



Company: ENCANA OIL & GAS (USA) INC

Well: HAGEN 22-3B (PC22)

Field: SOUTH PARACHUTE

County: GARFIELD

State: COLORADO

County:	GARFIELD				
Field:	SOUTH PARACHUTE				
Location:	SHL: 584 FNL & 1740 FWL				
Well:	HAGEN 22-3B (PC22)				
Company:	ENCANA OIL & GAS (USA) INC				
SLIM CEMENT MAPPING LOG CBL-VDL GAMMA RAY-CCL		LOCATION			
		SHL: 584 FNL & 1740 FWL BHL: 540 FNL & 1534 FWL	Elev.: K.B. 6543.00 ft G.L. 6521.00 ft D.F. 6542.00 ft		
		Permanent Datum: _____	GROUND LEVEL _____		
		Log Measured From: _____	KELLY BUSHING _____		
		Drilling Measured From: _____	KELLY BUSHING _____		
		API Serial No. 05-045-22017-0C	Section 22	Township 7S	Range 95W

	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	14-Sep-2013		
Run Number	1		
Depth Driller	7760 ft		
Schlumberger Depth	7642 ft		
Bottom Log Interval	7633 ft		
Top Log Interval	50 ft		
Casing Fluid Type	FRESH WATER		
Salinity			
Density	8.4 lbm/gal		
Fluid Level	50 ft		
BIT/CASING/TUBING STRING			
Bit Size	8.750 in		
From	22 ft		
To	7760 ft		
Casing/Tubing Size	4.500 in		
Weight	11.6 lbm/ft		
Grade	S-80		
From	22 ft		
To	7724 ft		
Maximum Recorded Temperatures	216 degF		
Logger On Bottom	14-Sep-2013	Time	8:45
Unit Number	338	Location	GRAND JUNCTION
Recorded By	KIRSTIE BUNTING		
Witnessed By	ANDY HILL		

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: 14-AUG-2013 11:54:57

## Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-JB	Type:	CMTD-B/A	Type:	1-25ZT
Serial Number:	6349	Serial Number:	3421	Serial Number:	112136
Calibration Date:	7-31-2013	Calibration Date:	14-AUG-201	Length:	19000 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:	-5	Calibration RMS:	3		
Wheel Correction 2:	-4	Calibration Peak Error:	8		

## 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 REFERENCE
3. SPWT DRUM COUNTER USED AS SECONDARY DEPTH REFERENCE
- 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	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 DOWN LOG	
TOOL RAN AS PER TOOL SKETCH	
ENTRANCE: 08:15	
TIME ON BOTTOM: 08:45	
EXIT: 11:00	

MAXIMUM RECORDED TEMPERATURE: 216 DEGF
MAXIMUM RECORDED PRESSURE: 3247 PSIA
SHORT JOINTS: 5564 FT & 6753 FT
MAIN PASS LOGGED UNDER ZERO SURFACE PRESSURE
EXPECTED CBL AMPLITUDE IN FREE PIPE IS 80MV
CREW: KBUNTING, KJOHNS, JMAN
THANK YOU FOR CHOOSING E&B WIRELINE. A QUALIFIED

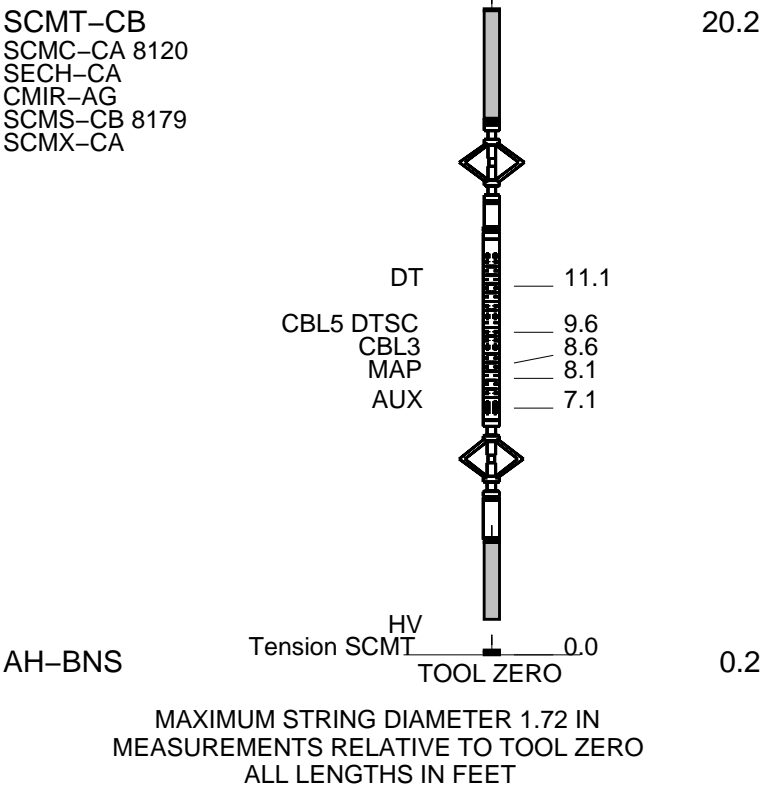
RUN 1			RUN 2		
SERVICE ORDER #:		CGF9-00138	SERVICE ORDER #:		
PROGRAM VERSION:		19C0-187	PROGRAM VERSION:		
FLUID LEVEL:		50 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

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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97	97
98	98
99	99
100	100

SURFACE EQUIPMENT	
WITM-A	
PSC_16MHZ	

# DOWNHOLE EQUIPMENT

Equipment Label	Value
MH-22	53.3
AH-38	51.7
PSPT	51.5
PSC-A	
PSPT-B 928	
PSTC-A	
PBMS-B	
CQG_F_Mano	
RTD_Thermometer	
GR	47.8
CCL	44.7
PBMS	44.4
RST-C	44.0
RSCH-A 197	43.2
RSC-E	
RSS-A 255	
RSXH-A 425	
RSX-E	
RSC-A Far	43.2
RSC-A PNG	
RSC-A Nea	34.1
RSX-A PNG	33.6



# MAIN PASS CBL VDL

MAXIS Field Log

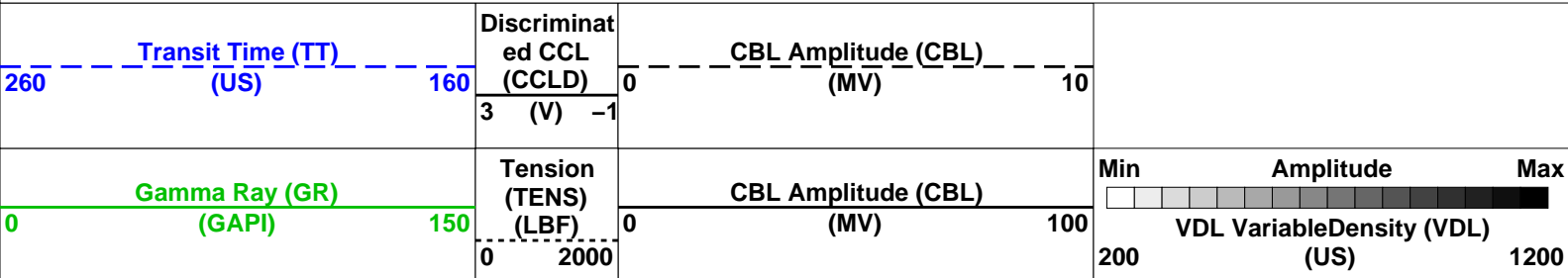
Company: ENCANA OIL & GAS (USA) INC Well: HAGEN 22-3B (PC22)

Input DLIS Files						
DEFAULT	SCMT_RST_PSP_039LUP	FN:37	PRODUCER	14-Sep-2013 08:46	7644.5 FT	2.5 FT
Output DLIS Files						
DEFAULT	SCMT_RST_PSP_042PUP	FN:40	PRODUCER	14-Sep-2013 10:51	7646.5 FT	-40.0 FT

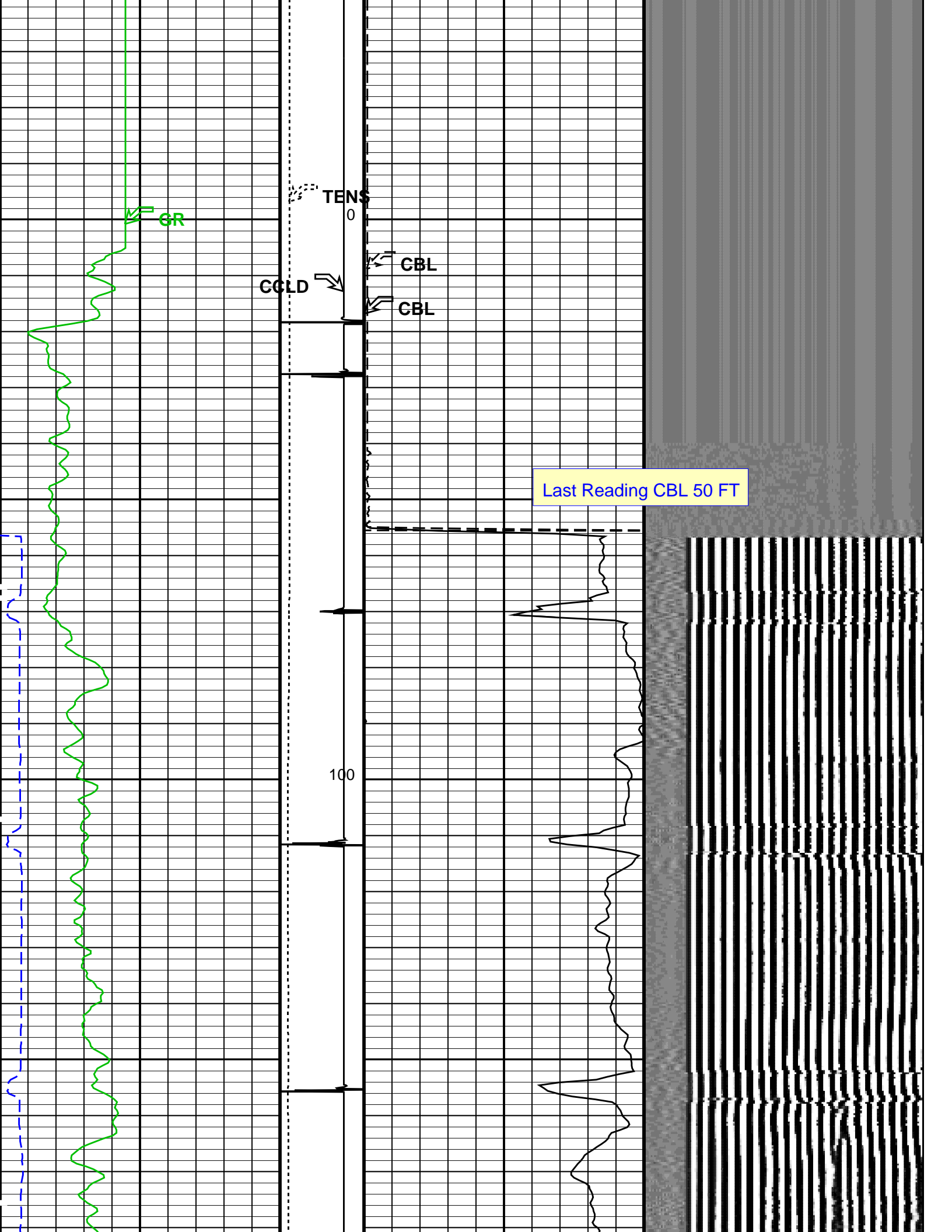
OP System Version: 19C0-187			
SCMT-CB	19C0-187	RST-C	19C0-187
PSPT	19C0-187		

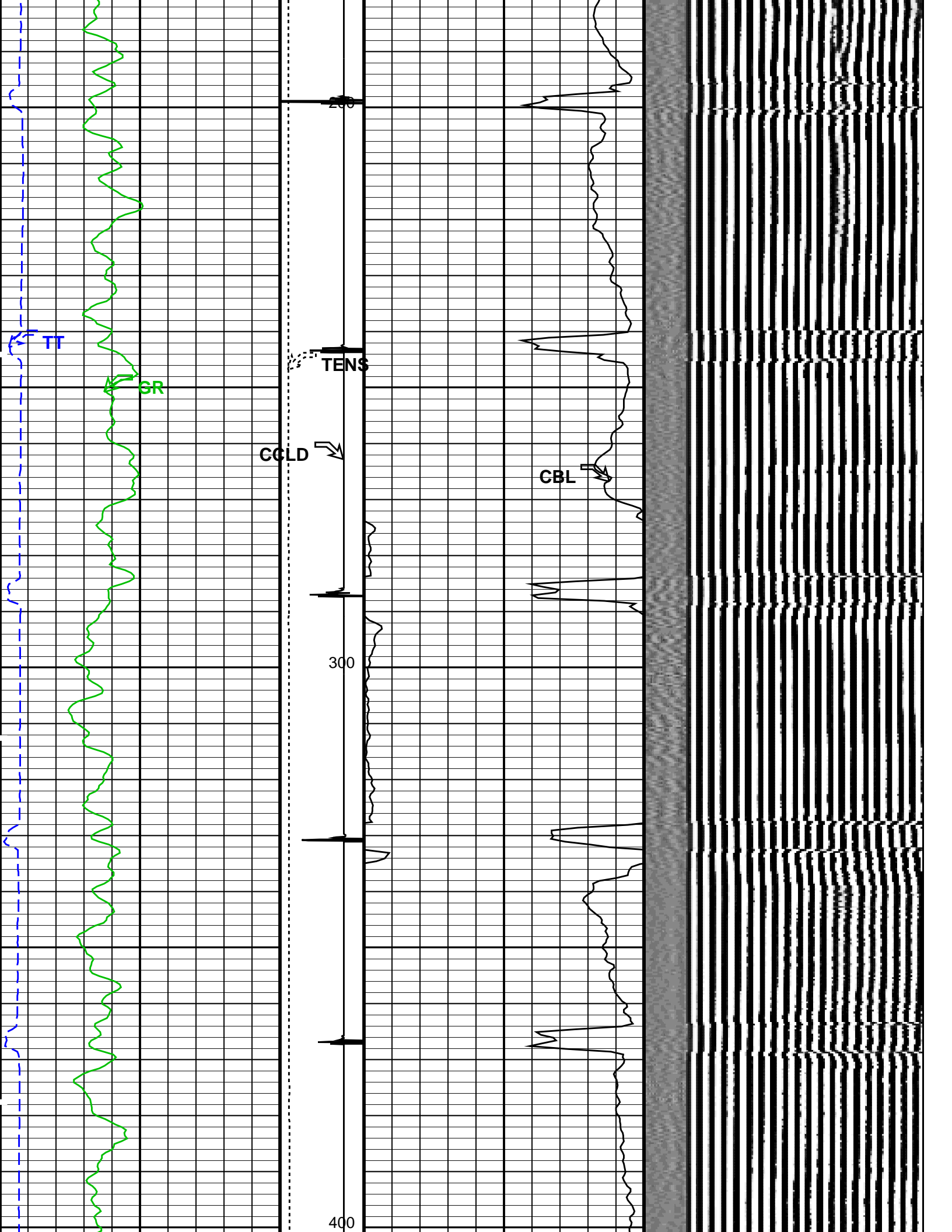
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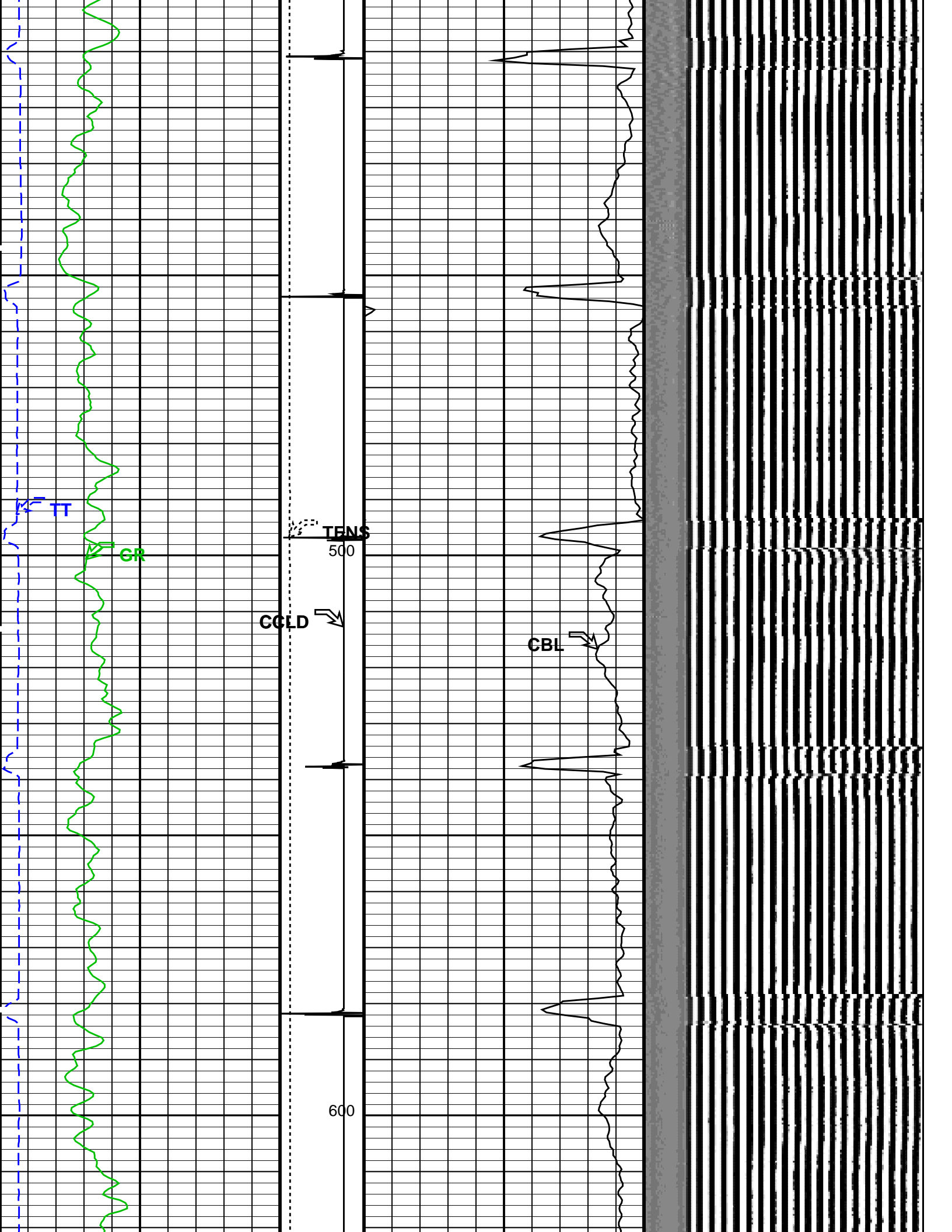
☐ Time Mark Every 60 S

