

Company: Caerus Operating LLC

Well: Puckett 13D-23 697

Field: Grand Valley

County: Garfield State: Colorado

Cement Bond Log	
Gamma Ray Log	
Collar Log	
Location: LAT 39.30'07.76" N & 108.11'18.38"	Elev.: K.B. 8462.00 ft G.L. 8432.00 ft D.F. 8462.00 ft
Permanent Datum: _____	Ground Level _____ Elev.: 8432.00 f
Log Measured From: _____	Kelly Bushing _____ 30.00 ft above Perm.Datum
Drilling Measured From: _____	Kelly Bushing _____
API Serial No. 05045233730000	Section: 23 Township: 6S Range: 97W

Logging Date	16-Dec-2017
Run Number	scmt
Depth Driller	9410.00 ft
Schlumberger Depth	9328.00 ft
Bottom Log Interval	9328.00 ft
Top Log Interval	2500.00 ft
Casing Fluid Type	Fresh Water
Salinity	
Density	8.6 lbm/gal
Fluid Level	8.00 ft
BIT/CASING/TUBING STRING	
Bit Size	8.75 in
From	30.00 ft
To	9410.00 ft
Casing/Tubing Size	4.5 in
Weight	11.6 lbm/ft
Grade	P110
From	30.00 ft
To	9410.00 ft
Max Recorded Temperatures	239 degF
Logger on Bottom	16-Dec-2017 16:28:00
Unit Number	3003
Location:	Evanston
Recorded By	John Emery
Witnessed By	Ryan Tonkins

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 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.

Contents

- 1. Header
- 2. Disclaimer
- 3. Contents
- 4. Well Sketch
- 5. Borehole Size/Casing/Tubing Record
- 6. Remarks and Equipment Summary
- 7. Composite 1 Main Pass
 - 7.1 Integration Summary
 - 7.2 Software Version
 - 7.3 Composite Summary
 - 7.4 Log (SCMT_Amp_VDL)
 - 7.5 Parameter Listing
- 8. scmt Repeat Pass
 - 8.1 Integration Summary
 - 8.2 Software Version
 - 8.3 Composite Summary
 - 8.4 Log (SCMT_Amp_VDL)

10. Tail

8.5 Parameter Listing

9. scmt Free Pipe

9.1 Integration Summary

9.2 Software Version

9.3 Composite Summary

9.4 Log (SCMT_Amp_VDL)

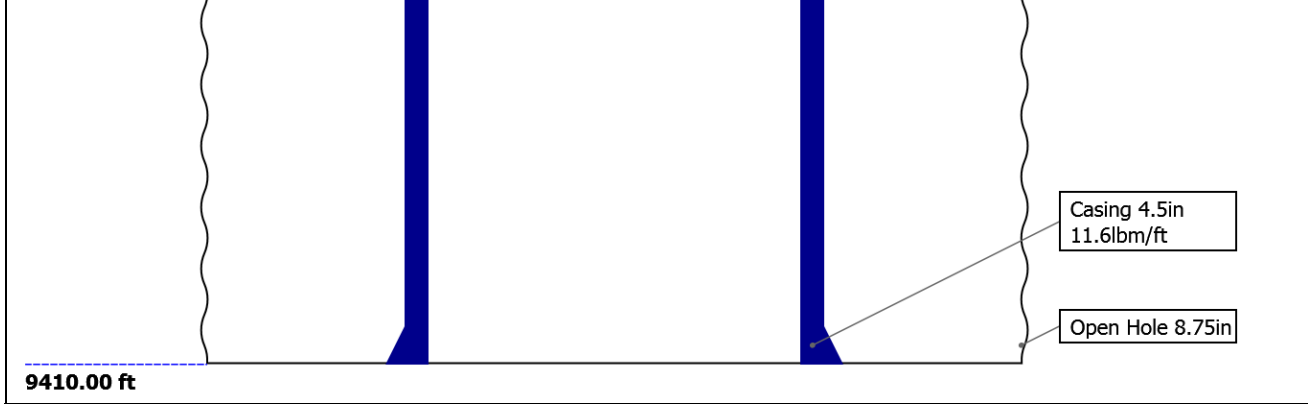
9.5 Parameter Listing

Well Sketch

Driller Depth

30.00 ft



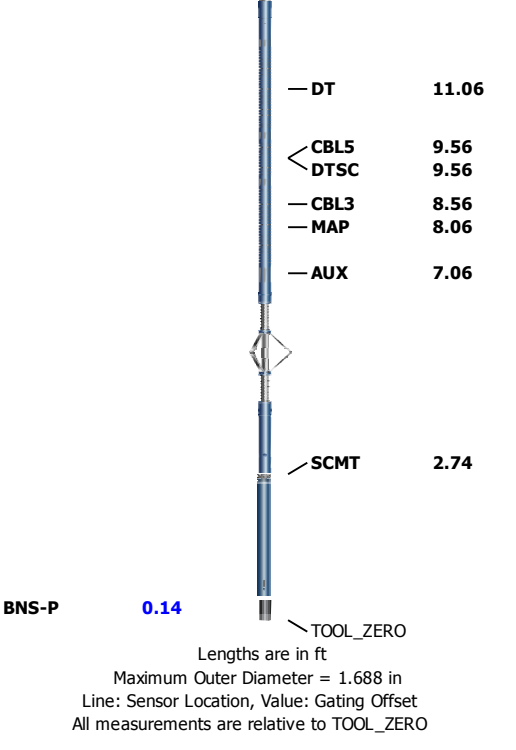


Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	8.75					
Top Driller (ft)	30					
Top Logger (ft)	30					
Bottom Driller (ft)	9410					
Bottom Logger (ft)	9410					
Casing						
Size (in)	4.5					
Weight (lbm/ft)	11.6					
Inner Diameter (in)	4					
Grade	P110					
Top Driller (ft)	30					
Top Logger (ft)	30					
Bottom Driller (ft)	9410					
Bottom Logger (ft)	9410					

Remarks and Equipment Summary

scmt: Toolstring				scmt: Remarks	
Equip name	Length	MP name	Offset	Tool ran as per Tool sketch	
PEH-E	30.38			Max Temp 239 DegF	
				Short Joint 6726'-6734'	
AH-38	28.7			Max Pressure 3744 psi	
PSTP-B:282	28.42			Log Correlated to SLB RST Dated 15Dec2017	
6					
PSC-A:2827		GR	24.71		
PSTC-A:2827		PSTC	24.42		
PBMS-B:2826		PSTC Tool String Bottom	0.00		
		Temperature	21.66		
		CQG Pressure	21.32		
		CCL	20.9		
		PBMS	20.15		
SCMT-CB:81	20.15				
62					
SECH-CA					
SCMC-CA:810					
4					
CMIR-AG					
SCMS-CB:816					
2					
SCMX-CA:811					
5					



Composite 1

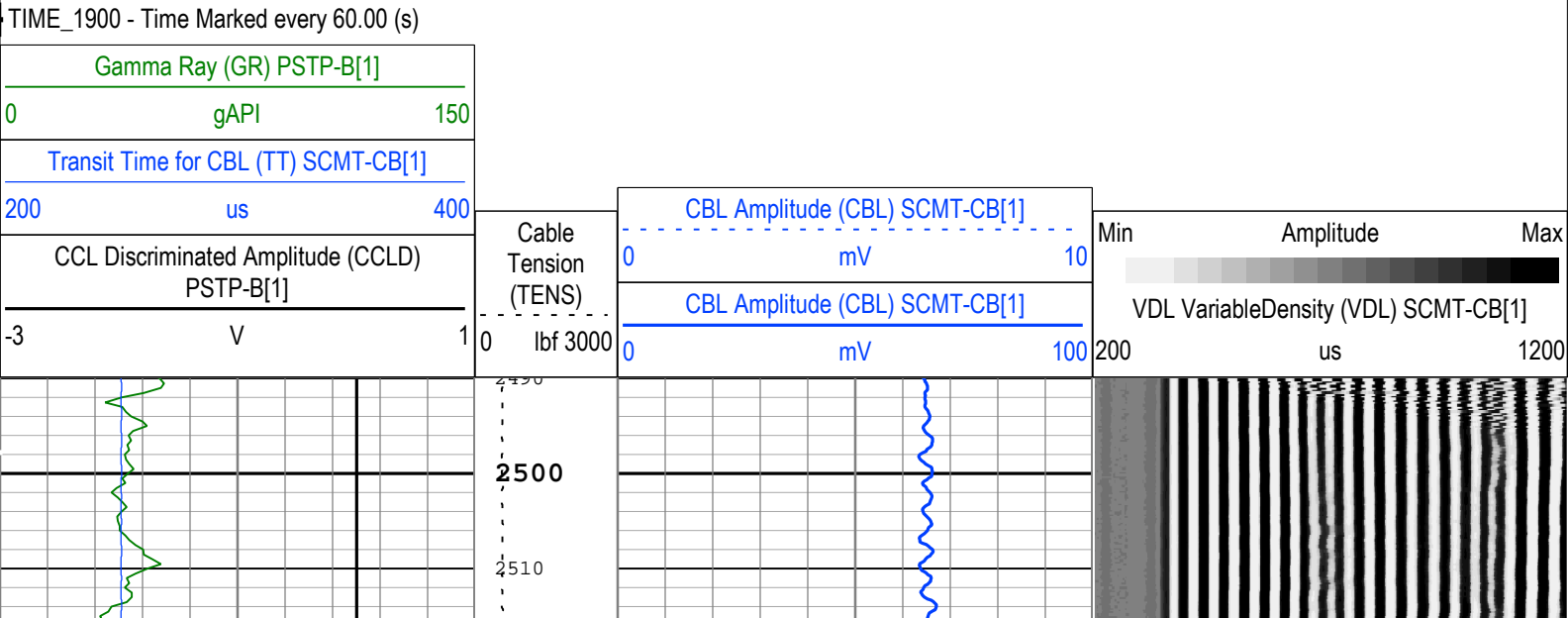
Main Pass

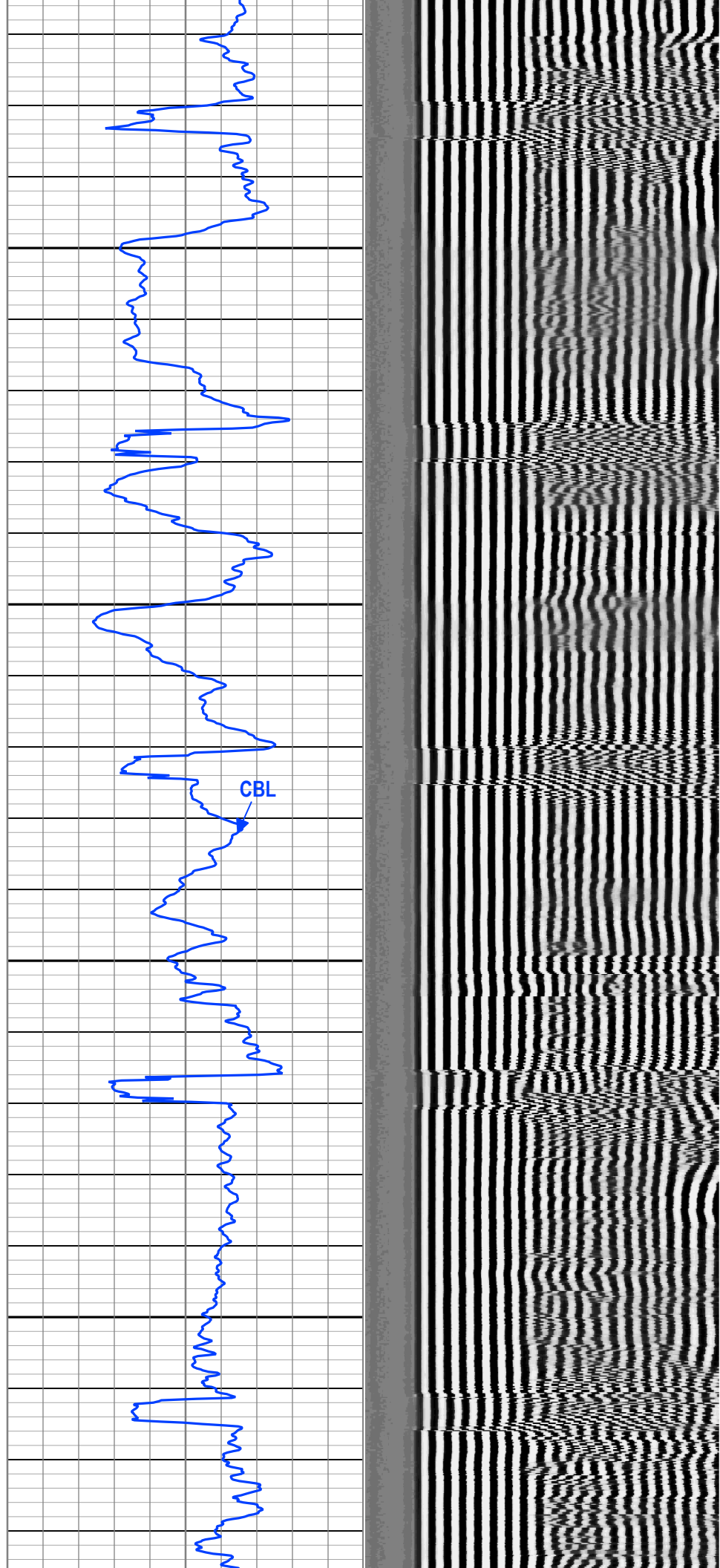
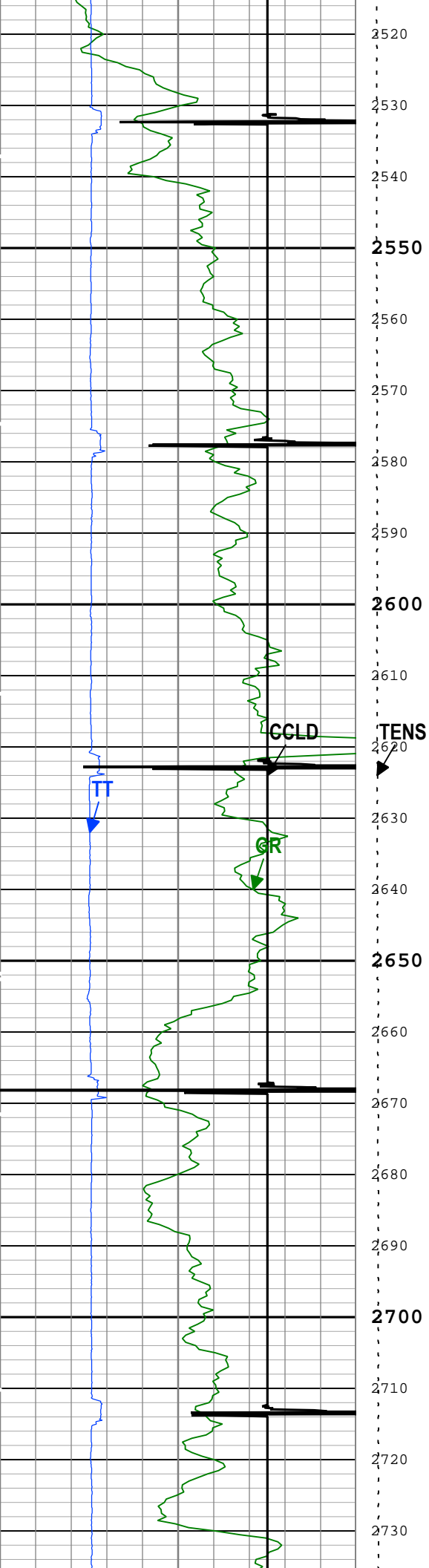
Software Version	
Acquisition System	Version
Maxwell 2017 SP3	7.3.92069.3100

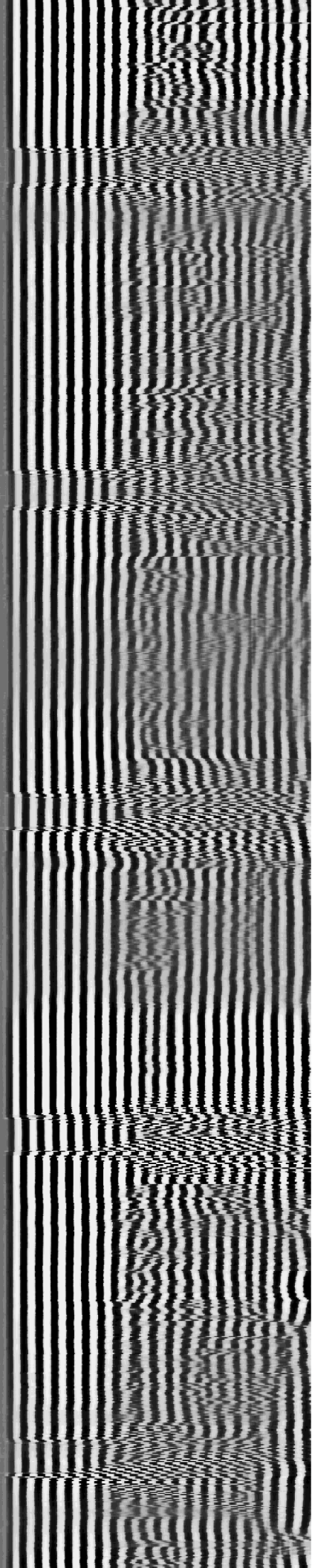
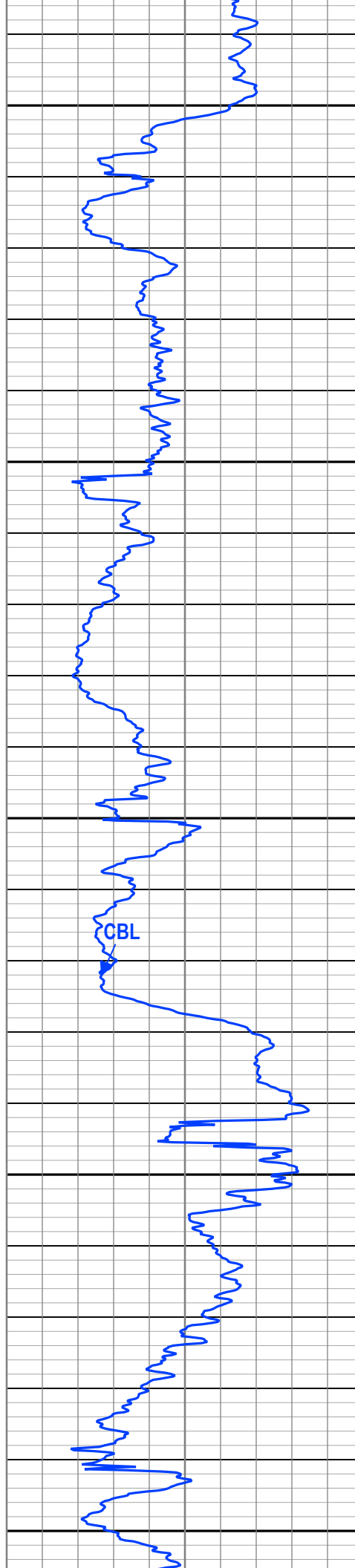
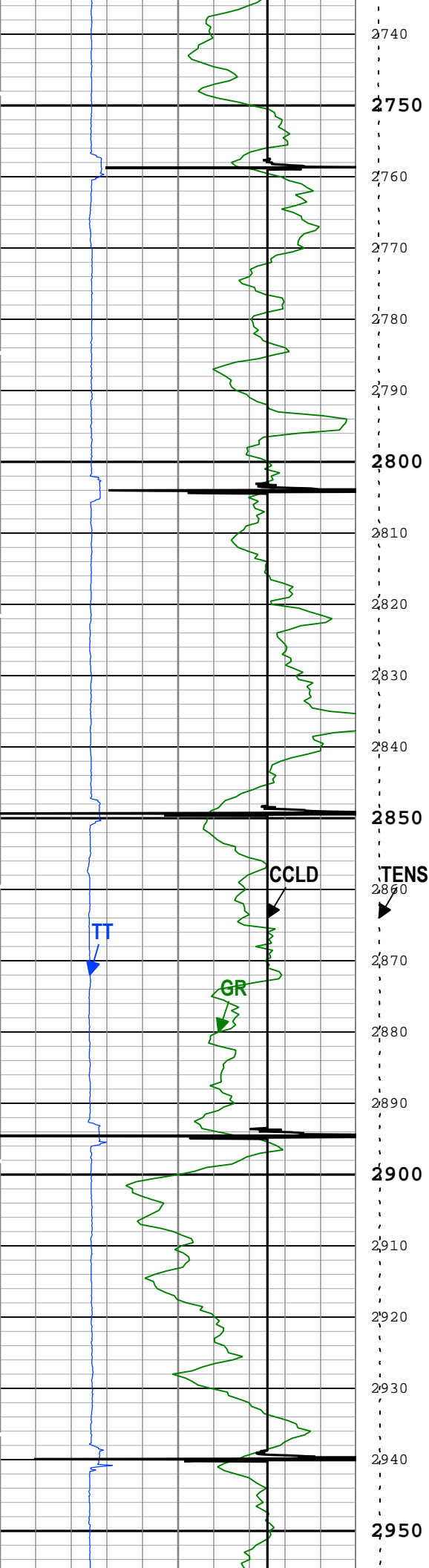
Composite Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
scmt	Log[9]:Up	Up	2496.09 ft	9344.93 ft	16-Dec-2017 5:53:19 PM	16-Dec-2017 8:45:31 PM	ON	0.00 ft	Yes
scmt	Log[10]:Up	Up	2471.46 ft	2801.85 ft	16-Dec-2017 8:52:50 PM	16-Dec-2017 9:01:42 PM	ON	0.00 ft	Yes

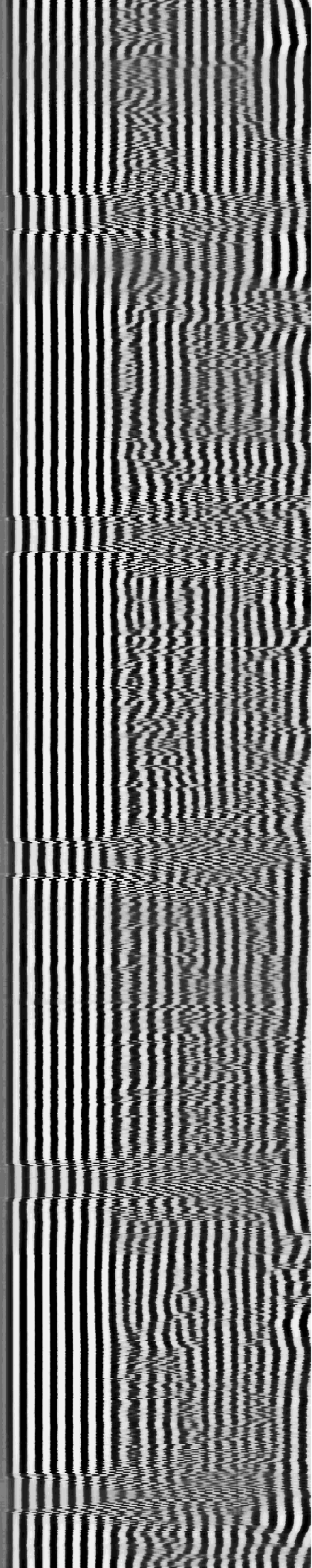
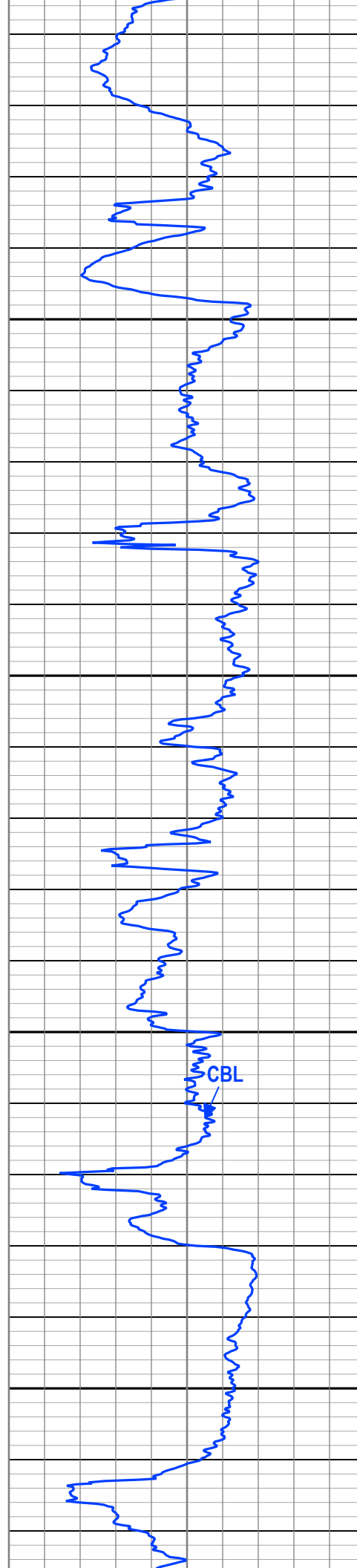
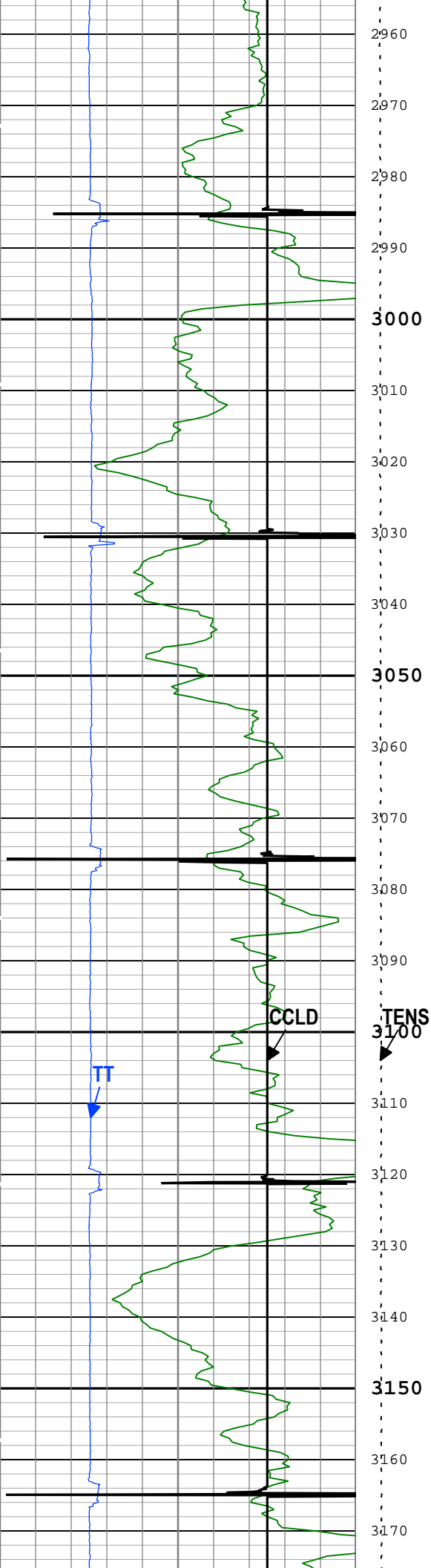
All depths are referenced to toolstring zero									
Log	Company:Caerus Operating LLC						Well:Puckett 13D-23 697		
	Composite 1:S003								

