



Company: Wavetech Helium Inc

Well: 1 Wavetech Harker Family 31-22

Field: Harker Ranch

County: Cheyenne State: Colorado

Platform Express

Compensated Neutron

Litho-Density

County: Cheyenne
Field: Harker Ranch
Location: 789 FNL 2206 FEL
Well: 1 Wavetech Harker Family 31-22
Company: Wavetech Helium Inc

Location:	789 FNL 2206 FEL NWNE 22 12S43W 6	Elev.: K.B. 4133.00 ft G.L. 4120.00 ft D.F. 4133.00 ft
	Permanent Datum: Log Measured From: Drilling Measured From:	Ground Level Kelly Bushing Kelly Bushing Elev.: 13.00 ft above Perm.Datum
API Serial No.	Section: 22	Township: 12S Range: 43W
05-017-07821		

Logging Date 11-Jul-2024

Run Number Run 1

Depth Driller 5438.00 ft

Schlumberger Depth 5426.50 ft

Bottom Log Interval 5426.50 ft

Top Log Interval 566.00 ft

Casing Driller Size @ Depth 8.625 in @ 566.00 ft

Casing Schlumberger 566 ft

Bit Size 7.875 in

Type Fluid In Hole Water

Density 9.1 lbm/gal 48 s

Fluid Loss PH 6.2 cm3 11

MUD Source of Sample Active Tank

RM @ Meas Temp 0.98 ohm.m @ 77 degF

RMF @ Meas Temp 0.78 ohm.m @ 77 degF

RMC @ Meas Temp 1.17 ohm.m @ 77 degF

Source RMF RMC Calculated

RM @ BHT RMF @ BHT 0.53 @ 146 0.43 @ 146

Max Recorded Temperatures 146 degF

Circulation Stopped 13-Jul-2024 04:00:00

Logger on Bottom 13-Jul-2024 10:50:00

Unit Number Location: OSLC-HA9111 Fort Morgan

Recorded By M. Thai

Witnessed By Jim Weir

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.

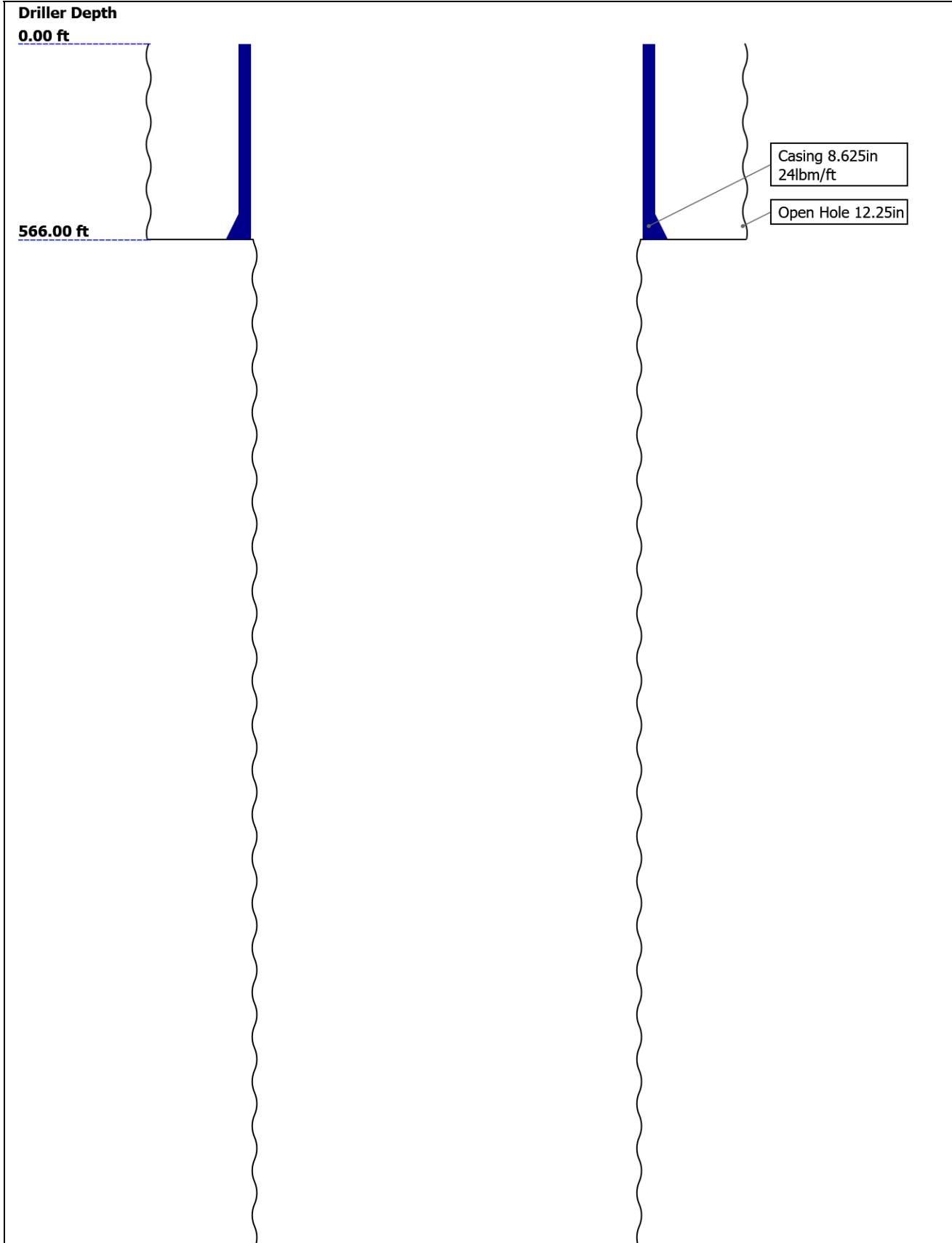
Contents

- Header
- Disclaimer
- Contents
- Well Sketch
- Borehole Size/Casing/Tubing Record
- Remarks and Equipment Summary
- Run 1 5" Porosity
 - Integration Summary
 - Composite Summary
 - Log (Porosity-5)
 - Parameter Listing
- Run 1 5" Density
 - Integration Summary
 - Composite Summary
 - Log (Density-5)
 - Parameter Listing
- Run 1 5" Porosity

- 10.5 Parameter Listing
11. Run 1 10" HiRes Porosity
 - Integration Summary
 - Software Version
 - Composite Summary
 - Log (10in HiRes Porosity)
 - Parameter Listing
12. Calibration Report
13. Tail

- 9.1 Composite Summary
- 9.2 Log (Porosity-5 RA)
- 10. Run 1 10" HiRes Porosity
 - 10.1 Integration Summary
 - 10.2 Software Version
 - 10.3 Composite Summary
 - 10.4 Log (10in HiRes Porosity)

Well Sketch



5438.00 ft

Open Hole 7.875in

Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	12.25	7.875				
Top Driller (ft)	0	566				
Top Logger (ft)	0	566				
Bottom Driller (ft)	566	5438				
Bottom Logger (ft)	566	5426.5				
Casing						
Size (in)	8.625					
Weight (lbm/ft)	24					
Inner Diameter (in)	8.097					
Grade	J55					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	566					
Bottom Logger (ft)	566					

Remarks and Equipment Summary

Run 1: Toolstring

Run 1: Remarks

Equip name	Length	MP name	Offset
LEH-QT:220	51.64		
4			
LEH-QT:2204			
EDTC-B:894	48.15		
1			
EDTH-B:8609			
EDTG-A			
EDTC-B:8941			
HGNS-H:396	41.65		
4			
HGNH			
NPV-N			
NSR-F:5070			
HACCZ-H:416			
6			
HGNS-H:3964			
HMCA-H			
		CTEM	44.65
		ACCZ	0.00
		HV	0.00
		Gamma Ra	42.78
		y	
		TelStatus	41.65
		Temperatu	41.62
		re	
		GR	40.91
		CNL Poros	34.58
		ity	

Thank you for choosing Schlumberger!

Log run for formation evaluation

WBM in hole@9.1 ppg

TD@ 5426.5 ft CS@ 566 ft

Main pass was logged with Standard resolution

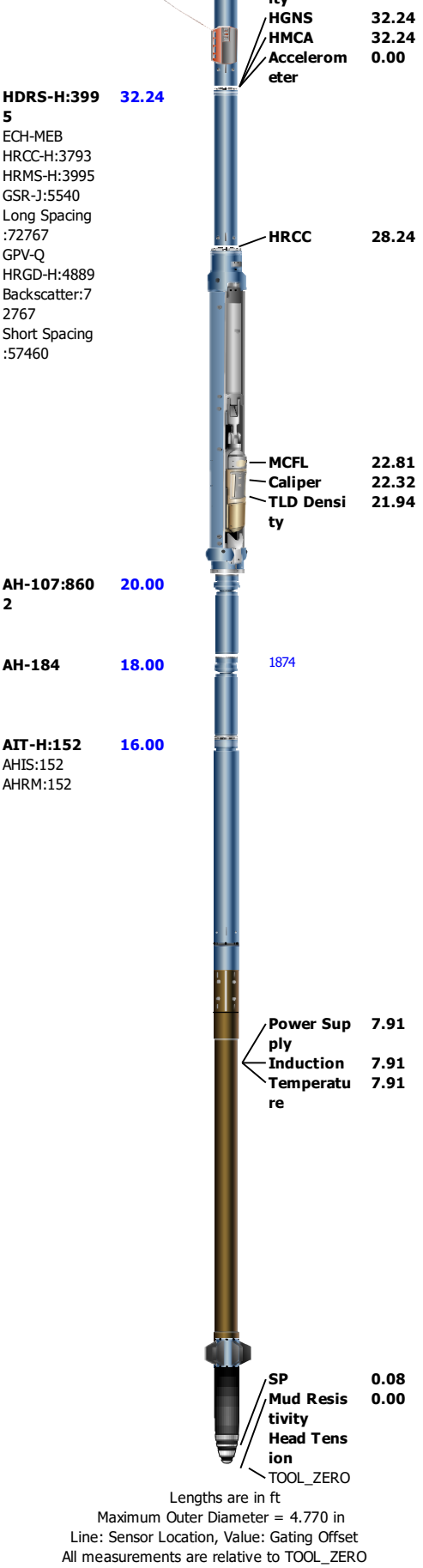
HiRes was logged from TD to 5100 ft and from 4350 to 4150ft

AIT was run with 0.5 in standoff

Crew: Renito Graham, Rico Burlingame

Tool was run as per tool sketch

All logging intervals as per client request



Run 1									
5" Porosity									
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data

Run 1	Log[5]:Up	Up	505.34 ft	5434.03 ft	13-Jul-2024 12:32:54 PM	13-Jul-2024 1:57:55 PM	ON	1.30 ft	Yes
-------	-----------	----	-----------	------------	----------------------------	---------------------------	----	---------	-----

All depths are referenced to toolstring zero

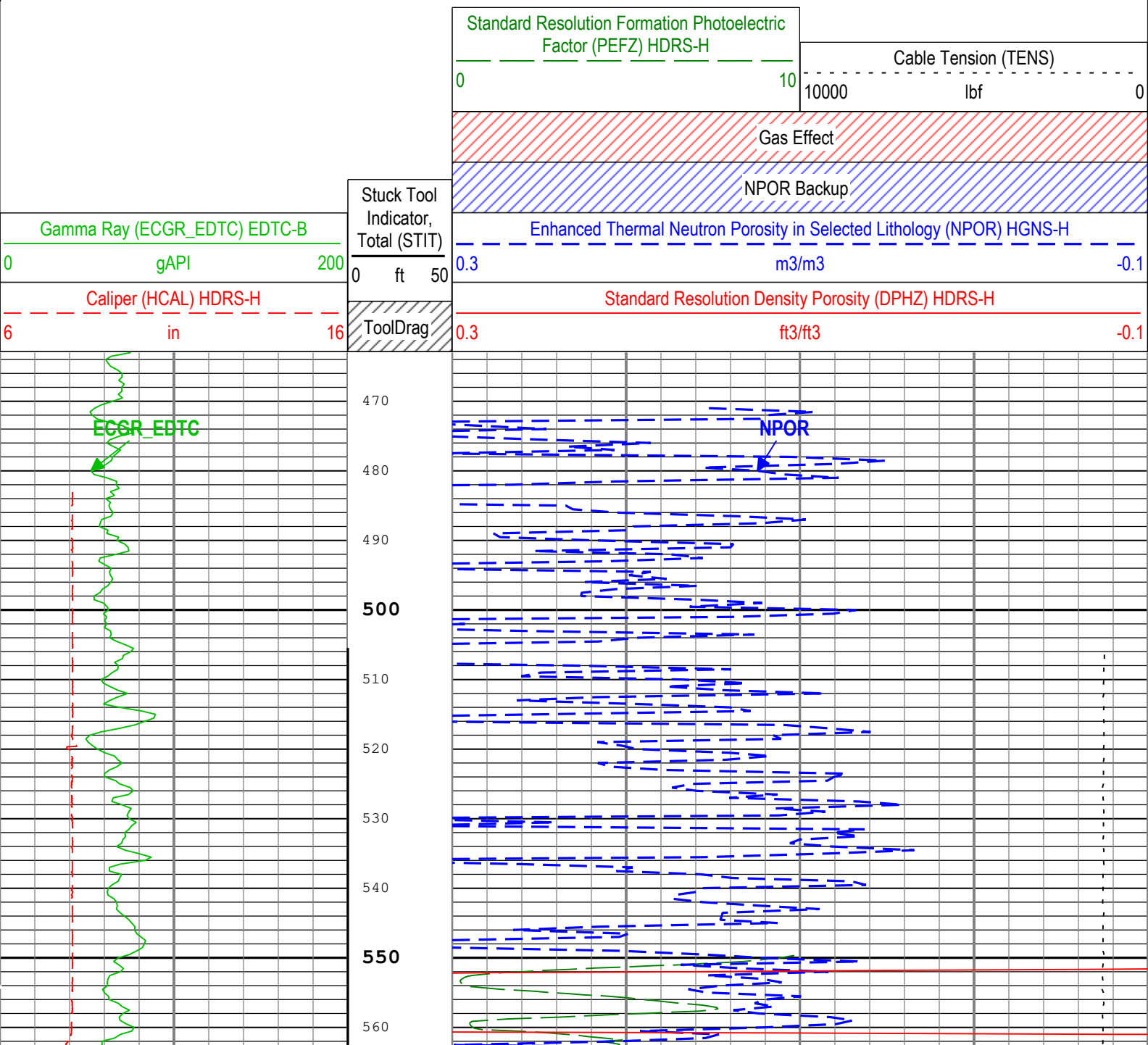
Log	Company:Wavetech Helium Inc	Well:1 Wavetech Harker Family 31-22	Run 1: Log[5]:Up:S008
-----	-----------------------------	-------------------------------------	-----------------------

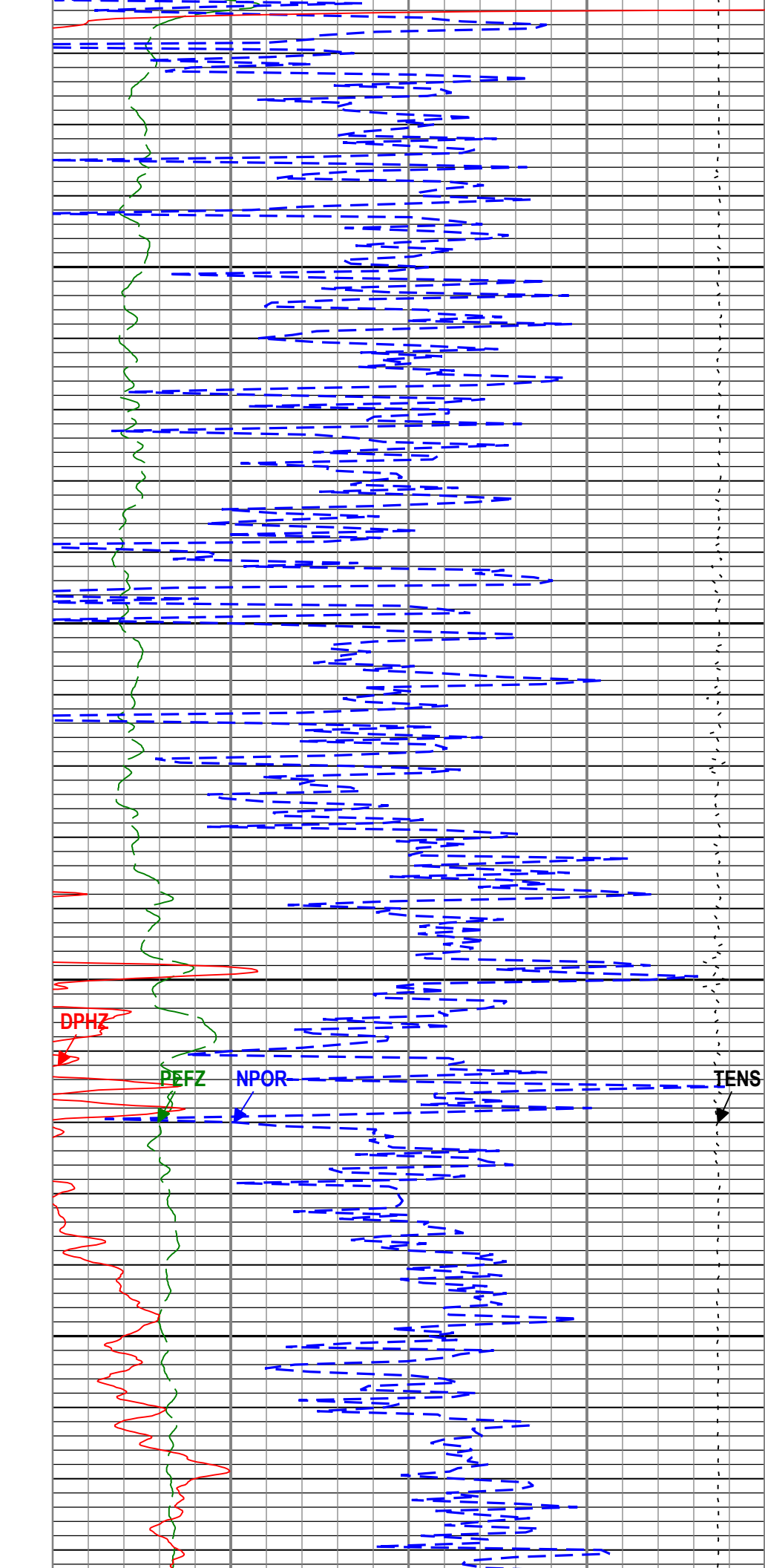
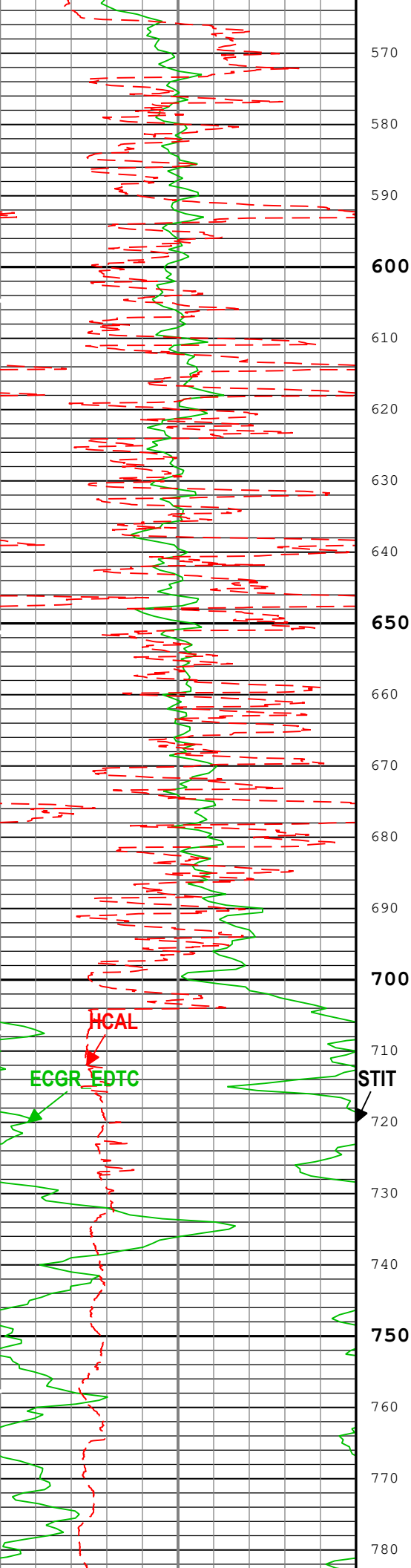
Description: HGNS standard resolution porosities for Platform Express Format: Log (Porosity-5) Index Scale: 5 in per 100 ft Index Unit: ft Index Type:

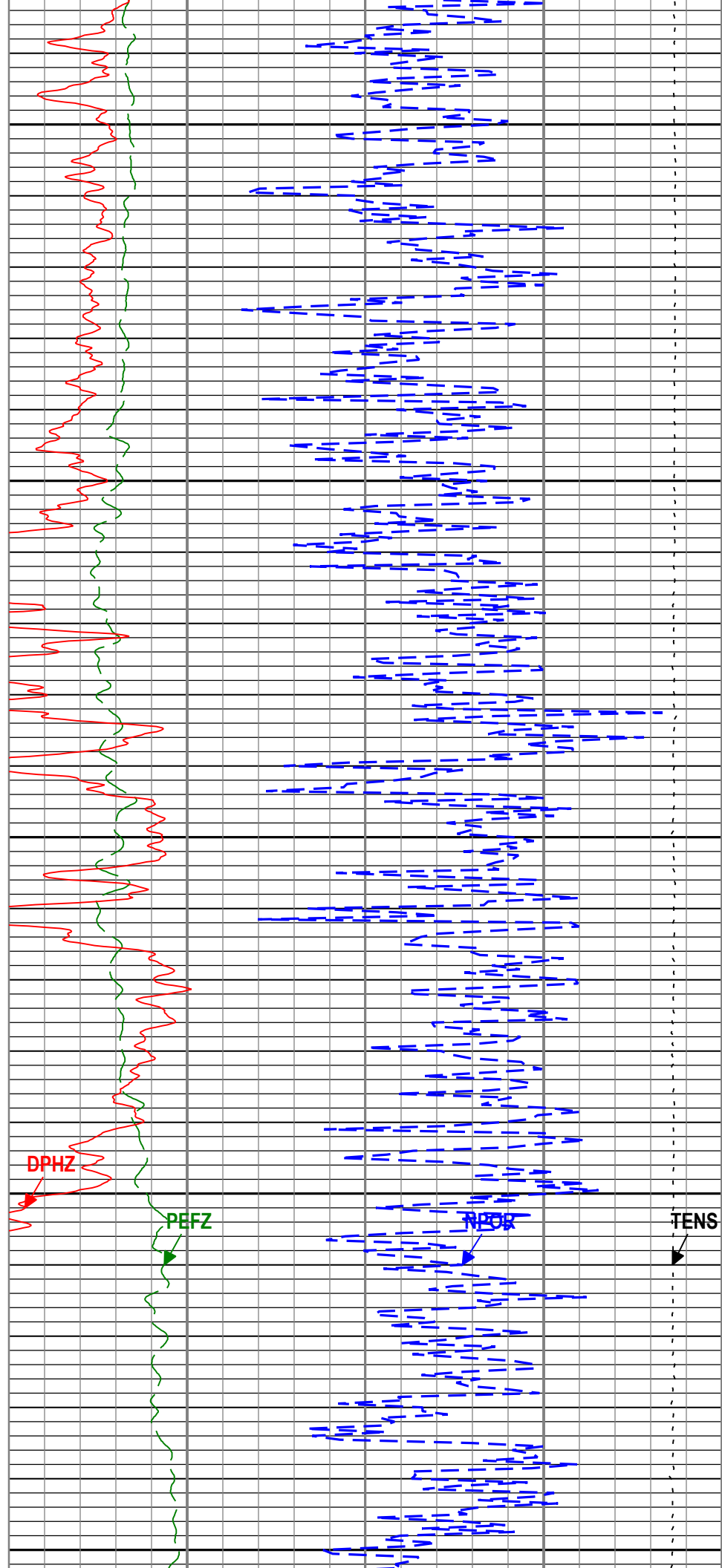
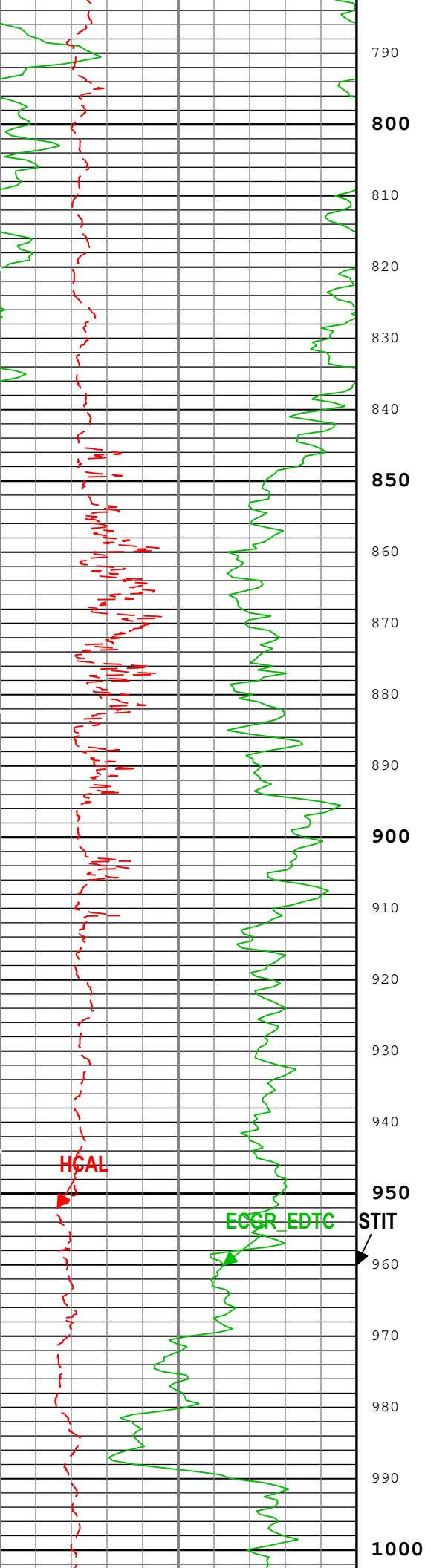
Measured Depth Creation Date: 13-Jul-2024 15:18:41

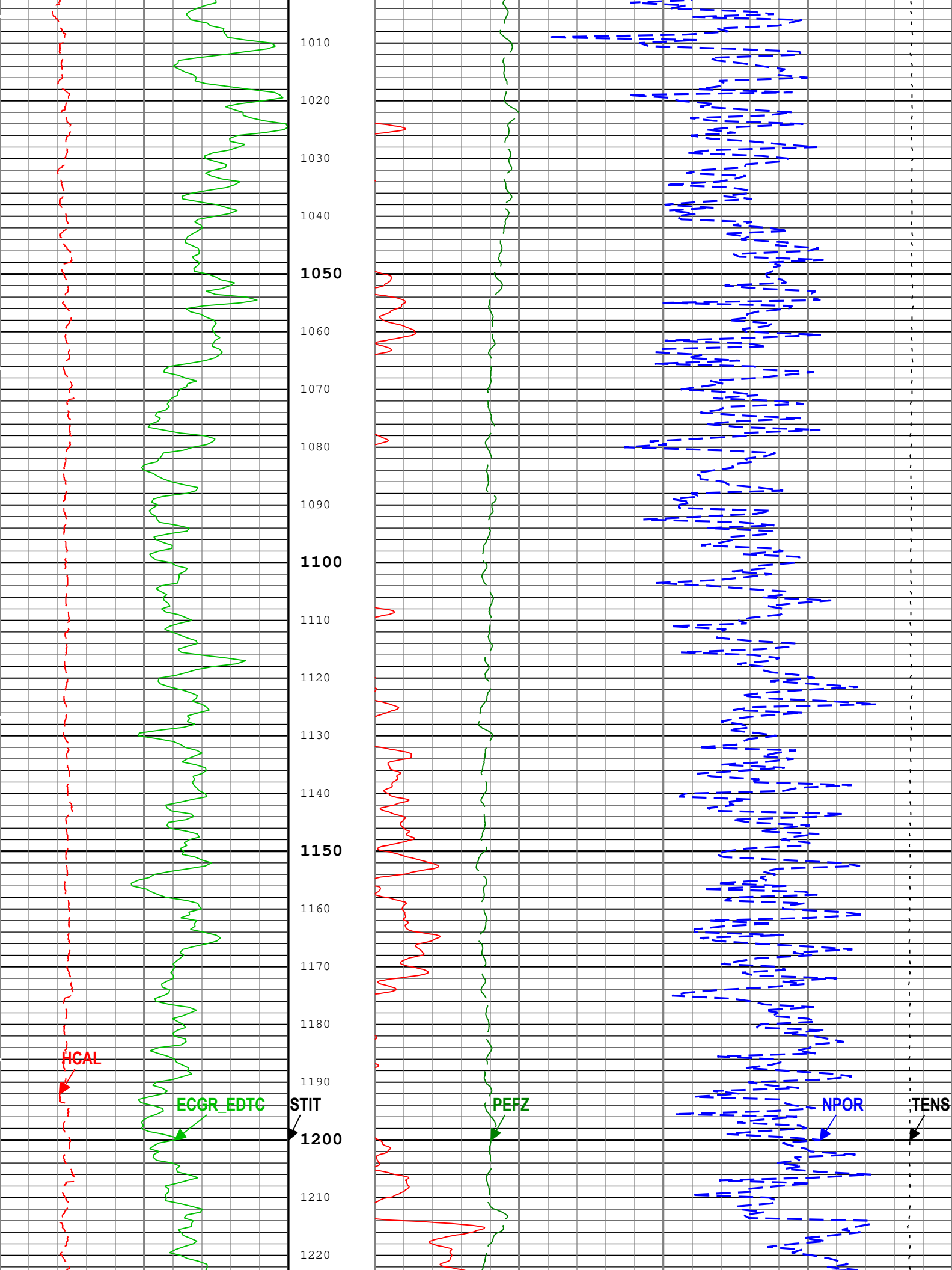
Channel	Source	Sampling
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
GR	EDTC-B:EDTC-B:EDTC-B	6in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in
PEFZ	HDRS-H:HRMS-H:HRGD-H	2in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

