

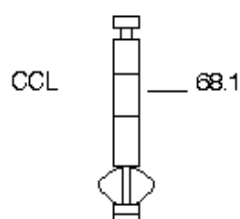
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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.

[illegible]

RUN 2

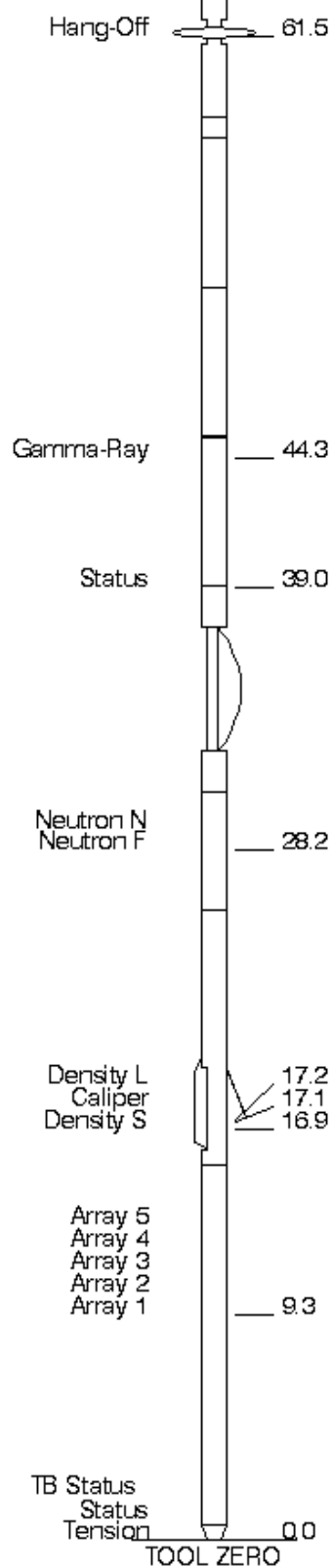
WITM (ThruBit)

TBT-A
THEAD
CCL
BDOT-B 14
THOT 29
T10 1
TBAT1 13
TBAT2 35
TMC A 70



71.1

WGA-70
WCIB 70
TILE-B
TBN-A 46
NNLS-EWA 3753
TBD-A 31
GGLS-FZ 3435
TBI-A 51



MAXIMUM STRING DIAMETER 2.13 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

