

Company: ENCANA OIL & GAS (USA) INC

Well: SG 8512E-36 (D36 496)

Field: STORY GULCH

County: GARFIELD

State: COLORADO

County: GARFIELD

Field: STORY GULCH

Location: SHL: 447 FNL & 1020 FWL

Well: SG 8512E-36 (D36 496)

Company: ENCANA OIL & GAS (USA) INC

SLIM CEMENT MAPPING LOG

CBL – VDL

GAMMA RAY – CCL

SHL: 447 FNL & 1020 FWL

BHL: 1044 FSL & 681 FWL

Elev.: K.B. 8320.00 ft

G.L. 8290.00 ft

D.F. 8319.00 ft

Permanent Datum: GROUND LEVEL

Log Measured From: KELLY BUSHING

Drilling Measured From: KELLY BUSHING

API Serial No. 05-045-20918-000C

Section 36

Township 4S

Range 96W

PVT DATA				Run 1	Run 2	Run 3
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 2-Jul-2013

Run Number 1

Depth Driller 12634 ft

Schlumberger Depth 12563 ft

Bottom Log Interval 12554 ft

Top Log Interval 70 ft

Casing Fluid Type FRESH WATER

Salinity

Density 8.4 lbm/gal

Fluid Level 70 ft

BIT/CASING/TUBING STRING

Bit Size 8.750 in

From 9907 ft

To 12634 ft

Casing/Tubing Size 4.500 in

Weight 11.6 lbm/ft

Grade

From 30 ft

To 12614 ft

Maximum Recorded Temperatures 283 degF

Logger On Bottom 3-Jul-2013

Unit Number 391

Recorded By JASON BARRY

Witnessed By JOHN MILLER

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						
Unit Number						
Recorded By						
Witnessed By						

DEPTH SUMMARY LISTING

Date Created: 3-JUN-2013 9:46:48

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	1-25ZT
Serial Number:	6214	Serial Number:	3421	Serial Number:	112136
Calibration Date:	4-24-2012	Calibration Date:	6-3-2013	Length:	19500 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878	<hr/> Conveyance Method: Wireline Rig Type: LAND	
Calibration Cable Type:	1-25P	Number of Calibration Points:	10		
Wheel Correction 1:	-3	Calibration RMS:	2		
Wheel Correction 2:	-4	Calibration Peak Error:	6		

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	
Rig Up Length At Bottom:	
Rig Up Length Correction:	
Stretch Correction:	
Tool Zero Check At Surface:	

Depth Control Remarks

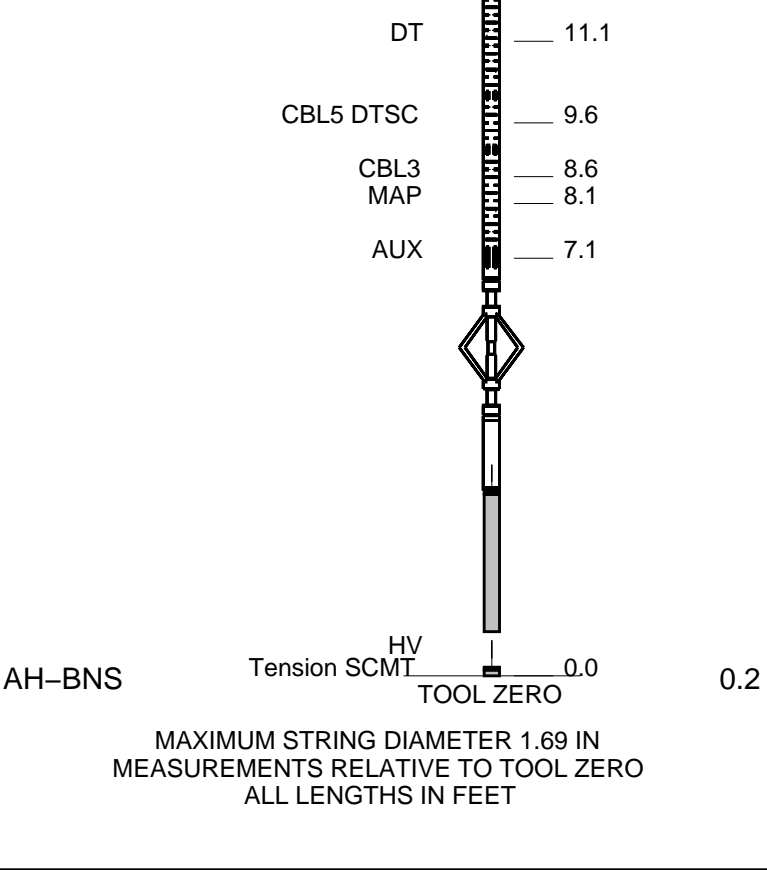
1. ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES USED
2. IDW USED AS PRIMARY DEPTH CONTROL
3. SWPT DRUM COUNTER USED AS SECONDARY DEPTH CONTROL
- 4.
- 5.
- 6.

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1 OS1: NONE OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRELATED TO DOWNLOG	
TOOL RAN AS PER TOOL SKETCH	
ENTRANCE TIME: 23:30	
TIME ON BOTTOM: 00:15	
EXIT TIME: 3:30	

MAX RECORDED TEMPERATURE: 283 DEGF					
MAX RECORDED PRESSURE: 4980 PSIA					
SHORT JOINT: 8095 FT & 11113 FT					
MAIN PASS LOGGED UNDER ZERO SURFACE PRESSURE					
EXPECTED CBL AMP IN FREE PIPE IS 80 MV					
CREW: J BARRY, W AZIZ, K JOHNS, J FESSENDEN					
THANK YOU FOR CHOOSING E&P WIRELINE, A SCHLUMBERGER COMPANY					
RUN 1			RUN 2		
SERVICE ORDER #:		C920-00099	SERVICE ORDER #:		
PROGRAM VERSION:		19C0-187	PROGRAM VERSION:		
FLUID LEVEL:		70 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM-A PSC_16MHZ					
DOWNHOLE EQUIPMENT					
MH-22 MH-22		30.3			
AH-38	Detail MT TelStatus CTEM	28.7			
PSPT		28.4			
PSC-A PSPT-B 928 PSTC-A PBMS-B CQG_F Mano RTD_Thermometer GR CCL PBMS					
	GR	24.7			
	Well_Temp CQG Manom CCL	21.7 21.3 20.9			
	PBMS PSTC	20.2			
SCMT-CB SCMC-CA 8120 SECH-CA CMIR-AG SCMS-CB 8303 SCMX-CA		20.2			



MAIN PASS CBL VDL

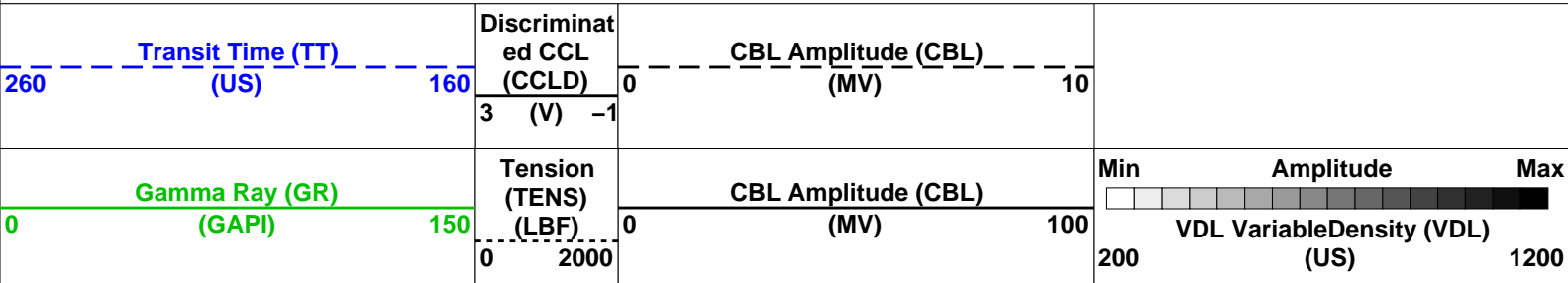
MAXIS Field Log

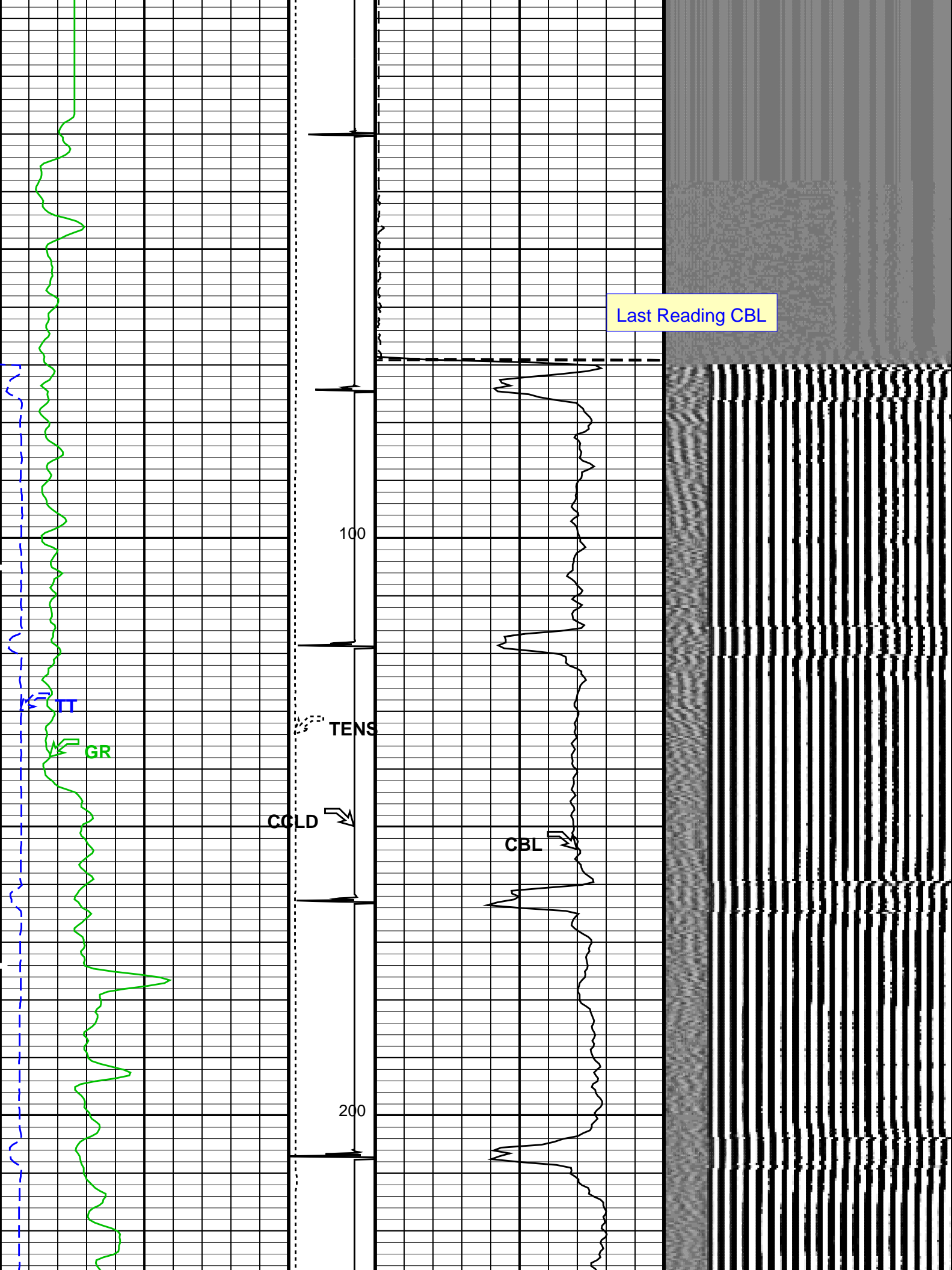
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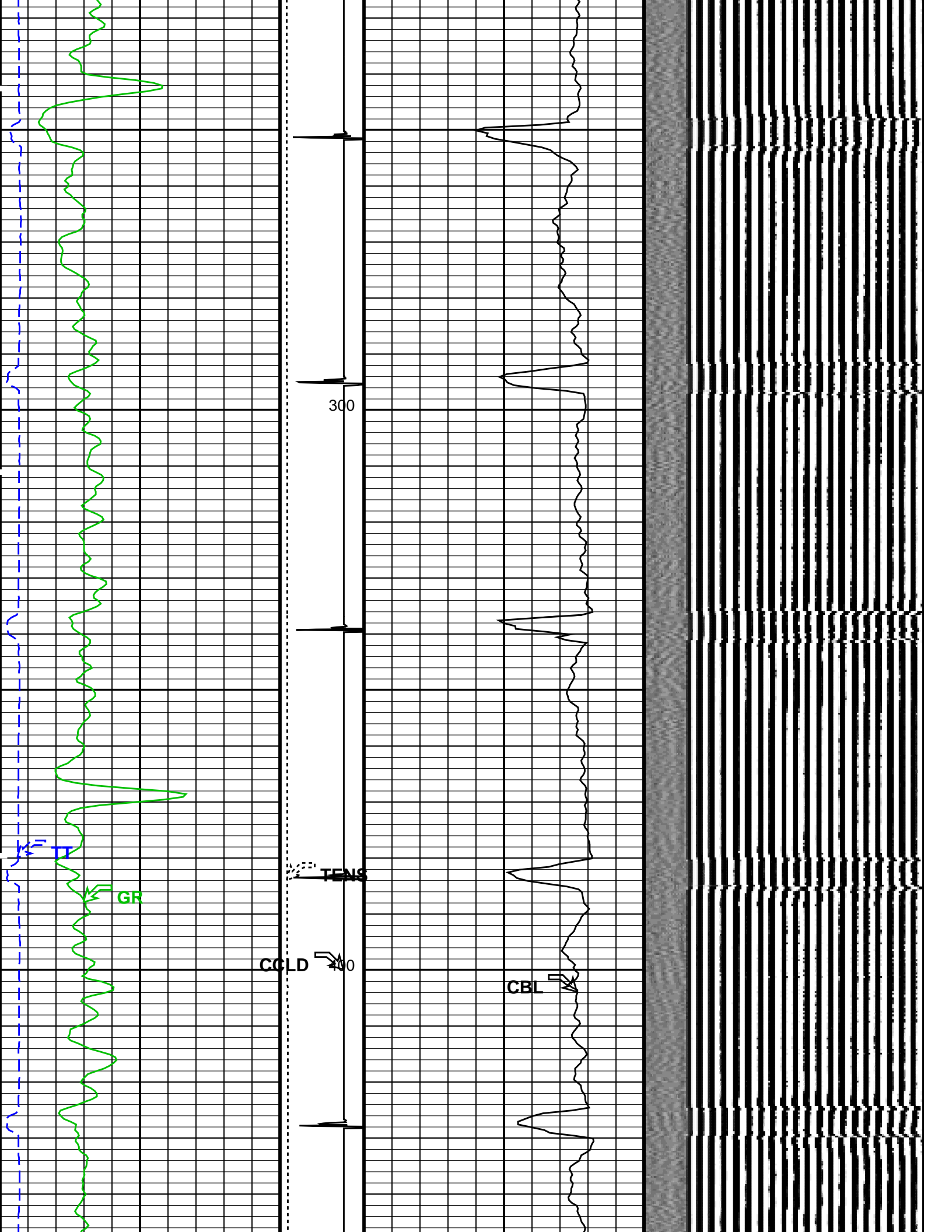
Input DLIS Files						
DEFAULT	SCMT_PSP_028LUP	FN:27	PRODUCER	03-Jul-2013 00:11	12572.5 FT	18.7 FT
Output DLIS Files						
DEFAULT	SCMT_PSP_030PUP	FN:29	PRODUCER	03-Jul-2013 03:31	12579.5 FT	4.5 FT

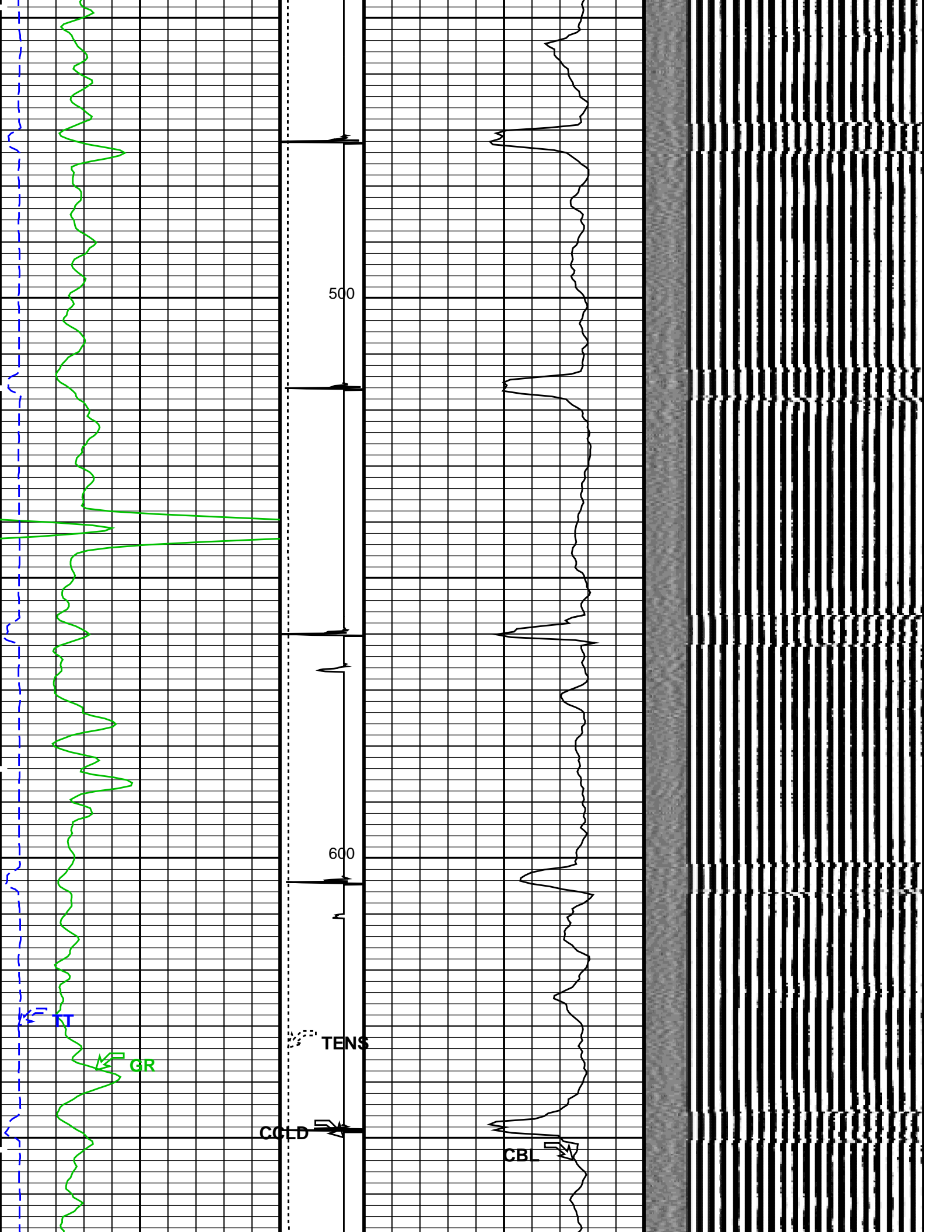
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SCMT-CB	SRPC-5214-H2-2012-OP1	PSPT	SRPC-5214-H2-2012-OP1

