

Company: ENCANA OIL & GAS (USA) INC

Well: MCU FEE 22-11A (N22W)

Field: MAMM CREEK

County: GARFIELD

State: COLORADO

SLIM CEMENT MAPPING LOG
CBL – VDL
GAMMA RAY – CCL

County:	GARFIELD		
Field:	MAMM CREEK		
Location:	SHL: 645 FSL 2105 FWL		
Well:	MCU FEE 22-11A (N22W)		
Company:	ENCANA OIL & GAS (USA) INC		
	LOCATION		
	SHL: 645 FSL 2105 FWL BHL: 1540 FSL 2385 FWL	Elev.: K.B. 7048.00 ft G.L. 7026.00 ft D.F. 7047.00 ft	
	Permanent Datum: _____ Log Measured From: _____ Drilling Measured From: _____	GROUND LEVEL _____ KELLY BUSHING _____ KELLY BUSHING _____	Elev.: 7026.00 ft 22.00 ft above Perm. Datum
	API Serial No. 05 045 21456 00		Section 22 Township 7S Range 93W

	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	9.4 deg		
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	24-Sep-2012		
Run Number	1		
Depth Driller	10159 ft		
Schlumberger Depth	10075 ft		
Bottom Log Interval	10066 ft		
Top Log Interval	108 ft		
Casing Fluid Type	Fresh Water		
Salinity			
Density	8.4 lbm/gal		
Fluid Level	108 ft		
BIT/CASING/TUBING STRING			
Bit Size	8.750 in		
From	22 ft		
To	10159 ft		
Casing/Tubing Size	4.500 in		
Weight	11.6 lbm/ft		
Grade	S-80		
From	22 ft		
To	10136 ft		
Maximum Recorded Temperatures	268 degF		
Logger On Bottom	24-Sep-2012	Time 9:00	
Unit Number	391	Location Grand Junction	
Recorded By	Kirstie Bunting		
Witnessed By	Unwitnessed		

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: 24-SEP-2012 11:04:52

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-C	Type:	1-25ZT
Serial Number:	6214	Serial Number:	5006	Serial Number:	
Calibration Date:	24-APR-2012	Calibration Date:	20-SEP-2011	Length:	16000 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878	Conveyance Method:	Wireline
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Rig Type:	Rigless
Wheel Correction 1:	-3	Calibration RMS:	7		
Wheel Correction 2:	-4	Calibration Peak Error:	15		

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:	3.00 FT
Tool Zero Check At Surface:	

Depth Control Remarks

1. All Schlumberger Depth Control Procedures Used
2. Primary Depth Control: IDW
3. Secondary Depth Control: Drum Counter (SWPT)
- 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 – SIGMA MODE	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRELATED TO DOWN LOG	
TOOL RUN AS PER TOOL SKETCH	
ENTRANCE TIME: 7:30	
TIME LOGGER AT TD: 9:00	
EXIT TIME: 11:45	

MAXIMUM RECORDED TEMPERATURE: 268 DEGF	
MAXIMUM RECORDED PRESSURE: 4235 PSI	
EXPECTED CBL AMP IN FREE PIPE 80 MV	
CYCLE SKIPPING DUE TO GOOD BOND	
MAIN PASS LOGGED UNDER ZERO SURFACE PRESSURE	
CREW: KBUNTING; ATERHUNE; JBARRY; WAZIZ; CARNOLD; KJOHNS	
THANK YOU FOR CHOOSING E&P WIRELINE – A SCHLUMBERGER COMPANY	

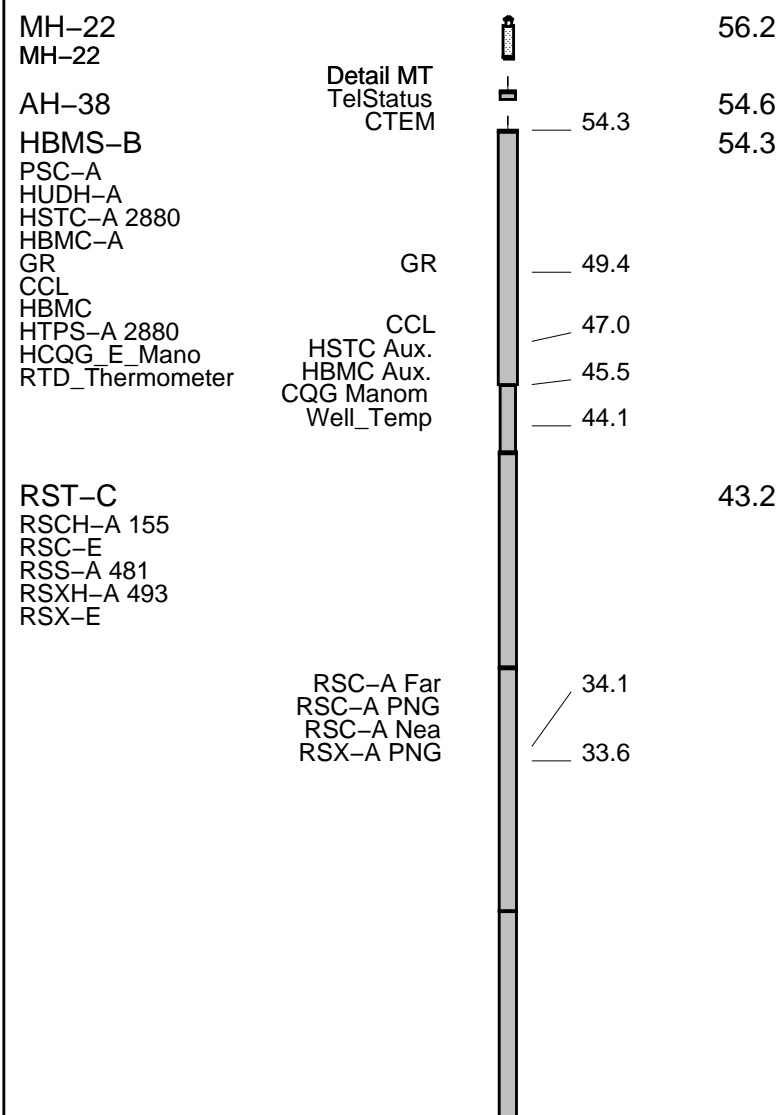
RUN 1 SERVICE ORDER #: C49N-00017 PROGRAM VERSION: 19C0-187 FLUID LEVEL: 108 ft			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

[illegible]

RUN 1 RUN 2

SURFACE EQUIPMENT	
WITM-A PSC_16MHZ	

DOWNHOLE EQUIPMENT



SCMT-CB
SCMC-CA 8120
SECH-CA
CMIR-AG
SCMS-CB 8179
SCMX-CA

20.2

DT 11.1
CBL5 DTSC 9.6
CBL3 8.6
MAP 8.1
AUX 7.1

0.2
AH-Bottom Nose Tension SCMT HV
TOOL ZERO 0.0

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



MAIN PASS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC Well: MCU FEE 22-11A (N22W)

Input DLIS Files

DEFAULT SCMT_RST_HBMS_073LUP FN:68 PRODUCER 24-Sep-2012 08:59 10082.0 FT 43.0 FT

Output DLIS Files

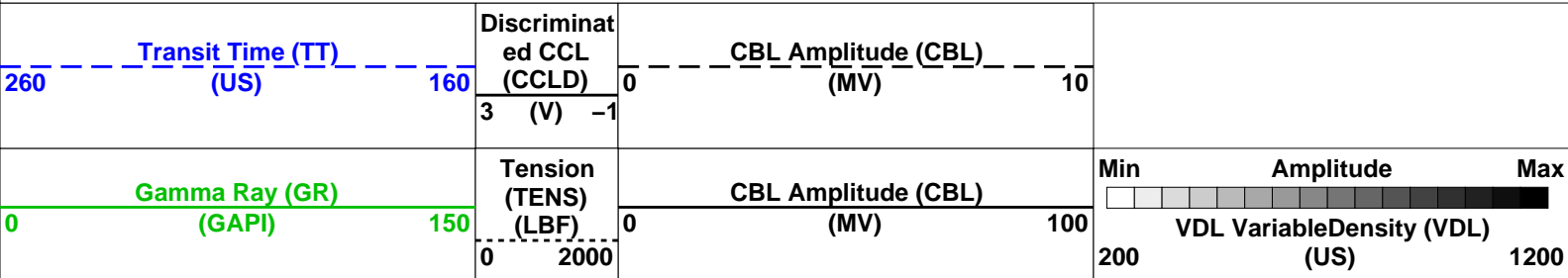
DEFAULT SCMT_RST_HBMS_077PUP FN:72 PRODUCER 24-Sep-2012 11:56 10085.0 FT -1.5 FT

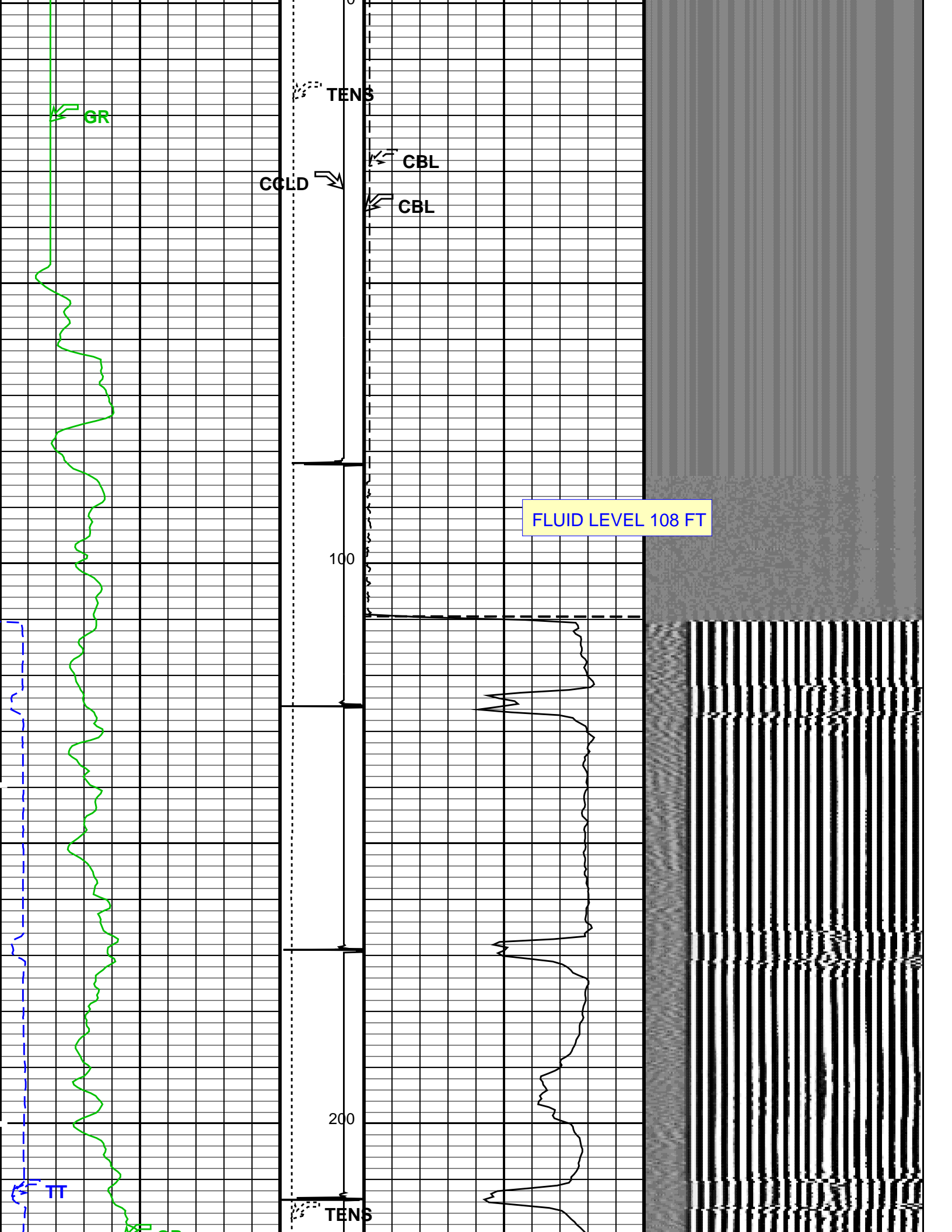
OP System Version: 19C0-187

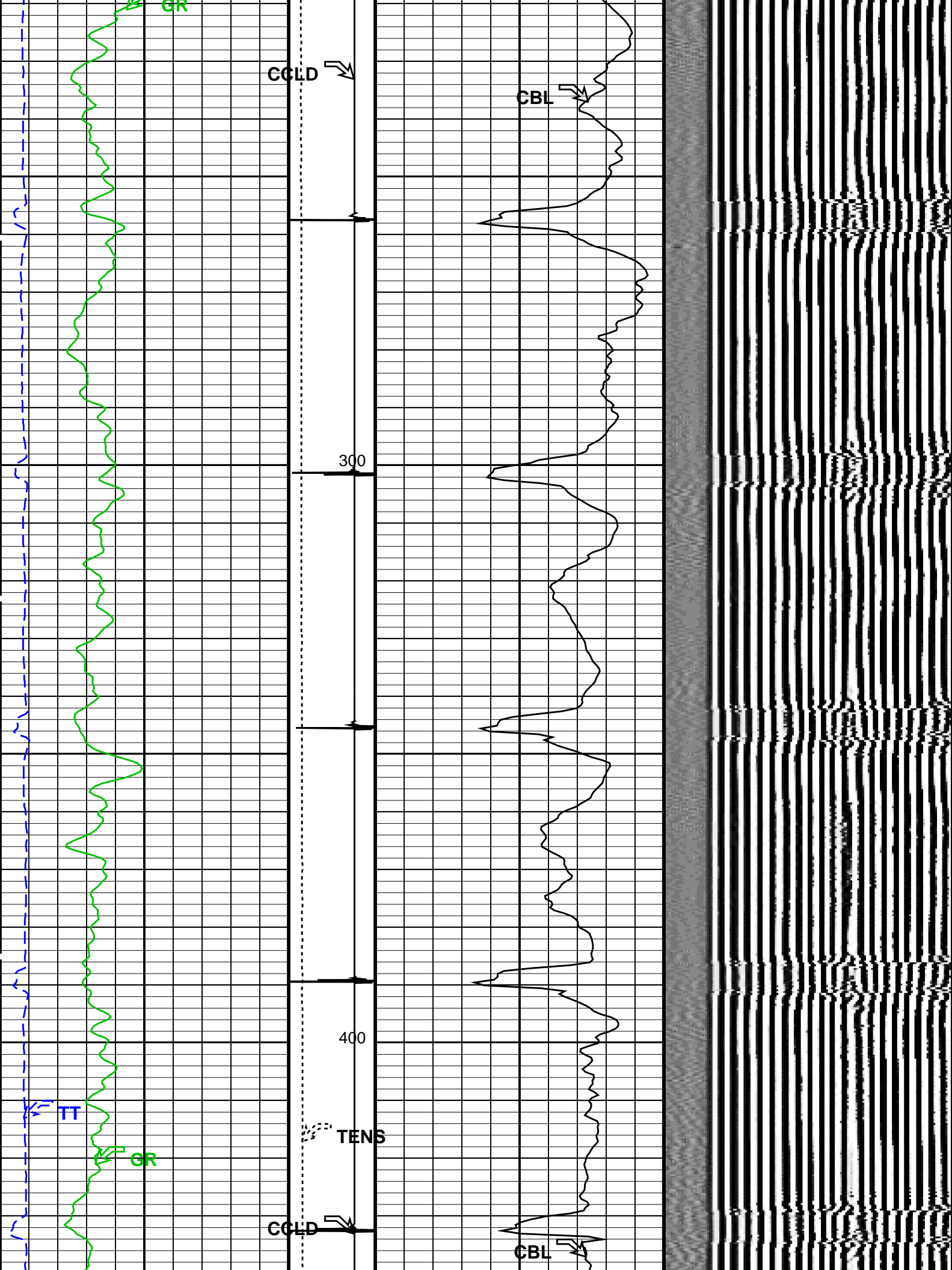
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HBMS-B SRPC-5214-H2-2012-OP1