MAIN PASS

MAXIS Field Log

Company: TERRA ENERGY PARTNERS

Well: TR 313-21-597

Input DLIS Files

ThruBit_008PUP

FN:6

20-Mar-2017 22:05

9720.0 FT

2643.5 FT

OP System Version: 19C2-270

TBT

SRPC-5318-ThruBit-SP3.4

**Relative Bearing
(RB)**
0 (DEG) 940

gr wrap4
From LHT1 to GR4

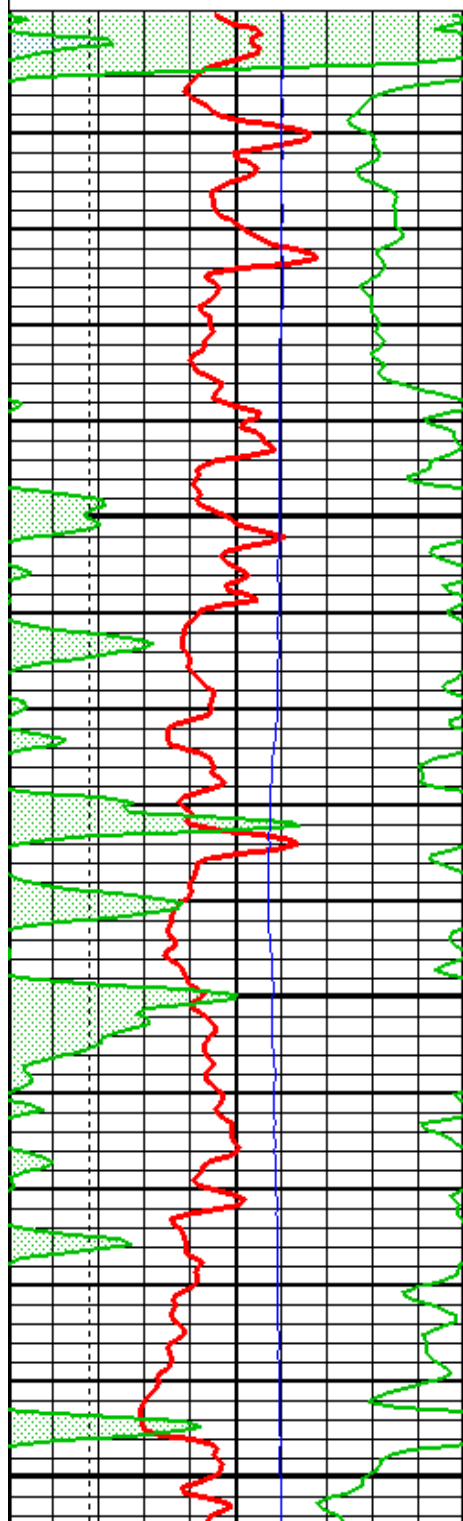
gr wrap3
From LHT1 to GR3

gr wrap2
From LHT1 to GR2

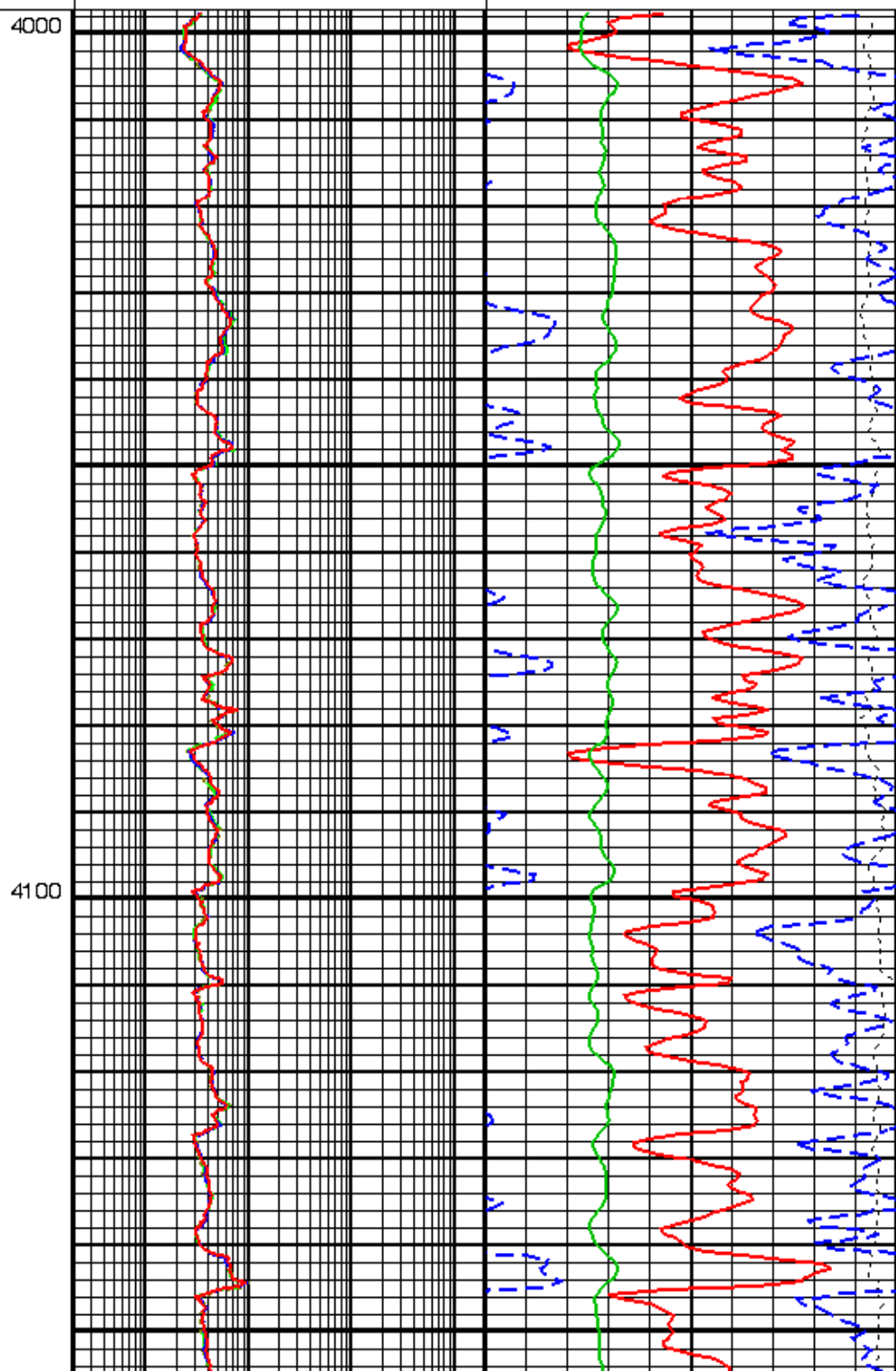
gr wrap1
From LHT1 to GR1

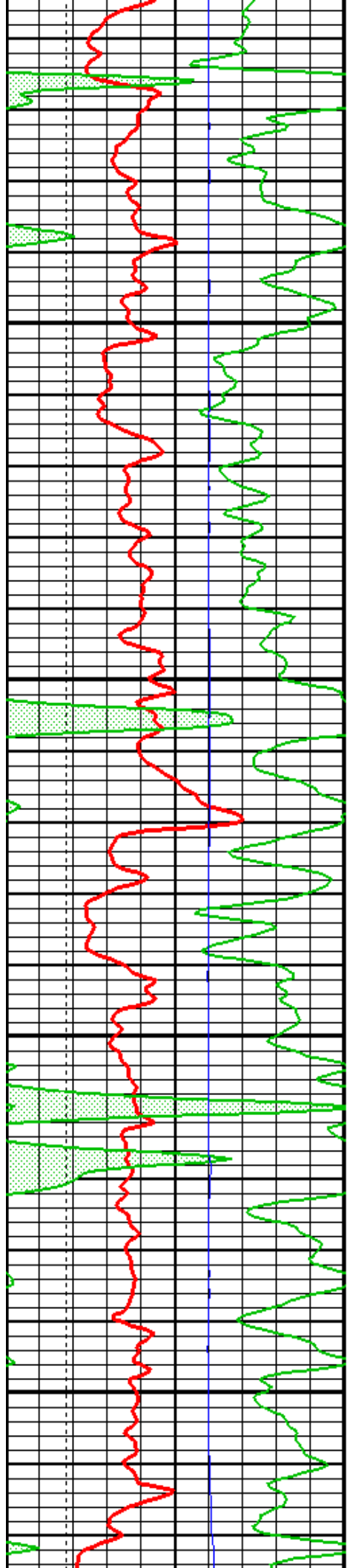
Caliper (CALIP)

7	Sample (GR)	17
Gamma Ray 4 (GR)		
600	(GAPI)	750
Gamma Ray 3 (GR)		
450	(GAPI)	600
Gamma Ray 2 (GR)		
300	(GAPI)	450
Gamma Ray 1 (GR)		
150	(GAPI)	300
Gamma Ray (GR)		
0	(GAPI)	150
Bit Size (BS)		
7	(IN)	17



