

**Schlumberger**

Company: **Noble Energy Inc**

Well: **Con GQ 07-01**

Field: **Jupiter**

County: **Weld**

State: **Colorado**

Well: **Con GQ 07-01**  
Field: **Jupiter**  
County: **Weld**  
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County: **Weld** State: **Colorado**

County: **Weld** State: **Colorado**

1

[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		@			
RMF @ Measured Temperature		@			
Source RMF		RMF			
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: PEX-AIT	OS1:
OS2: ADT	OS2:
OS3: MSIP	OS3:
OS4: FMI	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: Limestone (2.71 g/cc)	
Bridged on first attempt at 2170'	

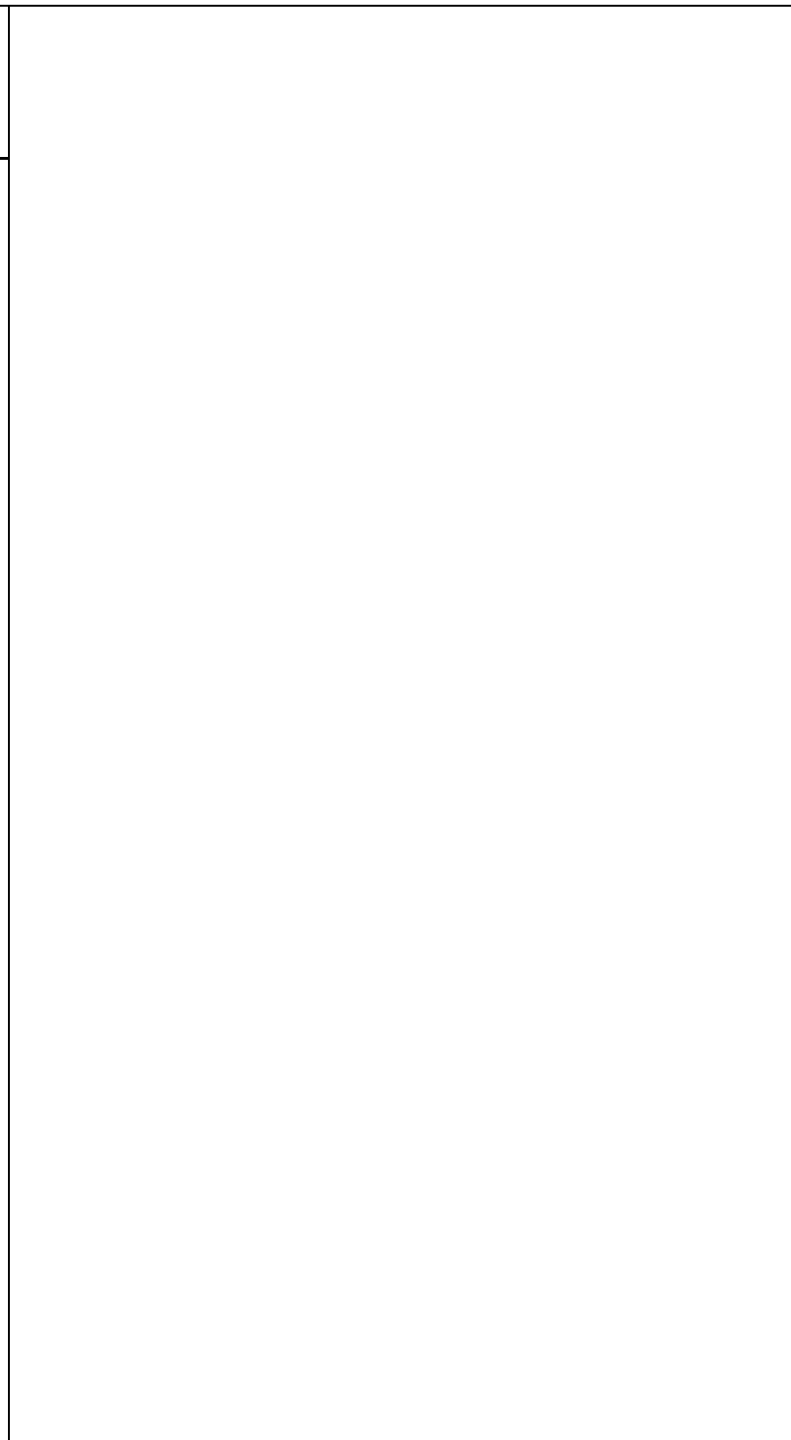
Bridged on first attempt at 2740'	
Bridged on second attempt at 3650'	
Rig: Ensign 136	
Crew: Derrick Hunter, Matt Rocha	

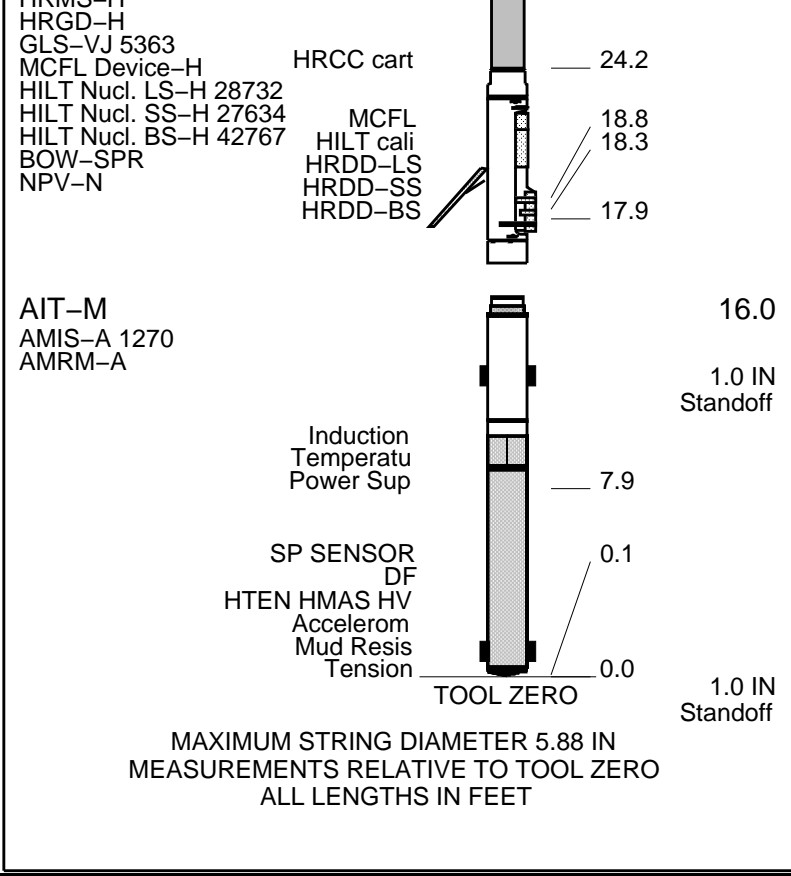
RUN 1			RUN 2		
SERVICE ORDER #:		BFN8-00182	SERVICE ORDER #:		
PROGRAM VERSION:		19C1-222	PROGRAM VERSION:		
FLUID LEVEL:		100 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT	
GSR-U/Y NCT-B CNB-AB NCS-VB	GSR-U 599 WITM (DTS)-A

DOWNHOLE EQUIPMENT	
LEH-QT LEH-QT	66.8
DTC-H ECH-KC DTCH0-A	63.9
ADT-C ADC-C ADS-C HECH-KDB ADP-C F3 F2 F1 F0	60.9
ADT Pad R ADT Cartr ADT Pad ADT Calip	52.0 51.9 51.5
HNGS-BA HNGS-BA 152 HNSH-BA 149	49.3
Upper_1 Lower_2	47.1 46.4
HNGC-B HNGH-A 87 HNGC-B 250	41.1
HNGC Stat	39.4
HGNS HTEM HMCA	37.6
HGNS Gamm	36.9
HILTH-FTB HGNSD-H HMCA-H HGNH NLS-KL NSR-F 5168 HACCZ-H 5736 HCNT-H HGR HRCC-H HRMS-H	37.6
HGNS Neut HGNS Neut	31.1 30.6
HGNS sens	28.2





**Schlumberger**

**TRIPLE COMBO 2" = 100'**

MAXIS Field Log

### Input DLIS Files

DEFAULT	Splice_AIT_TLD_MCFL_076CUP	FN:1	PRODUCER	09-Jul-2012 04:00	9015.0 FT	975.5 FT
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### Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_081PUP	FN:76	PRODUCER	09-Jul-2012 04:17	9015.0 FT	976.0 FT
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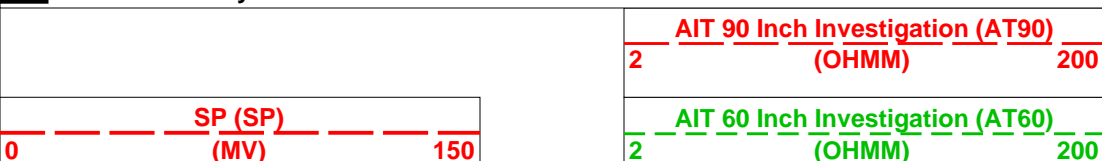
### OP System Version: 19C1-222

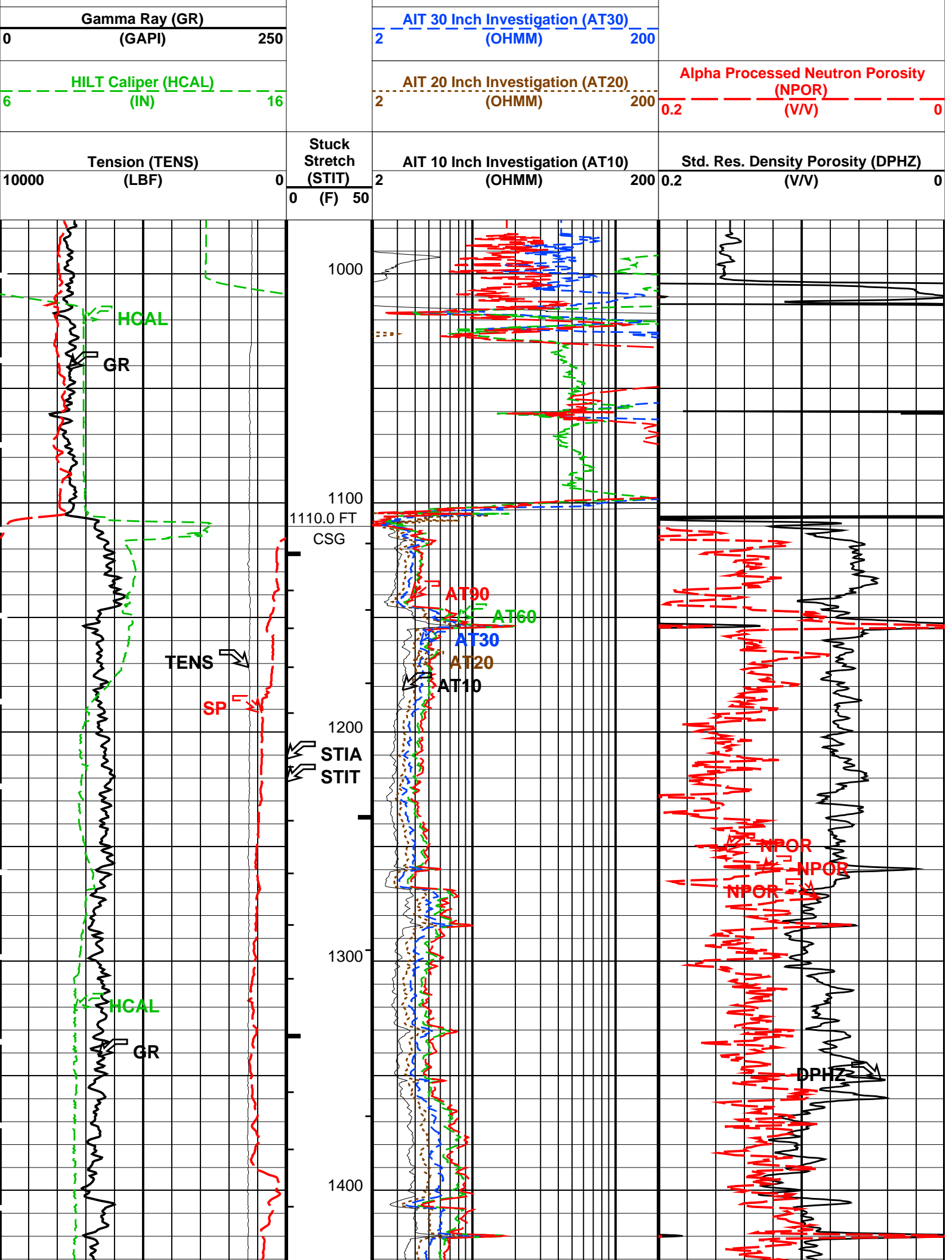
AIT-M	19C1-222	HILTH-FTB	19C1-222
HNGC-B	HFE-5203-OP19.1-NUCL	HNGS-BA	HFE-5203-OP19.1-NUCL
ADT-C	SRPC-5209-ADT-C	DTC-H	19C1-222

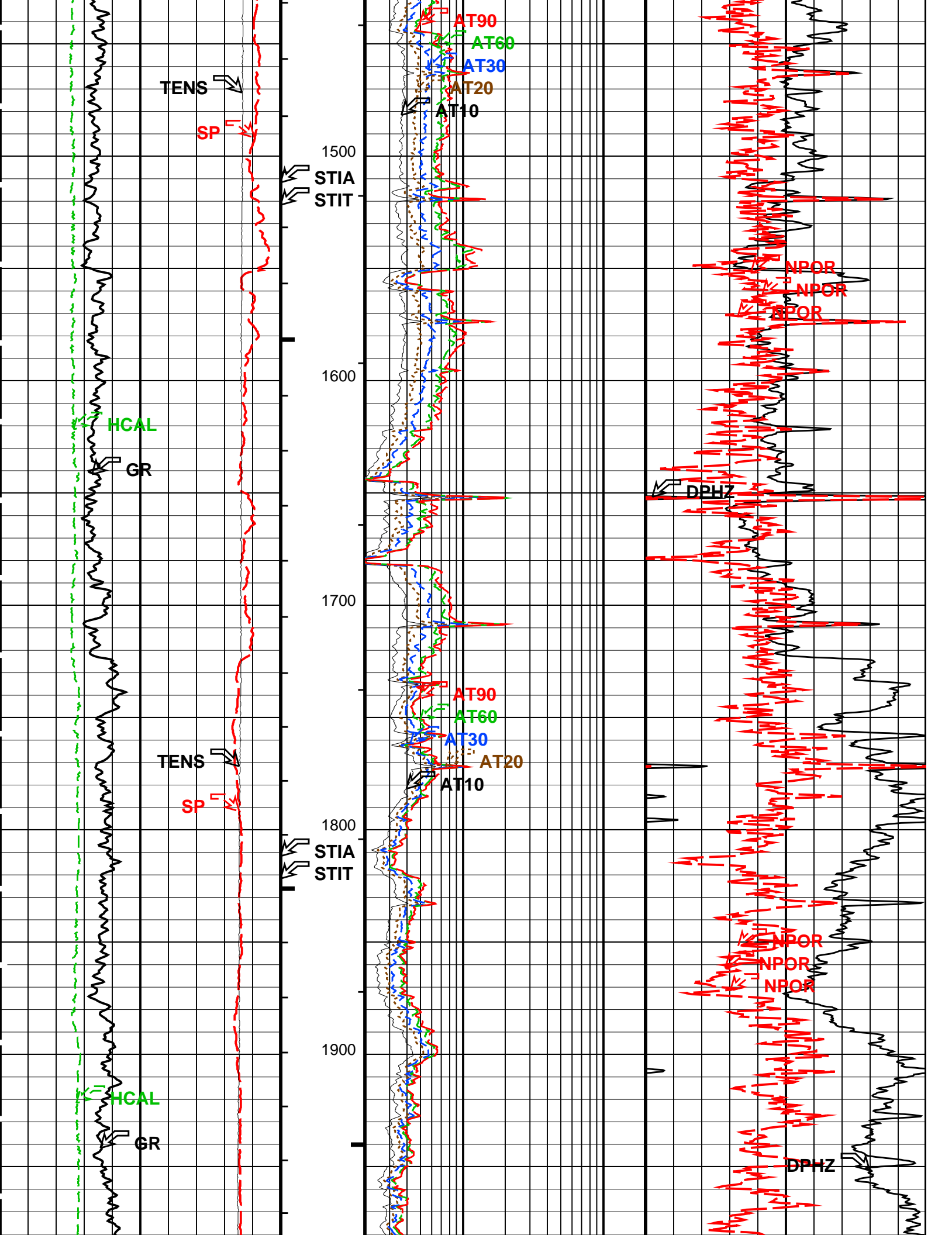
### PIP SUMMARY

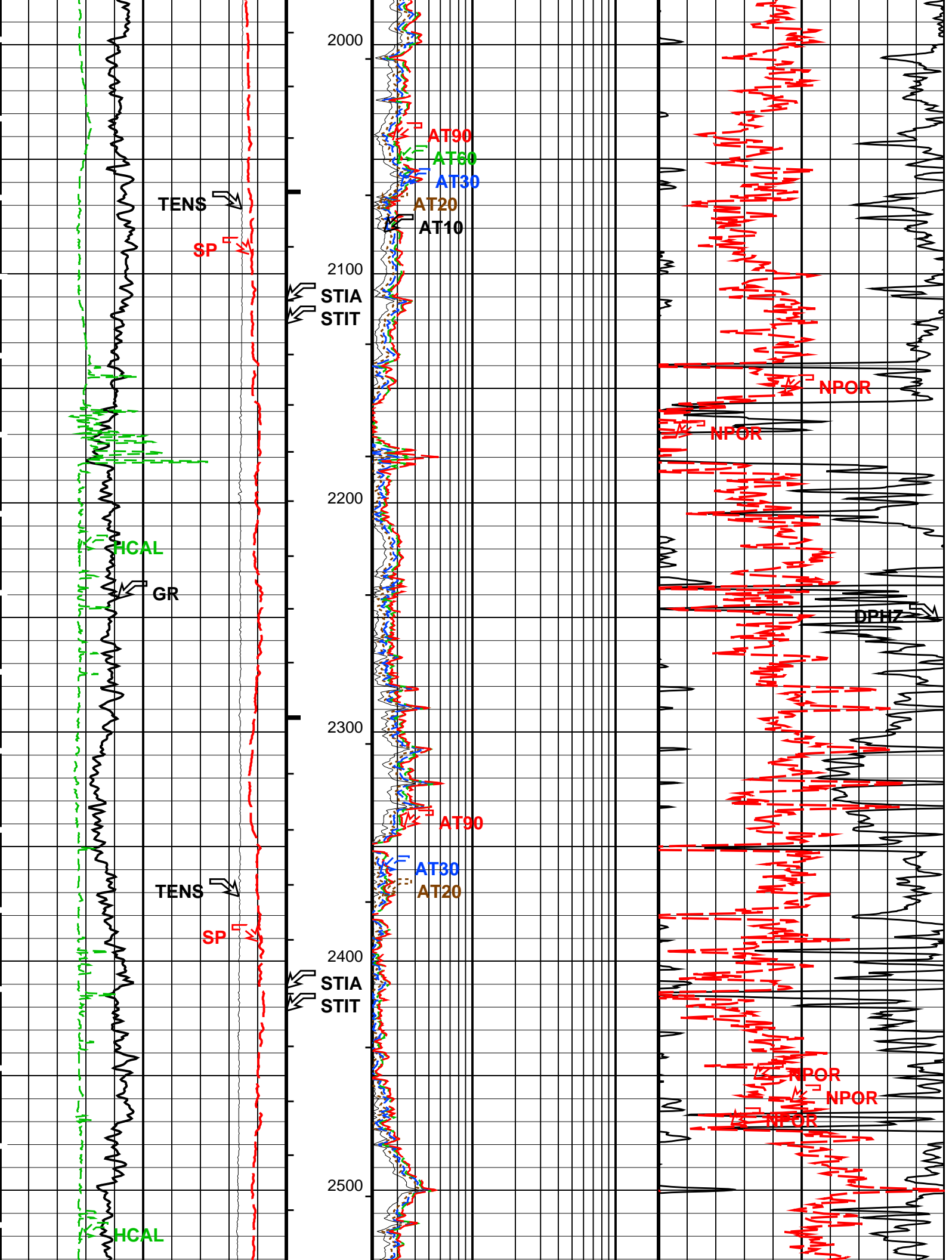
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

