

Company: ENCANA OIL & GAS (USA) INC

Well: MCU 26-12B (I27W)

Field: MAMM CREEK

County: GARFIELD State: COLORADO

SLIM CEMENT MAPPING LOG
CBL-VDL
GR-CCL

County: GARFIELD

Field: MAMM CREEK

Location: SHL: 475 FEL & 1973 FSL

Well: MCU 26-12B (I27W)

Company: ENCANA OIL & GAS (USA) INC

LOCATION		Elev.:		K.B.		7224.00 ft	
SHL: 475 FEL & 1973 FSL		G.L.		7202.00 ft			
BHL: 1030 FWL & 2175 FSL		D.F.		7223.00 ft			
Permanent Datum:		GROUND LEVEL		Elev.: 7202.00 ft			
Log Measured From:		KELLY BUSHING		22.00 ft		above Perm. Datum	
Drilling Measured From:		KELLY BUSHING					
API Serial No.		Section 27		Township 7S		Range 93W	
05-045-21601-0C							

	Run 1	Run 2	Run 3
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	22-Jan-2013		
Run Number	1		
Depth Driller	9393 ft		
Schlumberger Depth	9310 ft		
Bottom Log Interval	9301 ft		
Top Log Interval	60 ft		
Casing Fluid Type	FRESH WATER		
Salinity			
Density	8.4 lbm/gal		
Fluid Level	60 ft		
BIT/CASING/TUBING STRING			
Bit Size	7.875 in		
From	7317 ft		
To	9393 ft		
Casing/Tubing Size	4.500 in		
Weight	11.6 lbm/ft		
Grade	S-80		
From	22 ft		
To	9379 ft		
Maximum Recorded Temperatures	249 degF		
Logger On Bottom	22-Jan-2013	6:45	
Unit Number	Location		
Recorded By	KIRSTIE BUNTING		
Witnessed By	EUGENE		

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	Location		
Recorded By			
Witnessed By			

DEPTH SUMMARY LISTING

Date Created: 12-DEC-2012 9:29:15

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:	
Calibration Date:	4-24-2012	Calibration Date:	28-11-2012	Length:	19700 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878		
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Conveyance Method:	Wireline
Wheel Correction 1:	-3	Calibration RMS:	6	Rig Type:	LAND
Wheel Correction 2:	-4	Calibration Peak Error:	11		

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	200.00 FT
Rig Up Length At Bottom:	200.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	
Tool Zero Check At Surface:	

Depth Control Remarks

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

DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: RESERVOIR SATURATION	OS1:
OS2: LOG	OS2:
OS3: SIGMA MODE	OS3:
OS4: GR-CCL	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRELATED TO DOWN LOG	
TOOL RAN AS PER TOOL SKETCH	
ENTRANCE TIME: 05:15	
TIME AT TD: 06:45	
EXIT TIME: 09:15	

MAXIMUM RECORDED TEMPERATURE: 249 DEGF
MAXIMUM RECORDED PRESSURE: 3885 PSIA
SHORT JOINTS: 8116FT & 7062FT
MAIN PASS LOGGED WITH ZERO SURFACE PRESSURE
EXPECTED CBL AMP IN FREE PIPE 80 MV
THANK YOU FOR CHOOSING E&P WIRELINE, A SCHLUMBERGER COMPANY
CREW: KRISTINE, DADDY, WAZIR, BRANDY, BOTTOM

RUN 1			RUN 2		
SERVICE ORDER #:		CGF9-00009	SERVICE ORDER #:		
PROGRAM VERSION:		19C0-187	PROGRAM VERSION:		
FLUID LEVEL:		60 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION	
RUN 1	RUN 2
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
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98	98
99	99
100	100

WITM-A
PSC_16MHZ

DOWNHOLE EQUIPMENT

MH-22 53.4

MH-22

Detail MT

AH-38 TelStatus 51.8

CTEM 51.5

PSPT

PSC-A

PSPT-B 928

PSTC-A 928

PBMS-B 928 GR 47.8

CQG_F_Mano

RTD_Thermometer

GR Well_Temp 44.8

CCL CQG Manom 44.5

PBMS 928 CCL 44.0

PBMS PSTC 43.3

RST-C 43.3

RSCH-A 469

RSC-E

RSS-A 461

RSXH-A 493

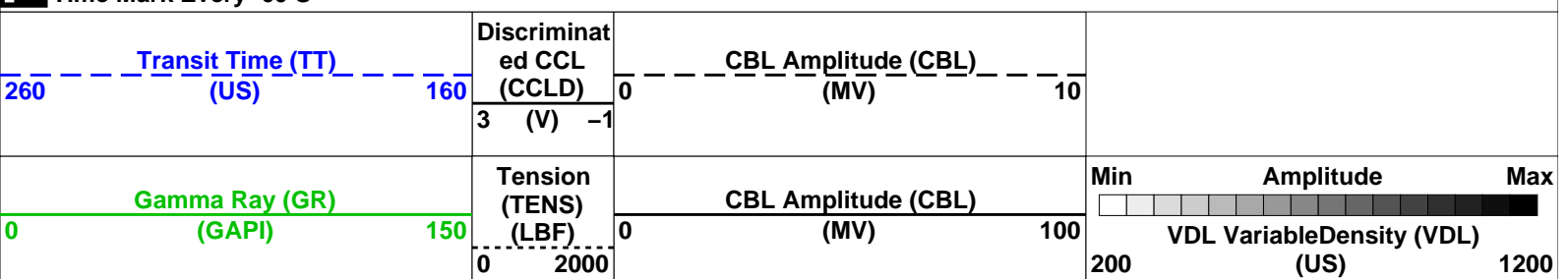
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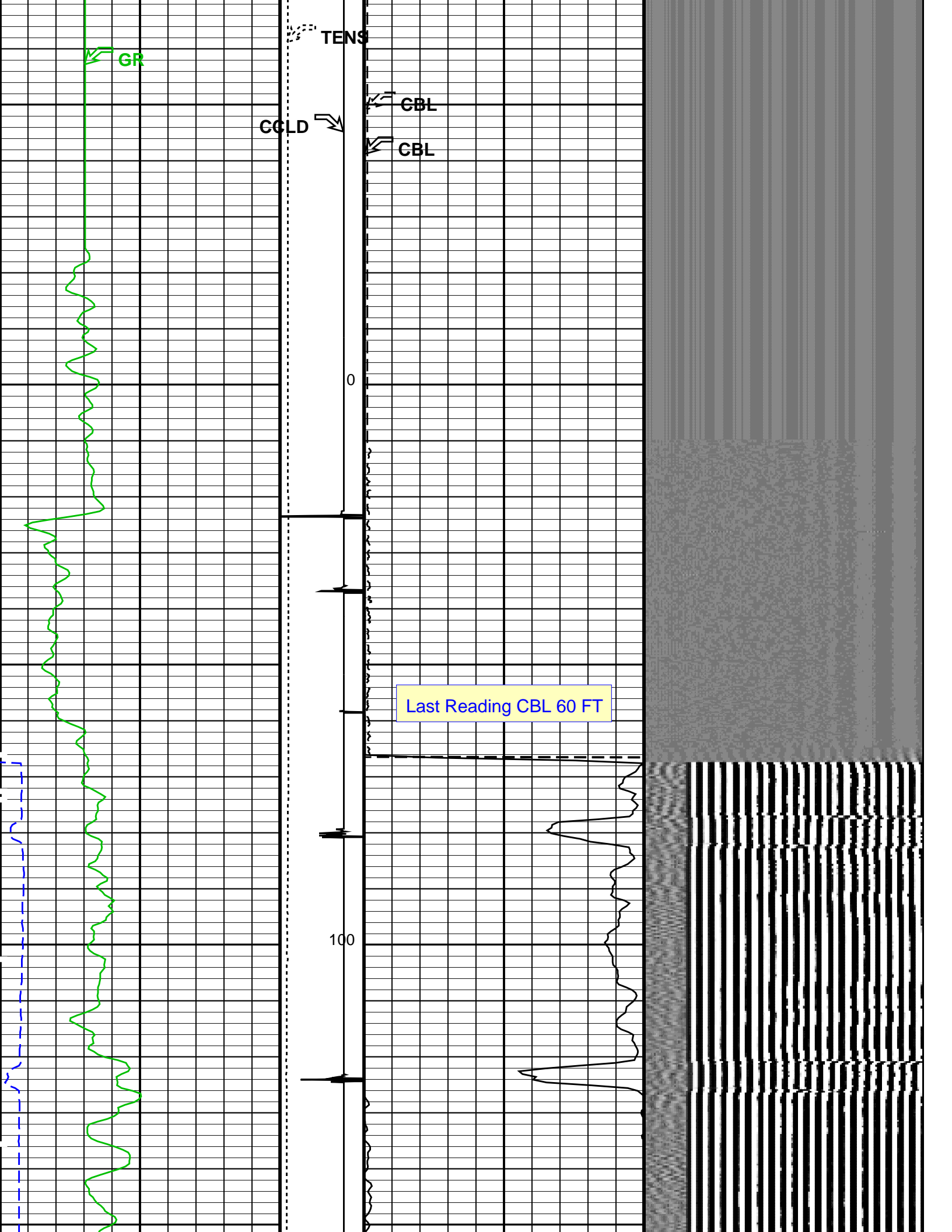
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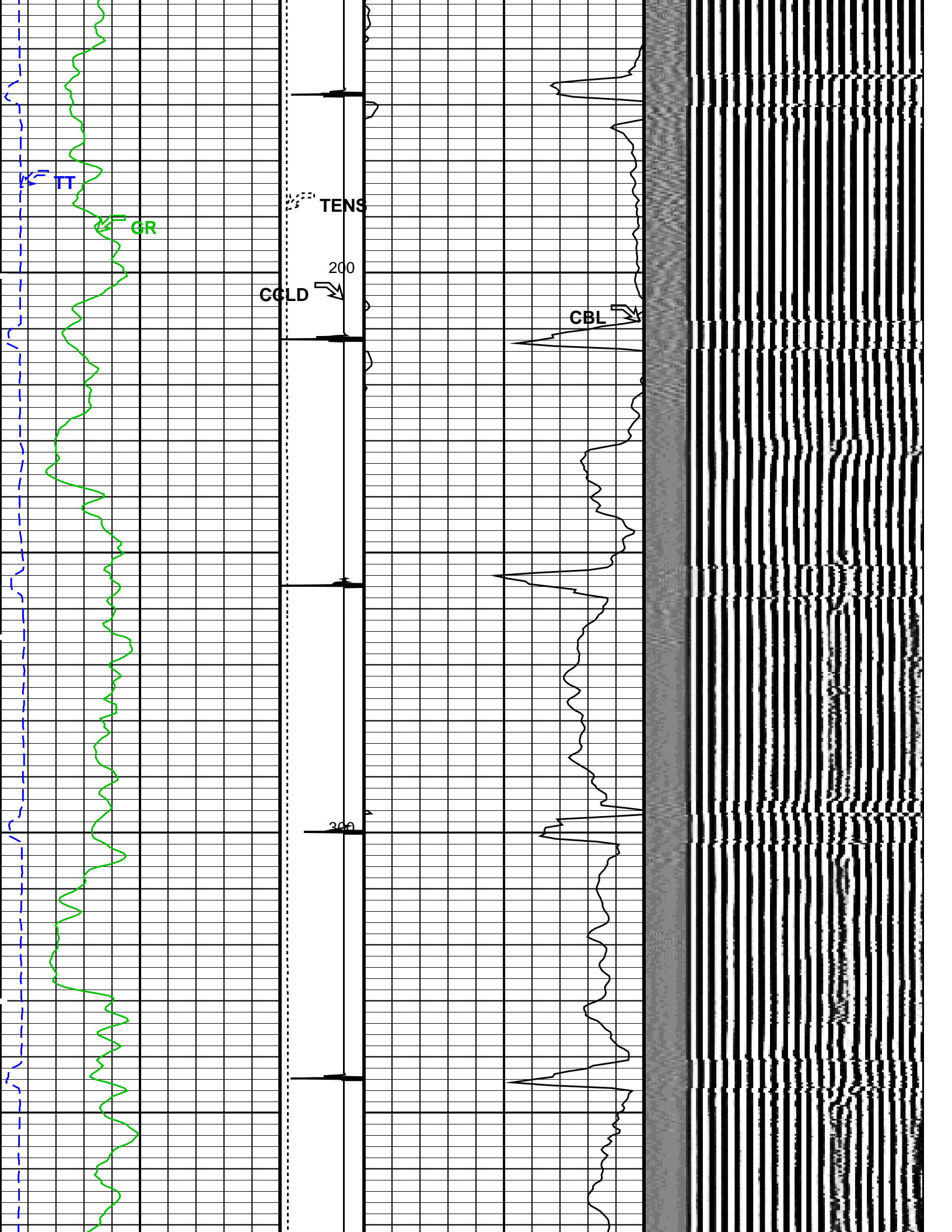
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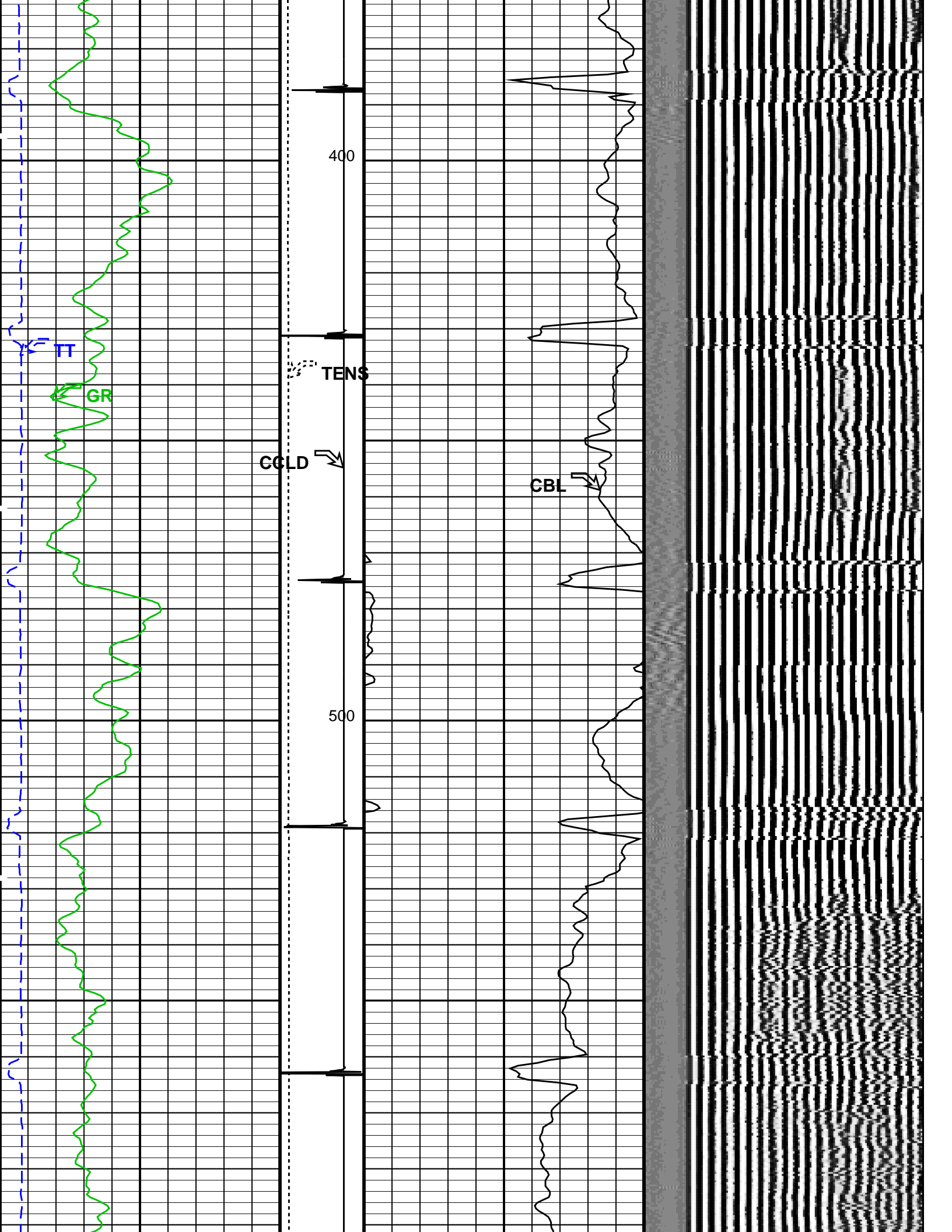
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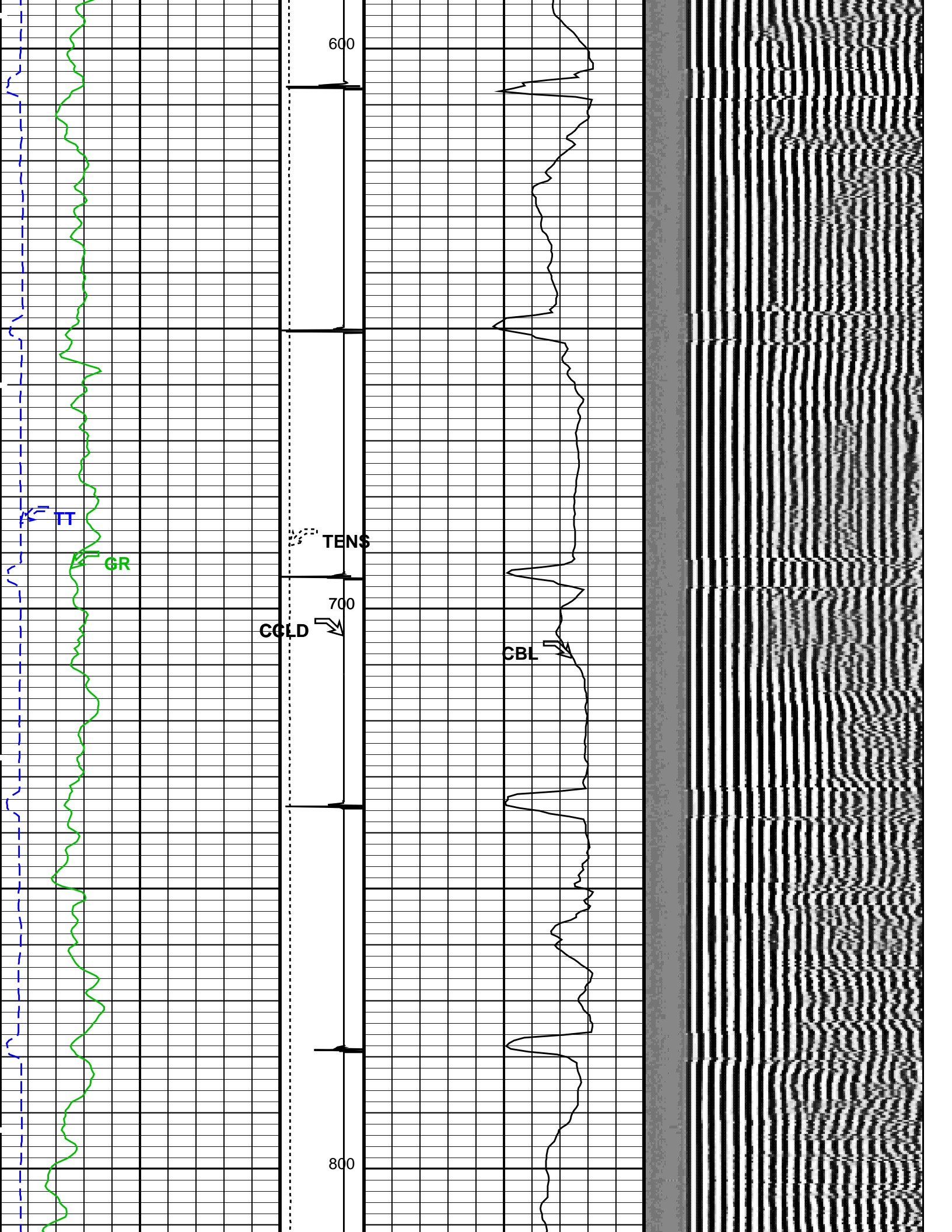
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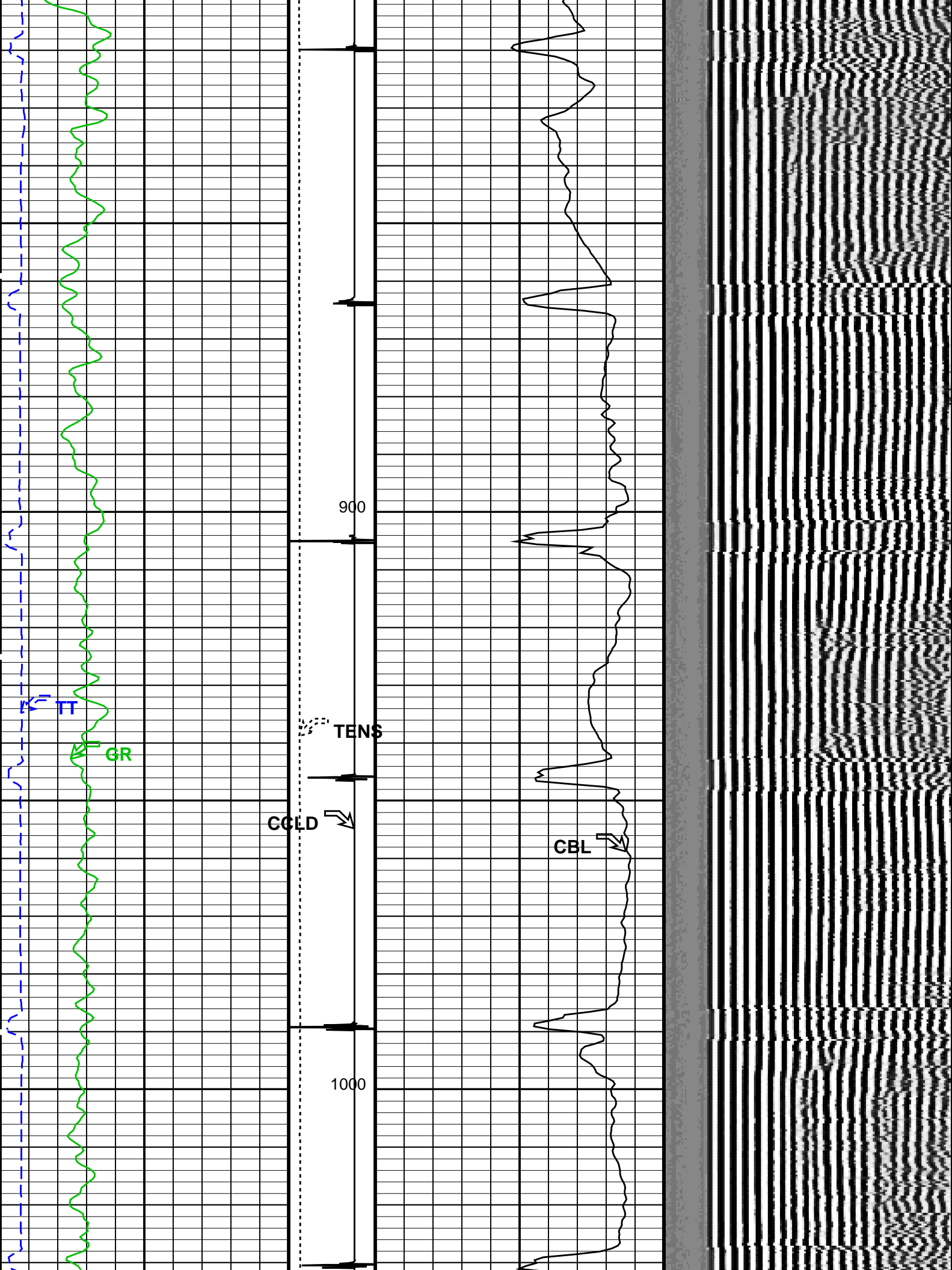