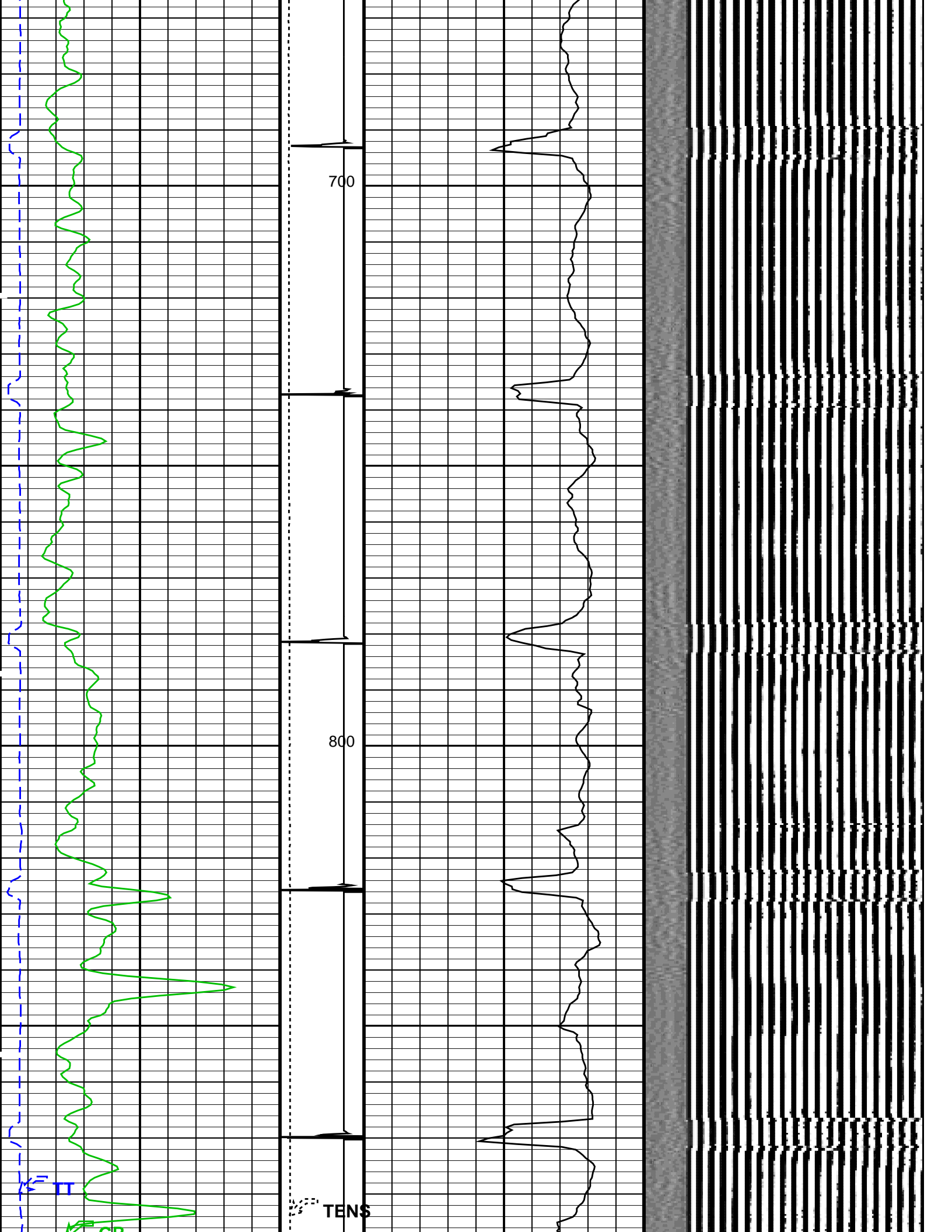
PIP SUMMARY

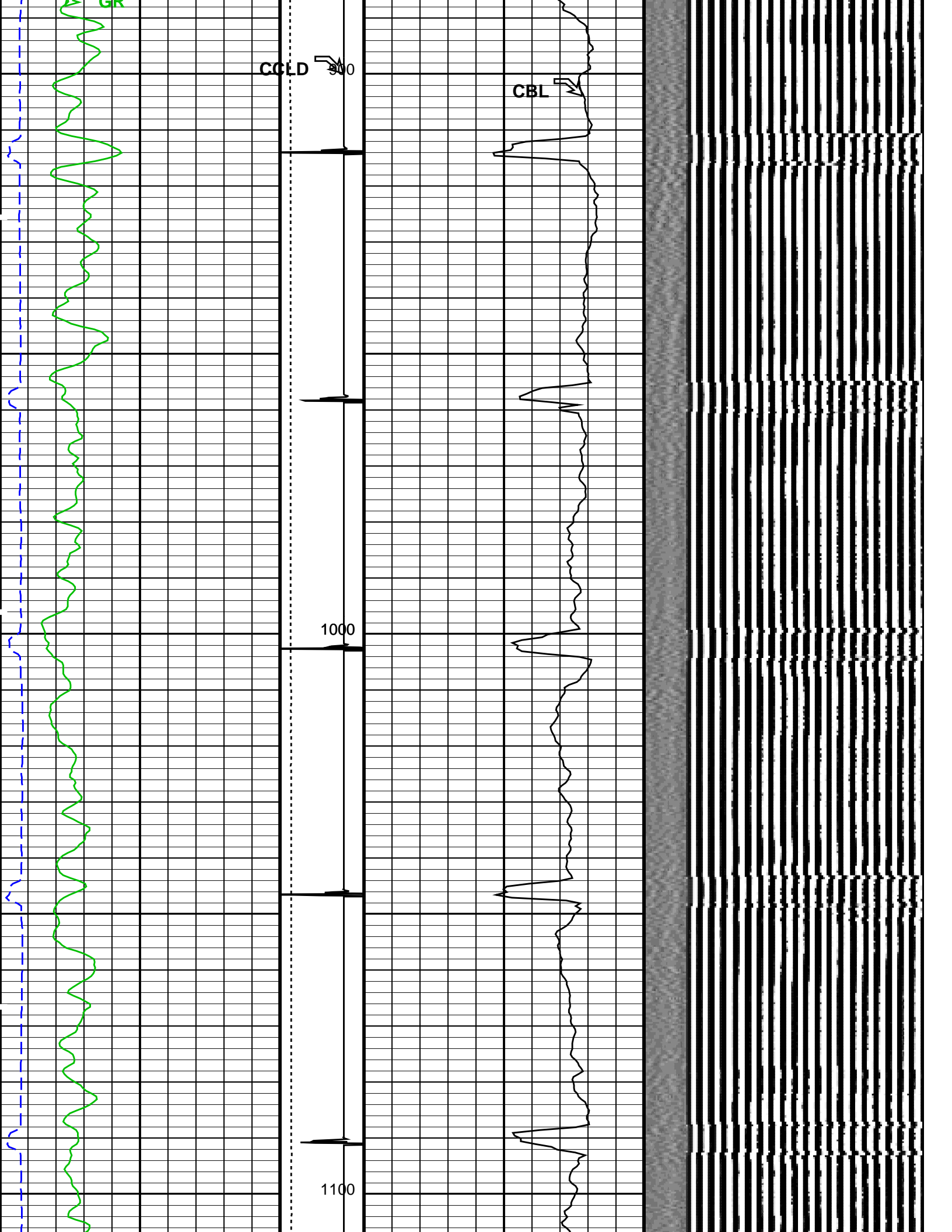


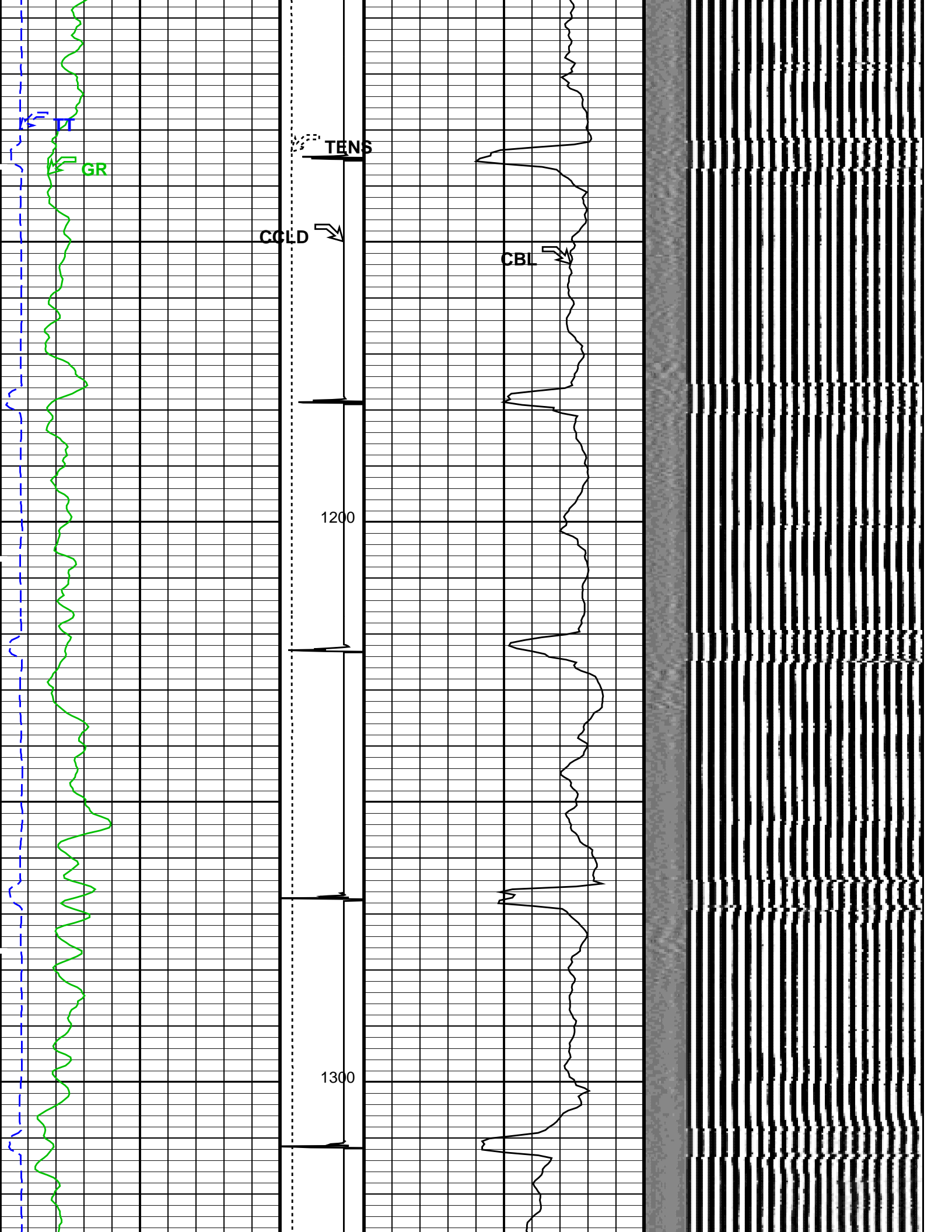


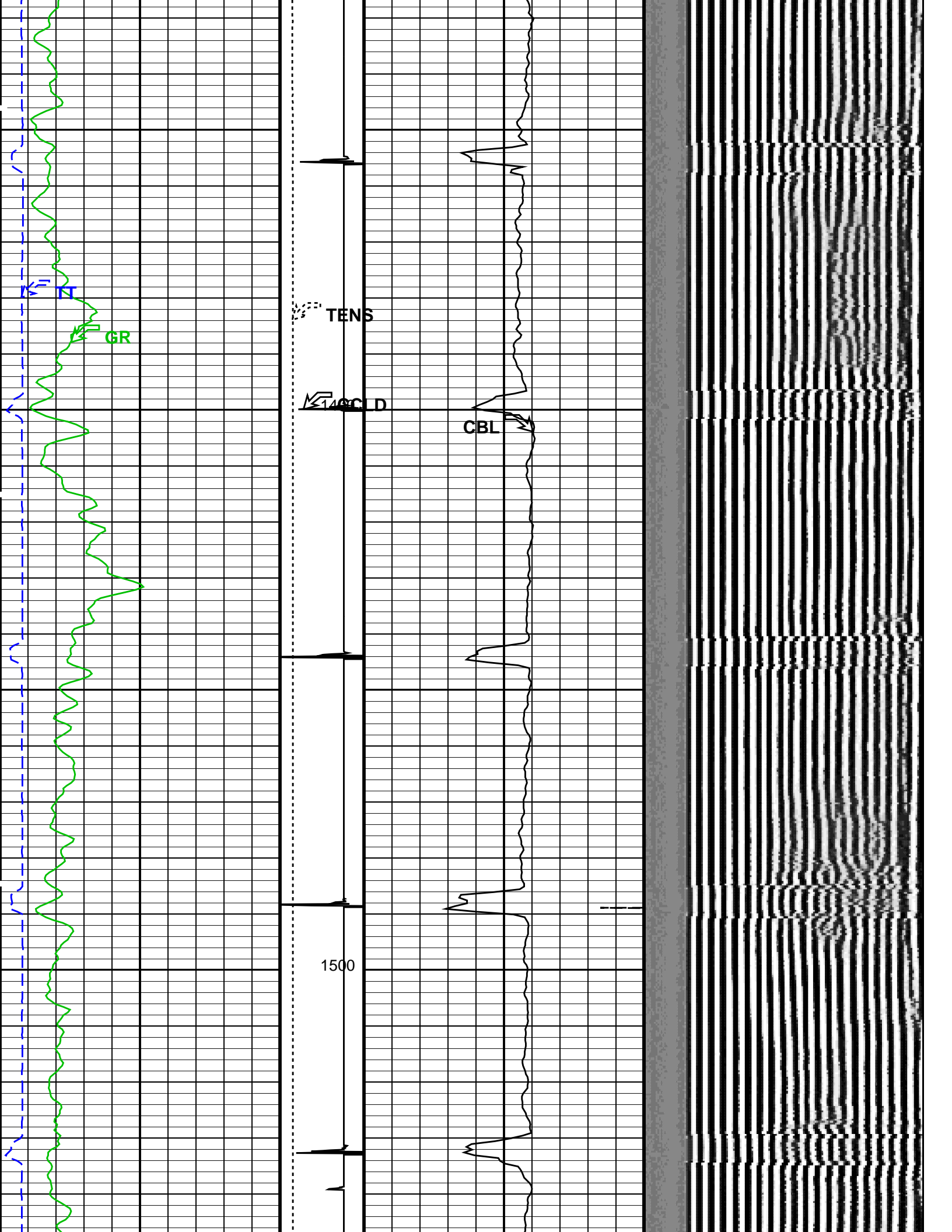


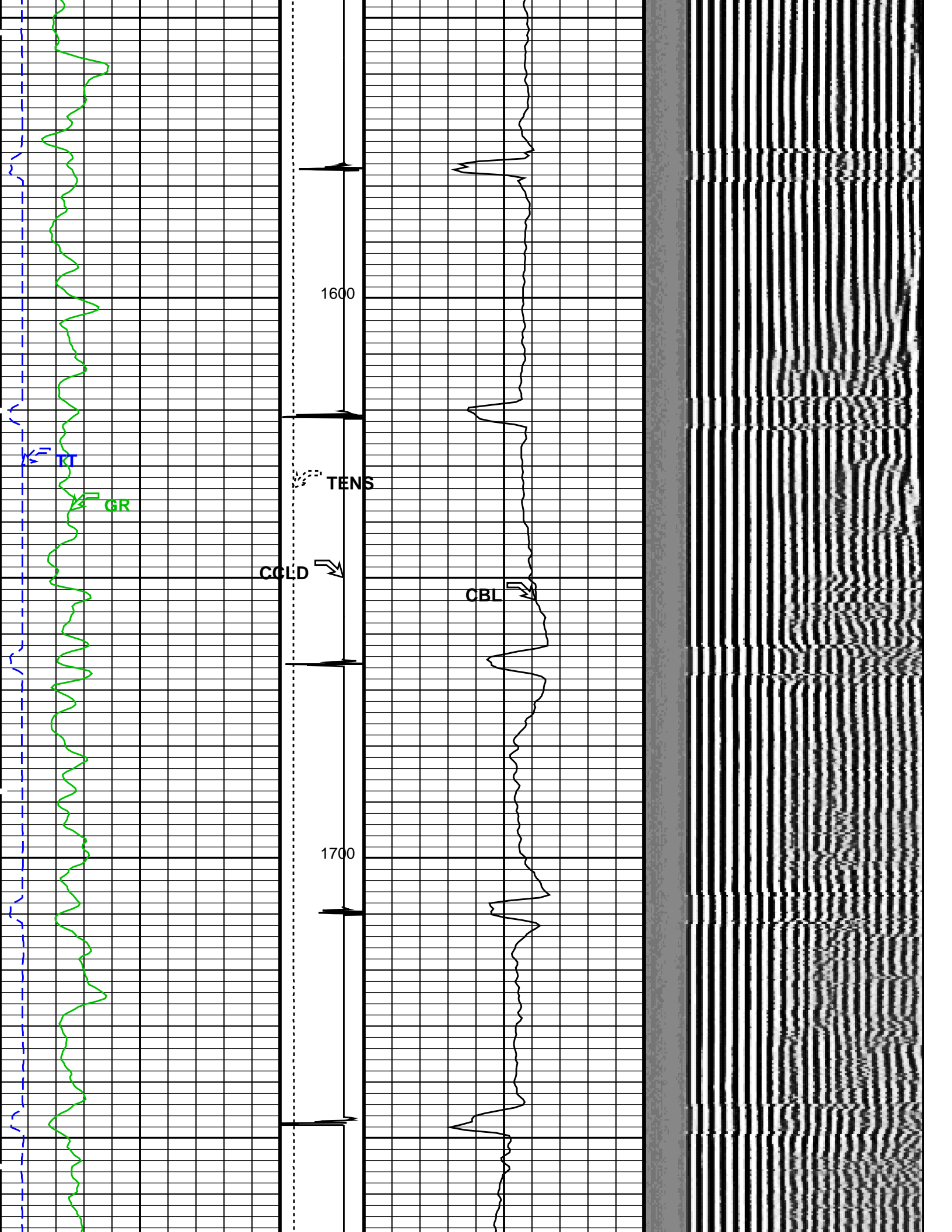


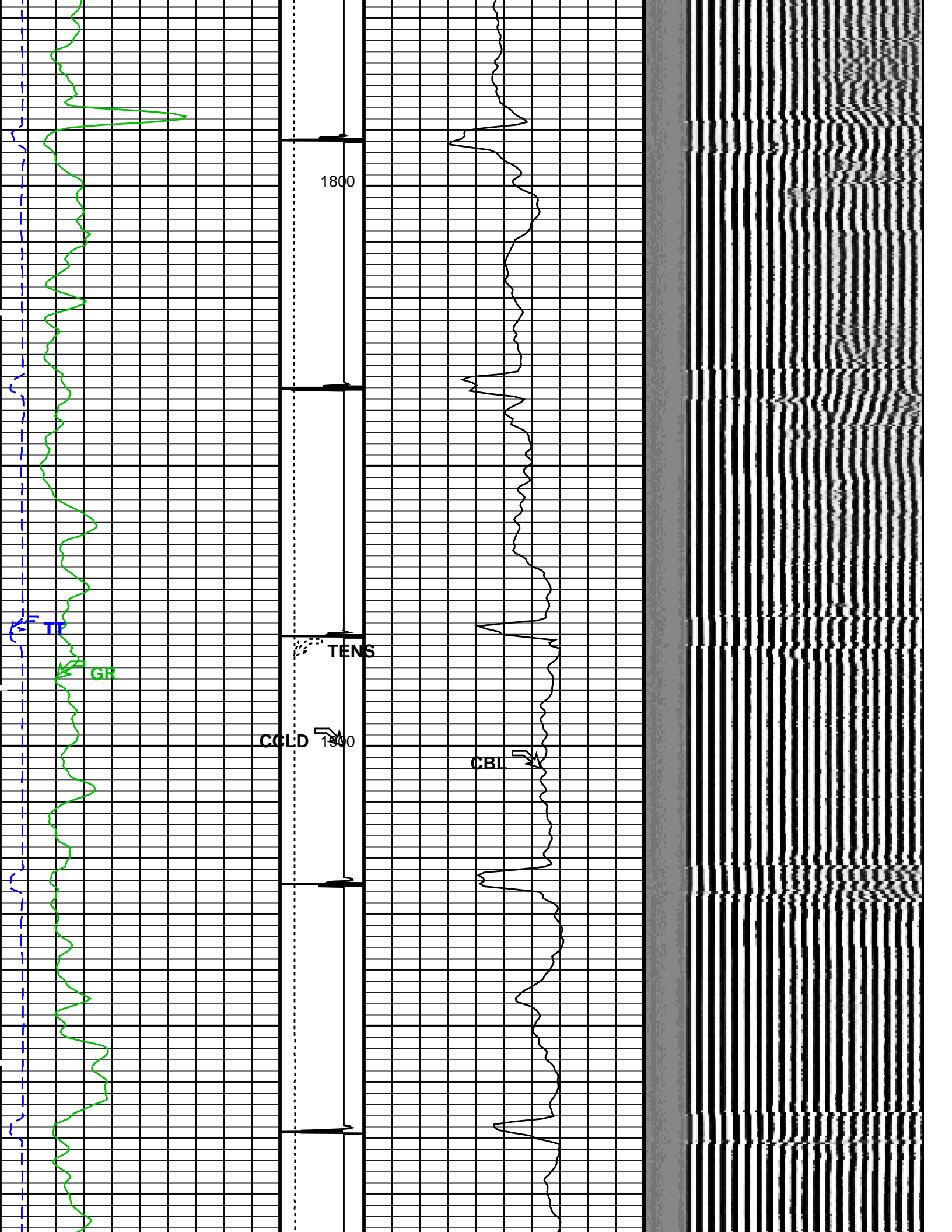


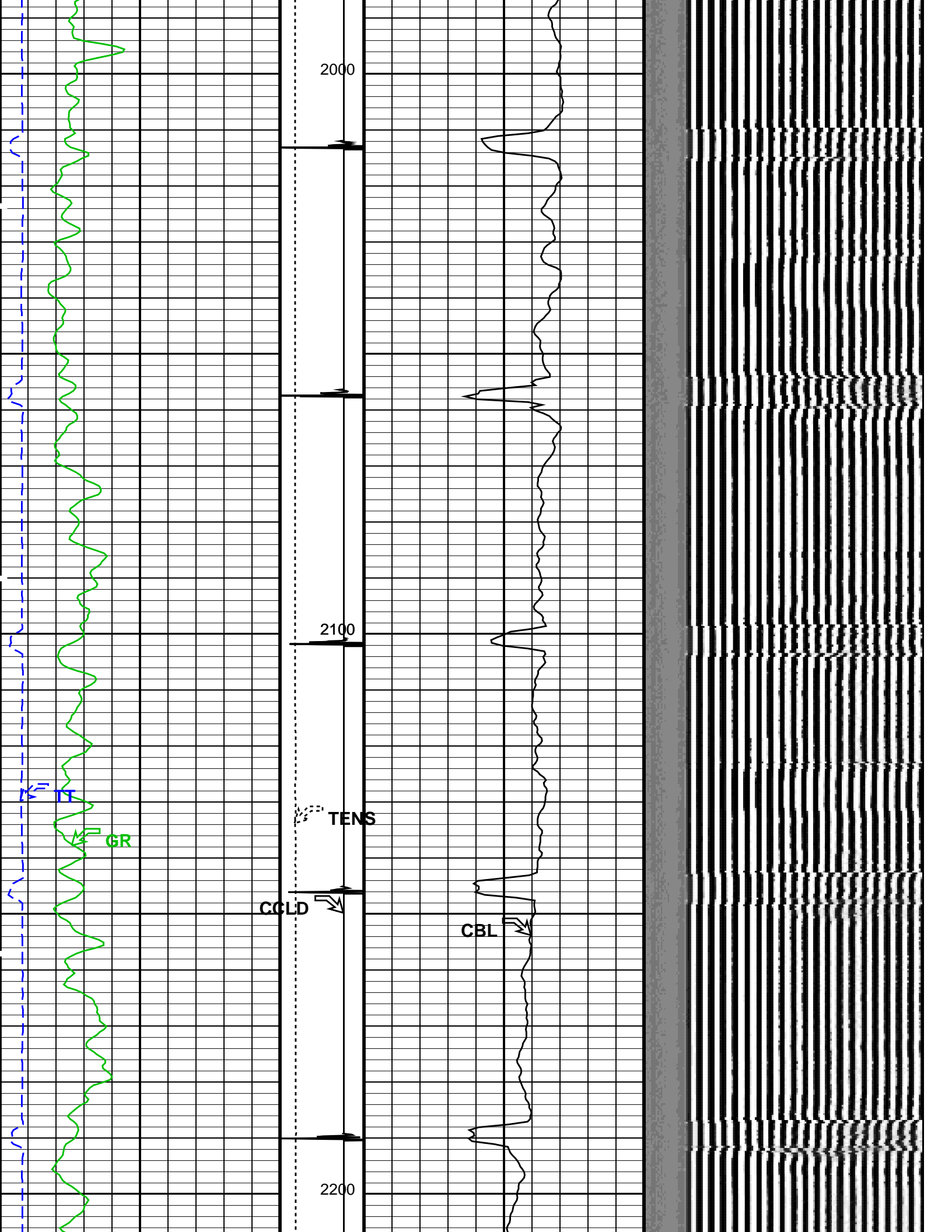


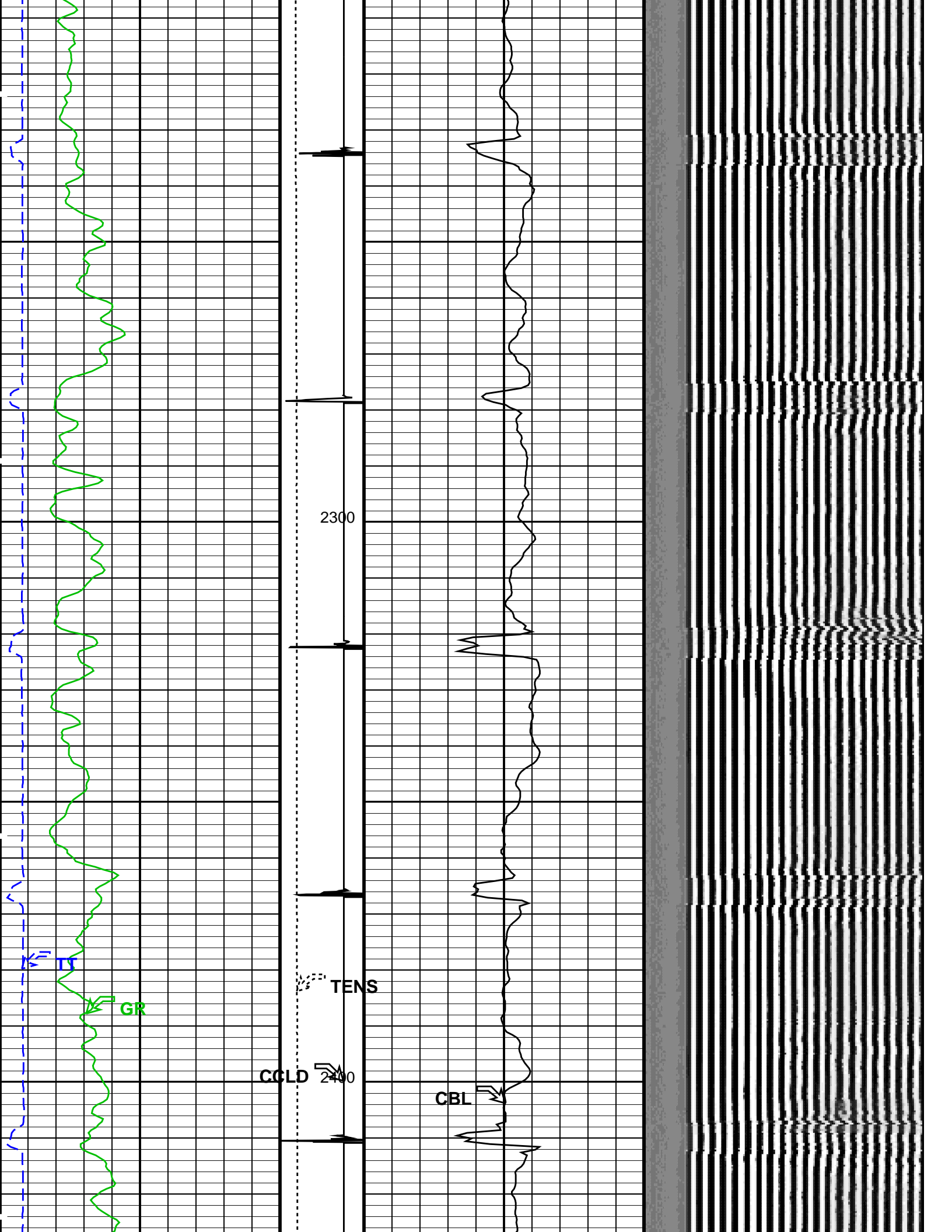


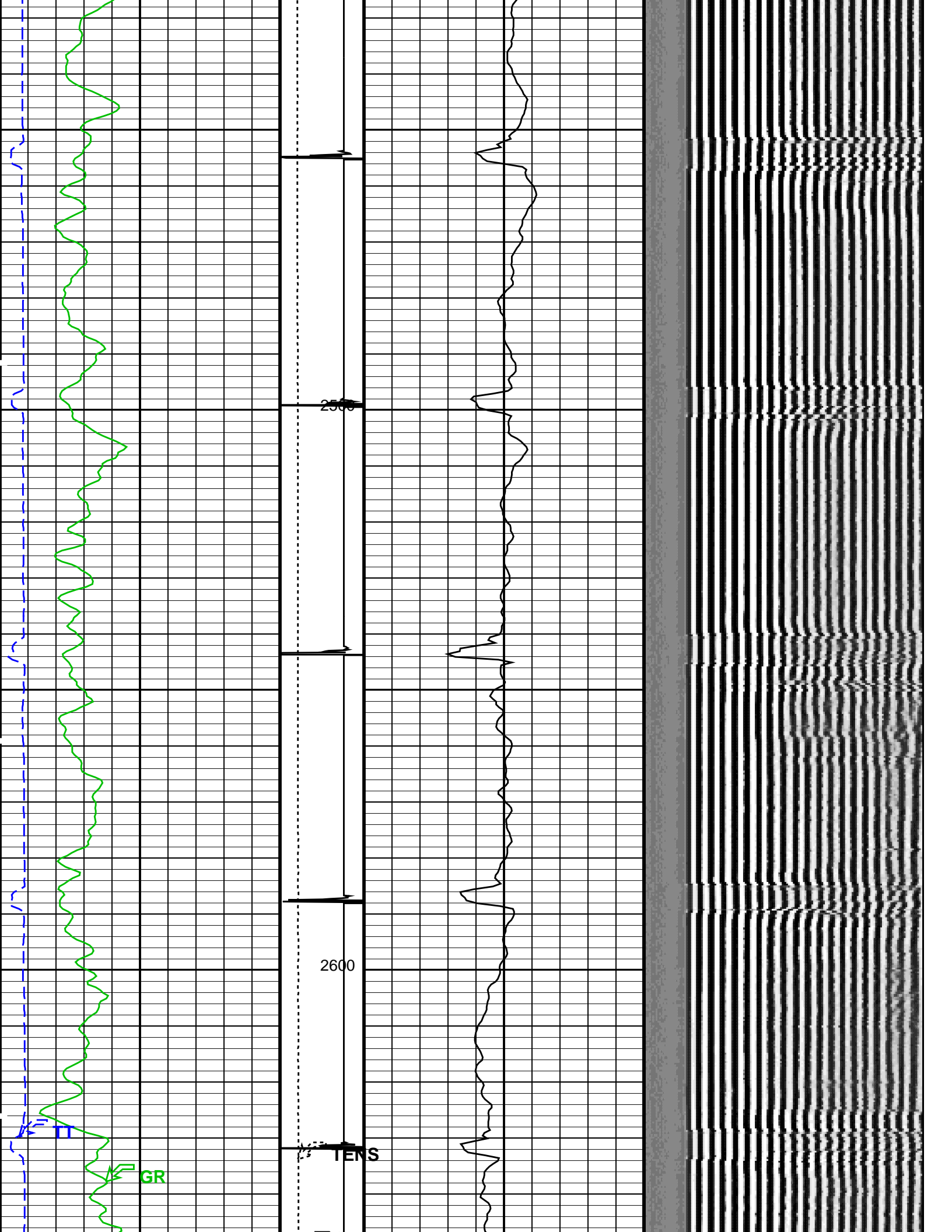