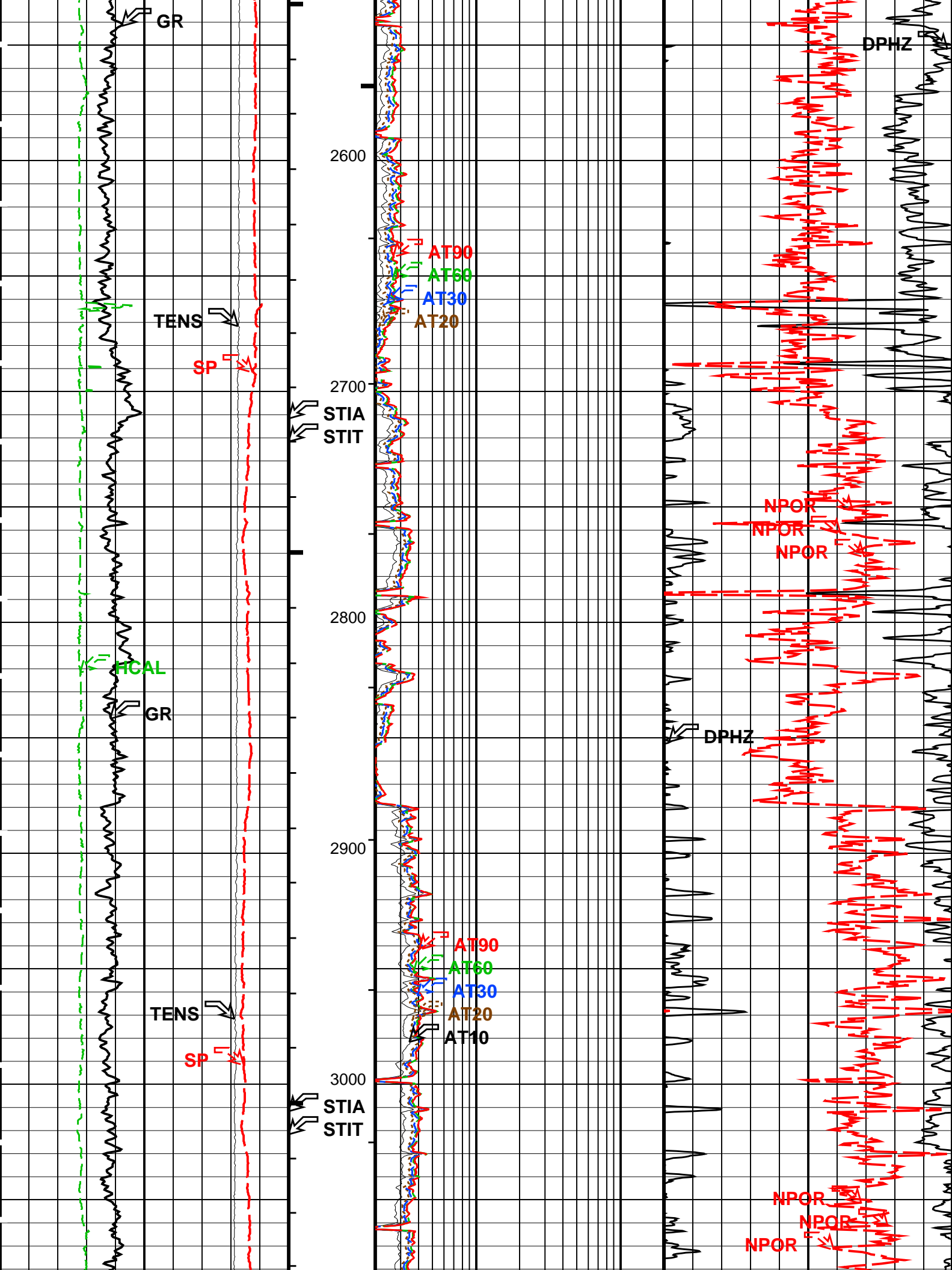
Time Mark Every 60 S



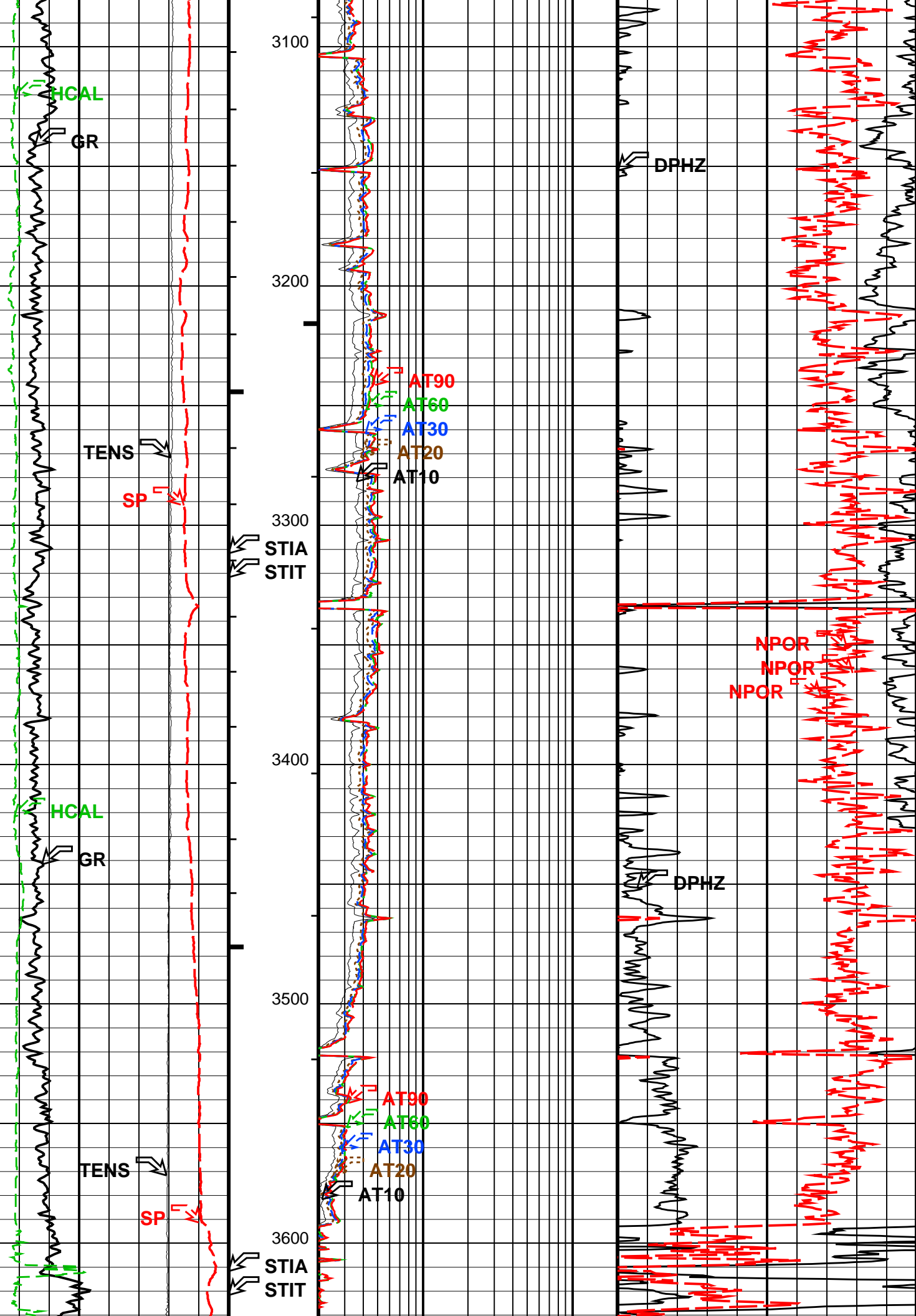


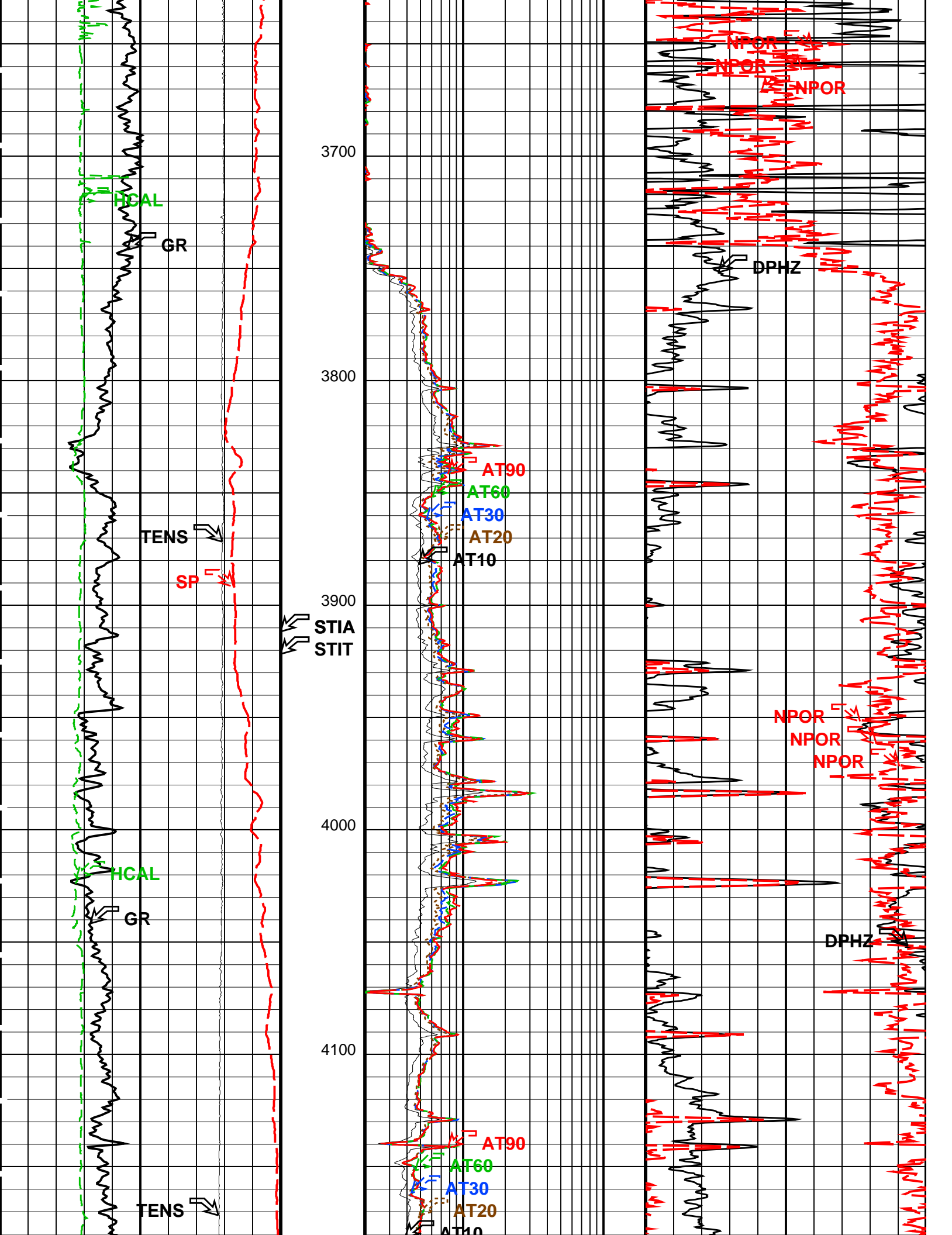


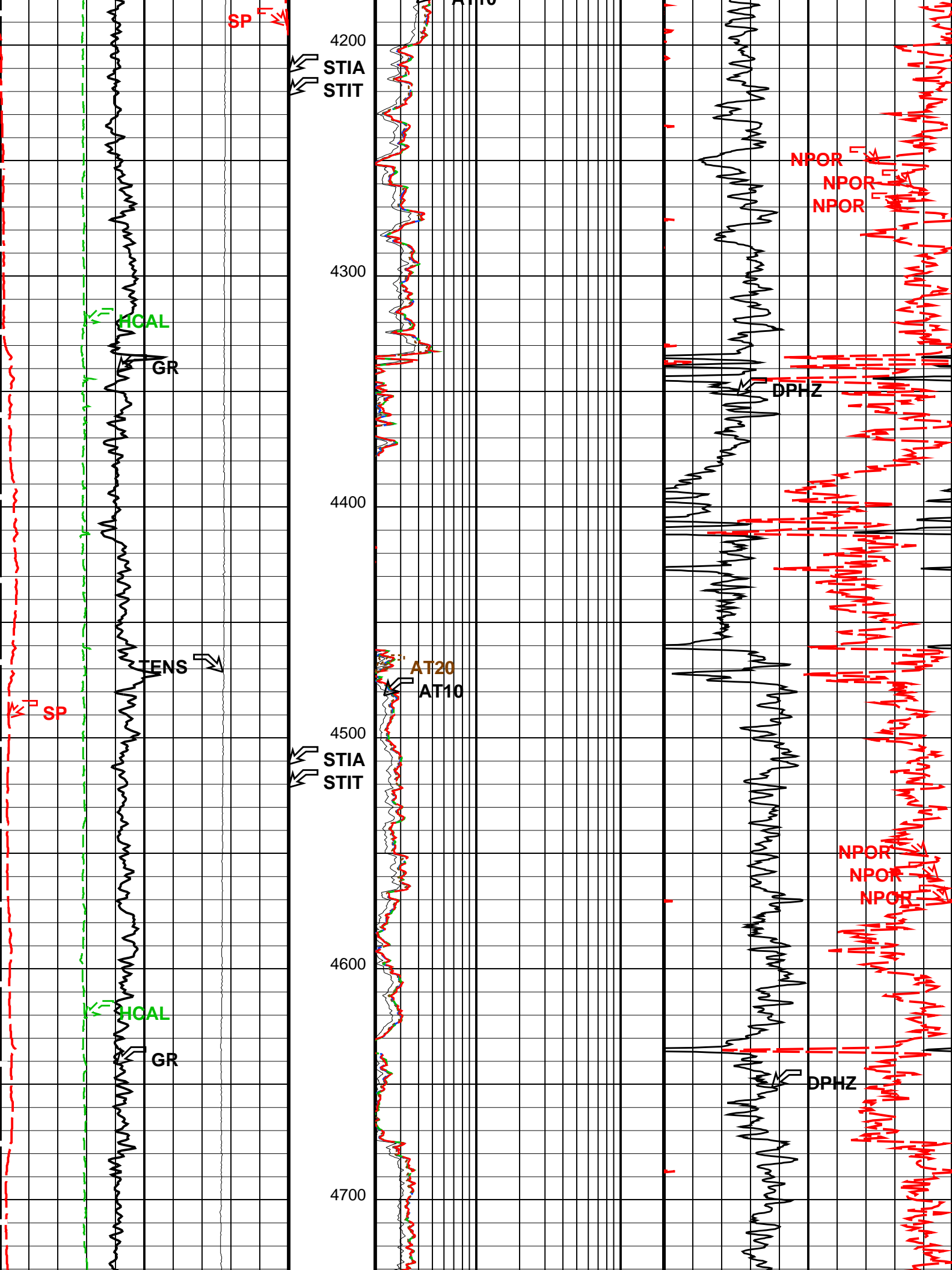


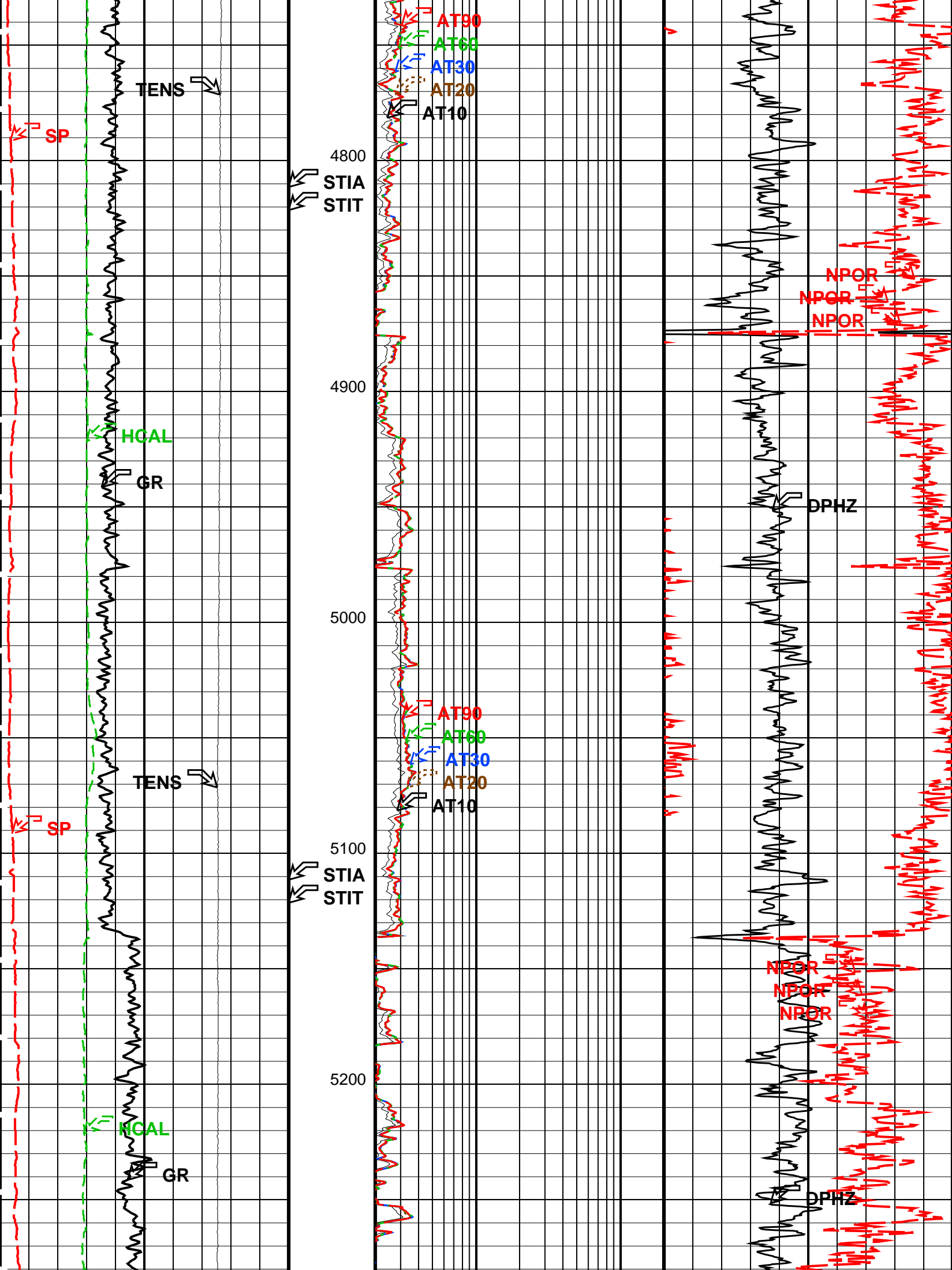


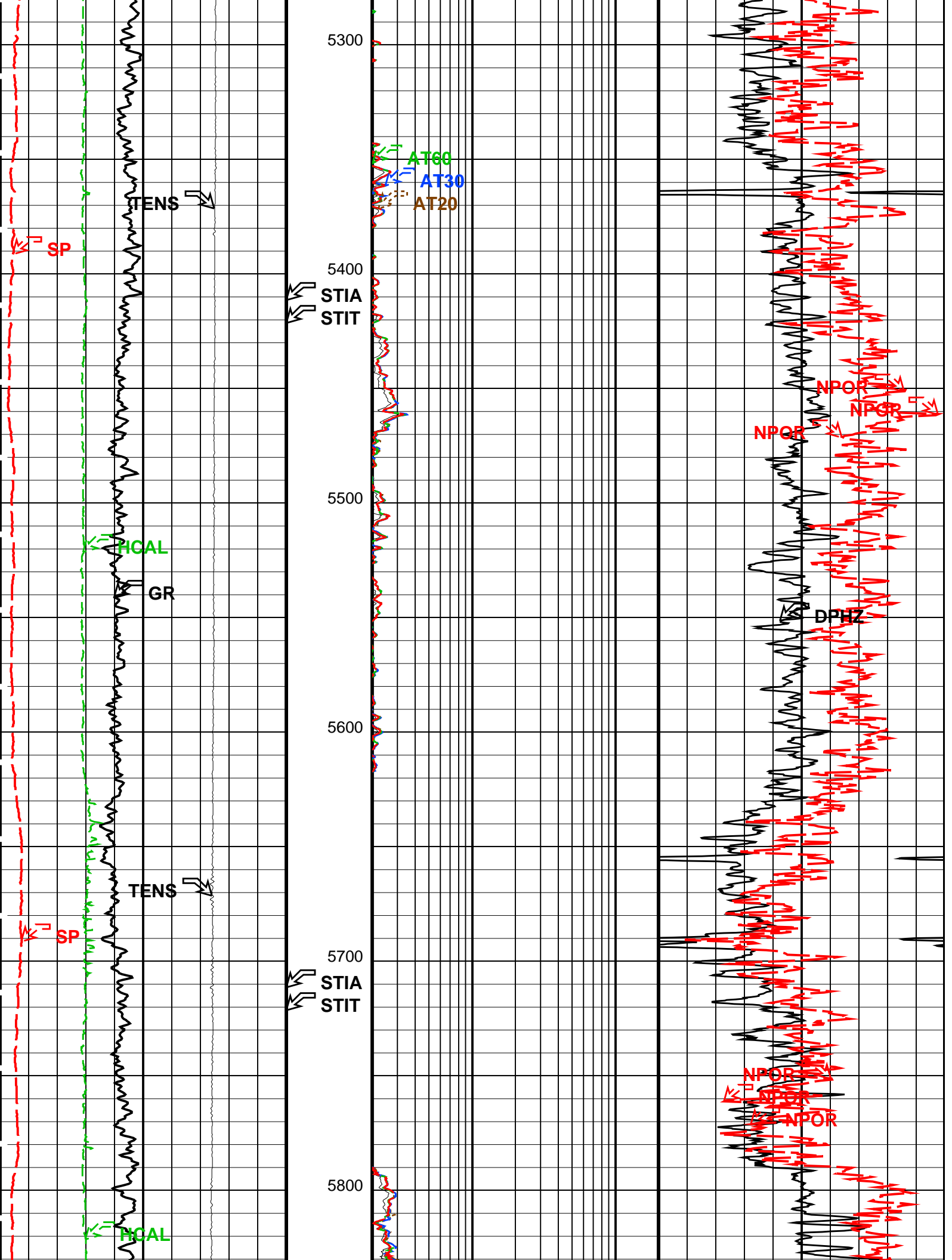


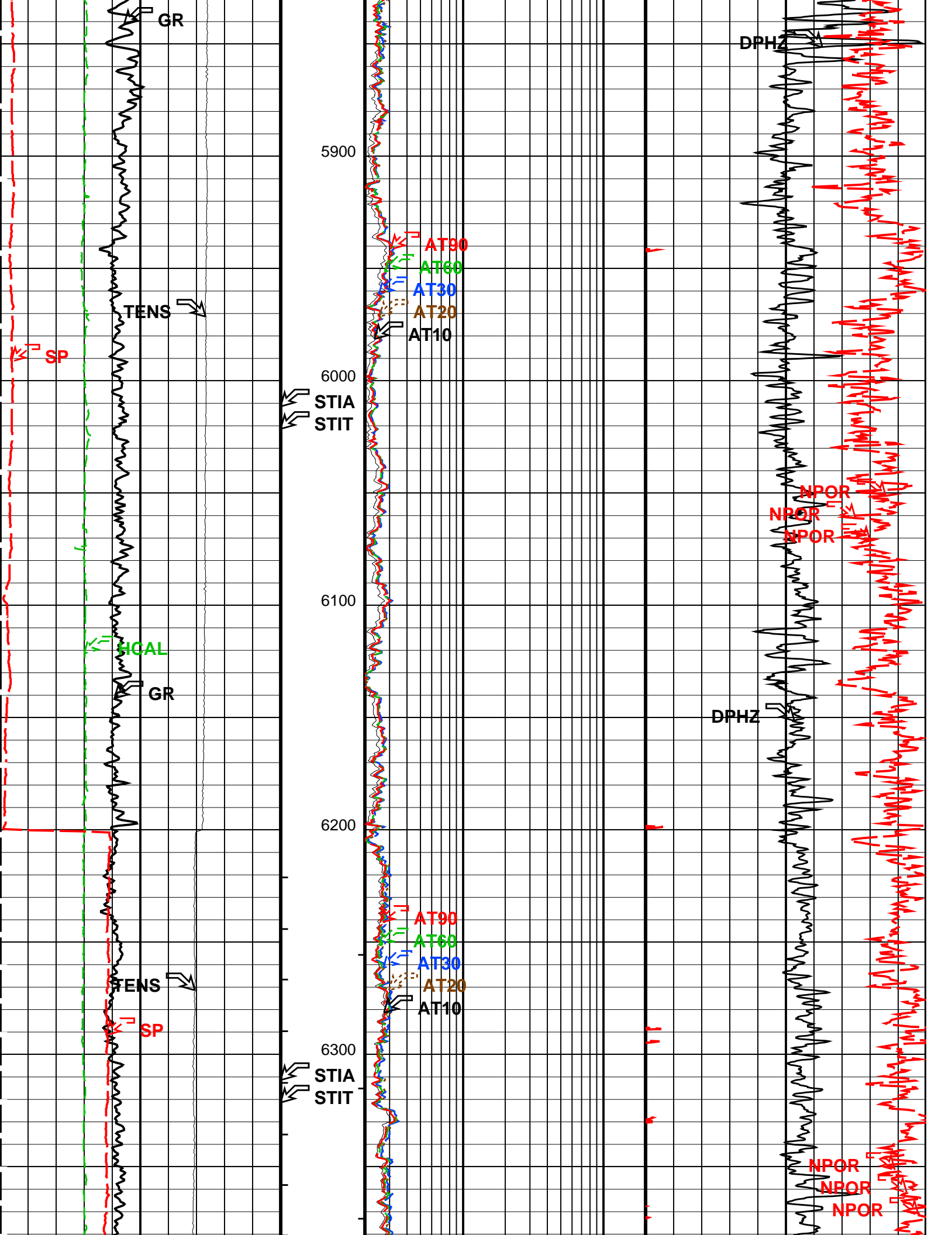


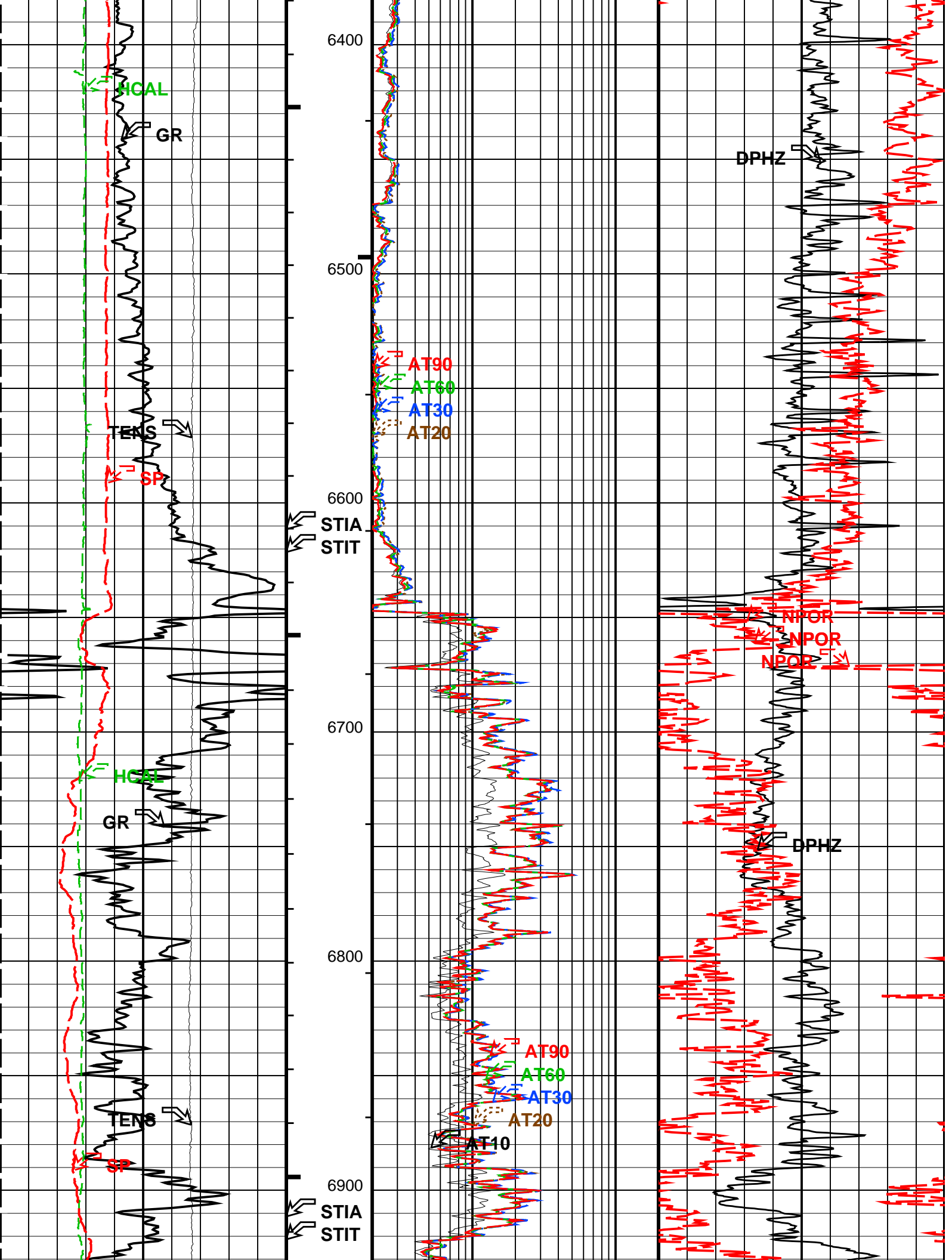


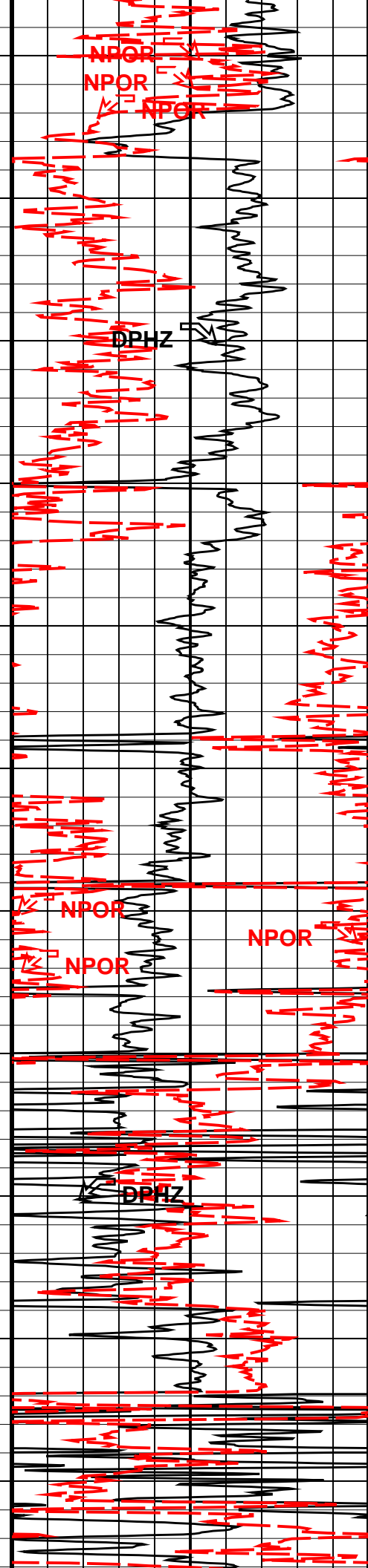
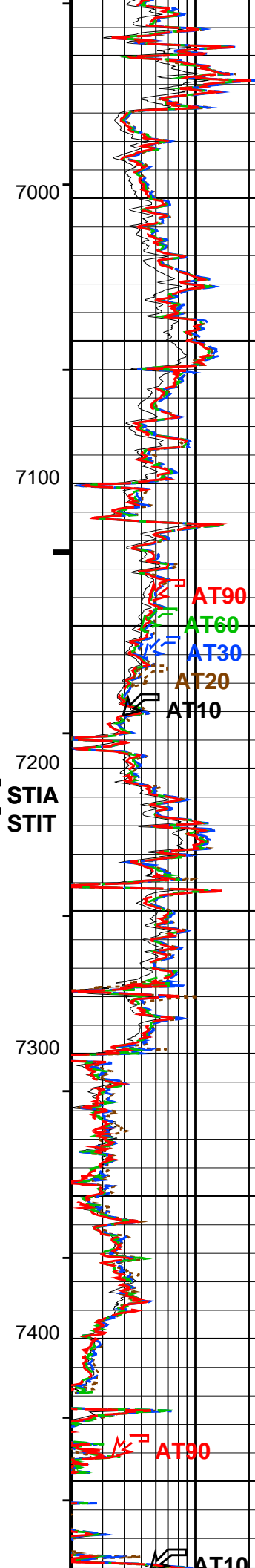
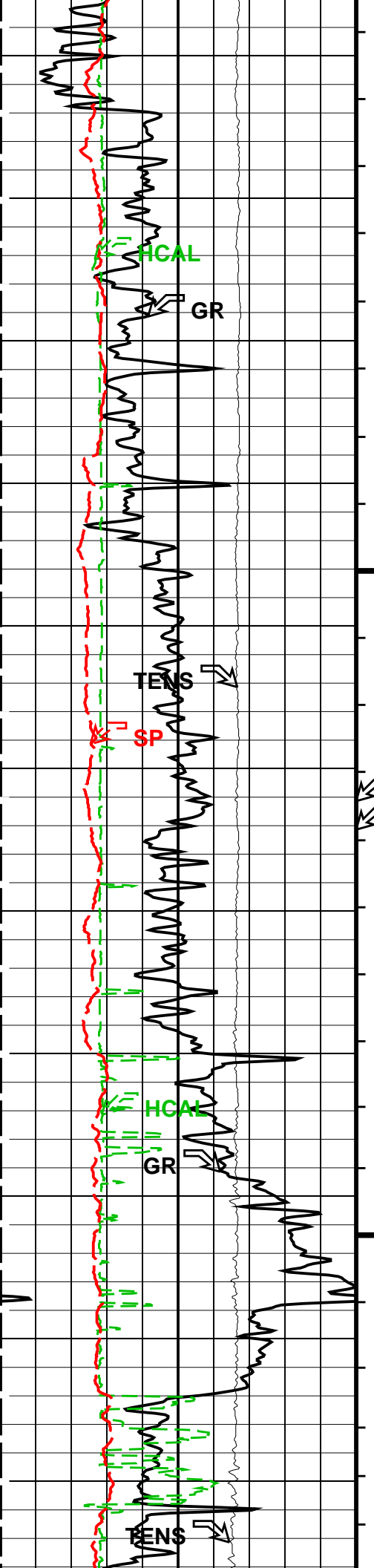




