

Company: Kerr McGee Oil & Gas Onshore LP

Well: Sickler 26C-34HZ

Field: Wattenberg

County: Weld State: CO

Platform Express
Triple Combo
PEX-AIT

County: Weld
Field: Wattenberg
Location: SWSE: Sec.34, T2N, R76W
Well: Sickler 26C-34HZ
Company: Kerr McGee Oil & Gas Onshore LP

Location:		
SWSE: Sec.34, T2N, R76W	Elev.:	K.B. 4965.00 ft
SHL: 417' FSL & 1425' FEL		G.L. 4949.00 ft
Lat: 40.088654/Long:-104.872765		D.F. 4964.00 ft
Permanent Datum:	Ground Level	Elev.: 4949.00 f
Log Measured From:	Kelly Bushing	16.00 ft above Perm.Datum
Drilling Measured From:	Kelly Bushing	
API Serial No.	Section: 34	Township: 2N
05-123-39379-0000		Range: 67W

Logging Date	30-Jul-2014	
Run Number	RUN 1	
Depth Driller	7260.00 ft	
Schlumberger Depth	7260.00 ft	
Bottom Log Interval	4385.00 ft	
Top Log Interval	0.00 ft	
Casing Driller Size @ Depth	9.625 in @ 1280.00 ft	
Casing Schlumberger	1281.5 ft	
Bit Size	8.75 in	
Type Fluid In Hole	Water Based Mud	
Density	10.2 lbm/gal	46 s
Fluid Loss	PH 4.6 cm3	9.2
Source of Sample	Active Tank	
RM @ Meas Temp	1.33 ohm.m @ 75 degF	
RMF @ Meas Temp	1.15 ohm.m @ 75 degF	
RMC @ Meas Temp	1.17 ohm.m @ 75 degF	
Source RMF	RMC Calculated	
RM @ BHT	0.68 @ 152 0.59 @ 152	
Max Recorded Temperatures	152 degF	
Circulation Stopped	29-Jul-2014 19:30:00	
Logger on Bottom	30-Jul-2014 04:00:00	
Unit Number	Location: 2135	Fort Morgan, CO
Recorded By	Nolan Welsh	
Witnessed By	Joe Wallen	

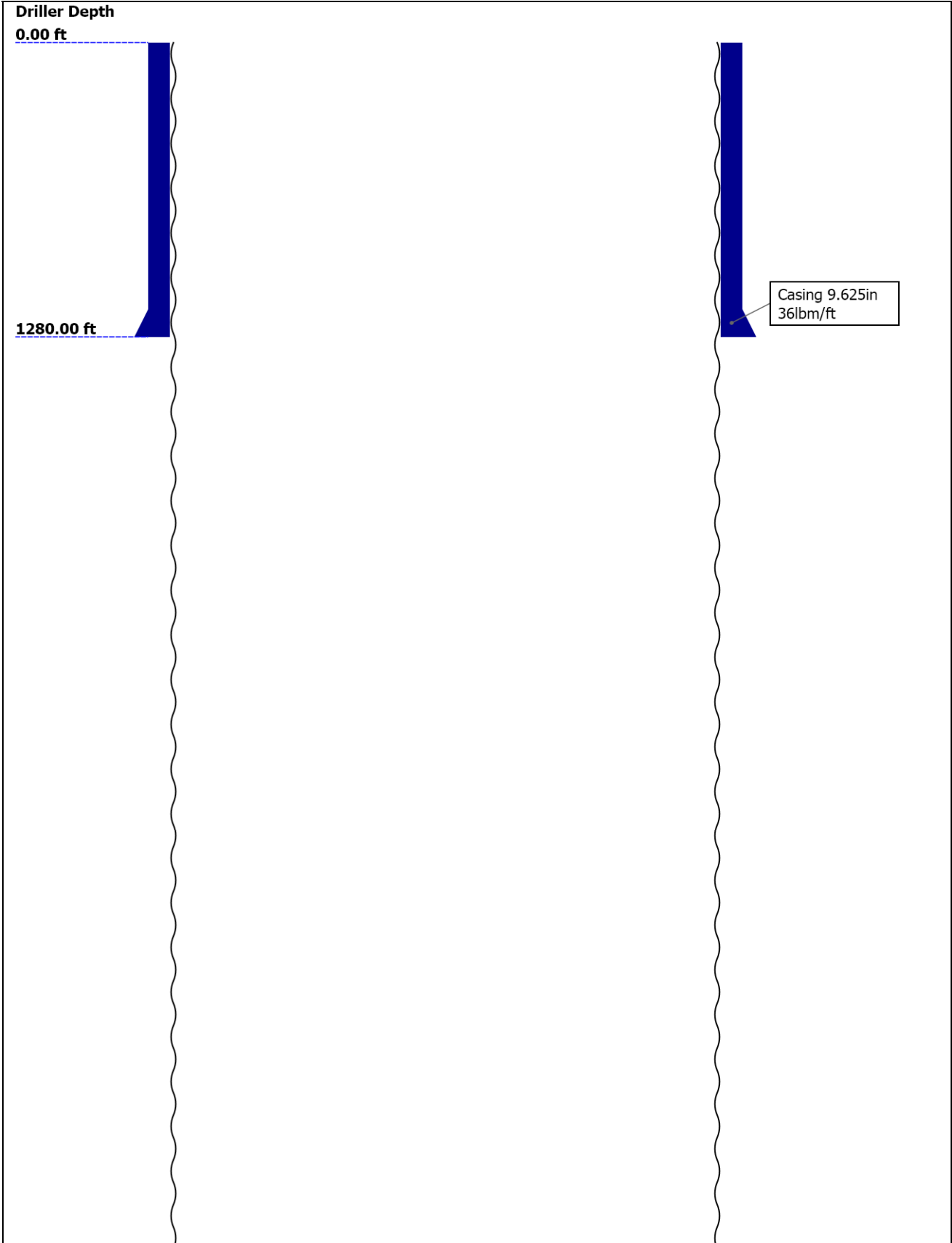
Disclaimer

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Well Sketch





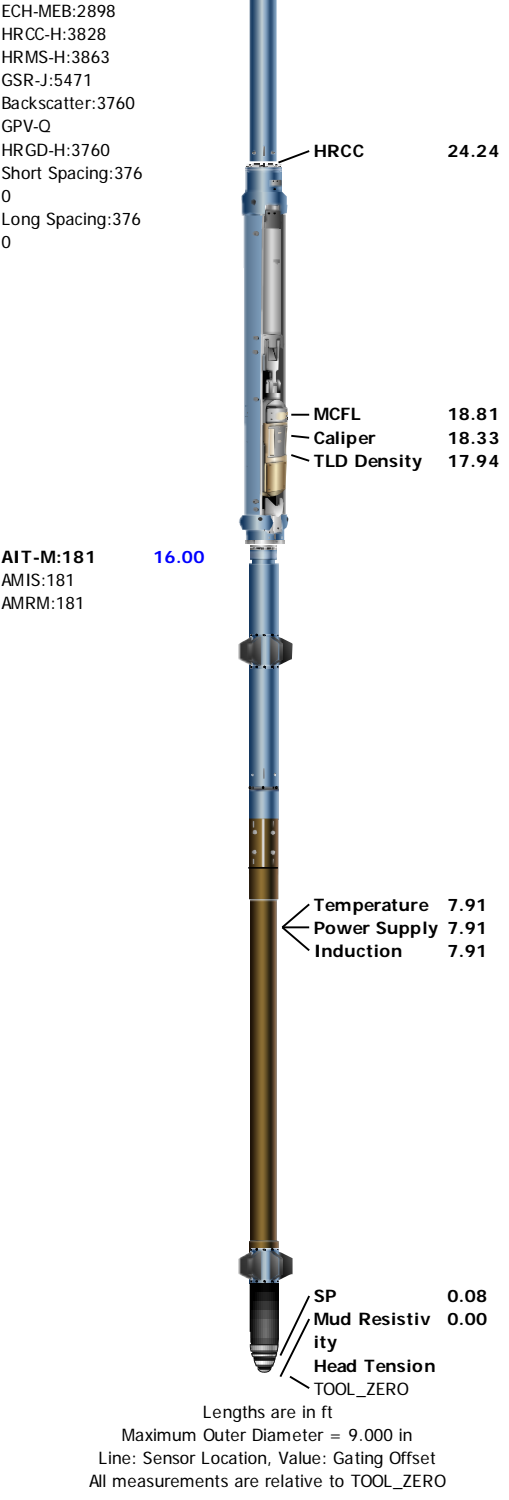
Borehole Size/Casing/Tubing Record						
------------------------------------	--	--	--	--	--	--

Bit						
Bit Size (in)	8.75					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	7260					
Bottom Logger (ft)	7260					
Casing						
Size (in)	9.625					
Weight (lbm/ft)	36					
Inner Diameter (in)	8.921					
Grade	J55					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	1280					
Bottom Logger (ft)	1281.5					

Operational Run Summary						
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Parameter (unit)	RUN 1					
Date Log Started	30-Jul-2014					
Time Log Started	01:58:04					
Date Log Finished	30-Jul-2014					
Time Log Finished	05:50:36					
Top Log Interval (ft)	0.00					
Bottom Log Interval (ft)	4385.00					
Total Depth (ft)	7260.00					
Max Hole Deviation (deg)	22.56					
Azimuth of Max Deviation (deg)	129.50					
Bit Size (in)	8.750					
Logging Unit Number	2135					
Logging Unit Location	Fort Morgan, CO					
Recorded By	Nolan Welsh					
Witnessed By	Joe Wallen					
Service Order Number	CXPX-00020					

Service Order Number	CATX-00020					
Borehole Fluids						
Parameter(unit)	RUN 1					
Fluid Type	Water					
Fluid Name	Water Based Mud					
Max Recorded Temperatures (degF)	152					
Source of Sample	Active Tank					
Salinity (ppm)	3600					
Density (lbm/gal)	10.2					
Funnel Viscosity (s)	46					
Fluid Loss (cm3)	4.6					
PH	9.2					
Date/Time Circulation Stopped	29-Jul-2014 19:30:00					
Date Logger on Bottom	30-Jul-2014					
Time Logger on Bottom	04:00:00					
Source RMF	Calculated					
RMC	Calculated					
RM @ Meas Temp (ohm.m@degF)	1.33 @ 75					
RMF @ Meas Temp (ohm.m@degF)	1.15 @ 75					
RMC @ Meas Temp (ohm.m@degF)	1.17 @ 75					
RM @ BHT (ohm.m@degF)	0.68 @ 152					
RMF @ BHT (ohm.m@degF)	0.59 @ 152					
RMC @ BHT (ohm.m@degF)	0.6 @ 152					
Total Solid (%)						
High Gravity Solids (%)						
Remarks and Equipment Summary						
RUN 1: Toolstring				RUN 1: Remarks		
Equip name	Length	MP name	Offset	Toolstring run as per tool sketch.		
LEH-QT:2109	43.57			Tool could not reach TD due to wellbore deviation.		
LEH-QT:2109				Logging interval from 4835 to casing shoe as per client request		
DTC-H:8906	40.65			GR logged to surface.		
ECH-KC:9984		CTEM	39.75	Rig: Extreme #6		
DTC-H:8906		HV	0.00	Crew: Nolan Welsh, Alonzo Carrera, Jeff Schossow		
		ToolStatus	37.65			
		TelStatus	37.65			
		Temperature	37.62			
HGNS-H:4865	37.65					
HGNH:4817						
NPV-N		GR	36.91			
NSR-F:2554						
HGNS-H:4865						
HMCA-H						
HACCZ-H:6991						
		CNL Porosity	30.57			
		HMCA	28.24			
		HGNS	28.24			
		Acceleromete	0.00			
		r				
HDRS-H:3863	28.24					



Depth Summary

RUN 1

Depth Measuring Device

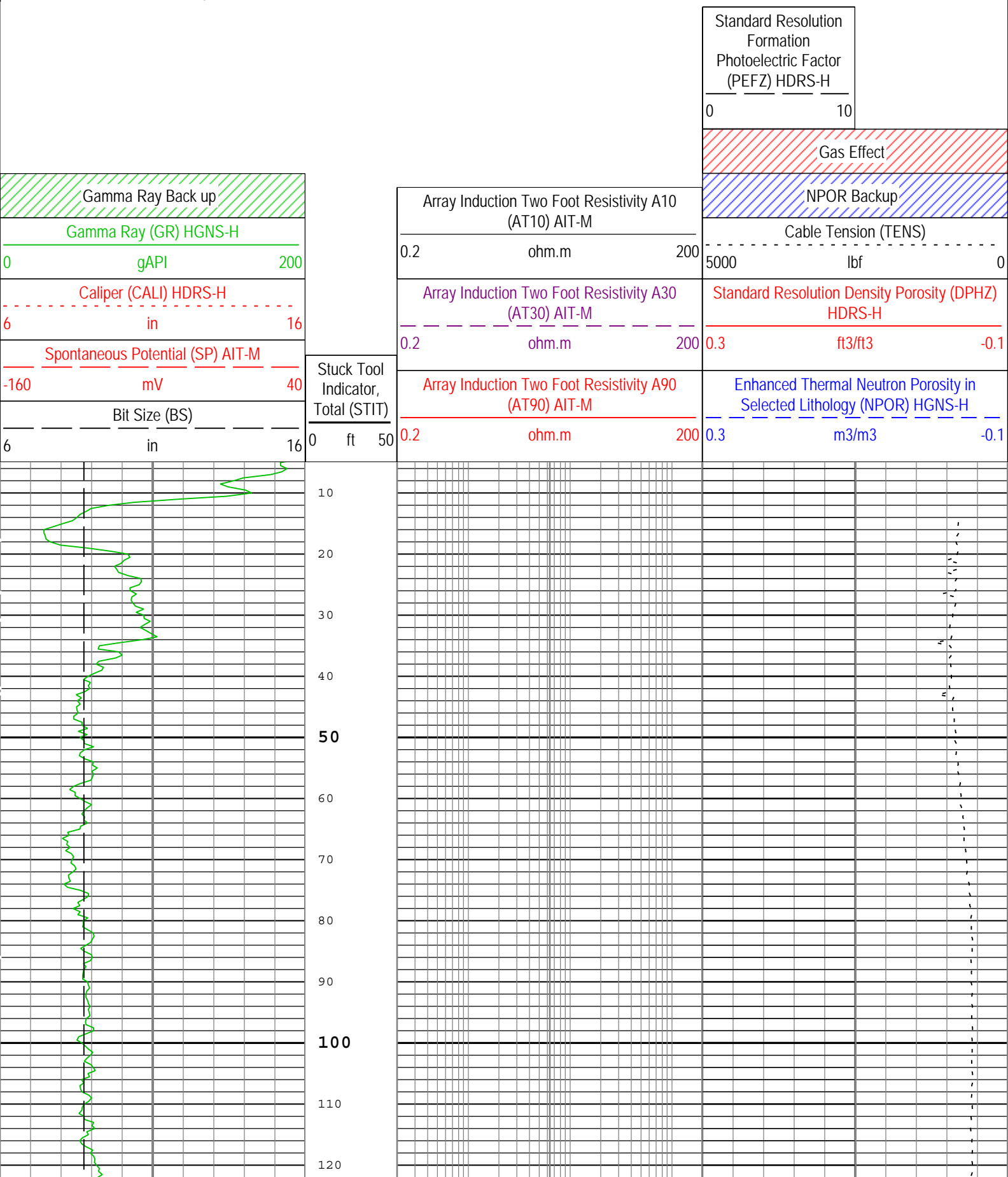
Type	IDW-B		
Serial Number	5916		
Calibration Date	24-MAR-2014		
Calibrator Serial Number			
Calibration Cable Type	7-46P XS		
Wheel Correction 1	-6		
Wheel Correction 2	-3		