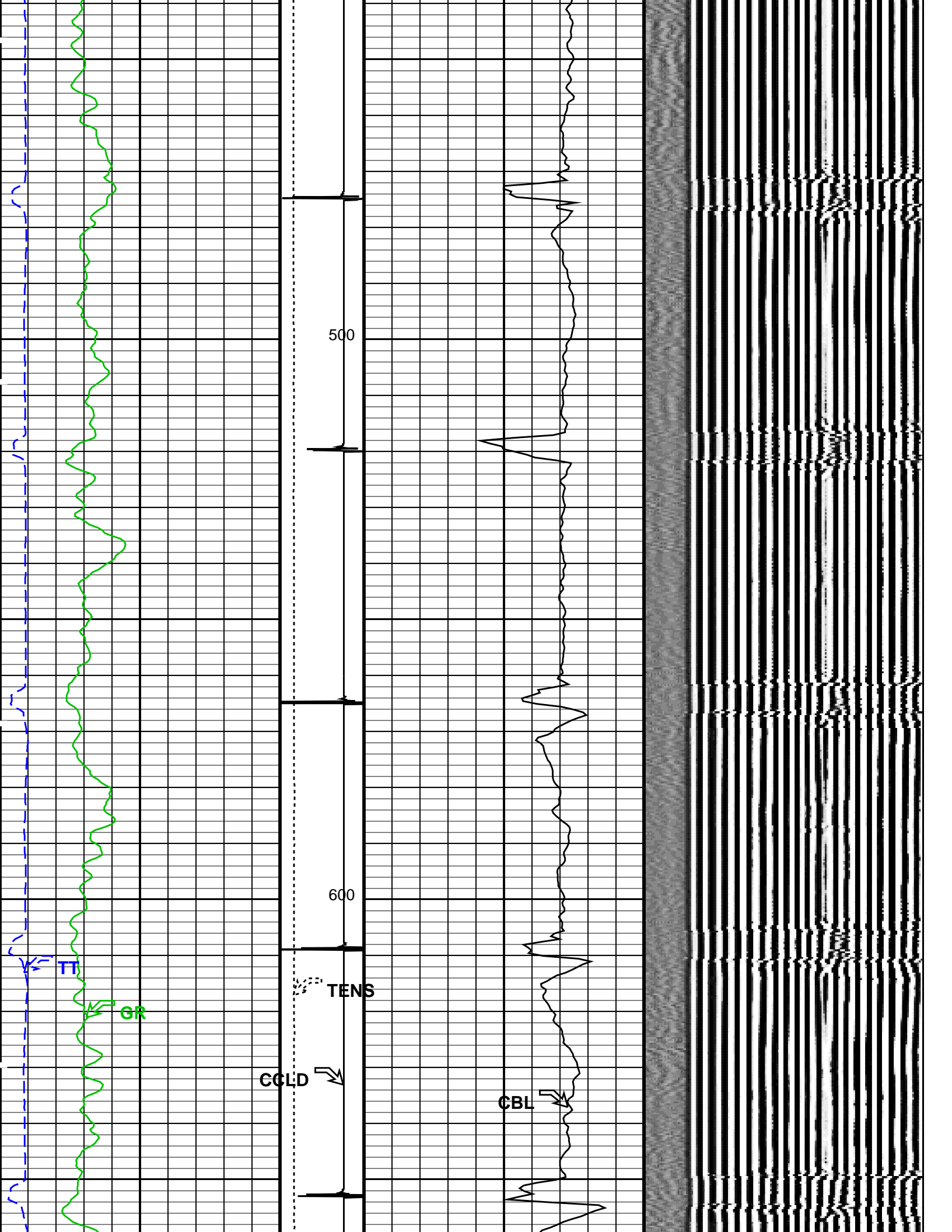
PIP SUMMARY

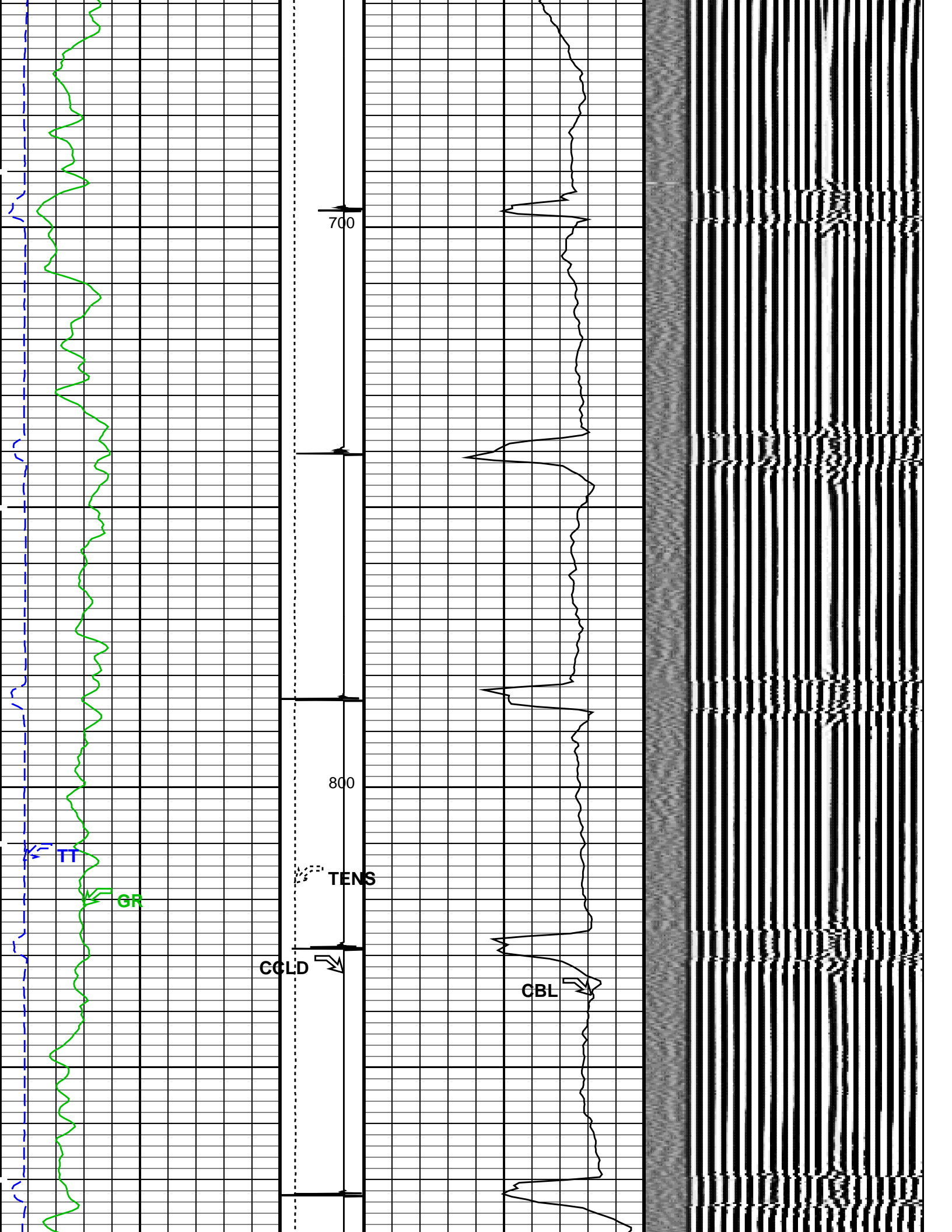
Time Mark Every 60 S

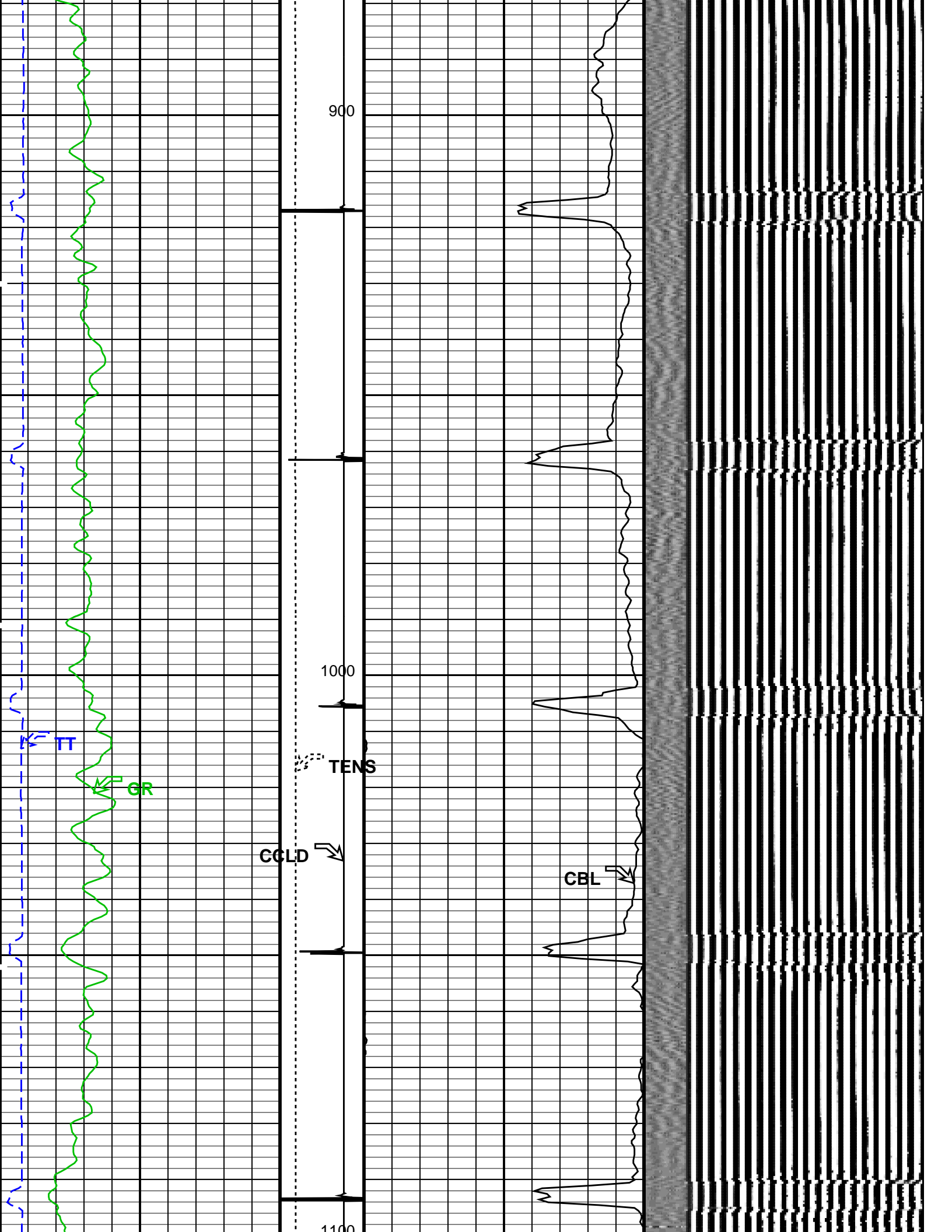


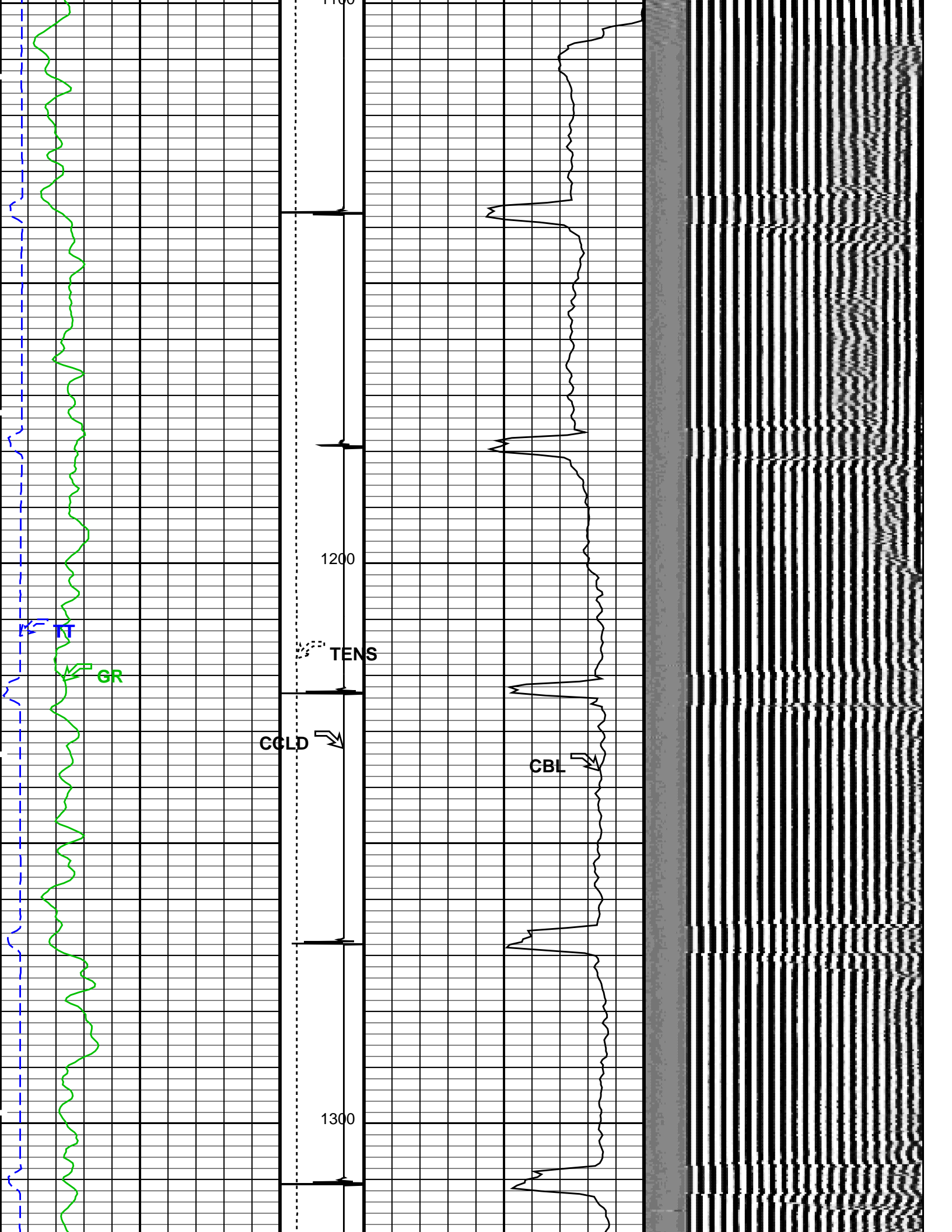


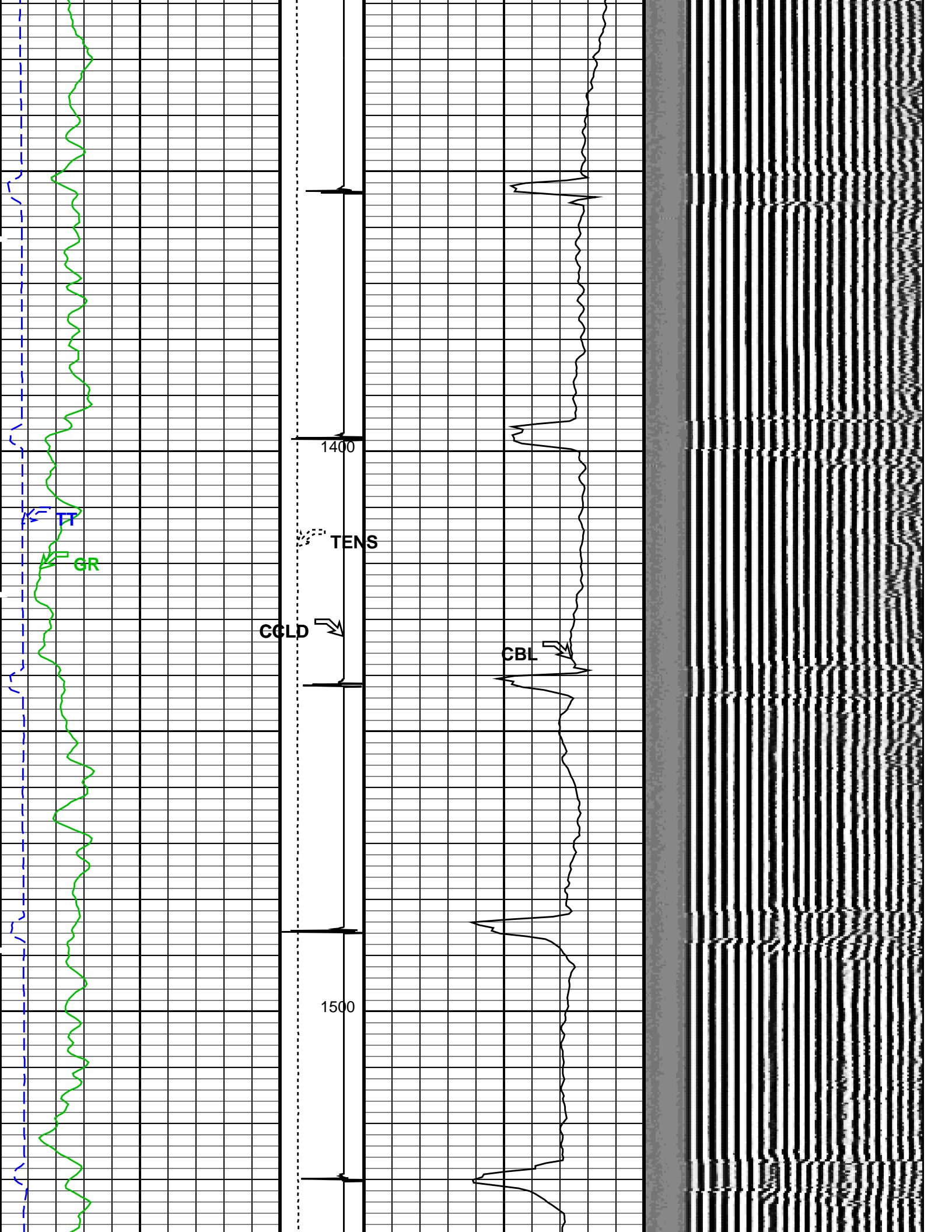


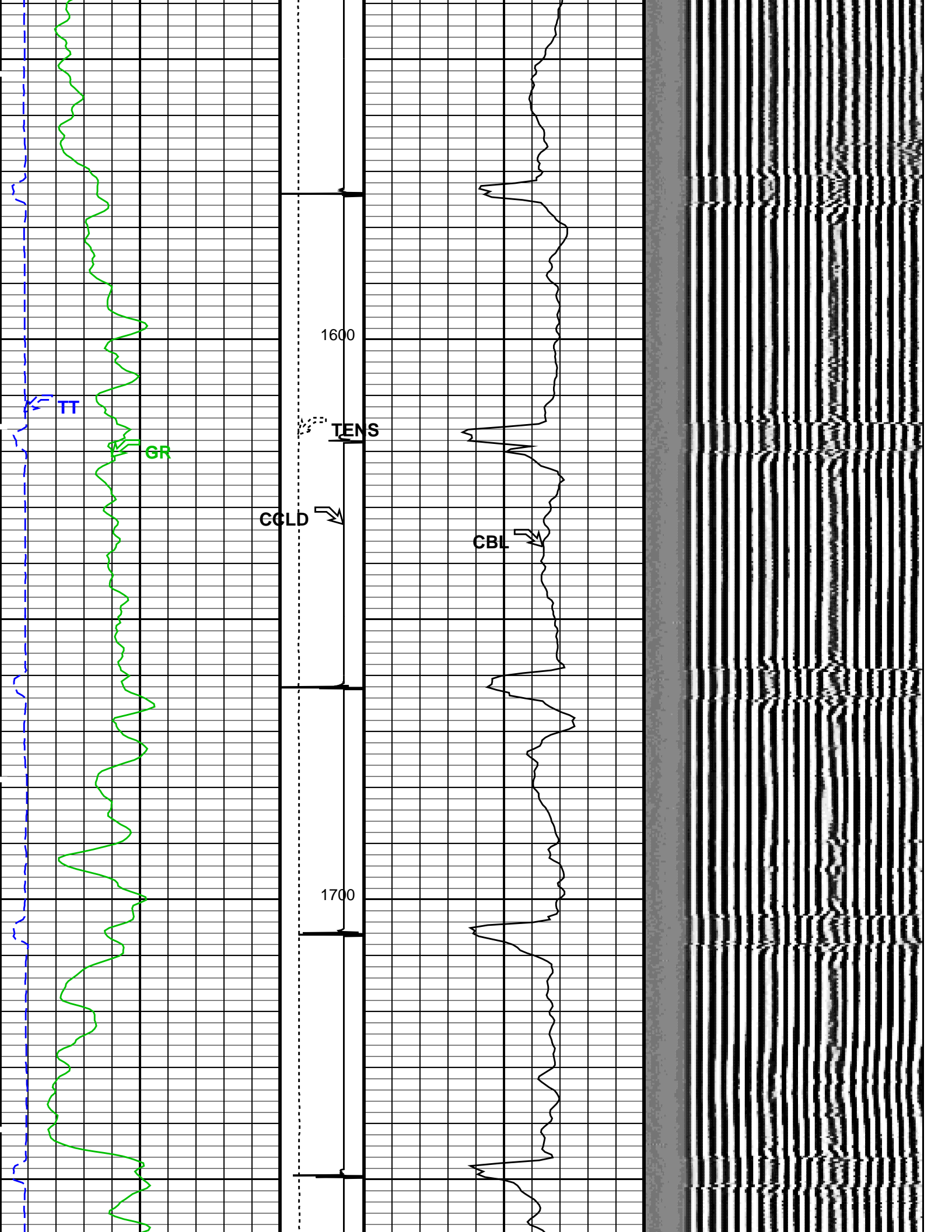


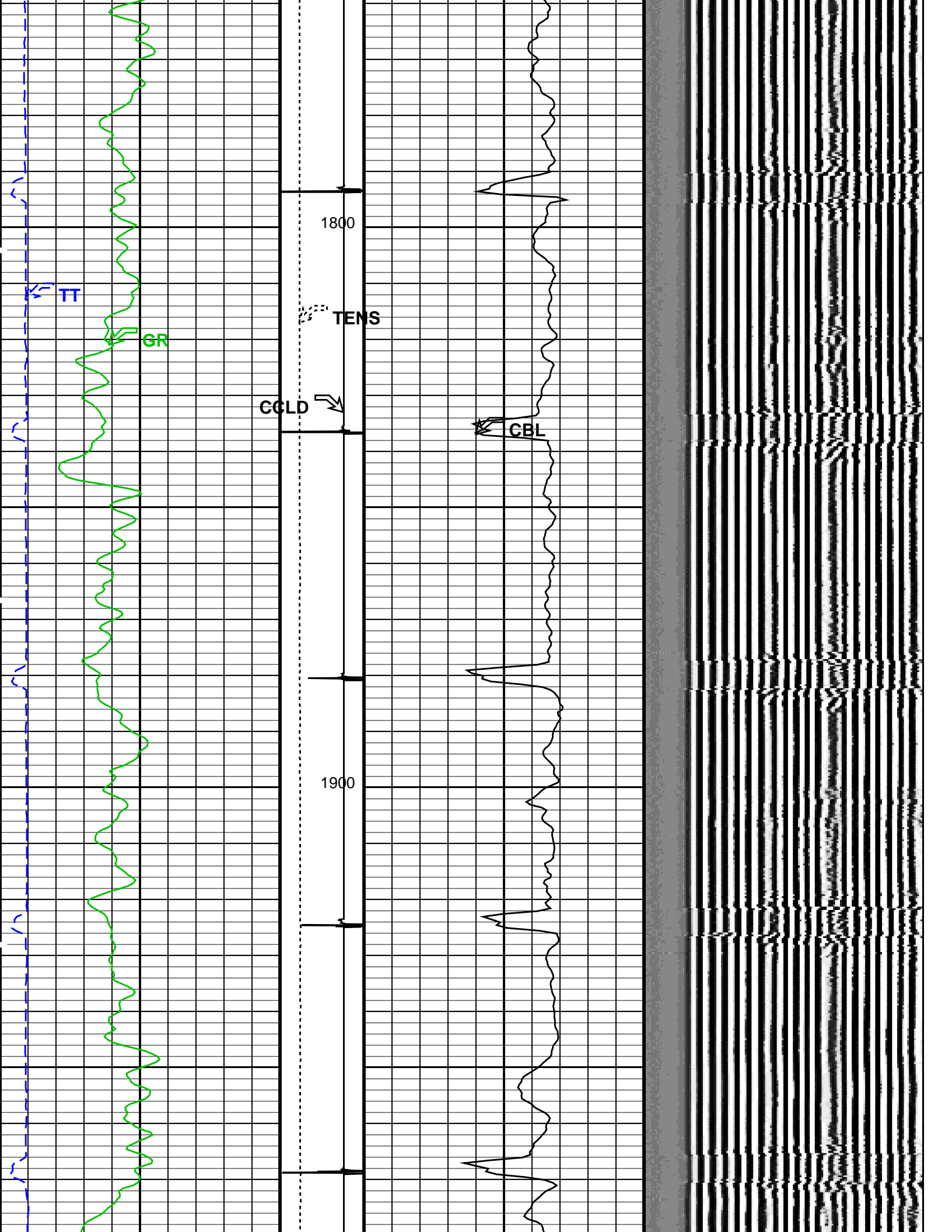