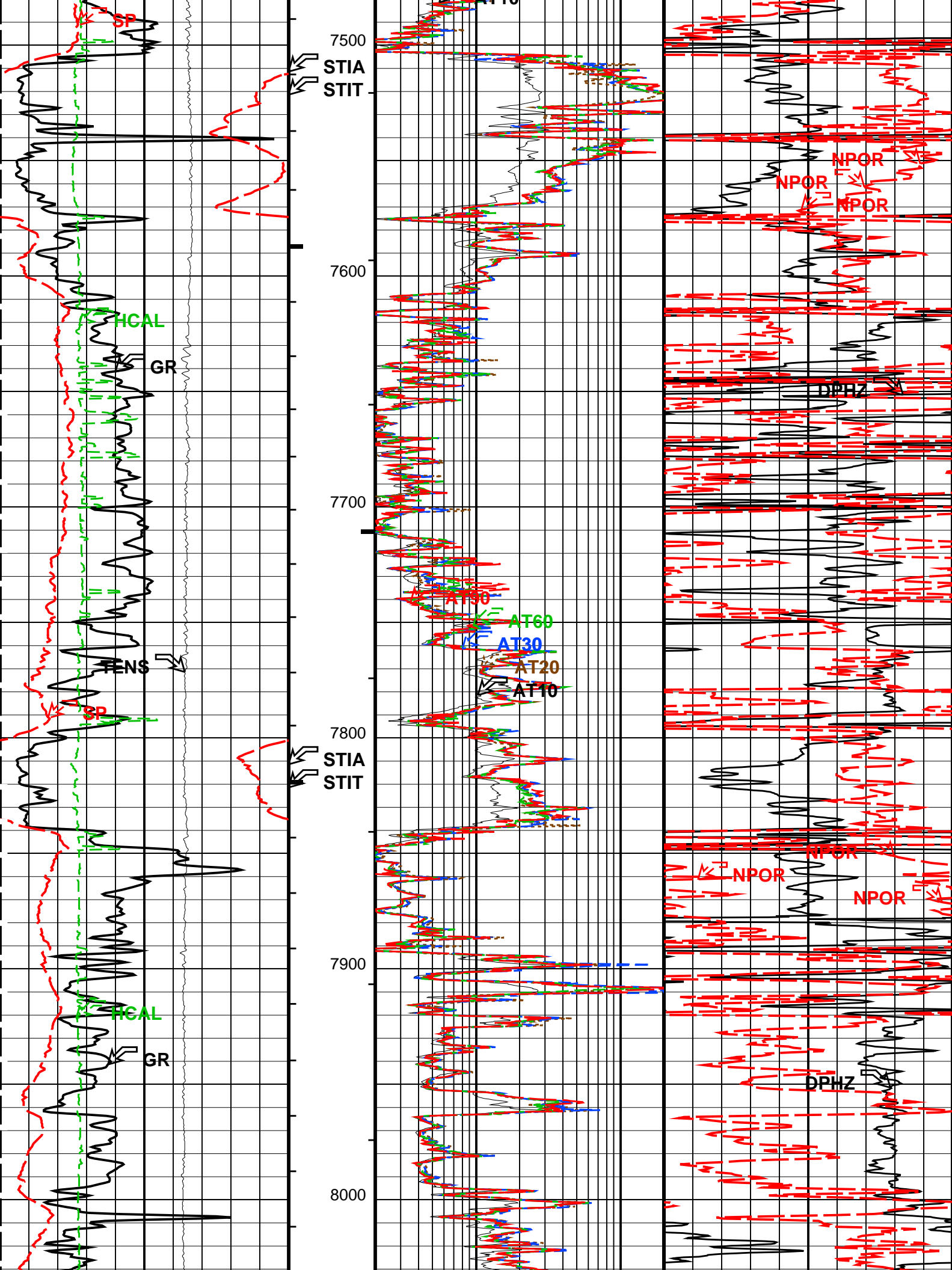


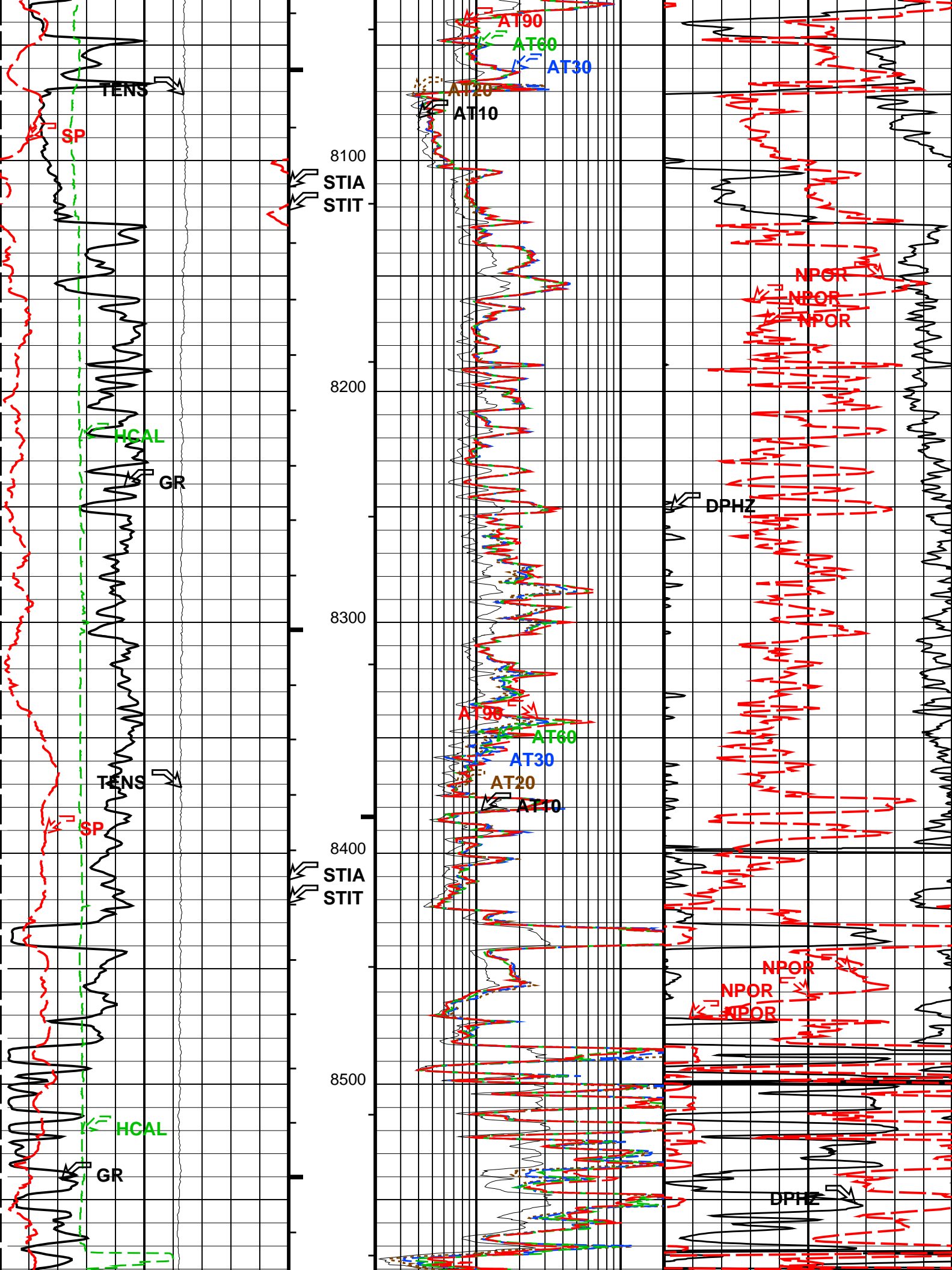


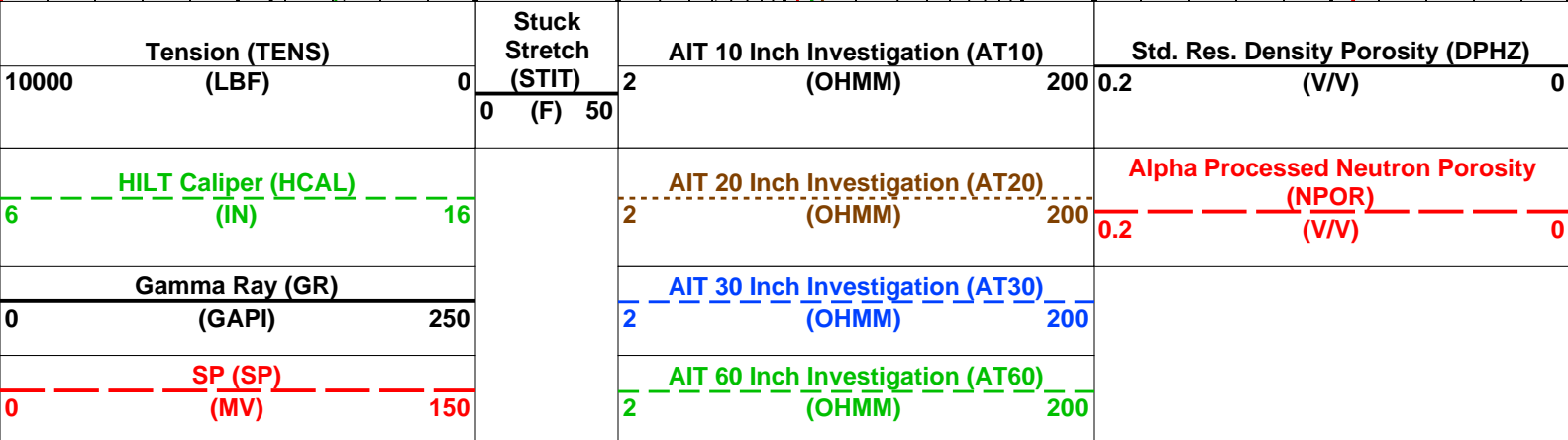
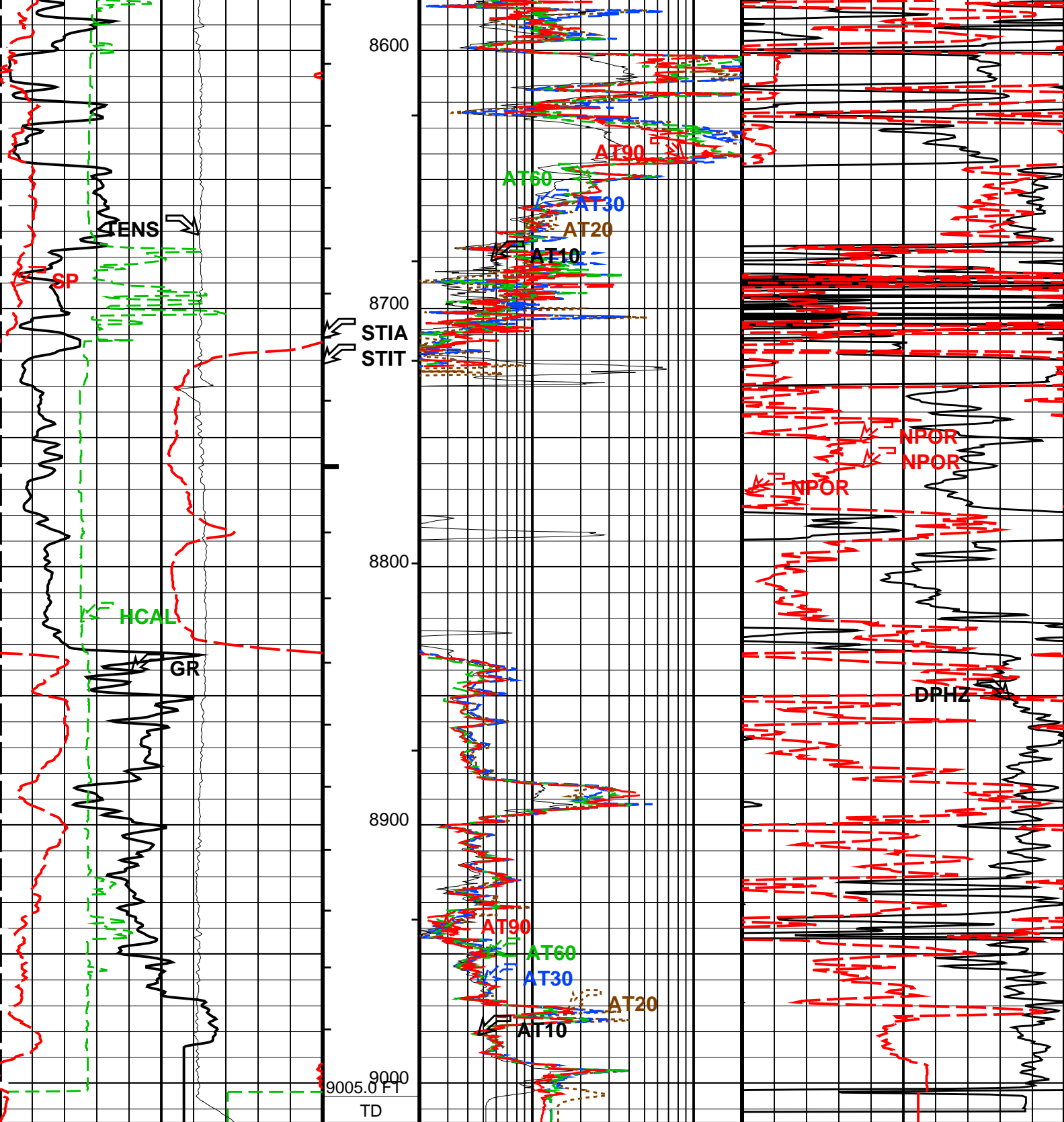












# PIP SUMMARY

- └ 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			
ABHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
ABHV	Array Induction Borehole Correction Code Version Number	900	
ABLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
ABLV	Array Induction Basic Logs Code Version Number	223	
ACDE	Array Induction Casing Detection Enable	No	
ACEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
ACSED	Array Induction Casing Shoe Estimated Depth	–50000	FT
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Yes	
AFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AIGS	Array Induction Select Akima Interpolation Gating	On	
AMRF	Array Induction Mud Resistivity Factor	1	
AORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
ARFV	Array Induction Radial Profiling Code Version Number	701	
ARPV	Array Induction Radial Parametrization Code Version Number	232	
ASTA	Array Induction Tool Standoff	1.125	IN
ATRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
ATSE	Array Induction Temperature Selection(Sonde Error Correction)	Internal	
AULV	Array Induction User Level Control	Normal	
AZRSV	Array Induction Response Set Version for Z Resolution	00.10.25.00	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
SPNV	SP Next Value	0	MV
HILTH-FTB: High resolution Integrated Logging Tool–DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
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
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
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	StdRes	
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	
HNGS–BA: Hostile Natural Gamma Ray Sonde			
BHS	Borehole Status	OPEN	

BHS	Borehole Status	OPEN	217	DEGF
BHT	Bottom Hole Temperature (used in calculations)	HCAL	0	DEG
GCSE	Generalized Caliper Selection	0.01	DF/F	
GDEV	Average Angular Deviation of Borehole from Normal	AITM_RESIST		
GGRD	Geothermal Gradient	HSTS_HTEM		
GRSE	Generalized Mud Resistivity Selection	LIMESTONE	68	DEGF
GTSE	Generalized Temperature Selection			
MATR	Rock Matrix for Neutron Porosity Corrections			
SHT	Surface Hole Temperature			
ADT-C: Array Dielectric Tool				
ADT_MEPS	Matrix Dielectric Permittivity		4.65	
MUDFILTSALMAX	Maximum Mud Filtrate Salinity		53.6079	PPK
MUDFILTSALMIN	Minimum Mud Filtrate Salinity		0	PPK
FEQL: Formation Evaluation Quick Look				
FEXP	Form Factor Exponent		2	
FNUM	Form Factor Numerator		1	
HOLEV: Integrated Hole/Cement Volume				
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF	
FCD	Future Casing (Outer) Diameter	7	IN	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
HVCS	Integrated Hole Volume Caliper Selection	HCAL		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
SHT	Surface Hole Temperature	68	DEGF	
PERT: Preliminary Evaluation – Real Time				
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF	
FEXP	Form Factor Exponent	2		
FNUM	Form Factor Numerator	1		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST		
GTSE	Generalized Temperature Selection	HSTS_HTEM		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
SHT	Surface Hole Temperature	68	DEGF	
STI: Stuck Tool Indicator				
STKT	STI Stuck Threshold	2.5	FT	
TDD	Total Depth – Driller	9010.00	FT	
TDL	Total Depth – Logger	9005.00	FT	
System and Miscellaneous				
BS	Bit Size	8.500	IN	
BSAL	Borehole Salinity	-50000.00	PPM	
CSIZ	Current Casing Size	9.625	IN	
DFD	Drilling Fluid Density	9.10	LB/G	
DO	Depth Offset for Playback	0.0	FT	
DORL	Depth Offset for Repeat Analysis	0.0	FT	
PP	Playback Processing	OFF		
TD	Total Depth	9005	FT	

Format: COMBO\_LOG\_S2    Vertical Scale: 2" per 100'    Graphics File Created: 09-Jul-2012 04:17

## OP System Version: 19C1-222

AIT-M	19C1-222	HILTH-FTB	19C1-222
HNGC-B	HFE-5203-OP19.1-NUCL	HNGS-BA	HFE-5203-OP19.1-NUCL
ADT-C	SRPC-5209-ADT-C	DTC-H	19C1-222

## Input DLIS Files

DEFAULT	Splice_AIT_TLD_MCFL_076CUP	FN:1	PRODUCER	09-Jul-2012 04:00	9015.0 FT	975.5 FT
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## Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_081PUP	FN:76	PRODUCER	09-Jul-2012 04:17
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**Schlumberger**

**MAIN TRIPLE COMBO 5" = 100'**

## Input DLIS Files

DEFAULT      Splice\_AIT\_TLD\_MCFL\_076CUP      FN:1      PRODUCER      09-Jul-2012 04:00      9015.0 FT      975.5 FT

## Output DLIS Files

DEFAULT      AIT\_TLD\_MCFL\_CNL\_081PUP      FN:76      PRODUCER      09-Jul-2012 04:17      9015.0 FT      976.0 FT

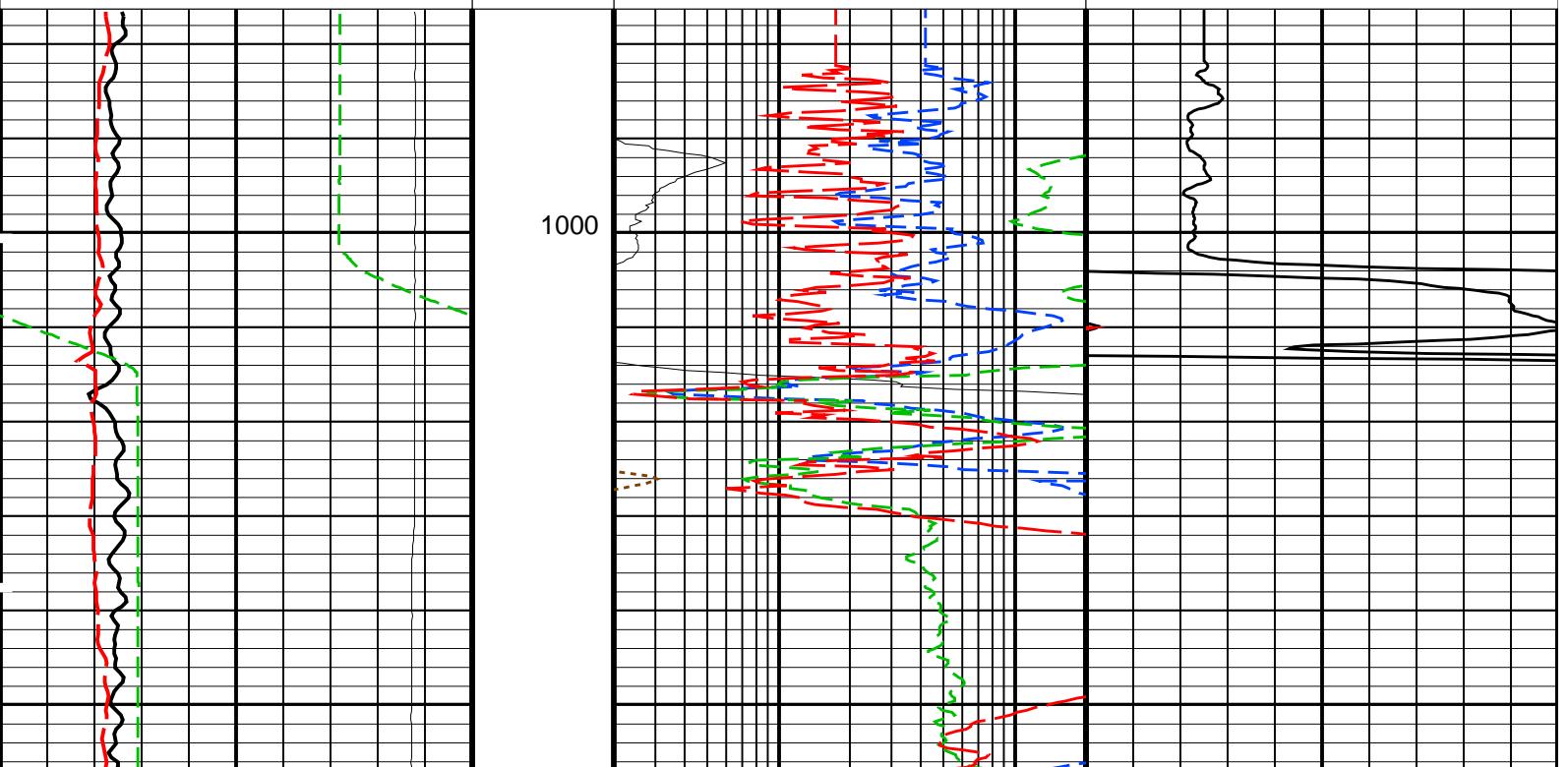
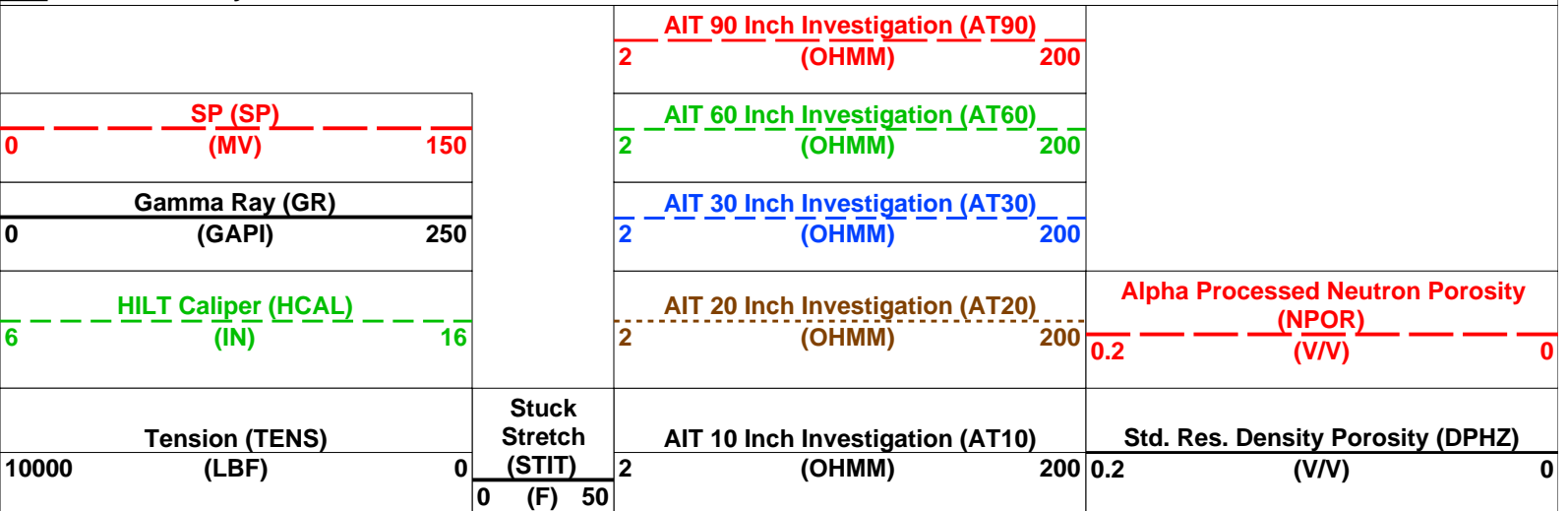
## OP System Version: 19C1-222

AIT-M	19C1-222	HILTH-FTB	19C1-222
HNGC-B	HFE-5203-OP19.1-NUCL	HNGS-BA	HFE-5203-OP19.1-NUCL
ADT-C	SRPC-5209-ADT-C	DTC-H	19C1-222

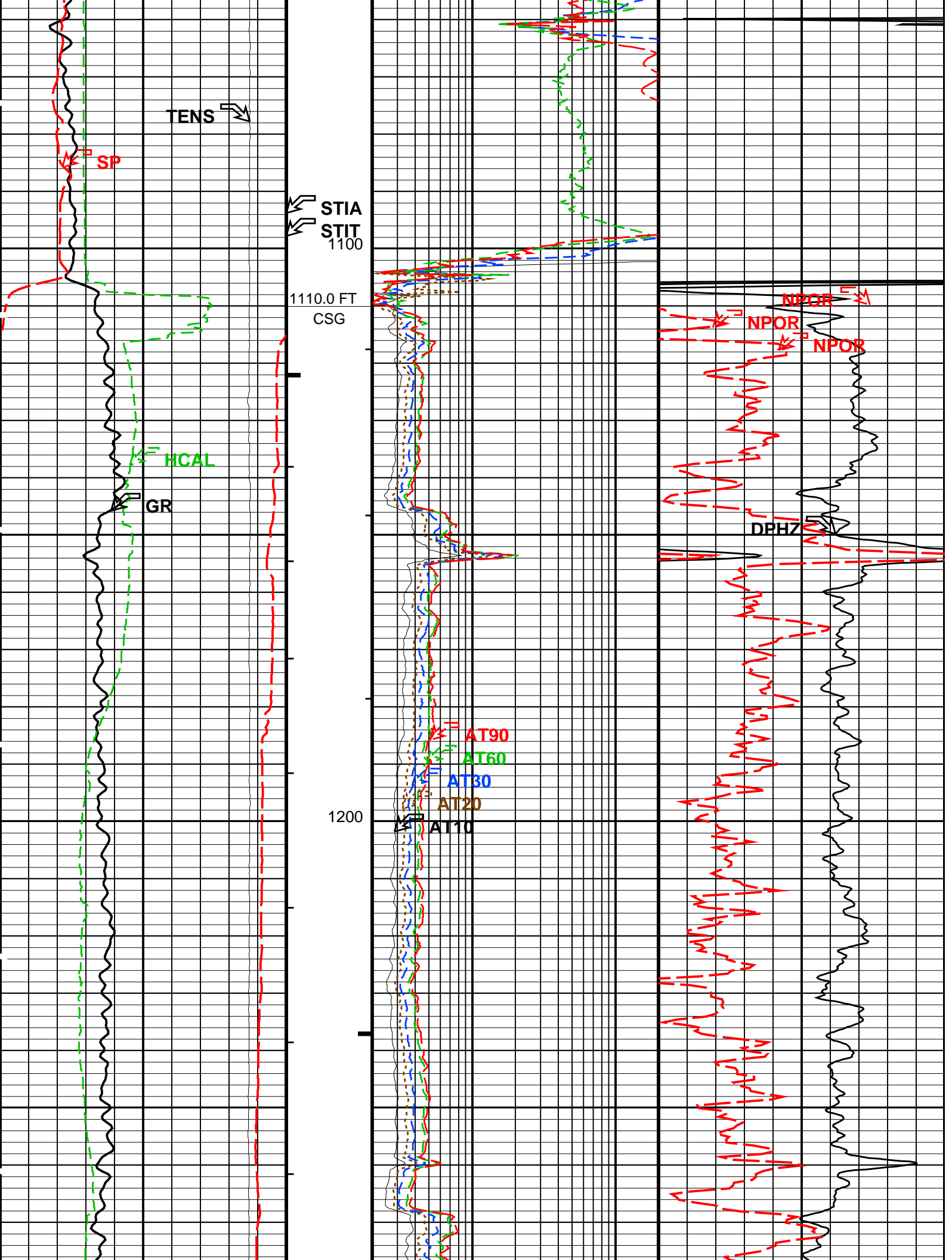
## PIP SUMMARY

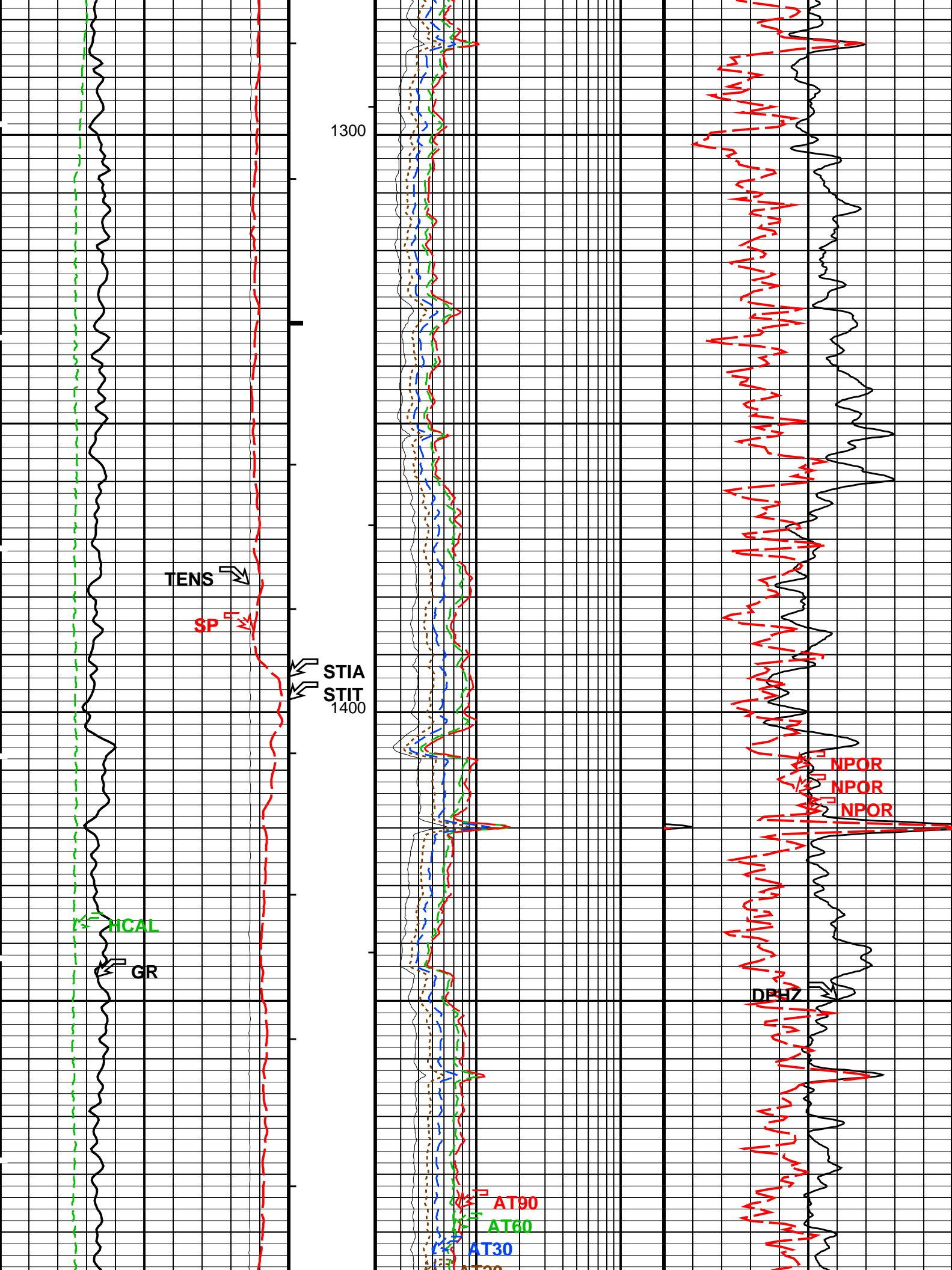
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
  - └ Integrated Cement Volume Minor Pip Every 10 F3
  - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