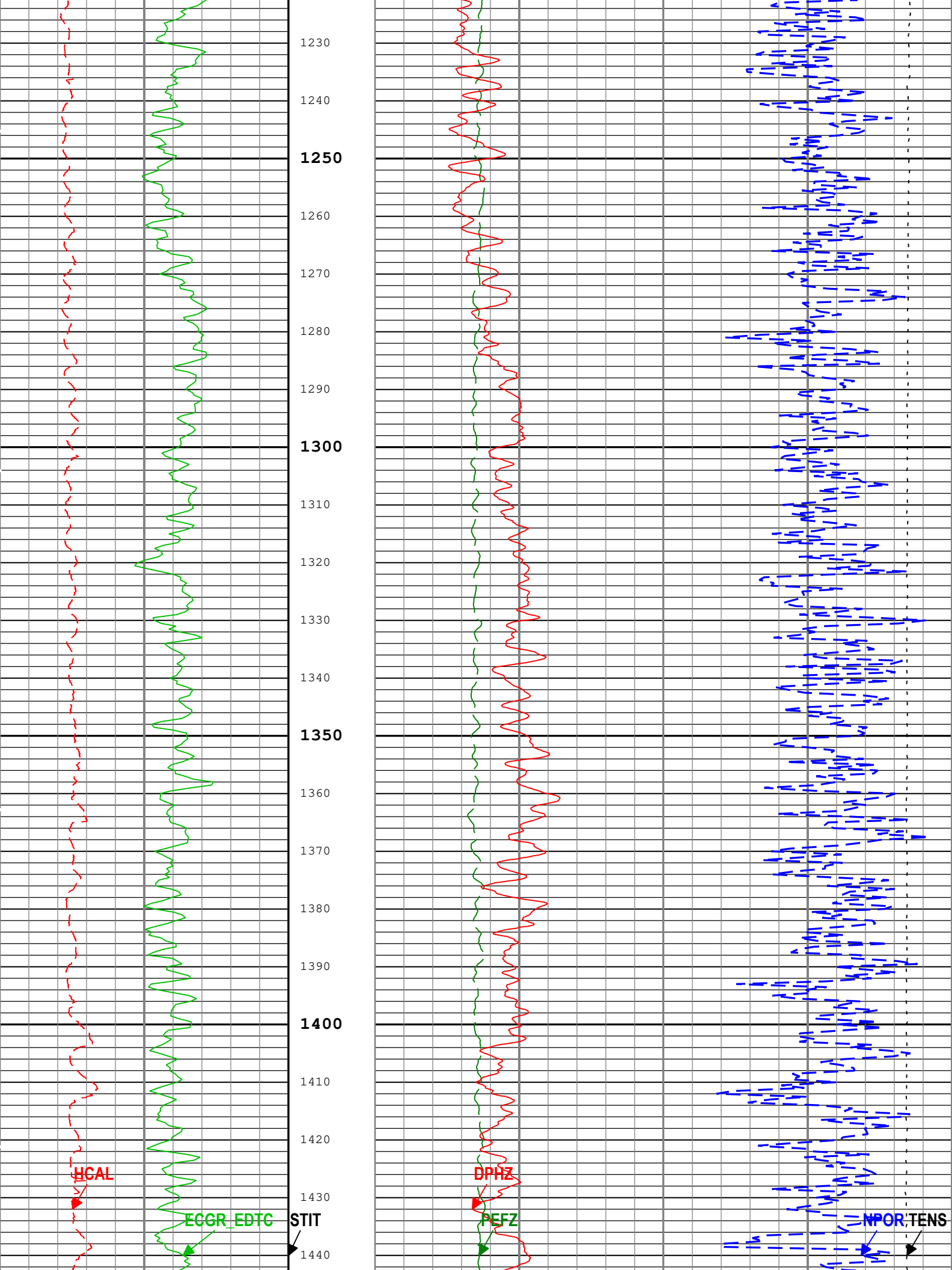
TIME_1900 - Time Marked every 60.00 (s)

