

Company: Crestone Peak Resources Operating LLC

Well: Sam 3G-25H-M166

Field: Wattenberg

County: Weld State: Colorado

Cement Bond Log  
Surface Casing

Surface Casing				
Location:				
NWSW 25 - 1N - 66W		Elev.: 5098.00 ft		
1353' FSL & 310' FWL		K.B. 5085.00 ft		
		G.L. 5098.00 ft		
		D.F. 5098.00 ft		
Permanent Datum:		Ground Level		
Log Measured From:		Elev.: 5085.00 f		
Drilling Measured From:		Kelly Bushing		
		13.00 ft		
		above Perm.Datum		
API Serial No.	Section:	Township:	Range:	
05-123-46132	25	1N	66W	

Run Number	One			
Depth Driller	2500.00 ft			
Schlumberger Depth	2246.00 ft			
Bottom Log Interval	2246.00 ft			
Top Log Interval	50.00 ft			
Casing Fluid Type	Water			
Salinity				
Density	8.4 lbm/gal			
Fluid Level	8.00 ft			
BIT/CASING/TUBING STRING				
Bit Size	13.50 in			
From	0.00 ft			
To	2500.00 ft			
Casing/Tubing Size	9.625 in			
Weight	40 lbm/ft			
Grade	N/A			
From	0.00 ft			
To	2500.00 ft			
Max Recorded Temperatures	86 degF			
Logger on Bottom	Time	24-Jun-2018 10:40:00		
Unit Number	Location:	2377	FtMorgan	
Recorded By	Alan Moreno / Rob Stelter			
Witnessed By	Satch Bo			

Disclaimer

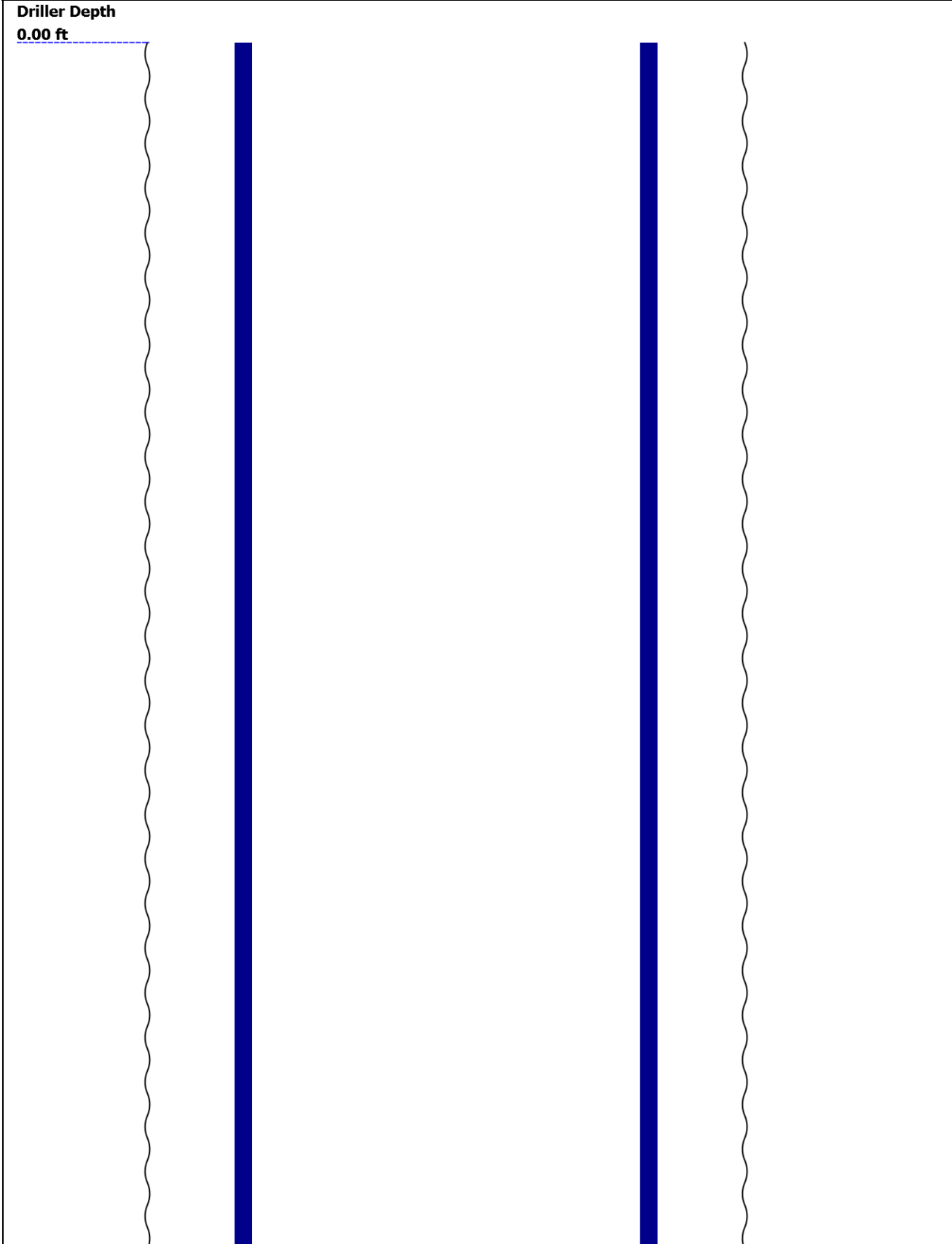
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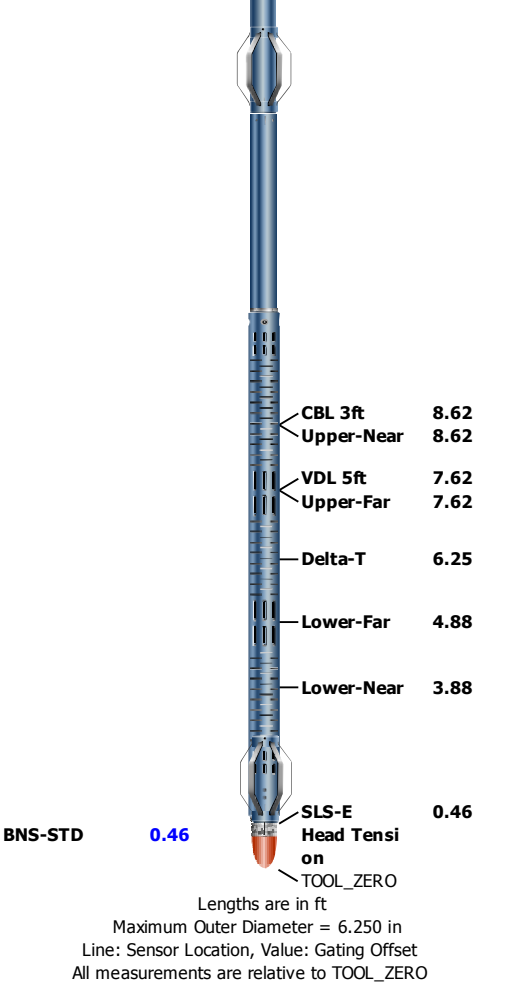
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Well Sketch







## Depth Summary

	One		
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### Depth Measuring Device

Type	IDW-B		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Calibration Cable Type			
Wheel Correction 1	0		
Wheel Correction 2	0		

