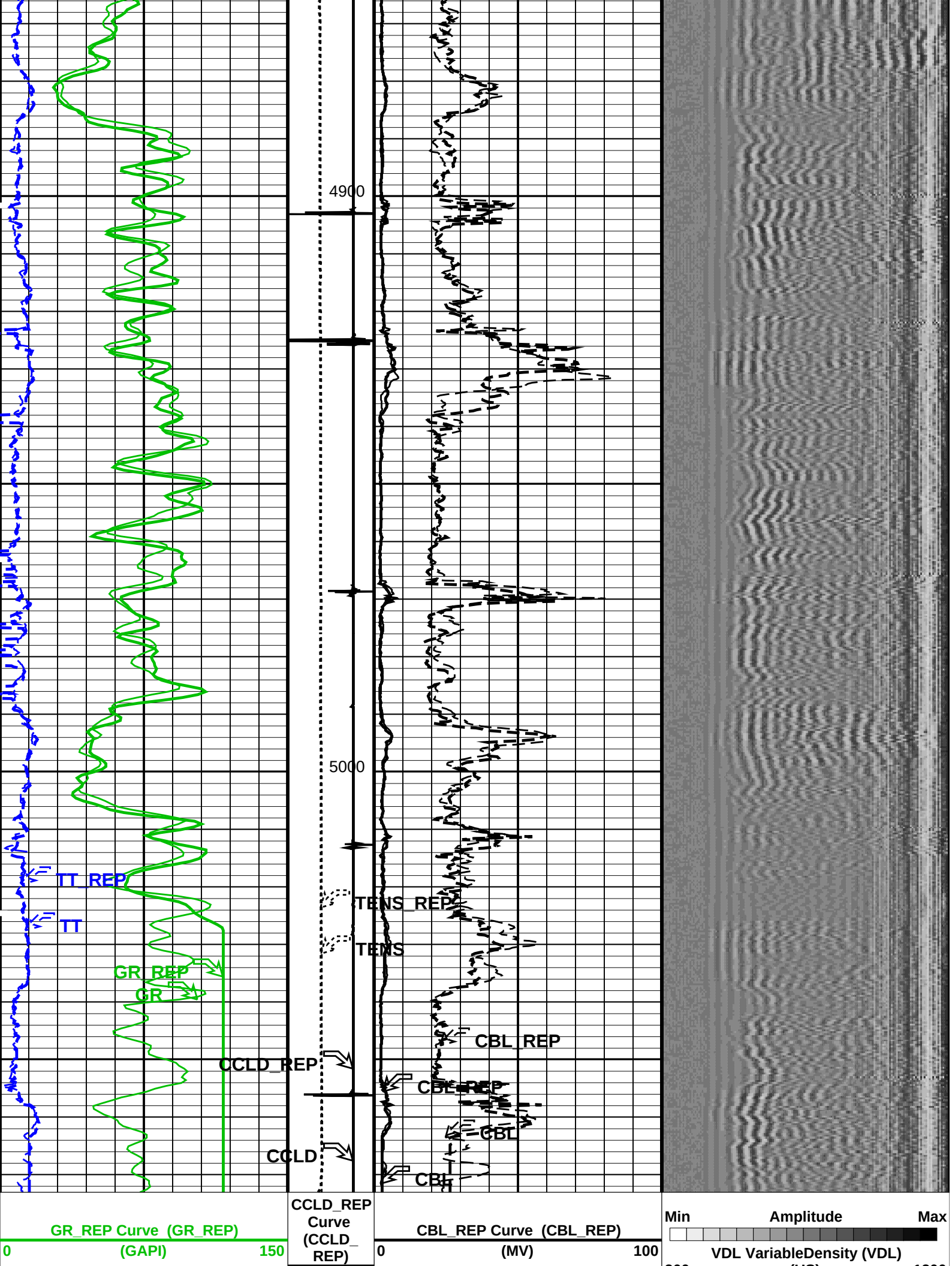
SCMT−CB	SRPC−5095−H2−2011−OP19_b	RST−C	SRPC−5095−H2−2011−OP19_b
PSPT	19C0−187		

PIP SUMMARY

Time Mark Every 60 S

TT_REP Curve (TT_REP) 260 (US) 160	TENS_REP Curve (TENS_REP) (LBF) 0 2000	CBL_1_REP Curve (CBL_REP) 0 (MV) 10