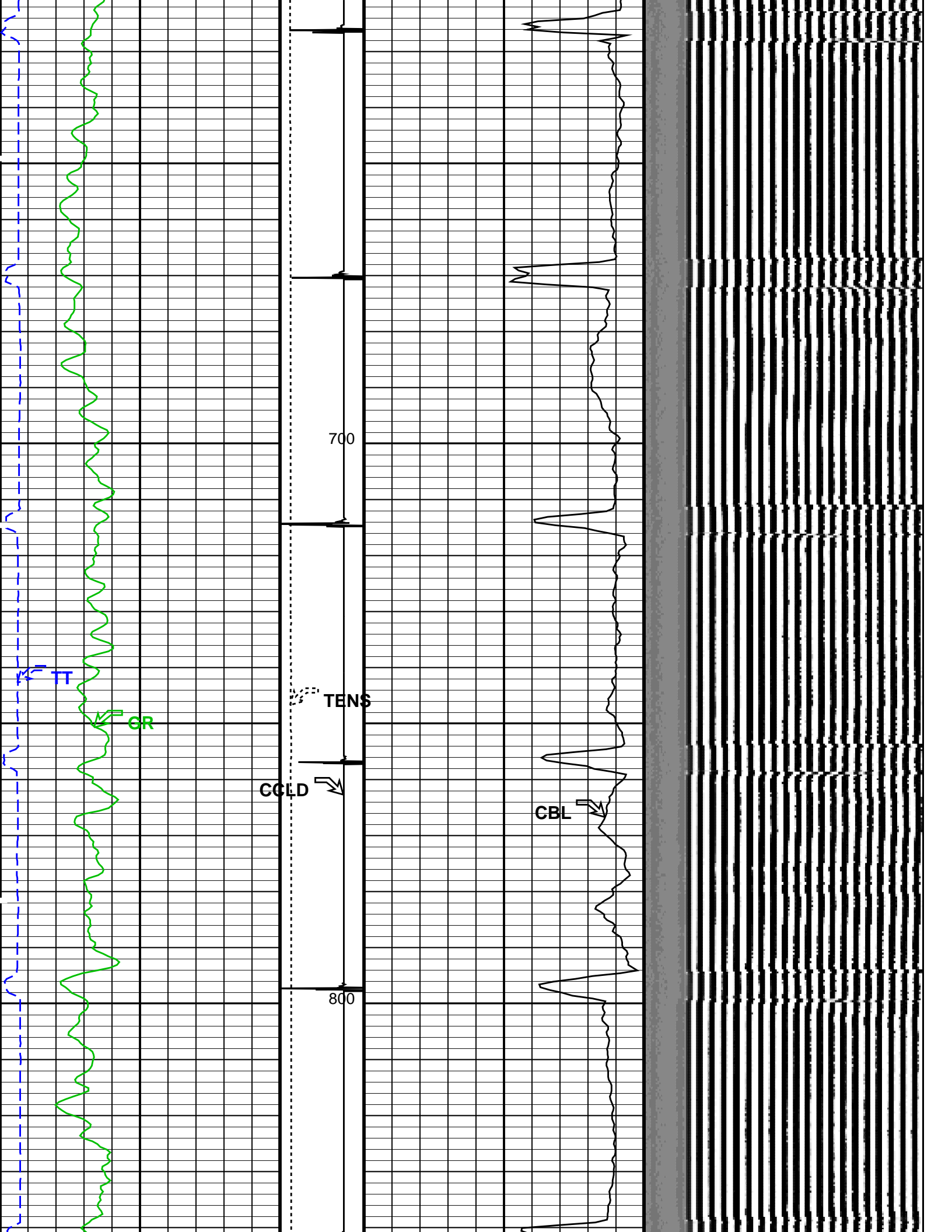


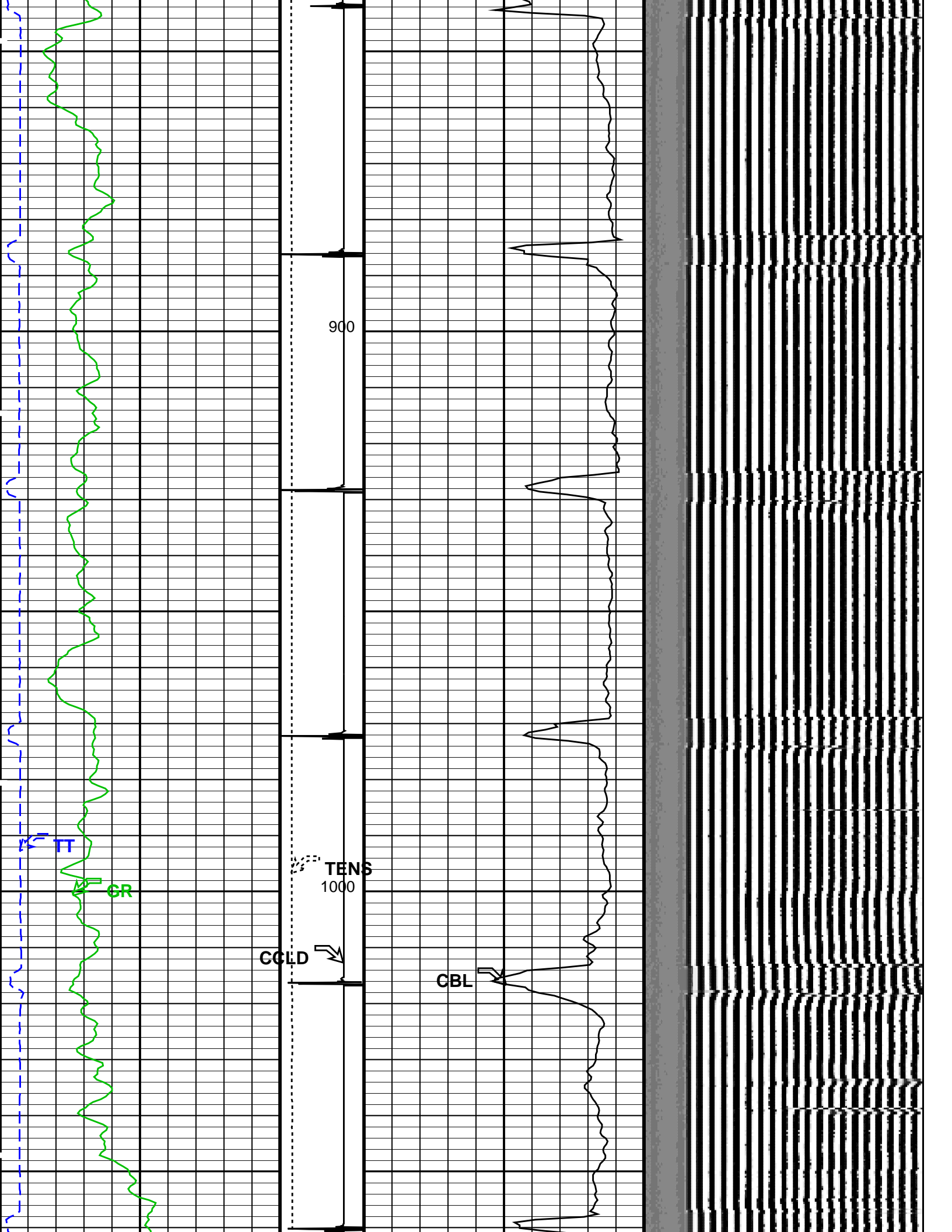


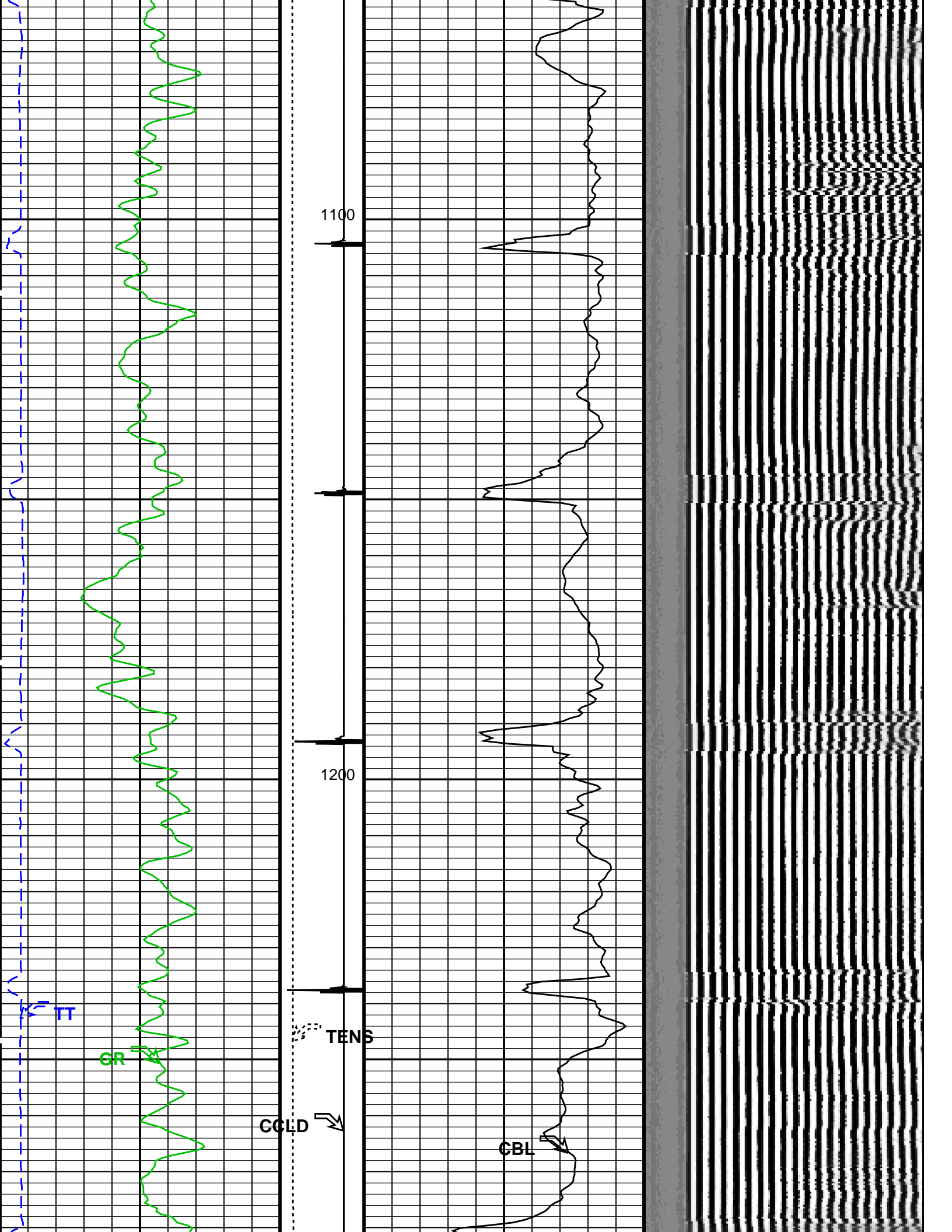




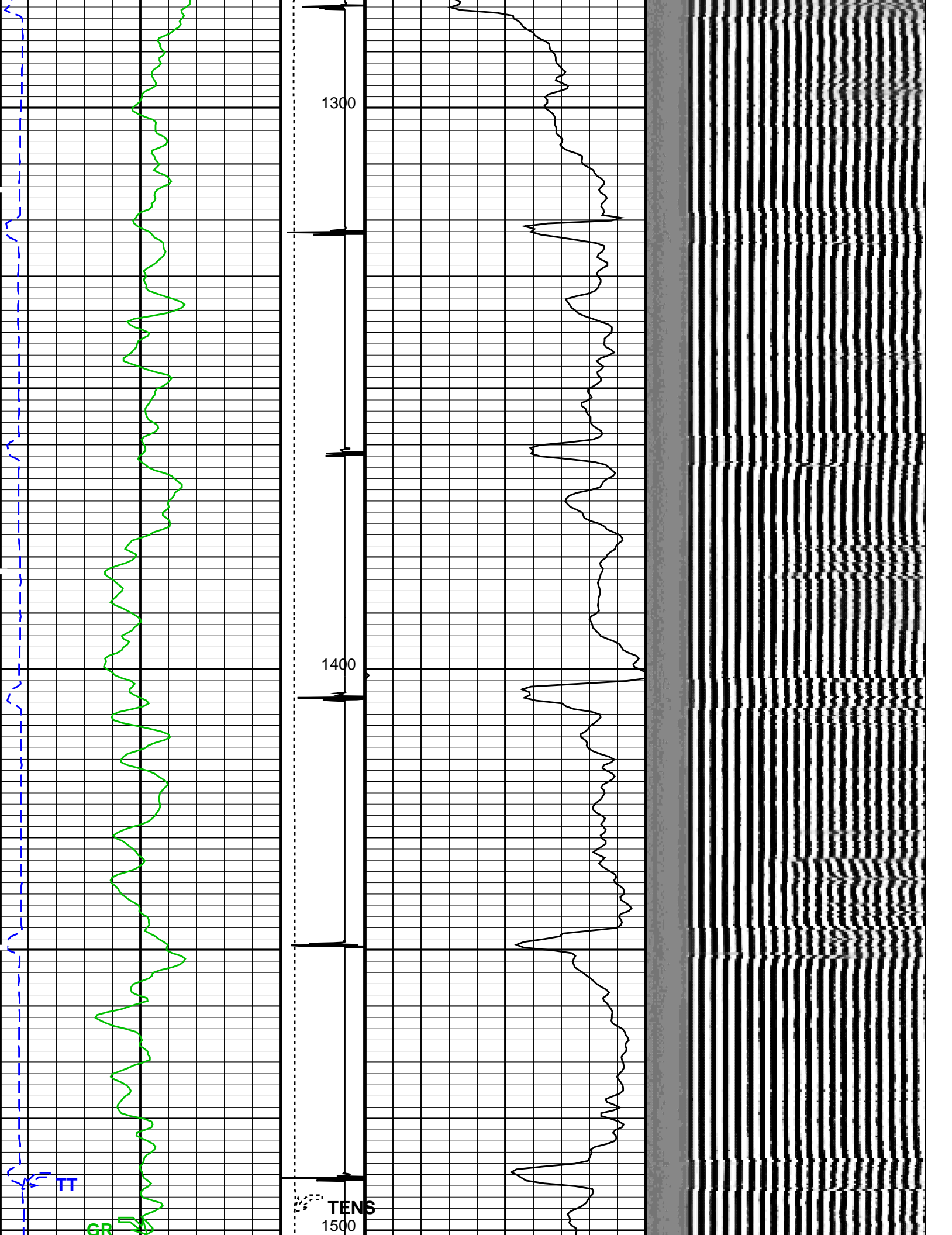


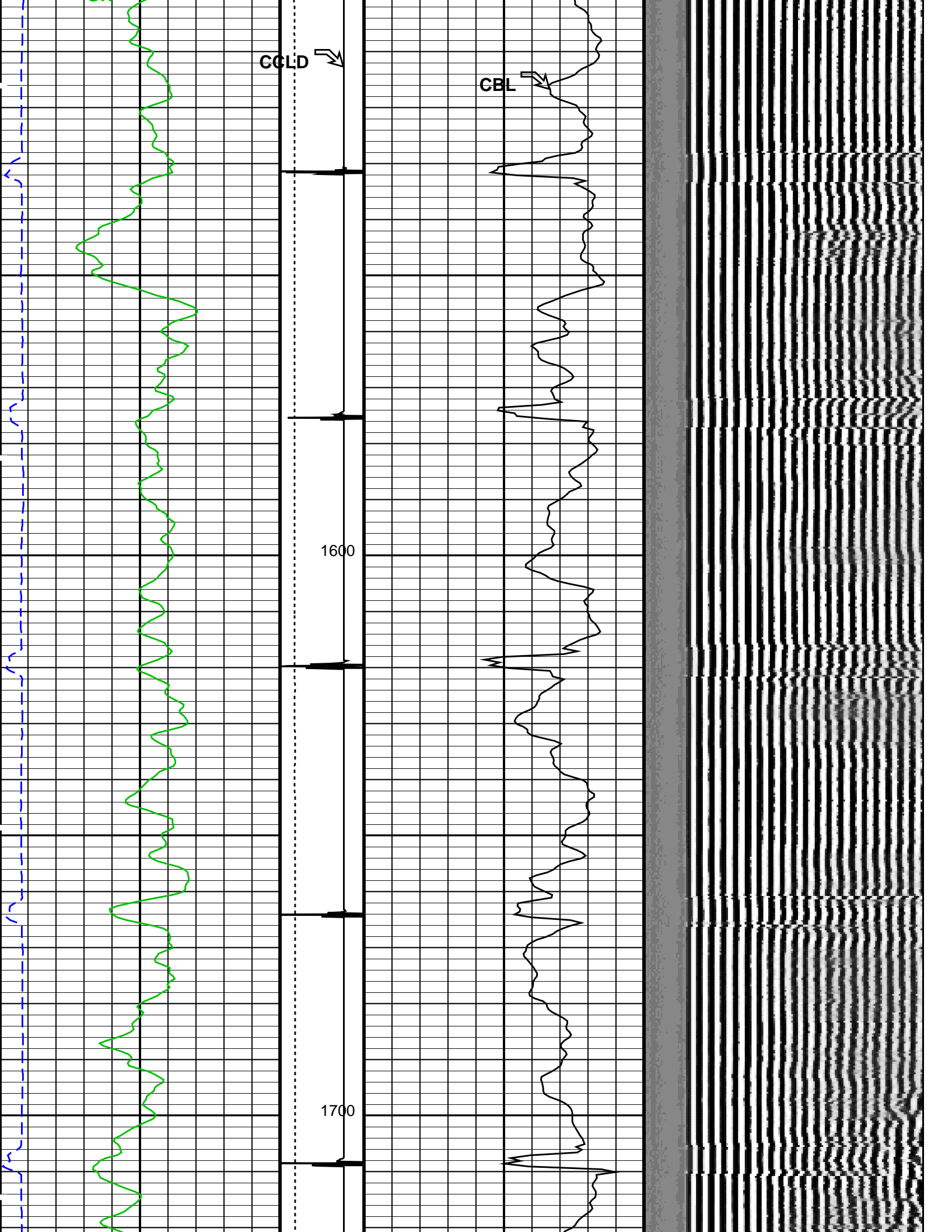




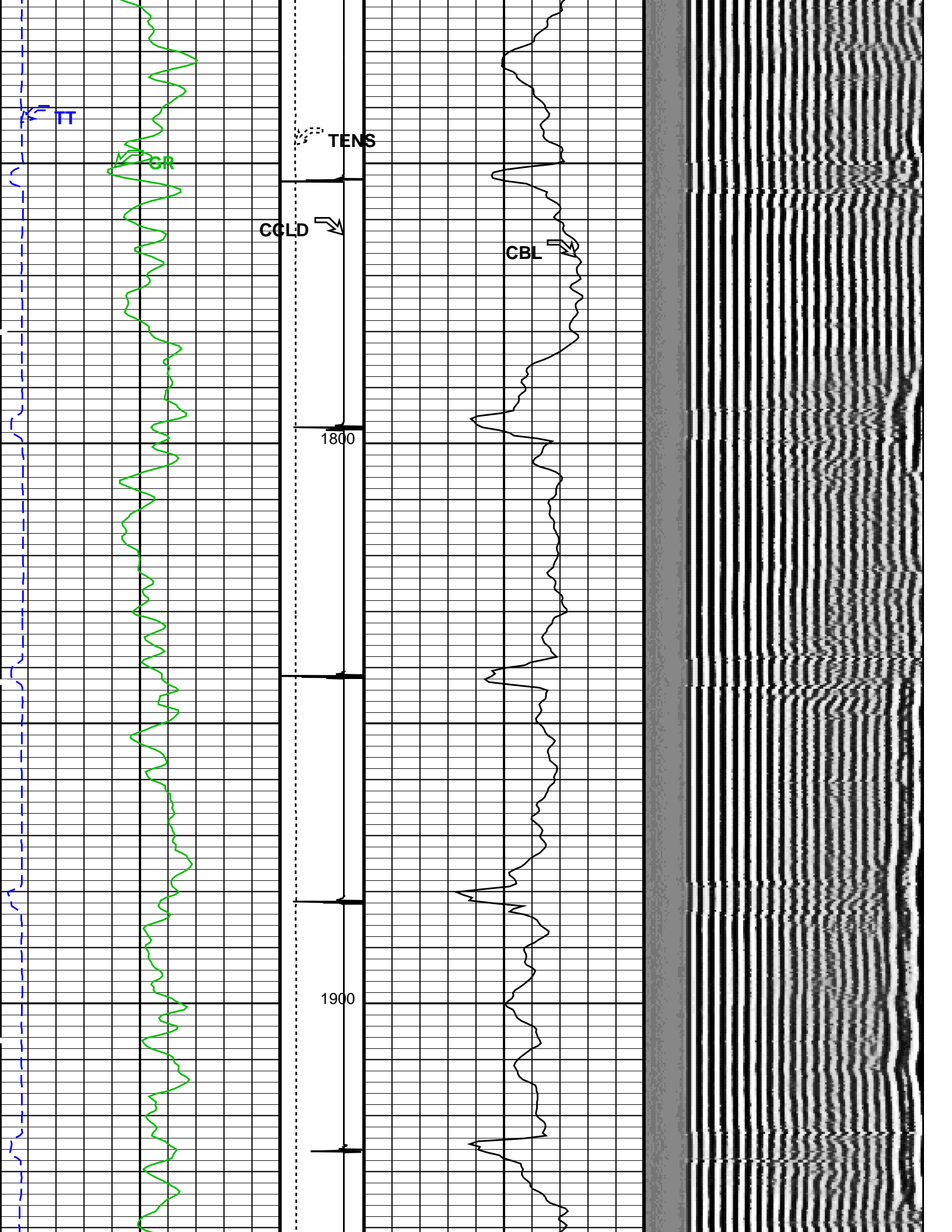


