

Company: Caerus Piceance LLC

Well: Puckett 11D-1

Field: Wildcat

County: Garfield Country: US

Reservoir Saturation Tool

Sigma

County:	Garfield		
Field:	Wildcat		
Location:	SHL: S1, T7S, R97W		
Well:	Puckett 11D-1		
Company:	Caerus Piceance LLC		
Location:	SHL: S1, T7S, R97W	Elev.:	K.B. 8509.00 ft
	1034' FNL & 657' FEL		G.L. 8479.00 ft
	LAT: 39.475789 / LONG: -108.180286		D.F. 8509.00 ft
	Permanent Datum:	Ground Level	Elev.: 8479.00 f
Log Measured From:		Kelly Bushing	30.00 ft
Drilling Measured From:		Kelly Bushing	above Perm.Datum
API Serial No.	Max.Hole Deviation	Longitude:	Latitude:
05-045-22629	0 deg	-108.18028 degrees	39.475789 degrees

Logging Date	23-Jul-2015		
Run Number	ONE		
Depth Driller	9170.00 ft		
Schlumberger Depth	9160.00 ft		
Bottom Log Interval	9104.00 ft		
Top Log Interval	2500.00 ft		
Casing Fluid Type	3% KCl		
Salinity			
Density	9 lbm/gal		
Fluid Level	0.00 ft		
BIT/CASING/TUBING STRING			
Bit Size	8.75 in		
From	2150.00 ft		
To	9160.00 ft		
Casing/Tubing Size	4.5 in		
Weight	11.6 lbm/ft		
Grade	P110		
From	0.00 ft		
To	9168.00 ft		
Max Recorded Temperatures	239 degF		
Logger on Bottom	23-Jul-2015	03:50:00	
Unit Number	Time		
Recorded By	Location:	Fort Morgan, CO	
Witnessed By	Natalie Naeve		

Disclaimer

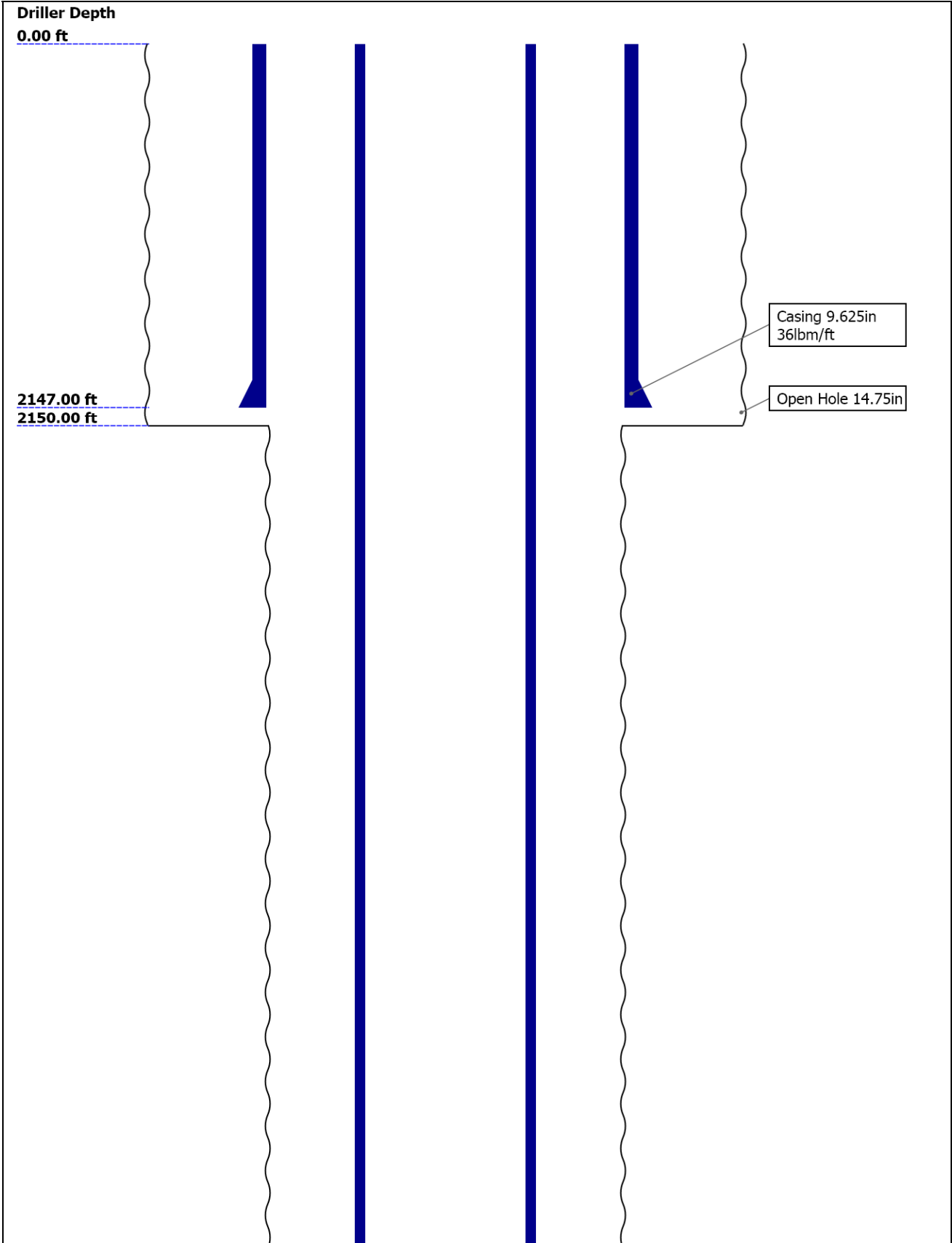
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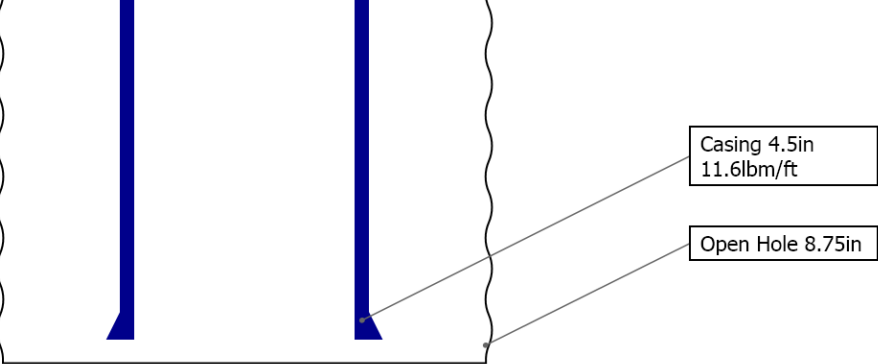
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Well Sketch



**9168.00 ft**  
**9170.00 ft**



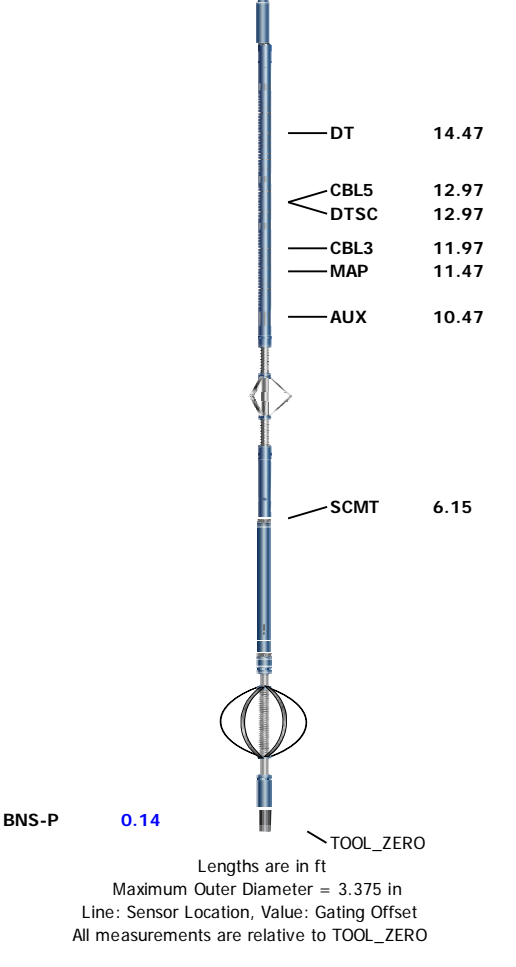
Borehole Size/Casing/Tubing Record

Bit						
Bit Size ( in )	14.75	8.75				
Top Driller ( ft )	0	2150				
Top Logger ( ft )	0	2150				
Bottom Driller ( ft )	2150	9170				
Bottom Logger ( ft )	2150	9160				
Casing						
Size ( in )	9.625	4.5				
Weight ( lbm/ft )	36	11.6				
Inner Diameter ( in )	8.921	4				
Grade	J55	P110				
Top Driller ( ft )	0	0				
Top Logger ( ft )	0	0				
Bottom Driller ( ft )	2147	9168				
Bottom Logger ( ft )	2147	9168				

Operational Run Summary

Parameter ( unit )	ONE					
Date Log Started	23-Jul-2015					
Time Log Started	01:51:24					
Date Log Finished	23-Jul-2015					
Time Log Finished	07:33:03					
Top Log Interval ( ft )	2500.00					
Bottom Log Interval ( ft )	9104.00					
Total Depth ( ft )	9104.00					
Max Hole Deviation ( deg )	0.00					
Azimuth of Max Deviation ( deg )	0.00					
Bit Size ( in )	8.750					
Logging Unit Number	9108					
Logging Unit Location	Fort Morgan, CO					
Recorded By	Benjamin Marmon / Akram					

[illegible]



## Depth Summary

	ONE		
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## Depth Measuring Device

Type	IDW-JA		
Serial Number	6510		
Calibration Date	29-Mar-2015		
Calibrator Serial Number			
Calibration Cable Type	7-46 AXS		
Wheel Correction 1	-4		
Wheel Correction 2	-2		

## Tension Device

Type	CMTD-B/A		
Serial Number	171		
Calibration Date	26-JUN-2015		
Calibrator Serial Number	123		
Number of Calibration Points	10		
Calibration Root Mean Square Error	13		
Calibration Peak Error	31		

## Logging Cable

Type	7-46A-XS		
Serial Number	U714071		
Length	17500.00 ft		
Conveyance Type	Wireline		
Rig Type	Crane		

## ONE:Depth Control Parameters

Log Sequence	First Log In the Well	Depth Control Remarks
Log Sequence	First Log In the Well	Schlumberger Depth Control Policies followed.
Rig Up Length At Surface		IDW used as primary depth control device.
Rig Up Length At Bottom		Z-Chart used as secondary depth control.
Rig Up Length Correction		Logs correlated to downlog over repeat interval.

Stretch Correction	3.90 ft
Tool Zero Check At Surface	0.40 ft

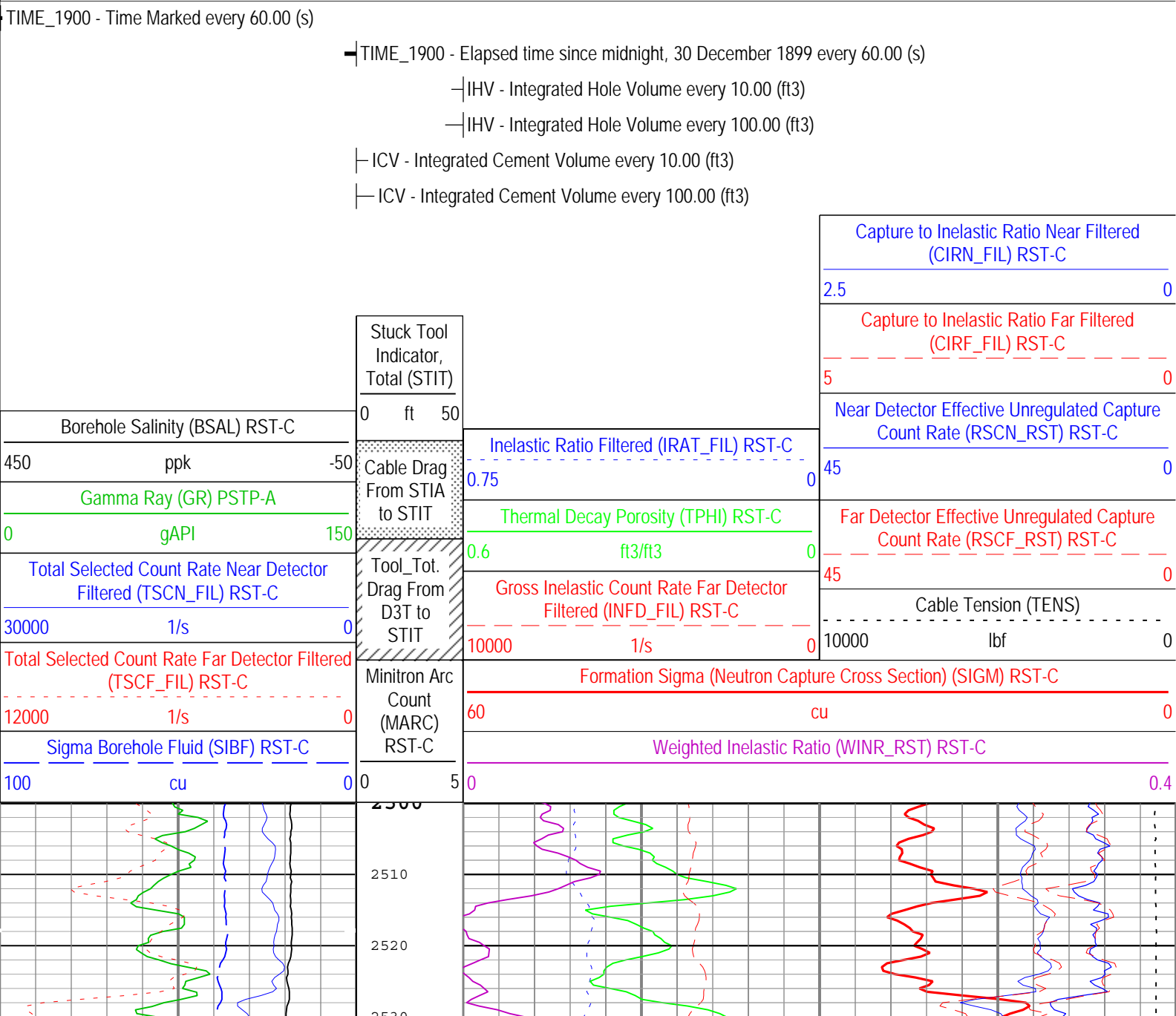
ONE

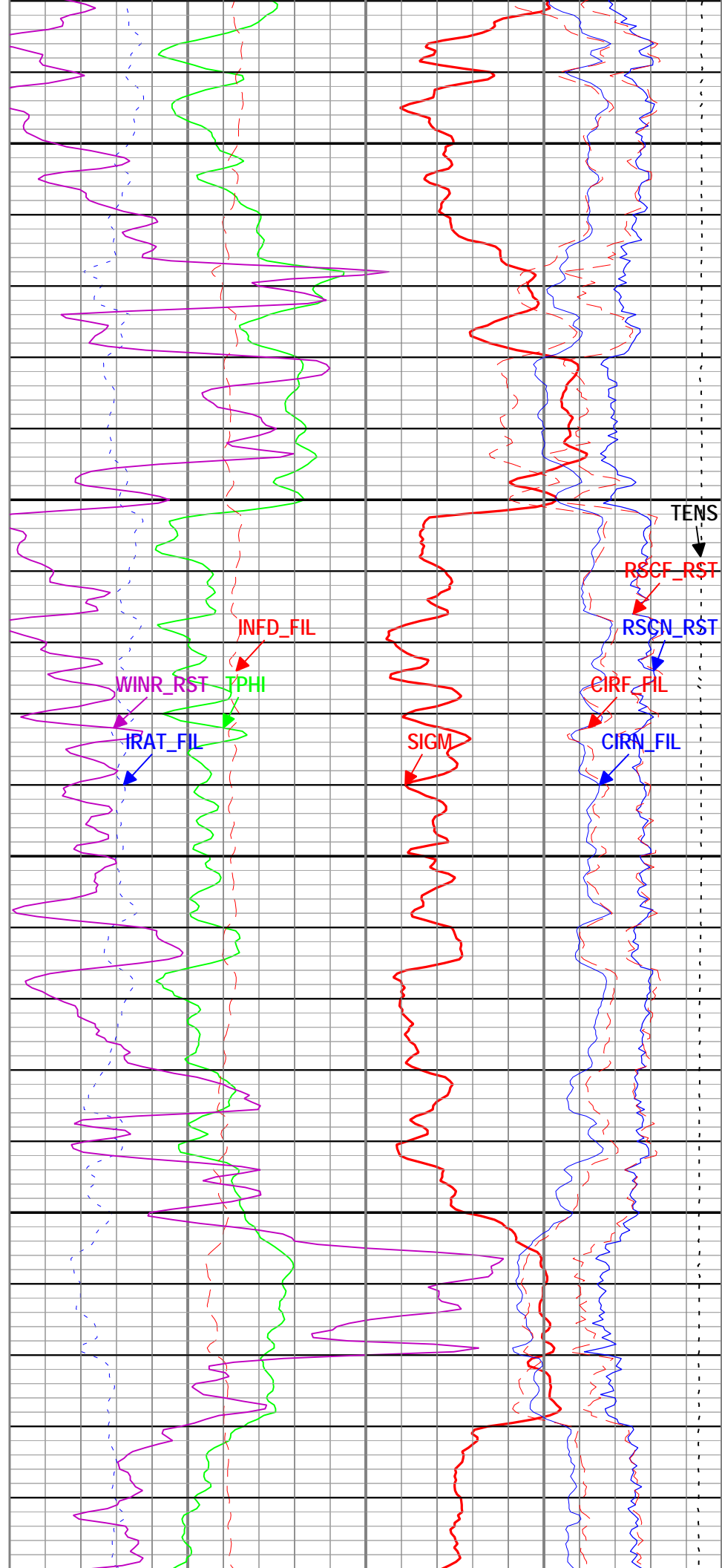
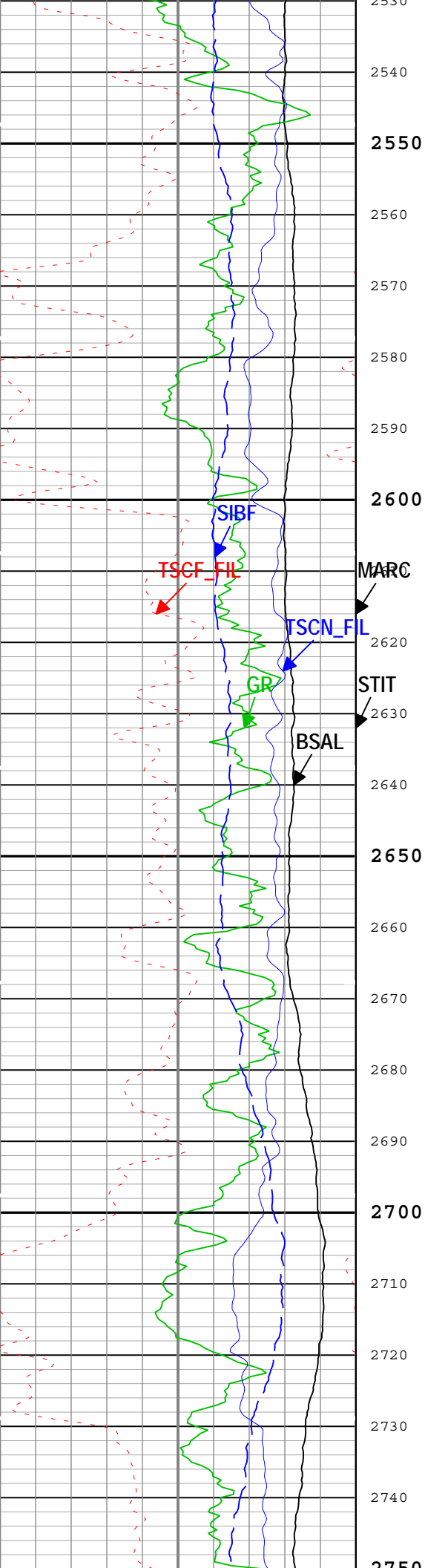
Software Version	
Acquisition System	Version
Maxwell 2014 SP3	5.3.45427.3100

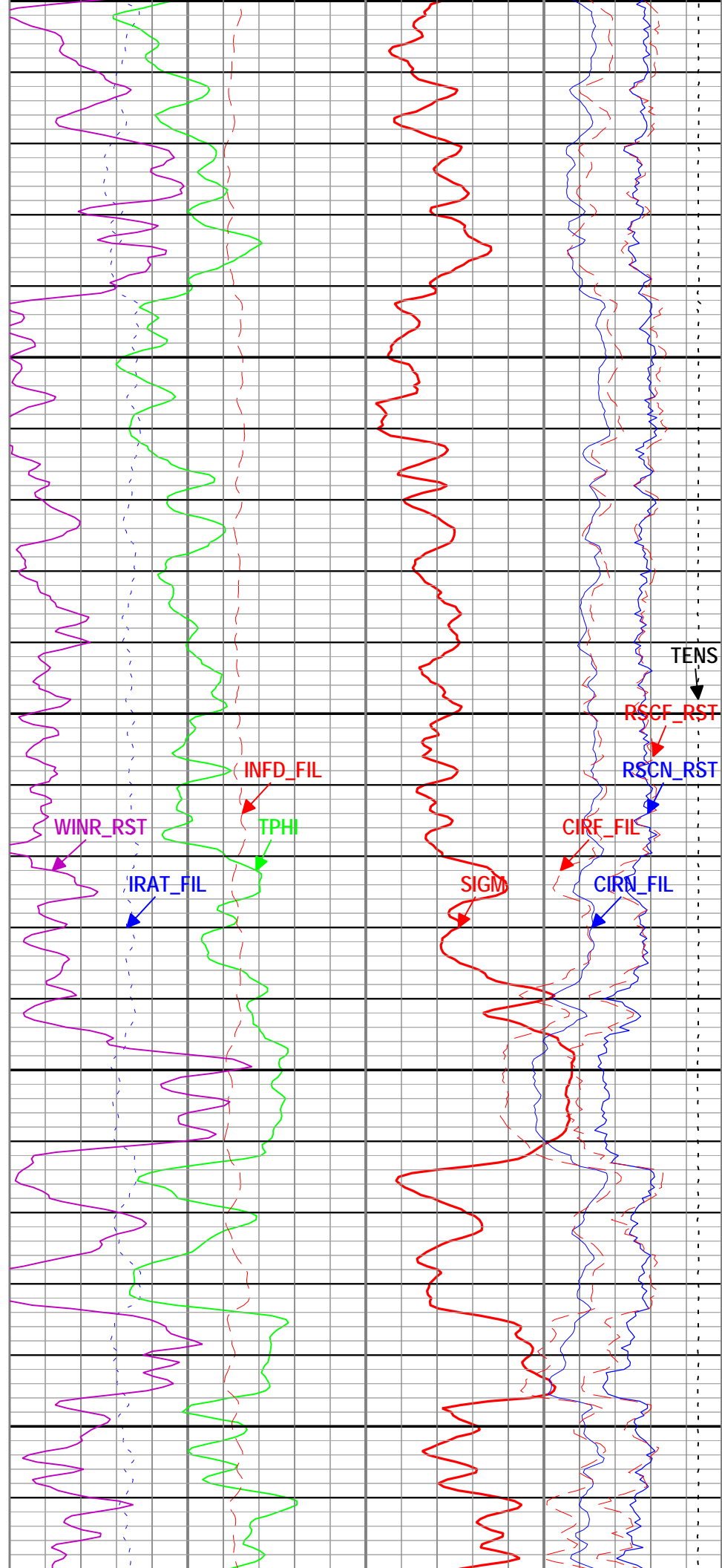
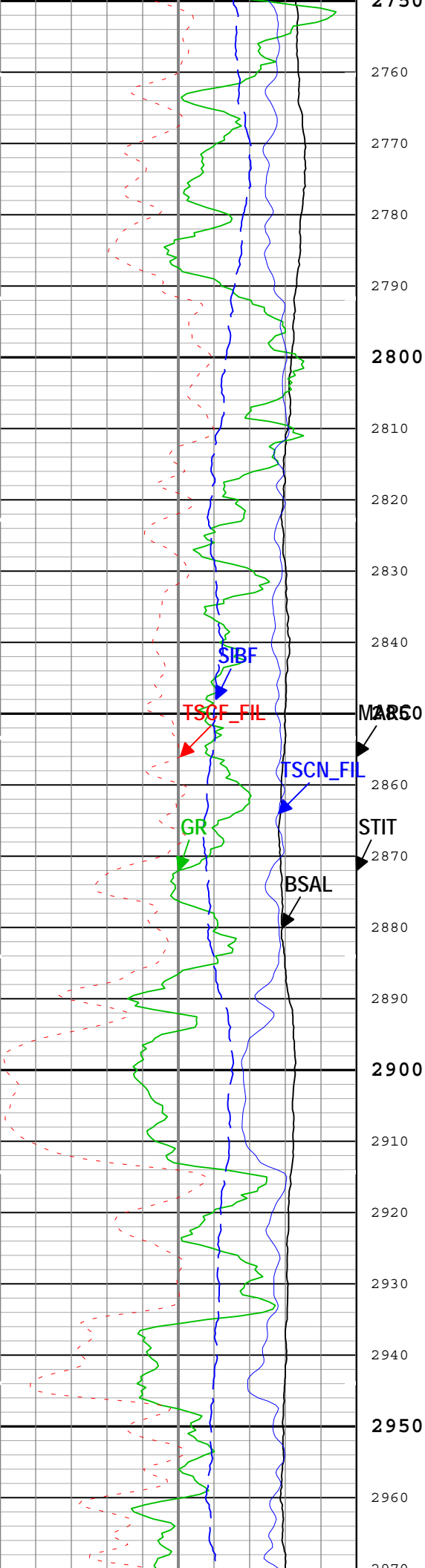
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[3]:Up	Up	1565.69 ft	9114.59 ft	23-Jul-2015 3:33:30 AM	23-Jul-2015 7:24:18 AM	ON	7.42 ft	No
All depths are referenced to toolstring zero									

