



Company: ENCANA OIL & GAS (USA) INC

Well: SG 8510A-23 (L24 496)

Field: STORY GULCH

County: GARFIELD

State: COLORADO

County:	GARFIELD				
Field:	STORY GULCH				
Location:	SHL: 1631 FSL & 916 FWL				
Well:	SG 8510A-23 (L24 496)				
Company:	ENCANA OIL & GAS (USA) INC				
SLIM CEMENT MAPPING LOG CBL – VDL GAMMA RAY – CCL		LOCATION			
		SHL: 1631 FSL & 916 FWL			
		BHL: 2584 FSL & 1816 FEL			
		Elev.: K.B. 8210.00 ft G.L. 8180.00 ft D.F. 8209.00 ft			
Permanent Datum:		GROUND LEVEL		Elev.: 8180.00 ft	
Log Measured From:		KELLY BUSHING		30.00 ft above Perm. Datum	
Drilling Measured From:		KELLY BUSHING			
API Serial No.		Section 23		Township 4S	
05-045-21168-000C				Range 96W	

	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	26-Jul-2013			
Run Number	1			
Depth Driller	12747 ft			
Schlumberger Depth	12666 ft			
Bottom Log Interval	12657 ft			
Top Log Interval	210 ft			
Casing Fluid Type	FRESH WATER			
Salinity				
Density	8.4 lbm/gal			
Fluid Level	210 ft			
BIT/CASING/TUBING STRING				
Bit Size	7.875 in			
From	10583 ft			
To	12747 ft			
Casing/Tubing Size	4.500 in			
Weight	11.6 lbm/ft			
Grade				
From	30 ft			
To	12717 ft			
Maximum Recorded Temperatures	286 degF			
Logger On Bottom	26-Jul-2013	Time	9:30	
Unit Number	391	Location	GRAND JUNCTION	
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		Time	
Unit Number		Location	
Recorded By			
Witnessed By			

## DEPTH SUMMARY LISTING

Date Created: 16-JUL-2013 13:40:46

## 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:	16-JUL-2013	Length:	19500 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878	Conveyance Method:	Wireline
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Rig Type:	LAND
Wheel Correction 1:	-3	Calibration RMS:	12		
Wheel Correction 2:	-4	Calibration Peak Error:	23		

## Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
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

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OTHER SERVICES1	OTHER SERVICES2
OS1: RESERVOIR SATURATION	OS1:
OS2: LOG	OS2:
OS3: SIGMA MODE	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRELATED TO ISOLATION SCANNER LOG BY	SLB ON 30-JUN-2013
TOOL RAN AS PER TOOL SKETCH	
ENTRANCE TIME: 8:45	
TIME AT BOTTOM: 9:30	
EXIT TIME: 13:00	



MAX RECORDED TEMPERATURE: 286 DEG F	
MAX RECORDED PRESSURE: 5057 PSIA	
SHORT JOINTS: 8137 FT & 11208 FT	
MAIN PASS LOGGED UNDER ZERO SURFACE PRESSURE	
EXPECTED CBL AMP IN FREE PIPE = 80 MV	
CREW: J BARRY, K JOHNS, J ORTIZ	
THANK YOU FOR CHOOSING E&P WIRELINE, A SCHLUMBERGER COMPANY	

RUN 1 SERVICE ORDER #: C920-00101 PROGRAM VERSION: 19C0-187 FLUID LEVEL: 210 ft			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

[illegible]

SURFACE EQUIPMENT		
WITM-A		
PSC_16MHZ		

DOWNHOLE EQUIPMENT			
MH-22			56.2
MH-22			
Detail MT			
AH-38	TelStatus		54.6
HBMS-B	CTEM		54.3
PSC-A 2880			54.3
HUDH-A 2880			
HSTC-A			
HBMC-A			
GR	GR		49.4
CCL			
HBMC			
HTPS-A 2880	CCL		47.0
HCQG_E_Mano	HSTC Aux.		
RTD_Thermometer	HBMC Aux.		45.5
	CQG Manom		
	Well_Temp		44.1
RST-C			43.2
RSCH-A 469			
RSC-E			
RSS-A 461			
RSXH-A 493			
RSX-E			
	RSC-A Far		34.1
	RSC-A PNG		
	RSC-A Nea		
	RSX-A PNG		33.6

SCMT-CB  
SCMC-CA 8120  
SECH-CA  
CMIR-AG  
SCMS-CB 8303  
SCMX-CA

20.2

DT 11.1  
CBL5 DTSC 9.6  
CBL3 8.6  
MAP 8.1  
AUX 7.1

AH-BNS

HV  
Tension SCMT 0.0  
TOOL ZERO

0.2

MAXIMUM STRING DIAMETER 2.07 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN FEET

Schlumberger

MAIN PASS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC Well: SG 8510A-23 (L24 496)

Input DLIS Files

DEFAULT SCMT\_RST\_HBMS\_004LUP FN:3 PRODUCER 26-Jul-2013 09:33 12681.0 FT 1.5 FT

Output DLIS Files

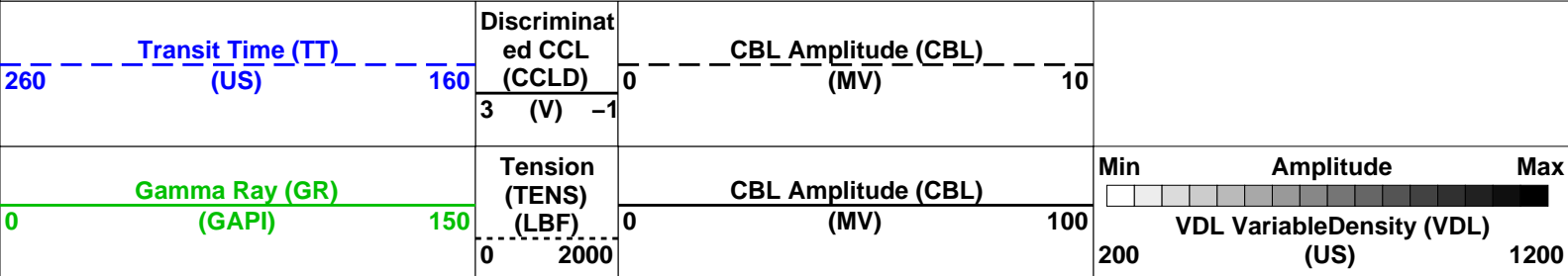
DEFAULT SCMT\_RST\_HBMS\_007PUP FN:6 PRODUCER 26-Jul-2013 13:21 12691.0 FT -36.0 FT

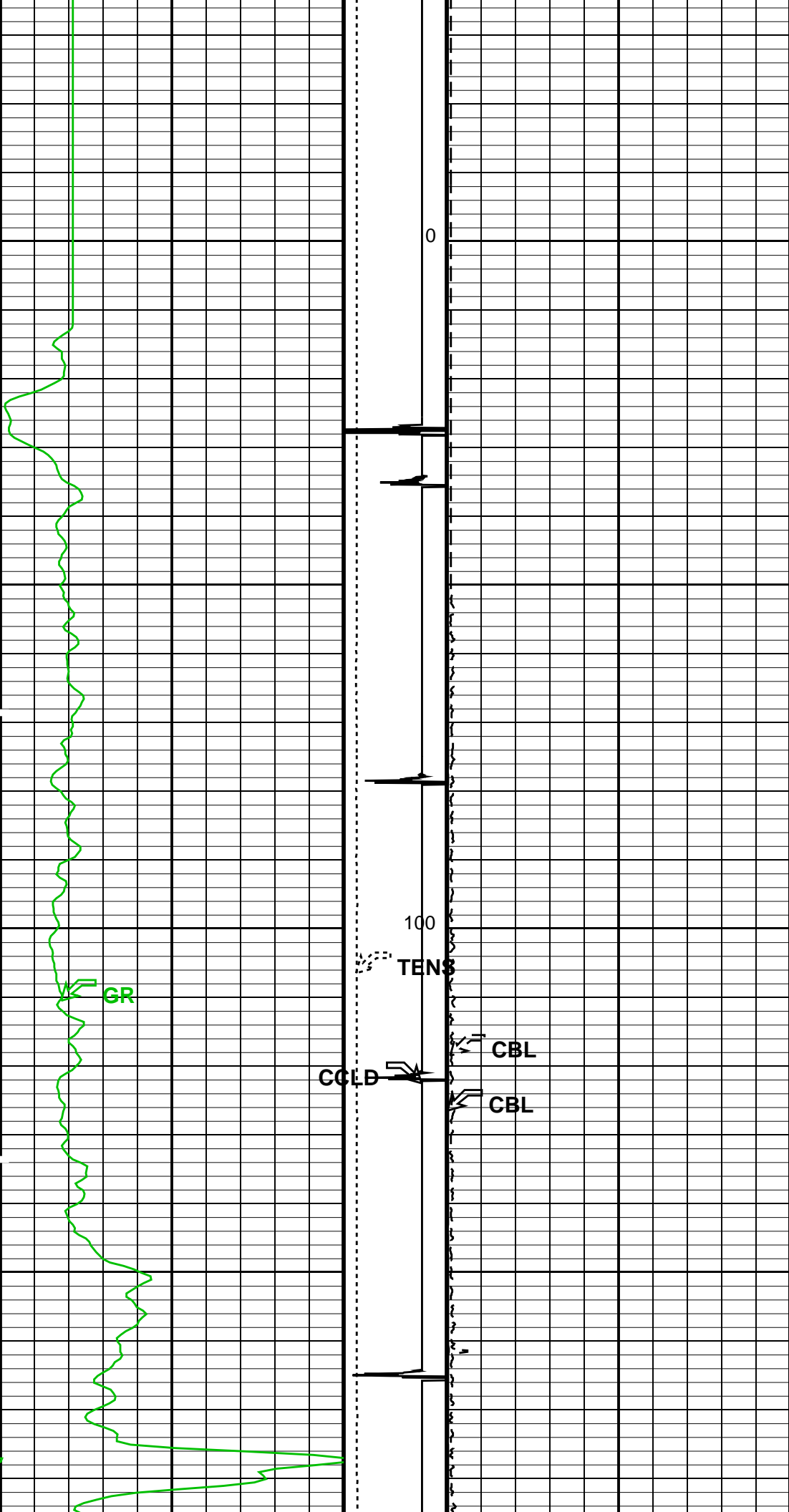
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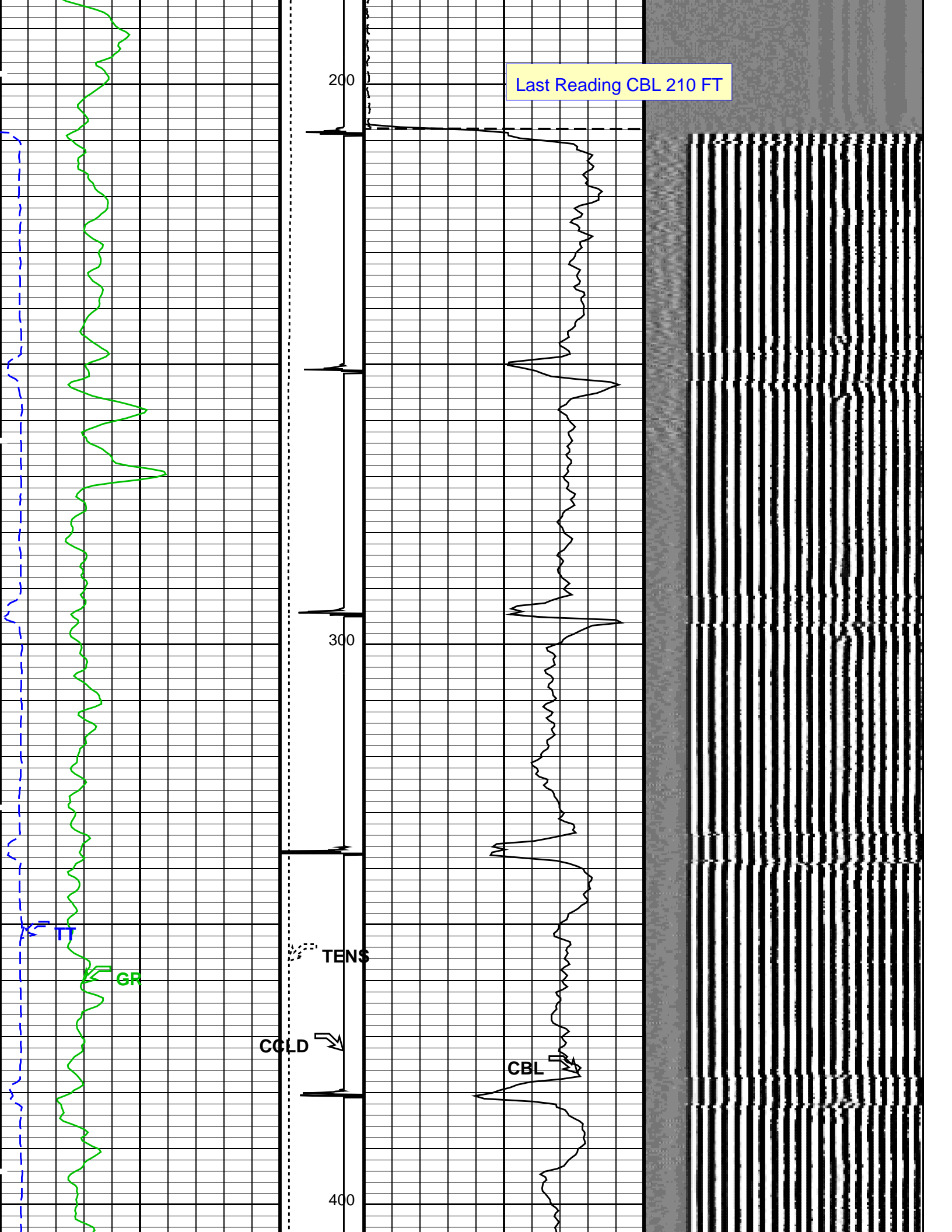
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HBMS-B SRPC-5214-H2-2012-OP1

