

Company: Caerus Operating LLC

Well: NPR 14C-10 596

Field: NPR

County: Garfield State: Colorado

Cement Bond Log  
RST Sigma Log  
Gamma Ray - Collar Locator Log

County:	Garfield
Field:	NPR
Location:	K10-596
Well:	NPR 14C-10 596
Company:	Caerus Operating LLC
Location:	
Permanent Datum:	K10-596
Log Measured From:	Elev.: K.B. 6733.00 ft
Drilling Measured From:	G.L. 6709.00 ft
API Serial No.	D.F. 6733.00 ft
05045237610000	Ground Level
Section:	Kelly Bushing
10	24.00 ft
Township:	6709.00 f
5S	above Perm.Datum
Range:	
96W	

Logging Date	11-Sep-2018
Run Number	One
Depth Driller	9466.00 ft
Schlumberger Depth	8953.00 ft
Bottom Log Interval	8953.00 ft
Top Log Interval	1900.00 ft
Casing Fluid Type	2% KCL Water
Salinity	
Density	8.5 lbm/gal
Fluid Level	8.00 ft
BIT/CASING/TUBING STRING	
Bit Size	8.75 in
From	2041.00 ft
To	8953.00 ft
Casing/Tubing Size	4.5 in
Weight	11.6 lbm/ft
Grade	P110
From	0.00 ft
To	8953.00 ft
Max Recorded Temperatures	260.5 degF
Logger on Bottom	12-Sep-2018
Unit Number	3007
Recorded By	Richard Woods
Witnessed By	Trent Ray

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. Depth Summary
- 8. One
  - 8.1 Integration Summary
  - 8.2 Software Version
  - 8.3 Composite Summary
  - 8.4 Log ( Sonic CBL with VDL )
  - 8.5 Parameter Listing
- 9. One
  - 9.1 Integration Summary
  - 9.2 Software Version
  - 9.3 Composite Summary

- 10.5 Parameter Listing
- 11. One
  - 11.1 Integration Summary
  - 11.2 Software Version
  - 11.3 Composite Summary
  - 11.4 Log ( RST SIGMA Answer )
  - 11.5 Parameter Listing
- 12. Tail

9.4 Log ( Sonic CBL with VDL )

9.5 Parameter Listing

10. One

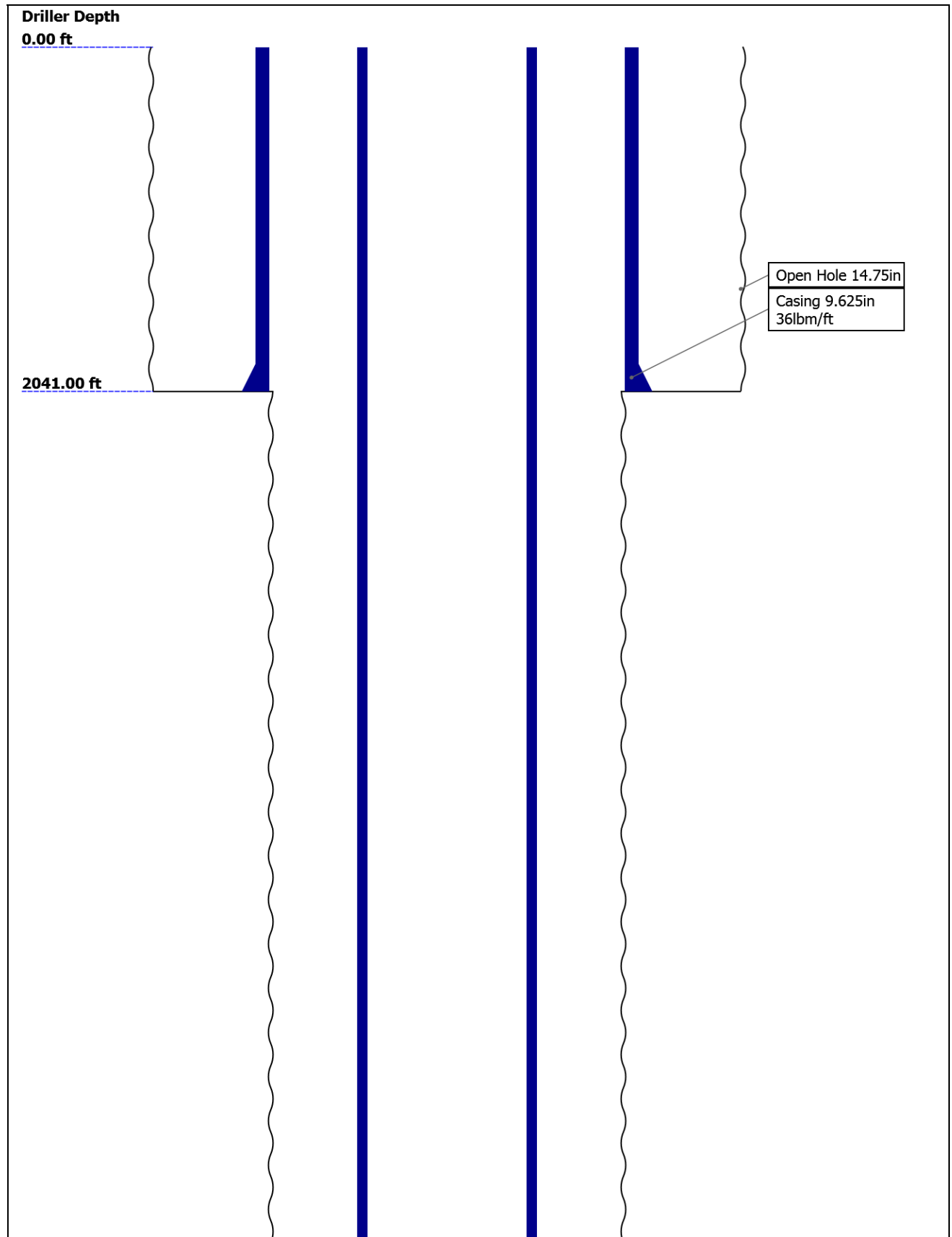
10.1 Integration Summary

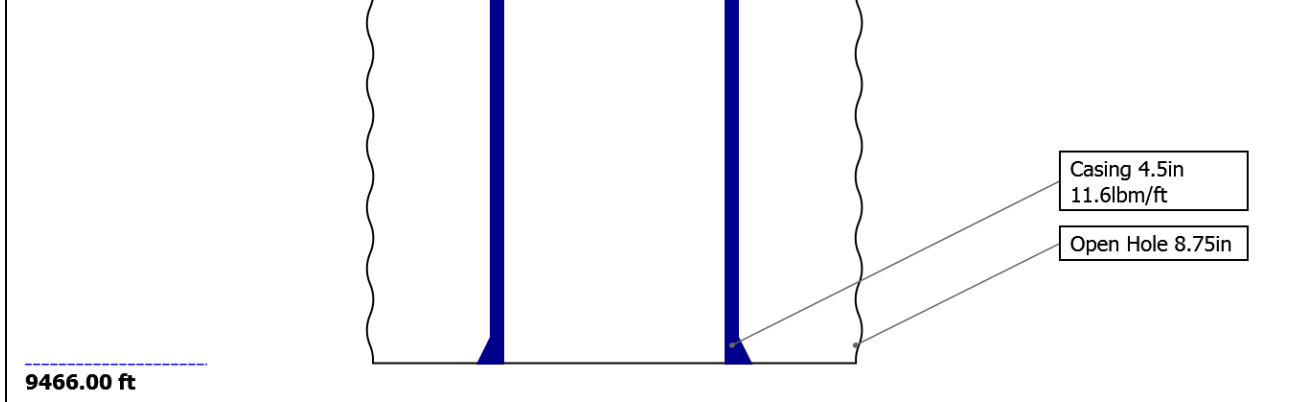
10.2 Software Version

10.3 Composite Summary

10.4 Log ( RST SIGMA Answer )

## Well Sketch



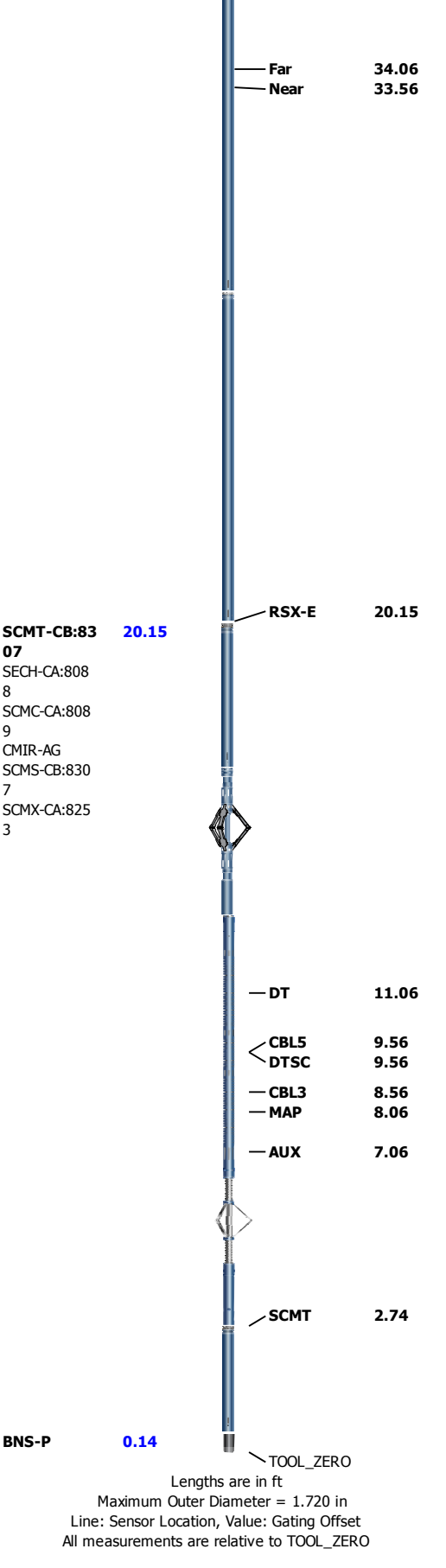


Borehole Size/Casing/Tubing Record

Bit						
Bit Size ( in )	14.75	8.75				
Top Driller ( ft )	0	2041				
Top Logger ( ft )	0	2041				
Bottom Driller ( ft )	2041	9466				
Bottom Logger ( ft )	2041	8953				
Casing						
Size ( in )	9.625	4.5				
Weight ( lbm/ft )	36	11.6				
Inner Diameter ( in )	8.921	4				
Grade	J55	P110				
Top Driller ( ft )	0	0				
Top Logger ( ft )	0	0				
Bottom Driller ( ft )	2041	9466				
Bottom Logger ( ft )	2041	8953				

Remarks and Equipment Summary

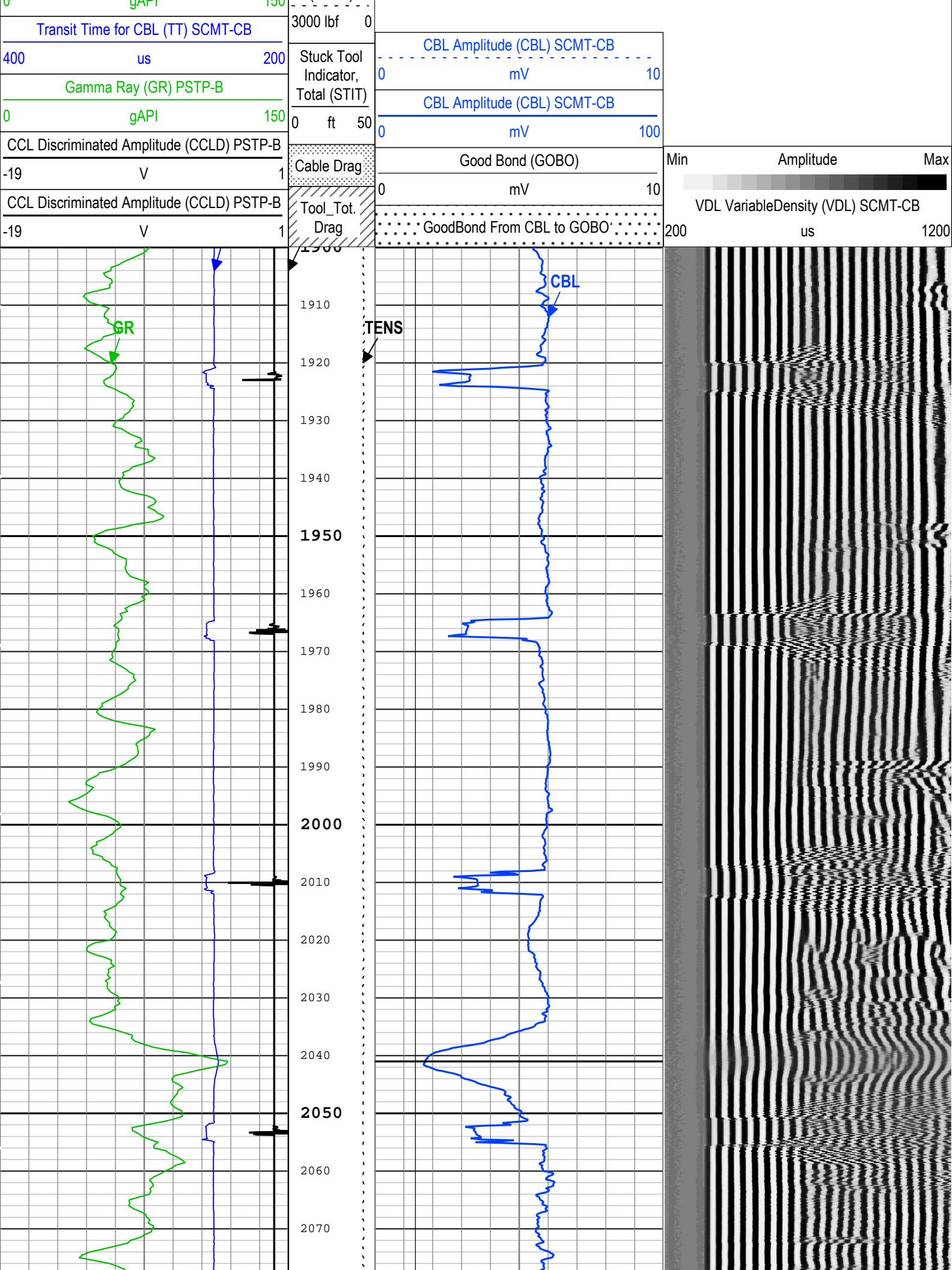
One: Toolstring				One: Remarks	
Equip name	Length	MP name	Offset	Toolstring run as per toolsketch.	
PEH-E	53.4			RST Mode Sigma	
				Matrix: Sandstone	
AH-38	51.72			Max recorded temperature 260.5	
PSTP-B:282	51.44			SLB Depth 8953	
6				Thank You For Choosing Schlumberger!	
PSC-A					
PSTC-A					
PBMS-B:2826					
		GR	47.74		
		PSTC	47.44		
		PSTC Tool	0.00		
		String Bot			
		tom			
		Temperatu	44.69		
		re			
		CQG Press	44.34		
		ure			
		CCL	43.92		
		PBMS	43.17		
RST-C:578	43.17				
RSCH-A:530					
RSC-E:544					
RSS-A:488					
MNTR-F:1325					
-51352					
RSXH-A:597					
RSX-E:578					
		RSC-E	36.82		

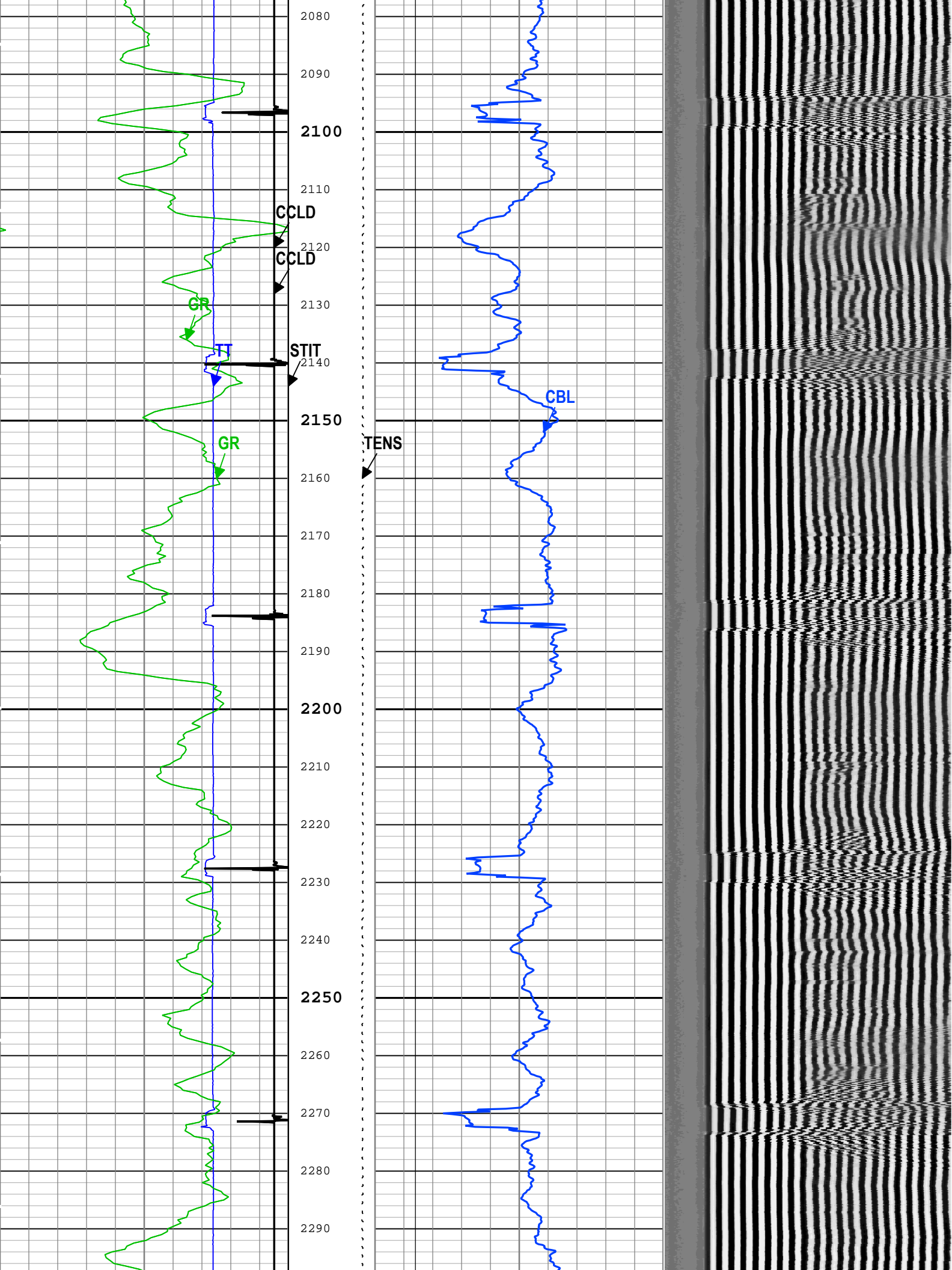


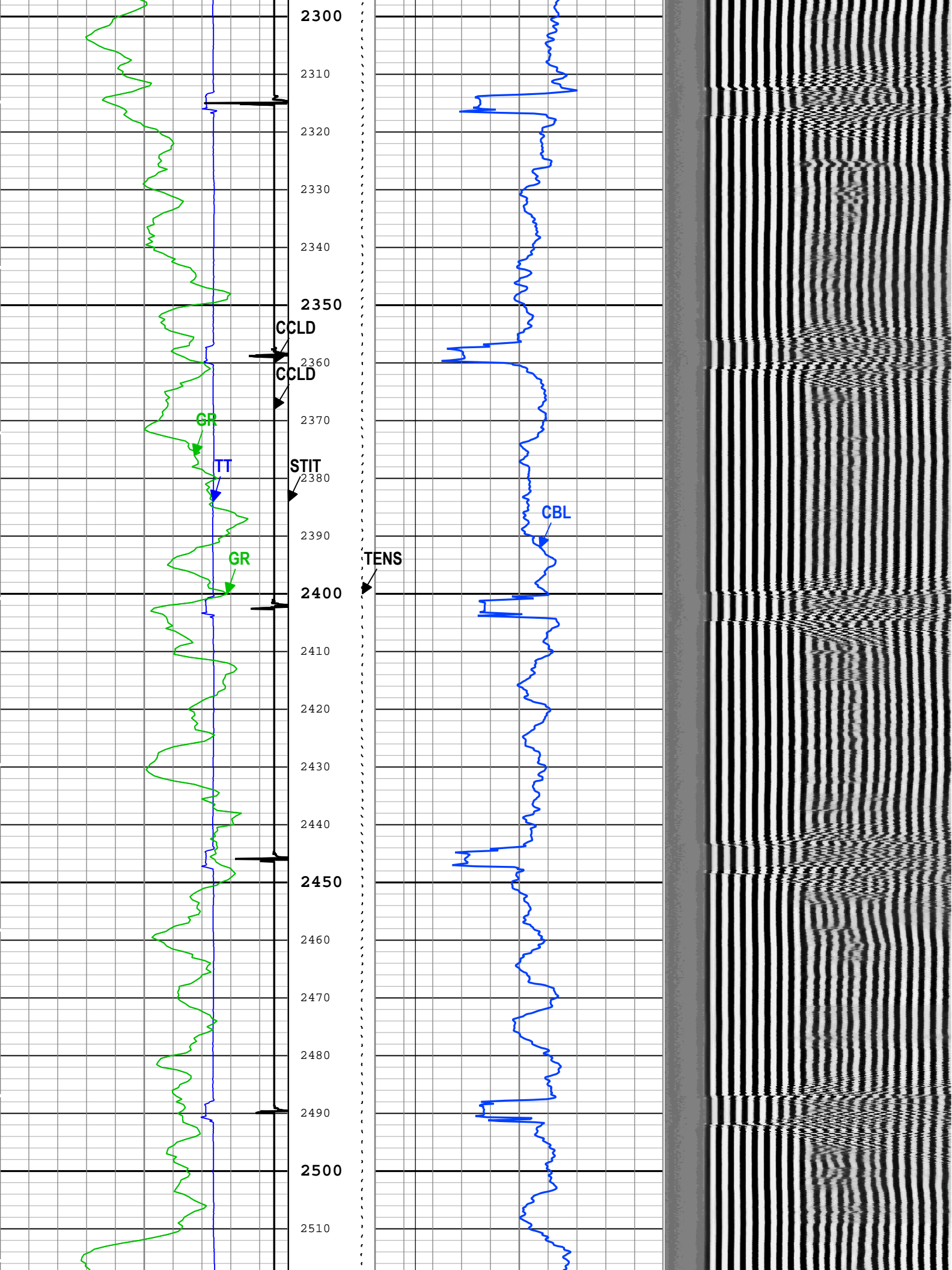
Depth Summary			
One			
Depth Measuring Device			
Type	IDW-JA		
Serial Number	5979		
Calibration Date	10-JUN-2017		



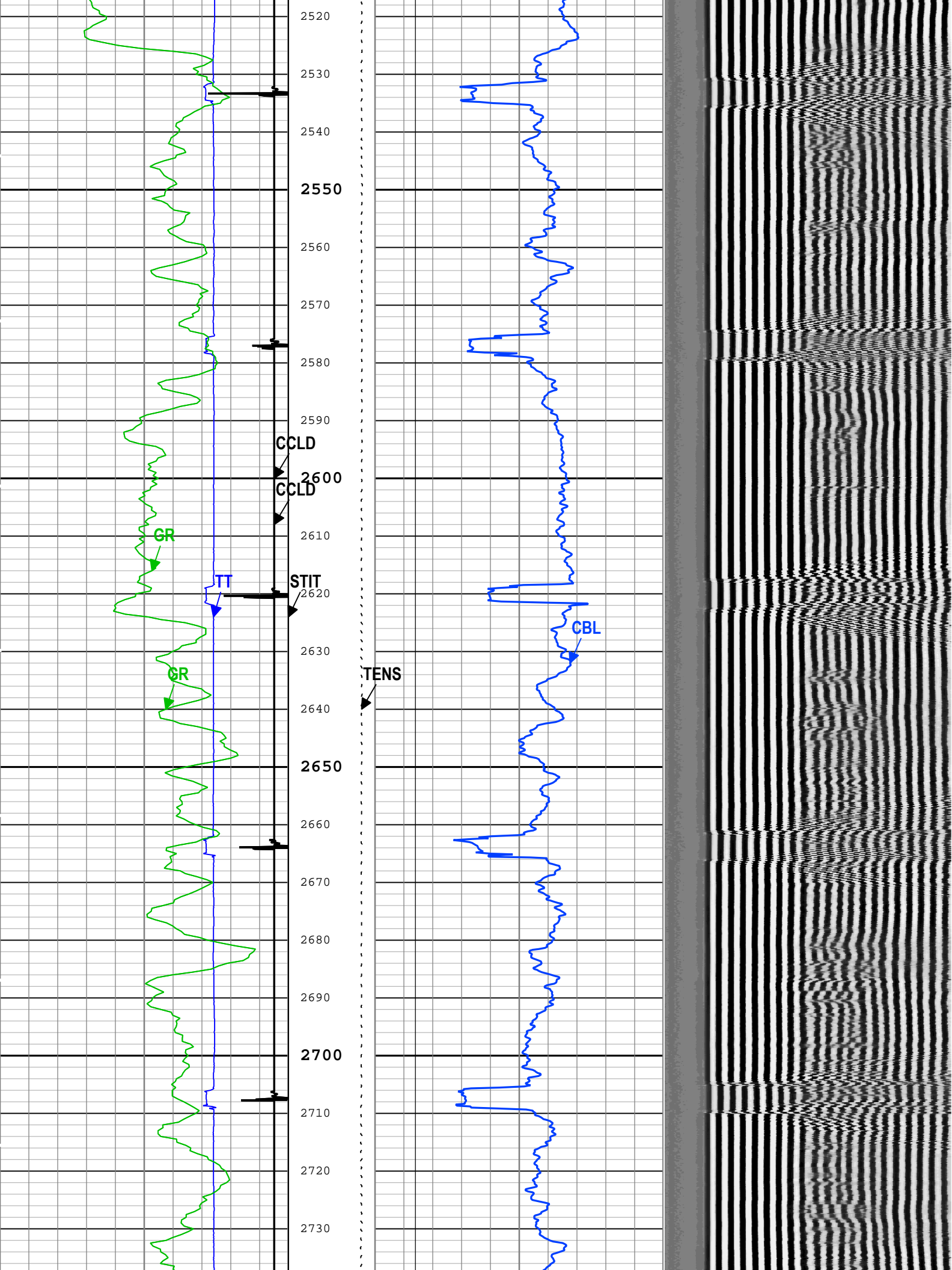
0	Gamma Ray (GR) PSTP-B	150	Cable Tension (TENS)
---	-----------------------	-----	----------------------

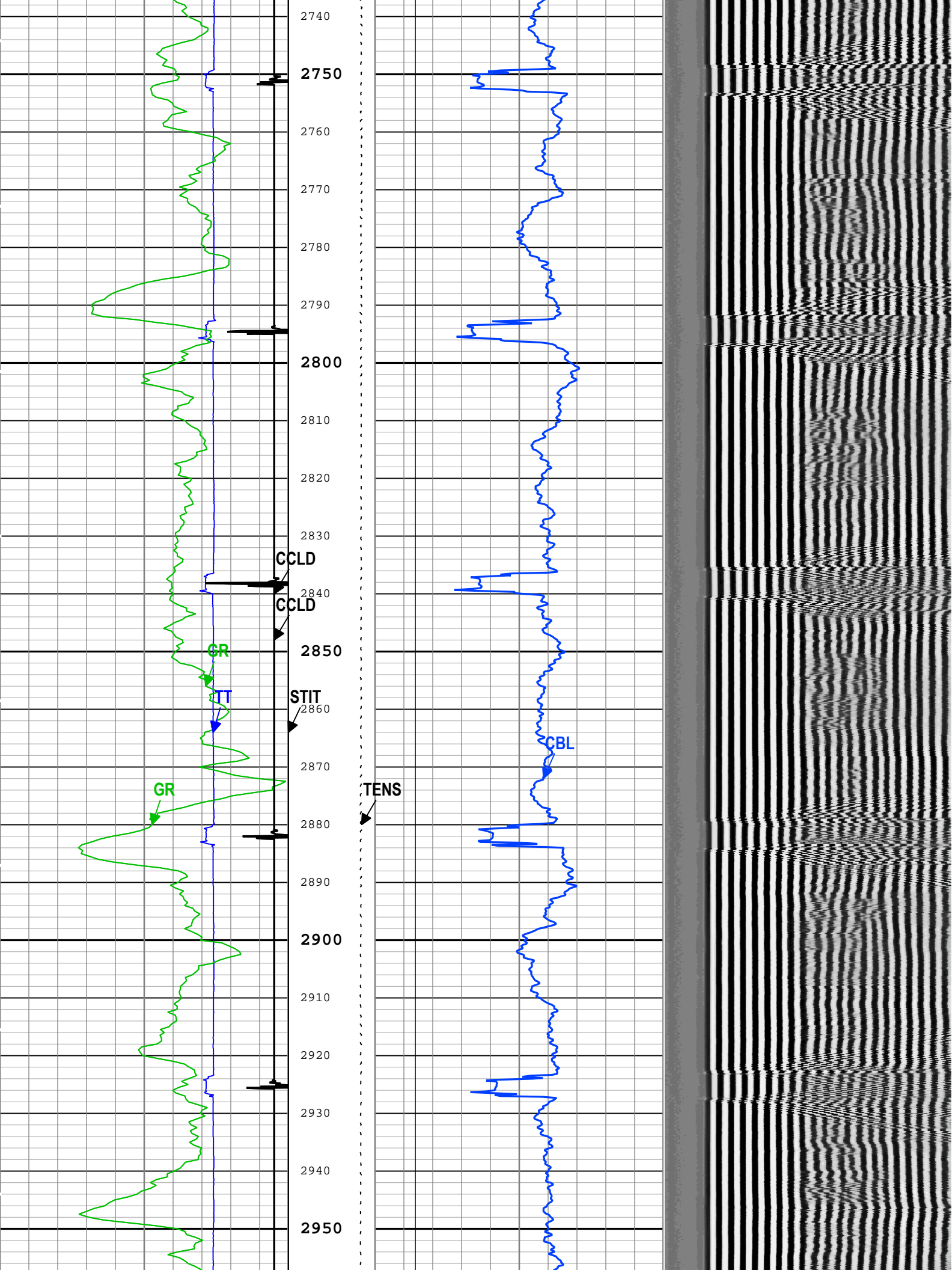


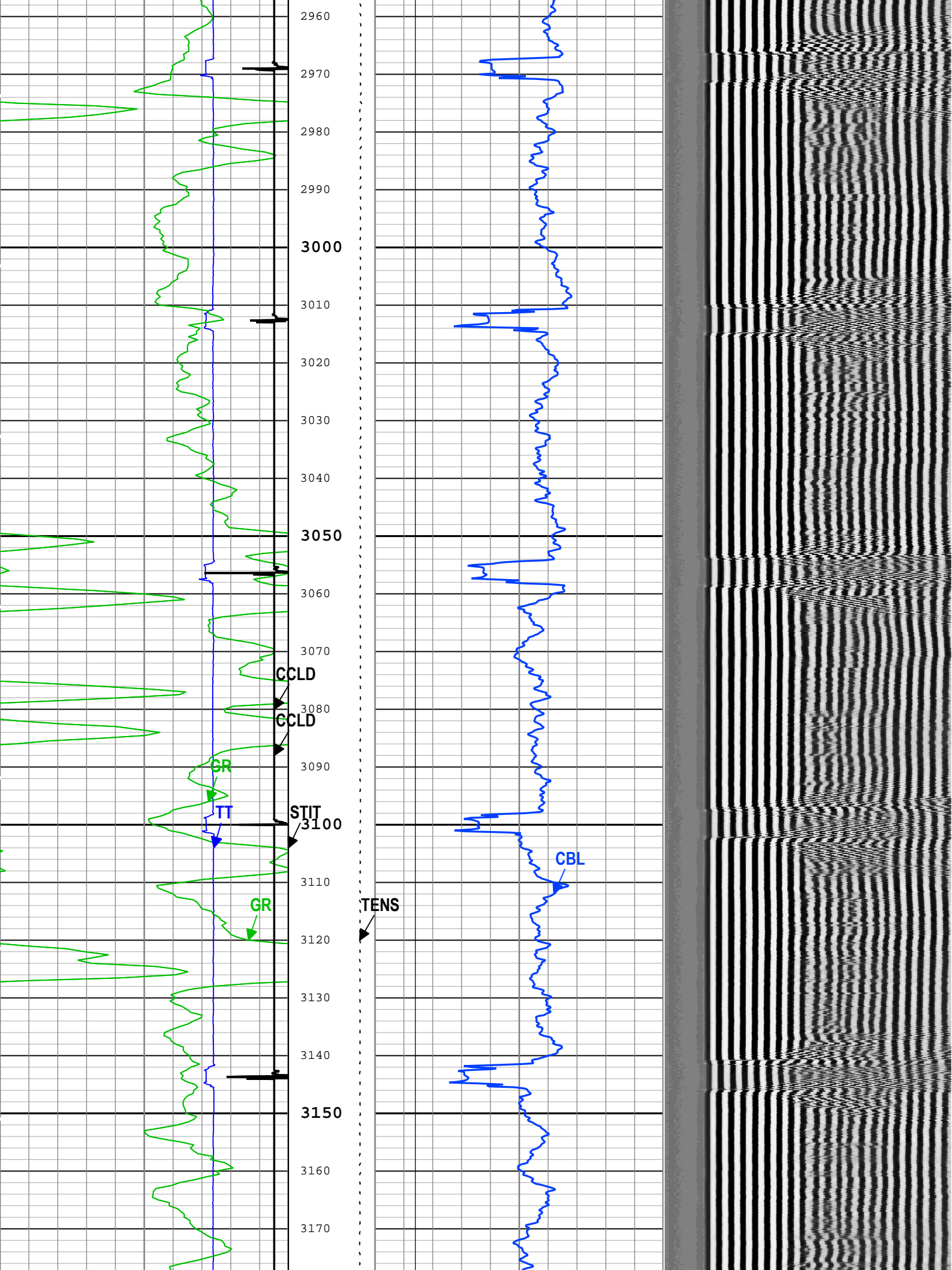




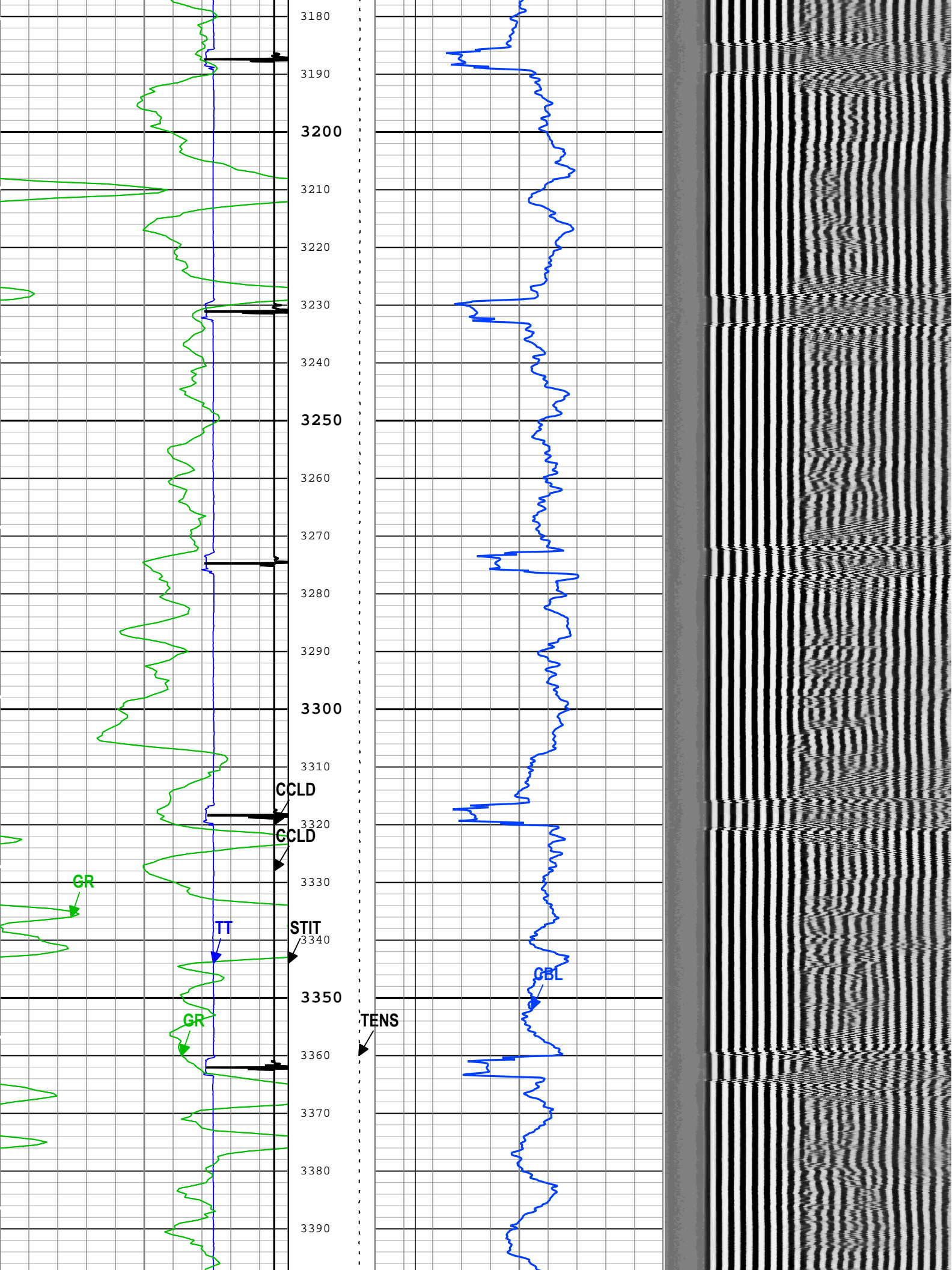




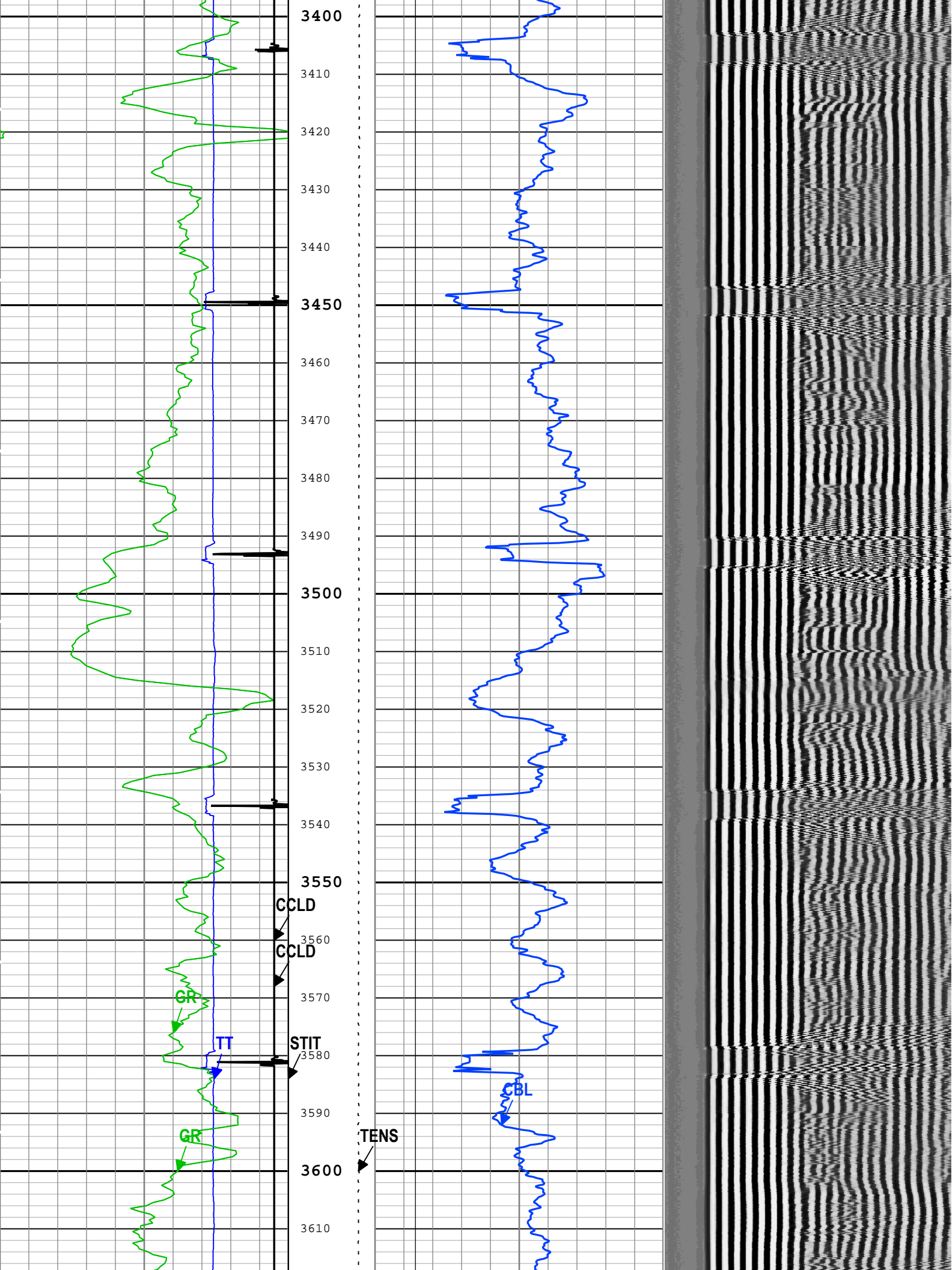


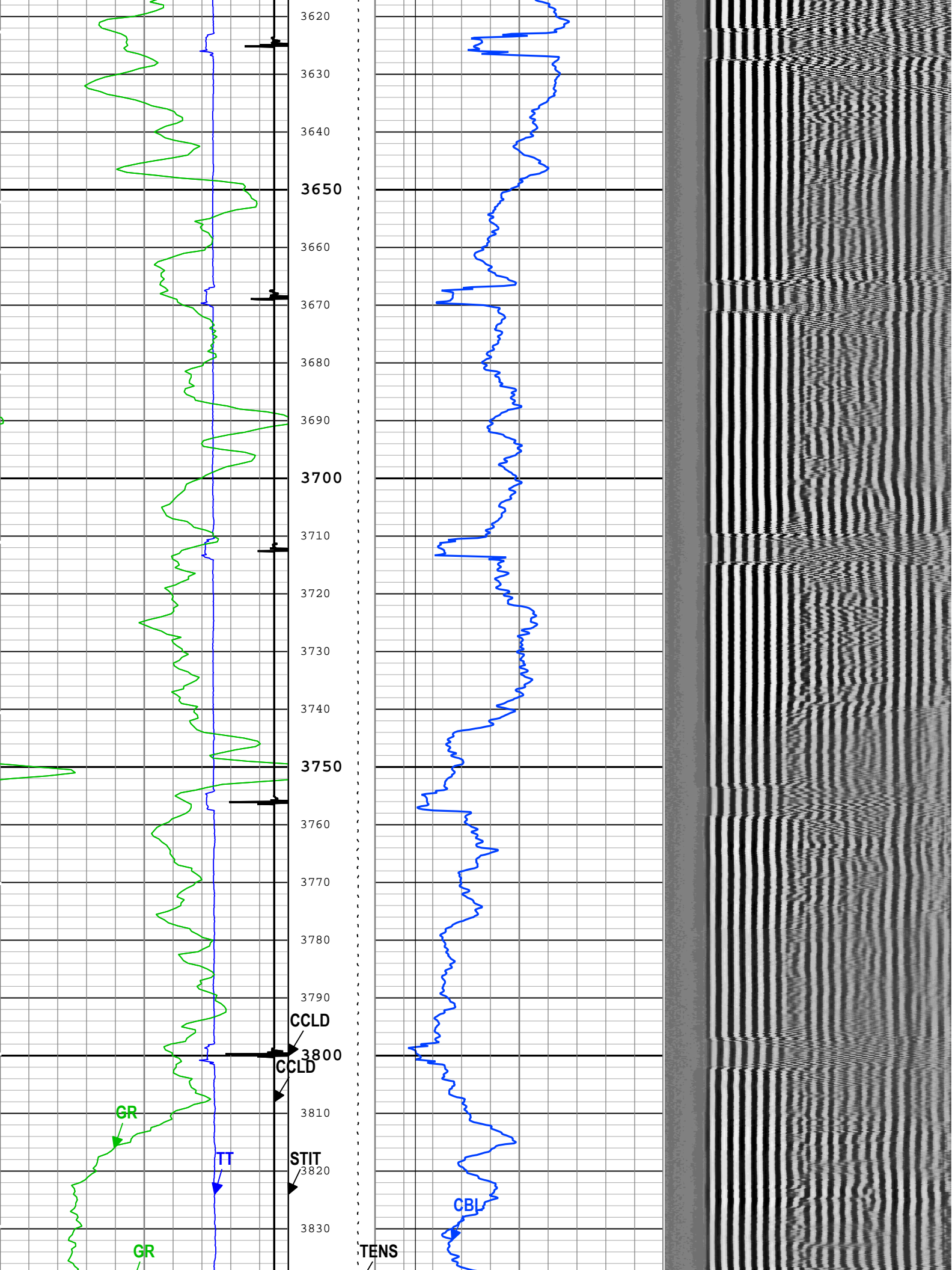


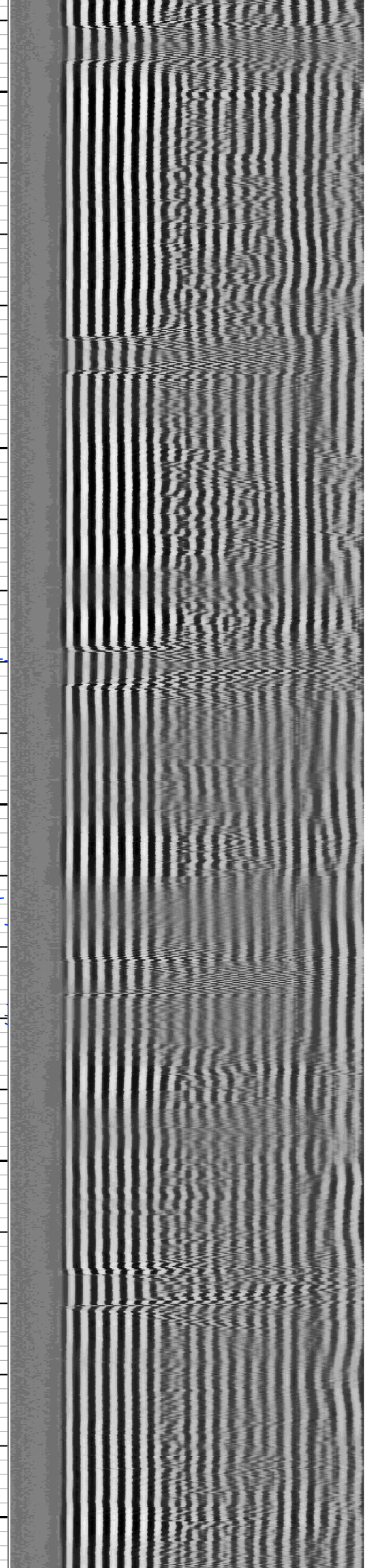
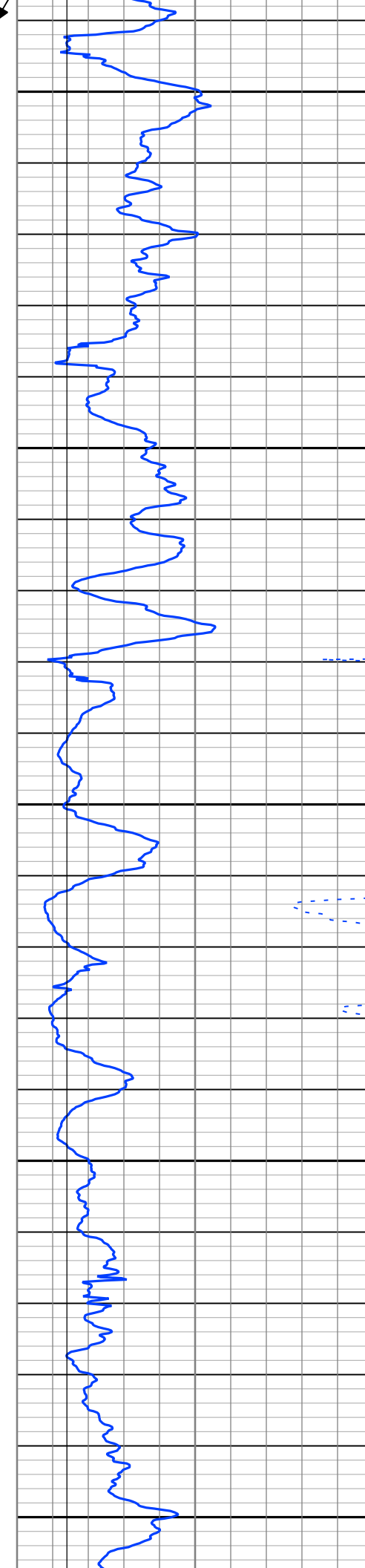
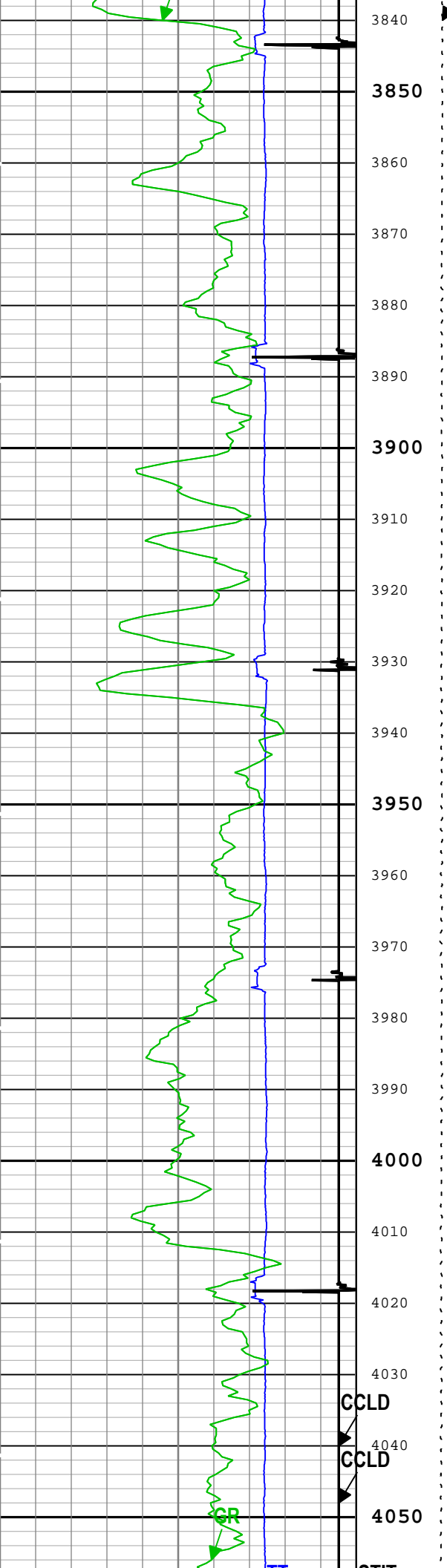




