

APPENDIX L

CEMENT BOND LOG

3 of 9

Company: DCP Midstream LP

Well: Zia AGI D2

Field: AGI Devonian Exploration

County: Lea State: Texas

Cement Bond Log

SSLT-GR-CCL

County: Lea

Field: AGI Devonian Exploration

Location: 1893' FSL & 950' FWL

Well: Zia AGI D2

Company: DCP Midstream LP

Location:

1893' FSL & 950' FWL

Section: 19, Township: T19S, Abstract: R32E

Elev.: K.B. 7119.00 ft
G.L. 3547.00 ft
D.F. 7118.00 ft

Permanent Datum:

Log Measured From:

Drilling Measured From:

Ground Level

Kelly Bushing

Kelly Bushing

Elev.: 3572.00 ft

above Perm.Datum

API Serial No.

Section:

Township:

Range:

30-025-42207

19

T19S

R32E

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

Max Recorded Temperatures

Logger on Bottom

Unit Number

Recorded By

Witnessed By

15-Nov-2016

4A

4700.00 ft

4700.00 ft

4632.00 ft

50.00 ft

Salt Brine

83000 ppm

9.6 lbm/gal

8.00 ft

12.25 in

2600.00 ft

4700.00 ft

9.625 in

40 lbm/ft

N/A

0.00 ft

4696.00 ft

115 degF

15-Nov-2016

2140

Brett Dobinsky

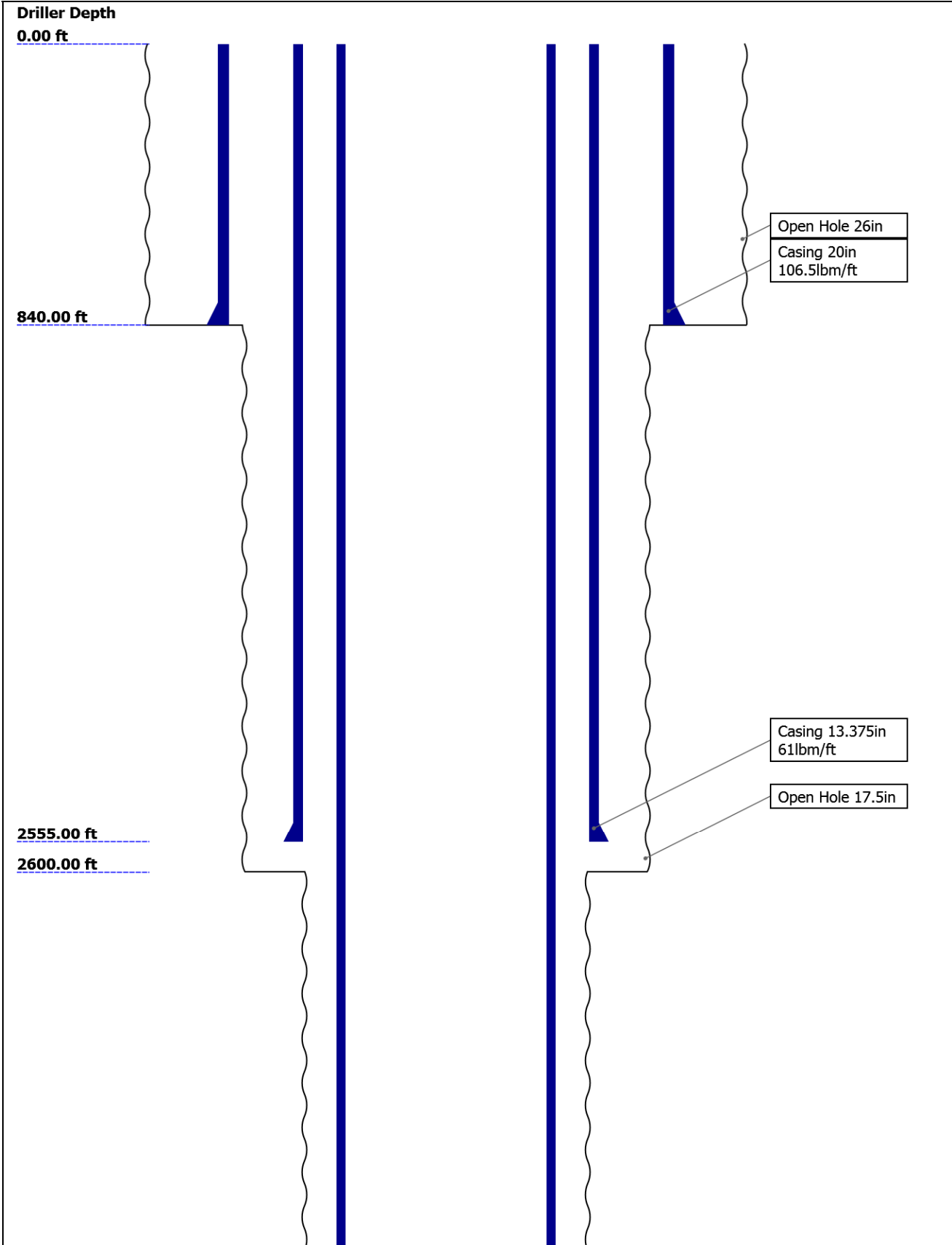
James Hunter

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. 4A Main Pass	
8.1 Integration Summary	
8.2 Software Version	
8.3 Composite Summary	
8.4 Log (SSLT DCBL)	
8.5 Parameter Listing	
9. 4A Repeat Pass	
9.1 Composite Summary	
9.2 Log (SSLT DCBL RA)	
10. Tail	

Well Sketch



4696.00 ft

4700.00 ft

Casing 9.625in
40lbm/ft

Open Hole 12.25in

Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	26	17.5	12.25			
Top Driller (ft)	0	840	2600			
Top Logger (ft)	0	840	2600			
Bottom Driller (ft)	840	2600	4700			
Bottom Logger (ft)	840	2600	4700			
Casing						
Size (in)	20	13.375	9.625			
Weight (lbm/ft)	106.5	61	40			
Inner Diameter (in)	19	12.515	8.835			
Grade	N/A	N/A	N/A			
Top Driller (ft)	0	0	0			
Top Logger (ft)	0	0	0			
Bottom Driller (ft)	840	2555	4696			
Bottom Logger (ft)	840	2555	4696			

Remarks and Equipment Summary

4A: Toolstring				4A: Remarks	
Equip name	Length	MP name	Offset	Logging Objective: Cement and corrosion evaluation from TD to Surface.	
LEH-QC	45.82			Toolstring run as per toolsketch. 2 gemcos used on ASLT.	
CAL-YA	43.37			SLB TD: 4635 ft.	
CAL-YA		CCL	42.57	Logs correlated to DV tool as per client.	
				No pressure applied as per client request.	
DTC-H	39.87			As per the client: drilling fluid Brine 9.25 # and 10# brine in annulus.	
ECH-KC		CTEM	38.97	No spacer used during cement job as per client.	
DTC-H		HV	0.00	Stage 1: Lead - 12.7 ppg and Tail - 14.8 ppg	
		TelStatus	36.87	DV tool at 2608 ft.	
		ToolStatus	36.87	Stage 2: Lead - 13.5 and Tail - 14.8 ppg	
SGT-N	36.87			Casing: 9.625 in. 40#.	
SGH-K		GR	35.95	Casing ER: 4.8125 in., IR: 4.8125 in., Thickness: 0.395 in.	
SGC-TB				Fluid Slowness: Automatic, Acoustic Impedence: Theoretical.	
SGD-TAA				2 fluid slowness using the 10# Fluid slowness	
ASLT-B	31.37				
ASLT-BB					

IBC main pass logged at 10deg 6in.



Depth Summary

4A

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	Triple		

4A:Depth Control Parameters		Depth Control Remarks	
Log Sequence	Subsequent Trip To the Well	Schlumberger Wireline Depth Procedures followed.	
Reference Log Name		IDW used as primary depth control device.	
Reference Log Run Number		Z-Chart used as secondary depth control.	
Reference Log Date		Log correlated to DV tool as per client request.	
Subsequent Trip Down Log Correction	5.00 ft		

4A

Main Pass

Software Version									
Acquisition System						Version			
Maxwell 2016 SP1						6.1.58882.3100			
Application Patch						Wireline_Hotfix-Perfo-2016SP1_6.1.63773			
						Wireline_Hotfix-RTB-2016SP1_6.1.68160			
						Wireline_NPD-PNX-2016SP1_6.1.74487			

Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
4A	Main[3]:Up	Up	43.94 ft	4637.08 ft	15-Nov-2016 7:49:50 AM	15-Nov-2016 9:55:41 AM	ON	5.00 ft	Yes
All depths are referenced to toolstring zero									

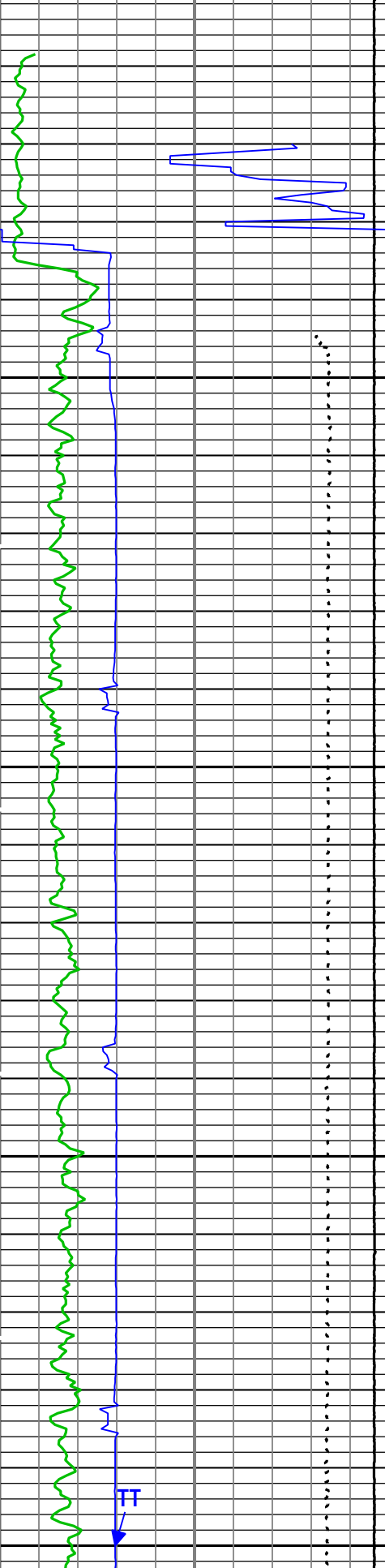
Log	Company:DCP Midstream LP Well:Zia AGI D2 4A: Main[3]:Up:S016								
Description: SSLT DCBL Format: Log (SSLT DCBL) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2016 15:11:23									
Channel	Source	Sampling							
CBL	ASLT-B:ASLT-BB:ASLT-BB	6in							
CCL	CAL-YA:CAL-YA:CAL-YA	1in							
GR	SGT-N:SGT-N:SGC-TB	6in							
TENS	WLWorkflow	1in							
TIME_1900	WLWorkflow	0.1in							
TT	ASLT-B:ASLT-BB:ASLT-BB	6in							
TIME_1900 - Time Marked every 60.00 (s)									

