

Schlumberger

Company: Encana Oil& Gas (USA) Inc

Well: Peppler Farms 4-2-4

Field: Wattenberg

County: Weld

State: Colorado

Well: **Peppler Farms 4-2-4**
Field: **Wattenberg**
County: **Weld**
State: **Colorado**









Field: **Wattenberg**
County: **Weld** State: **Colorado**

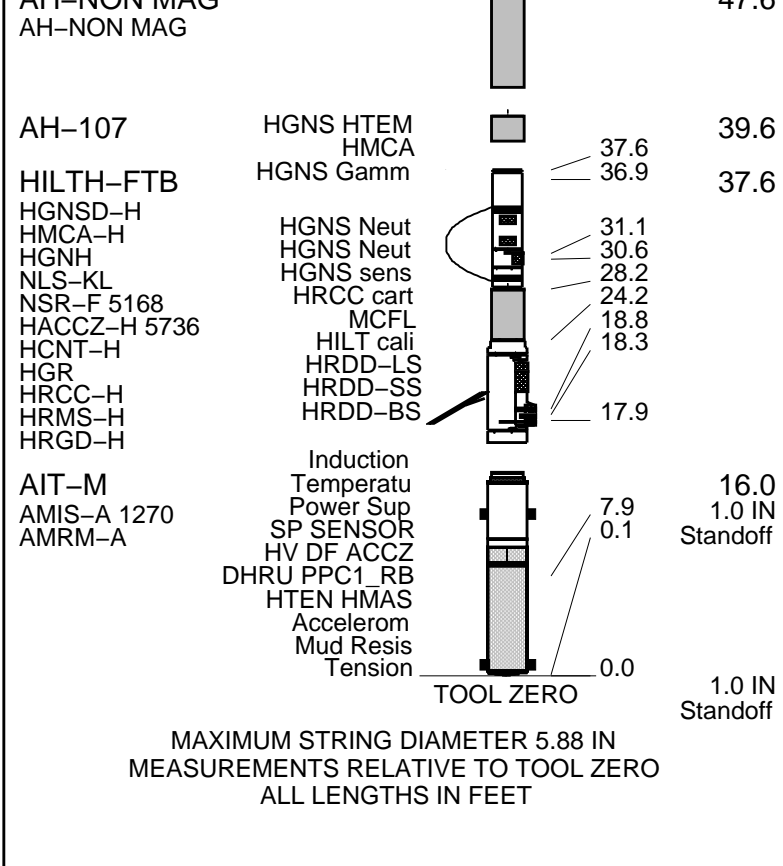
County: **Weld** State: **Colorado**

[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 OS1: MSIP OS2: PPC OS3: GPIT OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: 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) from TD to 7821	
Sandstone (2.68 g/cc) from 7821 to Surface	

Bridged at 2700' on first attempt					
Rig: Ensign 122					
Crew: Ian Derry, Alonzo Carrera					
RUN 1			RUN 2		
SERVICE ORDER #:		BFN8-00193	SERVICE ORDER #:		
PROGRAM VERSION:		19C1-222	PROGRAM VERSION:		
FLUID LEVEL:		300 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM (EDTS)-A					
GSR-U/Y NCT-B CNB-AB NCS-VB					
DOWNHOLE EQUIPMENT					
LEH-QT	MDSB_EDTC		112.4	115.4	
LEH-QT	Mud Tempe		108.9		
EDTC-B	CTEM		107.1	112.4	
EDTH-B	Gamma Ray				
EDTC-B	EFTB DIAG				
EDTG-A/B	TelStatus		105.9		
MAPC-B	EDTCB Ele				
MAPC-BA				105.9	
ECH-SF					
MAMS-BA					
	MAMS-PS		90.5		
MAXS-B				84.9	
MASS-BA					
MAXS-BA					
	MAXS-PS		64.7		
PPC1	Calipers		63.5	64.7	
PPC1-B					
PPC_CAL_STD	PPC_Cartr		58.1		
AH-NON MAG				58.1	
AH-NON MAG					
GPIT-F				53.6	
GPIH-B					
AH-107				49.6	
AH-NON MAG				47.6	



MAIN TRIPLE COMBO 5" = 100'

MAXIS Field Log

Company: Encana Oil& Gas (USA) Inc Well: Peppier Farms 4-2-4

Input DLIS Files						
DEFAULT	AIT_TLD_MCFL_CNL_IS_021LUP	FN:20	PRODUCER	22-Sep-2012 13:19	8155.5 FT	606.7 FT

Output DLIS Files						
DEFAULT	AIT_TLD_MCFL_CNL_IS_031PUP	FN:30	PRODUCER	22-Sep-2012 16:44	8157.0 FT	608.0 FT

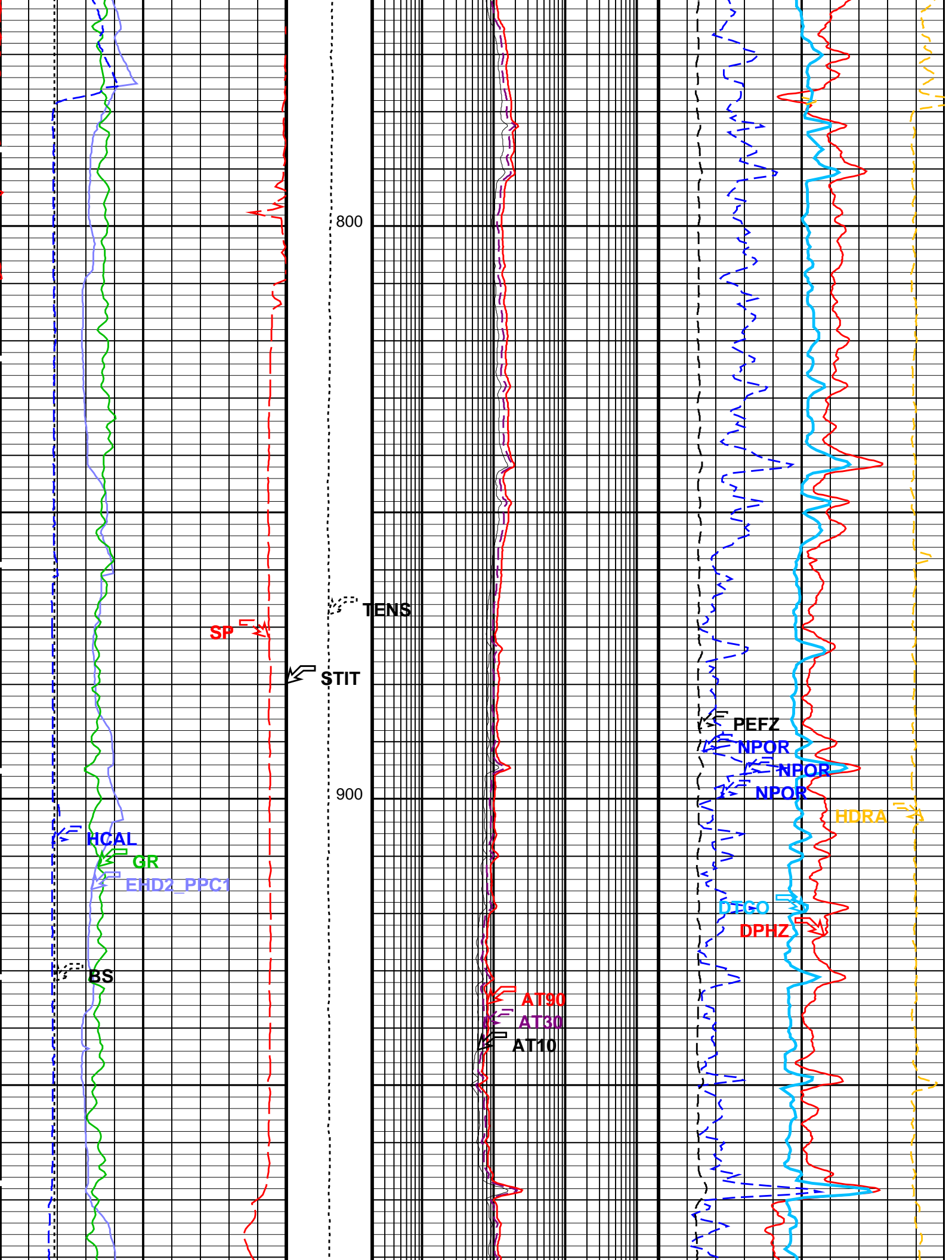
OP System Version: 19C1-222			
AIT-M	19C1-222	HILTH-FTB	19C1-222
GPIT-F	19C1-222	PPC1	19C1-222
MAXS-B	19C1-222	MAPC-B	19C1-222
EDTC-B	19C1-222		

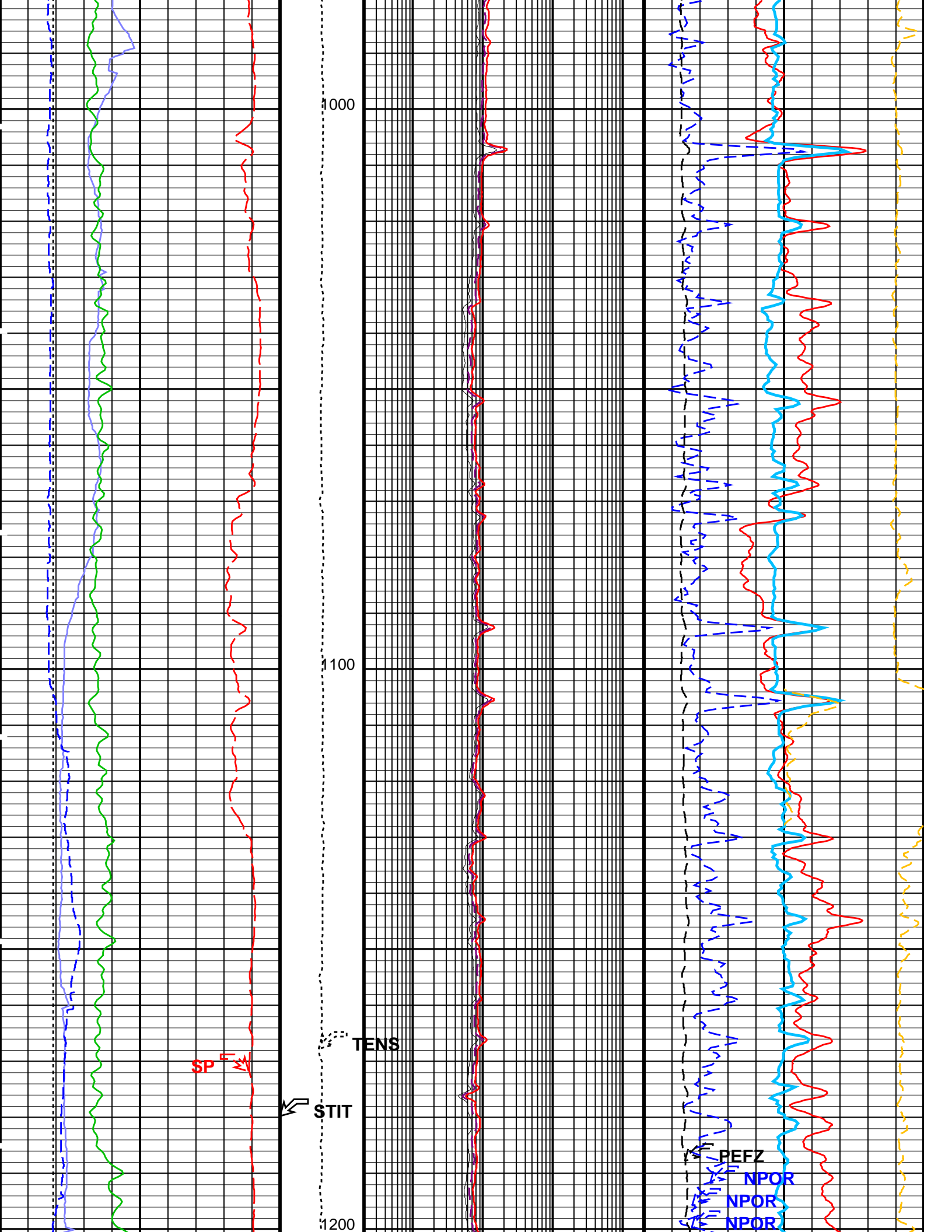
Changed Parameter Summary			
DLIS Name	New Value	Previous Value	Depth & Time
MATR	SANDSTONE	SANDSTONE	8157.0 16:44:58
MDEN	SANDSTONE	SANDSTONE	7821.0 16:45:13
	2.65 G/C3	2.65 G/C3	8157.0 16:44:58
	2.68 G/C3	2.65 G/C3	7821.0 16:45:13