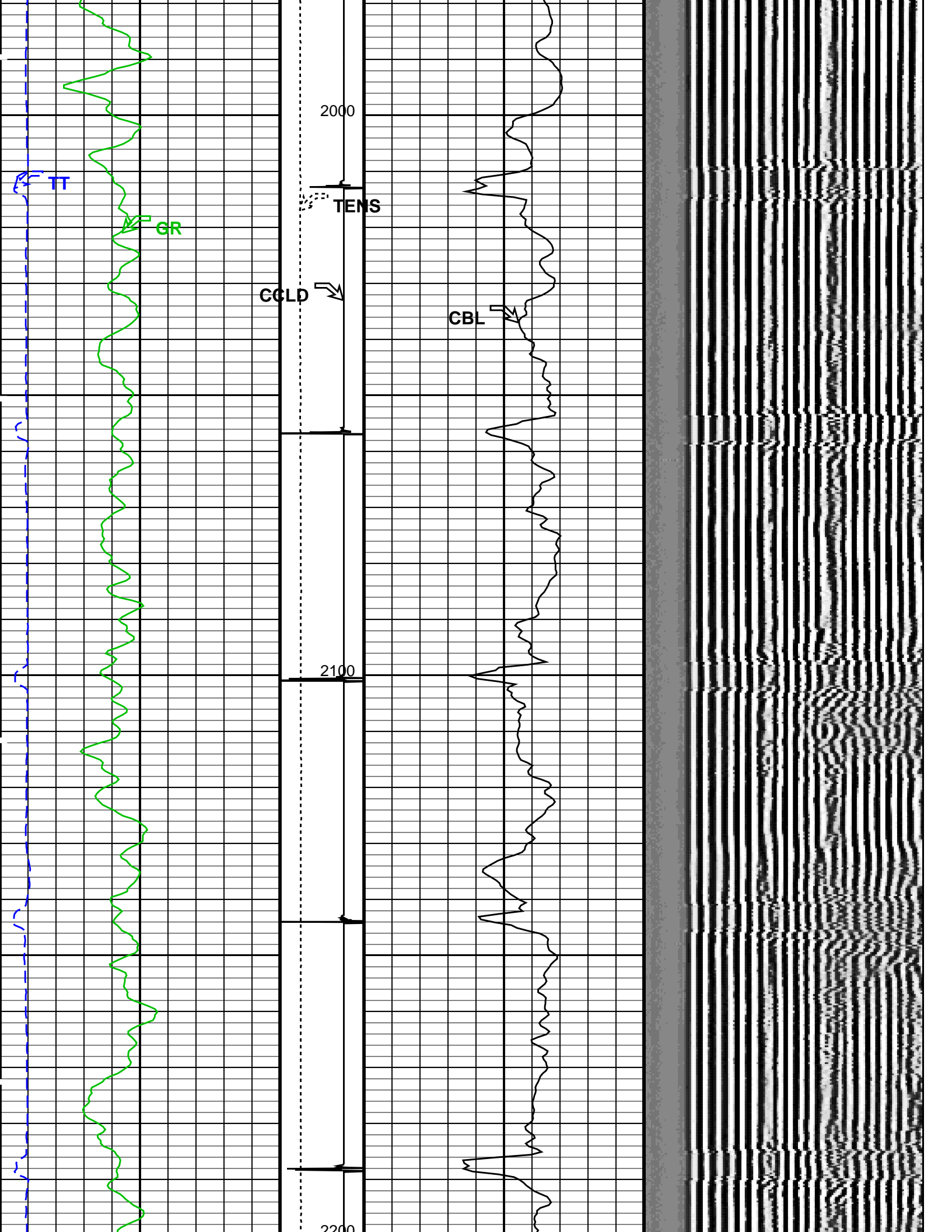


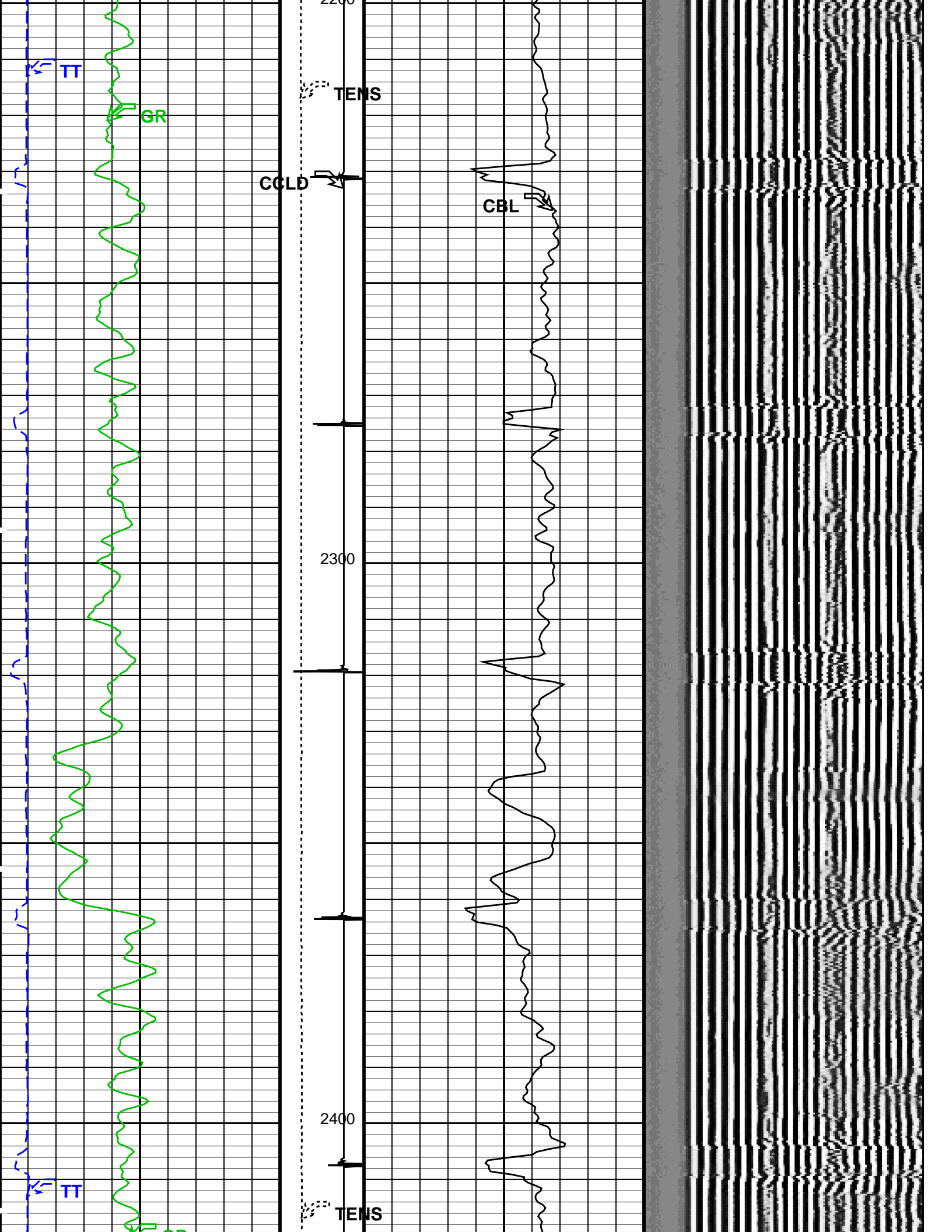


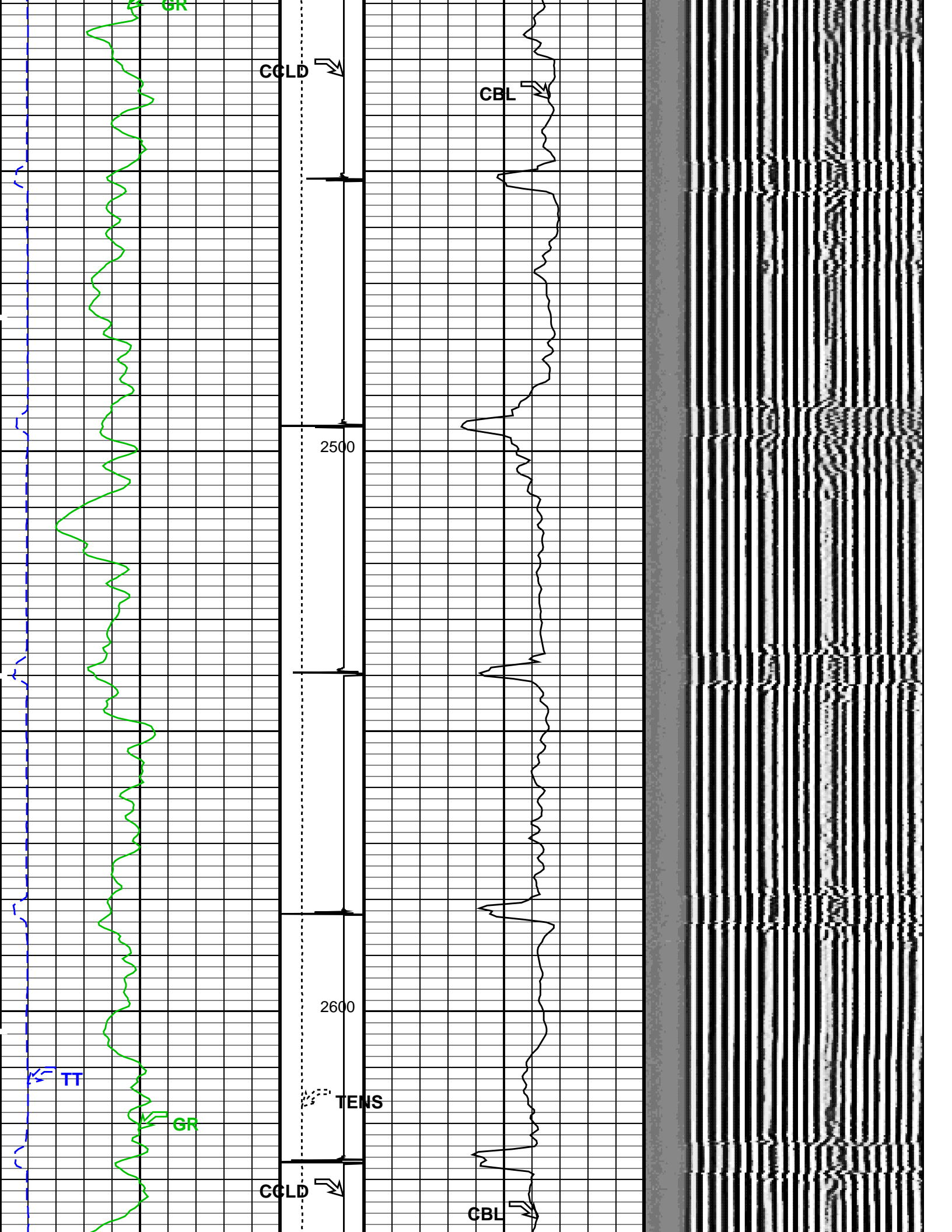


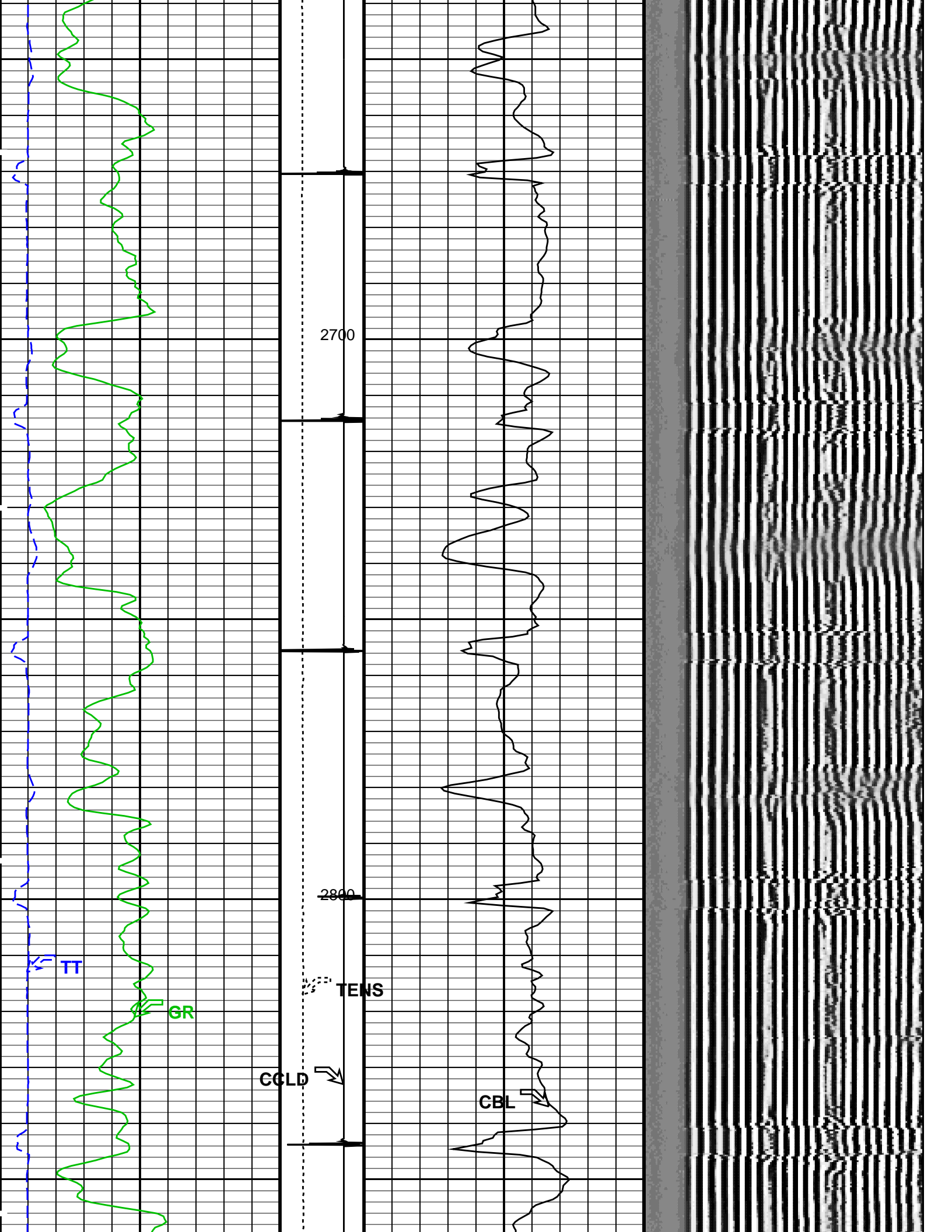


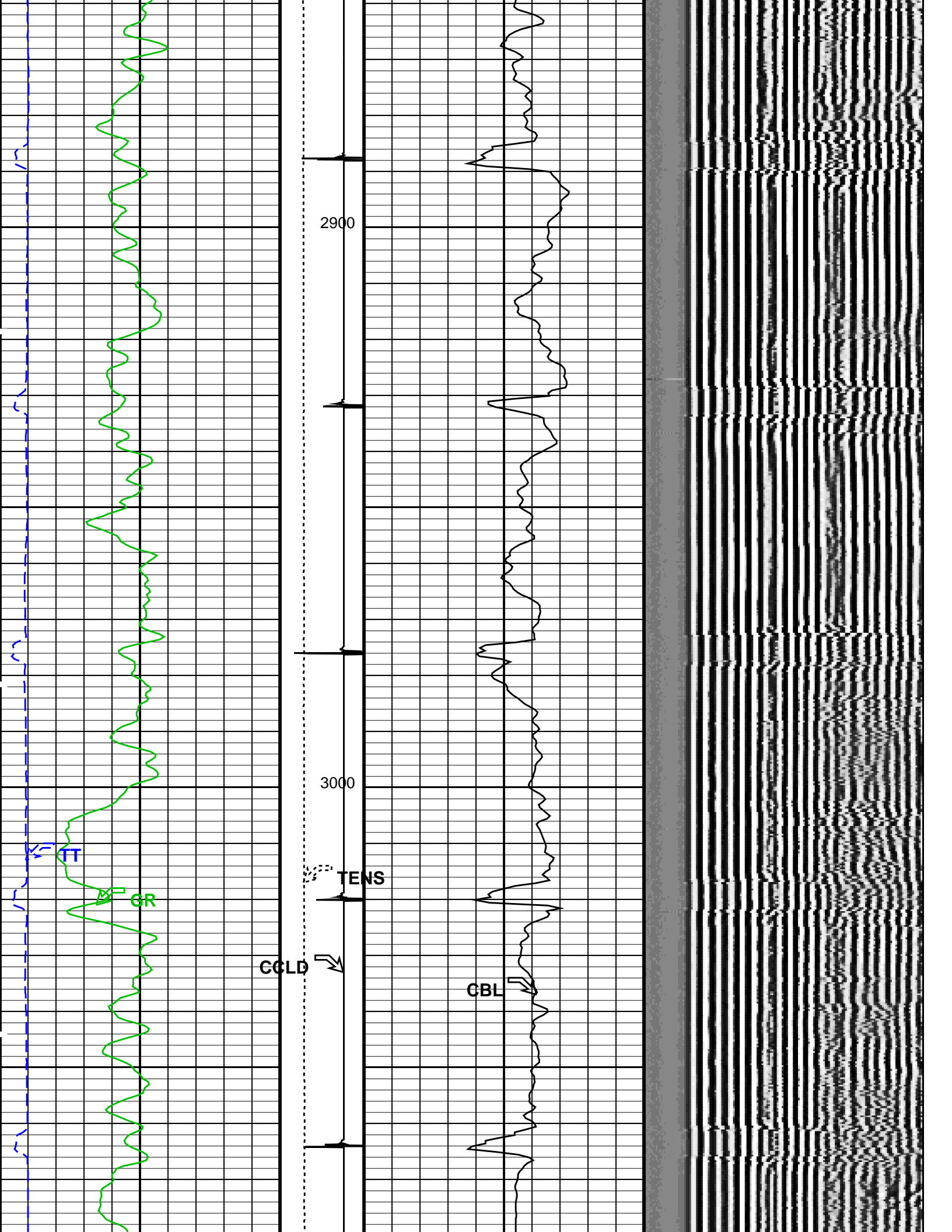


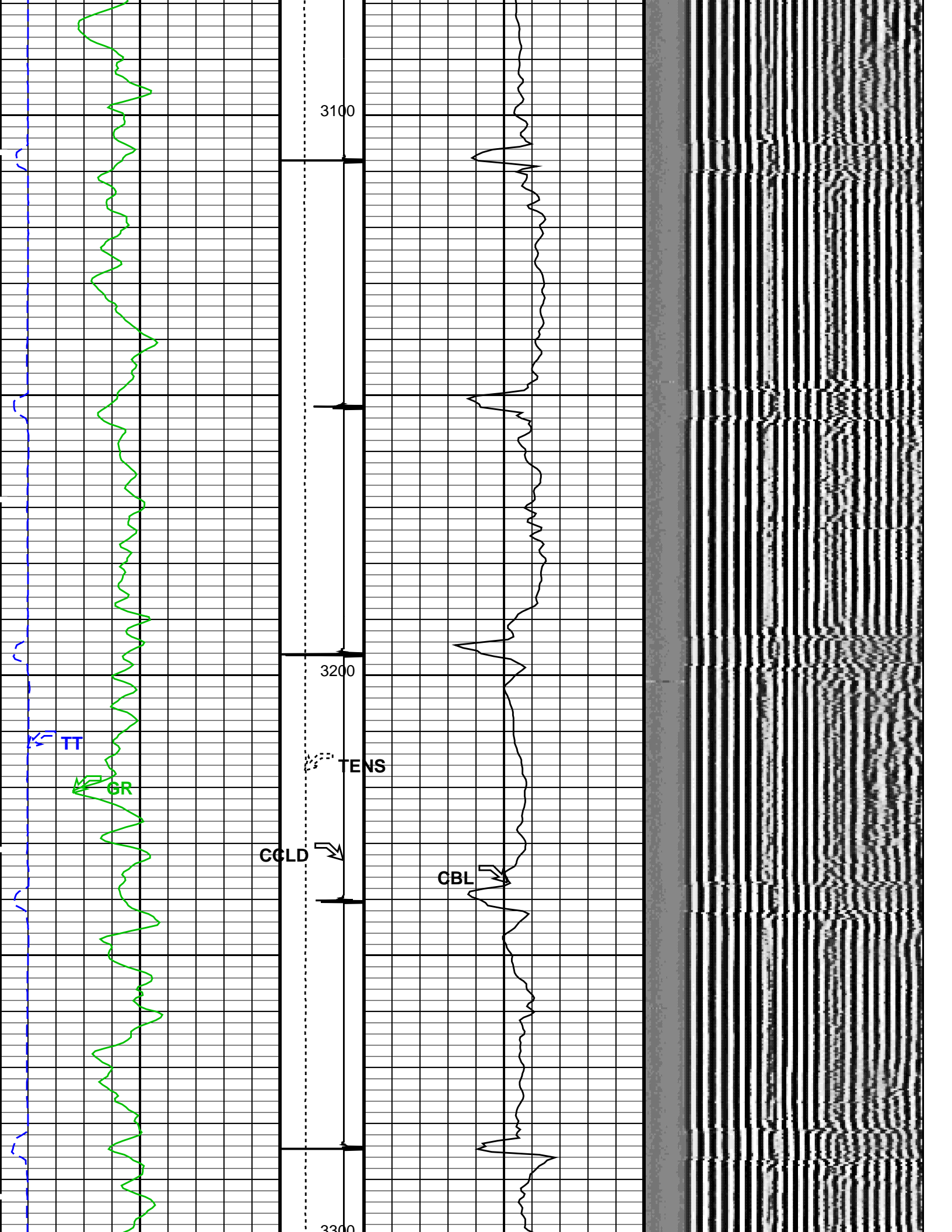


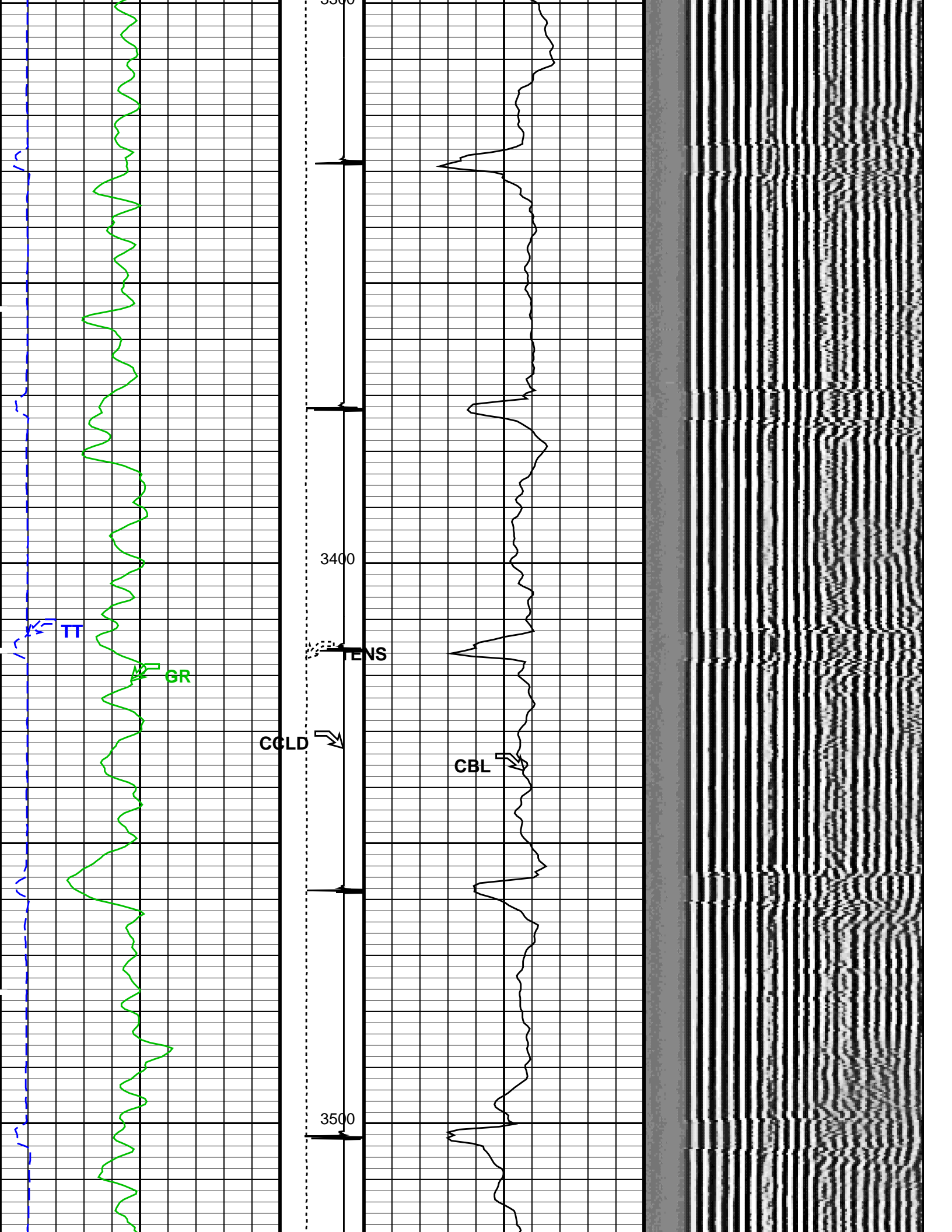


