

Schlumberger

Company: **Vecta Oil & Gas Ltd**

Well: **Quandary 23-26**

Field: **Wildcat**

County: **Cheyenne**

State: **Colorado**

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[illegible]

Logging Date				
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Driller Size @ Depth		@		
Casing Schlumberger				
Bit Size				
Type Fluid In Hole				
Density	Viscosity			
Fluid Loss	PH			
Source Of Sample				
RM @ Measured Temperature		@		
RMF @ Measured Temperature		@		
RMC @ Measured Temperature		@		
Source RMF	RMC			
RM @ MRT	RMF @ MRT	@		@
Maximum Recorded Temperatures				
Circulation Stopped	Time			
Logger On Bottom	Time			
Unit Number	Location			
Recorded By				
Witnessed By				

OTHER SERVICES1	OTHER SERVICES2
OS1: MSIP	OS1:
OS2: FMI	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
This is the first run in hole	
Toolstring run as per tool sketch	
Matrix: Sandstone (2.65 g/cc) run over the repeat pass	
Limestone (2.71 g/cc) run over a second repeat pass and the main pass	

Rig: Black Gold 69	
Crew: Derrick Hunter, Matt Roche	

RUN 1 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

[illegible]

SURFACE EQUIPMENT	
WITM (EDTS)-A	
DOWNHOLE EQUIPMENT	
LEH-QT LEH-QT	81.6
EDTC-B EDTH-B EDTC-B EDTG-A/B	78.7
MAPC-B MAPC-BA ECH-SF MAMS-BA	72.2
MAMS-PS	56.8
MAXS-B MASS-BA MAXS-BA	51.2
MAXS-PS	30.9

PPC1
PPC1-B
PPC_CAL_STD

Calipers 29.8 30.9

PPC_Cartr 24.4

FBST-B
ECH-MRA
FBCC-A
AH-185
FBSH-A
GPIC-F
FBSC-B
FBSS-B

24.4

PADS
FBCC FBSC
HV DF ACCZ
Tension DHRU
TOOL ZERO

1.3

0.0

MAXIMUM STRING DIAMETER 5.00 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

MAIN PORO 5" = 100'

MAXIS Field Log

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 20-Mar-2012 06:47 5928.0 FT 338.5 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 2350.66 F3
Cement Volume = 1447.82 F3 (assuming 5.50 IN casing O.D.)
Computed from 5907.0 FT to 435.0 FT using data channel(s) HCAL

OP System Version: 19C0-187

AIT-M 19C0-187 HILTH-FTB 19C0-187
DTC-H 19C0-187

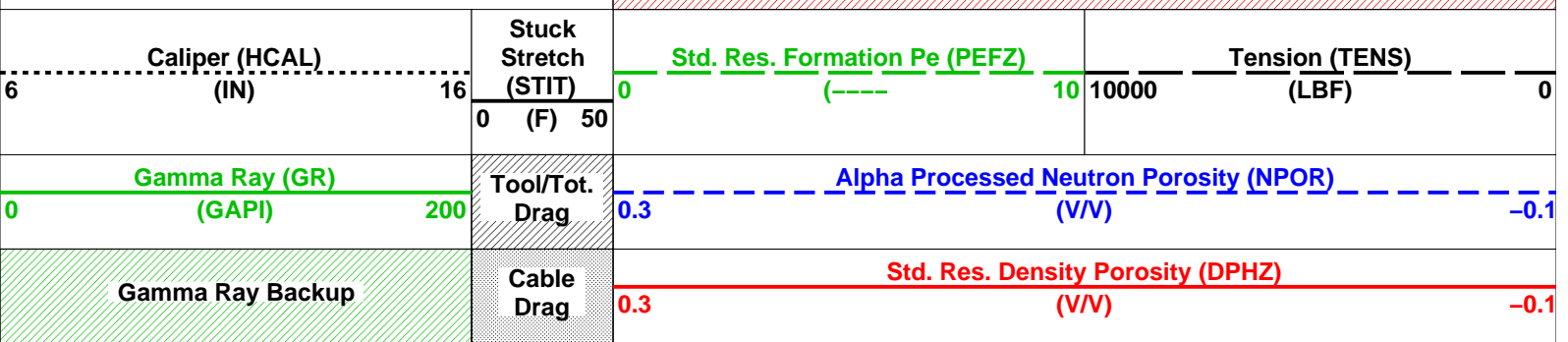
PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Cement Volume Major Pip Every 100 F3

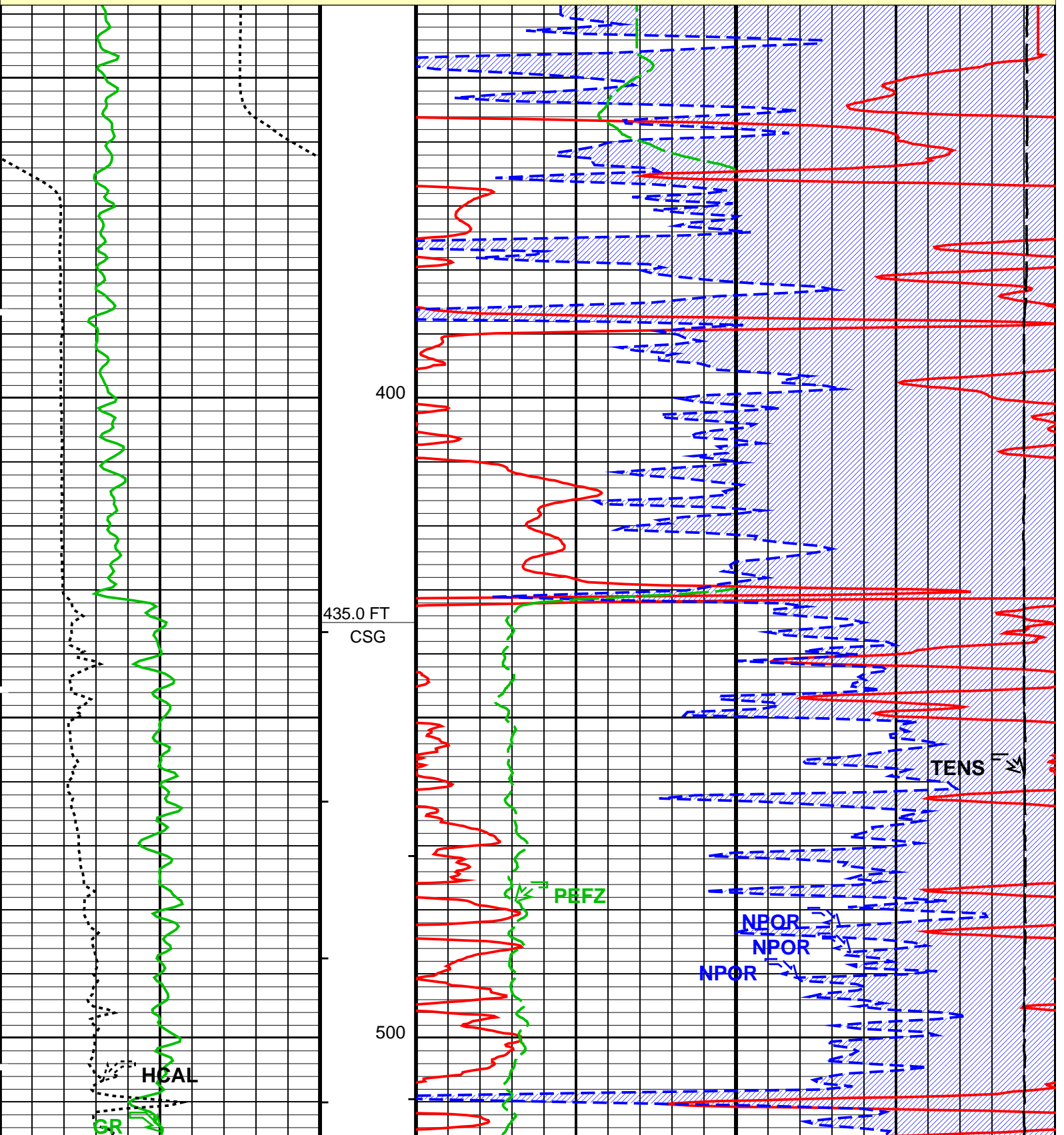
Time Mark Every 60 S

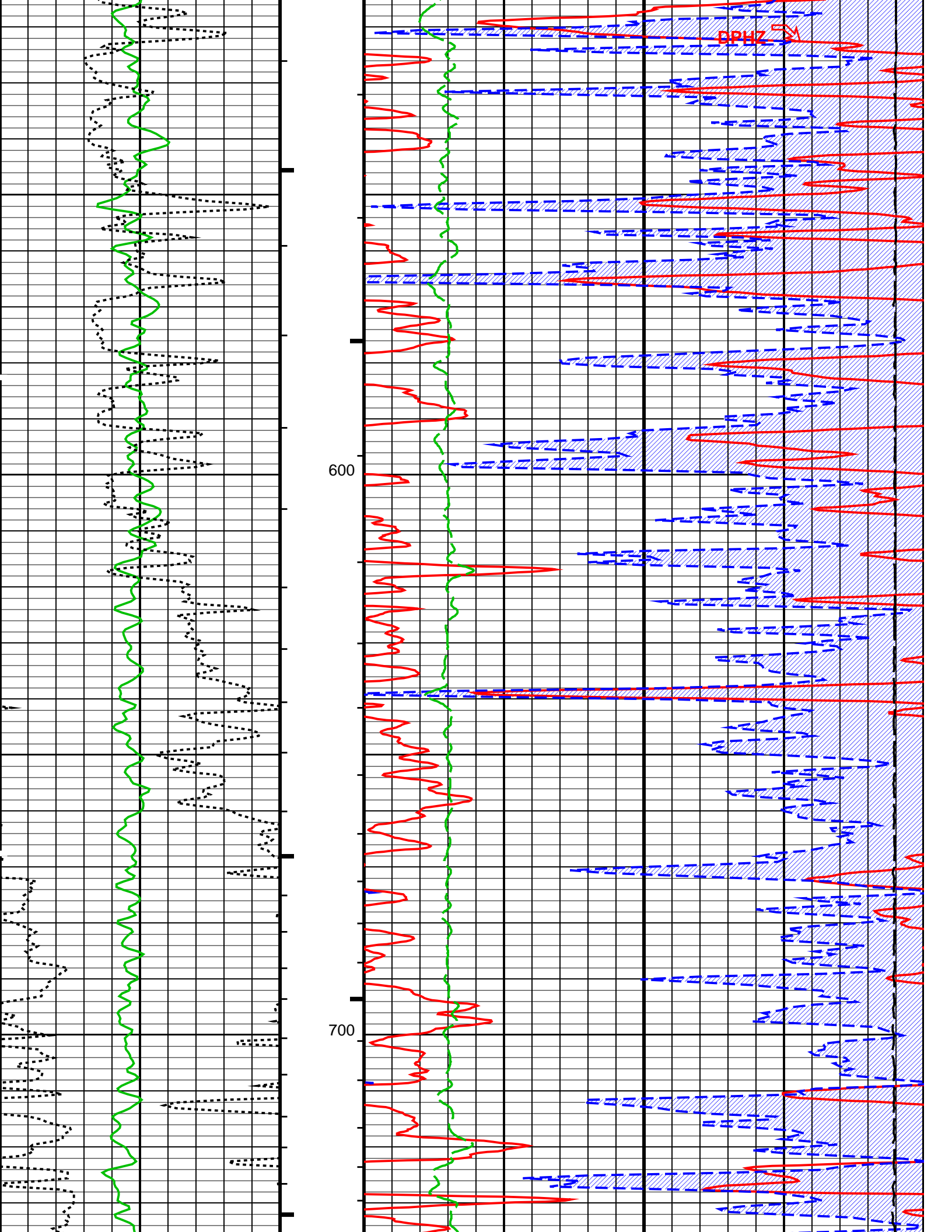
NPOR Backup

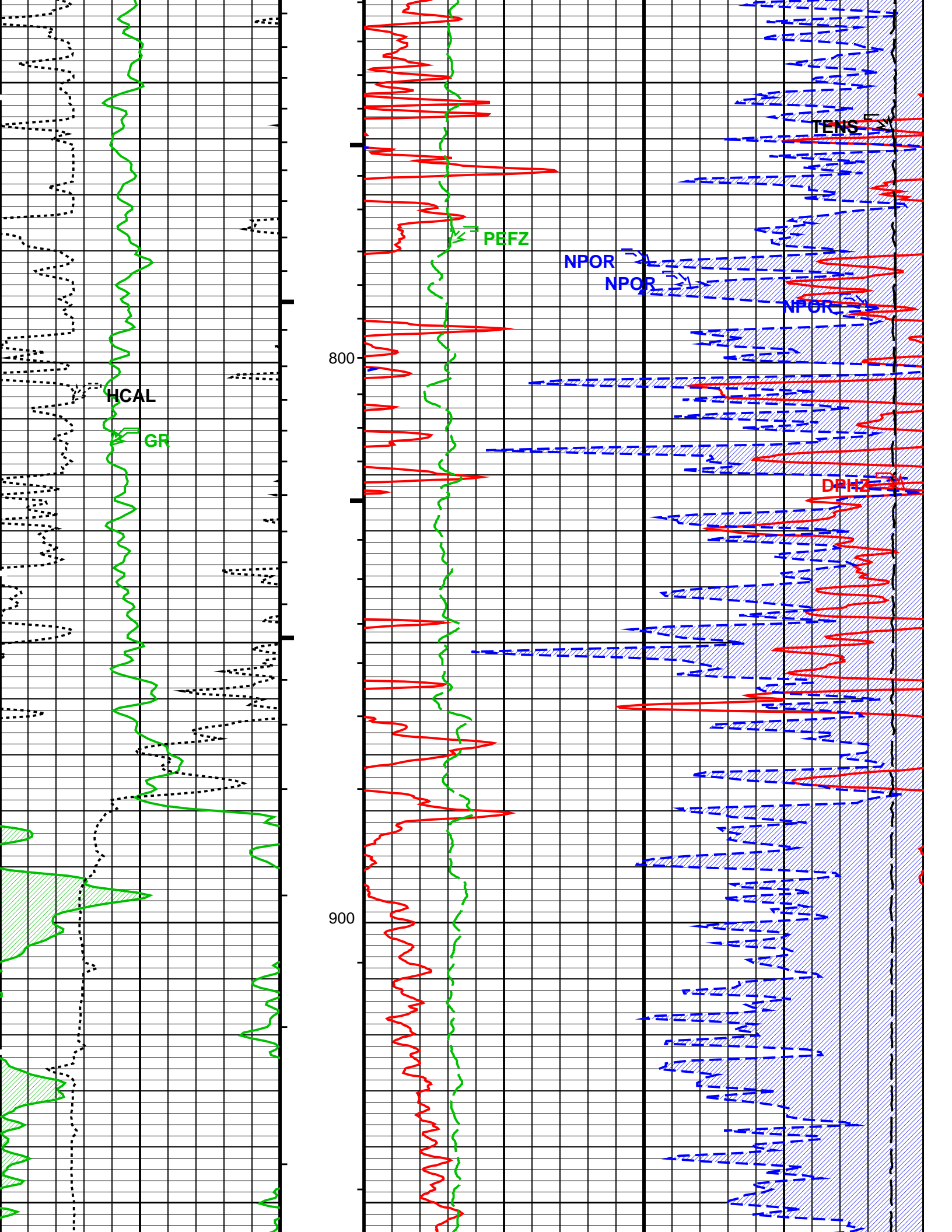
Gas Effect

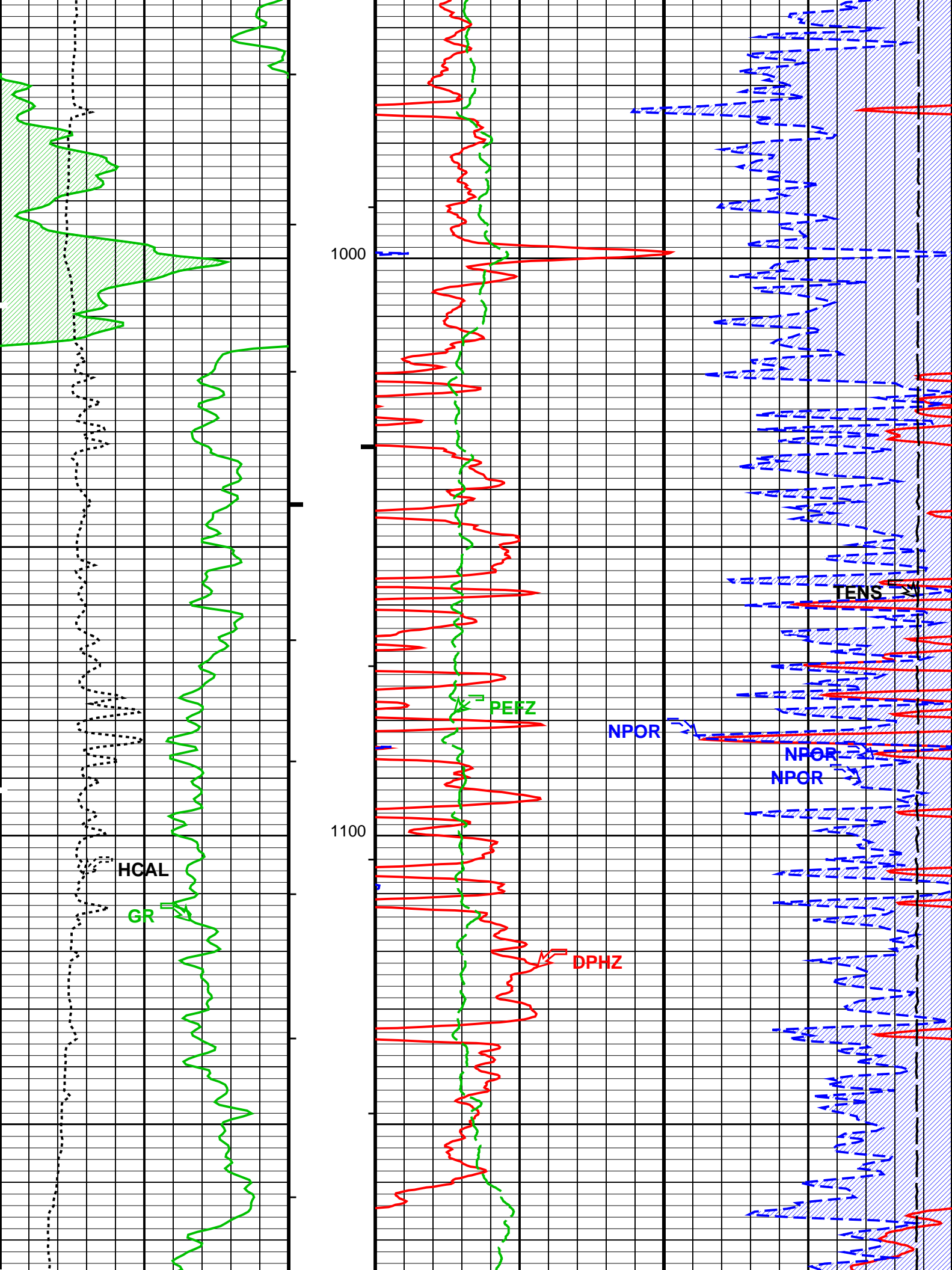


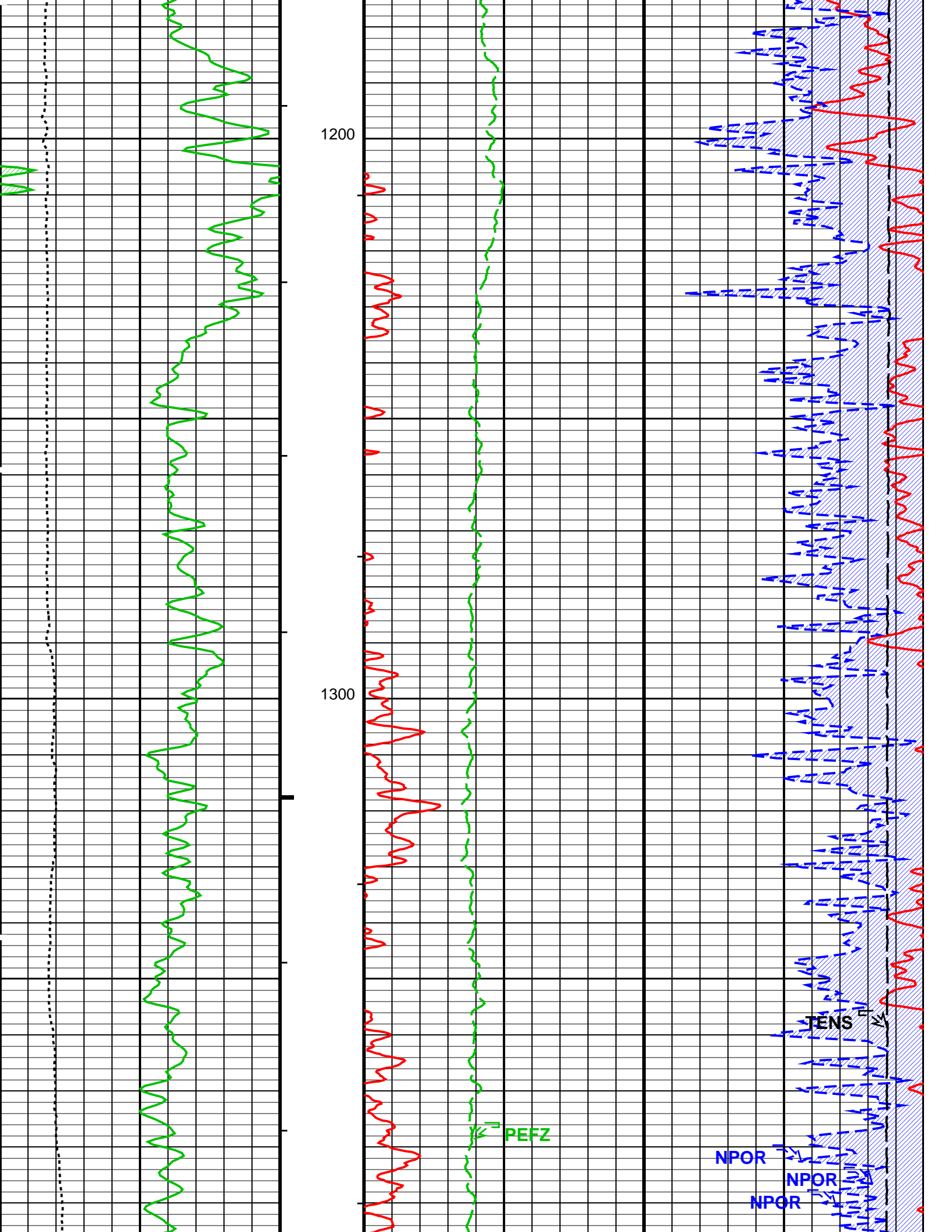
MAIN PASS: *** PLATFORM EXPRESS - NUCLEAR POROSITY ***

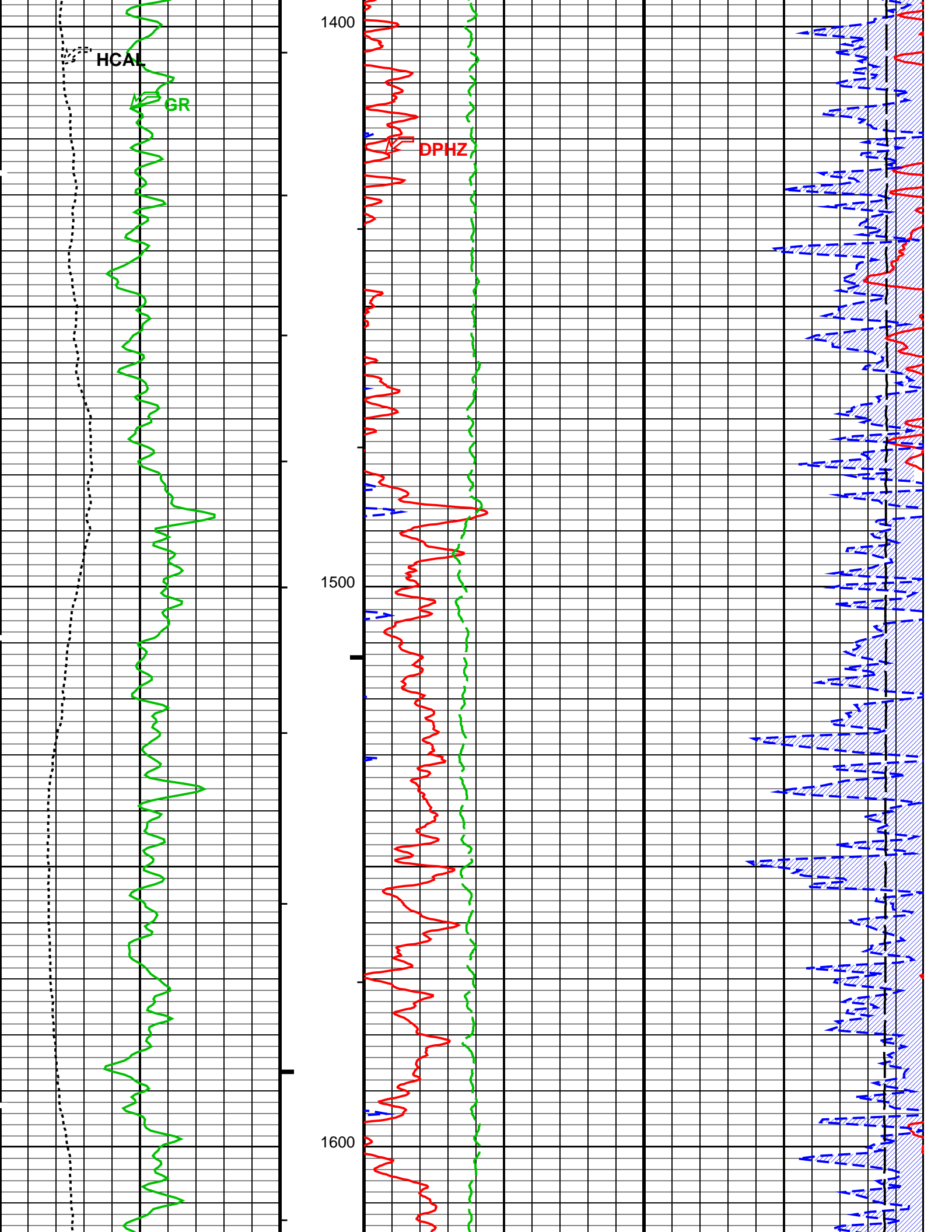


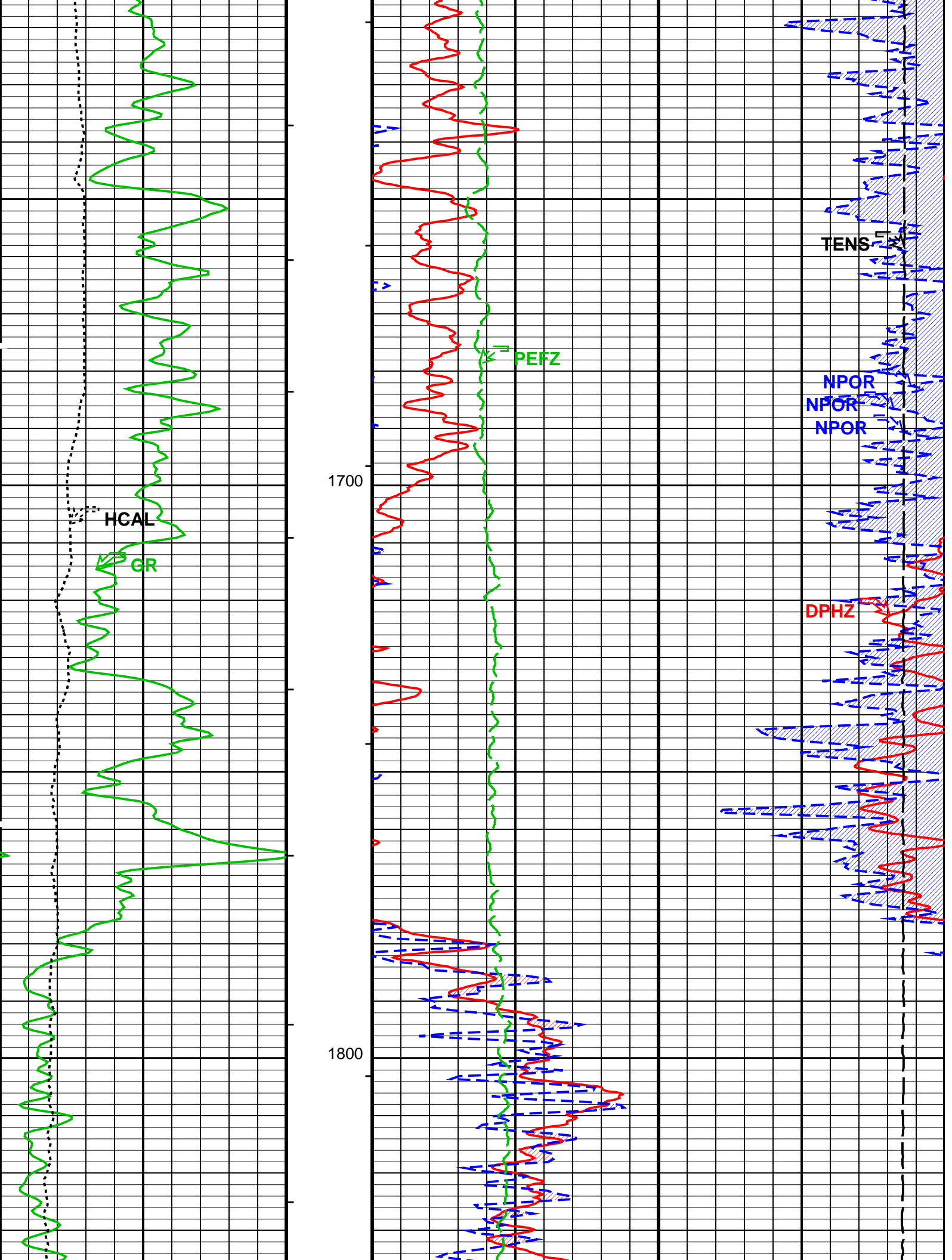


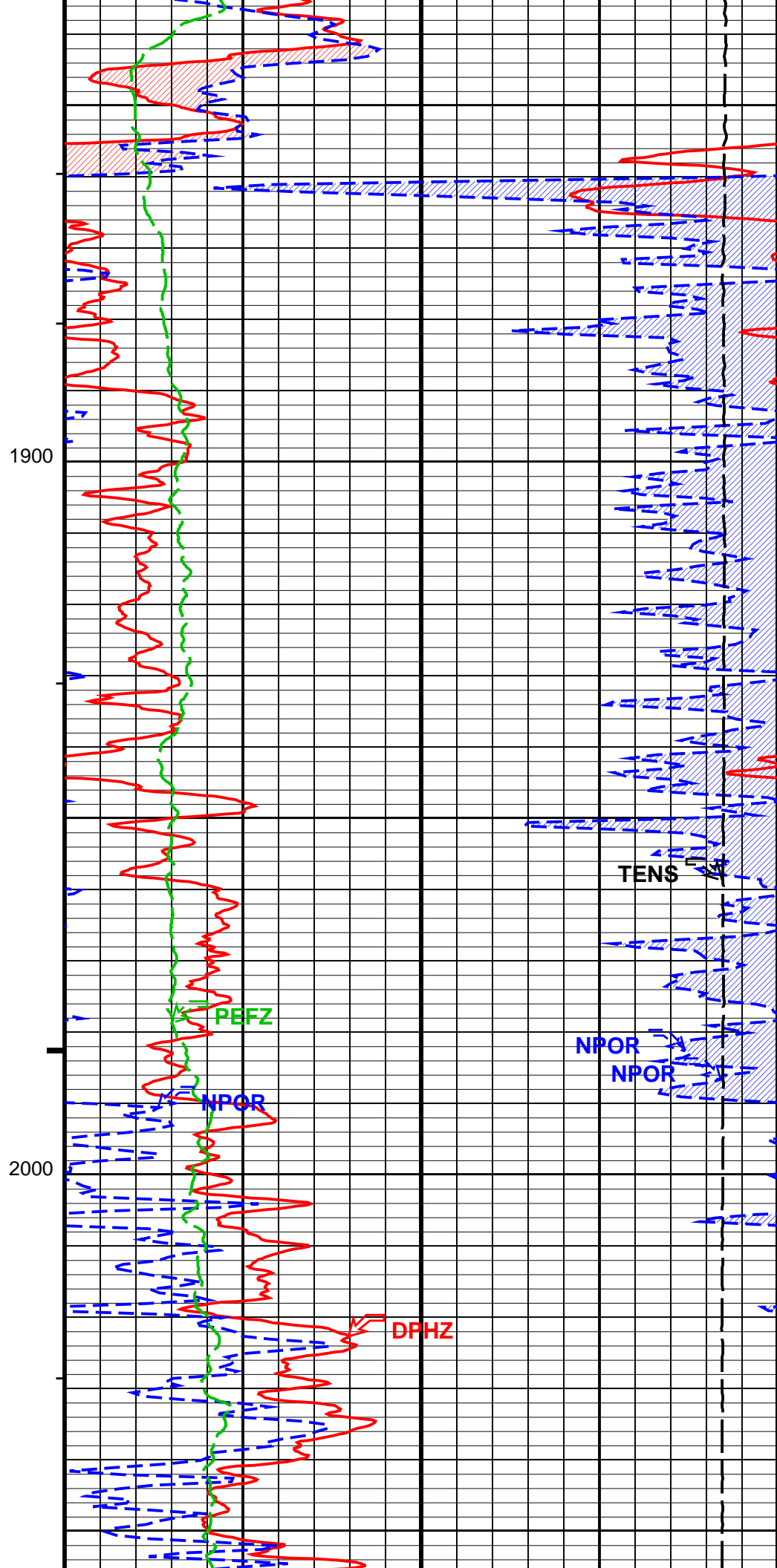
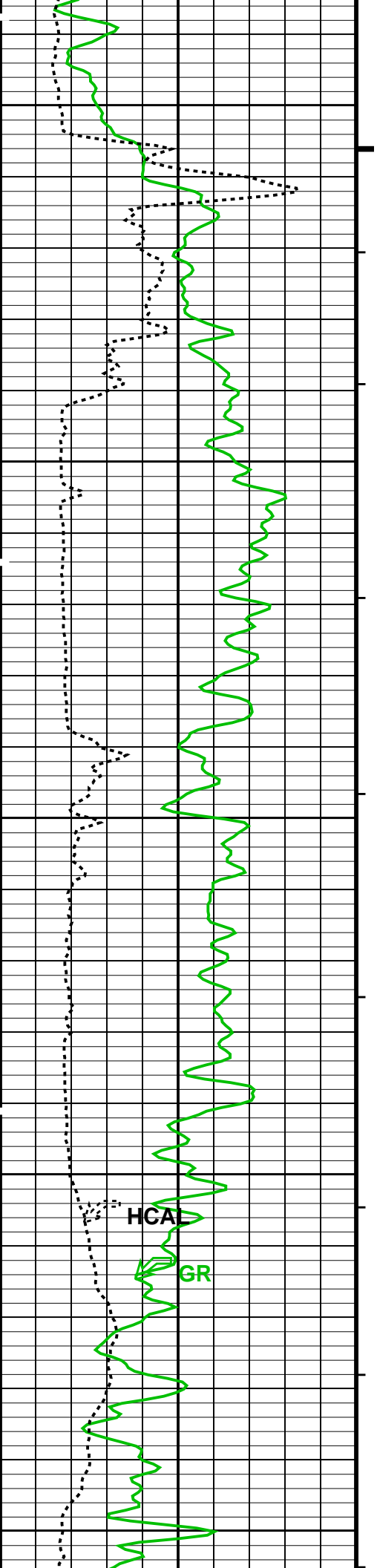