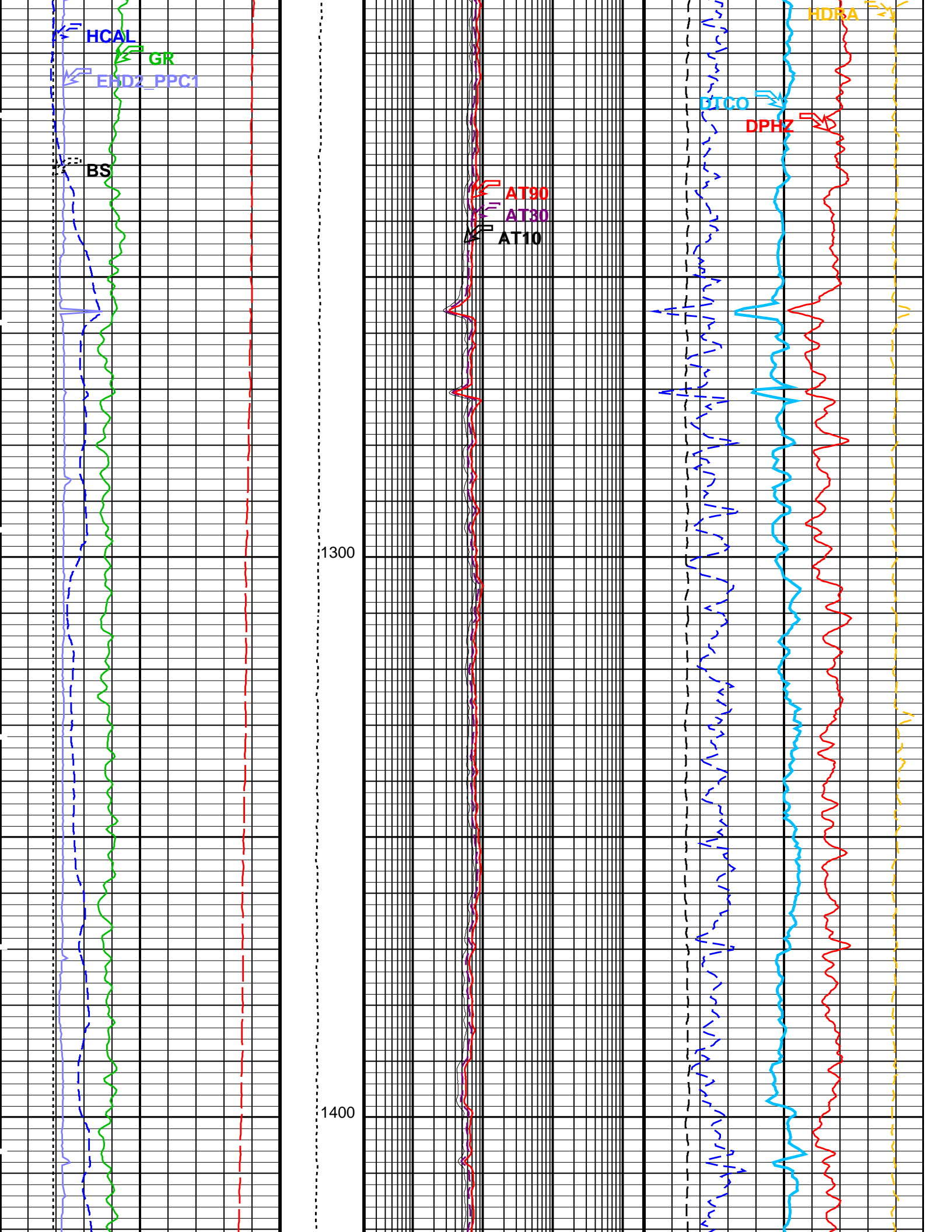
PIP SUMMARY

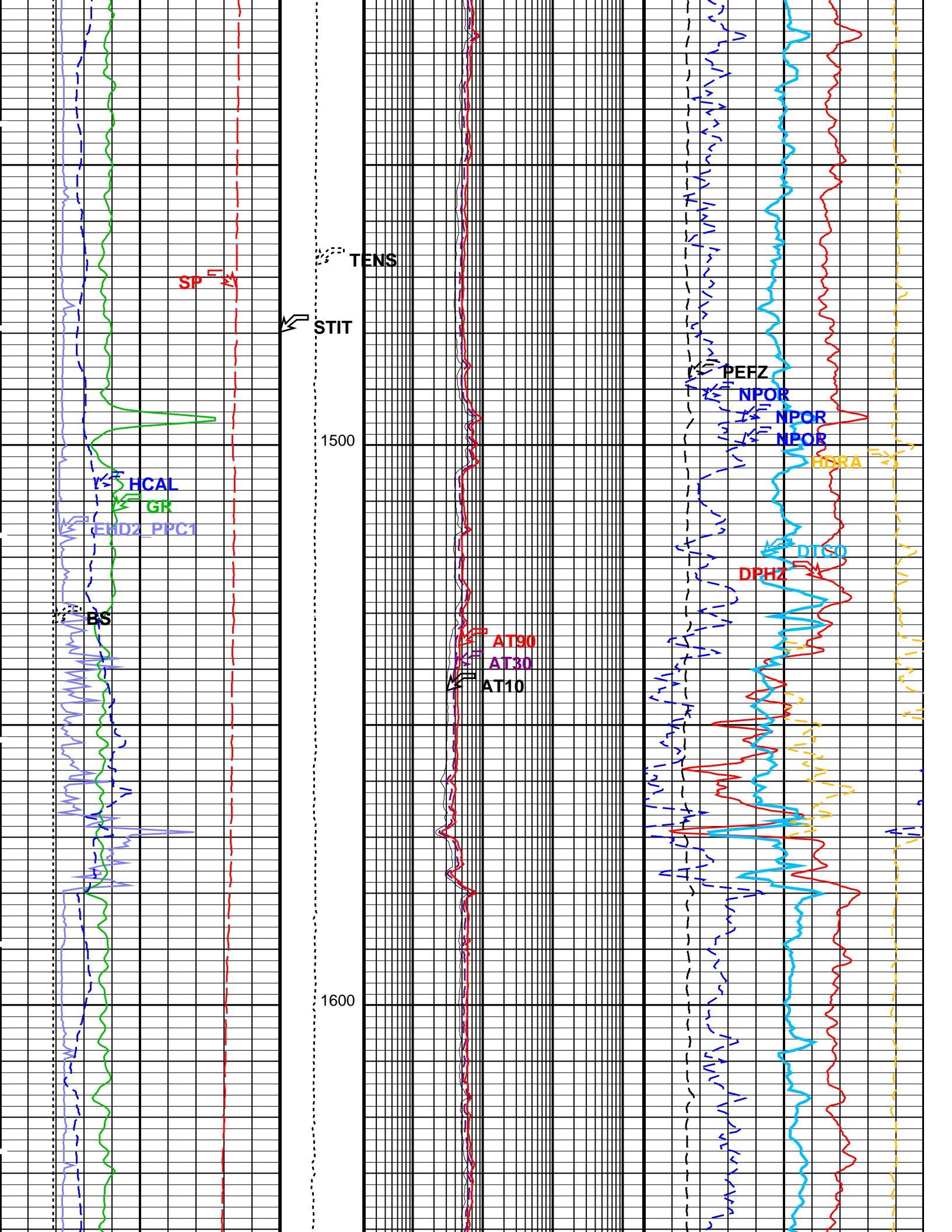
714.0 FT
CSG

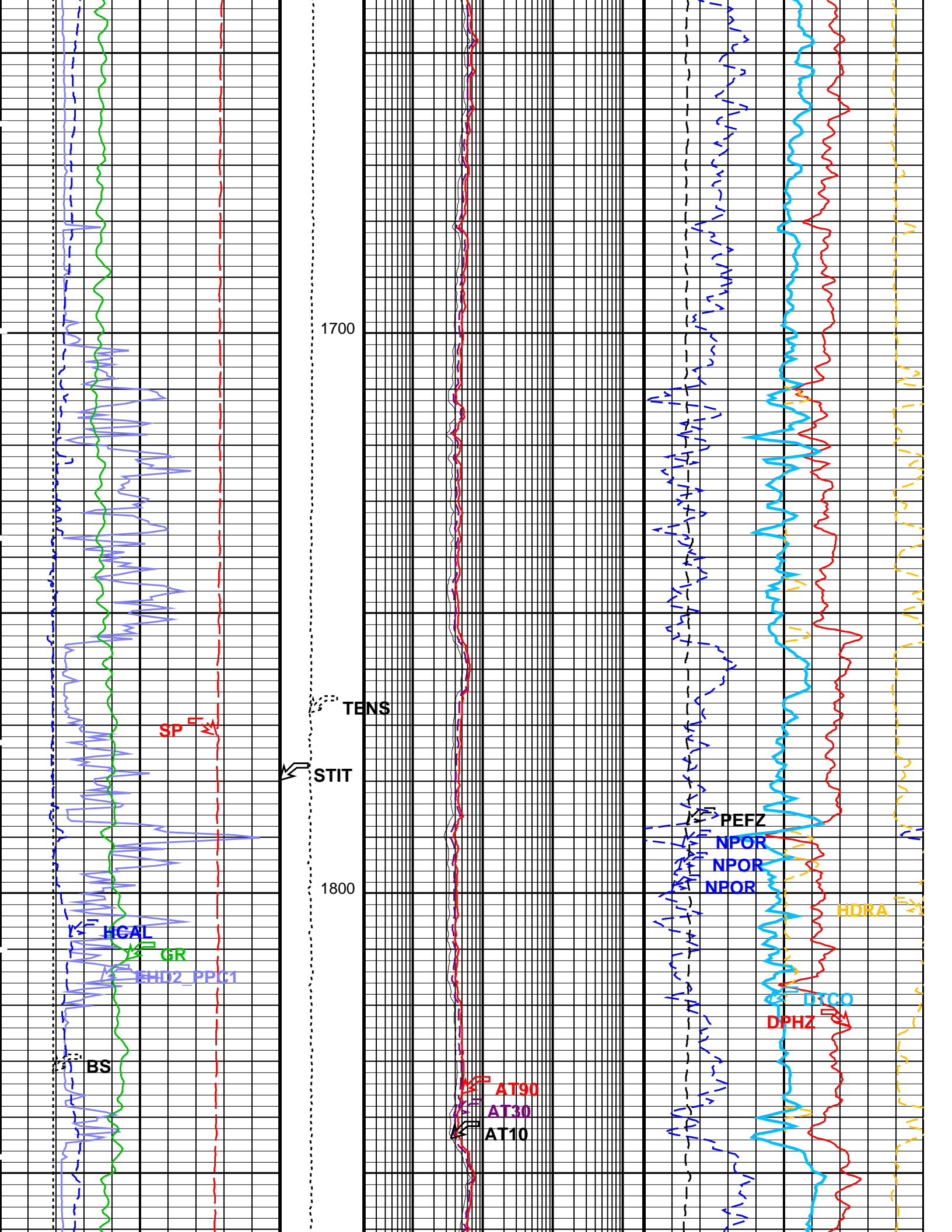
AT90
AT10
AT30
DT20
DPHZ

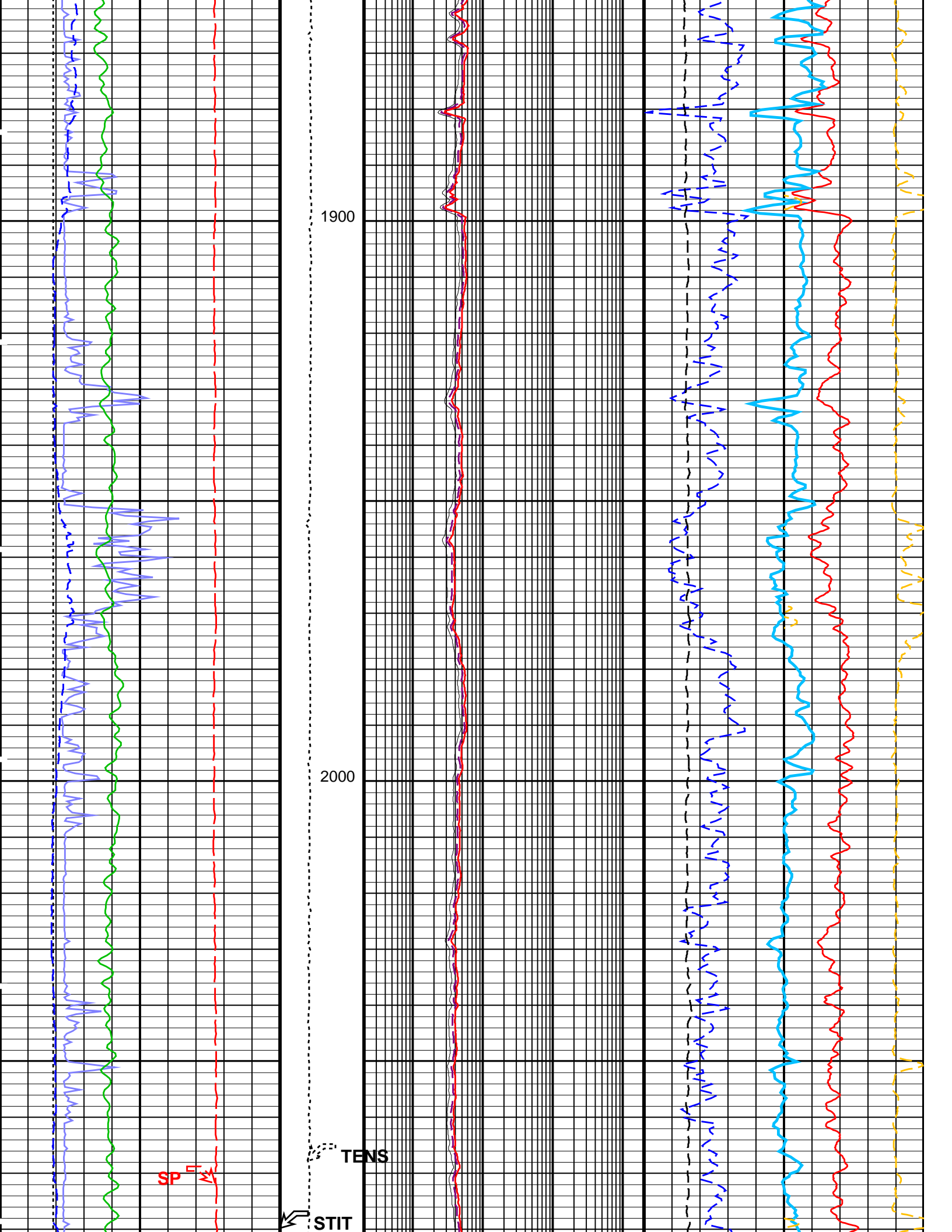


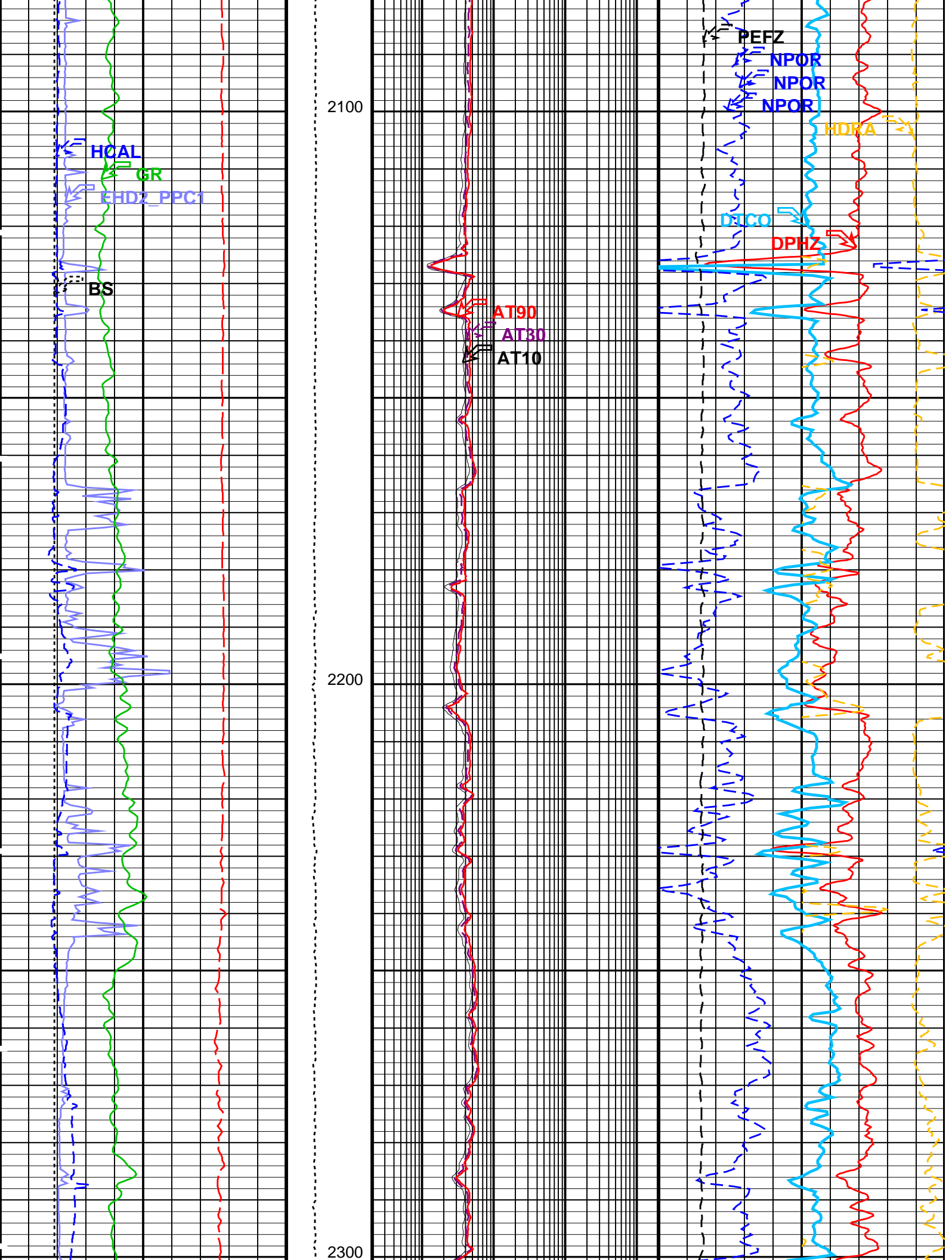


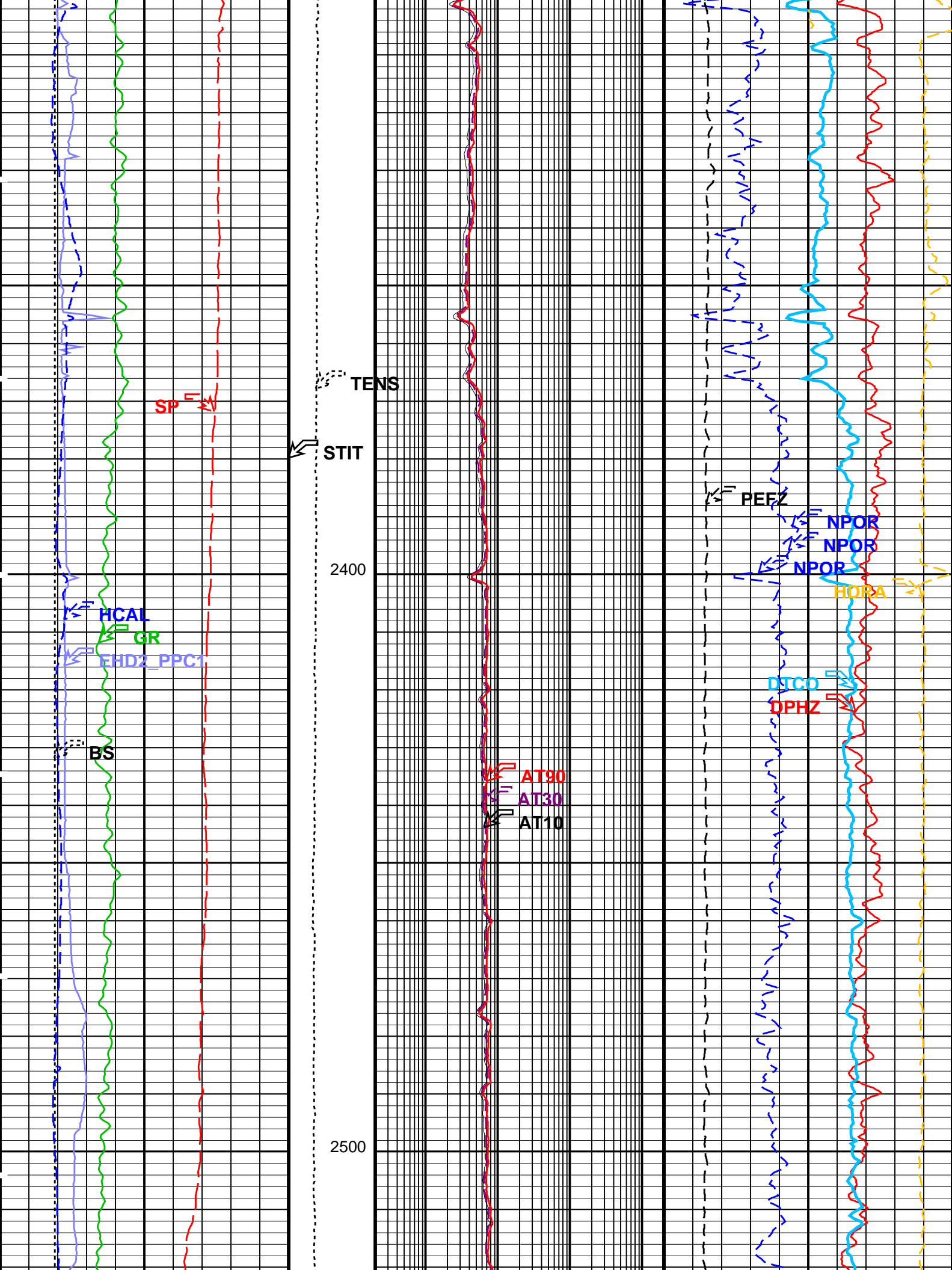