### Tension Device

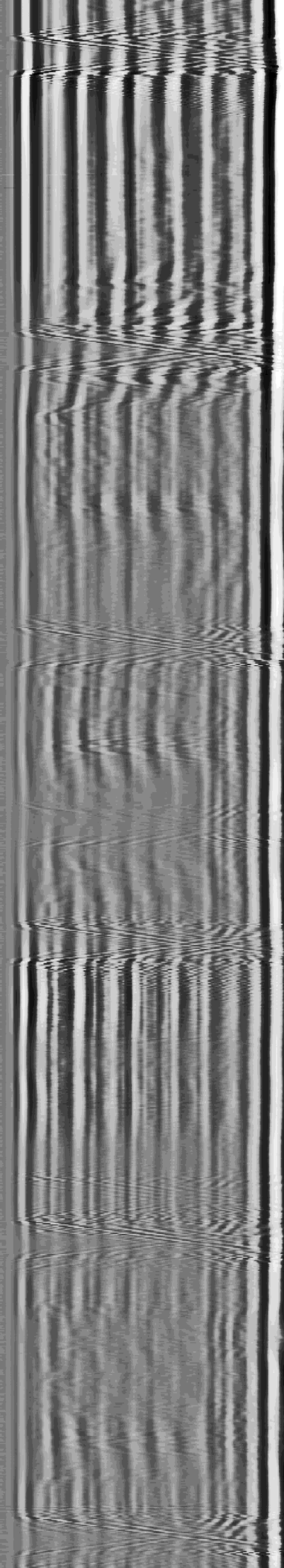
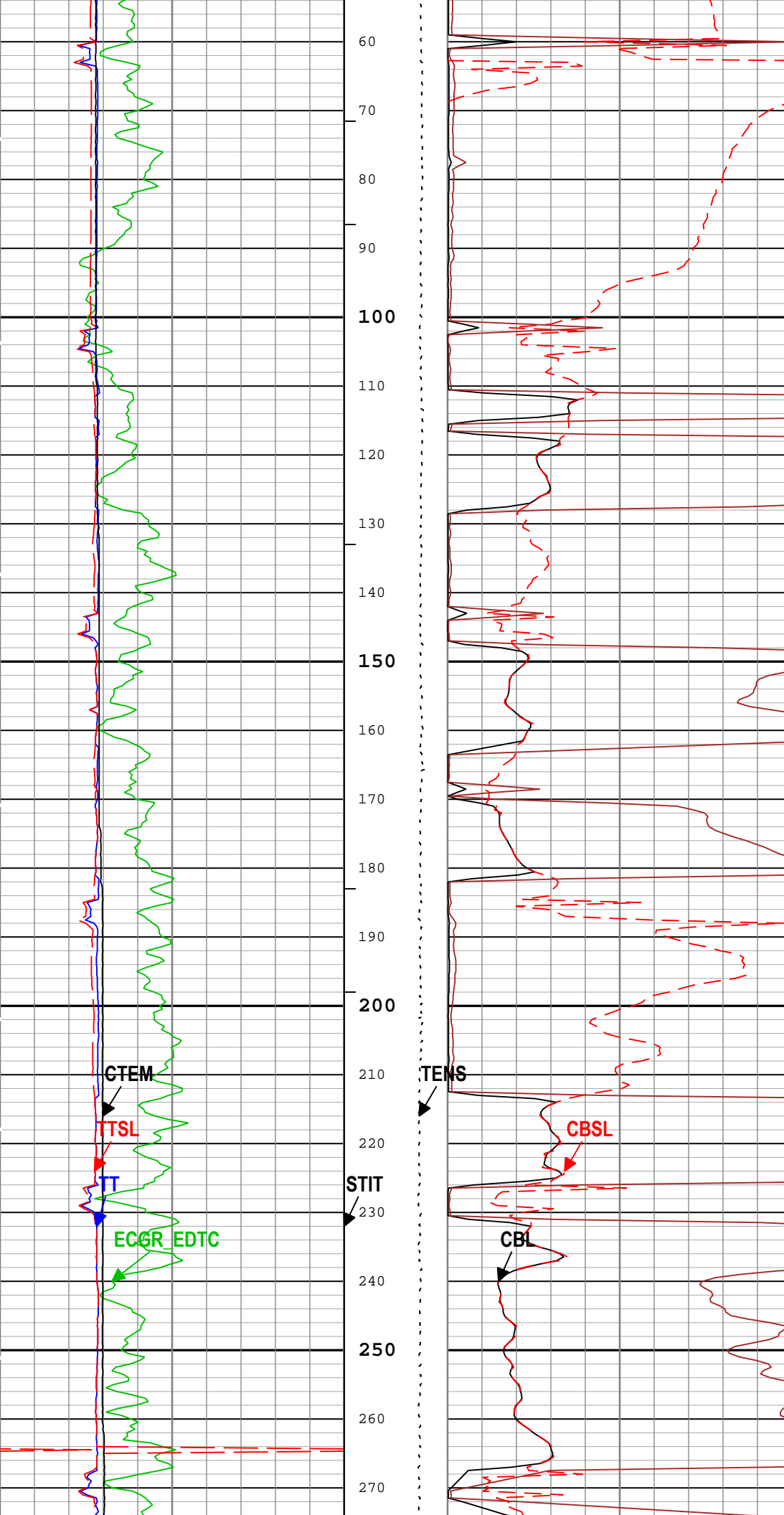
Type	CMTD-B/A		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Number of Calibration Points	0		

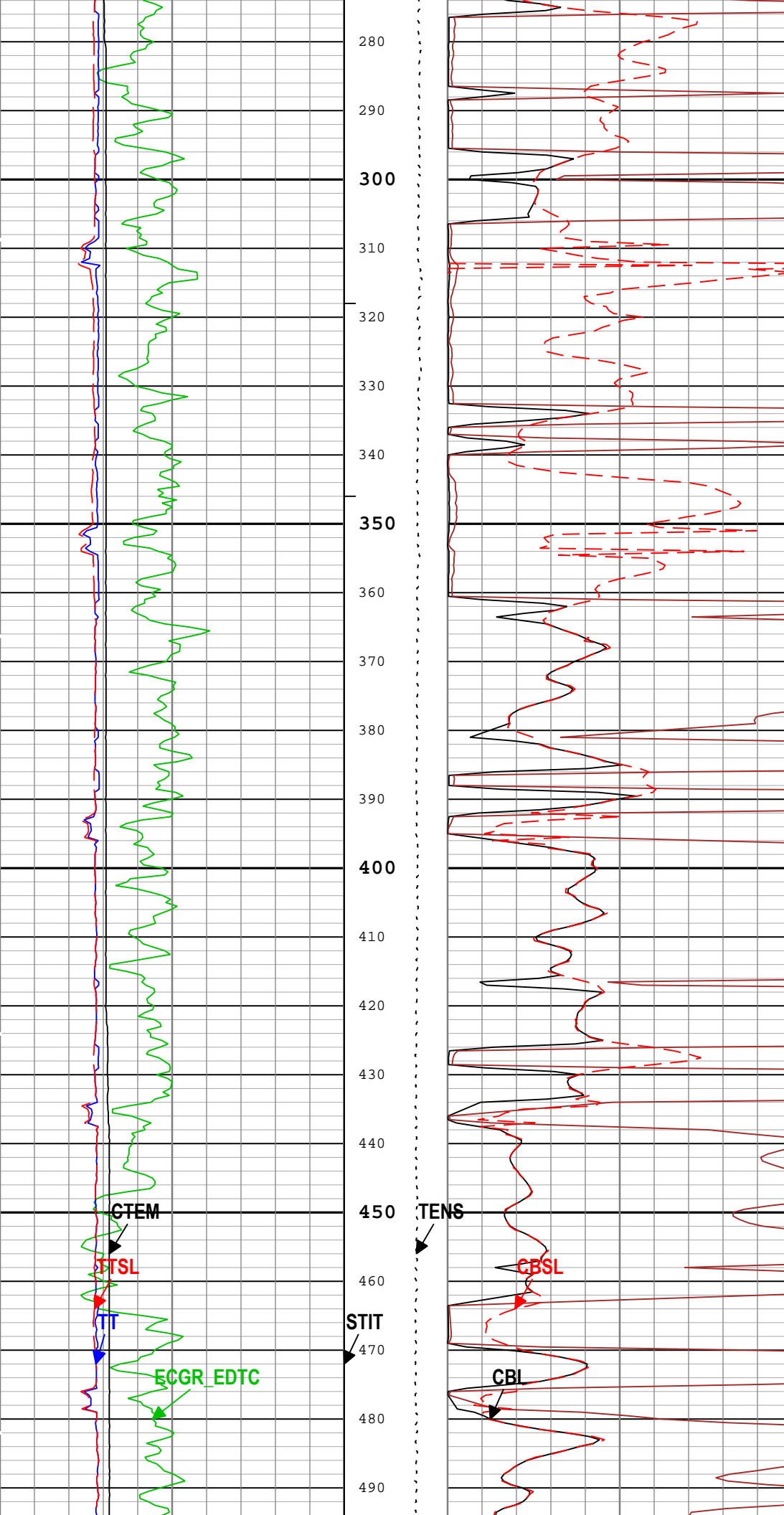
### Logging Cable

Type	7-46NT-XS		
Serial Number			
Length	24000.00 ft		
Conveyance Type	Wireline		
Rig Type			