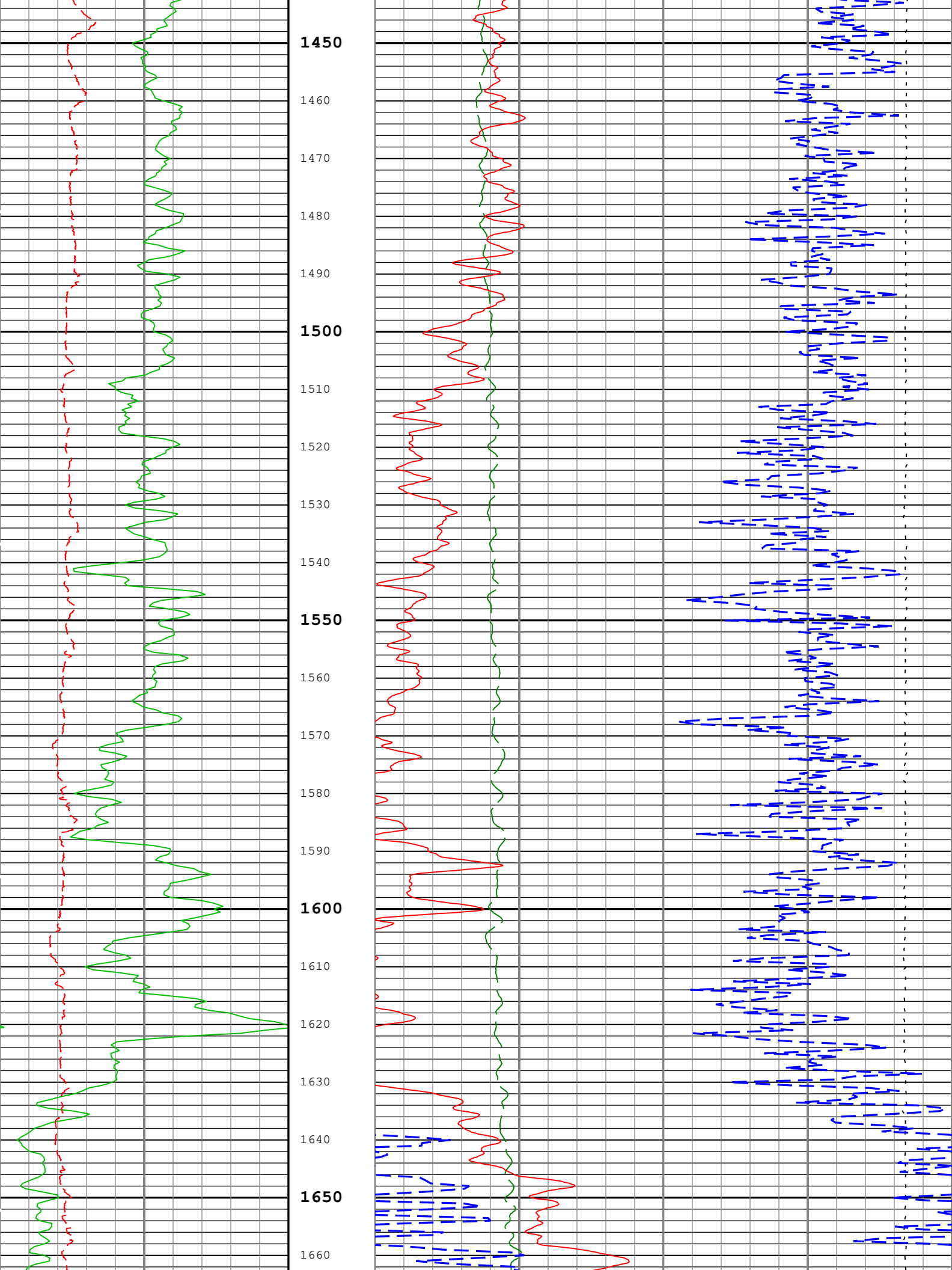


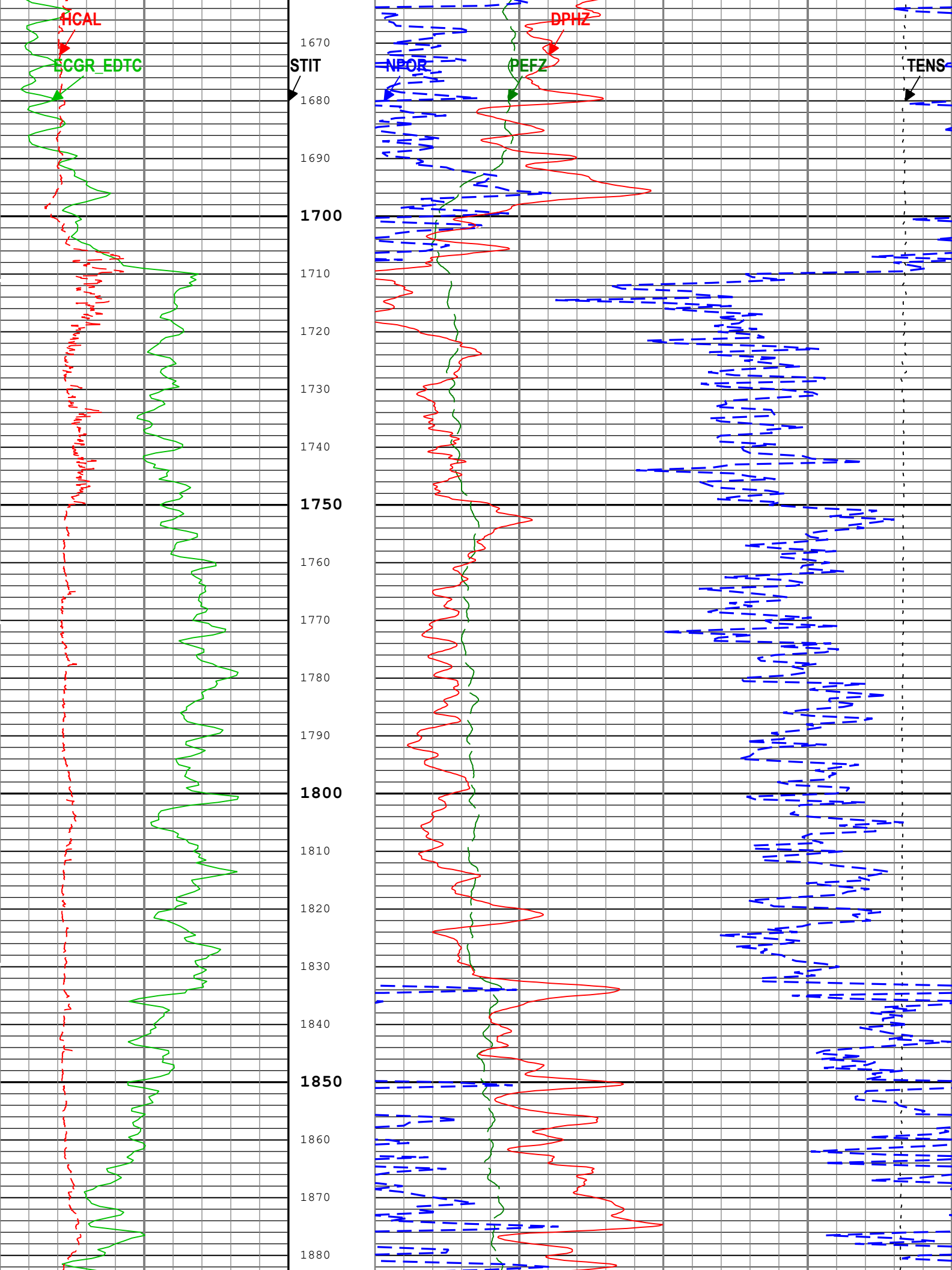


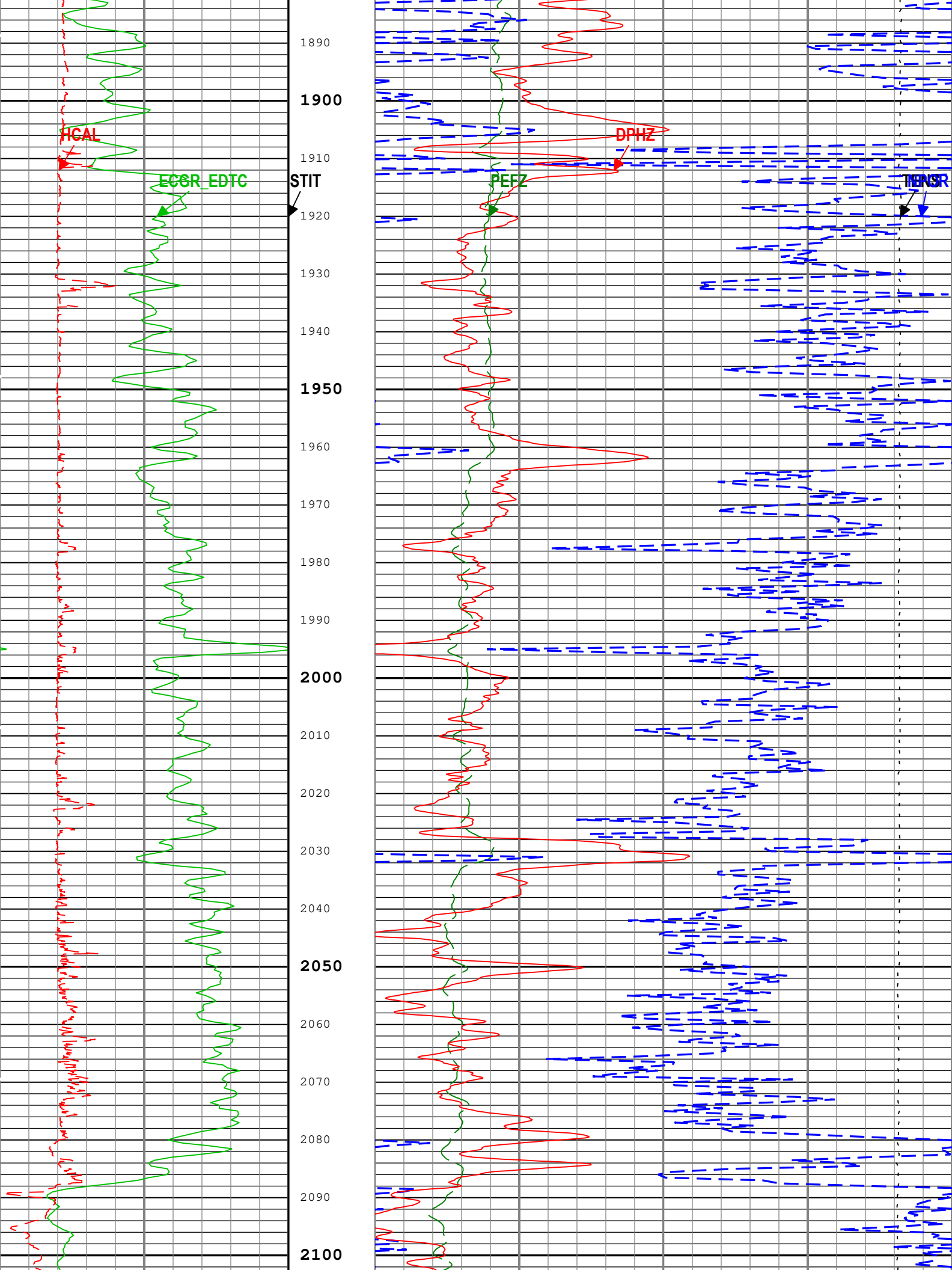


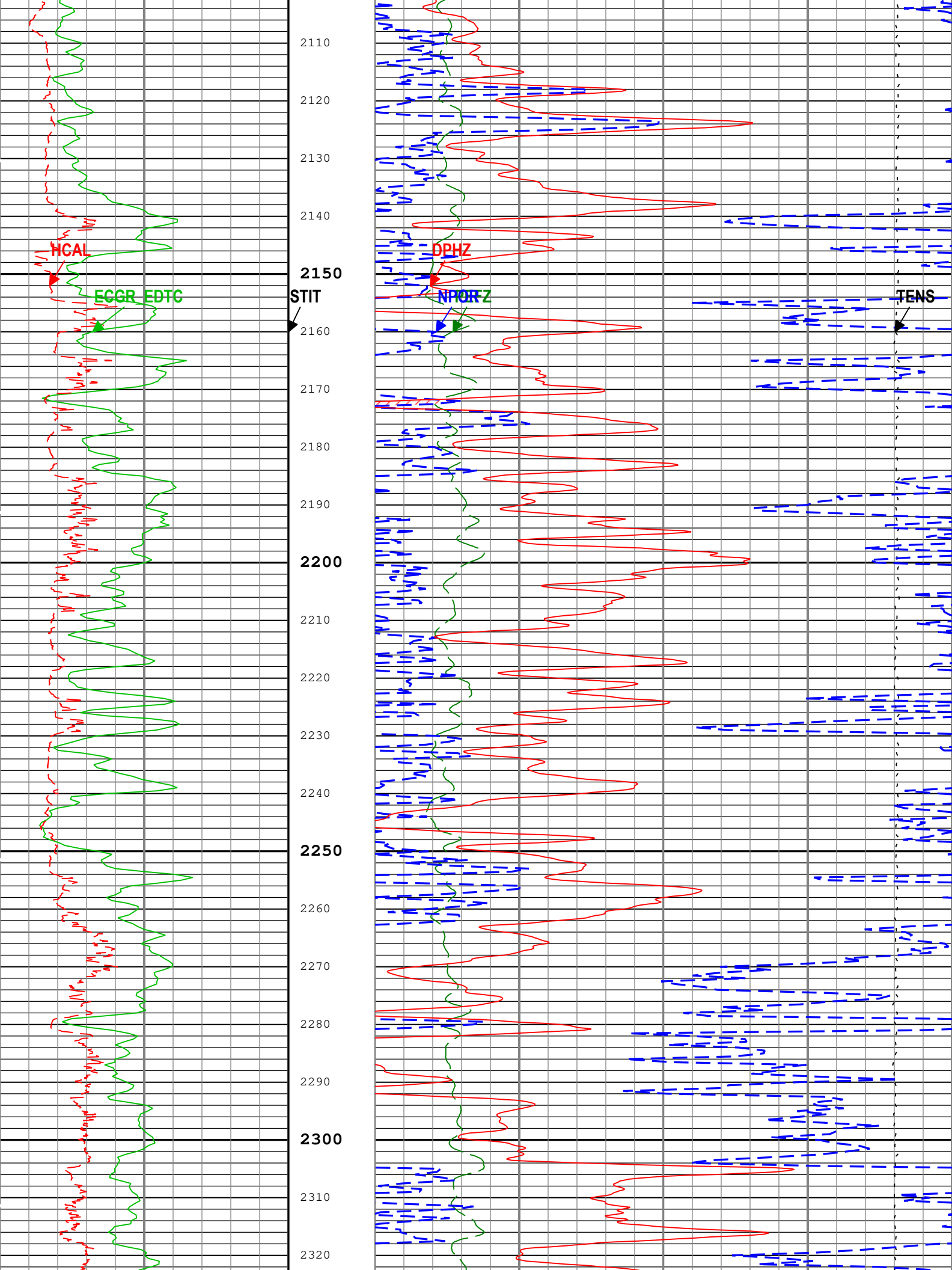


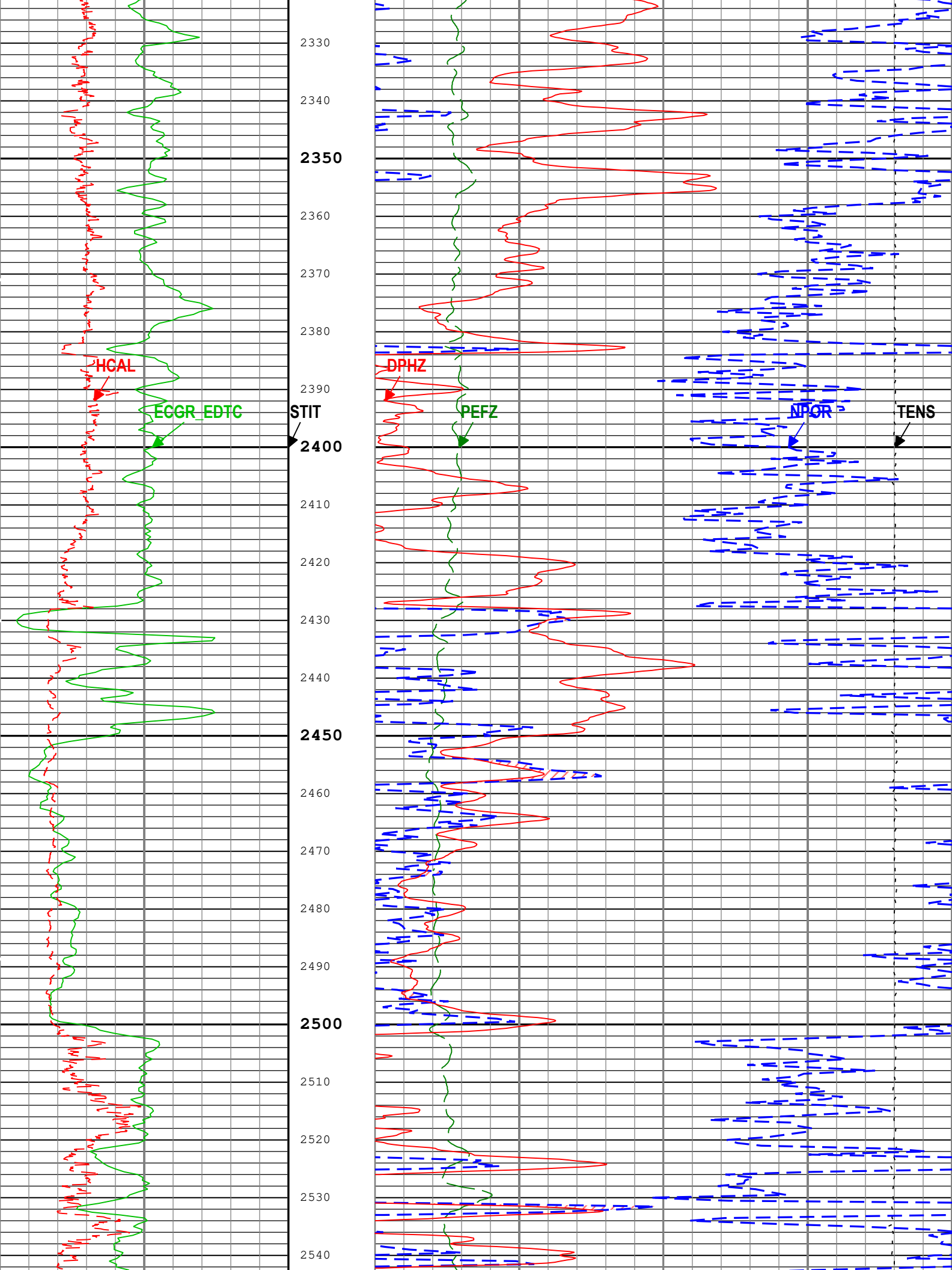


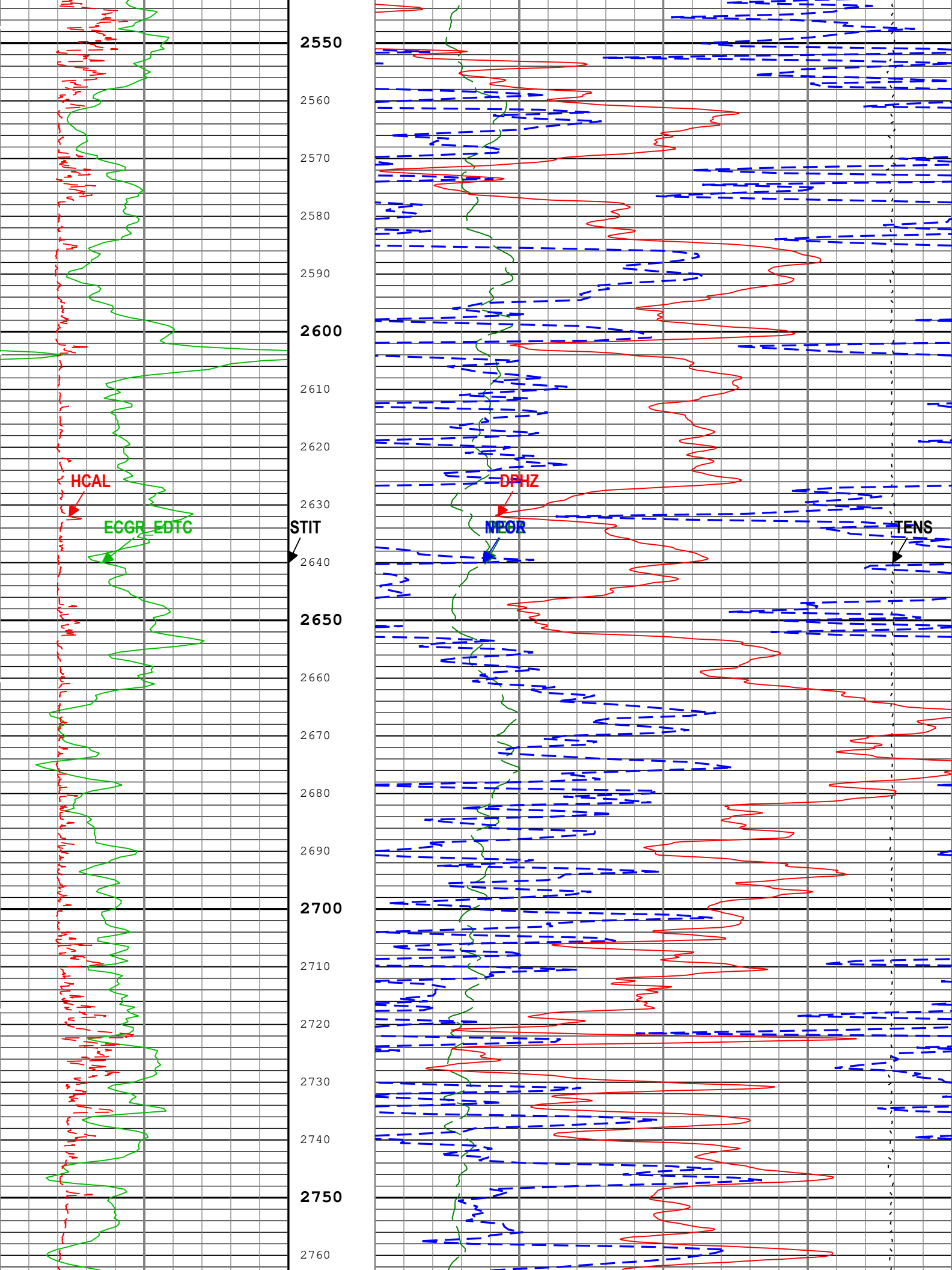


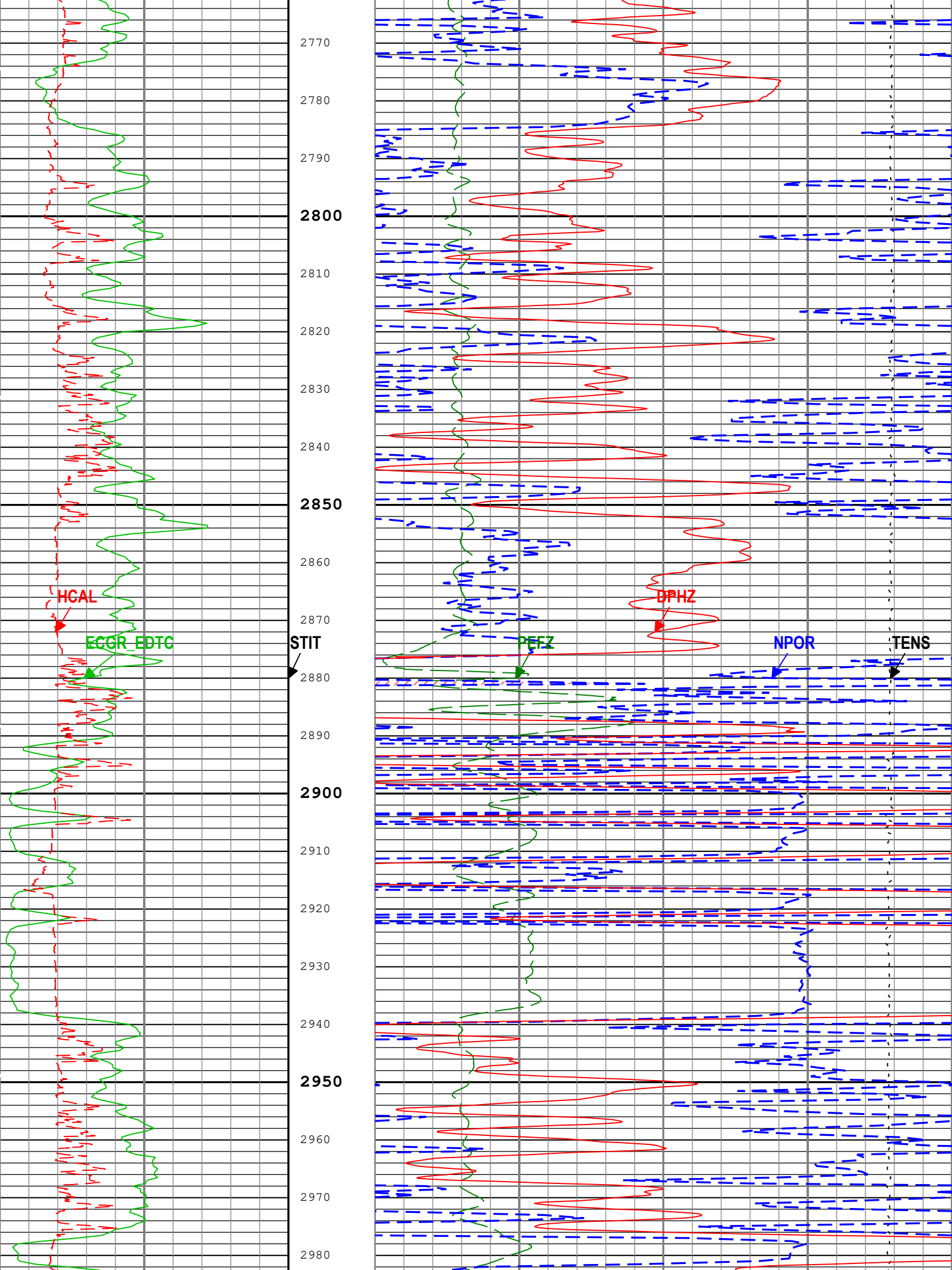


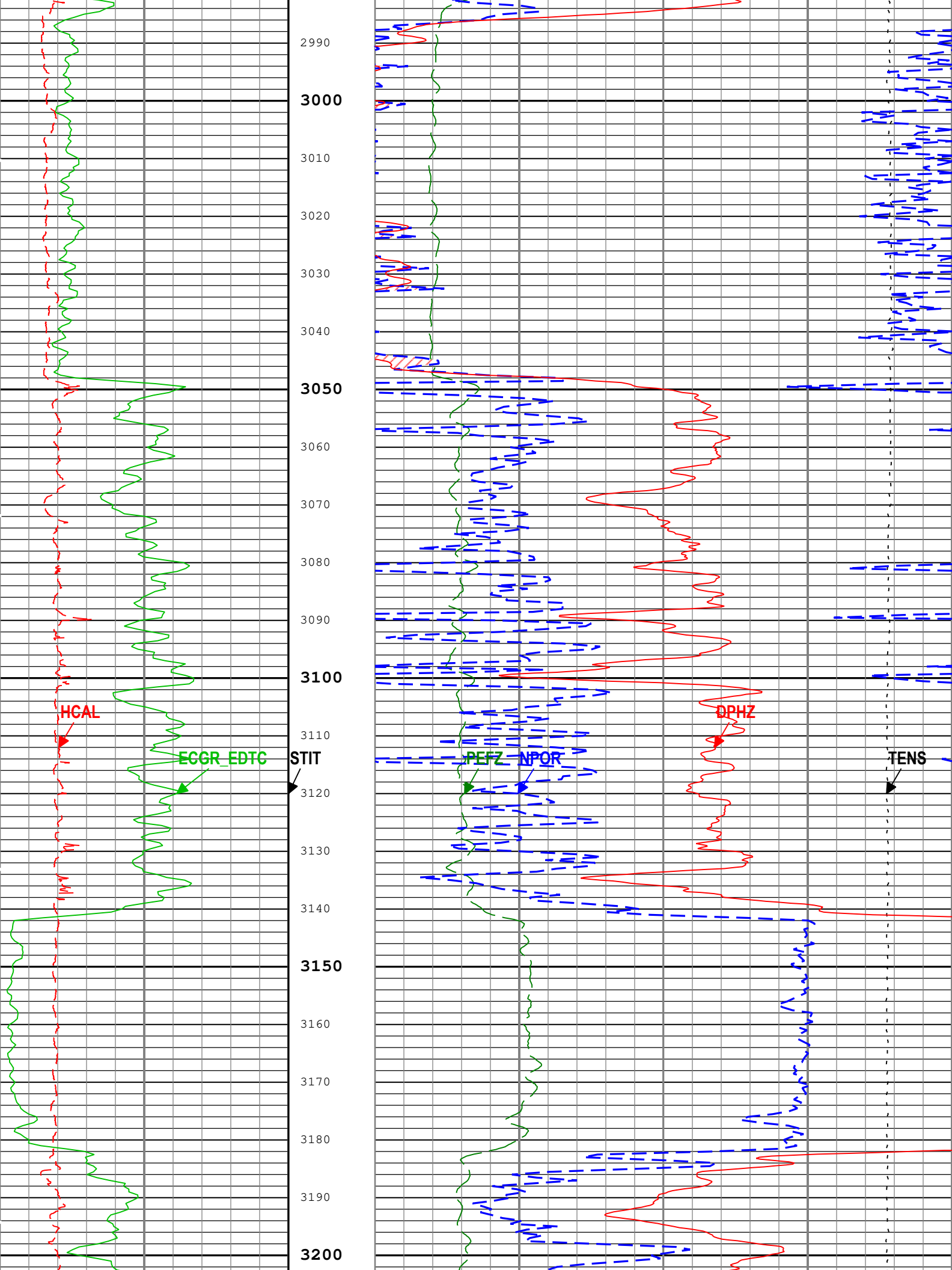


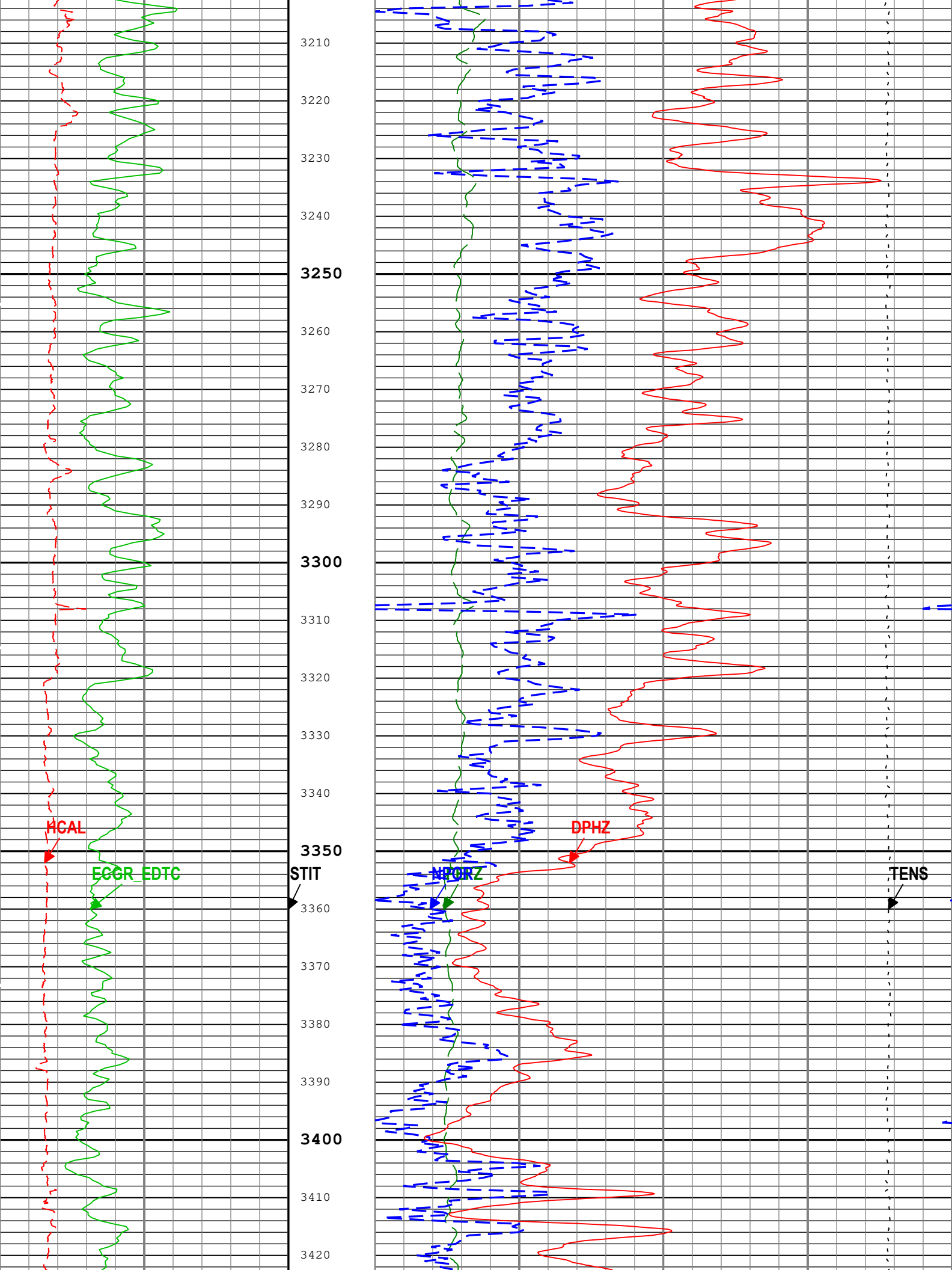


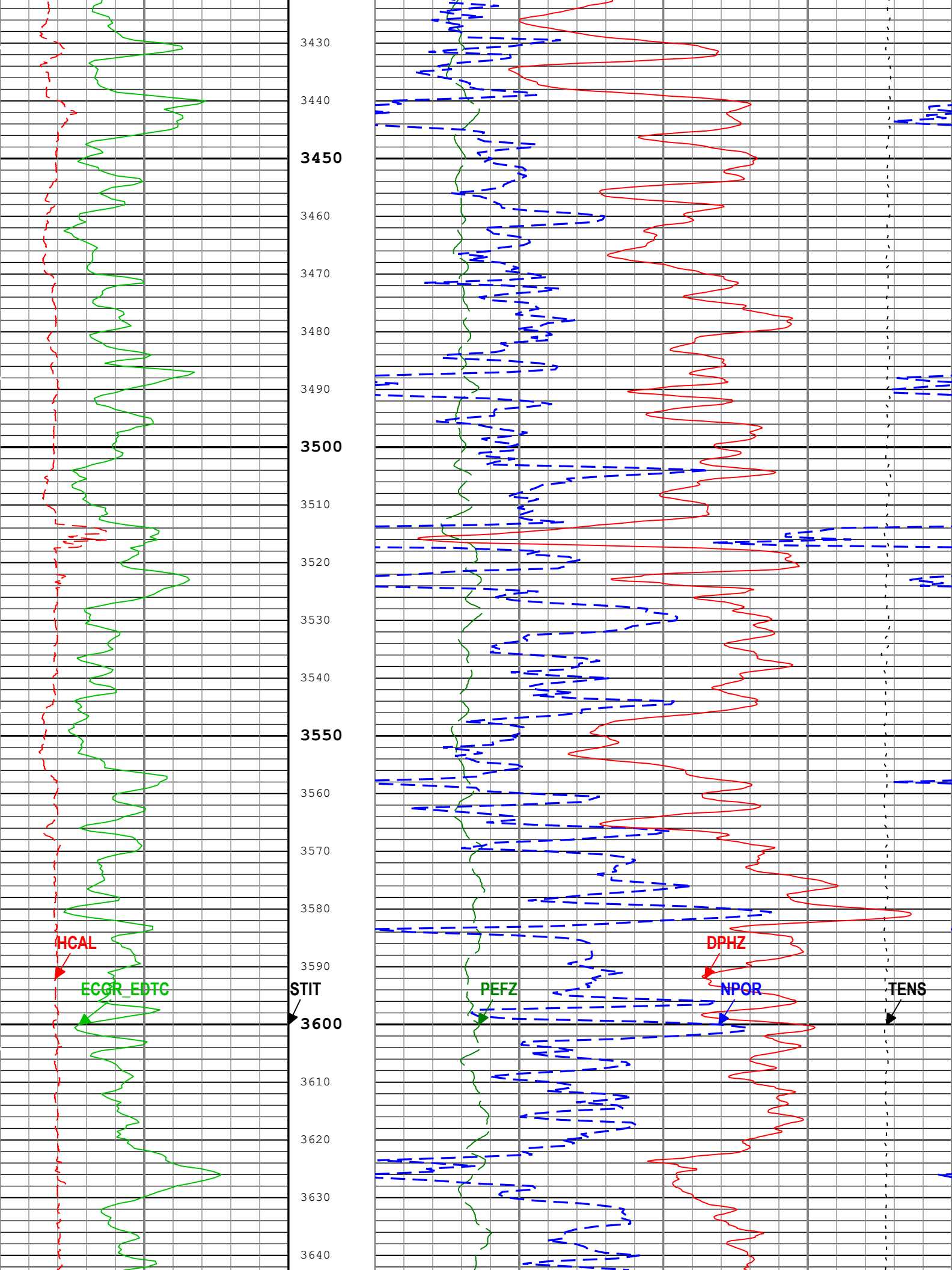


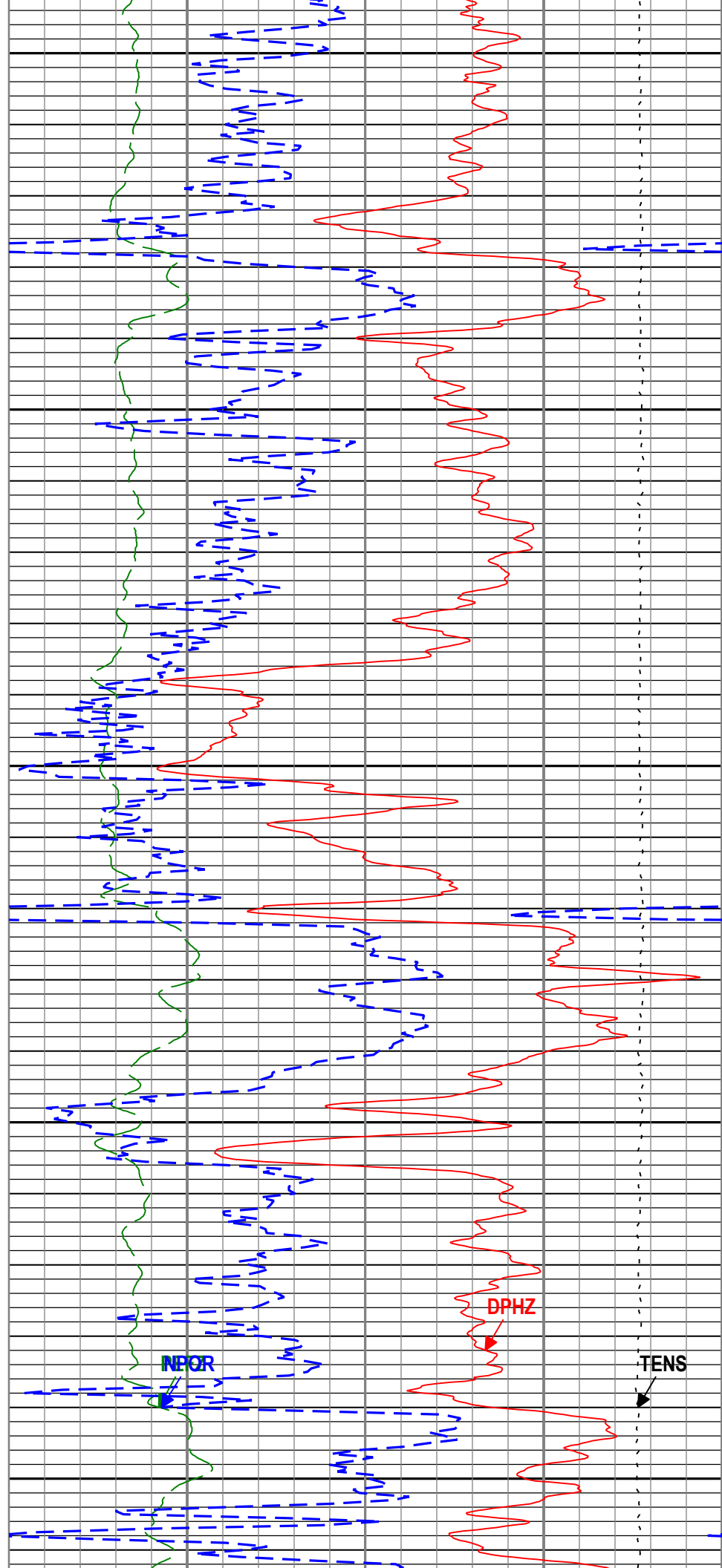
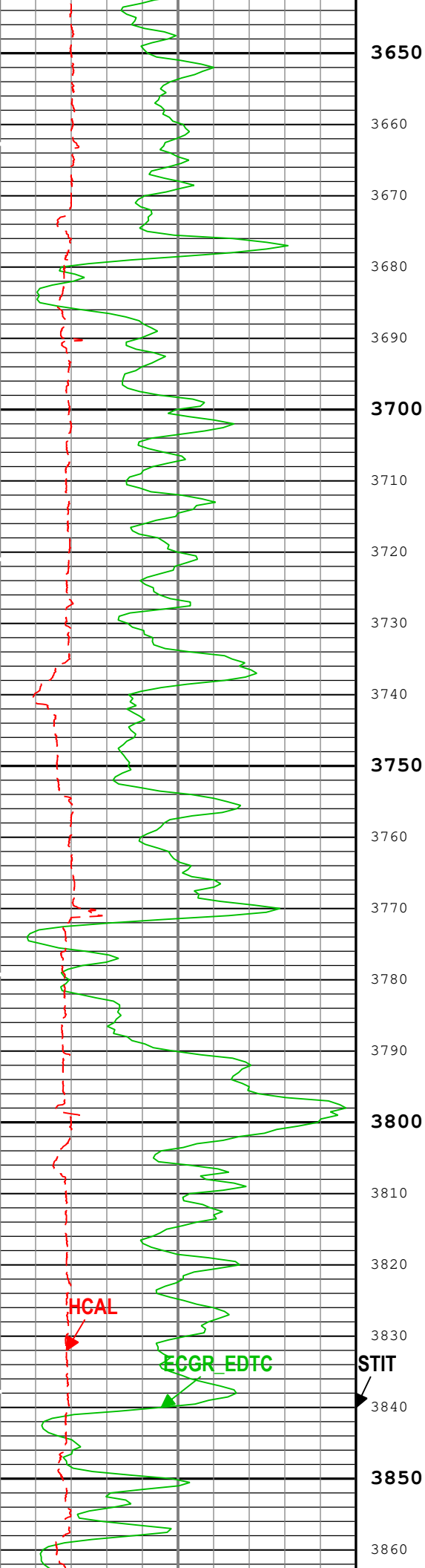