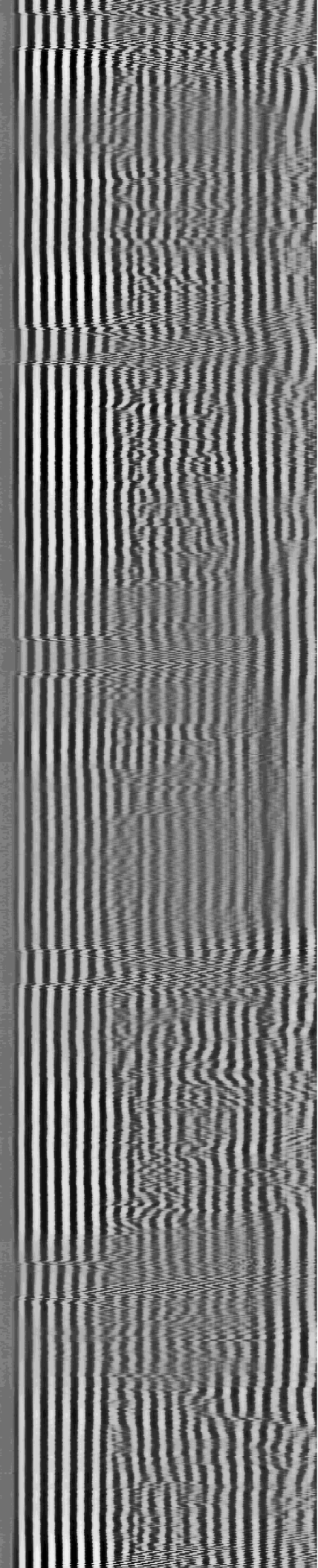
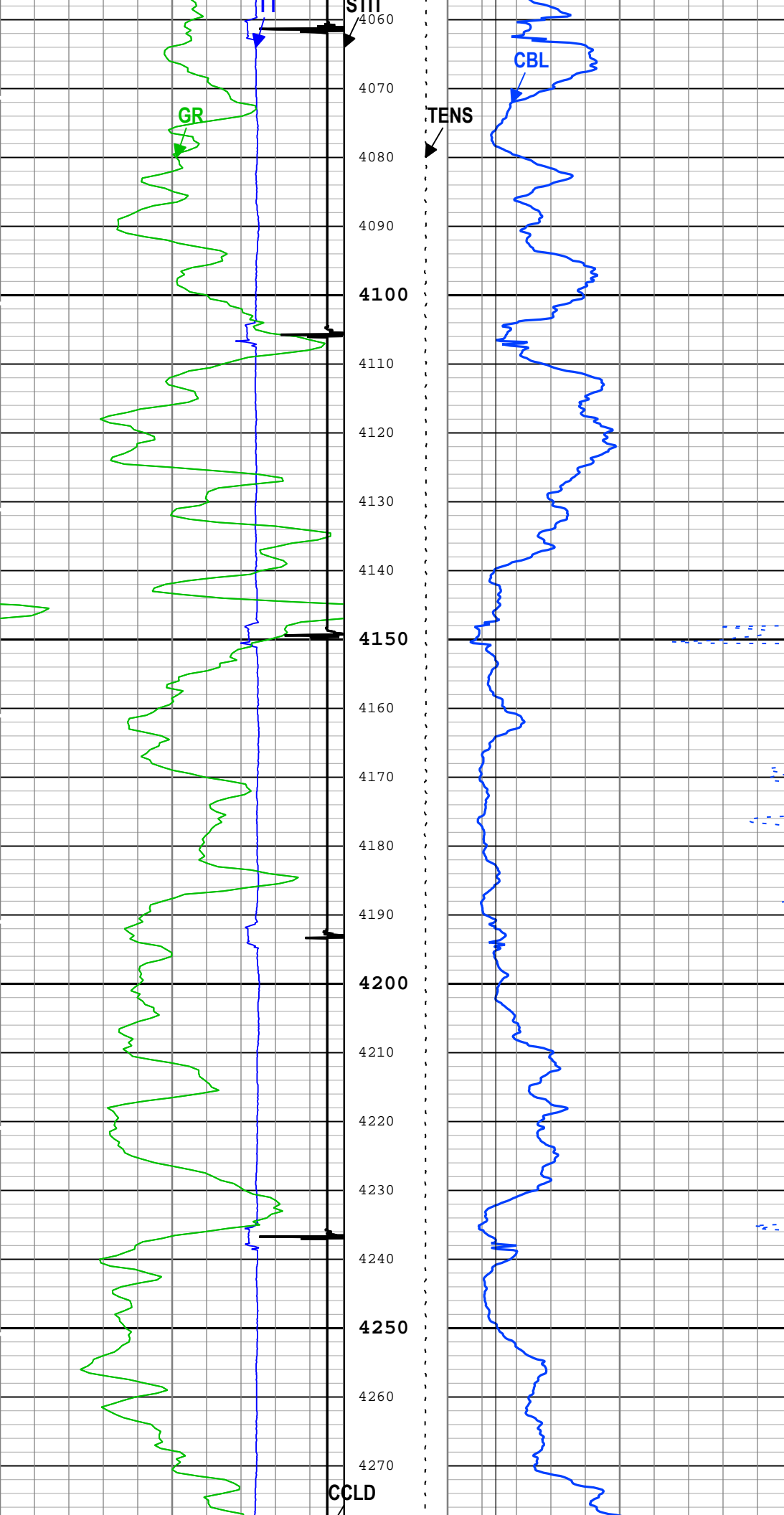


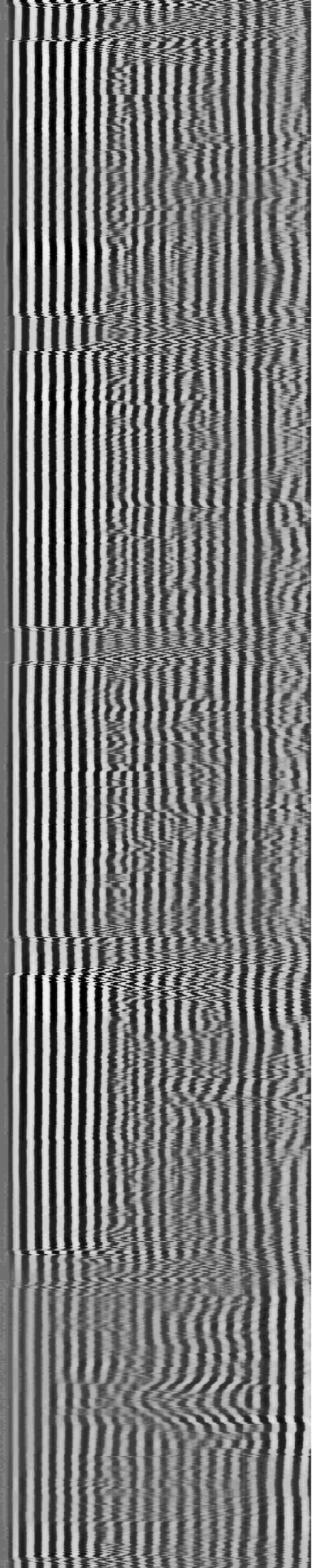
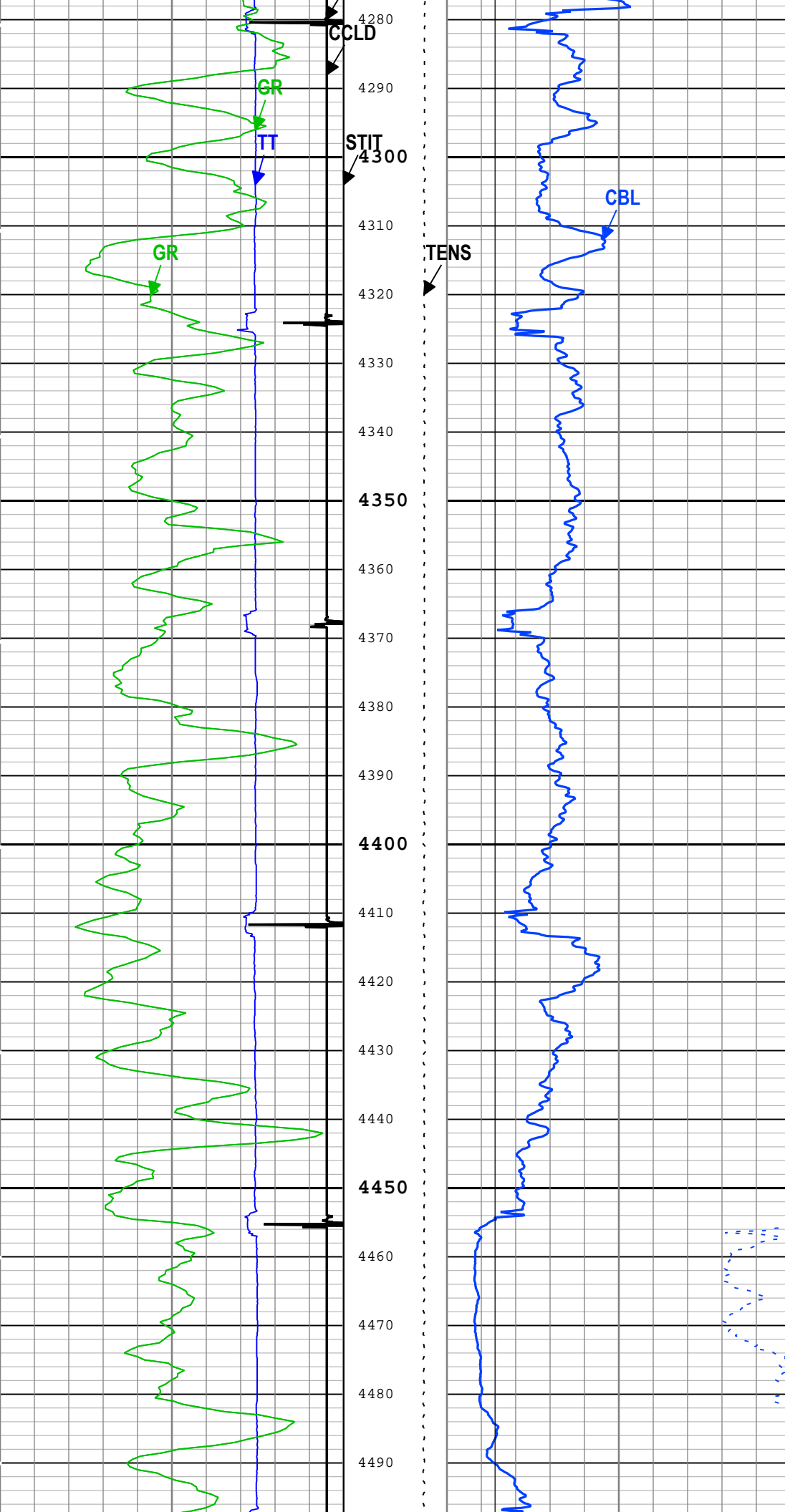


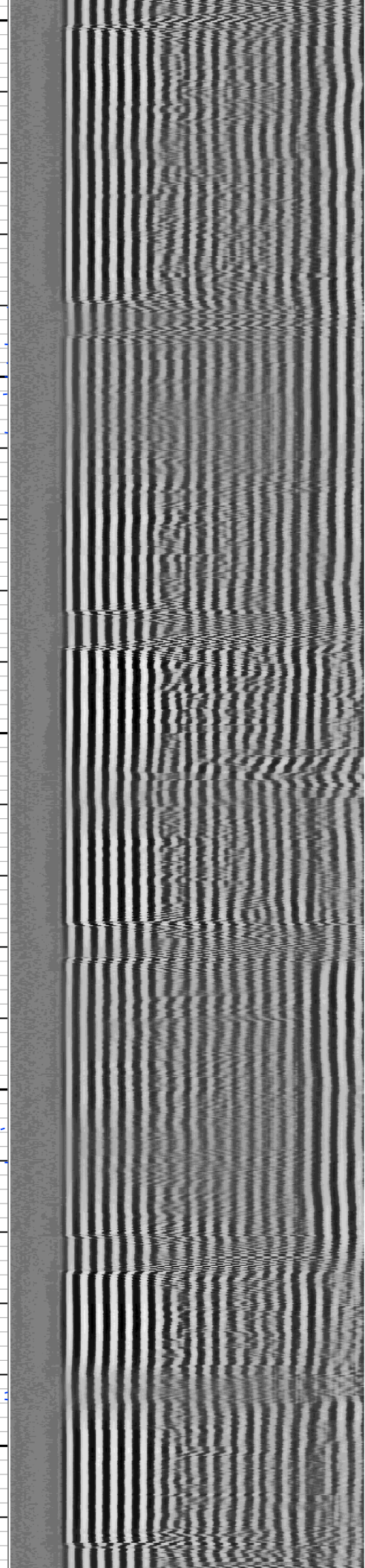
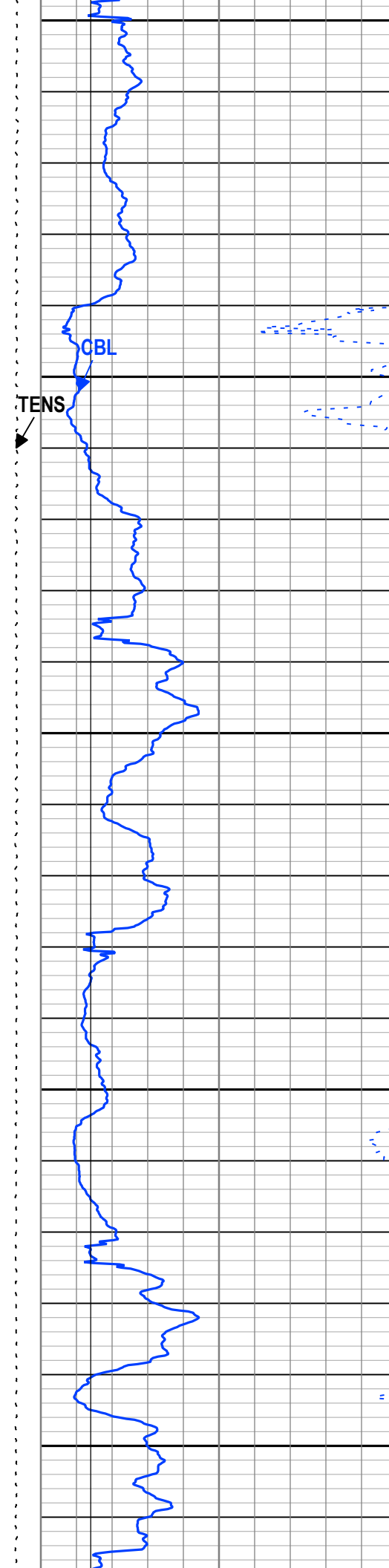
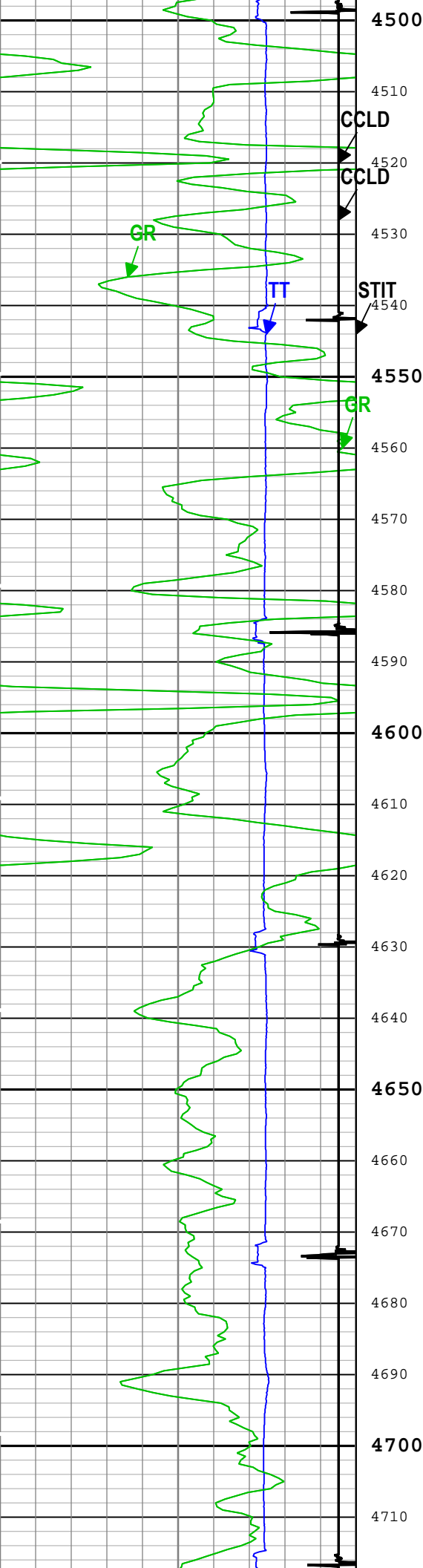




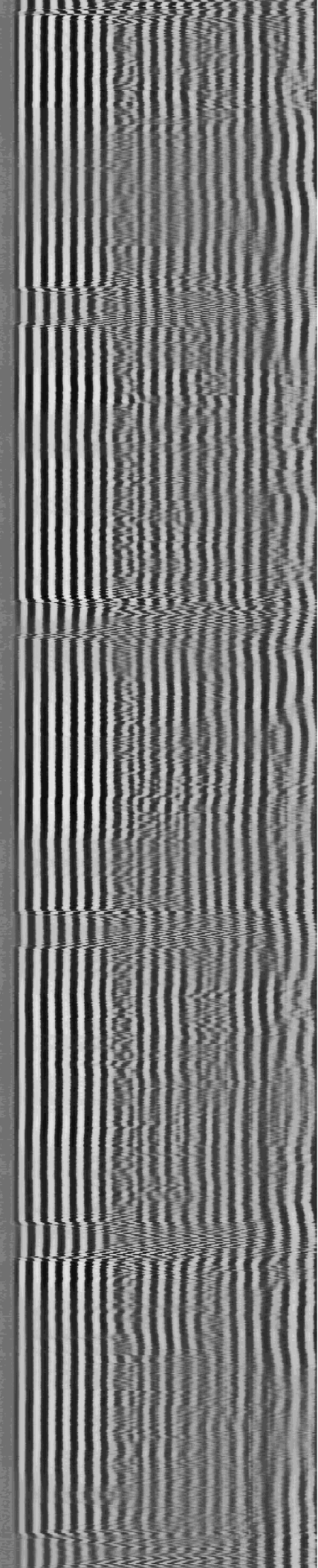
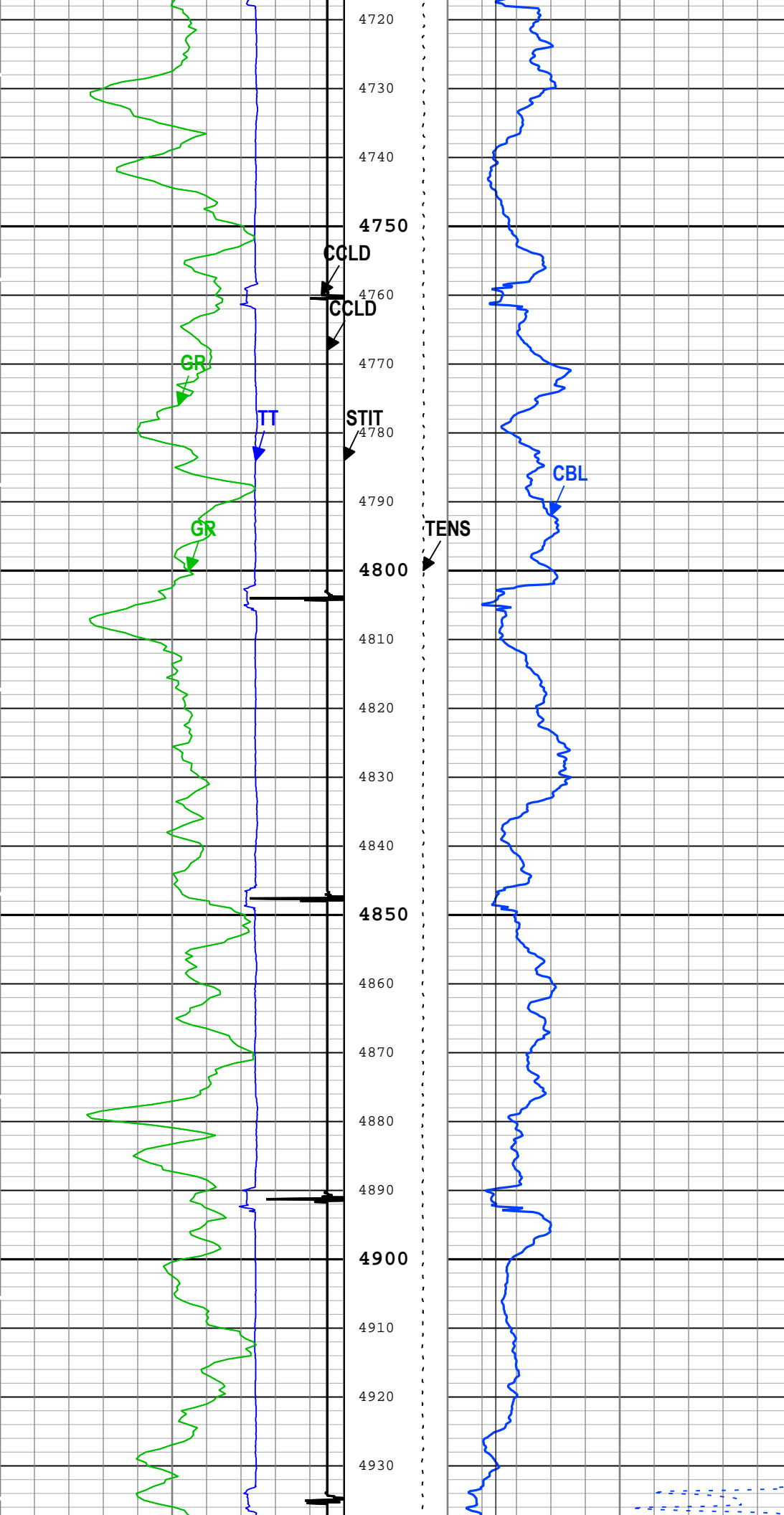