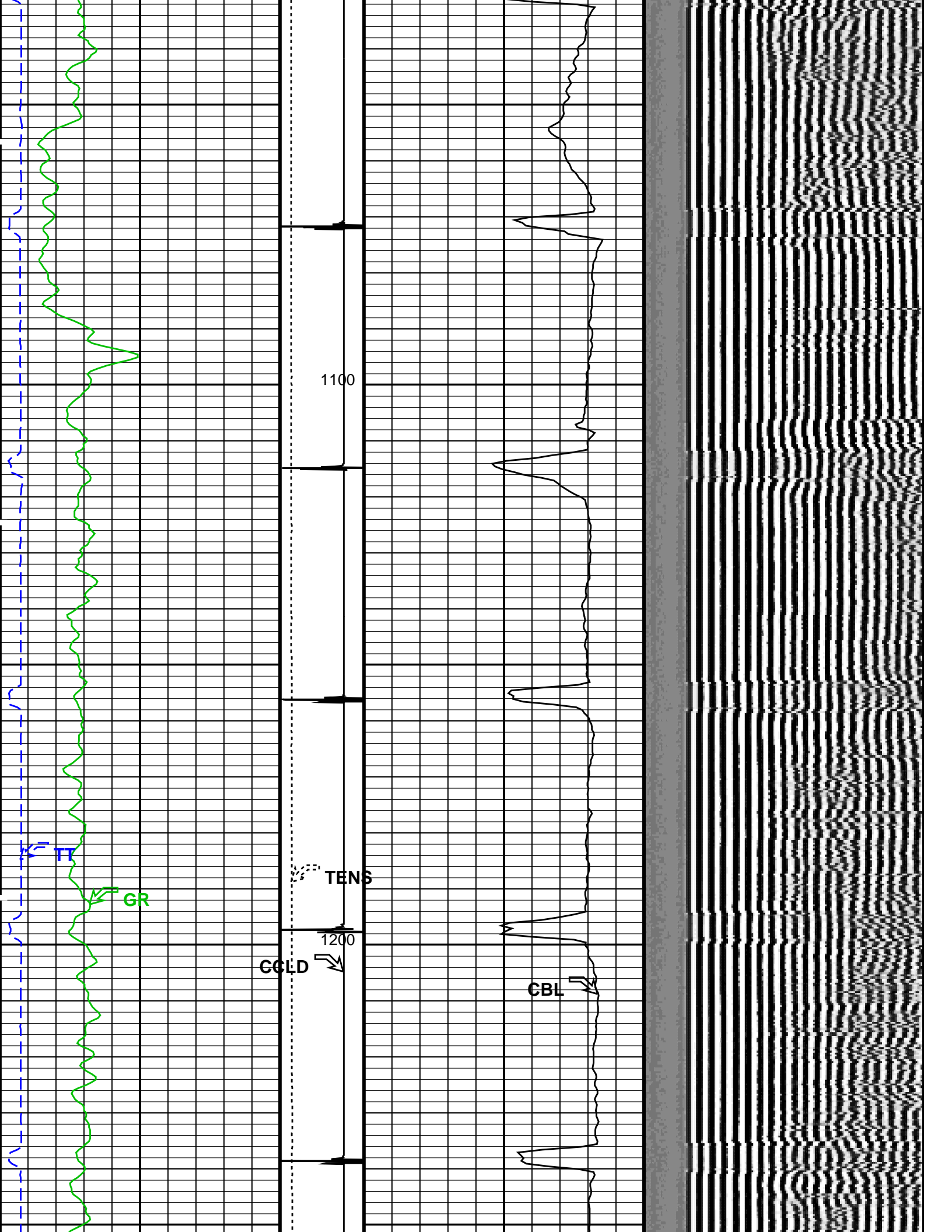


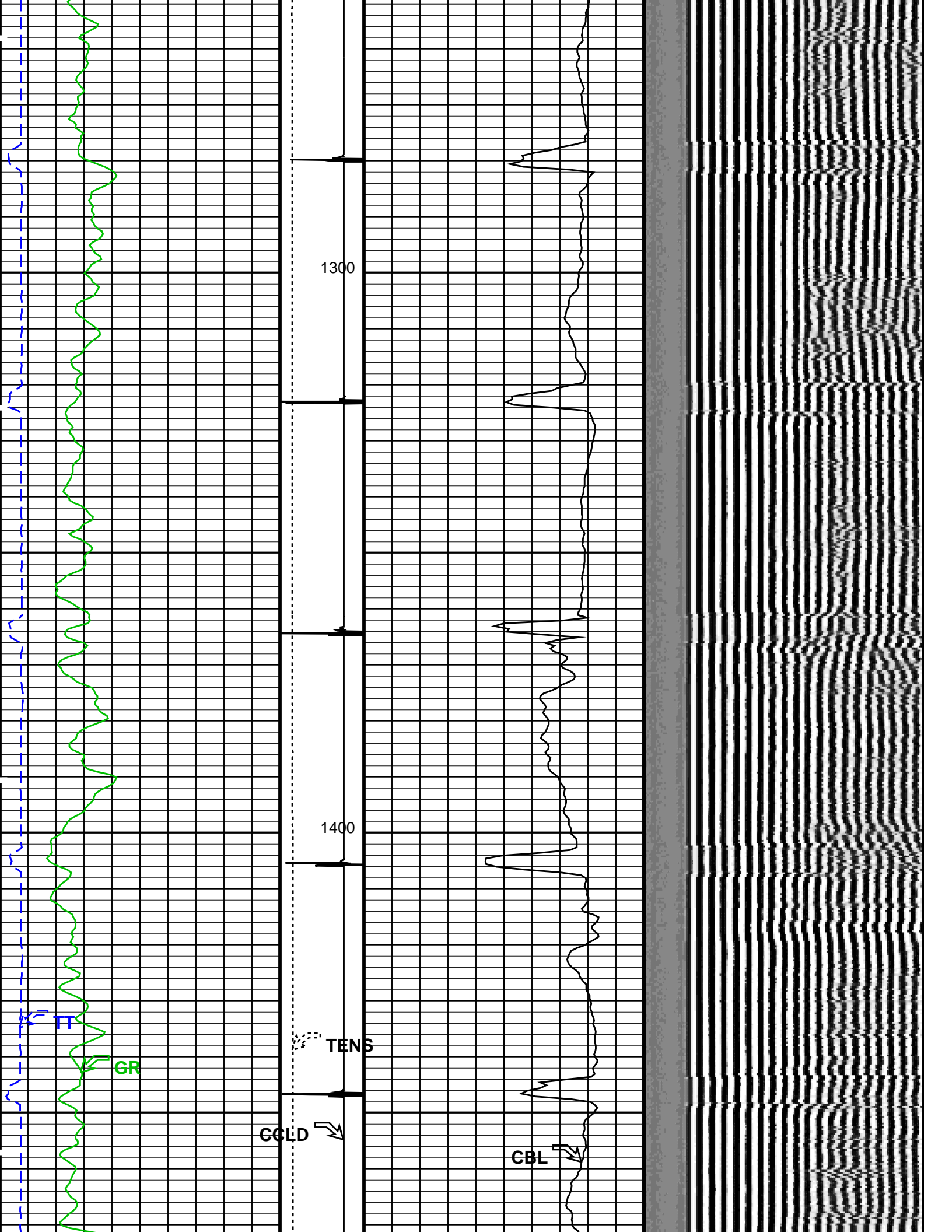


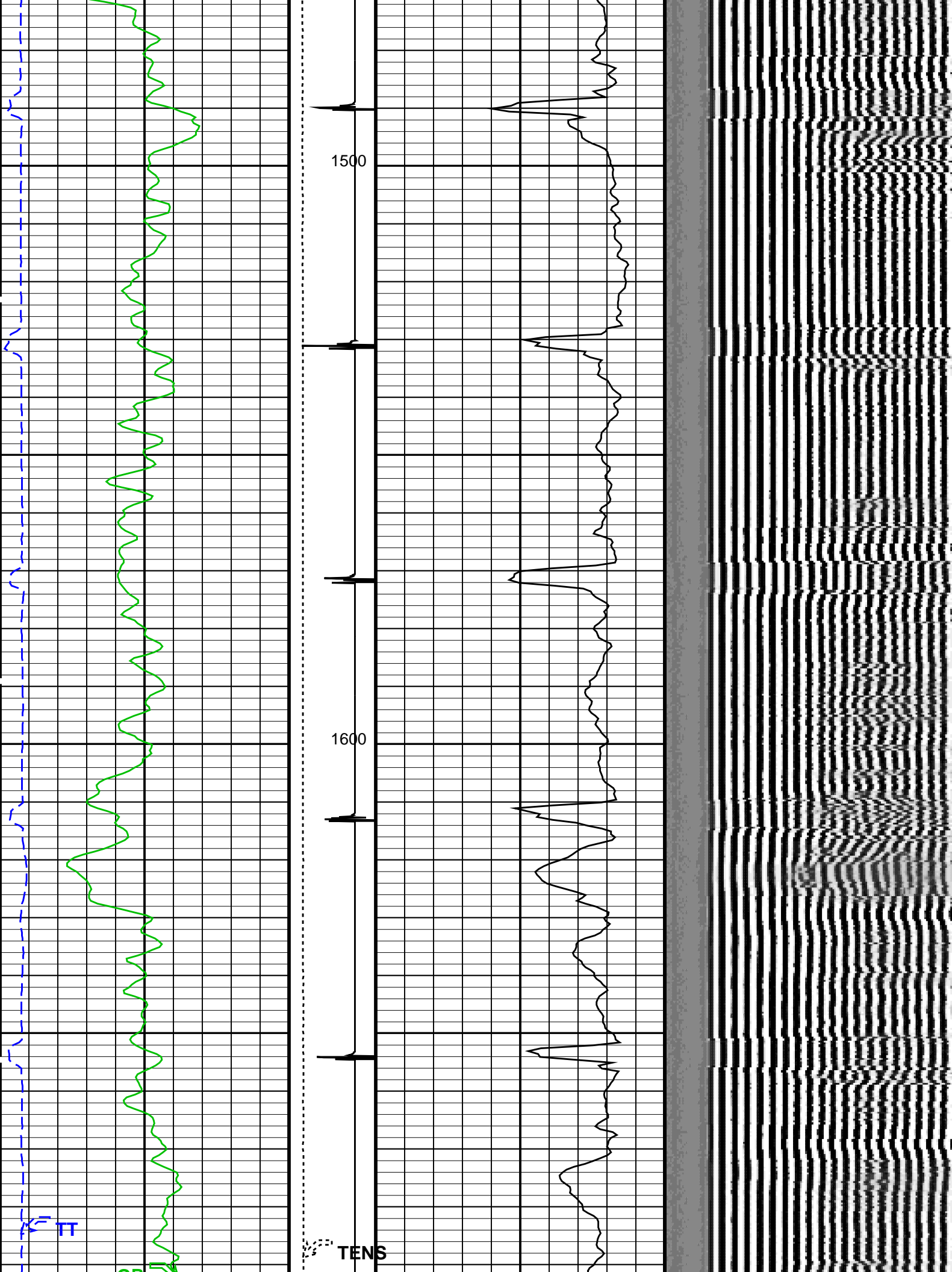


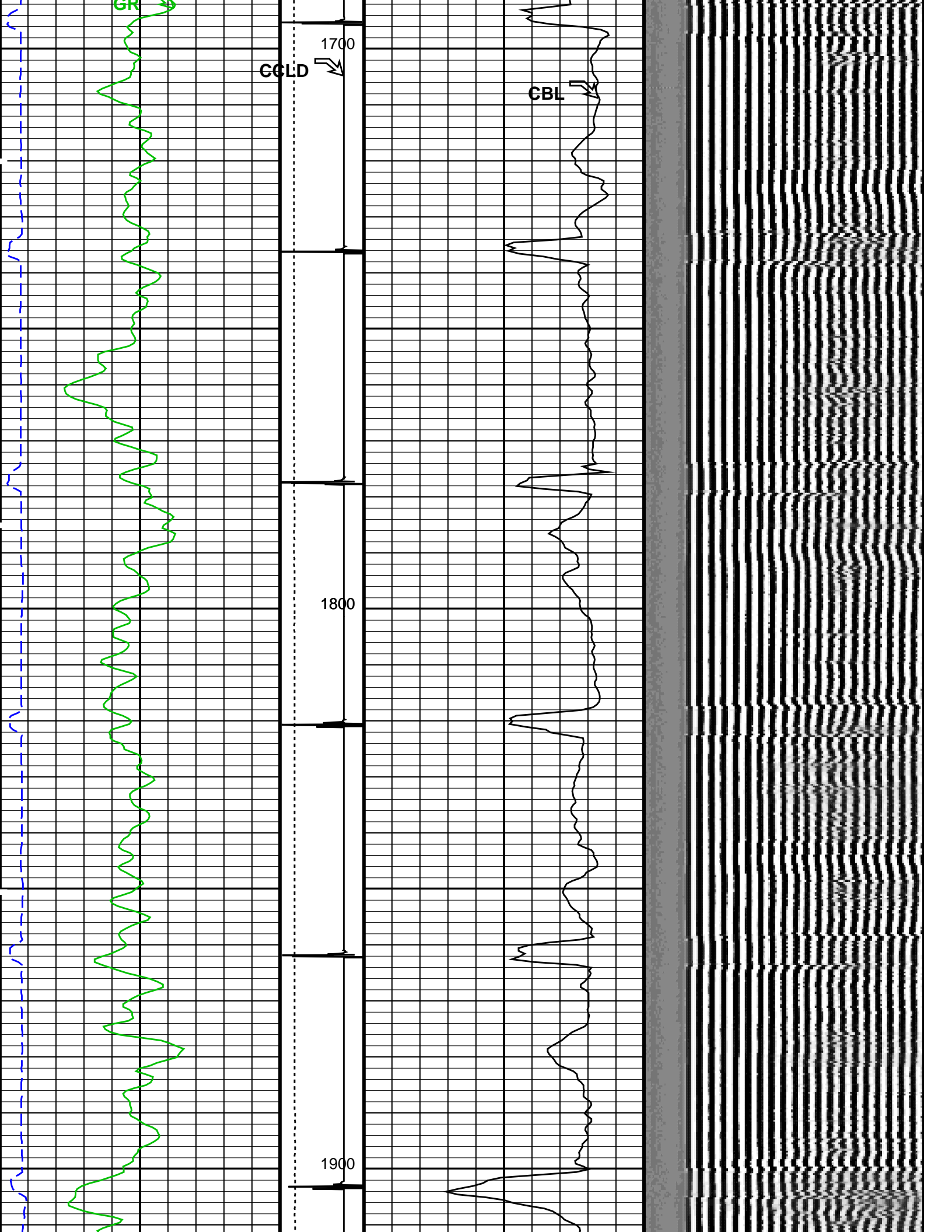


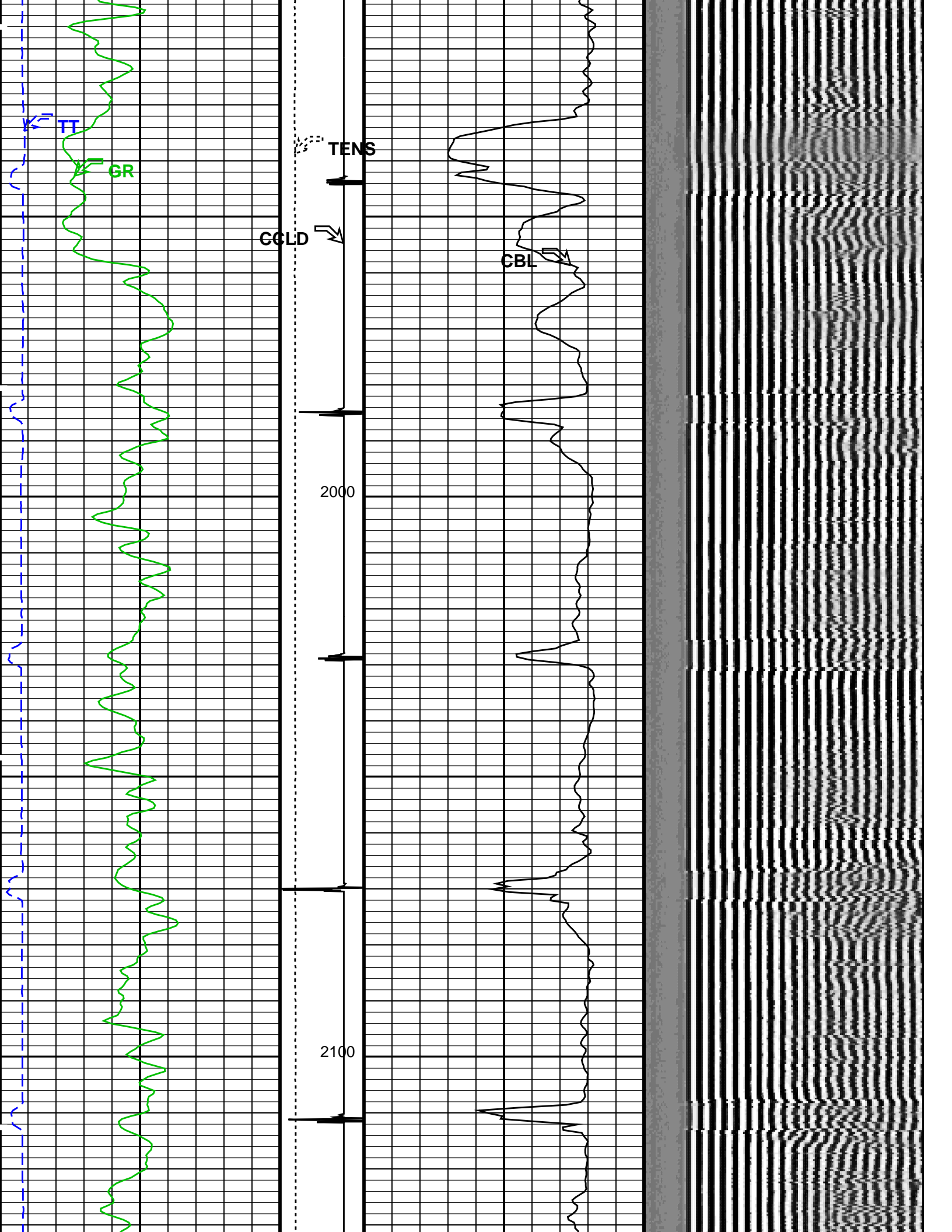


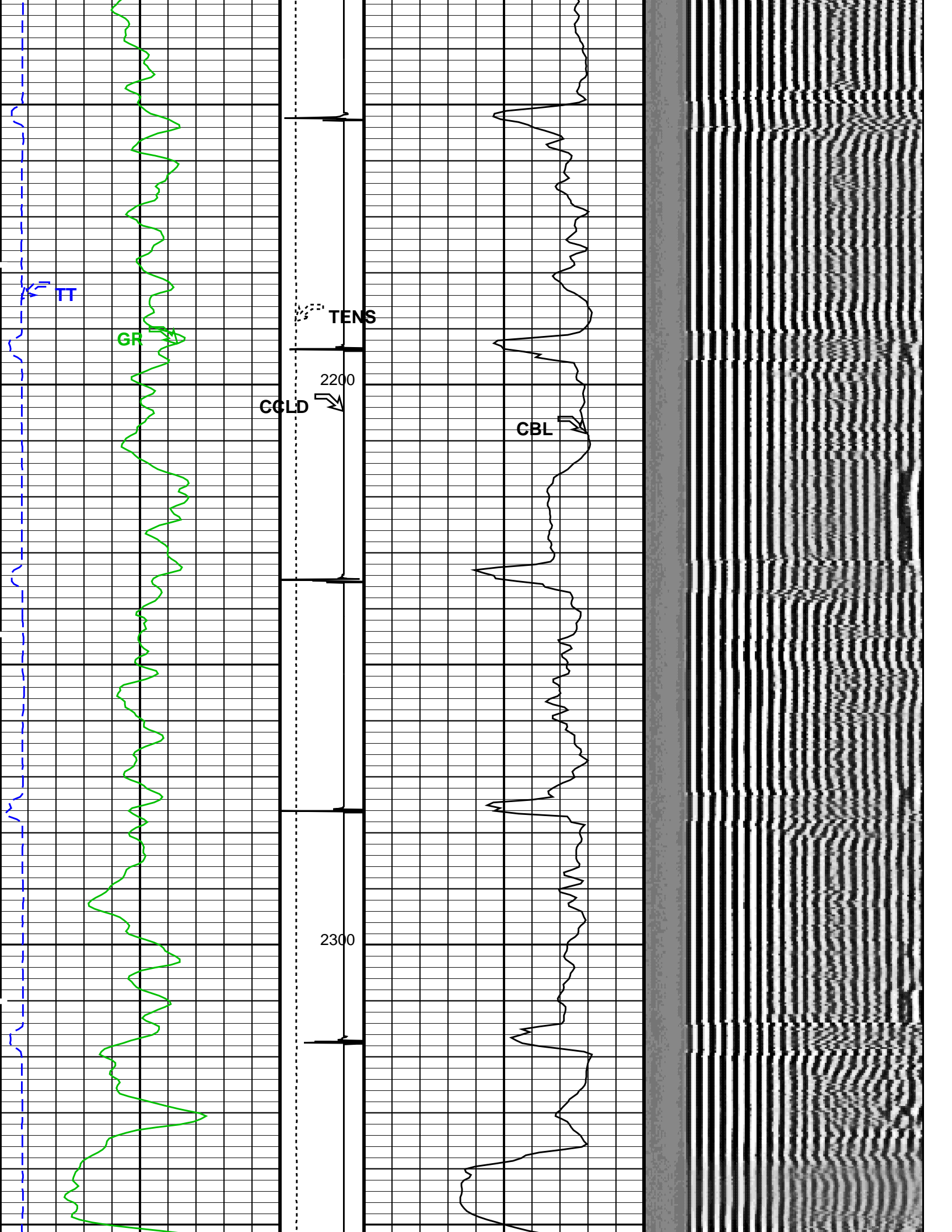


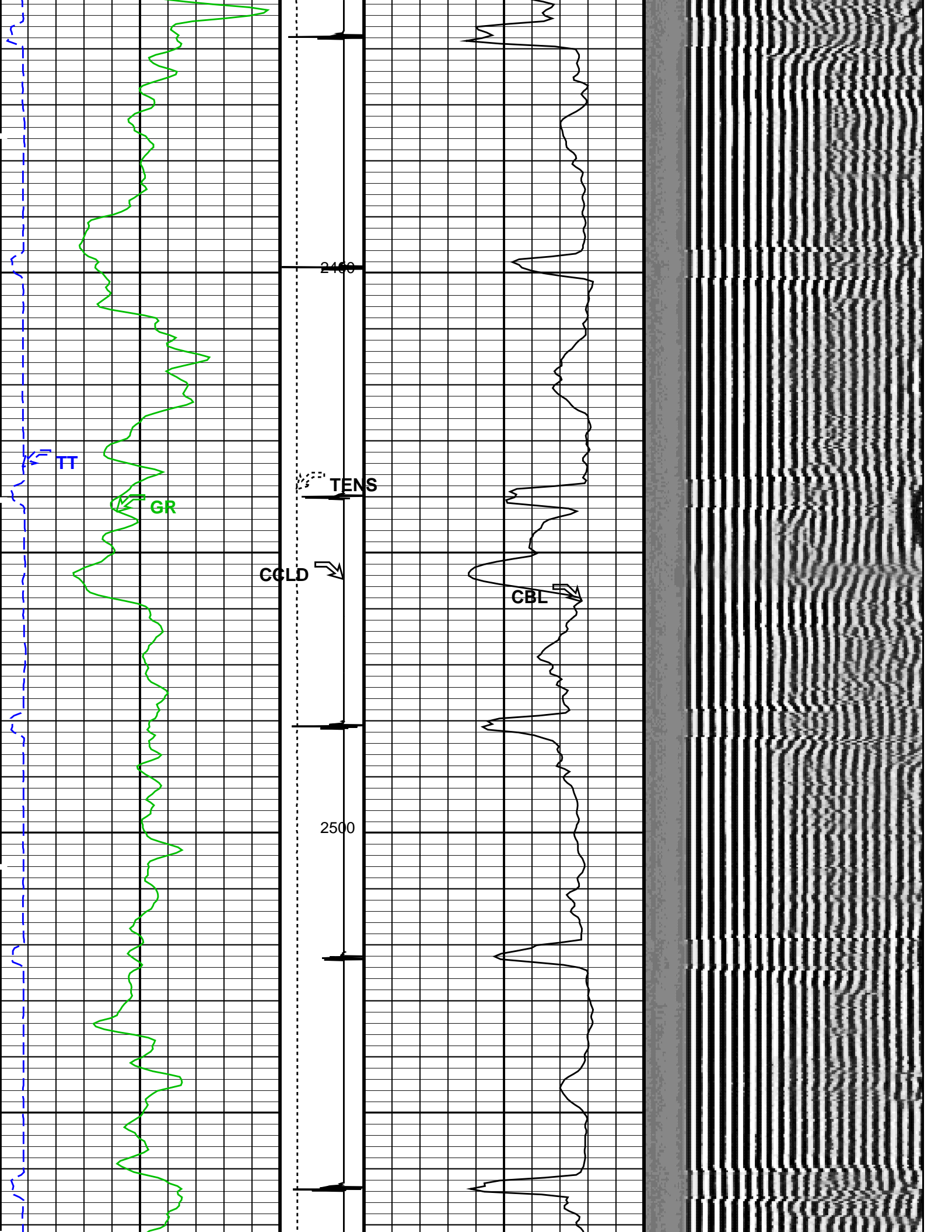