Log	Company:Caerus Piceance LLC      Well:Puckett 11D-1 ONE: Log[3]:Up:S007
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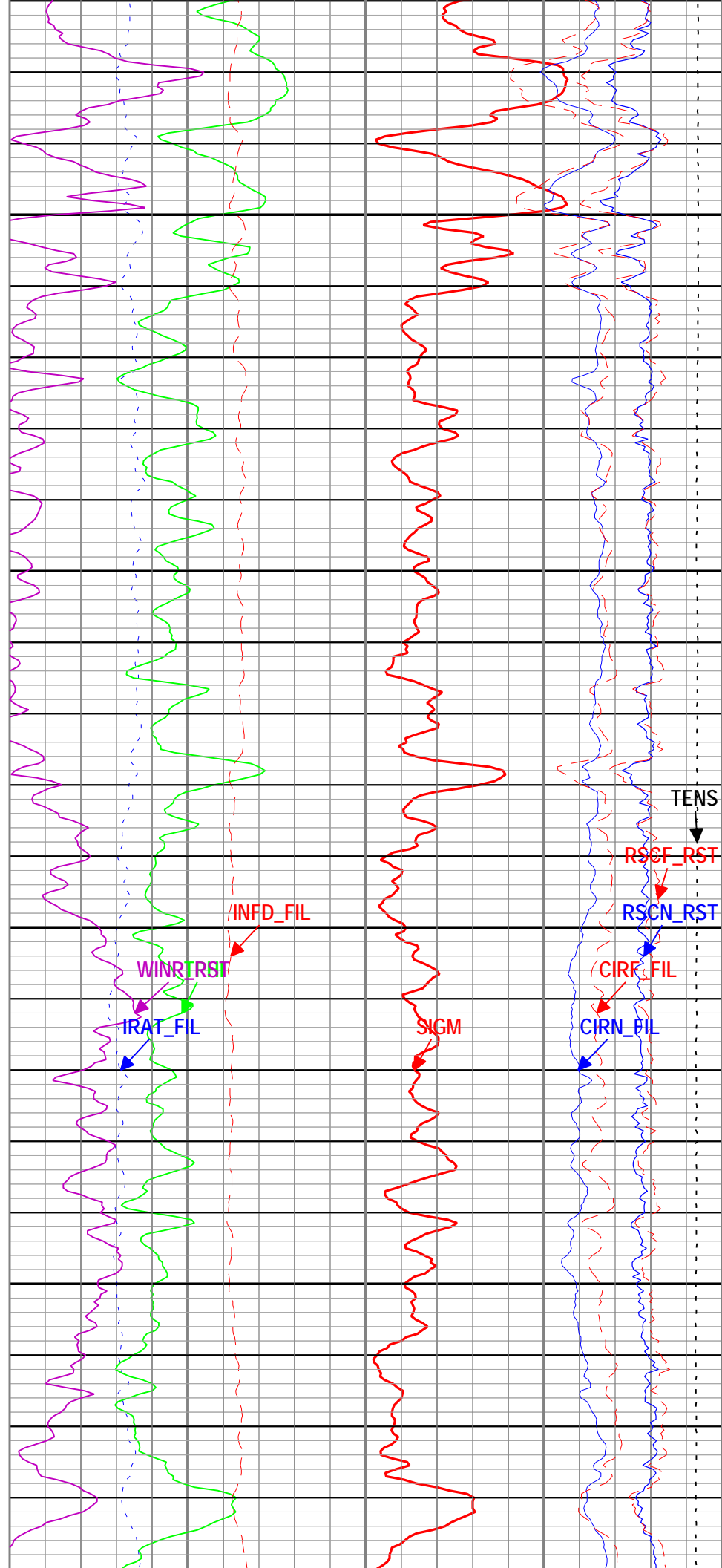
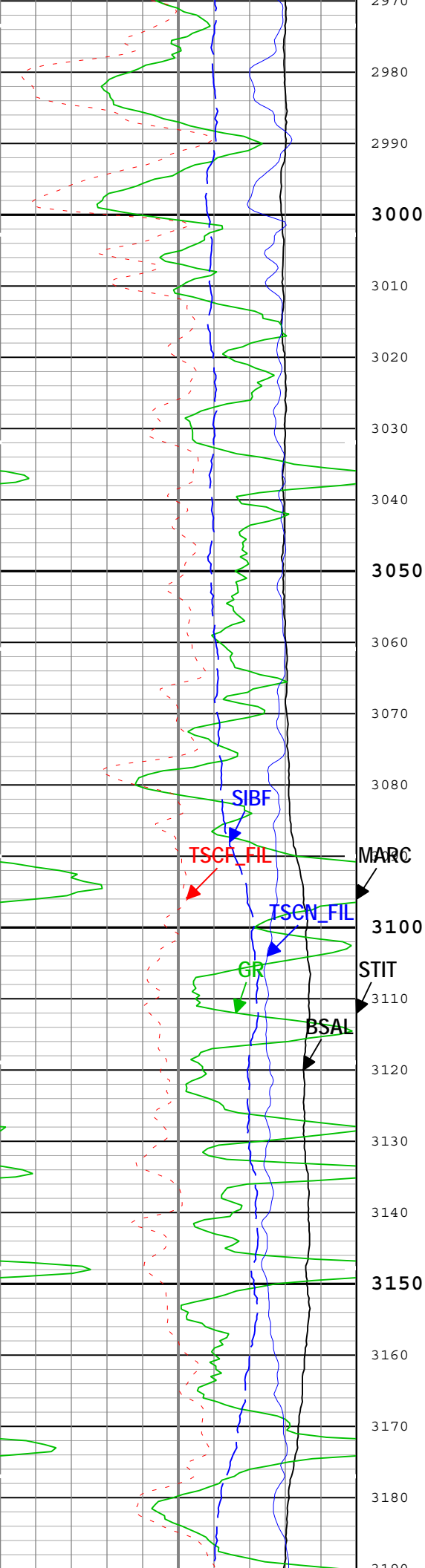
Description: RST SIGMA Answer    Format: Log ( RST SIGMA Answer )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 23-Jul-2015 13:57:44

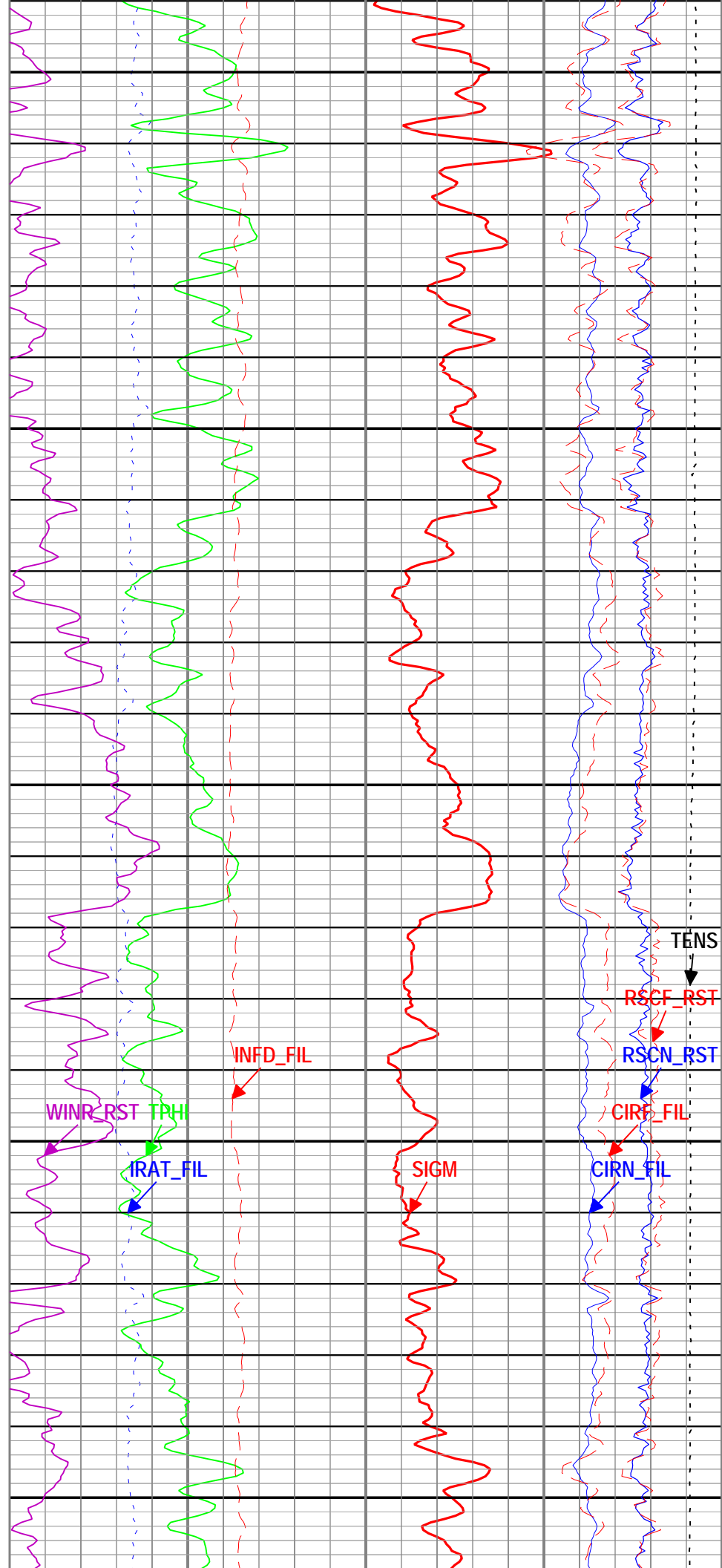
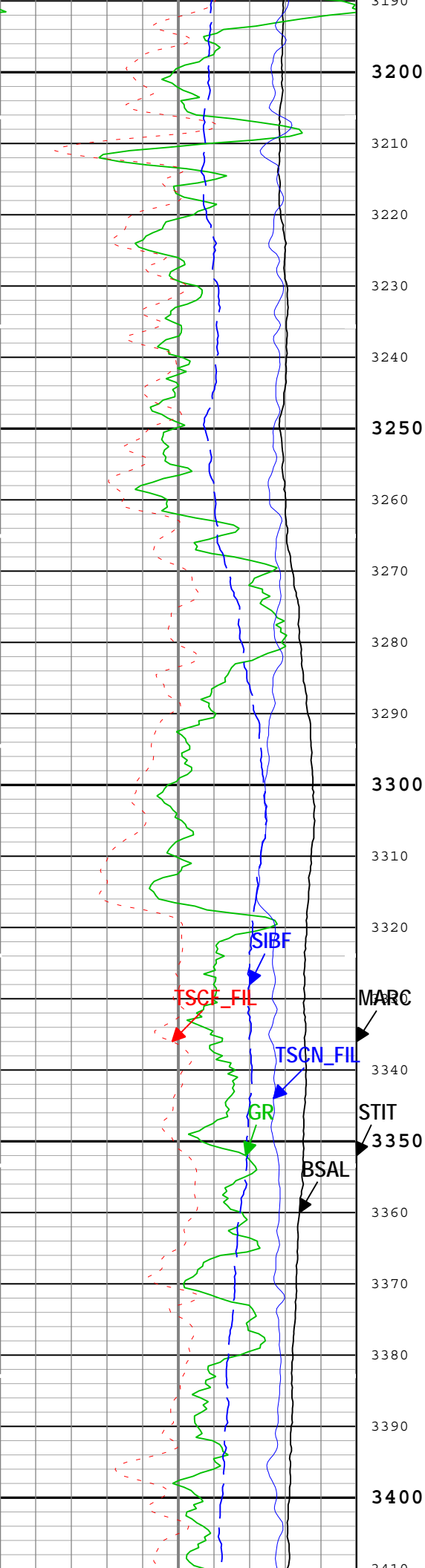


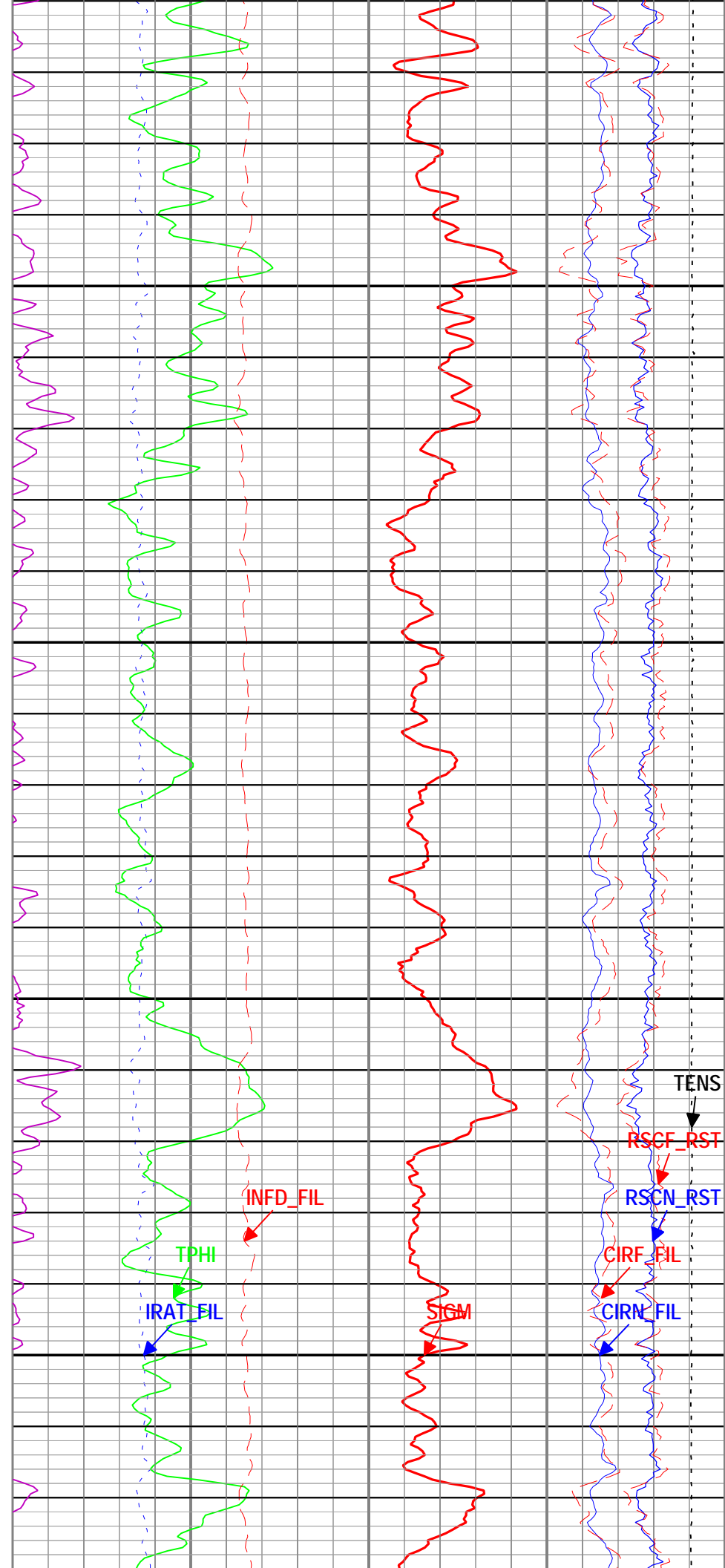
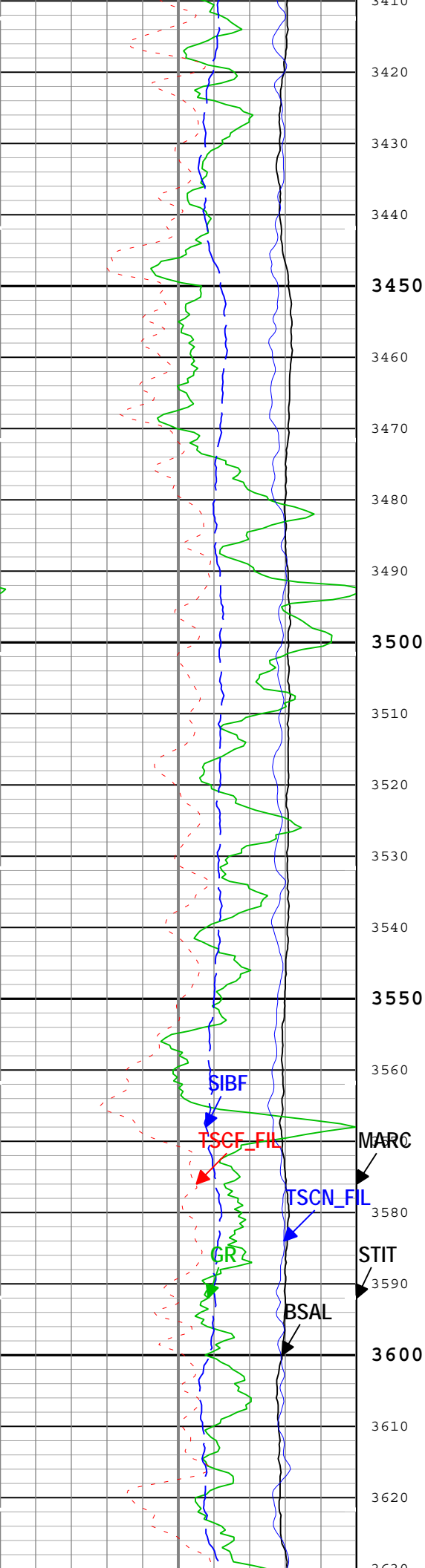


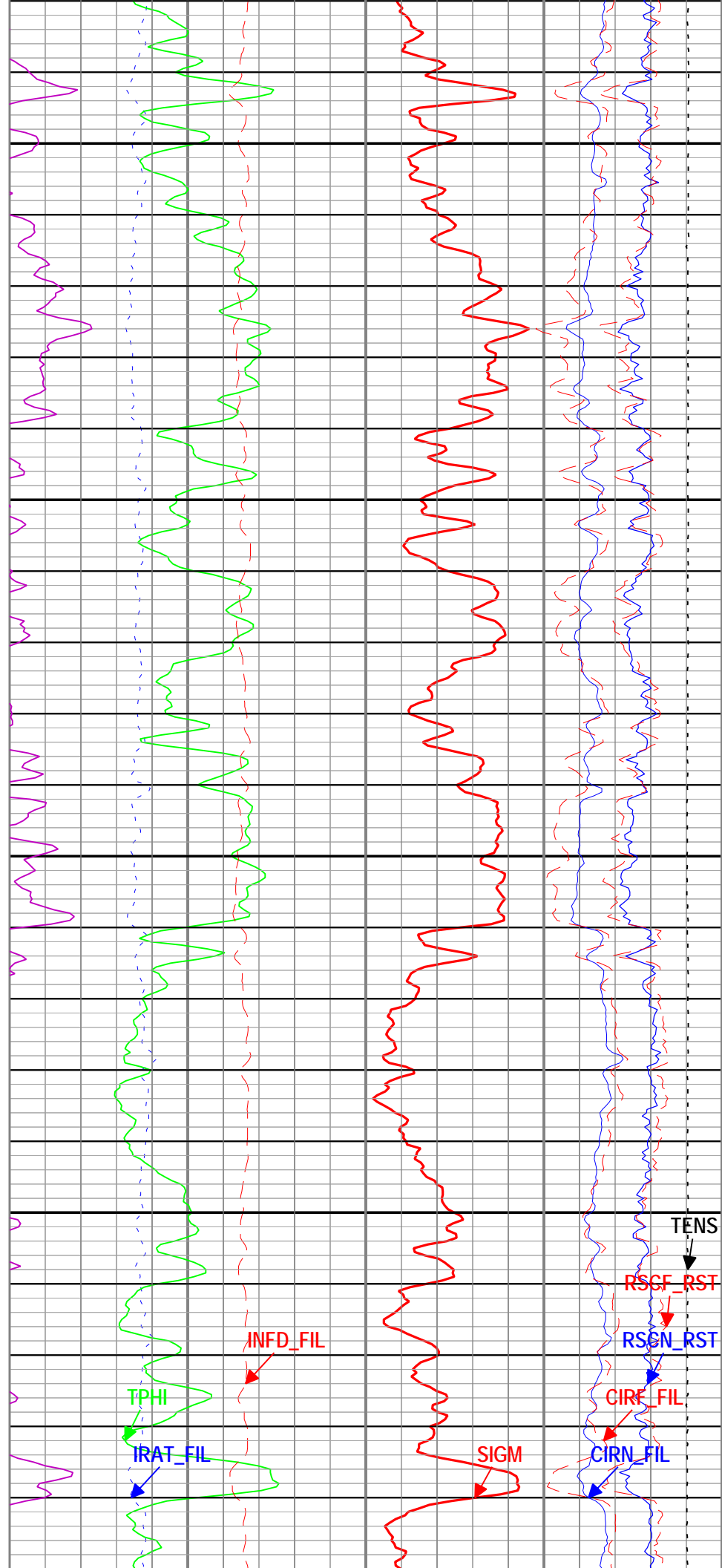
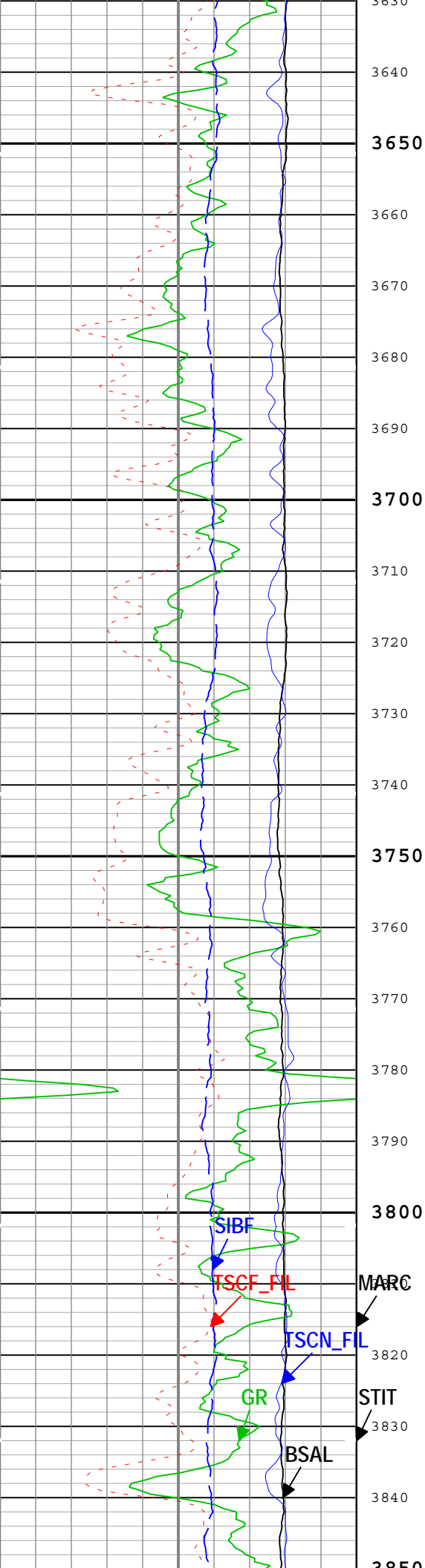