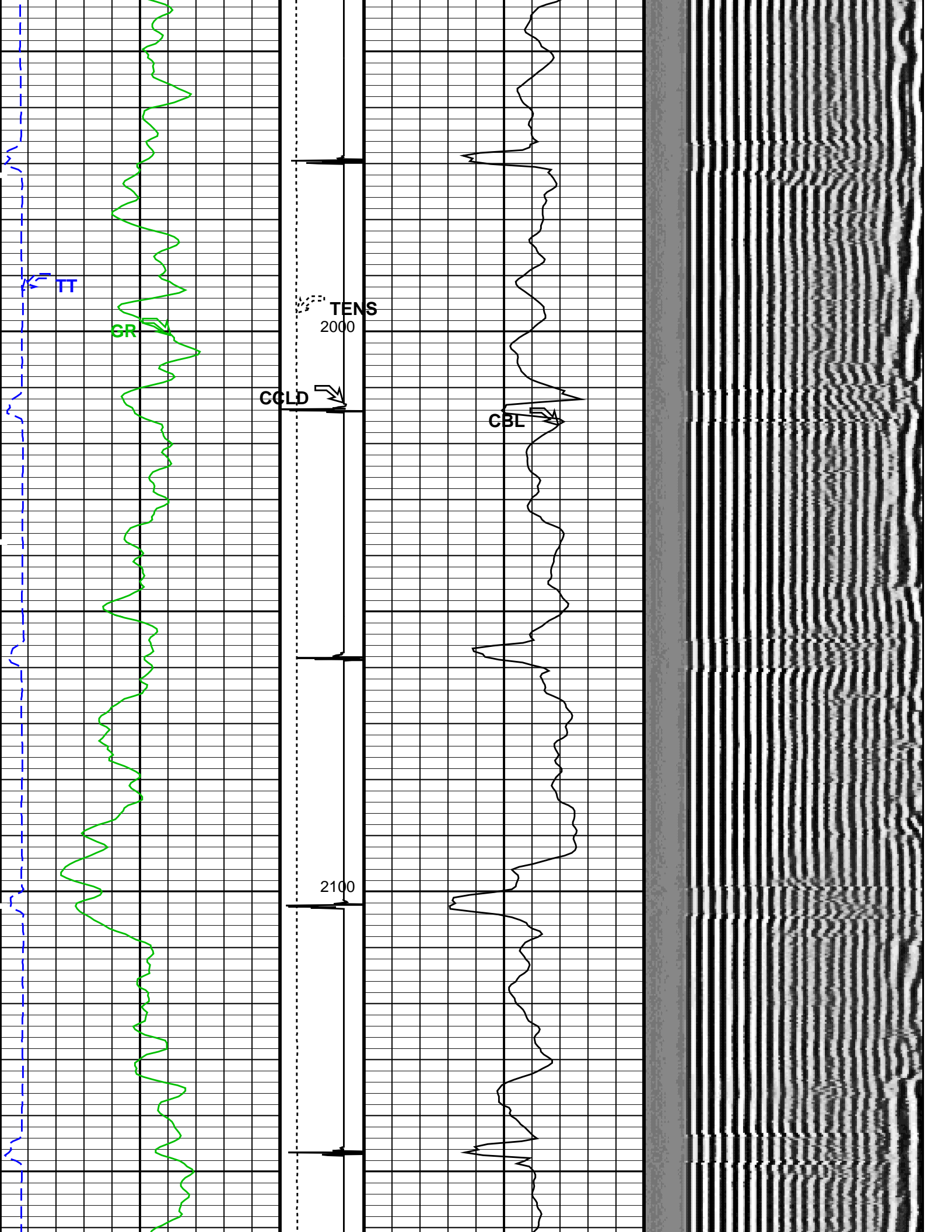


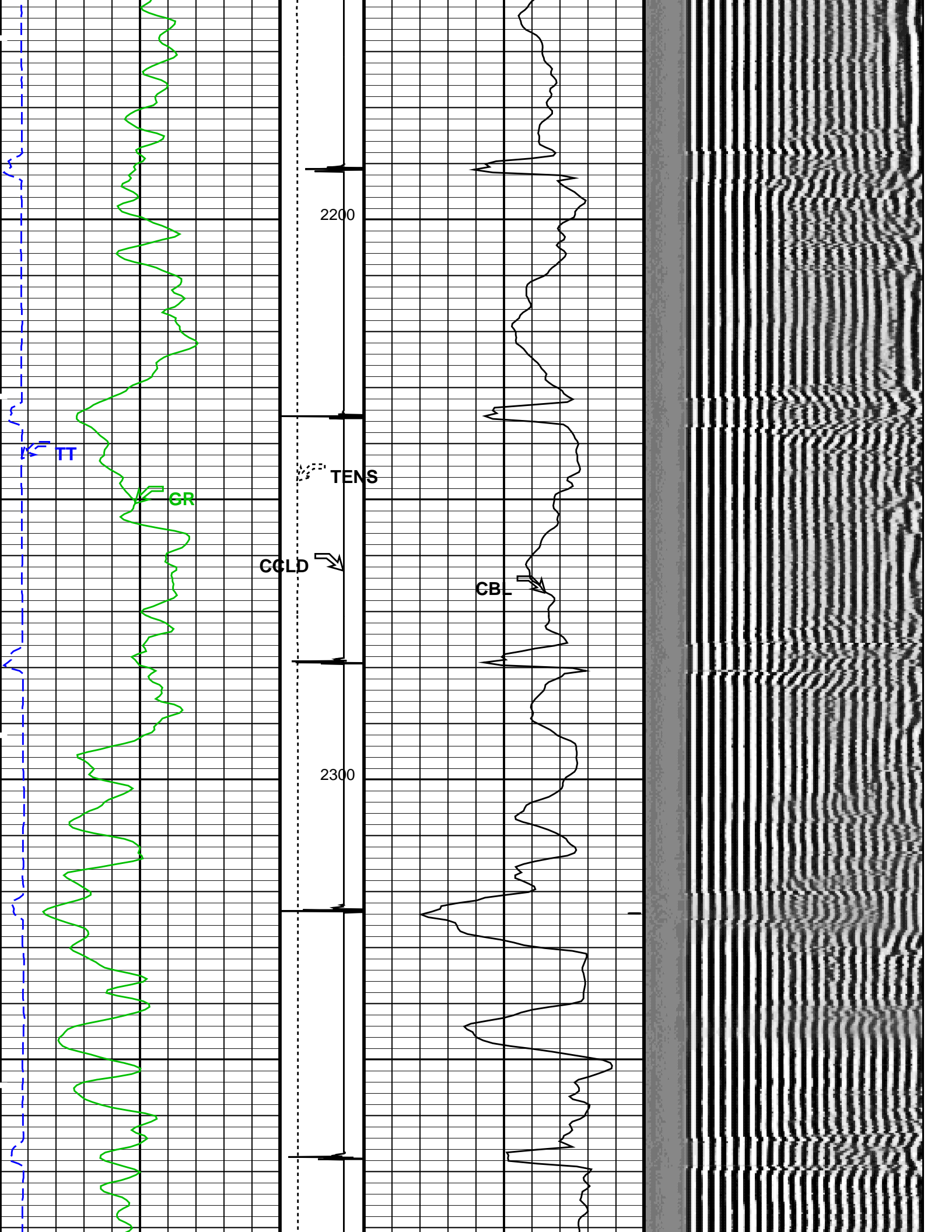


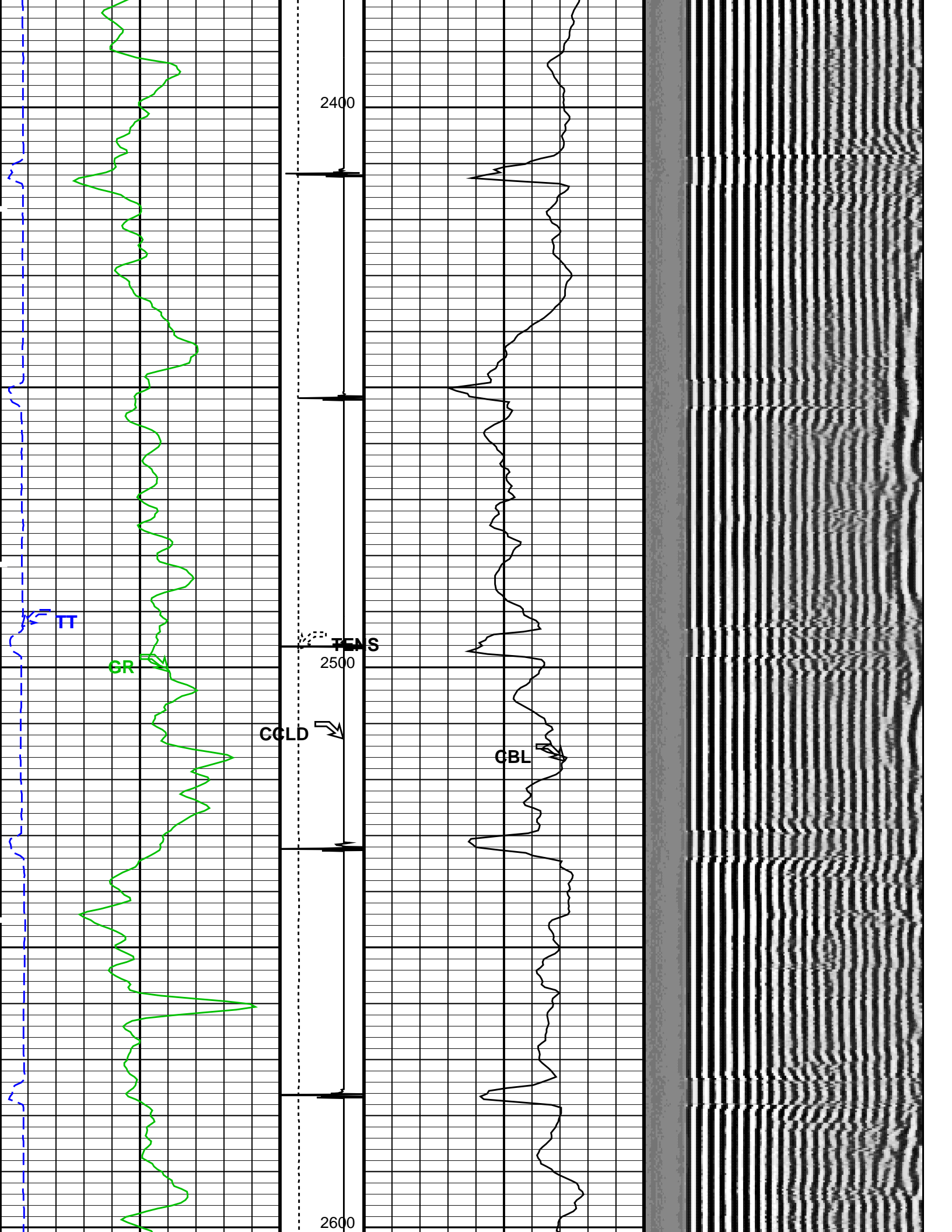




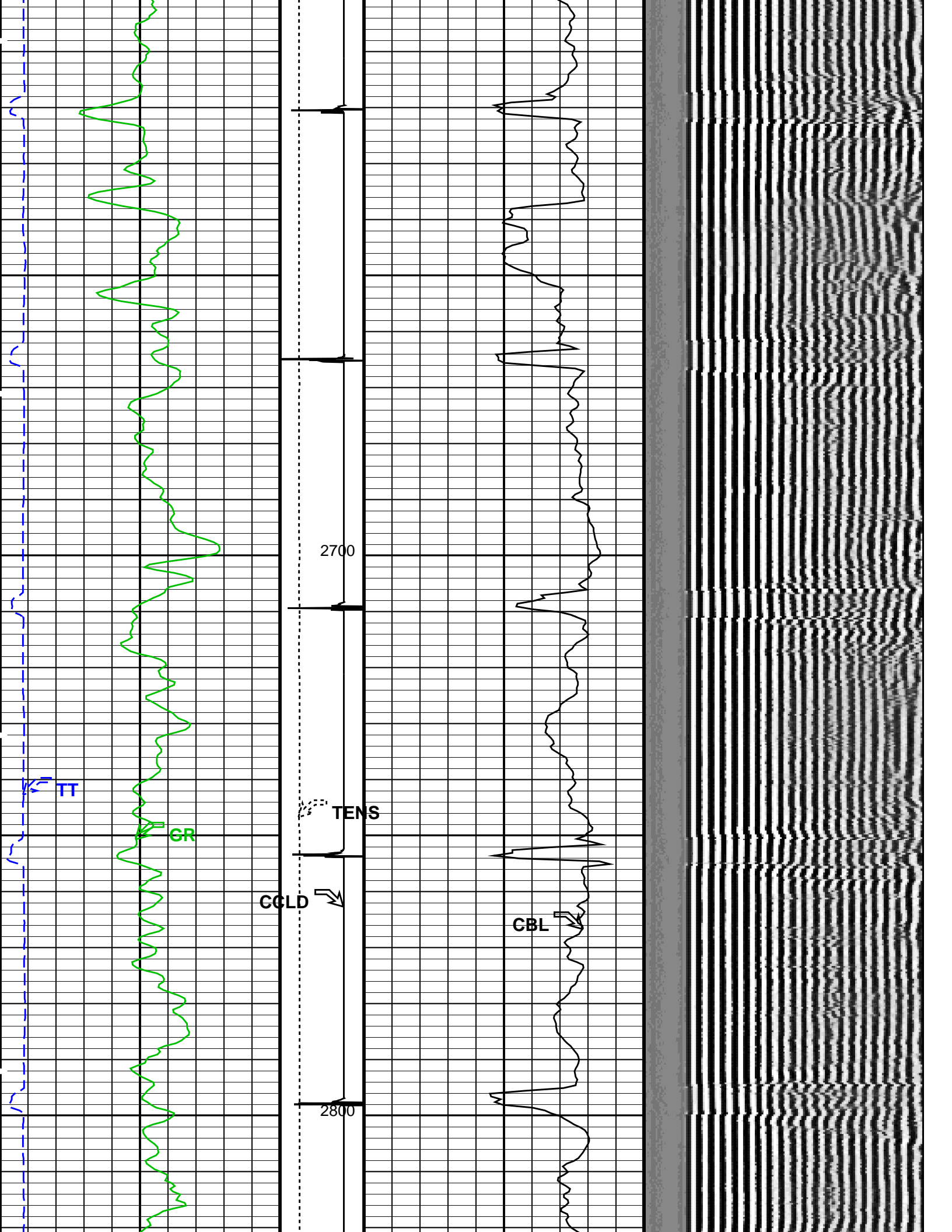


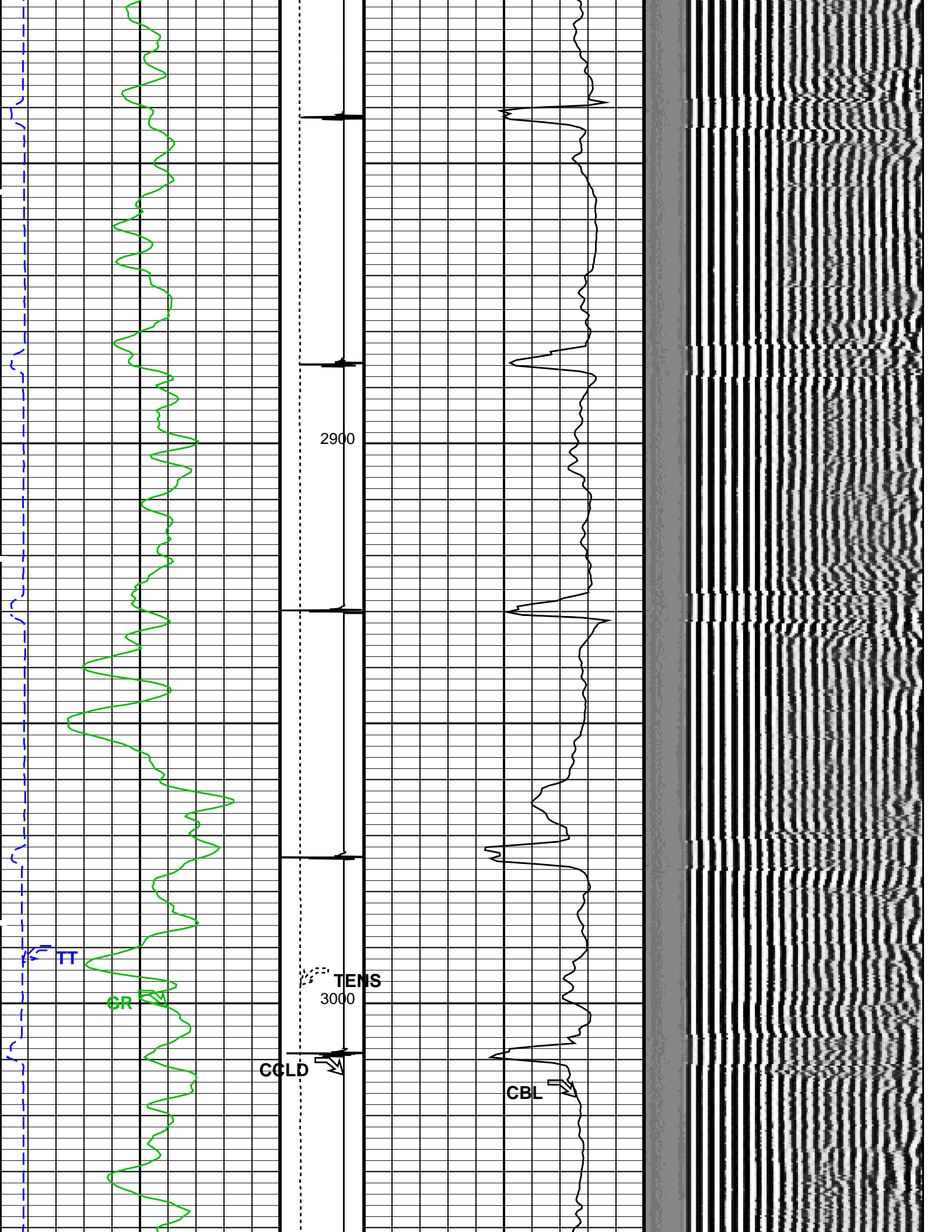


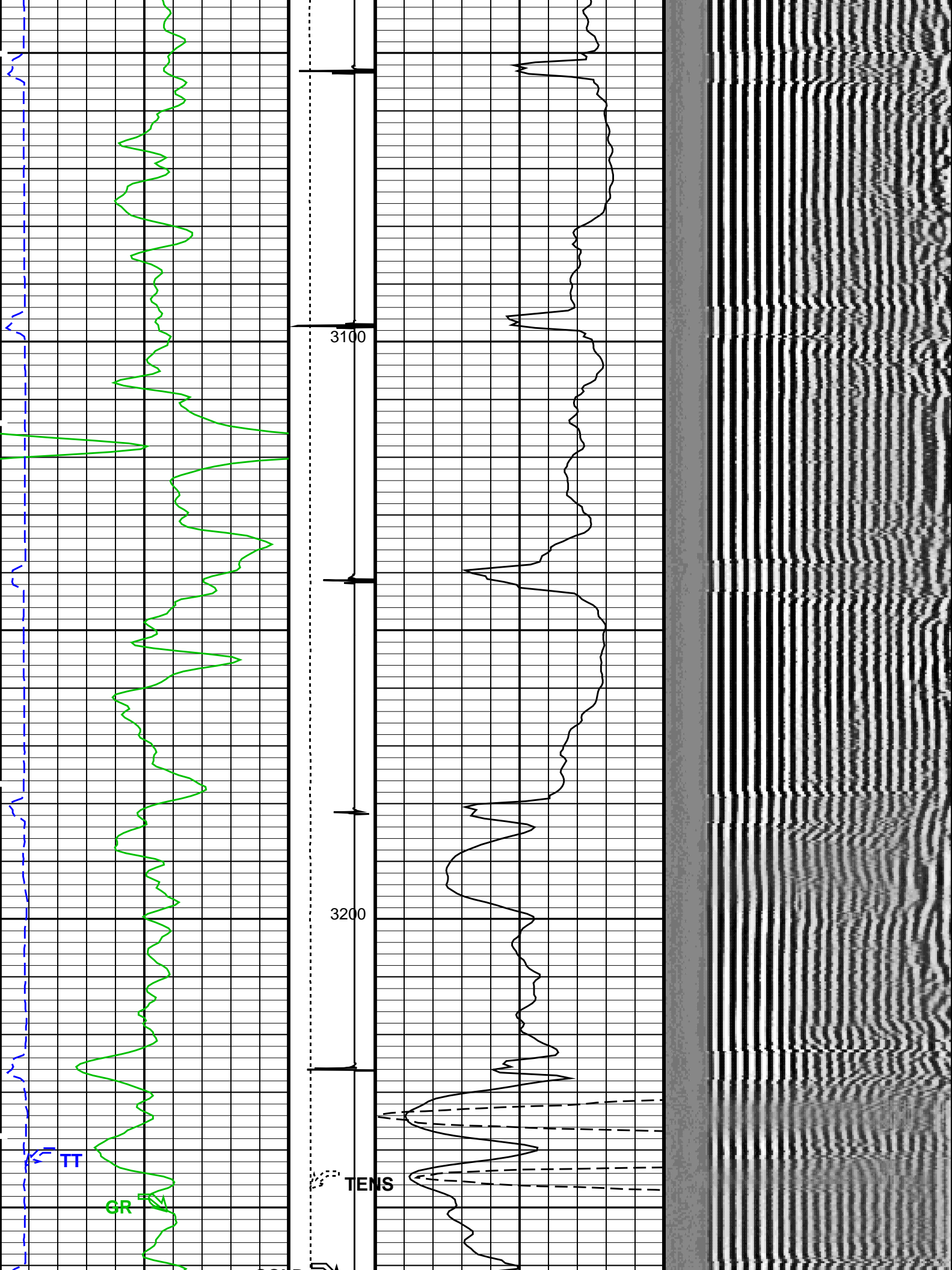


