

Company: ENCANA OIL & GAS (USA) INC

Well: HAGEN FEDERAL 22-4B (PC22)

Field: SOUTH PARACHUTE

County: GARFIELD

State: COLORADO

County: GARFIELD

Field: SOUTH PARACHUTE

Location: SHL: 572 FNL & 1728 FWL

Well: HAGEN FEDERAL 22-4B (PC22)

Company: ENCANA OIL & GAS (USA) INC

RESERVOIR SATURATION LOG

SIGMA MODE

GAMMA RAY-CCL

SHL: 572 FNL & 1728 FWL

BHL: 167 FNL & 183 FWL

Elev.: K.B. 6543.00 ft

G.L. 6521.00 ft

D.F. 6542.00 ft

Permanent Datum: GROUND LEVEL

Elev.: 6521.00 ft

Log Measured From: KELLY BUSHING

22.00 ft above Perm. Datum

Drilling Measured From: KELLY BUSHING

API Serial No. 05-045-22008-0C

Section 22

Township 7S

Range 95W

PVT DATA				Run 1	Run 2	Run 3
Oil Density						
Water Salinity						
Gas Gravity						
Bo						
Bw						
1/Bg						
Bubble Point Pressure						
Bubble Point Temperature						
Solution GOR						
Maximum Deviation						
CEMENTING DATA						
Primary/Squeeze				Primary		
Casing String No						
Lead Cement Type						
Volume						
Density						
Water Loss						
Additives						
Tail Cement Type						
Volume						
Density						
Water Loss						
Additives						
Expected Cement Top						

Logging Date				16-Sep-2013		
Run Number				1		
Depth Driller				8010 ft		
Schlumberger Depth				7924 ft		
Bottom Log Interval				7890 ft		
Top Log Interval				2000 ft		
Casing Fluid Type				FRESH WATER		
Salinity						
Density				8.4 lbm/gal		
Fluid Level				50 ft		
BIT/CASING/TUBING STRING						
Bit Size				8.750 in		
From				22 ft		
To				8010 ft		
Casing/Tubing Size				4.500 in		
Weight				11.6 lbm/ft		
Grade				S-80		
From				22 ft		
To				7992 ft		
Maximum Recorded Temperatures				216 degF		
Logger On Bottom				16-Sep-2013	9:00	
Unit Number				391	GRAND JUNCTION	
Recorded By				KIRSTIE BUNTING		
Witnessed By				JIM DYKEMAN		

Maximum Recorded Temperatures						
Logger On Bottom						
Unit Number						
Recorded By						
Witnessed By						

DEPTH SUMMARY LISTING	
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Date Created: 14-AUG-2013 11:54:57

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-JB	Type:	CMTD-B/A	Type:	1-25ZT
Serial Number:	6349	Serial Number:	3421	Serial Number:	112136
Calibration Date:	7-31-2013	Calibration Date:	14-AUG-201	Length:	19000 FT
Calibrator Serial Number:		Calibrator Serial Number:	174878		
Calibration Cable Type:	1-25ZT	Number of Calibration Points:	10	Conveyance Method:	Wireline
Wheel Correction 1:	-5	Calibration RMS:	3	Rig Type:	LAND
Wheel Correction 2:	-4	Calibration Peak Error:	8		

Depth Control Parameters	
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Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	
Tool Zero Check At Surface:	

Depth Control Remarks	
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- | |
|---|
| 1. ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES USED
2. IDW USED AS PRIMARY DEPTH REFERENCE
3. SPWT DRUM COUNTER USED AS SECONDARY DEPTH REFERENCE
4.
5.
6. |
|---|

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1: SLIM CEMENT MAPPING	OS1:
OS2: LOG	OS2:
OS3: CBL-VDL	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
FIRST RUN IN HOLE CORRLEATED TO DOWN LOG	
TOOL RAN AS PER TOOL SKETCH	
ENTRANCE: 08:00	
TIME ON BOTTOM: 09:00	
EXIT: 16:00	

MAXIMUM RECORDED TEMPERATURE: 216 DEGF	
MAXIMUM RECORDED PRESSURE: 3266 PSIA	
SHORT JOINTS: 6592 FT & 5519 FT	
SANDSTONE MATRIX USED	
CREW: KBUNTING, WAZIZ, KJOHNS, JMANN	
THANK YOU FOR CHOOSING E&P WIRELINE, A SCHLUMBERGER COMPANY	

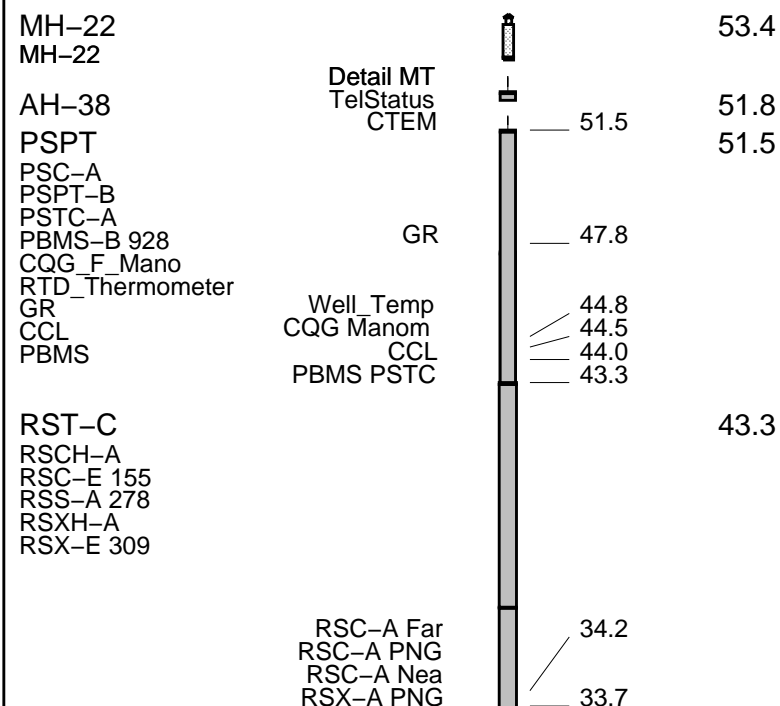
RUN 1 SERVICE ORDER #: CGF9-00146 PROGRAM VERSION: 19C0-187 FLUID LEVEL: 50 ft			RUN 2 SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

[illegible]

	RUN 1	RUN 2
1	1	1
2	1	1
3	1	1
4	1	1
5	1	1
6	1	1
7	1	1
8	1	1
9	1	1
10	1	1
11	1	1
12	1	1
13	1	1
14	1	1
15	1	1
16	1	1
17	1	1
18	1	1
19	1	1
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96	1	1
97	1	1
98	1	1
99	1	1
100	1	1

WITM-A PSC_16MHZ	SURFACE EQUIPMENT	
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DOWNHOLE EQUIPMENT



SCMT-CB
SCMC-CA 8248
SECH-CA
CMIR-AG
SCMS-CB 8179
SCMX-CA

20.3

DT 11.2
CBL5 DTSC 9.7
CBL3 8.7
MAP 8.2
AUX 7.2

AH-BNS

HV
Tension SCMT 0.0
TOOL ZERO

0.2

MAXIMUM STRING DIAMETER 1.72 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET



MAIN PASS RST SIGMA

MAXIS Field Log

Input DLIS Files

DEFAULT	Splice_SCMT_RST_PSP_011CUP	FN:1	PRODUCER	16-Sep-2013 16:09	7930.5 FT	-31.0 FT
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Output DLIS Files

DEFAULT	SCMT_RST_PSP_012PUP	FN:10	PRODUCER	16-Sep-2013 16:10	7935.5 FT	-78.0 FT
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OP System Version: 19C0-187

SCMT-CB	SRPC-5214-H2-2012-OP1!	RST-C	SRPC-5214-H2-2012-OP1!
PSPT	SRPC-5214-H2-2012-OP1!		

PIP SUMMARY

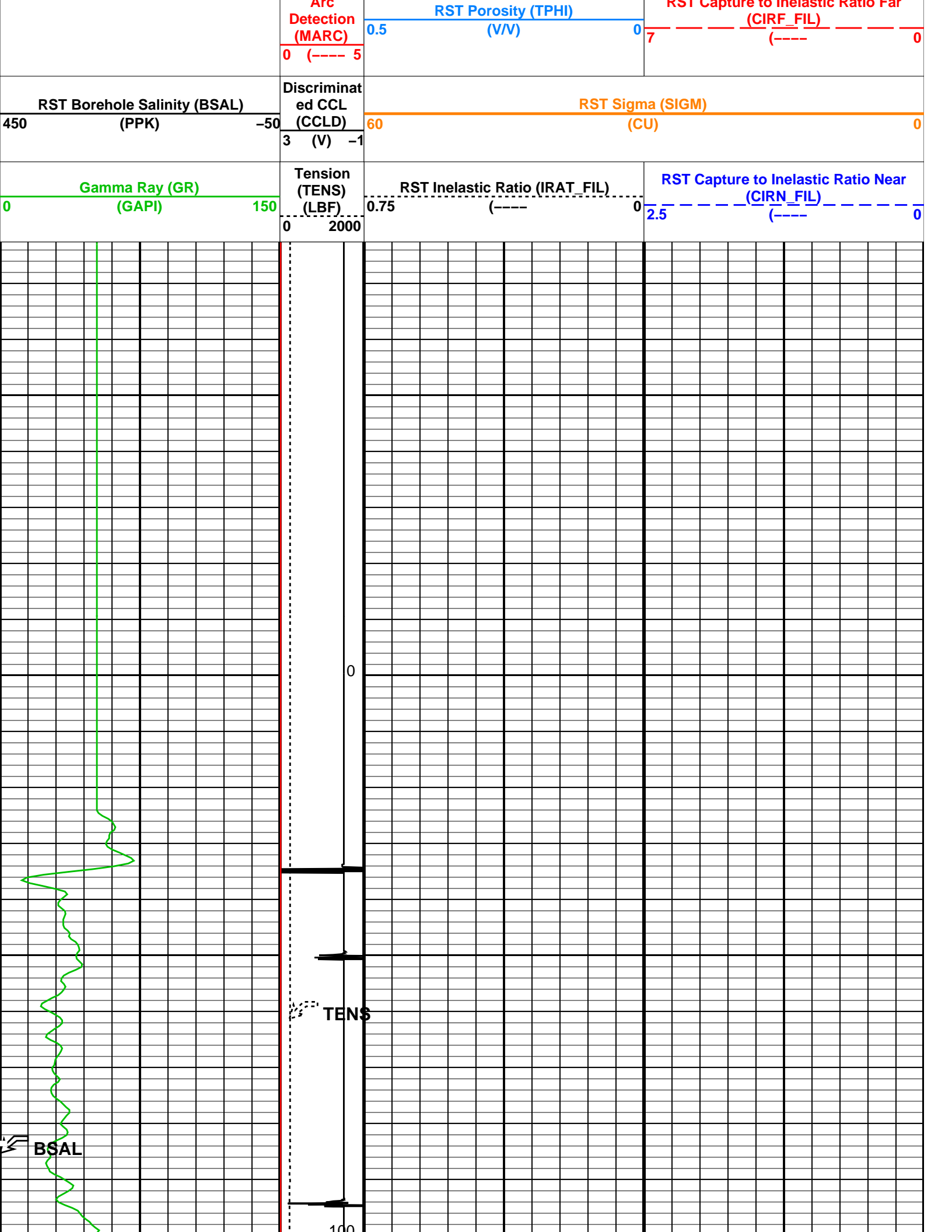
Time Mark Every 60 S

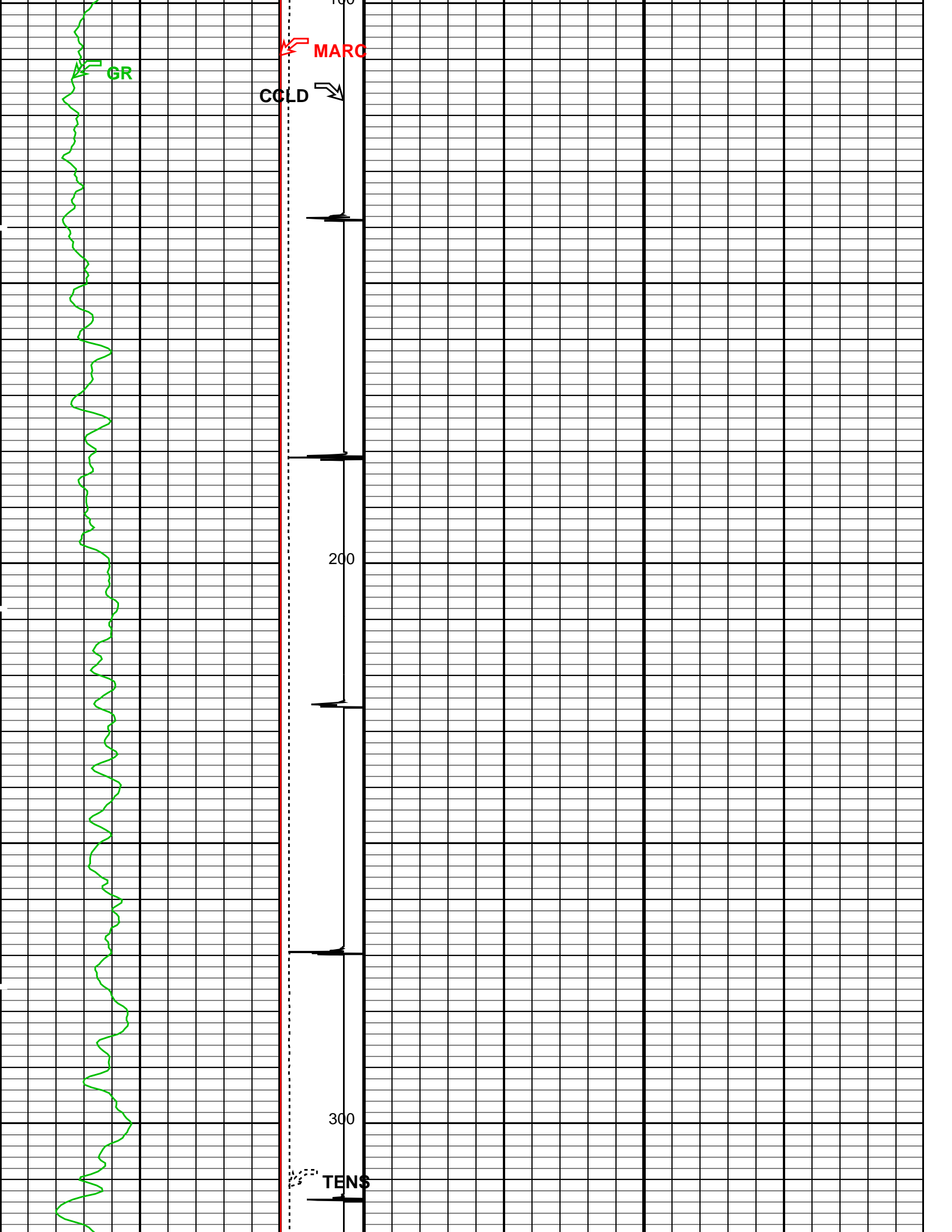
Crossover in sand
From RST_CIRF_FIL to RST_CIRN_FIL

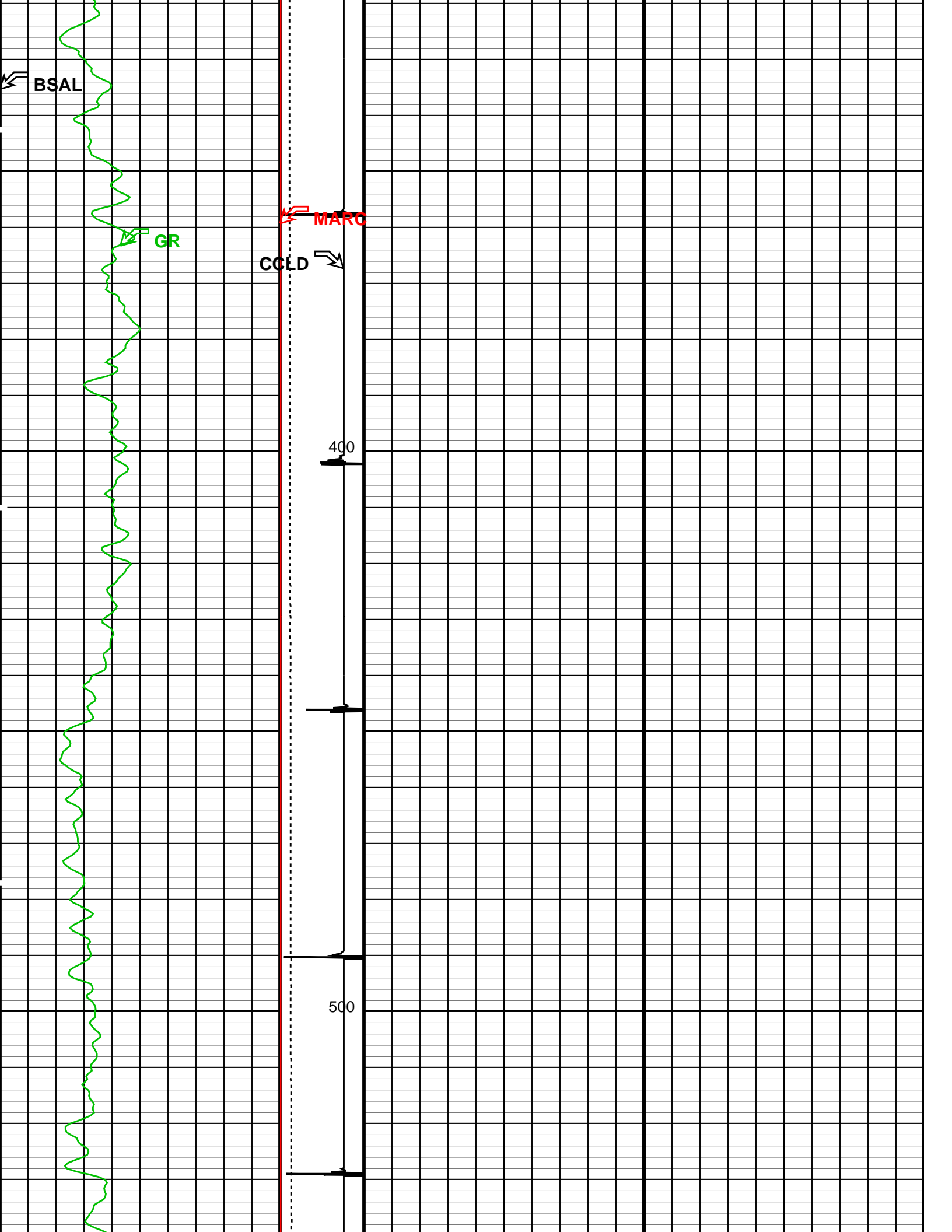
WINR Gas Flag
From WINR to RST_CIRF_FIL

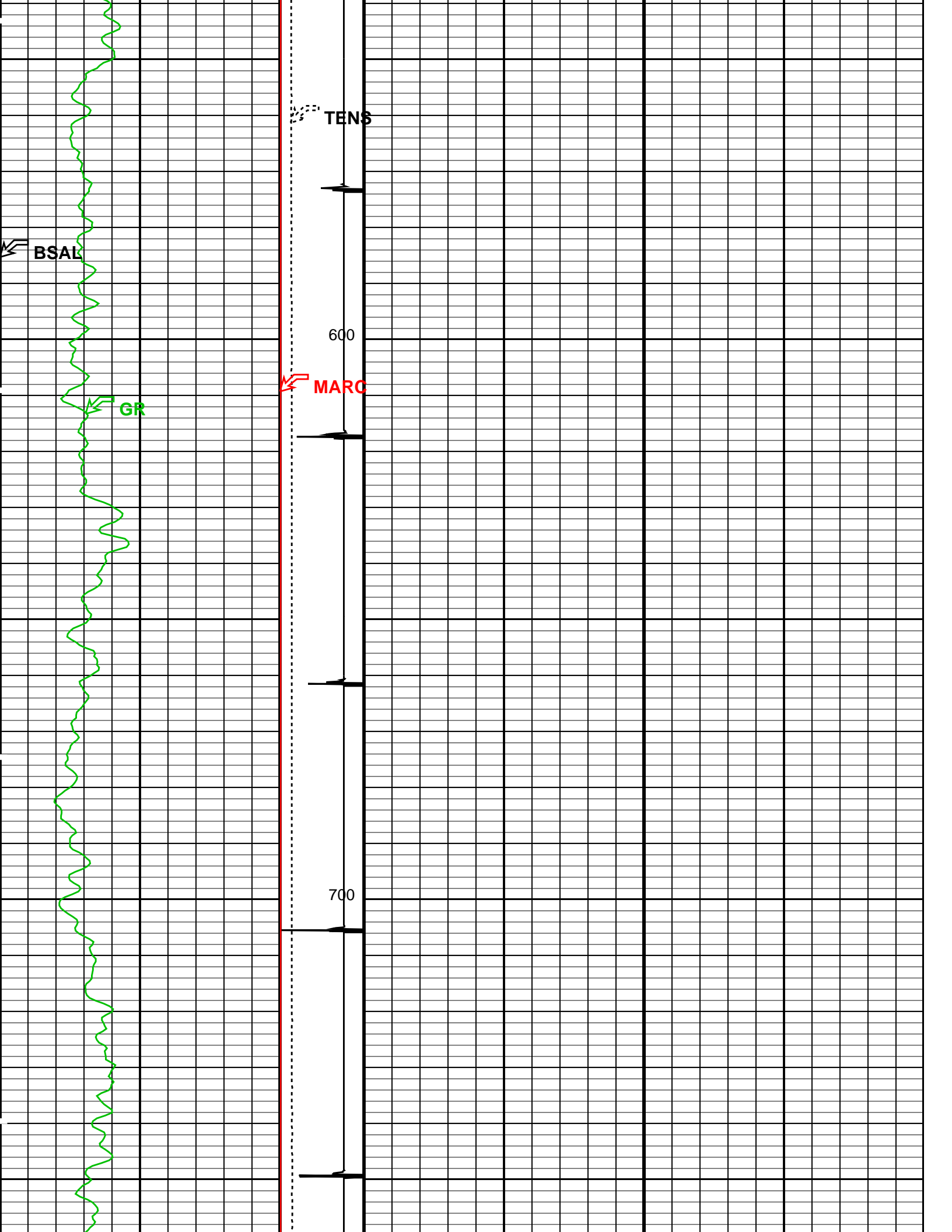
RST Weighted Inelastic Ratio (WINR_RST)
0.4 (----) 0