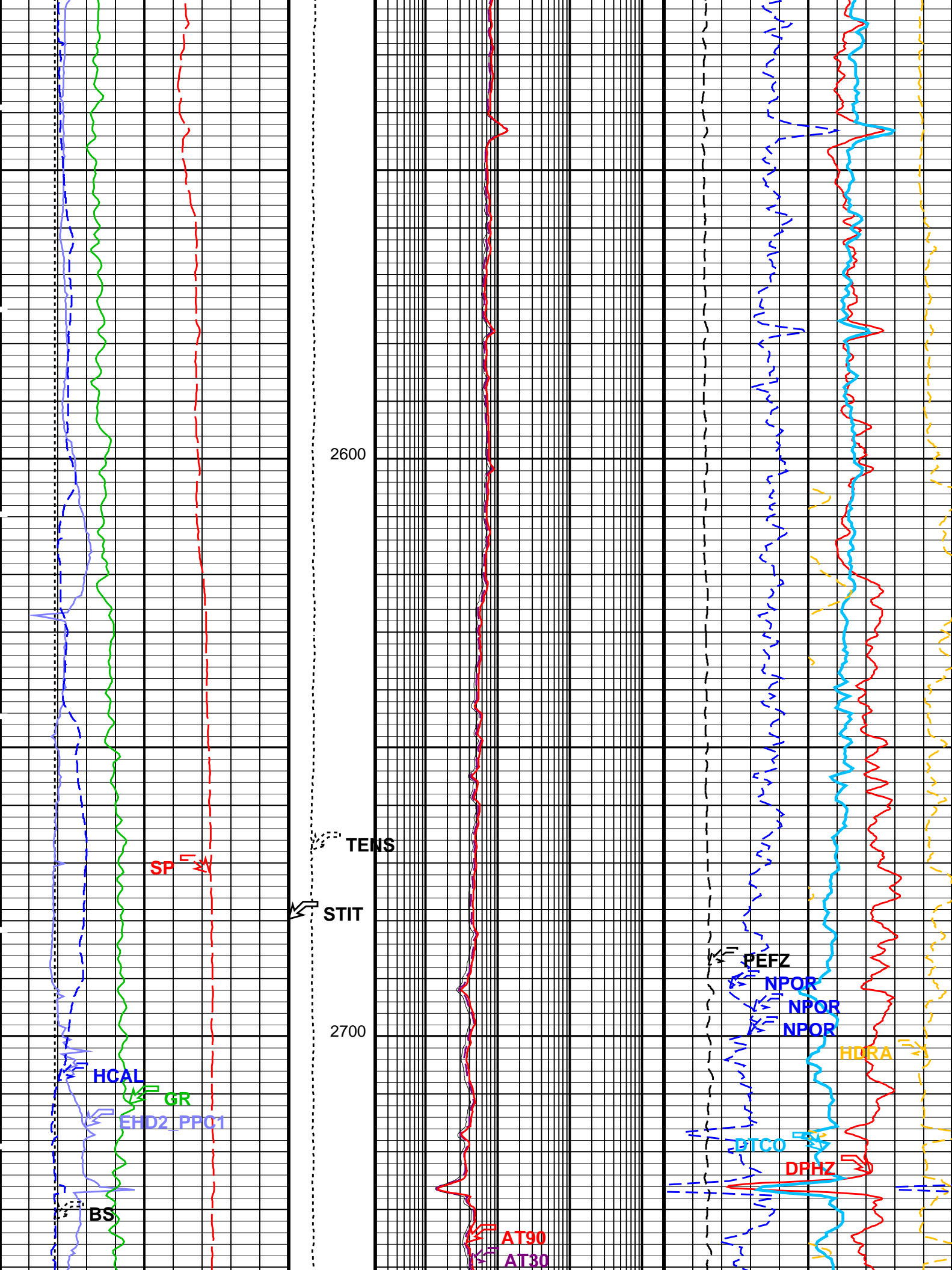


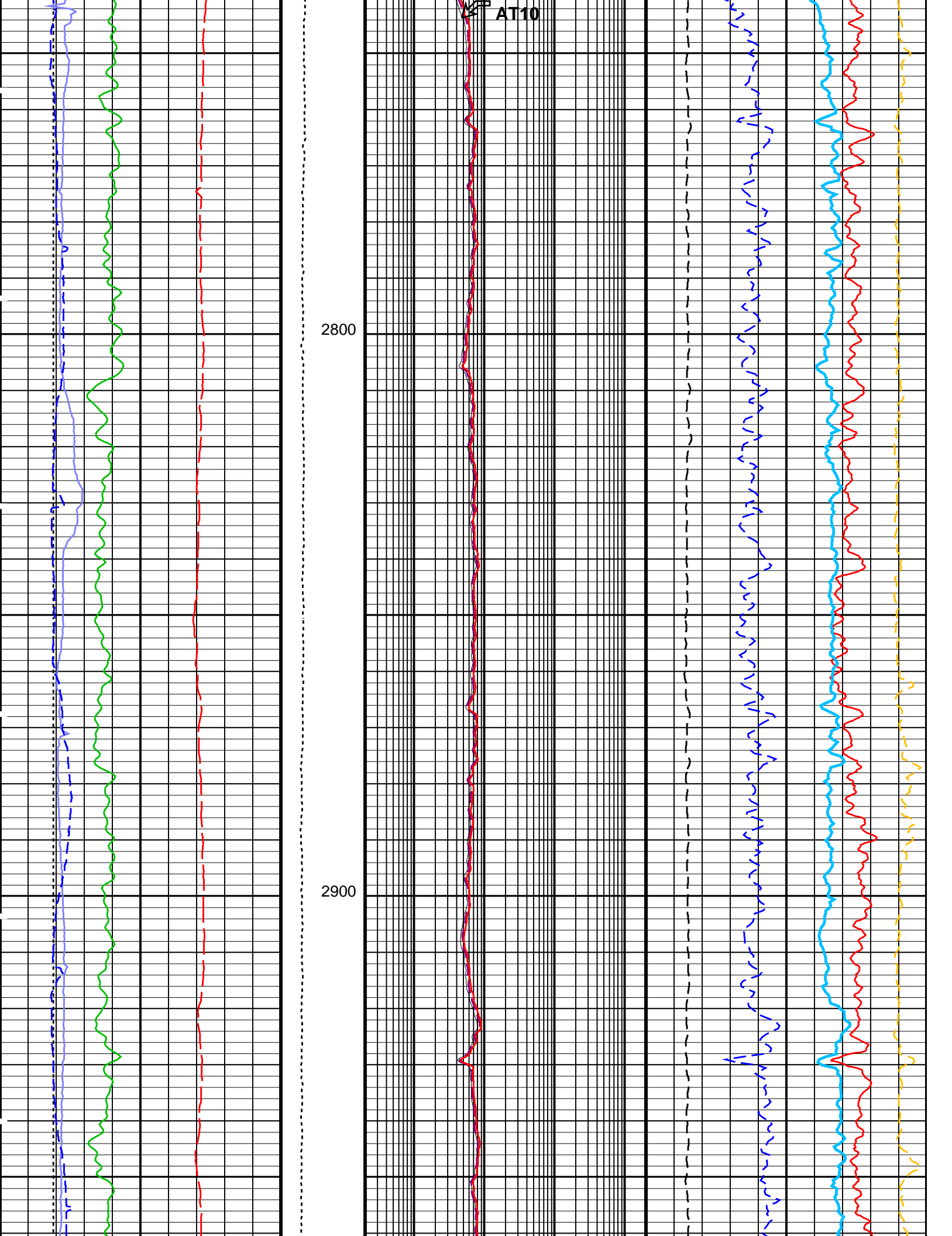


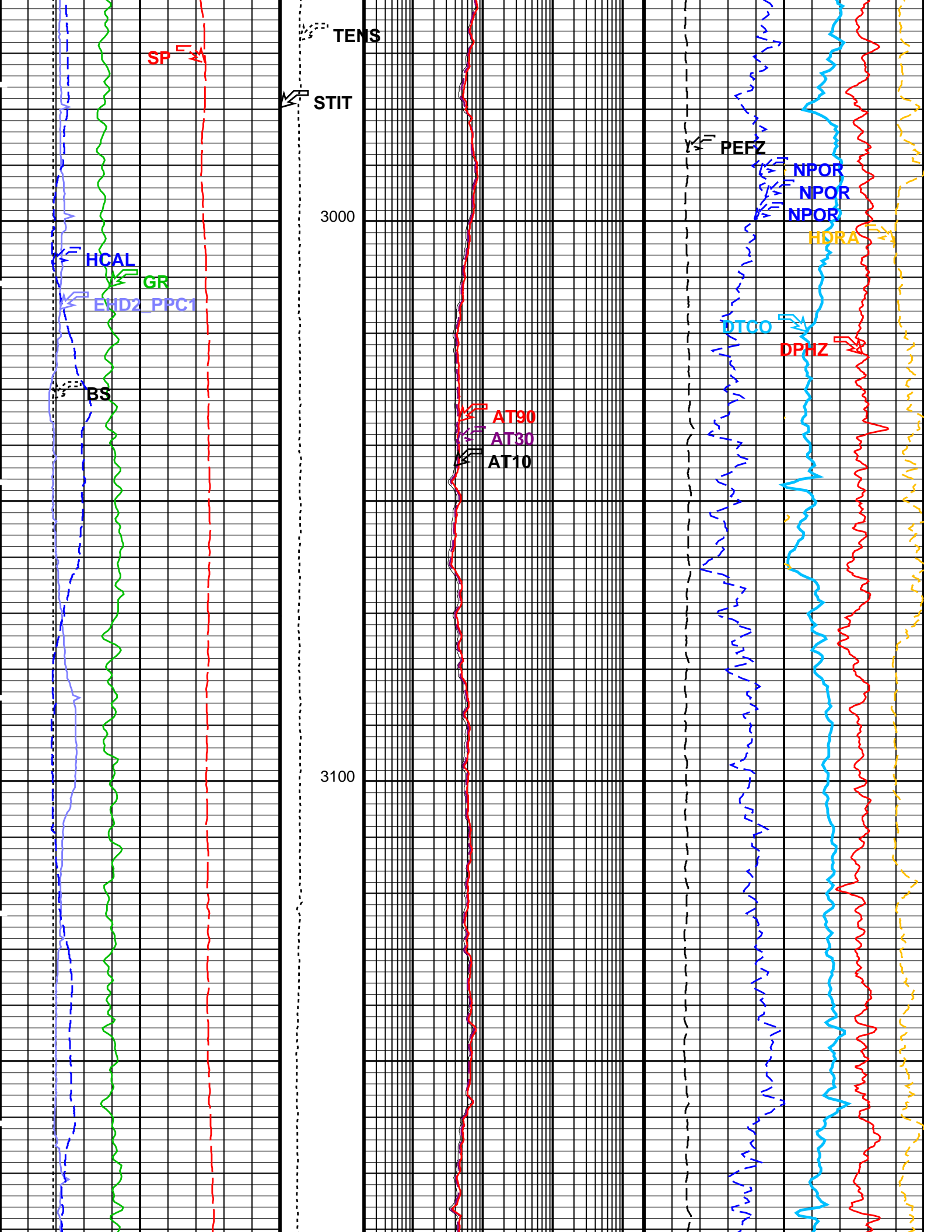


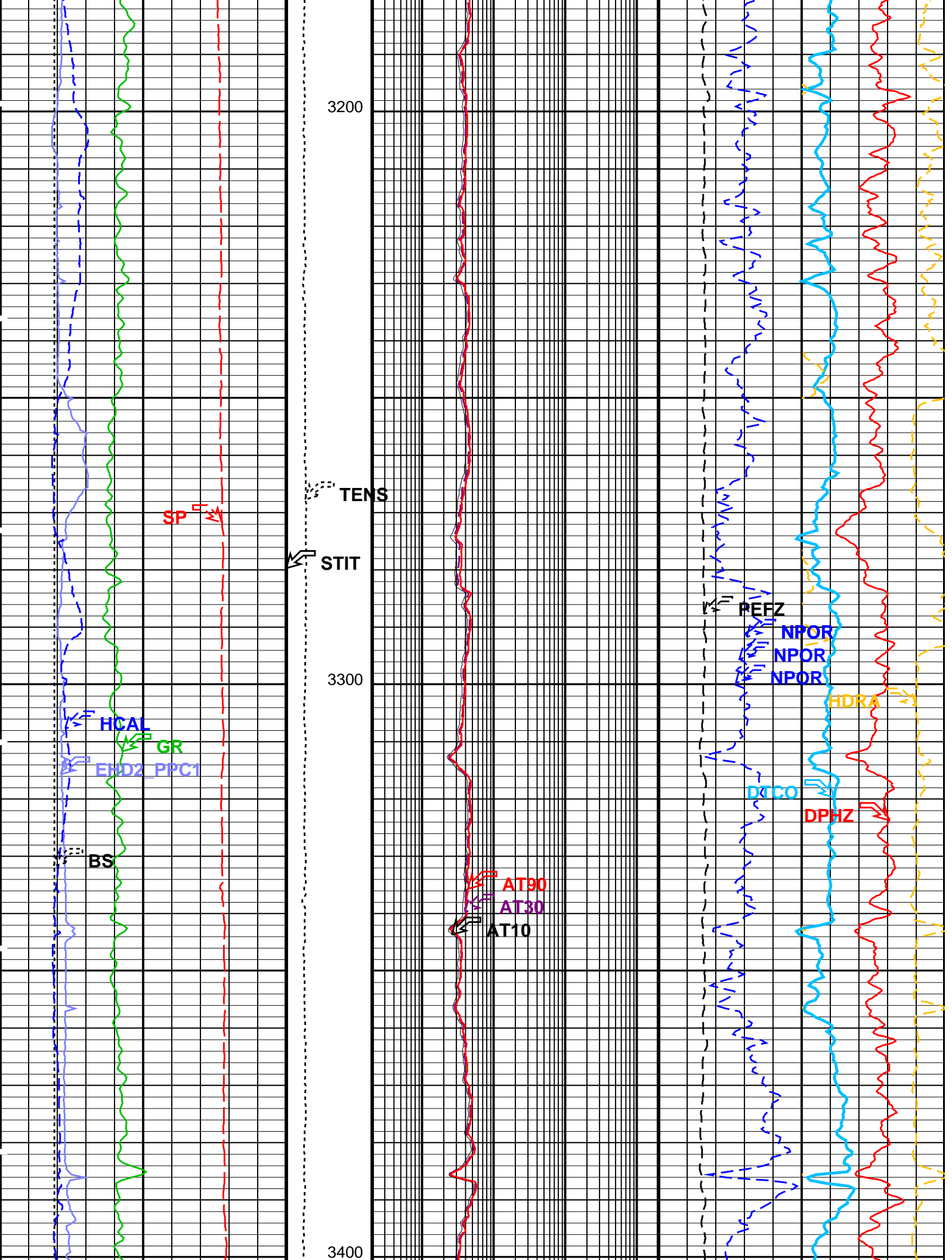


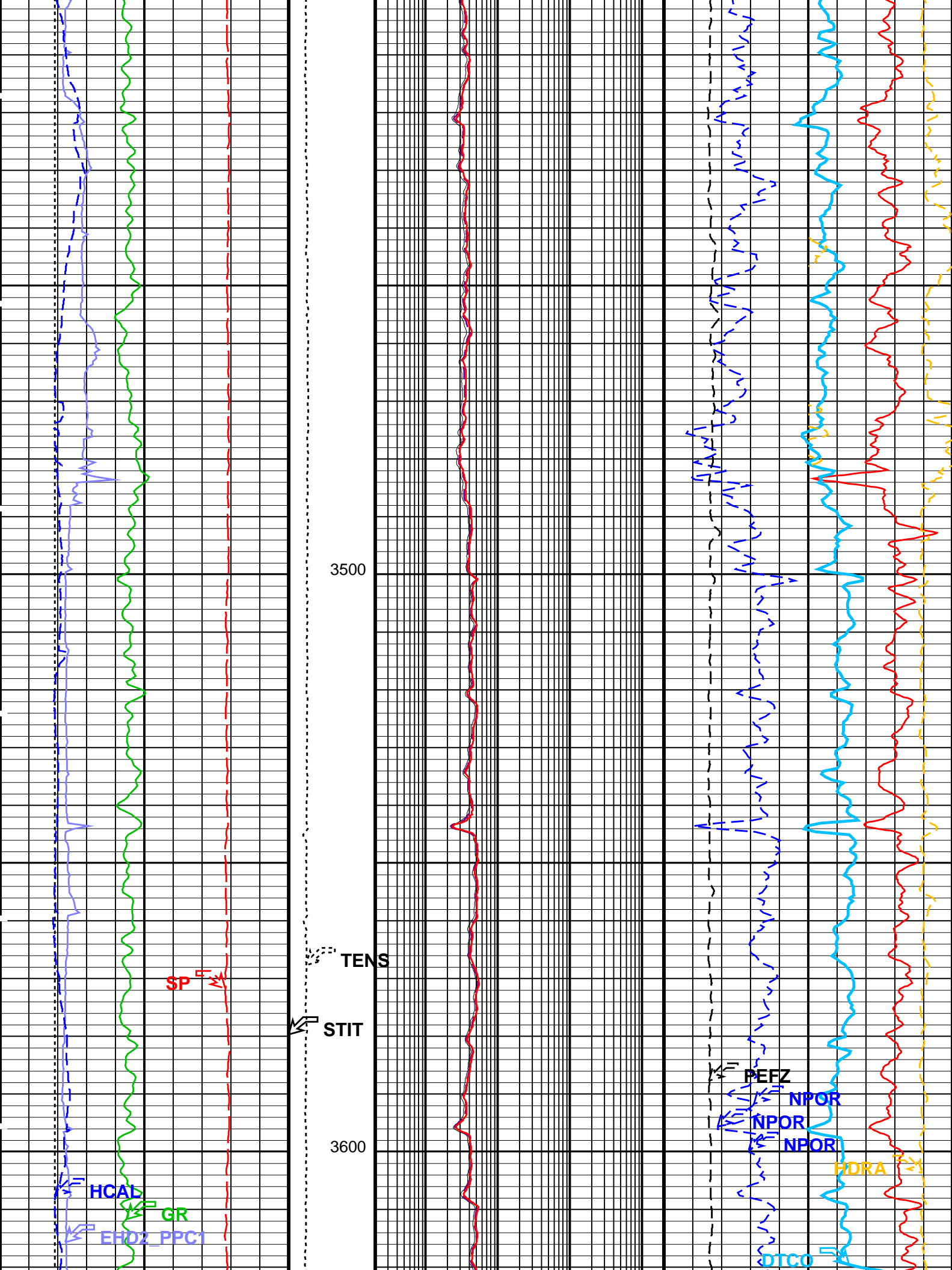


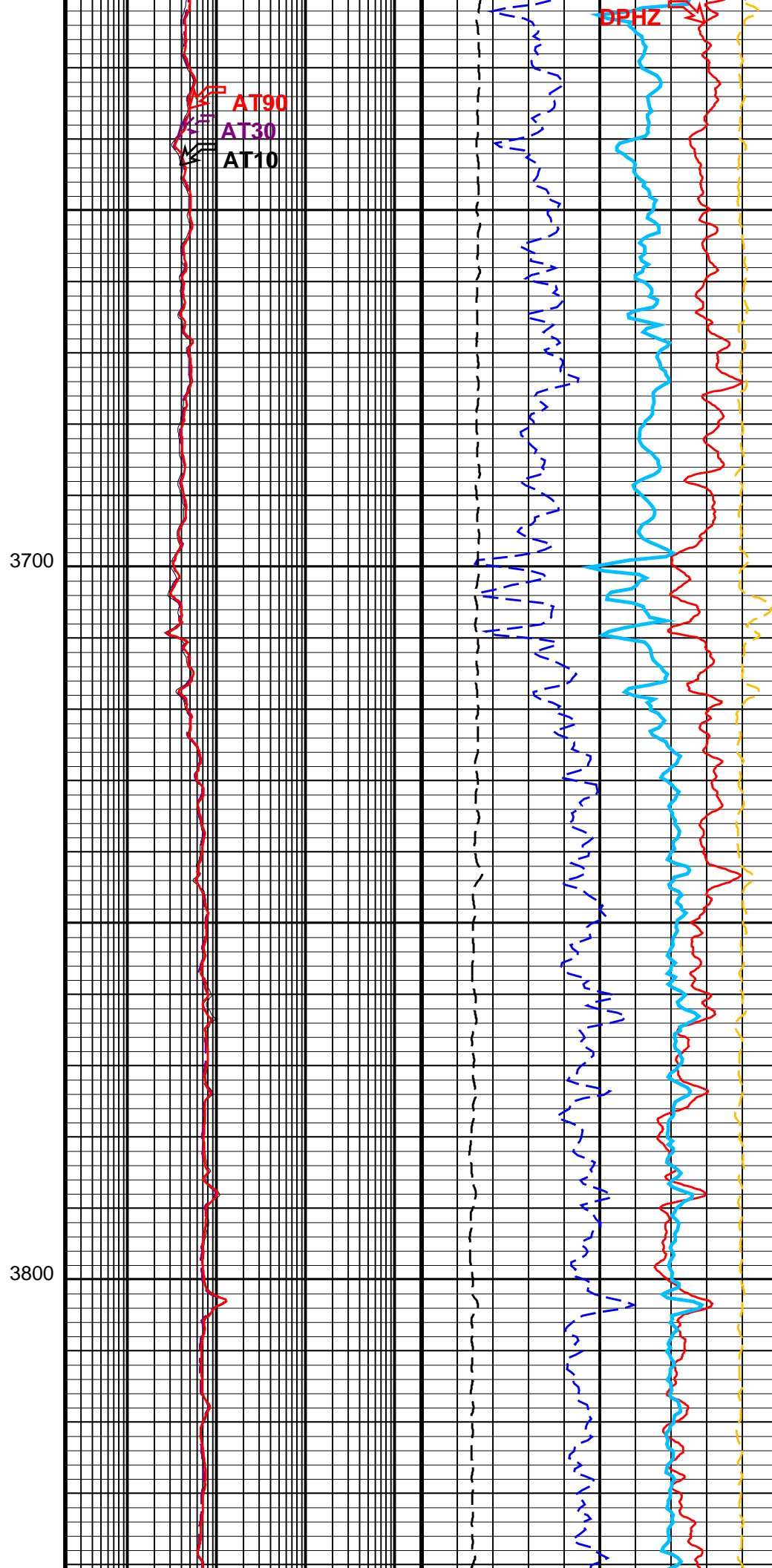
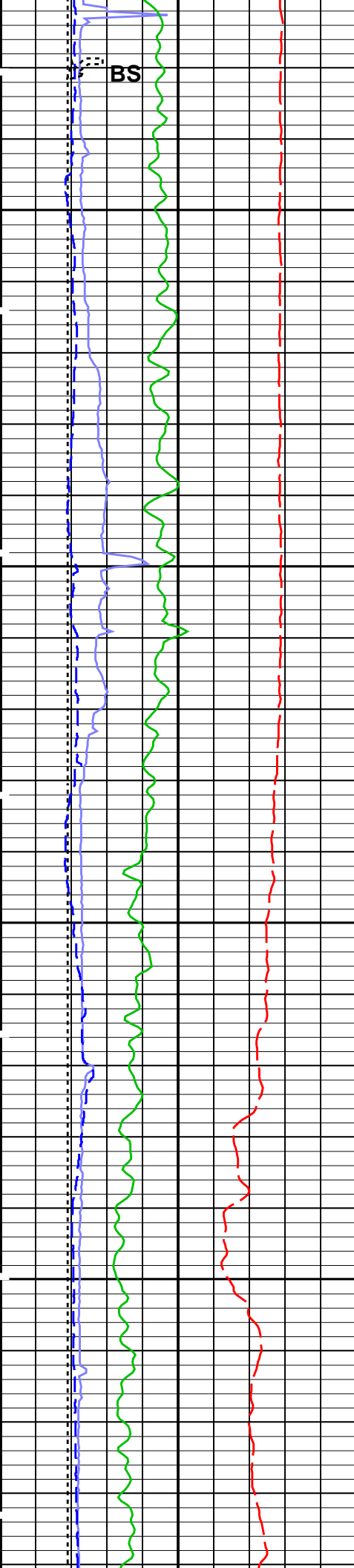