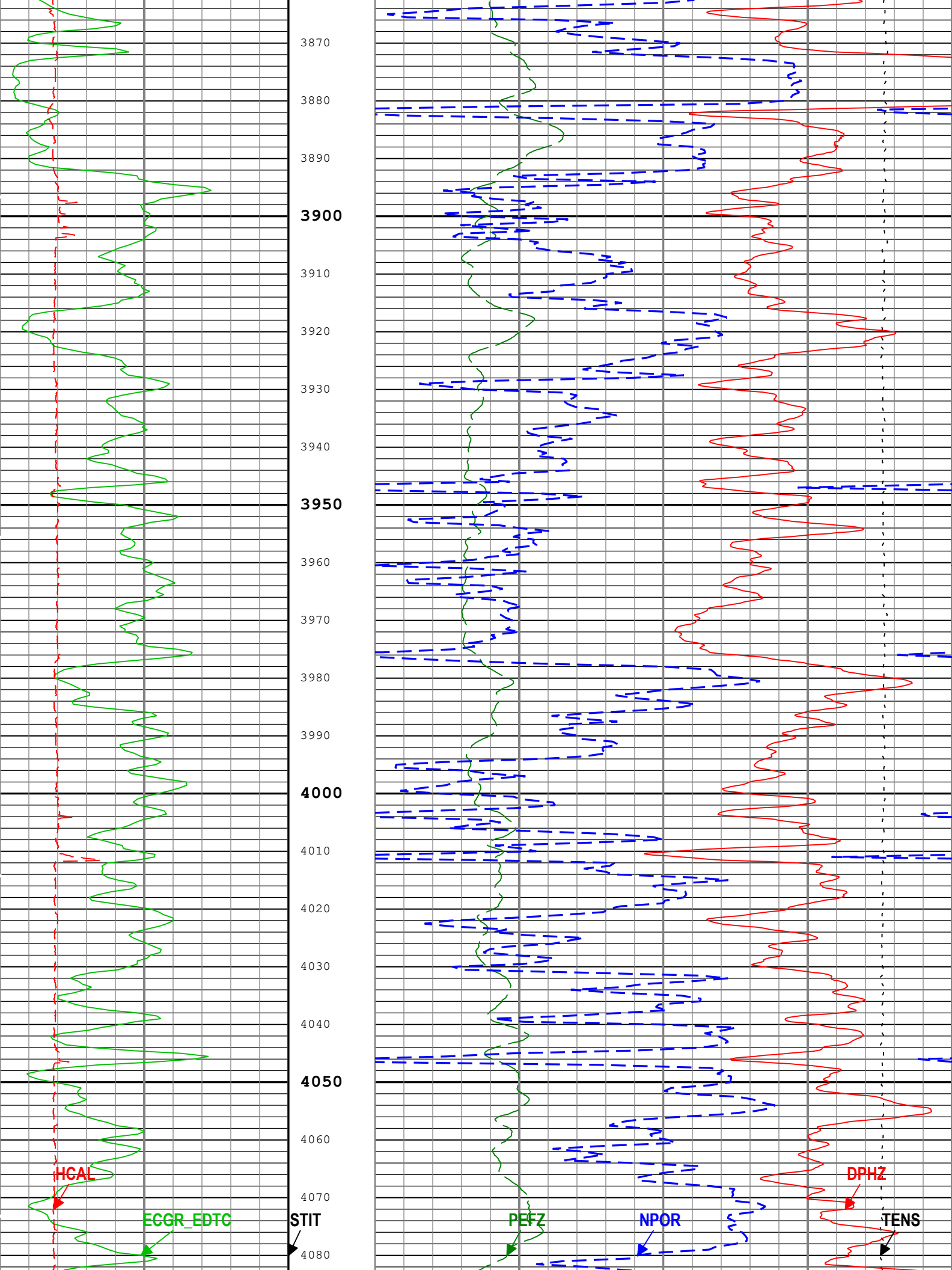


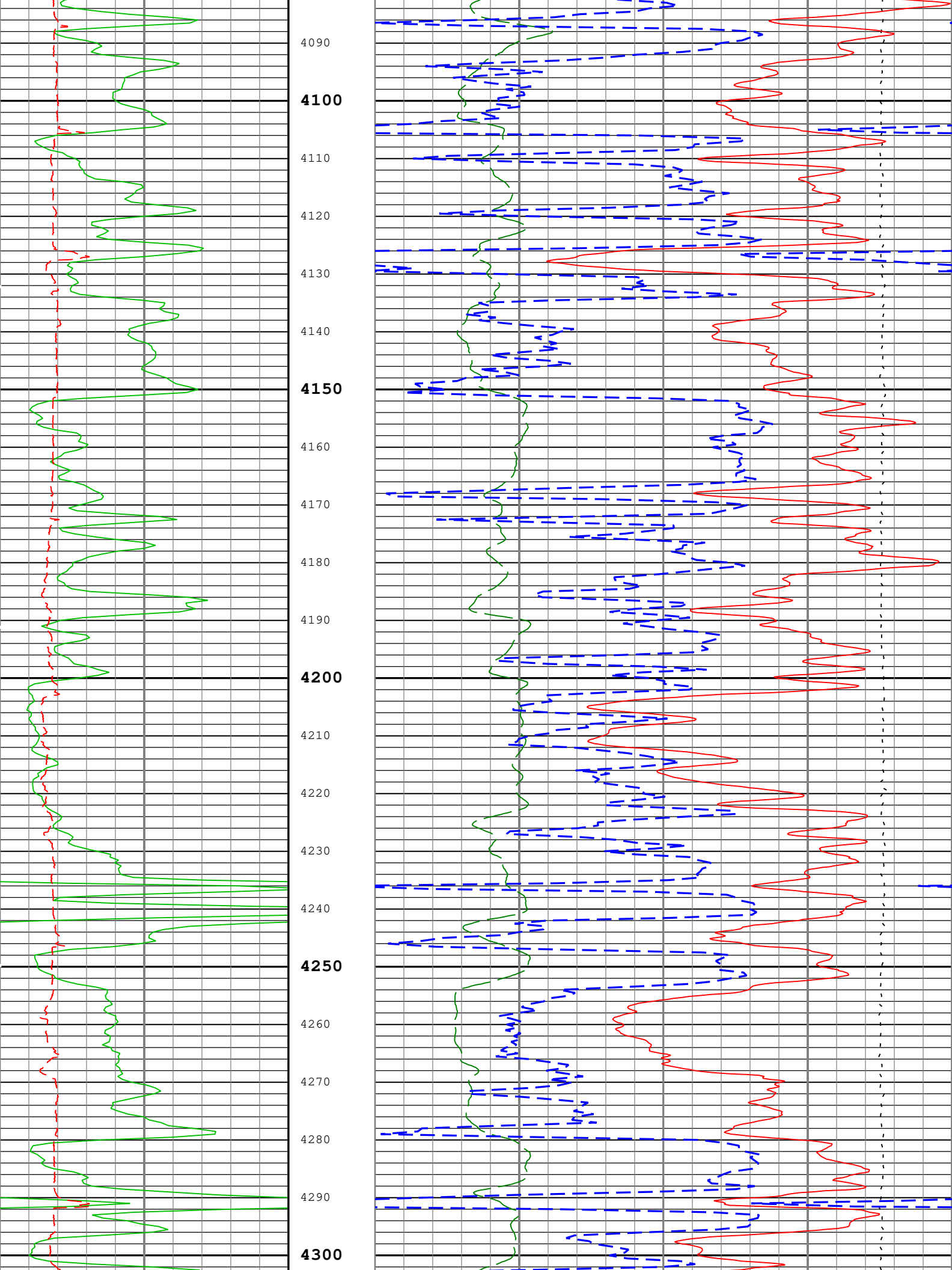


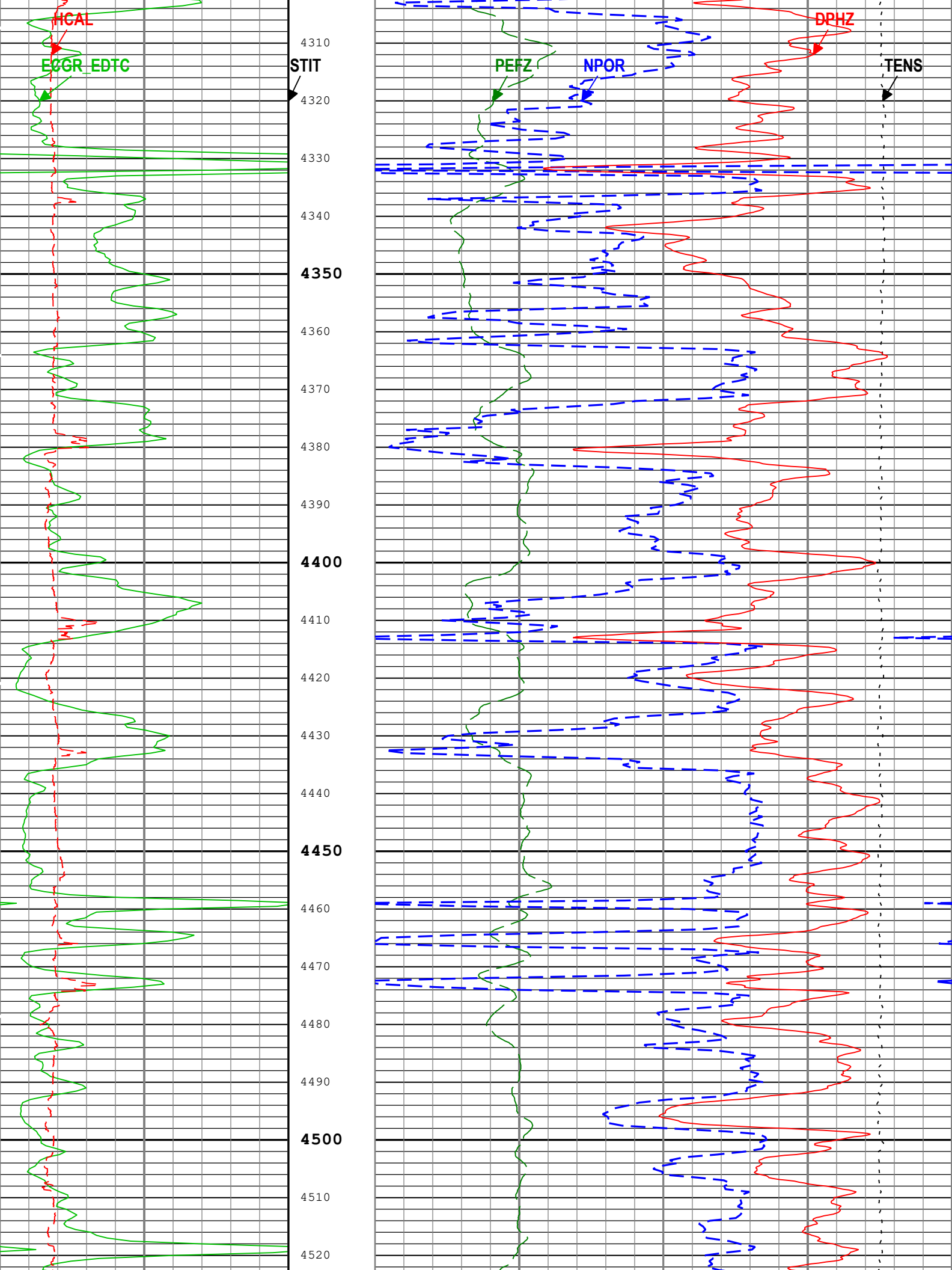


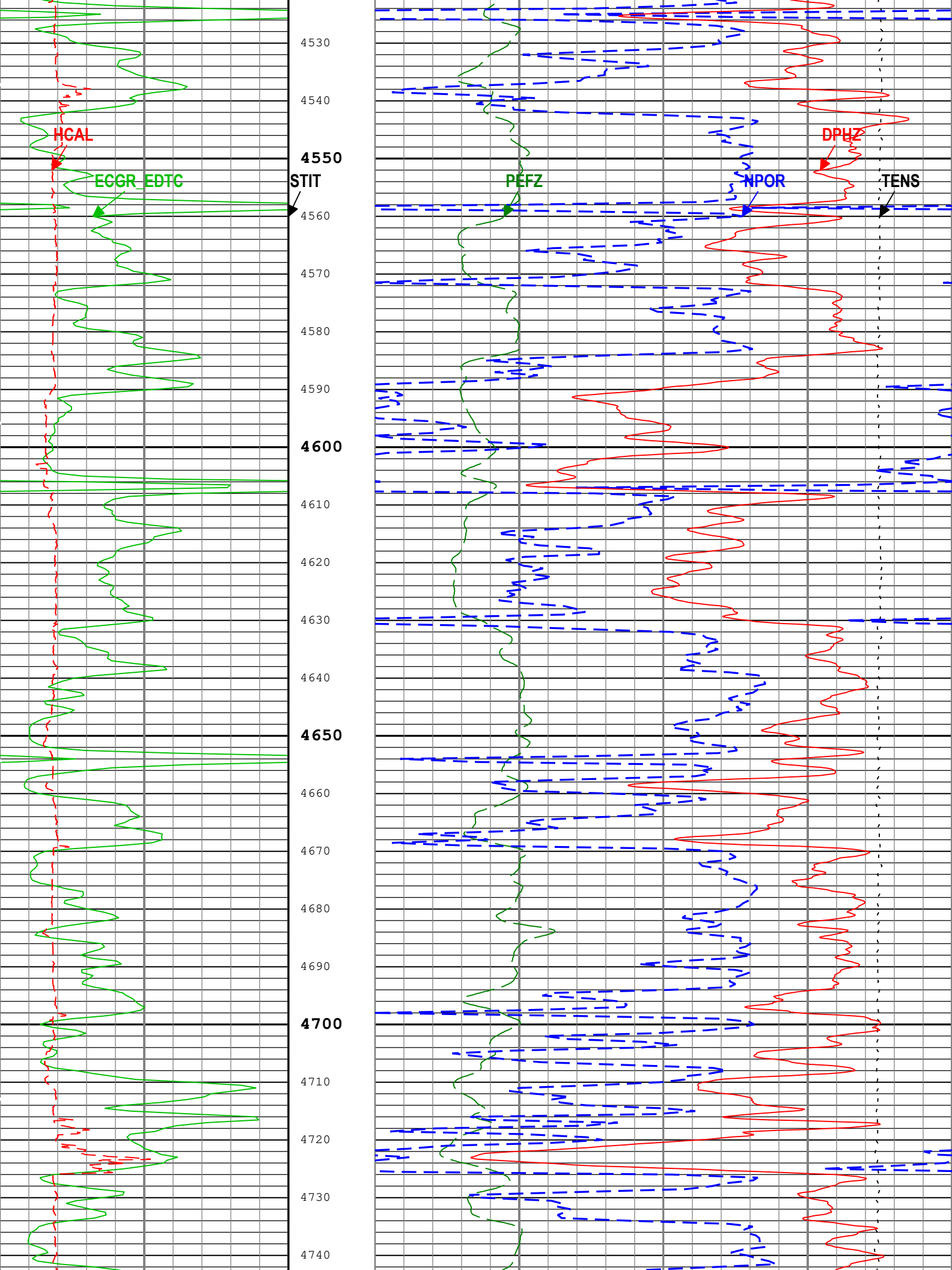


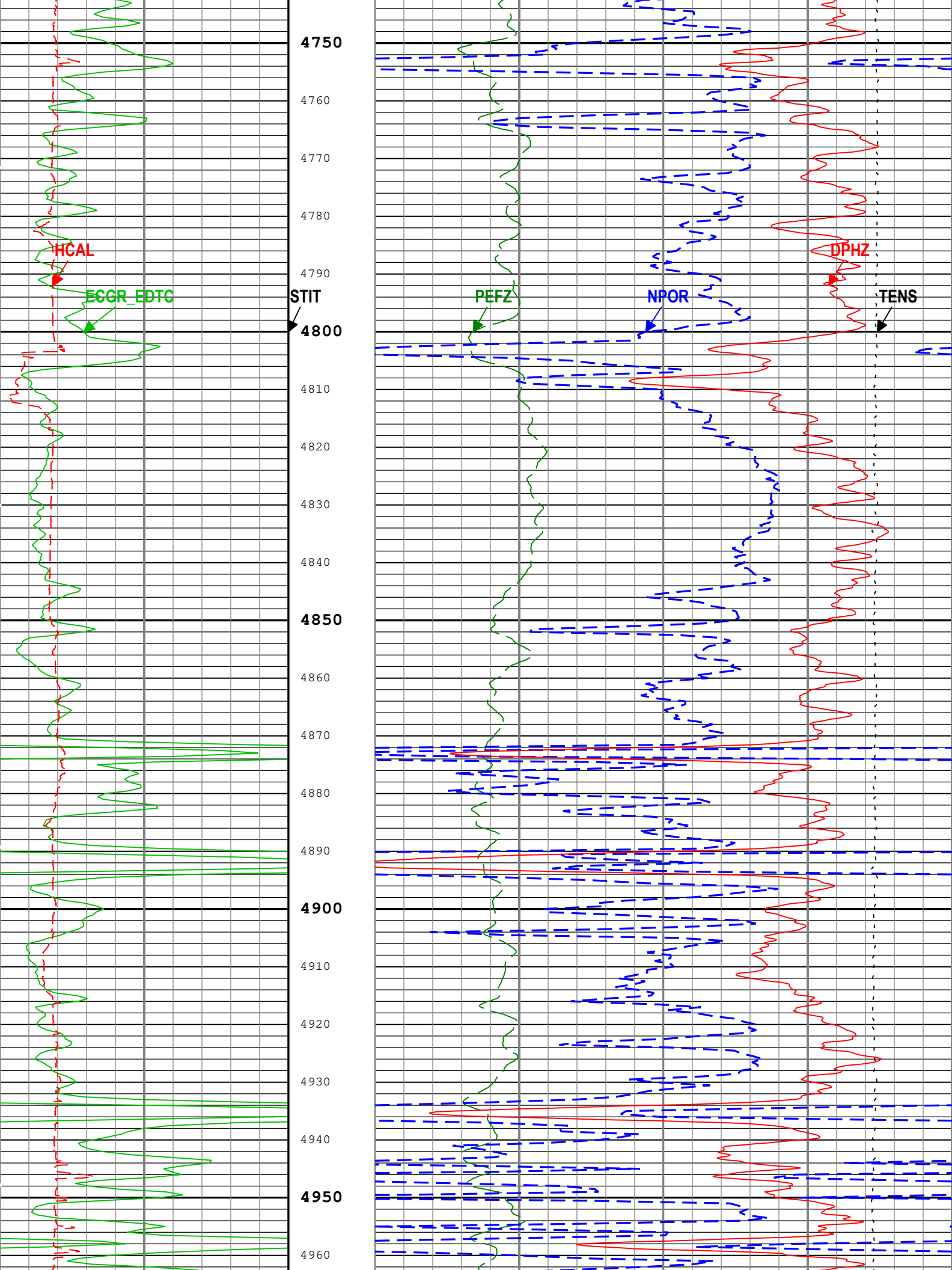


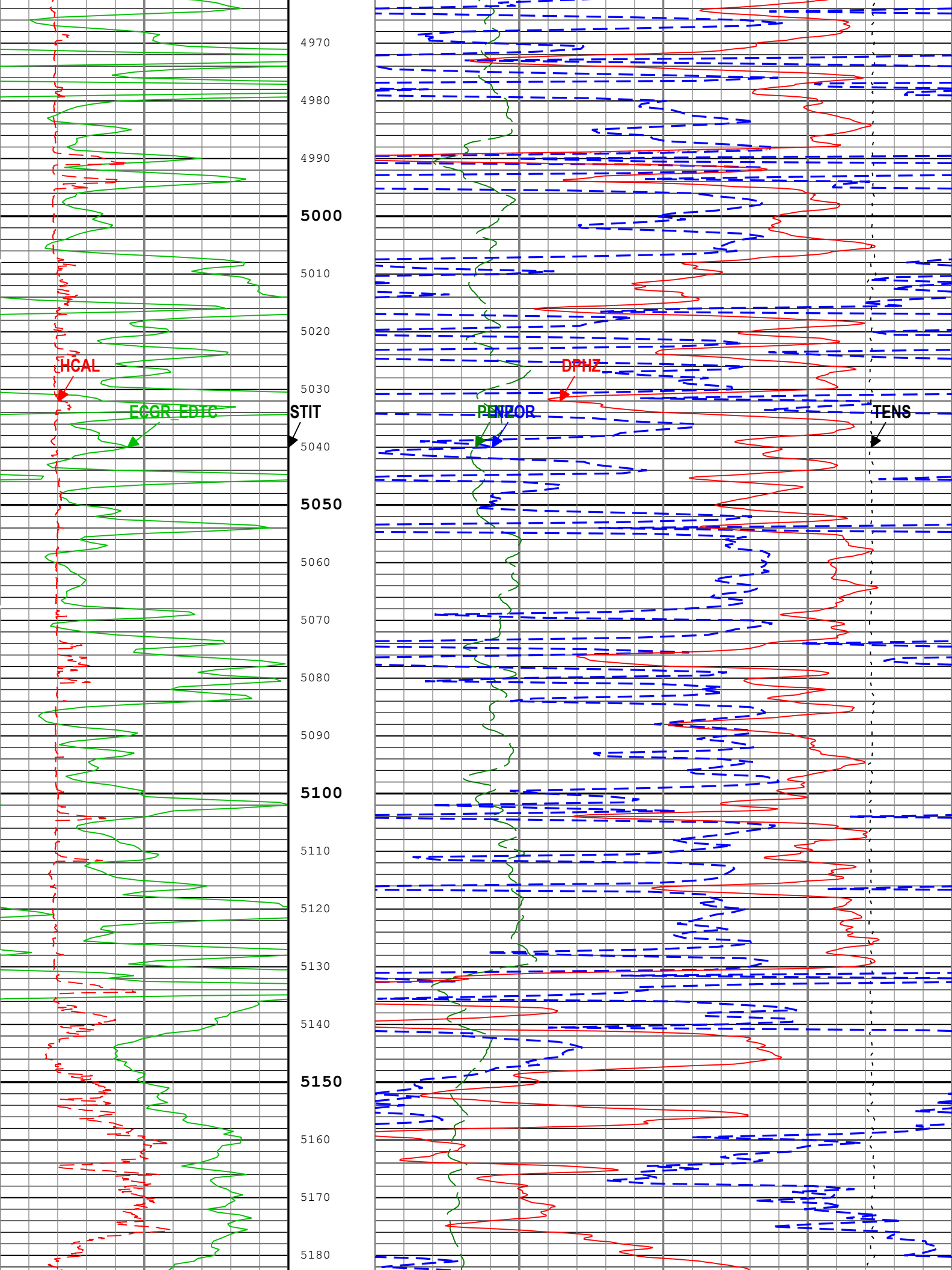


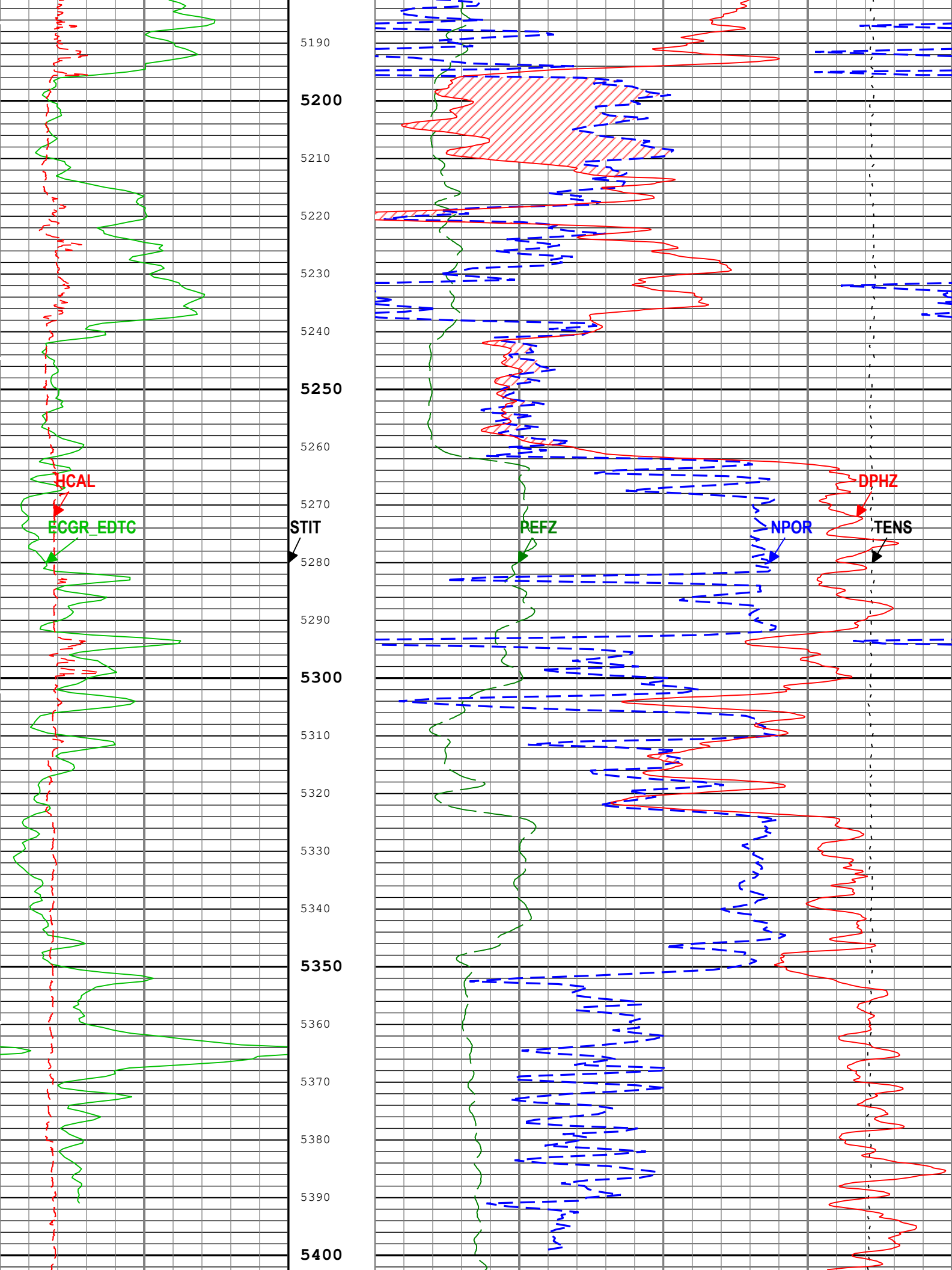


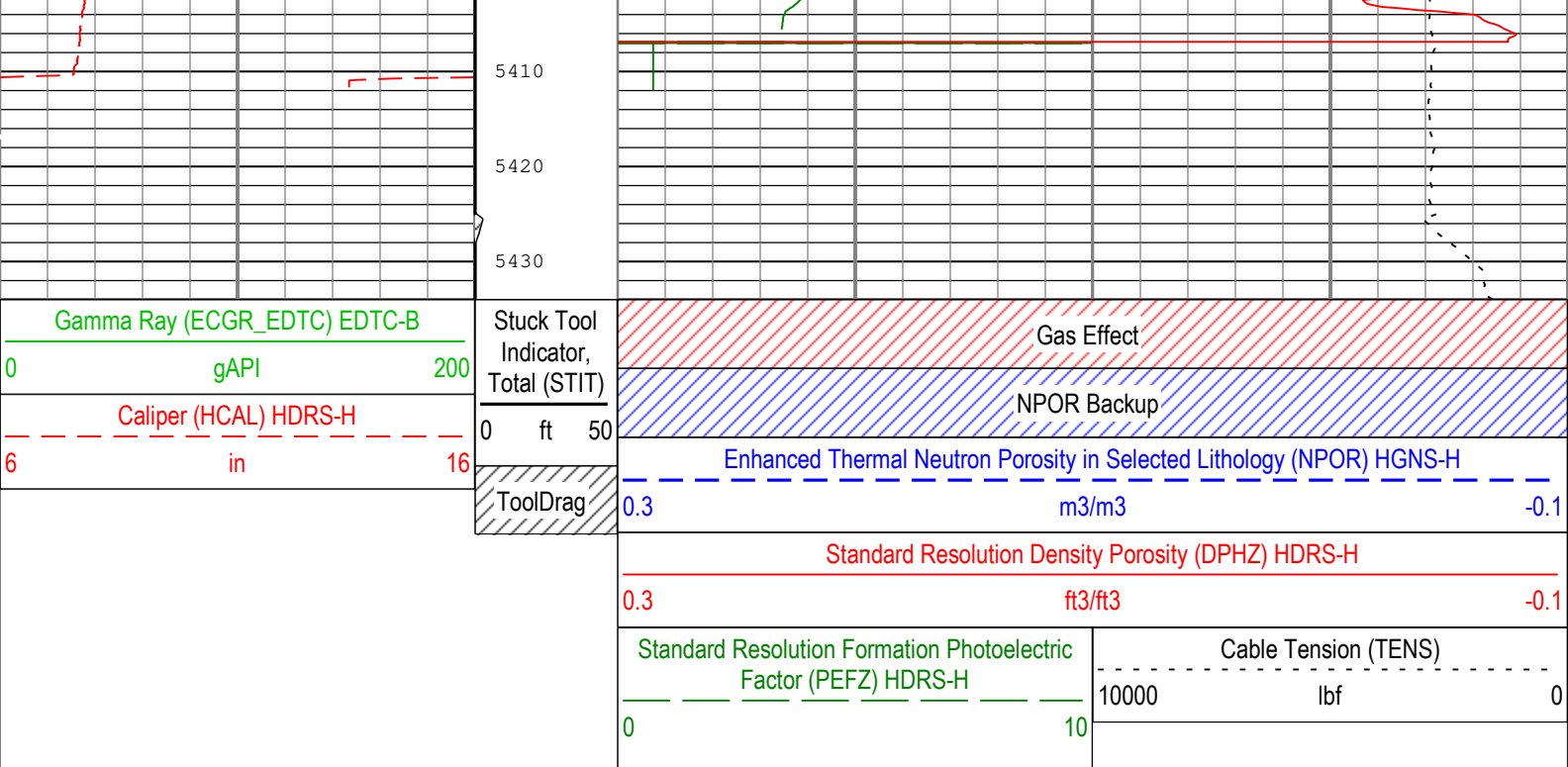




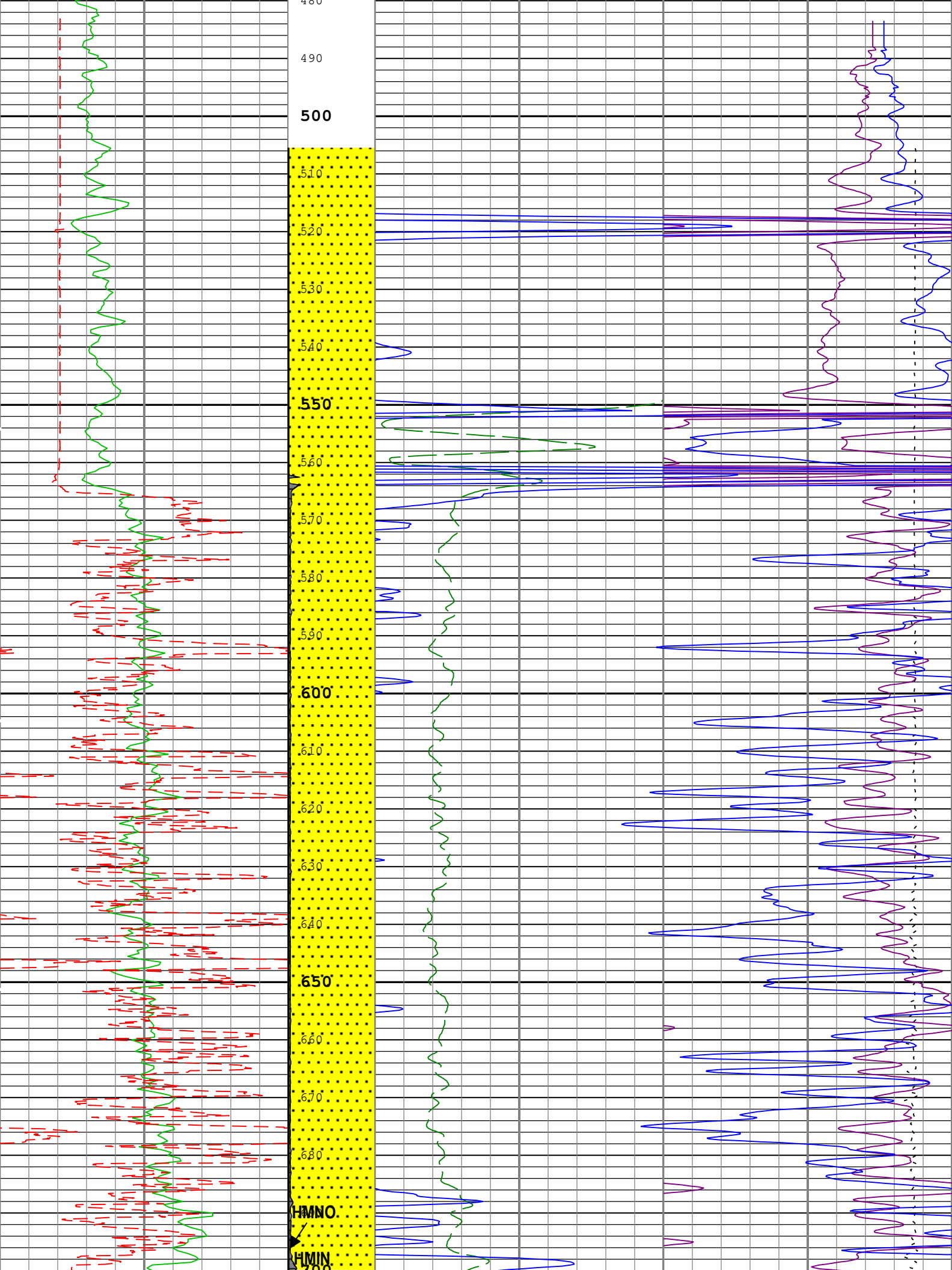


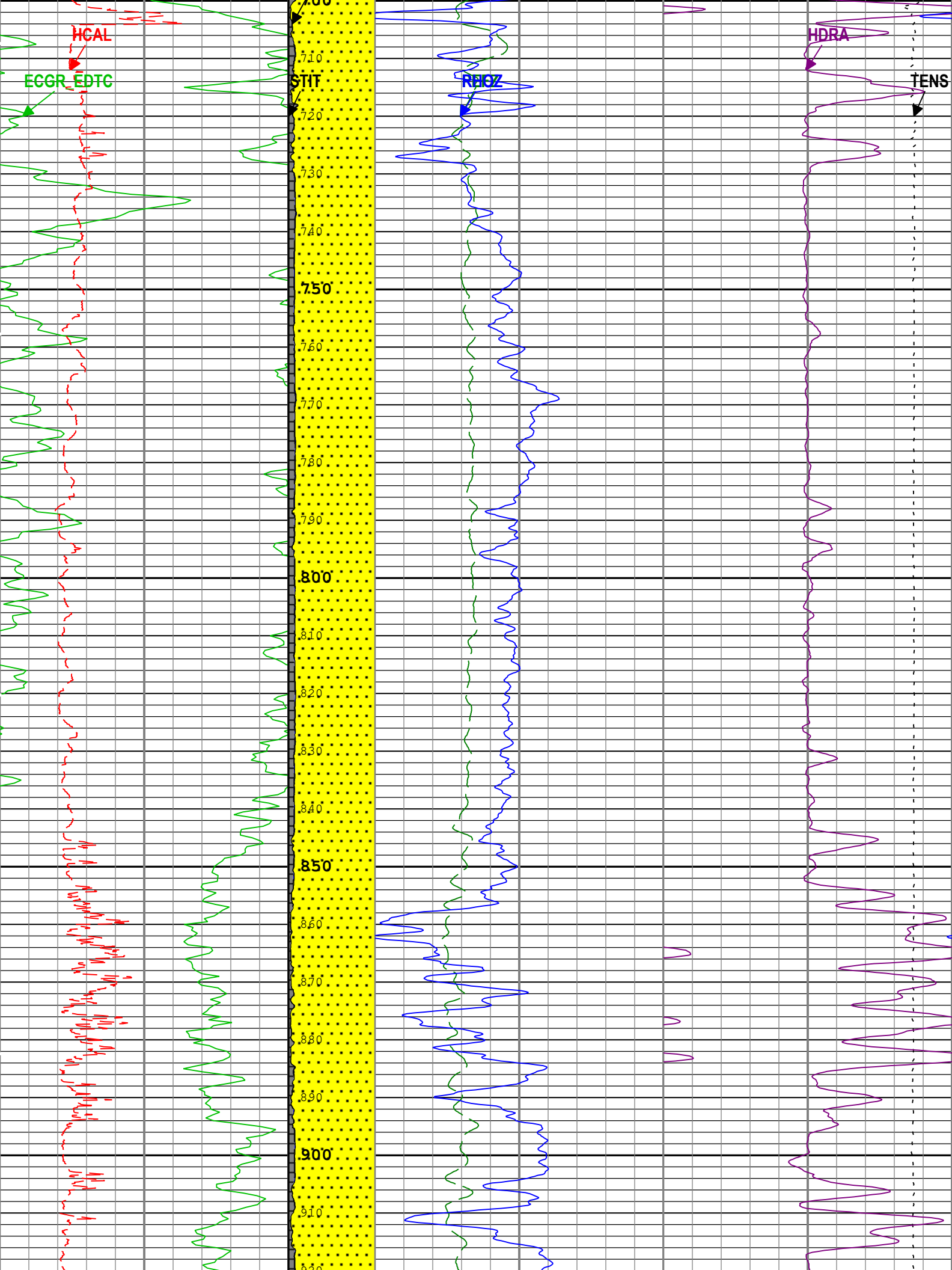


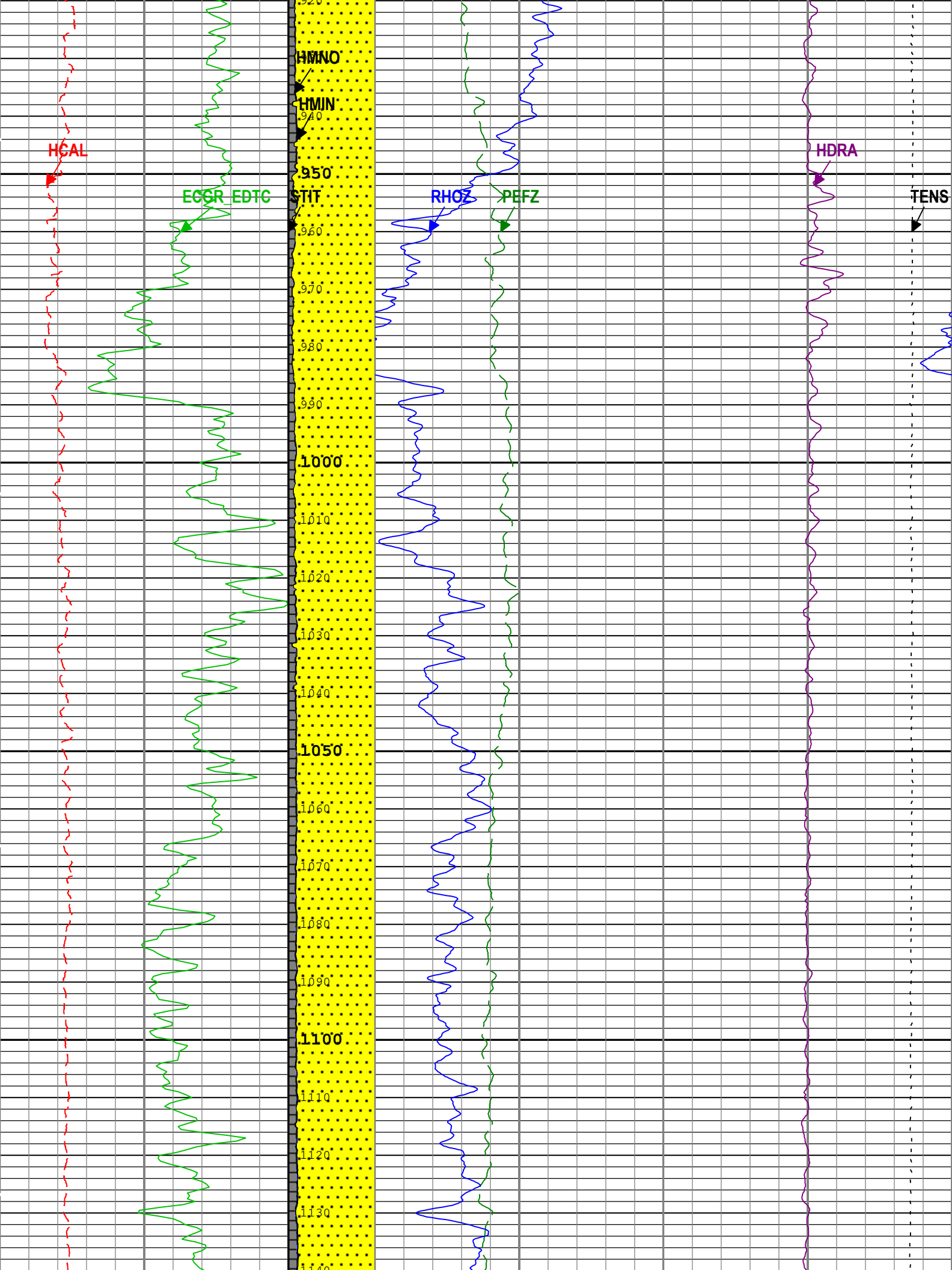


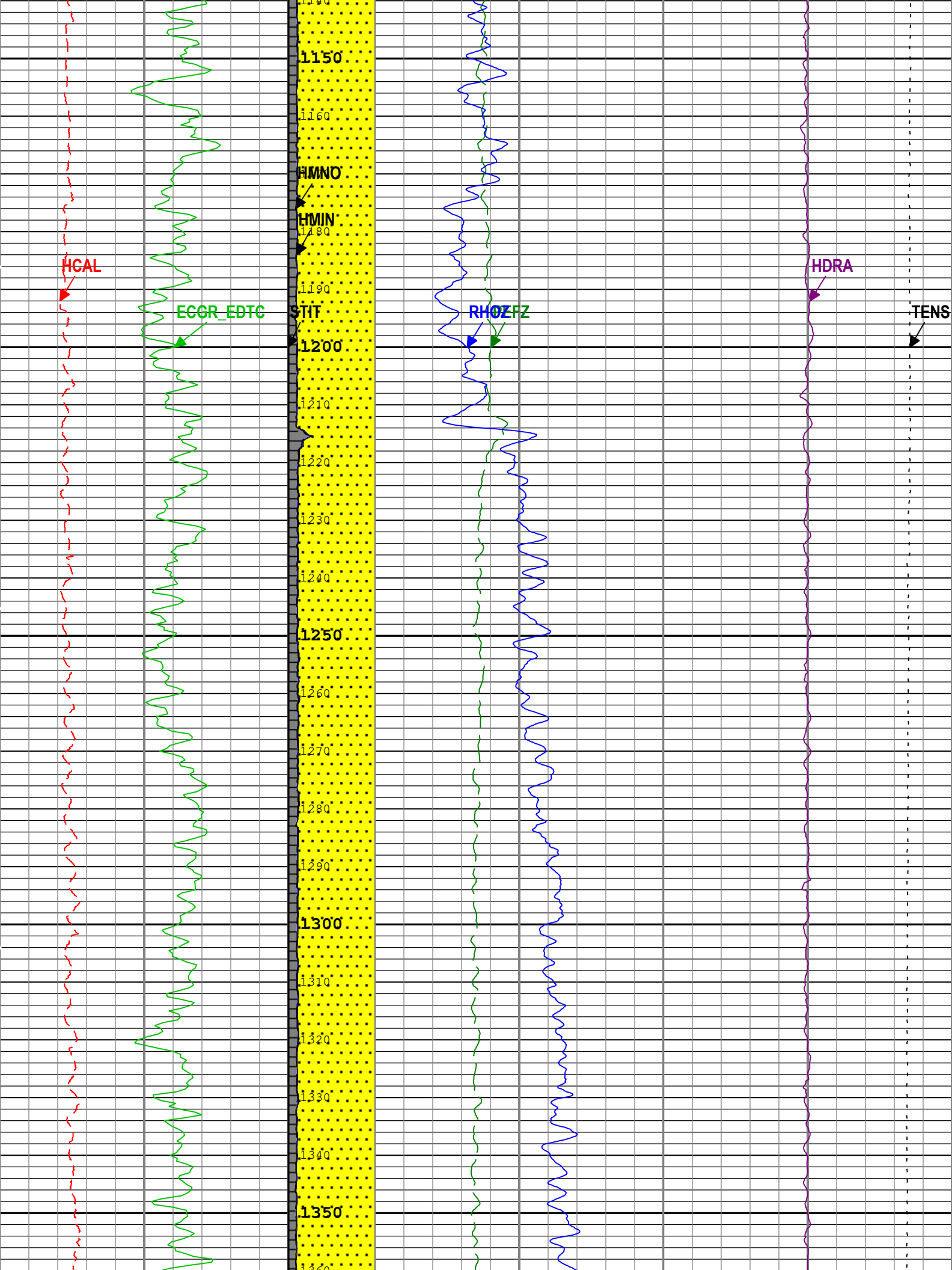


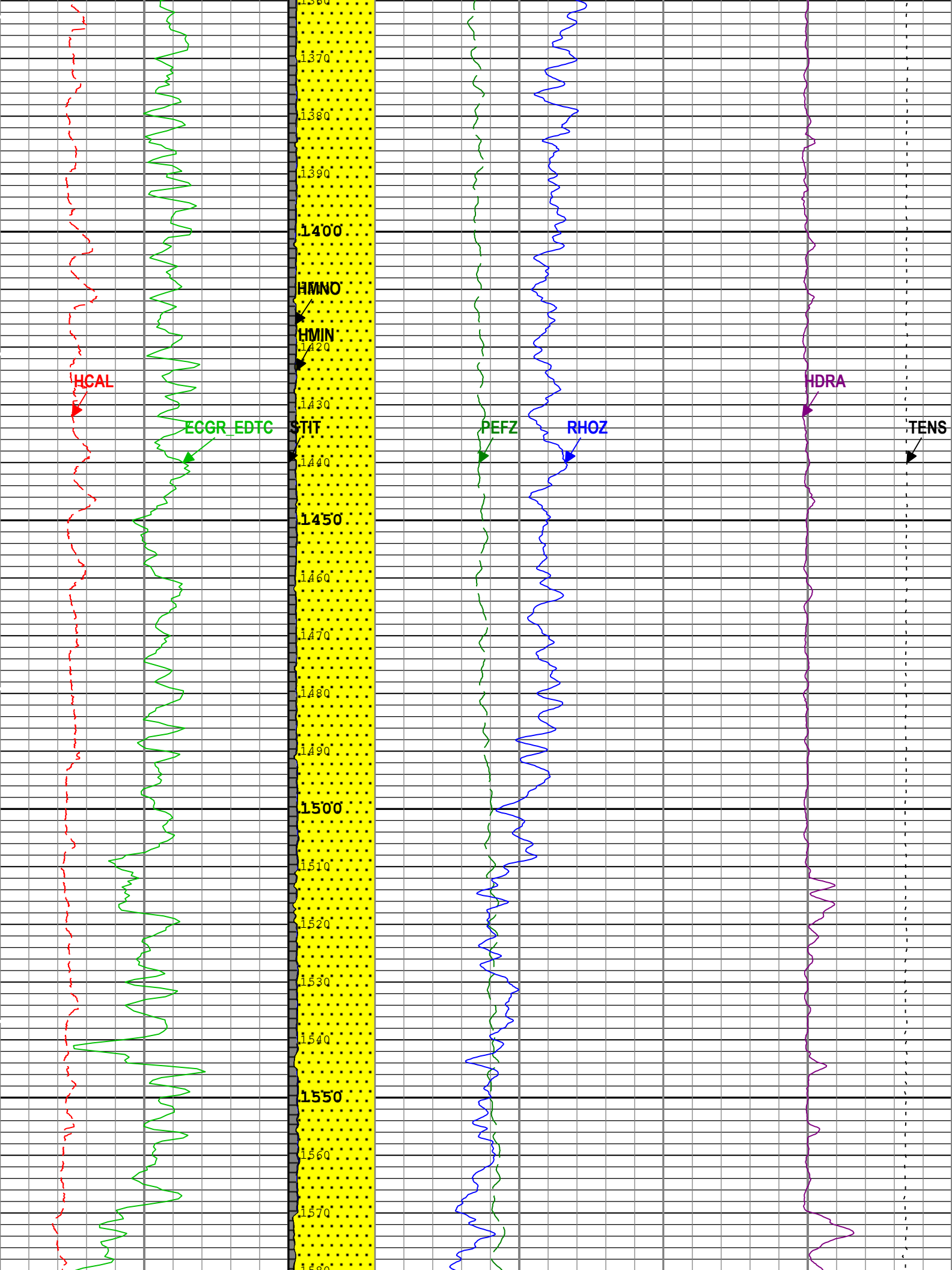
Depth Zone Parameters									
Parameter	Value			Start (ft)			Stop (ft)		
BS	12.25			463			566		
BS	7.875			566			5426.5		
All depth are actual.									
Tool Control Parameters									
Run 1: Parameters									
Parameter	Description				Tool		Value		Unit
HMCA_BOARD_TYPE	HMCA Board Type				HGNS-H		1		
HRGD_BOARD_TYPE	HRGD Board Type				HDRS-H		WITH_HET		
MAX_LOG_SPEED	Toolstring Maximum Logging Speed				WLSESSION		3600		ft/h
Run 1									
5" Density									
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Run 1	Log[5]:Up	Up	505.34 ft	5434.03 ft	13-Jul-2024 12:32:54 PM	13-Jul-2024 1:57:55 PM	ON	1.30 ft	Yes
All depths are referenced to toolstring zero									
Log	Company:Wavetech Helium Inc Well:1 Wavetech Harker Family 31-22 Run 1: Log[5]:Up:S008								
Description: HGNS standard resolution porosities for Platform Express Format: Log (Density-5) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 13-Jul-2024 15:18:43									
Channel	Source		Sampling						
CALI	HDRS-H:HRCC-H:HRCC-H		1in						
GR	EDTC-B:EDTC-B:EDTC-B		6in						
HDRA	HDRS-H:HRMS-H:HRGD-H		2in						
PEFZ	HDRS-H:HRMS-H:HRGD-H		2in						
RHOZ	HDRS-H:HRMS-H:HRGD-H		2in						
SMIN	HDRS-H:HRMS-H:HRGD-H		2in						
SMNO	HDRS-H:HRMS-H:HRGD-H		2in						
STIT	DepthCorrection		6in						
TENS	WLWorkflow		6in						
TIME_1900	WLWorkflow		0.1in						
TIME_1900 - Time Marked every 60.00 (s)									
			LIME				Cable Tension (TENS)		
			SAND				-----		
			SHALE				10000 lbf 0		
Gamma Ray (ECGR_EDTC) EDTC-B					Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H		Density Standoff Correction (HDRA) HDRS-H		
0 gAPI 200			Stuck Tool Indicator, Total (STIT)		0 10		-0.25 g/cm3 0.25		
Caliper (HCAL) HDRS-H							Standard Resolution Formation Density (RHOZ) HDRS-H		
6 in 16			0 ft 50		2 3		g/cm3		
			470						
			480						
ECGR_EDTC									