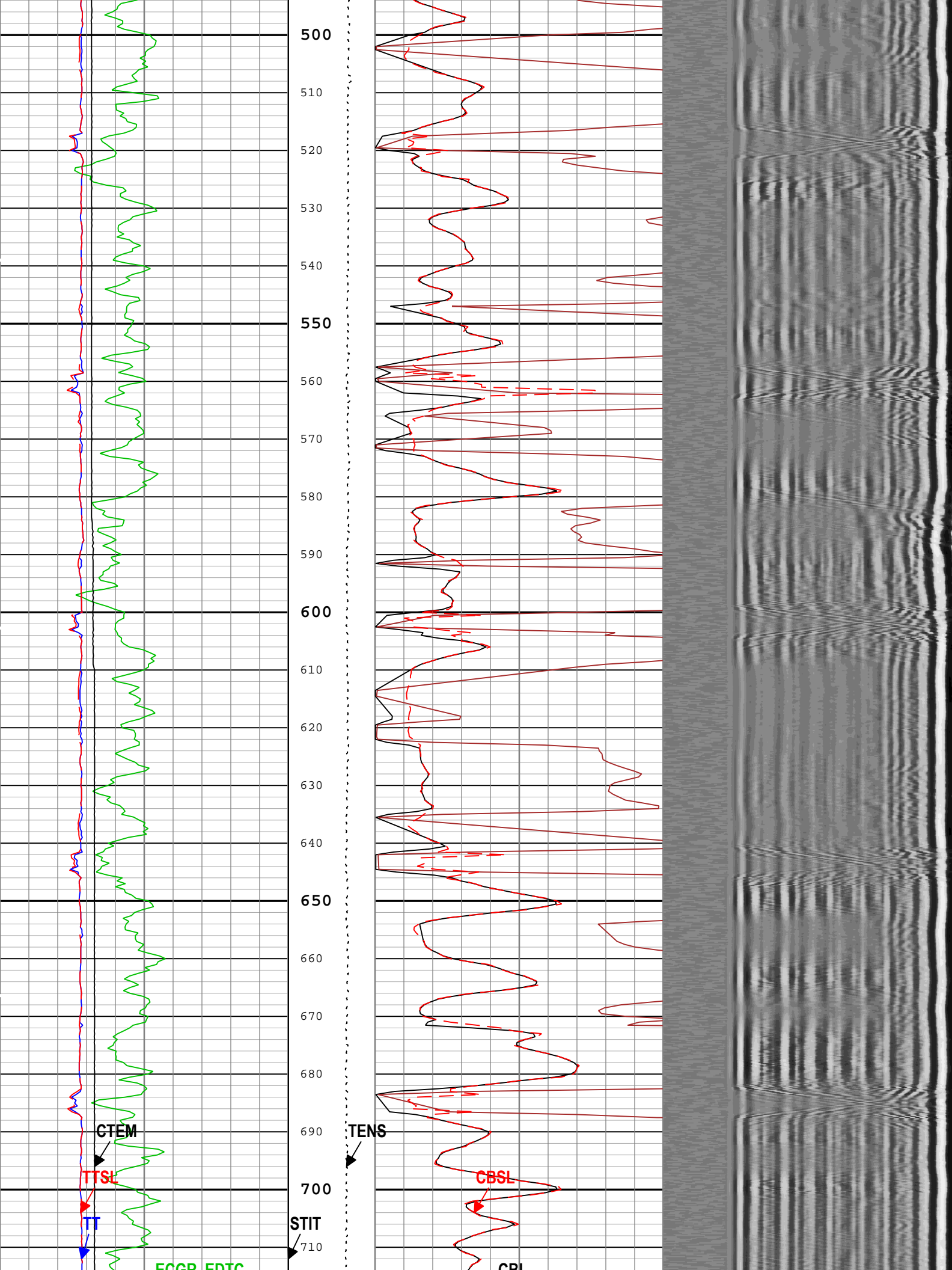
One:Depth Control Parameters	Depth Control Remarks
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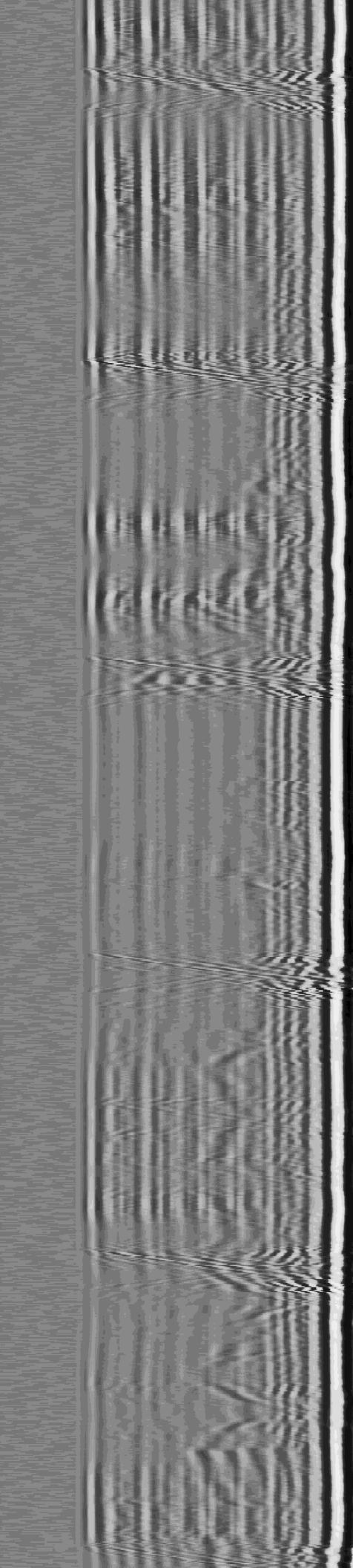
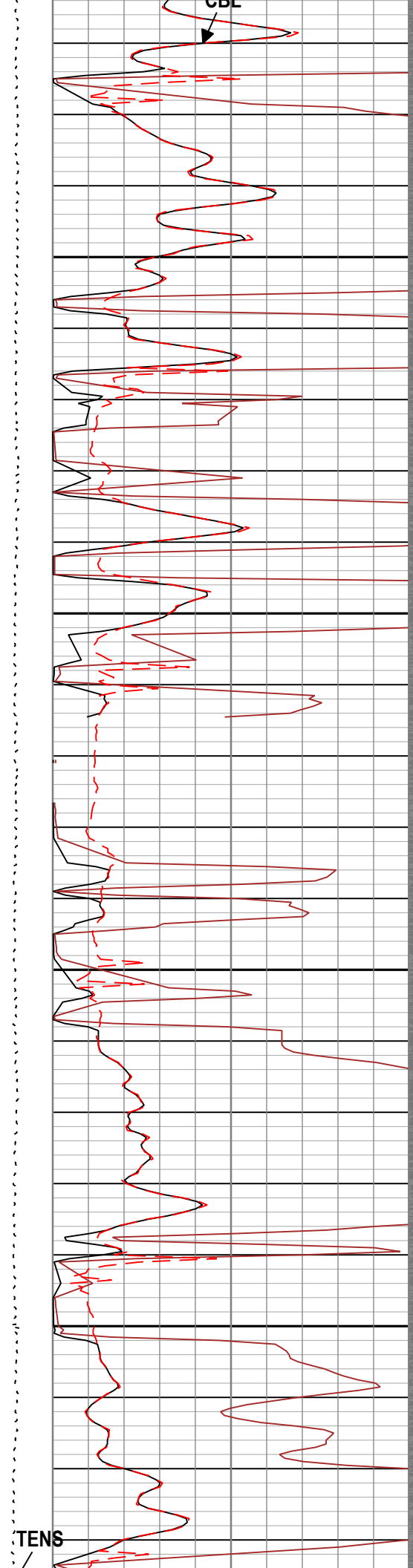
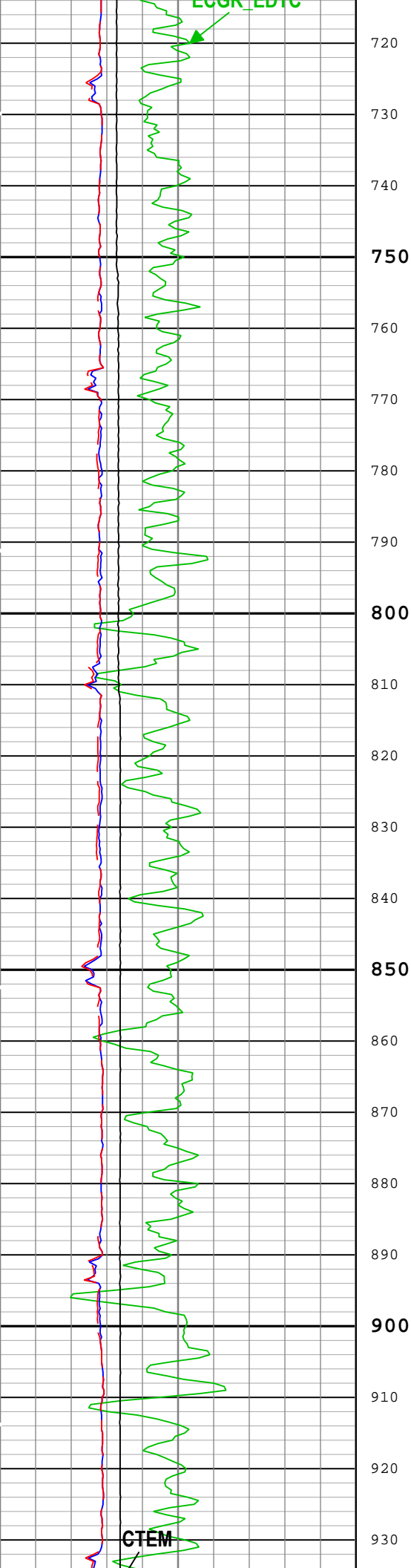