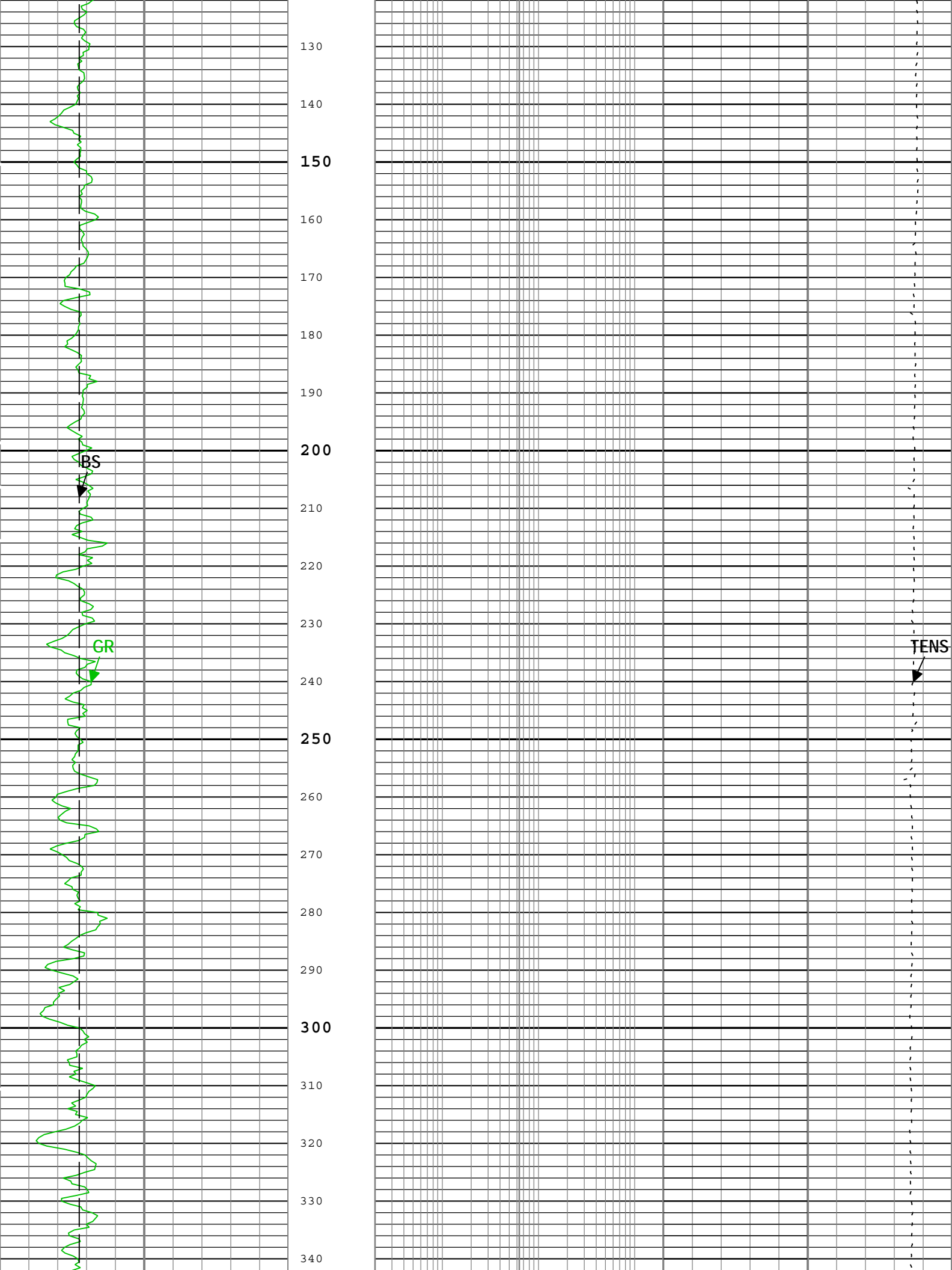
Tension Device

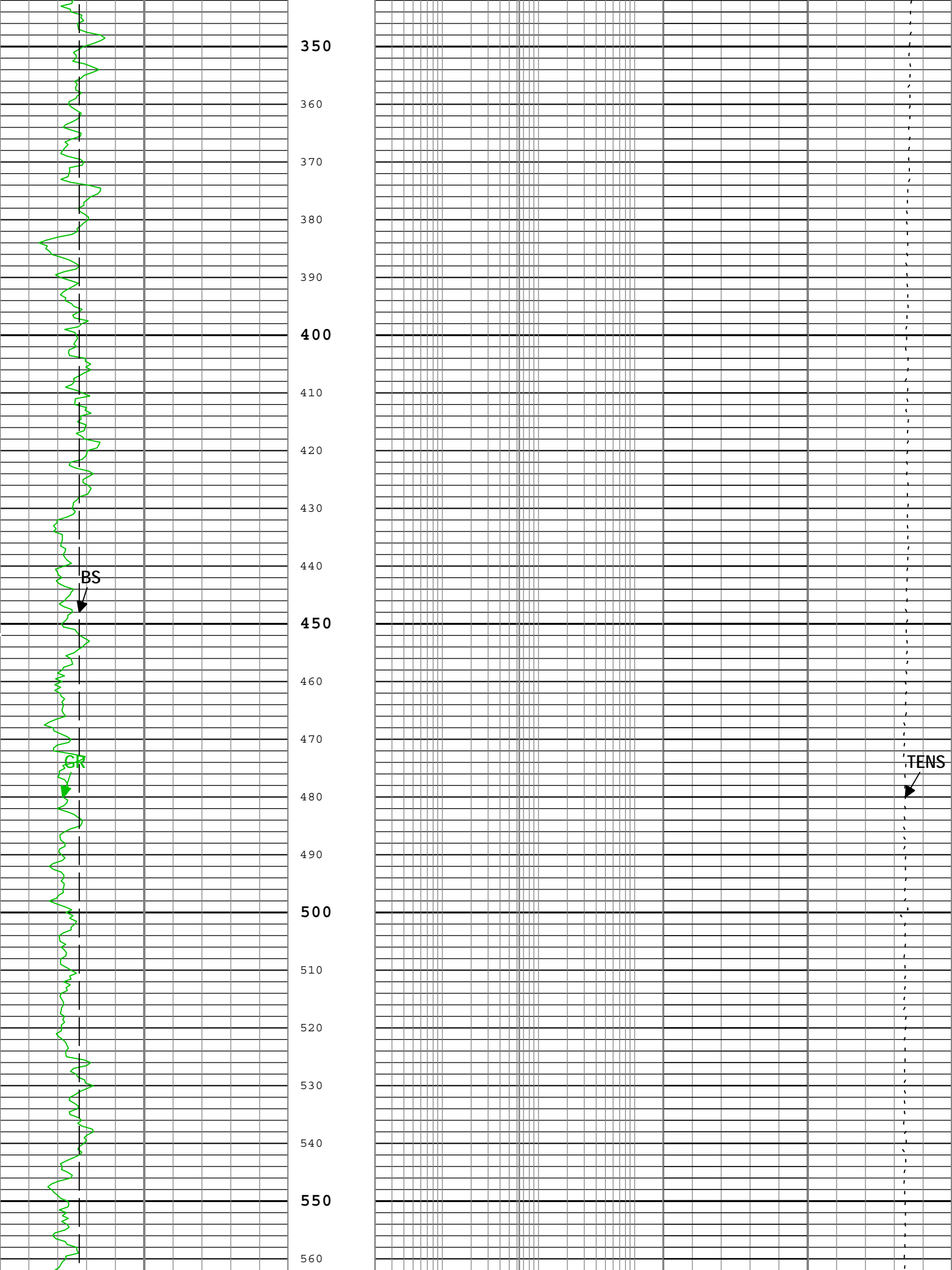
Type	CMTD-B/A		
Serial Number	1919		
Calibration Date	28-Jul-2014		
Calibrator Serial Number	78135A		

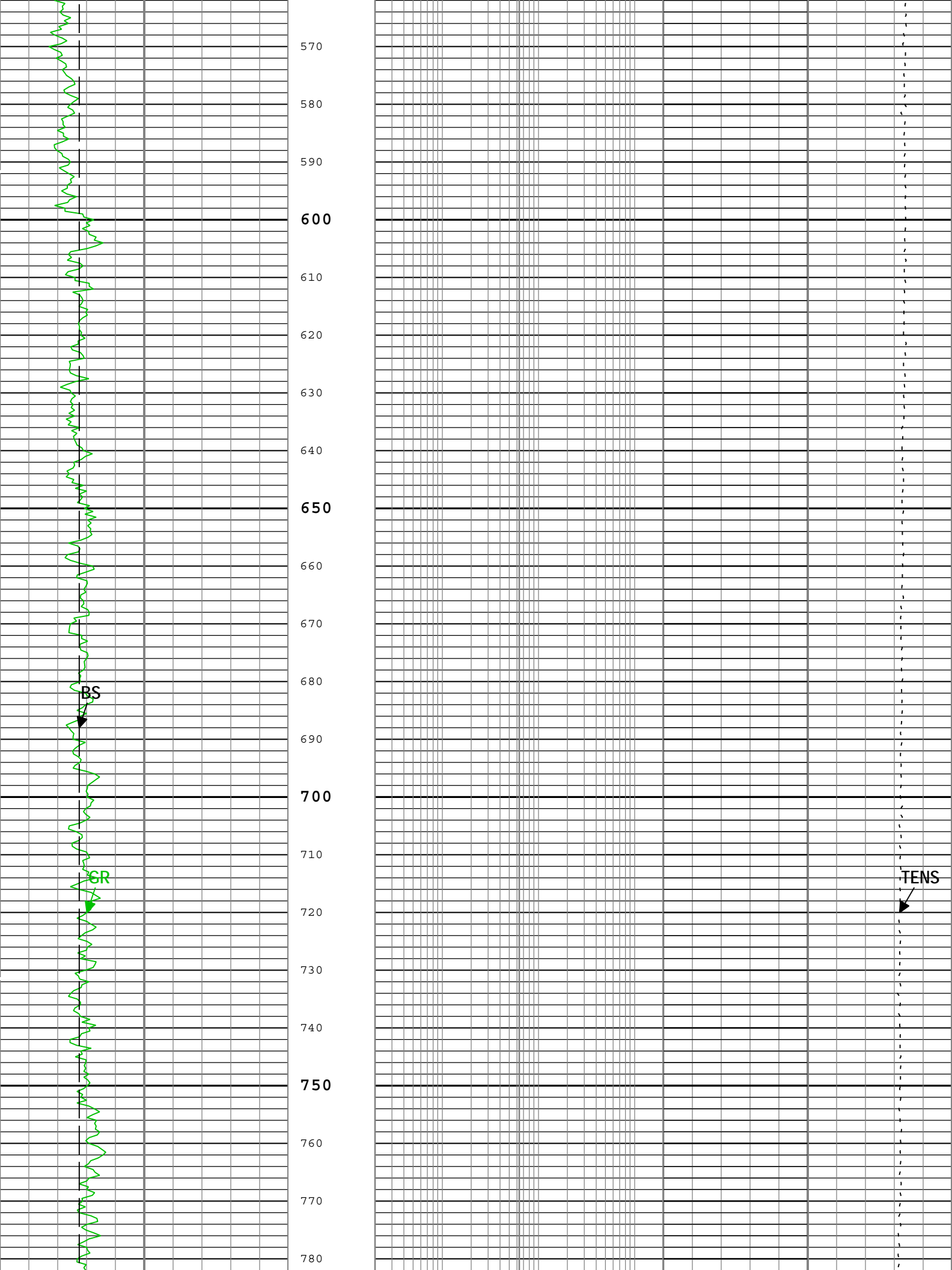
Channel	Source	Sampling
AT10	AIT-M:AMIS:AMIS	3in
AT30	AIT-M:AMIS:AMIS	3in
AT90	AIT-M:AMIS:AMIS	3in
BS	Borehole	6in
CALI	HDRS-H:HRCC-H:HRCC-H	1in
DPHZ	HDRS-H:HRMS-H:HRGD-H	2in
GR	HGNS-H:HGNS-H:HGNS-H	6in
NPOR	HGNS-H:HGNS-H:HGNS-H	6in

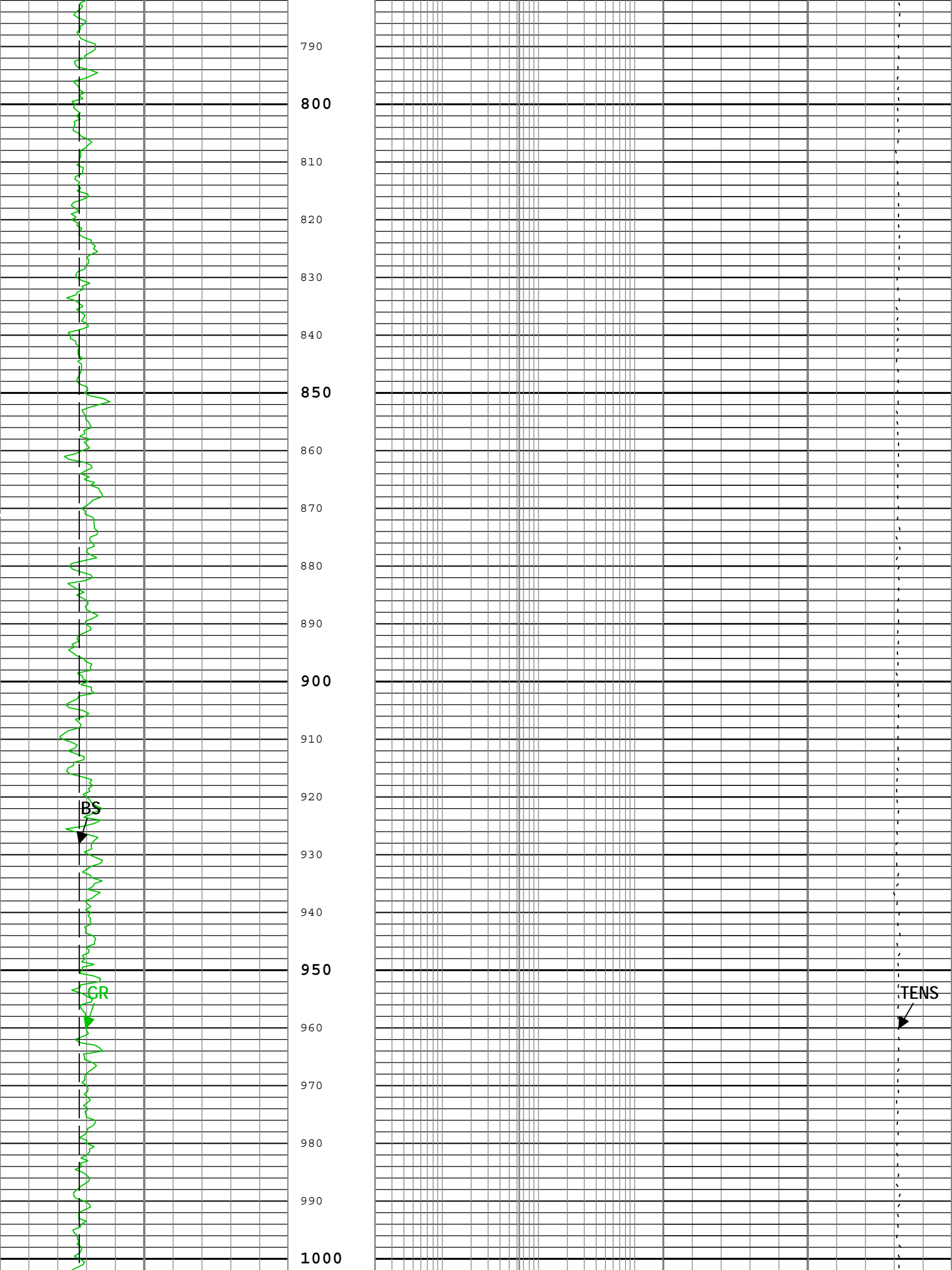
TIME_1900 - Time Marked every 60.00 (s)