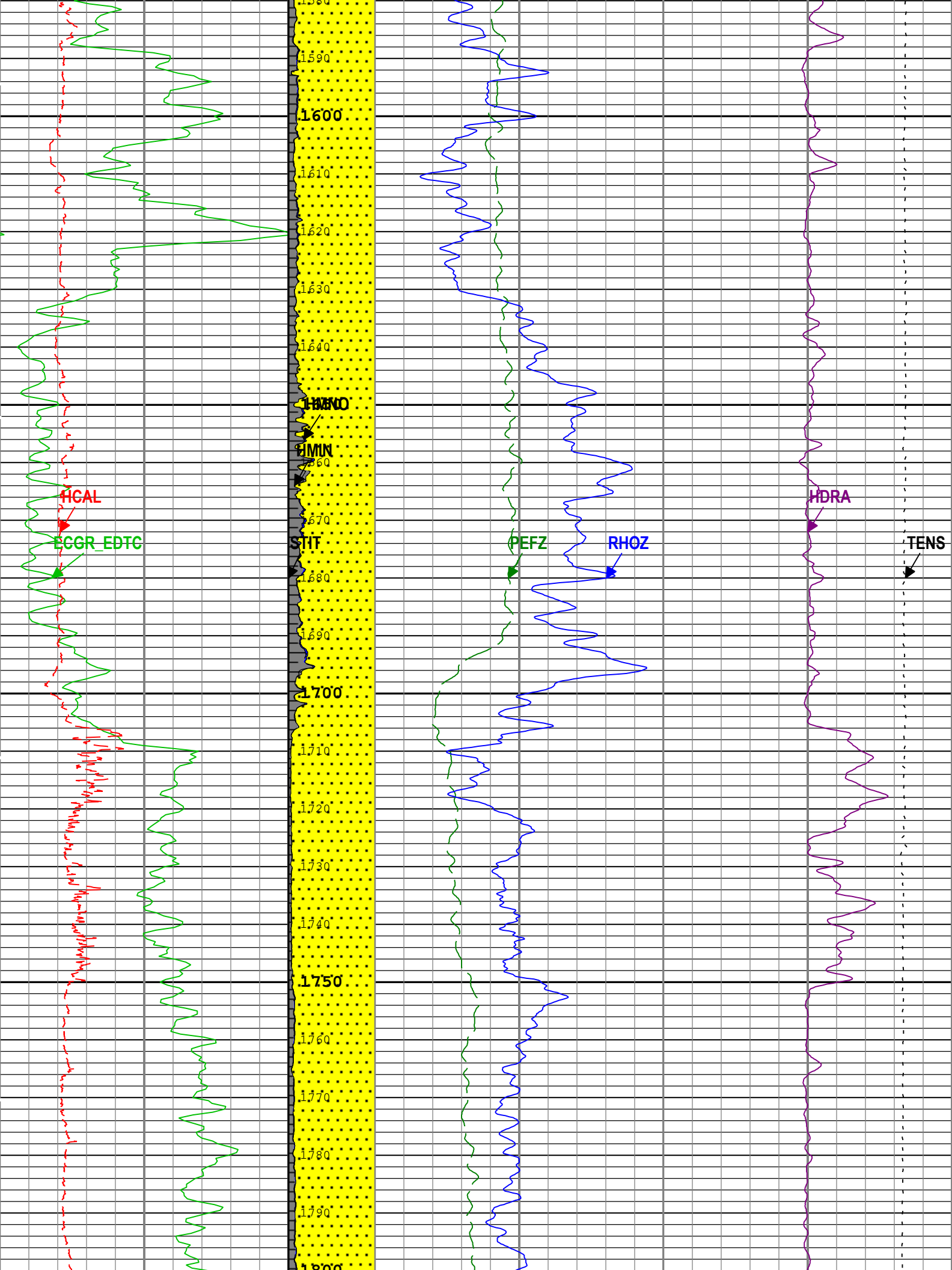


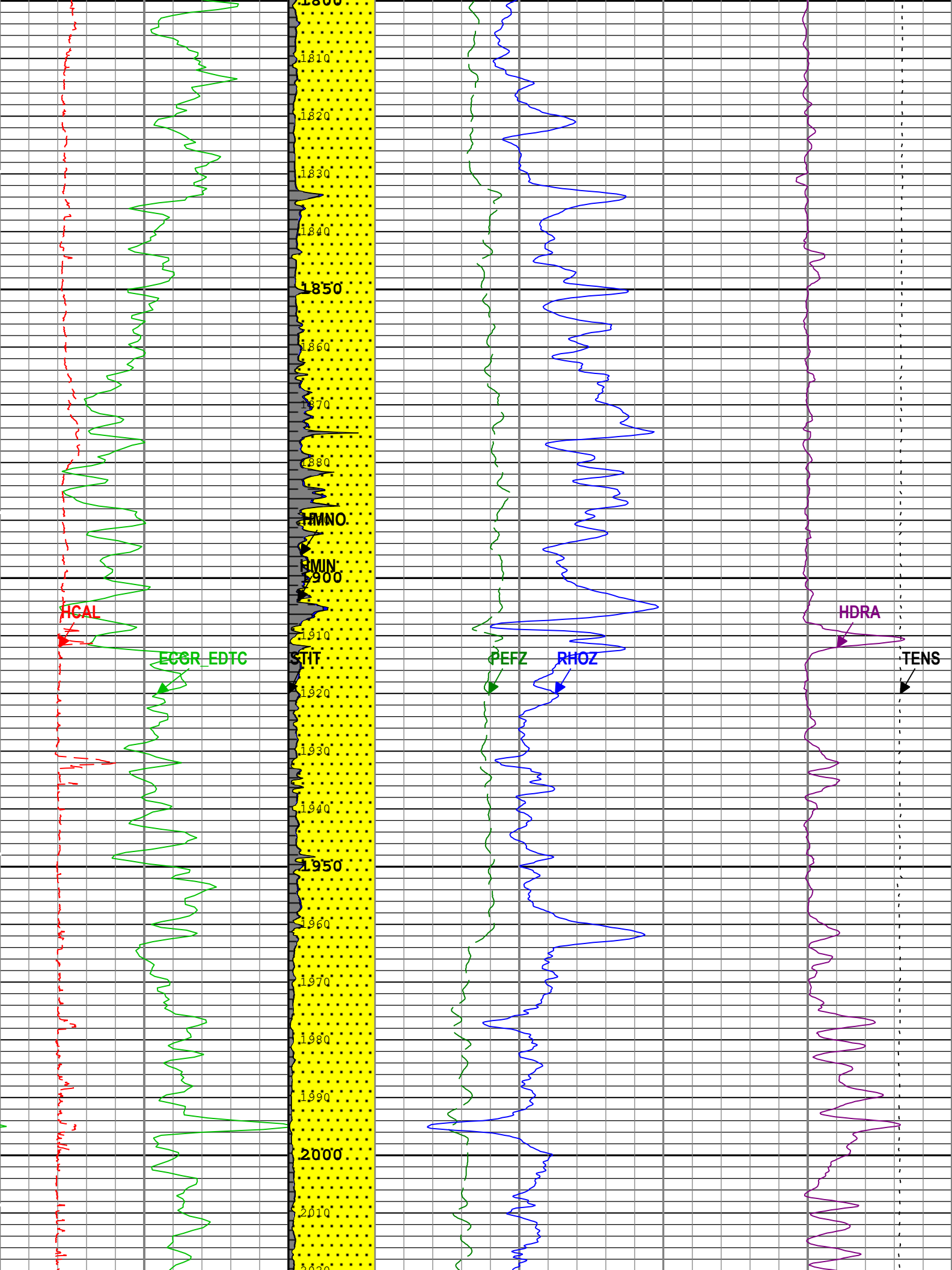


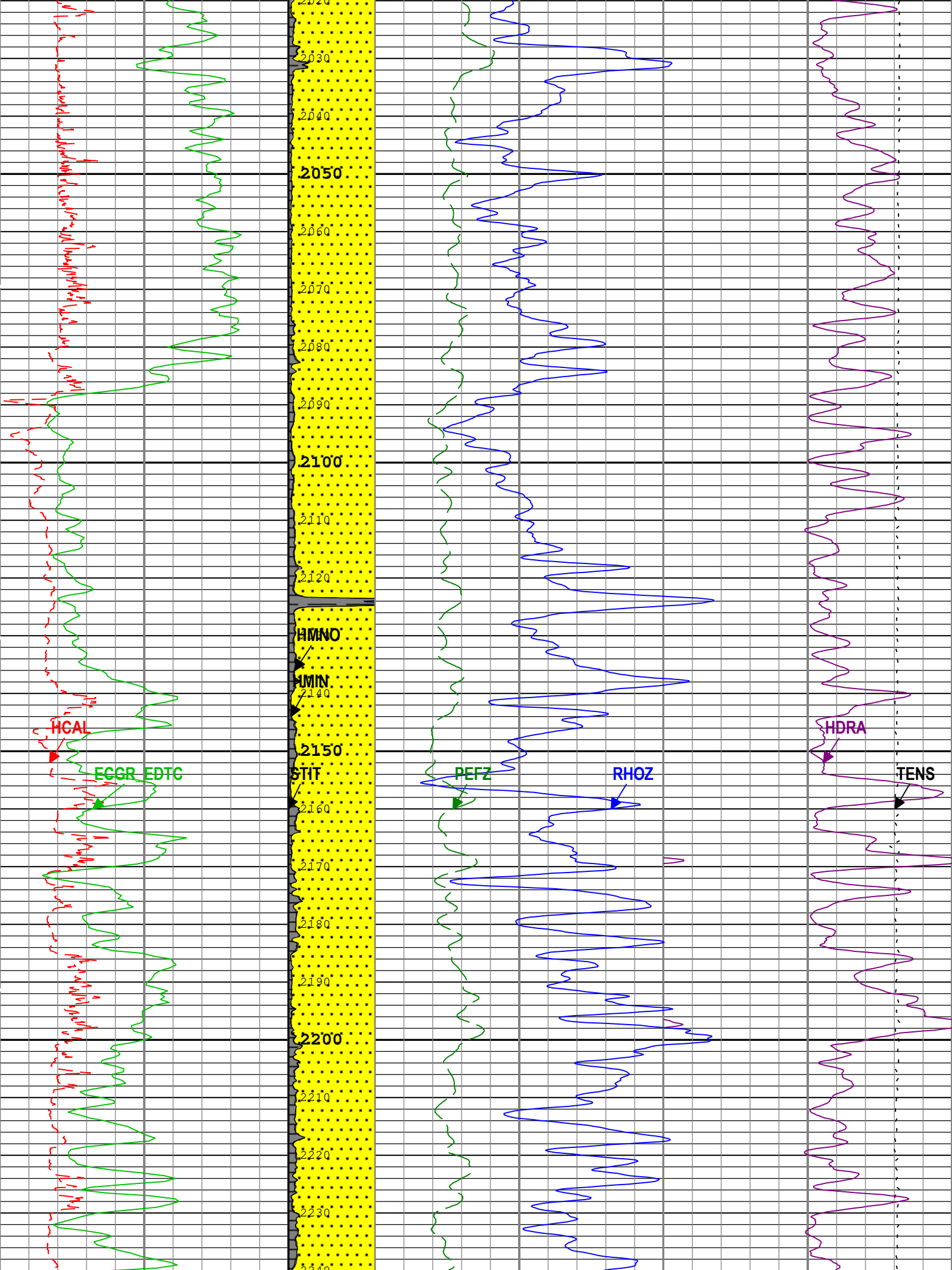


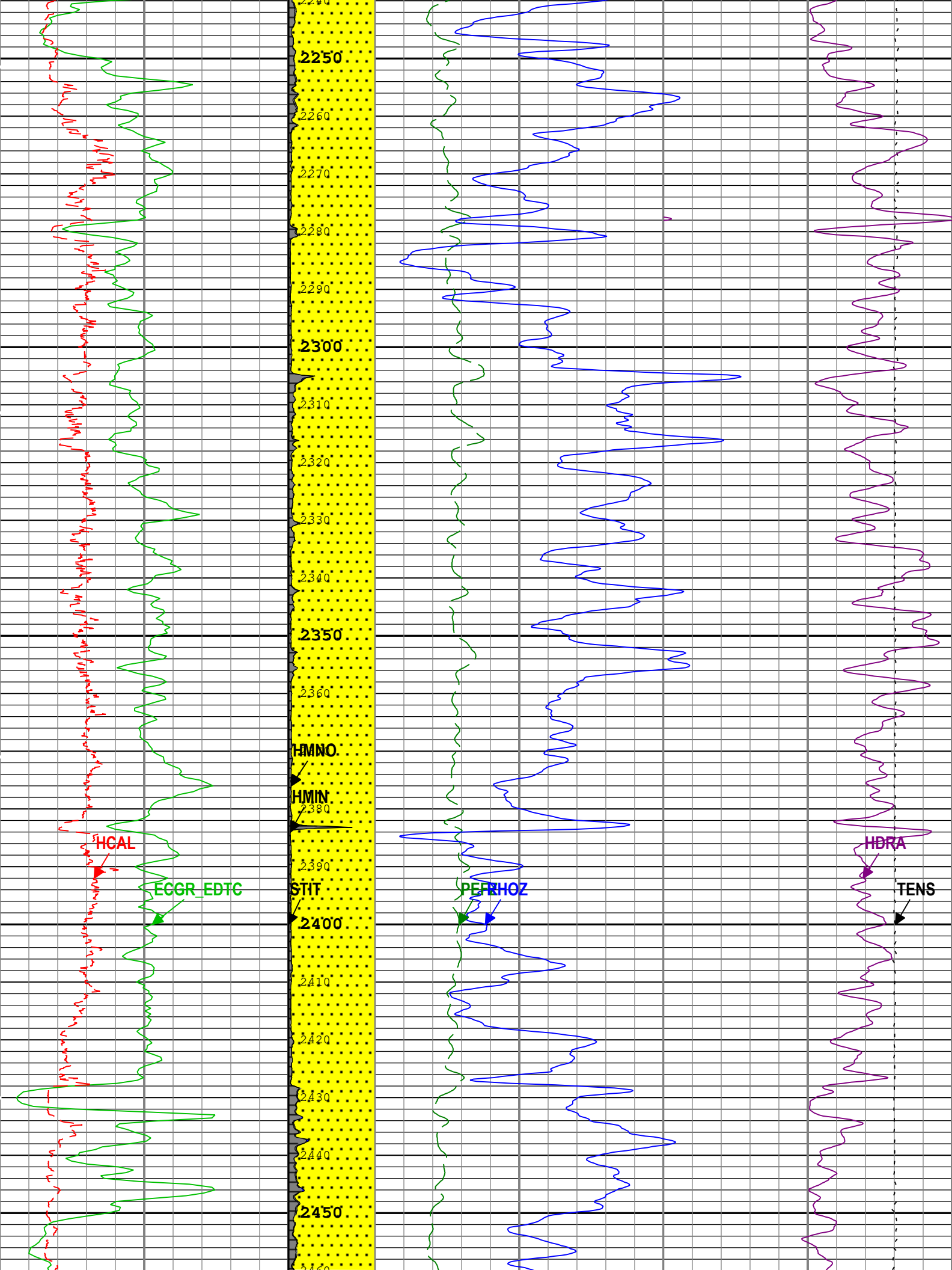


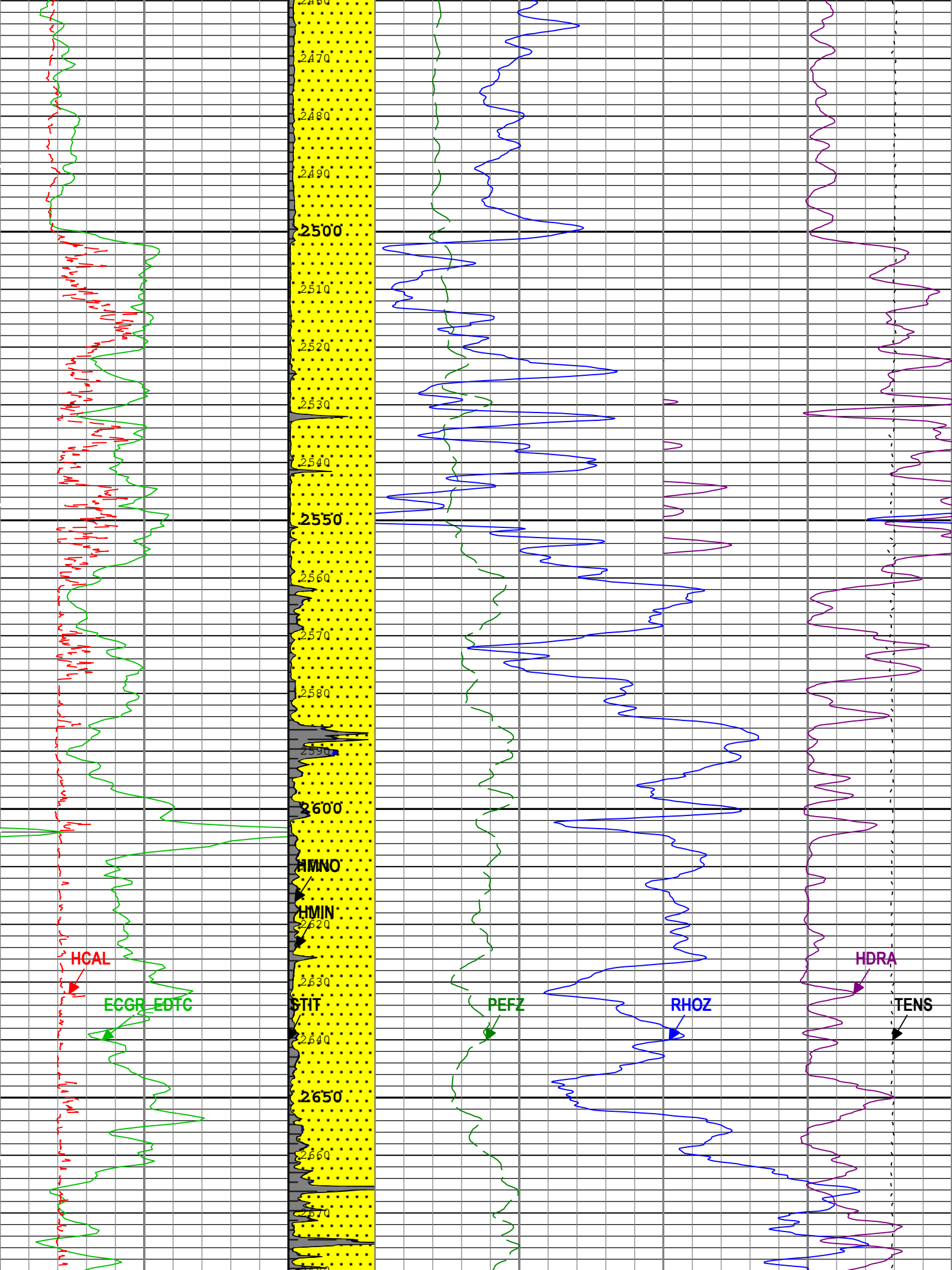


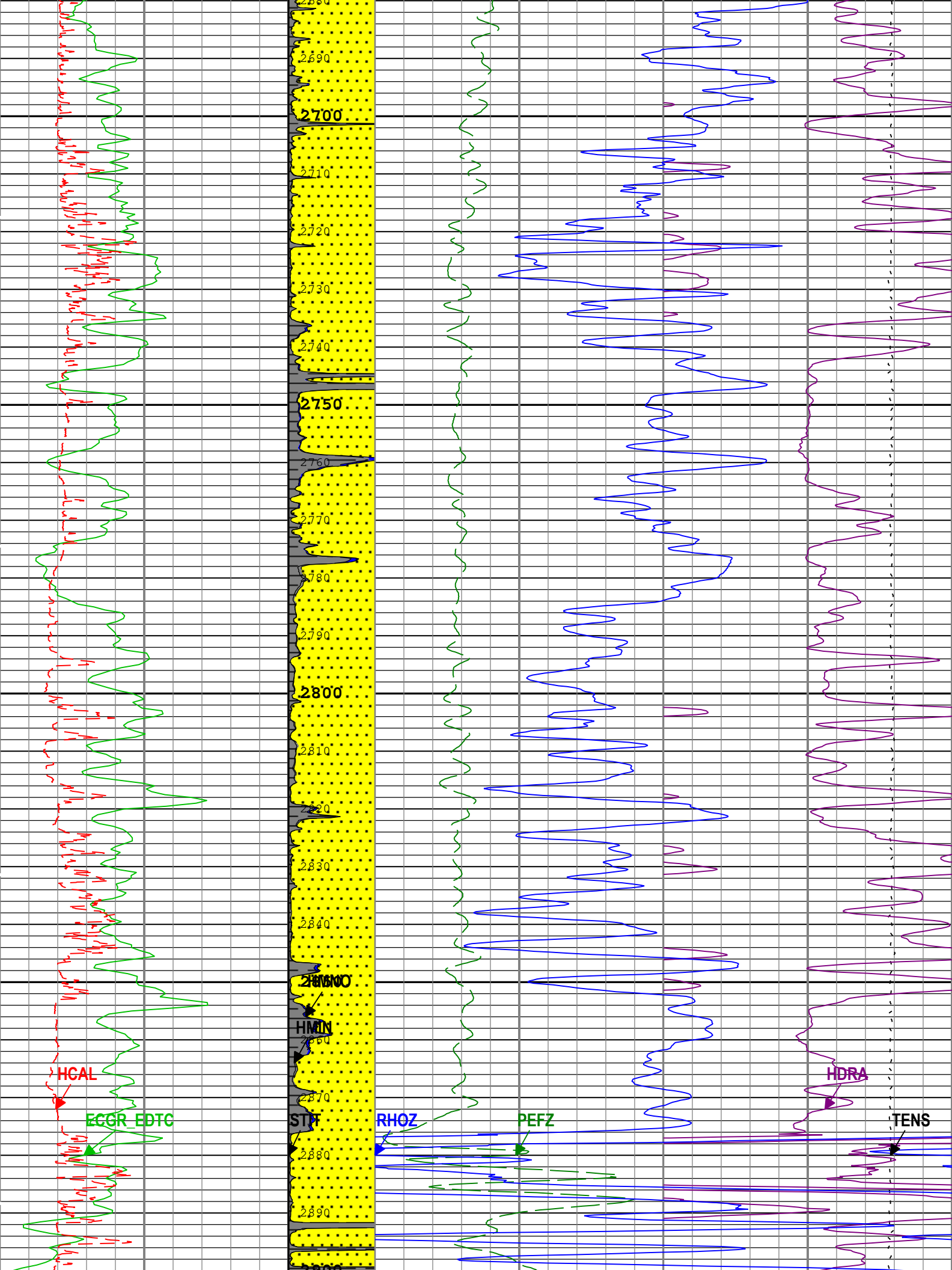


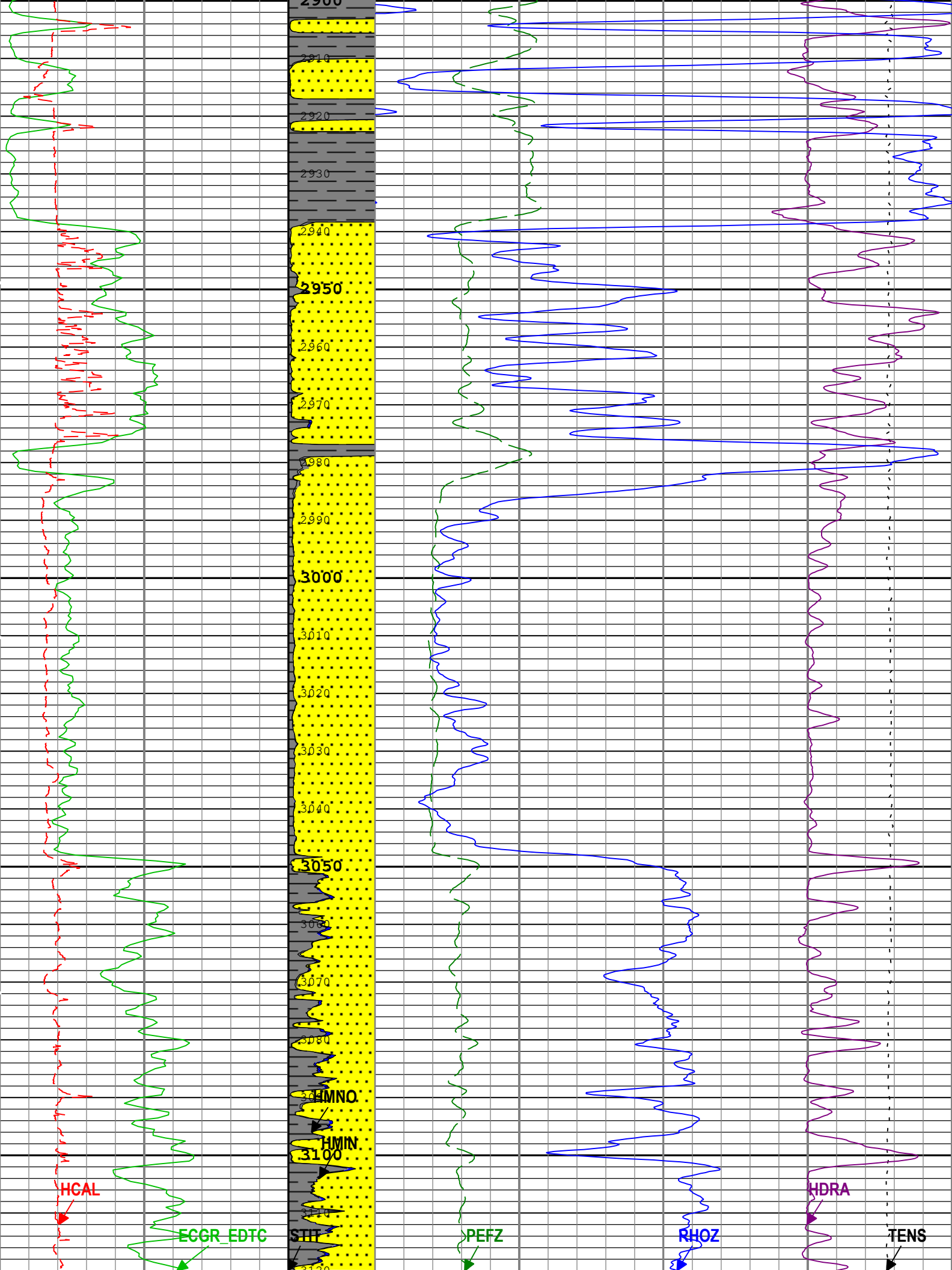


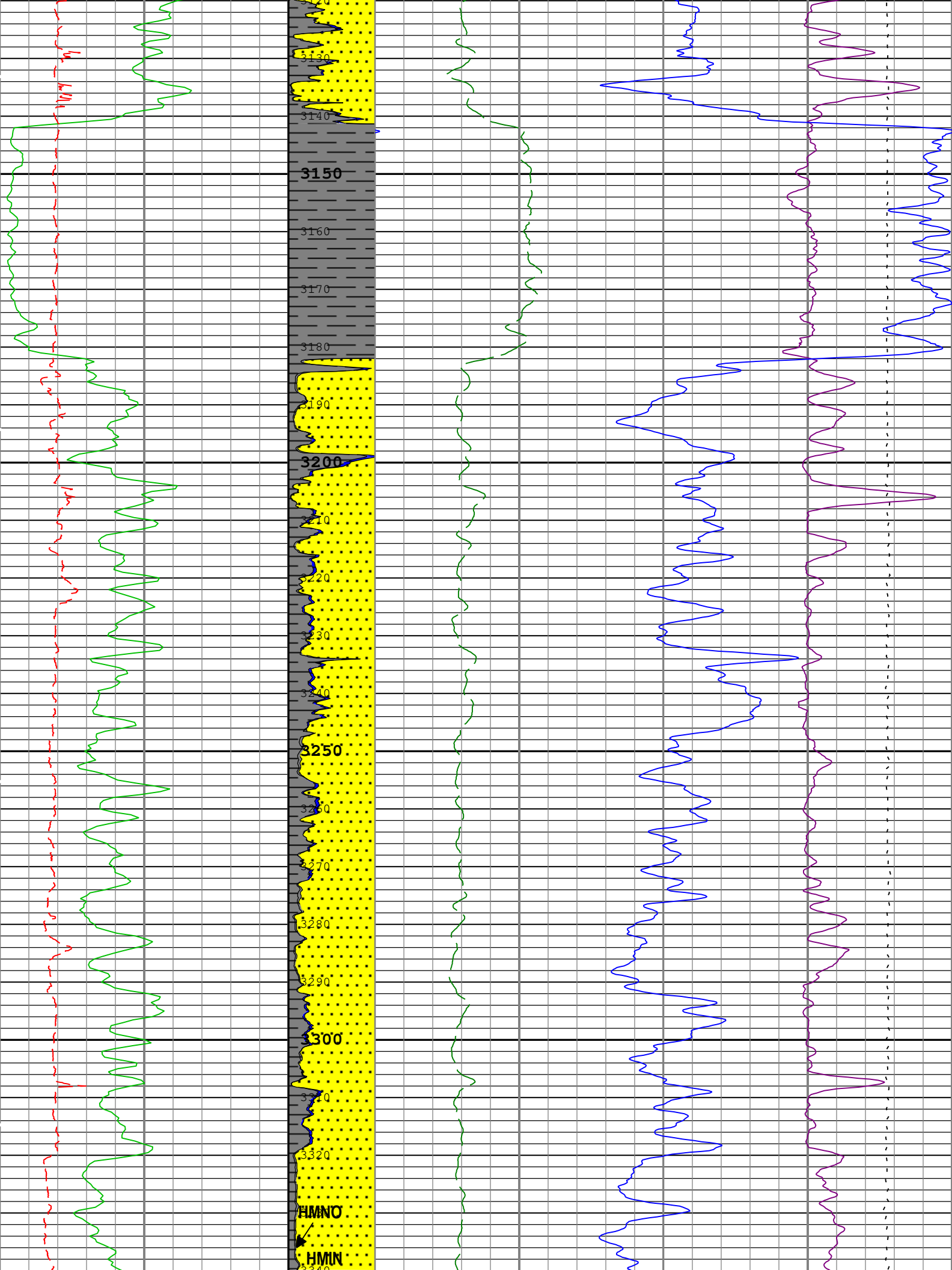


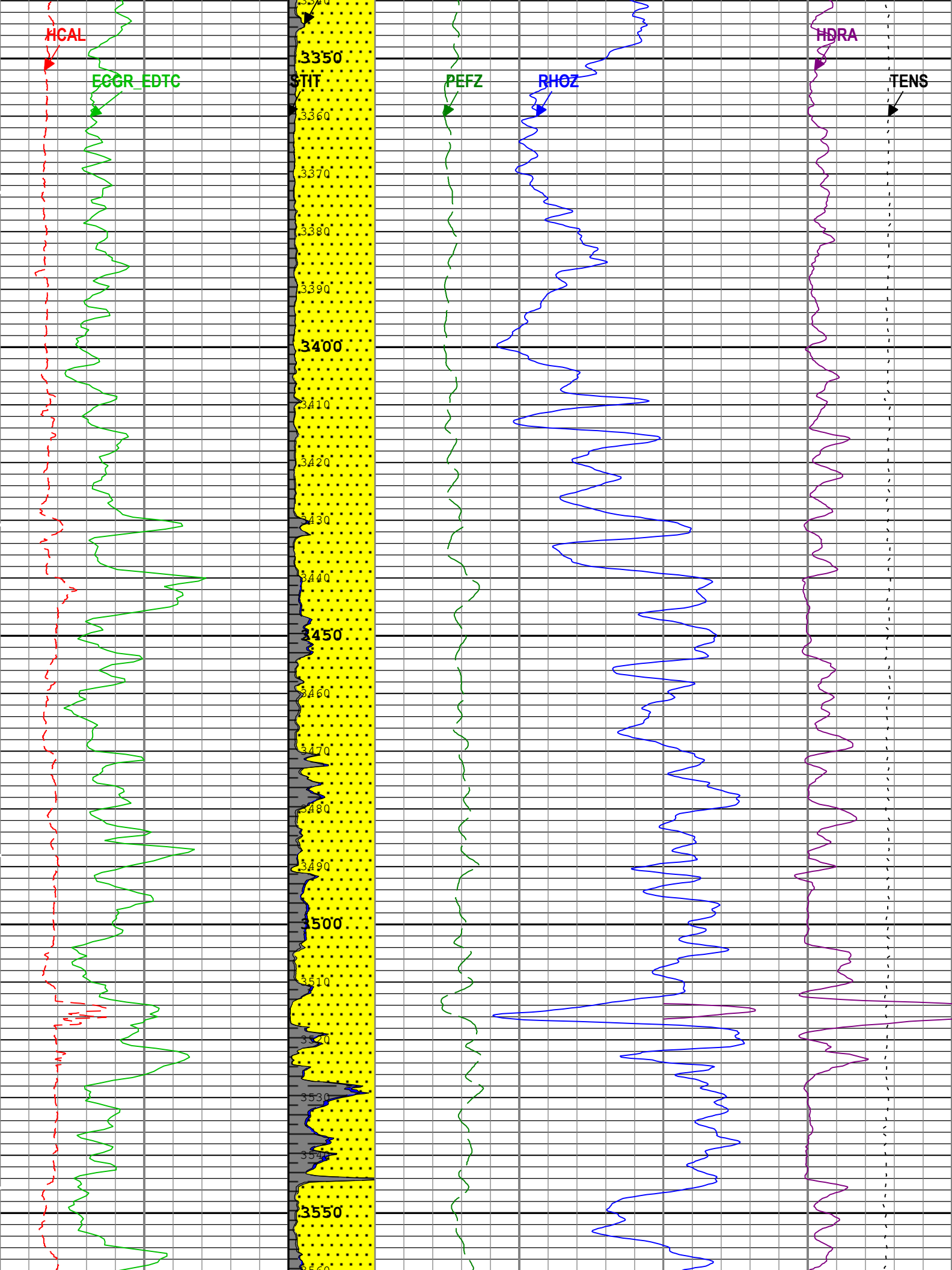


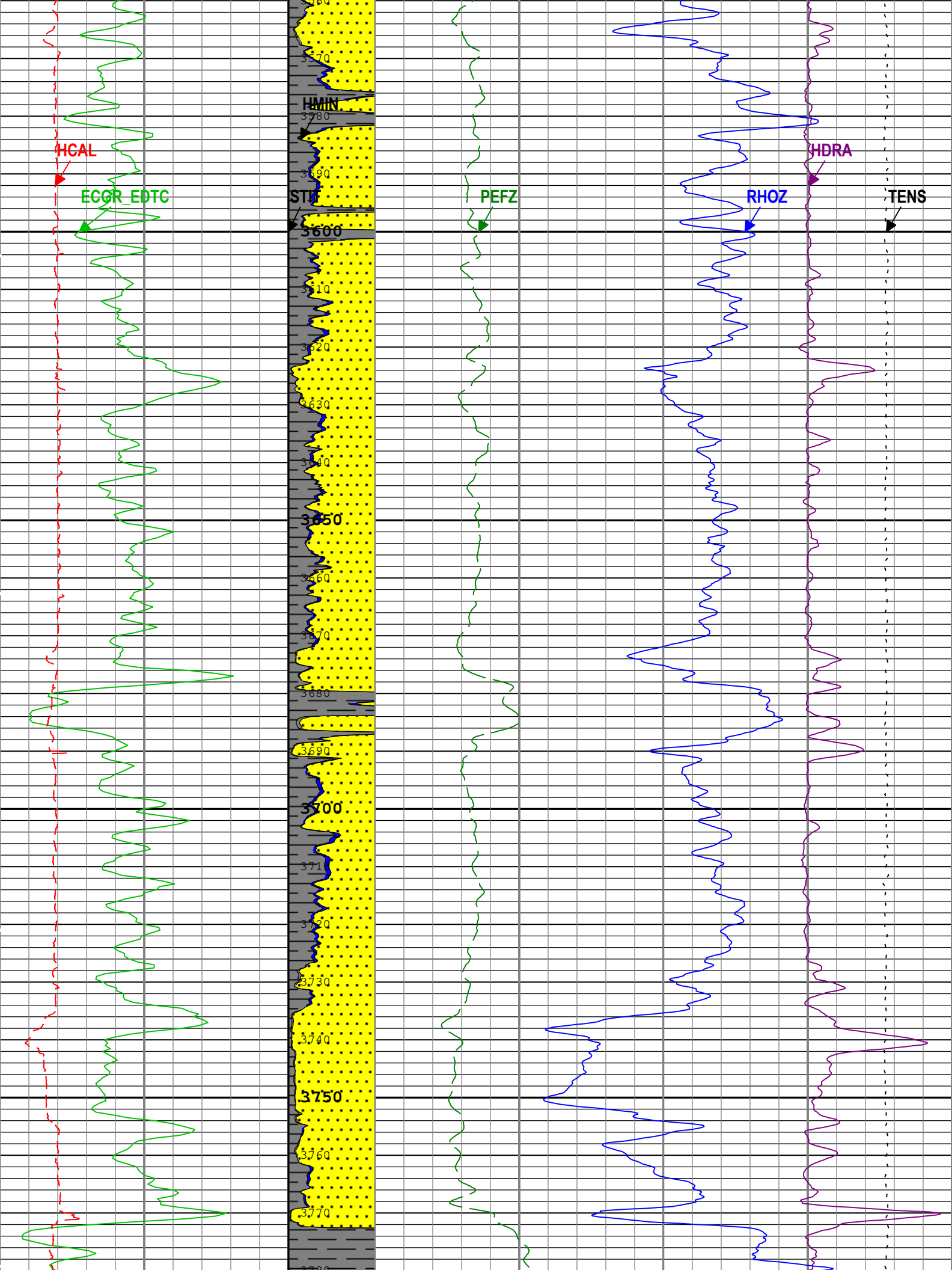


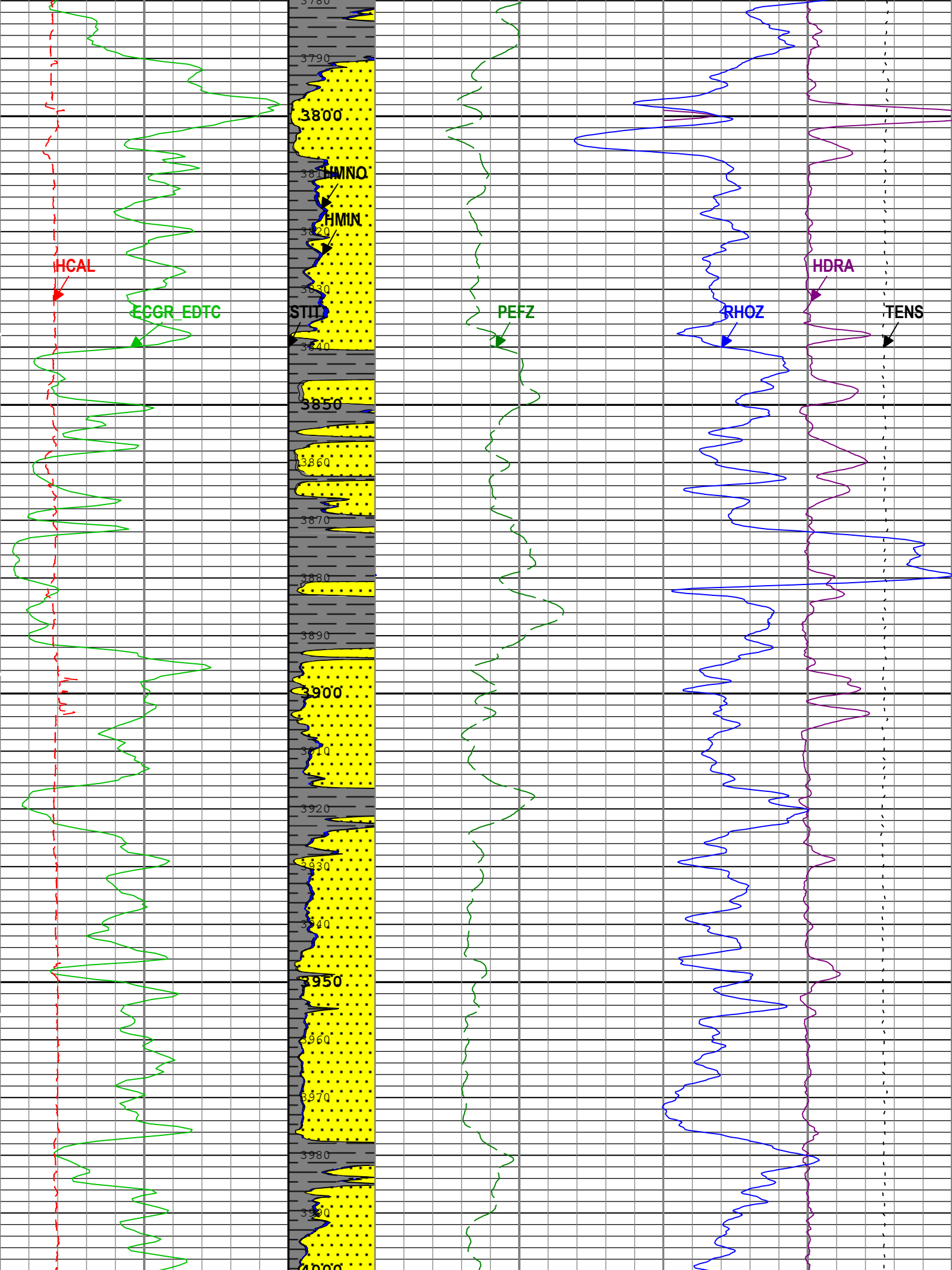


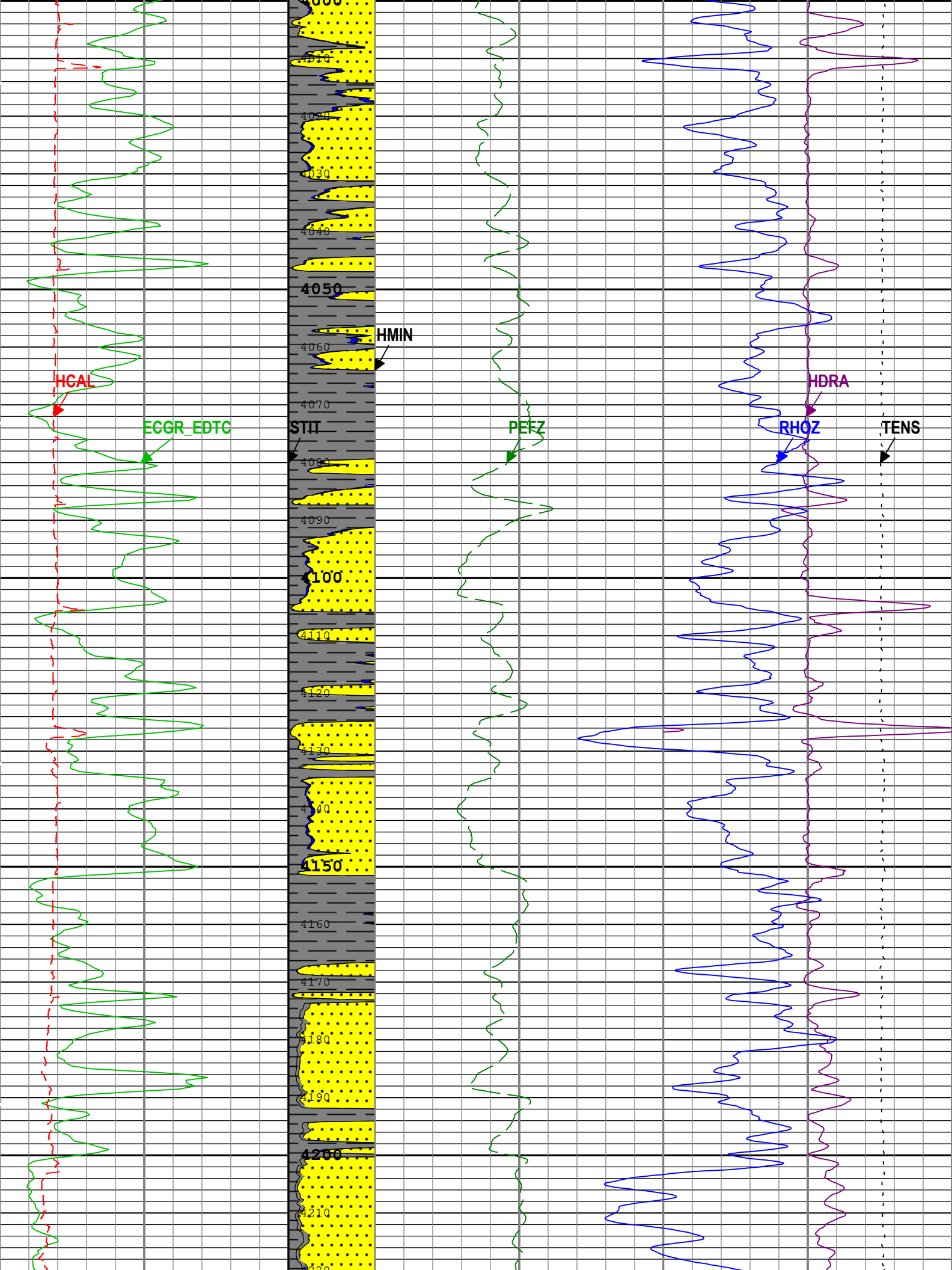


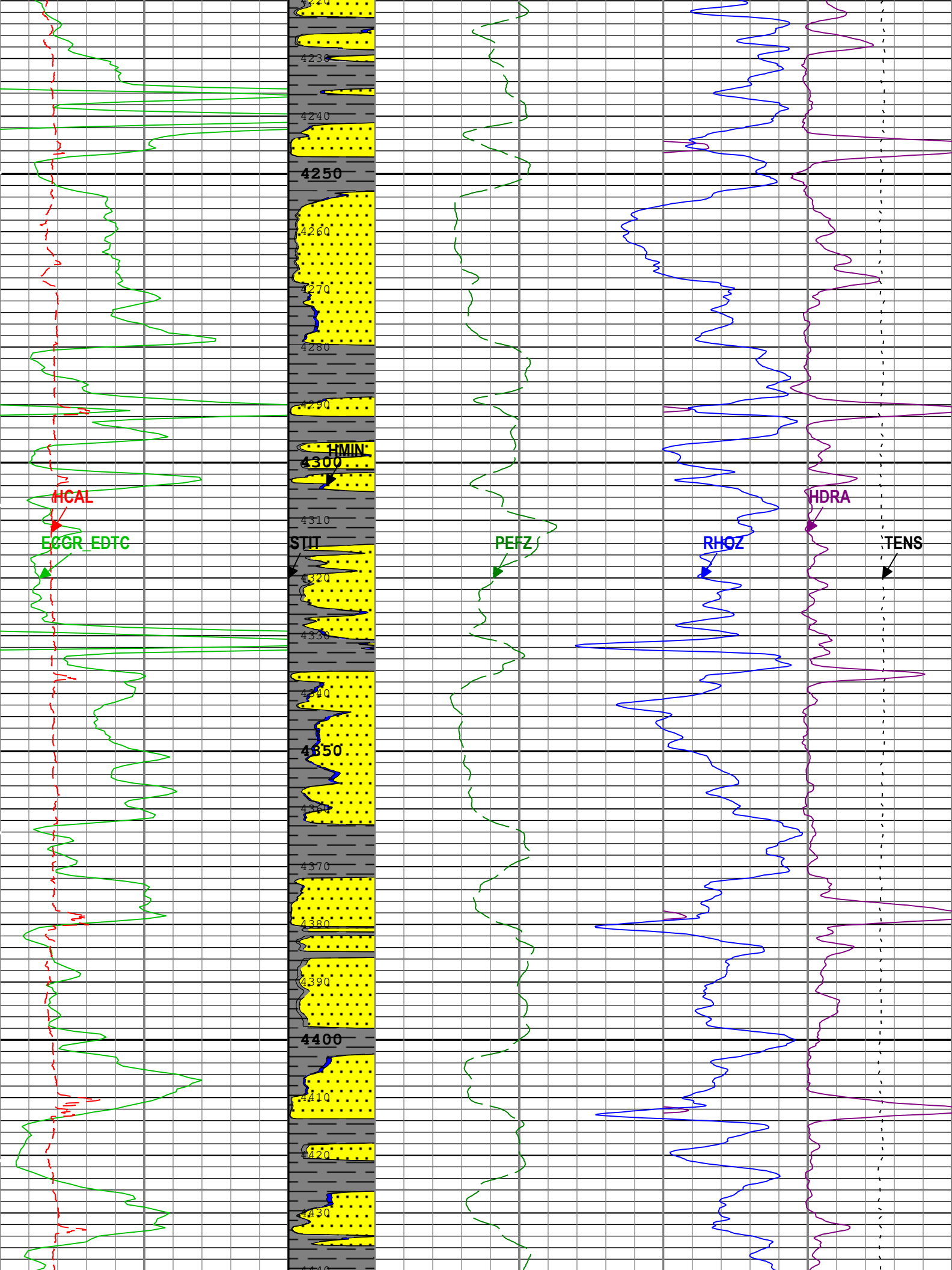


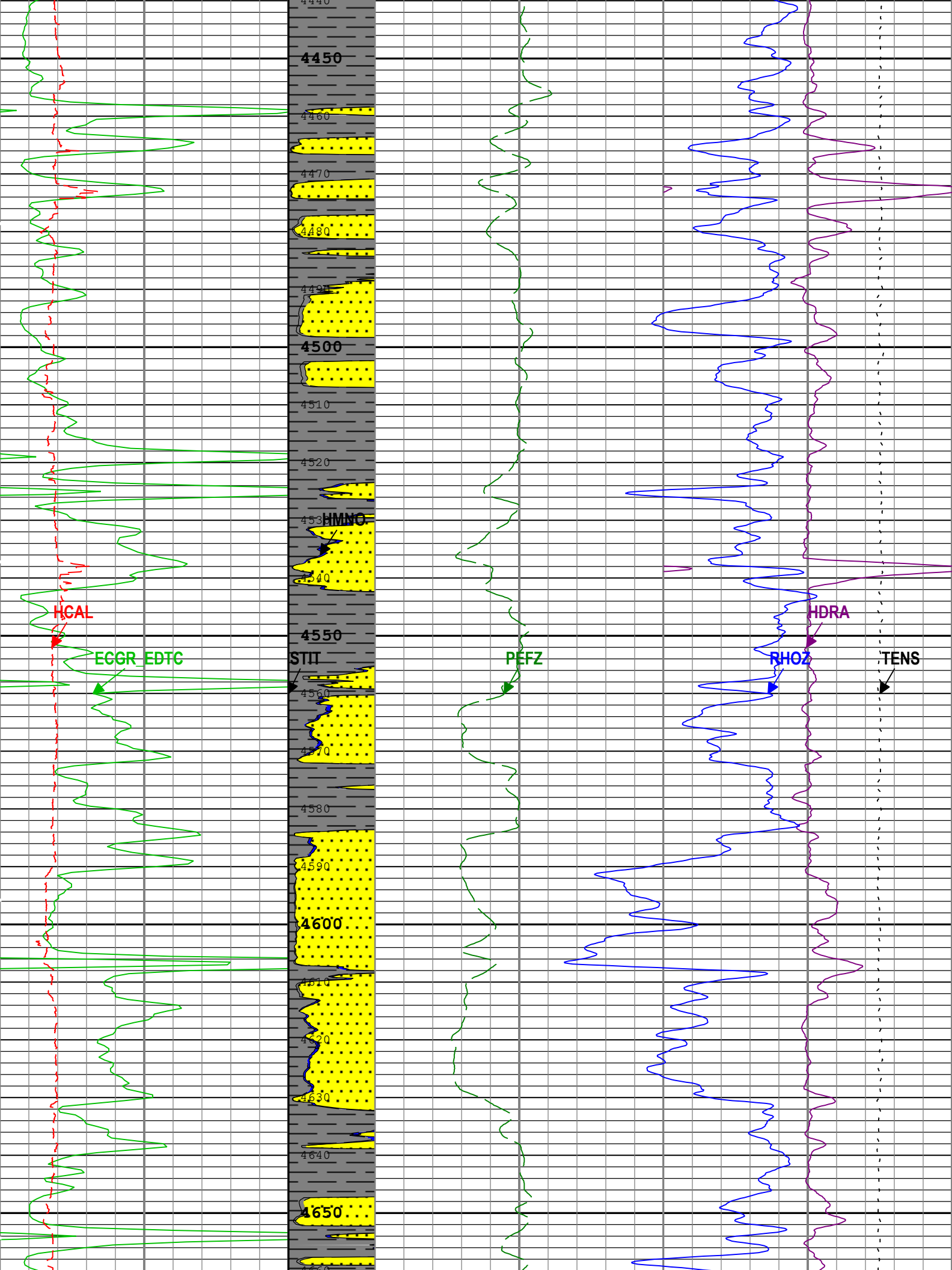


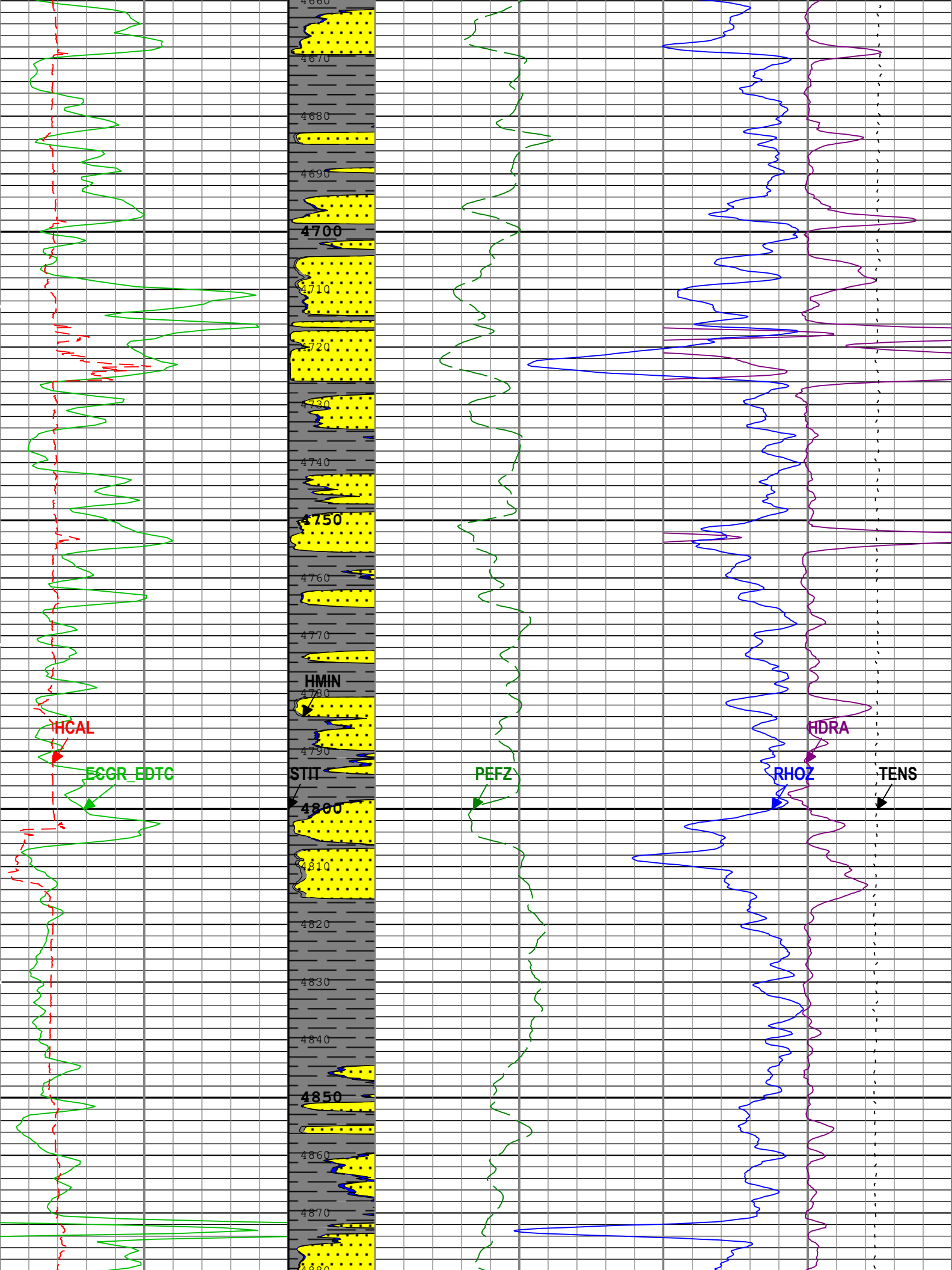


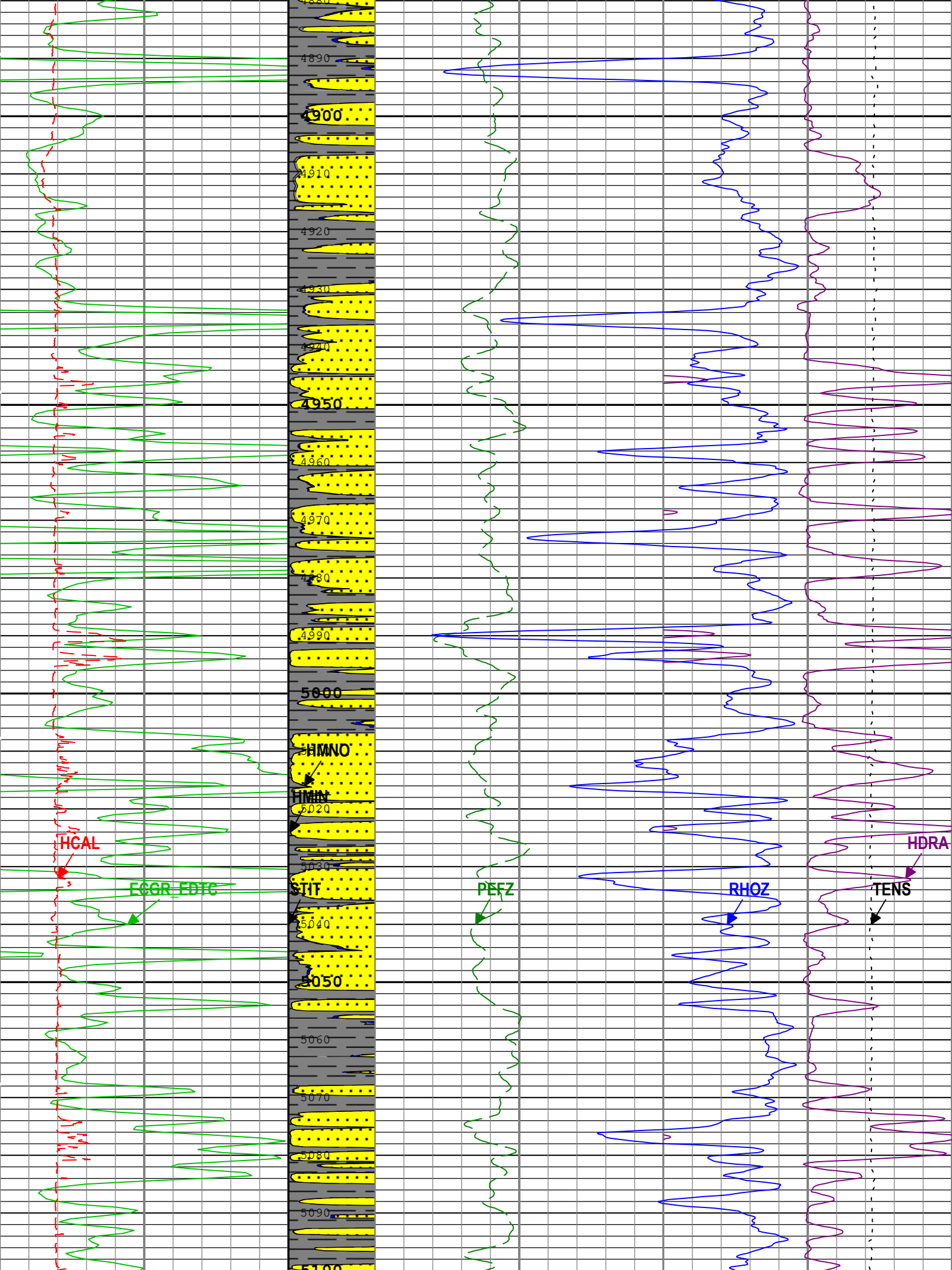


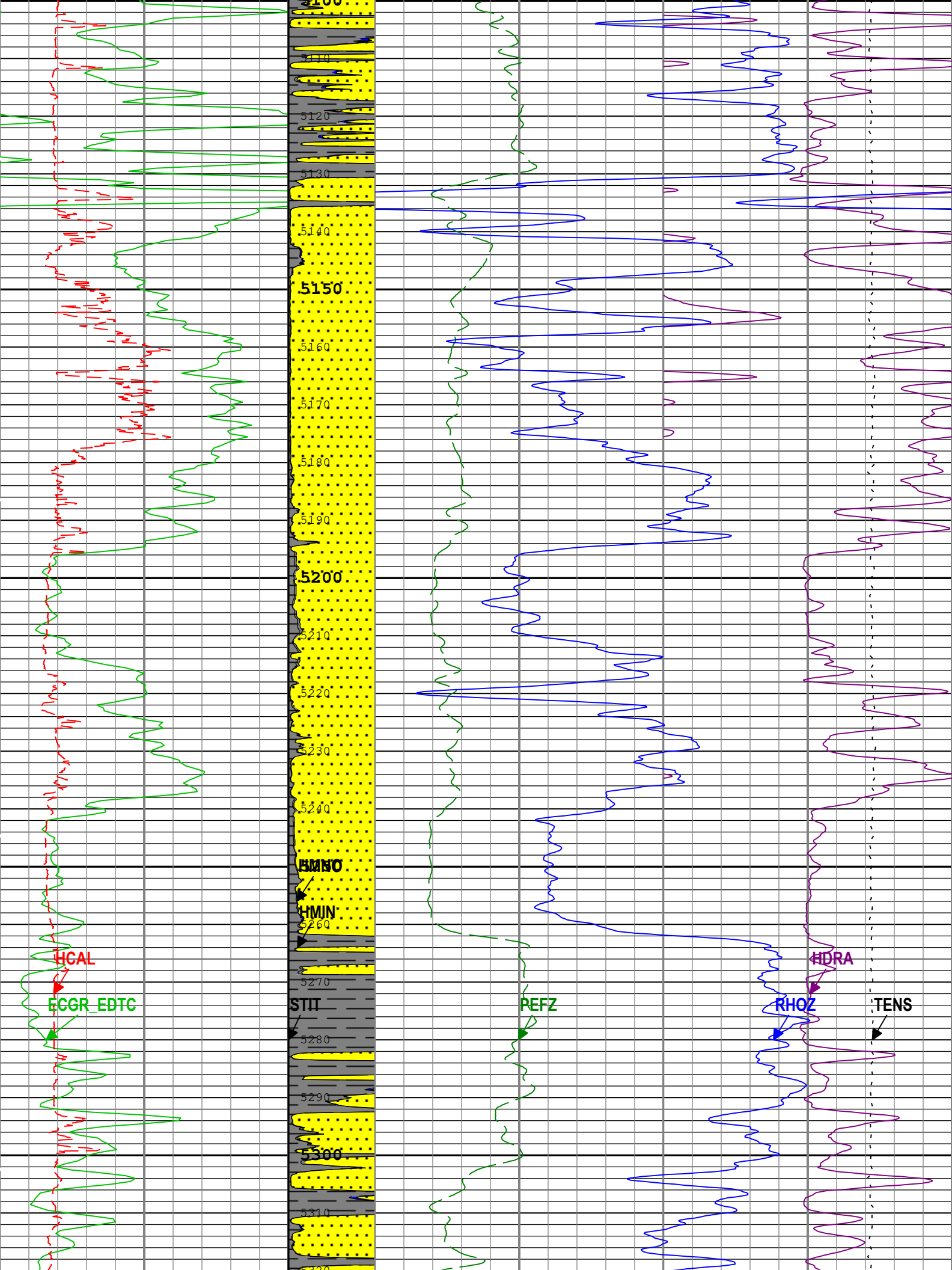


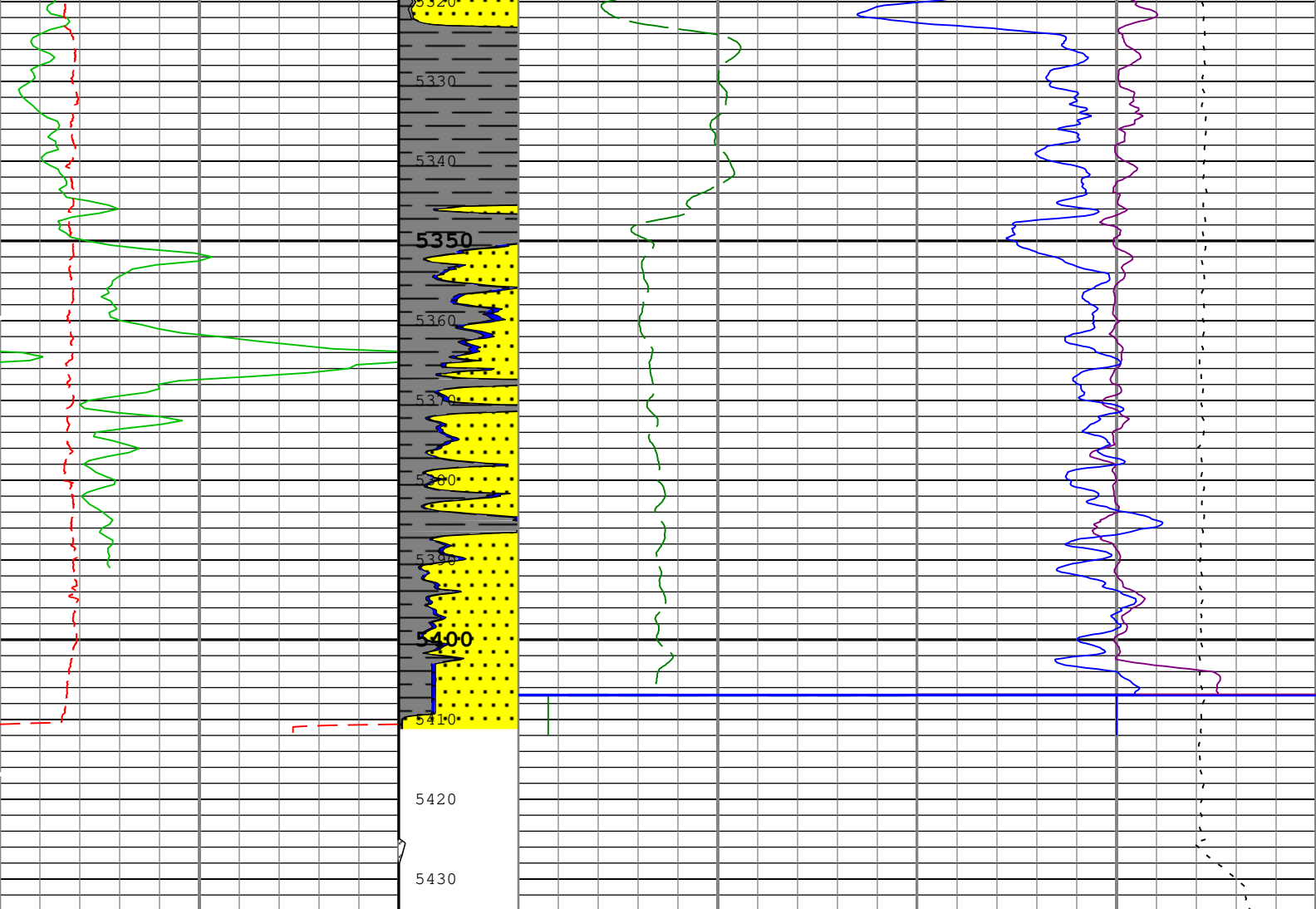












Gamma Ray (ECGR_EDTC) EDTC-B		Standard Resolution Formation Density (RHOZ) HDRS-H	
0	gAPI	2	g/cm3
Caliper (HCAL) HDRS-H		Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H	
6	in	0	10
		Cable Tension (TENS)	
		10000	0
		lbf	
		Density Standoff Correction (HDRA) HDRS-H	
		-0.25	0.25
		g/cm3	
LIME			
SAND			
SHALE			
Stuck Tool Indicator, Total (STIT)			
0			
ft			
50			

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (Density-5) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 13-Jul-2024 15:18:43

Channel Processing Parameters

Run 1: Parameters

Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	Depth Zoned	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	-0.084	in
CBLO	Casing Bottom (Logger)	WLSESSION	566	ft
CDEN	Cement Density	EDTC-B	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	

DHC	Density Hole Correction	HDRS-H	Bit Size	
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	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
NPRM	HRDD Nuclear Processing Mode	HDRS-H	Standard Resolution	

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	12.25	463	566
BS	7.875	566	5426.5

All depth are actual.

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

Run 1: Parameters

Parameter	Description	Tool	Value	Unit
HRGD_BOARD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