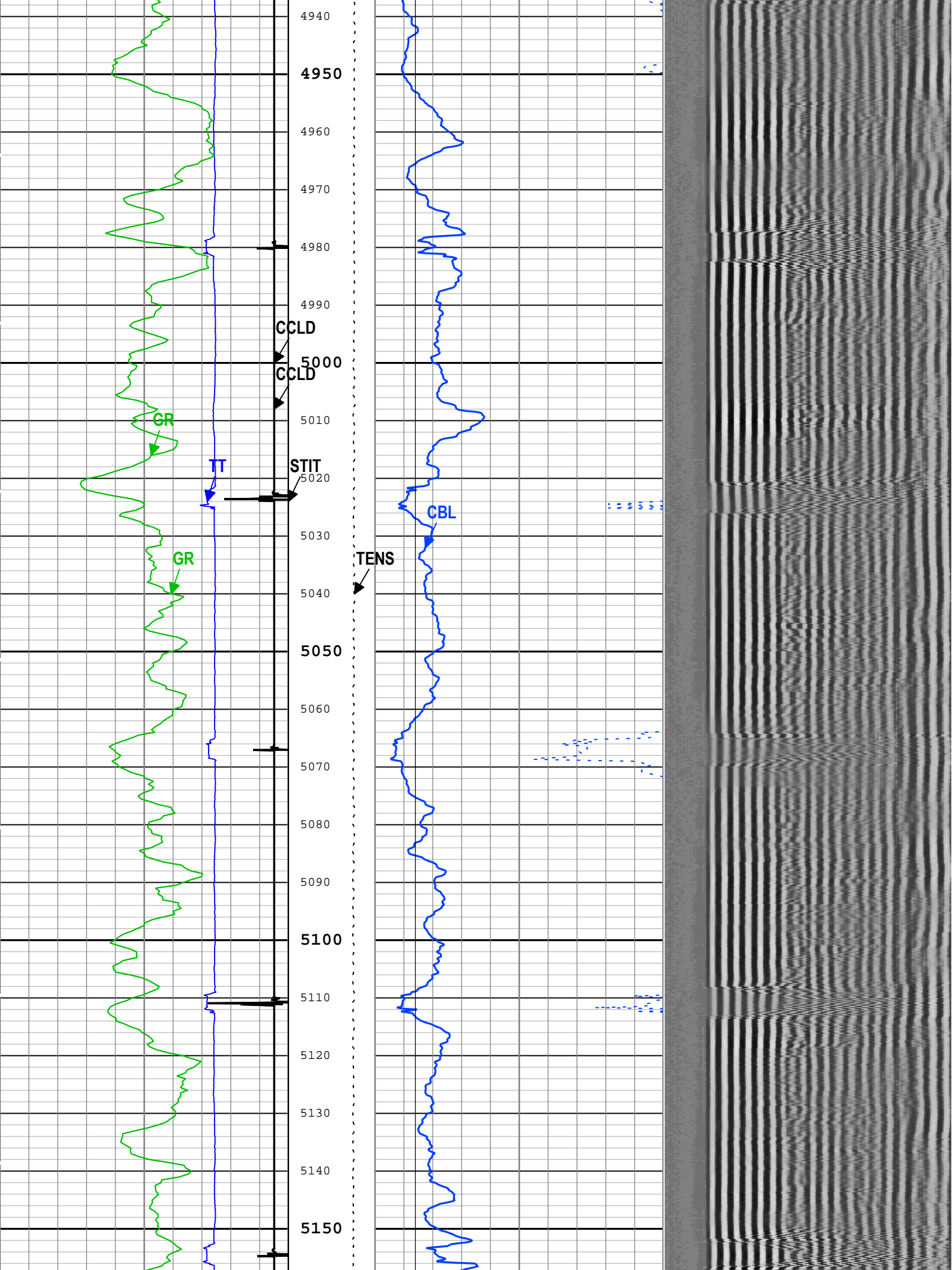




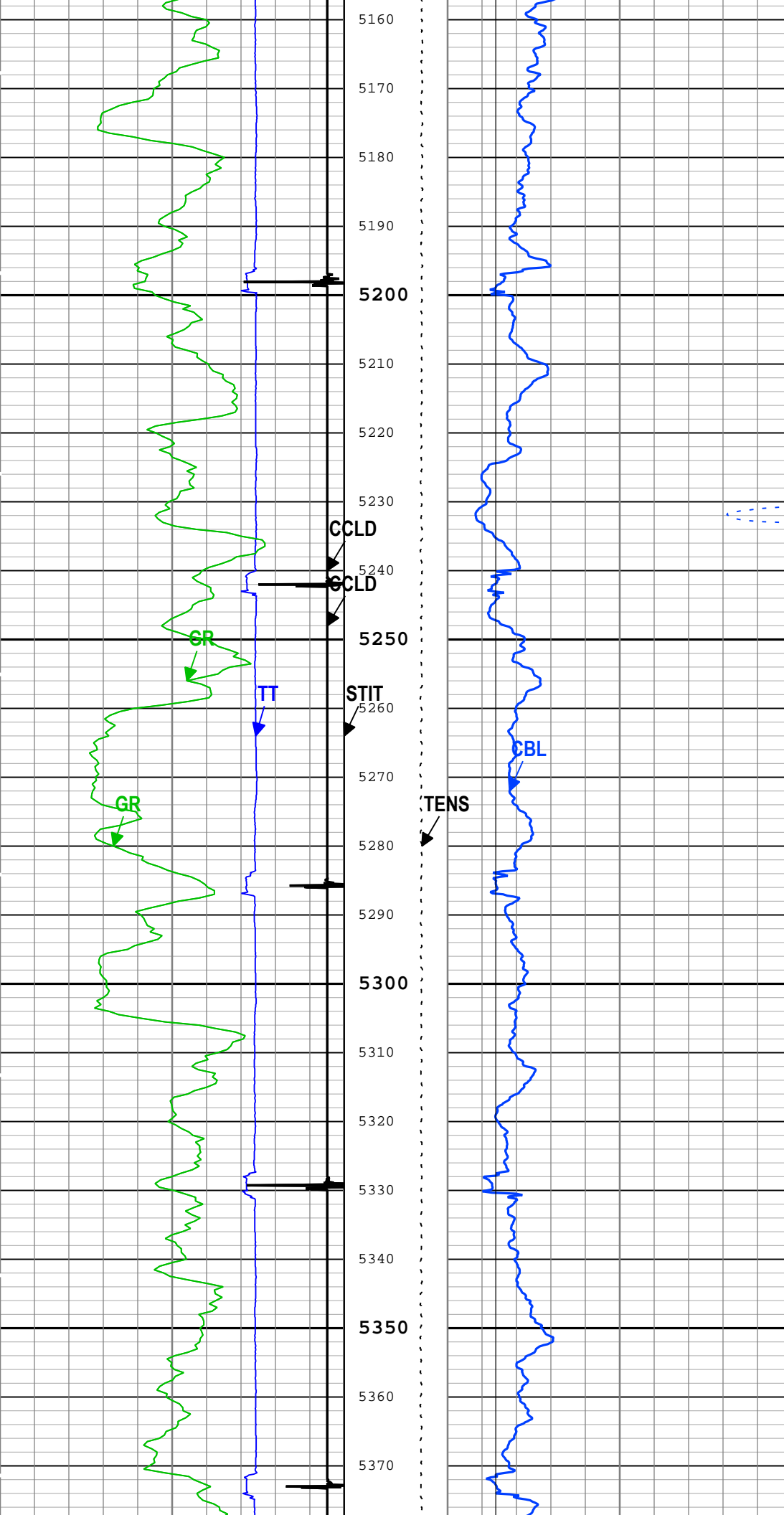


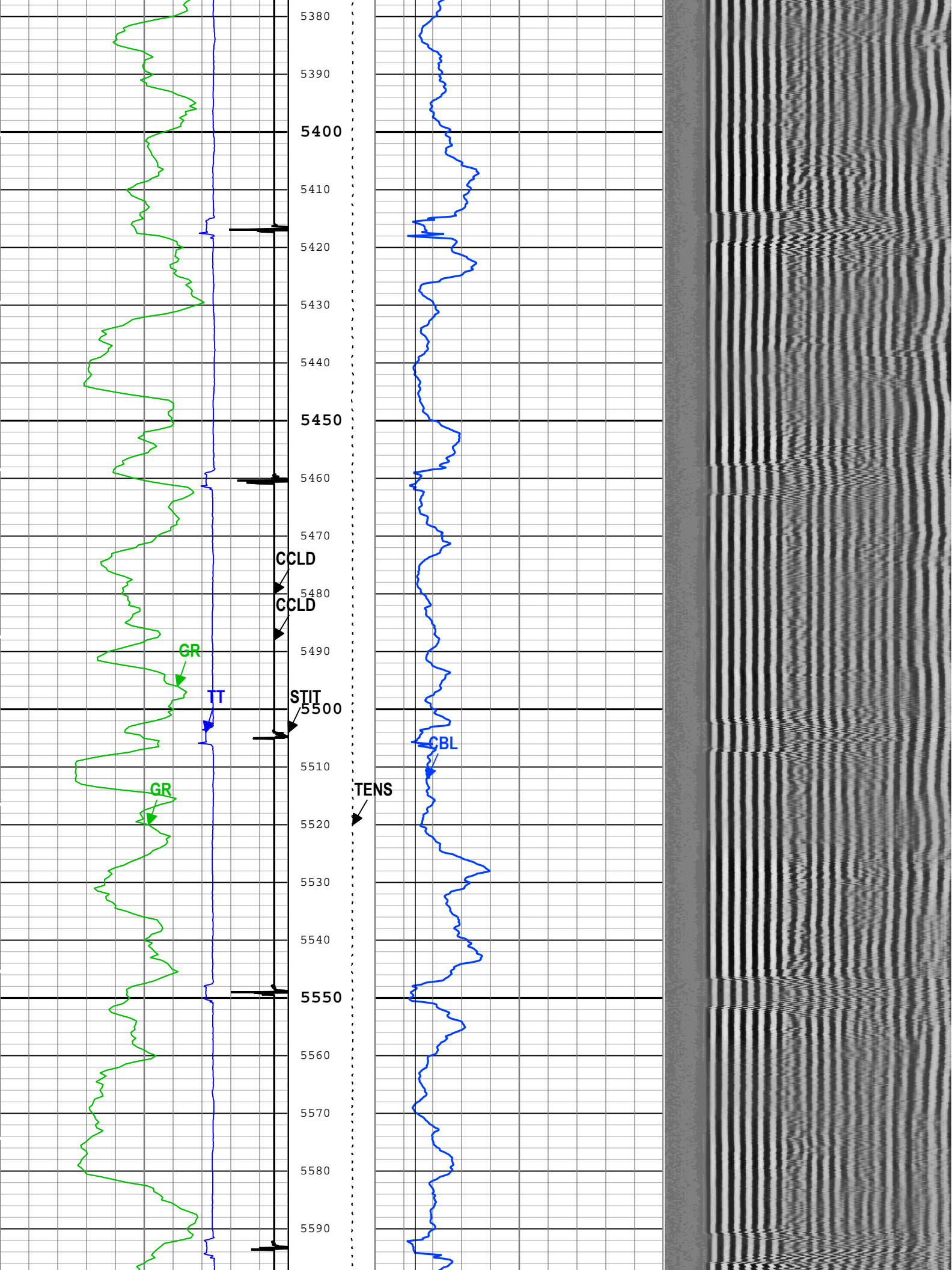


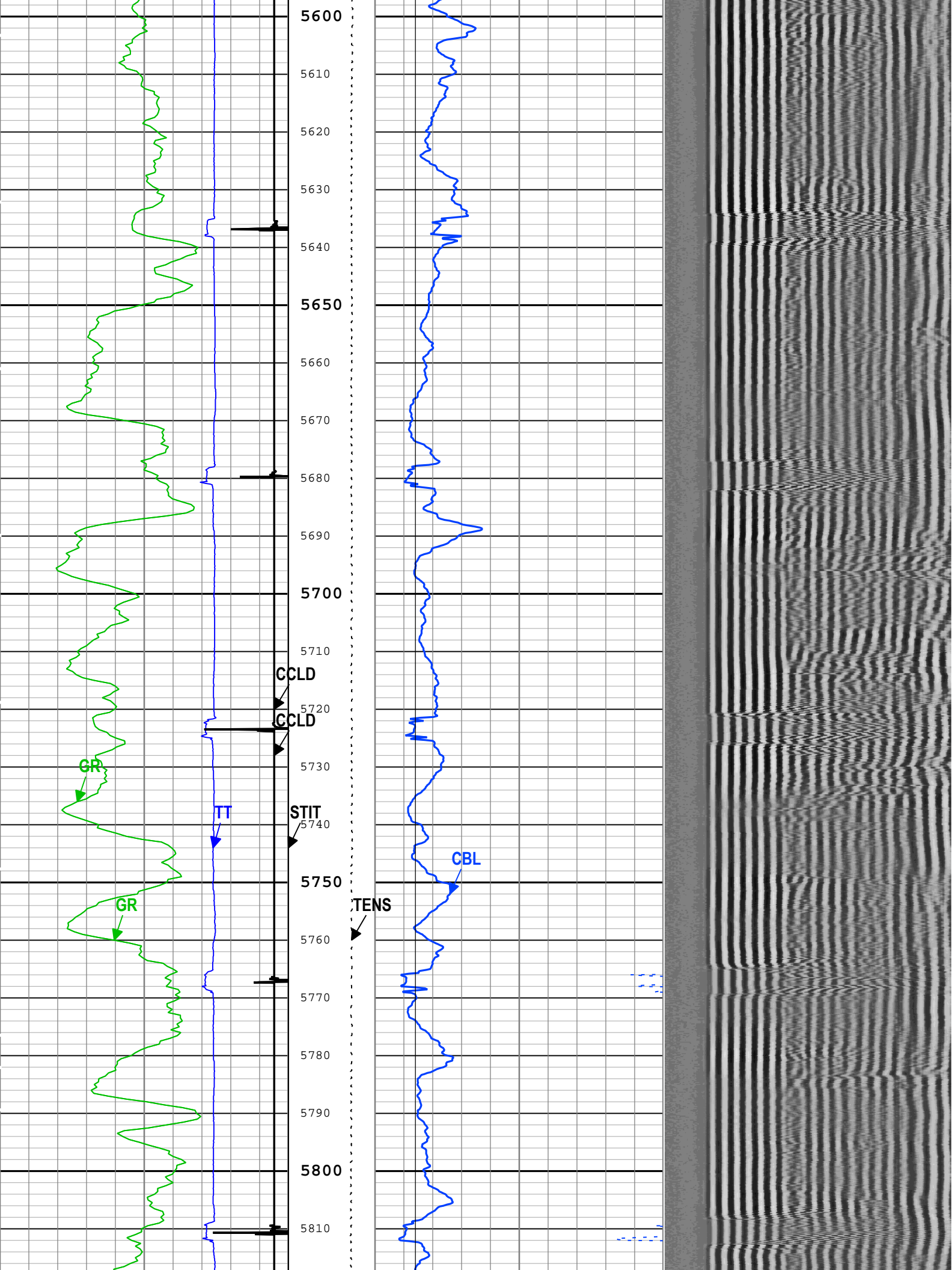




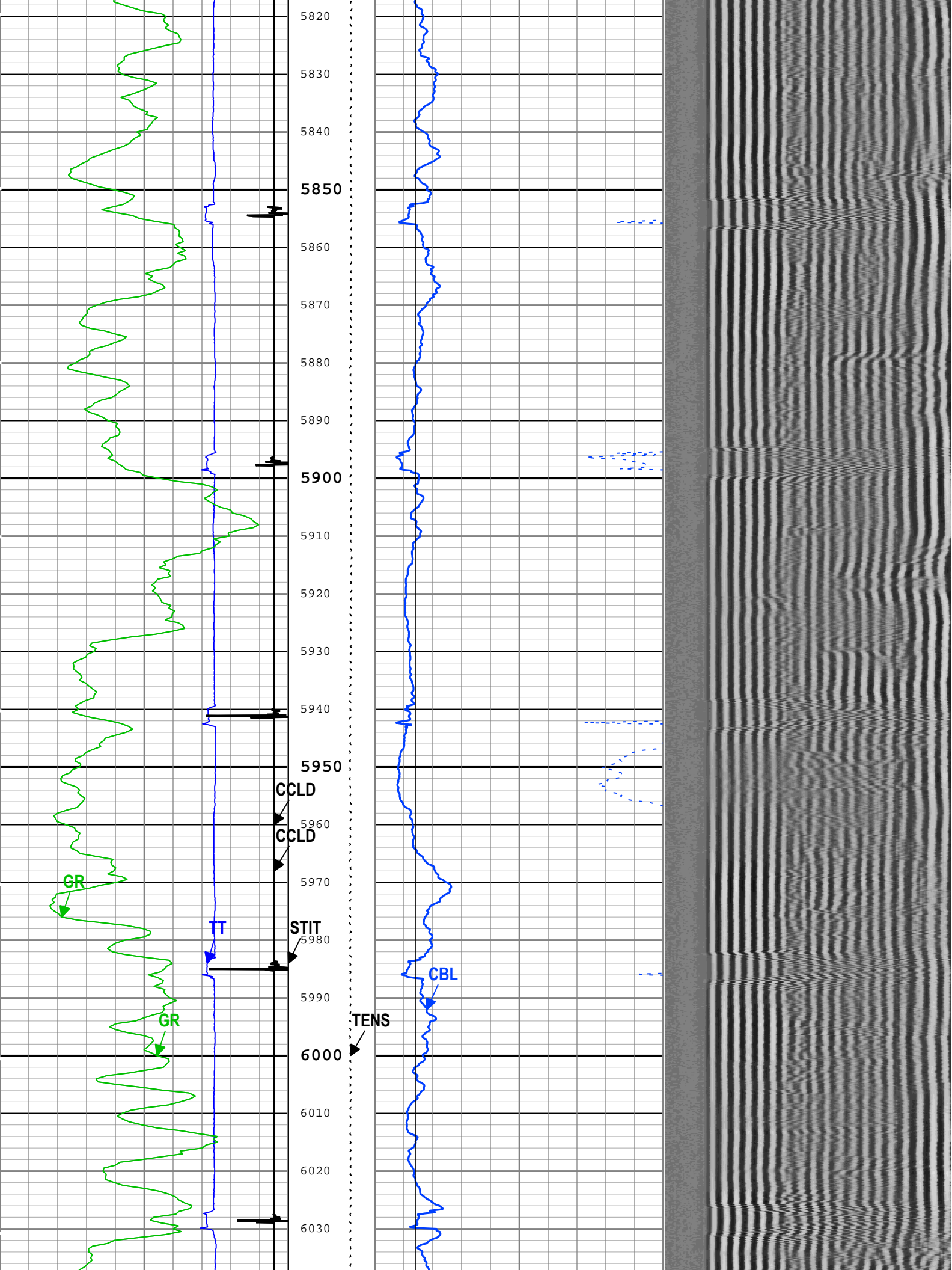


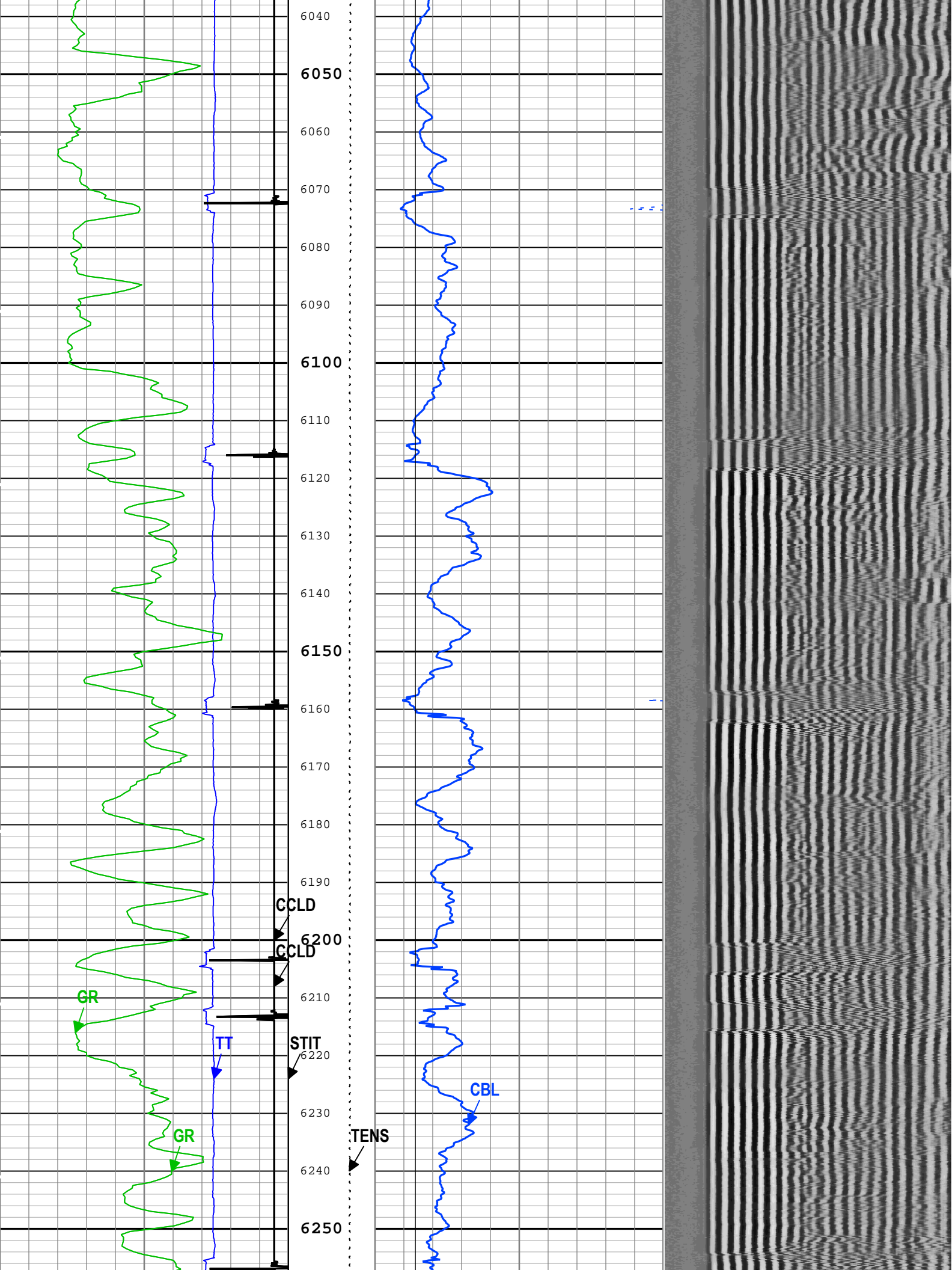


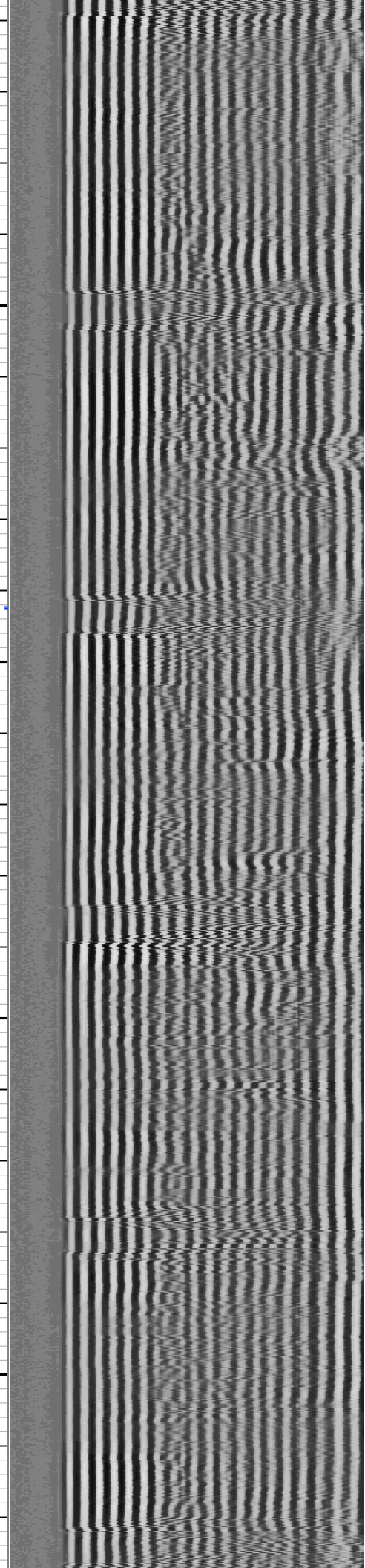
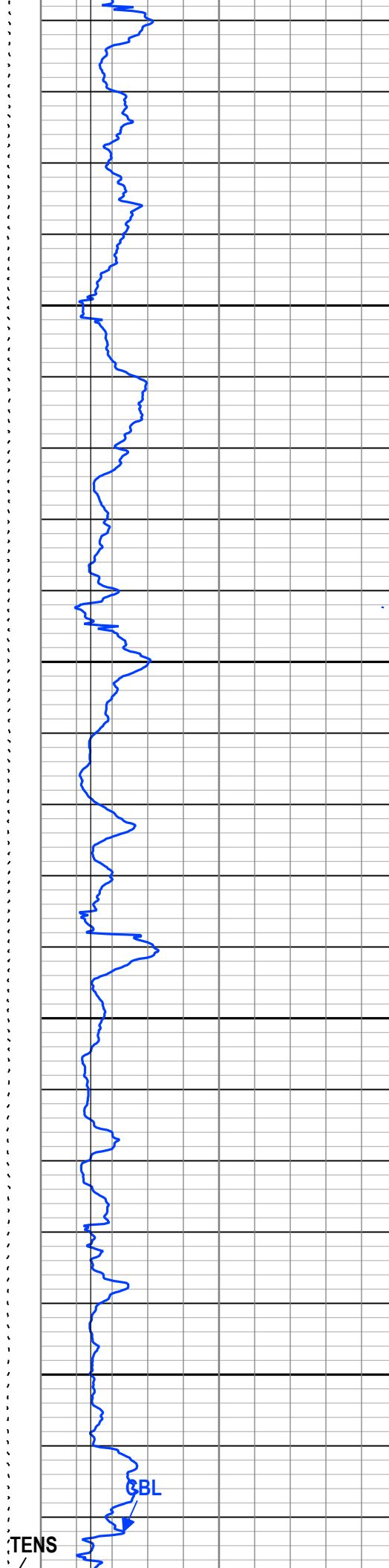
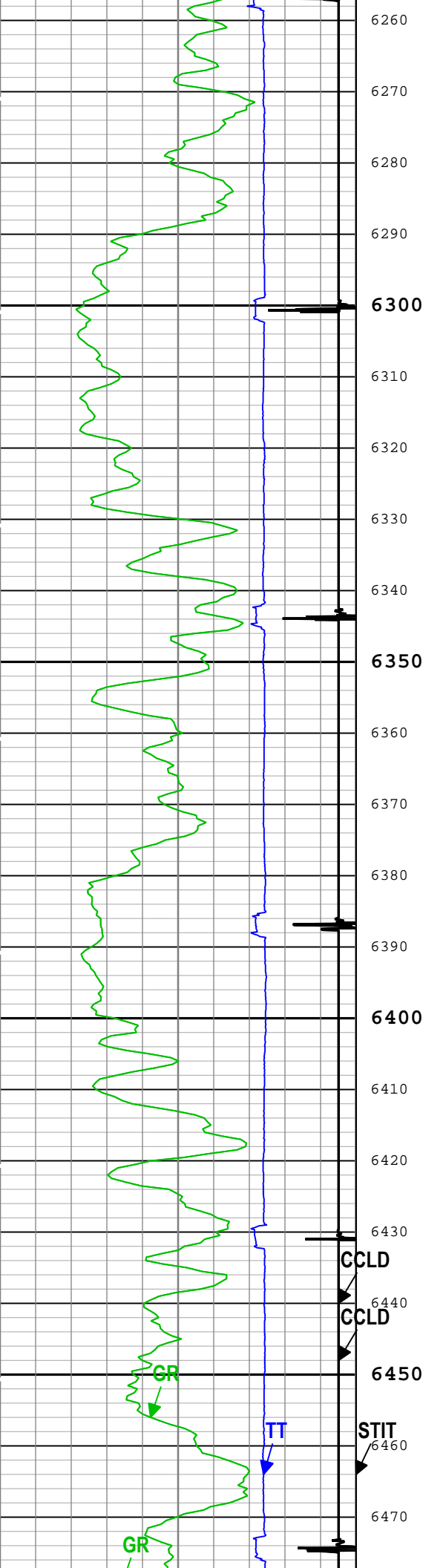






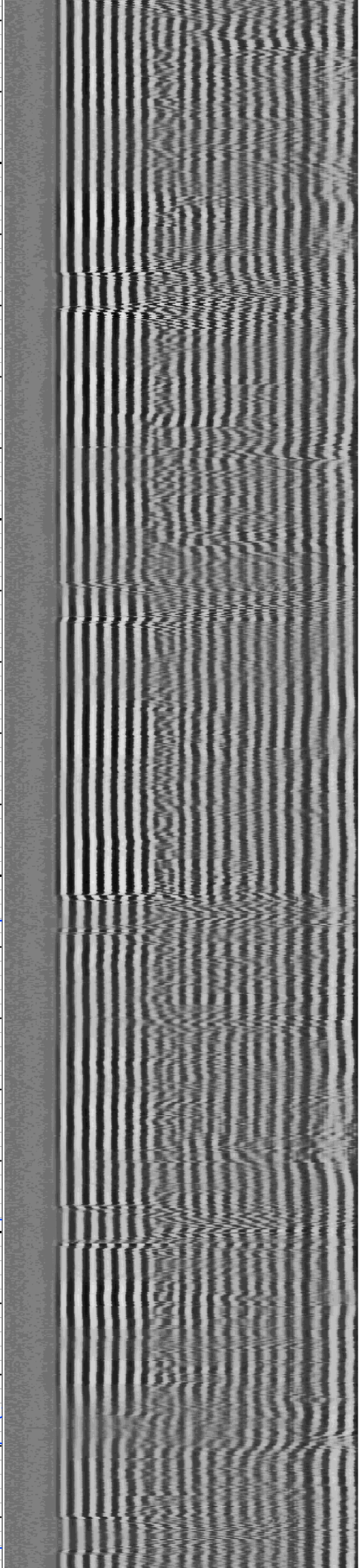
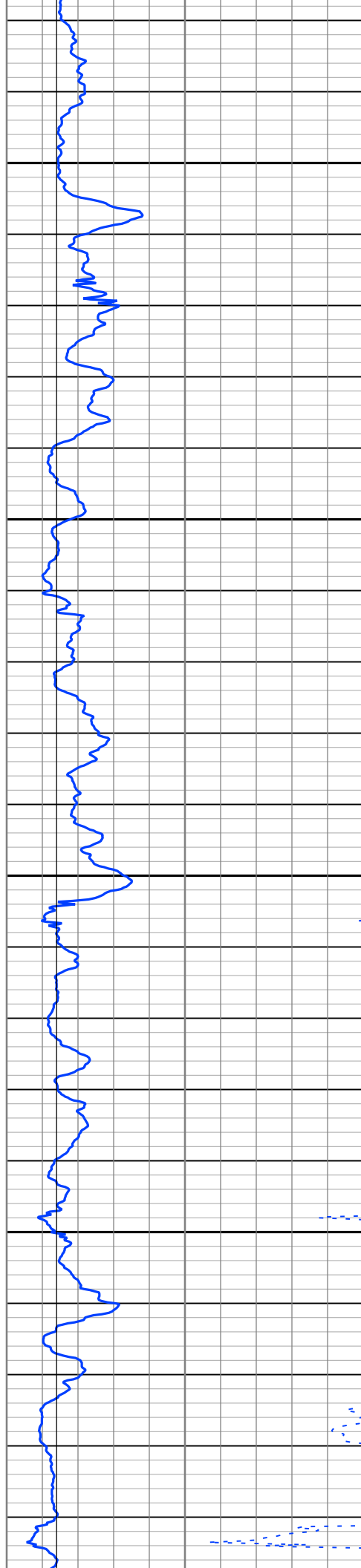
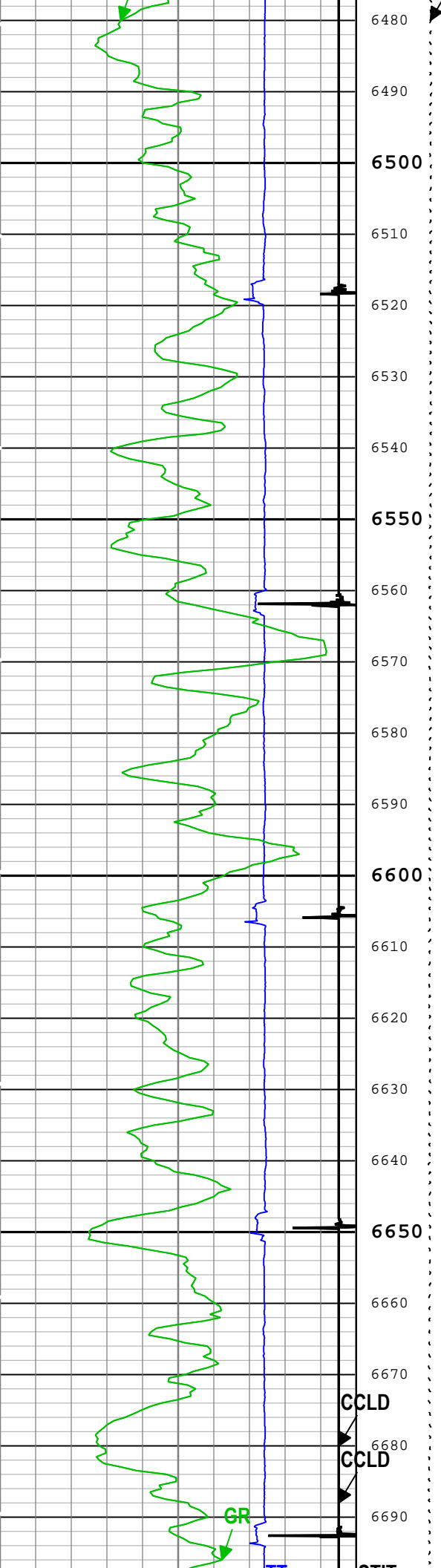


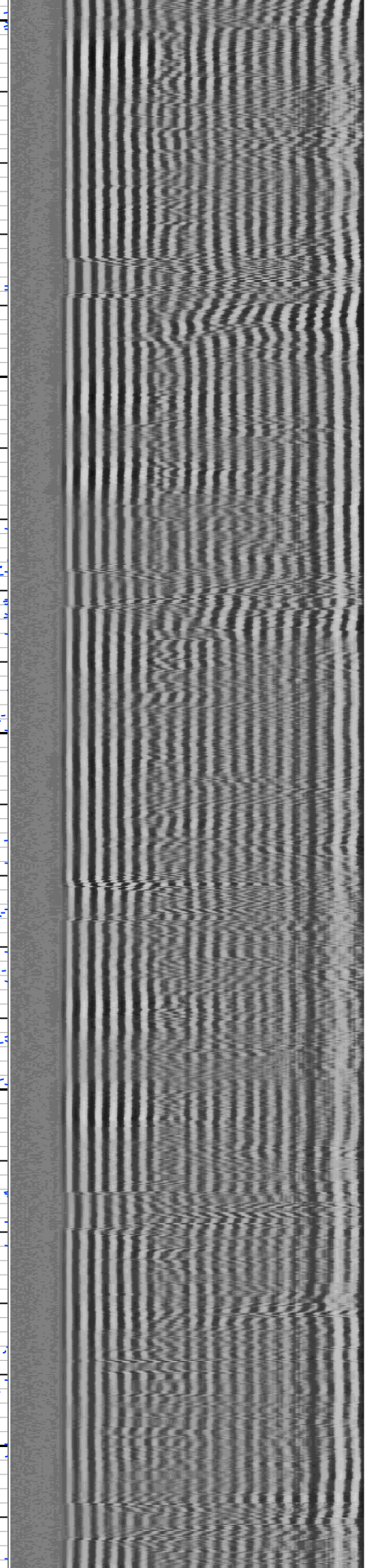
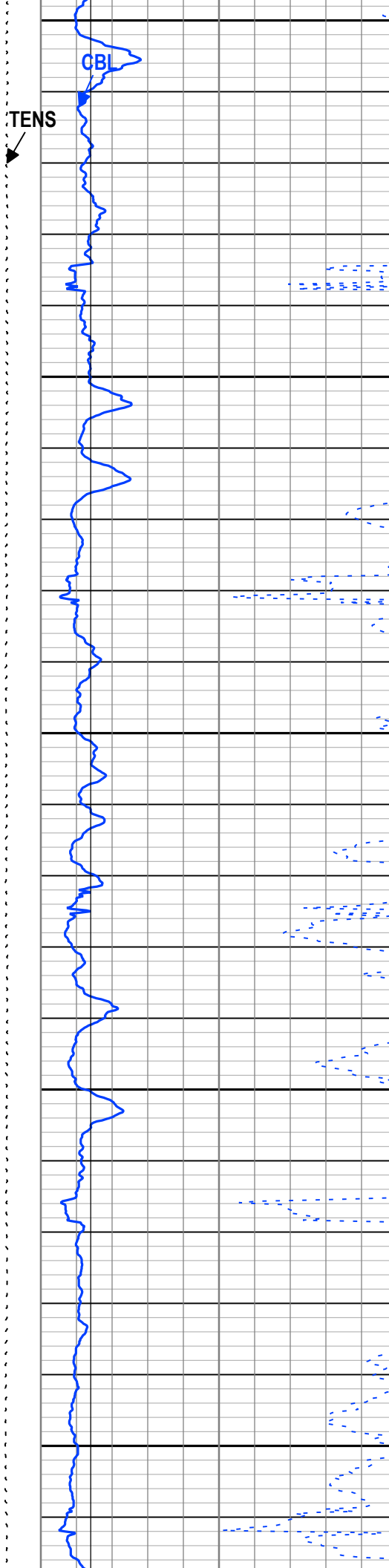
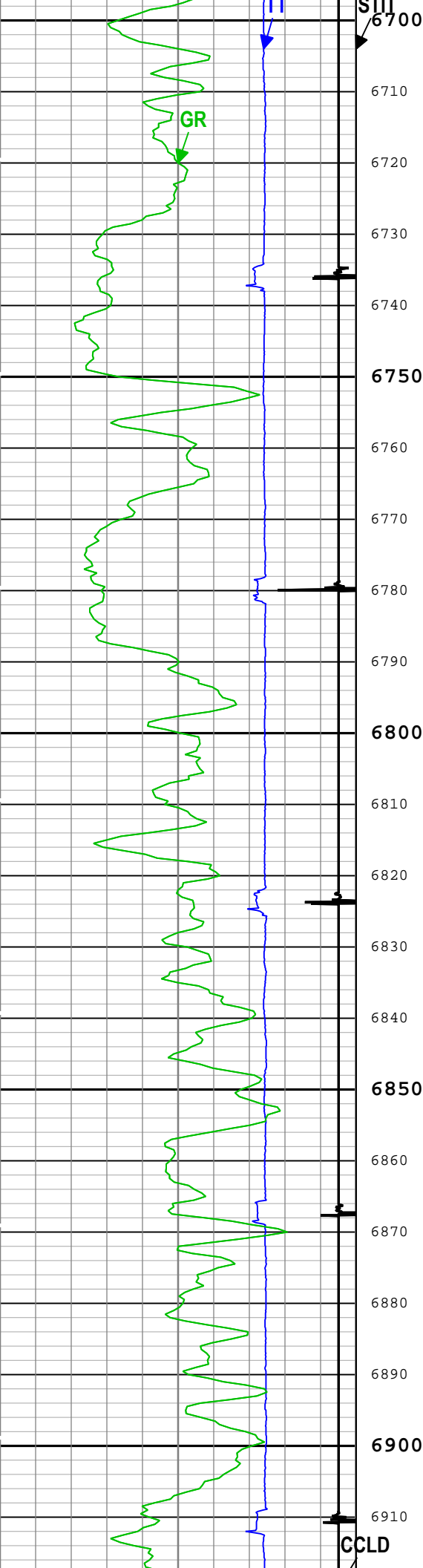




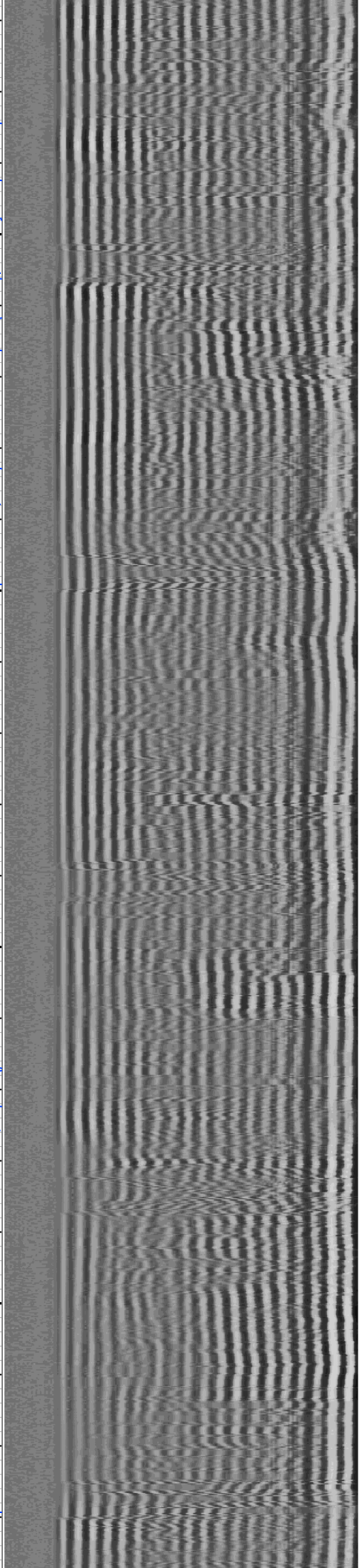
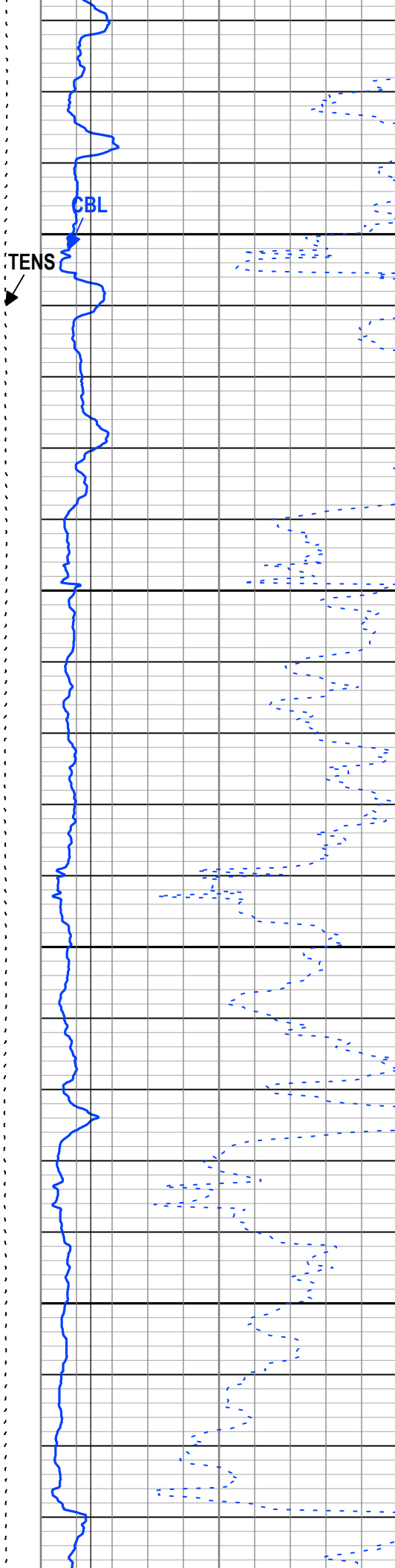
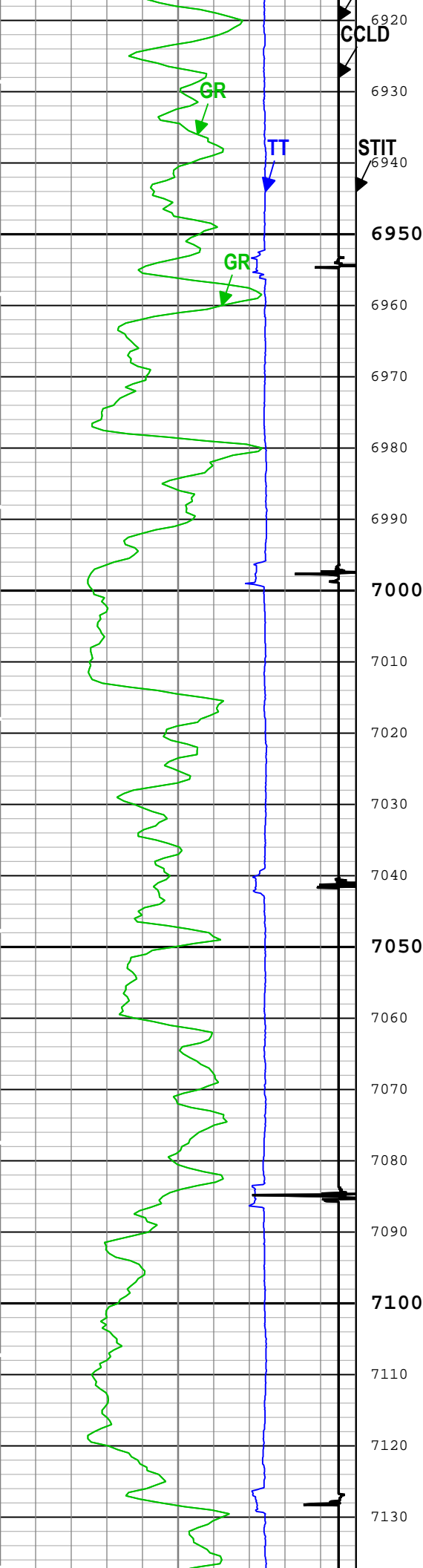
TENS

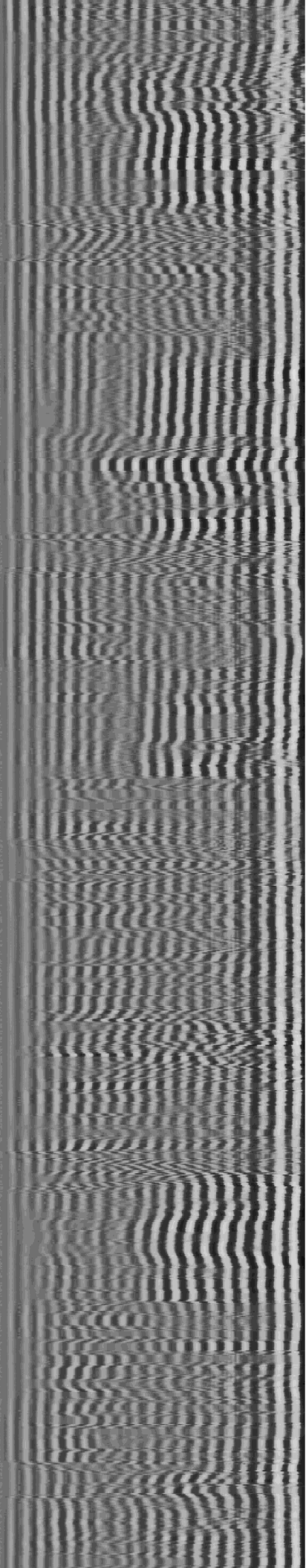
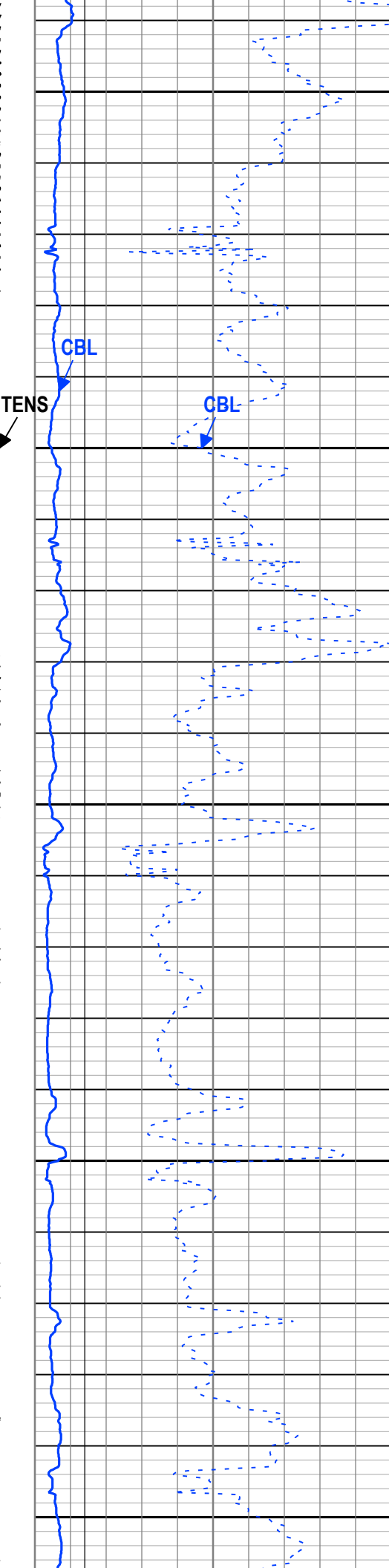
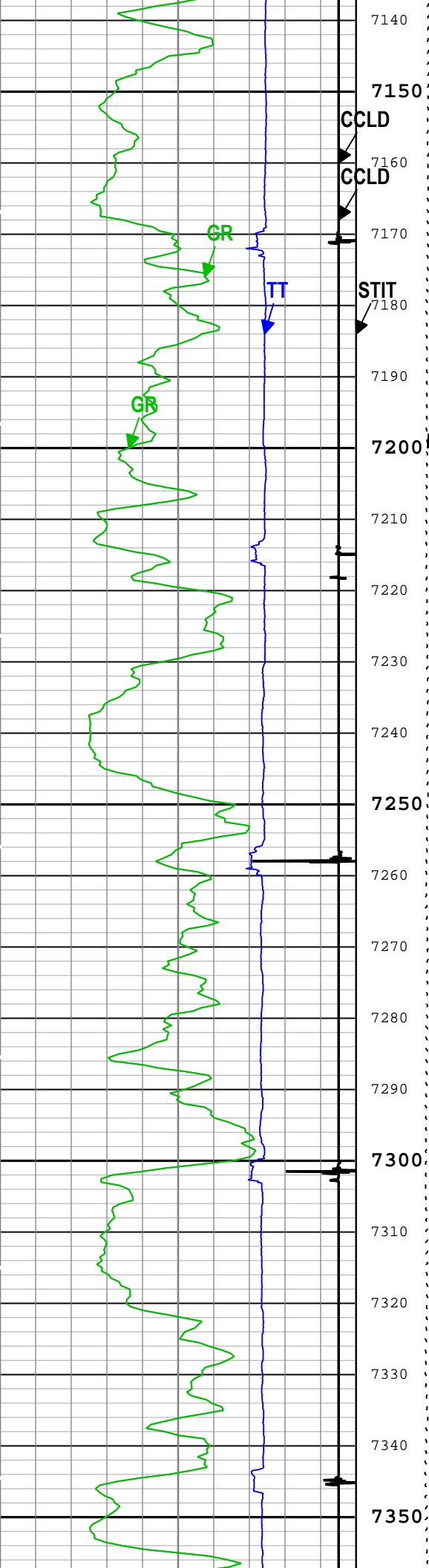


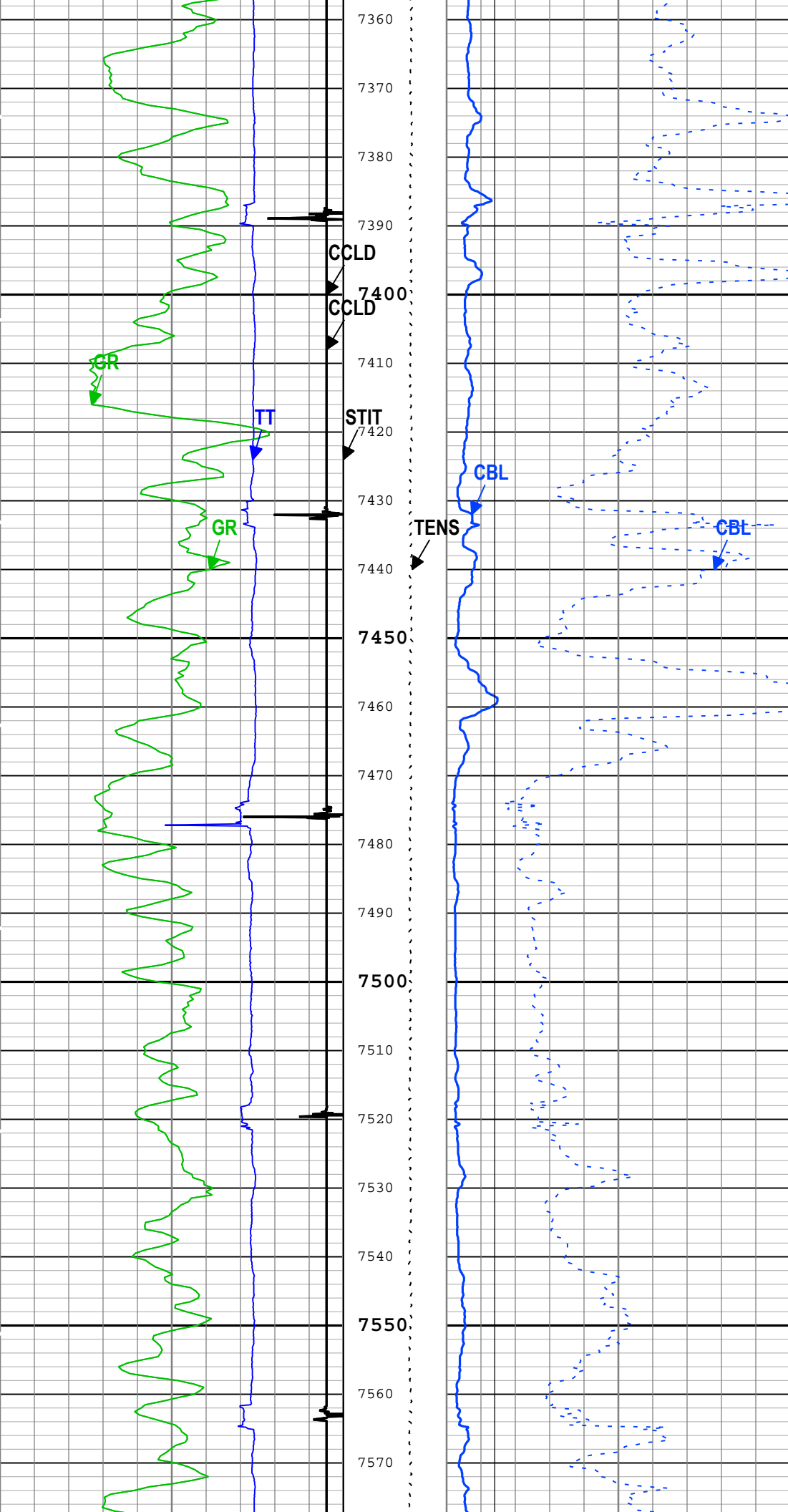




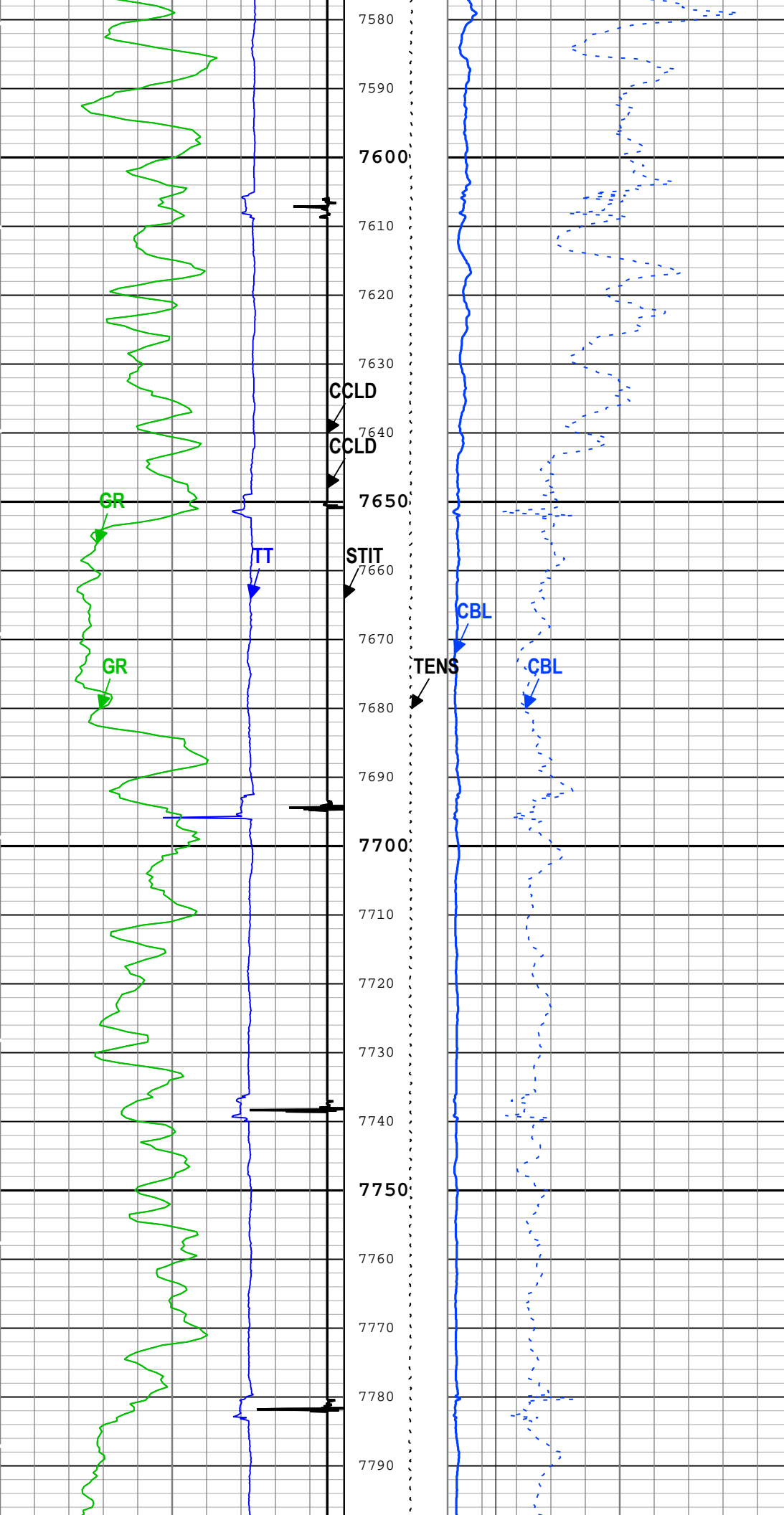


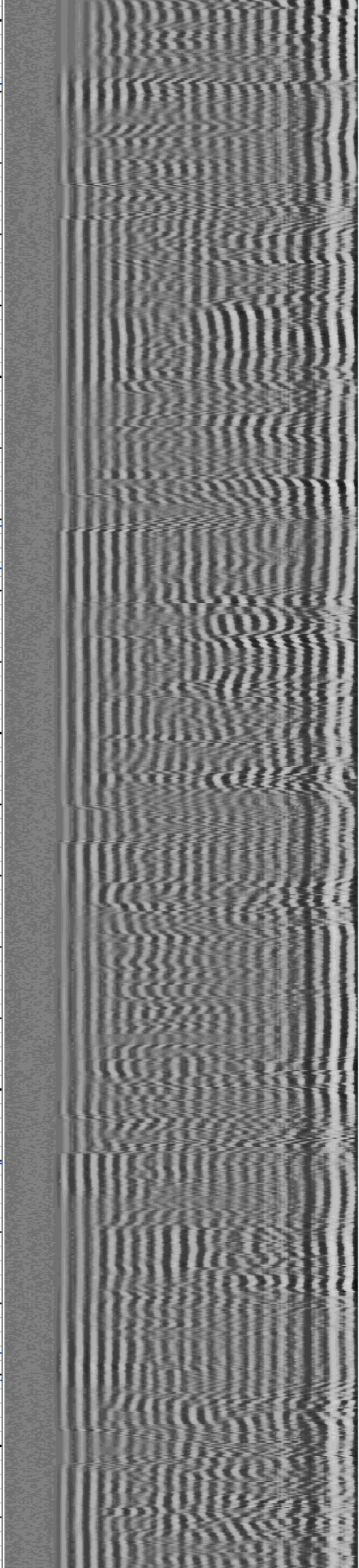
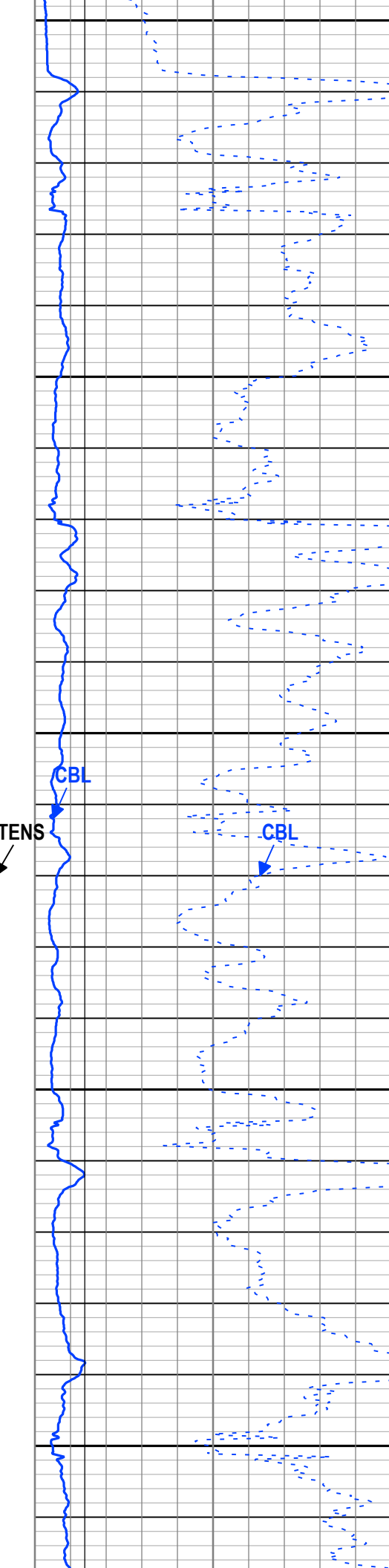
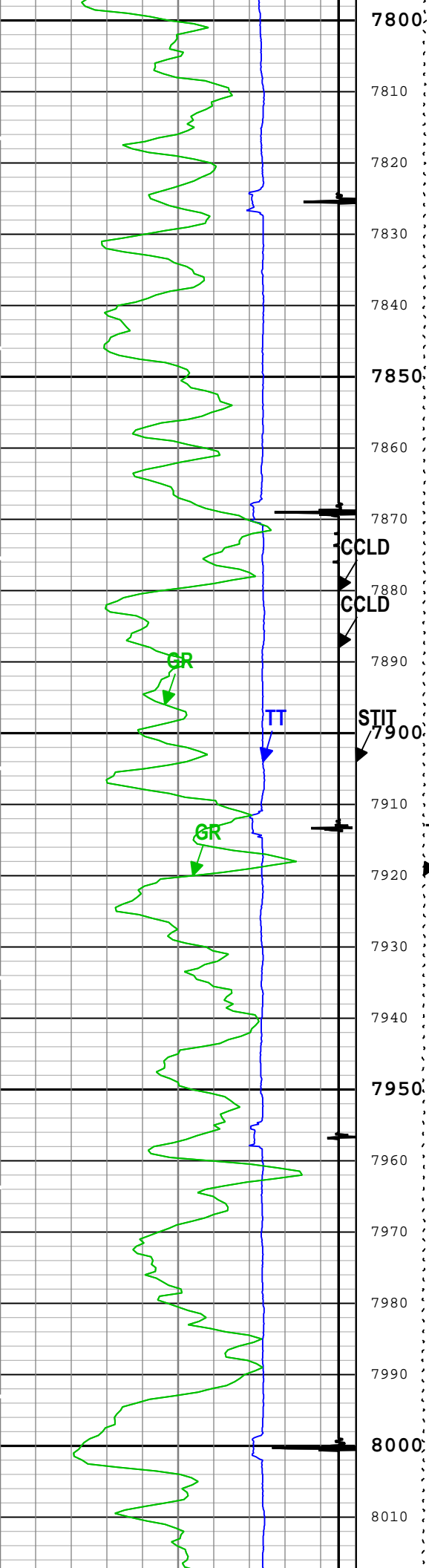