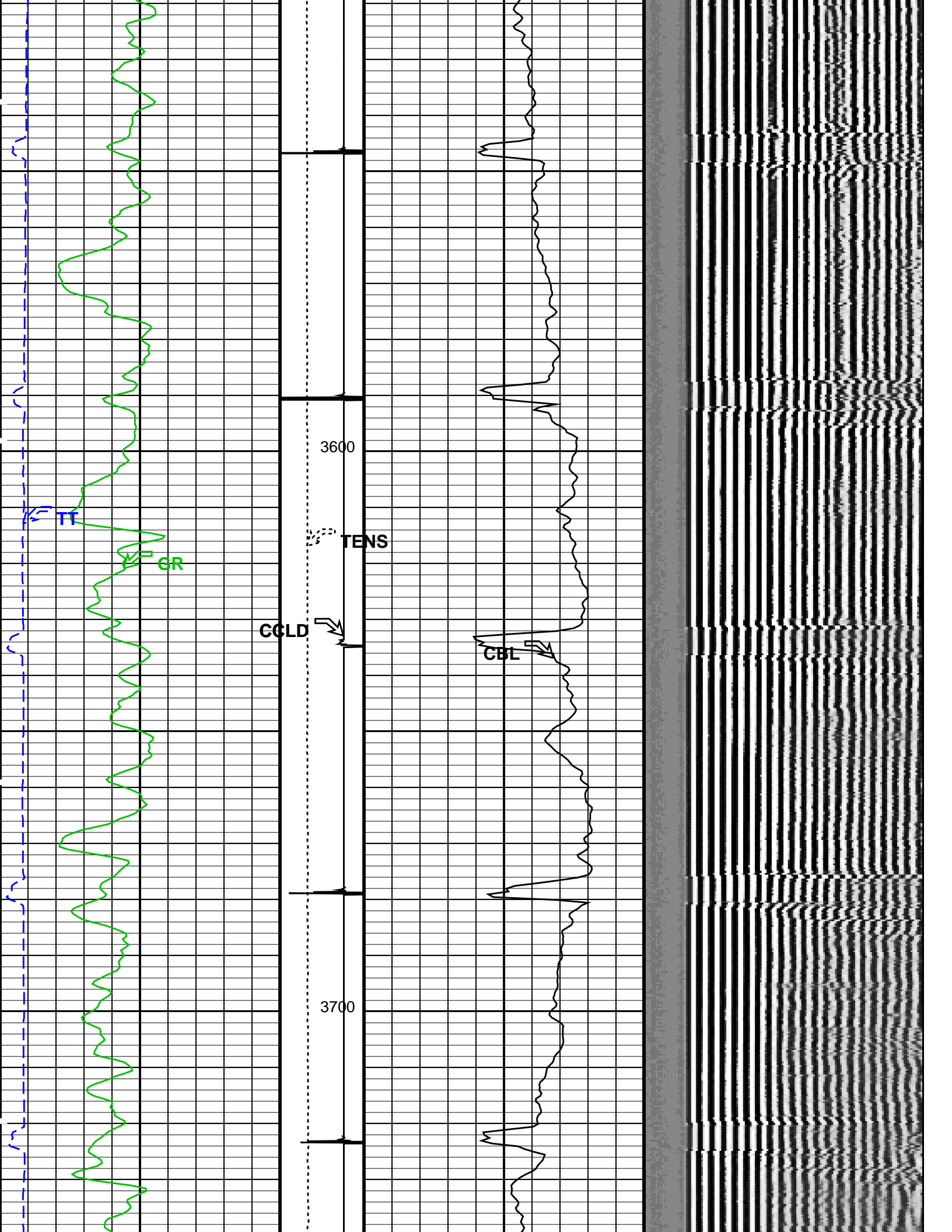


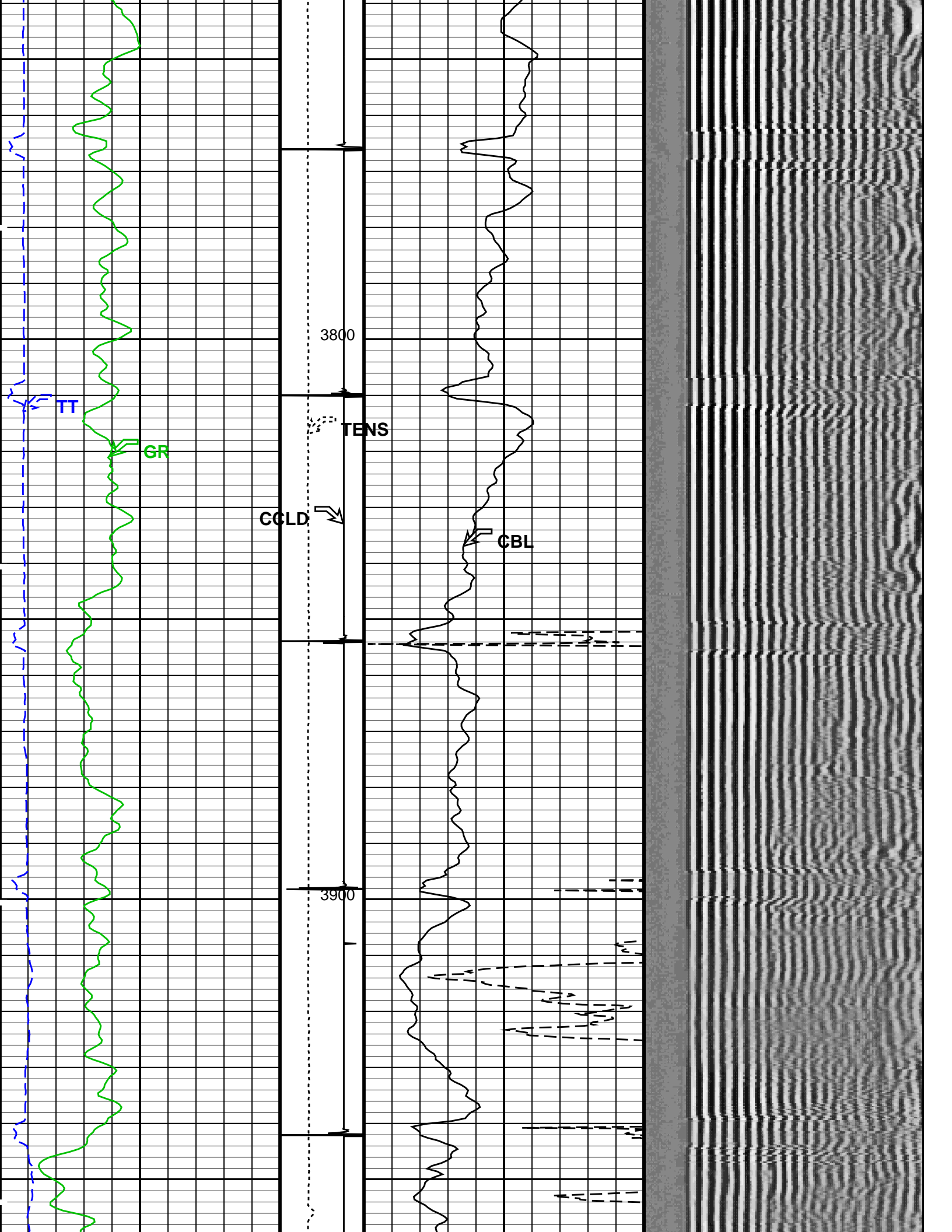


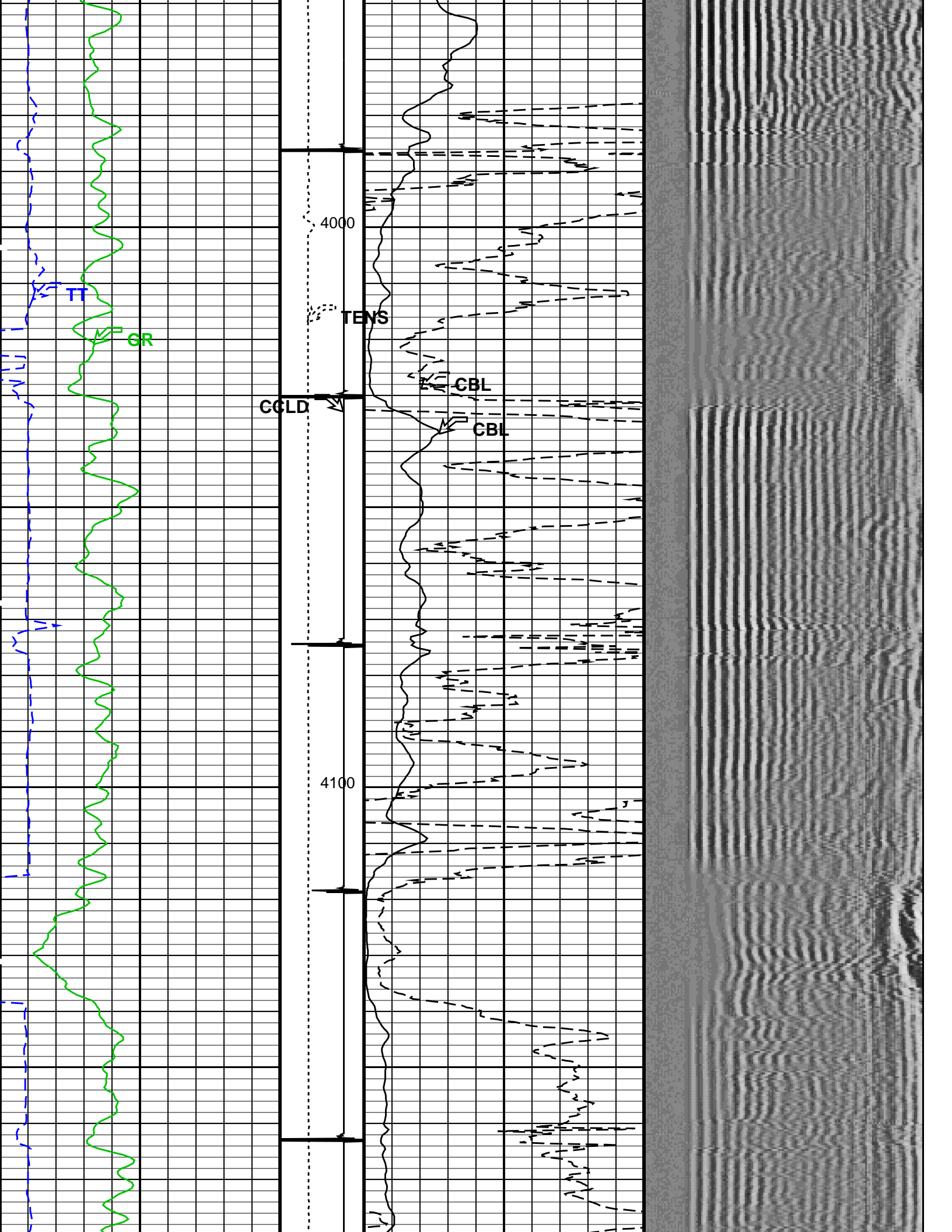


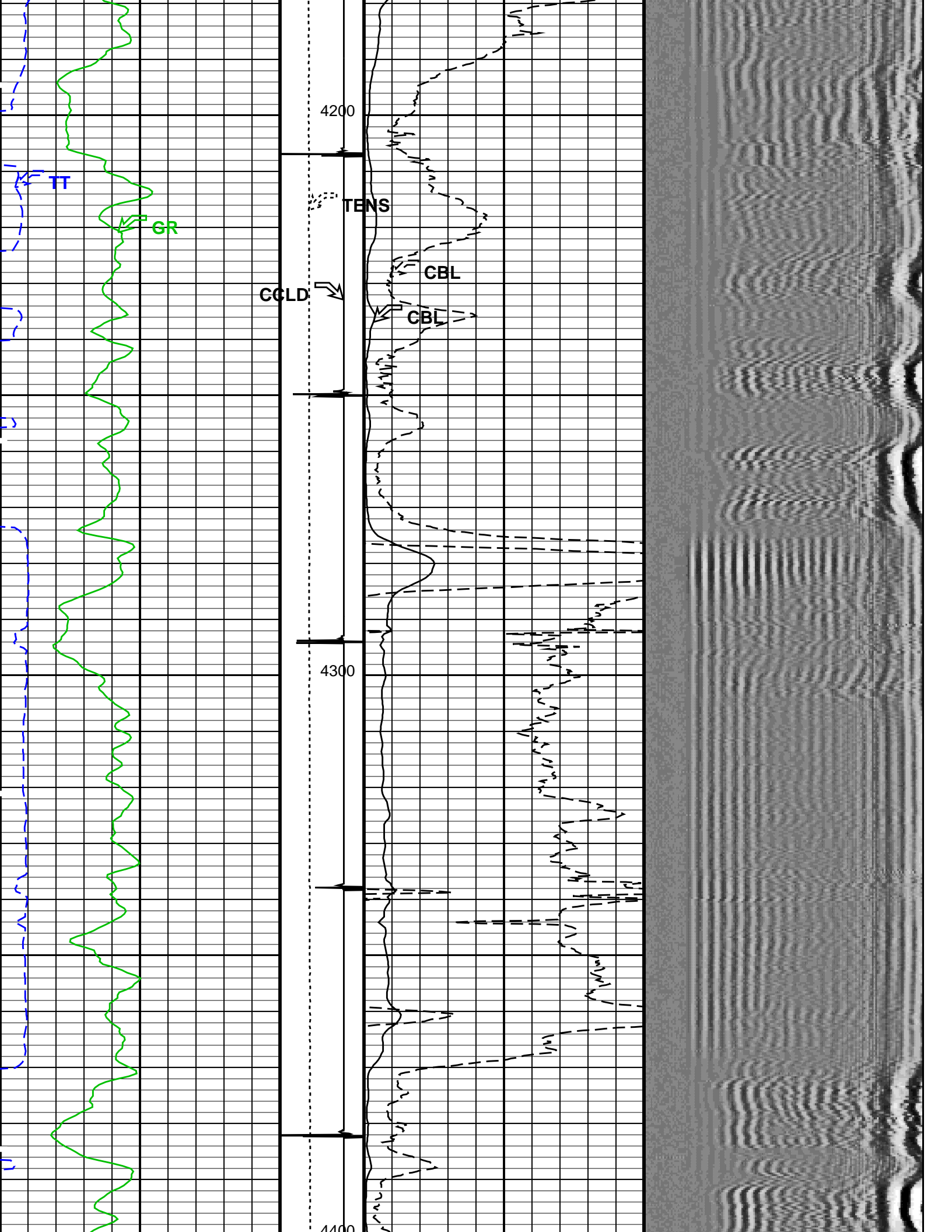


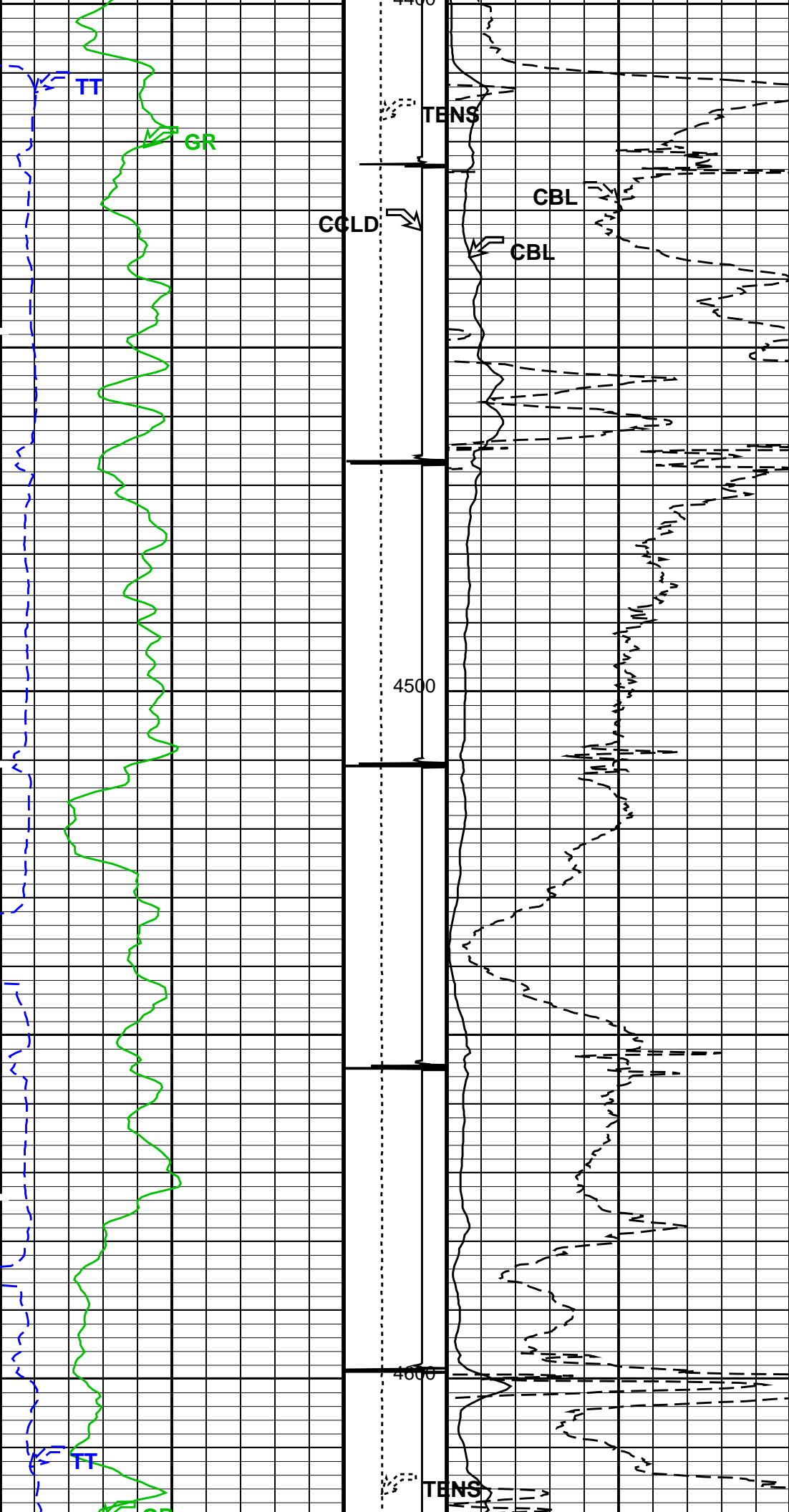


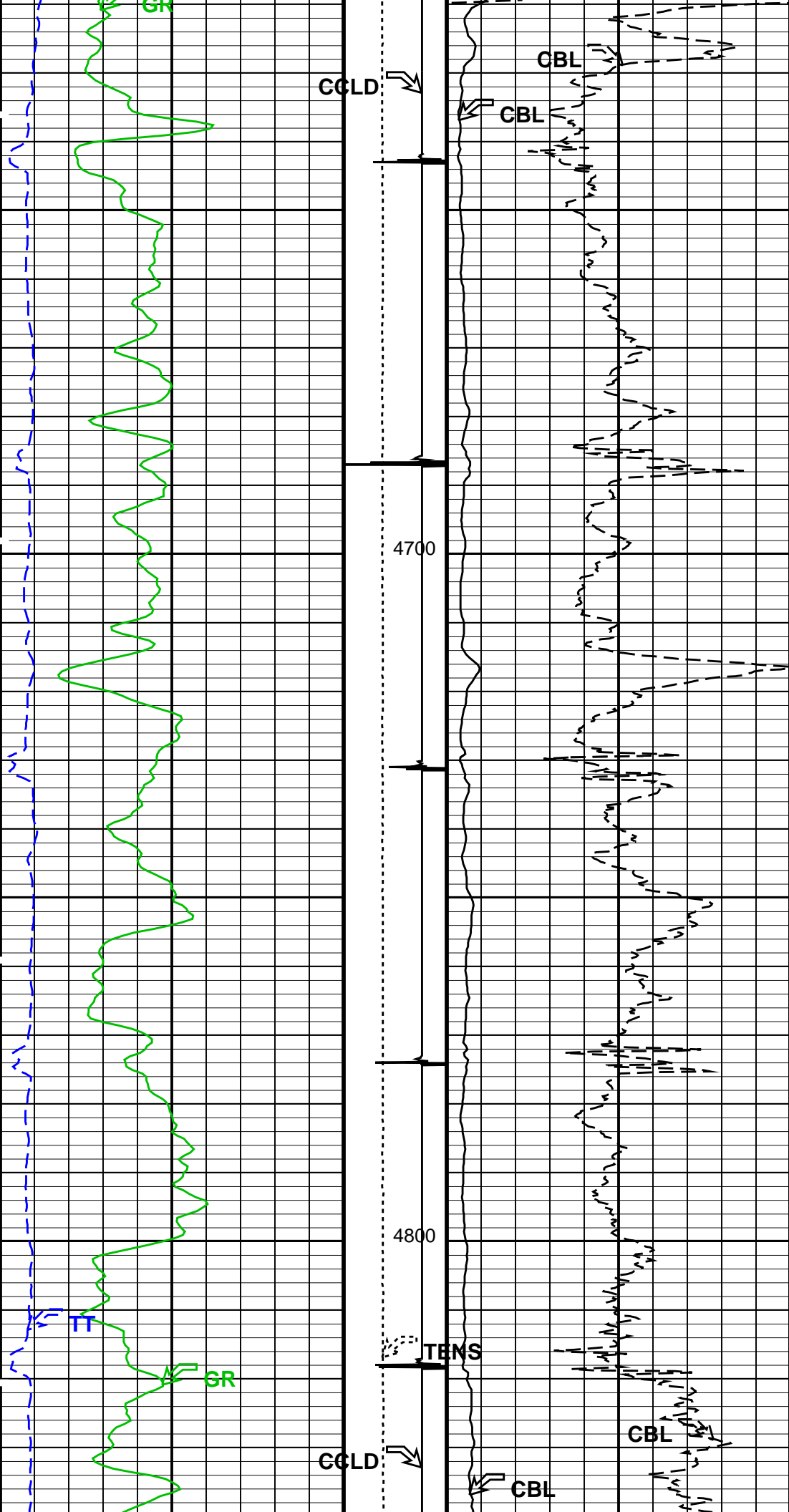


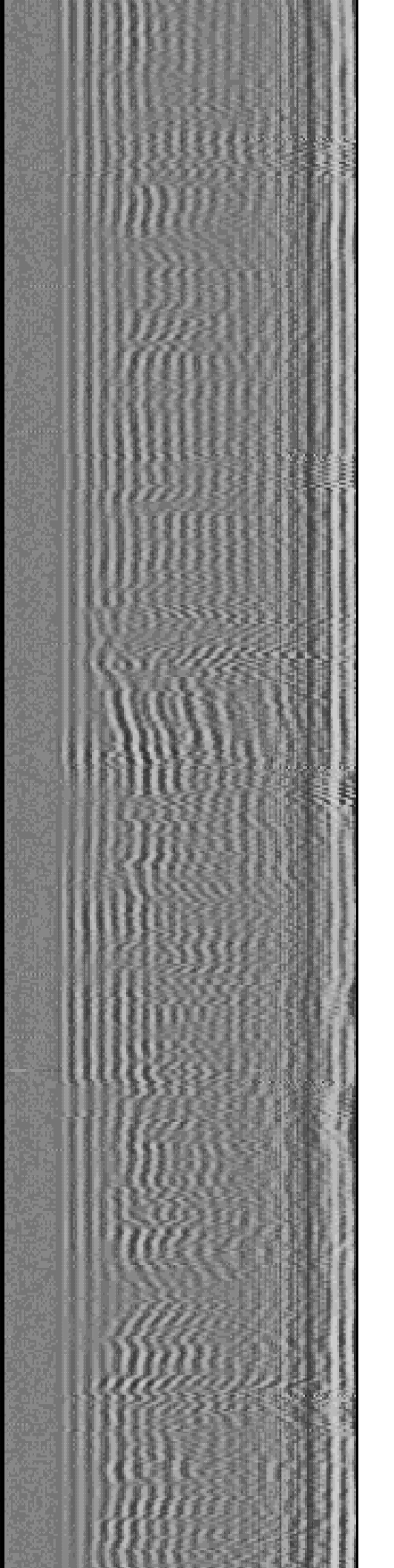
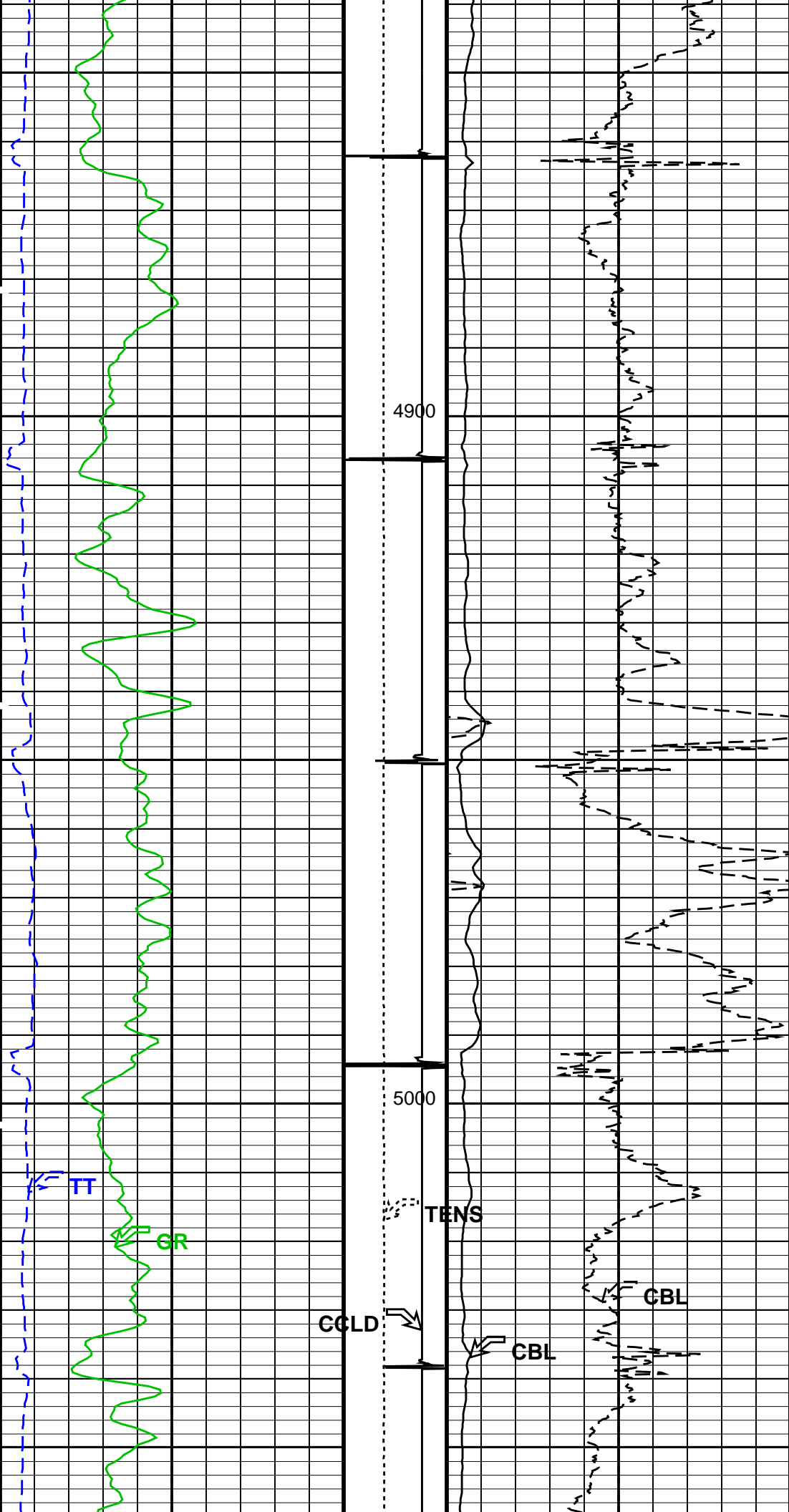