Run 1

5" Porosity

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Run 1	Log[3]:Up	Up	5075.70 ft	5438.63 ft	13-Jul-2024 11:50:49 AM	13-Jul-2024 12:03:18 PM	ON	1.76 ft	Yes
Run 1	Log[5]:Up	Up	505.34 ft	5434.03 ft	13-Jul-2024 12:32:54 PM	13-Jul-2024 1:57:55 PM	ON	1.30 ft	Yes

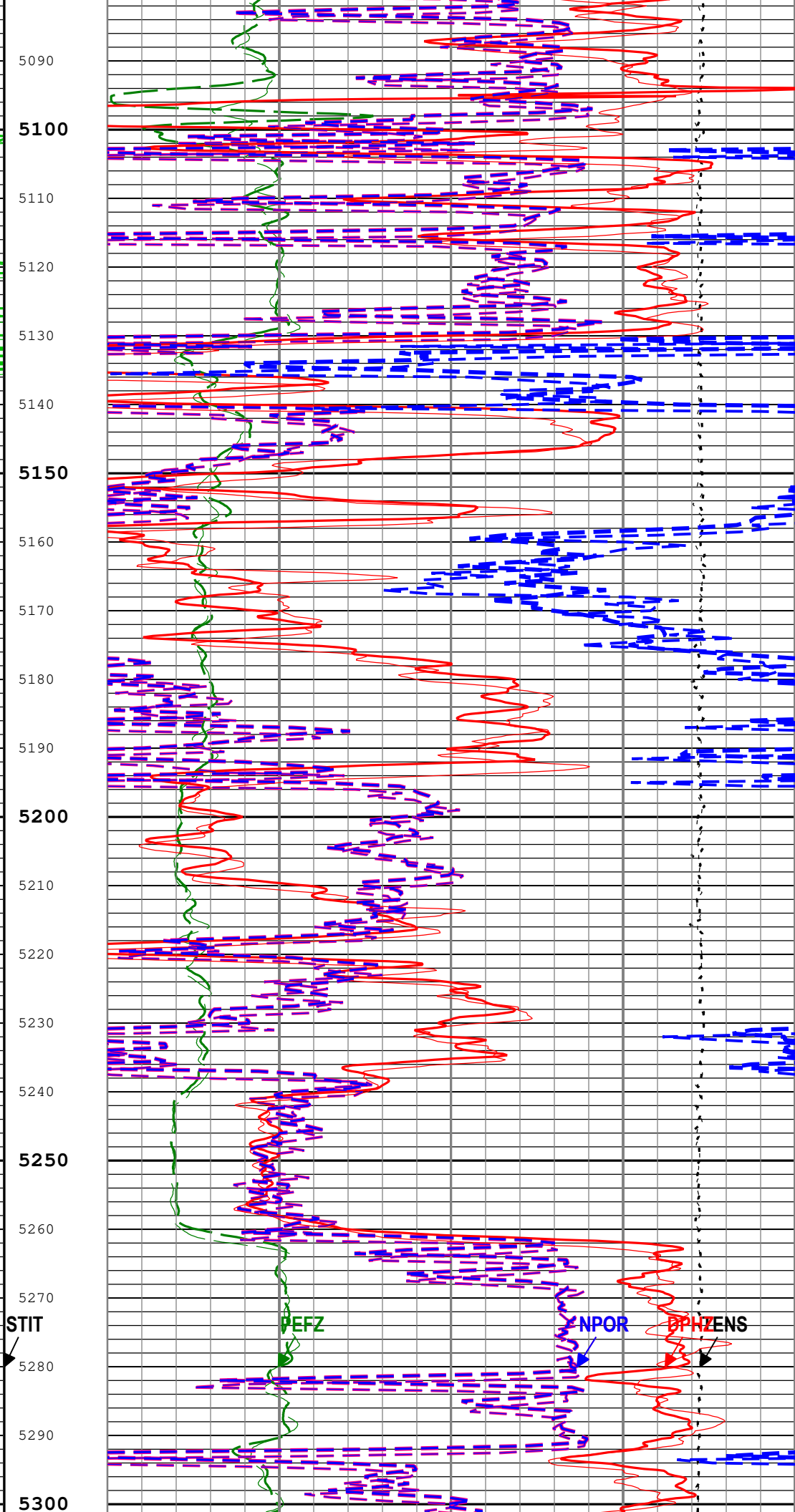
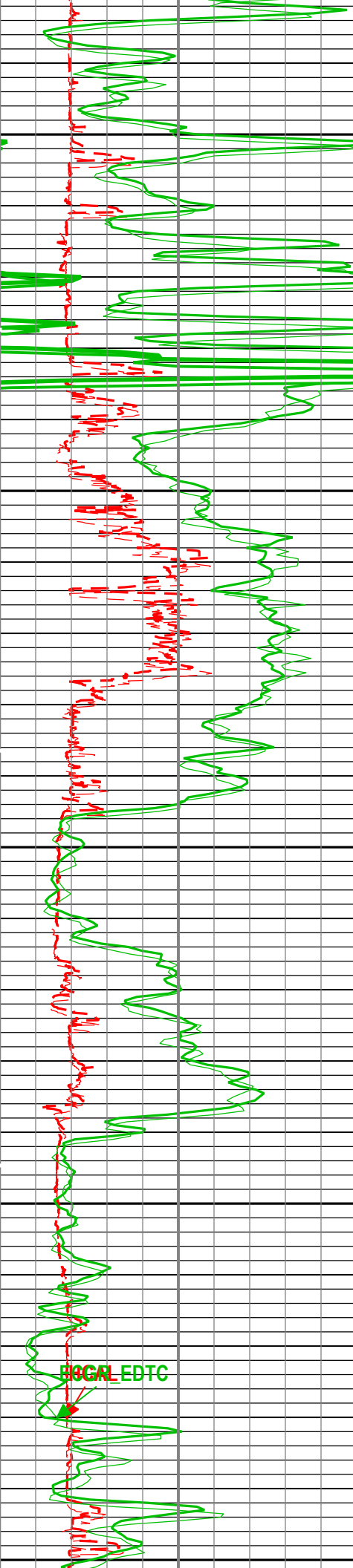
All depths are referenced to toolstring zero

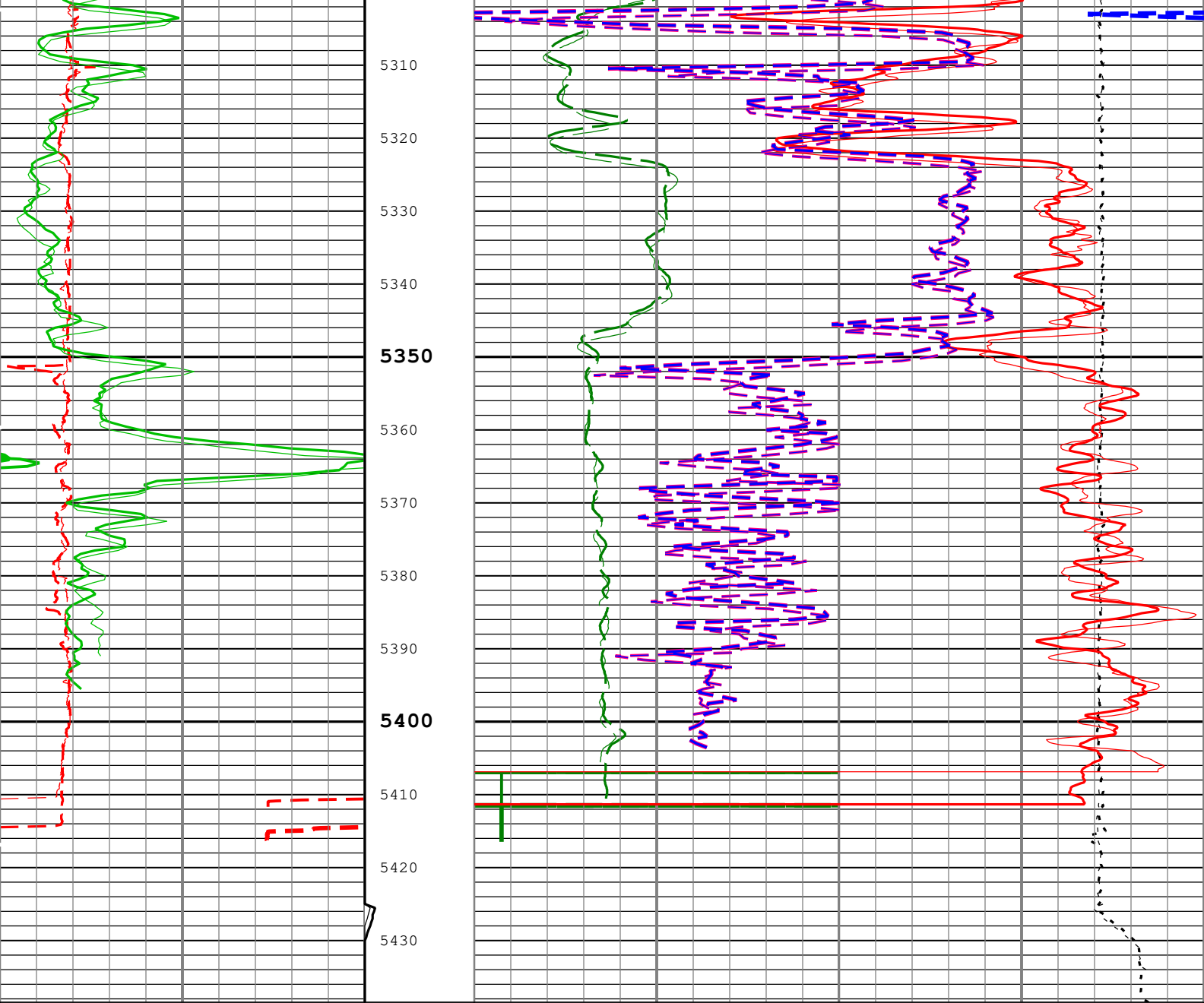
Log Company:Wavetech Helium Inc Well:1 Wavetech Harker Family 31-22
Run 1: Log[5]:Up:S008

Description: HGNS standard resolution porosities for Platform Express Format: Log (Porosity-5 RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 13-Jul-2024 15:18:46

TIME_1900 - Time Marked every 60.00 (s)

			<div><div>Main To Repeat</div><div>Repeat To Main</div><div>Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H</div><div>010</div></div>	<div><div>Main To Repeat</div><div>Repeat To Main</div><div>Cable Tension (TENS)</div><div>10000lbf</div></div>
<div><div>Main To Repeat</div><div>Repeat To Main</div><div>Caliper (HCAL) HDRS-H</div><div>6in16</div></div>	<div><div>Main To Repeat</div><div>Repeat To Main</div><div>Standard Resolution Density Porosity (DPHZ) HDRS-H</div><div>0.3ft3/ft3-0.3</div></div>			
<div><div>Main To Repeat</div><div>Repeat To Main</div><div>Gamma Ray (ECGR_EDTC) EDTC-B</div><div>0gAPI200</div></div>	<div><div>Repeat To Main</div><div>Stuck Tool Indicator, Total (STIT)</div><div>0ft50</div></div> <div><div>Main To Repeat</div><div>Repeat To Main</div><div>Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H</div><div>0.3m3/m3-0.3</div></div>			





Main To Repeat Repeat To Main Caliper (HCAL) HDRS-H 6 in 16		Main To Repeat Repeat To Main Repeat To Main Stuck Tool Indicator, Total (STIT) 0 ft 50	Main To Repeat Repeat To Main Standard Resolution Density Porosity (DPHZ) HDRS-H 0.3 ft ³ /ft ³ -0.1	
Main To Repeat Repeat To Main Gamma Ray (ECGR_EDTC) EDTC-B 0 gAPI 200			Main To Repeat Repeat To Main Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS-H 0.3 m ³ /m ³ -0.1	