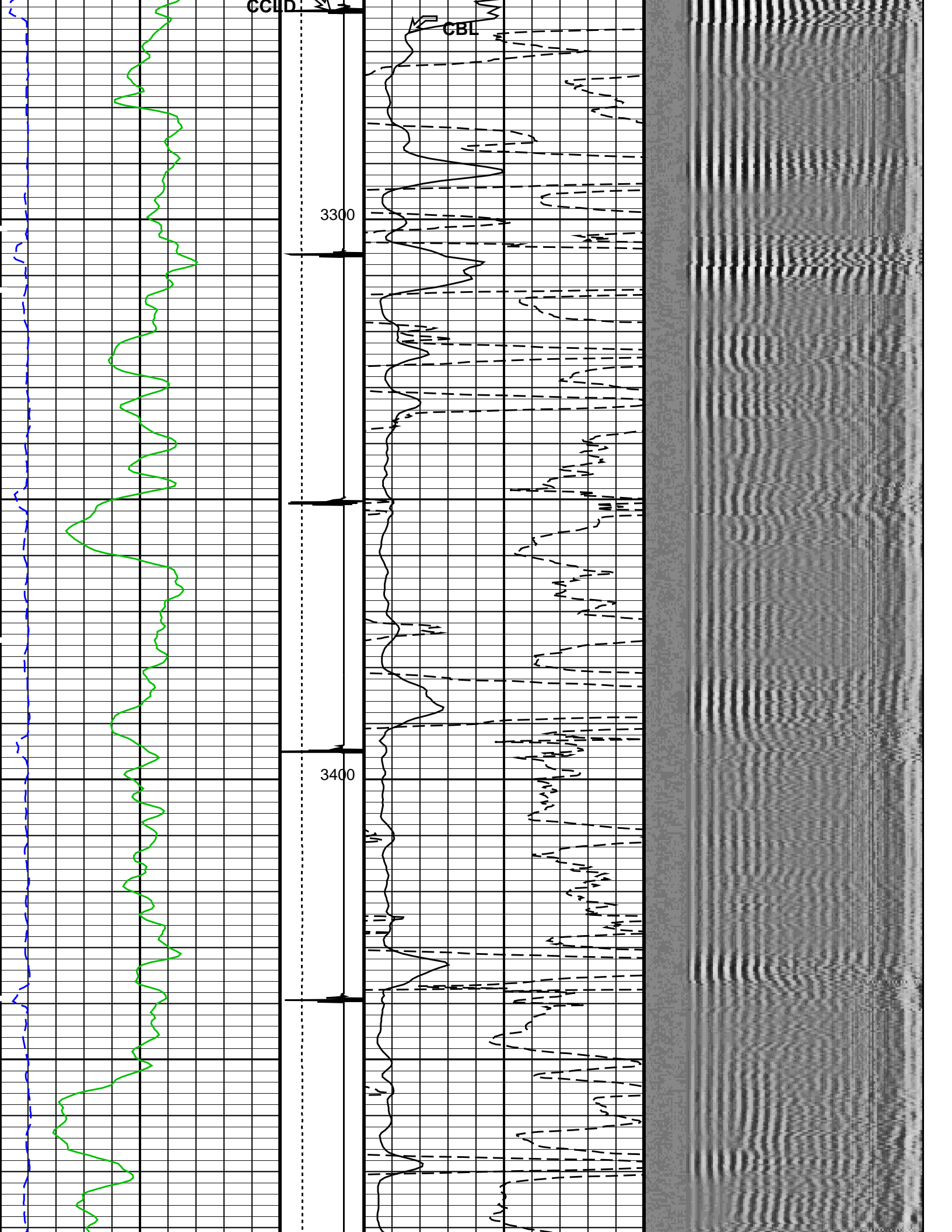




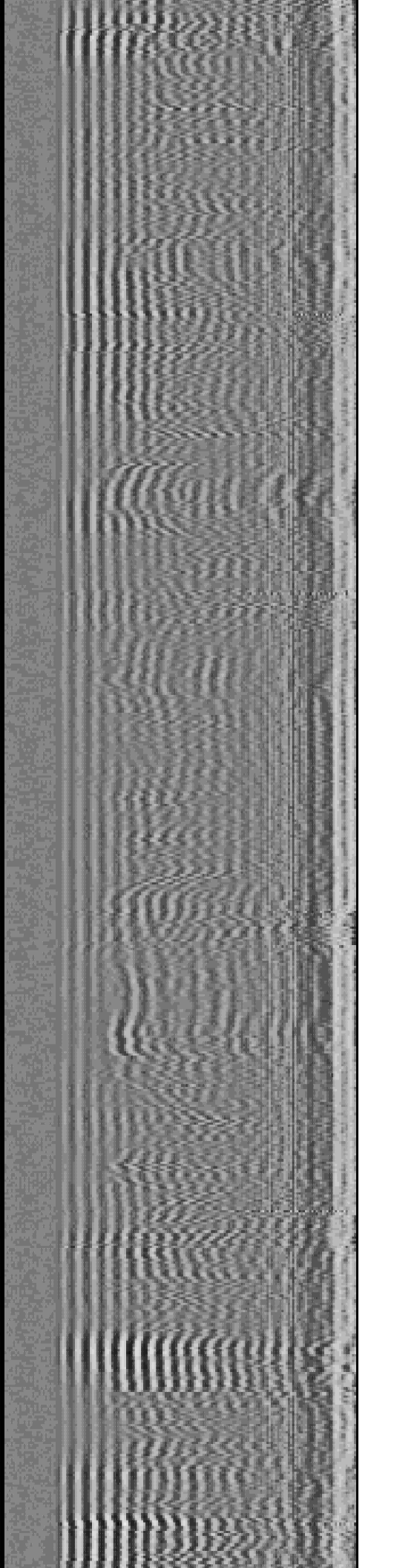
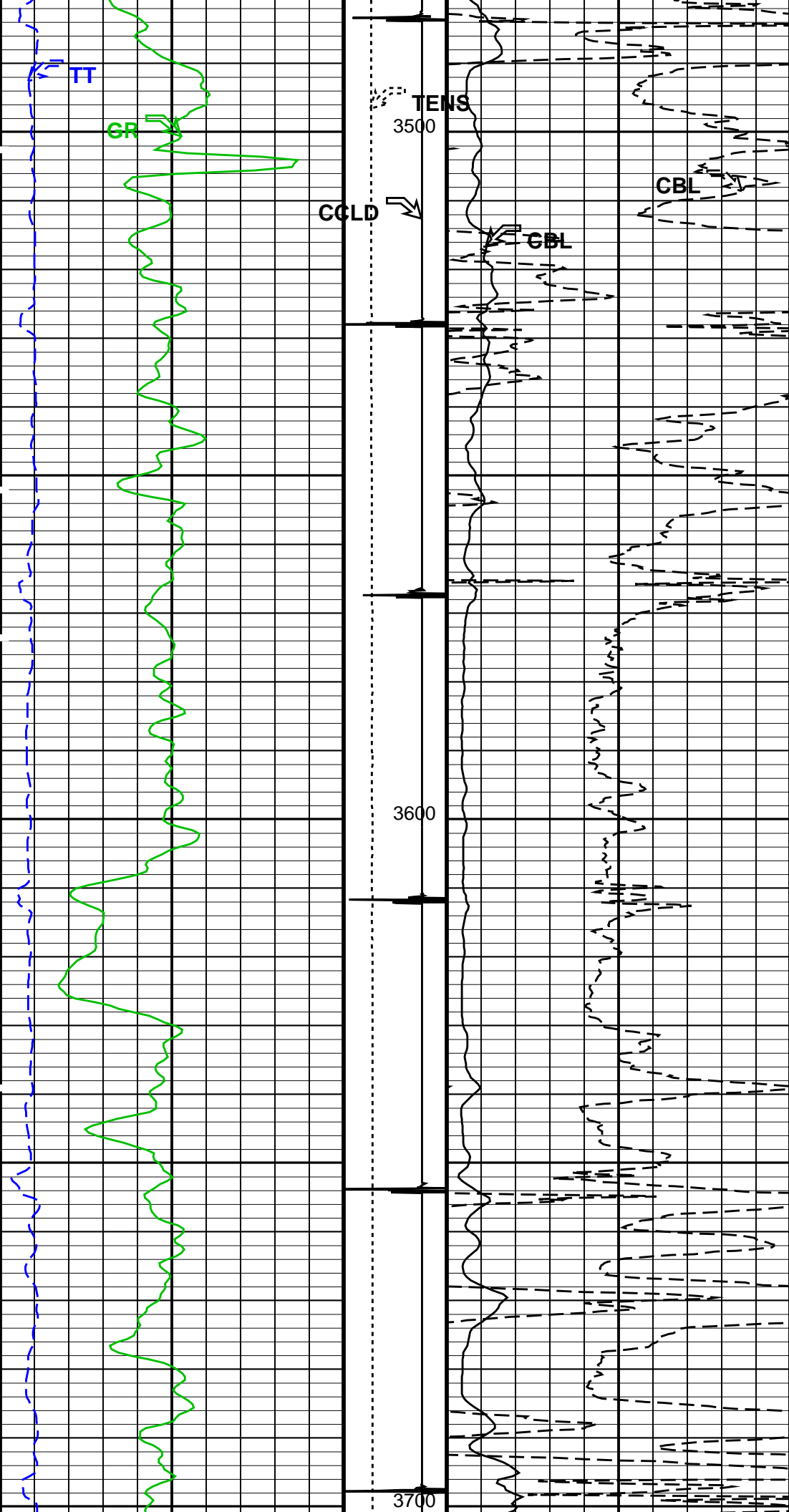


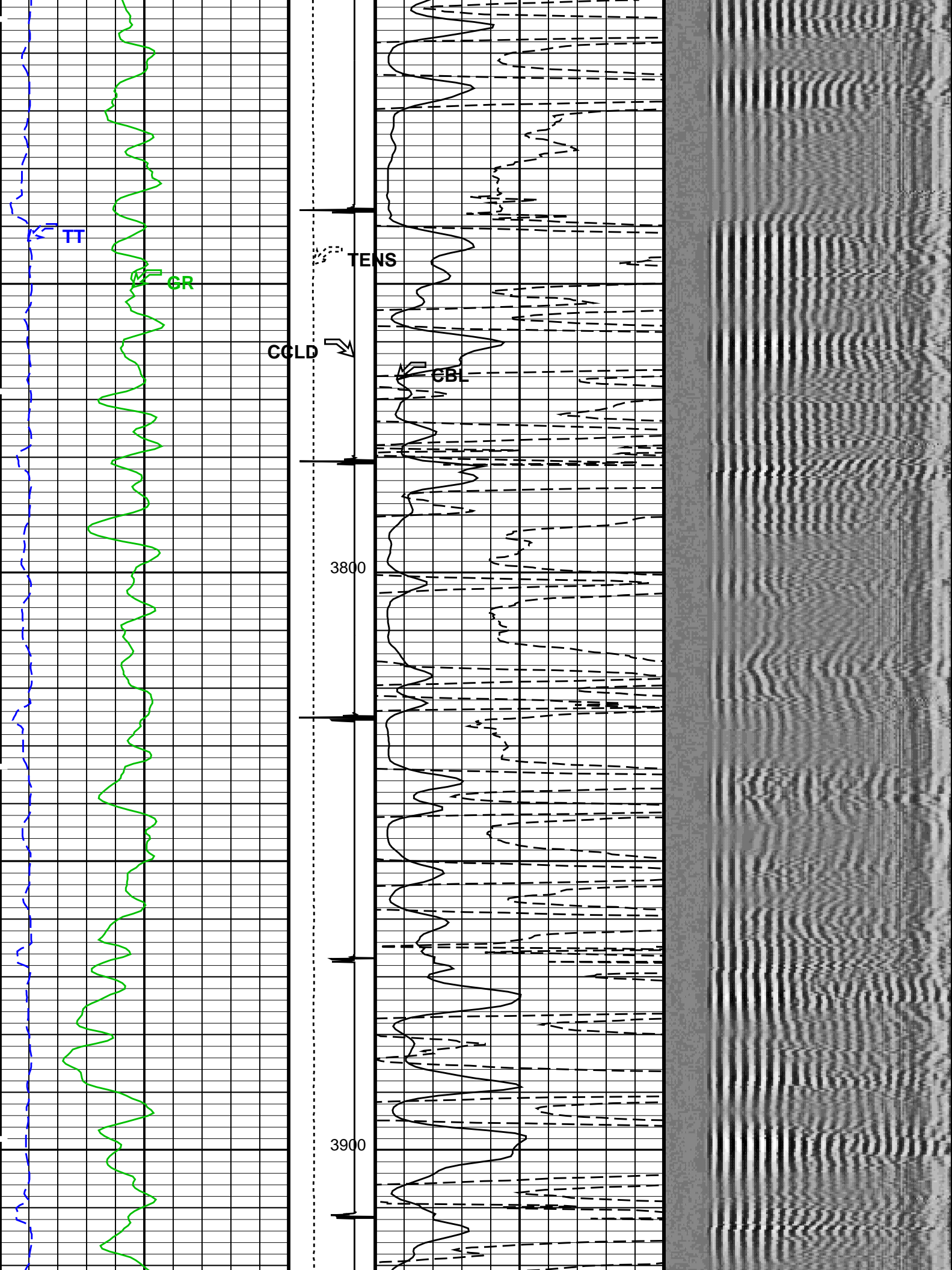


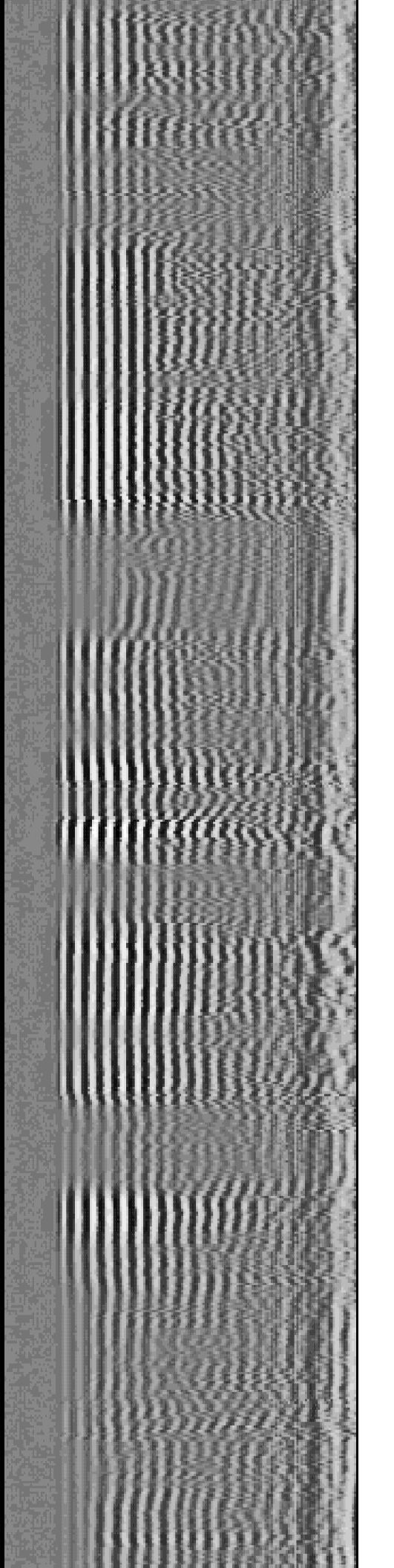
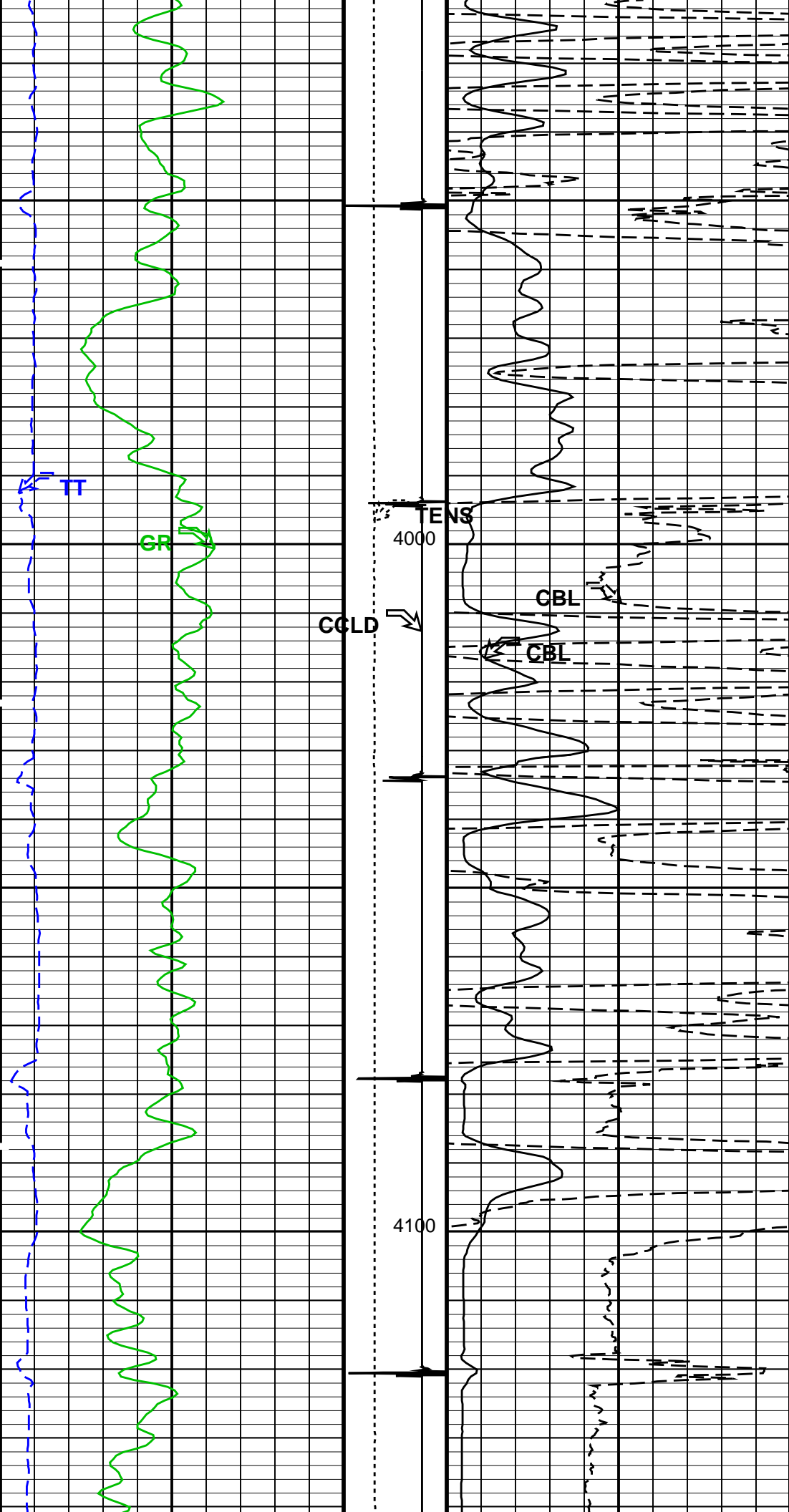