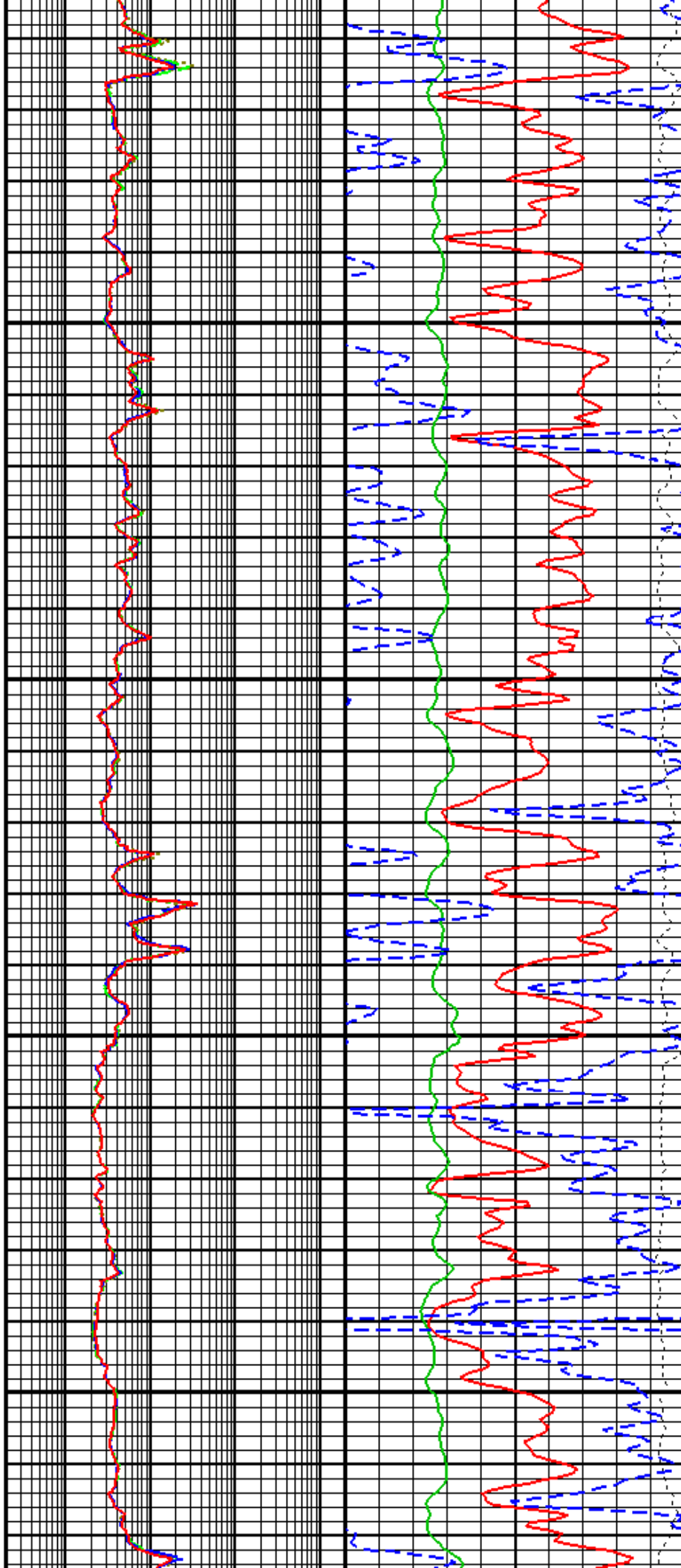
TBI 90 Inch Investigation (TBIT90)			TNPH (TNPH)		
0.2	(OHMM)	2000	0.3	(V/V)	-0.1
TBI 60 Inch Investigation (TBIT60)			PEF (PEF)		
0.2	(OHMM)	2000	0	(---)	10
TBI 30 Inch Investigation (TBIT30)			DRHO (DRHO)		
0.2	(OHMM)	2000	-1.8	(G/C3)	0.2
TBI 20 Inch Investigation (TBIT20)			DPHI (DPHI)		
0.2	(OHMM)	2000	0.3	(V/V)	-0.1