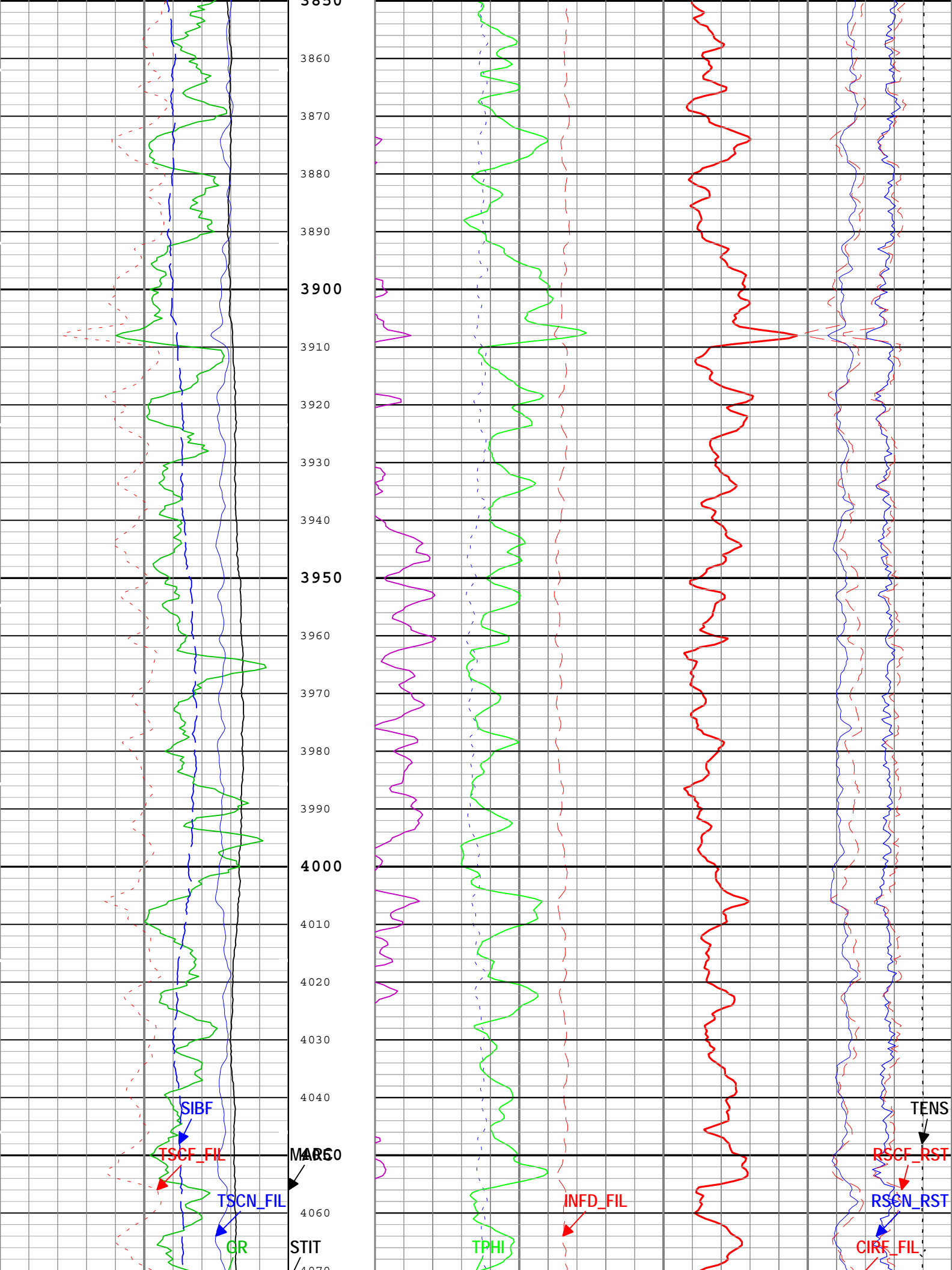


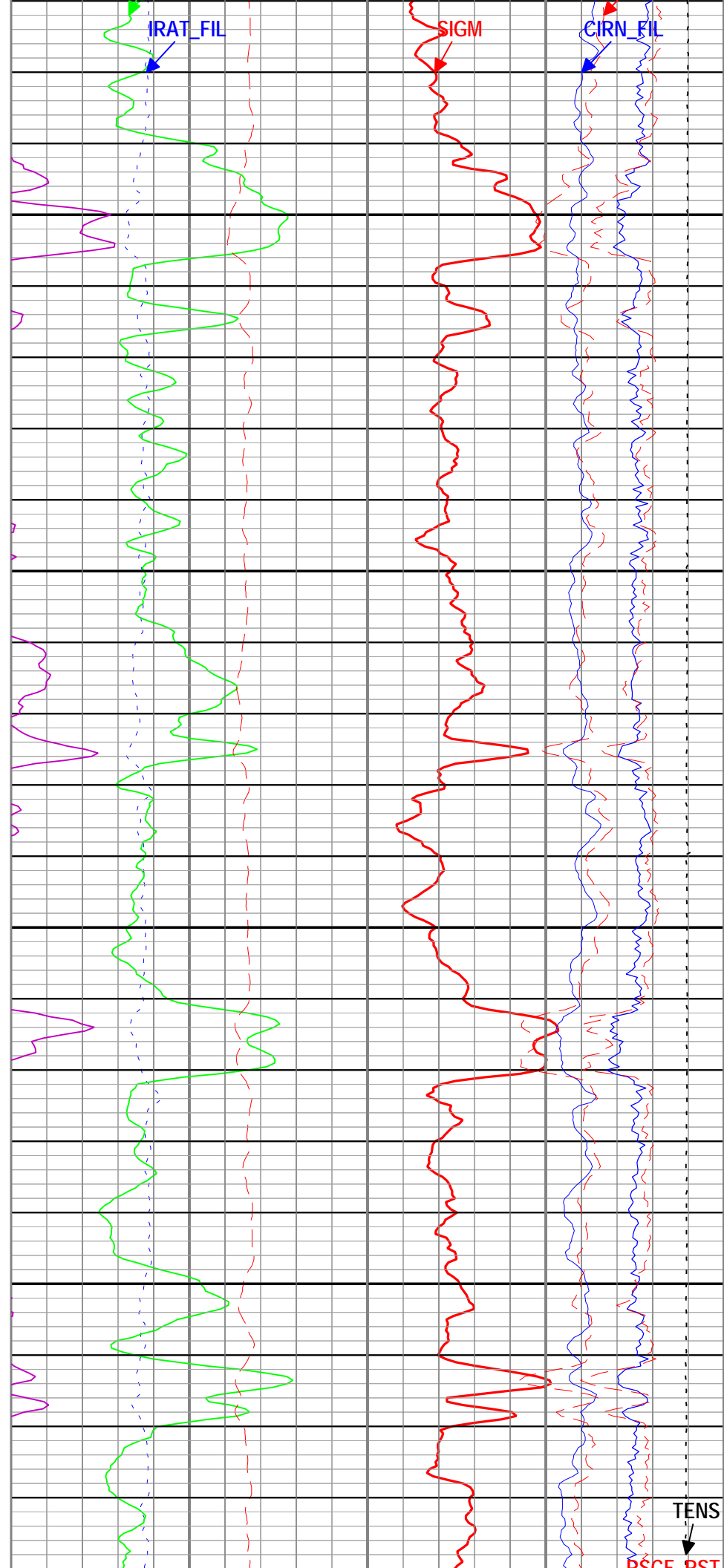
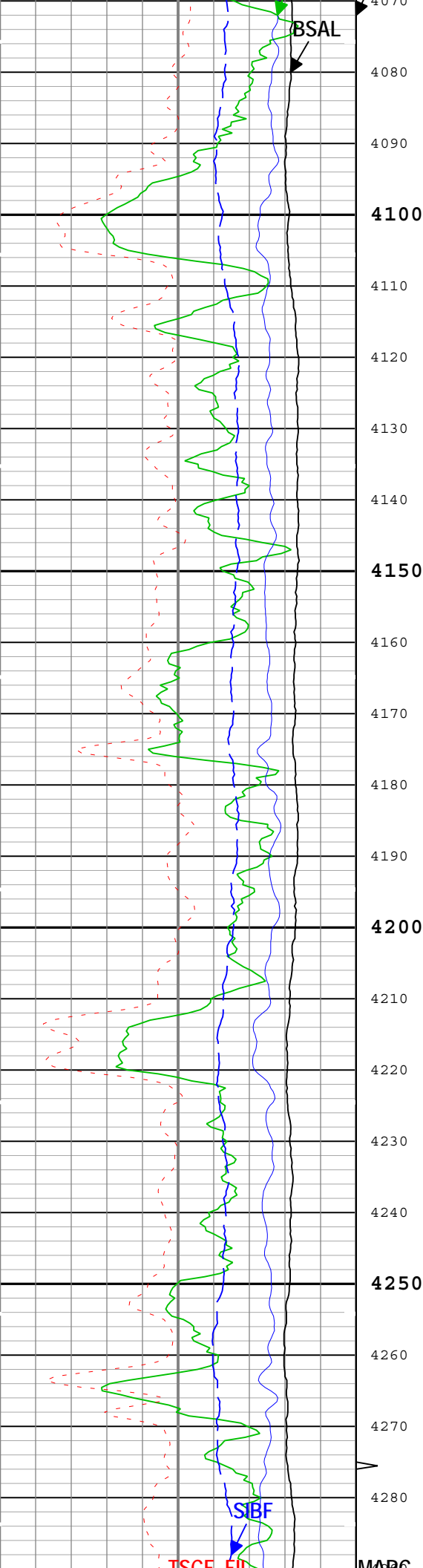


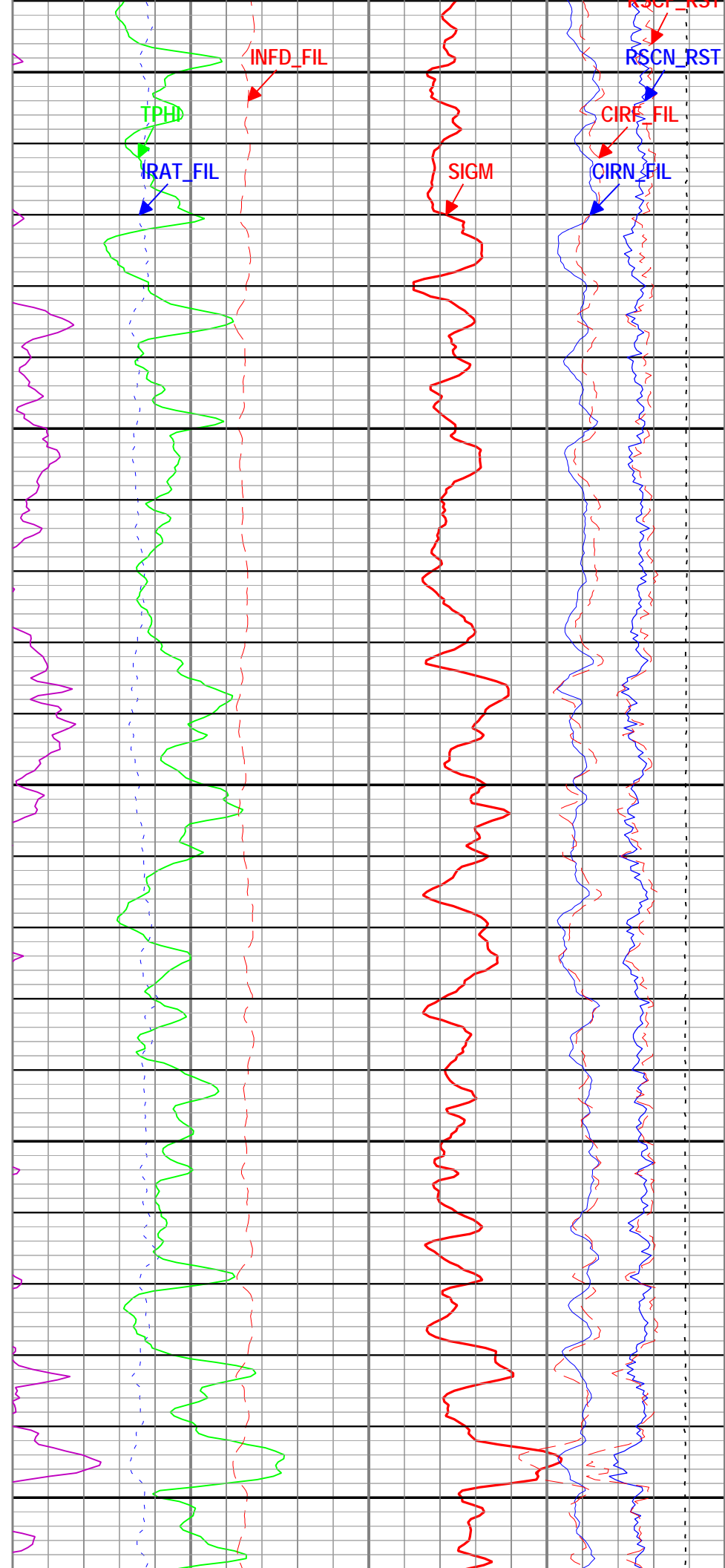
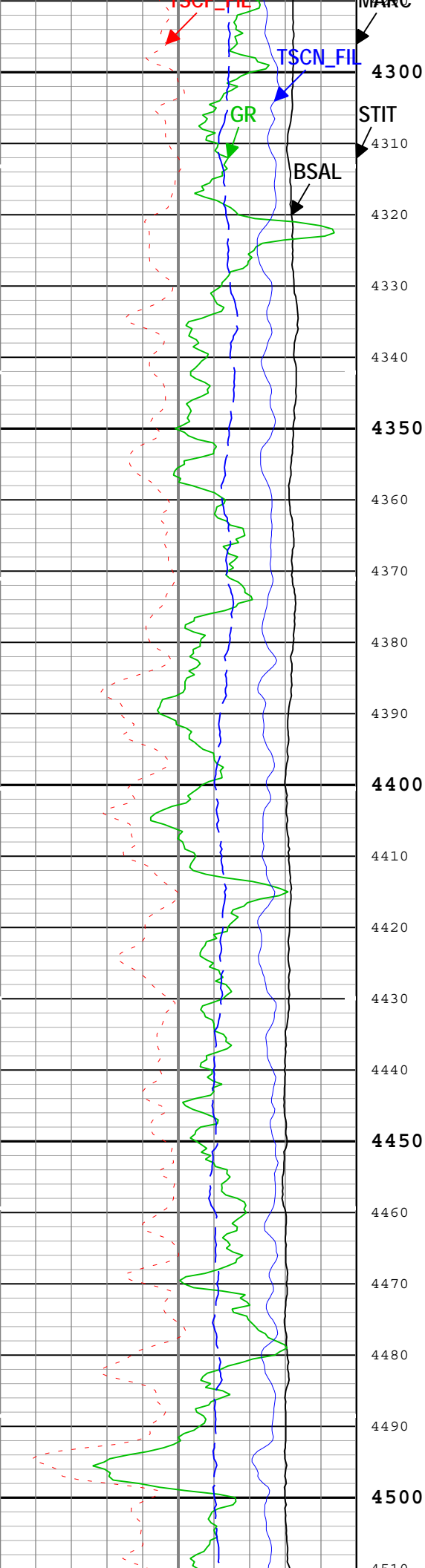


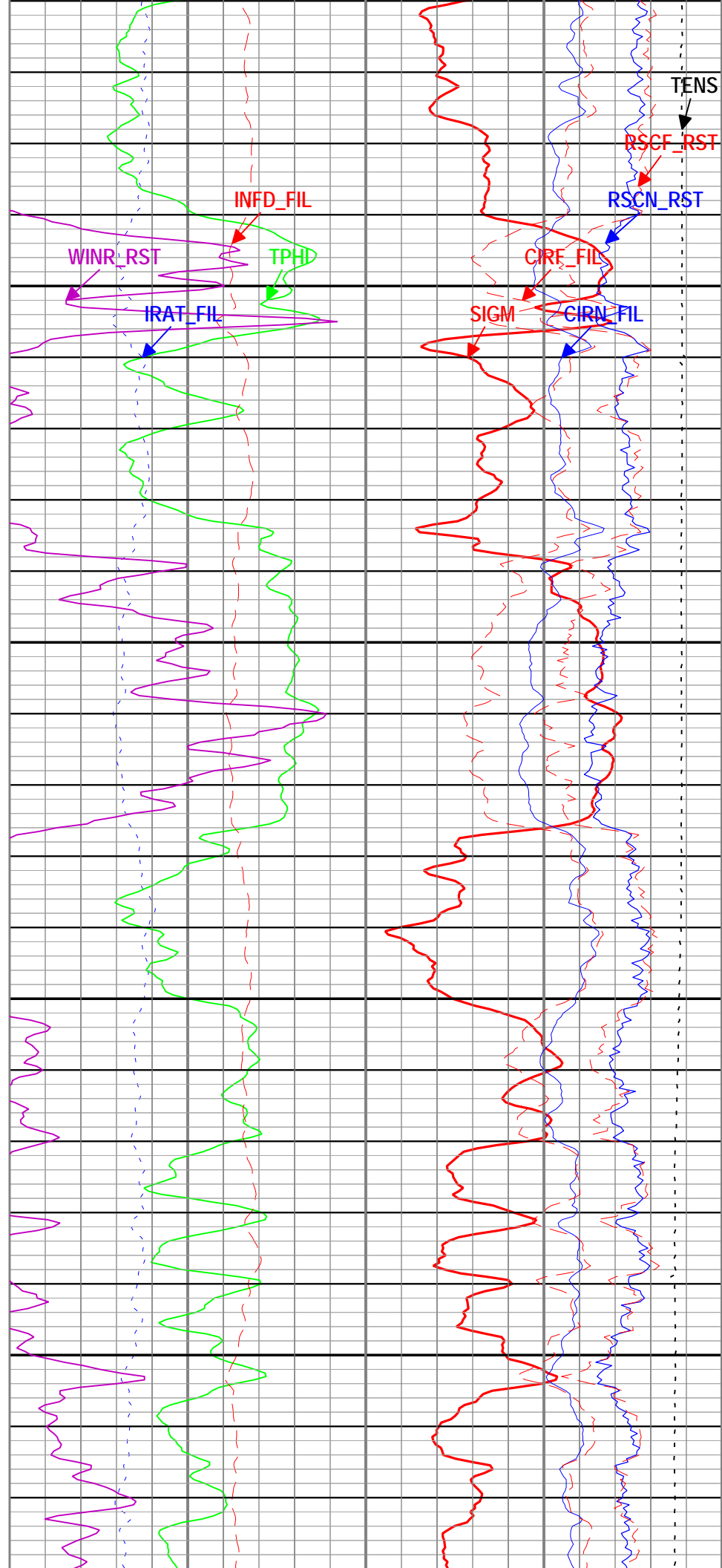
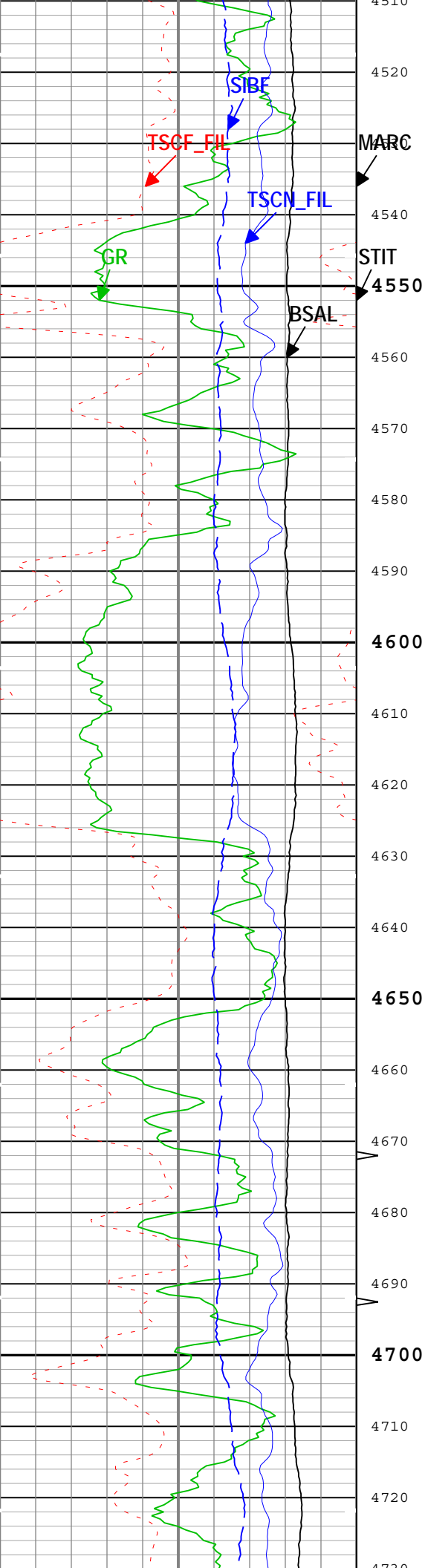




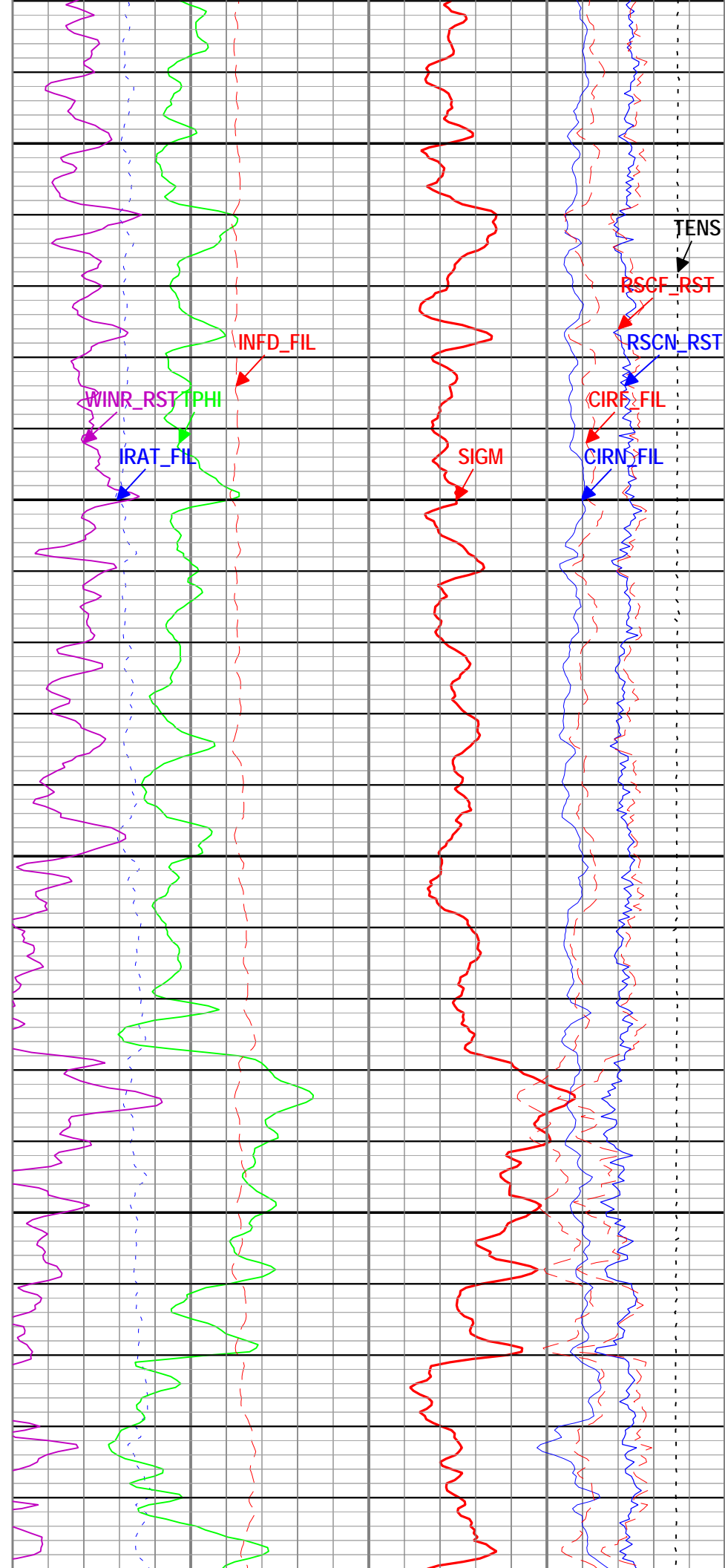
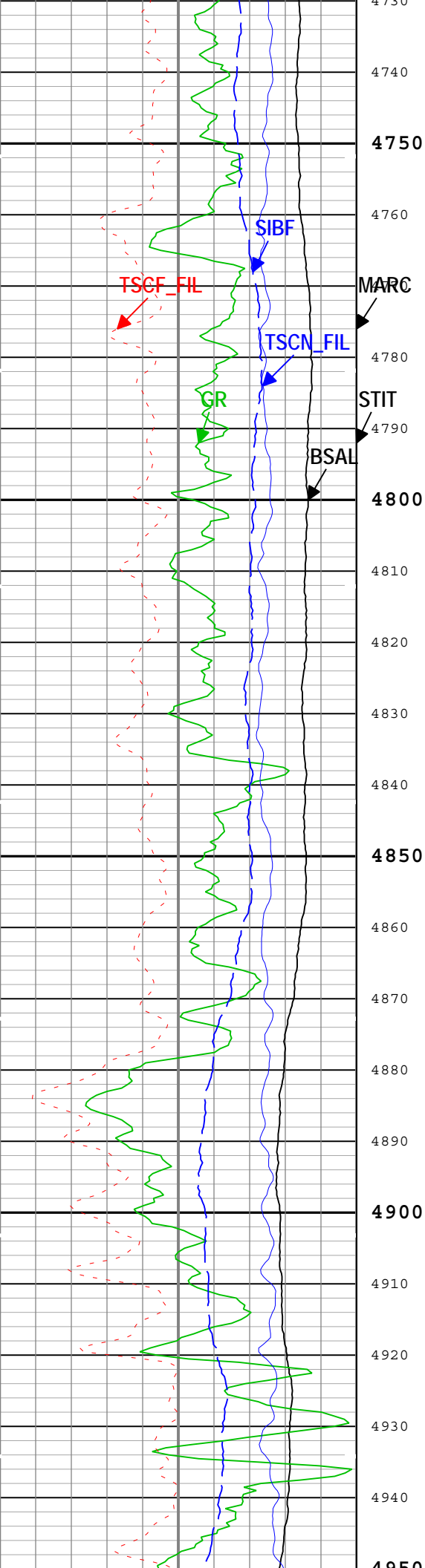