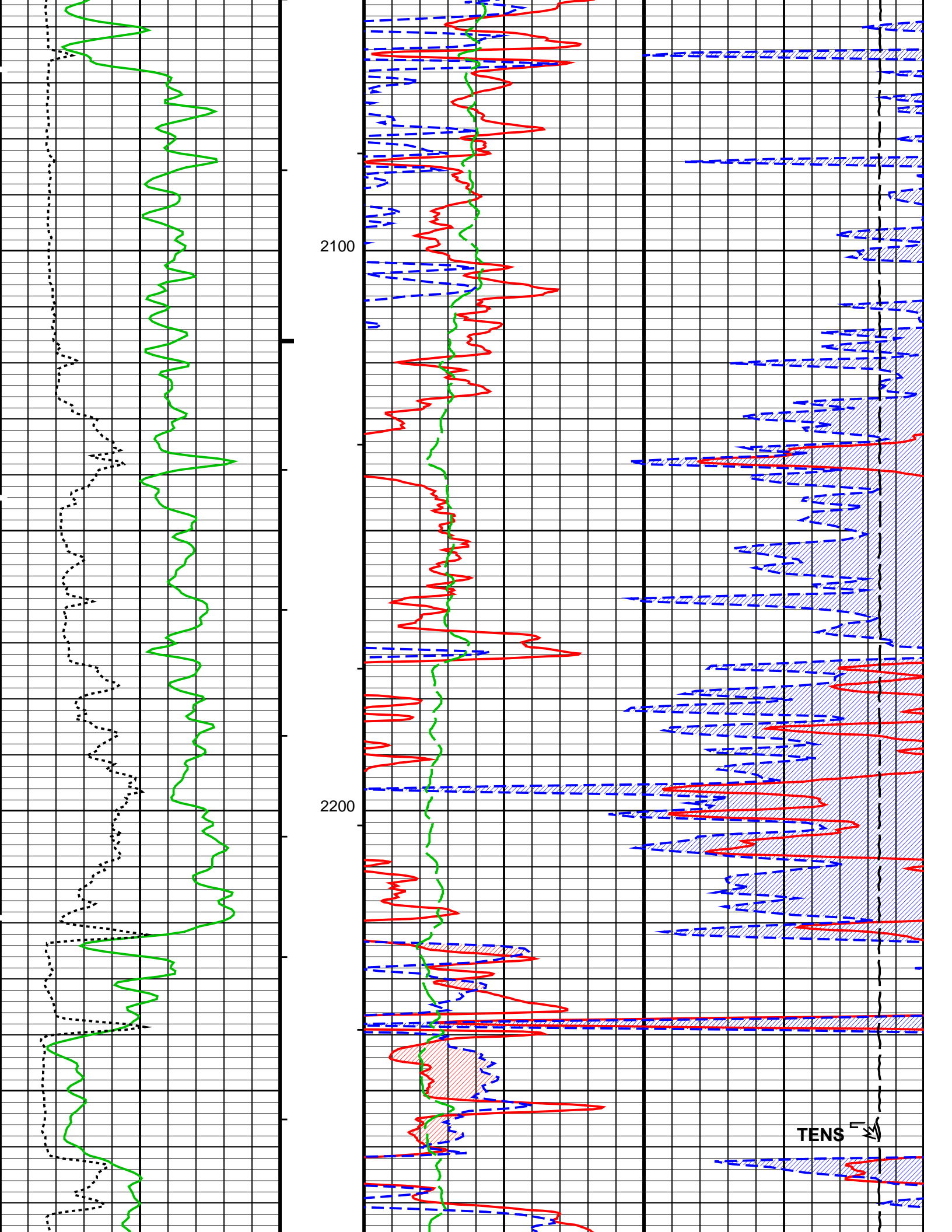


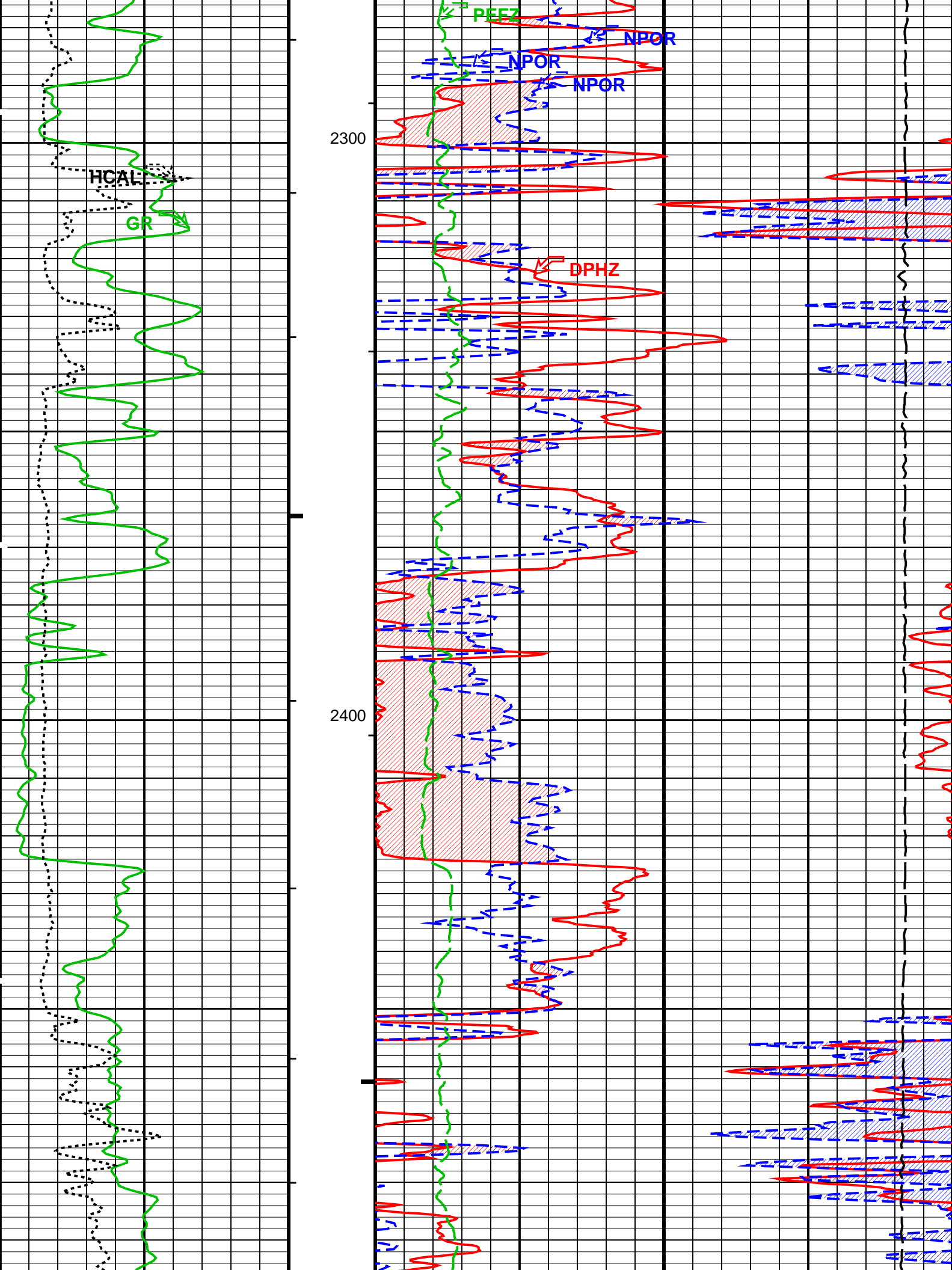


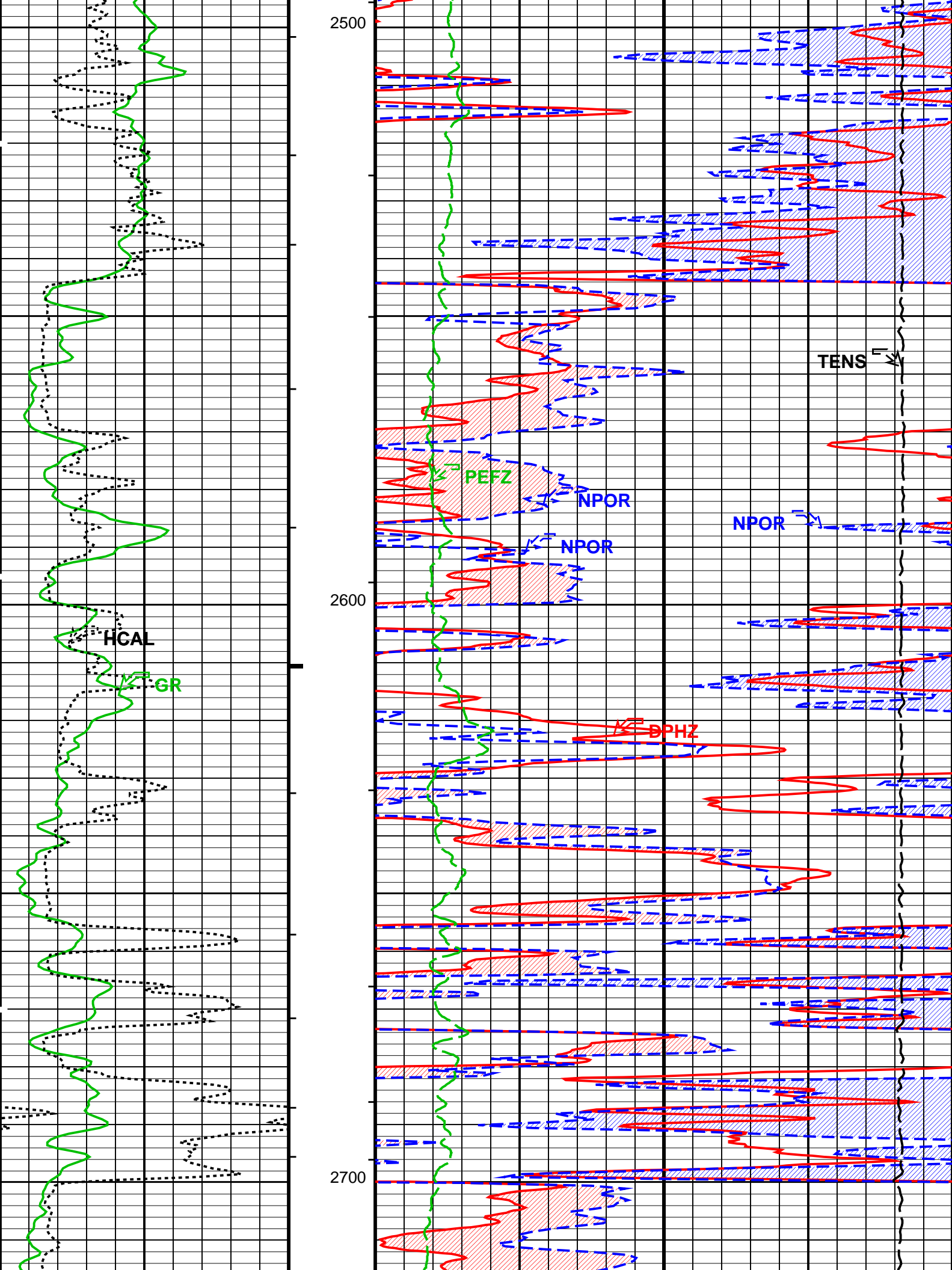


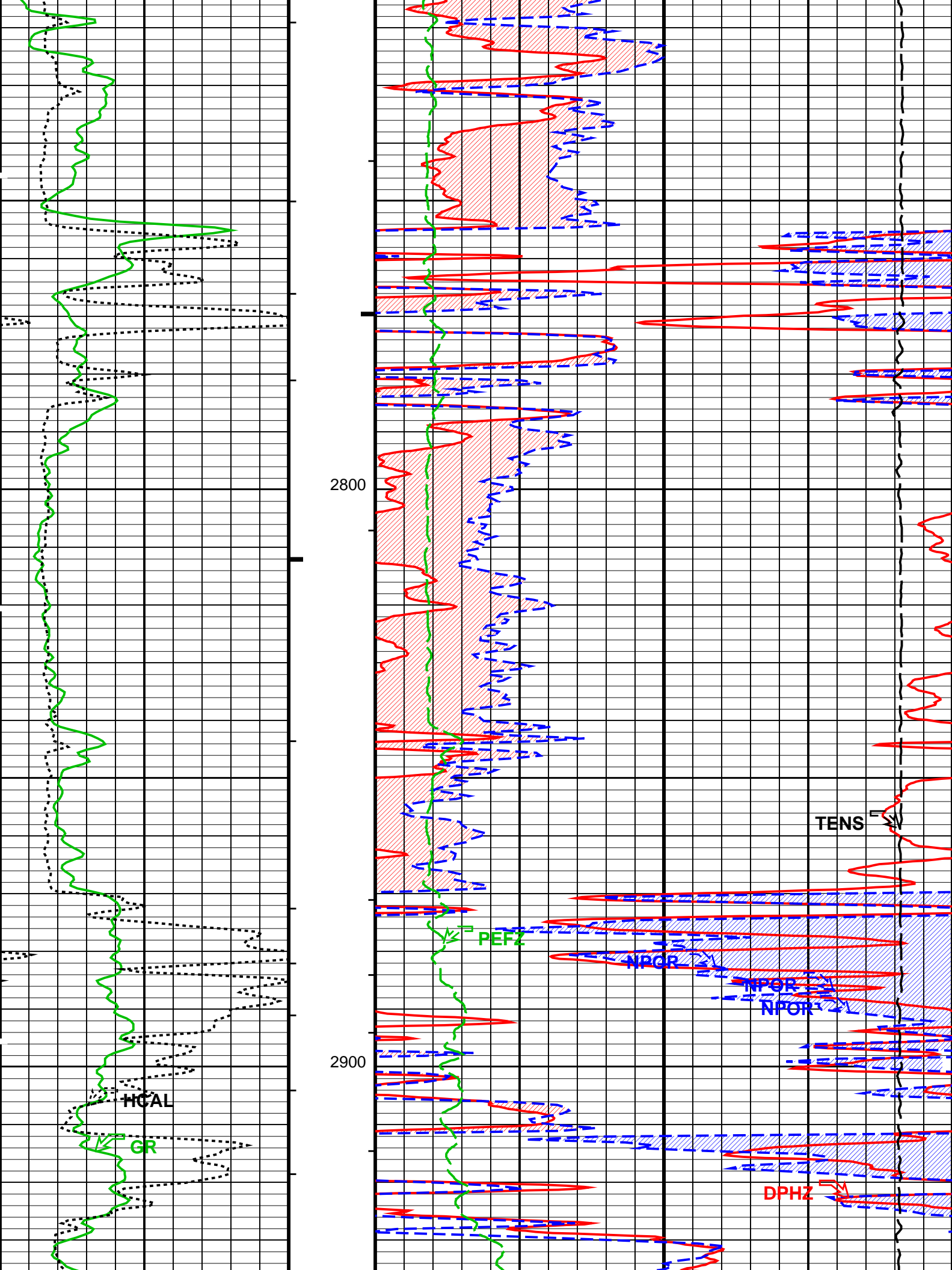


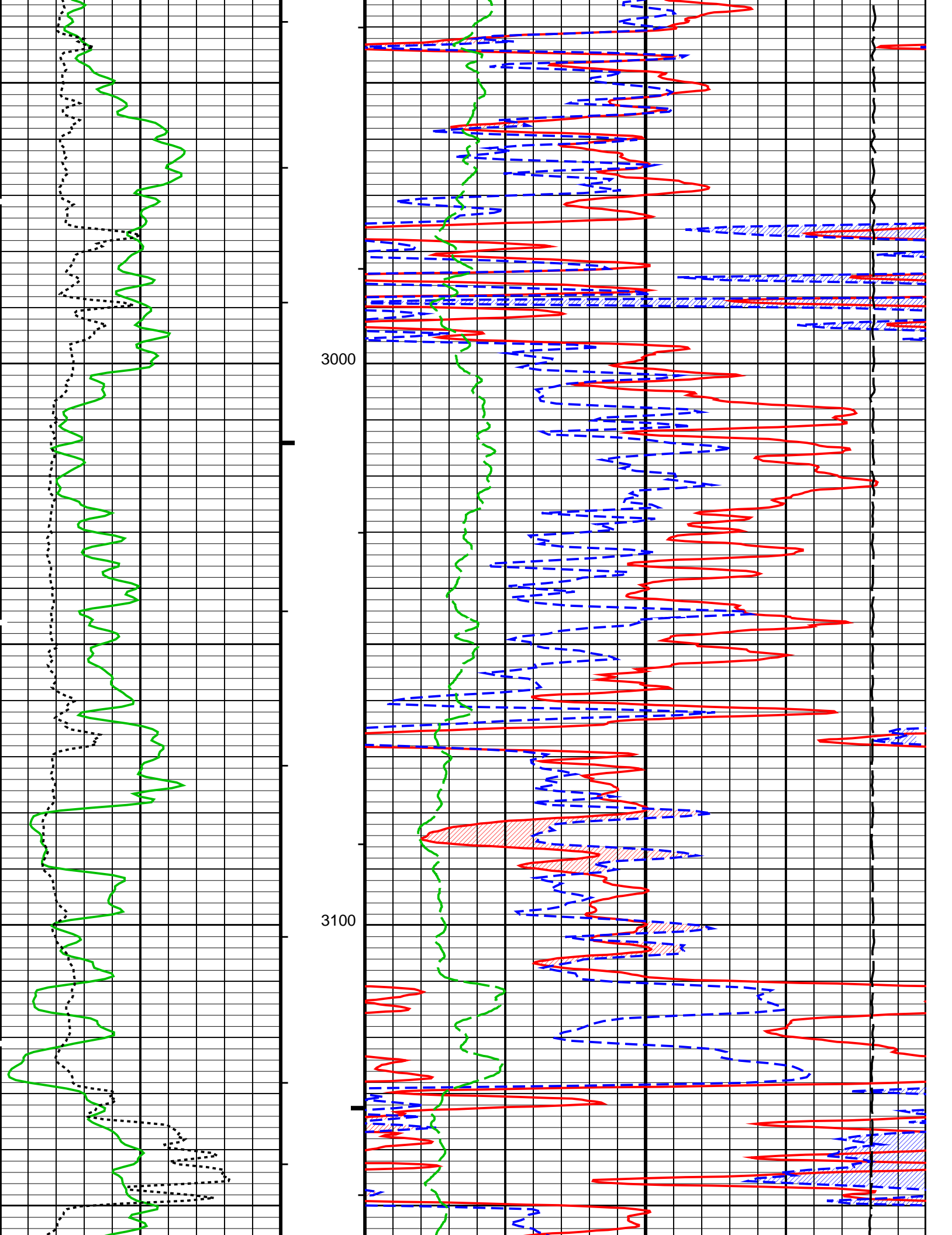


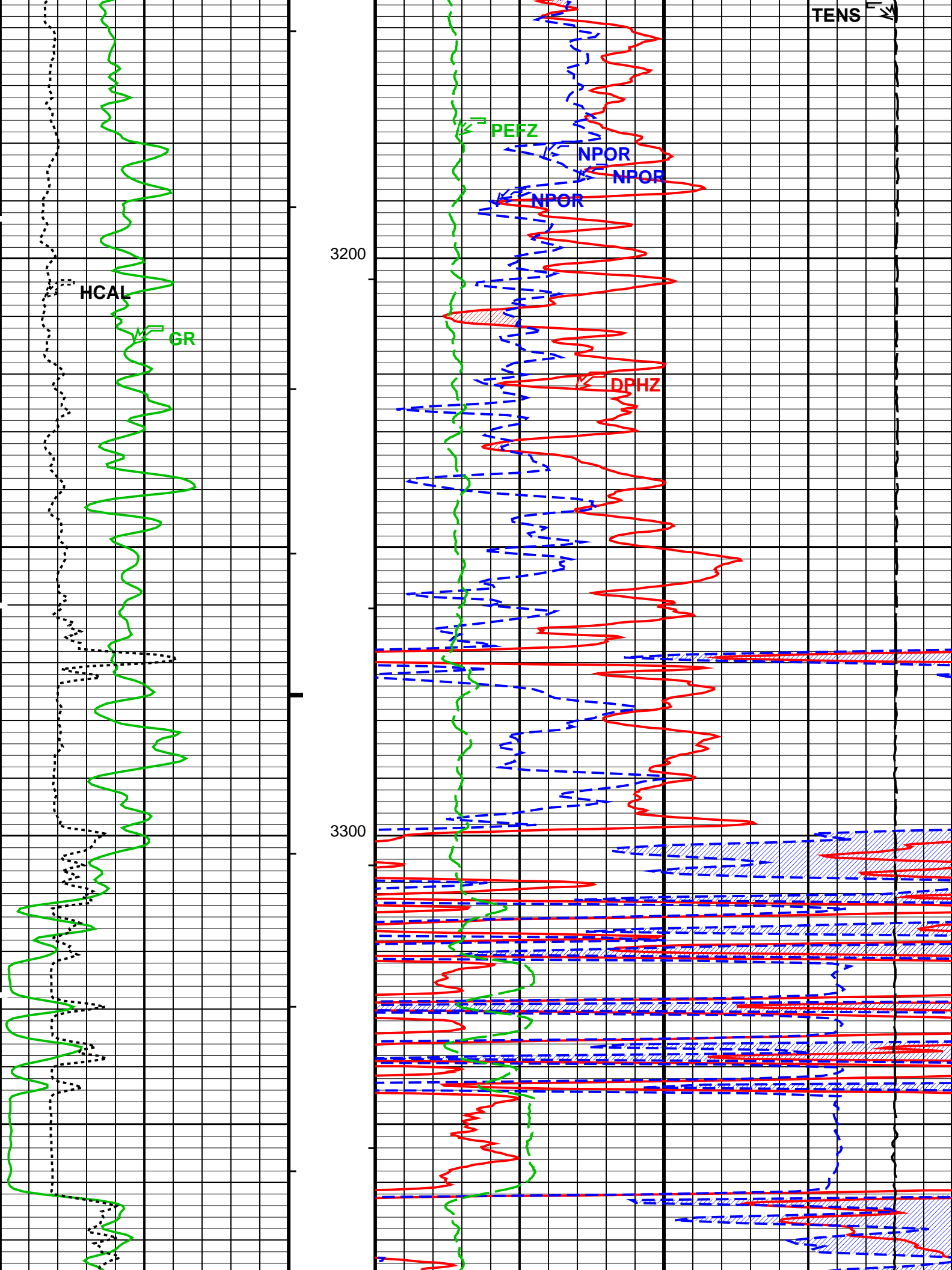


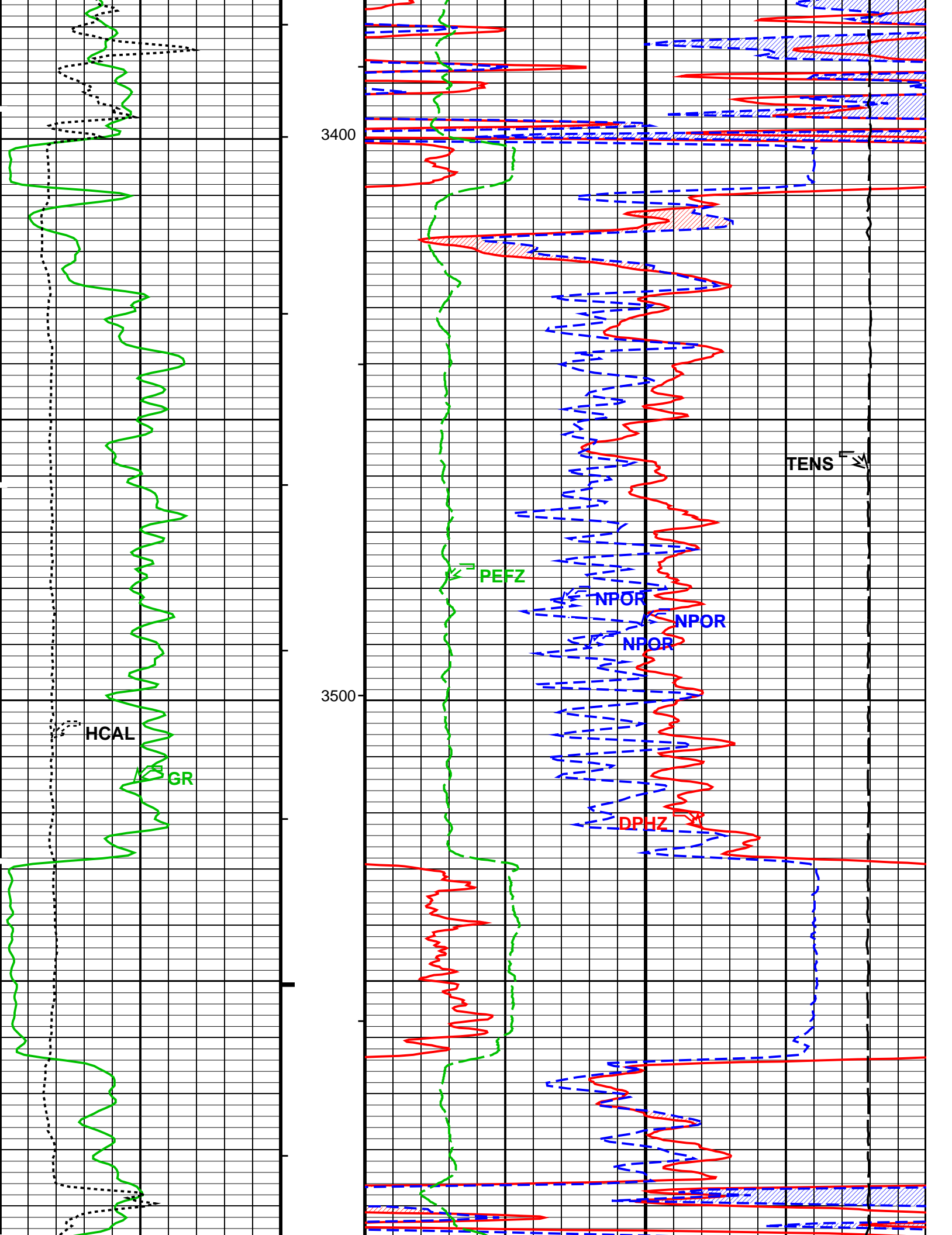


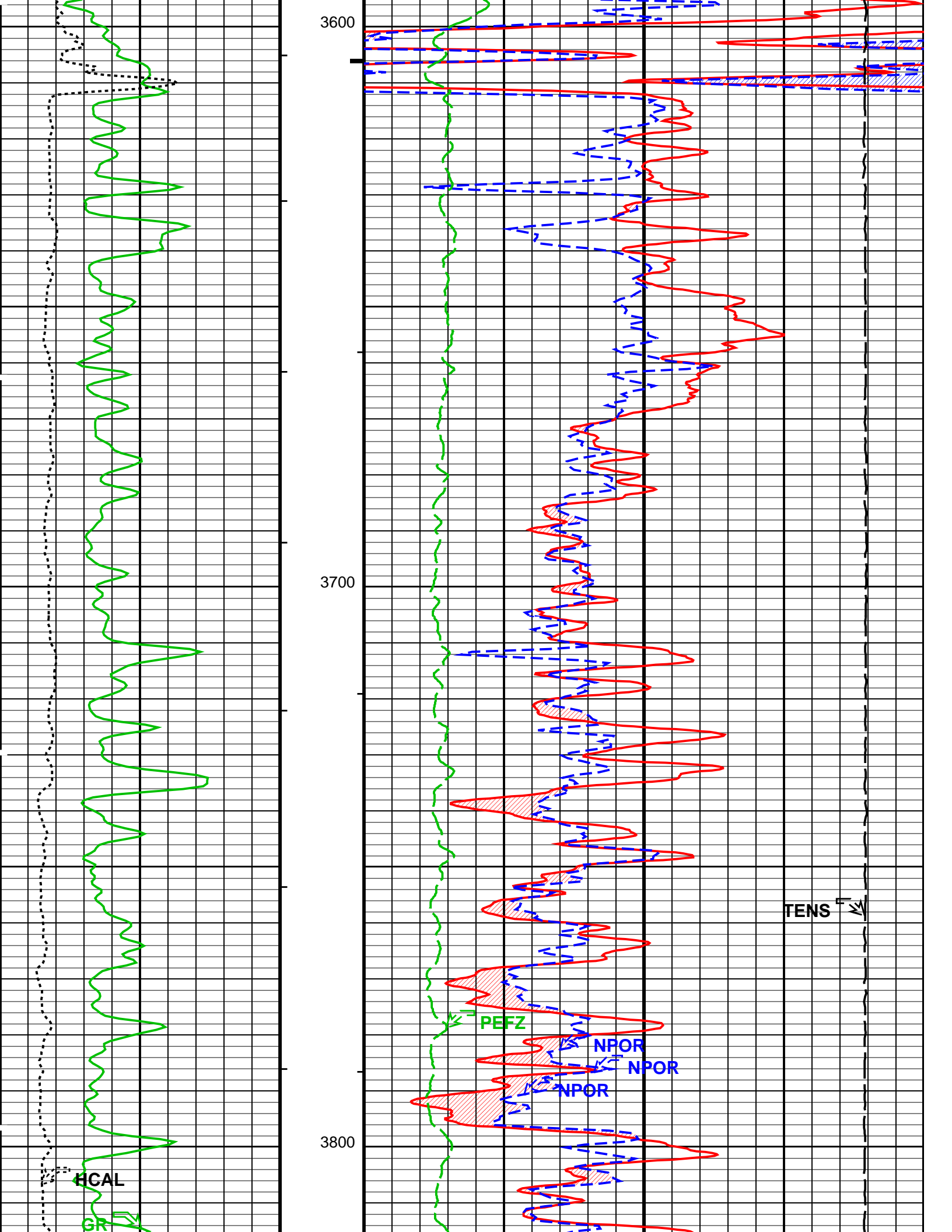


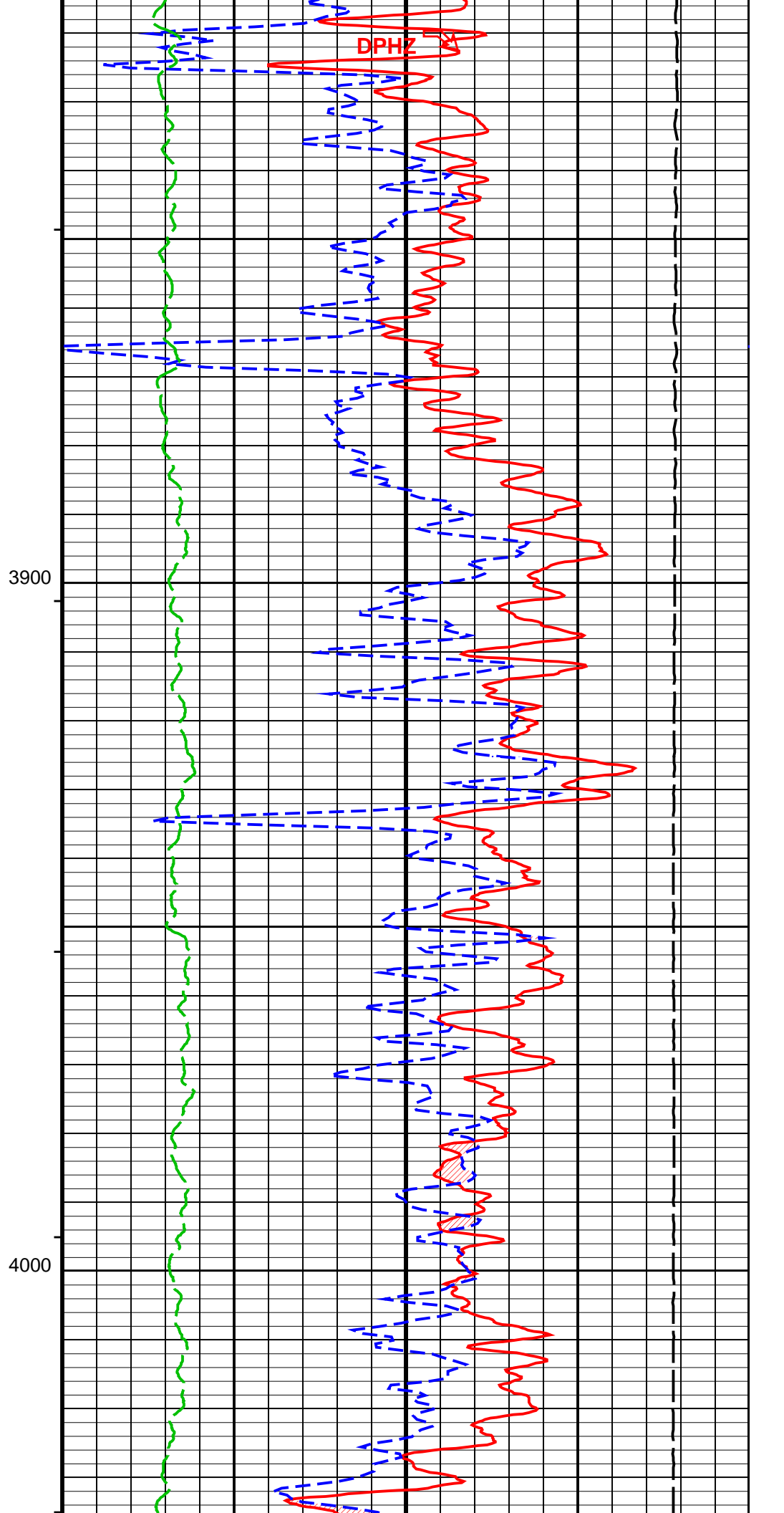
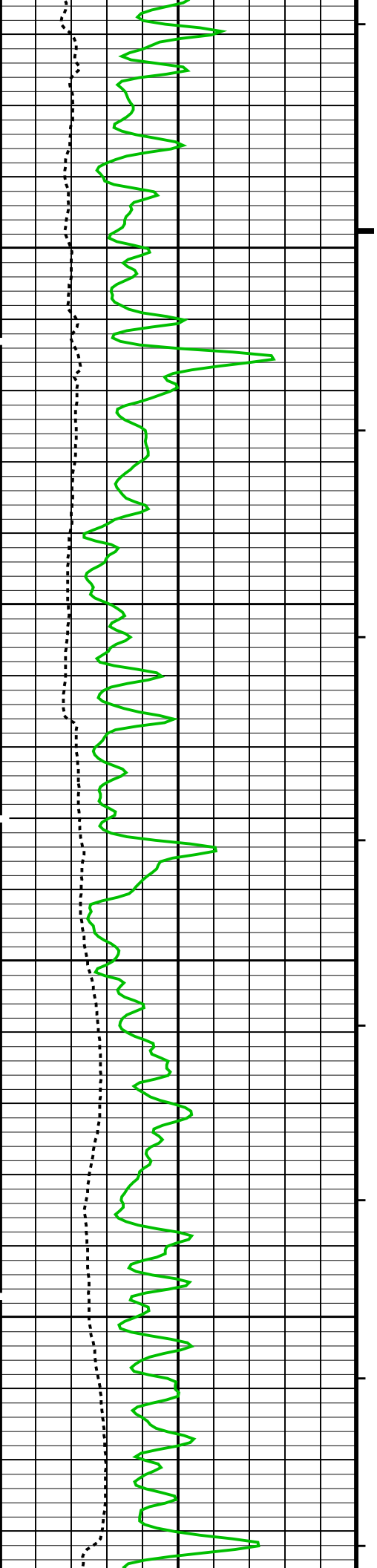


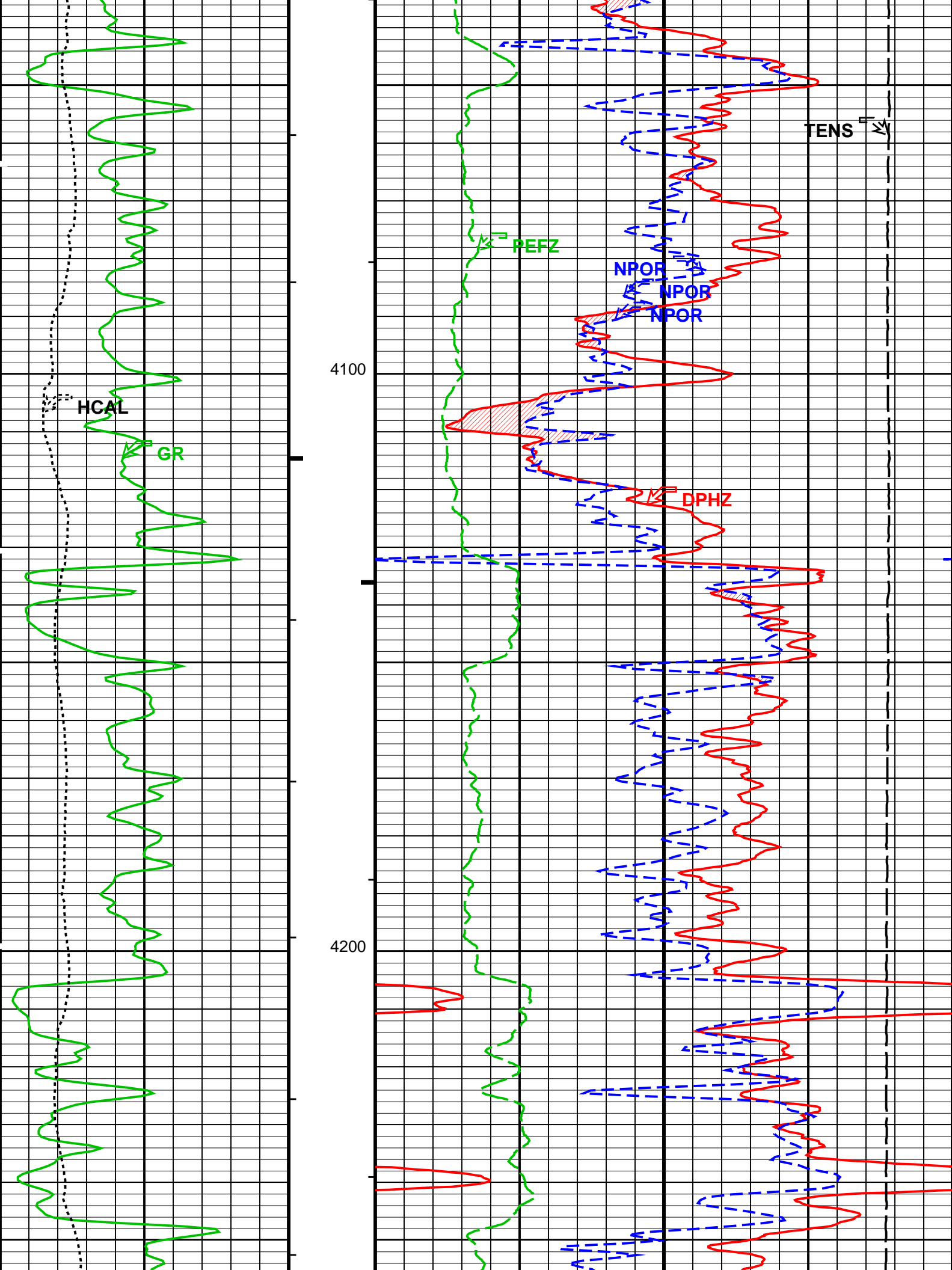








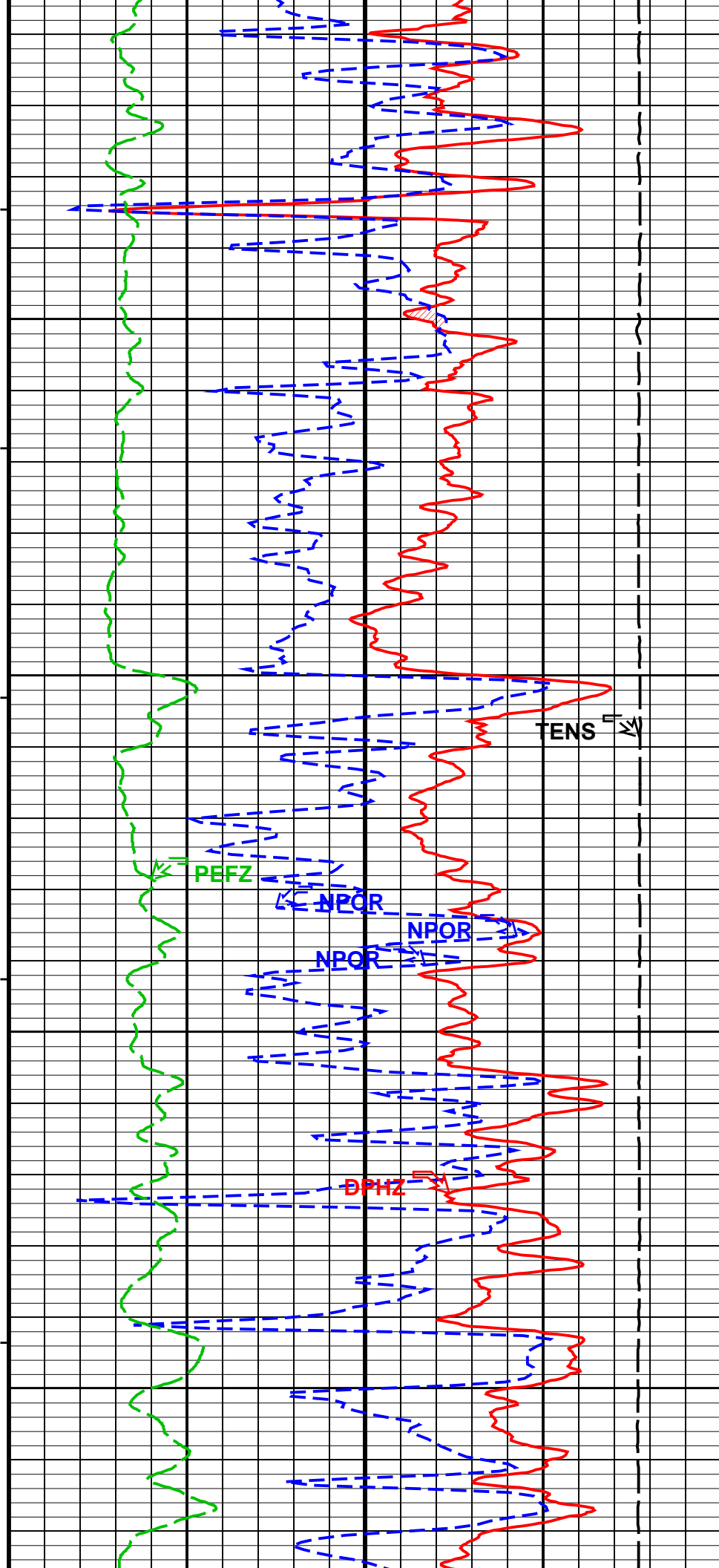


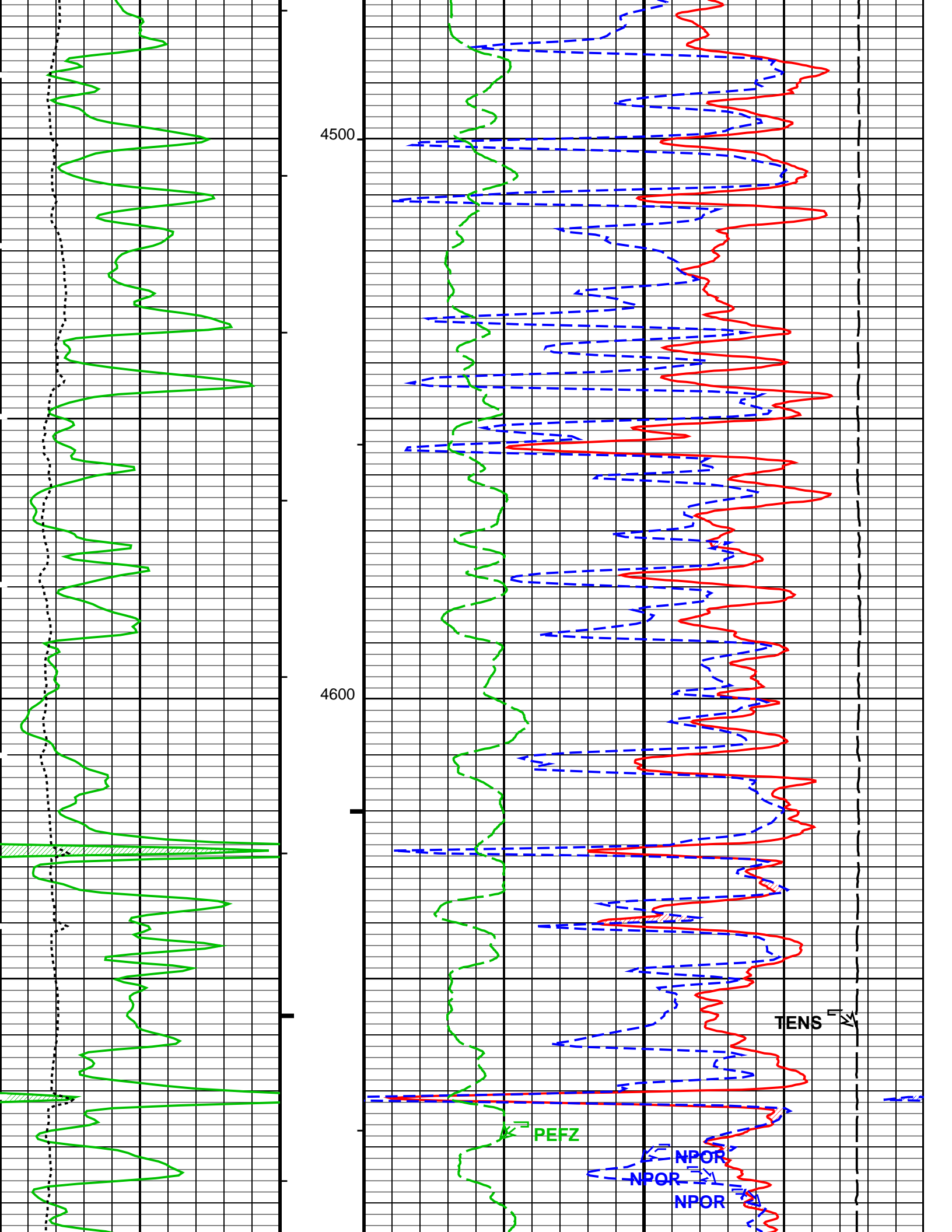


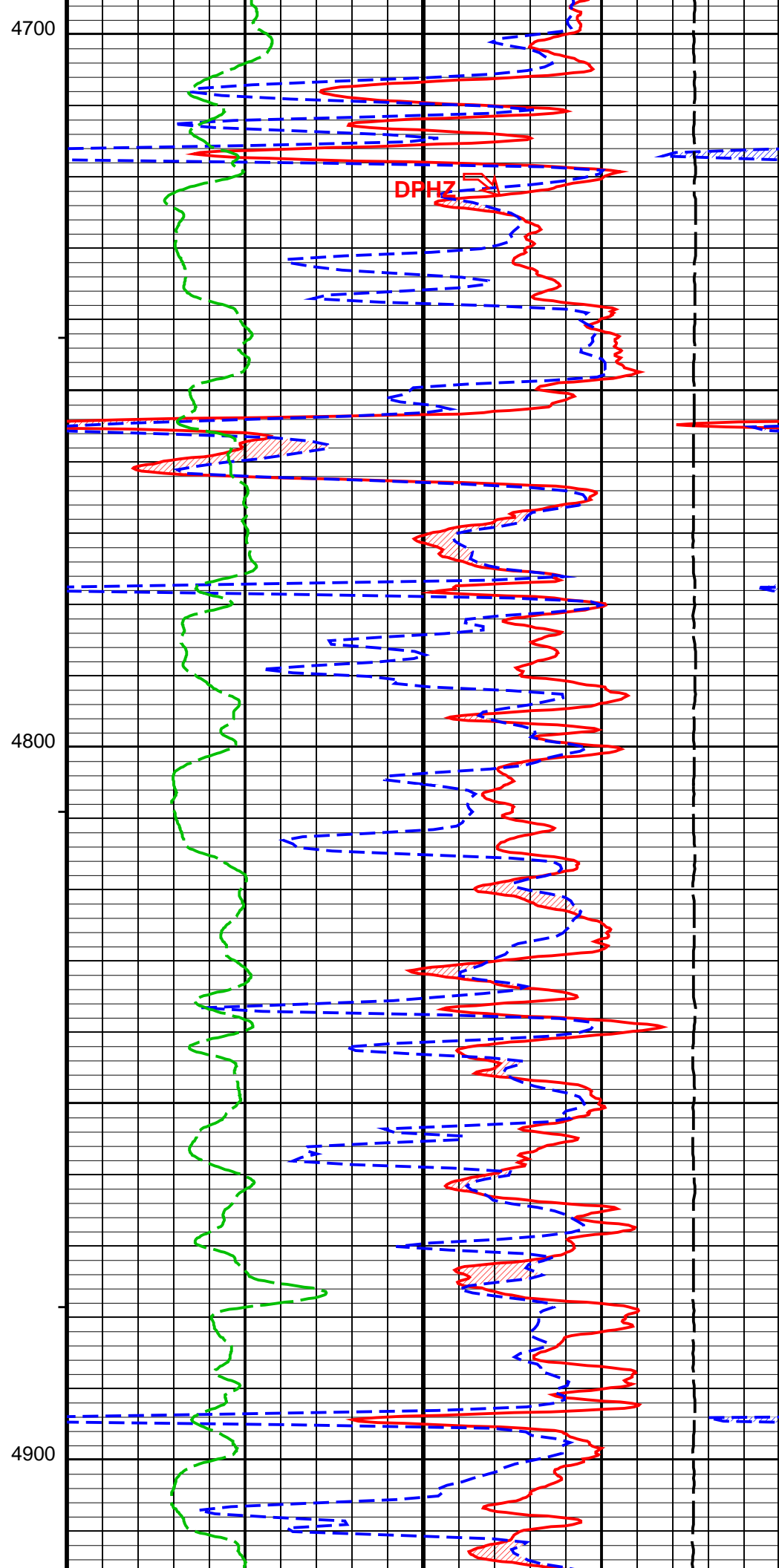
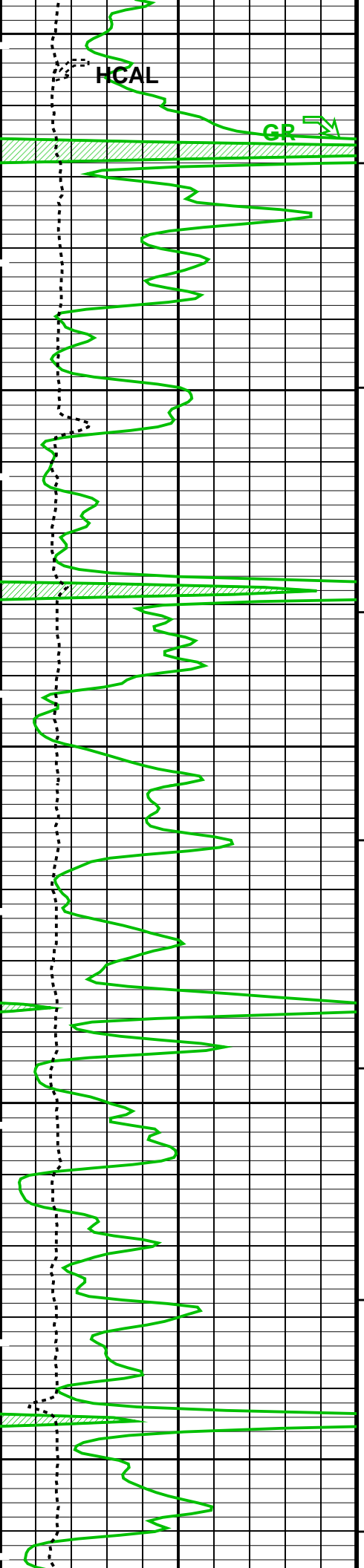


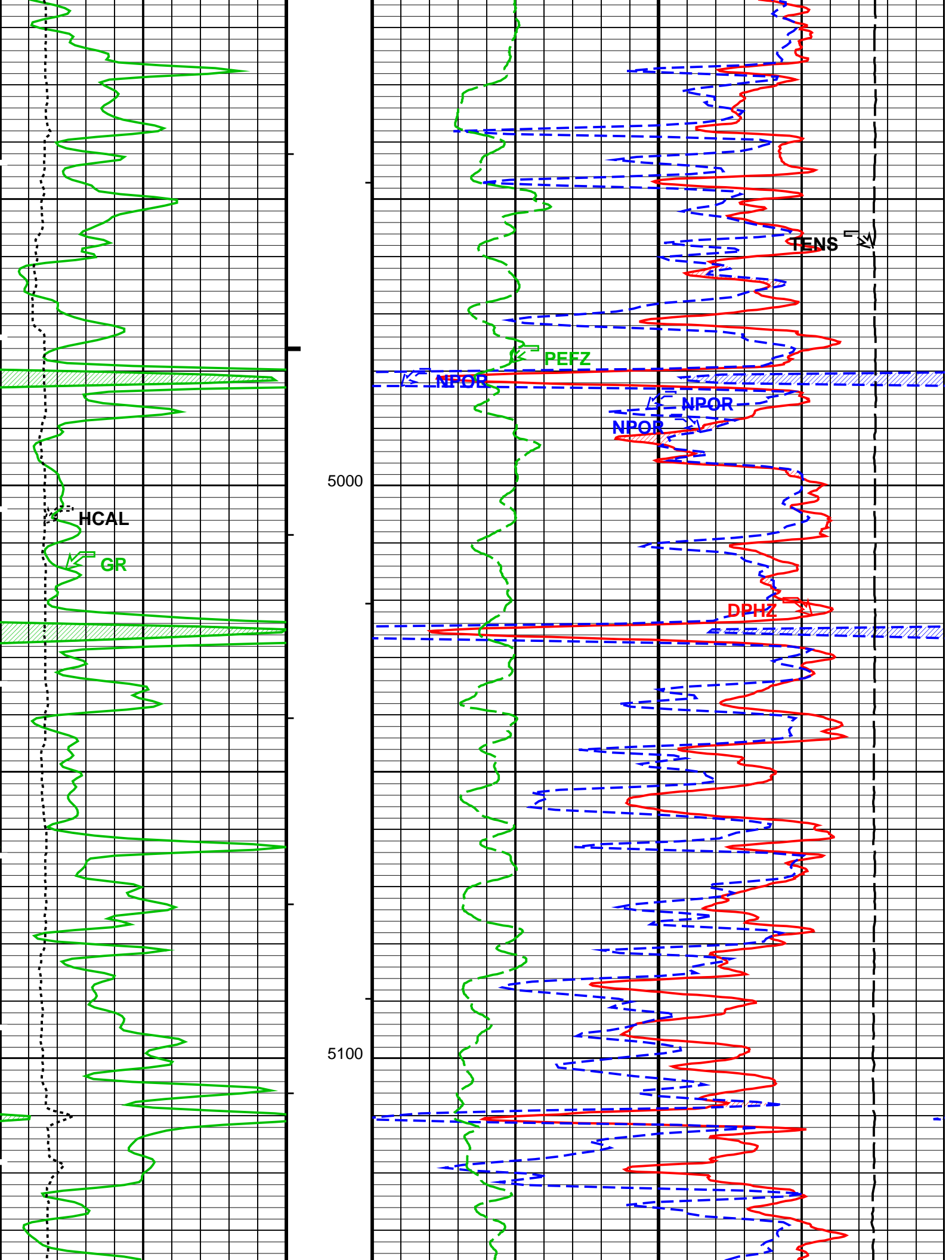
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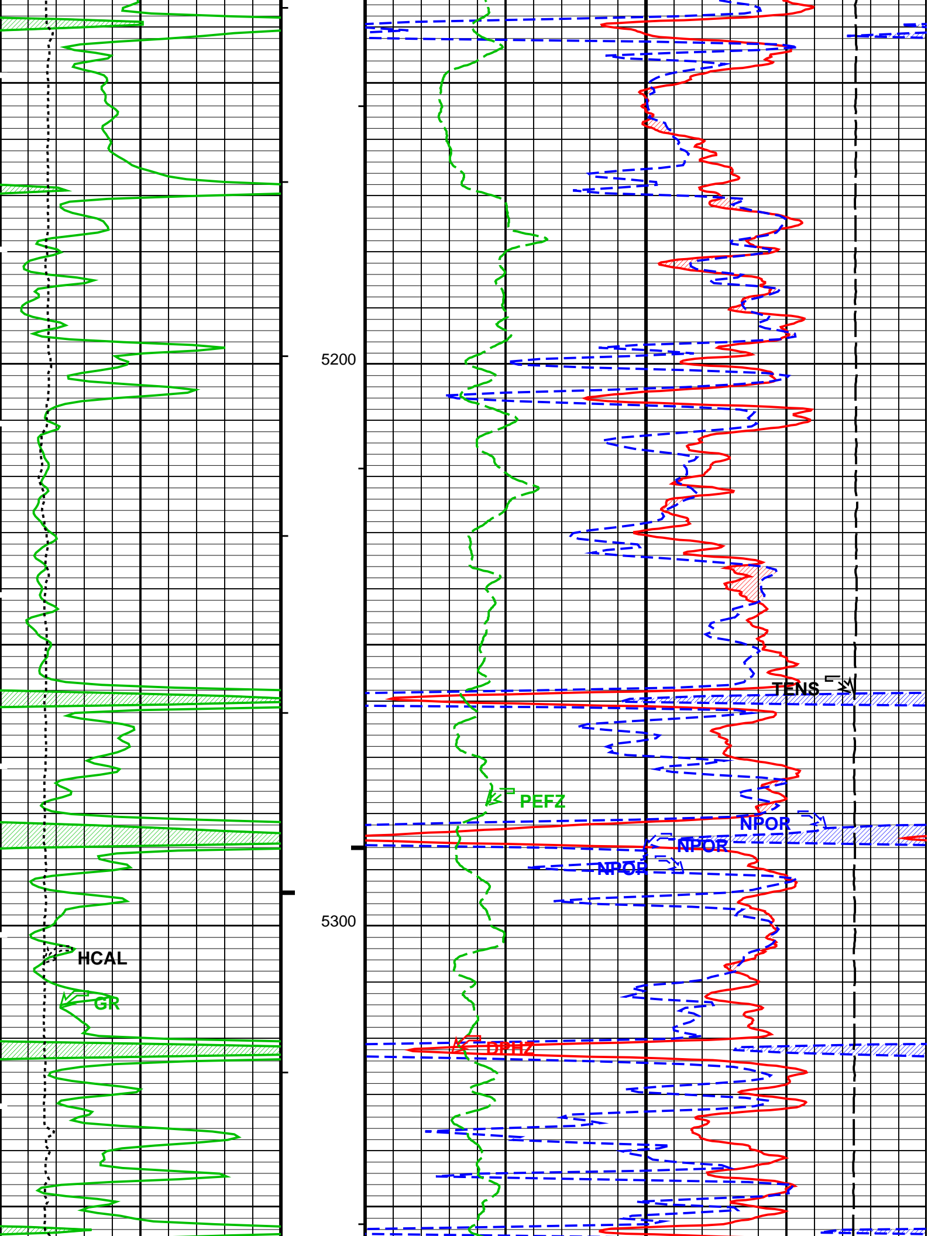
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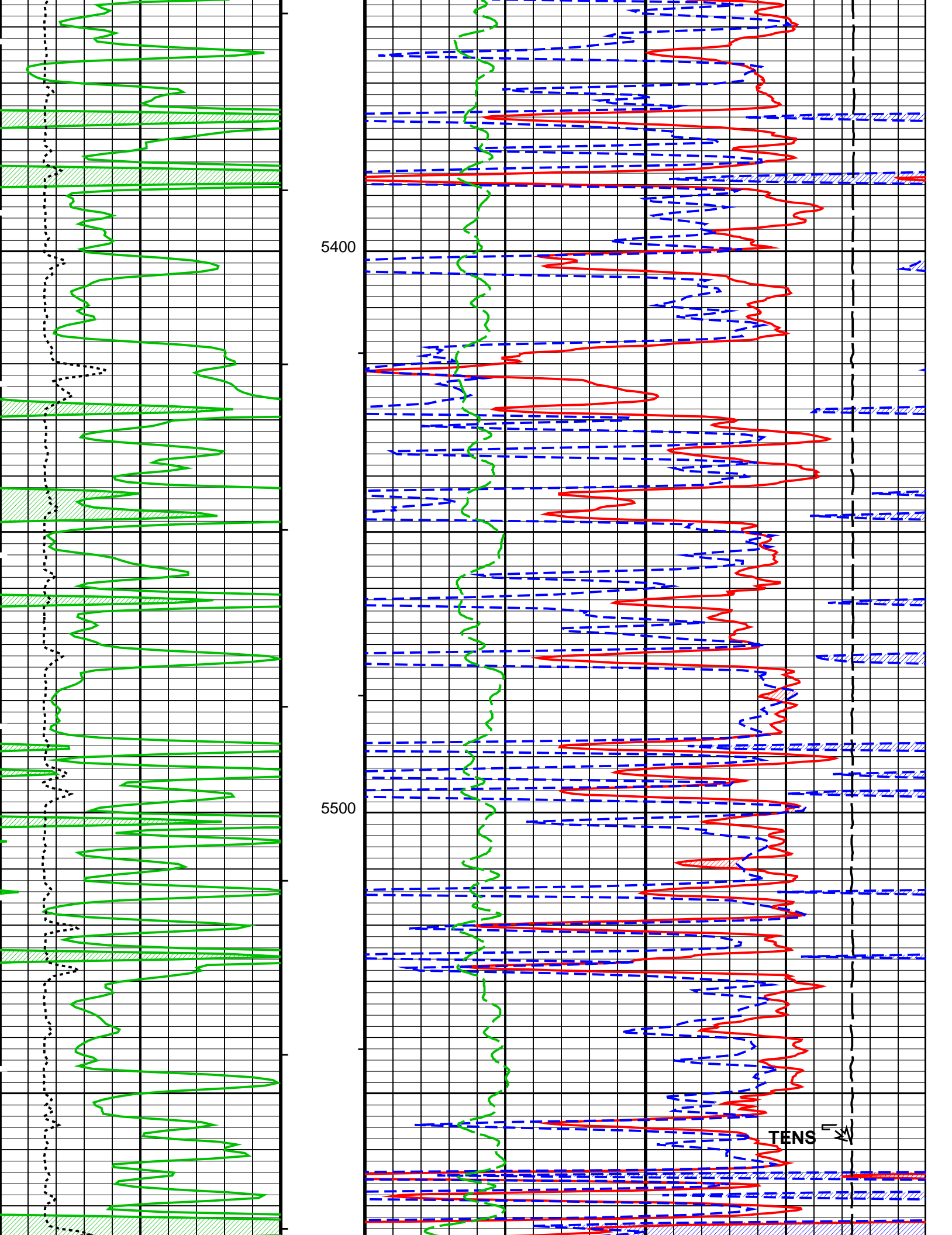


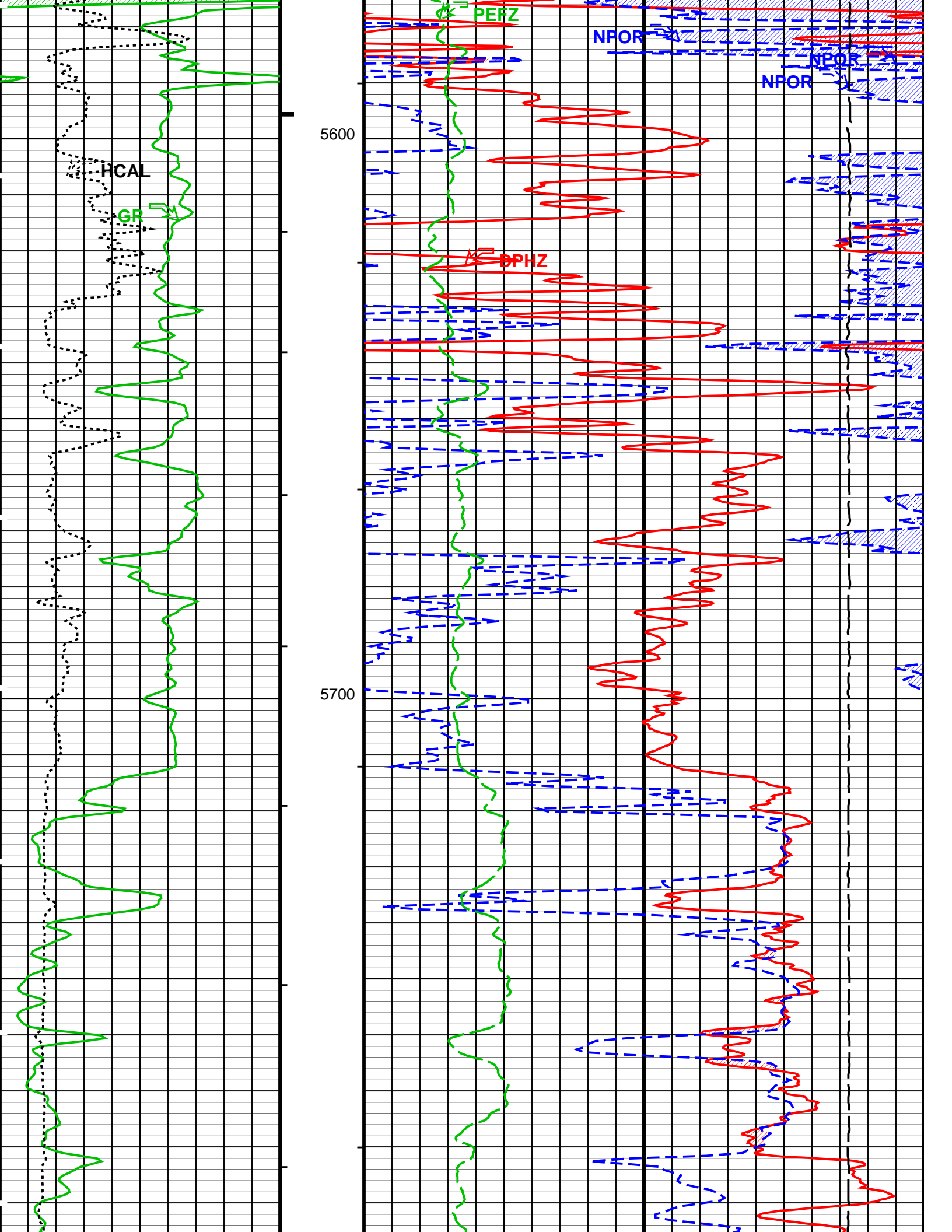


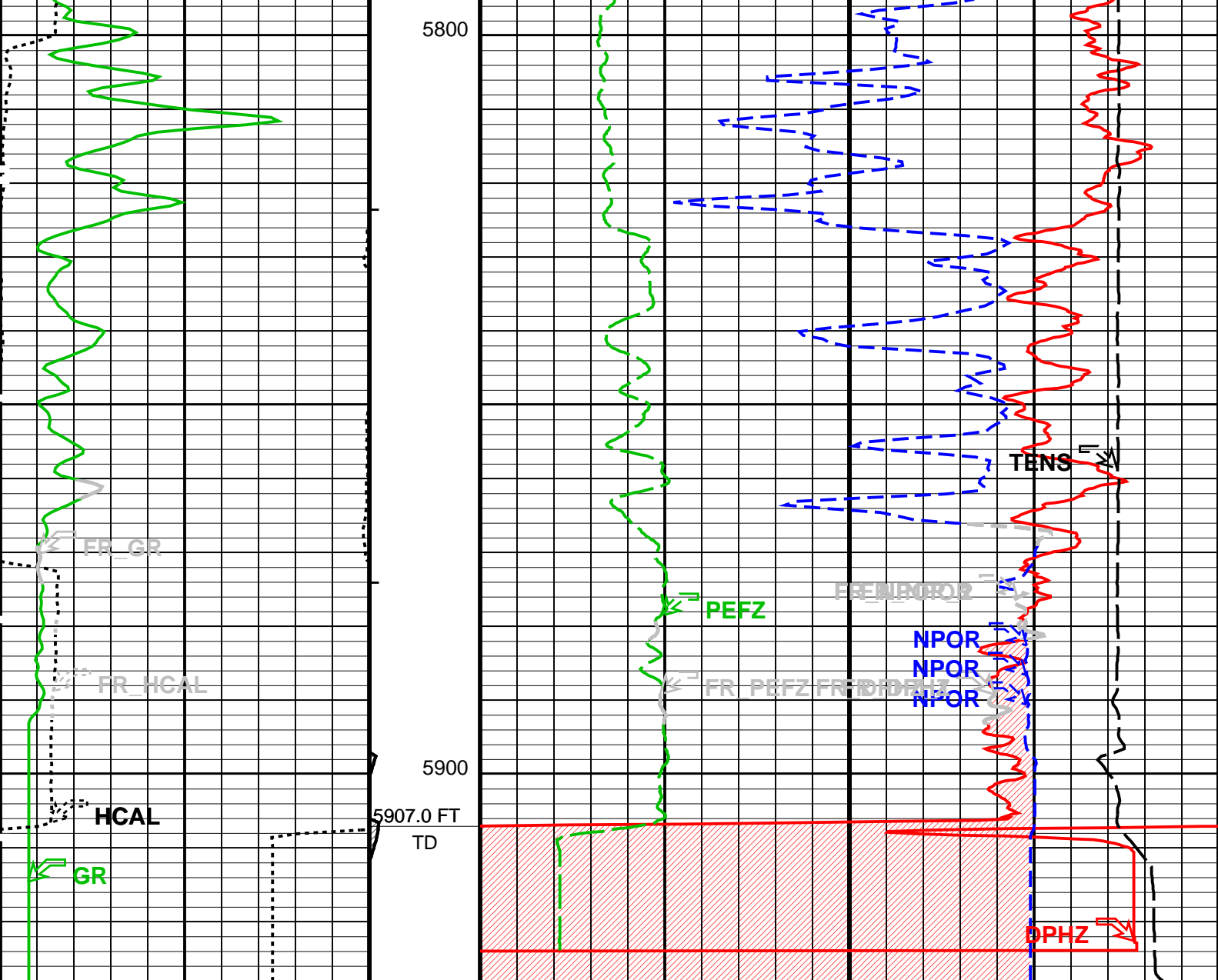












MAIN PASS: *** PLATFORM EXPRESS – NUCLEAR POROSITY ***

Gamma Ray Backup	Cable Drag	Std. Res. Density Porosity (DPHZ)	
		0.3	-0.1
Gamma Ray (GR) (GAPI)	Tool/Tot. Drag	Alpha Processed Neutron Porosity (NPOR)	
0 200		0.3	-0.1
Caliper (HCAL) (IN)	Stuck Stretch (STIT)	Std. Res. Formation Pe (PEFZ)	Tension (TENS)
6 16	0 (F) 50	0 10 10000	(LBF)
		Gas Effect	
		NPOR Backup	