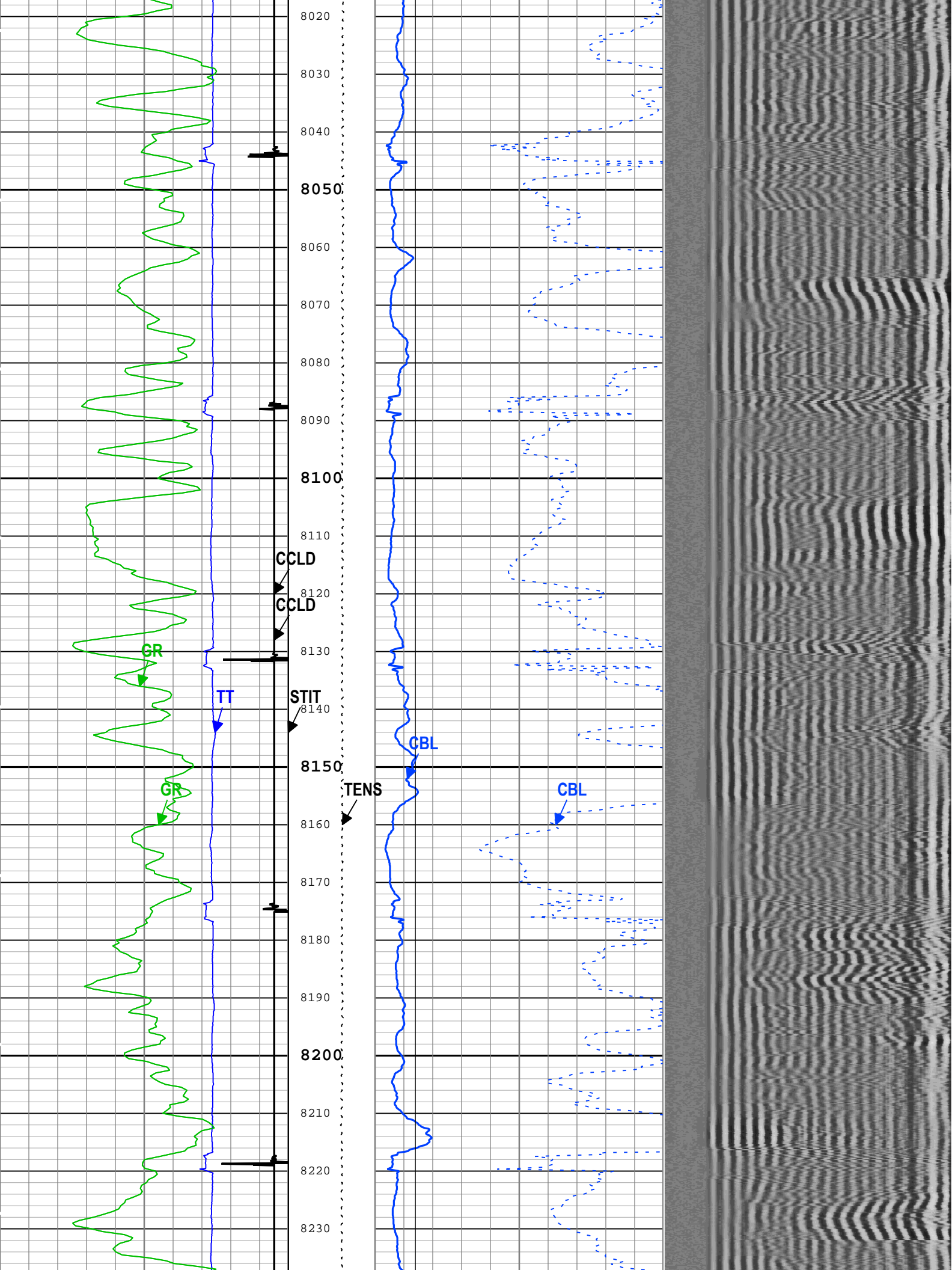




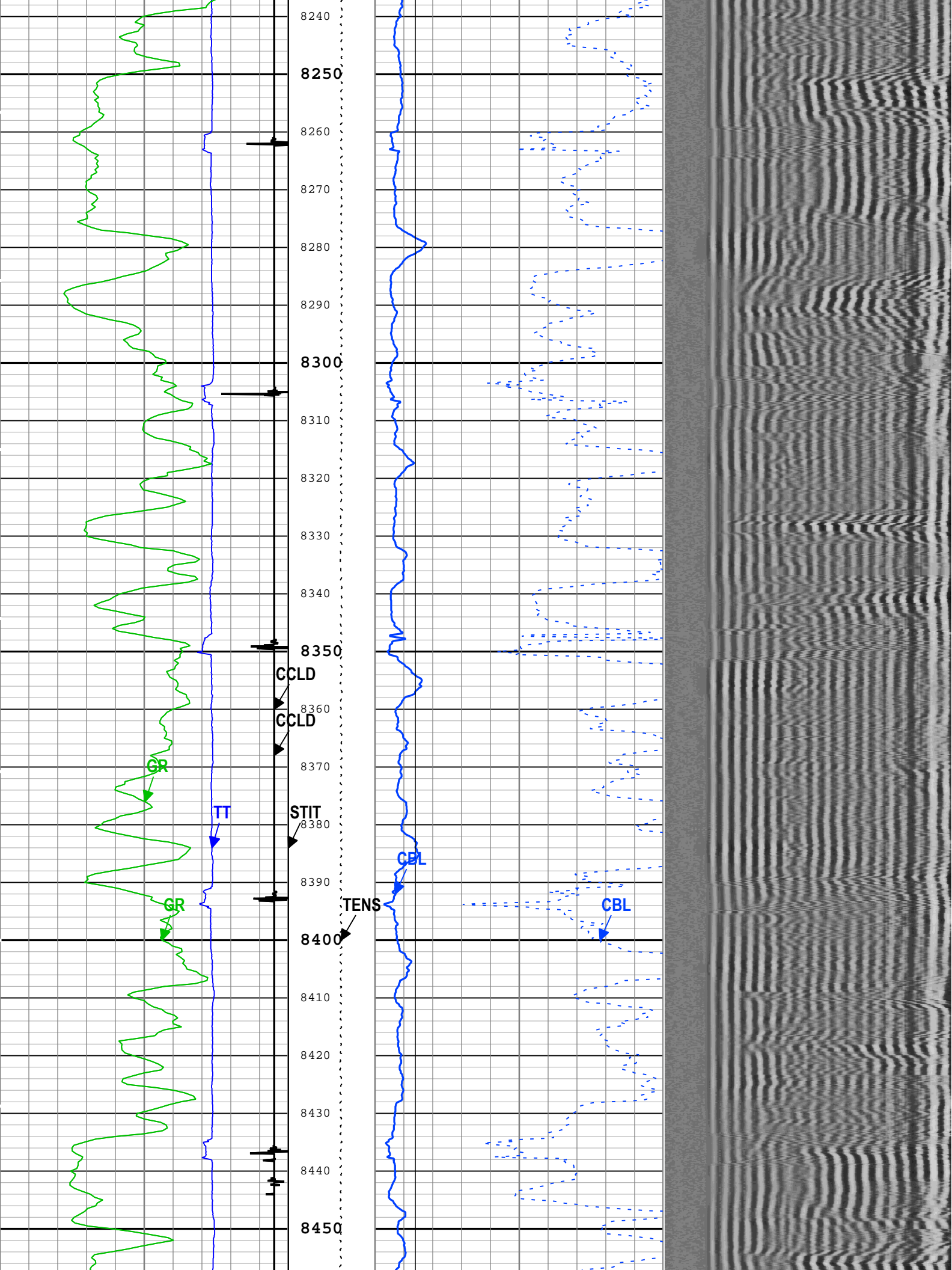


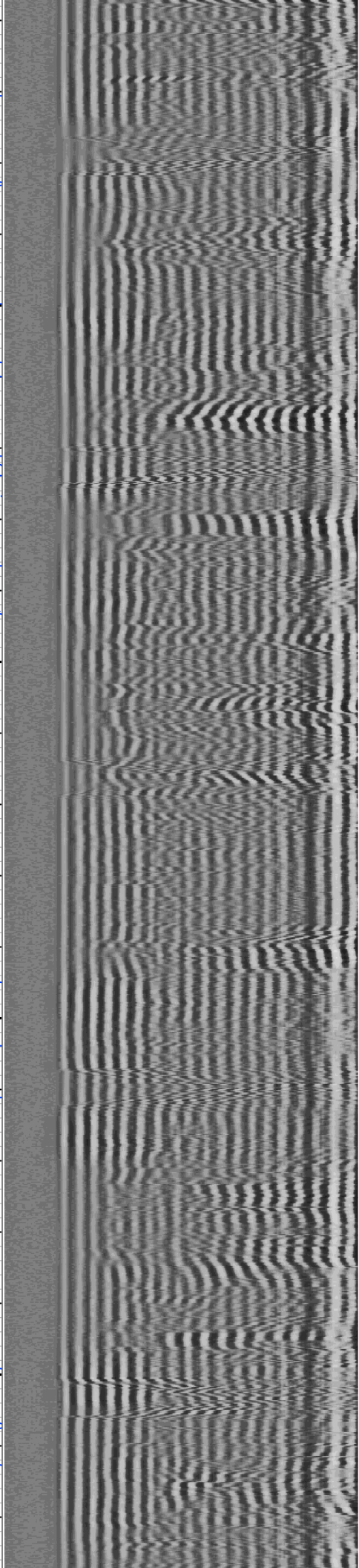
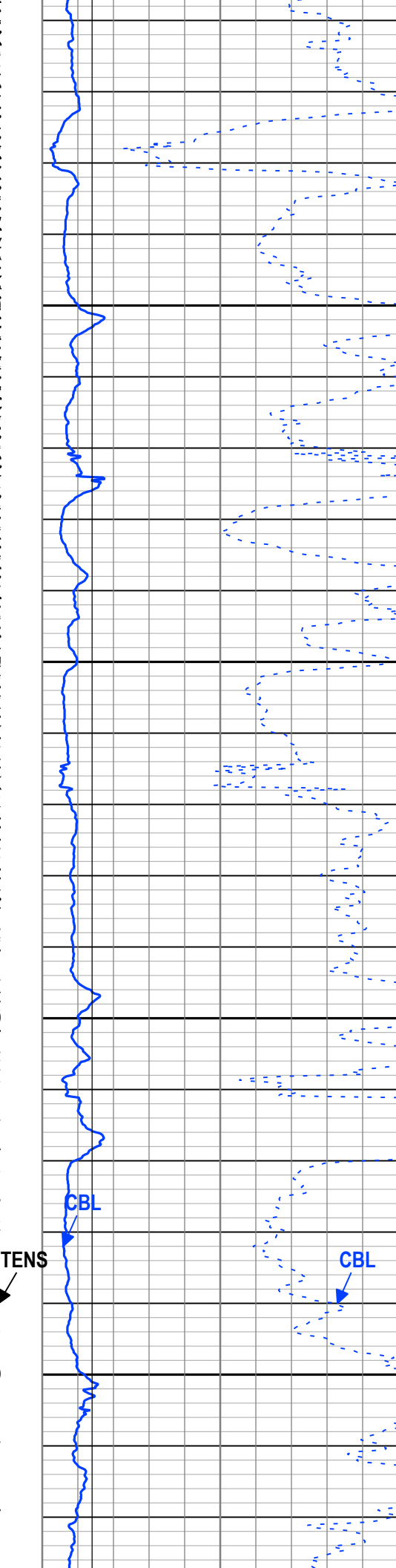
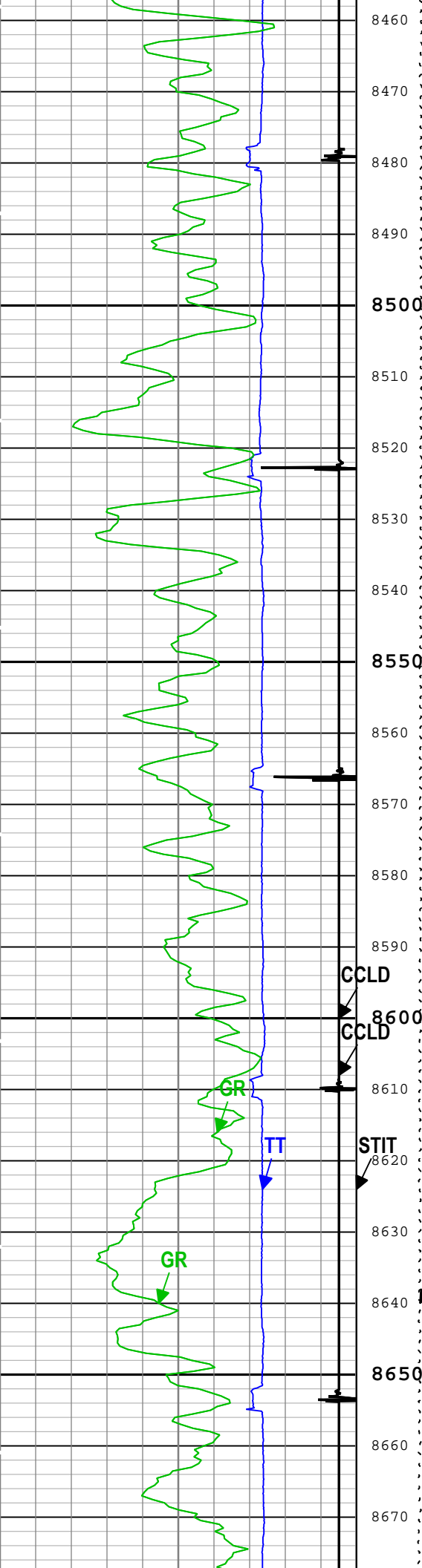




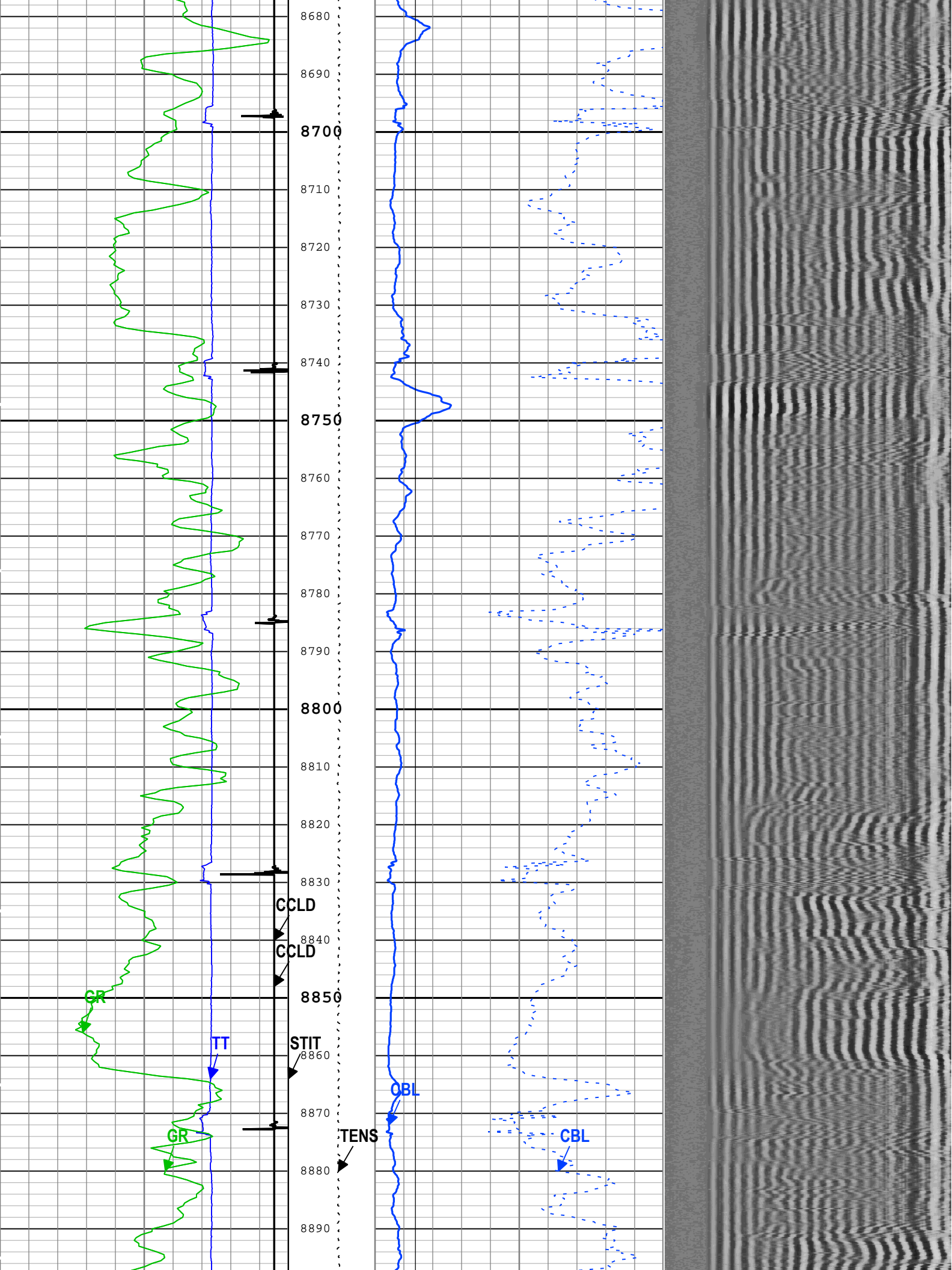












TIME_1900 - Time Marked every 60.00 (s)					
Description: Sonic CBL with VDL	Format: Log ( Sonic CBL with VDL )	Index Scale: 5 in per 100 ft	Index Unit: ft	Index Type: Measured Depth	Creation Date: 12-Sep-2018 09:57:50

Channel Processing Parameters				
One: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	260.5	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	230.58	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	Depth Zoned	mV
DFD	Drilling Fluid Density	Borehole	8.5	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	Depth Zoned	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	Depth Zoned	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	Depth Zoned	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	Depth Zoned	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	Depth Zoned	mV
RUN_SNUM	Run Sequence Number	WSDRUN	1	
TD	Total Measured Depth	Borehole	8953	ft

# Depth Zone Parameters

Parameter	Value	Start ( ft )	Stop ( ft )
CBRA	80	1900	8953
CBRA	0	8953	8965.42
GOBO_CURR	1.4	1900	8953
GOBO_CURR	0	8953	8965.42
MATT_CURR	16.92	1900	8953
MATT_CURR	0	8953	8965.42
MCI	14.81	1900	2041
MCI	1.25	2041	8953
MCI	0	8953	8965.42
MSA	0.51	1900	8953
MSA	0	8953	8965.42
MSA_CURR	0.51	1900	8953
MSA_CURR	0	8953	8965.42

All depth are actual.

## Tool Control Parameters

### One: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-B	24 dB	

## One

## Software Version

Acquisition System	Version
Maxwell 2018 SP1	8.1.99839.3100
Application Patch	Wireline_Hotfix-Mandatory-2018SP1_8.1.102865

## Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[2]:Up	Up	8698.93 ft	8963.13 ft	12-Sep-2018 12:39:10 AM	12-Sep-2018 12:49:50 AM	ON	5.33 ft	No

All depths are referenced to toolstring zero

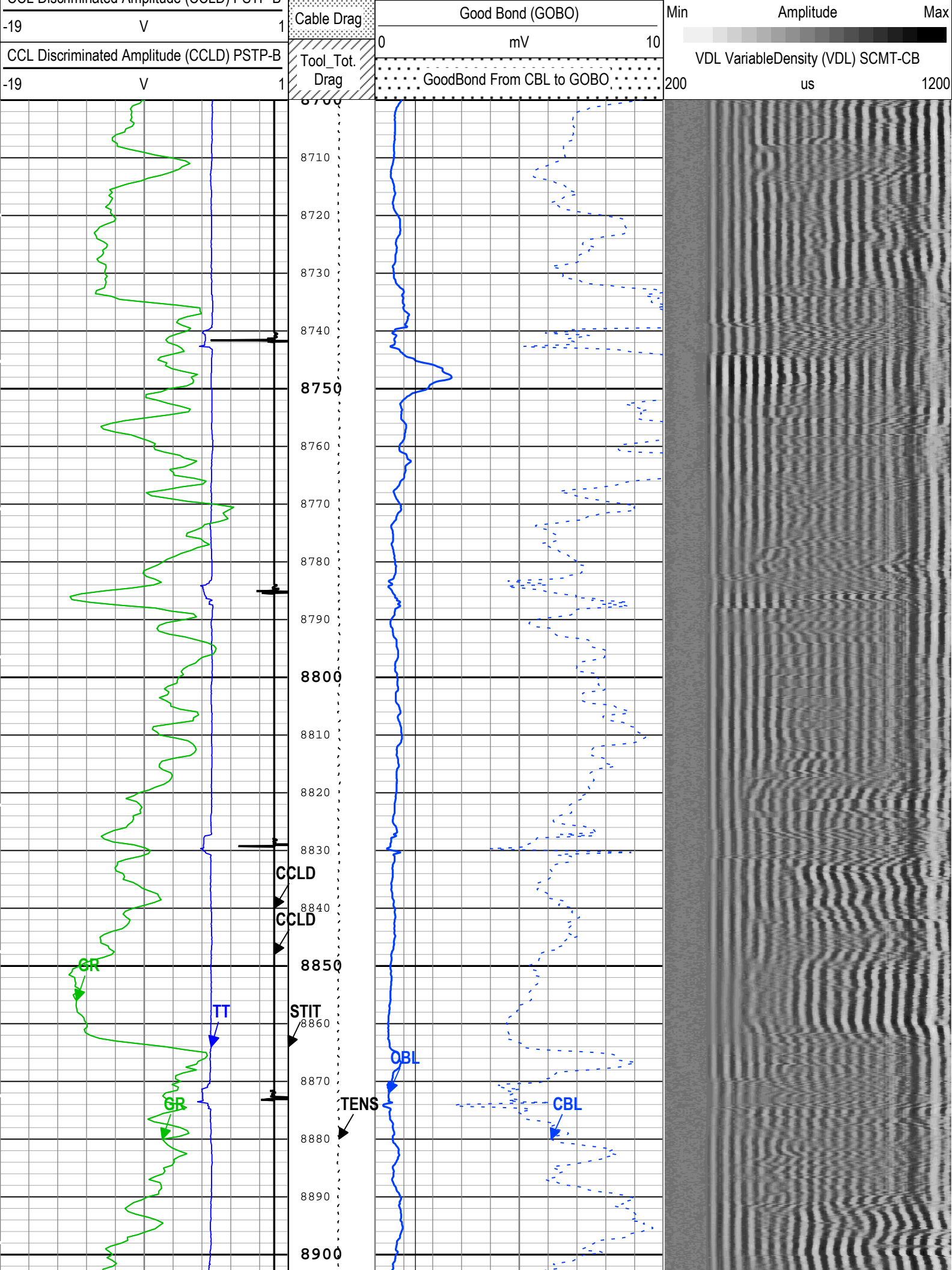
Log	Company:Caerus Operating LLC      Well:NPR 14C-10 596 One: Log[2]:Up:S002
-----	--

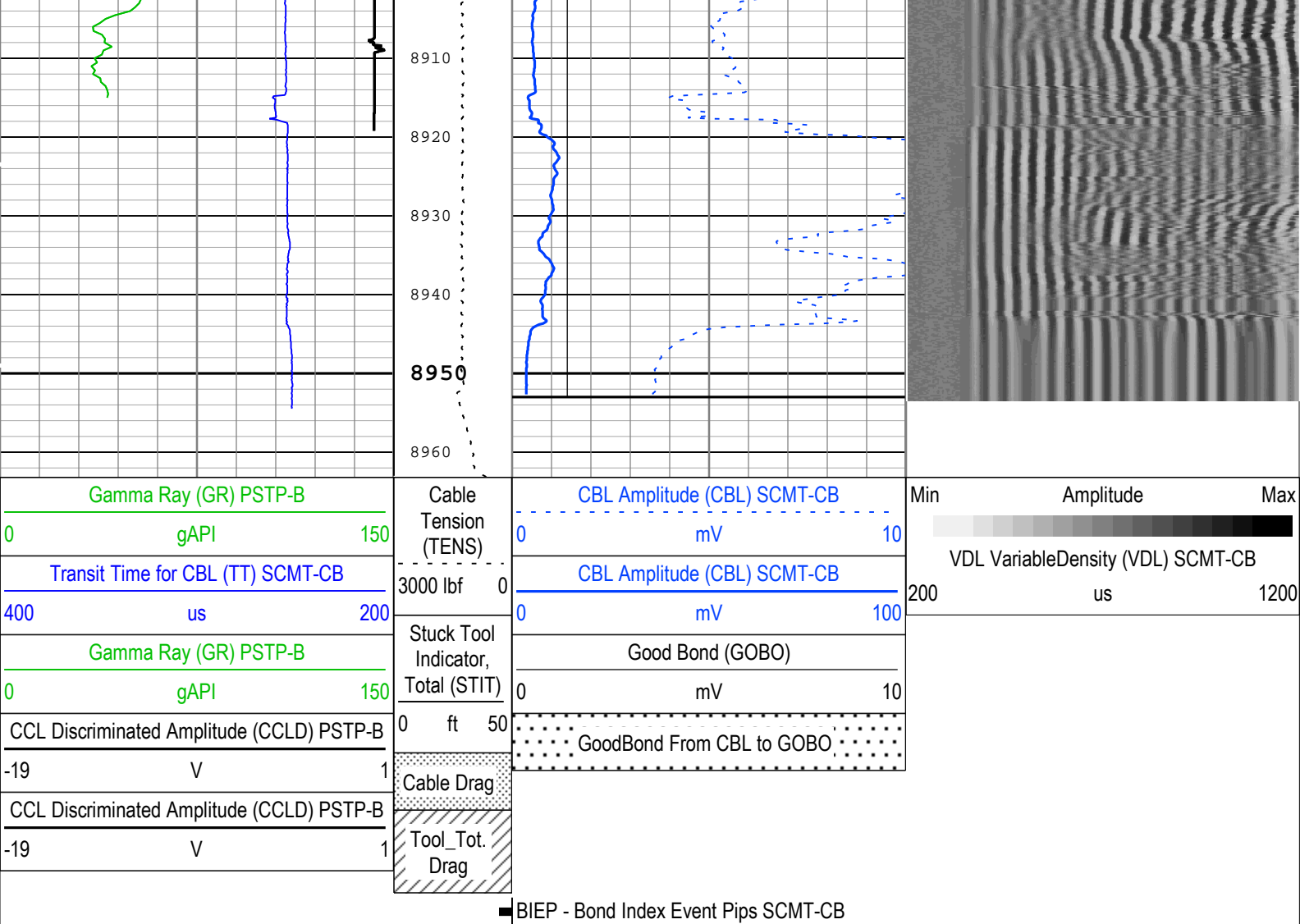
Description: Sonic CBL with VDL    Format: Log ( Sonic CBL with VDL )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 12-Sep-2018 09:57:57

TIME\_1900 - Time Marked every 60.00 (s)

■ BIEP - Bond Index Event Pips SCMT-CB			
Gamma Ray (GR) PSTP-B		Cable Tension (TENS)	3000 lbf 0
0	gAPI 150		
Transit Time for CBL (TT) SCMT-CB		Stuck Tool Indicator, Total (STIT)	CBL Amplitude (CBL) SCMT-CB
400	us 200		
Gamma Ray (GR) PSTP-B		0 ft 50	CBL Amplitude (CBL) SCMT-CB
0	gAPI 150		
CCI Discriminated Amplitude (CCI D) PSTP-B			0 mV 100







TIME\_1900 - Time Marked every 60.00 (s)

Description: Sonic CBL with VDL    Format: Log ( Sonic CBL with VDL )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 12-Sep-2018 09:57:57

Channel Processing Parameters				
One: Parameters				
Parameter	Description	Tool	Value	Unit
BHT	Bottom Hole Temperature	Borehole	260.5	degF
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	SCMT-CB	230.58	us
CBLG	CBL Gate Width	SCMT-CB	40	us
CBRA	CBL LQC Reference Amplitude in Free Pipe	SCMT-CB	Depth Zoned	mV
DFD	Drilling Fluid Density	Borehole	8.5	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
GOBO_CURR	Good Bond in Arbitrary Cement	SCMT-CB	Depth Zoned	mV
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	WTEP	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	SCMT-CB	Depth Zoned	dB/ft
MCI	Minimum Cemented Interval for Isolation	SCMT-CB	Depth Zoned	ft
MSA	Minimum Sonic Amplitude	SCMT-CB	Depth Zoned	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	SCMT-CB	Depth Zoned	mV
RUN_SNUM	Run Sequence Number	WSDRUN	1	
TD	Total Measured Depth	Borehole	8953	ft

Depth Zone Parameters			
Parameter	Value	Start ( ft )	Stop ( ft )

CBRA	80	8700	8953
CBRA	0	8953	8963.17
GOBO_CURR	1.4	8700	8953
GOBO_CURR	0	8953	8963.17
MATT_CURR	16.92	8700	8953
MATT_CURR	0	8953	8963.17
MCI	1.25	8700	8953
MCI	0	8953	8963.17
MSA	0.51	8700	8953
MSA	0	8953	8963.17
MSA_CURR	0.51	8700	8953
MSA_CURR	0	8953	8963.17

All depth are actual.

Tool Control Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
CMTM	SCMT Operating Mode	SCMT-CB	Log	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-B	24 dB	

One

Software Version	
Acquisition System	Version
Maxwell 2018 SP1	8.1.99839.3100
Application Patch	Wireline_Hotfix-Mandatory-2018SP1_8.1.102865

Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[3]:Up	Up	305.81 ft	8965.43 ft	12-Sep-2018 12:58:29 AM	12-Sep-2018 6:00:01 AM	ON	5.17 ft	No

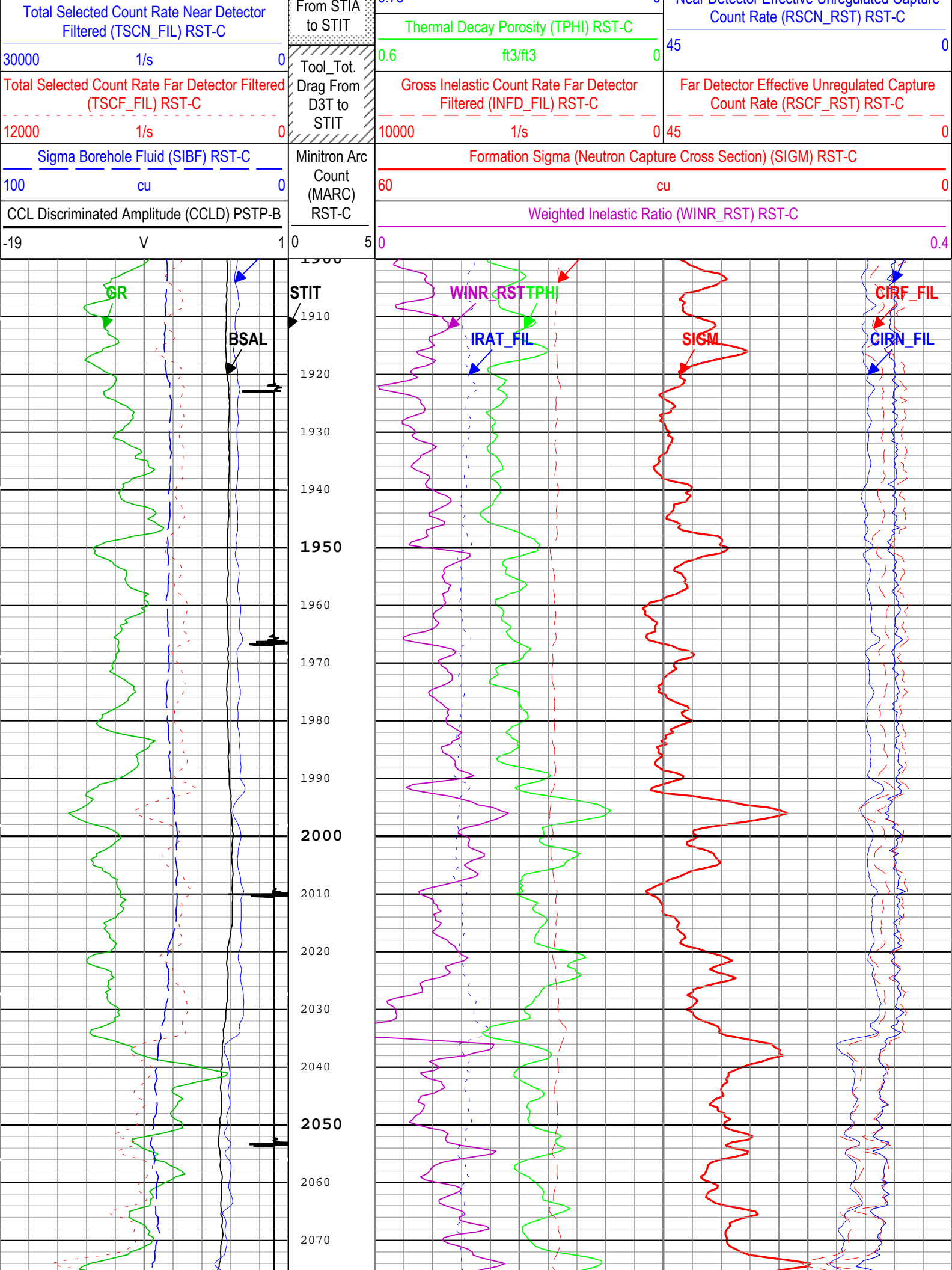
All depths are referenced to toolstring zero

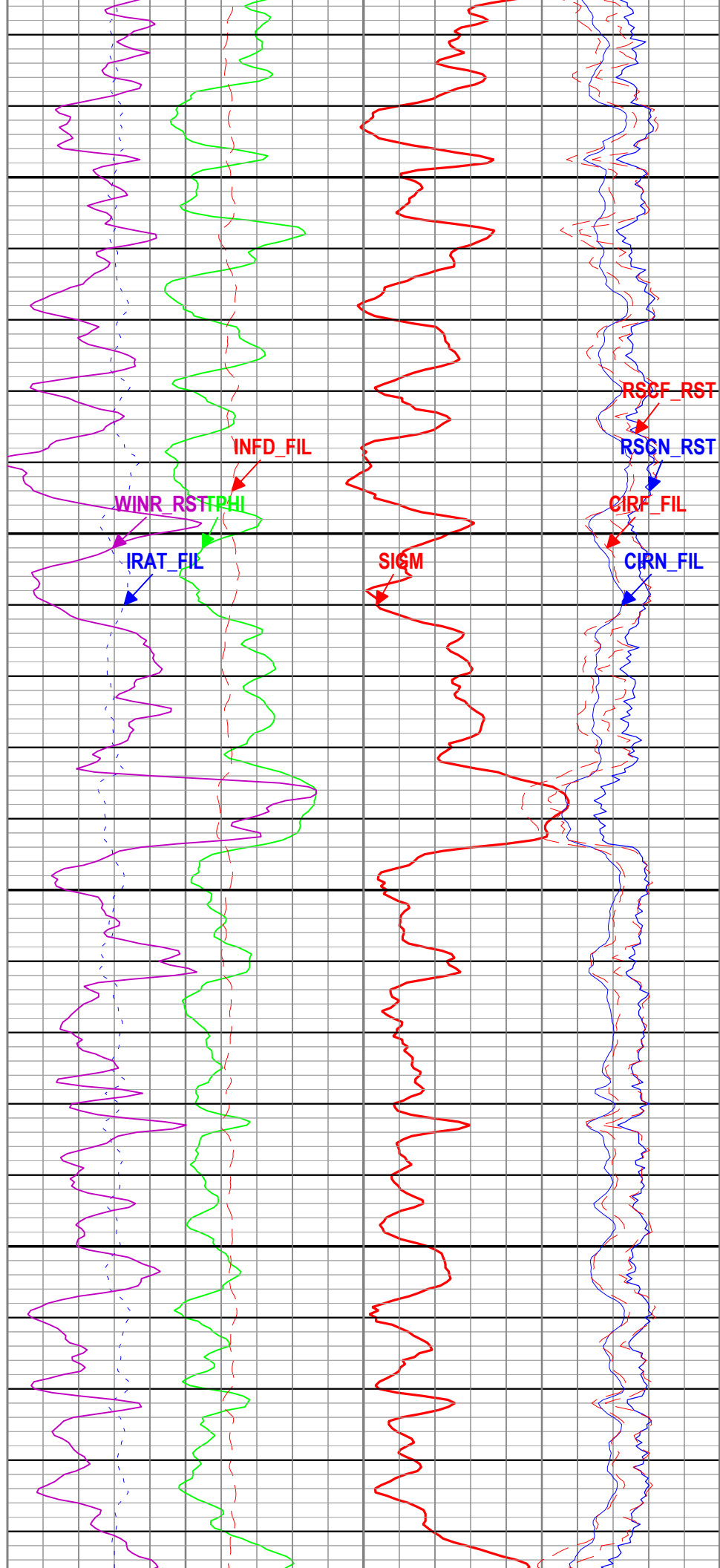
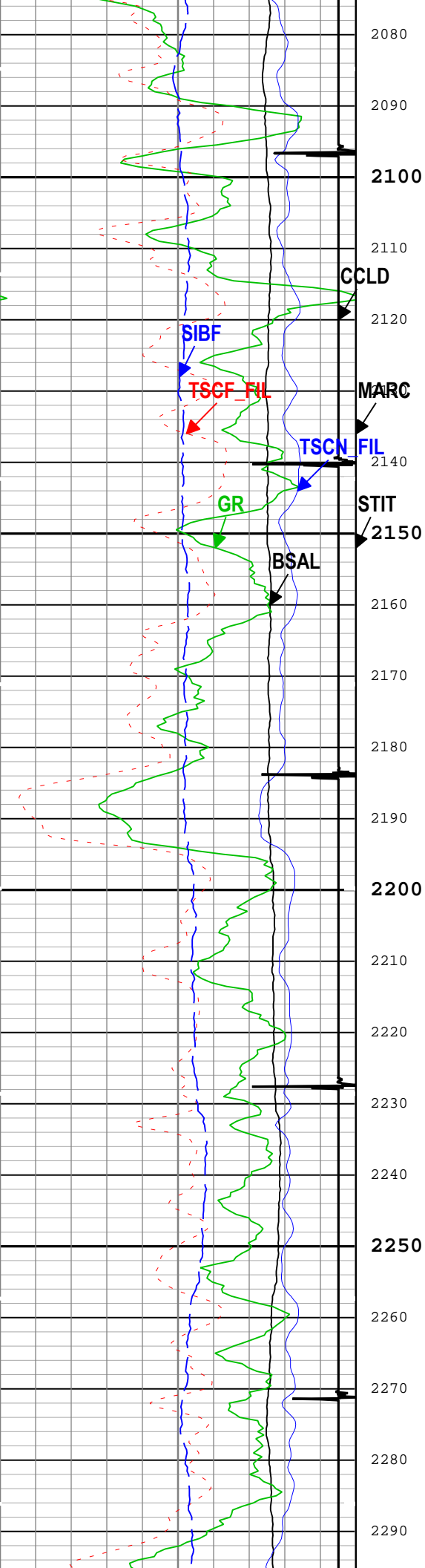
Log	Company:Caerus Operating LLC      Well:NPR 14C-10 596 One: Log[3]:Up:S002
-----	--

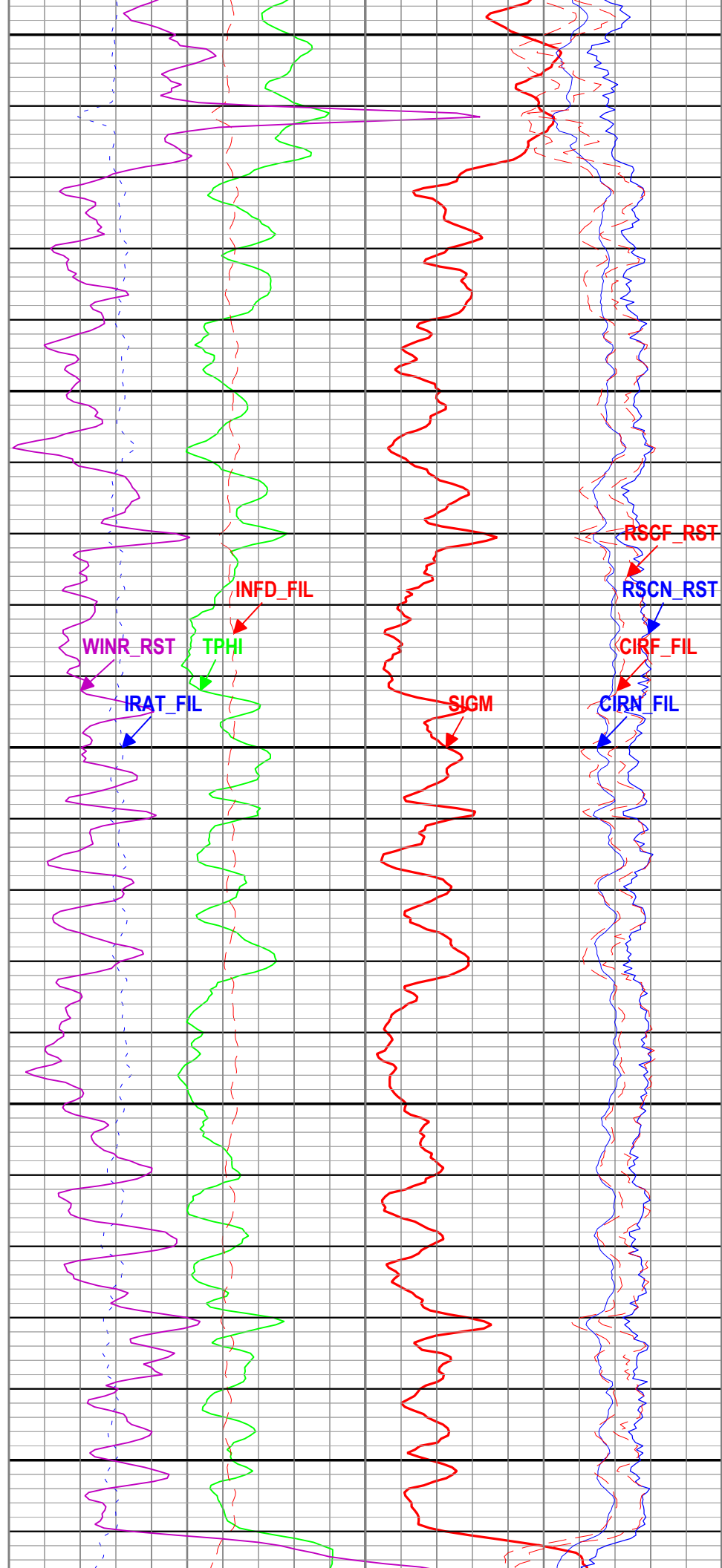
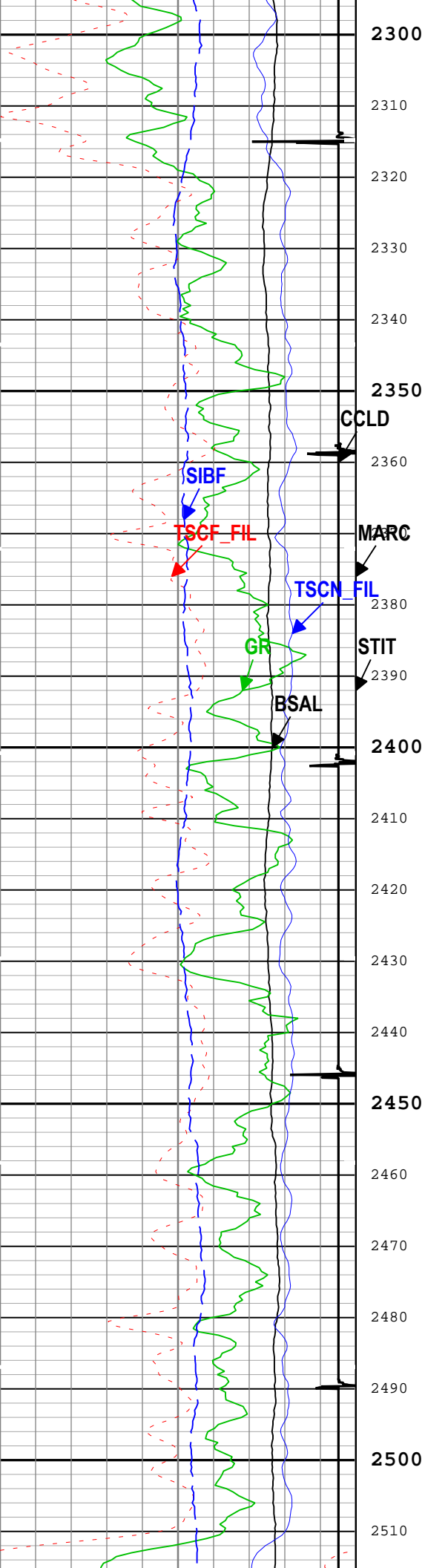
Description: RST SIGMA Answer    Format: Log ( RST SIGMA Answer )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 12-Sep-2018 09:57:59

<div> <div>TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)</div> <div> <div>IHV - Integrated Hole Volume every 10.00 (ft3)</div> <div>IHV - Integrated Hole Volume every 100.00 (ft3)</div> <div>ICV - Integrated Cement Volume every 10.00 (ft3)</div> </div> <div>TIME_1900 - Time Marked every 60.00 (s)</div> <div>ICV - Integrated Cement Volume every 100.00 (ft3)</div> </div>					
Borehole Salinity (BSAL) RST-C		<div>Stuck Tool Indicator, Total (STIT)</div> <div>0    ft    50</div>	<div>Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C</div> <div>2.50</div>		
450	ppk		<div>Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C</div> <div>-----</div> <div>50</div>		
Gamma Ray (GR) PSTP-B		<div>Cable Drag</div> <div>0.75</div>	<div>Inelastic Ratio Filtered (IRAT_FIL) RST-C</div> <div>-----</div> <div>0</div>		
0	gAPI		<div>Near Detector Effective Unregulated Capture</div>		