			Main To Repeat Repeat To Main Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS-H 0 10	Main To Repeat Repeat To Main Cable Tension (TENS) 10000 lbf 0

Channel Processing Parameters									
Run 1: Parameters									
Parameter		Description			Tool		Value		Unit
BARI(ISSBAR)		Barite Mud Presence Flag			Borehole		No		
BHS		Borehole Status (Open or Cased Hole)			Borehole		Open		
BHT		Bottom Hole Temperature			Borehole		146		degF
BS		Bit Size			WLSESSION		7.875		in
BSAL		Borehole Salinity			Borehole		600		ppm
CALI_SHIFT		CALI Supplementary Offset			HDRS-H		-0.084		in
CBLO		Casing Bottom (Logger)			WLSESSION		566		ft
CDEN		Cement Density			EDTC-B		2		g/cm3
DC_MODE		Depth Correction Mode			DepthCorrection		Real-time		
DFD		Drilling Fluid Density			Borehole		9.1		lbm/gal
DFT_CATEGORY		Drilling Fluid Type			Borehole		Water		
DHC		Density Hole Correction			HDRS-H		Bit Size		
FD		Fluid Density			Borehole		1		g/cm3
FSAL		Formation Salinity			Borehole		0		ppm
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		CALI		
GRSE		Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity			Borehole		AMF		
GTSE		Generalized Temperature Selection, from Measured or Computed Temperature			Borehole		CTEM		
HSCO		Hole Size Correction Option			HGNS-H		Yes		
MATR		Rock Matrix for Neutron Porosity Corrections			Borehole		SANDSTONE		
MDEN		Matrix Density for Density Porosity			Borehole		2.65		g/cm3
MFST		Mud Filtrate Sample Temperature			Borehole		77		degF
NPRM		HRDD Nuclear Processing Mode			HDRS-H		Standard Resolution		
RMFS		Resistivity of Mud Filtrate Sample			Borehole		0.78		ohm.m
SOCO		Standoff Correction Option			HGNS-H		Yes		

Tool Control Parameters				
Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
HMCA_BOARD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BOARD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h
Run 1				
10" HiRes Porosity				

Software Version									
Acquisition System						Version			
Maxwell 2023.0						13.0.221437.3100			
Application Patch						Wireline_Hotfix-Mandatory-2023.0_13.0.222988			
						Wireline_NPD-ThruBit-2023.0_13.0.222274			
						Wireline_NPD-HCS-2023.0_13.0.222422			

Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data

Run 1	Log[3]:Up	Up	5075.70 ft	5438.63 ft	13-Jul-2024 11:50:49 AM	13-Jul-2024 12:03:18 PM	ON	1.76 ft	Yes
-------	-----------	----	------------	------------	----------------------------	----------------------------	----	---------	-----

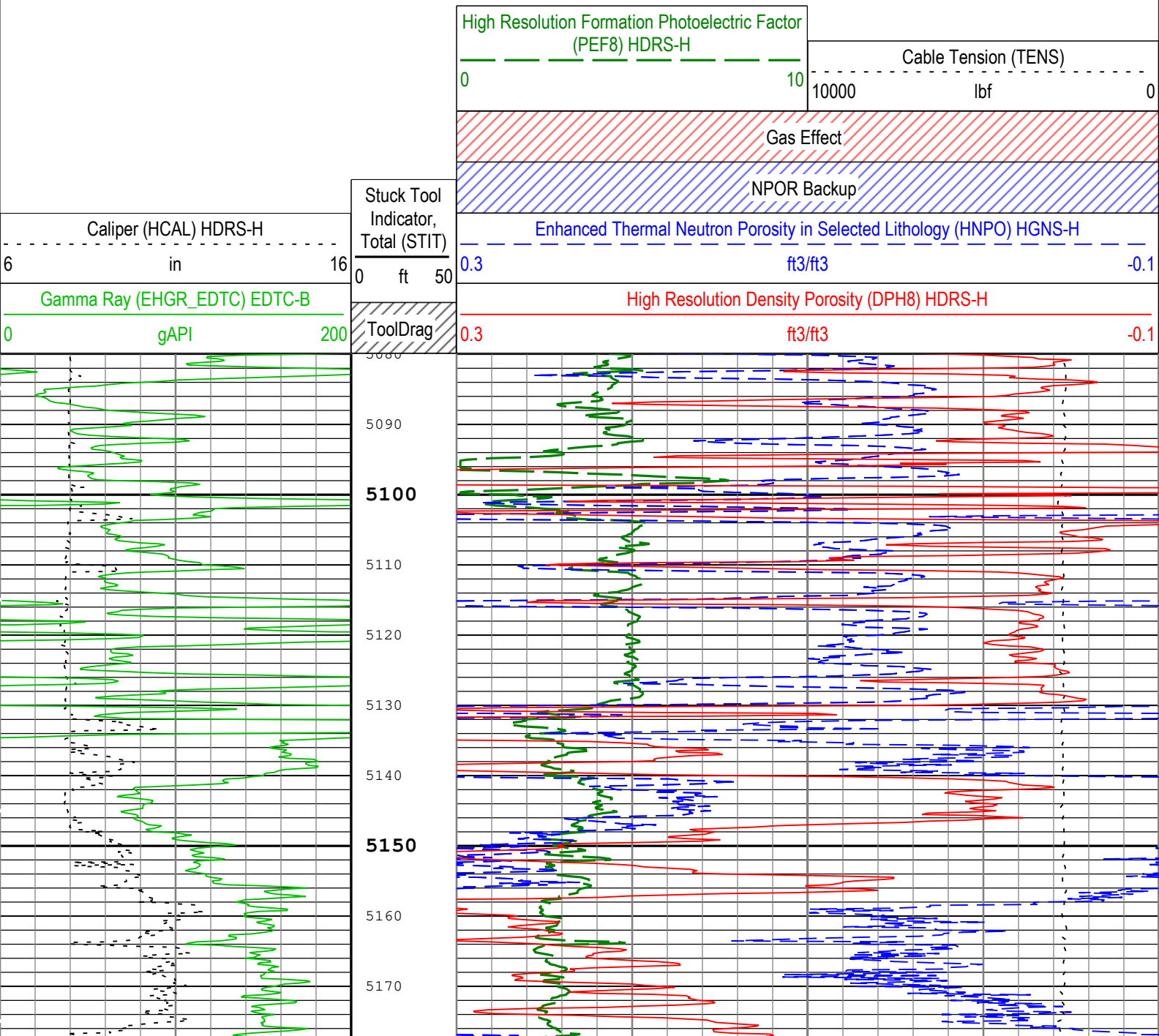
All depths are referenced to toolstring zero

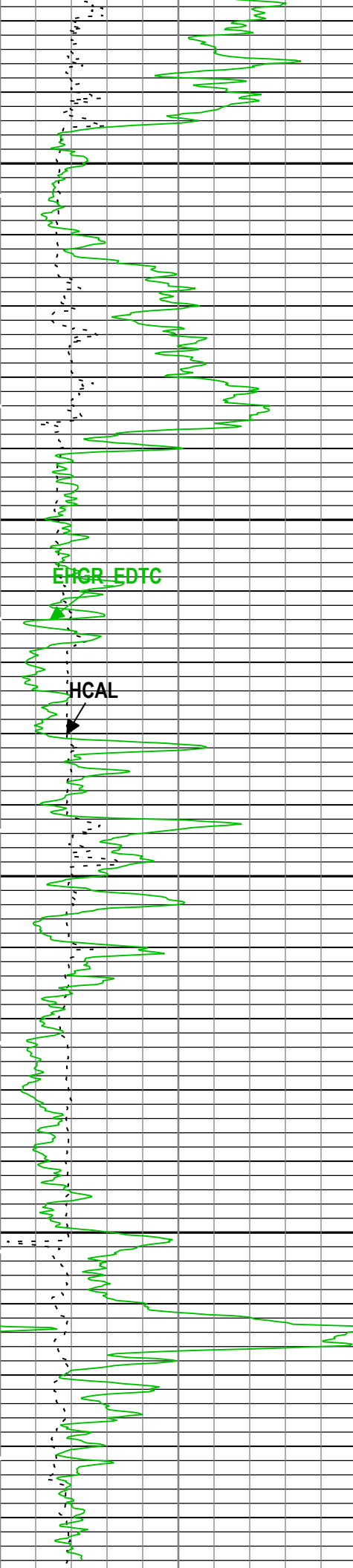
Log	Company:Wavetech Helium Inc	Well:1 Wavetech Harker Family 31-22
		Run 1: Log[3]:Up:S008

Description: HGNS standard resolution porosities for Platform Express Format: Log (10in HiRes Porosity) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 13-Jul-2024 15:18:48

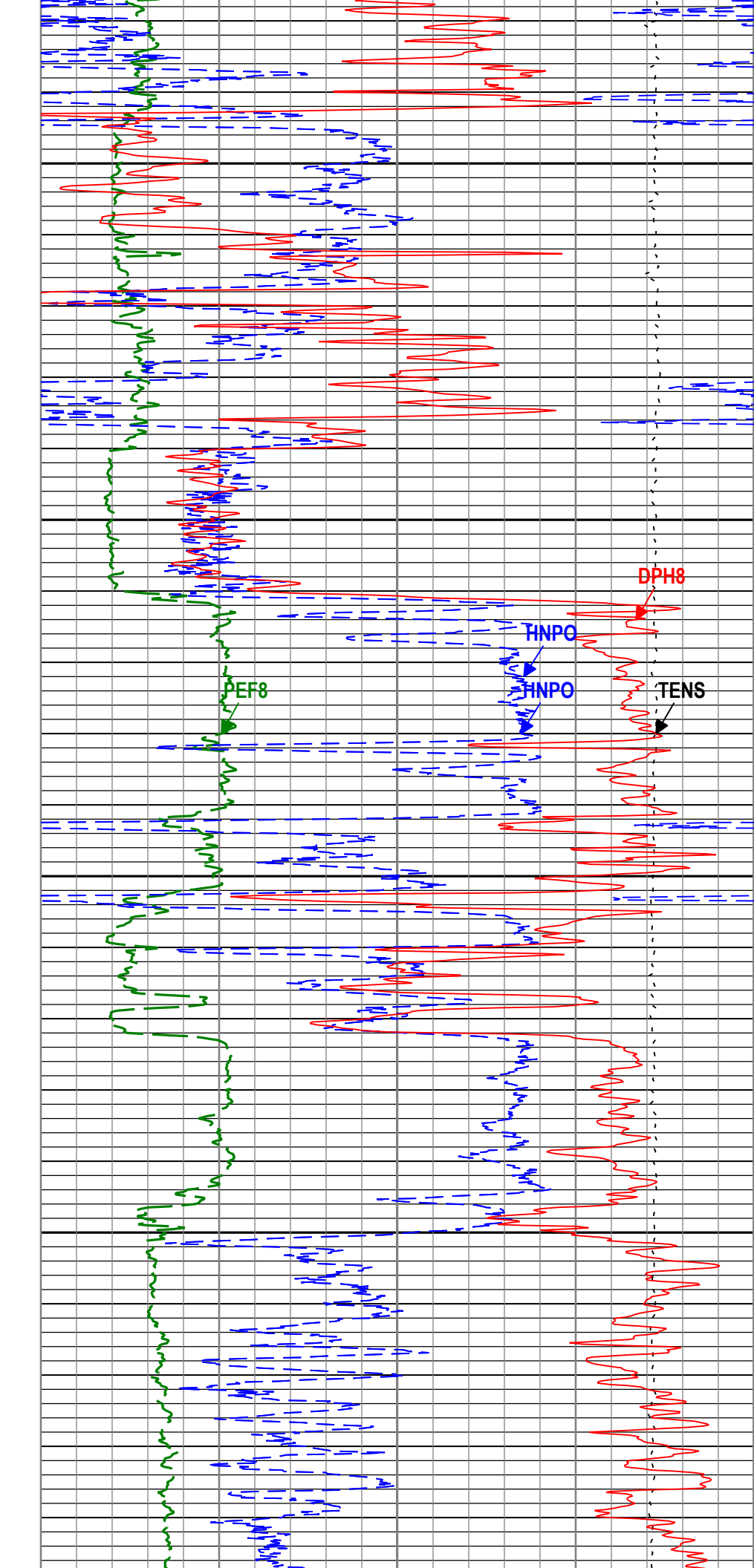
Channel	Source	Sampling
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPH8	HDRS-H:HRMS-H:HRGD-H	2in
GR	EDTC-B:EDTC-B:EDTC-B	2in
NPOR	HGNS-H:HGNS-H:HGNS-H	2in
PEF8	HDRS-H:HRMS-H:HRGD-H	2in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

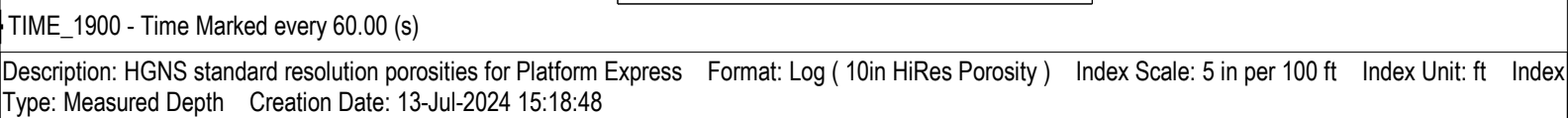
TIME_1900 - Time Marked every 60.00 (s)





5180
5190
5200
5210
5220
5230
5240
5250
5260
5270
5280
5290
5300
5310
5320
5330
5340
5350
5360
5370
5380
5390





Channel Processing Parameters				
Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	146	degF
BS	Bit Size	WLSESSION	7.875	in
BSAL	Borehole Salinity	Borehole	600	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	-0.084	in
CBLO	Casing Bottom (Logger)	WLSESSION	566	ft
CDEN	Cement Density	EDTC-B	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
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	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.65	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	77	degF
MUDM	MUDMud Filtrate Sample Matrix	MUDM	Mud Filtrate	

NPRM	HRDD Nuclear Processing Mode	HDRS-H	High Resolution	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.78	ohm.m
SOCO	Standoff Correction Option	HGNS-H	Yes	

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

Run 1: Parameters

Parameter	Description	Tool	Value	Unit
HMCA_BOARD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BOARD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h

Run 1

10" HiRes Porosity

Software Version	
------------------	--

Acquisition System	Version
Maxwell 2023.0	13.0.221437.3100
Application Patch	Wireline_Hotfix-Mandatory-2023.0_13.0.222988
	Wireline_NPD-ThruBit-2023.0_13.0.222274
	Wireline_NPD-HCS-2023.0_13.0.222422

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
Run 1	Log[4]:Up	Up	4133.80 ft	4389.05 ft	13-Jul-2024 12:10:20 PM	13-Jul-2024 12:19:08 PM	ON	2.85 ft	Yes

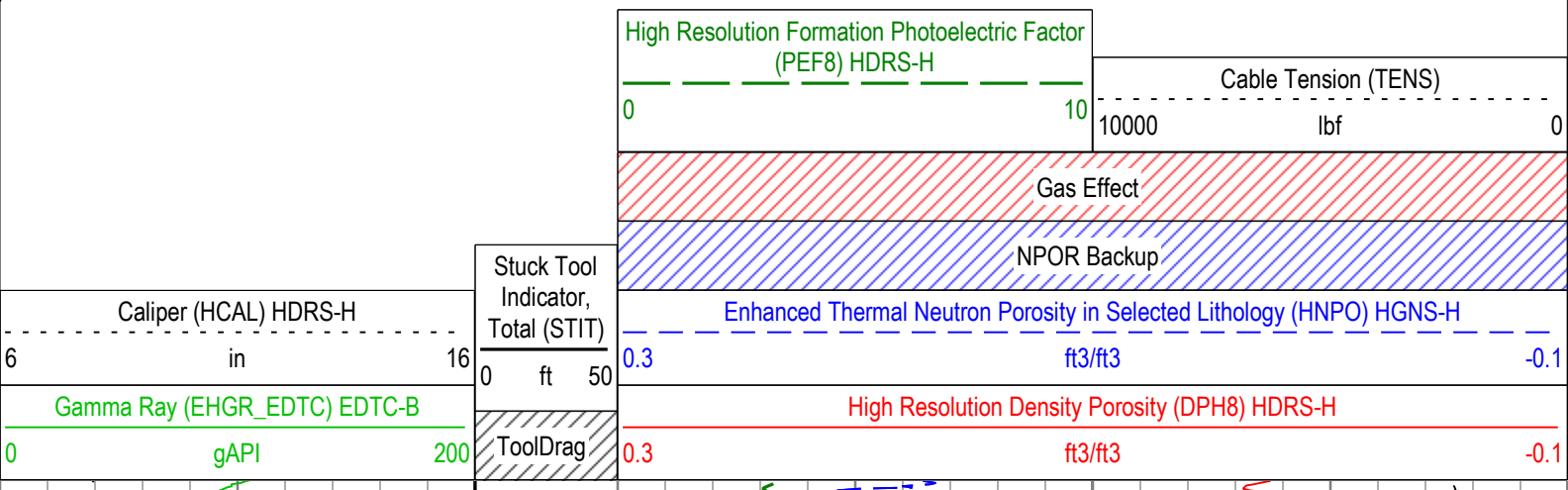
All depths are referenced to toolstring zero

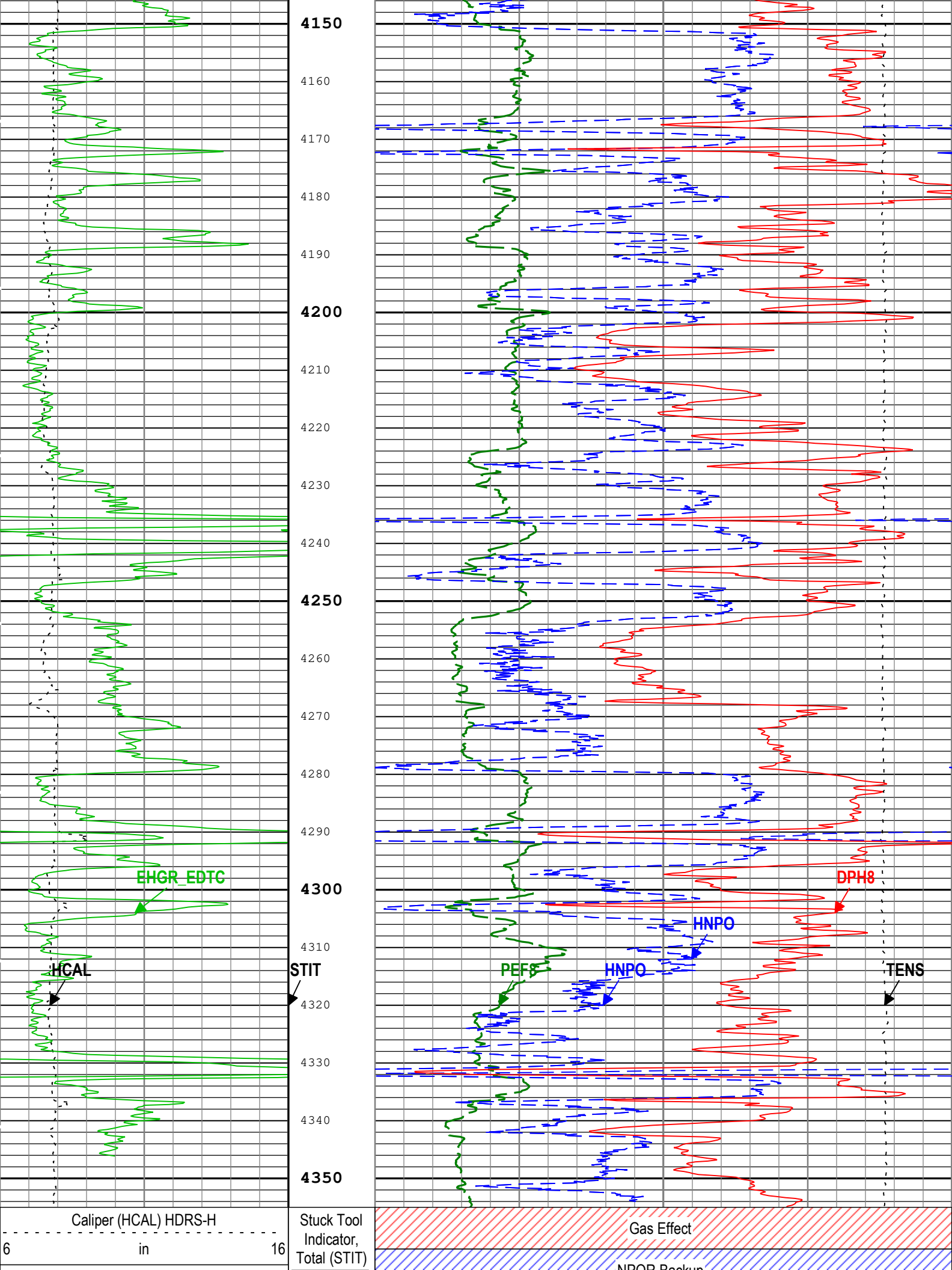
Log	Company:Wavetech Helium Inc	Well:1 Wavetech Harker Family 31-22	Run 1: Log[4]:Up:S008
-----	-----------------------------	-------------------------------------	-----------------------

Description: HGNS standard resolution porosities for Platform Express Format: Log (10in HiRes Porosity) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 13-Jul-2024 15:18:49

Channel	Source	Sampling
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPH8	HDRS-H:HRMS-H:HRGD-H	2in
GR	EDTC-B:EDTC-B:EDTC-B	2in
NPOR	HGNS-H:HGNS-H:HGNS-H	2in
PEF8	HDRS-H:HRMS-H:HRGD-H	2in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

TIME_1900 - Time Marked every 60.00 (s)





Gamma Ray (EHGR_EDTC) EDTC-B

0ft50

0gAPI200

ToolDrag

Enhanced Thermal Neutron Porosity in Selected Lithology (HNPO) HGNS-H

0.3ft3/ft3-0.1

High Resolution Density Porosity (DPH8) HDRS-H

0.3ft3/ft3-0.1

High Resolution Formation Photoelectric Factor (PEF8) HDRS-H

010

Cable Tension (TENS)

10000lbf0

TIME_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express Format: Log (10in HiRes Porosity) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 13-Jul-2024 15:18:49

Channel Processing Parameters

Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BHT	Bottom Hole Temperature	Borehole	146	degF
BS	Bit Size	WLSESSION	7.875	in
BSAL	Borehole Salinity	Borehole	600	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	-0.084	in
CBLO	Casing Bottom (Logger)	WLSESSION	566	ft
CDEN	Cement Density	EDTC-B	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.1	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
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	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-H	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	SANDSTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.65	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	77	degF
NPRM	HRDD Nuclear Processing Mode	HDRS-H	High Resolution	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.78	ohm.m
SOCO	Standoff Correction Option	HGNS-H	Yes	

Tool Control Parameters

Run 1: Parameters				
Parameter	Description	Tool	Value	Unit
HMCA_BOARD_TYPE	HMCA Board Type	HGNS-H	1	
HRGD_BOARD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h

Calibration Report

HDRS-H (HILT Density and Rxo Sonde, 150 degC) Calibration - Run 1

Primary Equipment :			
	HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	3793
	HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H	4889
Auxiliary Equipment :			
	HRDD Backscatter Detector	Backscatter	72767
	HRDD Long Spacing Detector	Long Spacing	72767
	HRDD Short Spacing Detector	Short Spacing	57460
	Cesium 137 Gamma-Ray Logging Source	GSR-J	5540
	HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	3793
	HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	3995
Calibration Parameter :			
	Small Ring Size (Caliper Calibration Small Ring)	8.00	
	Large Ring Size (Caliper Calibration Large Ring)	12.00	

HDRS Density Calibration - Inversion Results

Master (EEPROM):		14:12:40 11-Jul-2024					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.599	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.687	1.696	
Pe Aluminum		Master	2.570	2.470	2.556	2.670	
Pe Magnesium		Master	2.650	2.550	2.624	2.750	

HDRS Density Calibration - Deviation Summary

Master (EEPROM):		14:12:40 11-Jul-2024					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.2365	0.6000	
BS Max Deviation	%	Master	0	-1.6000	1.0043	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.2399	1.0000	
SS Max Deviation	%	Master	0	-2.5000	0.6722	2.5000	
LS Average Deviation	%	Master	0	-1.5000	0.5240	1.5000	
LS Max Deviation	%	Master	0	-3.5000	1.4570	3.5000	

HDRS Density Calibration - Background Summary

Master (EEPROM):		14:12:40 11-Jul-2024					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000	----	0.7495	----	
BS Window Sum	1/s	Master	1	----	21473	----	
SS Window Ratio		Master	1.0000	----	0.4736	----	
SS Window Sum	1/s	Master	1	----	9021	----	
LS Window Ratio		Master	1.0000	----	0.3023	----	
LS Window Sum	1/s	Master	1	----	1057	----	

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM):		14:12:40 11-Jul-2024					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master	-----	1000.0	1673.3	2400.0	
SS PM High Voltage	V	Master	-----	1000.0	1542.1	2400.0	
LS PM High Voltage	V	Master	-----	1000.0	1404.6	2400.0	

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM):		14:12:40 11-Jul-2024					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master	11.00	5.00	11.20	13.70	
SS Crystal Resolution	%	Master	10.00	5.00	10.54	12.00	
LS Crystal Resolution	%	Master	10.00	5.00	9.20	12.00	

HDRS Density Calibration - Uncalibrated Count Rate During Background

Master (EEPROM):		14:12:40 11-Jul-2024					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Uncalibrated Count Rate - 0	1/s	Master	8900.00	5200.00	6101.85	11500.00	

BS Uncalibrated Count Rate - 1	1/s	Master	10900.00	6400.00	7430.75	13500.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
BS Uncalibrated Count Rate - 2	1/s	Master	12300.00	6800.00	8140.86	15000.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
BS Uncalibrated Count Rate - 3	1/s	Master	4800.00	2800.00	3323.84	6000.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
SS Uncalibrated Count Rate - 0	1/s	Master	2030.00	1280.00	1522.28	3000.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
SS Uncalibrated Count Rate - 1	1/s	Master	2120.00	1310.00	1501.13	3000.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
SS Uncalibrated Count Rate - 2	1/s	Master	4320.00	2490.00	2867.92	5500.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
SS Uncalibrated Count Rate - 3	1/s	Master	4500.00	2400.00	3214.32	6000.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
LS Uncalibrated Count Rate - 0	1/s	Master	160.00	90.00	118.43	250.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
LS Uncalibrated Count Rate - 1	1/s	Master	400.00	230.00	280.29	500.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
LS Uncalibrated Count Rate - 2	1/s	Master	350.00	230.00	276.30	500.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
LS Uncalibrated Count Rate - 3	1/s	Master	530.00	330.00	391.75	700.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

HDRS Density Calibration - Uncalibrated Count Rate During Aluminum Air

Master (EEPROM):		14:12:40 11-Jul-2024							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit			
BS Uncalibrated Alu-Air Count Rate - 0	1/s	Master	----	----	0.00	----			
BS Uncalibrated Alu-Air Count Rate - 1	1/s	Master	----	----	182328.70	----			
BS Uncalibrated Alu-Air Count Rate - 2	1/s	Master	----	----	164173.10	----			
BS Uncalibrated Alu-Air Count Rate - 3	1/s	Master	----	----	0.00	----			
SS Uncalibrated Alu-Air Count Rate - 0	1/s	Master	----	----	0.00	----			
SS Uncalibrated Alu-Air Count Rate - 1	1/s	Master	----	----	19616.65	----			
SS Uncalibrated Alu-Air Count Rate - 2	1/s	Master	----	----	19521.56	----			
SS Uncalibrated Alu-Air Count Rate - 3	1/s	Master	----	----	16478.37	----			
LS Uncalibrated Alu-Air Count Rate - 0	1/s	Master	----	----	0.00	----			
LS Uncalibrated Alu-Air Count Rate - 1	1/s	Master	----	----	1710.11	----			
LS Uncalibrated Alu-Air Count Rate - 2	1/s	Master	----	----	765.19	----			
LS Uncalibrated Alu-Air Count Rate - 3	1/s	Master	----	----	800.62	----			

HDRS Density Calibration - Low energy window ratio to window 1 During Background

Master (EEPROM):		14:12:40 11-Jul-2024							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit			
BS Low energy window ratio to window 1	%	Master	2.8000	0.1000	3.1650	10.0000			
SS Low energy window ratio to window 1	%	Master	4.2000	0.1000	4.5898	10.0000			
LS Low energy window ratio to window 1	%	Master	6.0000	0.1000	4.0223	10.0000			

HGNS-H (HILT Gamma-Ray and Neutron Sonde, 150 degC) Calibration - Run 1

Primary Equipment :			
HILT Gamma-Ray and Neutron Sonde, 150 degC	HGNS-H	3964	
Auxiliary Equipment :			
HGNS Accelerometer, 150 degC	HACCZ-H	4166	
AmBe Neutron Logging Source	NSR-F	5070	
Calibration Parameter :			
Water Temperature (Calibration Tank Water Temperature)	76.0		
Housing Size (Thermal Housing Size)	3.38		
JIG-BKG (Jig minus background reference)	165		


HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM):		19:00:00 14-Jul-2005							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div></div>	<div></div>	
Accelerometer Manufacturer		Master	----	----	QAT_160	----	<div></div>	<div></div>	
Accelerometer Reference Temperature	degF	Master	----	30.2	77.0	122.0	<div></div>	<div></div>	
Accelerometer Coefficients - 0		Master	----	----	11397.000	----	<div></div>	<div></div>	
Accelerometer Coefficients - 1		Master	----	----	-4.294	----	<div></div>	<div></div>	
Accelerometer Coefficients - 2		Master	----	----	-0.010	----	<div></div>	<div></div>	
Accelerometer Coefficients - 3		Master	----	----	0.000	----	<div></div>	<div></div>	
Accelerometer Coefficients - 4		Master	----	----	2.740	----	<div></div>	<div></div>	
Accelerometer Coefficients - 5		Master	----	----	0.000	----	<div></div>	<div></div>	
Accelerometer Coefficients - 6		Master	----	----	0.000	----	<div></div>	<div></div>	
Accelerometer Coefficients - 7		Master	----	----	0.000	----	<div></div>	<div></div>	
Accelerometer Coefficients - 8		Master	----	----	299.000	----	<div></div>	<div></div>	

Accelerometer Coefficients - 9		Master	----	----	0.994	----	
HGNS Neutron Calibration - HGNS Neutron Accumulations							
Master (EEPROM):		15:58:48 26-Apr-2024					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	10.0	27.7	40.0	
Far Zero Measurement	1/s	Master	0	10.0	27.9	40.0	
Near Plus Measurement	1/s	Master	6031.0	4700.0	4837.0	6900.0	
Far Plus Measurement	1/s	Master	2793.0	1900.0	2082.0	2900.0	
Near Corrected Plus Measurement	1/s	Master	----	4700.0	4805.0	6900.0	
Far Corrected Plus Measurement	1/s	Master	----	1900.0	2050.0	2900.0	

EDTC-B (Enhanced Digital Telemetry Cartridge - Version B) Calibration - Run 1			
Primary Equipment :			
EDTC-B		EDTC-B	8941
Calibration Parameter :			
Plus Reference (Jig minus background reference)		165	

EDTC-B Memory Data - EDTC-B Memory Data							
Master (EEPROM):		10:19:58 13-Jul-2024					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Initial PMT HV	V	Master	----	----	1648.000	----	
Accelerometer Serial Number		Master	----	----	473	----	
Accelerometer Coefficients - 0		Master	----	----	2.930E+000	----	
Accelerometer Coefficients - 1		Master	----	----	2.902E-004	----	
Accelerometer Coefficients - 2		Master	----	----	-1.116E-007	----	
Accelerometer Coefficients - 3		Master	----	----	-7.446E-008	----	
Accelerometer Coefficients - 4		Master	----	----	1.827E-009	----	
Accelerometer Coefficients - 5		Master	----	----	-1.394E-011	----	
Accelerometer Coefficients - 6		Master	----	----	3.585E-014	----	
Accelerometer Coefficients - 7		Master	----	----	-1.597E-003	----	
Accelerometer Coefficients - 8		Master	----	----	5.059E-005	----	
Accelerometer Coefficients - 9		Master	----	----	-1.147E-008	----	
Accelerometer Coefficients - 10		Master	----	----	-7.248E-010	----	
Accelerometer Coefficients - 11		Master	----	----	7.093E-013	----	
Gamma-Ray Detector Serial Number		Master	----	----	0	----	

Company:	Wavetech Helium Inc	
Well:	1 Wavetech Harker Family 31-22	
Field:	Harker Ranch	
County:	Cheyenne	
State:	Colorado	
Platform Express		
Compensated Neutron		
Litho-Density		