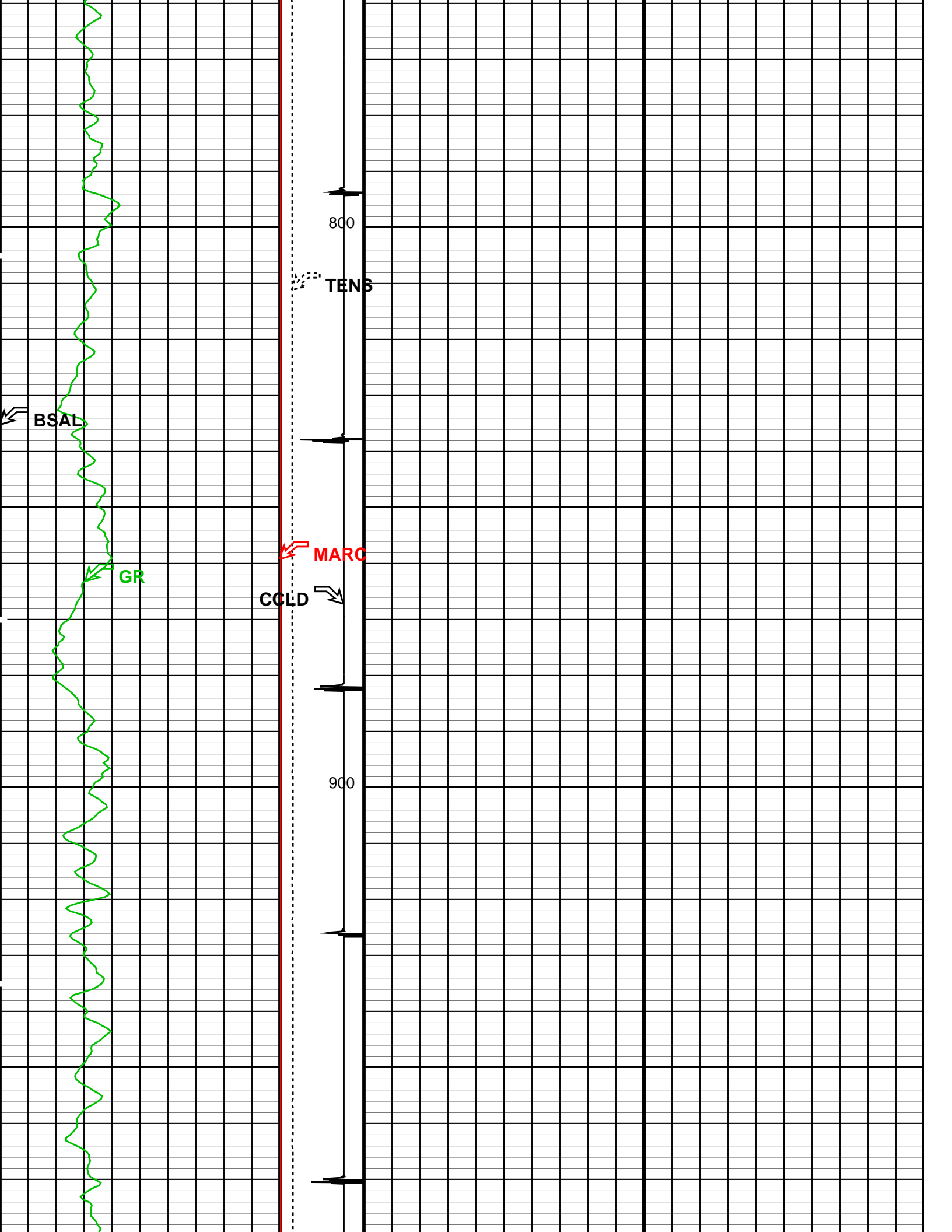
Minitron Are		RST Capture to Inelastic Ratio For
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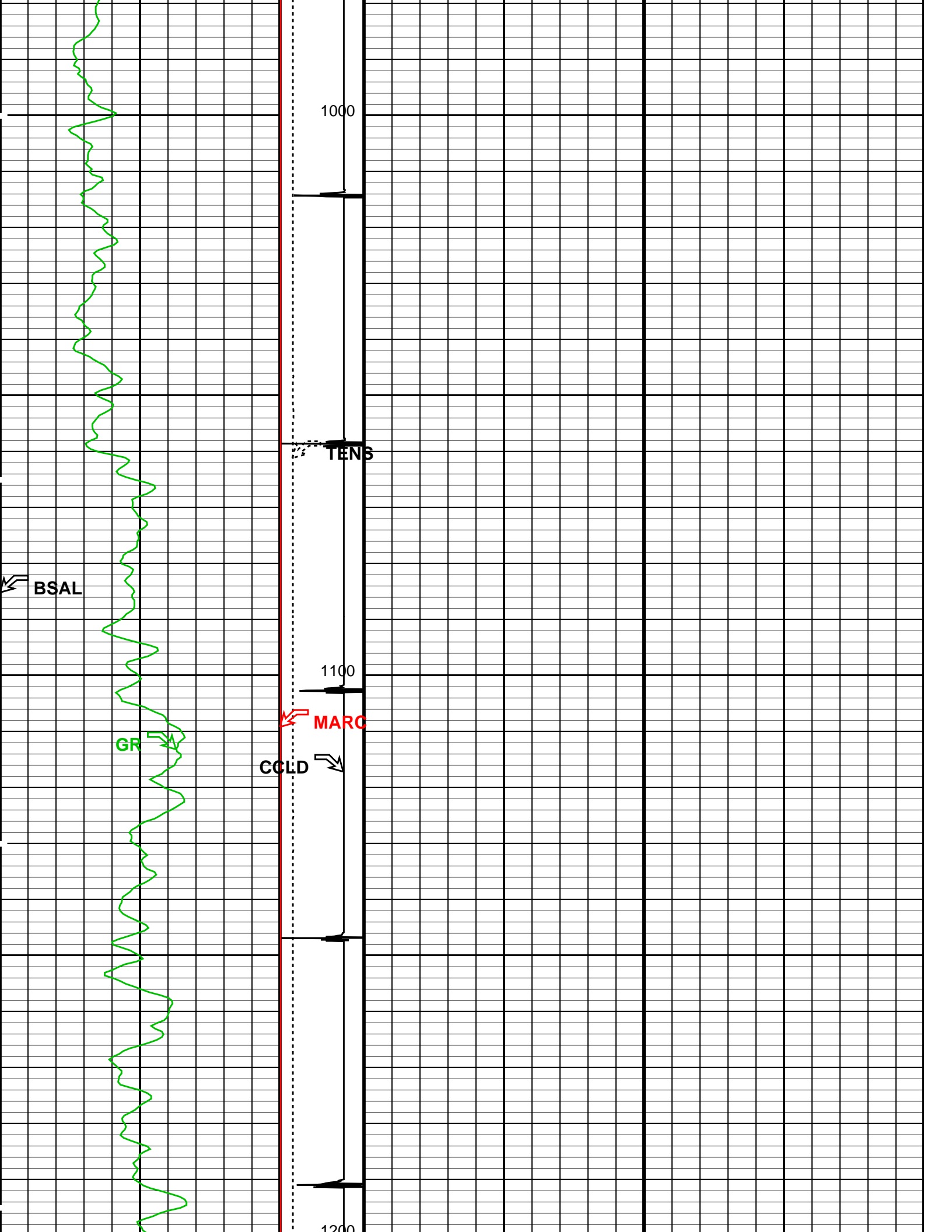