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name Description Value

DLIS Name		Description	Value	
AIT-M: Array Induction Tool – M				
BHS		Borehole Status	OPEN	
GCSE		Generalized Caliper Selection	HCAL	
GDEV		Average Angular Deviation of Borehole from Normal	0	DEG
GGRD		Geothermal Gradient	0.01	DF/F
MATR		Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT		Surface Hole Temperature	68	DEGF
HILTH-FTB: High resolution Integrated Logging Tool-DTS				
BHFL		Borehole Fluid Type	WATER	
BHFL_TLD		HILT Nuclear Mud Base	WATER	
BHS		Borehole Status	OPEN	
BSCO		Borehole Salinity Correction Option	NO	
CCCO		Casing & Cement Thickness Correction Option	NO	
DHC		Density Hole Correction	BS	
FD		Fluid Density	1	G/C3
FSAL		Formation Salinity	-50000	PPM
FSCO		Formation Salinity Correction Option	NO	
GCLF		Germany Coal-like Formation Option	NO	
GCSE		Generalized Caliper Selection	HCAL	
GDEV		Average Angular Deviation of Borehole from Normal	0	DEG
GGRD		Geothermal Gradient	0.01	DF/F
HSCO		Hole Size Correction Option	YES	
MATR		Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO		Mud Cake Correction Option	NO	
MCOR		Mud Correction	NATU	
MDEN		Matrix Density	2.71	G/C3
MWCO		Mud Weight Correction Option	NO	
NAAC		HRDD APS Activation Correction	OFF	
NMT		HILT Nuclear Mud Type	NOBARITE	
NPRM		HRDD Processing Mode	HiRes	
NSAR		HRDD Depth Sampling Rate	1	IN
PTCO		Pressure/Temperature Correction Option	NO	
SDAT		Standoff Data Source	SOCN	
SHT		Surface Hole Temperature	68	DEGF
SOCN		Standoff Distance	0.125	IN
SOCO		Standoff Correction Option	YES	
HOLEV: Integrated Hole/Cement Volume				
BHS		Borehole Status	OPEN	
FCD		Future Casing (Outer) Diameter	5.5	IN
GCSE		Generalized Caliper Selection	HCAL	
GDEV		Average Angular Deviation of Borehole from Normal	0	DEG
GGRD		Geothermal Gradient	0.01	DF/F
HVCS		Integrated Hole Volume Caliper Selection	AUTOMATIC	
MATR		Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT		Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation – Real Time				
BHS		Borehole Status	OPEN	
GCSE		Generalized Caliper Selection	HCAL	
GDEV		Average Angular Deviation of Borehole from Normal	0	DEG
GGRD		Geothermal Gradient	0.01	DF/F
MATR		Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT		Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator				
LBFR		Trigger for MAXIS First Reading Label	TDL	
STKT		STI Stuck Threshold	2.5	FT
TDD		Total Depth – Driller	5910.00	FT
TDL		Total Depth – Logger	5907.00	FT
System and Miscellaneous				
BS		Bit Size	7.875	IN
BSAL		Borehole Salinity	-50000.00	PPM
CSIZ		Current Casing Size	8.625	IN
CWEI		Casing Weight	24.00	LB/F
DFD		Drilling Fluid Density	8.90	LB/G
DORL		Depth Offset for Repeat Analysis	0.0	FT
MST		Mud Sample Temperature	125.00	DEGF
RMFS		Resistivity of Mud Filtrate Sample	0.5760	OHMM
TD		Total Depth	5907	FT

Format: PORO Vertical Scale: 5" per 100' Graphics File Created: 20-Mar-2012 06:47

OP System Version: 19C0-187

AIT-M	19C0-187	HILTH-FTB	19C0-187
DTC-H	19C0-187		

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_016LUP	FN:15	PRODUCER	20-Mar-2012 06:47
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Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 20-Mar-2012 06:47

OP System Version: 19C0-187

AIT-M 19C0-187 HILTH-FTB 19C0-187
DTC-H 19C0-187

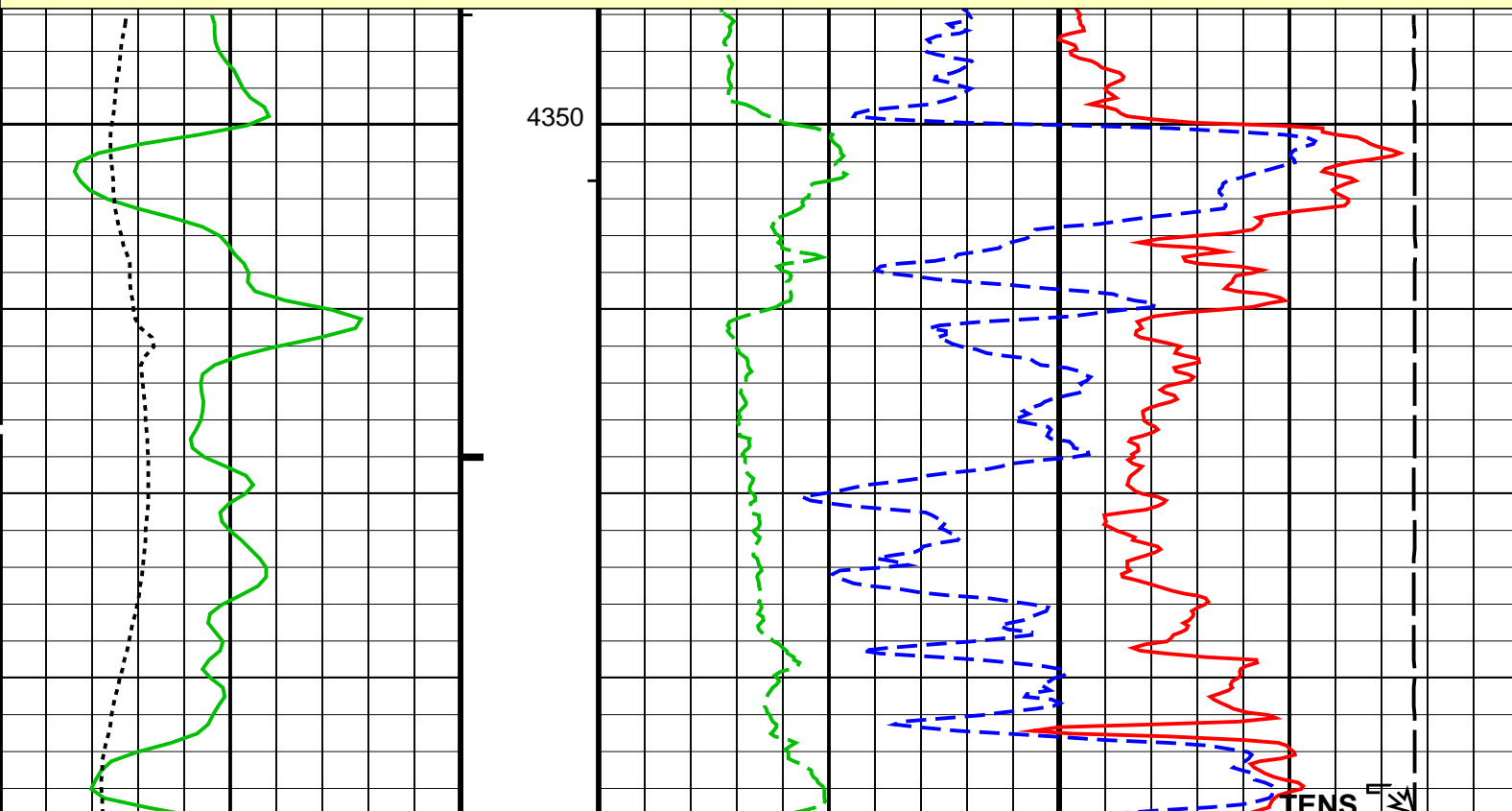
PIP SUMMARY

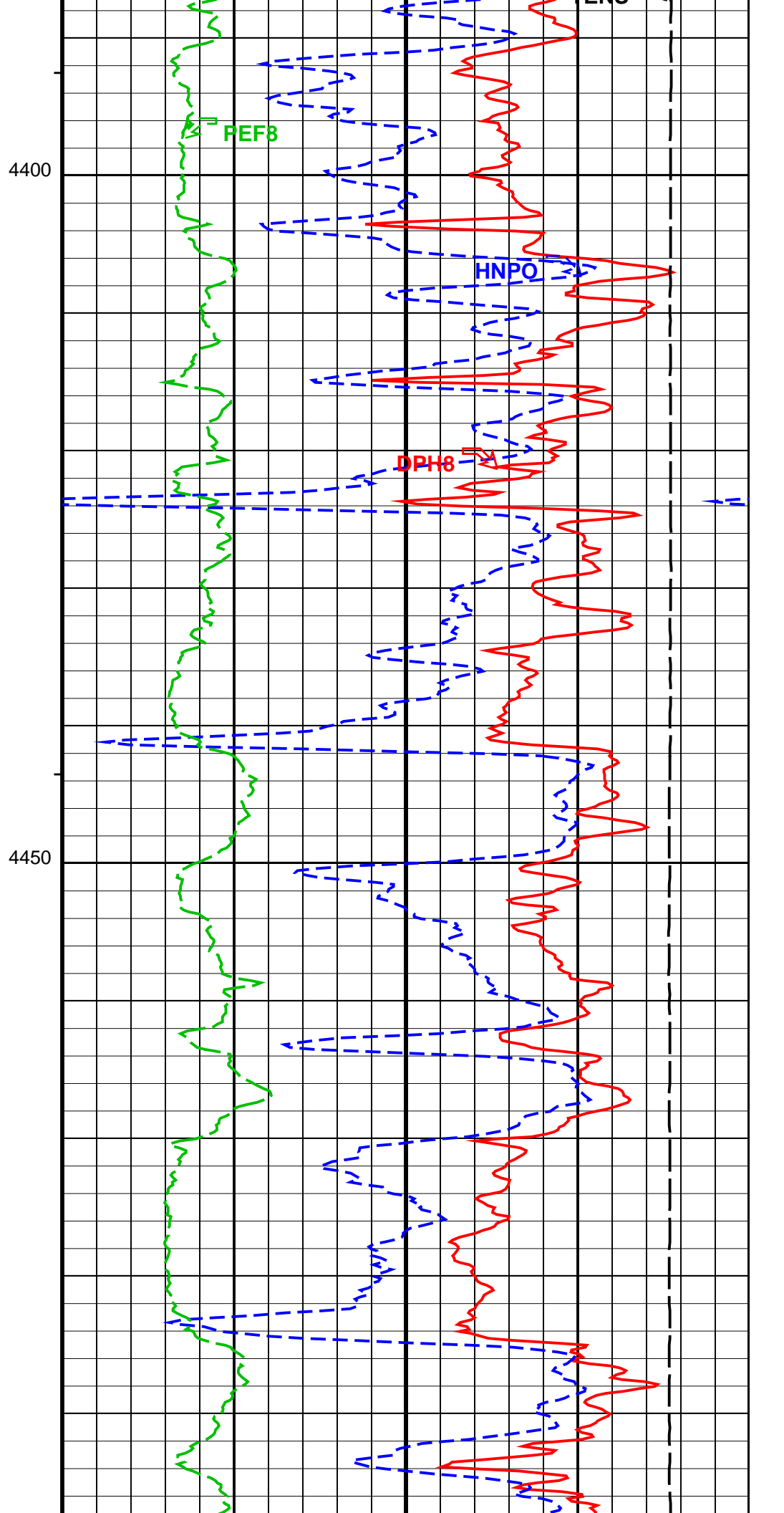
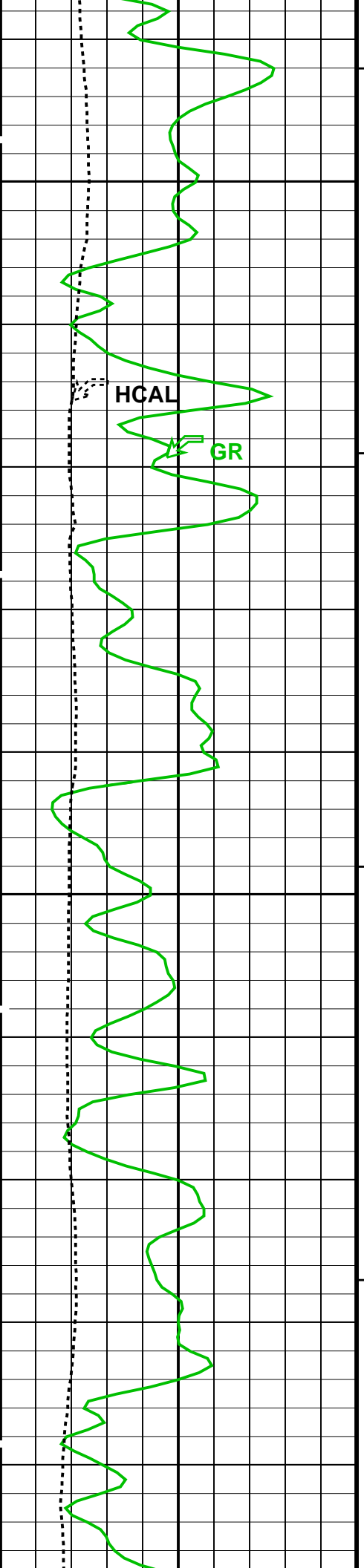
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 - └ Integrated Cement Volume Minor Pip Every 10 F3
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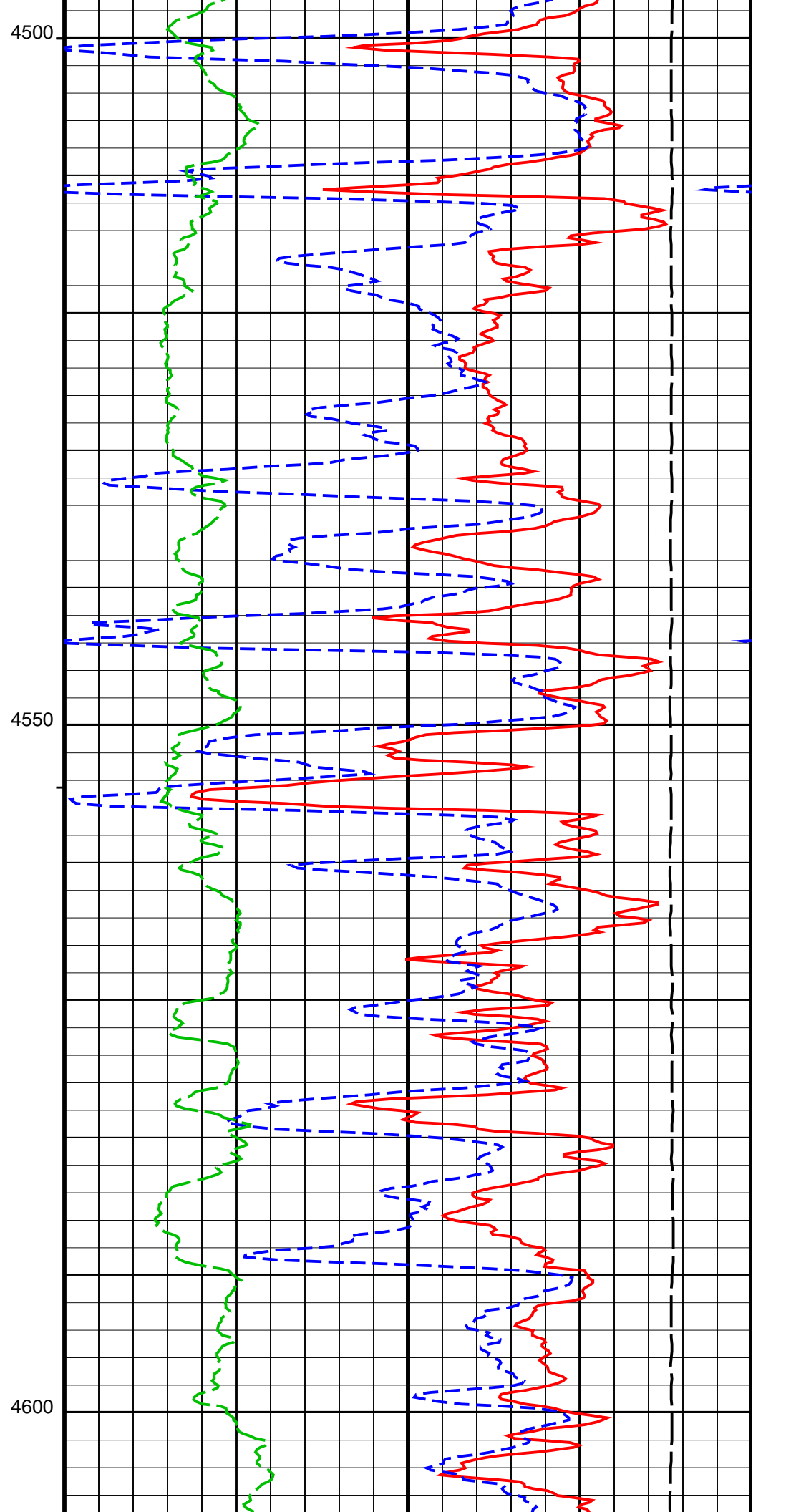
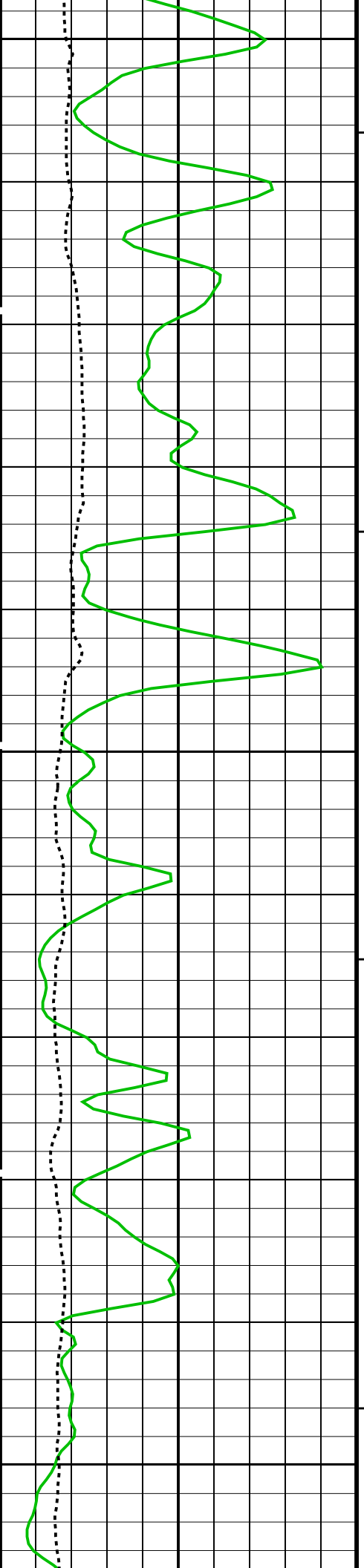
Time Mark Every 60 S

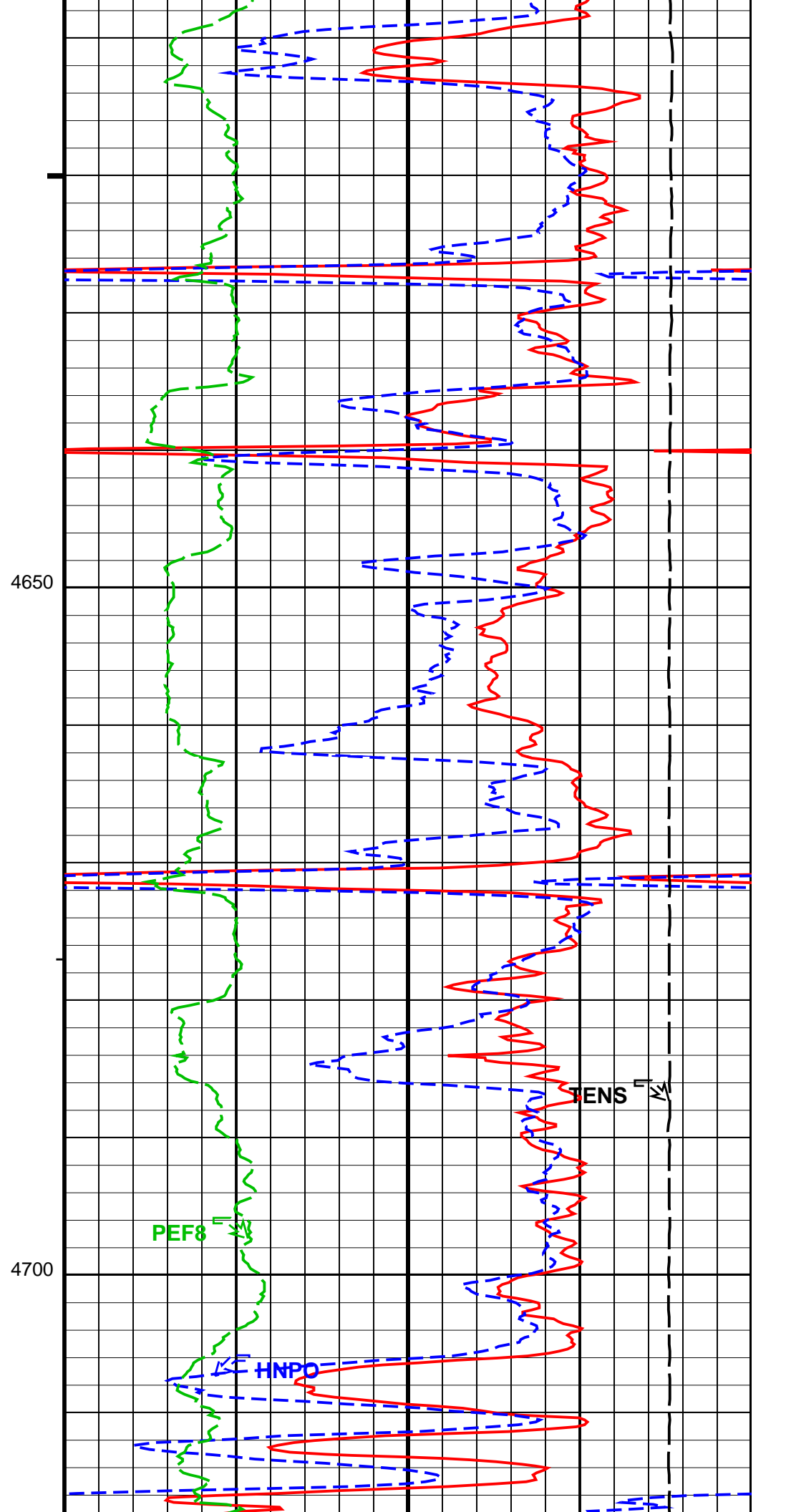
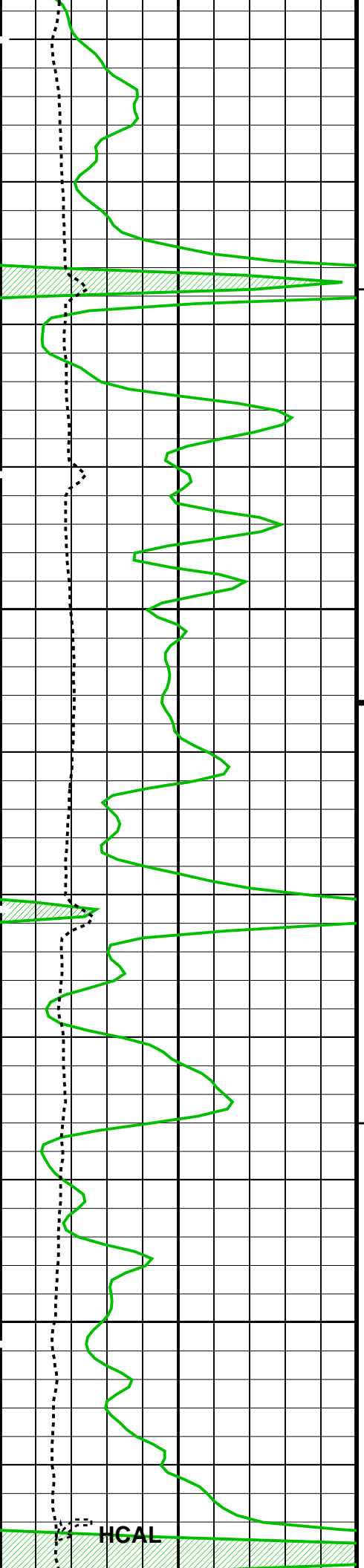
<p>Caliper (HCAL) (IN)</p> <p>6 16</p>	<p>Stuck Stretch (STIT) (F) 50</p>	<p>H. Res. Formation Pe (PEF8) (-----)</p> <p>0 10</p>	<p>Tension (TENS) (LBF)</p> <p>10000 0</p>
<p>Gamma Ray (GR) (GAPI)</p> <p>0 200</p>	<p>Tool/Tot. Drag</p>	<p>HiRes NPOR (HNPO) (VV)</p> <p>0.3 -0.1</p>	
<p>Gamma Ray Backup</p>	<p>Cable Drag</p>	<p>H. Res. Density Porosity (DPH8) (VV)</p> <p>0.3 -0.1</p>	

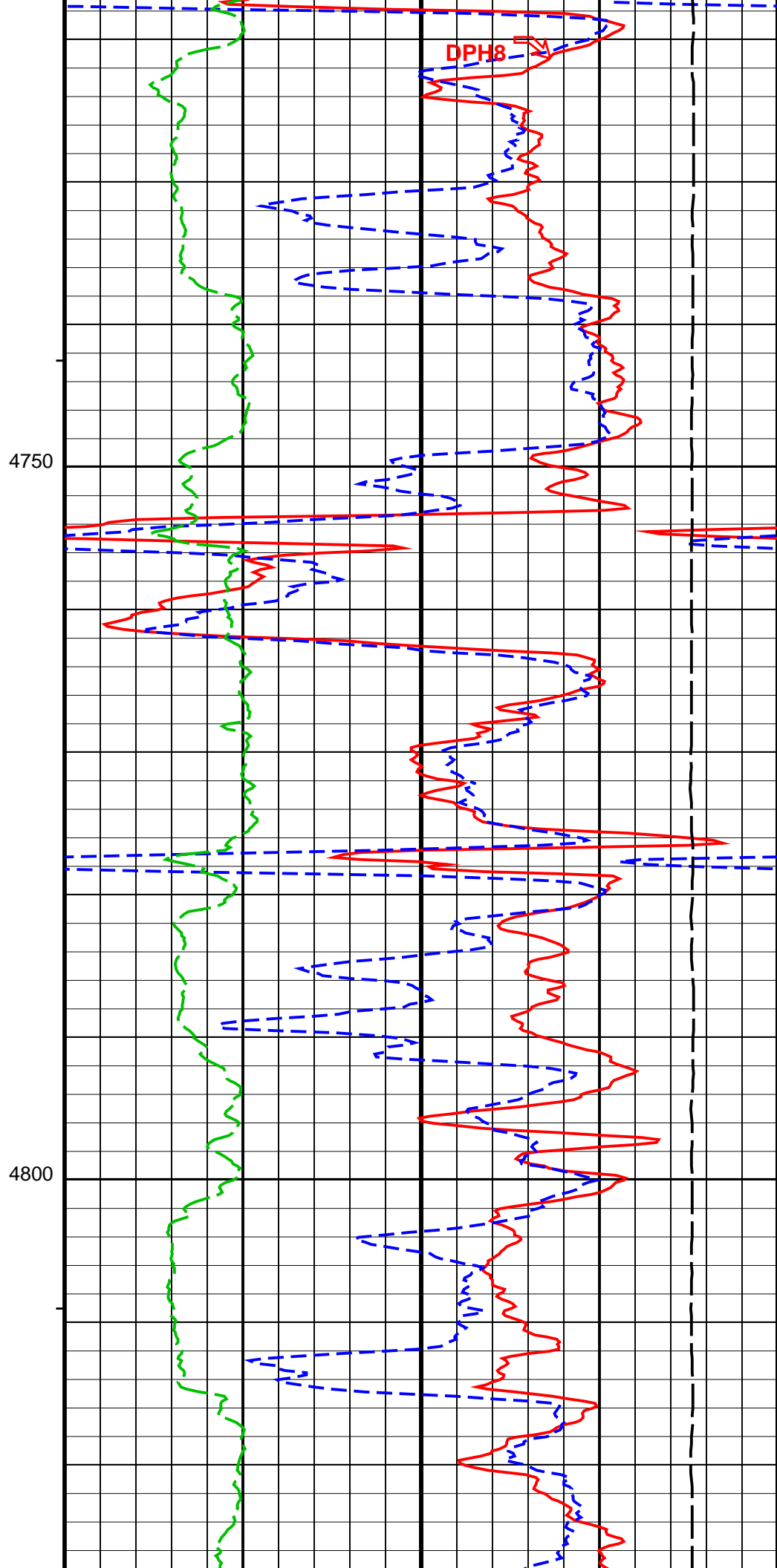
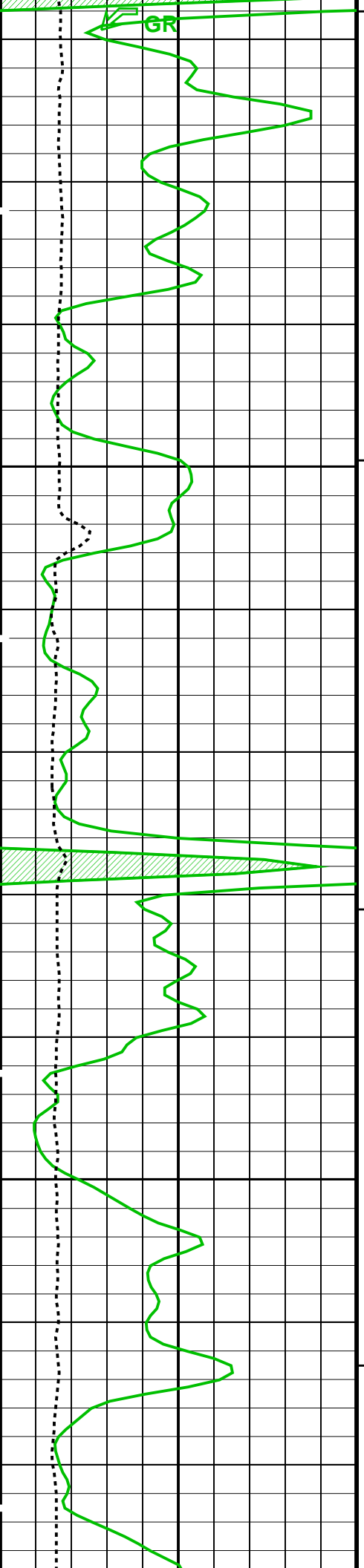
MAIN PASS: *** PLATFORM EXPRESS - NUCLEAR POROSITY ***

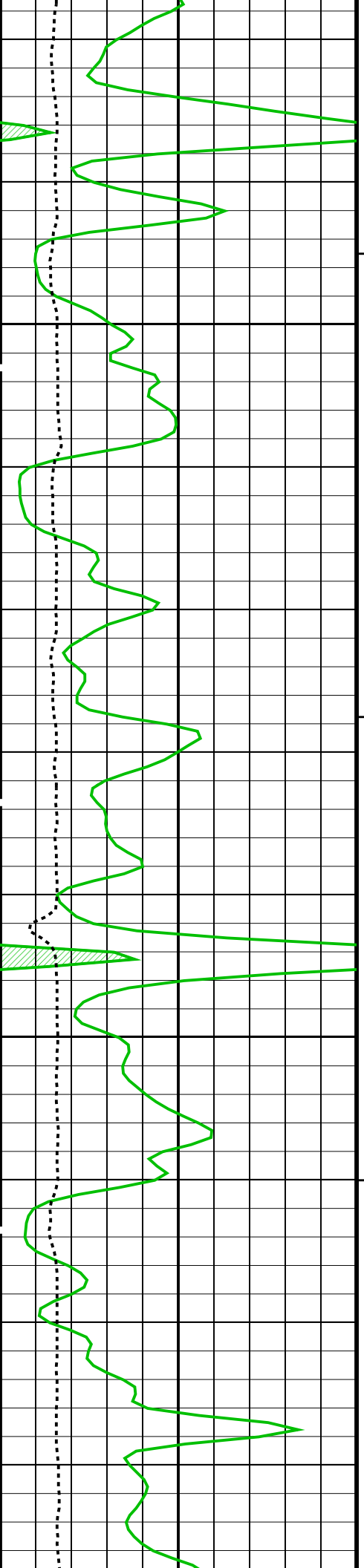






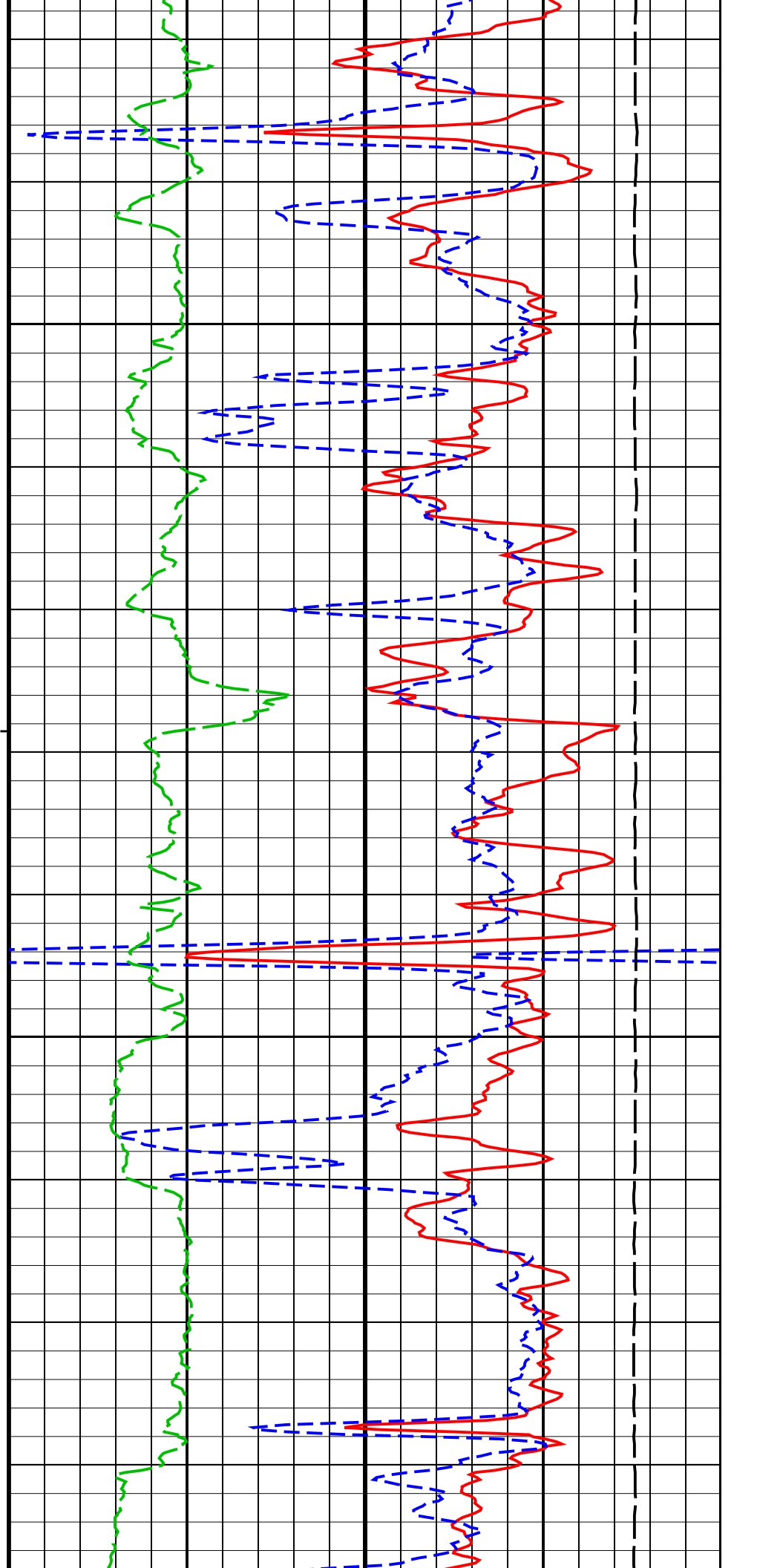


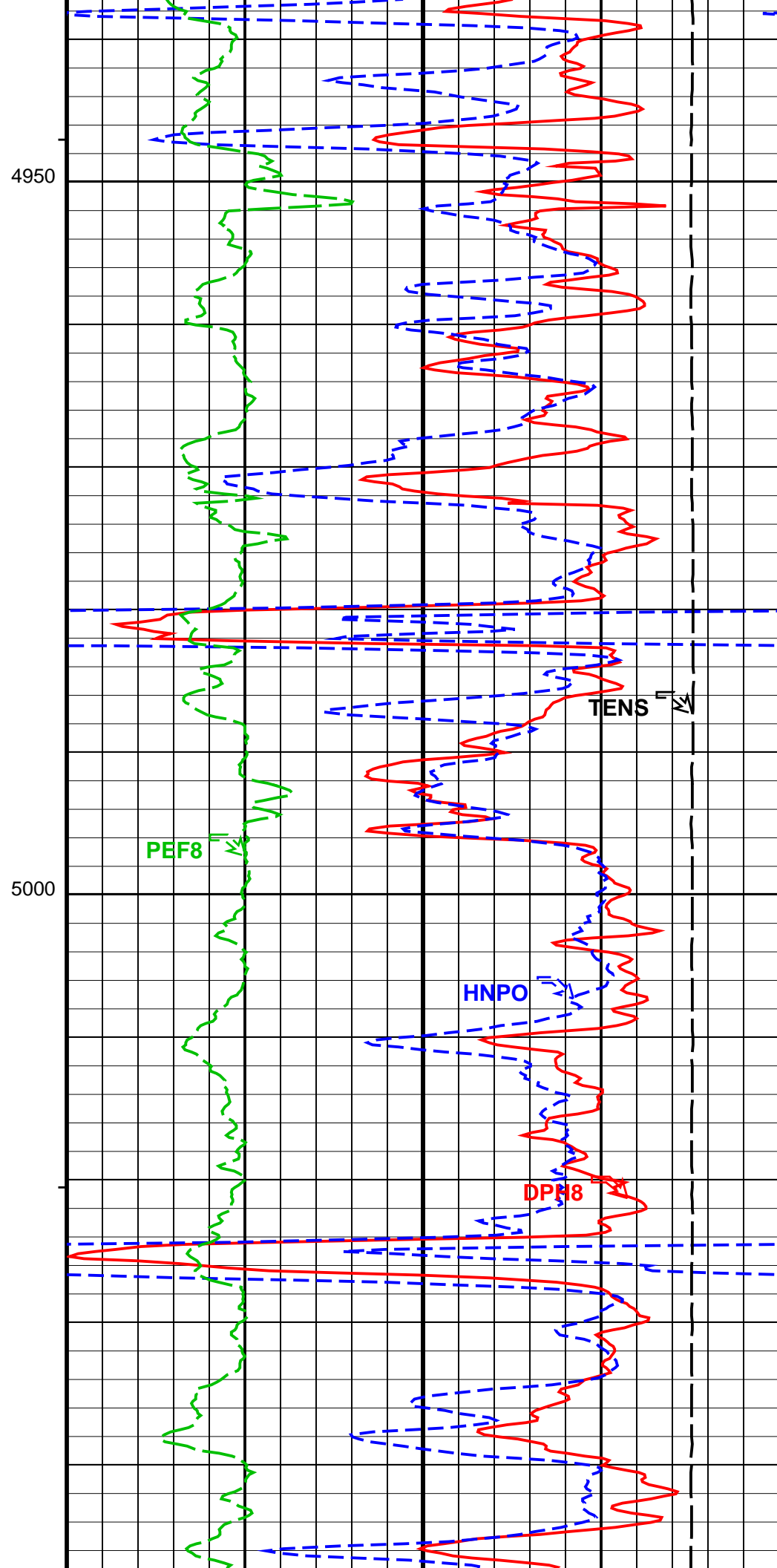
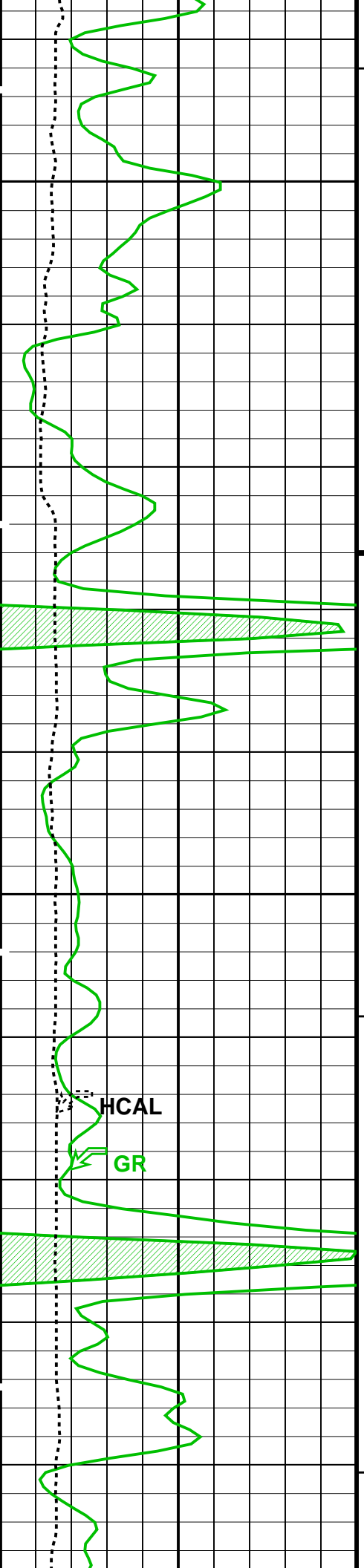


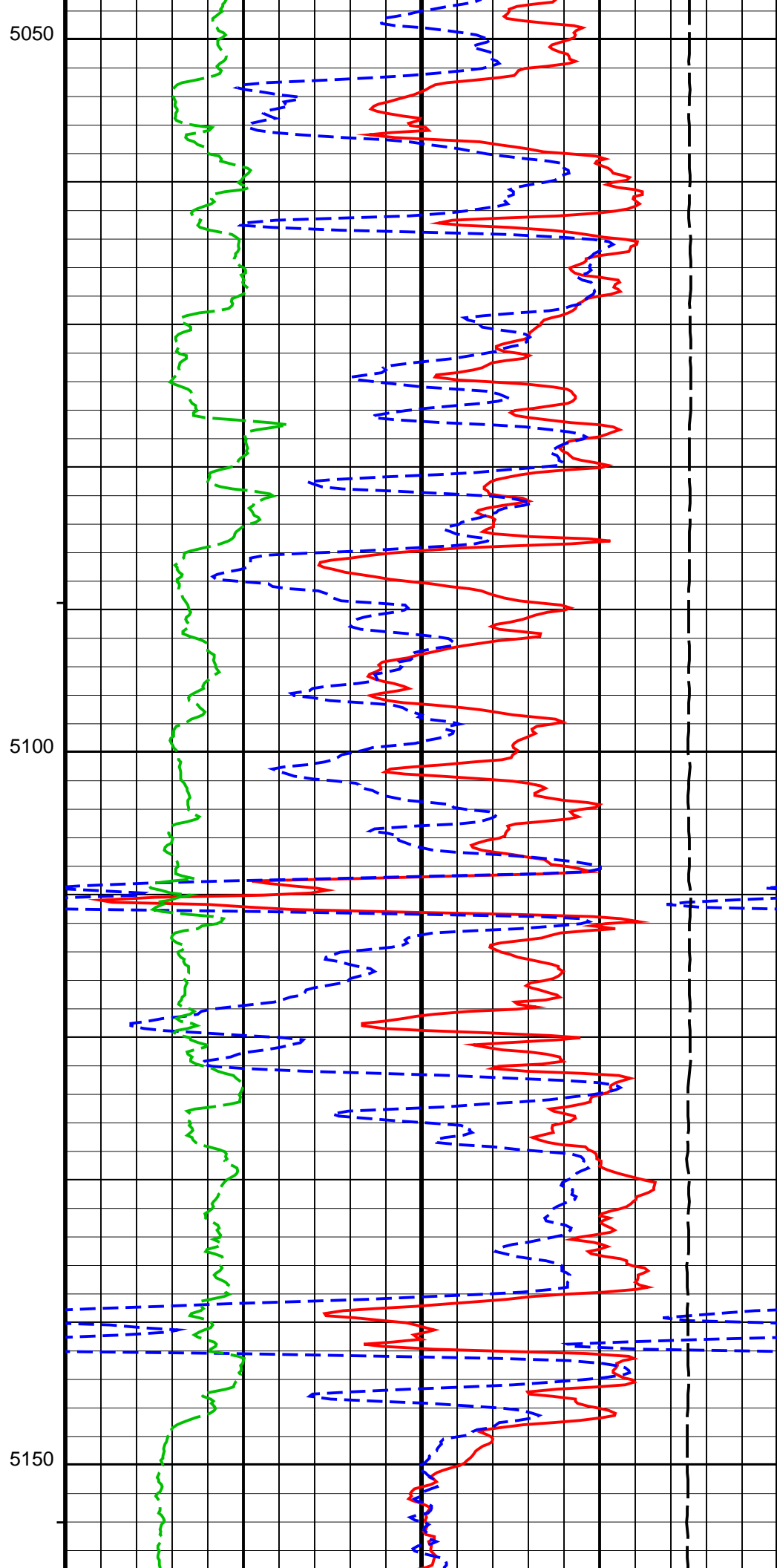
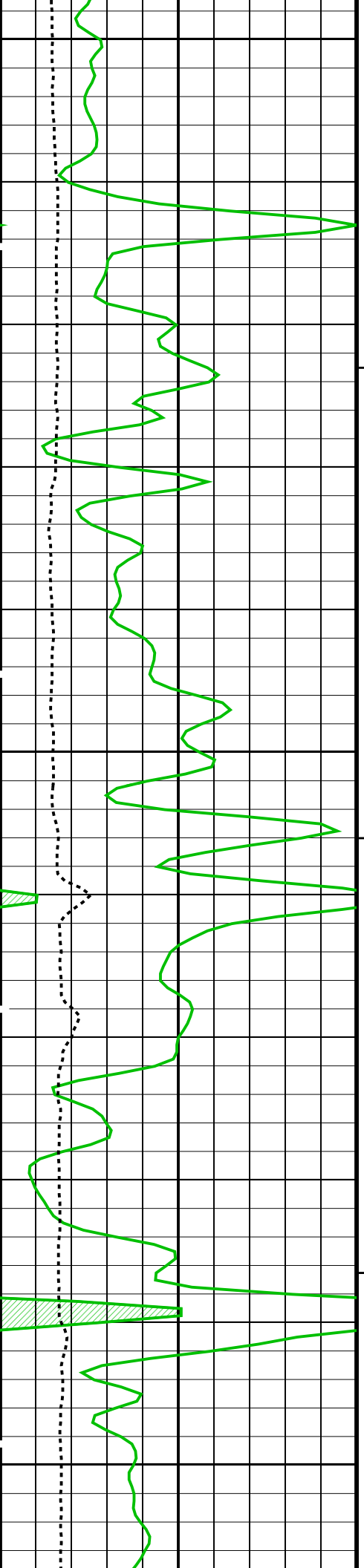