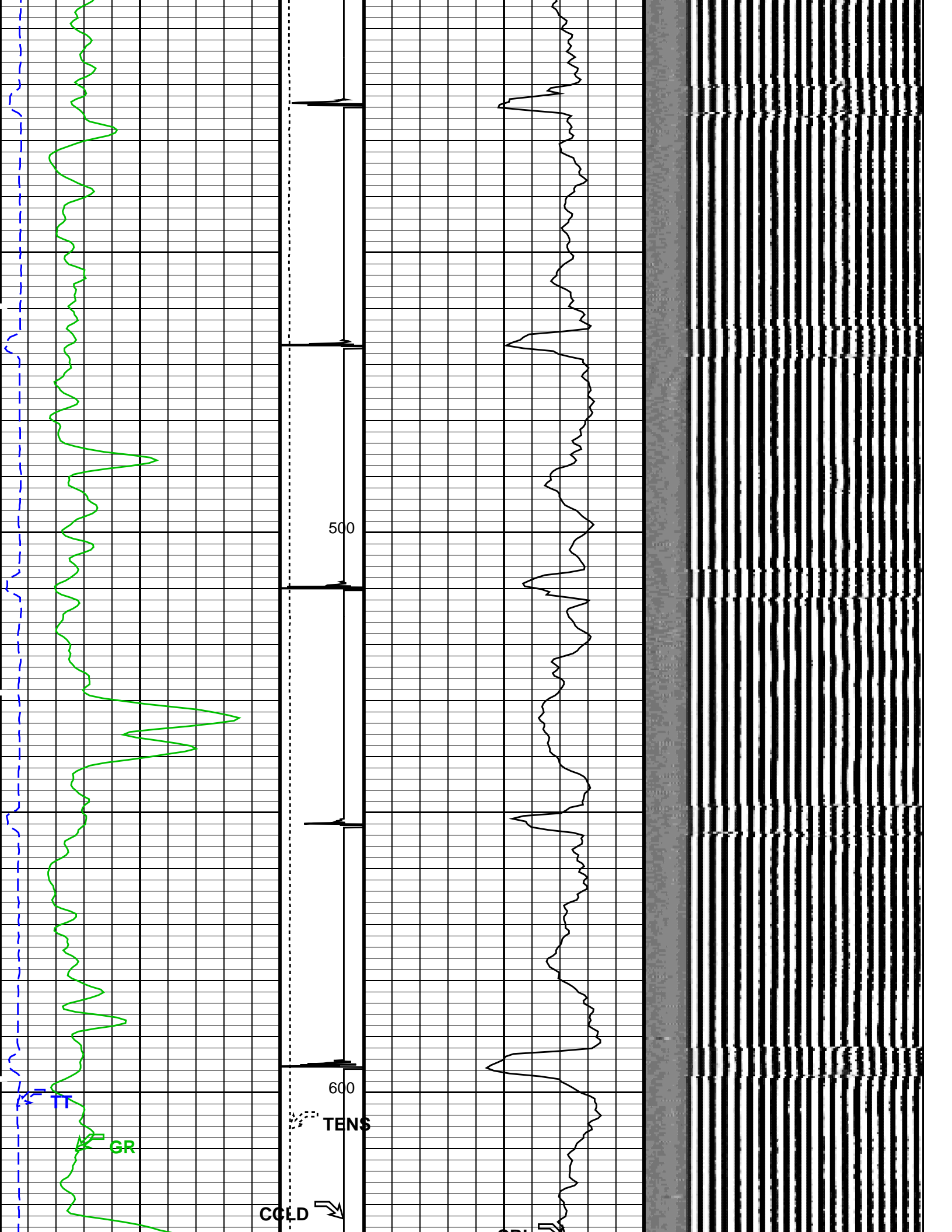
PIP SUMMARY

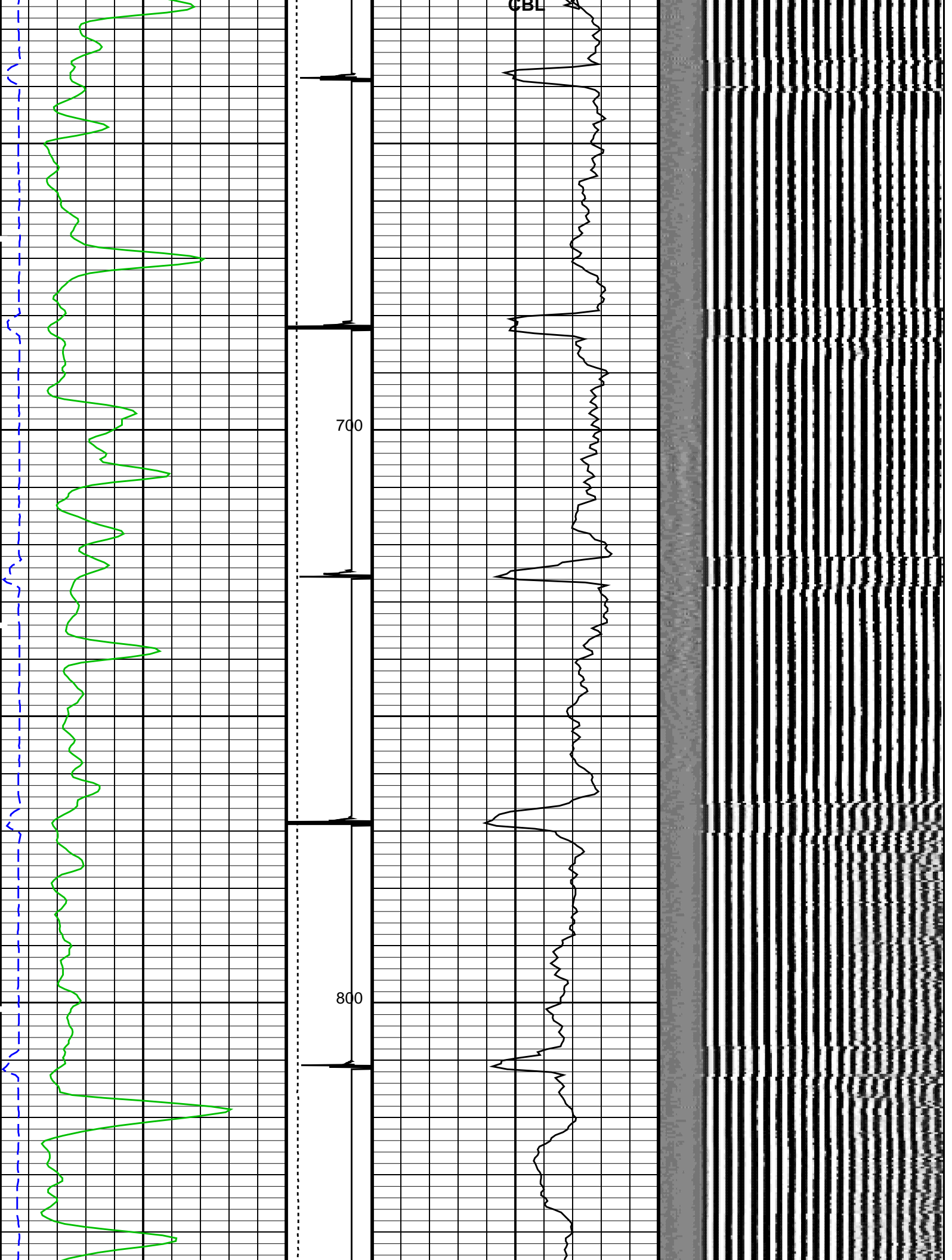
Time Mark Every 60 S

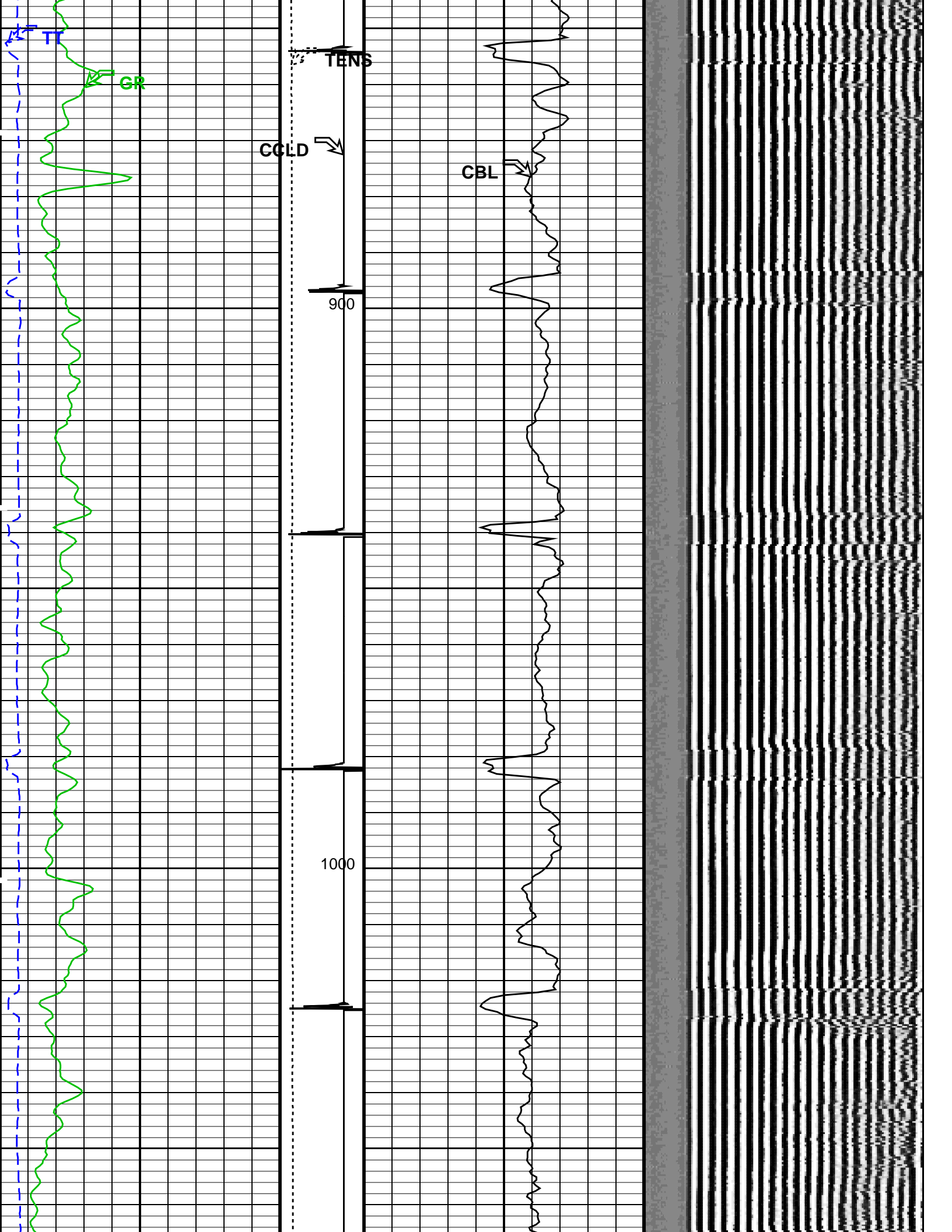




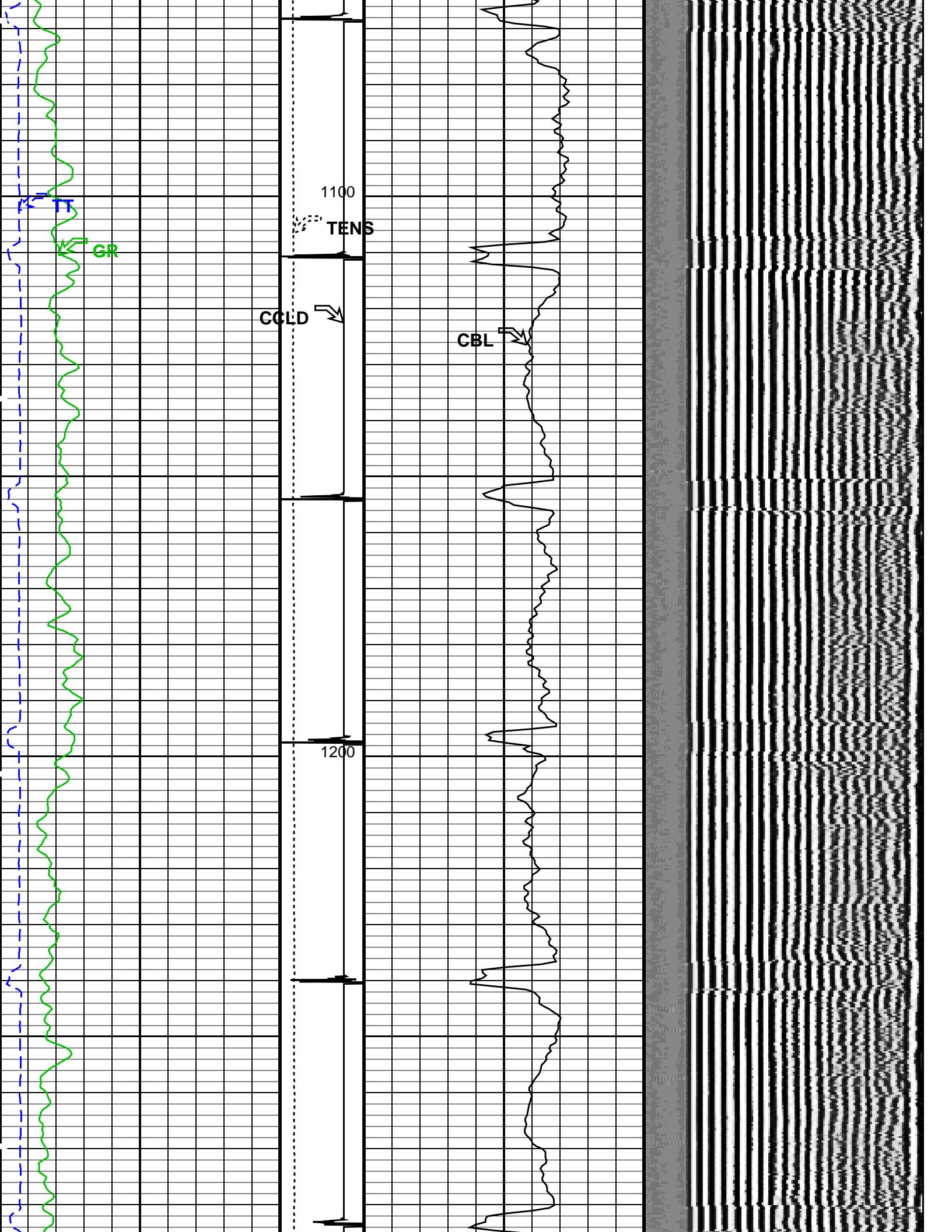




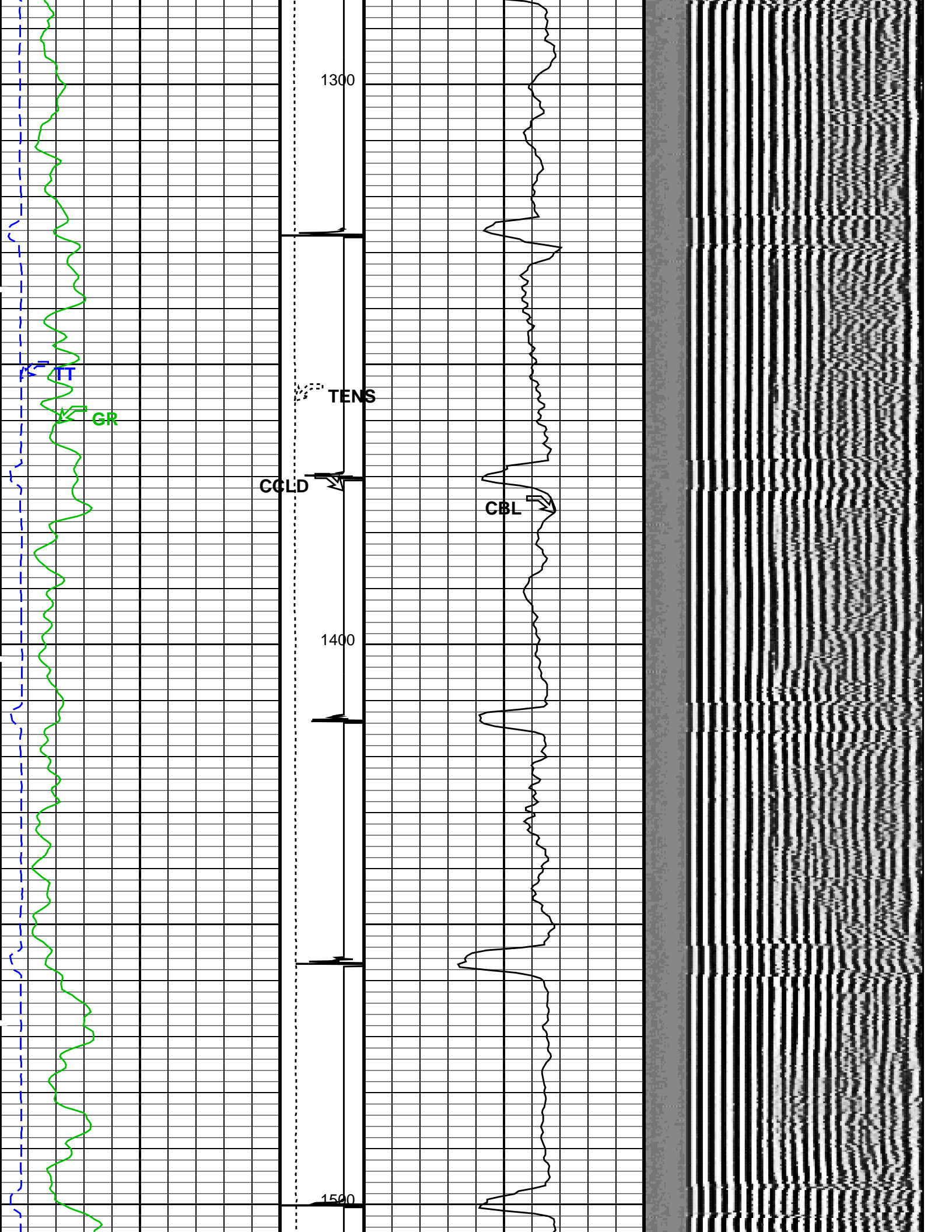


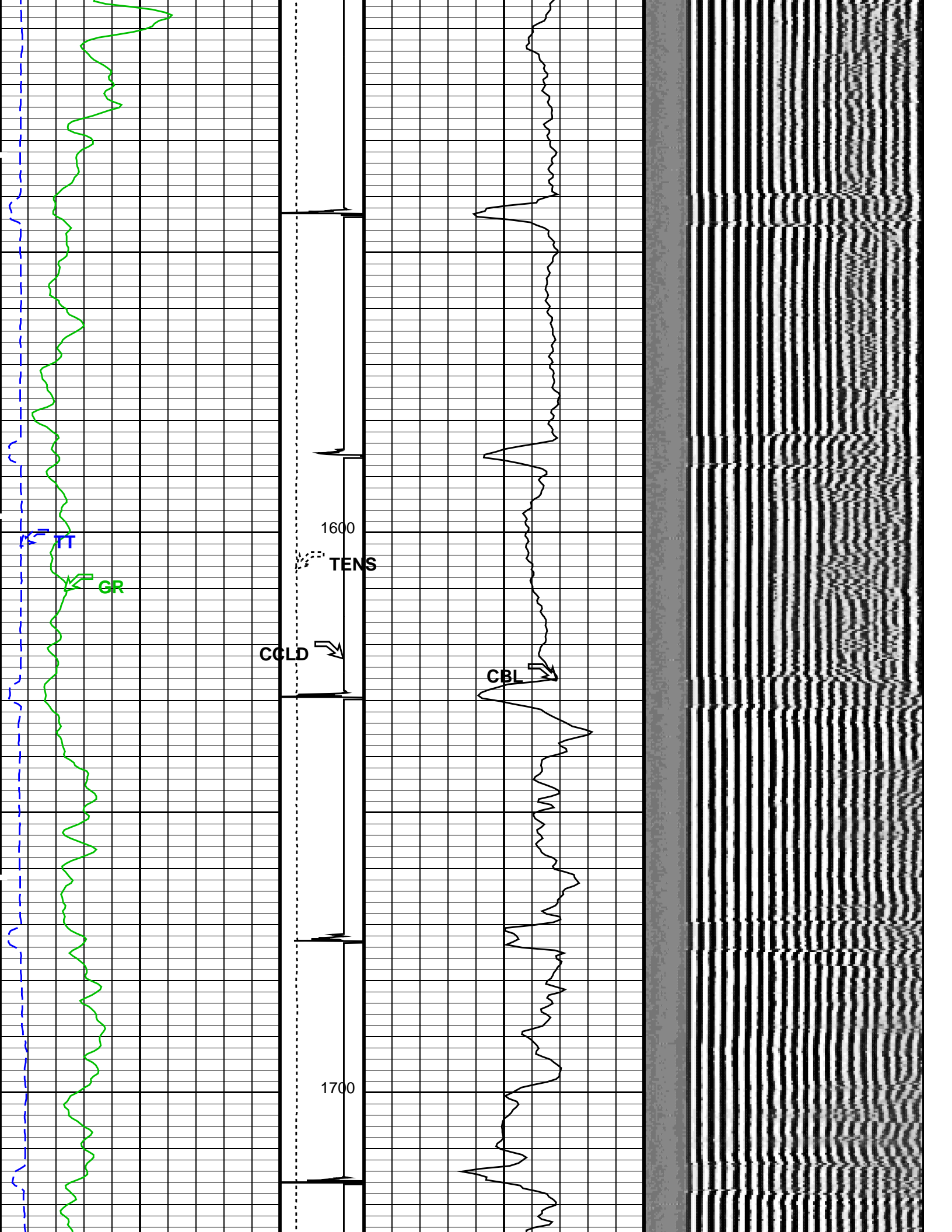


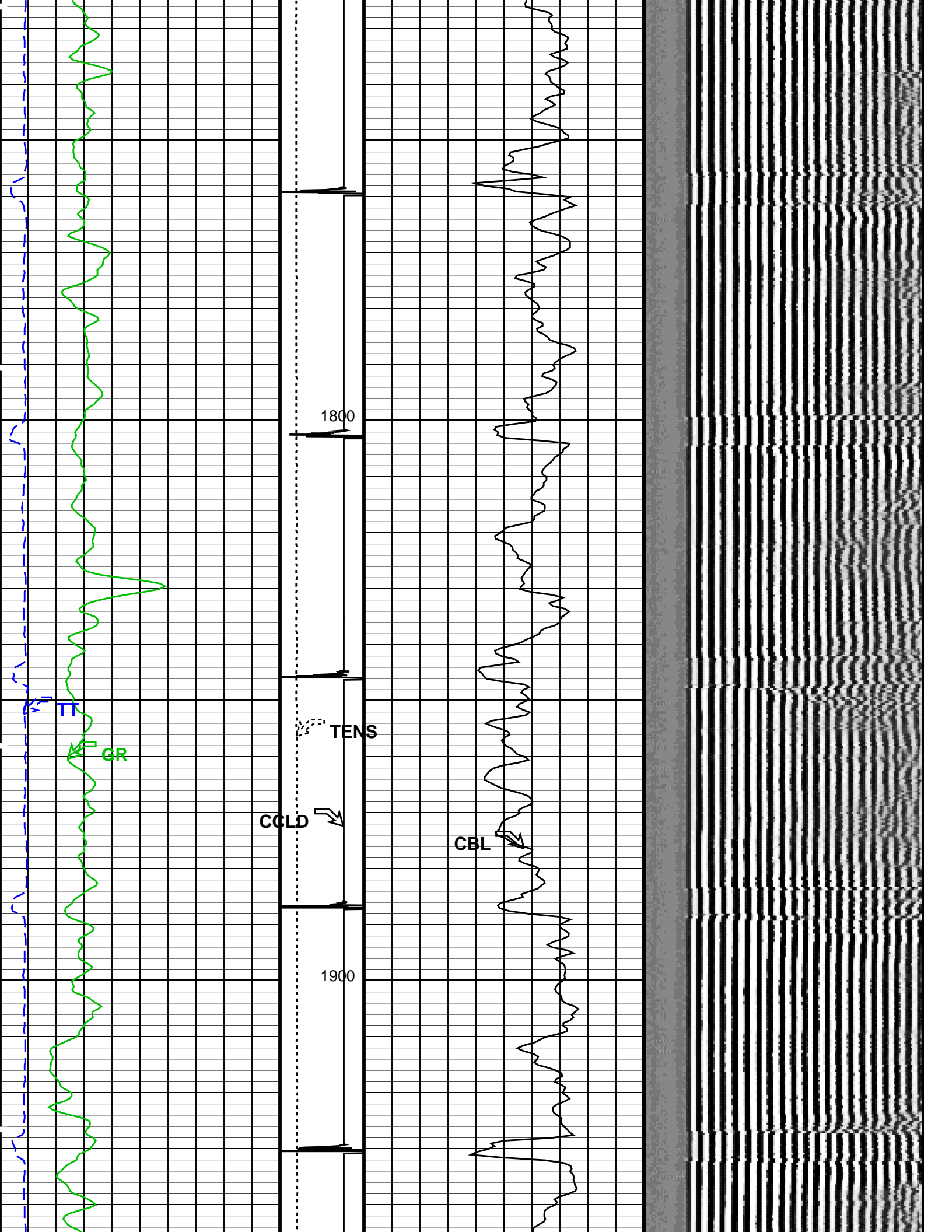