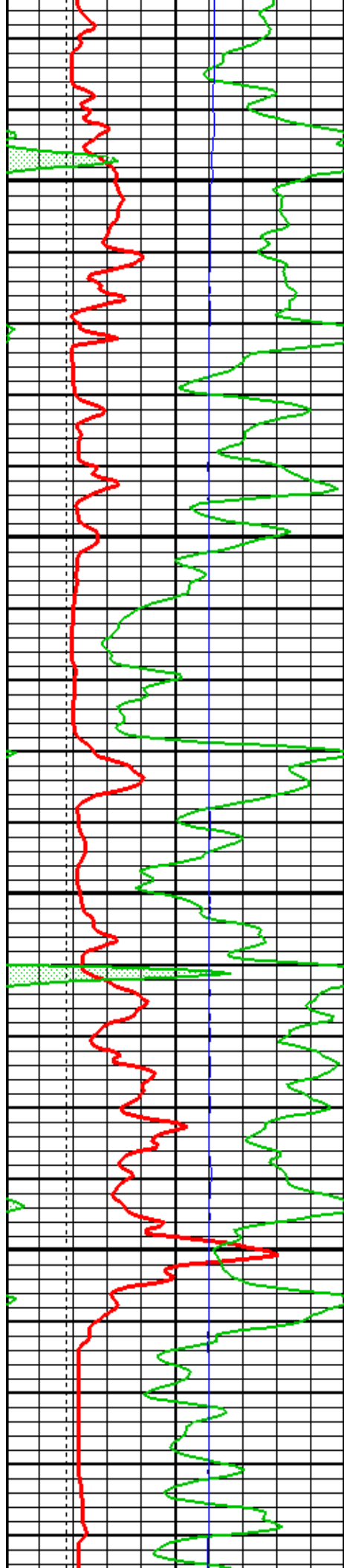




4200

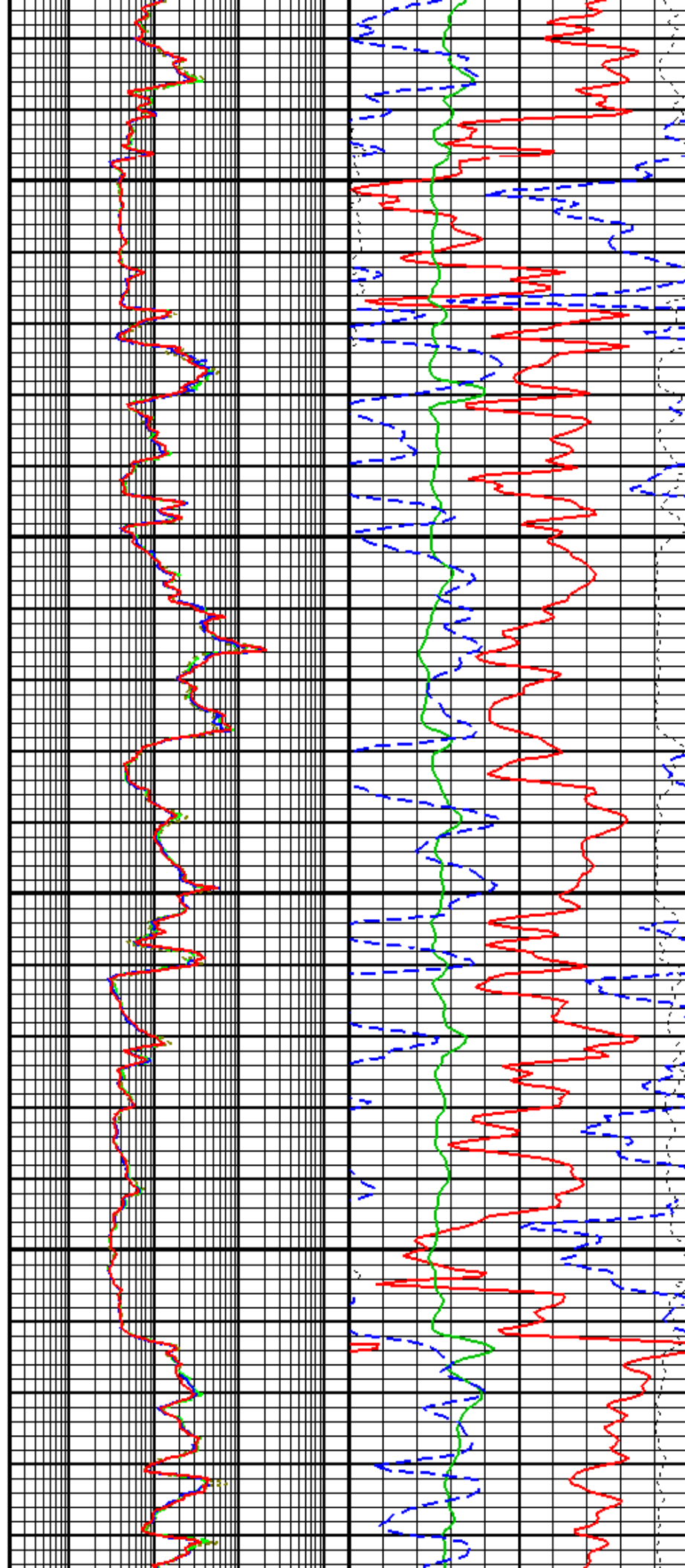
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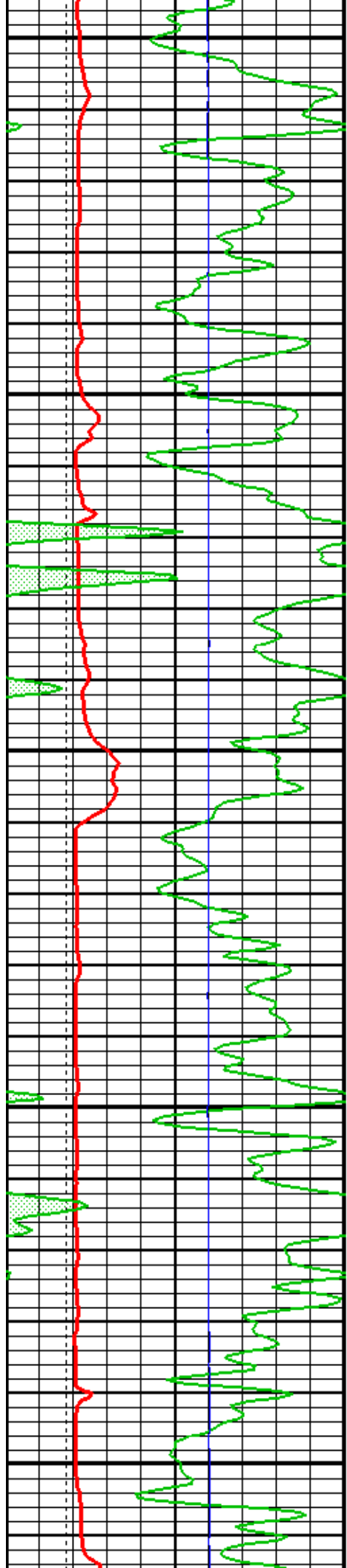