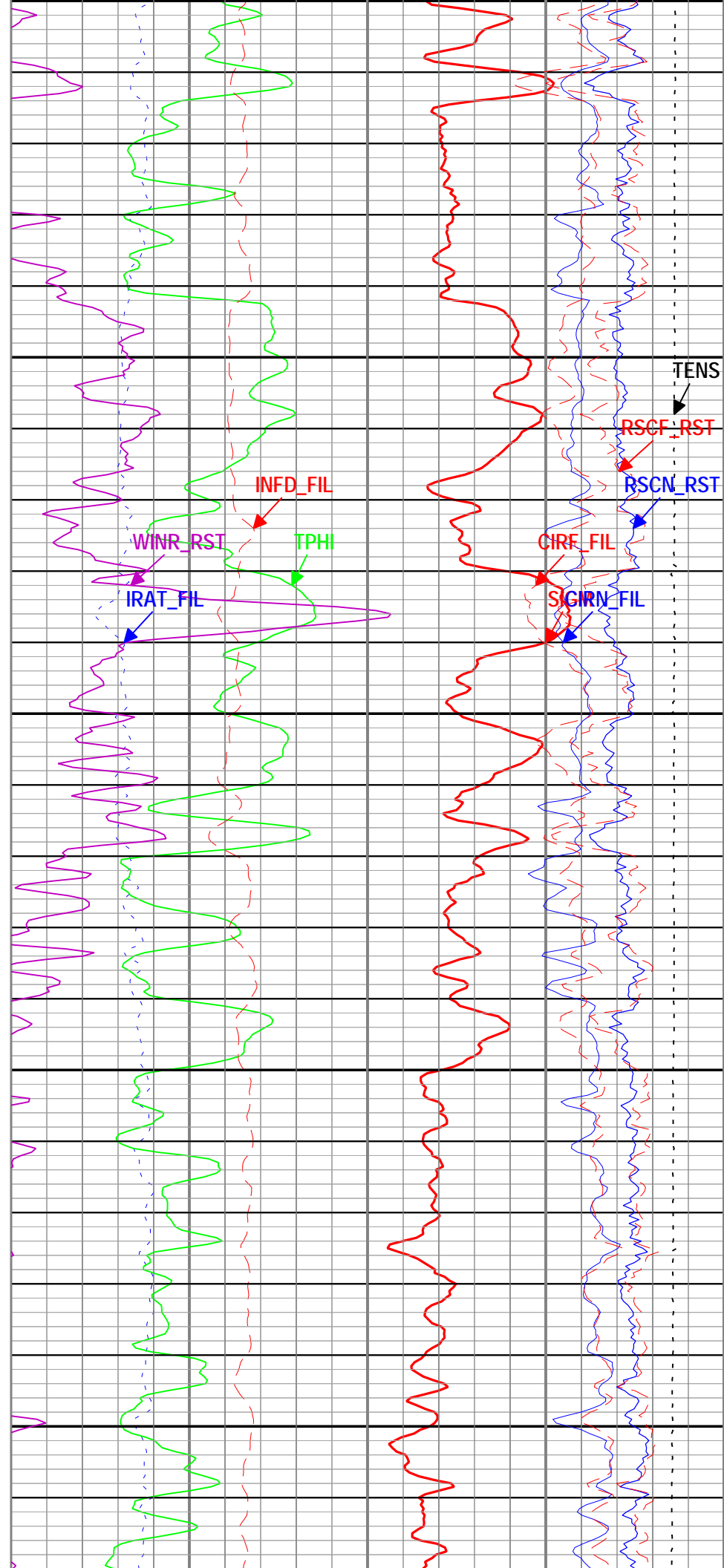
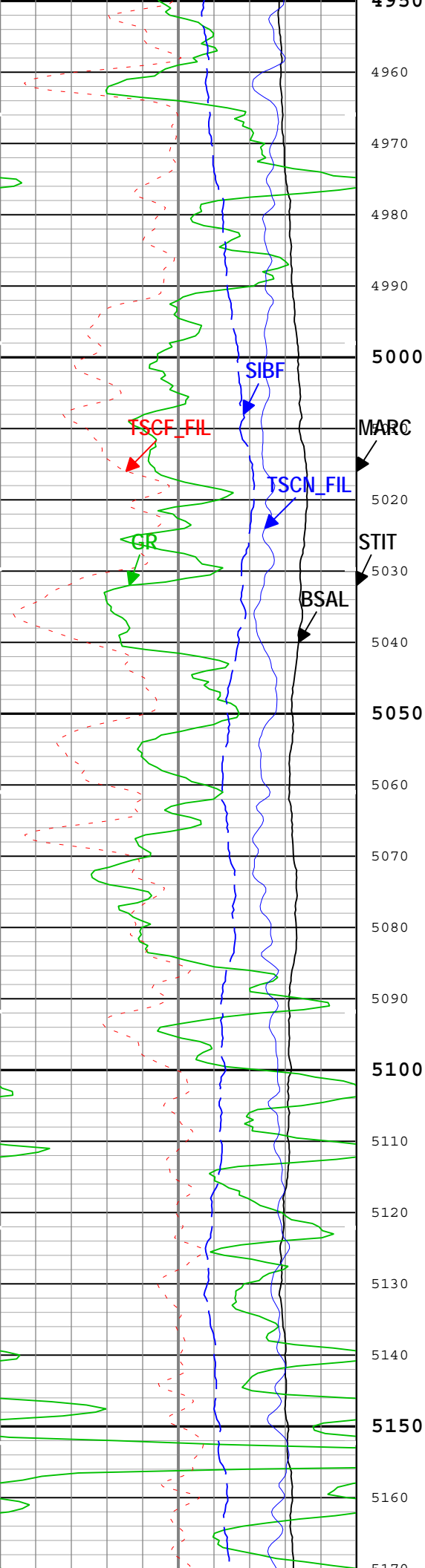


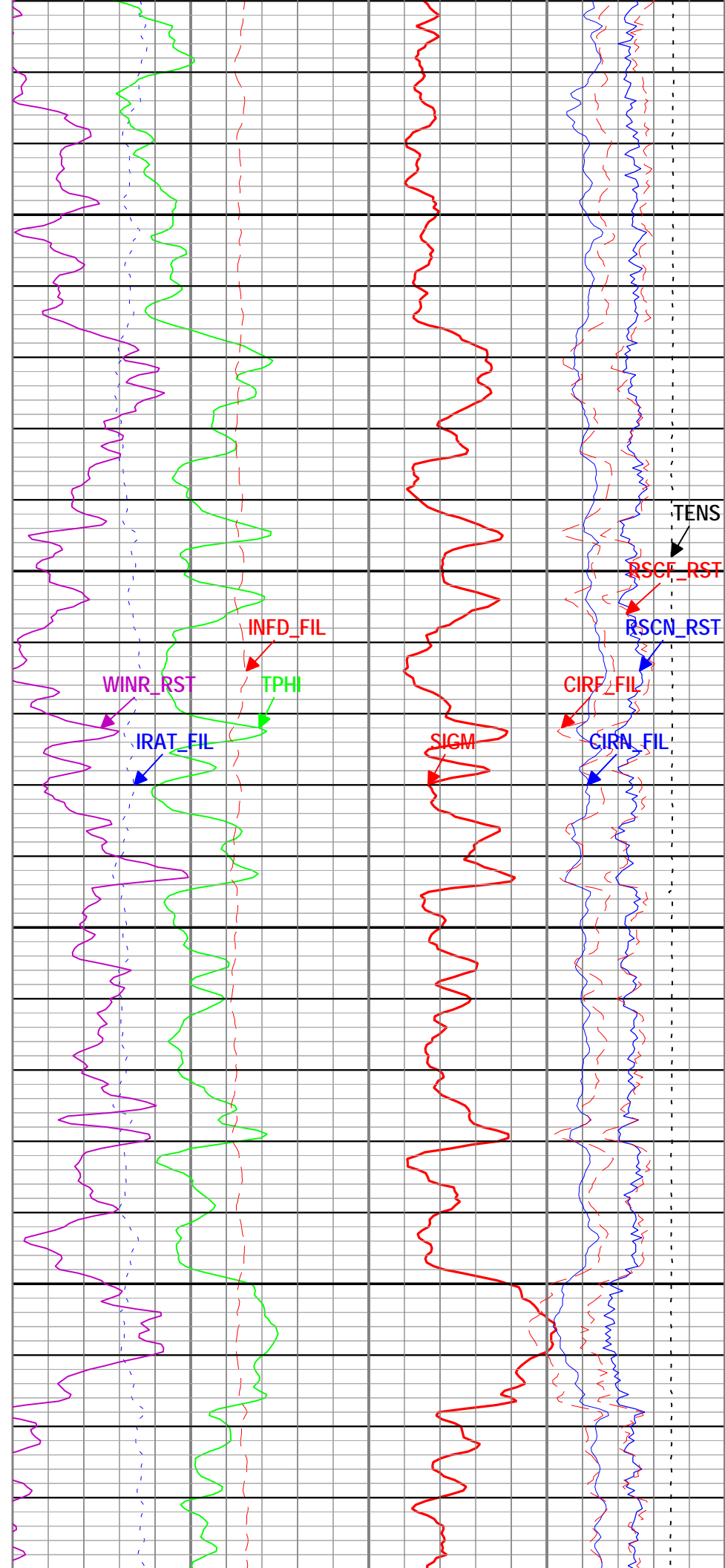
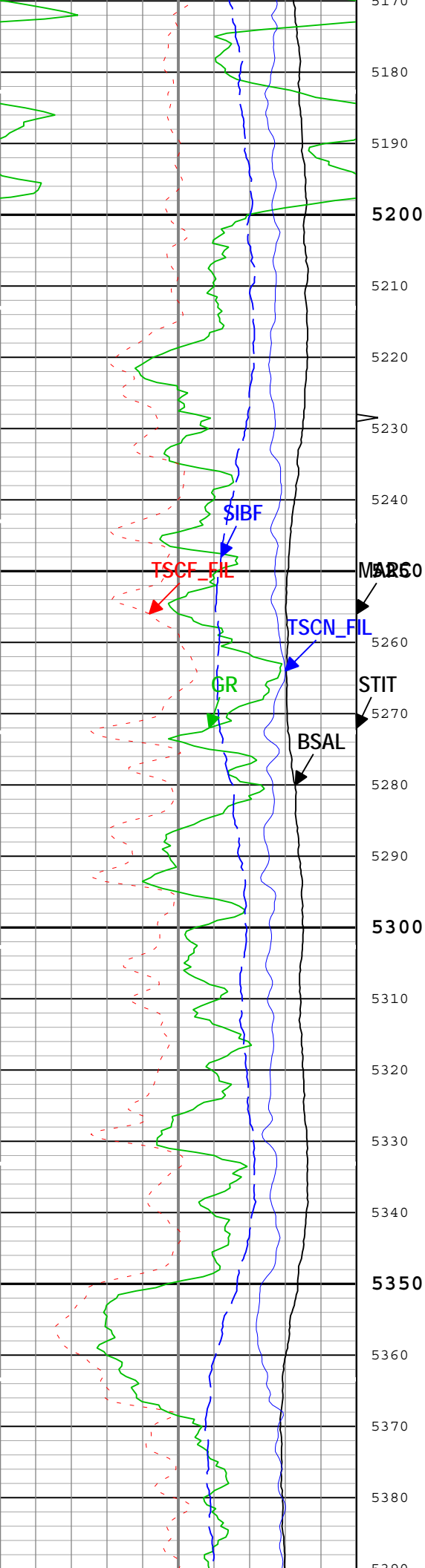


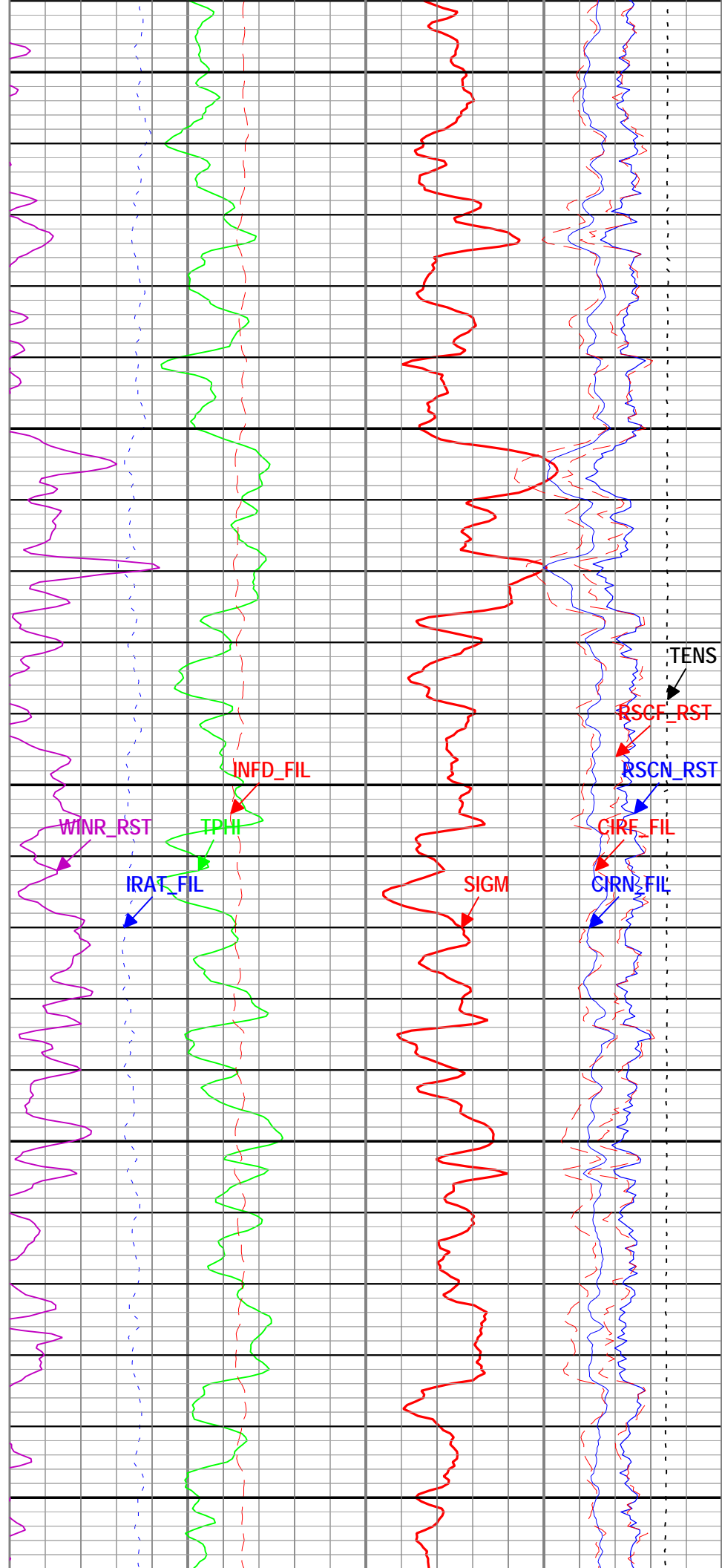
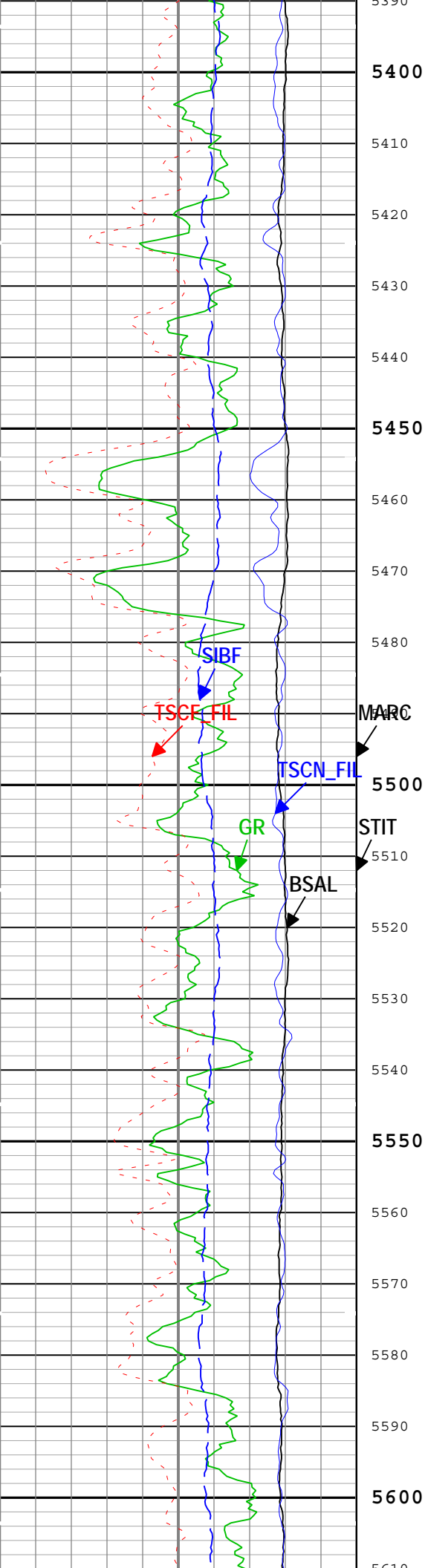


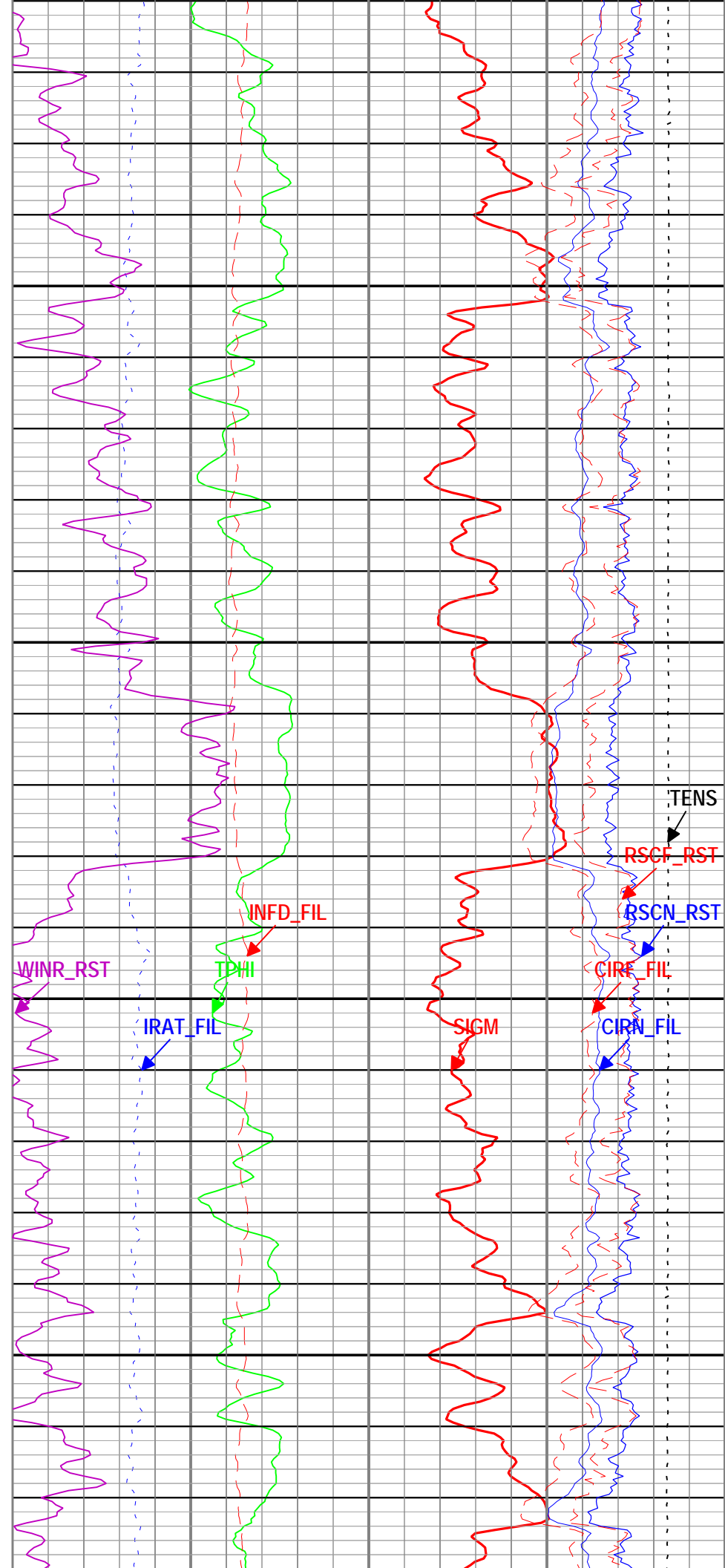
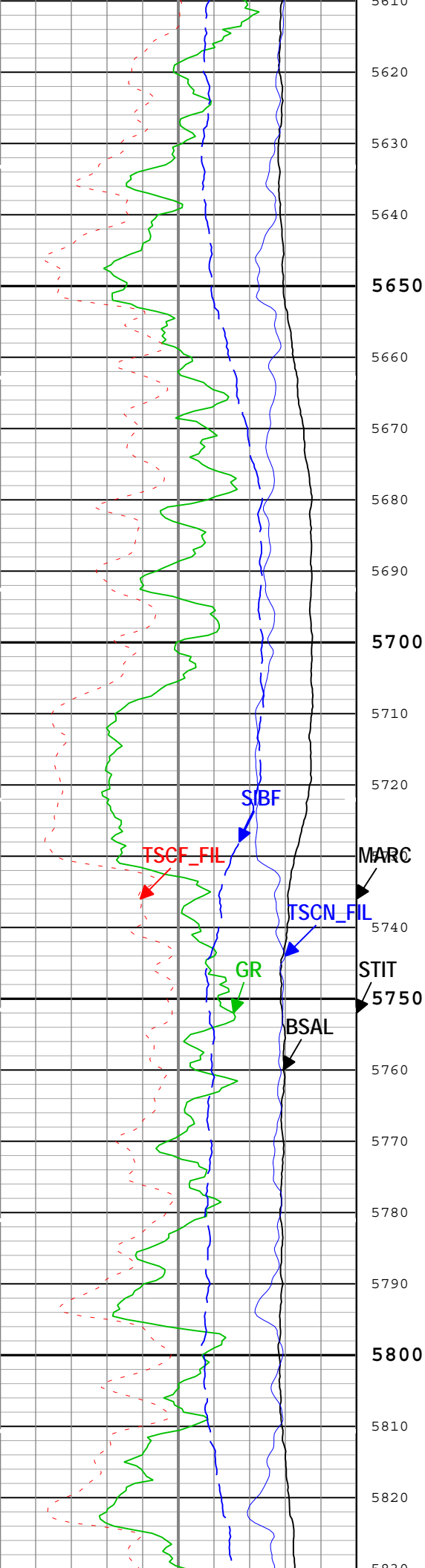


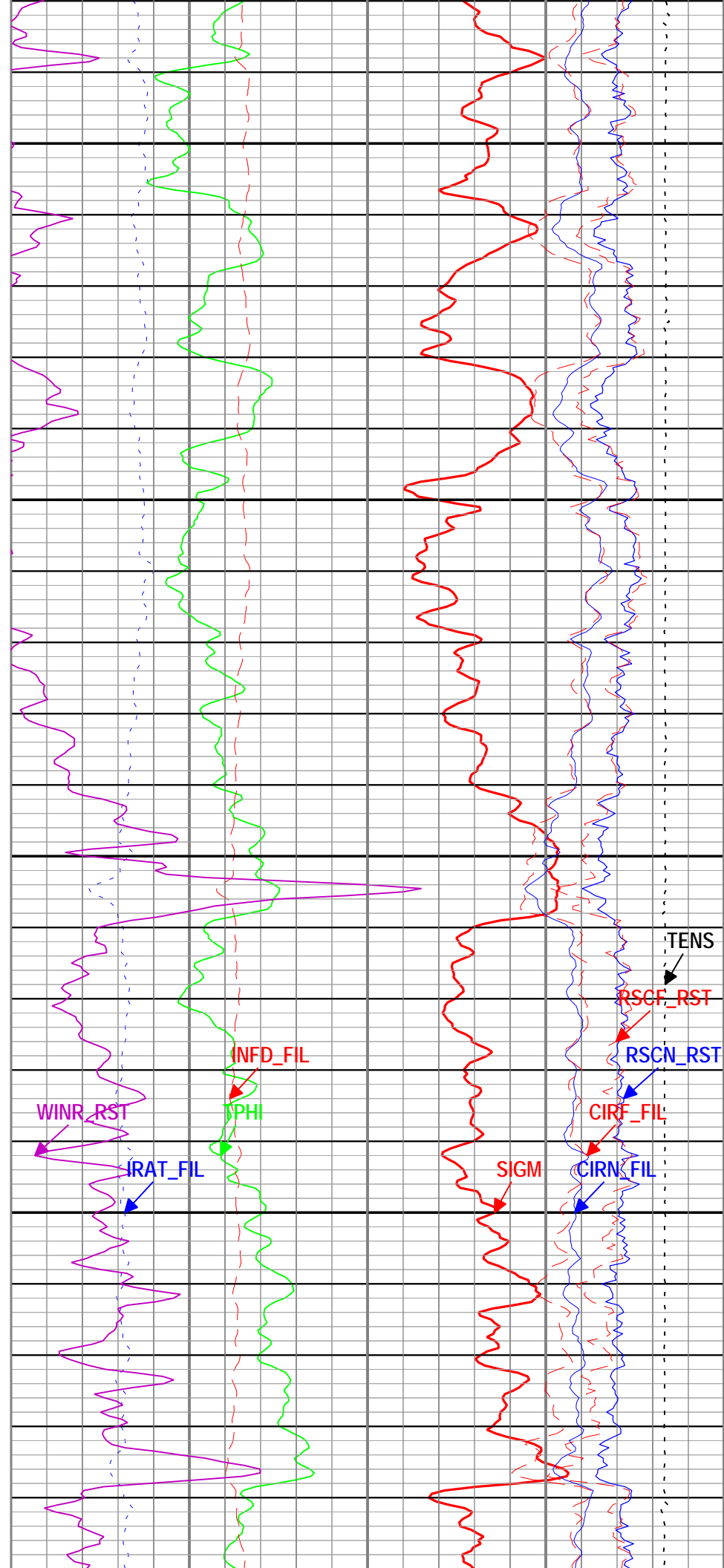
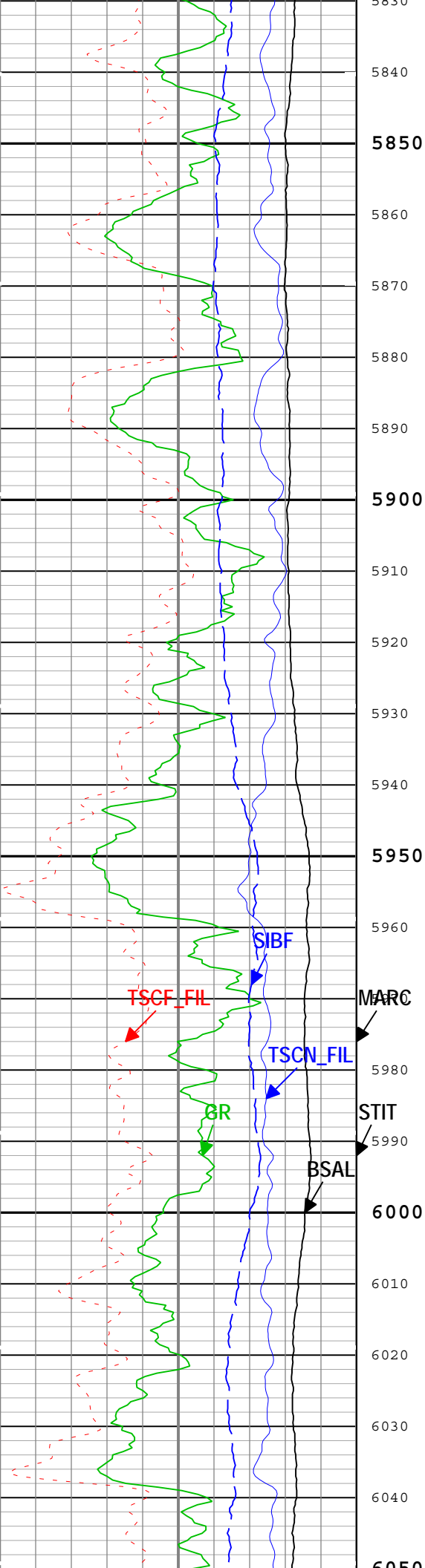