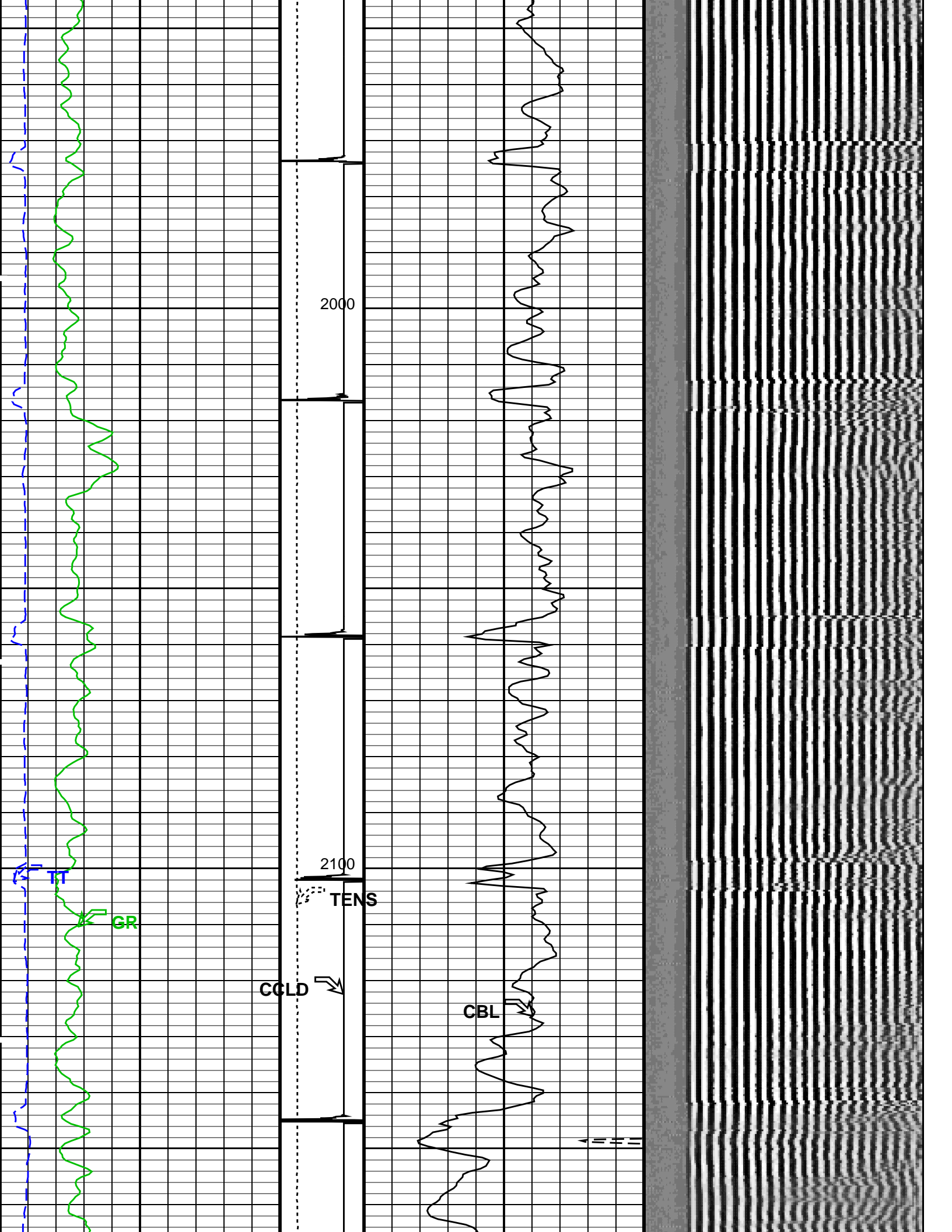




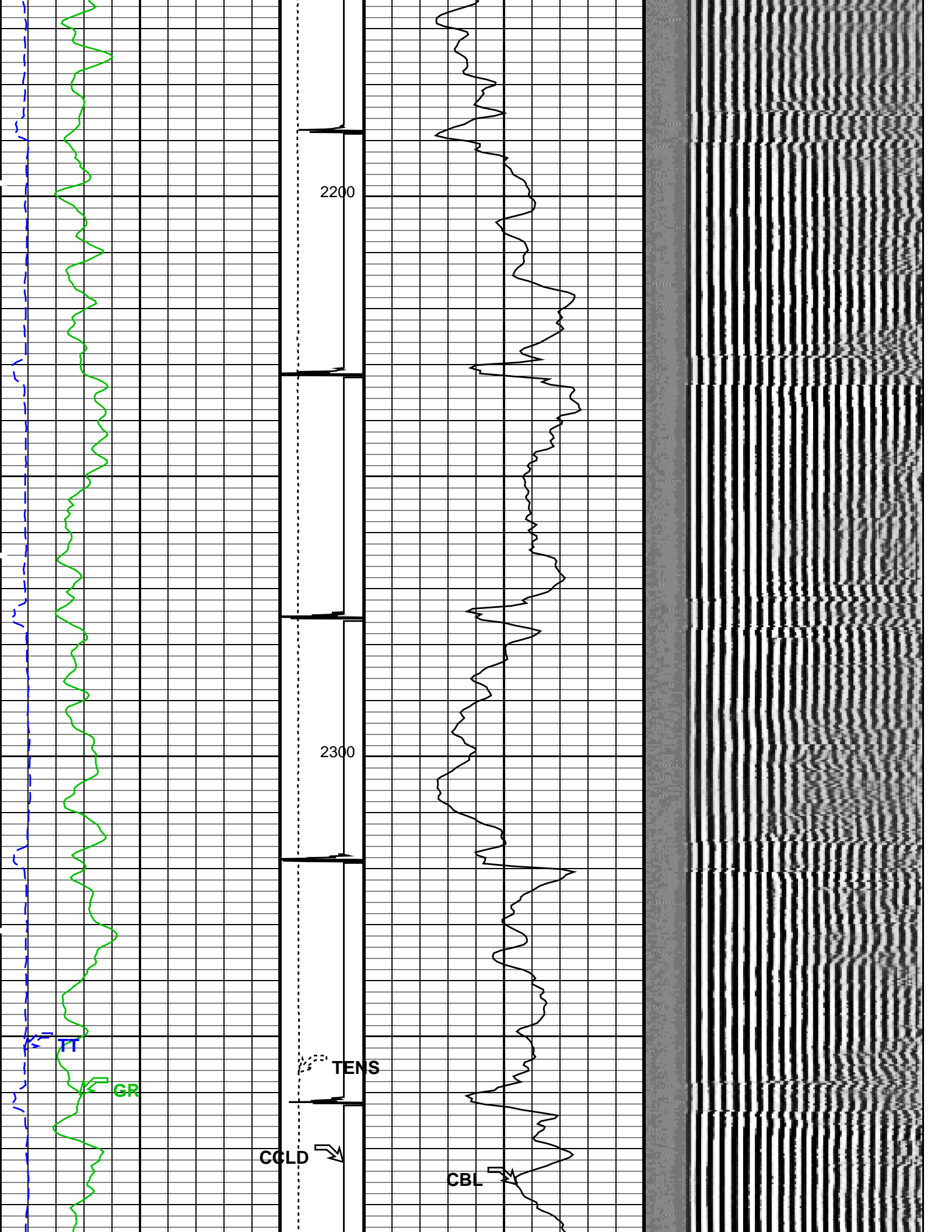


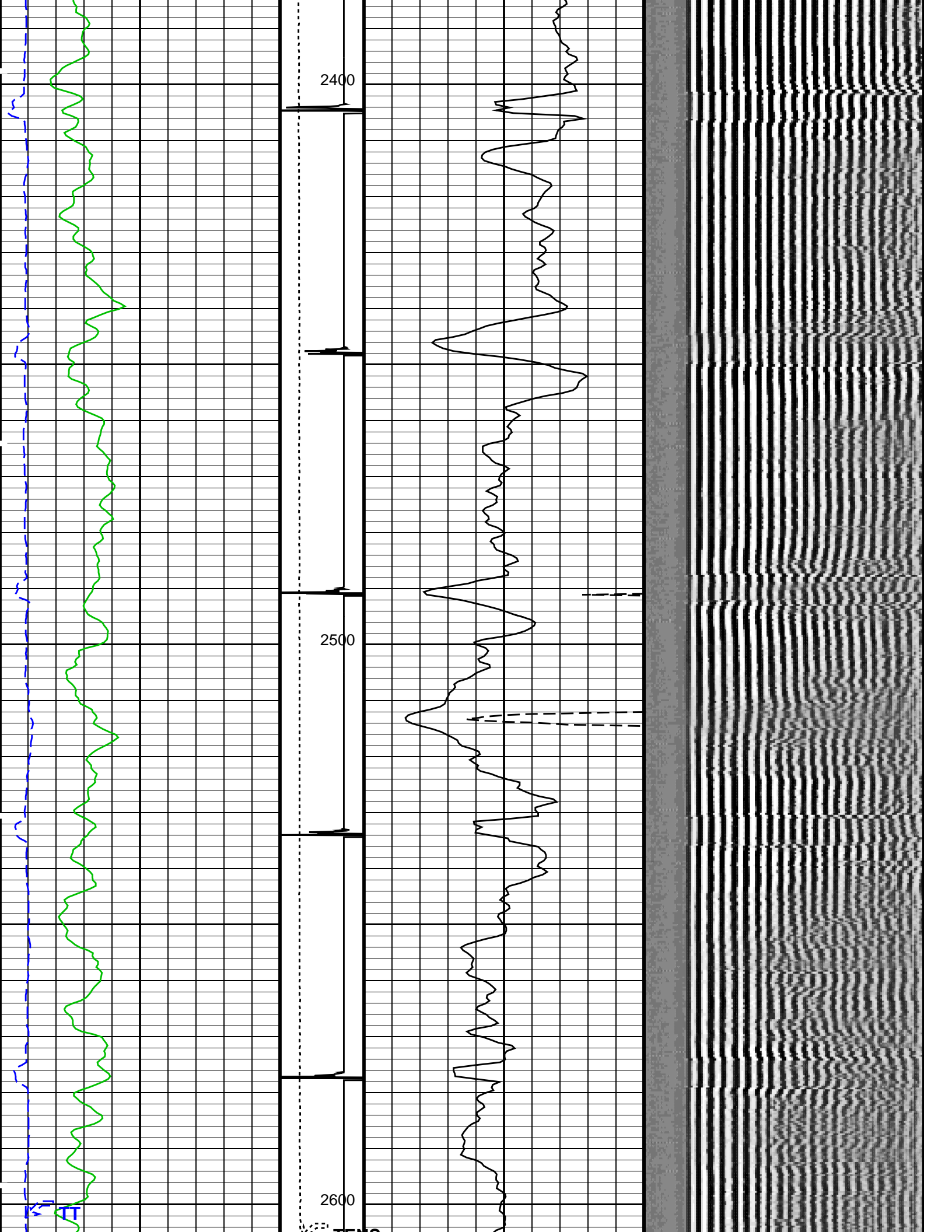


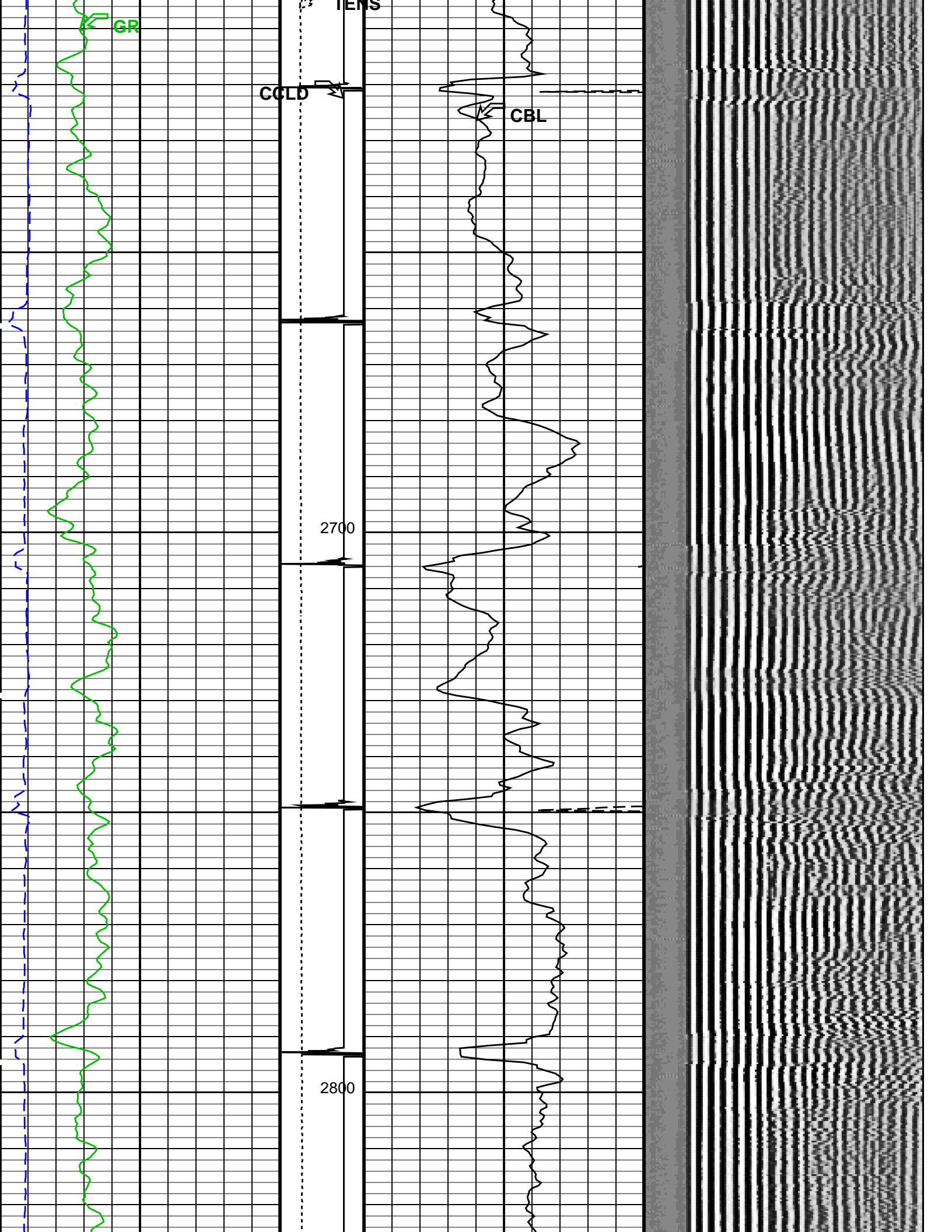


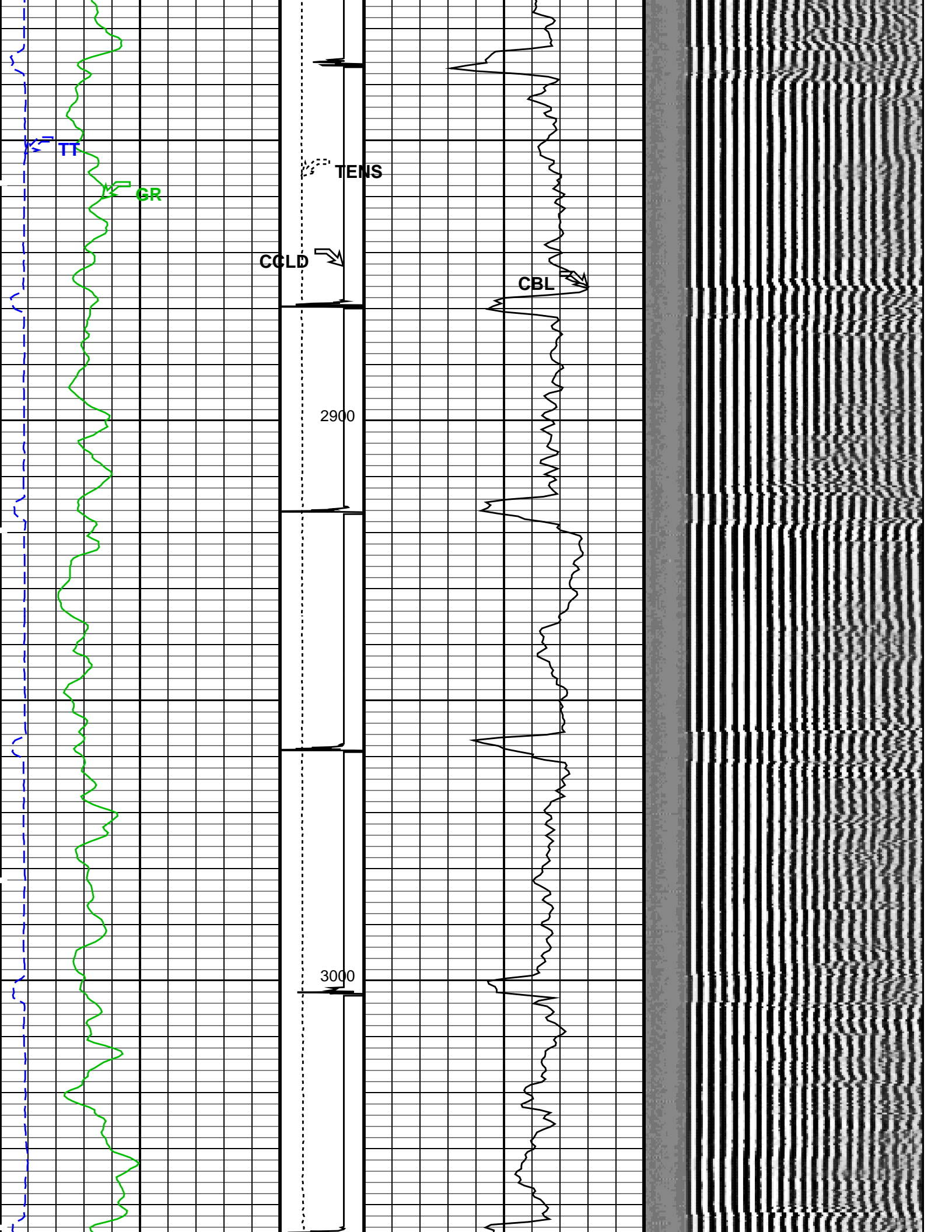




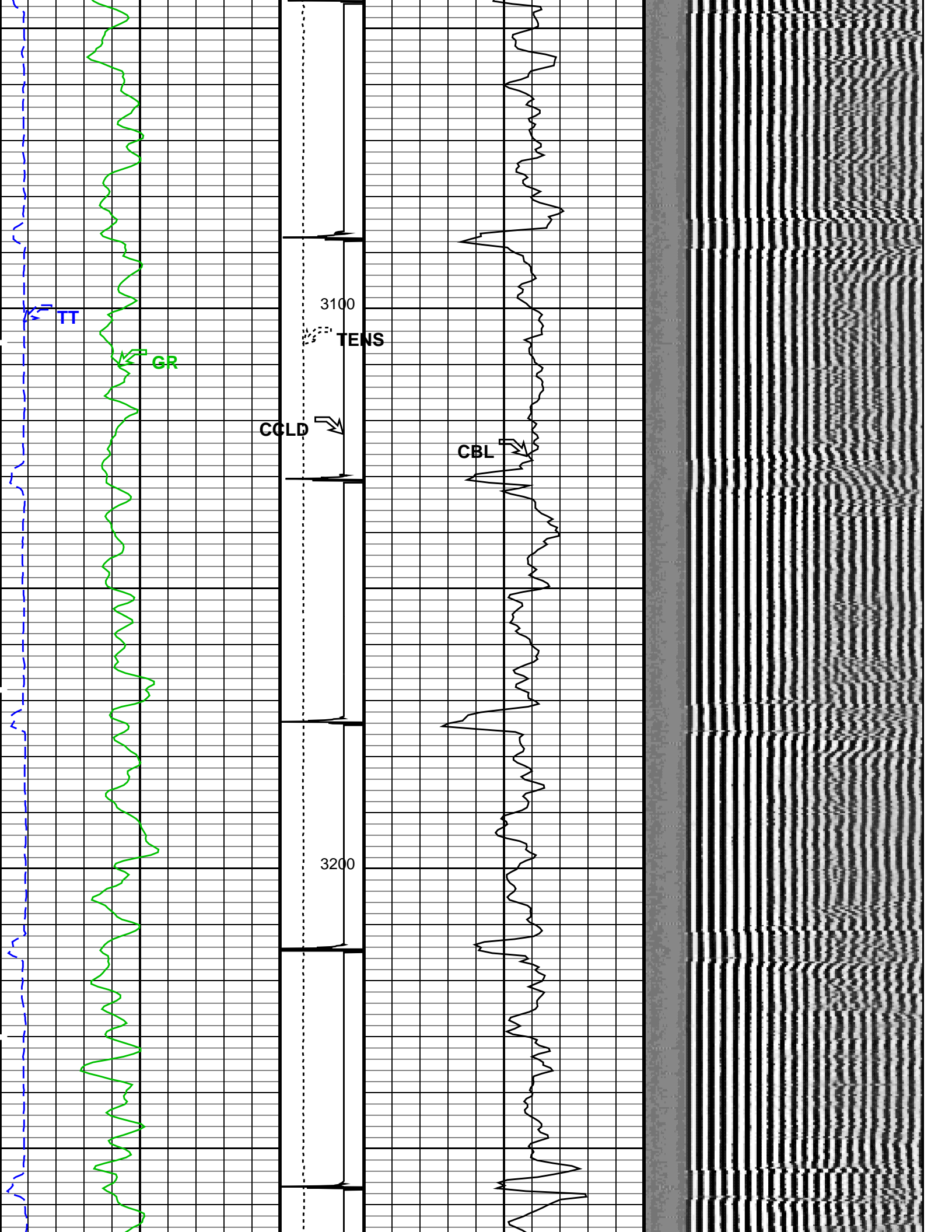


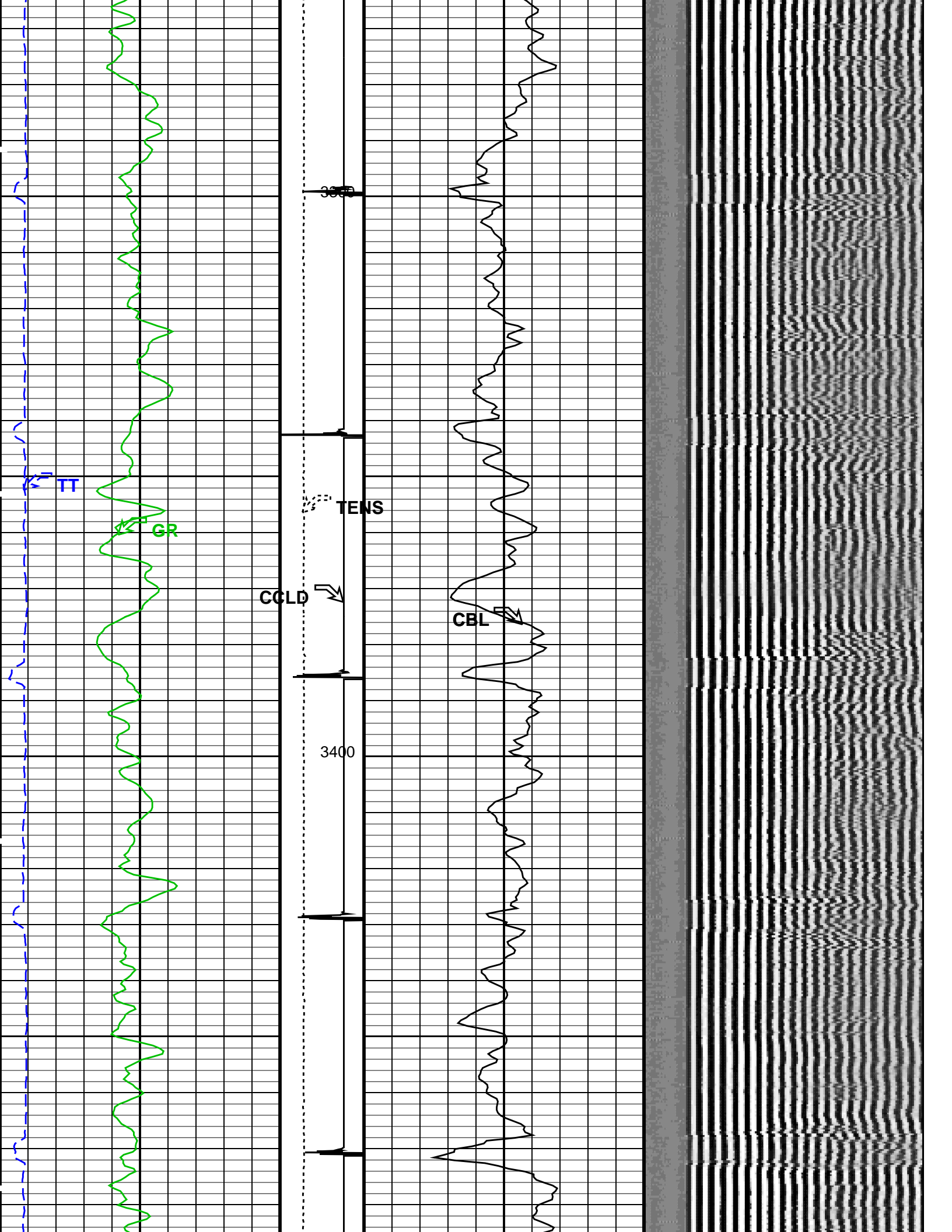


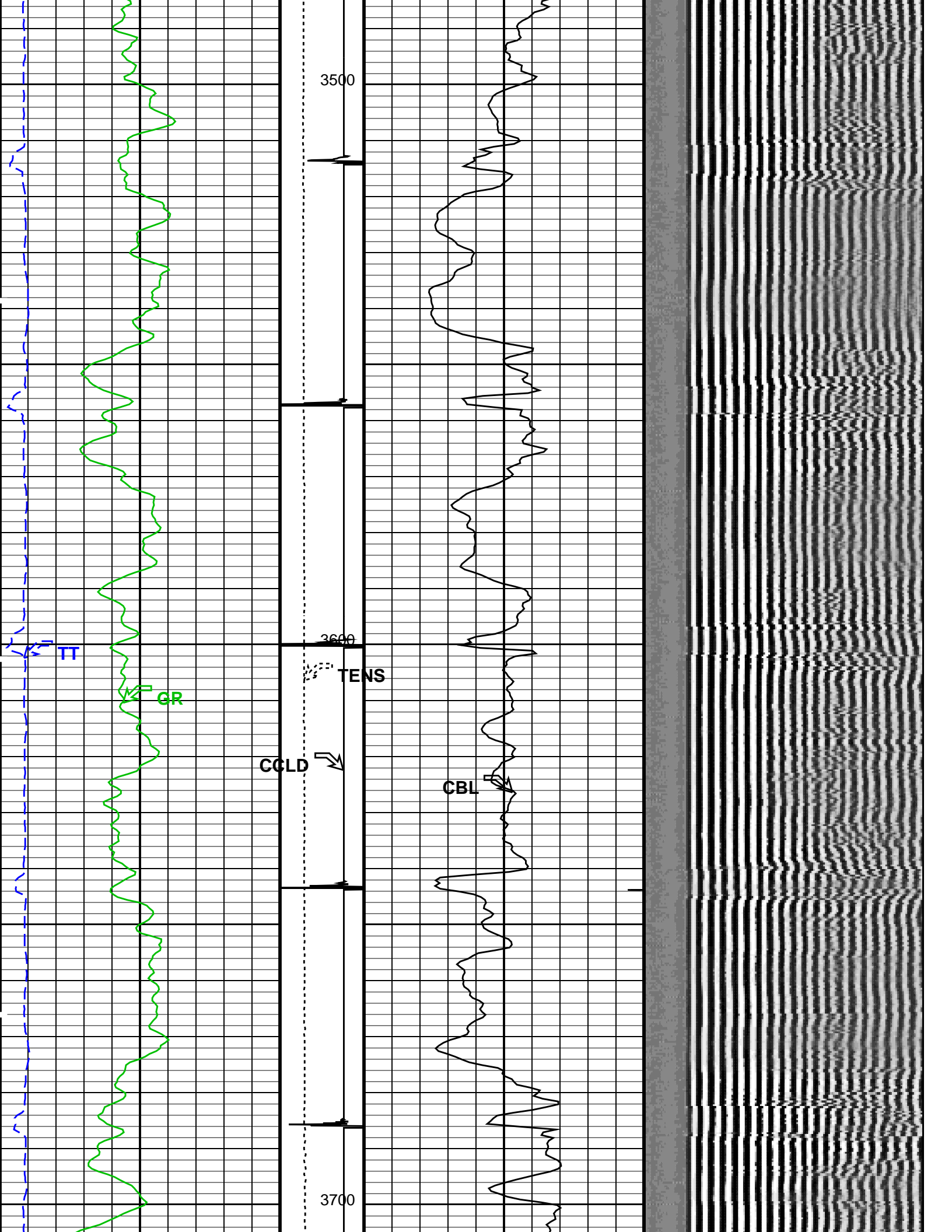