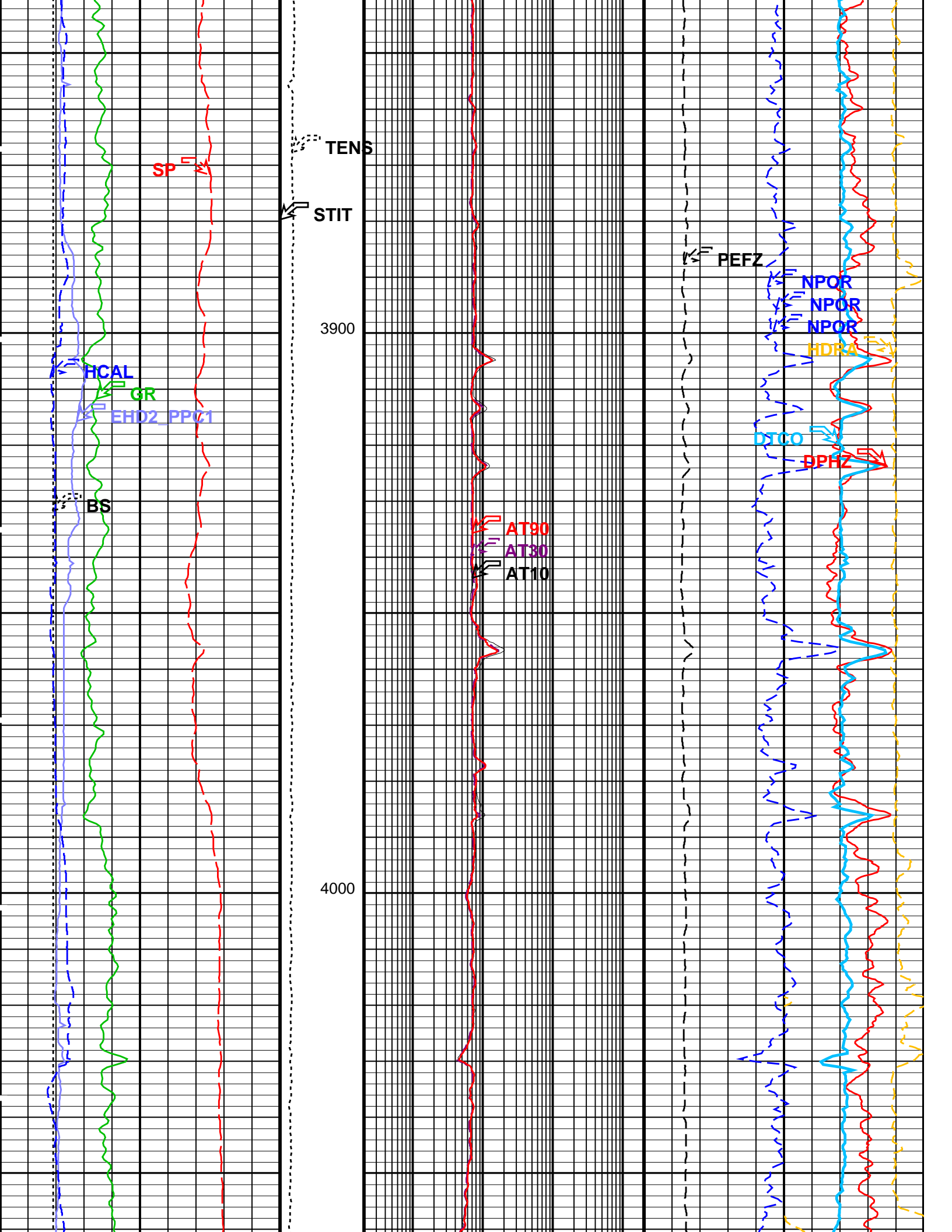


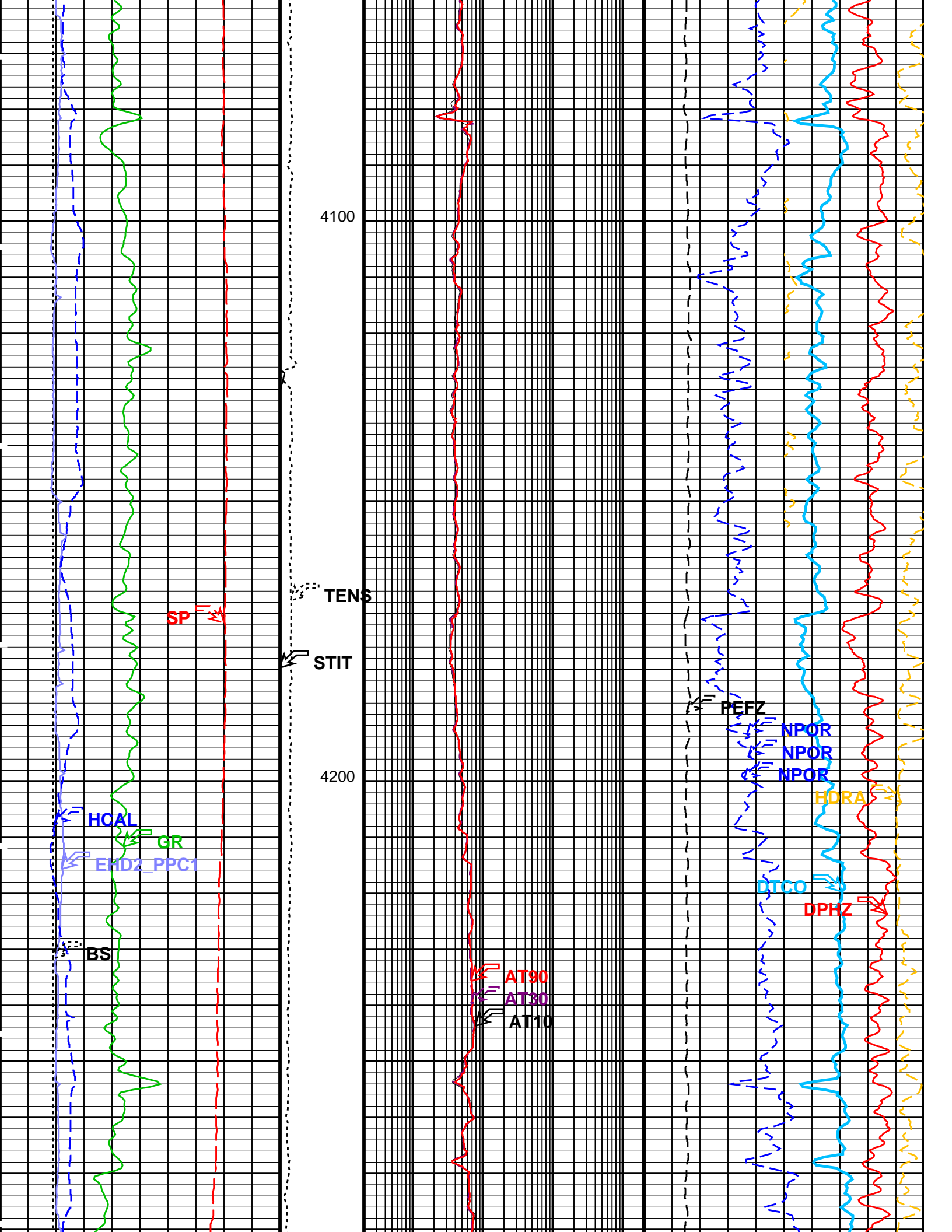


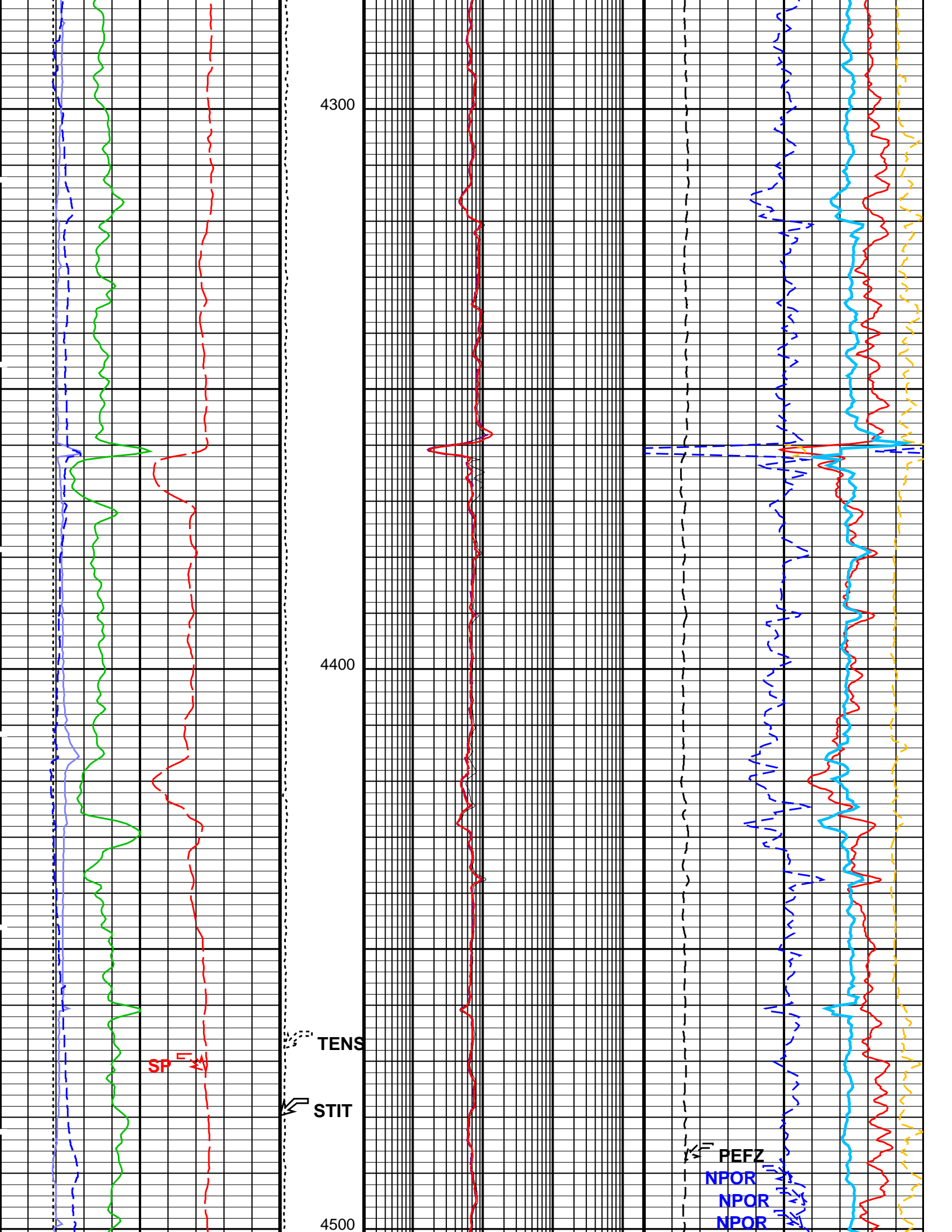


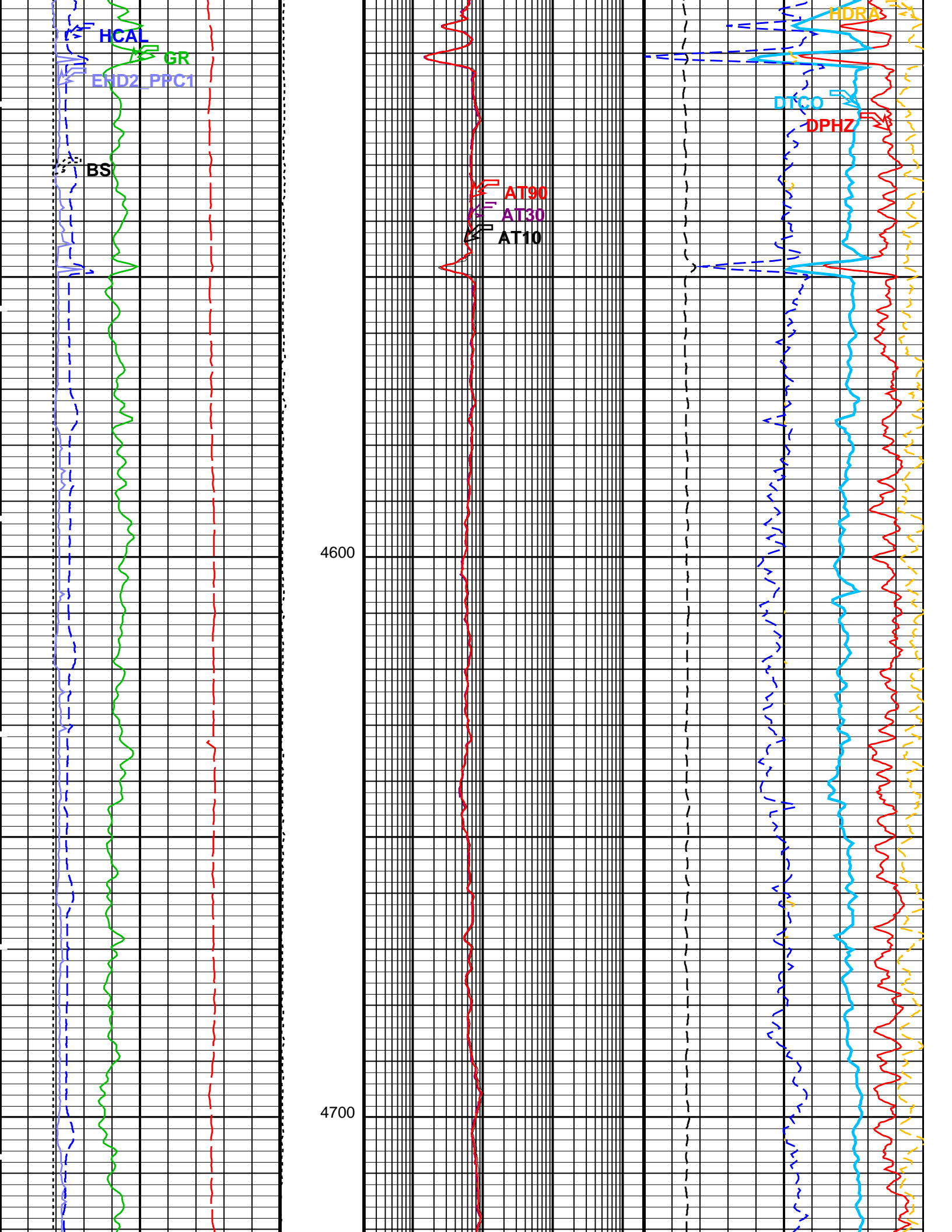


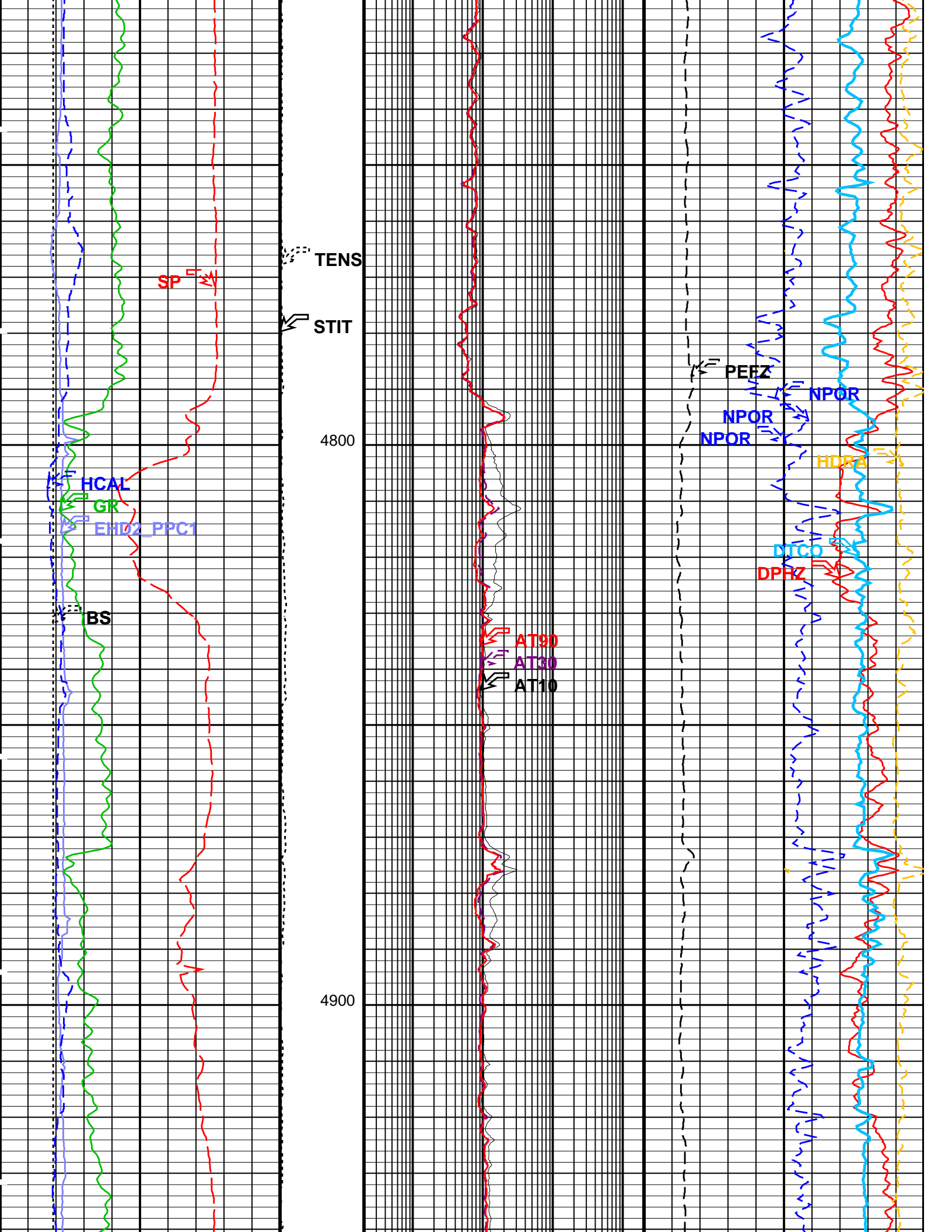


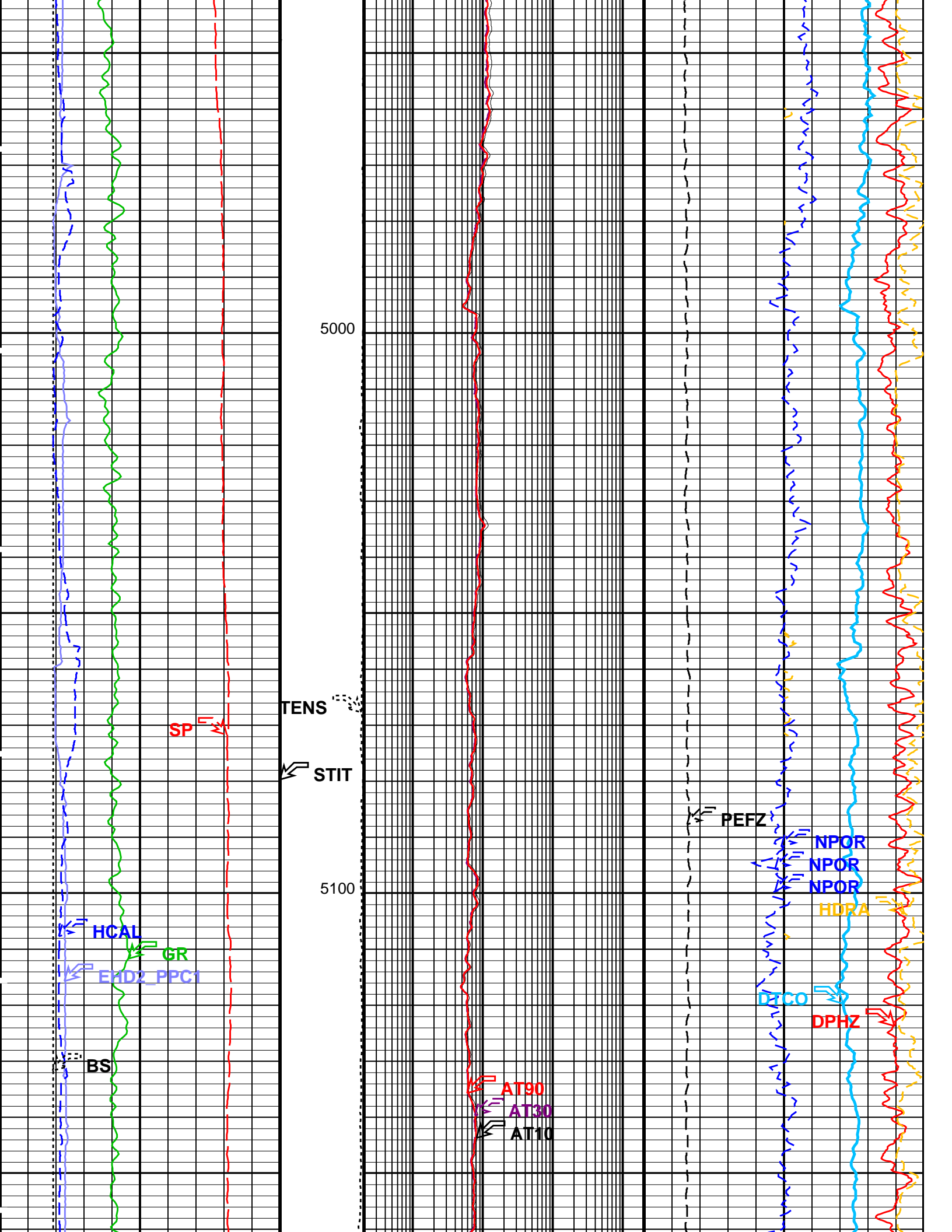


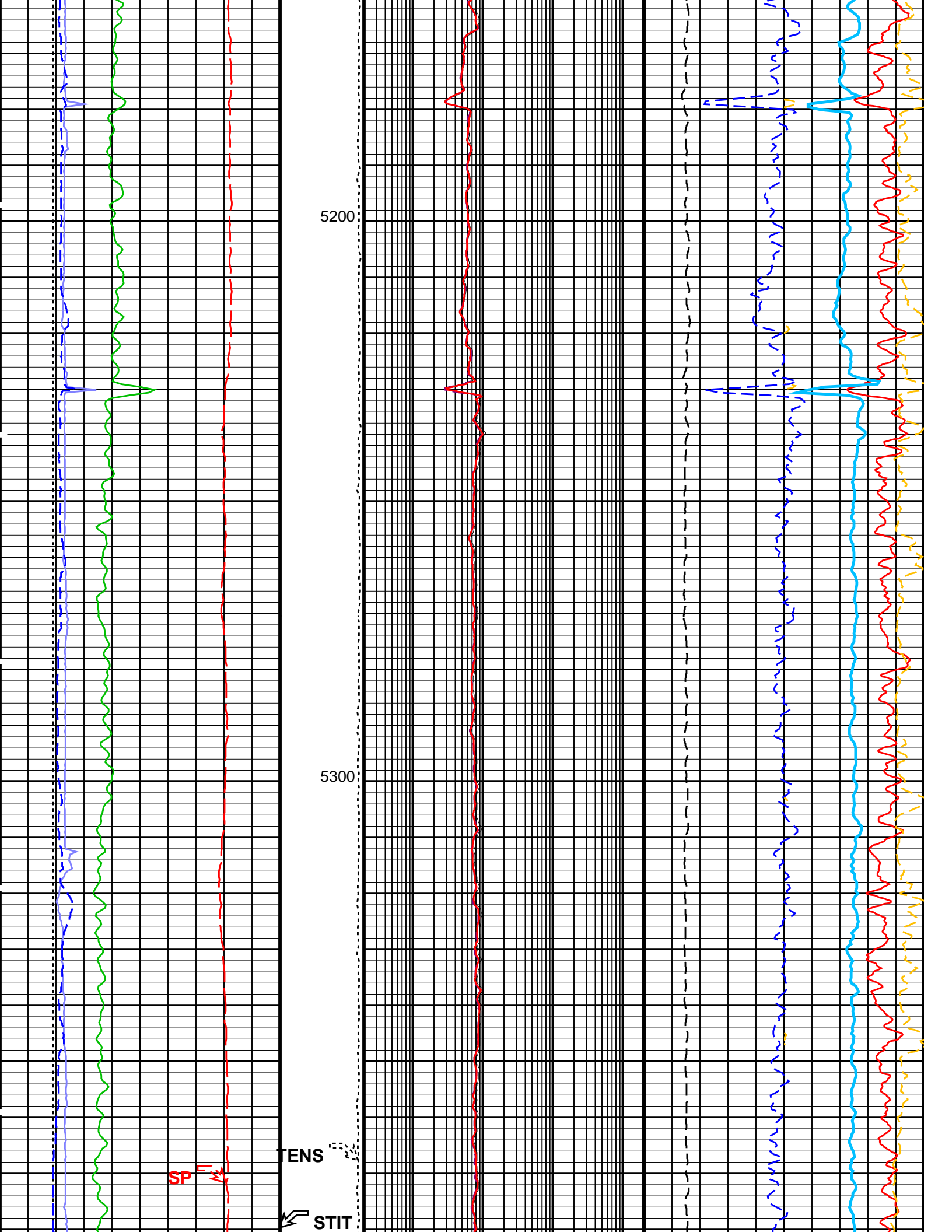