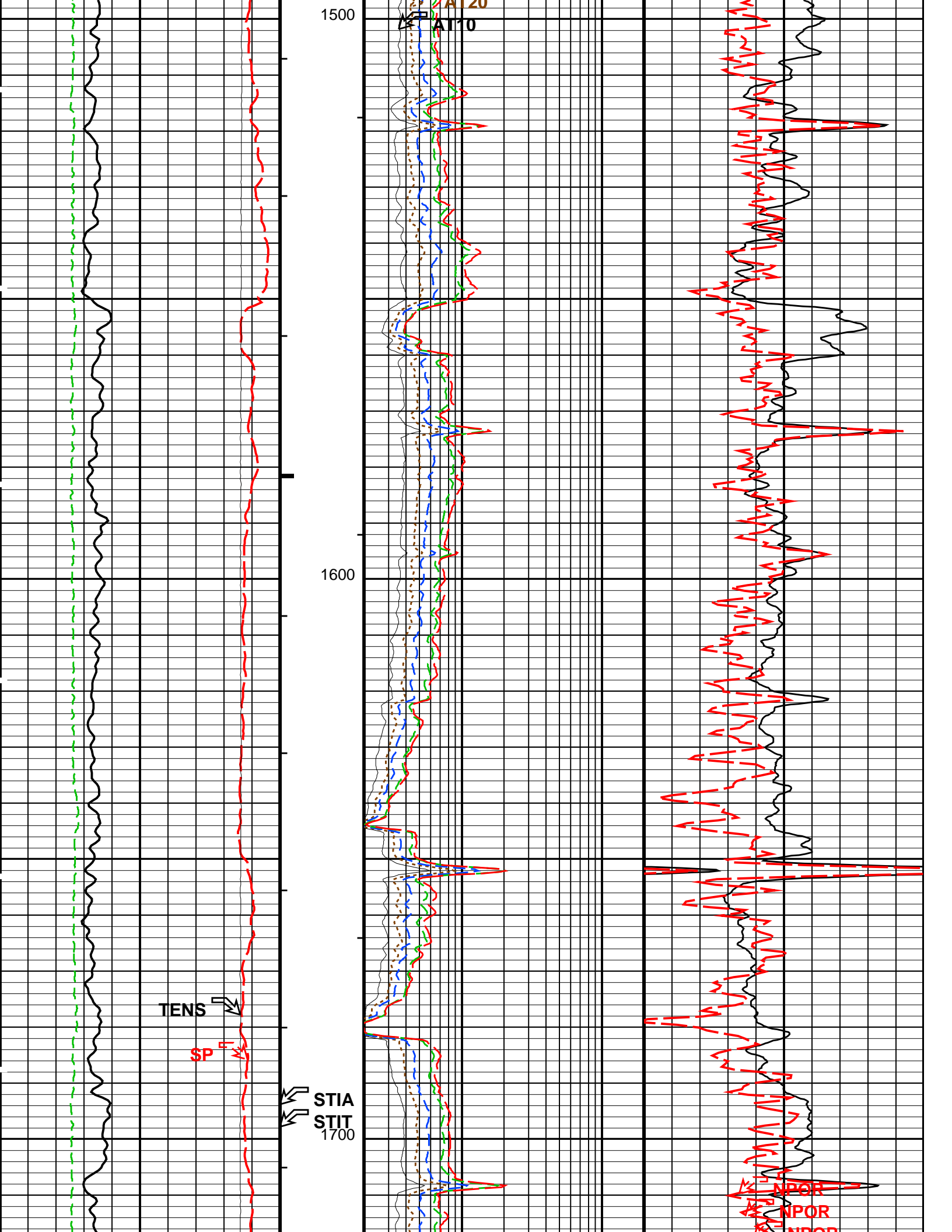


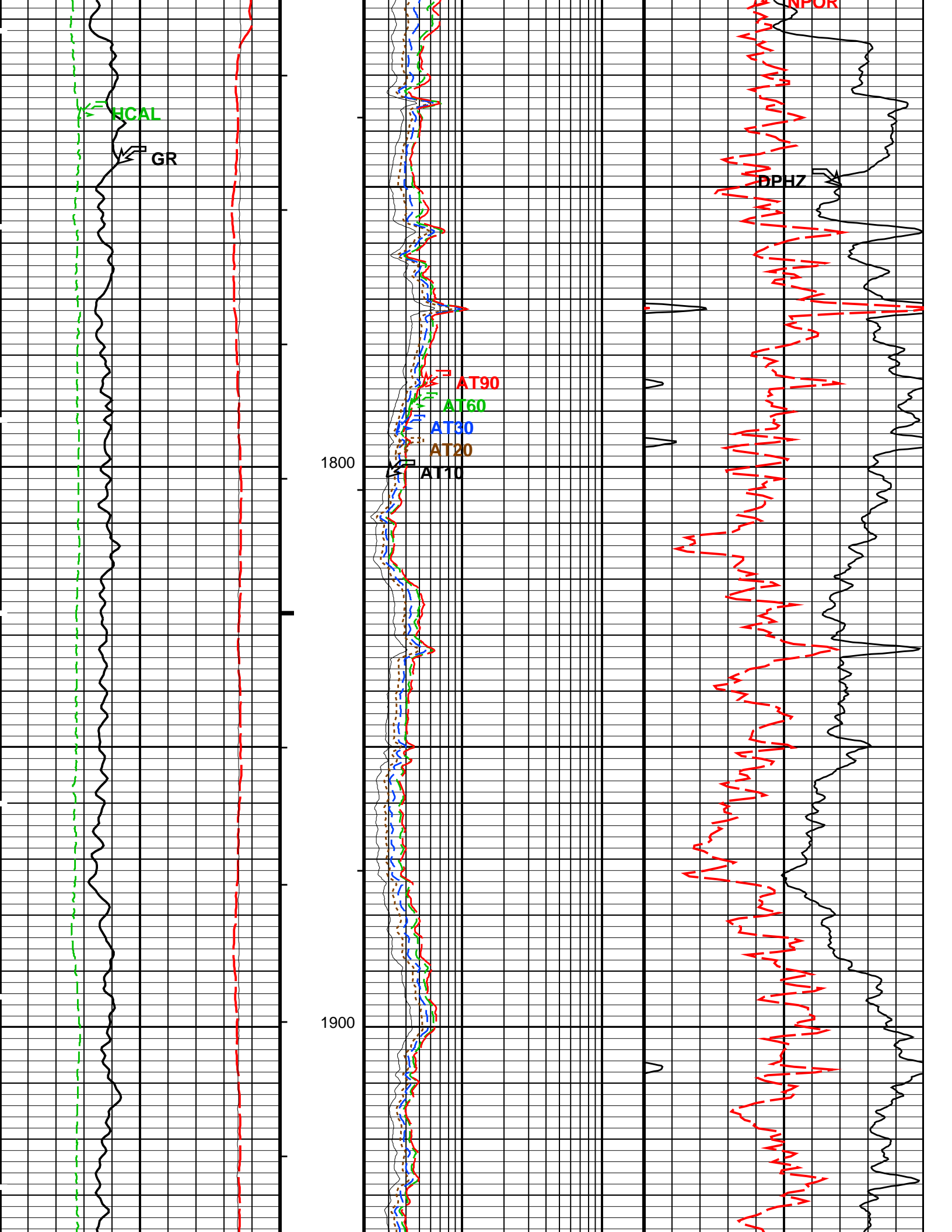


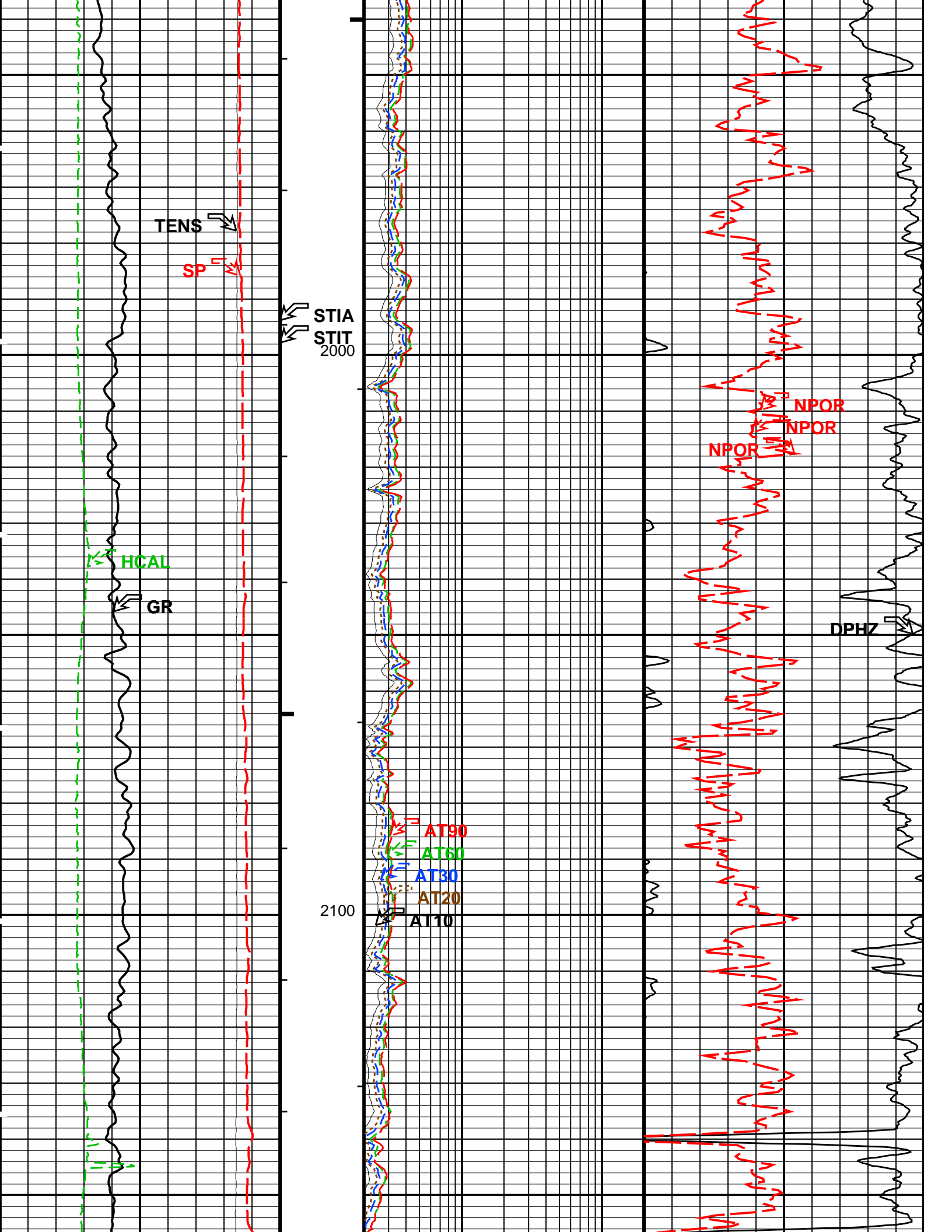


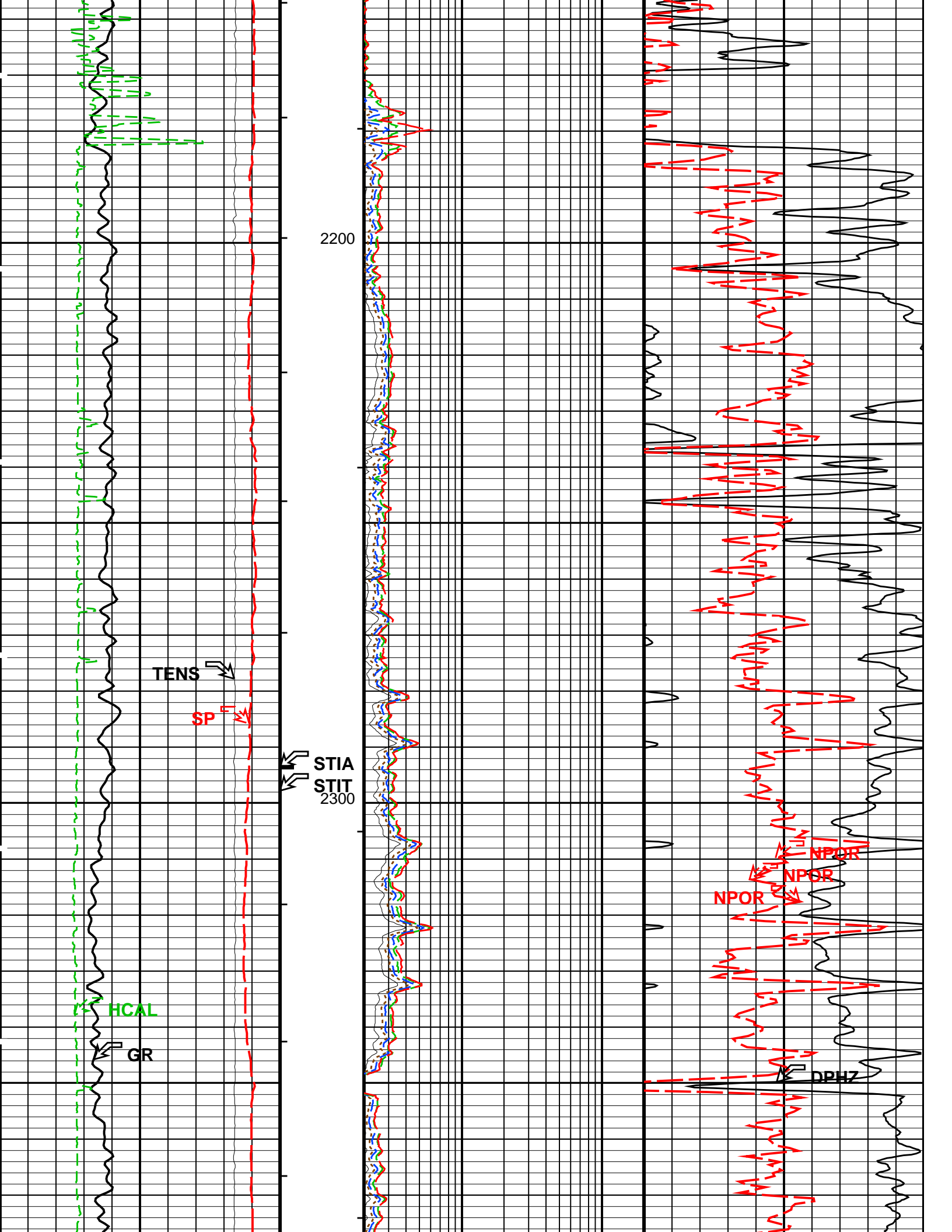


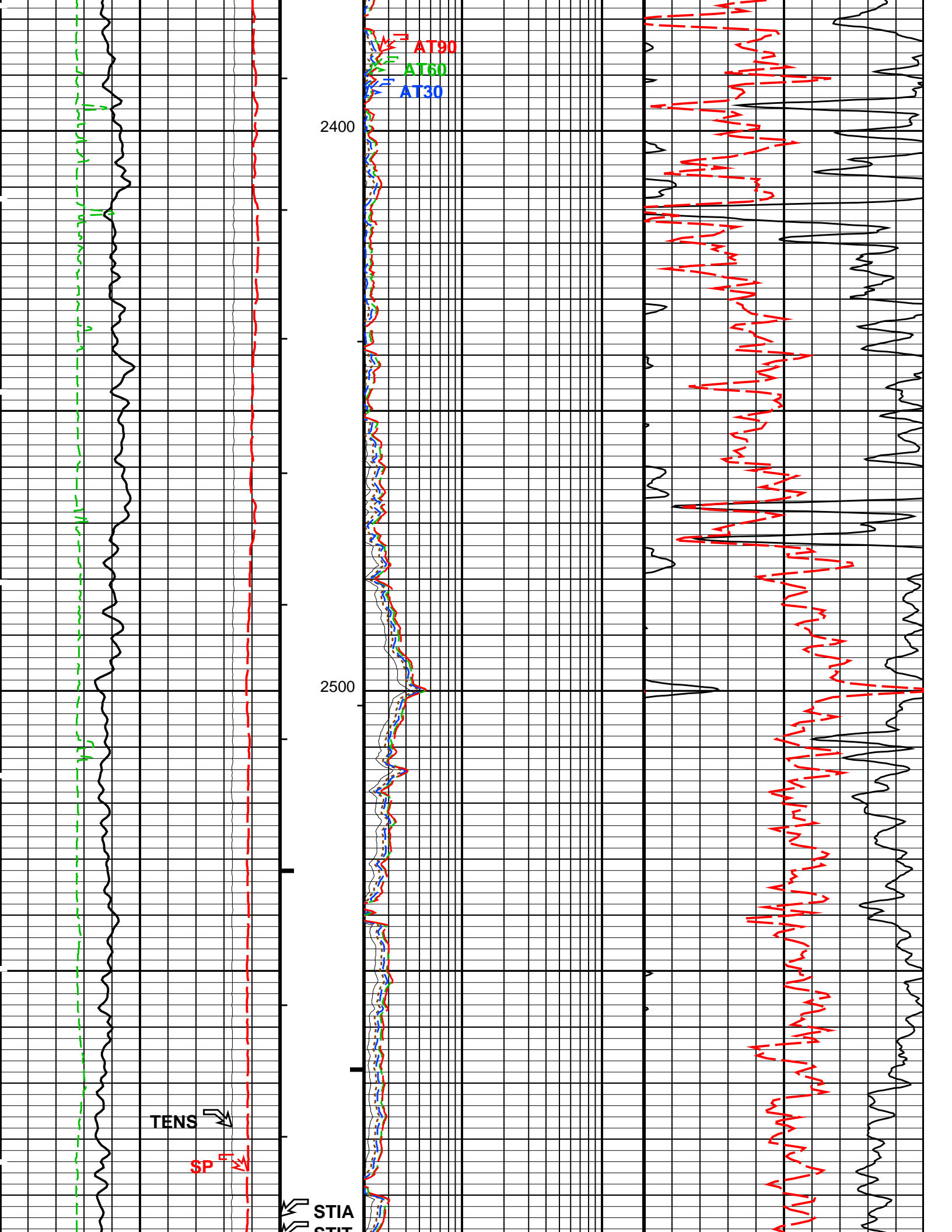


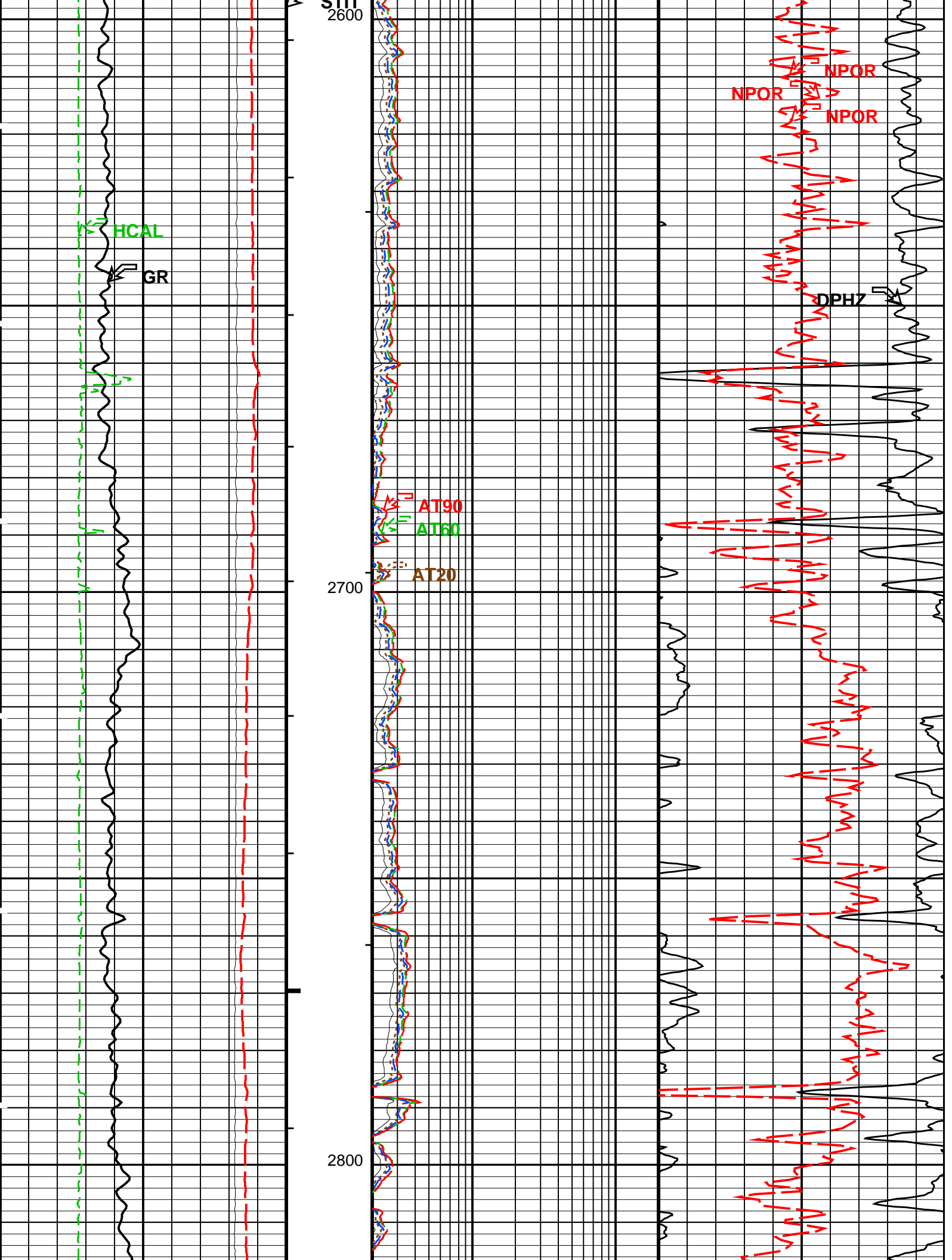


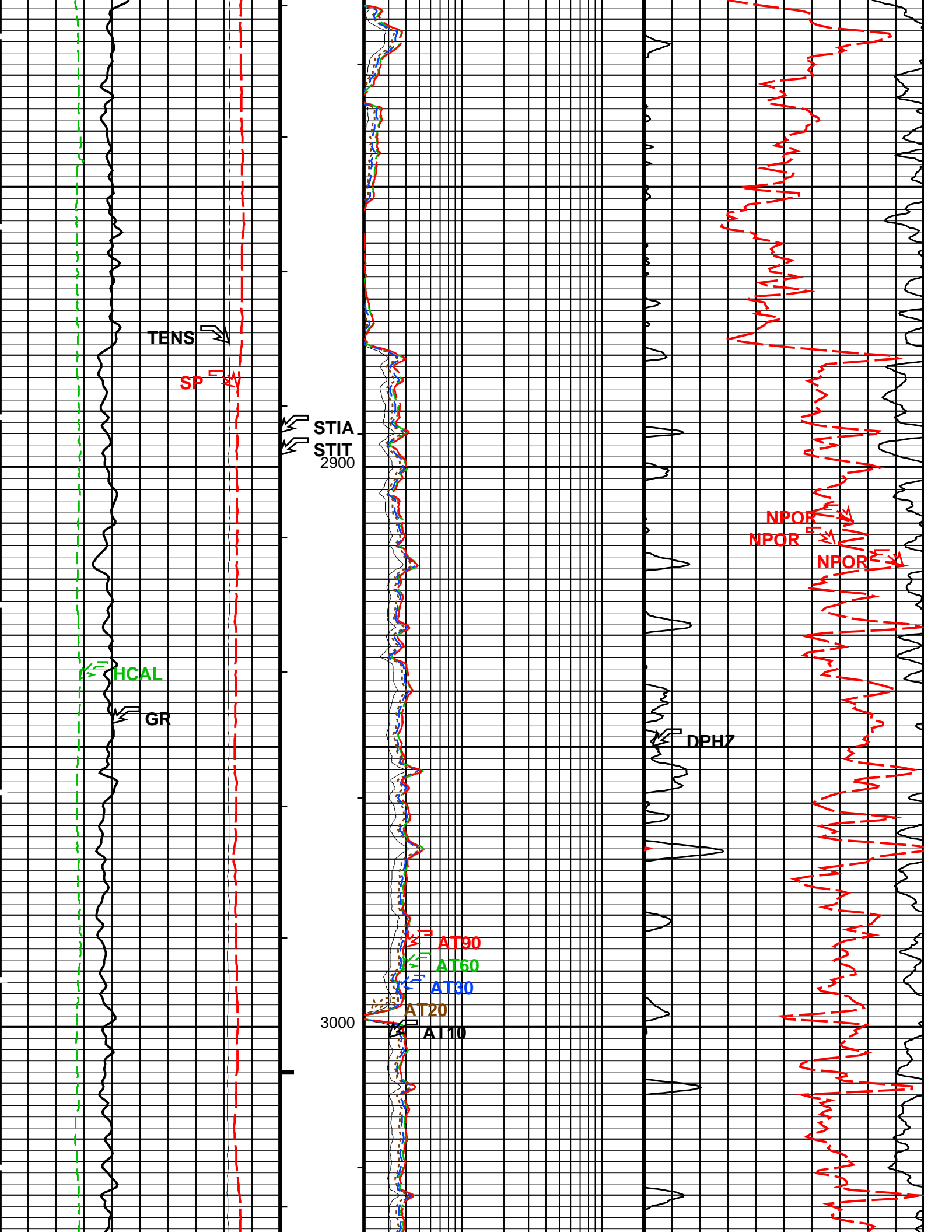


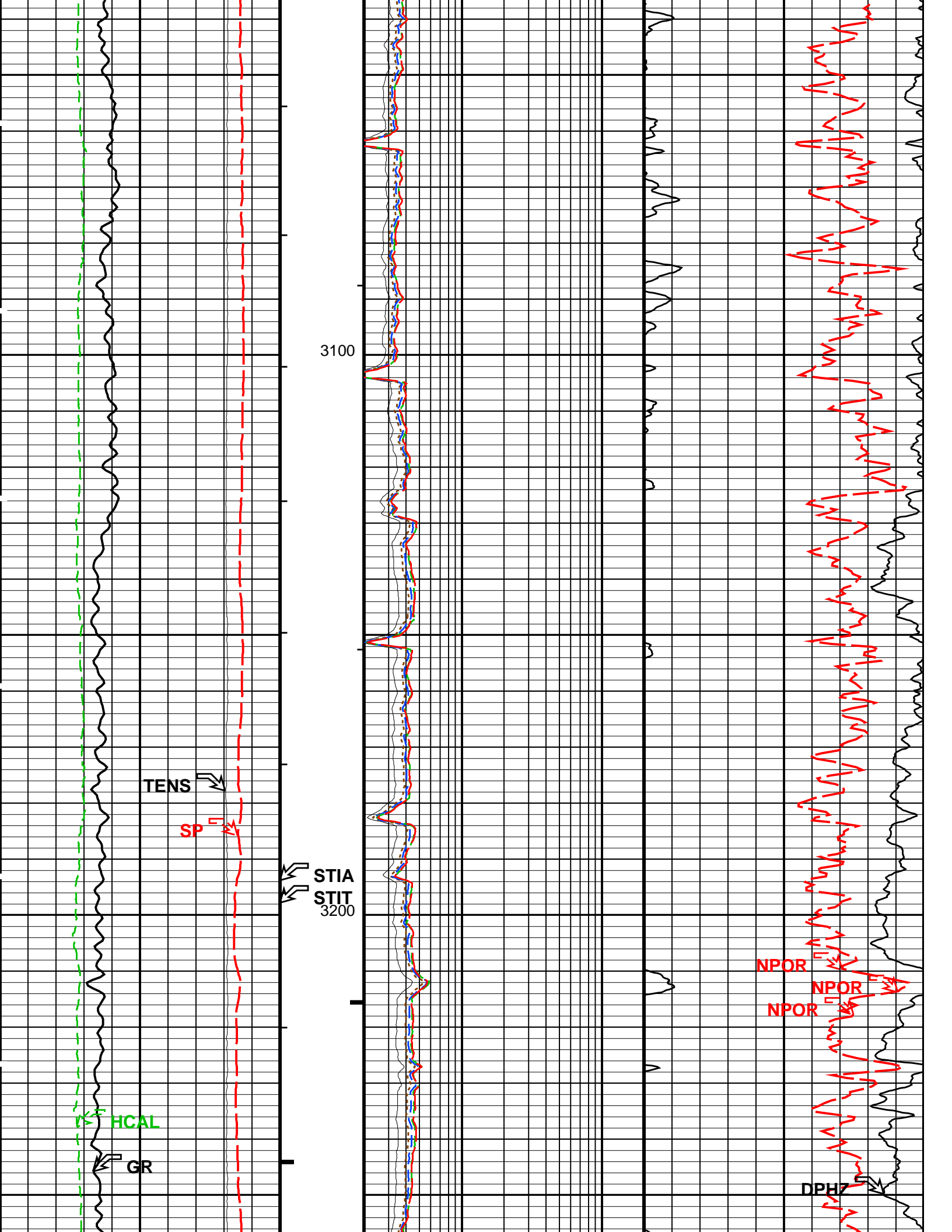




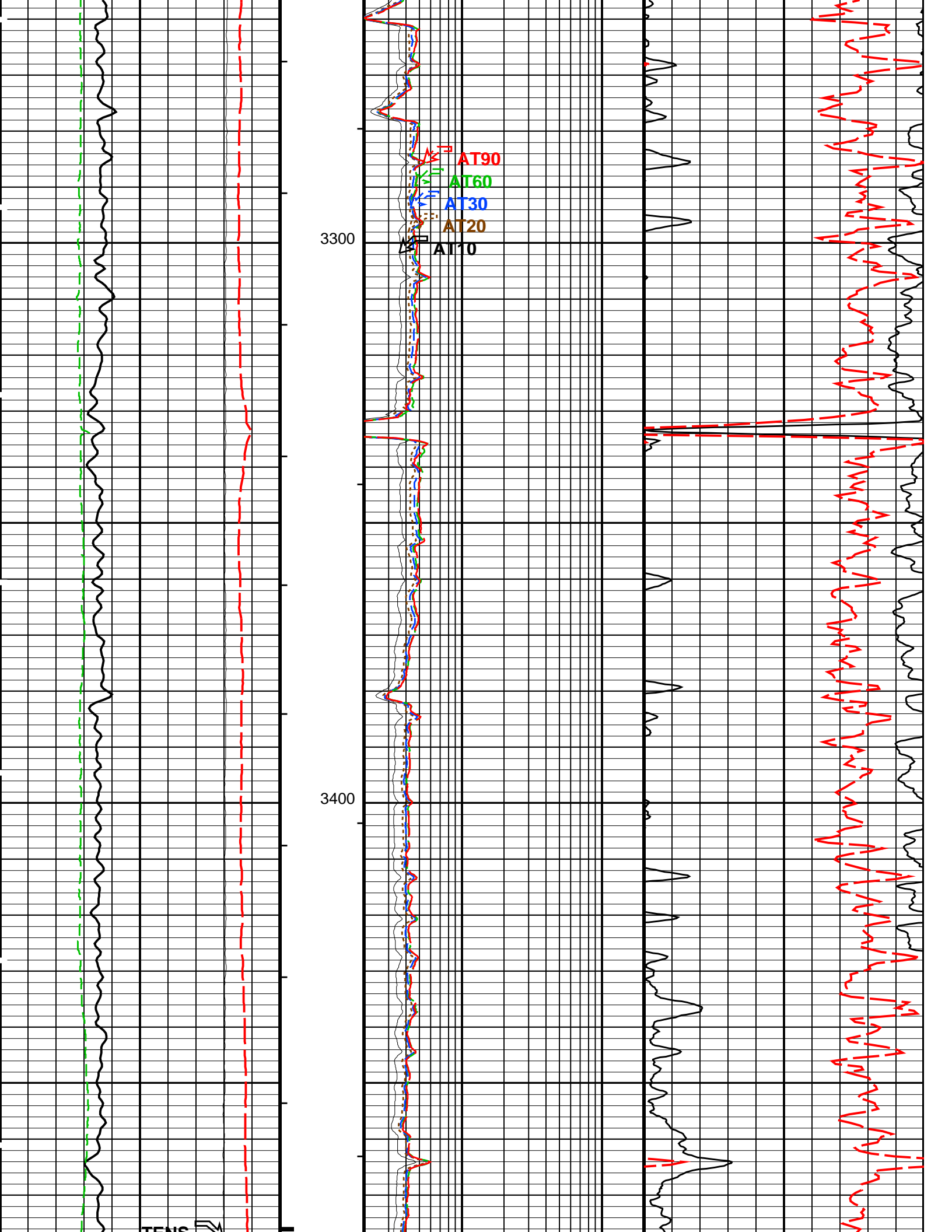


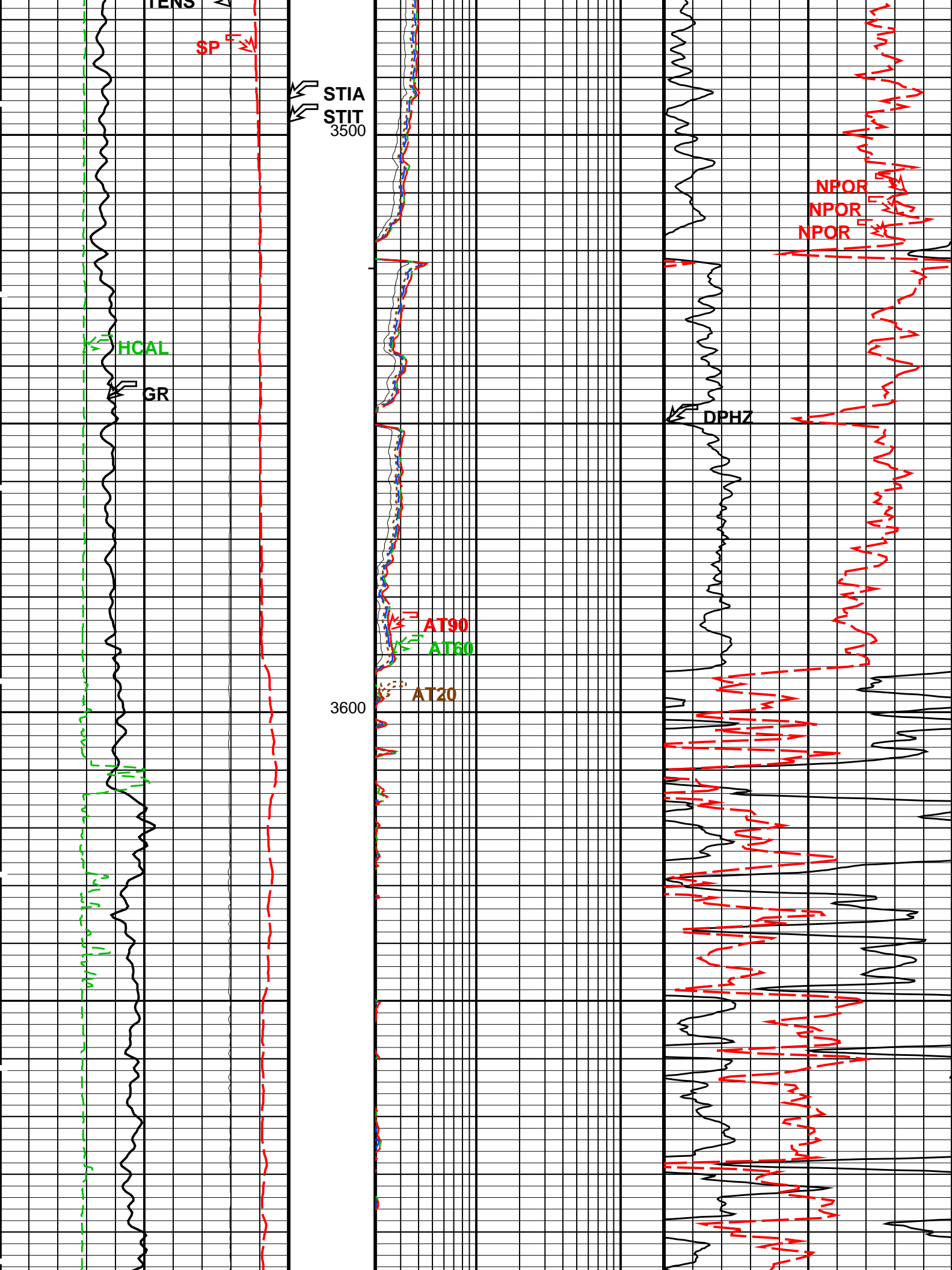


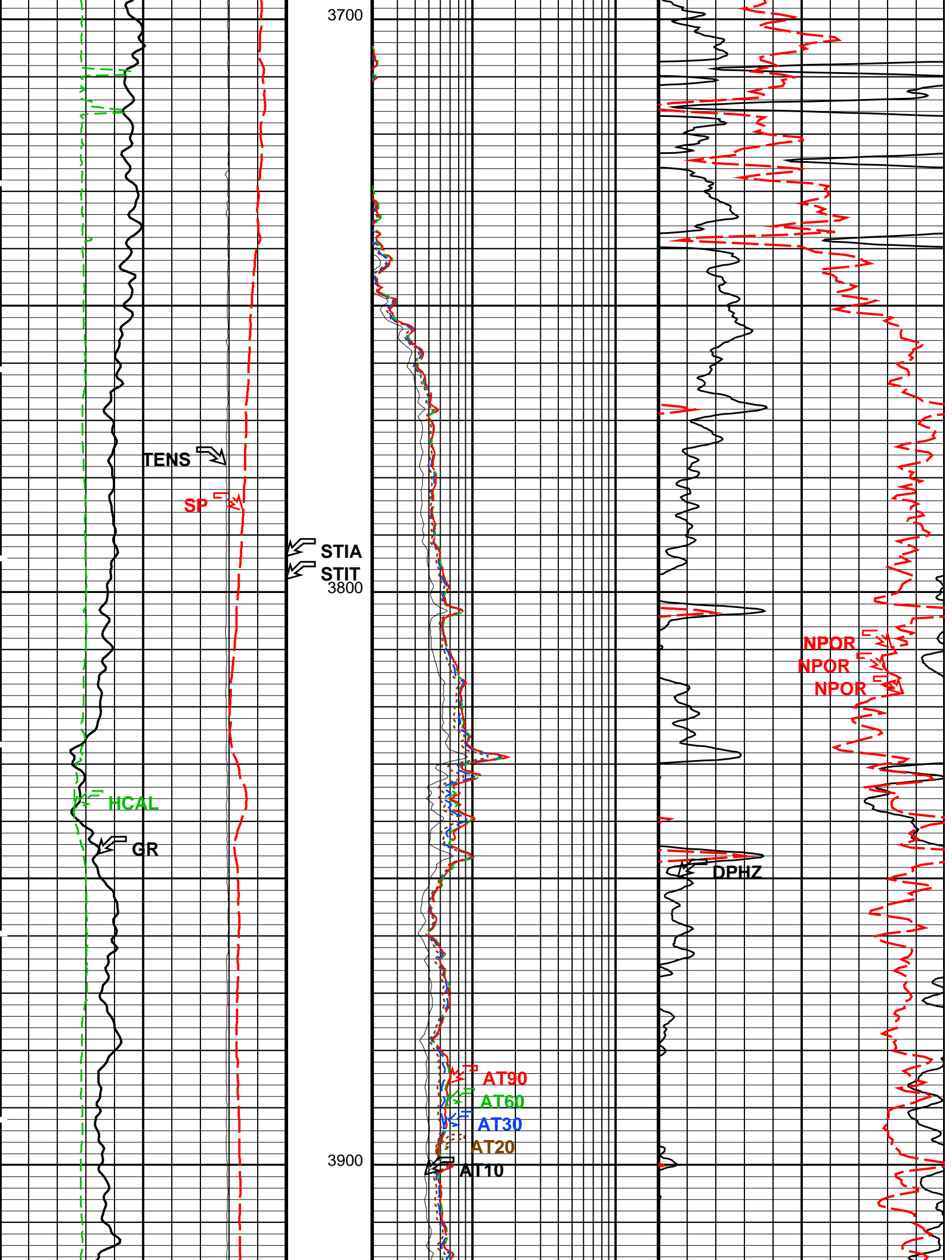


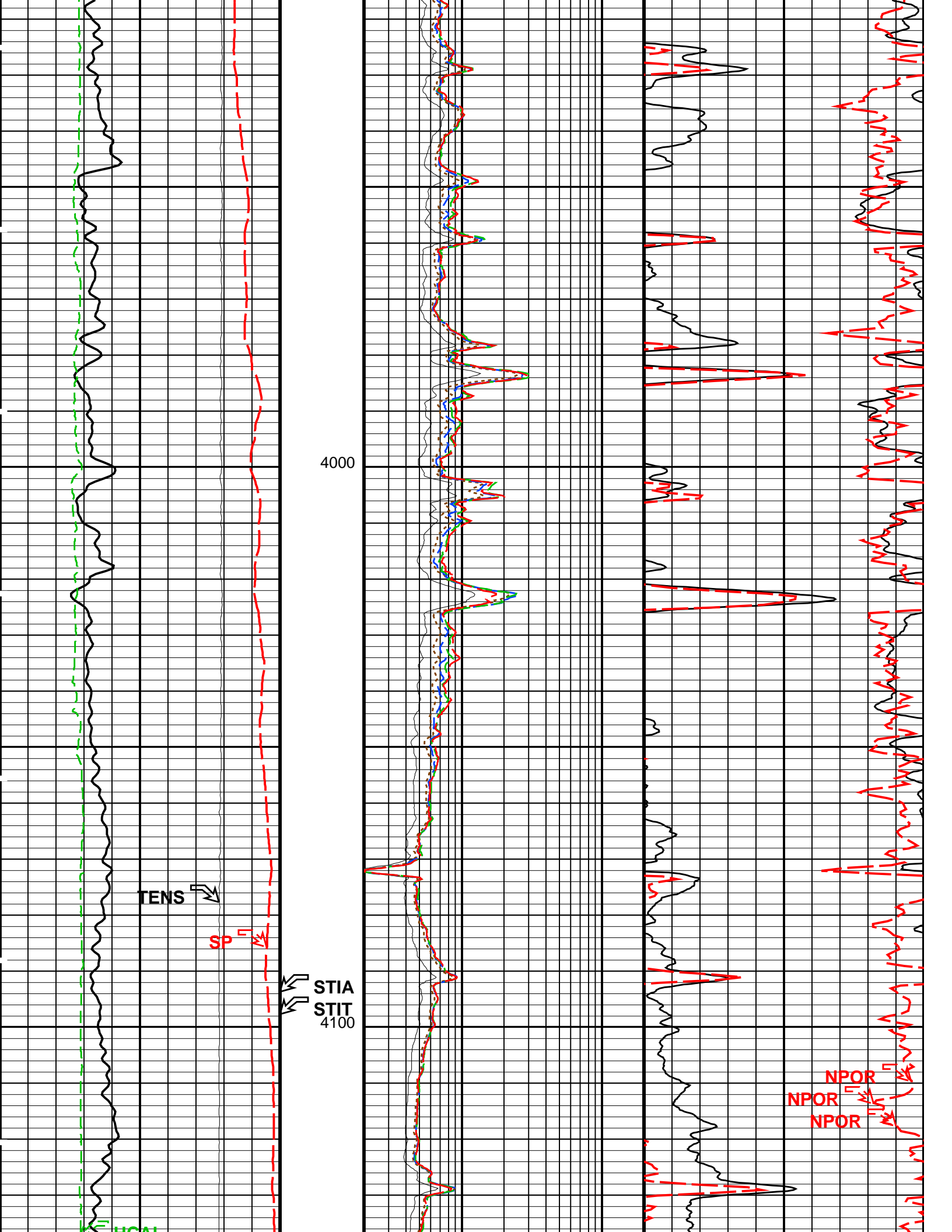


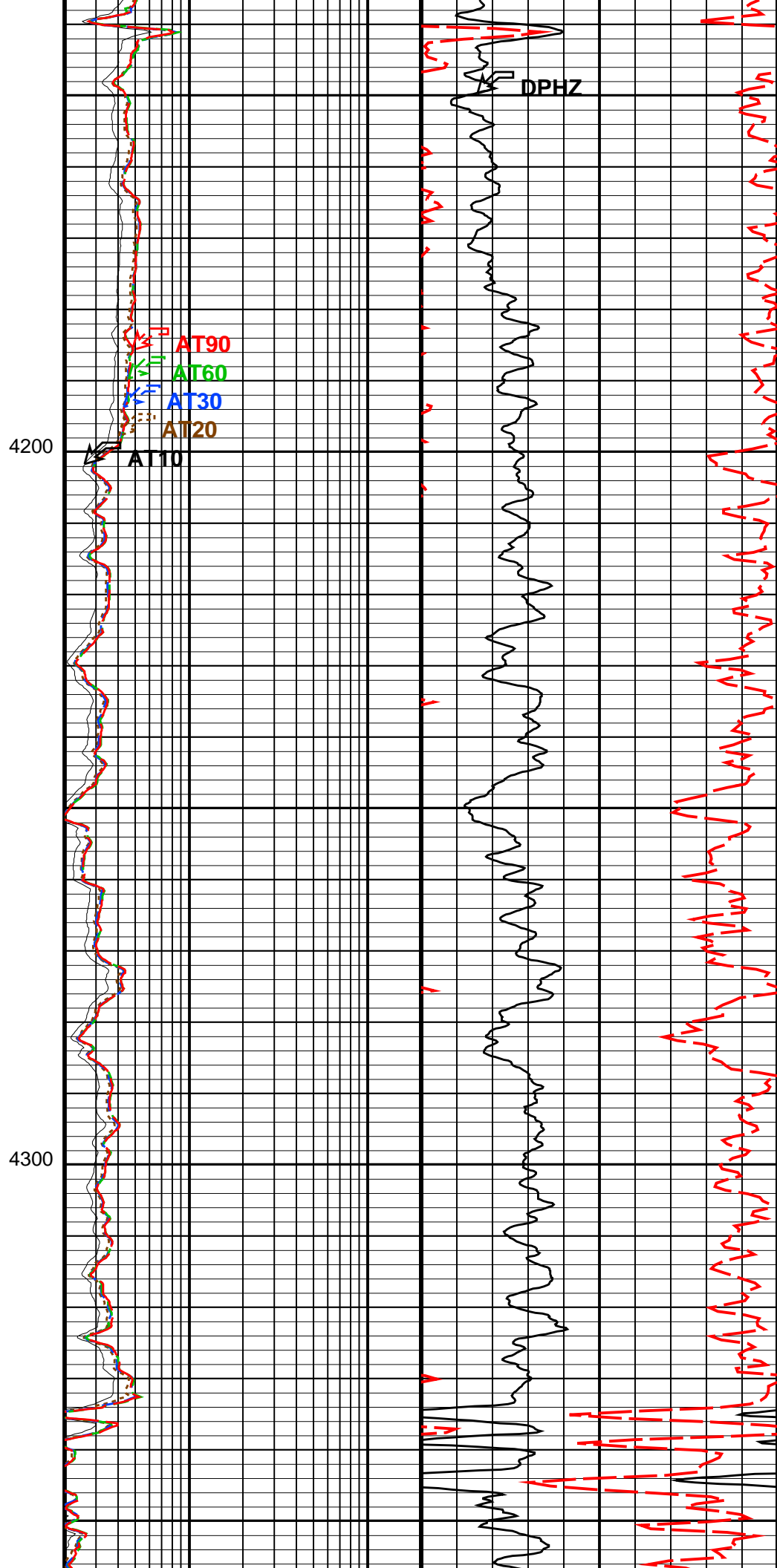
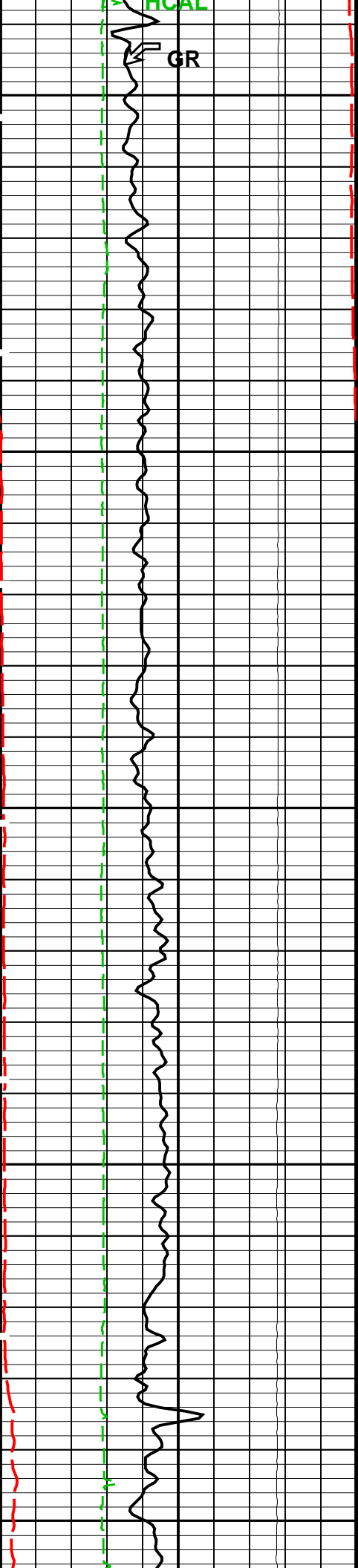