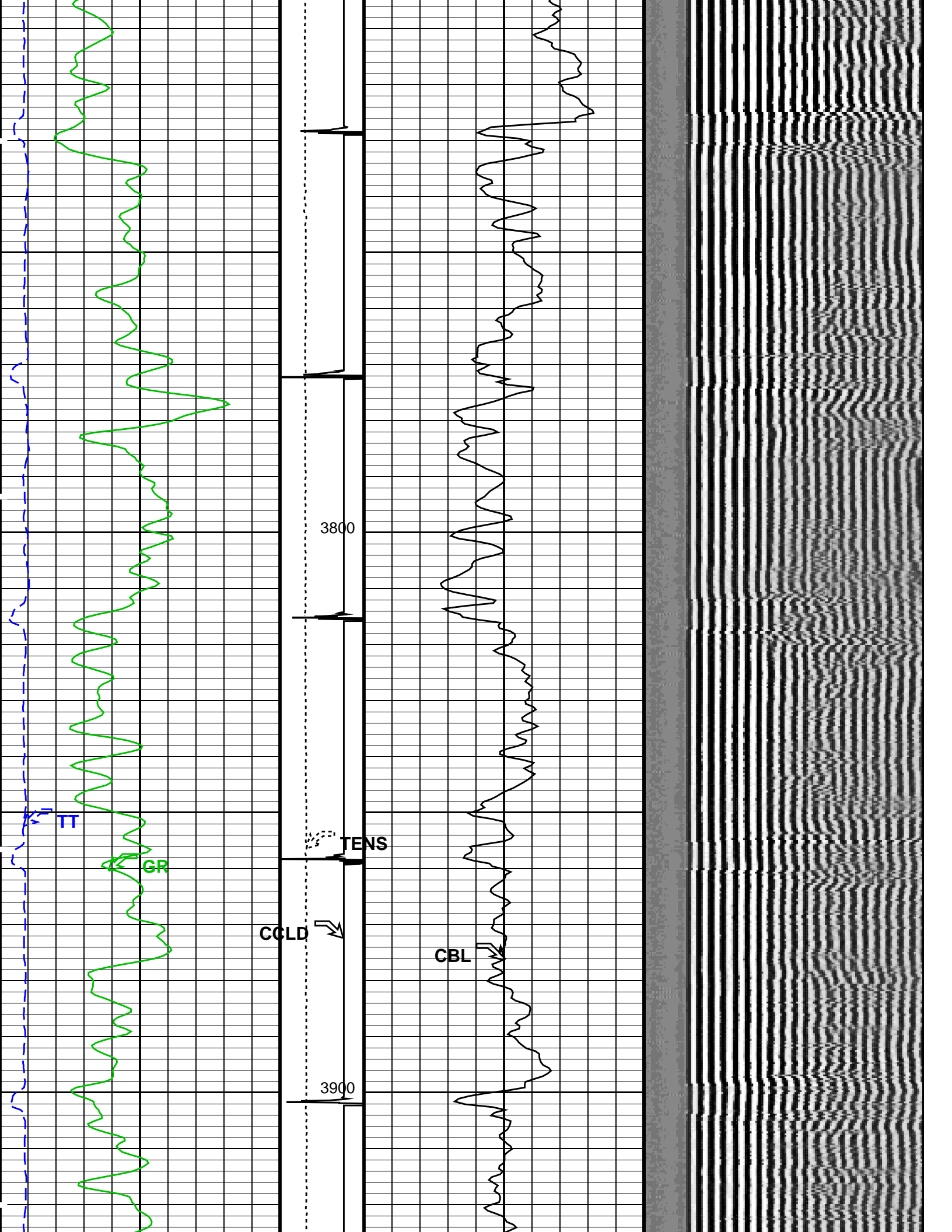




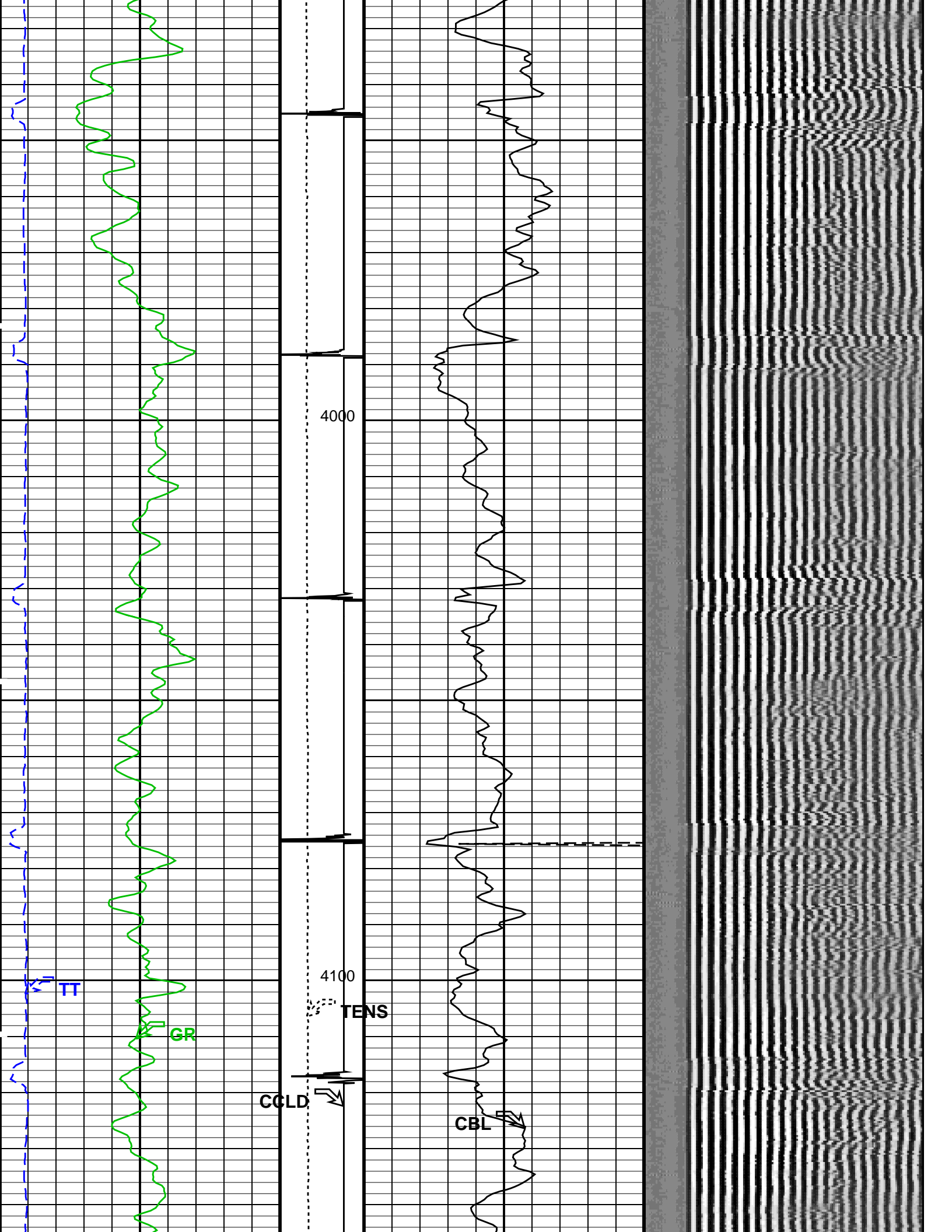


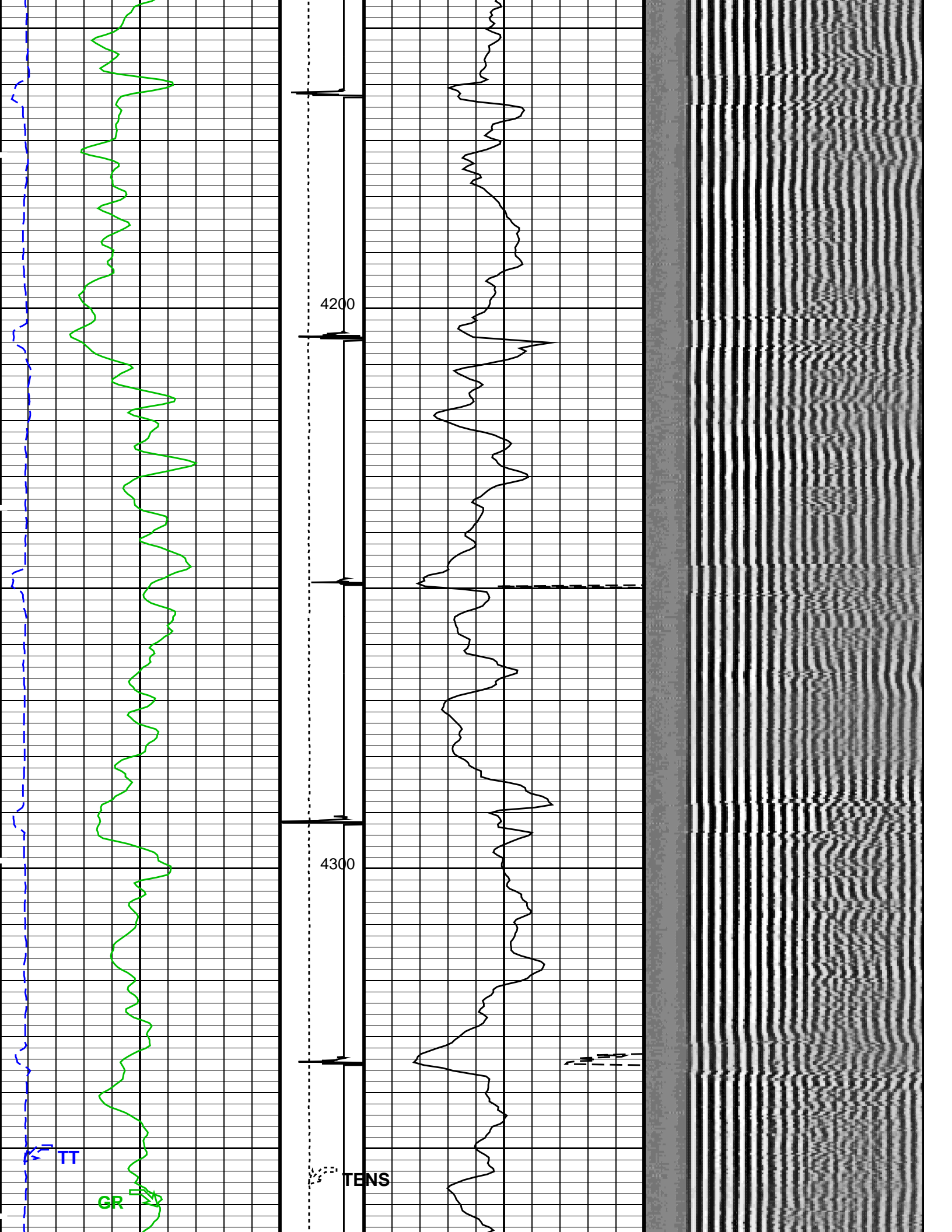


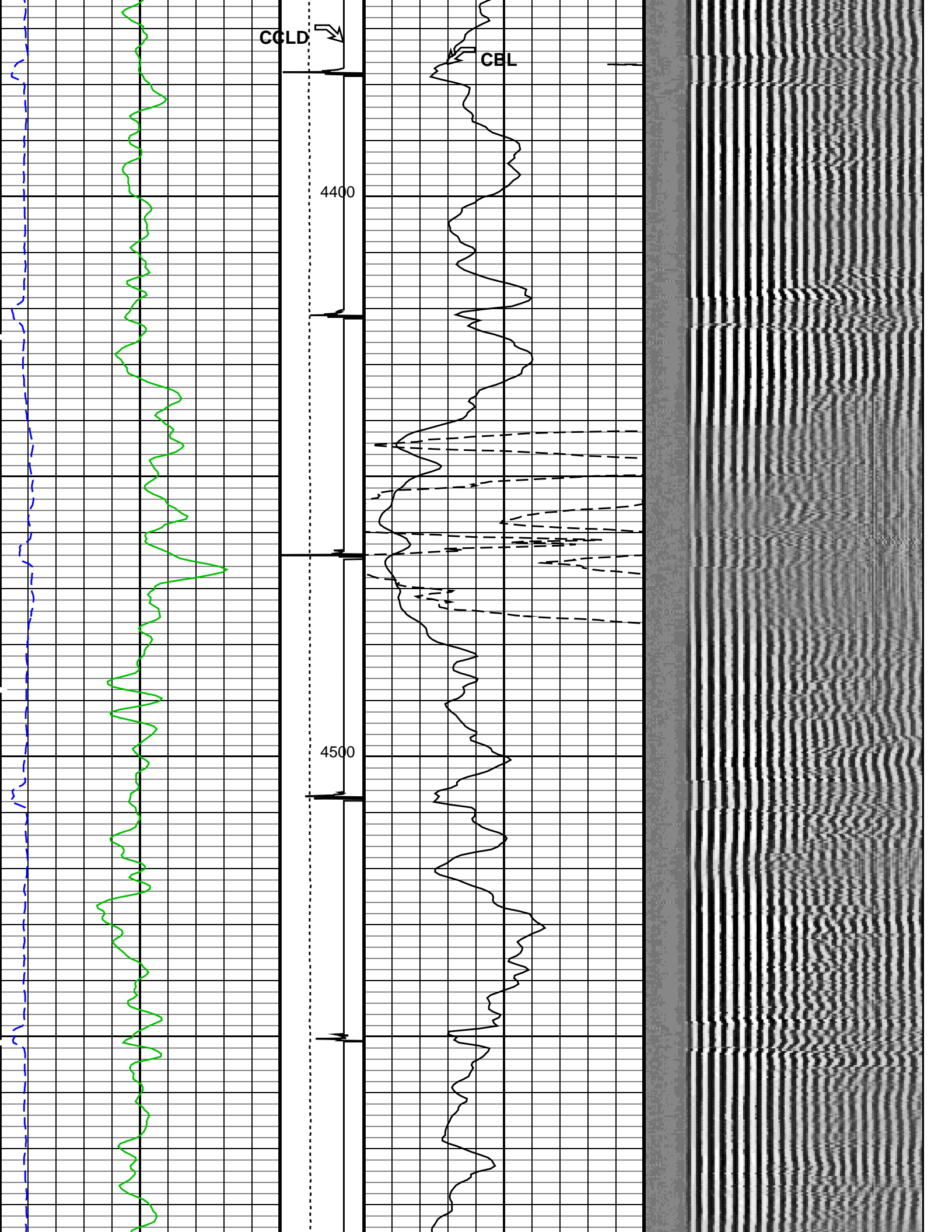


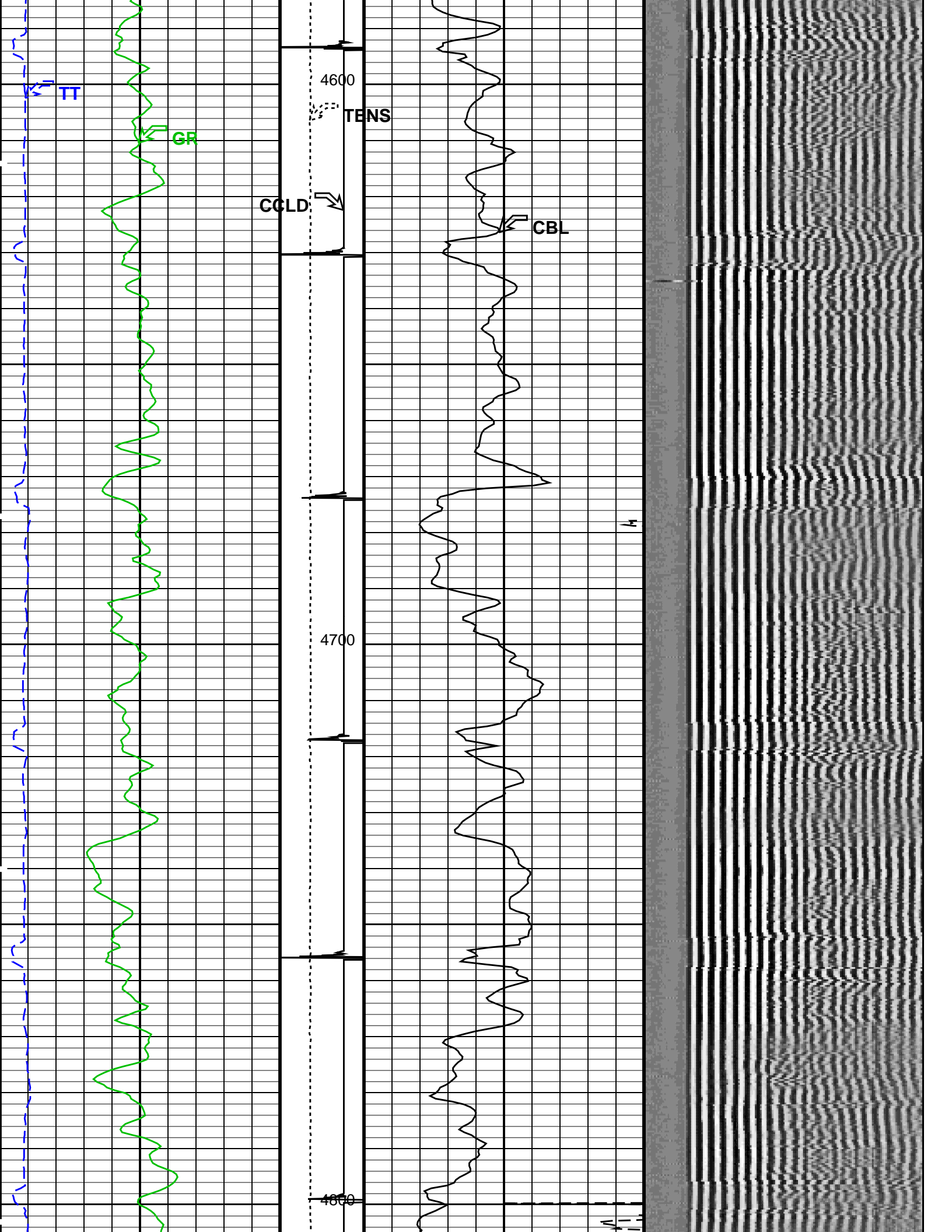




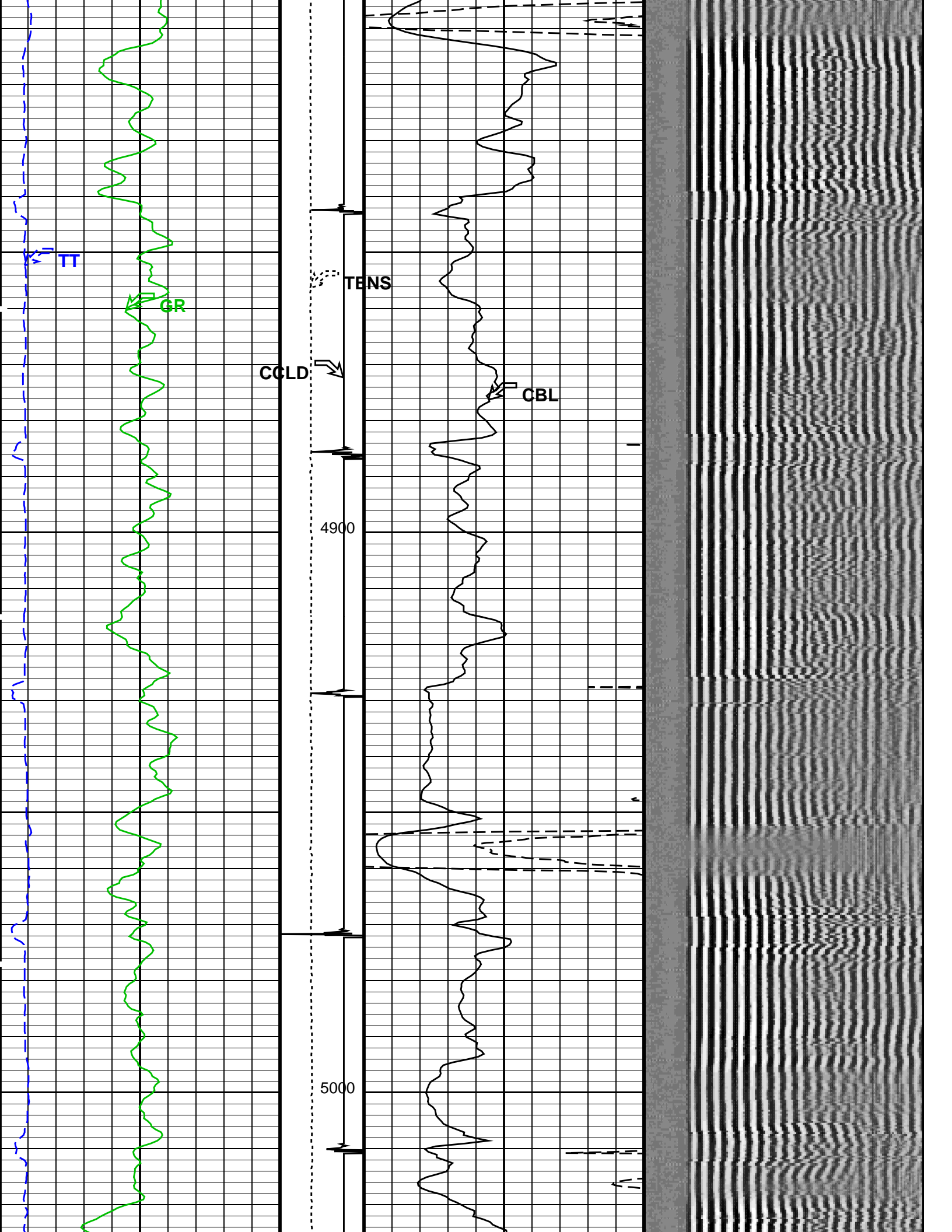


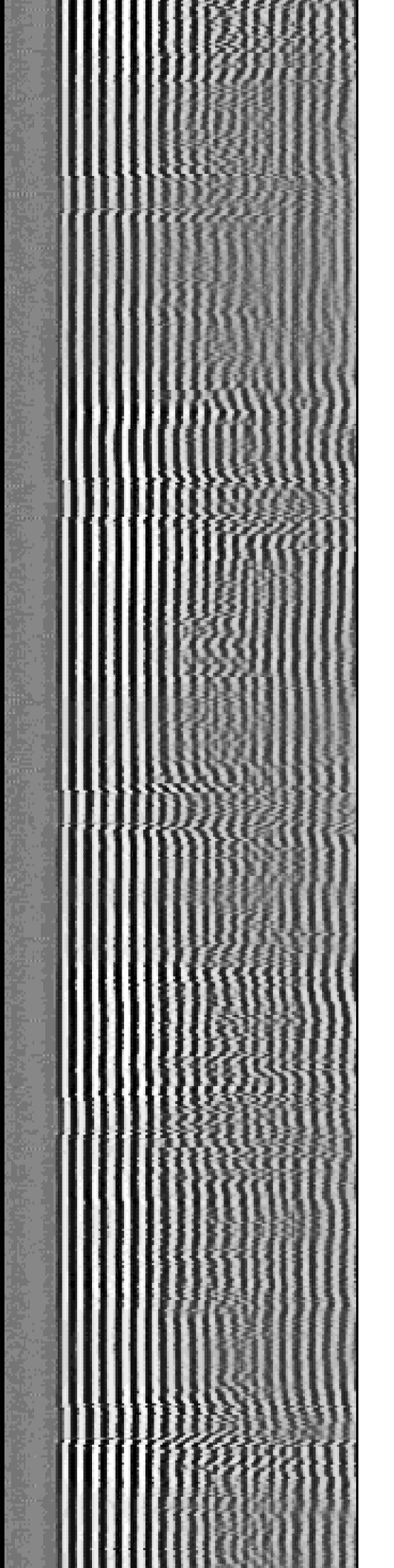
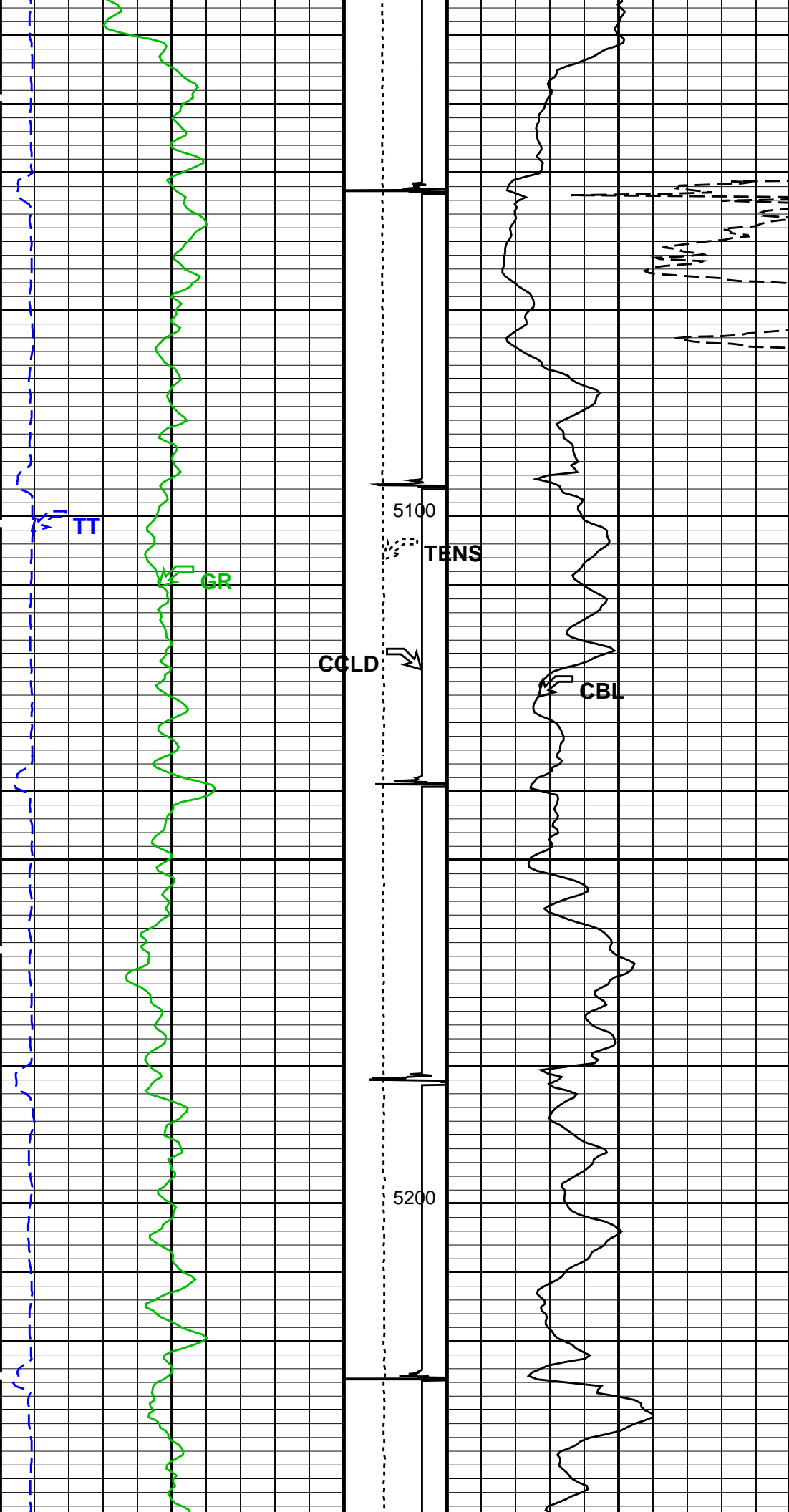