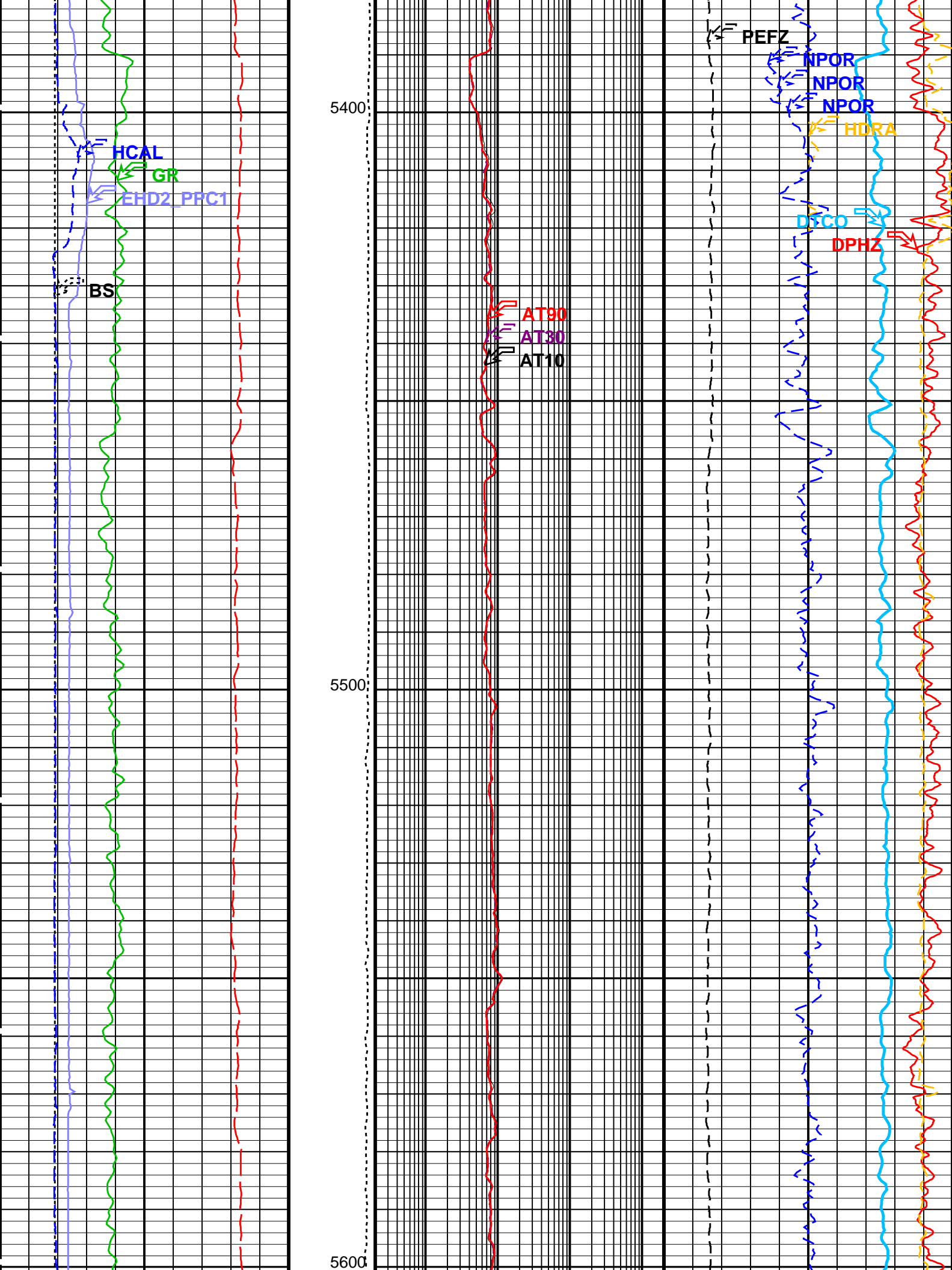


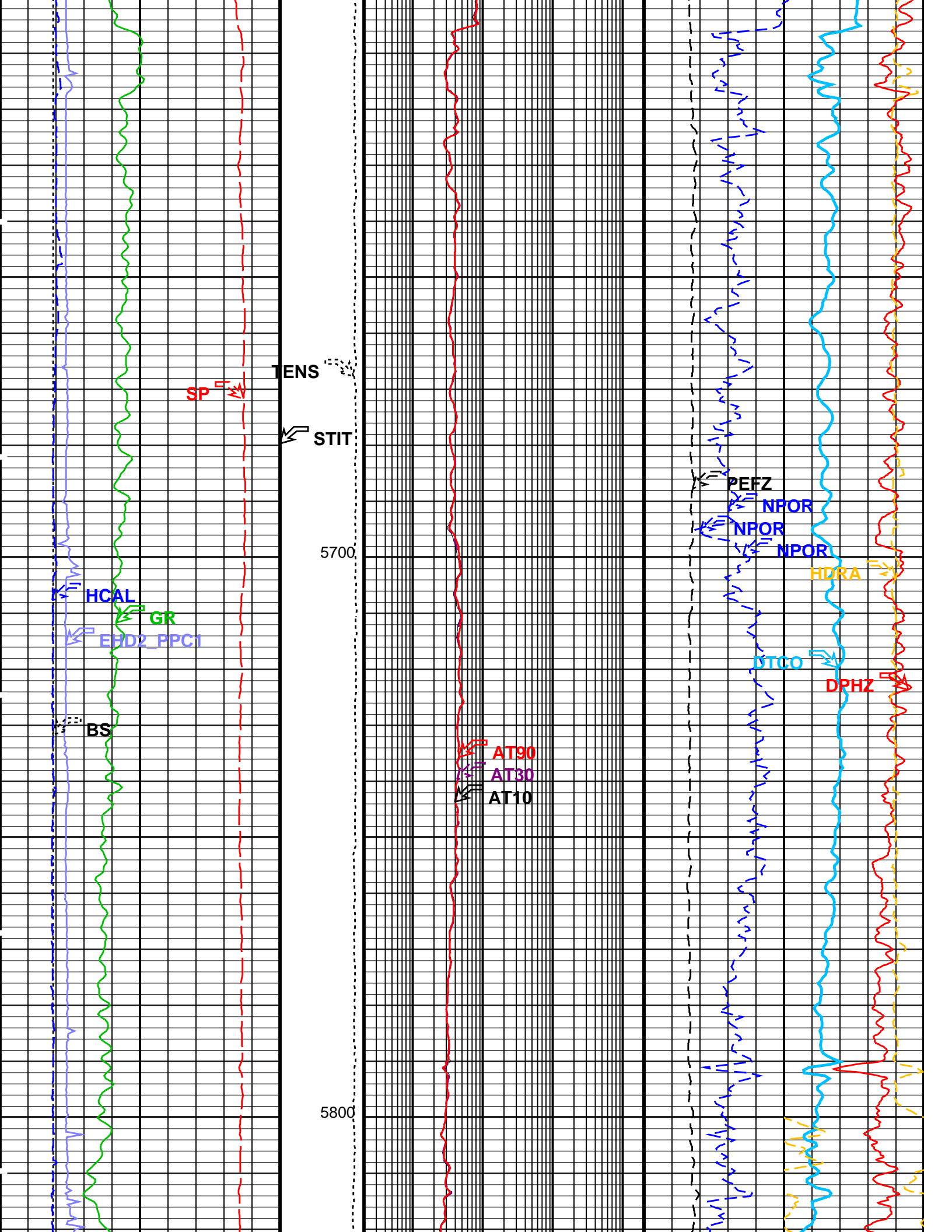


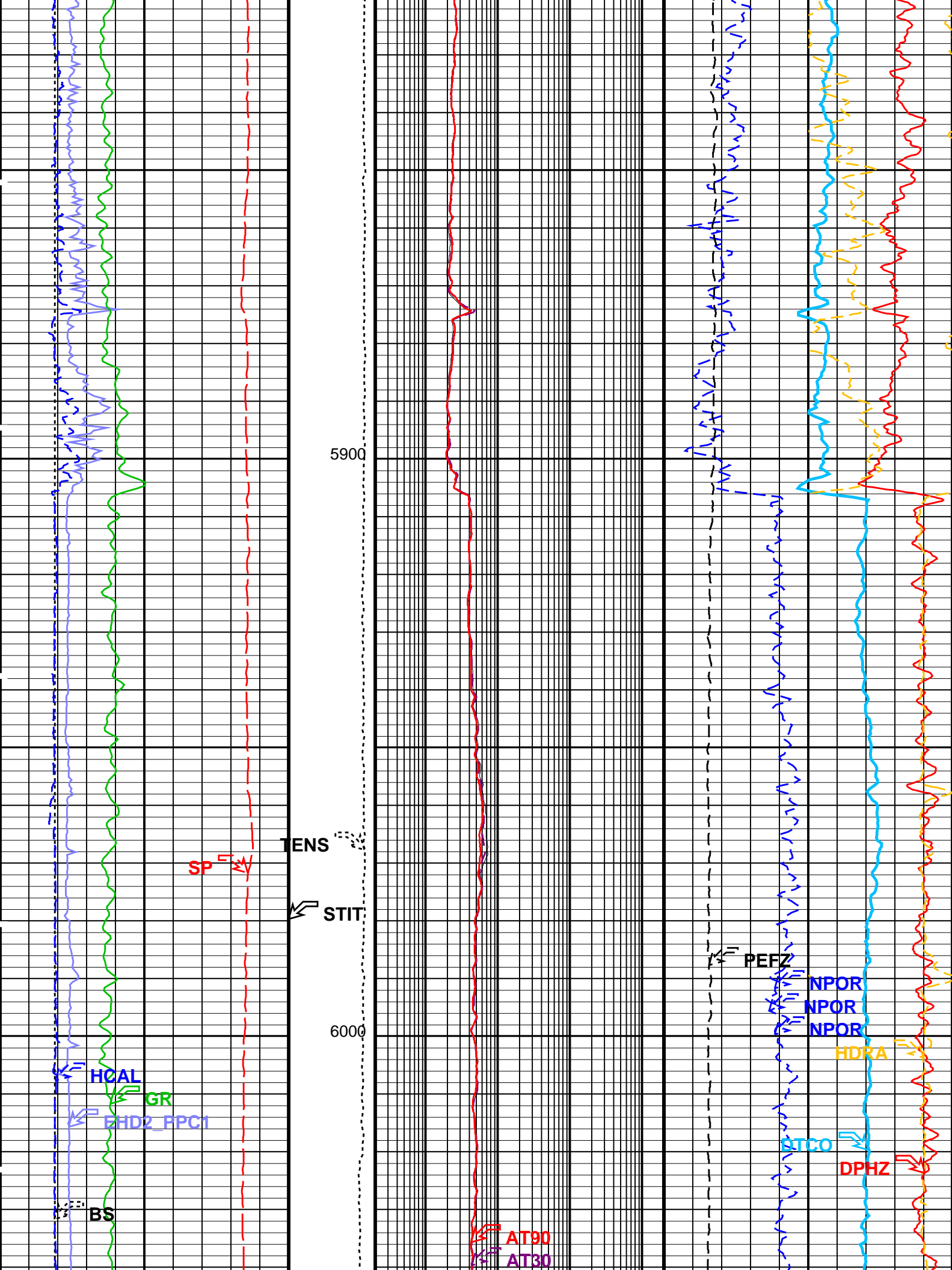


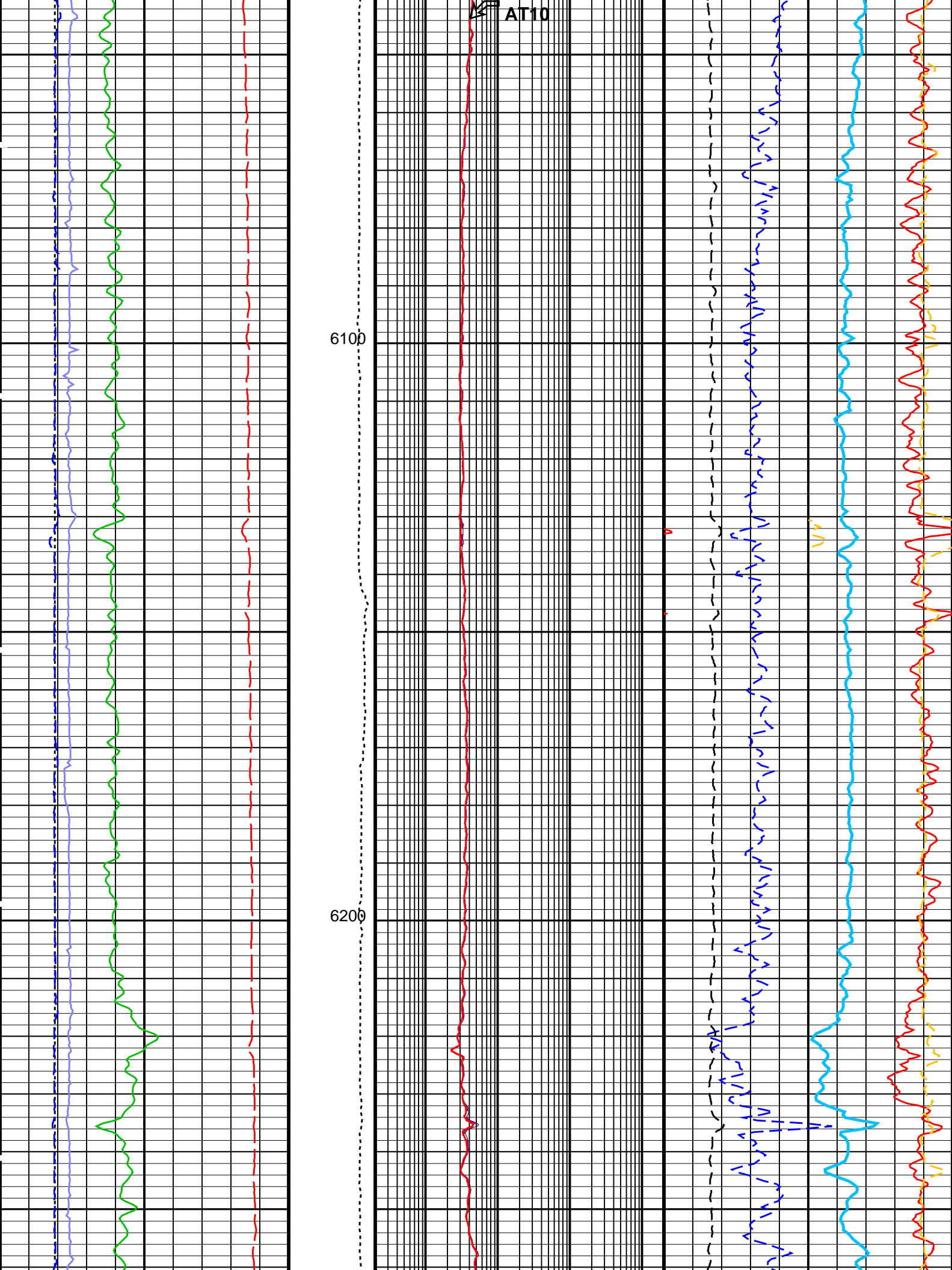


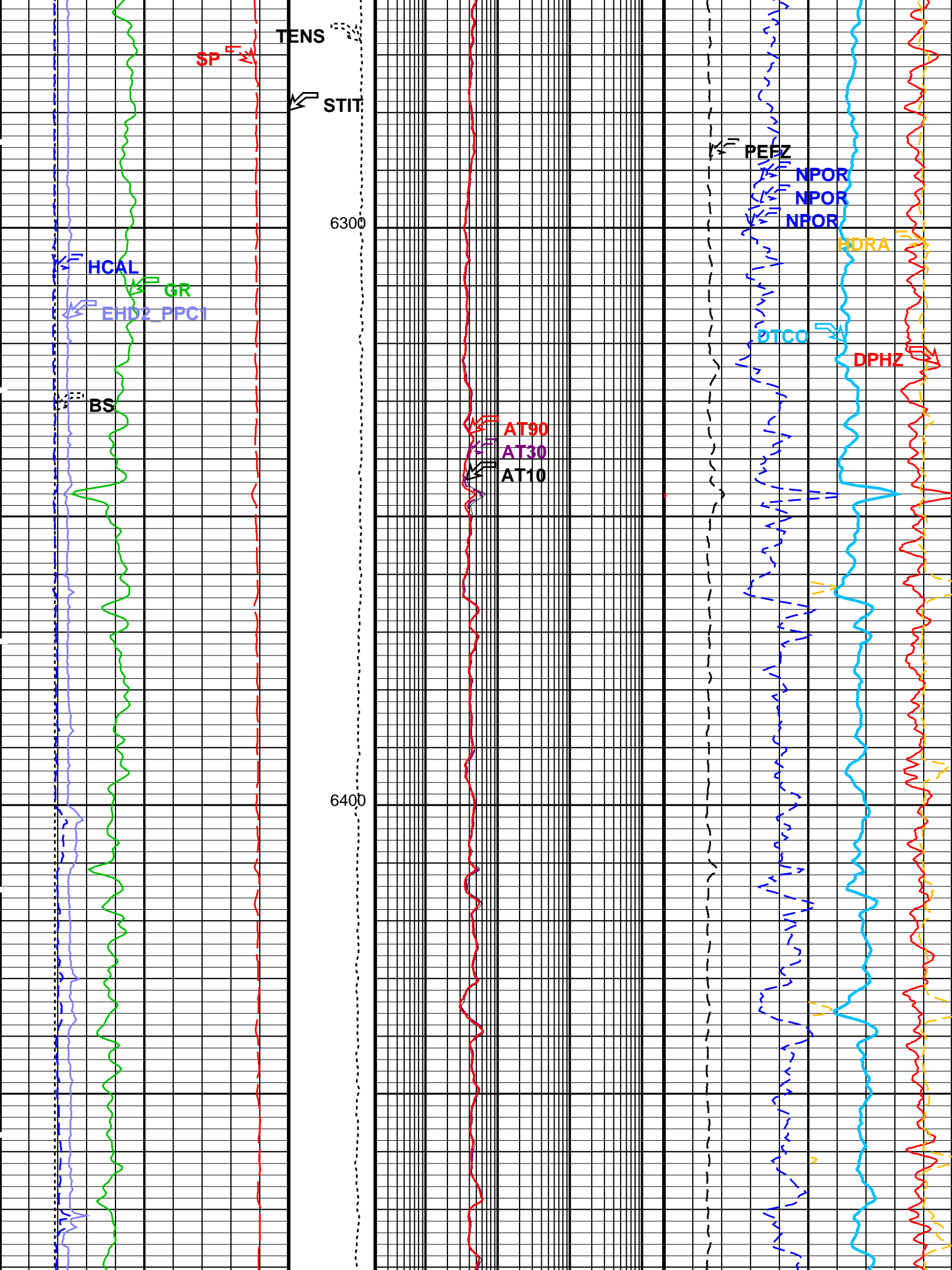


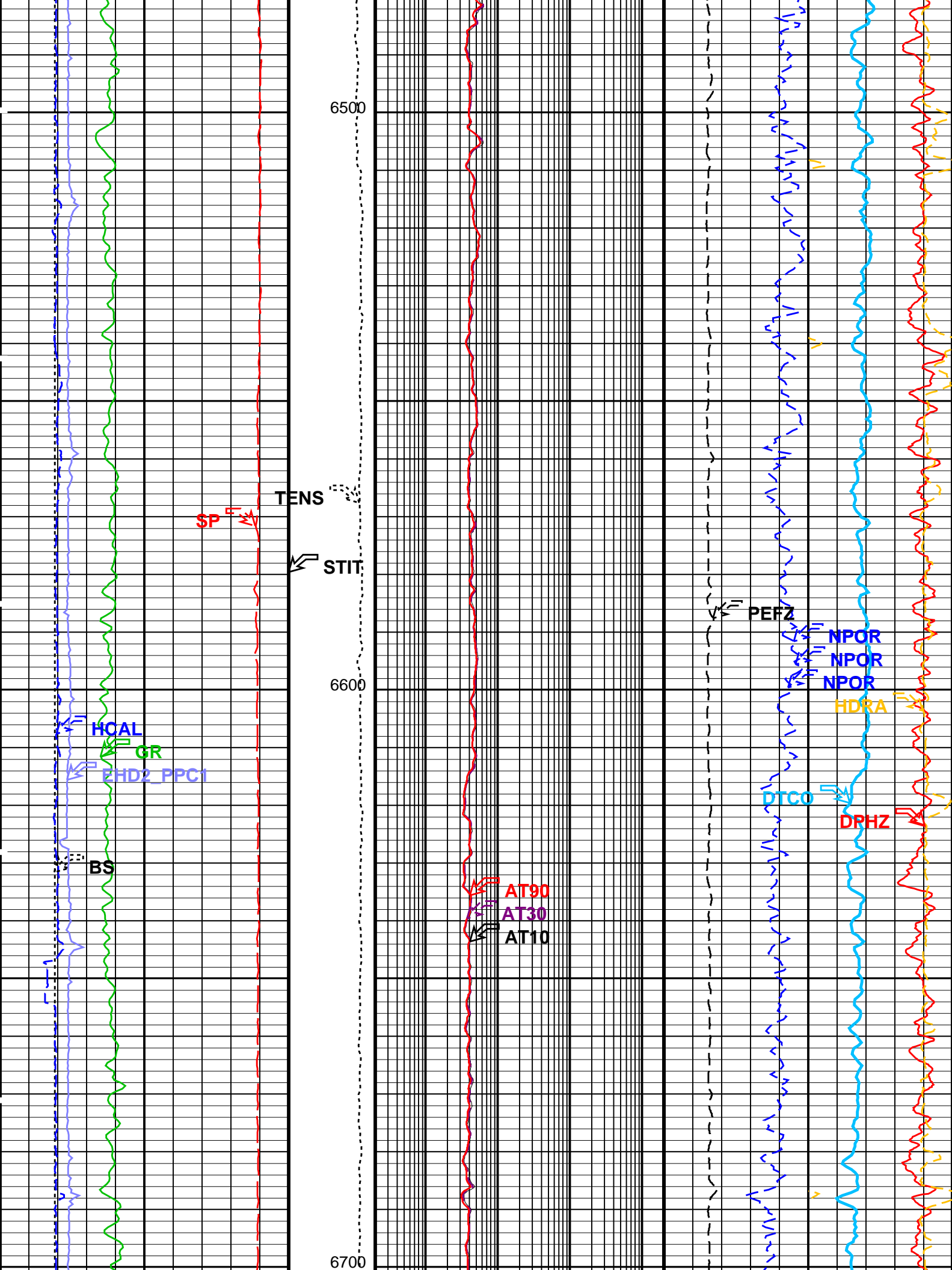


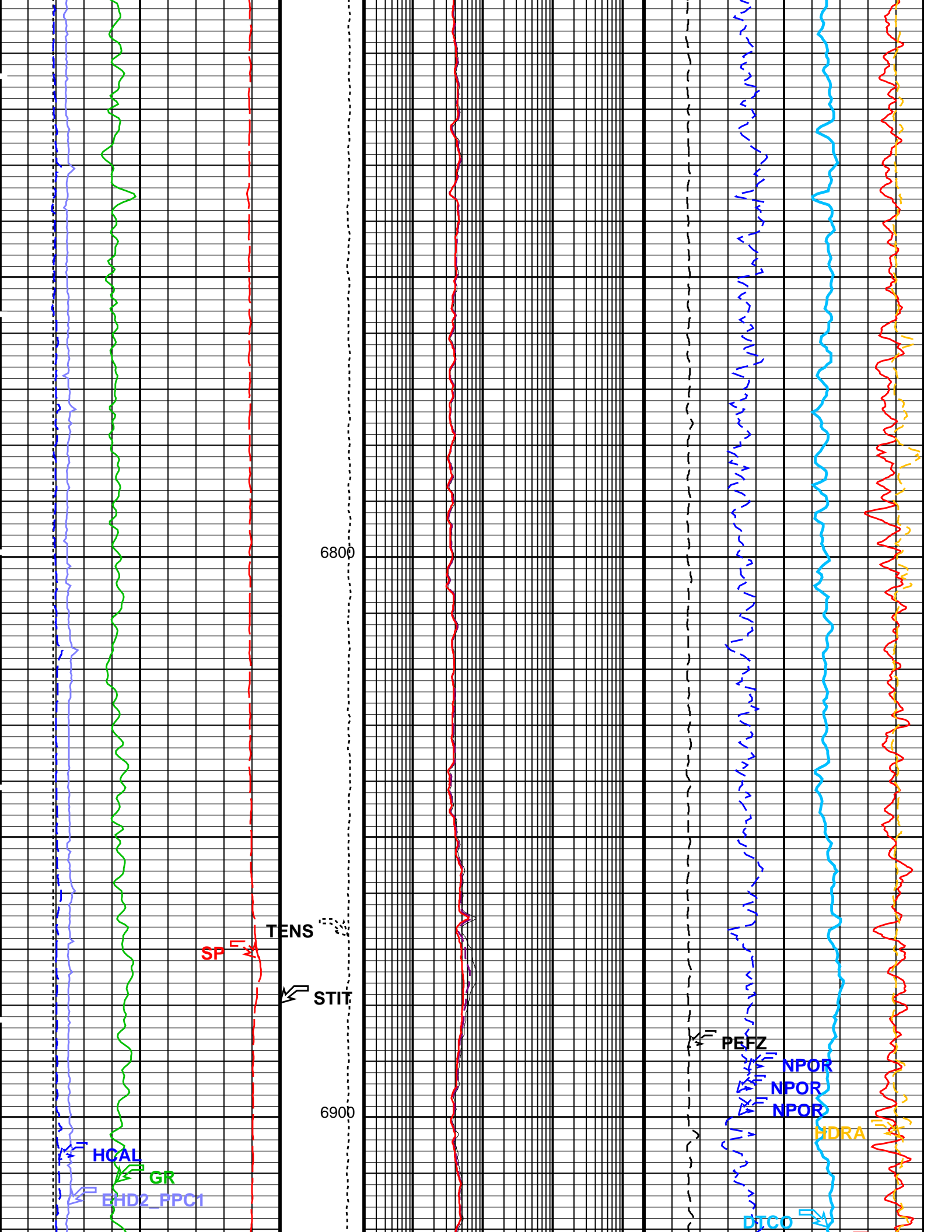