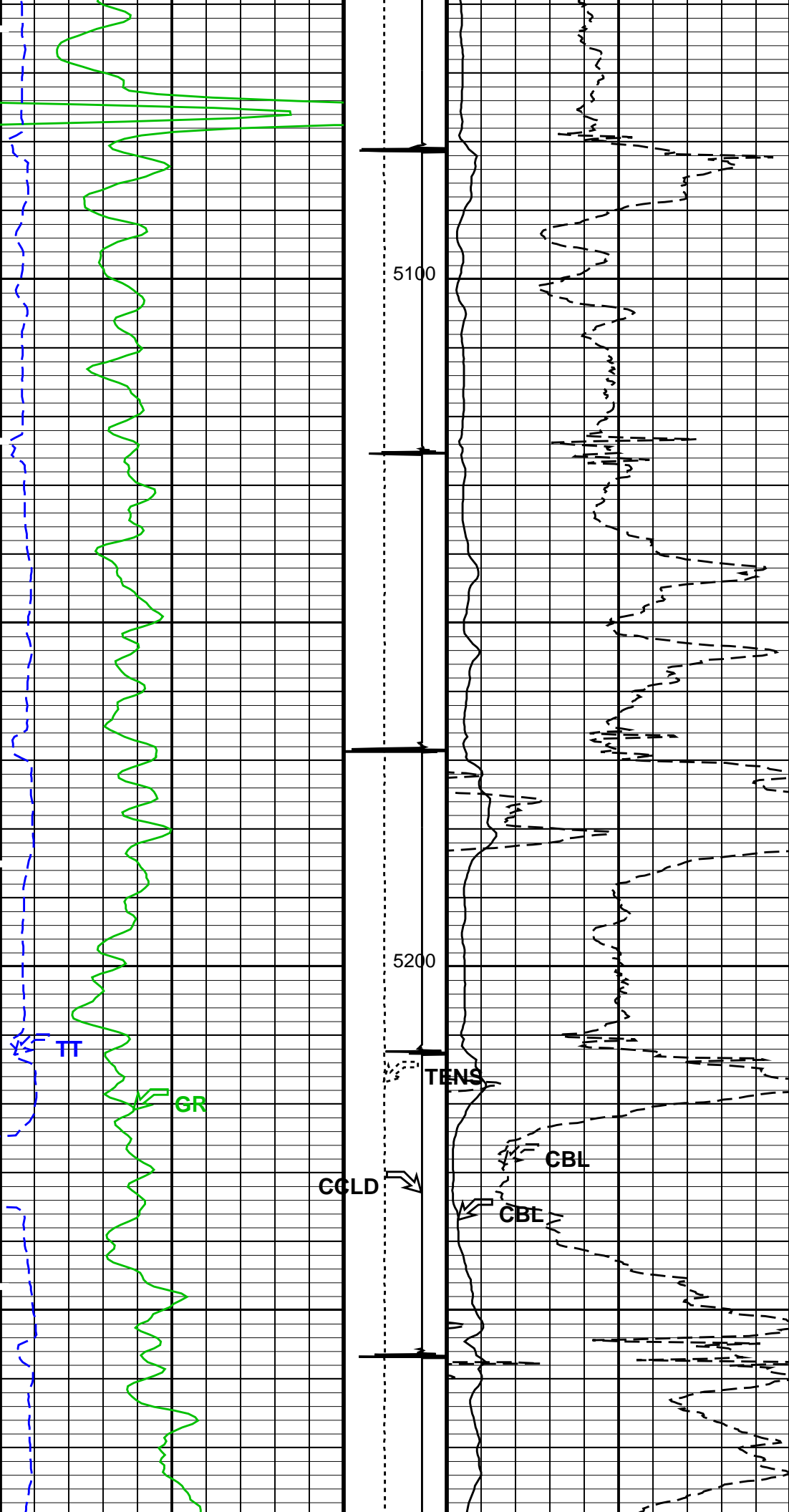


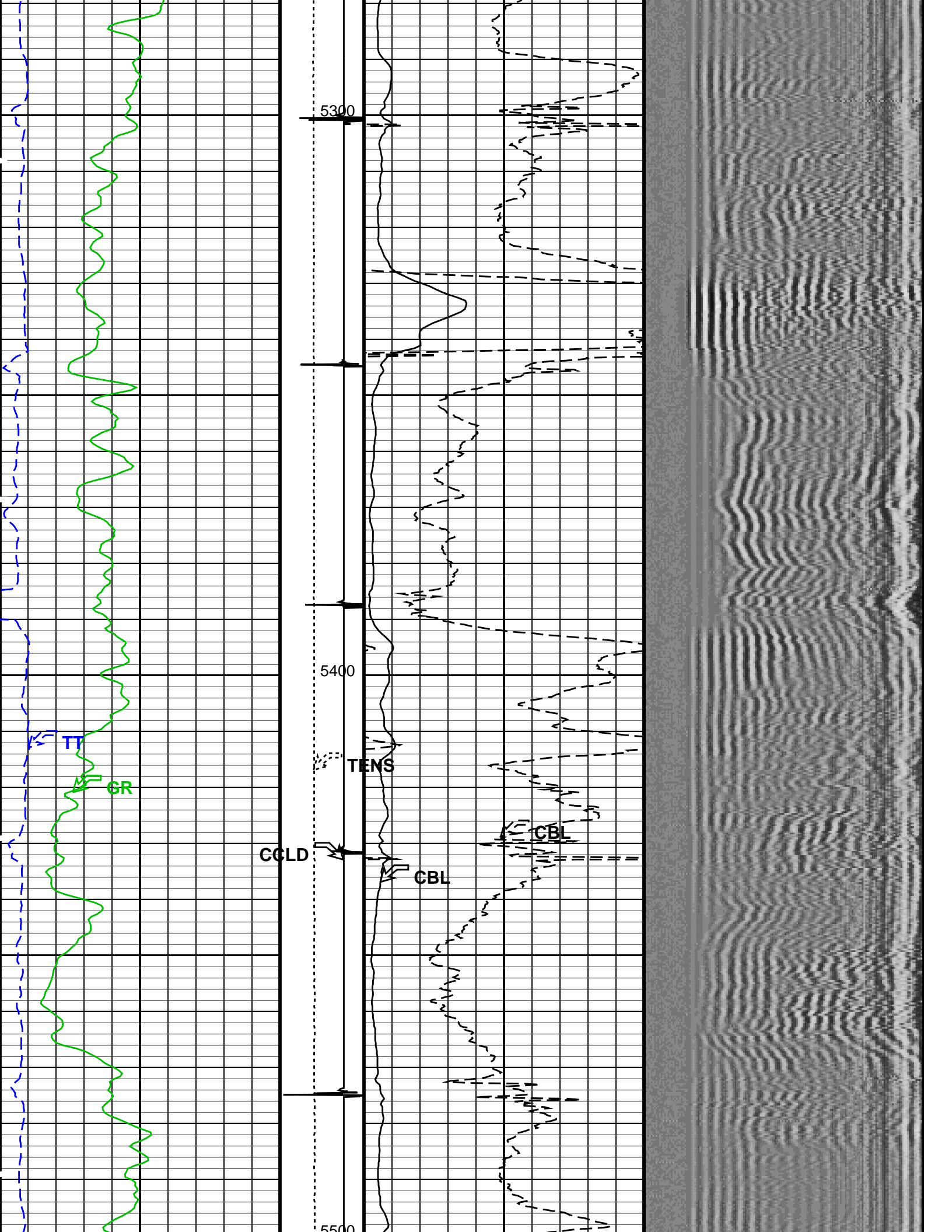


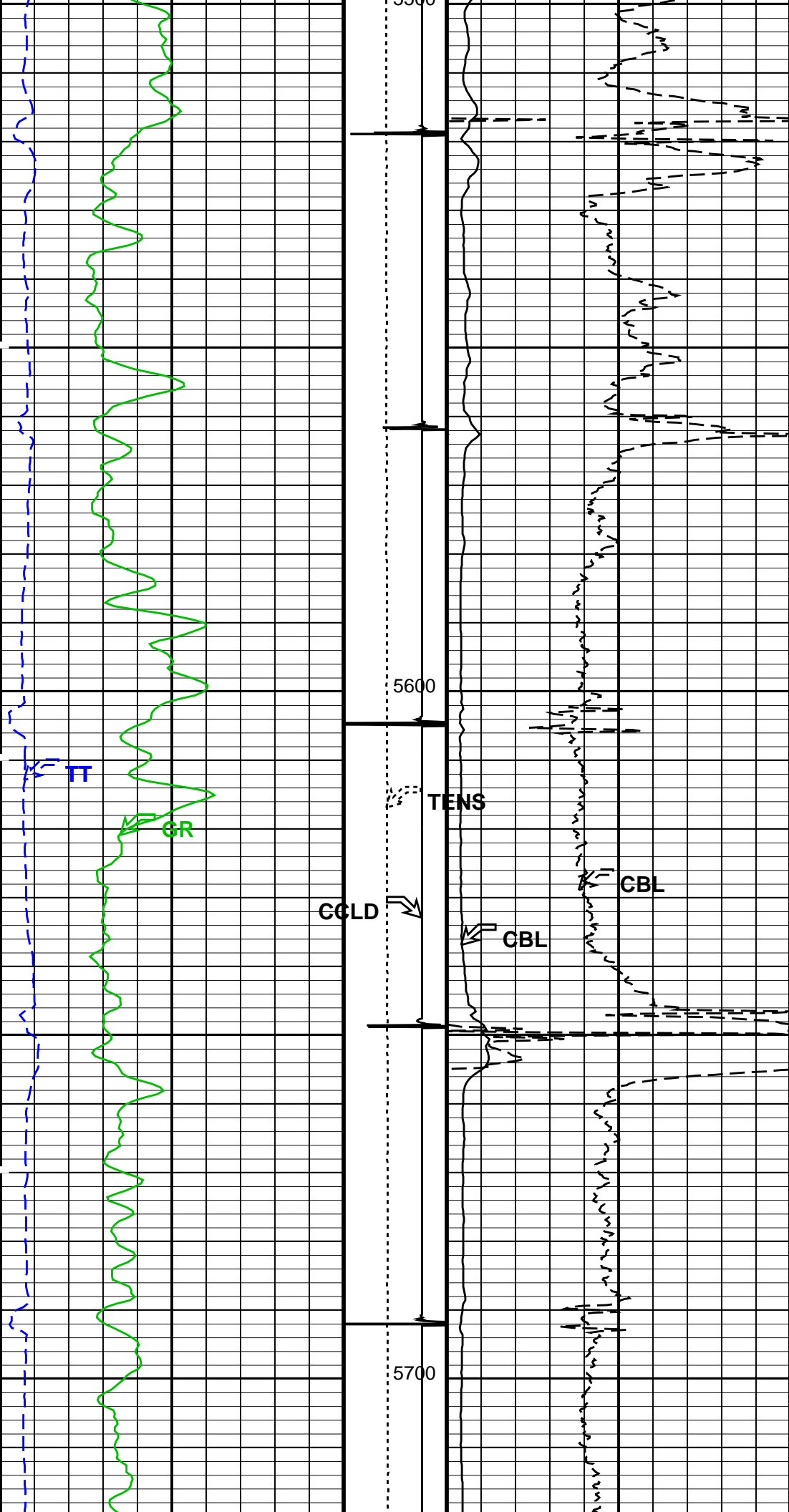


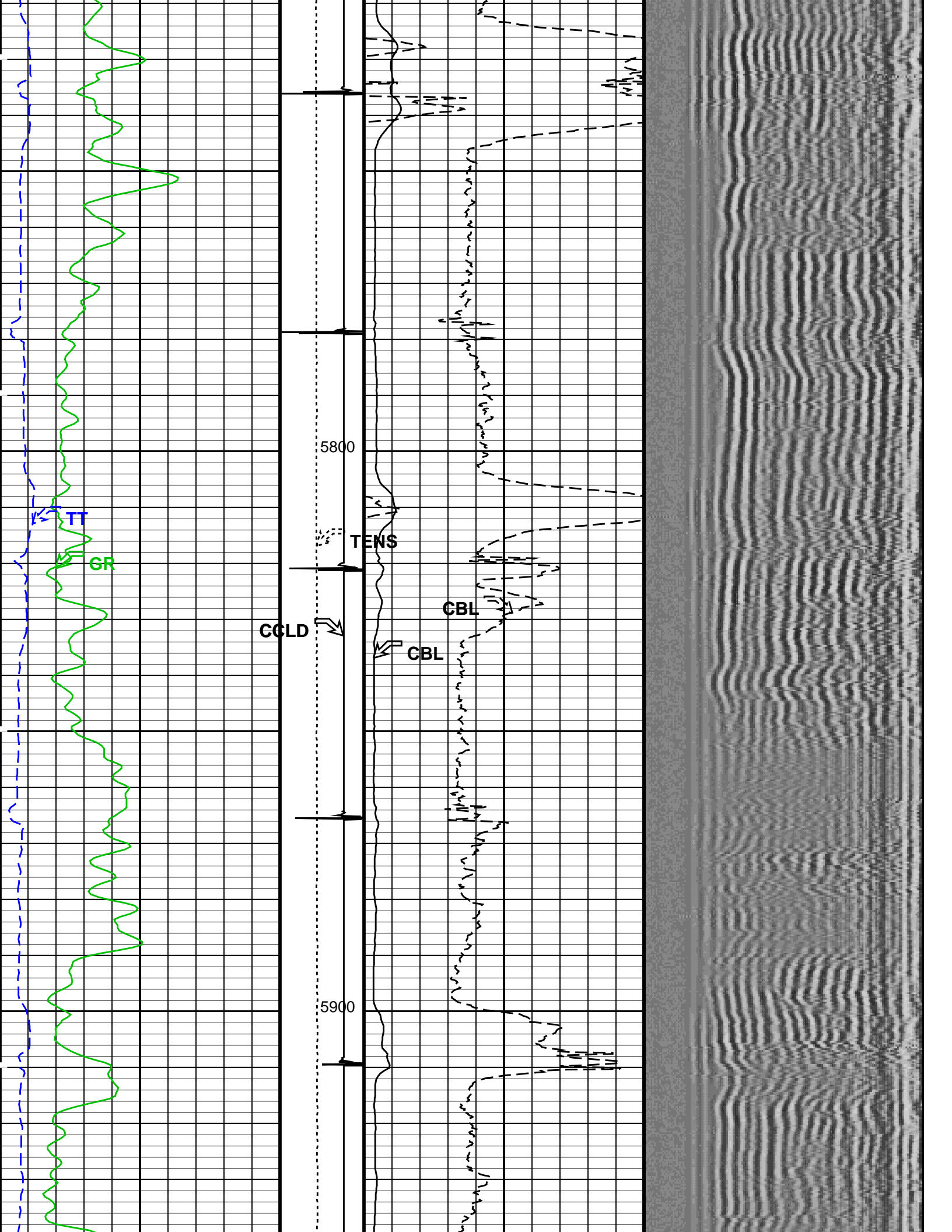


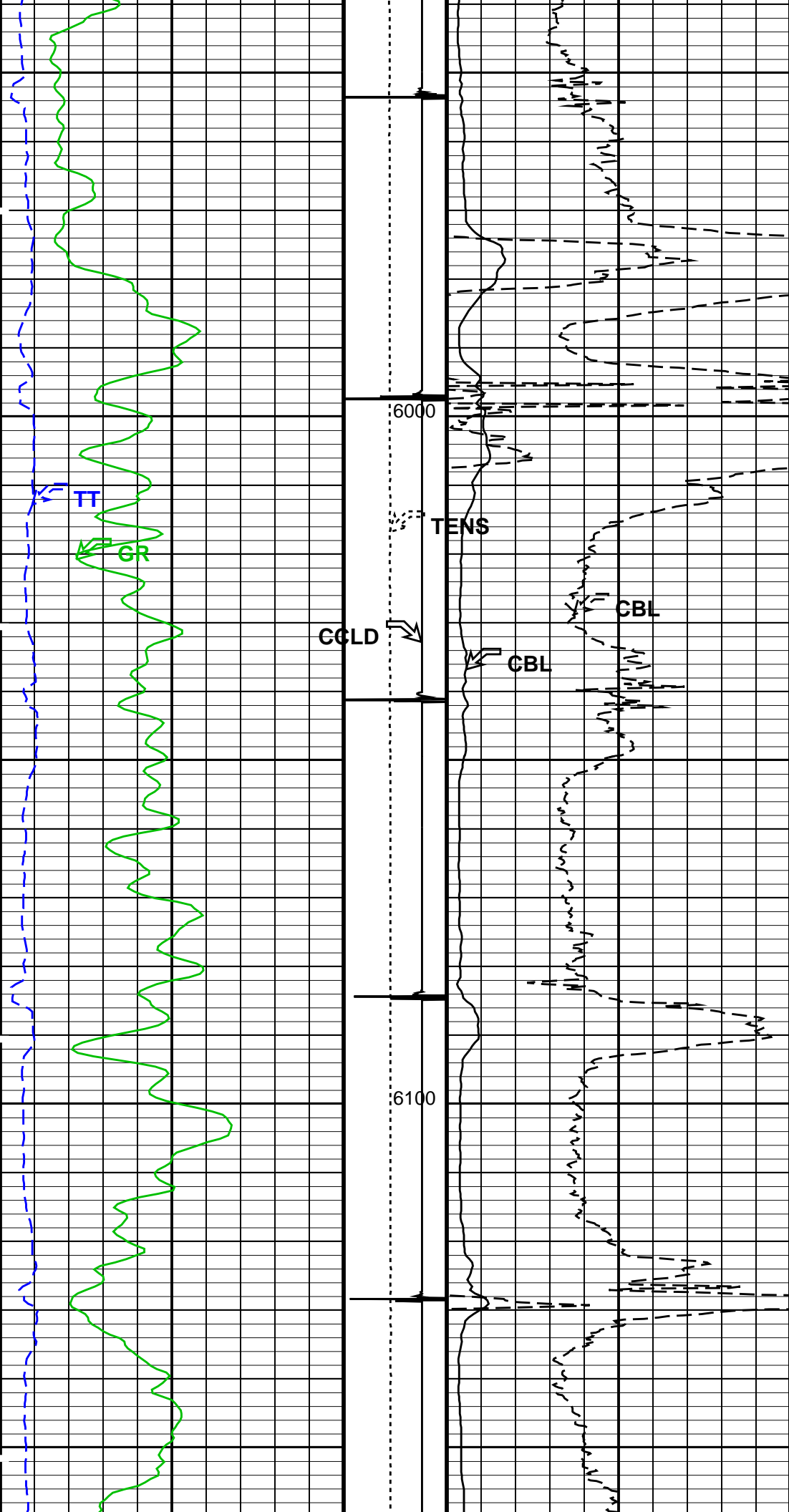


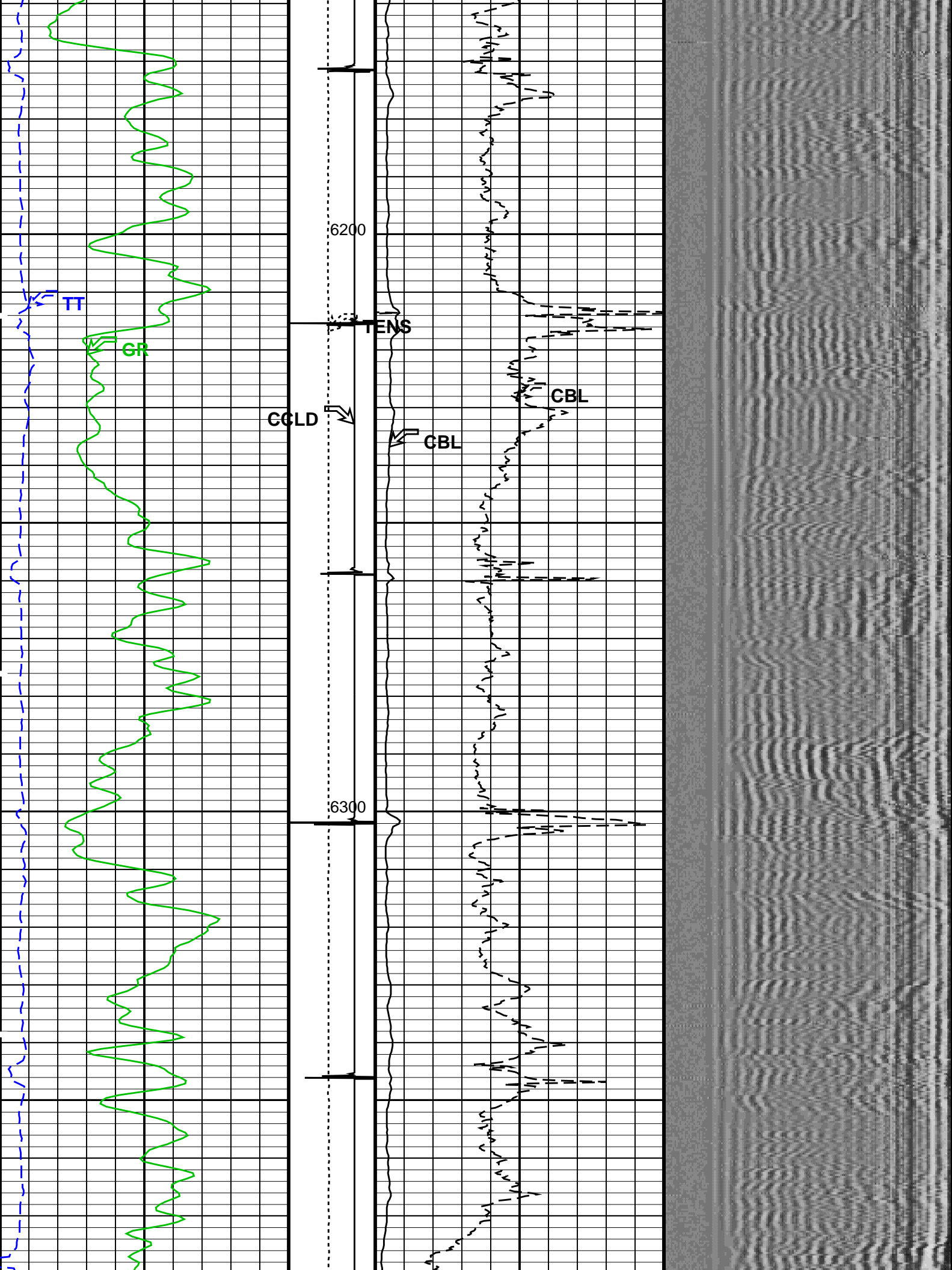


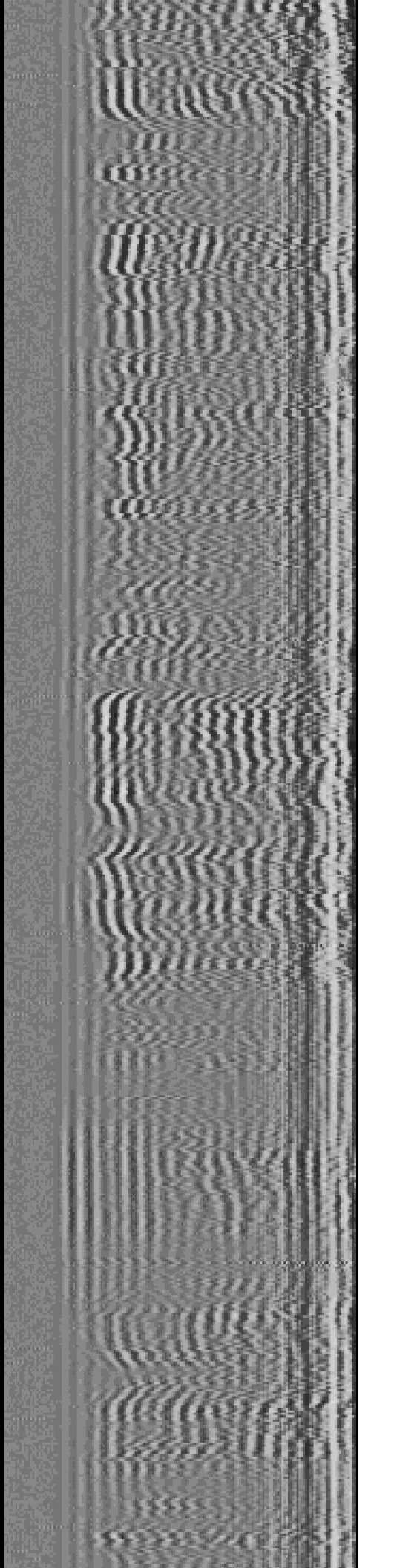
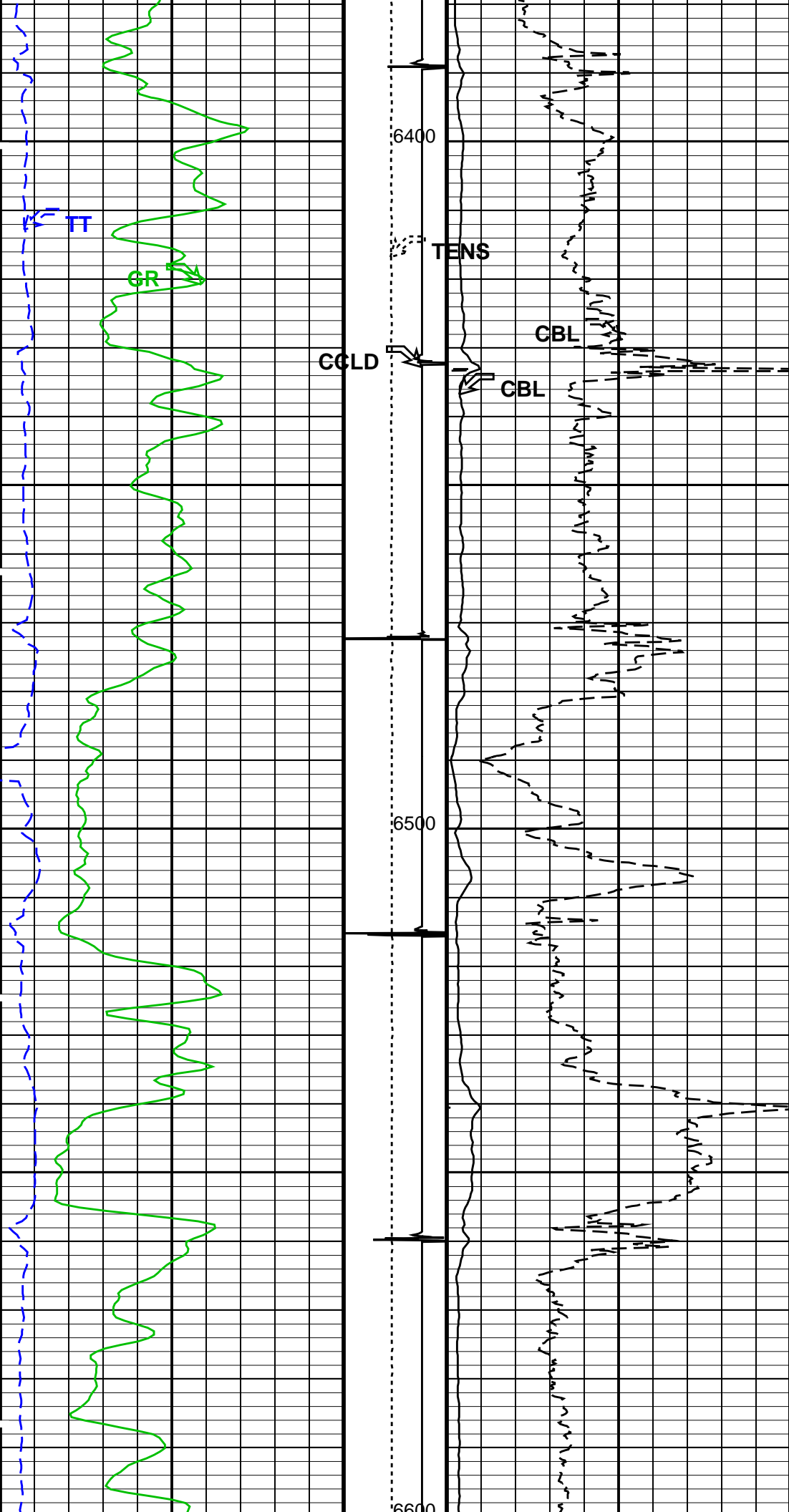


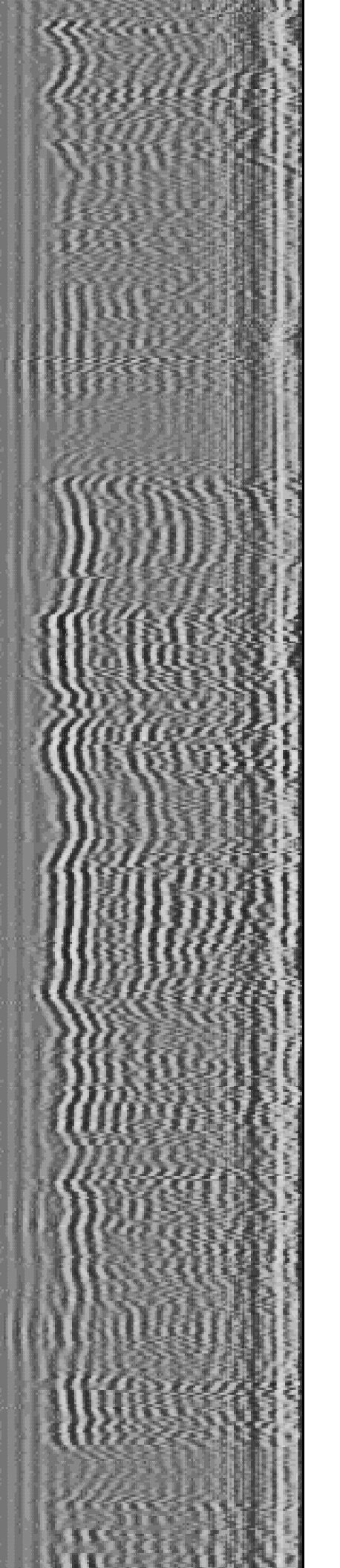
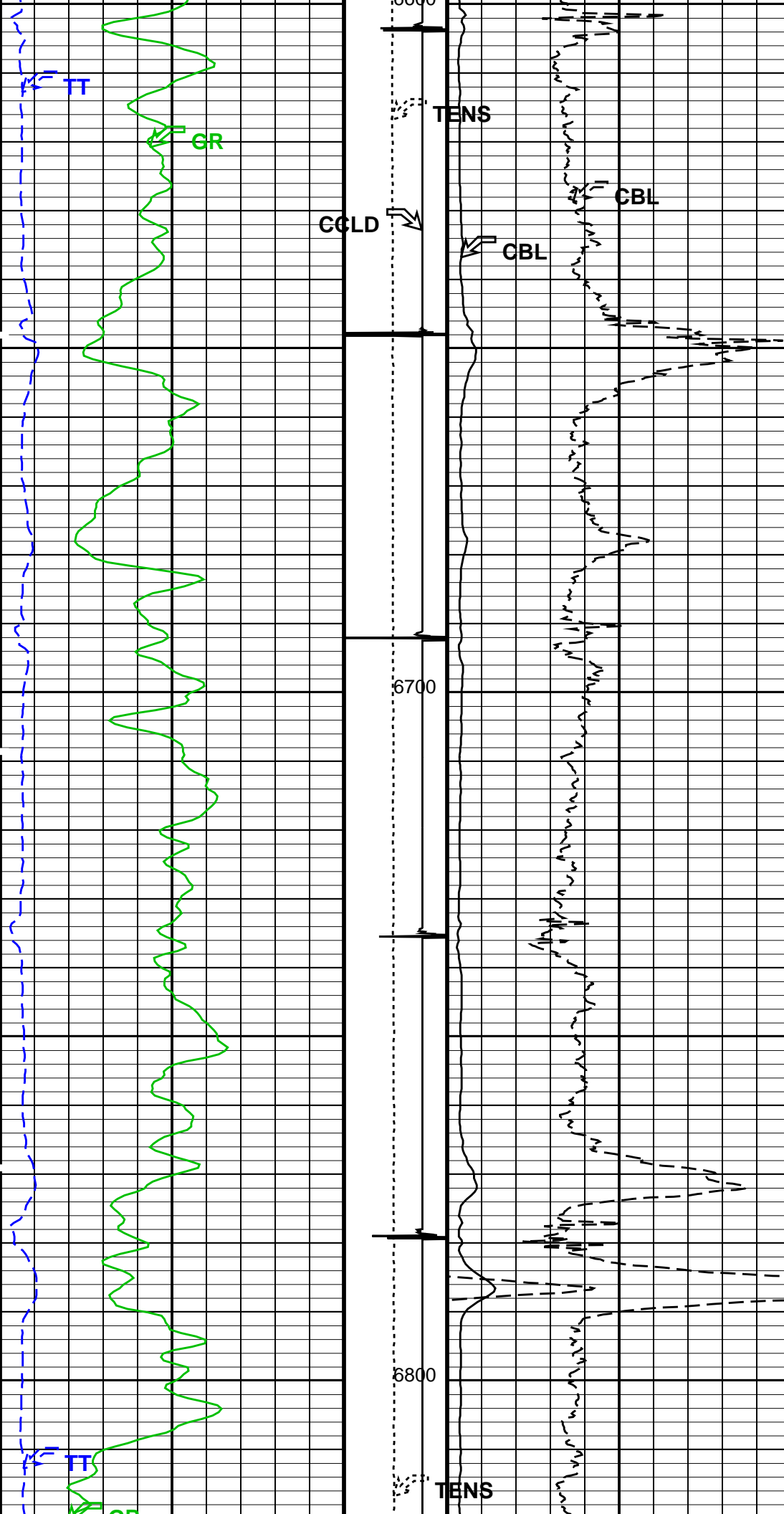