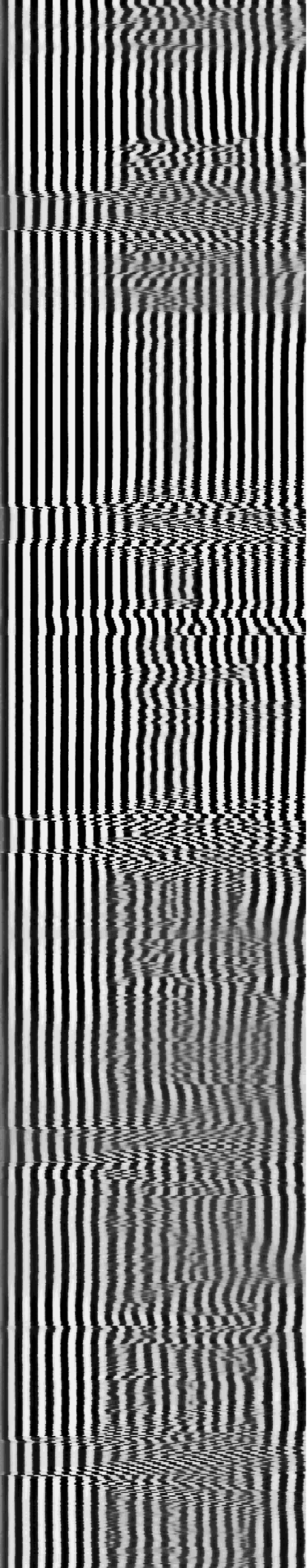
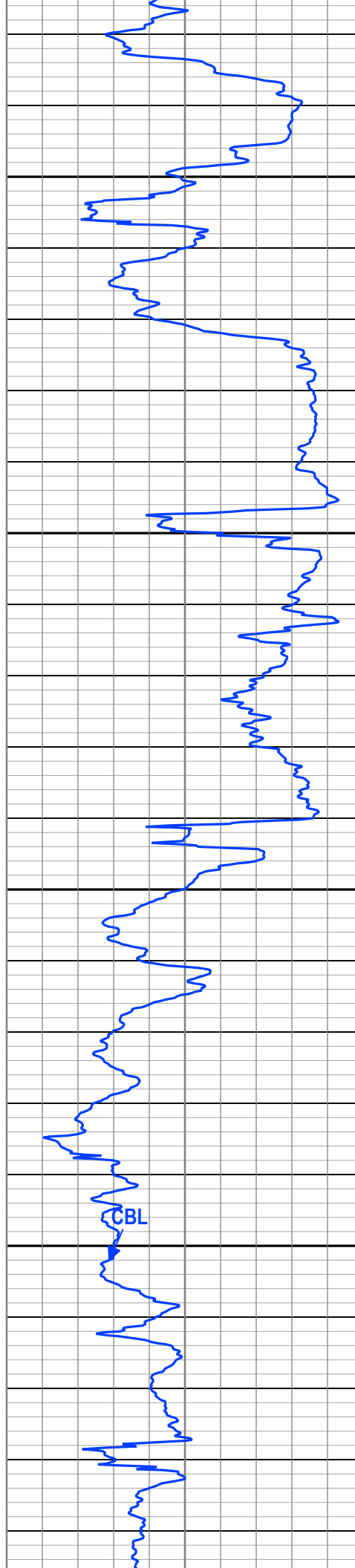
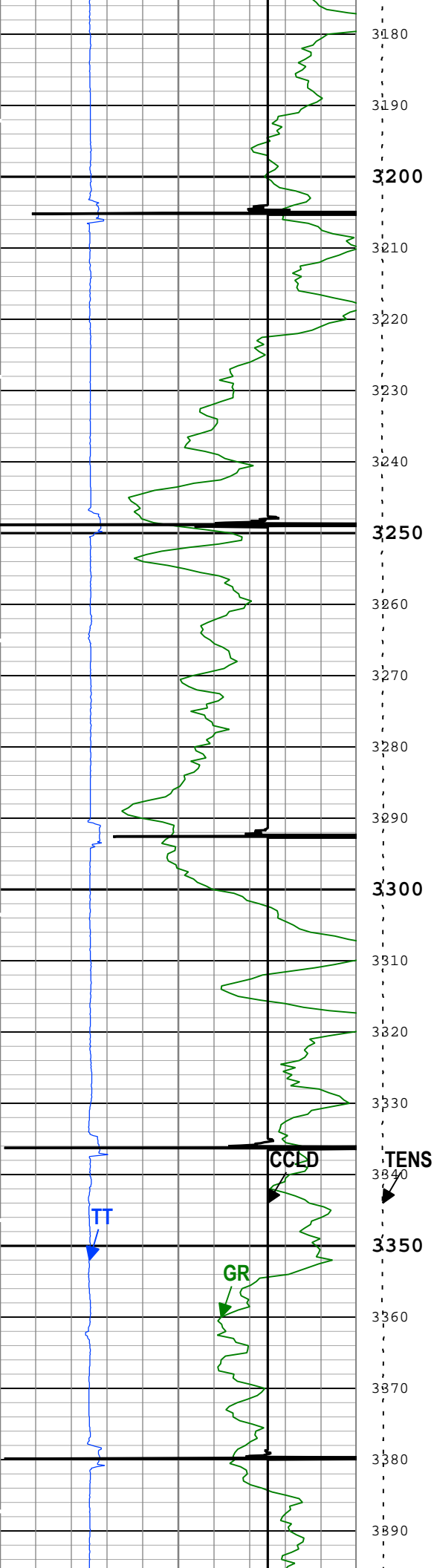
Description: SCMT Amplitudes and VDL Format: Log (SCMT_Amp_VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth
Creation Date: 10-Jan-2018 10:37:40

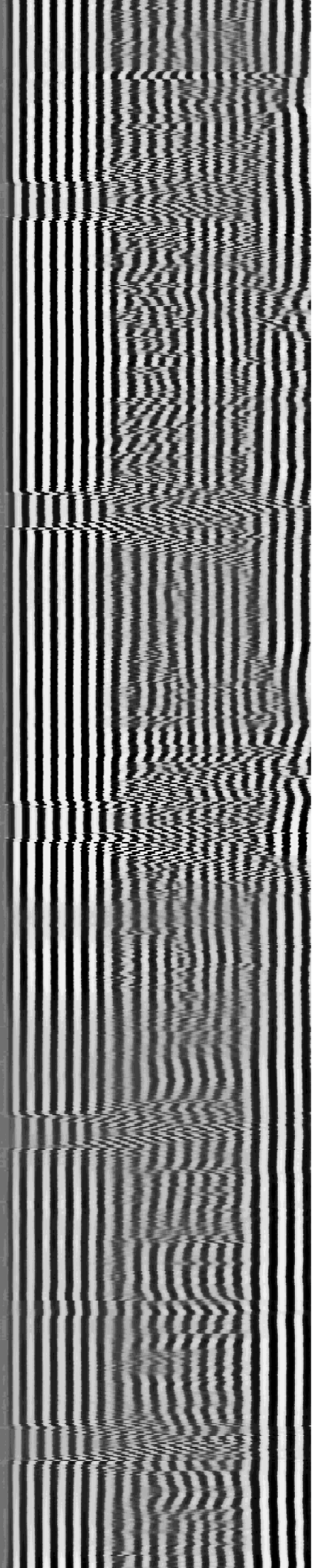
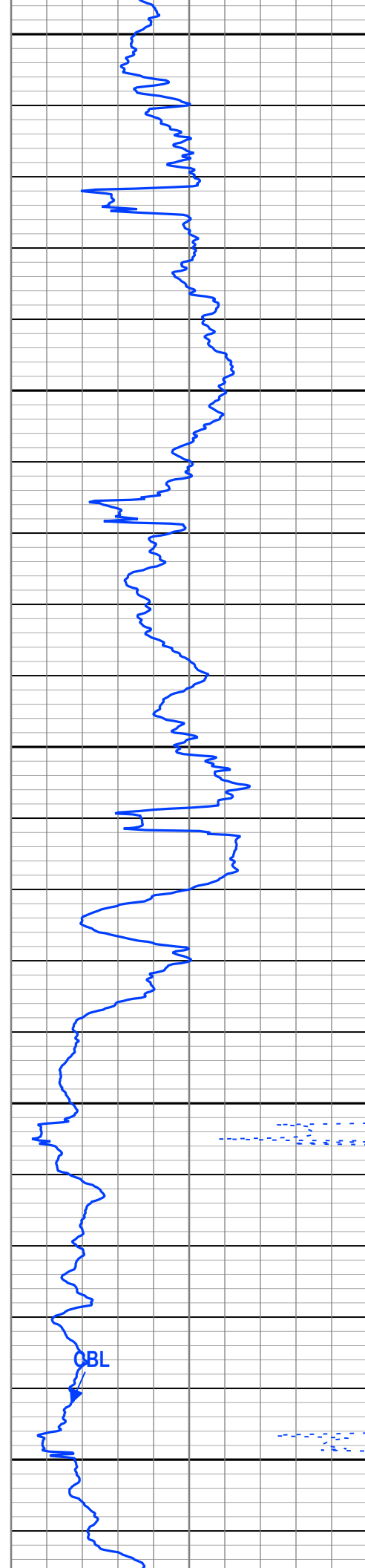
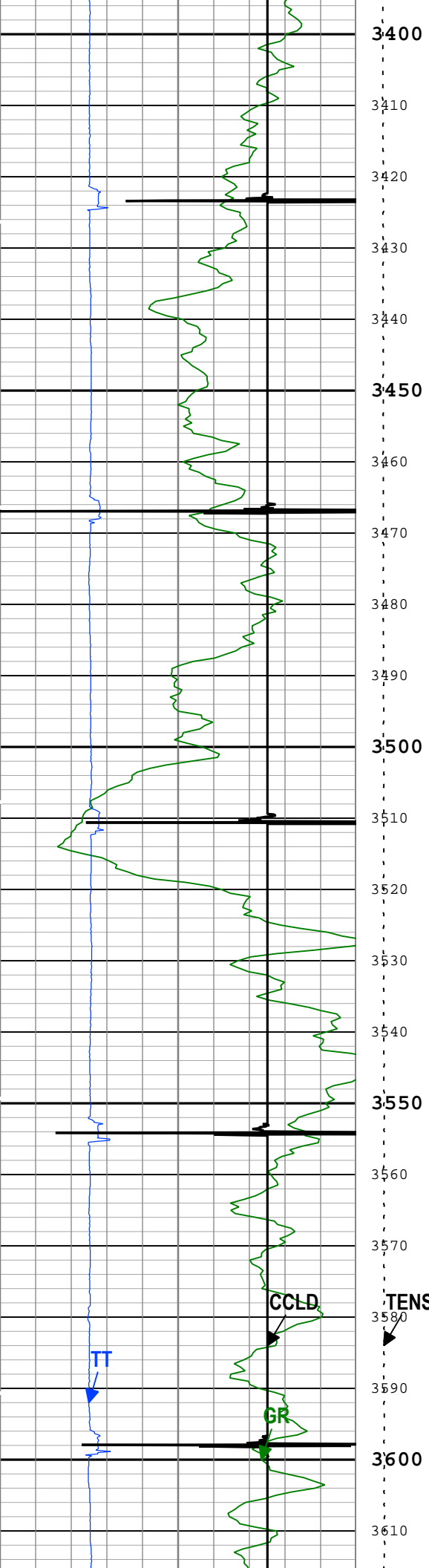


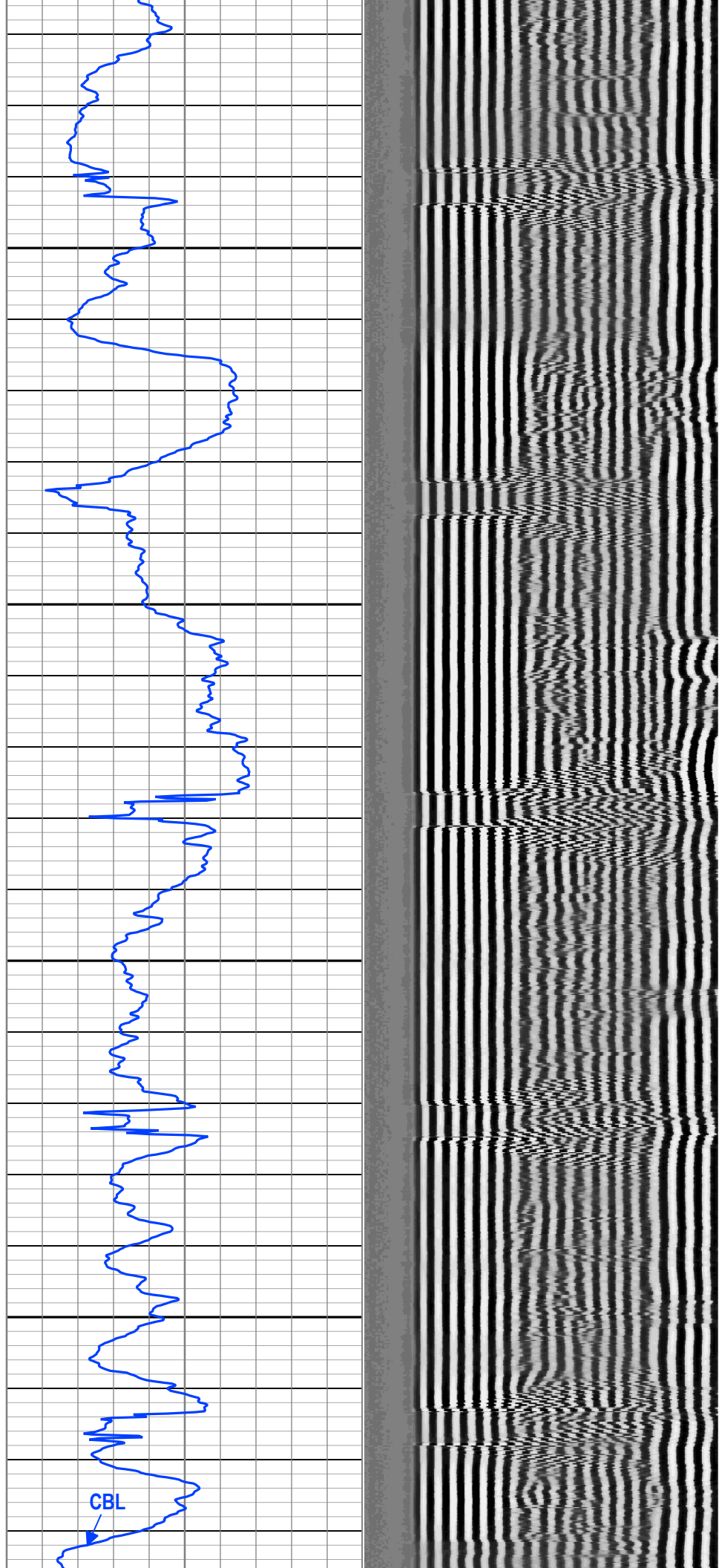
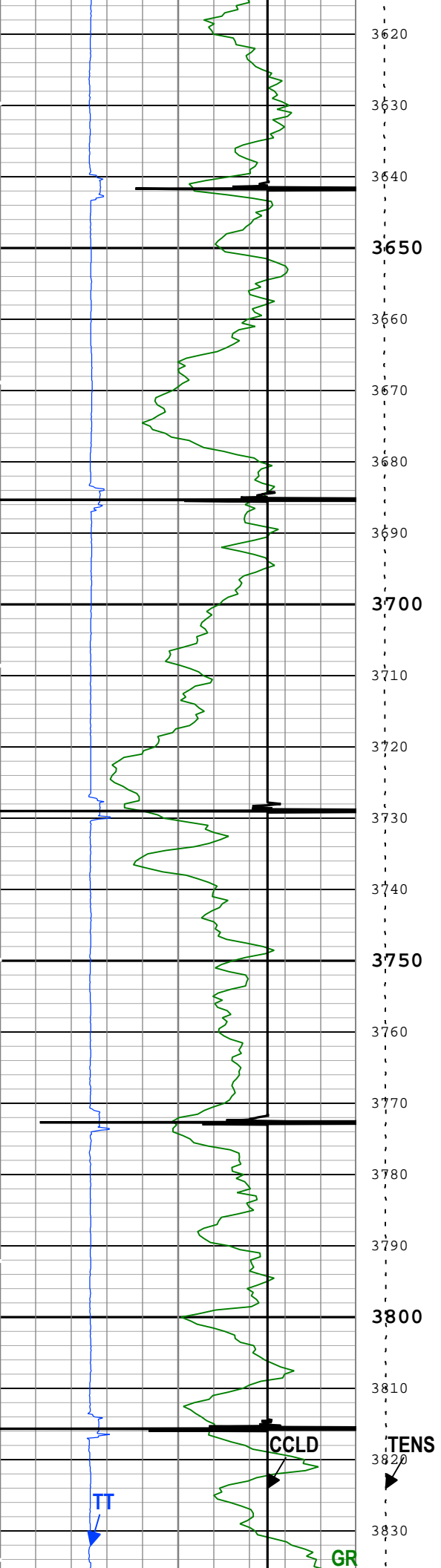


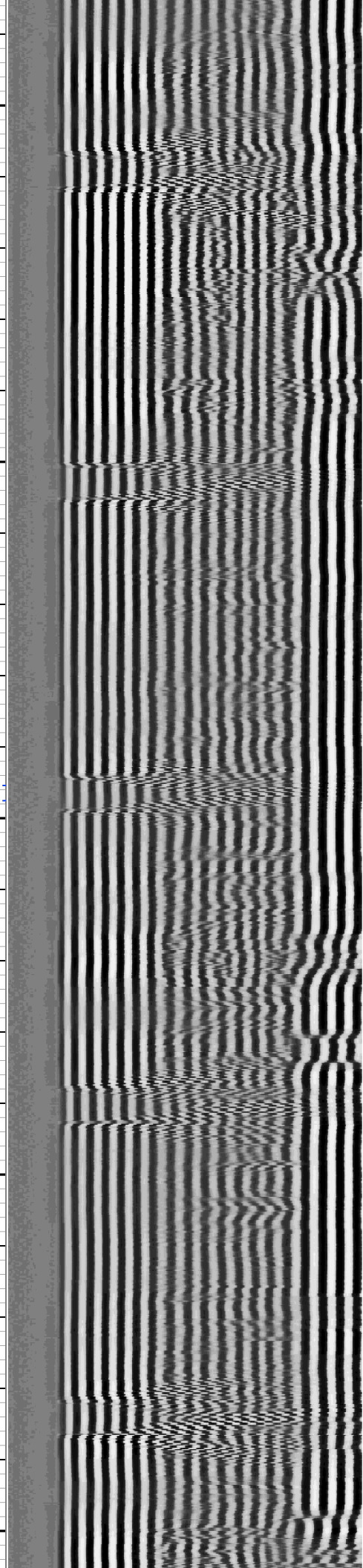
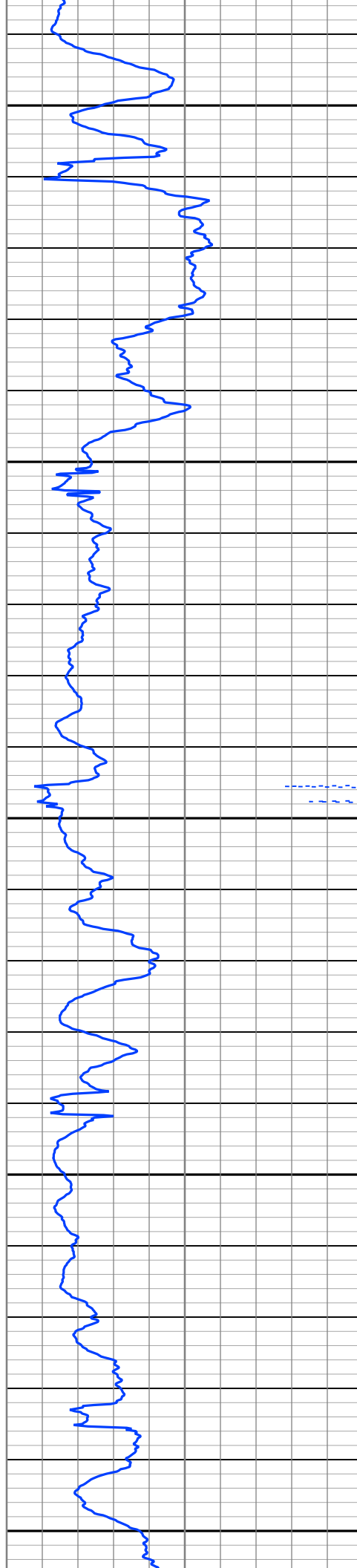
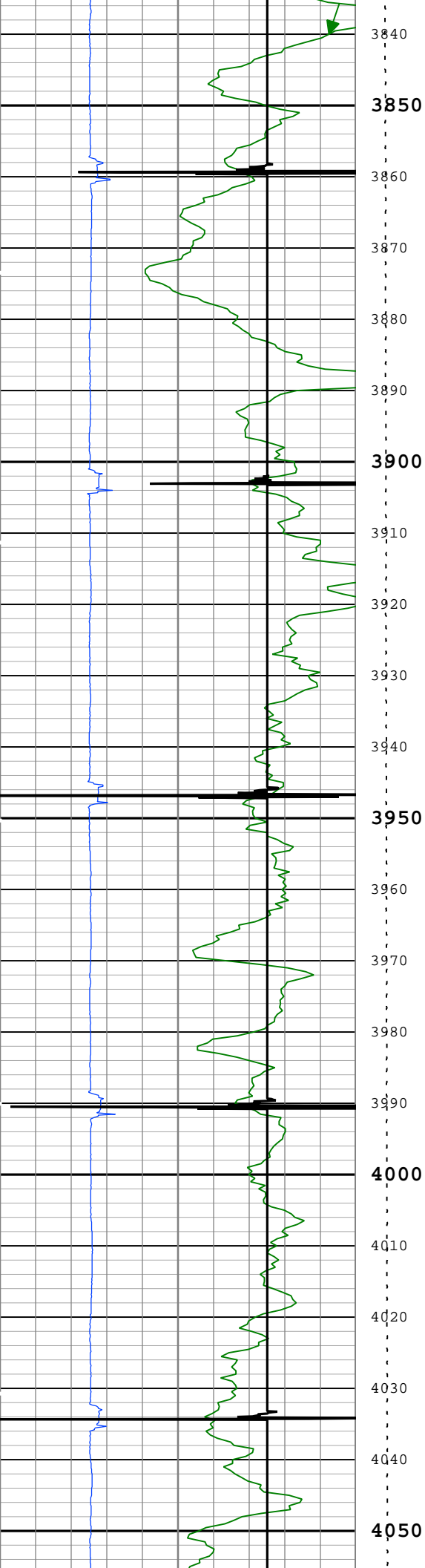


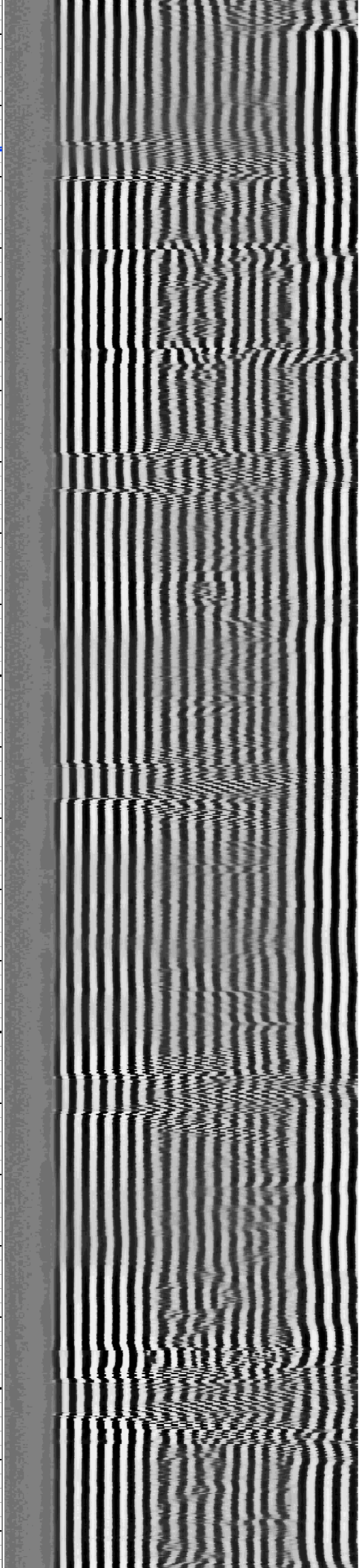
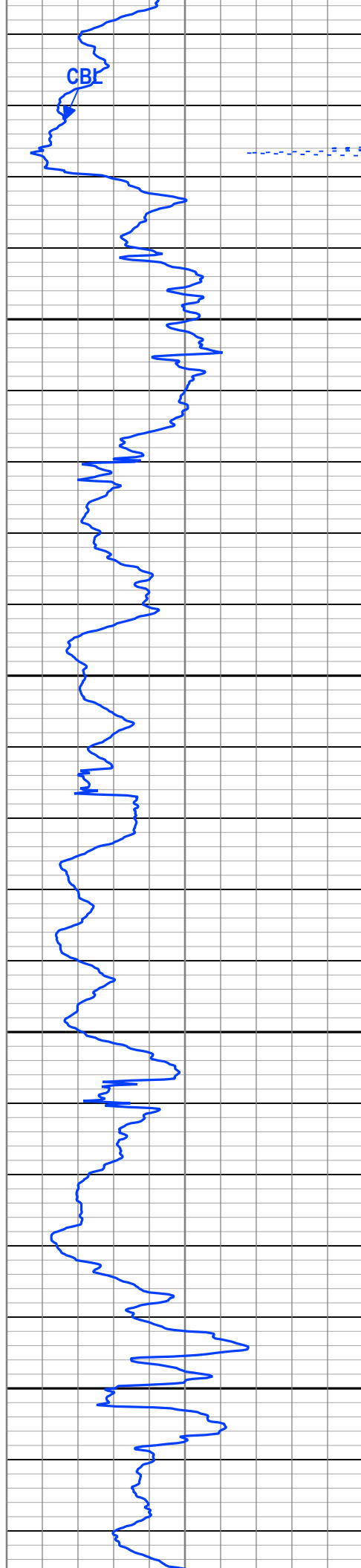
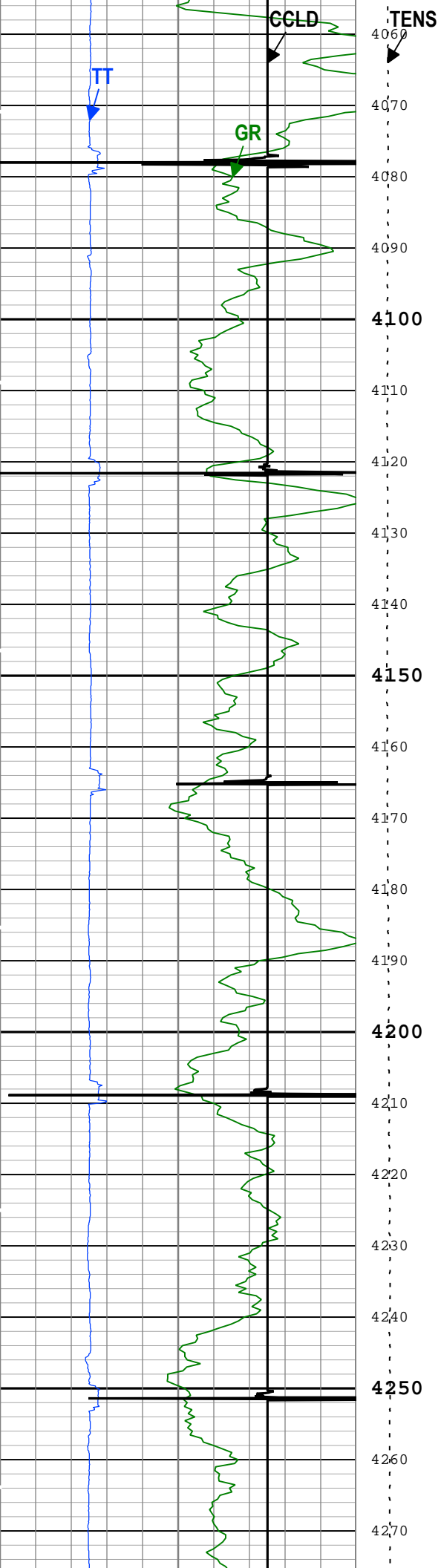