4400

4500

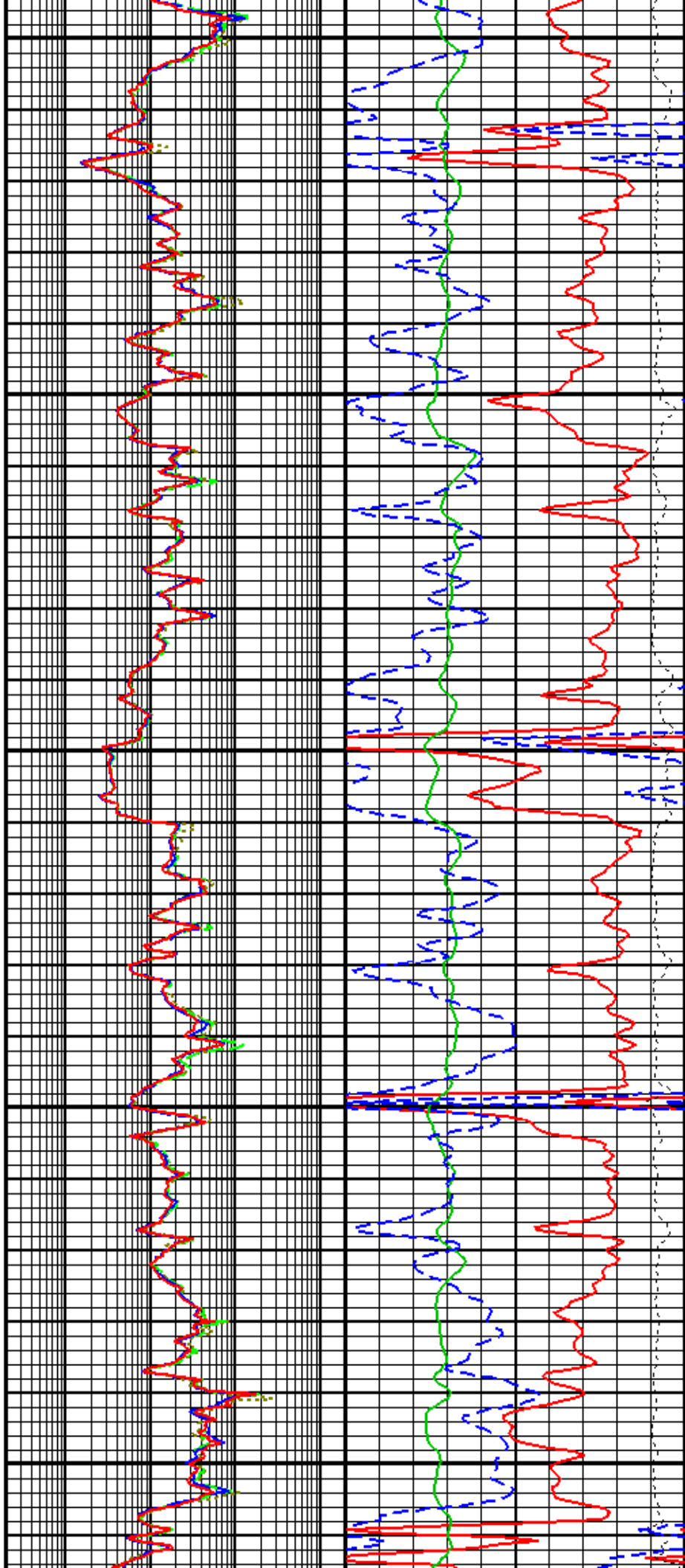


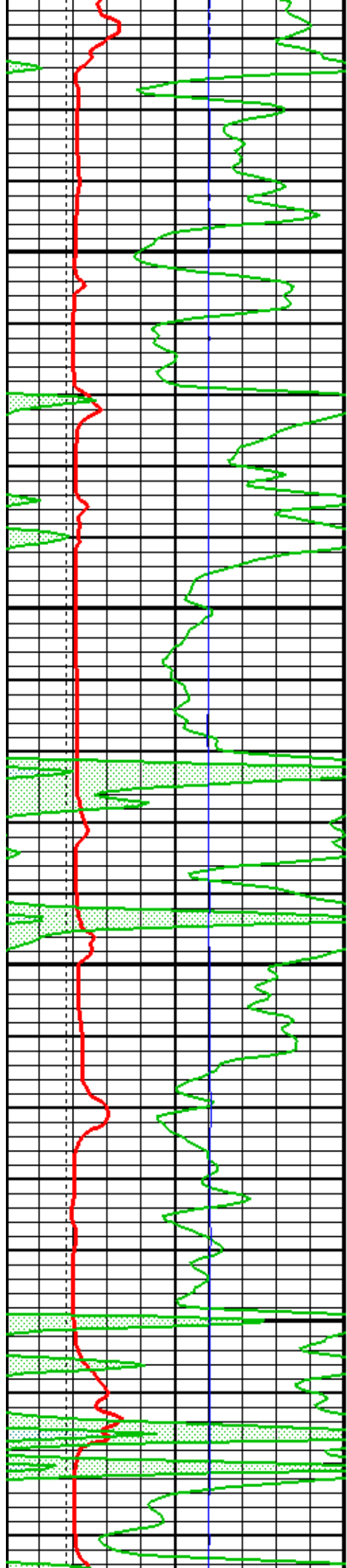


4600

4700

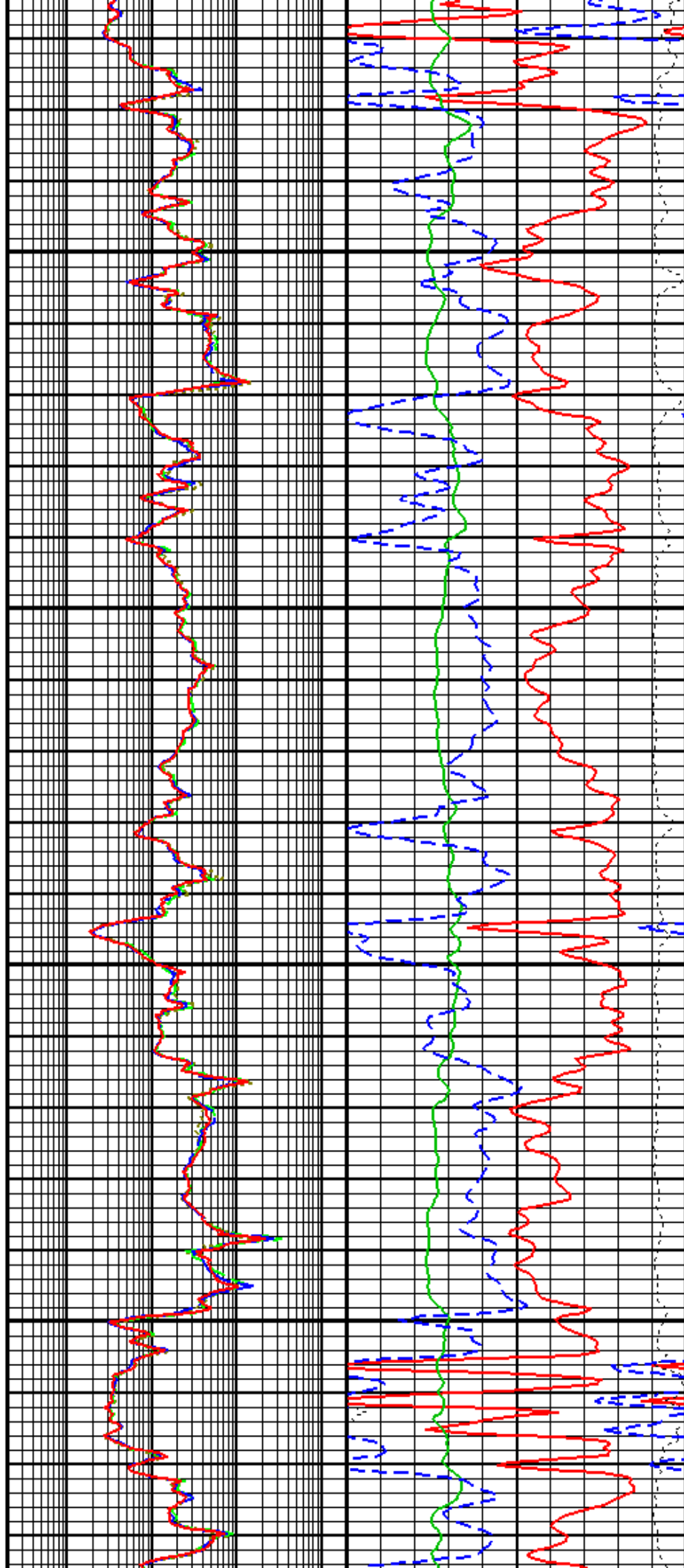
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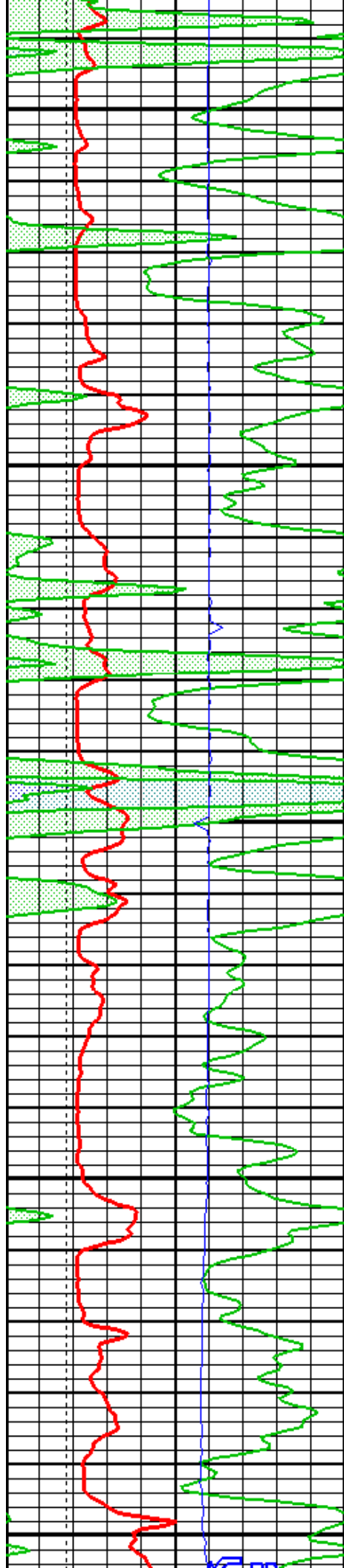