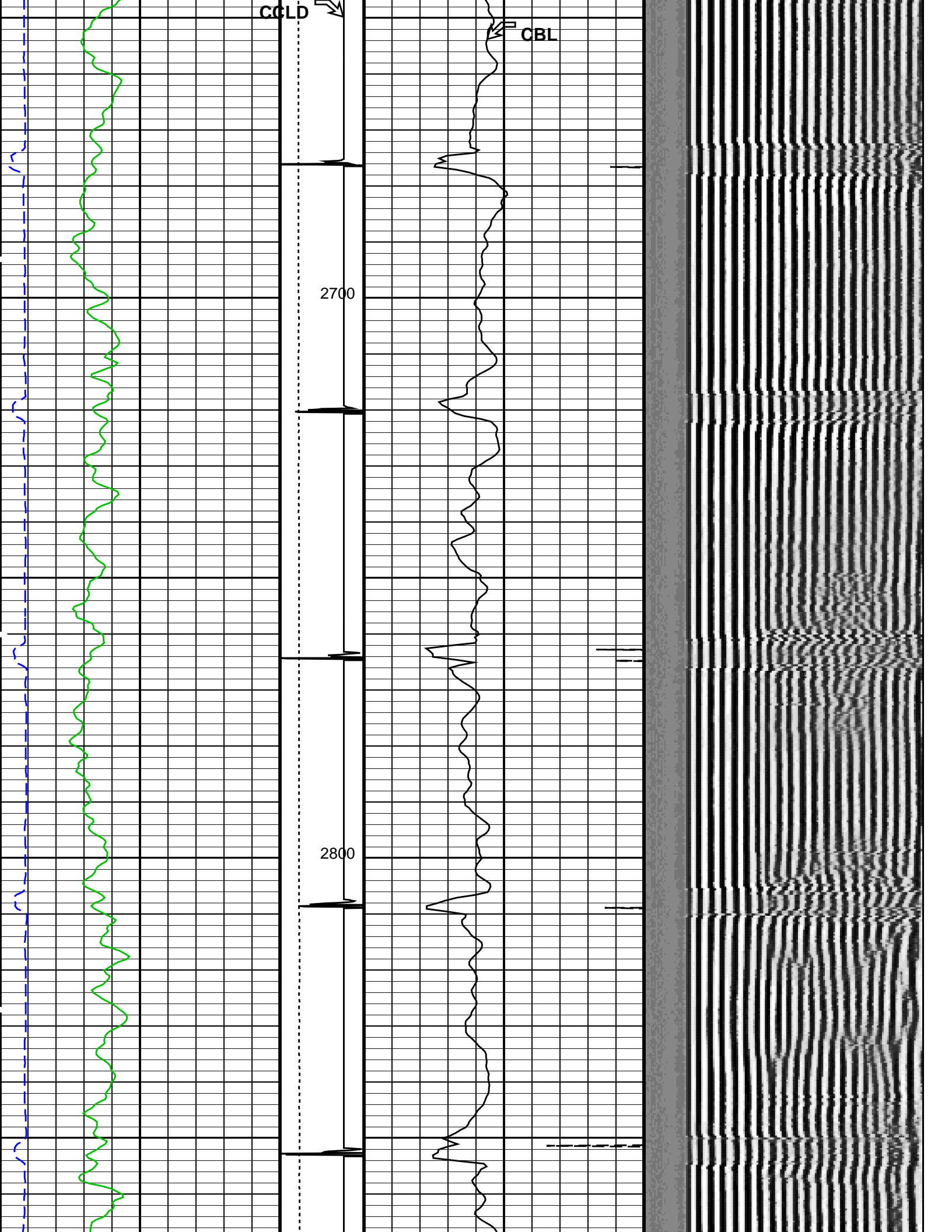


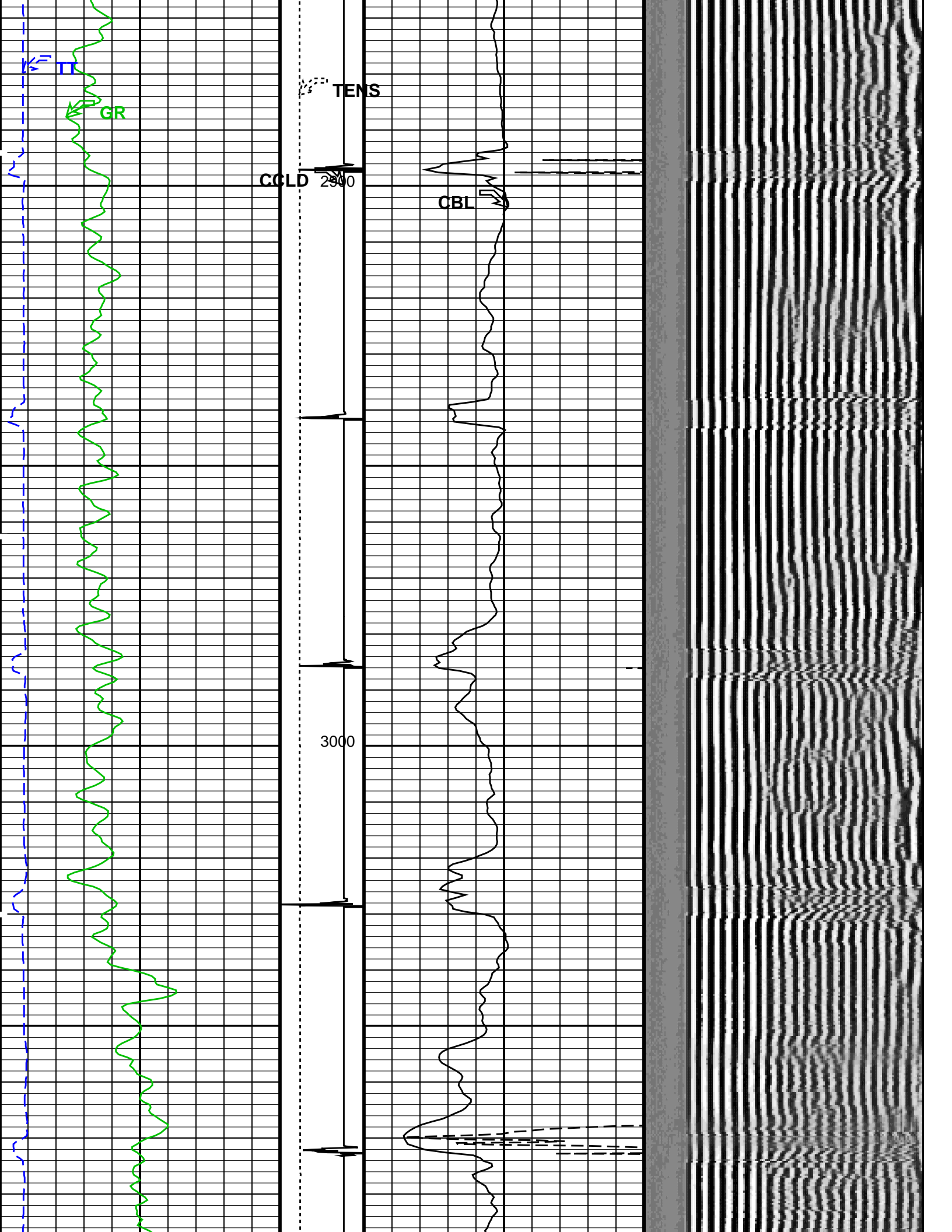


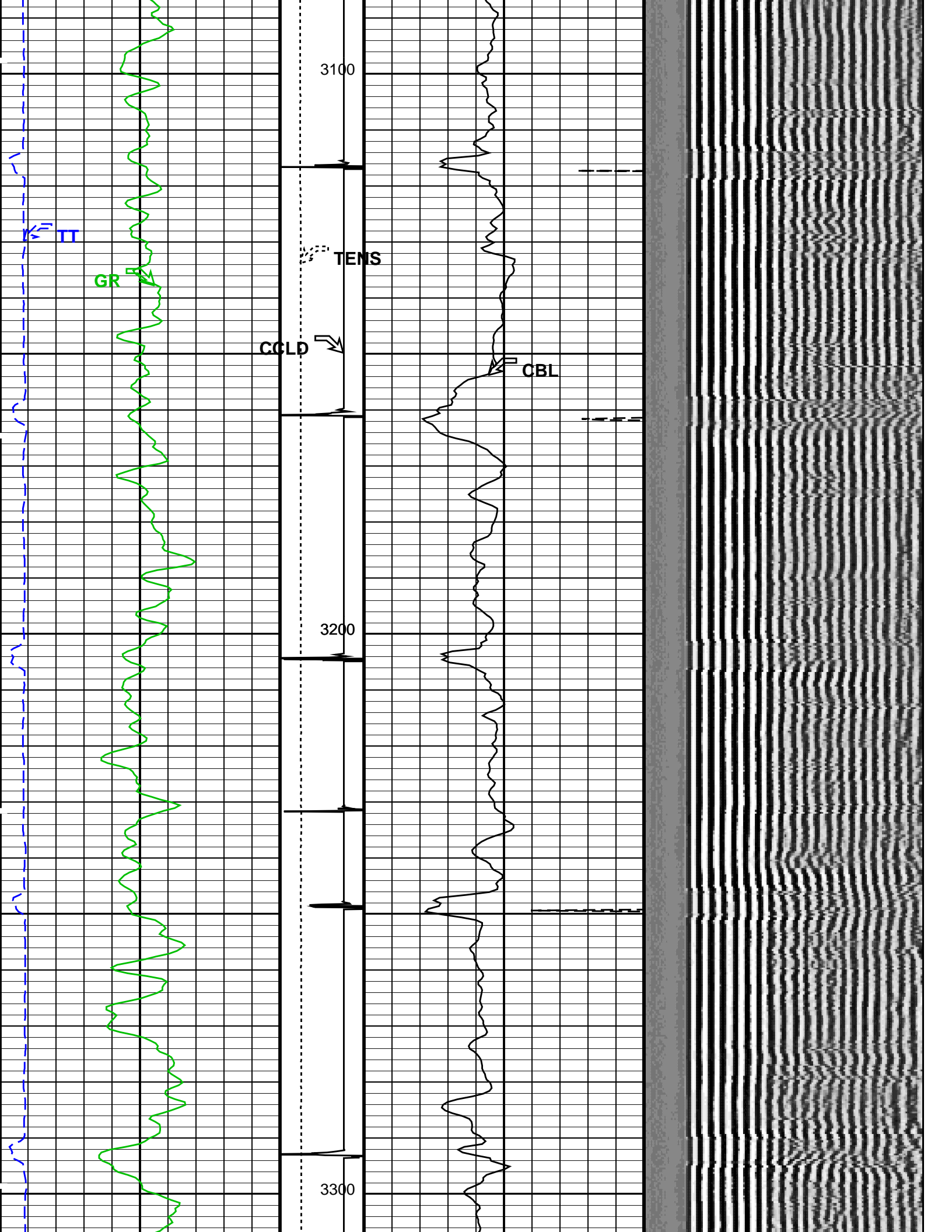


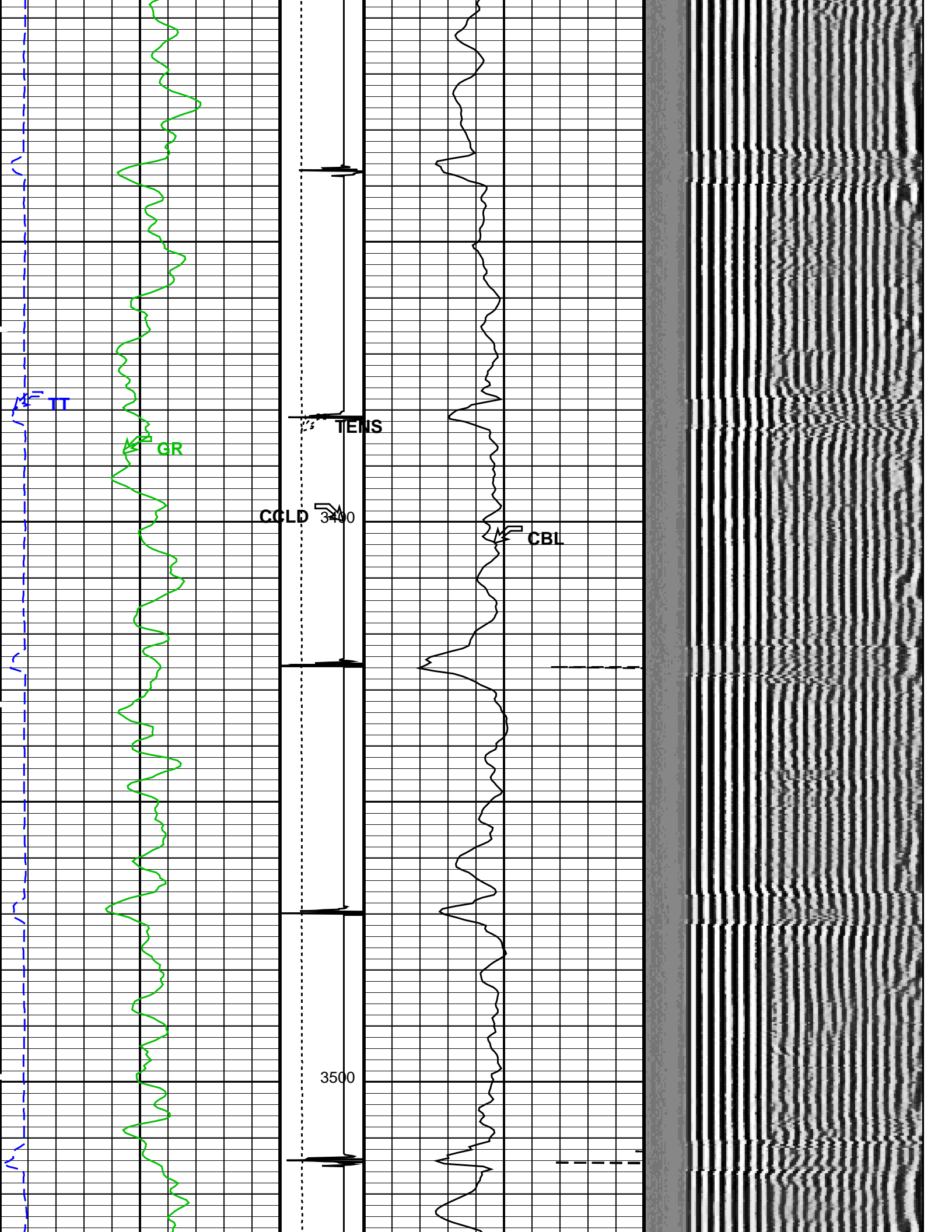


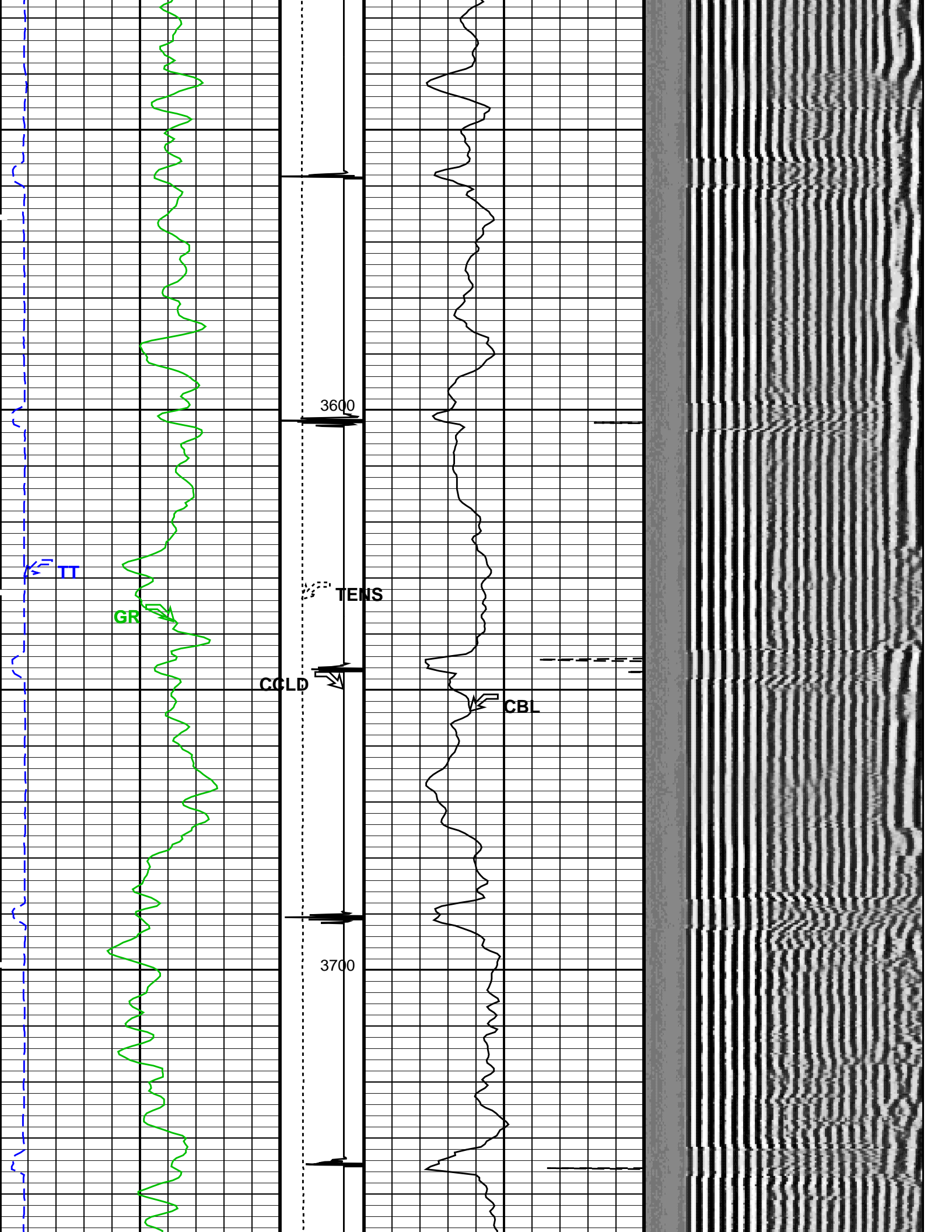


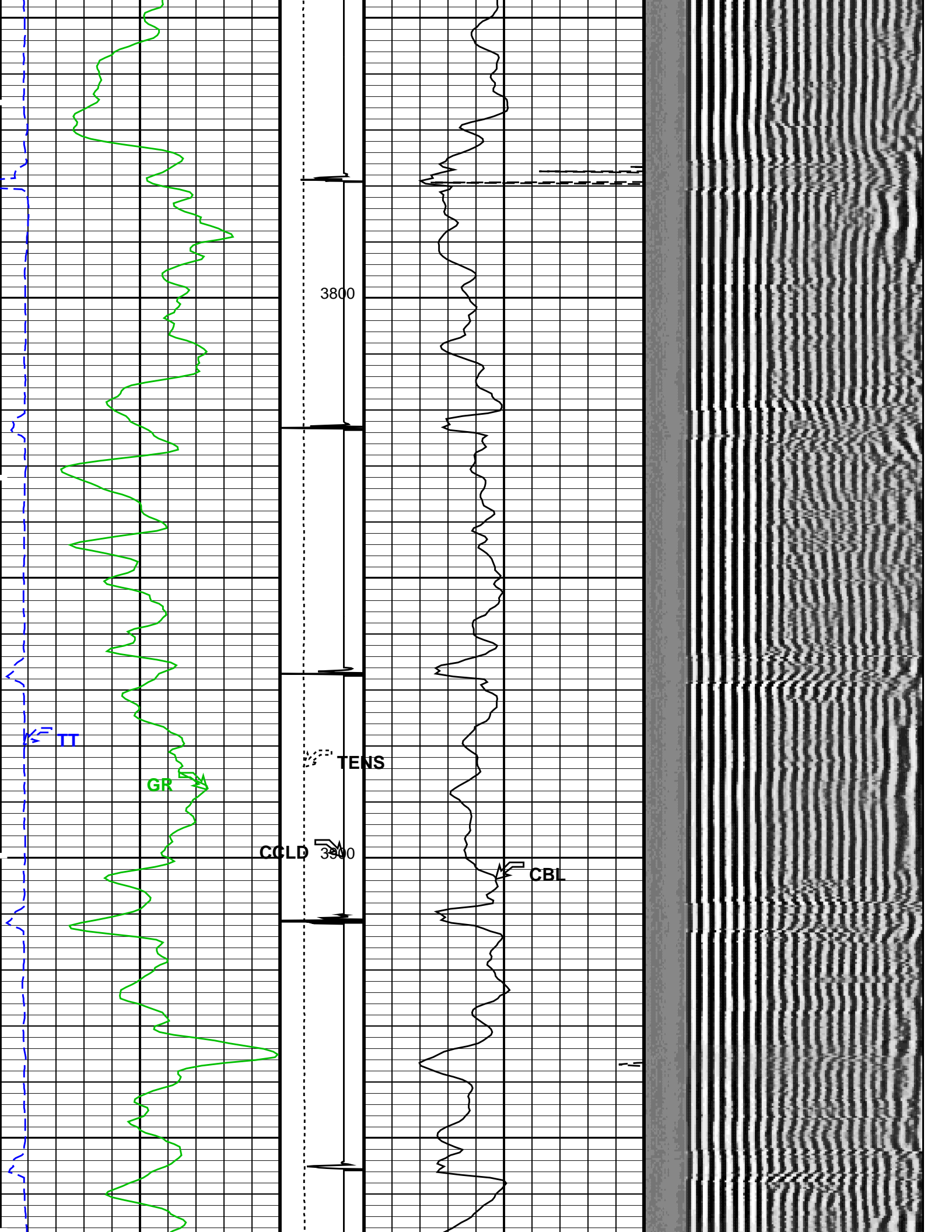


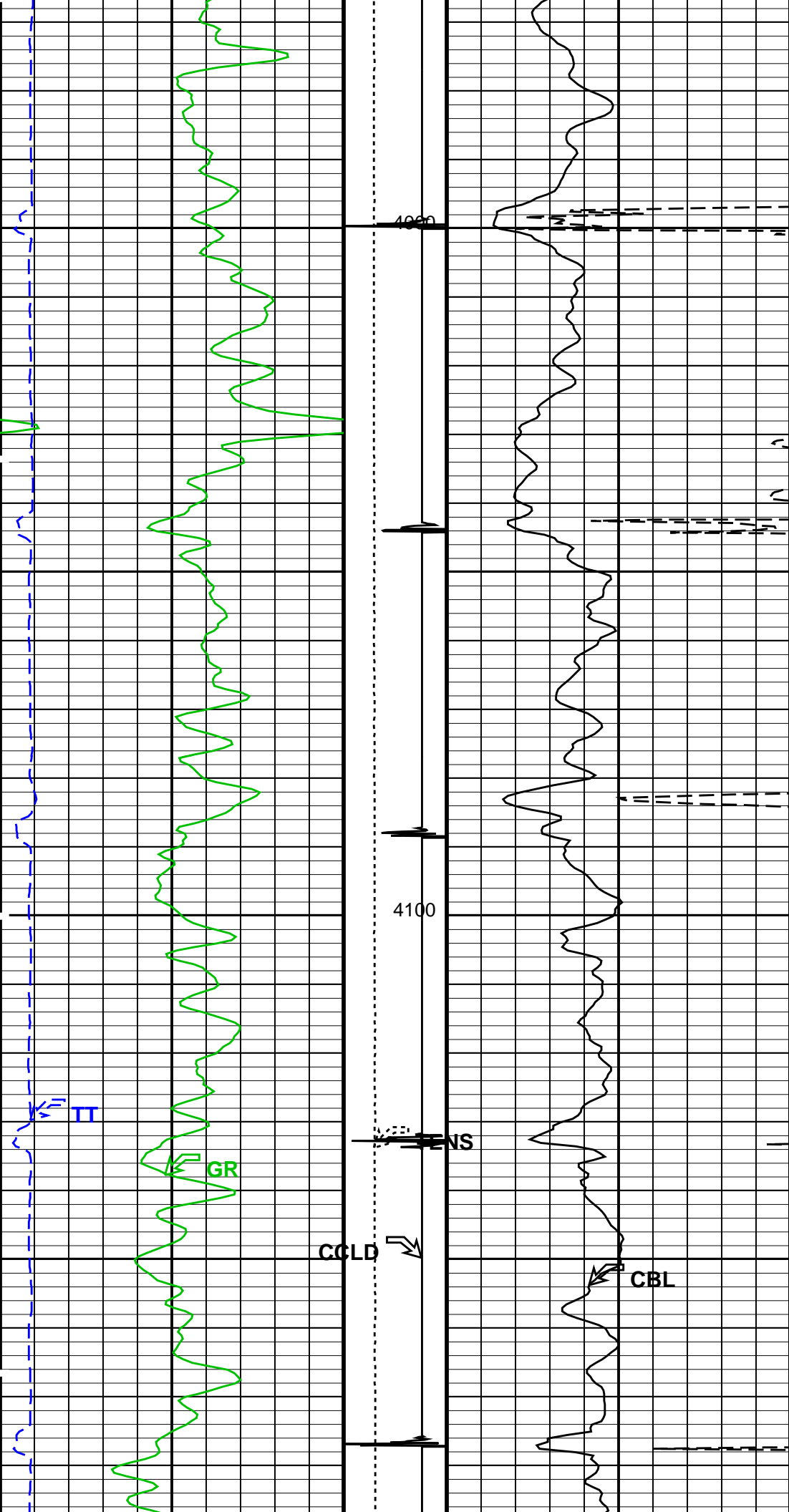


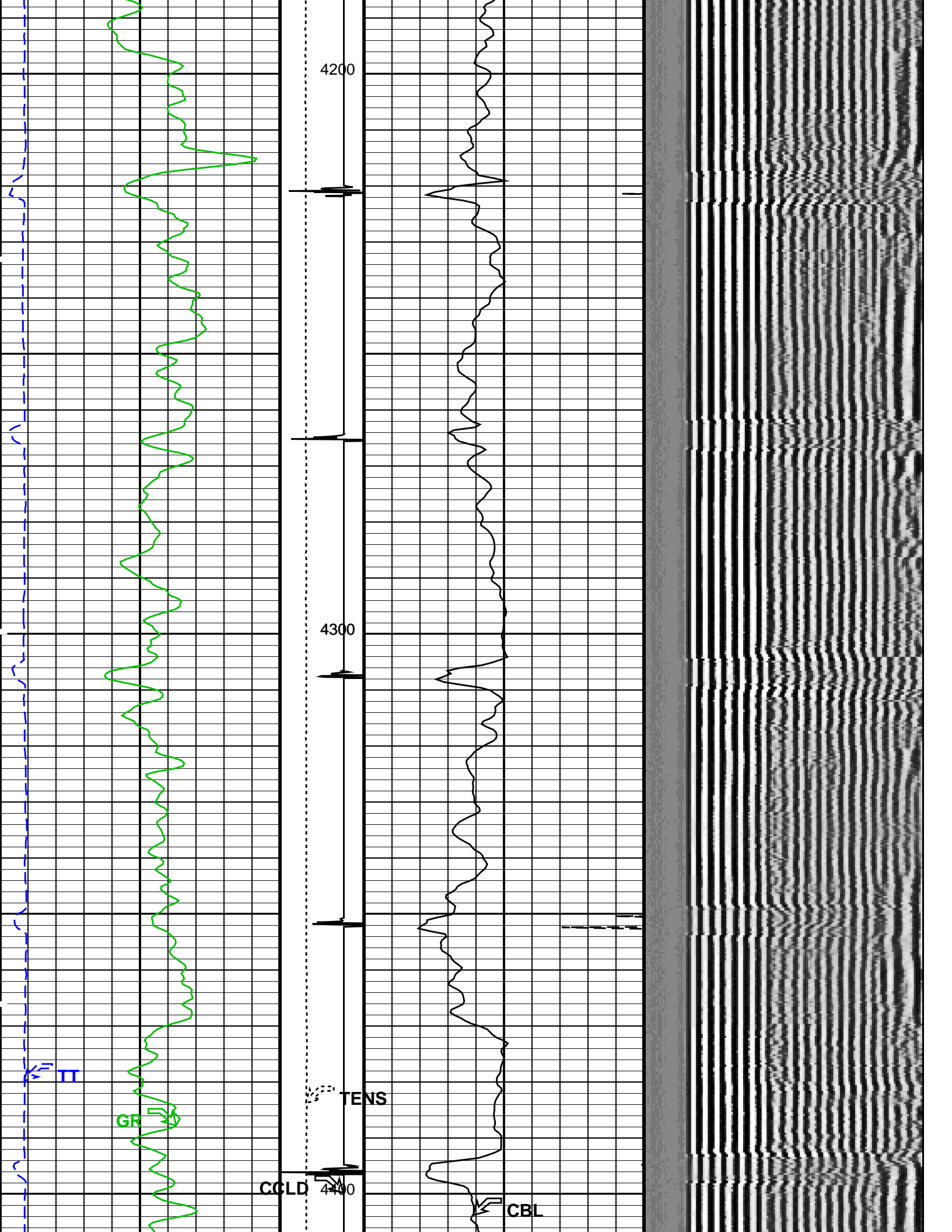


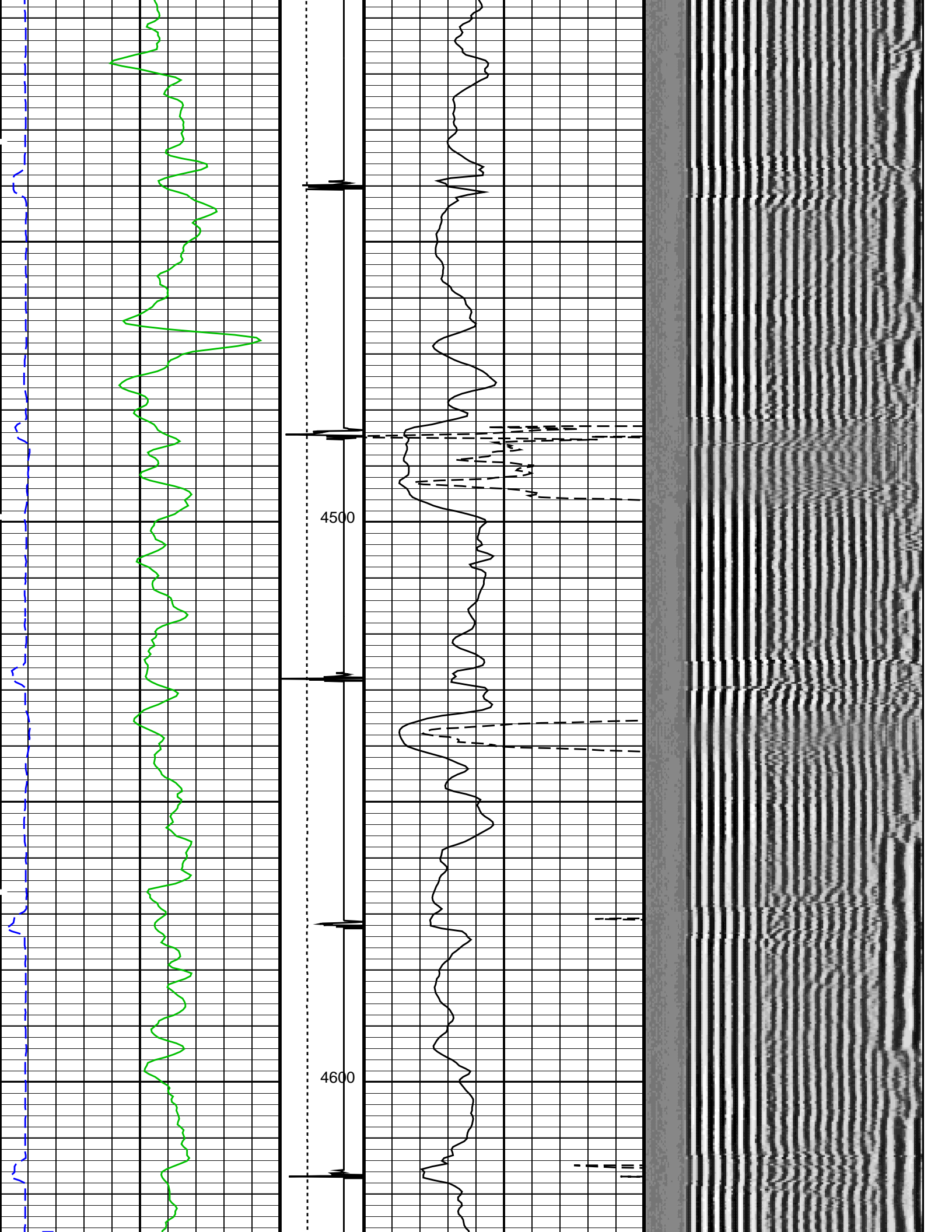


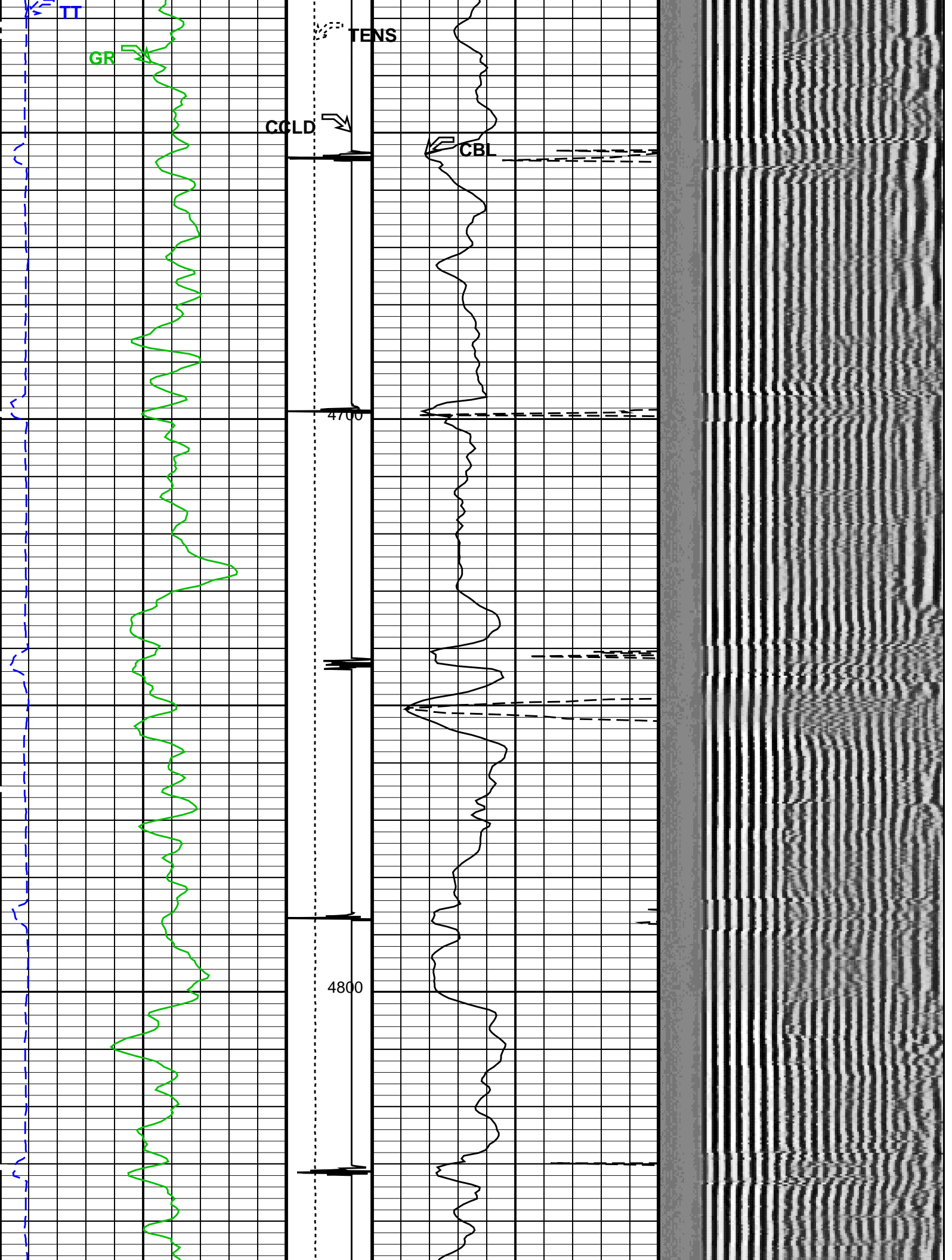