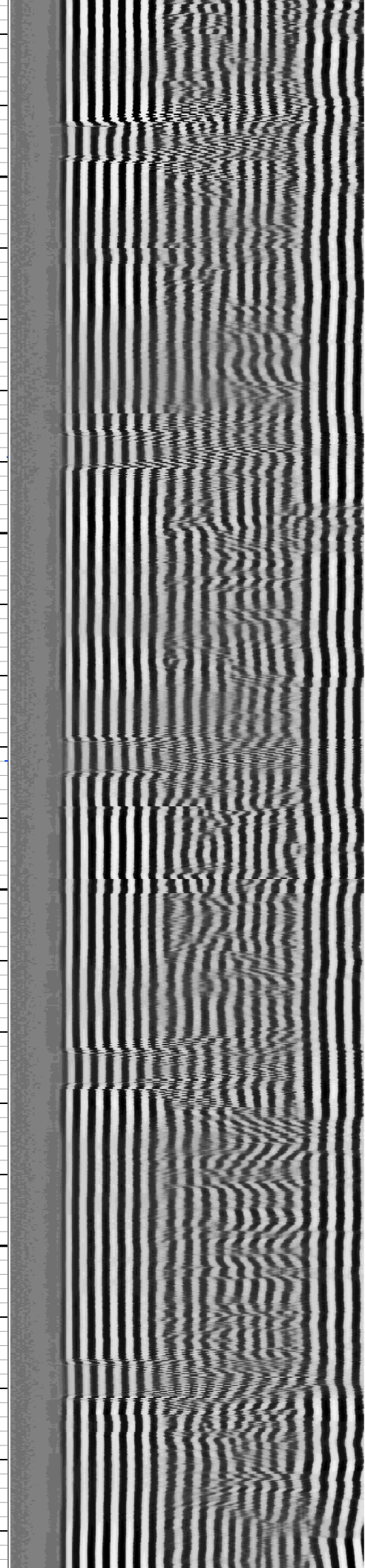
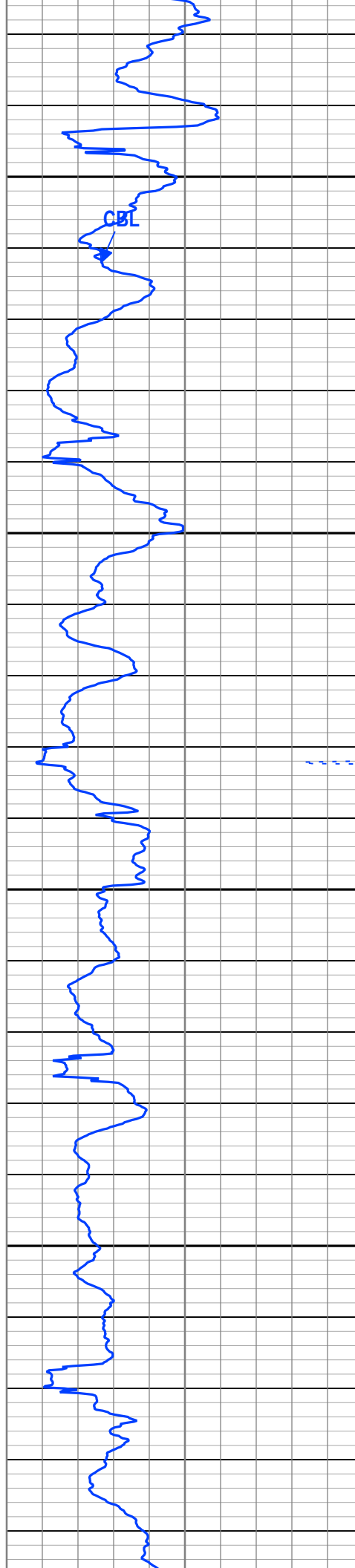
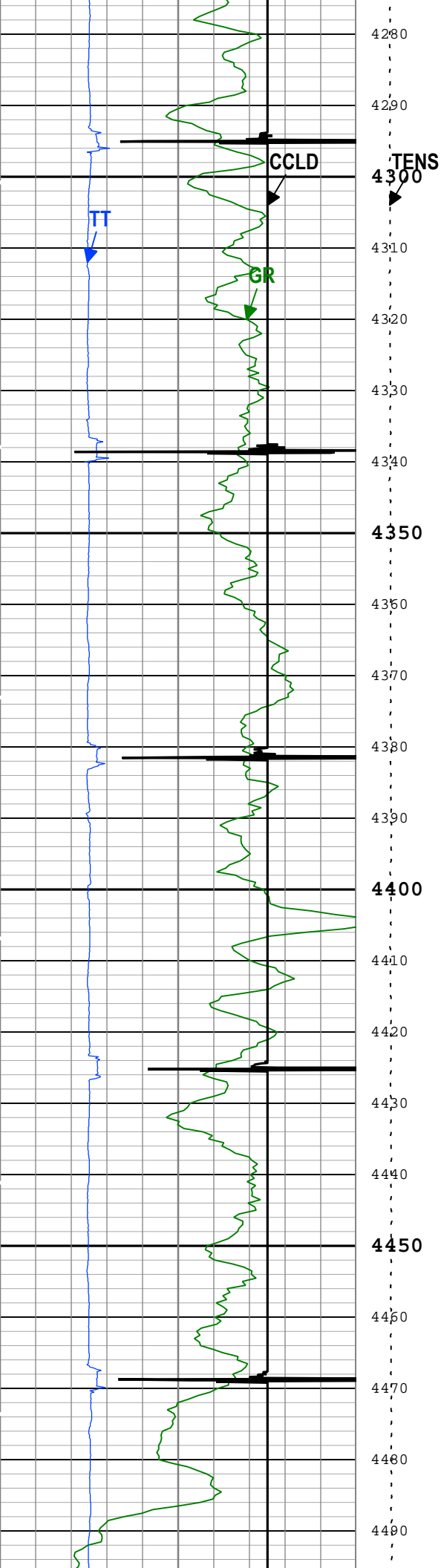


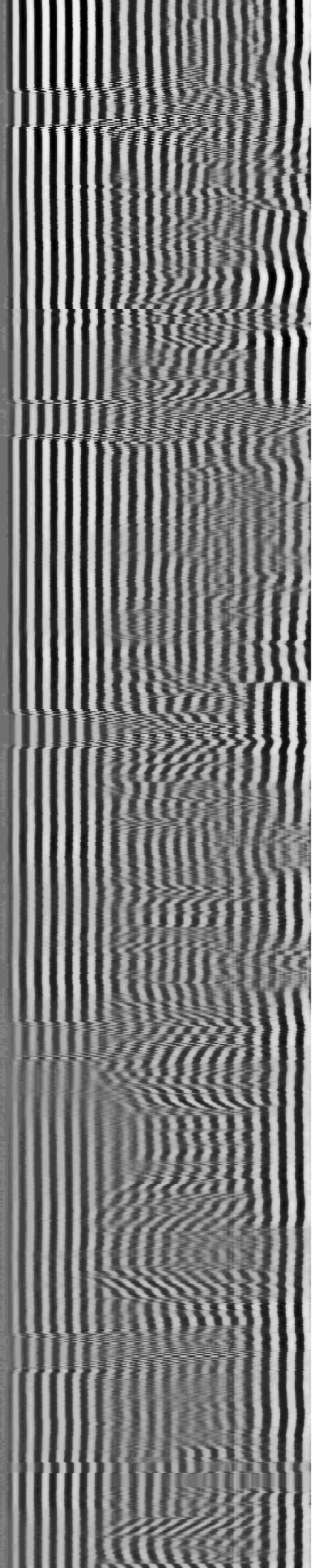
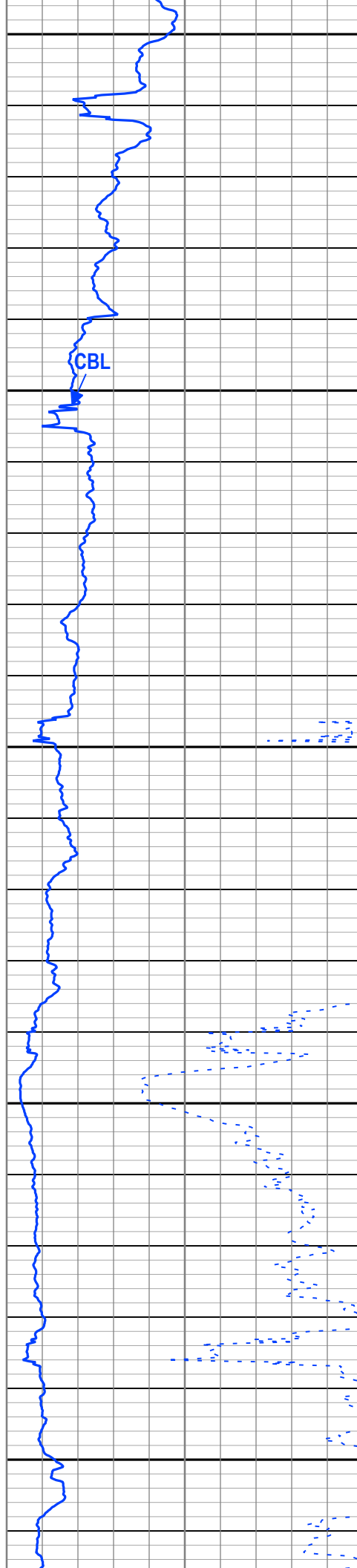
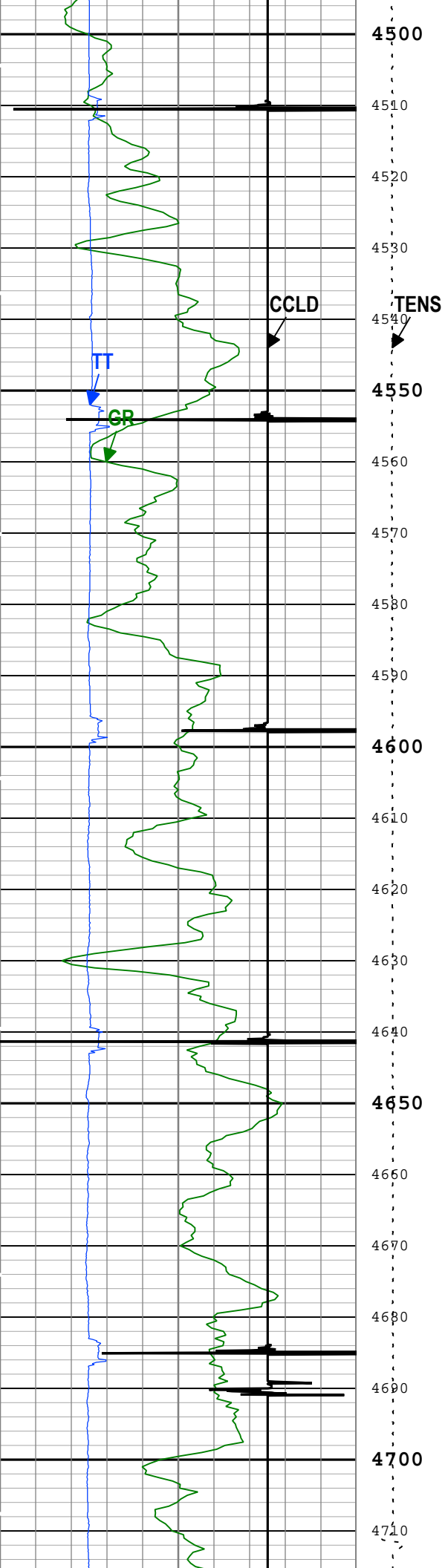


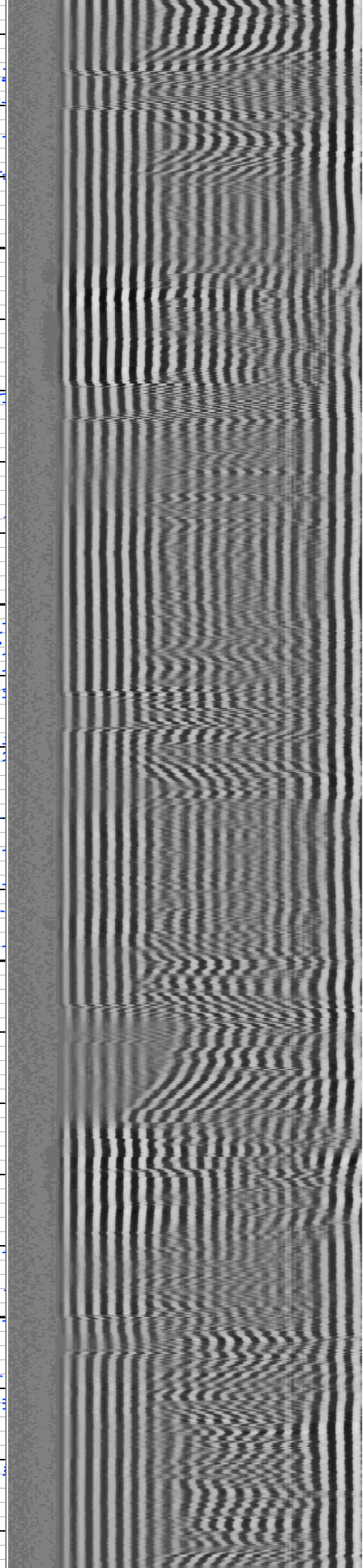
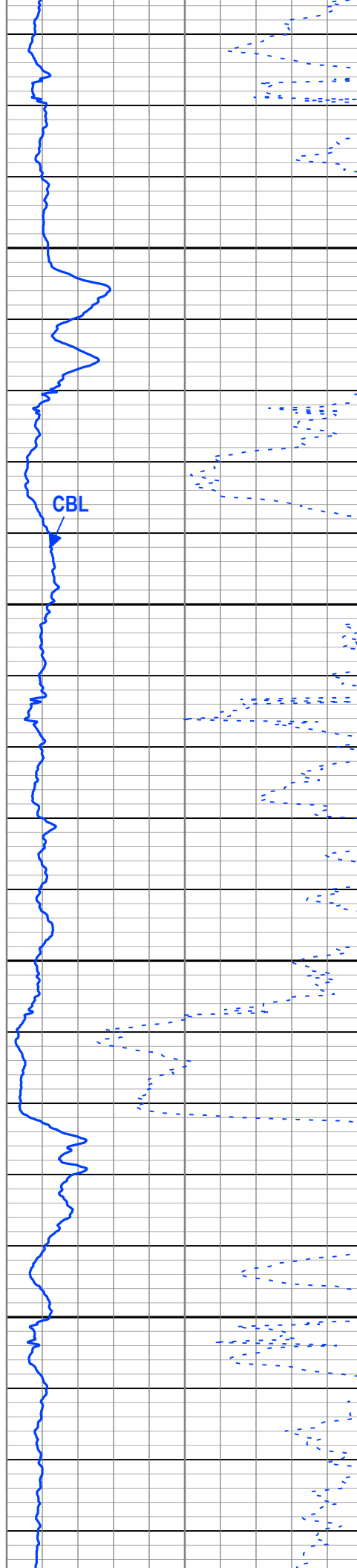
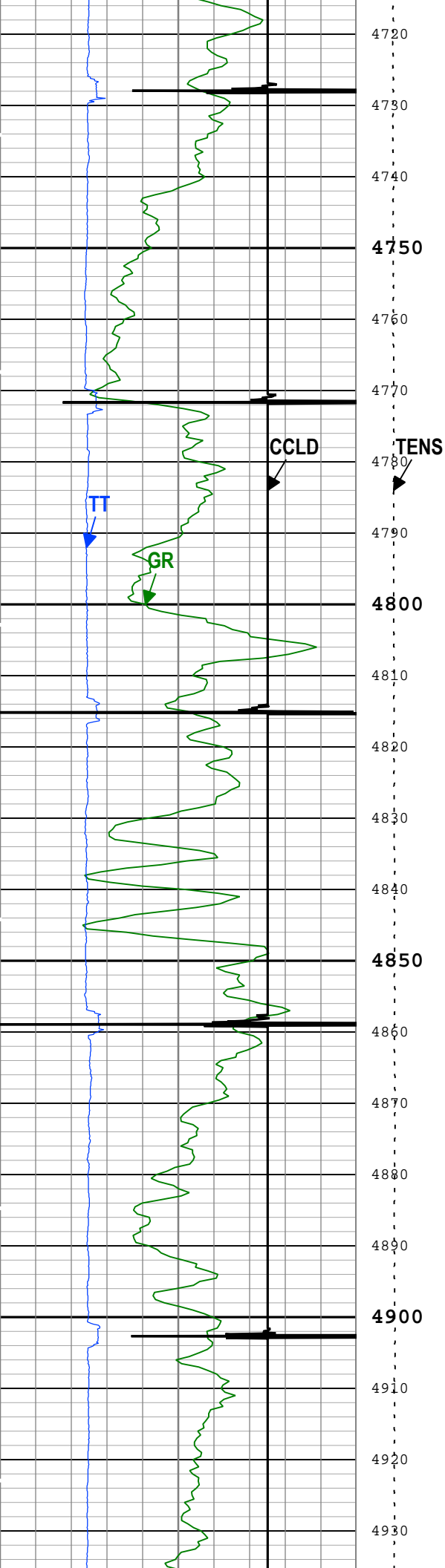


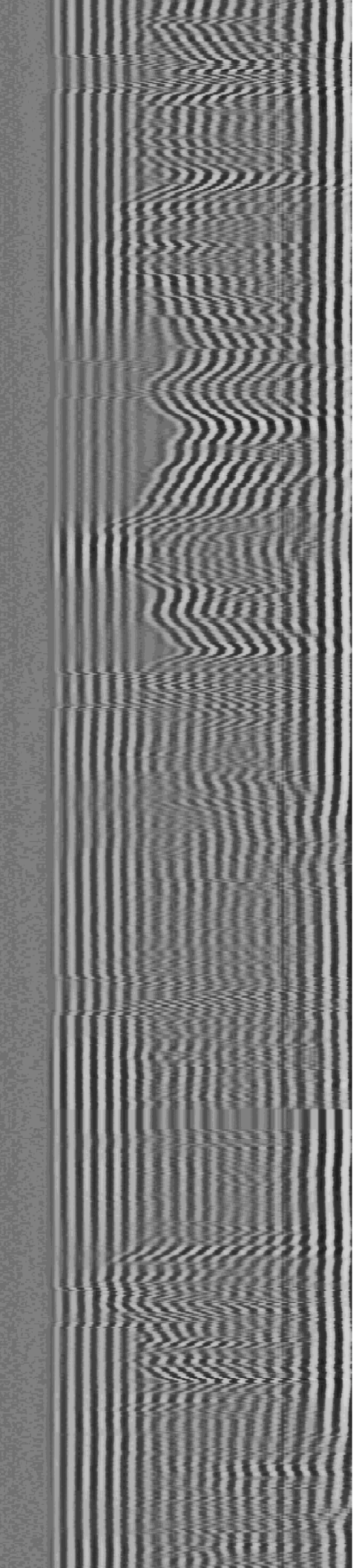
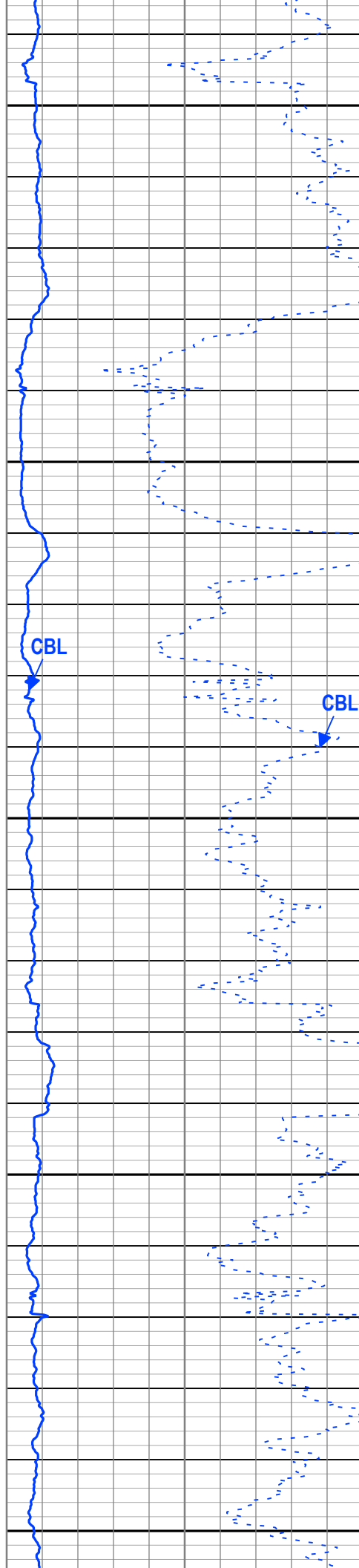
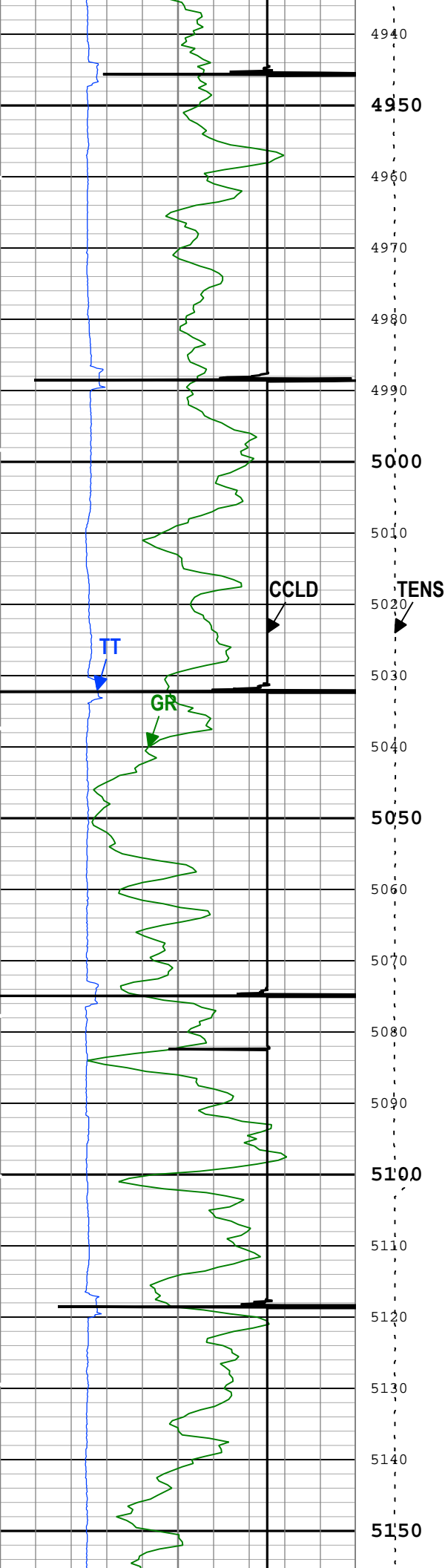