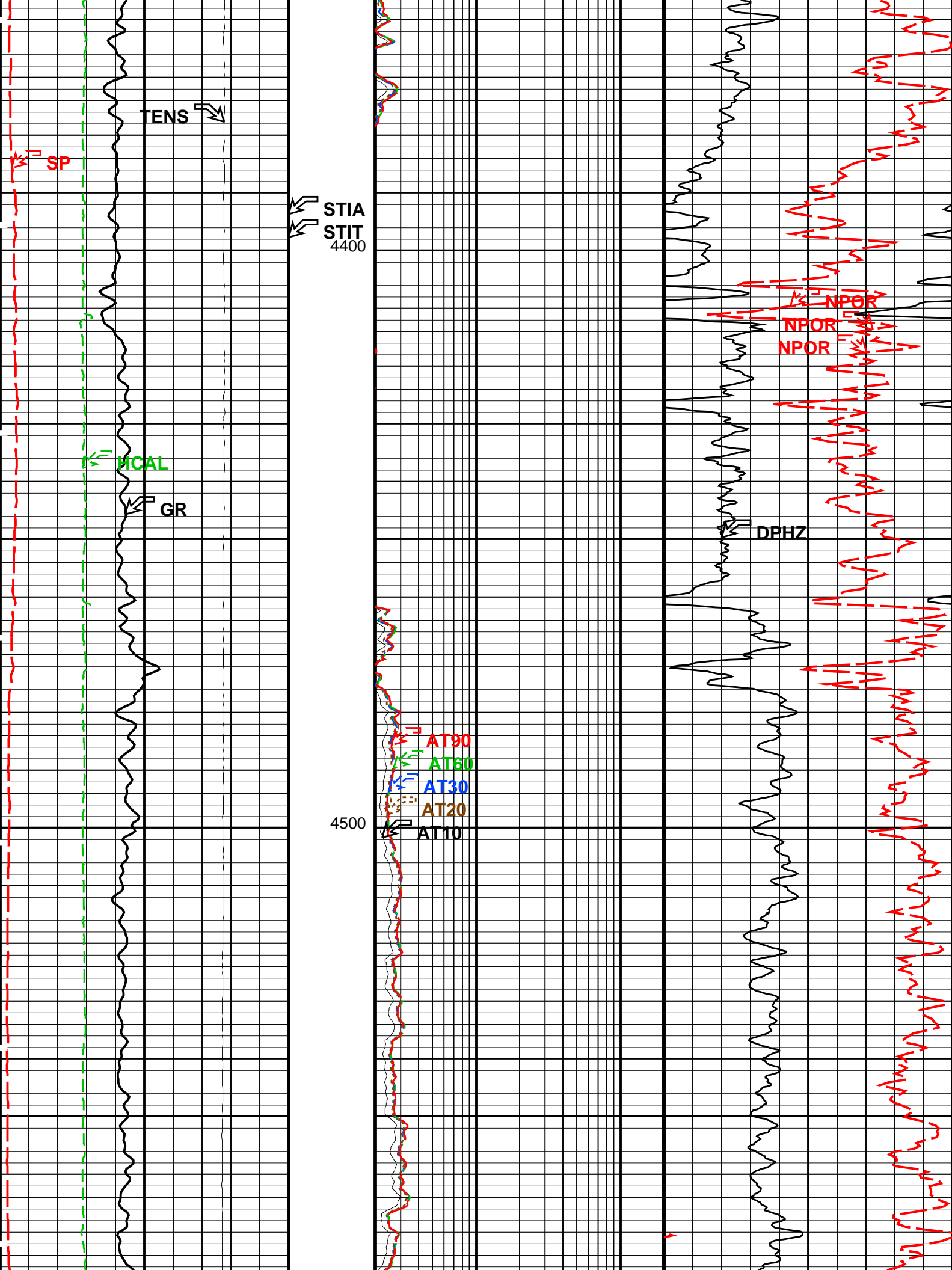


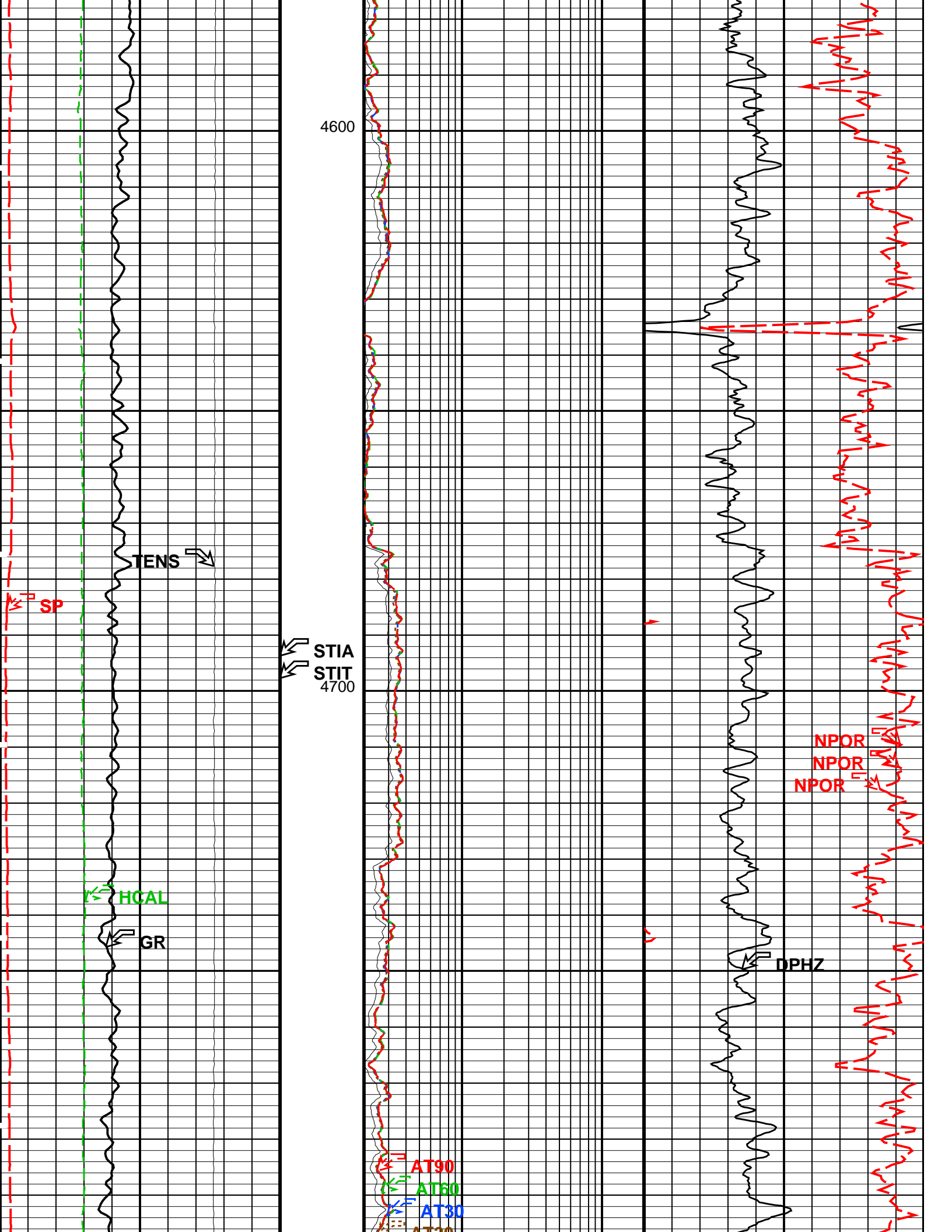


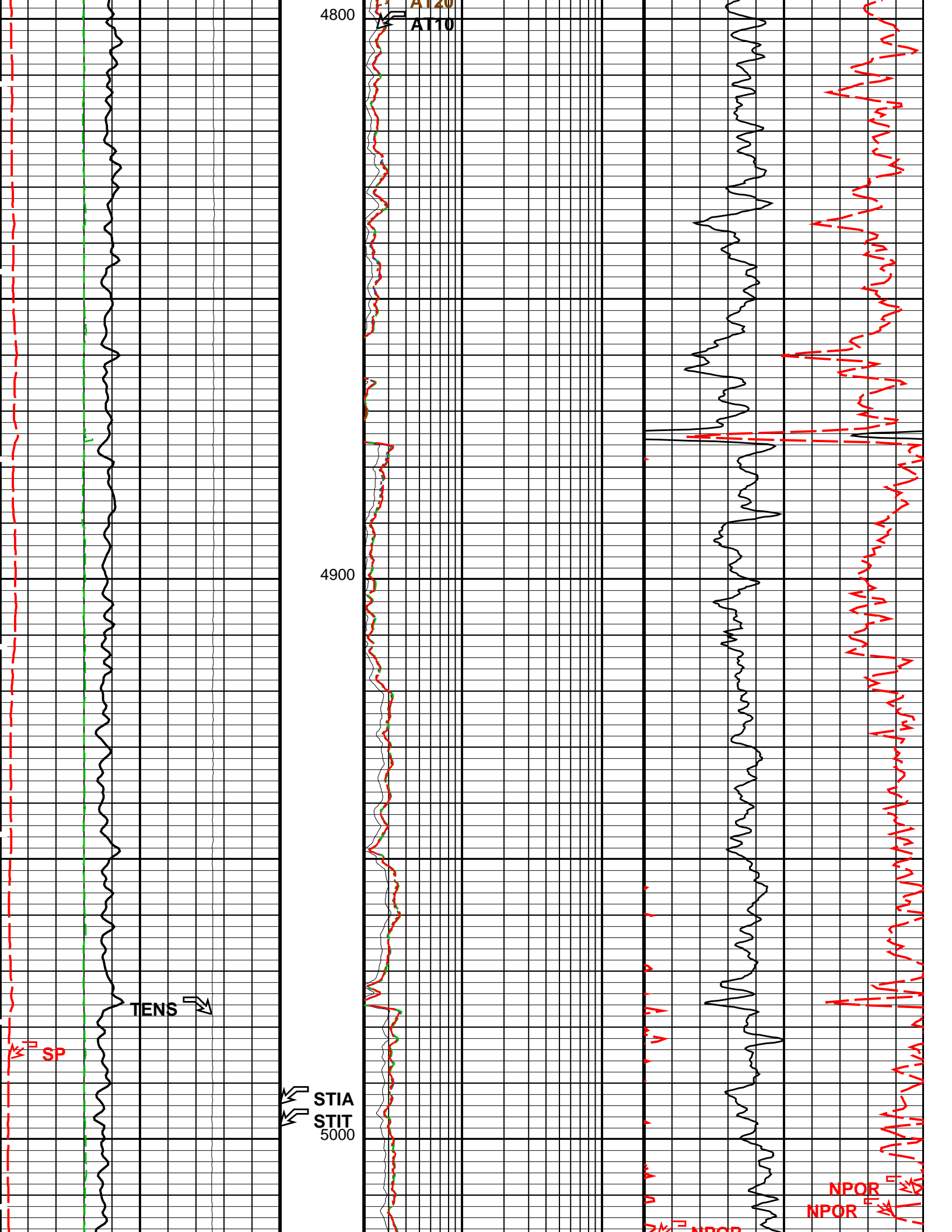




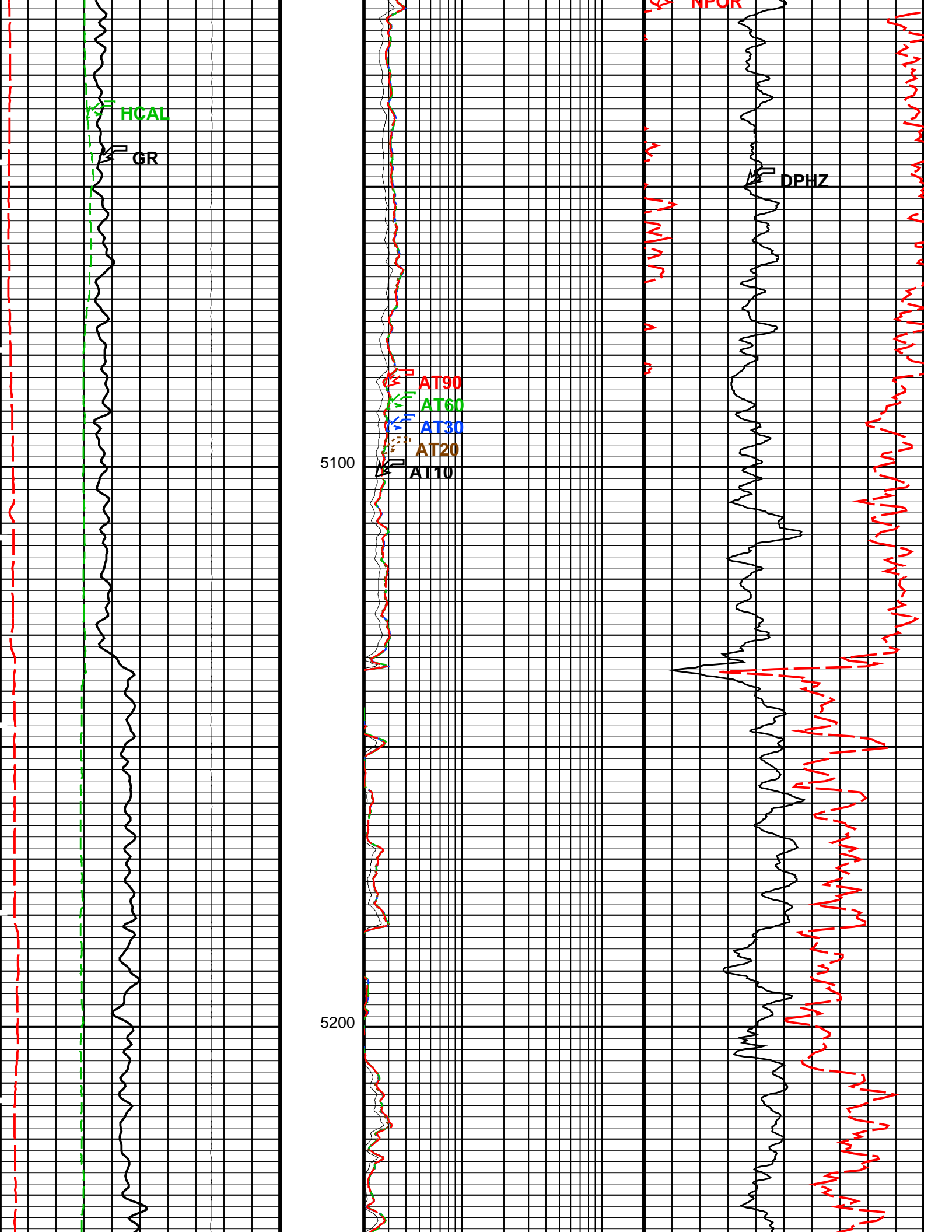


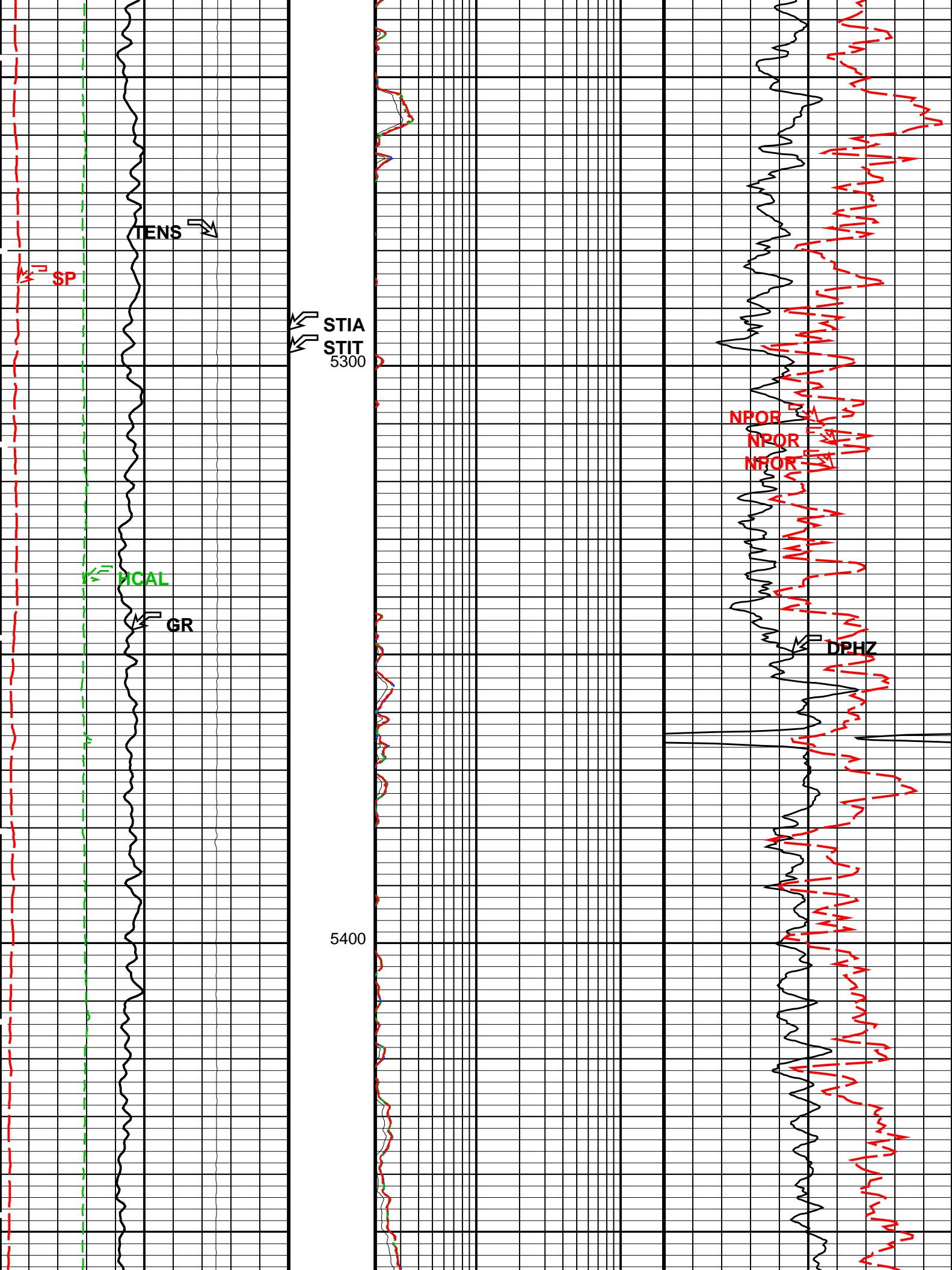


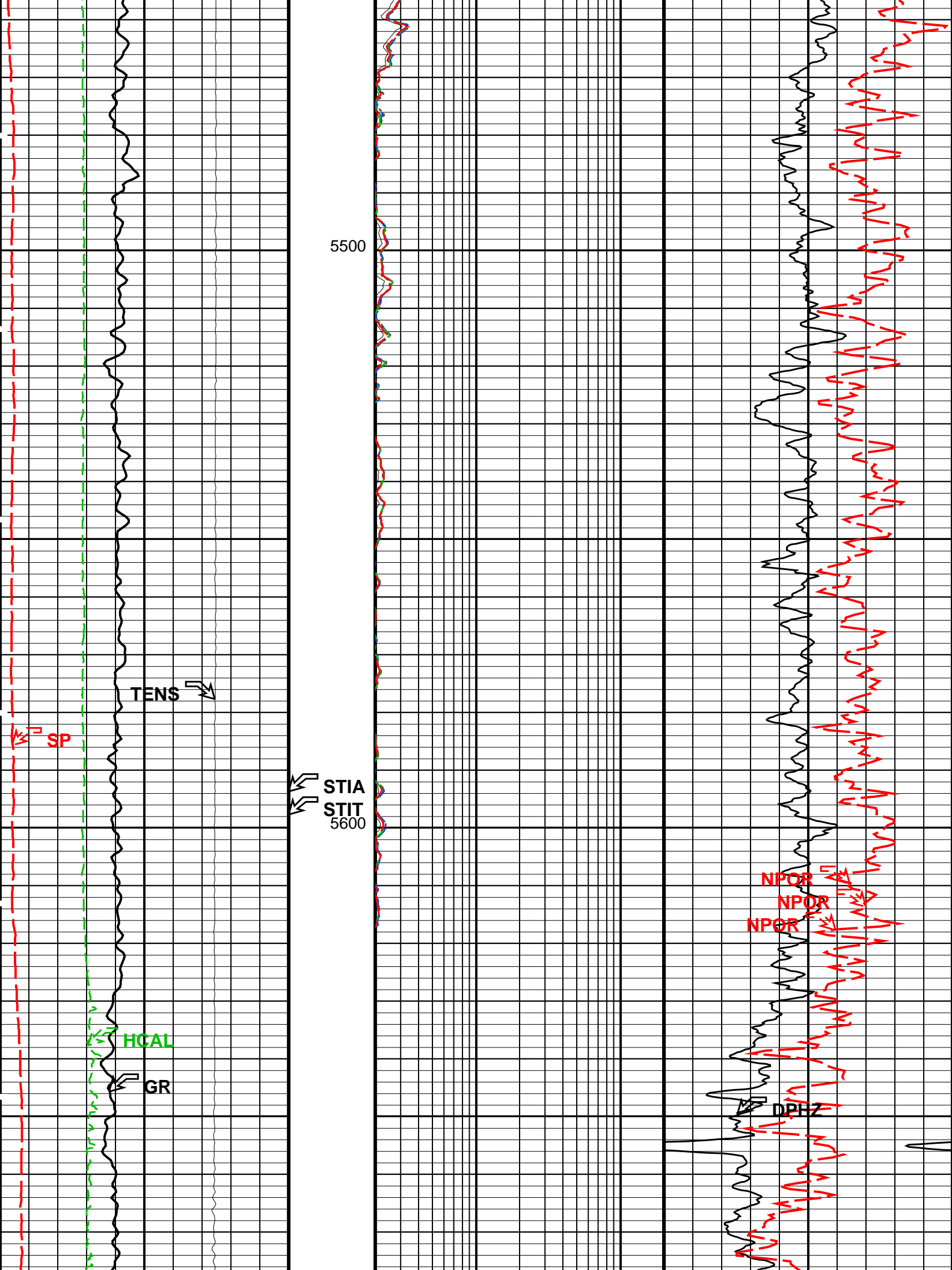


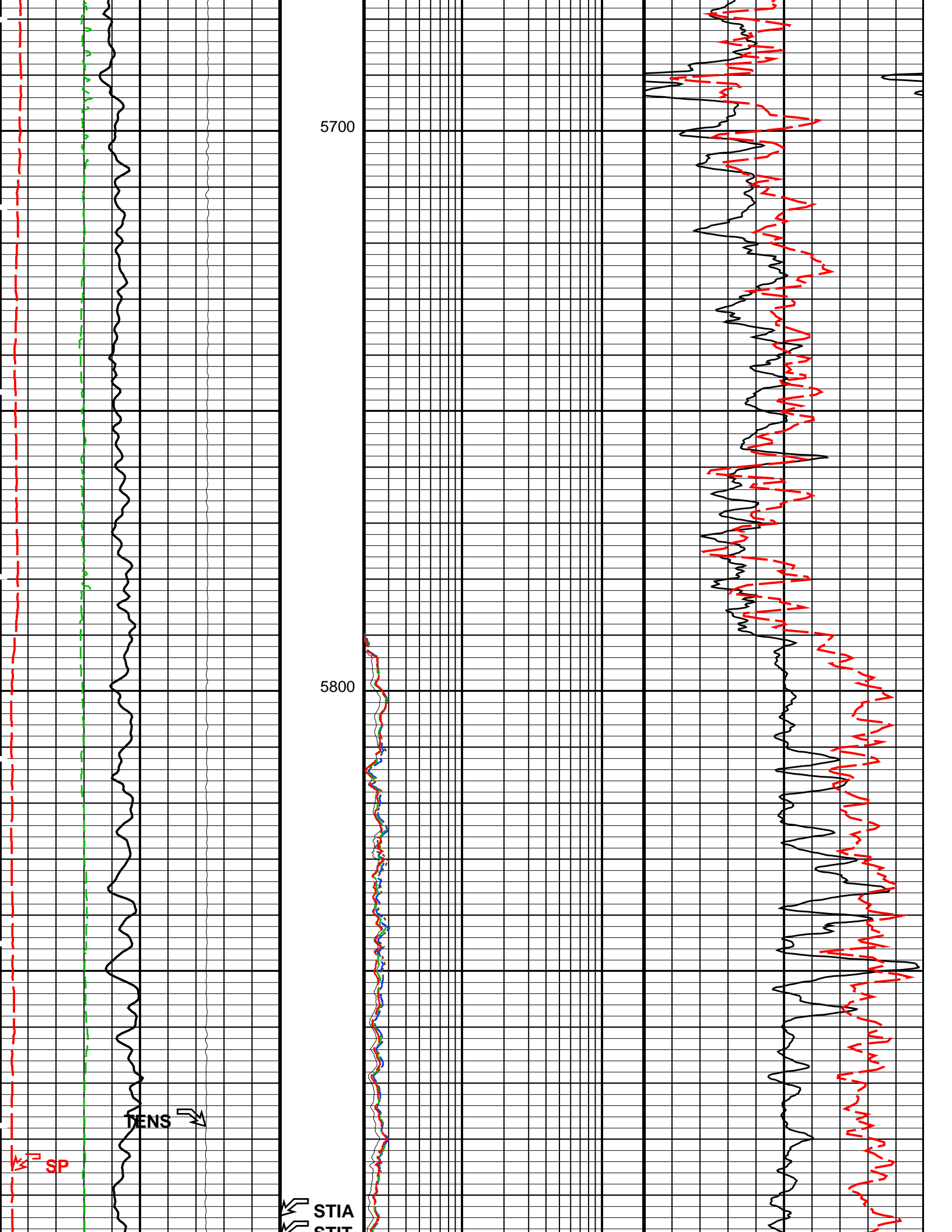


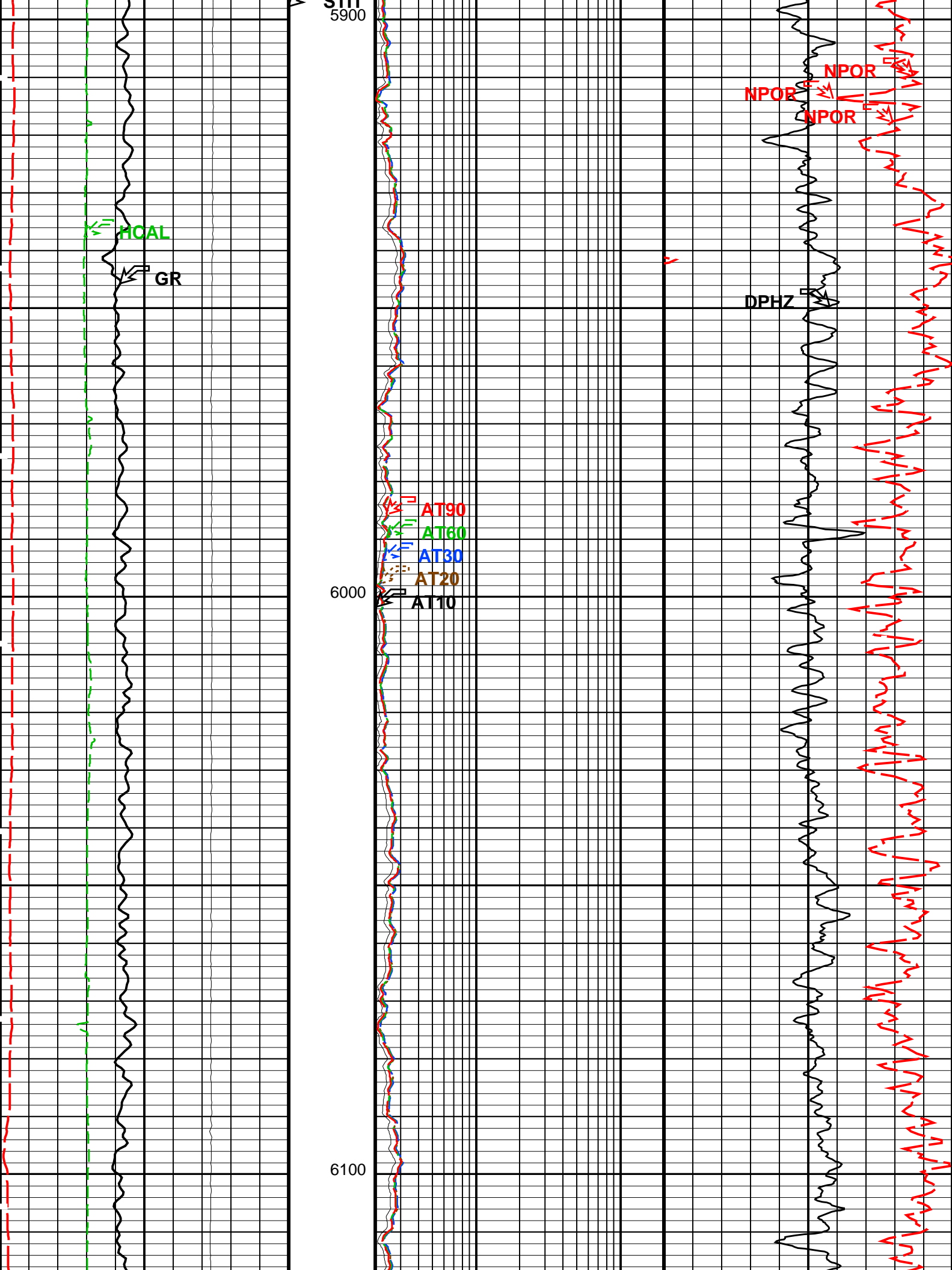