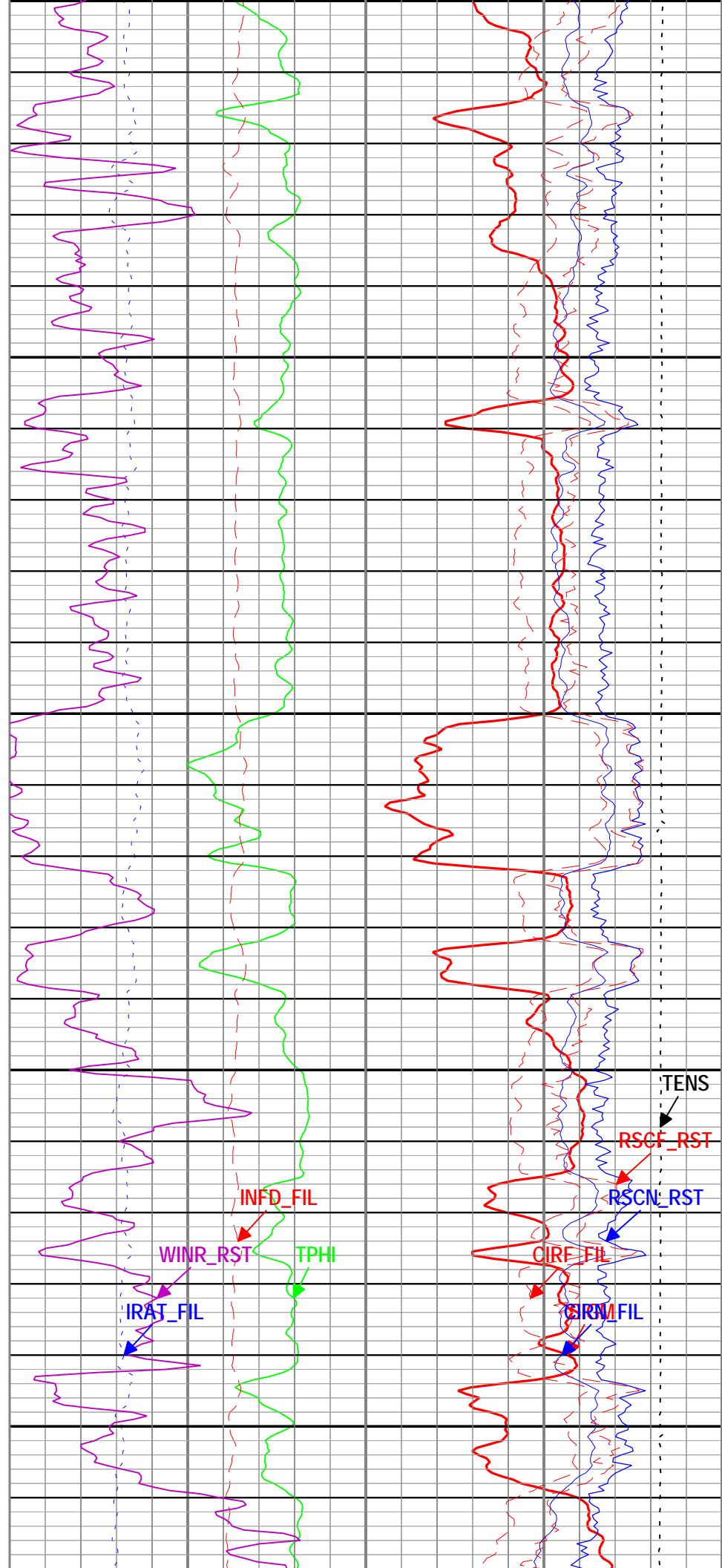
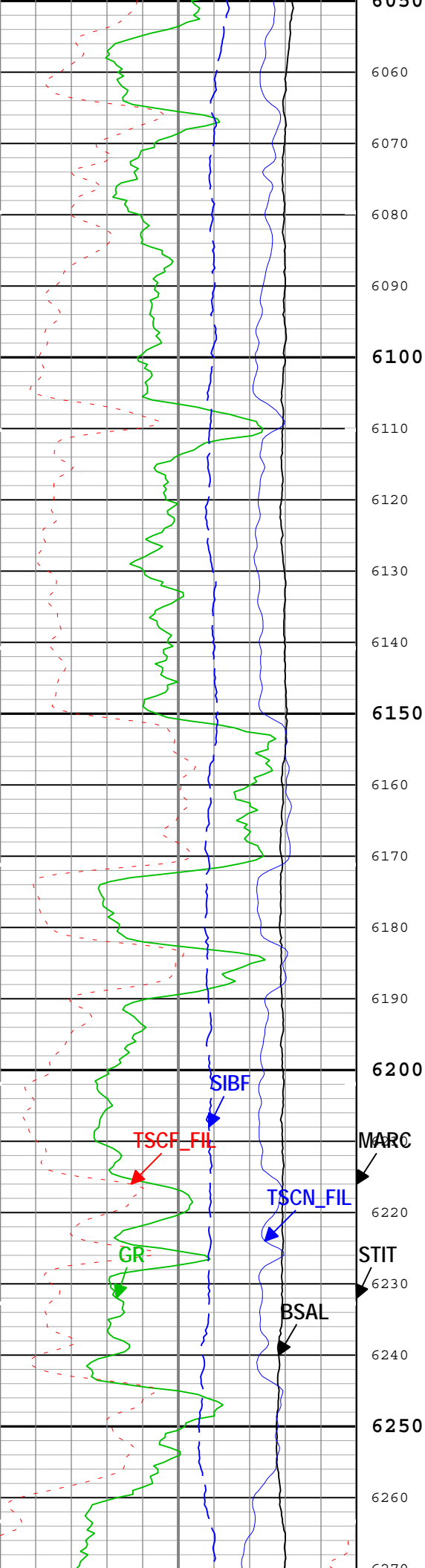




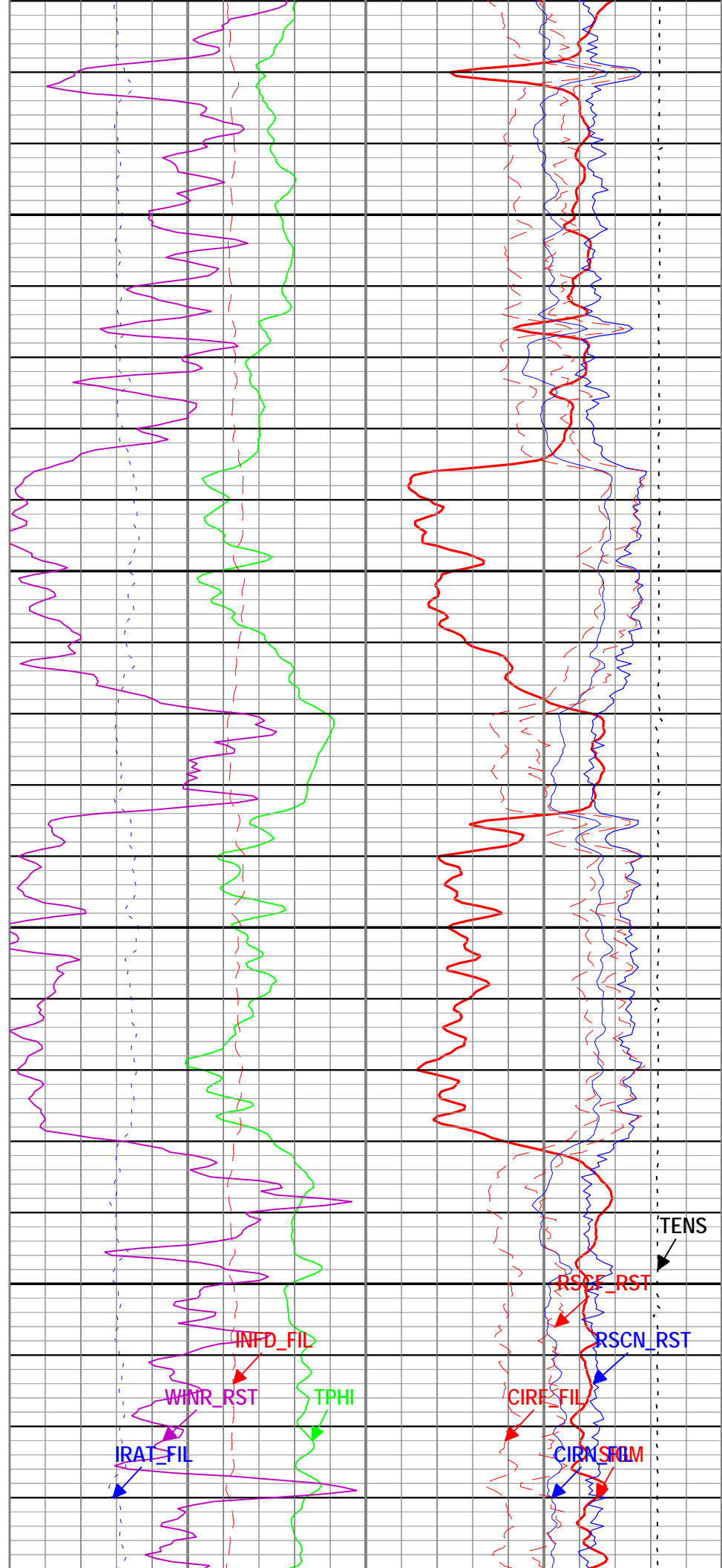
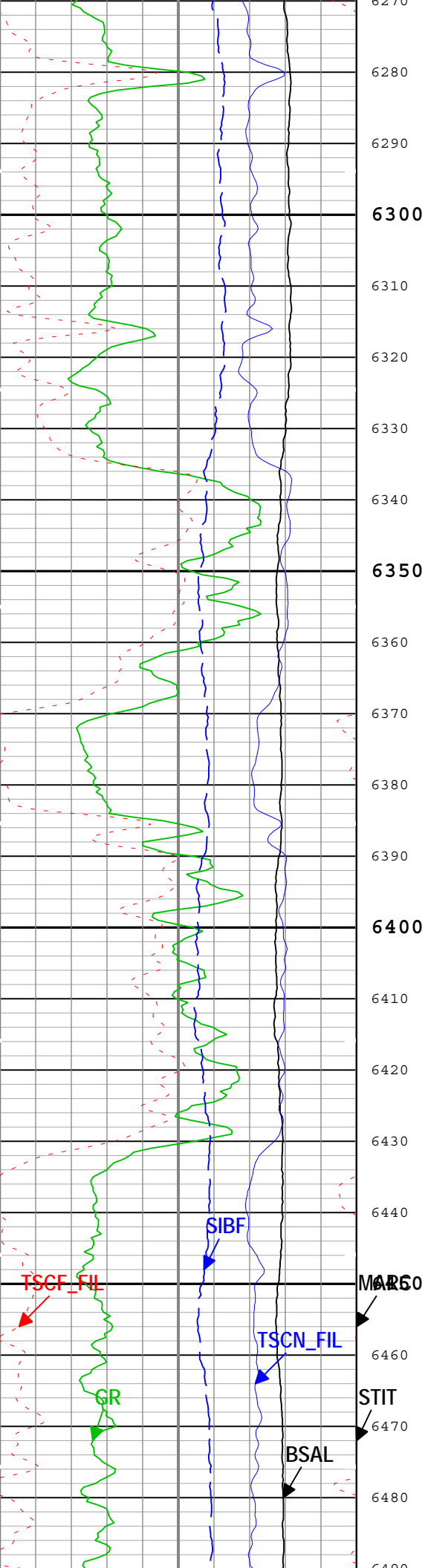




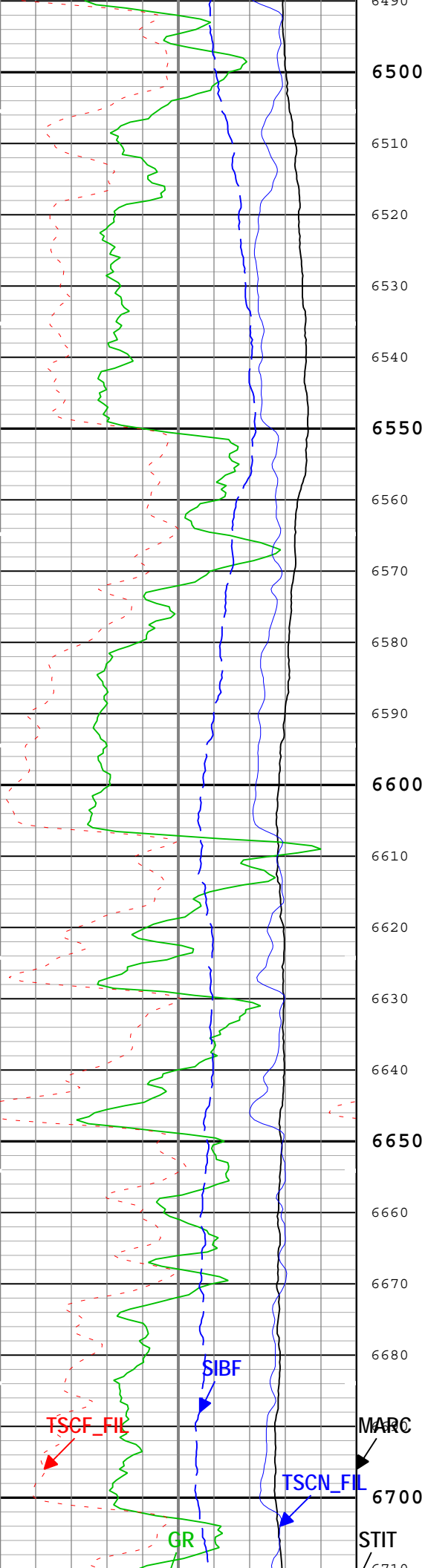






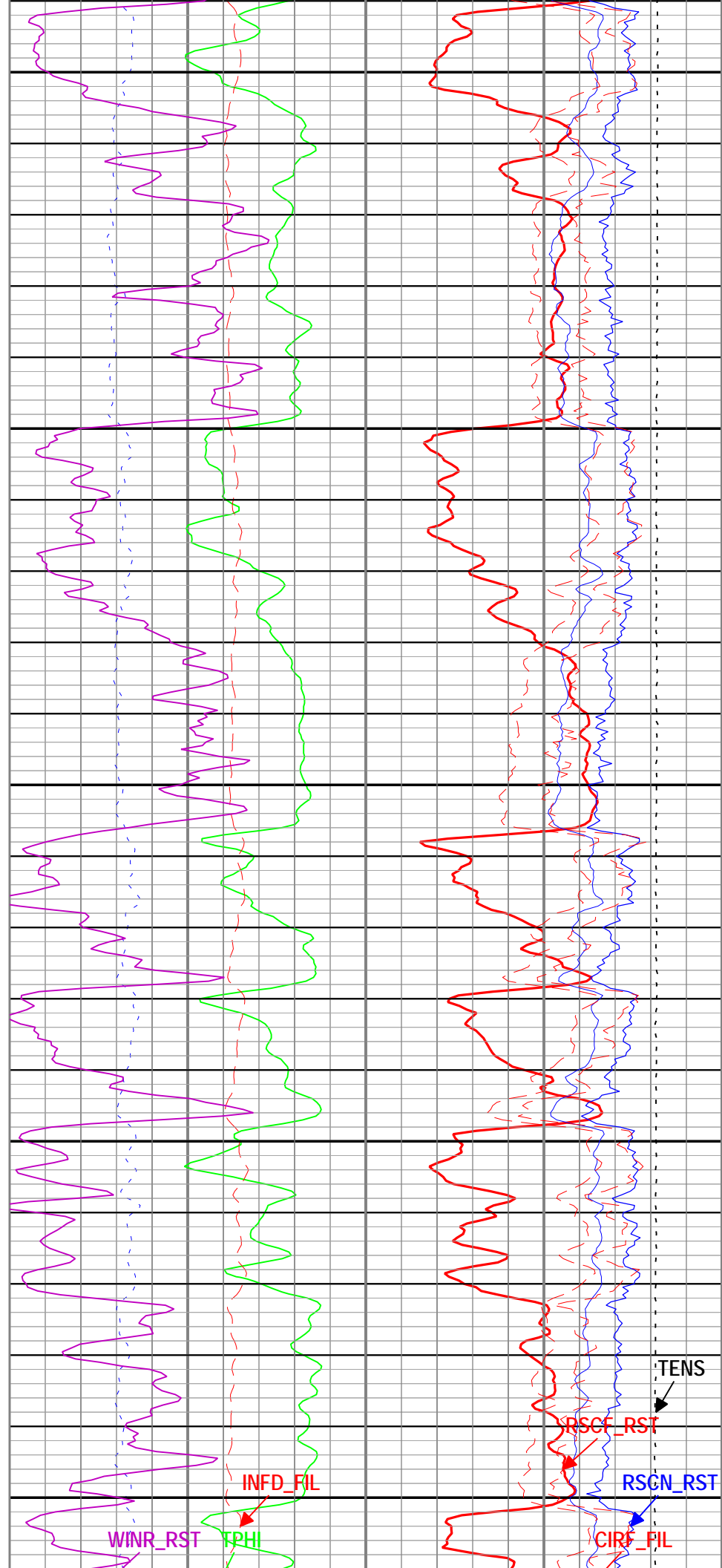


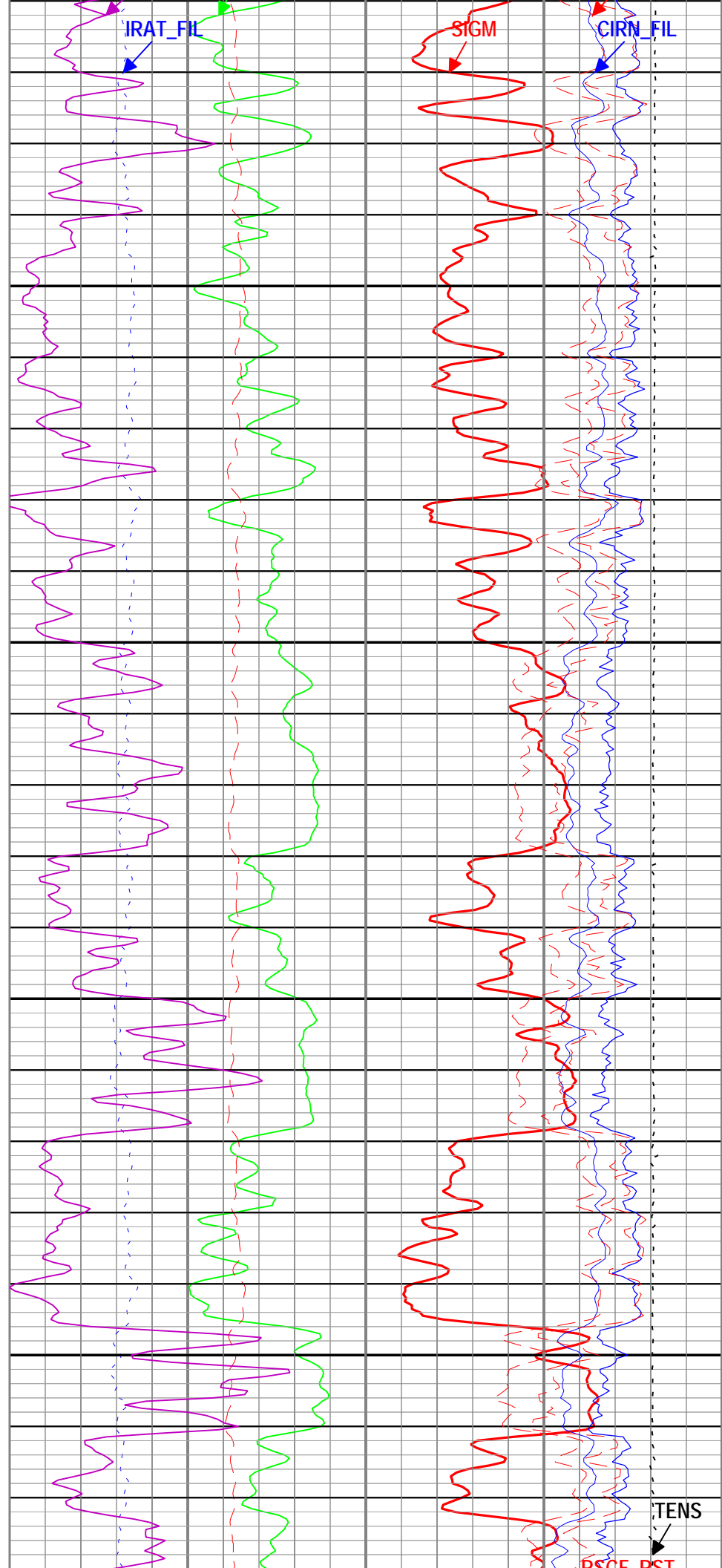
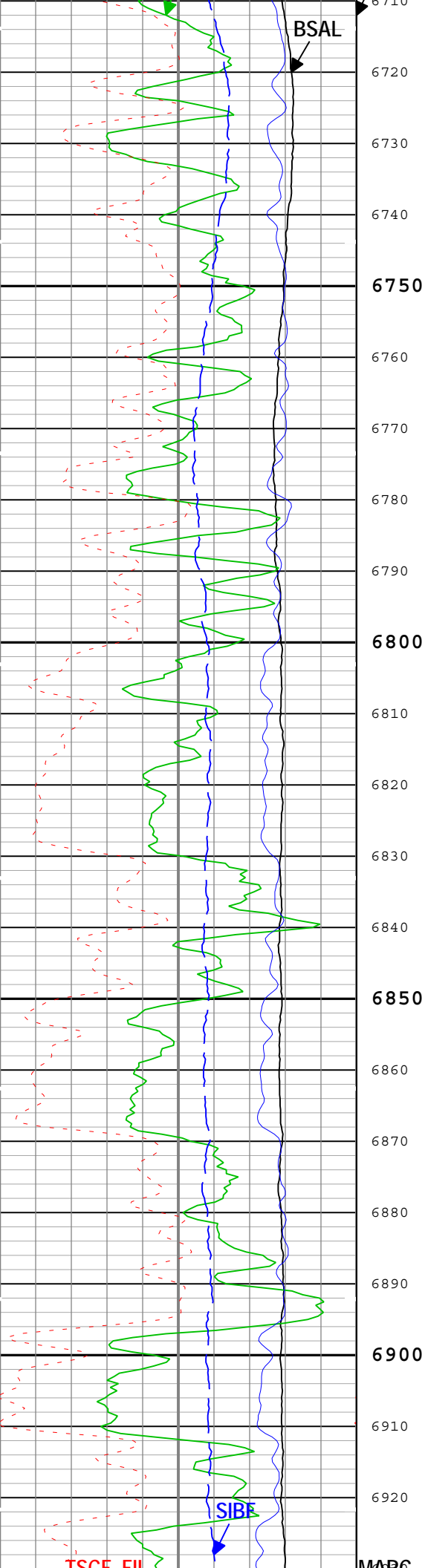


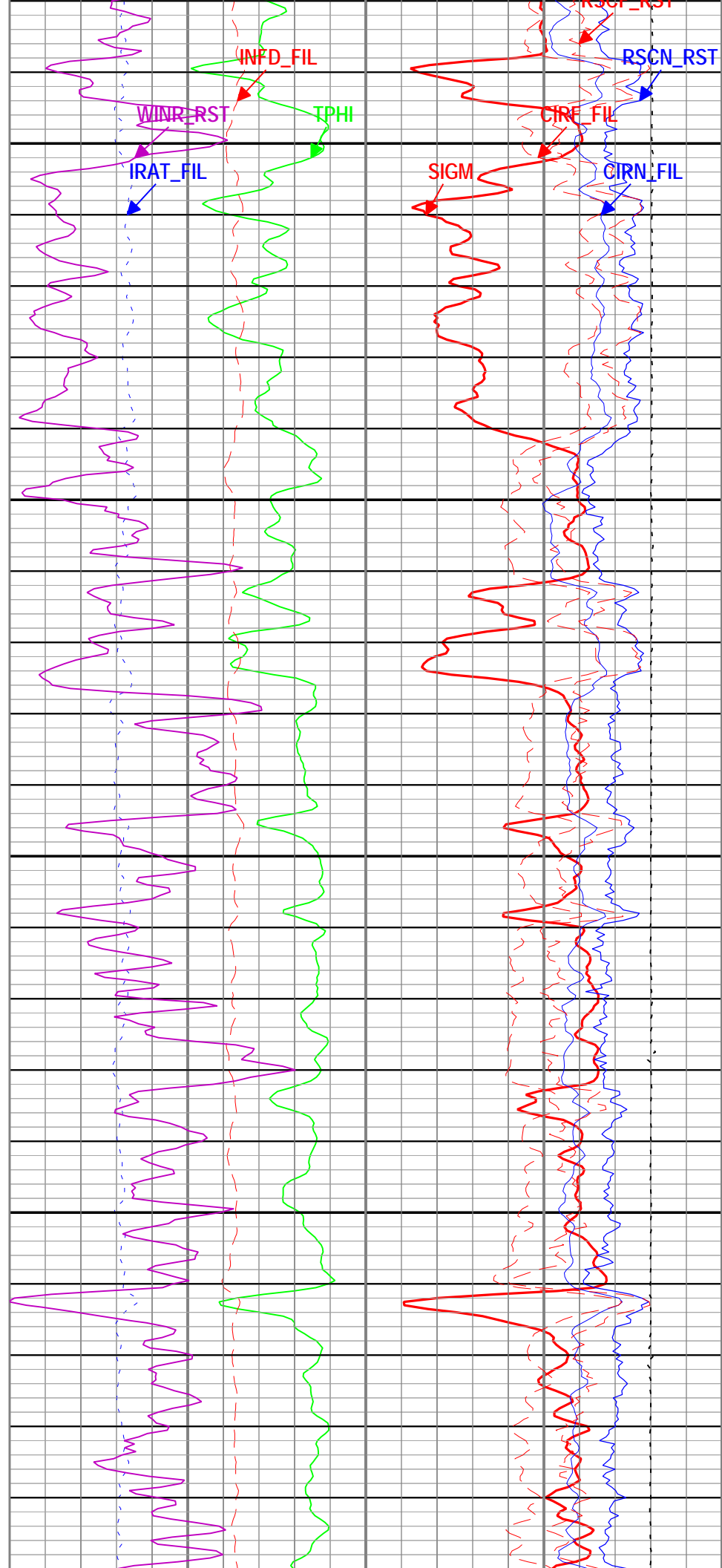
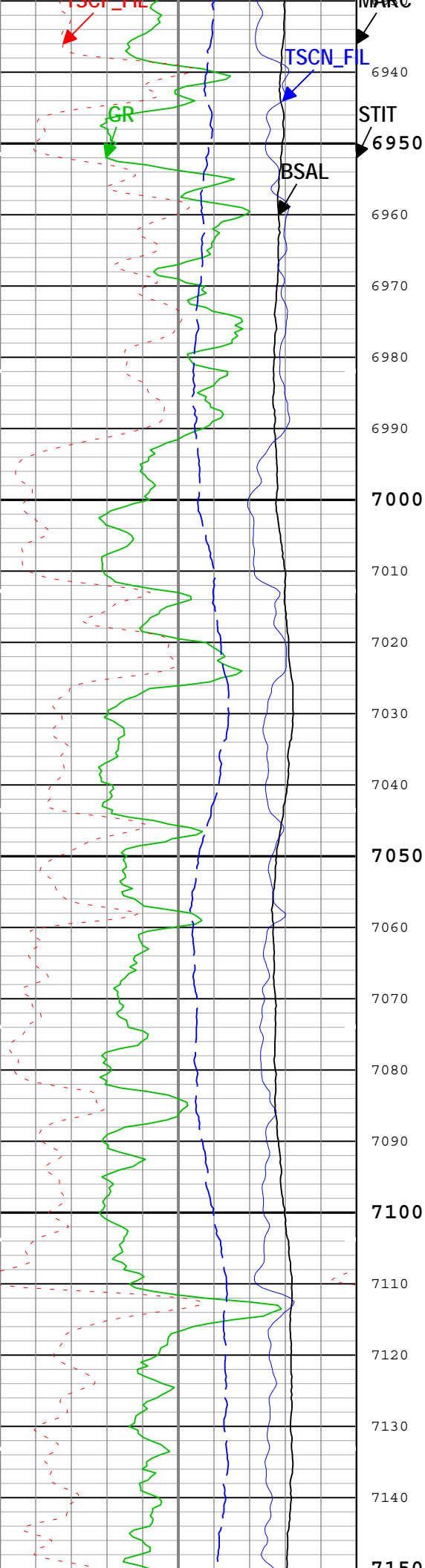