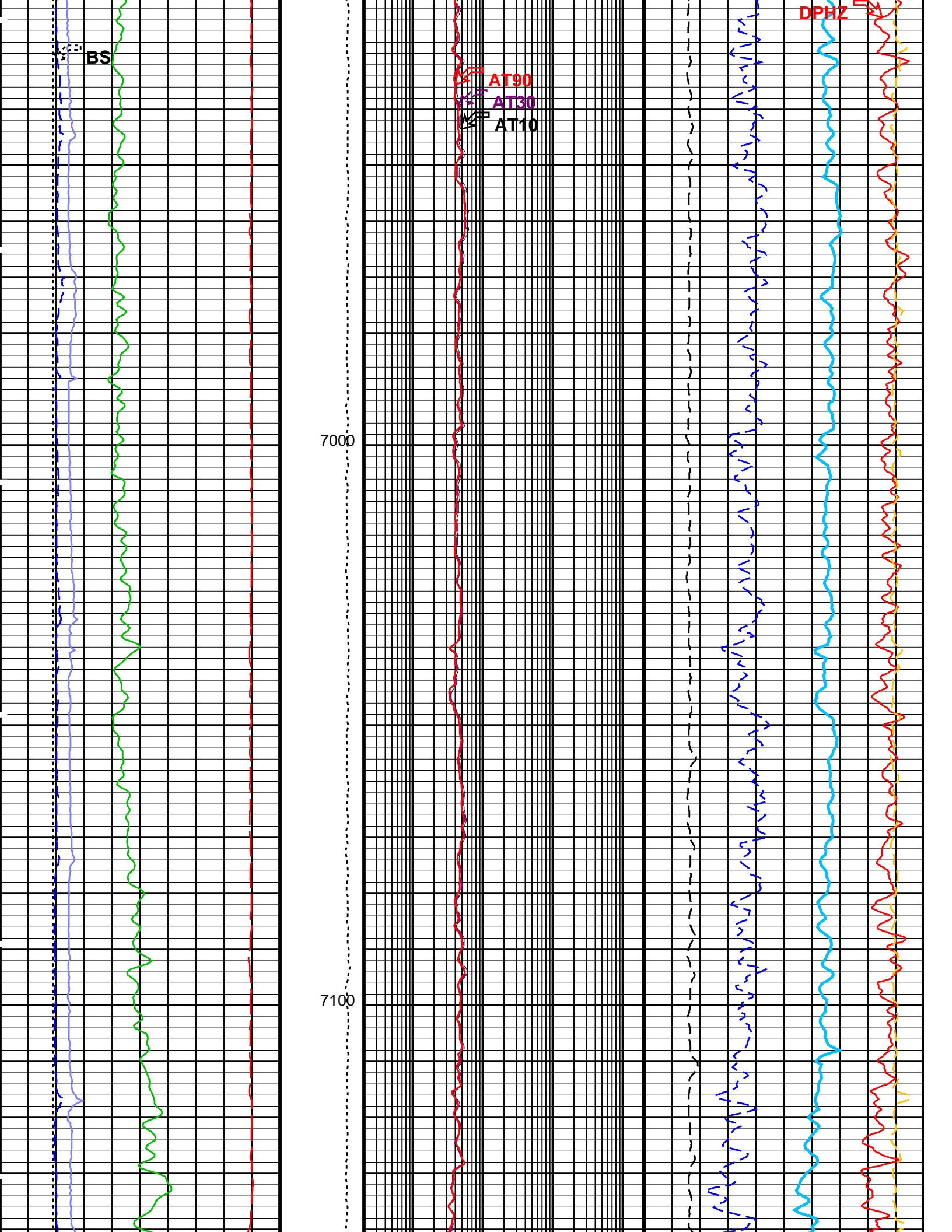


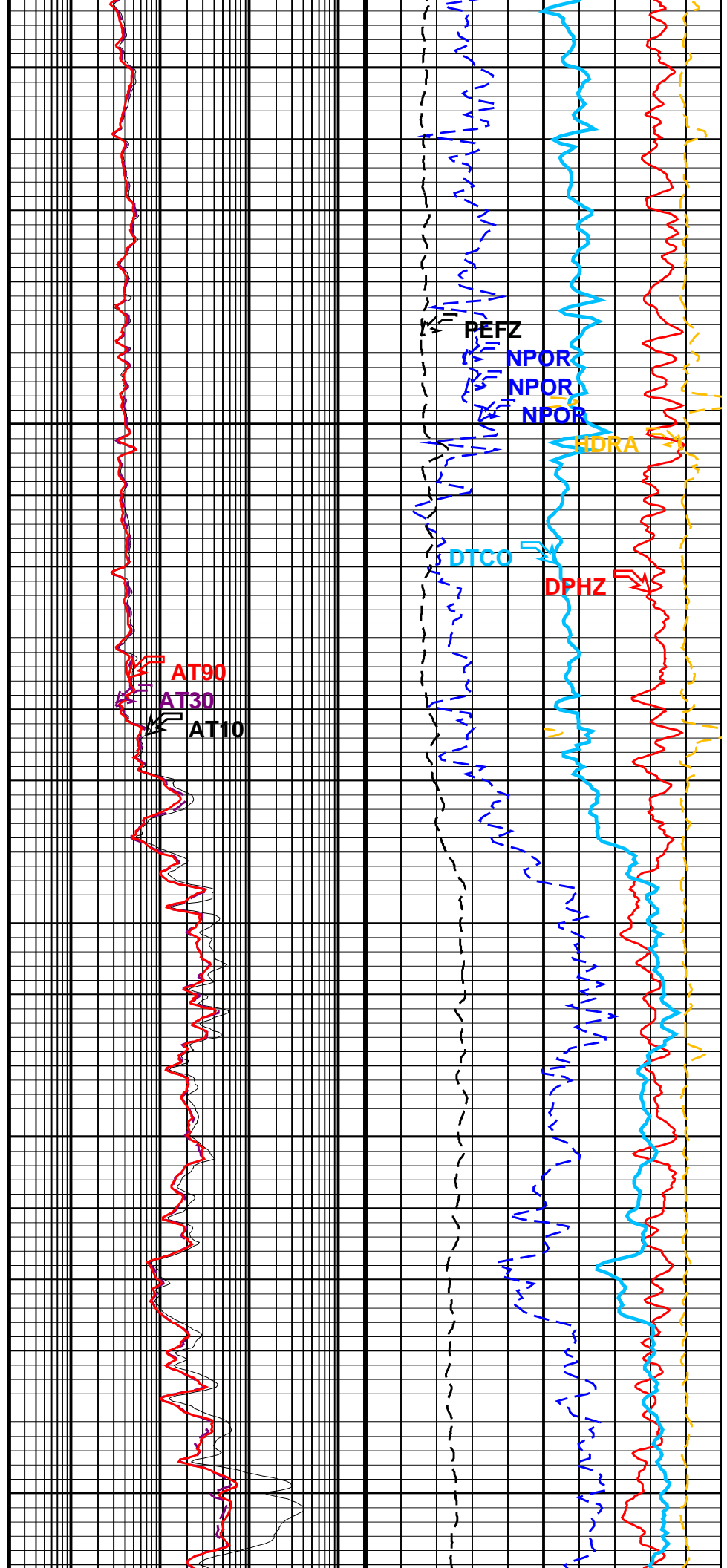
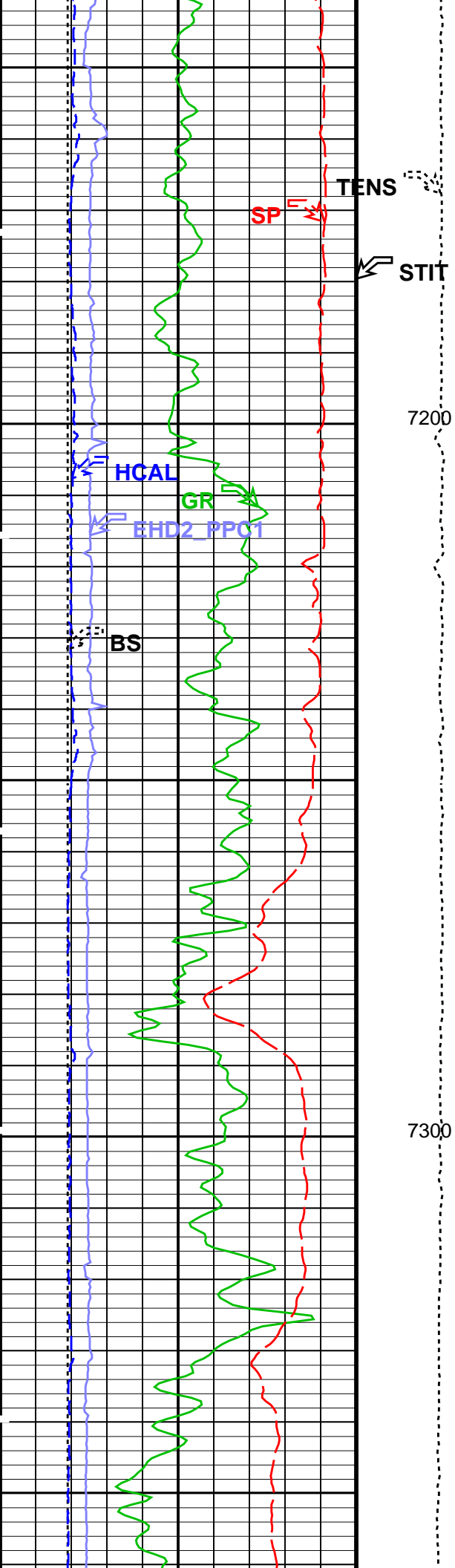


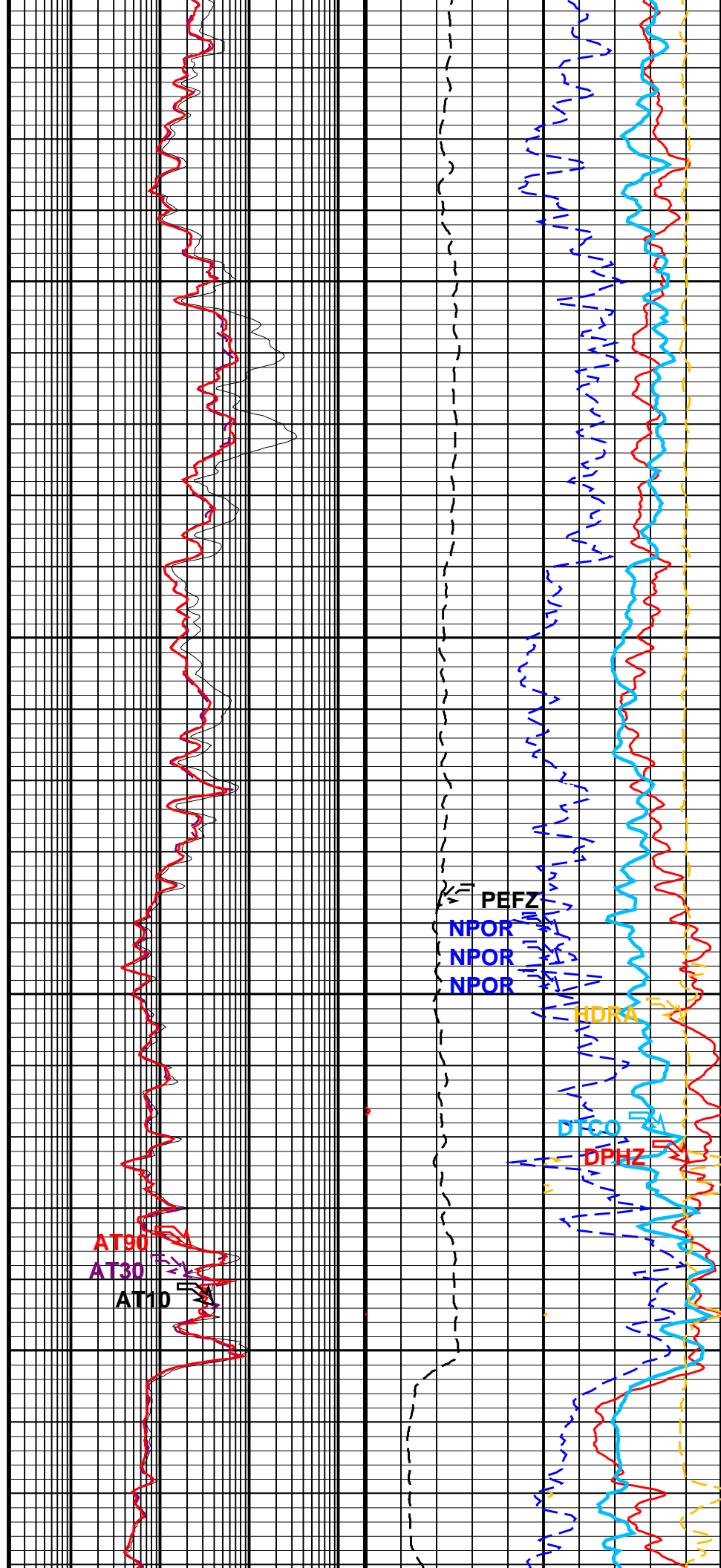
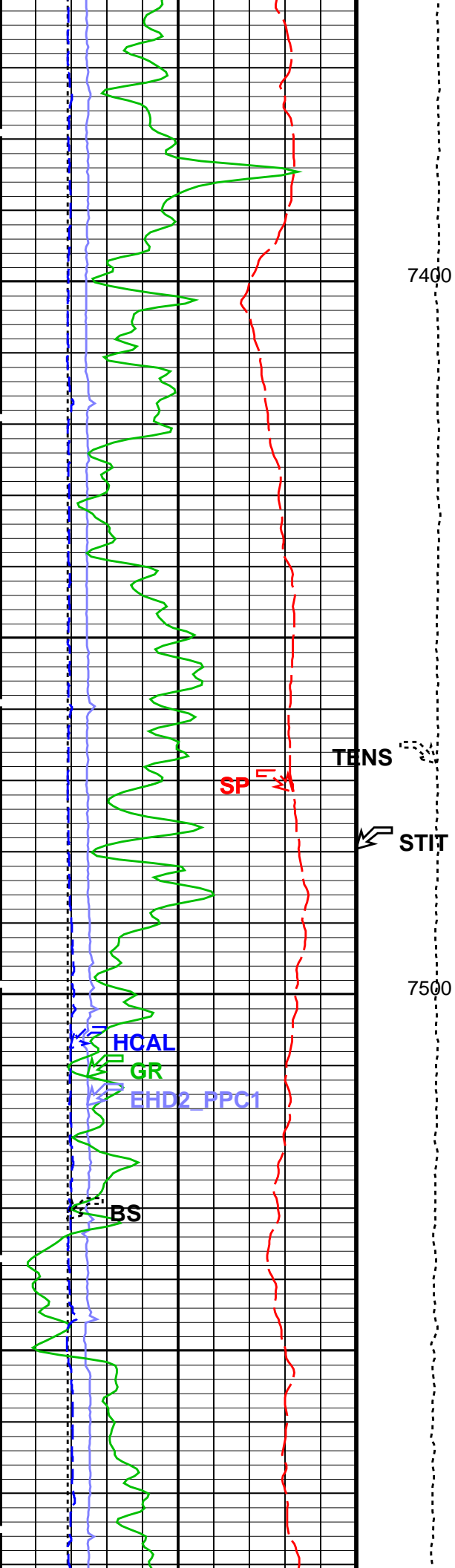


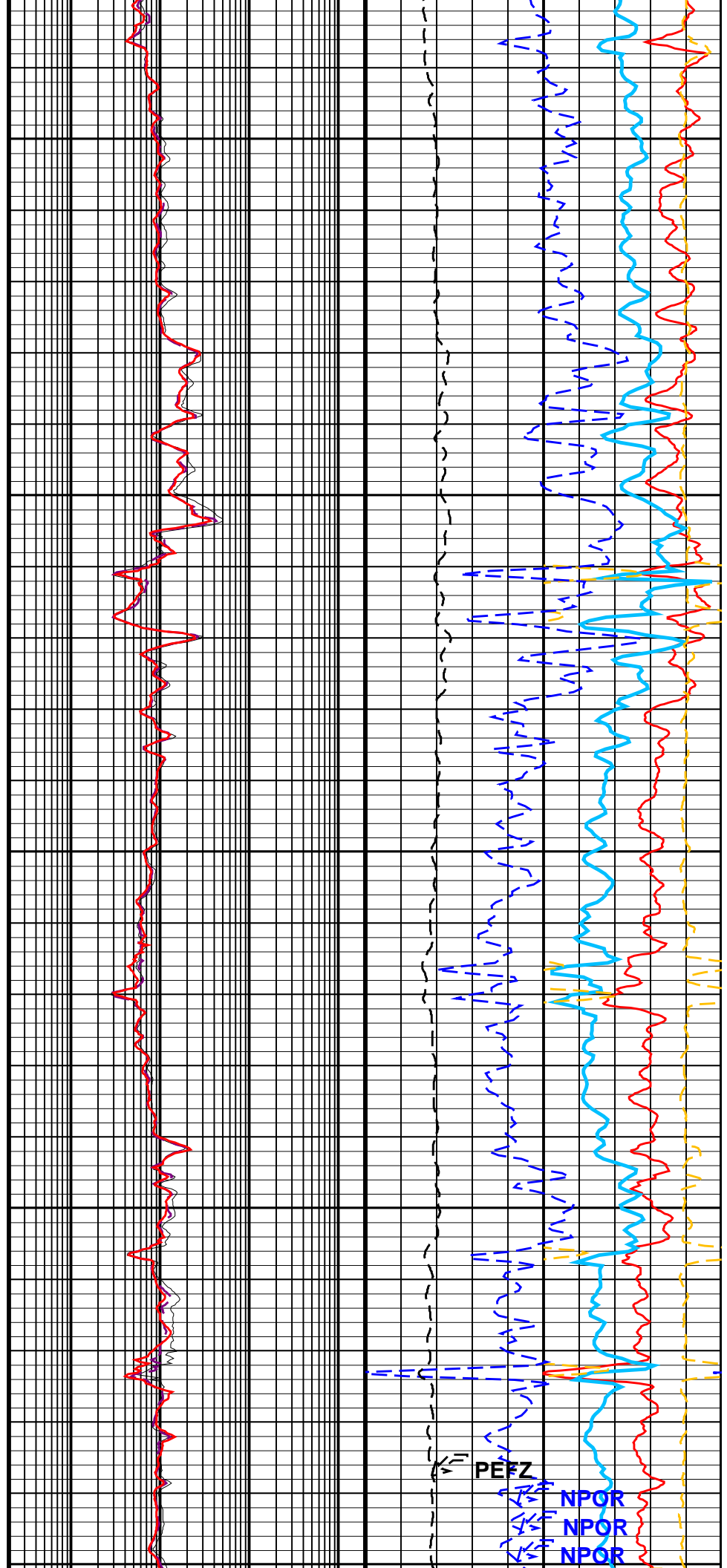
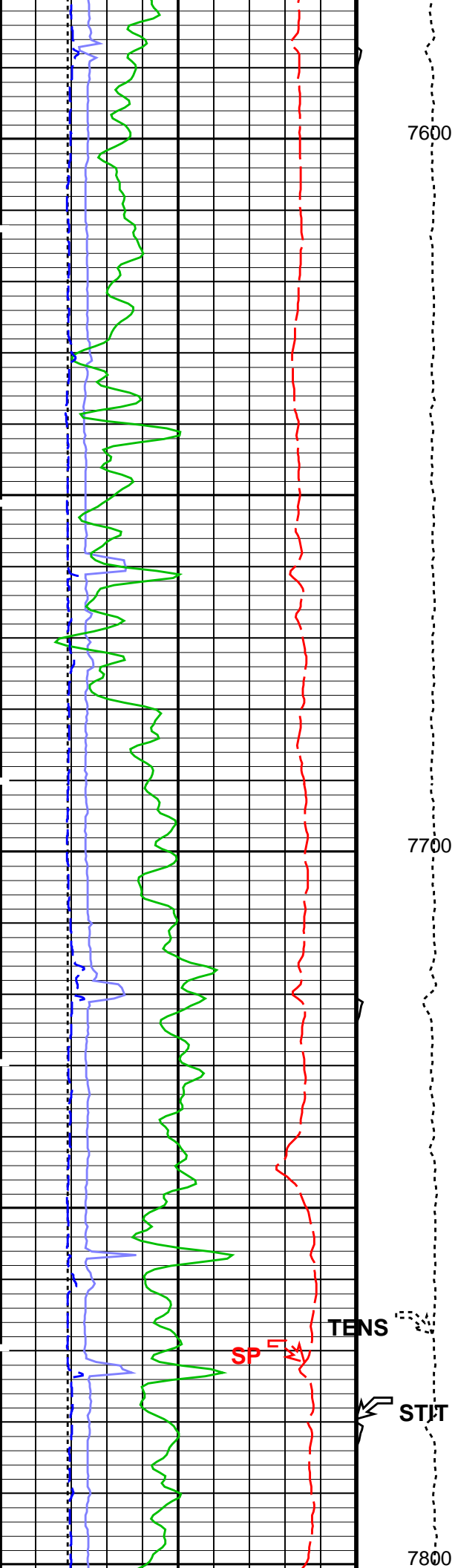