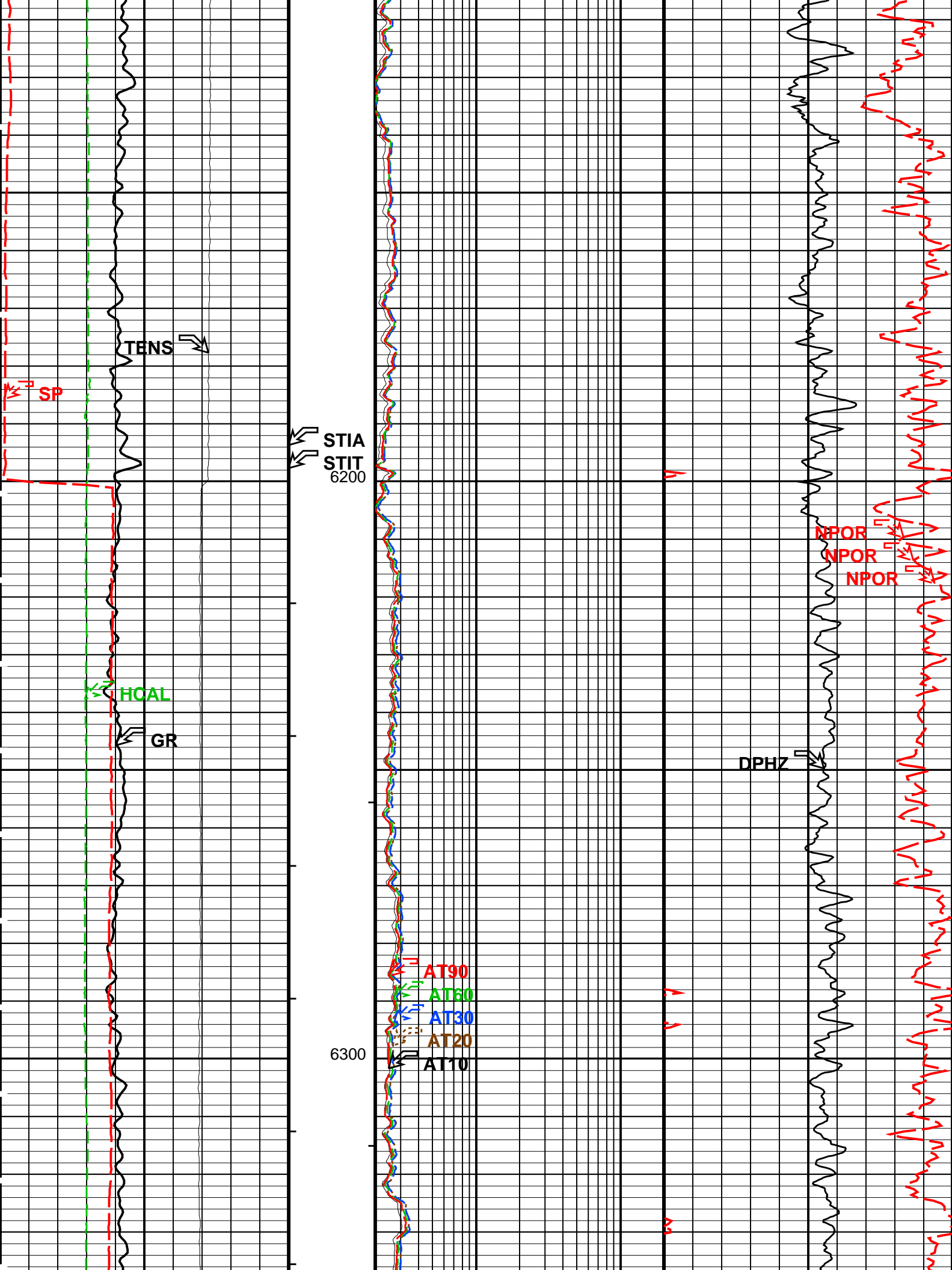


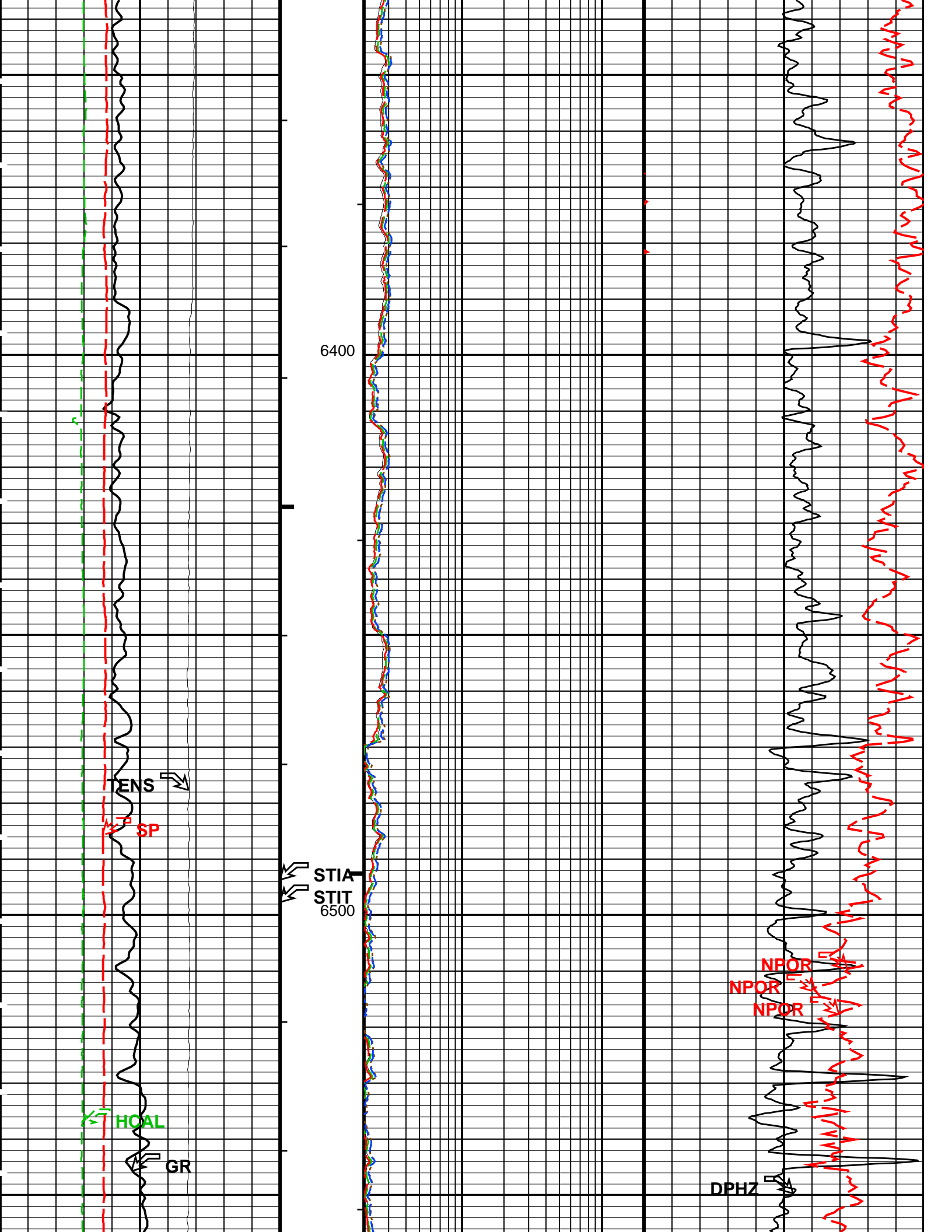


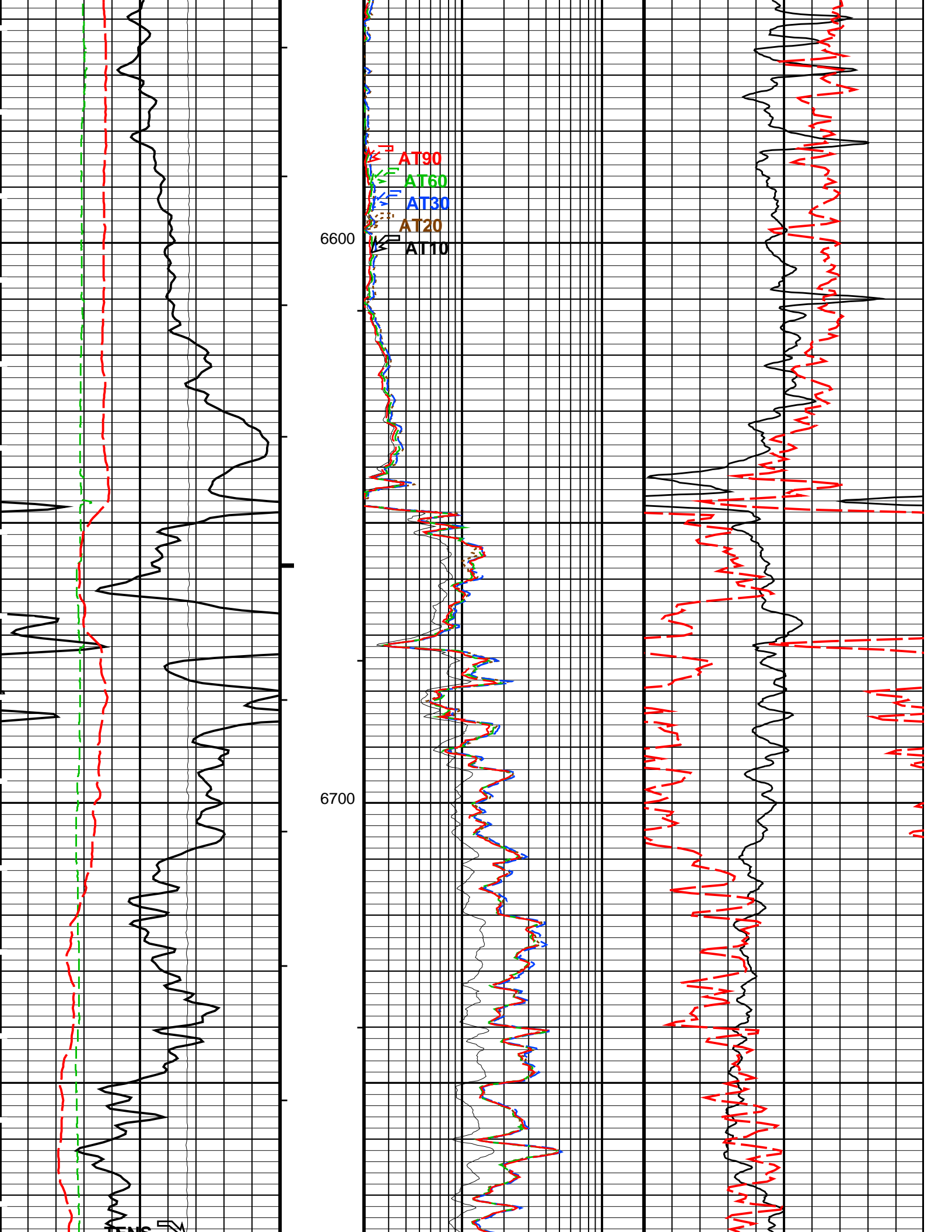




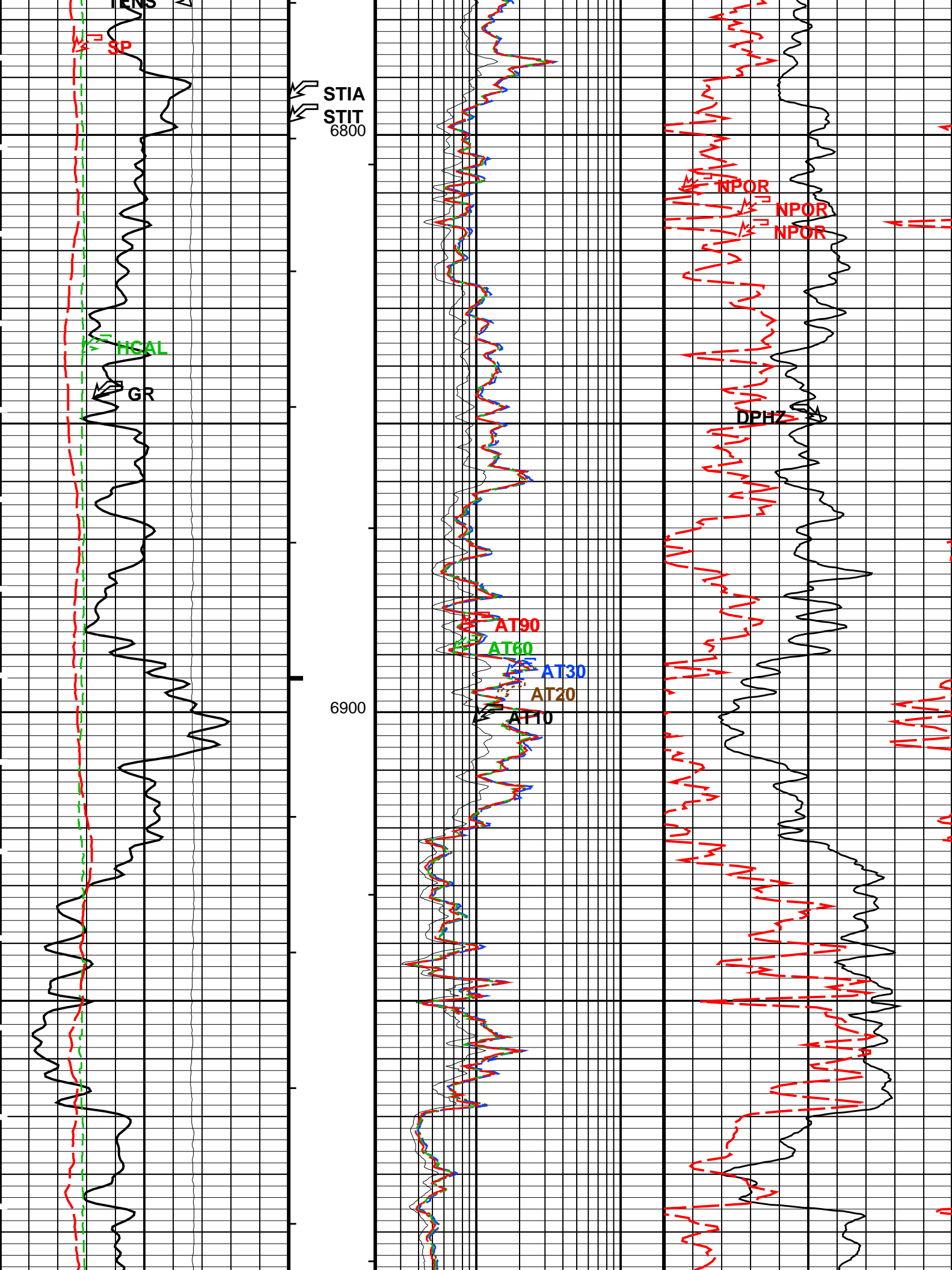


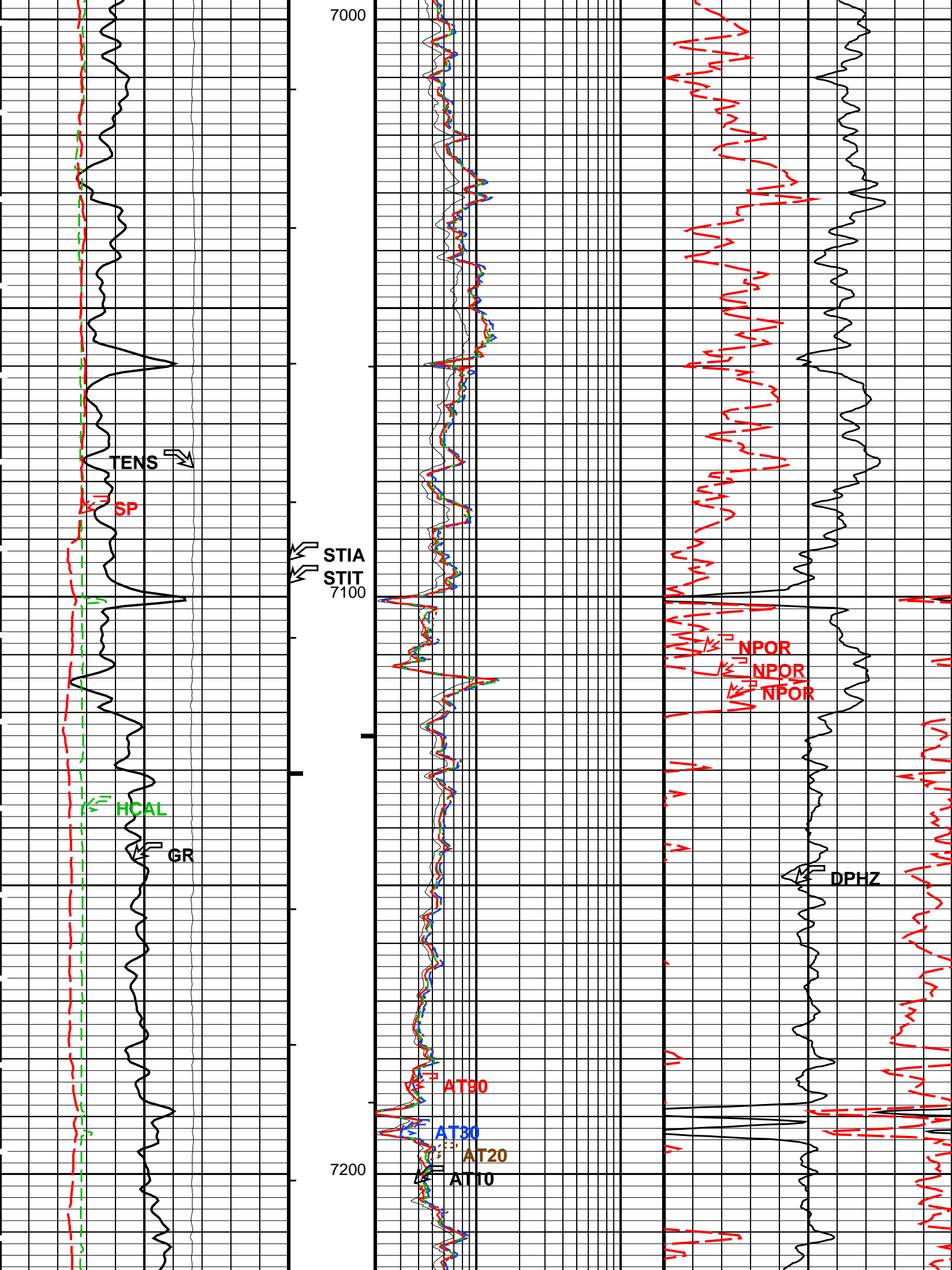


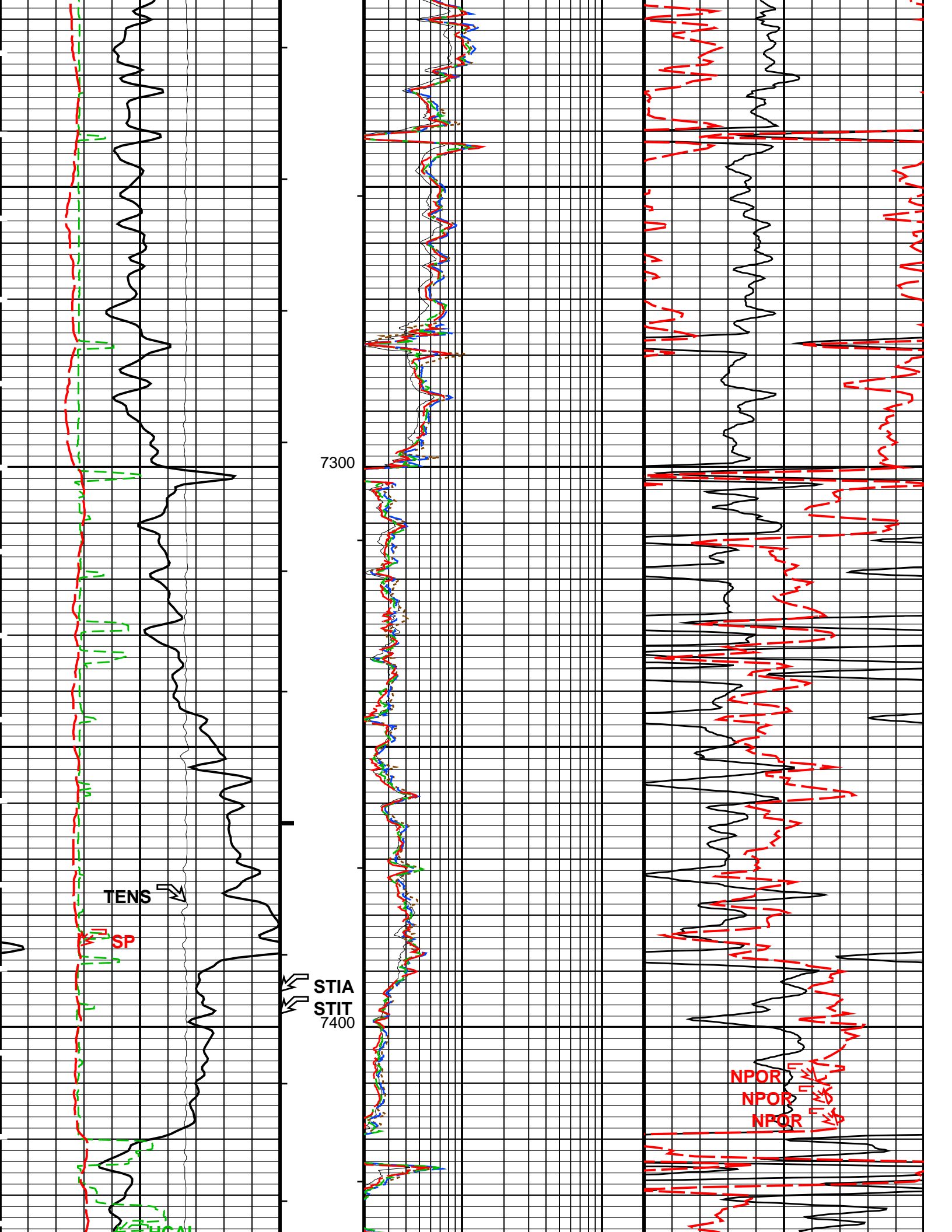


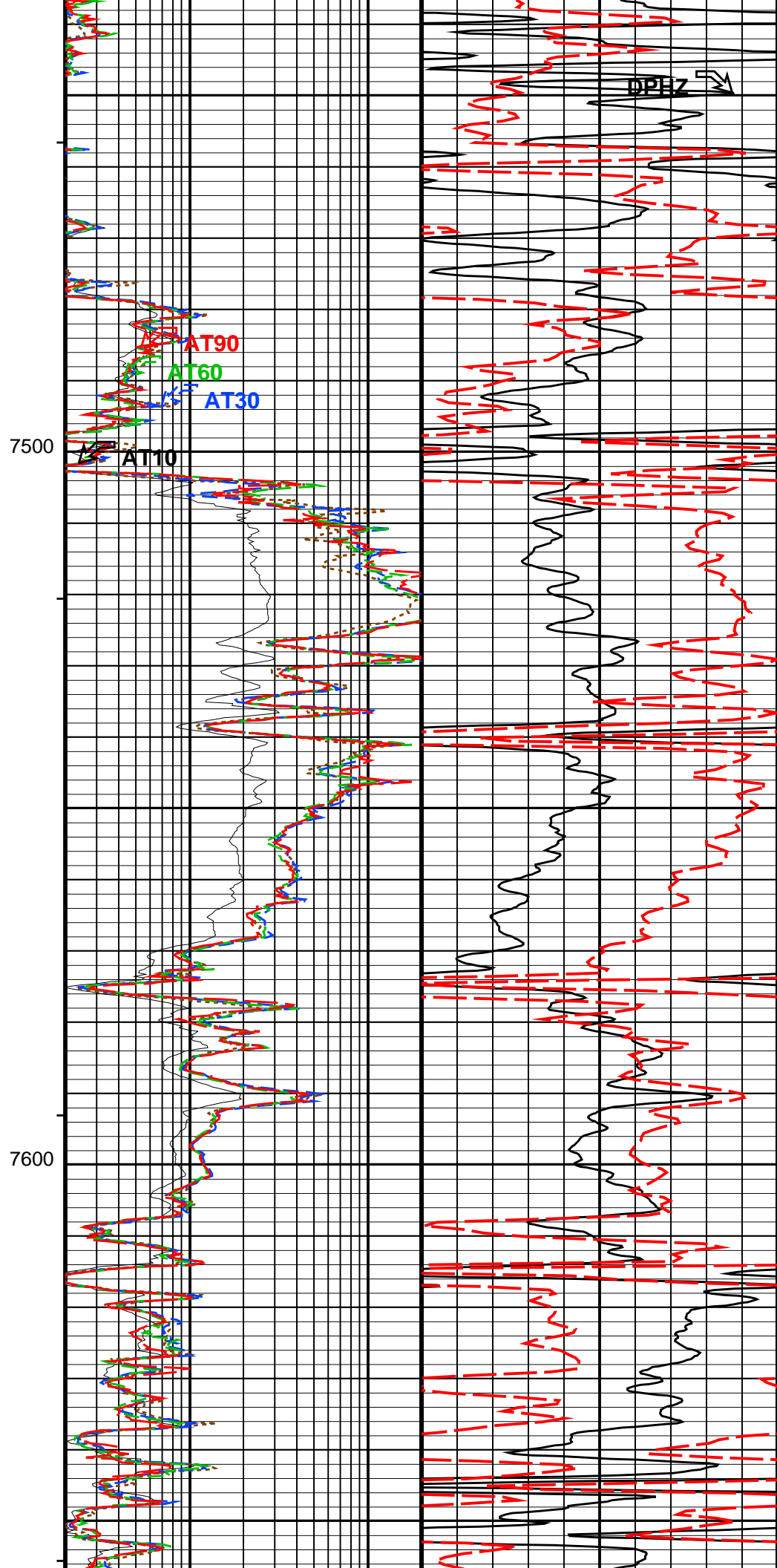
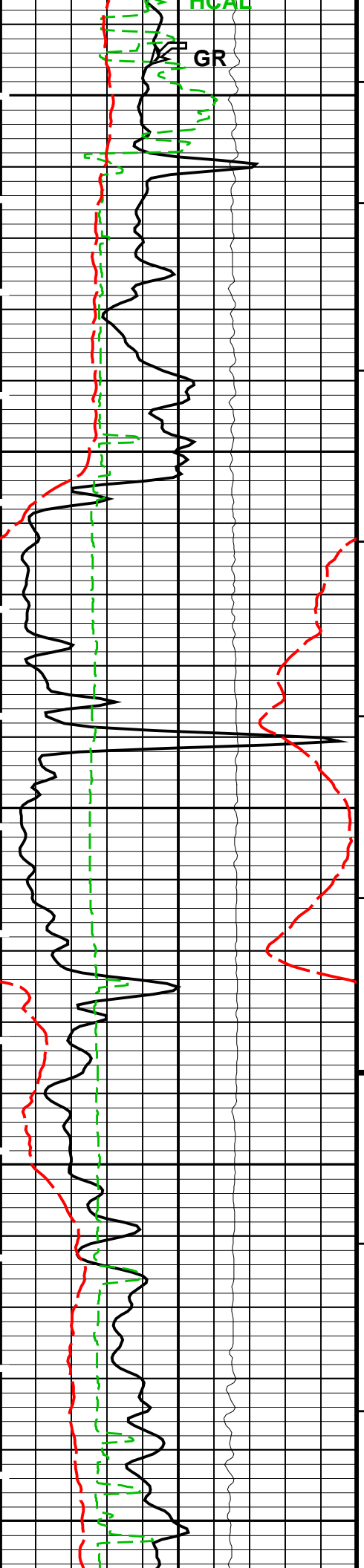