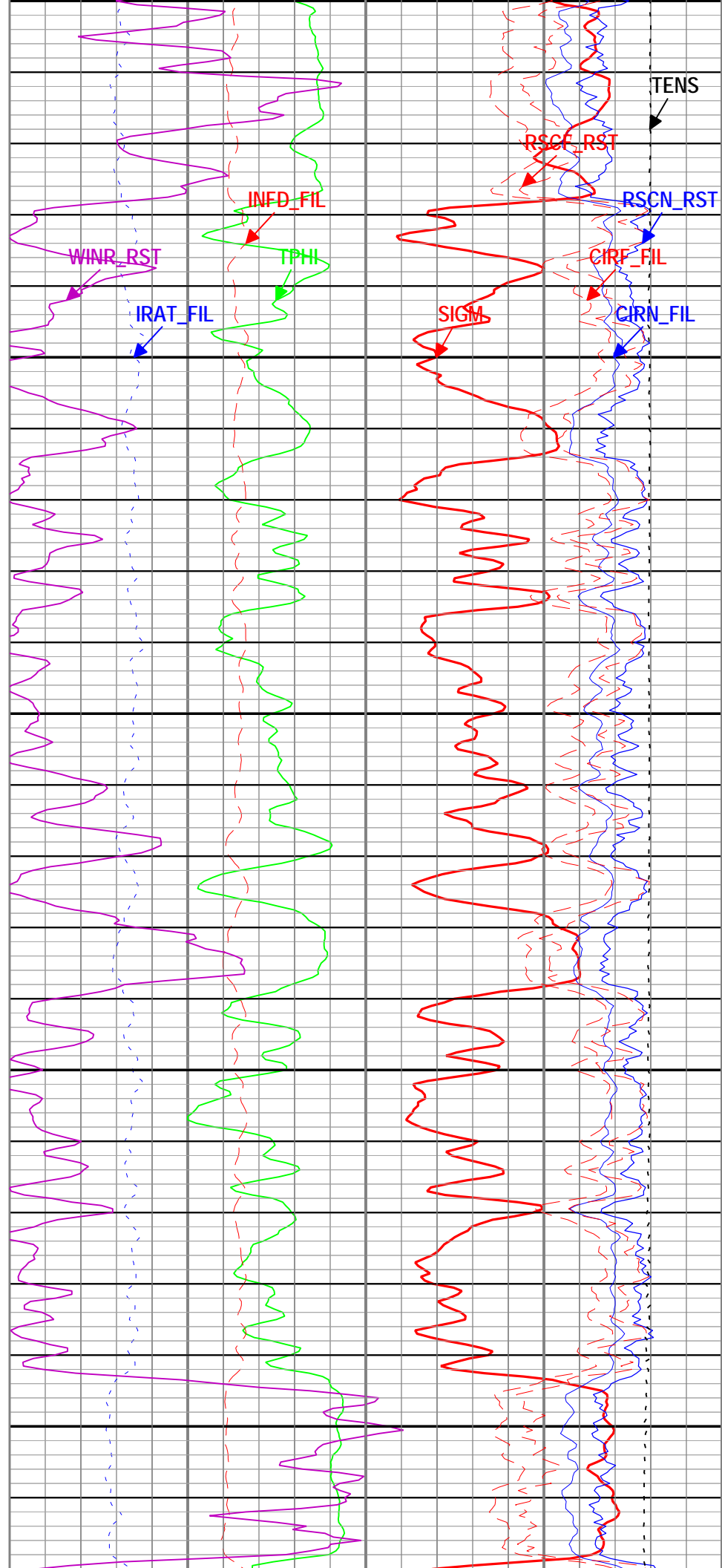
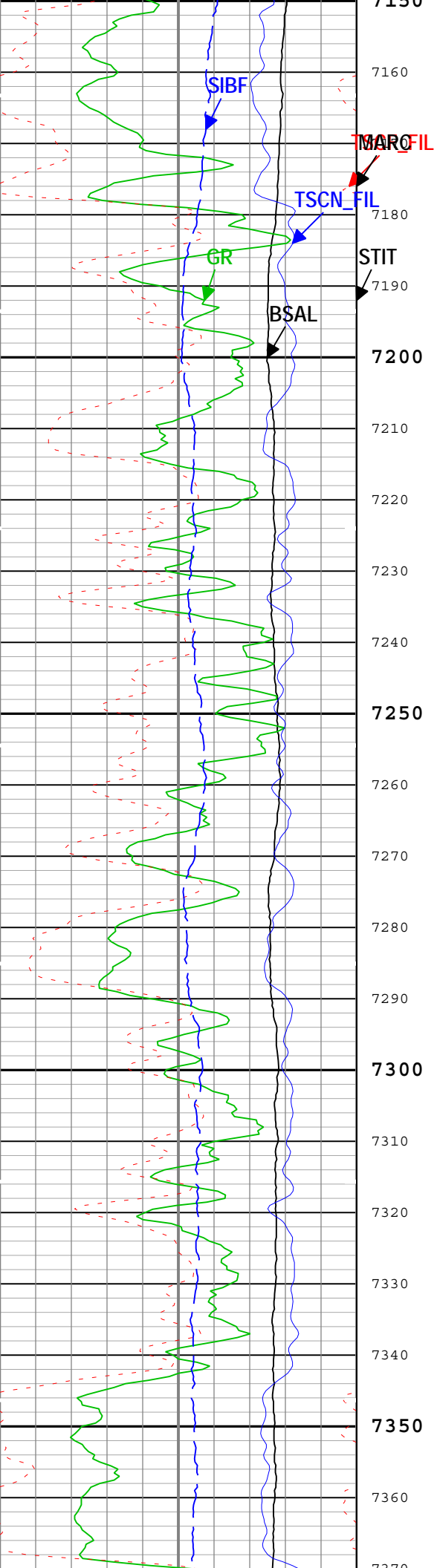
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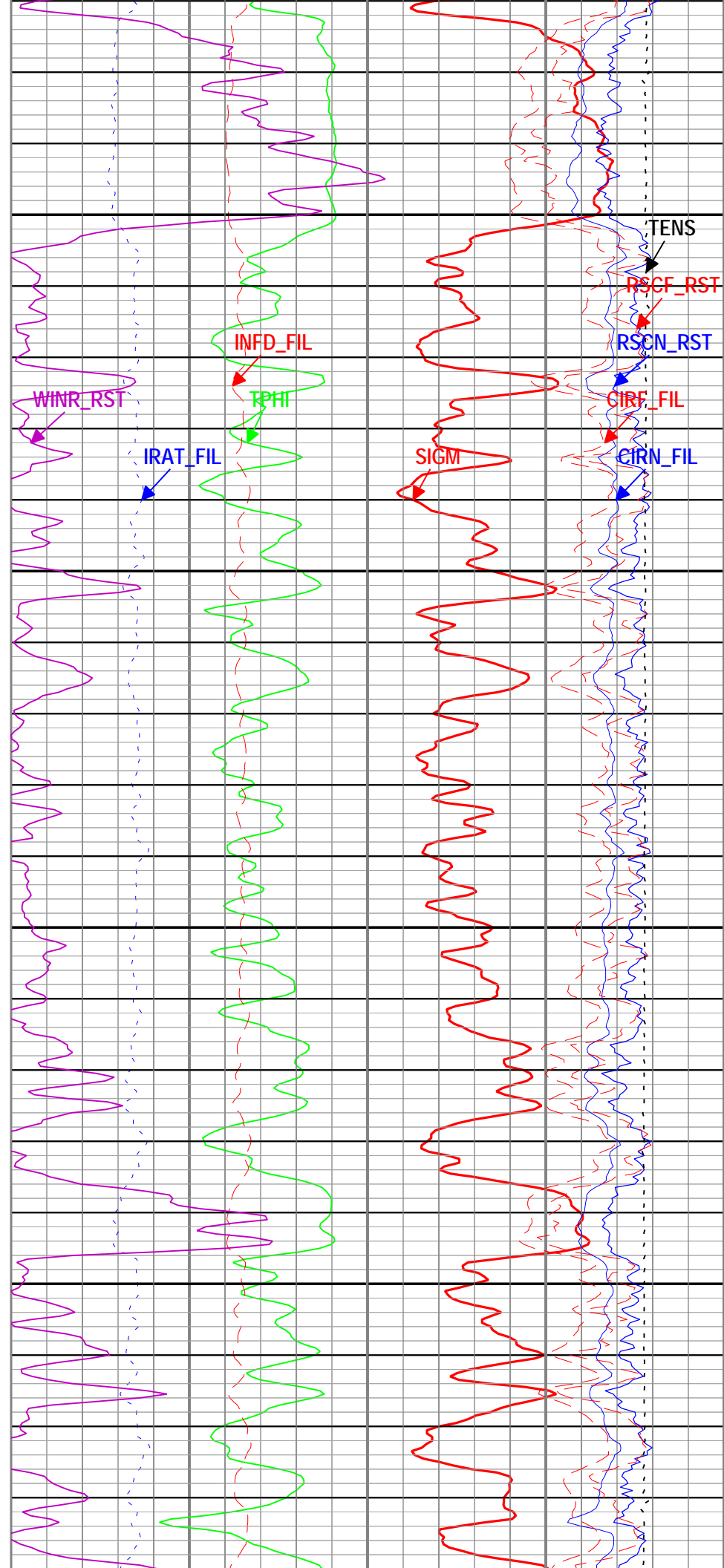
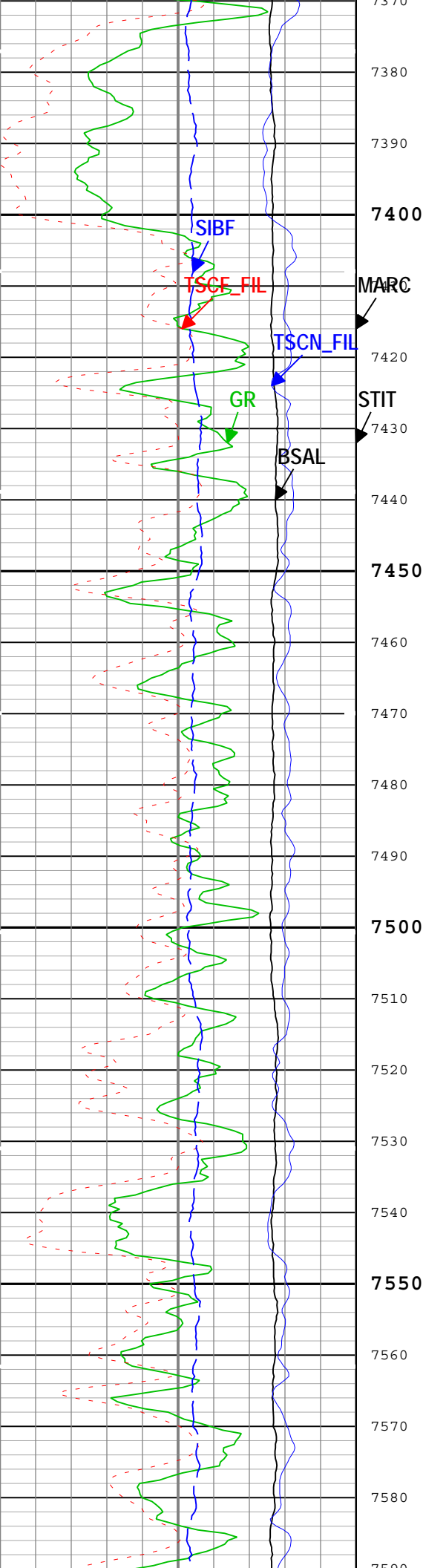
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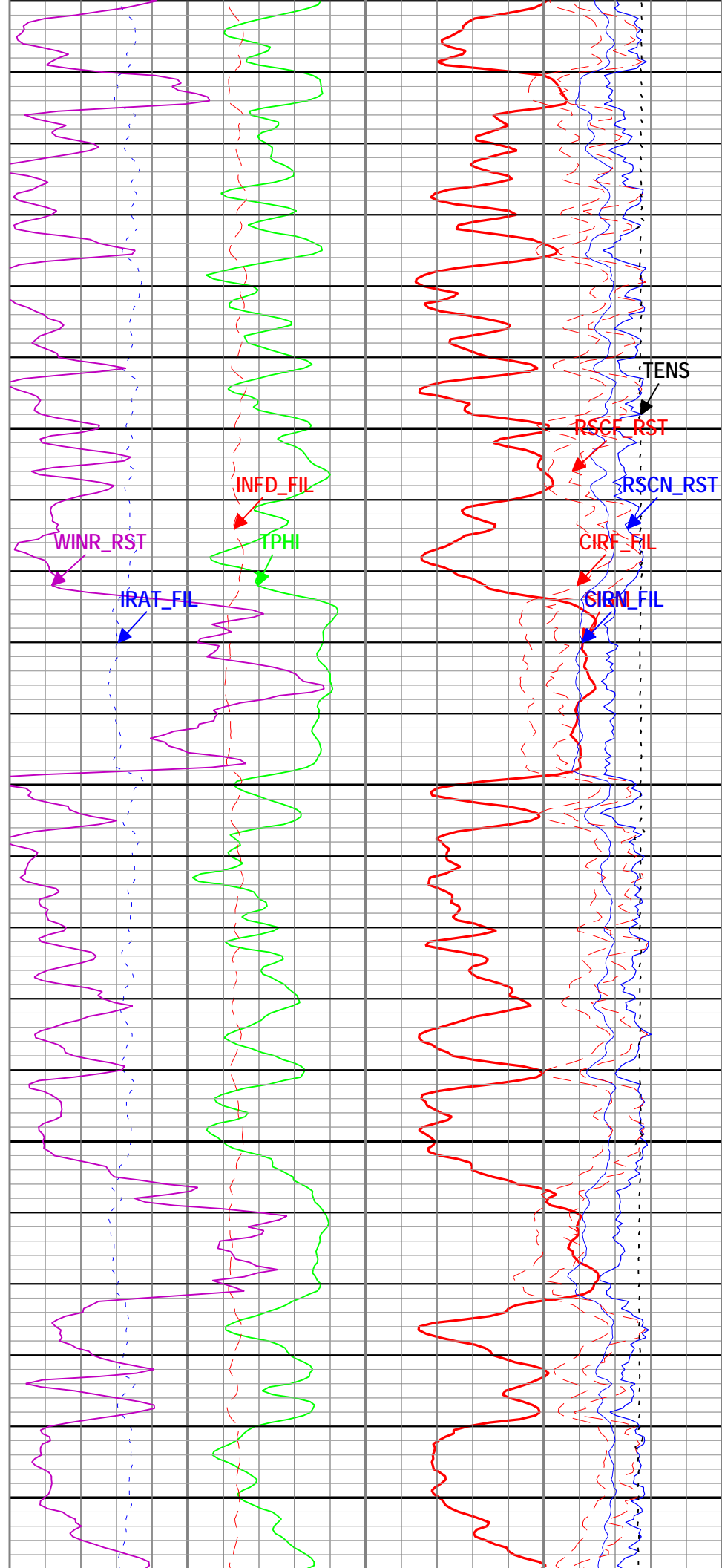
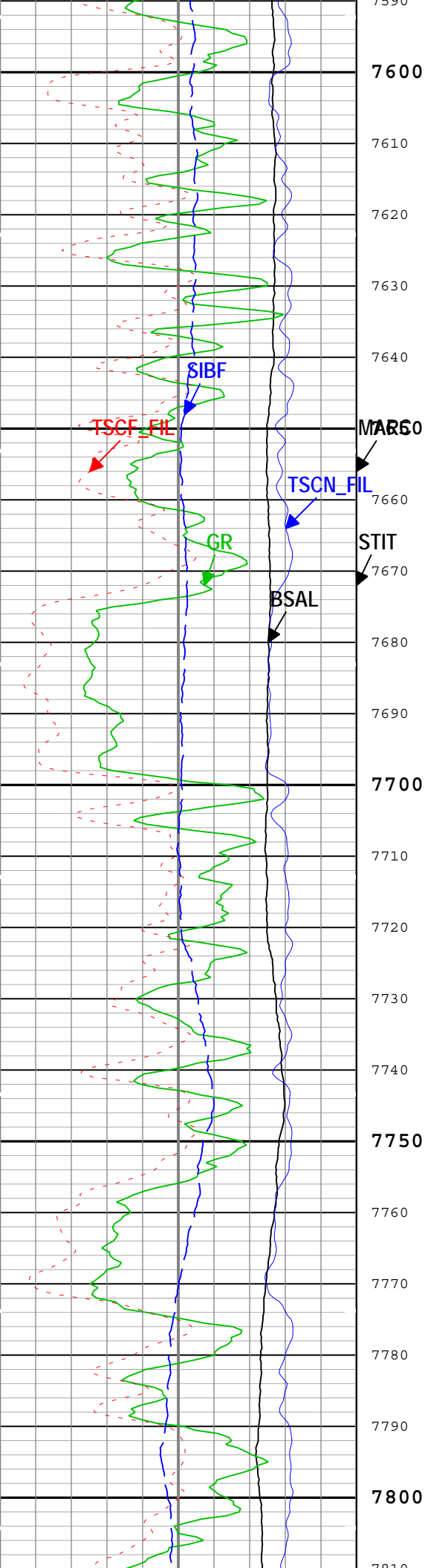


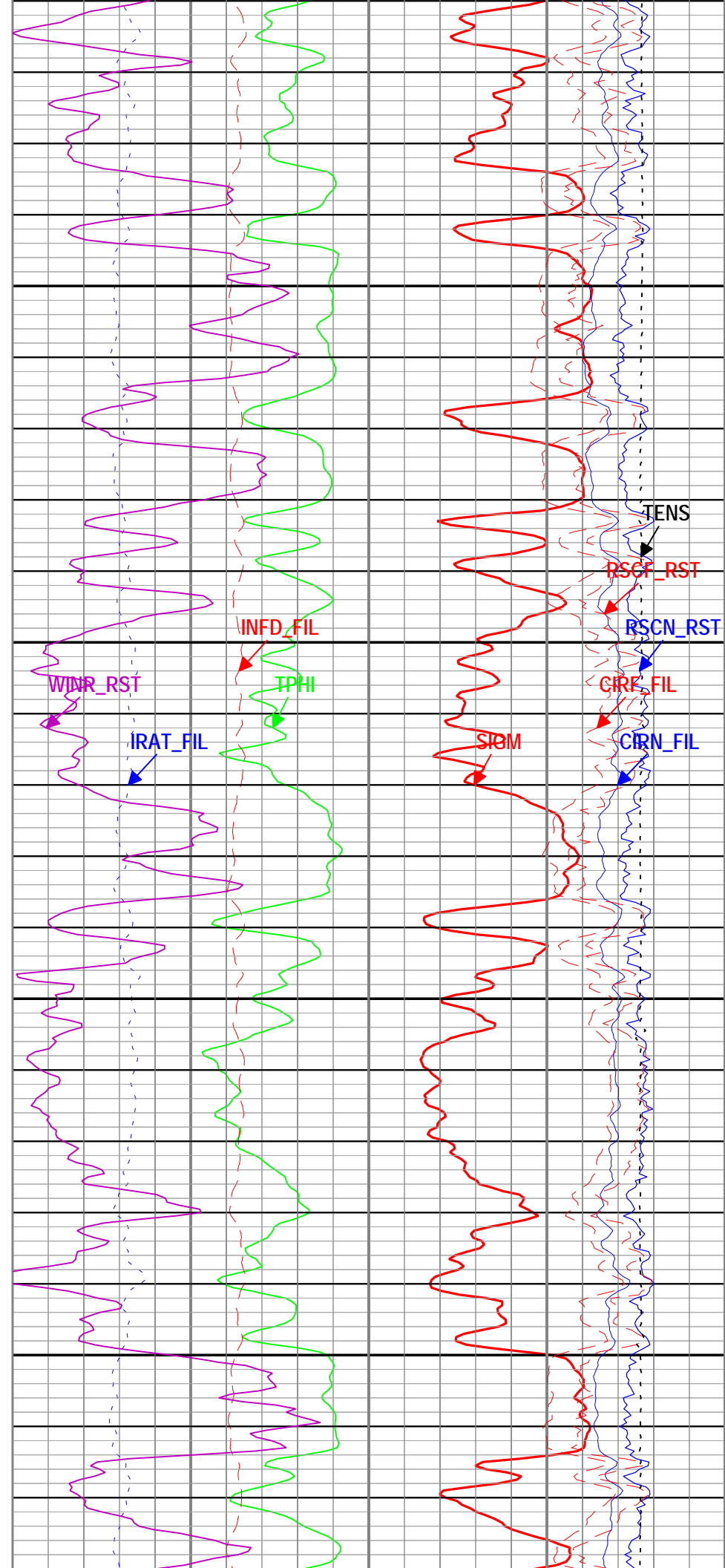
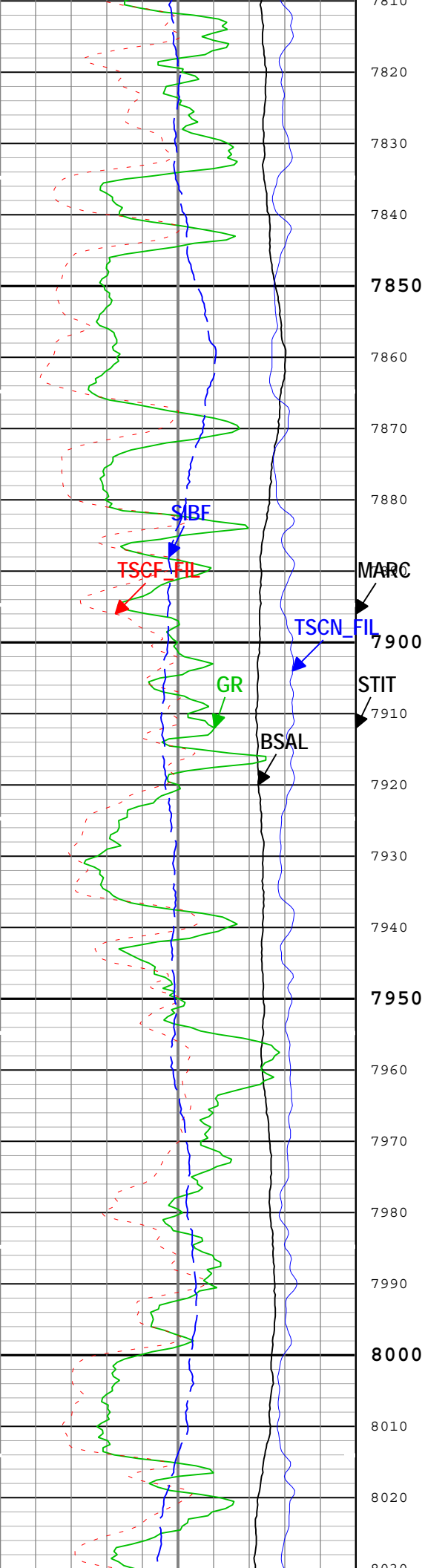