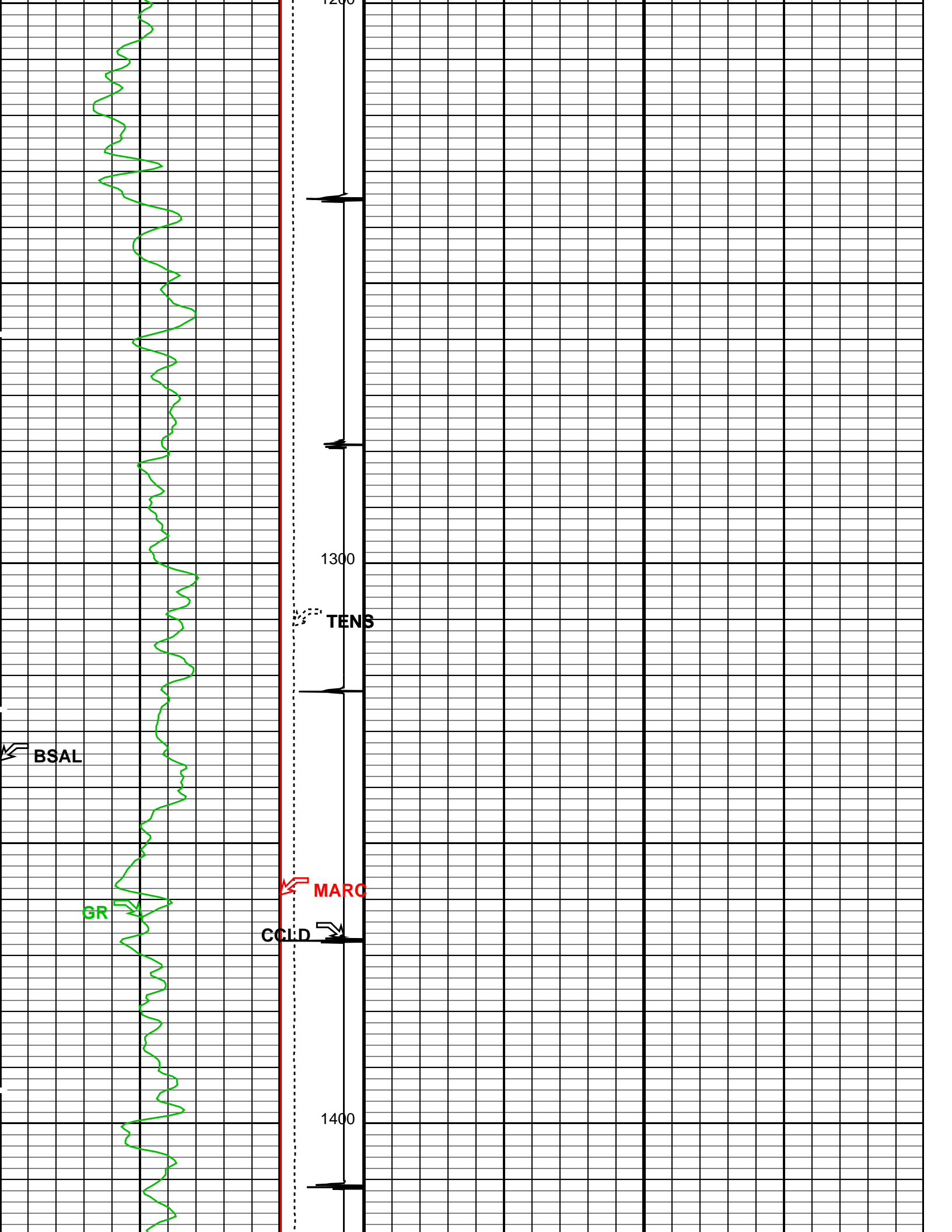


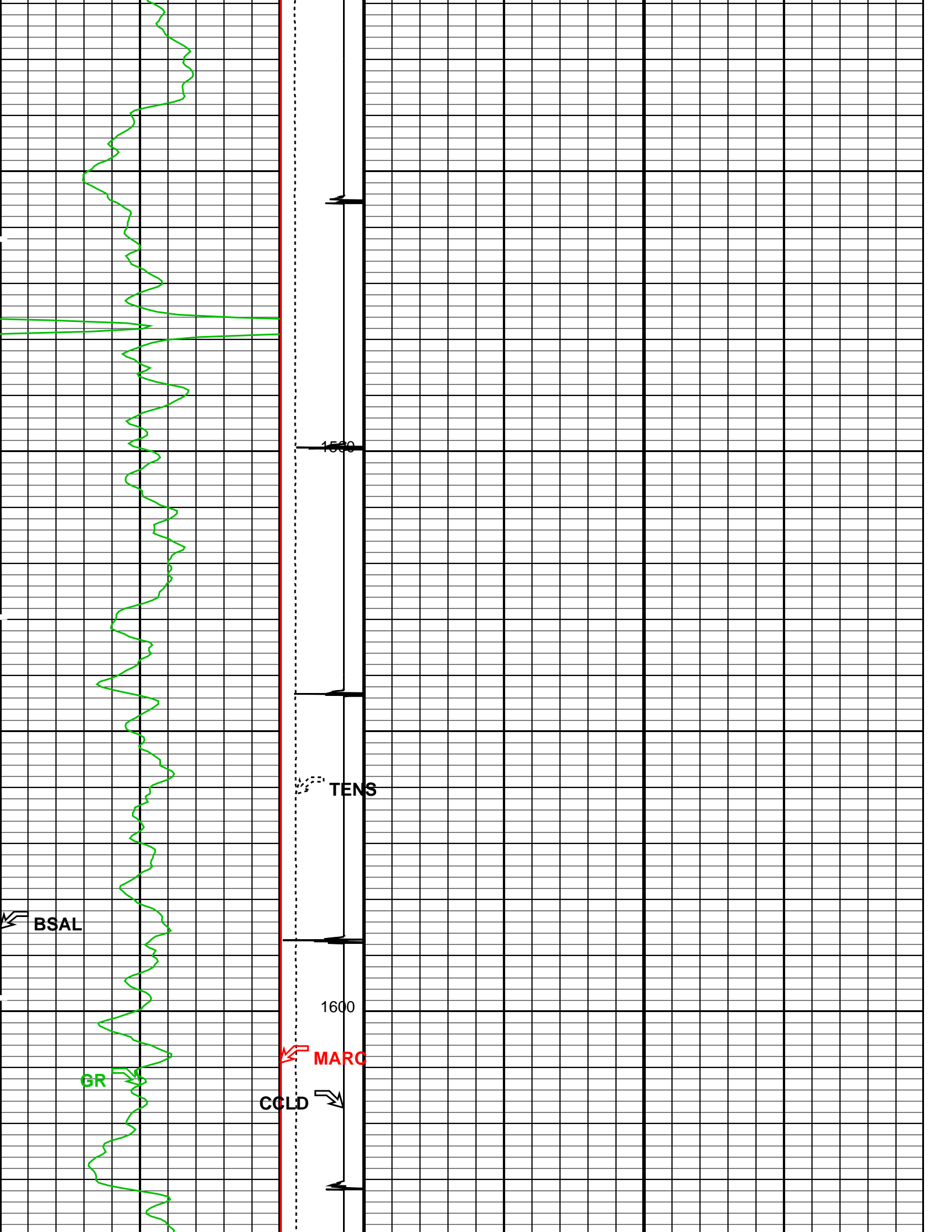


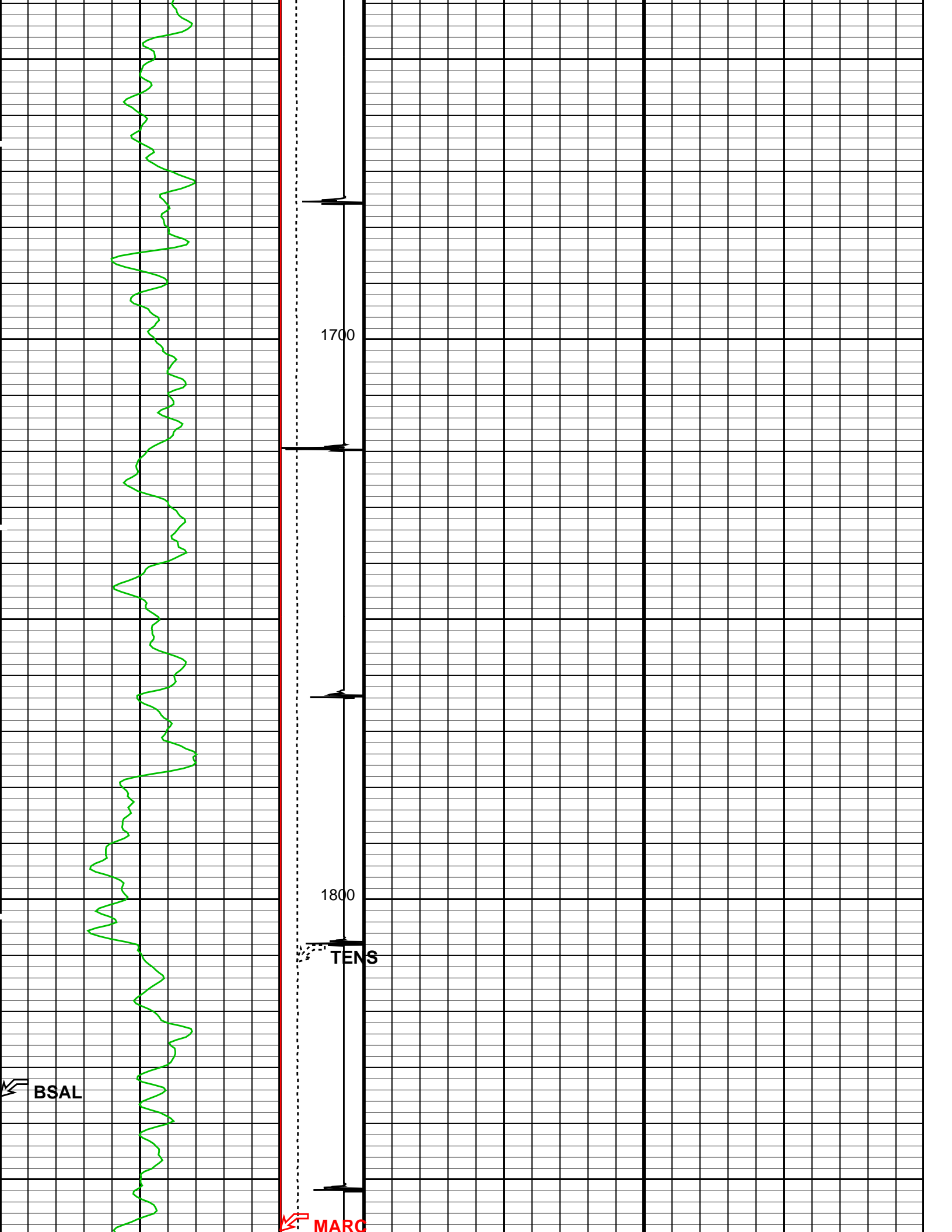


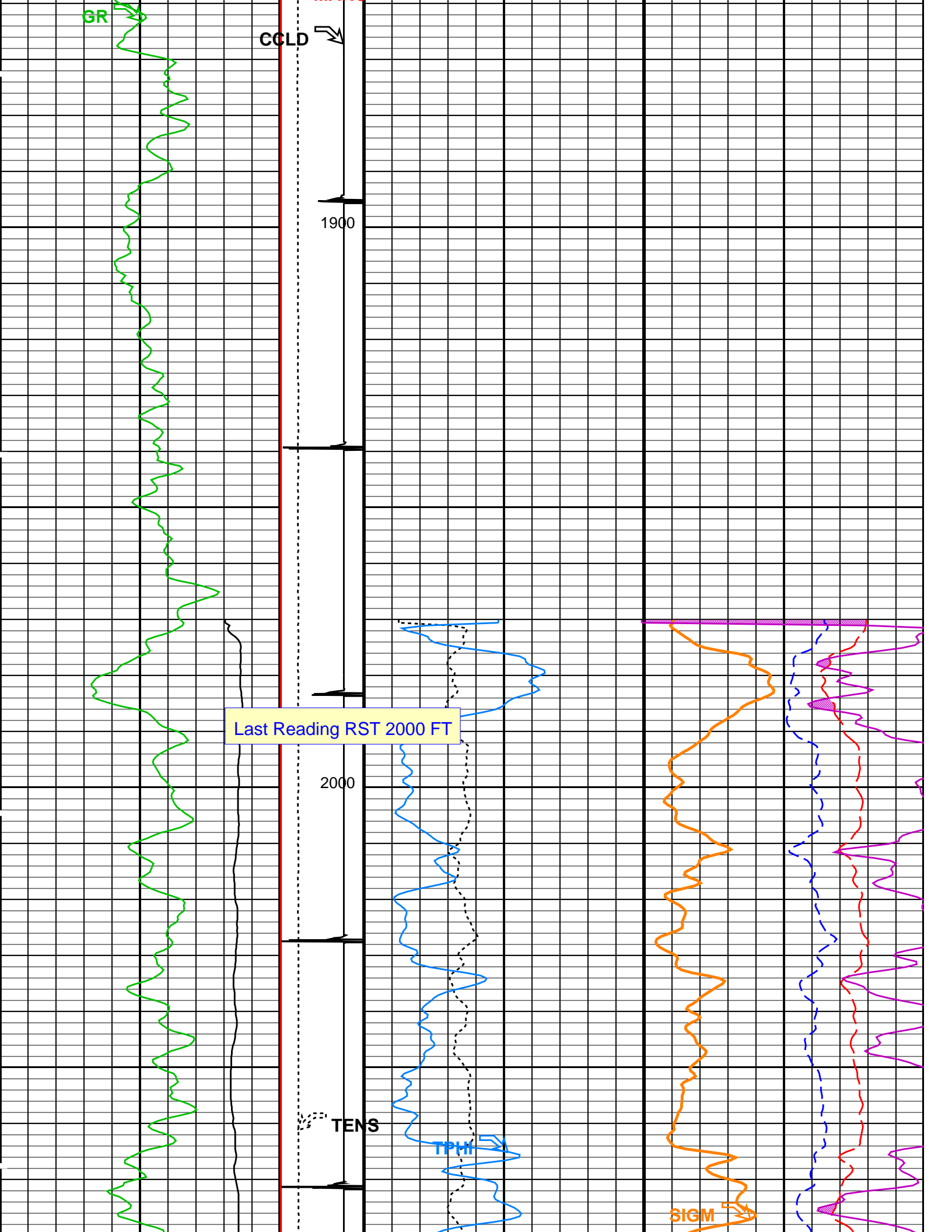


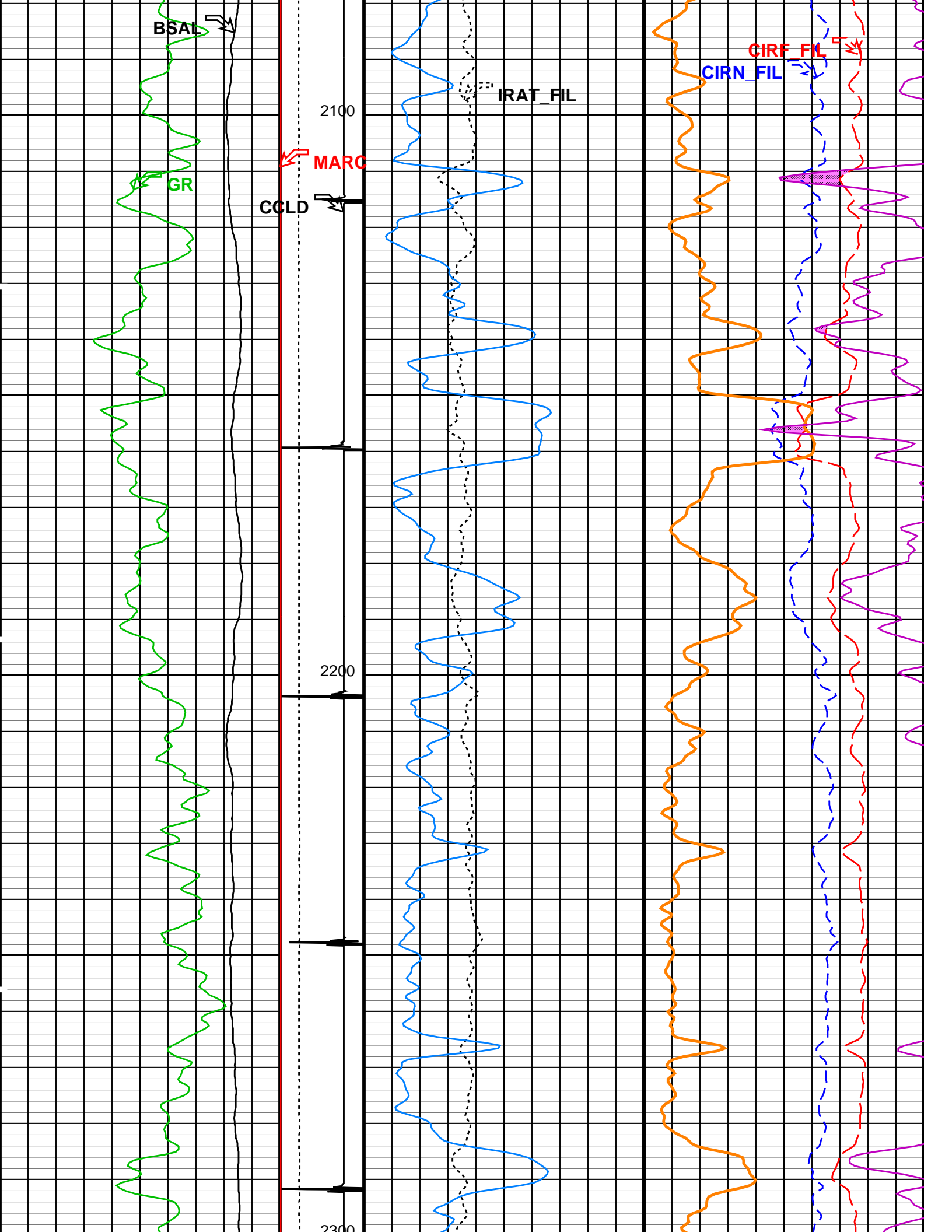


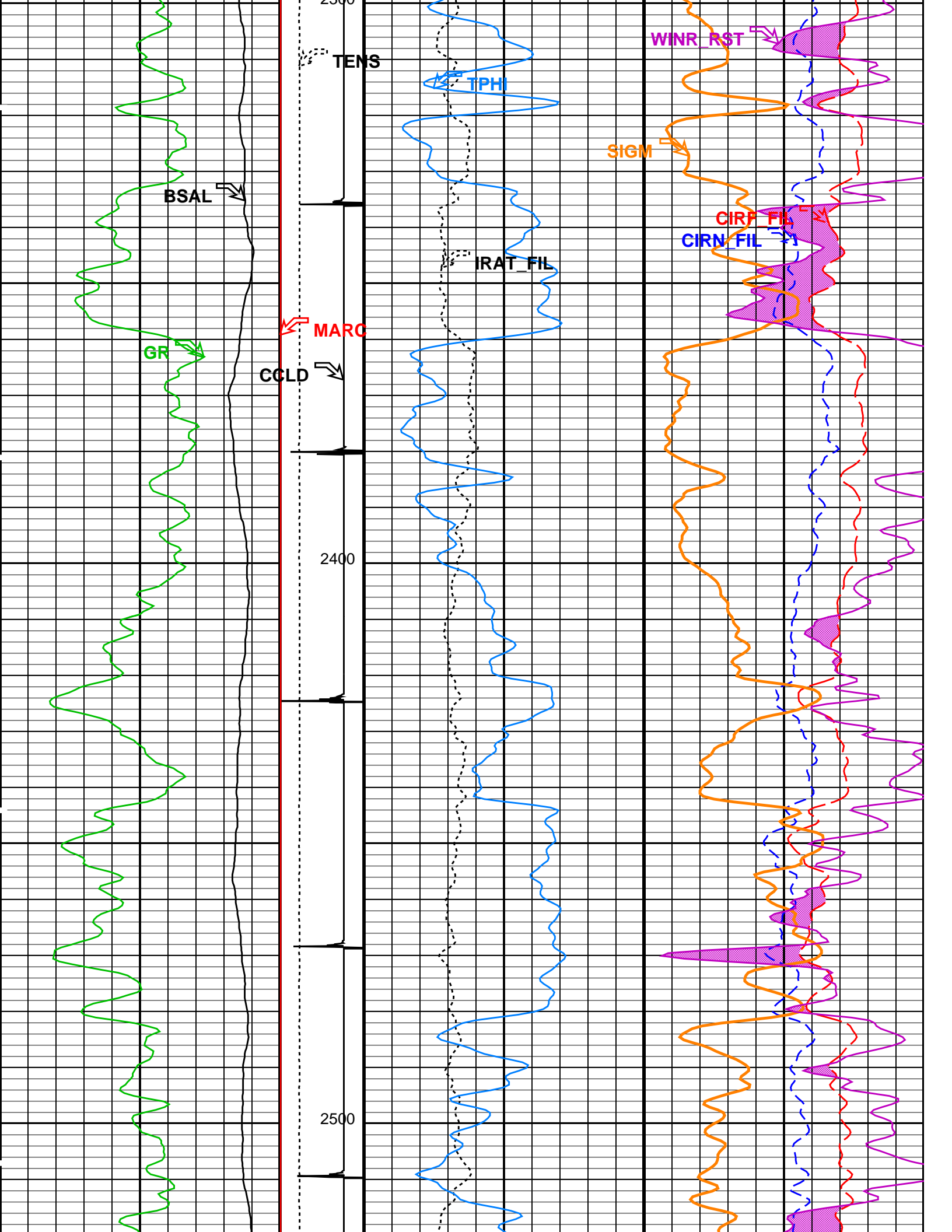


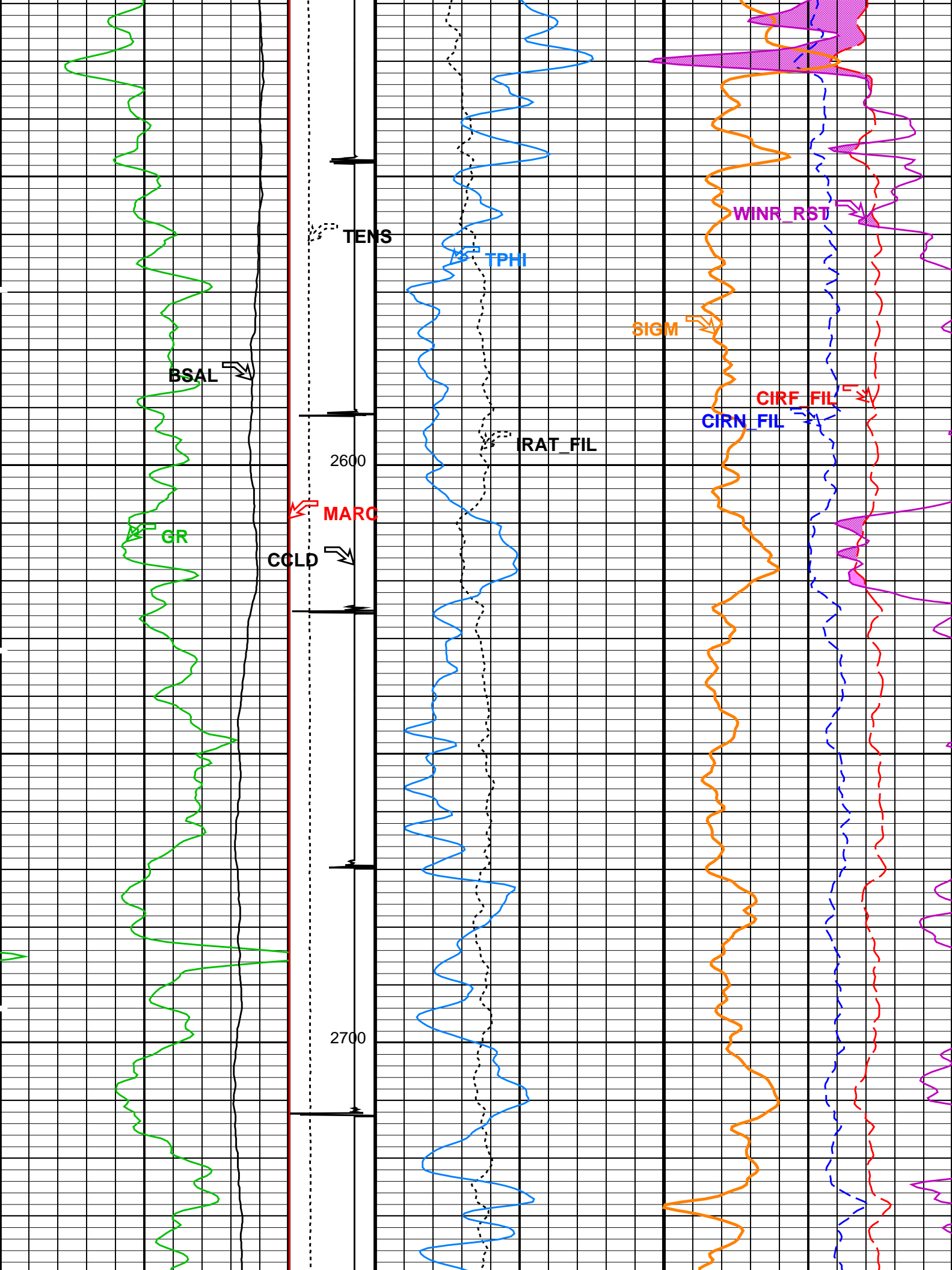


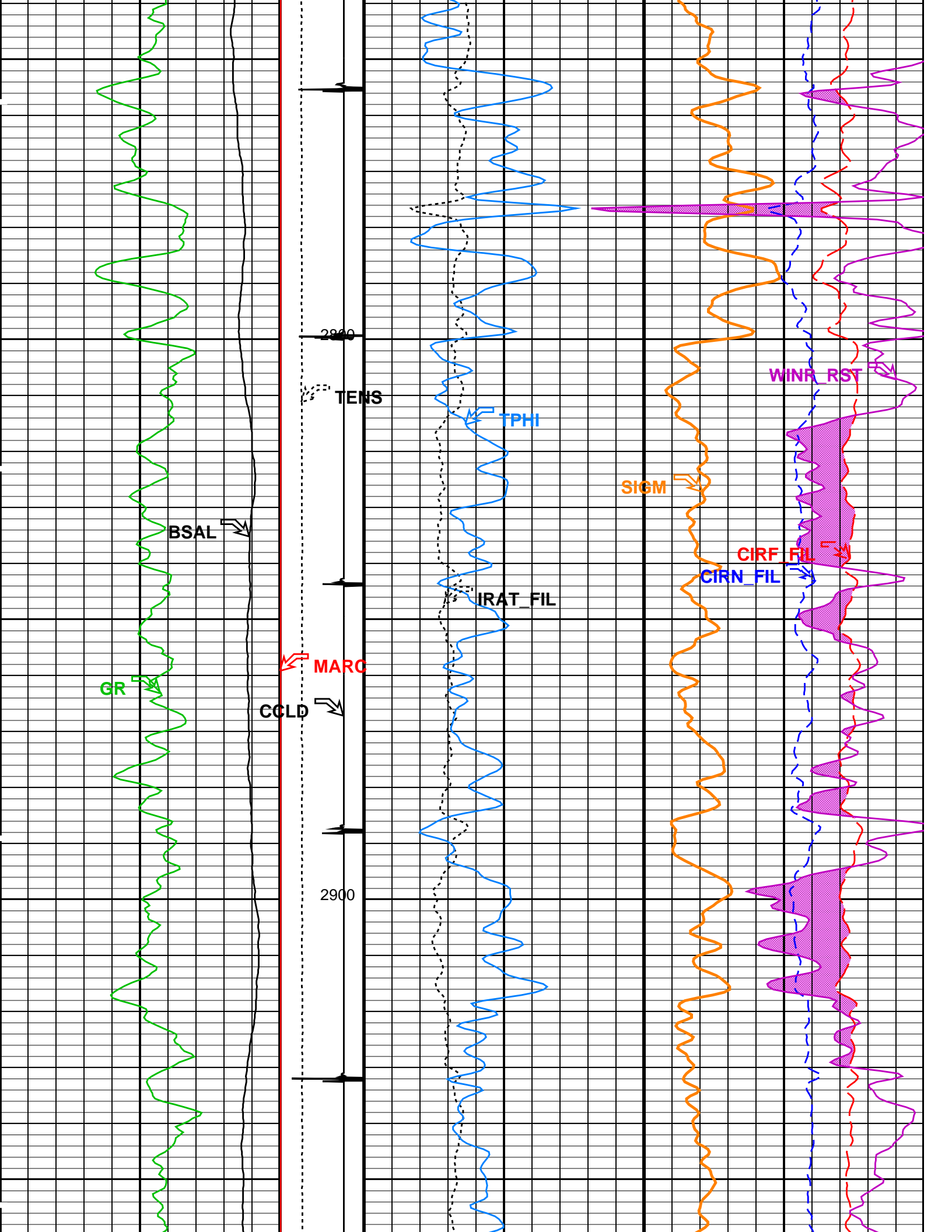


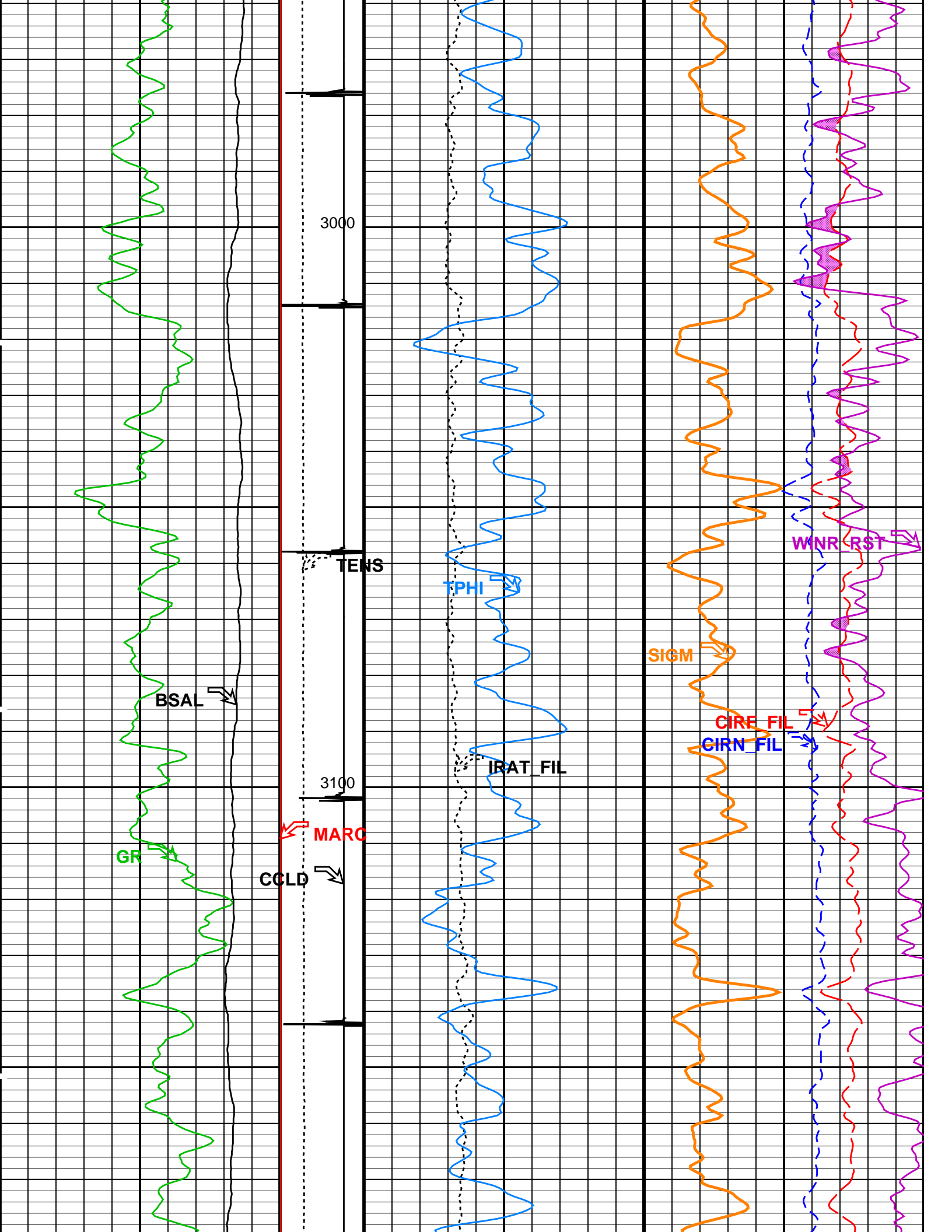


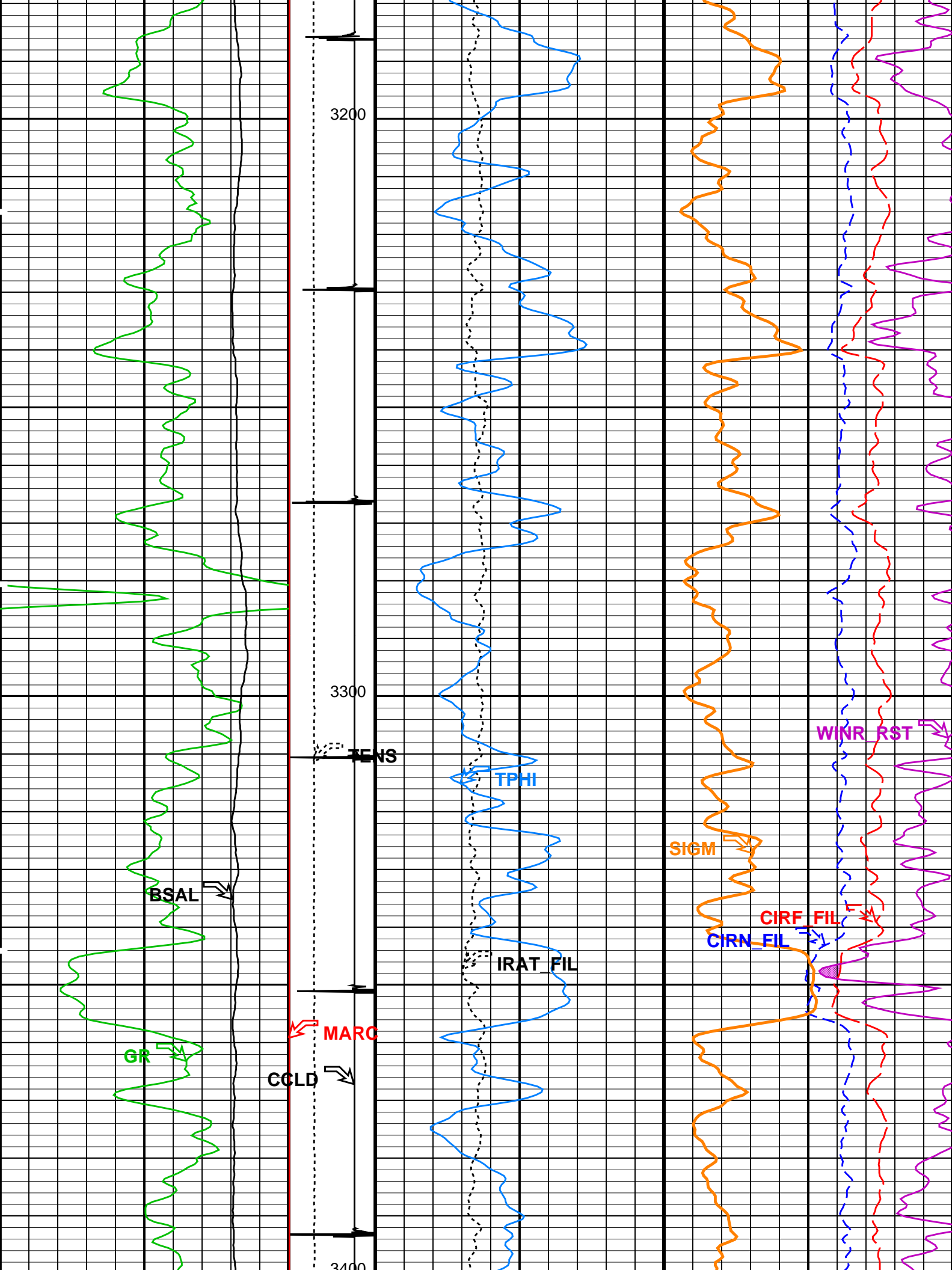


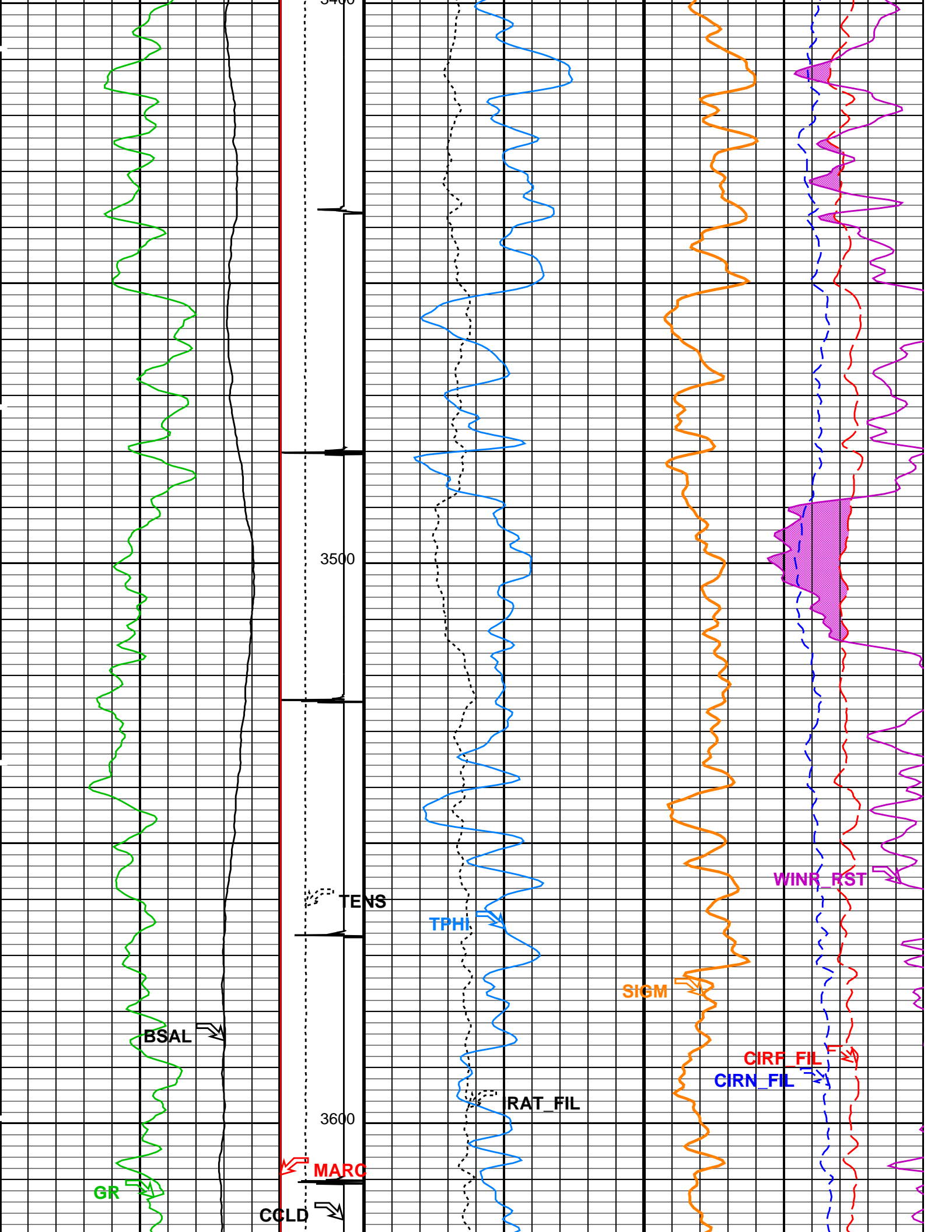


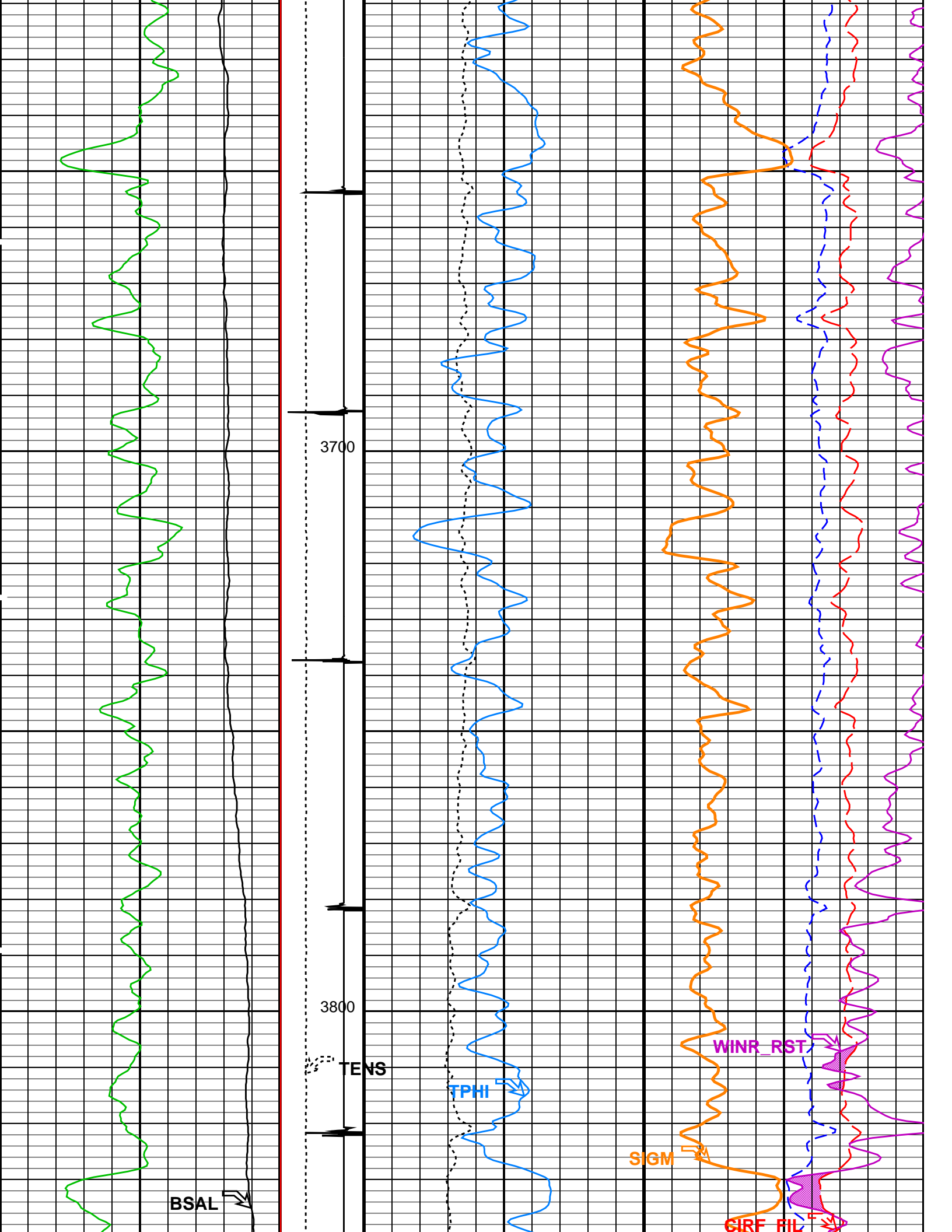


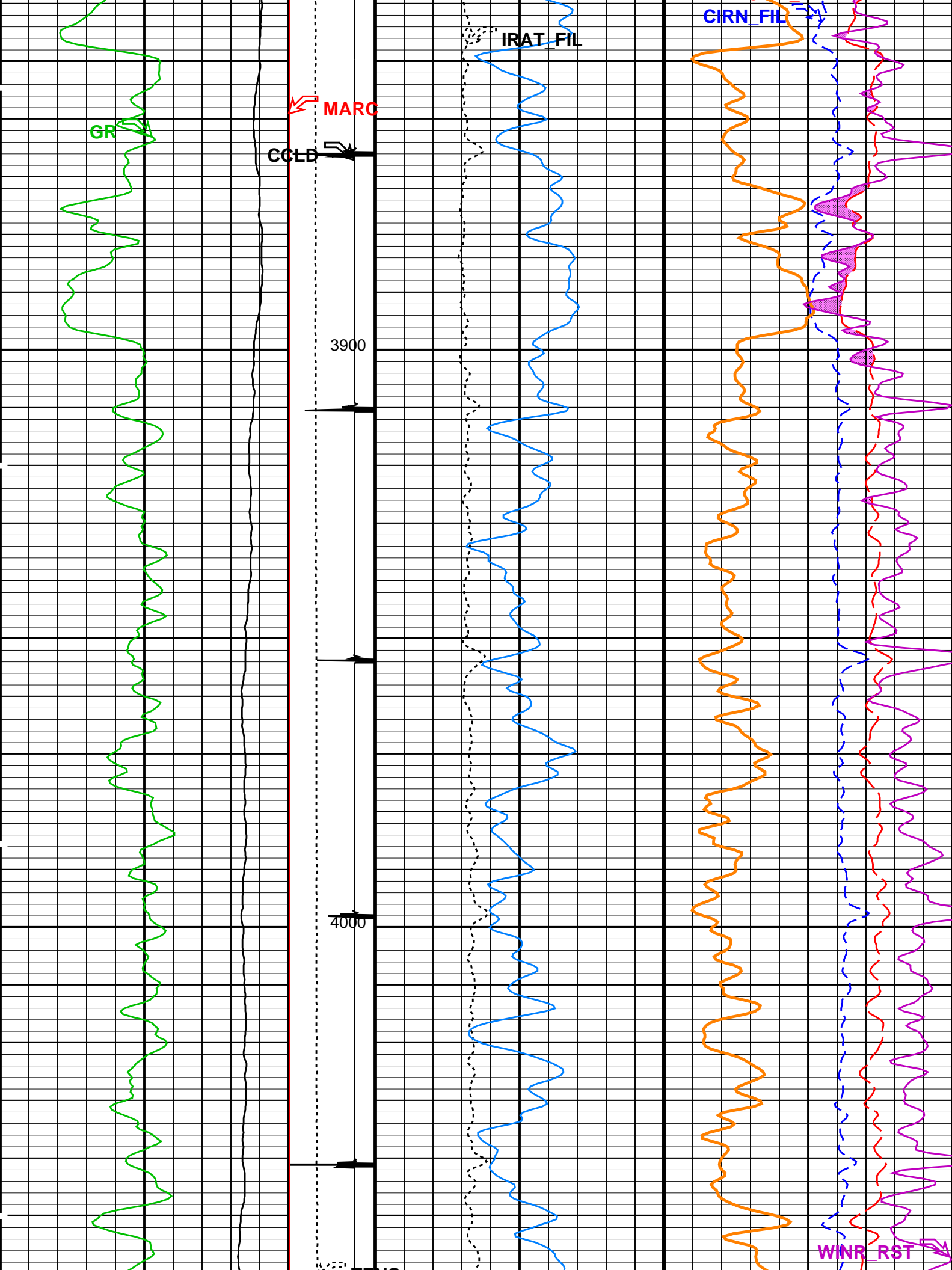


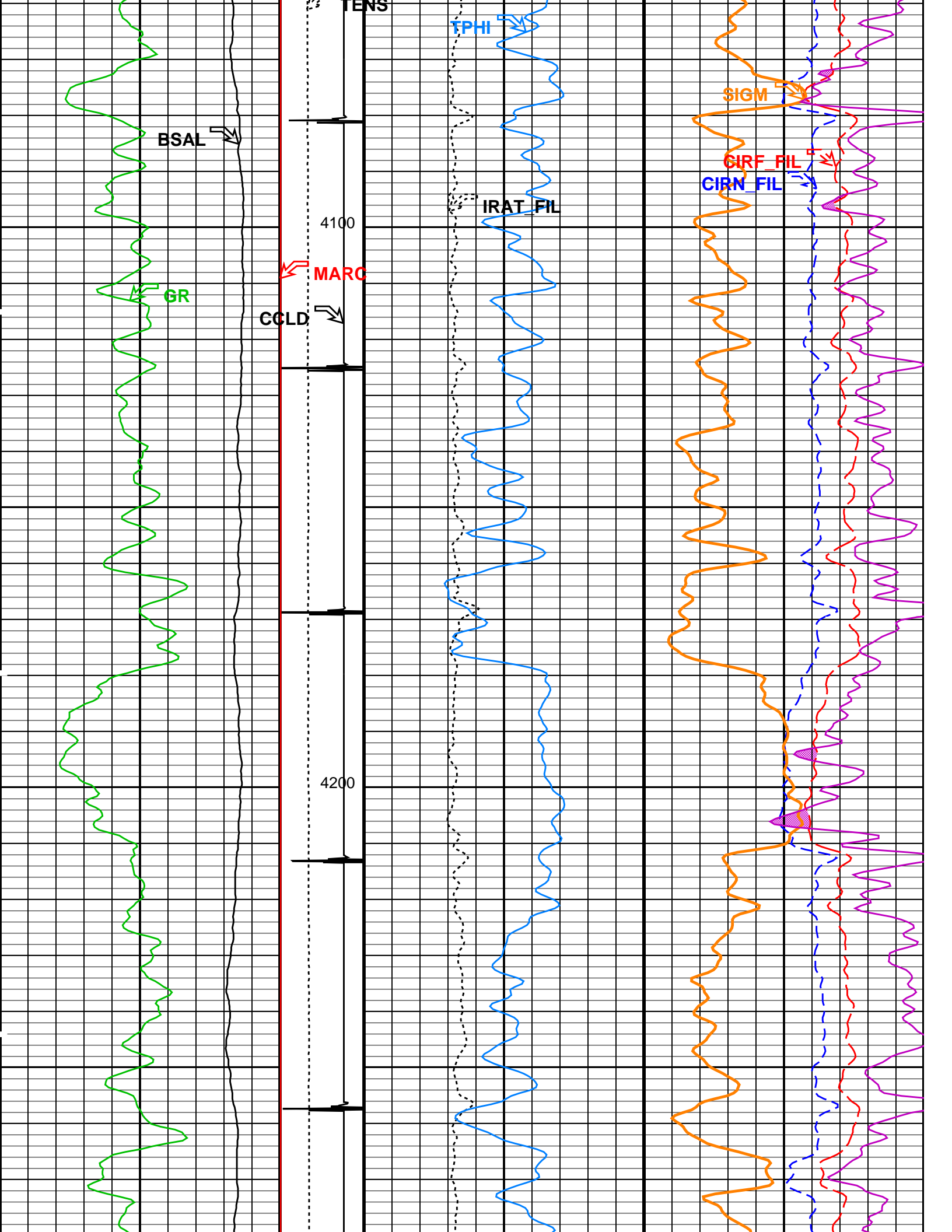


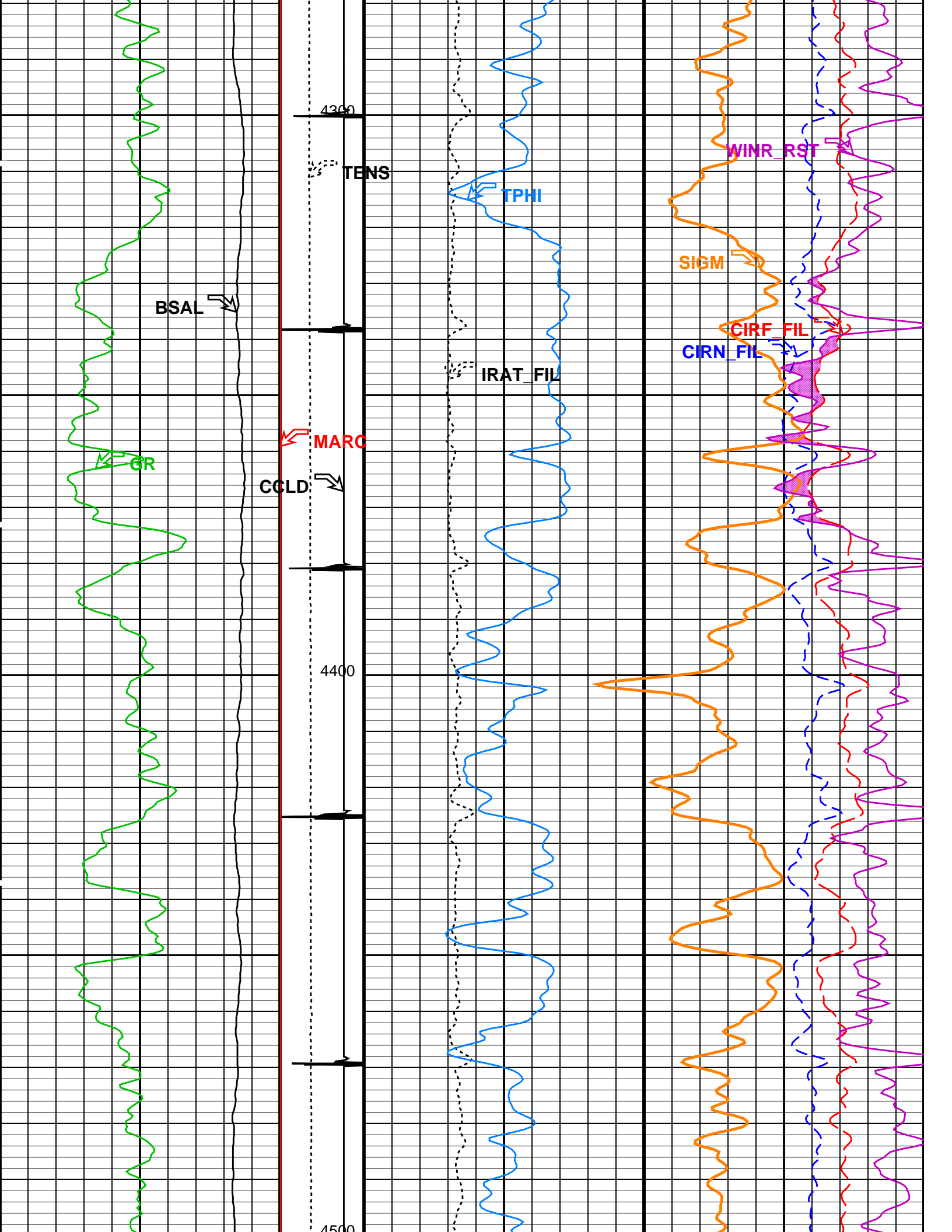


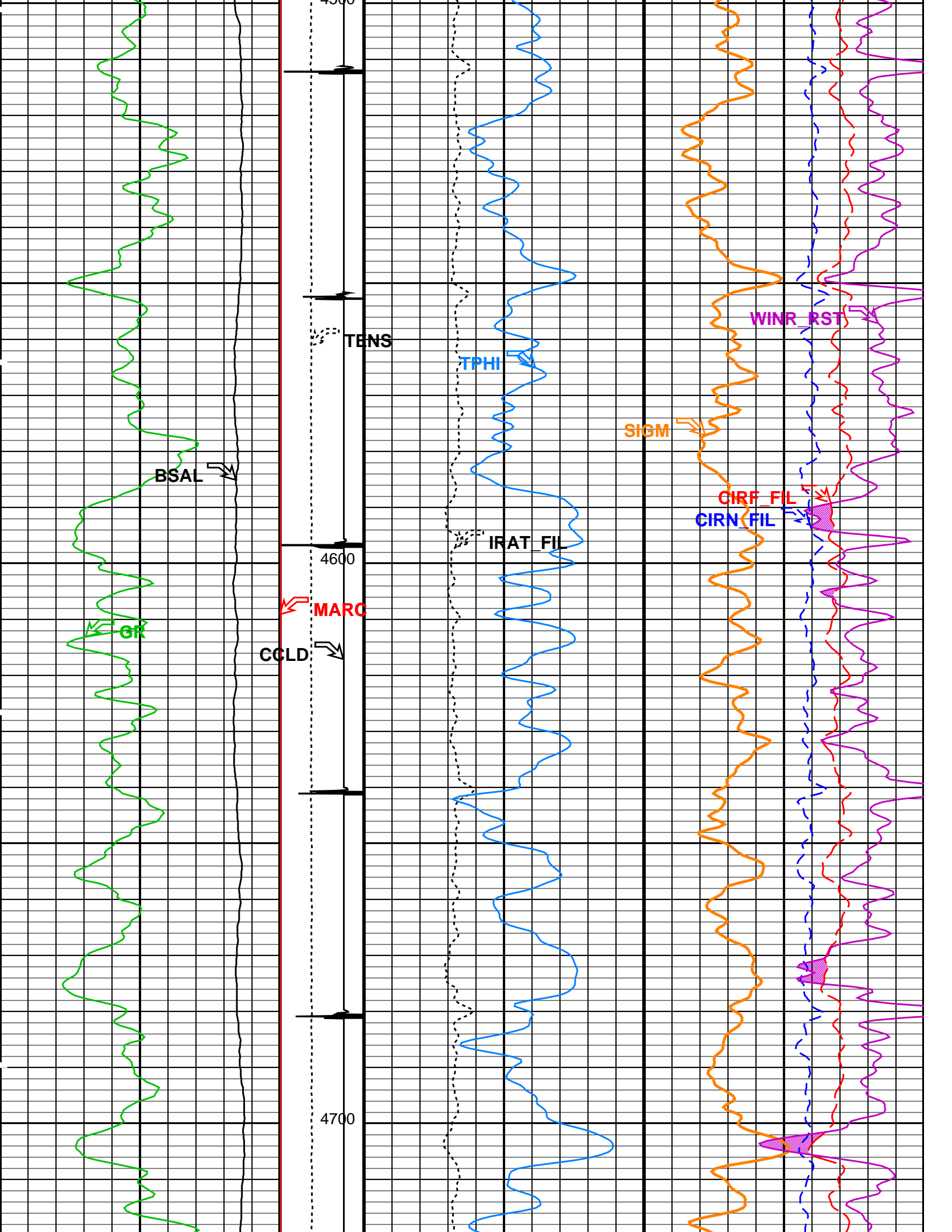


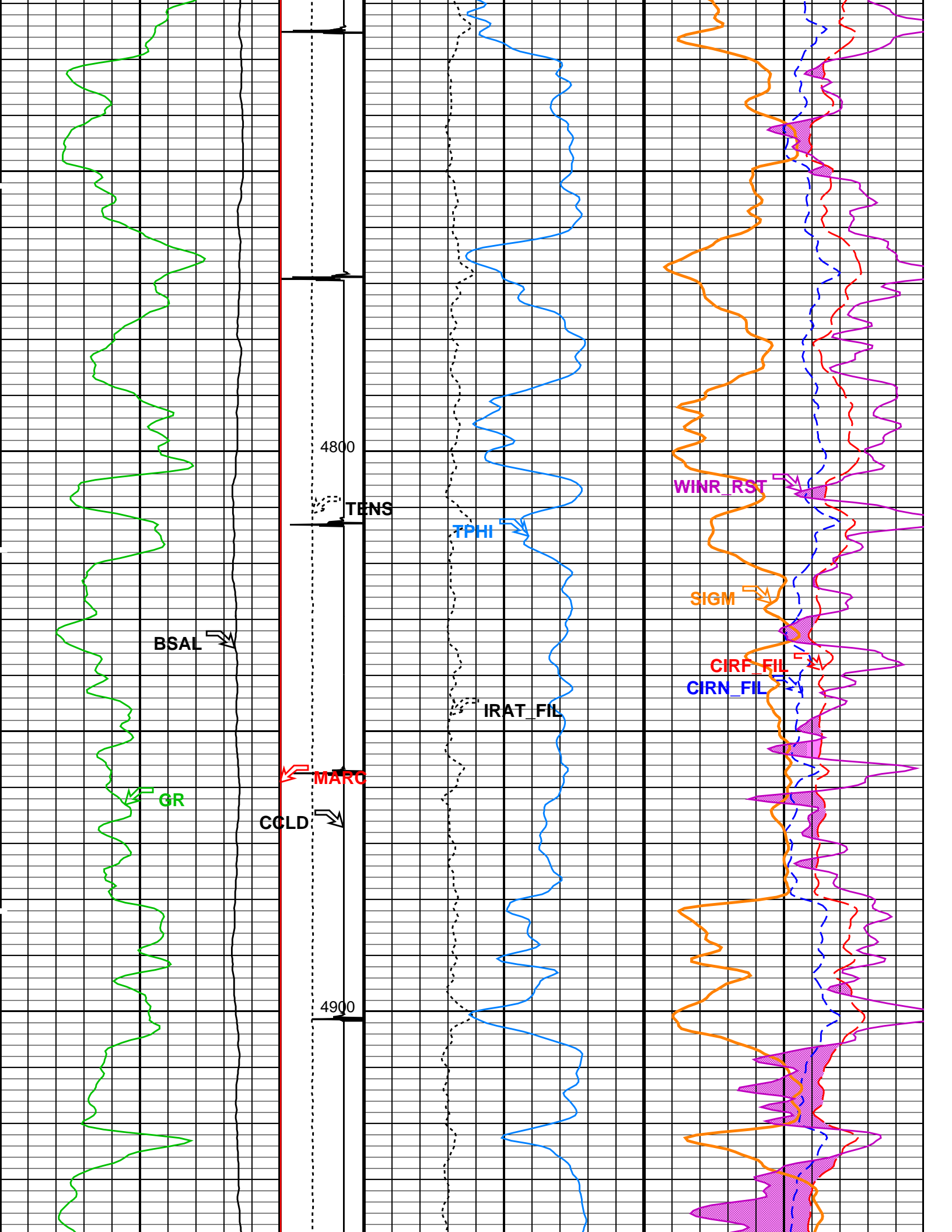


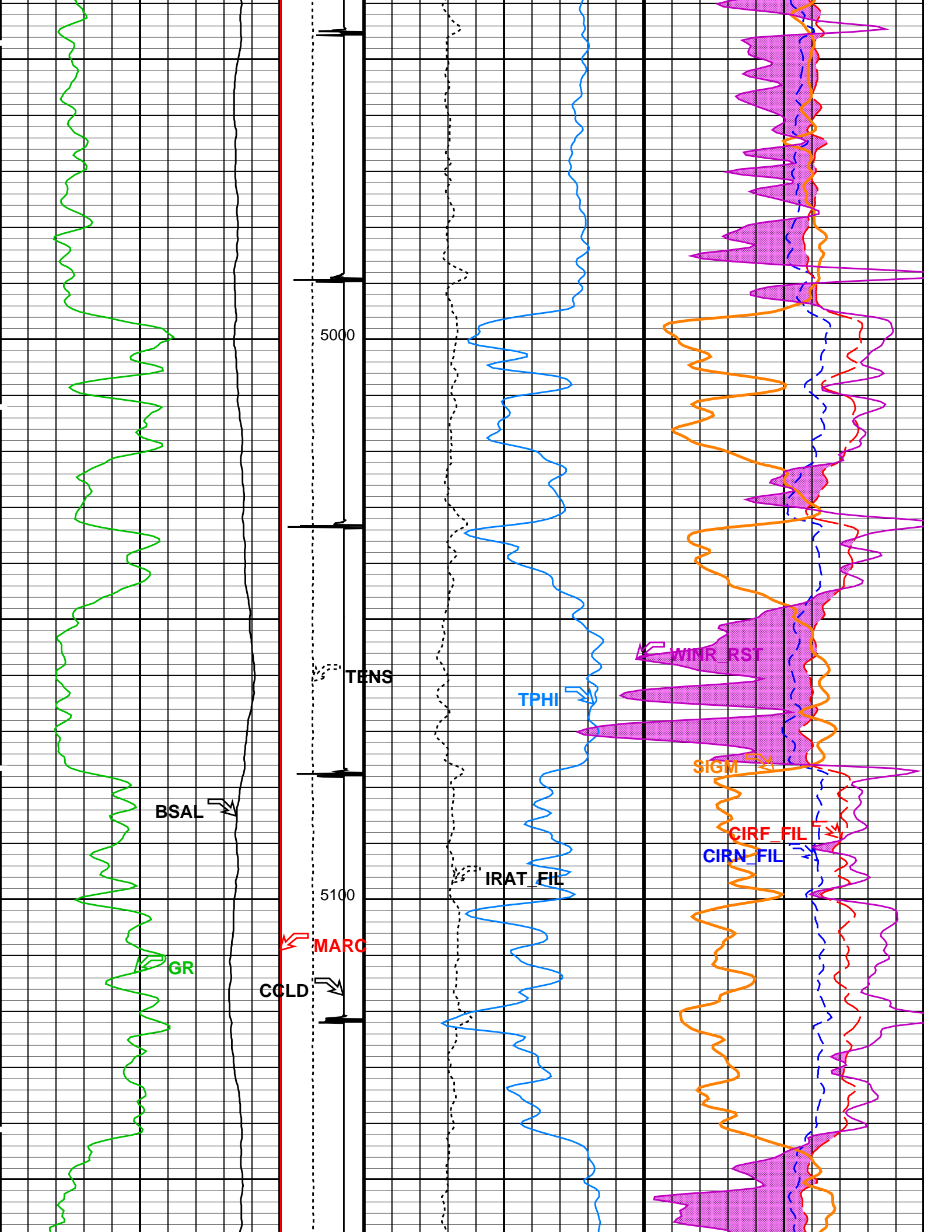


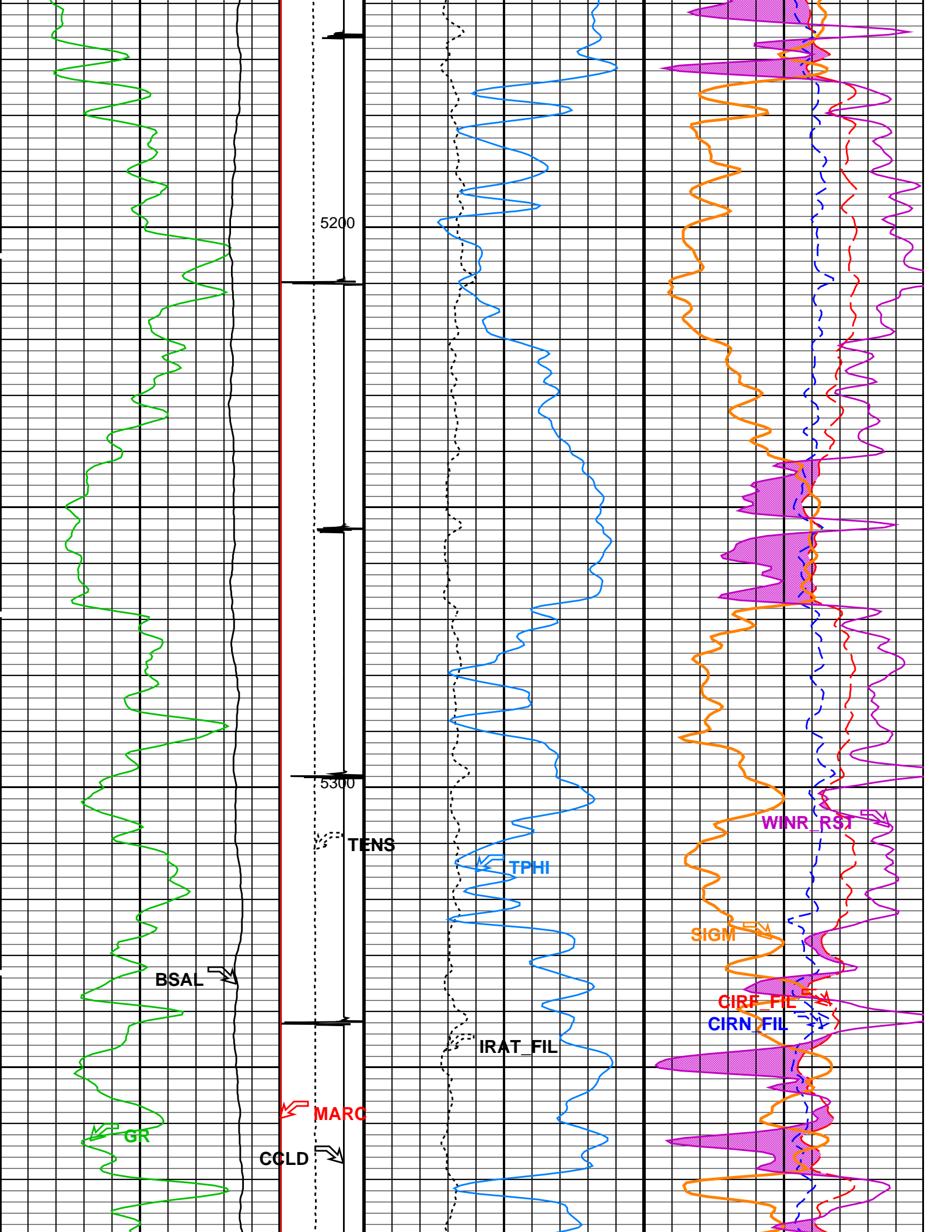


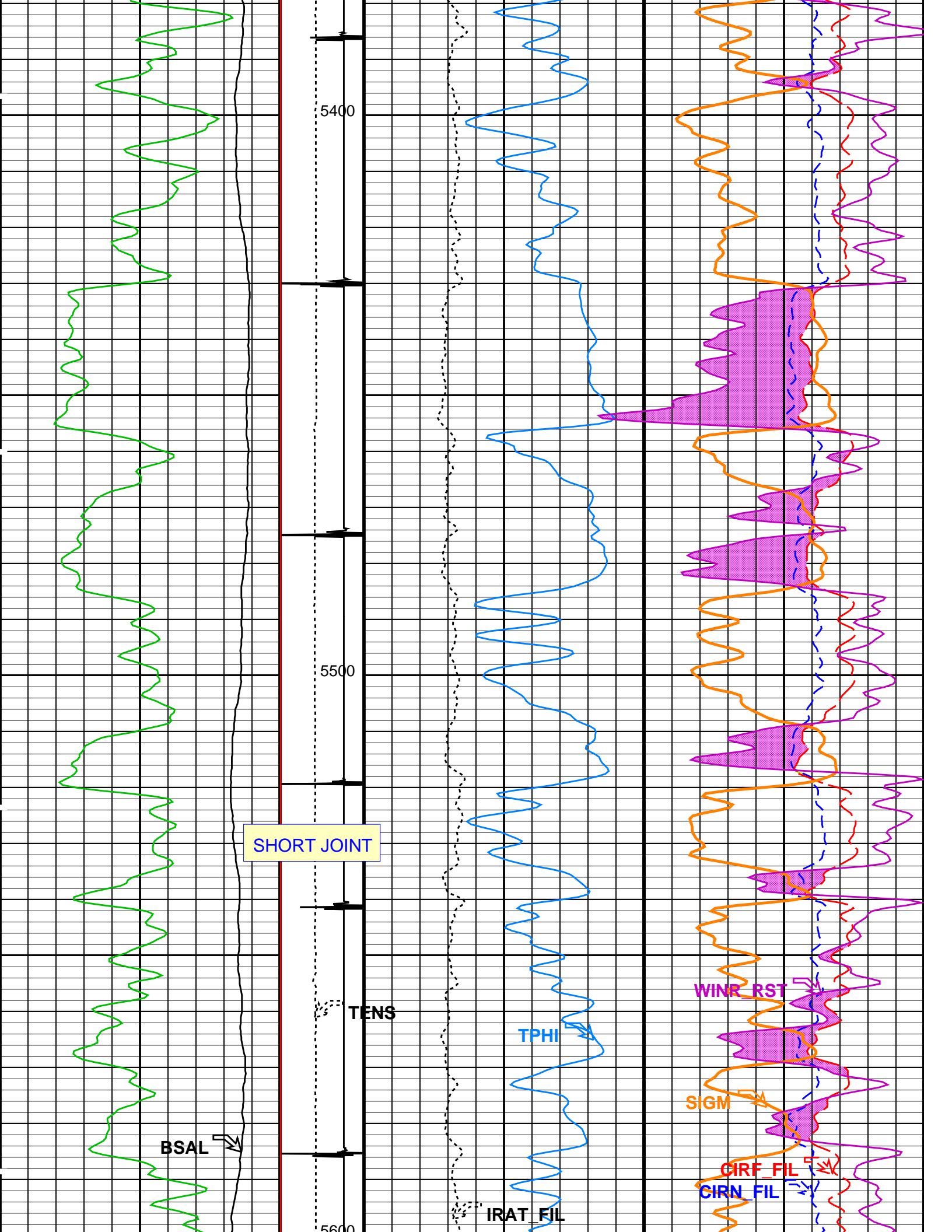


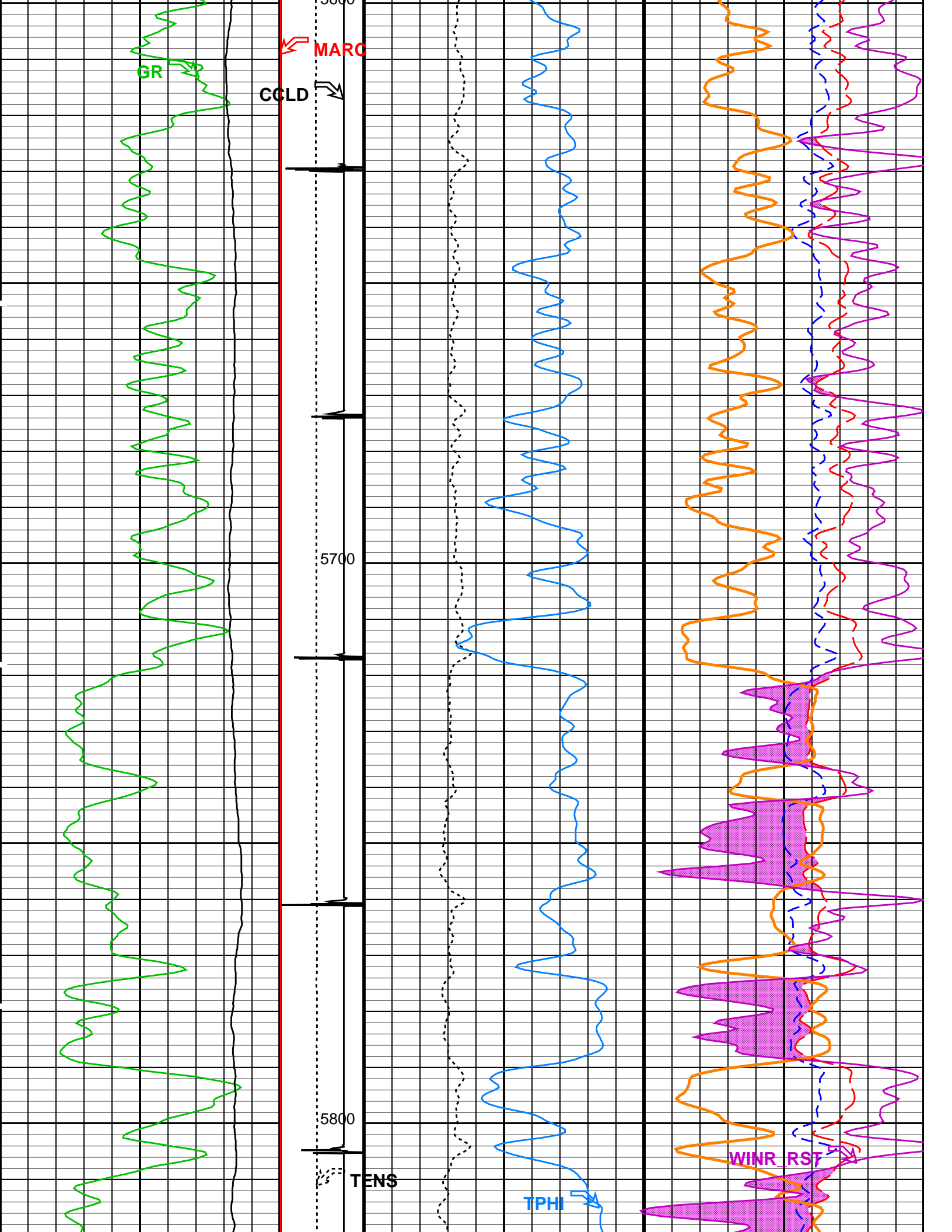