GR_REP Curve (GR_REP)
0
(GAPI)
150
CCLD_REP Curve (CCLD_REP)
3
(V)
−1
CBL_REP Curve (CBL_REP)
0
(MV)
100
Min
Amplitude
Max
VDL VariableDensity (VDL)
200
(US)
1200
4700
TT_REP
TT
TENS_REP
TENS
GR_REP
GR
CBL_REP
4800
CCLD_REP
CBL_REP
CBL
CCLD
CBL


4900
5000
TT_REP
TT
GR_REP
GR
TENS_REP
TENS
CBL_REP
CCLD_REP
CBL_REP
CBL
CCLD
CBL
GR_REP Curve (GR_REP)
0
(GAPI)
150
CCLD_REP Curve (CCLD_REP)
CBL_REP Curve (CBL_REP)
0
(MV)
100
Min
Amplitude
Max
VDL VariableDensity (VDL)

	3 (V) −1		200 (US) 1200
TT_REP Curve (TT_REP) 260 (US) 160	TENS_REP Curve (TENS_REP) (LBF) 0 2000	CBL_1_REP Curve (CBL_REP) 0 (MV) 10	

PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL_REP Vertical Scale: 5" per 100' Graphics File Created: 21−Nov−2011 08:38

OP System Version: 19C0−187

SCMT−CB	SRPC−5095−H2−2011−OP19_b	RST−C	SRPC−5095−H2−2011−OP19_b
PSPT	19C0−187		

<<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number	SCMS−CB 8303		
Current Casing Size	4.50000 IN		
Casing Weight	11.6000 LB/F		
Expected CBL Amplitude in Free Pipe Section	80 MV	Minimum Sonic Amplitude	0.579149 MV (100% Cement) 1.55185 MV (80% Cement)
		MAP Minimum Sonic Amplitude	4.32284 MV (100% Cement) 8.10244 MV (80% Cement)
Master Calibration (Normalization)		Before Calibration (Adjustment)	
Date of Master Calibration	17−JAN−2011		
CBL Correction Factor	0.0743637	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.165722	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.192039		
MAP 3 Correction Factor	0.132977		
MAP 4 Correction Factor	0.175062		
MAP 5 Correction Factor	0.161562		
MAP 6 Correction Factor	0.177685		
MAP 7 Correction Factor	0.144065		
MAP 8 Correction Factor	0.233552		

Parameters

DLIS Name	Description	Value	
	SCMT−CB: Slim Cement Mapping Tool, 1−11/16 OD		
BILI	Bond Index Level for Zone Isolation	0.8	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	224.559	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	338.559	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	40	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.255617	IN
DTF	Delta−T Fluid	189	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	0.924277	
GOBO	Good Bond	1.55185	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	167.559	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	16.5449	DB/F

MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.32284	MV
MSA	Minimum Sonic Amplitude	0.579149	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
System and Miscellaneous			
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DORL	Depth Offset for Repeat Analysis	0.0	FT
TD	Total Depth	−50000	FT

Input DLIS Files

DEFAULT	SCMT_RST_PSP_004PUP	FN:3	PRODUCER	21−Nov−2011 08:31	5073.0 FT	4663.5 FT

Output DLIS Files

DEFAULT	SCMT_RST_PSP_005LUP	FN:4	PRODUCER	21−Nov−2011 08:38

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COEFFICIENTS

MAXIS Field Log

Client:	ENCANA OIL & GAS (USA) INC.	Tool:	PSP
Field:	PARACHUTE	Sub Type:	PBMS
Well:	PAD PA30	Sensor:	Clock Model
Run date:	21−Nov−2011		

PBMS Digitalization Clock

Sonde Serial NB	
Sensor Serial NB	3779
Calib Date ddmmyy	090107
Matrix Size	16
Coeff CRC	D285

Clock Coeff

	Temp**0	Temp**1	Temp**2
Temp**0	−.210501098404E+03	−.537713340627E+01	−.752421519422E−01

	Temp**3	Temp**4	Temp**5
Temp**0	+.630273975887E−03	+.266728381738E−05	0.0

Client:	ENCANA OIL & GAS (USA) INC.	Tool:	PSP
Field:	PARACHUTE	Sub Type:	PBMS
Well:	PAD PA30	Sensor:	Sapphire
Run date:	21−Nov−2011		