Gamma Ray (ECGR) SGT-N		
0	gAPI	150
Cable Tension (TENS)		
5000	lbf	0

Cable Tension (TENS)		
5000	lbf	0

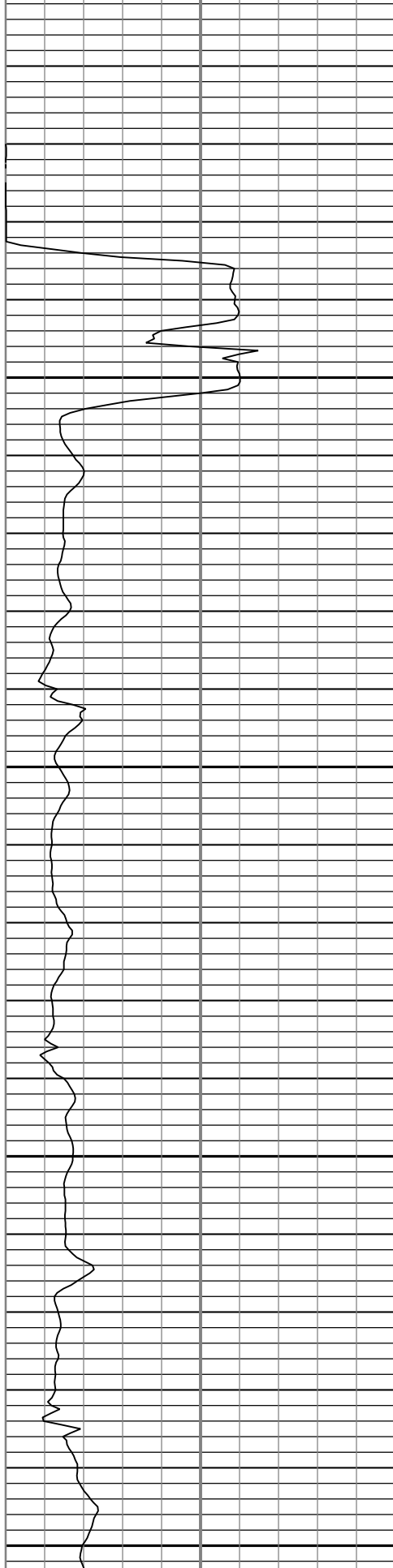
Transit Time for CBL (TT) ASLT-B

400 us 200



CBL Amplitude (CBL) ASLT-B

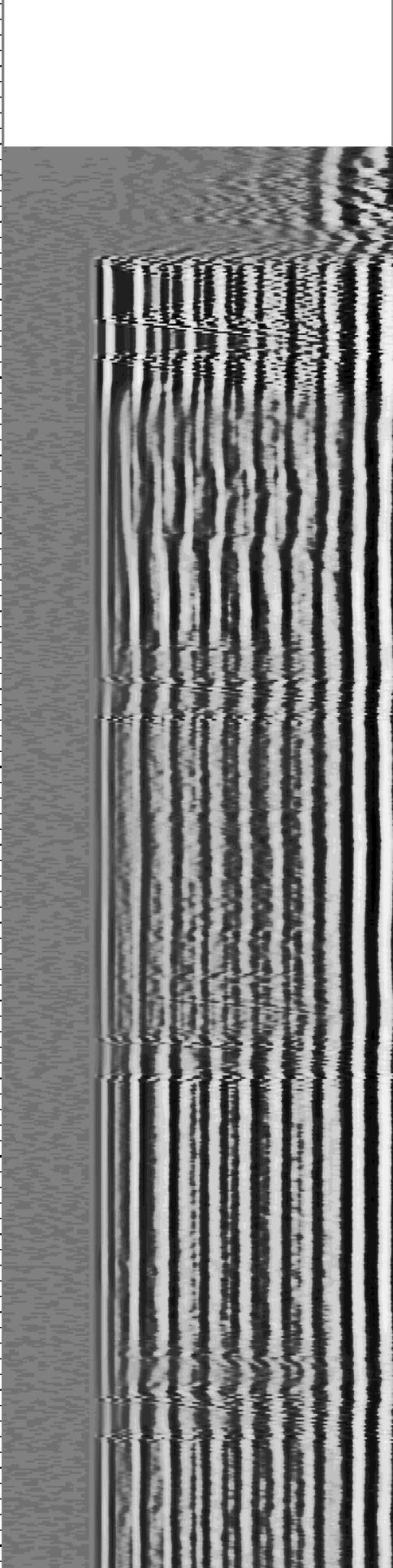
0 mV 100

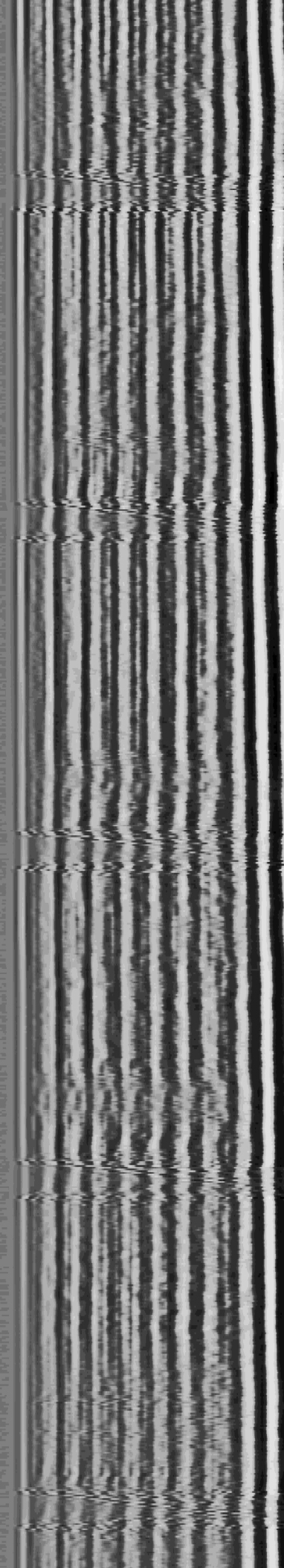
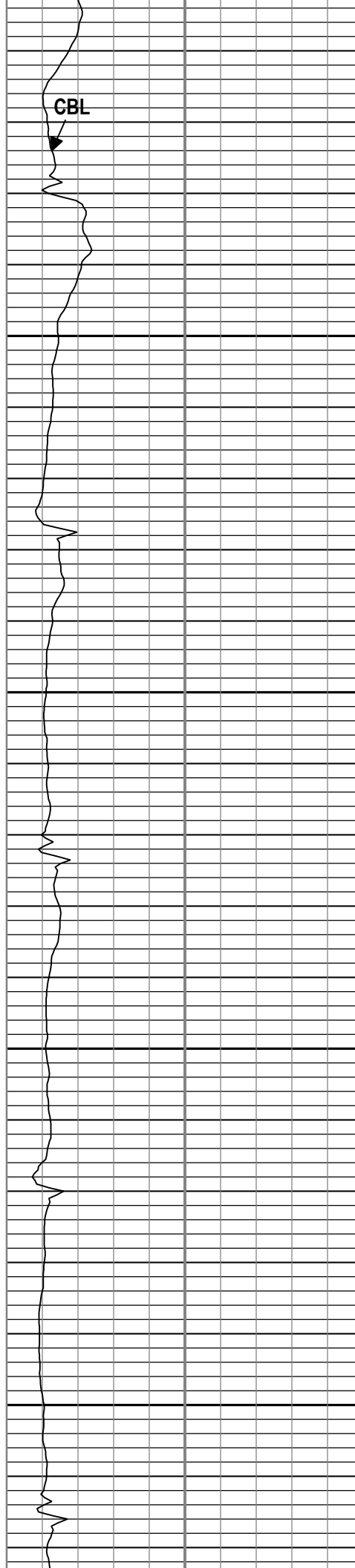
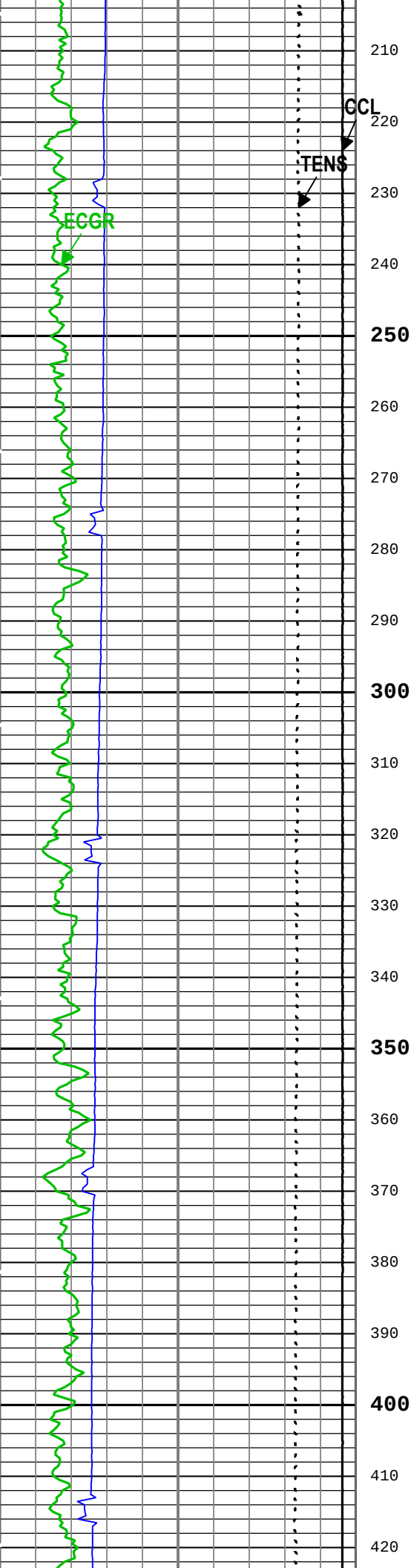


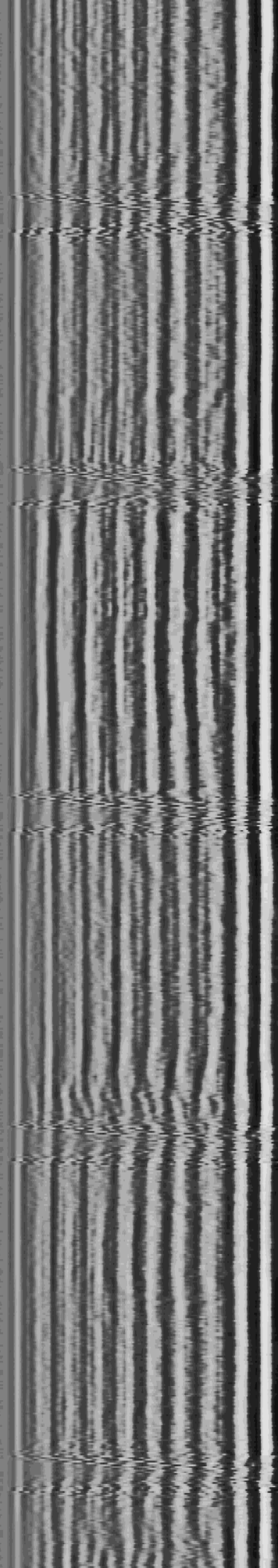
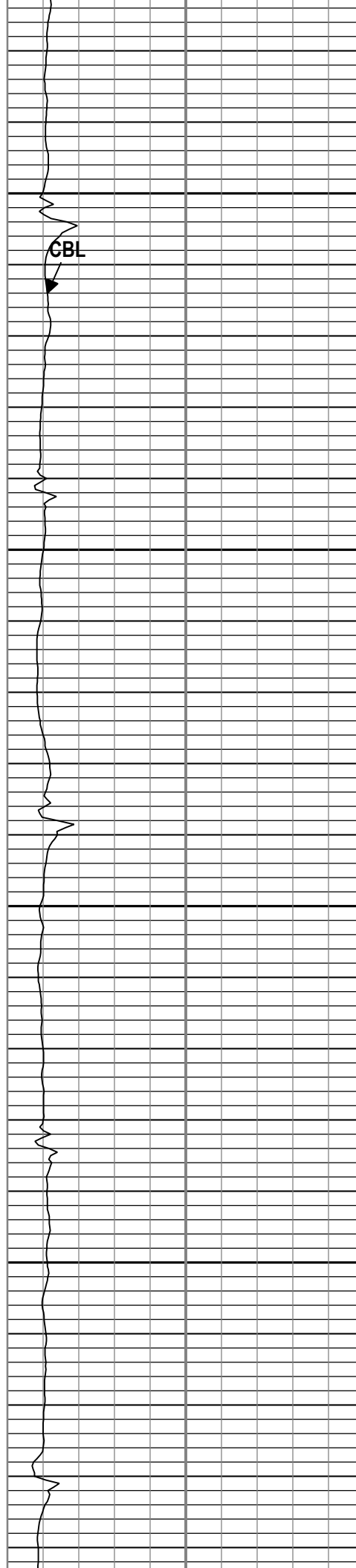
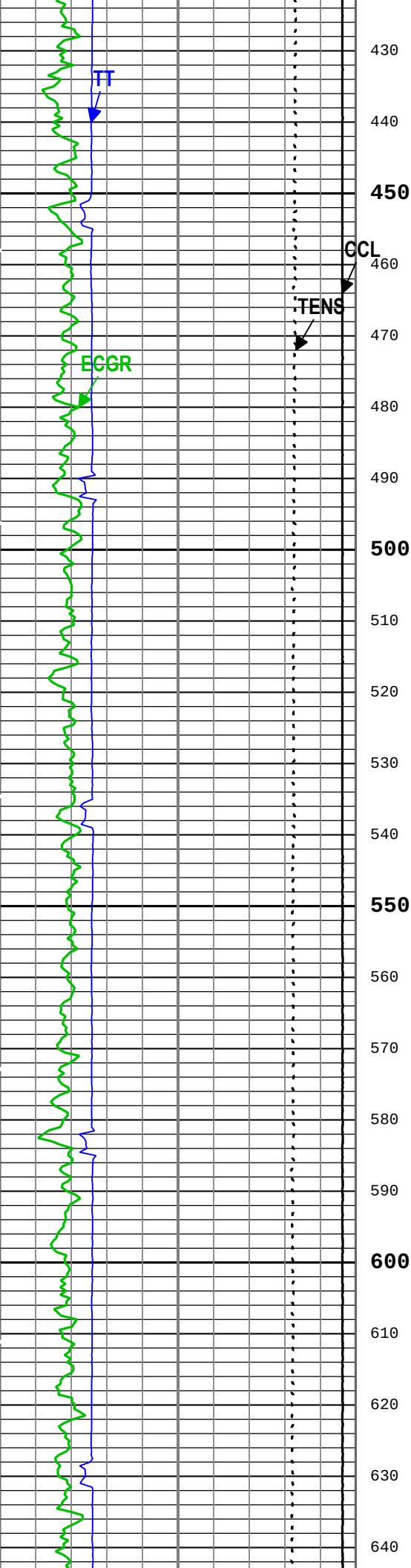
Min Amplitude Max

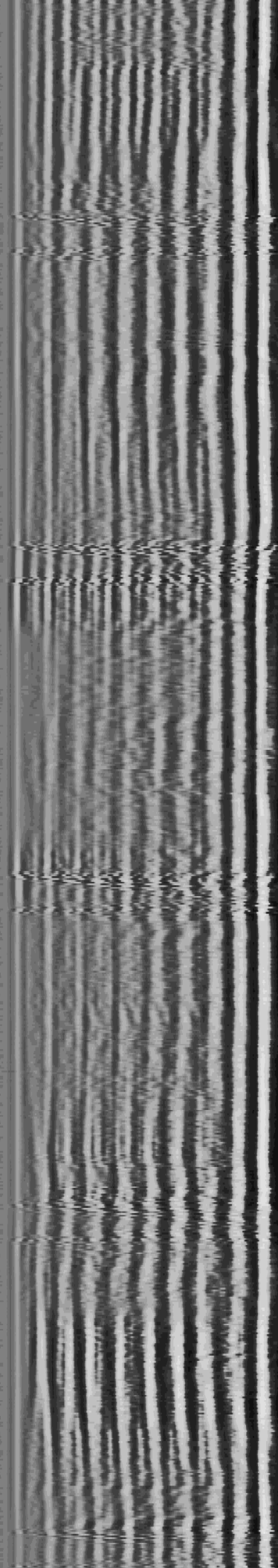
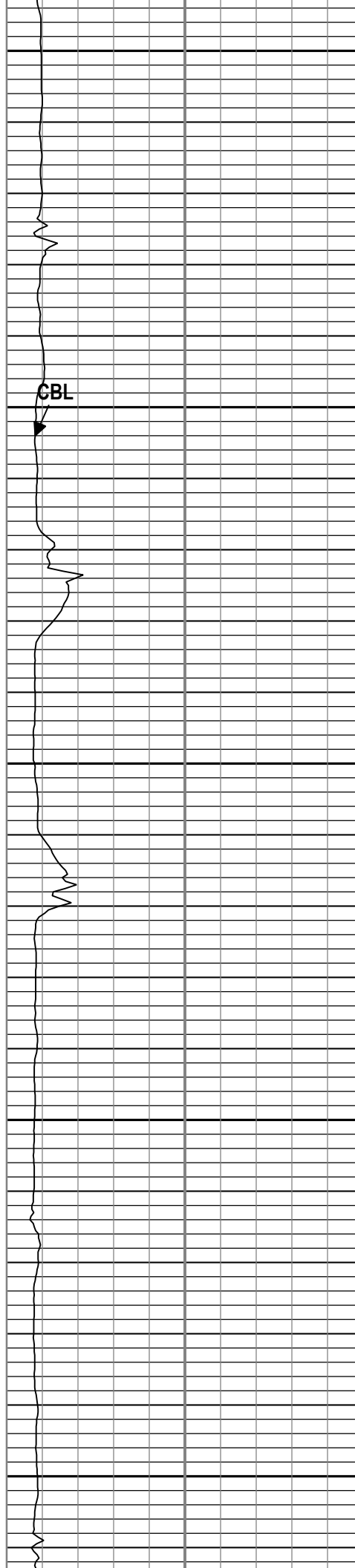
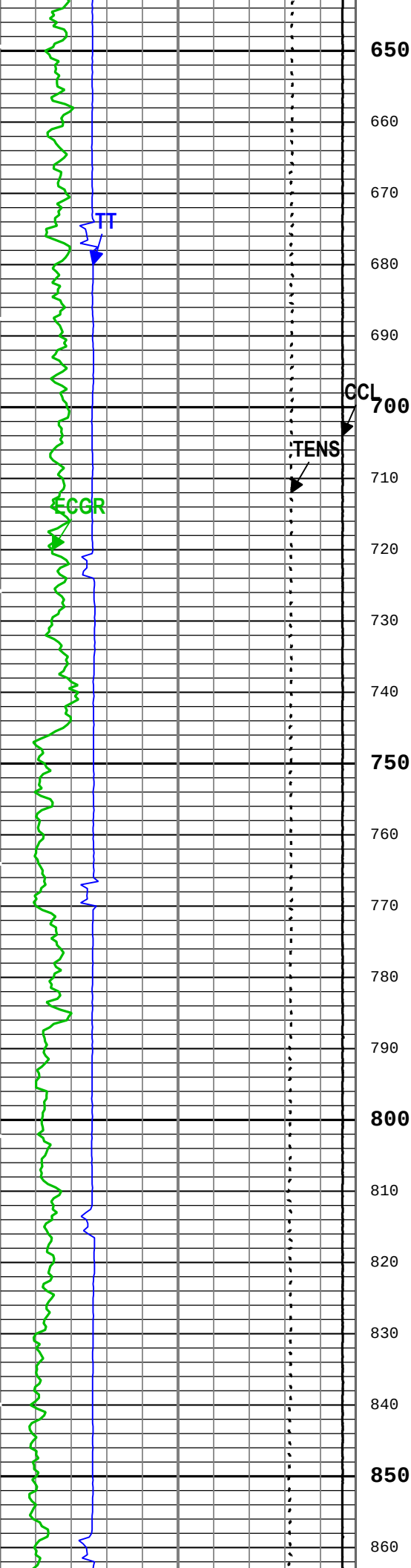
VDL VariableDensity (VDL) ASLT-B