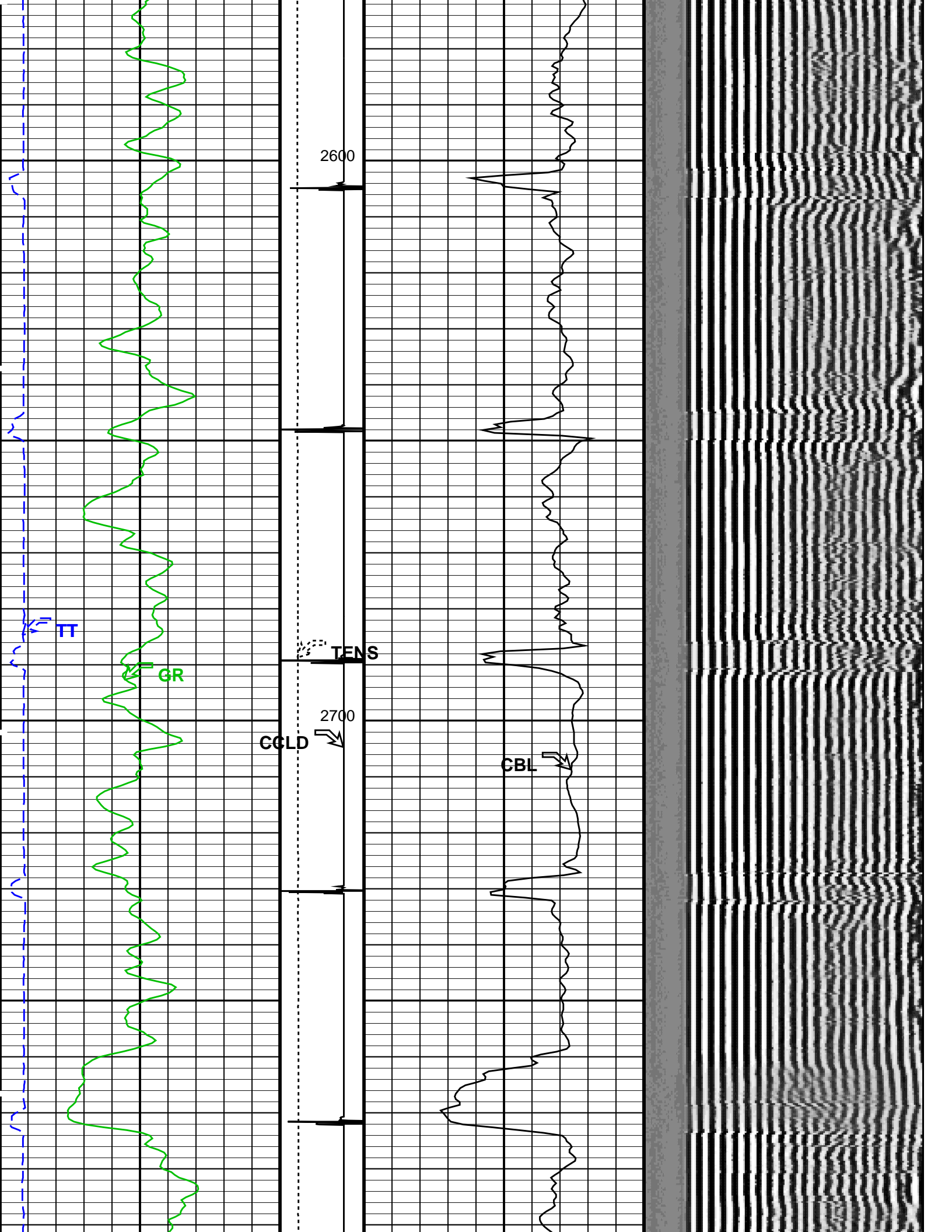


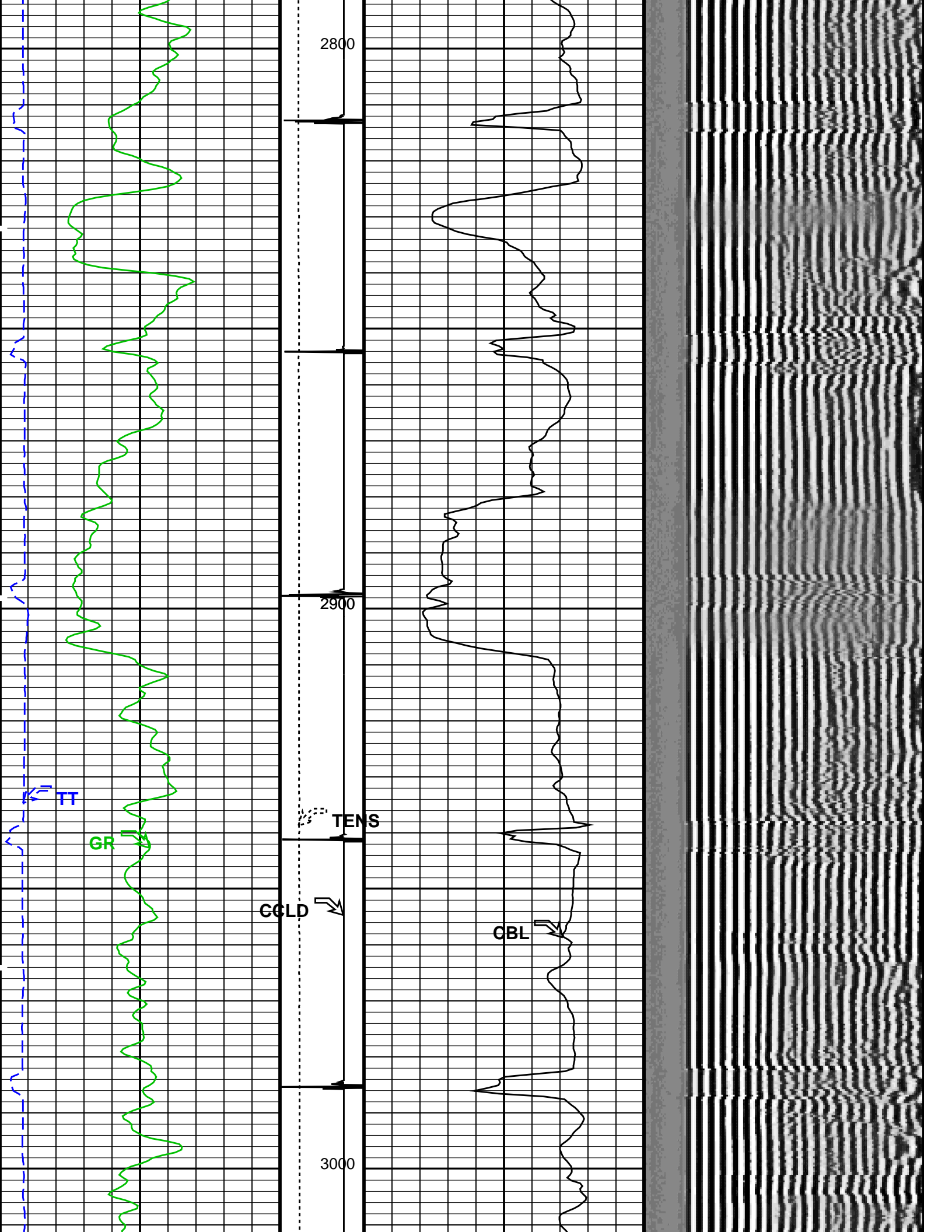


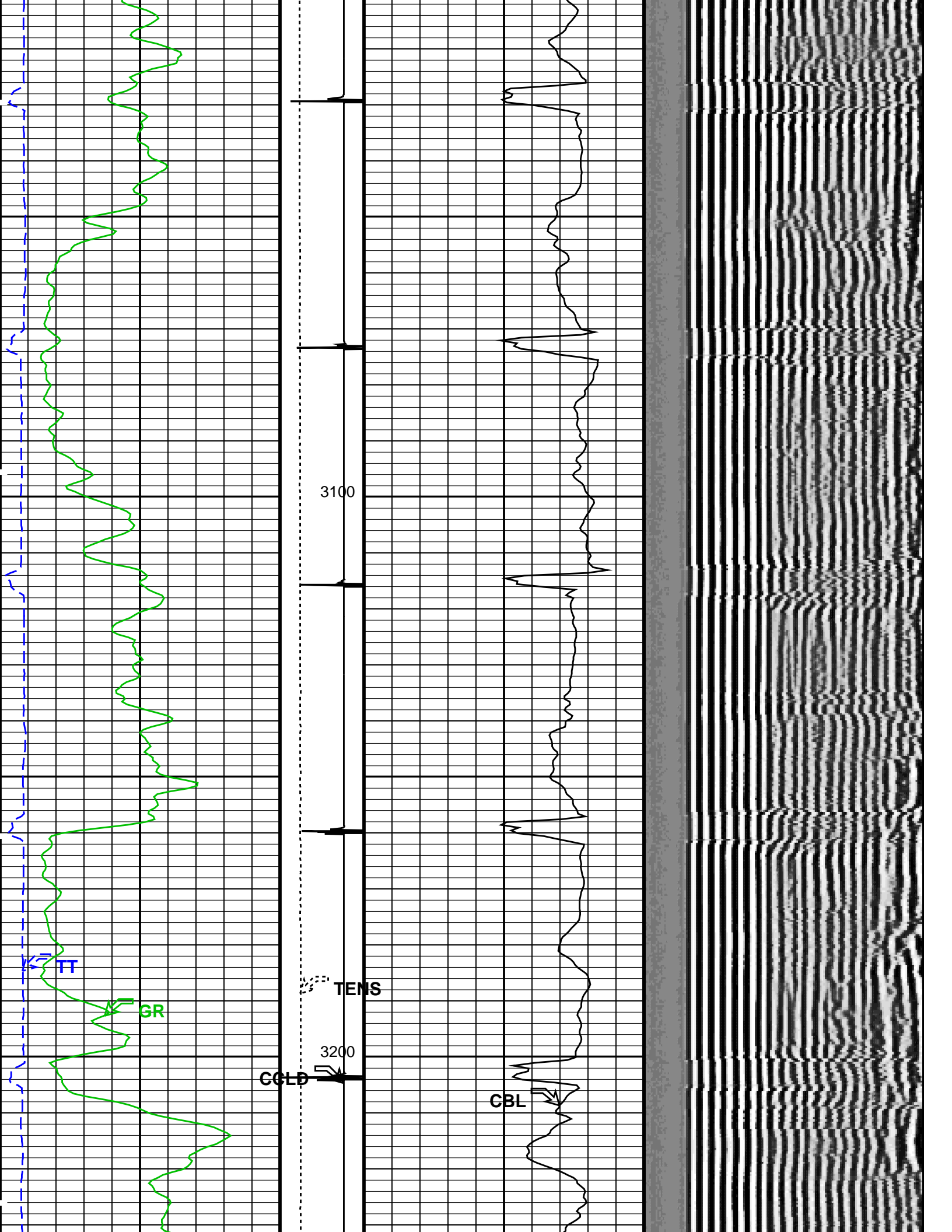


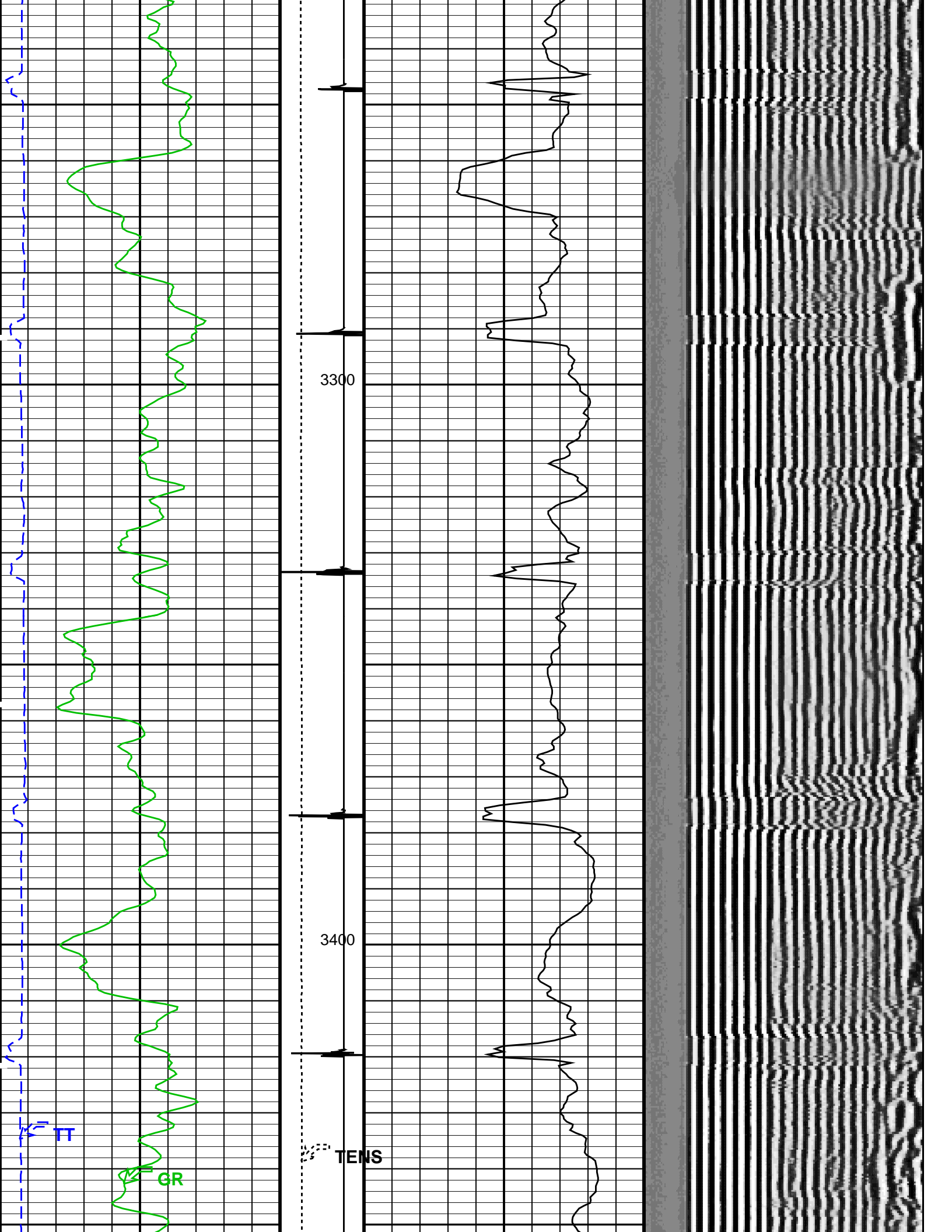


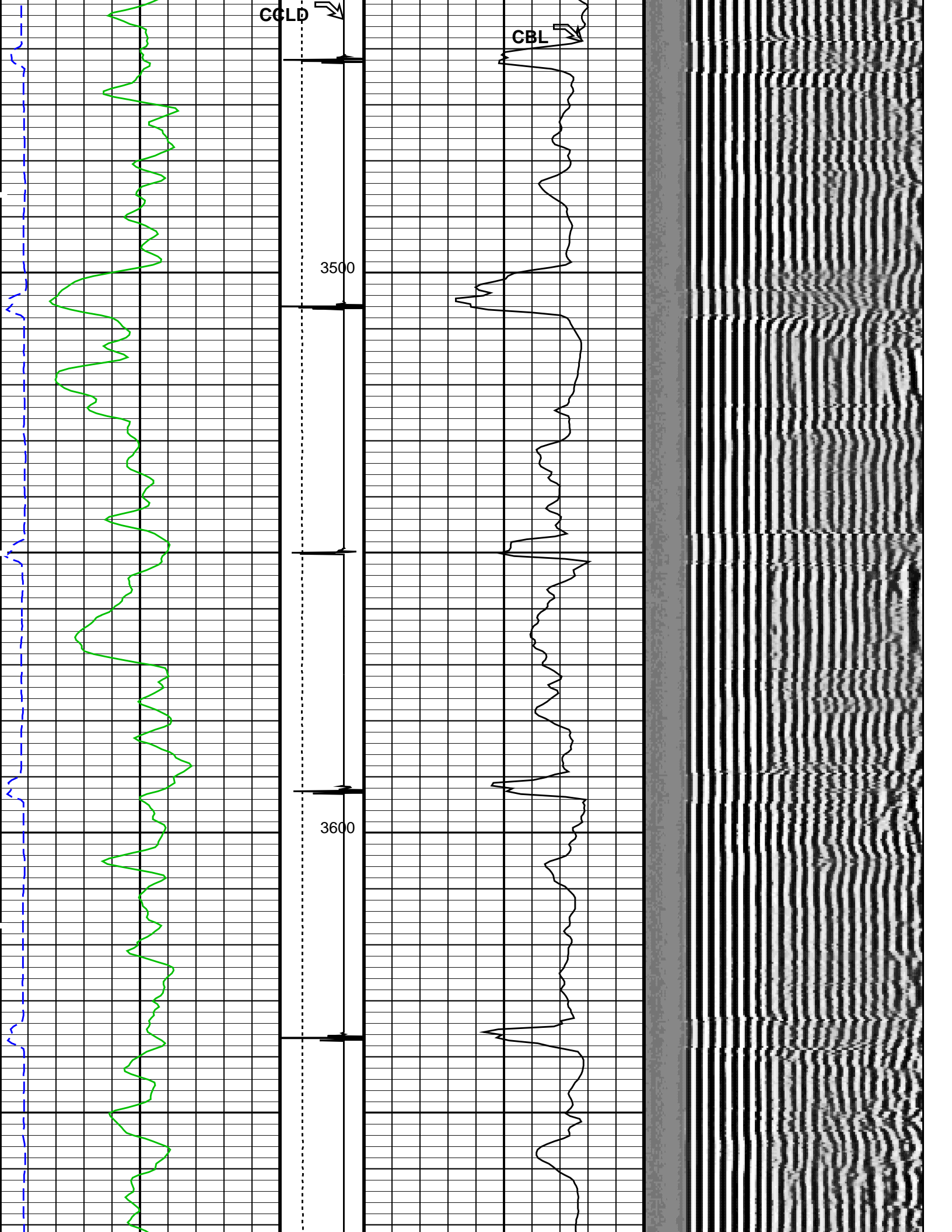


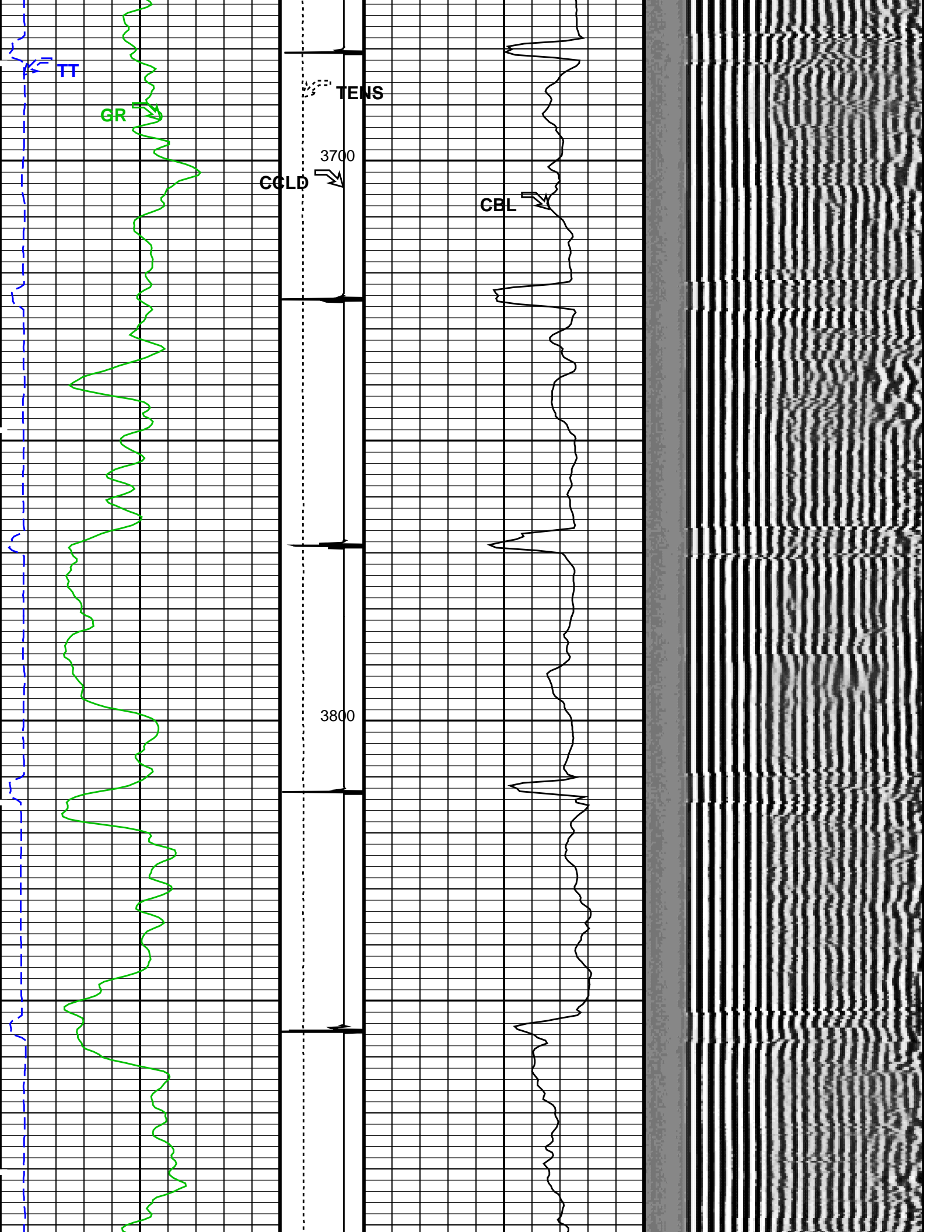


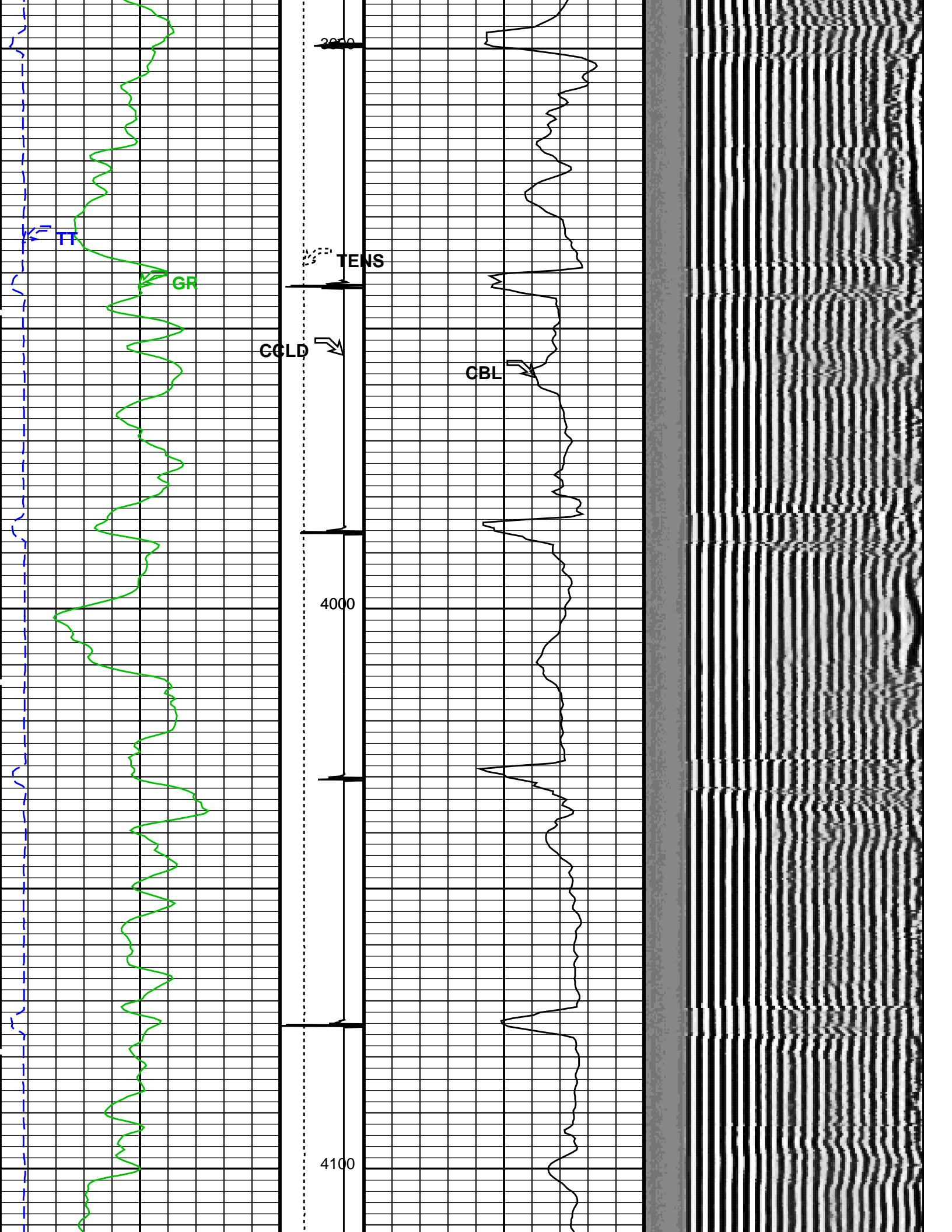