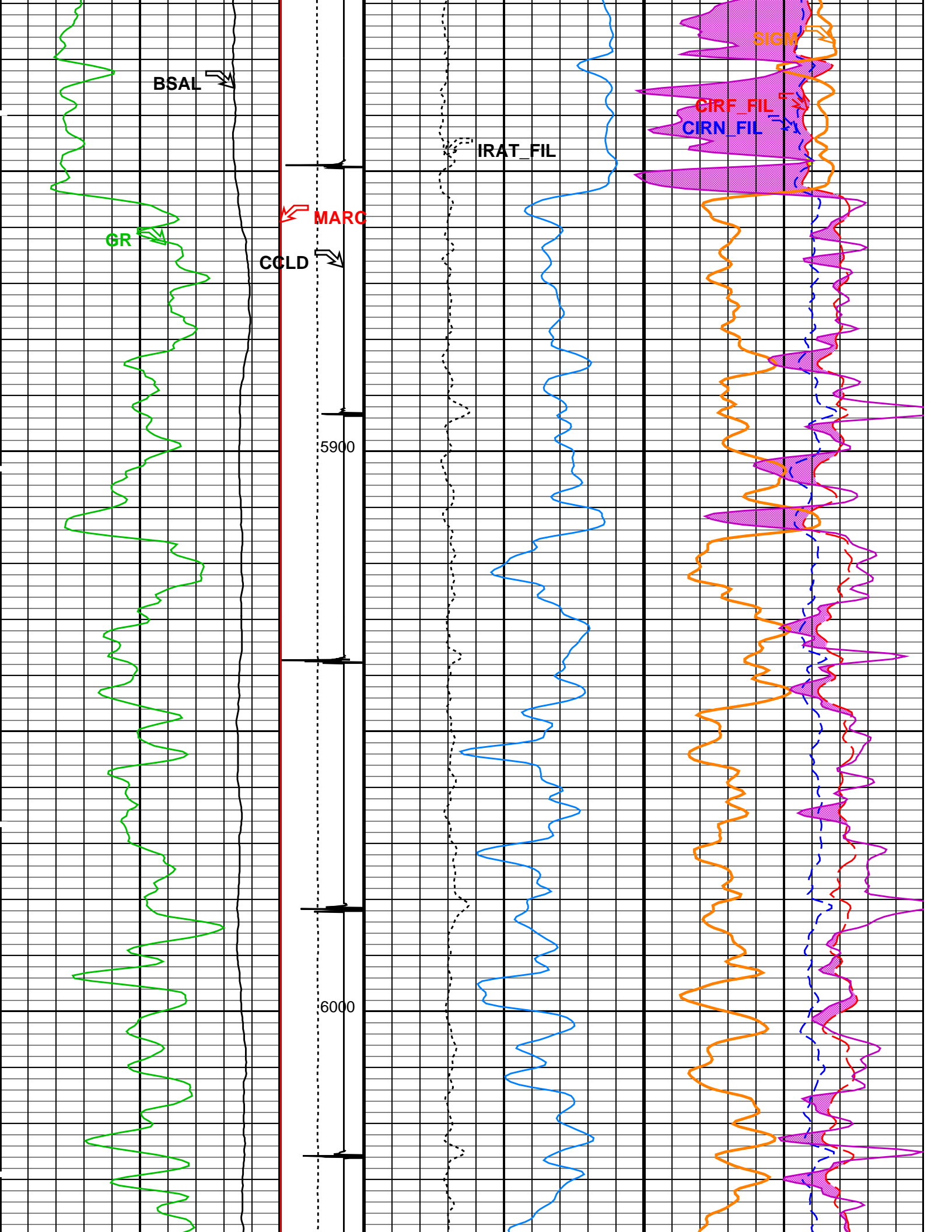


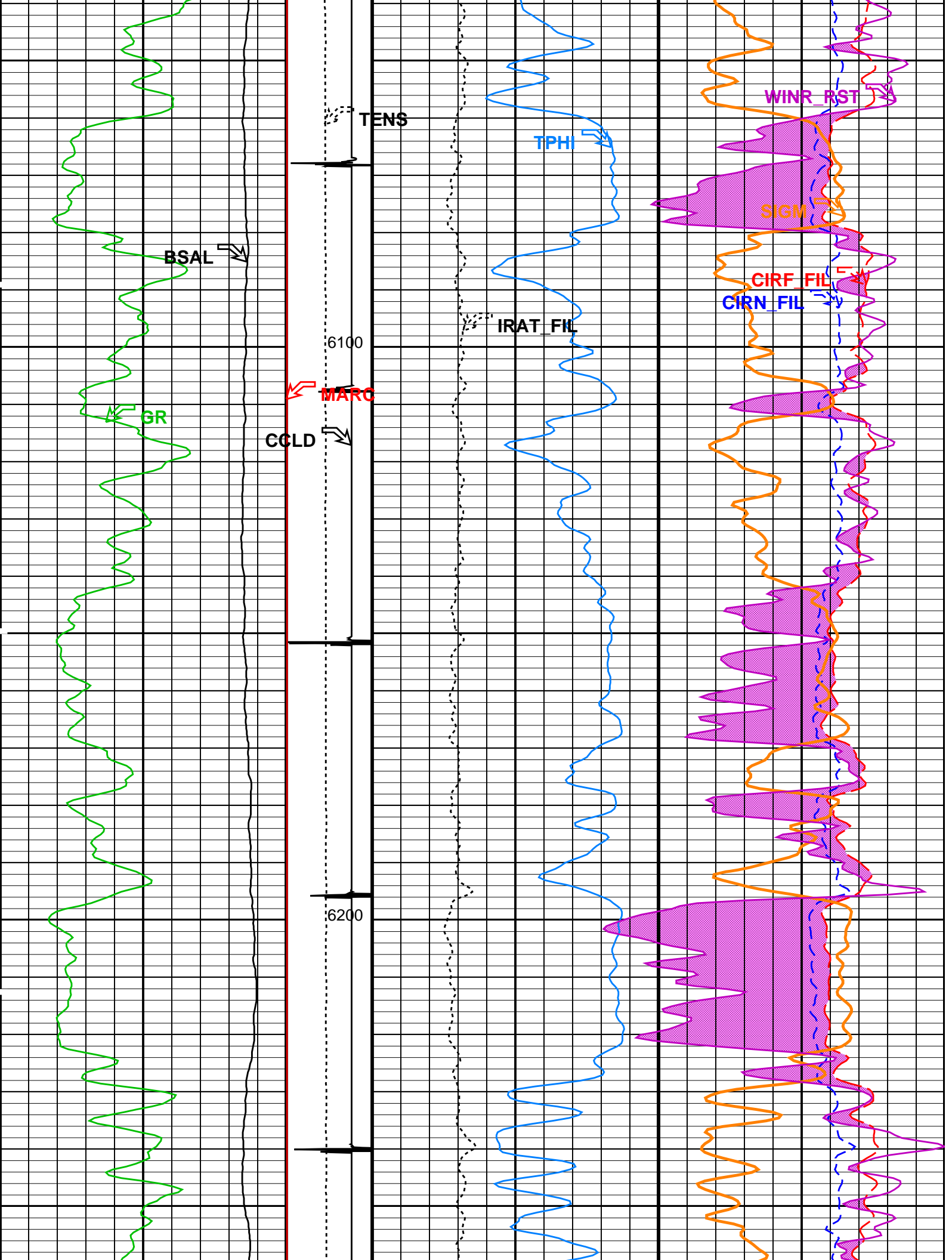


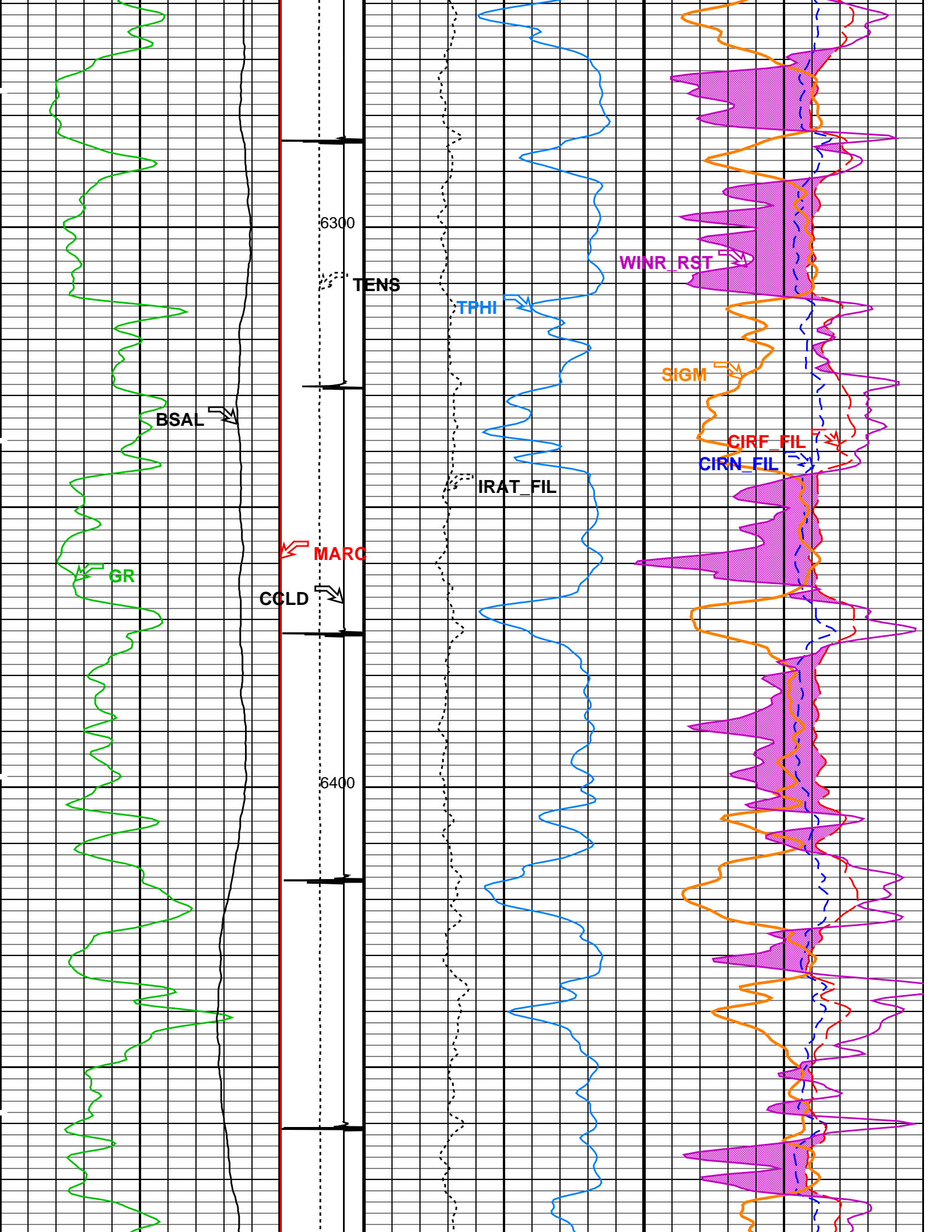


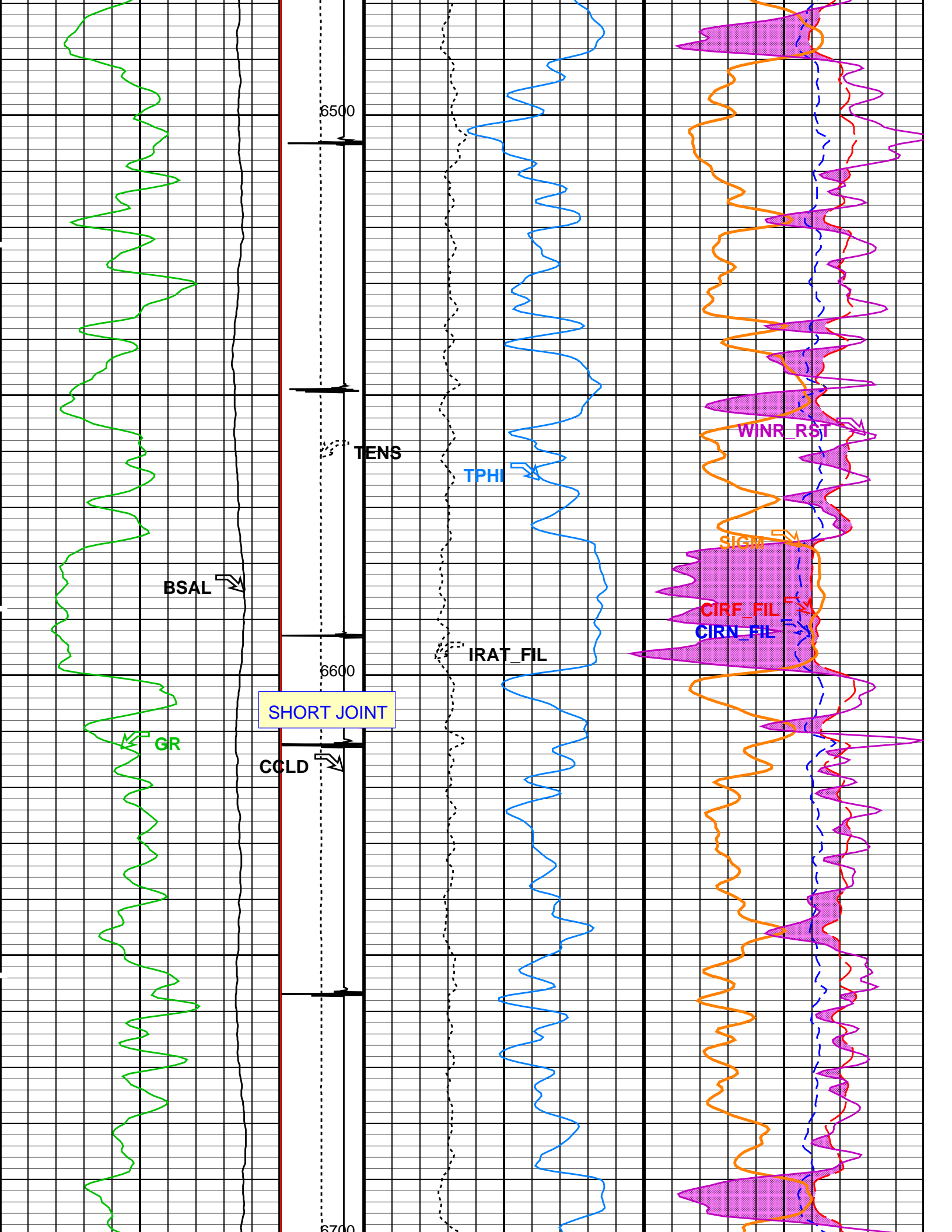


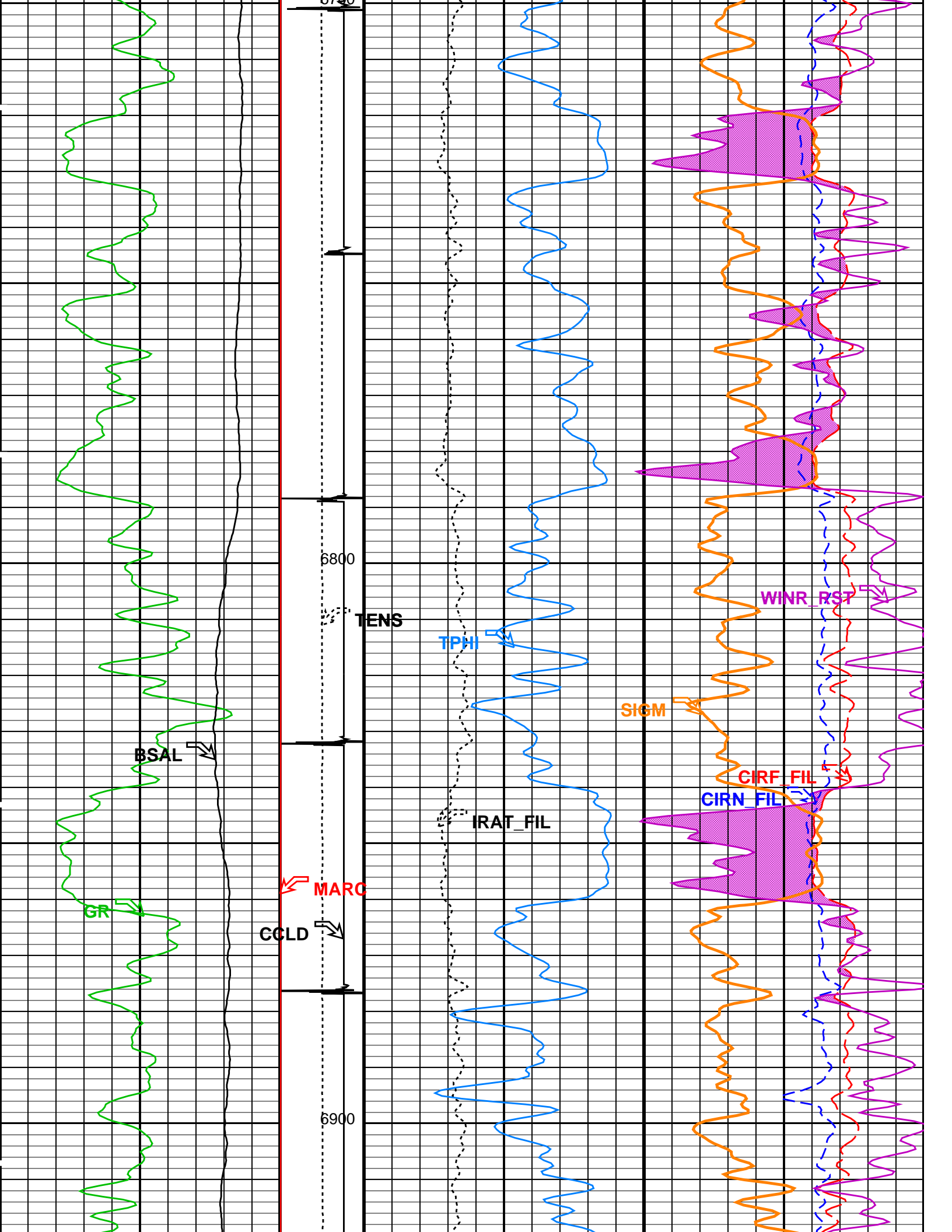


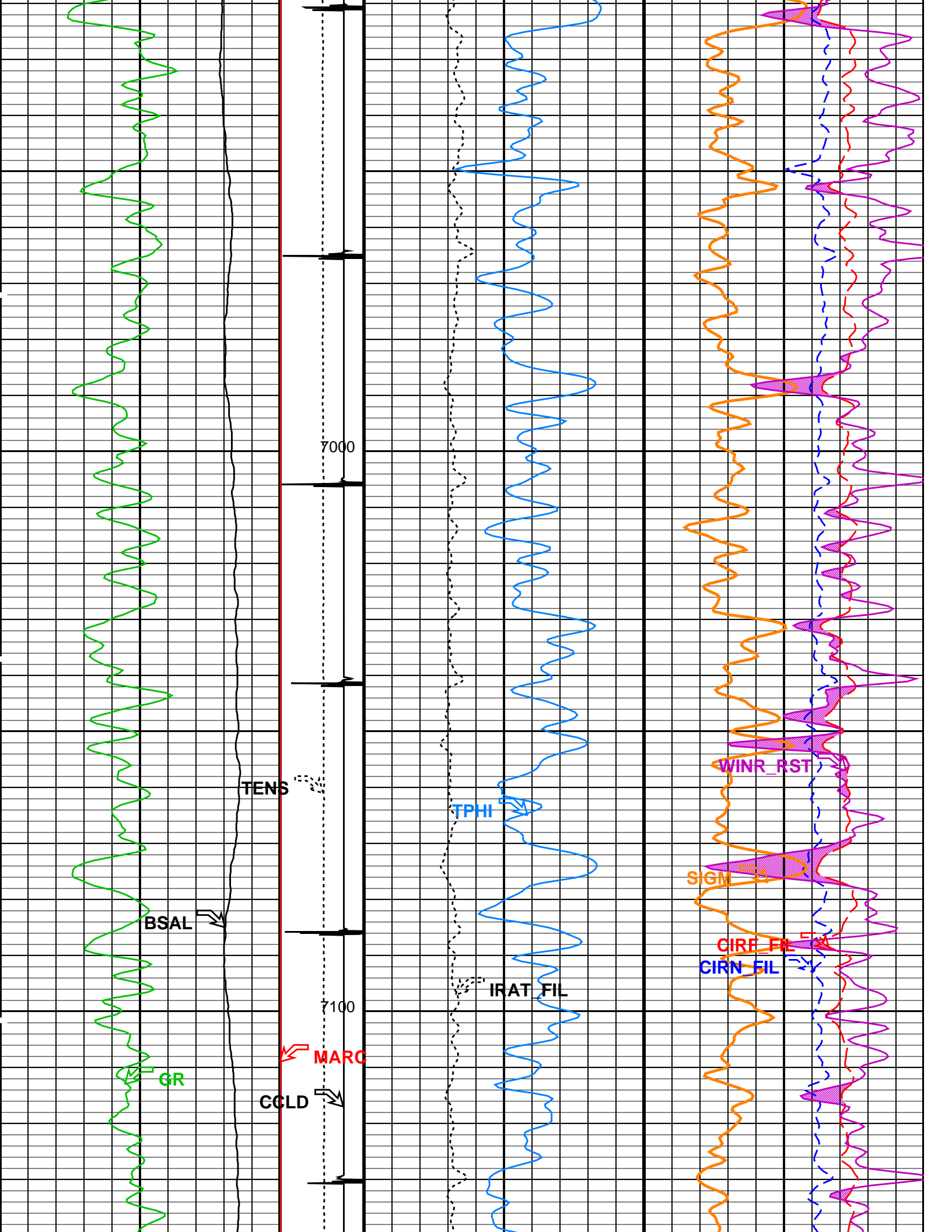


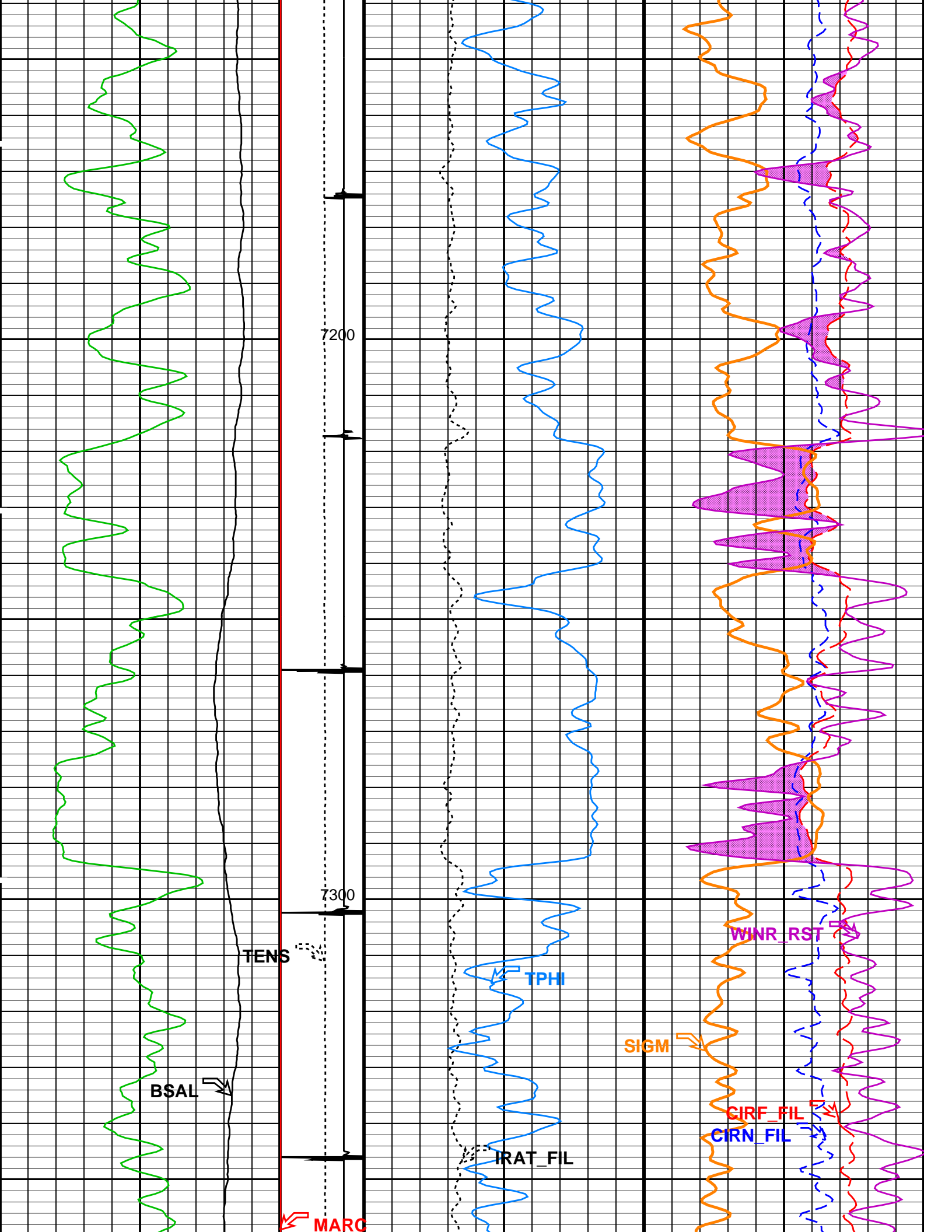


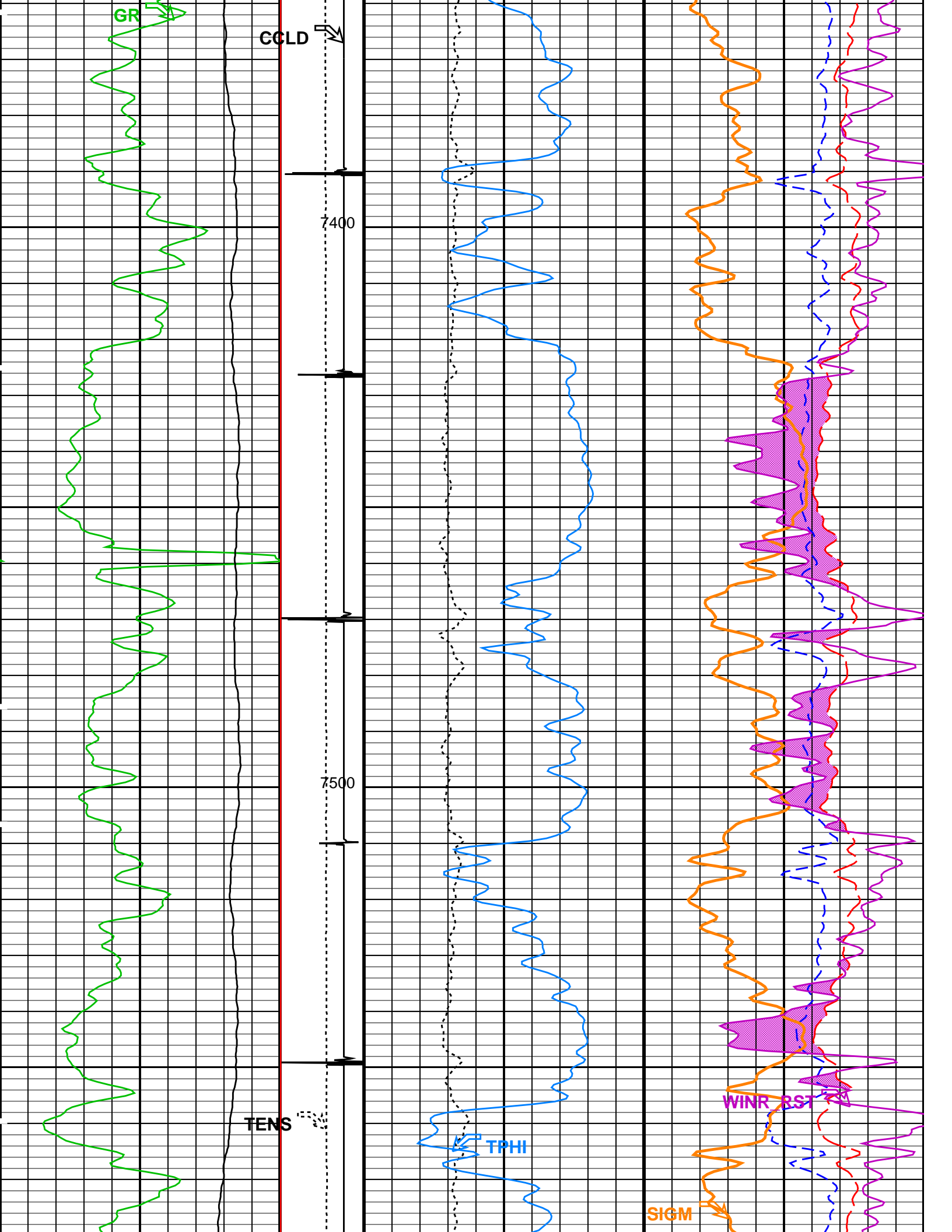


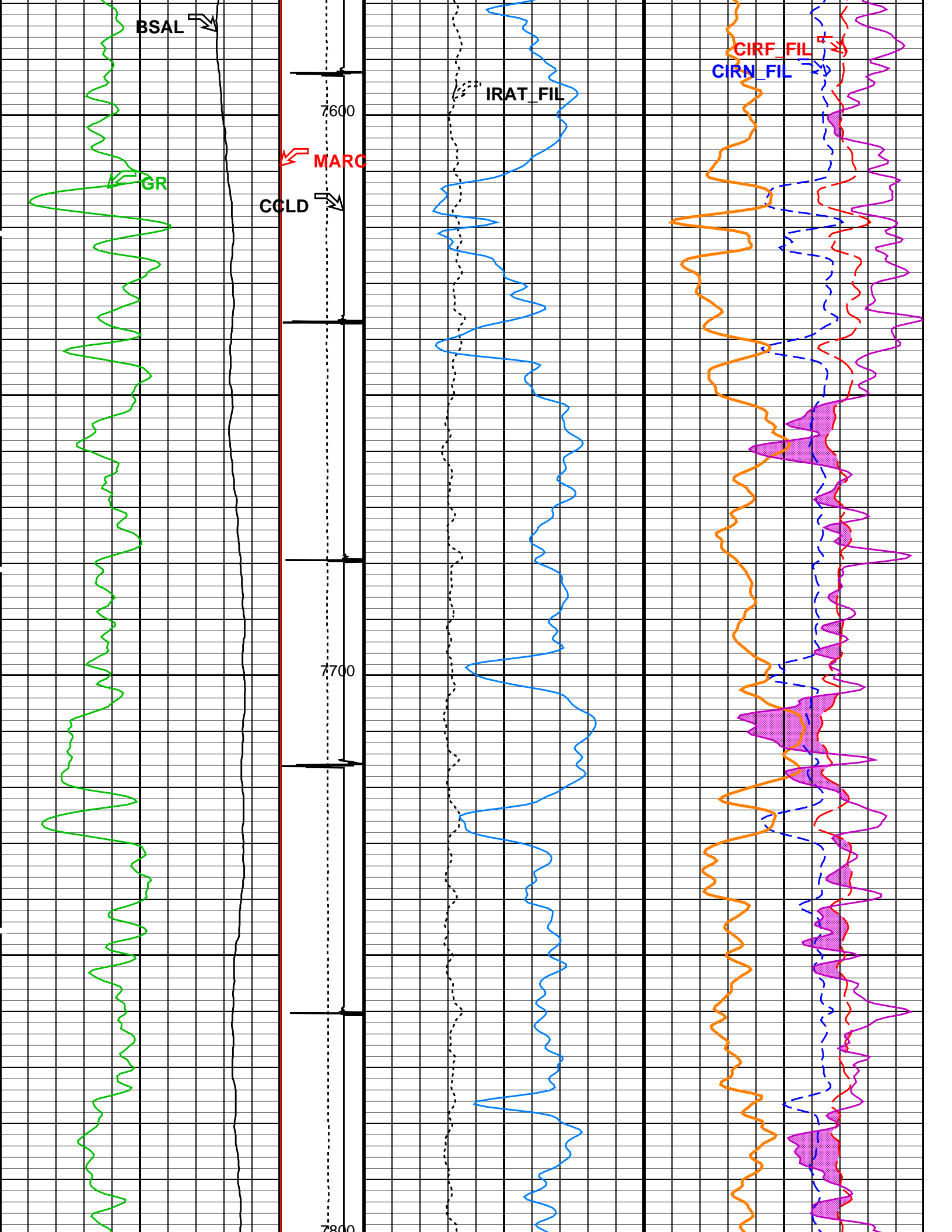


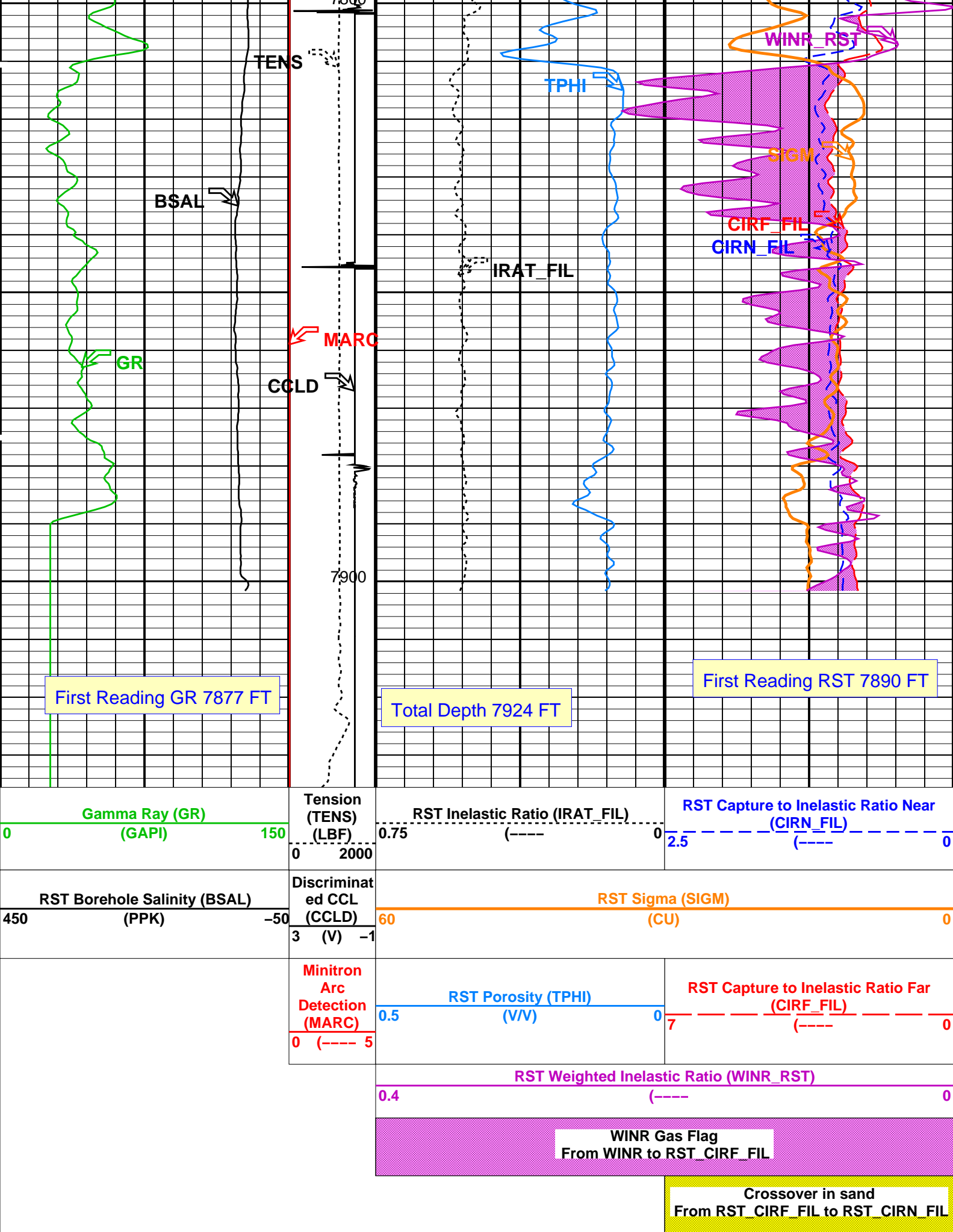












PIP SUMMARY

Parameters

DLIS Name	Description	Value	
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD			
BILI	Bond Index Level for Zone Isolation	0.8	
BISS	Bond Index Source Selection for BIQL	BI	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	224.559	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	338.559	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	45	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CMTF	SCMT Tool position on CAN	5	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.255617	IN