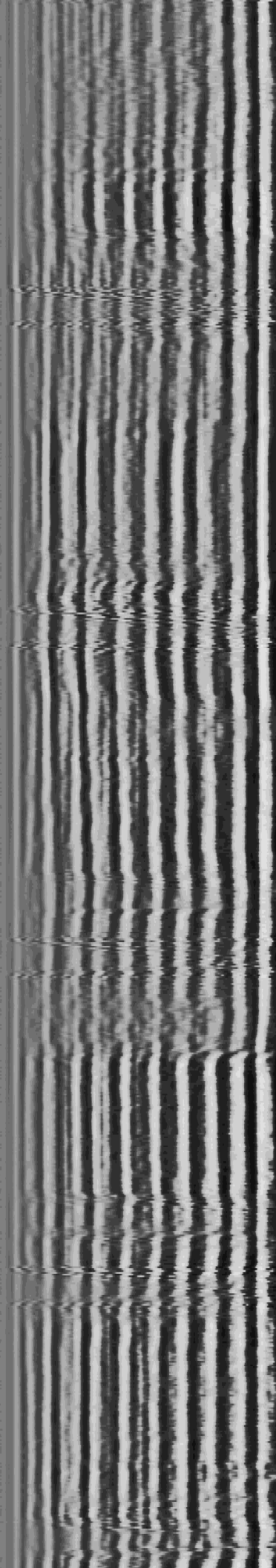
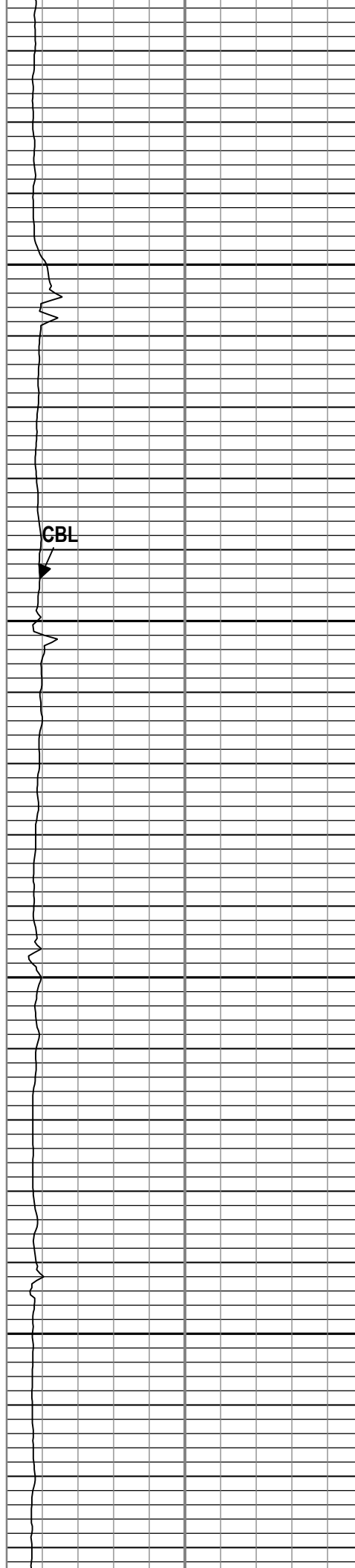
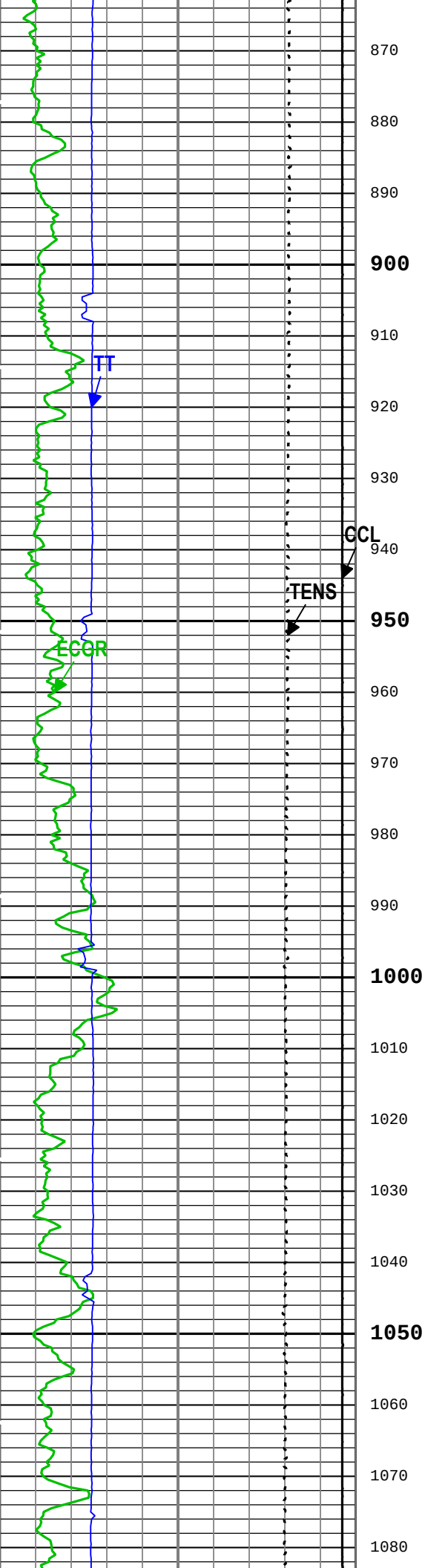
200 us 1200