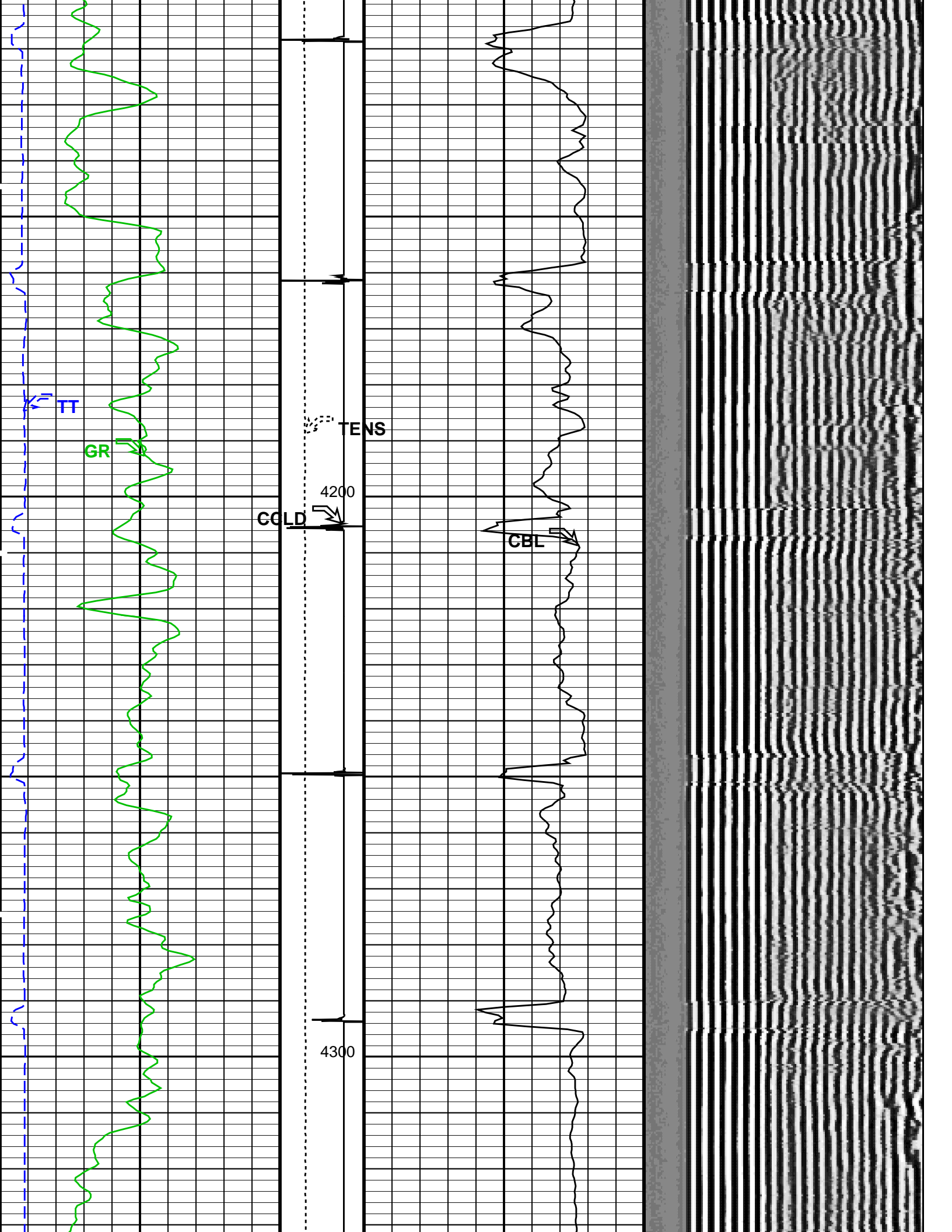


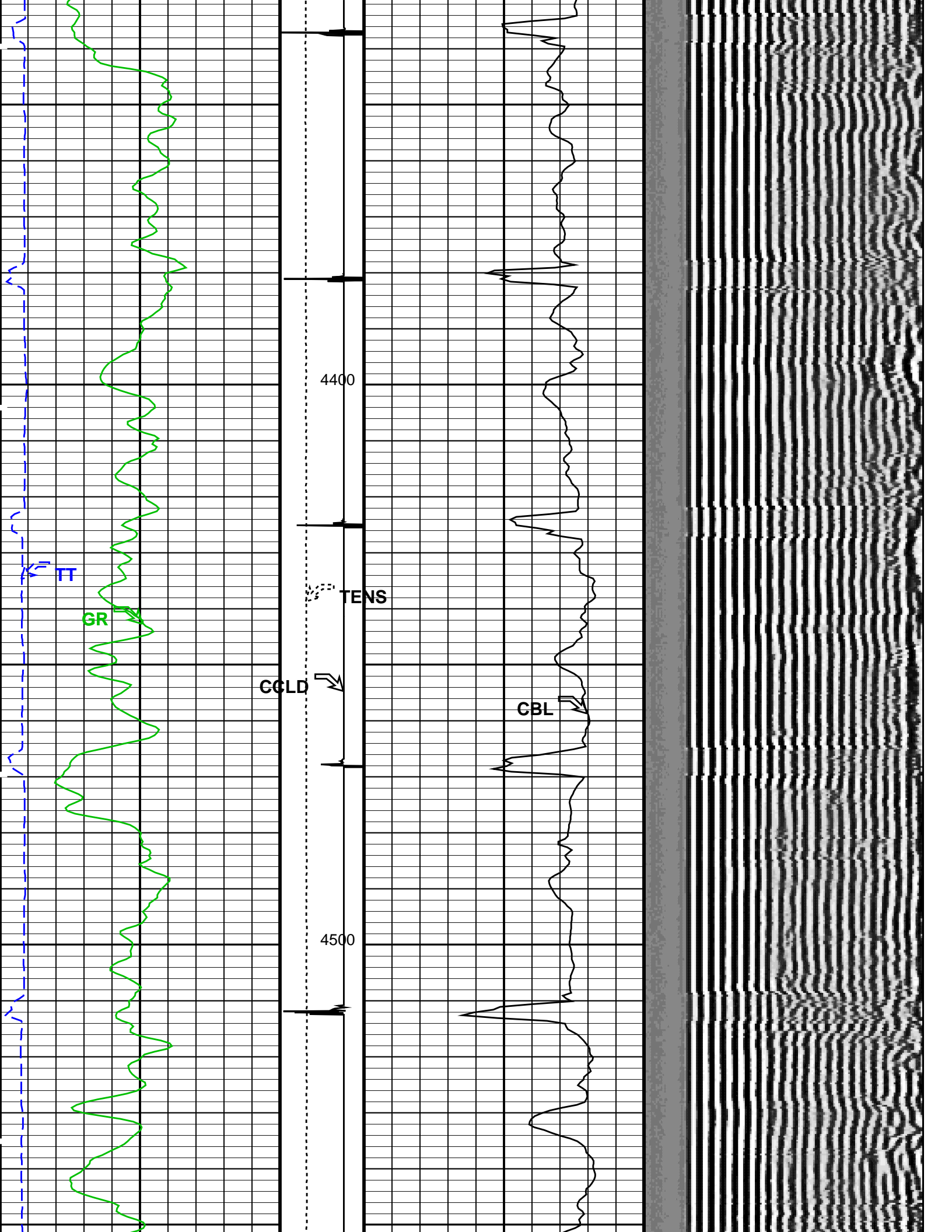


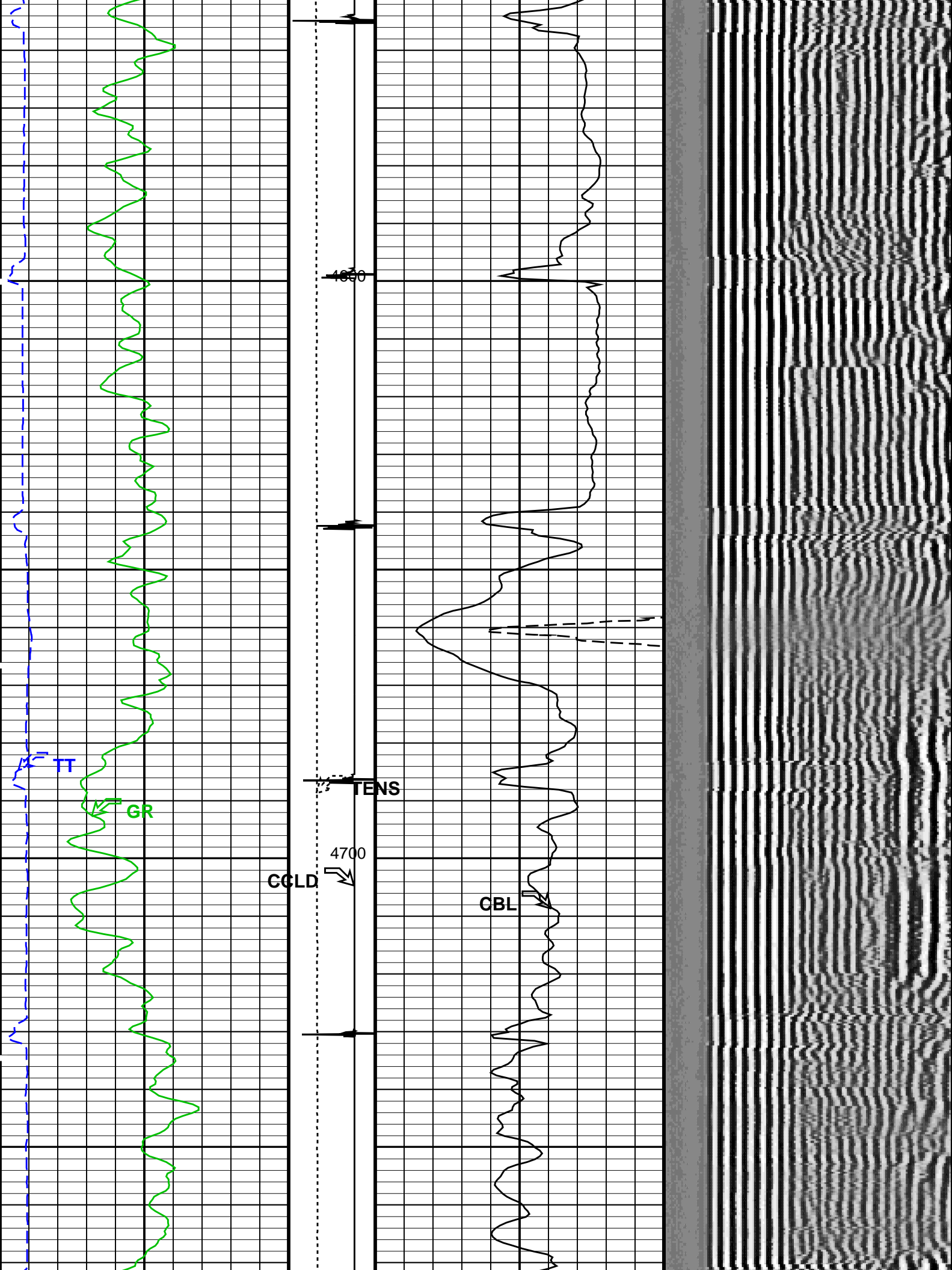


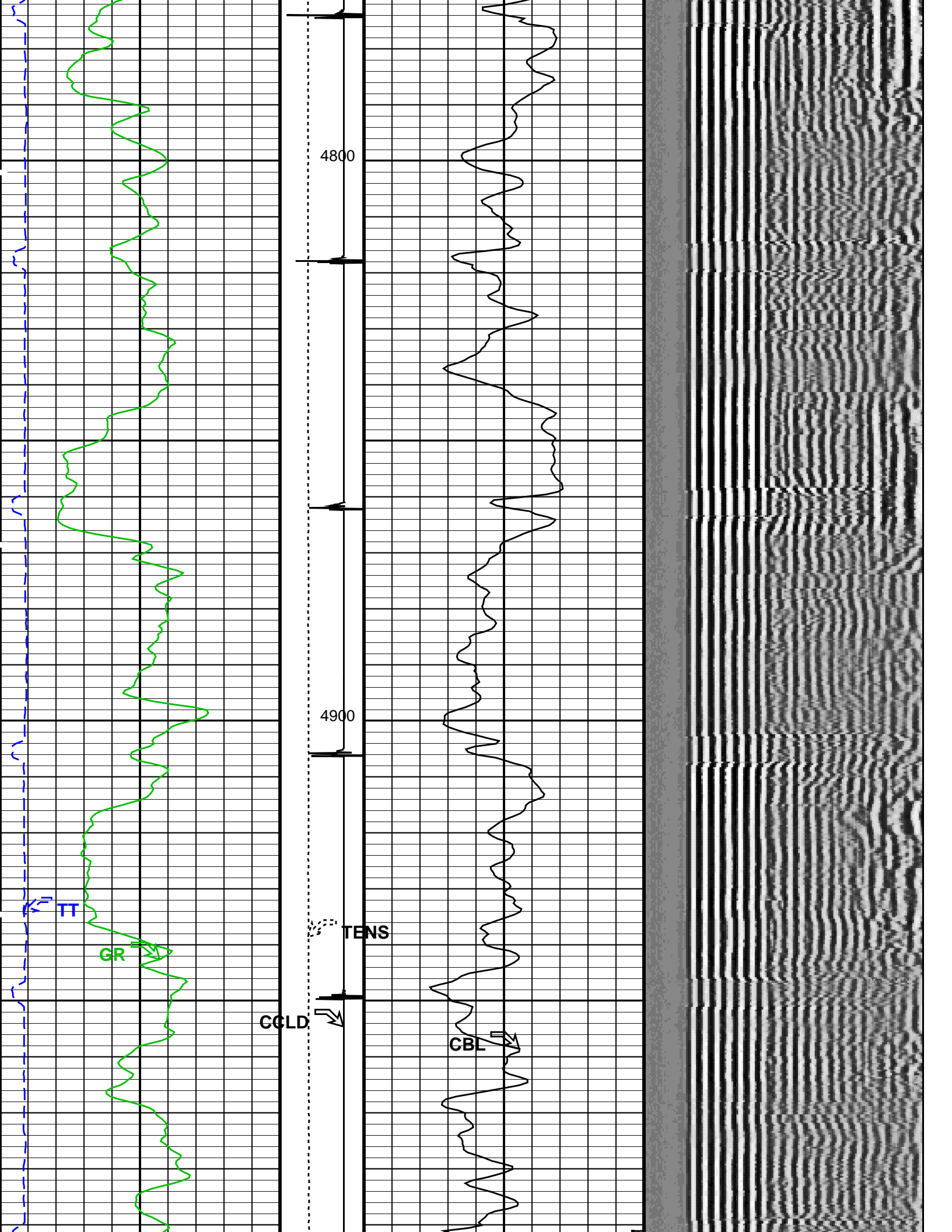


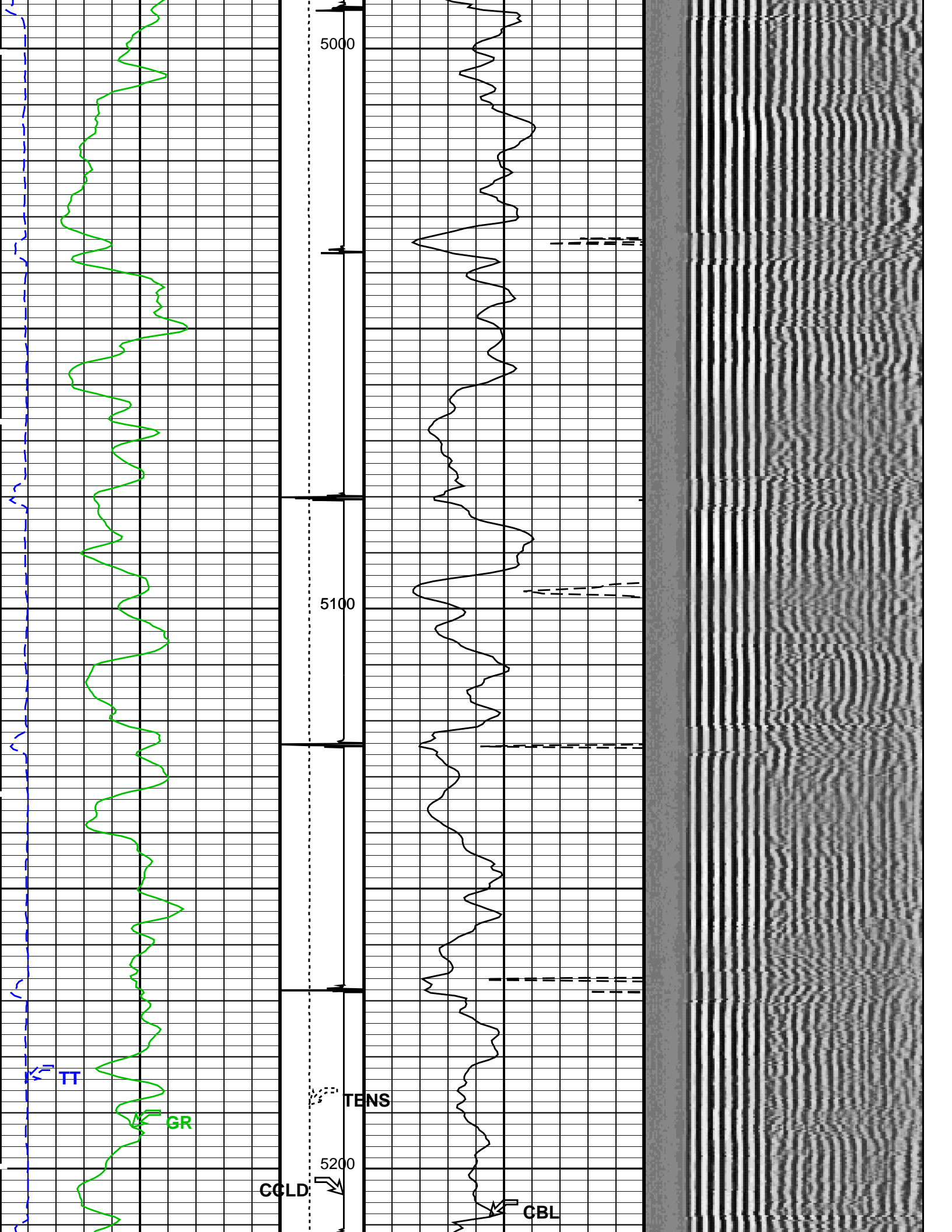


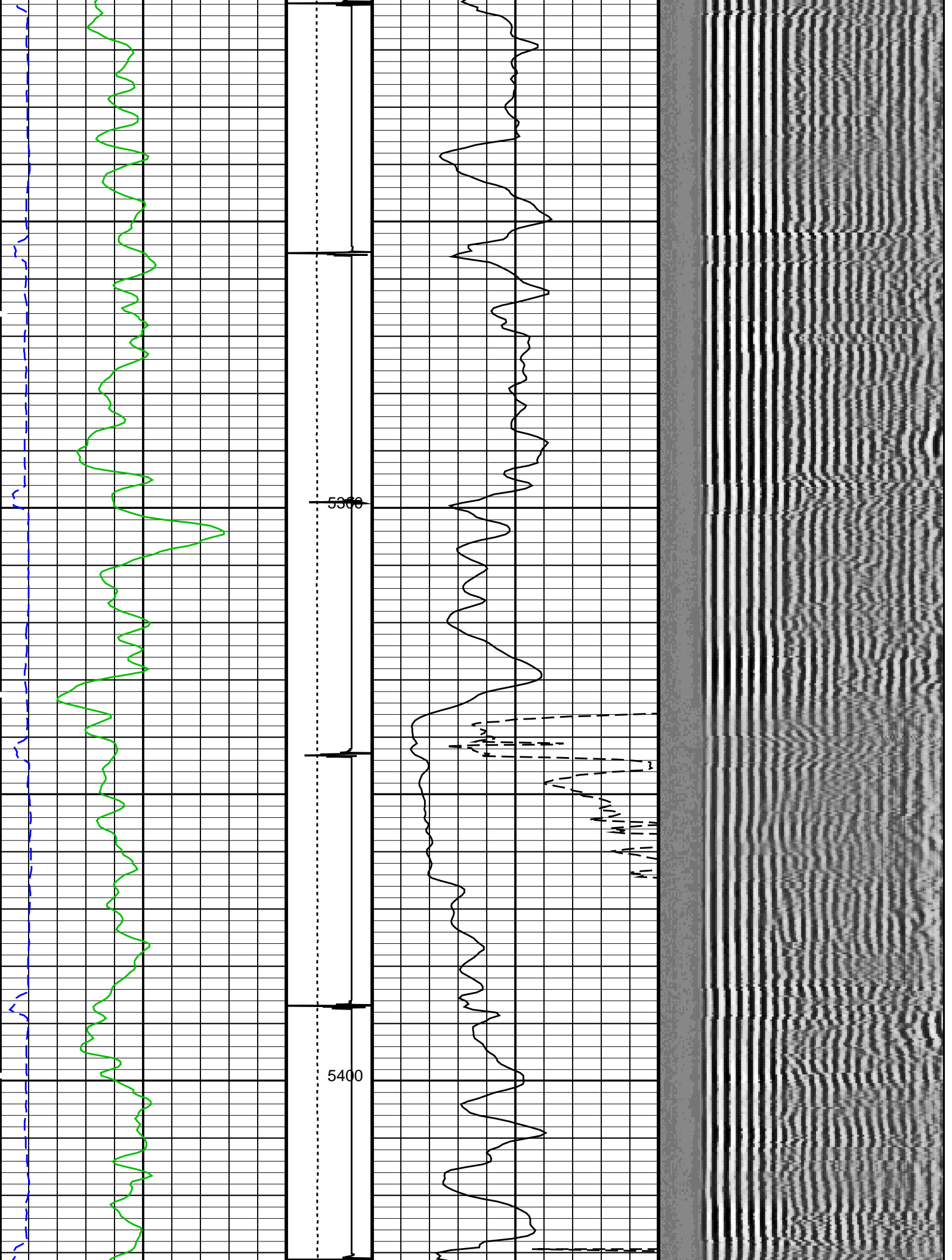


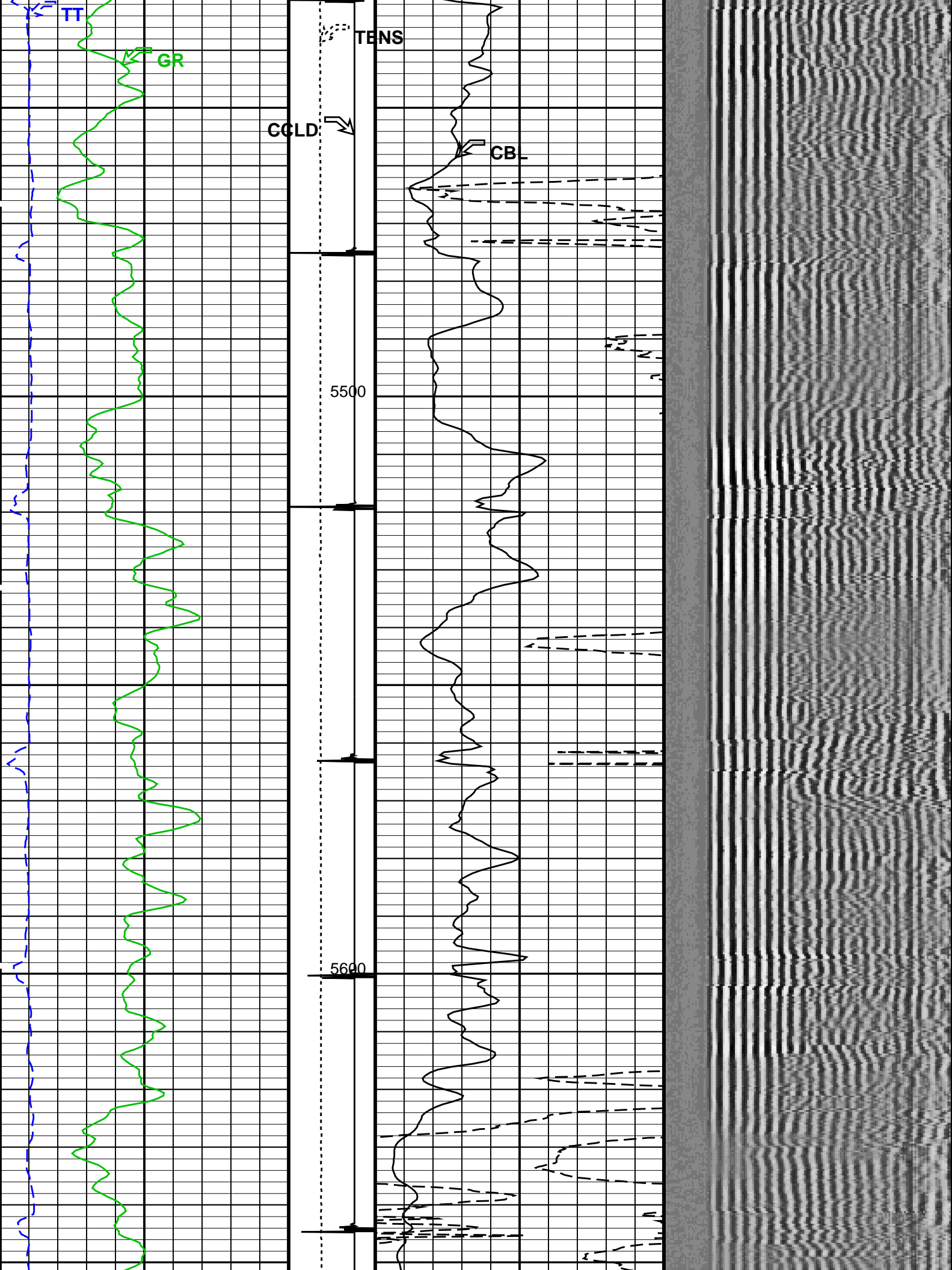