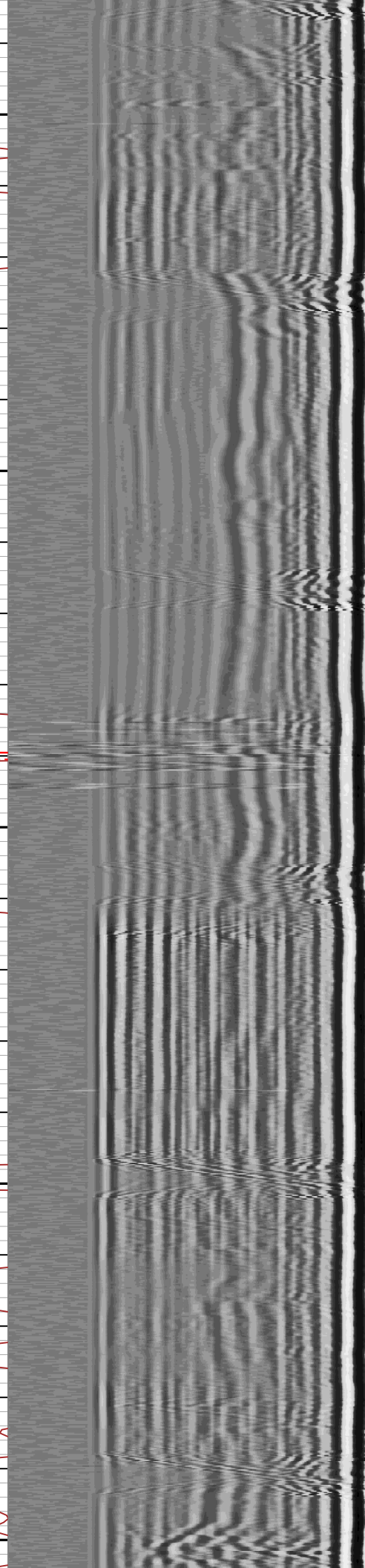
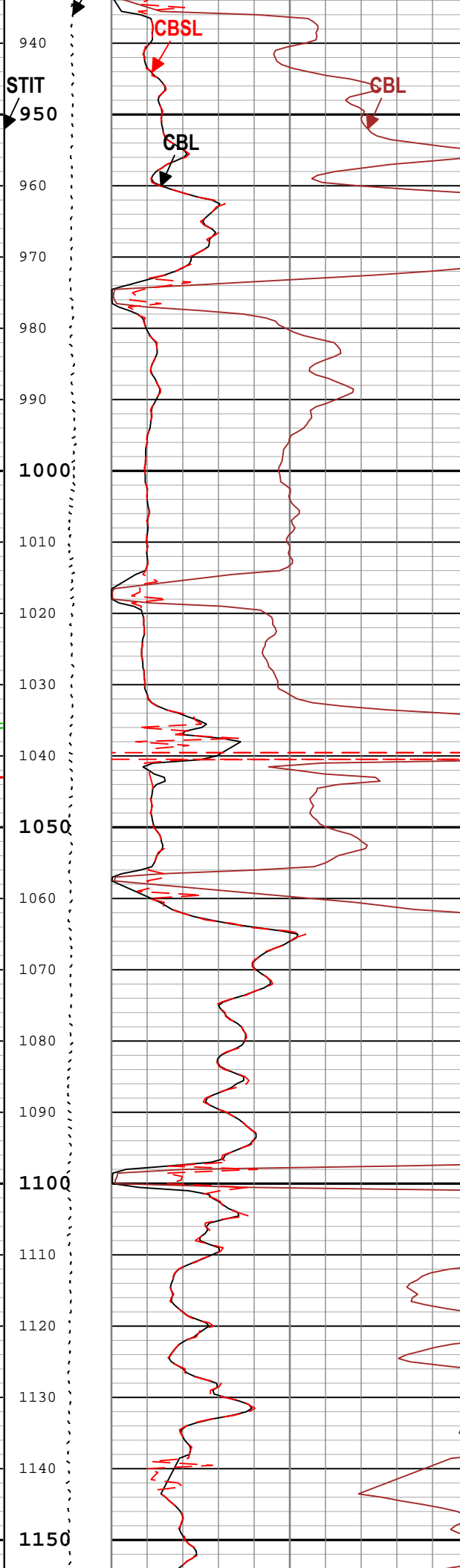
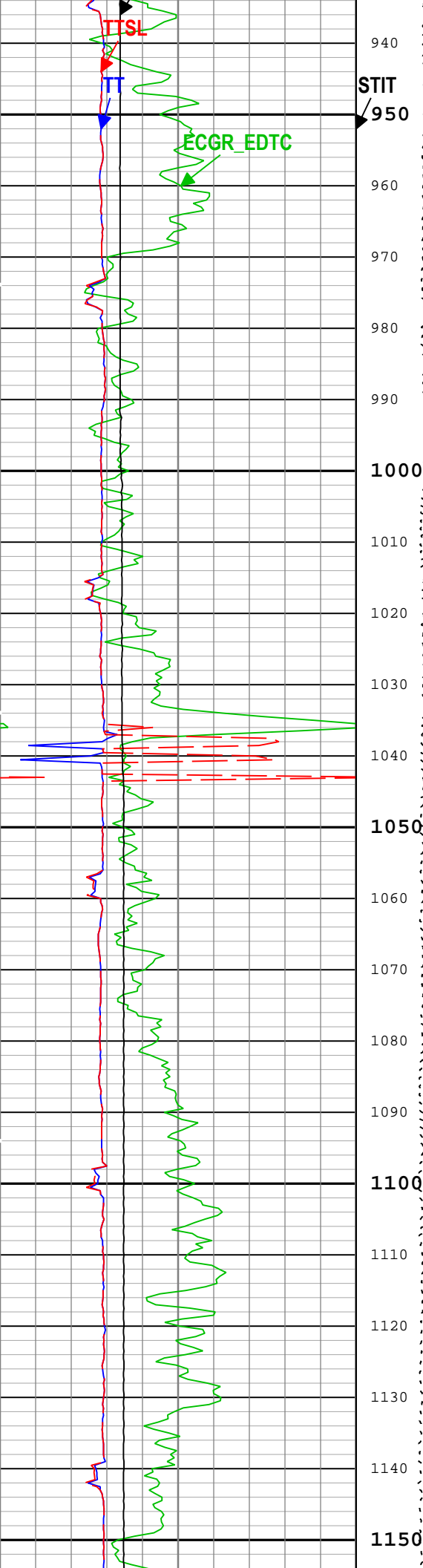