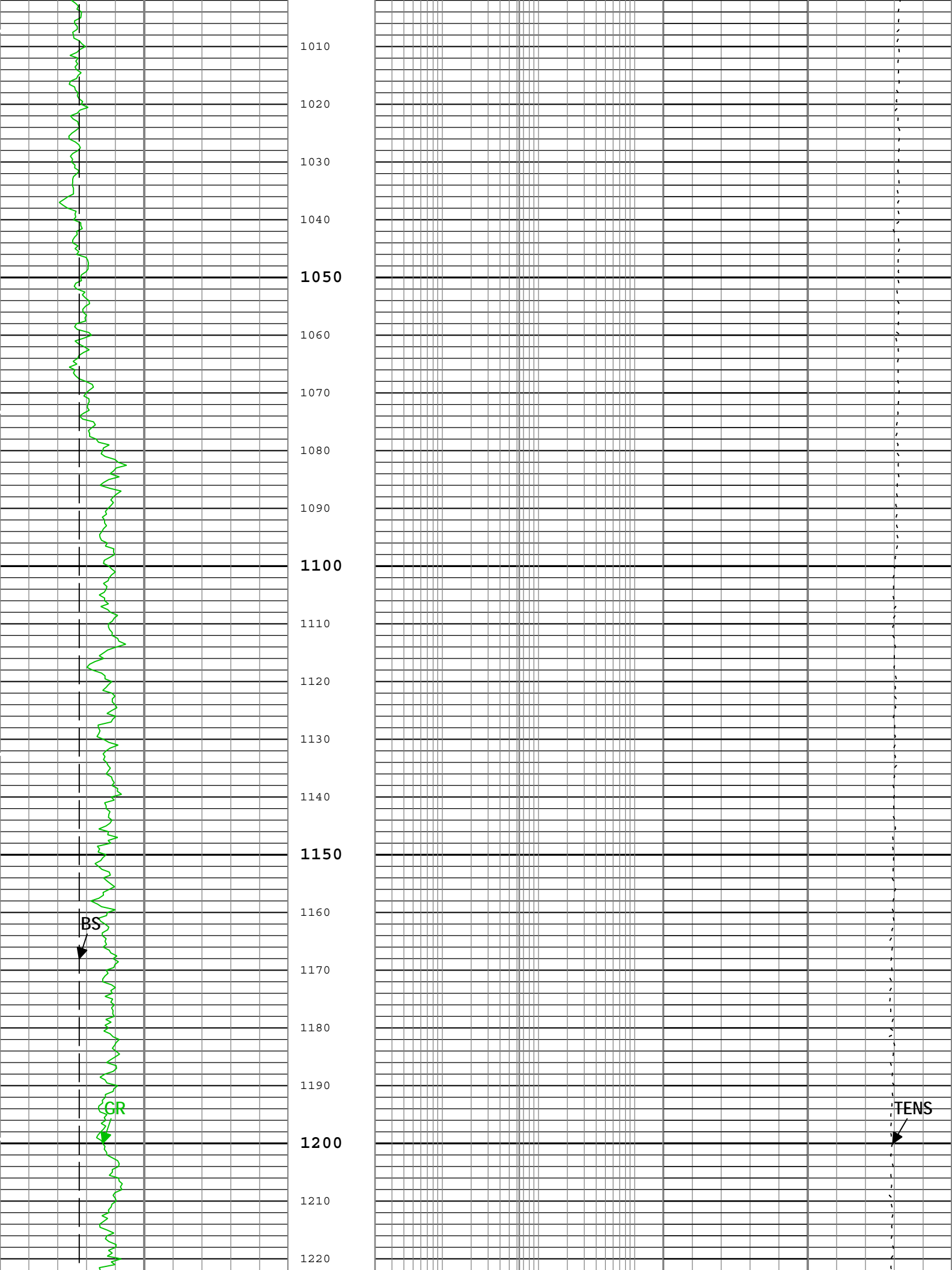


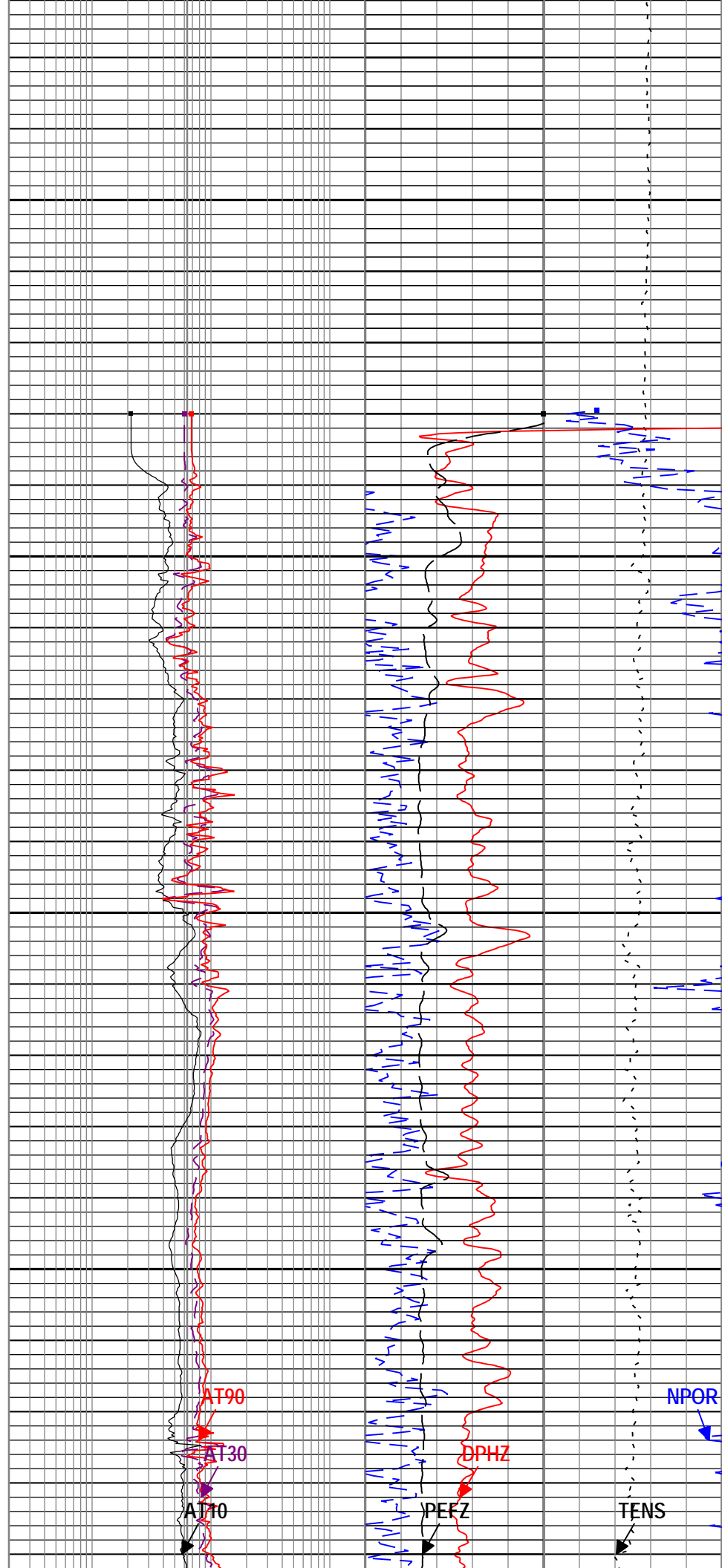
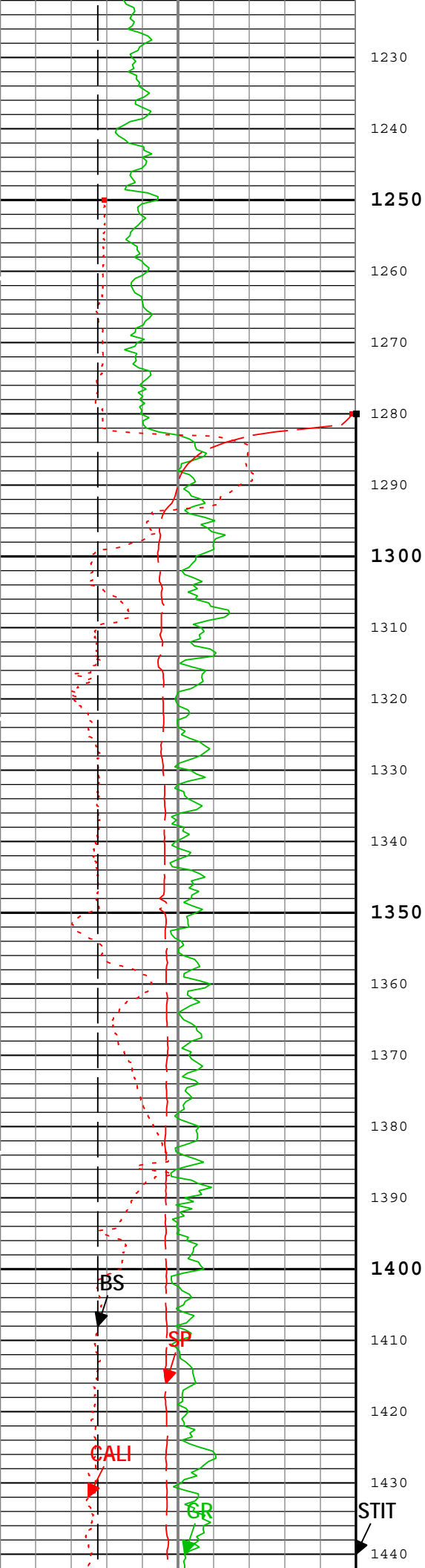