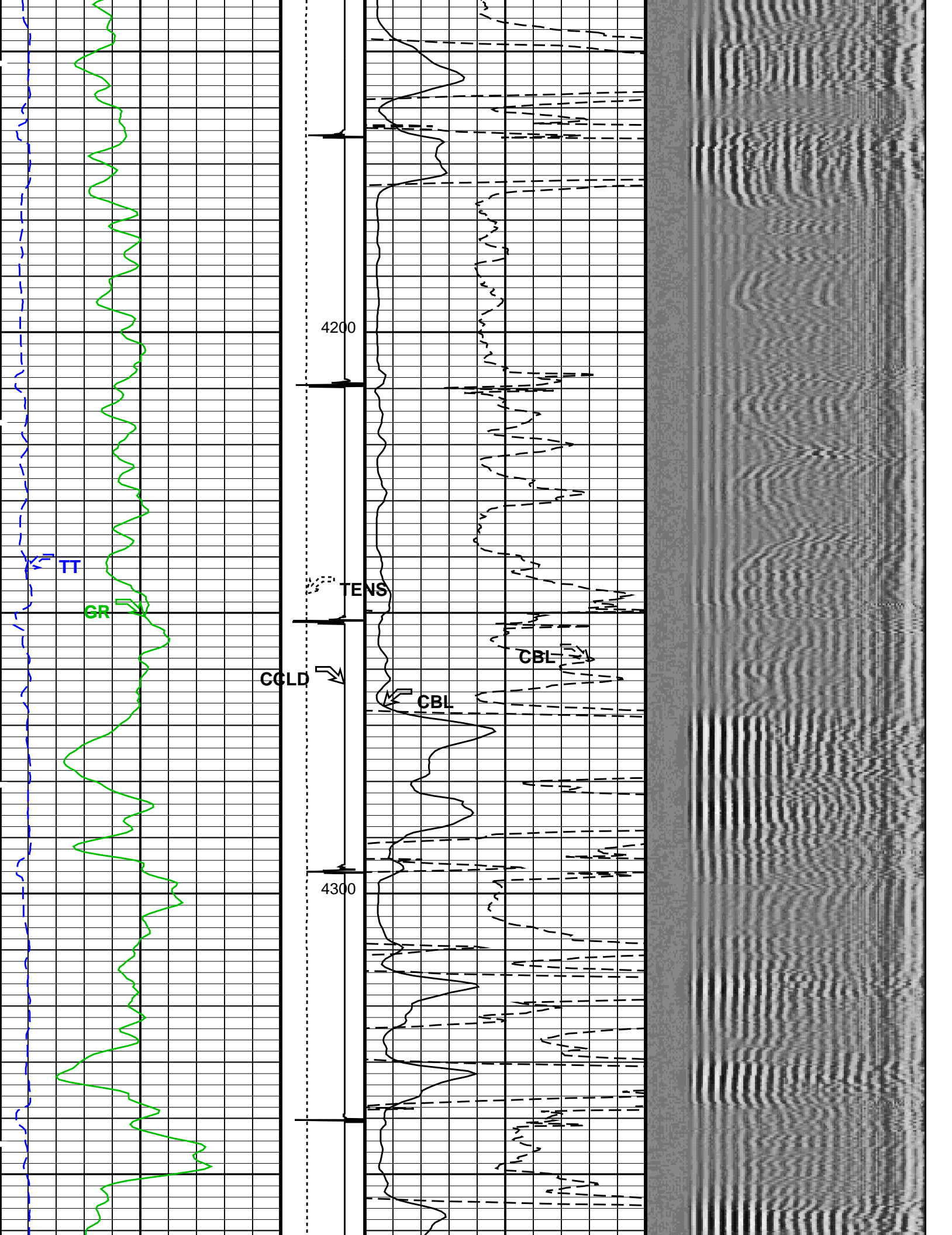




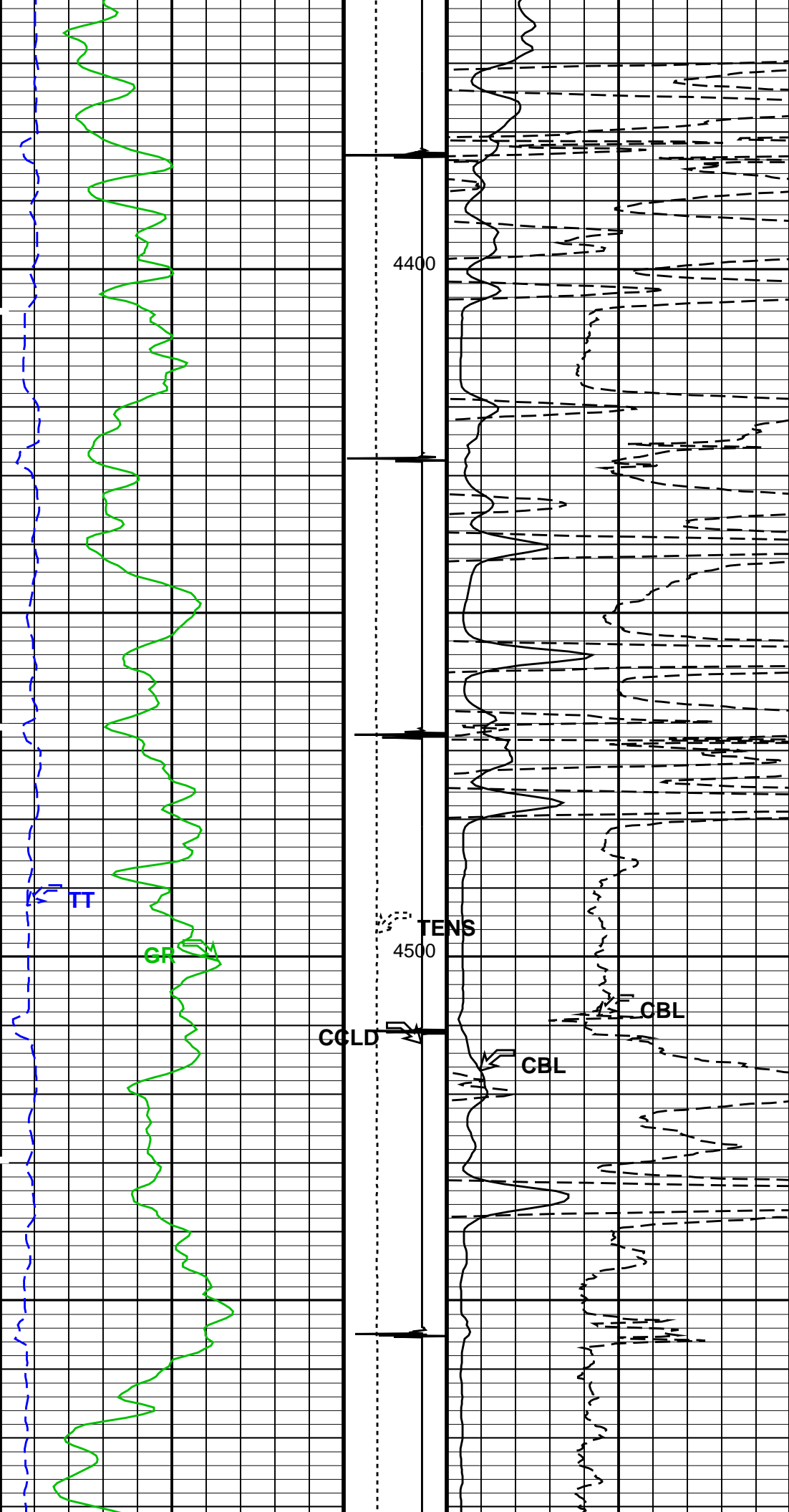


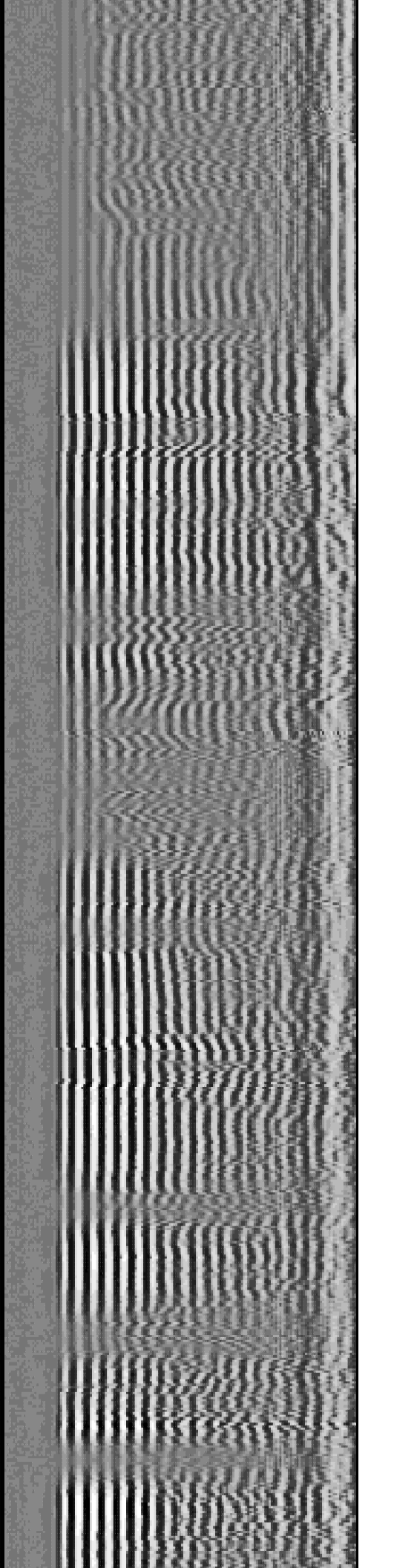
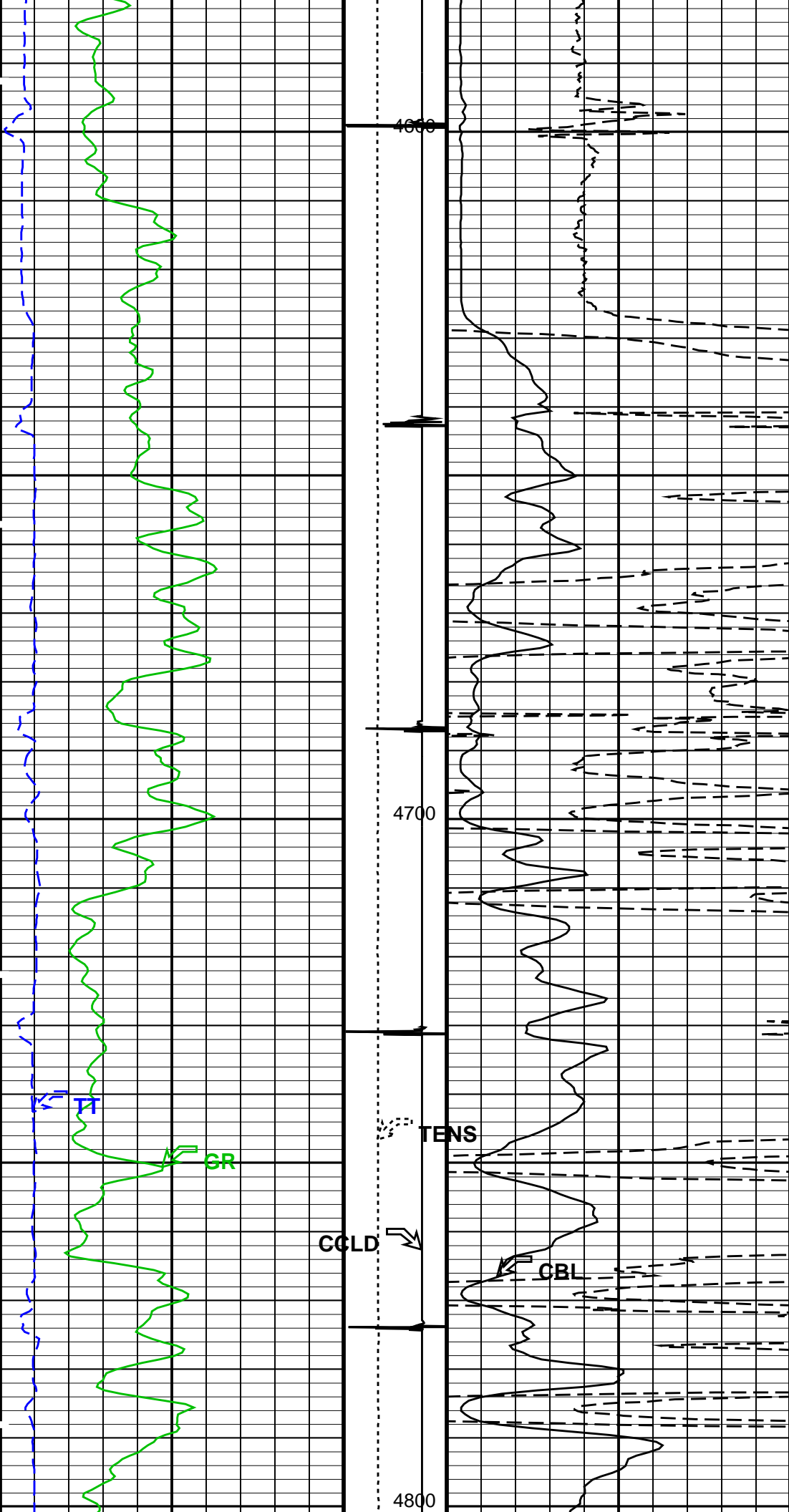


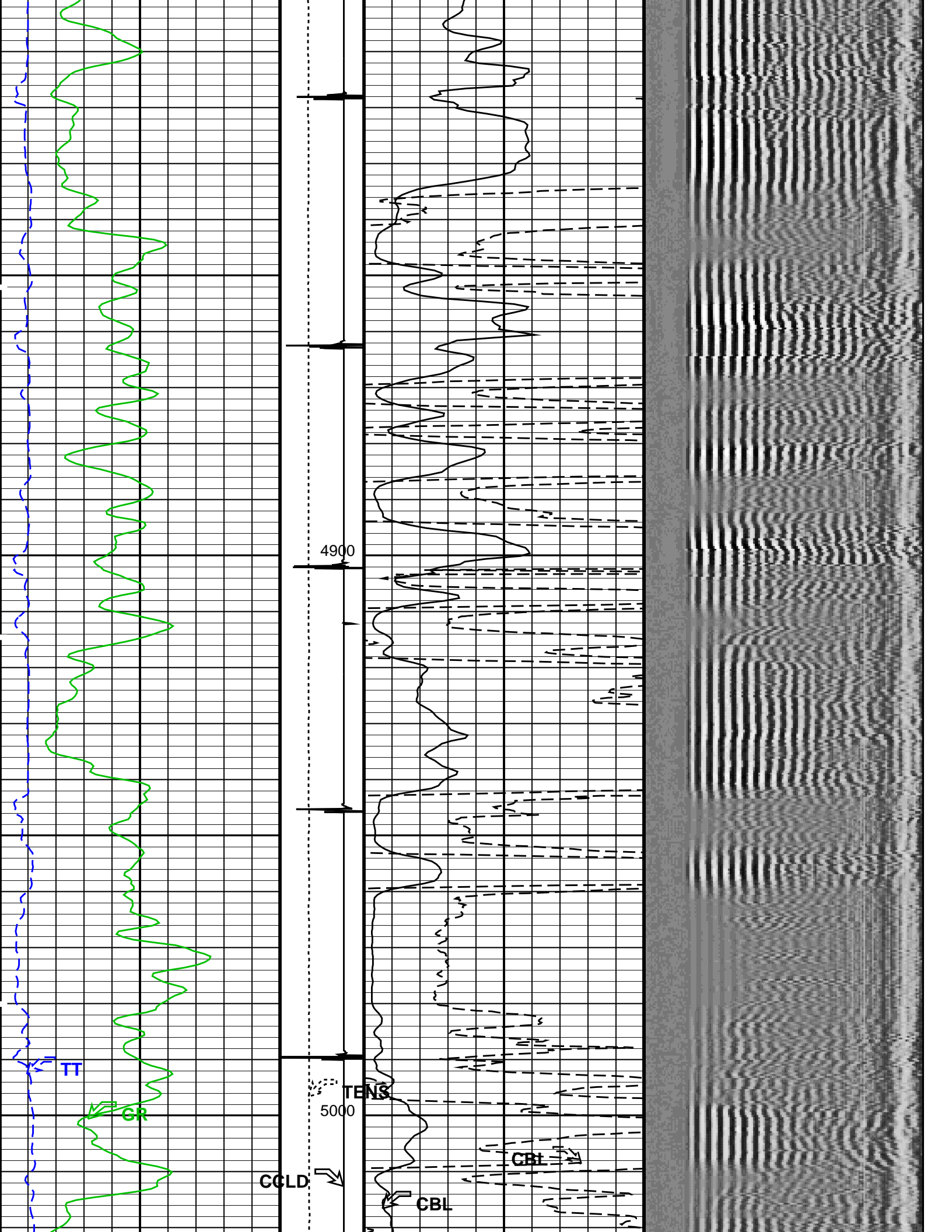


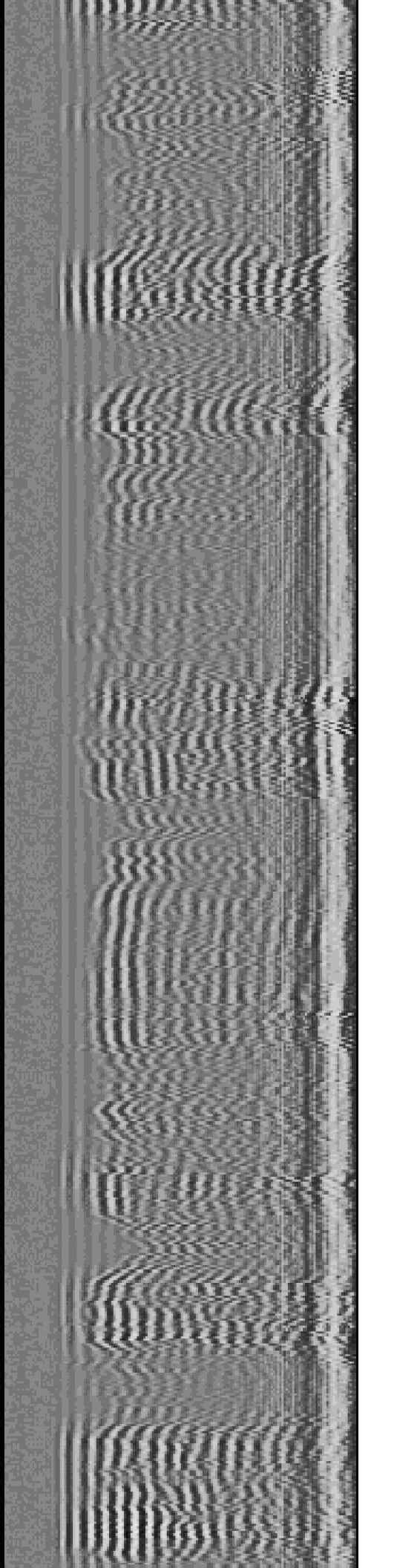
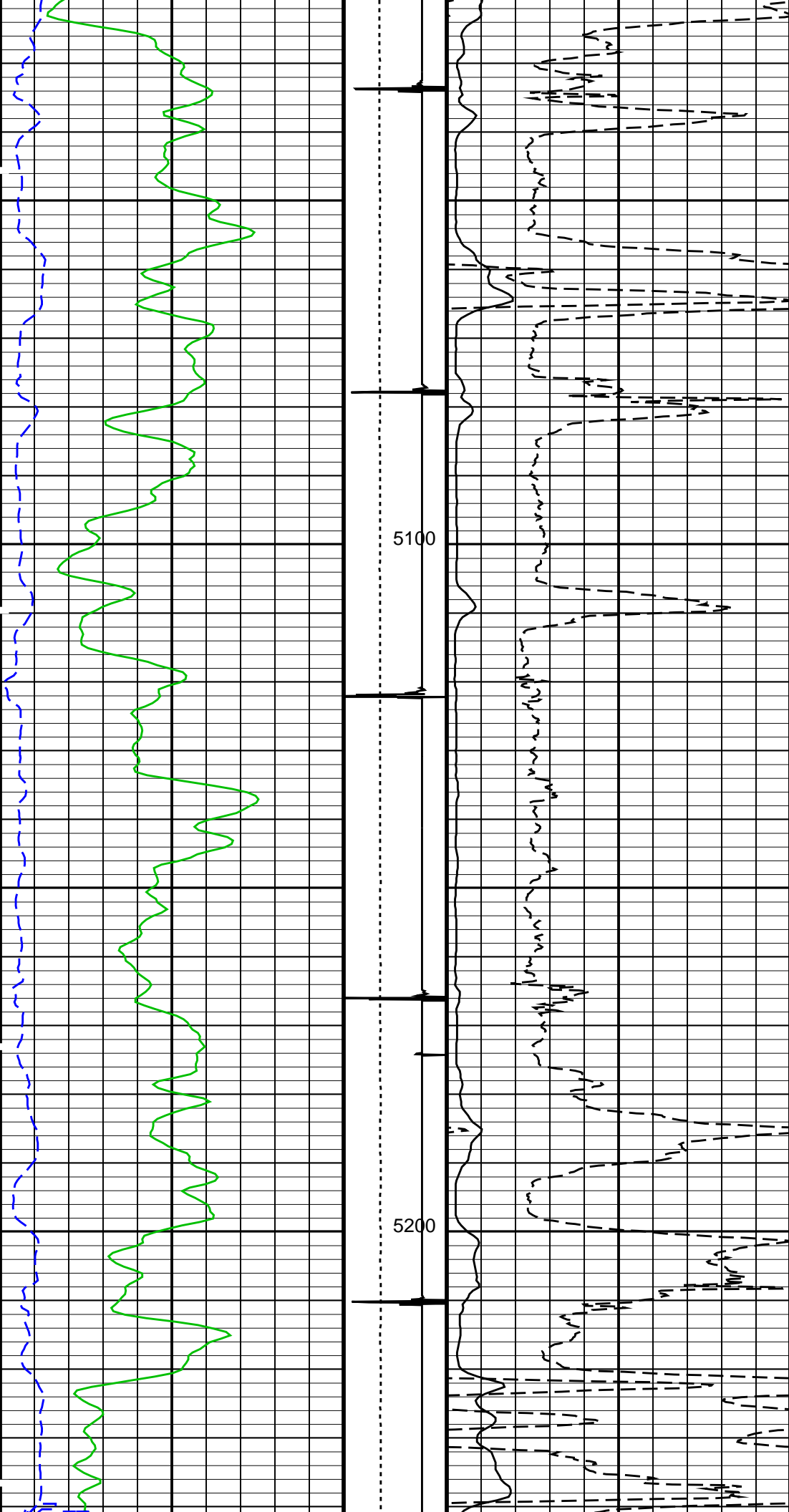




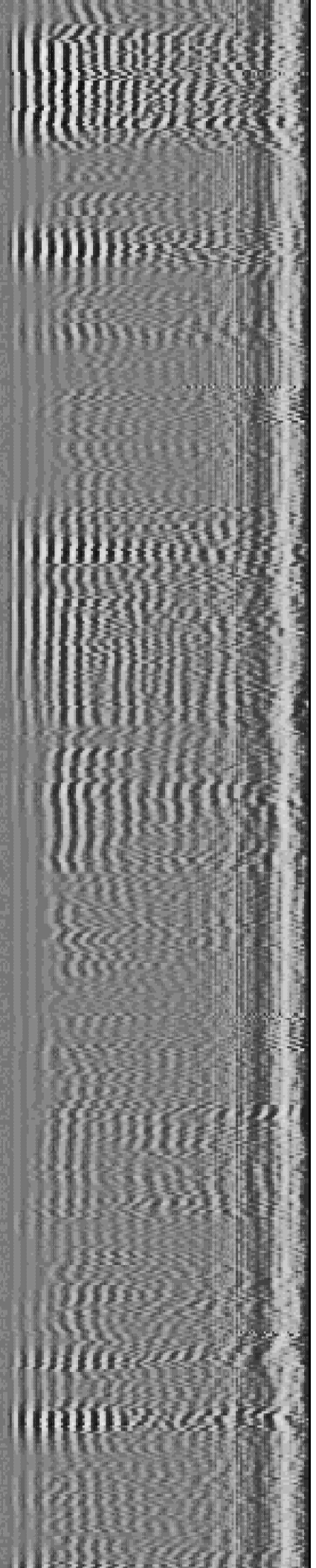
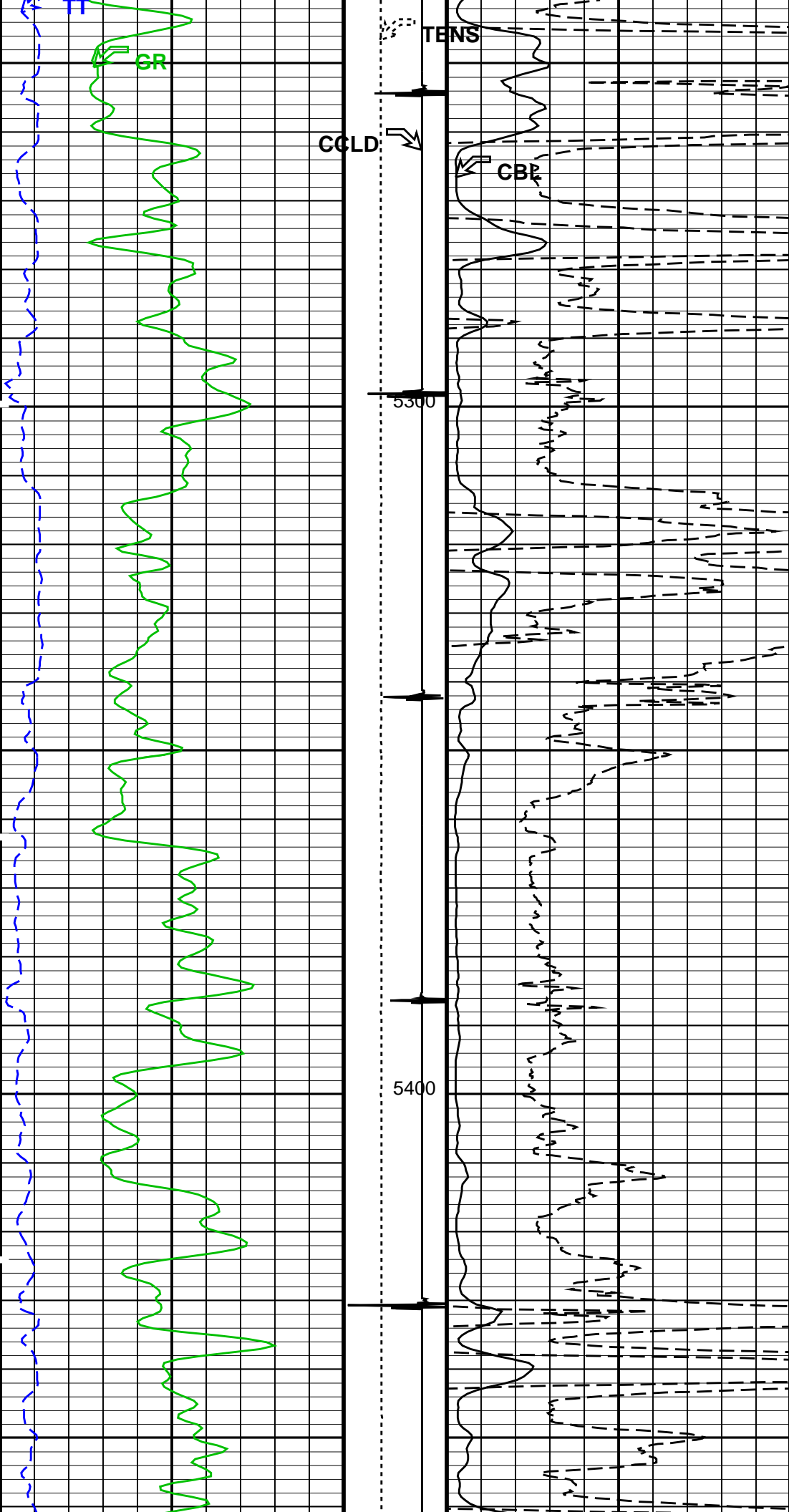