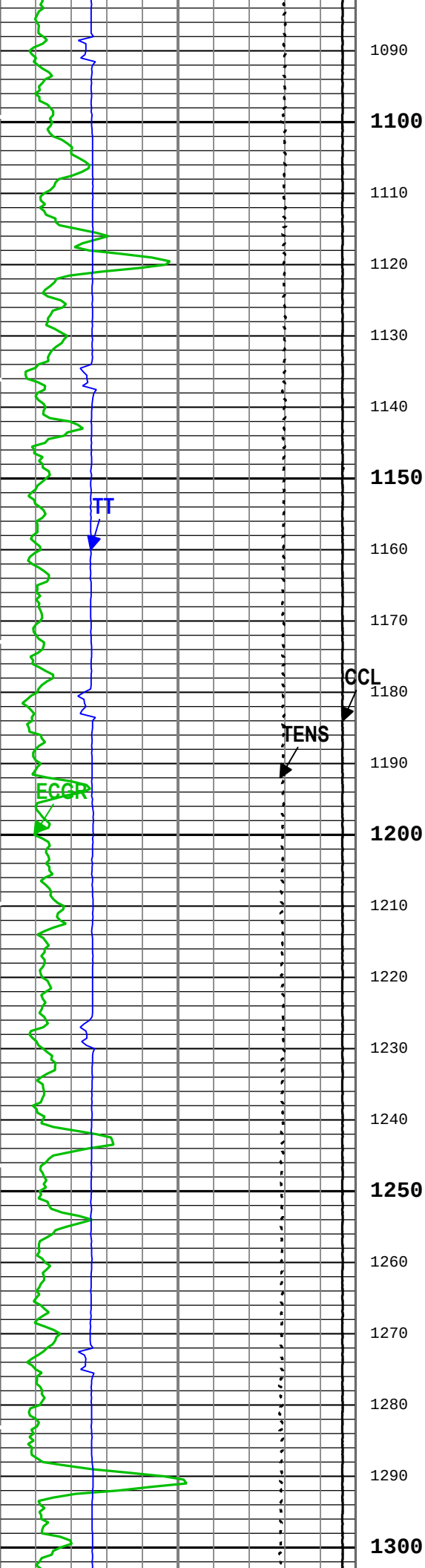












1090

1100

1110

1120

1130

1140

1150

1160

1170

1180

1190

1200

1210

1220

1230

1240

1250

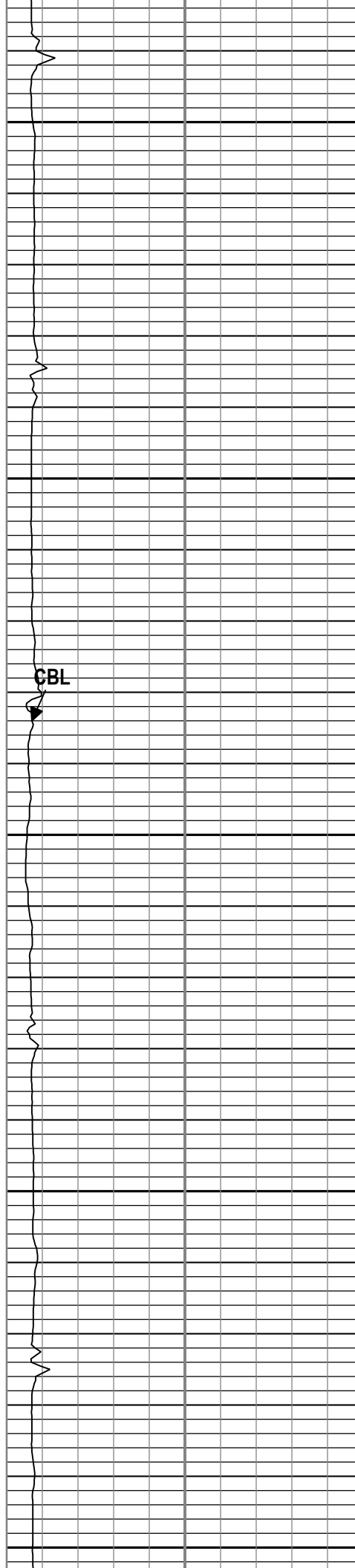
1260

1270

1280

1290

1300



1180

1190

1200

1210

1220

1230

1240

1250

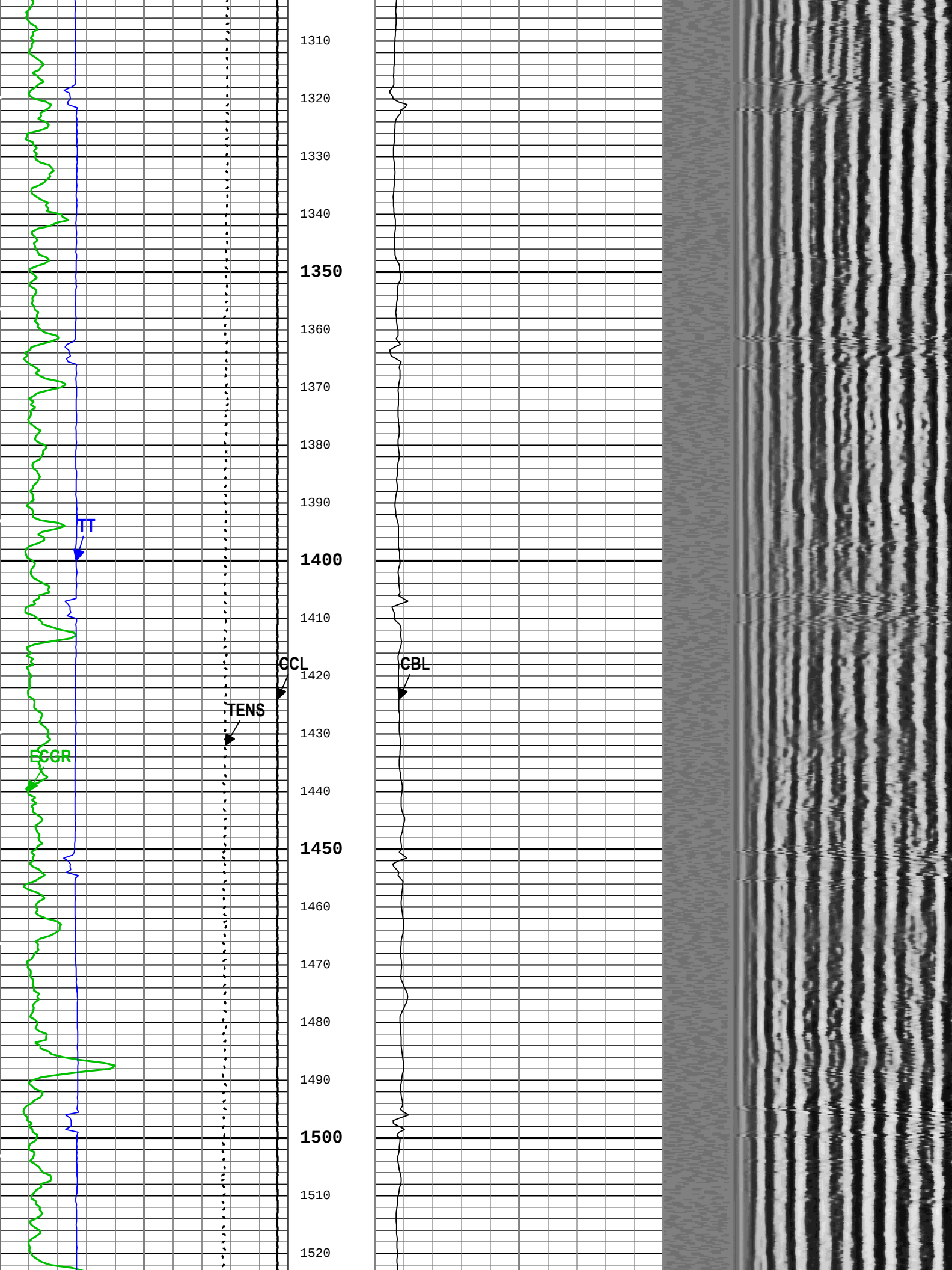
1260

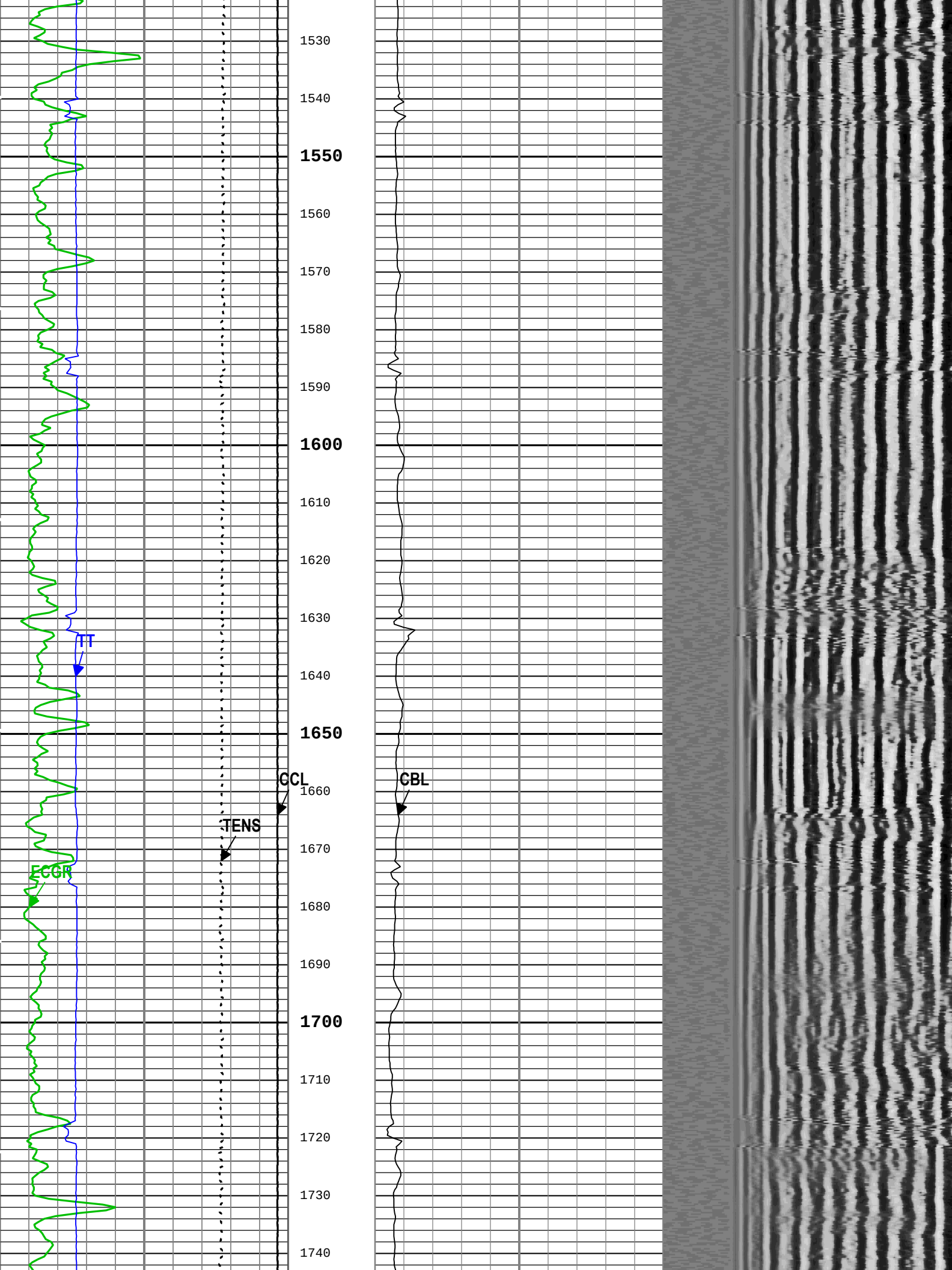
1270

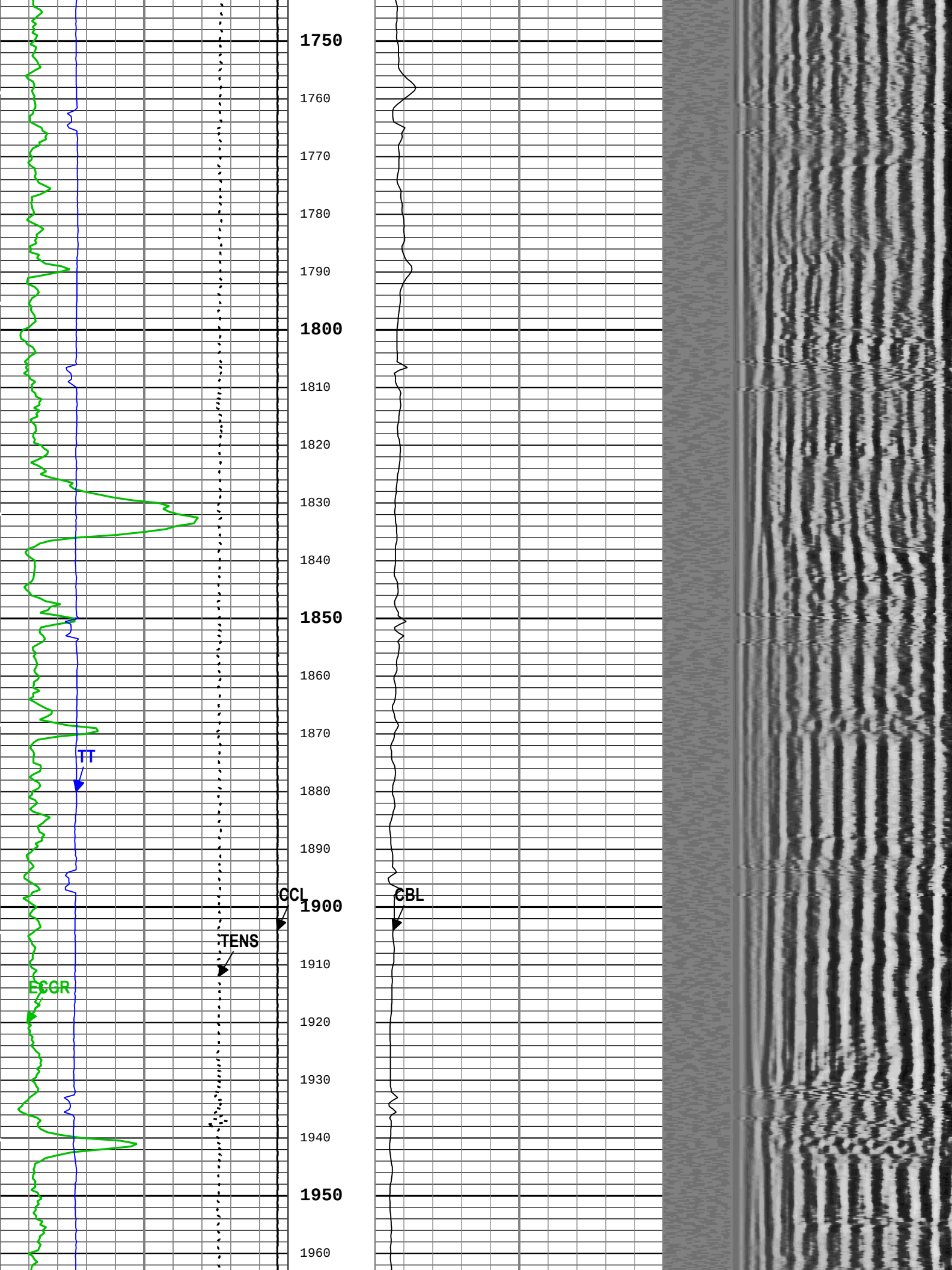
1280

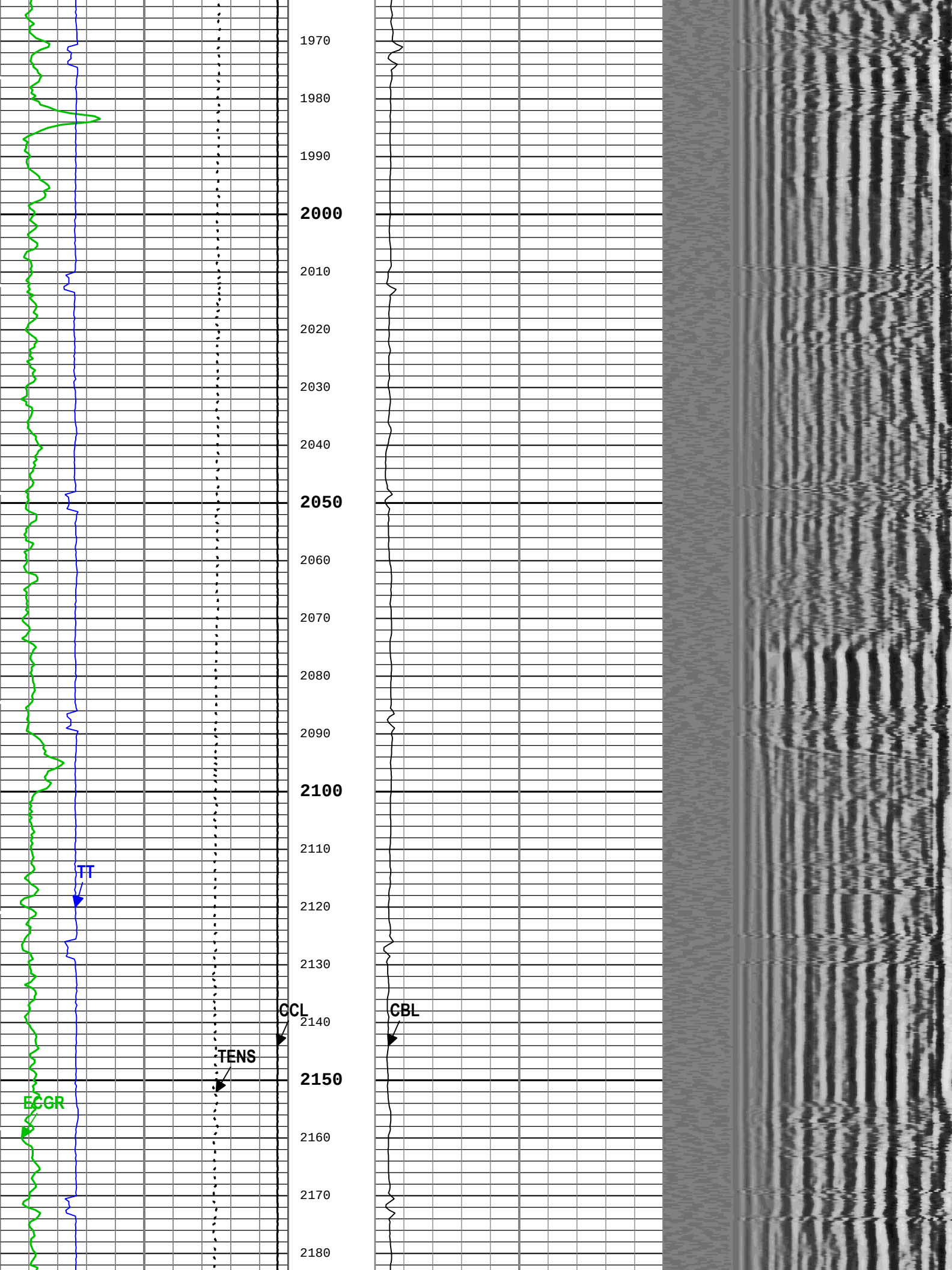
1290

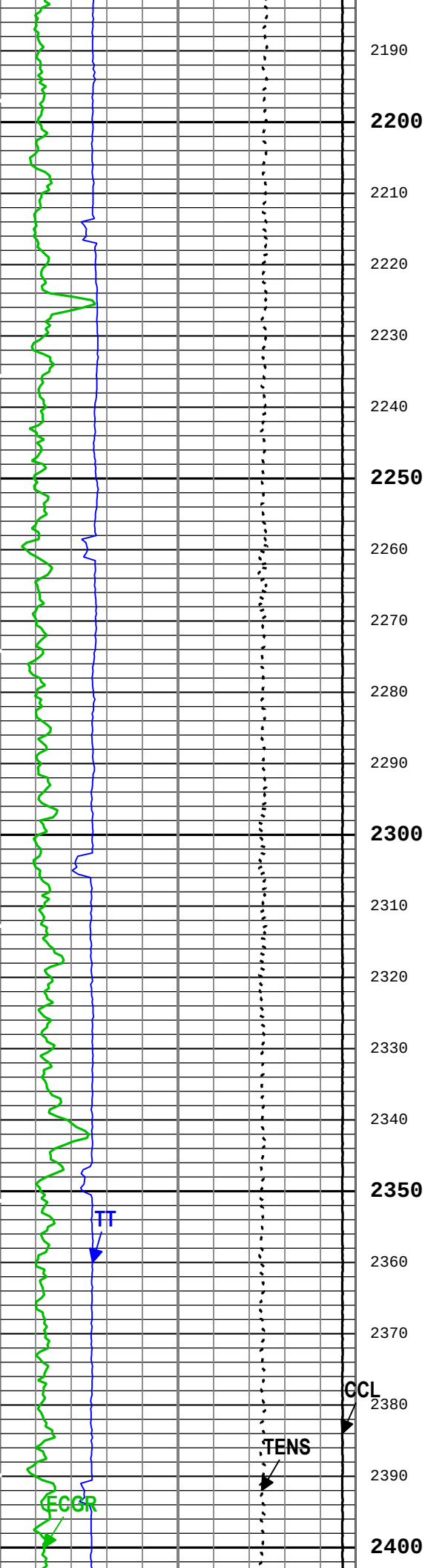
1300











2190

2200

2210

2220

2230

2240

2250

2260

2270

2280

2290

2300

2310

2320

2330

2340

2350

2360

2370

GCL
2380

TENS

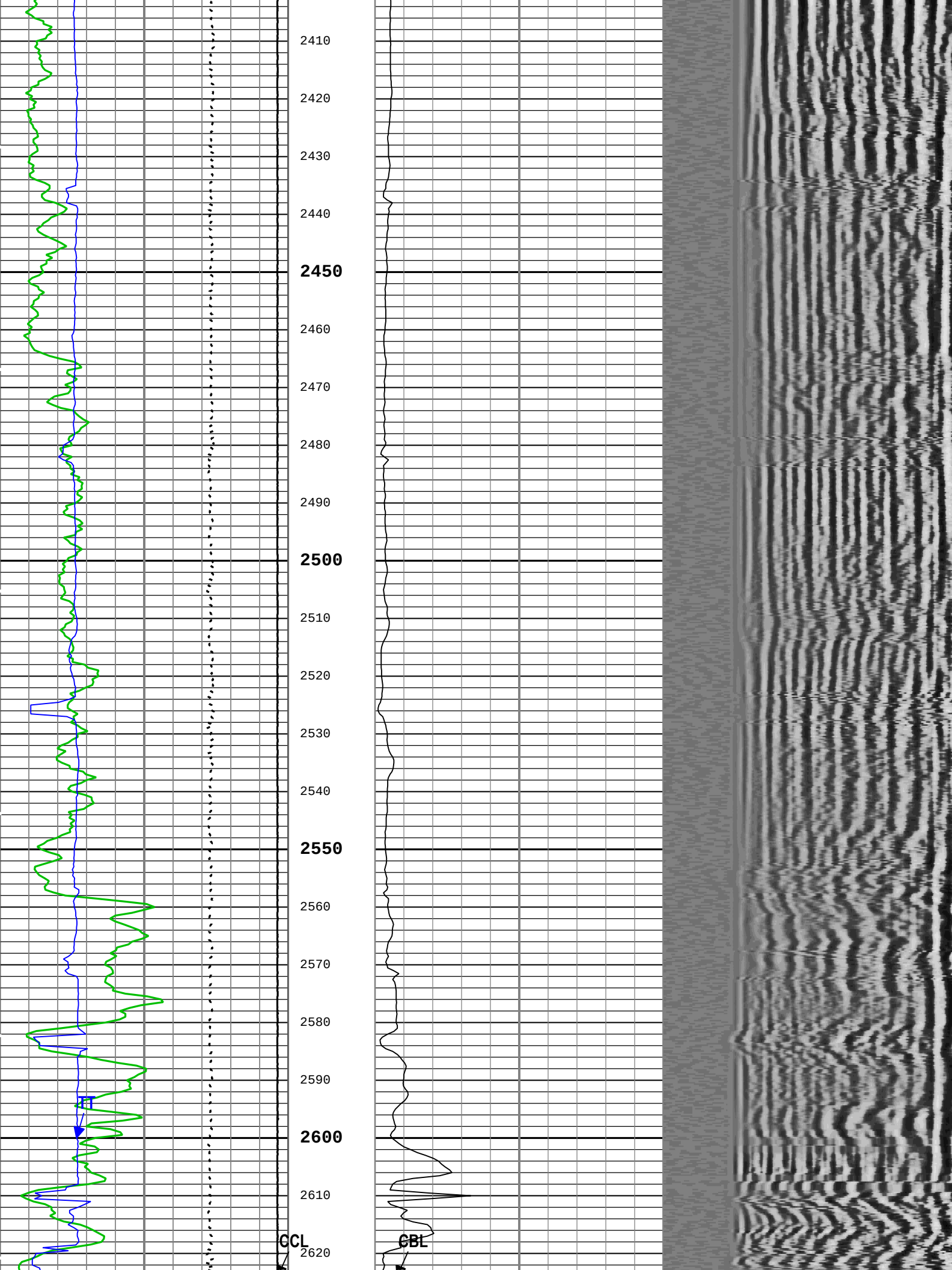