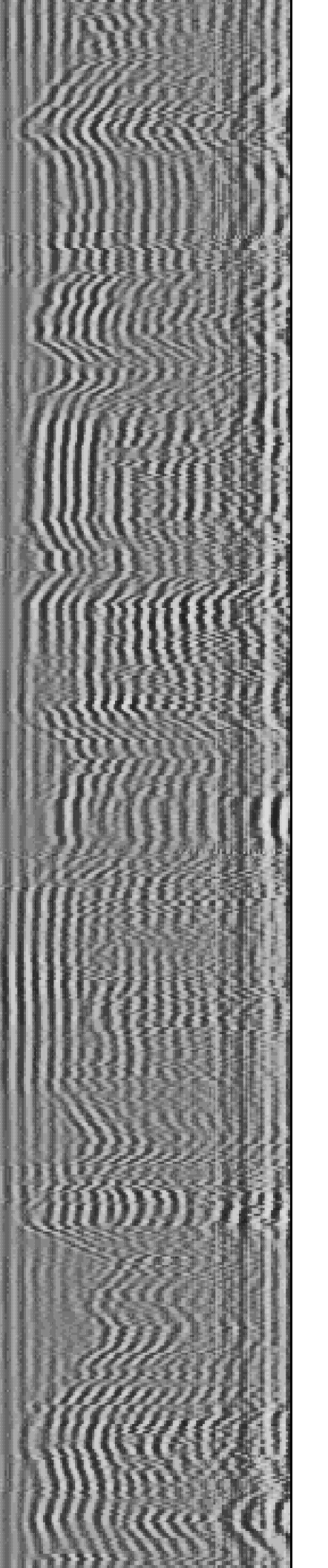
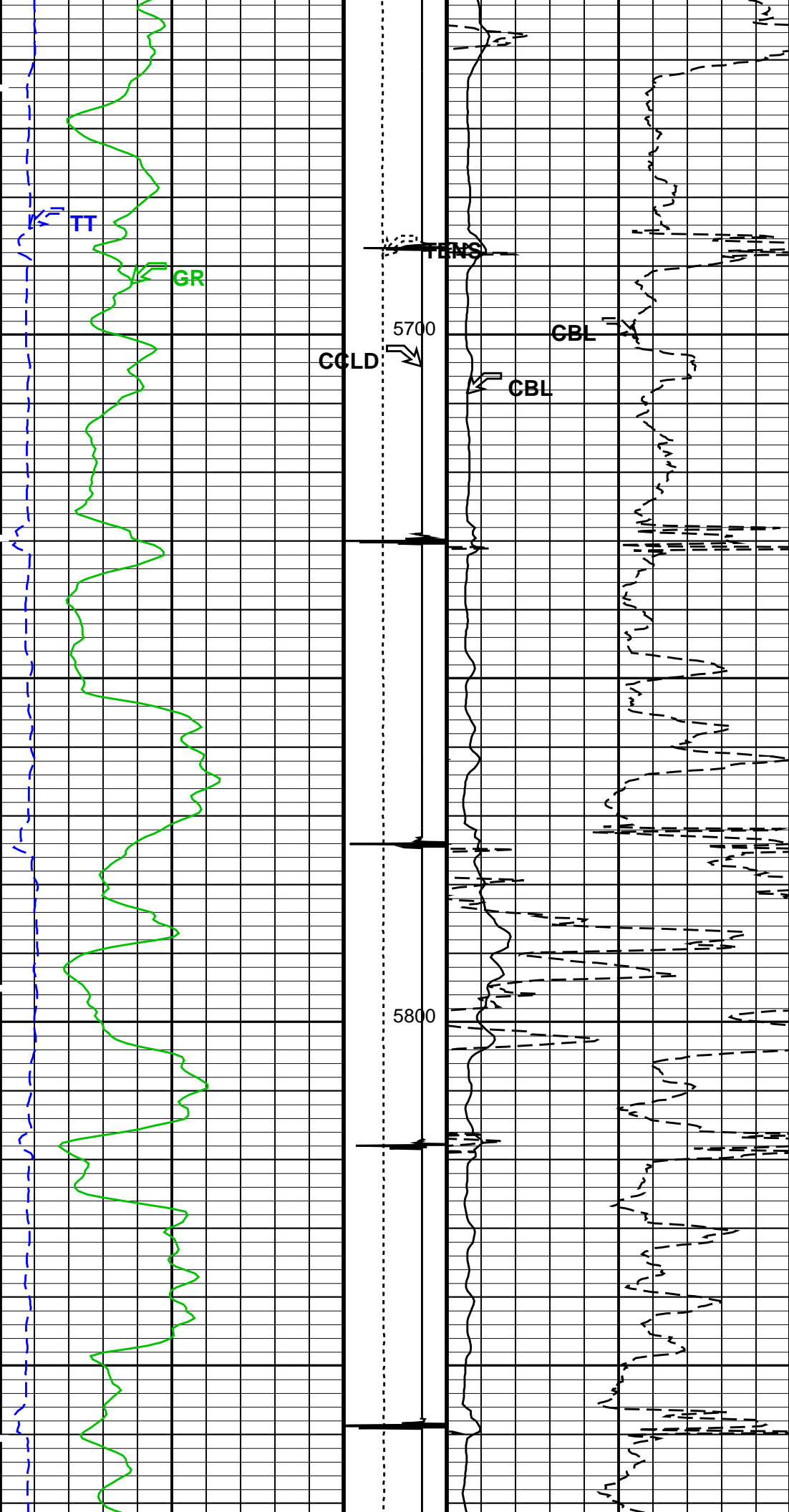


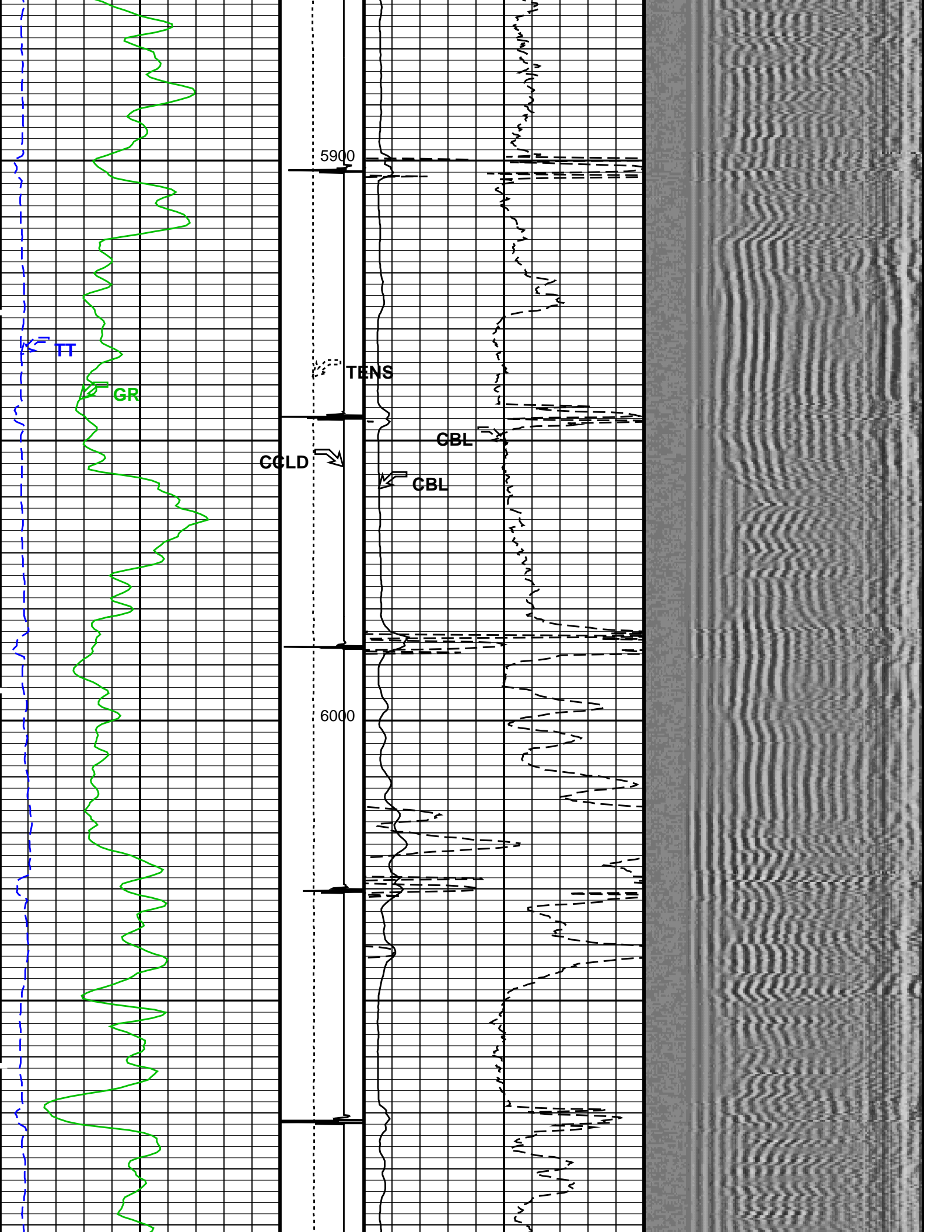


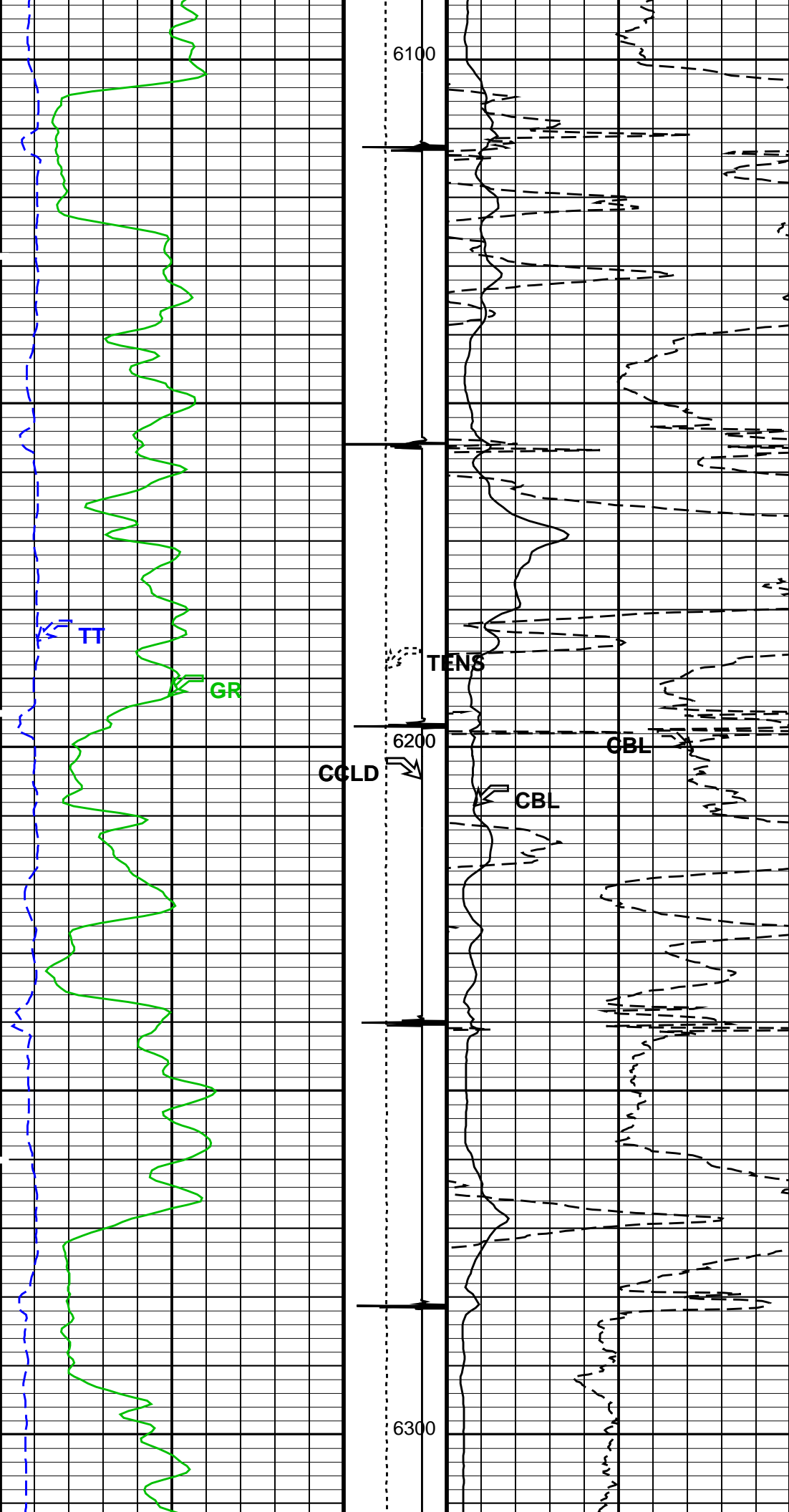


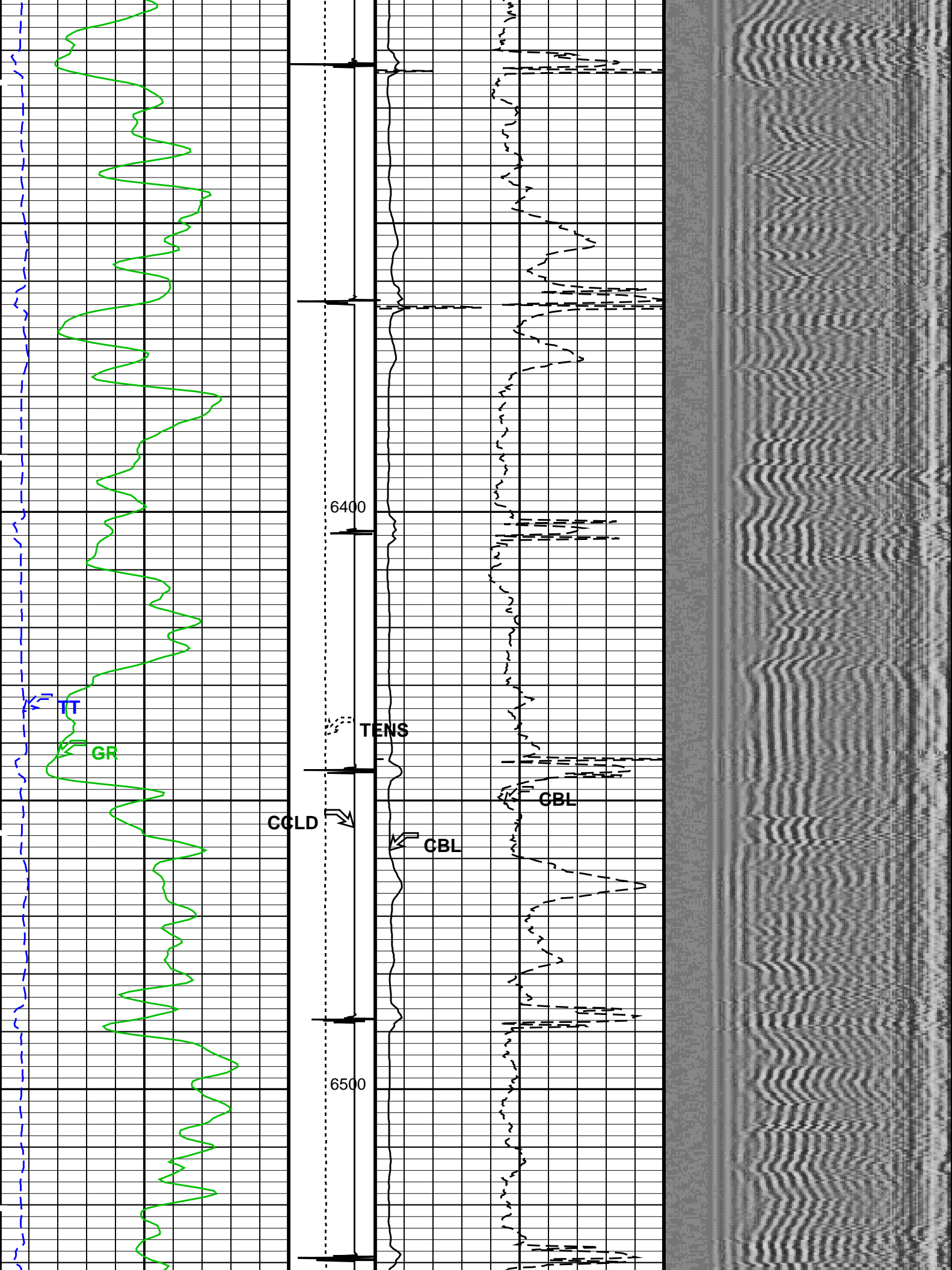


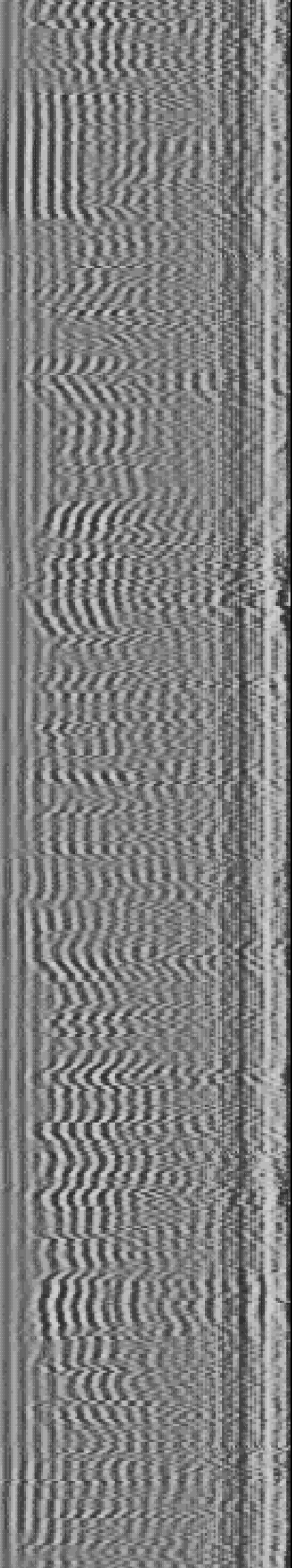
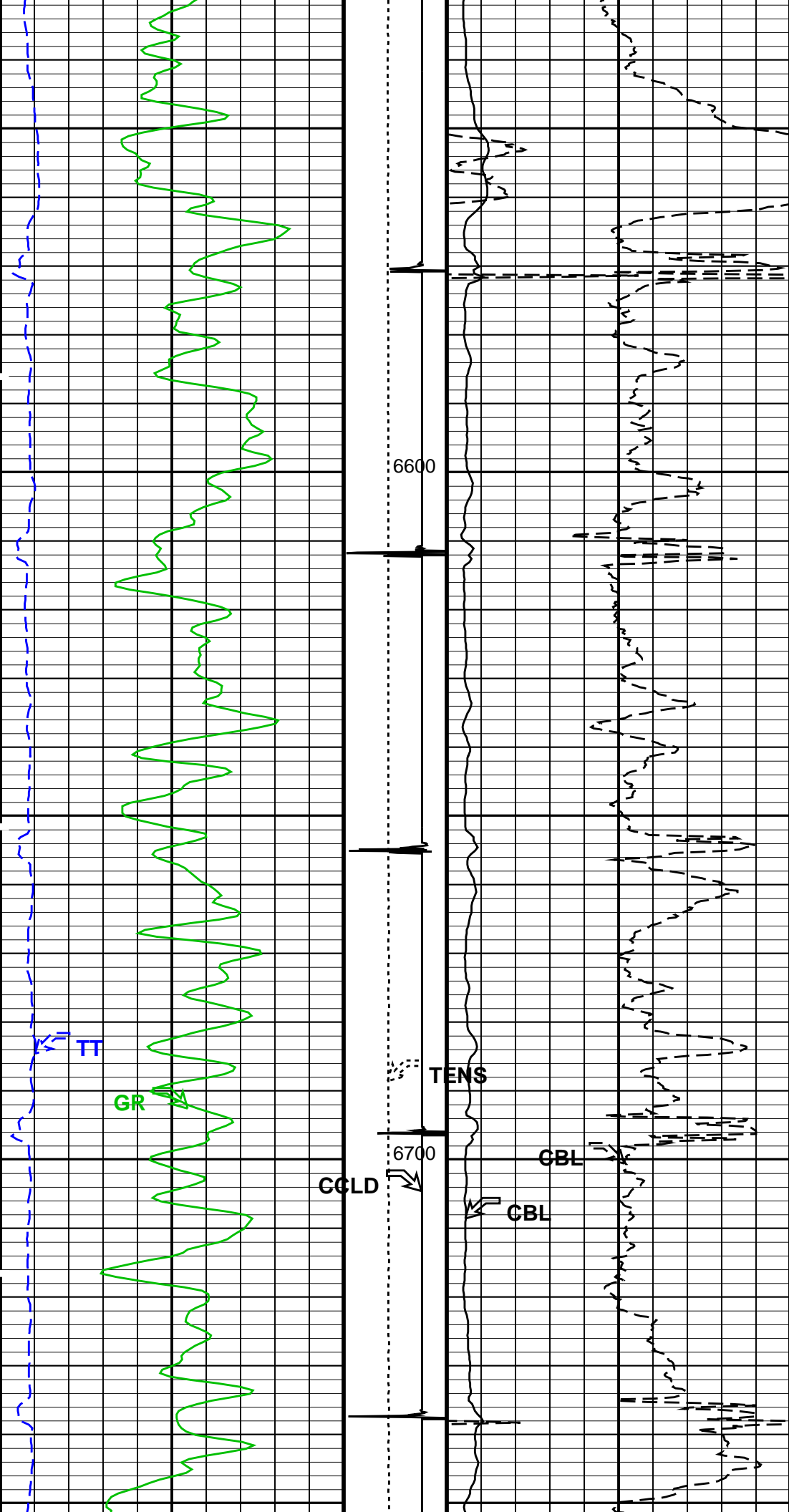