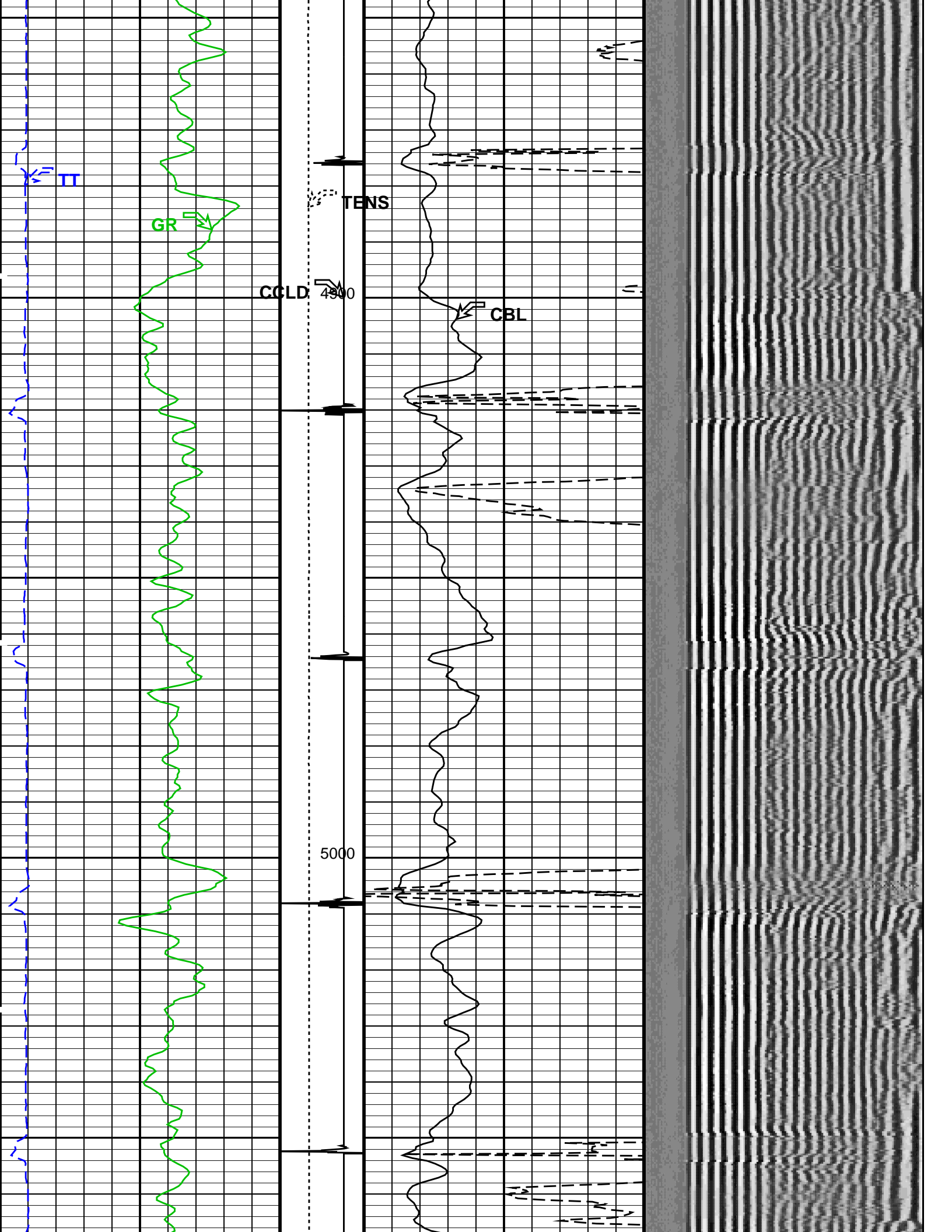


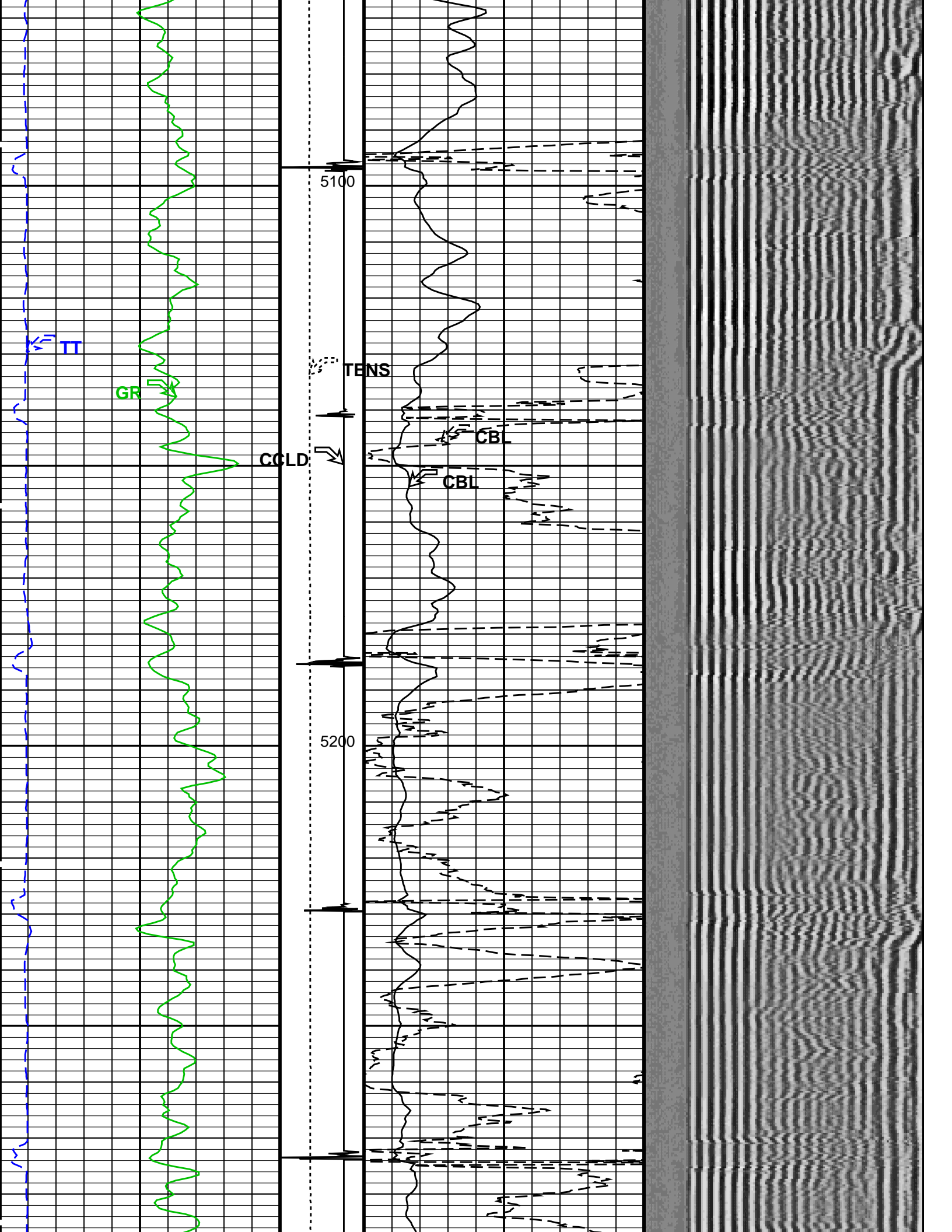


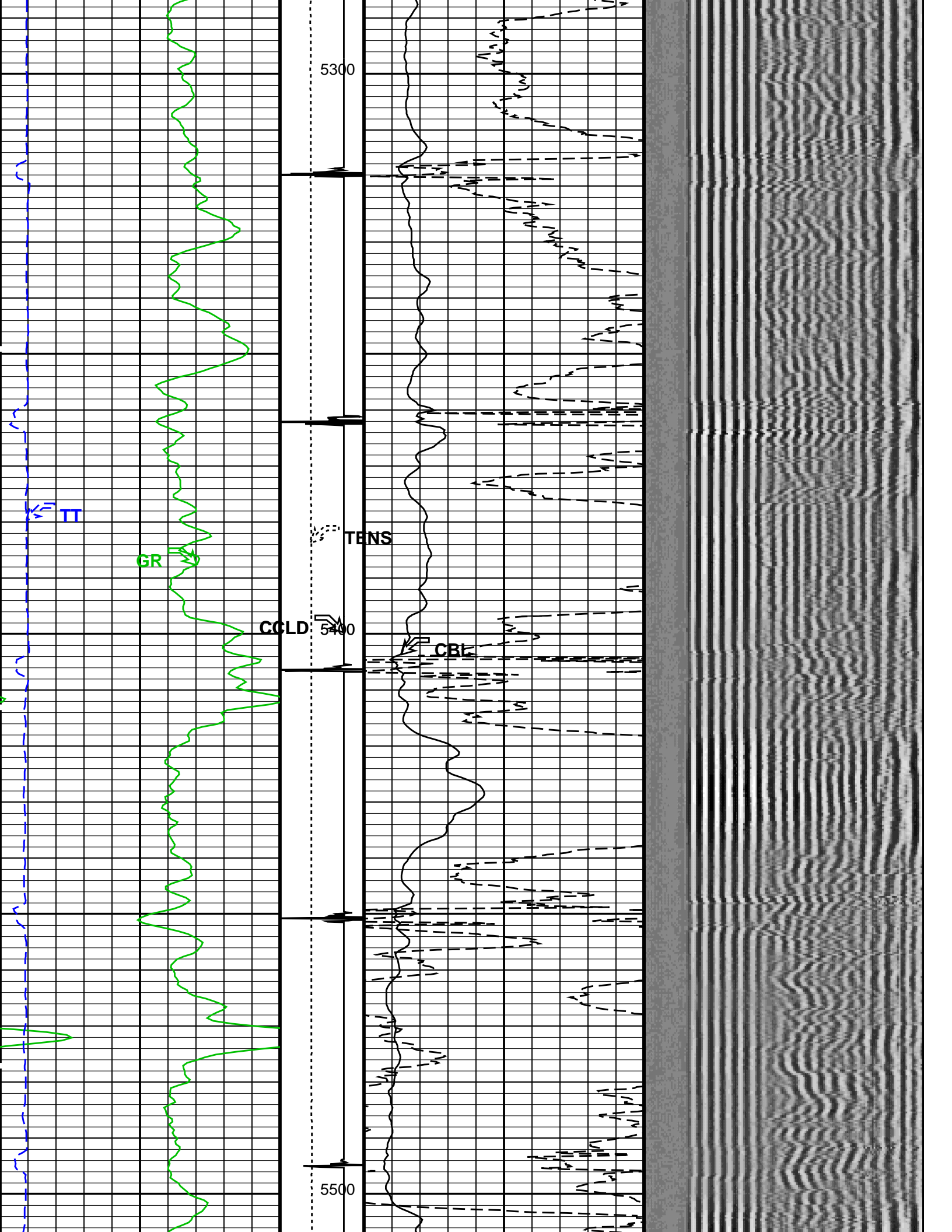


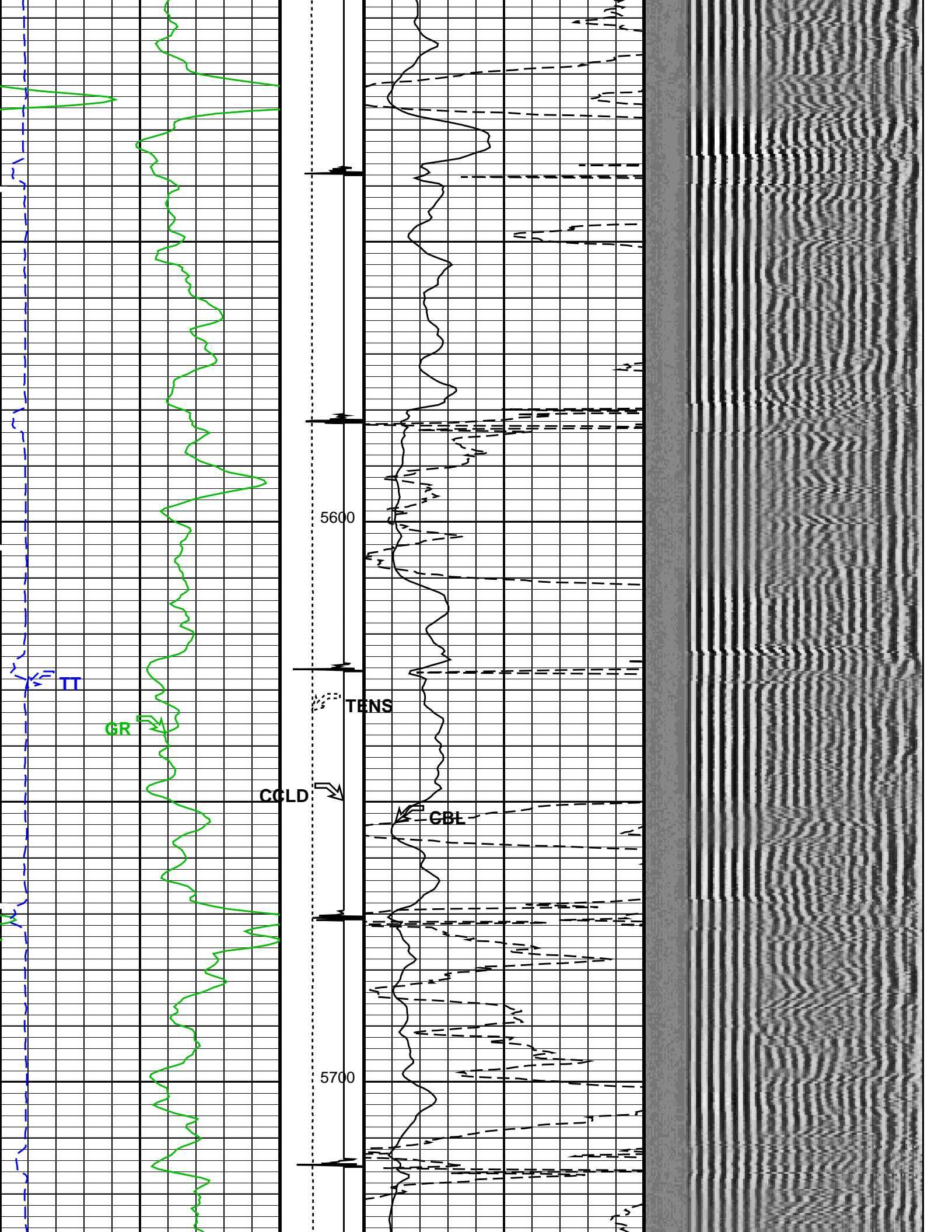


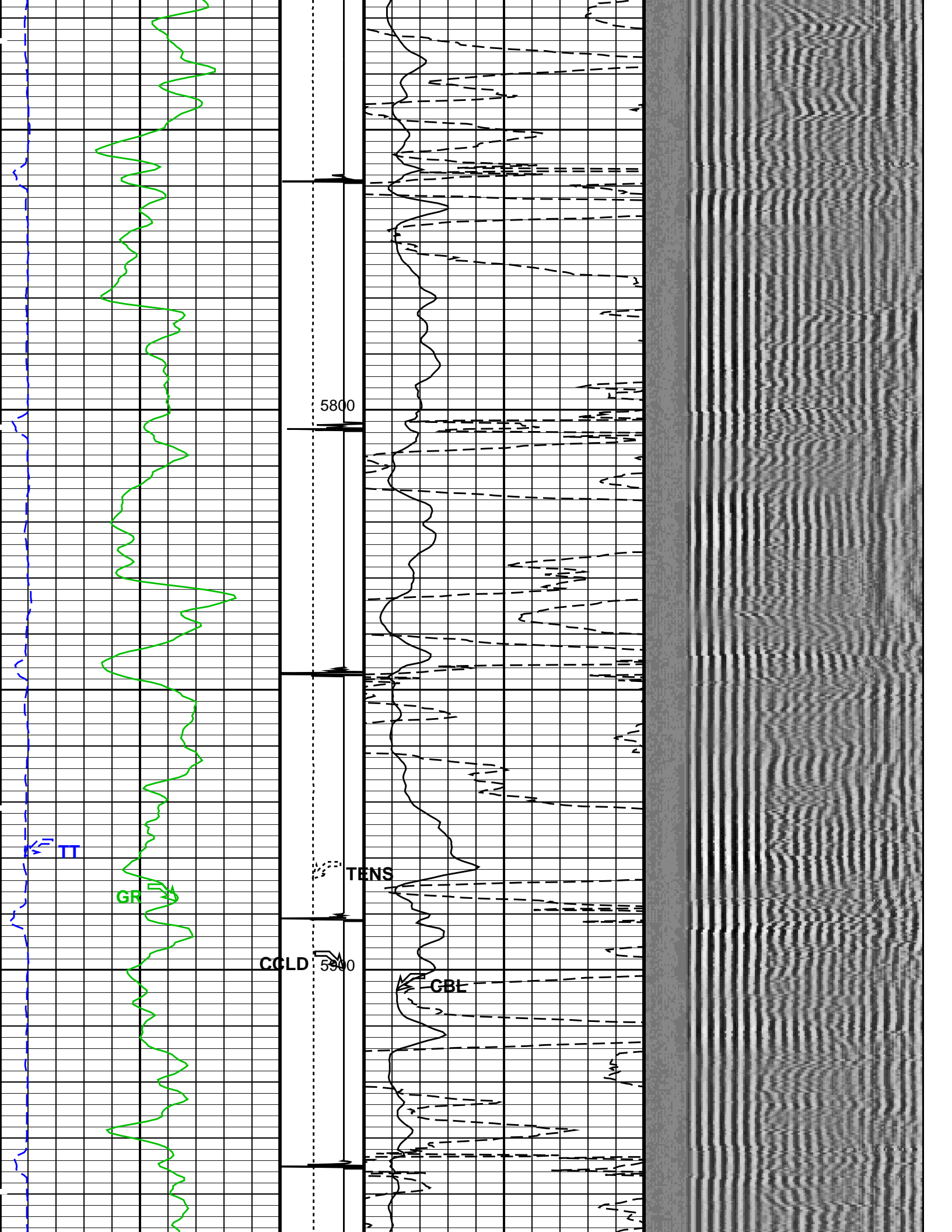


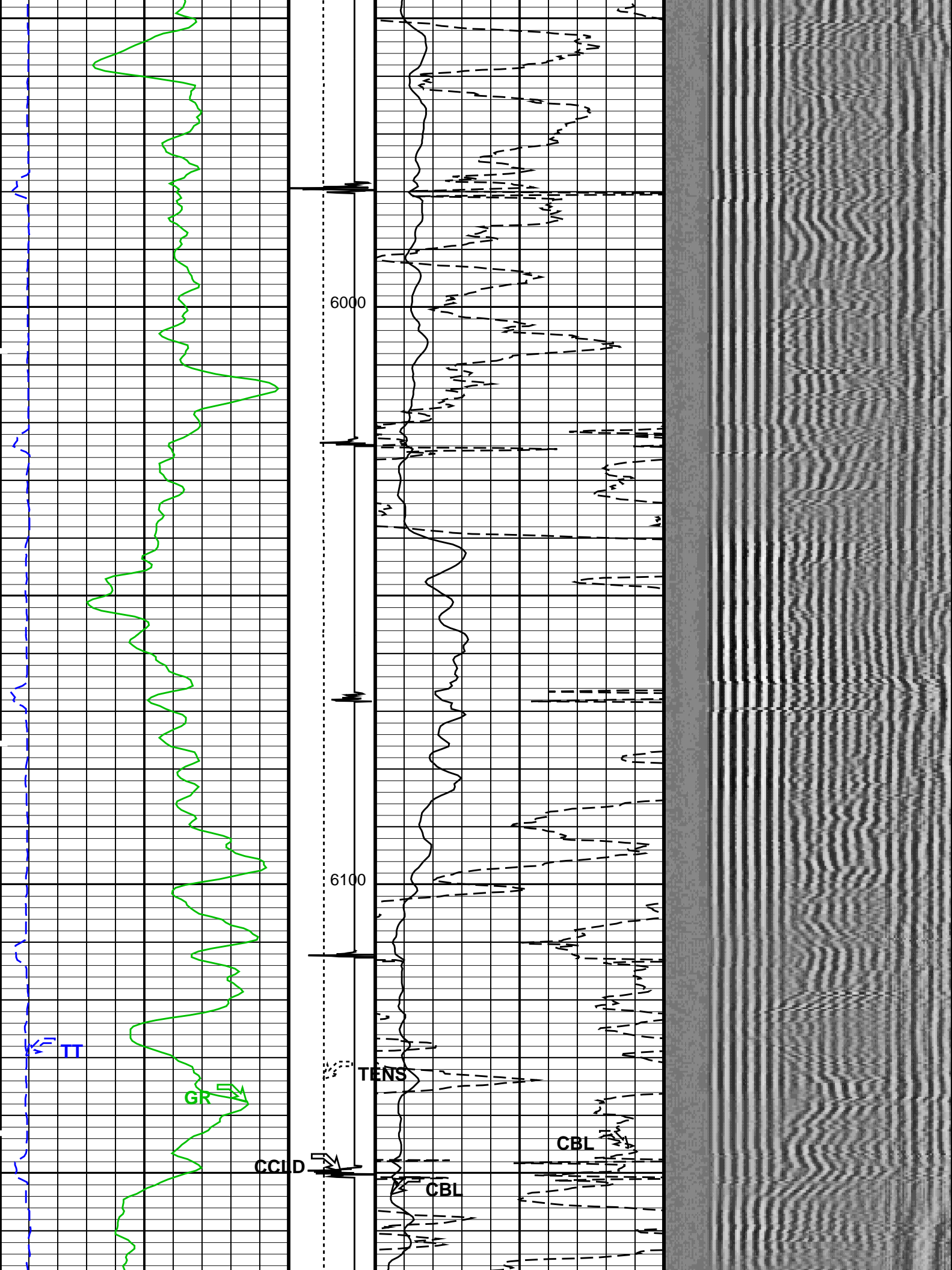


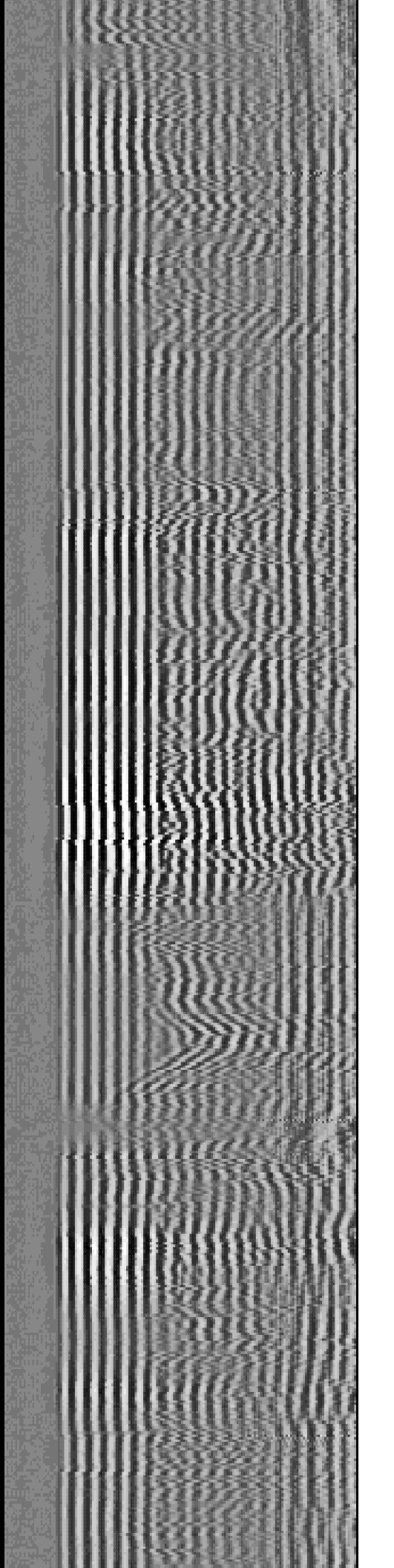
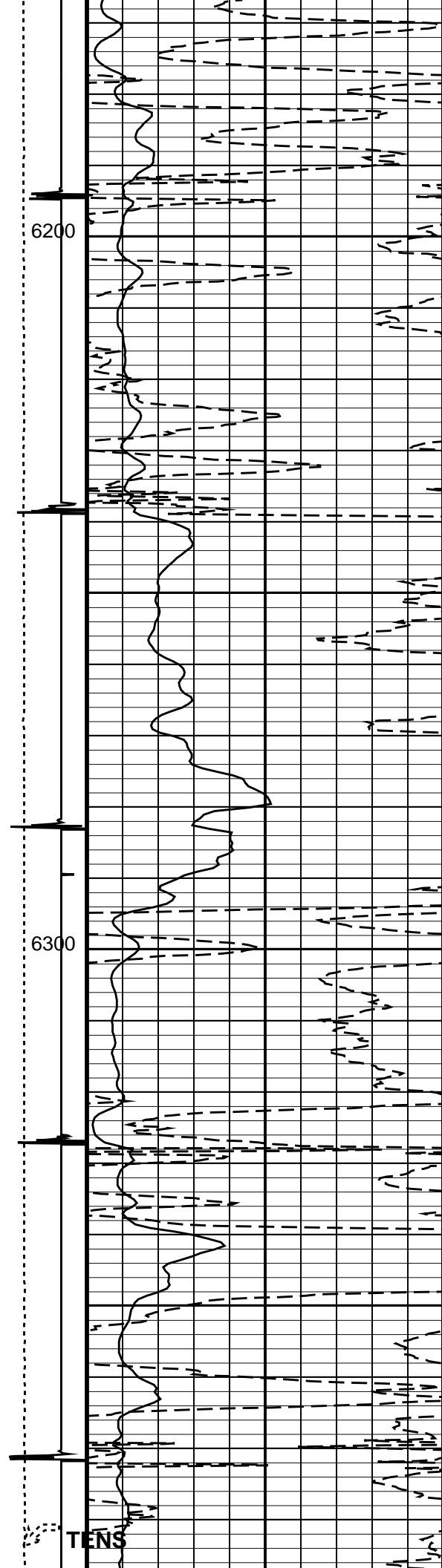
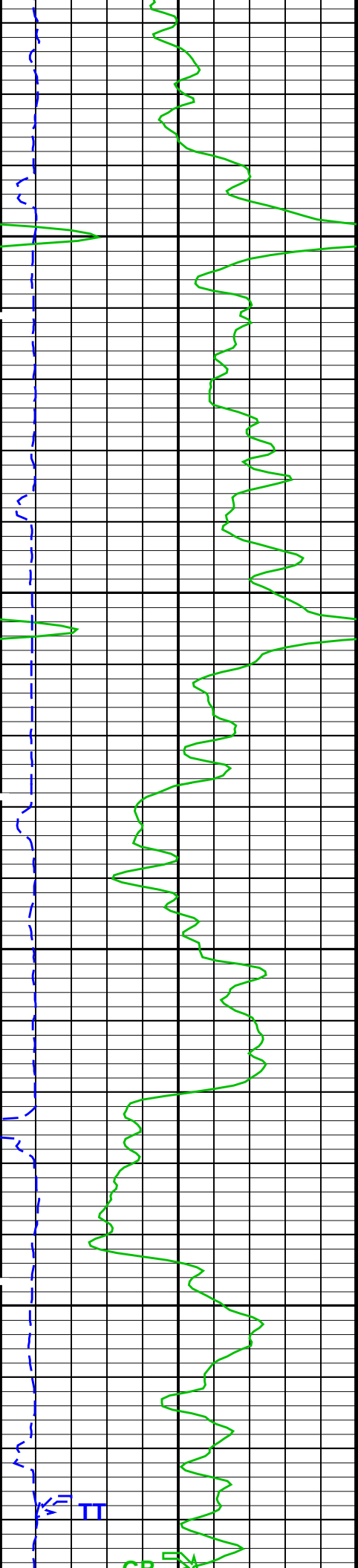