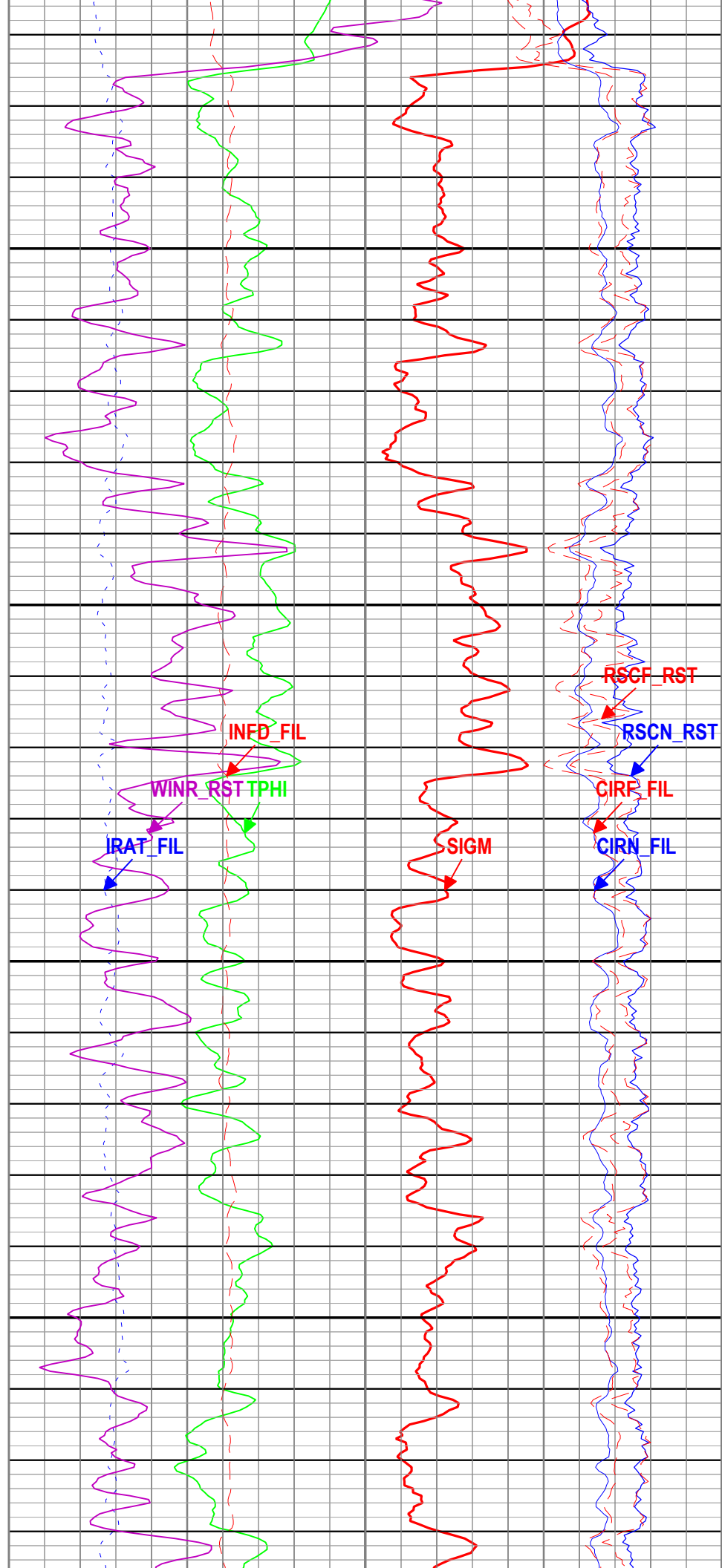
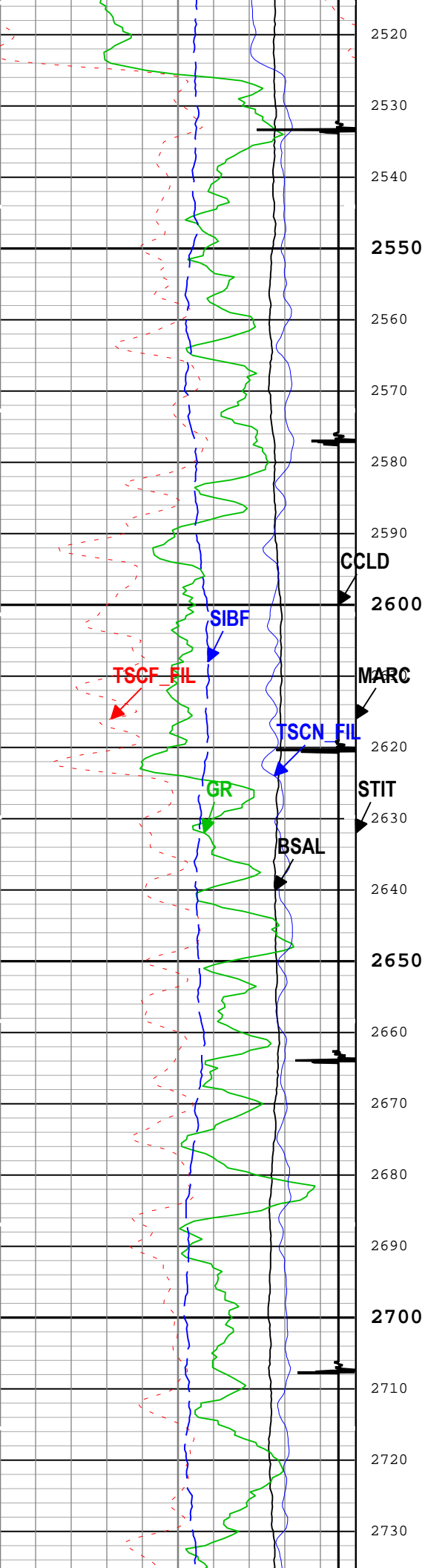


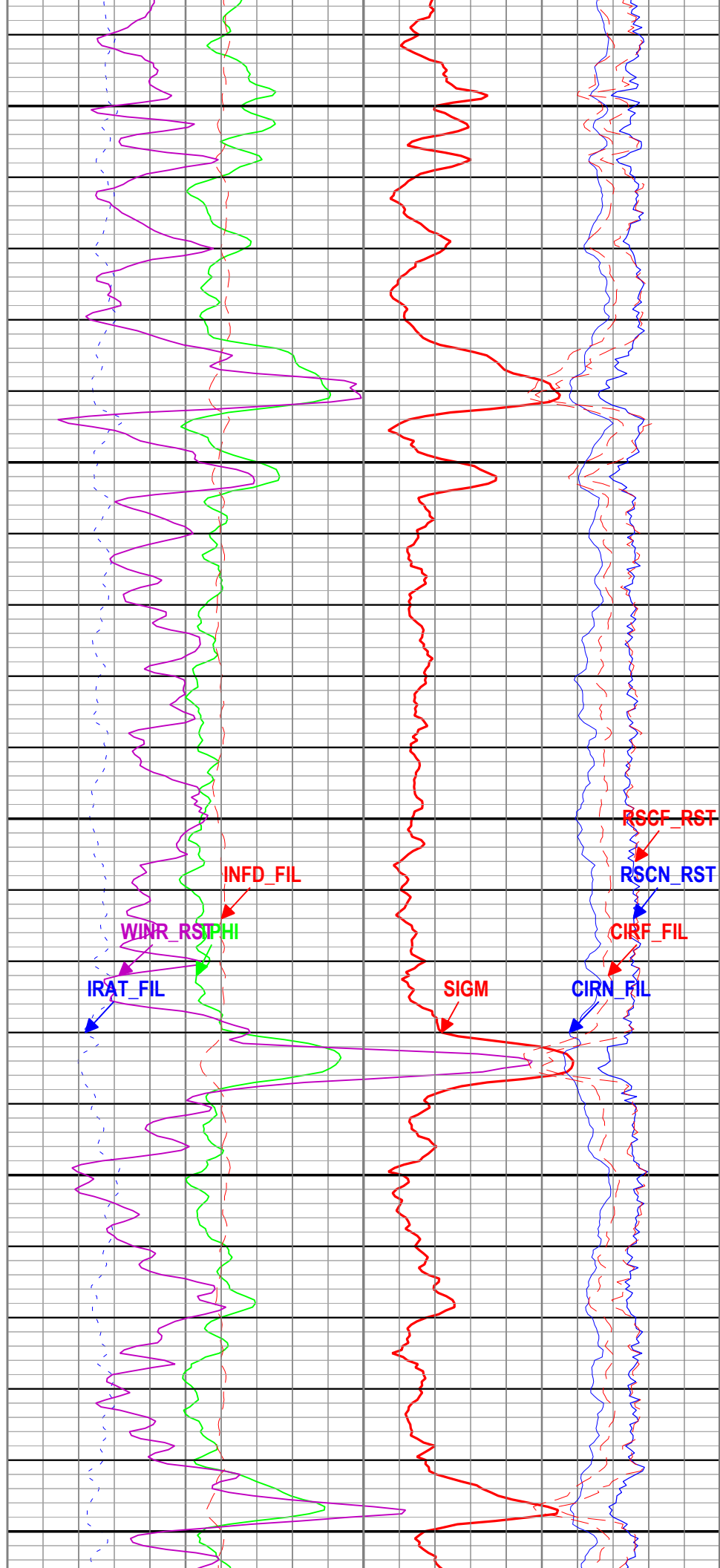
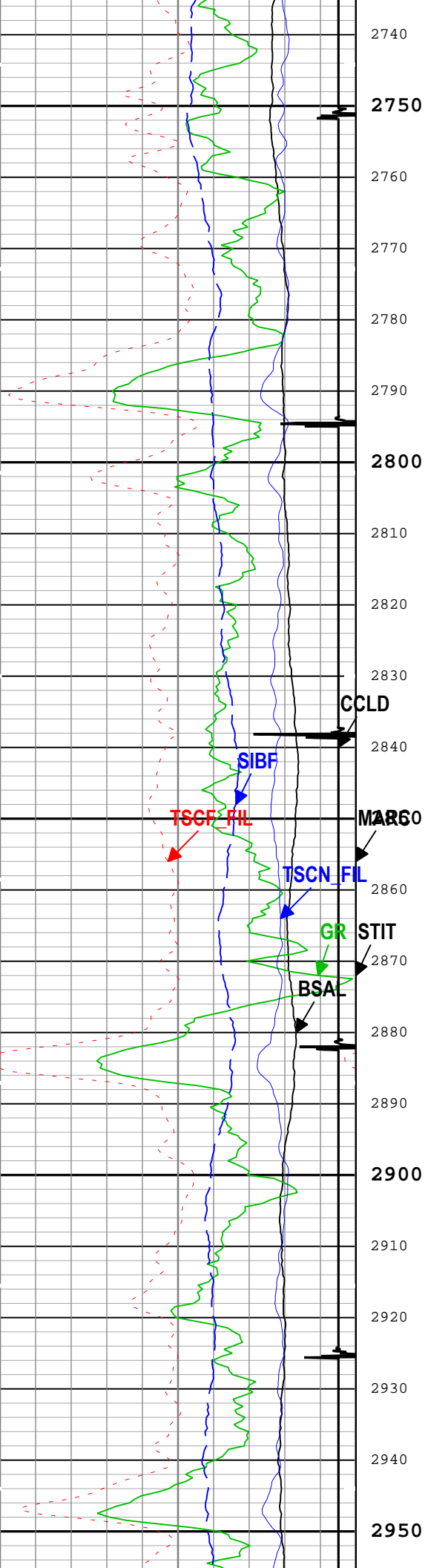


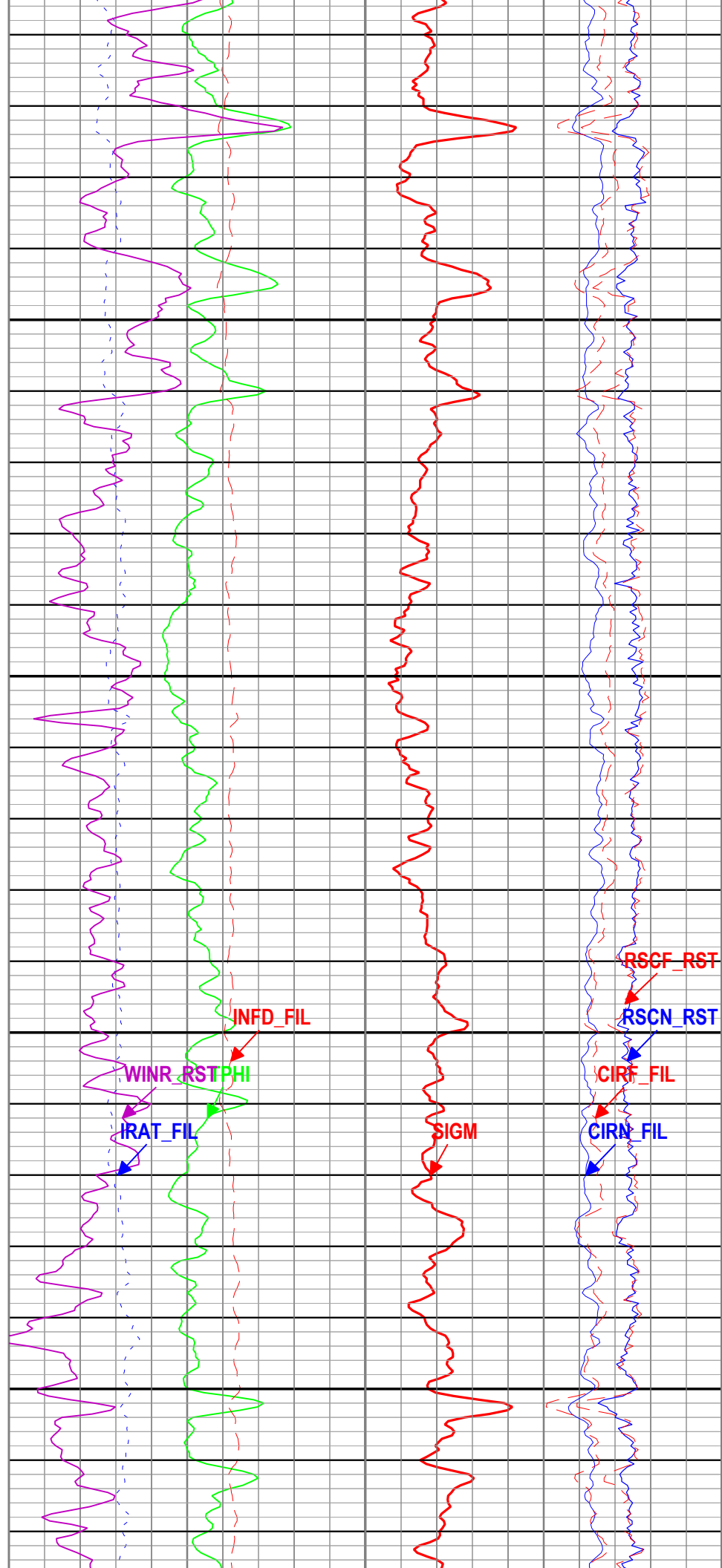
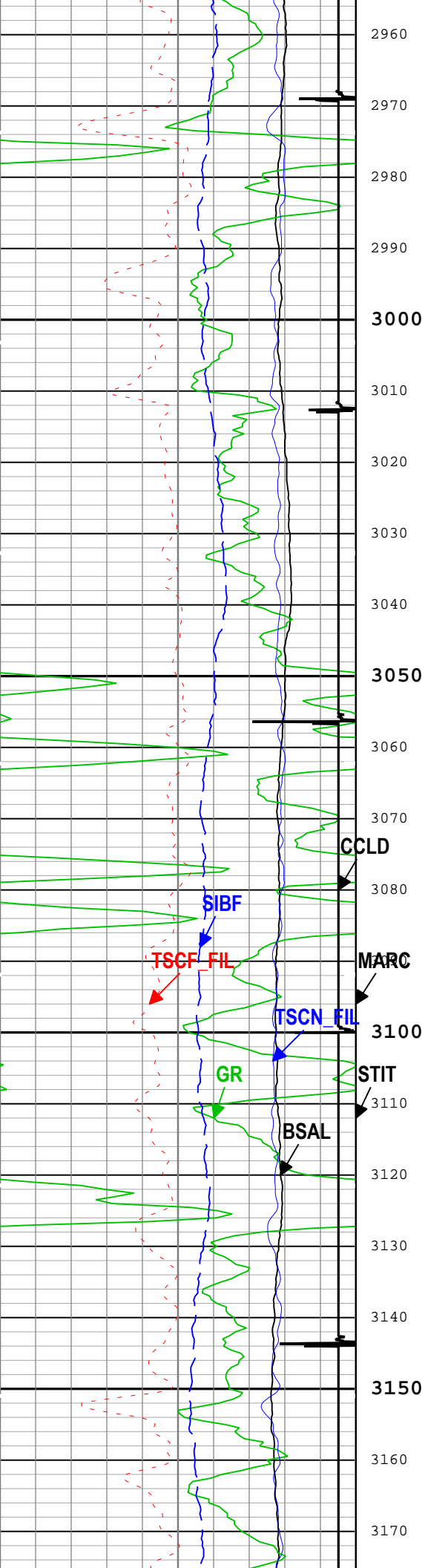




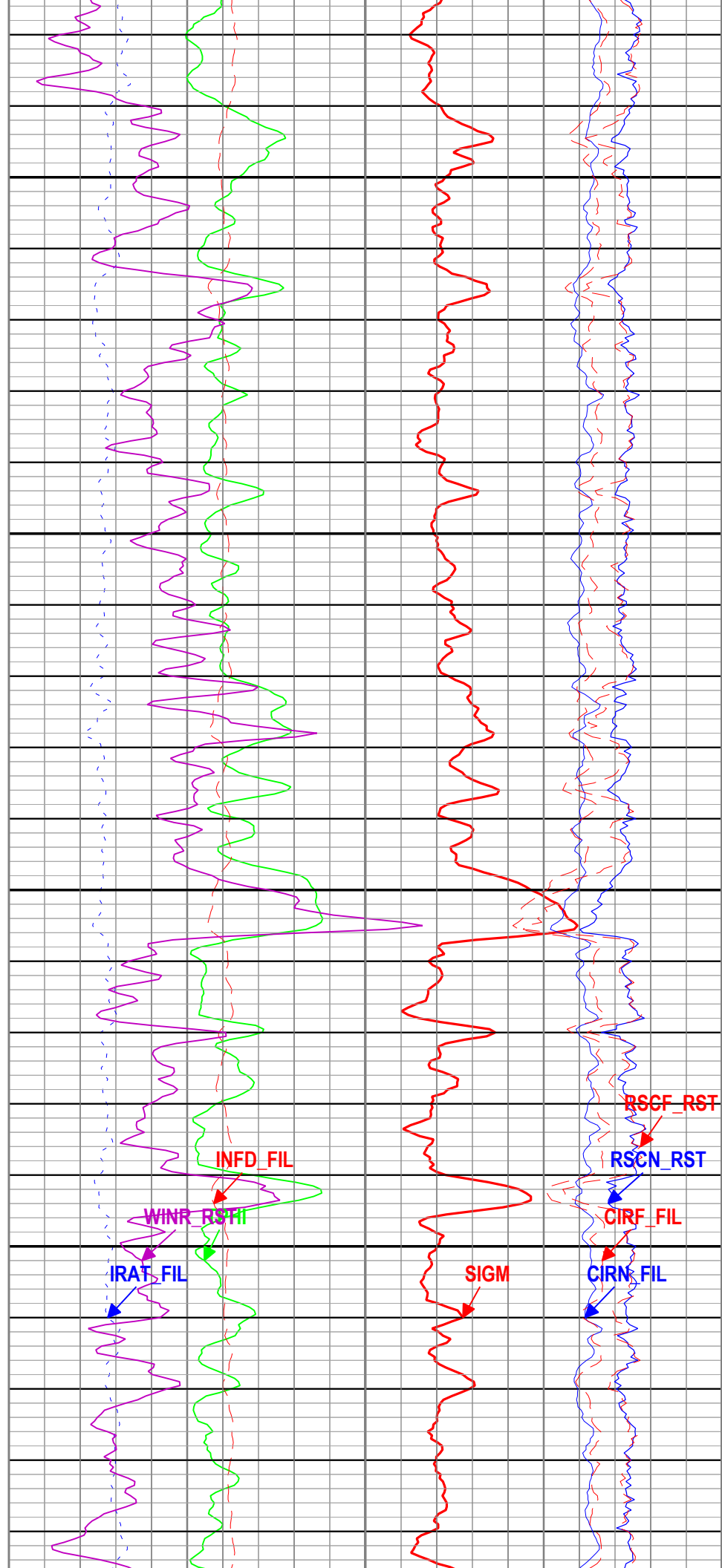
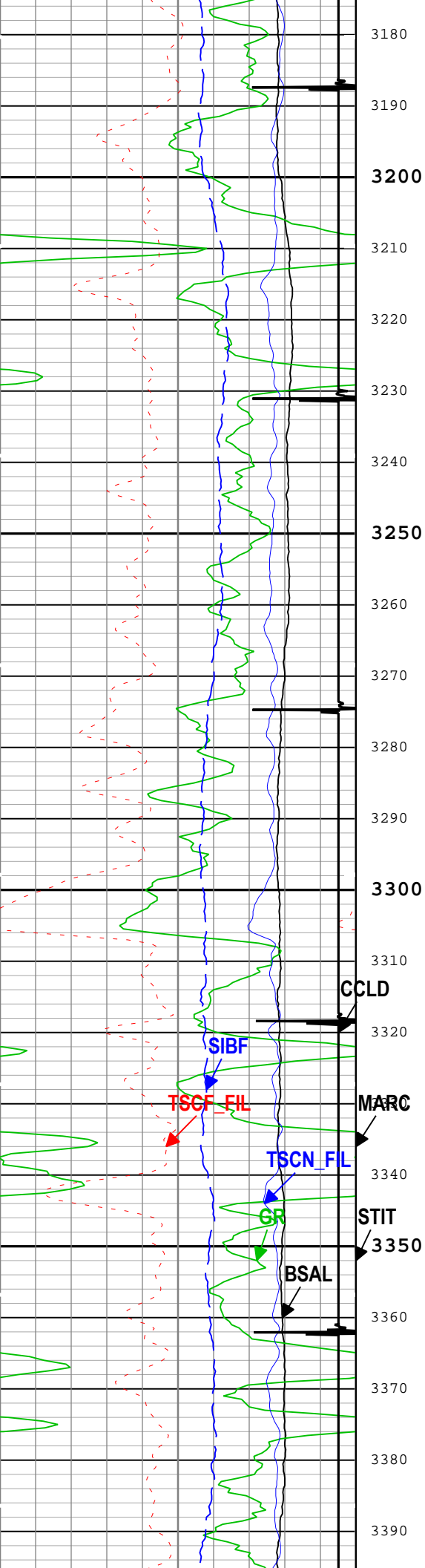


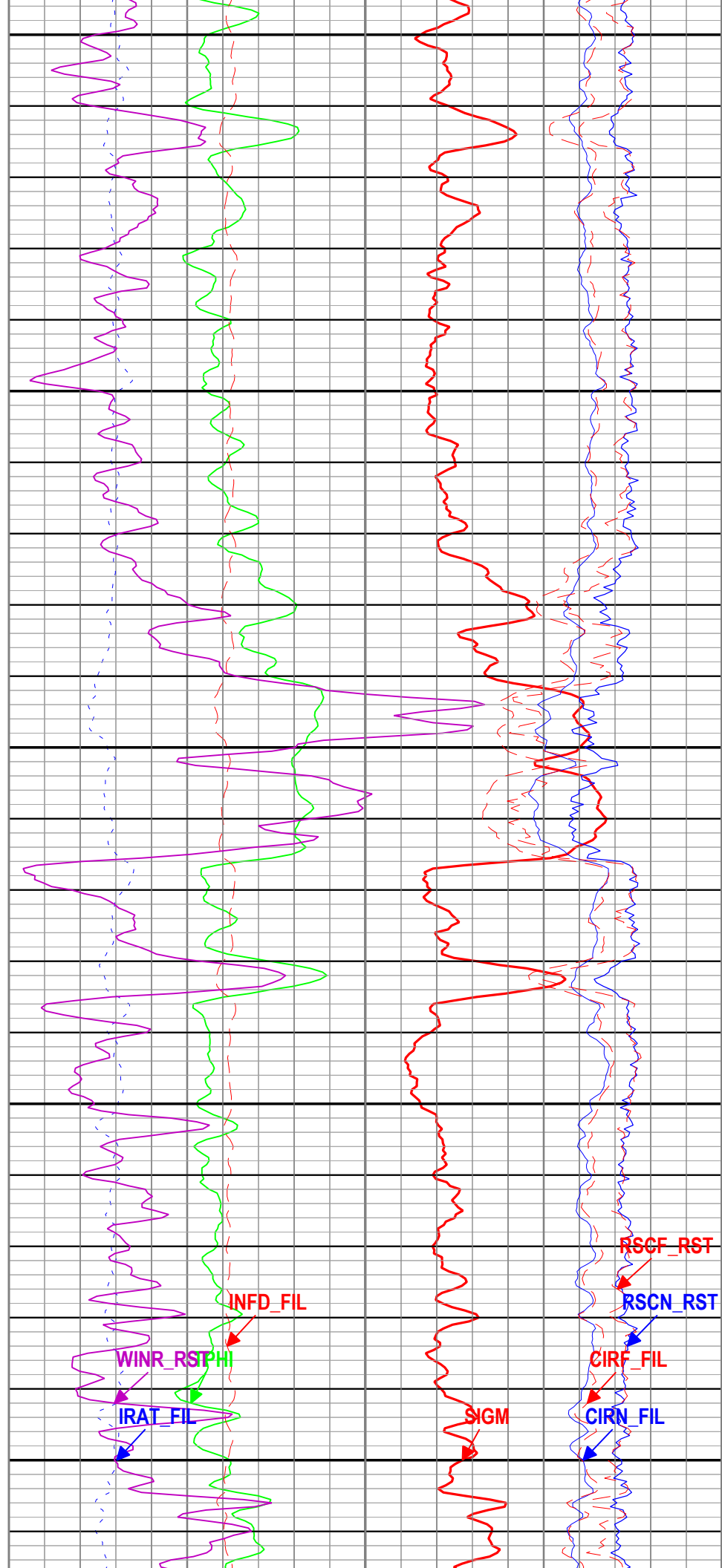
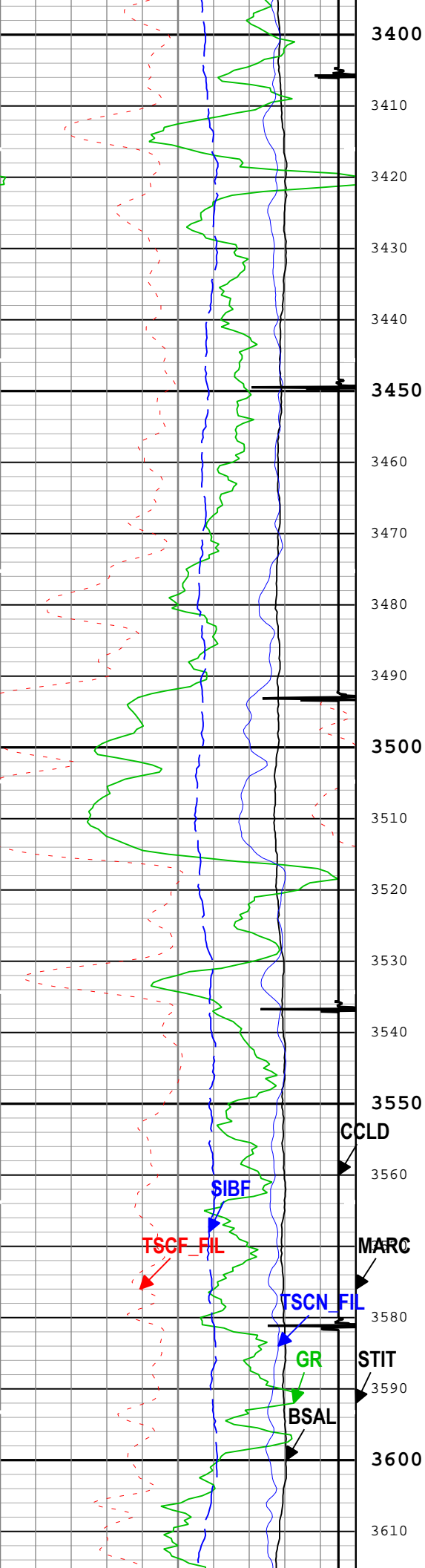


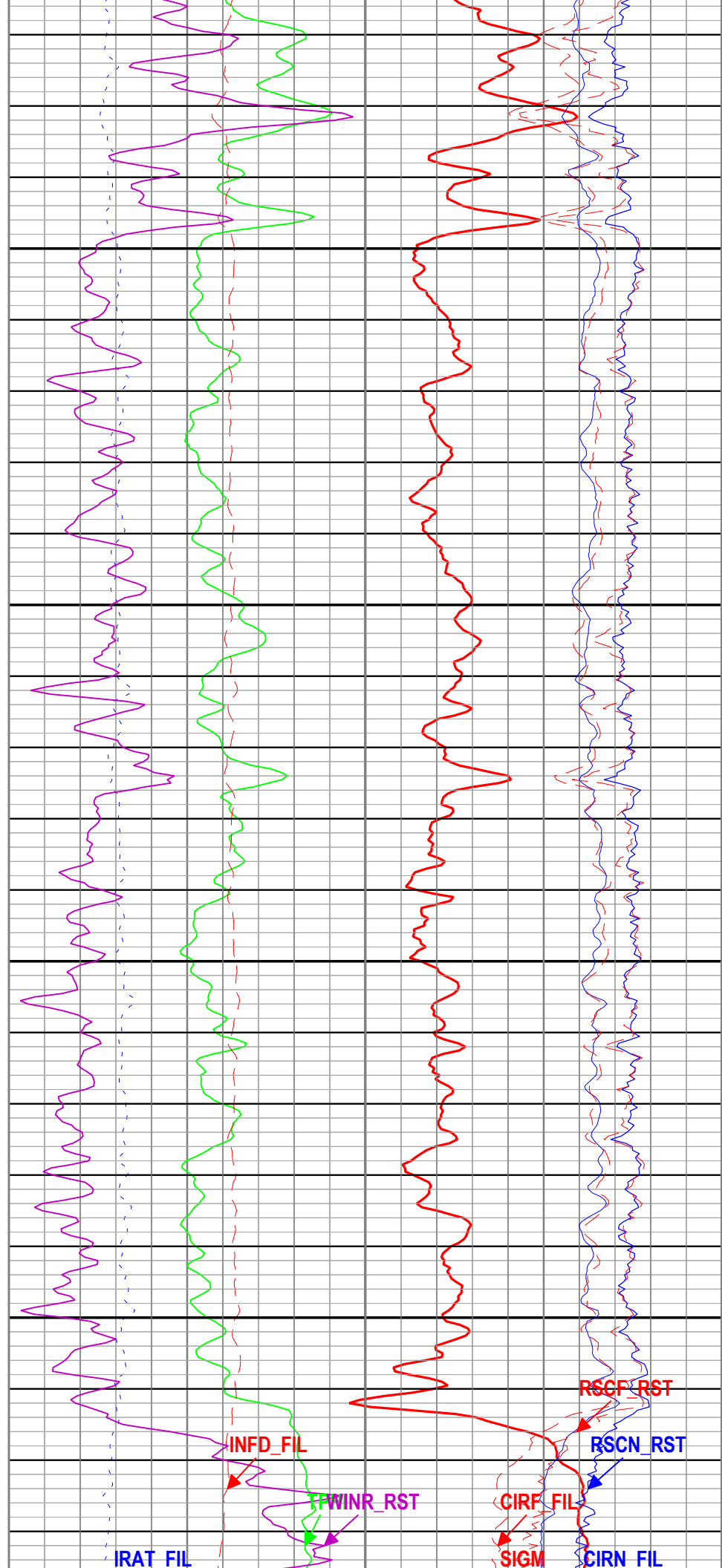
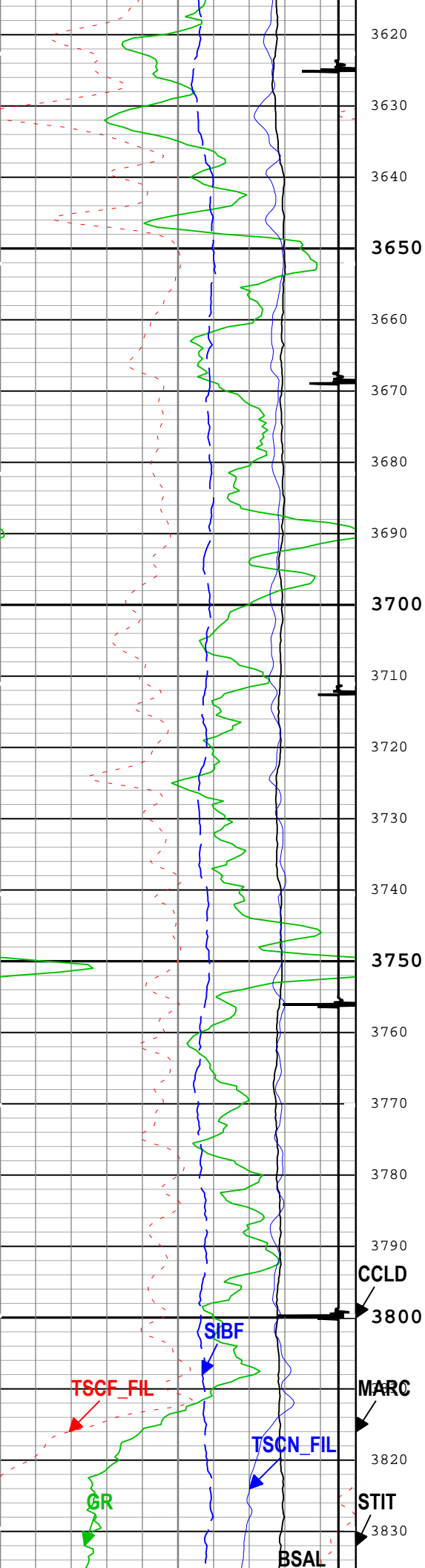




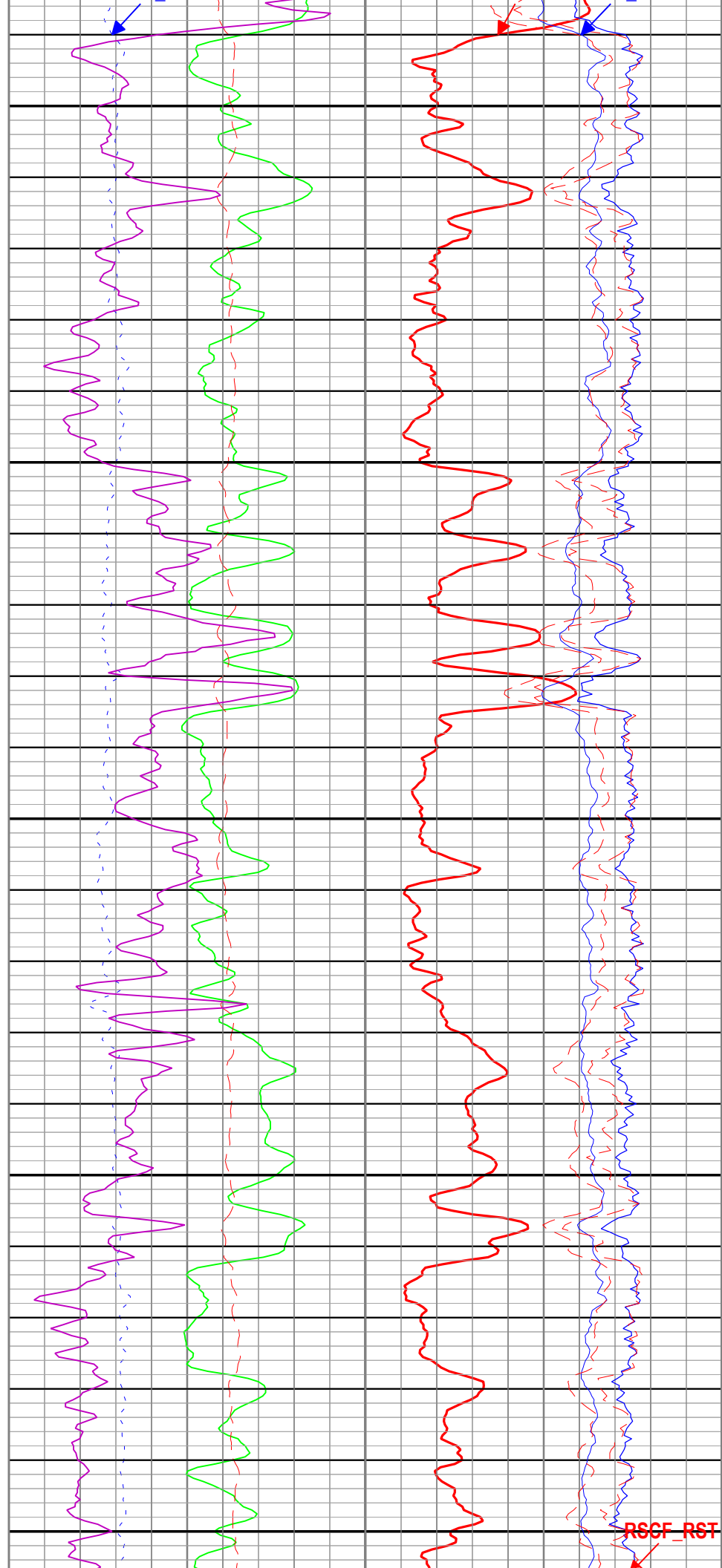
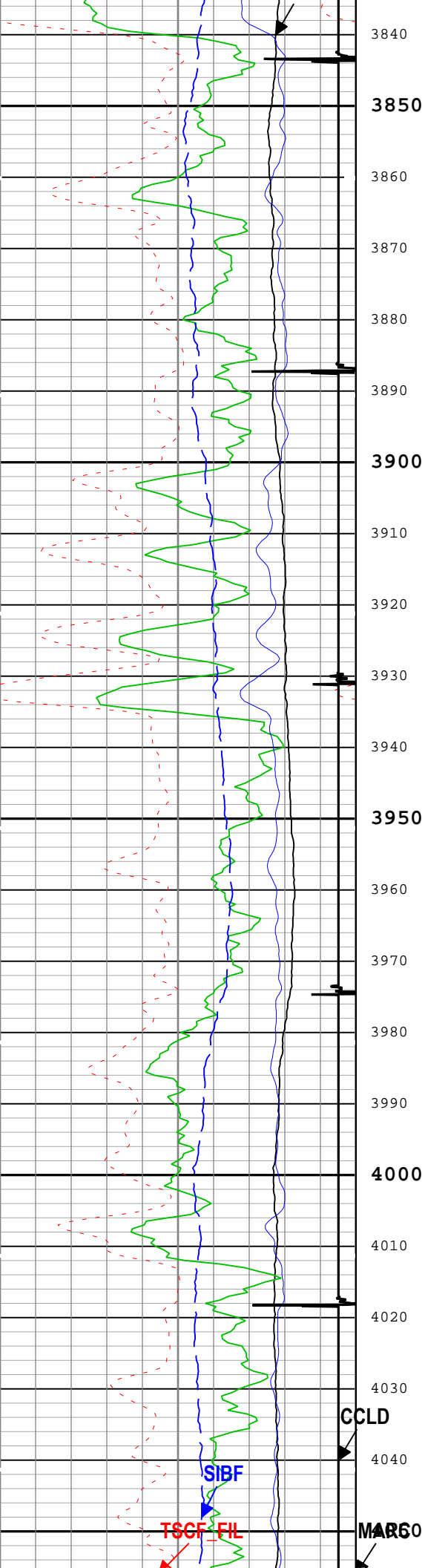


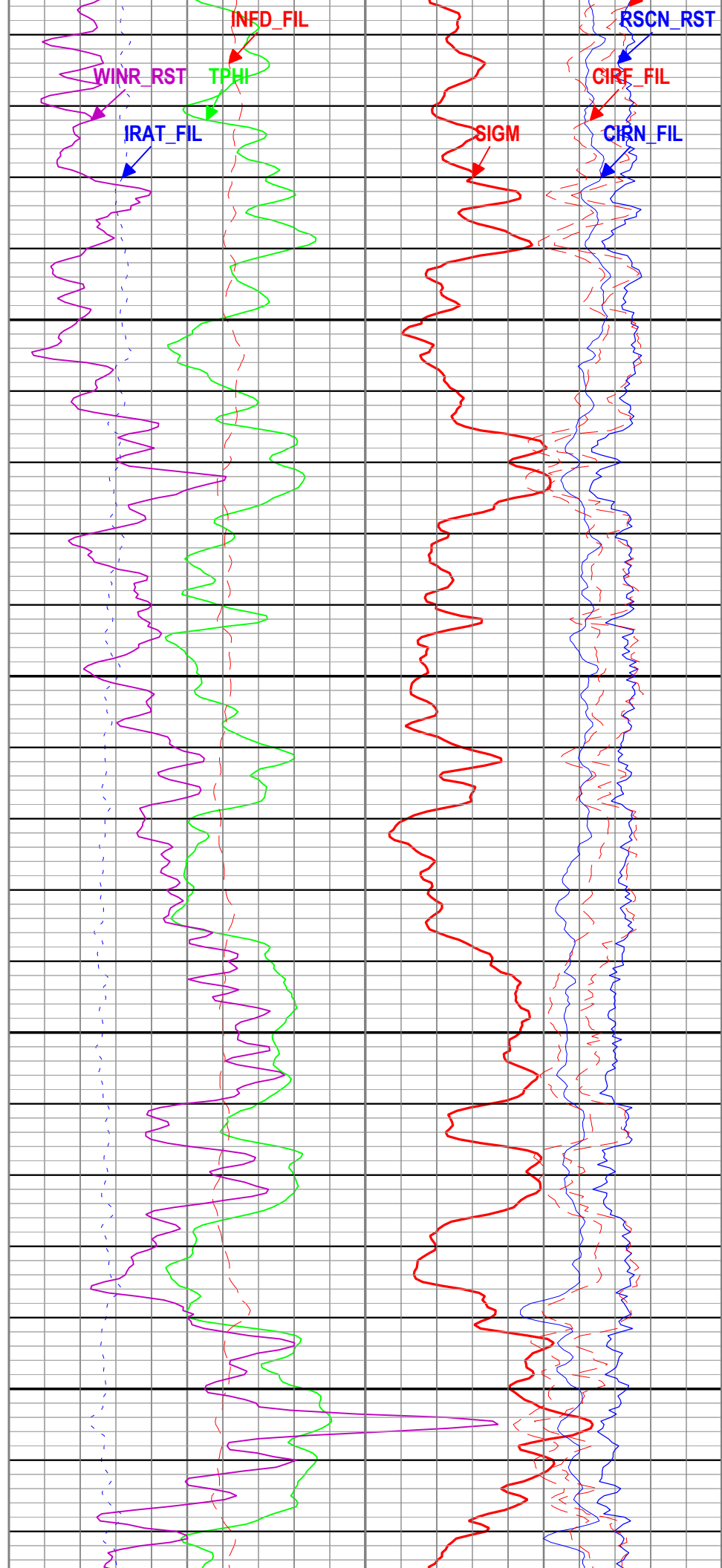
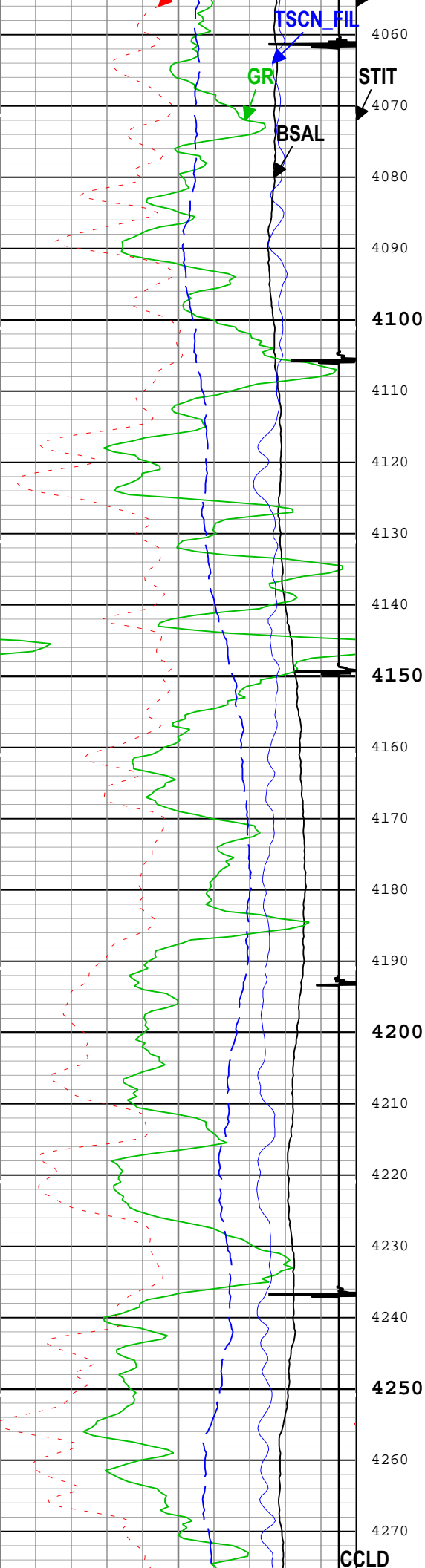