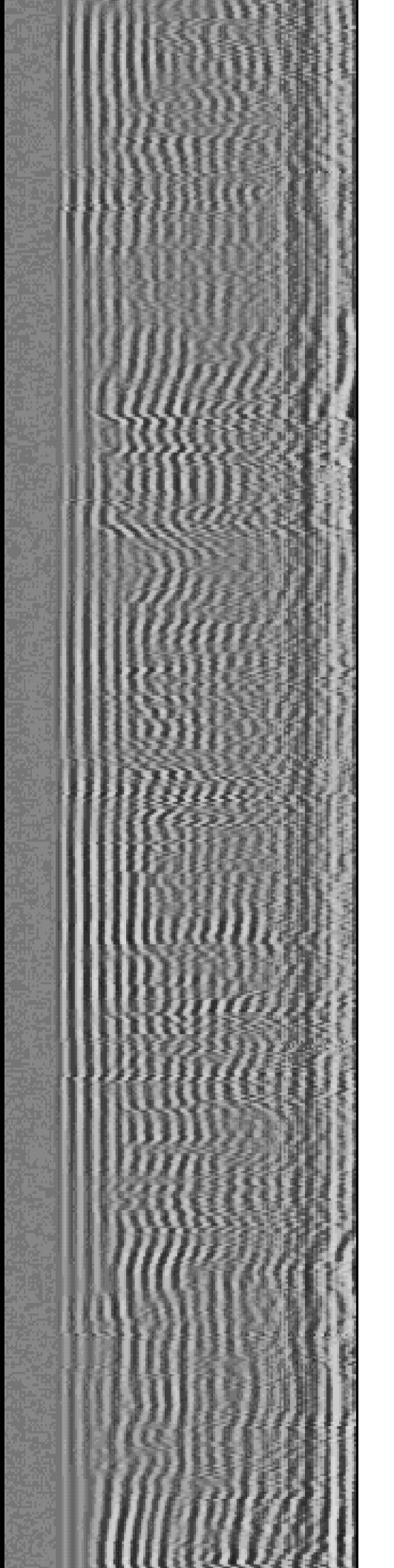
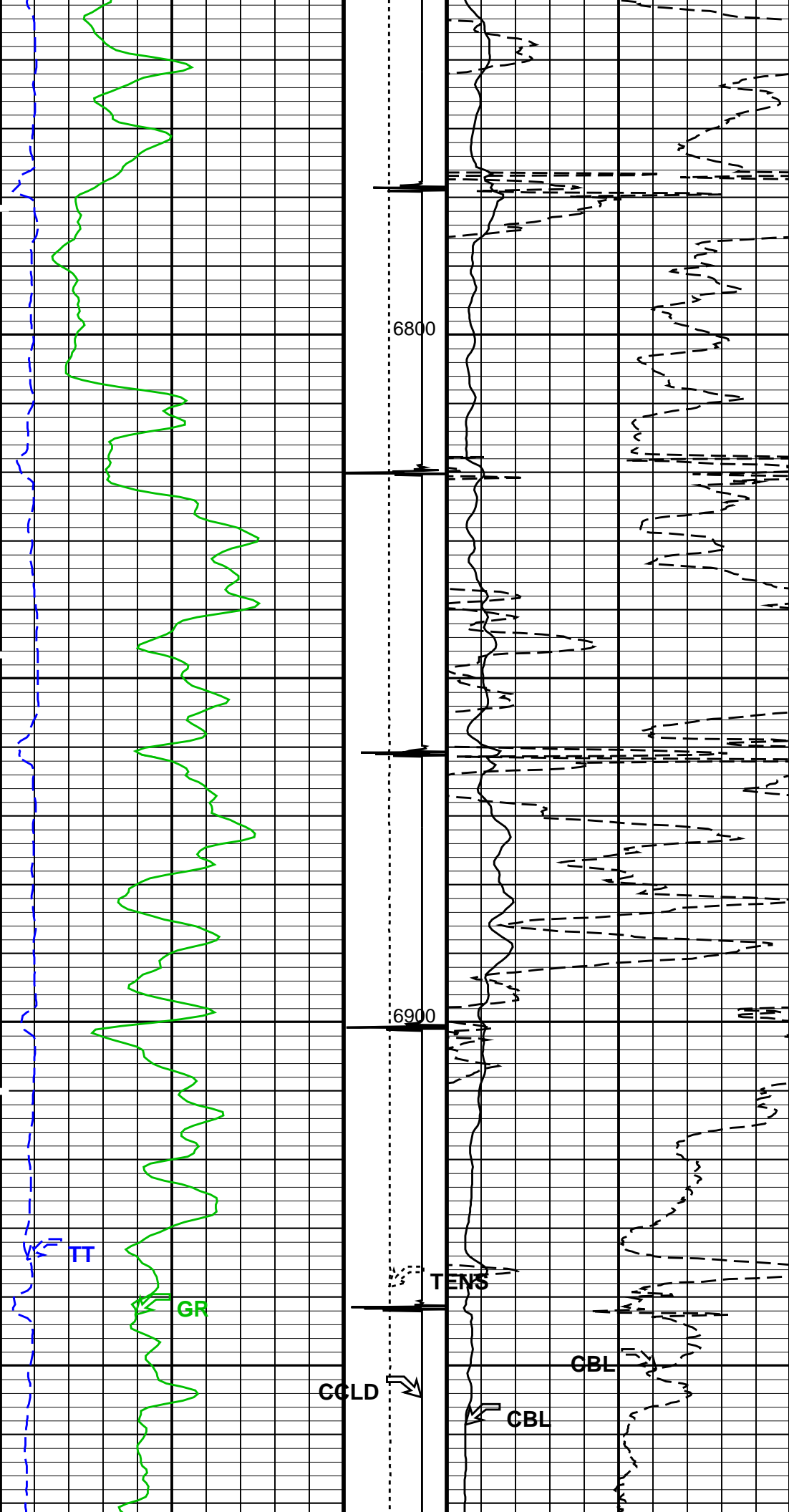