2390

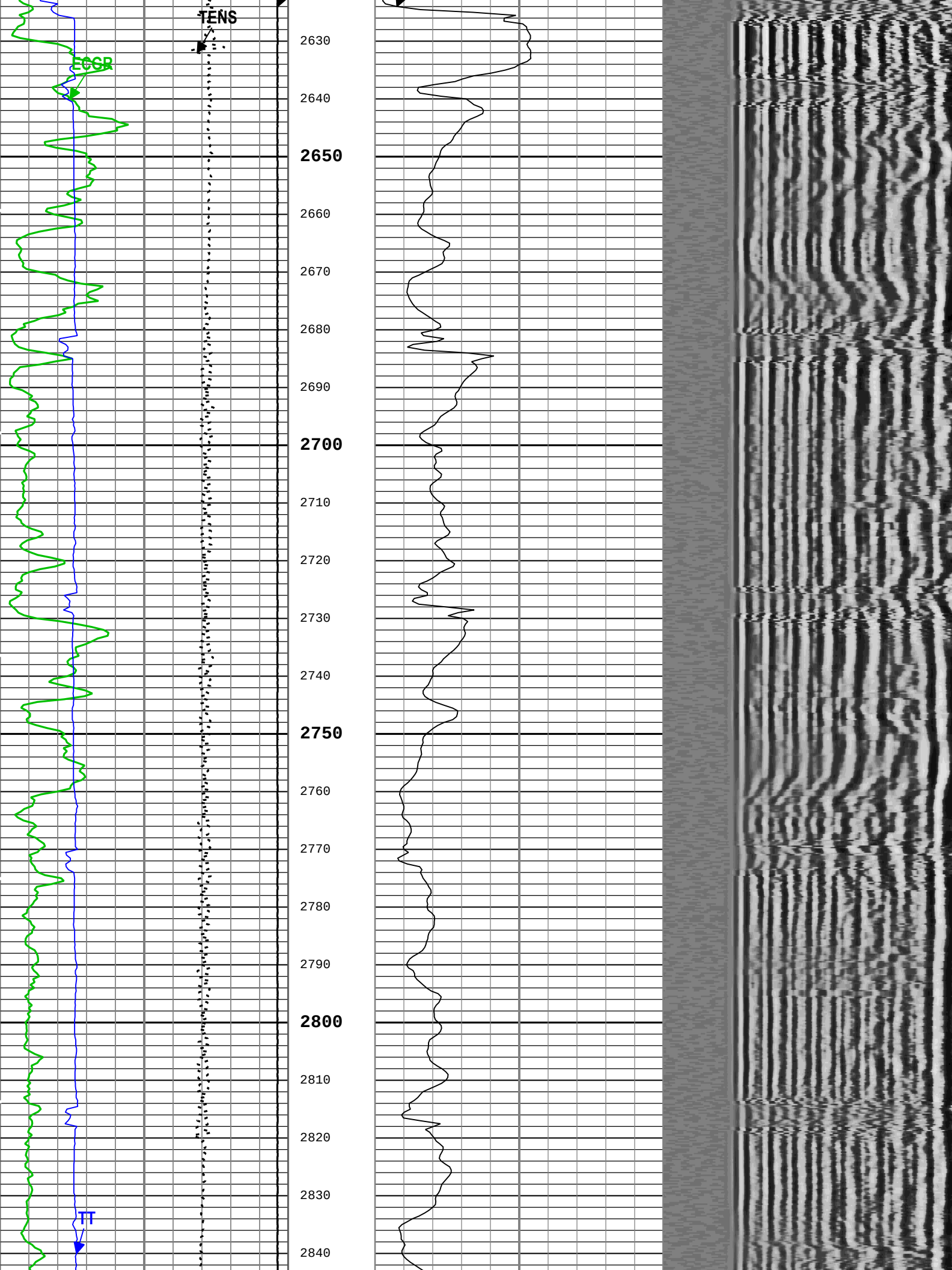
2400

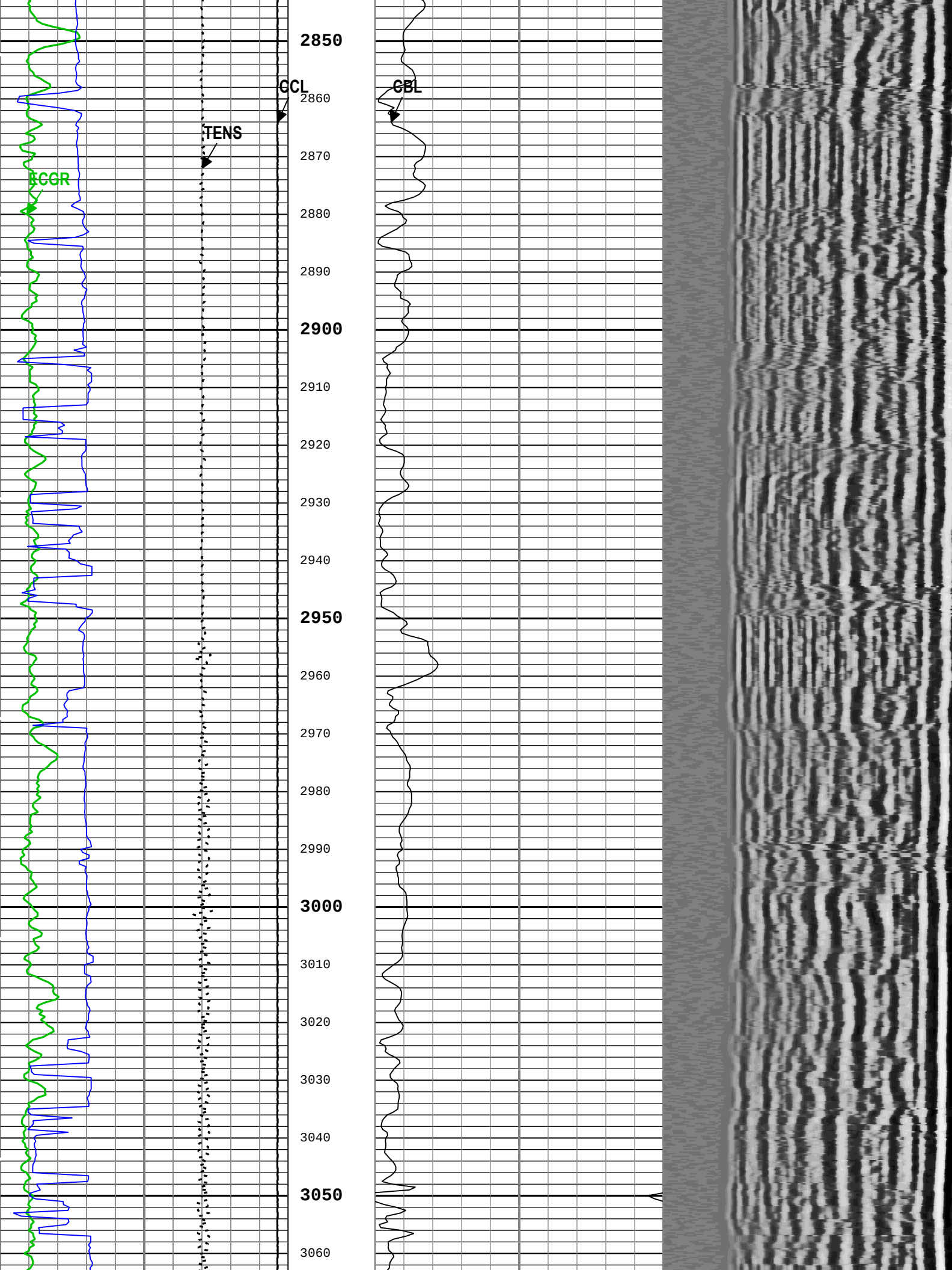
GCL
2380

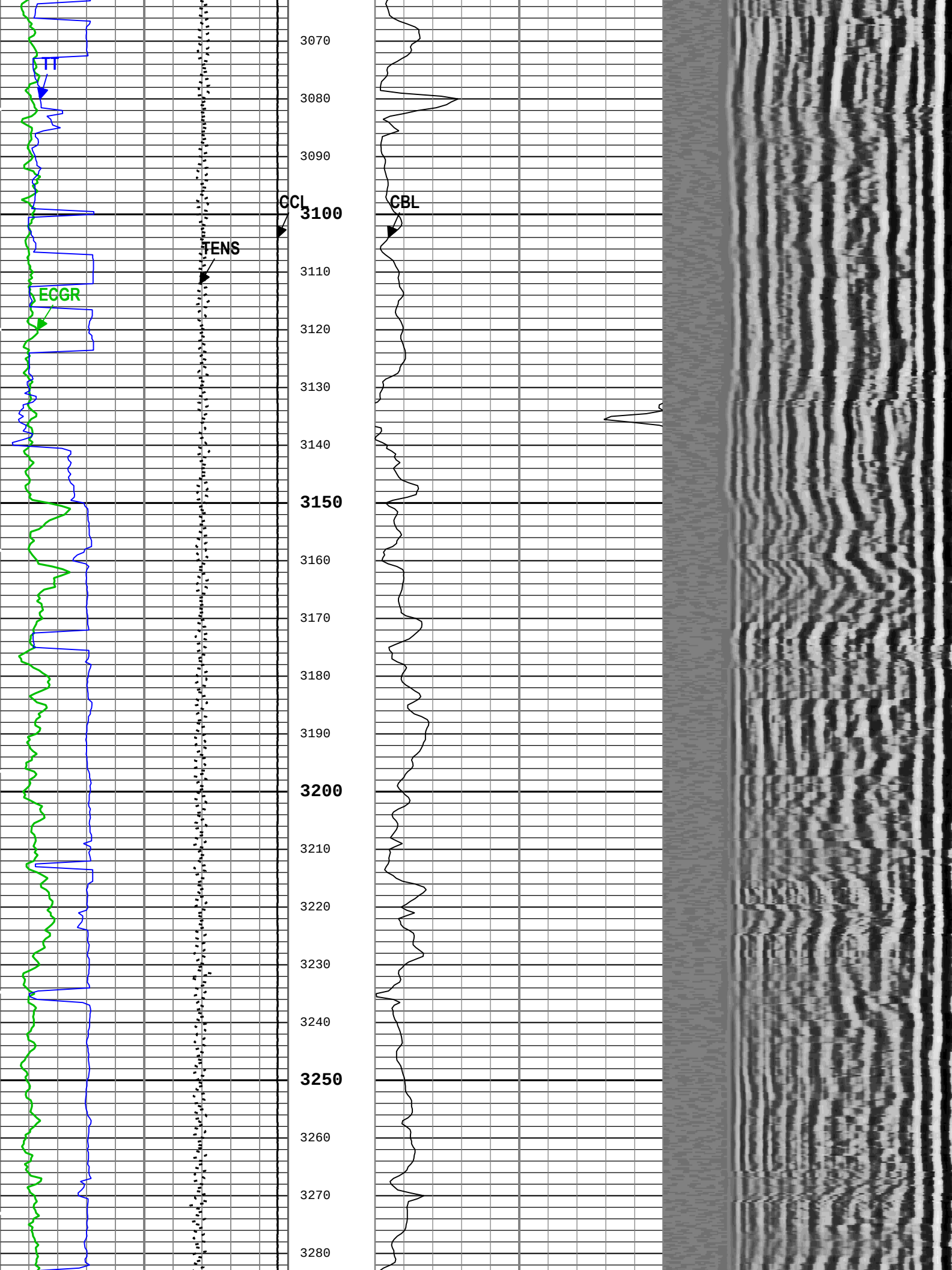
2390

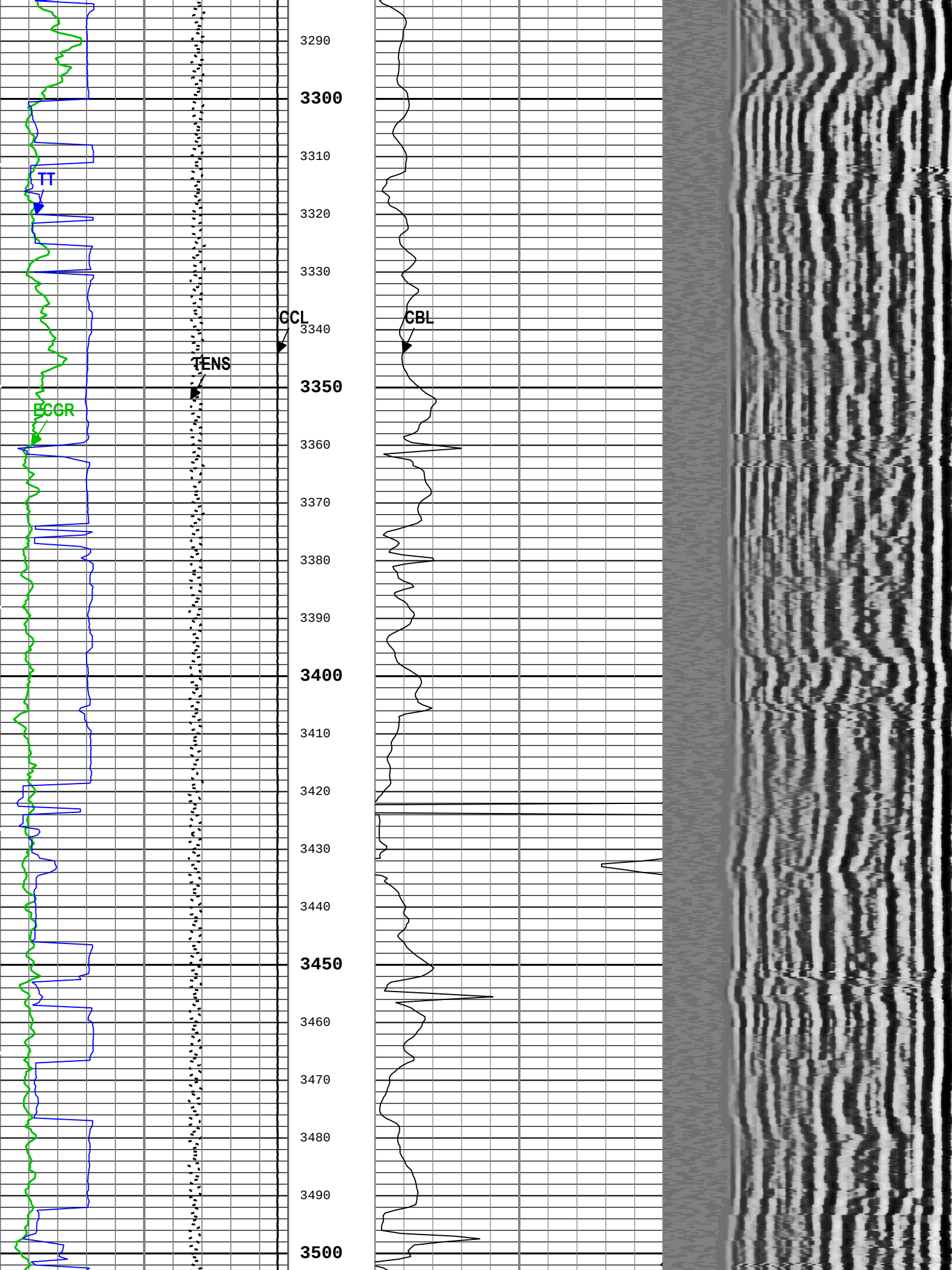
2400

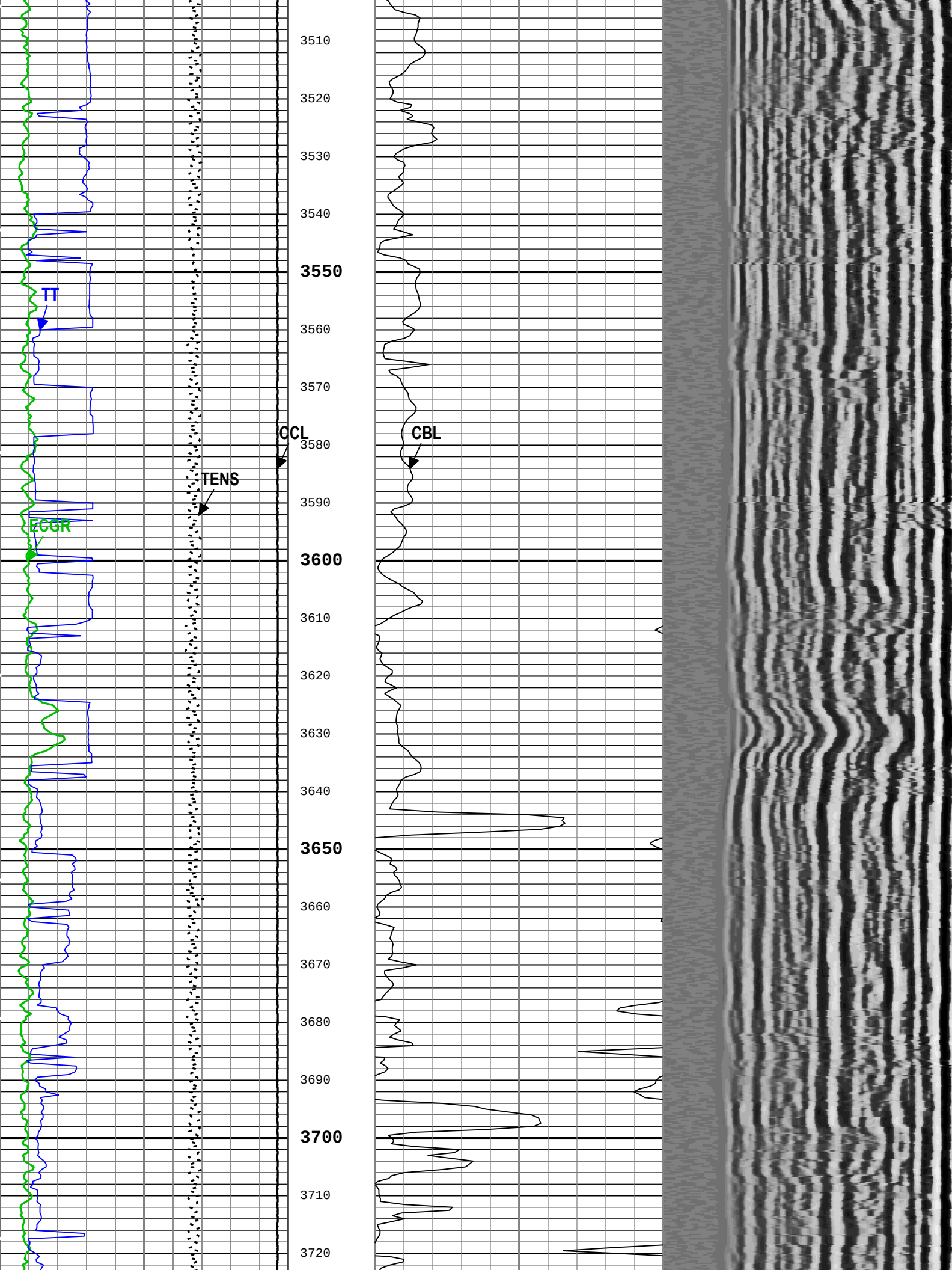


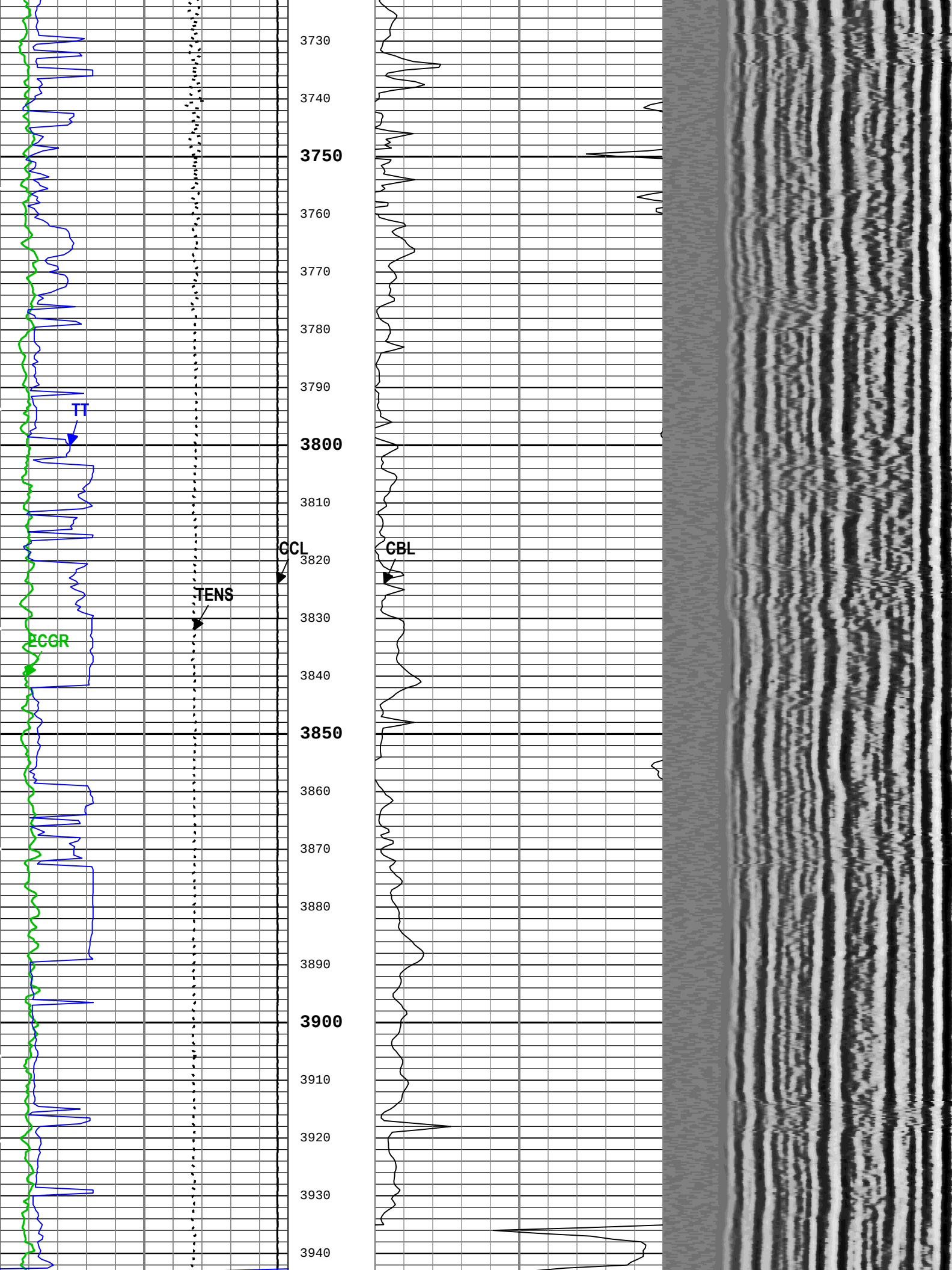


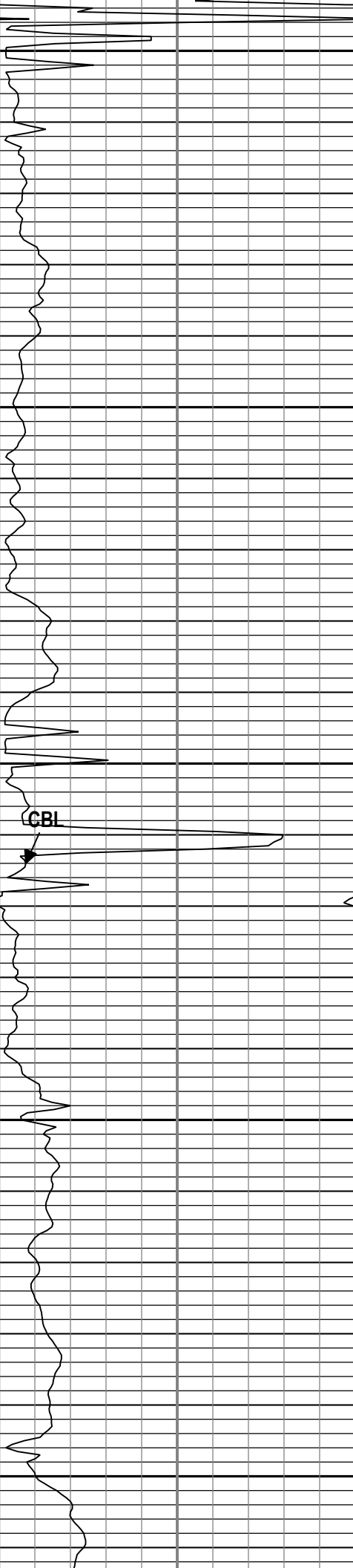
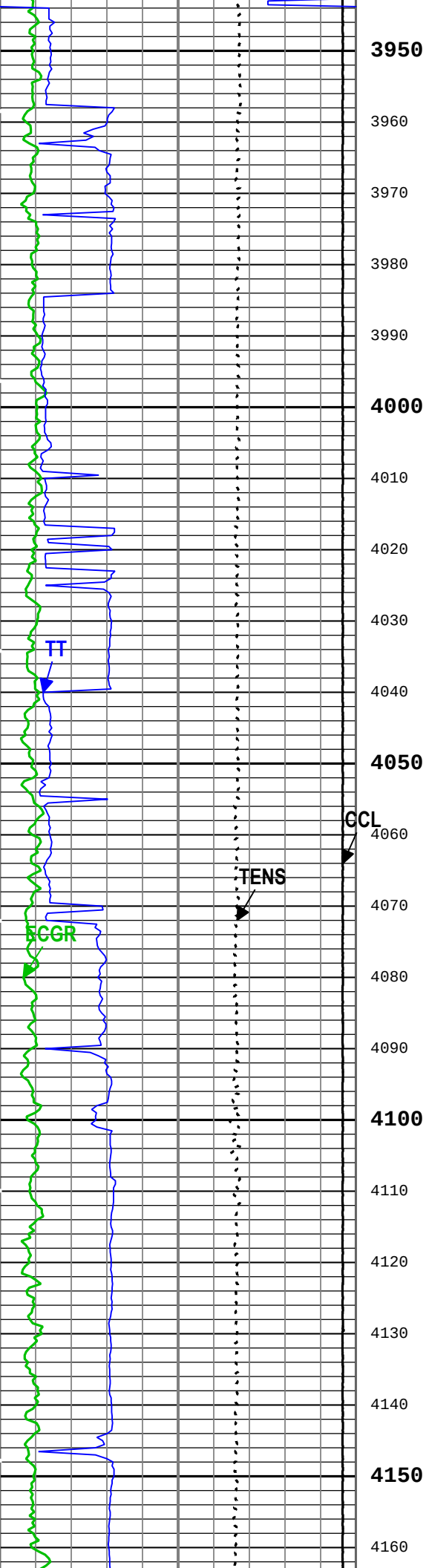


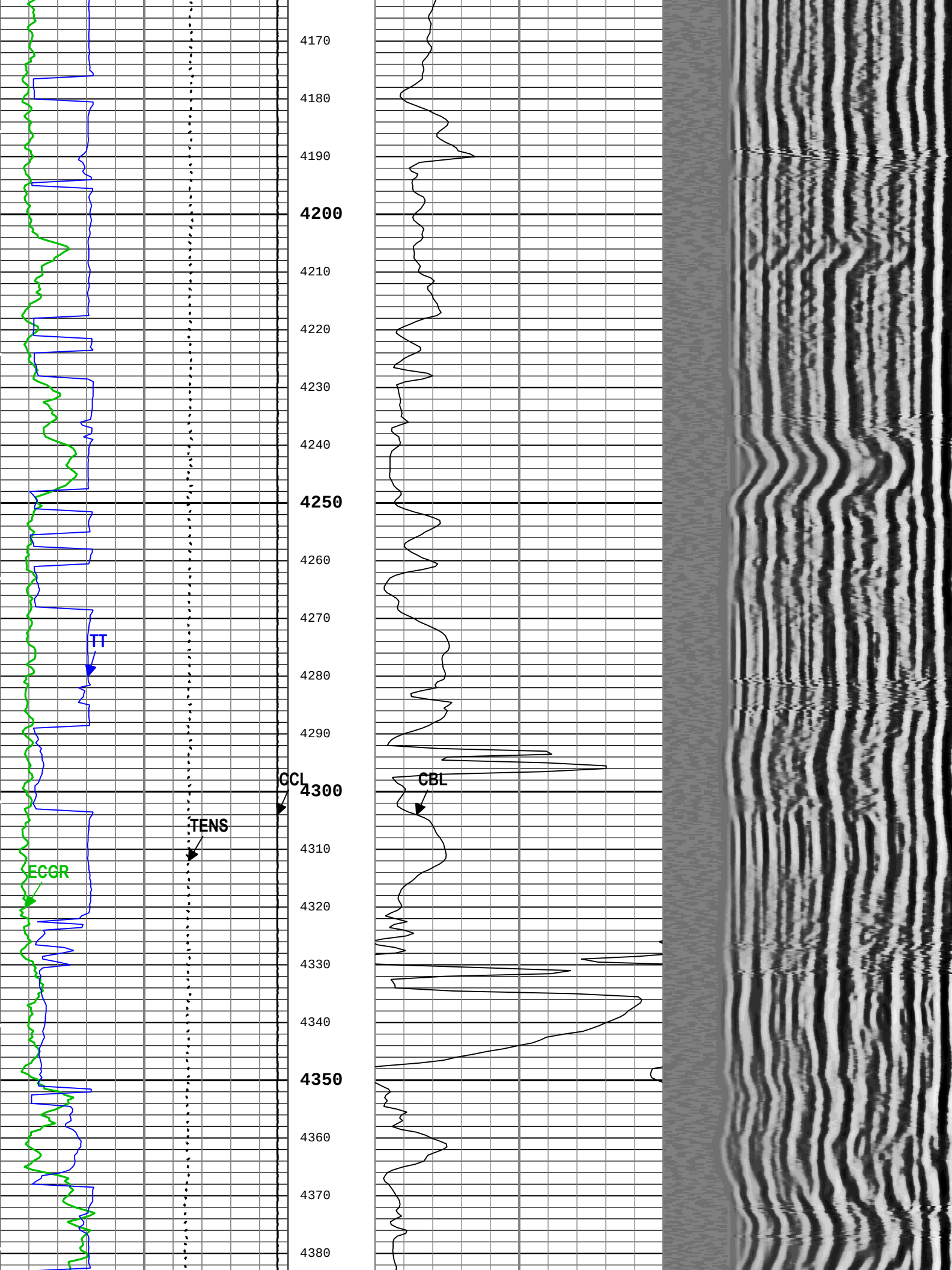


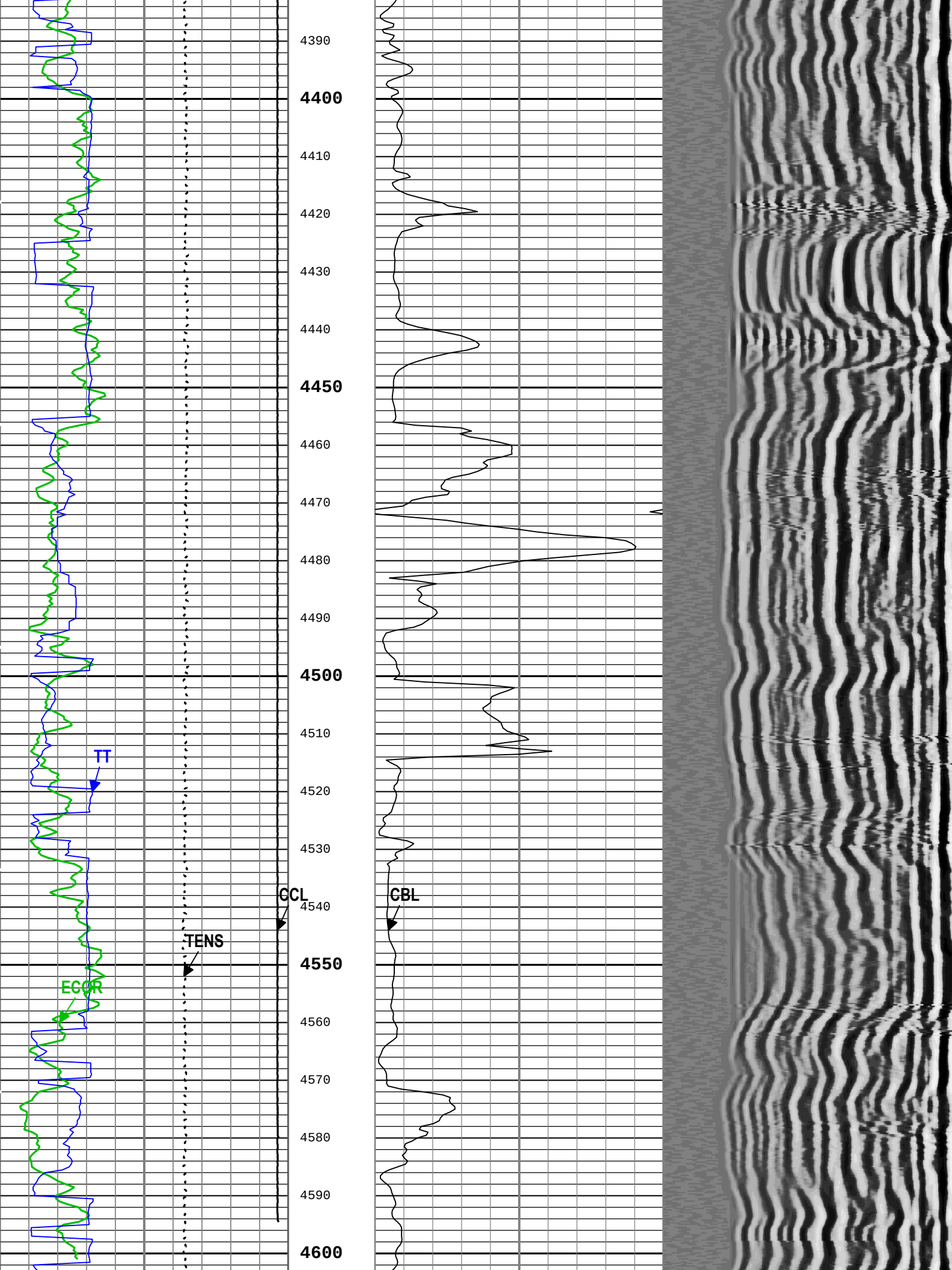












U-USIT_OCDI	Outer Casing Diameter	USIT-E	0	in
U-USIT_OCSH	Outer Casing Shoe	USIT-E	0	ft
U-USIT_OCWE	Outer Casing Weight	USIT-E	0	lbm/ft
RUN_SNUM	Run Sequence Number	WSDRUN	1	
SGAD	Sliding Gate Status	ASLT-B	Off	