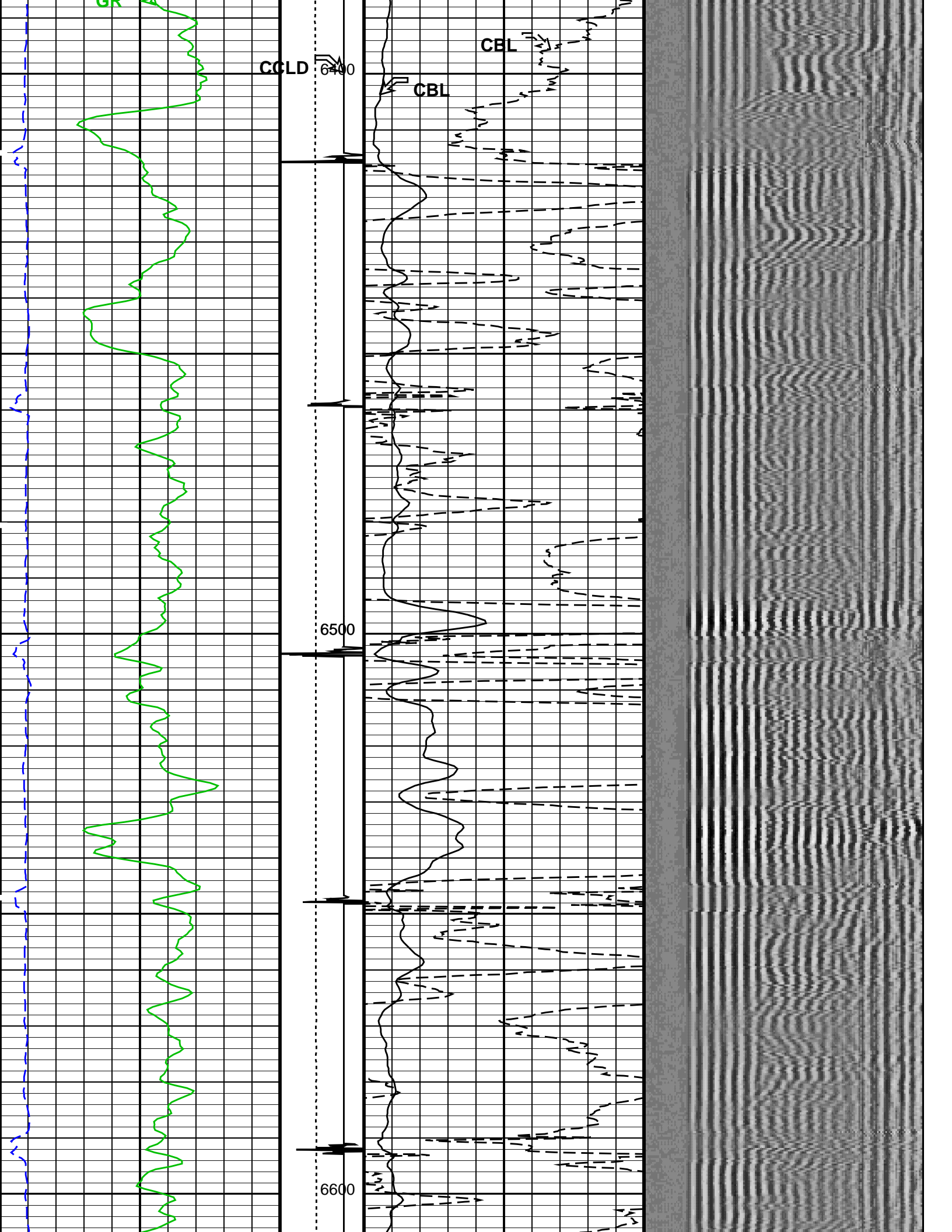


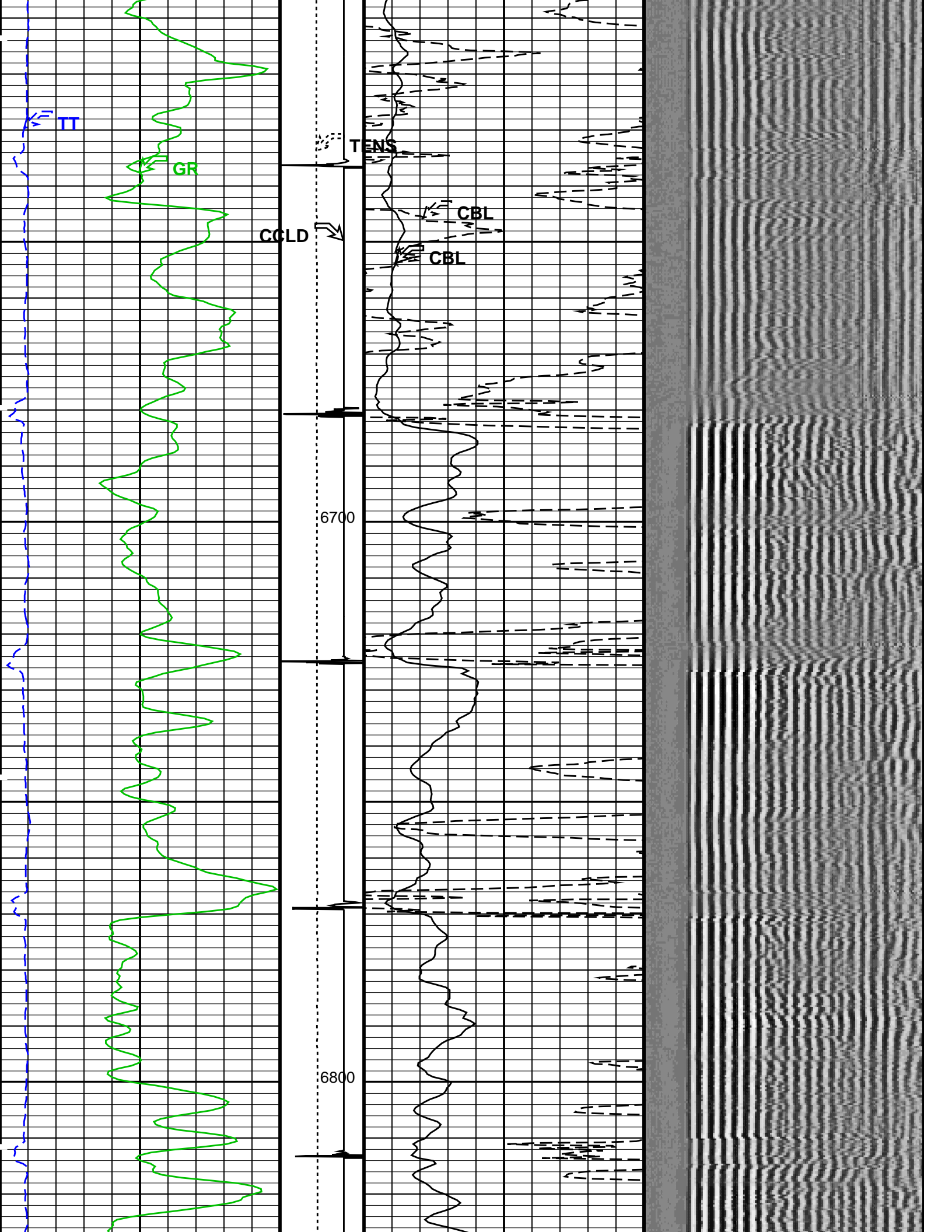


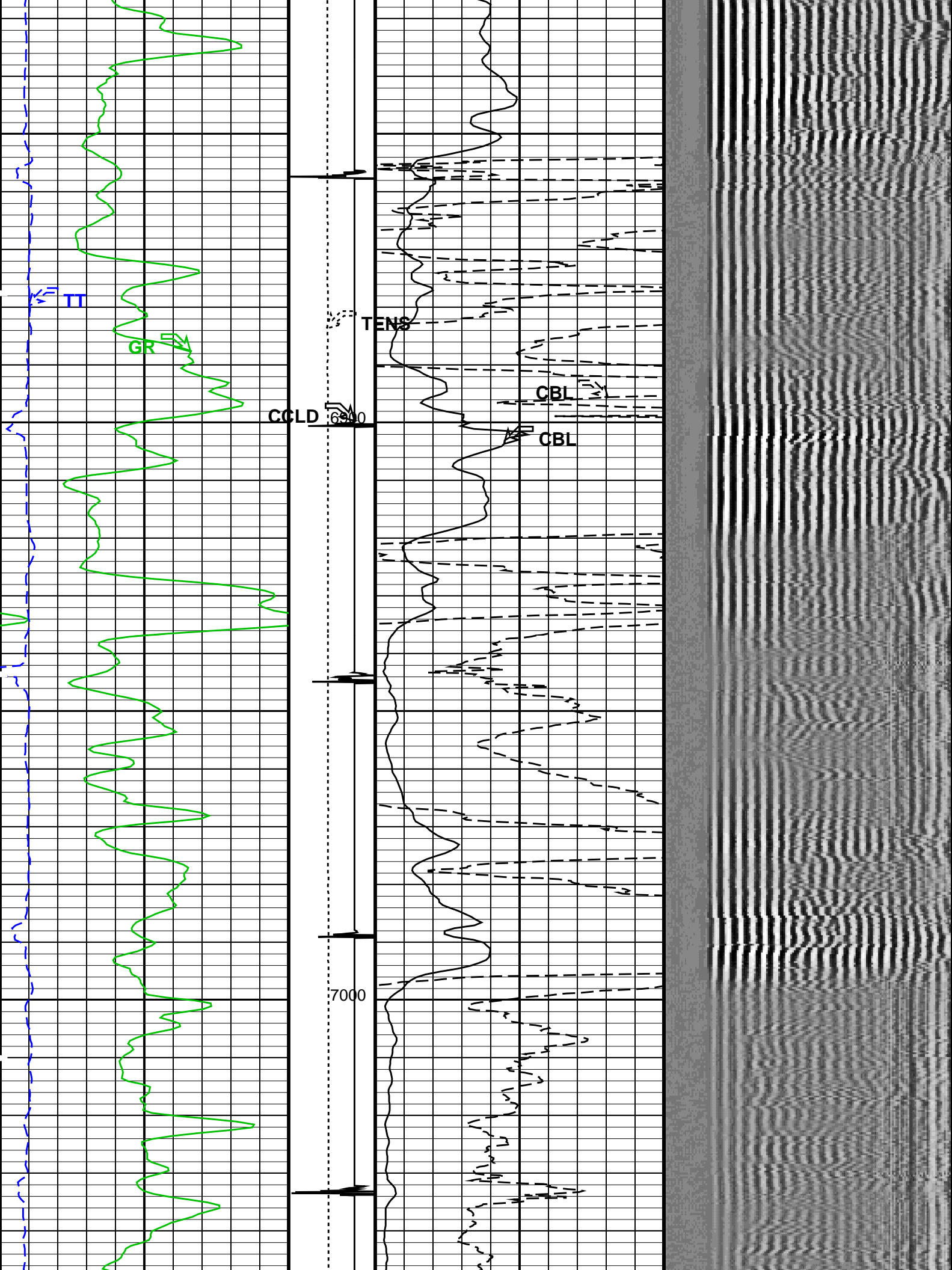


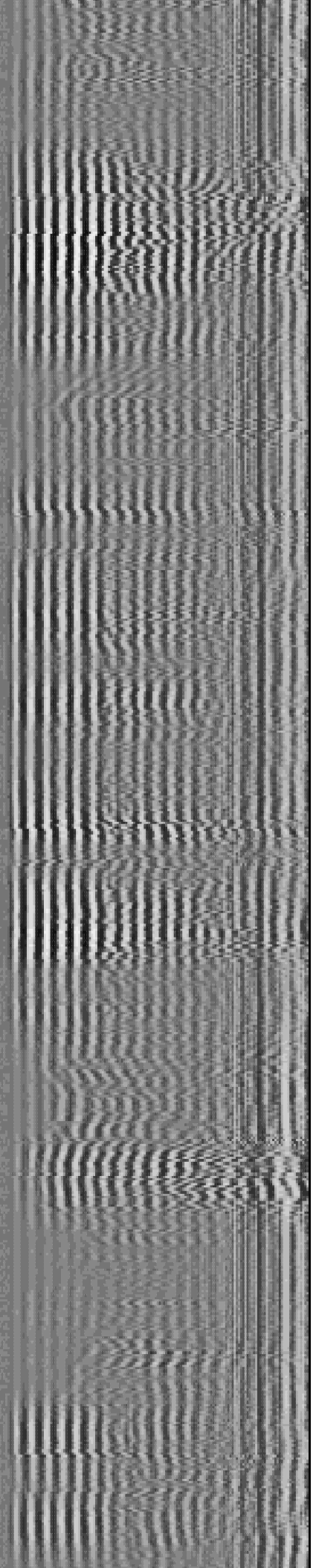
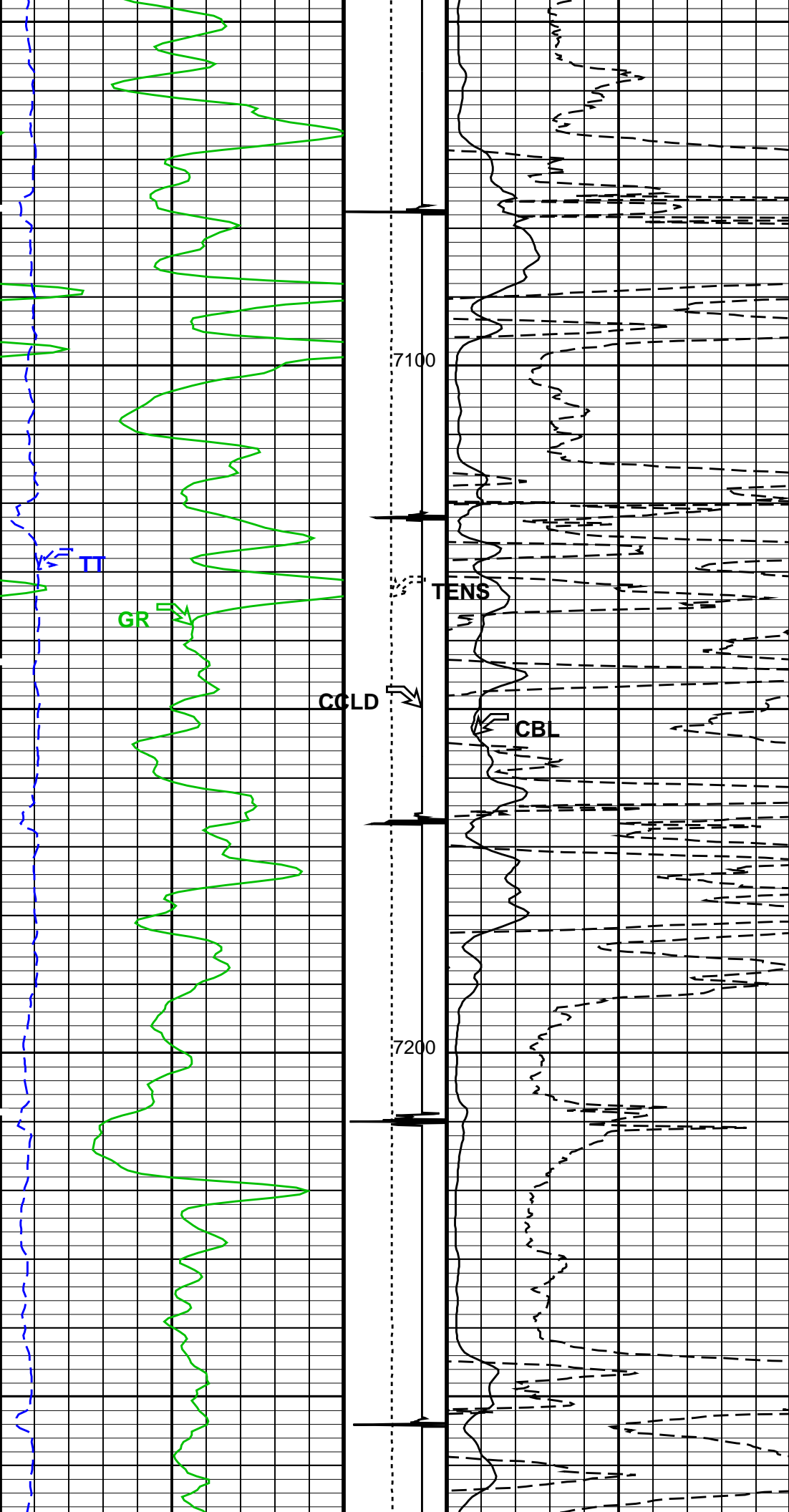


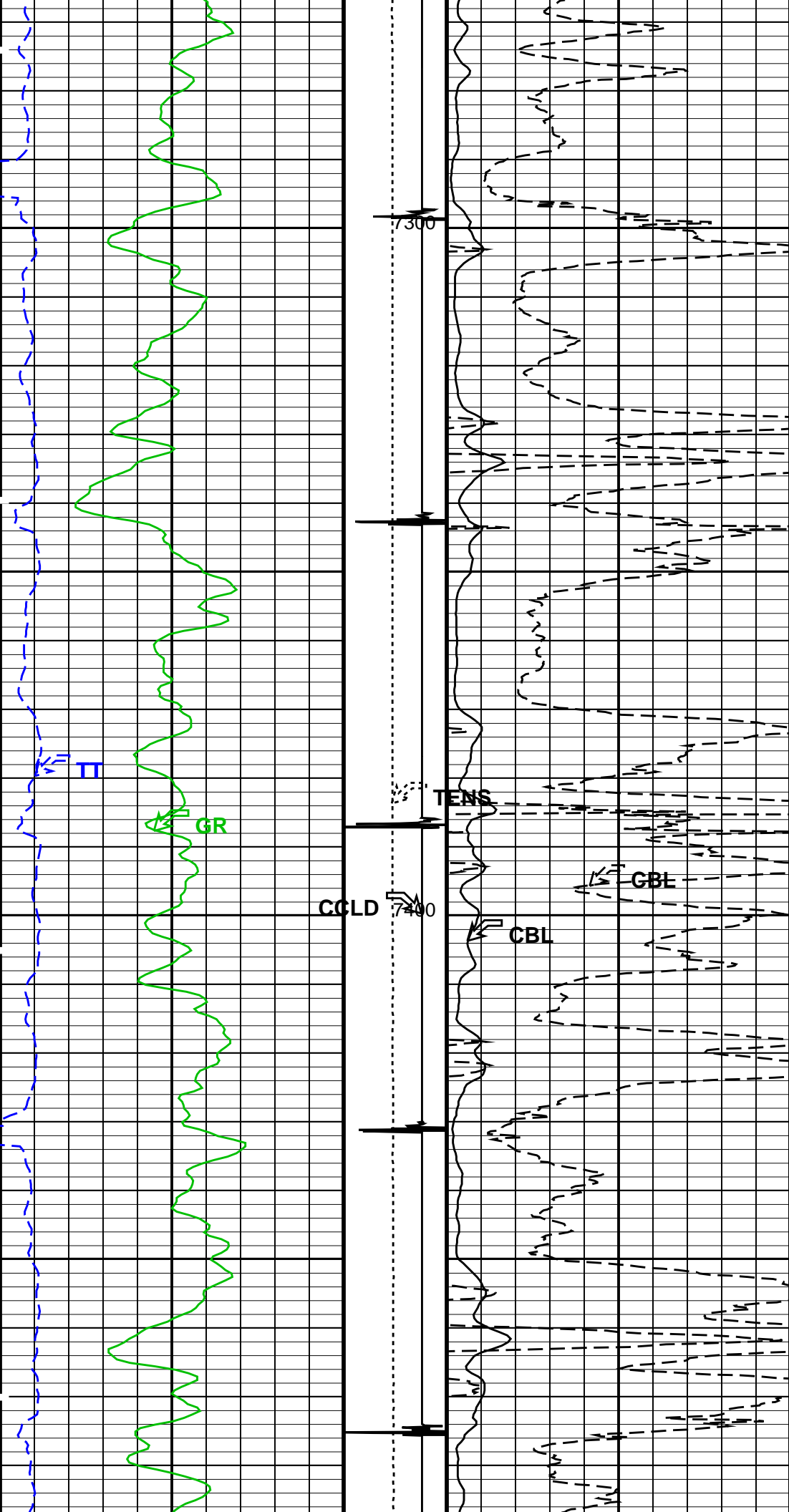


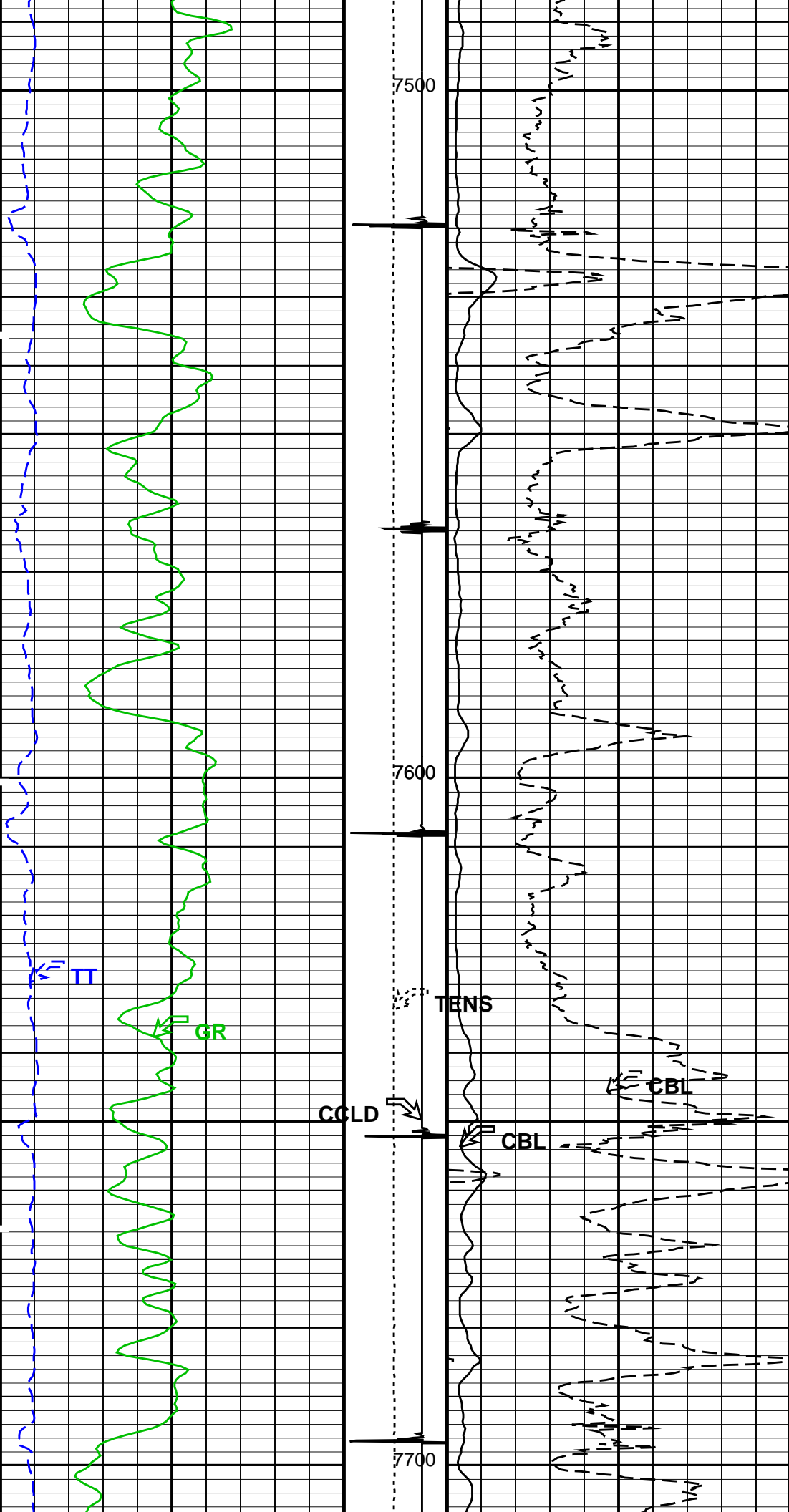


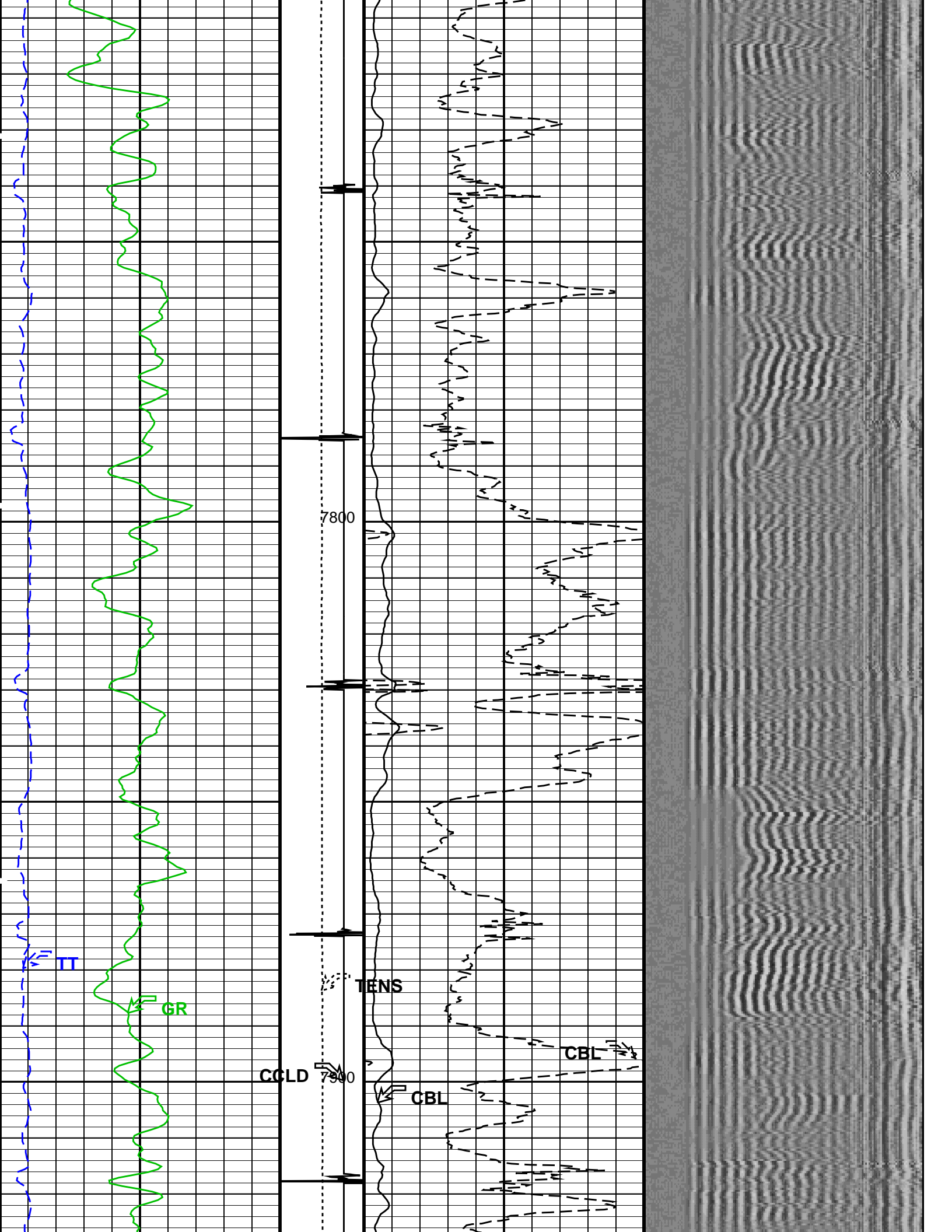


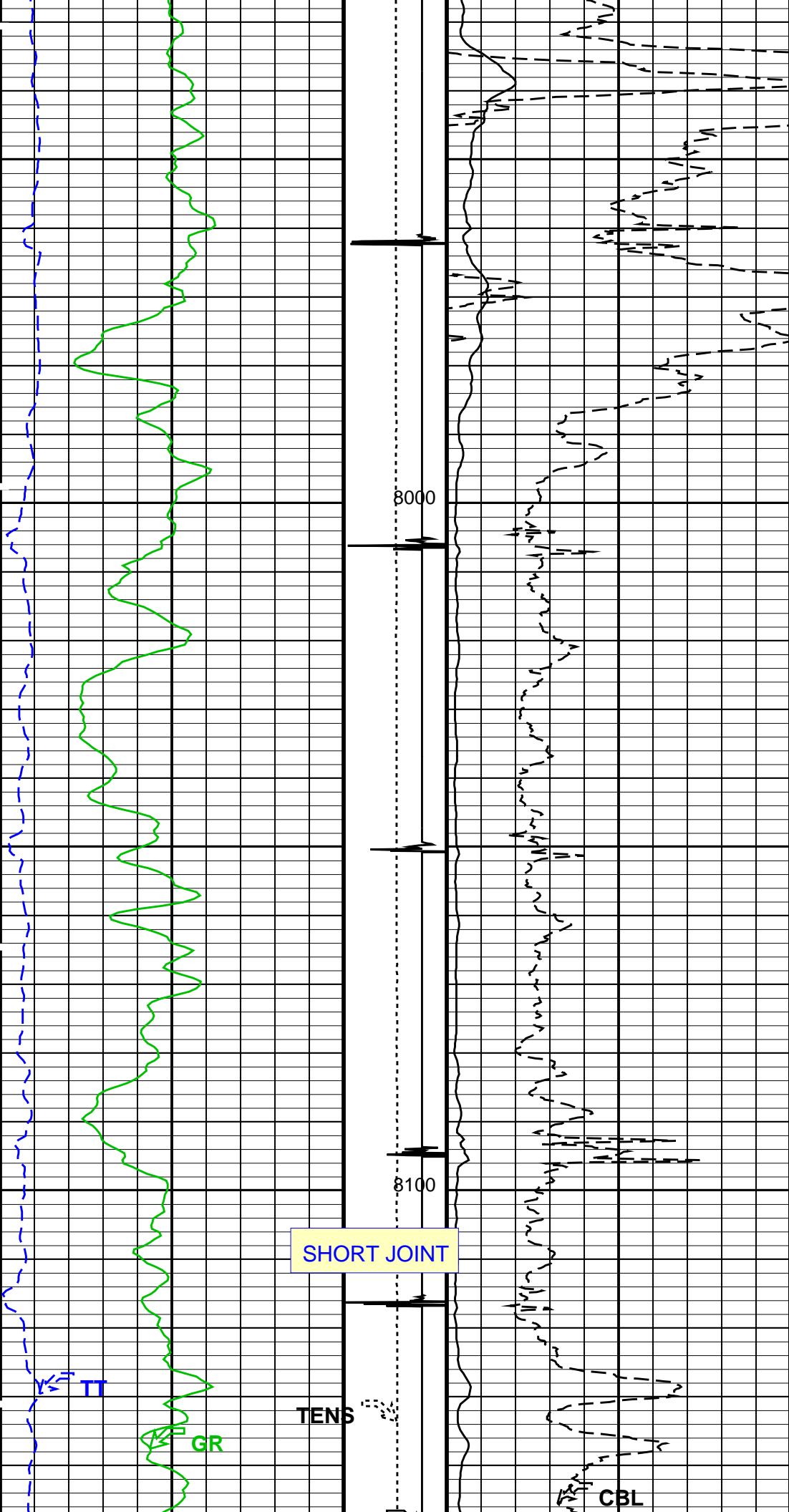


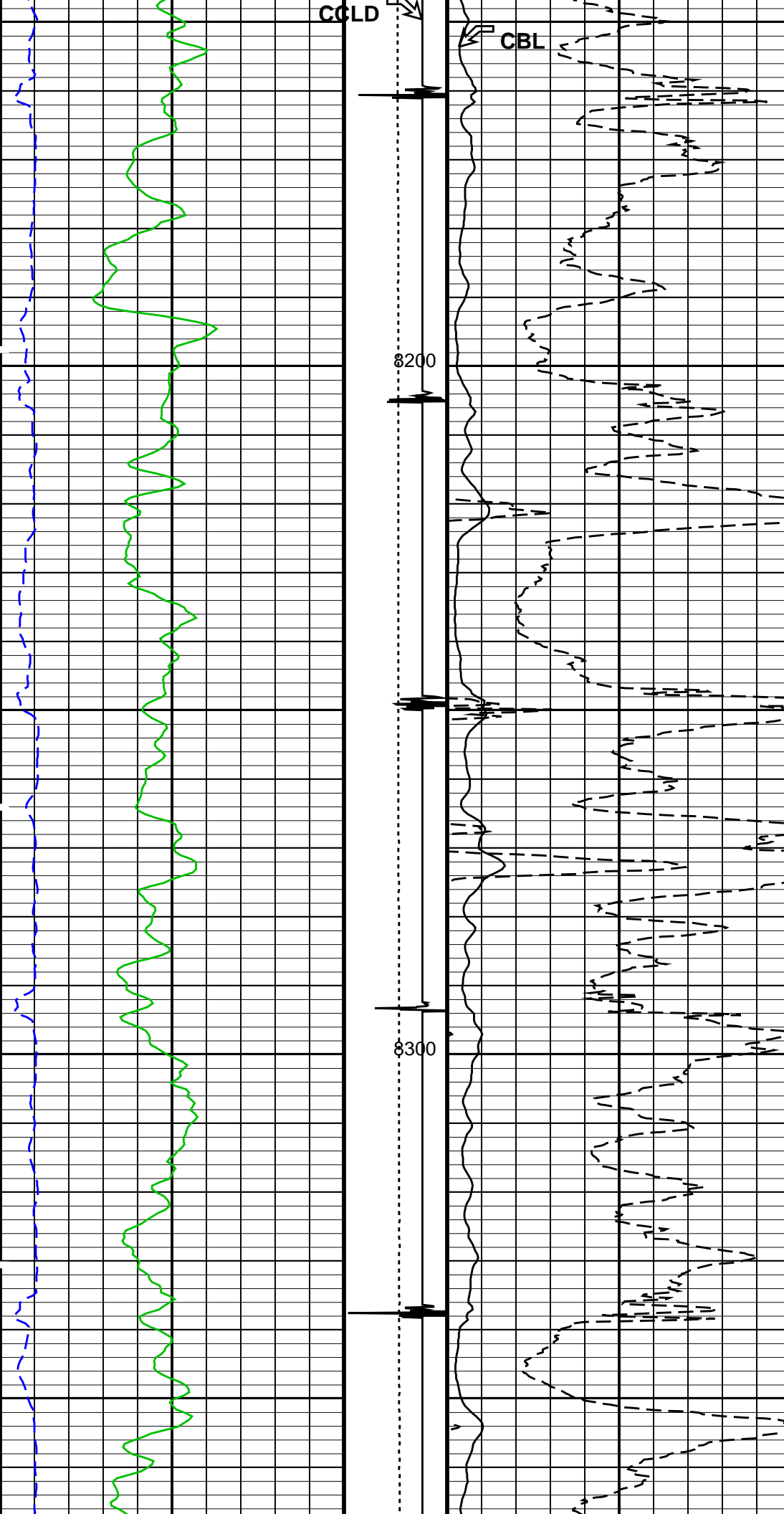


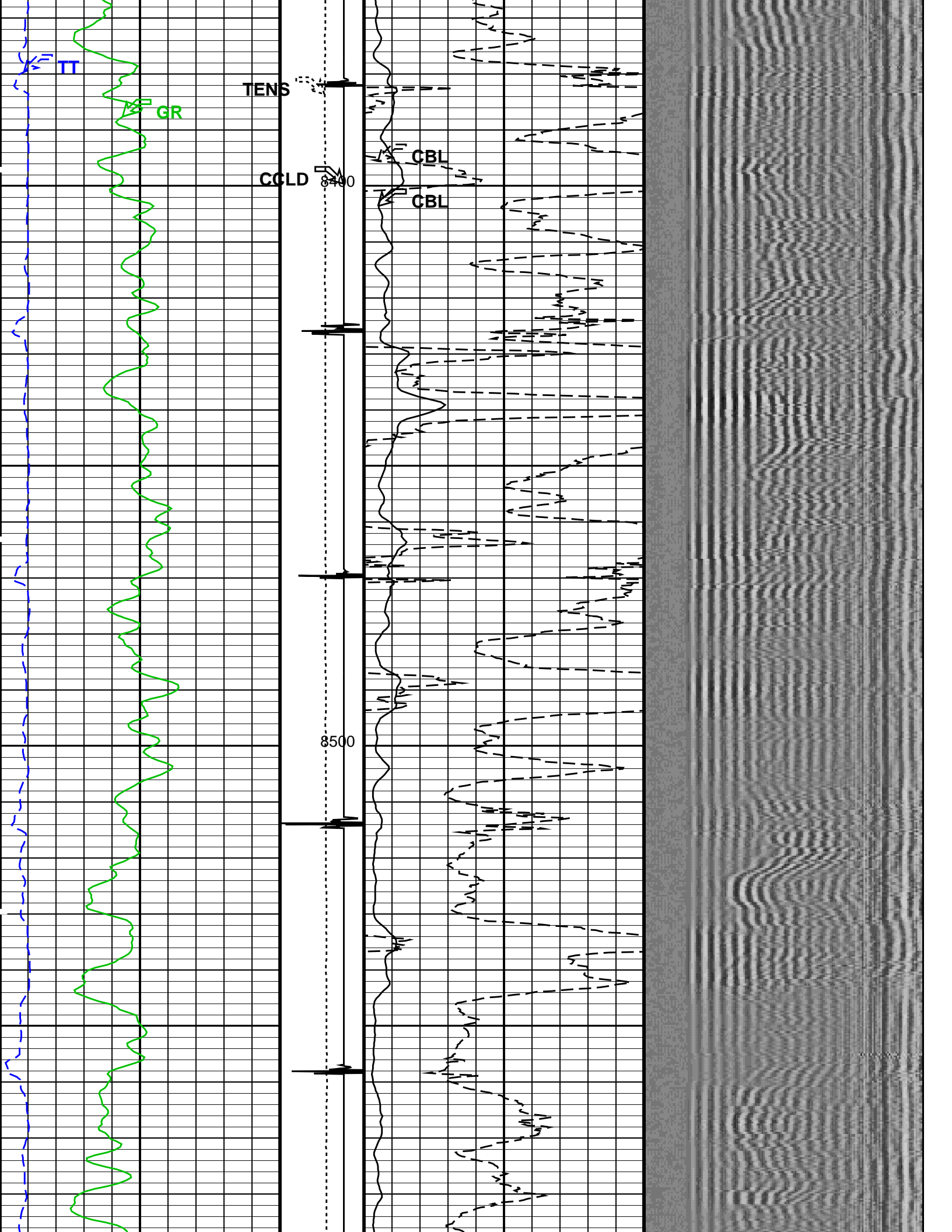


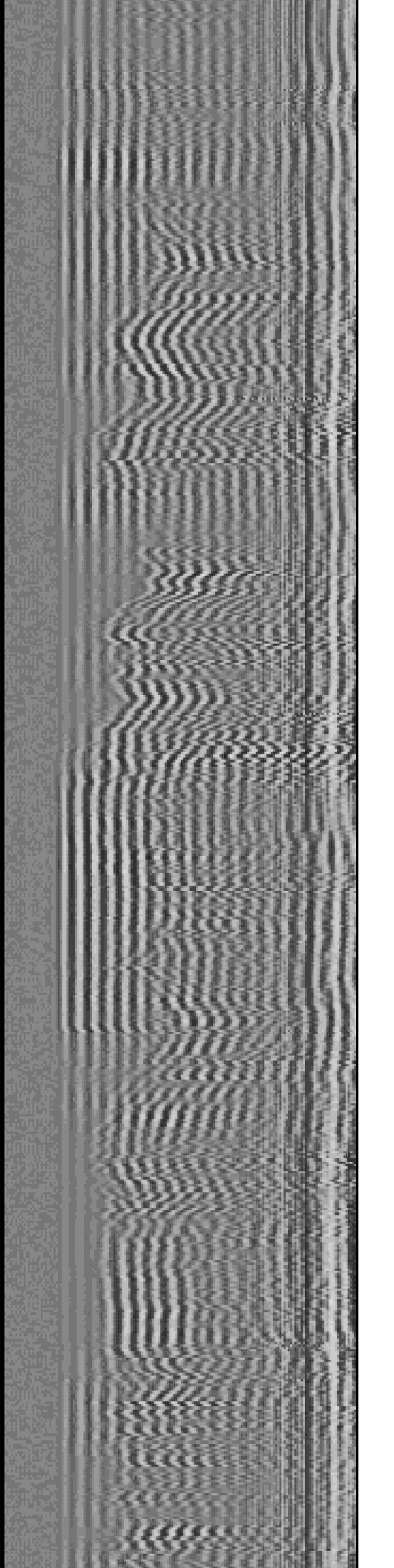
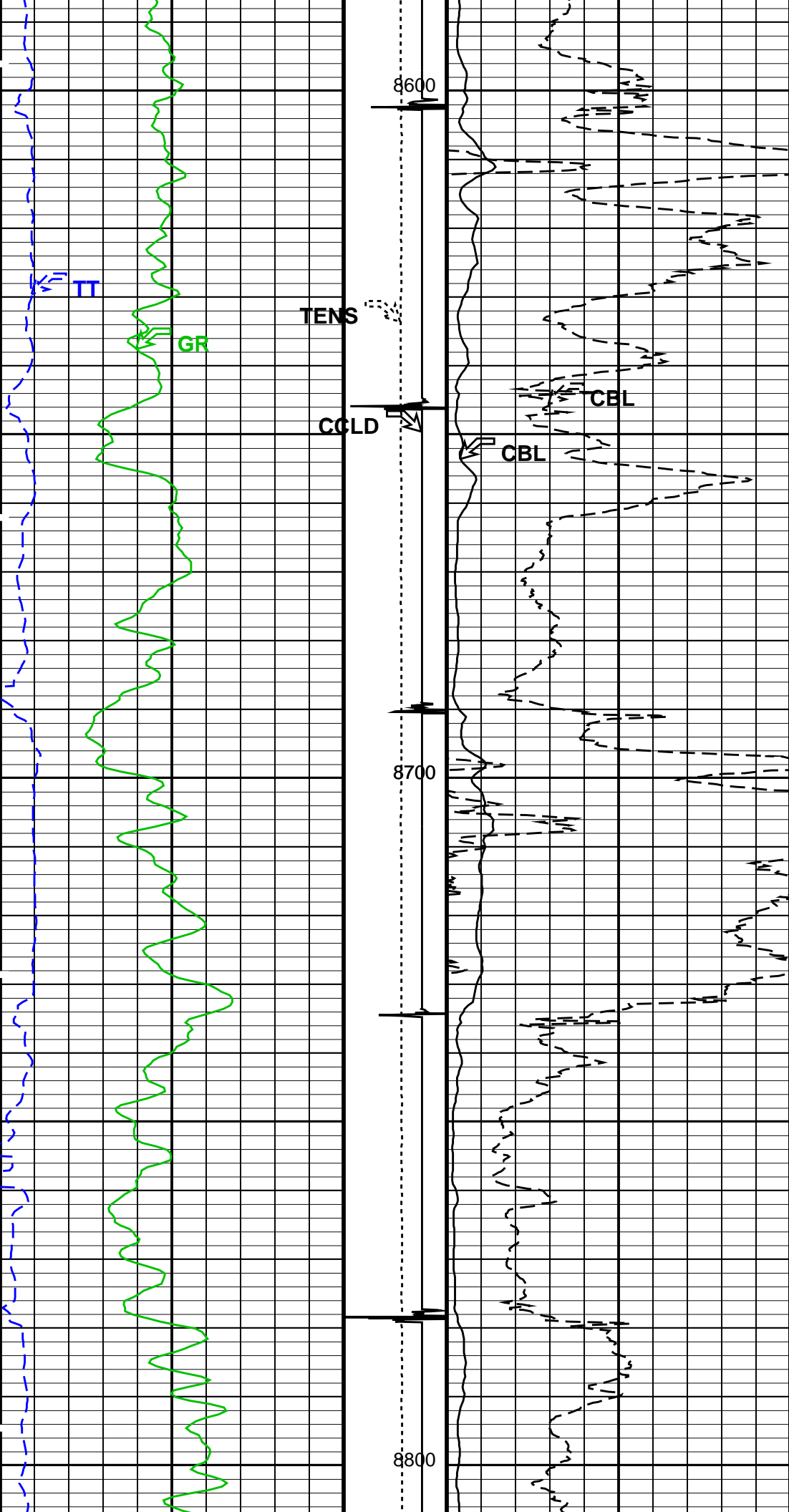