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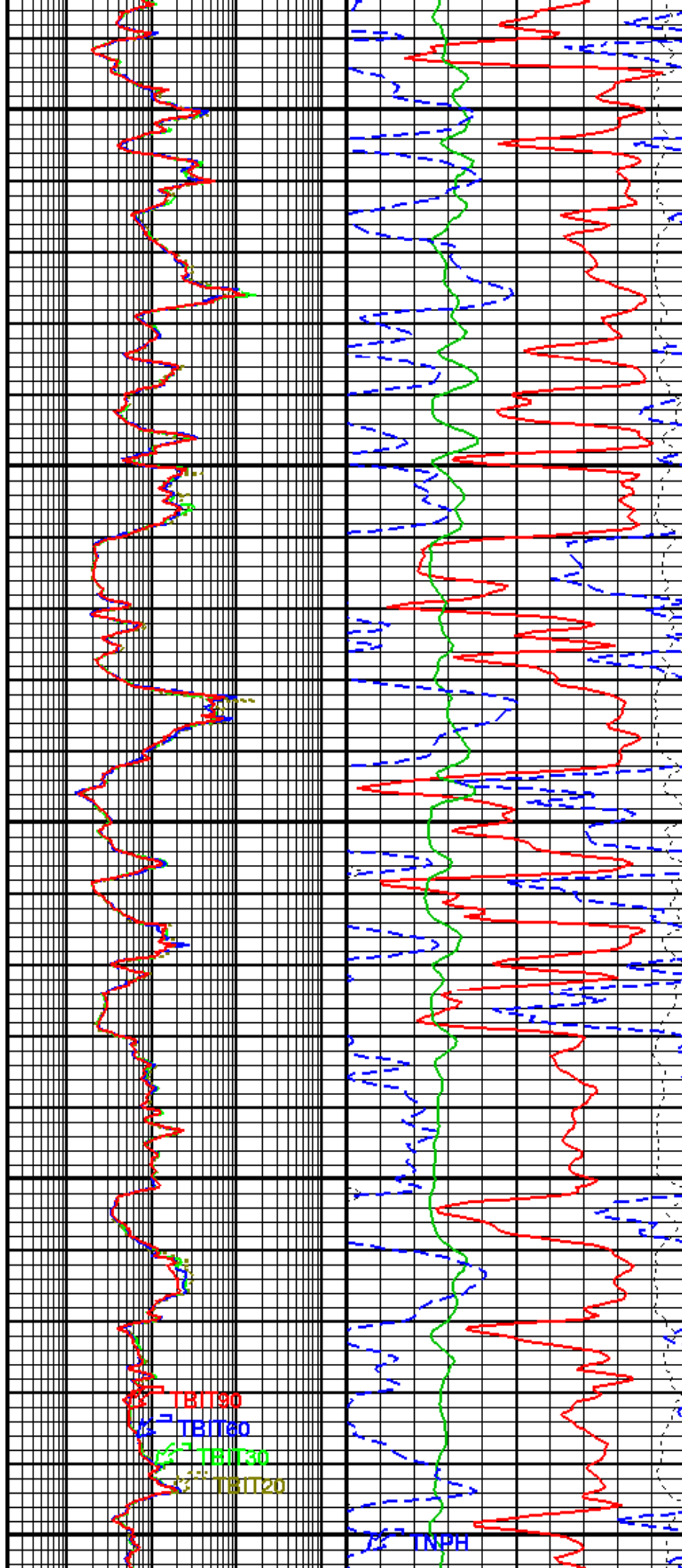
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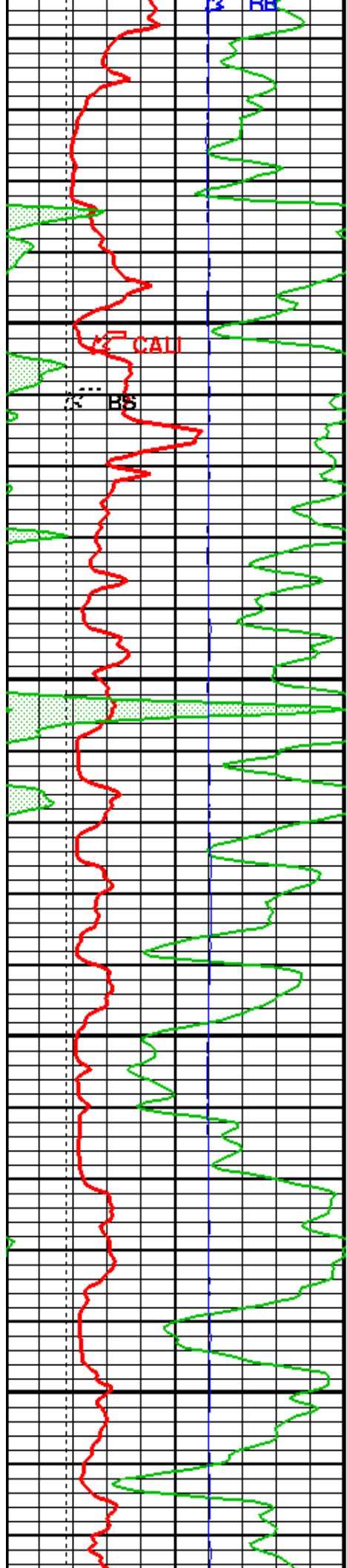