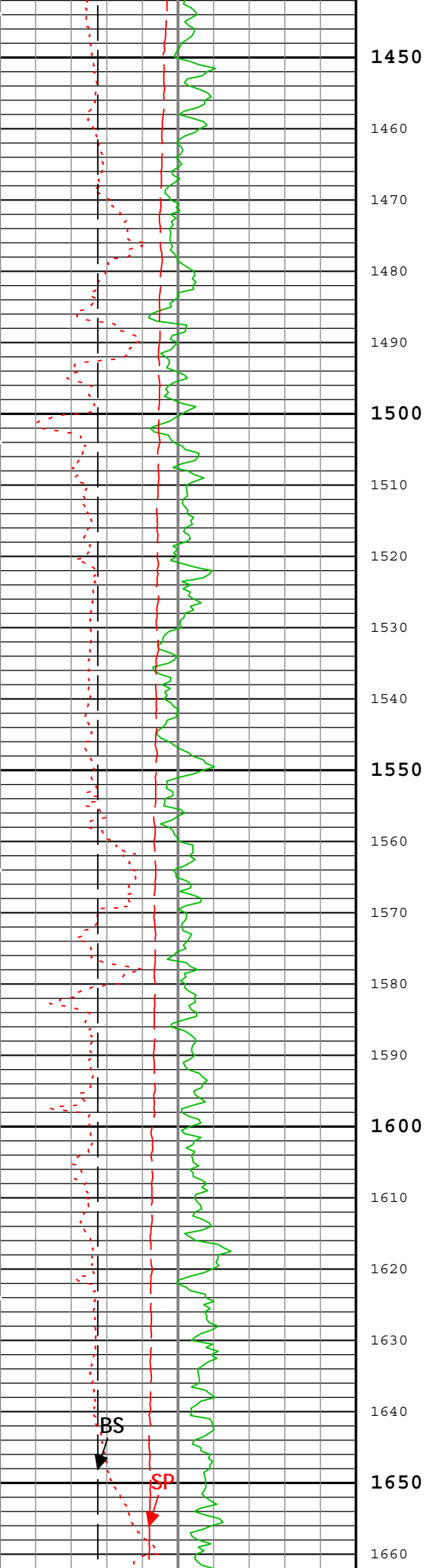












1450

1460

1470

1480

1490

1500

1510

1520

1530

1540

1550

1560

1570

1580

1590

1600

1610

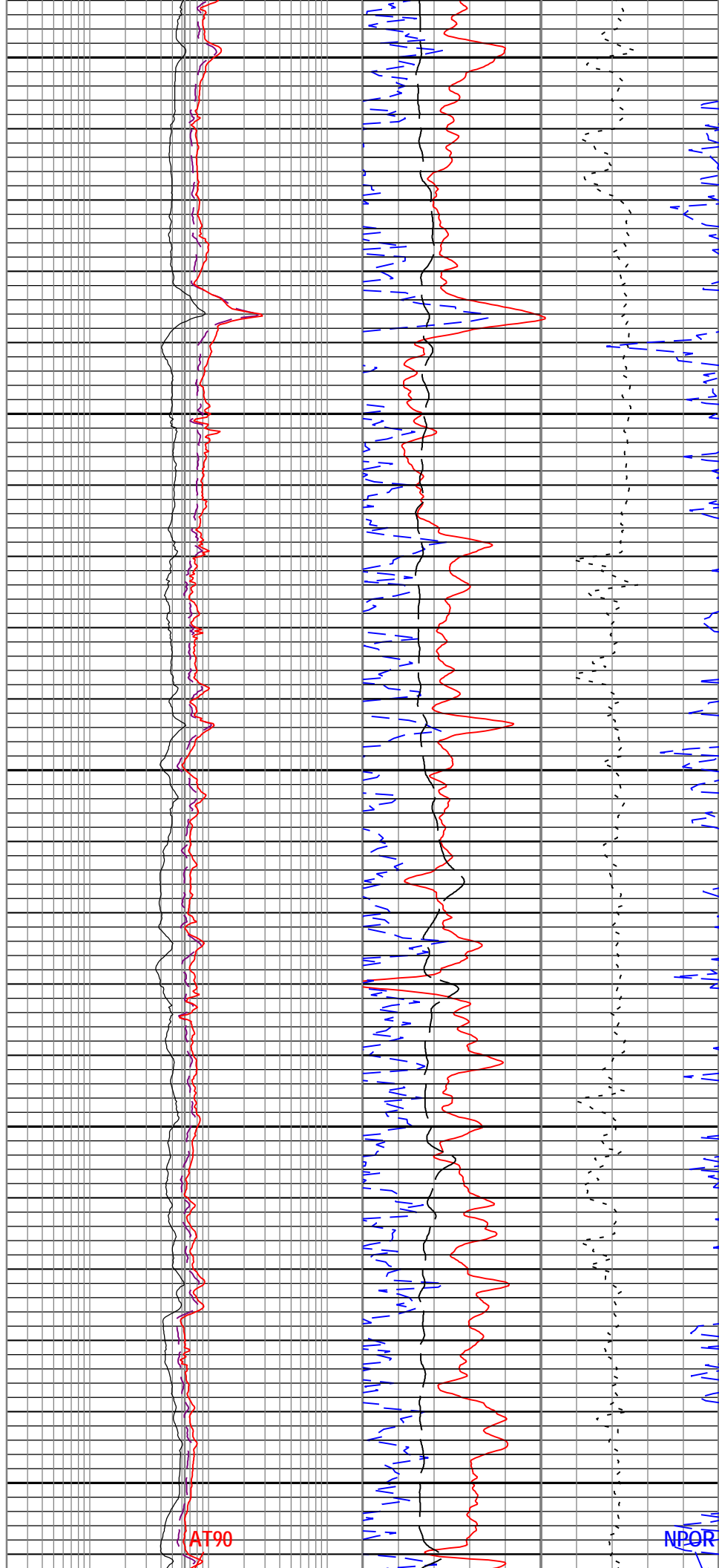
1620

1630

1640

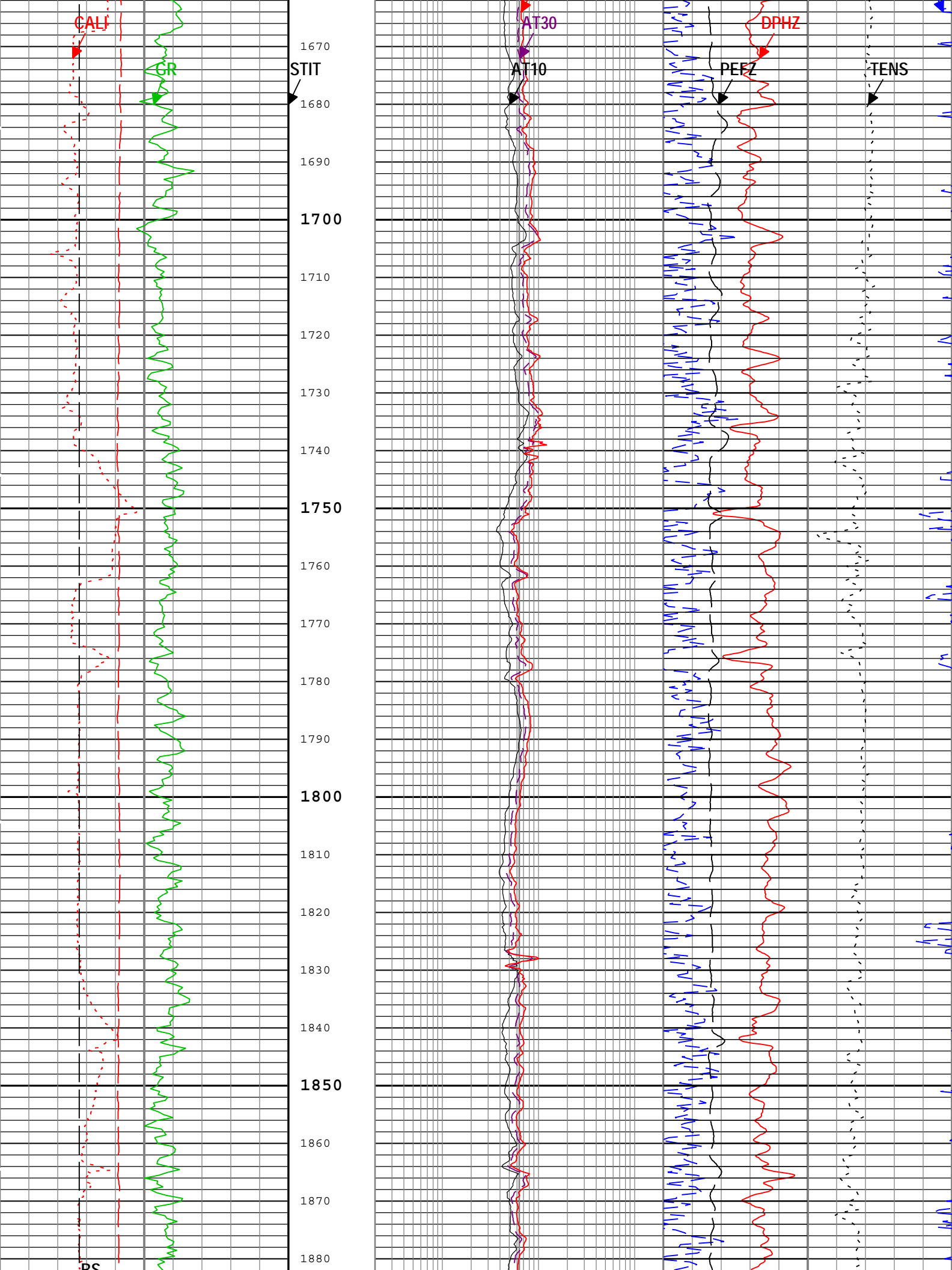
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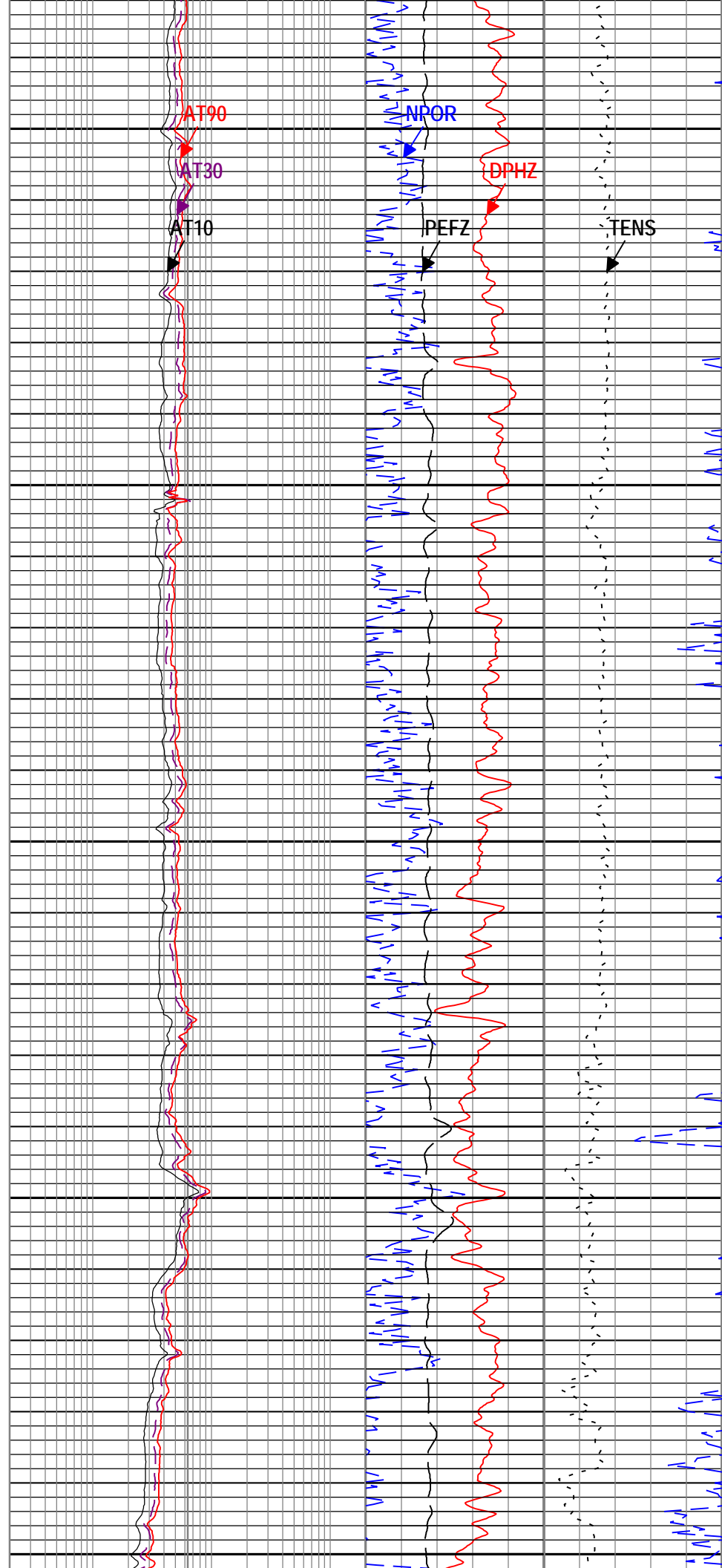
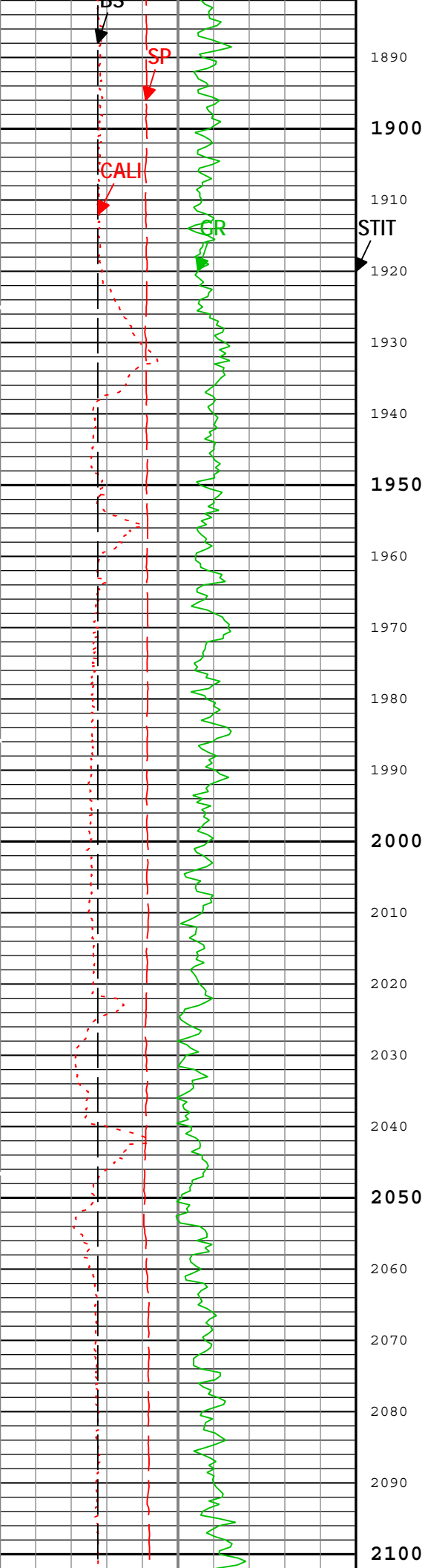
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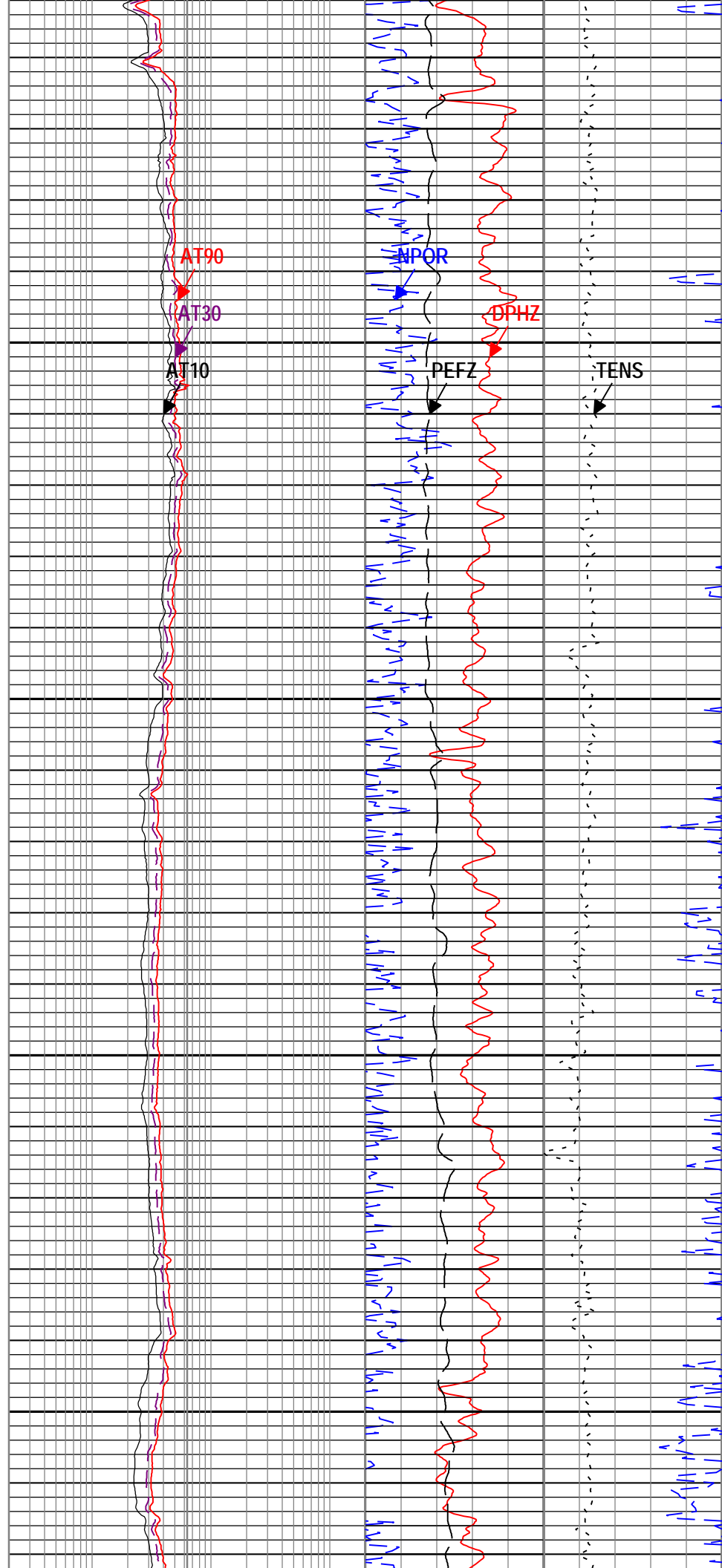
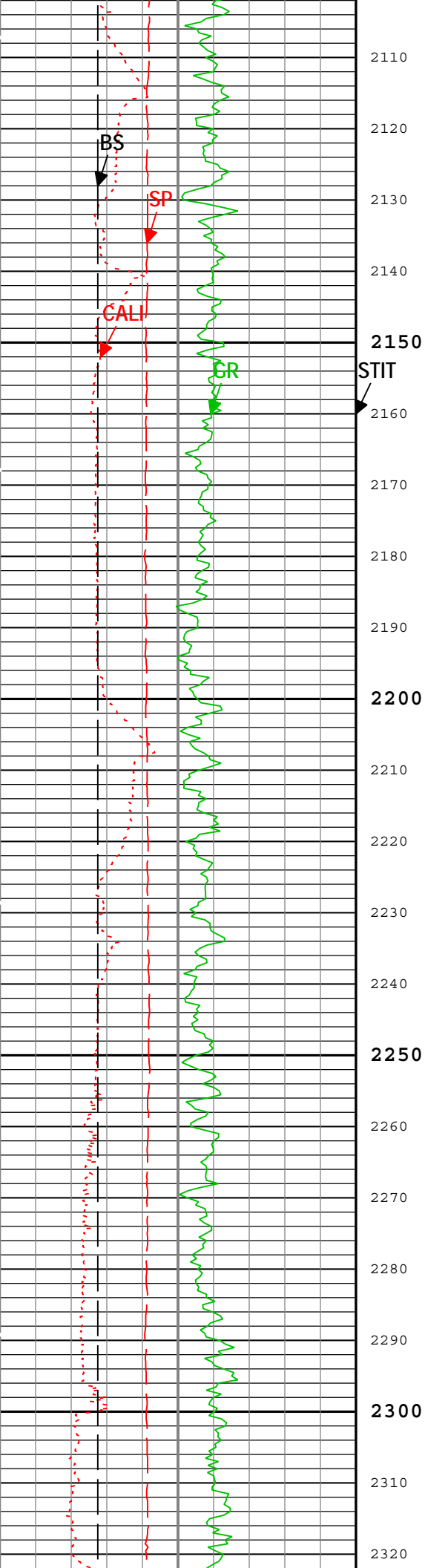