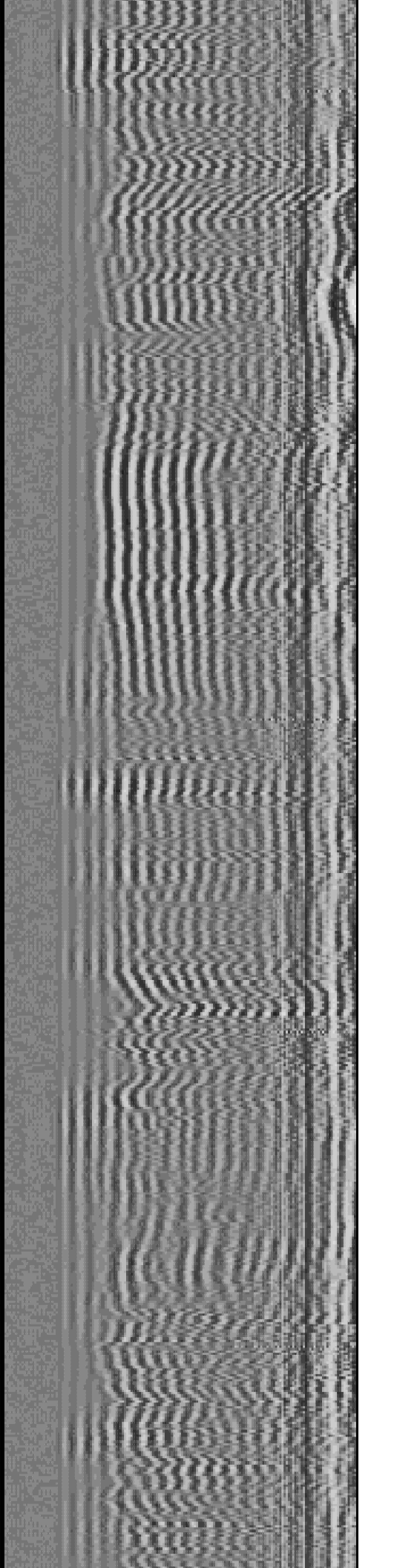
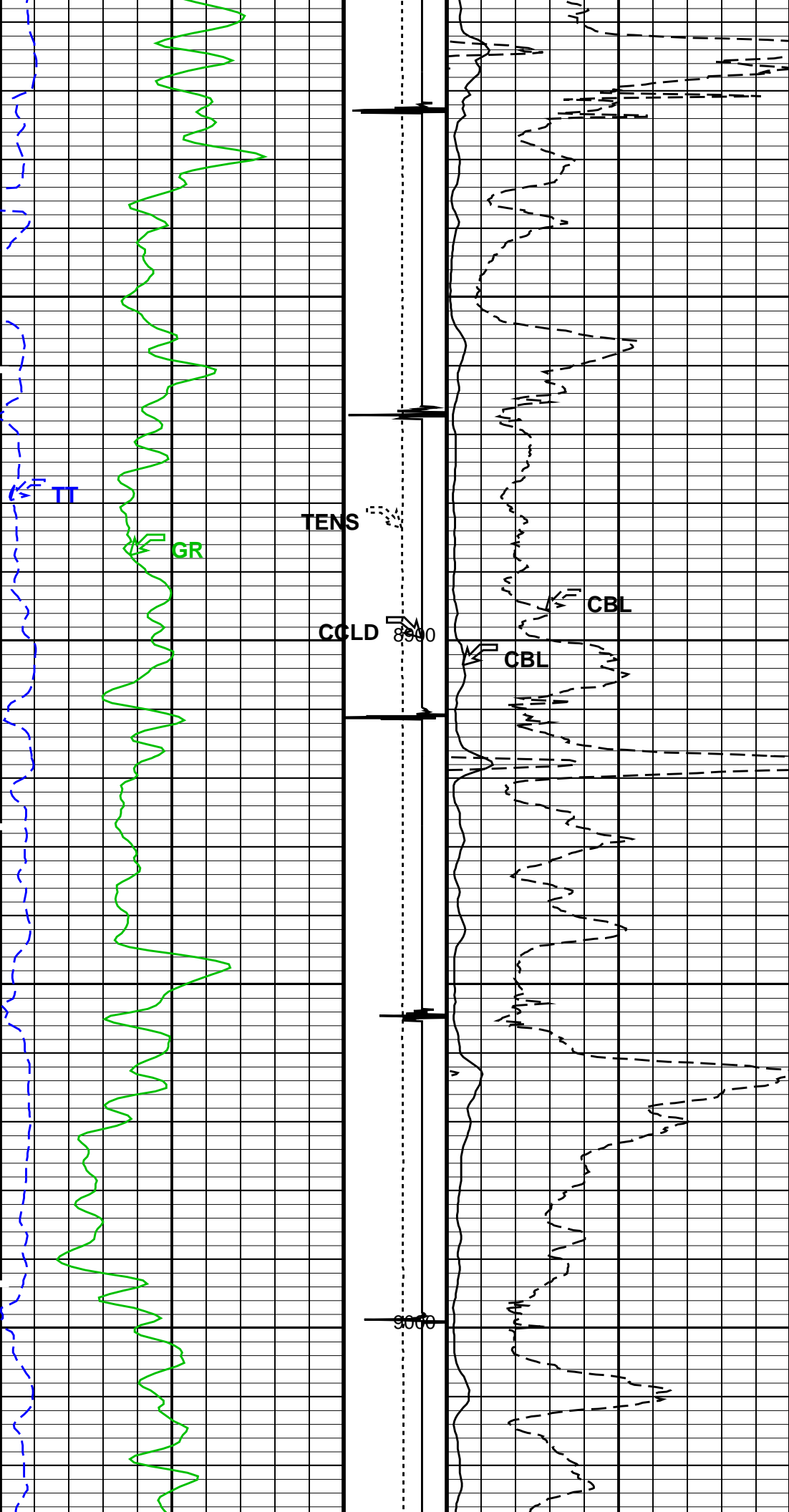