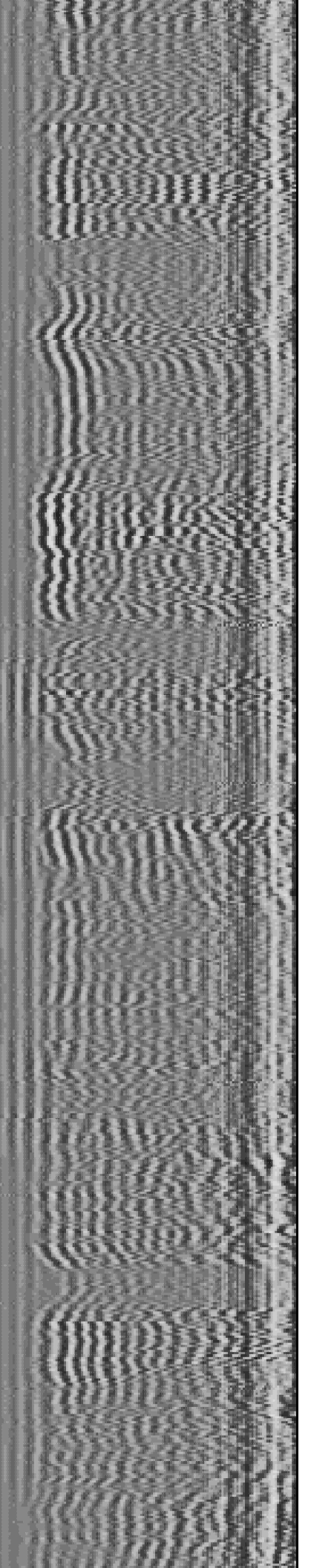
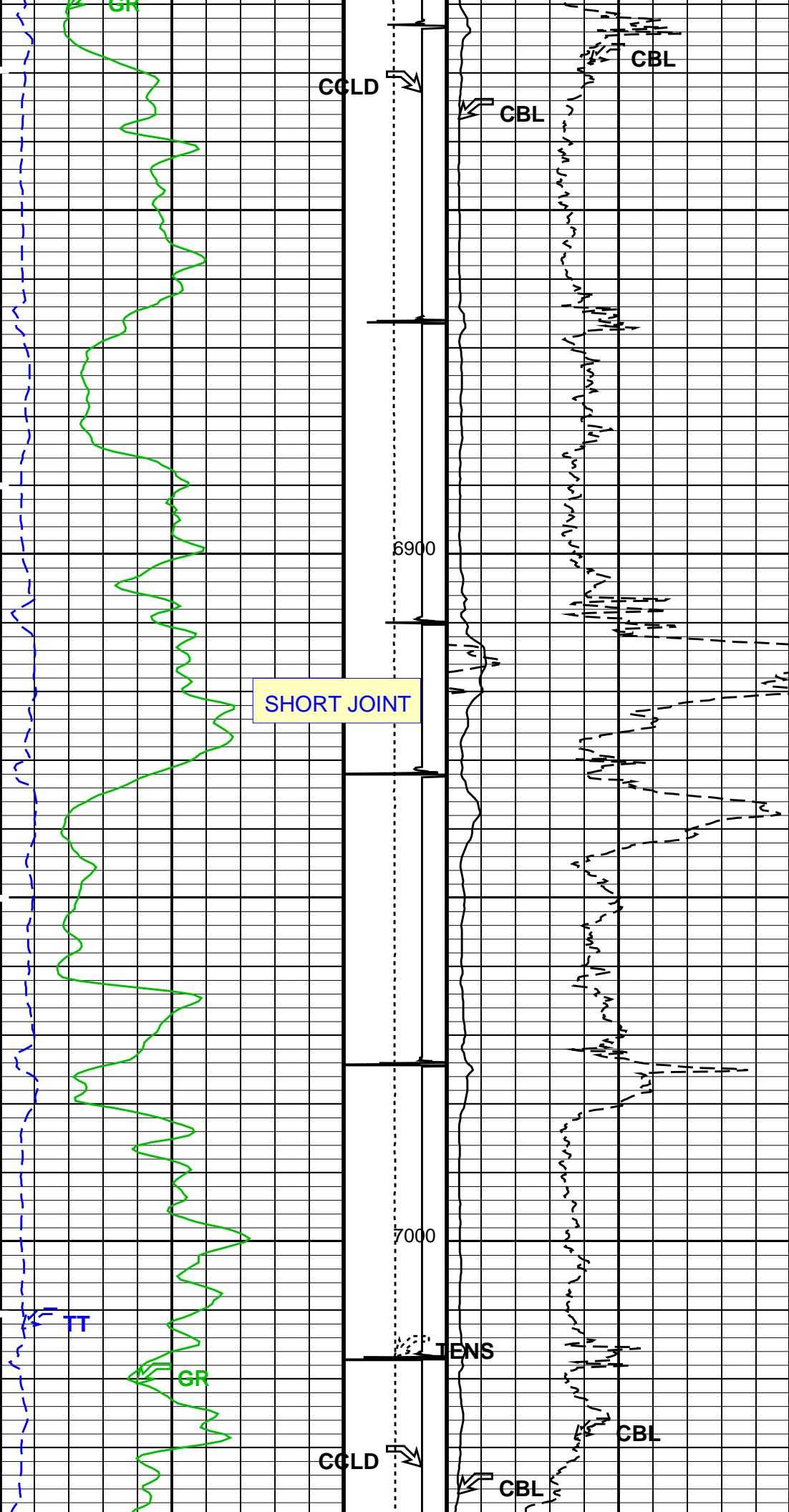