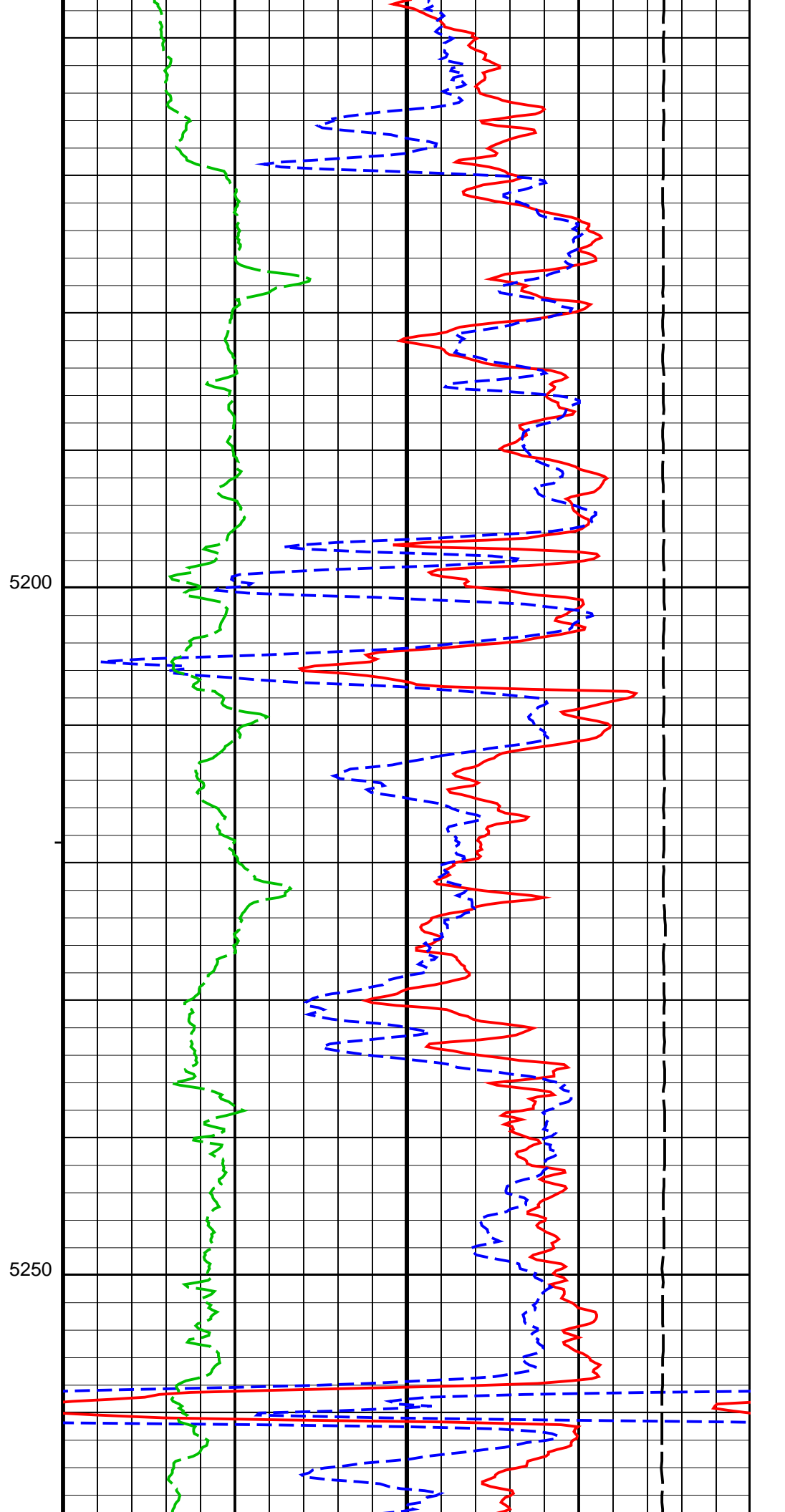
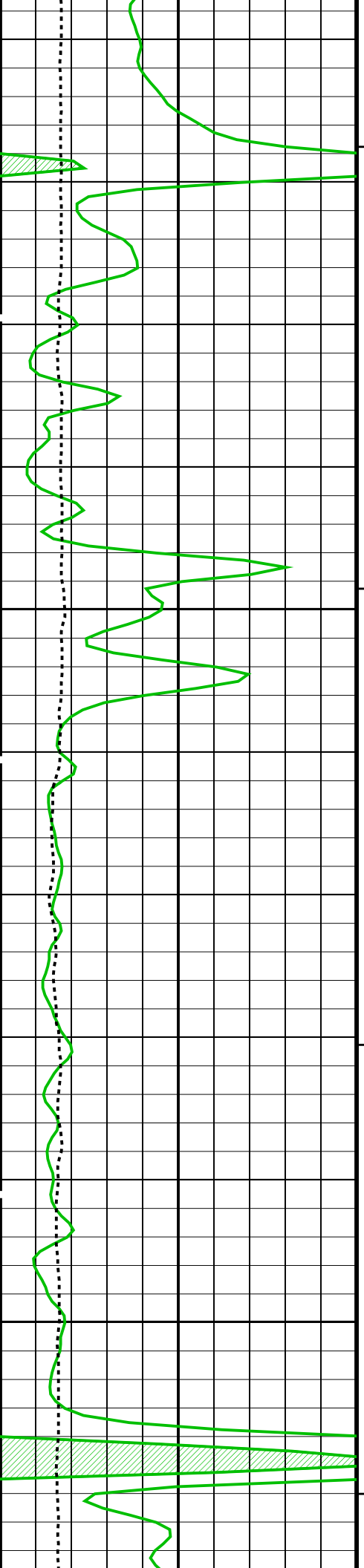
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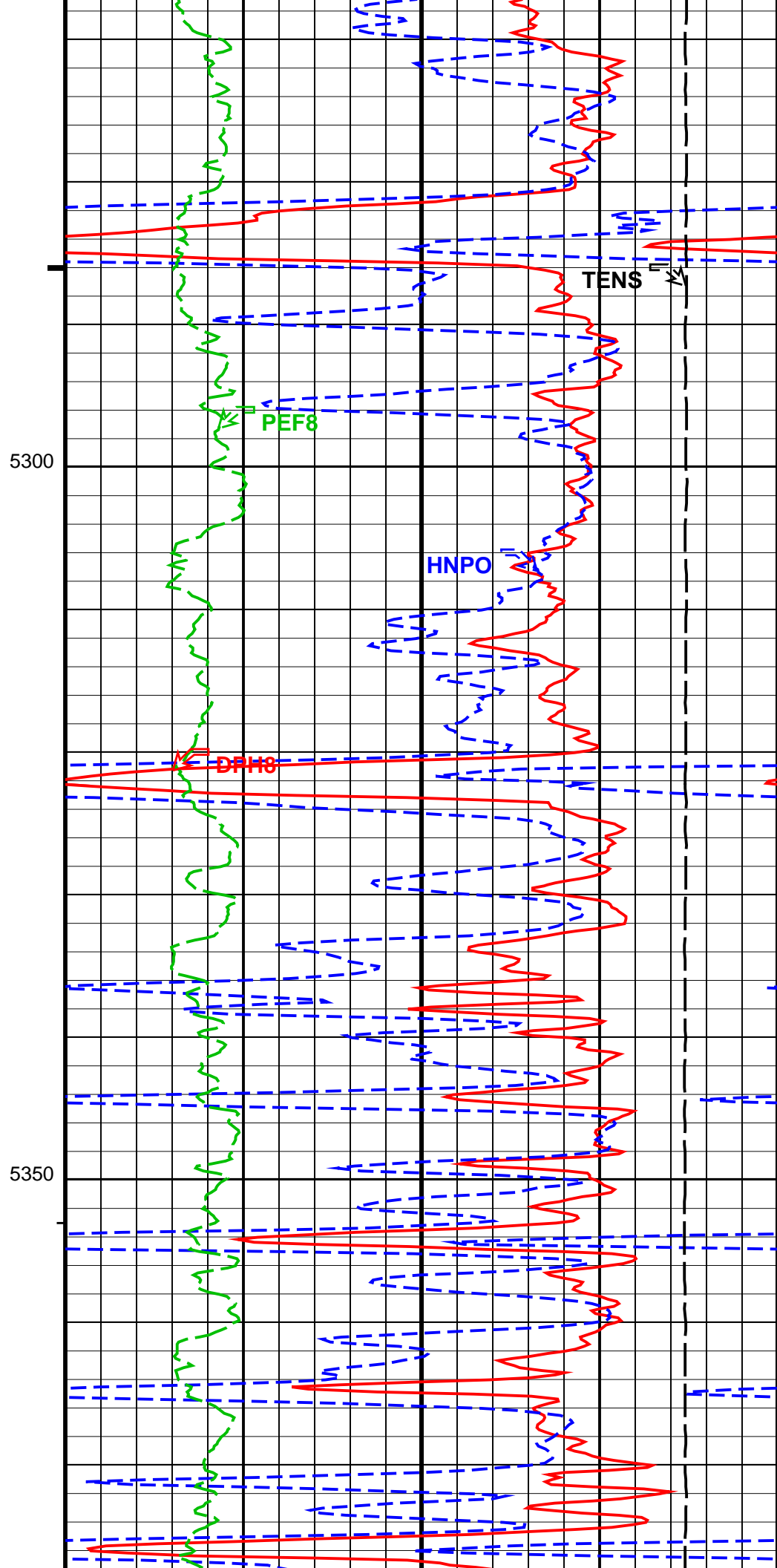
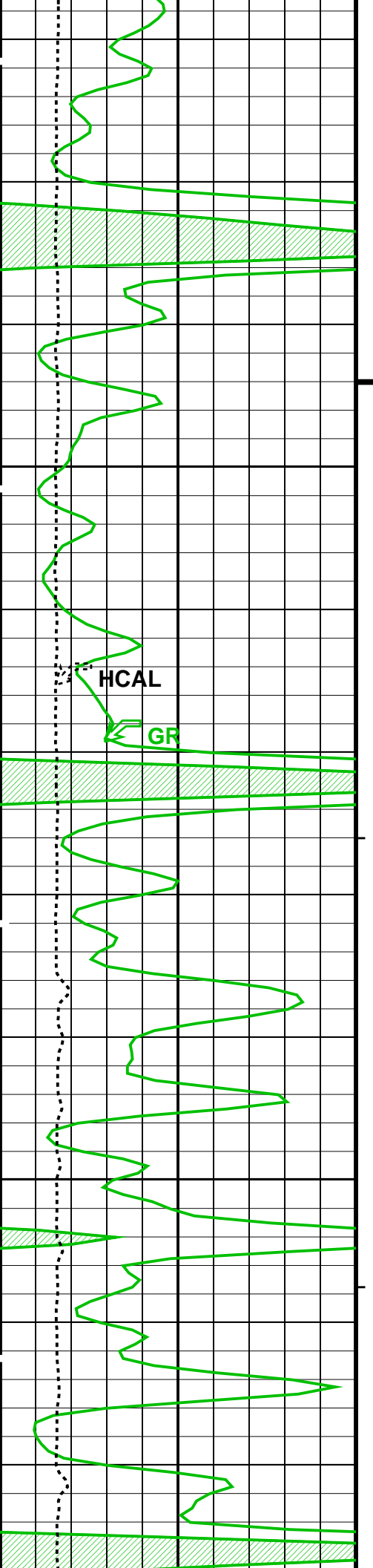
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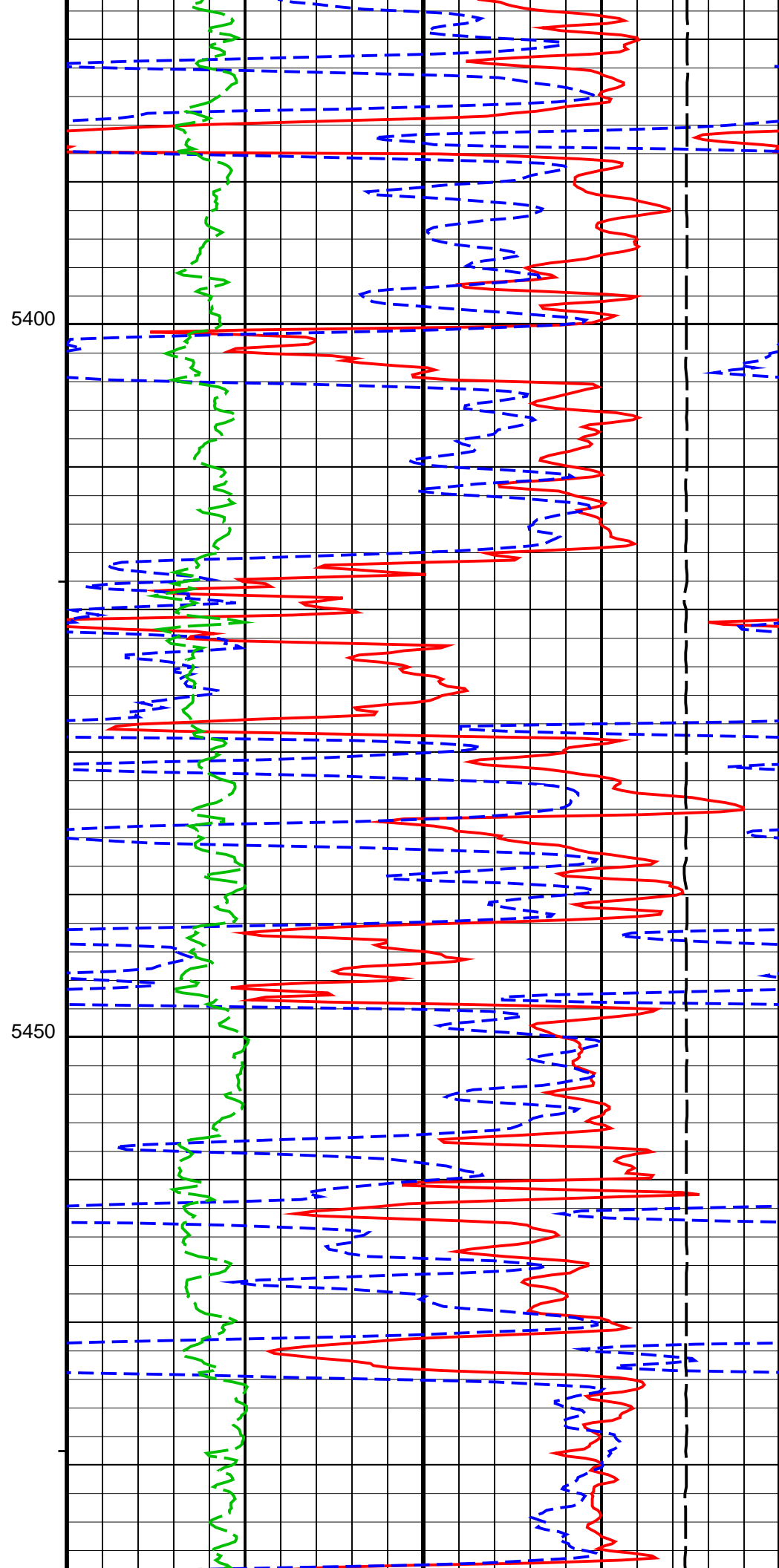
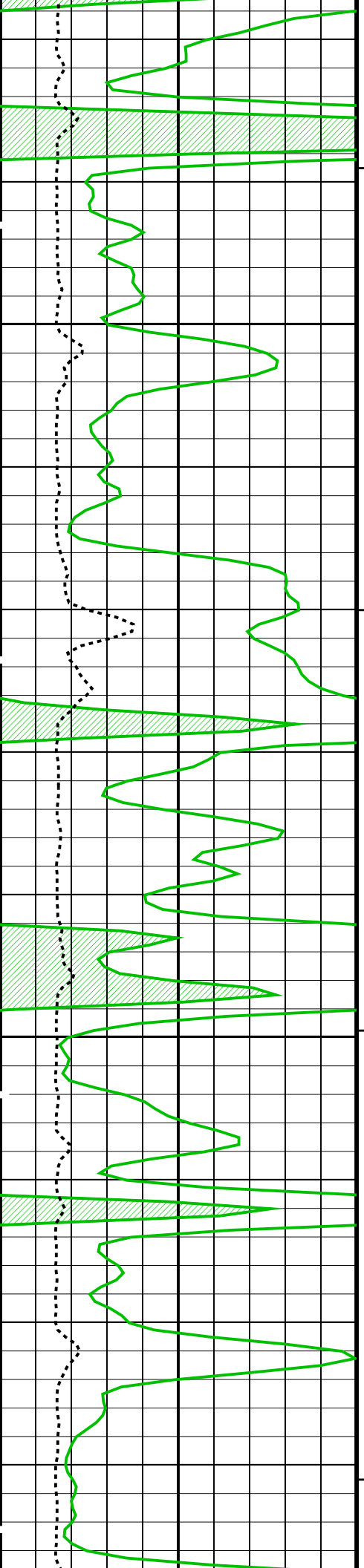


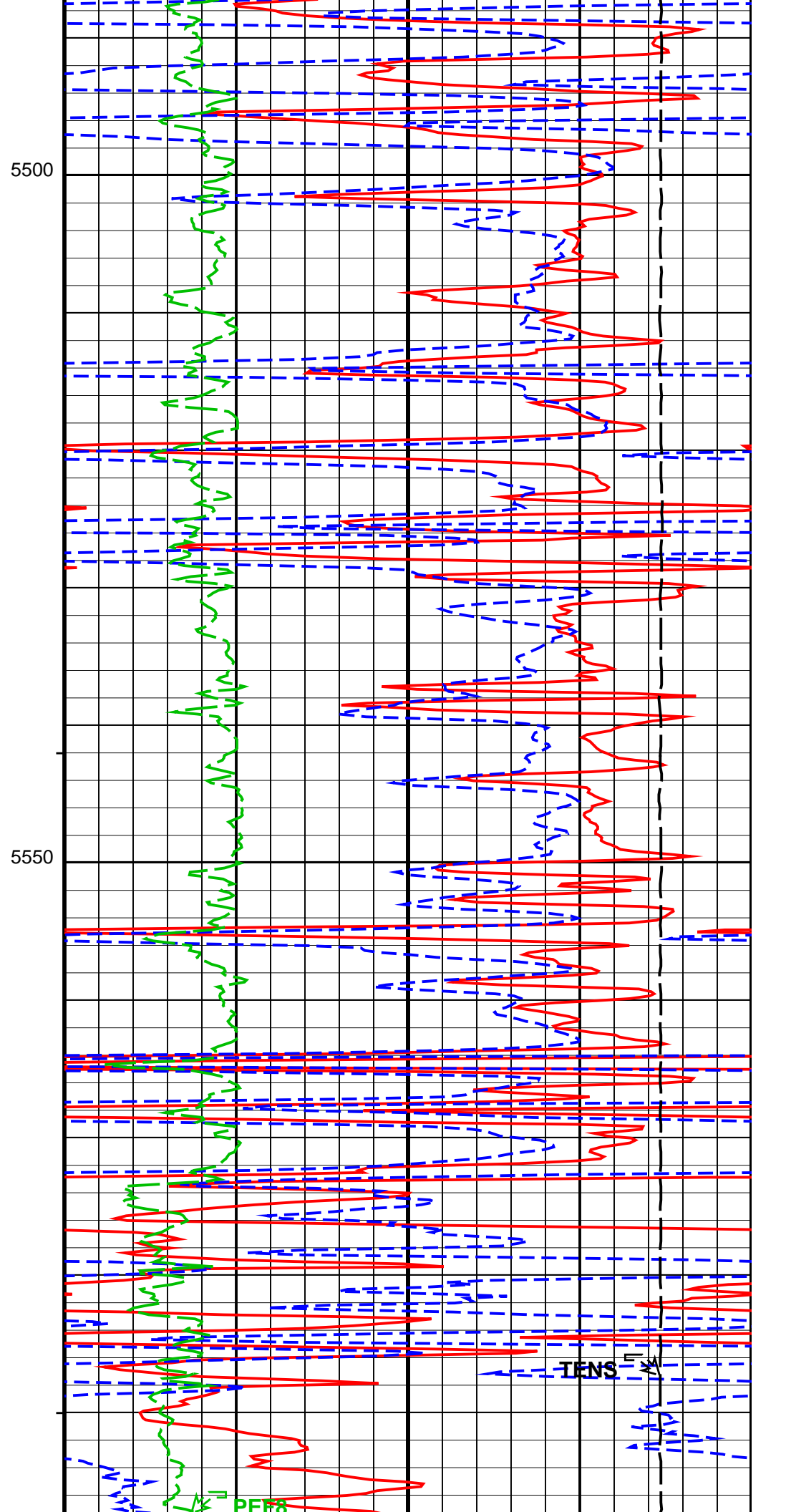
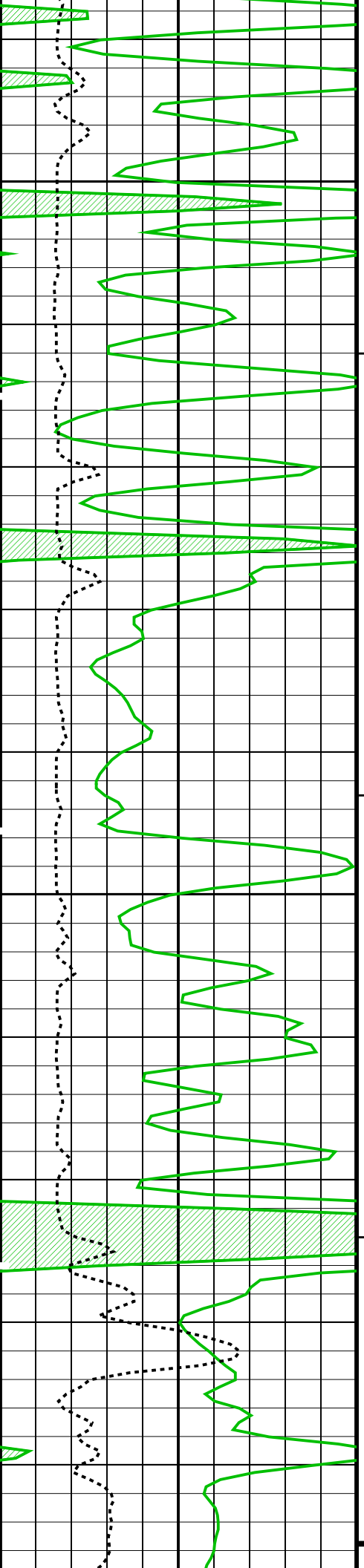


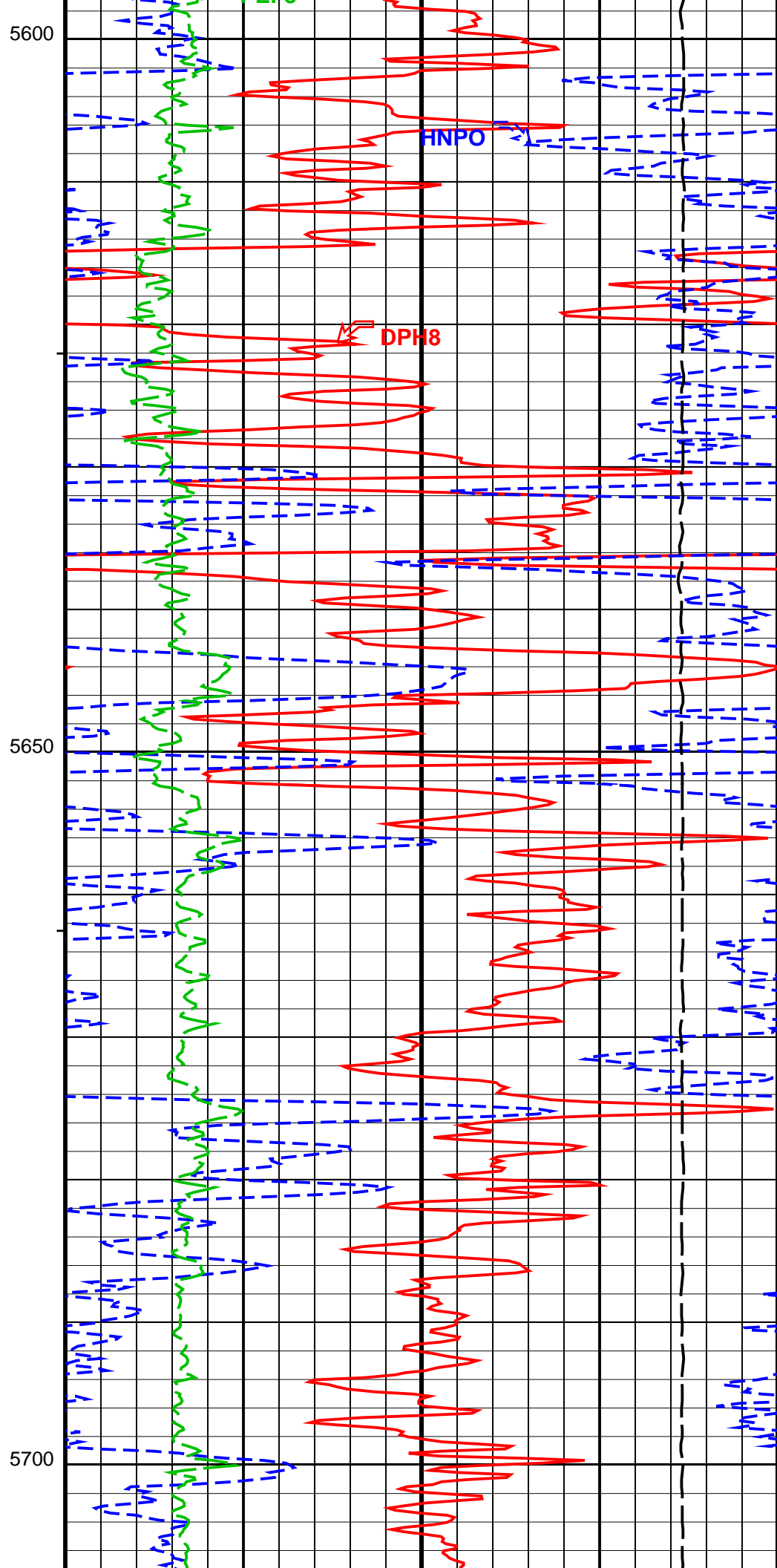
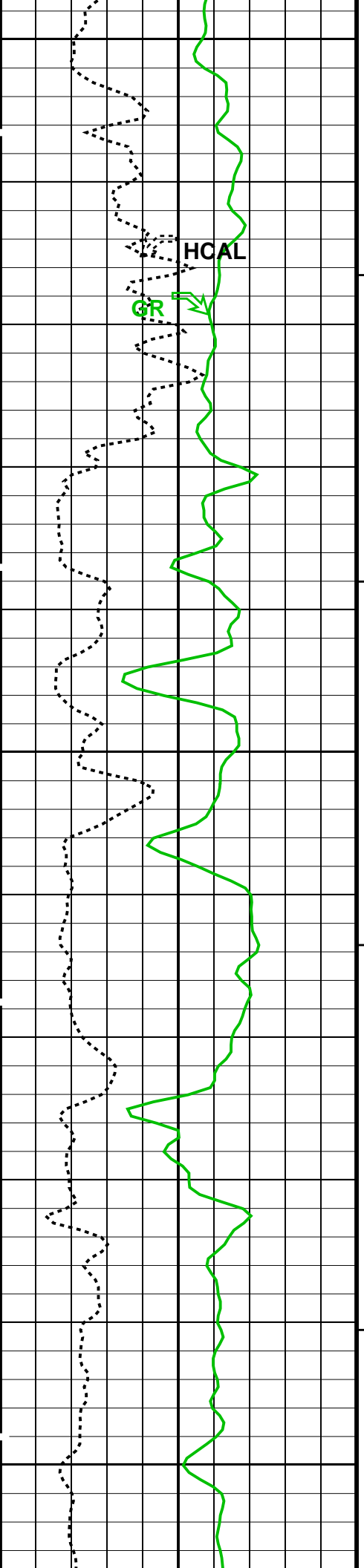


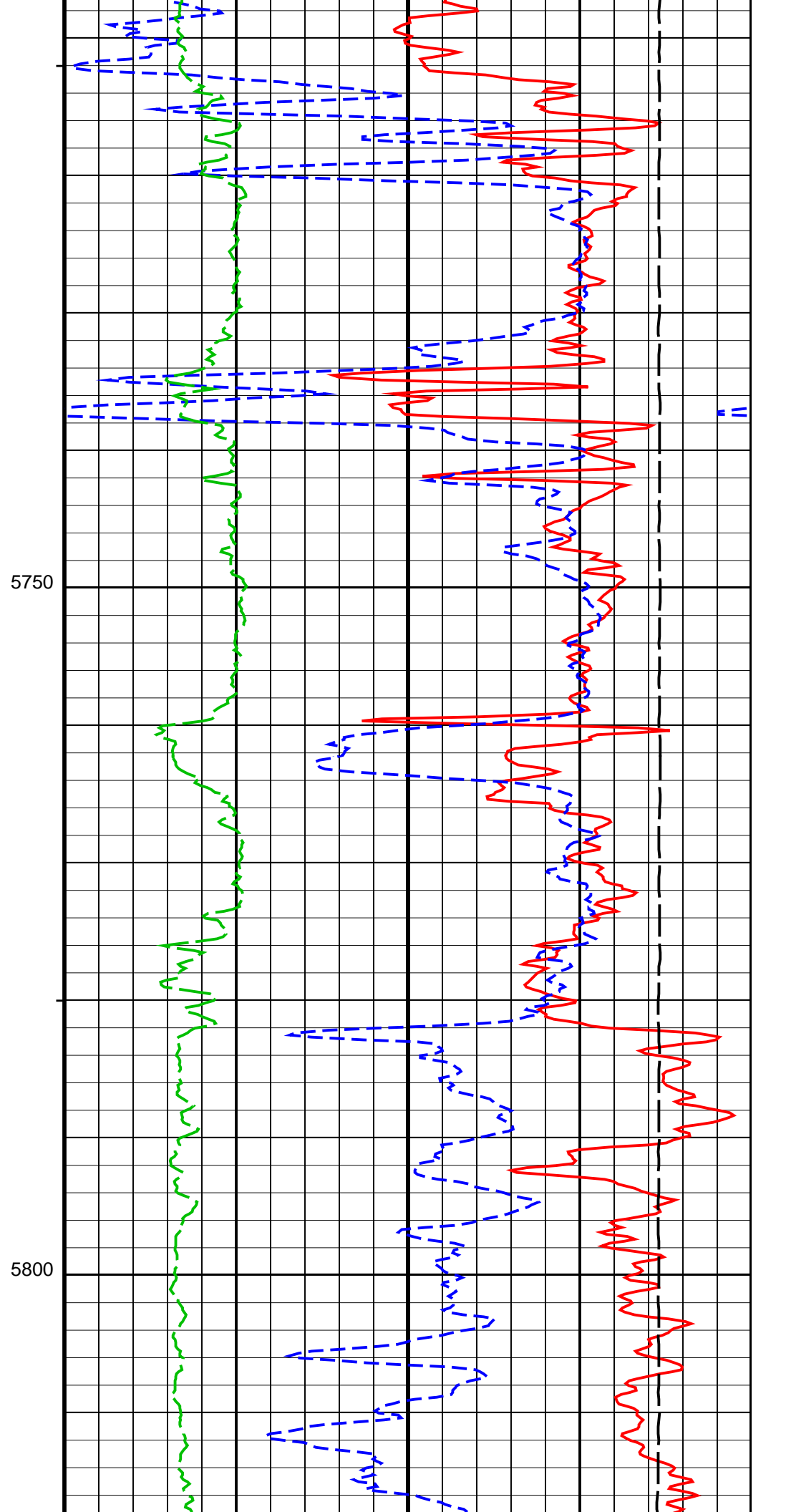
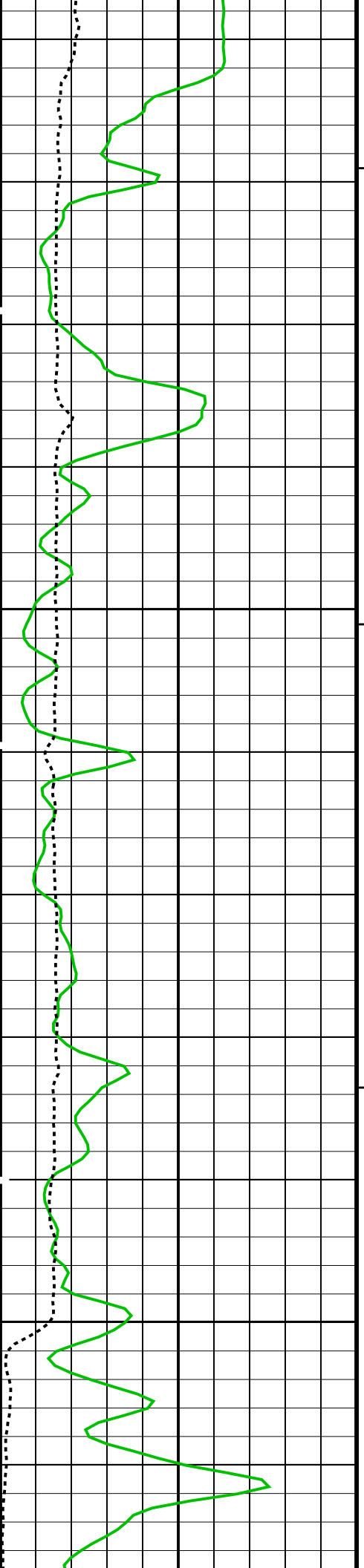


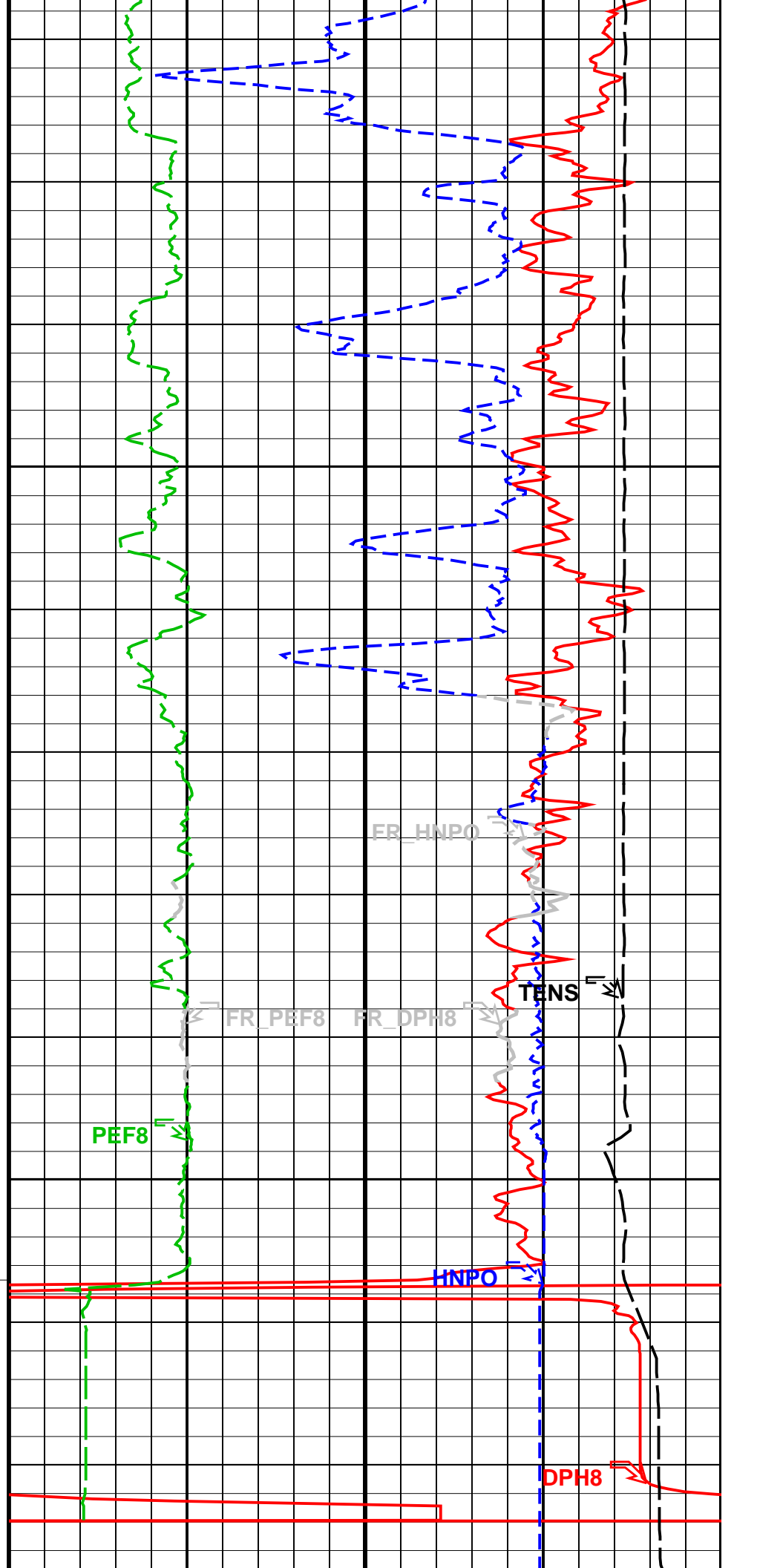
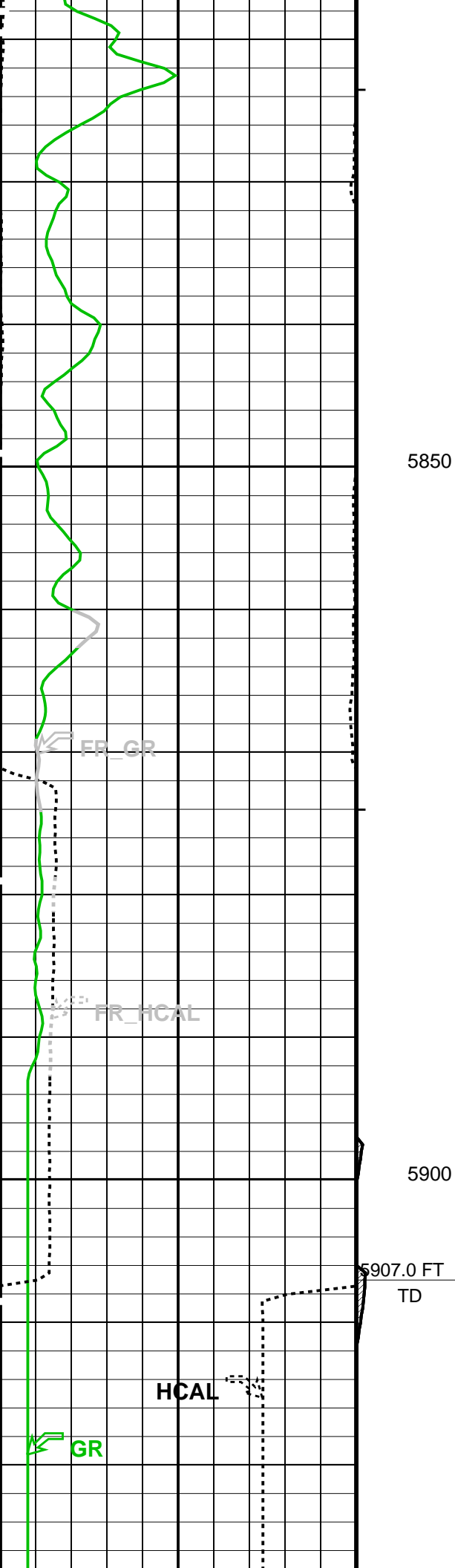












Gamma Ray Backup		Cable Drag	H. Res. Density Porosity (DPH8)	
			0.3	(V/V) -0.1
Gamma Ray (GR)		Tool/Tot. Drag	HiRes NPOR (HNPO)	
0	(GAPI) 200		0.3	(V/V) -0.1
Caliper (HCAL)		Stuck Stretch (STIT)	H. Res. Formation Pe (PEF8)	
6	(IN) 16	0	(F) 50	10000 Tension (TENS) (LBF) 0

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
 - └ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
AIT-M: Array Induction Tool – M			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.71	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Tool Indicator	0.5	FT

STKI	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	5910.00	FT
TDL	Total Depth – Logger	5907.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	8.625	IN
CWEI	Casing Weight	24.00	LB/F
DFD	Drilling Fluid Density	8.90	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	125.00	DEGF
RMFS	Resistivity of Mud Filtrate Sample	0.5760	OHMM
TD	Total Depth	5907	FT

Format: PORO_HI_RES Vertical Scale: 10" per 100' Graphics File Created: 20-Mar-2012 06:47

OP System Version: 19C0-187

AIT-M 19C0-187 HILTH-FTB 19C0-187
DTC-H 19C0-187

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 20-Mar-2012 06:47

Schlumberger

PORO SANDSTONE REPEAT PASS

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_007LUP FN:6 PRODUCER 20-Mar-2012 06:01 5928.0 FT 5410.5 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_008PUP FN:7 PRODUCER 20-Mar-2012 06:22 5931.0 FT 5413.5 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 167.11 F3

Cement Volume = 85.70 F3 (assuming 5.50 IN casing O.D.)

Computed from 5907.0 FT to 5414.0 FT using data channel(s) HCAL

OP System Version: 19C0-187

AIT-M 19C0-187 HILTH-FTB 19C0-187
DTC-H 19C0-187

PIP SUMMARY

- ├ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
 - ├ Integrated Cement Volume Minor Pip Every 10 F3
 - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

NPOR Backup

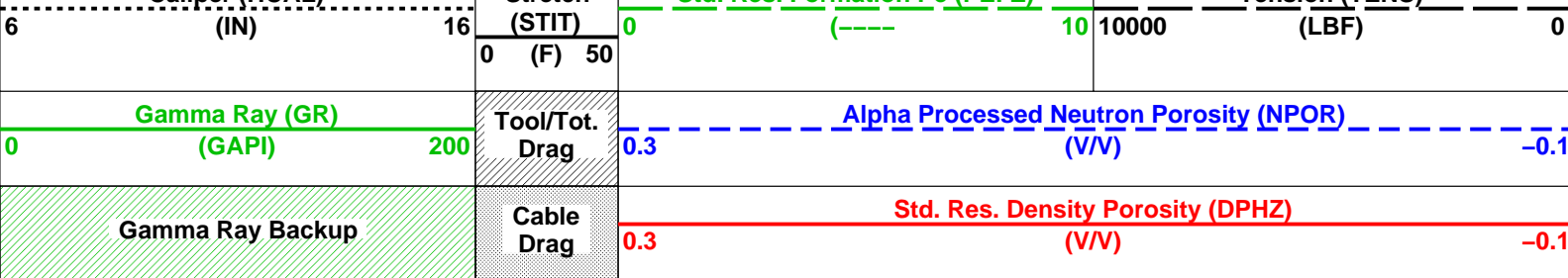
Gas Effect

Caliper (HCAL)

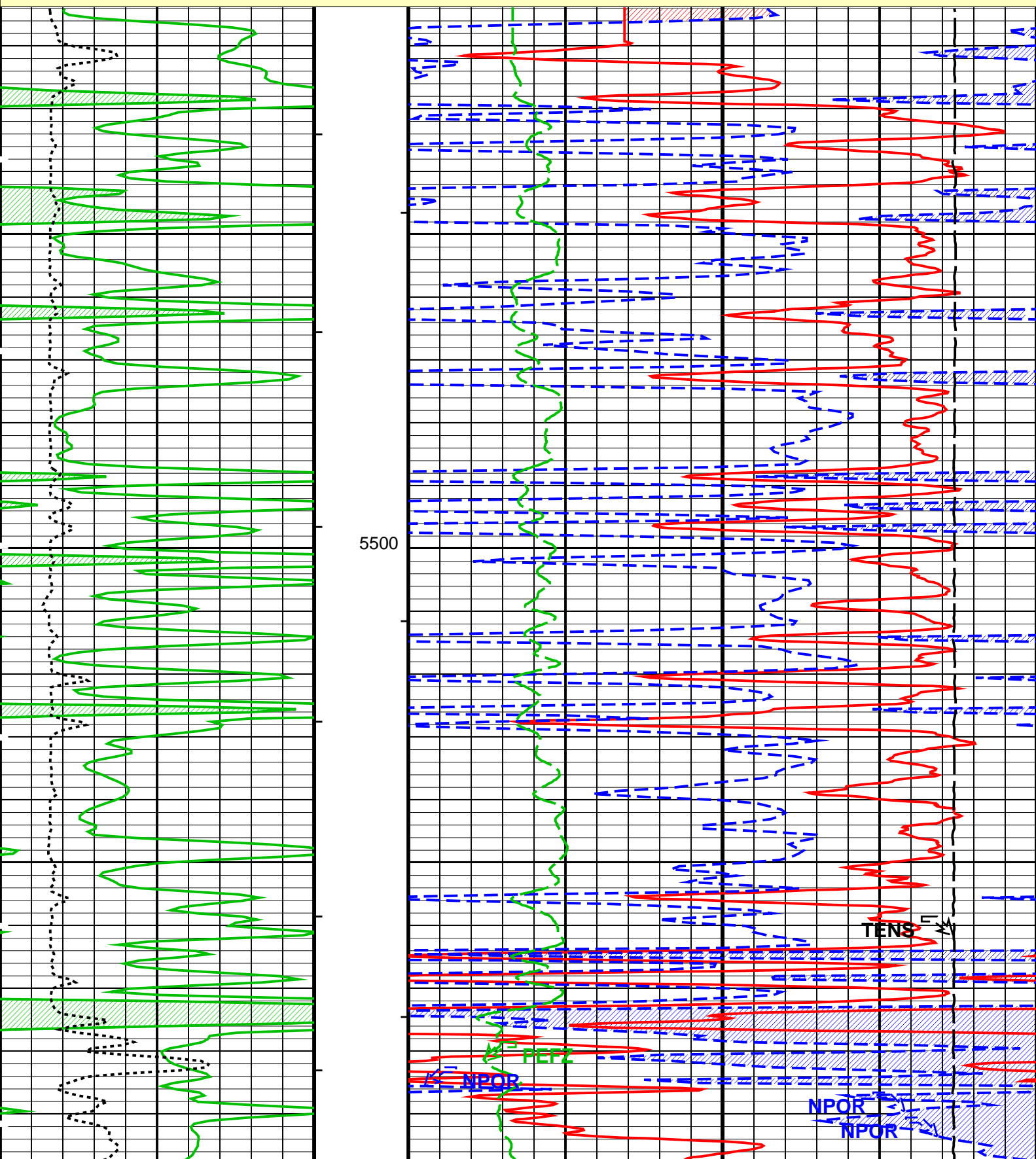
Stuck
Stretch

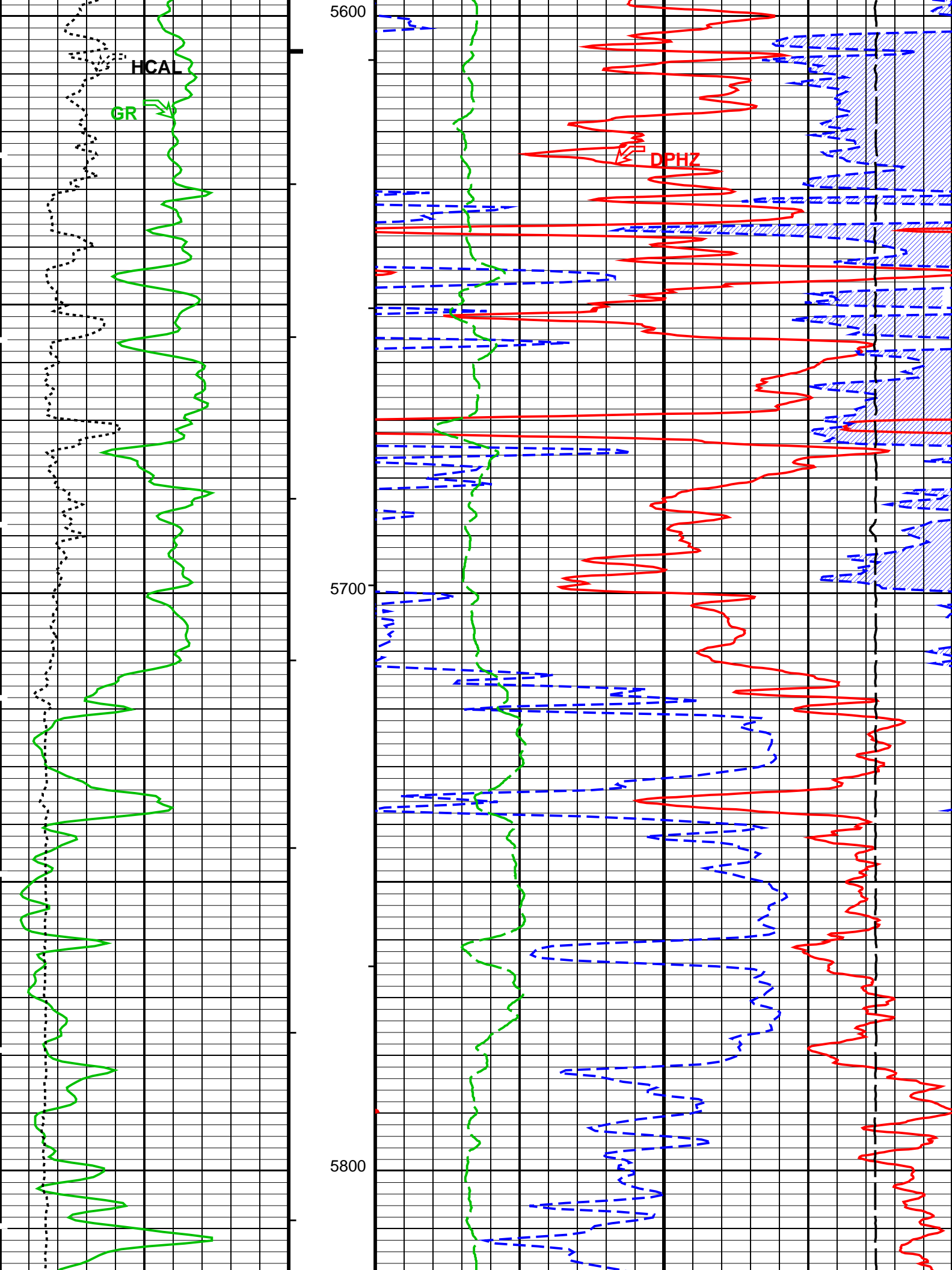
Std. Res. Formation Pe (PEFZ)

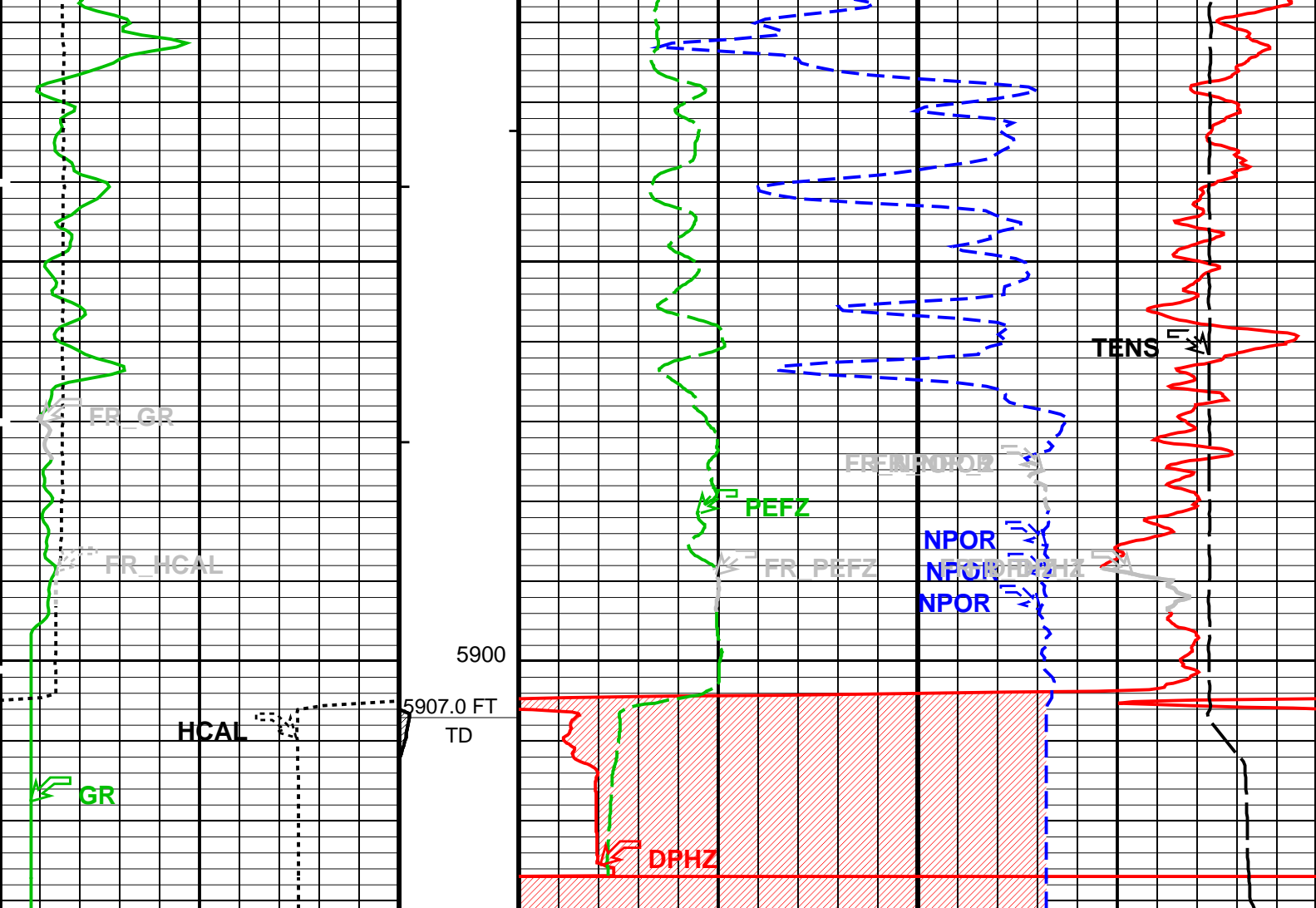
Tension (TENS)



MAIN PASS: *** PLATFORM EXPRESS - NUCLEAR POROSITY ***







MAIN PASS: *** PLATFORM EXPRESS – NUCLEAR POROSITY ***

Gamma Ray Backup	Cable Drag	Std. Res. Density Porosity (DPHZ)	
		0.3	(V/V) -0.1
Gamma Ray (GR)	Tool/Tot. Drag	Alpha Processed Neutron Porosity (NPOR)	
(GAPI) 0 200		0.3	(V/V) -0.1
Caliper (HCAL)	Stuck Stretch (STIT)	Std. Res. Formation Pe (PEFZ)	Tension (TENS)
(IN) 6 16	(F) 0 50	0 10 10000	(LBF) 0
		Gas Effect	
		NPOR Backup	

PIP SUMMARY

- ┌ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- ┌ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
AIT-M: Array Induction Tool – M			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	

SHT	Surface Hole Temperature	SANDSTONE	68	DEGF
HILTH-FTB: High resolution Integrated Logging Tool-DTS				
BHFL	Borehole Fluid Type	WATER		
BHFL_TLD	HILT Nuclear Mud Base	WATER		
BHS	Borehole Status	OPEN		
BSCO	Borehole Salinity Correction Option	NO		
CCCO	Casing & Cement Thickness Correction Option	NO		
DHC	Density Hole Correction	BS		
FD	Fluid Density	1	G/C3	
FSAL	Formation Salinity	-50000	PPM	
FSCO	Formation Salinity Correction Option	NO		
GCLF	Germany Coal-like Formation Option	NO		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
HSCO	Hole Size Correction Option	YES		
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
MCCO	Mud Cake Correction Option	NO		
MCOR	Mud Correction	NATU		
MDEN	Matrix Density	2.65	G/C3	
MWCO	Mud Weight Correction Option	NO		
NAAC	HRDD APS Activation Correction	OFF		
NMT	HILT Nuclear Mud Type	NOBARITE		
NPRM	HRDD Processing Mode	HiRes		
NSAR	HRDD Depth Sampling Rate	1	IN	
PTCO	Pressure/Temperature Correction Option	NO		
SDAT	Standoff Data Source	SOCN		
SHT	Surface Hole Temperature	68	DEGF	
SOCN	Standoff Distance	0.125	IN	
SOCO	Standoff Correction Option	YES		
HOLEV: Integrated Hole/Cement Volume				
BHS	Borehole Status	OPEN		
FCD	Future Casing (Outer) Diameter	5.5	IN	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC		
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
SHT	Surface Hole Temperature	68	DEGF	
PERT: Preliminary Evaluation - Real Time				
BHS	Borehole Status	OPEN		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
SHT	Surface Hole Temperature	68	DEGF	
STI: Stuck Tool Indicator				
LBFR	Trigger for MAXIS First Reading Label	TDL		
STKT	STI Stuck Threshold	2.5	FT	
TDD	Total Depth - Driller	5910.00	FT	
TDL	Total Depth - Logger	5907.00	FT	
System and Miscellaneous				
BS	Bit Size	7.875	IN	
BSAL	Borehole Salinity	-50000.00	PPM	
CSIZ	Current Casing Size	8.625	IN	
CWEI	Casing Weight	24.00	LB/F	
DFD	Drilling Fluid Density	8.90	LB/G	
DO	Depth Offset for Playback	3.0	FT	
MST	Mud Sample Temperature	125.00	DEGF	
PP	Playback Processing	NORMAL		
RMFS	Resistivity of Mud Filtrate Sample	0.5760	OHMM	
TD	Total Depth	5907	FT	

Format: PORO Vertical Scale: 5" per 100' Graphics File Created: 20-Mar-2012 06:22

OP System Version: 19C0-187

AIT-M	19C0-187	HILTH-FTB	19C0-187
DTC-H	19C0-187		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_007LUP	FN:6	PRODUCER	20-Mar-2012 06:01	5928.0 FT	5410.5 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_008PUP	FN:7	PRODUCER	20-Mar-2012 06:22
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MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_009LUP FN:8 PRODUCER 20-Mar-2012 06:25 5926.5 FT 5413.5 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016LUP FN:15 PRODUCER 20-Mar-2012 06:47