SGDT	Sliding Gate Delta-T	ASLT-B	57	us/ft
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	2.07	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	-29.09	dB/m
UFGDE	Fiberglass Density	USIT-E	1.95	g/cm3
UFGPS	Fiberglass Processing Selection	USIT-E	No	
UFGVL	Fiberglass Velocity	USIT-E	9678.48	ft/s
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
VDLG	VDL Manual Gain	ASLT-B	2.2	

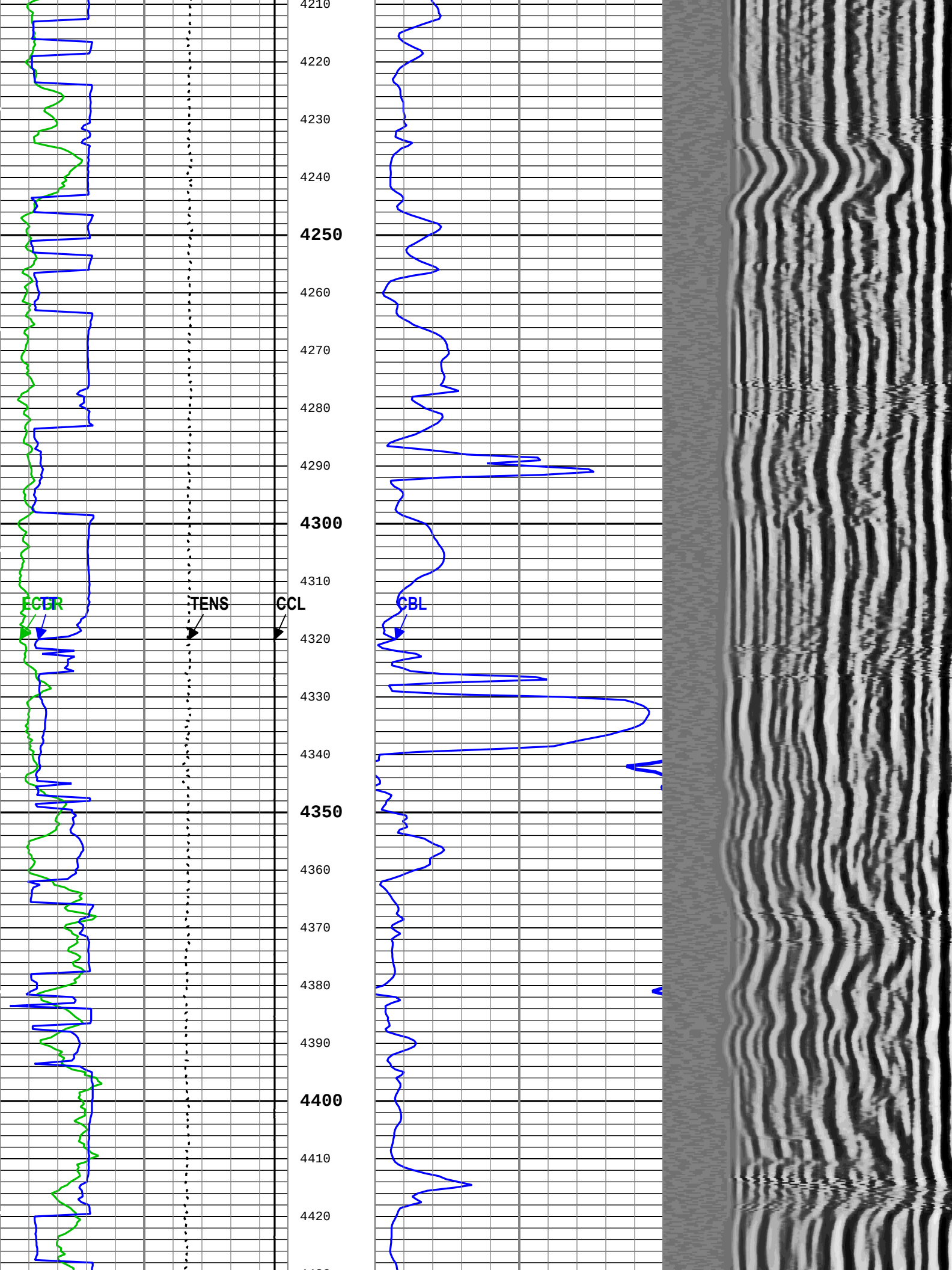
Depth Zone Parameters			
Parameter	Value	Start (ft)	Stop (ft)
BS	26	1.42	840
BS	17.5	840	2600
BS	12.25	2600	4637.08
DFD	9.6	1.42	300
DFD	9	300	2875
DFD	9.8	2875	4637.08
FCF	0.78	1.42	300
FCF	0.83	300	2875
FCF	0.76	2875	4637.08
All depth are actual.			