DTF	Delta-T Fluid	189	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	0.924277	
GOBO	Good Bond	1.55185	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	167.559	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	16.5449	DB/F
MCCF	MAP Cement Type Compensation Factor	1	
MCi	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.32284	MV
MSA	Minimum Sonic Amplitude	0.579149	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
RBC	Relative Bearing Correction Allow/Disallow	ALLOW	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
RST-C: Reservoir Saturation Pro Tool C			
	Tractor Available in Tool String	NO	
AIRB	RST Air Borehole	No	
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSALOPT	RST Borehole Salinity Option	Unknown	
BSFL	RST Borehole Salinity Filter Length	51	
CSID	Casing Size I.D.	4	IN
DFPC	RST Depth Filter Processing Constant	One	
DFPC_TDTL	RST Depth Filter Processing Constant (TDT-like)	Two	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
NORM_IRAT_RST	RST Normalized Inelastic Ratio	0.48	
NORM_SIGM_RST	RST Normalized Sigma	30	CU
PTIER	RST Tiered Presentation Selection	0_Customer	
PVL_PSNT_PRST	PVL Peak Signal/Noise Threshold	3	
RGAI	Near/Far Gain Calibration Ratio	1	
SHT	Surface Hole Temperature	68	DEGF
TIER_IC	RST IC Acquisition Mode	0_CO_Yield_and_Spectrolith	
TIER_SIGM	RST Sigma Acquisition Mode	0_RST_Sigma	
WOFSL_PRST	RST WFL-Off Subcycle Length	0	
WONSL_PRST	RST WFL-On Subcycle Length	0	
WSCOM_PRST	RST Station Log Comment		
PSPT: Production Services Logging Platform			
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CSID	Casing Size I.D.	4	IN
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