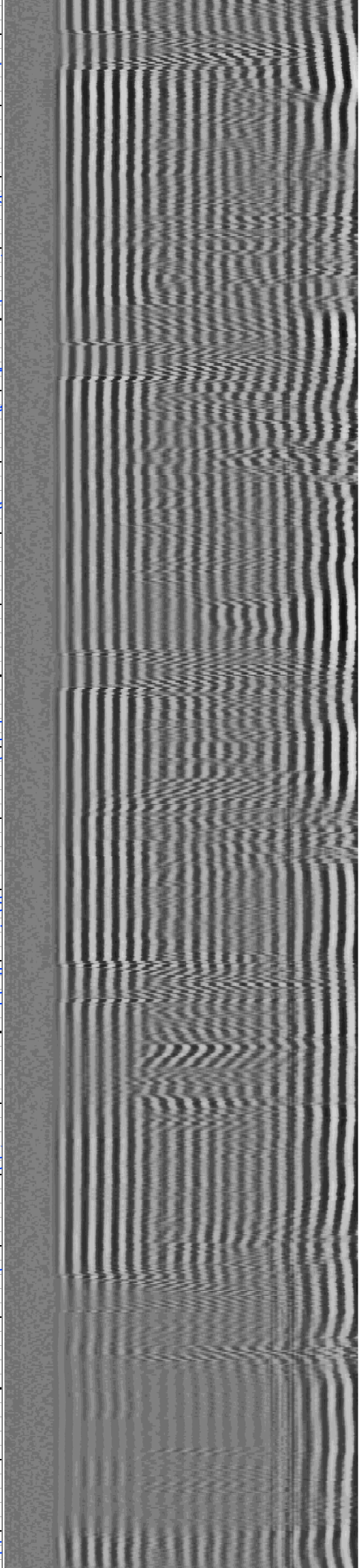
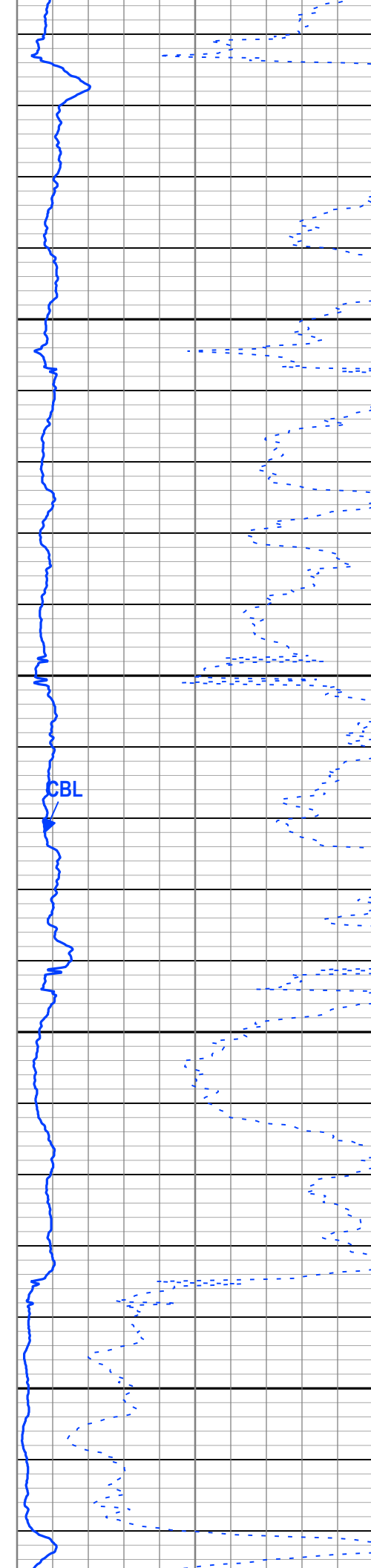
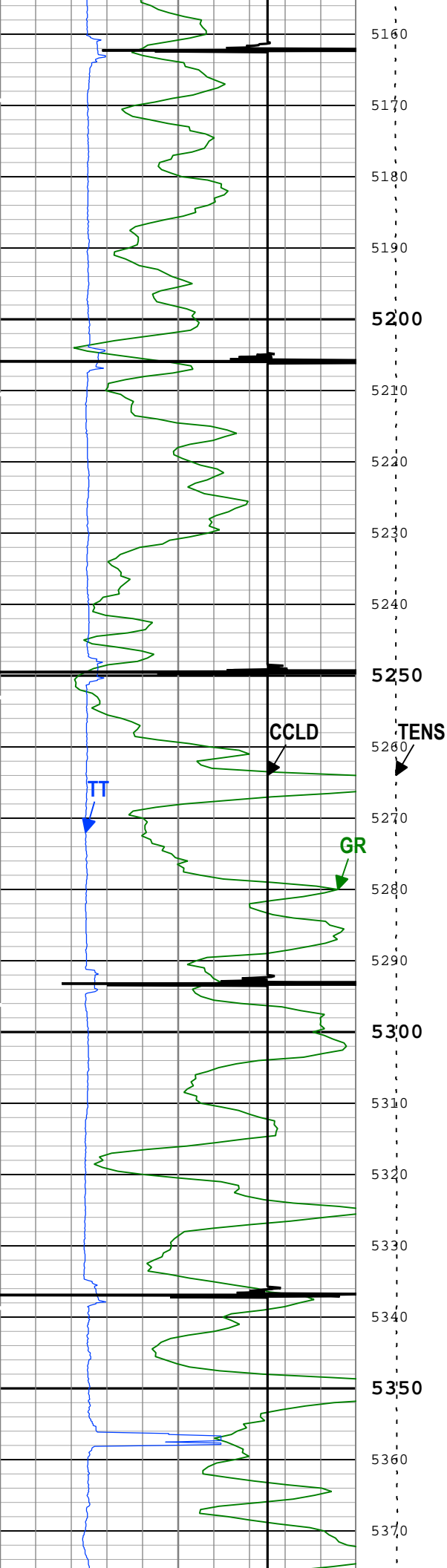


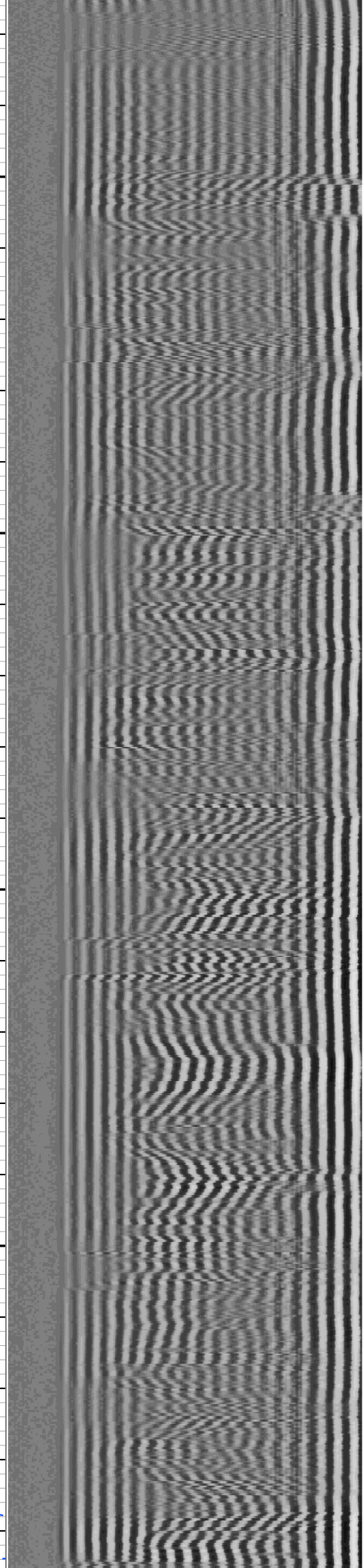
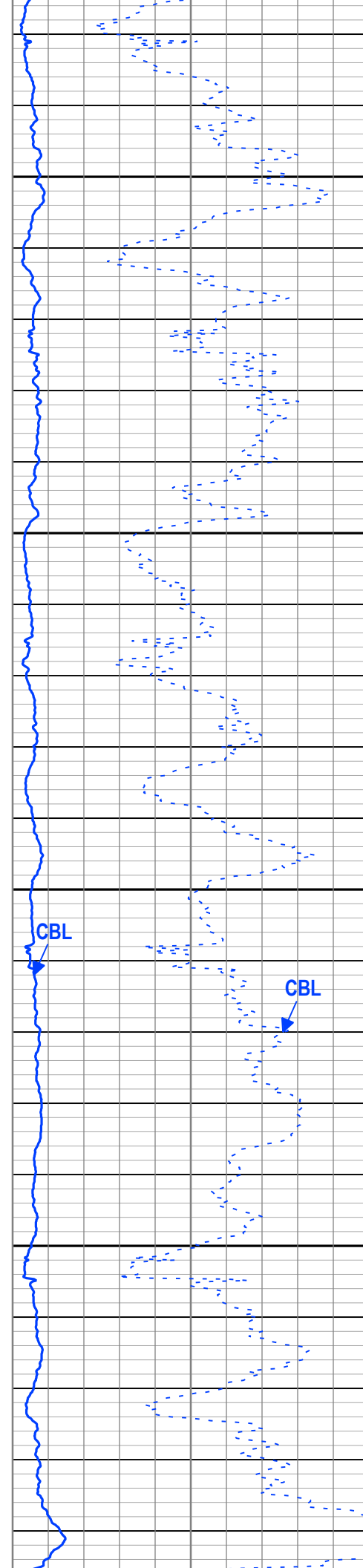
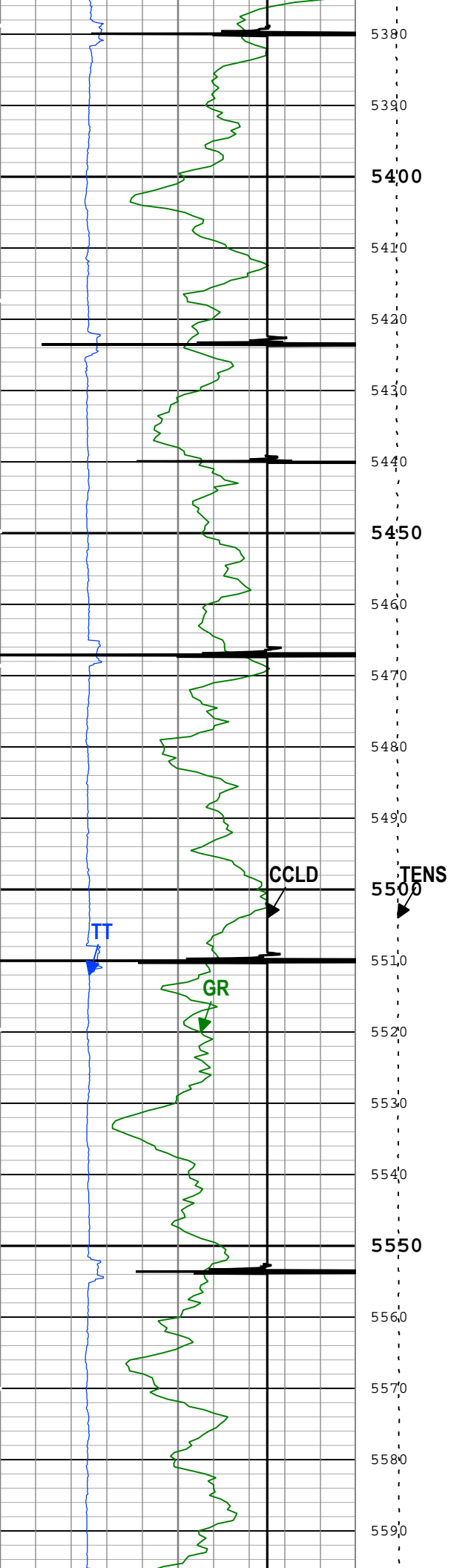


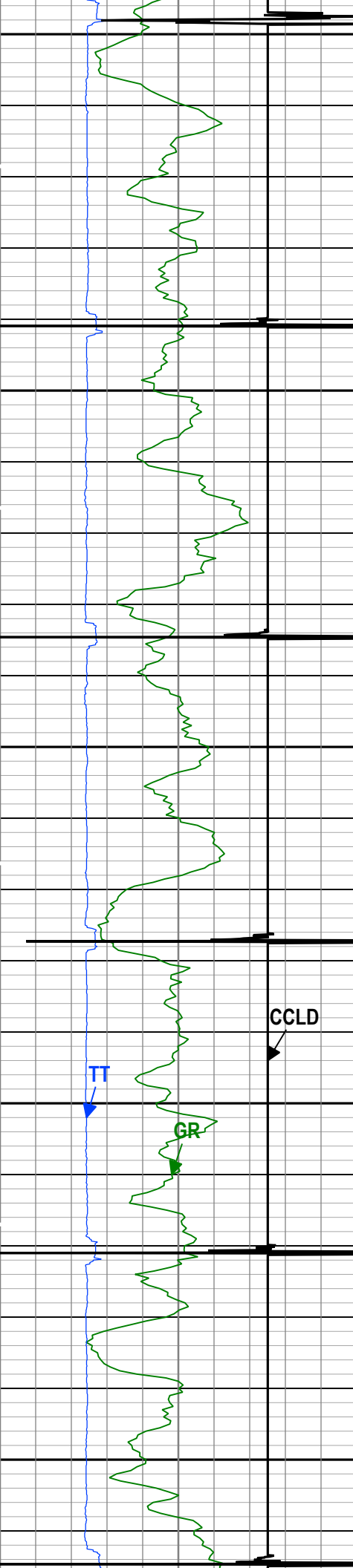












5600

5610

5620

5630

5640

5650

5660

5670

5680

5690

5700

5710

5720

5730

5740 TENS

5750

5760

5770

5780

5790

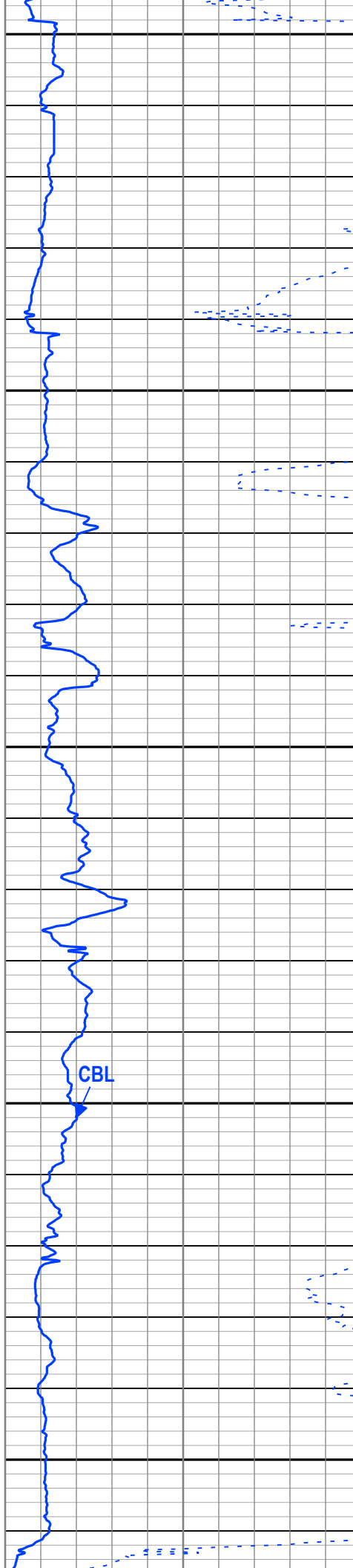
5800

5810

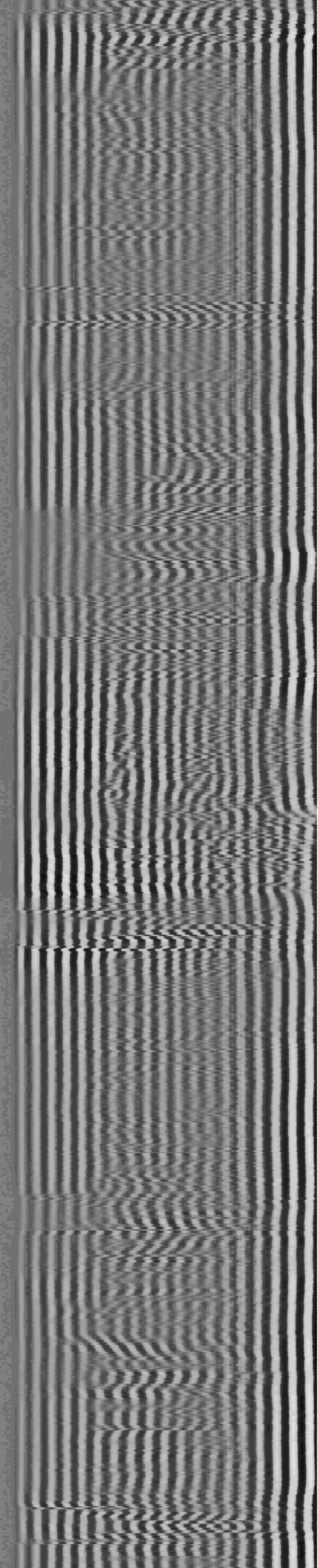
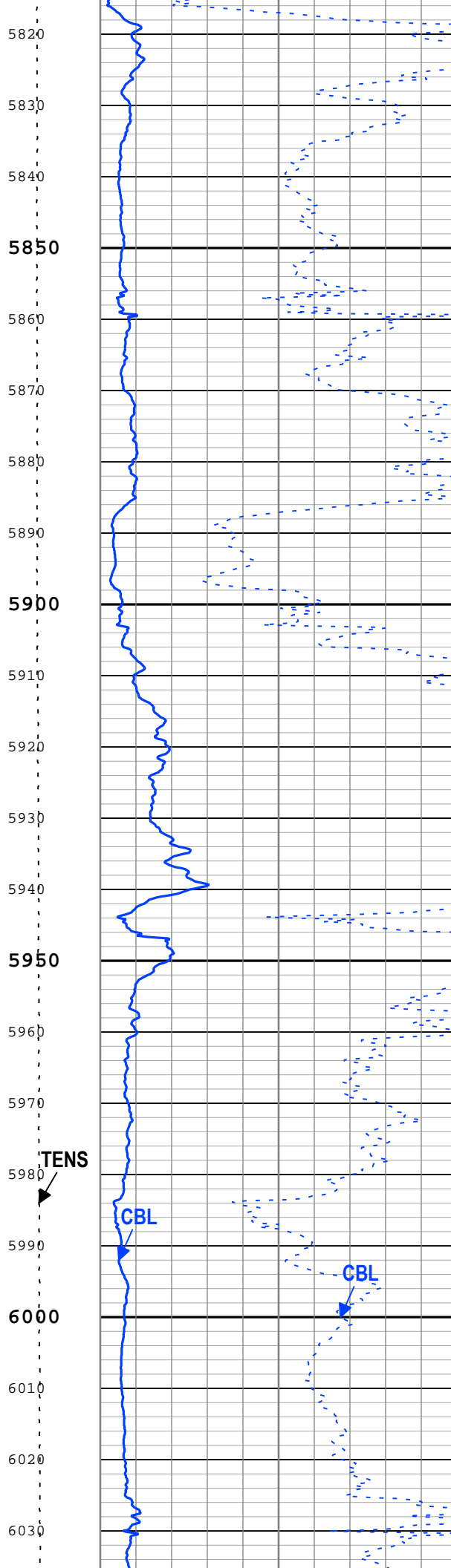
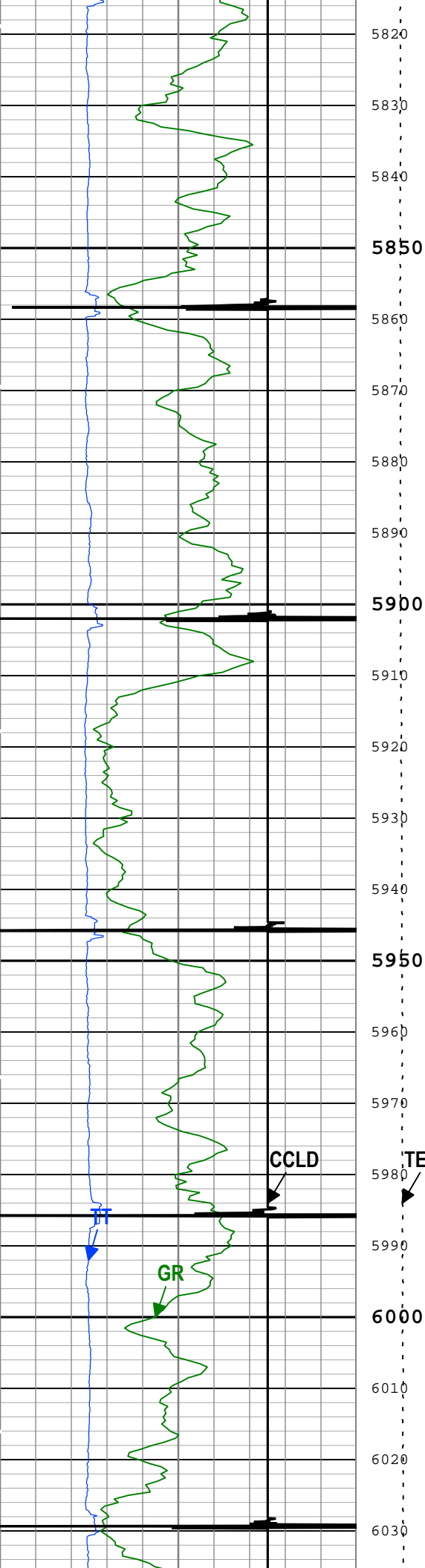
CCLD

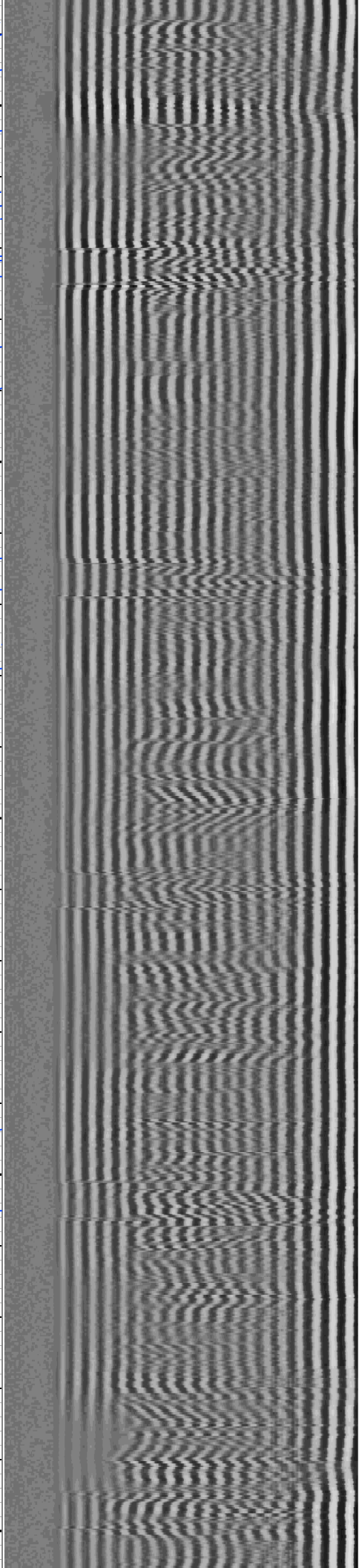
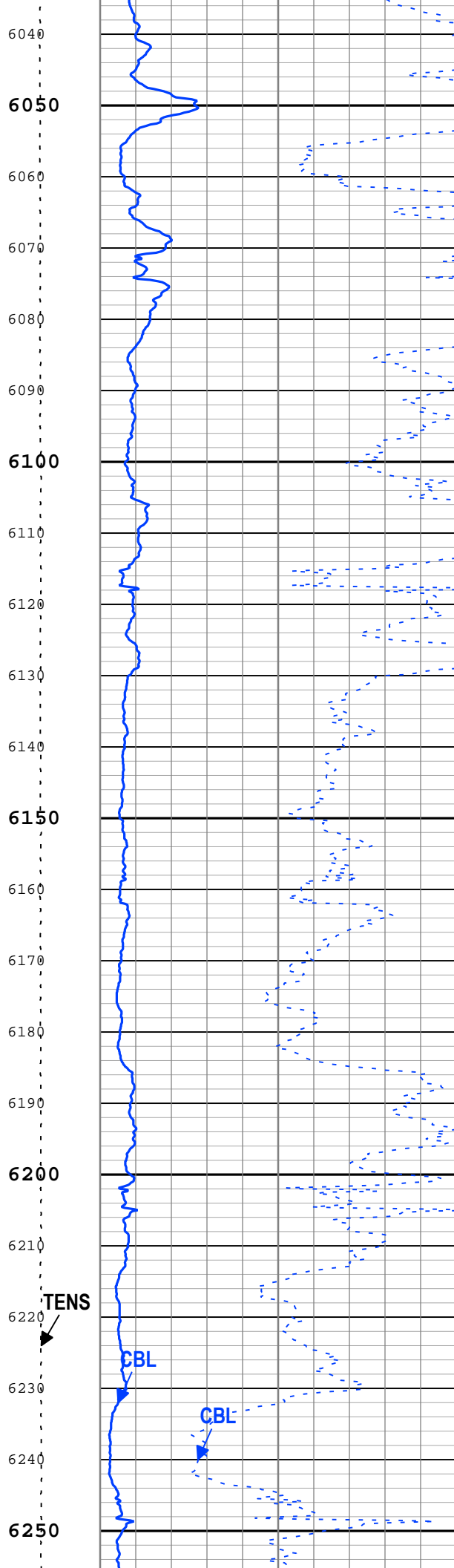
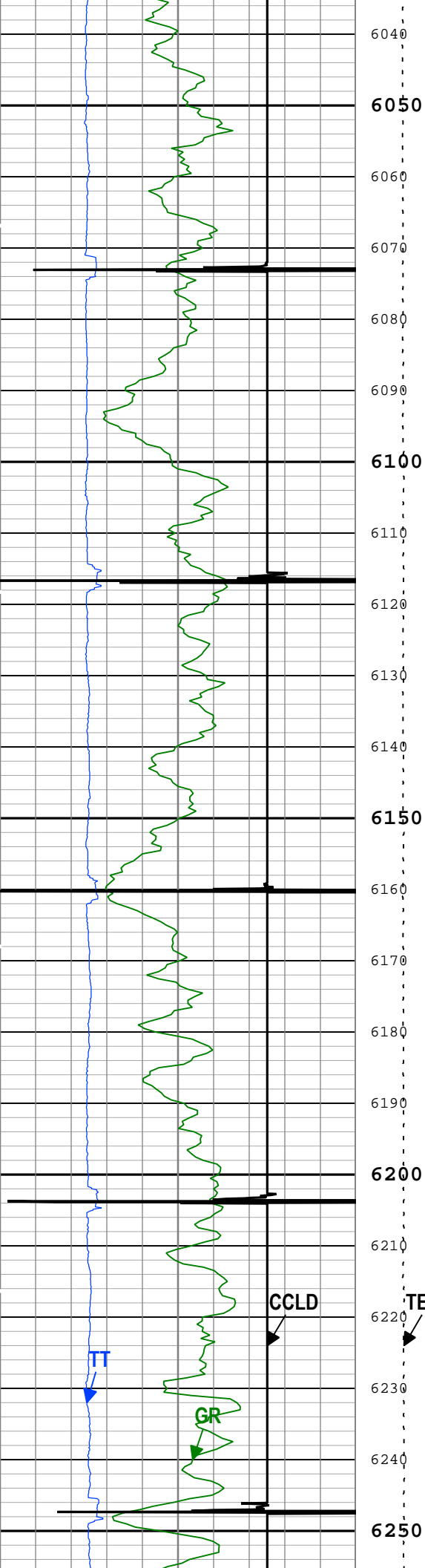
TI