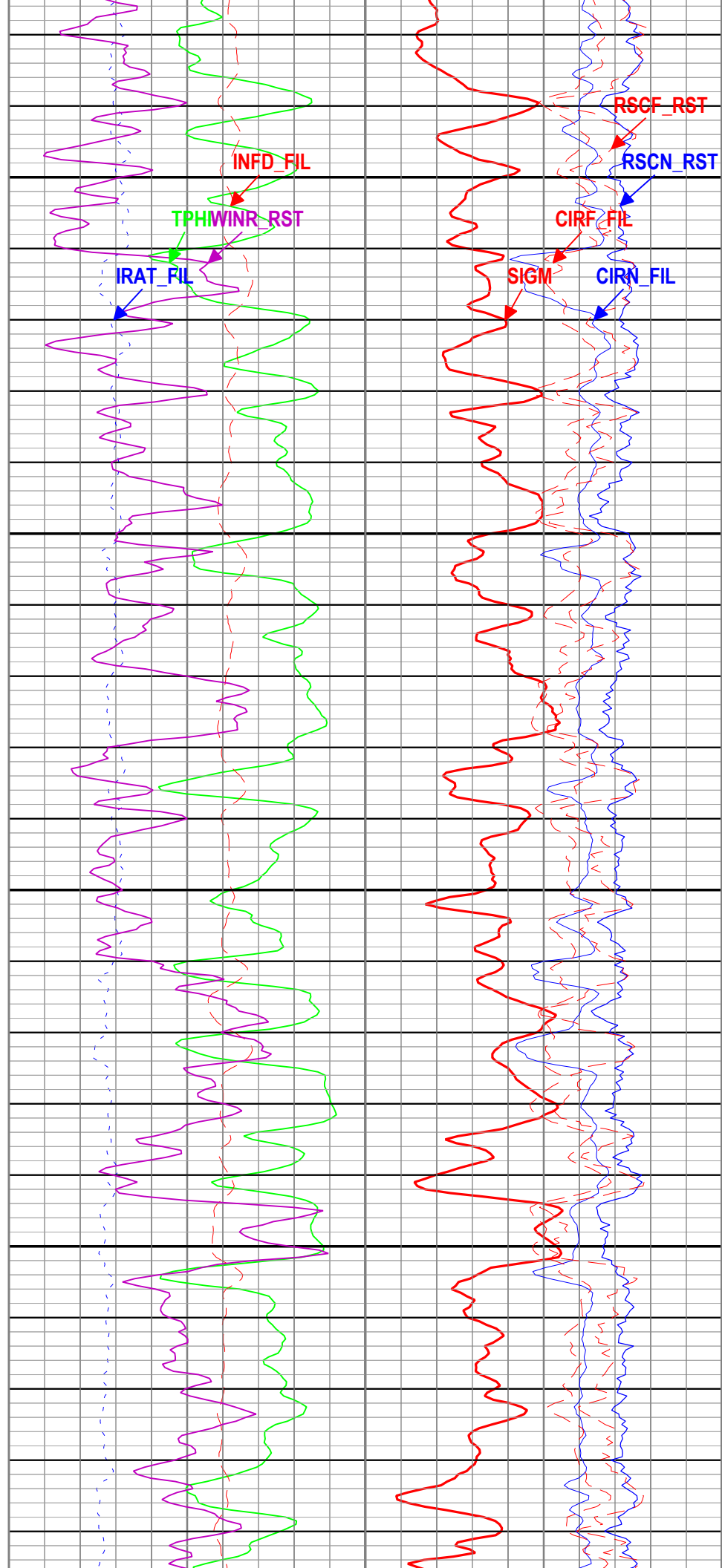
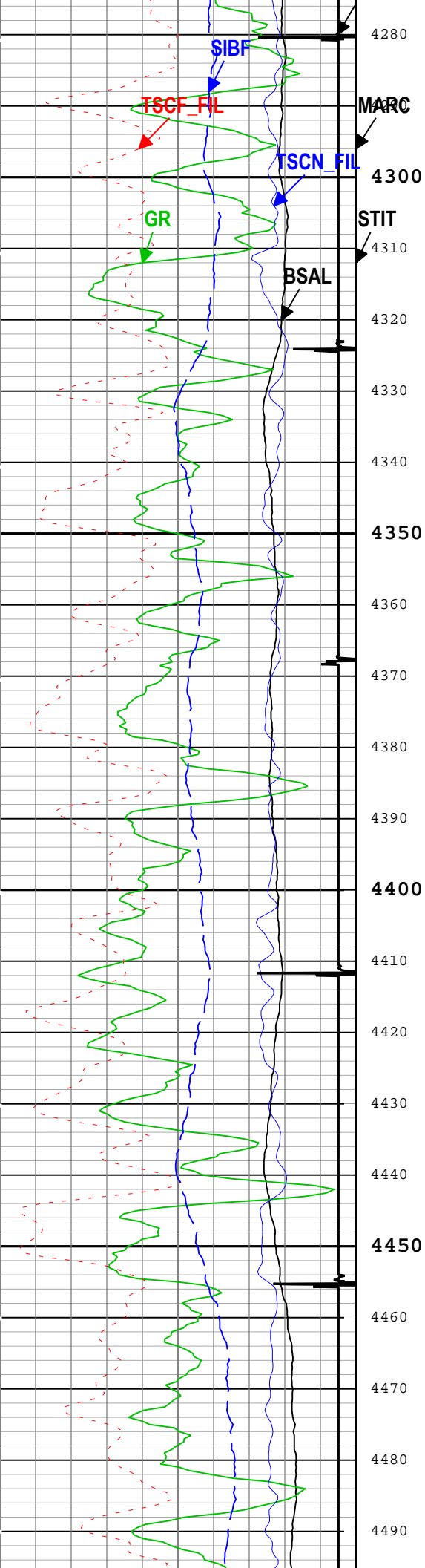




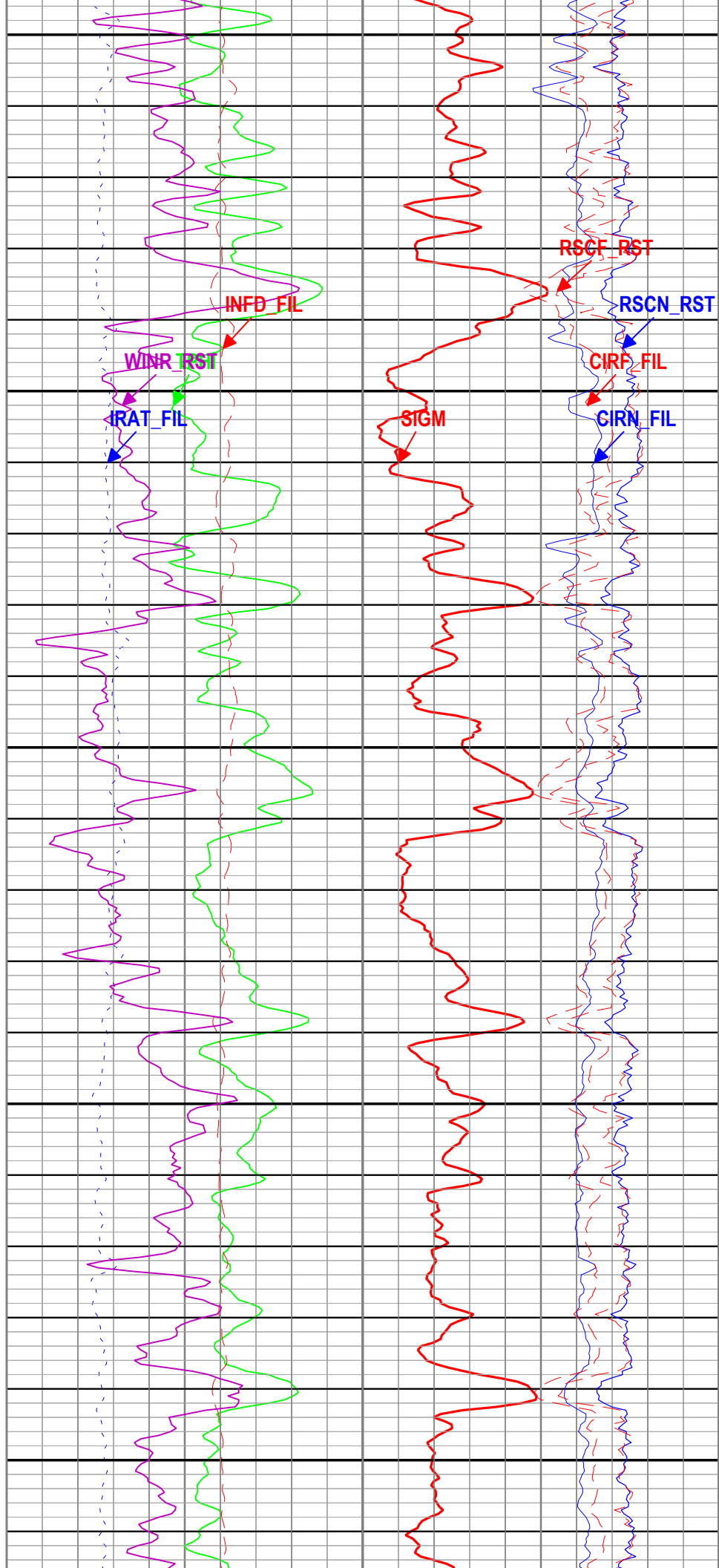
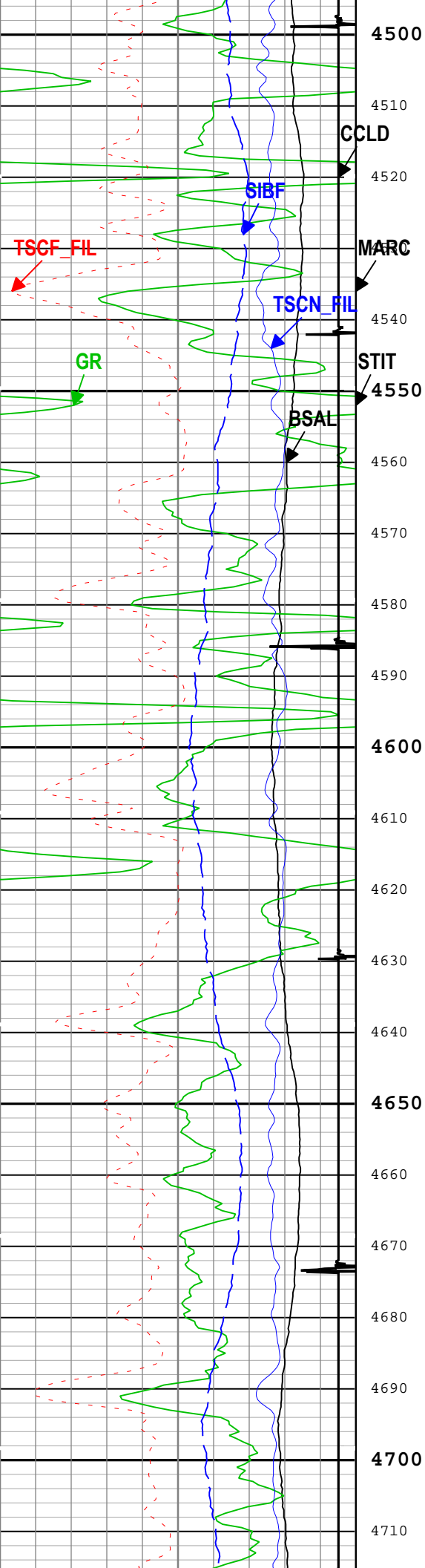


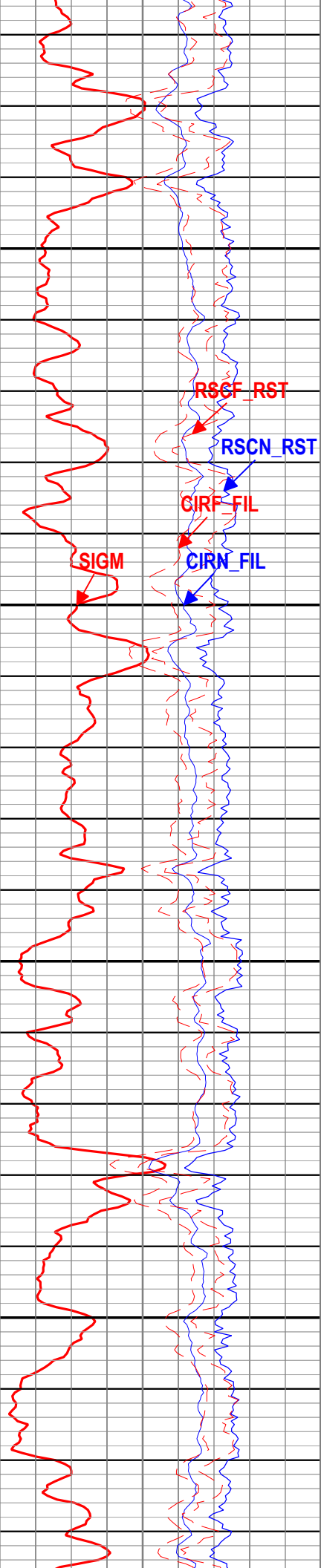
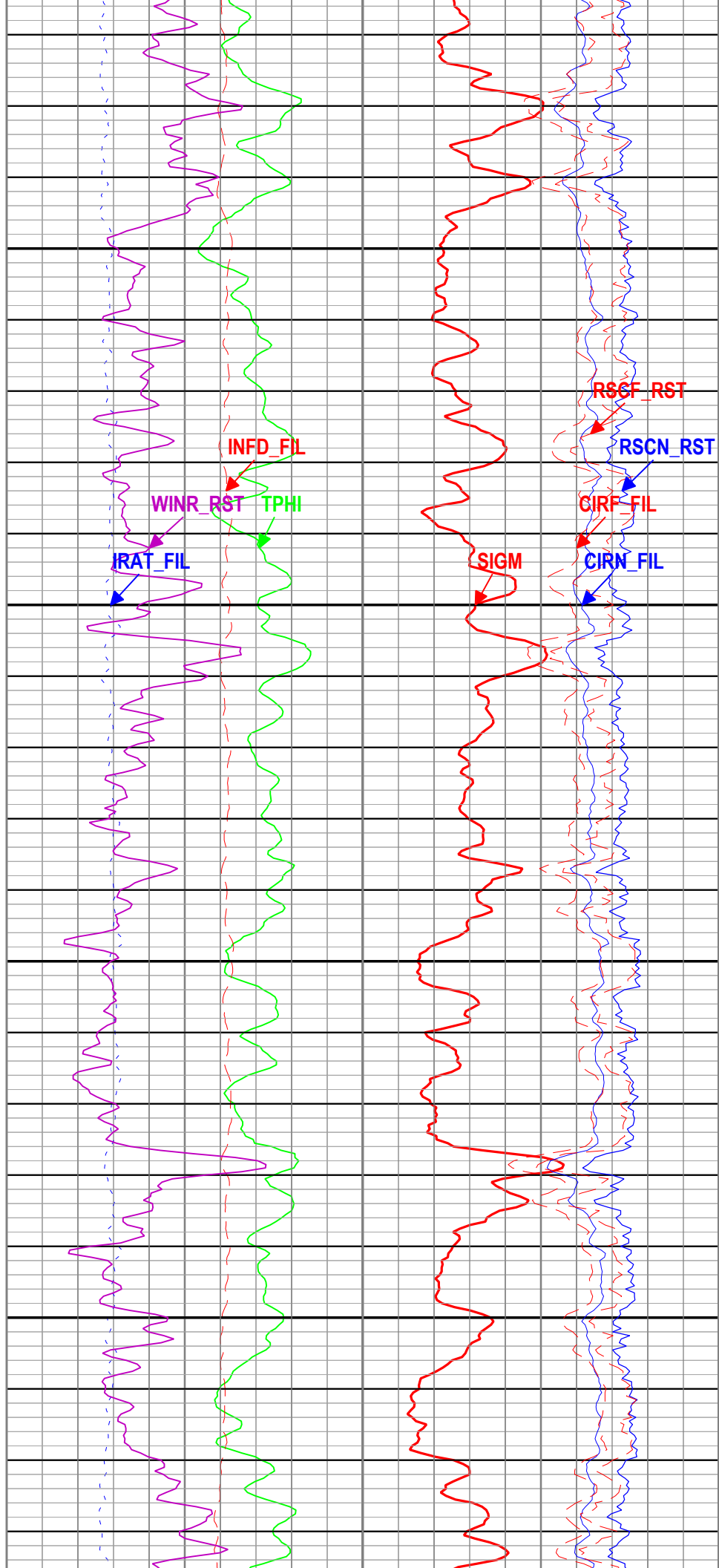
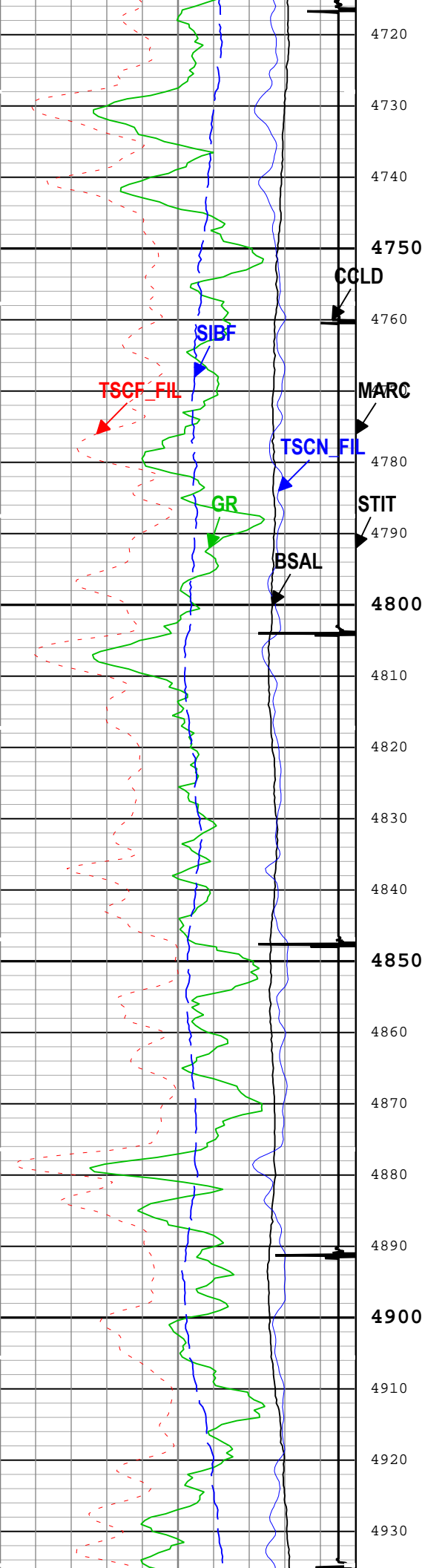


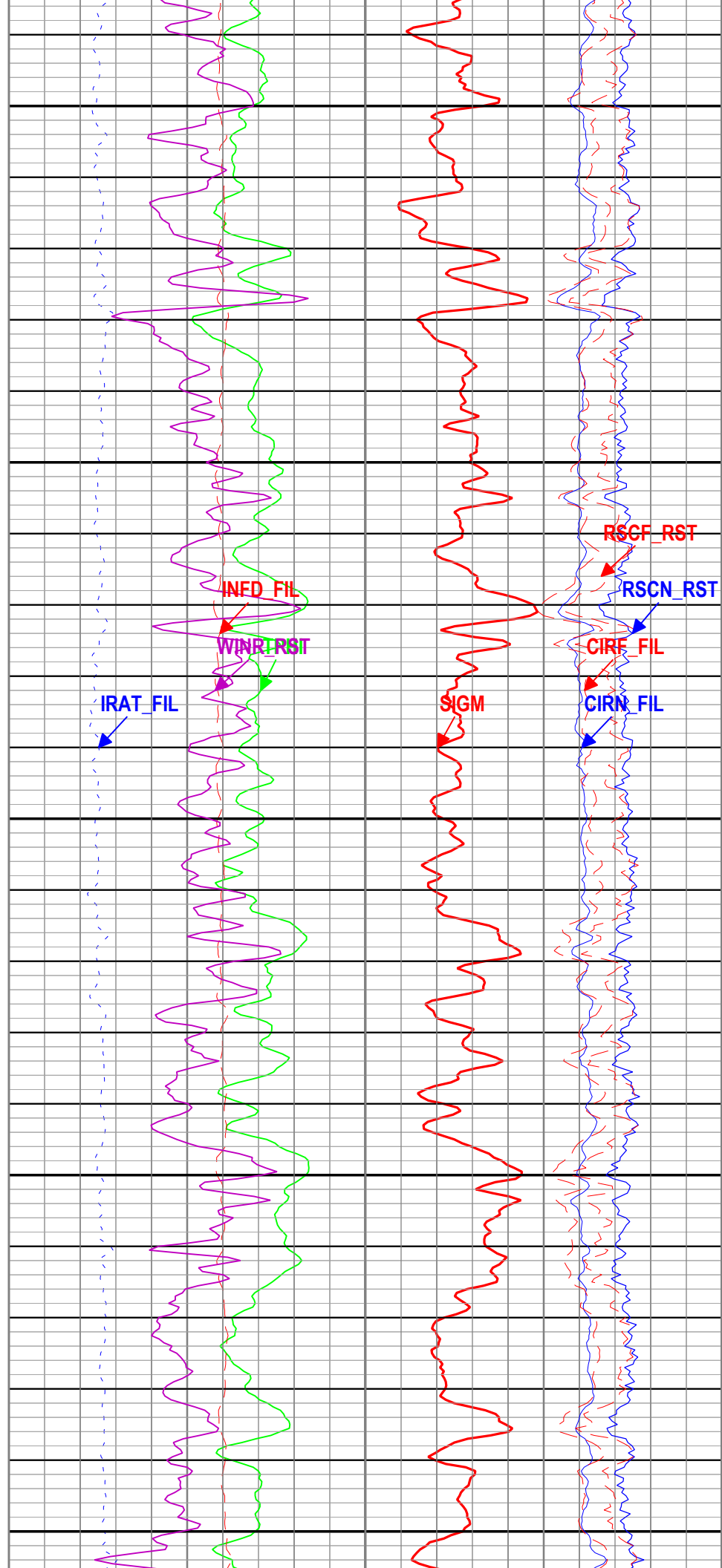
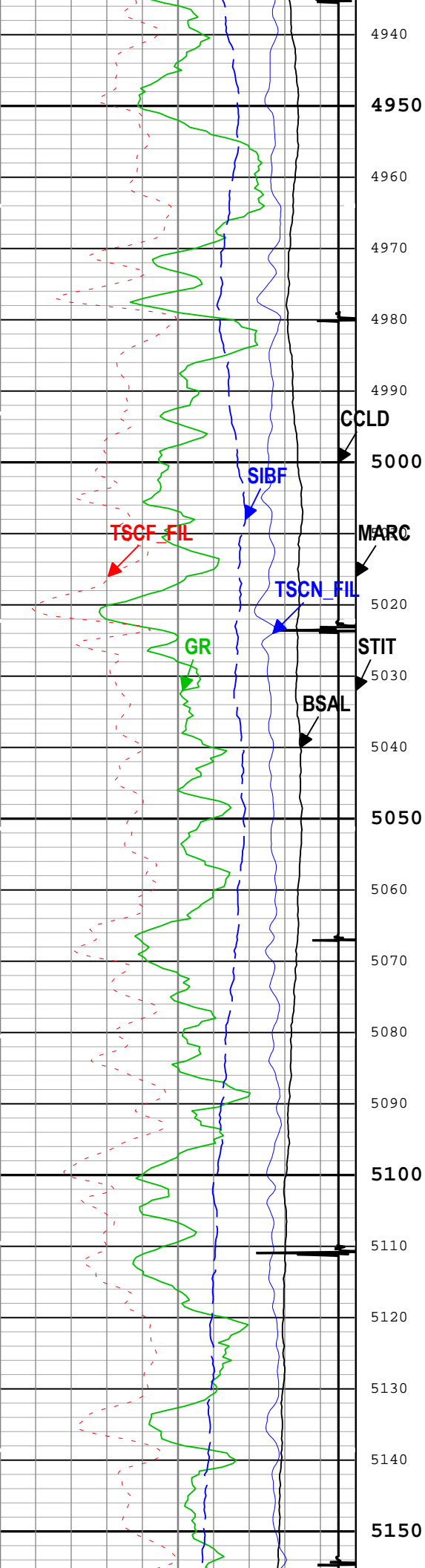




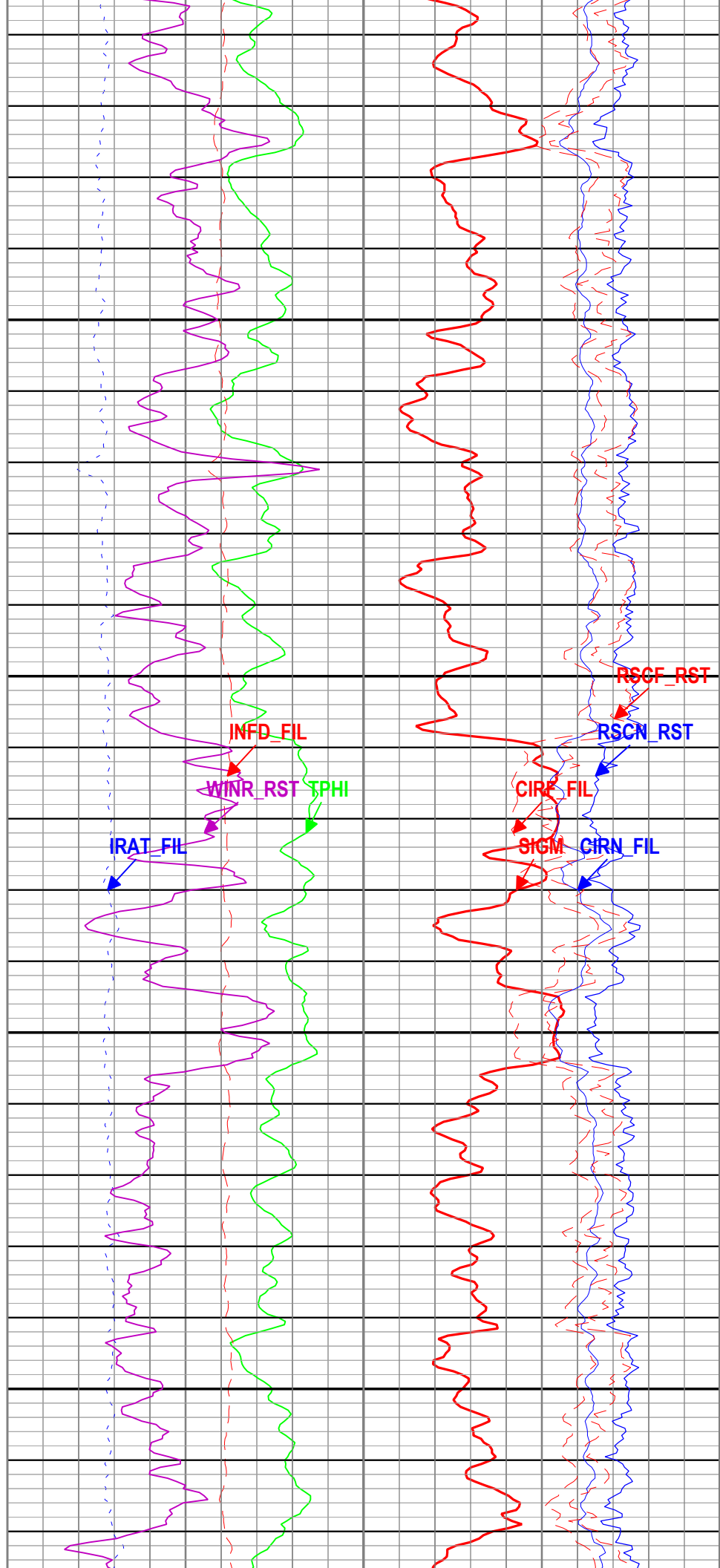
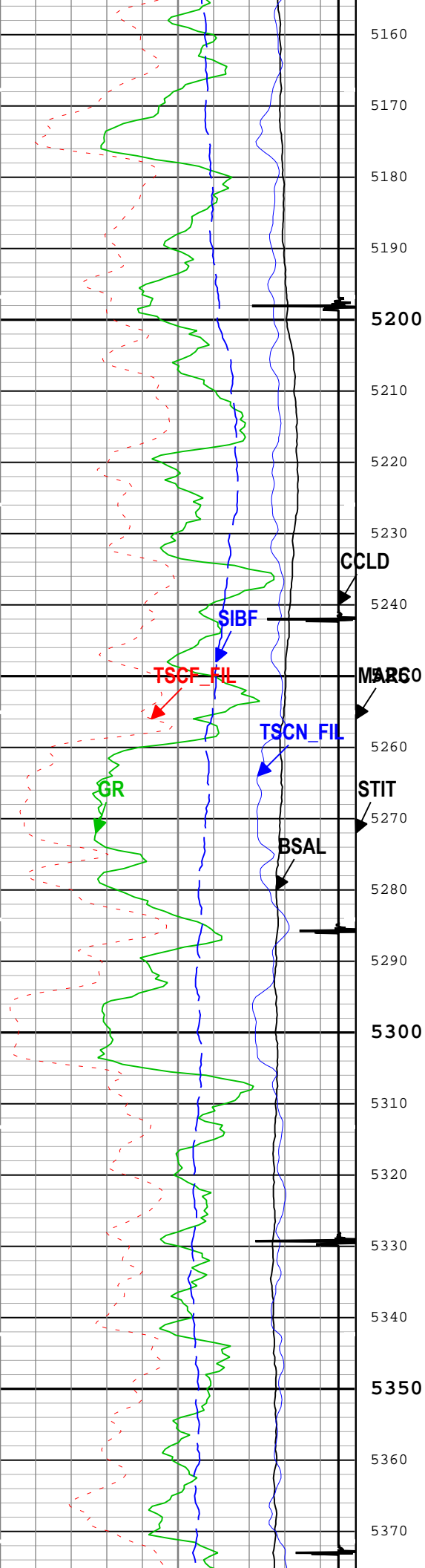


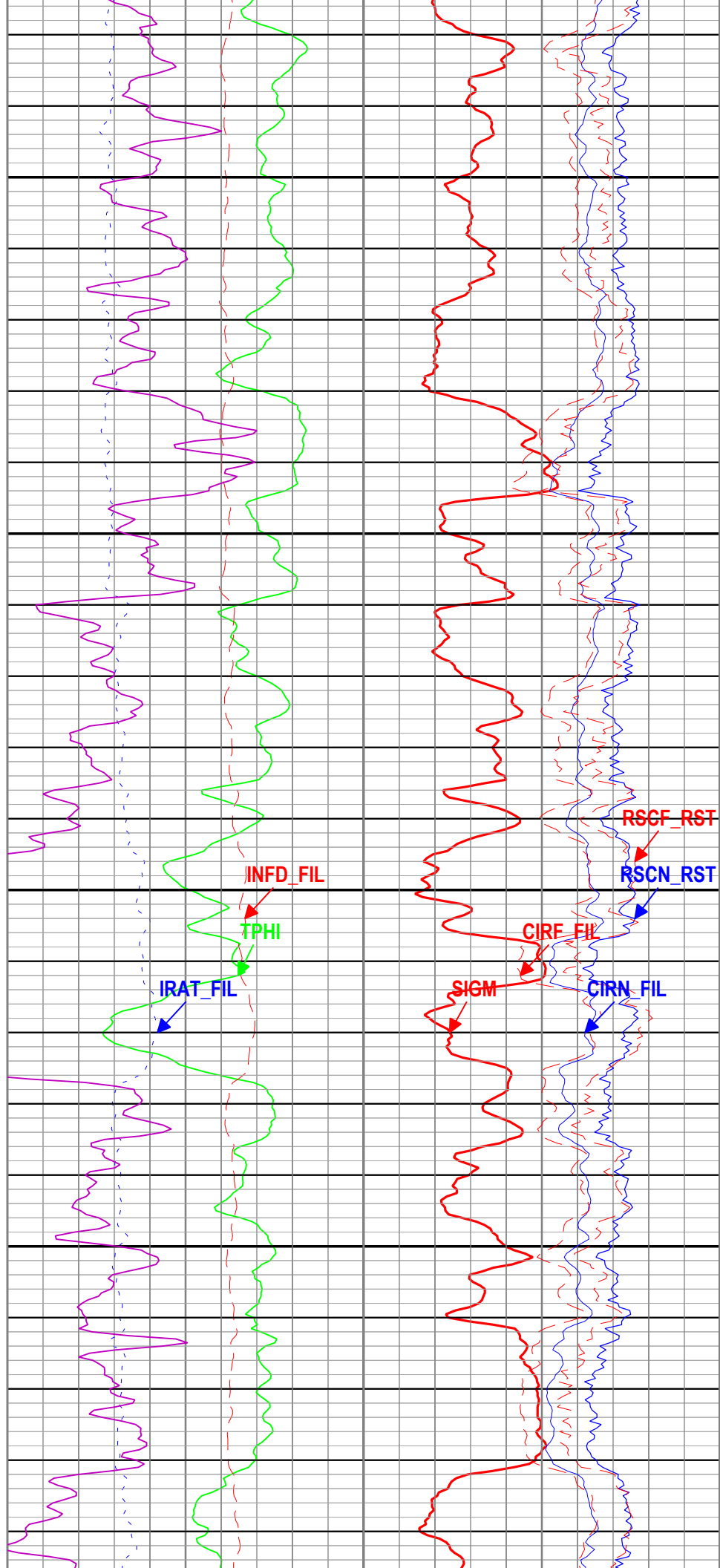
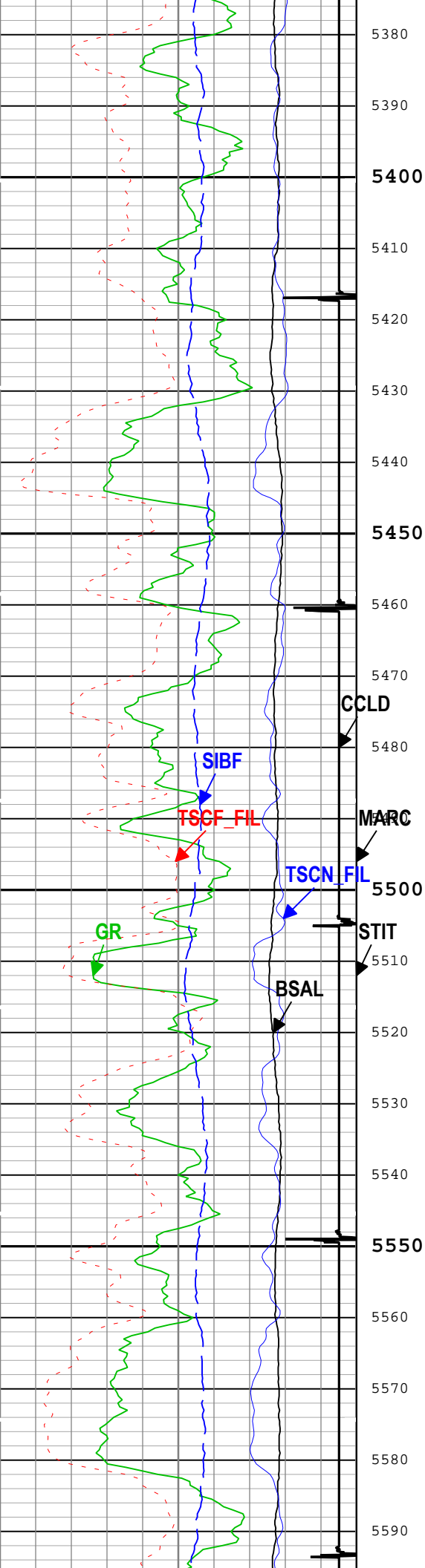


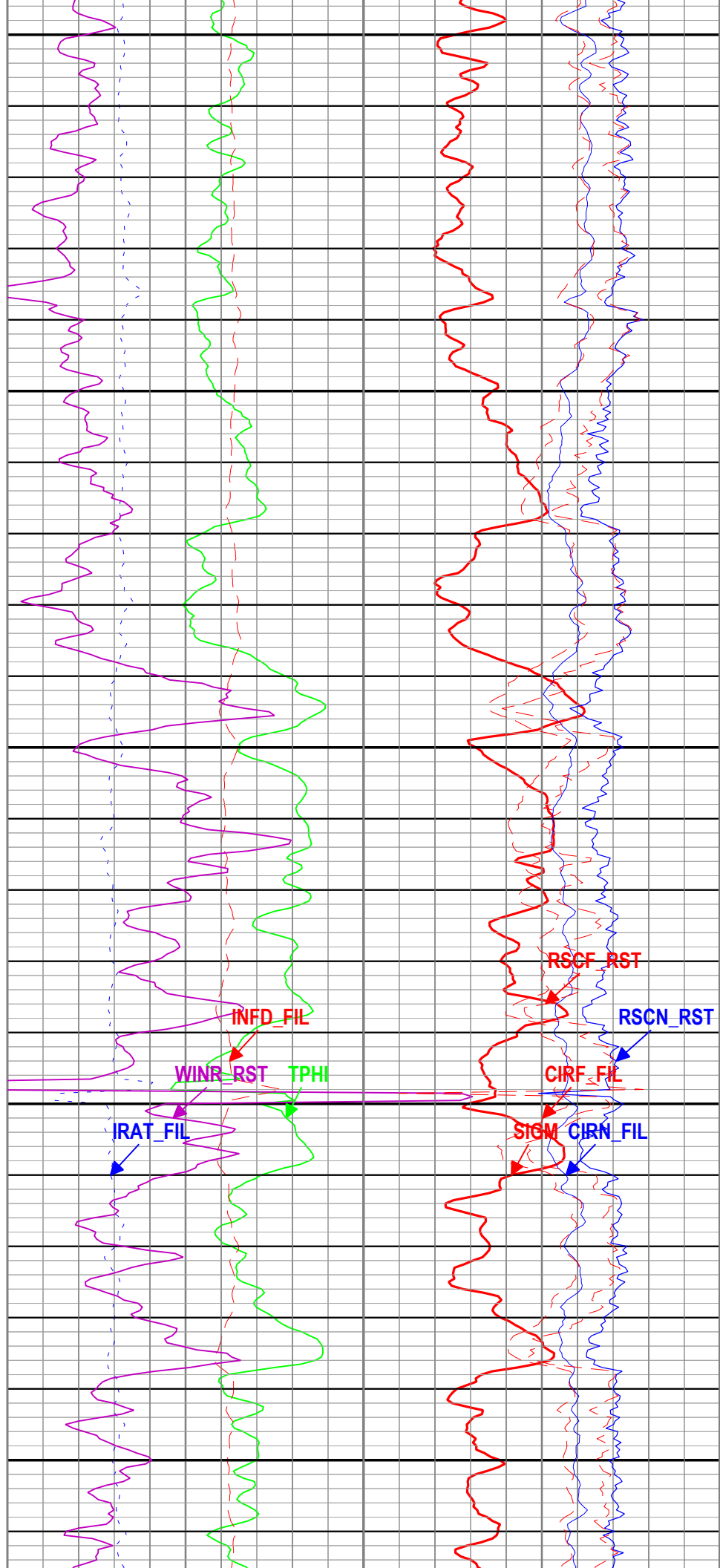
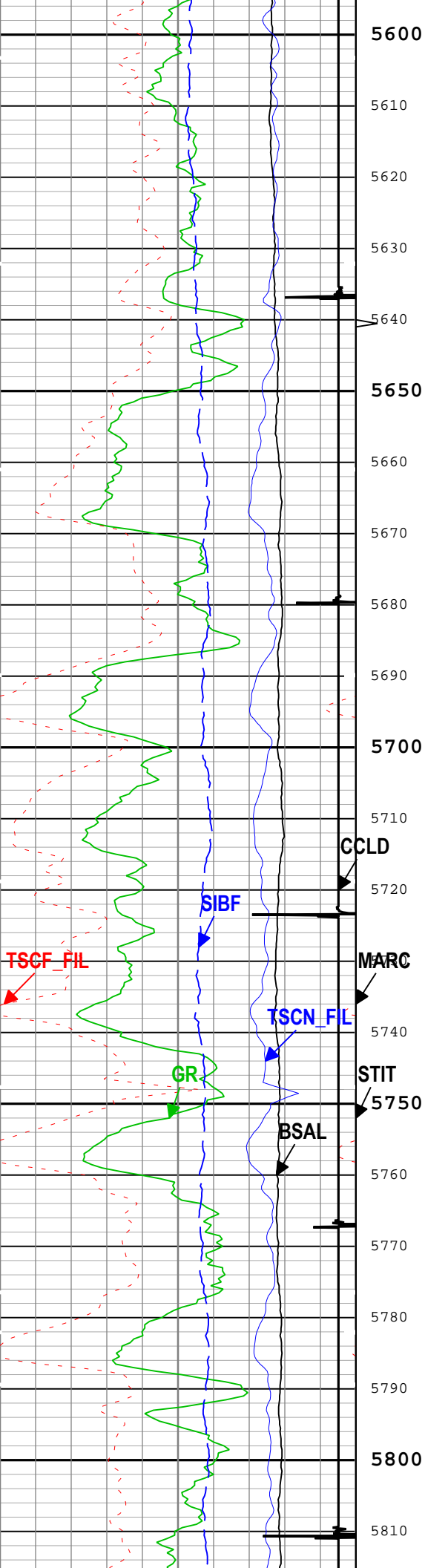


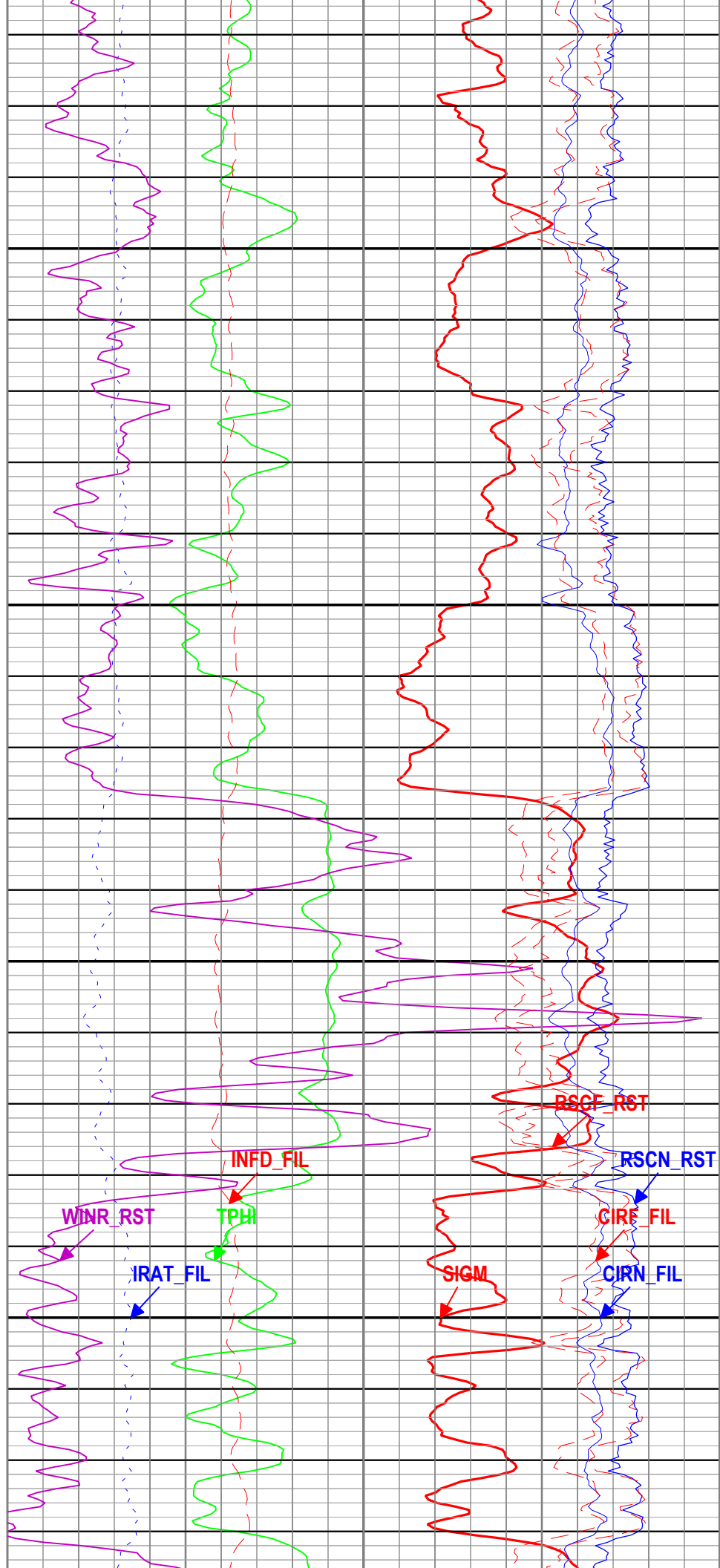
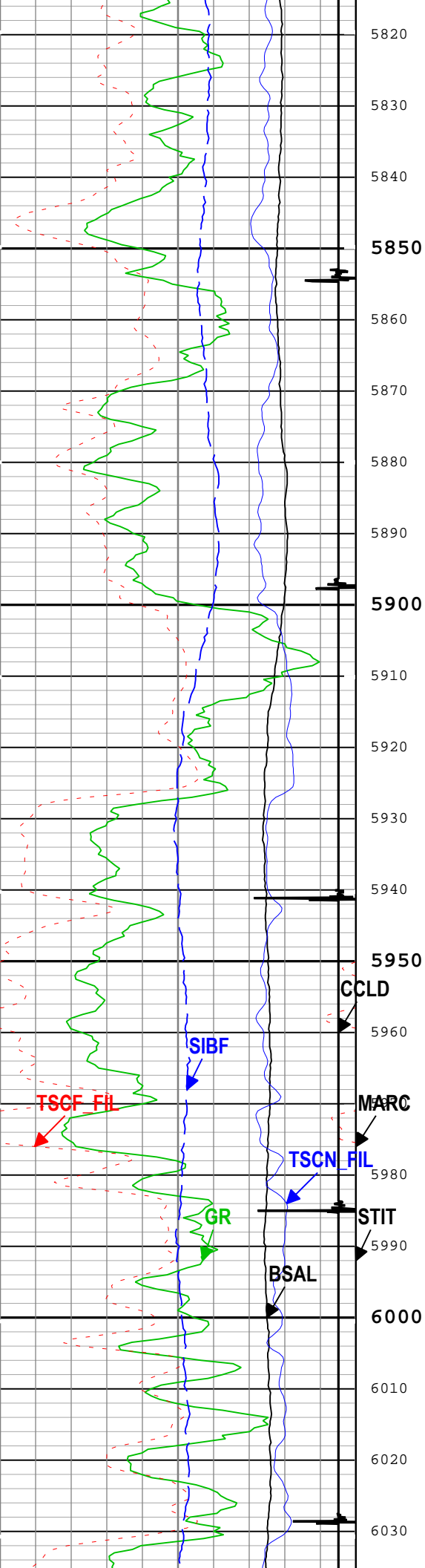