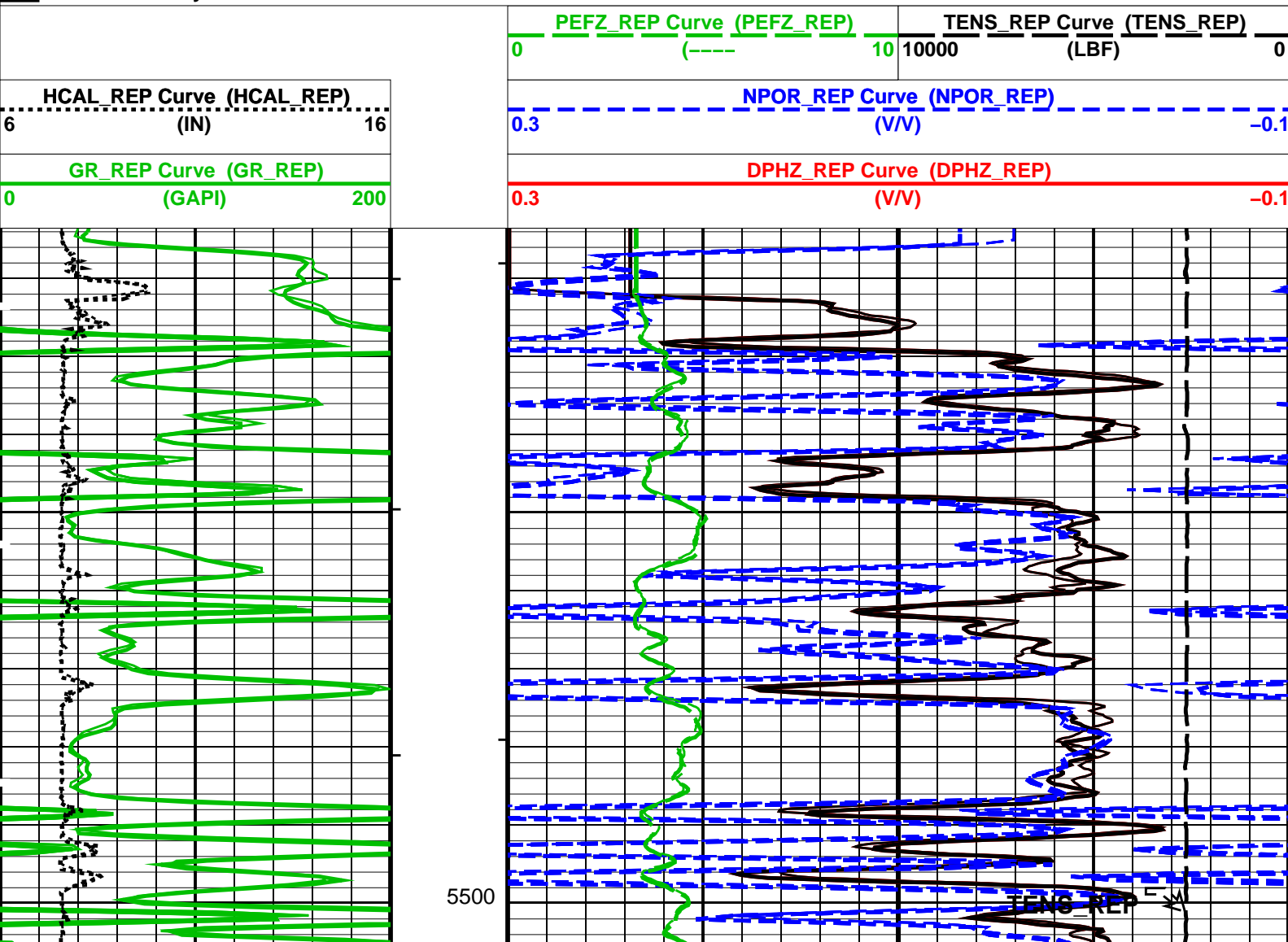
OP System Version: 19C0-187

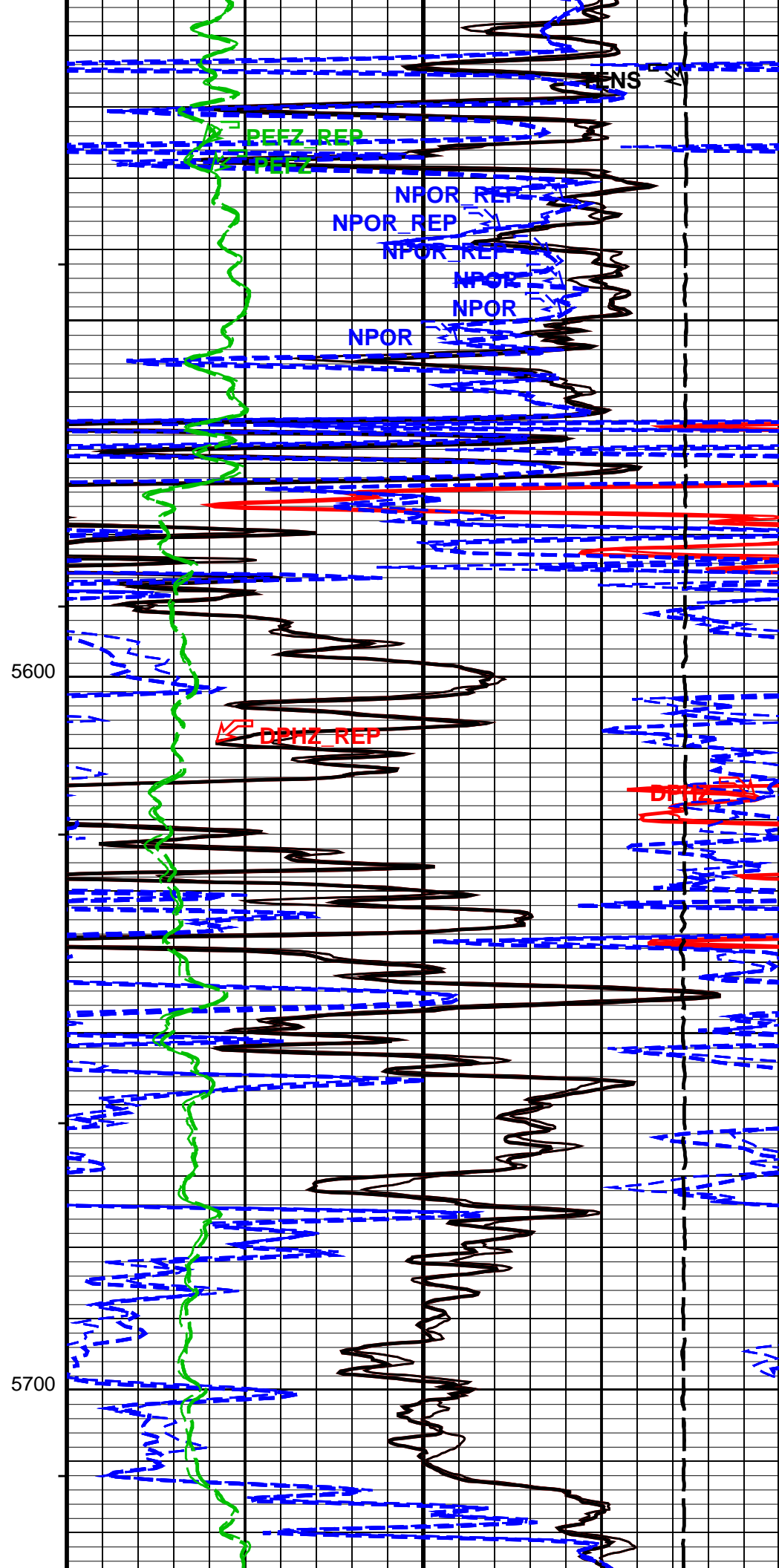
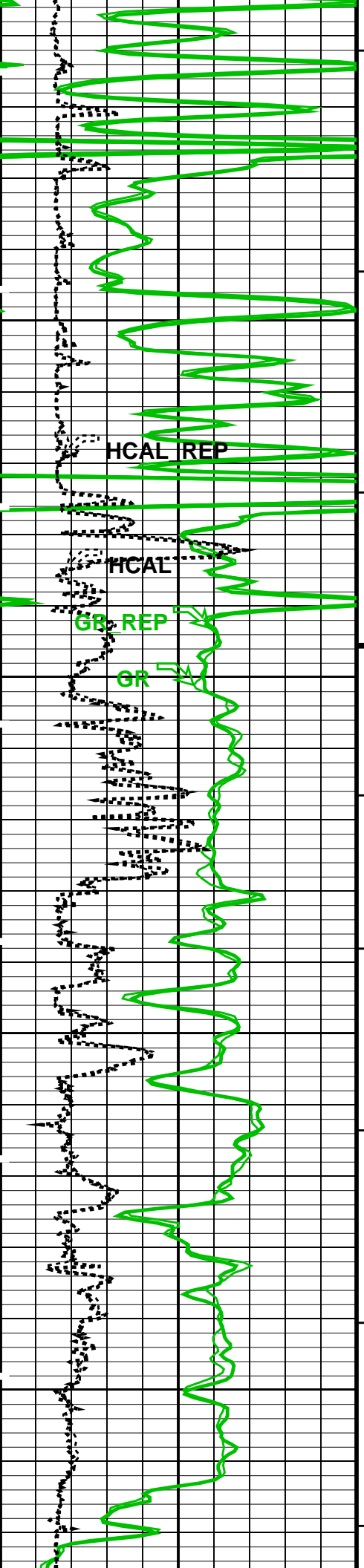
AIT-M 19C0-187 HILTH-FTB 19C0-187
DTC-H 19C0-187

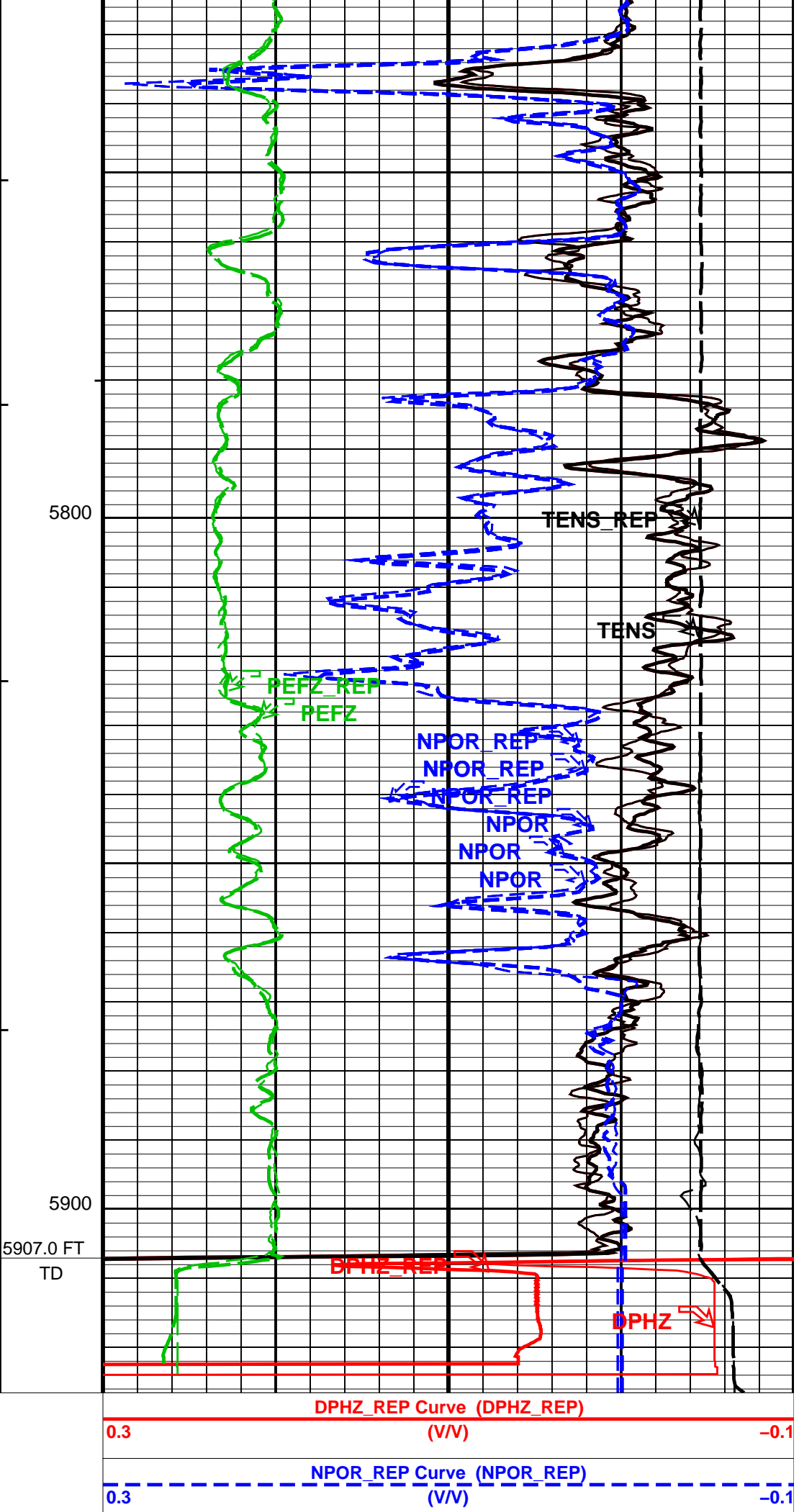
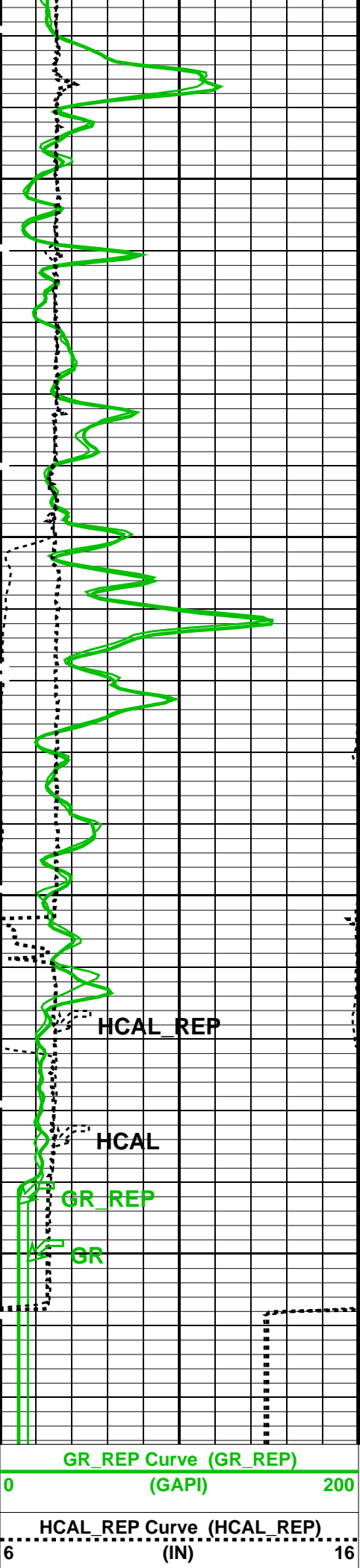
PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S







	PEFZ_REP Curve (PEFZ_REP)	TENS_REP Curve (TENS_REP)
0	(-----) 10	10000 (LBF) 0

PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
AIT-M: Array Induction Tool – M			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	–50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.71	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
TDL	Total Depth – Logger	5907.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	–50000.00	PPM
CSIZ	Current Casing Size	8.625	IN
CWEI	Casing Weight	24.00	LB/F
DFD	Drilling Fluid Density	8.90	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	125.00	DEGF
RMFS	Resistivity of Mud Filtrate Sample	0.5760	OHMM
TD	Total Depth	5907	FT

AIT-M DTC-H	19C0-187 19C0-187	HILTH-FTB	19C0-187
Input DLIS Files			
DEFAULT	AIT_TLD_MCFL_CNL_009LUP	FN:8	PRODUCER 20-Mar-2012 06:25 5926.5 FT 5413.5 FT
Output DLIS Files			
DEFAULT	AIT_TLD_MCFL_CNL_016LUP	FN:15	PRODUCER 20-Mar-2012 06:47

Schlumberger

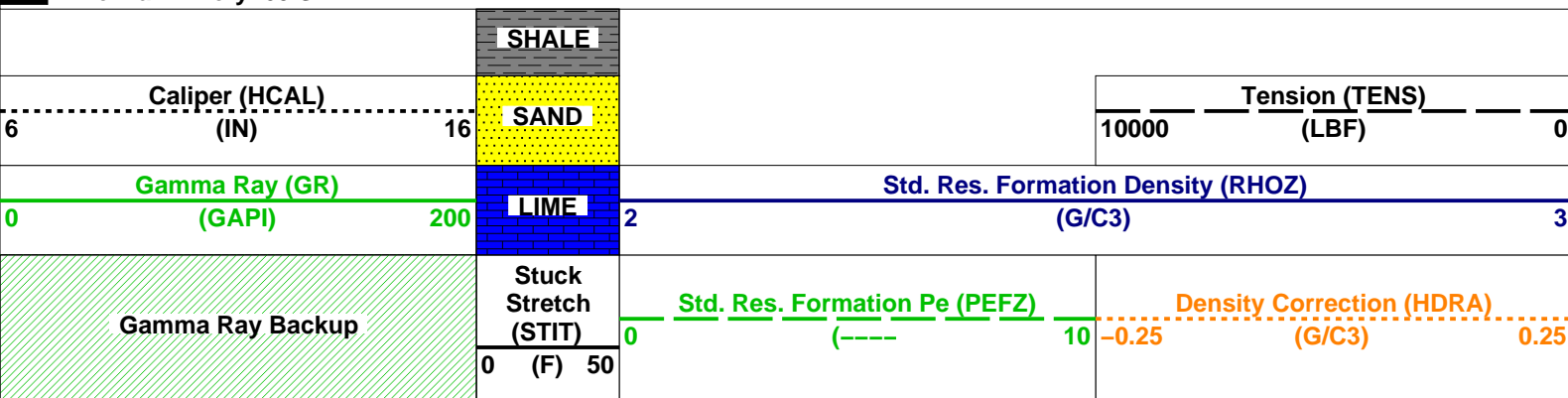
MAIN DENS 5" = 100'

MAXIS Field Log

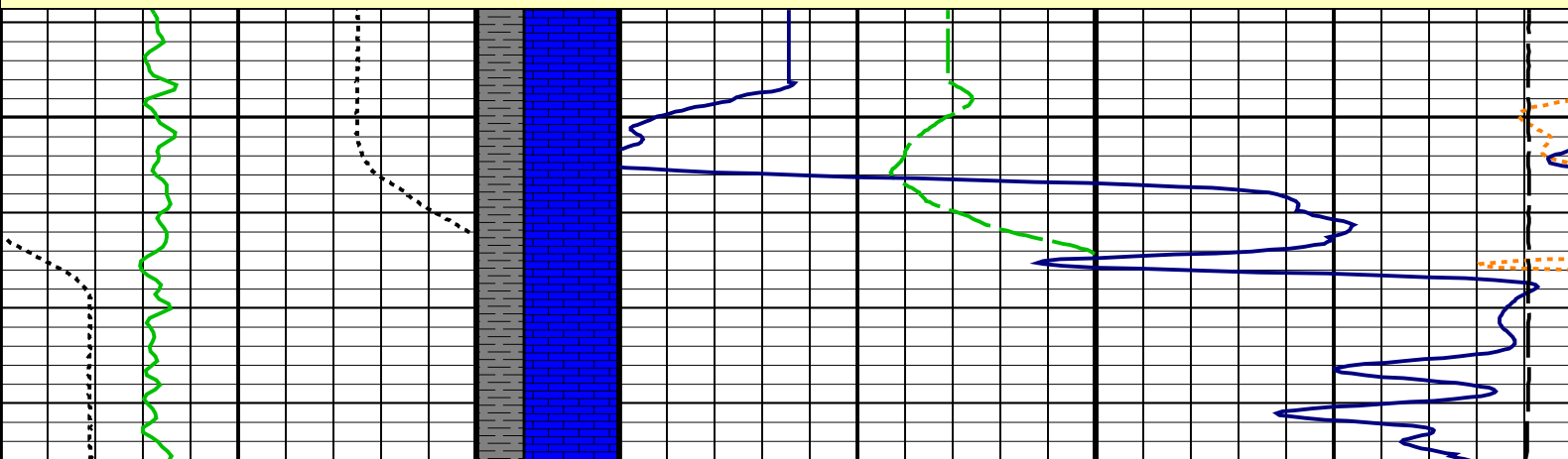
Output DLIS Files					
DEFAULT	AIT_TLD_MCFL_CNL_016LUP	FN:15	PRODUCER	20-Mar-2012 06:47	5928.0 FT 338.5 FT
OP System Version: 19C0-187					
AIT-M DTC-H	19C0-187 19C0-187	HILTH-FTB	19C0-187		

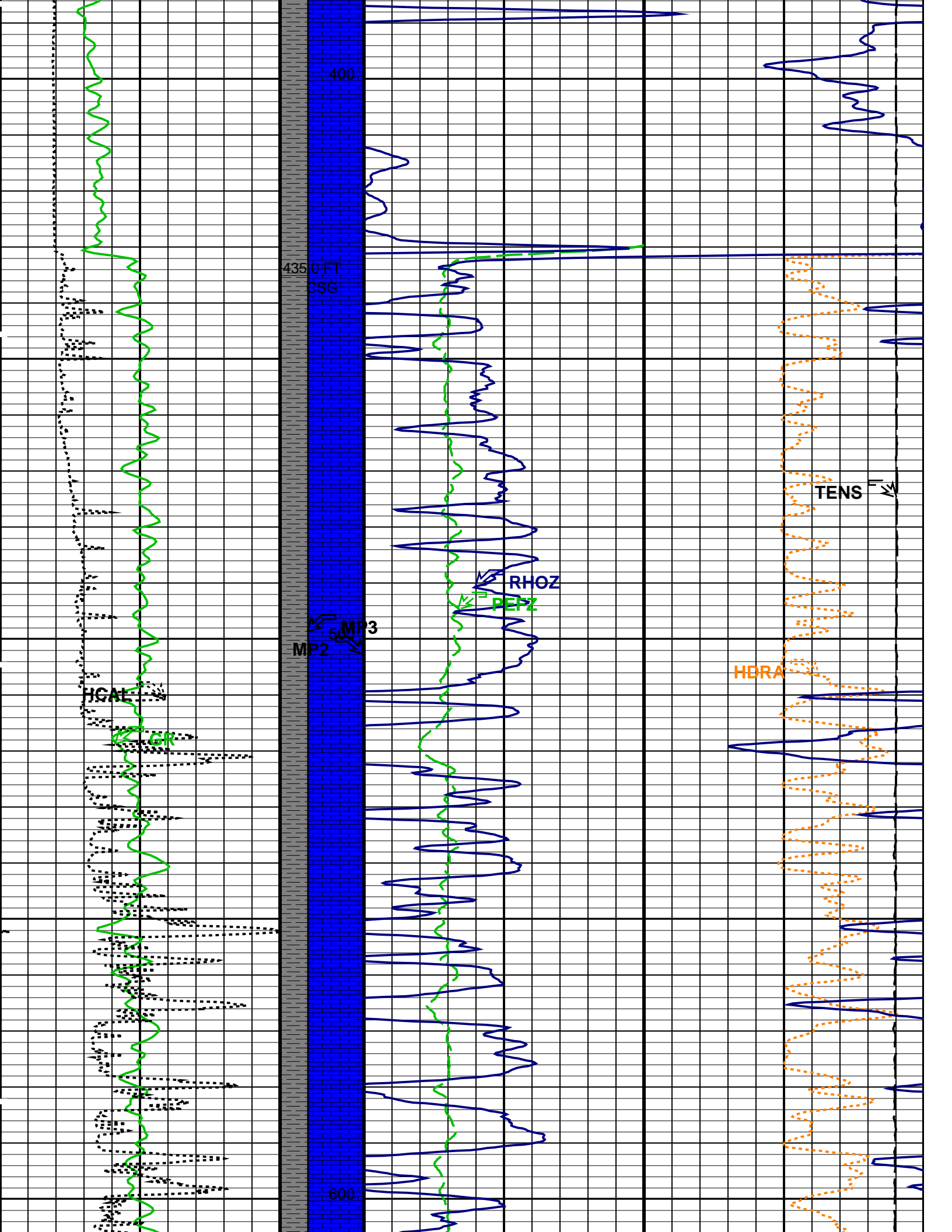
PIP SUMMARY

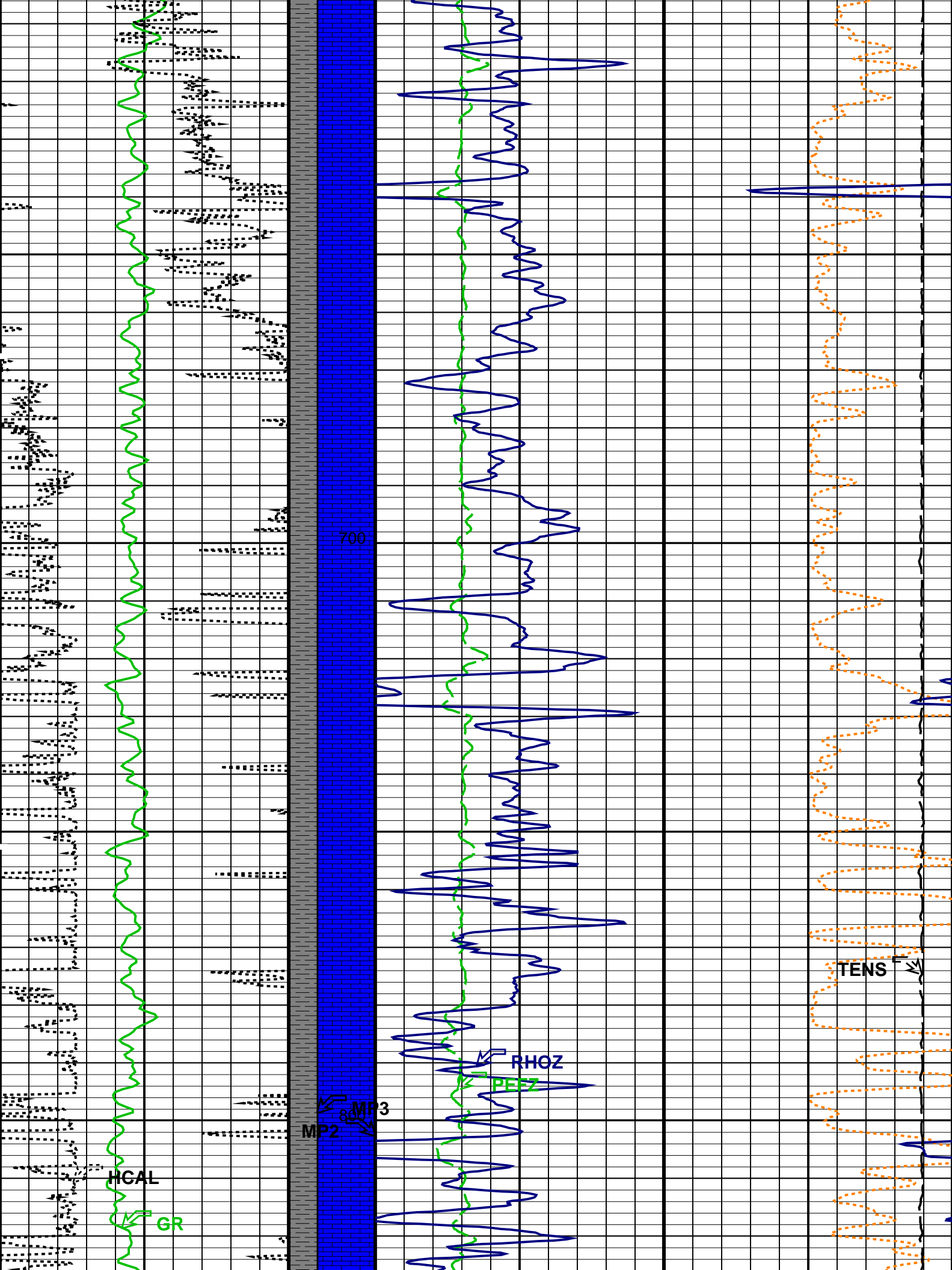
Time Mark Every 60 S

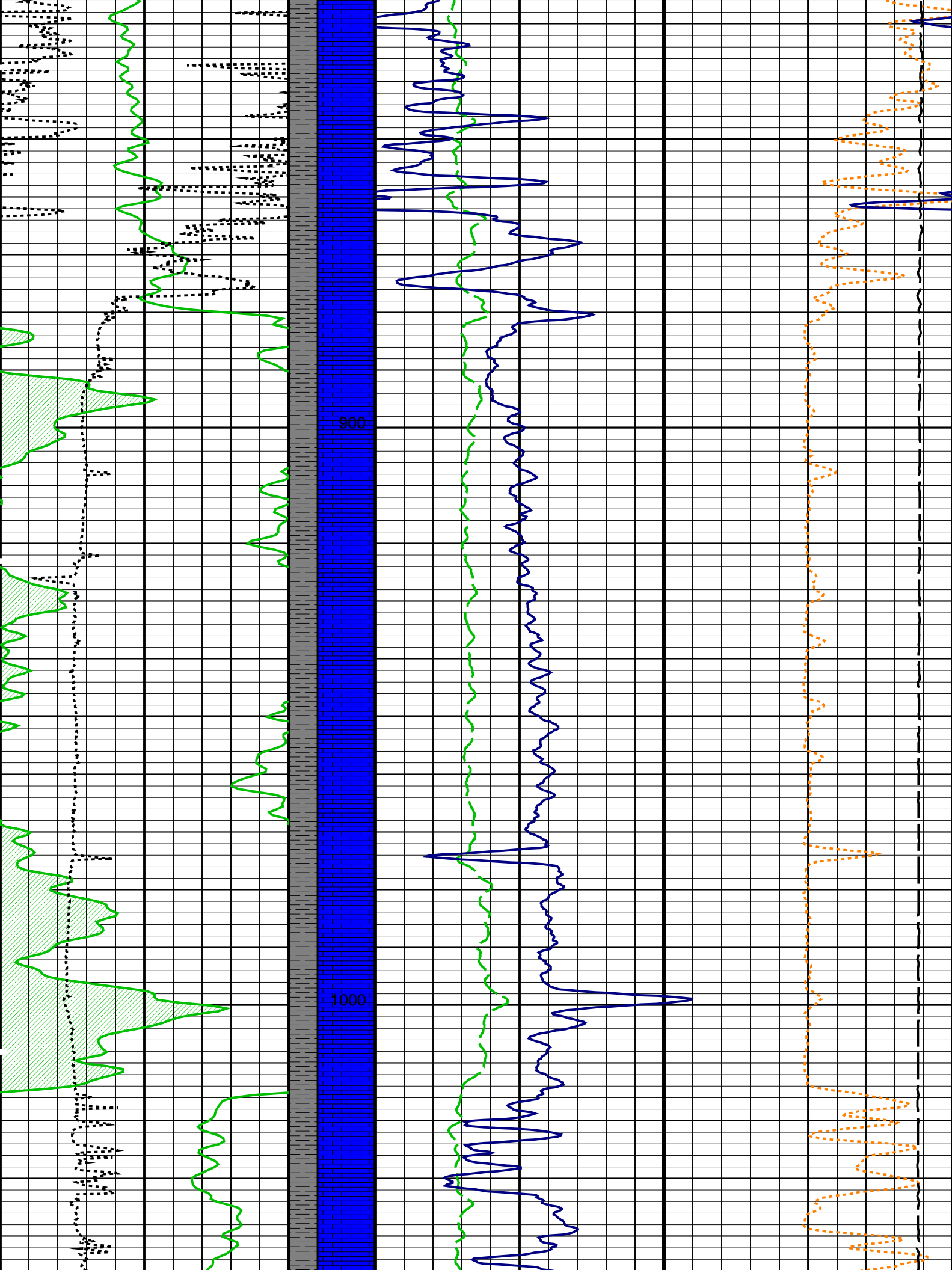


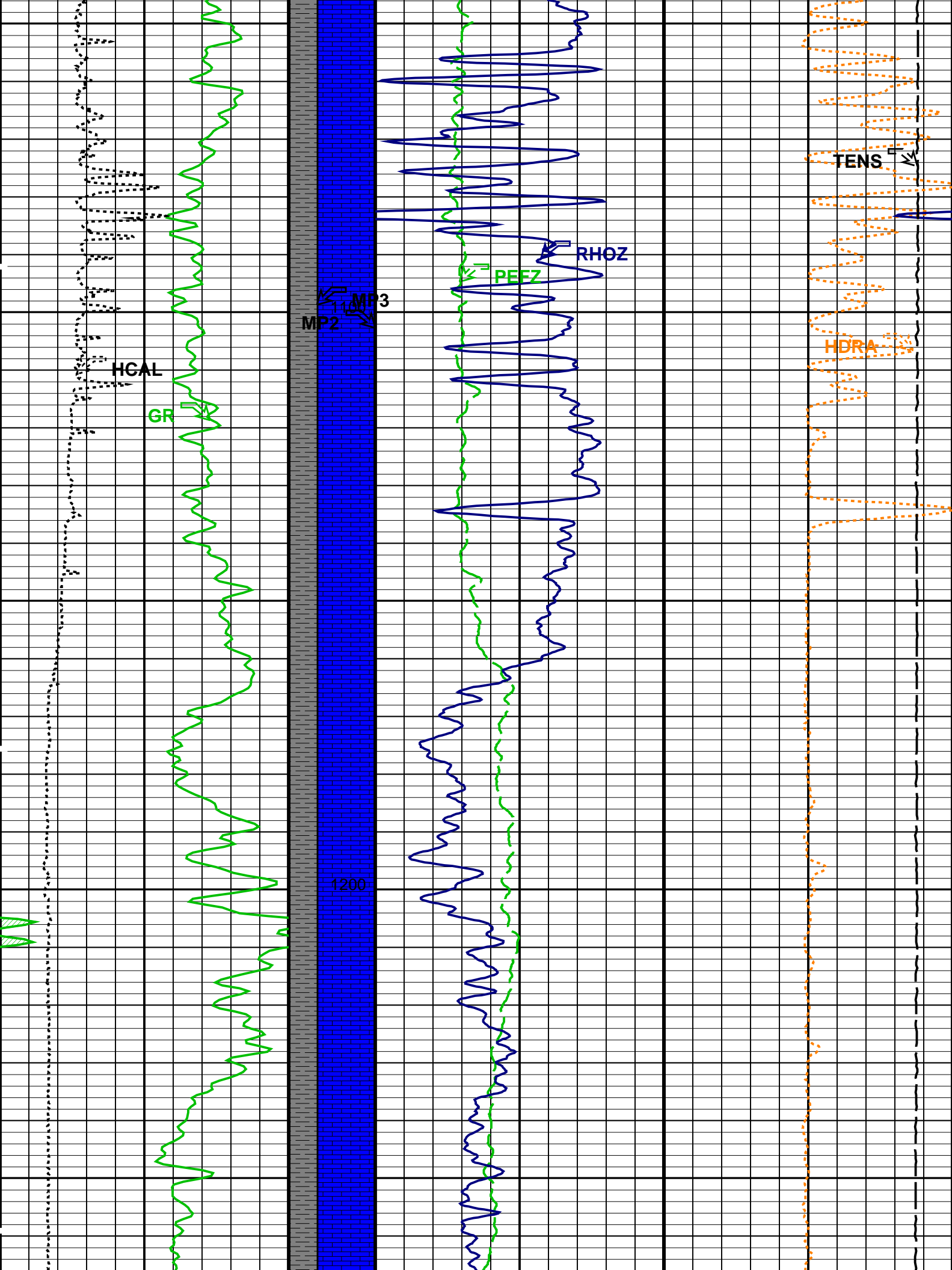
MAIN PASS: *** PLATFORM EXPRESS - LITHOLOGY DENSITY ***