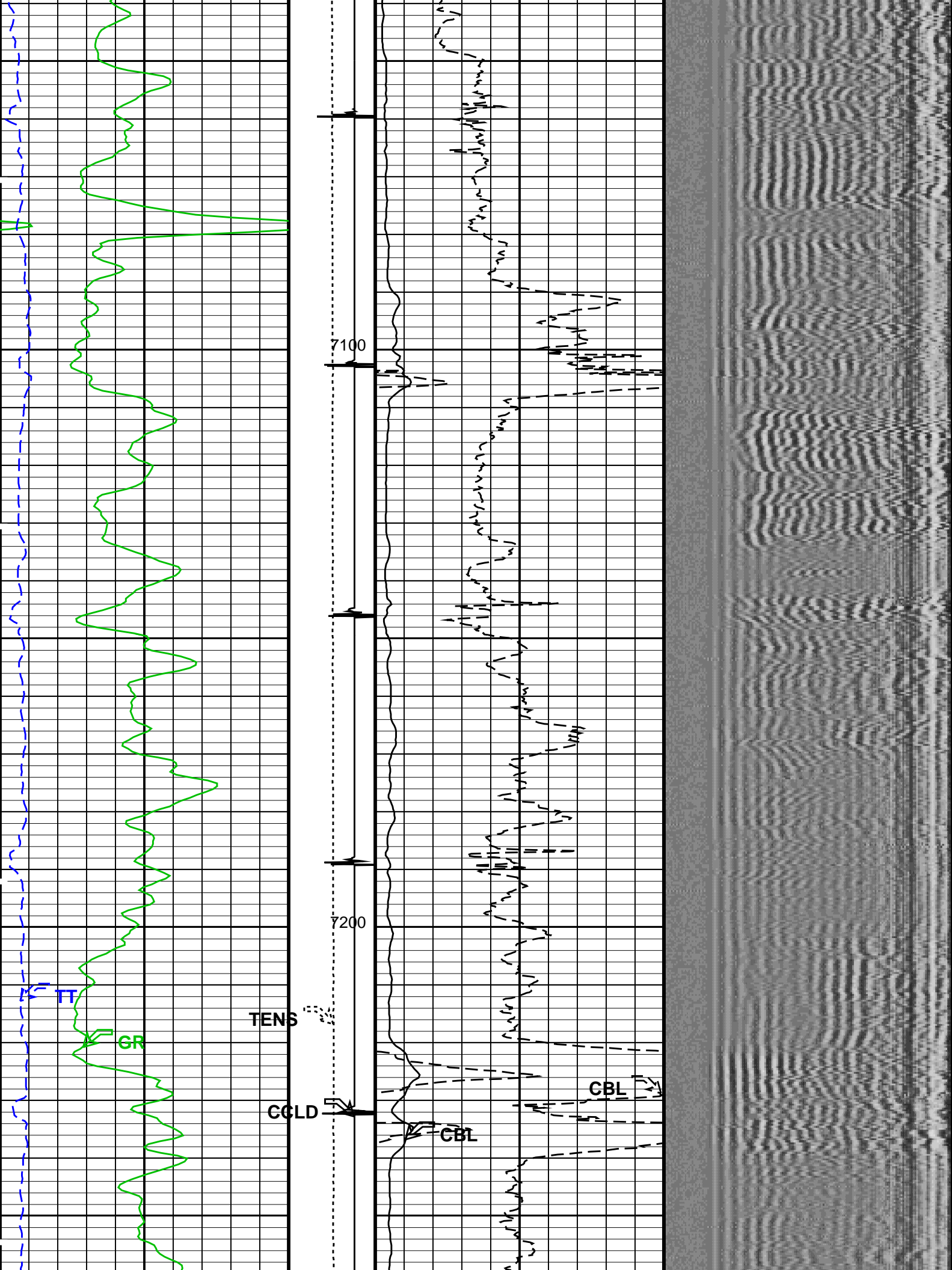


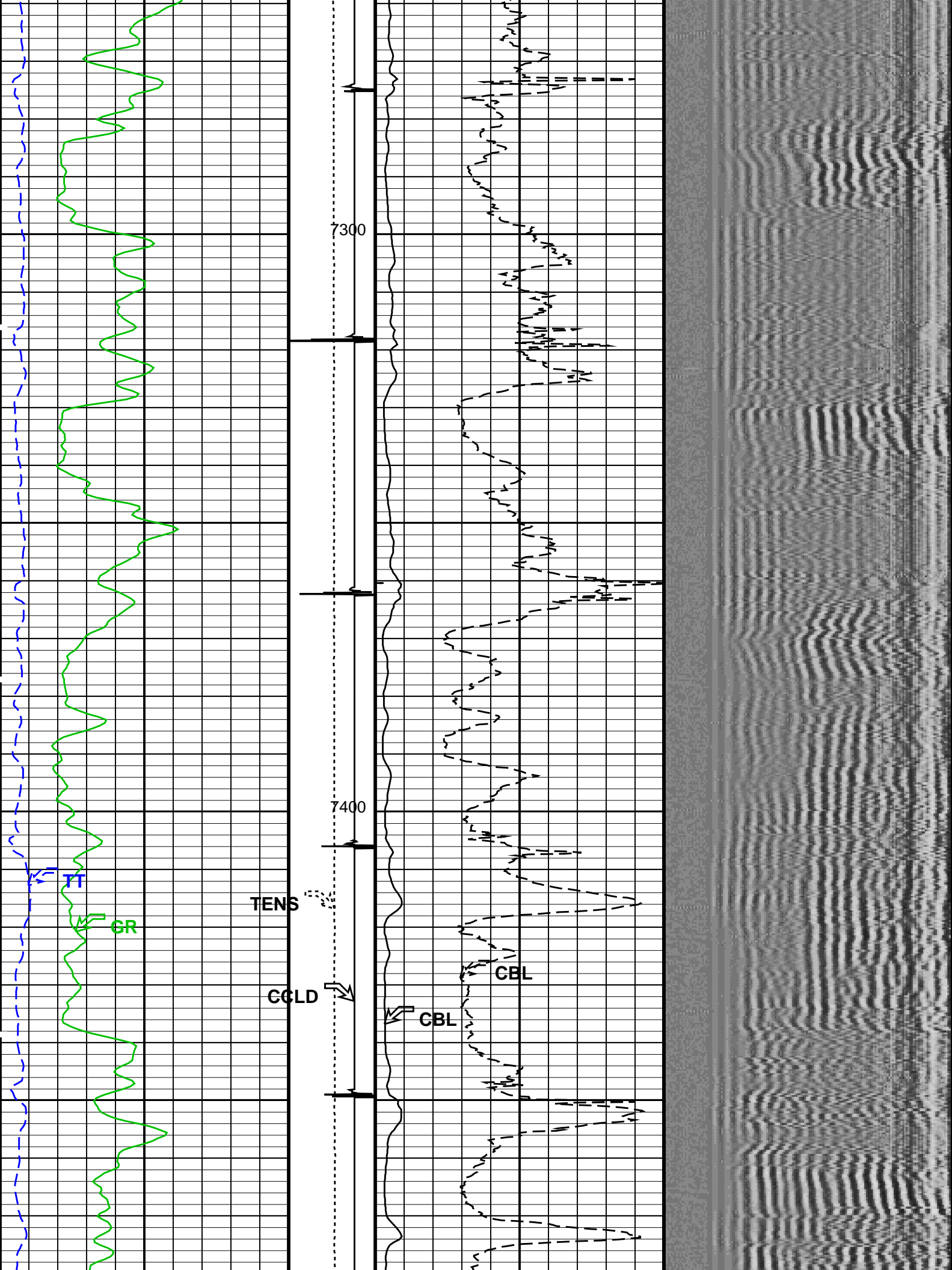


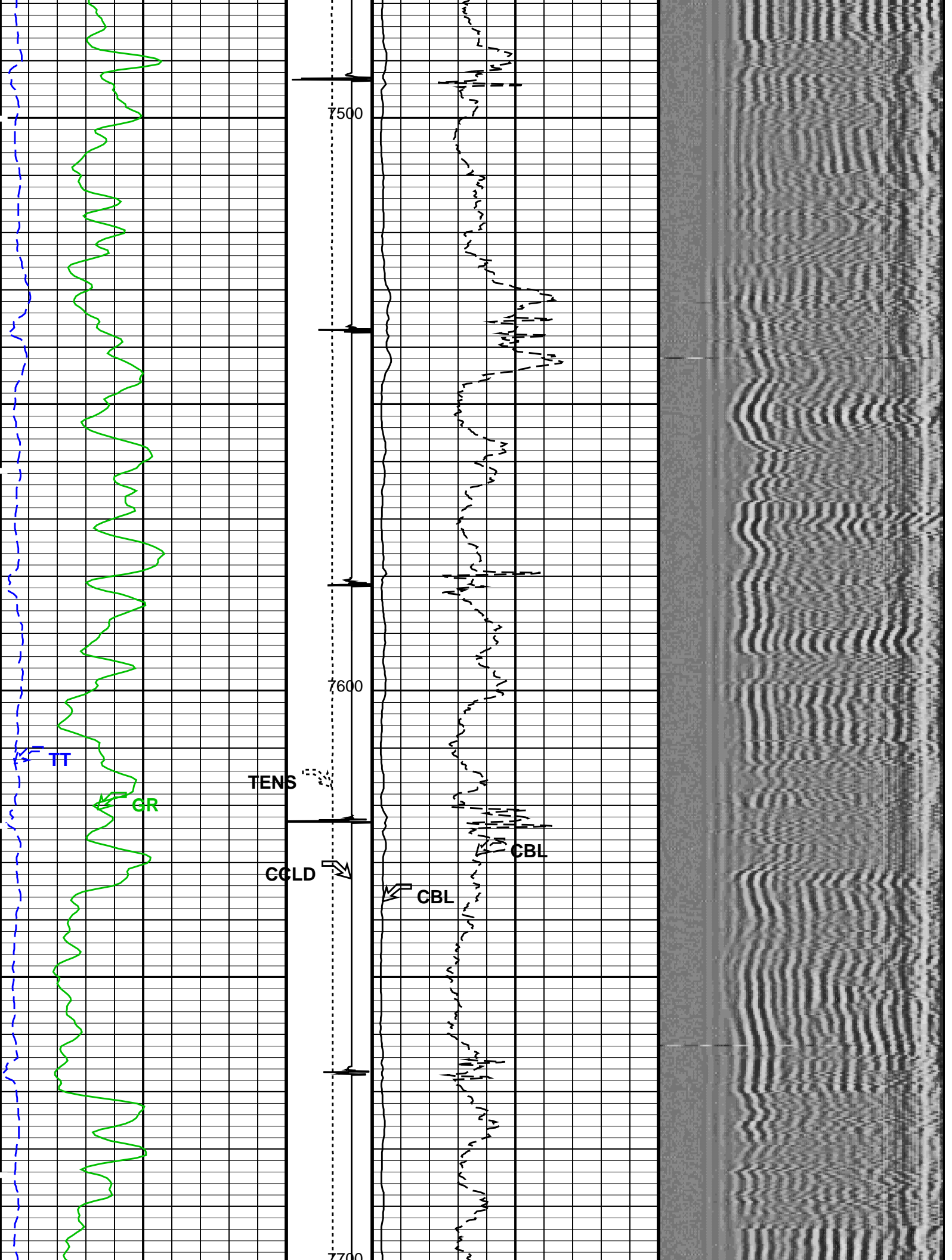


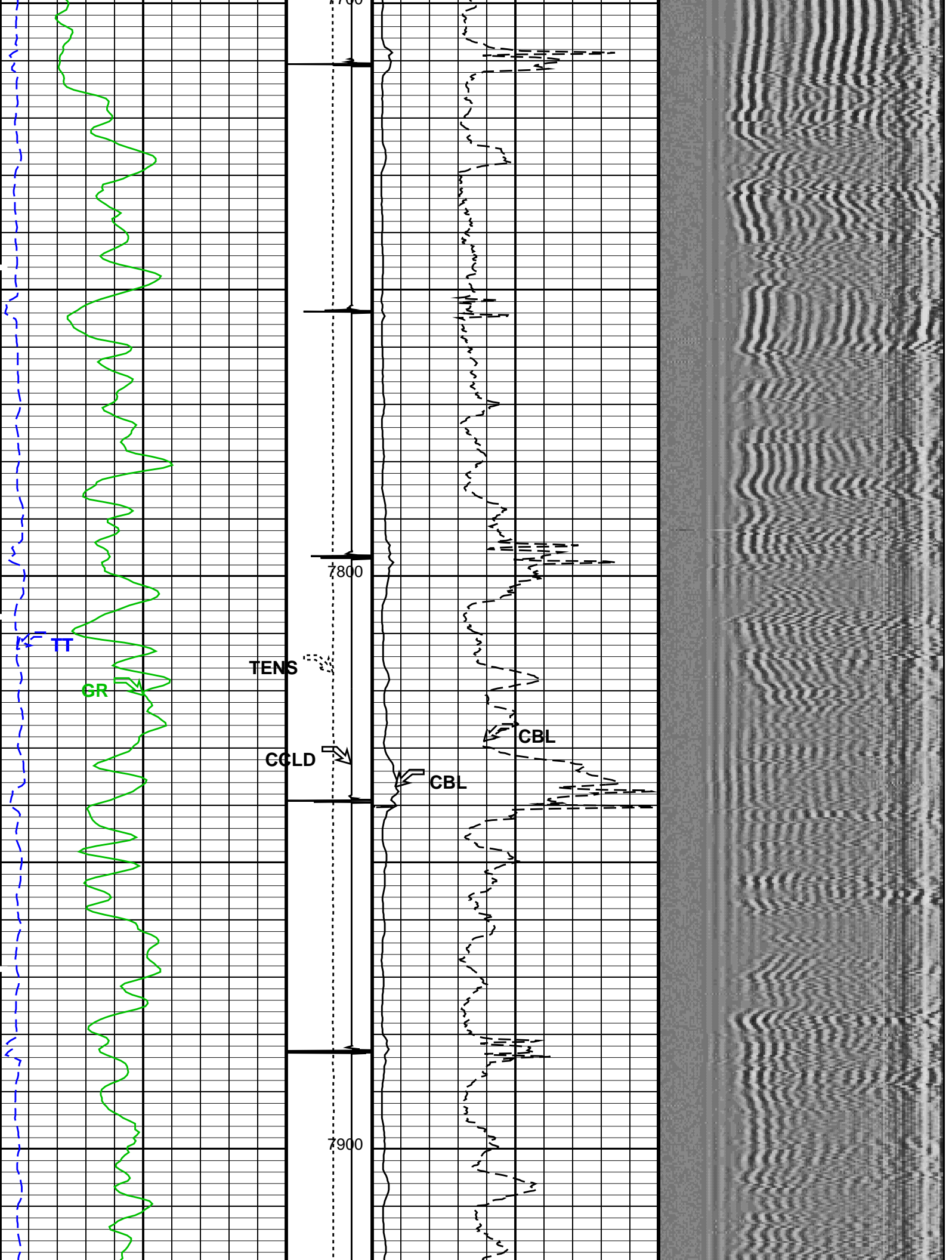


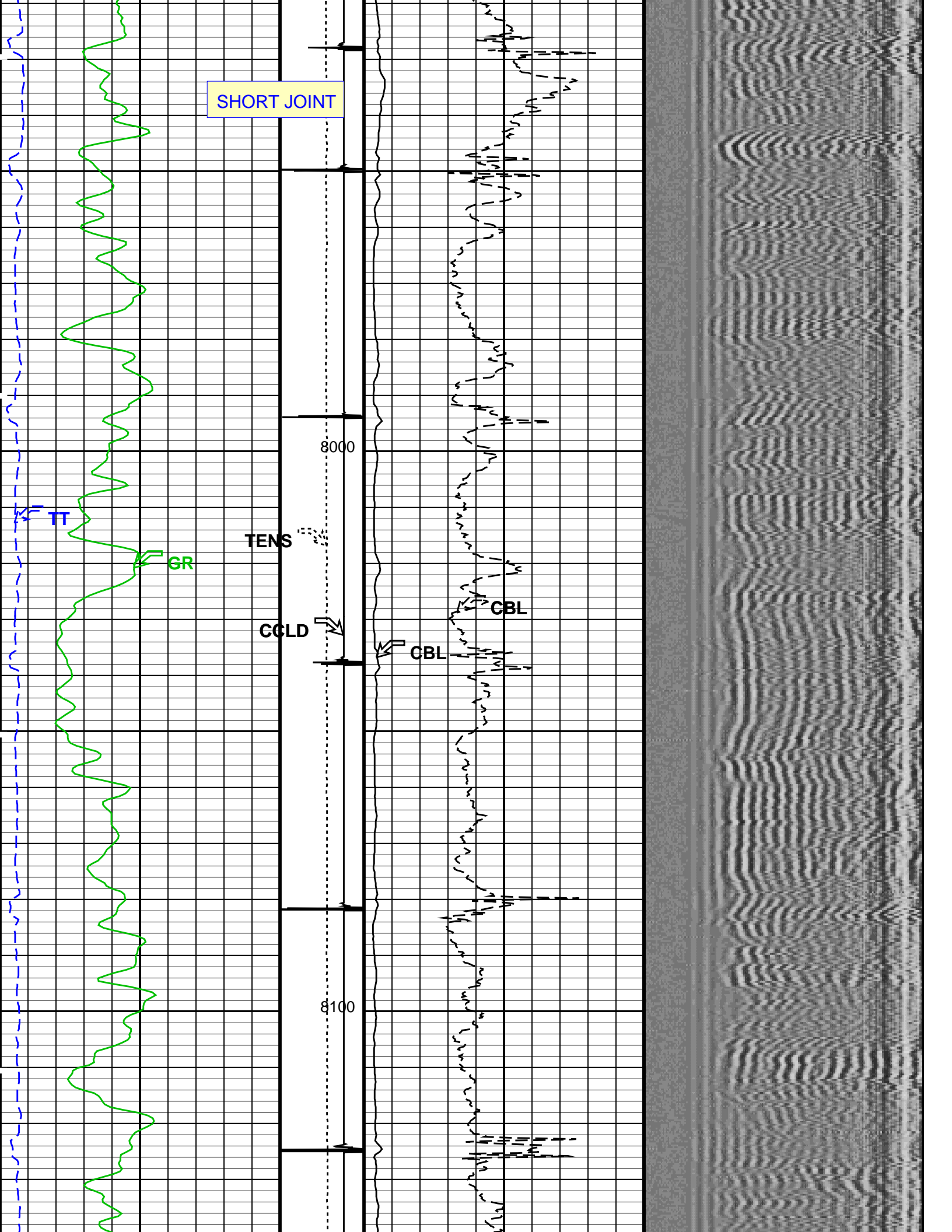


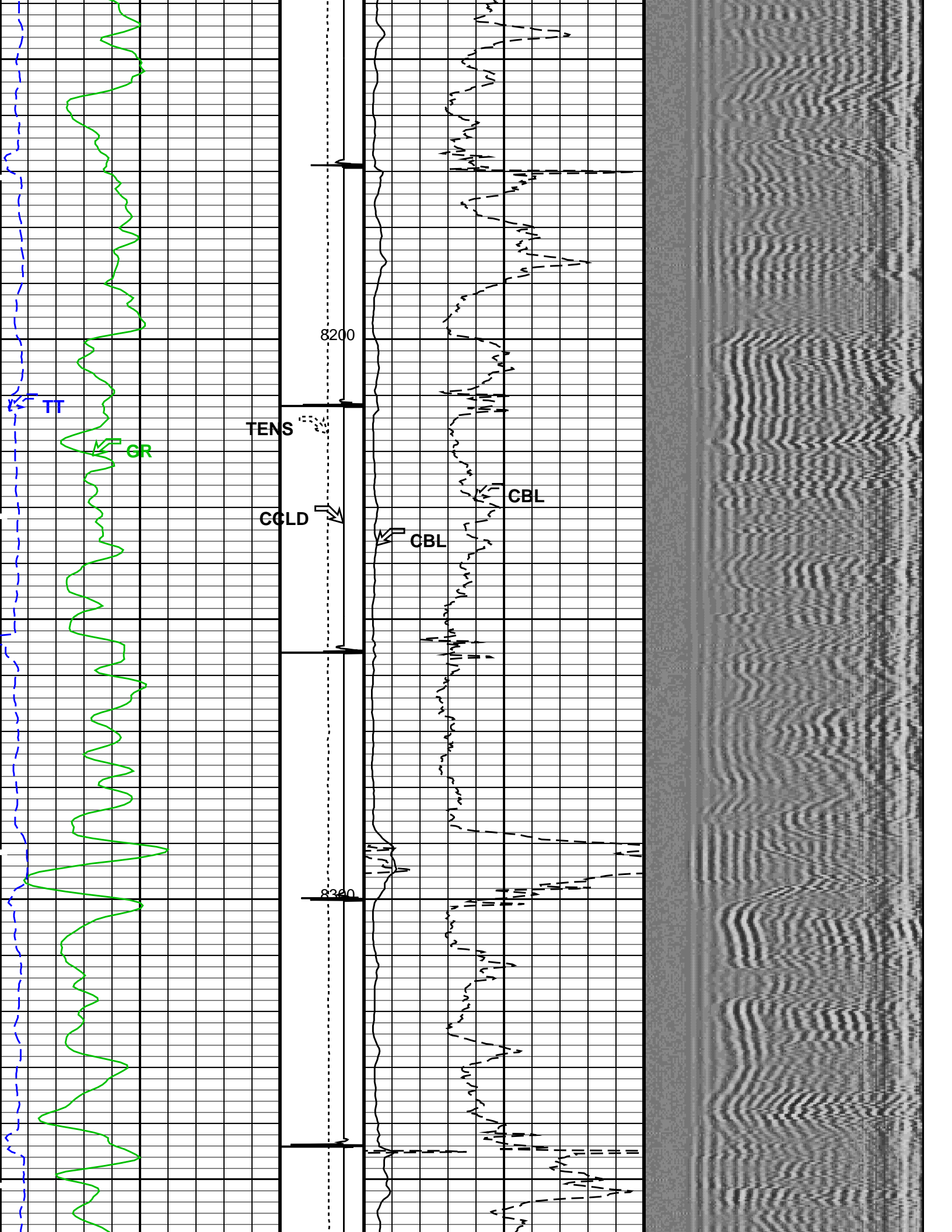


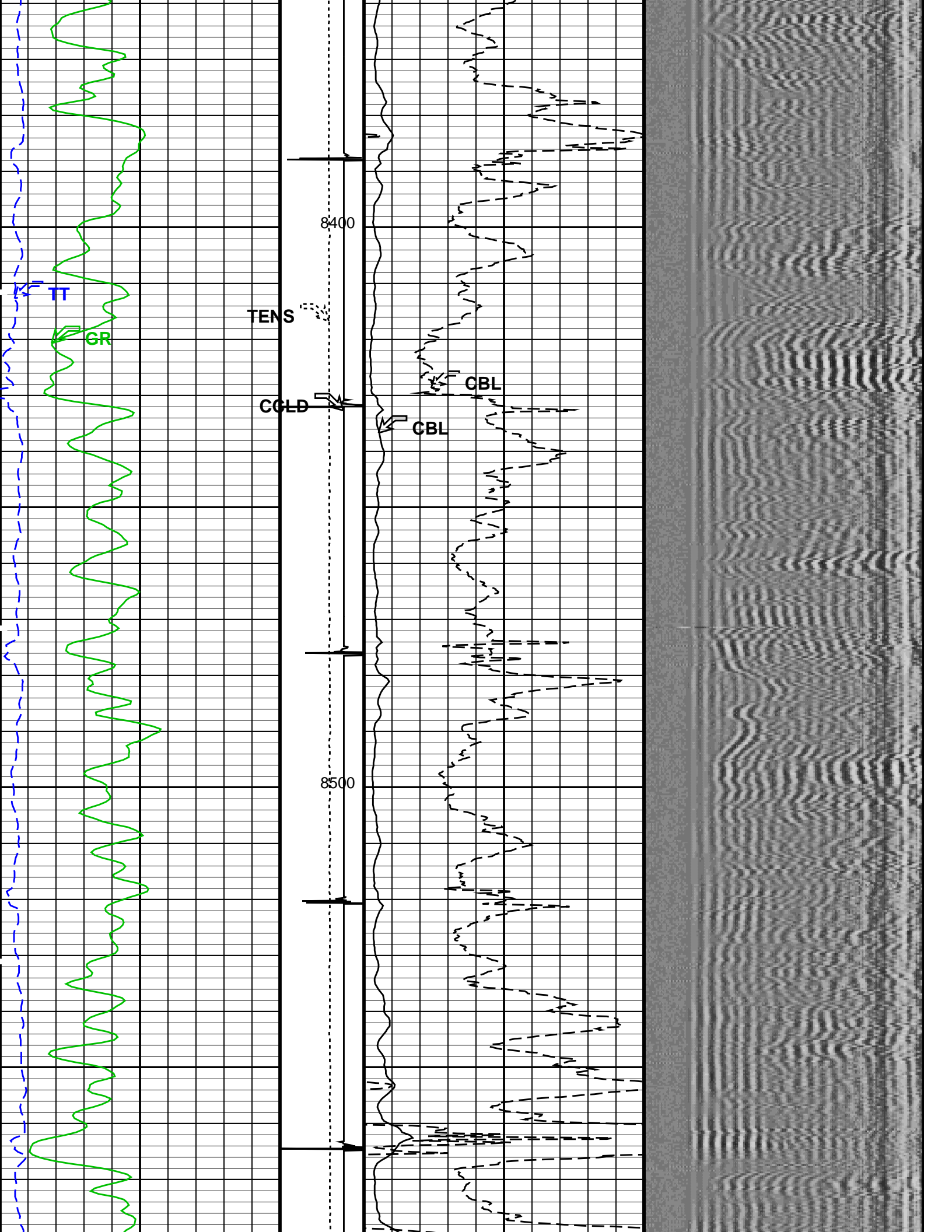


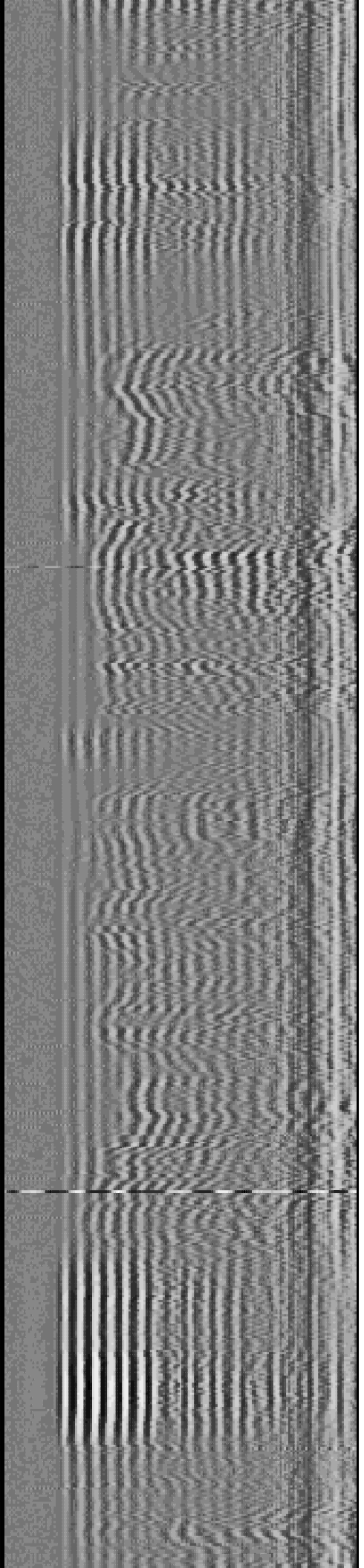
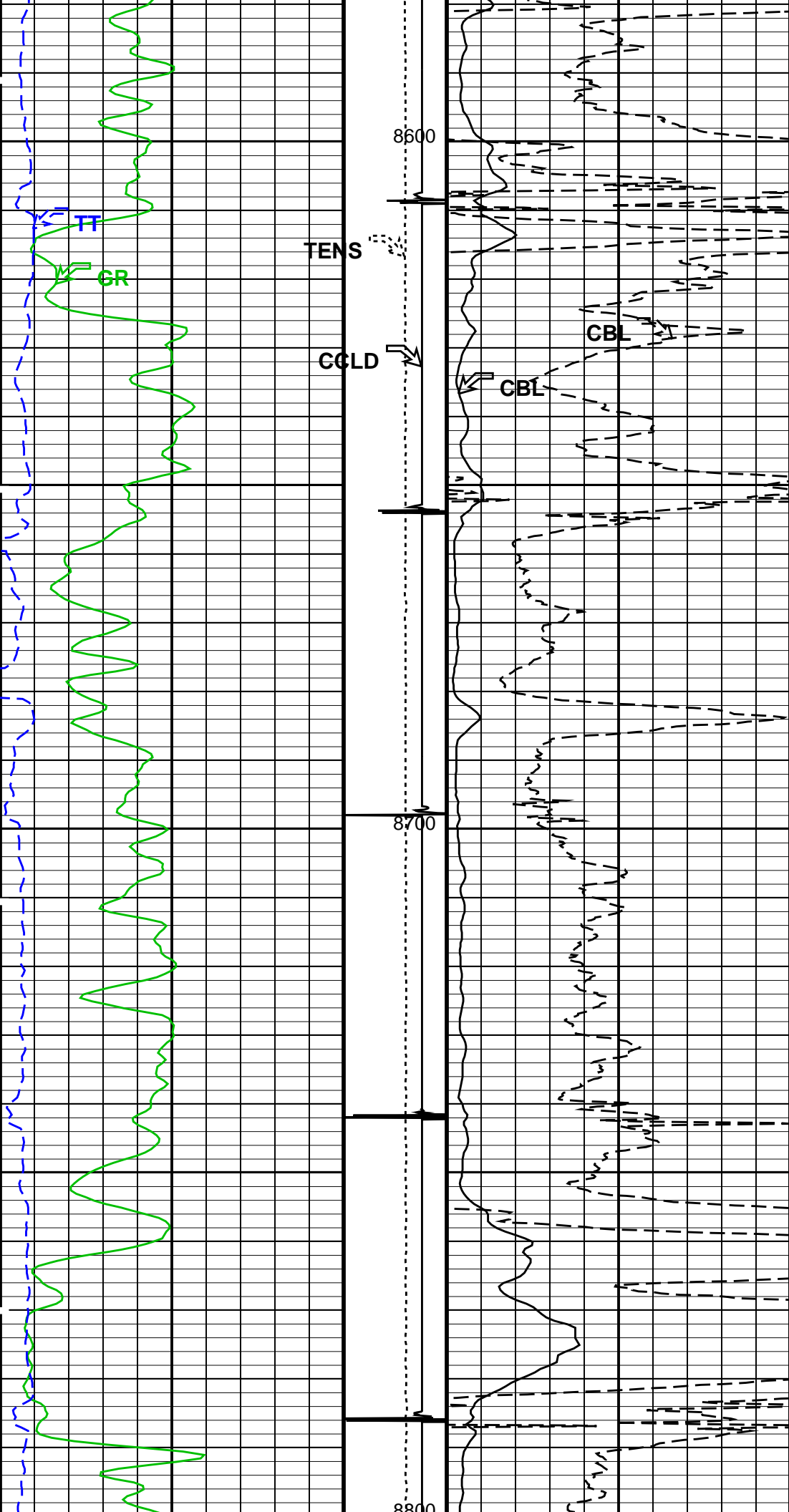