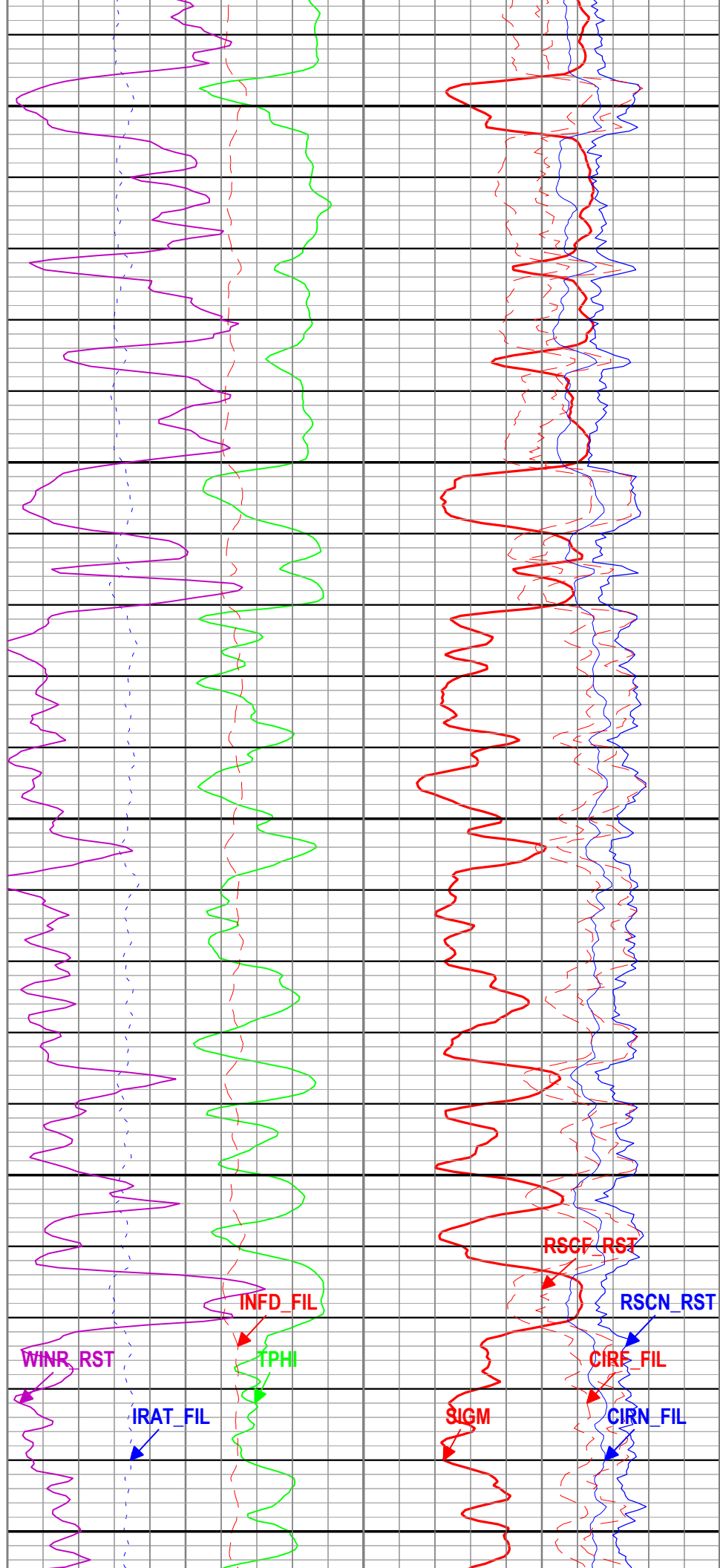
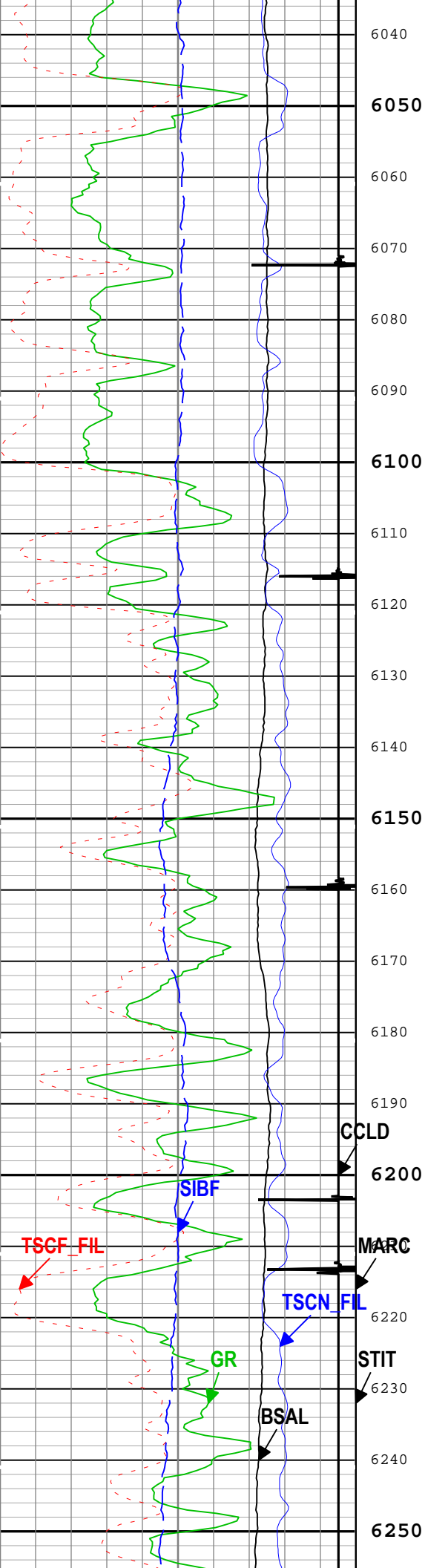


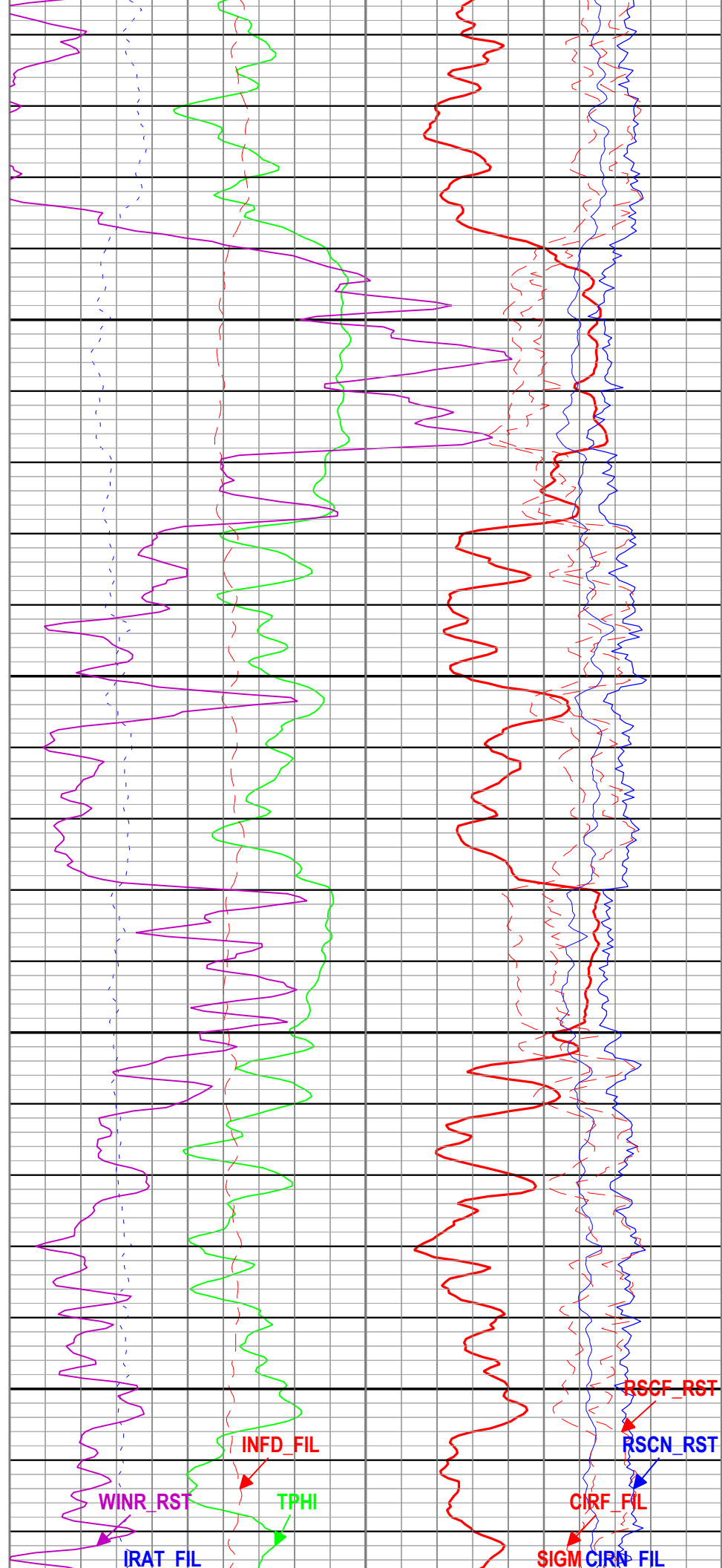
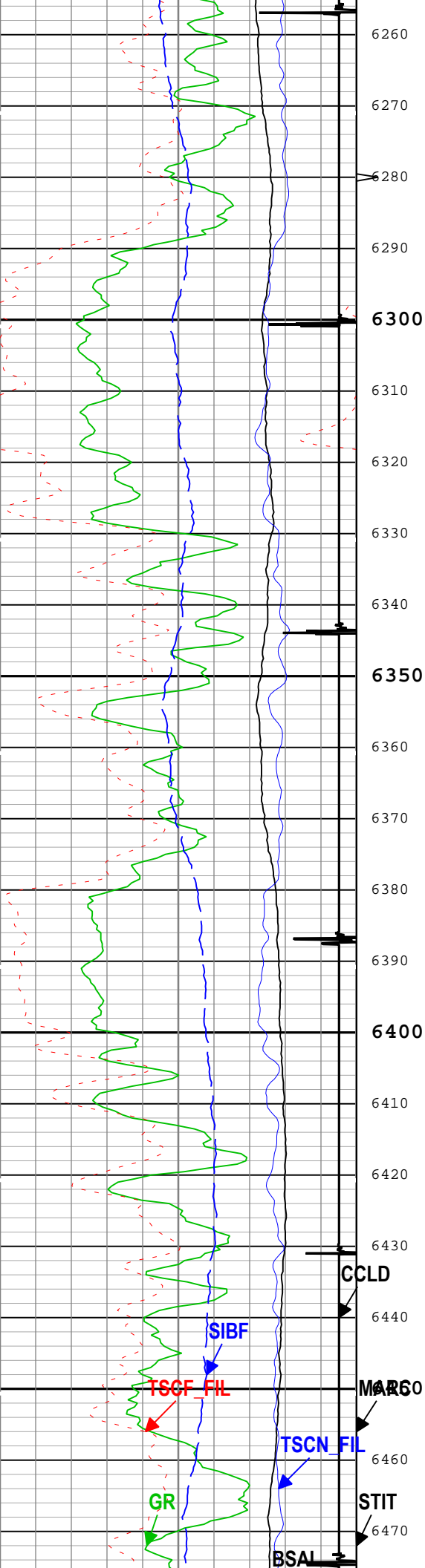


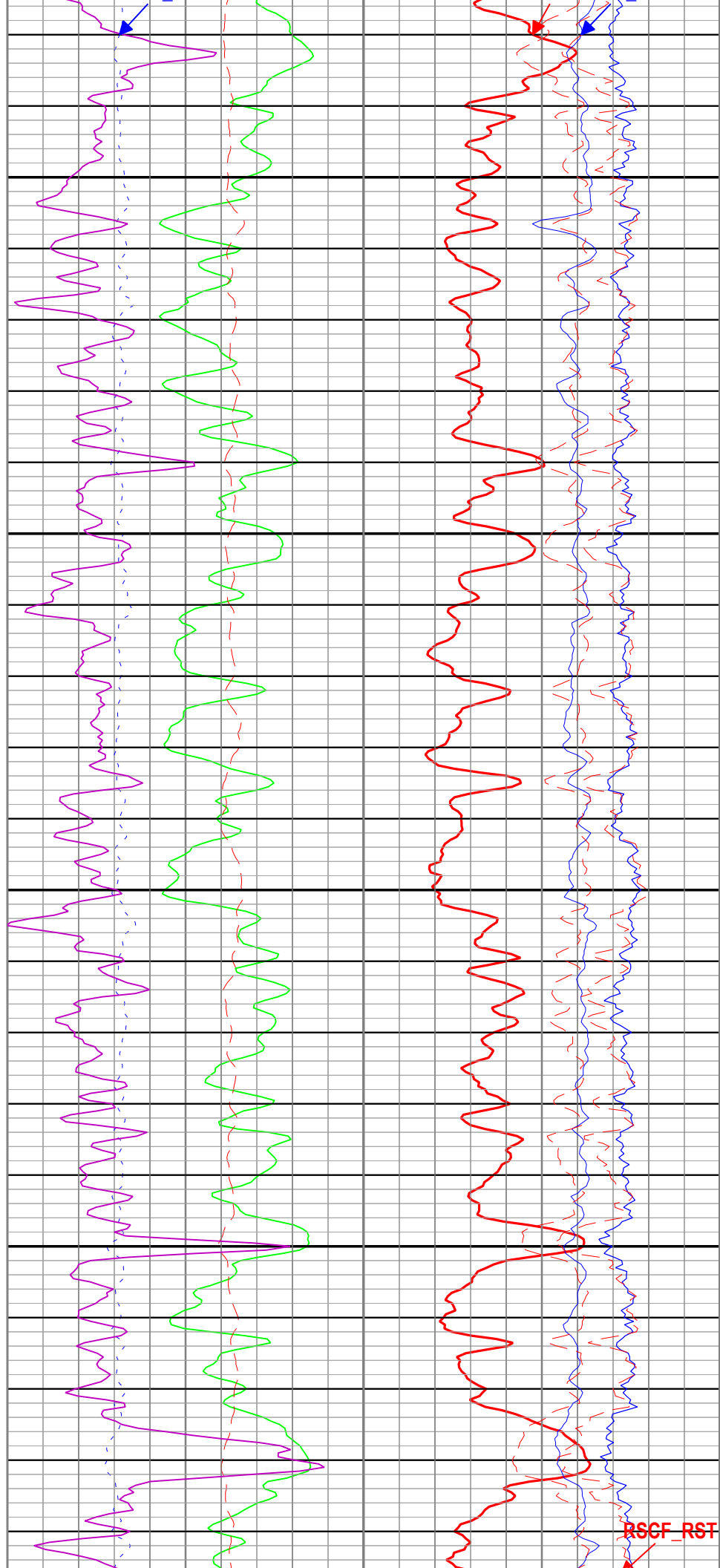
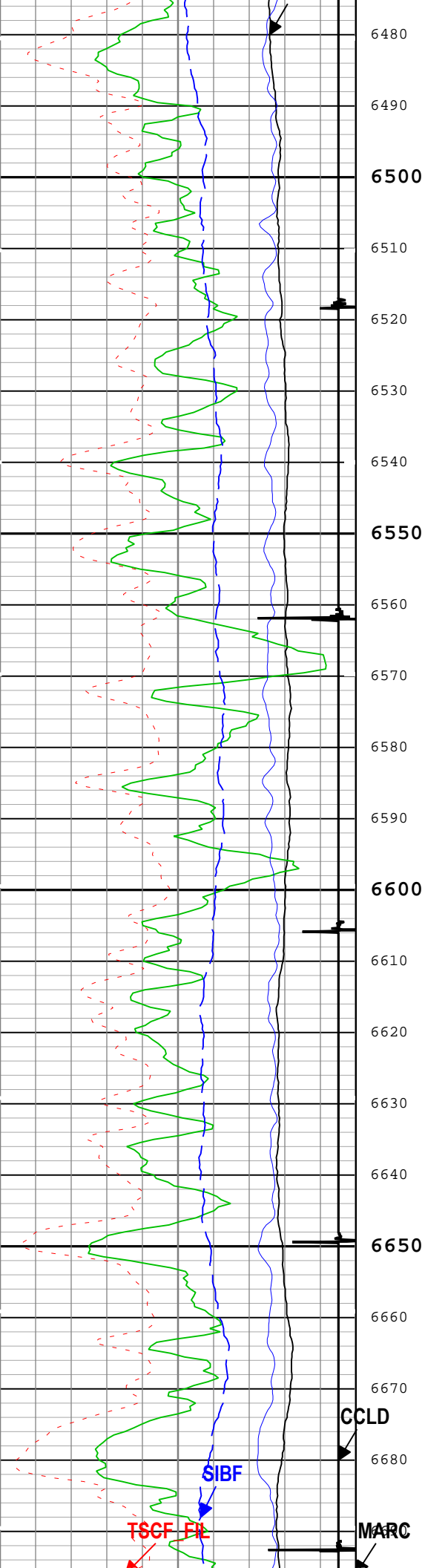


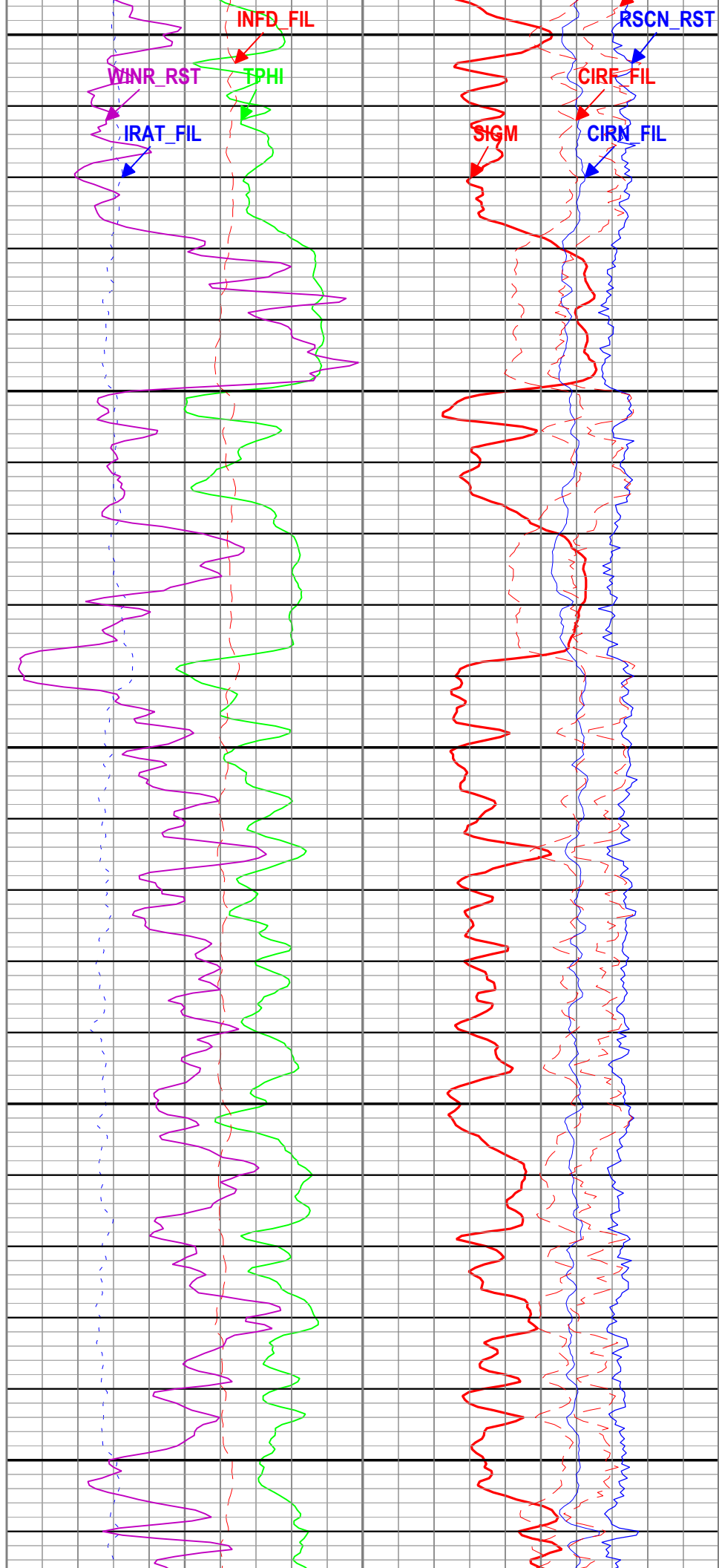
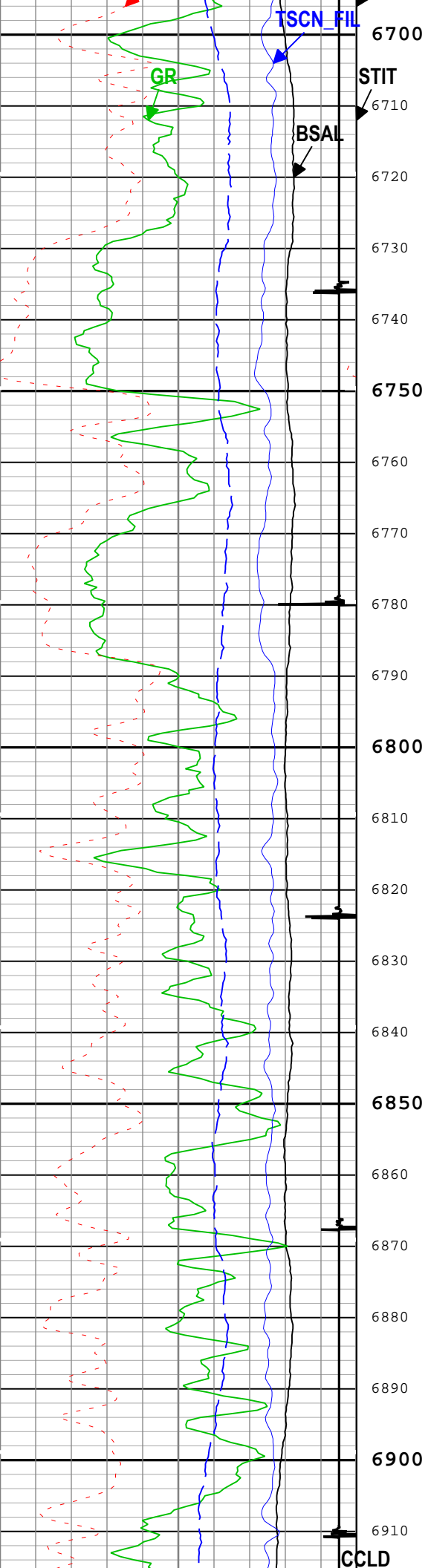




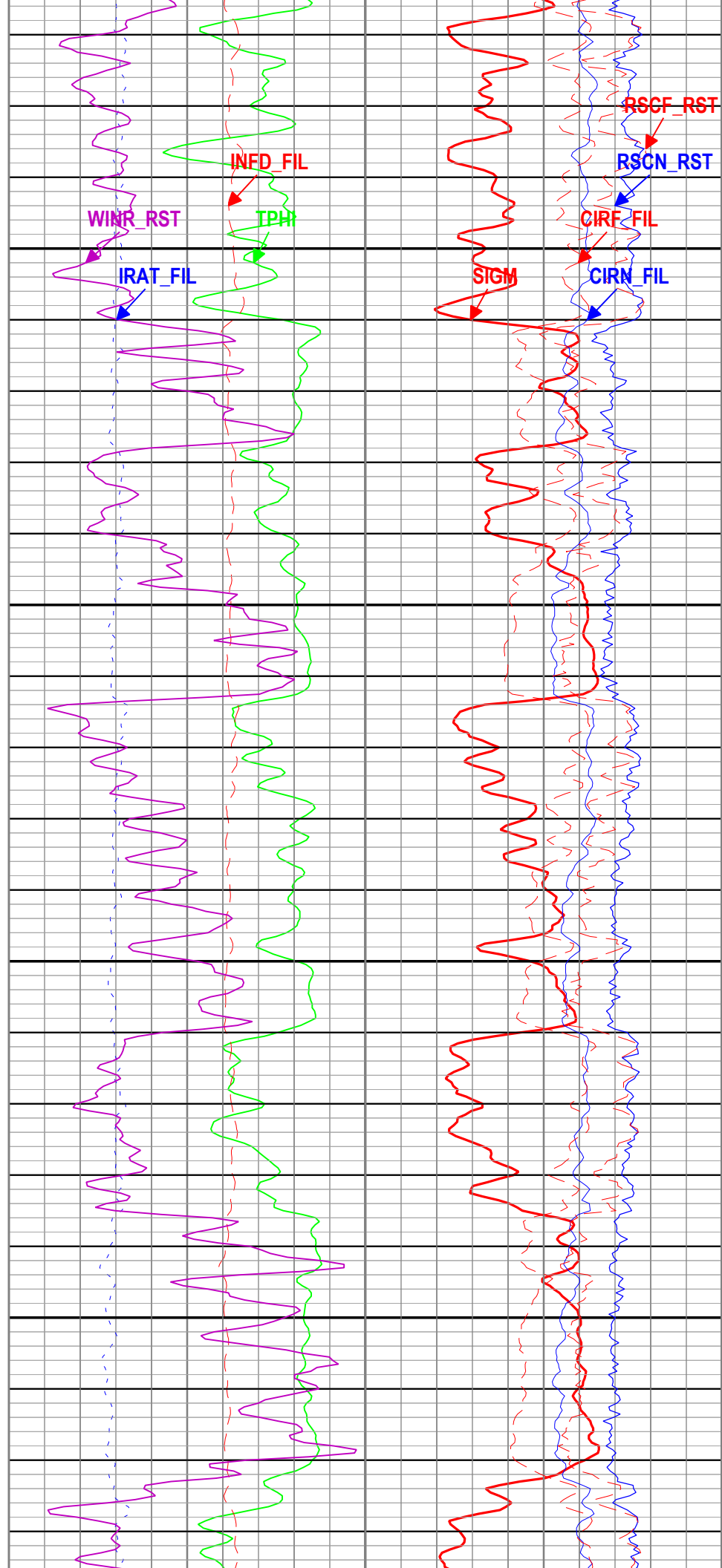
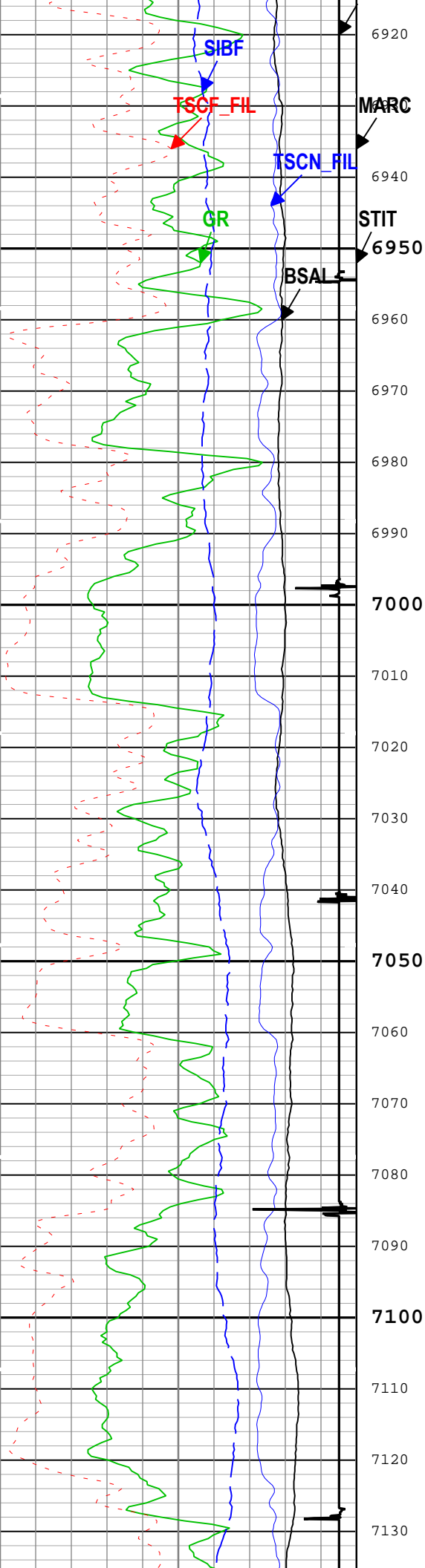


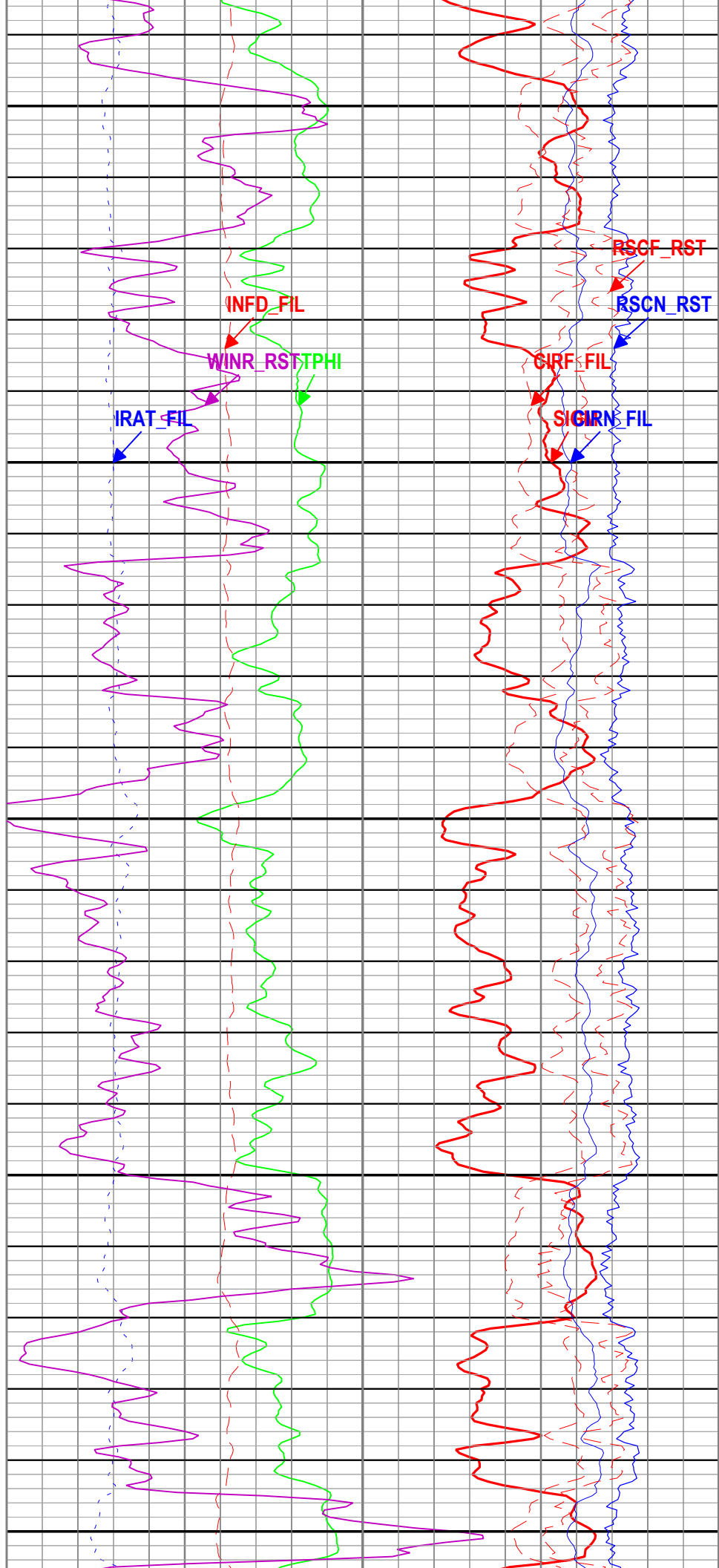
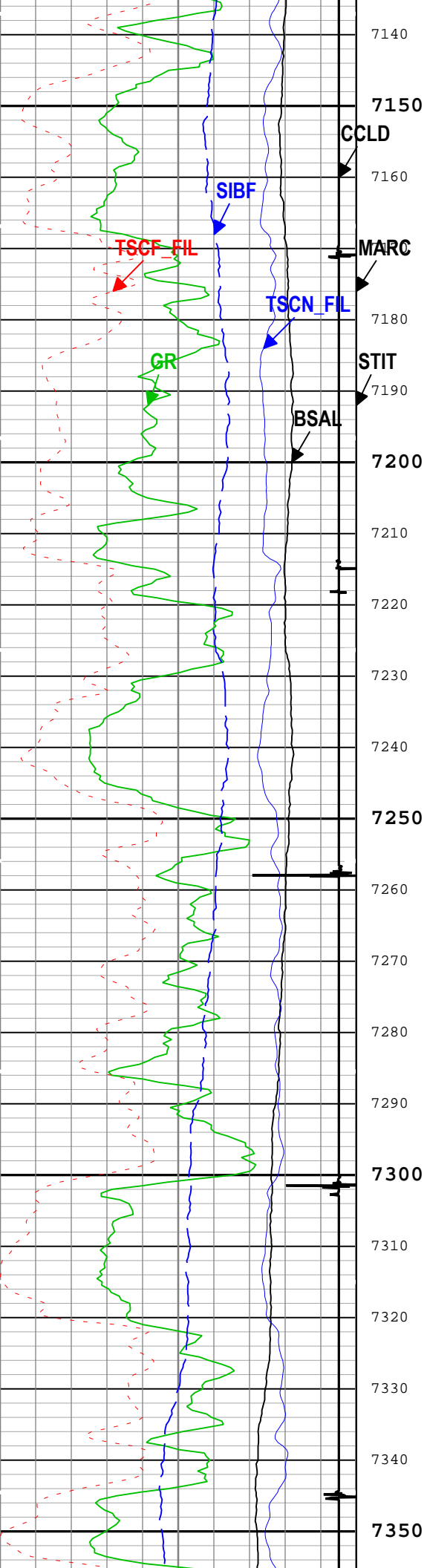


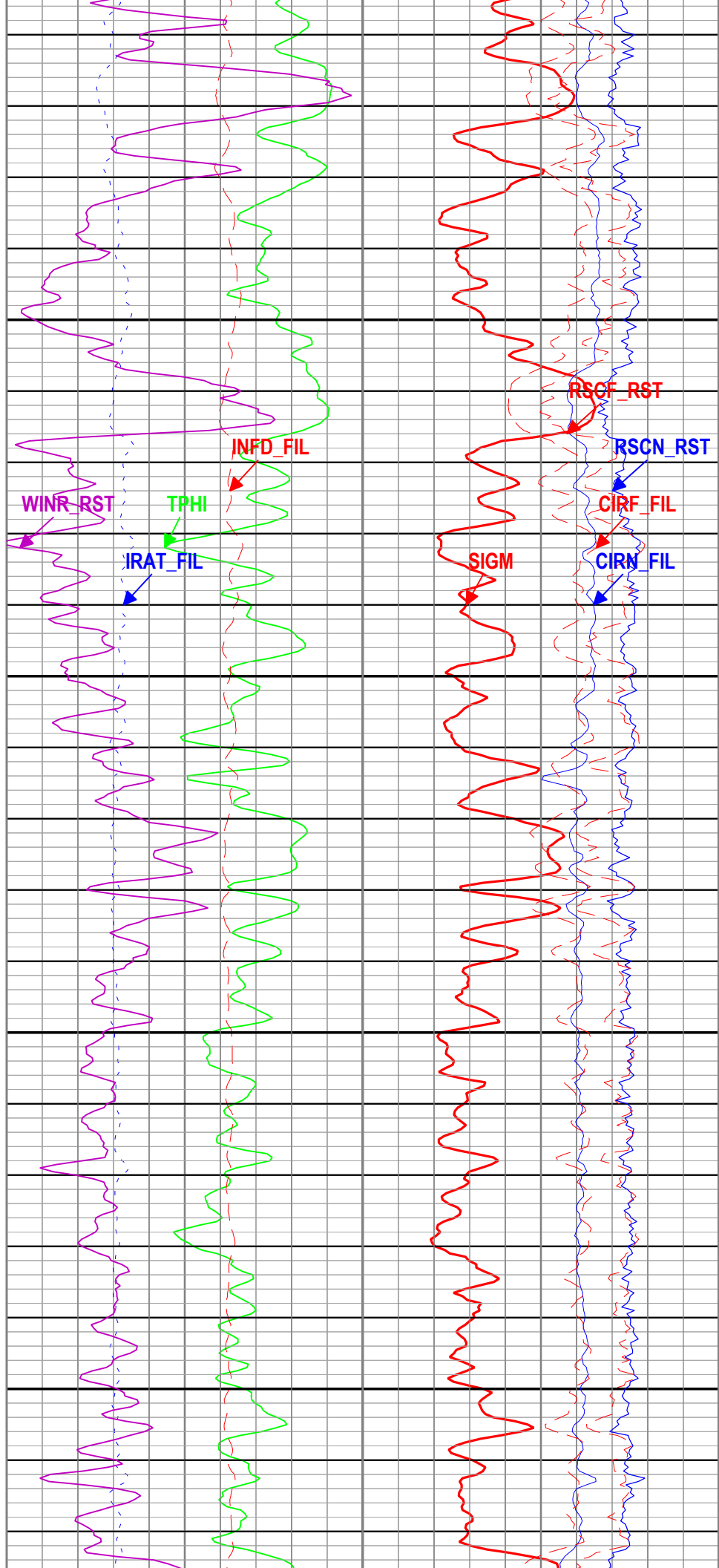
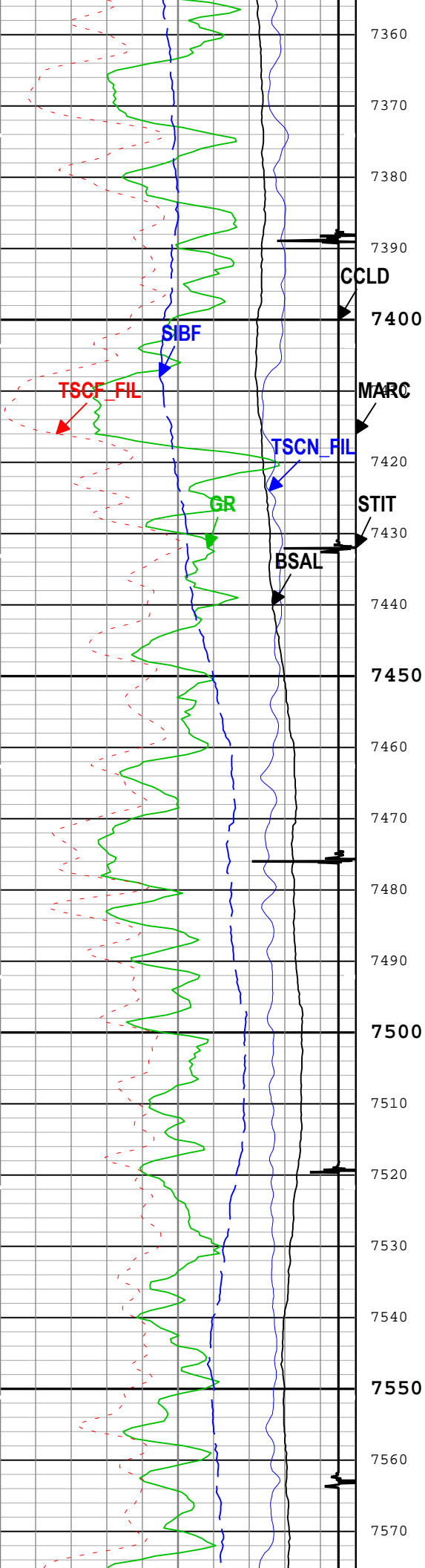


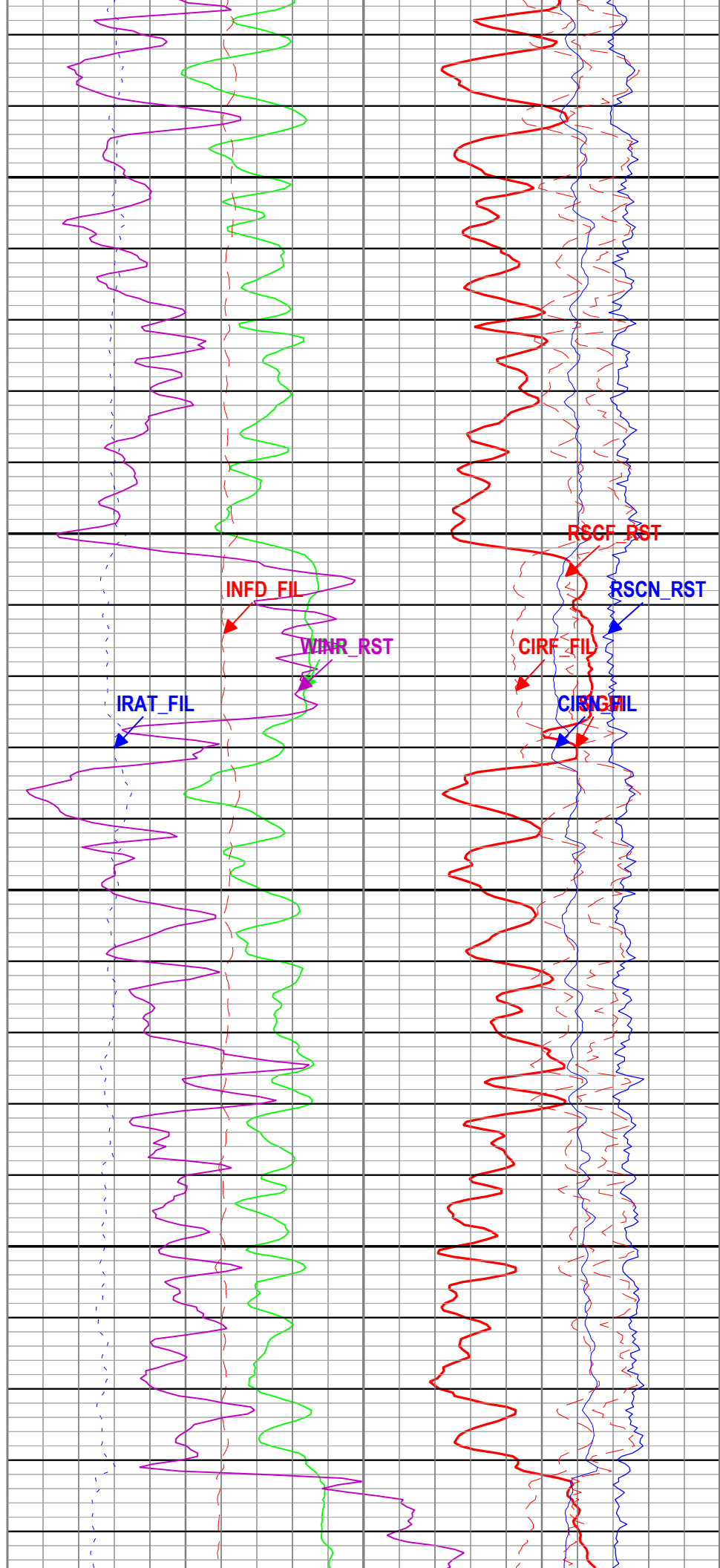
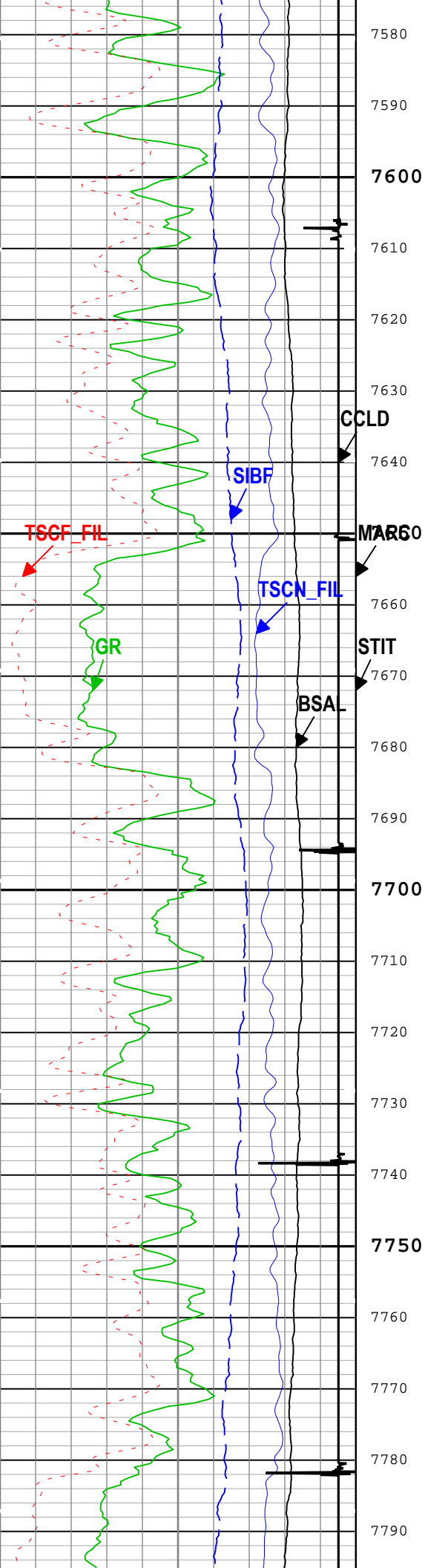