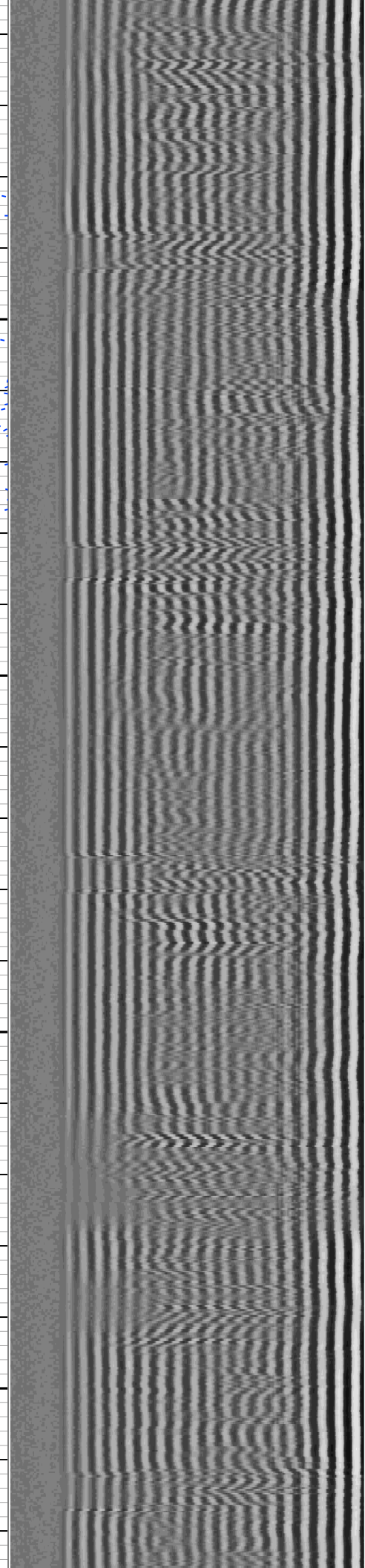
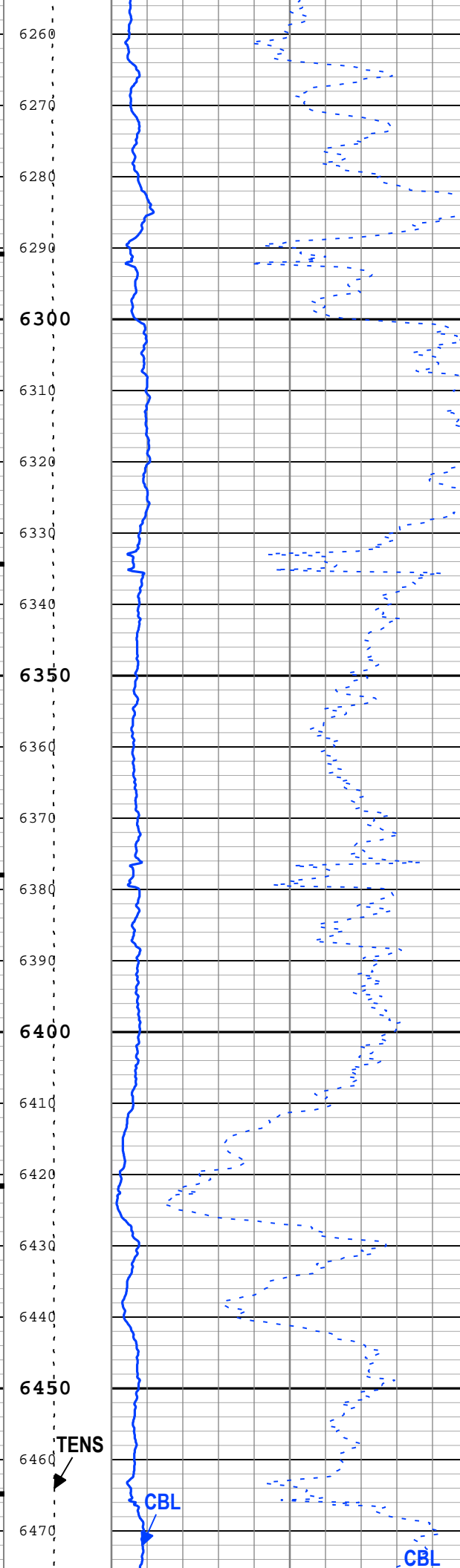
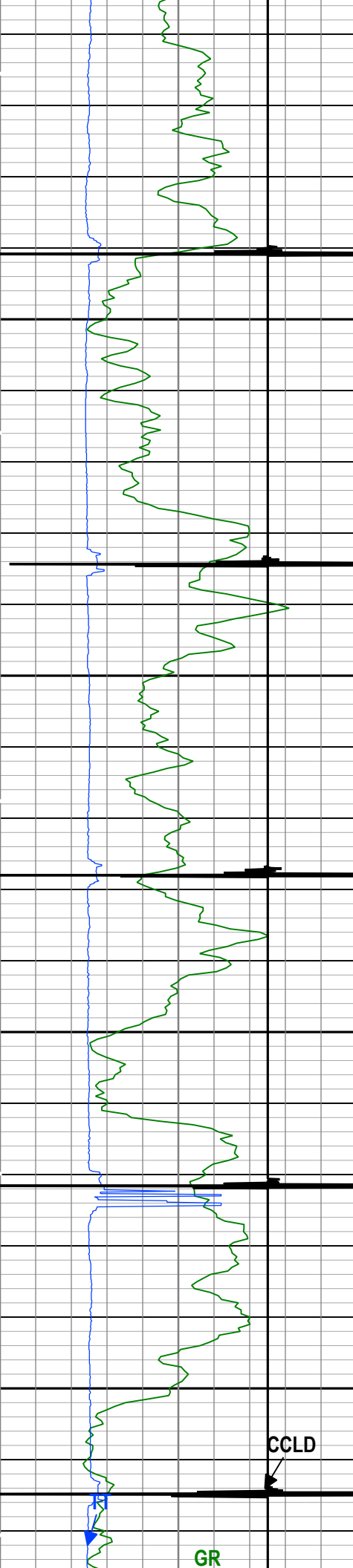
GR

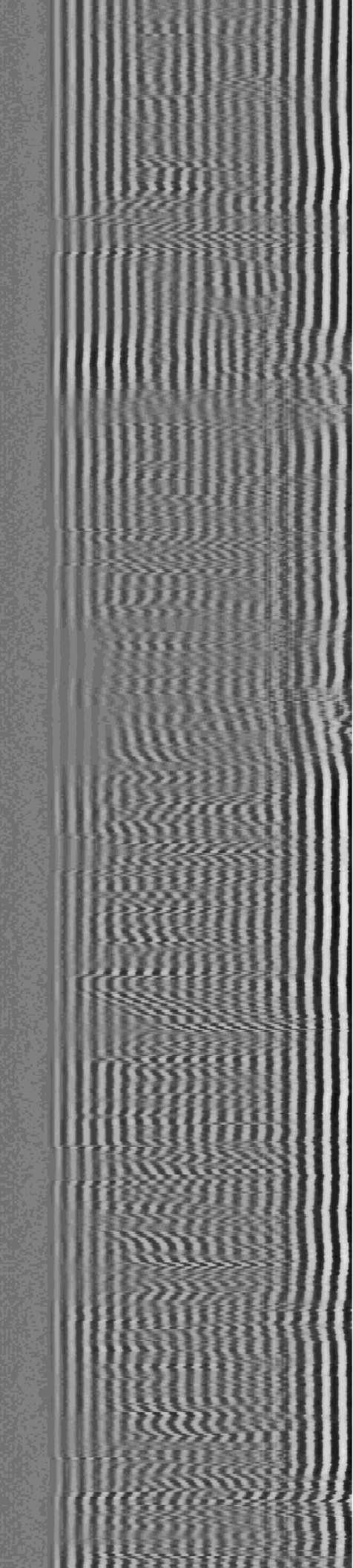
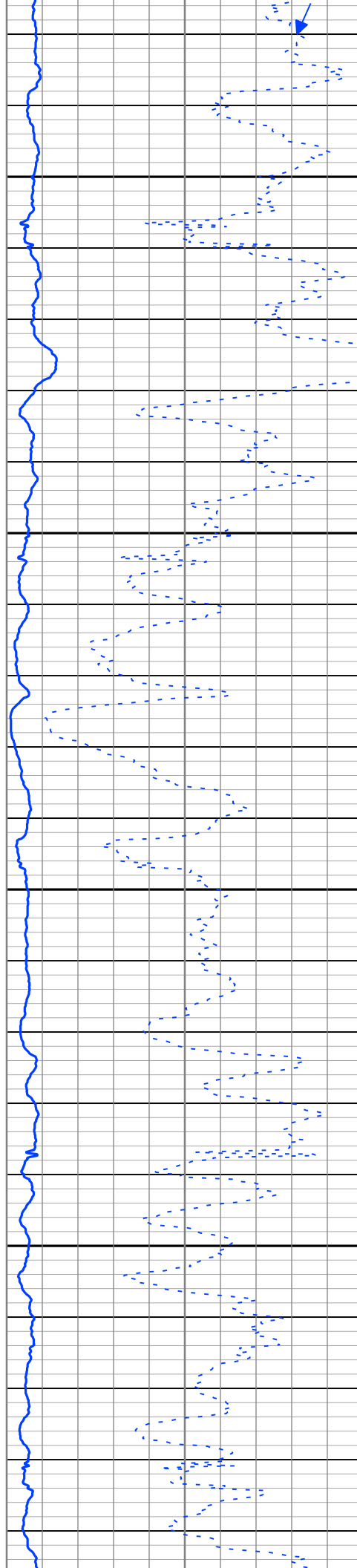
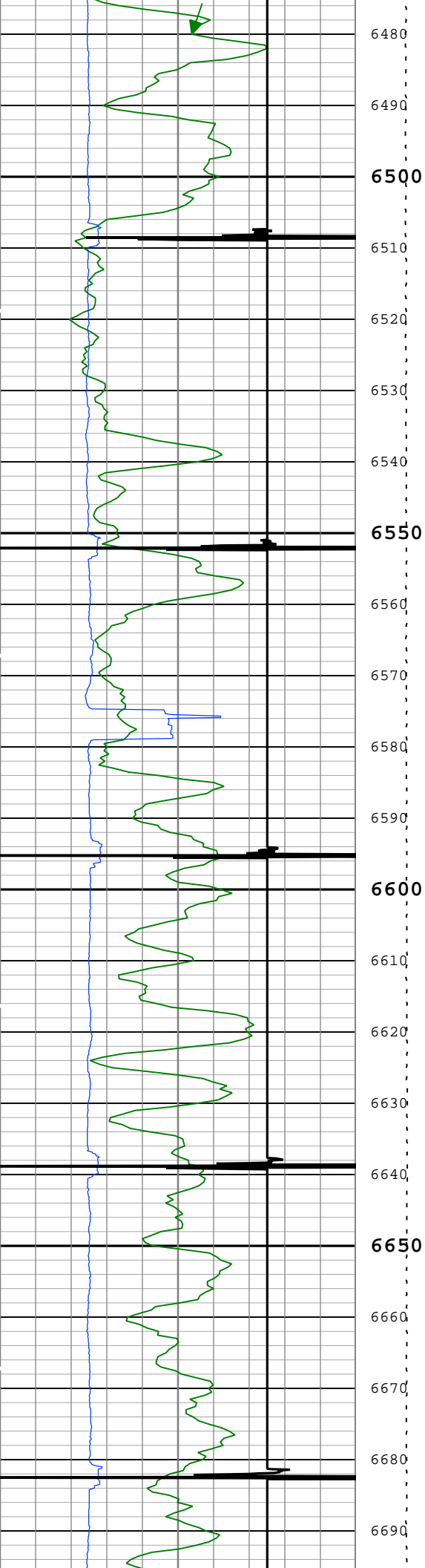


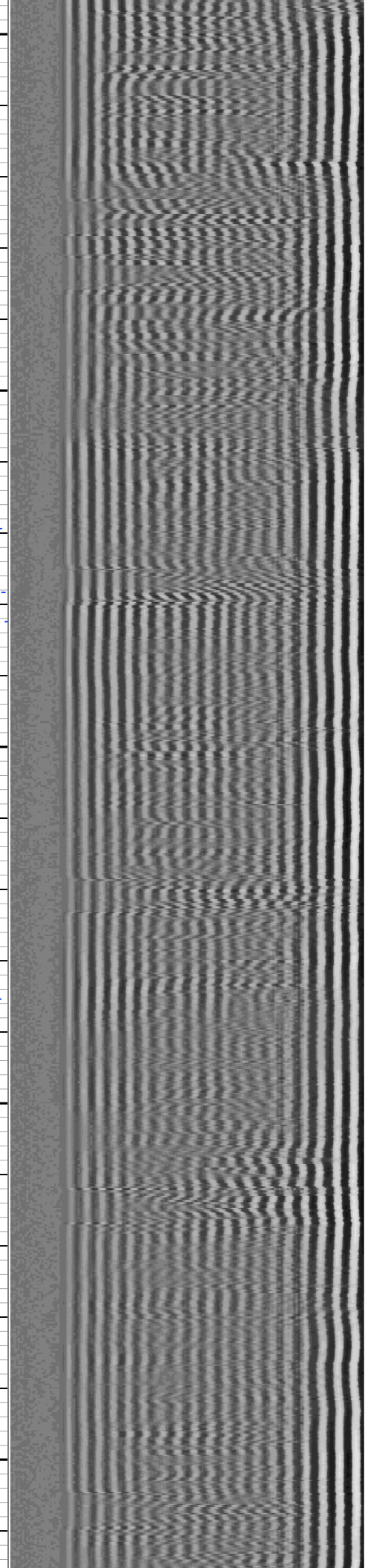
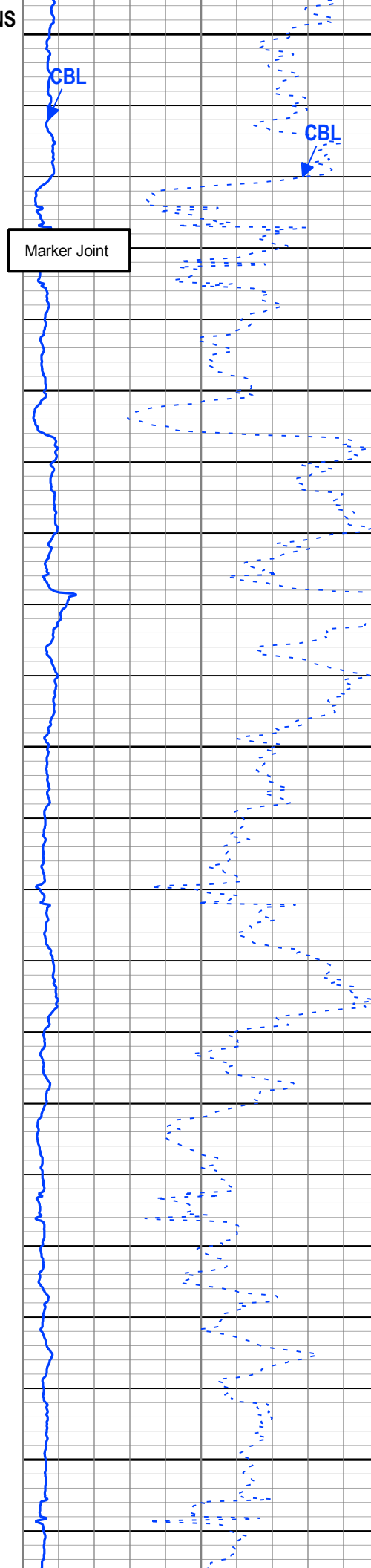
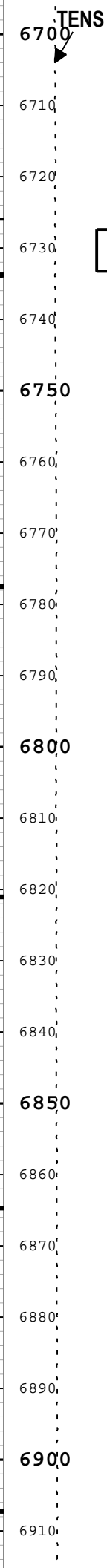
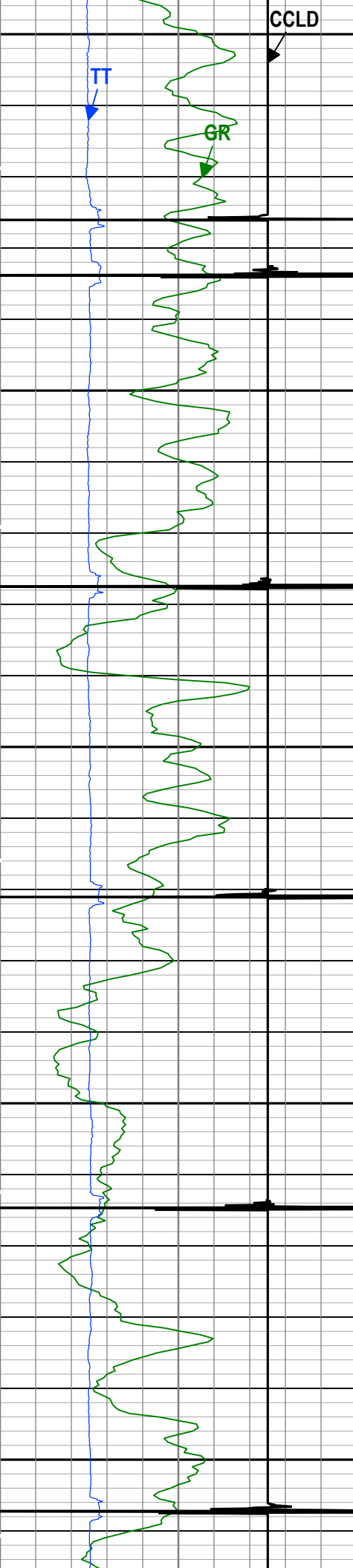
CBL

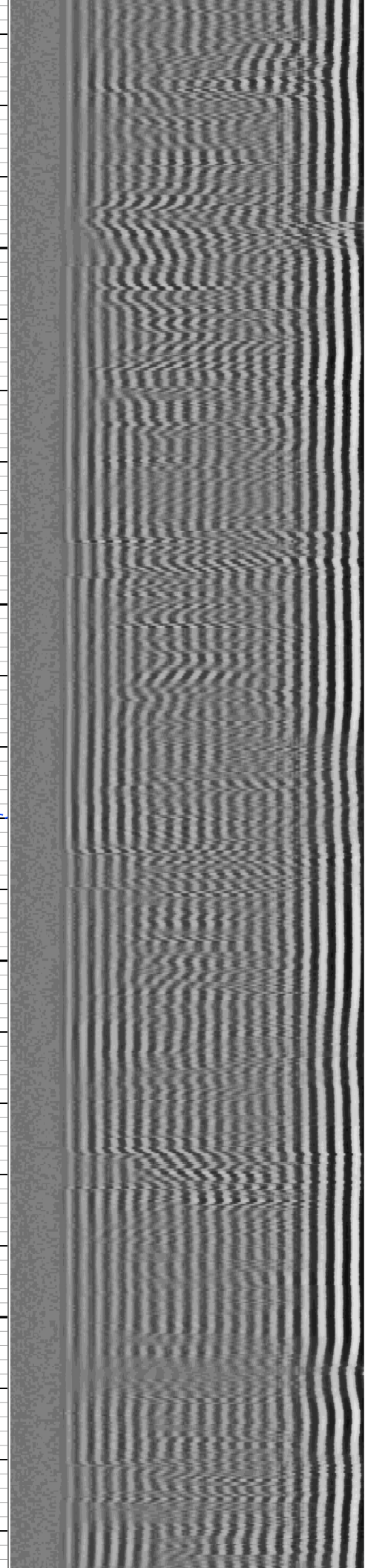
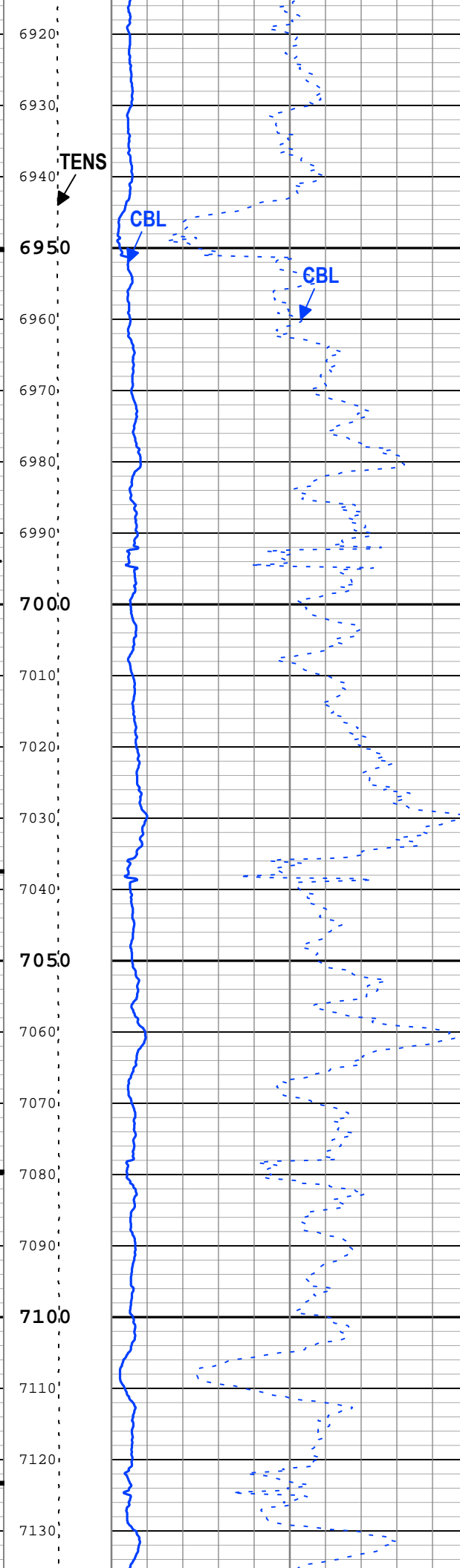
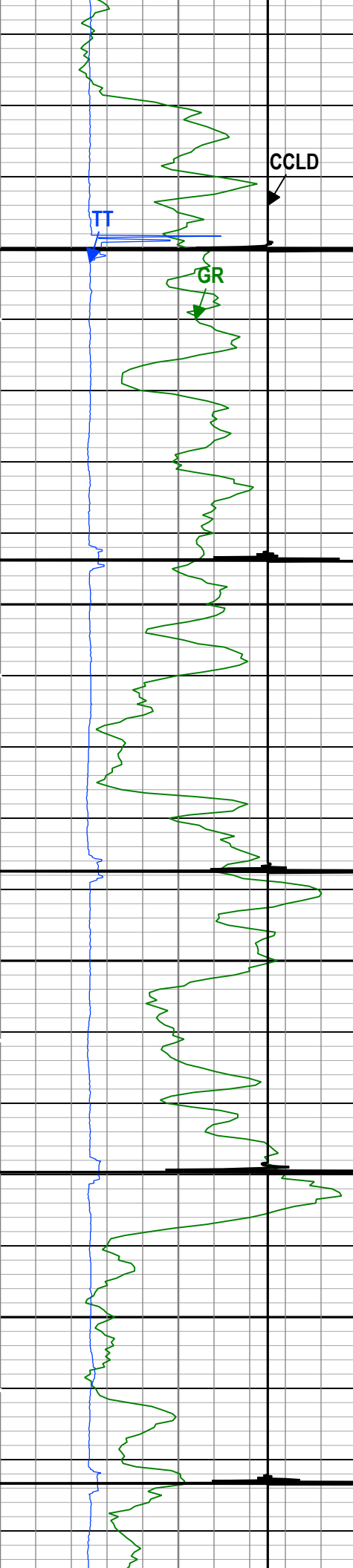