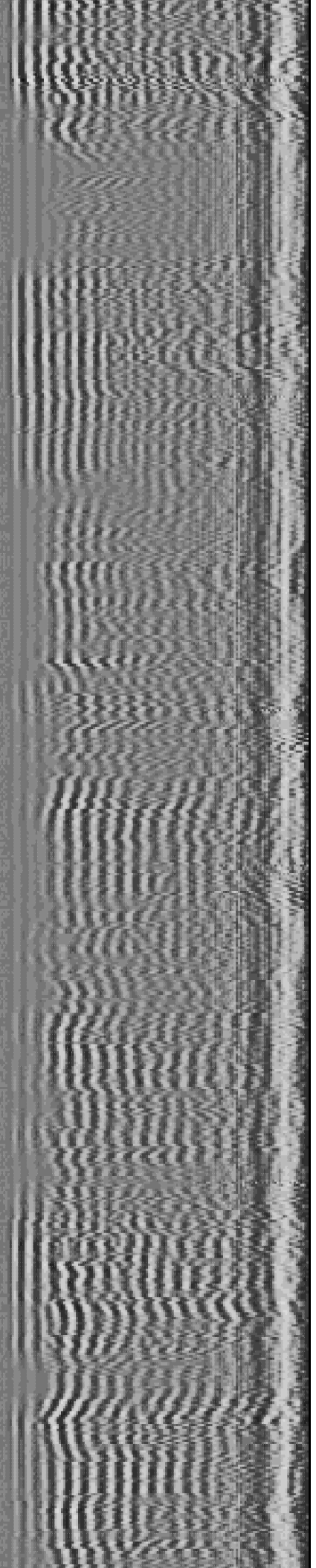
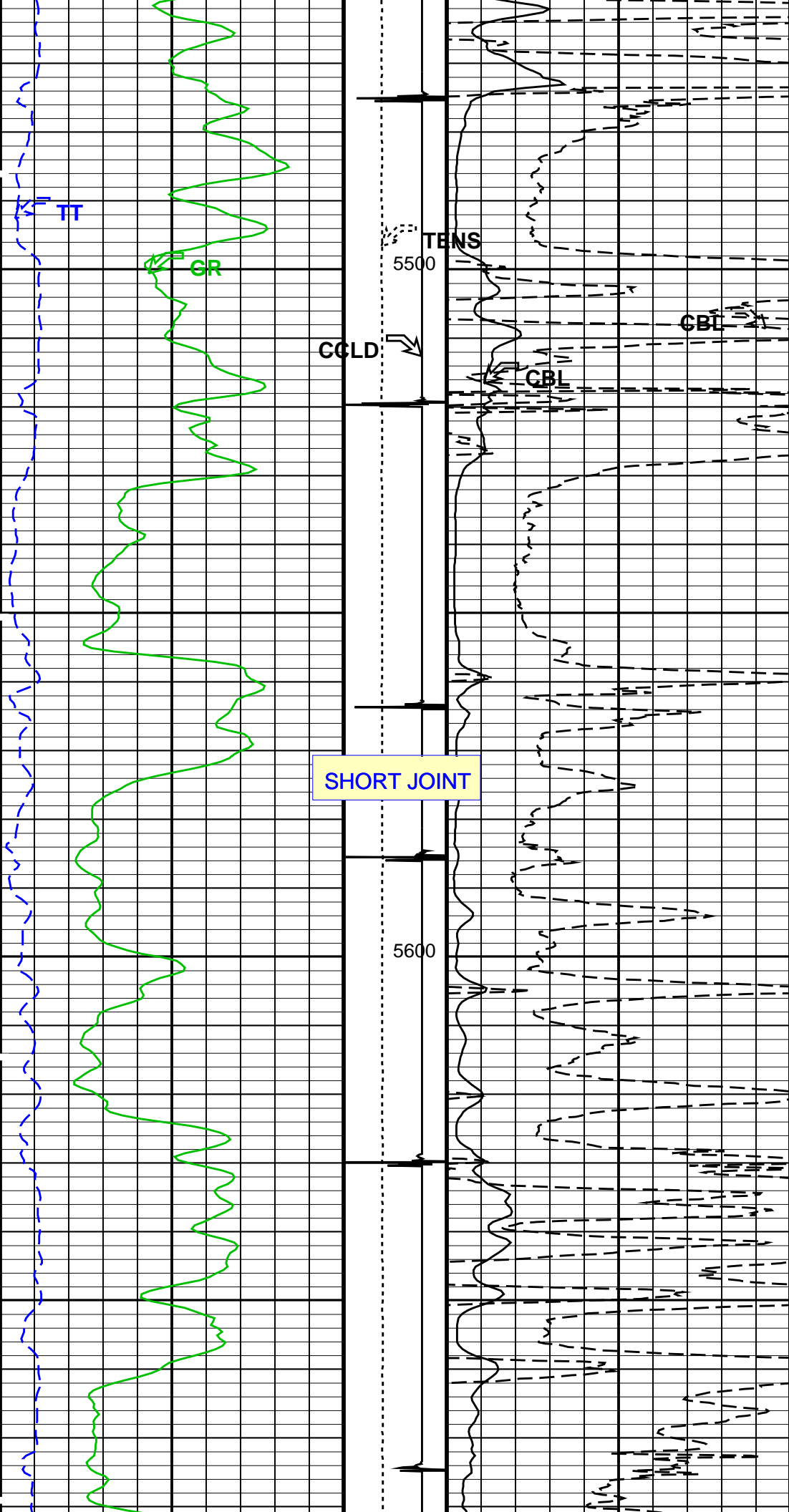


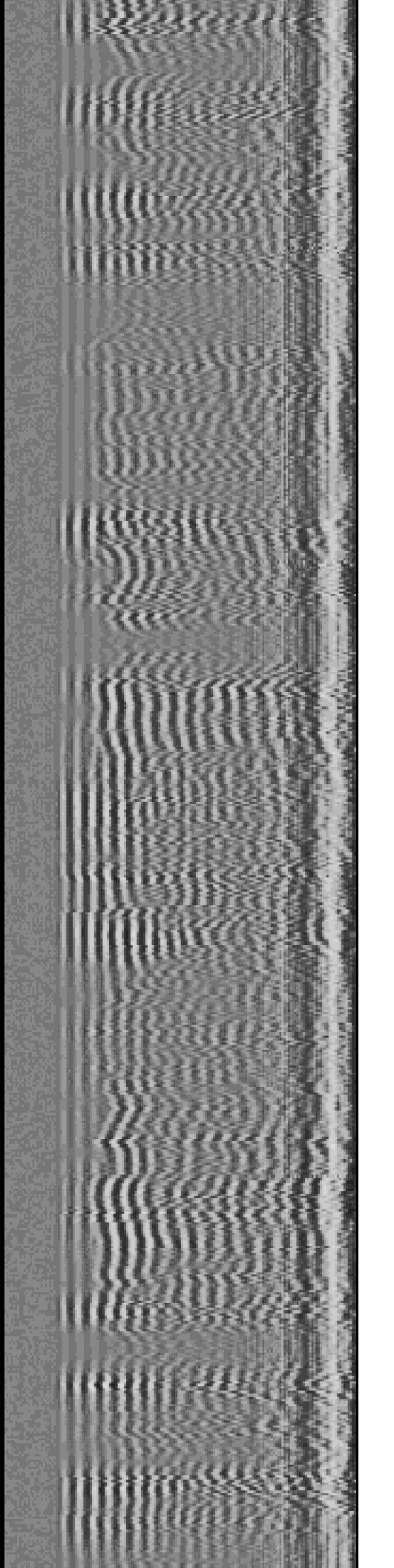
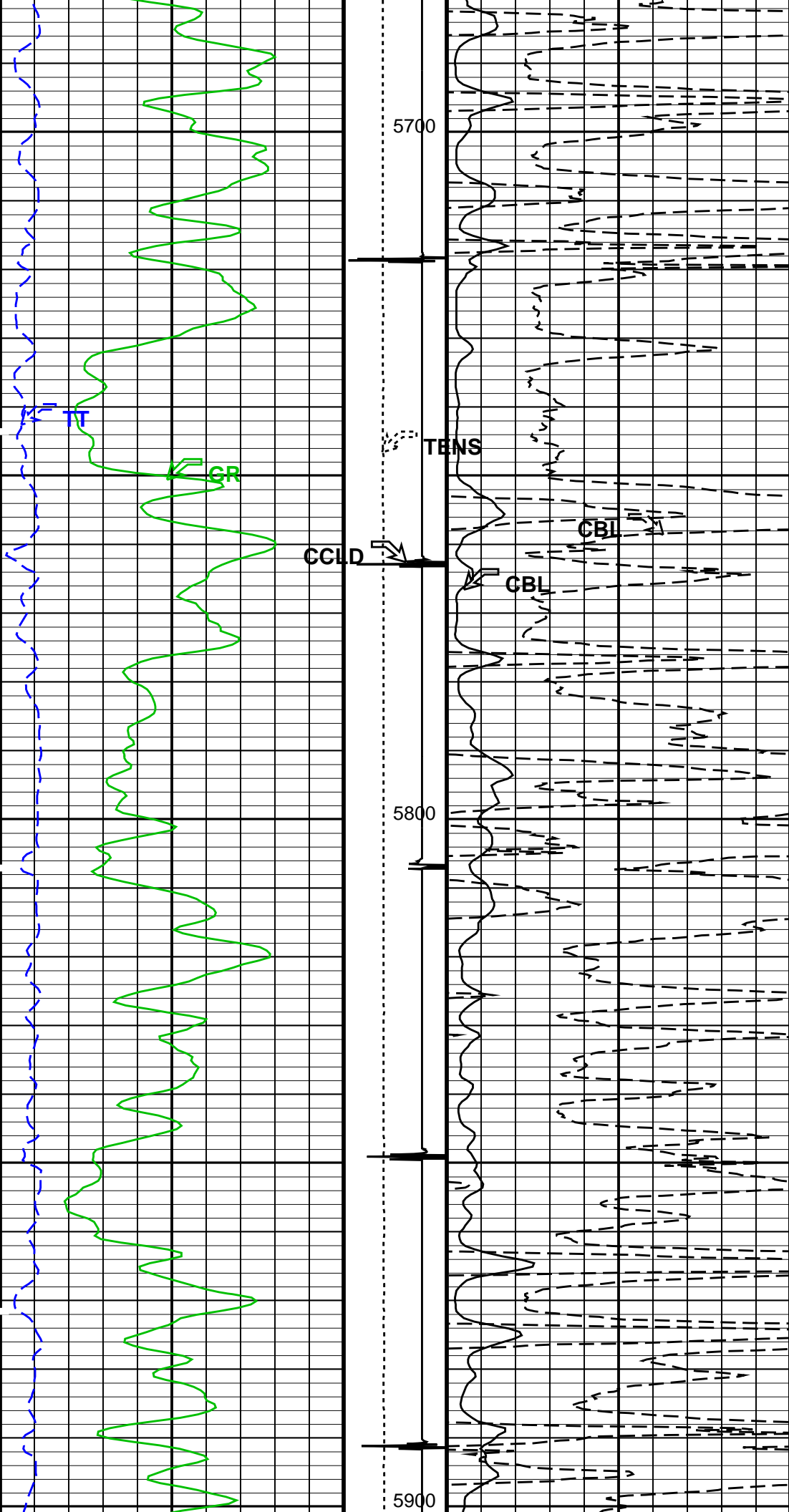