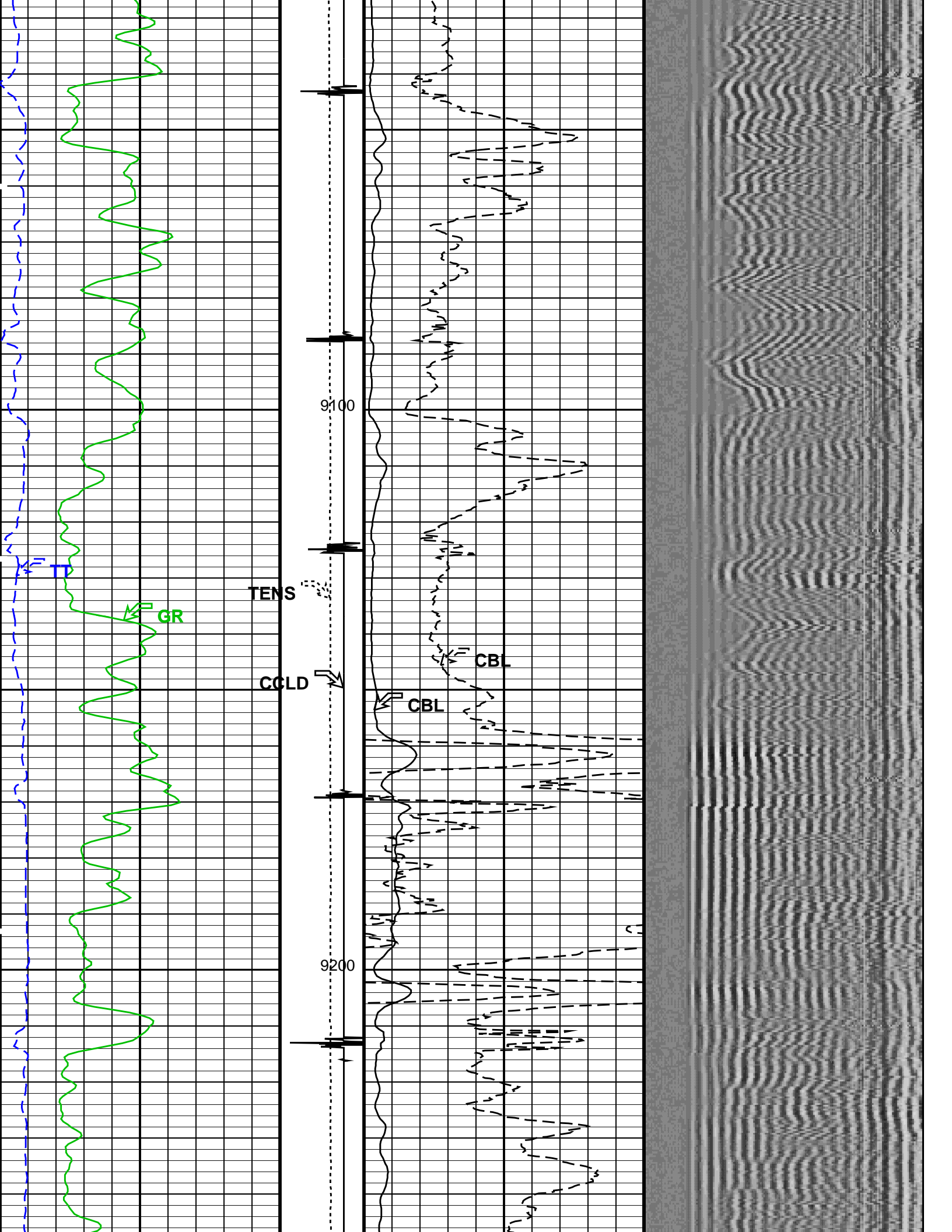


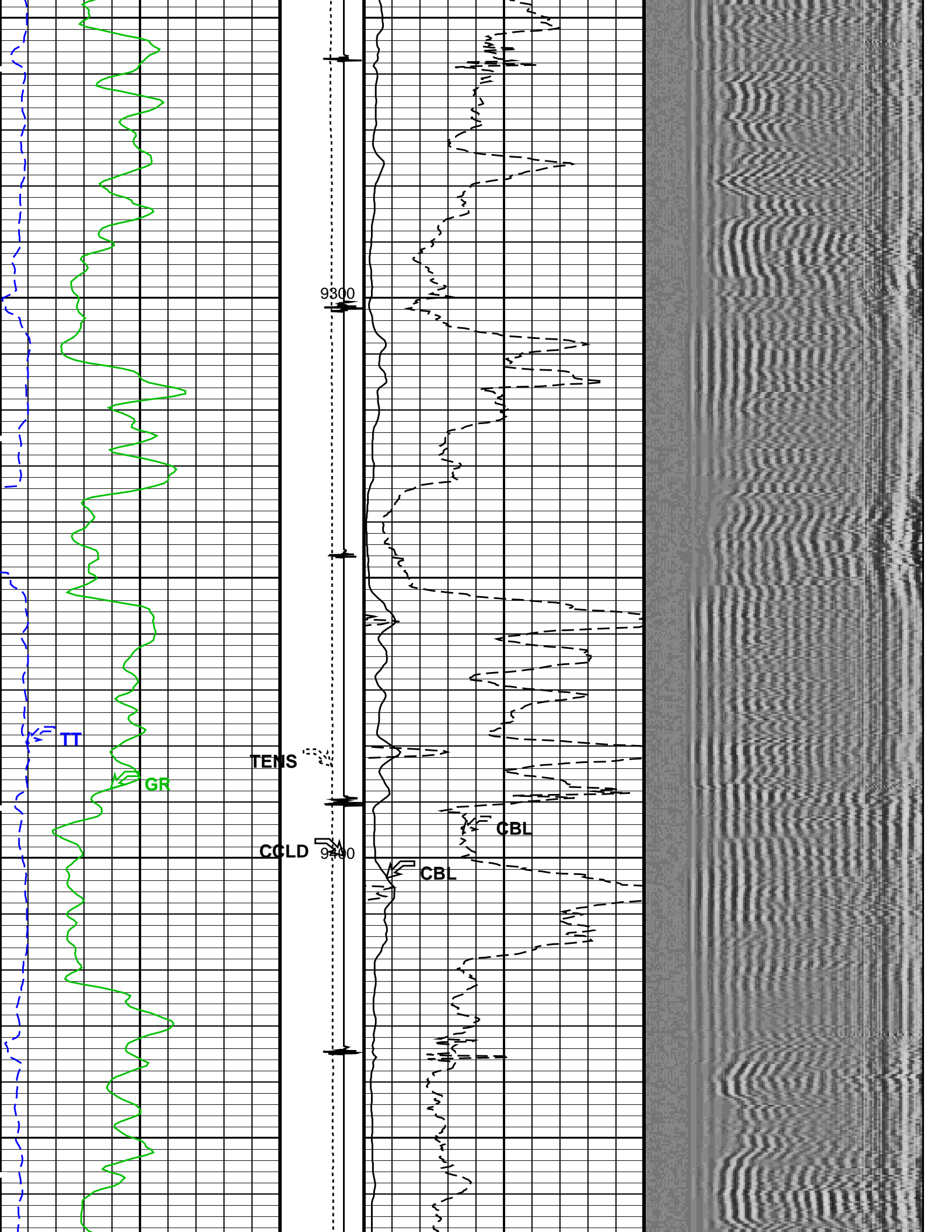


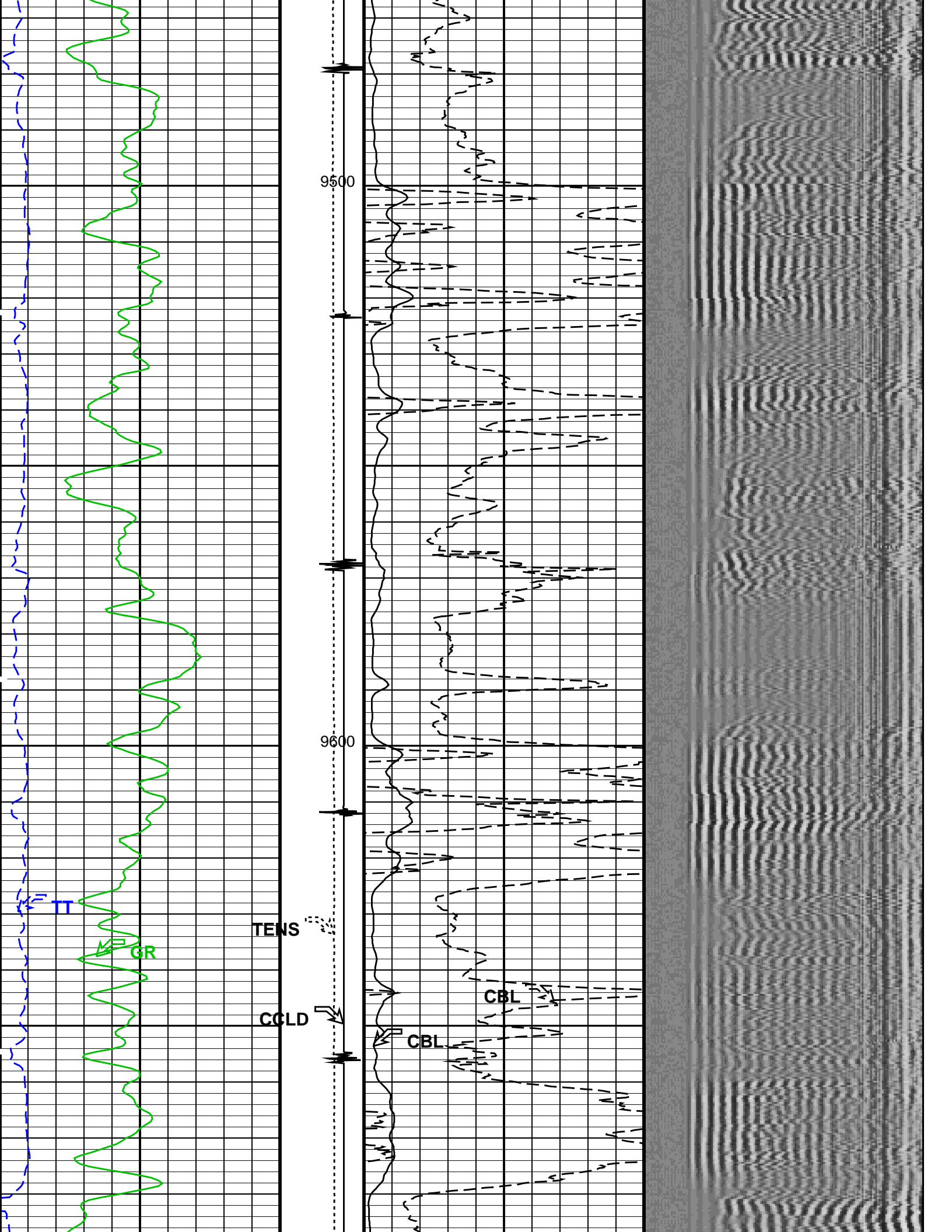


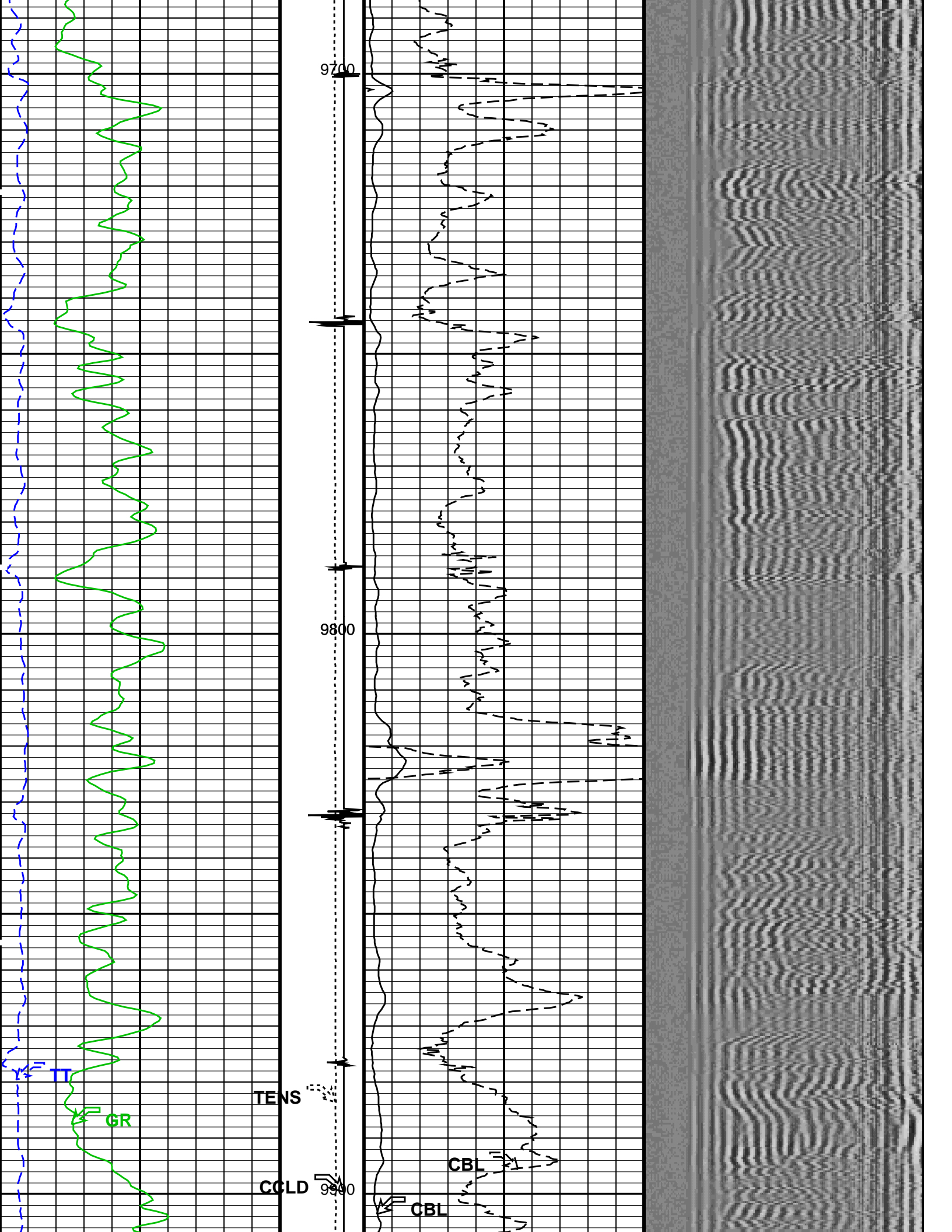


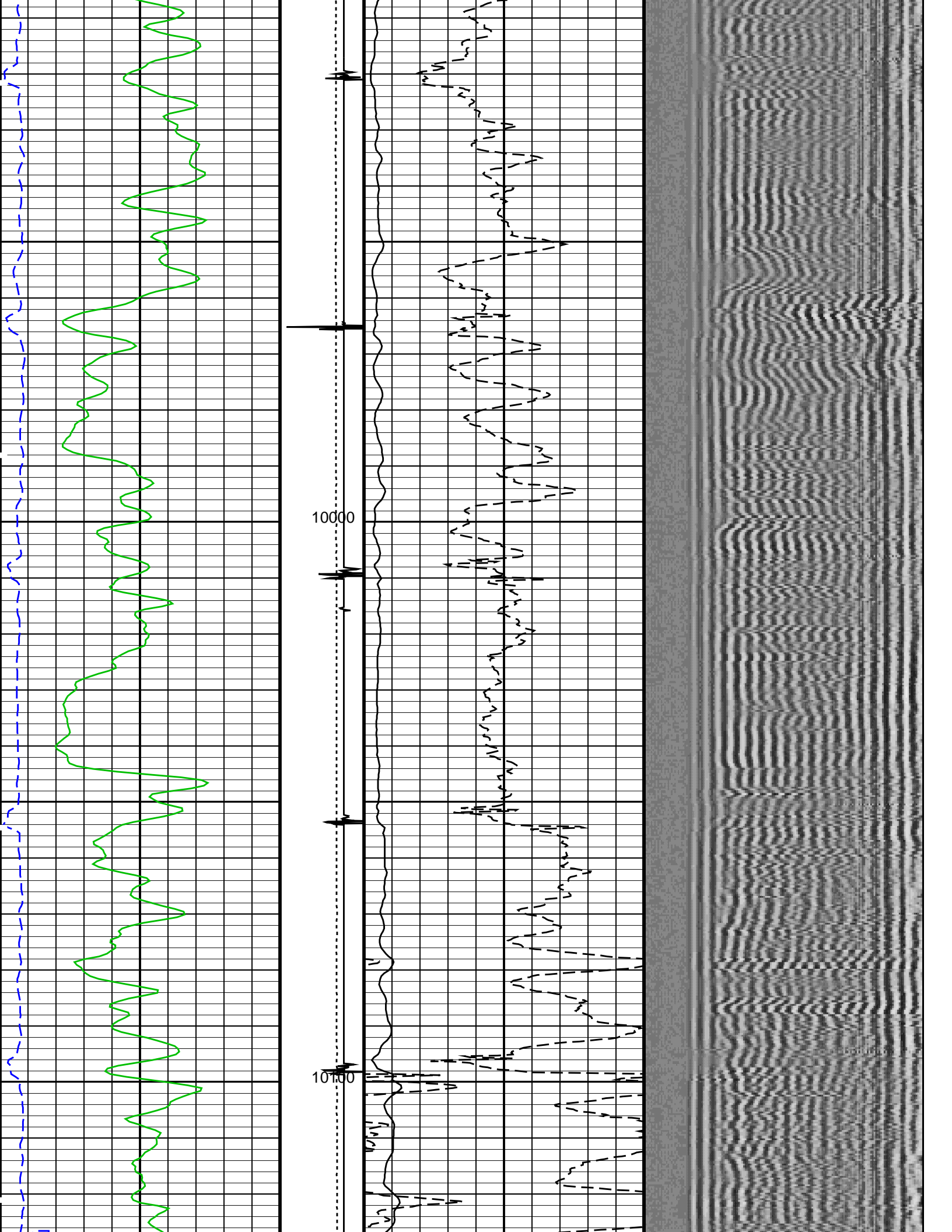


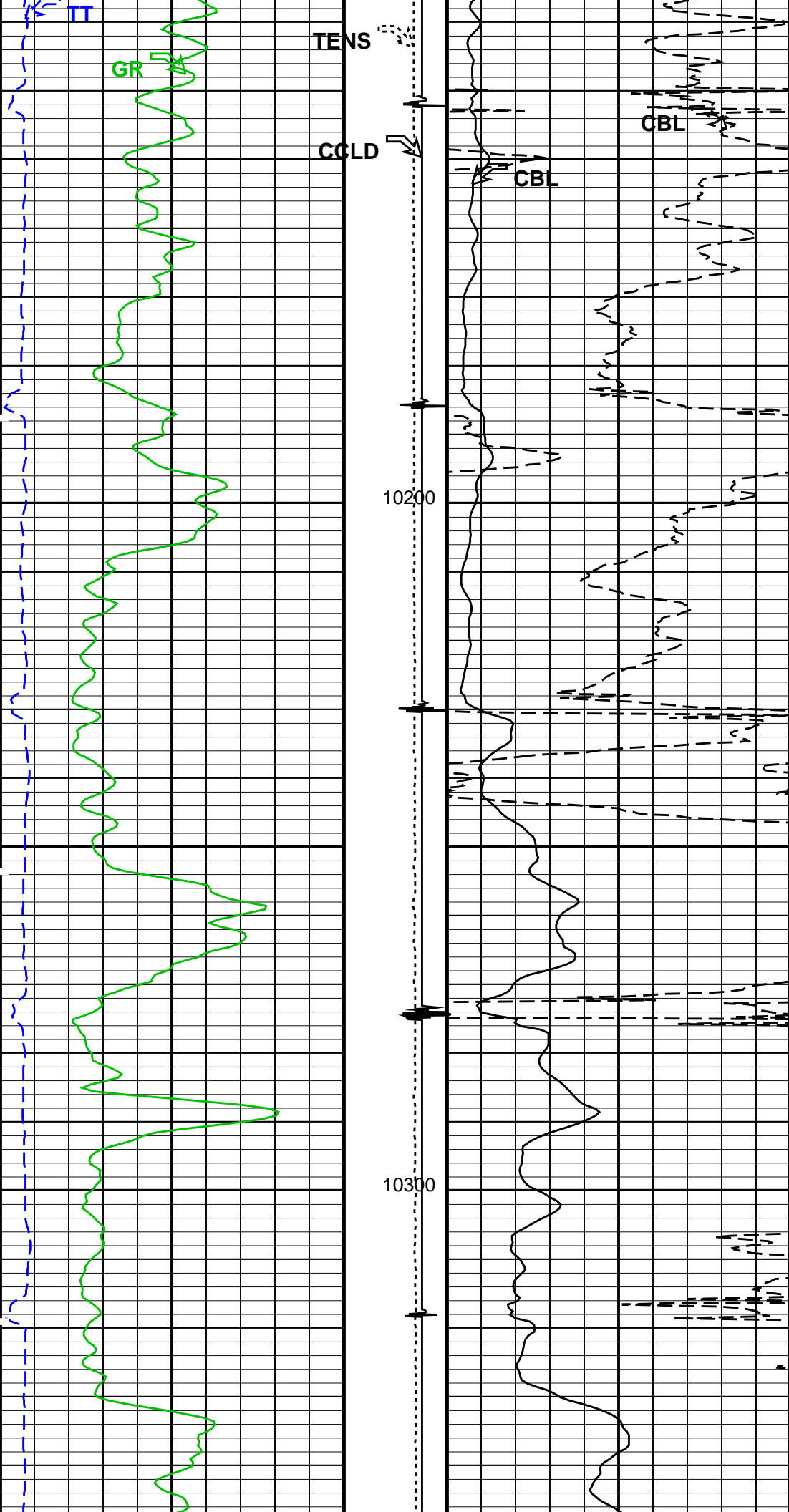


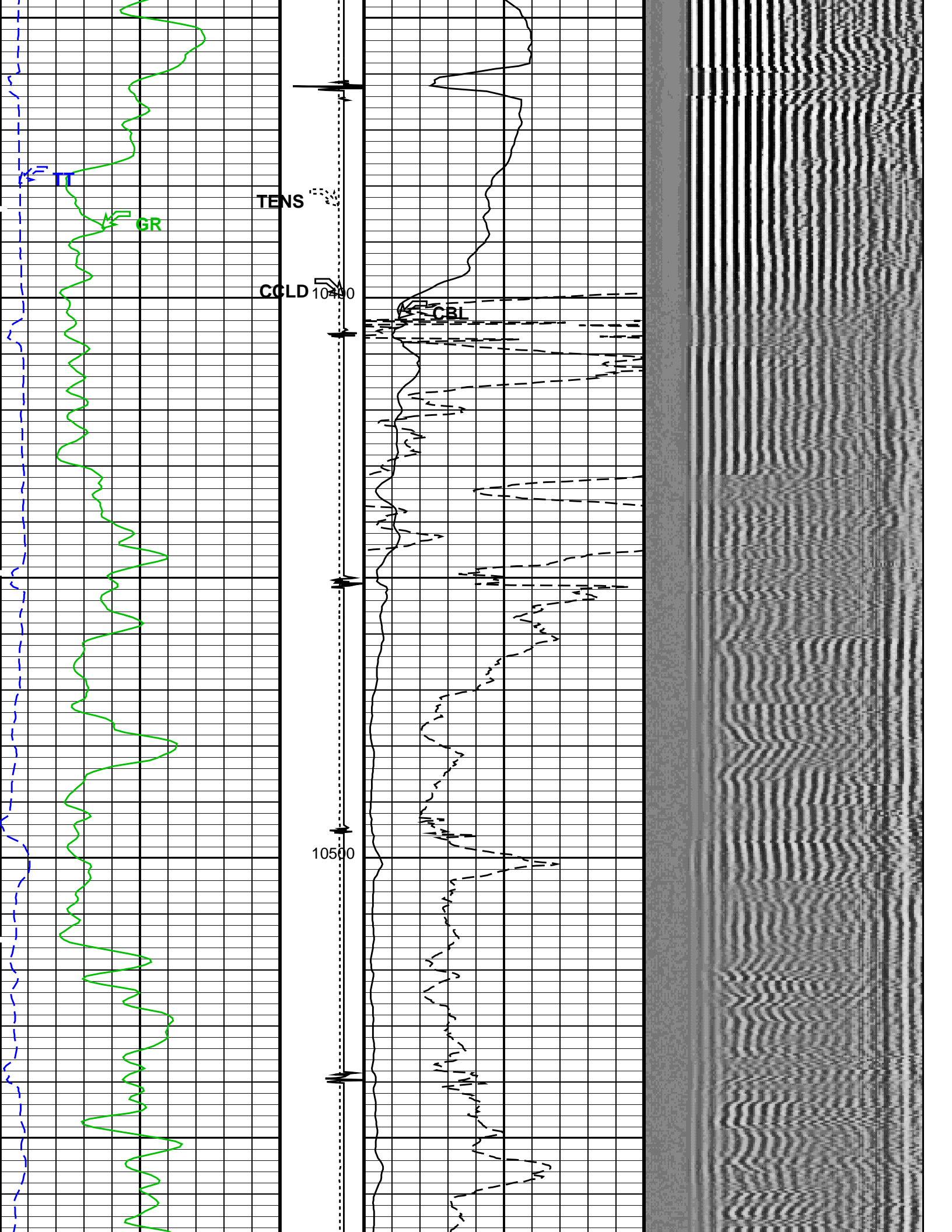


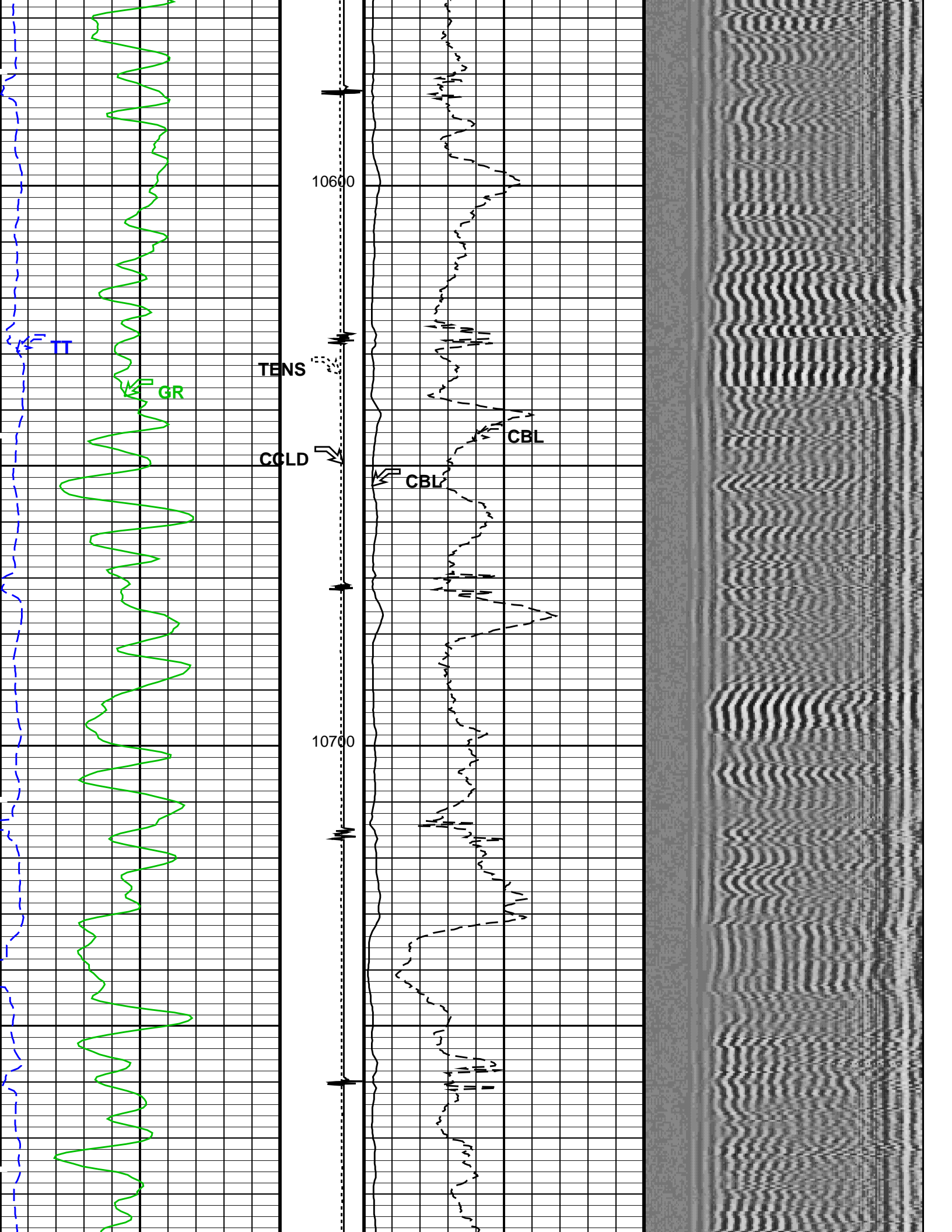


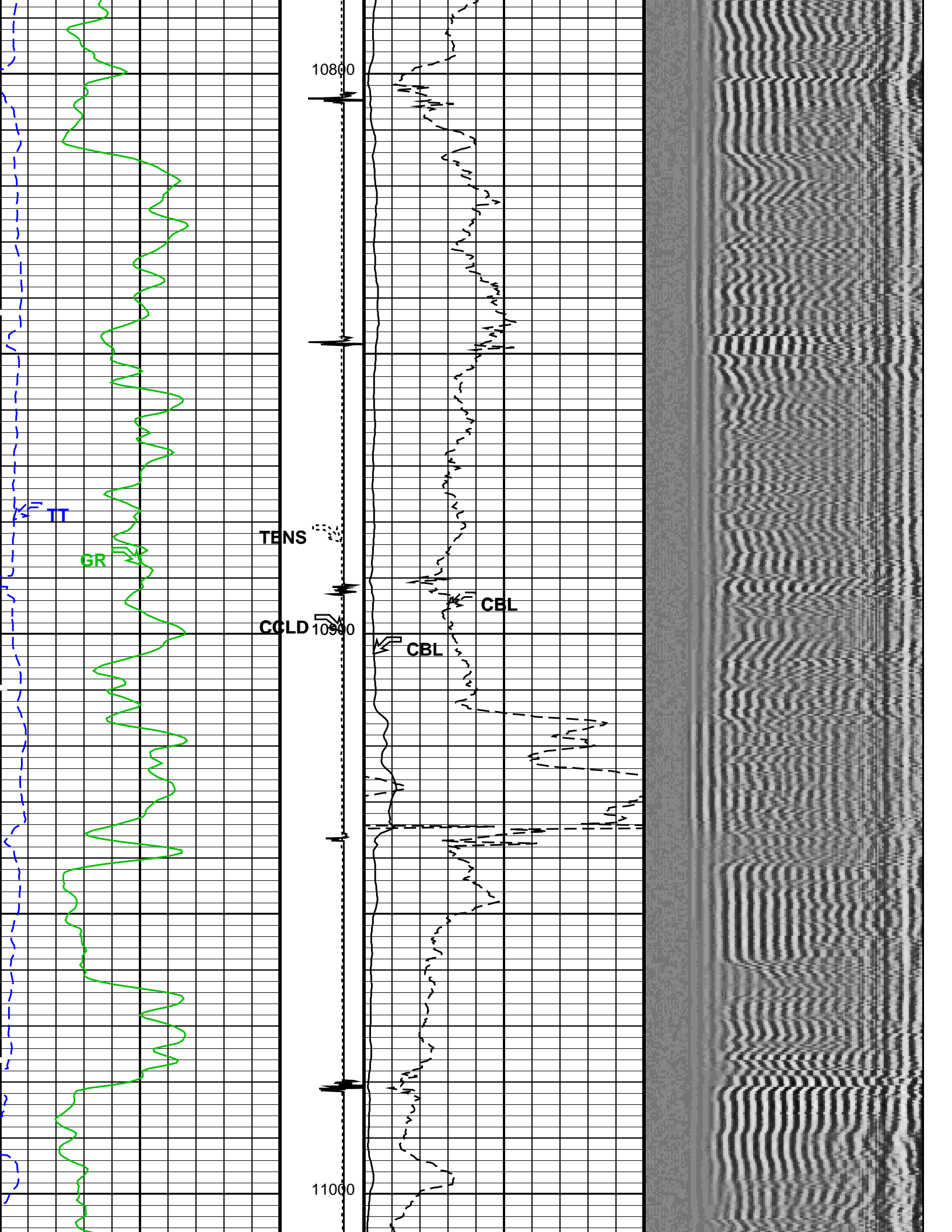


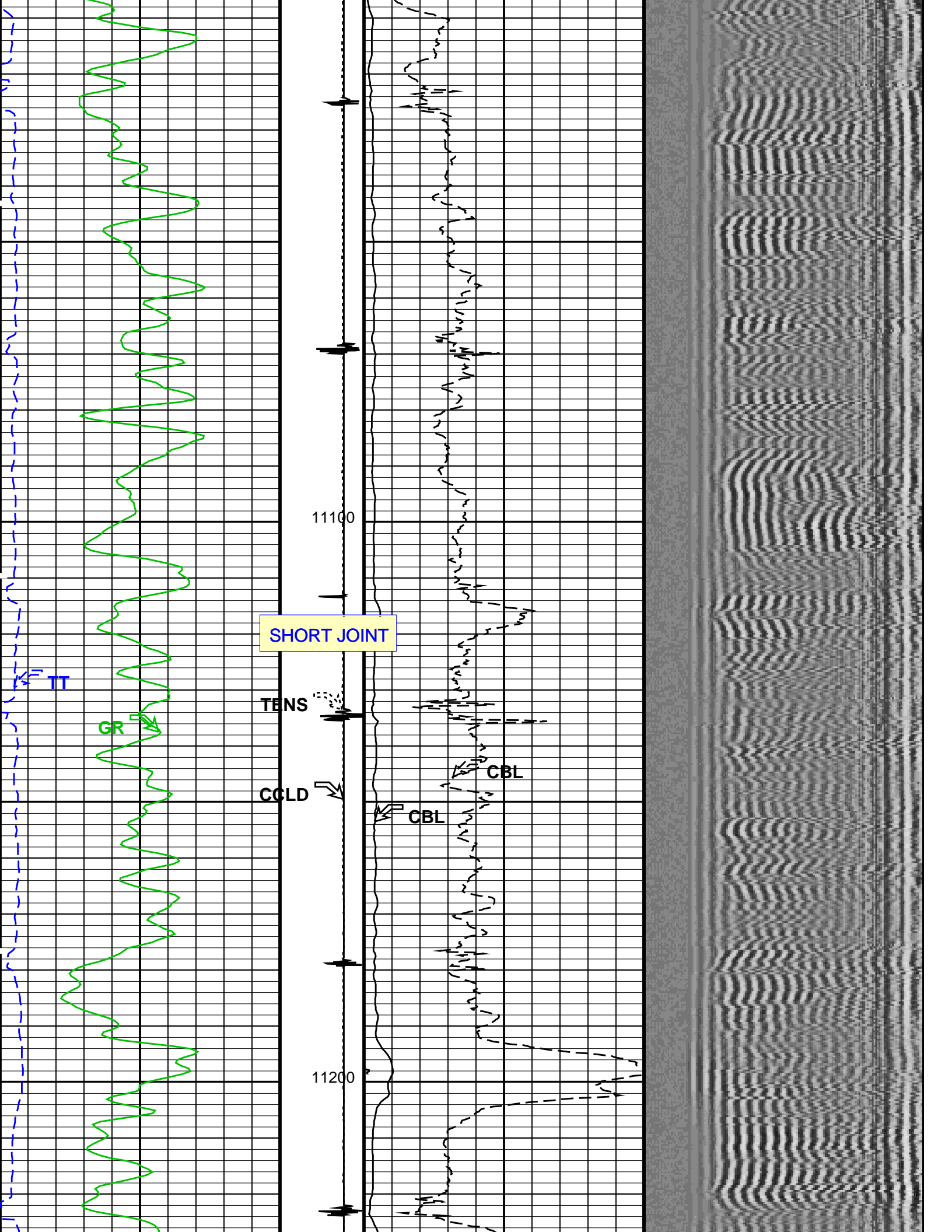


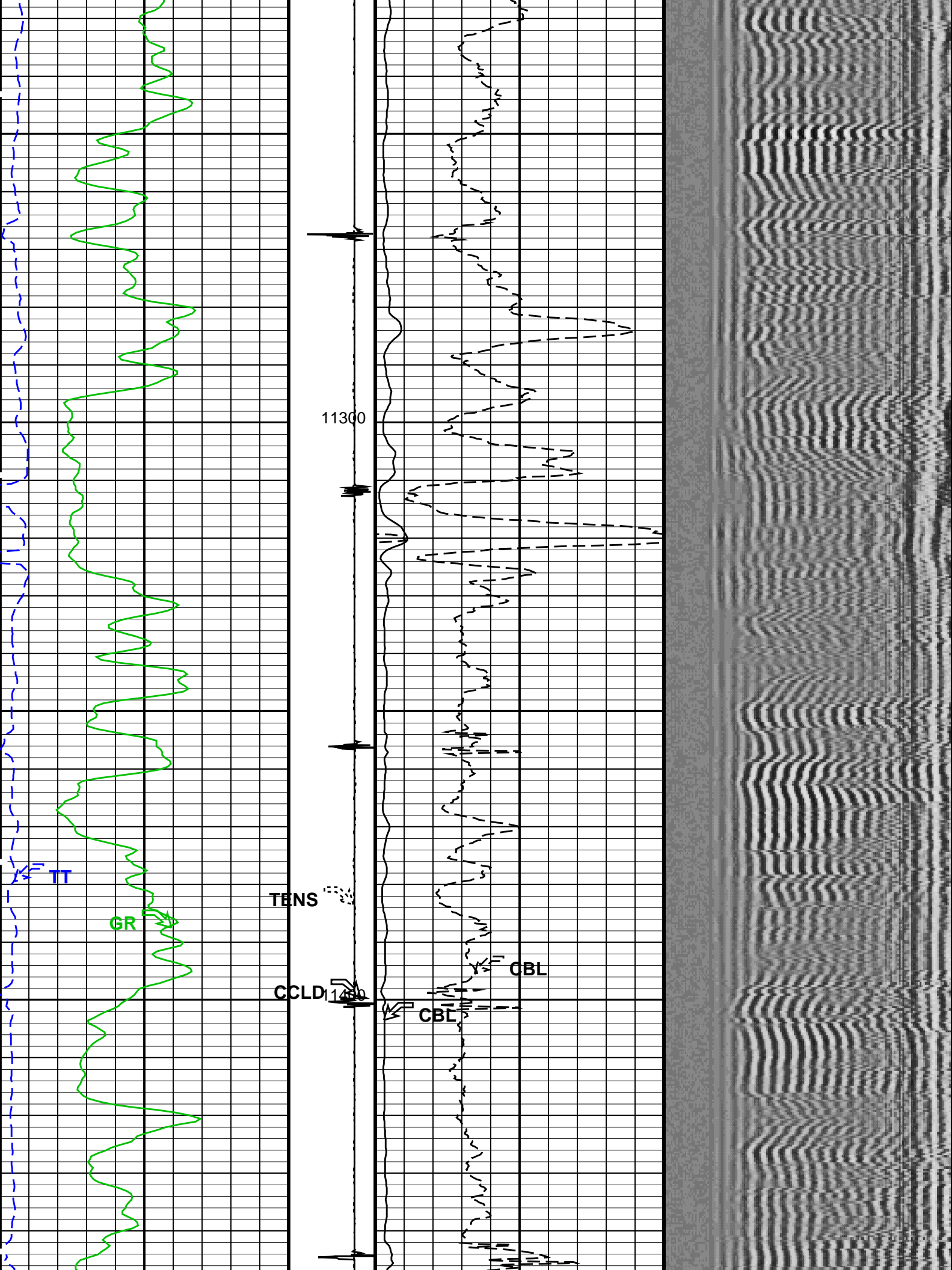


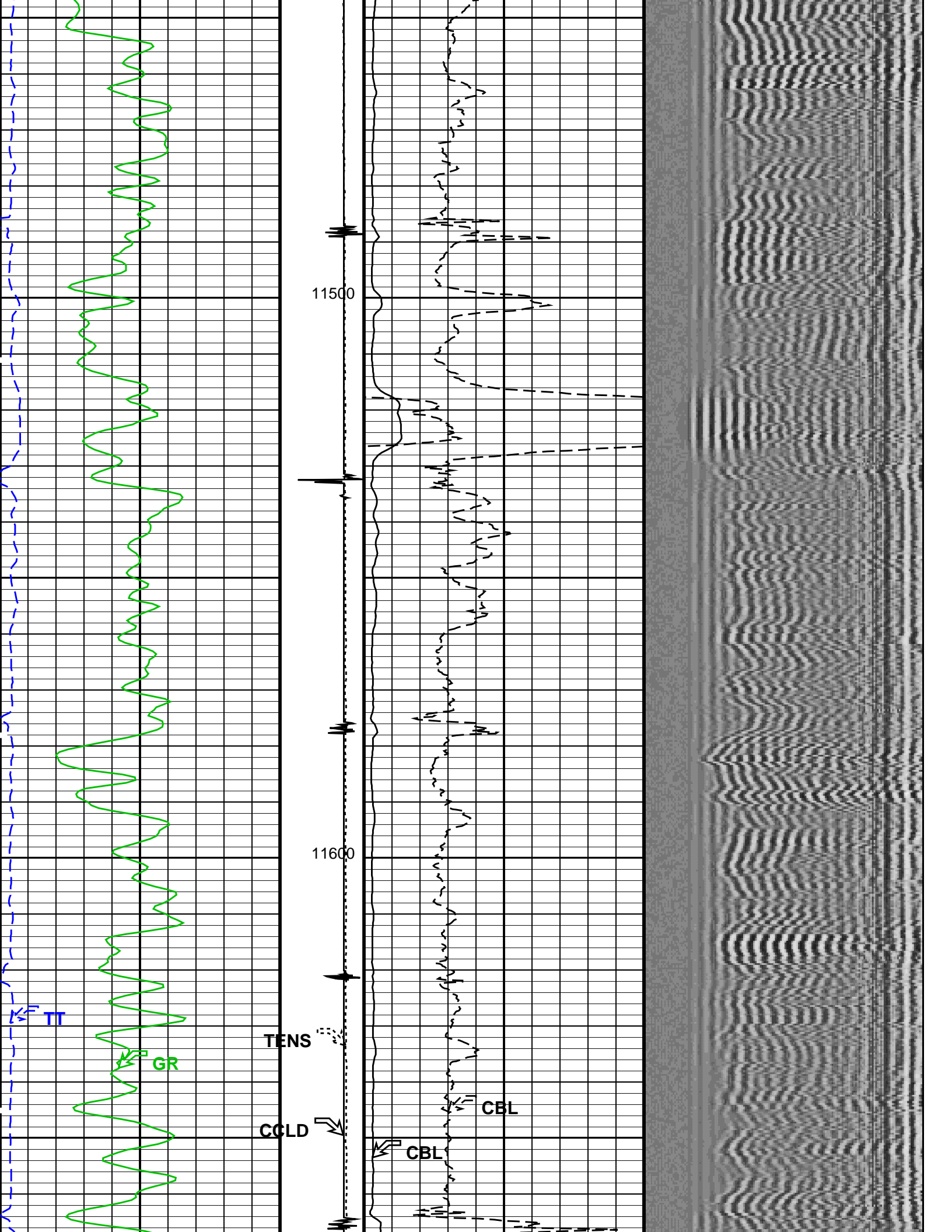


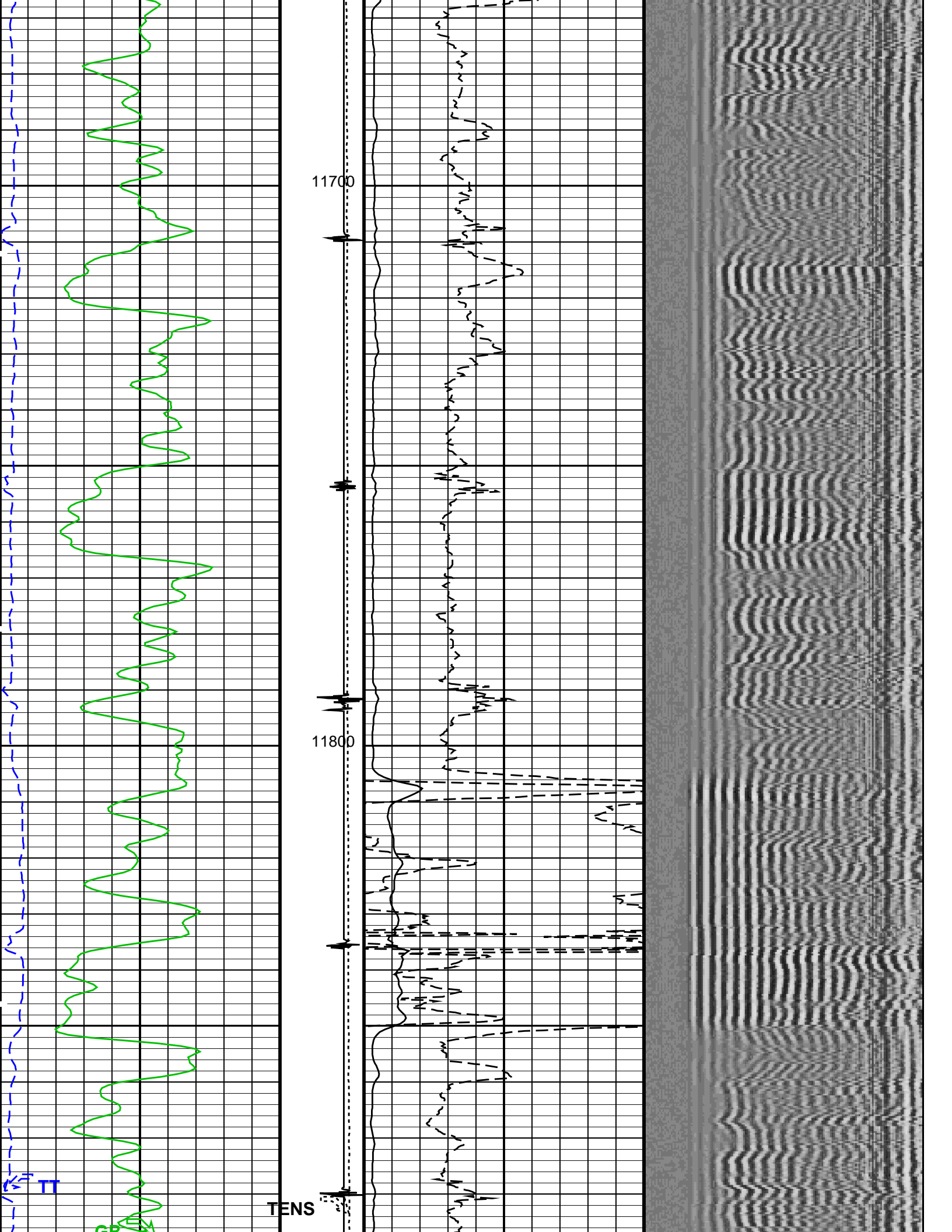


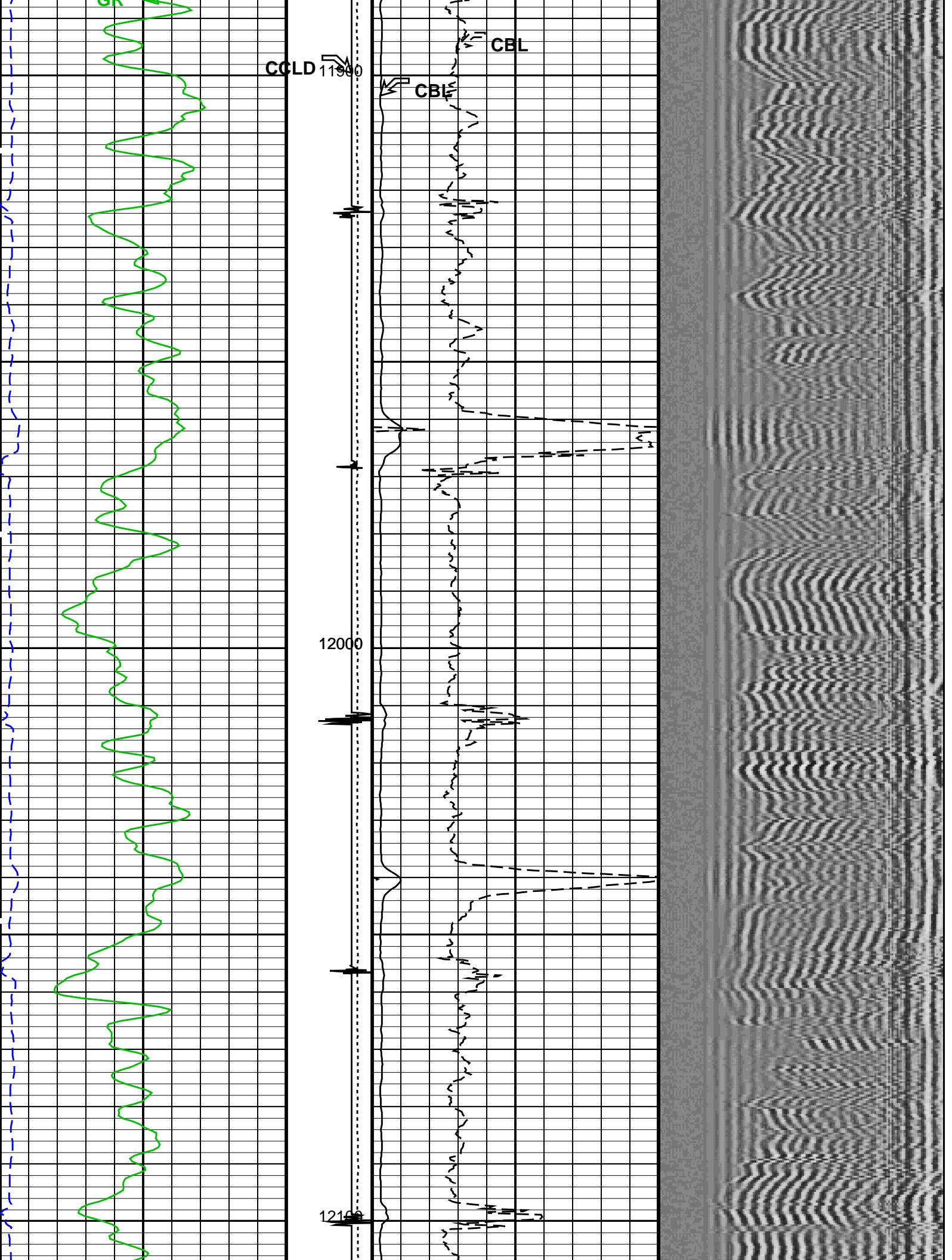


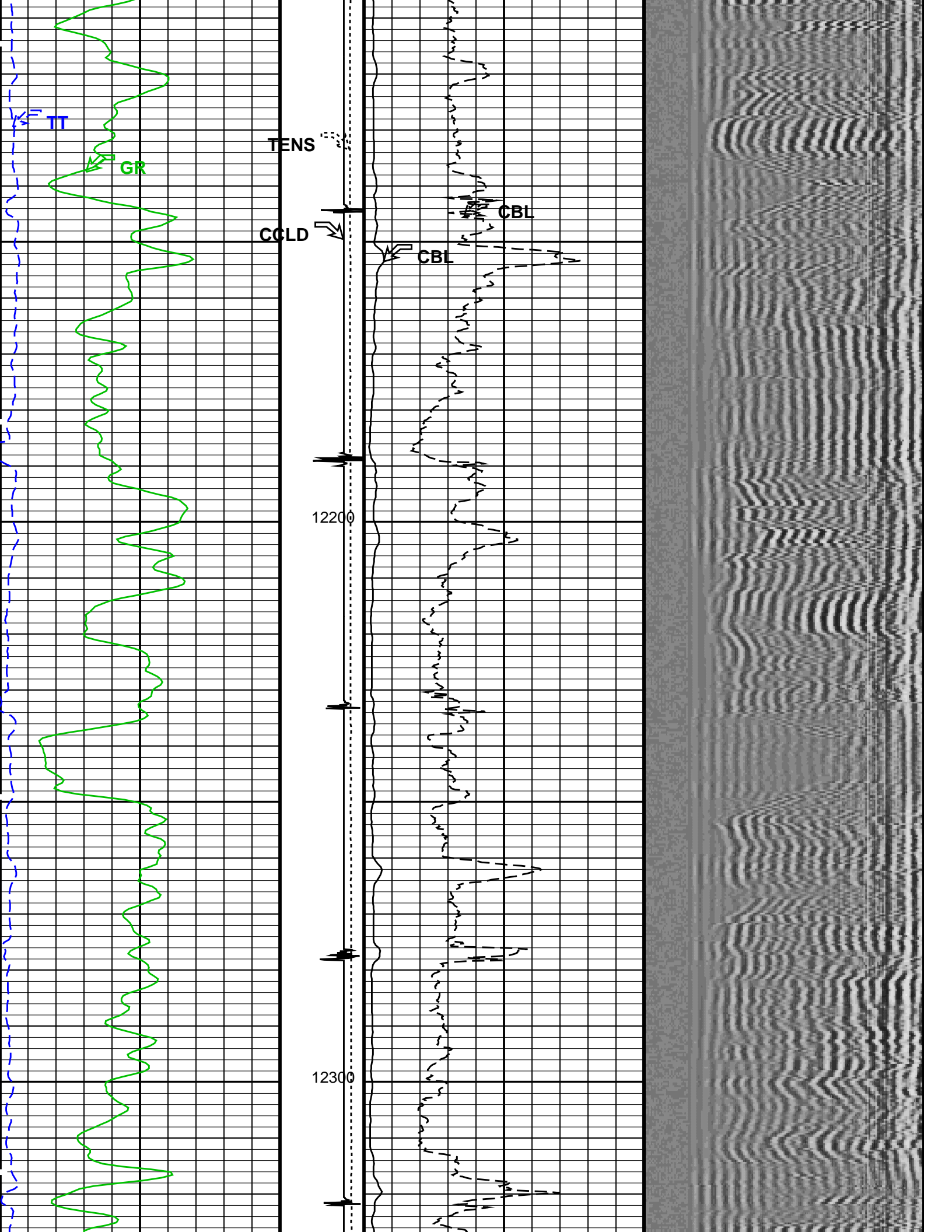


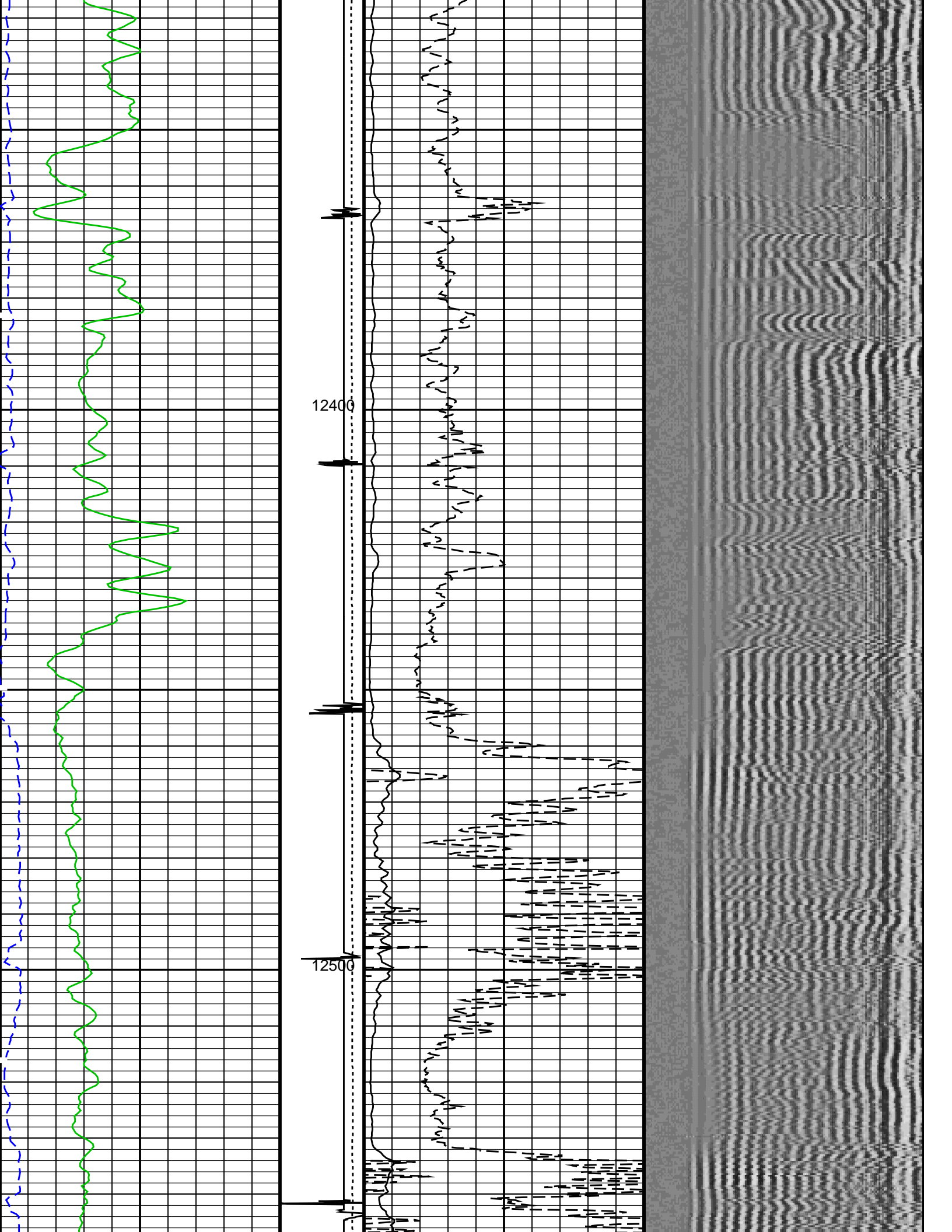


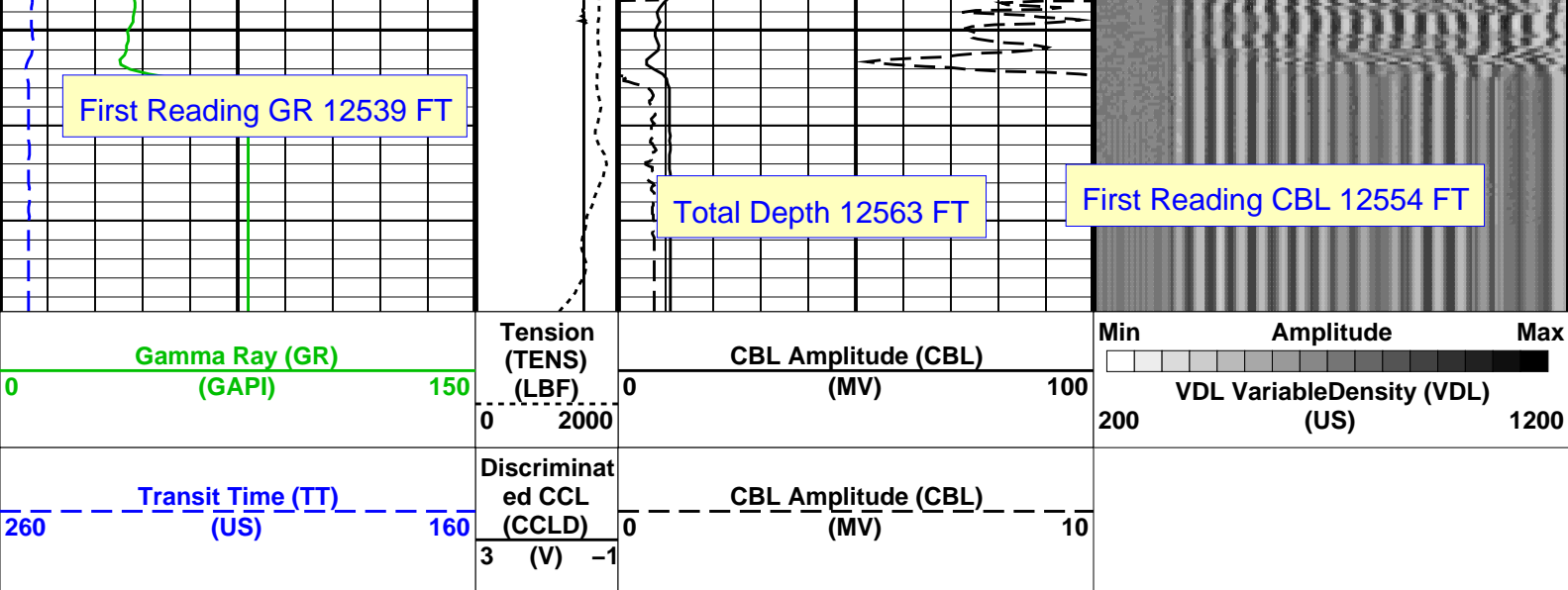












PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL Vertical Scale: 5" per 100'

Graphics File Created: 03-Jul-2013 03:31

OP System Version: 19C0-187

SCMT-CB SRPC-5214-H2-2012-OP1 PSPT SRPC-5214-H2-2012-OP1

<<<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	7-SEP-2012		
CBL Correction Factor	0.0756720	CBL Adjustment Factor (CBAF)	0.700000
MAP 1 Correction Factor	0.136845	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.165126		
MAP 3 Correction Factor	0.125717		
MAP 4 Correction Factor	0.196395		
MAP 5 Correction Factor	0.147692		
MAP 6 Correction Factor	0.128887		
MAP 7 Correction Factor	0.150775		
MAP 8 Correction Factor	0.144577		

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	45 US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80 MV

CMCF	CBL Cement Type Compensation Factor	1	SCAN
CMTC	SCMT Slow Channel Multiplexer Mode	LOG	VCC
CMTM	SCMT Operating Mode	0.255617	IN
CSCS	SCMT Slow Channel Index	189	US/F
CTHI	Casing Thickness	0	DB/F
DTF	Delta-T Fluid	0.924277	
FATT	Acoustic Attenuation due to Fluid	1.55185	MV
FCF	CBL Fluid Compensation Factor	PEAK	
GOBO	Good Bond	167.559	US
MAPD	SCMT MAP Peak Detection Mode	30	MV
MAPG	SCMT MAP Peak Detection T0 Delay and Noise Gate	16.5449	DB/F
MAPT	SCMT MAP Fixed Threshold Level	1	
MATT	Maximum Attenuation	1.25	FT
MCCF	MAP Cement Type Compensation Factor	4.32284	MV
MCI	Minimum Cemented Interval for Isolation	0.579149	MV
MMSA	MAP Minimum Sonic Amplitude	OFF	
MSA	Minimum Sonic Amplitude	5	
PEDE	Peak Detection On/Off Switch in Playback	6.8	MRAY
VDLG	VDL Manual Gain		
ZCMT	Acoustic Impedance of Cement		
System and Miscellaneous			
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	7.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	12563	FT

Input DLIS Files

DEFAULT SCMT_PSP_028LUP FN:27 PRODUCER 03-Jul-2013 00:11 12572.5 FT 18.7 FT

Output DLIS Files

DEFAULT SCMT_PSP_030PUP FN:29 PRODUCER 03-Jul-2013 03:31

Schlumberger

REPEAT ANALYSIS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC Well: SG 8512E-36 (D36 496)

Input DLIS Files

DEFAULT SCMT_PSP_026LUP FN:25 PRODUCER 02-Jul-2013 23:52 8212.0 FT 7948.5 FT
DEFAULT SCMT_PSP_030PUP FN:29 PRODUCER 03-Jul-2013 03:31 12579.5 FT 4.5 FT

Output DLIS Files

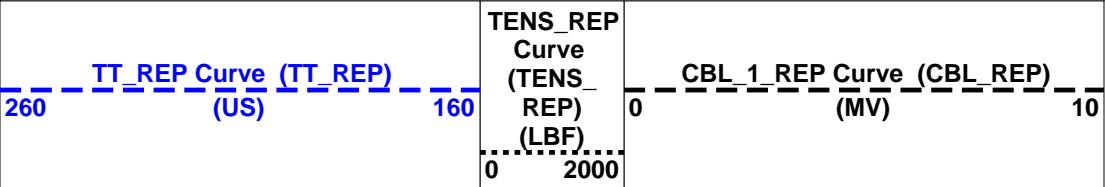
DEFAULT SCMT_PSP_031PUP FN:30 PRODUCER 03-Jul-2013 03:39 8212.0 FT 7927.0 FT

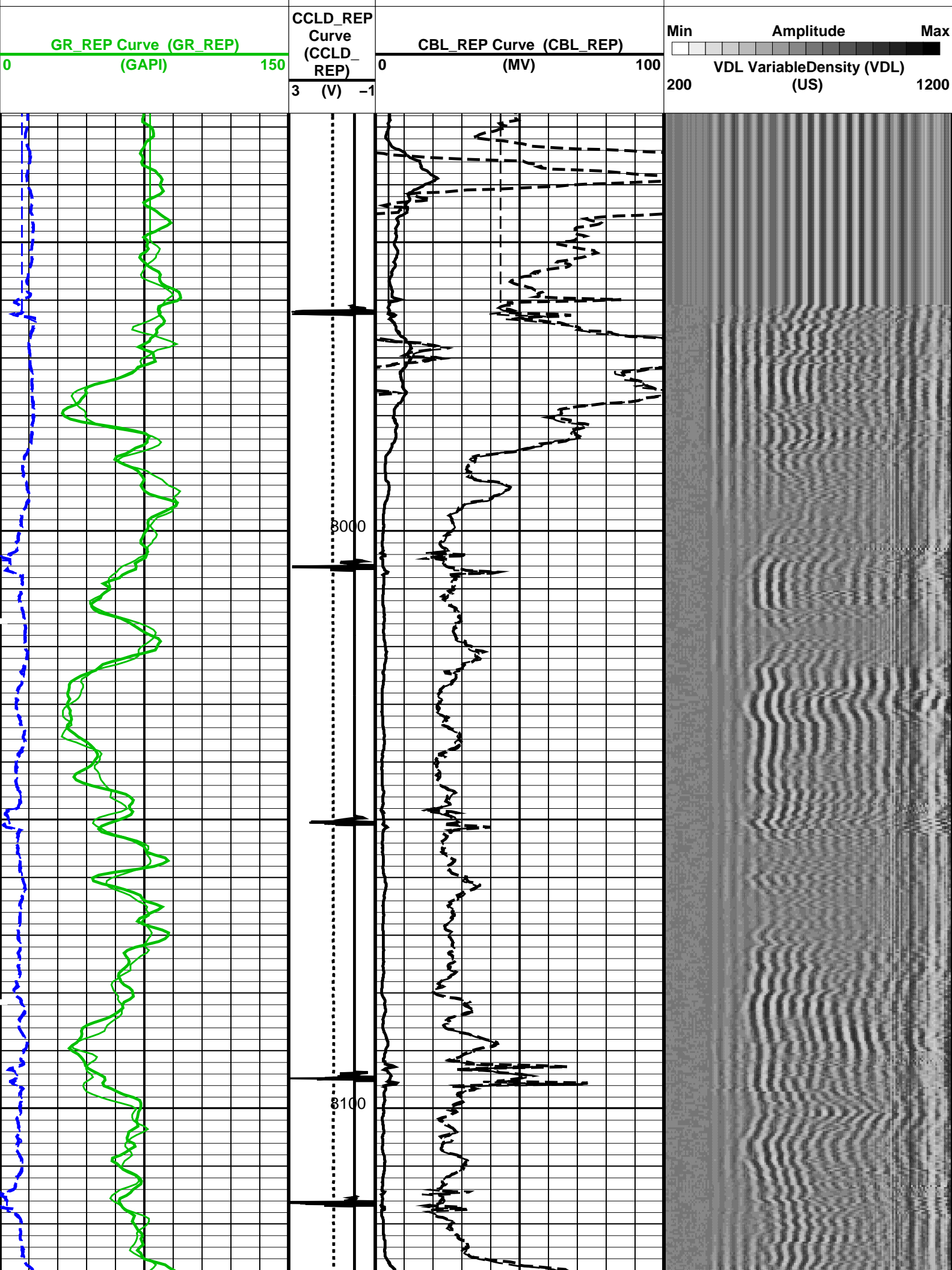
OP System Version: 19C0-187

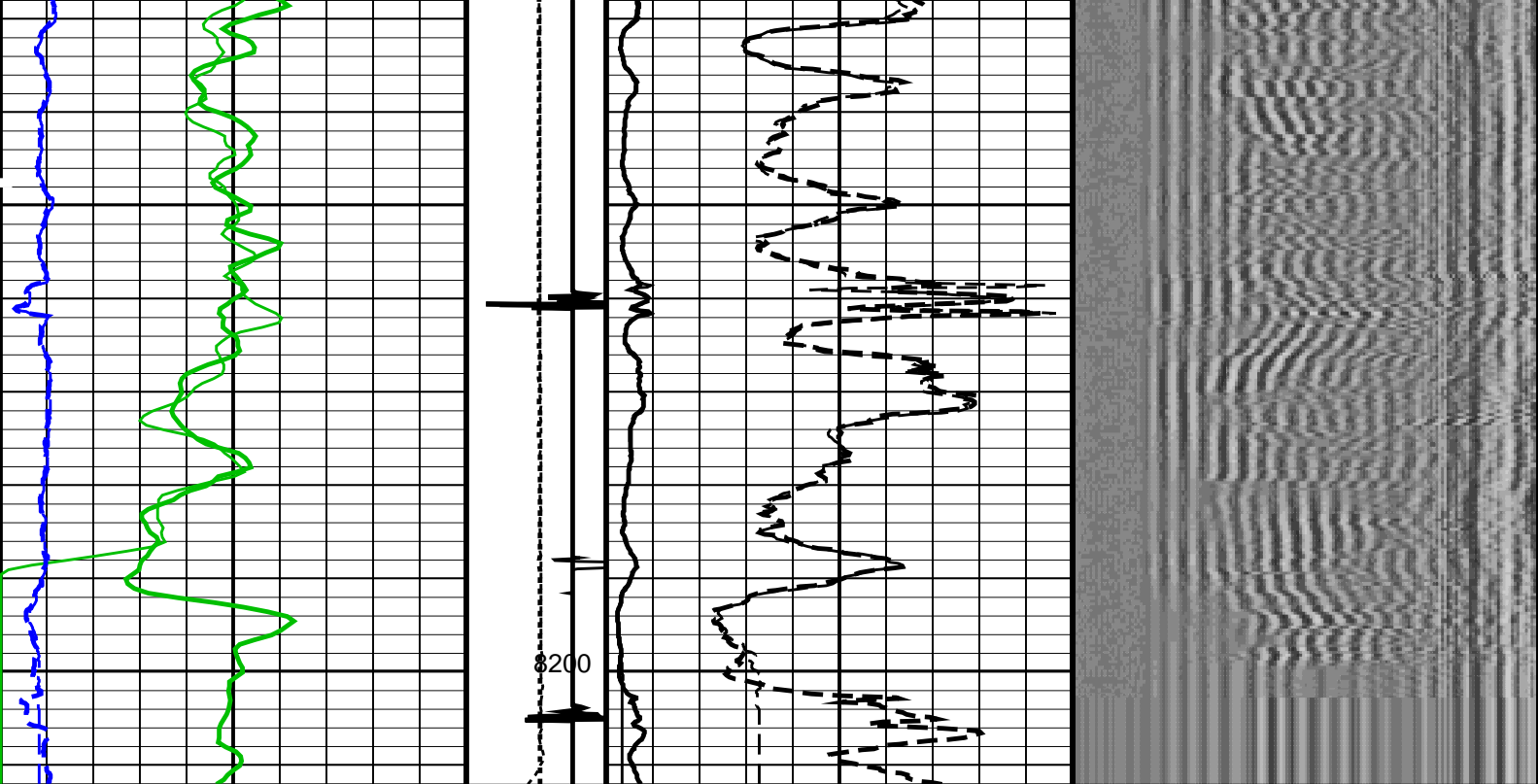
SCMT-CB SRPC-5214-H2-2012-OP1! PSPT SRPC-5214-H2-2012-OP1!

PIP SUMMARY

Time Mark Every 60 S







GR_REP Curve (GR_REP) (GAPI)	CCLD_REP Curve (CCLD_REP) (V)	CBL_REP Curve (CBL_REP) (MV)	Min Amplitude Max VDL Variable Density (VDL) (US)
TT_REP Curve (TT_REP) (US)	TENS_REP Curve (TENS_REP) (LBF)	CBL_1_REP Curve (CBL_REP) (MV)	

PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL_REP Vertical Scale: 5" per 100'

Graphics File Created: 03-Jul-2013 03:39

OP System Version: 19C0-187

SCMT-CB SRPC-5214-H2-2012-OP1 PSPT SRPC-5214-H2-2012-OP1

<<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number		SCMS-CB 8303	
Current Casing Size		4.5000 IN	
Casing Weight		11.6000 LB/F	
Expected CBL Amplitude in Free Pipe Section		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		7-SEP-2012	
CBL Correction Factor		CBL Adjustment Factor (CBAF)	0.700000
MAP 1 Correction Factor		MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor			
MAP 3 Correction Factor			
MAP 4 Correction Factor			

MAP 4 Correction Factor	0.196395
MAP 5 Correction Factor	0.147692
MAP 6 Correction Factor	0.128887
MAP 7 Correction Factor	0.150775
MAP 8 Correction Factor	0.144577

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	45	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMT	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
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	12563	FT

Input DLIS Files

DEFAULT	SCMT_PSP_026LUP	FN:25	PRODUCER	02-Jul-2013 23:52	8212.0 FT	7948.5 FT
DEFAULT	SCMT_PSP_030PUP	FN:29	PRODUCER	03-Jul-2013 03:31	12579.5 FT	4.5 FT

Output DLIS Files

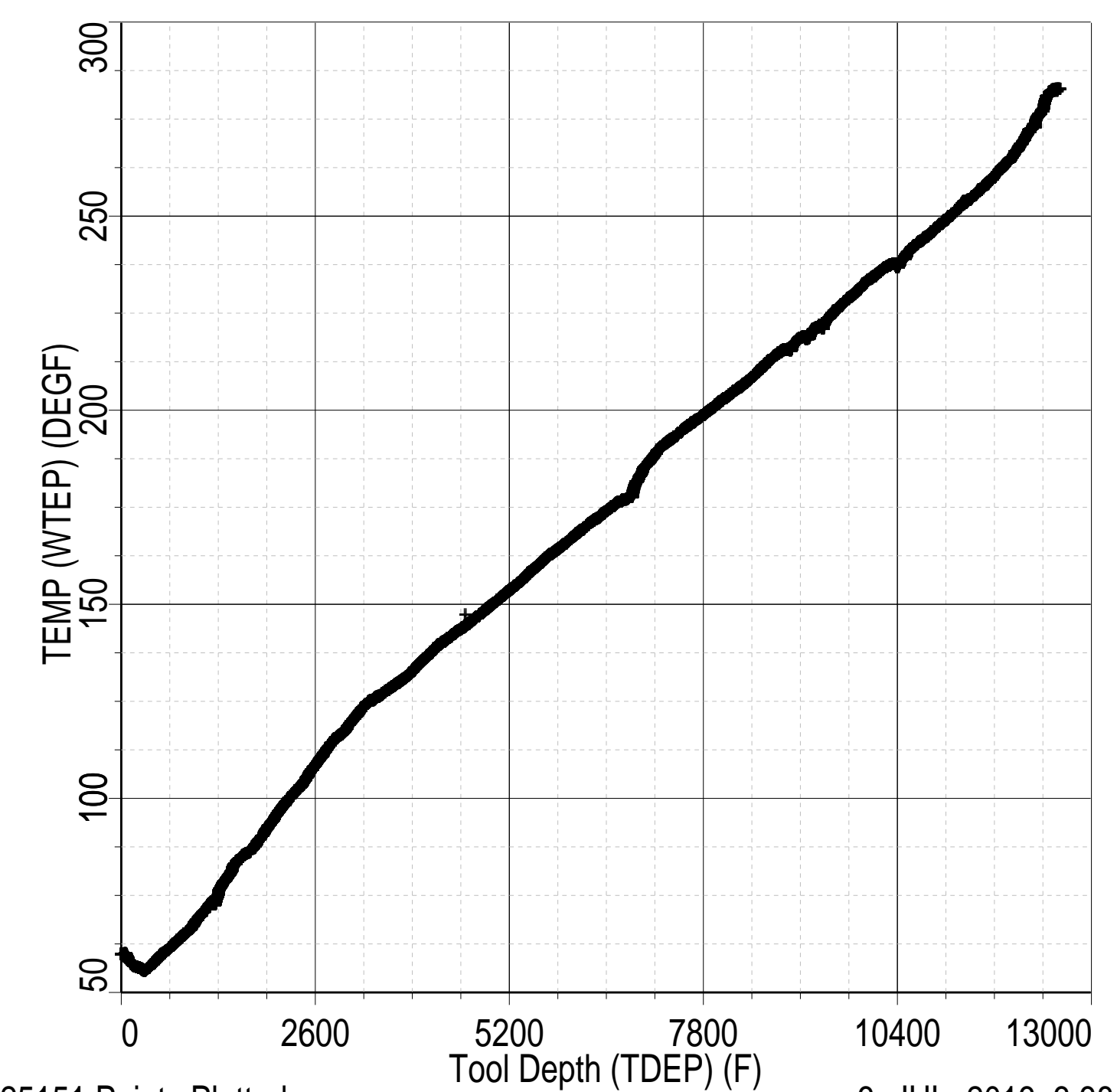
DEFAULT	SCMT_PSP_031PUP	FN:30	PRODUCER	03-Jul-2013 03:39