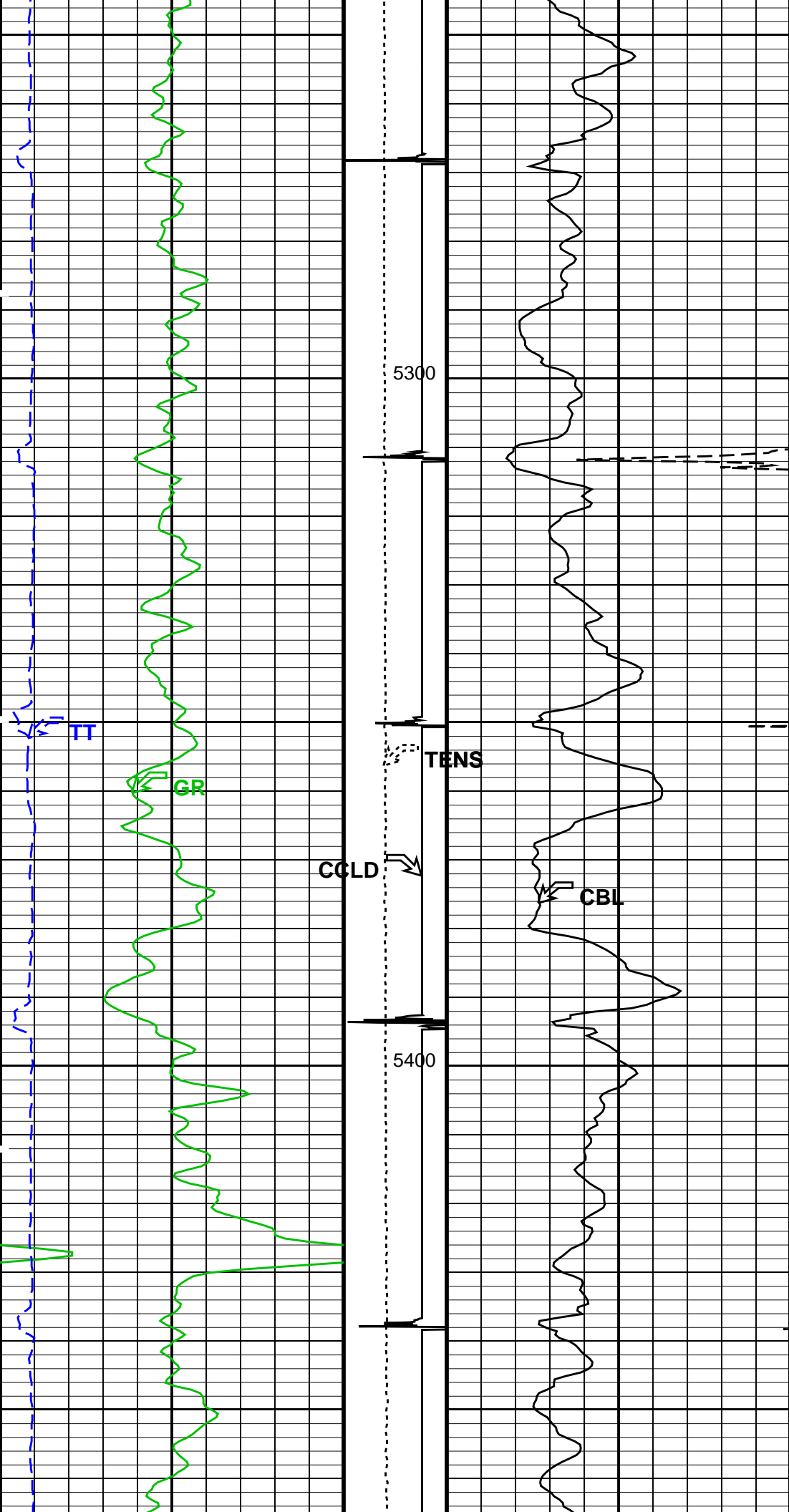


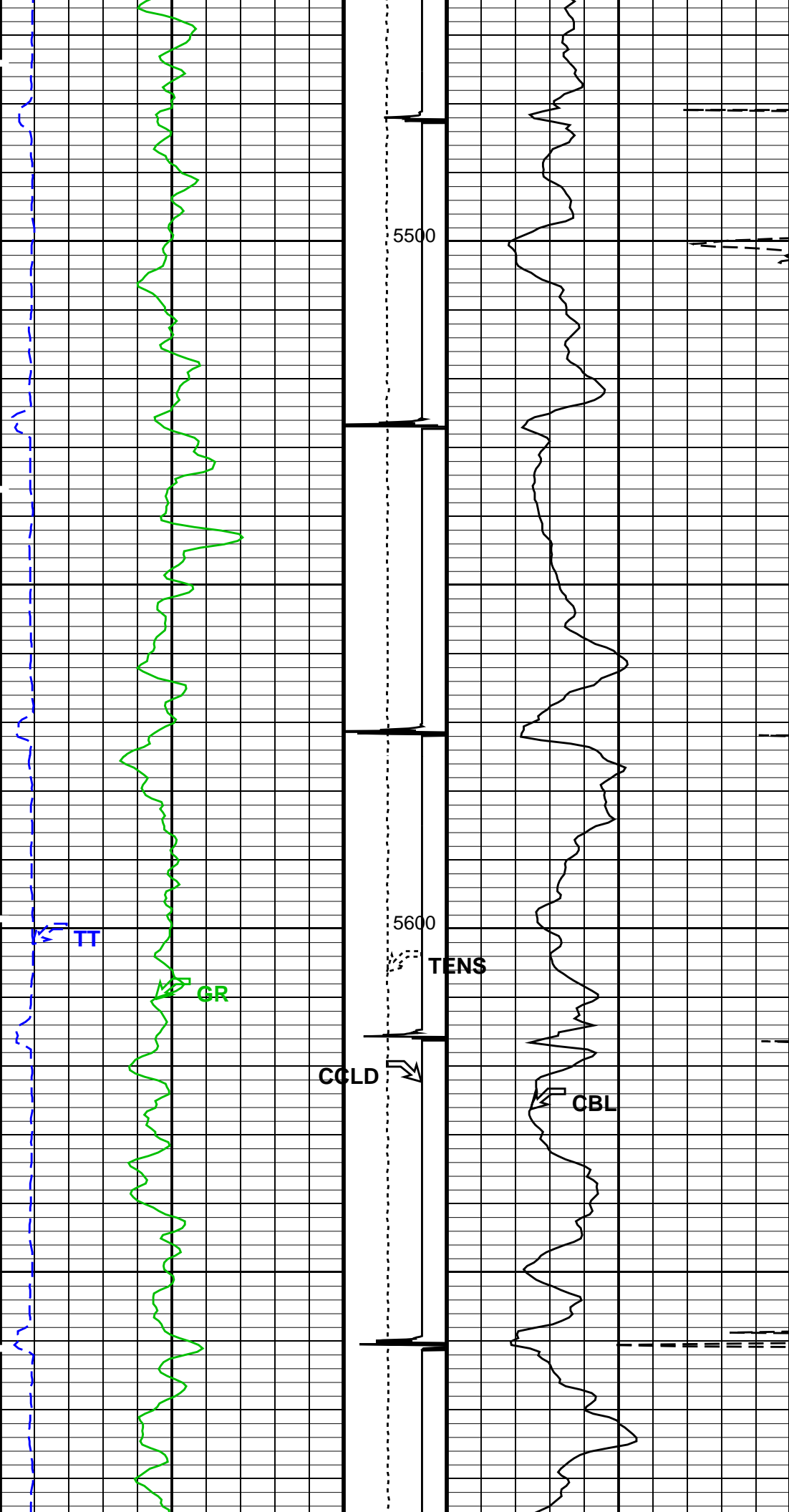




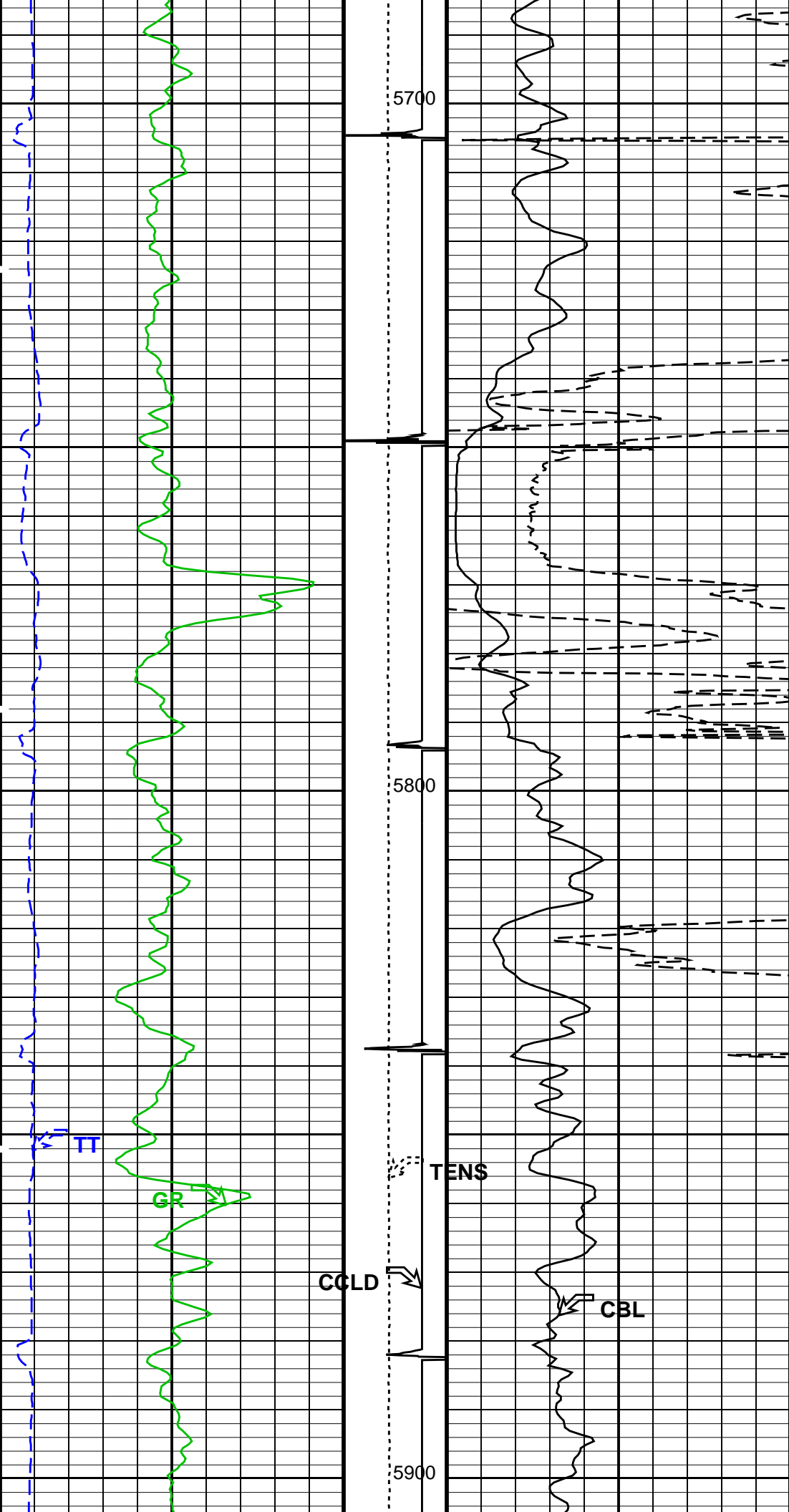


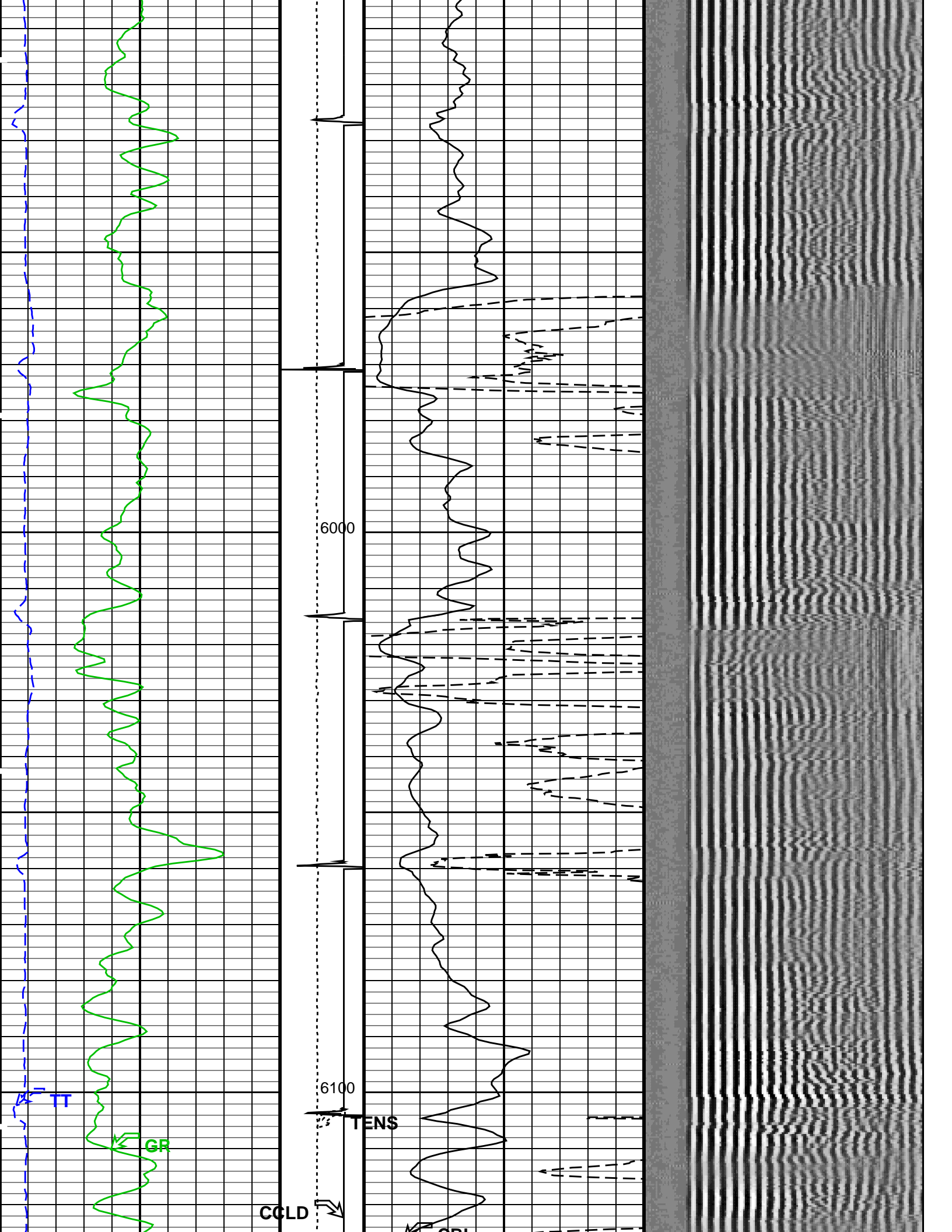


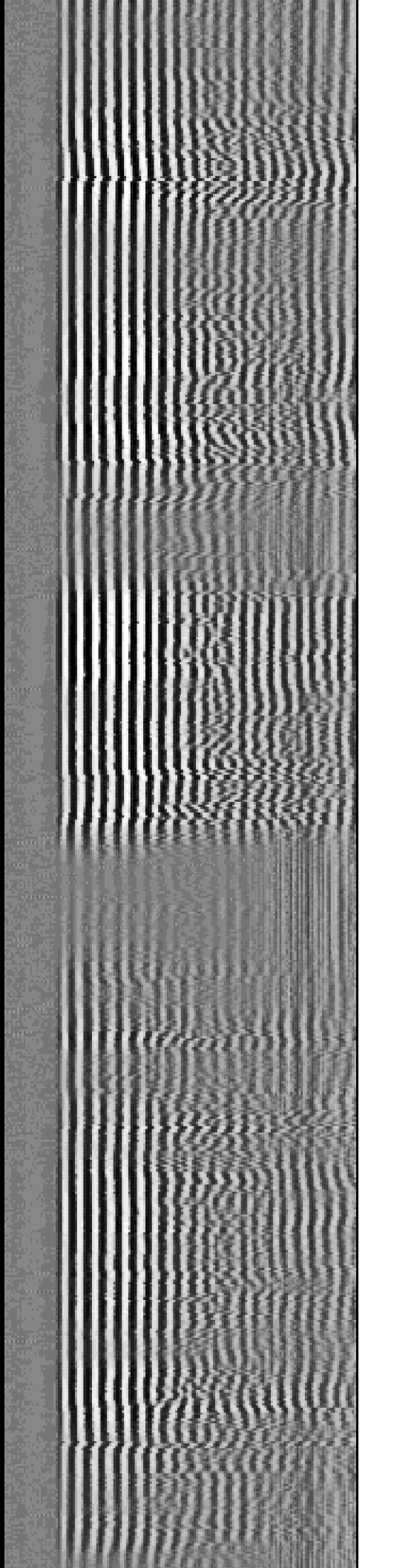
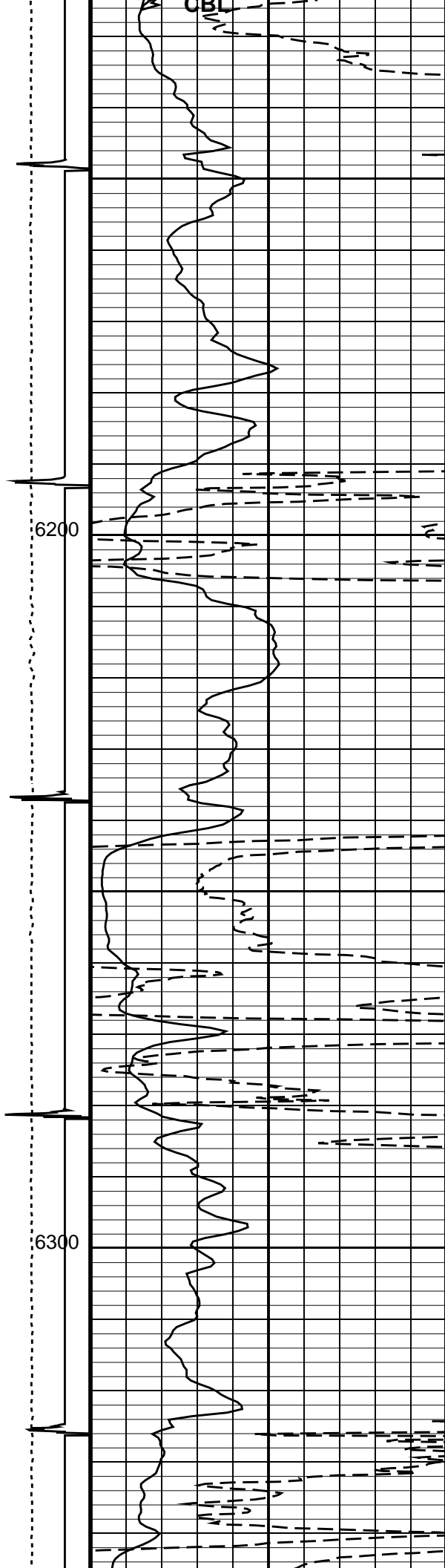
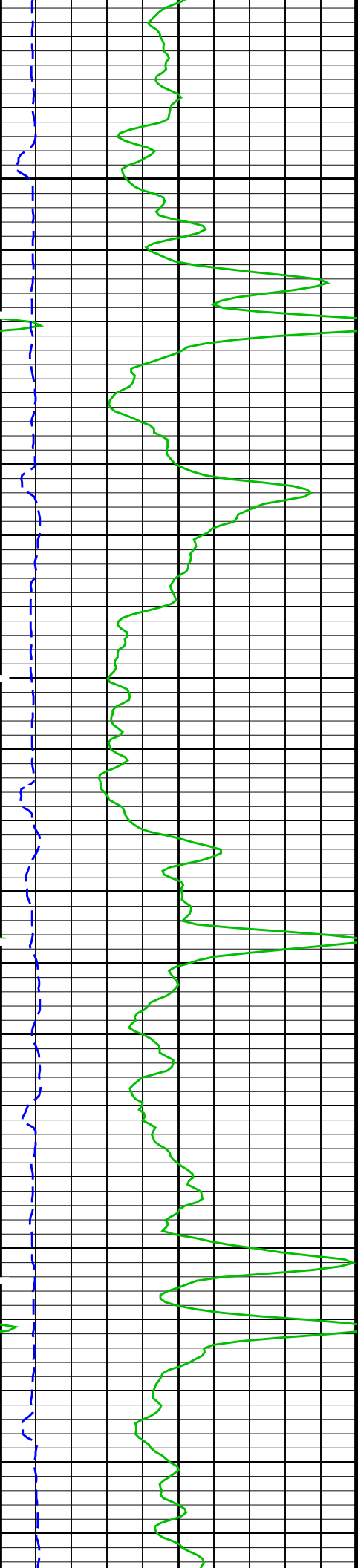


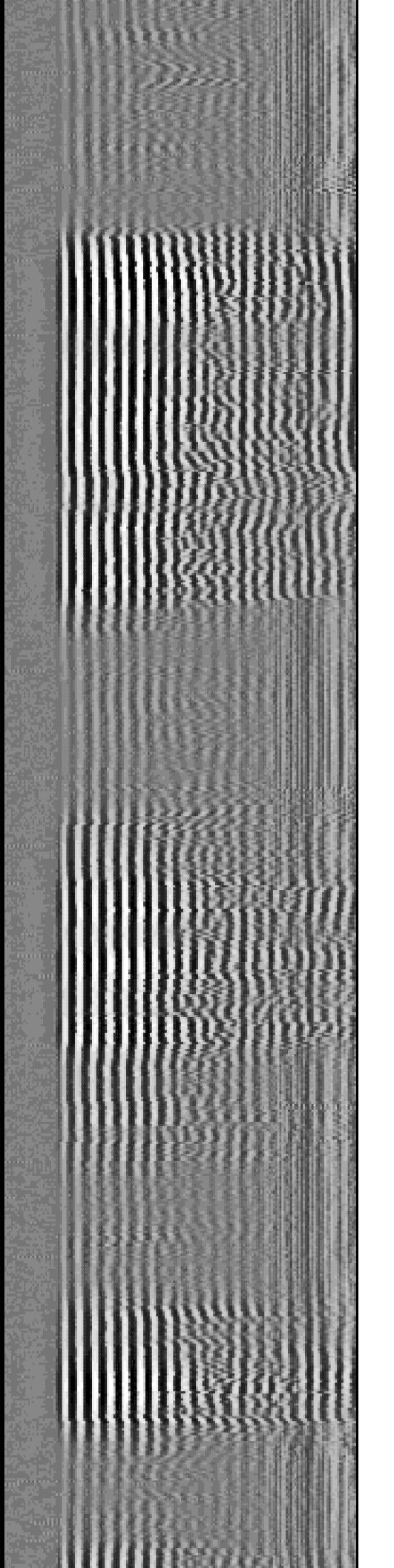
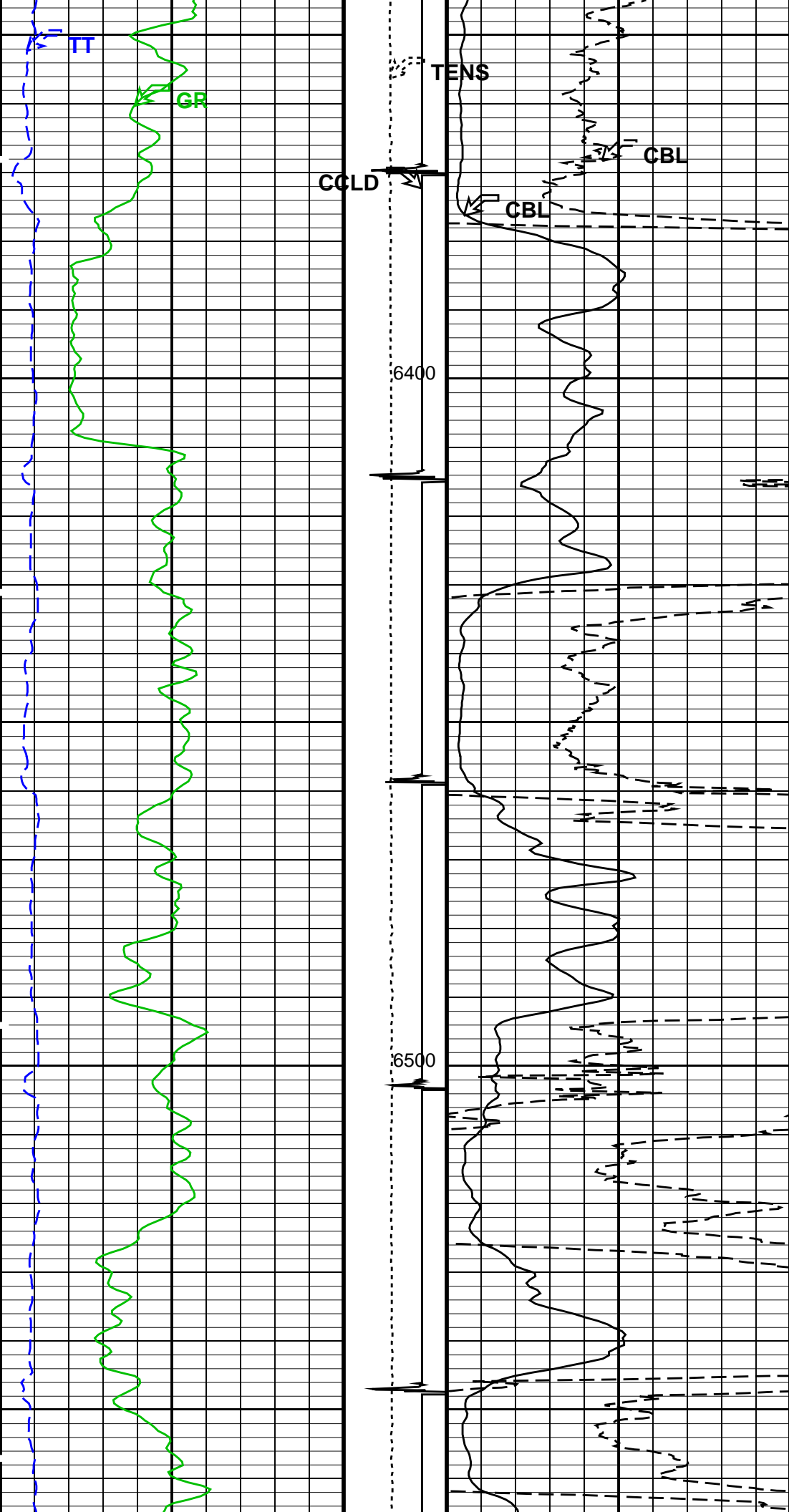




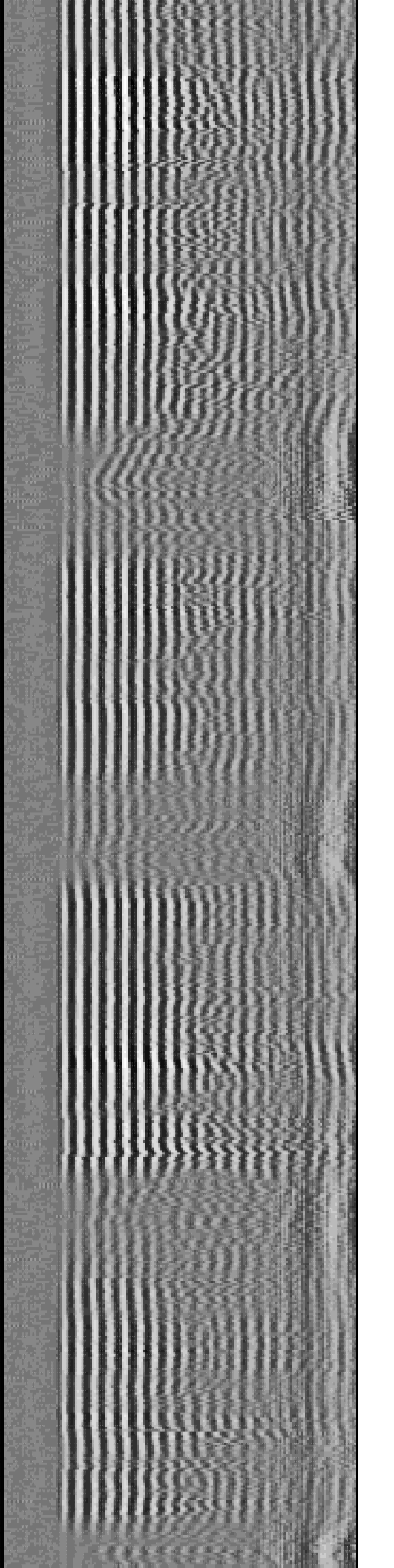
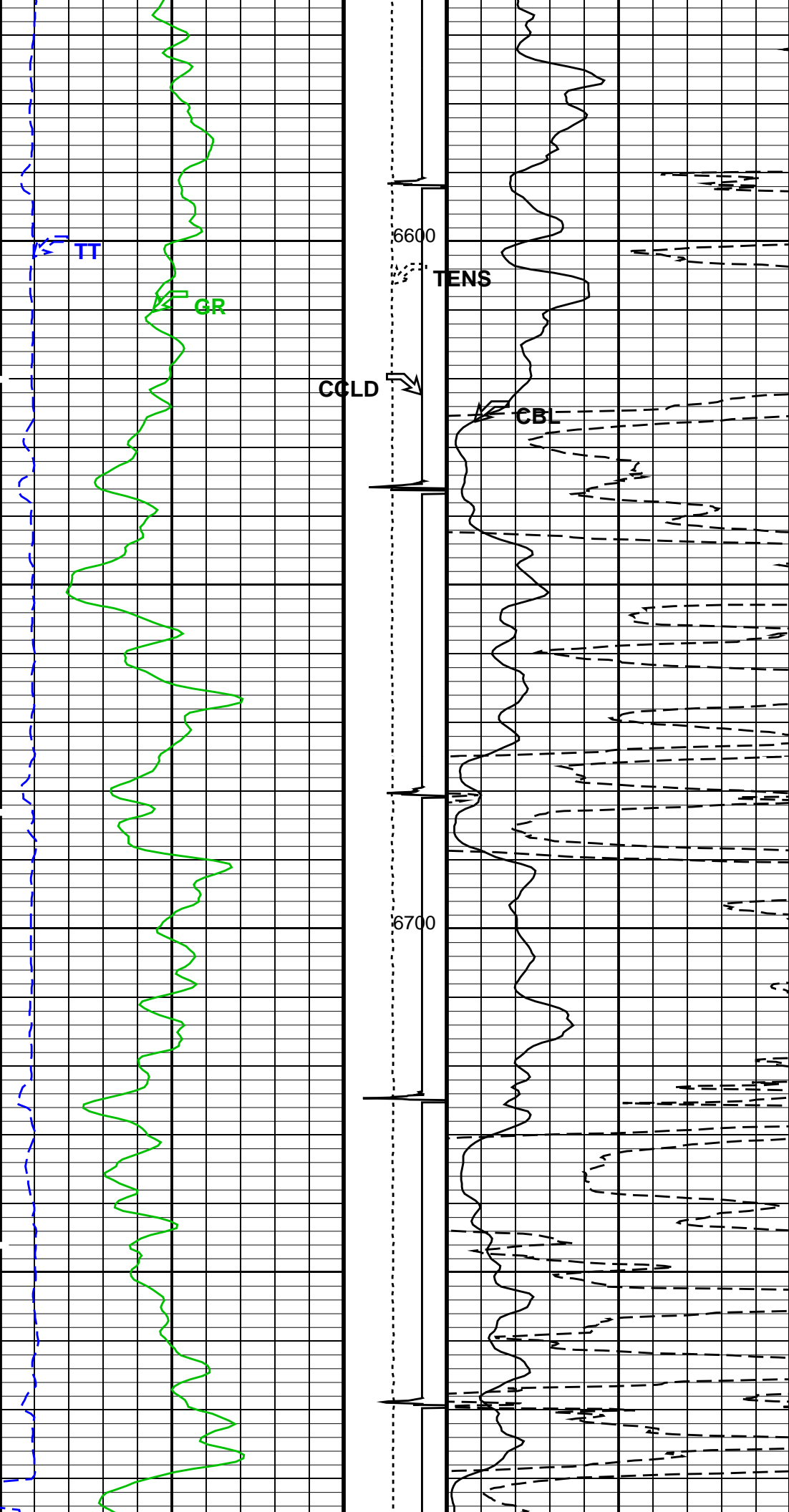