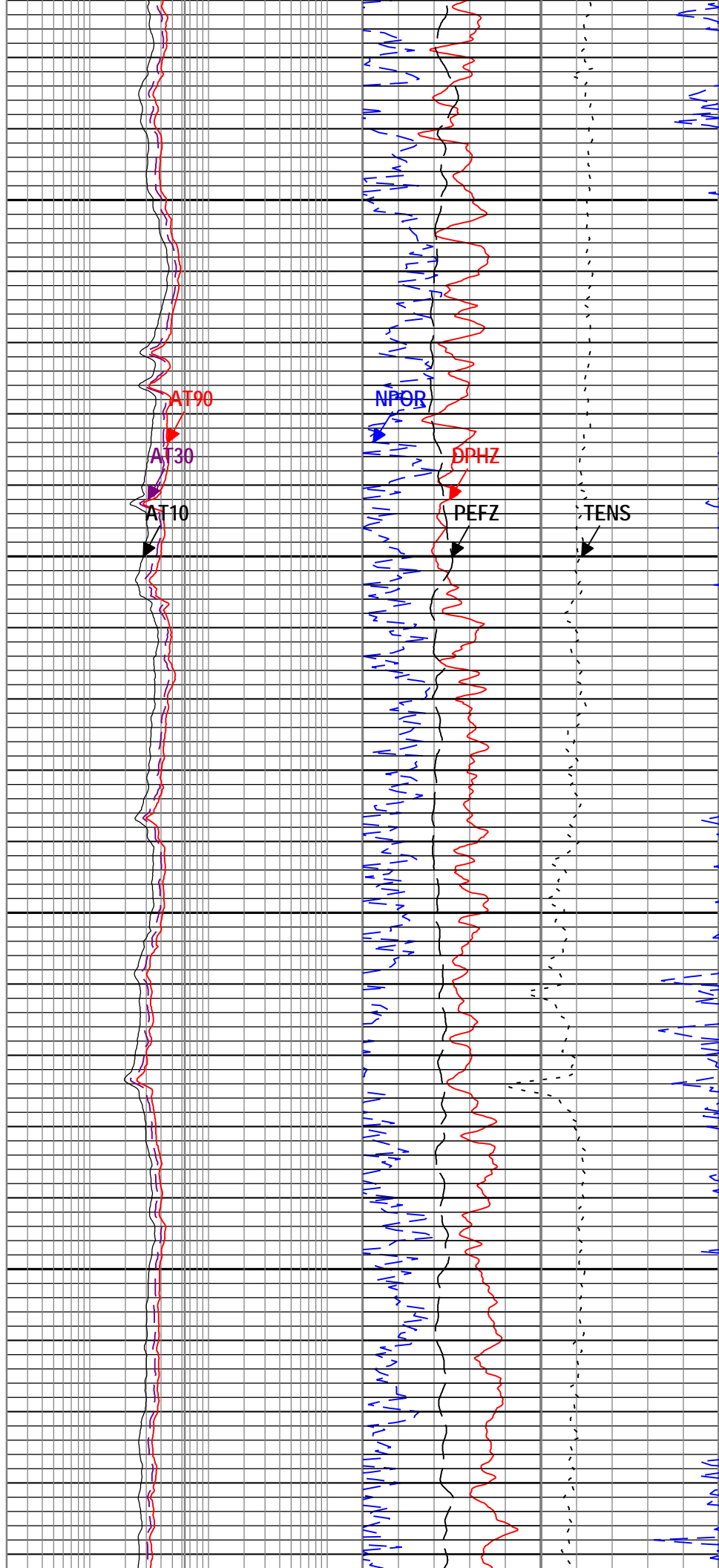
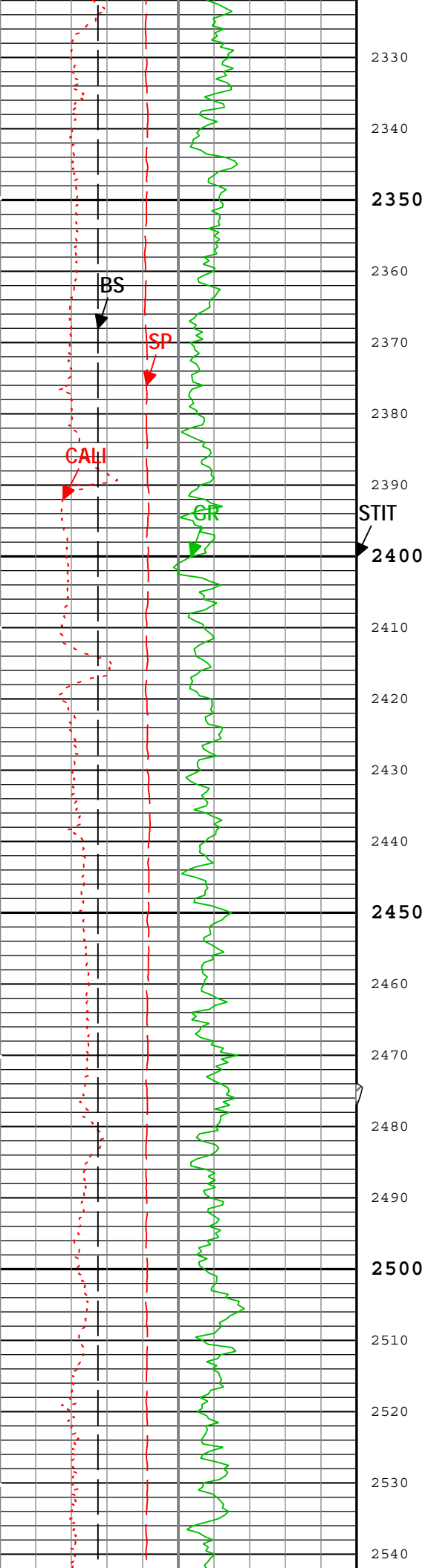
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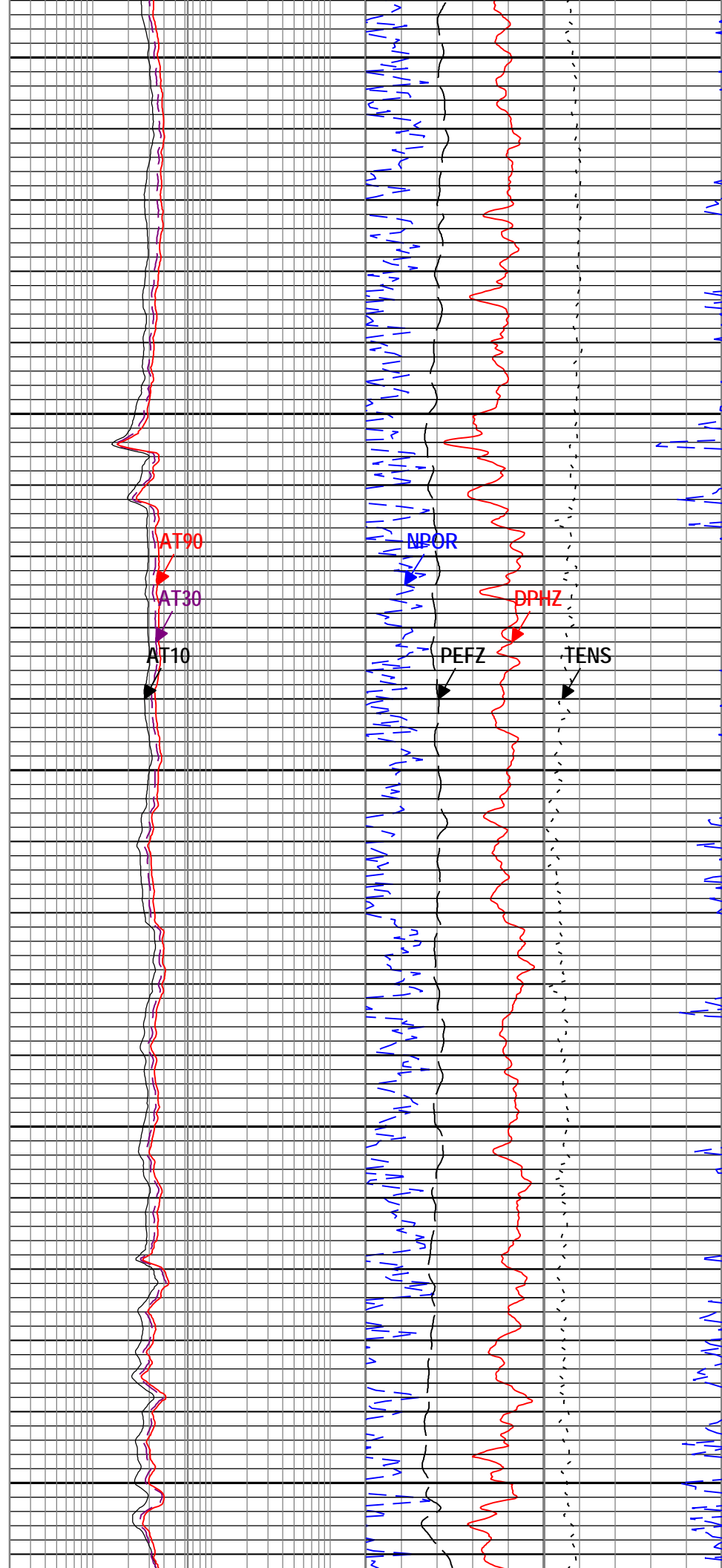
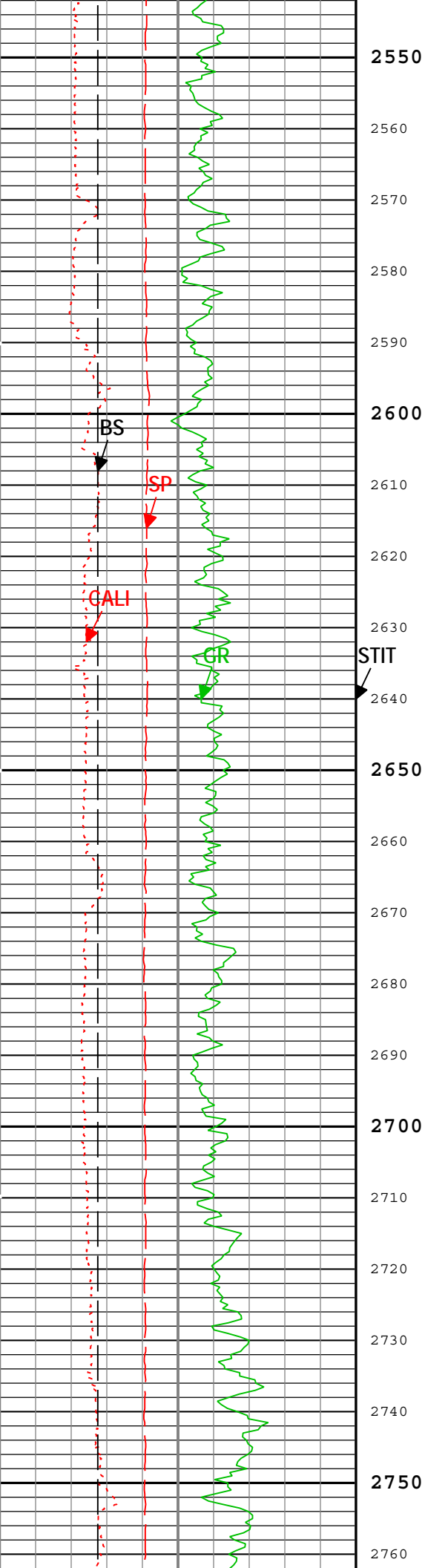
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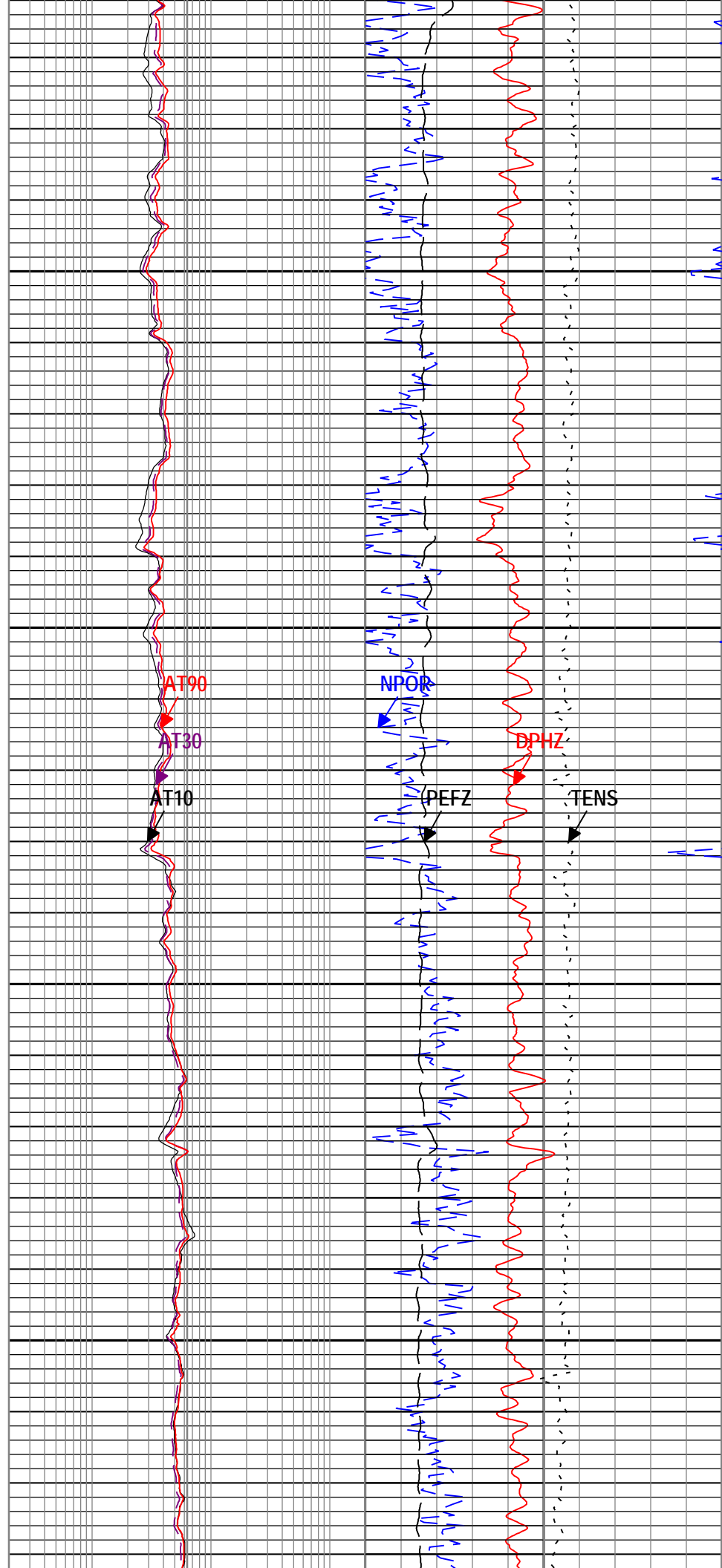
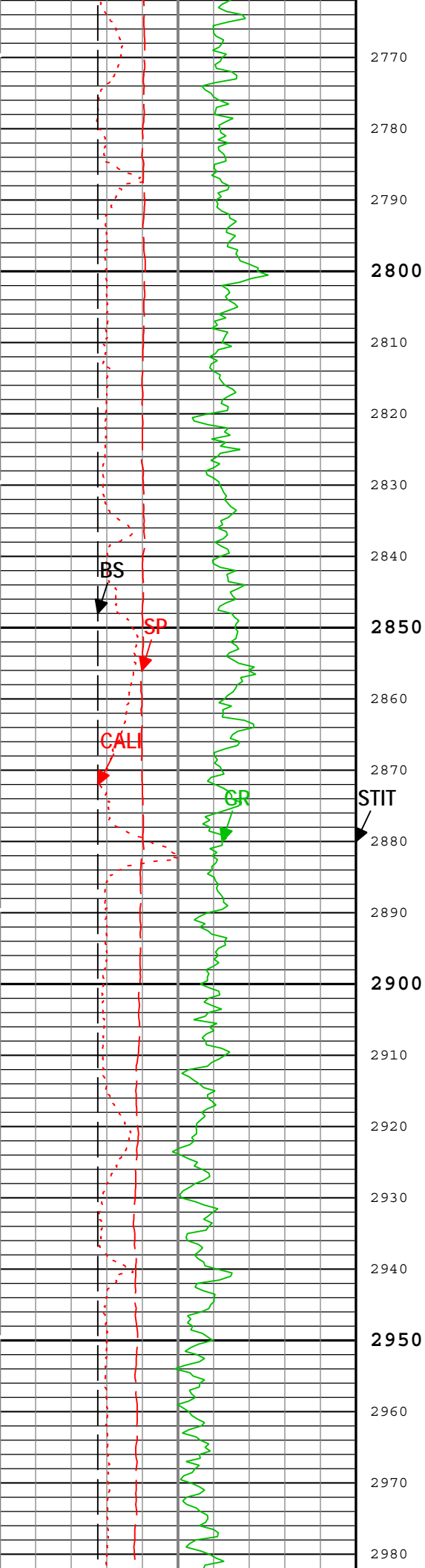