5100

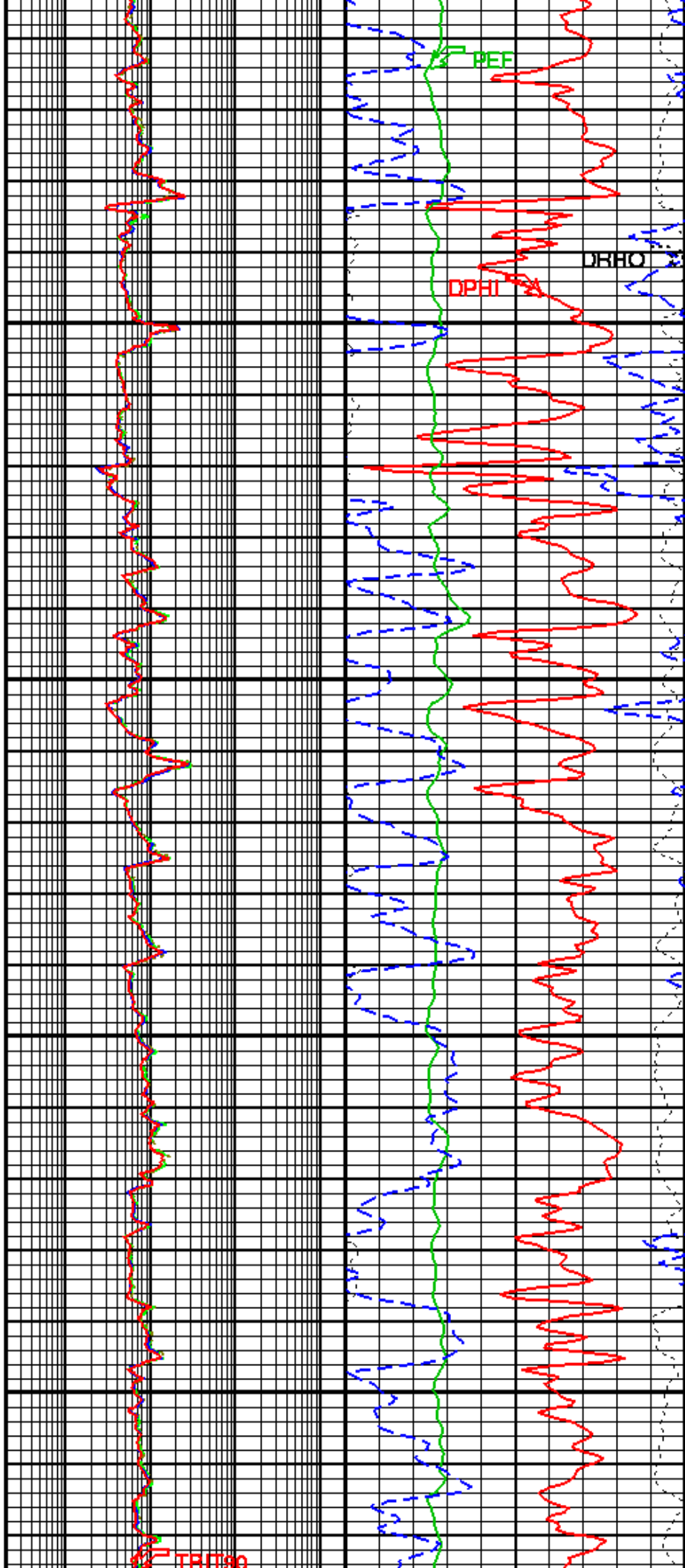
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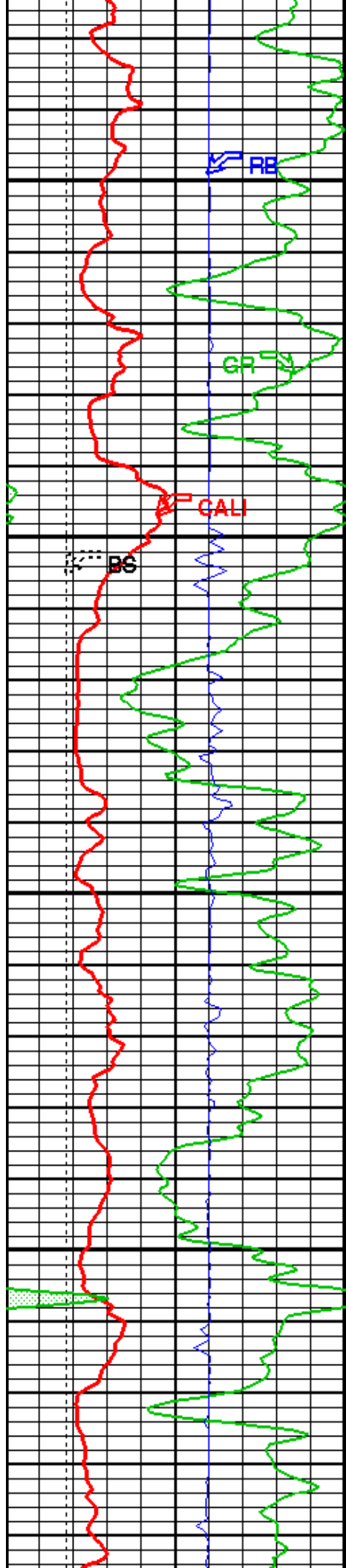