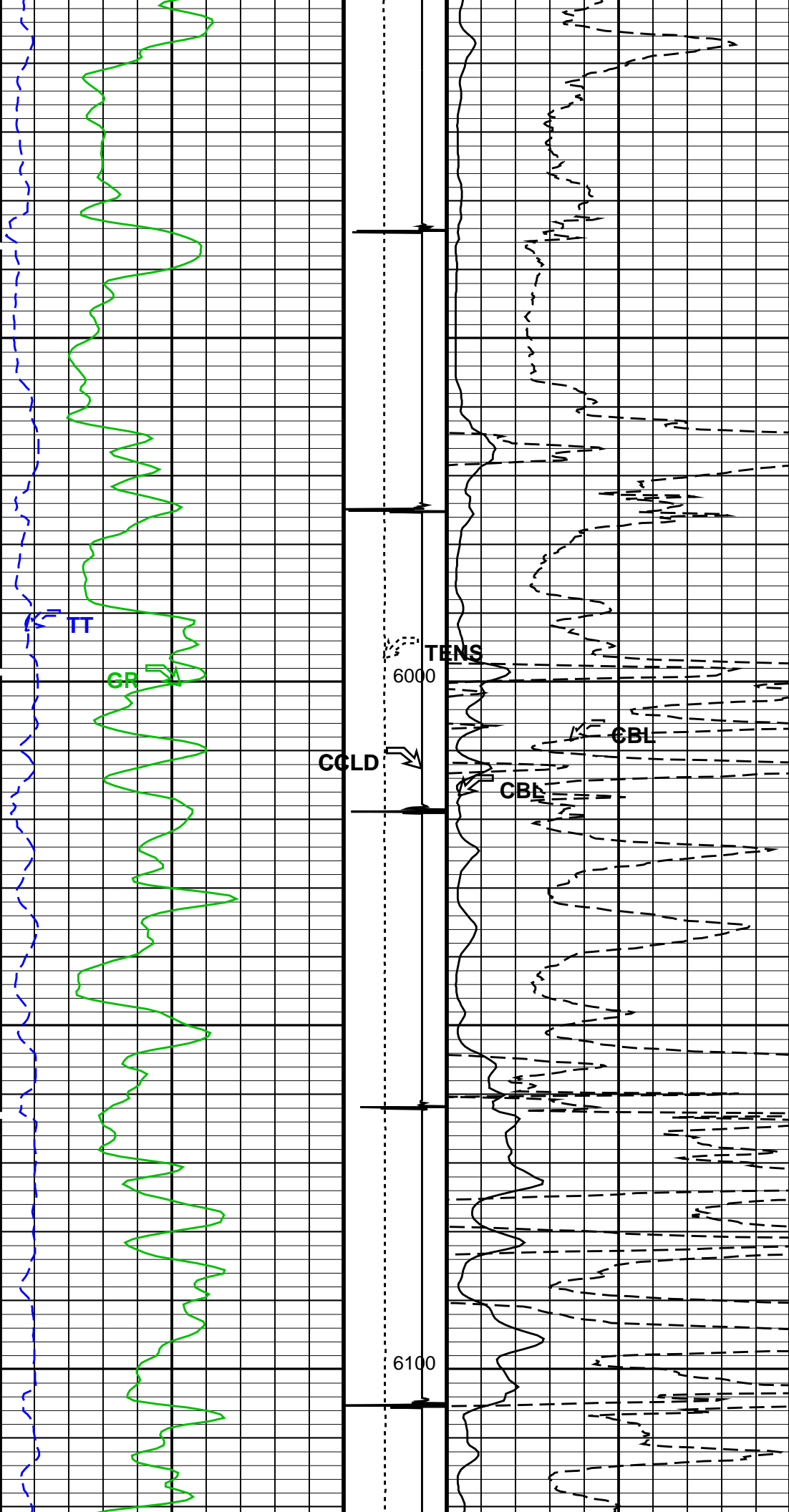


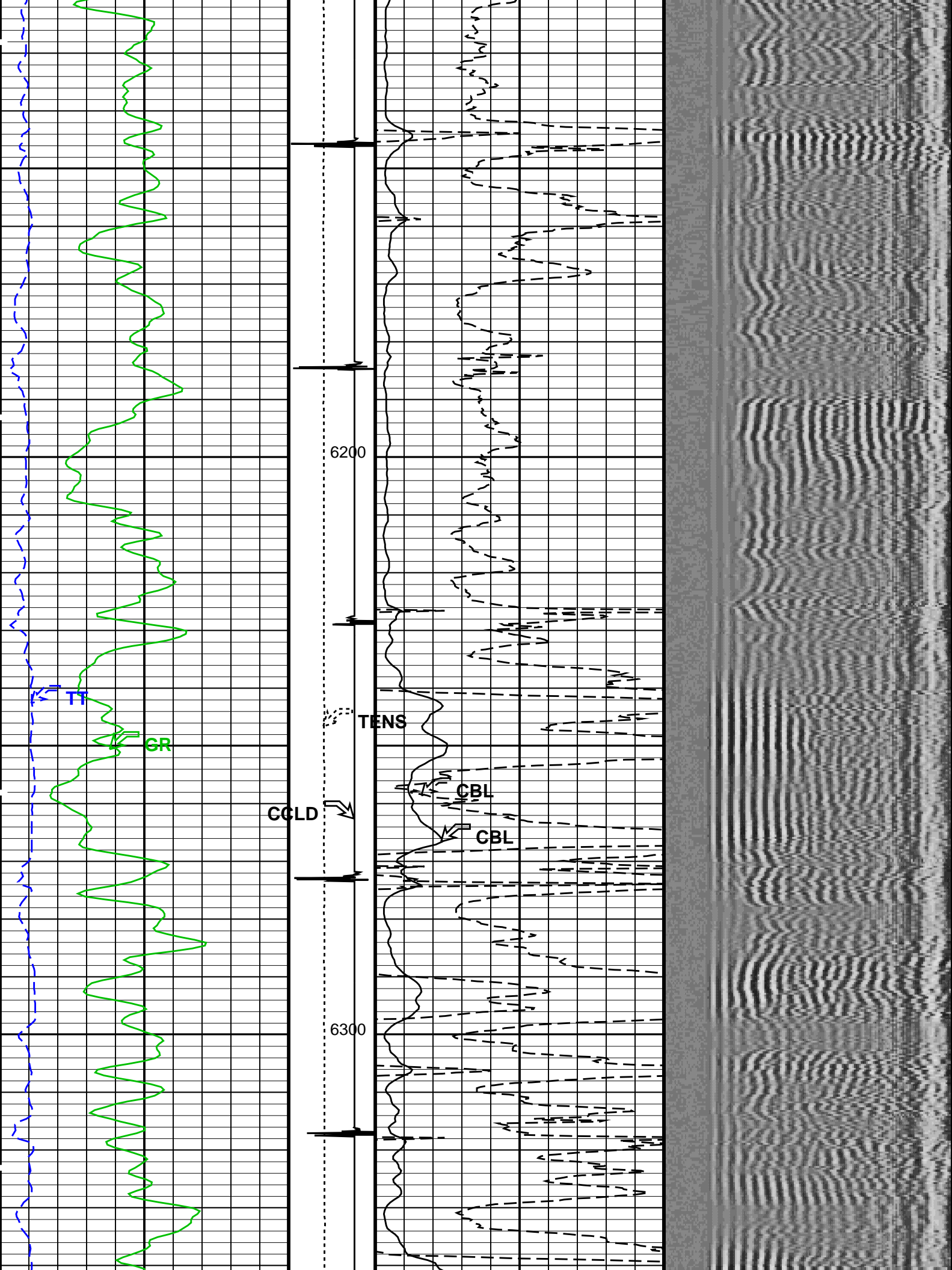


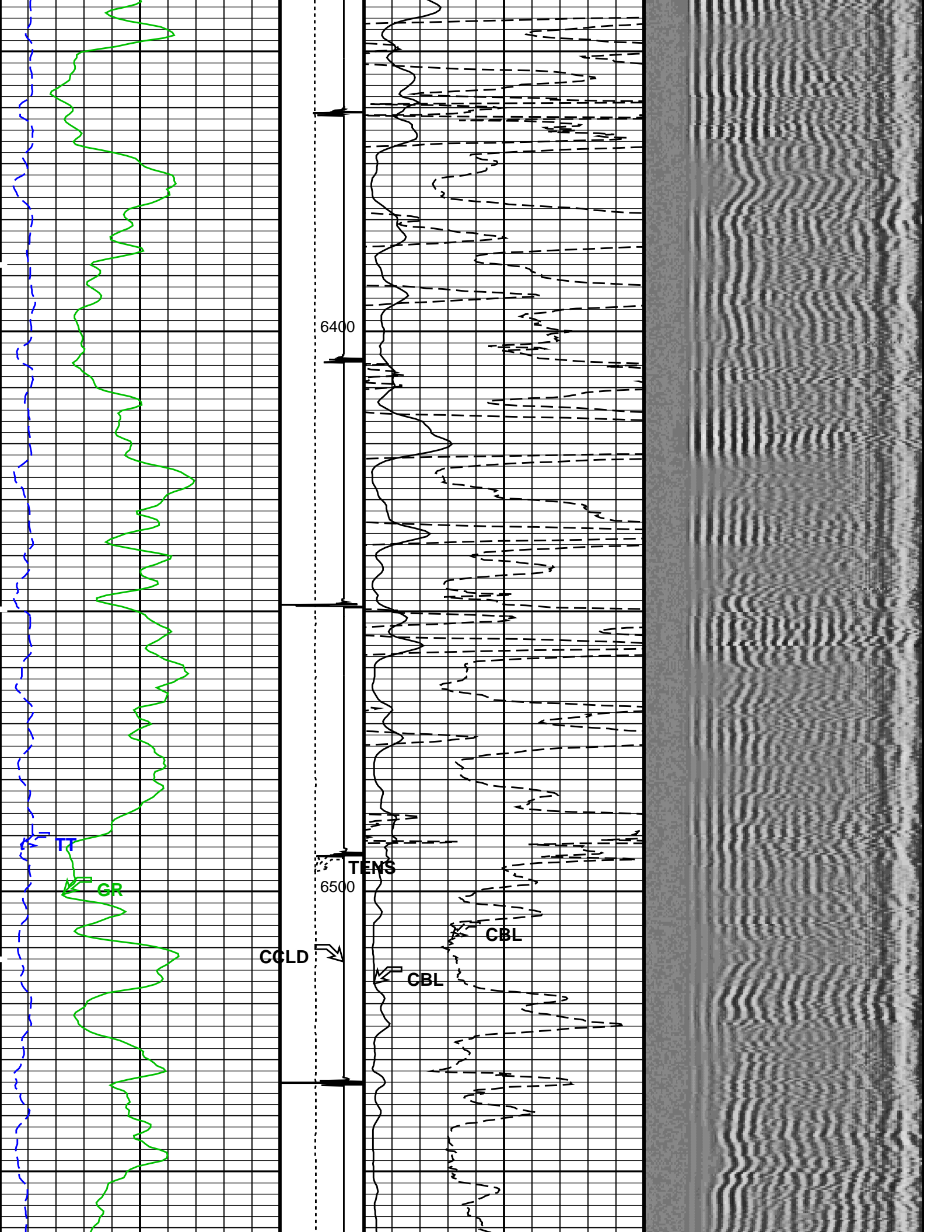




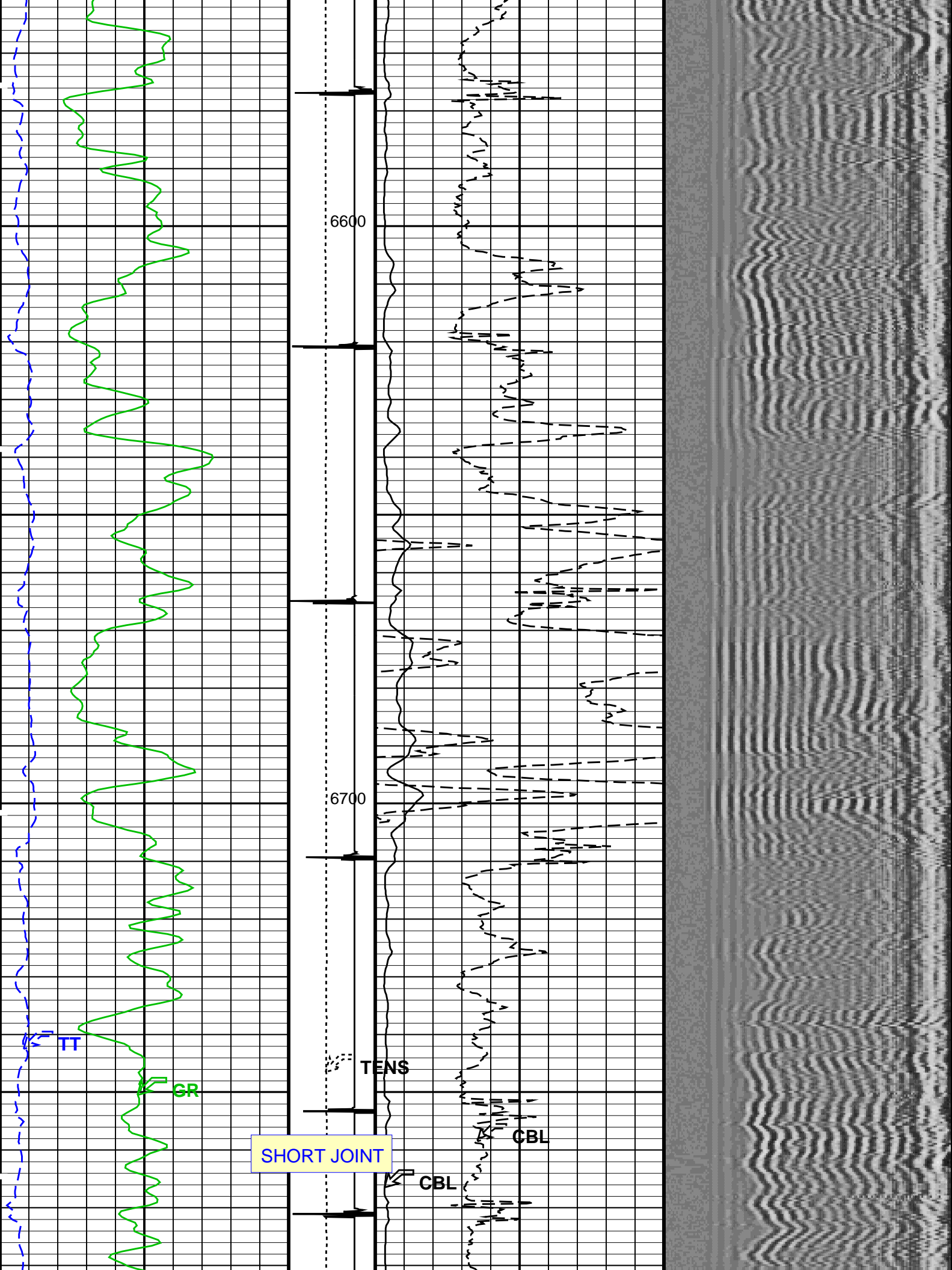


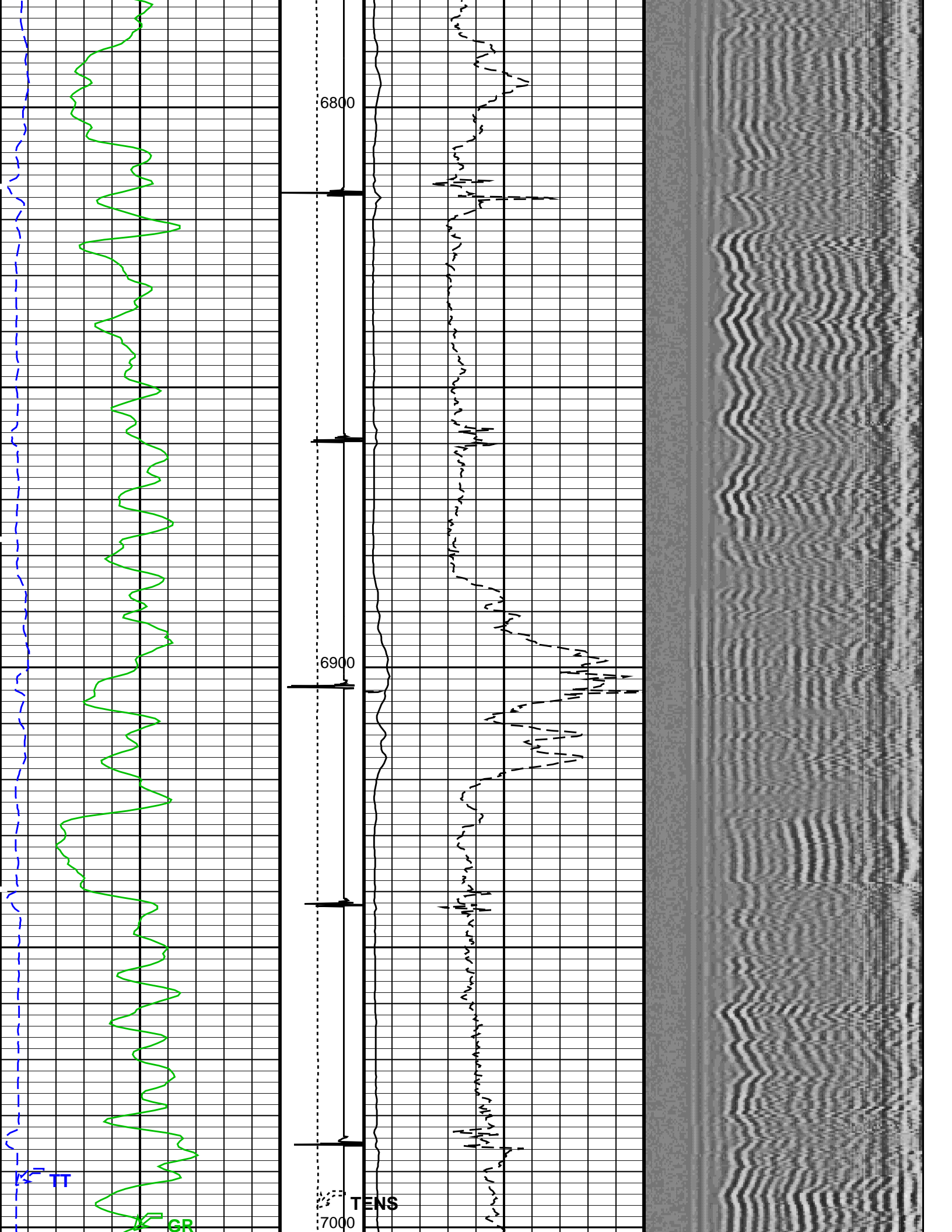




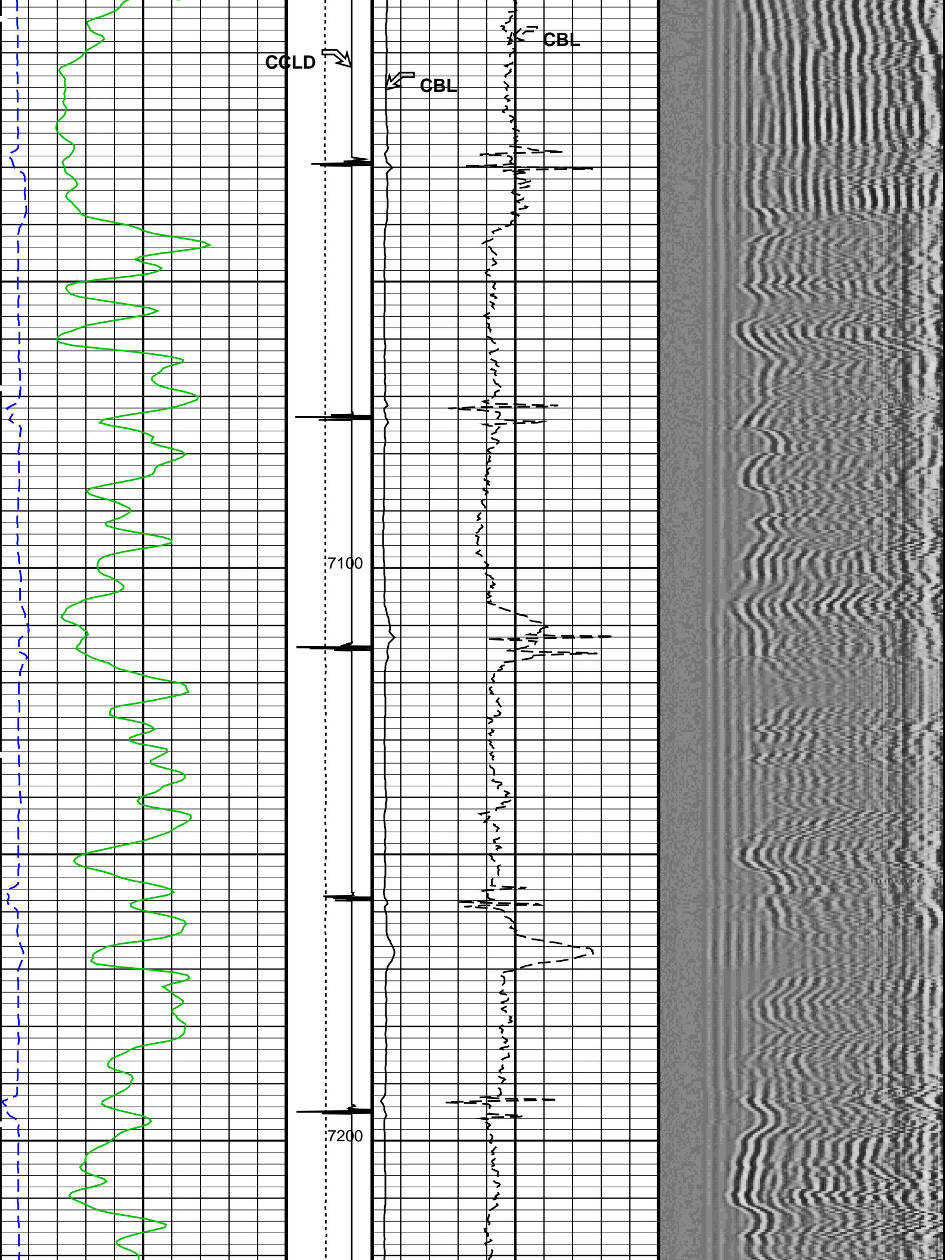


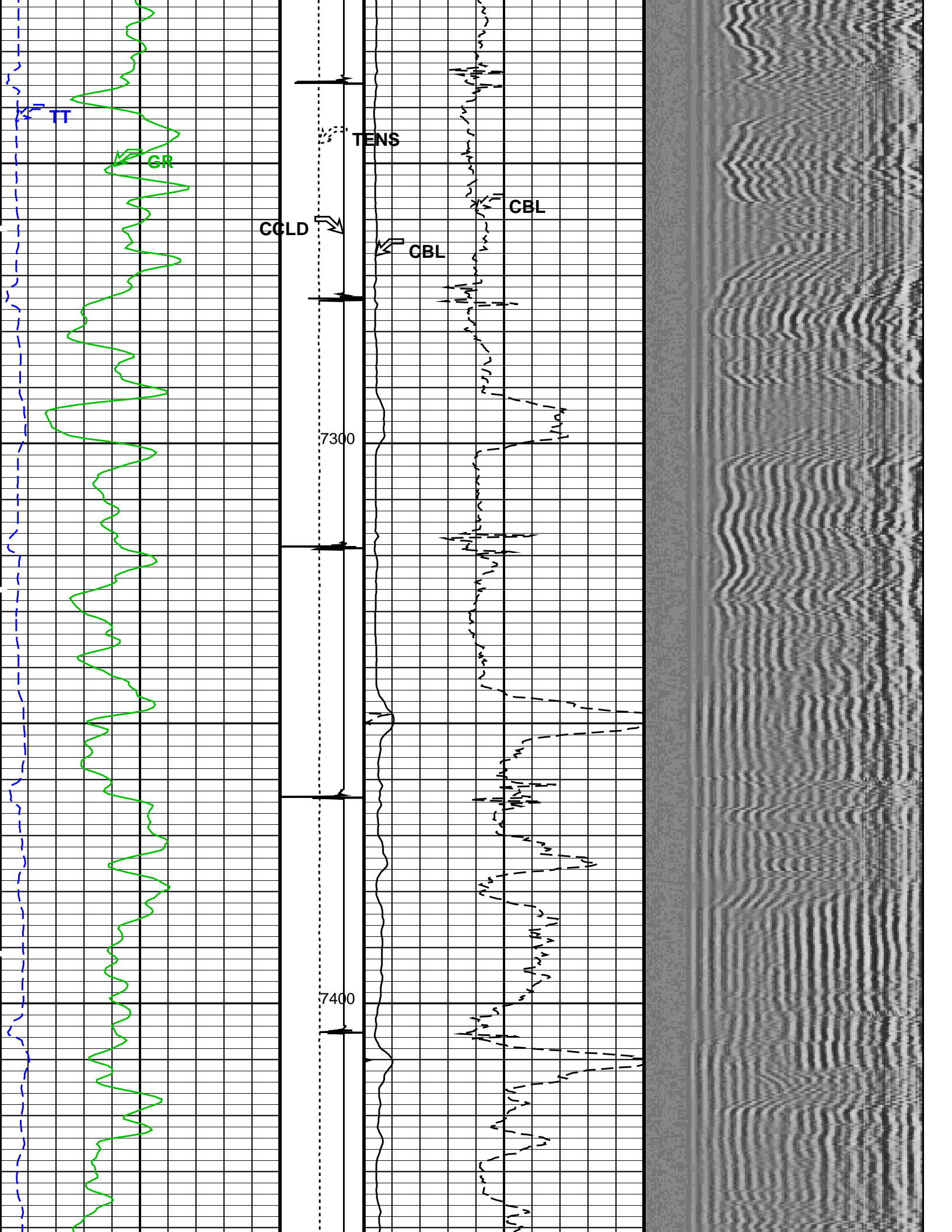


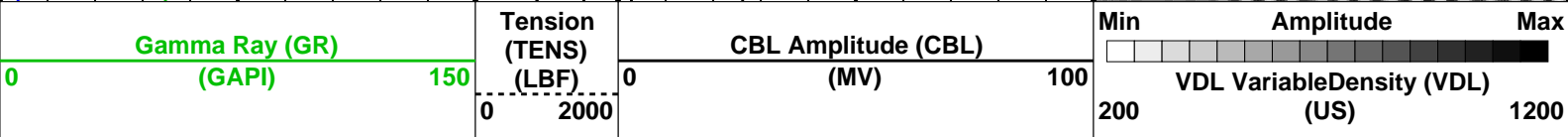
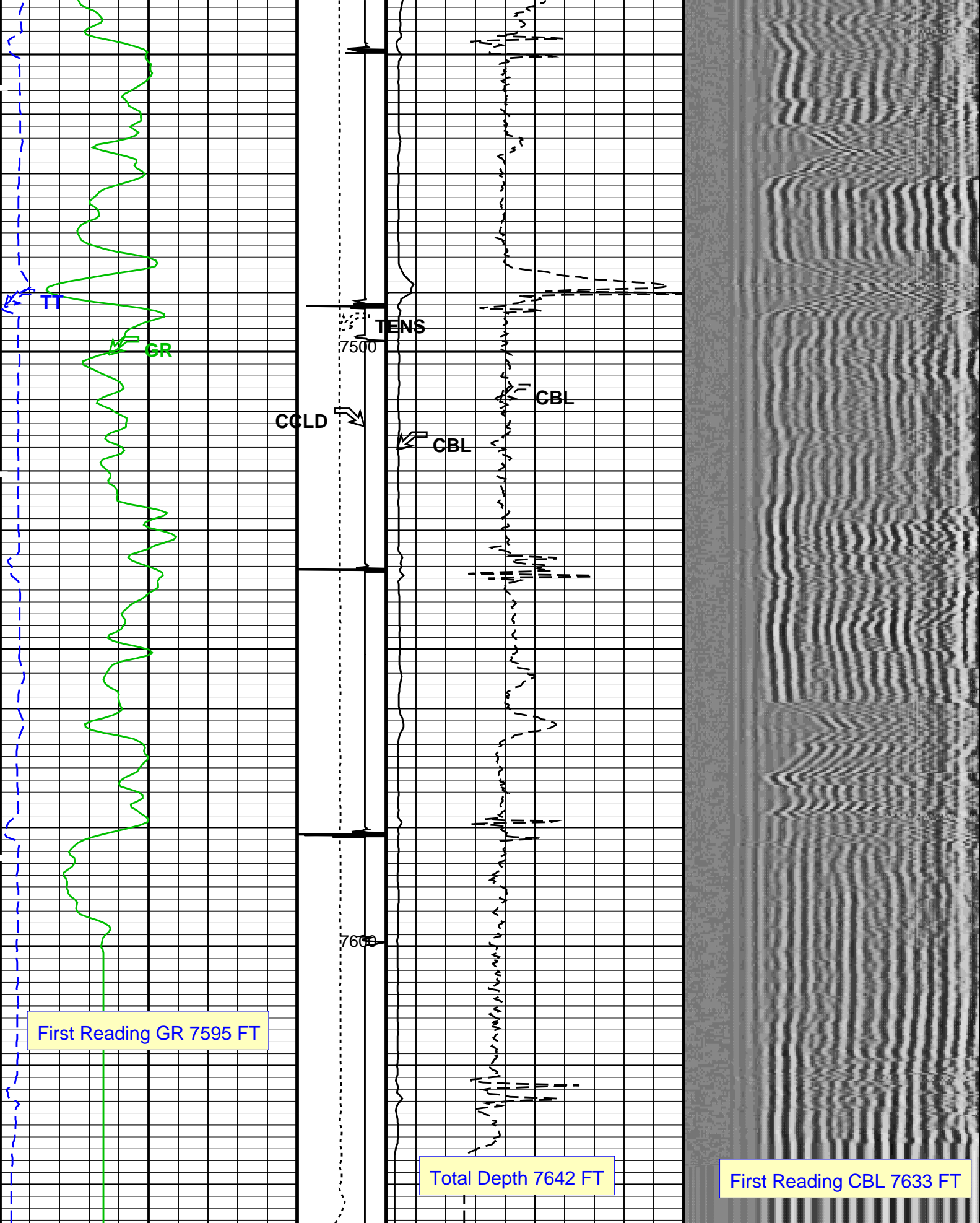