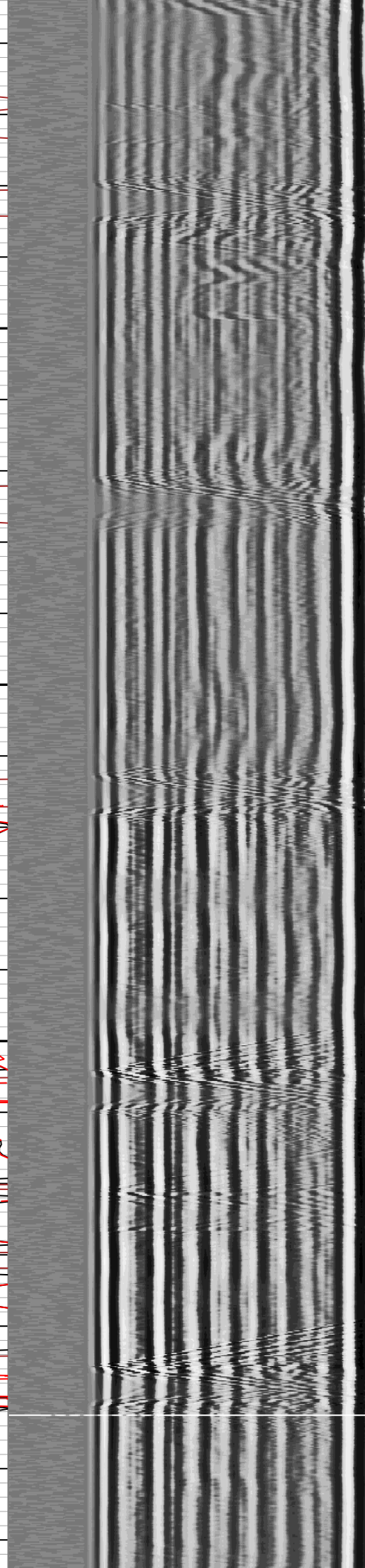
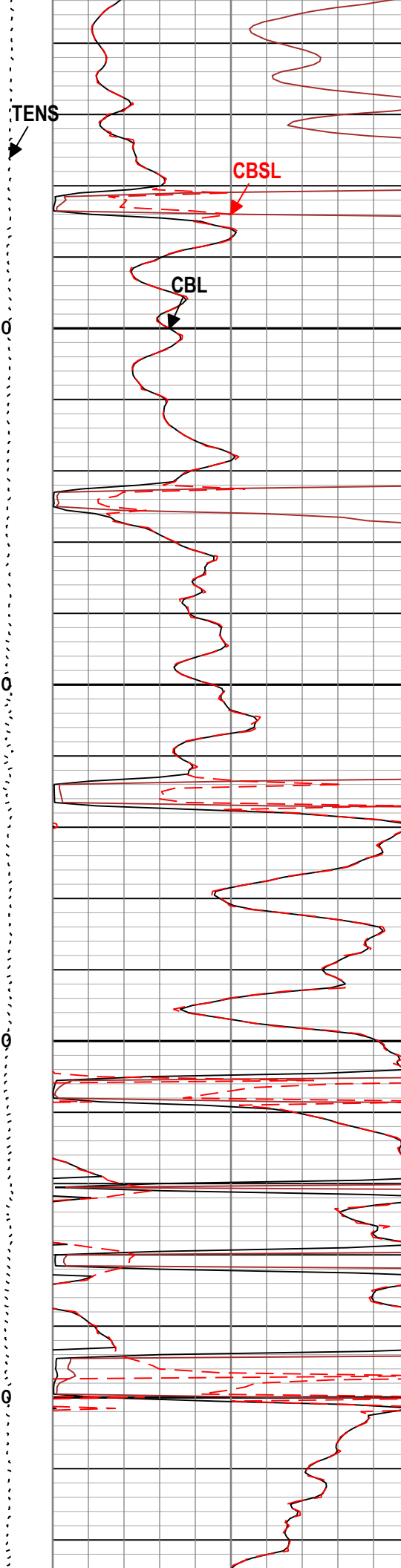
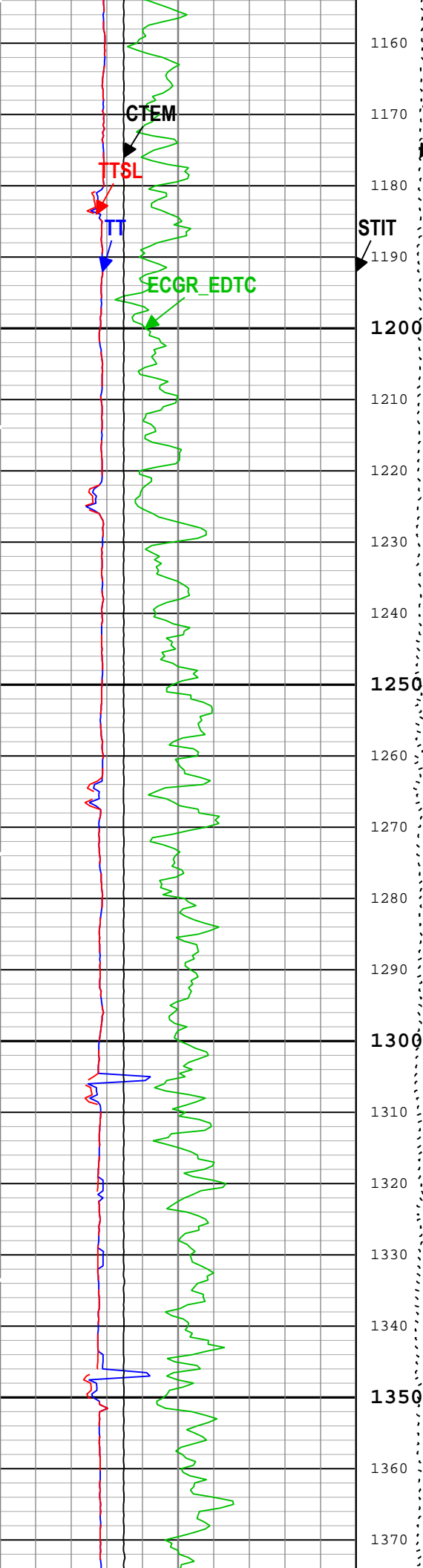