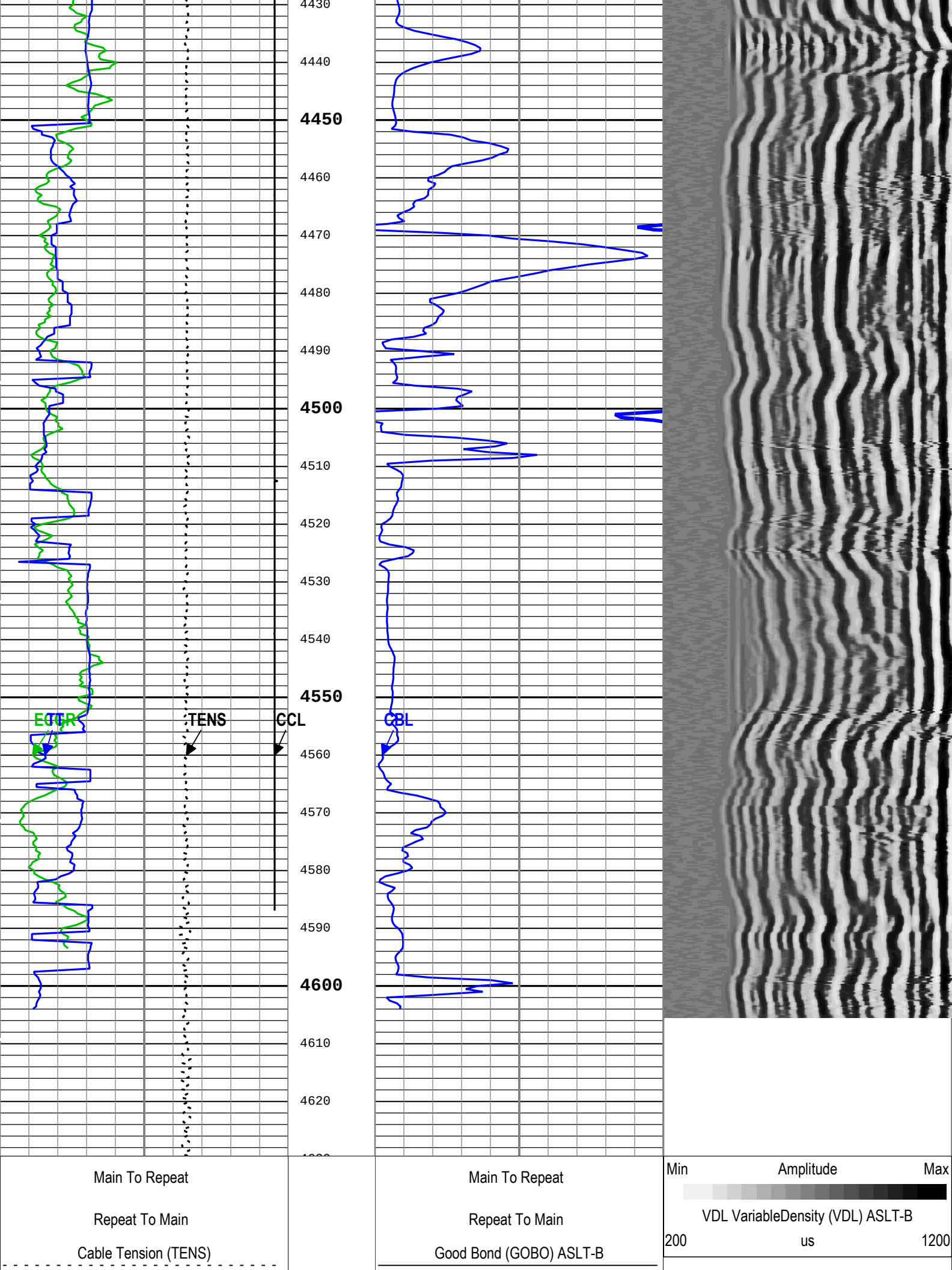
Tool Control Parameters

4A: Parameters				
Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	2700	ft/h
MODE	SSLT Firing Mode	ASLT-B	CBL	
RATE	Firing Rate	ASLT-B	4.46	Hz
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	Time Zoned	us
ULOG	Logging Objective	USIT-E	MEASUREMENT	
UMFR	Modulation Frequency	USIT-E	333333	Hz
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	Time Zoned	us
UPAT	USIT Emission Pattern	USIT-E	Pattern 375 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in LF	
USIT_DEPTHLOG	Starting Depth Log for Ultrasonics	USIT-E	4635	ft
U-USIT_UTAN	Transducer Angles	USIT-E	38_DEG	
VDM	SSLT VDL Display Mode	ASLT-B	R5	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	44.08	us
WINE	Window End Time	USIT-E	Time Zoned	us

4A

Repeat Pass





5000	lbf	0
Main To Repeat		
Repeat To Main		
Gamma Ray (ECGR) SGT-N		
0	gAPI	150
Main To Repeat		
Repeat To Main		
Casing Collar Locator Amplitude (CCL) CAL-YA		
-19		1
Main To Repeat		
Repeat To Main		
Transit Time for CBL (TT) ASLT-B		
400	us	200

TIME_1900 - Time Marked every 60.00 (s)

Description: SSLT DCBL Format: Log (SSLT DCBL RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2016 15:11:27

Channel Processing Parameters				
4A: 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	12.25	in
CBLG	CBL Gate Width	ASLT-B	50	us
CBLO	Casing Bottom (Logger)	WLSESSION	4696	ft
CBRA	CBL LQC Reference Amplitude in Free Pipe	ASLT-B	52	mV
CCL_MULTIPLIER	Casing Collar Locator Multiplier	CAL-YA	1	
CDEN	Cement Density	SGT-N	2	g/cm3
CDEN	Cement Density	USIT-E	1.52	g/cm3
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DETE	Delta-T Detection	ASLT-B	E1	
DFAD	Slim Sonic DFAD Computation Control	ASLT-B	Surface	
DFD	Drilling Fluid Density	Borehole	9.8	lbm/gal
FCF	CBL Fluid Compensation Factor	ASLT-B	0.76	
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS	
GOBO_CURR	Good Bond in Arbitrary Cement	ASLT-B	3.94	mV
FSOD	USIT IBC Fluid Slowness Fits Casing Outer Diameter	USIT-E	0_OFF	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	Theoretical	
IMAR	Image Rotation	USIT-E	Off	
MATT_CURR	Maximum Attenuation in Arbitrary Cement	ASLT-B	10.91	dB/ft
MSA	Minimum Sonic Amplitude	ASLT-B	2.07	mV

MSA_CURR	Minimum Sonic Amplitude in Arbitrary Cement	ASLT-B	2.07	mV
NMSG	Near Minimum Sliding Gate	ASLT-B	335	us
U-USIT_OCDI	Outer Casing Diameter	USIT-E	0	in
U-USIT_OCSH	Outer Casing Shoe	USIT-E	0	ft
U-USIT_OCWE	Outer Casing Weight	USIT-E	0	lbm/ft
RUN_SNUM	Run Sequence Number	WSDRUN	1	
SGAD	Sliding Gate Status	ASLT-B	Off	
SGDT	Sliding Gate Delta-T	ASLT-B	57	us/ft
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	2.07	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	-29.09	dB/m
UFGDE	Fiberglass Density	USIT-E	1.95	g/cm3
UFGPS	Fiberglass Processing Selection	USIT-E	No	
UFGVL	Fiberglass Velocity	USIT-E	9678.48	ft/s
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
VDLG	VDL Manual Gain	ASLT-B	2.2	

Tool Control Parameters

4A: Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	2700	ft/h
MODE	SSLT Firing Mode	ASLT-B	CBL	
RATE	Firing Rate	ASLT-B	4.46	Hz
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	175	us
ULOG	Logging Objective	USIT-E	MEASUREMENT	
UMFR	Modulation Frequency	USIT-E	333333	Hz
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	144	us
UPAT	USIT Emission Pattern	USIT-E	Pattern 375 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in LF	
USIT_DEPTHLOG	Starting Depth Log for Ultrasonics	USIT-E	4635	ft
U-USIT_UTAN	Transducer Angles	USIT-E	38_DEG	
VDM	SSLT VDL Display Mode	ASLT-B	R5	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	44.08	us
WINE	Window End Time	USIT-E	84.08	us

Company:	DCP Midstream LP	
Well:	Zia AGI D2	
Field:	AGI Devonian Exploration	
County:	Lea	
State:	Texas	

Cement Bond Log

Company: DCP Midstream LP

Well: Zia AGI D2

Field: AGI Devonian Exploration

County: Lea State: Texas

UltraSonic Imager	
Cement Evaluation	
Gamma Ray	
1893' FSL & 950' FWL	Elev.: K.B. 7119.00 ft
Section: 19, Township: T19S, Abstract: R32E	G.L. 3547.00 ft
	D.F. 7118.00 ft
Permanent Datum:	Ground Level
Log Measured From:	Kelly Bushing
Drilling Measured From:	Kelly Bushing
API Serial No. 30-025-42207	Section: 19
	Township: T19S
	Range: R32E

County:	Lea
Field:	AGI Devonian Exploration
Location:	1893' FSL & 950' FWL
Well:	Zia AGI D2
Company:	DCP Midstream LP

Logging Date	15-Nov-2016
Run Number	4A
Depth Driller	4700.00 ft
Schlumberger Depth	4700.00 ft
Bottom Log Interval	4632.00 ft
Top Log Interval	50.00 ft
Casing Fluid Type	Salt Brine
Salinity	83000 ppm
Density	9.6 lbm/gal
Fluid Level	8.00 ft
BIT/CASING/TUBING STRING	
Bit Size	12.25 in
From	2600.00 ft
To	4700.00 ft
Casing/Tubing Size	9.625 in
Weight	40 lbm/ft
Grade	N/A
From	0.00 ft
To	4696.00 ft
Max Recorded Temperatures	115 degF
Logger on Bottom	15-Nov-2016 10:02:00
Unit Number	2140
Recorded By	Brett Dobinsky
Witnessed By	James Hunter

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. USIT FPM

8.1 USI Fluid Properties Measurement

9. 4A Main Pass - 1700psi

9.1 Integration Summary

9.2 Composite Summary

9.3 Log (Goodwin)

9.4 Parameter Listing

10. 4A Main Pass - 0psi

10.1 Integration Summary

10.2 Software Version
- 11.4 Log (USI IBC SLG)

11.5 Parameter Listing

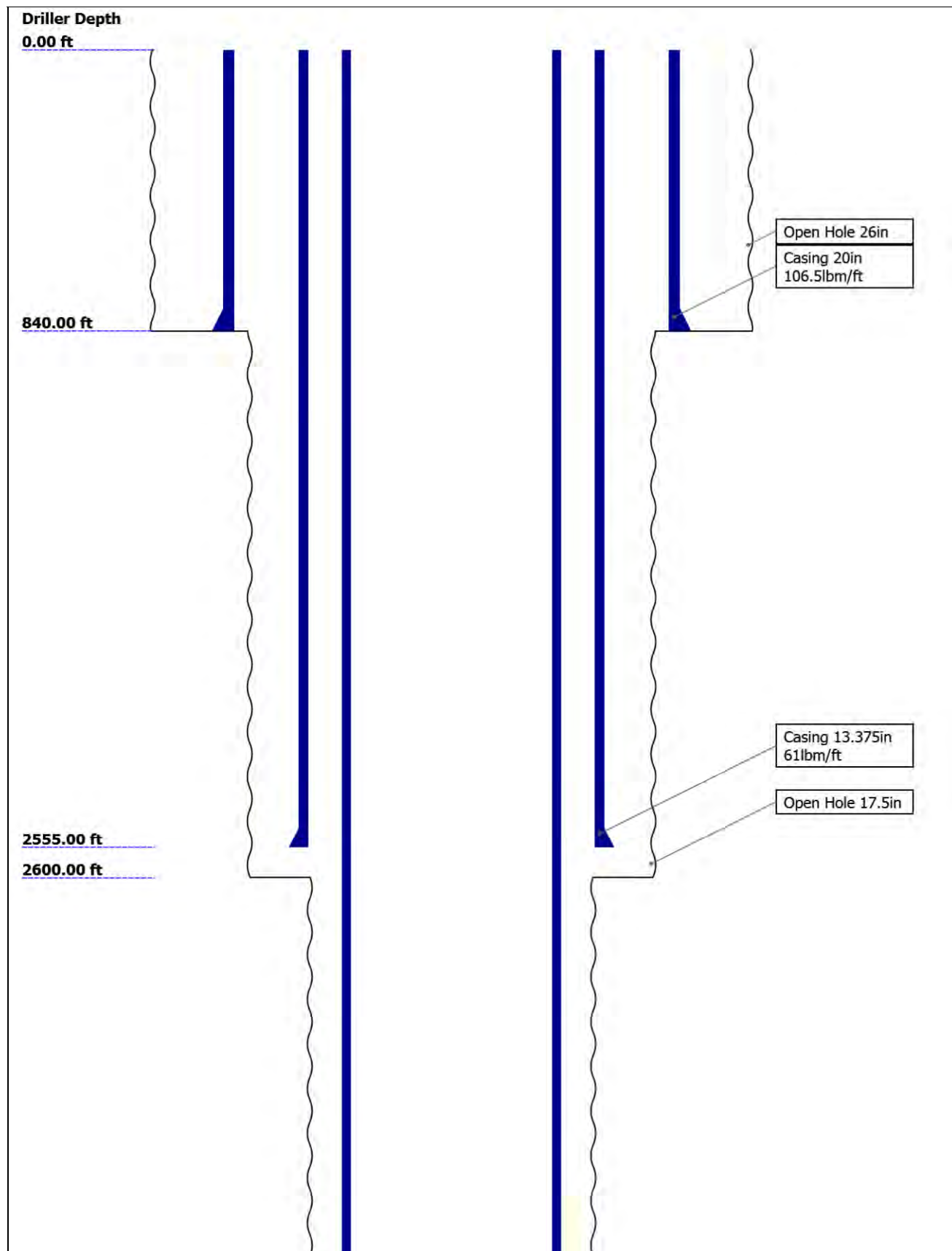
12. XYZ (USI Fluid Acoustic Slowness vs Depth 6.0 in)

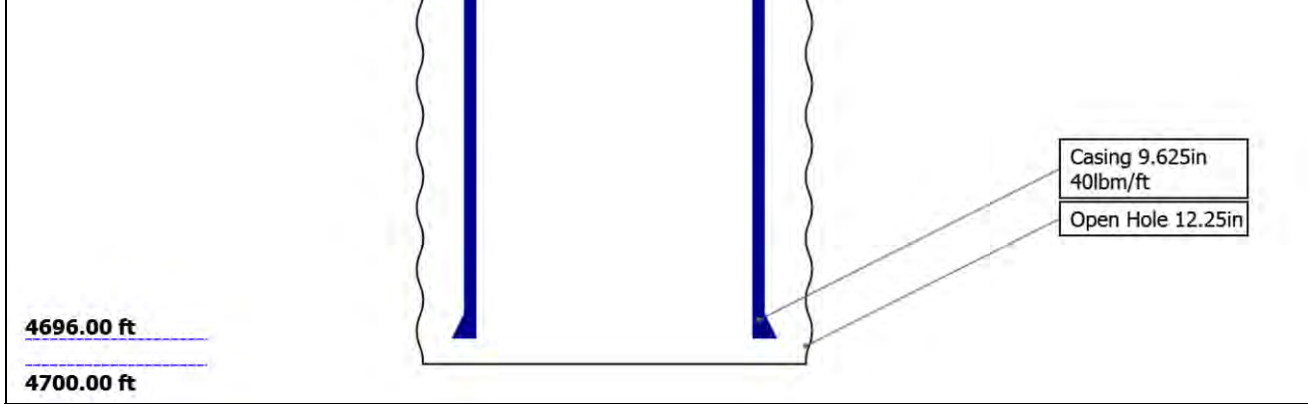
13. XYZ (USI Acoustic Impedance of Mud vs Depth 6.0 in)

14. Tail

- 10.3 Composite Summary
- 10.4 Log (USI IBC SLG)
- 10.5 Parameter Listing
- 11. 4A Repeat Pass - 0psi
 - 11.1 Integration Summary
 - 11.2 Software Version
 - 11.3 Composite Summary