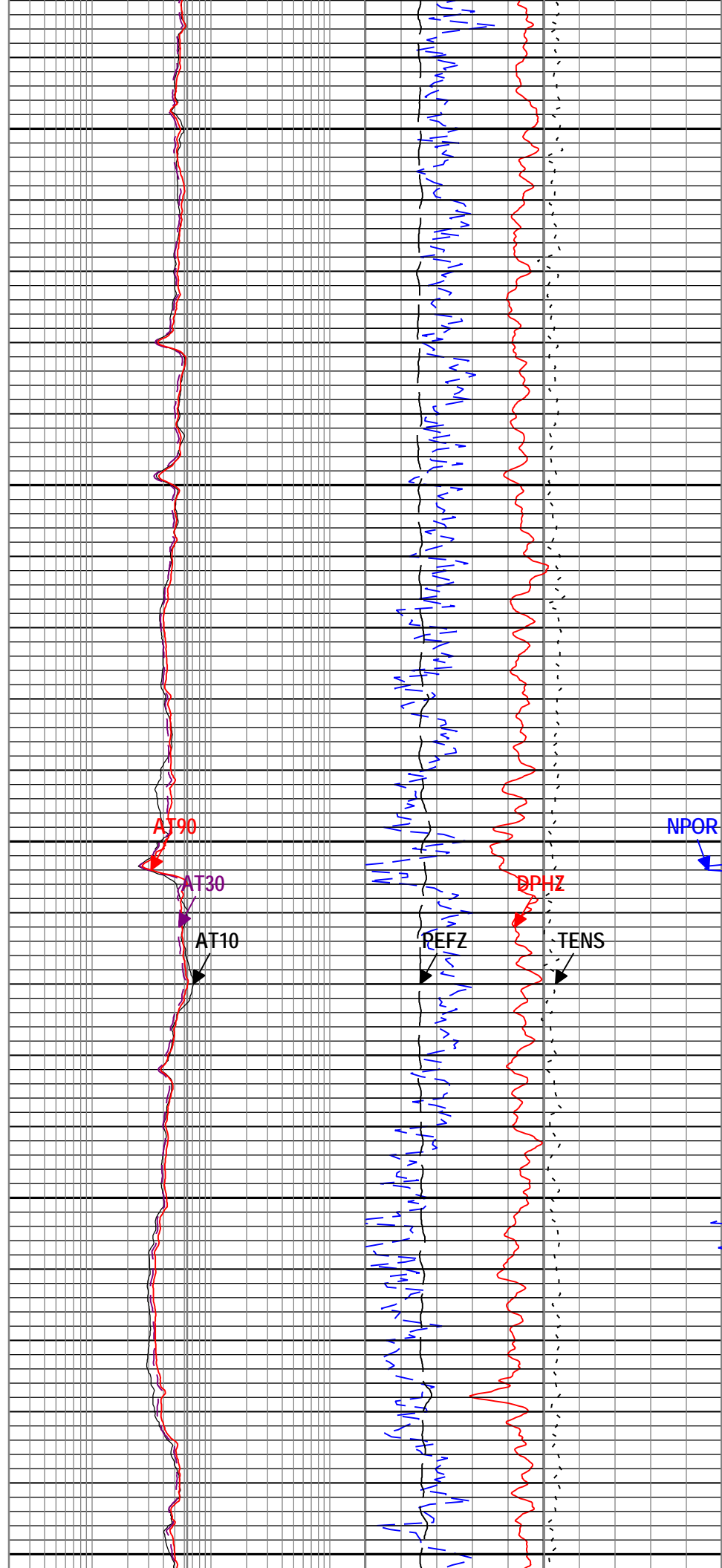
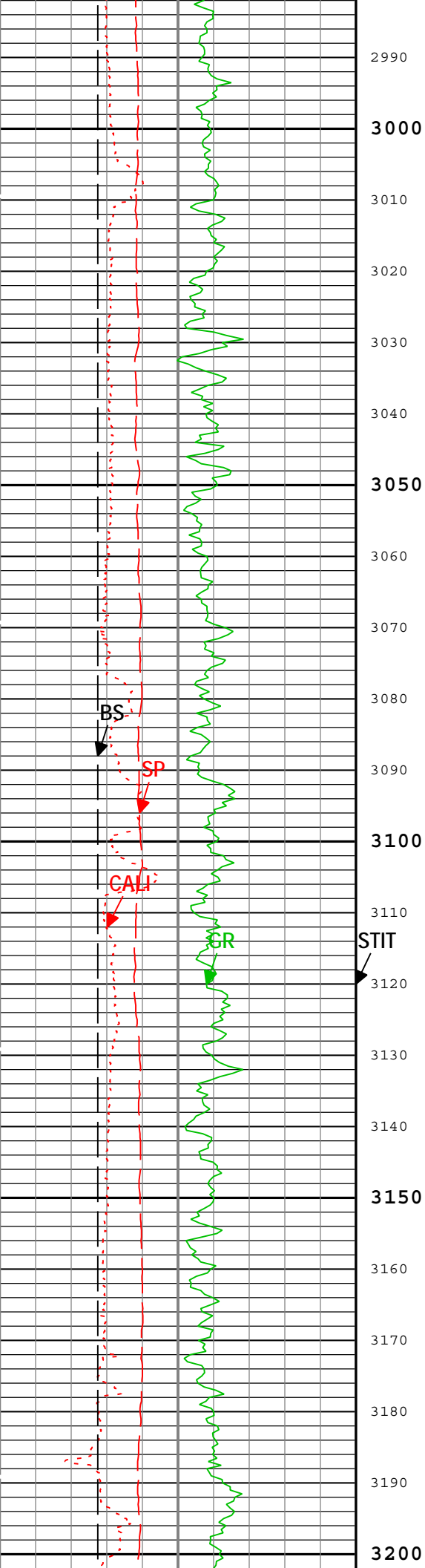


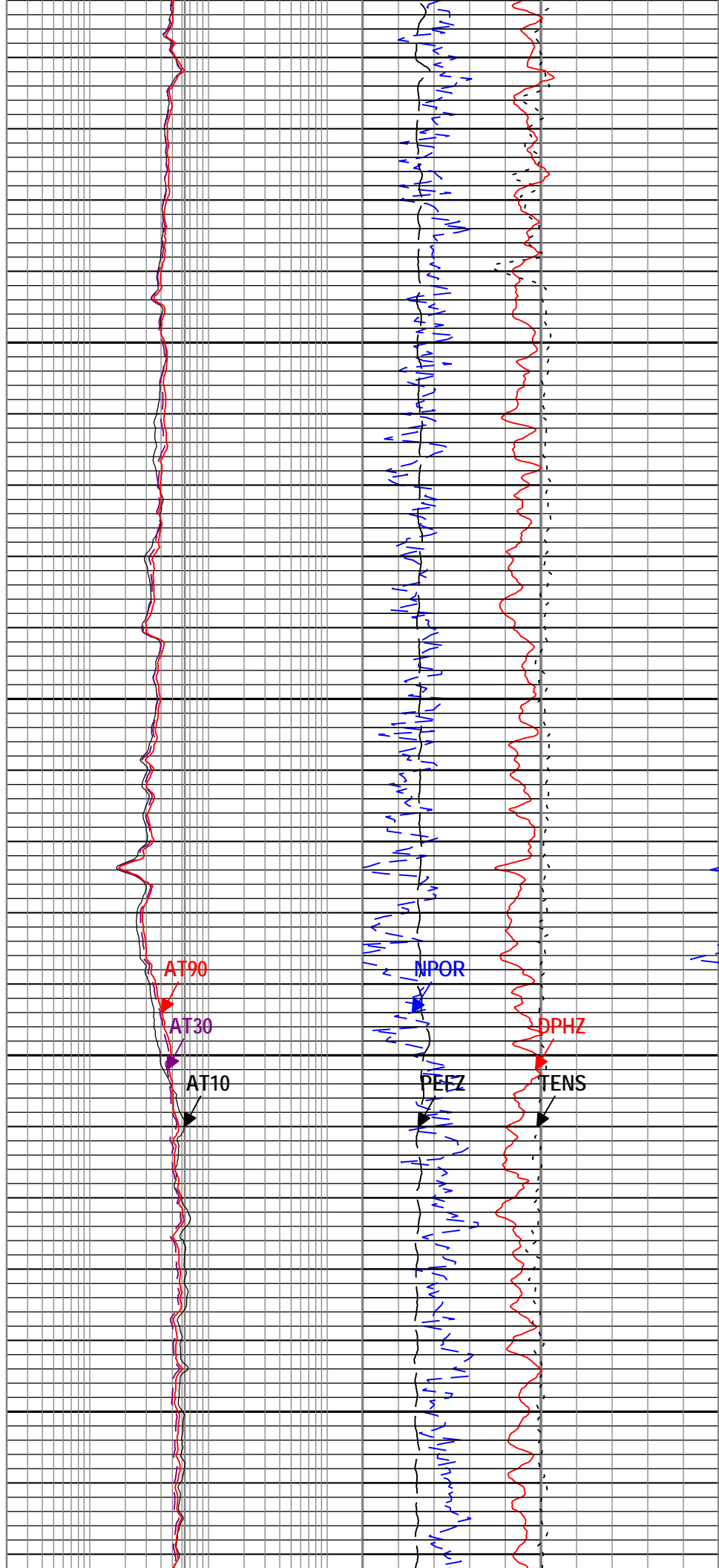
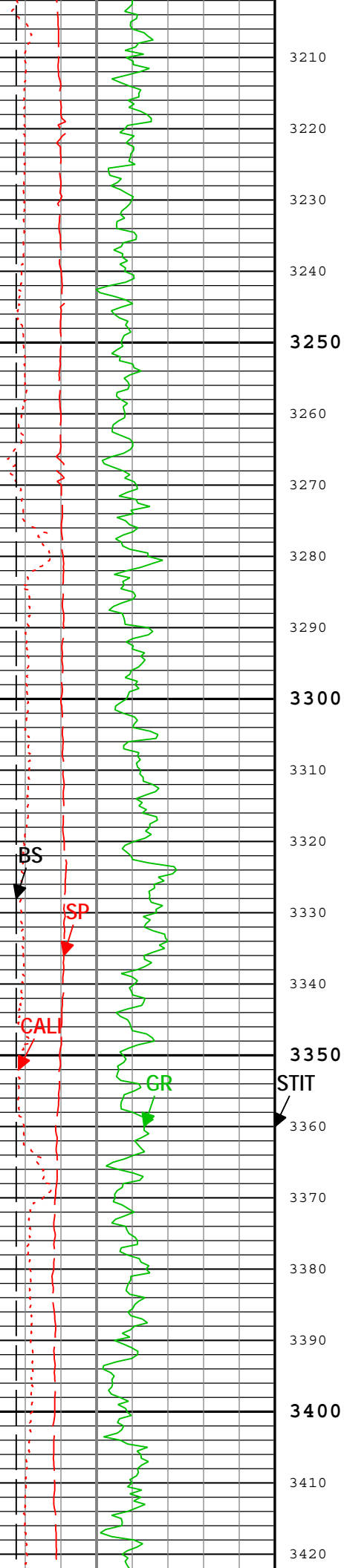


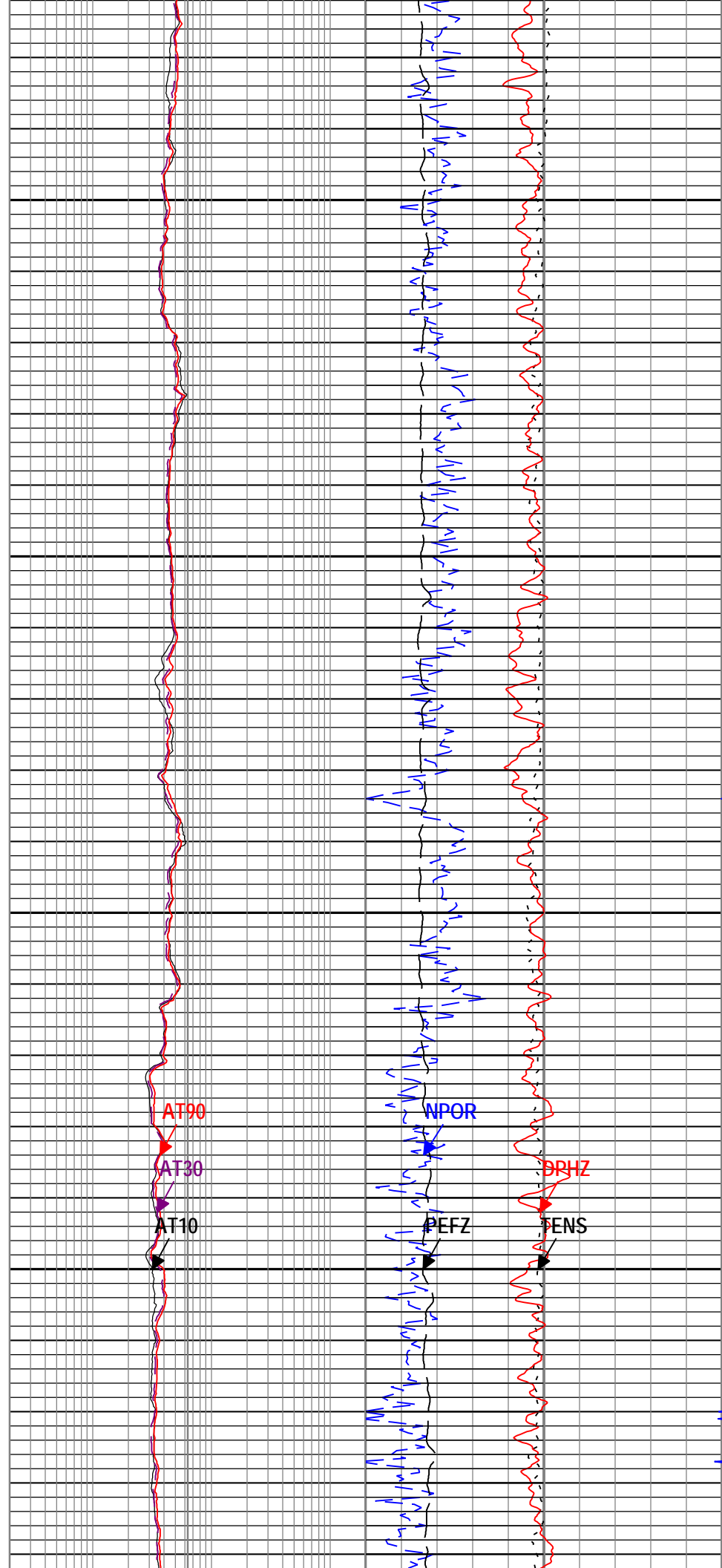
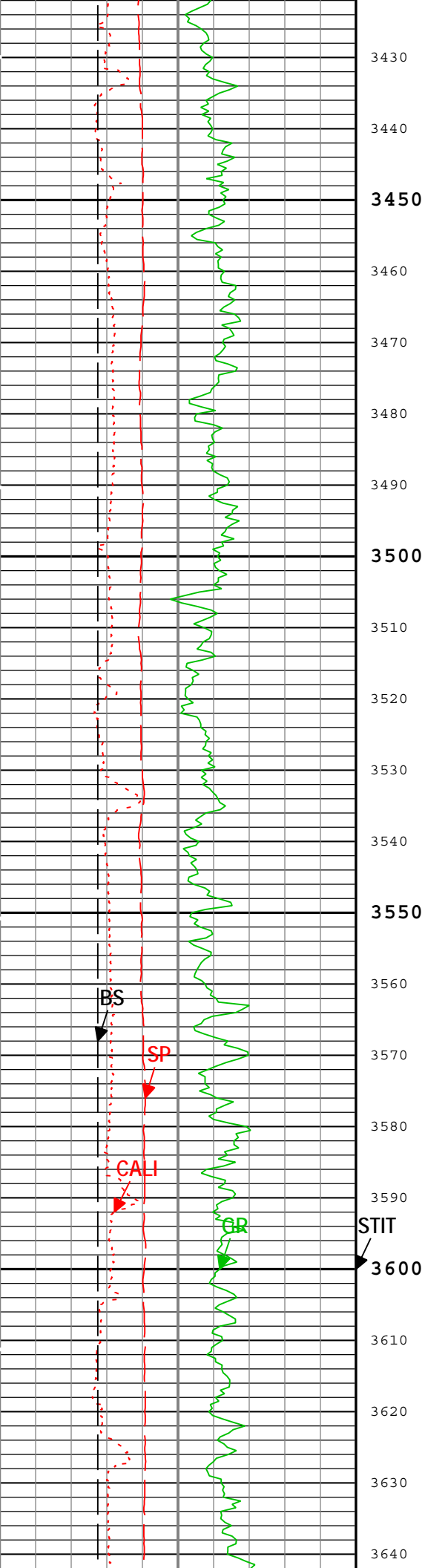