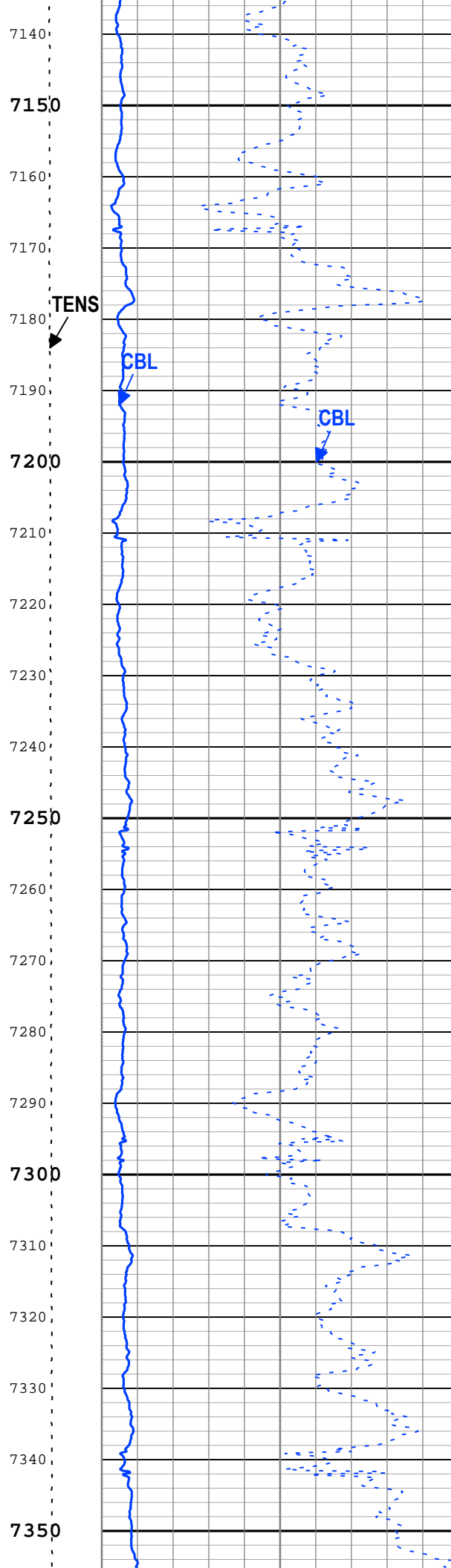
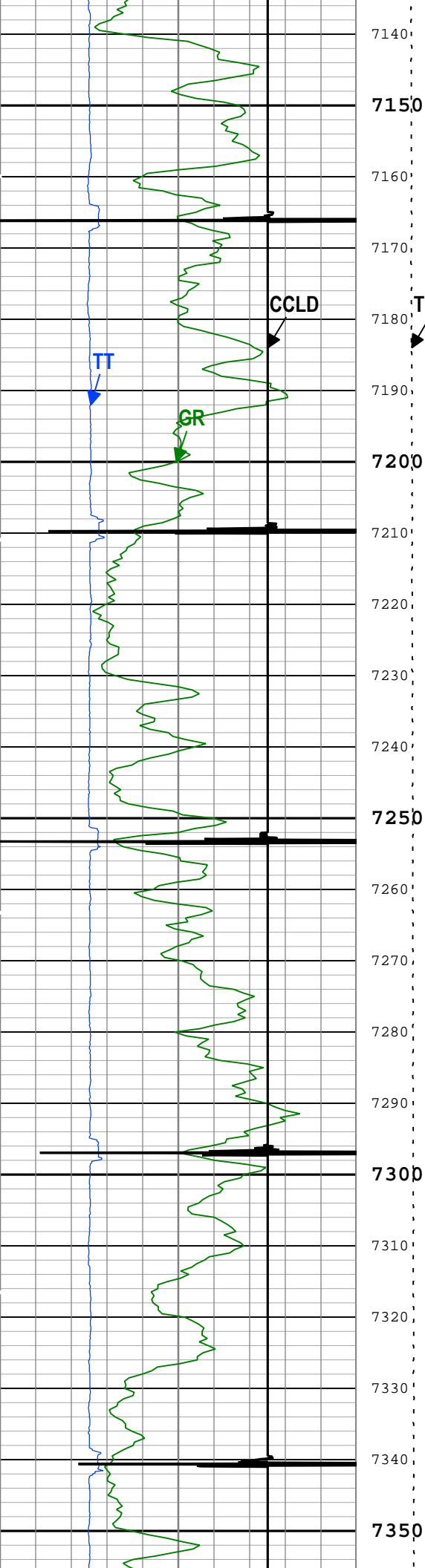


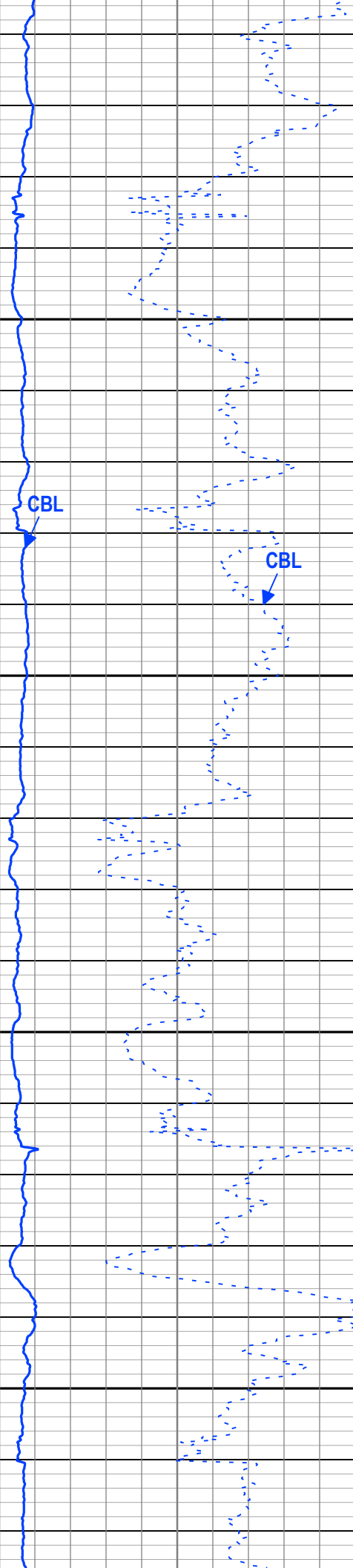
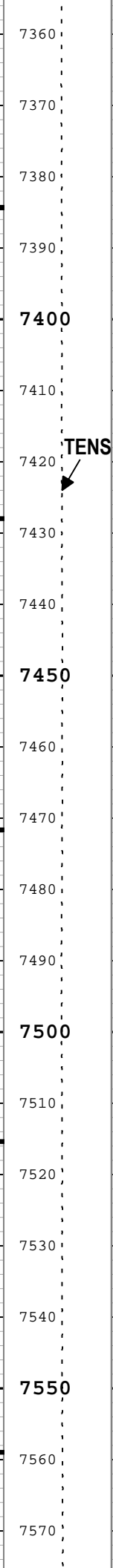
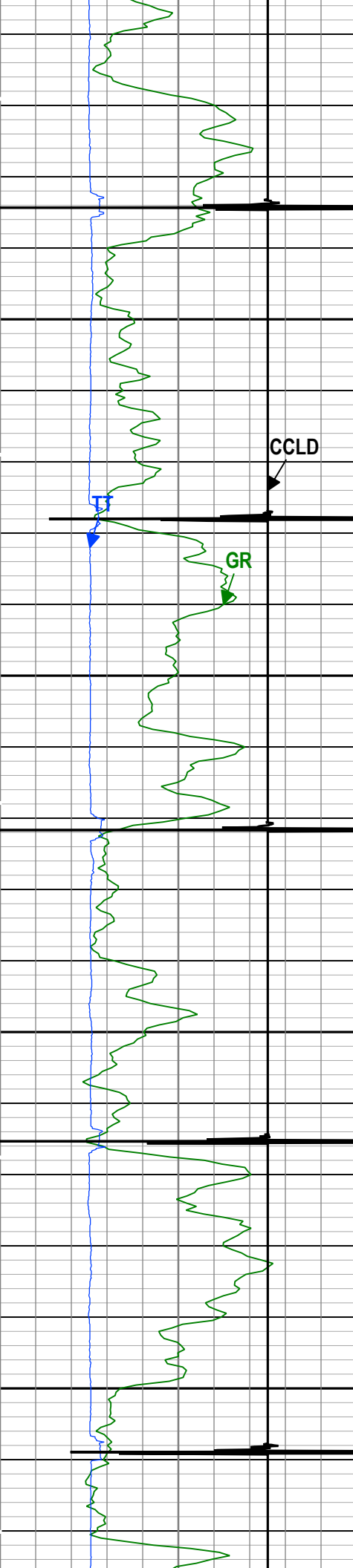


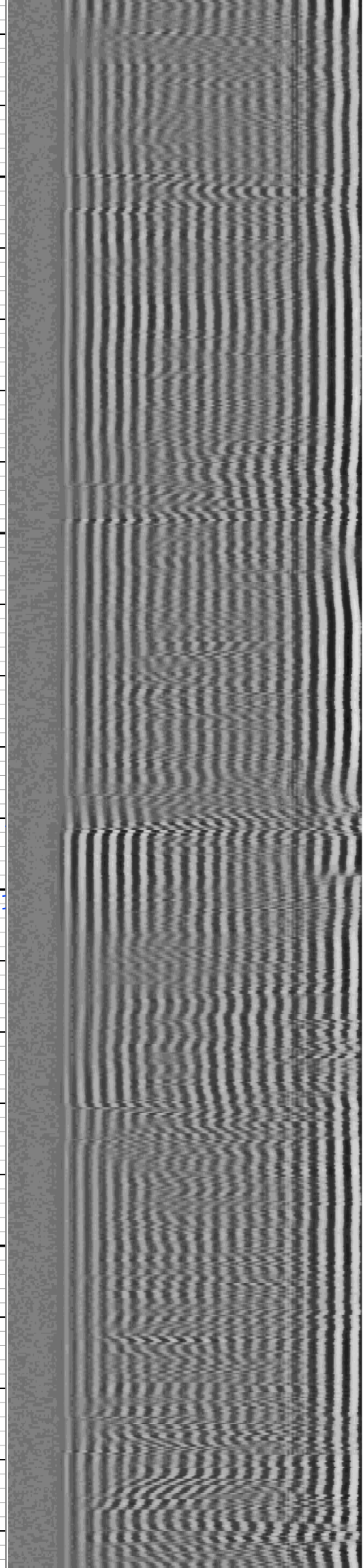
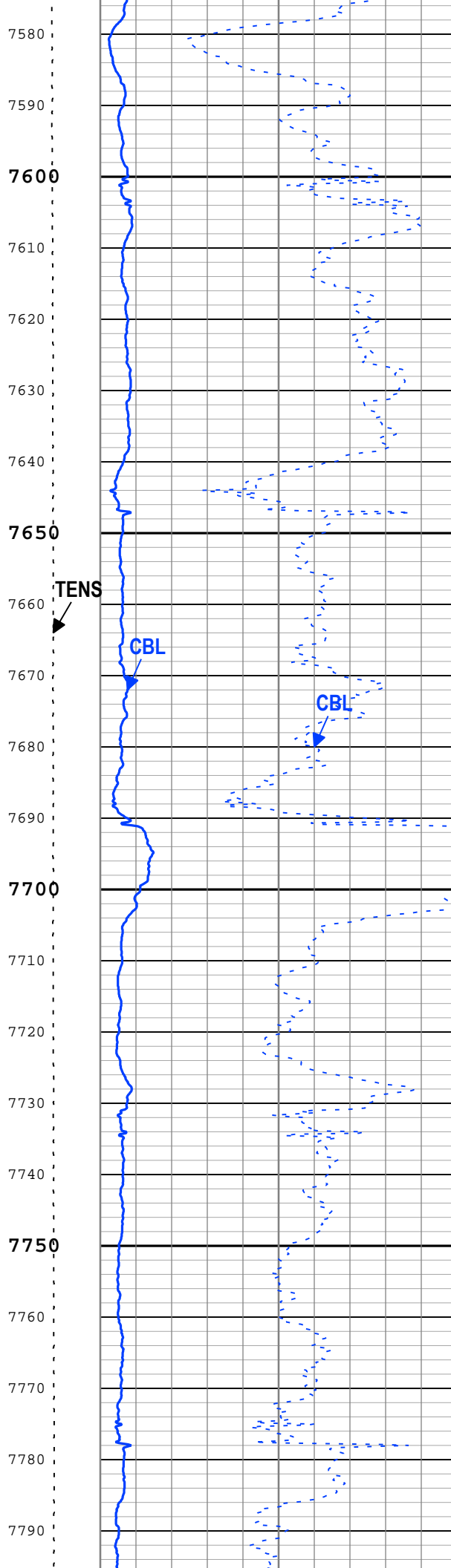
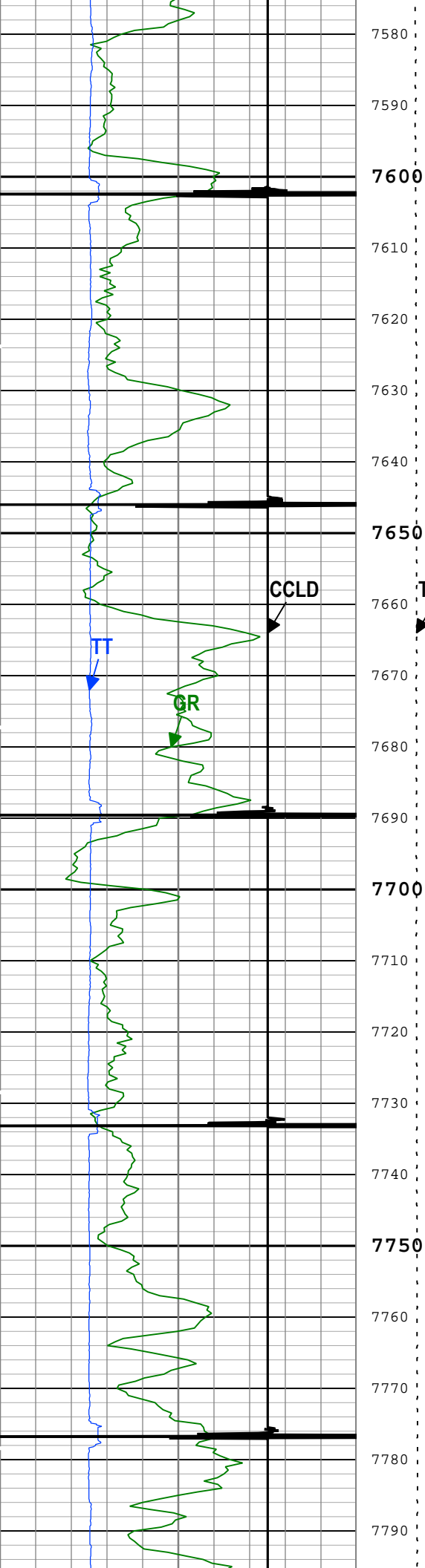


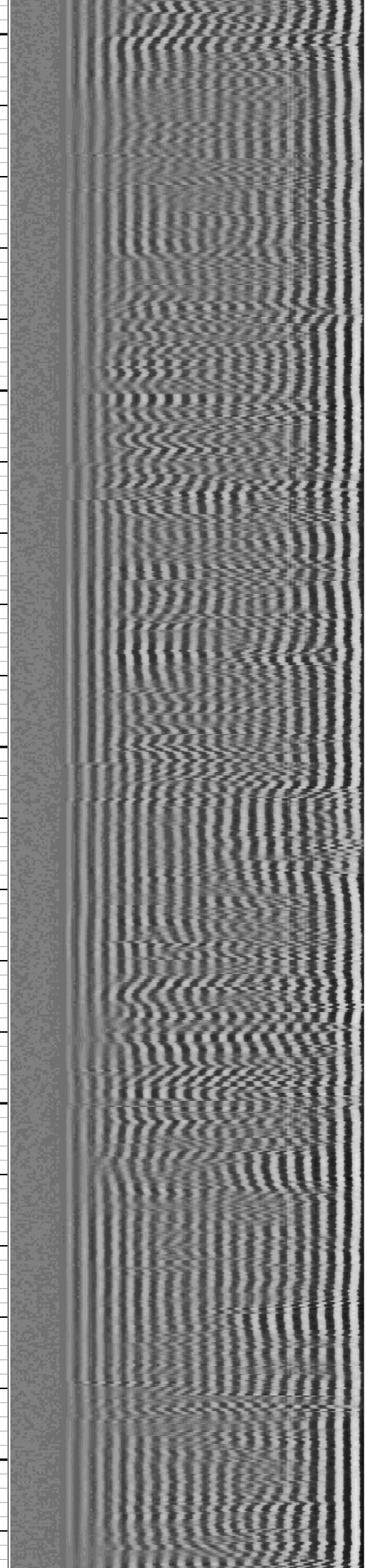
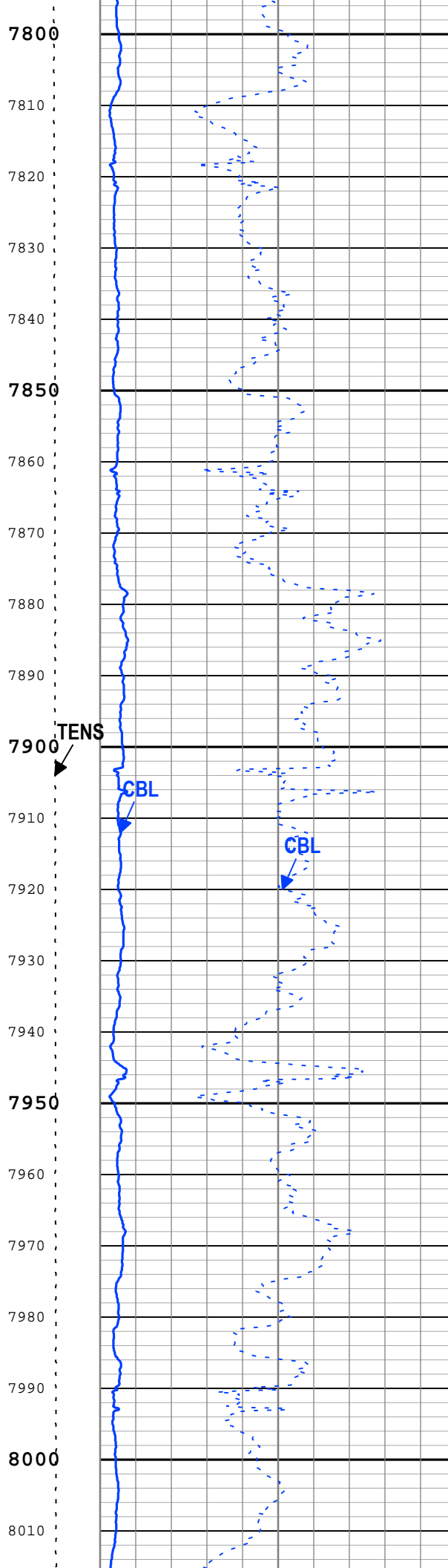
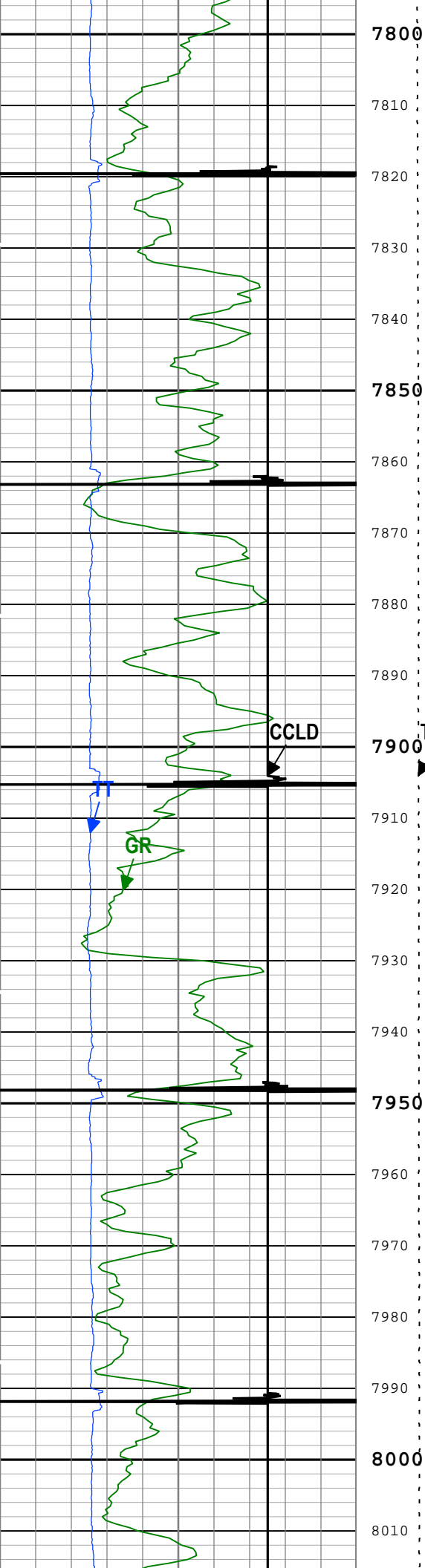


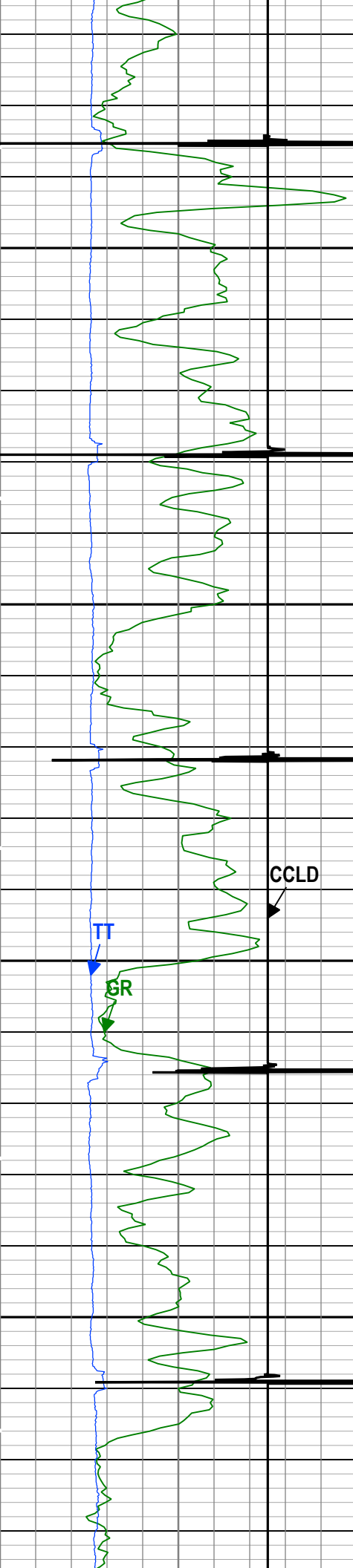




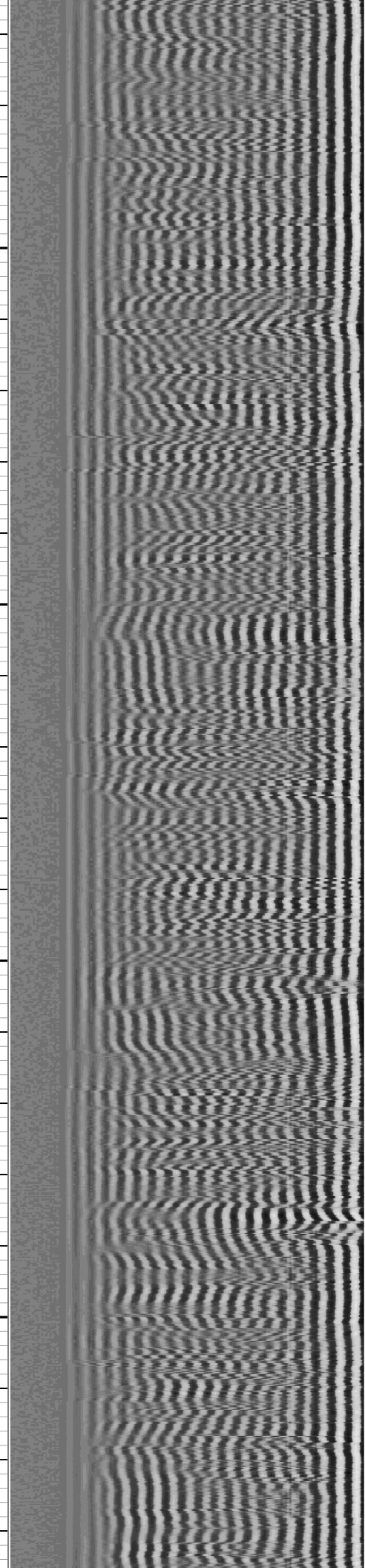
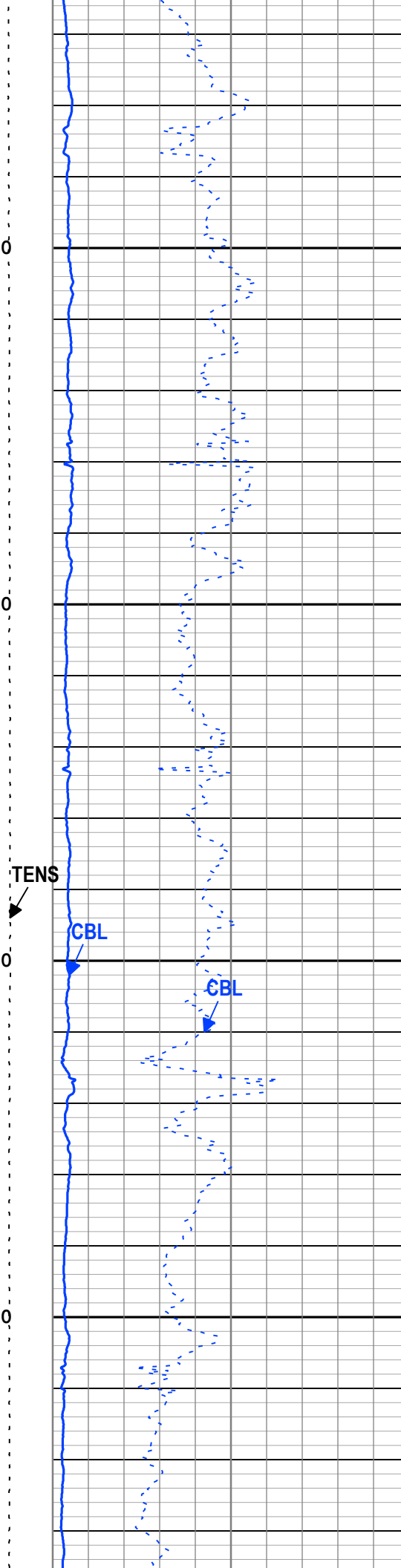