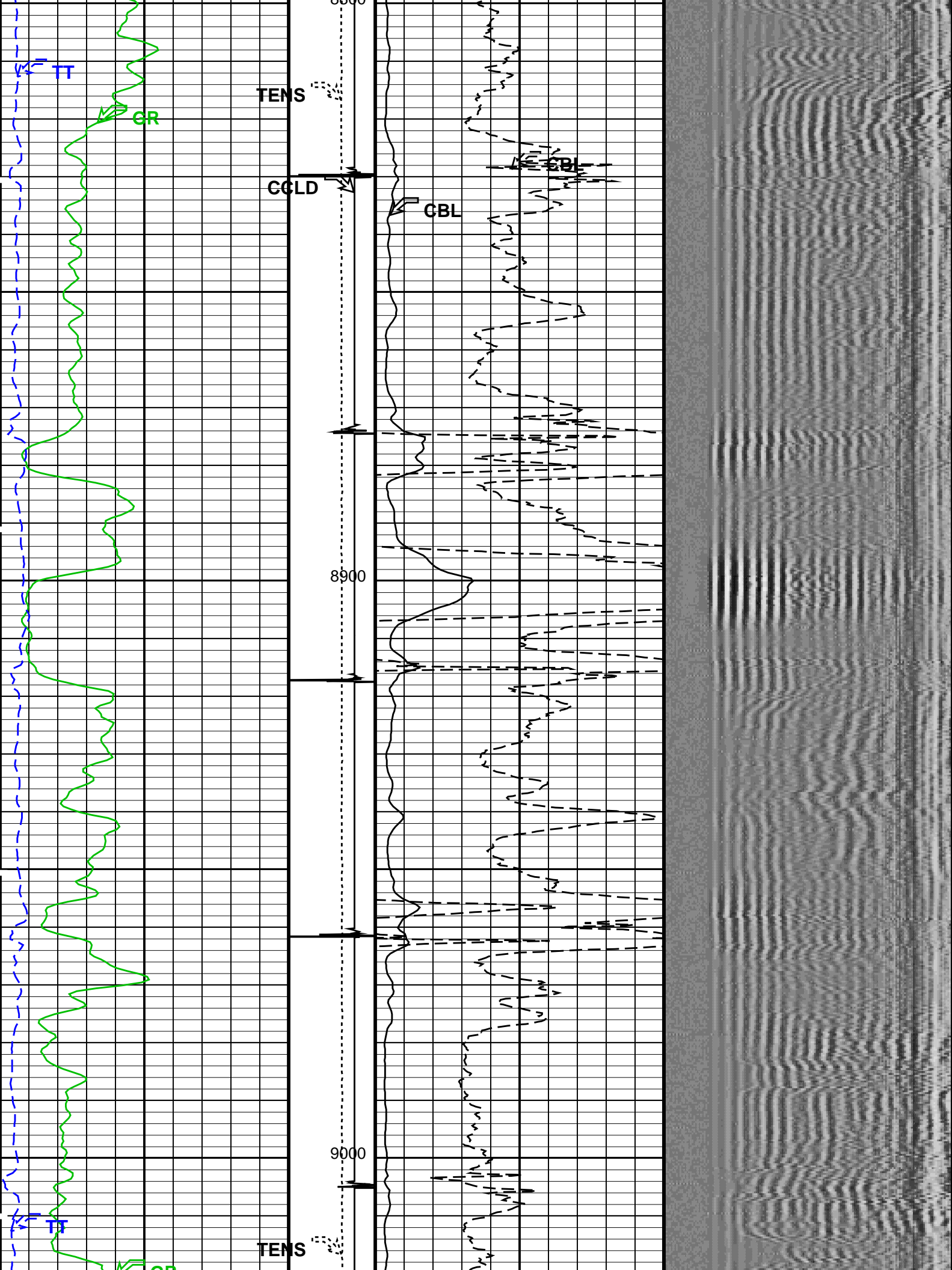


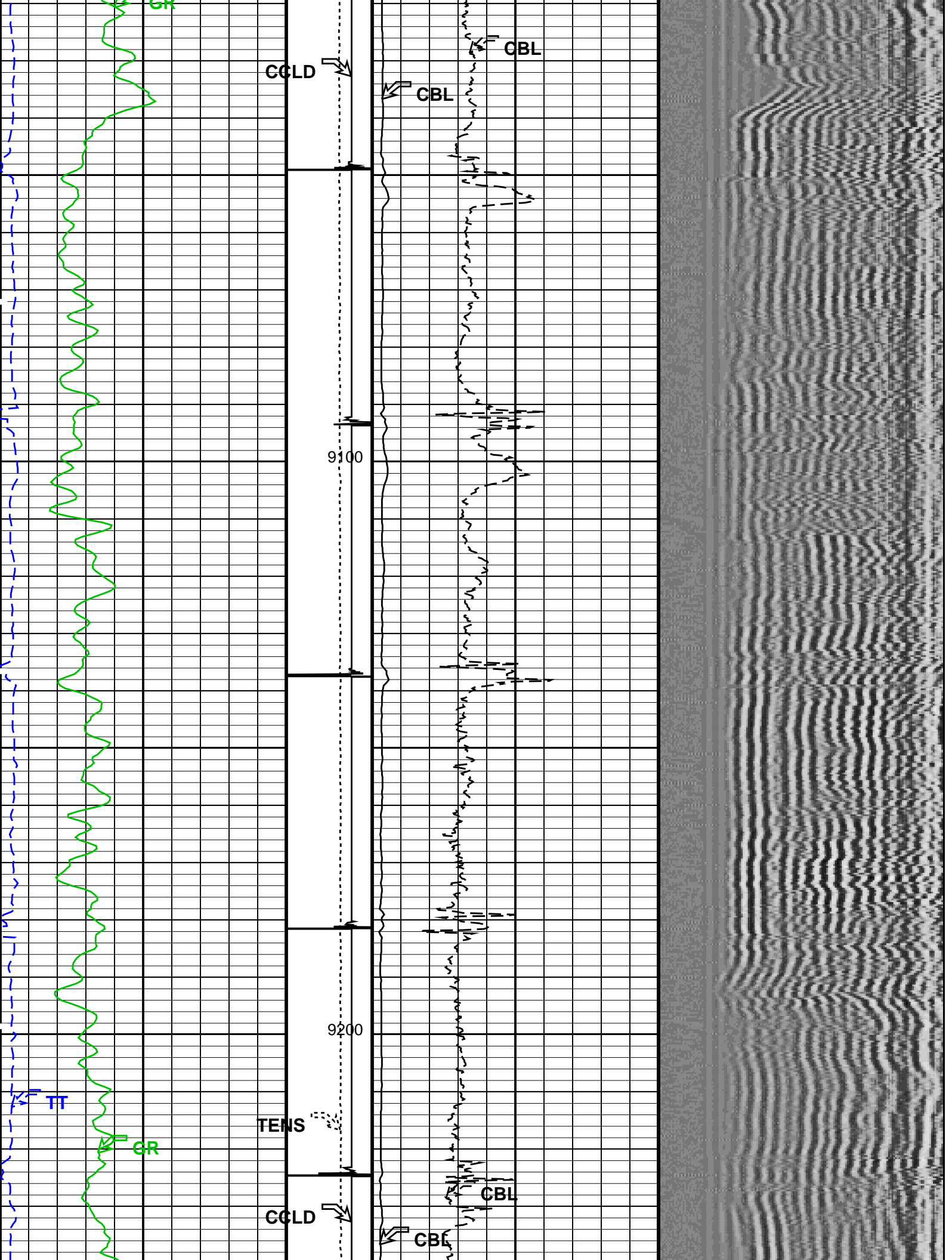


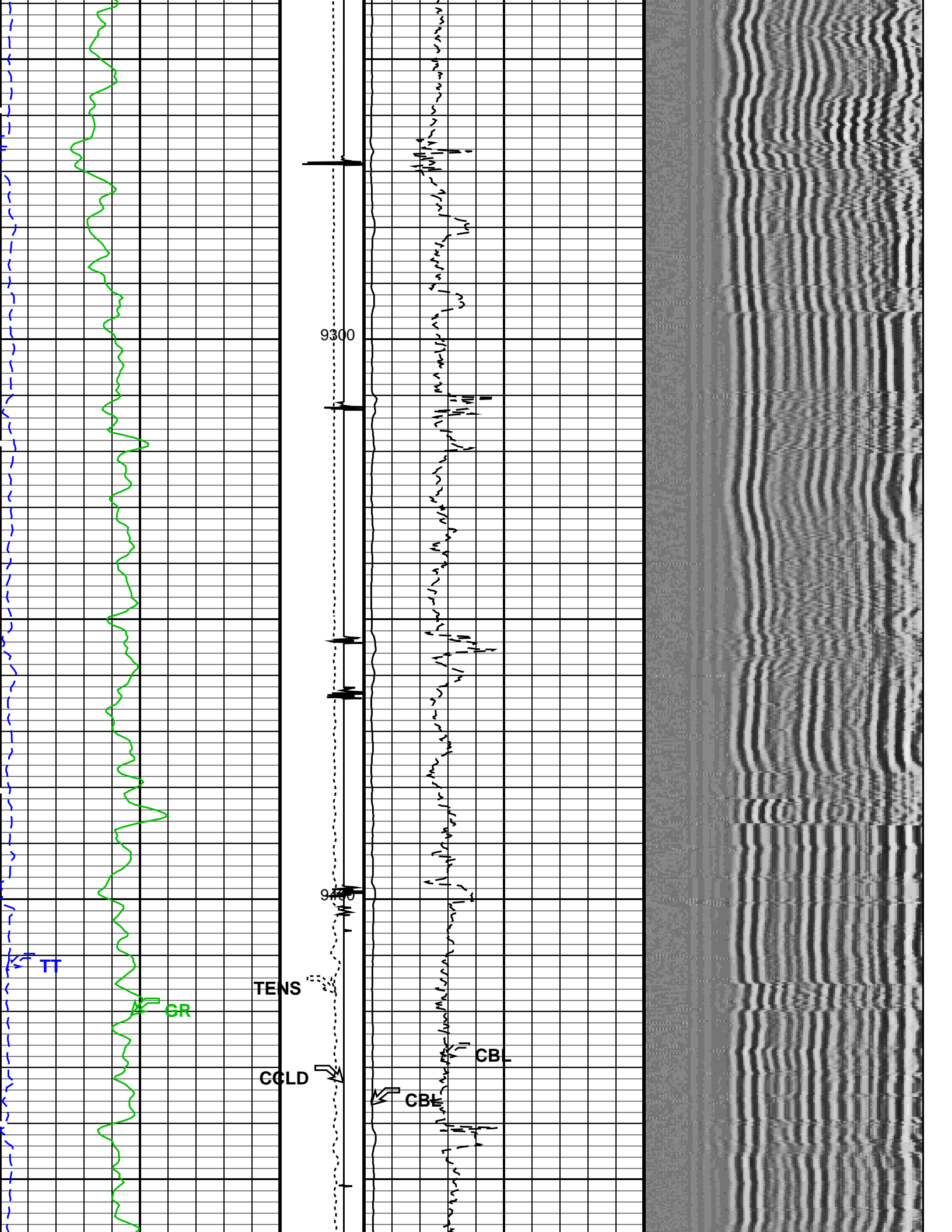


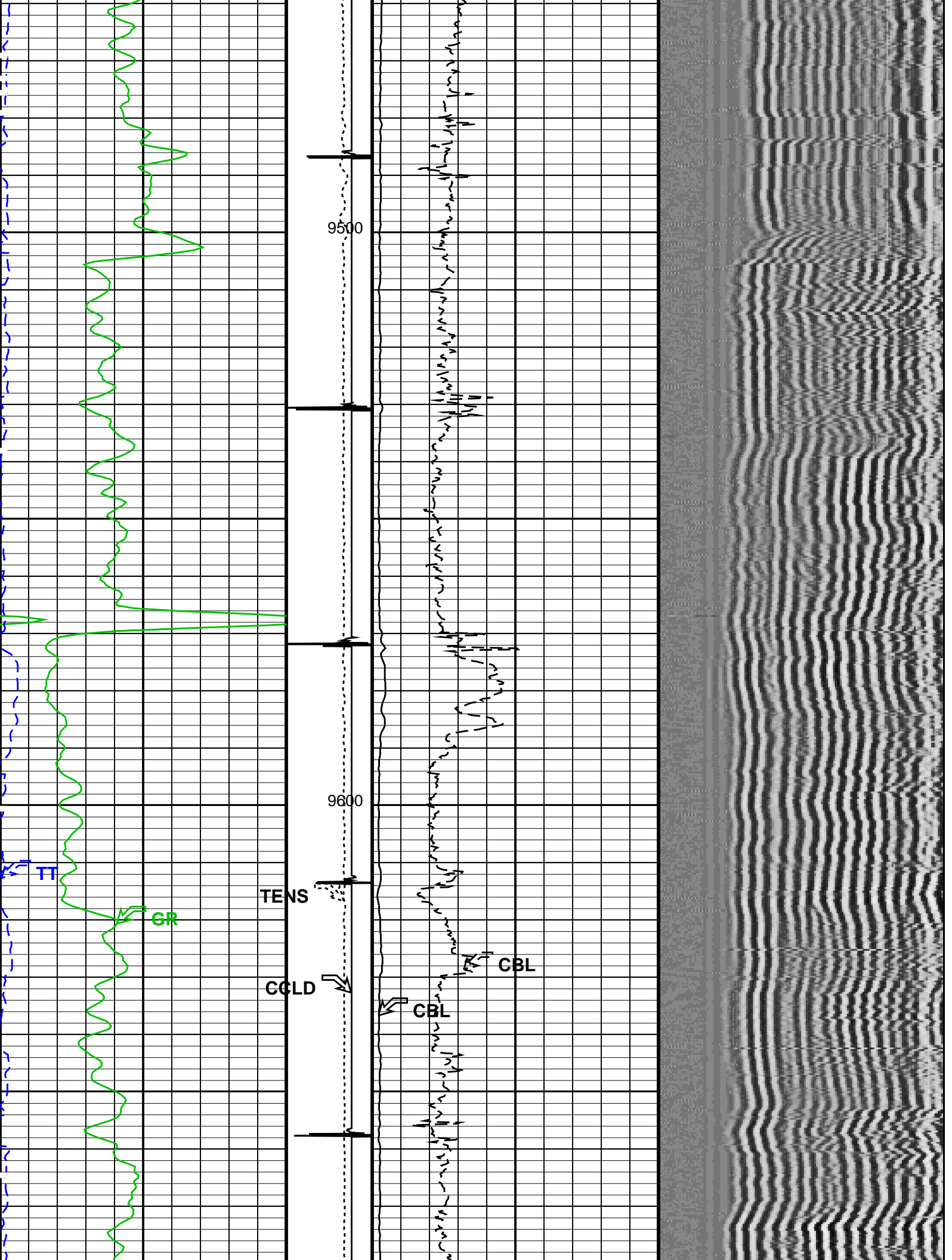


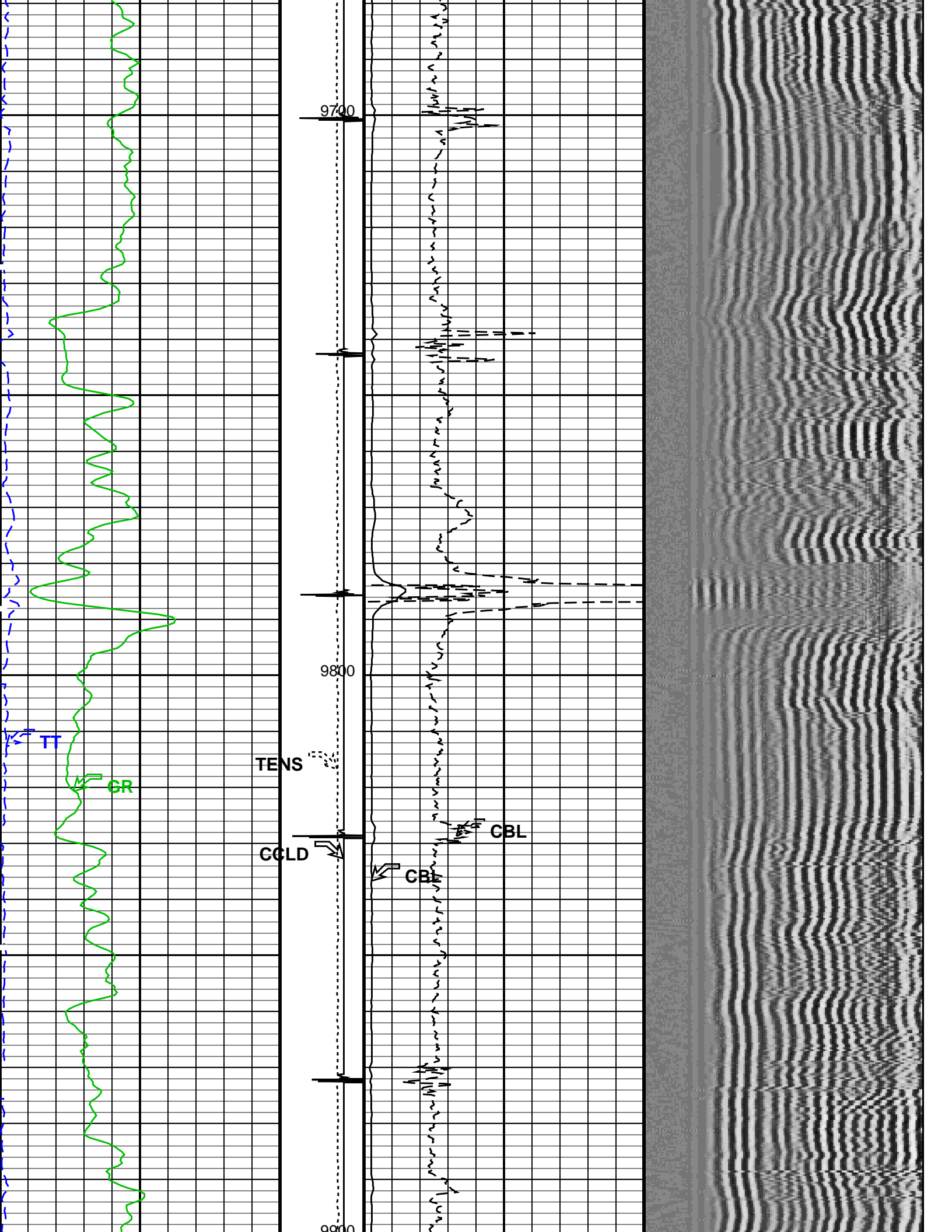












OP System Version: 19C0-187

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 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	
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
DO	Depth Offset for Playback	3.0	FT
PP	Playback Processing	RECOMPUTE	

TD	Total Depth	10075	FT
Input DLIS Files			
DEFAULT	SCMT_RST_HBMS_073LUP	FN:68	PRODUCER 24-Sep-2012 08:59 10082.0 FT 43.0 FT
Output DLIS Files			
DEFAULT	SCMT_RST_HBMS_077PUP	FN:72	PRODUCER 24-Sep-2012 11:56



REPEAT ANALYSIS CBL VDL

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INCWell: MCU FEE 22-11A (N22W)

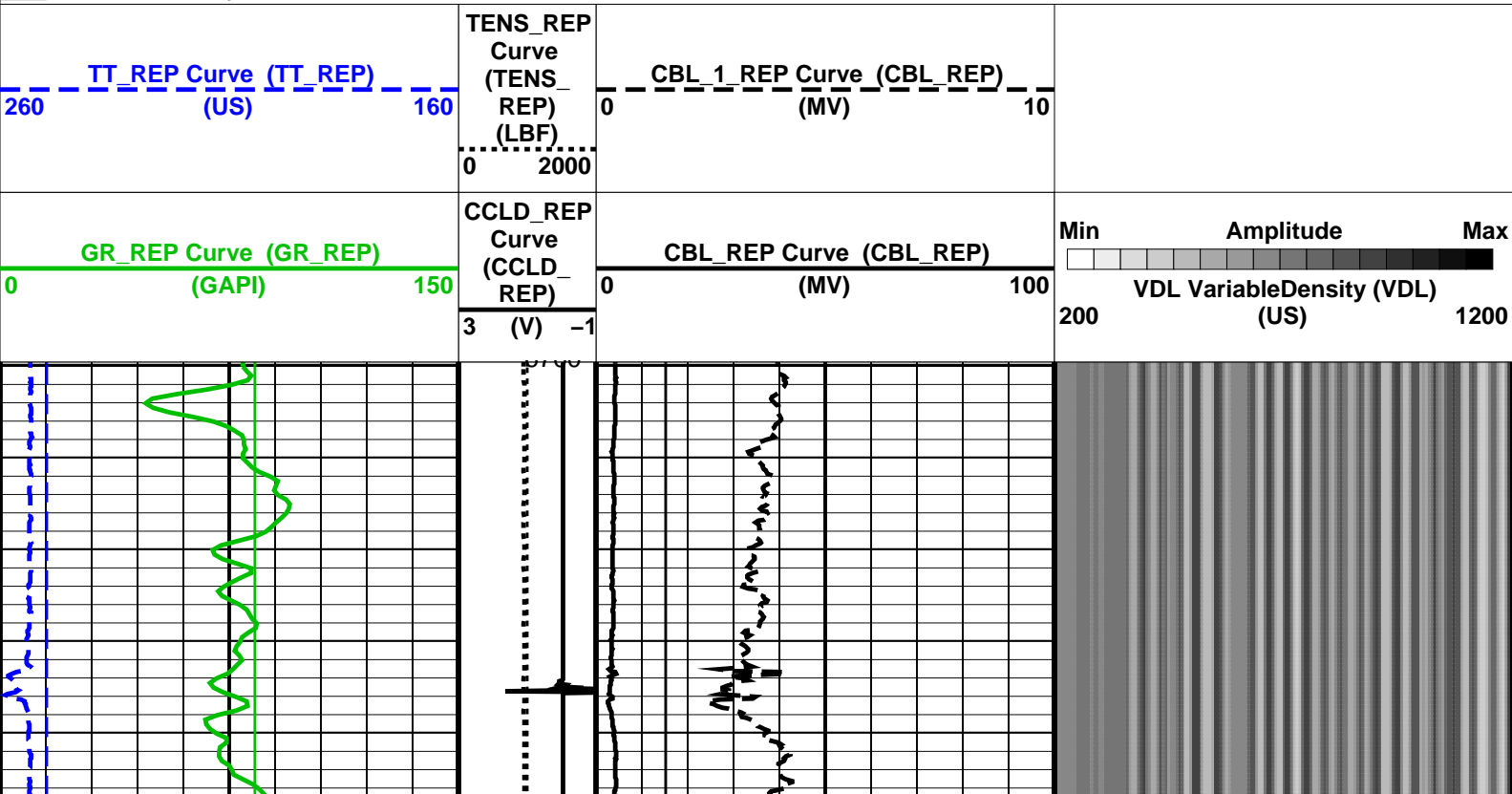
Input DLIS Files			
DEFAULT	SCMT_RST_HBMS_069LUP	FN:64	PRODUCER 24-Sep-2012 08:19 7110.5 FT 6745.0 FT
DEFAULT	SCMT_RST_HBMS_073LUP	FN:68	PRODUCER 24-Sep-2012 08:59 10082.0 FT 43.0 FT
Output DLIS Files			
DEFAULT	SCMT_RST_HBMS_079PUP	FN:74	PRODUCER 24-Sep-2012 12:10 7112.0 FT 6699.0 FT

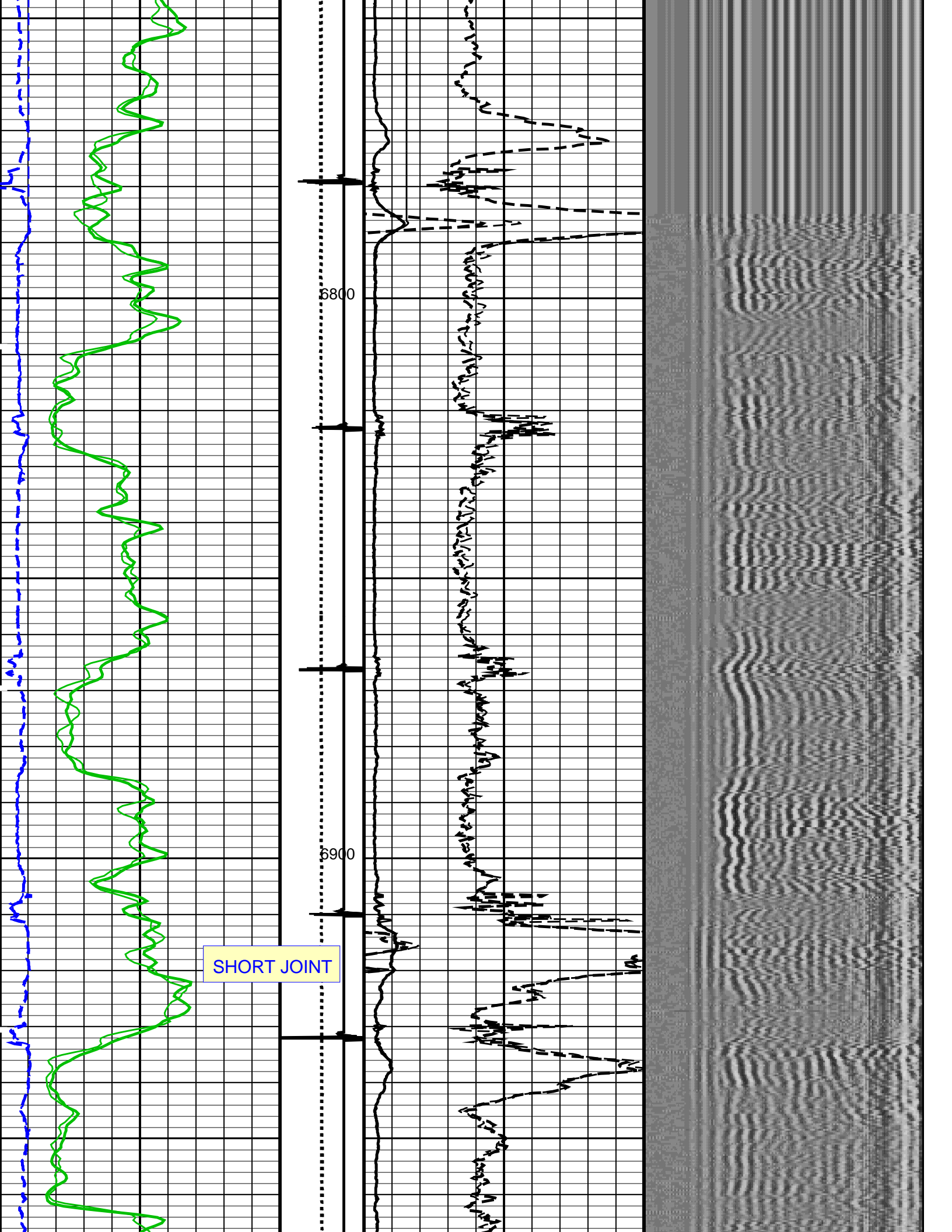
OP System Version: 19C0-187

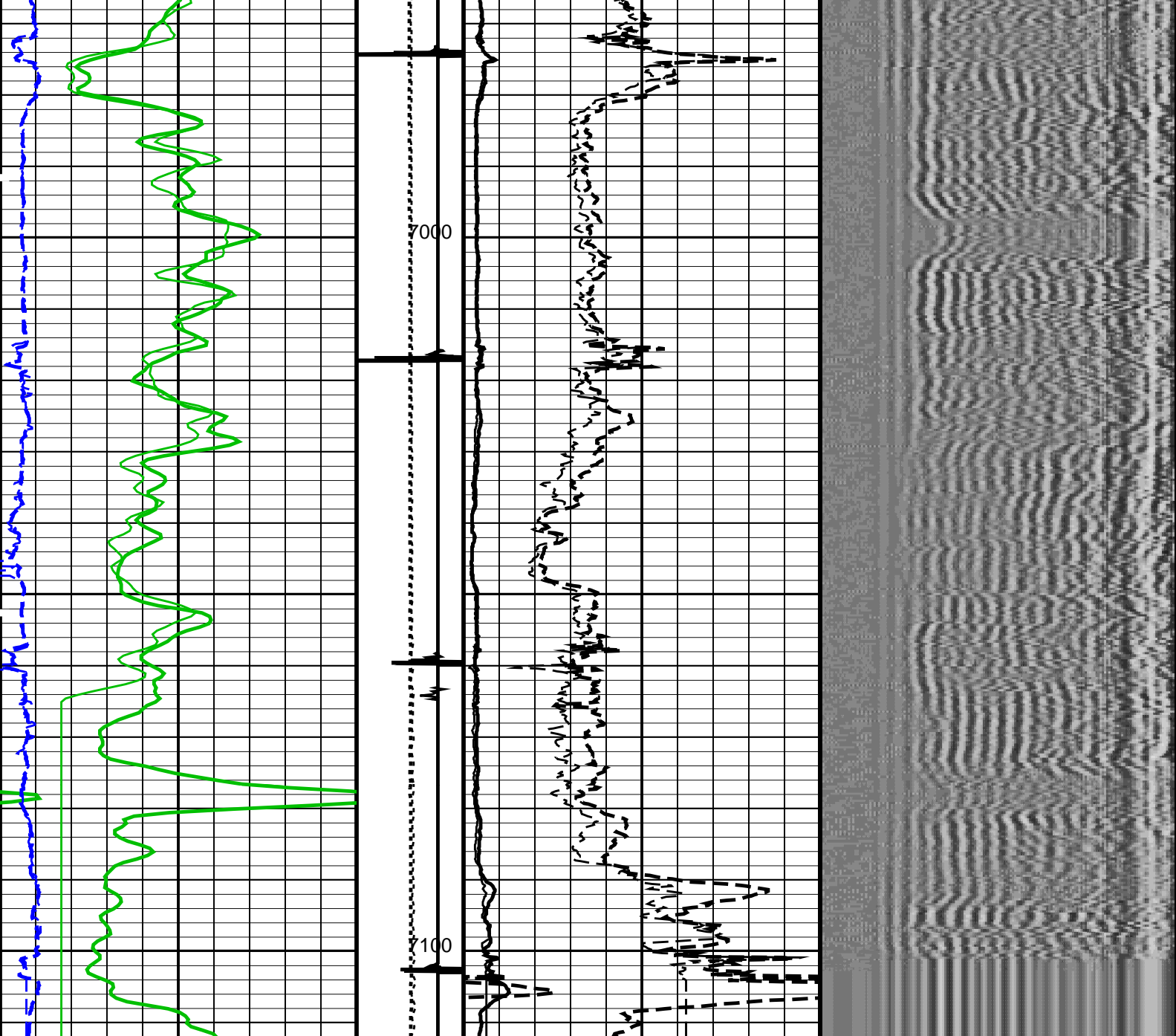
SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
HBMS-B	SRPC-5214-H2-2012-OP1!		

PIP SUMMARY

Time Mark Every 60 S







<p>GR_REP Curve (GR_REP) (GAPI)</p> <p>0 150</p>	<p>CCLD_REP Curve (CCLD_REP) (V)</p> <p>3 -1</p>	<p>CBL_REP Curve (CBL_REP) (MV)</p> <p>0 100</p>	<p>Min Amplitude Max</p> <p>VDL VariableDensity (VDL) (US)</p> <p>200 1200</p>
<p>TT_REP Curve (TT_REP) (US)</p> <p>260 160</p>	<p>TENS_REP Curve (TENS_REP) (LBF)</p> <p>0 2000</p>	<p>CBL_1_REP Curve (CBL_REP) (MV)</p> <p>0 10</p>	

PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL_REP Vertical Scale: 5" per 100'

Graphics File Created: 24-Sep-2012 12:10

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 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	
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
DO	Depth Offset for Playback	1.8	FT
DORL	Depth Offset for Repeat Analysis	3.0	FT
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	10075	FT

Input DLIS Files

DEFAULT	SCMT_RST_HBMS_069LUP	FN:64	PRODUCER	24-Sep-2012 08:19	7110.5 FT	6745.0 FT
DEFAULT	SCMT_RST_HBMS_073LUP	FN:68	PRODUCER	24-Sep-2012 08:59	10082.0 FT	43.0 FT

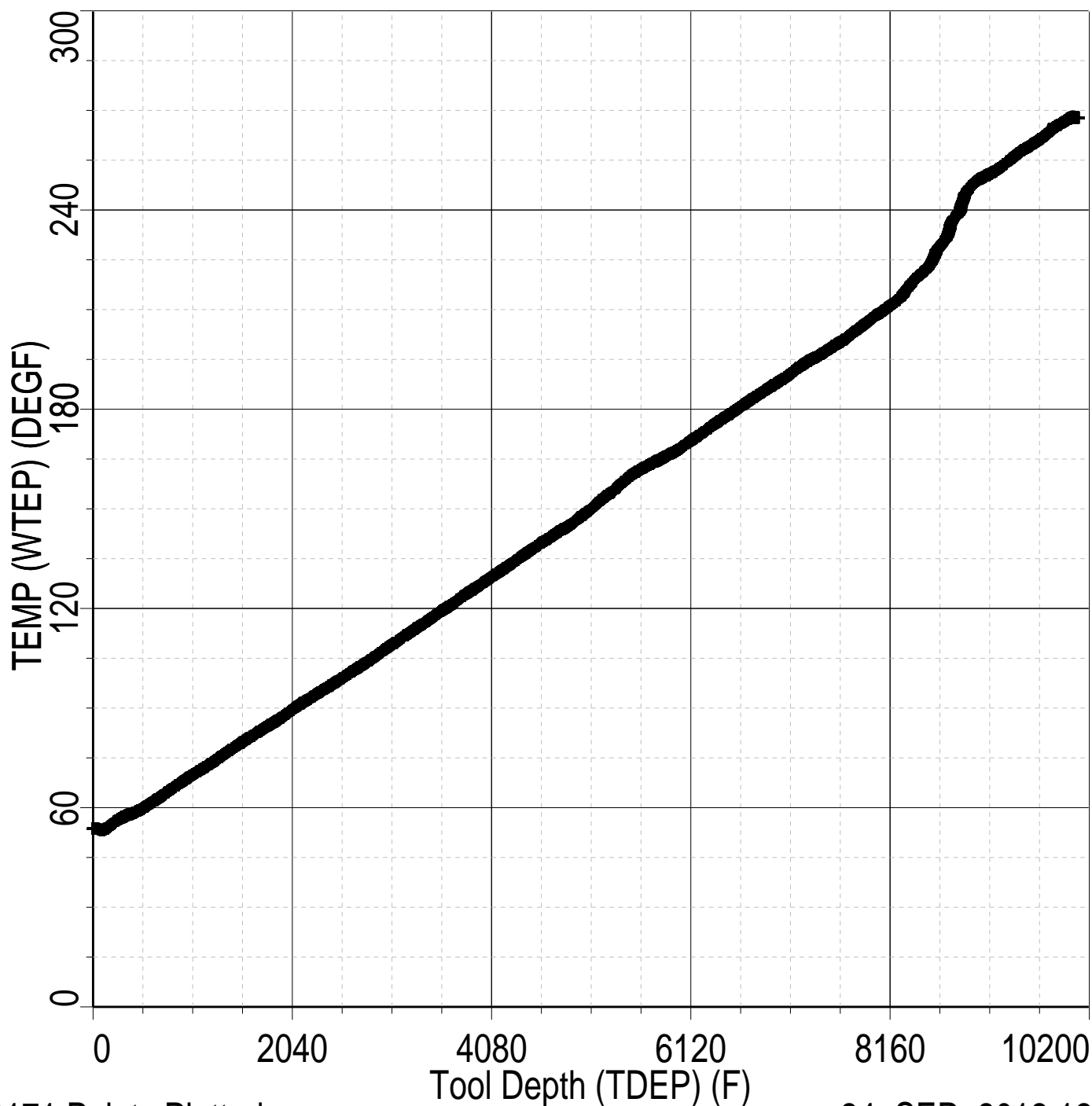
Output DLIS Files



TEMPERATURE PLOT

MAXIS Field Log

Index: 10085.0 – -1.5 FT



MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: MCU FEE 22-11A (N22W)
Run date: 24-Sep-2012

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**0

Rt**1

Rt**0

+.200000000000e+04

+.173000000000e+04

Client: ENCANA OIL & GAS (USA) INC
Field: MAMM CREEK
Well: MCU FEE 22-11A (N22W)
Run date: 24-Sep-2012

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 102F

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	Tool:	PSP
Field:	MAMM CREEK	Sub Type:	PBMS
Well:	MCU FEE 22-11A (N22W)	Sensor:	CQG
Run date:	24-Sep-2012		

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

Fc**5	0.0	0.0	0.0
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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	+1.14978632240E+03	-.318843725686E-03	+651766172344E-08
Fb**1	-.590205352250E-02	+1.68686572404E-07	+1.62345150354E-12
Fb**2	-.362996279263E-07	+4.07654559315E-12	+4.52411391342E-17
Fb**3	-.276281361281E-12	+8.71817059405E-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	+1.99118144093E-13	-.260997933236E-18	+618908211390E-21
Fb**1	+2.50084591851E-17	+4.55070709200E-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

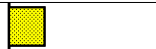
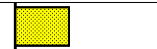


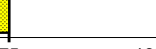
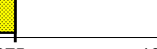


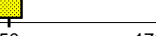
	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+3.10736316923E+05	+2.73670214709E-02	+7.31815197856E-06
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.654219198492E-10	-.150585137208E-15	-.117697151708E-19

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

-.345142848607E-21



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)	1375 (Nominal)	1750 (Maximum)						

1000 (Minimum)	1350 (Nominal)	1700 (Maximum)	
Master: 6-Mar-2012 15:06			

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

Schlumberger

Well: **MCU FEE 22-11A (N22W)**

Field: **MAMM CREEK**

County: **GARFIELD**

State: **COLORADO**

SLIM CEMENT MAPPING LOG

CBL – VDL

GAMMA RAY – CCL