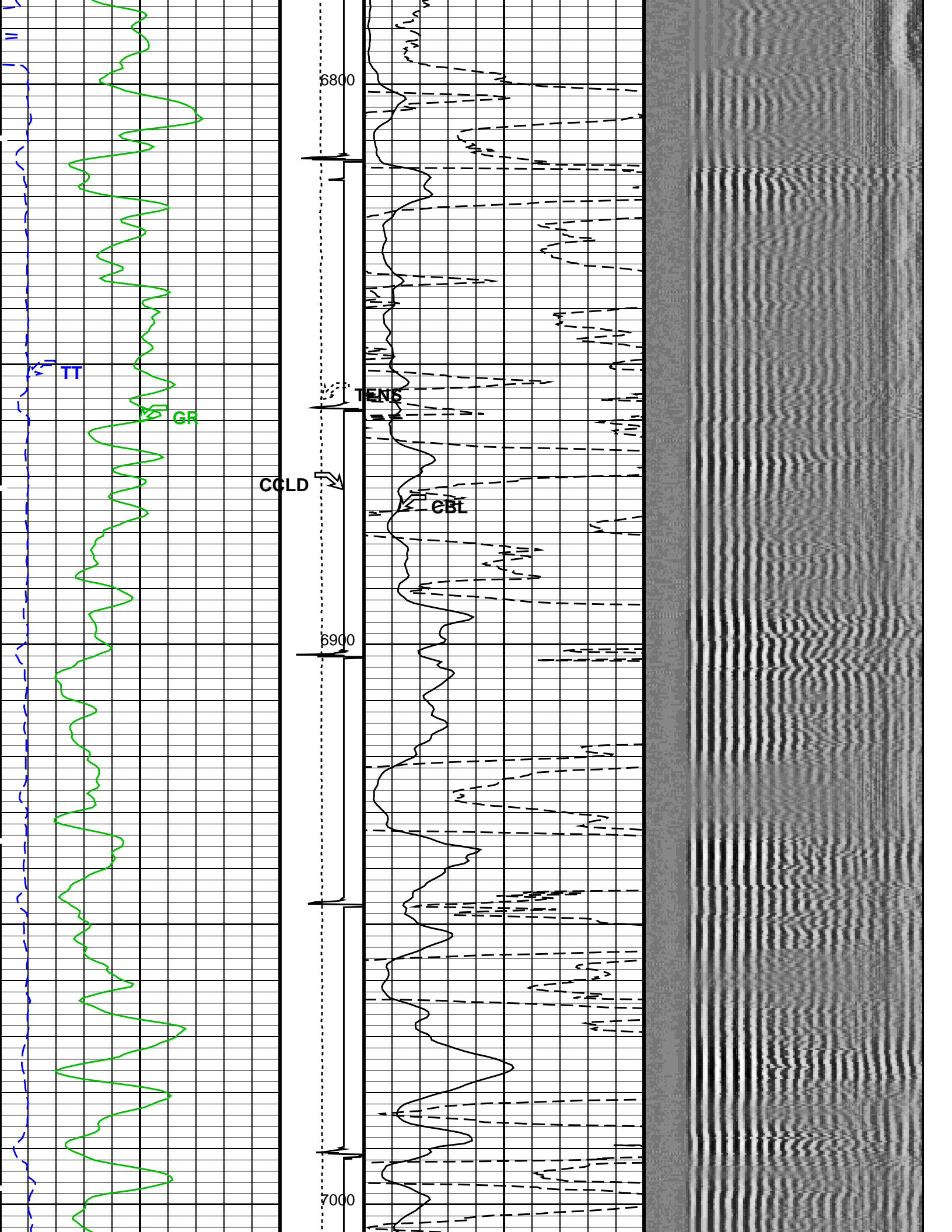


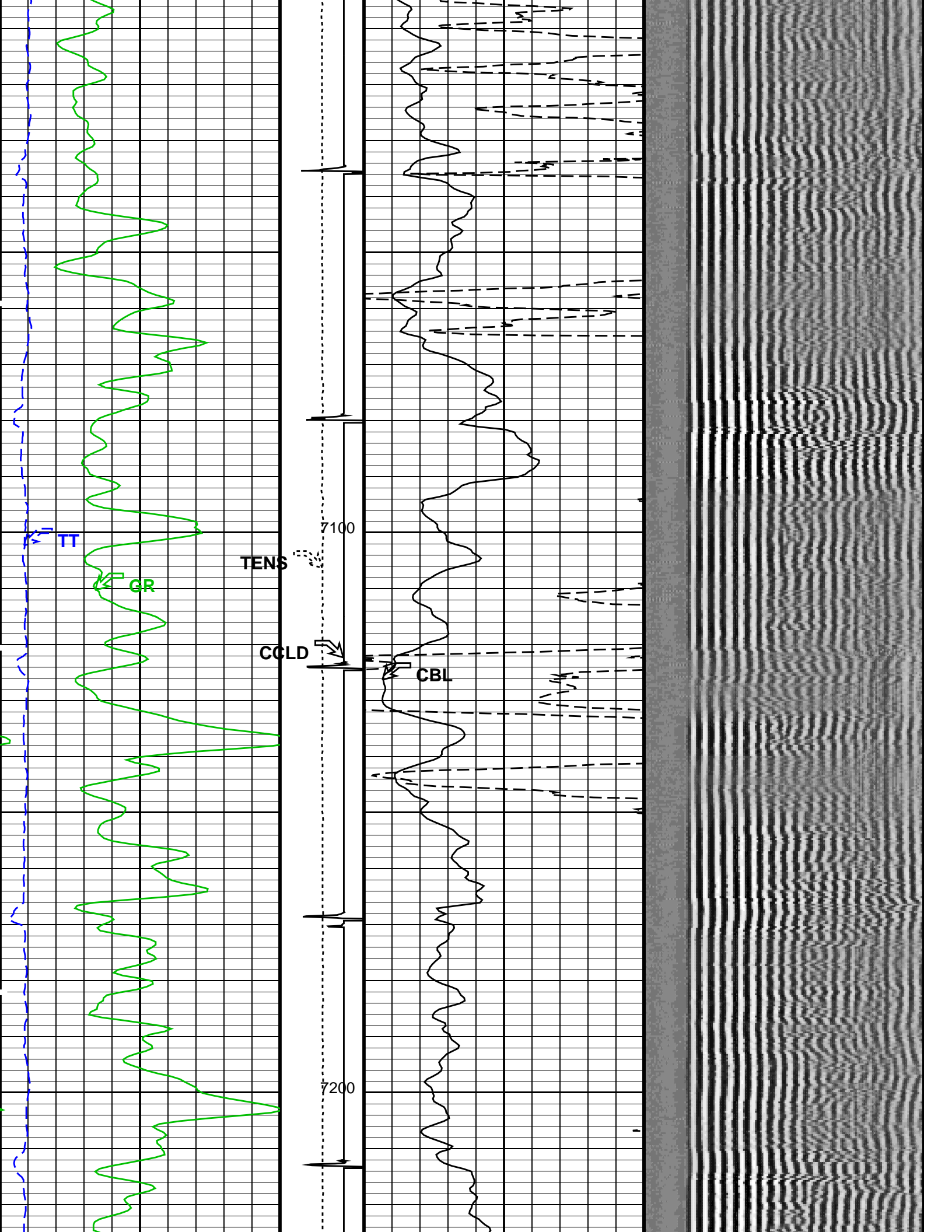


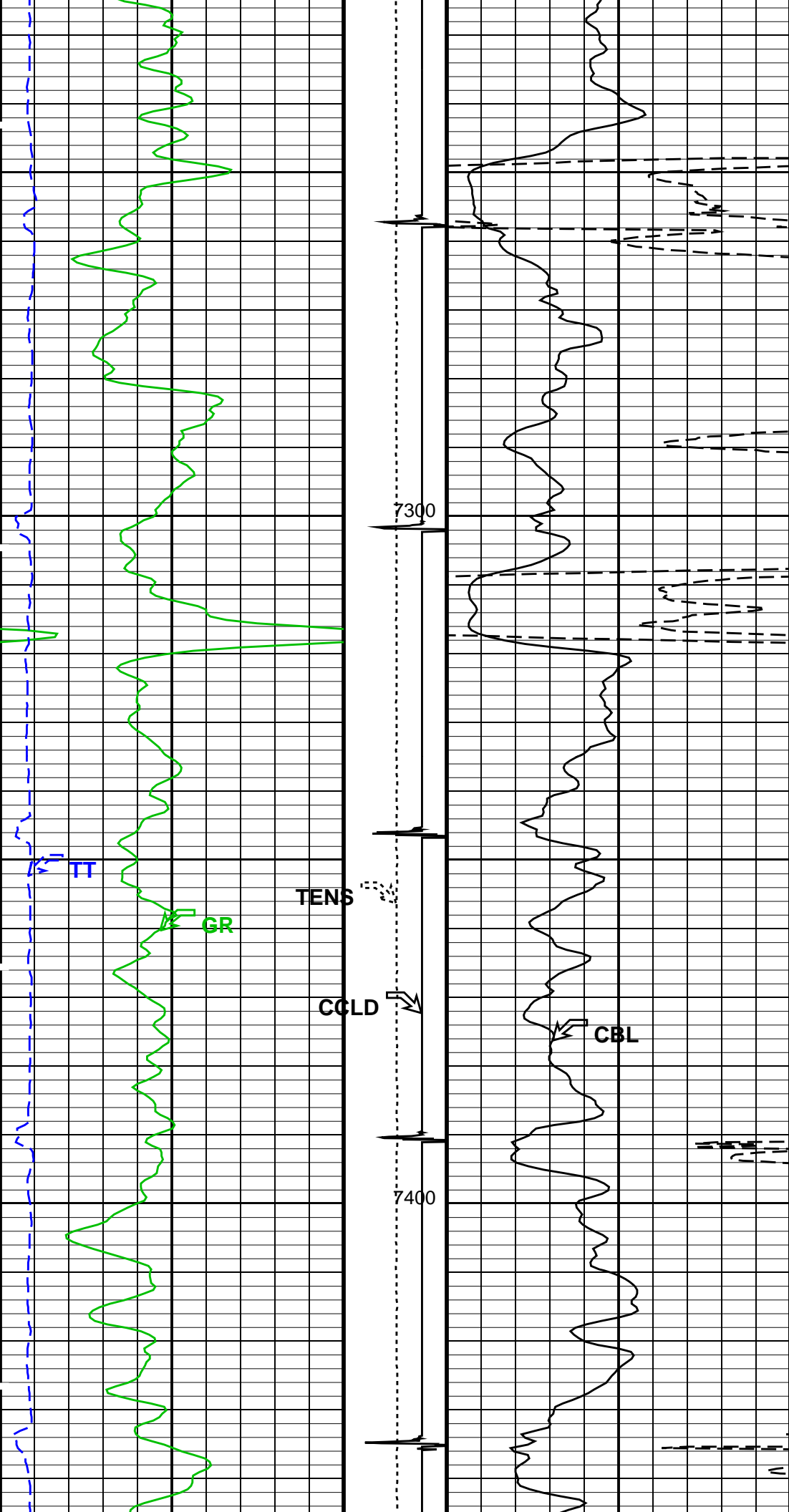




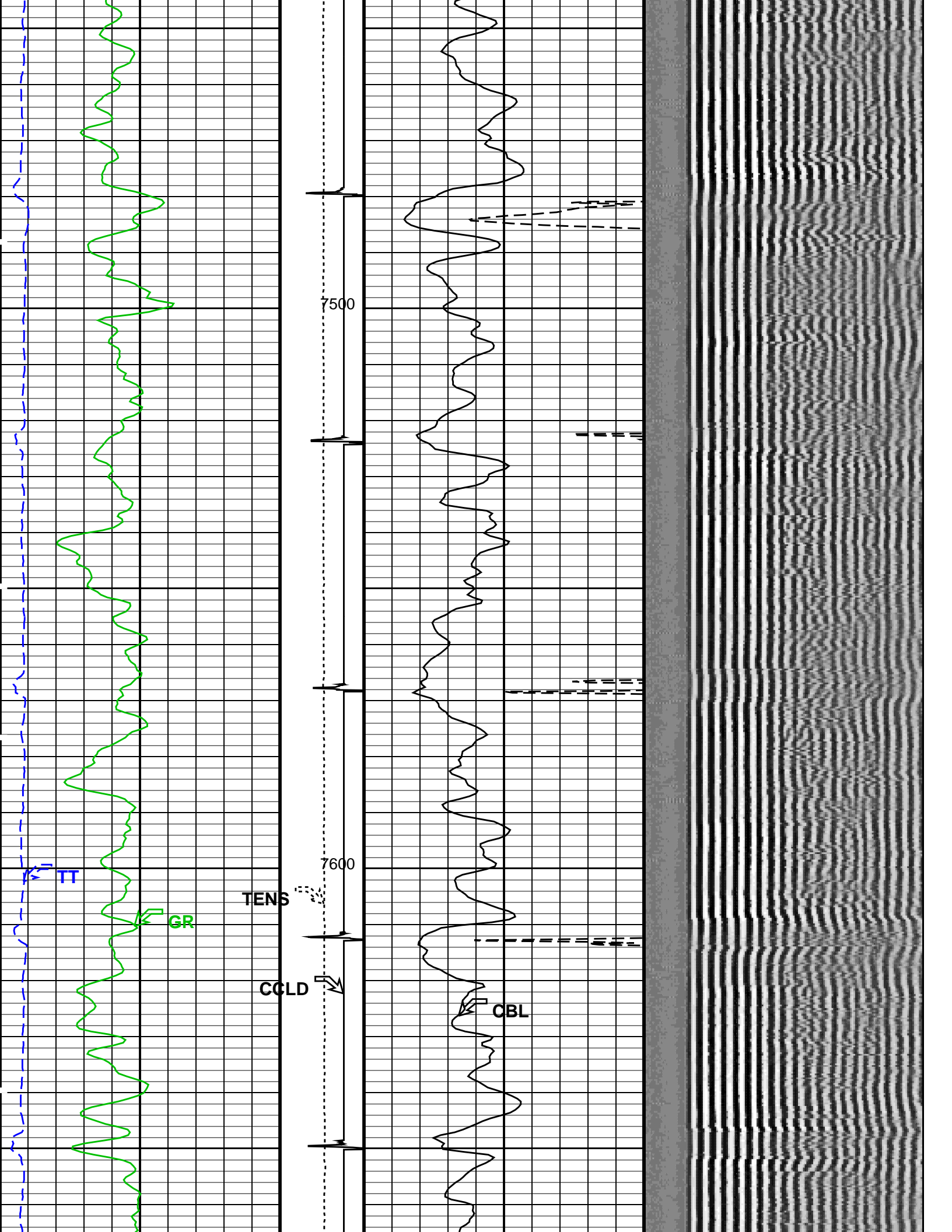




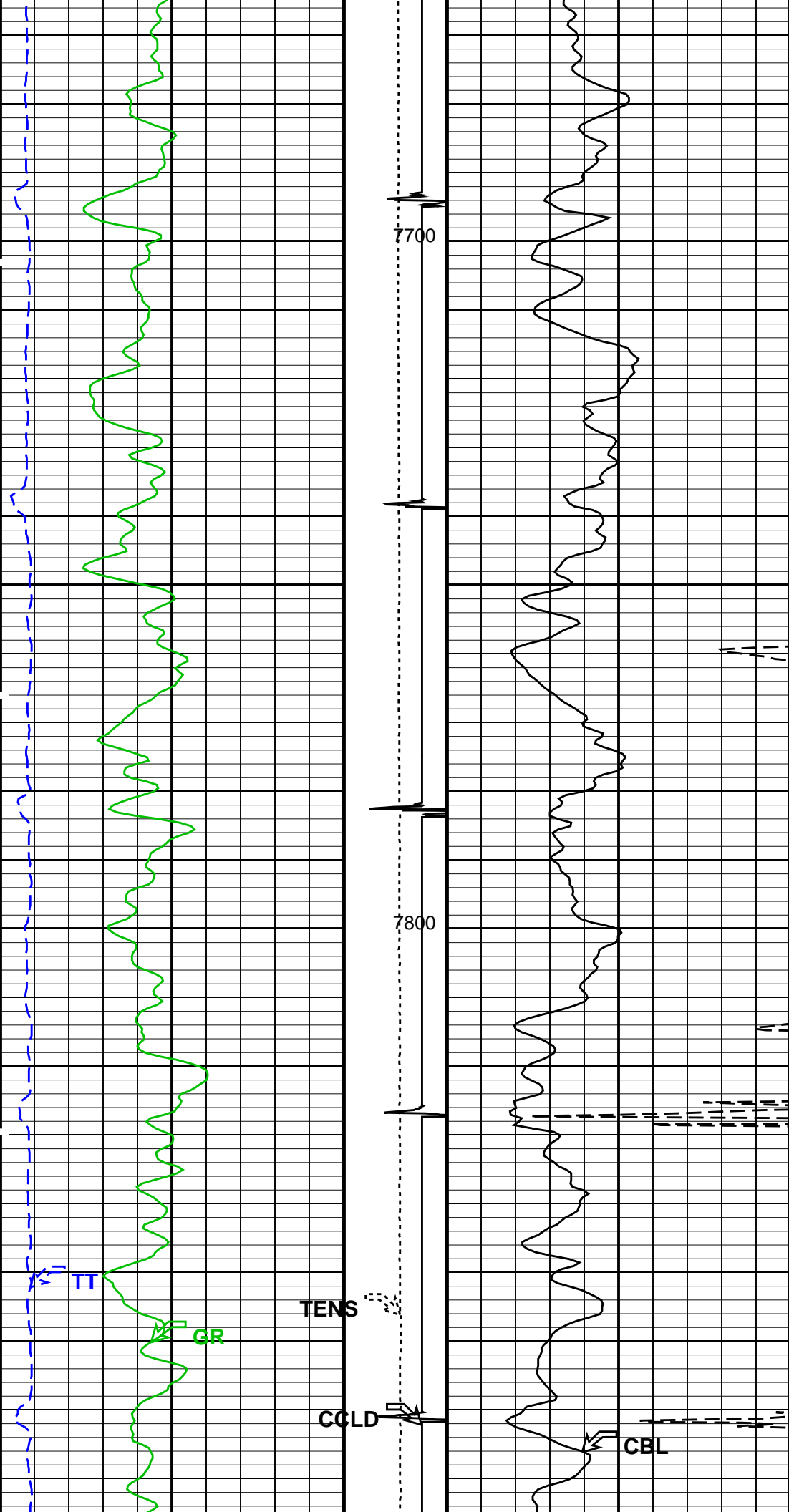


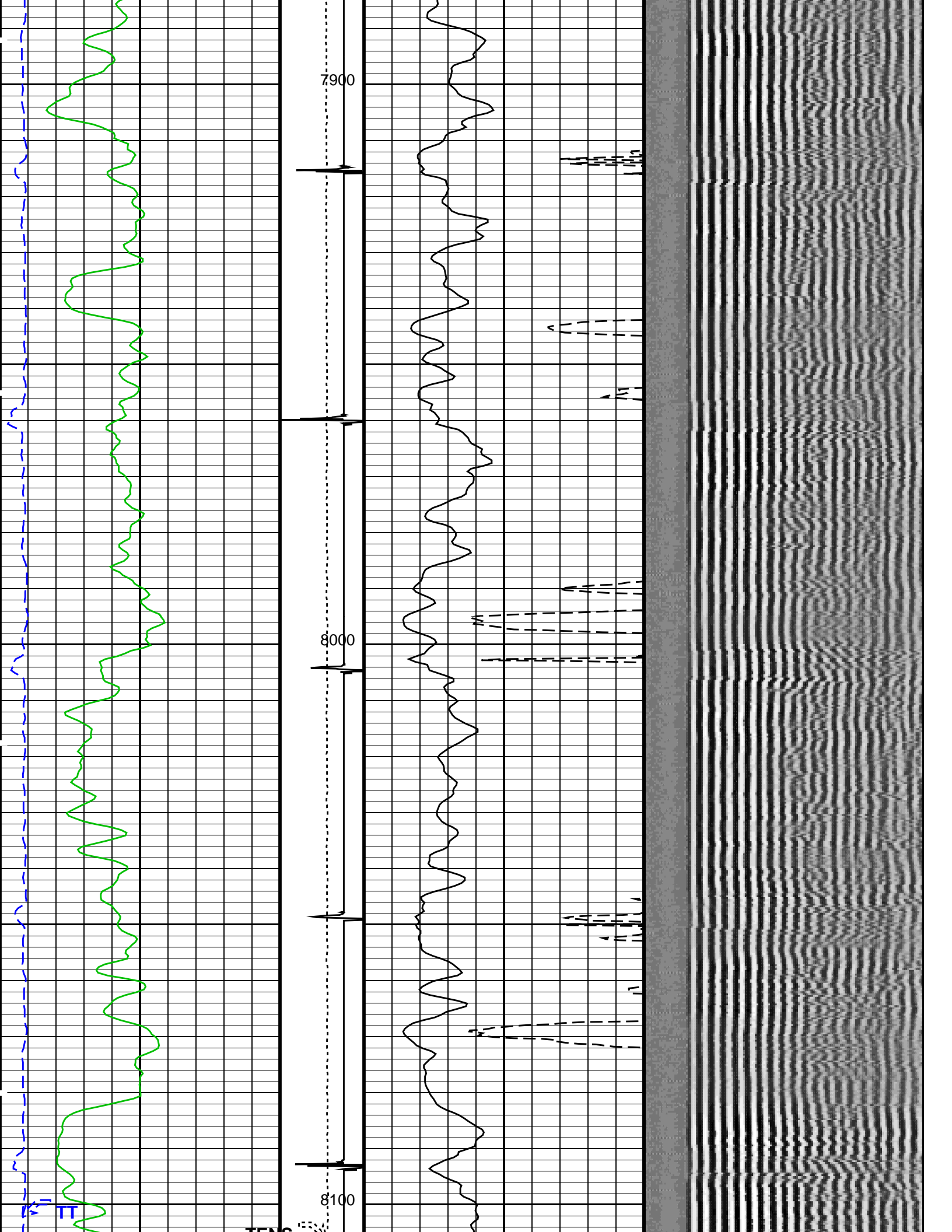


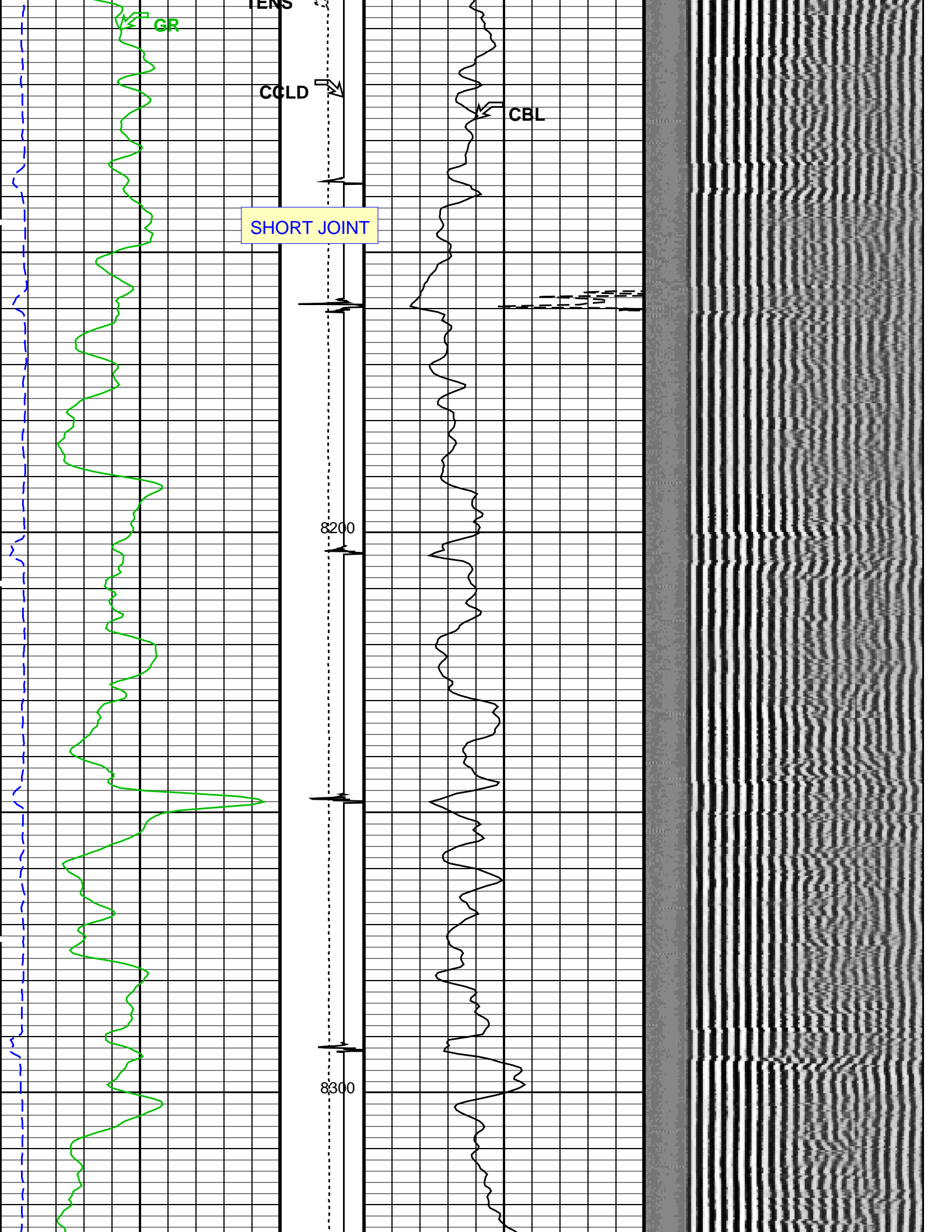


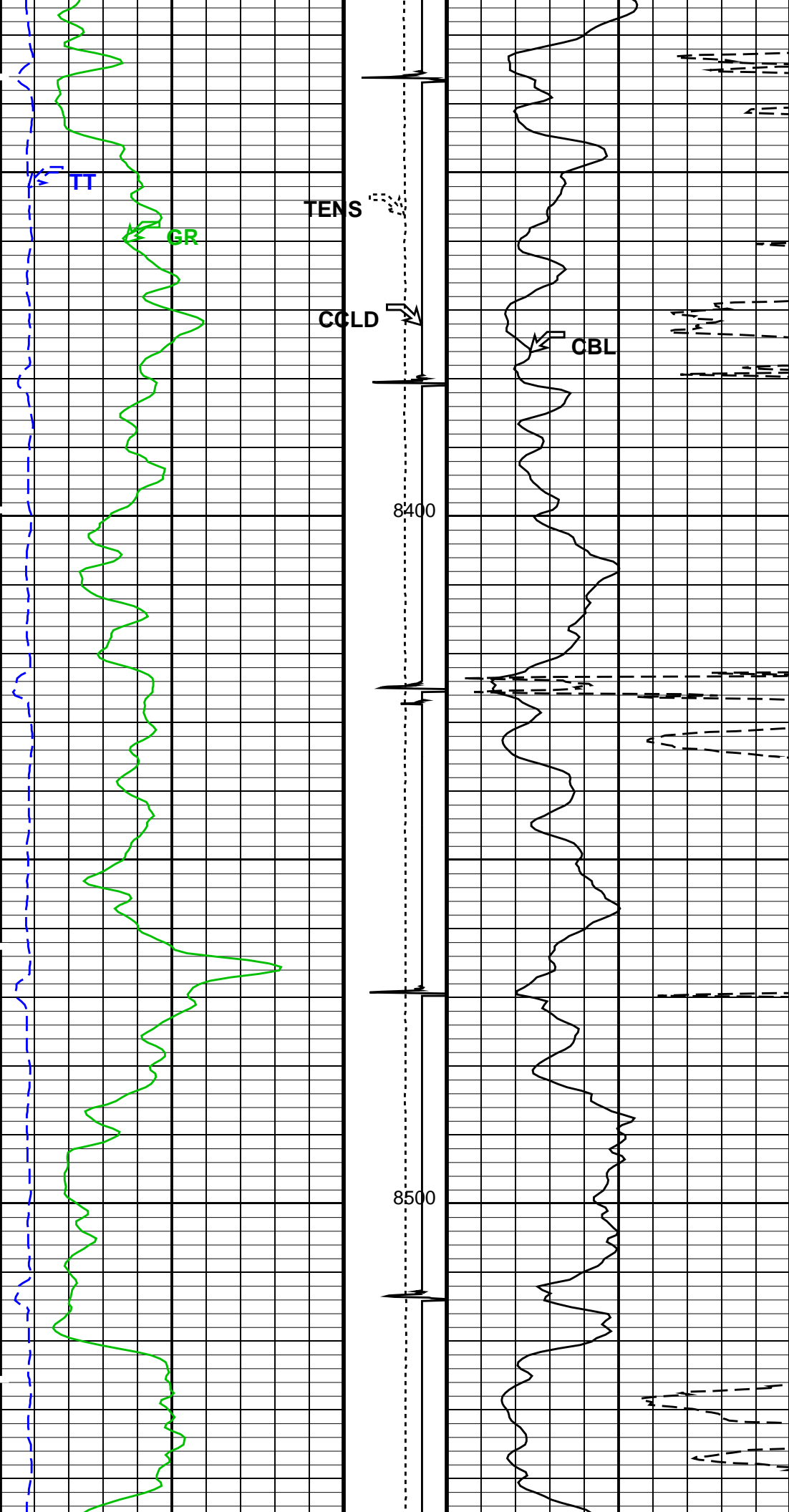




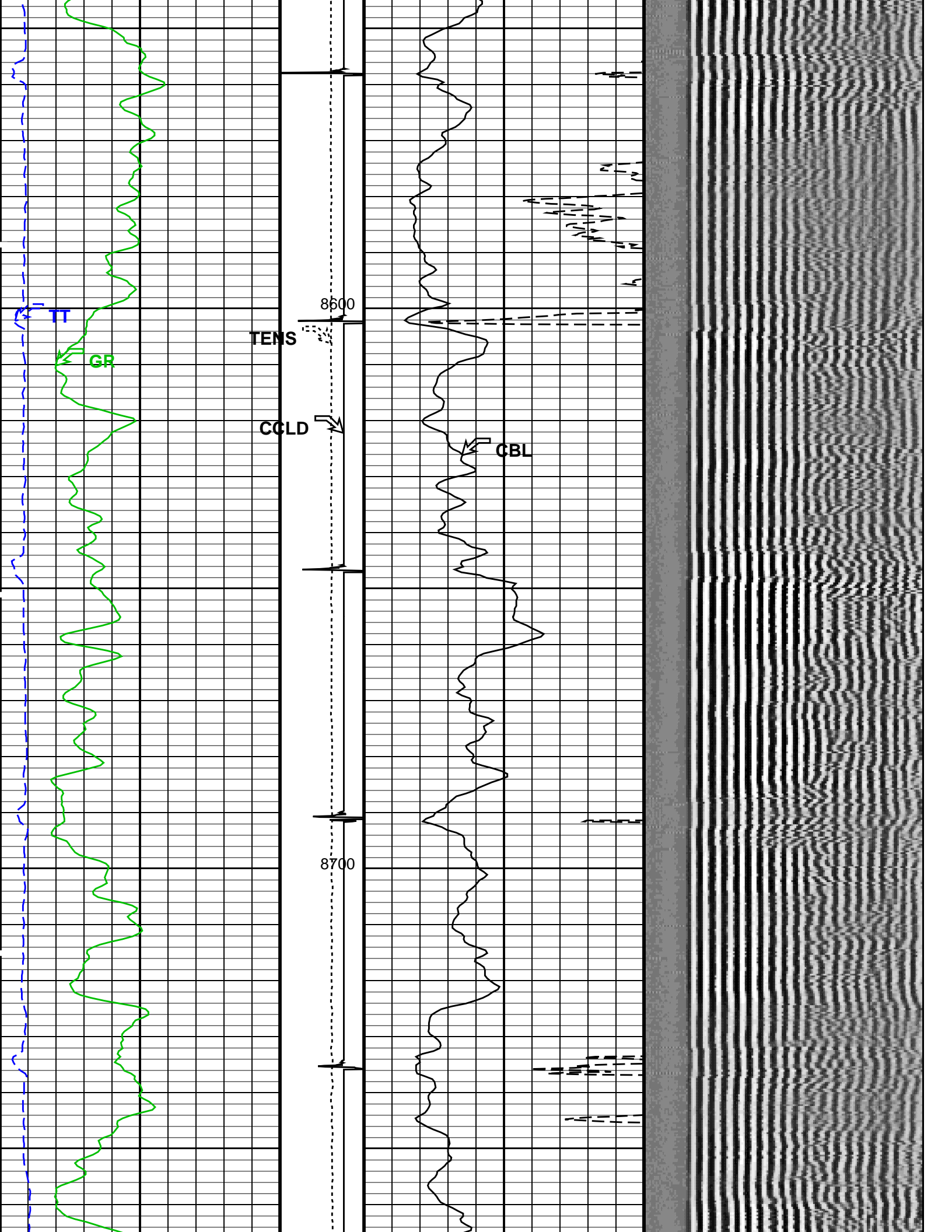




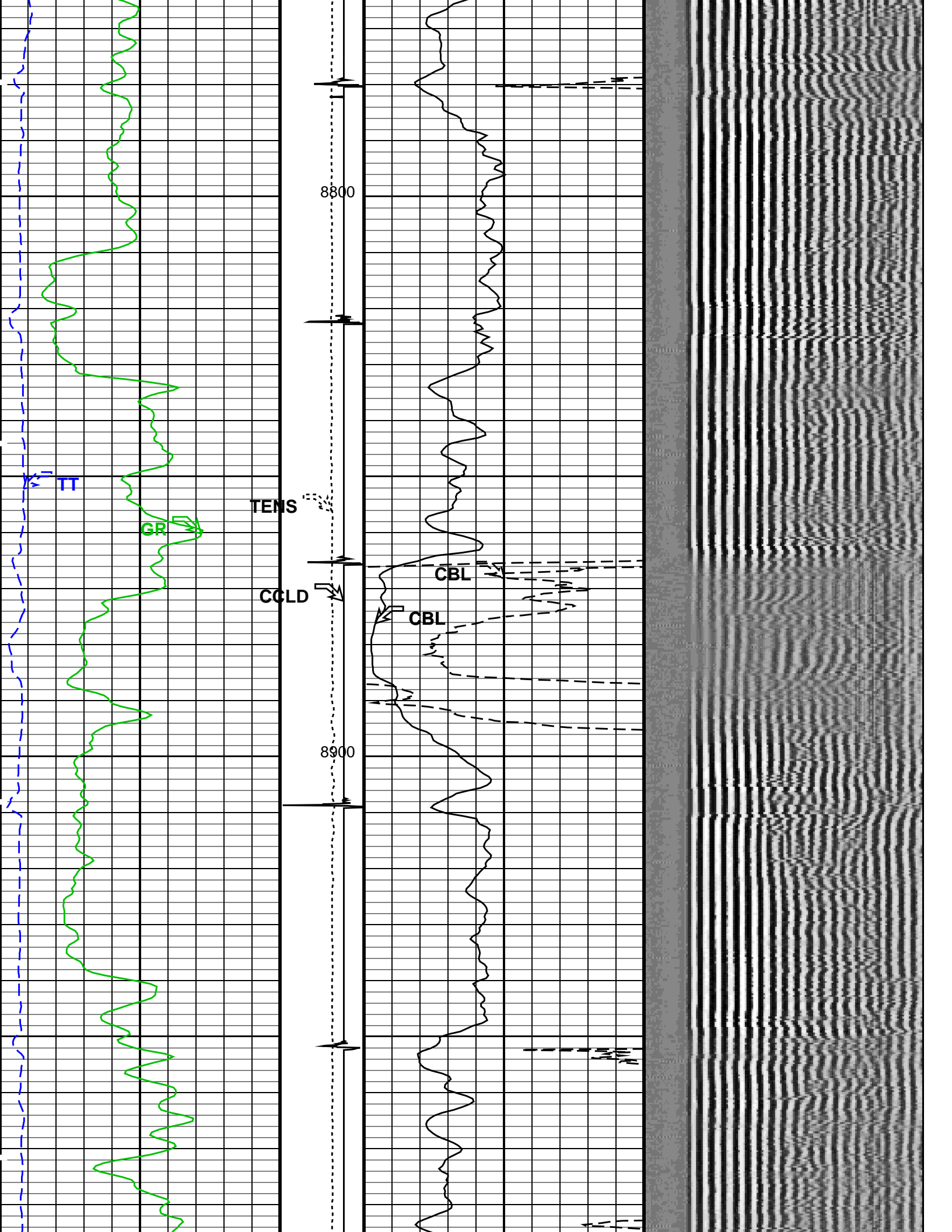


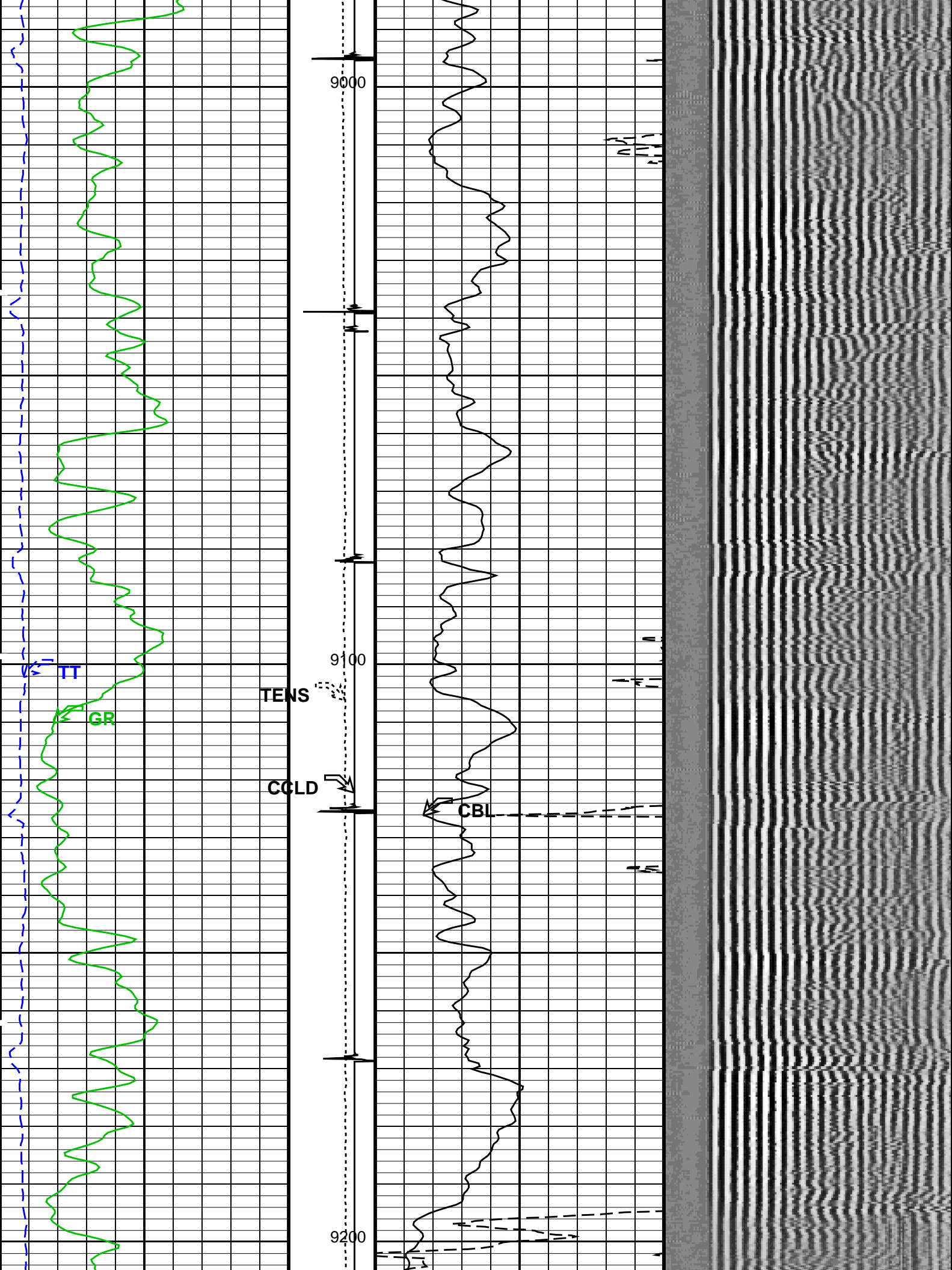


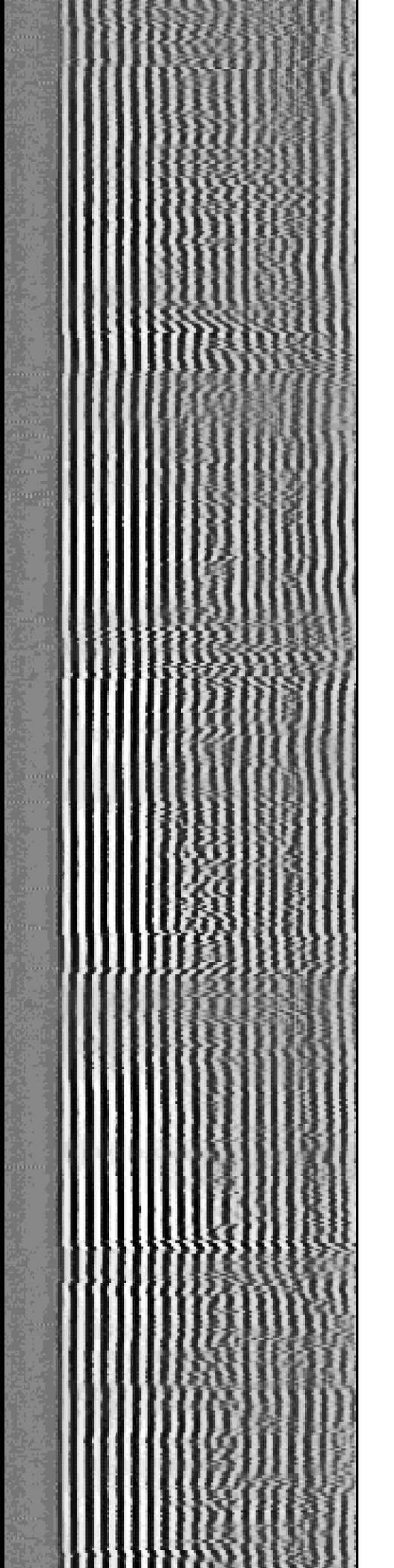
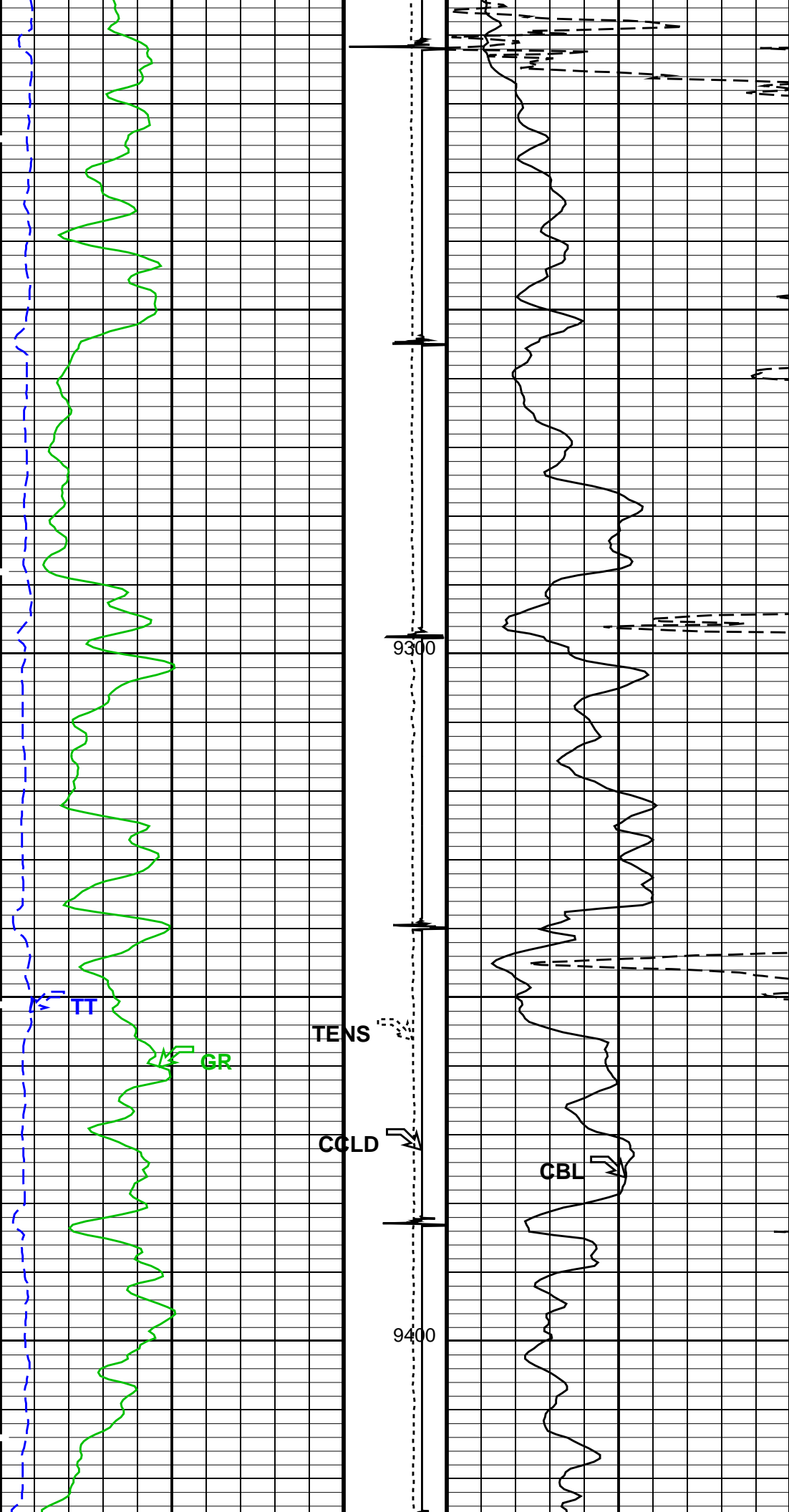