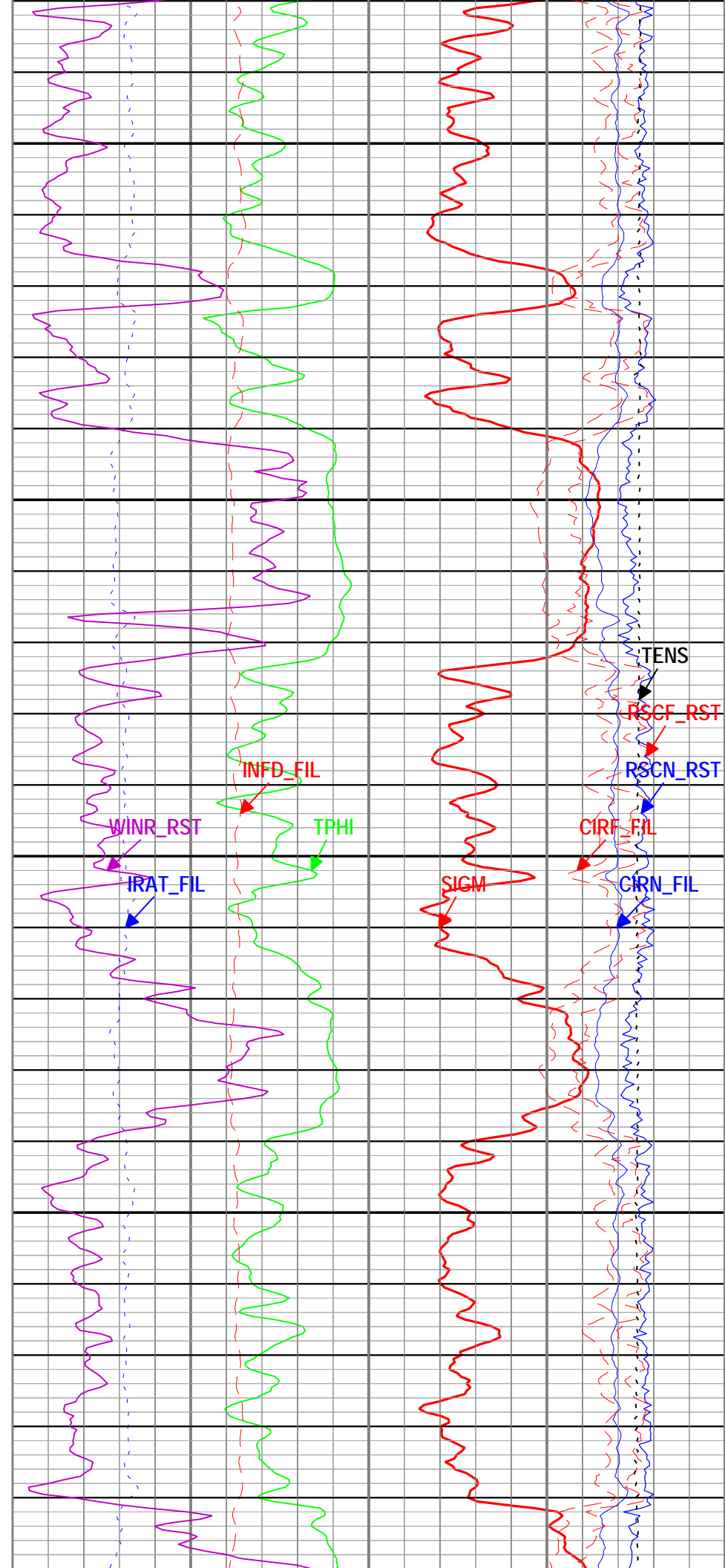
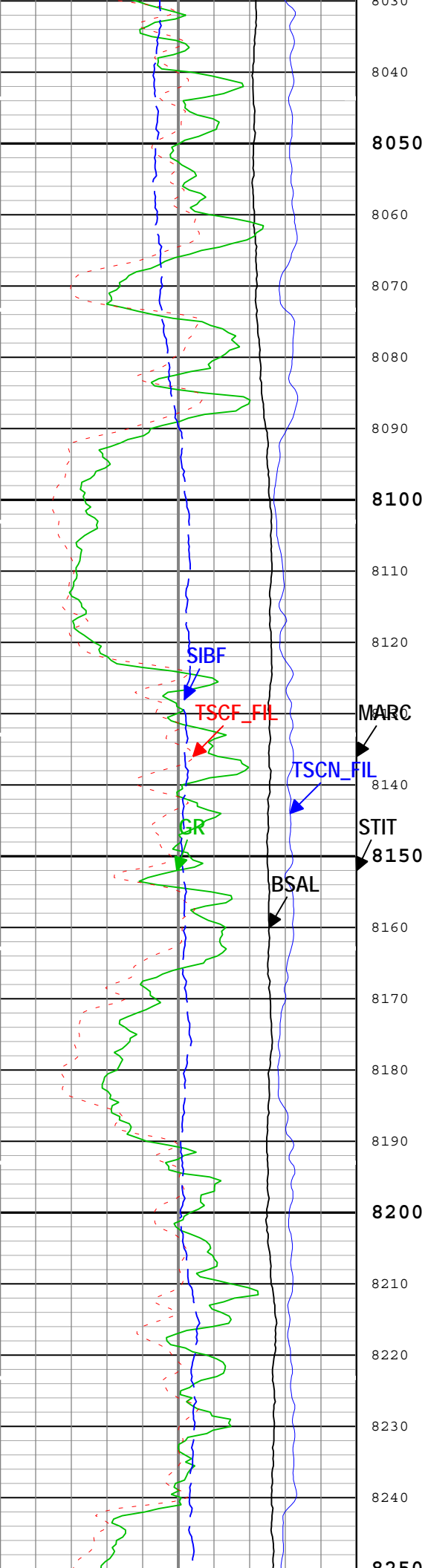




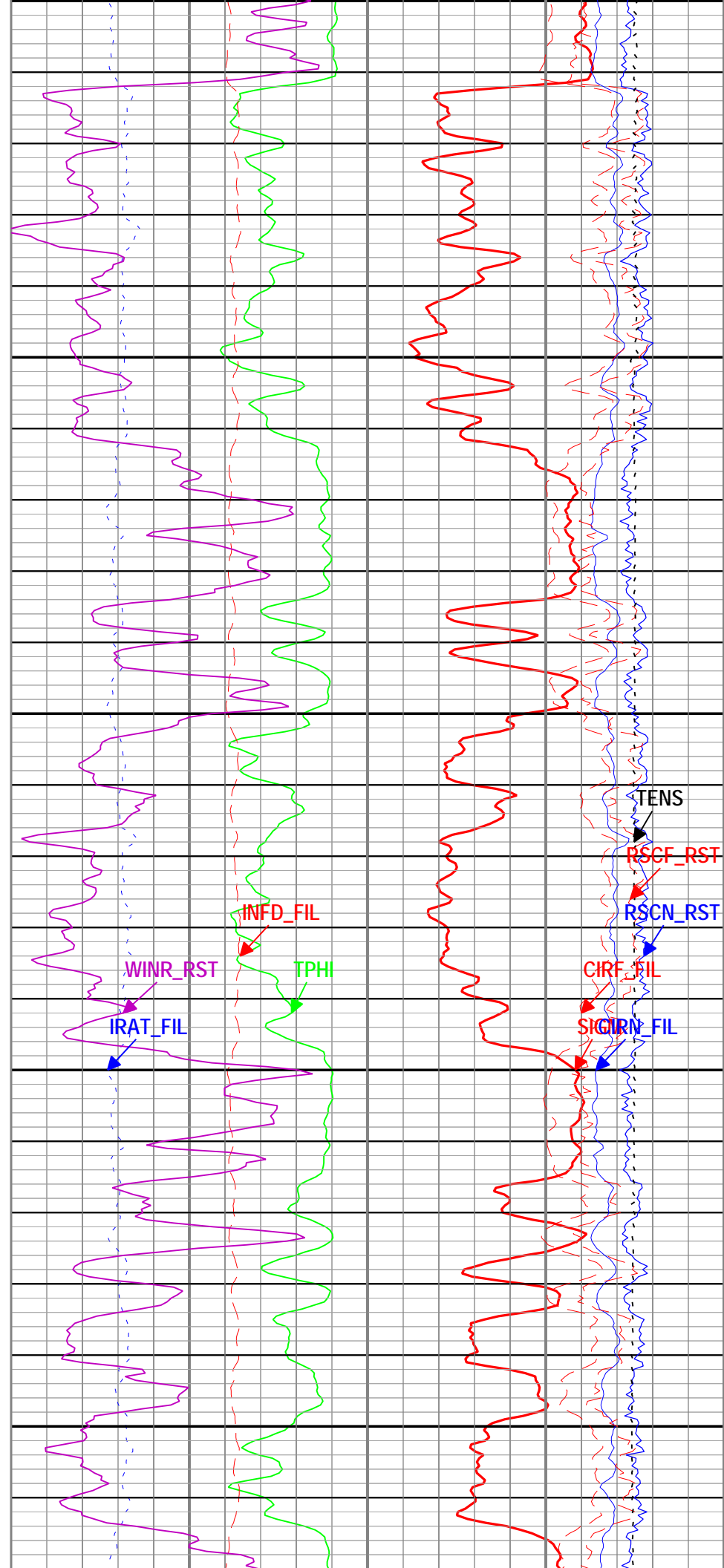
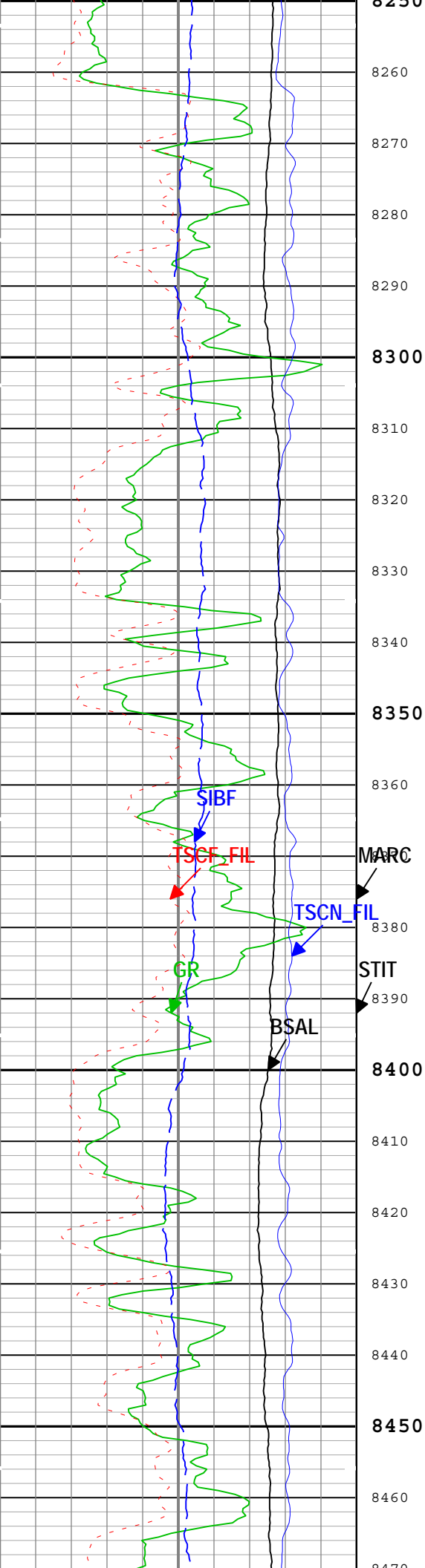


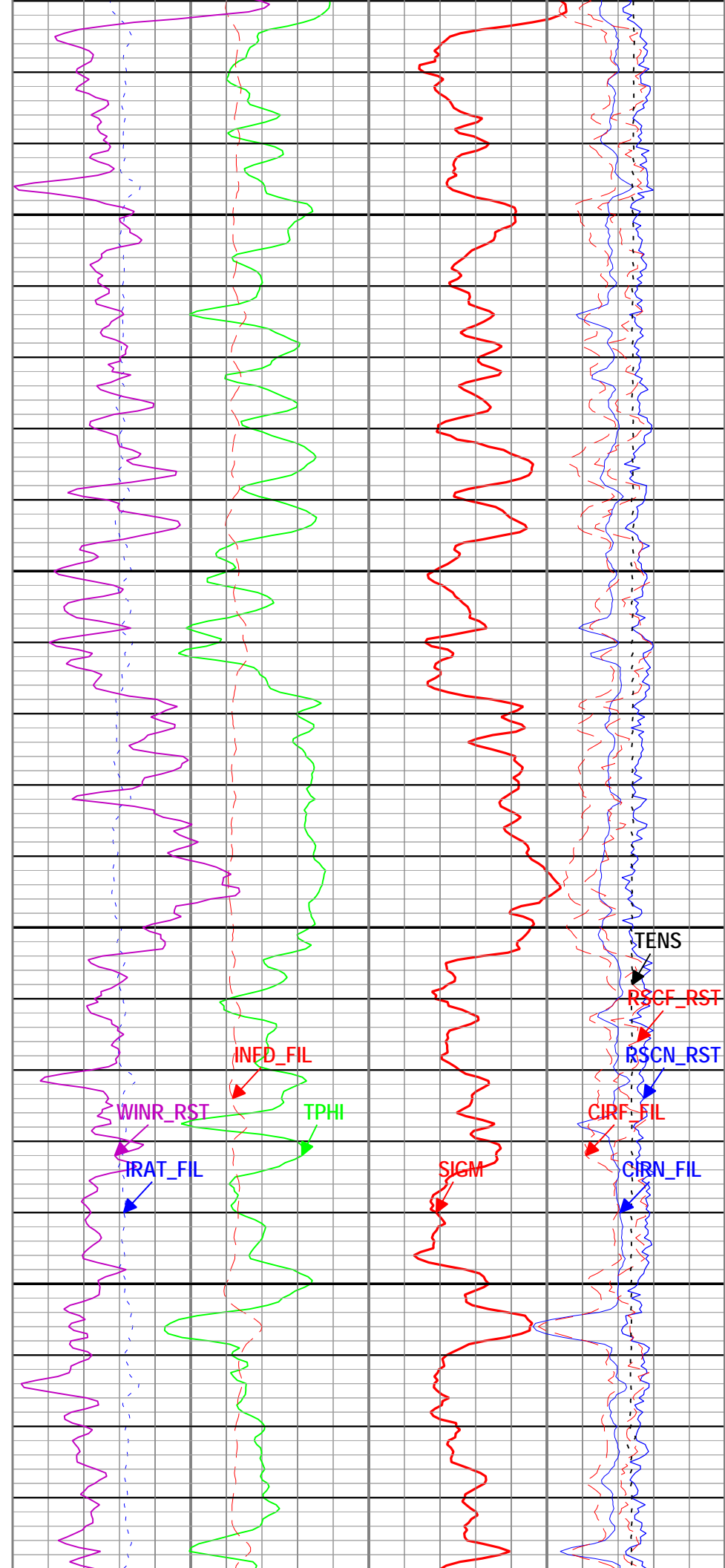
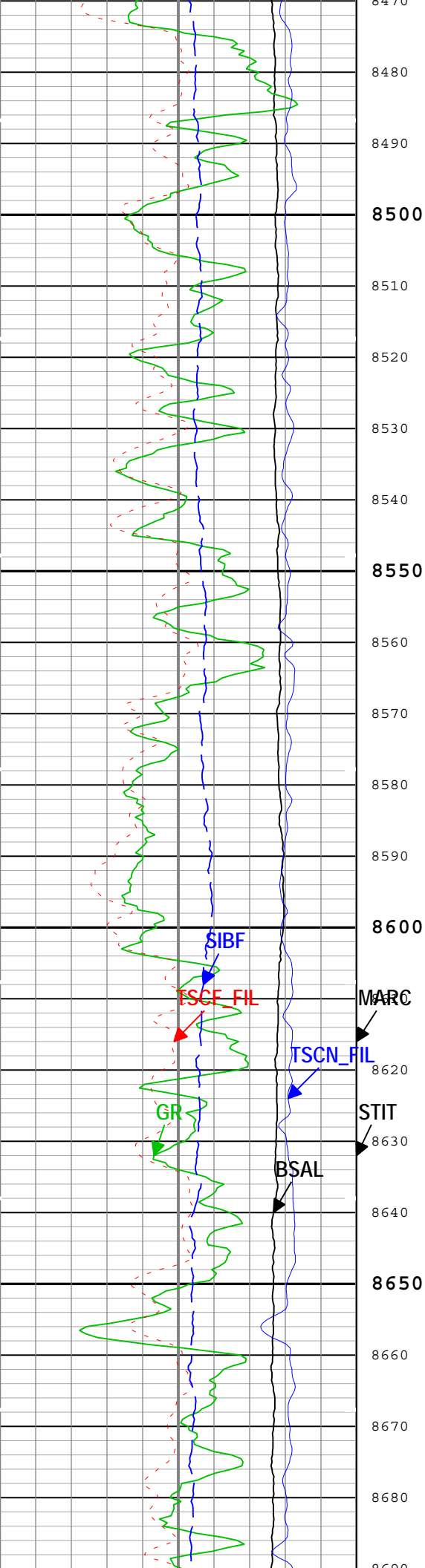


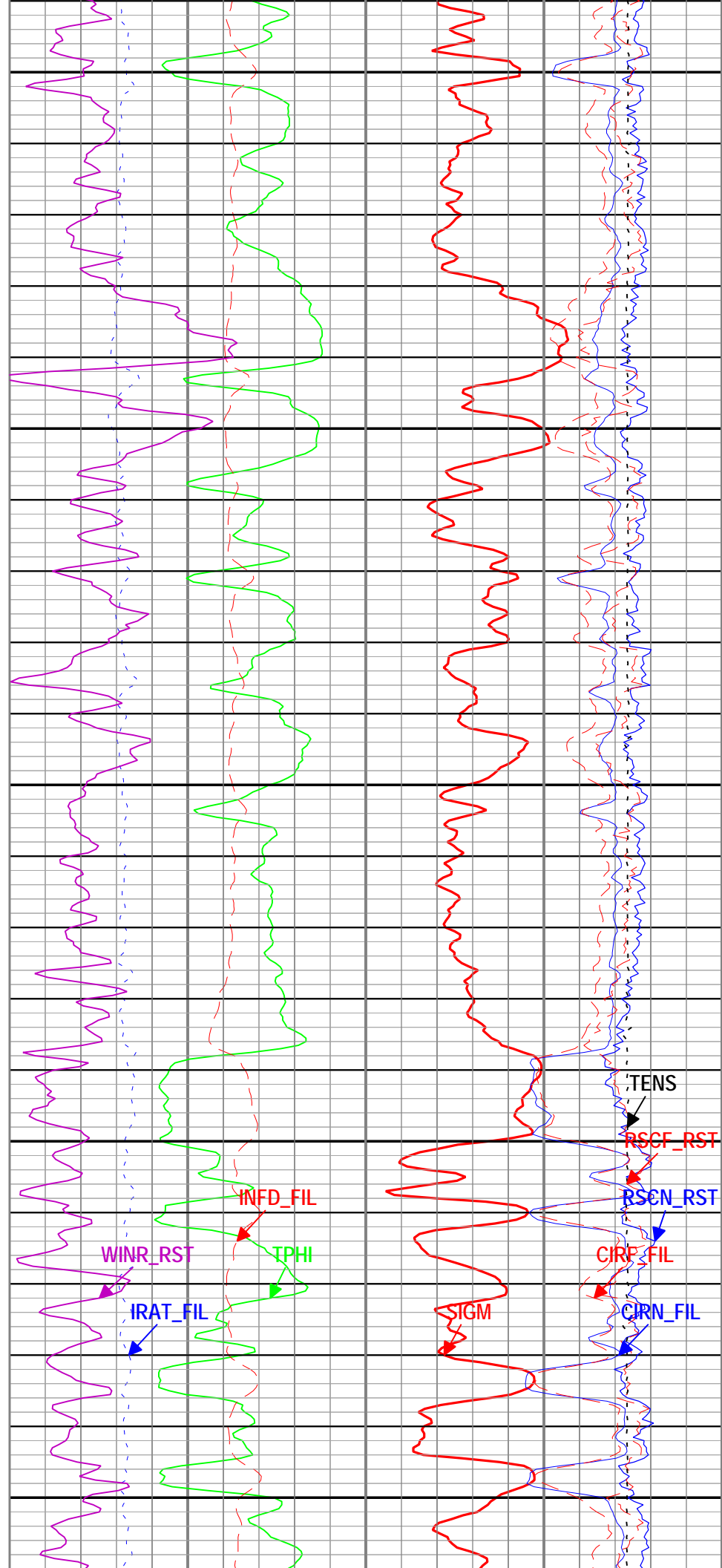
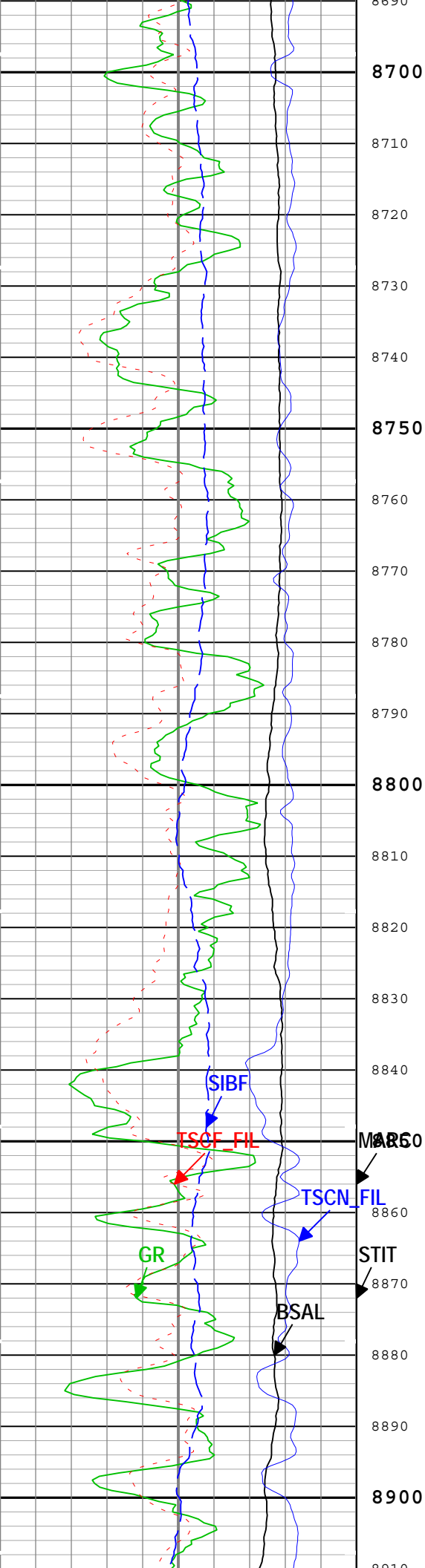