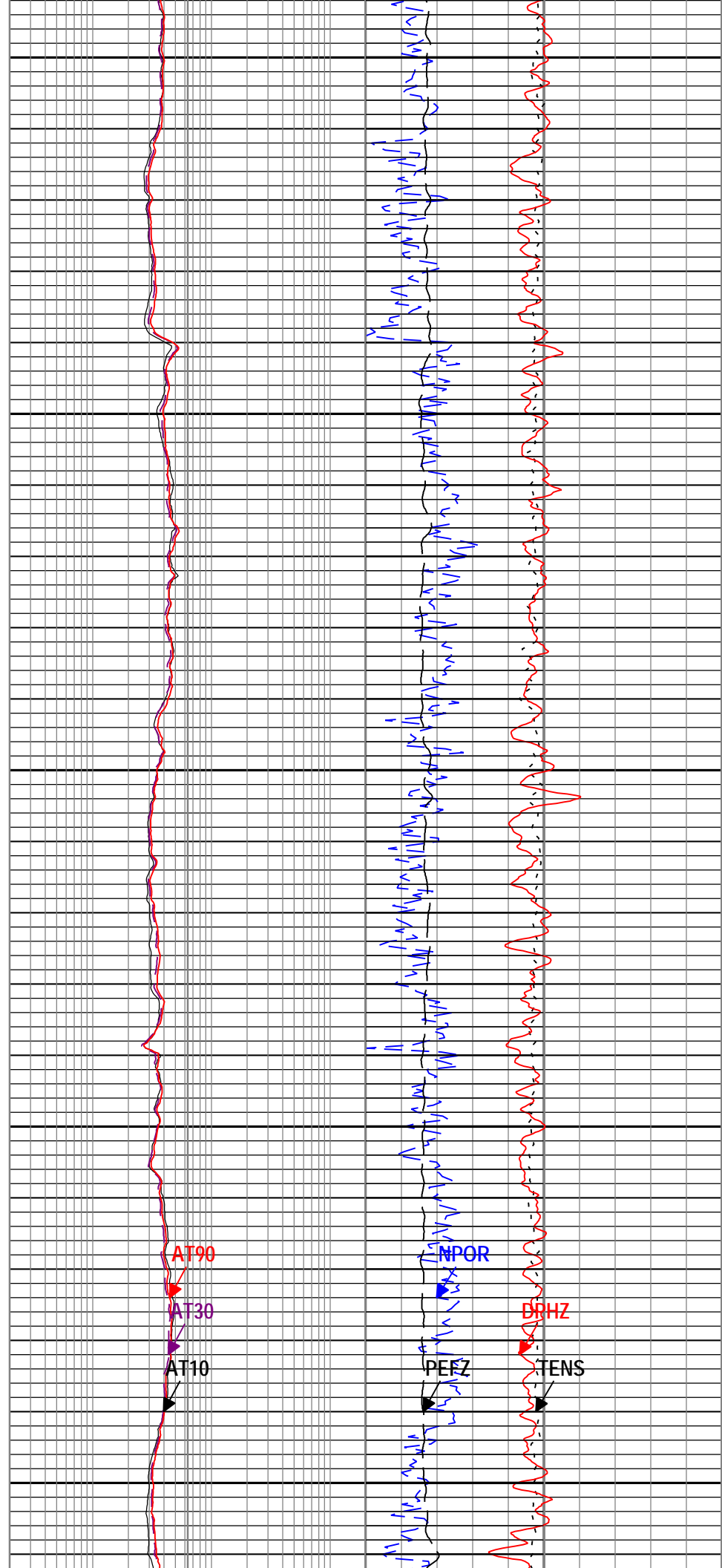
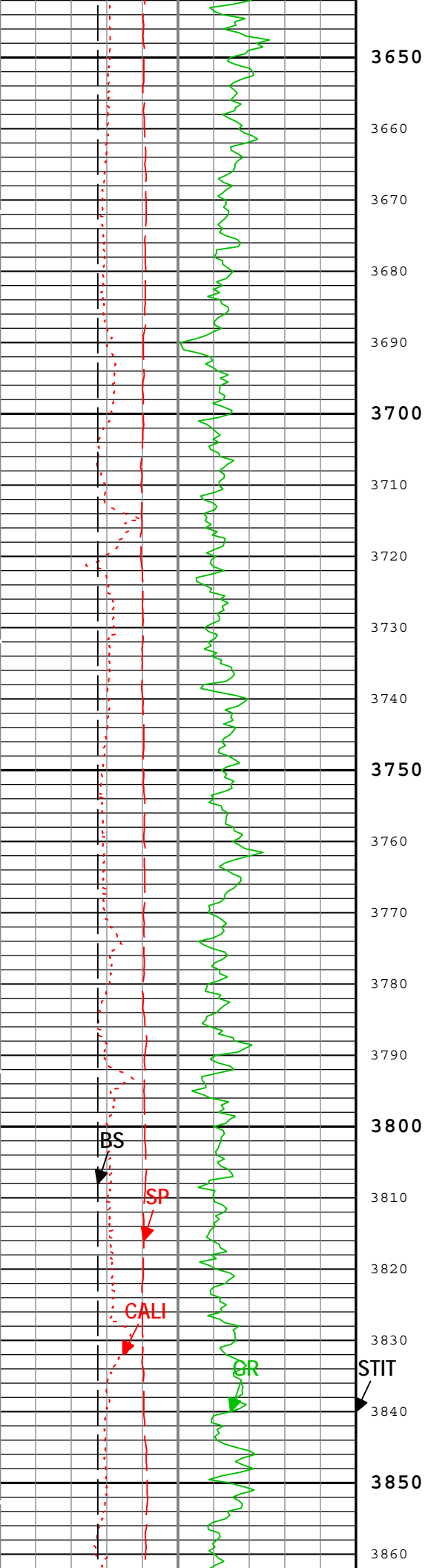


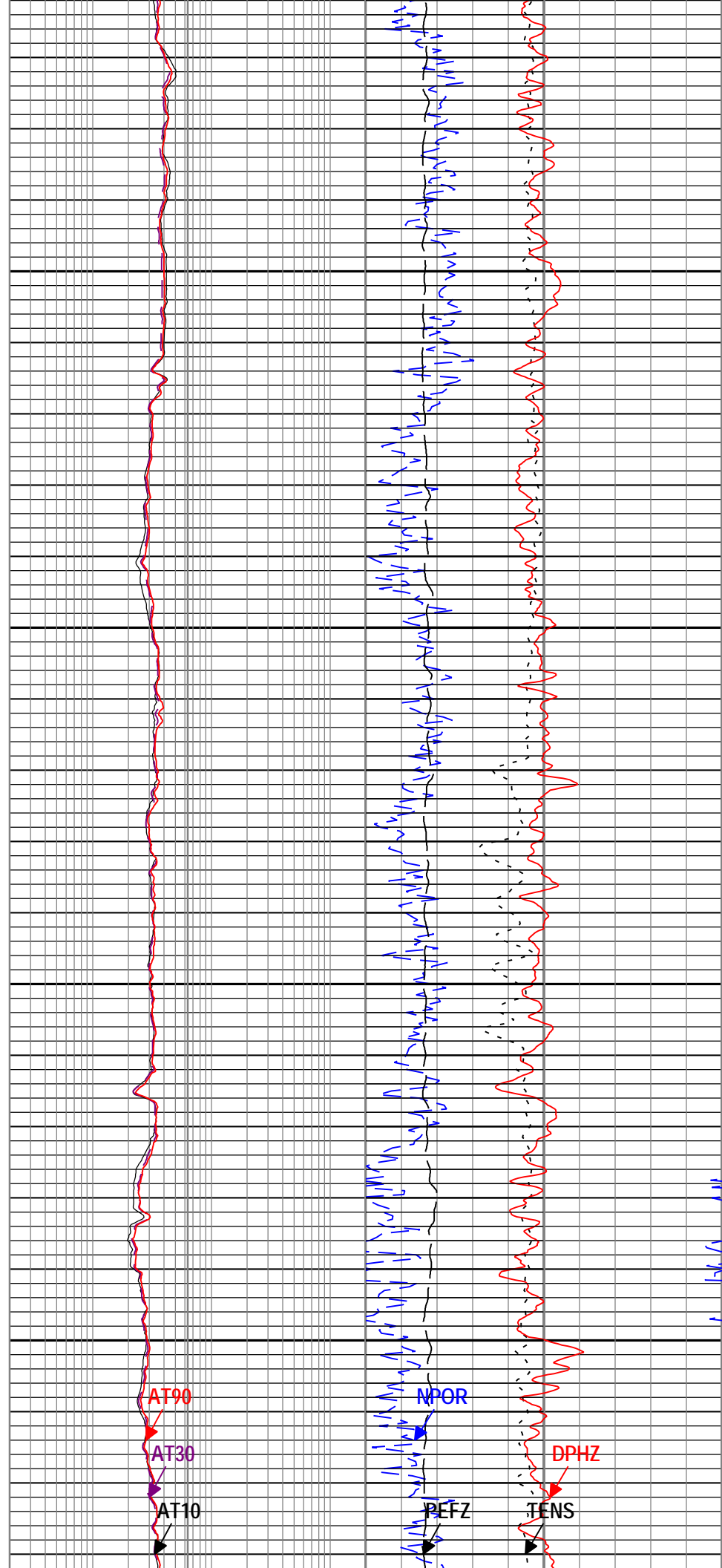
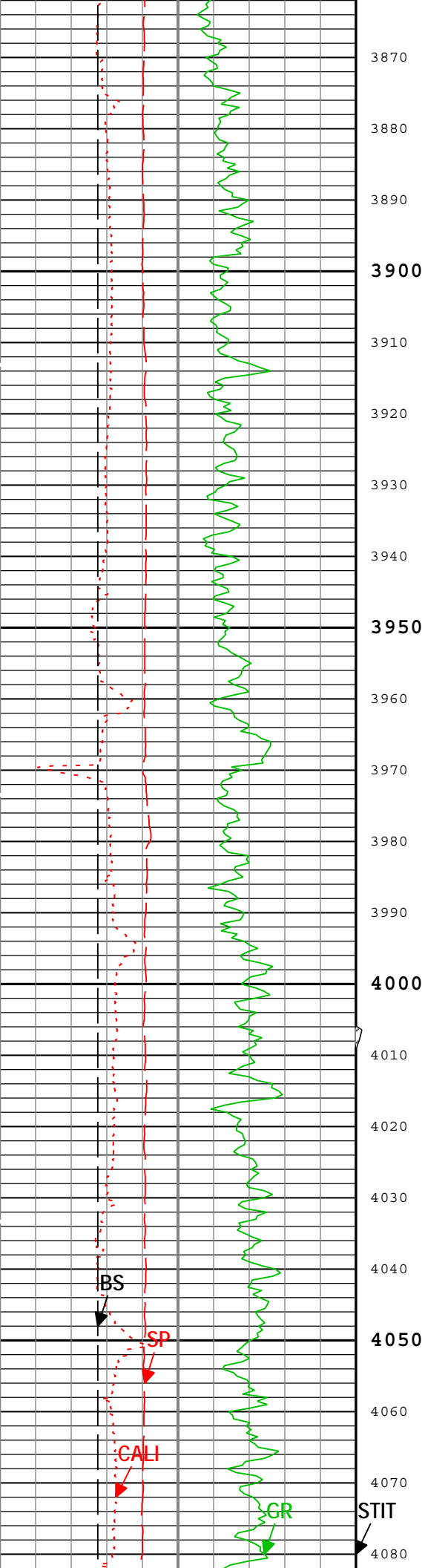


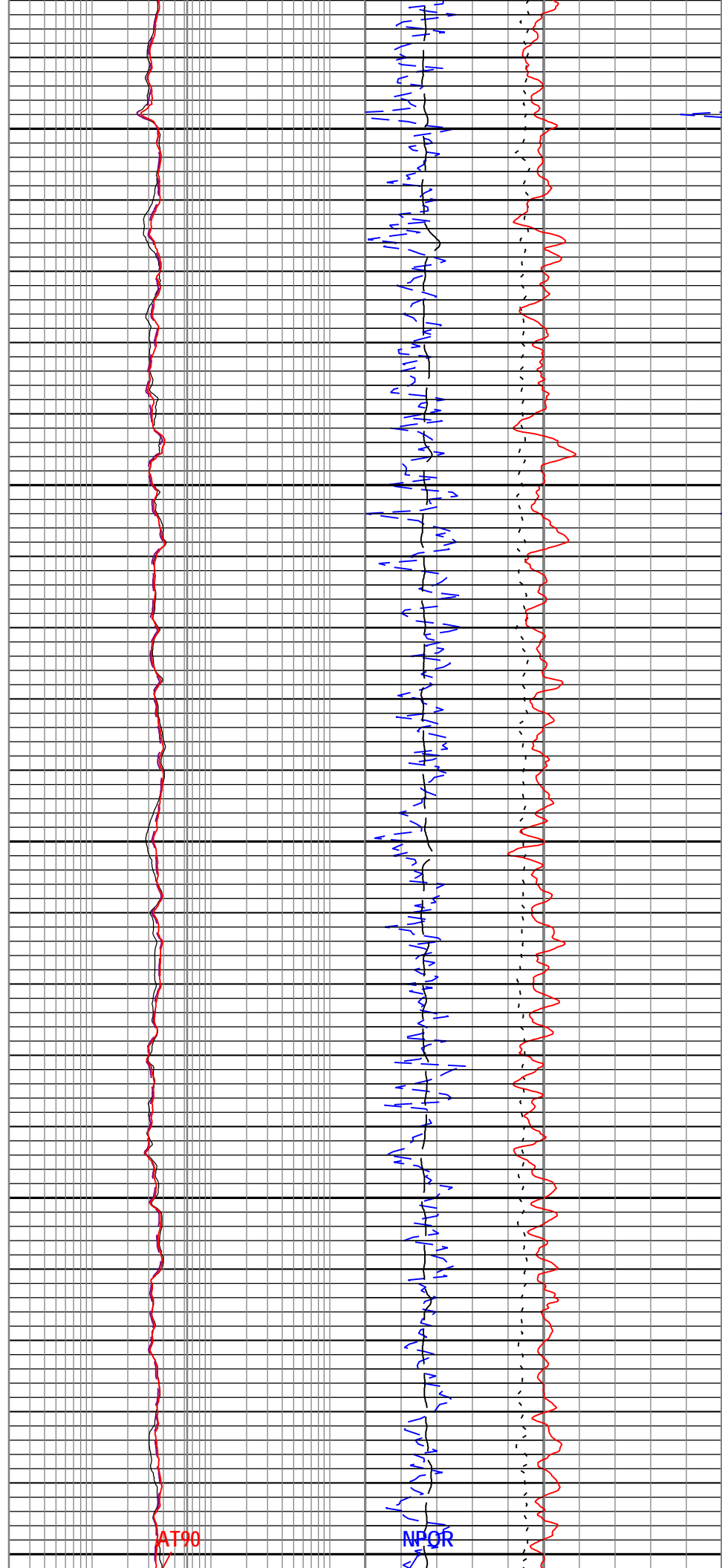
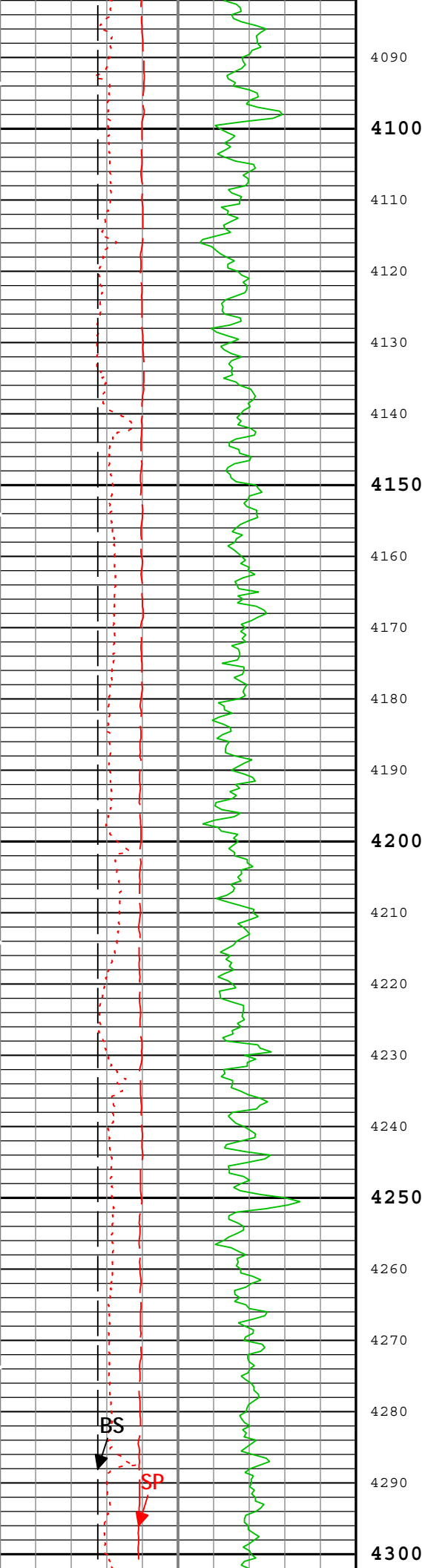