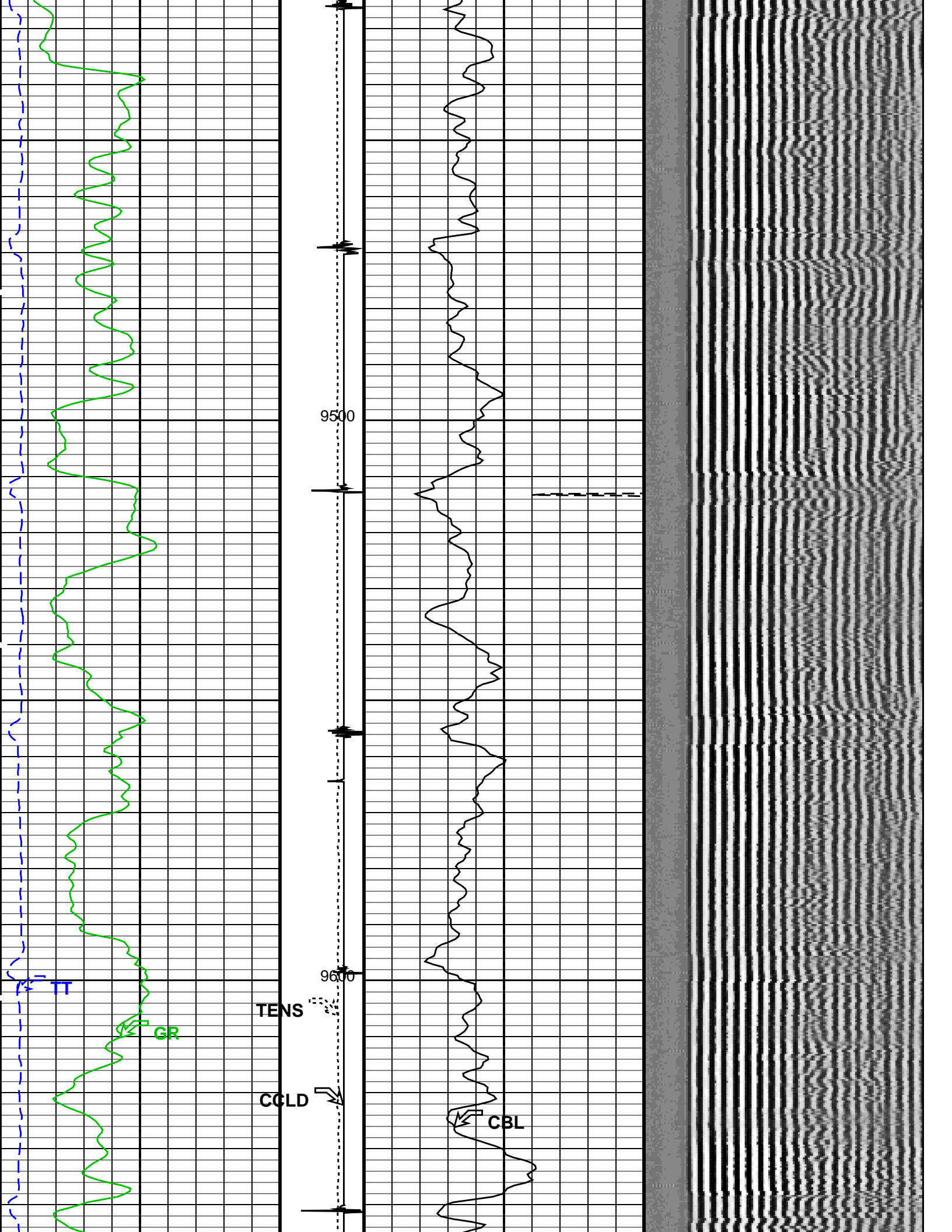




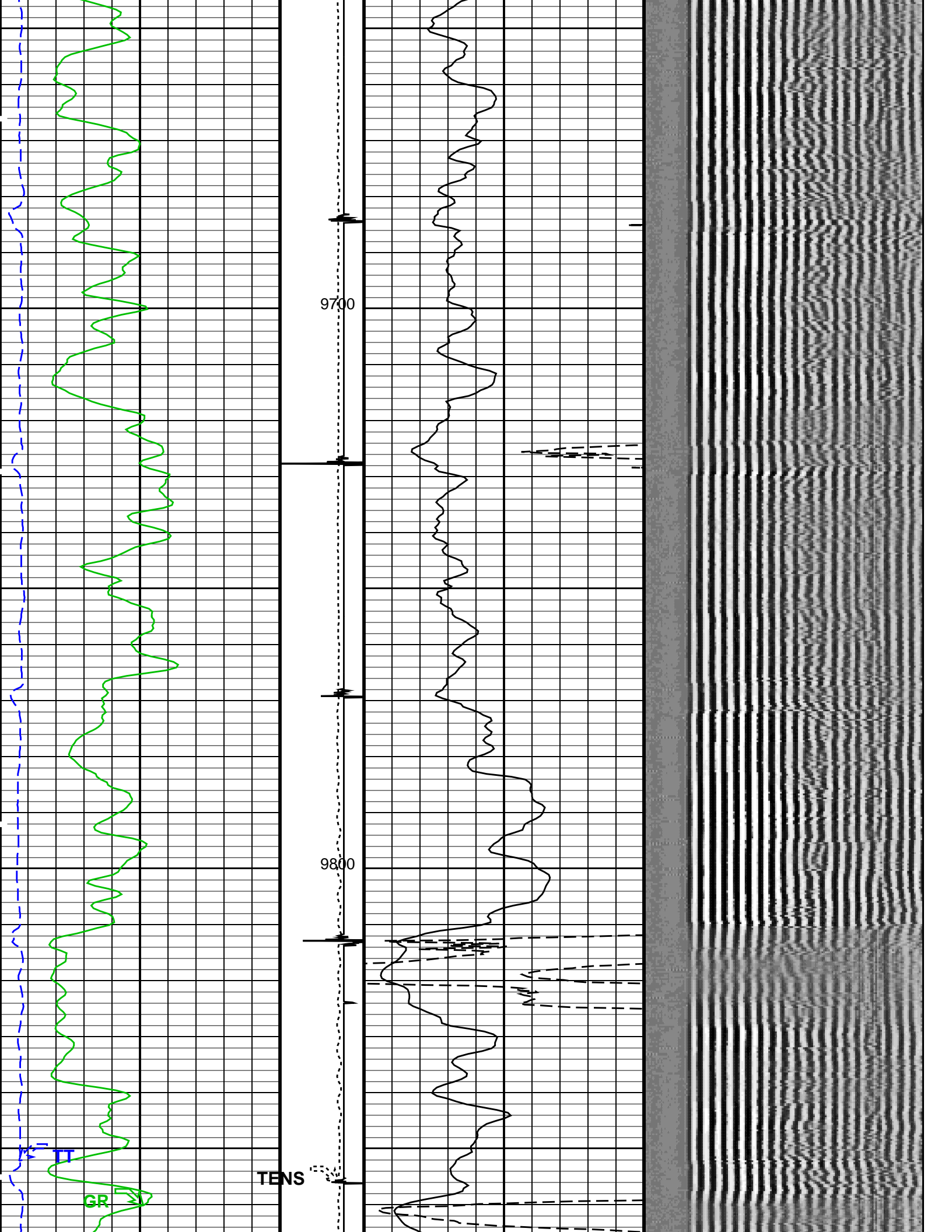




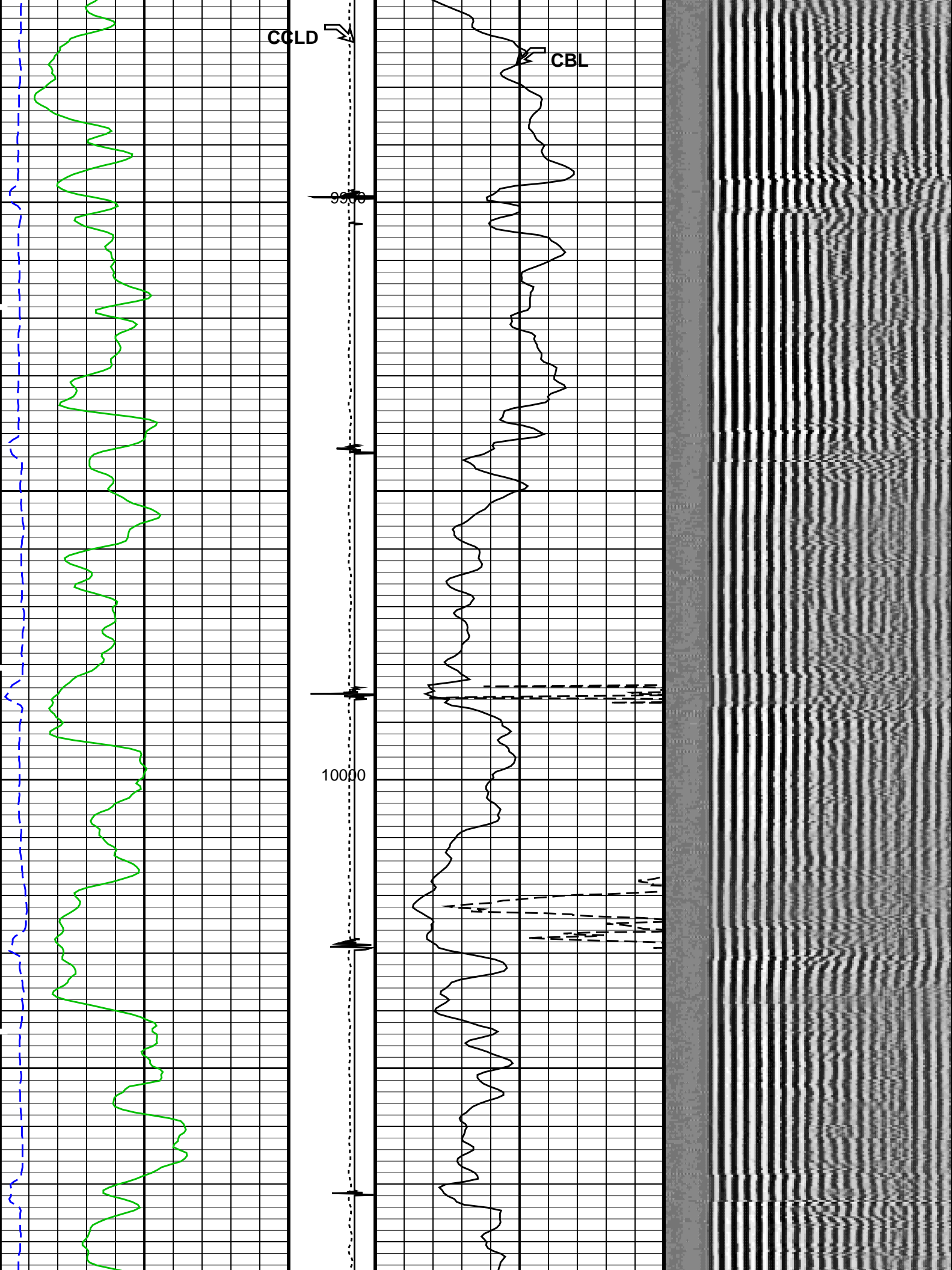


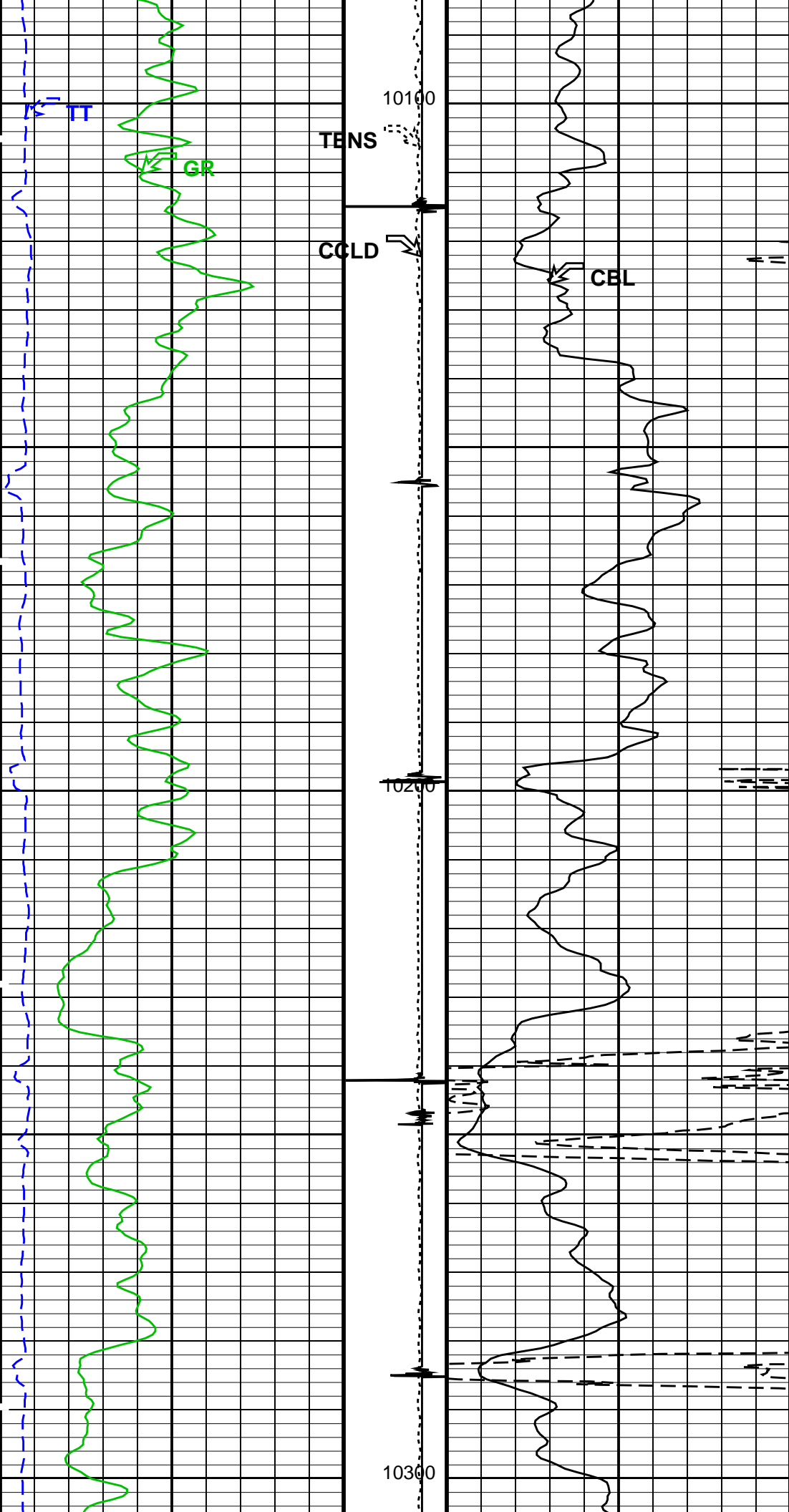


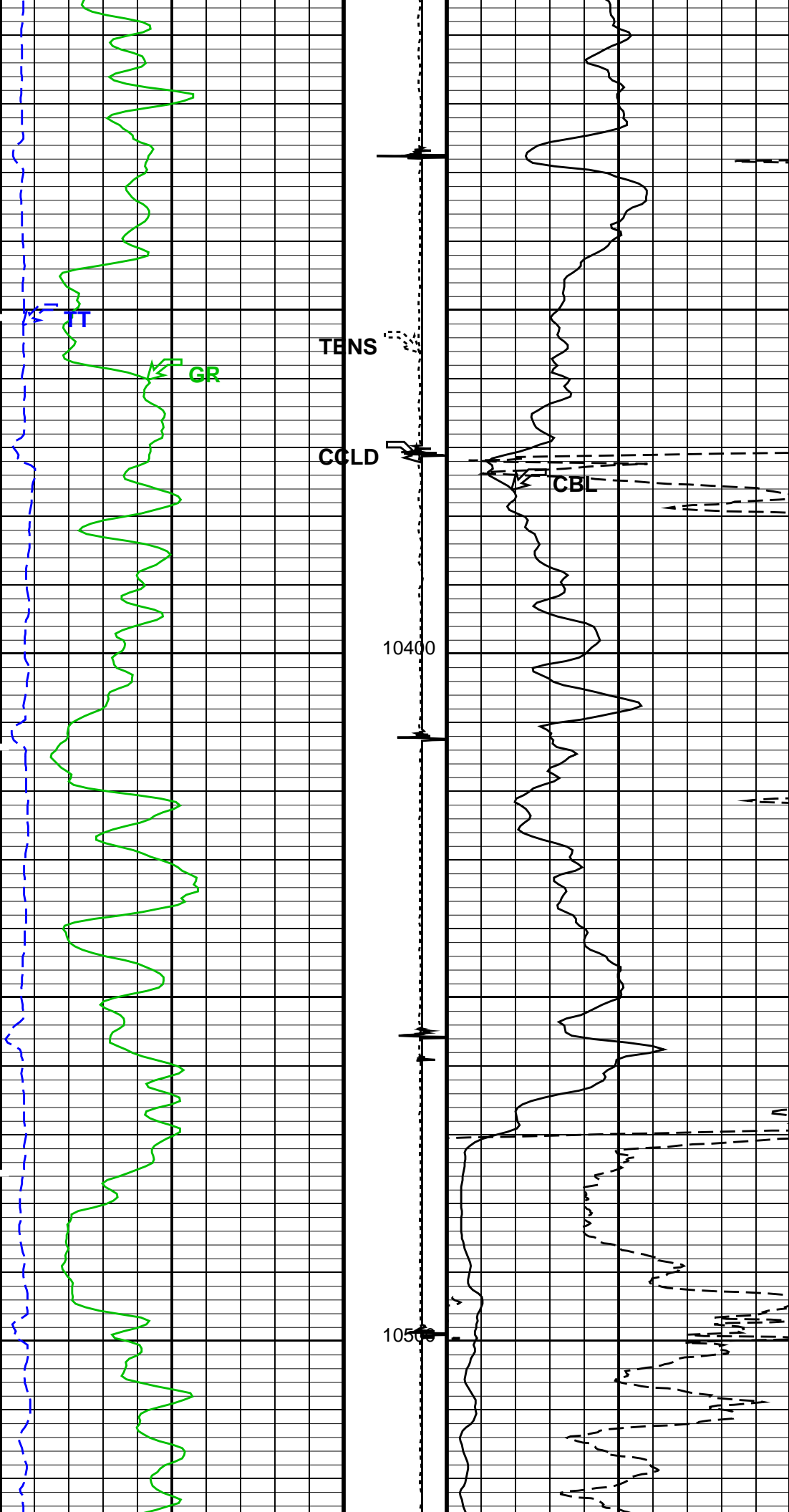


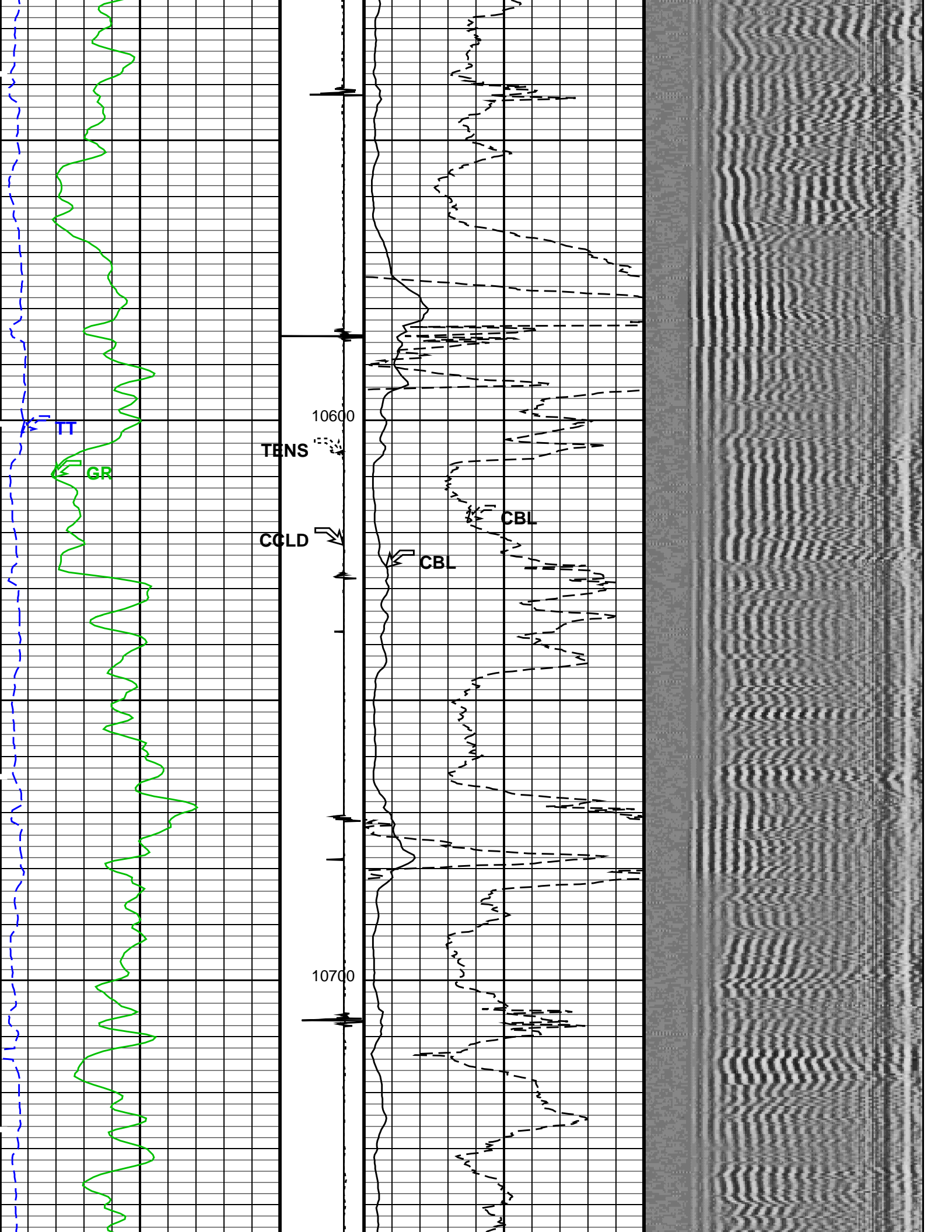




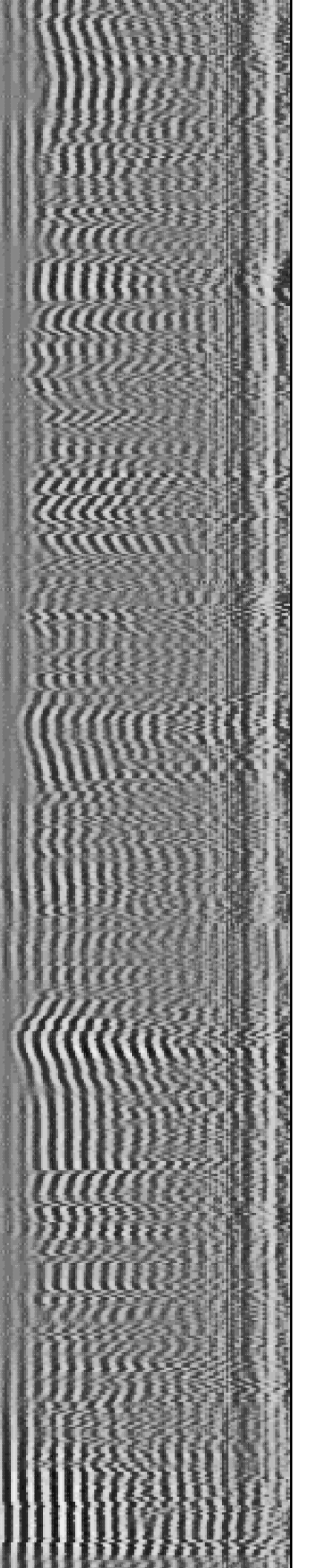
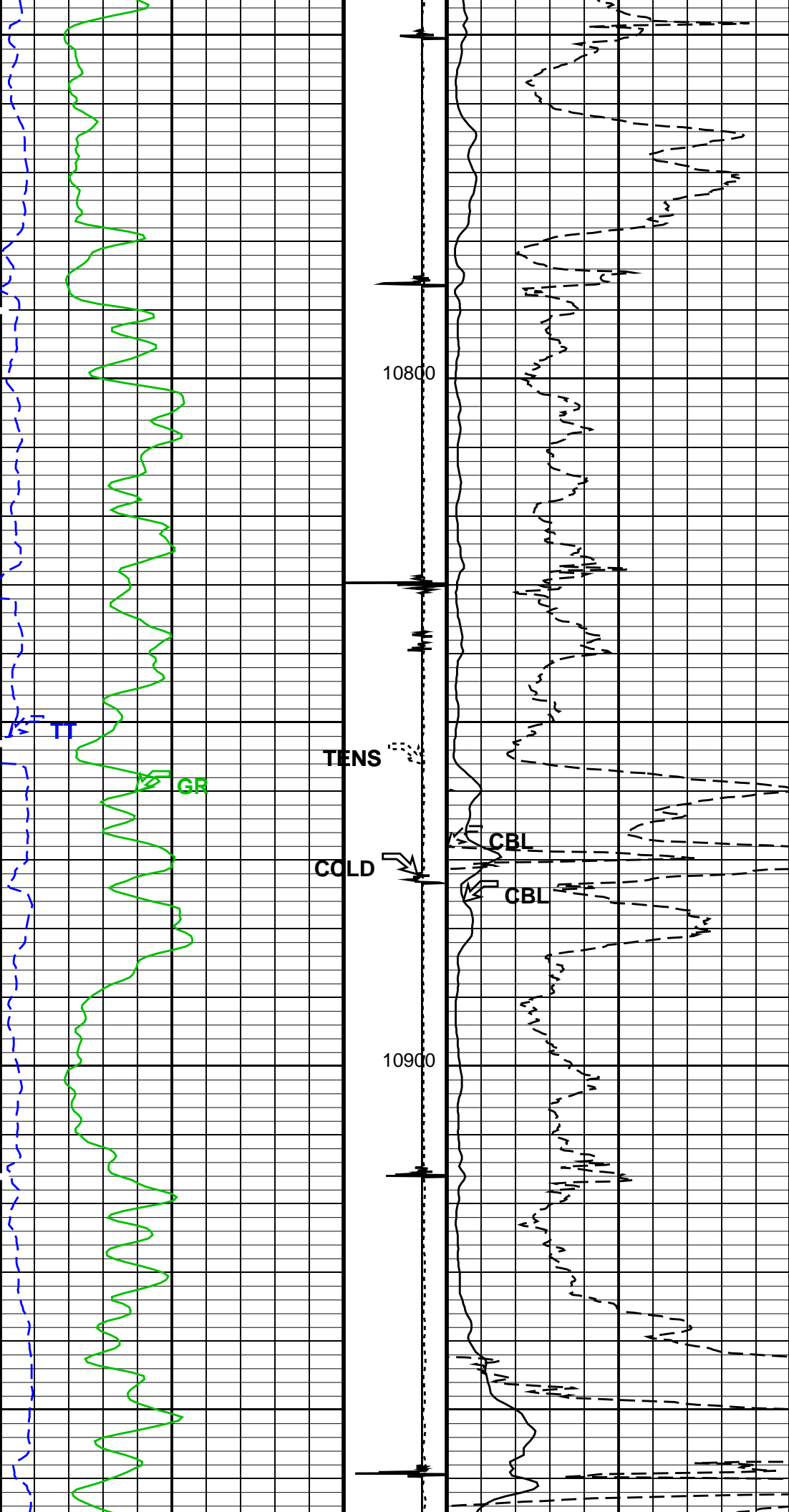




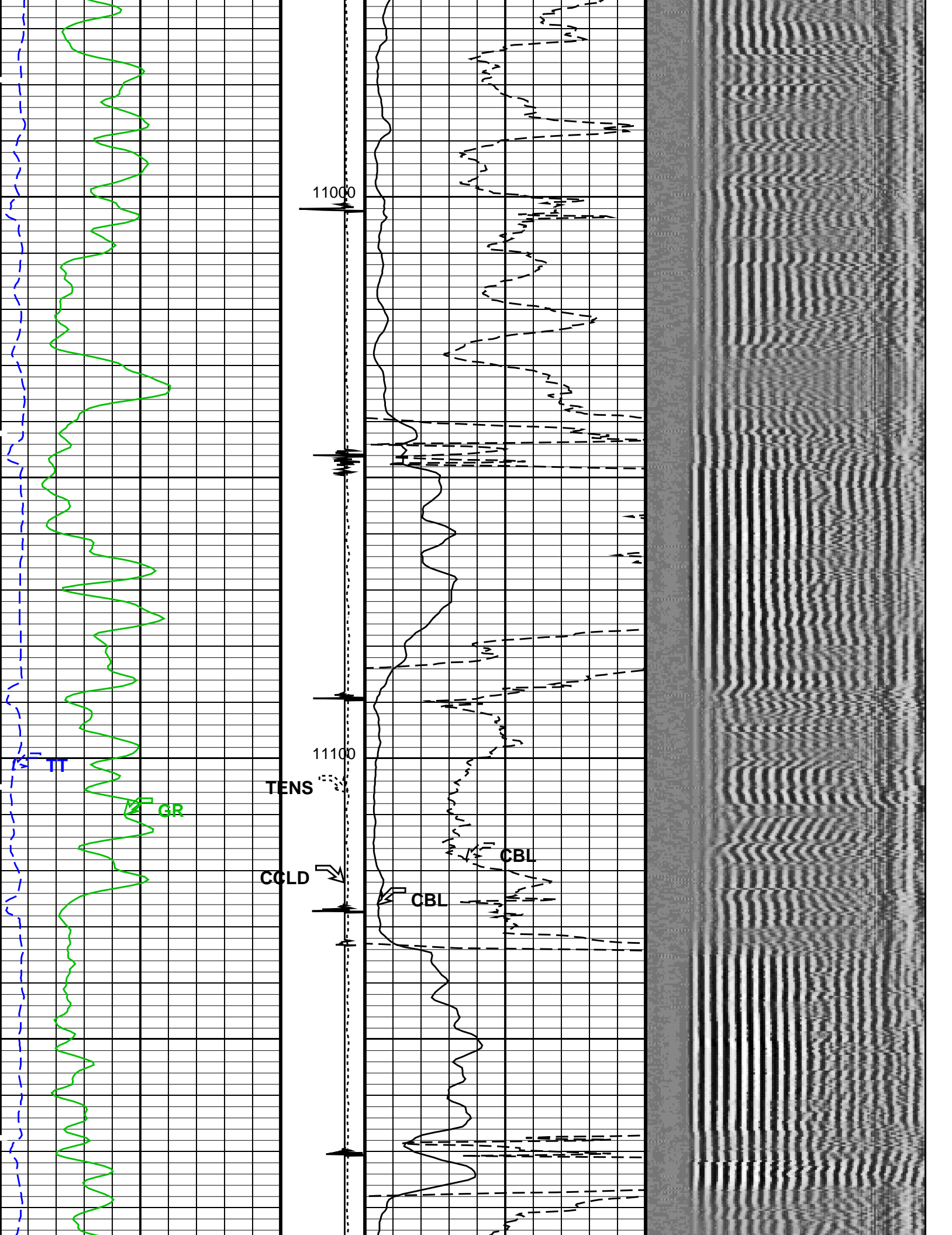


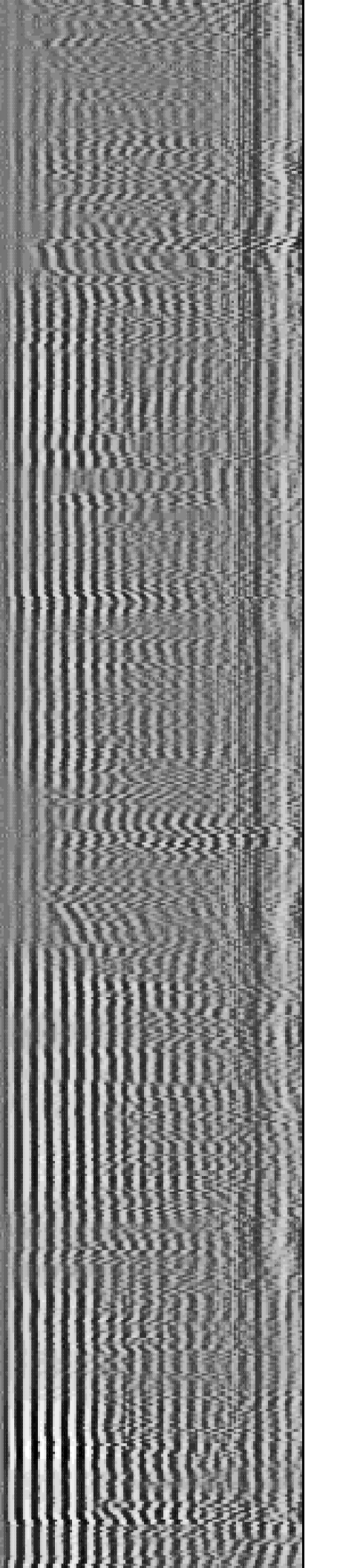
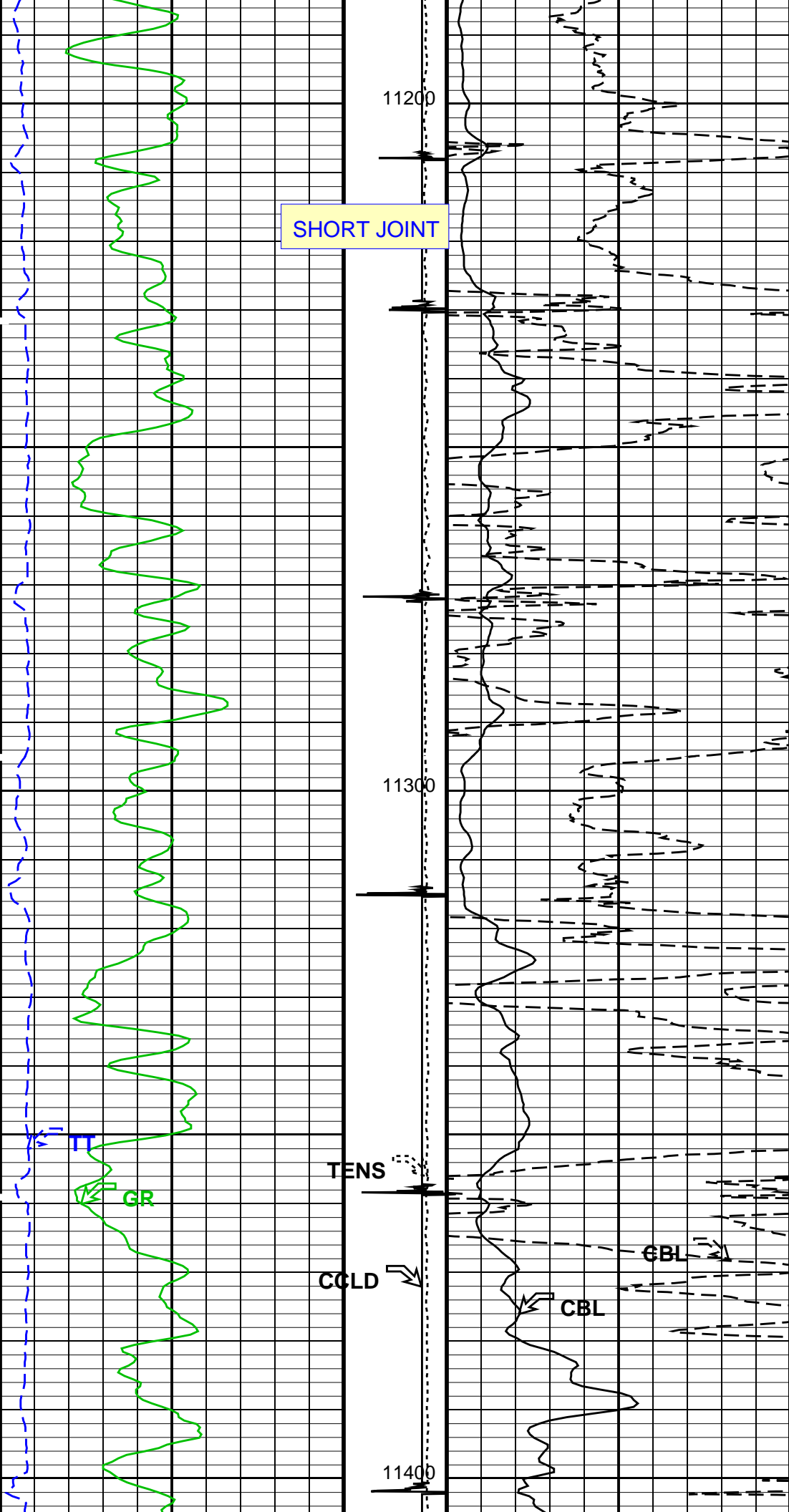