PBPO	PBMS Tool position on CAN	2	
PCCG	PBMS CCL Gain	DB0	
PSTP	PSTC Tool Position on CAN Bus	1	
SHT	Surface Hole Temperature	68	DEGF

BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	5.0	FT
FLEV	Fluid Level	50.00	FT
MST	Mud Sample Temperature	-50000.00	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	7924	FT
TDD	Total Depth – Driller	8010.00	FT
TDL	Total Depth – Logger	7924.00	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: RST_SIGMA_S5

Vertical Scale: 5" per 100'

Graphics File Created: 16-Sep-2013 16:10

OP System Version: 19C0-187			
SCMT-CB	SRPC-5214-H2-2012-OP1	RST-C	SRPC-5214-H2-2012-OP1
PSPT	SRPC-5214-H2-2012-OP1		

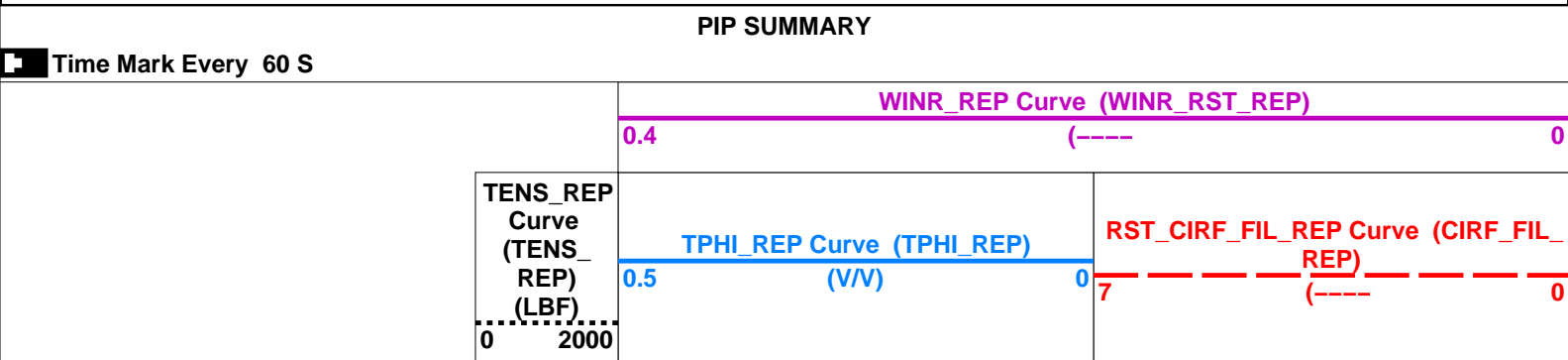
Input DLIS Files						
DEFAULT	Splice_SCMT_RST_PSP_011CUP	FN:1	PRODUCER	16-Sep-2013 16:09	7930.5 FT	-31.0 FT
Output DLIS Files						
DEFAULT	SCMT_RST_PSP_012PUP	FN:10	PRODUCER	16-Sep-2013 16:10		