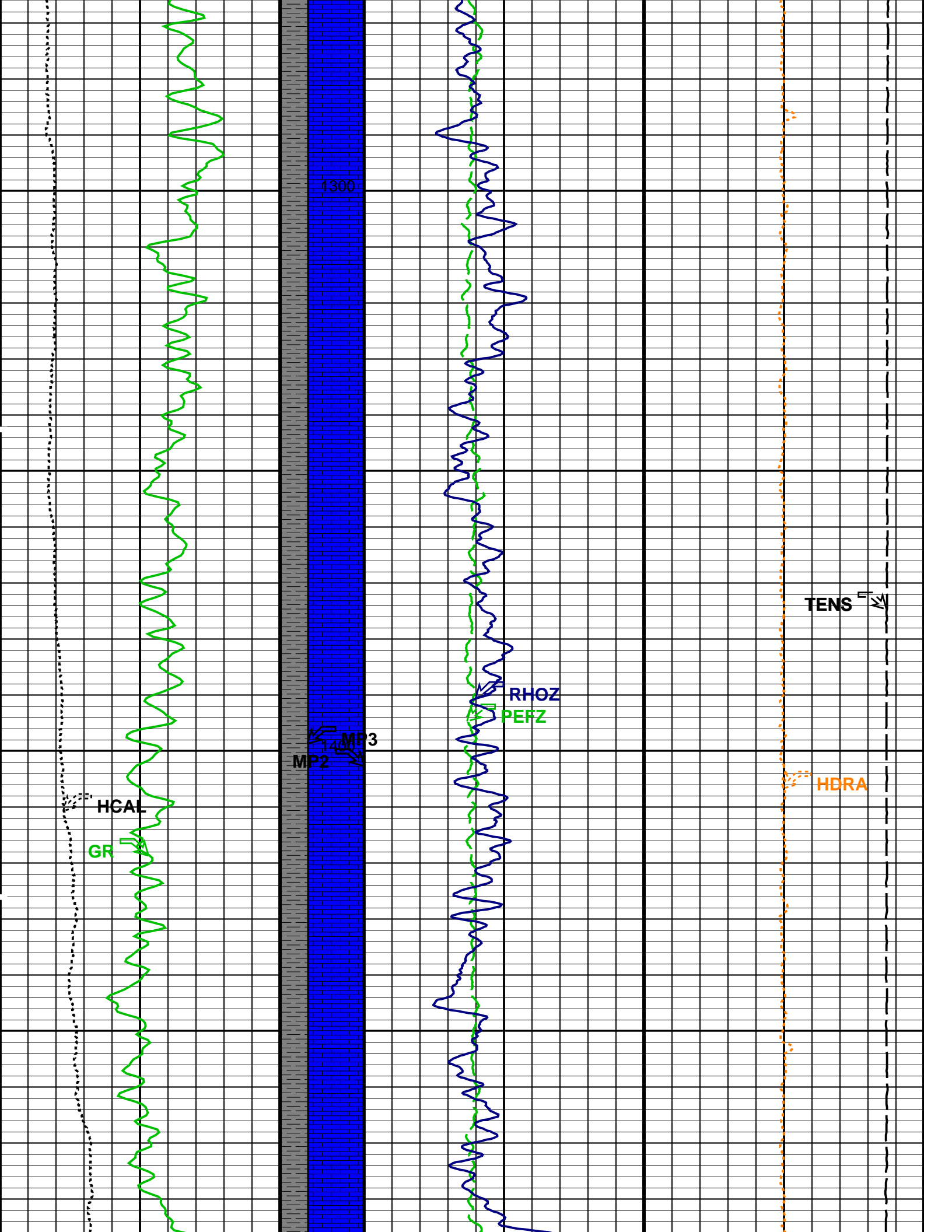


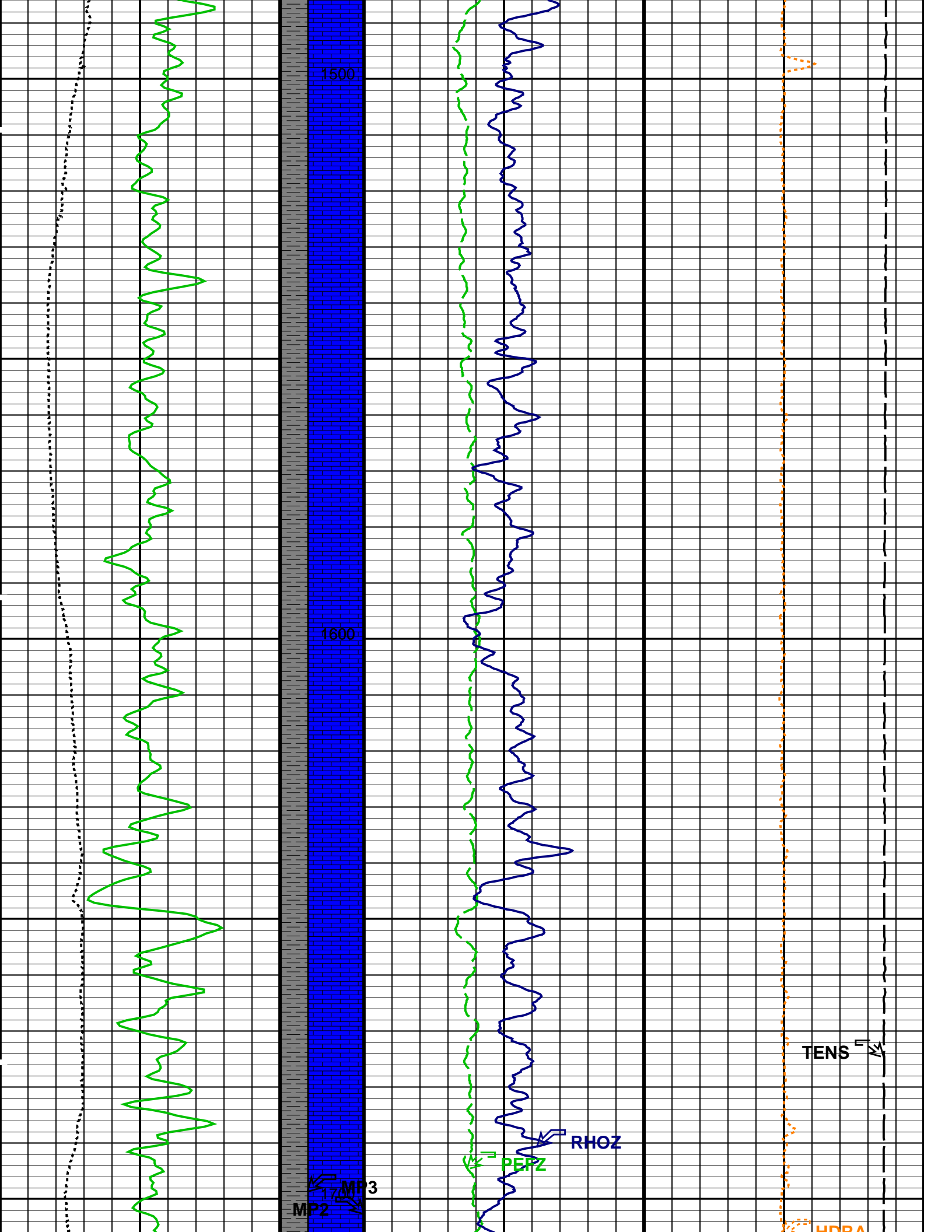


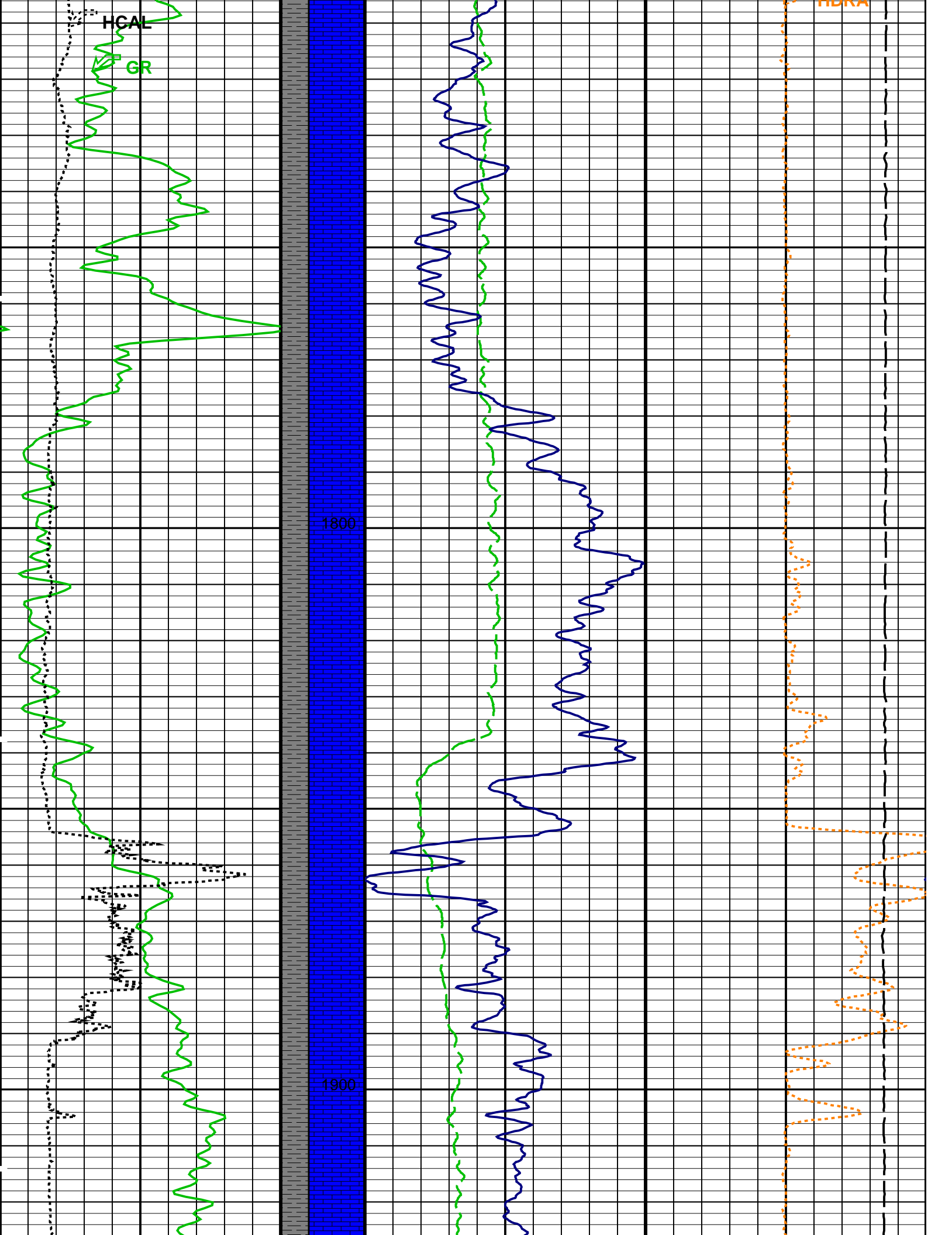


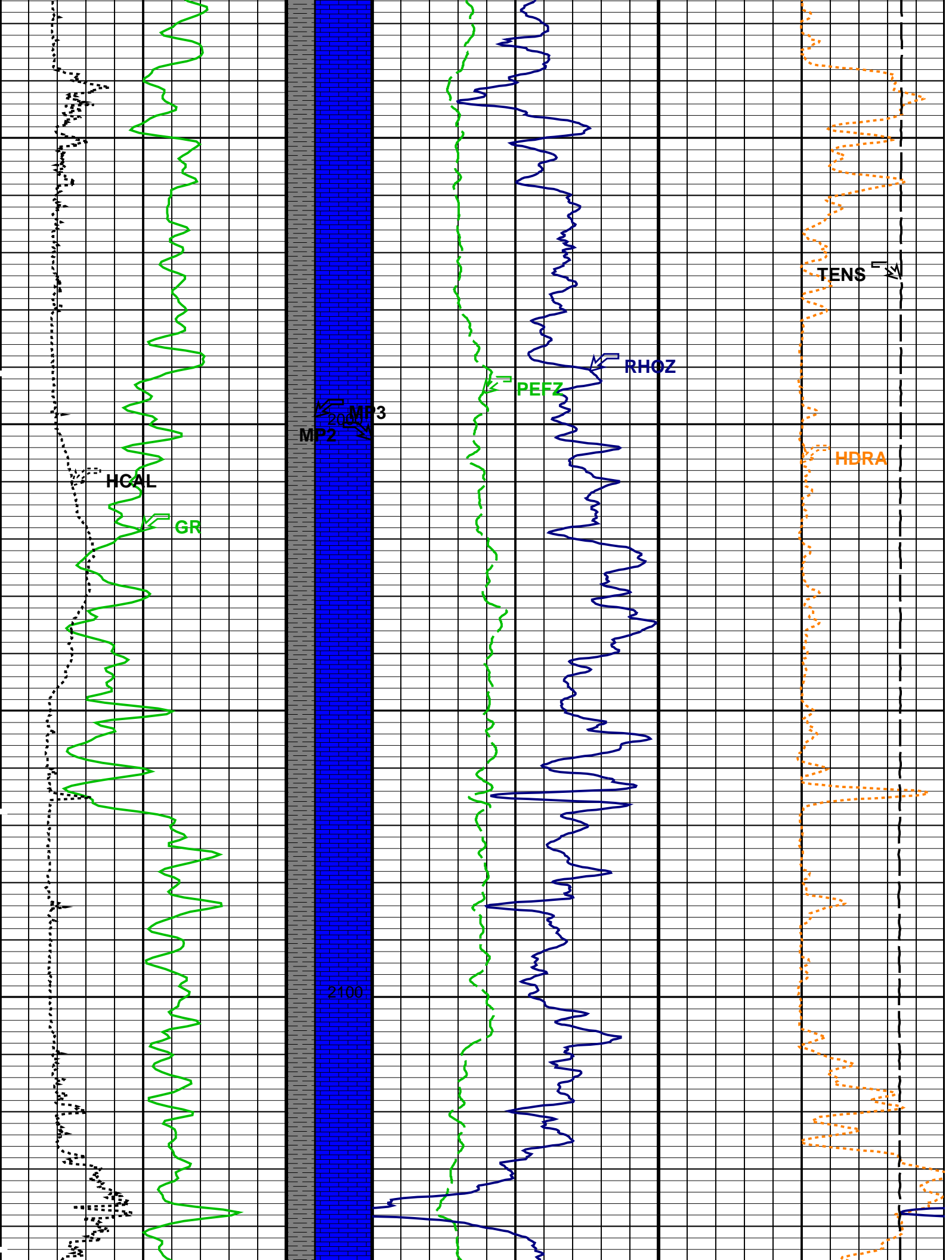


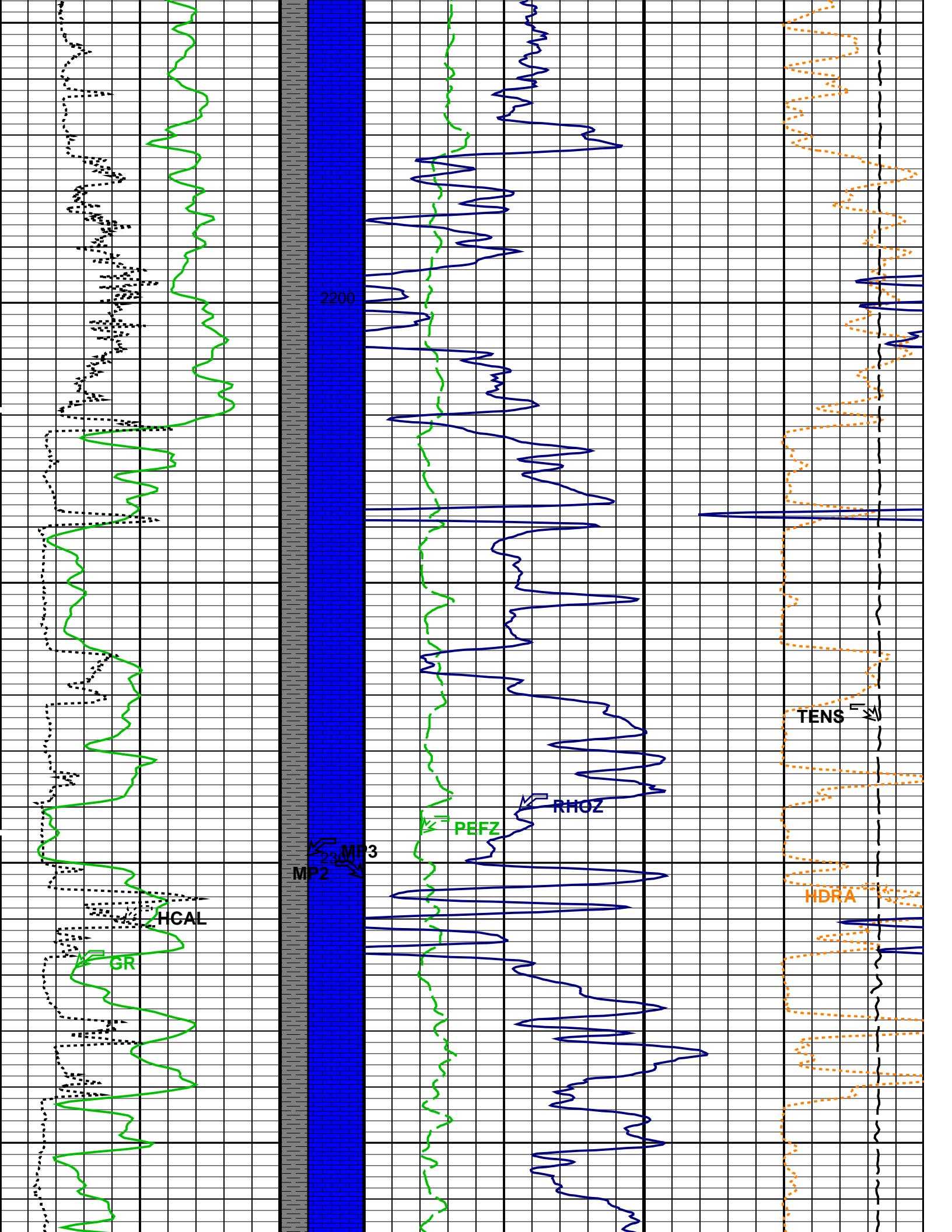


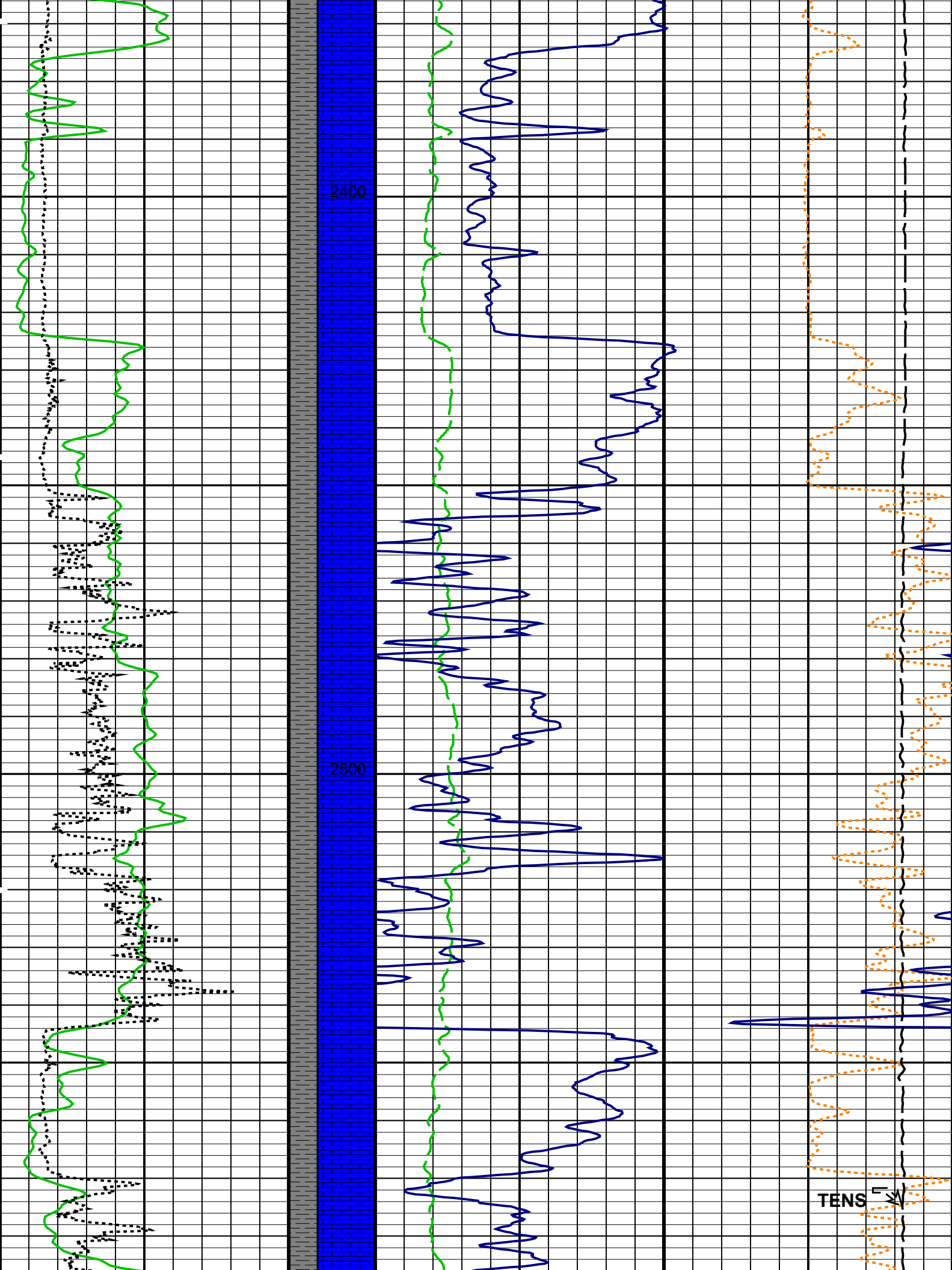


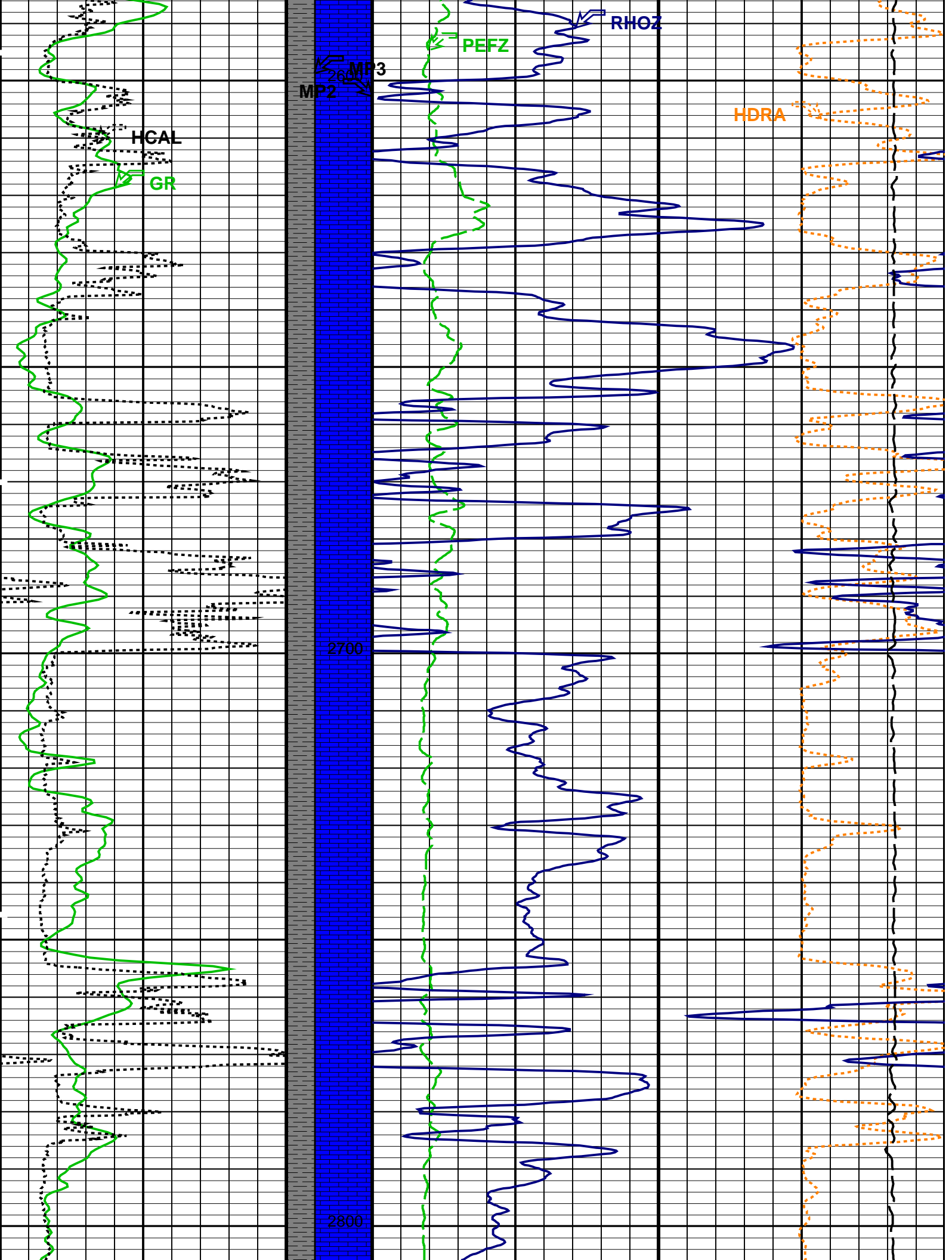


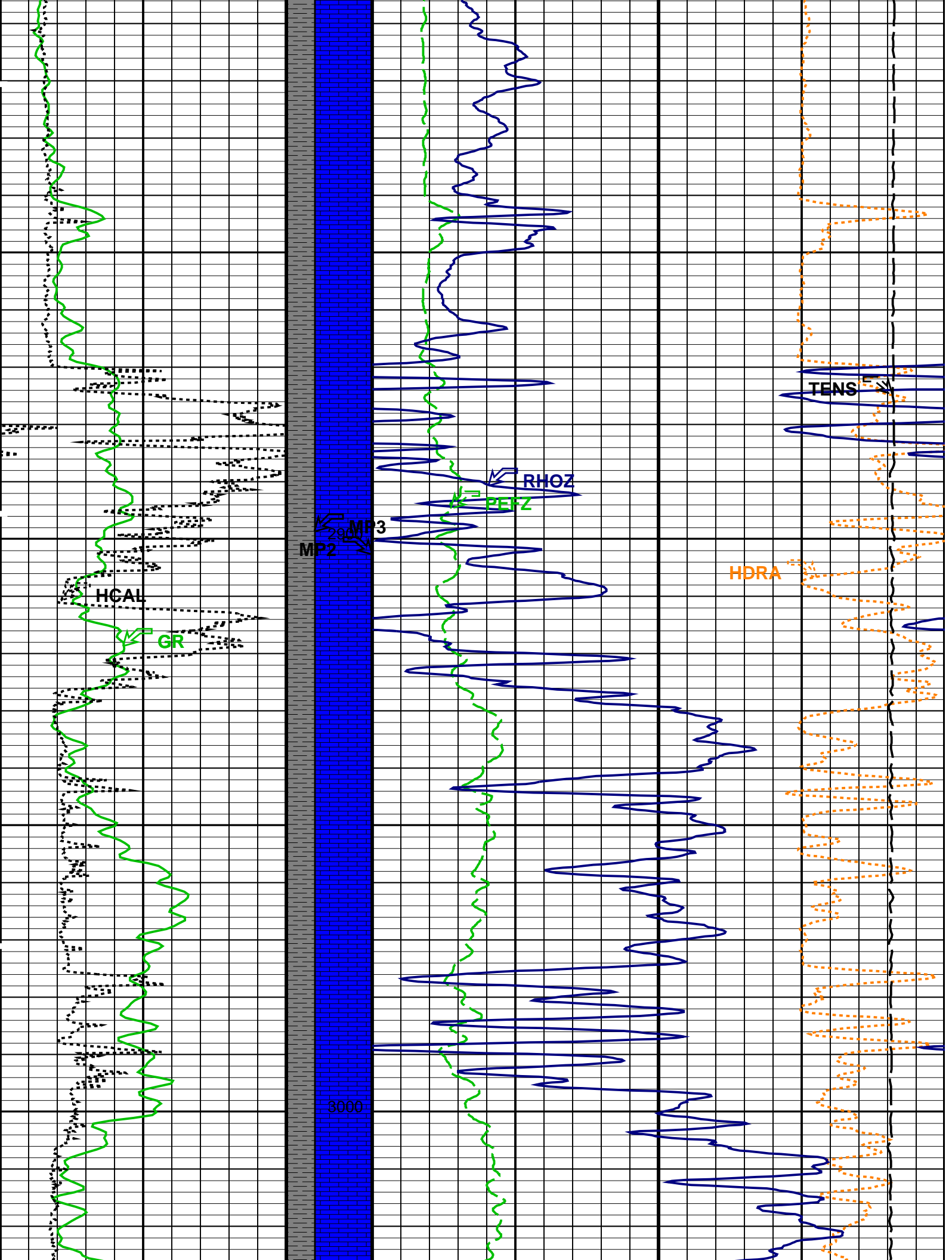


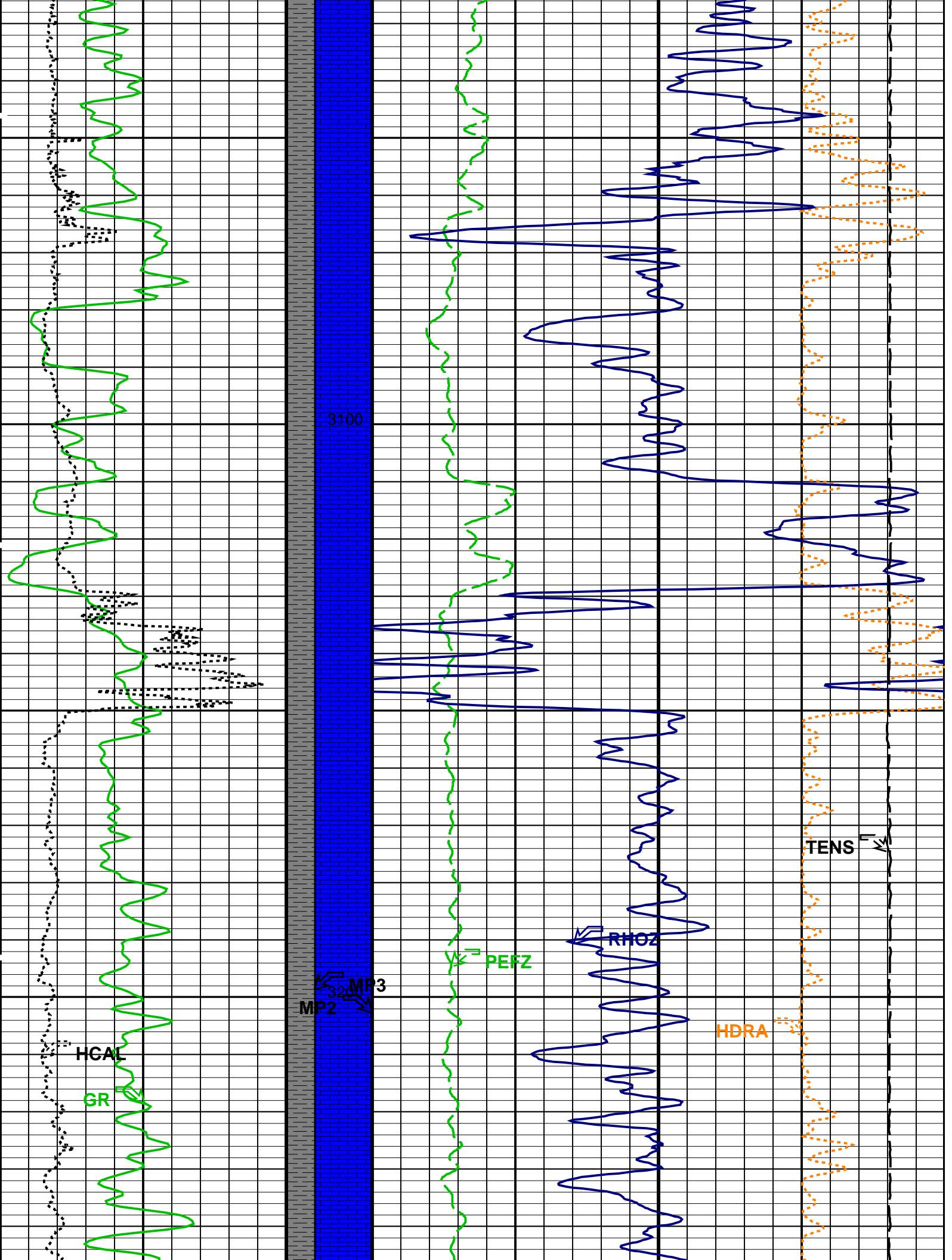


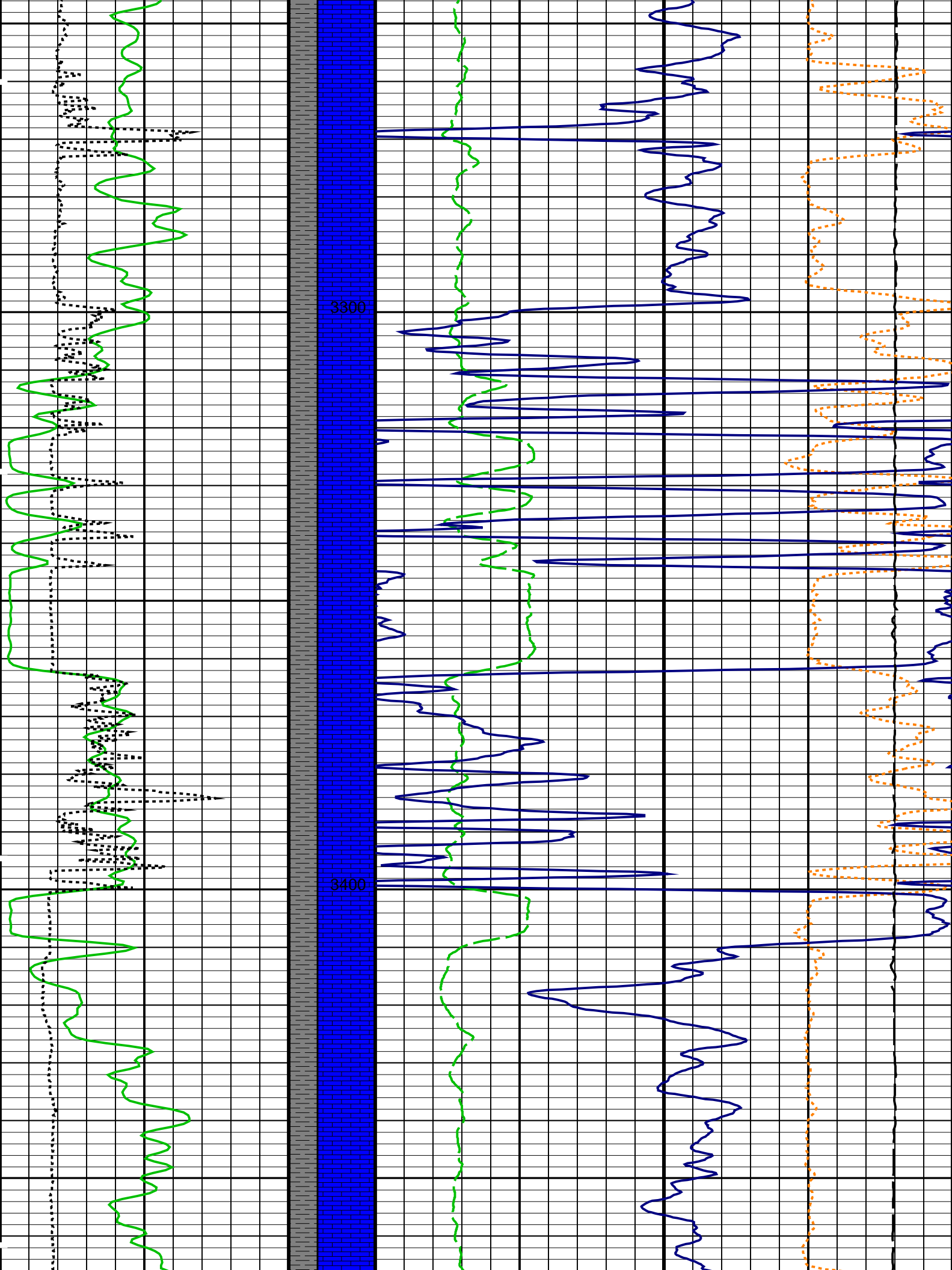


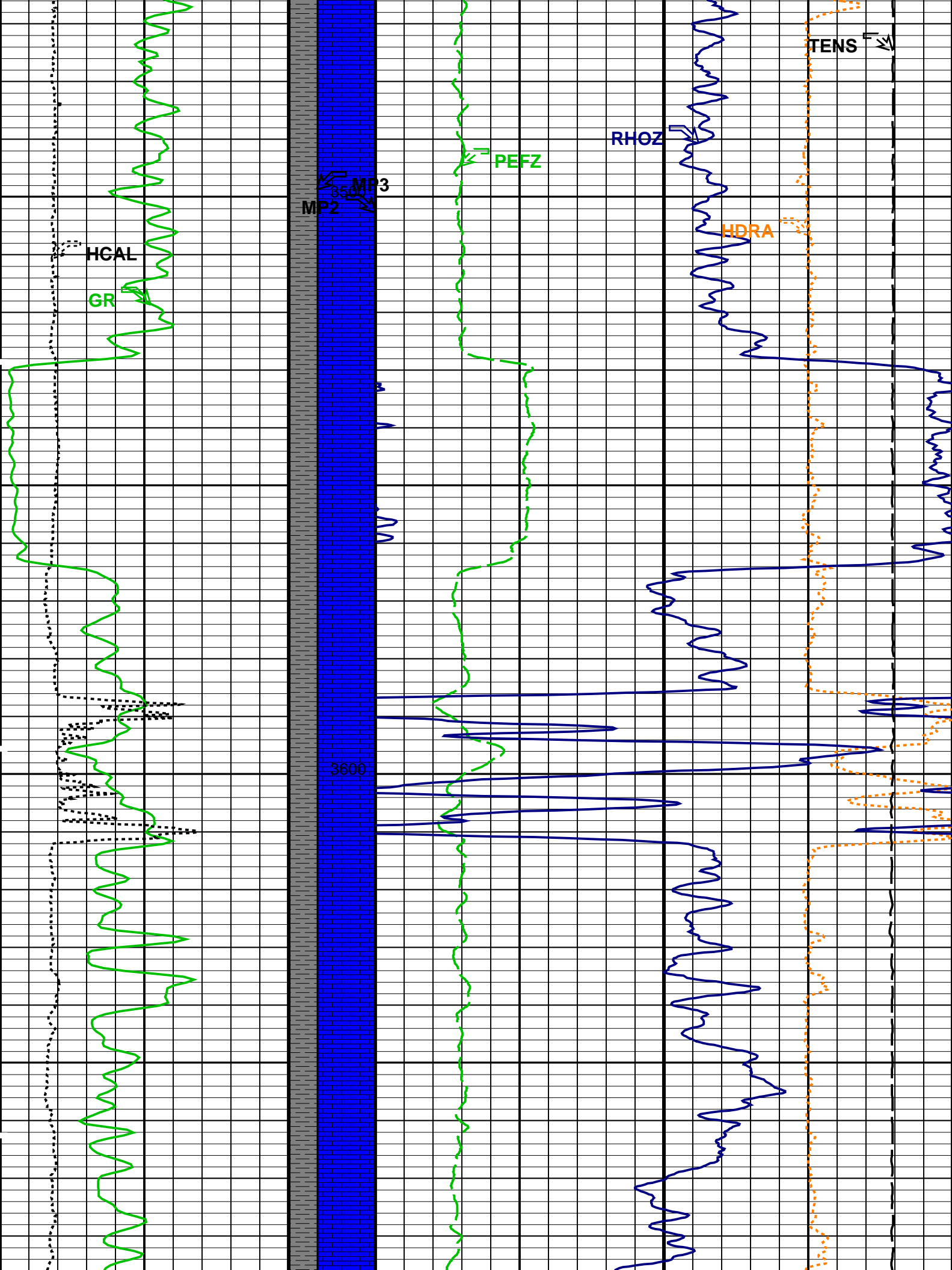


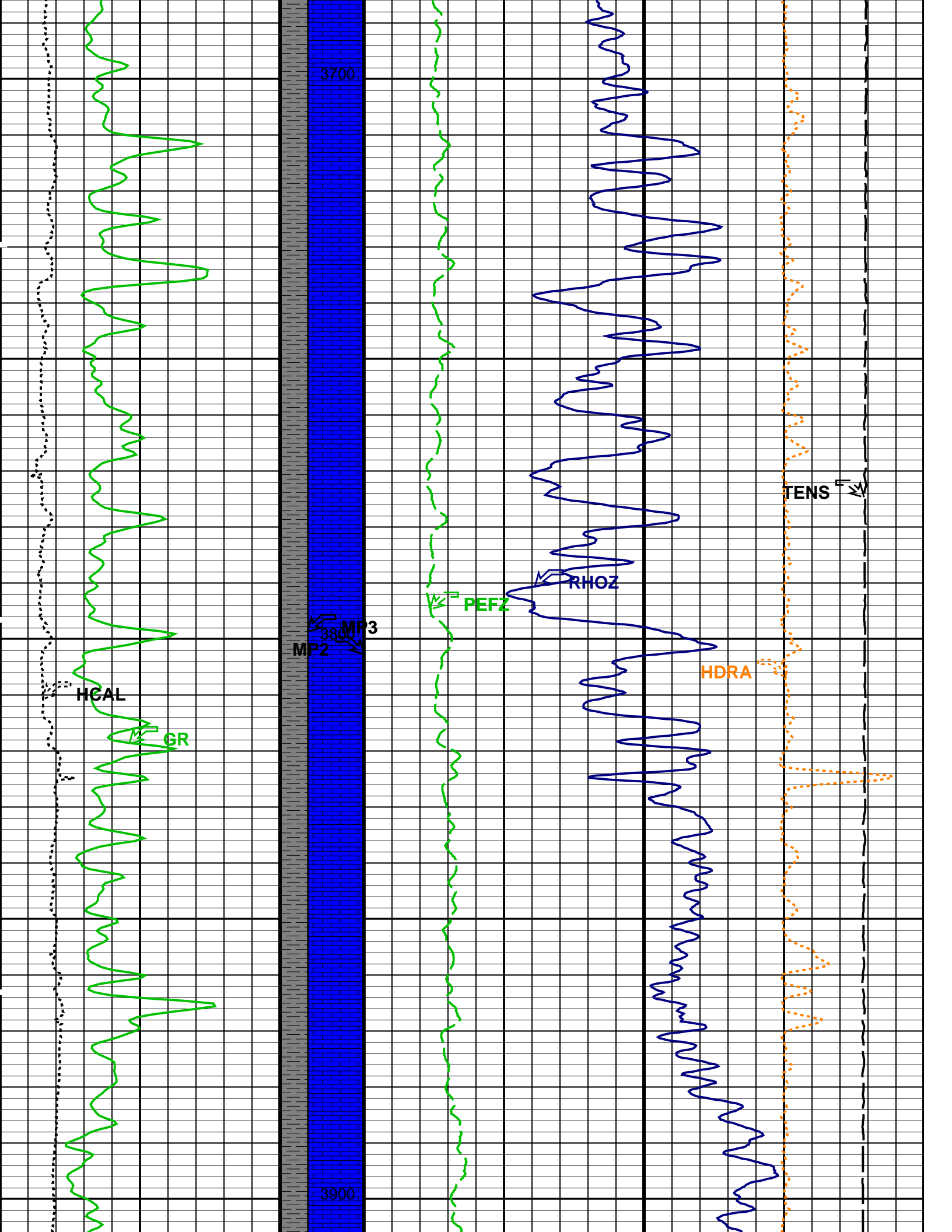


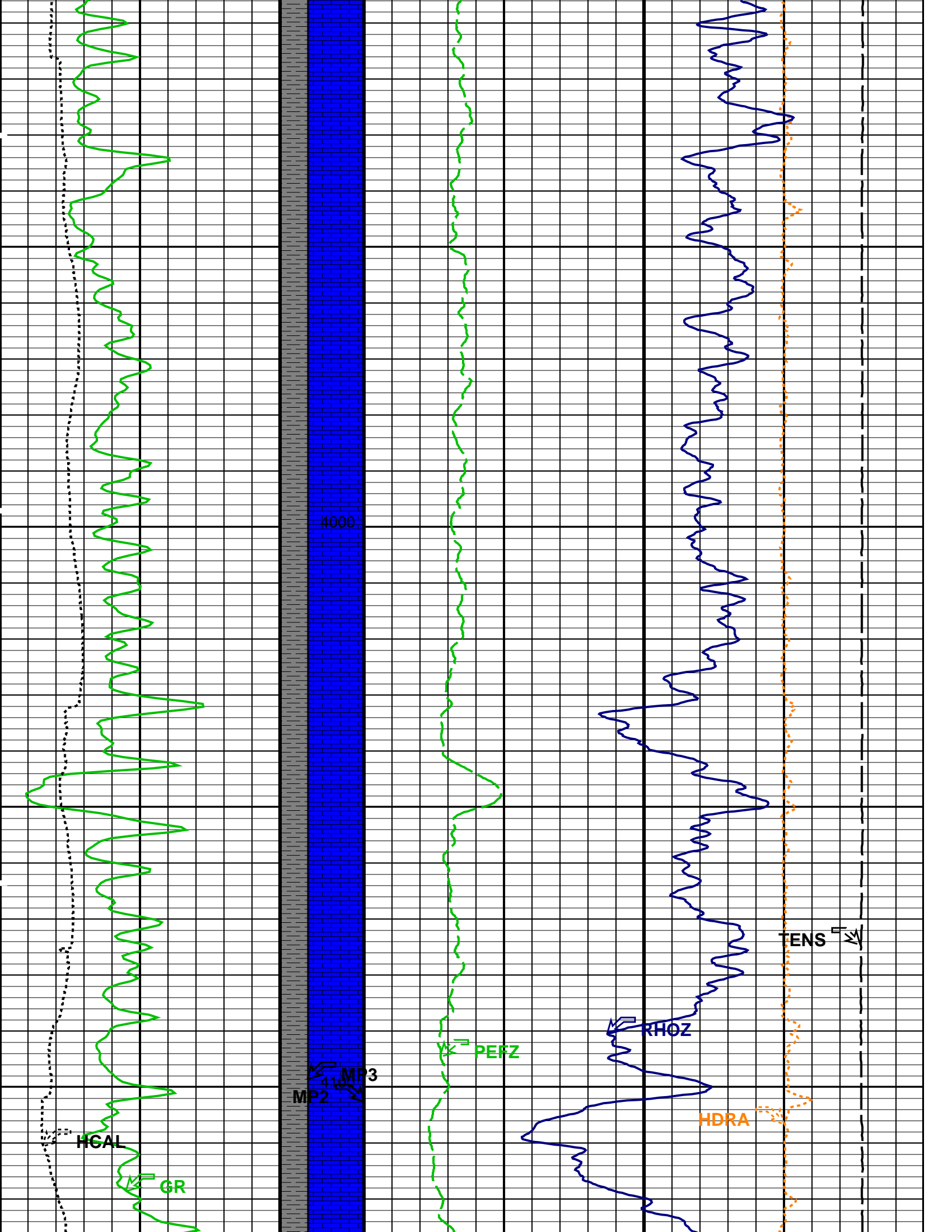


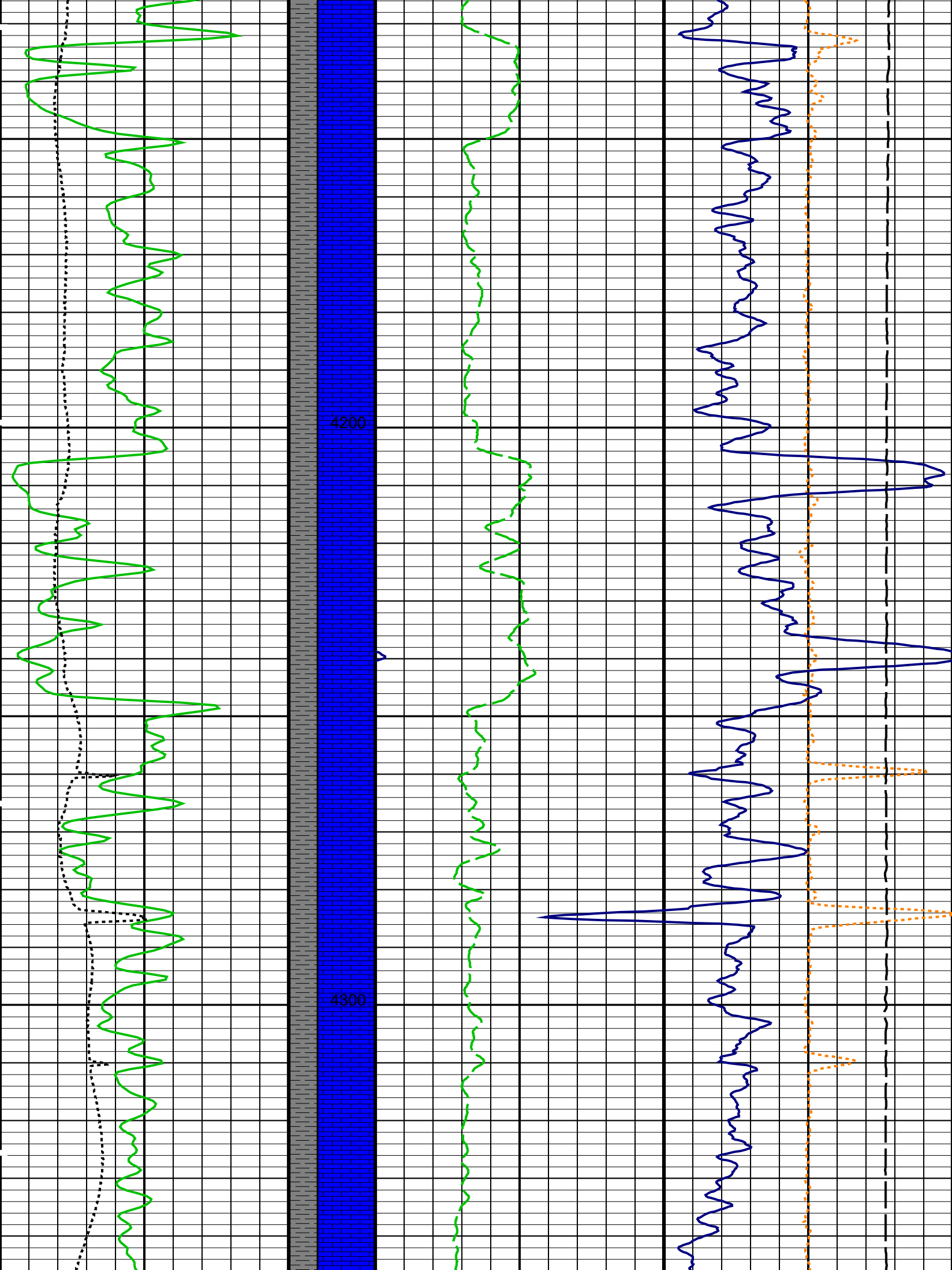


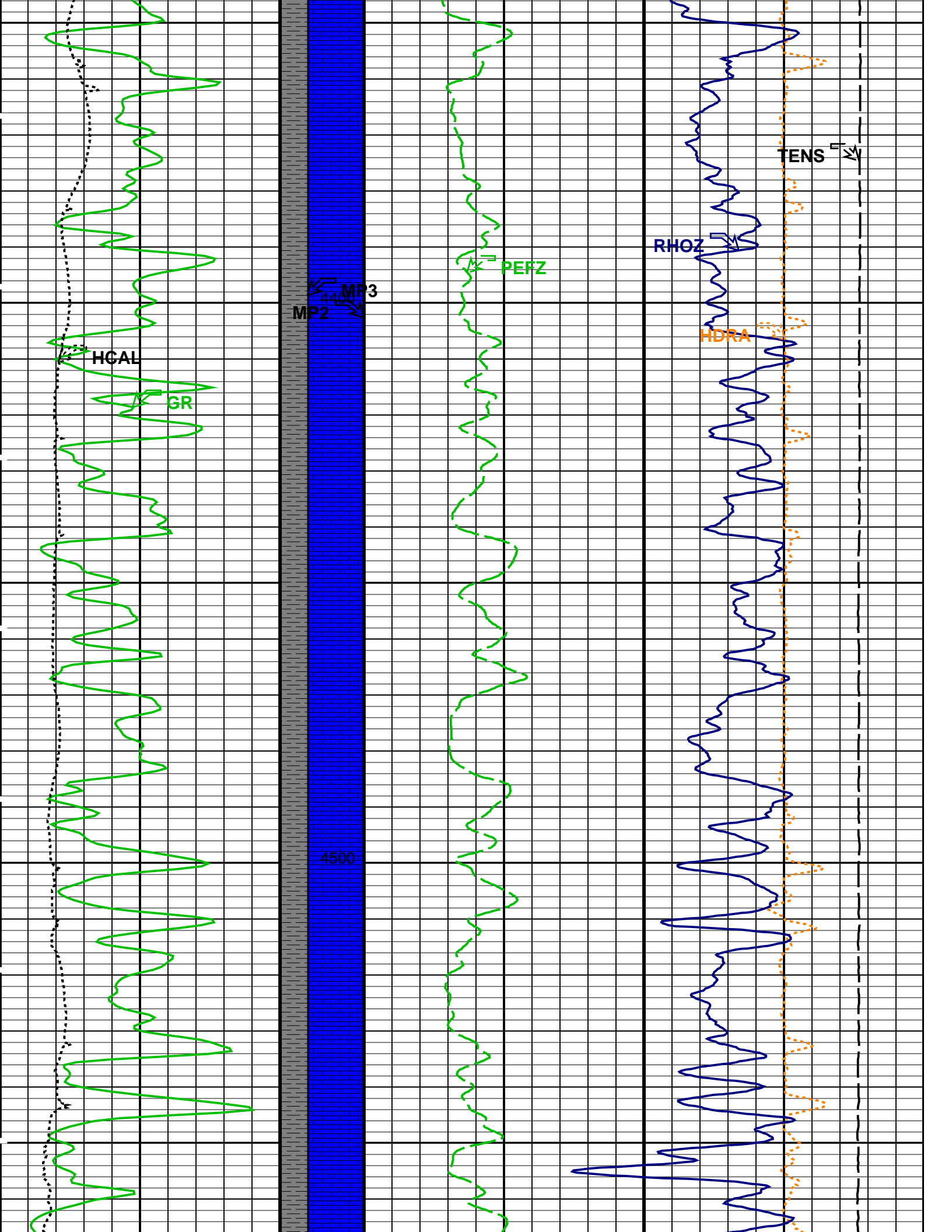


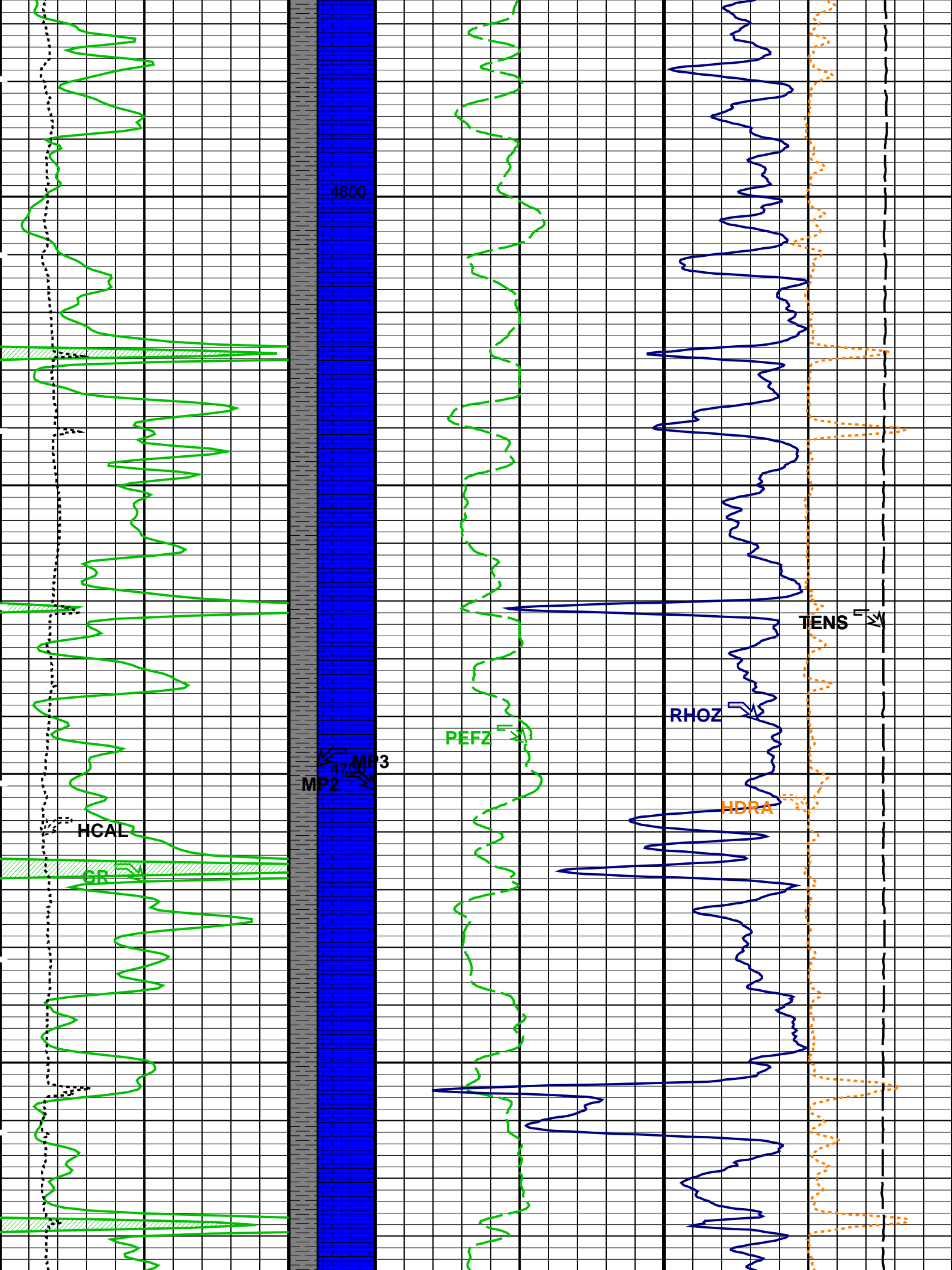


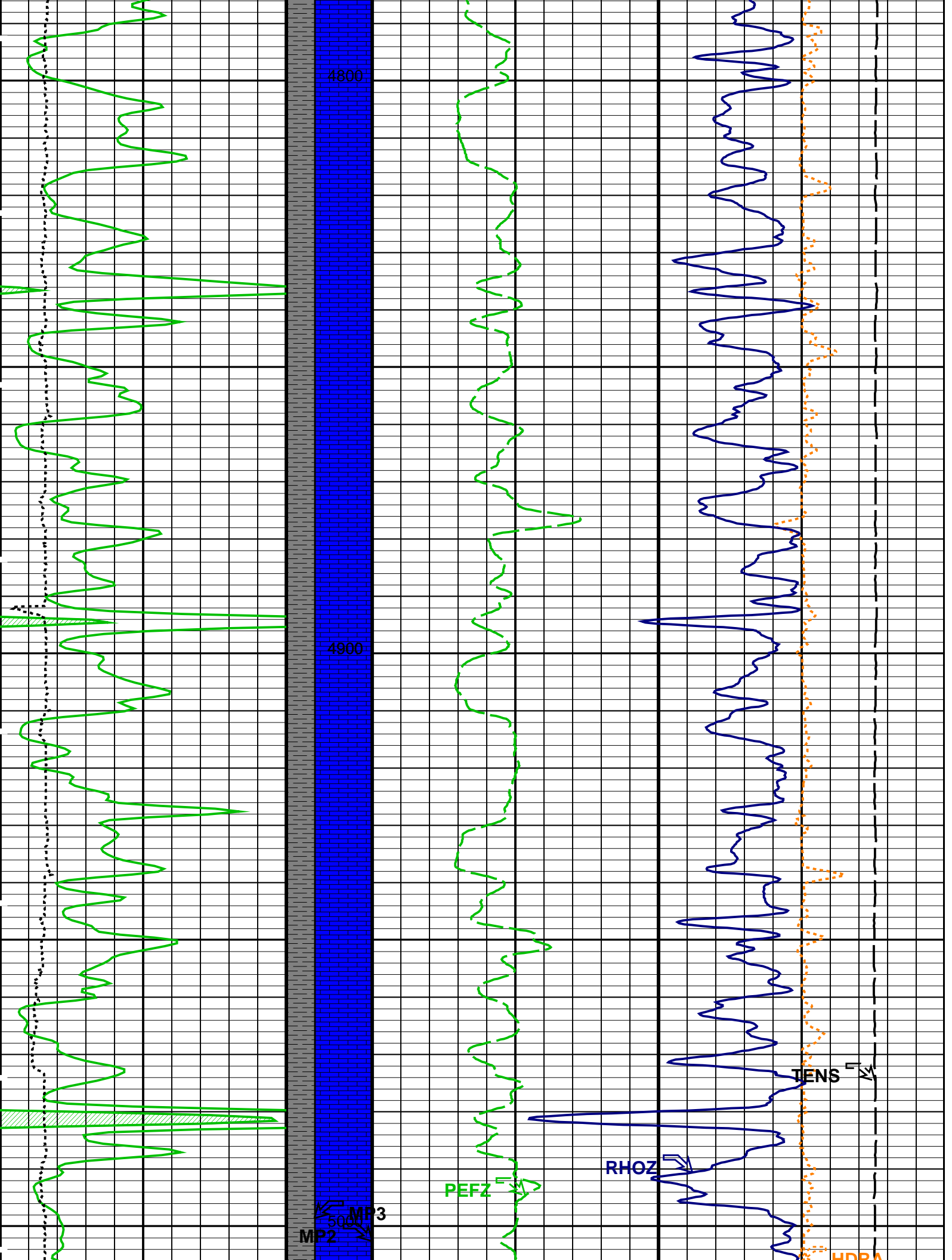


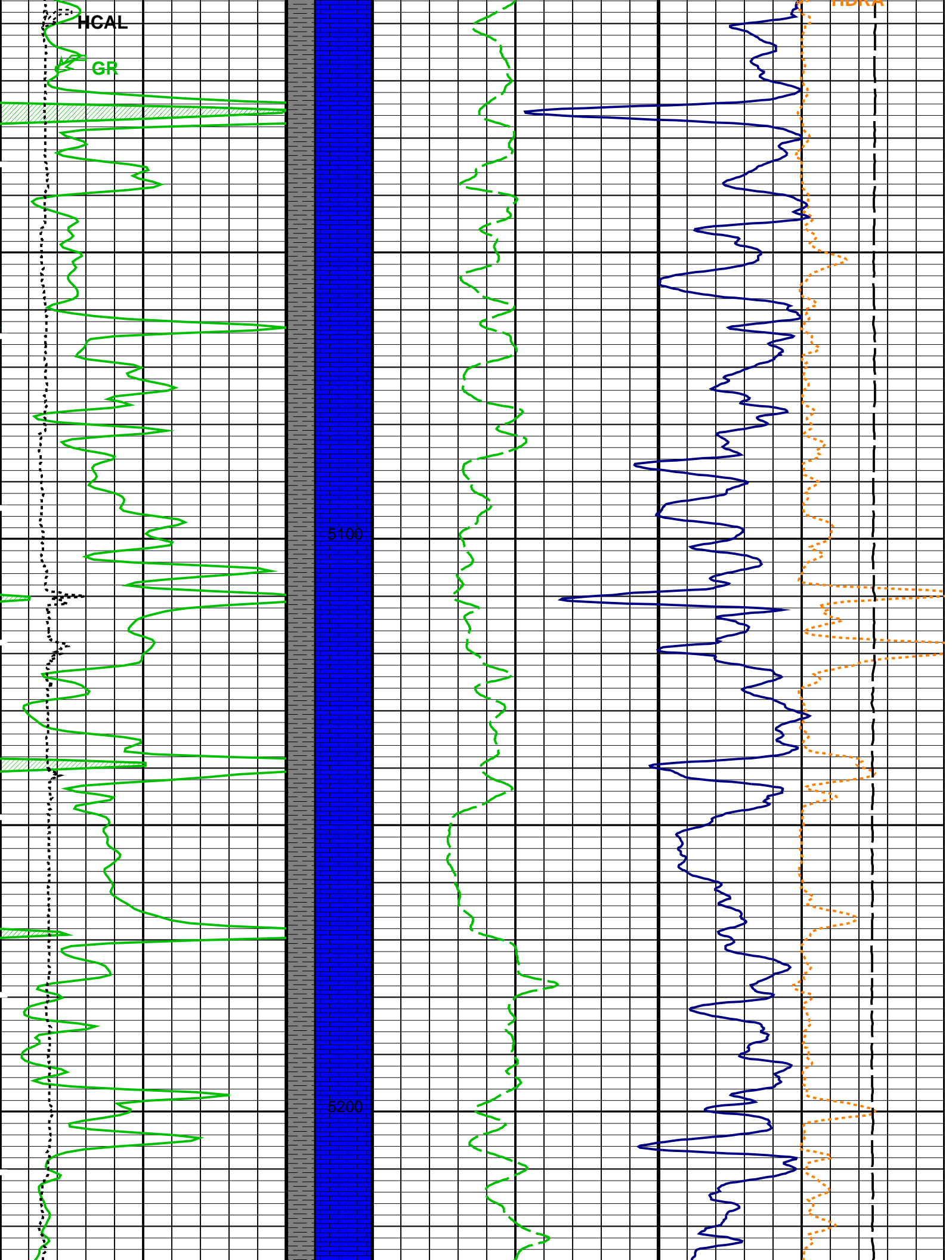


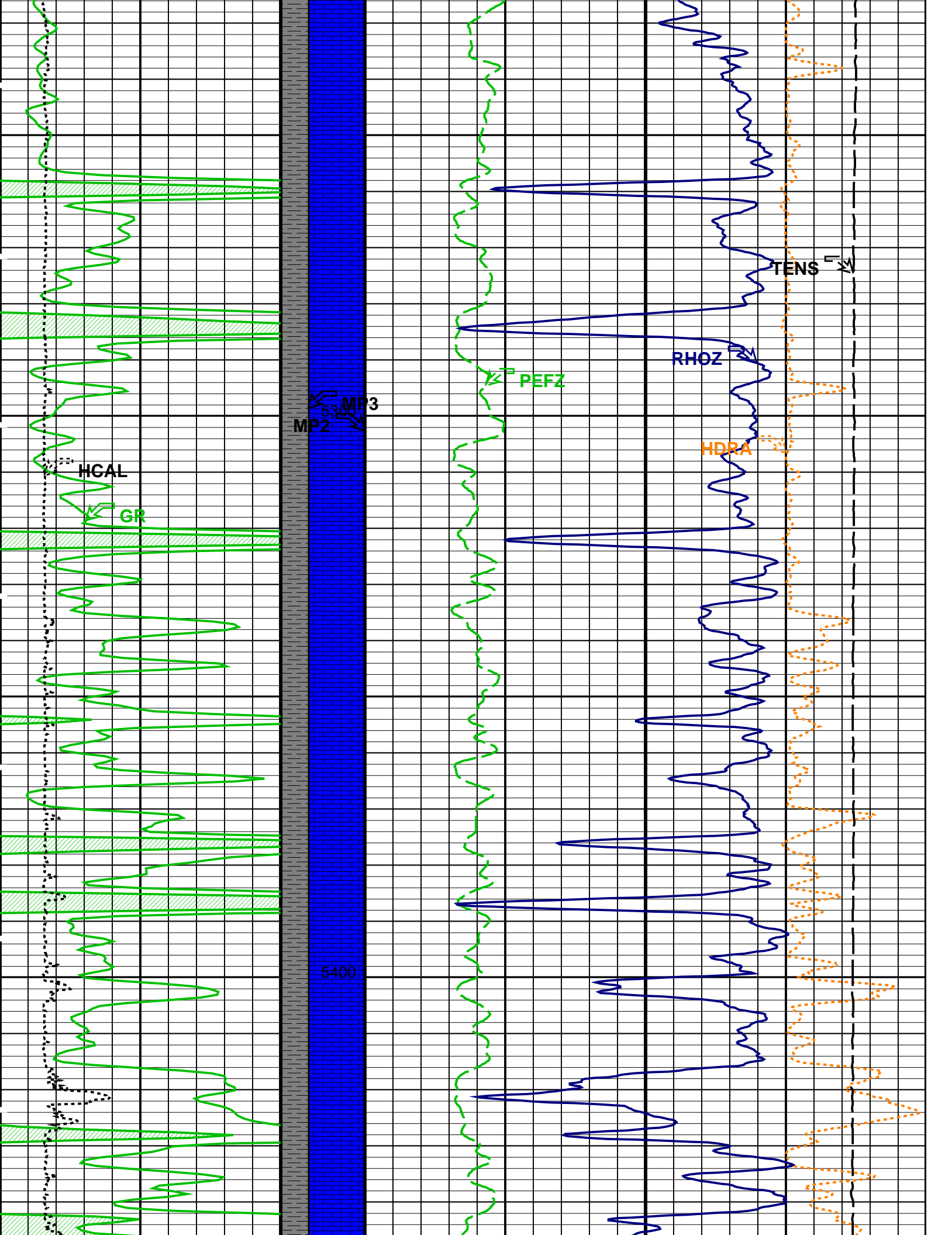


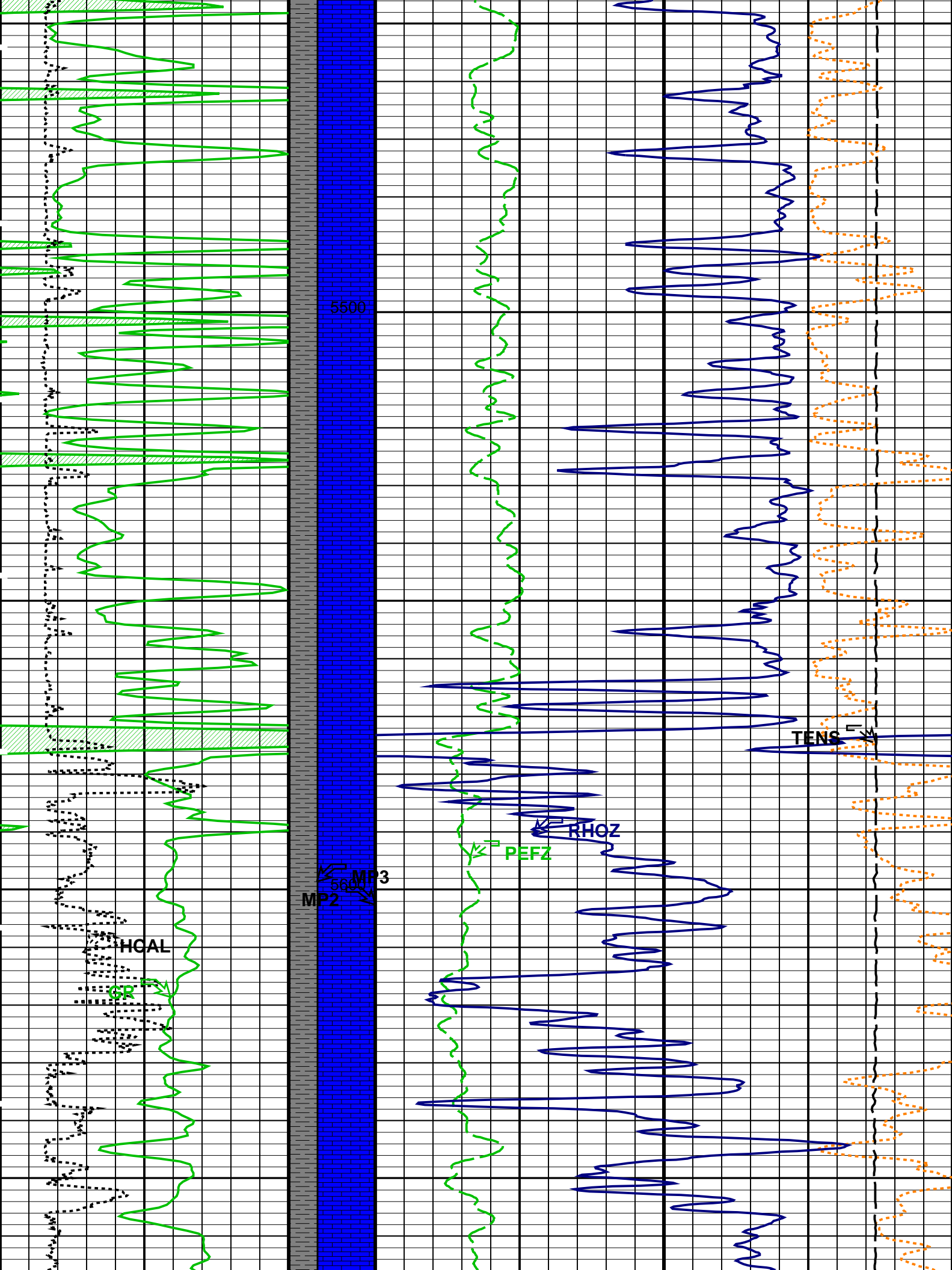


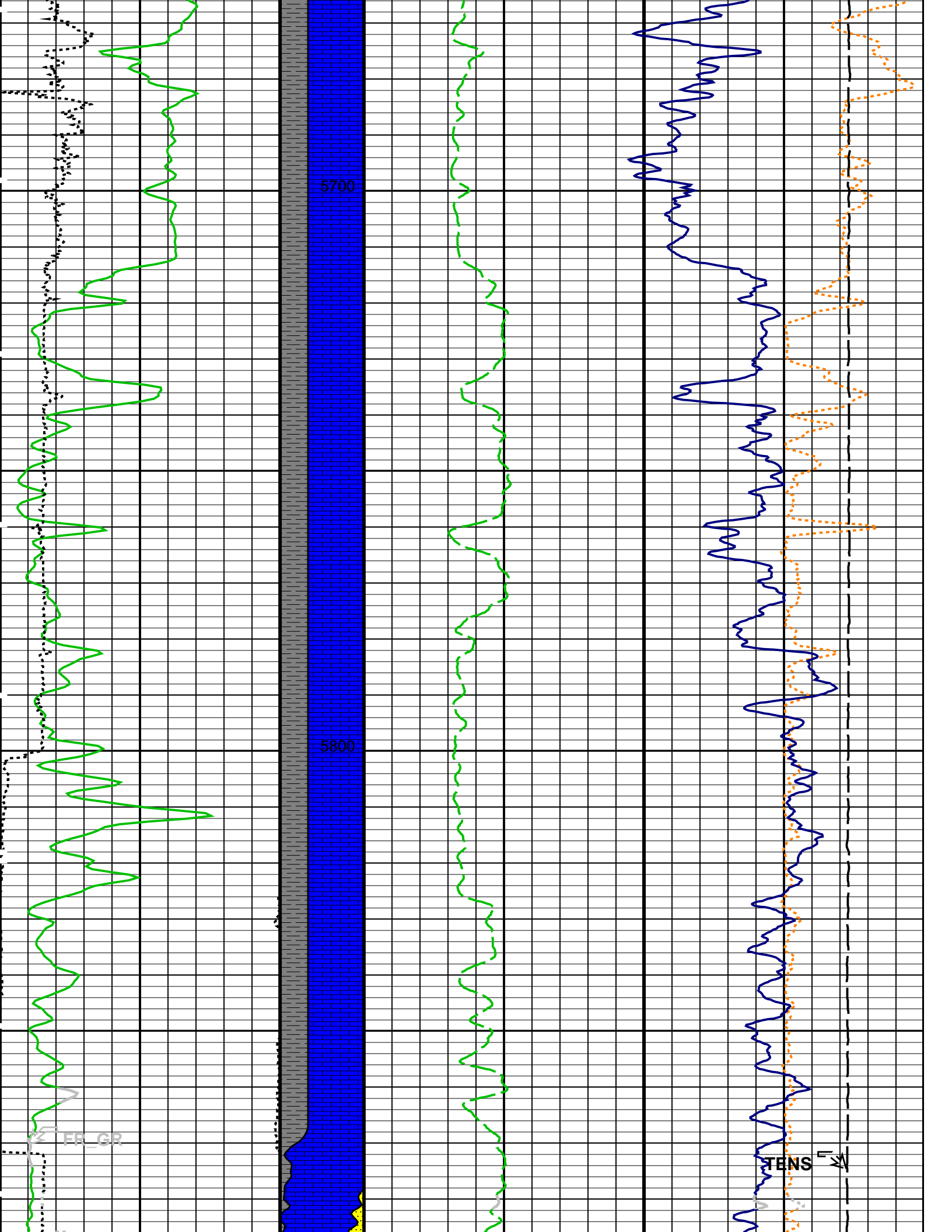


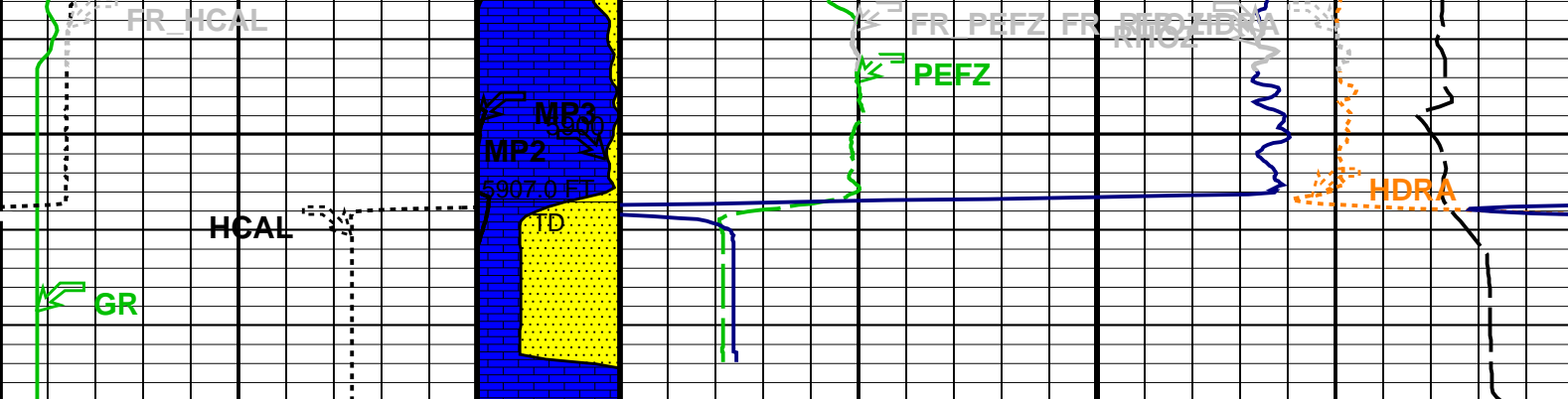












MAIN PASS: *** PLATFORM EXPRESS – LITHOLOGY DENSITY ***

Gamma Ray Backup	Stuck Stretch (STIT)	Std. Res. Formation Pe (PEFZ)		Density Correction (HDRA)	
		0	10	-0.25	0.25
0	0 (F) 50	Std. Res. Formation Density (RHOZ)		Tension (TENS)	
200	LIME	2		10000	
6	SAND			0	
16	SHALE				

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
AIT-M: Array Induction Tool – M			
BHT	Bottom Hole Temperature (used in calculations)	145	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHT	Bottom Hole Temperature (used in calculations)	145	DEGF
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCLF	Germany Coal-like Formation Option	NO	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
SHT	Surface Hole Temperature	68	DEGF
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHT	Bottom Hole Temperature (used in calculations)	145	DEGF
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation – Real Time			
BDPS	Bulk Density Processing Selector	Standard	
BHT	Bottom Hole Temperature (used in calculations)	145	DEGF
CLIM	Caliper Limit for Bad Hole	999	IN
CNPS	Corrected Neutron Porosity Selector	NPHI	
DRUL	DRHO Upper Limit	999	G/C3
FCAL	Caliper Presence Flag	PRESENT	
FCGR	CGR Presence Flag	PRESENT	

FEXP	Form Factor Exponent	2	
FLDT	Bulk Density Presence Flag	PRESENT	
FNUM	Form Factor Numerator	1	