Transit Time (TT) (US)		Discriminat ed CCL (CCLD)	CBL Amplitude (CBL) (MV)	
260	160	3 (V) -1	0	10

PIP SUMMARY				
Time Mark Every 60 S				
Format: CBL_VDL		Vertical Scale: 5" per 100'		Graphics File Created: 14-Sep-2013 10:51

OP System Version: 19C0-187				
SCMT-CB	19C0-187	RST-C	19C0-187	
PSPT	19C0-187			

<<<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		6-MAR-2012		
CBL Correction Factor		0.0704263	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor		0.0993191	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor		0.0941329		
MAP 3 Correction Factor		0.101552		
MAP 4 Correction Factor		0.114415		
MAP 5 Correction Factor		0.127992		
MAP 6 Correction Factor		0.121190		
MAP 7 Correction Factor		0.112867		
MAP 8 Correction Factor		0.102913		

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		

PEDE	Peak Detection On/Off Switch in Playback	OFF	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	2.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	7642	FT

### Input DLIS Files

DEFAULT	SCMT_RST_PSP_039LUP	FN:37	PRODUCER	14-Sep-2013 08:46	7644.5 FT	2.5 FT
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### Output DLIS Files

DEFAULT	SCMT_RST_PSP_042PUP	FN:40	PRODUCER	14-Sep-2013 10:51
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**Schlumberger**

## REPEAT ANALYSIS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC	Well: HAGEN 22-3B (PC22)
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### Input DLIS Files

DEFAULT	SCMT_RST_PSP_037LUP	FN:35	PRODUCER	14-Sep-2013 08:34	5783.0 FT	5457.0 FT
DEFAULT	SCMT_RST_PSP_042PUP	FN:40	PRODUCER	14-Sep-2013 10:51	7646.5 FT	-40.0 FT

### Output DLIS Files

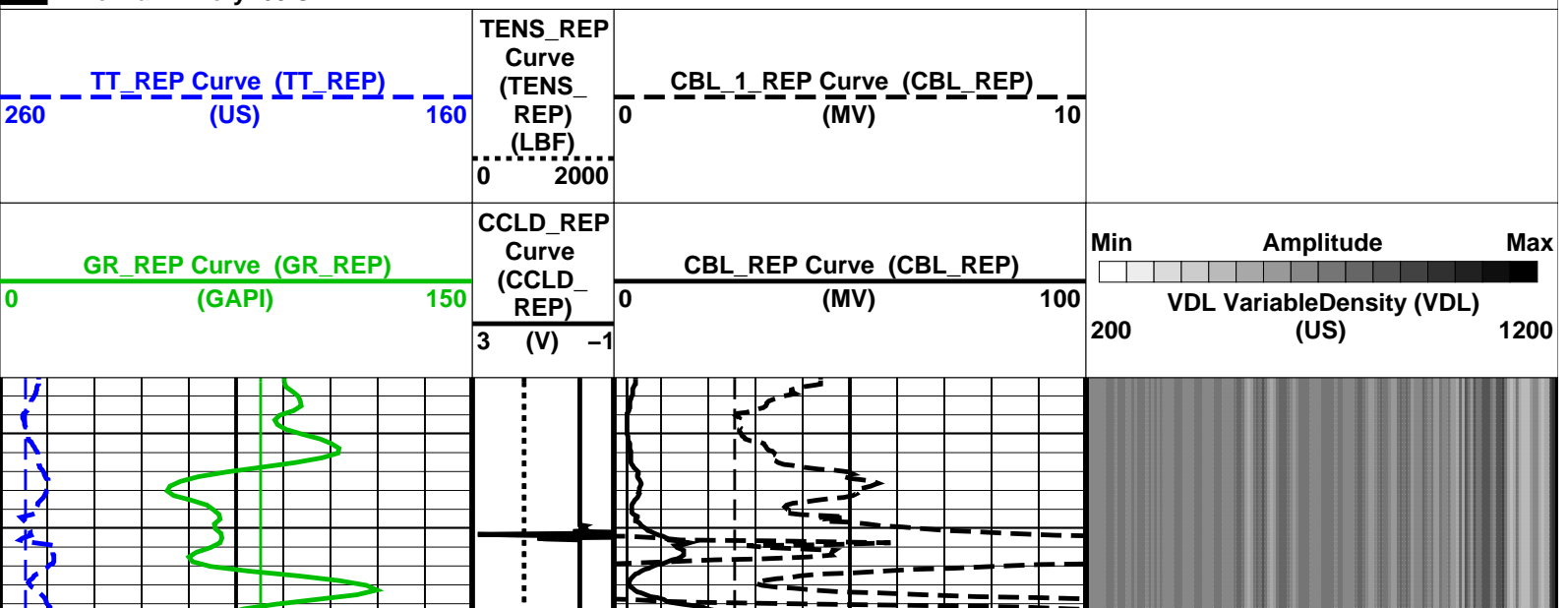
DEFAULT	SCMT_RST_PSP_044PUP	FN:42	PRODUCER	14-Sep-2013 10:59	5784.0 FT	5413.5 FT
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### OP System Version: 19C0-187

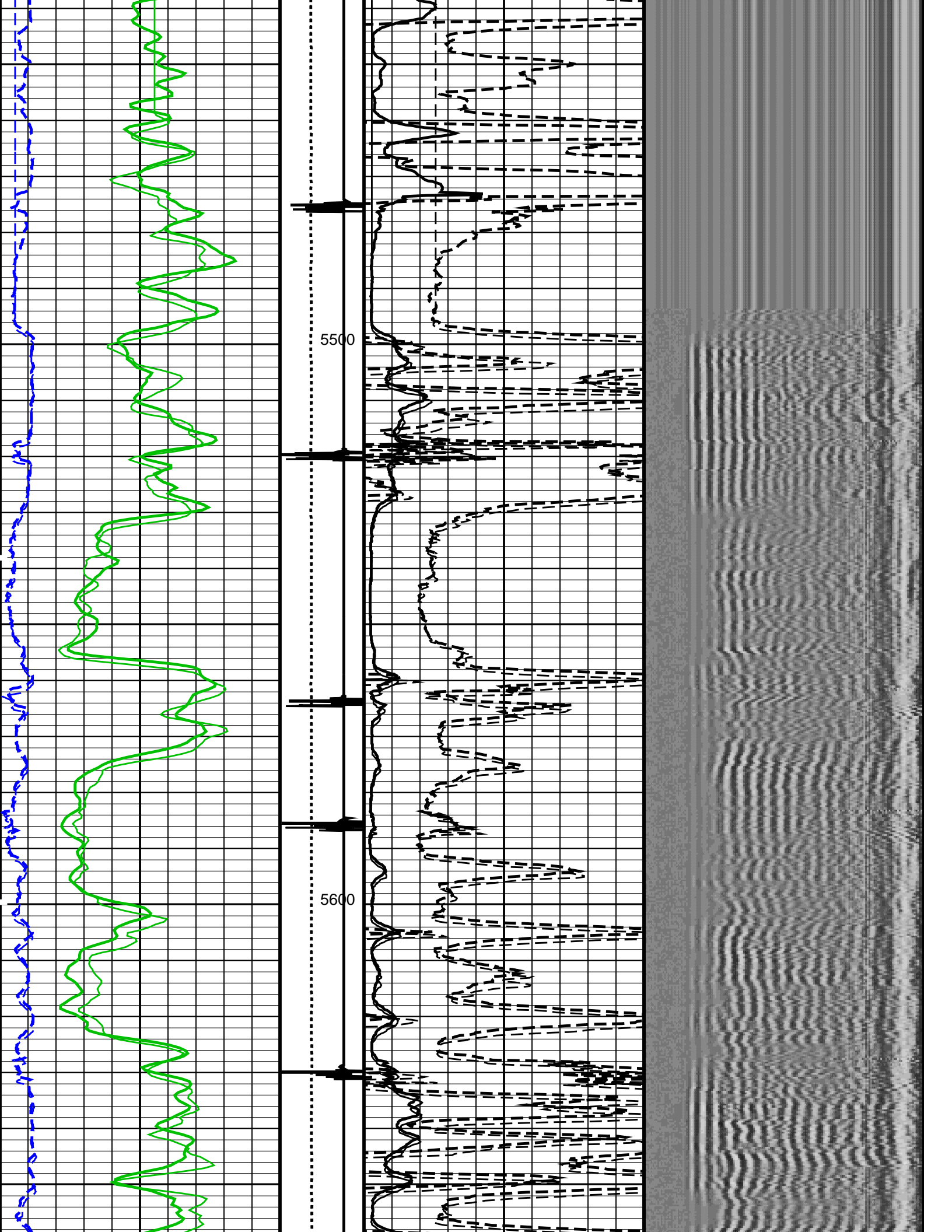
SCMT-CB	19C0-187	RST-C	19C0-187
PSPT	19C0-187		

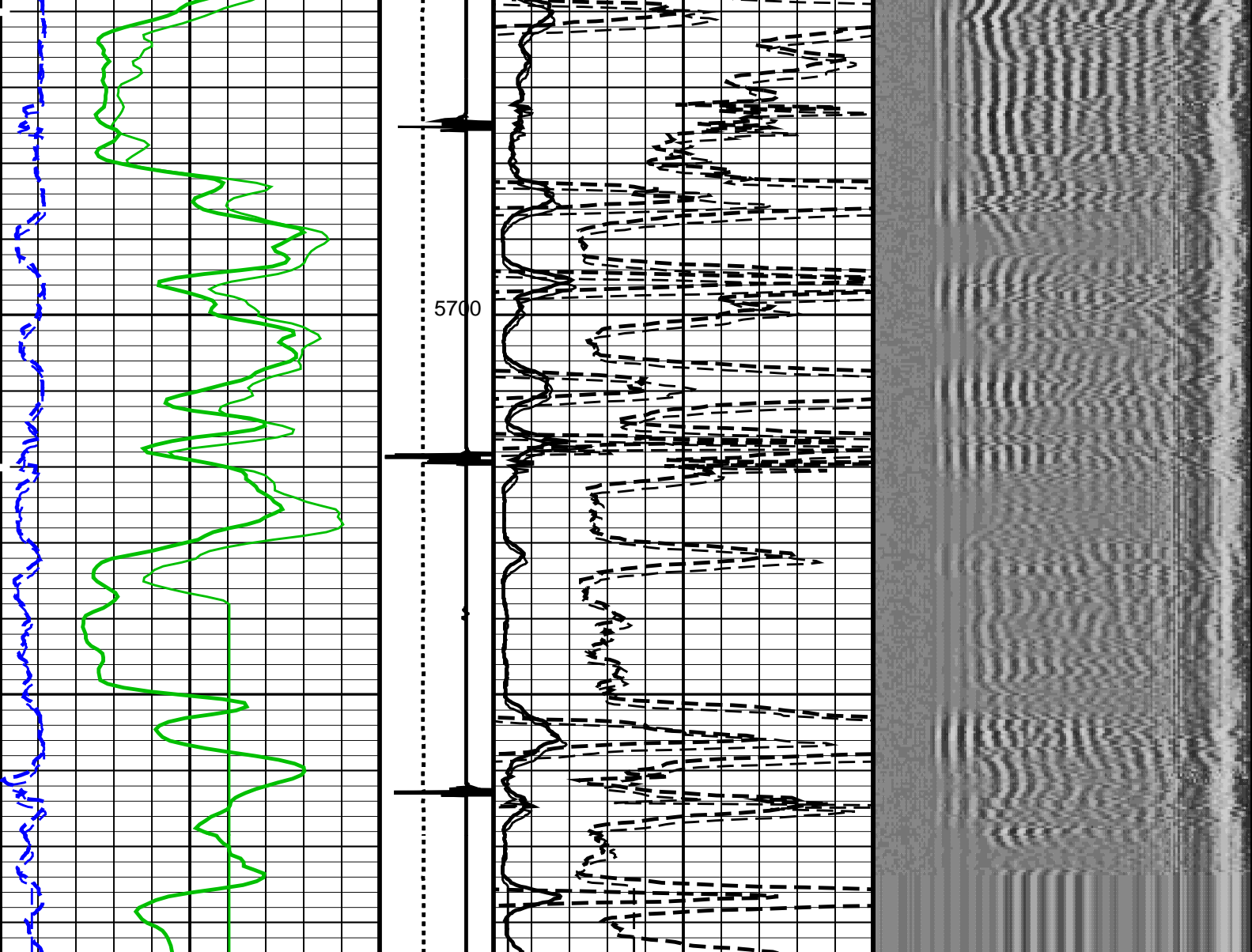
### PIP SUMMARY

☒ 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)
0	150	3 -1	0 100	
TT_REP Curve (TT_REP) (US)		TENS_REP Curve (TENS_REP) (LBF)	CBL_1_REP Curve (CBL_REP) (MV)	
260	160	0 2000	0 10	

PIP SUMMARY

Time Mark Every 60 S

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

Graphics File Created: 14-Sep-2013 10:59

OP System Version: 19C0-187

SCMT-CB	19C0-187	RST-C	19C0-187
PSPT	19C0-187		

<<<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	80 MV
Minimum Sonic Amplitude	0.579149 MV (100% Cement)



in Free Pipe Section	MAP Minimum Sonic Amplitude	1.55185 MV (80% Cement)
		4.32284 MV (100% Cement)
		8.10244 MV (80% Cement)

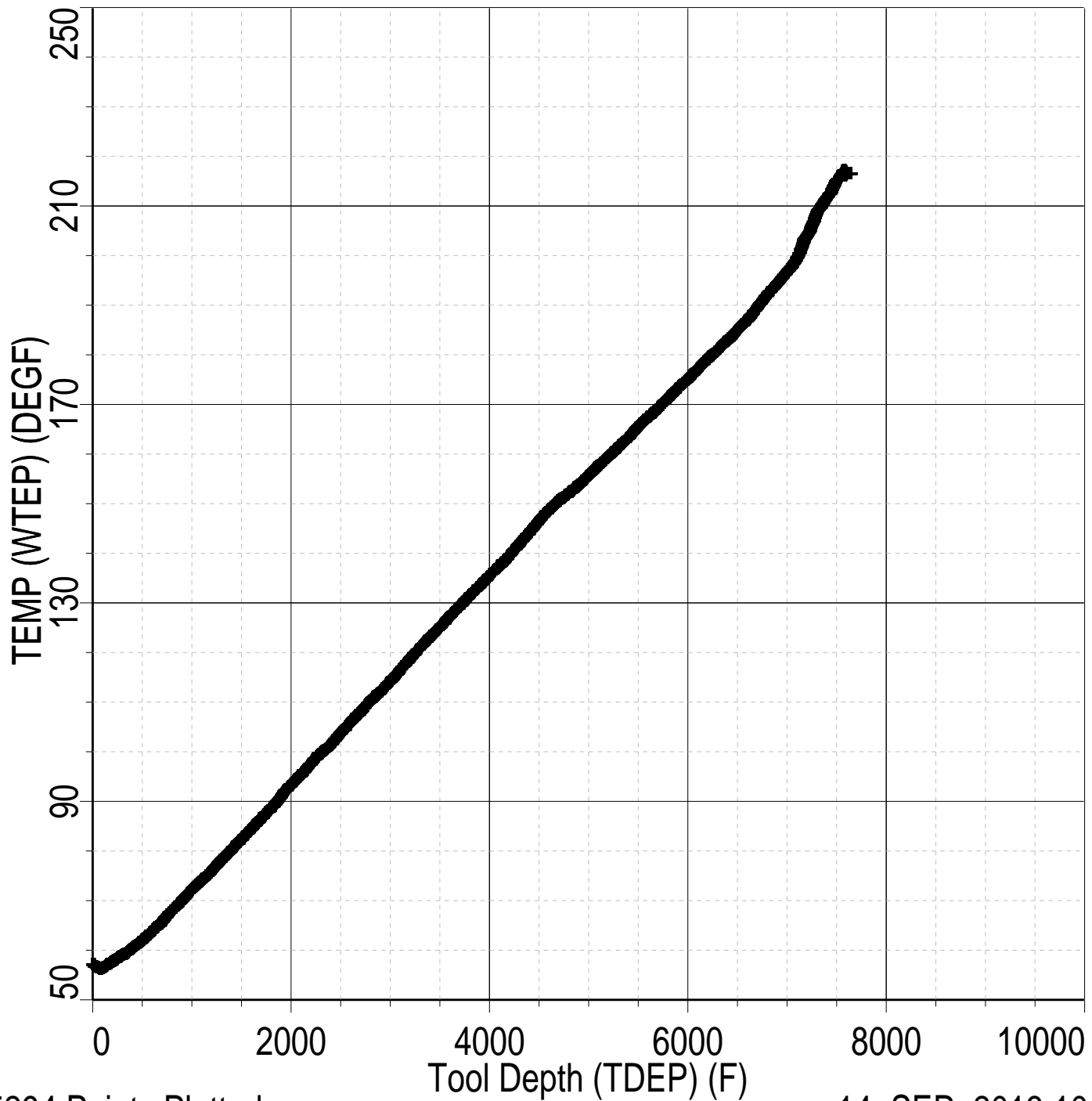
Master Calibration (Normalization)		Before Calibration (Adjustment)	
Date of Master Calibration	6-MAR-2012		
CBL Correction Factor	0.0704263	CBL Adjustment Factor (CBAF)	1.0
MAP 1 Correction Factor	0.0993191	MAP Adjustment Factor (MPAF)	1.0
MAP 2 Correction Factor	0.0941329		
MAP 3 Correction Factor	0.101552		
MAP 4 Correction Factor	0.114415		
MAP 5 Correction Factor	0.127992		
MAP 6 Correction Factor	0.121190		
MAP 7 Correction Factor	0.112867		
MAP 8 Correction Factor	0.102913		

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	1.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	7642	FT

Input DLIS Files						
DEFAULT	SCMT_RST_PSP_037LUP	FN:35	PRODUCER	14-Sep-2013 08:34	5783.0 FT	5457.0 FT
DEFAULT	SCMT_RST_PSP_042PUP	FN:40	PRODUCER	14-Sep-2013 10:51	7646.5 FT	-40.0 FT
Output DLIS Files						
DEFAULT	SCMT_RST_PSP_044PUP	FN:42	PRODUCER	14-Sep-2013 10:59		

MAXIS Field Log

Index: 7646.5 – -40.0 FT



15294 Points Plotted

14-SEP-2013 10:58

Client: ENCANA OIL & GAS (USA) INC

Field: SOUTH PARACHUTE

Well: HAGEN 22-3B (PC22)

Run date: 14-Sep-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	<div>+.182000000000e+04</div>	<div>+.332000000000e+04</div>

Client: ENCANA OIL & GAS (USA) INC

Field: SOUTH PARACHUTE

Well: HAGEN 22-3B (PC22)

Run date: 14-Sep-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	<div>- 391987973189E+03</div>	<div>+ 191346892512E+03</div>	<div>- 440920753451E+02</div>

Tt**0	+.957191300908E+01	-.711421725686E+00	0.0
	Tt**3	Tt**4	Tt**5
Tt**0	+.957191300908E+01	-.711421725686E+00	0.0

Client: ENCANA OIL & GAS (USA) INC  
Field: SOUTH PARACHUTE  
Well: HAGEN 22-3B (PC22)  
Run date: 14-Sep-2013

Tool: PSP  
Sub Type: PBMS  
Sensor: 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	928
Calib Date ddmmyy	280612
Matrix Size	66
Coeff CRC	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

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

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

8179










SCMC – CA

8248

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			1208	Master			1275
	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			1182	Master			1049
	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			937.6	Master			990.2
	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			1063	Master			1166
	500.0 (Minimum)	1075 (Nominal)	1650 (Maximum)		500.0 (Minimum)	1075 (Nominal)	1650 (Maximum)
Phase	CBL Amplitude Plus MV		Value				
Master			1363				
	1000 (Minimum)	1350 (Nominal)	1700 (Maximum)				
Master: Calibration out of date 6–Mar–2012 15:06							

Company: ENCANA OIL & GAS (USA) INC



Well: HAGEN 22-3B (PC22)  
Field: SOUTH PARACHUTE  
County: GARFIELD  
State: COLORADO

SLIM CEMENT MAPPING LOG  
CBL-VDL  
GAMMA RAY-CCL