PBMS Sapphire 10kPsi Gauge

Sonde Serial NB	COEFFICIENTS FOR SAPPHIRE PBMS−A.3779 S/N:
Sensor Serial NB	3779
Calib Date ddmmyy	090107
Matrix Size	66
Coeff CRC	4C82

Pres Coeff

	Tt**0	Tt**1	Tt**2
Tp**0	−.611876617639E+04	+.471061007964E+04	−.216447354932E+04
Tp**1	+.371836126905E+04	−.234756196935E+04	+.129149325686E+04
Tp**2	+.193143980957E+02	−.189348218853E+01	−.341812471126E+01
Tp**3	−.568815065386E+01	+.200079683569E+01	0.0
Tp**4	0.0	0.0	0.0
Tp**5	0.0	0.0	0.0

	Tt**3	Tt**4	Tt**5
Tp**0	+.380249508124E+03	−.247683004908E+02	0.0
Tp**1	−.227135245080E+03	+.146352372057E+02	0.0
Tp**2	0.0	0.0	0.0
Tp**3	0.0	0.0	0.0
Tp**4	0.0	0.0	0.0
Tp**5	0.0	0.0	0.0

PBMS Sapphire 10kPsi Gauge

Sonde Serial NB	:
Sensor Serial NB	3779
Calib Date ddmmyy	090107
Matrix Size	66
Coeff CRC	C39E

Temp Coeff

	Tp**0	Tp**1	Tp**2
Tt**0	−.278275571347E+03	+.251216271916E+01	−.820715649824E+00
Tt**1	[illegible]	[illegible]	[illegible]

Tt**1	+.598349067015E+02	−.107326373545E+01	+.652890183203E−01
Tt**2	+.109160002120E+02	+.262812193556E+00	−.450134240377E−02
Tt**3	−.673302171285E+00	−.213772918779E−01	0.0
Tt**4	0.0	0.0	0.0
Tt**5	0.0	0.0	0.0

	Tp**3	Tp**4	Tp**5
Tt**0	+.151507143209E+00	−.592670012996E−02	0.0
Tt**1	+.127486538512E−01	−.437897076104E−02	0.0
Tt**2	0.0	0.0	0.0
Tt**3	0.0	0.0	0.0
Tt**4	0.0	0.0	0.0
Tt**5	0.0	0.0	0.0

Client:	ENCANA OIL & GAS (USA) INC.	**Tool:**	PSP
Field:	PARACHUTE	**Sub Type:**	PBMS
Well:	PAD PA30	**Sensor:**	GR
Run date:	21−Nov−2011		

PBMS Gamma Ray

Sonde Serial NB	RESISTORS FOR GR SENSOR N.34552,TOOL PBMS−AA3779. SENSOR S/N:
Sensor Serial NB	34552
Calib Date ddmmyy	030606
Matrix Size	12
Coeff CRC	3AE5

GR HV Rt

	Rt**0	Rt**1
Rt**0	+.200000000000e+04	+.214000000000e+04

Client:	**ENCANA OIL & GAS (USA) INC.**	**Tool:**	**PSP**
Field:	**PARACHUTE**	**Sub Type:**	**PBMS**
Well:	**PAD PA30**	**Sensor:**	**WellTemp RTD**
Run date:	**21−Nov−2011**		

PBMS RTD Well Thermometer

Sonde Serial NB	**COEFFICIENTS FOR RTD THERMOMETER PBMS−A.3779 S/N:**
Sensor Serial NB	**3779**
Calib Date ddmmyy	**090107**
Matrix Size	**16**
Coeff CRC	**3846**

WTemp Coeff

	Tt**0	Tt**1	Tt**2
Tt0**	**+.492135102627E+02**	**−.278827553804E+03**	**+.142867554561E+03**

	Tt**3	Tt**4	Tt**5
Tt0**	**−.233378392336E+02**	**+.145553494493E+01**	**0.0**

Company: **ENCANA OIL & GAS (USA) INC.**

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Well: **FEDERAL 29−4C (PA30)**
Field: **PARACHUTE**
County: **GARFIELD**
State: **COLORADO**

CEMENT BOND LOG
CBL − VDL
GAMMA RAY − CCL