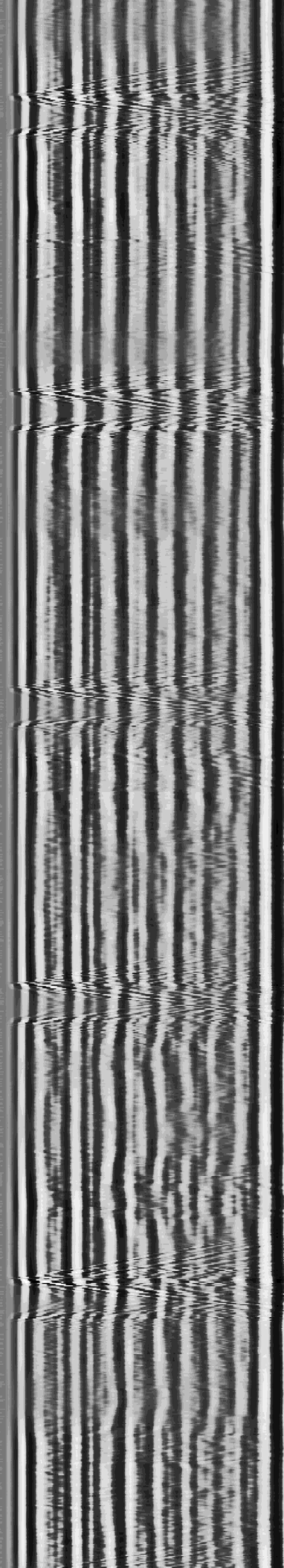
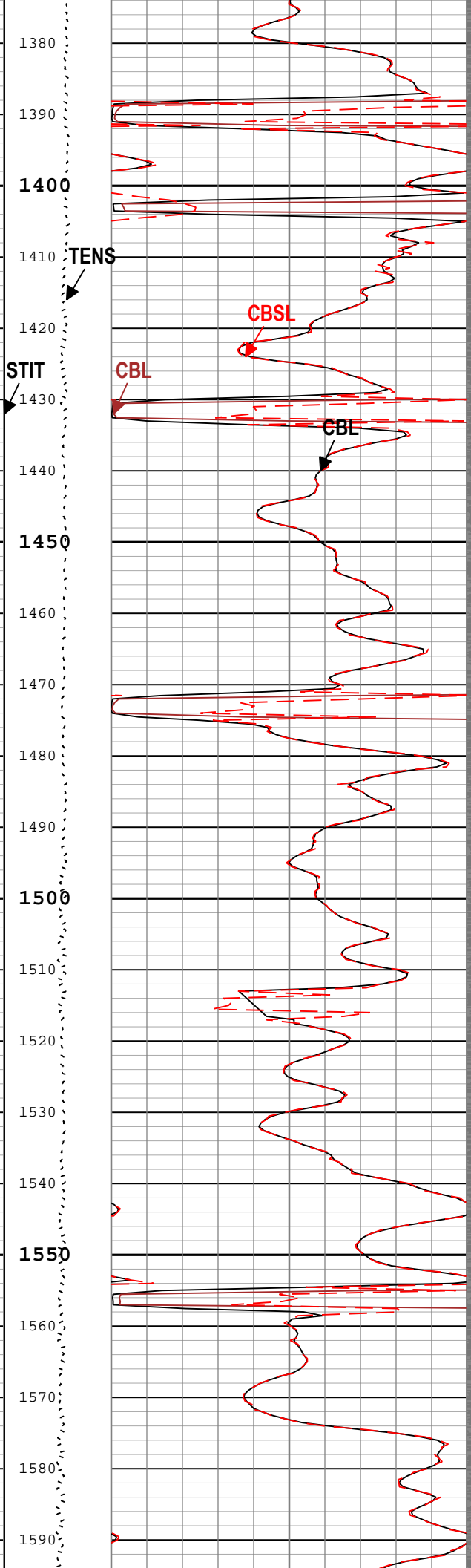
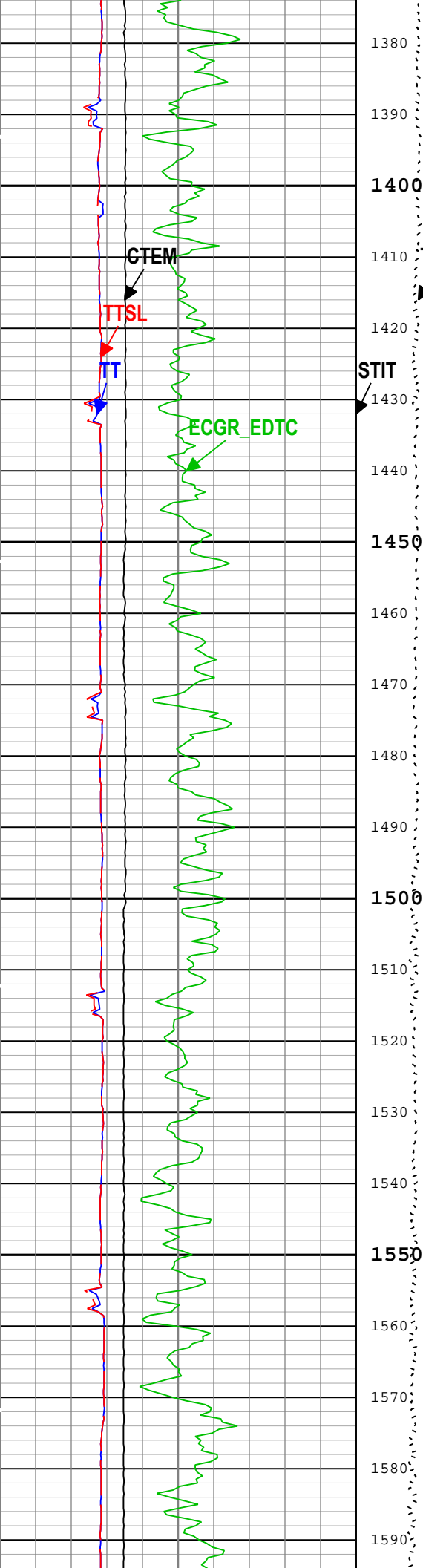