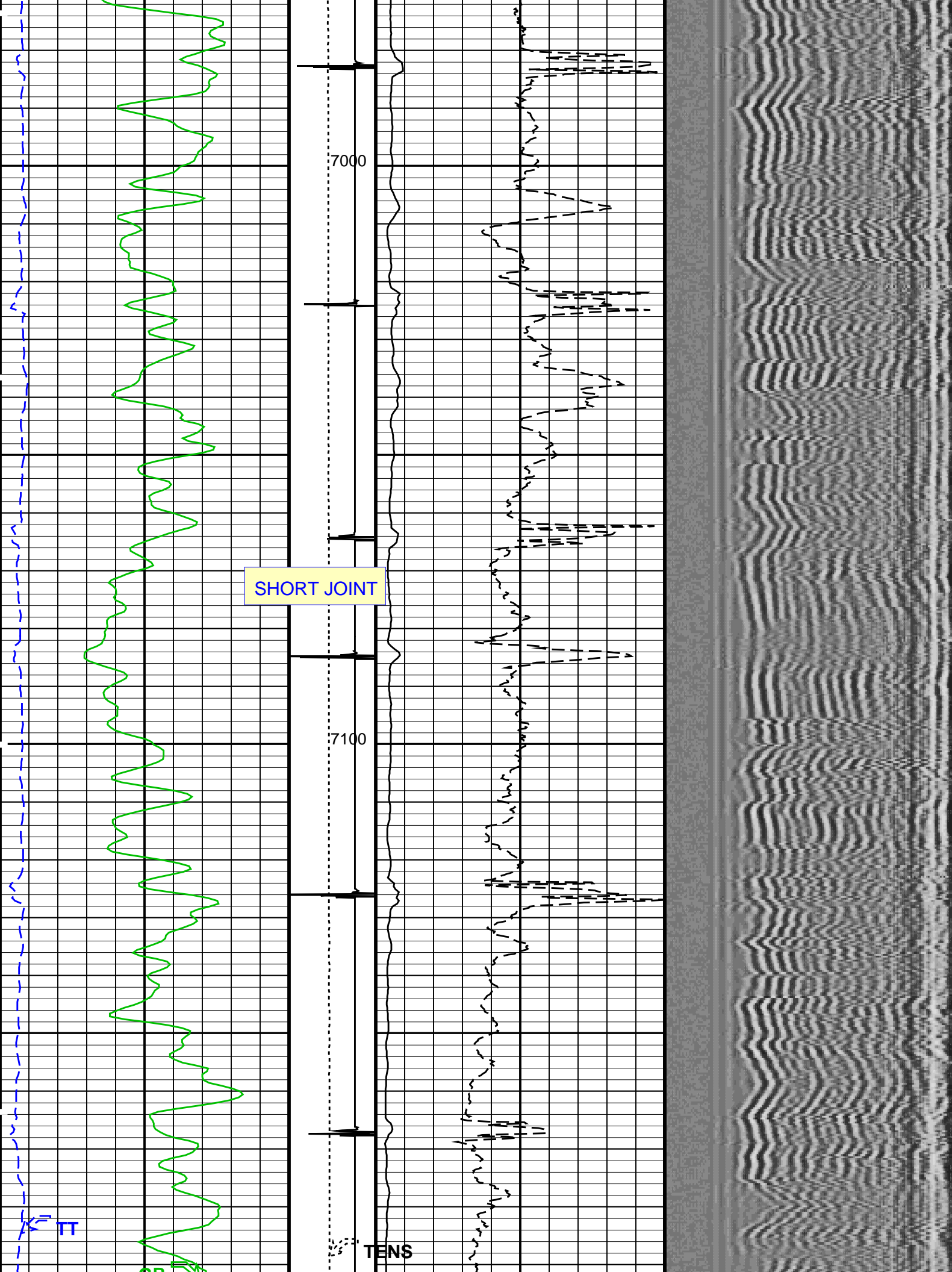


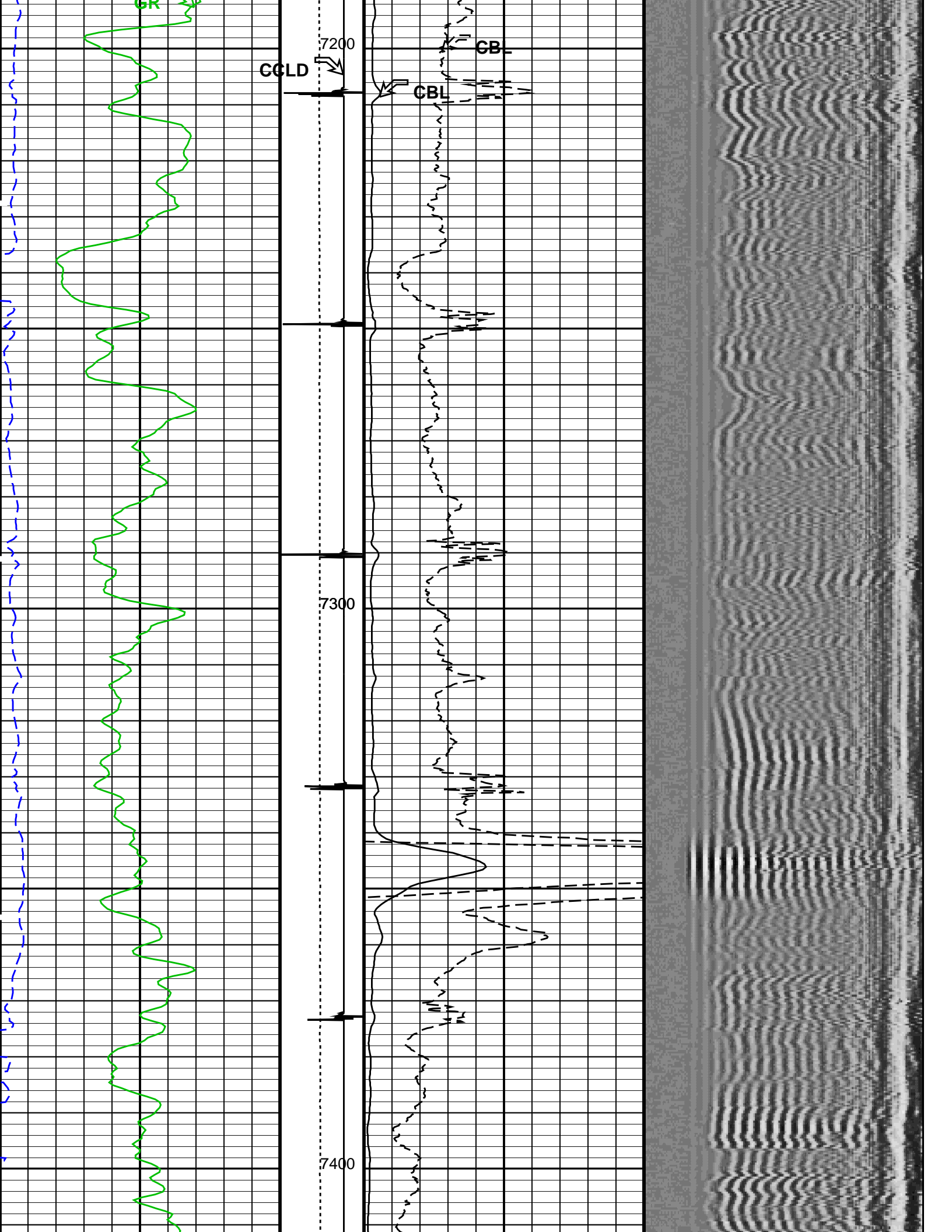


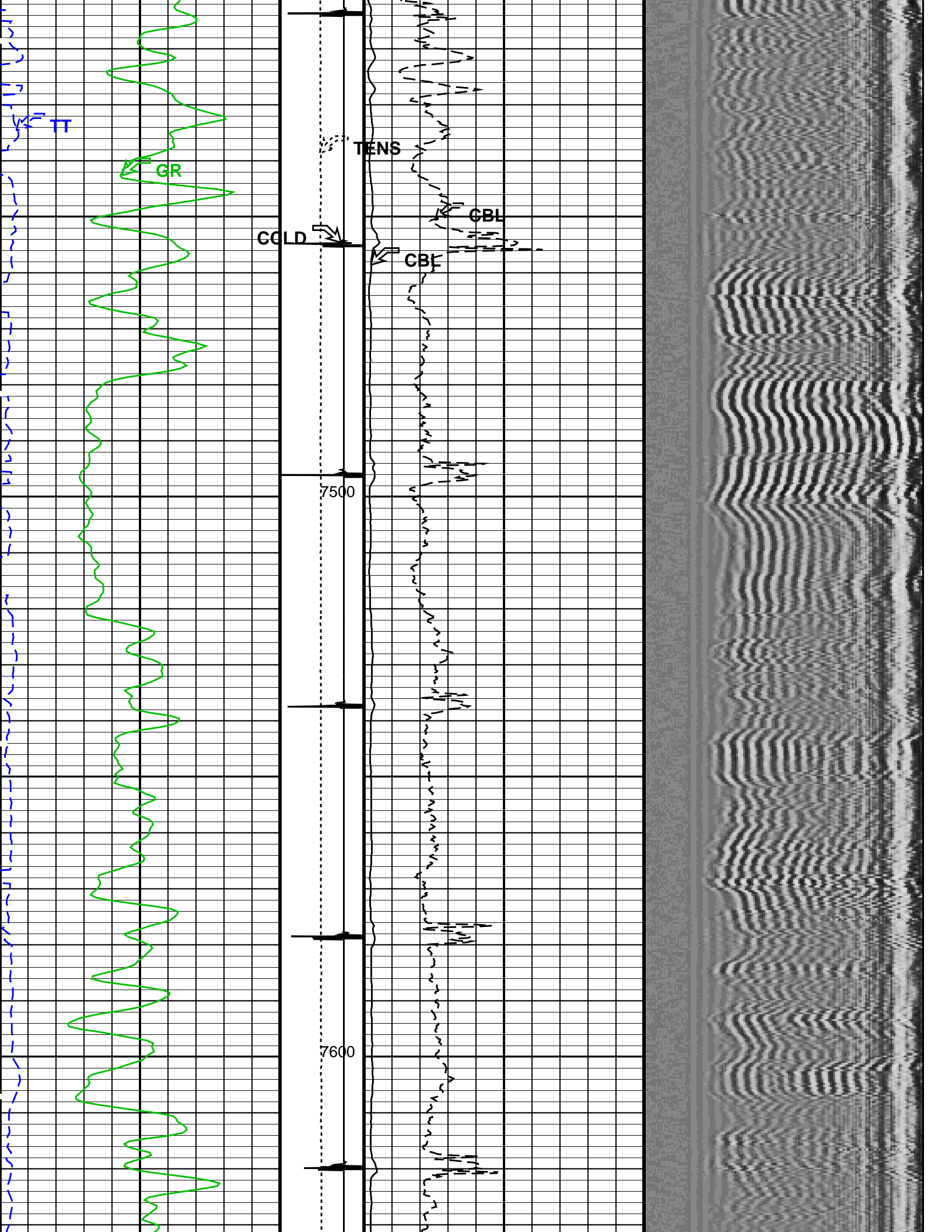


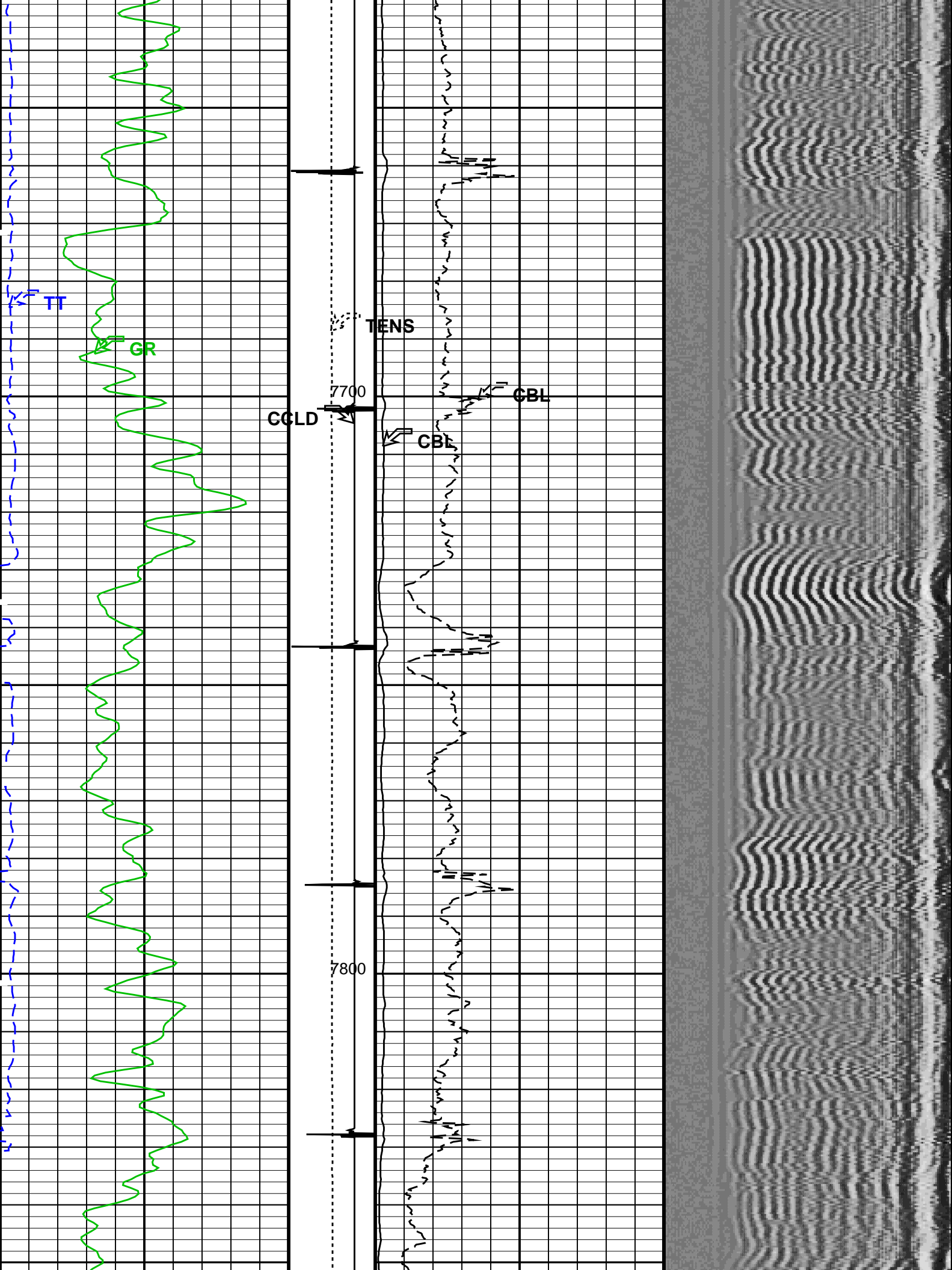


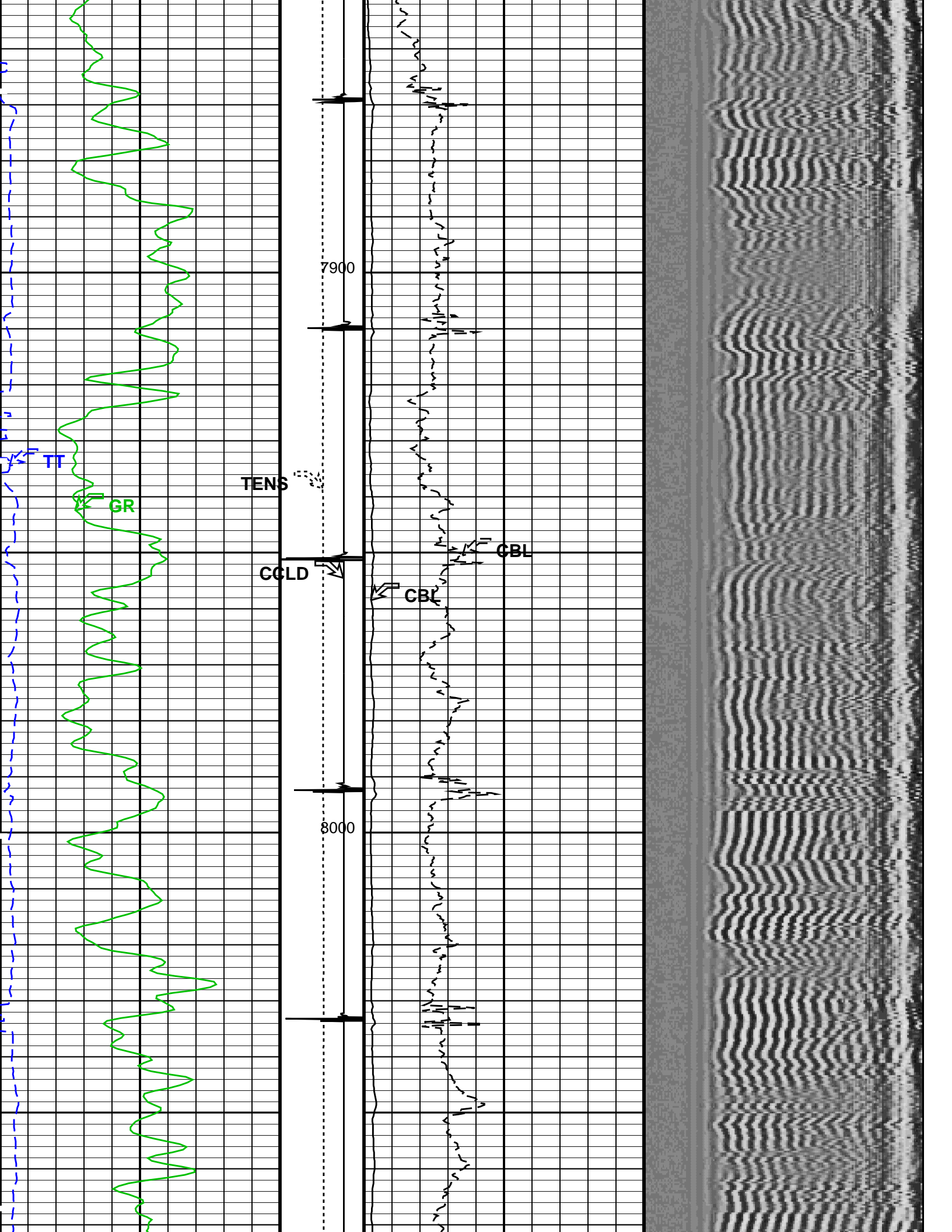


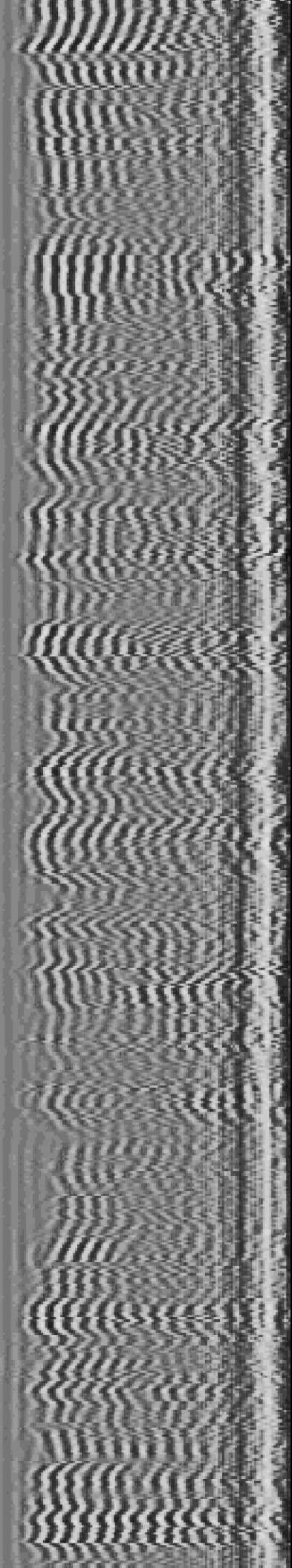
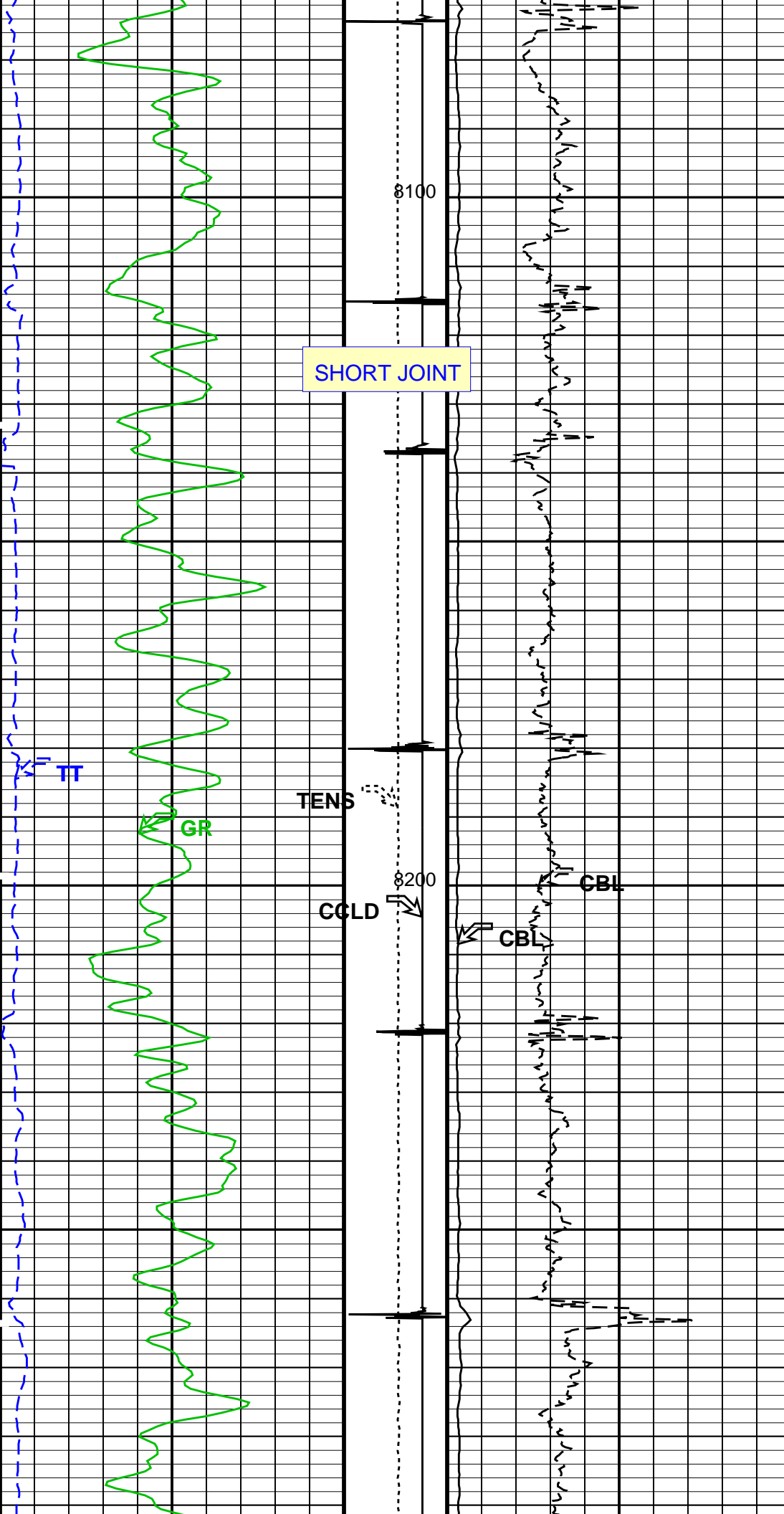


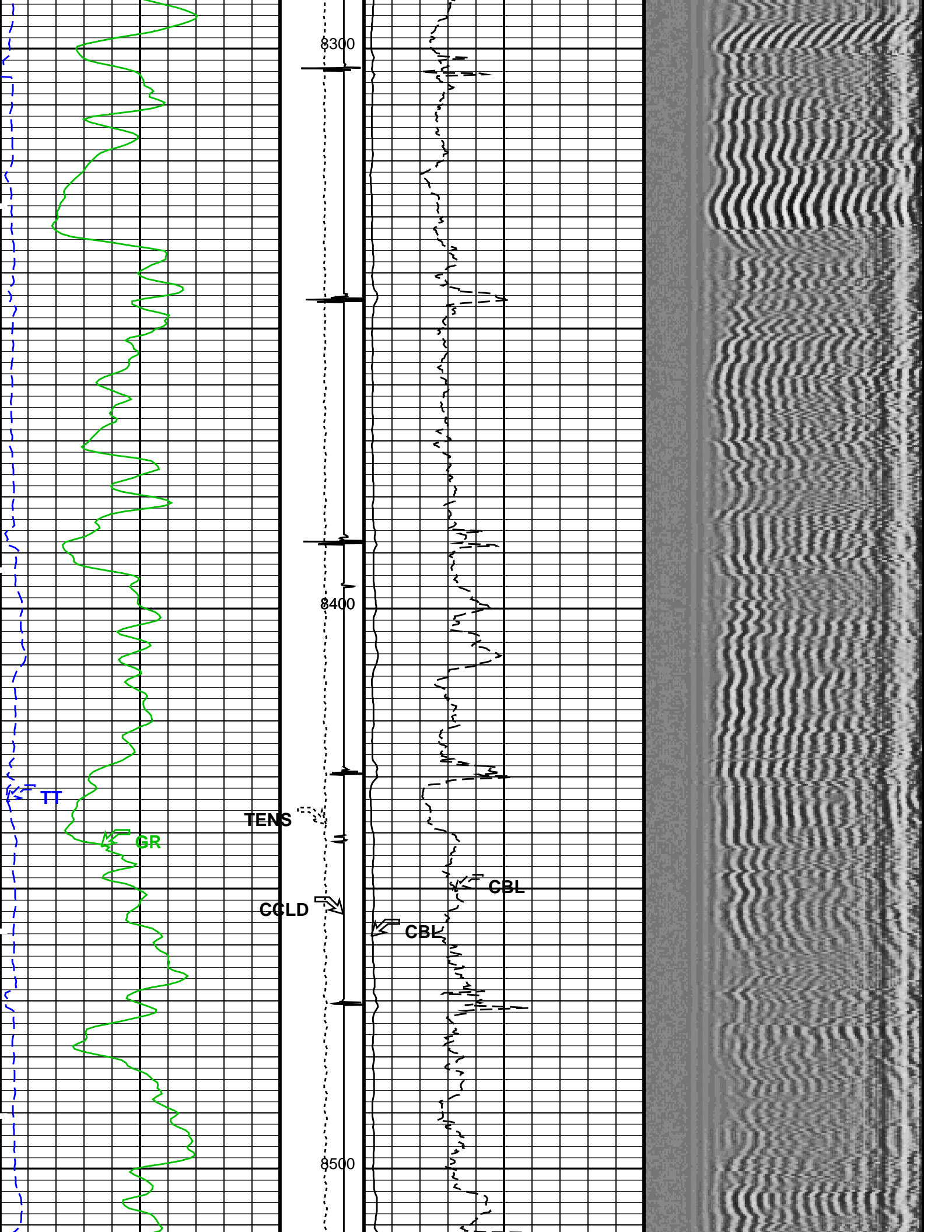


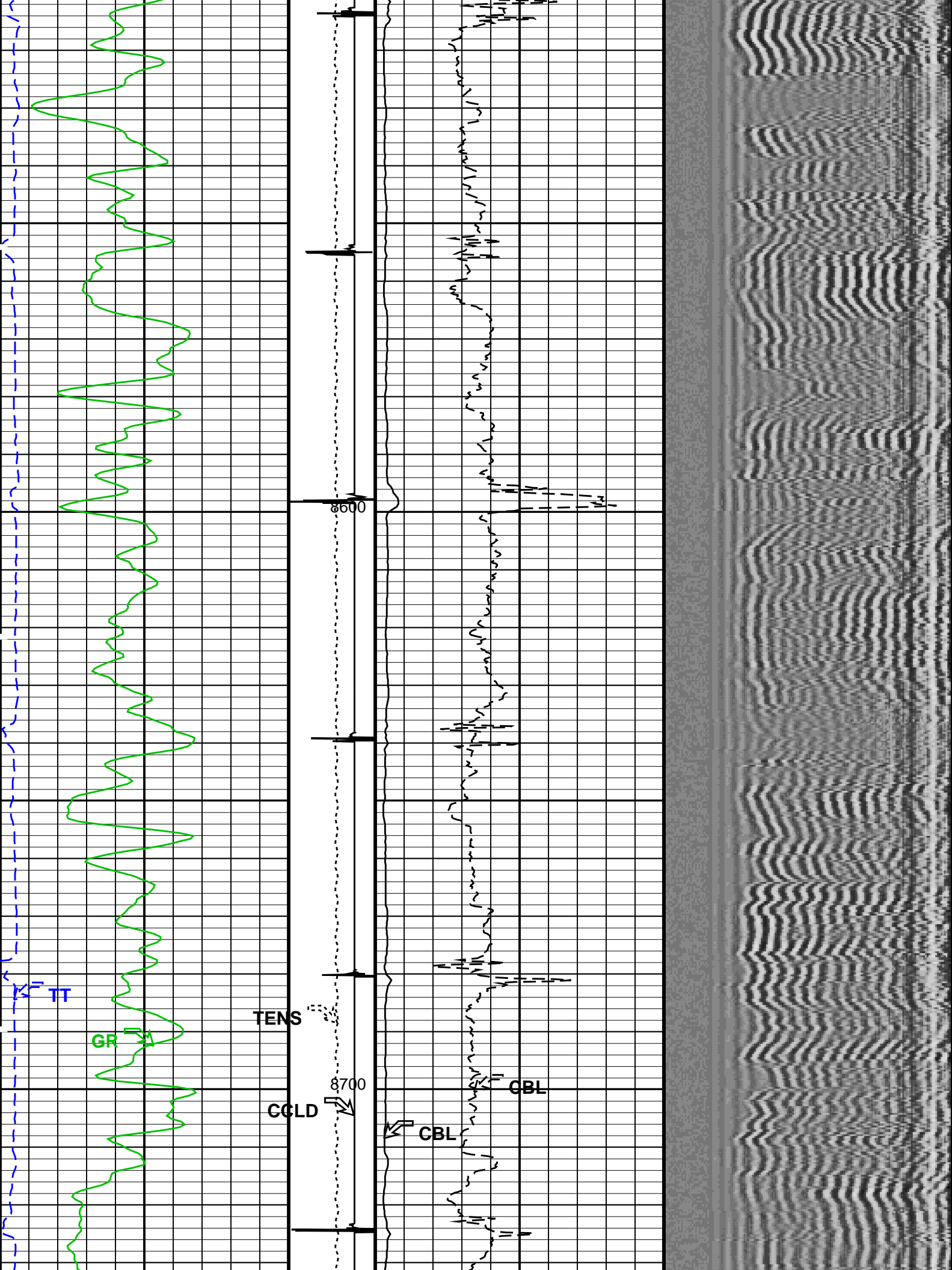


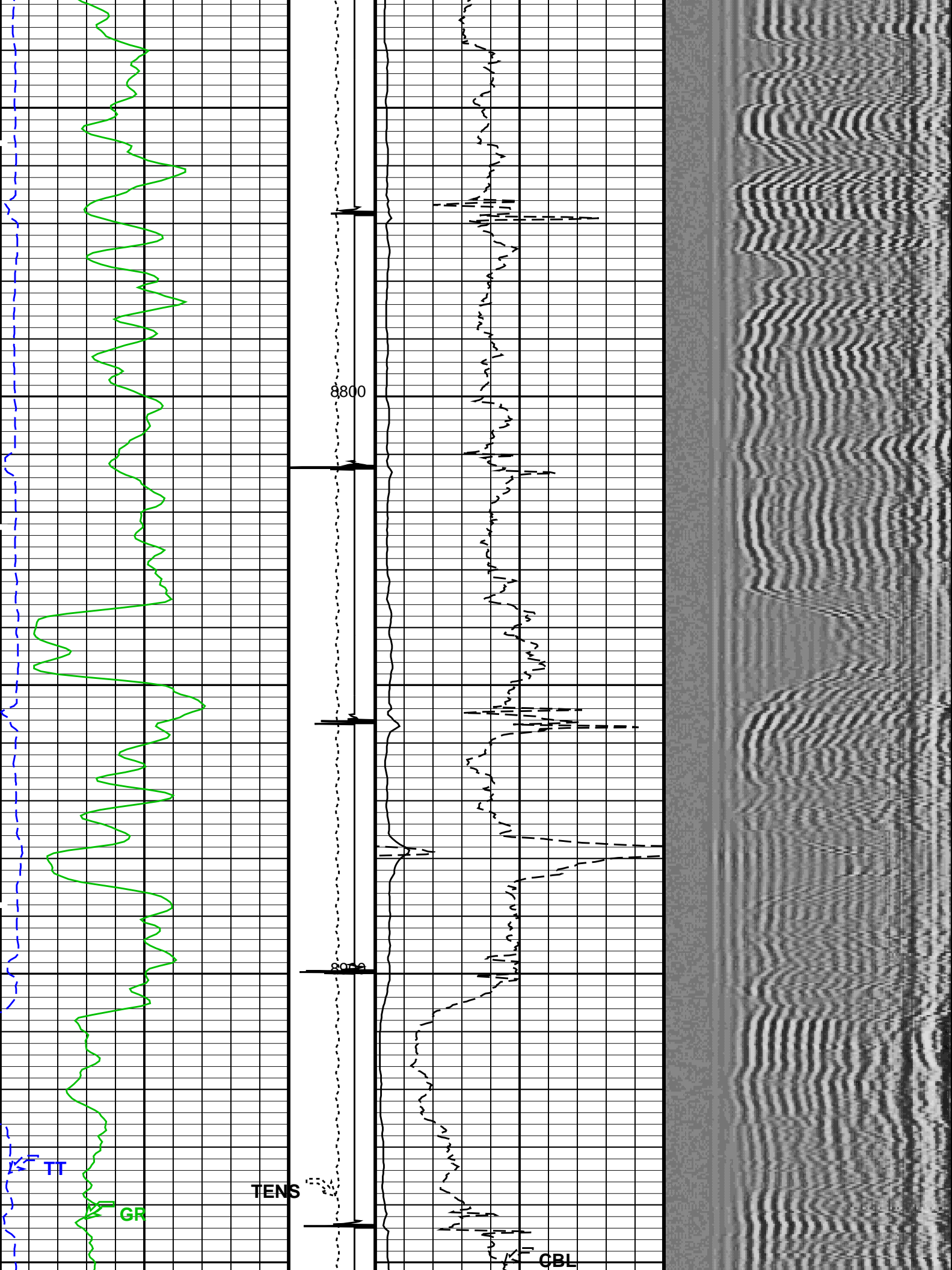


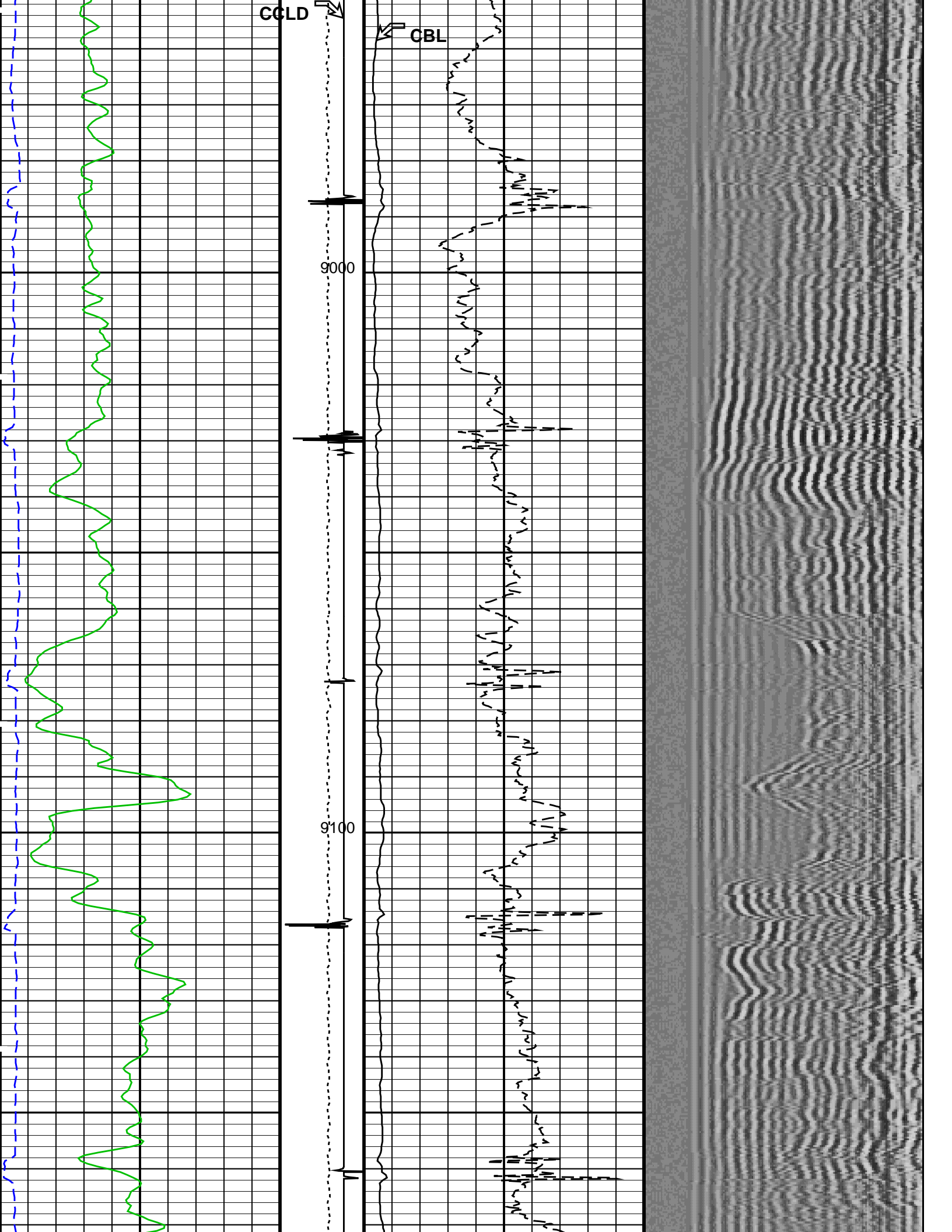


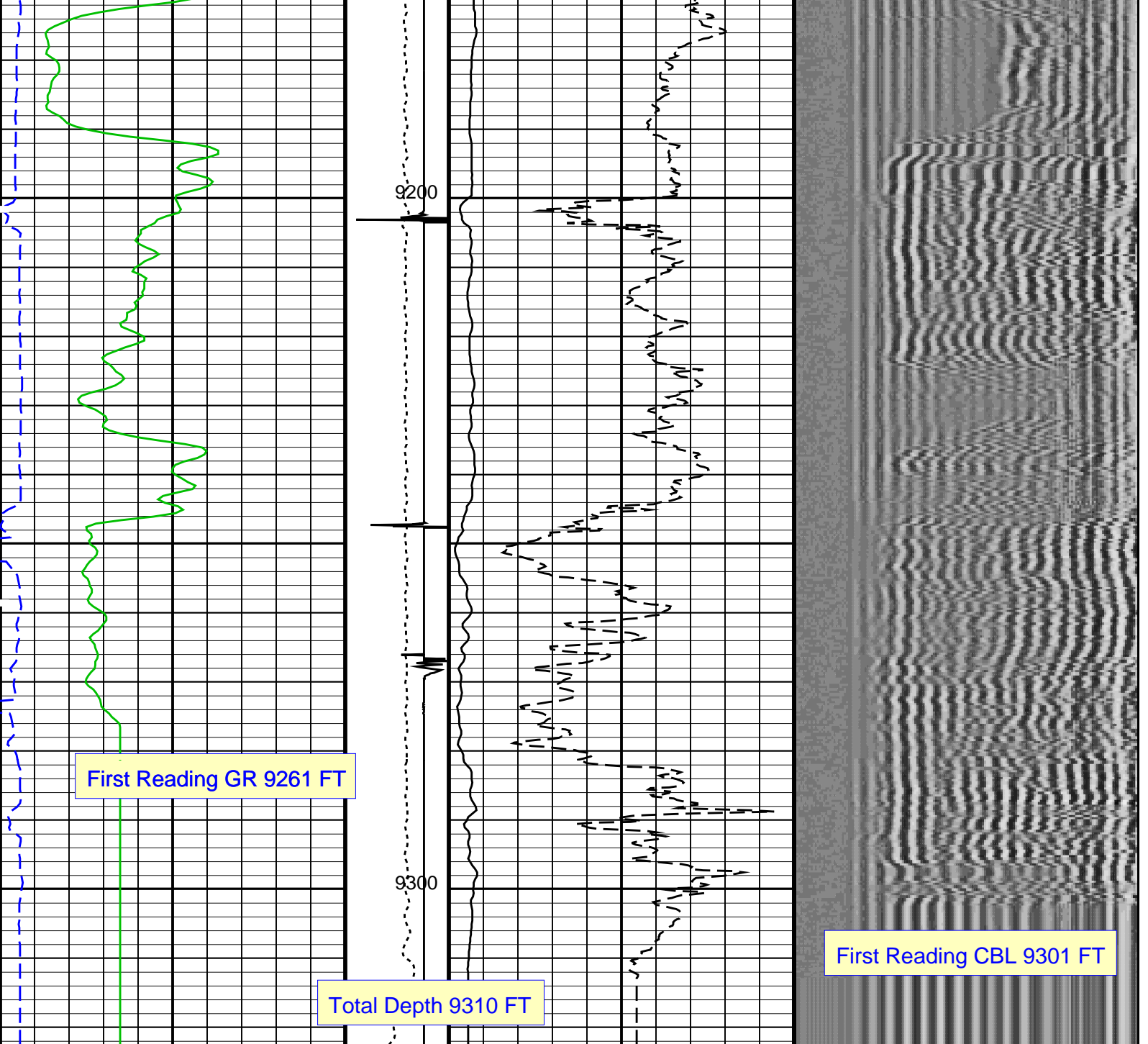












Gamma Ray (GR) (GAPI)	Tension (TENS) (LBF)	CBL Amplitude (CBL) (MV)	Min	Amplitude	Max
0	0	0	200	VDL Variable Density (VDL) (US)	1200
150	2000	100			
Transit Time (TT) (US)	Discriminat ed CCL (CCLD)	CBL Amplitude (CBL) (MV)			
260	3 (V) -1	0			
160		10			

PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL Vertical Scale: 5" per 100'

Graphics File Created: 22-Jan-2013 09:28

OP System Version: 19C0-187

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

<<<SCMT Cement Evaluation Information Summary>>>

Serial Number 2000-00-0170

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	2-JAN-2013		
CBL Correction Factor	0.0710826	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.103584	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.0974321		
MAP 3 Correction Factor	0.0970306		
MAP 4 Correction Factor	0.107300		
MAP 5 Correction Factor	0.113090		
MAP 6 Correction Factor	0.0923740		
MAP 7 Correction Factor	0.0954019		
MAP 8 Correction Factor	0.0947290		

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	
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
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	2.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	9310	FT

Input DLIS Files

DEFAULT SCMT_RST_PSP_024LUP FN:23 PRODUCER 22-Jan-2013 06:33 9320.5 FT -27.0 FT

Output DLIS Files

DEFAULT SCMT_RST_PSP_030PUP FN:29 PRODUCER 22-Jan-2013 09:28

MAXIS Field Log

Company: ENCAN OIL & GAS (USA) INC

Well: MCU 26-12B (I27W)

Input DLIS Files

DEFAULT	SCMT_RST_PSP_022LUP	FN:21	PRODUCER	22-Jan-2013 06:03	7217.0 FT	6921.0 FT
DEFAULT	SCMT_RST_PSP_030PUP	FN:29	PRODUCER	22-Jan-2013 09:28	9322.5 FT	-69.5 FT

Output DLIS Files

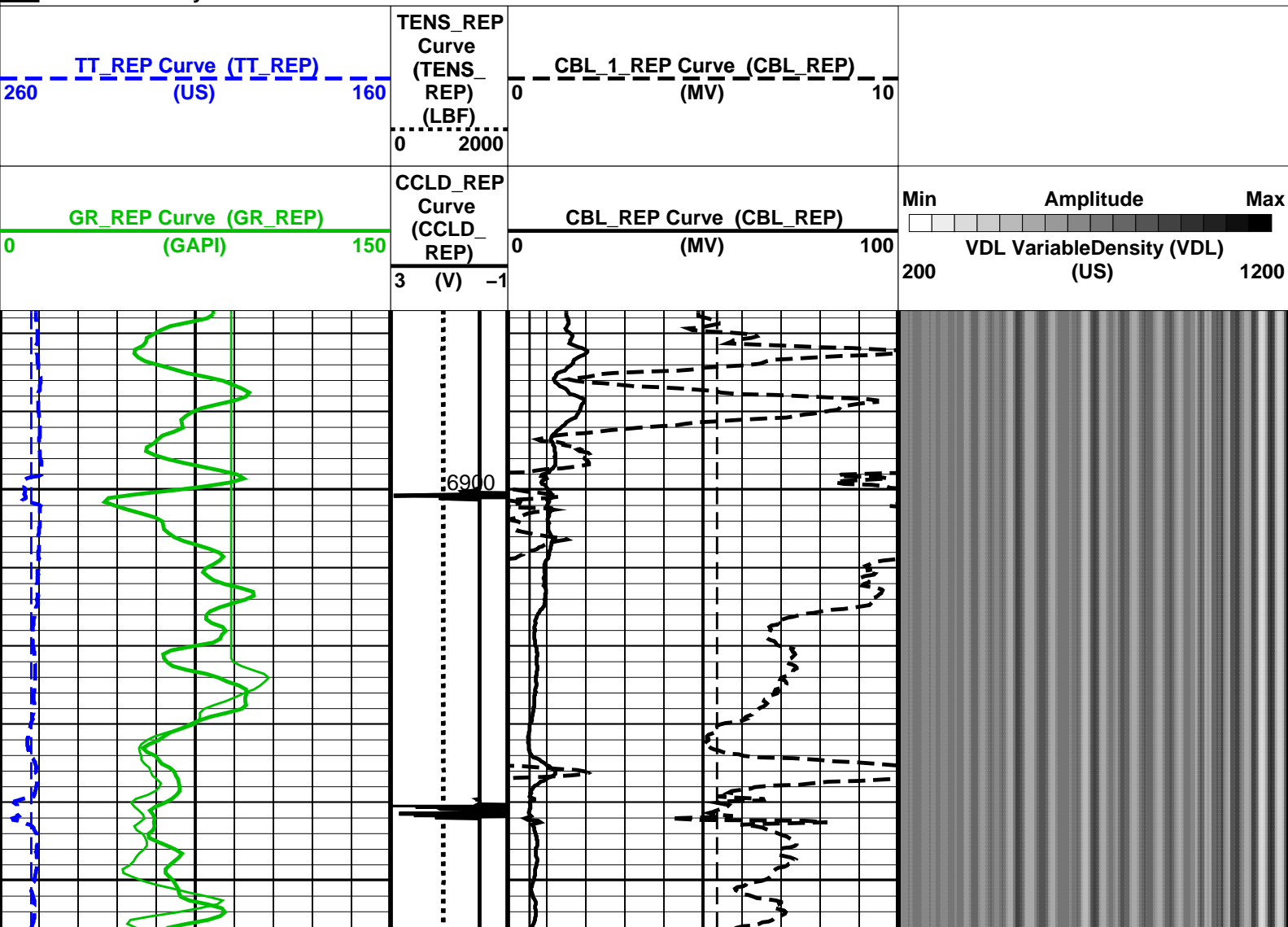
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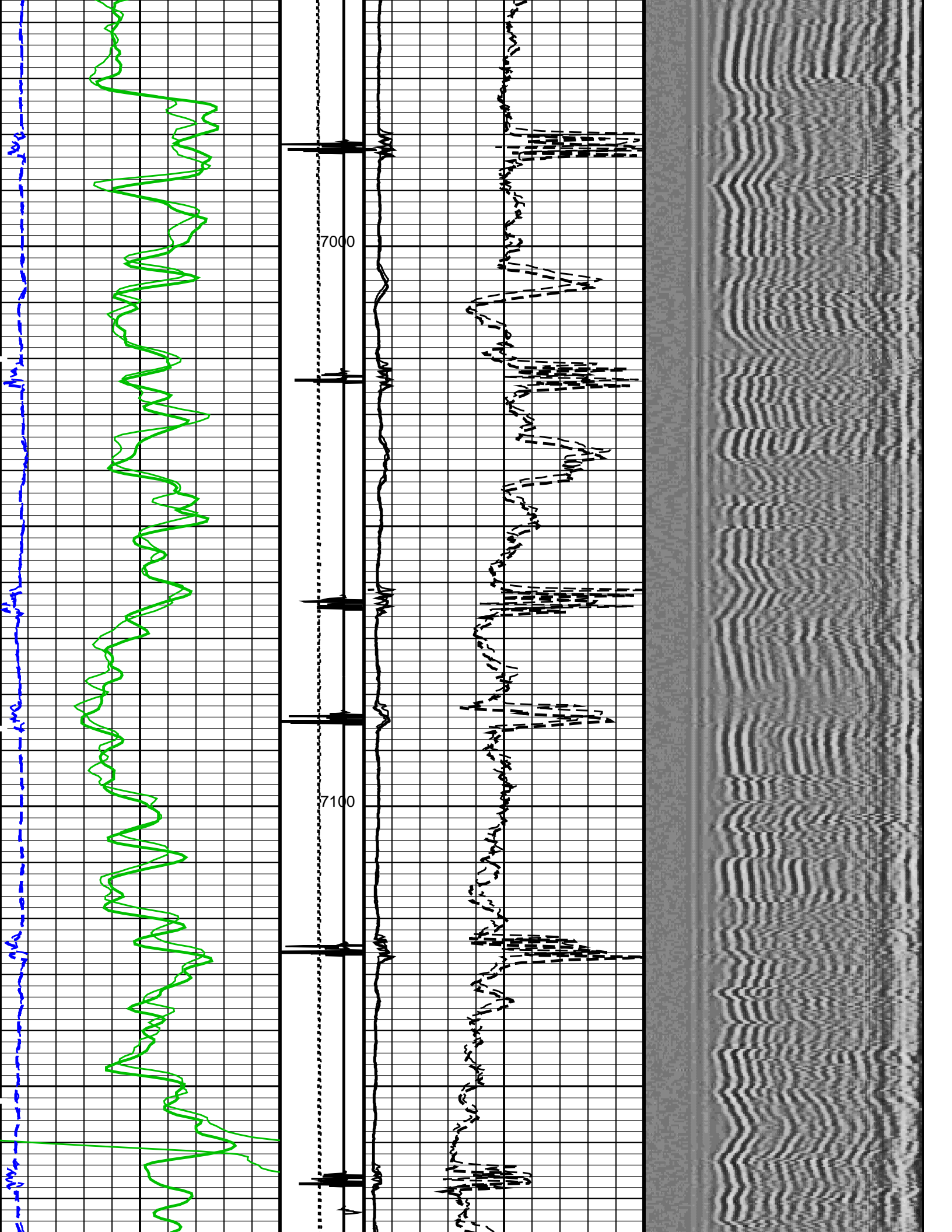
OP System Version: 19C0-187

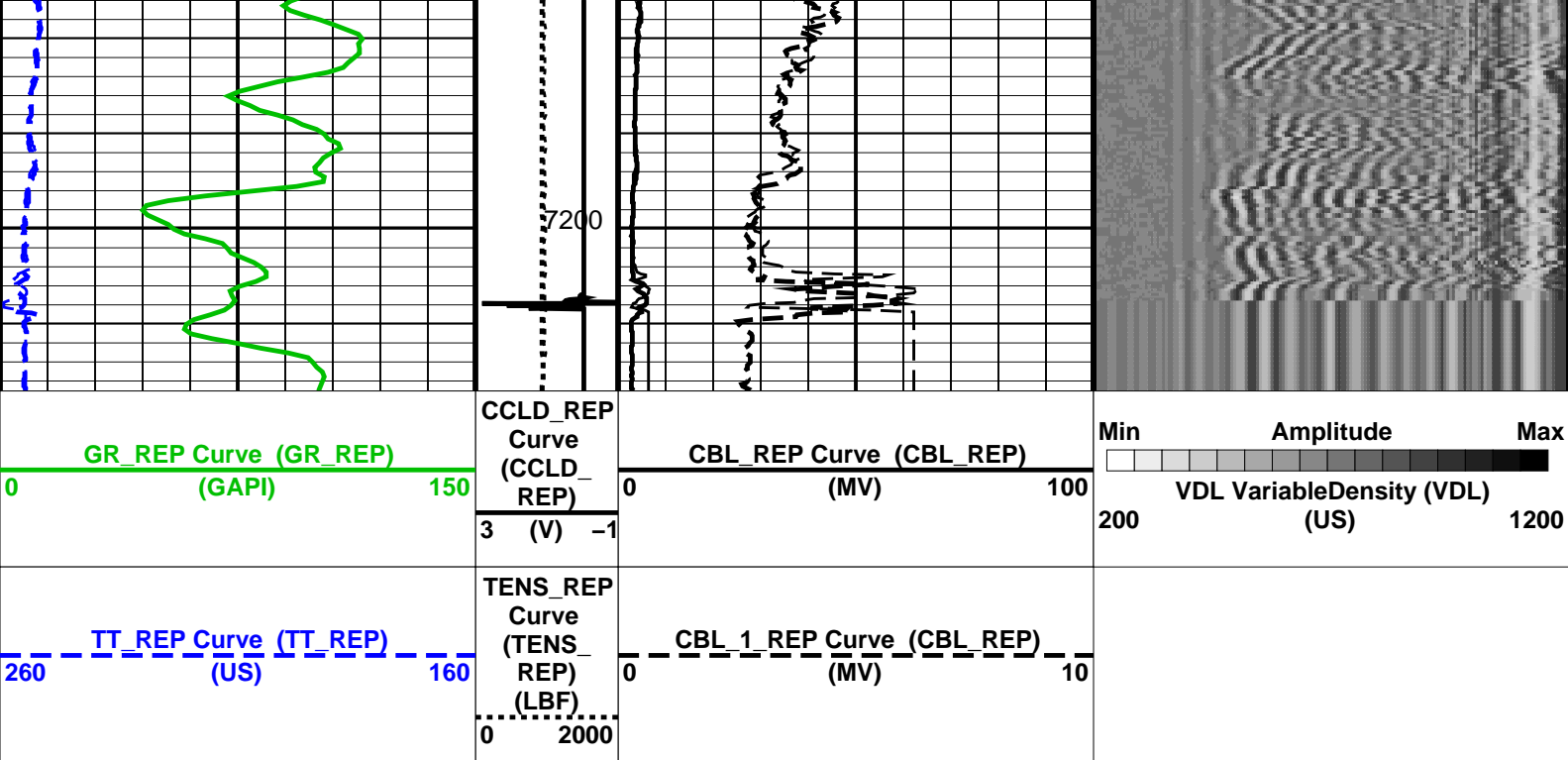
SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
PSPT	SRPC-5214-H2-2012-OP1!		

PIP SUMMARY

Time Mark Every 60 S







PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL_REP Vertical Scale: 5" per 100'

Graphics File Created: 22-Jan-2013 09:59

OP System Version: 19C0-187

SCMT-CB PSPT	SRPC-5214-H2-2012-OP1 SRPC-5214-H2-2012-OP1	RST-C	SRPC-5214-H2-2012-OP1
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<<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number SCMS-CB 8179

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 2-JAN-2013

CBL Correction Factor 0.0710826

CBL Adjustment Factor (CBAF) 1.0

MAP 1 Correction Factor 0.103584

MAP Adjustment Factor (MPAF) 1.0

MAP 2 Correction Factor 0.0974321

MAP 3 Correction Factor 0.0970306

MAP 4 Correction Factor 0.107300

MAP 5 Correction Factor 0.113090

MAP 6 Correction Factor 0.0923740

MAP 7 Correction Factor 0.0954019

MAP 8 Correction Factor 0.0947290

Parameters

DLIS Name	Description	Value
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SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD		
BILI	Bond Index Level for Zone Isolation	0.8
CB2D	SCMT CBL 3 ft Peak Detection Mode	PEAK

CB3D	SCMT CBL 3 ft Peak Detection Mode	224.559	US
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	20	MV
CB3T	SCMT CBL 3 ft Fixed Threshold Level	PEAK	
CB5D	SCMT CBL 5 ft Peak Detection Mode	338.559	US
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	20	MV
CB5T	SCMT CBL 5 ft Fixed Threshold Level	45	US
CBLG	CBL Gate Width	80	MV
CBRA	CBL LQC Reference Amplitude in Free Pipe	1	
CMCF	CBL Cement Type Compensation Factor	SCAN	
CMTC	SCMT Slow Channel Multiplexer Mode	LOG	
CMTM	SCMT Operating Mode	VCC	
CSCS	SCMT Slow Channel Index	0.255617	IN
CTHI	Casing Thickness	189	US/F
DTF	Delta-T Fluid	0	DB/F
FATT	Acoustic Attenuation due to Fluid	0.924277	
FCF	CBL Fluid Compensation Factor	1.55185	MV
GOBO	Good Bond	PEAK	
MAPD	SCMT MAP Peak Detection Mode	167.559	US
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	30	MV
MAPT	SCMT MAP Fixed Threshold Level	16.5449	DB/F
MATT	Maximum Attenuation	1	
MCCF	MAP Cement Type Compensation Factor	1.25	FT
MCI	Minimum Cemented Interval for Isolation	4.32284	MV
MMSA	MAP Minimum Sonic Amplitude	0.579149	MV
MSA	Minimum Sonic Amplitude	OFF	
PEDE	Peak Detection On/Off Switch in Playback	5	
VDLG	VDL Manual Gain	6.8	MRAY
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	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	9310	FT

Input DLIS Files

DEFAULT	SCMT_RST_PSP_022LUP	FN:21	PRODUCER	22-Jan-2013 06:03	7217.0 FT	6921.0 FT
DEFAULT	SCMT_RST_PSP_030PUP	FN:29	PRODUCER	22-Jan-2013 09:28	9322.5 FT	-69.5 FT

Output DLIS Files

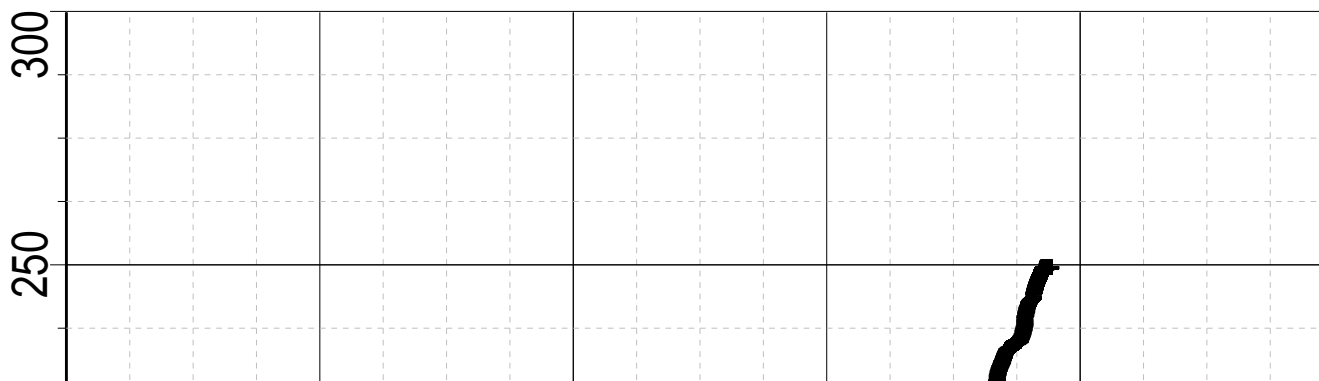
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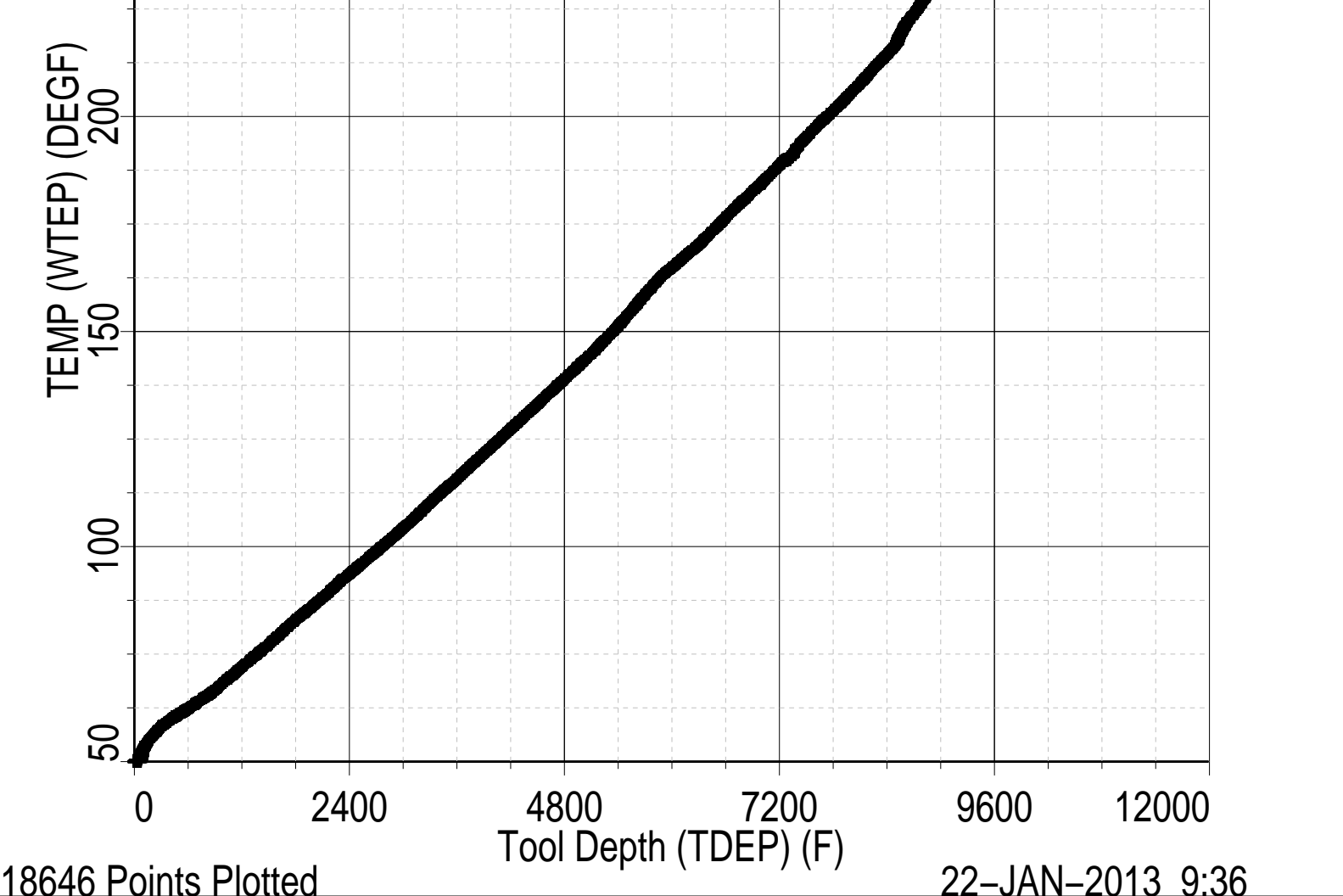
Schlumberger

TEMPERATURE PLOT

MAXIS Field Log

Index: 9322.5 – -69.5 FT





PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: MCU 26-12B (I27W)
Run date: 22-Jan-2013

Tool: PSP
Sub Type: PBMS
Sensor: GR

PBMS Gamma Ray

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

GR HV Rt

RESISTORS FOR GR SENSOR N.33223, TOOL PBMS-BA0928. SENSOR S/N:

33223

090800

12

CFE2

Rt**0

Rt**1

Rt**0		+.182000000000e+04	+.332000000000e+04
Client:	ENCANA OIL & GAS (USA) INC	Tool:	PSP
Field:	MAMM CREEK	Sub Type:	PBMS
Well:	MCU 26-12B (I27W)	Sensor:	WellTemp RTD
Run date:	22-Jan-2013		

PBMS RTD Well Thermometer

Sonde Serial NB	COEFFICIENTS FOR RTD THERMOMETER PBMS-B.928 S/N:
Sensor Serial NB	928
Calib Date ddmmyy	280612
Matrix Size	16
Coeff CRC	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	Tool:	PSP
Field:	MAMM CREEK	Sub Type:	PBMS
Well:	MCU 26-12B (I27W)	Sensor:	CQG
Run date:	22-Jan-2013		

PBMS Quartz Gauge type F

Sonde Serial NB
Sensor Serial NB
Calib Date ddmmyy
Matrix Size
Coeff CRC

:
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

	Fc**3	Fc**4	Fc**5
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 928

Calib Date ddmmyy 280612

Matrix Size 16

Coeff CRC 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 928

Calib Date ddmmyy 280612

Matrix Size 16

Coeff CRC 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










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	8179
Slim Cement Mapping Cartridge	SCMC – CA	8120

Auxiliary Equipment:

Slim Electronics Cartridge Housing	SECH – CA
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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			1158	Master			1232
	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			1237	Master			1118
	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			1061	Master			1299
	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			1258	Master			1267
	500.0 (Minimum)	1075 (Nominal)	1650 (Maximum)		500.0 (Minimum)	1075 (Nominal)	1650 (Maximum)
Phase	CBL Amplitude Plus MV		Value				
Master			1351				
	1000 (Minimum)	1350 (Nominal)	1700 (Maximum)				
Master: 2–Jan–2013 15:55							

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

Schlumberger

Well: **MCU 26–12B (I27W)**

Field: **MAMM CREEK**

County: **GARFIELD**

State: **COLORADO**

SLIM CEMENT MAPPING LOG

CBL–VDL

GR–CCL