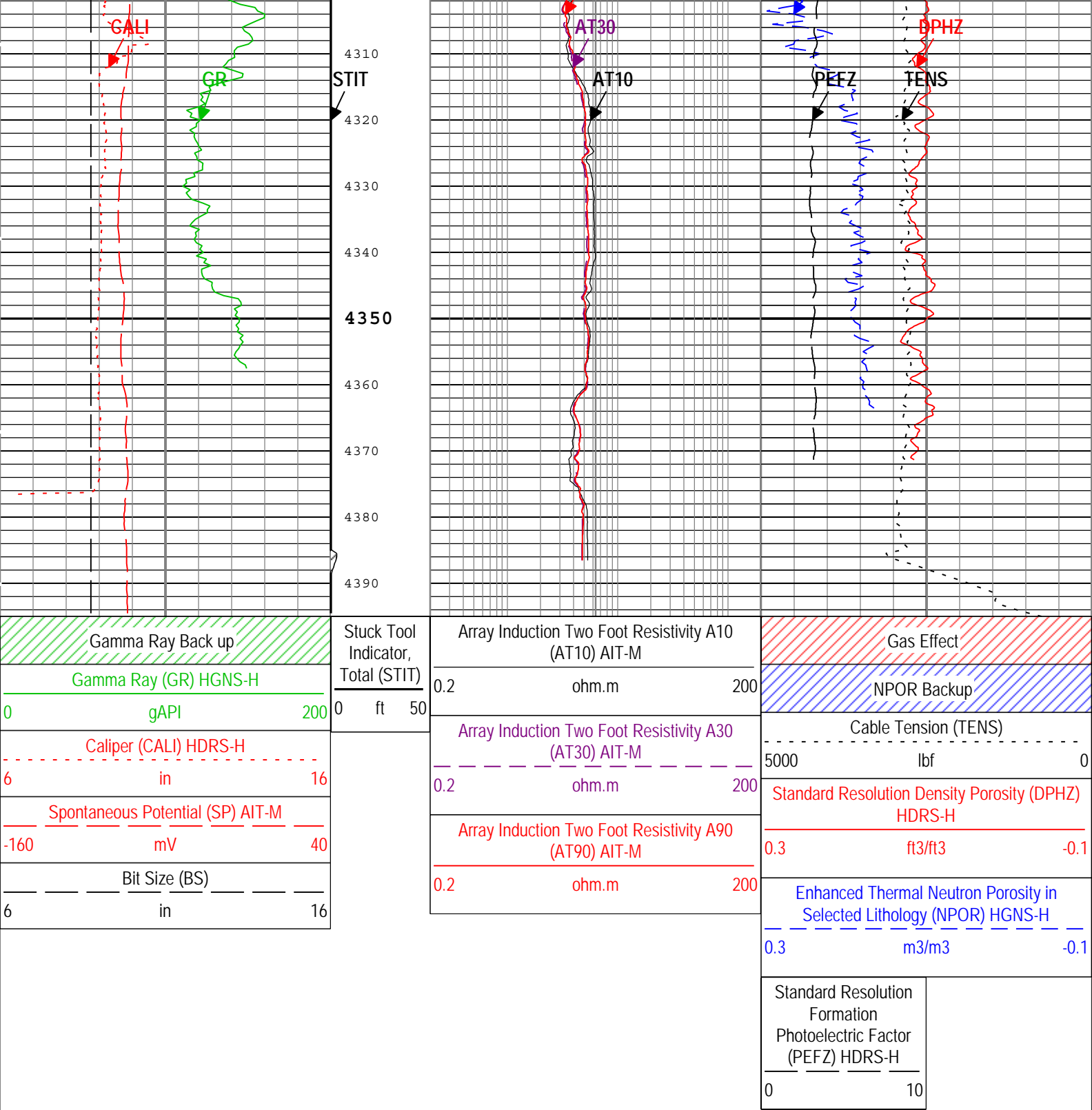












Description: HGNS standard resolution porosities for Platform Express Format: Log (KM 5in Triple Combo) Index Scale: 5 in per 100 ft Index Unit: ft
Index Type: Measured Depth Creation Date: 30-Jul-2014 06:18:47

Channel Processing Parameters

Master (EEPROM):		15:52:07 18-Jun-2014		Before (Measured):		17:36:54 29-Jul-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Thru Cal Mag - 0	V	Master	-----	0.366	0.576	0.854	
		Before	-----	0.366	0.575	0.854	
		Before-Master	-----	-----	-0.001	-----	
Thru Cal Phase - 0	deg	Master	-----	137.000	-169.574	-103.000	
		Before	-----	137.000	-169.197	-103.000	
		Before-Master	-----	-----	0.377	-----	
Thru Cal Mag - 1	V	Master	-----	0.762	1.179	1.778	
		Before	-----	0.762	1.179	1.778	
		Before-Master	-----	-----	0.000	-----	
Thru Cal Phase - 1	deg	Master	-----	136.000	-170.676	-104.000	
		Before	-----	136.000	-170.298	-104.000	
		Before-Master	-----	-----	0.378	-----	
Thru Cal Mag - 2	V	Master	-----	0.372	0.585	0.868	
		Before	-----	0.372	0.585	0.868	
		Before-Master	-----	-----	0.000	-----	
Thru Cal Phase - 2	deg	Master	-----	132.000	-174.320	-108.000	
		Before	-----	132.000	-173.940	-108.000	
		Before-Master	-----	-----	0.380	-----	
Thru Cal Mag - 3	V	Master	-----	0.420	0.661	0.980	
		Before	-----	0.420	0.661	0.980	
		Before-Master	-----	-----	0.000	-----	
Thru Cal Phase - 3	deg	Master	-----	131.000	-175.098	-109.000	
		Before	-----	131.000	-174.719	-109.000	
		Before-Master	-----	-----	0.379	-----	
Thru Cal Mag - 4	V	Master	-----	0.804	1.234	1.876	
		Before	-----	0.804	1.234	1.876	
		Before-Master	-----	-----	0.000	-----	
Thru Cal Phase - 4	deg	Master	-----	125.000	178.625	-115.000	
		Before	-----	125.000	179.007	-115.000	
		Before-Master	-----	-----	0.382	-----	
Thru Cal Mag - 5	V	Master	-----	1.176	1.797	2.744	
		Before	-----	1.176	1.796	2.744	
		Before-Master	-----	-----	-0.001	-----	
Thru Cal Phase - 5	deg	Master	-----	122.000	176.963	-118.000	
		Before	-----	122.000	177.348	-118.000	
		Before-Master	-----	-----	0.385	-----	
Thru Cal Mag - 6	V	Master	-----	1.176	1.796	2.744	

		Before Before-Master	----- -----	1.176 -----	1.796 0.000	2.744 -----	<div><div></div><div></div><div></div><div></div><div></div></div>
Thru Cal Phase - 6	deg	Master Before Before-Master	----- ----- -----	121.000 121.000 -----	176.970 177.356 0.386	-119.000 -119.000 -----	<div><div></div><div></div><div></div><div></div><div></div></div>
Thru Cal Mag - 7	V	Master Before Before-Master	----- ----- -----	0.846 0.846 -----	1.295 1.295 0.000	1.974 1.974 -----	<div><div></div><div></div><div></div><div></div><div></div></div>
Thru Cal Phase - 7	deg	Master Before Before-Master	----- ----- -----	115.000 115.000 -----	176.186 176.602 0.416	-125.000 -125.000 -----	<div><div></div><div></div><div></div><div></div><div></div></div>
SPA Zero	mV	Master Before Before-Master	 -----	-50.000 -50.000 -----	0.159 0.147 -0.012	50.000 50.000 -----	<div><div></div><div></div><div></div><div></div><div></div></div>
SPA Plus	mV	Master Before Before-Master	 -----	941.000 941.000 -----	992.540 992.435 -0.105	1040.000 1040.000 -----	<div><div></div><div></div><div></div><div></div><div></div></div>
Temperature Zero	V	Master Before Before-Master	 -----	-0.050 -0.050 -----	0.000 0.000 0.000	0.050 0.050 -----	<div><div></div><div></div><div></div><div></div><div></div></div>
Temperature Plus	V	Master Before Before-Master	 -----	0.870 0.870 -----	0.919 0.919 0.000	0.960 0.960 -----	<div><div></div><div></div><div></div><div></div><div></div></div>

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

Primary Equipment :						
	HILT High-Resolution Control Cartridge, 150 degC	HRCC-H		3828		
	HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H		3760		
Auxiliary Equipment :						
	HRDD Backscatter Detector	Backscatter		3760		
	HRDD Long Spacing Detector	Long Spacing		3760		
	HRDD Short Spacing Detector	Short Spacing		3760		
	Cesium 137 Gamma-Ray Logging Source	GSR-J		5471		
	HILT High-Resolution Control Cartridge, 150 degC	HRCC-H		3828		
	HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H		3863		
Calibration Parameter :						
	Small Ring Size (Caliper Calibration Small Ring)	8.00				
	Large Ring Size (Caliper Calibration Large Ring)	12.00				

HDRS Caliper Calibration - Caliper Accumulations

Before (Measured): 17:39:40 29-Jul-2014							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div></div>
Small Ring	in	Before	8.00	6.00	8.03	10.00	<div><div></div><div></div><div></div><div></div><div></div></div>
Large Ring	in	Before	12.00	9.00	12.37	15.00	<div><div></div><div></div><div></div><div></div><div></div></div>

HDRS Density Calibration - Inversion Results

Master (EEPROM):		12:40:32 09-Jul-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div></div>
Rho Aluminum	g/cm3	Master	2.596	2.586	2.596	2.606	<div><div></div><div></div><div></div><div></div><div></div></div>
Rho Magnesium	g/cm3	Master	1.686	1.676	1.686	1.696	<div><div></div><div></div><div></div><div></div><div></div></div>
Pe Aluminum		Master	2.570	2.470	2.563	2.670	<div><div></div><div></div><div></div><div></div><div></div></div>
Pe Magnesium		Master	2.650	2.550	2.620	2.750	<div><div></div><div></div><div></div><div></div><div></div></div>

HDRS Density Calibration - Deviation Summary

Master (EEPROM):		12:40:32 09-Jul-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div></div>
BS Average Deviation	%	Master	0	-0.6000	0.3499	0.6000	<div><div></div><div></div><div></div><div></div><div></div></div>
BS Max Deviation	%	Master	0	-1.6000	0.7390	1.6000	<div><div></div><div></div><div></div><div></div><div></div></div>
SS Average Deviation	%	Master	0	-1.0000	0.2543	1.0000	<div><div></div><div></div><div></div><div></div><div></div></div>
SS Max Deviation	%	Master	0	-2.5000	0.6997	2.5000	<div><div></div><div></div><div></div><div></div><div></div></div>
LS Average Deviation	%	Master	0	-1.5000	0.8496	1.5000	<div><div></div><div></div><div></div><div></div><div></div></div>
LS Max Deviation	%	Master	0	-3.5000	2.0841	3.5000	<div><div></div><div></div><div></div><div></div><div></div></div>

HDRS Density Calibration - Background Summary

Master (EEPROM):		12:40:32 09-Jul-2014		Before (Measured):		02:07:29 30-Jul-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7360		
		Before	0.7360	0.6992	0.7345	0.7728	
		Before-Master	-----	-----	-0.0015	-----	
BS Window Sum	1/s	Master	1		23964		
		Before	23964	22766	23945	25162	
		Before-Master	-----	-----	-19	-----	
SS Window Ratio		Master	1.0000		0.4853		
		Before	0.4853	0.4611	0.4878	0.5096	
		Before-Master	-----	-----	0.0025	-----	
SS Window Sum	1/s	Master	1		9801		
		Before	9801	9311	9769	10292	
		Before-Master	-----	-----	-32	-----	
LS Window Ratio		Master	1.0000		0.3000		
		Before	0.3000	0.2850	0.3030	0.3150	
		Before-Master	-----	-----	0.0030	-----	
LS Window Sum	1/s	Master	1		1184		
		Before	1184	1125	1179	1243	
		Before-Master	-----	-----	-5	-----	

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM):		12:40:32 09-Jul-2014		Before (Measured):		02:07:29 30-Jul-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master		1000	1350	2400	
		Before		1000	1344	2400	
		Before-Master	-----	-100	-6	100	
SS PM High Voltage	V	Master		1000	1620	2400	
		Before		1000	1624	2400	
		Before-Master	-----	-100	4	100	
LS PM High Voltage	V	Master		1000	1200	2400	
		Before		1000	1194	2400	
		Before-Master	-----	-100	-6	100	

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM):		12:40:32 09-Jul-2014		Before (Measured):		02:07:29 30-Jul-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master		5.00	10.62	25.00	
		Before		5.00	10.61	25.00	
		Before-Master	-----	-1.00	-0.01	1.00	
SS Crystal Resolution	%	Master		5.00	9.38	20.00	
		Before		5.00	9.52	20.00	
		Before-Master	-----	-1.00	0.14	1.00	
LS Crystal Resolution	%	Master		5.00	8.58	20.00	
		Before		5.00	8.45	20.00	
		Before-Master	-----	-1.00	-0.13	1.00	

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured):		02:10:32 30-Jul-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3860	4185	
Deep Resistivity	ohm.m	Before	3830	3524	3802	4136	
Shallow Resistivity	ohm.m	Before	3830	3524	3816	4136	

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

Primary Equipment :			
	HILT Gamma-Ray and Neutron Sonde, 150 degC	HGNS-H	4865
Auxiliary Equipment :			
	HGNS Accelerometer, 150 degC	HACCZ-H	6991
	AmBe Neutron Logging Source	NSR-F	2554
Calibration Parameter :			
	Water Temperature		

HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured): 02:01:42 30-Jul-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.1	32.8	

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM): 00:00:00 15-May-2007

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Accelerometer Manufacturer		Master			QAT_160		
Accelerometer Reference Temperature	degF	Master		30.2	77.0	122.0	
Accelerometer Coefficients - 0		Master	-----	-----	-4298.000	-----	
Accelerometer Coefficients - 1		Master	-----	-----	50.180	-----	
Accelerometer Coefficients - 2		Master	-----	-----	-0.002	-----	
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 4		Master	-----	-----	2.754	-----	
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 8		Master	-----	-----	300.500	-----	
Accelerometer Coefficients - 9		Master	-----	-----	0.994	-----	

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM): 14:29:32 23-Jul-2014

Before (Measured):

17:40:45 29-Jul-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	5.0	27.5	40.0	
		Before	0	5.0	27.8	40.0	
		Before-Master	-----	-4.1	0.3	4.1	
Far Zero Measurement	1/s	Master	0	5.0	28.9	40.0	
		Before	0	5.0	27.9	40.0	
		Before-Master	-----	-4.3	-1.0	4.3	
Near Plus Measurement	1/s	Master	6031.0	4700.0	5764.0	6900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Far Plus Measurement	1/s	Master	2793.0	1900.0	2396.0	2900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Near Corrected Plus Measurement	1/s	Master		4700.0	5720.0	6900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	
Far Corrected Plus Measurement	1/s	Master		1900.0	2356.0	2900.0	
		Before	-----	-----	-----	-----	
		Before-Master	-----	-----	-----	-----	

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured): 17:37:11 29-Jul-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	86.6	120.0	
RGR Plus Measurement	gAPI	Before	185.4	157.1	169.1	206.3	
GR Calibration Gain		Before	0.89	0.80	0.98	1.05	

Company:	Kerr McGee Oil & Gas Onshore LP	Schlumberger
Well:	Sickler 26C-34HZ	
Field:	Wattenberg	
County:	Weld	
State:	CO	
Platform Express		
Triple Combo		
PEX-AIT		