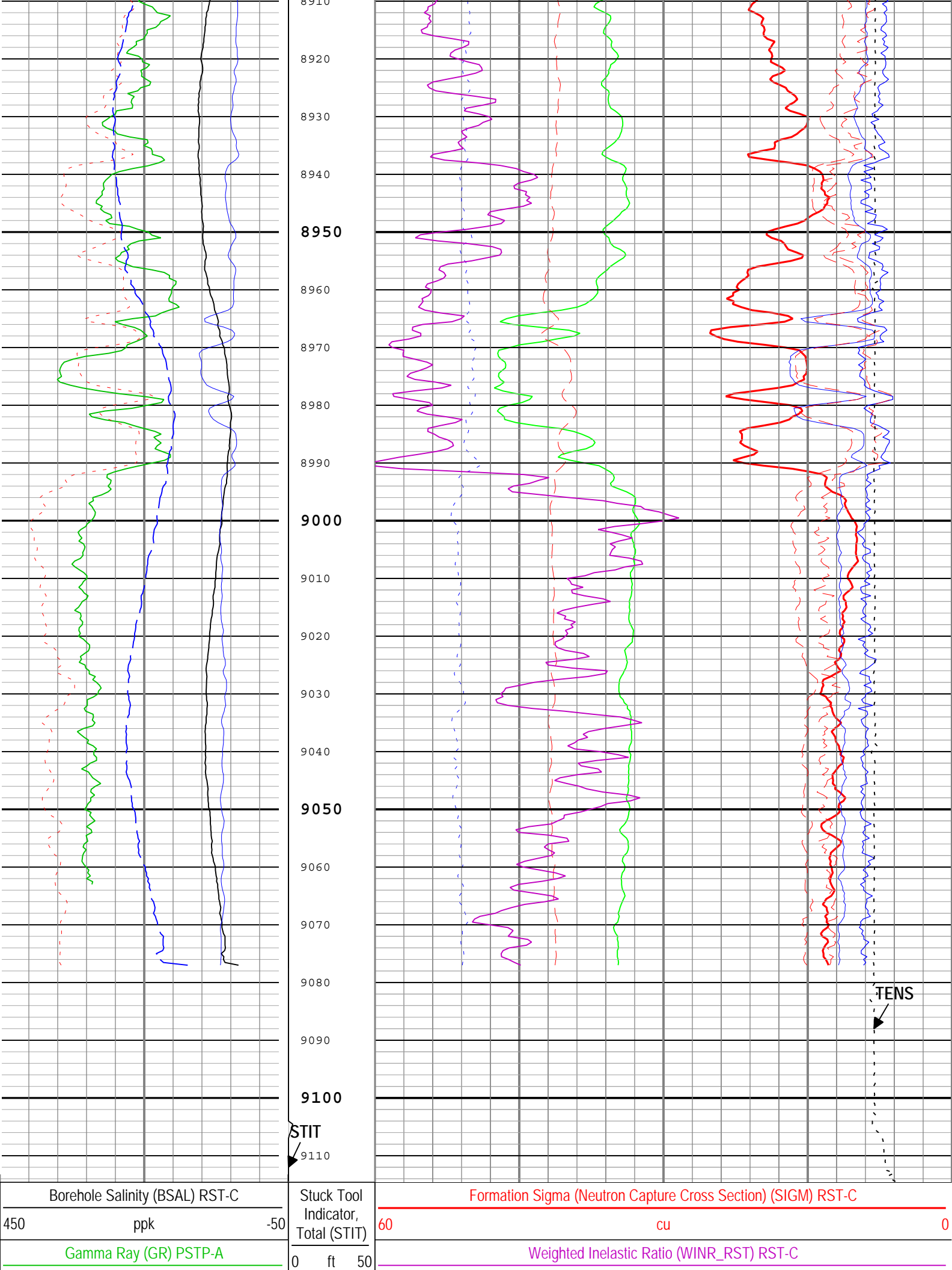








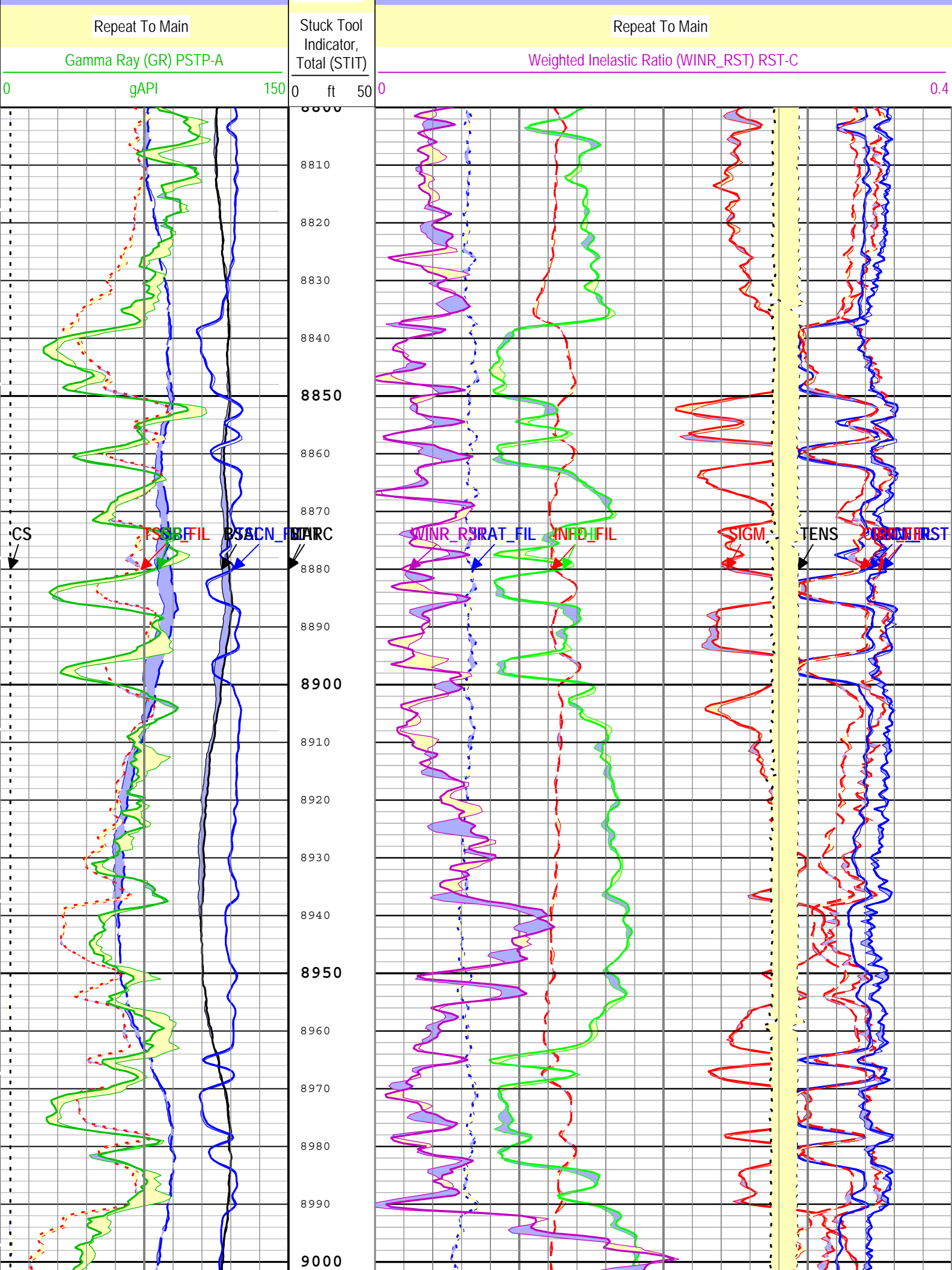




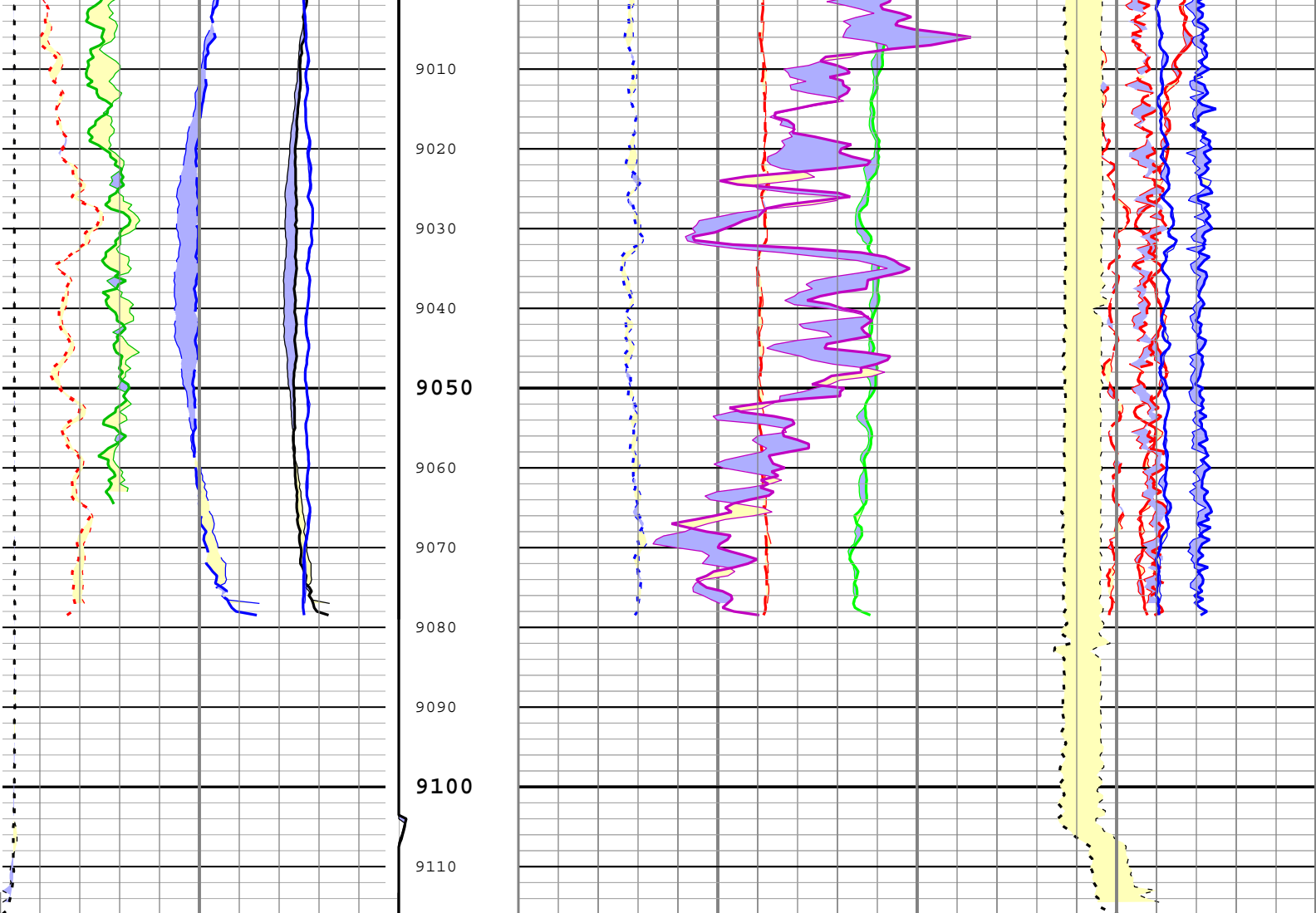
0	gAPI	150	0	0.4				
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C			Cable Drag From STIA to STIT	Inelastic Ratio Filtered (IRAT_FIL) RST-C	Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C			
30000	1/s	0		0.75	2.5	0		
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C			Tool_Tot. Drag From D3T to STIT	Thermal Decay Porosity (TPHI) RST-C	Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C			
12000	1/s	0		0.6	ft3/ft3	5	0	
Sigma Borehole Fluid (SIBF) RST-C			Minitron Arc Count (MARC) RST-C	Gross Inelastic Count Rate Far Detector Filtered (INFD_FIL) RST-C	Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C			
100	cu	0		10000	1/s	0	45	0
					Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C	45	0	
					Cable Tension (TENS)	10000	lbf	0
— ICV - Integrated Cement Volume every 100.00 (ft3)								
— ICV - Integrated Cement Volume every 10.00 (ft3)								
— IHV - Integrated Hole Volume every 100.00 (ft3)								
— IHV - Integrated Hole Volume every 10.00 (ft3)								
— TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)								
TIME_1900 - Time Marked every 60.00 (s)								
Description: RST SIGMA Answer    Format: Log ( RST SIGMA Answer )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 23-Jul-2015 13:57:44								

Channel Processing Parameters									
ONE: Parameters									
Parameter	Description				Tool	Value		Unit	
BHS	Borehole Status (Open or Cased Hole)				Borehole	Cased			
BS	Bit Size				WLSESSION	8.75		in	
BSAL	Borehole Salinity				Borehole	0		ppm	
BSALOPT	Borehole Salinity Option				RST-C	Unknown			
DC_MODE	Depth Correction Mode				DepthCorrection	Real-time			
DFT	Drilling Fluid Type				Borehole	Water			
MATR	Rock Matrix for Neutron Porosity Corrections				Borehole	SANDSTONE			
TD	Total Measured Depth				Borehole	9104		ft	
Tool Control Parameters									
ONE: Parameters									
Parameter	Description				Tool	Value		Unit	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed				WLSESSION	150		ft/h	
RST_DLM	Depth Log Mode				RST-C	Sigma			
ONE									
Pass Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ONE	Log[2]:Up	Up	8783.58 ft	9116.02 ft	23-Jul-2015 3:09:42 AM	23-Jul-2015 3:21:34 AM	ON	3.91 ft	No
ONE	Log[3]:Up	Up	1565.69 ft	9114.59 ft	23-Jul-2015	23-Jul-2015	ON	7.42 ft	No

				3:33:30 AM	7:24:18 AM			
All depths are referenced to toolstring zero								
Log		Company:Caerus Piceance LLC				Well:Puckett 11D-1		
ONE: Log[3]:Up:S007								
Description: RST SIGMA Answer    Format: Log ( RST SIGMA Answer RA )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth								
Creation Date: 23-Jul-2015 13:57:49								
<div><div>TIME_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)</div><div><div>—IHV - Integrated Hole Volume every 10.00 (ft3)</div><div>—IHV - Integrated Hole Volume every 100.00 (ft3)</div></div><div>—ICV - Integrated Cement Volume every 10.00 (ft3)</div></div> <div><div>TIME_1900 - Time Marked every 60.00 (s)</div><div>—ICV - Integrated Cement Volume every 100.00 (ft3)</div></div>								
<div>Main To Repeat</div>			<div>Repeat To Main</div>			<div>Main To Repeat</div>		
<div>Repeat To Main</div>			<div>Repeat To Main</div>			<div>Repeat To Main</div>		
<div>Borehole Salinity (BSAL) RST-C</div>			<div>Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C</div>			<div>Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C</div>		
<div>450ppk-50</div>			<div>4500</div>			<div>4500</div>		
<div>Main To Repeat</div>			<div>Repeat To Main</div>			<div>Main To Repeat</div>		
<div>Repeat To Main</div>			<div>Repeat To Main</div>			<div>Repeat To Main</div>		
<div>Sigma Borehole Fluid (SIBF) RST-C</div>			<div>Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C</div>			<div>Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C</div>		
<div>100cu0</div>			<div>100001/s0</div>			<div>2.50</div>		
<div>Main To Repeat</div>			<div>Repeat To Main</div>			<div>Main To Repeat</div>		
<div>Repeat To Main</div>			<div>Repeat To Main</div>			<div>Repeat To Main</div>		
<div>Cable Speed (CS)</div>			<div>Inelastic Ratio Filtered (IRAT_FIL) RST-C</div>			<div>Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C</div>		
<div>0ft/h50000</div>			<div>0.750</div>			<div>50</div>		
<div>Main To Repeat</div>			<div>Main To Repeat</div>			<div>Main To Repeat</div>		
<div>Repeat To Main</div>			<div>Repeat To Main</div>			<div>Repeat To Main</div>		
<div>Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C</div>			<div>Thermal Decay Porosity (TPHI) RST-C</div>			<div>Cable Tension (TENS)</div>		
<div>300001/s0</div>			<div>0.6ft3/ft30</div>			<div>5000lbf0</div>		
<div>Main To Repeat</div>			<div>Main To Repeat</div>			<div>Main To Repeat</div>		
<div>Repeat To Main</div>			<div>Repeat To Main</div>			<div>Repeat To Main</div>		
<div>Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C</div>			<div>Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C</div>			<div>Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C</div>		
<div>120001/s0</div>			<div>60cu0</div>			<div>60cu0</div>		
<div>Main To Repeat</div>			<div>Repeat To Main</div>			<div>Main To Repeat</div>		
<div>Repeat To Main</div>			<div>Main To Repeat</div>			<div>Main To Repeat</div>		







Main To Repeat			Main To Repeat	Main To Repeat				
Repeat To Main				Repeat To Main				
Borehole Salinity (BSAL) RST-C			Repeat To Main	Formation Sigma (Neutron Capture Cross Section) (SIGM) RST-C				
450	ppk	-50		60	cu	0		
Main To Repeat				Main To Repeat				
Repeat To Main				Repeat To Main				
Sigma Borehole Fluid (SIBF) RST-C			0	5	Weighted Inelastic Ratio (WINR_RST) RST-C			
100	cu	0	Main To Repeat	00.4				
Main To Repeat			Repeat To Main	Main To Repeat		Main To Repeat		
Repeat To Main				Repeat To Main		Repeat To Main		
Cable Speed (CS)			Stuck Tool Indicator, Total (STIT)	Gross Inelastic Count Rate Far Detector Filtered (INFDFIL) RST-C		Far Detector Effective Unregulated Capture Count Rate (RSCF_RST) RST-C		
0	ft/h	50000		10000	1/s	0	45	0
Main To Repeat			0ft50	Main To Repeat		Main To Repeat		
Repeat To Main				Repeat To Main		Repeat To Main		
Total Selected Count Rate Near Detector Filtered (TSCN_FIL) RST-C				Inelastic Ratio Filtered (IRAT_FIL) RST-C		Near Detector Effective Unregulated Capture Count Rate (RSCN_RST) RST-C		
30000	1/s	0		0.75	0	45	0	
Main To Repeat			Main To Repeat	Main To Repeat		Main To Repeat		
Repeat To Main				Repeat To Main		Repeat To Main		



Main To Repeat
Repeat To Main
Total Selected Count Rate Far Detector Filtered (TSCF_FIL) RST-C
120001/s0
Main To Repeat
Repeat To Main
Gamma Ray (GR) PSTP-A
0gAPI150

Main To Repeat
Repeat To Main
Thermal Decay Porosity (TPHI) RST-C
0.6ft3/ft30

Main To Repeat
Repeat To Main
Capture to Inelastic Ratio Near Filtered (CIRN_FIL) RST-C
2.50
Main To Repeat
Repeat To Main
Capture to Inelastic Ratio Far Filtered (CIRF_FIL) RST-C
50
Main To Repeat
Repeat To Main
Cable Tension (TENS)
5000lbf0

ICV - Integrated Cement Volume every 100.00 (ft3)

TIME\_1900 - Time Marked every 60.00 (s)

ICV - Integrated Cement Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

IHV - Integrated Hole Volume every 10.00 (ft3)

TIME\_1900 - Elapsed time since midnight, 30 December 1899 every 60.00 (s)

Description: RST SIGMA Answer    Format: Log ( RST SIGMA Answer RA )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth  
Creation Date: 23-Jul-2015 13:57:49

Calibration Report							
SCMT-CB (Slim Cement Mapping Tool, 1-11/16 OD) Calibration - Run ONE							
Primary Equipment :							
Slim Cement Mapping Sonde			SCMS-CB			8372	
CBL and MAP Amplitude Normalization - Measurements							
Master (File):		10:12:32 22-Jul-2015					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
CBL 3 ft Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
MAP 1 Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
MAP 2 Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
MAP 3 Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
MAP 4 Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
MAP 5 Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
MAP 6 Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
MAP 7 Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
MAP 8 Temperature/Pressure Compensated Raw Amplitude (at 0 degree) - 0	mV	Master	----	----	----	----	
CBL 3 ft Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	
MAP 1 Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	
MAP 2 Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	

MAP 3 Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 4 Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 5 Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 6 Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 7 Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 8 Temperature/Pressure Compensated Raw Amplitude (at 90 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
CBL 3 ft Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 1 Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 2 Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 3 Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 4 Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 5 Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 6 Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 7 Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 8 Temperature/Pressure Compensated Raw Amplitude (at 180 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
CBL 3 ft Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 1 Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 2 Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 3 Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 4 Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 5 Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 6 Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 7 Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>
MAP 8 Temperature/Pressure Compensated Raw Amplitude (at 270 degree) - 0	mV	Master	----	----	----	----	<div><div></div><div></div></div>

## CBL and MAP Amplitude Normalization - Coefficients

Master (File): 10:12:32 22-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div></div>
Normalization Temperature in SFT Tube	degF	Master			74.10		<div><div></div><div></div></div>
CBL Correction Factor		Master			0.062		<div><div></div><div></div></div>
MAP 1 Correction Factor		Master			0.090		<div><div></div><div></div></div>
MAP 2 Correction Factor		Master			0.111		<div><div></div><div></div></div>
MAP 3 Correction Factor		Master			0.112		<div><div></div><div></div></div>
MAP 4 Correction Factor		Master			0.112		<div><div></div><div></div></div>
MAP 5 Correction Factor		Master			0.109		<div><div></div><div></div></div>
MAP 6 Correction Factor		Master			0.096		<div><div></div><div></div></div>
MAP 7 Correction Factor		Master			0.094		<div><div></div><div></div></div>
MAP 8 Correction Factor		Master			0.104		<div><div></div><div></div></div>

## CBL and MAP Amplitude Adjustment - Measurements

Before (Manual Entry): 07:25:04 23-Jul-2015

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div></div>
CBL Amplitude - 0	mV	Before	----	----	----	----	<div><div></div><div></div></div>
Average MAP Amplitude (Fluid Compensated) - 0	mV	Before	----	----	----	----	<div><div></div><div></div></div>
Measurement Depth - 0	ft	Before	----	----	----	----	<div><div></div><div></div></div>

CBL and MAP Amplitude Adjustment - Coefficients

Before (Manual Entry):		07:25:04 23-Jul-2015					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
CBL Adjustment Factor		Before			0.694		
CBL LQC Reference Amplitude in Free Pipe	mV	Before			80.00		
MAP Adjustment Factor		Before			0.734		
Depth of Before Calibration	ft	Before			2490.95		

RST-C (Reservoir Saturation Pro Tool C) Calibration - Run ONE

Primary Equipment :		RSC Acquisition Cartridge		RSC-E		381	
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RST IC Tank Calibration - RST IC Tank Calibration

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Spectral Acquisition Time Calibration Coefficient - 0	s	Master	----	----	----	----	
Near Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	----	----	----	----	
Far Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	----	----	----	----	
Near Windows Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	----	----	----	----	
Far Windows Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	----	----	----	----	
Near IC Mode Capture Optimization Resolution Degradation Factor Calibration Coefficient - 0		Master	----	----	----	----	
Far IC Mode Capture Optimization Resolution Degradation Factor Calibration Coefficient - 0		Master	----	----	----	----	
Near Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient - 0	V	Master	----	----	----	----	
Far Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient - 0	V	Master	----	----	----	----	
Near Photomultiplier High Voltage Setting Echo Calibration Coefficient - 0	V	Master	----	----	----	----	
Far Photomultiplier High Voltage Setting Echo Calibration Coefficient - 0	V	Master	----	----	----	----	
Minitron Measured Beam Current Calibration Coefficient - 0	uA	Master	----	----	----	----	
Grid Current Peak Calibration Coefficient - 0	mA	Master	----	----	----	----	
Minitron Measured Extractor Current Calibration Coefficient - 0	uA	Master	----	----	----	----	
Minitron Measured High Voltage Calibration Coefficient - 0	kV	Master	----	----	----	----	
Near Instantaneous Count Rate Calibration Coefficient - 0	kHz	Master	----	----	----	----	
Near/Far Count Rate Ratio Calibration Coefficient - 0		Master	----	----	----	----	

RST IC Tank Check - RST IC Tank Check

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Spectral Acquisition Time Calibration Coefficient	s	Master			NOT DONE		
Near Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	----	----	----	----	
Far Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	----	----	----	----	
Near Windows Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	----	----	----	----	
Far Windows Carbon/Oxygen Ratio Calibration Coefficient - 0		Master	----	----	----	----	
Near IC Mode Capture Optimization Resolution Degradation Factor Calibration Coefficient - 0		Master	----	----	----	----	
Far IC Mode Capture Optimization Resolution Degradation Factor Calibration Coefficient - 0		Master	----	----	----	----	
Near Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient - 0	V	Master	----	----	----	----	

Far Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient - 0	V	Master	----	----	----	----	
Near Photomultiplier High Voltage Setting Echo Calibration Coefficient - 0	V	Master	----	----	----	----	
Far Photomultiplier High Voltage Setting Echo Calibration Coefficient - 0	V	Master	----	----	----	----	
Minitron Measured Beam Current Calibration Coefficient - 0	uA	Master	----	----	----	----	
Grid Current Peak Calibration Coefficient - 0	mA	Master	----	----	----	----	
Minitron Measured Extractor Current Calibration Coefficient - 0	uA	Master	----	----	----	----	
Minitron Measured High Voltage Calibration Coefficient - 0	kV	Master	----	----	----	----	
Near Instantaneous Count Rate Calibration Coefficient	kHz	Master			NOT DONE		
Near/Far Count Rate Ratio Calibration Coefficient		Master			NOT DONE		

RST Sigma Tank Check - RST Sigma Tank Check							
Master (Measured):		14:57:24 17-Jul-2015					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Spectral Acquisition Time Calibration Coefficient	s	Master		300.0	300.3		
Near/Far Capture Ratio Calibration Coefficient		Master	0.980	0.930	0.982	1.030	
Sigma Formation Near Apparent Calibration Coefficient - 0	1/m	Master	----	----	----	----	
Sigma Formation Far Apparent Calibration Coefficient - 0	1/m	Master	----	----	----	----	
Near Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient	V	Master	3.500	2.445	3.700	4.555	
Far Pulse Shape Compensation Voltage Setting Echo Calibration Coefficient	V	Master	3.325	2.095	2.433	4.555	
Near Photomultiplier High Voltage Setting Echo Calibration Coefficient	V	Master	1400.000	1100.000	1145.795	1700.000	
Far Photomultiplier High Voltage Setting Echo Calibration Coefficient	V	Master	1400.000	1100.000	1183.172	1700.000	
Minitron Measured Beam Current Calibration Coefficient	uA	Master	75.000	50.000	85.102	100.000	
Grid Current Peak Calibration Coefficient	mA	Master	60.000	58.000	60.036	62.000	
Minitron Measured Extractor Current Calibration Coefficient	uA	Master	499.500	0	0.000	999.000	
Minitron Measured High Voltage Calibration Coefficient	kV	Master	73.000	50.000	80.028	96.000	
Near Instantaneous Count Rate Calibration Coefficient	kHz	Master	400.000	340.000	349.576	460.000	
Near/Far Count Rate Ratio Calibration Coefficient		Master	1.300	1.000	1.471	1.600	

PSTP-A (PSP Telemetry Platform A - Sapphire) Calibration - Run ONE		
Primary Equipment :		
PBMS-A	PBMS-A	1814
Calibration Parameter :		
JIG-BKGD (Jig minus background reference)	150	

PBMS Gamma Ray Check - PBMSA Gamma Ray Accumulations							
Before (Measured):		11:24:31 22-Jul-2015					
		After:					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
GR Zero Average	gAPI	Before	30	0	84.70583	120	
		After	----	----	----	----	
		After-Before	----	----	----	----	
GR Zero Standard Deviation	gAPI	Before			31.55005		
		After	----	----	----	----	
		After-Before	----	----	----	----	
GR Zero Max Deviation	gAPI	Before			108.3667		
		After	----	----	----	----	
		After-Before	----	----	----	----	
GR Plus Average	gAPI	Before			226.5573		
		After	----	----	----	----	

		After-Before	----	----	----	----	
GR Plus Standard Deviation	gAPI	Before After After-Before	----- ----- -----	----- ----- -----	53.35671 ----- -----	----- ----- -----	
GR Plus Max Deviation	gAPI	Before After After-Before	----- ----- -----	----- ----- -----	223.9452 ----- -----	----- ----- -----	
Jig-Background	gAPI	Before After After-Before	150 ----- -----	135 ----- -----	141.8515 NOT DONE -----	165 ----- -----	

PBMS Well Temp Master Calibration						
Master (EEPROM): 00:00:00 11-Mar-2002						
PBMS_RTD_THERM RTD Coefficients (Master)						
	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tt**0	166.2169	-442.9836	222.5367	-39.3639	2.621679	0

PBMS Gamma Ray Master Calibration		
Master (EEPROM): 00:00:00 14-Nov-2001		
PBMS_GR_MODEL GR Coefficients (Master)		
	Rt**0	Rt**1
Rt**0	1500	3840

PBMS A Reference Clock Master Calibration						
Master (EEPROM): 00:00:00 11-Mar-2002						
PBMS_REF_CLOCK PBMS A Clock Coefficients (Master)						
	Temp**0	Temp**1	Temp**2	Temp**3	Temp**4	Temp**5
Temp**0	-278.6698	2.064625	-0.2005075	0.001553137	-2.817383E-07	0

PBMS A Sapphire Master Calibration						
Master (EEPROM): 00:00:00 11-Mar-2002						
PBMS_P_GAUGE_PRES Sapphire Pressure Model Coefficients (Master)						
	Tt**0	Tt**1	Tt**2	Tt**3	Tt**4	Tt**5
Tp**0	-30895.39	22304.77	-7131.54	1088.081	-64.84312	0
Tp**1	22708.98	-15815.74	5200.516	-813.7849	49.69807	0
Tp**2	-206.2166	83.83393	-9.064614	0	0	0
Tp**3	3.194887	-0.7157836	0	0	0	0
Tp**4	0	0	0	0	0	0
Tp**5	0	0	0	0	0	0
PBMS_P_GAUGE_TEMP Sapphire Temperature Model Coefficients (Master)						
	Tp**0	Tp**1	Tp**2	Tp**3	Tp**4	Tp**5
Tt**0	2222.343	-1.531535	-1.735451	0.3578298	-0.04106665	0
Tt**1	-1381.82	3.050812	0.4269152	-0.03685322	0.004793864	0
Tt**2	302.3562	-1.086123	-0.04274265	0	0	0
Tt**3	-23.36074	0.1179722	0	0	0	0
Tt**4	0	0	0	0	0	0

Tt**5	0	0	0	0	0	0
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Company:	Caerus Piceance LLC	Schlumberger
Well:	Puckett 11D-1	
Field:	Wildcat	
County:	Garfield	
Country:	US	

Reservoir Saturation Tool
Sigma