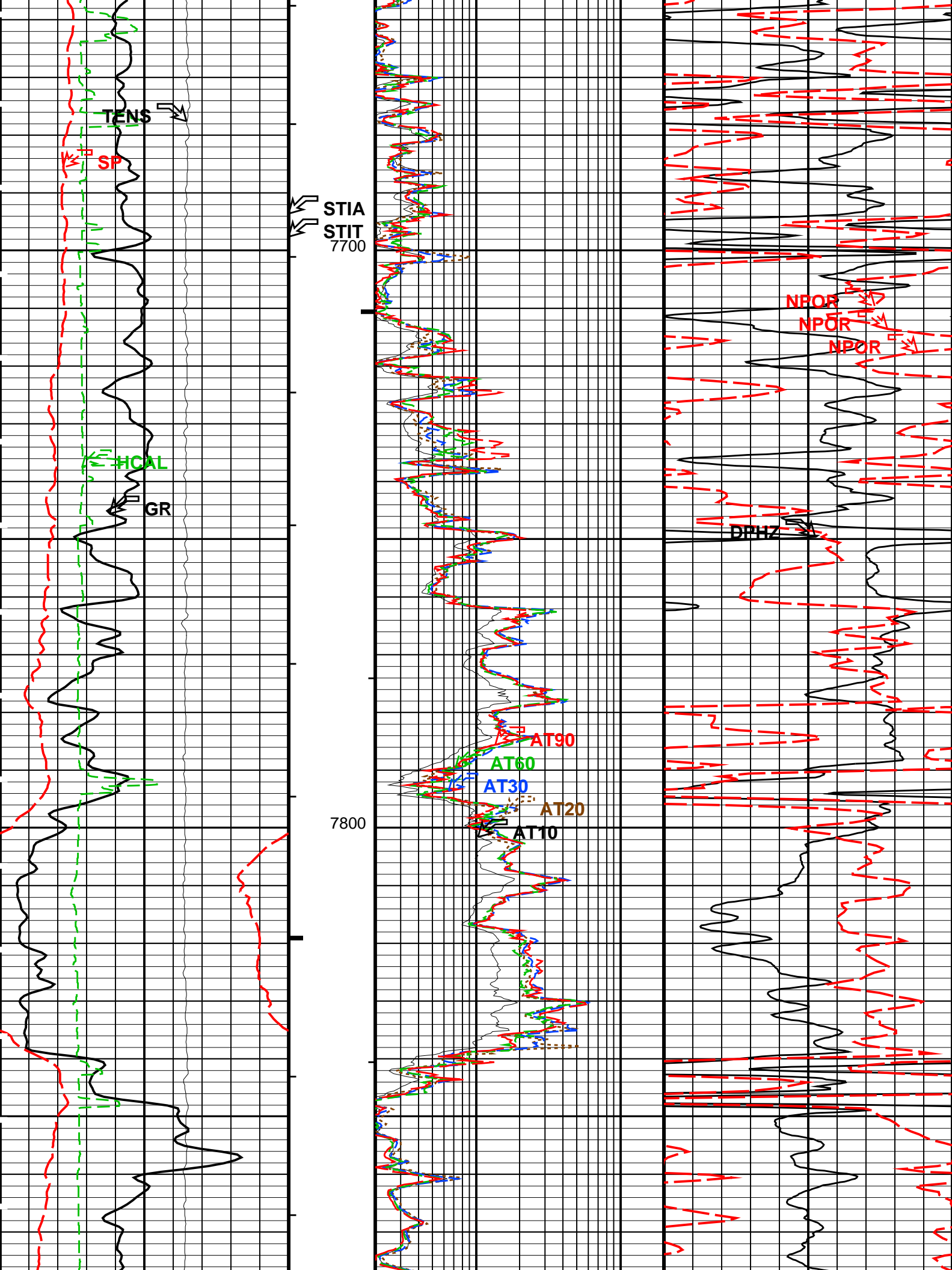


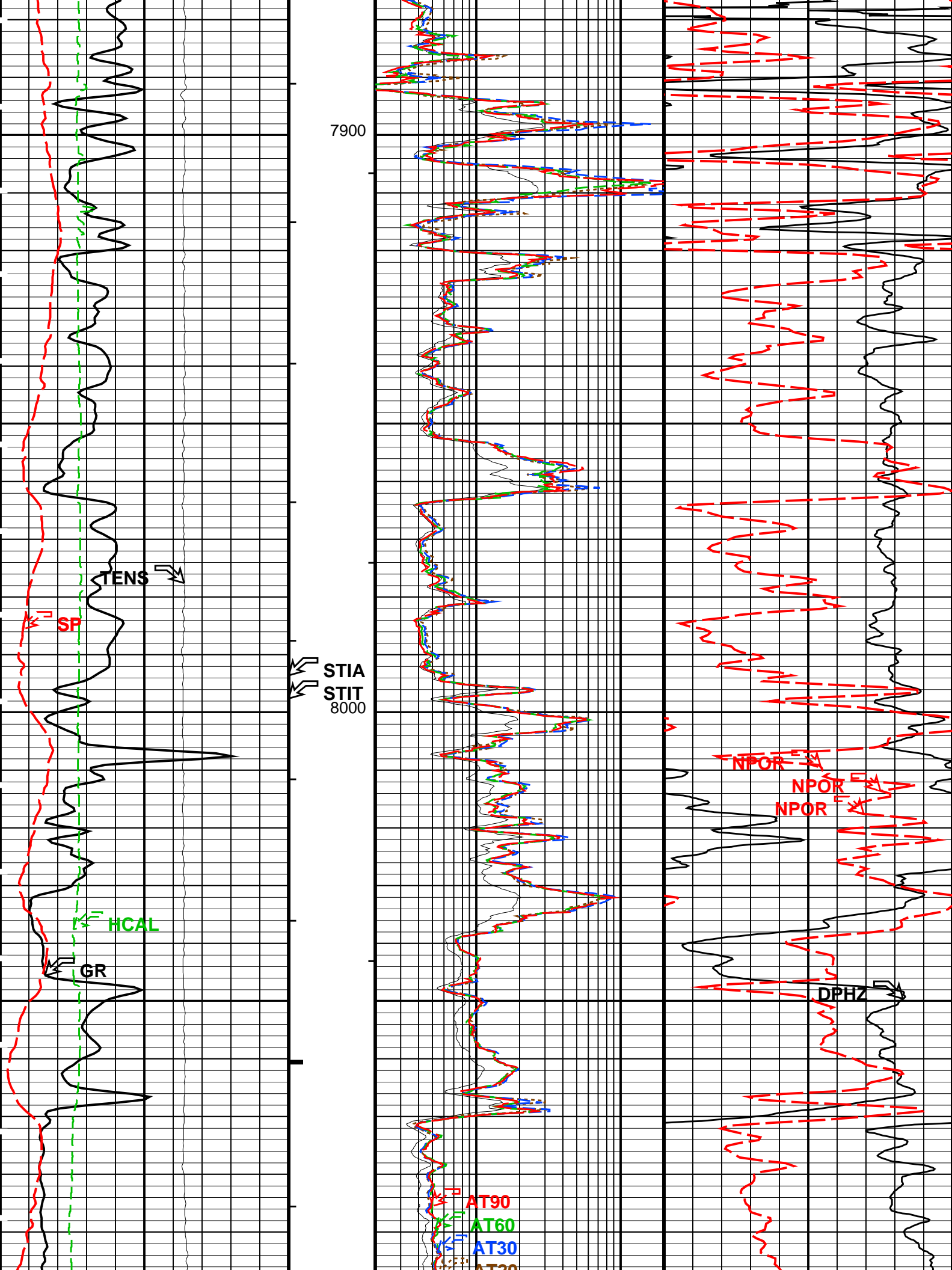


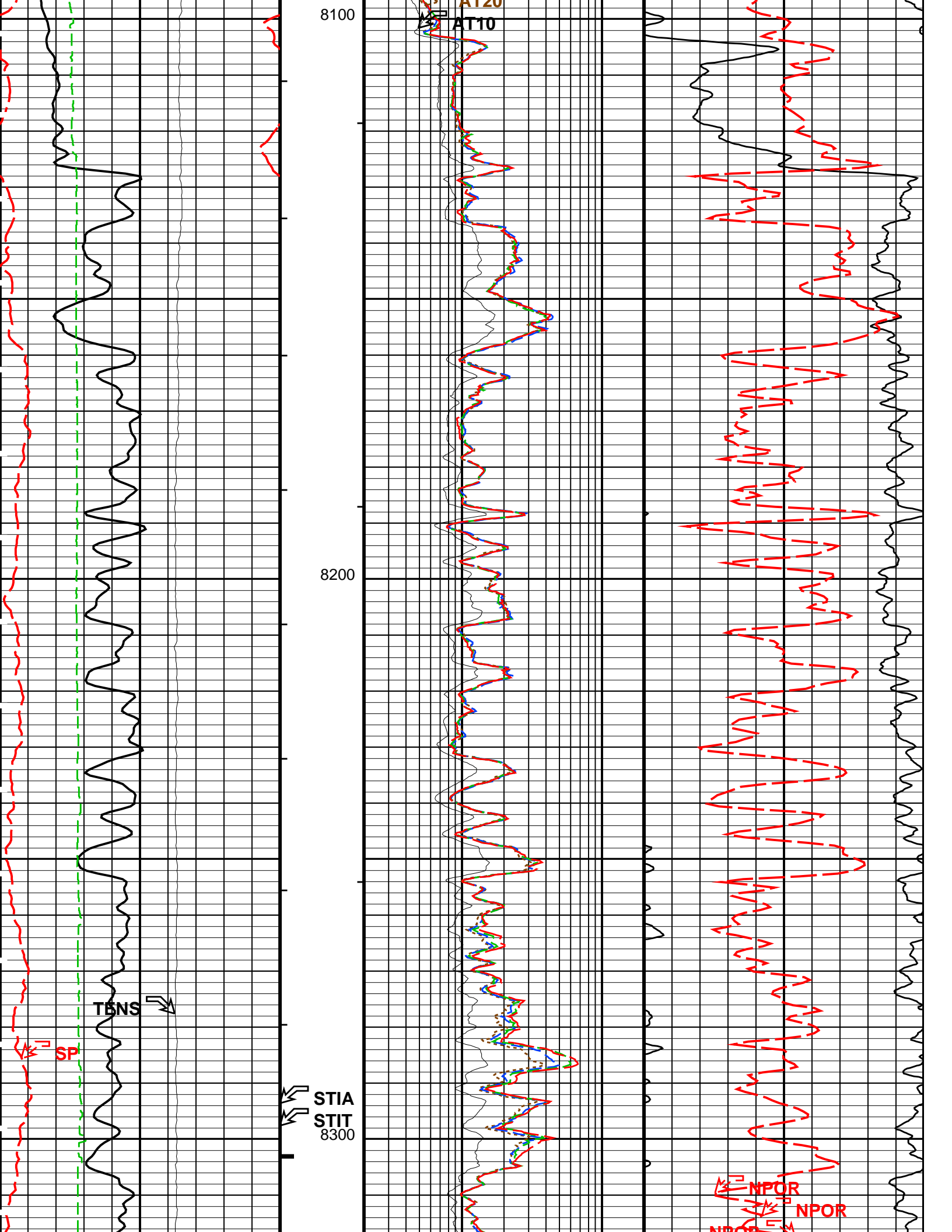


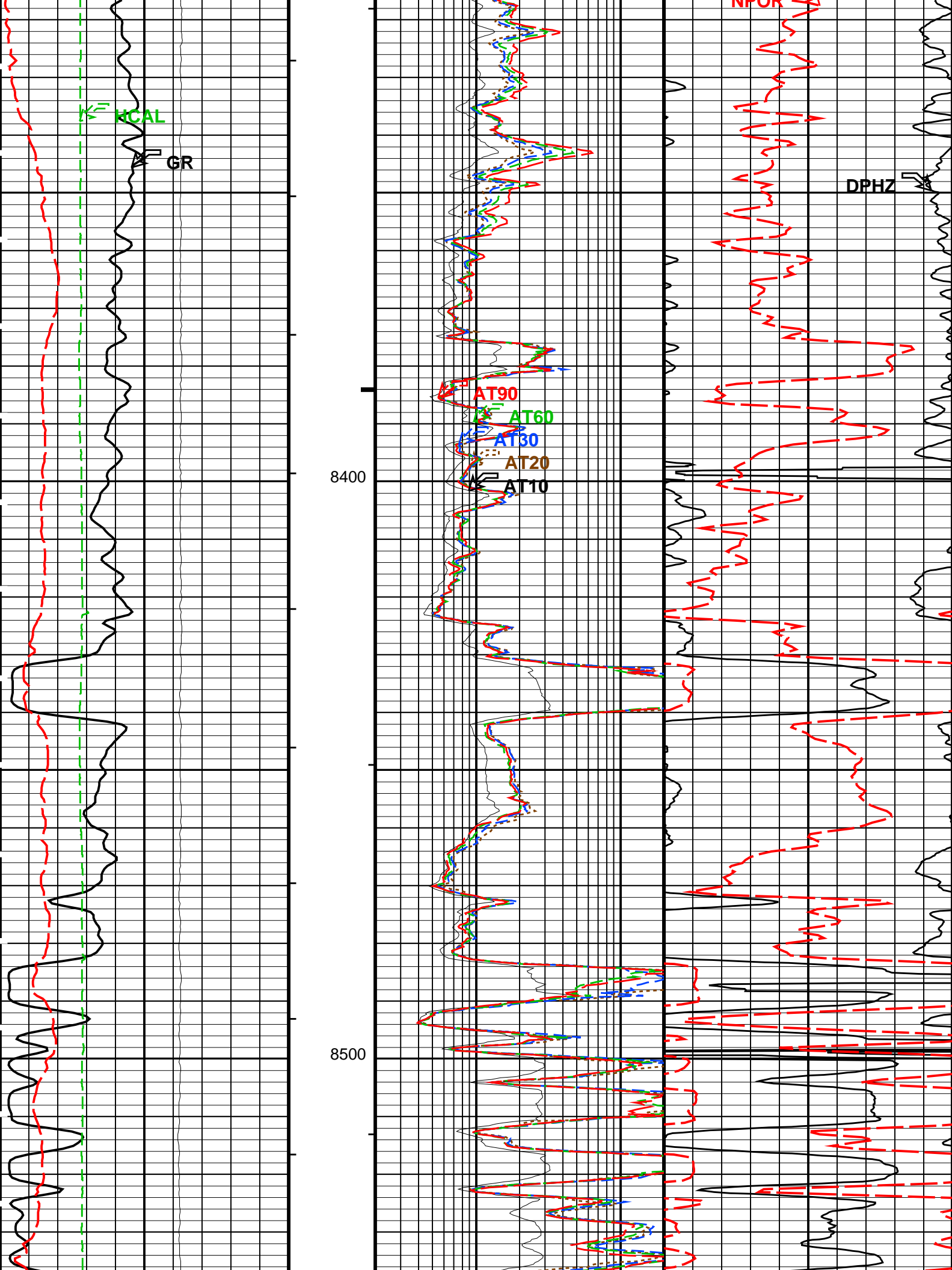




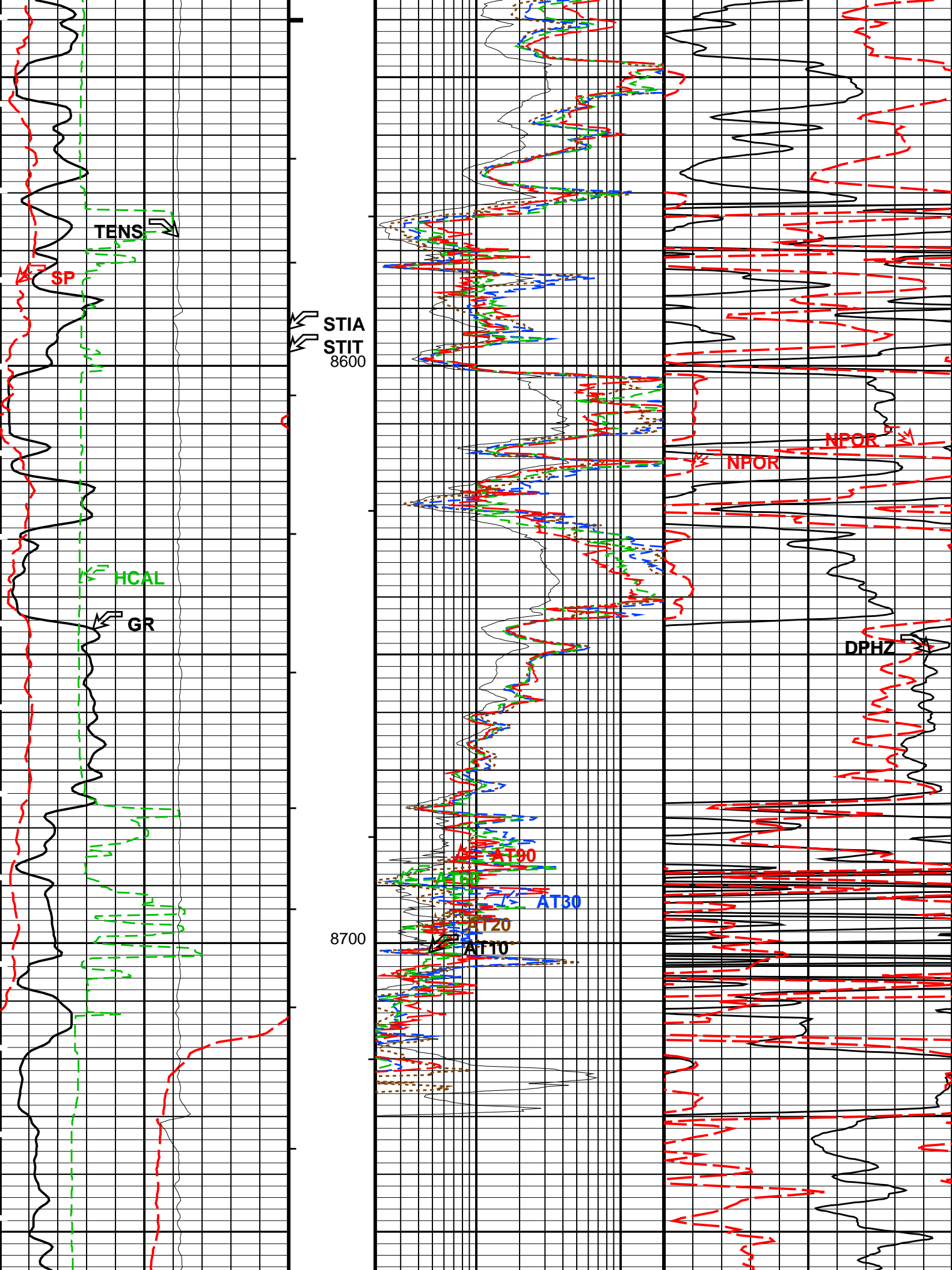


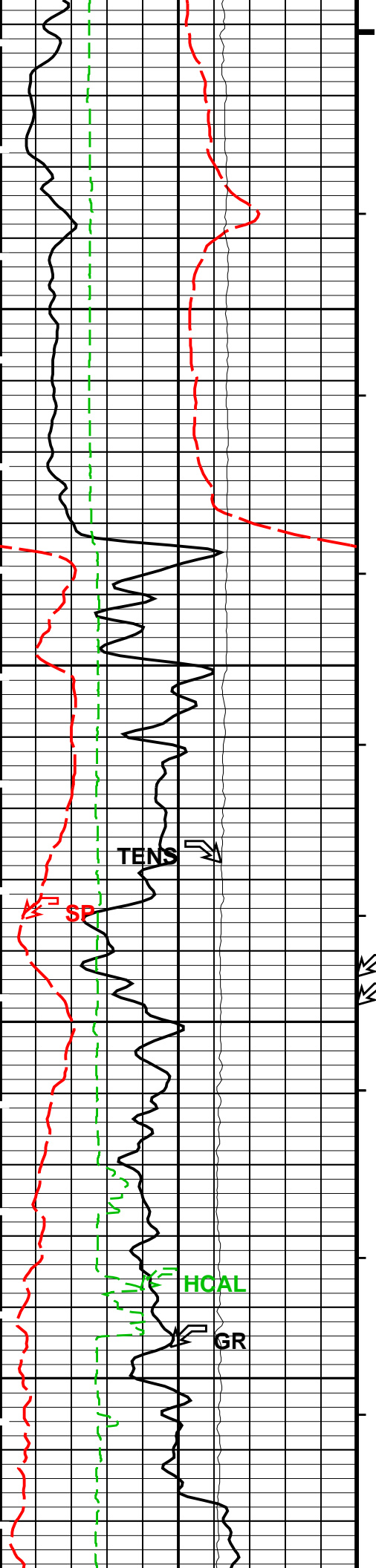






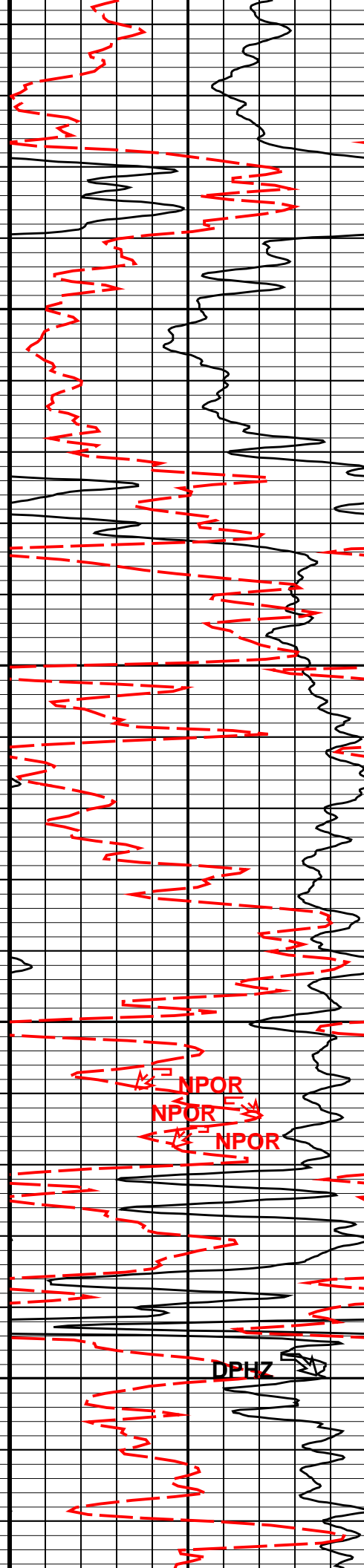
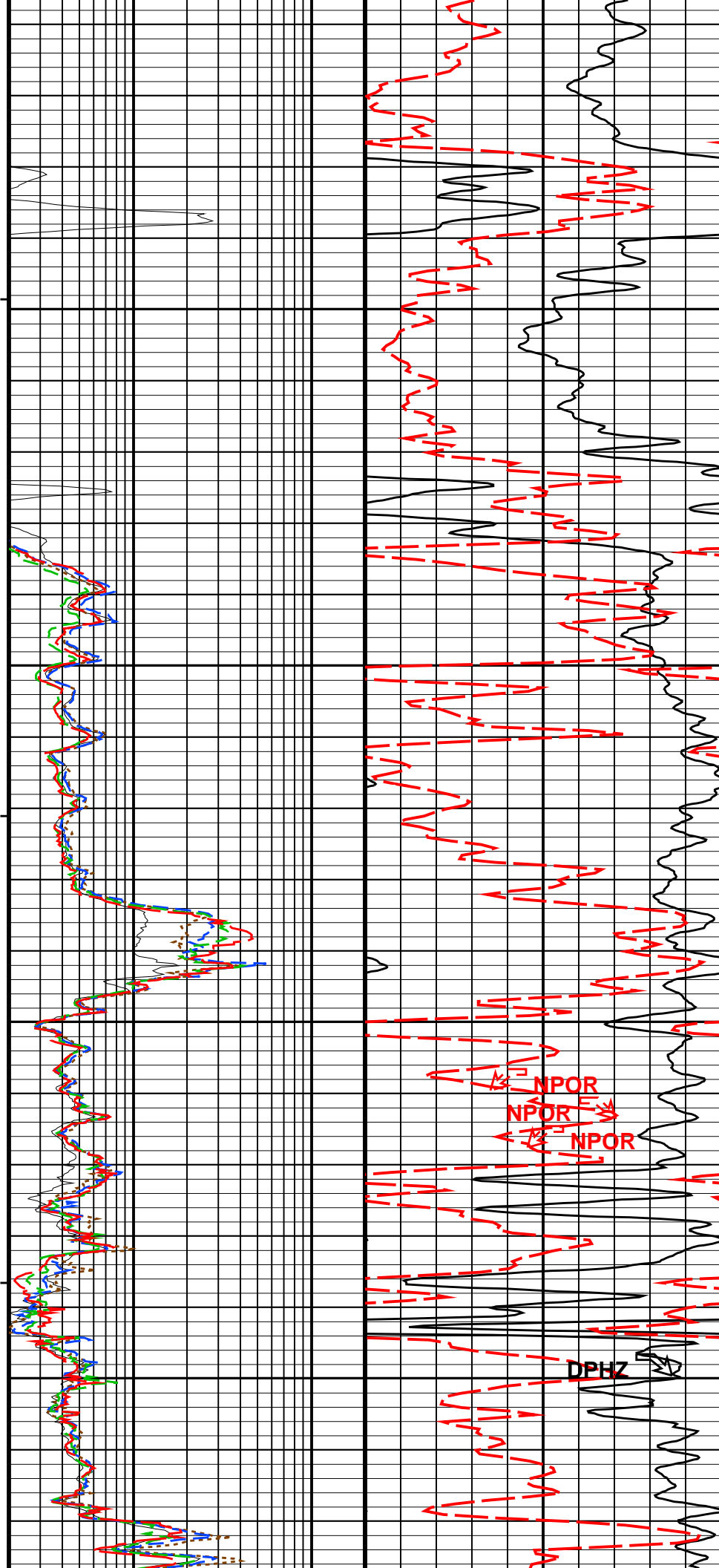