FSO	Sonic Presence Flag	ABSENT	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PMAX	PHI Maximum	0.5	CFCF
POUT	Porosity Output Lithology	LIMESTONE	
RG21	RHO Grain (2-Mineral Model, Min-1)	2.71	G/C3
RG22	RHO Grain (2-Mineral Model, Min-2)	2.644	G/C3
RG23	RHO Grain (2-Mineral Model, Min-3)	2.877	G/C3
RG31	RHO Grain (3-Mineral Model, Min-1)	2.71	G/C3
RG32	RHO Grain (3-Mineral Model, Min-2)	2.644	G/C3
RG33	RHO Grain (3-Mineral Model, Min-3)	2.877	G/C3
RTLF	RT Limit Flag	NO_LIMIT	
RWF	Resistivity of Free Water	0.02	OHMM
SHT	Surface Hole Temperature	68	DEGF
UF	U Fluid	0.398	
UM21	U Matrix (2-Mineral Model, Min-1)	13.77	
UM22	U Matrix (2-Mineral Model, Min-2)	4.779	
UM23	U Matrix (2-Mineral Model, Min-3)	8.997	
UM31	U Matrix (3-Mineral Model, Min-1)	13.77	
UM32	U Matrix (3-Mineral Model, Min-2)	4.779	
UM33	U Matrix (3-Mineral Model, Min-3)	8.997	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	5910.00	FT
TDL	Total Depth - Logger	5907.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
DFD	Drilling Fluid Density	8.90	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
RMFS	Resistivity of Mud Filtrate Sample	0.5760	OHMM
TD	Total Depth	5907	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: DENS Vertical Scale: 5" per 100' Graphics File Created: 20-Mar-2012 06:47

OP System Version: 19C0-187

AIT-M	19C0-187	HILTH-FTB	19C0-187
DTC-H	19C0-187		

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_016LUP	FN:15	PRODUCER	20-Mar-2012 06:47
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HI RES DENS 10" = 100'

MAXIS Field Log

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_016LUP	FN:15	PRODUCER	20-Mar-2012 06:47
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OP System Version: 19C0-187

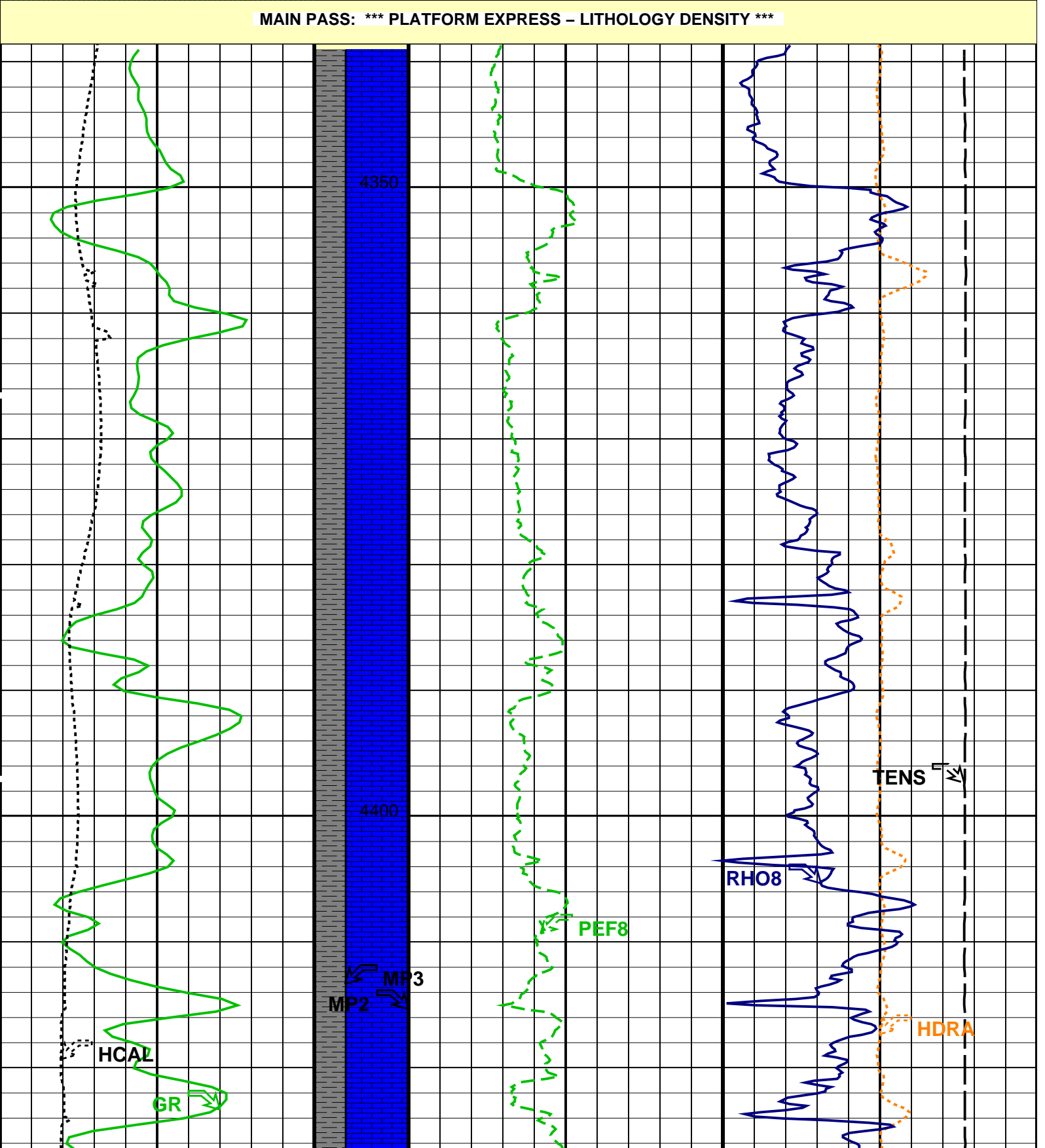
AIT-M	19C0-187	HILTH-FTB	19C0-187
DTC-H	19C0-187		

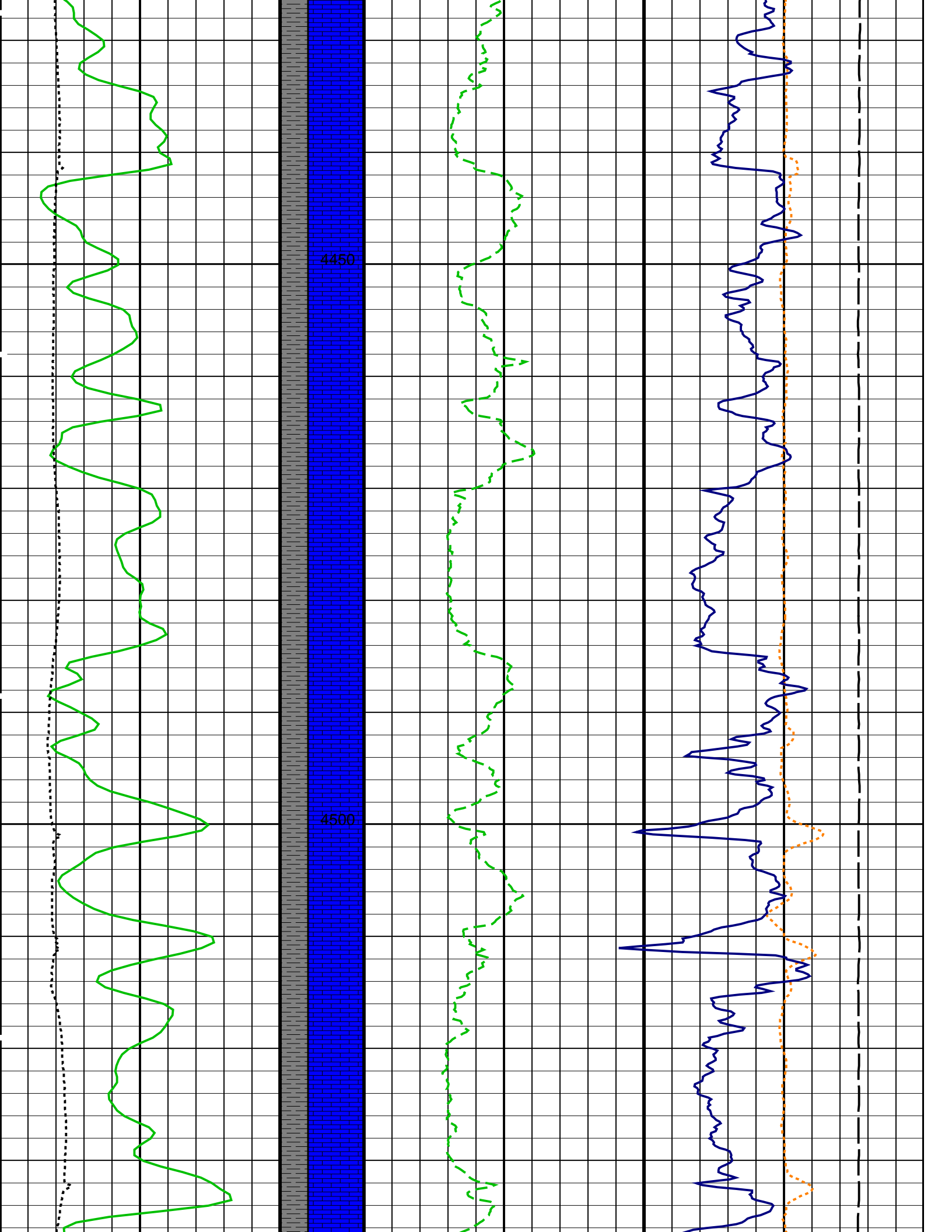
PIP SUMMARY

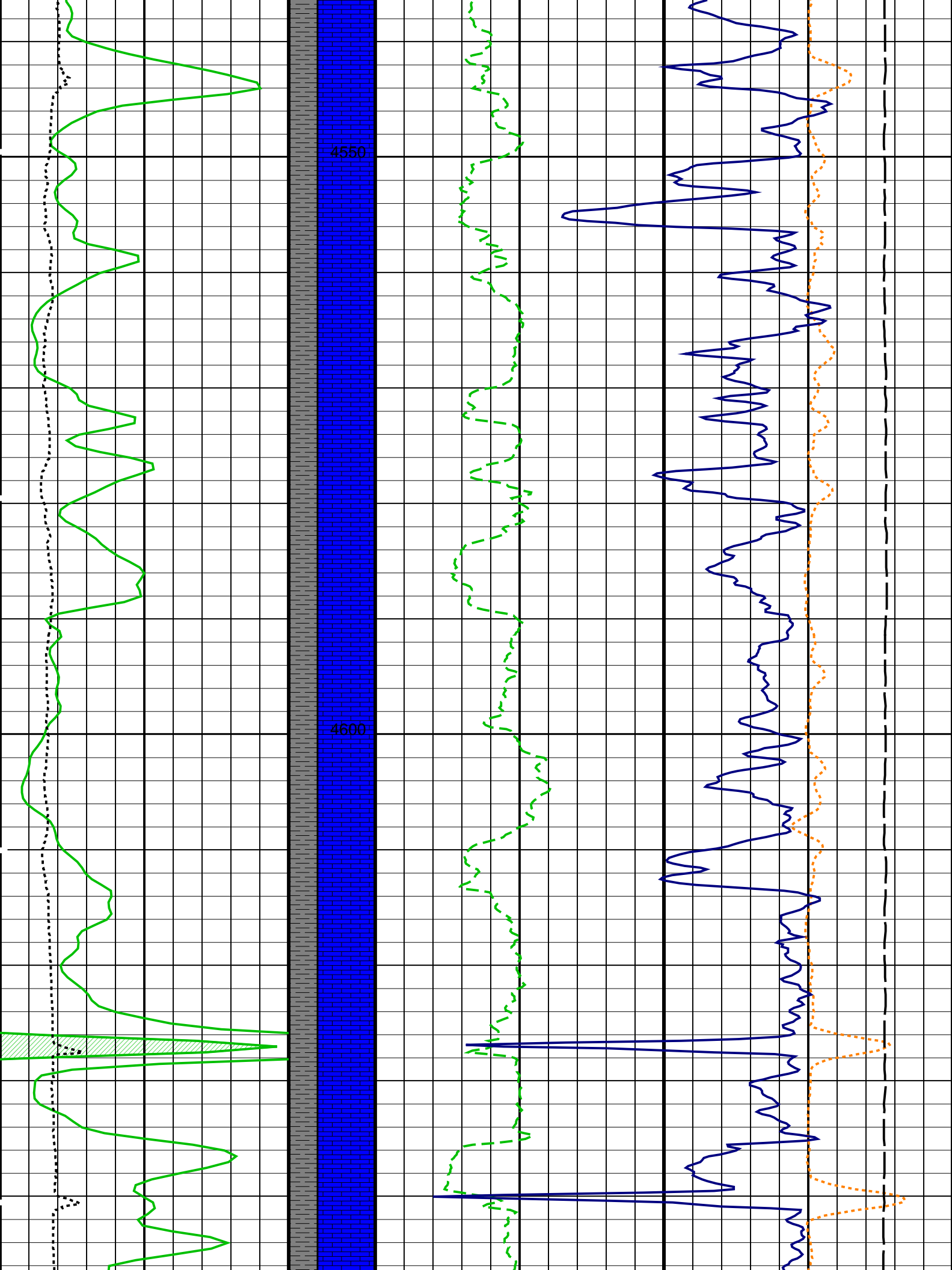
Time Mark Every 60 S

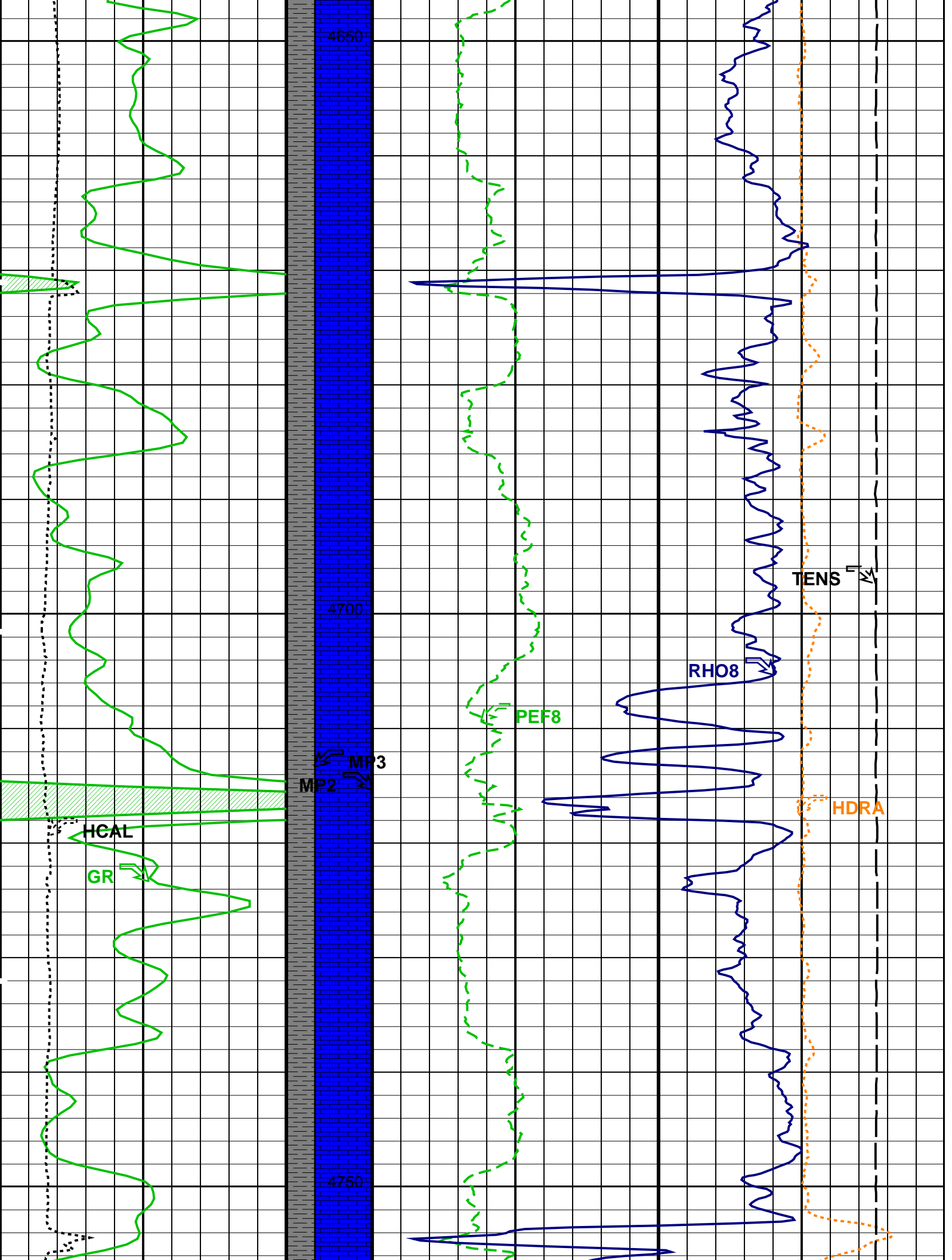
SHALE

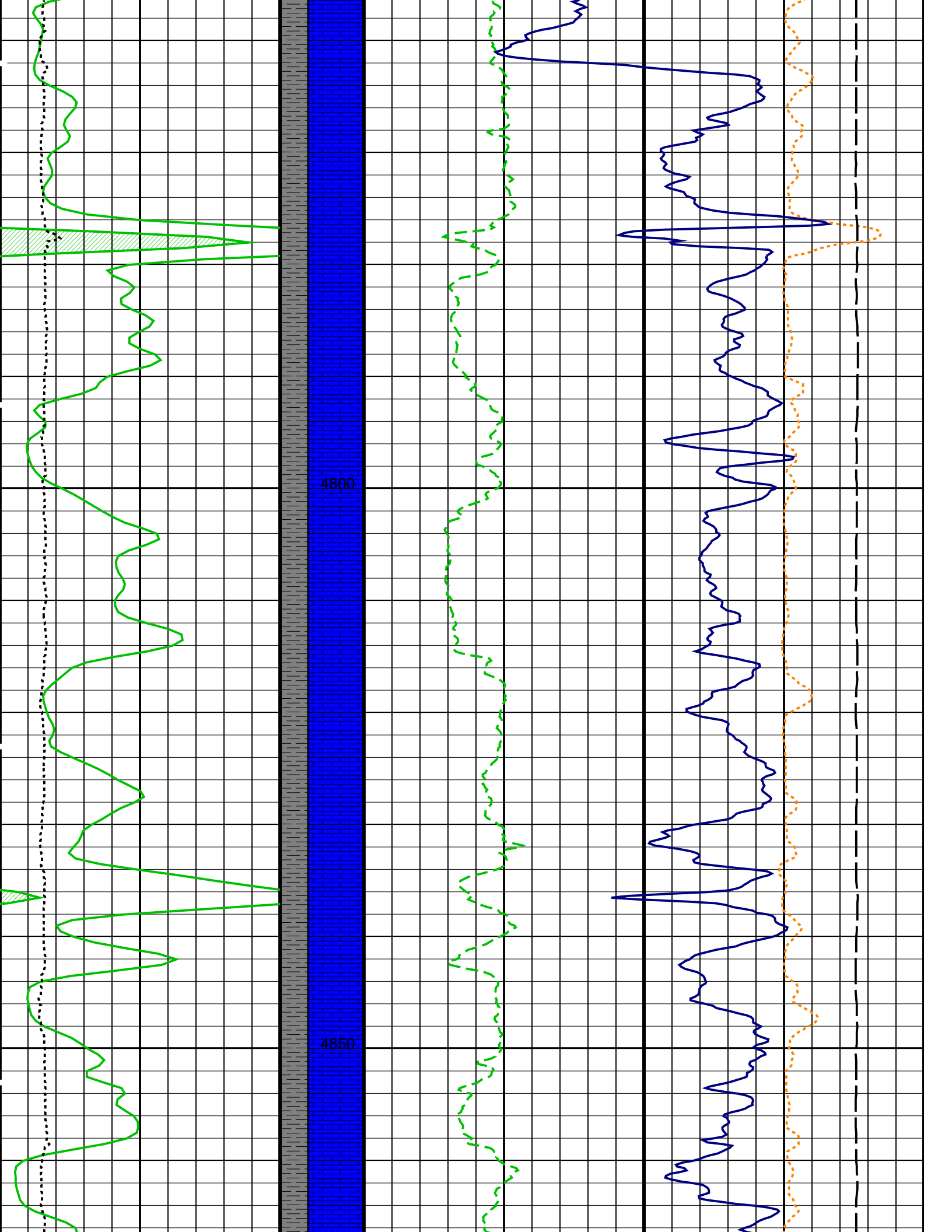
Caliper (HCAL) (IN)		SAND	Tension (TENS) (LBF)	
6	16		10000	0
Gamma Ray (GR) (GAPI)		LIME	H. Res. Formation Density (RHO8) (G/C3)	
0	200		2	3
Gamma Ray Backup		Stuck Stretch (STIT)	H. Res. Formation Pe (PEF8)	
		0 (F) 50	0	10
			Density Correction (HDRA) (G/C3)	
			-0.25	0.25