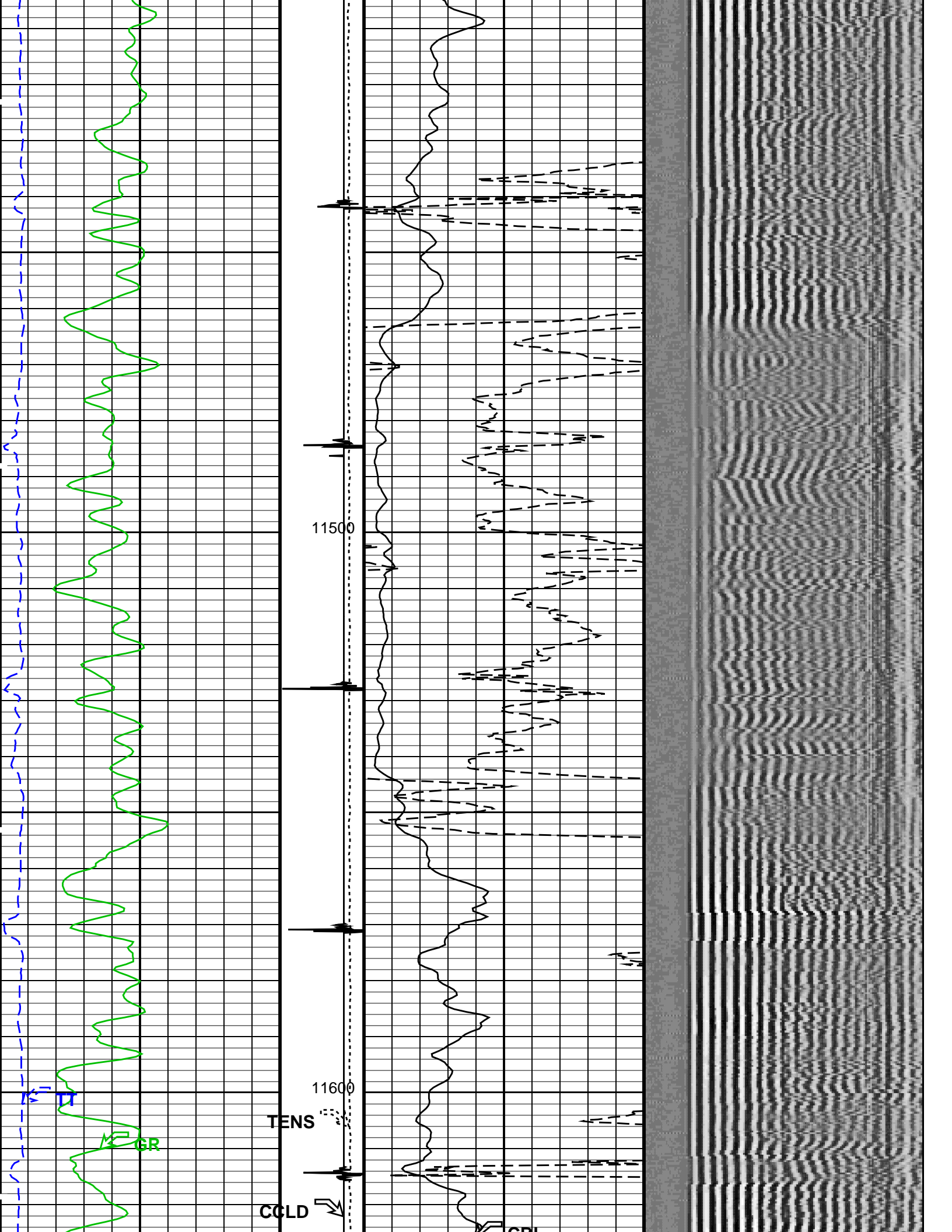




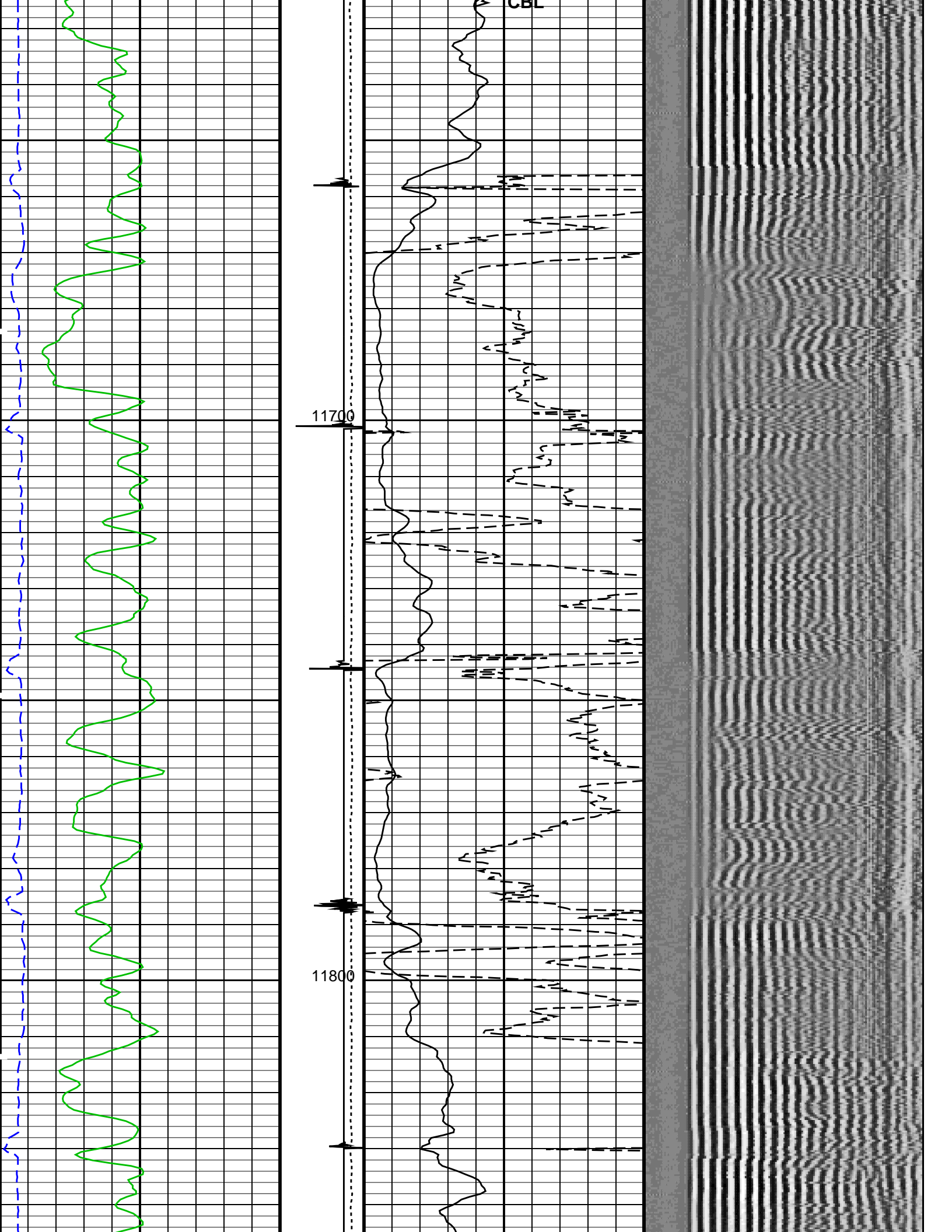




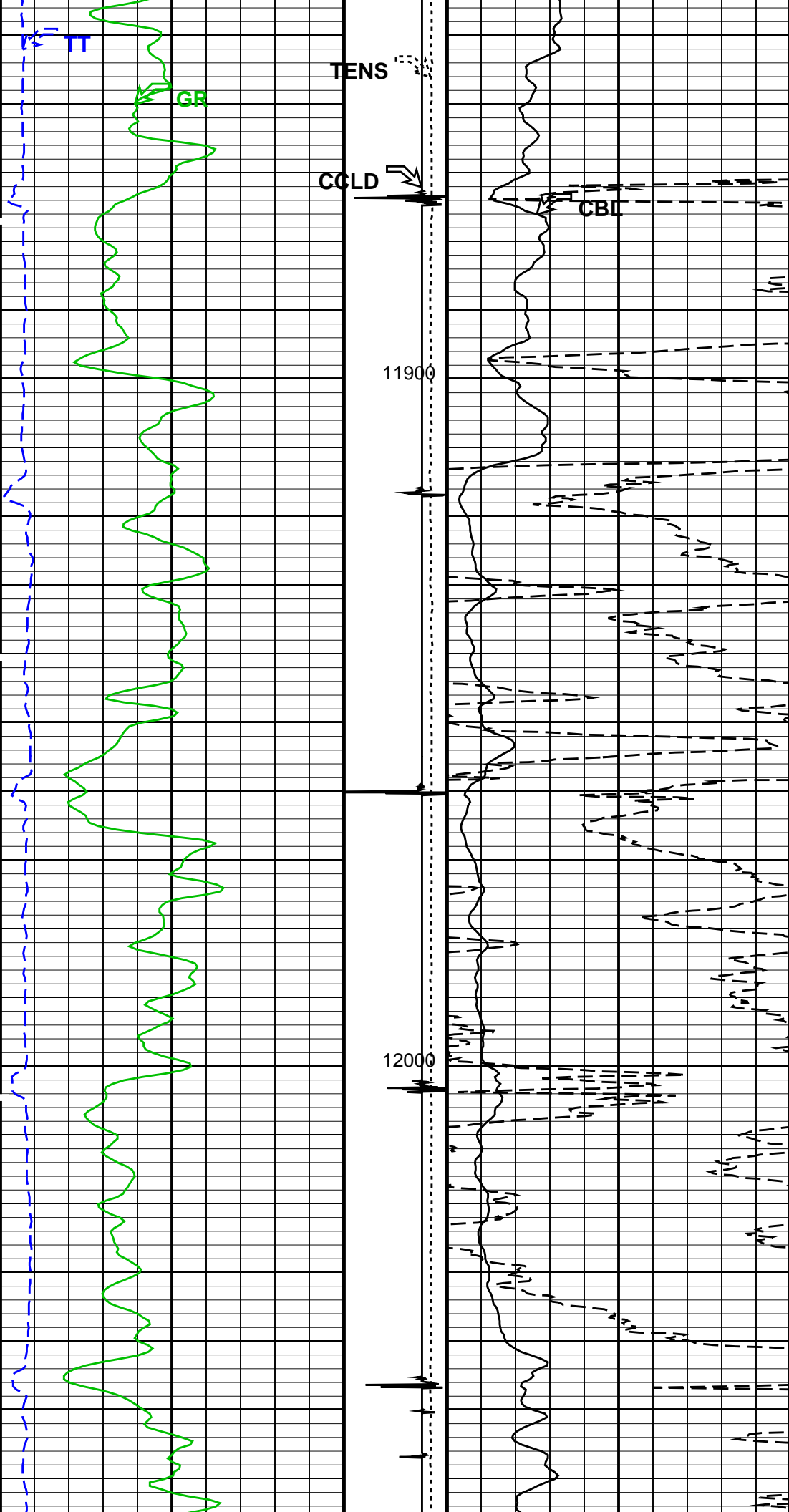


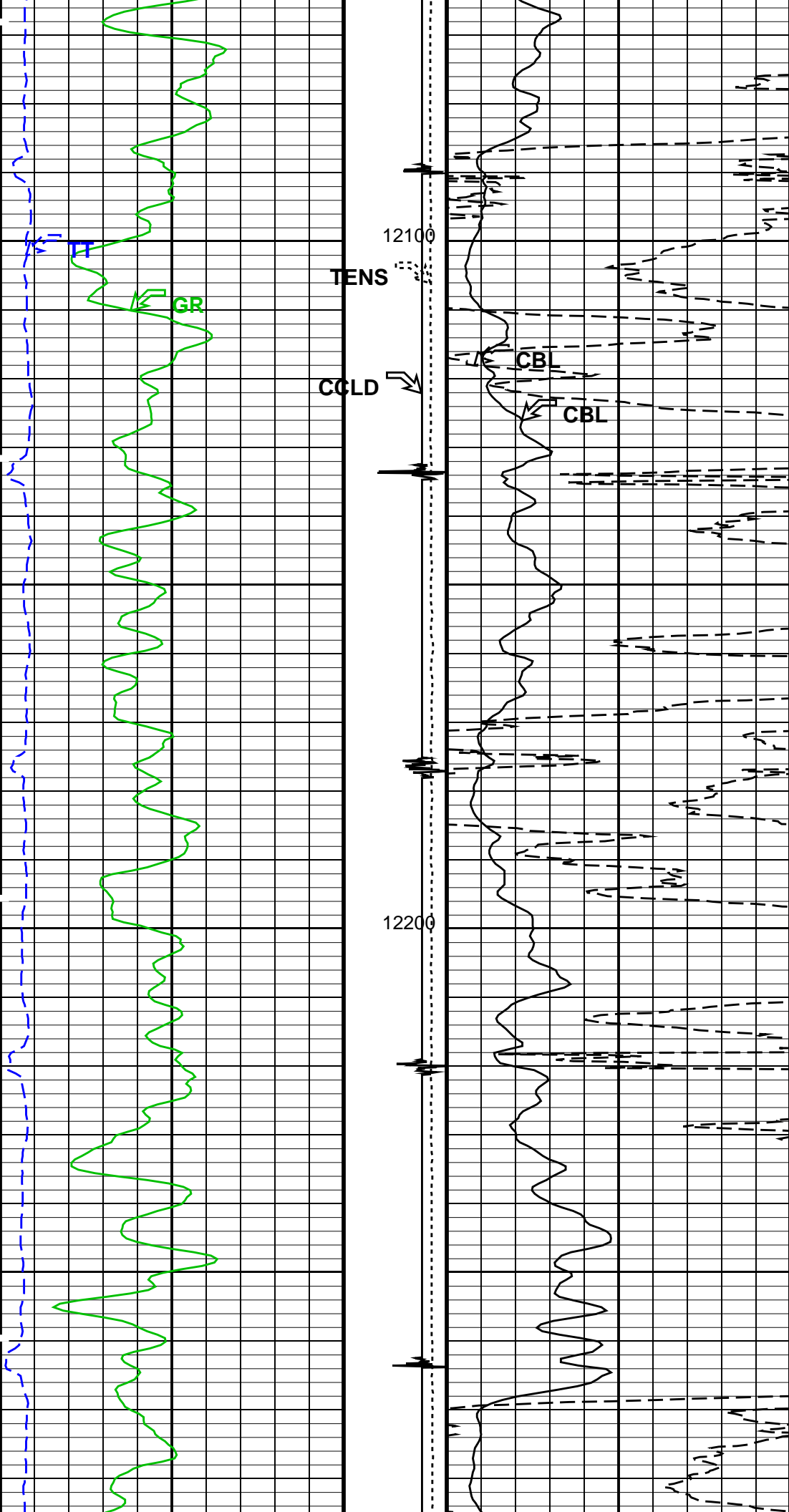


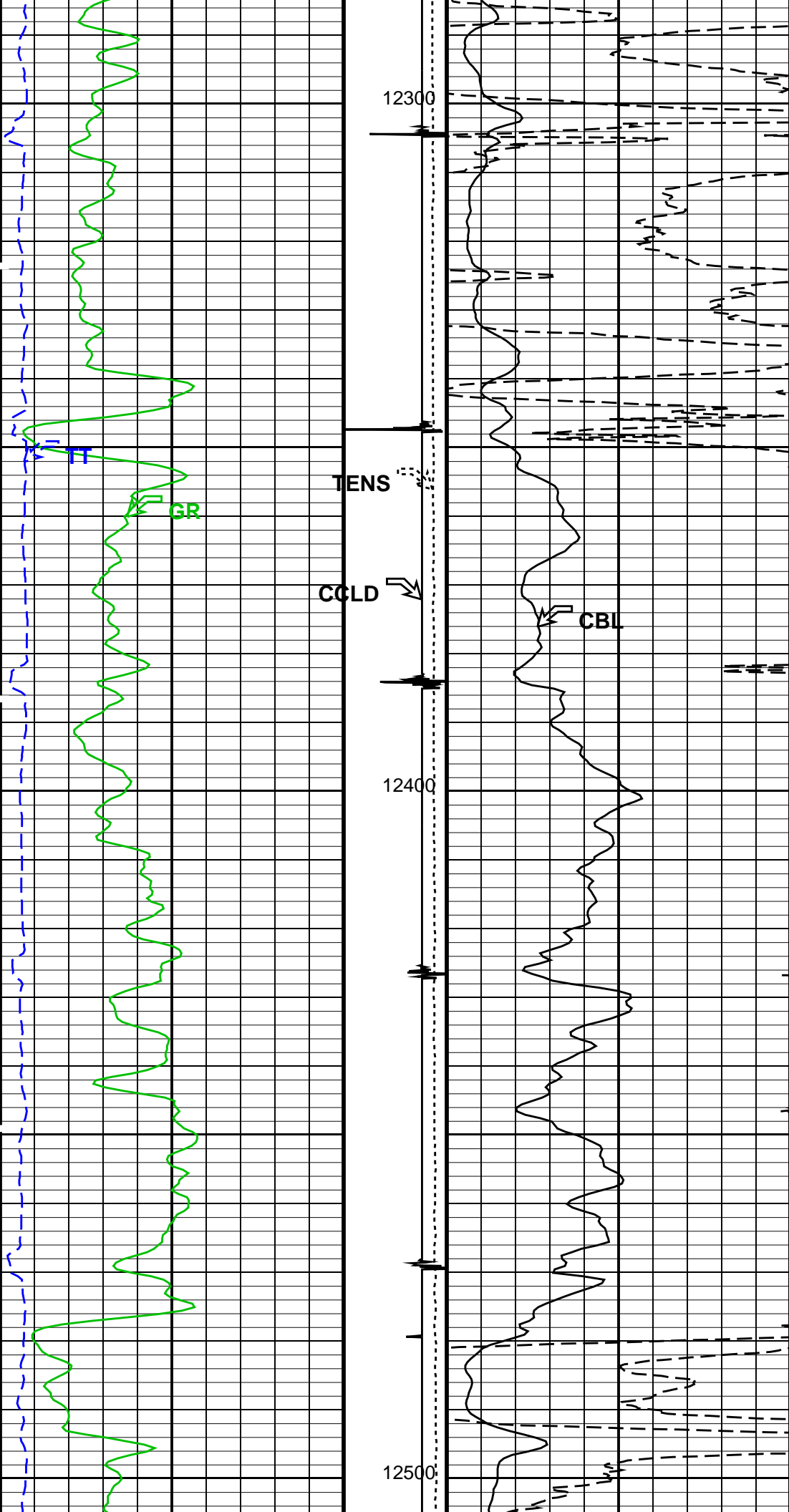


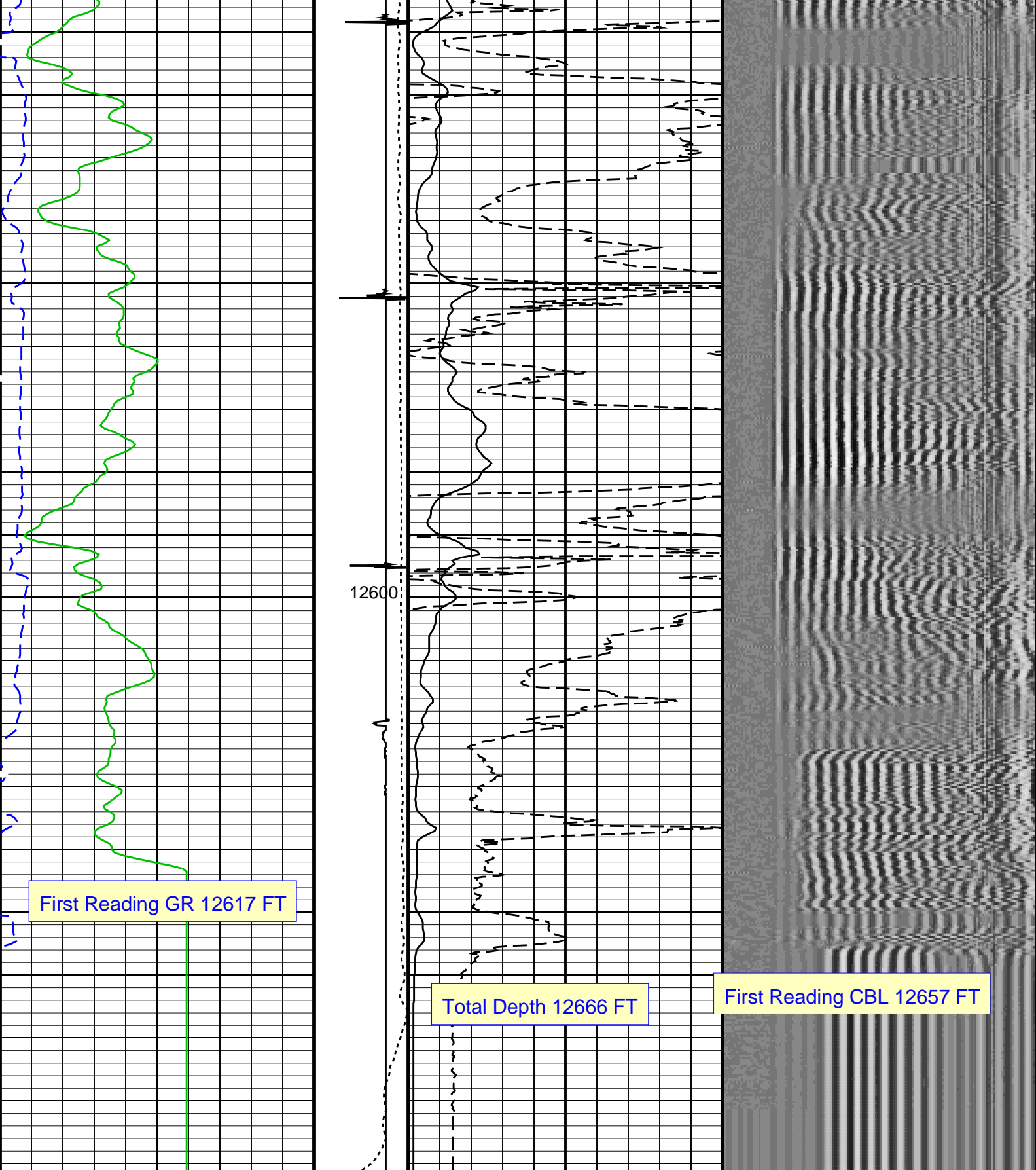












Gamma Ray (GR) (GAPI)		Tension (TENS) (LBF)		CBL Amplitude (CBL) (MV)		Min      Amplitude      Max 200      VDL VariableDensity (VDL) (US)      1200	
0	150	0	2000	0	100		
Transit Time (TT) (US)		Discriminat ed CCL (CCLD) (V)		CBL Amplitude (CBL) (MV)			
260	160	3	-1	0	10		



SCMT-CB	SRPC-5214-H2-2012-OP19	RST-C	SRPC-5214-H2-2012-OP19
HBMS-B	SRPC-5214-H2-2012-OP19		

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)	0.900000
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		

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	10.0	FT

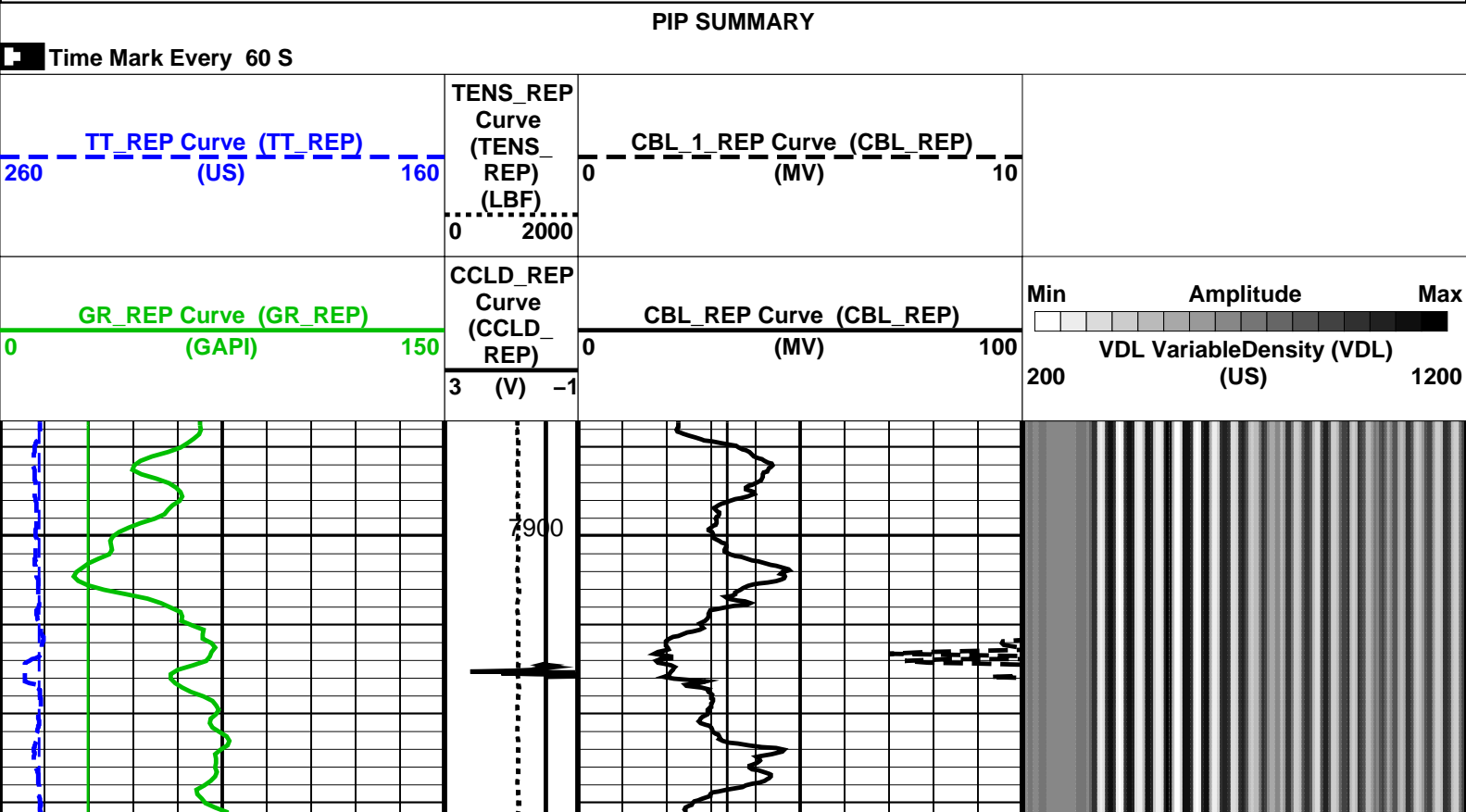
PP TD	Playback Processing Total Depth	RECOMPUTE 12666	FT
Input DLIS Files			
DEFAULT	SCMT_RST_HBMS_004LUP	FN:3	PRODUCER 26-Jul-2013 09:33 12681.0 FT 1.5 FT
Output DLIS Files			
DEFAULT	SCMT_RST_HBMS_007PUP	FN:6	PRODUCER 26-Jul-2013 13:21

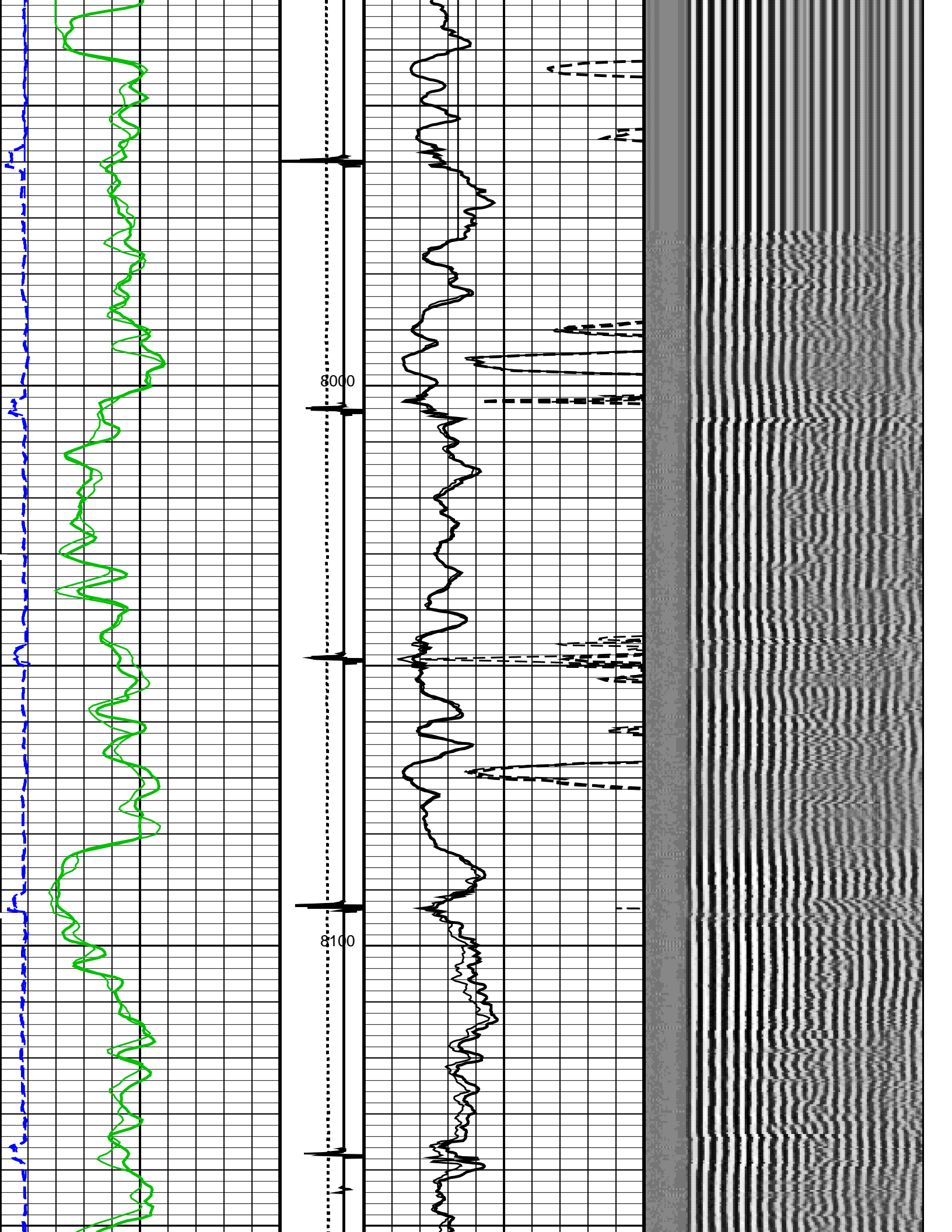


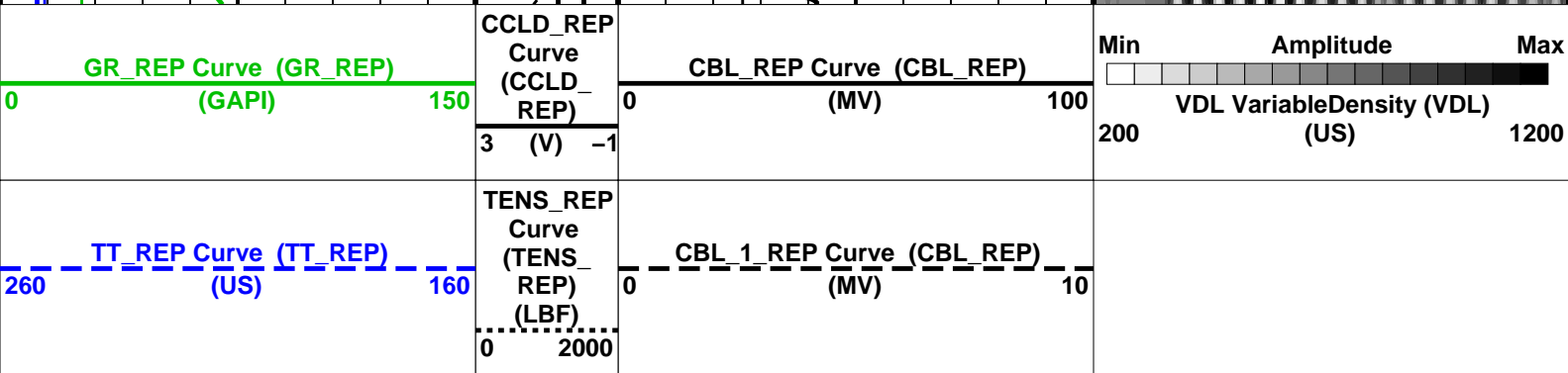
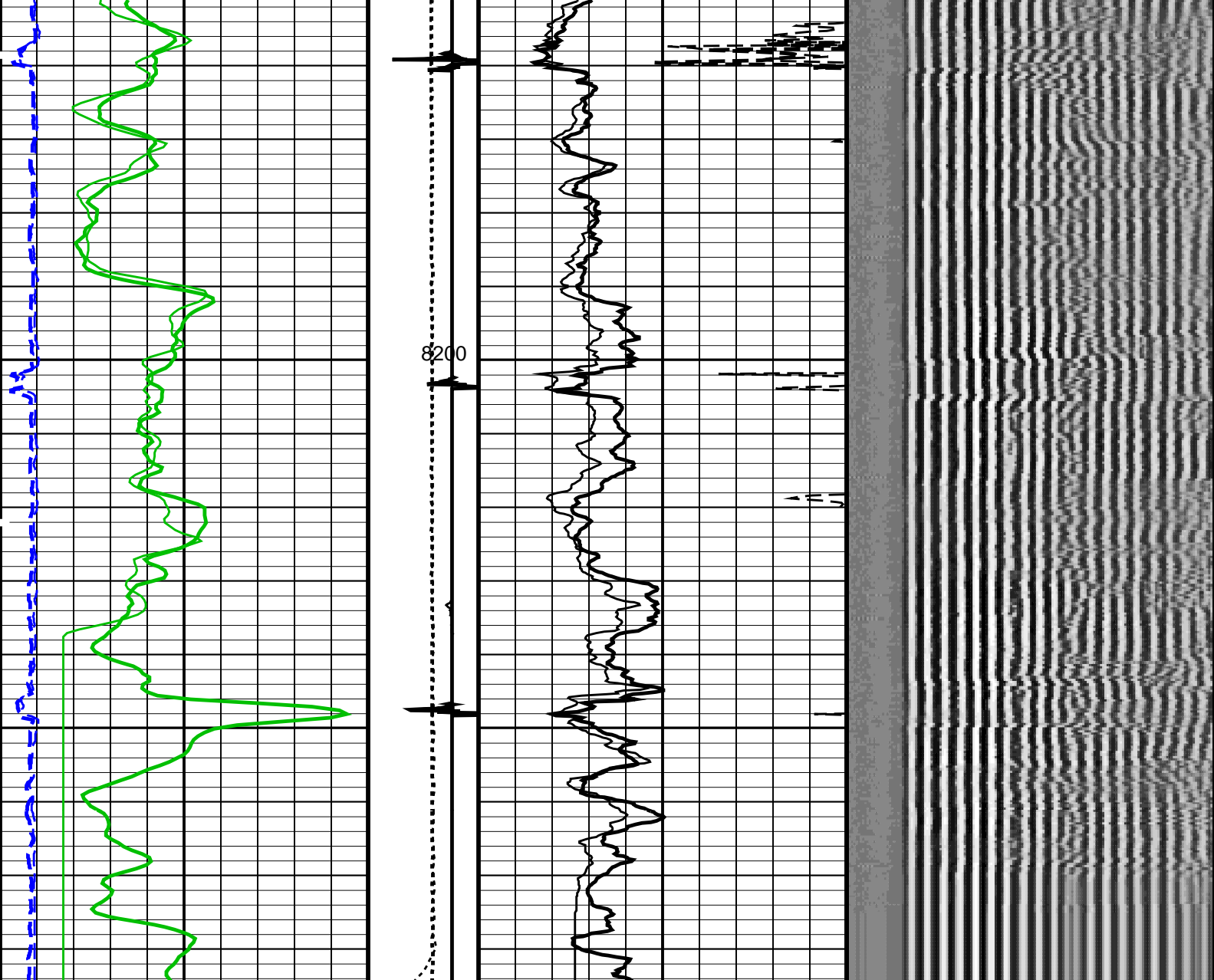
REPEAT ANALYSIS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC				Well: SG 8510A-23 (L24 496)		
Input DLIS Files						
DEFAULT	SCMT_RST_HBMS_002LUP	FN:1	PRODUCER	26-Jul-2013 09:07	8280.5 FT	7930.0 FT
DEFAULT	SCMT_RST_HBMS_007PUP	FN:6	PRODUCER	26-Jul-2013 13:21	12691.0 FT	-36.0 FT
Output DLIS Files						
DEFAULT	SCMT_RST_HBMS_008PUP	FN:7	PRODUCER	26-Jul-2013 13:37	8284.5 FT	7886.5 FT
OP System Version: 19C0-187						
SCMT-CB	SRPC-5214-H2-2012-OP19		RST-C	SRPC-5214-H2-2012-OP19		
HBMS-B	SRPC-5214-H2-2012-OP19					







#### PIP SUMMARY

Time Mark Every 60 S

Format: CBL\_VDL\_REP Vertical Scale: 5" per 100'

Graphics File Created: 26-Jul-2013 13:38

### OP System Version: 19C0-187

SCMT-CB SRPC-5214-H2-2012-OP1 RST-C SRPC-5214-H2-2012-OP1  
HBMS-B SRPC-5214-H2-2012-OP1

#### <<<SCMT Cement Evaluation Information Summary>>>

Sonde Serial Number SCMS-CB 8303

Current Casing Size 4.50000 IN



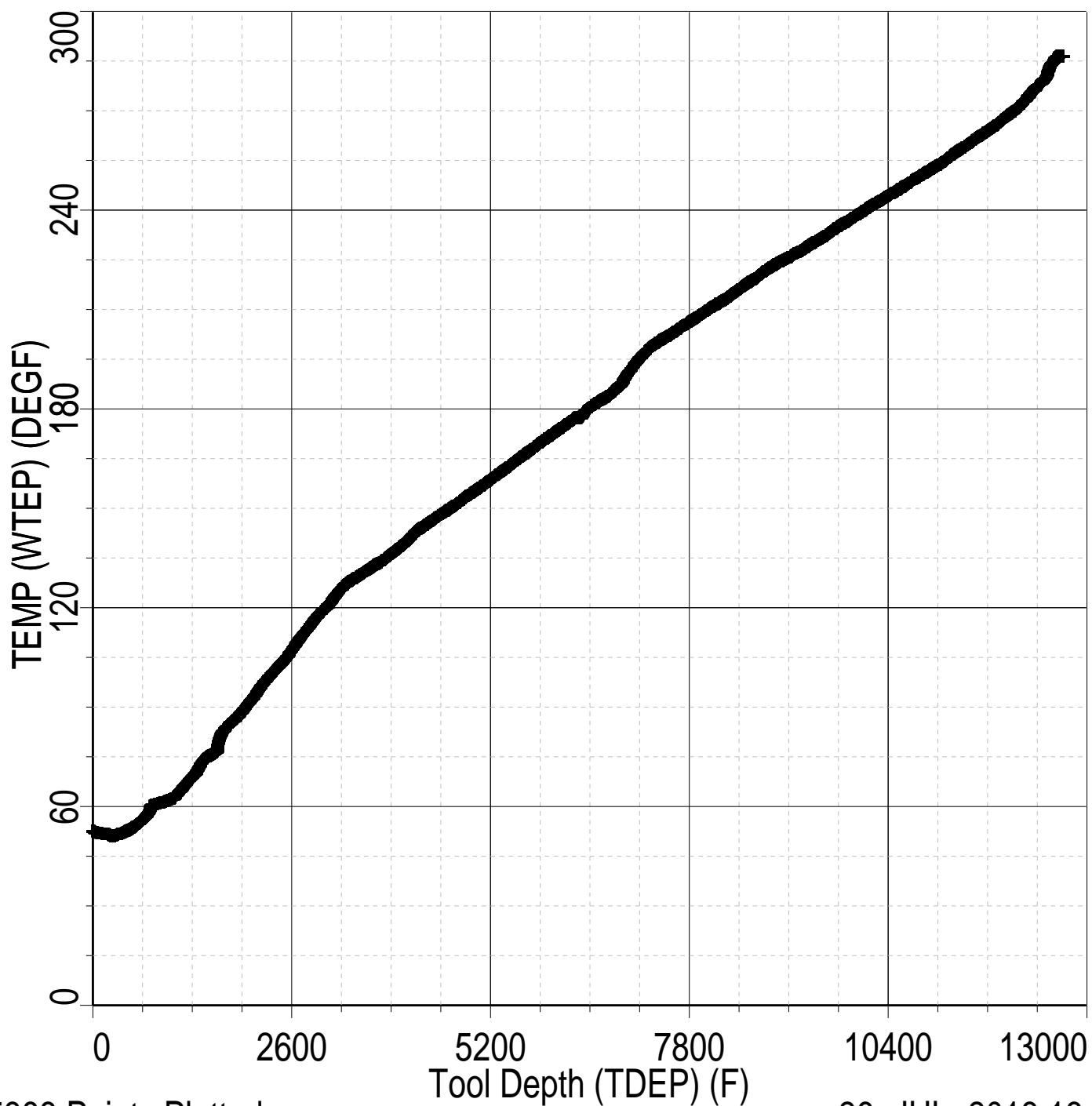
Casing Weight	11.6000 LB/F		
Expected CBL Amplitude in Free Pipe Section	80 MV	Minimum Sonic Amplitude	0.579149 MV (100% Cement)
			1.55185 MV (80% Cement)
		MAP Minimum Sonic Amplitude	4.32284 MV (100% Cement)
			8.10244 MV (80% Cement)
Master Calibration (Normalization)		Before Calibration (Adjustment)	
Date of Master Calibration	7-SEP-2012		
CBL Correction Factor	0.0756720	CBL Adjustment Factor (CBAF)	0.900000
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	
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	4.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	12666	FT

Input DLIS Files						
DEFAULT	SCMT_RST_HBMS_002LUP	FN:1	PRODUCER	26-Jul-2013 09:07	8280.5 FT	7930.0 FT
DEFAULT	SCMT_RST_HBMS_007PUP	FN:6	PRODUCER	26-Jul-2013 13:21	12691.0 FT	-36.0 FT
Output DLIS Files						
DEFAULT	SCMT_RST_HBMS_008PUP	FN:7	PRODUCER	26-Jul-2013 13:37		

MAXIS Field Log

Index: 12691.0 – -36.0 FT



25383 Points Plotted

26-JUL-2013 13:30

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC  
Field: STORY GULCH  
Well: SG 8510A-23 (L24 496)  
Run date: 26-Jul-2013

Tool: PSP  
Sub Type: PBMS  
Sensor: GR

PBMS Gamma Ray  
Sonde Serial NB RESISTORS FOR GR SENSOR N.34384,TOOL HBMS-BA2880. SENSOR S/N:  
Sensor Serial NB 34384  
Calib Date ddmmyy 160206  
Matrix Size 12  
Coeff CRC D8B5

GR HV Rt			
	Rt**0Rt**1		
Rt**0	<table><tr><td>+.200000000000e+04</td><td>+.173000000000e+04</td></tr></table>	+.200000000000e+04	+.173000000000e+04
+.200000000000e+04	+.173000000000e+04		

Client: ENCANA OIL & GAS (USA) INC  
Field: STORY GULCH  
Well: SG 8510A-23 (L24 496)  
Run date: 26-Jul-2013

Tool: PSP  
Sub Type: PBMS  
Sensor: WellTemp RTD

PBMS RTD Well Thermometer  
Sonde Serial NB COEFFICIENTS FOR RTD THERMOMETER PBMS-B.2880 S/N:  
Sensor Serial NB 2880  
Calib Date ddmmyy 260408  
Matrix Size 16  
Coeff CRC A3AF

WTemp Coeff

Tt\*\*0

Tt\*\*1

Tt\*\*2

Tt\*\*0

−.104337336008E+04

+.798824971753E+03

−.251944021281E+03

Tt\*\*3

Tt\*\*4

Tt\*\*5

Tt\*\*0

+.406192777109E+02

−.240958437264E+01

0.0

Client: ENCANA OIL & GAS (USA) INC  
Field: STORY GULCH  
Well: SG 8510A−23 (L24 496)  
Run date: 26−Jul−2013

Tool: PSP  
Sub Type: PBMS  
Sensor: CQG

PBMS Quartz Gauge type F

Sonde Serial NB

COEFFICIENTS FOR CQG PBMS−B.2880 S/N:

Sensor Serial NB

2880

Calib Date ddmmyy

260408

Matrix Size

66

Coeff CRC

66B8

Pres Coeff

Fb\*\*0

Fb\*\*1

Fb\*\*2

Fc\*\*0

+.694668499013E+04

+.138137467574E−01

−.206148488488E−06

Fc\*\*1

−.104285125976E+01

−.125721589078E−04

−.971577899959E−10

Fc\*\*2

+.101045175546E−05

+.480801816357E−10

+.889110474366E−15

Fc\*\*3

+.127326781620E−11

+.130693902354E−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

−.802395356069E−10

−.148392899370E−14

−.162952476494E−19

Fc\*\*1

+.114970383999E−15

+.186330526680E−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 2880  
Calib Date ddmmyy 260408  
Matrix Size 66  
Coeff CRC 3690

Temp Coeff

	Fc**0	Fc**1	Fc**2
Fb**0	+.114978632240E+03	-.318843725686E-03	+.651766172344E-08
Fb**1	-.590205352250E-02	+.168686572404E-07	+.162345150354E-12
Fb**2	-.362996279263E-07	+.407654559315E-12	+.452411391342E-17
Fb**3	-.276281361281E-12	+.871817059405E-17	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	+.199118144093E-13	-.260997933236E-18	+.618908211390E-21
Fb**1	+.250084591851E-17	+.455070709200E-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 2880  
Calib Date ddmmyy 260408  
Matrix Size 16  
Coeff CRC 71B5

Clock Freq Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+.310736316923E+05	+.273670214709E-02	+.731815197856E-06
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.654219198492E-10	-.150585137208E-15	-.117697151708E-19

PBMS Quartz Gauge type F

Sonde Serial NB :

Sensor Serial NB 2880  
 Calib Date ddmmyy 260408  
 Matrix Size 16  
 Coeff CRC ECB5

Clock Temp Coeff

	$(Fb'-Fc')^{**0}$	$(Fb'-Fc')^{**1}$	$(Fb'-Fc')^{**2}$
$(Fb'-Fc')^{**0}$	+1.16053417872E+03	-.554118045908E-02	-.348241454518E-07
	$(Fb'-Fc')^{**3}$	$(Fb'-Fc')^{**4}$	$(Fb'-Fc')^{**5}$
$(Fb'-Fc')^{**0}$	+2.07992675474E-12	-.353168788938E-17	-.345142848607E-21

**Schlumberger**

## MASTER CALIBRATION

MAXIS Field Log

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

Primary Equipment:

Slim Cement Mapping Xmitter Electronics  
 Slim Cement Mapping Sonde  
 Slim Cement Mapping Cartridge

SCMX – CA  
 SCMS – CB 8317  
 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 8510A–23 (L24 496)**

Field: **STORY GULCH**

County: **GARFIELD**

State: **COLORADO**

SLIM CEMENT MAPPING LOG  
CBL – VDL  
GAMMA RAY – CCL