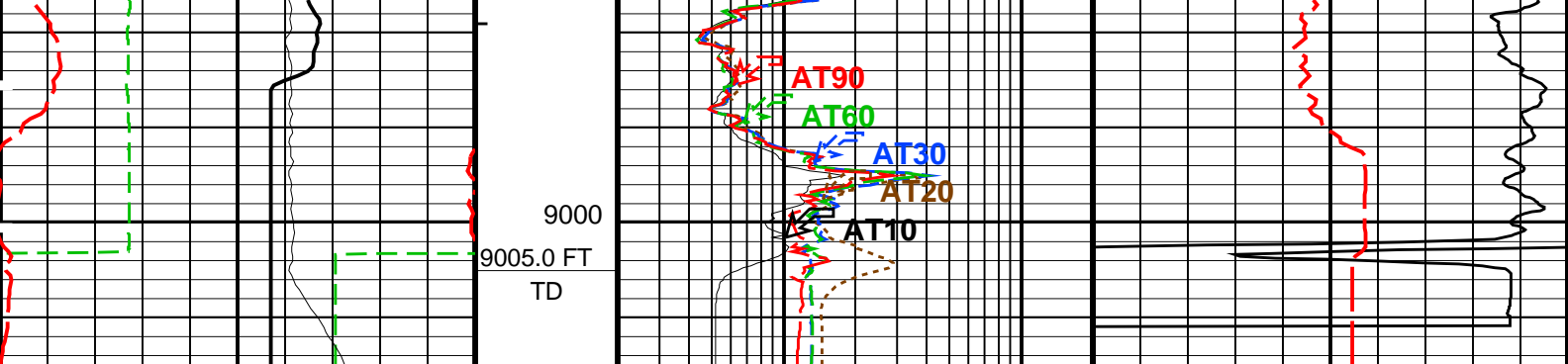




8800

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STIT  
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Tension (TENS) (LBF)		0	Stuck Stretch (STIT) (F)	50	AIT 10 Inch Investigation (AT10) (OHMM)		2	200	Std. Res. Density Porosity (DPHZ) (V/V)		0.2	0
HILT Caliper (HCAL) (IN)		6			AIT 20 Inch Investigation (AT20) (OHMM)		2	200	Alpha Processed Neutron Porosity (NPOR) (V/V)		0.2	0
Gamma Ray (GR) (GAPI)		0			AIT 30 Inch Investigation (AT30) (OHMM)		2	200				
SP (SP) (MV)		0			AIT 60 Inch Investigation (AT60) (OHMM)		2	200				
					AIT 90 Inch Investigation (AT90) (OHMM)		2	200				

#### 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			
ABHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
ABHV	Array Induction Borehole Correction Code Version Number	900	
ABLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
ABLV	Array Induction Basic Logs Code Version Number	223	
ACDE	Array Induction Casing Detection Enable	No	
ACEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
ACSED	Array Induction Casing Shoe Estimated Depth	-50000	FT
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Yes	
AFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AIGS	Array Induction Select Akima Interpolation Gating	On	
AMRF	Array Induction Mud Resistivity Factor	1	
AORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
ARFV	Array Induction Radial Profiling Code Version Number	701	
ARPV	Array Induction Radial Parametrization Code Version Number	232	
ASTA	Array Induction Tool Standoff	1.125	IN
ATRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
ATSE	Array Induction Temperature Selection(Sonde Error Correction)	Internal	
AULV	Array Induction User Level Control	Normal	
AZRSV	Array Induction Response Set Version for Z Resolution	00.10.25.00	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
SPNV	SP Next Value	0	MV
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL TLD	HILT Nuclear Mud Base	WATER	

BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
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
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
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	StdRes	
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	
HNCS-BA: Hostile Natural Gamma Ray Sonde			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
ADT-C: Array Dielectric Tool			
ADT_MEPS	Matrix Dielectric Permittivity	4.65	
MUDFILTSALMAX	Maximum Mud Filtrate Salinity	53.6079	PPK
MUDFILTSALMIN	Minimum Mud Filtrate Salinity	0	PPK
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
FCD	Future Casing (Outer) Diameter	7	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation - Real Time			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	9010.00	FT
TDL	Total Depth - Logger	9005.00	FT
System and Miscellaneous			
BS	Bit Size	8.500	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	9.625	IN
DFD	Drilling Fluid Density	9.10	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	OFF	
TD	Total Depth	9005	FT

ID	Total Depth	5003	FT
Format: COMBO_LOG		Vertical Scale: 5" per 100'	
Graphics File Created: 09-Jul-2012 04:17			
OP System Version: 19C1-222			
AIT-M	19C1-222	HILTH-FTB	19C1-222
HNGC-B	HFE-5203-OP19.1-NUCL	HNGS-BA	HFE-5203-OP19.1-NUCL
ADT-C	SRPC-5209-ADT-C	DTC-H	19C1-222
Input DLIS Files			
DEFAULT	Splice_AIT_TLD_MCFL_076CUP	FN:1	PRODUCER
		09-Jul-2012 04:00	9015.0 FT
			975.5 FT
Output DLIS Files			
DEFAULT	AIT_TLD_MCFL_CNL_081PUP	FN:76	PRODUCER
		09-Jul-2012 04:17	

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## REPEAT ANALYSIS

MAXIS Field Log

Input DLIS Files					
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DEFAULT	Splice_AIT_TLD_MCFL_076CUP	FN:1	PRODUCER	09-Jul-2012 04:00	9015.0 FT 975.5 FT
Output DLIS Files					
DEFAULT	AIT_TLD_MCFL_CNL_081PUP	FN:76	PRODUCER	09-Jul-2012 04:17	

## OP System Version: 19C1-222

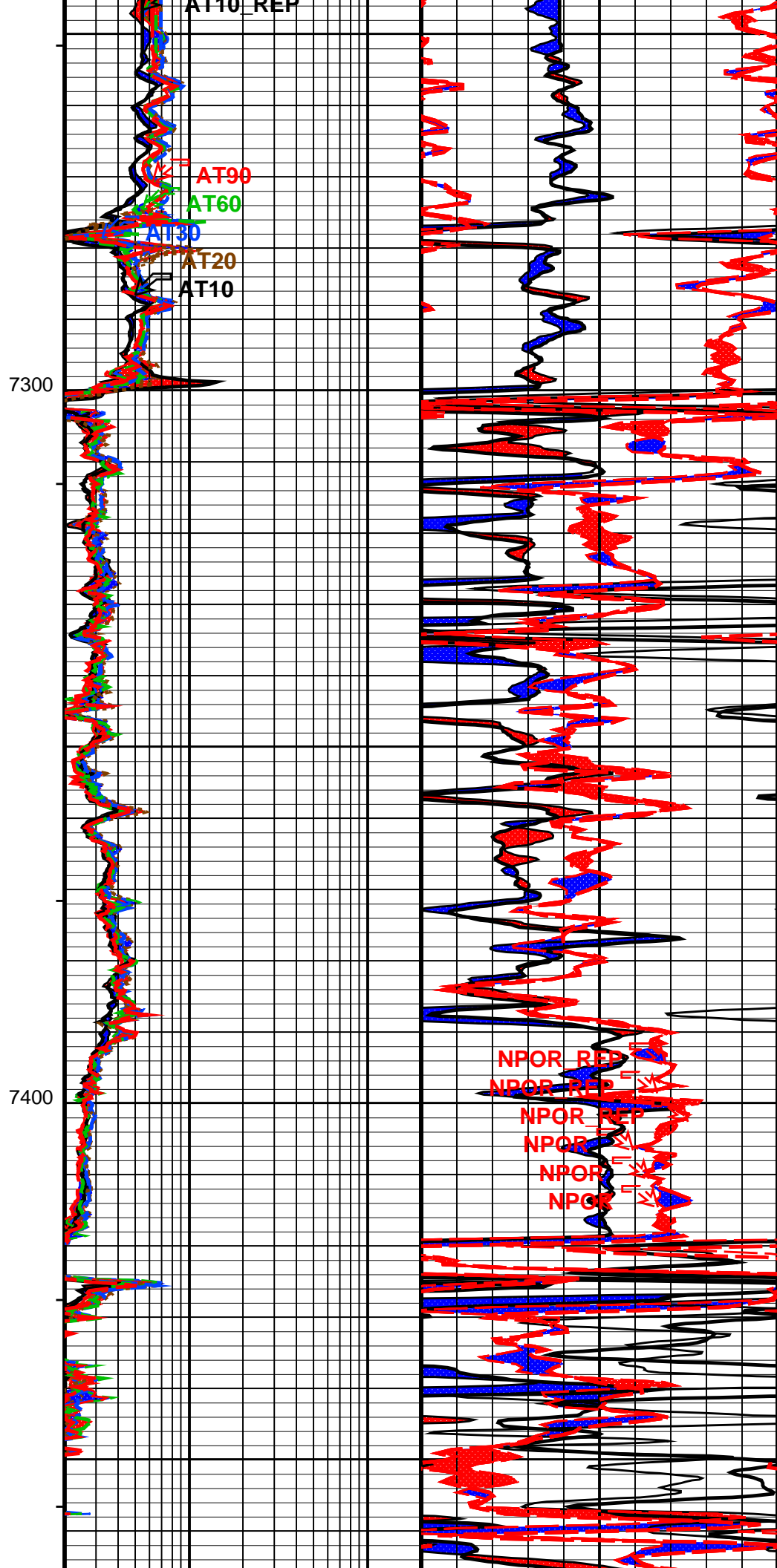
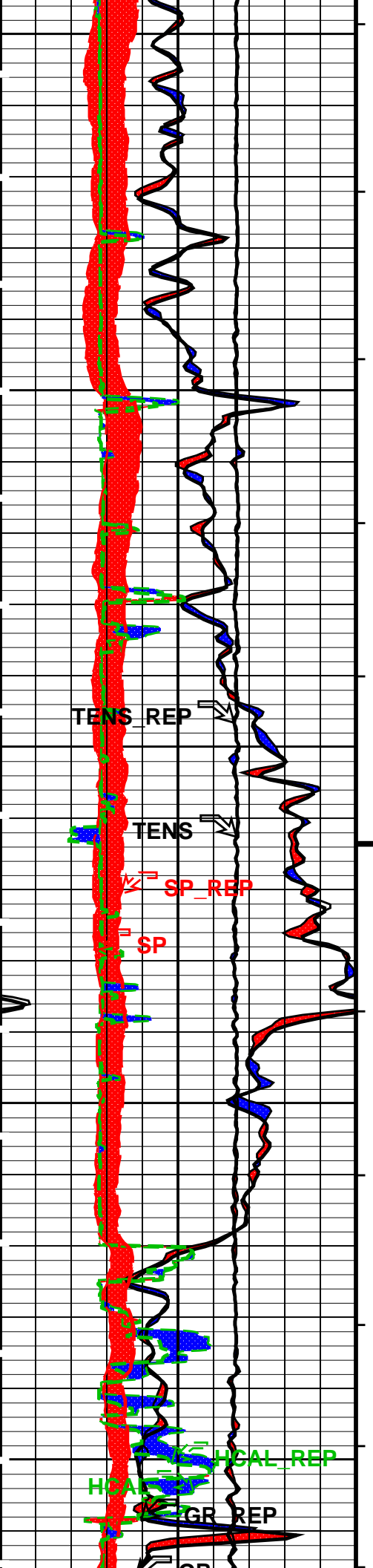
AIT-M	19C1-222	HILTH-FTB	19C1-222
HNGC-B	HFE-5203-OP19.1-NUCL	HNGS-BA	HFE-5203-OP19.1-NUCL
ADT-C	SRPC-5209-ADT-C	DTC-H	19C1-222

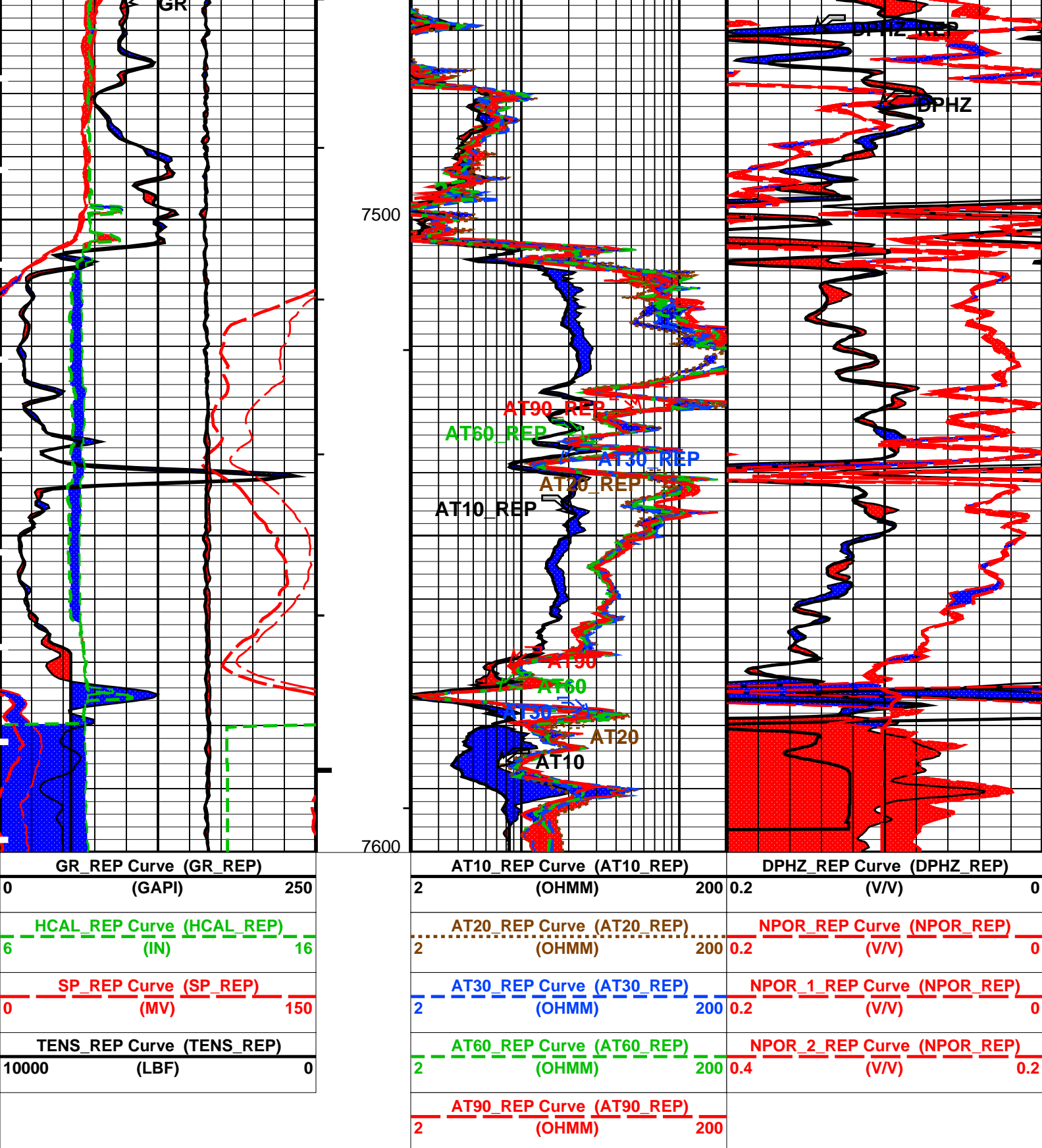
### PIP SUMMARY

- └ 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

TENS_REP Curve (TENS_REP)		AT90_REP Curve (AT90_REP)	
10000 (LBF)	0	2 (OHMM) 200	
SP_REP Curve (SP_REP)		AT60_REP Curve (AT60_REP)	NPOR_2_REP Curve (NPOR_REP)
0 (MV)	150	2 (OHMM) 200	0.4 (V/V) 0.2
HCAL_REP Curve (HCAL_REP)		AT30_REP Curve (AT30_REP)	NPOR_1_REP Curve (NPOR_REP)
6 (IN)	16	2 (OHMM) 200	0.2 (V/V) 0
GR_REP Curve (GR_REP)		AT20_REP Curve (AT20_REP)	NPOR_REP Curve (NPOR_REP)
0 (GAPI)	250	2 (OHMM) 200	0.2 (V/V) 0
		AT10_REP Curve (AT10_REP)	DPHZ_REP Curve (DPHZ_REP)
		2 (OHMM) 200	0.2 (V/V) 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		



ABHM	Array Induction Borehole Correction Mode	2_ComputeStandoff	
ABHV	Array Induction Borehole Correction Code Version Number	900	
ABLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
ABLV	Array Induction Basic Logs Code Version Number	223	
ACDE	Array Induction Casing Detection Enable	No	
ACEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
ACSED	Array Induction Casing Shoe Estimated Depth	-50000	FT
AETP	Array Induction Enable Sonde Error Temp&Pres Corr	Yes	
AFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AIGS	Array Induction Select Akima Interpolation Gating	On	
AMRF	Array Induction Mud Resistivity Factor	1	
AORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
ARFV	Array Induction Radial Profiling Code Version Number	701	
ARPV	Array Induction Radial Parametrization Code Version Number	232	
ASTA	Array Induction Tool Standoff	1.125	IN
ATRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
ATSE	Array Induction Temperature Selection(Sonde Error Correction)	Internal	
AULV	Array Induction User Level Control	Normal	
AZRSV	Array Induction Response Set Version for Z Resolution	00.10.25.00	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
SPNV	SP Next Value	0	MV
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
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
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
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	StdRes	
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	
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
ADT-C: Array Dielectric Tool			
ADT_MEPS	Matrix Dielectric Permittivity	4.65	
MUDFILTSALMAX	Maximum Mud Filtrate Salinity	53.6079	PPK
MUDFILTSALMIN	Minimum Mud Filtrate Salinity	0	PPK
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF



FCD	Future Casing (Outer) Diameter	7	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GRRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	217	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GRRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITM_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
TDL	Total Depth – Logger	9005.00	FT
System and Miscellaneous			
BS	Bit Size	8.500	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	9.625	IN
DFD	Drilling Fluid Density	9.10	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	OFF	
TD	Total Depth	9005	FT

Format: COMBO\_LOG\_REP    Vertical Scale: 5" per 100'    Graphics File Created: 09-Jul-2012 04:17

## OP System Version: 19C1-222

AIT-M	19C1-222	HILTH-FTB	19C1-222
HNGC-B	HFE-5203-OP19.1-NUCL	HNGS-BA	HFE-5203-OP19.1-NUCL
ADT-C	SRPC-5209-ADT-C	DTC-H	19C1-222

### Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_073PUP	FN:70	PRODUCER	09-Jul-2012 03:50	7600.5 FT	7245.0 FT
DEFAULT	Splice_AIT_TLD_MCFL_076CUP	FN:1	PRODUCER	09-Jul-2012 04:00	9015.0 FT	975.5 FT

### Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_081PUP	FN:76	PRODUCER	09-Jul-2012 04:17
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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: 19-Jun-2012 15:22    Before: 6-Jul-2012 11:04							
Thru Cal Magnitude – 0	0	0.6189	0.6192	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.268	1.269	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6297	0.6304	N/A	N/A	N/A	V

Thru Cal Magnitude – 2	0	0.8237	0.7117	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	1.331	1.332	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.949	1.951	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.945	1.947	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.420	1.421	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	180.4	180.1	N/A	N/A	N/A	DEG
Thru Cal Phase – 0	0	179.3	179.0	N/A	N/A	N/A	DEG
Thru Cal Phase – 1	0	175.7	175.5	N/A	N/A	N/A	DEG
Thru Cal Phase – 2	0	175.0	174.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 3	0	168.8	168.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 4	0	167.1	166.9	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	167.1	166.9	N/A	N/A	N/A	DEG
Thru Cal Phase – 6	0	166.2	166.0	N/A	N/A	N/A	DEG
Thru Cal Phase – 7	0						

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

Master: 19-Jun-2012 15:22 Before: 6-Jul-2012 11:04

Array Induction SPA Plus	991.0	984.2	984.0	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	-0.1903	-0.1829	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9170	0.9120	0.9118	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	-0.0001755	-0.0001835	N/A	N/A	N/A	V

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

Master: 19-Jun-2012 15:22

Test Loop Gain Correctio – 0	0	1.015	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 1	0	1.011	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 2	0	1.015	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	0.9930	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 5	0	0.9902	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 6	0	0.9945	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 7	0	1.007	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 0	0	0.5913	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 1	0	0.5676	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 2	0	-0.03672	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 3	0	0.09774	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 4	0	-0.05556	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 5	0	-0.1675	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 6	0	0.1720	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 7	0	-0.1800	N/A	N/A	N/A	N/A	DEG

#### Array Induction Tool – M Wellsite Calibration – Sonde Error Correction

Master: 19-Jun-2012 15:22

R Sonde Error Correction – 0	0	-63.68	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	172.3	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	117.9	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	65.23	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	26.29	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	12.00	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	9.456	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	-0.3052	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	-660.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	112.8	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	37.90	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	-79.38	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	13.99	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	-15.32	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	-6.179	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	-13.76	N/A	N/A	N/A	N/A	MM/M

#### Array Induction Tool – M Wellsite Calibration – Mud Gain Correction

Master: 19-Jun-2012 15:22

Coarse – Mag, Real, Imag – 0	0	0.8211	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 1	0	0.8211	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 2	0	0.8211	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 0	0	0.8235	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 1	0	0.8236	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 2	0	0.8236	N/A	N/A	N/A	N/A	

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

Before: 6-Jul-2012 11:06

BS Window Ratio	0.7506	N/A	0.7497	N/A	N/A	N/A	
BS Window Sum	26420	N/A	26310	N/A	N/A	N/A	CPS
SS Window Ratio	0.4796	N/A	0.4806	N/A	N/A	N/A	
SS Window Sum	10420	N/A	10380	N/A	N/A	N/A	CPS
LS Window Ratio	0.2995	N/A	0.2985	N/A	N/A	N/A	
LS Window Sum	1218	N/A	1213	N/A	N/A	N/A	CPS

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

Before: 6-Jul-2012 11:06

BS PM High Voltage (Command)	1591	N/A	1629	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1407	N/A	1415	N/A	N/A	N/A	V

LS PM High Voltage (Command)	1207	N/A	1204	N/A	N/A	N/A	V
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration							
Before: 6–Jul–2012 11:06							
BS Crystal Resolution	11.26	N/A	11.67	N/A	N/A	N/A	%
SS Crystal Resolution	9.880	N/A	9.809	N/A	N/A	N/A	%
LS Crystal Resolution	8.096	N/A	8.308	N/A	N/A	N/A	%
High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration							
Before: 6–Jul–2012 11:08							
Raw B0 Resistivity	3875	N/A	3877	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3824	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3827	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration							
Before: 6–Jul–2012 11:03							
HILT Caliper Zero Measurement	8.000	N/A	8.852	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	13.23	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration							
Before: 6–Jul–2012 11:01							
Gamma Ray Background	30.00	N/A	86.22	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	176.1	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement							
Master: 10–Apr–2012 11:13 Before: 6–Jul–2012 11:03							
CNTC Background	25.56	25.56	25.13	N/A	N/A	3.834	CPS
CFTC Background	27.74	27.74	26.33	N/A	N/A	4.161	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement							
Master: 10–Apr–2012 11:13							
Thermal Near Corr. (Tank)	5800	5257	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2168	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.425	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 7–Jul–2012 0:03							
Z–Axis Acceleration	32.19	N/A	32.09	N/A	N/A	N/A	F/S2
Array Dielectric Tool Wellsite Calibration – ADT Caliper Calibration							
Before: 6–Jul–2012 11:04							
ADT Caliper Zero Measurement	8.000	N/A	8.071	N/A	N/A	N/A	IN
ADT Caliper Plus Measurement	12.00	N/A	12.33	N/A	N/A	N/A	IN
The GLS–VJ source activity is acceptable.							
The HGNS Neutron Master Calibration was done with the following parameters :							
NCT–B Water Temperature	56.1	DEGF.					
Thermal Housing Size	3.372	IN.					
NSR–F serial number	5168						

Array Induction Tool – M / Equipment Identification			
Primary Equipment:			
Rm/SP Bottom Nose		AMRM – A	
Array Induction Sonde		AMIS – A	1372
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	0.6189		0.6100	180.4		197.0
	Before	0.6192			180.1		
1	Master	1.268		1.270	179.3		196.0
	Before	1.269			179.0		
	Master	0.6297			175.7		

	Before	0.6304		0.6200	175.5		192.0
3	Master	0.7110		0.7000	175.0		191.0
	Before	0.7117			174.7		
4	Master	1.331		1.340	168.8		185.0
	Before	1.332			168.6		
5	Master	1.949		1.960	167.1		182.0
	Before	1.951			166.9		
6	Master	1.945		1.960	167.1		181.0
	Before	1.947			166.9		
7	Master	1.420		1.410	166.2		175.0
	Before	1.421			166.0		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 19-Jun-2012 15:22				Before: 6-Jul-2012 11:04			







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			984.2	Master			-0.1903
Before			984.0	Before			-0.1829
	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			0.9120	Master			-0.0001755
Before			0.9118	Before			-0.0001835
	0.8710 (Minimum)	0.9170 (Nominal)	0.9630 (Maximum)		-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)
Master: 19-Jun-2012 15:22			Before: 6-Jul-2012 11:04				

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	1.015				0.5913			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.011				0.5676			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.015				-0.03672			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.012				0.09774			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	0.9930				-0.05556			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9902				-0.1675			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9945				0.1720			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.007				-0.1800			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
Master: 19-Jun-2012 15:22								




Array Induction Tool – M Wellsite Calibration					
Sends Error Correction					




Master: 19-Jun-2012 15:22




Master: 19-Jun-2012 15:22



High resolution Integrated Logging Tool--DTS Wellsite Calibration											
Stab Measurement Summary											
Phase	BS Window Ratio		Value	Phase	SS Window Ratio		Value	Phase	LS Window Ratio		Value
Before			0.7497	Before			0.4806	Before			0.2985
	0.7131 (Minimum)	0.7506 (Nominal)	0.7882 (Maximum)		0.4556 (Minimum)	0.4796 (Nominal)	0.5035 (Maximum)		0.2845 (Minimum)	0.2995 (Nominal)	0.3144 (Maximum)
Phase	BS Window Sum CPS		Value	Phase	SS Window Sum CPS		Value	Phase	LS Window Sum CPS		Value
Before			26310	Before			10380	Before			1213



Before	25100	26420	27740	28310	Before	9898	10420	10940	10300	Before	1157	1218	1279	1215
	(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)	
Before: 6-Jul-2012 11:06														





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	Phase	LS PM High Voltage (Command) V			Value
Before				1629	Before				1415	Before				1204
	1491	1591	1691			1307	1407	1507			1107	1207	1307	
	(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)	
Before: 6-Jul-2012 11:06														



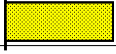
High resolution Integrated Logging Tool-DTS Wellsite Calibration														
Crystal Quality Resolutions Calibration														
Phase	BS Crystal Resolution %			Value	Phase	SS Crystal Resolution %			Value	Phase	LS Crystal Resolution %			Value
Before				11.67	Before				9.809	Before				8.308
	10.26	11.26	12.26			8.880	9.880	10.88			7.096	8.096	9.096	
	(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)	
Before: 6-Jul-2012 11:06														

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				3877	Before				3824	Before				3827
	3565	3875	4185			3524	3830	4136			3524	3830	4136	
	(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)	
Before: 6-Jul-2012 11:08														


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				8.852	Before				13.23		
	6.000	8.000	10.00			9.000	12.00	15.00			
	(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)			
Before: 6-Jul-2012 11:03											

High resolution Integrated Logging Tool-DTS Wellsite Calibration									
Detector Calibration									
Phase	Gamma Ray Background GAPI			Value	Phase	Gamma Ray (Jig – Bkgd) GAPI			Value
Before				86.22	Before				176.1
	0	30.00	120.0			157.1	165.0	206.3	
	(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)	
Before: 6-Jul-2012 11:01									

High resolution Integrated Logging Tool-DTS Wellsite Calibration											
Zero Measurement											
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value		
Master				25.56	Master				27.74		
Before				25.13	Before				26.33		
5.000		25.56	40.00		5.000		27.74	40.00			
(Minimum)		(Nominal)	(Maximum)		(Minimum)		(Nominal)	(Maximum)			
Master: 10-Apr-2012 11:13						Before: 6-Jul-2012 11:03					

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				5257	Master				2168	Master				2.425
	4700	5800	6900			1900	2400	2900			2.120	2.159	2.540	
	(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)			(Minimum)	(Nominal)	(Maximum)	
Master: 10-Apr-2012 11:13														

High resolution Integrated Logging Tool-DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	7-Axis Acceleration F/S2	Value



Phase	ADT Value	ADT Calibration	Value
Before			32.09
	31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)
Before: 7-Jul-2012 0:03			

#### Array Dielectric Tool / Equipment Identification

##### Primary Equipment:

ADT Sonde	ADS – C
ADT internal equipment	F0 –
ADT internal equipment	F1 –
ADT internal equipment	F2 –
ADT internal equipment	F3 –
ADT Pad	ADP – CB
ADT Cartridge Housing	HECH – KDB
ADT Cartridge	ADC – C

##### Auxiliary Equipment:

Array Dielectric Tool Wellsite Calibration							
ADT Caliper Calibration							
Phase	ADT Caliper Zero Measurement IN		Value	Phase	ADT Caliper Plus Measurement IN		Value
Before			8.071	Before			12.33
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 6-Jul-2012 11:04							

#### 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
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Company: **Noble Energy Inc**

**Schlumberger**

Well: **Con GQ 07-01**

Field: **Jupiter**

County: **Weld**

State: **Colorado**

Platform Express

Triple Combo