Well Sketch



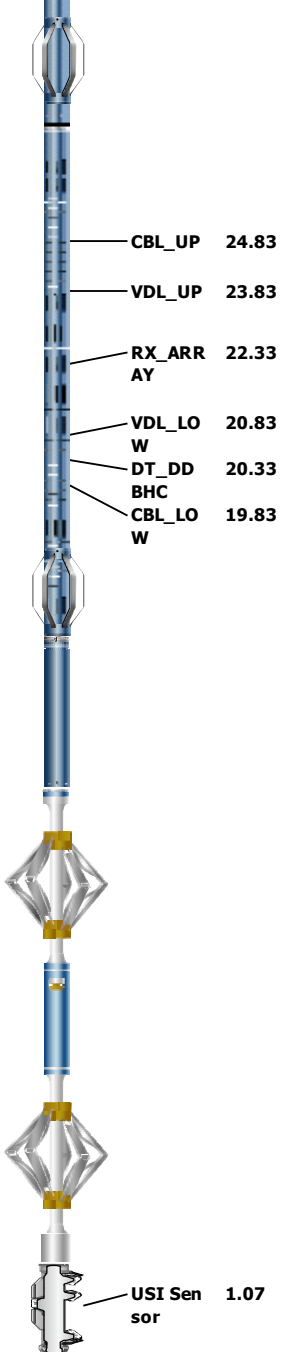


Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	26	17.5	12.25			
Top Driller (ft)	0	840	2600			
Top Logger (ft)	0	840	2600			
Bottom Driller (ft)	840	2600	4700			
Bottom Logger (ft)	840	2600	4700			
Casing						
Size (in)	20	13.375	9.625			
Weight (lbm/ft)	106.5	61	40			
Inner Diameter (in)	19	12.515	8.835			
Grade	N/A	N/A	N/A			
Top Driller (ft)	0	0	0			
Top Logger (ft)	0	0	0			
Bottom Driller (ft)	840	2555	4696			
Bottom Logger (ft)	840	2555	4696			

Remarks and Equipment Summary

4A: Toolstring				4A: Remarks		
Equip name	Length	MP name	Offset	Logging Objective: Cement and corrosion evaluation from TD to Surface.		
LEH-QC	45.82			Toolstring run as per toolsketch. 2 gemcos used on ASLT.		
CAL-YA	43.37			SLB TD: 4635 ft.		
CAL-YA		CCL	42.57	Logs correlated to DV tool as per client.		
				No pressure applied as per client request.		
DTC-H	39.87			As per the client: drilling fluid Brine 9.25 # and 10# brine in annulus.		
ECH-KC		CTEM	38.97	No spacer used during cement job as per client.		
DTC-H		HV	0.00	Cementing Data: Lead 10.2# Tune Light. Tail 14.5# Versacem.		
		TelStatu	36.87	Stage 1: Lead - 12.7 ppg and Tail - 14.8 ppg		
		s		DV tool at 2608 ft.		
		ToolSta	36.87	Stage 2: Lead - 13.5 and Tail - 14.8 ppg		
		tus		Casing: 9.625 in. 40#.		
SGT-N	36.87			Casing ER: 4.8125 in., IR: 4.8125 in., Thickness: 0.395 in.		
SGH-K		GR	35.95	Fluid St. Automation Automation		
SGC-TB						
SGD-TAA						
ASLT-B	31.37					
ASLT-BB						

 USIT-E:98 16.71 1 ECH-MFA: 1923 USAC-A:9 81 USIS-A:17 39 USSC-B:93 8 IBCS-C:87 4 FAR-SENS OR:2075 NEAR-SEN SOR:3553 USI-SENS OR:4516 EMITTER- SENSOR:3 780 CBL_UP 24.83 VDL_UP 23.83 RX_ARR 22.33 AY VDL_LO 20.83 W DT_DD 20.33 BHC CBL_LO 19.83 W USI Sen 1.07 sor TOOL_ZERO Lengths are in ft Maximum Outer Diameter = 9.000 in Line: Sensor Location, Value: Gating Offset All measurements are relative to TOOL_ZERO	Fluid Slowness: Automatic, Acoustic Impedence: Theoretical.		
	3 fluids observed in the well. Fluid change at 300 ft and 2875 ft.		
	IBC main pass logged at 10deg 6in.		

Depth Summary			
	4A		
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	Triple		

4A:Depth Control Parameters		Depth Control Remarks	
Log Sequence	Subsequent Trip To the Well	Schlumberger Wireline Depth Procedures followed. IDW used as primary depth control device. Z-Chart used as secondary depth control. Log correlated to DV tool as per client request.	
Reference Log Name			
Reference Log Run Number			
Reference Log Date			
Subsequent Trip Down Log Correction	5.00 ft		

USIT FPM	
-----------------	--

USIT - Fluid Properties Measurement	
--	--

Run Name	Pass Name	Start Depth(ft)	Stop Depth(ft)
Run 1	Main[3]:Up	4637.08	43.94

Fluid Velocity = "Automatic". CFVL equals DFSL channel			
---	--	--	--

Start Depth(ft)	Stop Depth(ft)	Start Value(us/ft)	End Value(us/ft)
-----------------	----------------	--------------------	------------------

Mud Impedance = "Theoretical". CZMD uses theoretical results. MUD_N_THE=1.05 DFD=1.15g/cm3(9.60lbm/gal)			
--	--	--	--

Start Depth(ft)	Stop Depth(ft)	Start Value(Mrayl)	End Value(Mrayl)
-----------------	----------------	--------------------	------------------

4A			
-----------	--	--	--

Main Pass - 1700psi			
----------------------------	--	--	--

Pass Summary									
---------------------	--	--	--	--	--	--	--	--	--

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
4A	Main[3]:Up	Up	43.94 ft	4637.08 ft	15-Nov-2016 7:49:50 AM	15-Nov-2016 9:55:41 AM	ON	5.00 ft	Yes

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

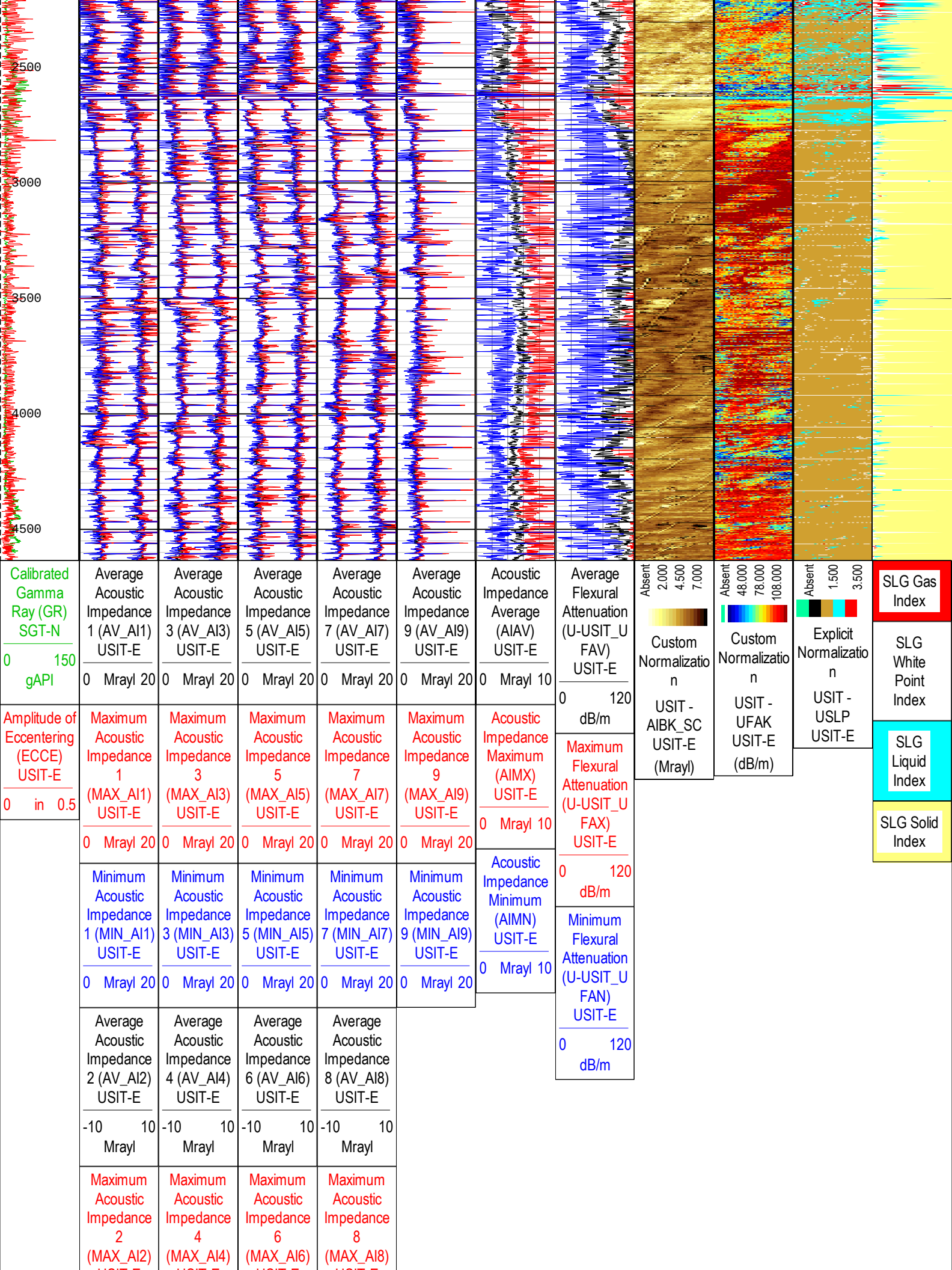
Log	Company:DCP Midstream LP Well:Zia AGI D2 4A: Main[3]:Up:S016								
------------	---	--	--	--	--	--	--	--	--

Description: USI Goodwin Format: Log (Goodwin) Index Scale: 0.2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2016 15:05:52

TIME_1900 - Time Marked every 60.00 (s)

Average Acoustic Impedance 1 (AV_AI1) USIT-E	Average Acoustic Impedance 3 (AV_AI3) USIT-E	Average Acoustic Impedance 5 (AV_AI5) USIT-E	Average Acoustic Impedance 7 (AV_AI7) USIT-E
0 Mrayl 20	0 Mrayl 20	0 Mrayl 20	0 Mrayl 20
Maximum Acoustic	Maximum Acoustic	Maximum Acoustic	Maximum Acoustic

[illegible]



USIT-E	USIT-E	USIT-E	USIT-E
-10 10 Mrayl	-10 10 Mrayl	-10 10 Mrayl	-10 10 Mrayl
Minimum Acoustic Impedance 2 (MIN_AI2) USIT-E	Minimum Acoustic Impedance 4 (MIN_AI4) USIT-E	Minimum Acoustic Impedance 6 (MIN_AI6) USIT-E	Minimum Acoustic Impedance 8 (MIN_AI8) USIT-E
-10 10 Mrayl	-10 10 Mrayl	-10 10 Mrayl	-10 10 Mrayl

TIME_1900 - Time Marked every 60.00 (s)

Description: USI Goodwin Format: Log (Goodwin) Index Scale: 0.2 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2016 15:05:52

Channel Processing Parameters

4A: Parameters

Parameter	Description	Tool	Value	Unit
ISSBAR	Barite Mud Presence Flag	Borehole	No	
BS	Bit Size	WLSESSION	Depth Zoned	in
CDEN	Cement Density	USIT-E	12.7	lbm/gal
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DFD	Drilling Fluid Density	Borehole	Depth Zoned	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	182	us/ft
FD	Fluid Density	USIT-E	10	lbm/gal
FDII	FPM Data Interpolation Interval	USIT-E	0	ft
HEMA	Hematite Presence Flag	Borehole	No	
FSOD	USIT IBC Fluid Slowness Fits Casing Outer Diameter	USIT-E	0_OFF	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	Theoretical	
ICE_PROCESS	ICE Processing	USIT-E	Yes	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	24.64	us
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1.05	
U-USIT_OCDI	Outer Casing Diameter	USIT-E	0	in
U-USIT_OCSH	Outer Casing Shoe	USIT-E	0	ft
U-USIT_OCWE	Outer Casing Weight	USIT-E	0	lbm/ft
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	2.07	Mrayl
U-USIT_UFAO	SIT Flexural Attenuation Offset	USIT-E	-29.09	dB/m
UFGDE	Fiberglass Density	USIT-E	16.27	lbm/gal
UFGPS	Fiberglass Processing Selection	USIT-E	No	
UFGVL	Fiberglass Velocity	USIT-E	9678.48	ft/s
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SolidLiquidGasMap	
ZMUD	Acoustic Impedance of Mud	Borehole	1.86	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.5	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	26	8	840
BS	17.5	840	2600

BS	12.25	2600	4636
DFD	9.6	8	300
DFD	9	300	2875
DFD	9.8	2875	4636

All depth are actual.

Tool Control Parameters

4A: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	48	dB
U-USIT_DDT5	USIC Downhole Decimation for T5 only	USIT-E	0_NONE	
EMXV		USIT-E	Time Zoned	V
TMUC	Type of Mud	USIT-E	BRI	
U-USIT_UFWB	Far Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UFWE	Far Receiver Window End Time	USIT-E	Time Zoned	us
ULOG	Logging Objective	USIT-E	MEASUREMENT	
UMFR	Modulation Frequency	USIT-E	333333	Hz
U-USIT_UNWB	Near Receiver Window Begin Time	USIT-E	Time Zoned	us
U-USIT_UNWE	Near Receiver Window End Time	USIT-E	Time Zoned	us
USFR	Ultrasonic Sampling Frequency	USIT-E	500000	Hz
UPAT	USIT Emission Pattern	USIT-E	Pattern 375 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in LF	
USIT_DEPTHLOG	Starting Depth Log for Ultrasonics	USIT-E	4635	ft
U-USIT_UTAN	Transducer Angles	USIT-E	38_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	
WINB	Window Begin Time	USIT-E	44.08	us
WINE	Window End Time	USIT-E	Time Zoned	us

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXV	65	15-Nov-2016 07:49:50	15-Nov-2016 08:25:58	4637.08	3312.12
EMXV	70	15-Nov-2016 08:25:58	15-Nov-2016 09:41:02	3312.12	494.91
EMXV	75	15-Nov-2016 09:41:02	15-Nov-2016 09:55:41	494.91	43.94
U-USIT_UFWB	135	15-Nov-2016 07:49:50	15-Nov-2016 07:51:22	4637.08	4596.05
U-USIT_UFWB	126.54	15-Nov-2016 07:51:22	15-Nov-2016 09:55:41	4596.05	43.94
U-USIT_UFWE	175	15-Nov-2016 07:49:50	15-Nov-2016 08:13:30	4637.08	3774.62
U-USIT_UFWE	172.35	15-Nov-2016 08:13:30	15-Nov-2016 09:55:41	3774.62	43.94
U-USIT_UNWB	104	15-Nov-2016 07:49:50	15-Nov-2016 07:51:03	4637.08	4608.24
U-USIT_UNWB	91.36	15-Nov-2016 07:51:03	15-Nov-2016 09:55:41	4608.24	43.94
U-USIT_UNWE	144	15-Nov-2016 07:49:50	15-Nov-2016 08:13:41	4637.08	3767.47
U-USIT_UNWE	139.63	15-Nov-2016 08:13:41	15-Nov-2016 09:55:41	3767.47	43.94
WINE	84.08	15-Nov-2016 07:49:50	15-Nov-2016 07:53:12	4637.08	4525.66
WINE	87.99	15-Nov-2016 07:53:12	15-Nov-2016 09:55:41	4525.66	43.94

All depth are at tool zero.

4A

Main Pass - Opsi

Software Version									
Acquisition System						Version			
Maxwell 2016 SP1						6.1.58882.3100			
Application Patch						Wireline_Hotfix-Perfo-2016SP1_6.1.63773			
						Wireline_Hotfix-RTB-2016SP1_6.1.68160			
						Wireline_NPD-PNX-2016SP1_6.1.74487			
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
4A	Main[3]:Up	Up	43.94 ft	4637.08 ft	15-Nov-2016 7:49:50 AM	15-Nov-2016 9:55:41 AM	ON	5.00 ft	Yes
All depths are referenced to toolstring zero									
Log		Company:DCP Midstream LP Well:Zia AGI D2 4A: Main[3]:Up:S016							
Description: USI IBC SLG Format: Log (USI IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 15-Nov-2016 15:05:59									
TIME_1900 - Time Marked every 60.00 (s)									
USIT Processing Flags (UFLG[0]) USIT-E									
1 - UFLG 1 Value within [0.0 - 1.5] - : ■ UTIM Error									
2 - UFLG 2 Value within [1.5 - 2.5] - : ■ Pulse Origin Not Detected									
3 - UFLG 3 Value within [2.5 - 3.5] - : ■ WINLEN Error									
4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : ■ Casing Thickness Error									
5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : ■ Loop Processing Error									
Cable Drag									
Tool_Tot. Drag									
Casing Collar Locator Ultrasonic (CCLU) USIT-E -20 in 20									
Amplitude of Eccentering (ECCE) USIT-E 0 in 0.5									
Gamma Ray (ECGR) SGT-N 0 gAPI 150									
Motor Revolution Speed (RSAV) USIT-E 6 c/s 7.5									
Ultrasonic Azimuth (UCAZ) USIT-E									
Absent -5.200 -3.600 -2.000 -0.400 Explicit Normalization USIT - Amplitude of Wave (AWBK) USIT-E (dB) Amplitude of Wave Minimum Absent 1,000 2,500 4,000 5,500 7,000 Custom Normalization USIT - Acoustic Acoustic Impedance Minimum (AIMN) USIT-E Minimum Flexural Attenuation (U-USIT_UFAN) USIT-E 20 dB/m 120									
SLG White Points Ratio (USLGWR) USIT-E 1 0 SLG Liquid Ratio (USLGLR) USIT-E 1 0 SLG Cement Ratio (USLGCR) USIT-E 1 0									