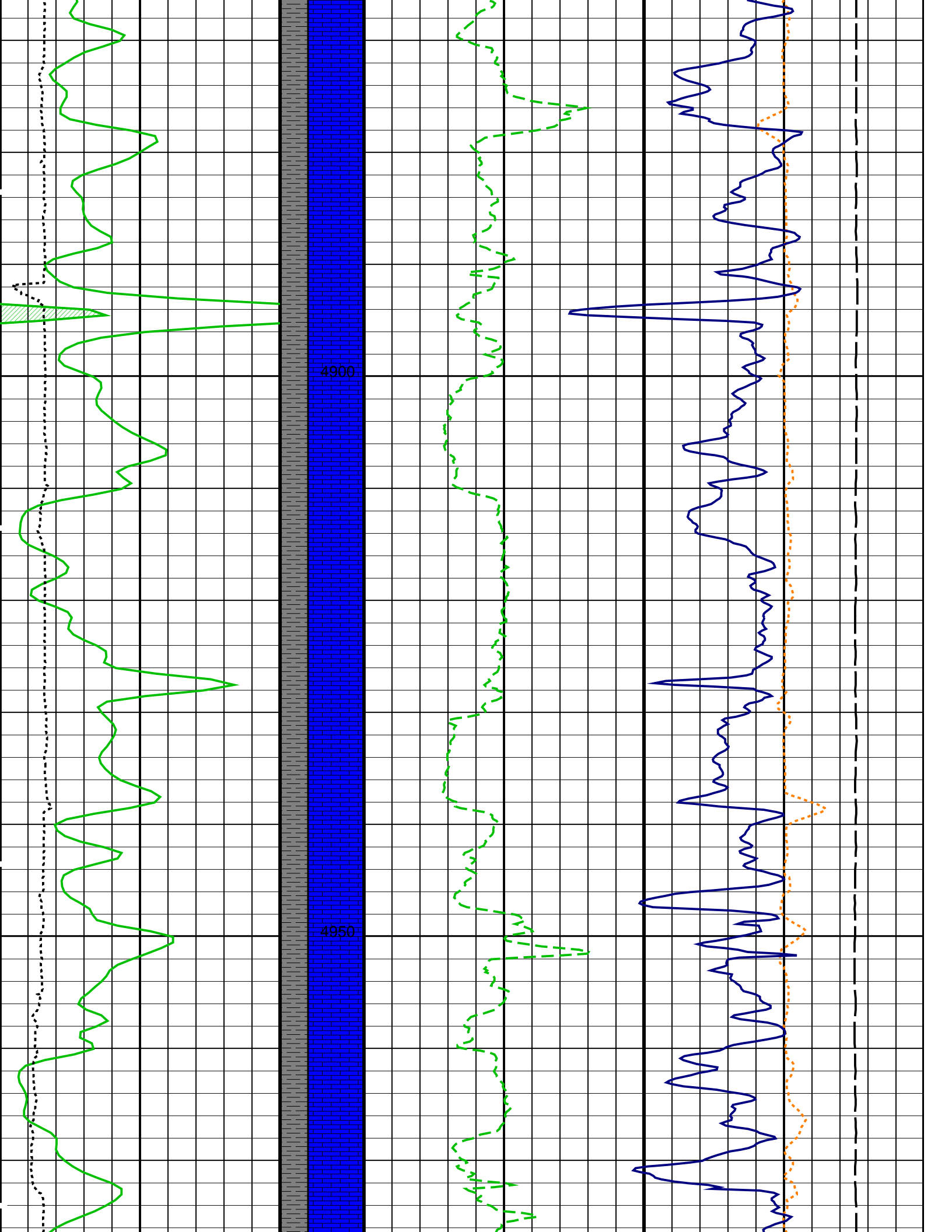


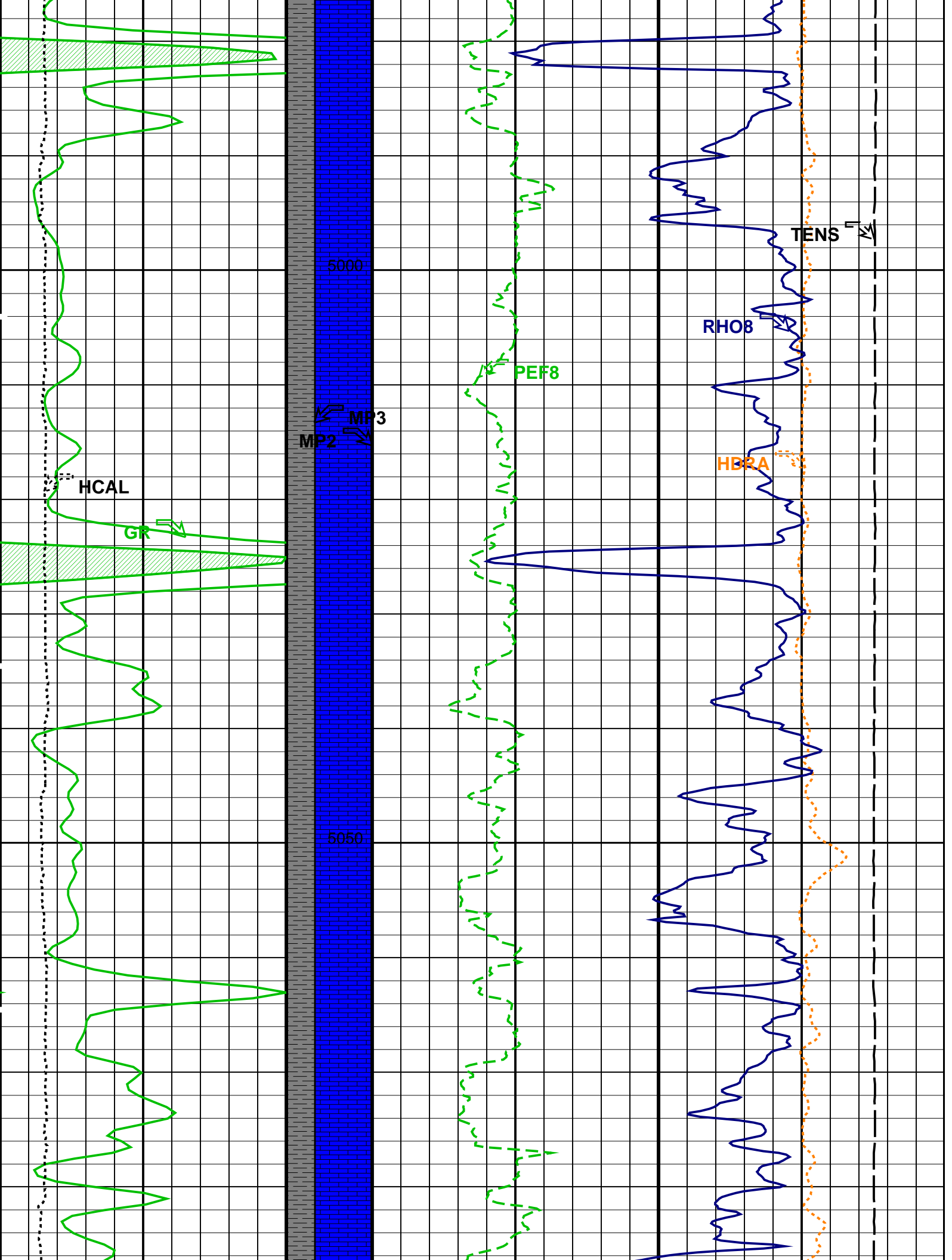


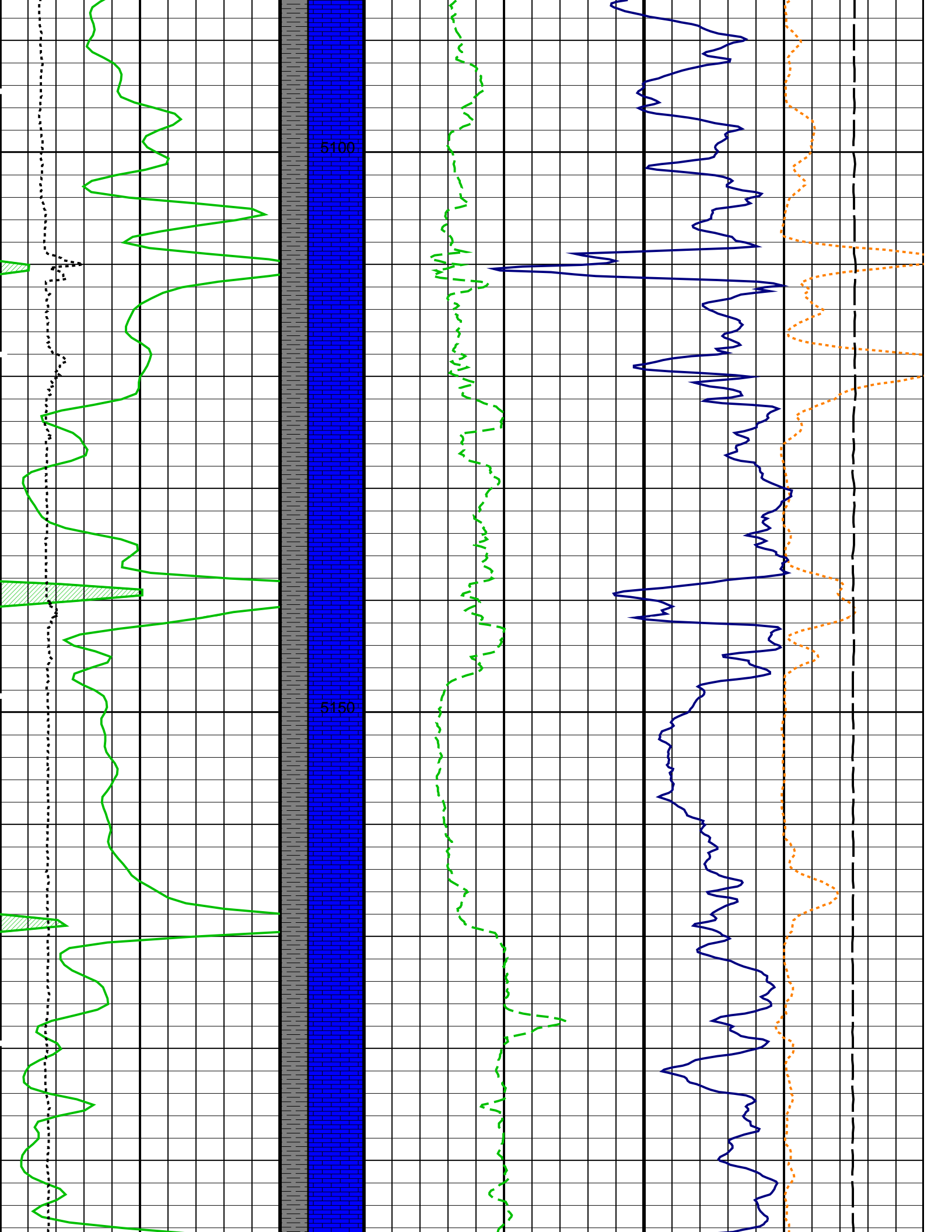


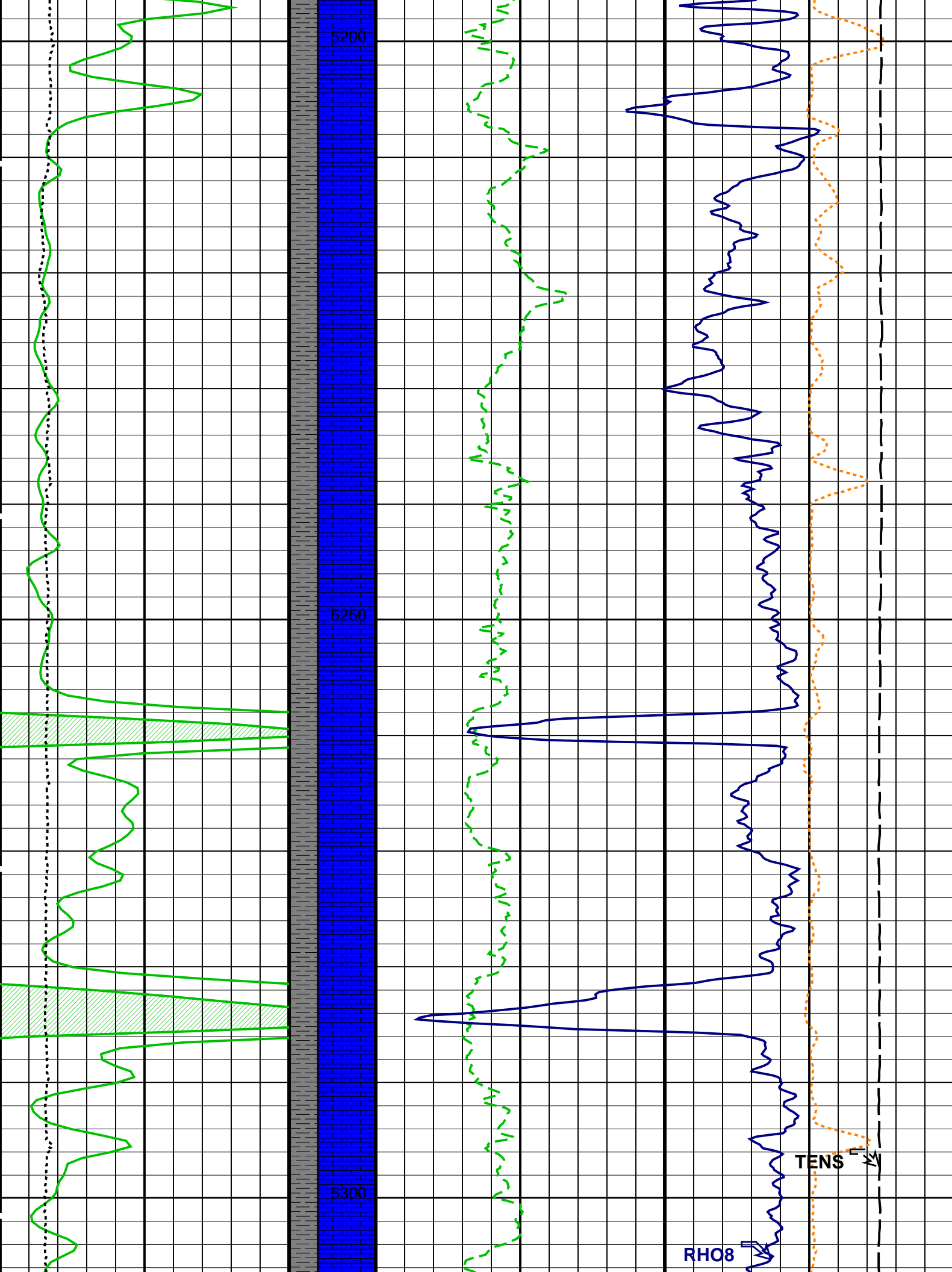


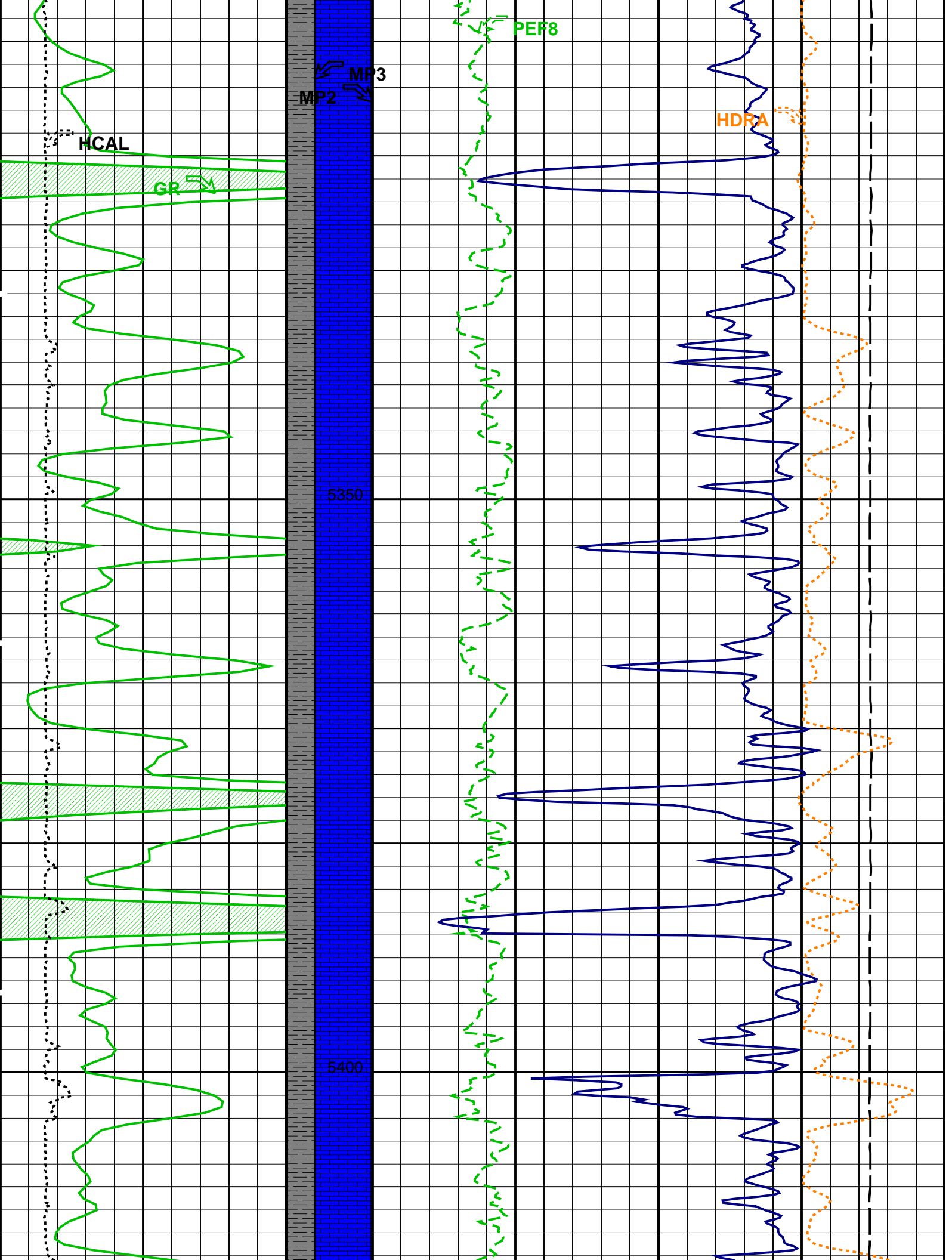


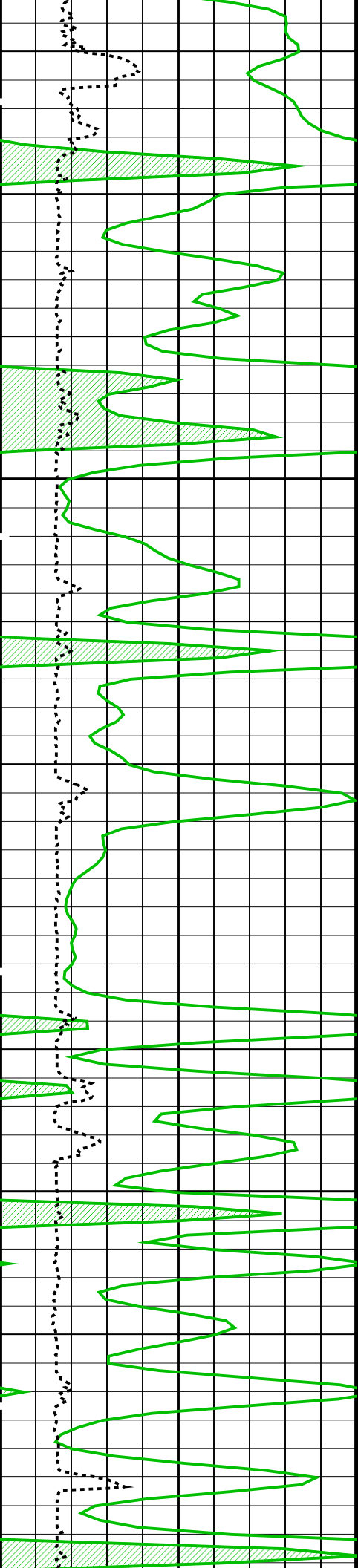






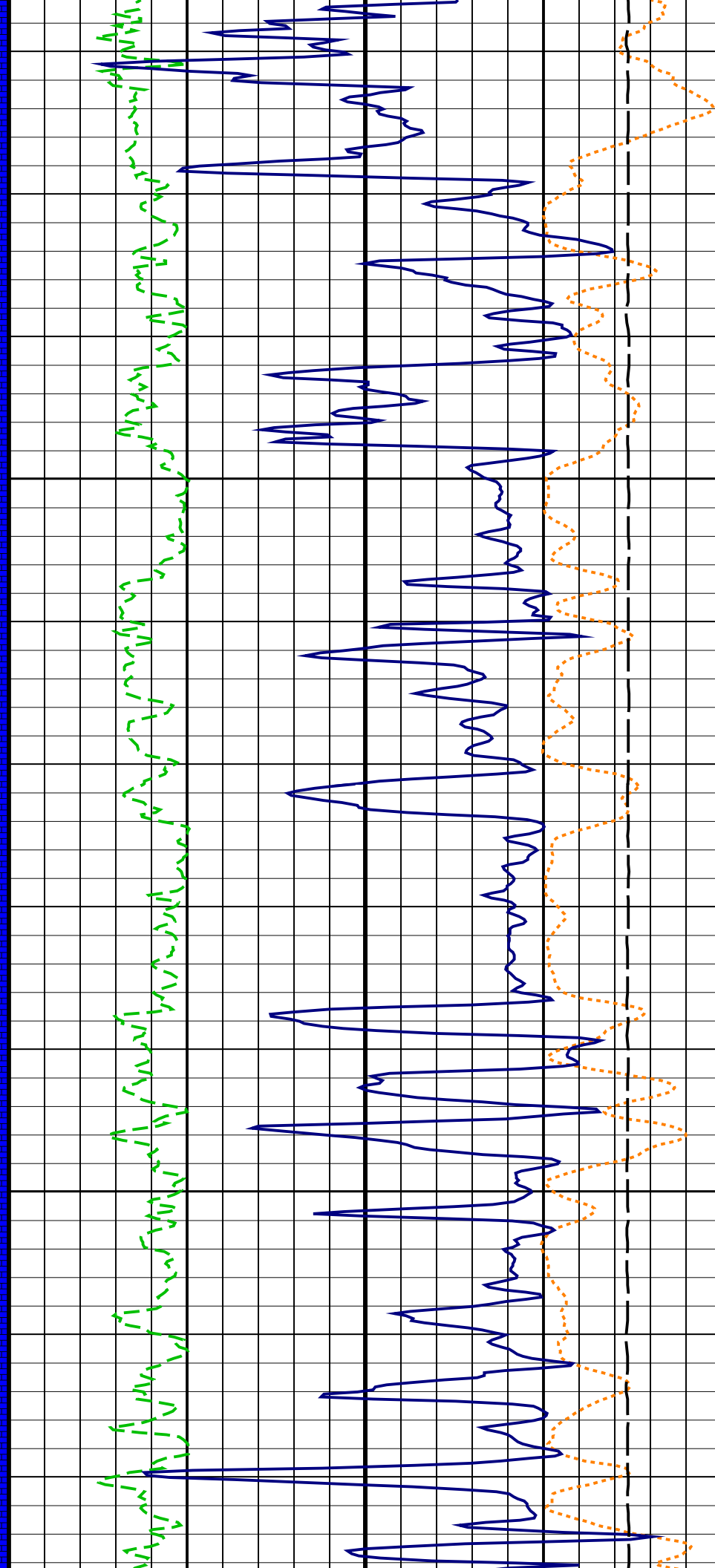


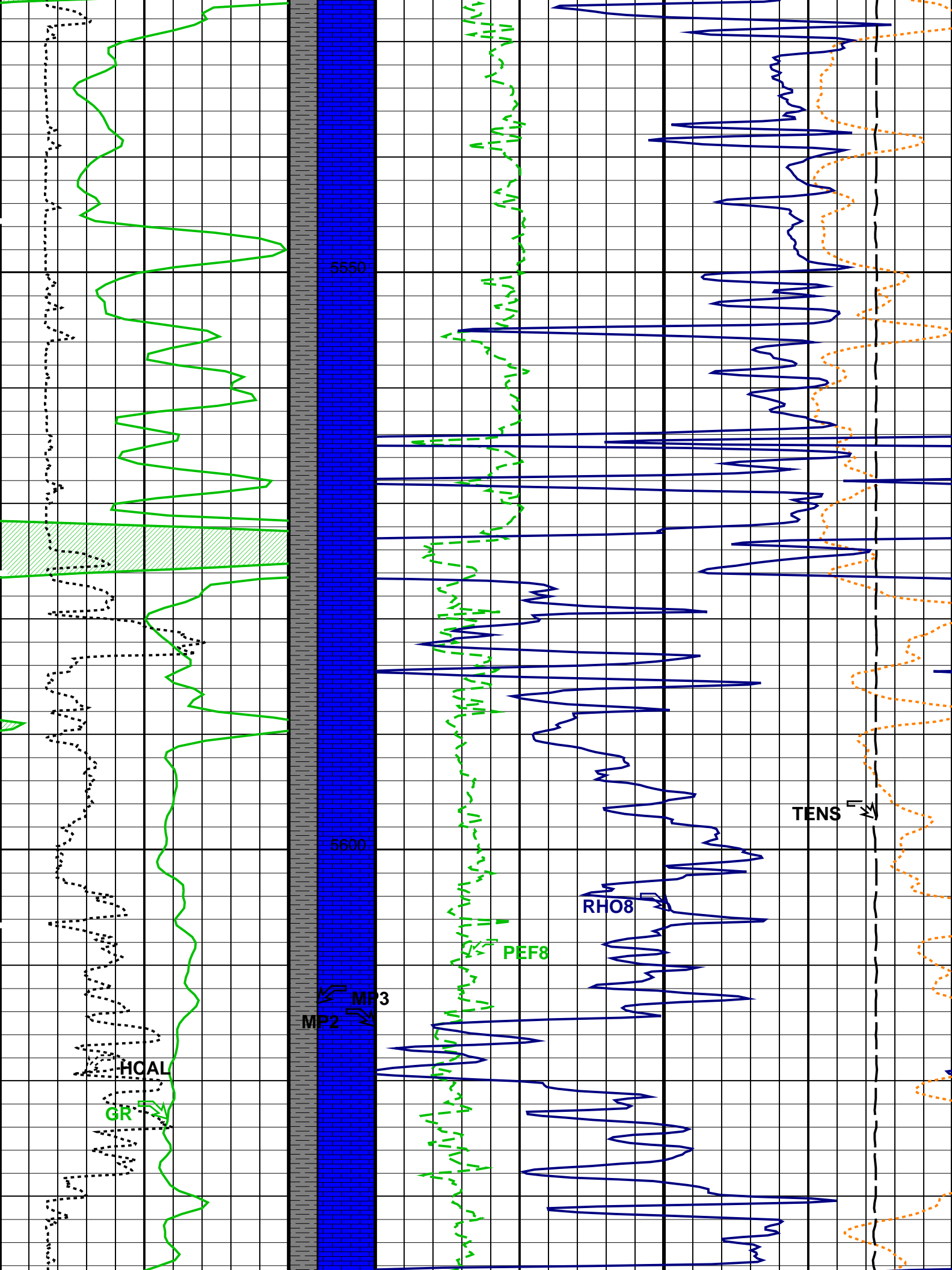


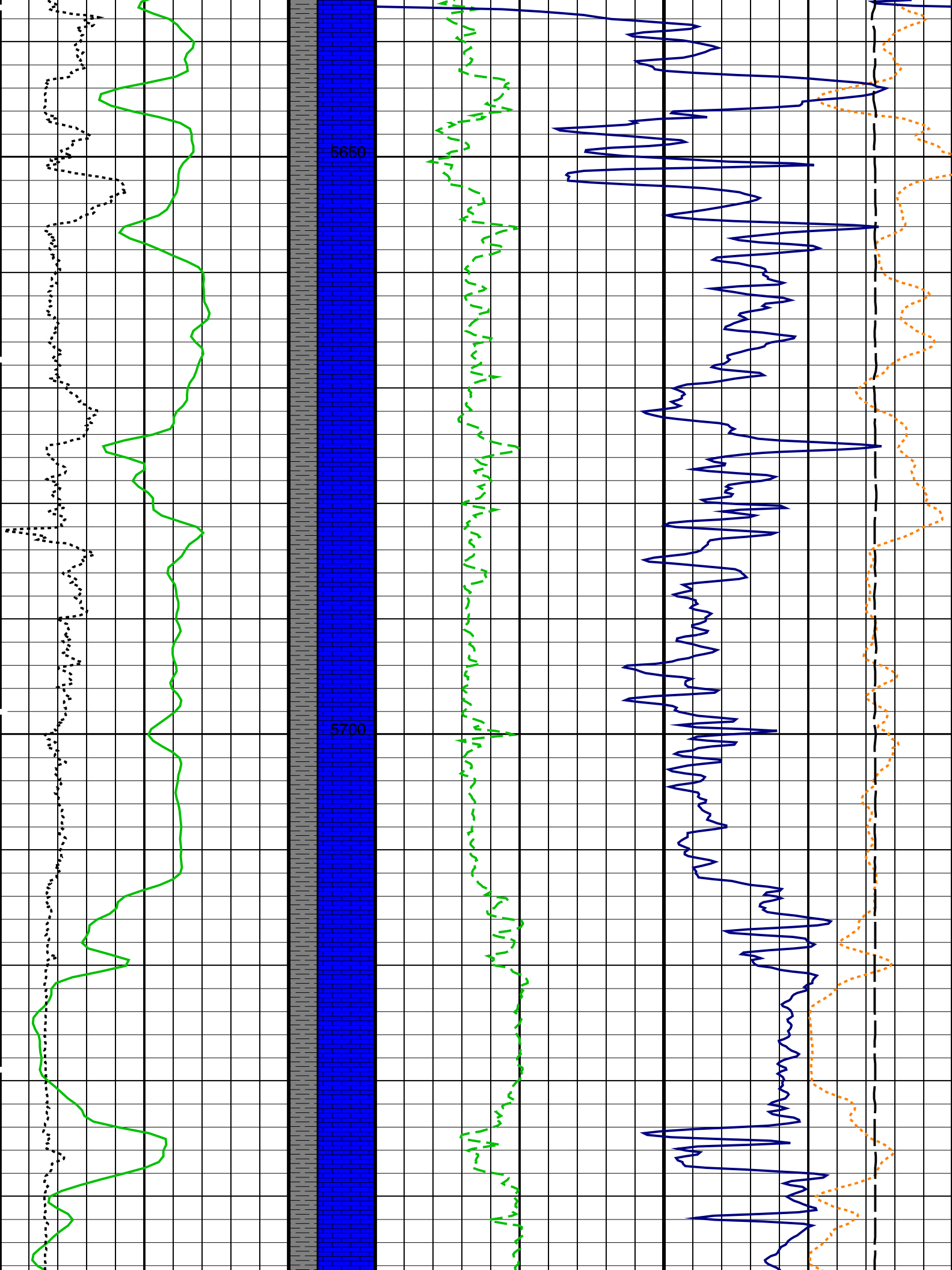


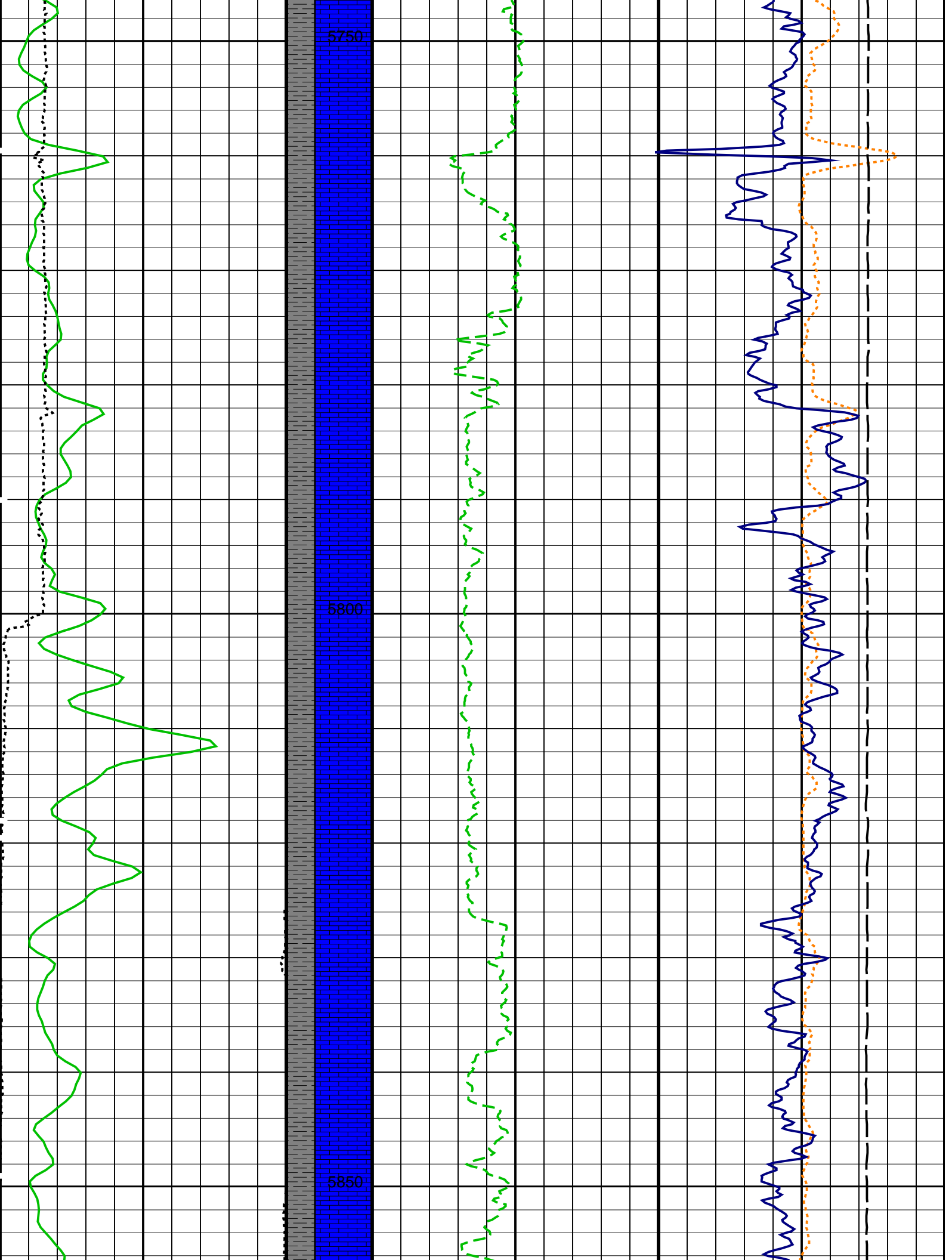
5450

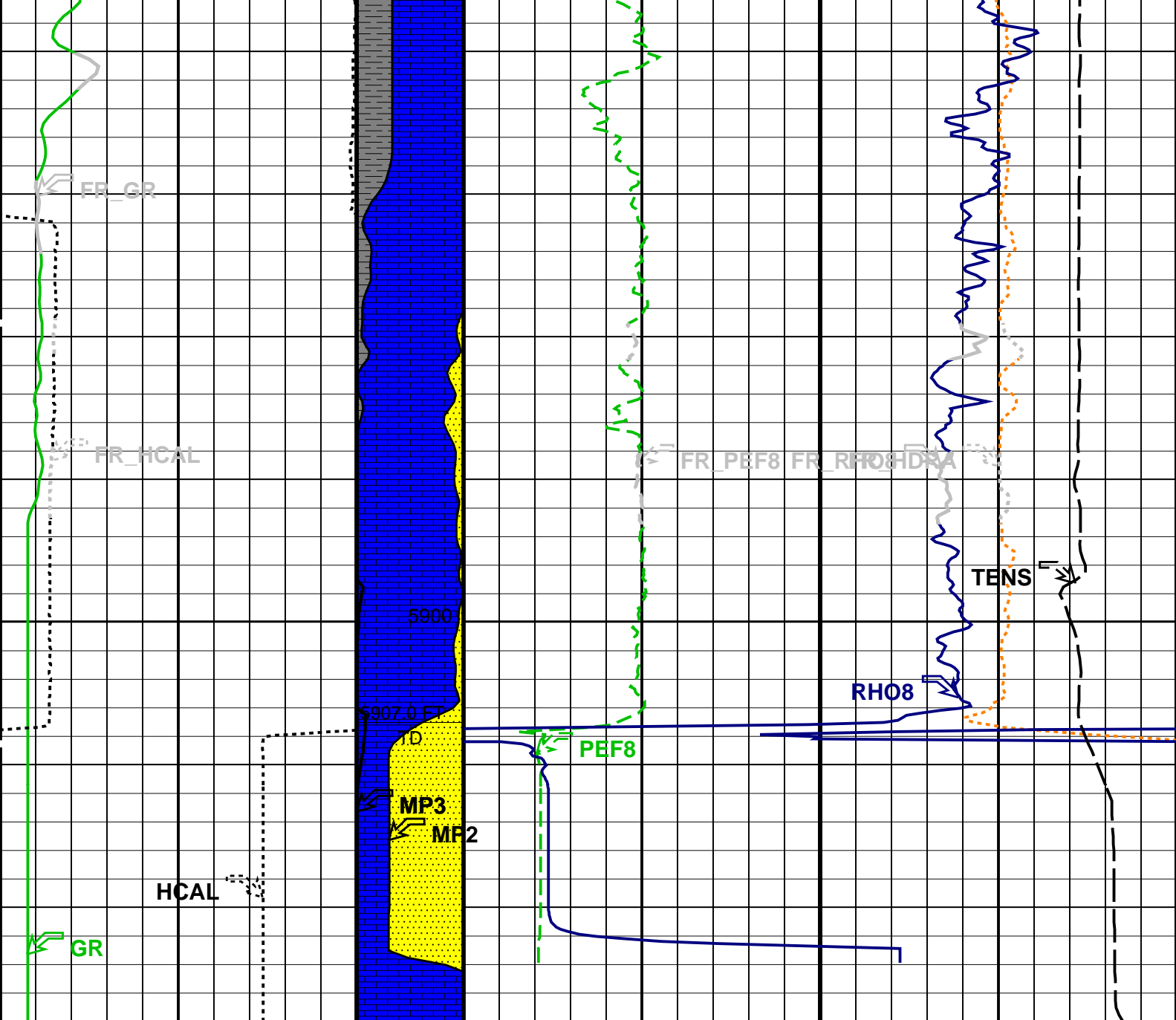
5500











MAIN PASS: *** PLATFORM EXPRESS – LITHOLOGY DENSITY ***

Gamma Ray Backup	Stuck Stretch (STIT)	H. Res. Formation Pe (PEF8)		Density Correction (HDRA)	
	0 (F) 50	0	10	-0.25	0.25
Gamma Ray (GR)	LIME	H. Res. Formation Density (RH08)			
(GAPI)		2		(G/C3)	
Caliper (HCAL)	SAND			Tension (TENS)	
(IN)				(LBF)	
	SHALE				

PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
AIT-M: Array Induction Tool – M		
BHT	Bottom Hole Temperature (used in calculations)	145 DEGF

FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHT	Bottom Hole Temperature (used in calculations)	145	DEGF
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCLF	Germany Coal-like Formation Option	NO	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
SHT	Surface Hole Temperature	68	DEGF
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHT	Bottom Hole Temperature (used in calculations)	145	DEGF
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation - Real Time			
BDPS	Bulk Density Processing Selector	Standard	
BHT	Bottom Hole Temperature (used in calculations)	145	DEGF
CLIM	Caliper Limit for Bad Hole	999	IN
CNPS	Corrected Neutron Porosity Selector	NPHI	
DRUL	DRHO Upper Limit	999	G/C3
FCAL	Caliper Presence Flag	PRESENT	
FCGR	CGR Presence Flag	PRESENT	
FEXP	Form Factor Exponent	2	
FLDT	Bulk Density Presence Flag	PRESENT	
FNUM	Form Factor Numerator	1	
FSON	Sonic Presence Flag	ABSENT	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PMAX	PHI Maximum	0.5	CFCF
POUT	Porosity Output Lithology	LIMESTONE	
RG21	RHO Grain (2-Mineral Model, Min-1)	2.71	G/C3
RG22	RHO Grain (2-Mineral Model, Min-2)	2.644	G/C3
RG23	RHO Grain (2-Mineral Model, Min-3)	2.877	G/C3
RG31	RHO Grain (3-Mineral Model, Min-1)	2.71	G/C3
RG32	RHO Grain (3-Mineral Model, Min-2)	2.644	G/C3
RG33	RHO Grain (3-Mineral Model, Min-3)	2.877	G/C3
RTLFL	RT Limit Flag	NO_LIMIT	
RWF	Resistivity of Free Water	0.02	OHMM
SHT	Surface Hole Temperature	68	DEGF
UF	U Fluid	0.398	
UM21	U Matrix (2-Mineral Model, Min-1)	13.77	
UM22	U Matrix (2-Mineral Model, Min-2)	4.779	
UM23	U Matrix (2-Mineral Model, Min-3)	8.997	
UM31	U Matrix (3-Mineral Model, Min-1)	13.77	
UM32	U Matrix (3-Mineral Model, Min-2)	4.779	
UM33	U Matrix (3-Mineral Model, Min-3)	8.997	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	5910.00	FT
TDL	Total Depth - Logger	5907.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
DFD	Drilling Fluid Density	8.90	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
RMFS	Resistivity of Mud Filtrate Sample	0.5760	OHMM
TD	Total Depth	5907	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: DENS_HI_RES Vertical Scale: 10" per 100' Graphics File Created: 20-Mar-2012 06:47

OP System Version: 19C0-187

AIT-M	19C0-187	HILTH-FTB	19C0-187
DTC-H	19C0-187		

Output DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_016LUP

FN:15

PRODUCER

20-Mar-2012 06:47

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DENS SANDSTONE REPEAT PASS

MAXIS Field Log

Input DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_007LUP

FN:6

PRODUCER

20-Mar-2012 06:01

5928.0 FT

5410.5 FT

Output DLIS Files

DEFAULT

AIT_TLD_MCFL_CNL_008PUP

FN:7

PRODUCER

20-Mar-2012 06:22

5931.0 FT

5413.5 FT

OP System Version: 19C0-187

AIT-M
DTC-H

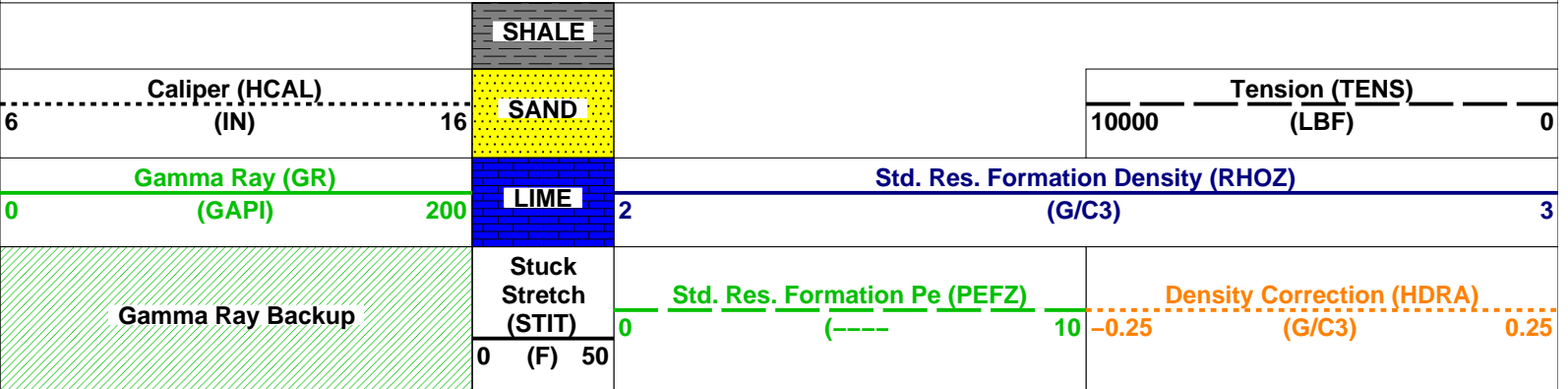
19C0-187
19C0-187

HILTH-FTB

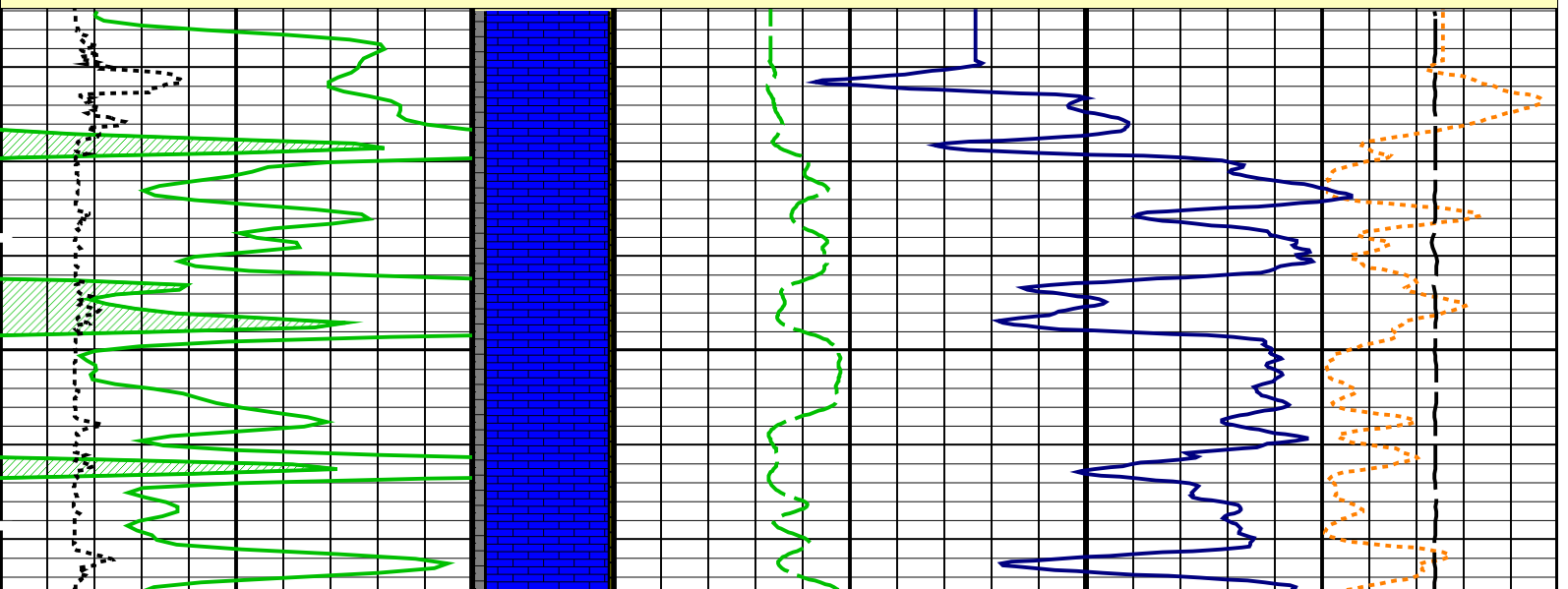
19C0-187

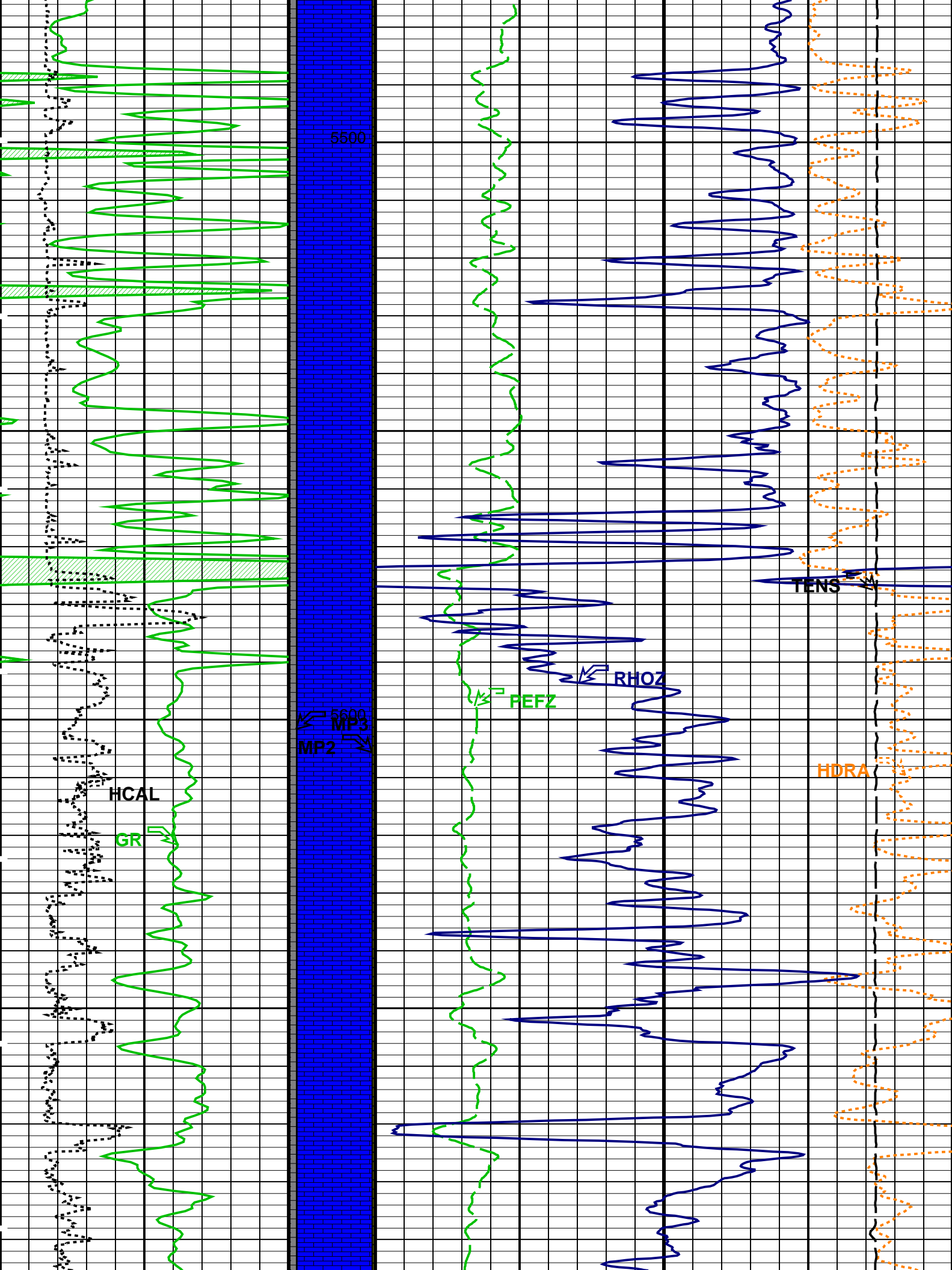
PIP SUMMARY

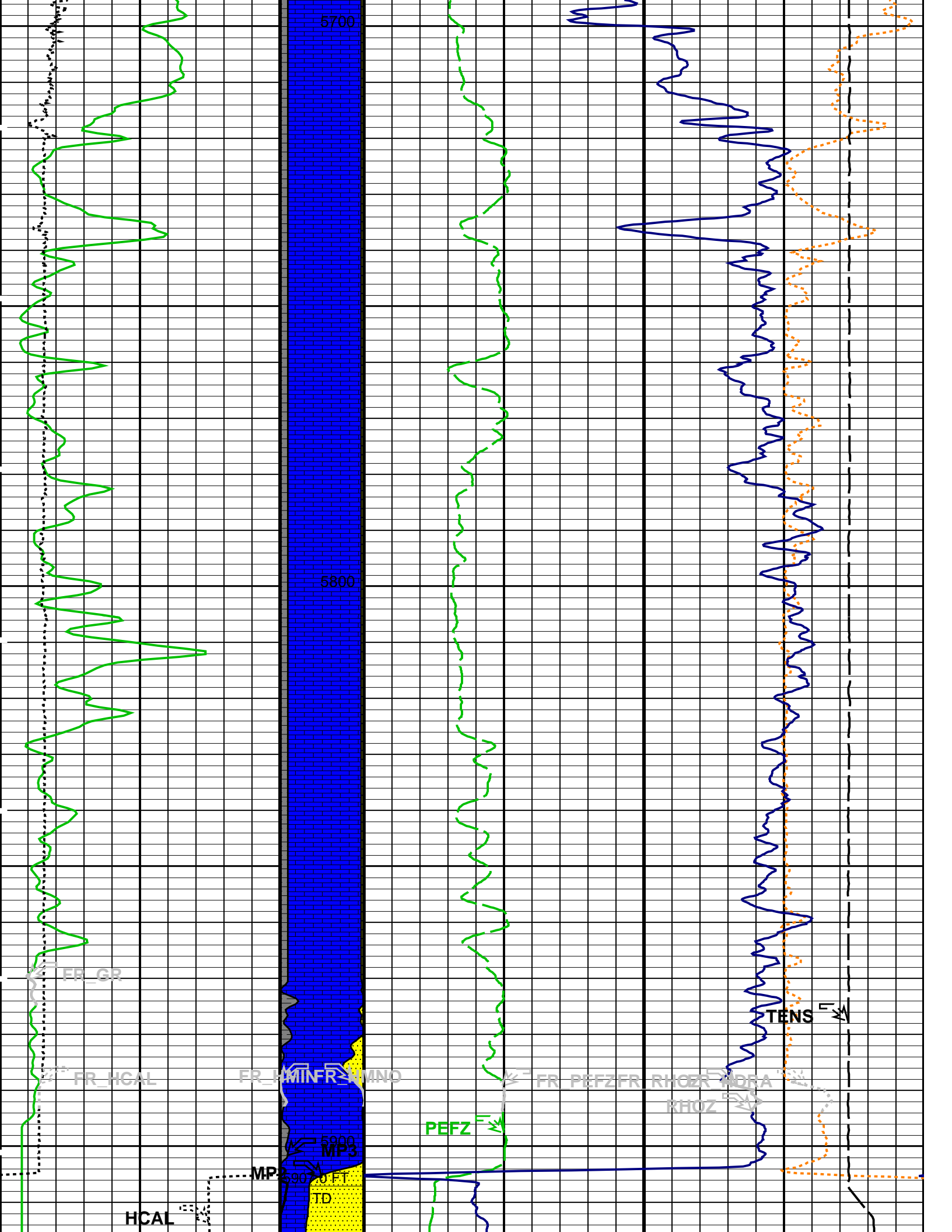
Time Mark Every 60 S

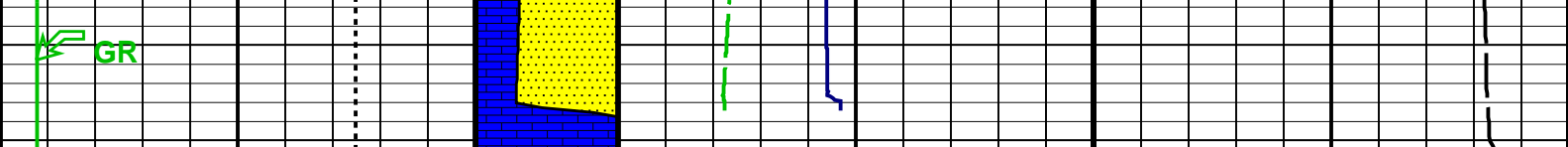


MAIN PASS: *** PLATFORM EXPRESS - LITHOLOGY DENSITY ***

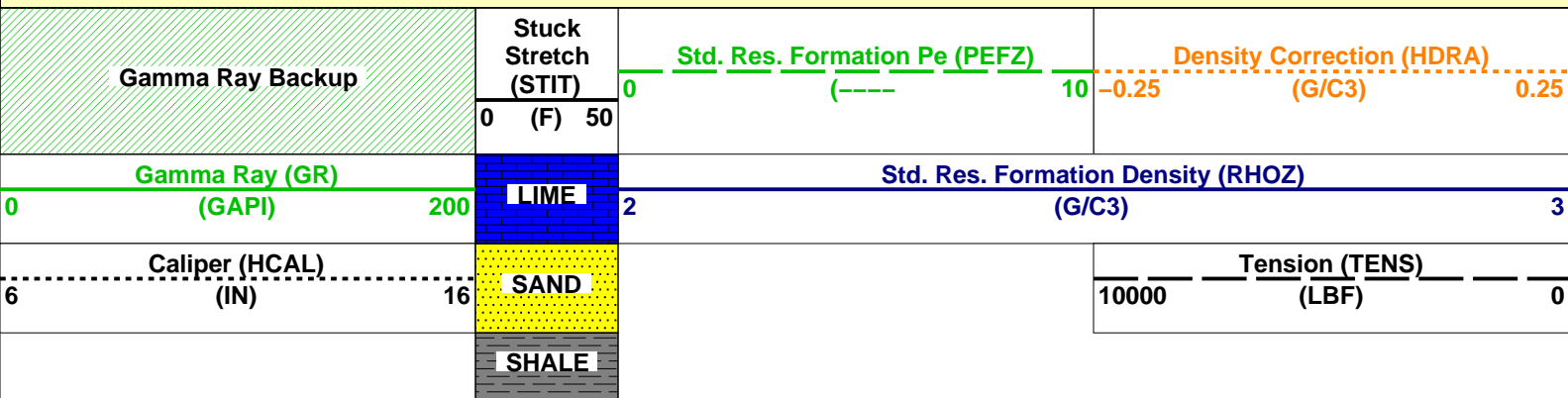








MAIN PASS: *** PLATFORM EXPRESS – LITHOLOGY DENSITY ***



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
AIT-M: Array Induction Tool – M		
BHT	Bottom Hole Temperature (used in calculations)	148 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GGRD	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
SHT	Surface Hole Temperature	68 DEGF
HILTH-FTB: High resolution Integrated Logging Tool–DTS		
BHFL_TLD	HILT Nuclear Mud Base	WATER
BHT	Bottom Hole Temperature (used in calculations)	148 DEGF
DHC	Density Hole Correction	BS
FD	Fluid Density	1 G/C3
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCLF	Germany Coal-like Formation Option	NO
GGRD	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
NAAC	HRDD APS Activation Correction	OFF
NMT	HILT Nuclear Mud Type	NOBARITE
NPRM	HRDD Processing Mode	HiRes
NSAR	HRDD Depth Sampling Rate	1 IN
SHT	Surface Hole Temperature	68 DEGF
FEQL: Formation Evaluation Quick Look		
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
HOLEV: Integrated Hole/Cement Volume		
BHT	Bottom Hole Temperature (used in calculations)	148 DEGF
GGRD	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
SHT	Surface Hole Temperature	68 DEGF
PERT: Preliminary Evaluation – Real Time		
BDPS	Bulk Density Processing Selector	Standard
BHT	Bottom Hole Temperature (used in calculations)	148 DEGF
CLIM	Caliper Limit for Bad Hole	999 IN
CNPS	Corrected Neutron Porosity Selector	NPHI
DRUL	DRHO Upper Limit	999 G/C3
FCAL	Caliper Presence Flag	PRESENT
FCGR	CGR Presence Flag	PRESENT
FEXP	Form Factor Exponent	2
FLDT	Bulk Density Presence Flag	PRESENT
FNUM	Form Factor Numerator	1
FSON	Sonic Presence Flag	ABSENT
GGRD	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
PMAX	PHI Maximum	0.5 CFCF
POUT	Porosity Output Lithology	LIMESTONE
RG21	RHO Grain (2–Mineral Model, Min–1)	2.71 G/C3

RG22	RHO Grain (2-Mineral Model, Min-2)	2.644	G/C3
RG23	RHO Grain (2-Mineral Model, Min-3)	2.877	G/C3
RG31	RHO Grain (3-Mineral Model, Min-1)	2.71	G/C3
RG32	RHO Grain (3-Mineral Model, Min-2)	2.644	G/C3
RG33	RHO Grain (3-Mineral Model, Min-3)	2.877	G/C3
RTLFL	RT Limit Flag	NO_LIMIT	
RWF	Resistivity of Free Water	0.02	OHMM
SHT	Surface Hole Temperature	68	DEGF
UF	U Fluid	0.398	
UM21	U Matrix (2-Mineral Model, Min-1)	13.77	
UM22	U Matrix (2-Mineral Model, Min-2)	4.779	
UM23	U Matrix (2-Mineral Model, Min-3)	8.997	
UM31	U Matrix (3-Mineral Model, Min-1)	13.77	
UM32	U Matrix (3-Mineral Model, Min-2)	4.779	
UM33	U Matrix (3-Mineral Model, Min-3)	8.997	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	5910.00	FT
TDL	Total Depth - Logger	5907.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
DFD	Drilling Fluid Density	8.90	LB/G
DO	Depth Offset for Playback	3.0	FT
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	0.5760	OHMM
TD	Total Depth	5907	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: DENS Vertical Scale: 5" per 100' Graphics File Created: 20-Mar-2012 06:22

OP System Version: 19C0-187

AIT-M	19C0-187	HILTH-FTB	19C0-187
DTC-H	19C0-187		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_007LUP	FN:6	PRODUCER	20-Mar-2012 06:01	5928.0 FT	5410.5 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_008PUP	FN:7	PRODUCER	20-Mar-2012 06:22		
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BEFORE CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Array Induction Tool - M Wellsite Calibration - Electronics Calibration Check - Thru Cal Mag. & Phase							
Master: 26-Jan-2012 16:11 Before: 19-Mar-2012 10:05							
Thru Cal Magnitude - 0	0	0.6131	0.6135	N/A	N/A	N/A	V
Thru Cal Magnitude - 1	0	1.256	1.257	N/A	N/A	N/A	V
Thru Cal Magnitude - 2	0	0.6230	0.6235	N/A	N/A	N/A	V
Thru Cal Magnitude - 3	0	0.7038	0.7043	N/A	N/A	N/A	V
Thru Cal Magnitude - 4	0	1.315	1.316	N/A	N/A	N/A	V
Thru Cal Magnitude - 5	0	1.911	1.912	N/A	N/A	N/A	V
Thru Cal Magnitude - 6	0	1.906	1.908	N/A	N/A	N/A	V
Thru Cal Magnitude - 7	0	1.361	1.362	N/A	N/A	N/A	V
Thru Cal Phase - 0	0	183.8	183.8	N/A	N/A	N/A	DEG
Thru Cal Phase - 1	0	182.7	182.7	N/A	N/A	N/A	DEG

Thru Cal Phase – 2	179.0	179.0	179.1	N/A	N/A	N/A	DEG
Thru Cal Phase – 3	0	178.2	178.3	N/A	N/A	N/A	DEG
Thru Cal Phase – 4	0	172.0	172.0	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	170.3	170.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 6	0	170.3	170.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 7	0	169.6	169.7	N/A	N/A	N/A	DEG

Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Auxiliary

Master: 26-Jan-2012 16:11 Before: 19-Mar-2012 10:05

Array Induction SPA Plus	991.0	991.5	991.6	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	-0.2500	-0.2242	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9170	0.9184	0.9184	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	-0.0002500	-0.0002205	N/A	N/A	N/A	V

Array Induction Tool – M Wellsite Calibration – Test Loop Gain Correction

Master: 26-Jan-2012 16:11

Test Loop Gain Correctio – 0	0	1.014	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 1	0	1.016	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 2	0	1.014	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 3	0	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 4	0	0.9946	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 5	0	0.9890	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 6	0	0.9984	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 7	0	1.006	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 0	0	0.4704	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 1	0	0.6871	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 2	0	0.1215	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 3	0	-0.06941	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 4	0	0.1235	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 5	0	-0.1023	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 6	0	0.2848	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 7	0	-0.005901	N/A	N/A	N/A	N/A	DEG

Array Induction Tool – M Wellsite Calibration – Sonde Error Correction

Master: 26-Jan-2012 16:11

R Sonde Error Correction – 0	0	-93.39	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	158.2	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	116.5	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	63.04	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	27.36	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	13.24	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	9.876	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	-1.618	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	-7.309	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	-334.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	10.73	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	-58.01	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	-12.80	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	-17.35	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	-3.765	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	4.594	N/A	N/A	N/A	N/A	MM/M

Array Induction Tool – M Wellsite Calibration – Mud Gain Correction

Master: 26-Jan-2012 16:11

Coarse – Mag, Real, Imag – 0	0	0.8718	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 1	0	0.8718	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 2	0	0.8718	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 0	0	0.8719	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 1	0	0.8719	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 2	0	0.8719	N/A	N/A	N/A	N/A

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary

Before: 19-Mar-2012 10:07

BS Window Ratio	0.7555	N/A	0.7545	N/A	N/A	N/A	
BS Window Sum	25690	N/A	25690	N/A	N/A	N/A	CPS
SS Window Ratio	0.4900	N/A	0.4905	N/A	N/A	N/A	
SS Window Sum	11530	N/A	11520	N/A	N/A	N/A	CPS
LS Window Ratio	0.3016	N/A	0.2991	N/A	N/A	N/A	
LS Window Sum	1171	N/A	1169	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo-multiplier High Voltages Calibrations

Before: 19-Mar-2012 10:07

BS PM High Voltage (Command)	1491	N/A	1491	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1435	N/A	1443	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1437	N/A	1437	N/A	N/A	N/A	V

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration

Before: 19-Mar-2012 10:07

BS Crystal Resolution	10.57	N/A	10.60	N/A	N/A	N/A	%
SS Crystal Resolution	9.903	N/A	9.786	N/A	N/A	N/A	%
LS Crystal Resolution	8.715	N/A	8.471	N/A	N/A	N/A	%

High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration							
Before: 19–Mar–2012 10:08							
Raw B0 Resistivity	3875	N/A	3878	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3833	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3843	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration							
Before: 19–Mar–2012 10:00							
HILT Caliper Zero Measurement	8.000	N/A	7.433	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	11.75	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration							
Before: 19–Mar–2012 10:00							
Gamma Ray Background	30.00	N/A	83.25	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	175.1	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement							
Master: 7–Feb–2012 10:10 Before: 19–Mar–2012 10:01							
CNTC Background	24.85	24.85	24.55	N/A	N/A	3.728	CPS
CFTC Background	27.19	27.19	28.76	N/A	N/A	4.079	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement							
Master: 7–Feb–2012 10:10							
Thermal Near Corr. (Tank)	5800	4826	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	1970	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.450	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 20–Mar–2012 5:29							
Z–Axis Acceleration	32.19	N/A	32.04	N/A	N/A	N/A	F/S2

The GLS–VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT–B Water Temperature 68.0 DEGF.
Thermal Housing Size 3.380 IN.
NSR–F serial number 5069

Array Induction Tool – M / Equipment Identification

Primary Equipment:
Rm/SP Bottom Nose
Array Induction Sonde

AMRM – A
AMIS – A

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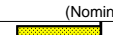
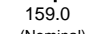
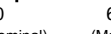
Auxiliary Equipment:











Array Induction Tool – M Wellsite Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Thru Cal Phase DEG	Nominal
0	Master	0.6131		0.6100	183.8		197.0
	Before	0.6135			183.8		
1	Master	1.256		1.270	182.7		196.0
	Before	1.257			182.7		
2	Master	0.6230		0.6200	179.0		192.0
	Before	0.6235			179.1		
3	Master	0.7038		0.7000	178.2		191.0
	Before	0.7043			178.3		
4	Master	1.315		1.340	172.0		185.0
	Before	1.316			172.0		
5	Master	1.911		1.960	170.3		182.0
	Before	1.912			170.4		

6	Master	1.906		1.960	170.3		181.0
	Before	1.908			170.4		
7	Master	1.361		1.410	169.6		175.0
	Before	1.362			169.7		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 26-Jan-2012 16:11				Before: 19-Mar-2012 10:05			







Array Induction Tool – M Wellsite Calibration								
Electronics Calibration Check – Auxiliary								
Phase	Array Induction SPA Plus MV		Value	Phase	Array Induction SPA Zero MV		Value	
Master			991.5	Master			-0.2500	
Before			991.6	Before			-0.2242	
941.0 (Minimum)			991.0 (Nominal)	1040 (Maximum)				
				-50.00 (Minimum)			0 (Nominal)	50.00 (Maximum)
Phase	Array Induction Temperature Plus V		Value	Phase	Array Induction Temperature Zero V		Value	
Master			0.9184	Master			-0.0002500	
Before			0.9184	Before			-0.0002205	
0.8710 (Minimum)			0.9170 (Nominal)	0.9630 (Maximum)				
				-0.05000 (Minimum)			0 (Nominal)	0.05000 (Maximum)
Master: 26-Jan-2012 16:11				Before: 19-Mar-2012 10:05				

Array Induction Tool – M Wellsite Calibration										
Test Loop Gain Correction										
Idx	Value	Test Loop Gain Correction Magnitude V			Value	Test Loop Gain Correction Phase DEG				
0	1.014		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	0.4704		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.016		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	0.6871		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.014		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	0.1215		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.012		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-0.06941		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	0.9946		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	0.1235		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9890		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-0.1023		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9984		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	0.2848		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.006		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-0.005901		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
Master: 26-Jan-2012 16:11										

Array Induction Tool – M Wellsite Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M	
0	-93.39				-7.309		
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal) 2250 (Maximum)
1	158.2				-334.4		
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal) 625.0 (Maximum)
2	116.5				10.73		
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal) 350.0 (Maximum)

3	63.04			-58.01		
	39.00 (Minimum)	64.00 (Nominal)	89.30 (Maximum)	-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	27.36			-12.80		
	15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)	-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.24			-17.35		
	4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)	-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	9.876			-3.765		
	5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)	-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-1.618			4.594		
	-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)	-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 26-Jan-2012 16:11

Array Induction Tool – M Wellsite Calibration								
Mud Gain Correction								
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag		
0	0.8718				0.8719			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	0.8718				0.8719			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.8718				0.8719			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
Master: 26–Jan–2012 16:11								

Master: 26-Jan-2012 16:11

High resolution Integrated Logging Tool–DTS / Equipment Identification

Primary Equipment:

HILT high–Resolution Mechanical Sonde
HILT Rxo Gamma–ray Device
HILT Micro Cylindrically Focused Log Dev
GR Logging Source
HILT High Res. Control Cartridge
HILT Gamma–Ray Neutron Sonde–DTS
HGNS Gamma–Ray Device
HGNS Neutron Detector with Alpha Source







HRMS – H
HRGD – H
MCFL – H
GLS – VJ
HRCC – H
HGNS – H
HGR –
HCNT – H

5240





Auxiliary Equipment:

Neutron Calibration Tank
Gamma Source Radioactive
HGNS Housing




NCT – B
GSR – U/Y
HGNH –

High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Stab Measurement Summary									
Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value
Before				0.7545	Before				0.4905
	0.7177 (Minimum)	0.7555 (Nominal)	0.7933 (Maximum)			0.4655 (Minimum)	0.4900 (Nominal)	0.5145 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value
Before				25690	Before				11520
	24410 (Minimum)	25690 (Nominal)	26970 (Maximum)			10950 (Minimum)	11530 (Nominal)	12100 (Maximum)	
Phase	LS Window Ratio			Value	Phase	LS Window Sum CPS			Value
Before				0.2991	Before				1169
	0.2865 (Minimum)	0.3016 (Nominal)	0.3167 (Maximum)			1113 (Minimum)	1171 (Nominal)	1230 (Maximum)	




Before: 19-Mar-2012 10:07

High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Photo–multiplier High Voltages Calibrations									
Phase	BS PM High Voltage (Command) V			Value	Phase	SS PM High Voltage (Command) V			Value
Before				1491	Before				1443
	1391 (Minimum)	1491 (Nominal)	1591 (Maximum)			1335 (Minimum)	1435 (Nominal)	1535 (Maximum)	
Phase	LS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1437	Before				1437
	1337 (Minimum)	1437 (Nominal)	1537 (Maximum)			1337 (Minimum)	1437 (Nominal)	1537 (Maximum)	



Before: 19-Mar-2012 10:07

High resolution Integrated Logging Tool-DTS Wellsite Calibration											
Crystal Quality Resolutions Calibration											
Phase	BS Crystal Resolution %		Value	Phase	SS Crystal Resolution %		Value	Phase	LS Crystal Resolution %		Value
Before			10.60	Before			9.786	Before			8.471
	9.573 (Minimum)	10.57 (Nominal)	11.57 (Maximum)		8.903 (Minimum)	9.903 (Nominal)	10.90 (Maximum)		7.715 (Minimum)	8.715 (Nominal)	9.715 (Maximum)
Before: 19-Mar-2012 10:07											



Before: 19-Mar-2012 10:07

High resolution Integrated Logging Tool-DTS Wellsite Calibration														
MCFL Calibration														
Phase	Raw B0 Resistivity OHMM			Value	Phase	Raw B1 Resistivity OHMM			Value	Phase	Raw B2 Resistivity OHMM			Value
Before				3878	Before				3833	Before				3843
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			
Before: 19-Mar-2012 10:08														





Before: 19-Mar-2012 10:08

High resolution Integrated Logging Tool–DTS Wellsite Calibration							
HILT Caliper Calibration							
Phase	HILT Caliper Zero Measurement IN		Value	Phase	HILT Caliper Plus Measurement IN		Value
Before			7.433	Before			11.75
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 19–Mar–2012 10:00							

Before: 19-Mar-2012 10:00

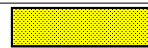
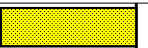
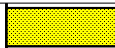
High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Detector Calibration							
Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig – Bkgd) GAPI		Value
Before			83.25	Before			175.1
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		157.1 (Minimum)	165.0 (Nominal)	206.3 (Maximum)
Before: 19-Mar-2012 10:00							

Before: 19-Mar-2012 10:00


High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				24.85	Master				27.19
Before				24.55	Before				28.76
5.000 (Minimum)24.85 (Nominal)40.00 (Maximum)					5.000 (Minimum)27.19 (Nominal)40.00 (Maximum)				
Master: 7–Feb–2012 10:10					Before: 19–Mar–2012 10:01				

Master: 7-Feb-2012 10:10

Before: 19-Mar-2012 10:01

High resolution Integrated Logging Tool-DTS Wellsite Calibration														
Ratio Measurement														
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)			Value
Master				4826	Master				1970	Master				2.450
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)		1900 (Minimum)	2400 (Nominal)	2900 (Maximum)		2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)			
Master: 7-Feb-2012 10:10														

Master: 7-Feb-2012 10:10

High resolution Integrated Logging Tool-DTS Wellsite Calibration			
Accelerometer Calibration			
Phase	Z-Axis Acceleration F/S2	Value	
Before		32.04	
	31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)

Before: 20-Mar-2012 5:29

Before: 20-Mar-2012 5:29

DTS Telemetry Tool / Equipment Identification

Primary Equipment:
DTC-H Auxiliary Cartridge

DTCH - A

DTC-H Telemetry Cartridge

DTCH - A

Auxiliary Equipment:

DTCH Telemetry Cartridge Housing

ECH - KC

Company: **Vecta Oil & Gas Ltd**

Schlumberger

Well: **Quandary 23-26**

Field: **Wildcat**

County: **Cheyenne**

State: **Colorado**

Platform Express
Compensated Neutron
Litho Density