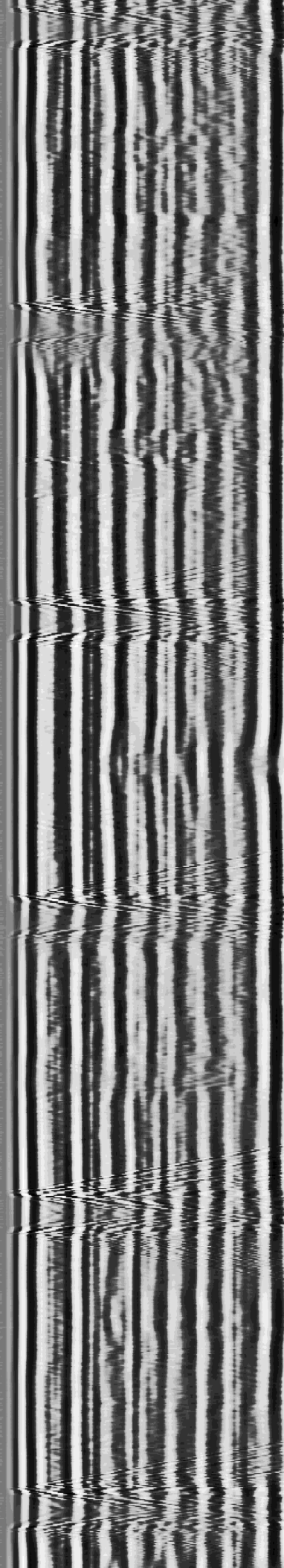
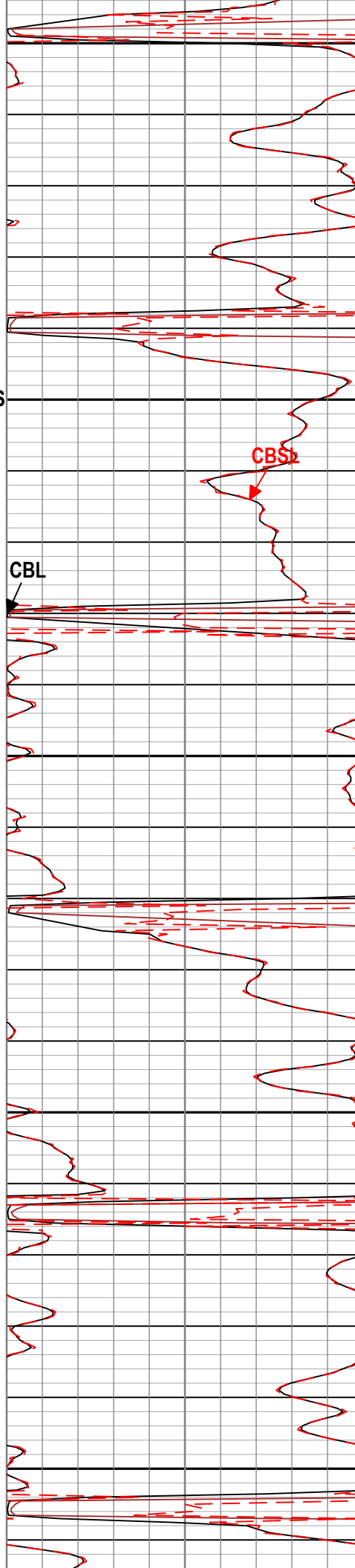
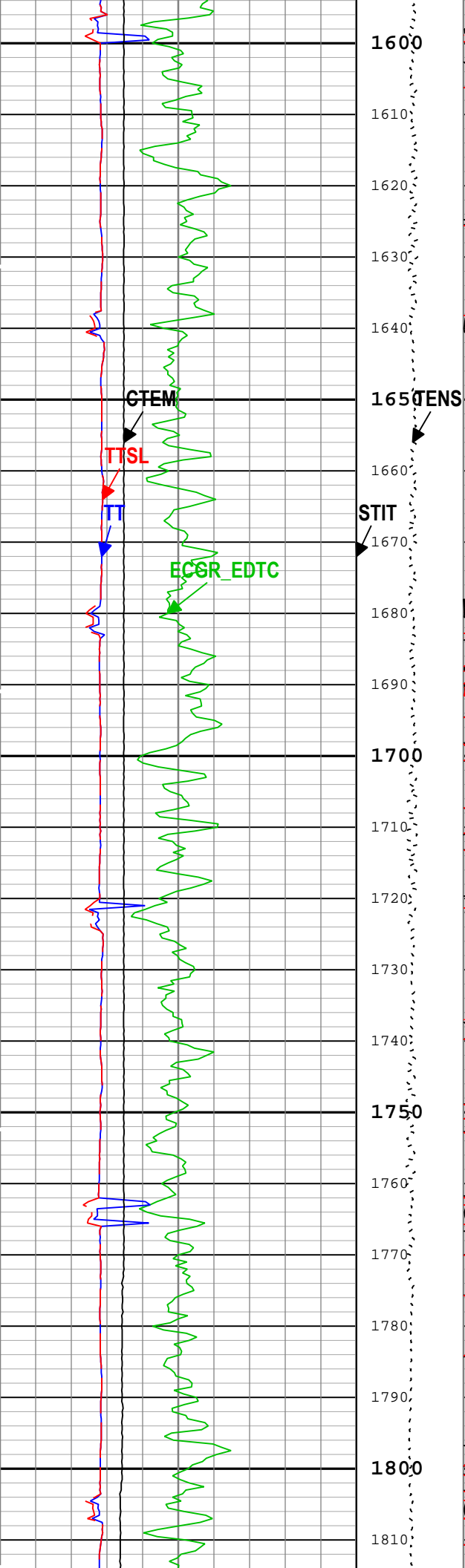