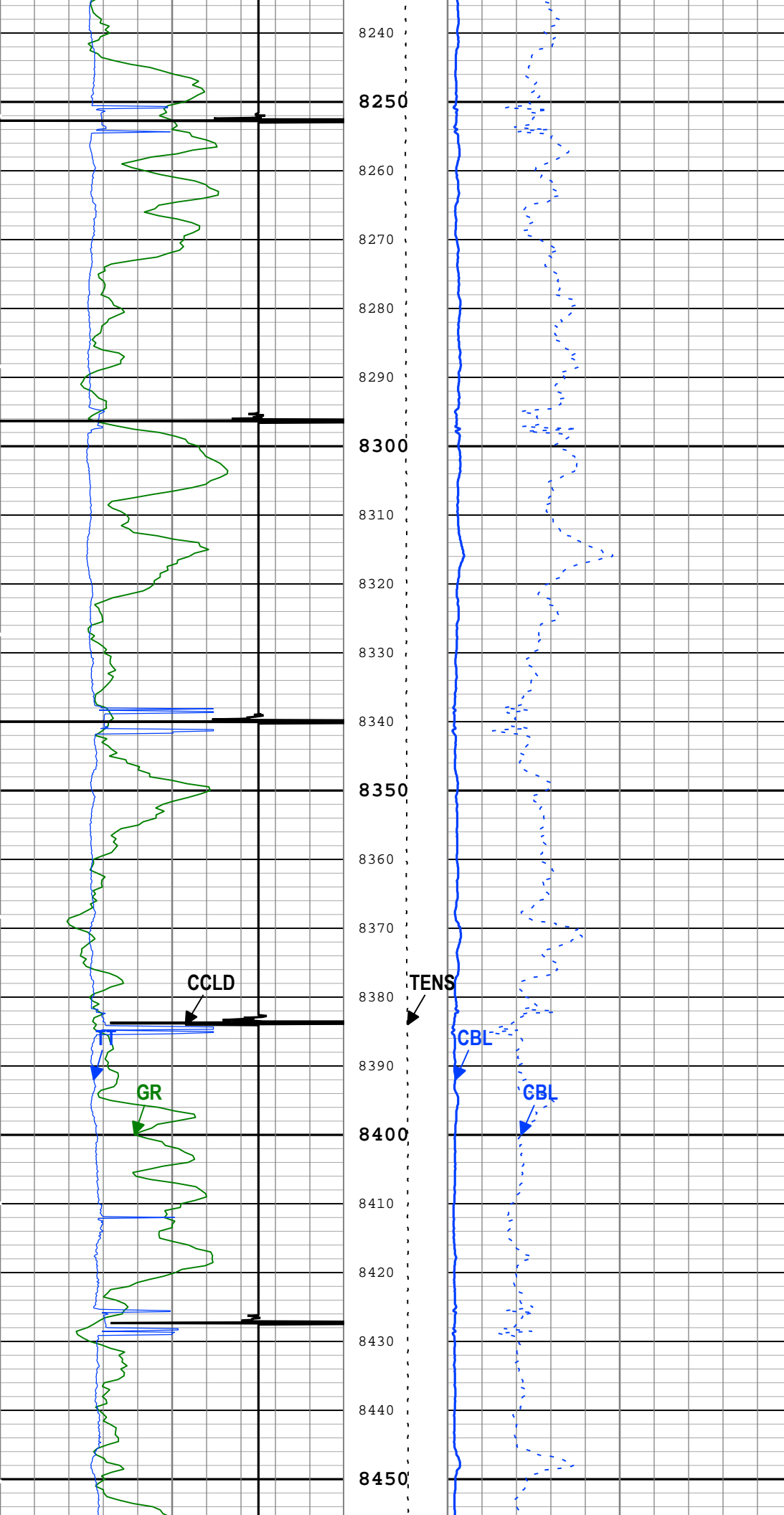


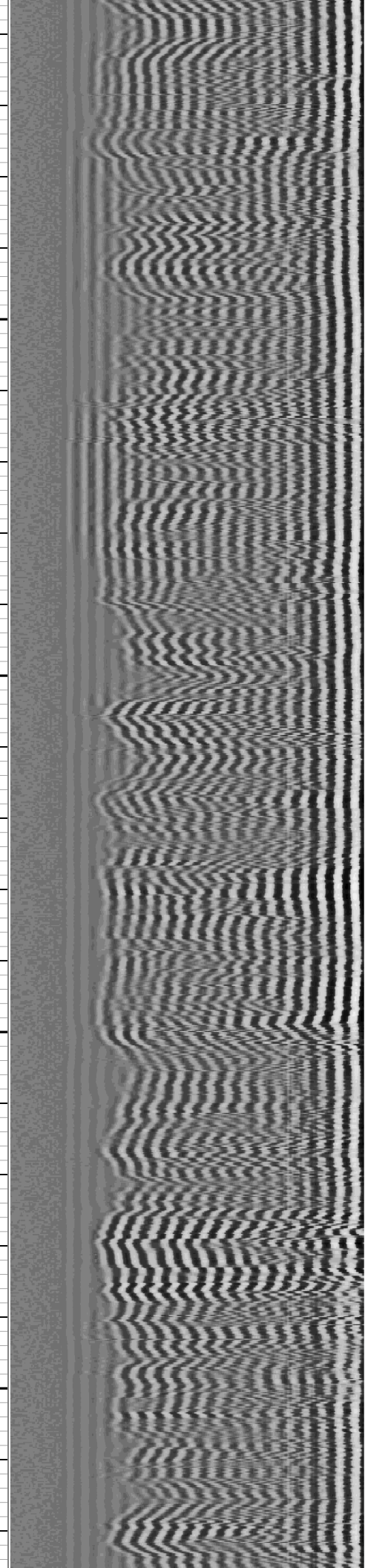
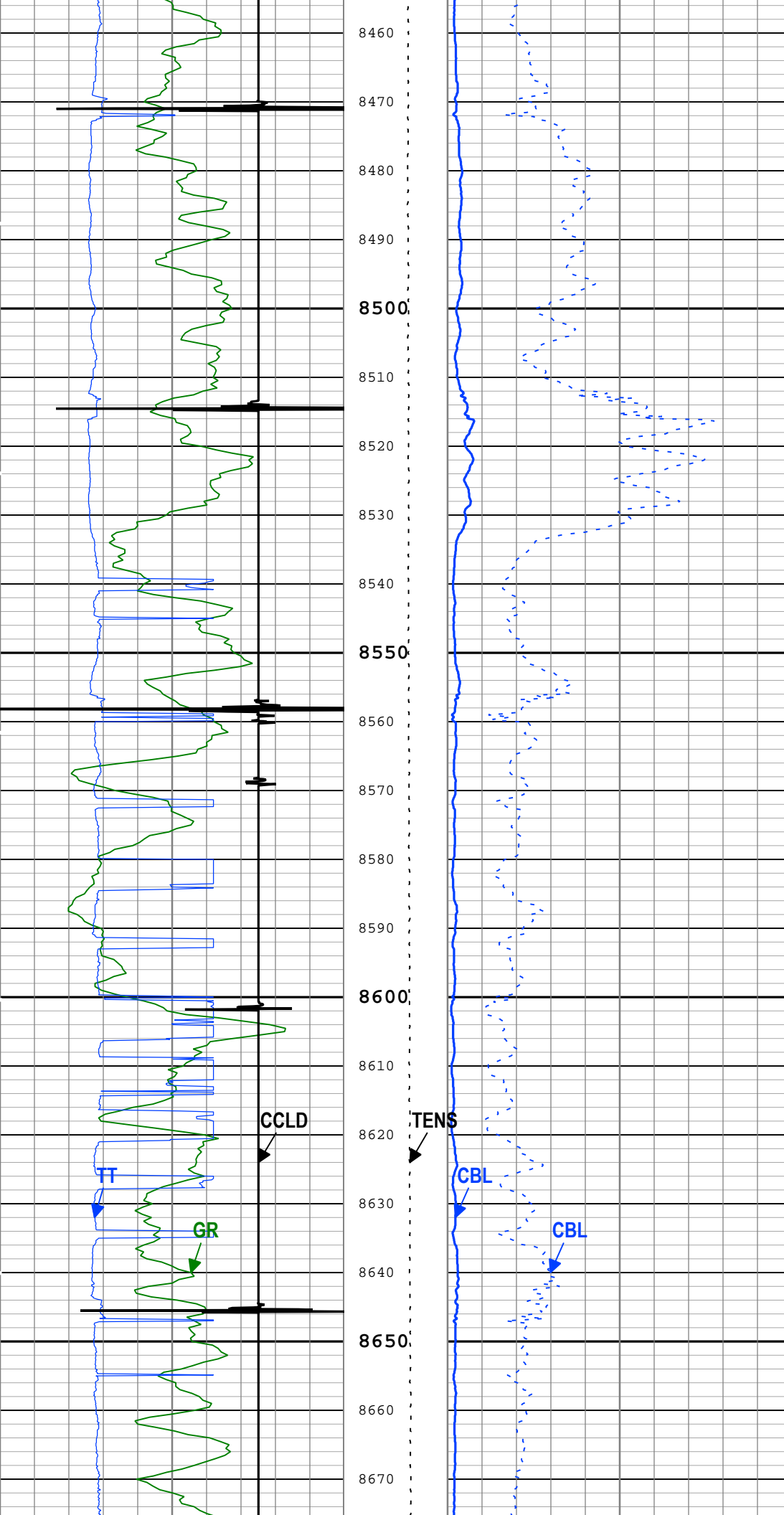


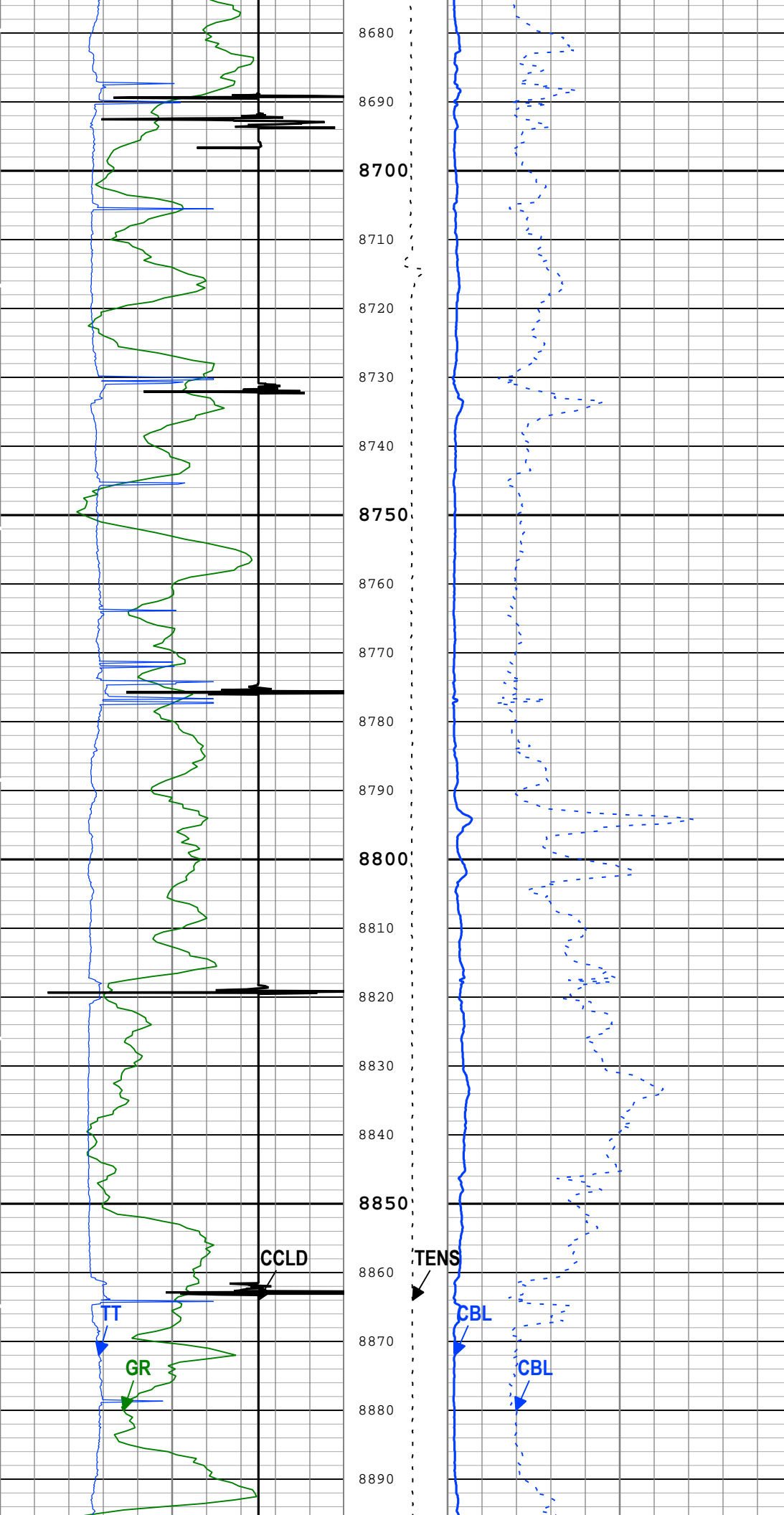


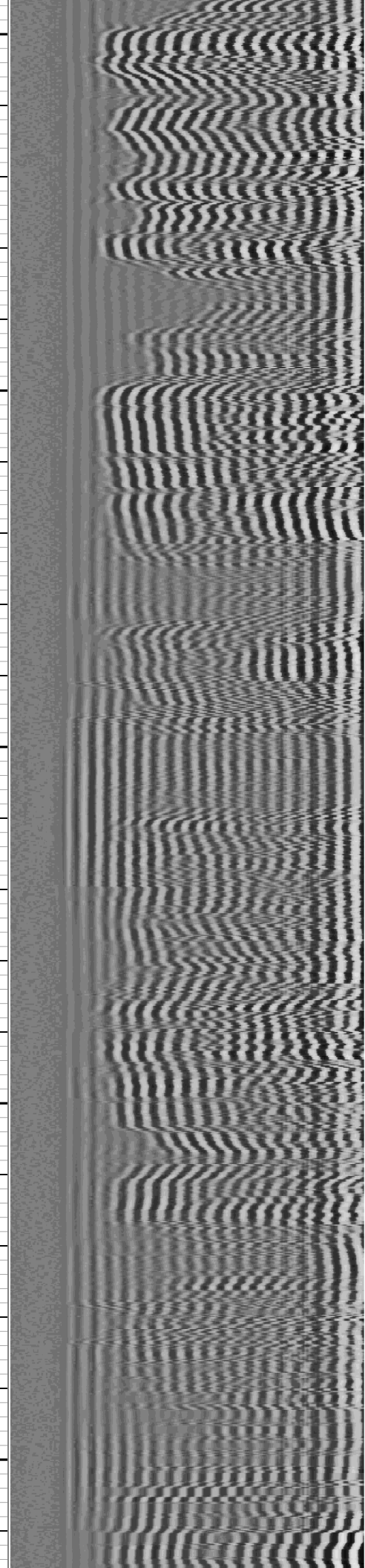
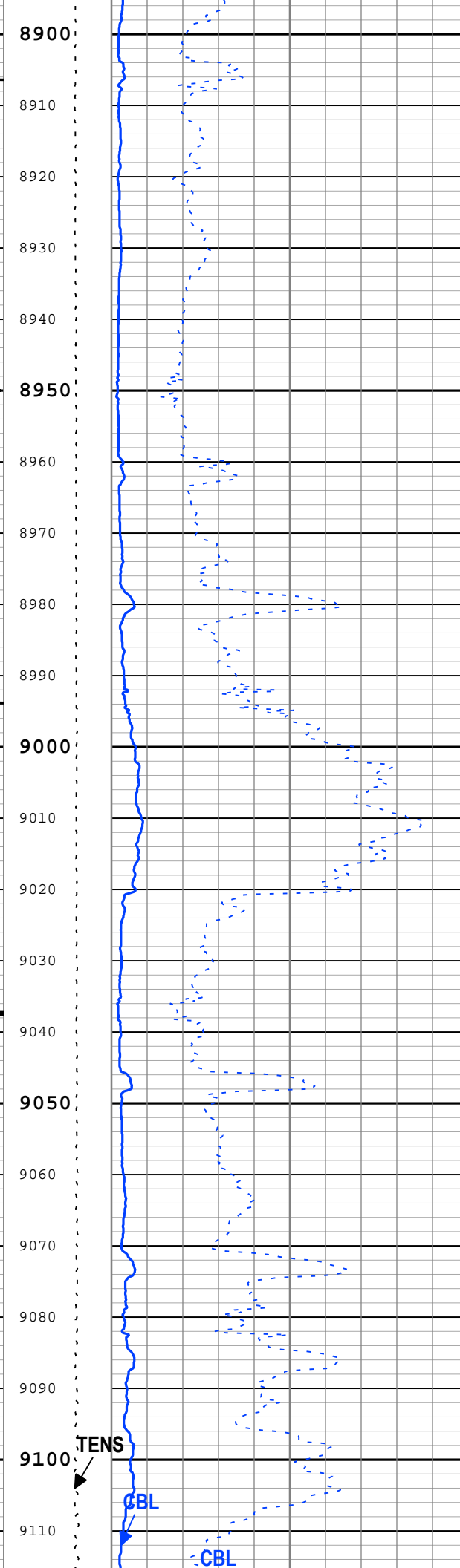
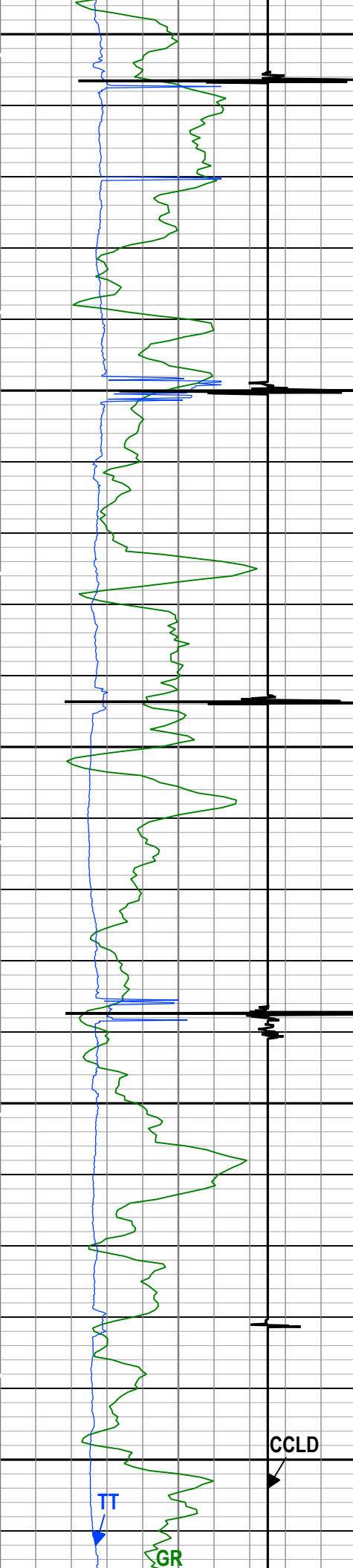
8020
8030
8040
8050
8060
8070
8080
8090
8100
8110
8120
8130
8140
8150
8160
8170
8180
8190
8200
8210
8220
8230

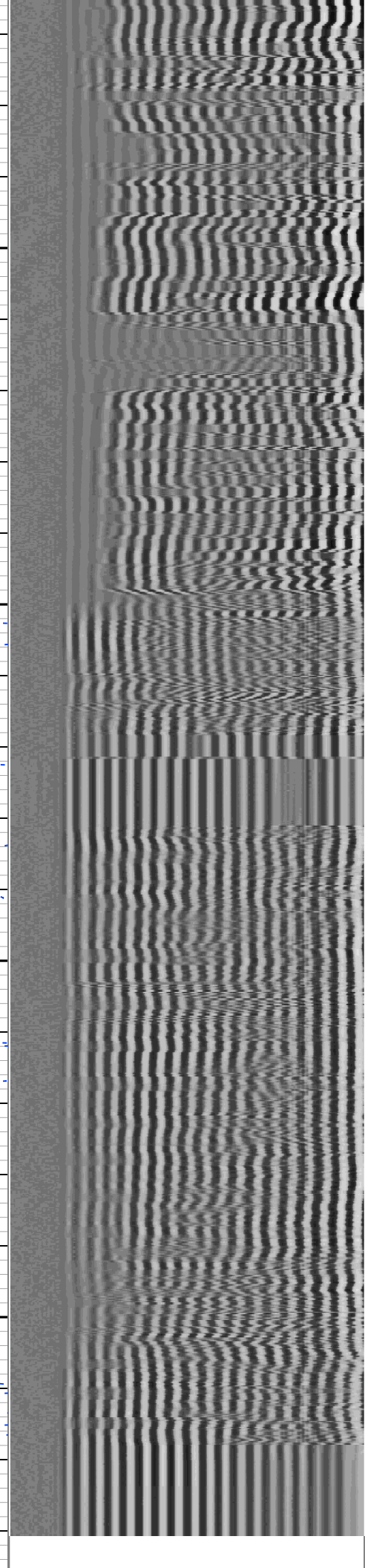
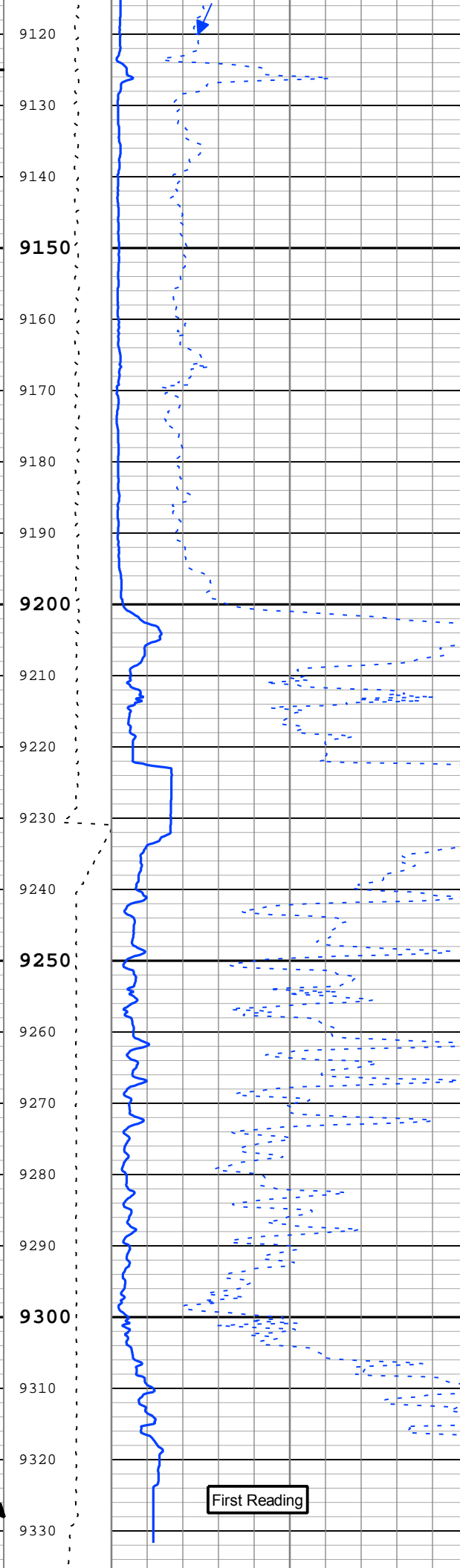
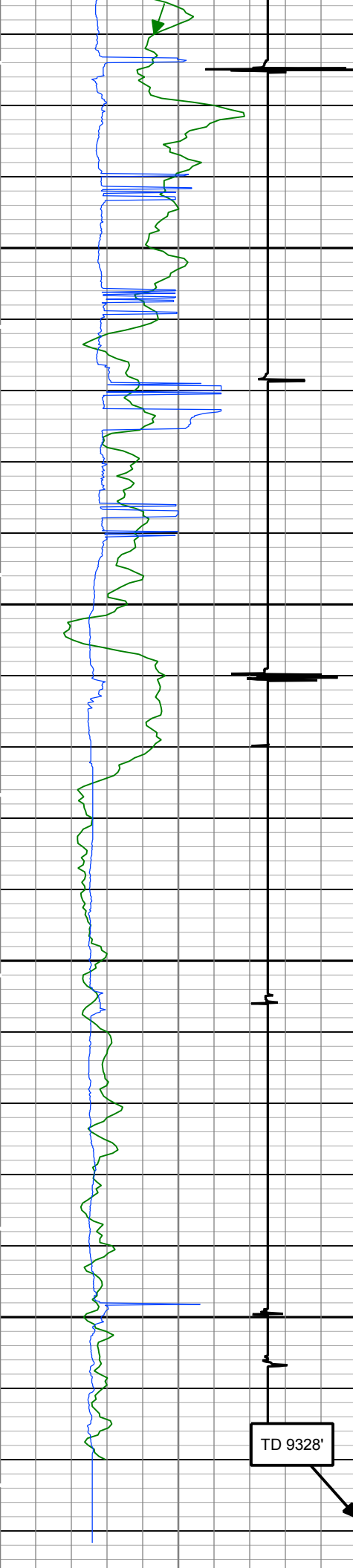












0123456789

Gamma Ray (GR) PSTP-B[1]

0gAPI150

Transit Time for CBL (TT) SCMT-CB[1]

200us400

CCL Discriminated Amplitude (CCLD) PSTP-B[1]

-3V1

0123456789

Cable Tension (TENS)

0lbf3000

0123456789

CBL Amplitude (CBL) SCMT-CB[1]

0mV10

CBL Amplitude (CBL) SCMT-CB[1]

0mV100

MinAmplitudeMax

VDL VariableDensity (VDL) SCMT-CB[1]

200us1200

TIME_1900 - Time Marked every 60.00 (s)

Description: SCMT Amplitudes and VDL Format: Log (SCMT_Amp_VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth
Creation Date: 10-Jan-2018 10:37:40

Channel Processing Parameters

scmt: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	239	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	224	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	80	mV
DFD	Drilling Fluid Density	Borehole	8.6	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	30	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8432	ft
GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	1.4	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	GTEM_LINEST(RT)	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	16.92	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	1.25	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	0.51	mV
PDAT	Permanent Datum	WLSESSION	GL	
RUN_SNUM	Run Sequence Number	WSDRUN	2	
SHT	Surface Hole Temperature	Borehole	68	degF

Tool Control Parameters

scmt: Parameters				
Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-B	Time Zoned	

scmtTime Zoned Parameters

Pass Log[9]:Up

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
PCCG	12 dB	16-Dec-2017 17:53:19	16-Dec-2017 18:01:42	9340.15	9062.62
PCCG	24 dB	16-Dec-2017 18:01:42	16-Dec-2017 20:45:31	9062.62	2652.57

Pass Log[10]:Up

PCCG	24 dB	16-Dec-2017 20:56:58	16-Dec-2017 21:01:42	2652.57	2467.15
------	-------	----------------------	----------------------	---------	---------

All data is time corrected

All depth are at tool zero.

scmt

Repeat Pass

Software Version

Acquisition System

Maxwell 2017 SP3

Version

7.3.92069.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
scmt	Log[11]:Up	Up	2454.26 ft	2979.08 ft	16-Dec-2017 9:04:32 PM	16-Dec-2017 9:17:28 PM	ON	0.00 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Caerus Operating LLC