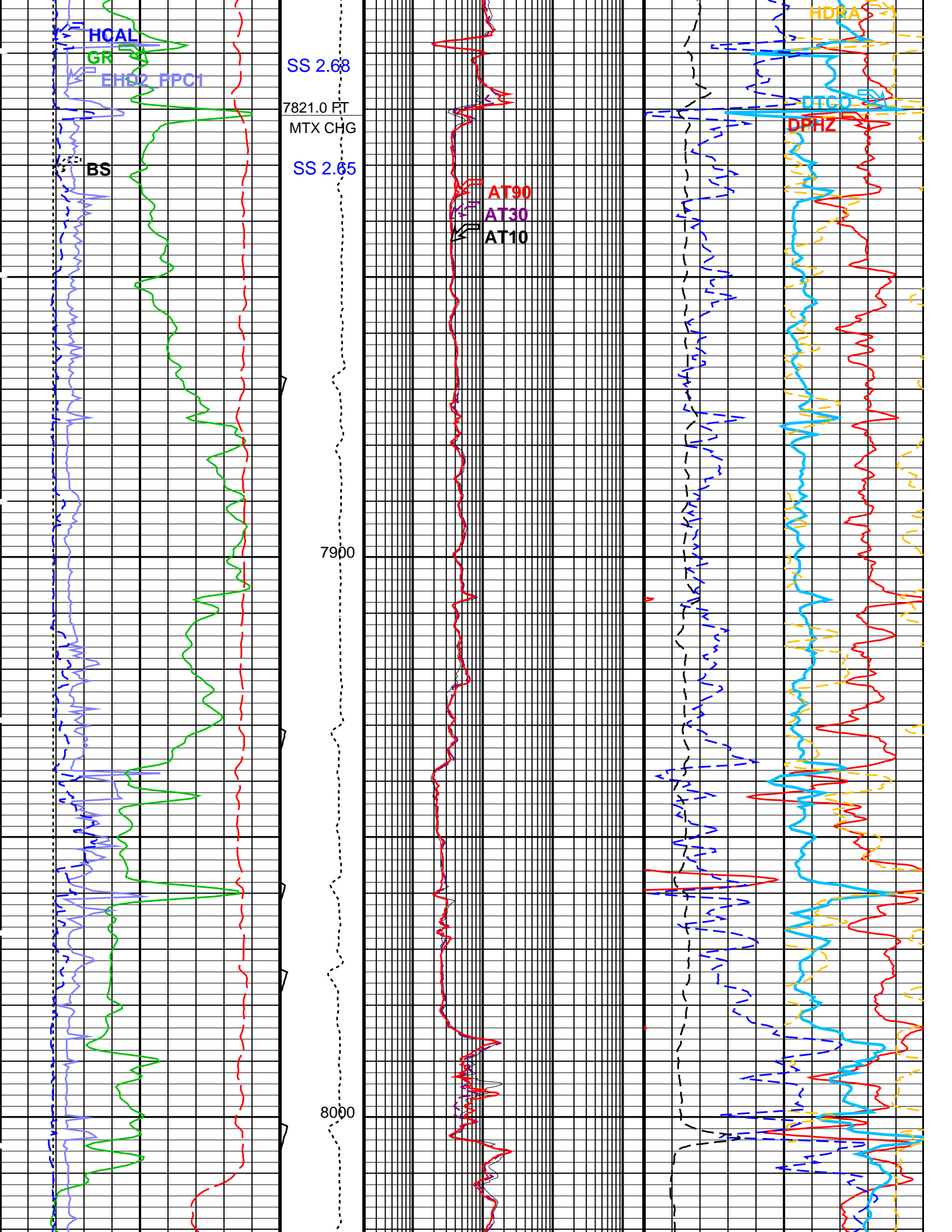


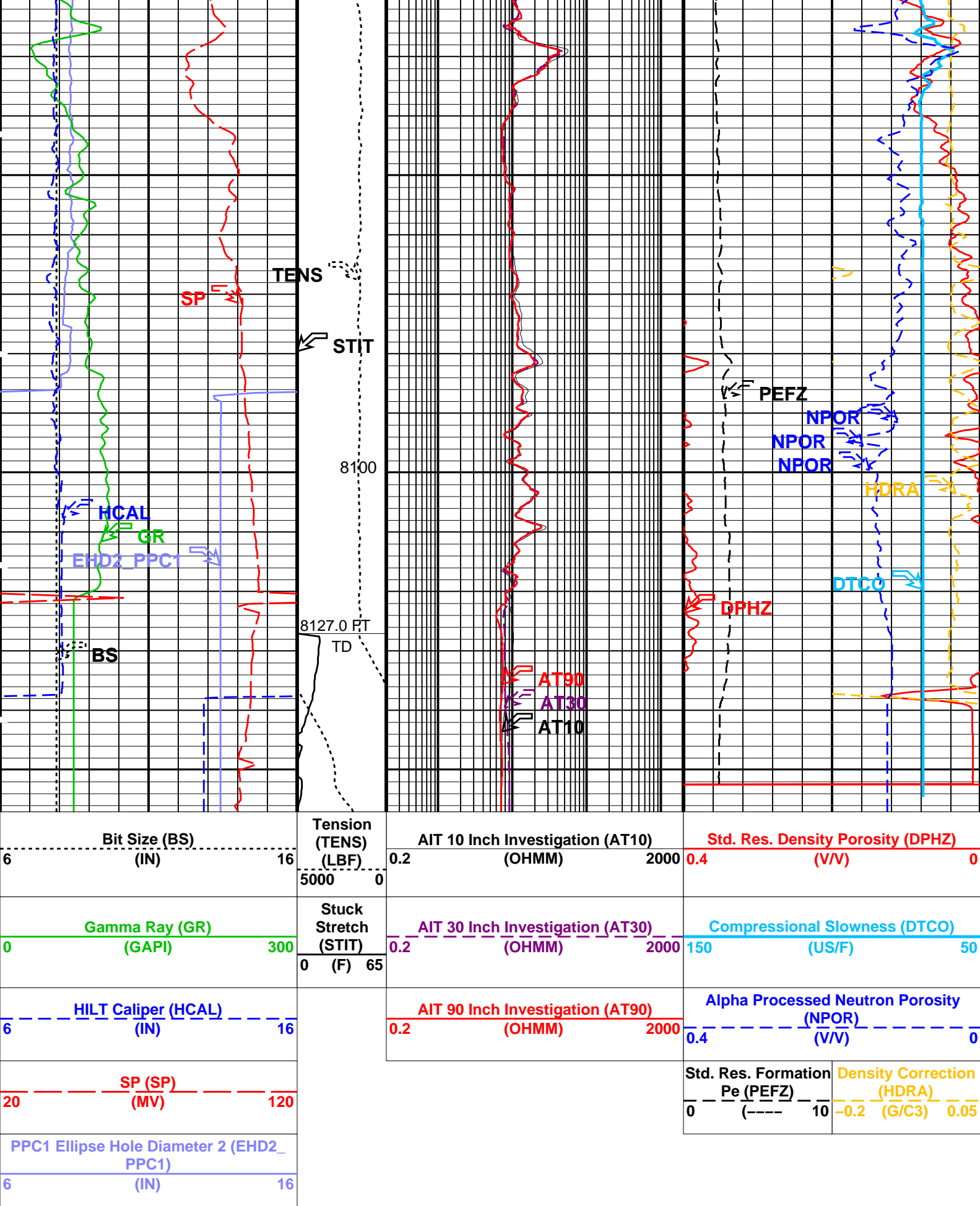












PIP SUMMARY

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)	205	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	SANDSTONE		
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)	205	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	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	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		
PPC1: Powered Positioning Device/Caliper 1				
	PPC1 Caliper Type	CAL_STD		
CLBD_PPC	PPC Calibration data selection	ROM		
MAPC–B: Multimode Array Sonic Power Cartridge				
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	205	DEGF	
BS	Bit Size	7.875	IN	
DCRMVL	DC Offset Removal Option	DC_MULTIPLE		
DLHS	Hole Diameter Source for SOBS Channel	AUTO		
DTCO_SELECT	Delta–T Compressional Selection for Finalization	MF		
DTF	Delta–T Fluid	204.5	US/F	
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	SANDSTONE		

MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
EDTC-B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	205	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
FSCO	Formation Salinity Correction 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	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
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	
DIR: Directional Survey Computation			
SPVD	TVD of Starting Point	0	FT
TIMD	Along-hole depth of Tie-in Point	0	FT
TIVD	TVD of Tie-in Point	0	FT
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)	205	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	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation - Real Time			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	205	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	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	8153.00	FT
TDL	Total Depth - Logger	8127.00	FT
System and Miscellaneous			
BSAL	Borehole Salinity	-50000.00	PPM
CWEI	Casing Weight	24.00	LB/F
DO	Depth Offset for Playback	1.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	300.00	FT
MST	Mud Sample Temperature	105.00	DEGF
PP	Playback Processing	OFF	
RMFS	Resistivity of Mud Filtrate Sample	1.1200	OHMM
TD	Total Depth	8127	FT

Format: COMBO Vertical Scale: 5" per 100' Graphics File Created: 22-Sep-2012 16:44

OP System Version: 19C1-222

AIT-M	19C1-222	HILTH-FTB	19C1-222
GPIT-F	19C1-222	PPC1	19C1-222
MAXS-B	19C1-222	MAPC-B	19C1-222
EDTC-B	19C1-222		

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_IS_021LUP FN:20 PRODUCER 22-Sep-2012 13:19 8155.5 FT 606.7 FT

Output DLIS Files

Schlumberger**REPEAT ANALYSIS**

MAXIS Field Log

Company: Encana Oil& Gas (USA) Inc

Well: Peppler Farms 4-2-4

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_IS_021LUP	FN:20	PRODUCER	22-Sep-2012 13:19	8155.5 FT	606.7 FT
DEFAULT	AIT_TLD_MCFL_CNL_IS_018PUP	FN:17	PRODUCER	22-Sep-2012 13:16	8146.5 FT	7731.5 FT

Output DLIS Files

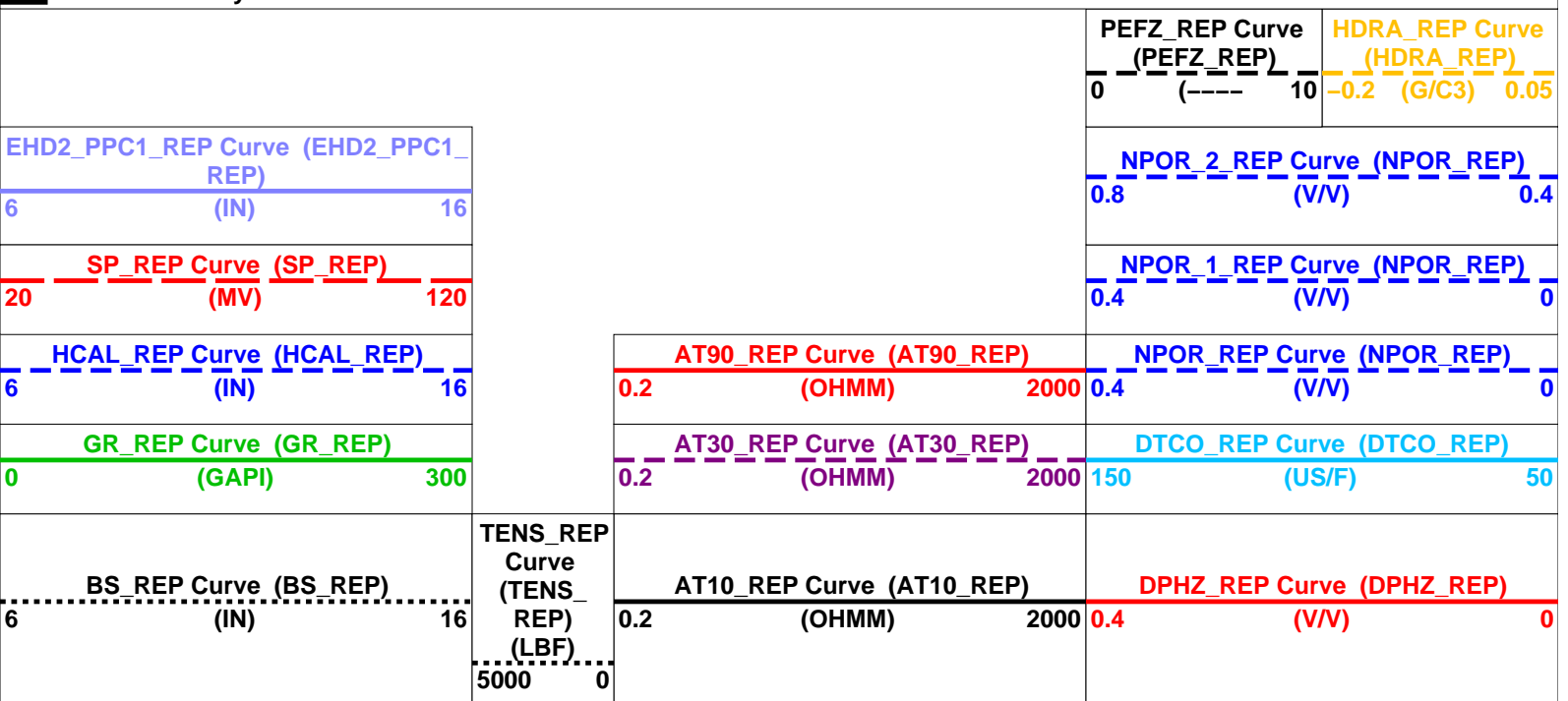
DEFAULT	AIT_TLD_MCFL_CNL_IS_031PUP	FN:30	PRODUCER	22-Sep-2012 16:44
---------	----------------------------	-------	----------	-------------------

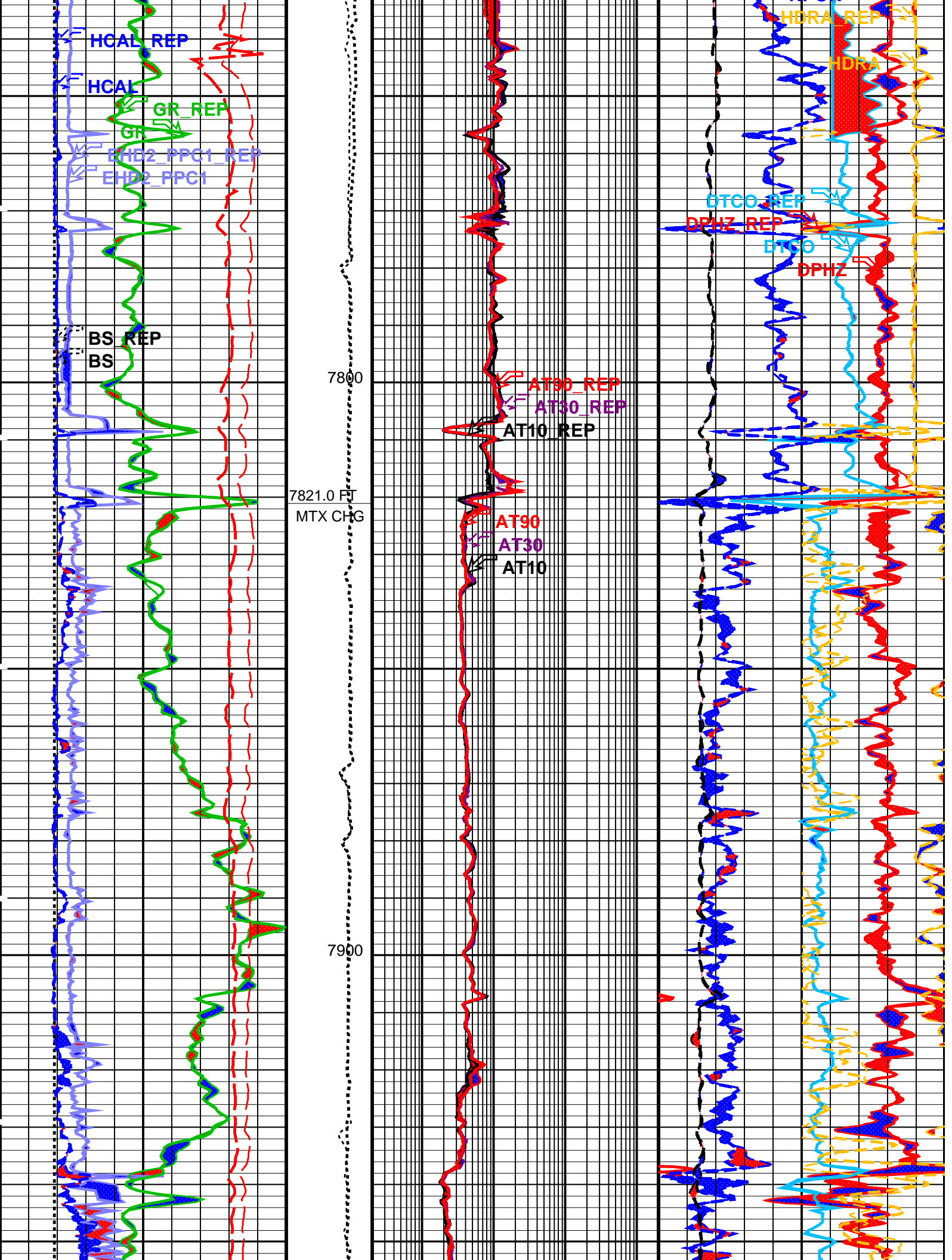
OP System Version: 19C1-222

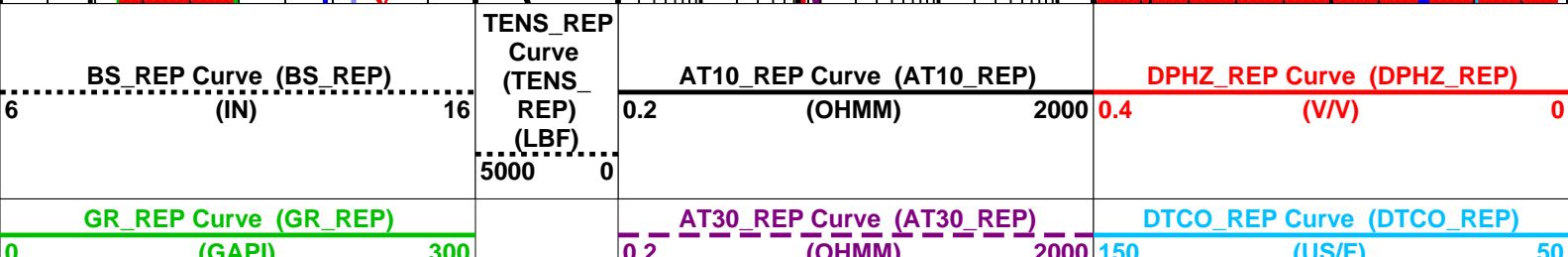
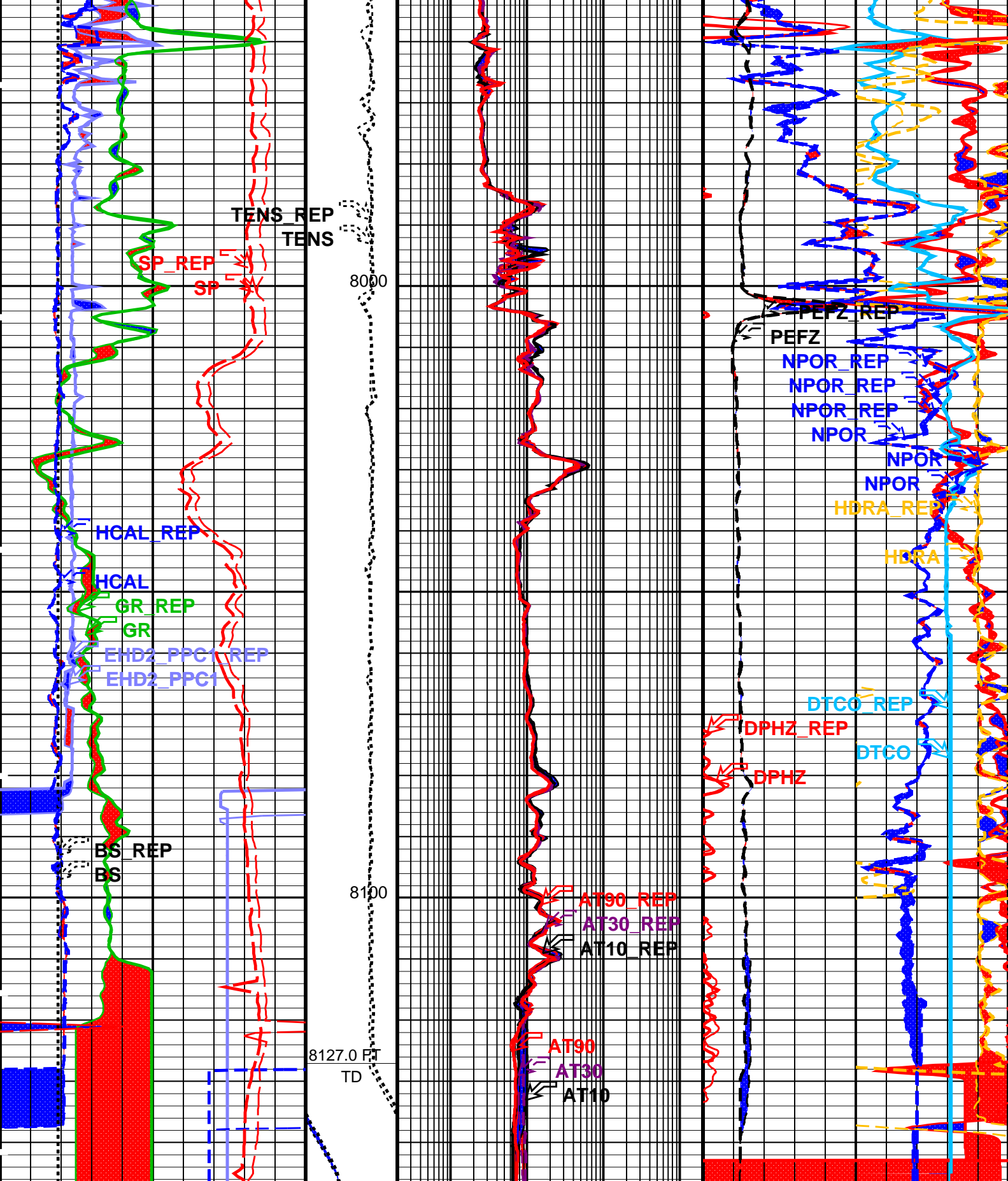
AIT-M	19C1-222	HILTH-FTB	19C1-222
GPIT-F	19C1-222	PPC1	19C1-222
MAXS-B	19C1-222	MAPC-B	19C1-222
EDTC-B	19C1-222		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
MATR	SANDSTONE	SANDSTONE	8157.0 16:44:58
MDEN	SANDSTONE	SANDSTONE	7821.0 16:45:13
	2.65 G/C3	2.65 G/C3	8157.0 16:44:58
	2.68 G/C3	2.65 G/C3	7821.0 16:45:13