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Schlumberger

TEMPERATURE PLOT

MAXIS Field Log

Index: 12579.5 – 4.5 FT



25151 Points Plotted

3-JUL-2013 3:38

Schlumberger

PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC
Field: STORY GULCH
Well: SG 8512E-36 (D36 496)
Run date: 2-Jul-2013

Tool: PSP
Sub Type: PBMS
Sensor: GR

PBMS Gamma Ray

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

RESISTORS FOR GR SENSOR N.33223,TOOL PBMS–BA0928. SENSOR S/N:
33223
090800
12
CFE2

GR HV Rt

	Rt**0	Rt**1
Rt**0	+.182000000000e+04	+.332000000000e+04

Client: ENCANA OIL & GAS (USA) INC

Field: STORY GULCH

Well: SG 8512E–36 (D36 496)

Run date: 2–Jul–2013

Tool: PSP

Sub Type: PBMS

Sensor: WellTemp RTD

PBMS RTD Well Thermometer

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

COEFFICIENTS FOR RTD THERMOMETER PBMS–B.928 S/N:
928
280612
16
A24E

WTemp Coeff

	Tt**0	Tt**1	Tt**2
Tt**0	–.391987973189E+03	+.191346892512E+03	–.440920753451E+02
	Tt**3	Tt**4	Tt**5
Tt**0	+.957191300908E+01	–.711421725686E+00	0.0

Client: ENCANA OIL & GAS (USA) INC

Field: STORY GULCH

Well: SG 8512E-36 (D36 496)

Run date: 2-Jul-2013

Tool:

Sub Type:

Sensor:

PSP

PBMS

CQG

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

COEFFICIENTS FOR CQG PBMS-B.928 S/N:

928

280612

66

9DC3

Pres Coeff

	Fb**0	Fb**1	Fb**2
Fc**0	+714463802232E+04	+183434658655E-01	-.156620073569E-06
Fc**1	-.100638308957E+01	-.119899563644E-04	-.912155899025E-10
Fc**2	+936268101283E-06	+423898071451E-10	+958076371919E-15
Fc**3	+185123362373E-11	+203107925433E-15	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

	Fb**3	Fb**4	Fb**5
Fc**0	-.746577997611E-10	-.588773826860E-15	-.622250441458E-19
Fc**1	-.120636521092E-15	+400325894750E-19	0.0
Fc**2	0.0	0.0	0.0
Fc**3	0.0	0.0	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

:

928

280612

66

283B

Temp Coeff

	Fc**0	Fc**1	Fc**2
Fb**0	+117016867873E+03	-.284359629614E-03	+604391180345E-08

Fb**1	−.598309140812E−02	+ .182731130848E−07	+ .160166486172E−12
Fb**2	−.307621454576E−07	+ .300601550309E−12	+ .311233548560E−17
Fb**3	−.419658736767E−12	+ .117473708647E−16	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0
<div> <div>Fc**3</div> <div>Fc**4</div> <div>Fc**5</div> </div>			
Fb**0	+ .114322792679E−12	+ .153807711176E−17	−.736714260866E−21
Fb**1	−.528037875456E−18	−.220337637519E−21	0.0
Fb**2	0.0	0.0	0.0
Fb**3	0.0	0.0	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

:

928

280612

16

093F

Clock Freq Coeff

	(Fb'−Fc')**0	(Fb'−Fc')**1	(Fb'−Fc')**2
(Fb'−Fc')**0	+ .310874009898E+05	+ .288920923041E−02	+ .697940727038E−06
	(Fb'−Fc')**3	(Fb'−Fc')**4	(Fb'−Fc')**5
(Fb'−Fc')**0	−.657432344763E−10	−.412920638782E−15	+ .213369826099E−20

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

:

928

280612

16

8419

Clock Temp Coeff

	(Fb'−Fc')**0	(Fb'−Fc')**1	(Fb'−Fc')**2
(Fb'−Fc')**0	+ .115369519827E+03	−.565338877075E−02	−.333717531829E−07
	(Fb'−Fc')**3	(Fb'−Fc')**4	(Fb'−Fc')**5
(Fb'−Fc')**0	−.124387135327E−12	+ .713102327208E−16	−.316084316842E−20



MASTER CALIBRATION

MAXIS Field Log

Slim Cement Mapping Tool, 1–11/16 OD / Equipment Identification

Primary Equipment:

Slim Cement Mapping Xmitter Electronics

SCMX – CA

Slim Cement Mapping Sonde

SCMS – CB

8317

Slim Cement Mapping Cartridge

SCMC – CA

8120

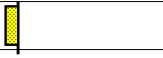
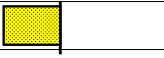
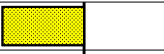




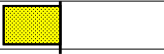

Auxiliary Equipment:

Slim Electronics Cartridge Housing

SECH – CA

Slim Cement Mapping Tool, 1–11/16 OD Master Calibration

SCMT CBL and MAP Amplitude Normalization in SFT–155/–255

Phase	MAP 1 Amplitude Plus MV	Value	Phase	MAP 2 Amplitude Plus MV	Value
Master		1029	Master		864.7
	500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)			500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)	
Phase	MAP 3 Amplitude Plus MV	Value	Phase	MAP 4 Amplitude Plus MV	Value
Master		776.8	Master		948.8
	500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)			500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)	
Phase	MAP 5 Amplitude Plus MV	Value	Phase	MAP 6 Amplitude Plus MV	Value
Master		1034	Master		949.7
	500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)			500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)	
Phase	MAP 7 Amplitude Plus MV	Value	Phase	MAP 8 Amplitude Plus MV	Value
Master		890.8	Master		866.8
	500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)			500.0 (Minimum) 1075 (Nominal) 1650 (Maximum)	
Phase	CBL Amplitude Plus MV	Value			
Master		1334			
	1000 (Minimum) 1350 (Nominal) 1700 (Maximum)				

Master: 26-Sep-2012 14:15

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



Well: **SG 8512E–36 (D36 496)**

Field: **STORY GULCH**

County: **GARFIELD**

County:

GARFIELD

State:

COLORADO

SLIM CEMENT MAPPING LOG

CBL – VDL

GAMMA RAY – CCL