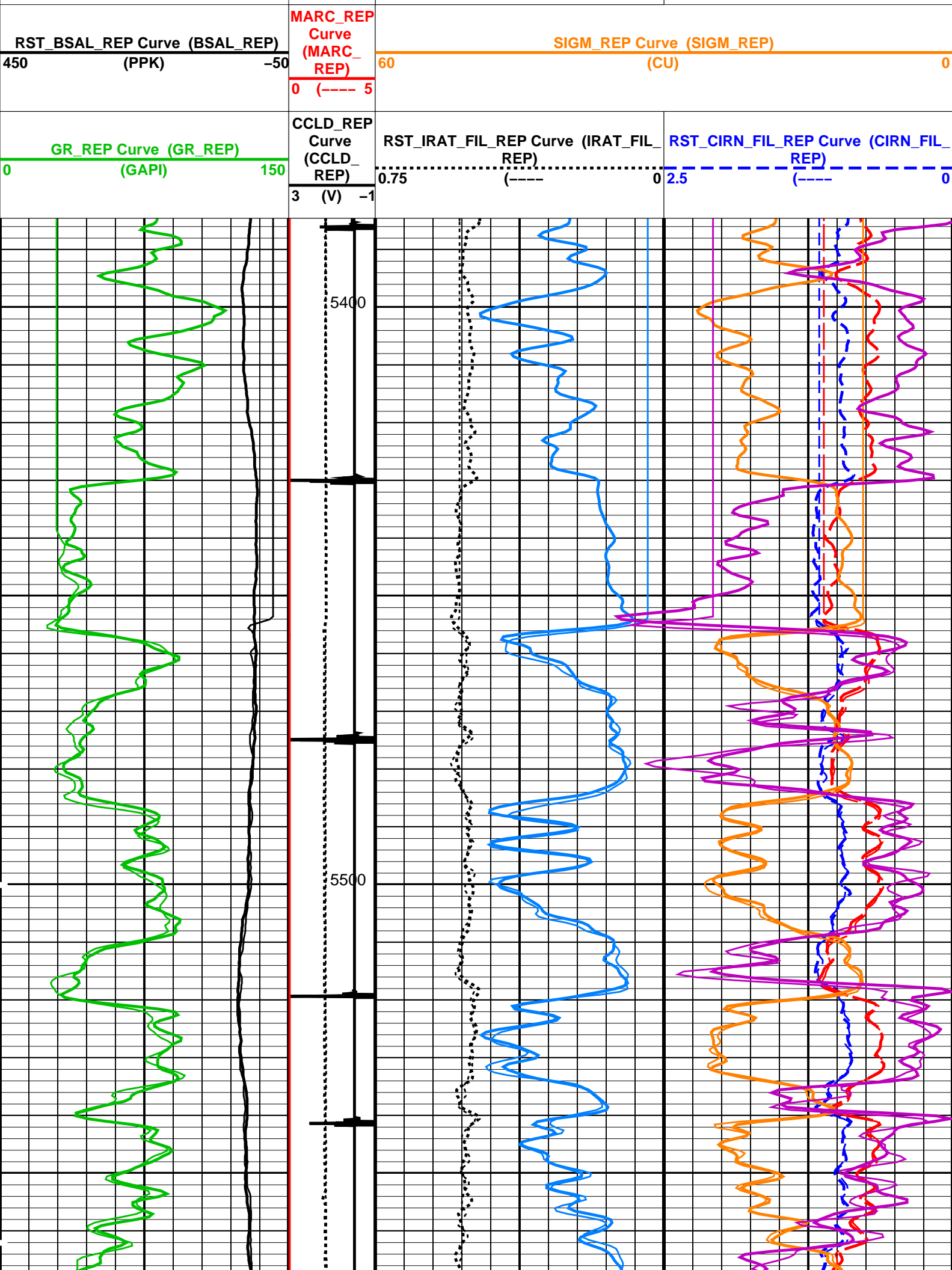
Schlumberger

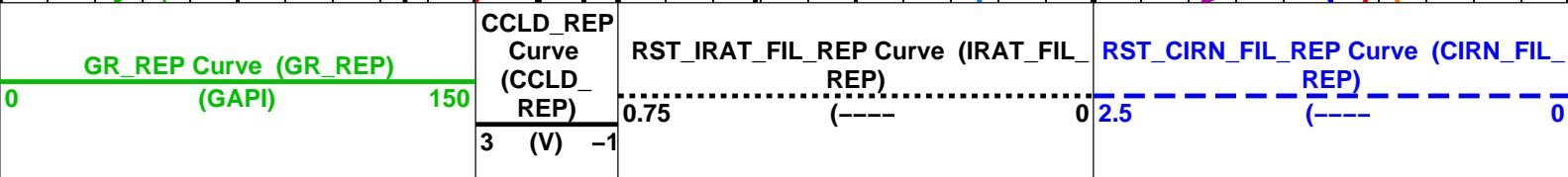
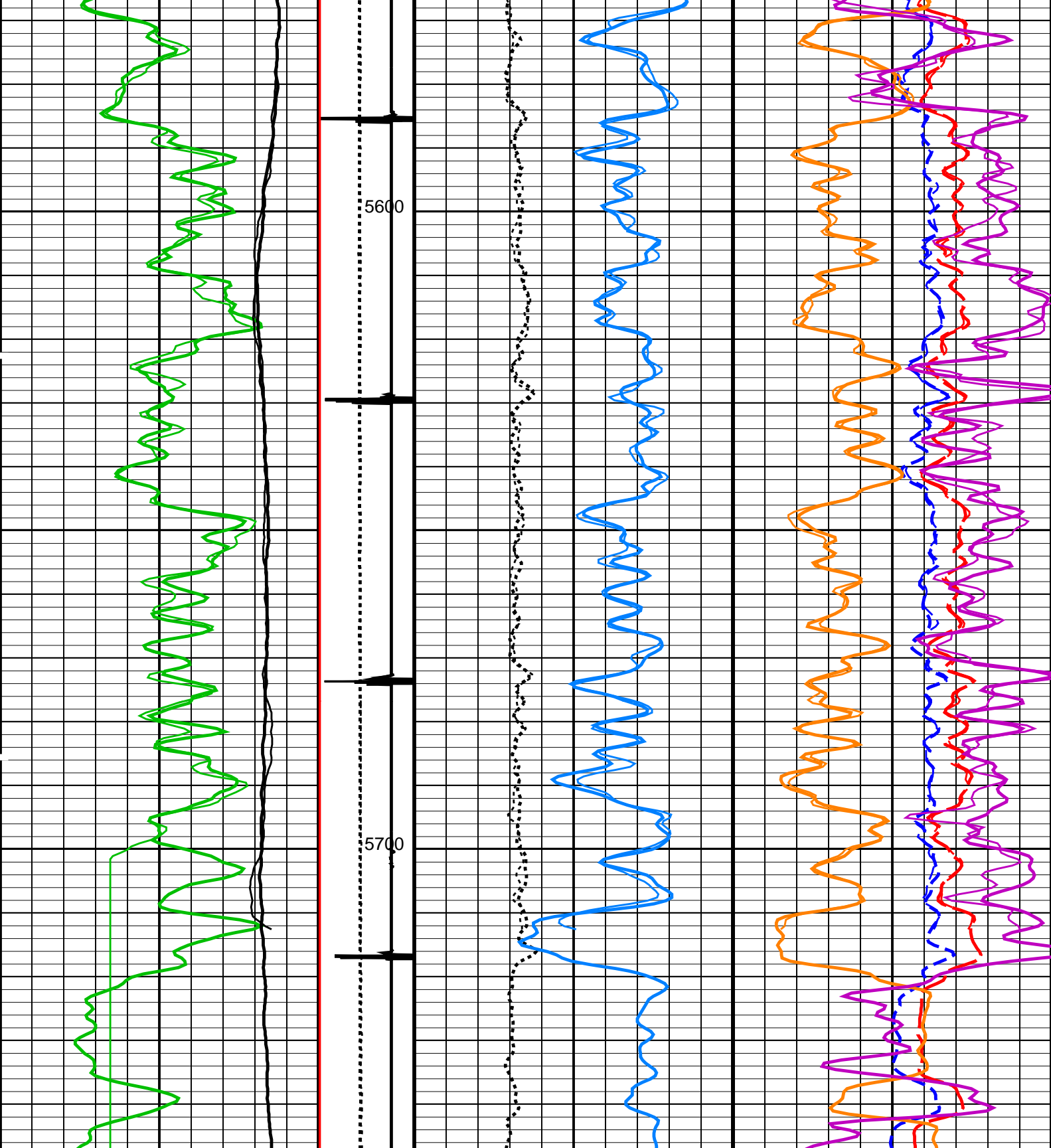
REPEAT ANALYSIS RST SIGMA

MAXIS Field Log

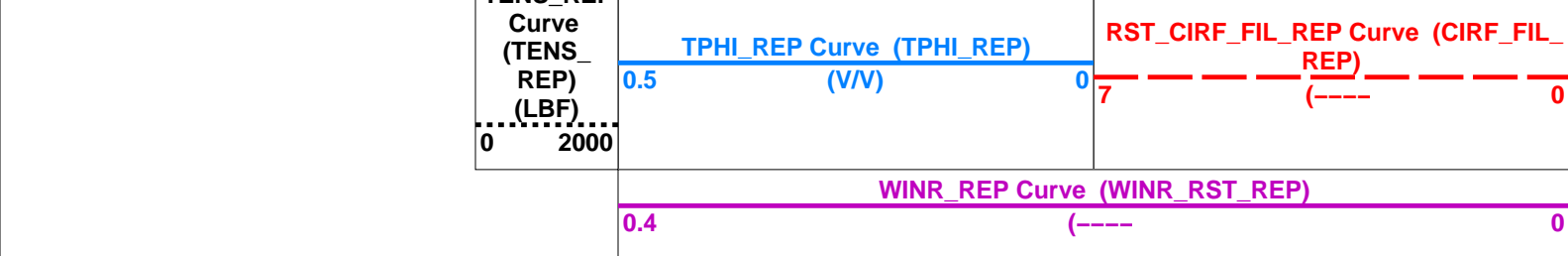
Input DLIS Files						
DEFAULT	SCMT_RST_PSP_108LUP	FN:104	PRODUCER	16-Sep-2013 12:34	5745.0 FT	5434.0 FT
DEFAULT	SCMT_RST_PSP_012PUP	FN:10	PRODUCER	16-Sep-2013 16:10	7935.5 FT	-78.0 FT
Output DLIS Files						
DEFAULT	SCMT_RST_PSP_013PUP	FN:11	PRODUCER	16-Sep-2013 16:16	5747.0 FT	5384.0 FT
OP System Version: 19C0-187						
SCMT-CB	SRPC-5214-H2-2012-OP1	RST-C	SRPC-5214-H2-2012-OP1			
PSPT	SRPC-5214-H2-2012-OP1					







TENS REP



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
SCMT-CB: Slim Cement Mapping Tool, 1-11/16 OD			
BILI	Bond Index Level for Zone Isolation	0.8	
BISS	Bond Index Source Selection for BIQL	BI	
CB3D	SCMT CBL 3 ft Peak Detection Mode	PEAK	
CB3G	SCMT CBL 3 ft Peak Detection T0_Delay and Noise Gate	224.559	US
CB3T	SCMT CBL 3 ft Fixed Threshold Level	20	MV
CB5D	SCMT CBL 5 ft Peak Detection Mode	PEAK	
CB5G	SCMT CBL 5 ft Peak Detection T0_Delay and Noise Gate	338.559	US
CB5T	SCMT CBL 5 ft Fixed Threshold Level	20	MV
CBLG	CBL Gate Width	45	US
CBRA	CBL LQC Reference Amplitude in Free Pipe	80	MV
CMCF	CBL Cement Type Compensation Factor	1	
CMTC	SCMT Slow Channel Multiplexer Mode	SCAN	
CMTM	SCMT Operating Mode	LOG	
CMTT	SCMT Tool position on CAN	5	
CSCS	SCMT Slow Channel Index	VCC	
CTHI	Casing Thickness	0.255617	IN
DTF	Delta-T Fluid	189	US/F
FATT	Acoustic Attenuation due to Fluid	0	DB/F
FCF	CBL Fluid Compensation Factor	0.924277	
GOBO	Good Bond	1.55185	MV
MAPD	SCMT MAP Peak Detection Mode	PEAK	
MAPG	SCMT MAP Peak Detection T0_Delay and Noise Gate	167.559	US
MAPT	SCMT MAP Fixed Threshold Level	30	MV
MATT	Maximum Attenuation	16.5449	DB/F
MCCF	MAP Cement Type Compensation Factor	1	
MCI	Minimum Cemented Interval for Isolation	1.25	FT
MMSA	MAP Minimum Sonic Amplitude	4.32284	MV
MSA	Minimum Sonic Amplitude	0.579149	MV
PEDE	Peak Detection On/Off Switch in Playback	OFF	
RBC	Relative Bearing Correction Allow/Disallow	ALLOW	
VDLG	VDL Manual Gain	5	
ZCMT	Acoustic Impedance of Cement	6.8	MRAY
RST-C: Reservoir Saturation Pro Tool C			
AIRB	Tractor Available in Tool String	NO	
BHS	RST Air Borehole	No	
BHT	Borehole Status	CASED	
BSALOPT	Bottom Hole Temperature (used in calculations)	212	DEGF
BSFL	RST Borehole Salinity Option	Unknown	
CSID	RST Borehole Salinity Filter Length	51	
DFPC	Casing Size I.D.	4	IN
DFPC_TDTL	RST Depth Filter Processing Constant	One	
GCSE	RST Depth Filter Processing Constant (TDT-like)	Two	
GDEV	Generalized Caliper Selection	BS	
GGRD	Average Angular Deviation of Borehole from Normal	0	DEG
GRSE	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
ISSBAR	Generalized Temperature Selection	LINEAR_ESTIMATE	
MATR	Barite Mud Switch	NOBARITE	
NORM_IRAT_RST	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
NORM_SIGM_RST	RST Normalized Inelastic Ratio	0.48	
PTIER	RST Normalized Sigma	30	CU
PVL_PSNT_PRST	RST Tiered Presentation Selection	0_Customer	
RGAI	PVL Peak Signal/Noise Threshold	3	
SHT	Near/Far Gain Calibration Ratio	1	
TIER_IC	Surface Hole Temperature	68	DEGF
TIER_SIGM	RST IC Acquisition Mode	0_CO_Yield_and_Spectrolith	
WOFSL_PRST	RST Sigma Acquisition Mode	0_RST_Sigma	
WONSL_PRST	RST WFL-Off Subcycle Length	0	
WSCOM_PRST	RST WFL-On Subcycle Length	0	
PSPT: Production Services Logging Platform			
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	212	DEGF
CSID	Casing Size I.D.	4	IN
GCSE	Generalized Caliper Selection	BS	

GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART_GEN_9	
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
PBPO	PBMS Tool position on CAN	2	
PCCG	PBMS CCL Gain	DB0	
PSTP	PSTC Tool Position on CAN Bus	1	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	8.750	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	4.500	IN
CWEI	Casing Weight	11.60	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	2.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	50.00	FT
MST	Mud Sample Temperature	-50000.00	DEGF
PBVADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	7924	FT
TDD	Total Depth - Driller	8010.00	FT
TDL	Total Depth - Logger	7924.00	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: RST_SIGMA_S5_REP Vertical Scale: 5" per 100' Graphics File Created: 16-Sep-2013 16:16

OP System Version: 19C0-187

SCMT-CB	SRPC-5214-H2-2012-OP1	RST-C	SRPC-5214-H2-2012-OP1
PSPT	SRPC-5214-H2-2012-OP1		

Input DLIS Files

DEFAULT	SCMT_RST_PSP_108LUP	FN:104	PRODUCER	16-Sep-2013 12:34	5745.0 FT	5434.0 FT
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Output DLIS Files

DEFAULT	SCMT_RST_PSP_013PUP	FN:11	PRODUCER	16-Sep-2013 16:16
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Schlumberger

PBMS COEFFICIENTS

MAXIS Field Log

Client: ENCANA OIL & GAS (USA) INC
Field: SOUTH PARACHUTE
Well: HAGEN FEDERAL 22-4B (PC22)
Run date: 16-Sep-2013

Tool: PSP
Sub Type: PBMS
Sensor: GR

PBMS Gamma Ray
Sonde Serial NB
Sensor Serial NB

RESISTORS FOR GR SENSOR N.33223, TOOL PBMS-BA0928. SENSOR S/N:
33223

Calib Date ddmmyy 090800

Matrix Size 12

Coeff CRC CFE2

GR HV Rt

Rt**0

Rt**1

Rt**0

+.182000000000e+04

+.332000000000e+04

Client: ENCANA OIL & GAS (USA) INC

Tool:

PSP

Field: SOUTH PARACHUTE

Sub Type:

PBMS

Well: HAGEN FEDERAL 22-4B (PC22)

Sensor:

WellTemp RTD

Run date: 16-Sep-2013

PBMS RTD Well Thermometer

Sonde Serial NB

COEFFICIENTS FOR RTD THERMOMETER PBMS-B.928 S/N:

Sensor Serial NB

928

Calib Date ddmmyy

280612

Matrix Size

16

Coeff CRC

A24E

WTemp Coeff

Tt**0

Tt**1

Tt**2

Tt**0

-.391987973189E+03

+.191346892512E+03

-.440920753451E+02

Tt**3

Tt**4

Tt**5

Tt**0

+.957191300908E+01

-.711421725686E+00

0.0

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

COEFFICIENTS FOR CQG PBMS-B.928 S/N:

928

280612

66

9DC3

Pres Coeff

	Fb**0	Fb**1	Fb**2
Fc**0	+714463802232E+04	+183434658655E-01	-156620073569E-06
Fc**1	-100638308957E+01	-119899563644E-04	-912155899025E-10
Fc**2	+936268101283E-06	+423898071451E-10	+958076371919E-15
Fc**3	+185123362373E-11	+203107925433E-15	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

	Fb**3	Fb**4	Fb**5
Fc**0	-746577997611E-10	-588773826860E-15	-622250441458E-19
Fc**1	-120636521092E-15	+400325894750E-19	0.0
Fc**2	0.0	0.0	0.0
Fc**3	0.0	0.0	0.0
Fc**4	0.0	0.0	0.0
Fc**5	0.0	0.0	0.0

PBMS Quartz Gauge type F

Sonde Serial NB

Sensor Serial NB

Calib Date ddmmyy

Matrix Size

Coeff CRC

:

928

280612

66

283B

Temp Coeff

	Fc**0	Fc**1	Fc**2
Fb**0	+117016867873E+03	-284359629614E-03	+604391180345E-08
Fb**1	-598309140812E-02	+182731130848E-07	+160166486172E-12
Fb**2	-307621454576E-07	+300601550309E-12	+311233548560E-17
Fb**3	-419658736767E-12	+117473708647E-16	0.0

Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0
	Fc**3	Fc**4	Fc**5
Fb**0	+1.114322792679E-12	+1.153807711176E-17	-.736714260866E-21
Fb**1	-.528037875456E-18	-.220337637519E-21	0.0
Fb**2	0.0	0.0	0.0
Fb**3	0.0	0.0	0.0
Fb**4	0.0	0.0	0.0
Fb**5	0.0	0.0	0.0

PBMS Quartz Gauge type F

Sonde Serial NB
Sensor Serial NB
Calib Date ddmmyy
Matrix Size
Coeff CRC

:
928
280612
16
093F

Clock Freq Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+3.10874009898E+05	+2.88920923041E-02	+6.97940727038E-06
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.657432344763E-10	-.412920638782E-15	+2.13369826099E-20

PBMS Quartz Gauge type F

Sonde Serial NB
Sensor Serial NB
Calib Date ddmmyy
Matrix Size
Coeff CRC

:
928
280612
16
8419

Clock Temp Coeff

	(Fb'-Fc')**0	(Fb'-Fc')**1	(Fb'-Fc')**2
(Fb'-Fc')**0	+1.115369519827E+03	-.565338877075E-02	-.333717531829E-07
	(Fb'-Fc')**3	(Fb'-Fc')**4	(Fb'-Fc')**5
(Fb'-Fc')**0	-.124387135327E-12	+7.13102327208E-16	-.316084316842E-20

Well: HAGEN FEDERAL 22-4B (PC22)

Field: SOUTH PARACHUTE

County: GARFIELD

State: COLORADO

RESERVOIR SATURATION LOG

SIGMA MODE

GAMMA RAY-CCL