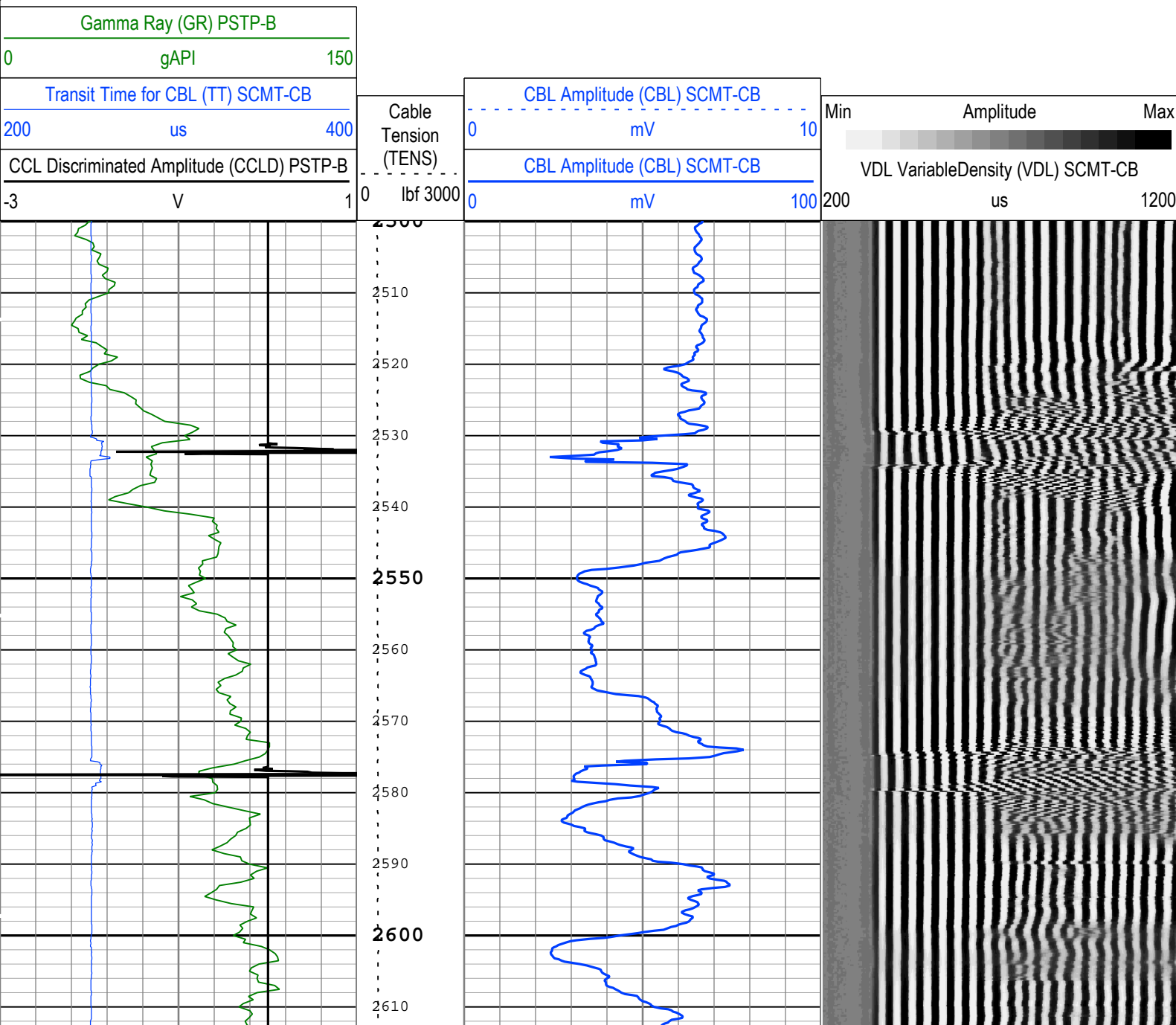
Well:Puckett 13D-23 697

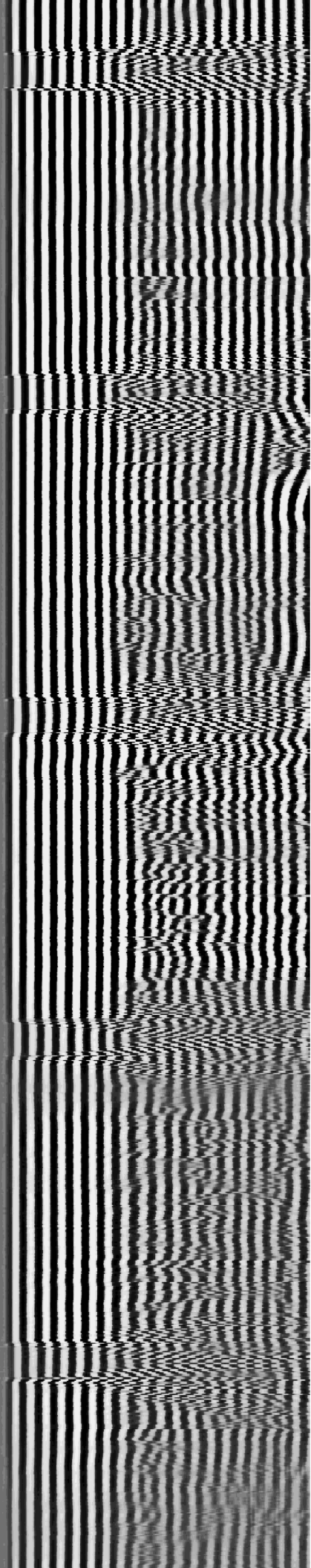
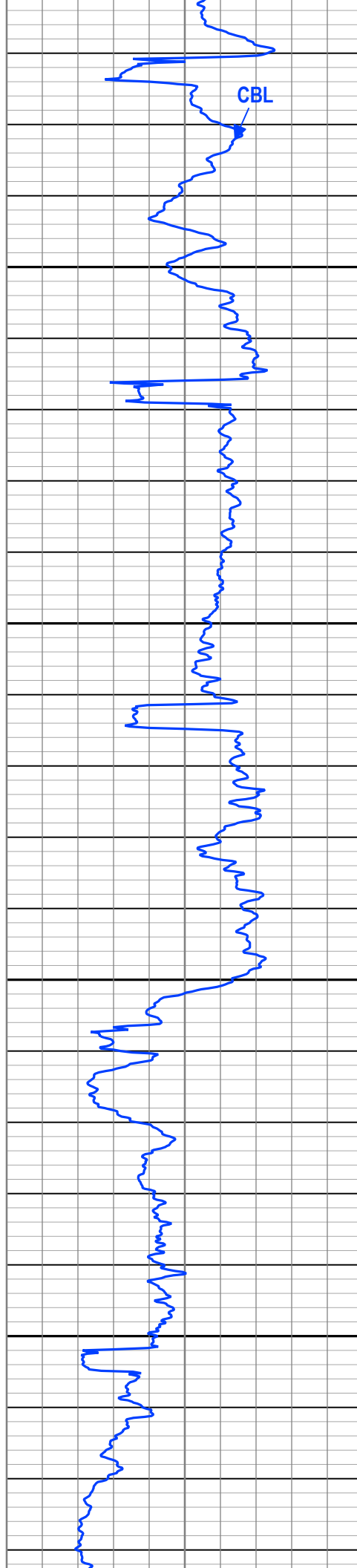
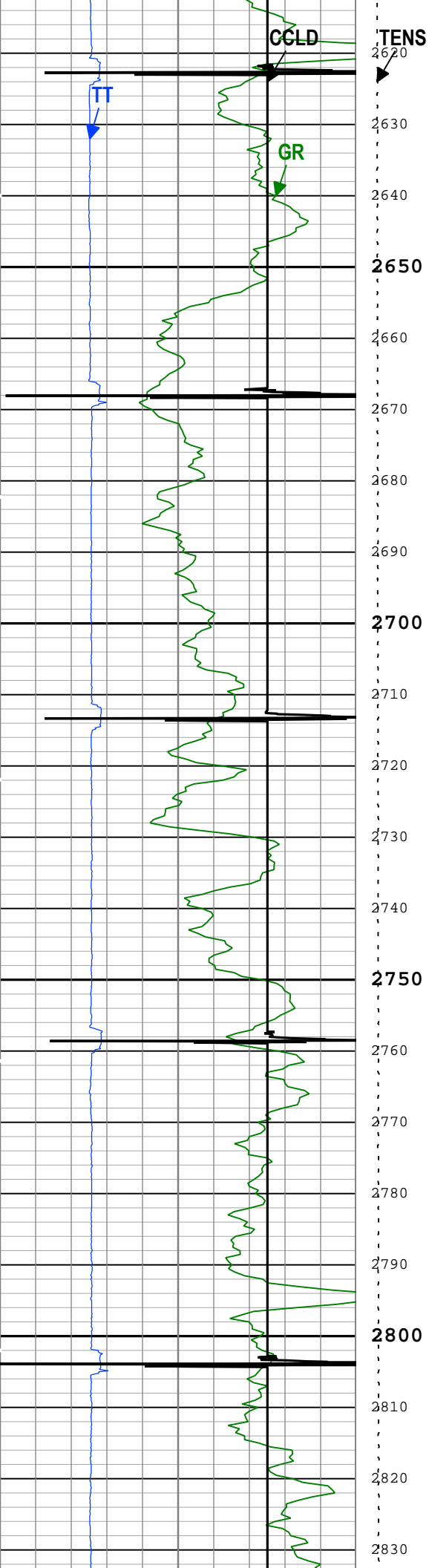
scmt: Log[11]:Up:S003

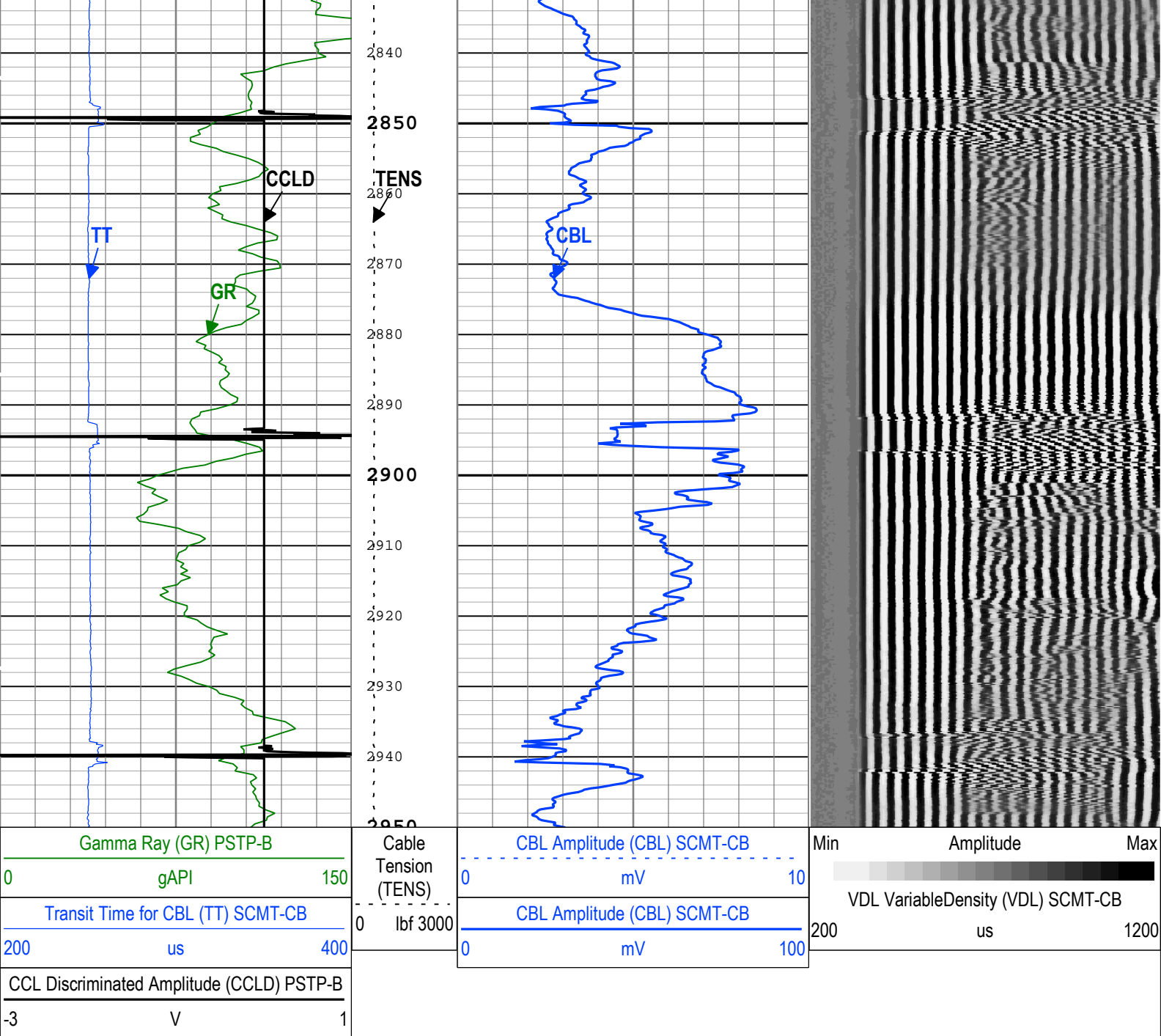
Description: SCMT Amplitudes and VDL Format: Log (SCMT_Amp_VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth

Creation Date: 10-Jan-2018 10:37:52

TIME_1900 - Time Marked every 60.00 (s)







TIME_1900 - Time Marked every 60.00 (s)

Description: SCMT Amplitudes and VDL Format: Log (SCMT_Amp_VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth
Creation Date: 10-Jan-2018 10:37:52

Channel Processing Parameters

scmt: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	239	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	224	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	80	mV
DFD	Drilling Fluid Density	Borehole	8.6	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	30	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8432	ft
GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	1.4	mV

GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	GTEM_LINEST(RT)	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	16.92	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	1.25	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	0.51	mV
PDAT	Permanent Datum	WLSESSION	GL	
RUN_SNUM	Run Sequence Number	WSDRUN	2	
SHT	Surface Hole Temperature	Borehole	68	degF

Tool Control Parameters

scmt: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-B	24 dB	

scmt

Free Pipe

Software Version

Acquisition System	Version
Maxwell 2017 SP3	7.3.92069.3100

Pass Summary

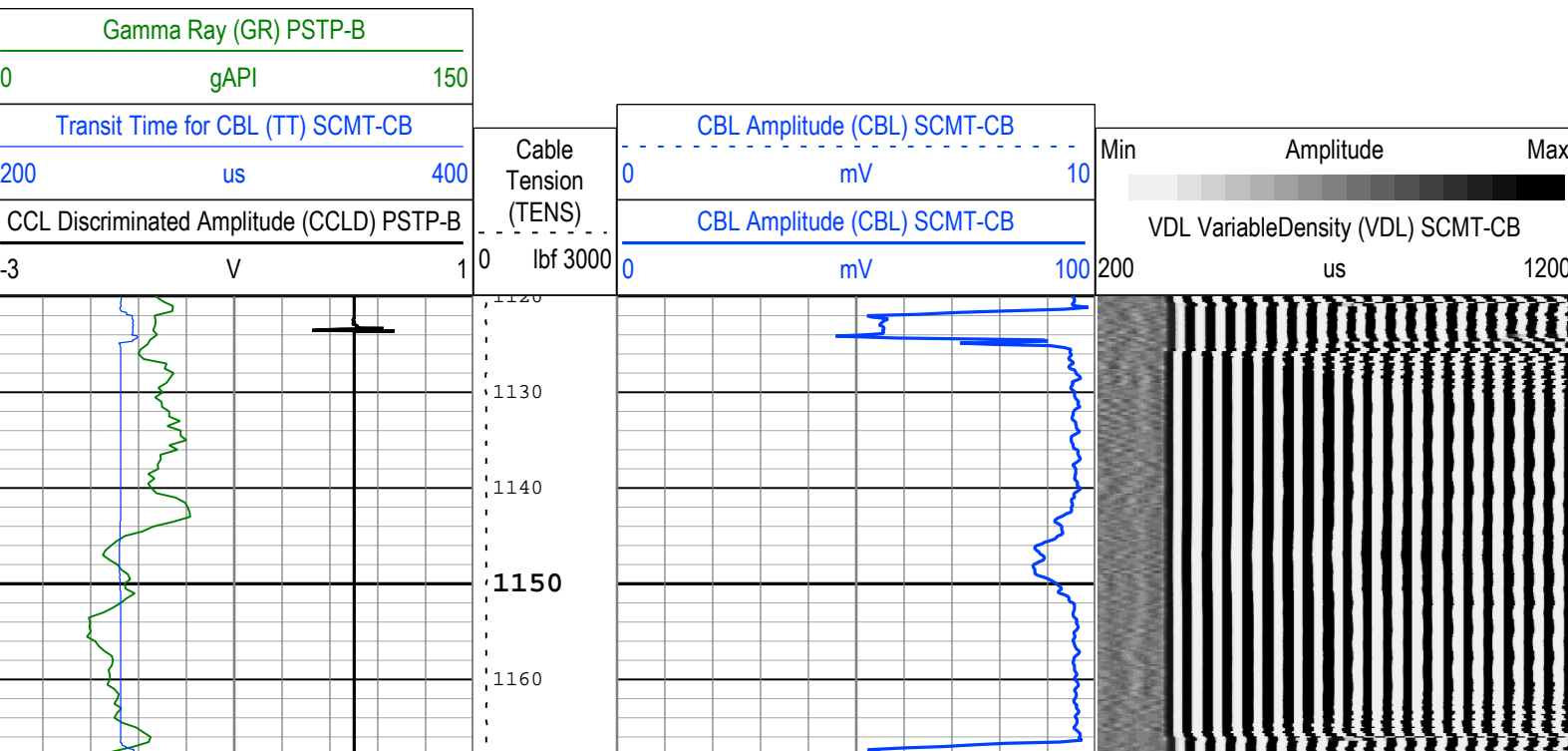
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
scmt	Log[6]:Up	Up	1117.81 ft	1471.08 ft	16-Dec-2017 5:11:55 PM	16-Dec-2017 5:19:36 PM	ON	0.00 ft	Yes

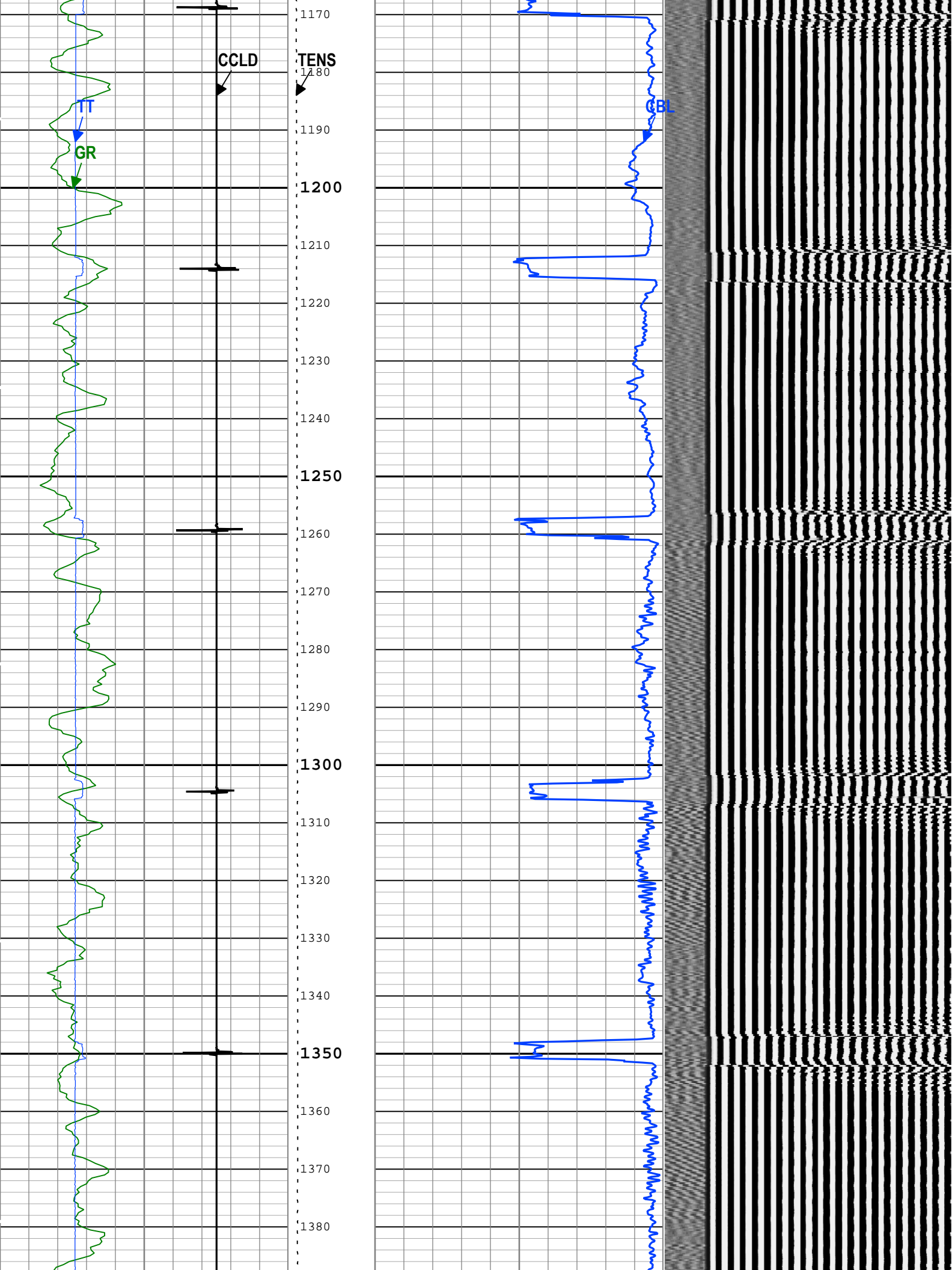
All depths are referenced to toolstring zero

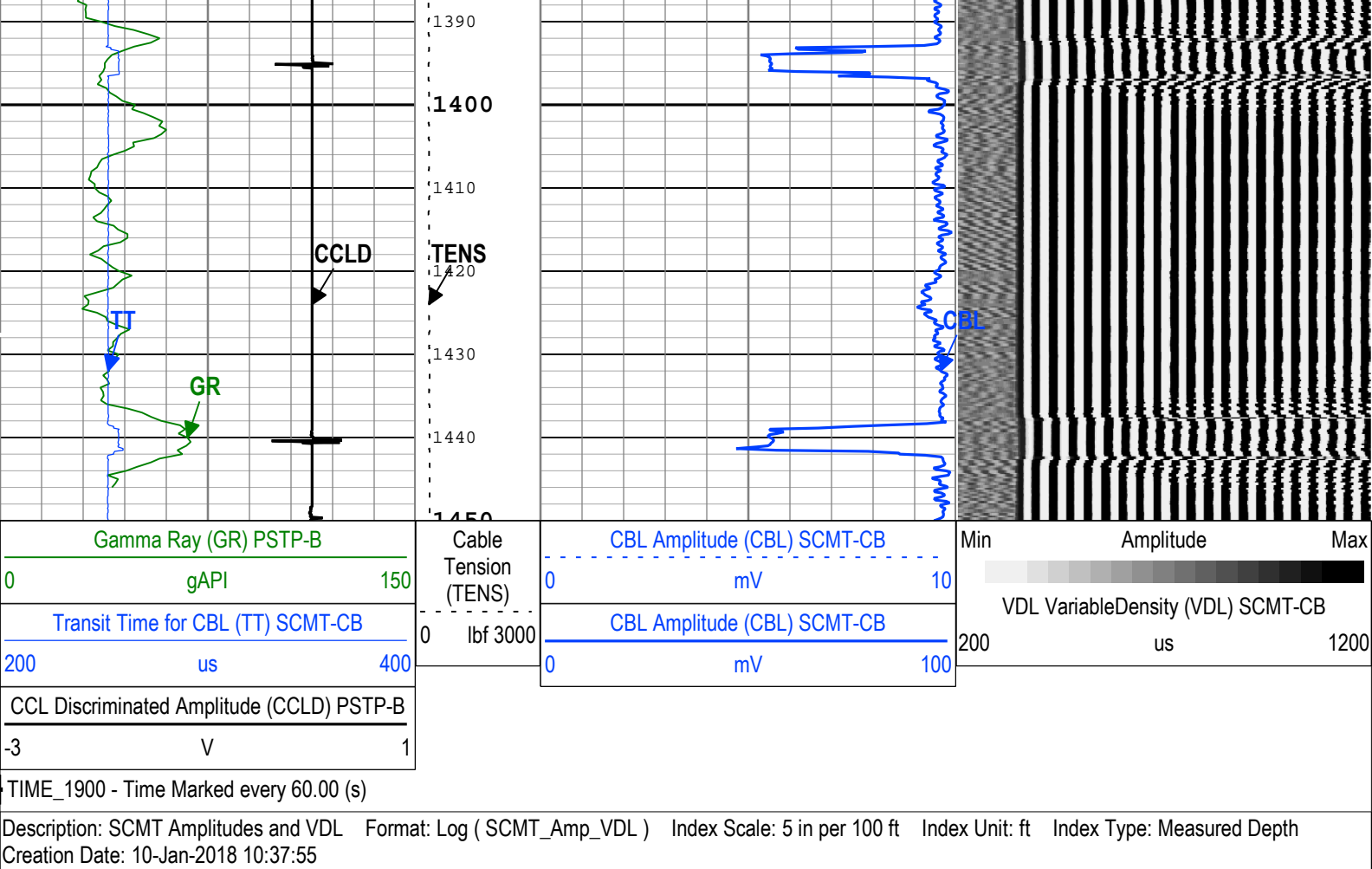
Log	Company:Caerus Operating LLC Well:Puckett 13D-23 697 scmt: Log[6]:Up:S003
-----	---

Description: SCMT Amplitudes and VDL Format: Log (SCMT_Amp_VDL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth
Creation Date: 10-Jan-2018 10:37:55

TIME_1900 - Time Marked every 60.00 (s)







Channel Processing Parameters

scmt: Parameters

Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	239	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	224	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	80	mV
DFD	Drilling Fluid Density	Borehole	8.6	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
EDF	Elevation of Derrick Floor Above Permanent Datum	WLSESSION	30	ft
EPD	Elevation of Permanent Datum (PDAT) above Mean Sea Level	WLSESSION	8432	ft
GGRD	Geothermal Gradient	Borehole	1	0.01 degF/ft
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	1.4	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	GTEM_LINEST(RT)	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	16.92	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	1.25	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	0.51	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	0.51	mV
PDAT	Permanent Datum	WLSESSION	GL	
RUN_SNUM	Run Sequence Number	WSDRUN	2	
SHT	Surface Hole Temperature	Borehole	68	degF

Tool Control Parameters

scmt: Parameters

Parameter	Description	Tool	Value	Unit
-----------	-------------	------	-------	------

CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-B	0 dB	

Company: Caerus Operating LLC

Schlumberger

Well: Puckett 13D-23 697

Field: Grand Valley

County:	Garfield
State:	Colorado
Cement Bond Log	
Gamma Ray Log	
Collar Log	