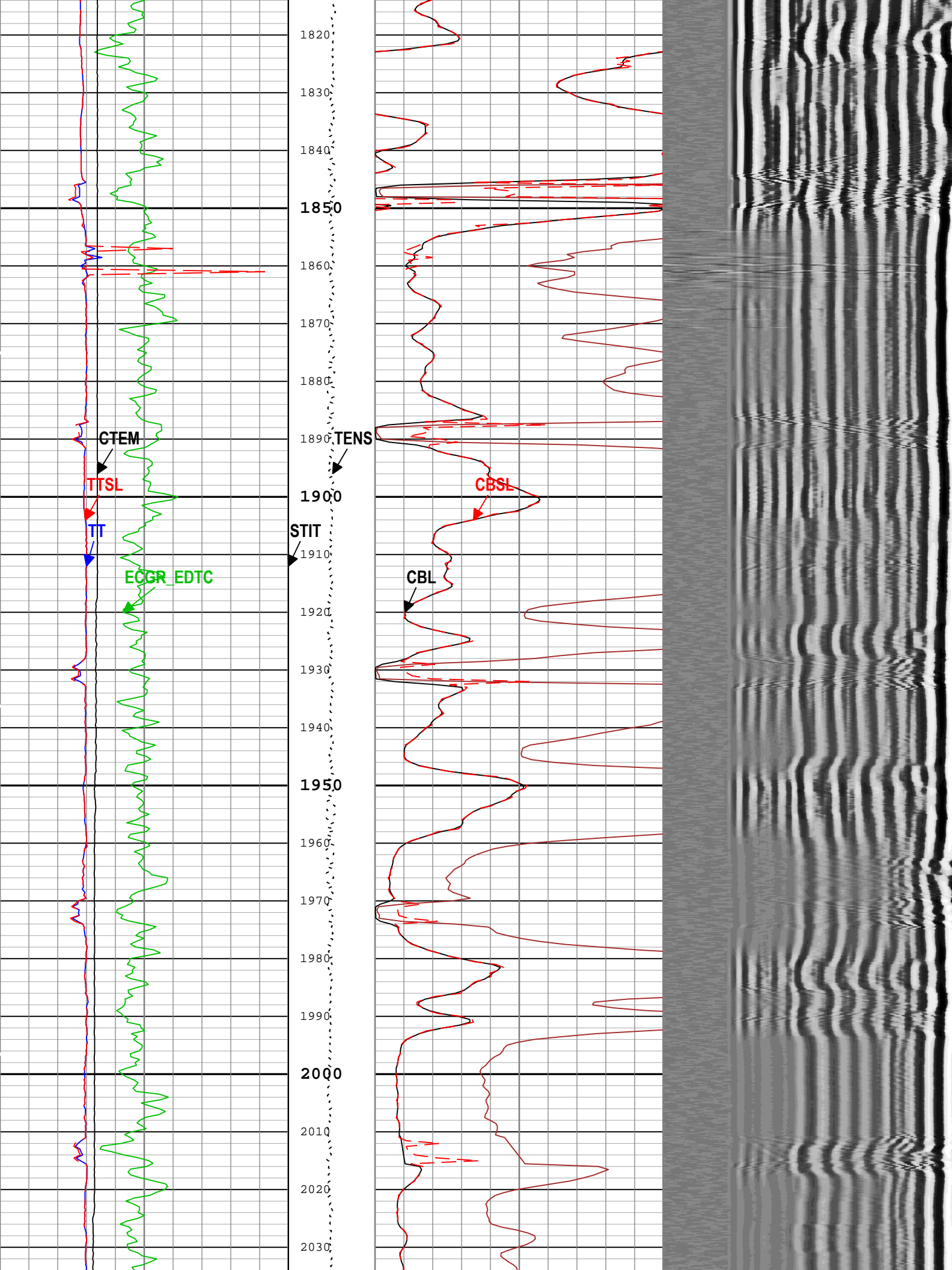




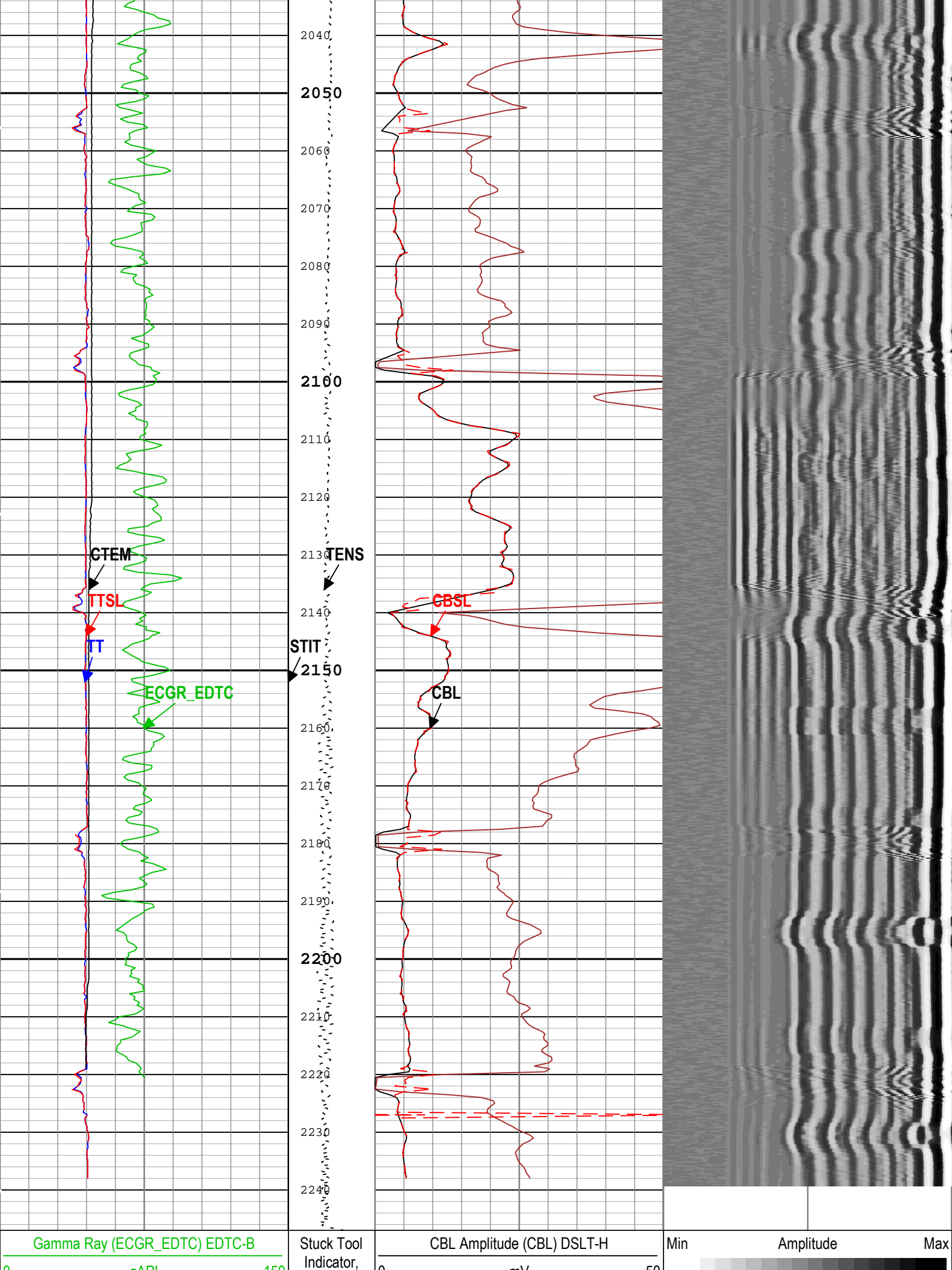














Transit Time for CBL (TT) DSLT-H			CBL Amplitude (CBL) DSLT-H			Variable Density Log (VDL) DSLT-H		
400	us	200	0	ft	50	200	us	1200
Transit Time (Sliding Gate) (TTSL) DSLT-H			CBL Amplitude (Sliding Gate) (CBSL) DSLT-H					
400	us	200	0	mV	10			
Cartridge Temperature (CTEM) EDTC-B			Cable Tension (TENS)					
20	degF	220	2000	lbf	0			
			Cable Drag					
			Tool_Tot. Drag					
			BIEP - Bond Index Event Pips DSLT-H					

TIME\_1900 - Time Marked every 60.00 (s)

Description: CBL\_VDL    Format: Log ( Sonic CBL with VDL )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 24-Jun-2018 11:36:36

Channel Processing Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
ISSBAR	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	13.5	in
CBLO	Casing Bottom (Logger)	WLSESSION	2500	ft
CBRA	CBL LQC Reference Amplitude in Free Pipe	DSLTH	52	mV
CDEN	Cement Density	EDTC-B	2	g/cm3
DETE	Delta-T Detection	DSLTH	E1	
DFD	Drilling Fluid Density	Borehole	8.4	lbm/gal
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS(RT)	
GOBO_CURR	Good Bond in Arbitrary Cement	DSLTH	3.09	mV
MAHTR	Manual High Threshold Reference for first arrival detection	DSLTH	120	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	DSLTH	10.91	dB/ft
MCI	Minimum Cemented Interval for Isolation	DSLTH	14.81	ft
MNHTR	Minimum High Threshold Reference for first arrival detection	DSLTH	100	
MSA	Minimum Sonic Amplitude	DSLTH	1.53	mV
MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	DSLTH	1.53	mV
NMSG	Near Minimum Sliding Gate	DSLTH	312	us
SGAD	Sliding Gate Status	DSLTH	Off	
SGDT	Sliding Gate Delta-T	DSLTH	57	us/ft
TD	Total Measured Depth	Borehole	2500	ft
VDLG	VDL Manual Gain	DSLTH	2.26	

Tool Control Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
MODE	DSLTH Acquisition Mode	DSLTH	CBL	
RATE	DSLTH Firing Rate	DSLTH	15 Hz	
DTFS	DSLTH Telemetry Frame Size	DSLTH	536	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	5000	ft/h
SGAI	Selectable Acquisition Gain	DSLTH	x1	

Calibration Report

DSLT-H (Digitizing Sonic Logging Tool - H) Calibration - Run One

Primary Equipment :			Sonic Logging Sonde E supports 3'-5'BHC DT and CBL/VDL			SLS-E		1563	
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CBL Normalization - CBL Accumulations

Master (Manual Entry):		12:37:57 23-Jun-2018						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
Upper Far Amplitude - 0		Master	----	----	----	----		
Upper Near Raw Amplitude - 0	mV	Master	----	----	----	----		
Lower Far Amplitude - 0		Master	----	----	----	----		
Lower Near Raw Amplitude - 0	mV	Master	----	----	----	----		

CBL Normalization - CBL/VDL Coefficients

Master (Manual Entry):		12:37:57 23-Jun-2018						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Correction Factor for UT		Master	3.500	2.700	3.431	4.300		
CBL Correction Factor for LT		Master	2.500	1.700	2.712	4.300		
VDL Ratio between UT and LT for CBLB Mode		Master	1.000		1.350			

CBL Free Pipe Adjustment - Free Pipe Measurement

Before (Manual Entry):		11:29:11 24-Jun-2018						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Amplitude - 0	mV	Before	----	----	----	----		
CBL Reference Amplitude (CBRA) - 0	mV	Before	----	----	----	----		
Measurement Depth - 0	ft	Before	----	----	----	----		

CBL Free Pipe Adjustment - CBL Amplitude Coefficient

Before (Manual Entry):		11:29:11 24-Jun-2018						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
CBL Adjustment Factor		Before	1.000	0.200	0.980	5.000		
Depth of Before Calibration	ft	Before			50.72			

Company:

Well:

Field:

County:

State:

Crestone Peak Resources Operating LLC

Sam 3G-25H-M166

Wattenberg

Weld

Colorado

Schlumberger