PIP SUMMARY☒ Time Mark Every 60 S





NAAO	HRDD APC Activation Correction	NOBARITE	
NMT	HILT Nuclear Mud Type	StdRes	
NPRM	HRDD Processing Mode	1	IN
NSAR	HRDD Depth Sampling Rate	NO	
PTCO	Pressure/Temperature Correction Option	SOCN	
SDAT	Standoff Data Source	68	DEGF
SHT	Surface Hole Temperature	0.125	IN
SOCN	Standoff Distance	YES	
SOCO	Standoff Correction Option		
PPC1: Powered Positioning Device/Caliper 1			
	PPC1 Caliper Type	CAL_STD	
CLBD_PPC	PPC Calibration data selection	ROM	
MAPC-B: Multimode Array Sonic Power Cartridge			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	205	DEGF
BS	Bit Size	7.875	IN
DCRMVL	DC Offset Removal Option	DC_MULTIPLE	
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTCO_SELECT	Delta-T Compressional Selection for Finalization	MF	
DTF	Delta-T Fluid	204.5	US/F
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	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
EDTC-B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	205	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
FSCO	Formation Salinity Correction 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	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
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	
DIR: Directional Survey Computation			
SPVD	TVD of Starting Point	0	FT
TIMD	Along-hole depth of Tie-in Point	0	FT
TIVD	TVD of Tie-in Point	0	FT
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)	205	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	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation - Real Time			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	205	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	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
TDL	Total Depth - Logger	8127.00	FT
System and Miscellaneous			
BSAL	Borehole Salinity	-50000.00	PPM
CWEI	Casing Weight	24.00	LB/F
DO	Depth Offset for Playback	1.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT

FLEV	Fluid Level	300.00	FT
MST	Mud Sample Temperature	105.00	DEGF
PP	Playback Processing	OFF	
RMFS	Resistivity of Mud Filtrate Sample	1.1200	OHMM
TD	Total Depth	8127	FT

Format: COMBO_REP Vertical Scale: 5" per 100' Graphics File Created: 22-Sep-2012 16:44

OP System Version: 19C1-222

AIT-M	19C1-222	HILTH-FTB	19C1-222
GPIT-F	19C1-222	PPC1	19C1-222
MAXS-B	19C1-222	MAPC-B	19C1-222
EDTC-B	19C1-222		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_IS_021LUP	FN:20	PRODUCER	22-Sep-2012 13:19	8155.5 FT	606.7 FT
DEFAULT	AIT_TLD_MCFL_CNL_IS_018PUP	FN:17	PRODUCER	22-Sep-2012 13:16	8146.5 FT	7731.5 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_IS_031PUP	FN:30	PRODUCER	22-Sep-2012 16:44
---------	----------------------------	-------	----------	-------------------

Schlumberger

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: 15-Jul-2012 19:16 Before: 20-Sep-2012 13:30							
Thru Cal Magnitude – 0	0	0.6033	0.6062	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.234	1.241	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6147	0.6180	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.6930	0.6968	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.300	1.307	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.896	1.906	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.897	1.906	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.378	1.386	N/A	N/A	N/A	V
Thru Cal Phase – 0	0	194.3	194.8	N/A	N/A	N/A	DEG
Thru Cal Phase – 1	0	193.2	193.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 2	0	189.6	190.2	N/A	N/A	N/A	DEG
Thru Cal Phase – 3	0	188.9	189.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 4	0	182.8	183.3	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	181.1	181.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 6	0	181.1	181.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 7	0	180.1	180.7	N/A	N/A	N/A	DEG
Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Auxiliary							
Master: 15-Jul-2012 19:16 Before: 20-Sep-2012 13:30							
Array Induction SPA Plus	991.0	992.6	992.7	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.6386	0.6478	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9170	0.9194	0.9195	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	0.0006423	0.0006534	N/A	N/A	N/A	V
Array Induction Tool – M Wellsite Calibration – Test Loop Gain Correction							
Master: 15-Jul-2012 19:16							
Test Loop Gain Correctio – 0	0	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 1	0	1.013	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 2	0	1.016	N/A	N/A	N/A	N/A	V

Test Loop Gain Correctio – 2	0	1.018	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 3	0	1.009	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 4	0	1.002	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 5	0	0.9877	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 6	0	0.9969	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 7	0	1.008	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 0	0	0.5595	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 1	0	0.6066	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 2	0	-0.01398	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 3	0	0.1665	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 4	0	0.07510	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 5	0	-0.1712	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 6	0	0.2118	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 7	0	-0.1268	N/A	N/A	N/A	N/A	DEG

Array Induction Tool – M Wellsite Calibration – Sonde Error Correction

Master: 15-Jul-2012 19:16

R Sonde Error Correction – 0	0	-111.9	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	158.9	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	115.6	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	64.22	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	26.91	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	13.32	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	9.680	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	-2.031	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	-133.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	-138.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	-69.80	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	-61.65	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	2.367	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	-2.232	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	3.238	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	-0.8541	N/A	N/A	N/A	N/A	MM/M

Array Induction Tool – M Wellsite Calibration – Mud Gain Correction

Master: 15-Jul-2012 19:16

Coarse – Mag, Real, Imag – 0	0	0.8639	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 1	0	0.8639	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 2	0	0.8639	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 0	0	0.8718	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: 20-Sep-2012 13:32

BS Window Ratio	0.7499	N/A	0.7495	N/A	N/A	N/A	
BS Window Sum	25950	N/A	26230	N/A	N/A	N/A	CPS
SS Window Ratio	0.4795	N/A	0.4827	N/A	N/A	N/A	
SS Window Sum	10350	N/A	10320	N/A	N/A	N/A	CPS
LS Window Ratio	0.3019	N/A	0.3038	N/A	N/A	N/A	
LS Window Sum	1212	N/A	1209	N/A	N/A	N/A	CPS

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

Before: 20-Sep-2012 13:32

BS PM High Voltage (Command)	1618	N/A	1616	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1405	N/A	1410	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1210	N/A	1220	N/A	N/A	N/A	V

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

Before: 20-Sep-2012 13:32

BS Crystal Resolution	11.39	N/A	11.43	N/A	N/A	N/A	%
SS Crystal Resolution	9.837	N/A	9.950	N/A	N/A	N/A	%
LS Crystal Resolution	8.074	N/A	8.228	N/A	N/A	N/A	%

High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration

Before: 20-Sep-2012 13:33

Raw B0 Resistivity	3875	N/A	3881	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3816	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3820	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration

Before: 20-Sep-2012 13:30

HILT Caliper Zero Measurement	8.000	N/A	8.809	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	13.13	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration

Before: 20-Sep-2012 13:28























Gamma Ray Background	30.00	N/A	79.67	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	168.5	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement

Master: 10-Jul-2012 11:55 Before: 20-Sep-2012 13:29

CNTC Background	25.17	25.17	25.39	N/A	N/A	3.776	CPS
CFTC Background	28.42	28.42	28.16	N/A	N/A	4.263	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement							
Master: 10–Jul–2012 11:55							
Thermal Near Corr. (Tank)	5800	5227	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2158	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.422	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 21–Sep–2012 20:47							
Z–Axis Acceleration	32.19	N/A	32.06	N/A	N/A	N/A	F/S2
Powered Positioning Device/Caliper 1 Wellsite Calibration – PPC1 Caliper Calibration							
Before: 1–Jan–1970 0:00							
PPC1 Radius 1 Raw Small Radius	3.500	N/A	4.307	N/A	N/A	0.5000	IN
PPC1 Radius 1 Raw Large Radius	8.000	N/A	8.547	N/A	N/A	0.5000	IN
PPC1 Radius 2 Raw Small Radius	3.500	N/A	3.148	N/A	N/A	0.5000	IN
PPC1 Radius 2 Raw Large Radius	8.000	N/A	7.669	N/A	N/A	0.5000	IN
PPC1 Radius 3 Raw Small Radius	3.500	N/A	4.266	N/A	N/A	0.5000	IN
PPC1 Radius 3 Raw Large Radius	8.000	N/A	8.652	N/A	N/A	0.5000	IN
PPC1 Radius 4 Raw Small Radius	3.500	N/A	3.242	N/A	N/A	0.5000	IN
PPC1 Radius 4 Raw Large Radius	8.000	N/A	7.677	N/A	N/A	0.5000	IN
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 21–Sep–2012 20:47							
EDTC Z–Axis Acceleration	32.19	N/A	31.99	N/A	N/A	N/A	F/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: 20–Sep–2012 13:38							
Gamma Ray (Jig – Bkg)	145.8	N/A	145.8	N/A	N/A	13.26	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI
The GLS–VJ source activity is acceptable.							
The HGNS Neutron Master Calibration was done with the following parameters :							
NCT–B Water Temperature	71.8	DEGF.					
Thermal Housing Size	3.370	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	1270	
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	0.6033		0.6100	194.3		197.0
	Before	0.6062			194.8		
1	Master	1.234		1.270	193.2		196.0
	Before	1.241			193.7		
2	Master	0.6147		0.6200	189.6		192.0
	Before	0.6180			190.2		
3	Master	0.6930		0.7000	188.9		191.0
	Before	0.6968			189.4		
4	Master	1.300		1.340	182.8		185.0
	Before	1.307			183.3		
	Master	1.896			181.1		

5	Before	1.906		1.960	181.6		182.0
6	Master	1.897		1.960	181.1		181.0
	Before	1.906			181.6		
7	Master	1.378		1.410	180.1		175.0
	Before	1.386			180.7		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 15-Jul-2012 19:16				Before: 20-Sep-2012 13:30			



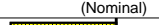
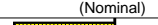
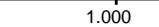

Array Induction Tool – M Wellsite Calibration							
Electronics Calibration Check – Auxiliary							
Phase	Array Induction SPA Plus MV		Value	Phase	Array Induction SPA Zero MV		Value
Master			992.6	Master			0.6386
Before			992.7	Before			0.6478
	941.0 (Minimum)	991.0 (Nominal)	1040 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
Phase	Array Induction Temperature Plus V		Value	Phase	Array Induction Temperature Zero V		Value
Master			0.9194	Master			0.0006423
Before			0.9195	Before			0.0006534
	0.8710 (Minimum)	0.9170 (Nominal)	0.9630 (Maximum)		-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)
Master: 15-Jul-2012 19:16				Before: 20-Sep-2012 13:30			

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	1.012			0.5595			
		0.9500 (Minimum)	1.000 (Nominal)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.013			0.6066			
		0.9500 (Minimum)	1.000 (Nominal)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.016			-0.01398			
		0.9500 (Minimum)	1.000 (Nominal)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.009			0.1665			
		0.9500 (Minimum)	1.000 (Nominal)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.002			0.07510			
		0.9500 (Minimum)	1.000 (Nominal)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9877			-0.1712			
		0.9500 (Minimum)	1.000 (Nominal)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9969			0.2118			
		0.9500 (Minimum)	1.000 (Nominal)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.008			-0.1268			
		0.9500 (Minimum)	1.000 (Nominal)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
Master: 15-Jul-2012 19:16							

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	-111.9			-133.0			
		-231.0 (Minimum)	-56.00 (Nominal)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	158.9			-138.5			
		114.0 (Minimum)	159.0 (Nominal)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	115.6			-69.80			

		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)			-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	64.22						-61.65		
		39.00 (Minimum)	64.00 (Nominal)	89.30 (Maximum)			-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	26.91						2.367		
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)			-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	13.32						-2.232		
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)			-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	9.680						3.238		
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)			-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-2.031						-0.8541		
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)			-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 15-Jul-2012 19:16

Array Induction Tool – M Wellsite Calibration								
Mud Gain Correction								
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag		
0	0.8639				0.8718			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	0.8639				0.8719			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.8639				0.8719			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 15-Jul-2012 19:16

High resolution Integrated Logging Tool–DTS / Equipment Identification				
Primary Equipment:				
HILT high-Resolution Mechanical Sonde	HRMS – H			
HILT Rxo Gamma-ray Device	HRGD – H			
HILT Micro Cylindrically Focused Log Dev	MCFL – H			
GR Logging Source	GLS – VJ	5240		
HILT High Res. Control Cartridge	HRCC – H			
HILT Gamma-Ray Neutron Sonde–DTS	HGNS – H			
HGNS Gamma-Ray Device	HGR –			
HGNS Neutron Detector with Alpha Source	HCNT – H			
Auxiliary Equipment:				
Neutron Calibration Tank	NCT – B			
Gamma Source Radioactive	GSR – U/Y			
HGNS Housing	HGNH –			




High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Stab Measurement Summary									
Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value
Before				0.7495	Before				0.4827
	0.7124 (Minimum)	0.7499 (Nominal)	0.7874 (Maximum)			0.4555 (Minimum)	0.4795 (Nominal)	0.5034 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value
Before				26230	Before				10320
	24660 (Minimum)	25950 (Nominal)	27250 (Maximum)			9834 (Minimum)	10350 (Nominal)	10870 (Maximum)	
Phase	LS Window Ratio			Value	Phase	LS Window Sum CPS			Value
Before				0.3038	Before				1209
	0.2868 (Minimum)	0.3019 (Nominal)	0.3170 (Maximum)			1151 (Minimum)	1212 (Nominal)	1272 (Maximum)	

Before: 20-Sep-2012 13:32




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				1616	Before				1410
					Before				1220

1518 (Minimum)	1618 (Nominal)	1718 (Maximum)	1305 (Minimum)	1405 (Nominal)	1505 (Maximum)	1110 (Minimum)	1210 (Nominal)	1310 (Maximum)
-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------	-------------------



Before: 20-Sep-2012 13:32

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			11.43	Before			9.950	Before			8.228
	10.39 (Minimum)	11.39 (Nominal)	12.39 (Maximum)		8.837 (Minimum)	9.837 (Nominal)	10.84 (Maximum)		7.074 (Minimum)	8.074 (Nominal)	9.074 (Maximum)
Before: 20-Sep-2012 13:32											



Before: 20-Sep-2012 13:32

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				3881	Before				3816	Before				3820
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		
Before: 20-Sep-2012 13:33														





Before: 20-Sep-2012 13:33

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			8.809	Before			13.13
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 20-Sep-2012 13:30							

Before: 20-Sep-2012 13:30




High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Detector Calibration							
Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig – Bkgd) GAPI		Value
Before			79.67	Before			168.5
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		157.1 (Minimum)	165.0 (Nominal)	206.3 (Maximum)
Before: 20-Sep-2012 13:28							

Before: 20-Sep-2012 13:28


High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				25.17	Master				28.42
Before				25.39	Before				28.16
5.000 (Minimum) 25.17 (Nominal) 40.00 (Maximum)					5.000 (Minimum) 28.42 (Nominal) 40.00 (Maximum)				
Master: 10–Jul–2012 11:55					Before: 20–Sep–2012 13:29				

Master: 10-Jul-2012 11:55

Before: 20-Sep-2012 13:29

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				5227	Master				2158	Master				2.422
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)			2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	
Master: 10-Jul-2012 11:55														

Master: 10-Jul-2012 11:55

High resolution Integrated Logging Tool-DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z-Axis Acceleration F/S2	Value
Before		32.06
	31.53 (Minimum)	32.19 (Nominal)
		32.84 (Maximum)
Before: 21-Sep-2012 20:47		

Before: 21-Sep-2012 20:47

General Purpose Incliner / Equipment Identification

Primary Equipment:

Primary Equipment:
GPIT Cartridge – F

GPIC – F

Auxiliary Equipment:
GPIT Housing – F

GPIH – B

Powered Positioning Device/Caliper 1 / Equipment Identification

Primary Equipment:

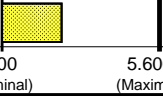

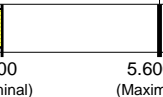
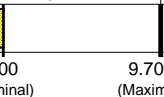
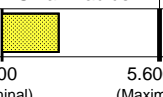
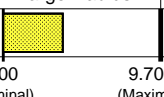
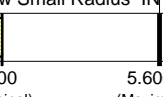
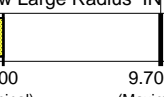
PPC Powered Positioning Device/Caliper
PPC1 Caliper Standard

PPC1 – B
PPC_ –

Auxiliary Equipment:

Powered Positioning Device/Caliper 1 Wellsite Calibration

PPC1 Caliper Calibration

Phase	PPC1 Radius 1 Raw Small Radius IN	Value	Phase	PPC1 Radius 1 Raw Large Radius IN	Value
Before		4.307	Before		8.547
	1.200 (Minimum) 3.500 (Nominal) 5.600 (Maximum)			6.100 (Minimum) 8.000 (Nominal) 9.700 (Maximum)	
Phase	PPC1 Radius 2 Raw Small Radius IN	Value	Phase	PPC1 Radius 2 Raw Large Radius IN	Value
Before		3.148	Before		7.669
	1.200 (Minimum) 3.500 (Nominal) 5.600 (Maximum)			6.100 (Minimum) 8.000 (Nominal) 9.700 (Maximum)	
Phase	PPC1 Radius 3 Raw Small Radius IN	Value	Phase	PPC1 Radius 3 Raw Large Radius IN	Value
Before		4.266	Before		8.652
	1.200 (Minimum) 3.500 (Nominal) 5.600 (Maximum)			6.100 (Minimum) 8.000 (Nominal) 9.700 (Maximum)	
Phase	PPC1 Radius 4 Raw Small Radius IN	Value	Phase	PPC1 Radius 4 Raw Large Radius IN	Value
Before		3.242	Before		7.677
	1.200 (Minimum) 3.500 (Nominal) 5.600 (Maximum)			6.100 (Minimum) 8.000 (Nominal) 9.700 (Maximum)	

Before: 1-Jan-1970 0:00

Multimode Array Sonic Power Cartridge / Equipment Identification

Primary Equipment:

Multimode Array Sonic Minimum Service So
Multimode Array Sonic Control Cartridge

MAMS – BA
MAPC – BA

Auxiliary Equipment:

Electronics Cartridge Housing

ECH – SF

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:

EDTC Gamma Ray Detector
Enhanced DTS Cartridge

EDTG – A/B
EDTC – B

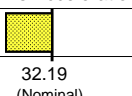
Auxiliary Equipment:

EDTC Housing

EDTH – B

Enhanced DTS Cartridge Wellsite Calibration


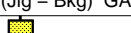
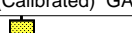
EDTC Accelerometer Calibration

Phase	EDTC Z-Axis Acceleration F/S2	Value
Before		31.99
	31.53 (Minimum) 32.19 (Nominal) 32.84 (Maximum)	

Before: 21-Sep-2012 20:47

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig – Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
								

Before				Before			Before		
0	30.00	120.0	73.97	132.6	145.8	159.1	150.0	165.0	165.0
(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)	(Minimum)	(Nominal)	(Maximum)
Before: 20-Sep-2012 13:38									

Company:	Encana Oil& Gas (USA) Inc	Schlumberger
Well:	Peppler Farms 4-2-4	
Field:	Wattenberg	
County:	Weld	
State:	Colorado	
	Platform Express	
	Triple Combo	