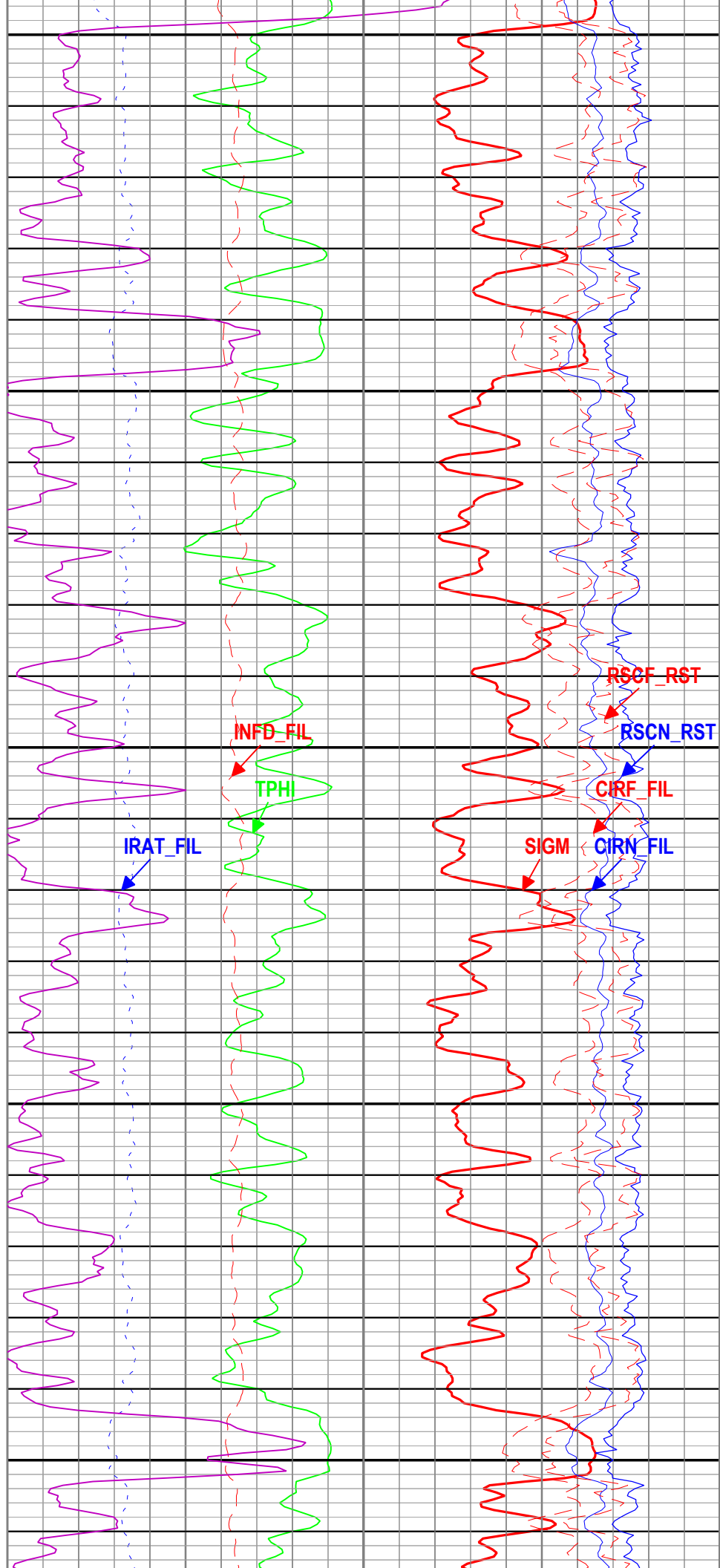
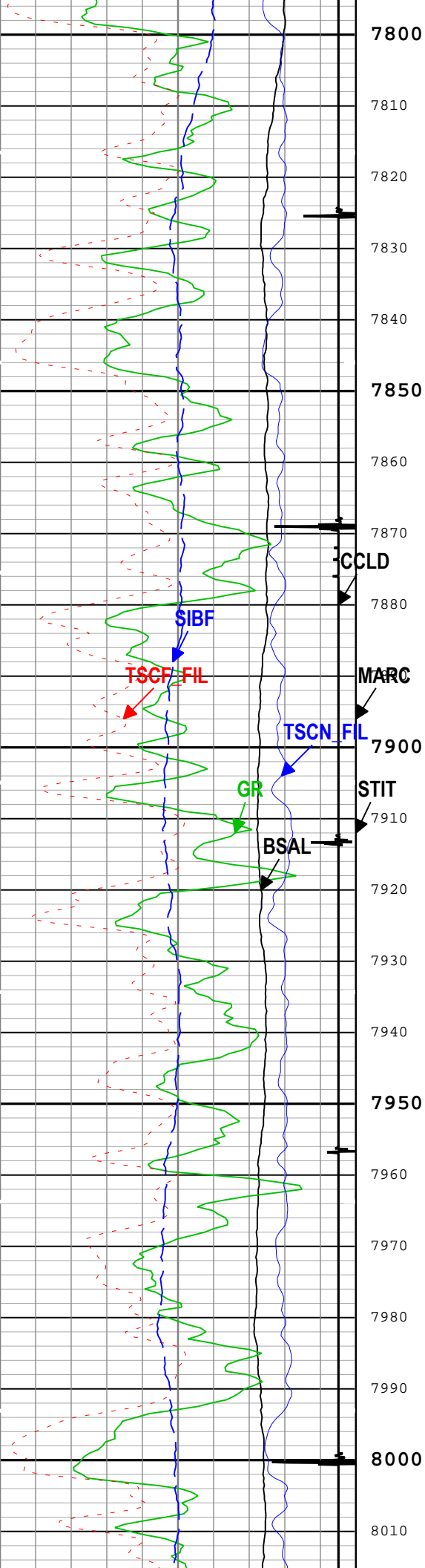


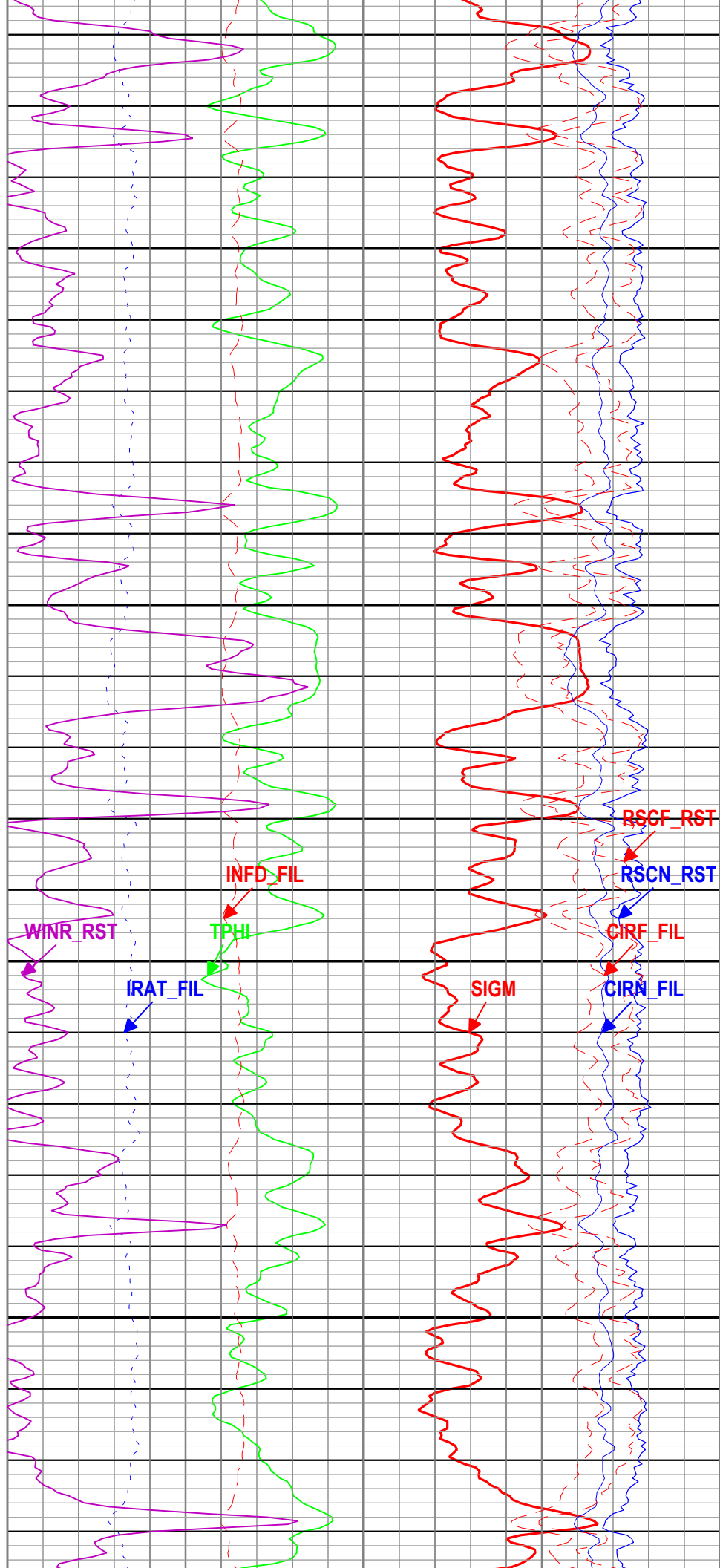
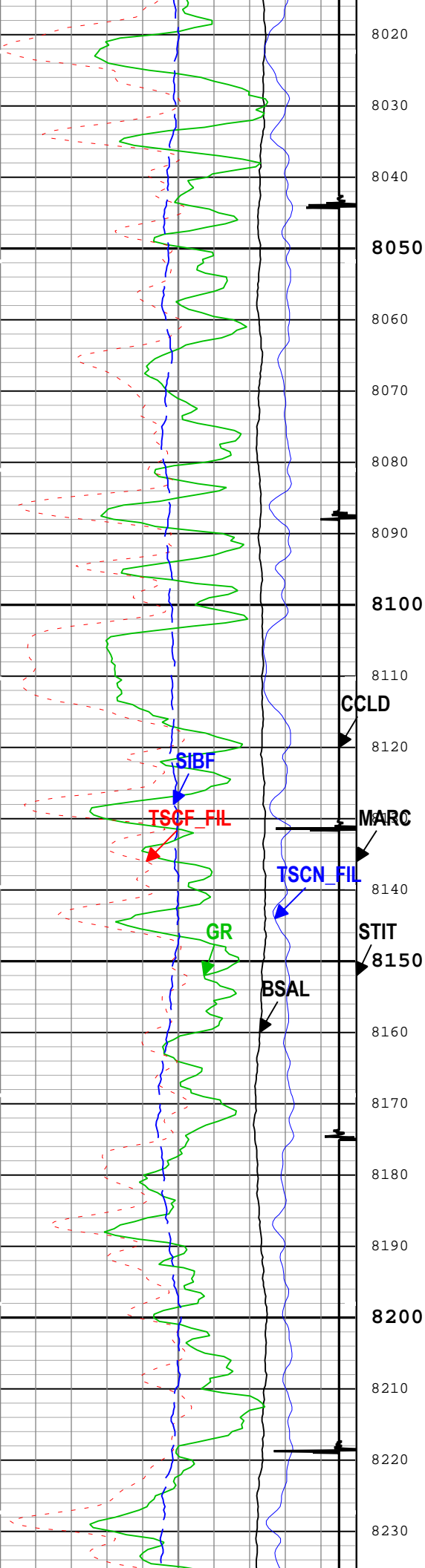


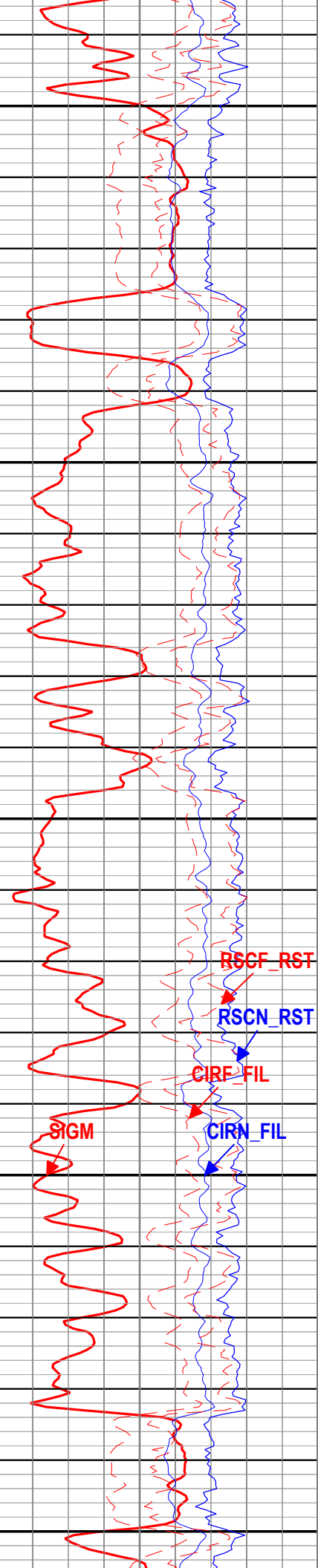
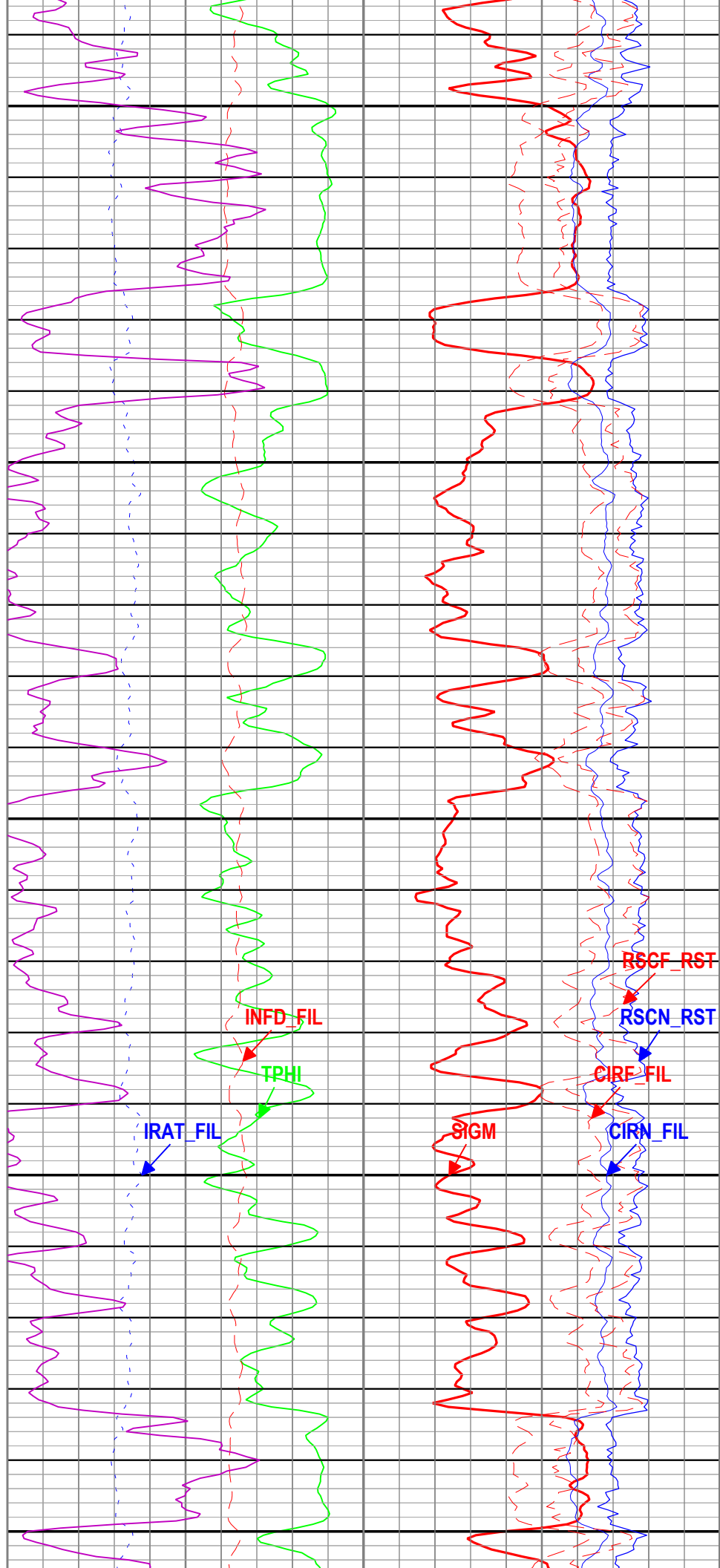
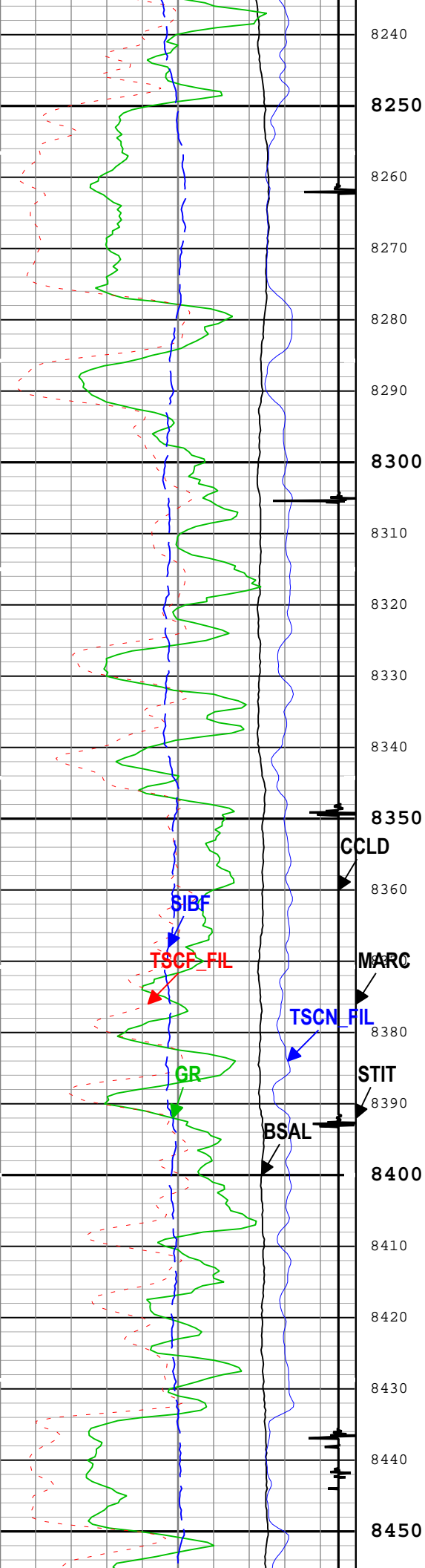


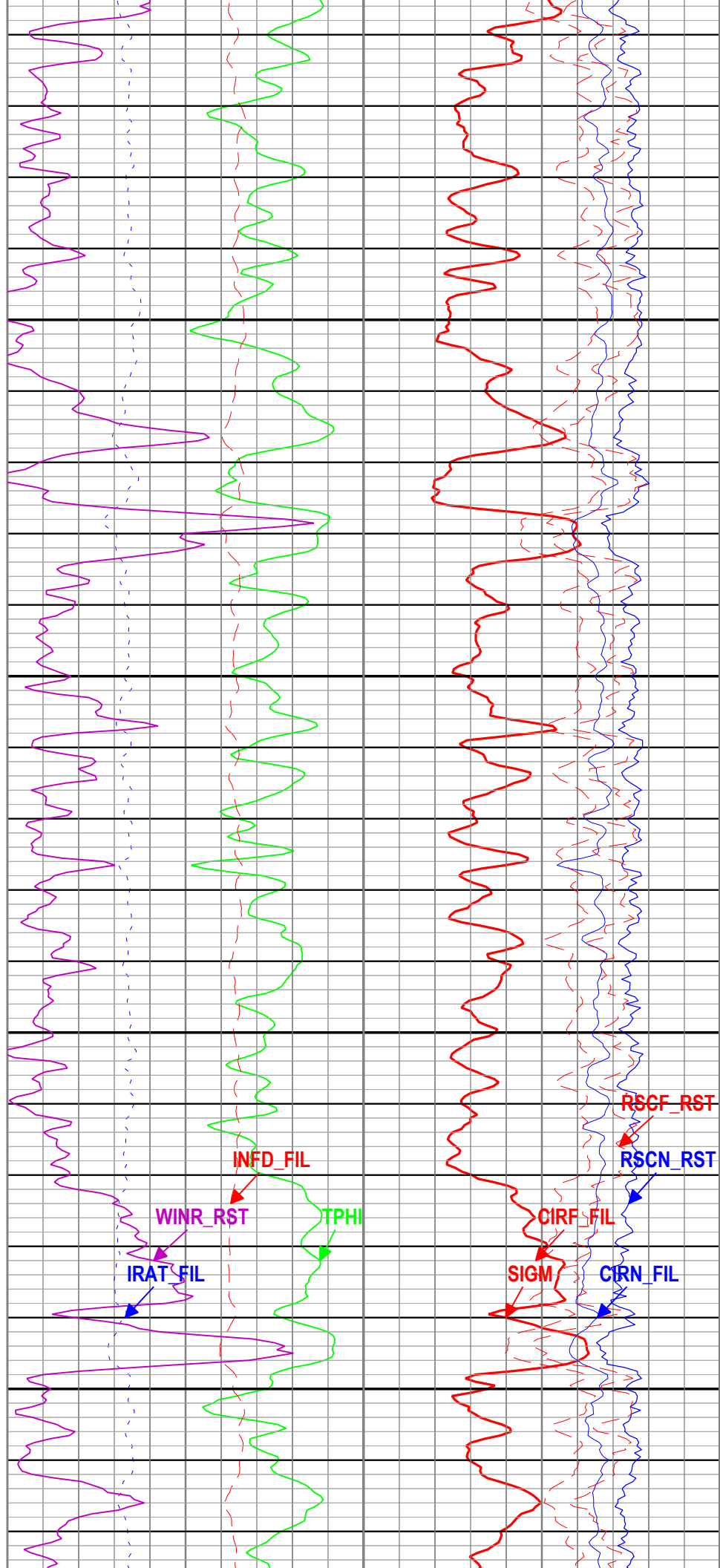
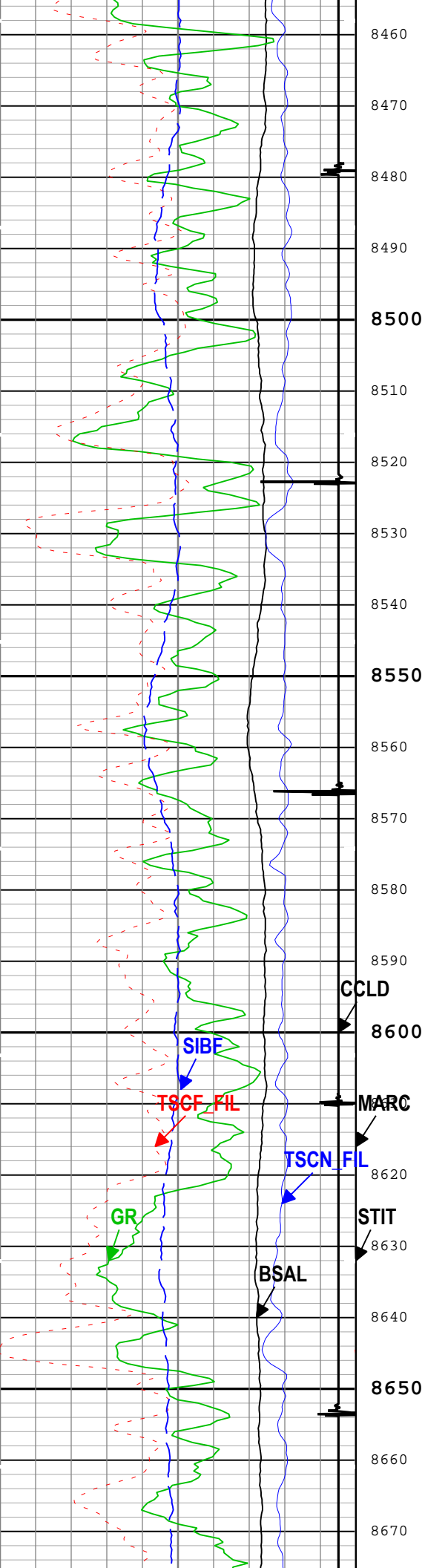




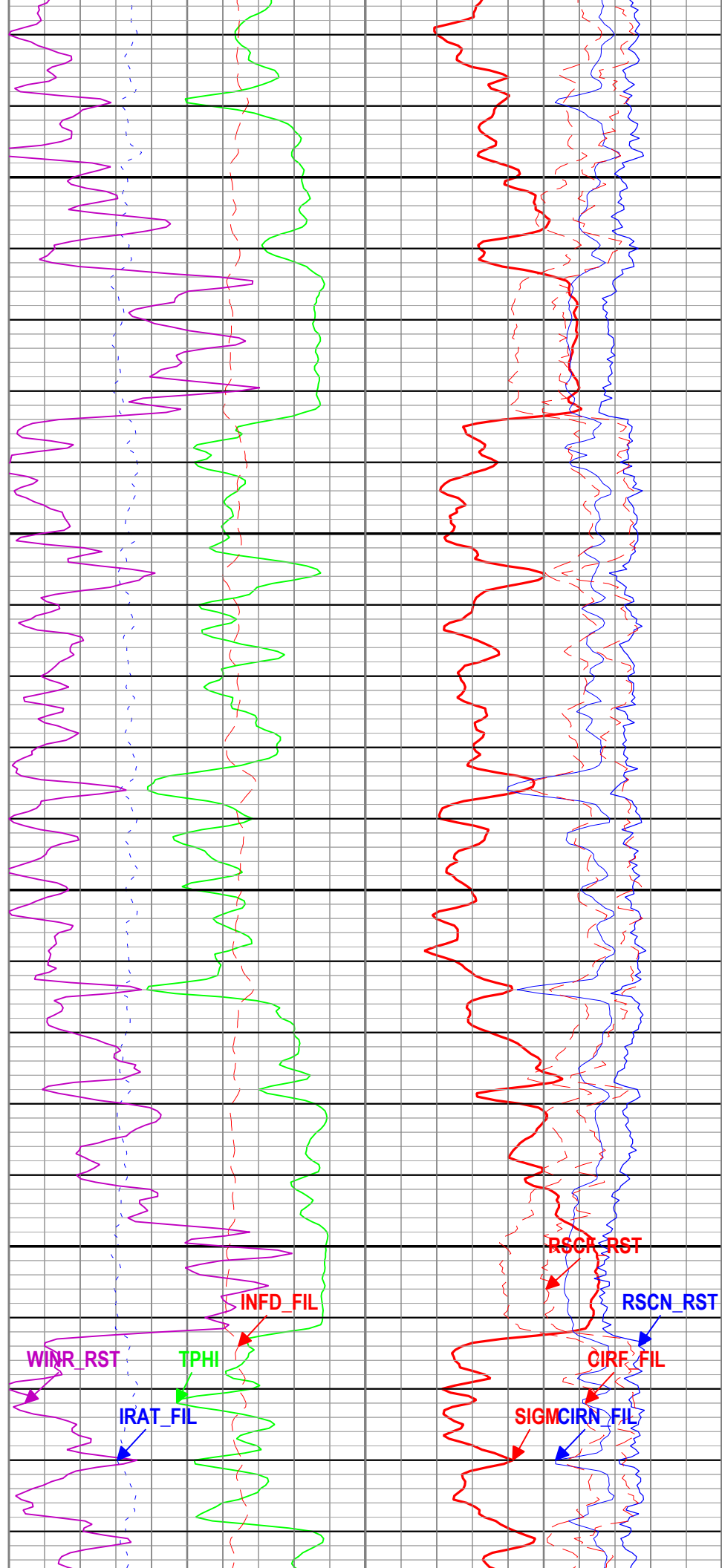
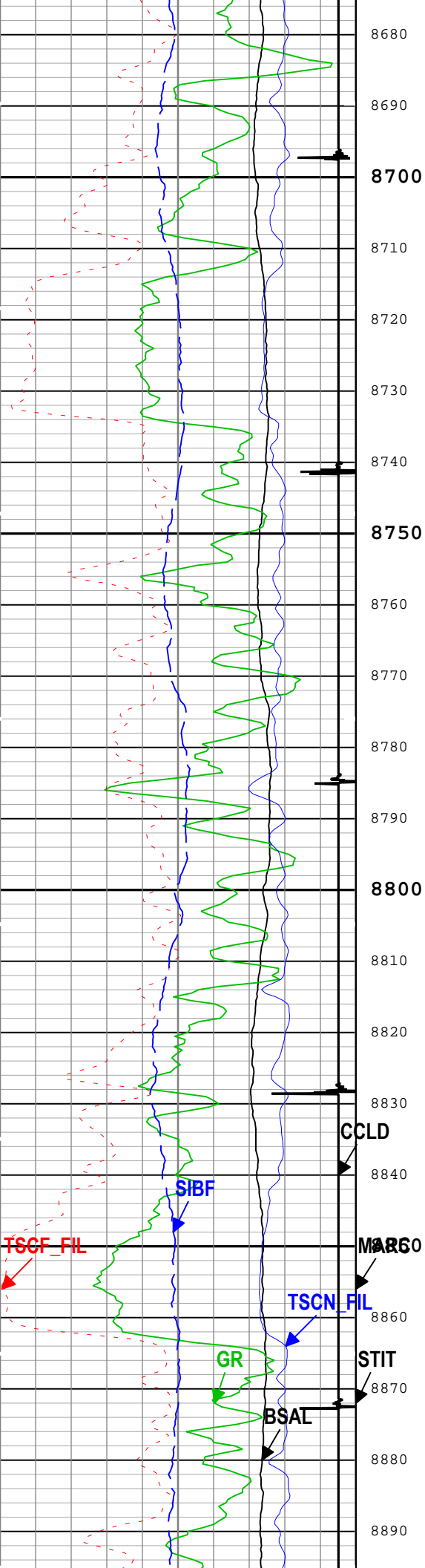


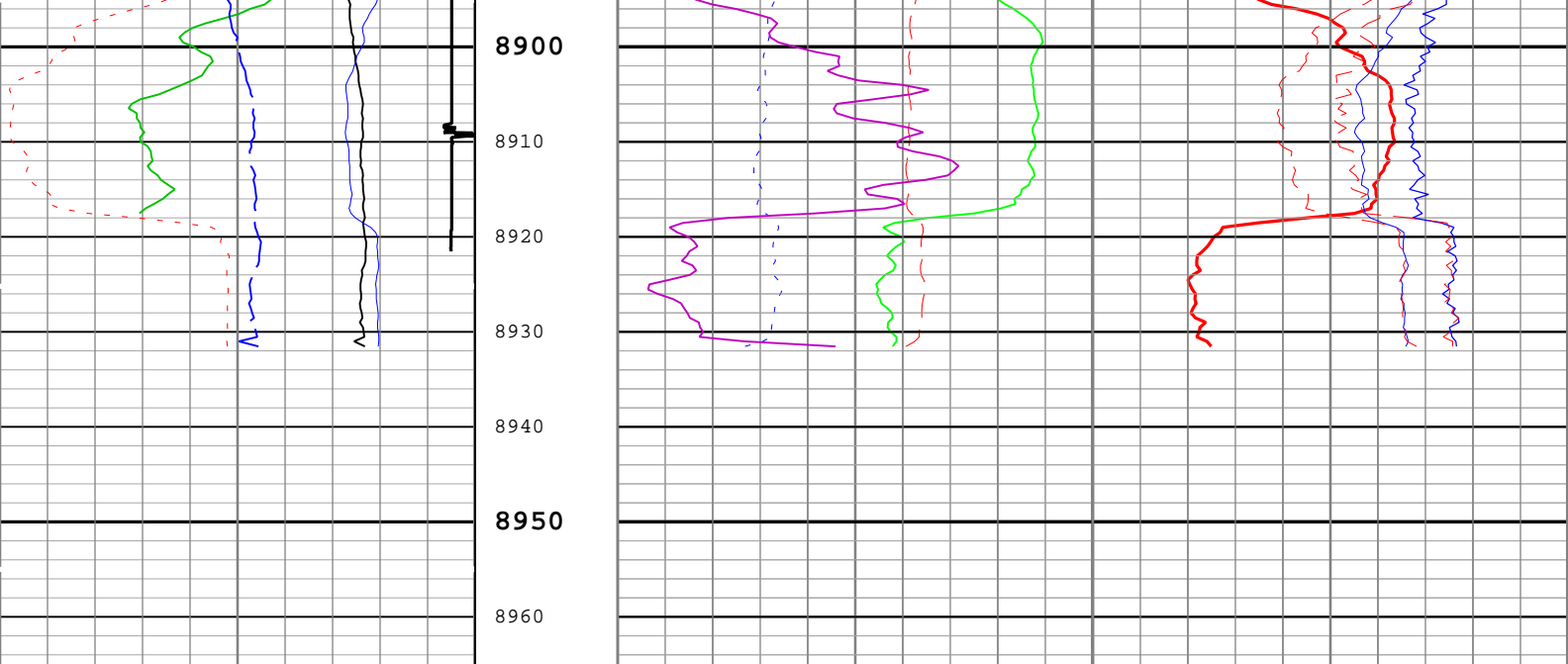












Borehole Salinity (BSAL) RST-C			Stuck Tool Indicator, Total (STIT)	Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C		
450	ppk	-50		60	cu	0
Gamma Ray (GR) PSTP-B			0 ft 50	Weighted Inelastic Ratio (WINR_RST) RST-C		
0	gAPI	150		0		0.4
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C			Cable Drag From STIA to STIT	Inelastic Ratio Filtered (IRAT_FIL) RST-C	Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C	
30000	1/s	0		0.75	0	2.5
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C			Tool_Tot. Drag From D3T to STIT	Thermal Decay Porosity (TPHI) RST-C	Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C	
12000	1/s	0		0.6	ft3/ft3	0
Sigma Borehole Fluid (SIBF) RST-C			Minitron Arc Count (MARC) RST-C	Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C	Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C	
100	cu	0		10000	1/s	0
CCL Discriminated Amplitude (CCLD) PSTP-B			0 5	Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C		
-19	V	1		45		0

— ICV - Integrated Cement Volume every 100.00 (ft3)

TIME\_1900 - Time Marked every 60.00 (s)

— ICV - Integrated Cement Volume every 10.00 (ft3)

— IHV - Integrated Hole Volume every 100.00 (ft3)

— IHV - Integrated Hole Volume every 10.00 (ft3)

— TIME\_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

Description: RST SIGMA Answer    Format: Log ( RST SIGMA Answer )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 12-Sep-2018 09:57:59

Channel Processing Parameters				
One: Parameters				
Parameter	Description	Tool	Value	Unit
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	0	ppm
BSALOPT	Borehole Salinity Option	RST-C	Unknown	
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	

MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
TD	Total Measured Depth	Borehole	8953	ft

Depth Zone Parameters			
Parameter	Value	Start ( ft )	Stop ( ft )
BS	14.75	1900	2041
BS	8.75	2041	8953
All depth are actual.			

Tool Control Parameters	
-------------------------	--

One: Parameters				
Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-B	24 dB	
RST_DLM	Depth Log Mode	RST-C	Sigma	

One				

Software Version		
Acquisition System		Version
Maxwell 2018 SP1		8.1.99839.3100
Application Patch		Wireline_Hotfix-Mandatory-2018SP1_8.1.102865

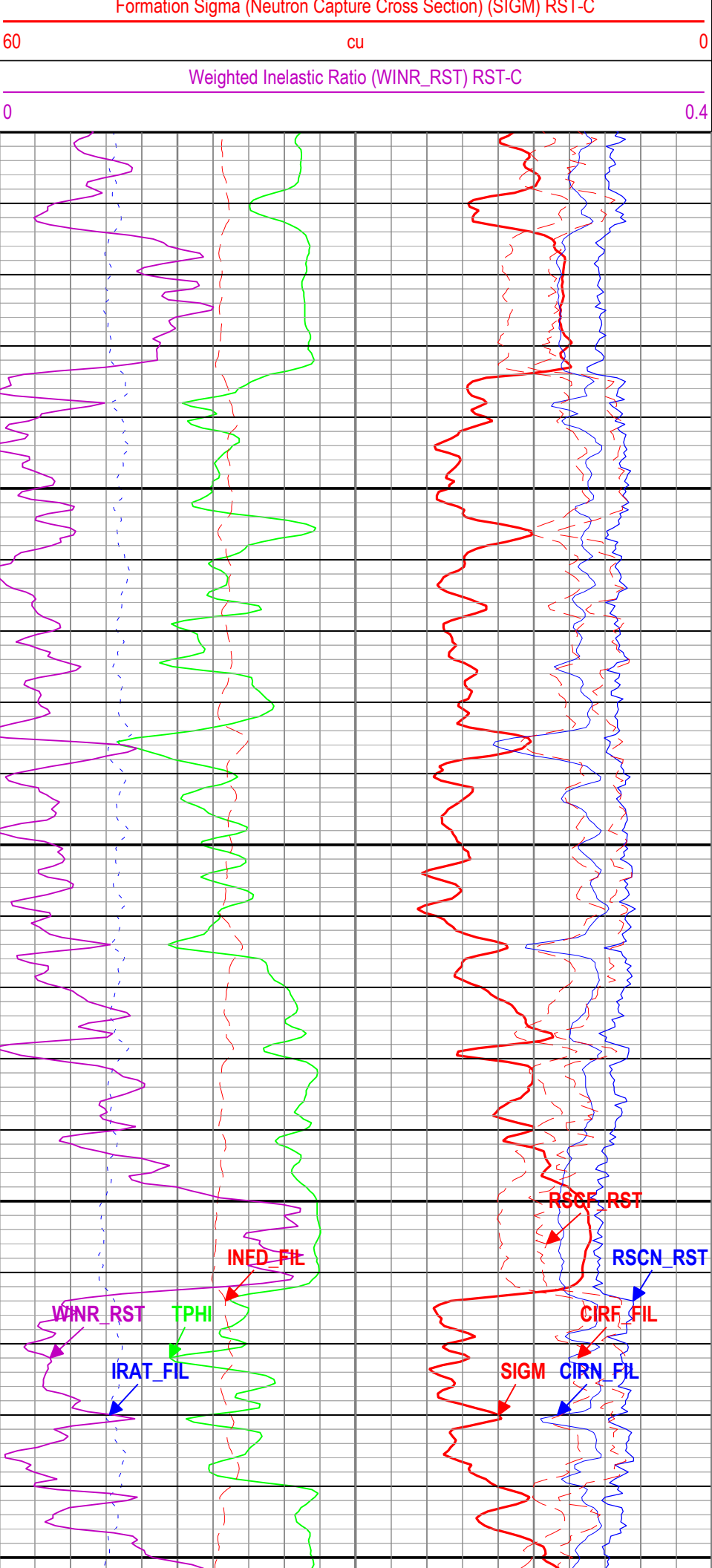
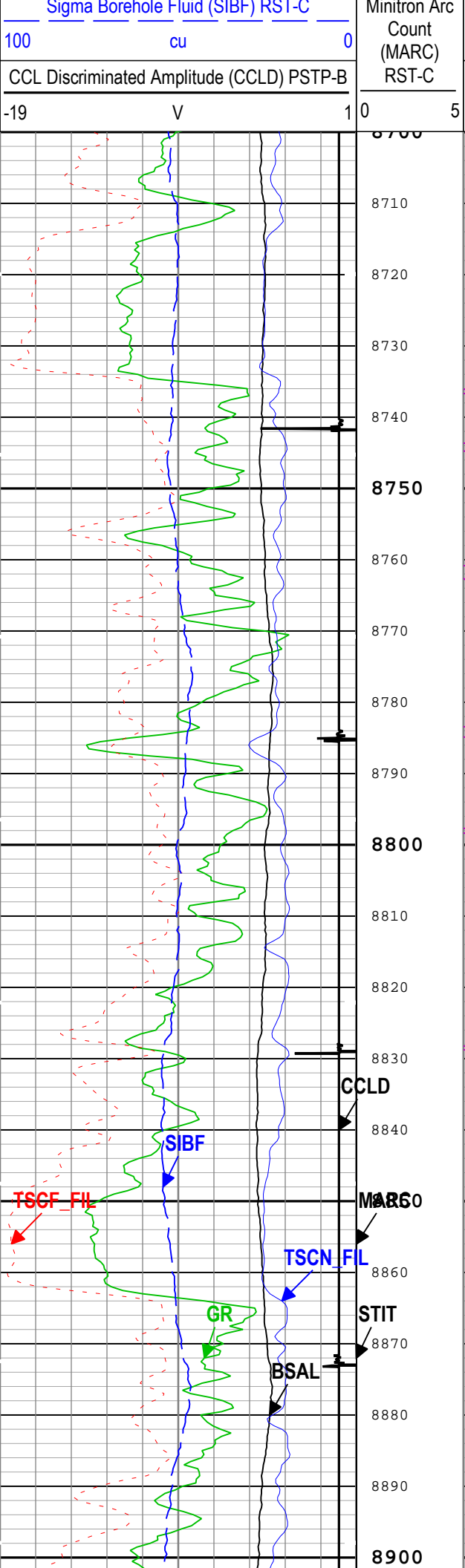
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[2]:Up	Up	8698.93 ft	8963.13 ft	12-Sep-2018 12:39:10 AM	12-Sep-2018 12:49:50 AM	ON	5.33 ft	No

All depths are referenced to toolstring zero									
--	--	--	--	--	--	--	--	--	--

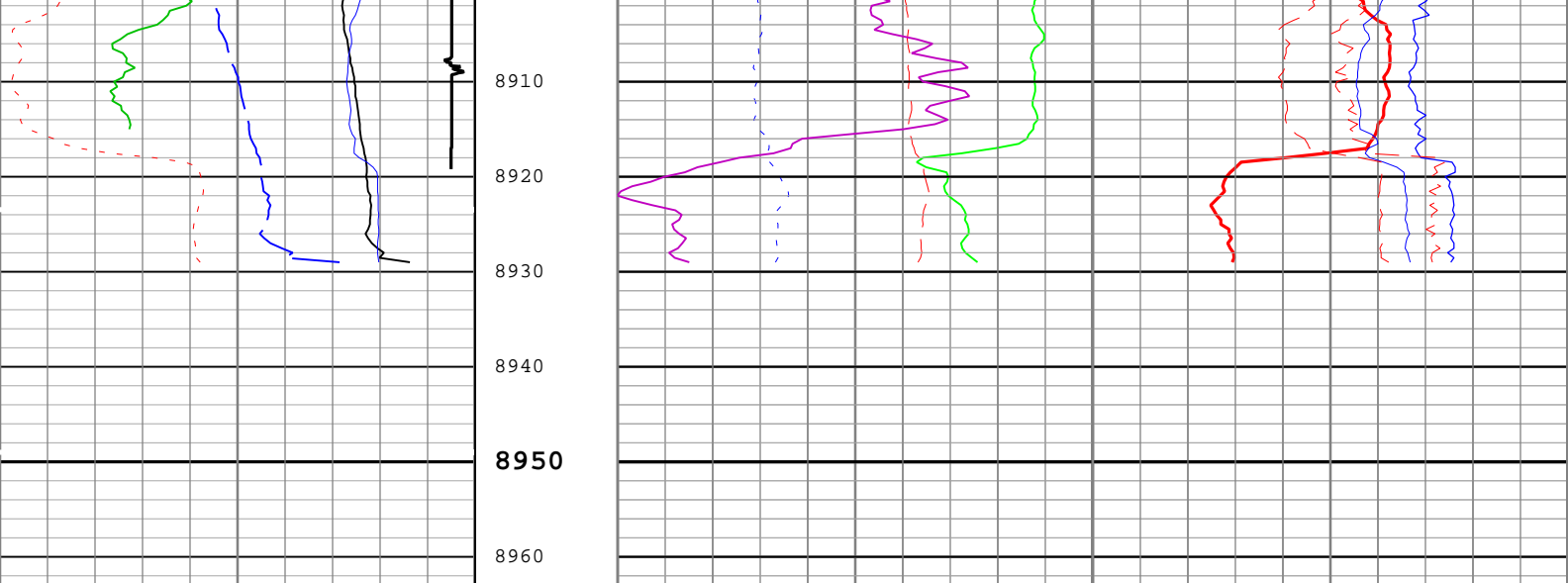
Log	Company:Caerus Operating LLC      Well:NPR 14C-10 596				One: Log[2]:Up:S002				
-----	---	--	--	--	---------------------	--	--	--	--

Description: RST SIGMA Answer    Format: Log ( RST SIGMA Answer )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 12-Sep-2018 09:58:04									
--	--	--	--	--	--	--	--	--	--

TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)									
IHV - Integrated Hole Volume every 10.00 (ft3)									
IHV - Integrated Hole Volume every 100.00 (ft3)									
ICV - Integrated Cement Volume every 10.00 (ft3)									
TIME_1900 - Time Marked every 60.00 (s)									
ICV - Integrated Cement Volume every 100.00 (ft3)									
Borehole Salinity (BSAL) RST-C			Stuck Tool Indicator, Total (STIT)		Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C				
450	ppk	-50	0	ft	50	2.5			0
Gamma Ray (GR) PSTP-B			Cable Drag From STIA to STIT		Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C				
0	gAPI	150	Cable Drag From STIA to STIT		Inelastic Ratio Filtered (IRAT_FIL) RST-C				
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C			Cable Drag From STIA to STIT		Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C				
30000	1/s	0	Tool_Tot. Drag From D3T to STIT		Thermal Decay Porosity (TPHI) RST-C				
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C			Tool_Tot. Drag From D3T to STIT		Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C				
12000	1/s	0	Tool_Tot. Drag From D3T to STIT		Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C				
Sigma Factor (SF) (SIGMA) RST-C			Tool_Tot. Drag From D3T to STIT		Sigma Factor (SF) (SIGMA) RST-C				
10000	1/s	0	Tool_Tot. Drag From D3T to STIT		Sigma Factor (SF) (SIGMA) RST-C				







Borehole Salinity (BSAL) RST-C			Stuck Tool Indicator, Total (STIT)	Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C		
450	ppk	-50		60	cu	0
Gamma Ray (GR) PSTP-B			0 ft 50	Weighted Inelastic Ratio (WINR_RST) RST-C		
0	gAPI	150		0		0.4
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C			Cable Drag From STIA to STIT	Inelastic Ratio Filtered (IRAT_FIL) RST-C	Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C	
30000	1/s	0		0.75 0	2.5	0
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C			Tool_Tot. Drag From D3T to STIT	Thermal Decay Porosity (TPHI) RST-C	Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C	
12000	1/s	0		0.6 ft3/ft3 0	5	0
Sigma Borehole Fluid (SIBF) RST-C			Minitron Arc Count (MARC) RST-C	Gross Inelastic Count Rate Far Detector Filtered (INFDF_FIL) RST-C	Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C	
100	cu	0		10000 1/s 0	45	0
CCL Discriminated Amplitude (CCLD) PSTP-B			0 5		Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C	
-19	V	1			45	0

—ICV - Integrated Cement Volume every 100.00 (ft3)

TIME\_1900 - Time Marked every 60.00 (s)

—ICV - Integrated Cement Volume every 10.00 (ft3)

—IHV - Integrated Hole Volume every 100.00 (ft3)

—IHV - Integrated Hole Volume every 10.00 (ft3)

—TIME\_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

Description: RST SIGMA Answer    Format: Log ( RST SIGMA Answer )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 12-Sep-2018 09:58:04

## Channel Processing Parameters

### One: Parameters

Parameter	Description	Tool	Value	Unit
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	8.75	in
BSAL	Borehole Salinity	Borehole	0	ppm
BSALOPT	Borehole Salinity Option	RST-C	Unknown	
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
TD	Total Measured Depth	Borehole	8953	ft

# Tool Control Parameters

## One: Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	150	ft/h
PCCG	PSP Downhole CCL Gain	PSTP-B	24 dB	
RST_DLM	Depth Log Mode	RST-C	Sigma	

Company:	Caerus Operating LLC	Schlumberger
Well:	NPR 14C-10 596	
Field:	NPR	
County:	Garfield	
State:	Colorado	
Cement Bond Log		
RST Sigma Log		
Gamma Ray - Collar Locator Log		