5300

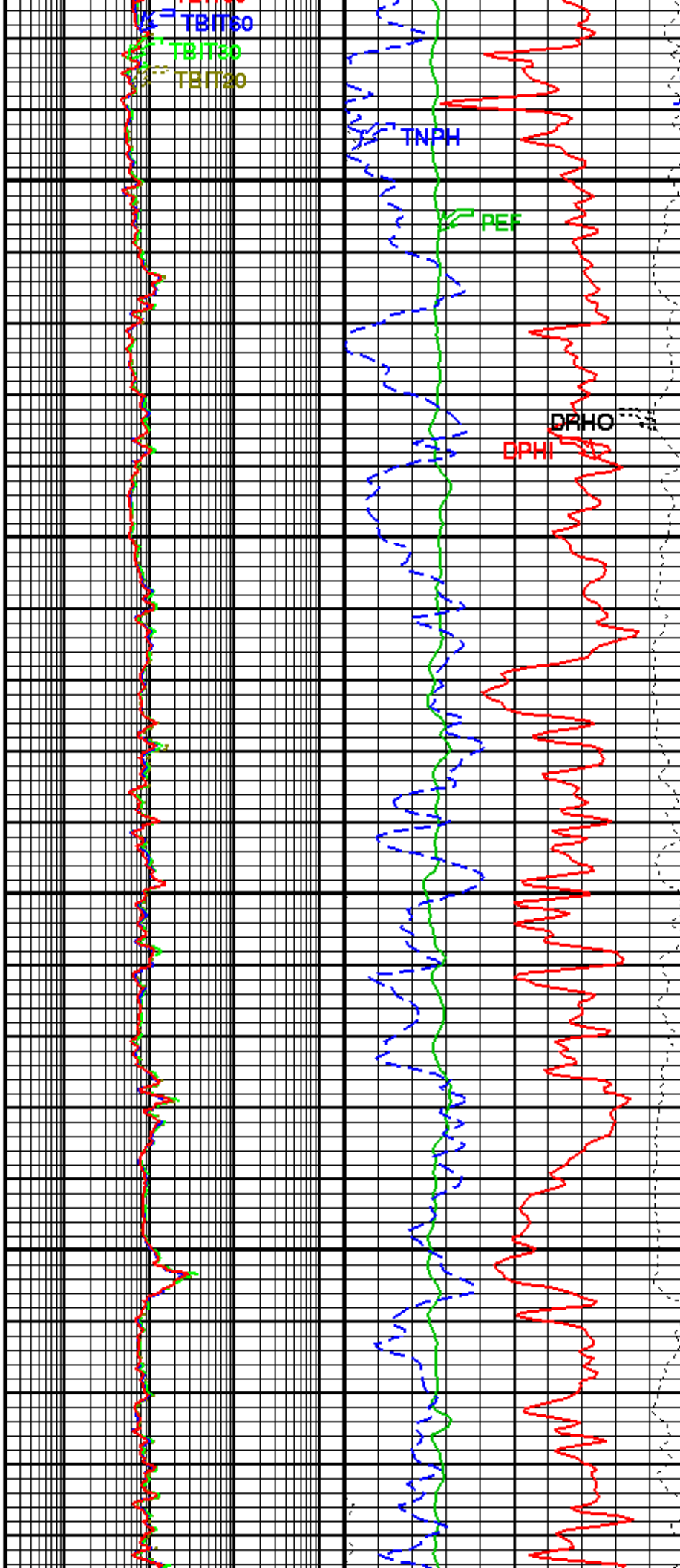
5400





5600

5600



TBIT60

TBIT30

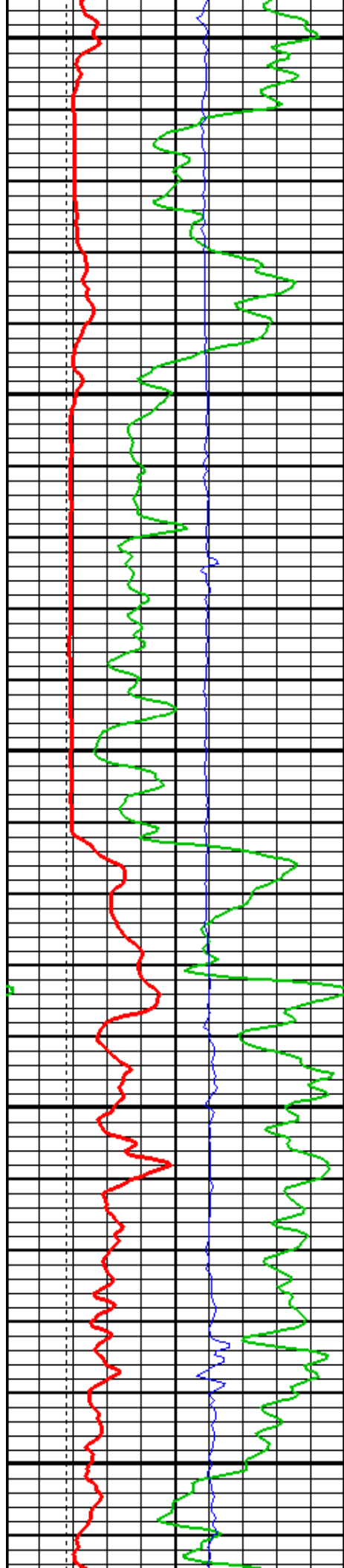
TBIT20

TNPH

PEF

DPHO

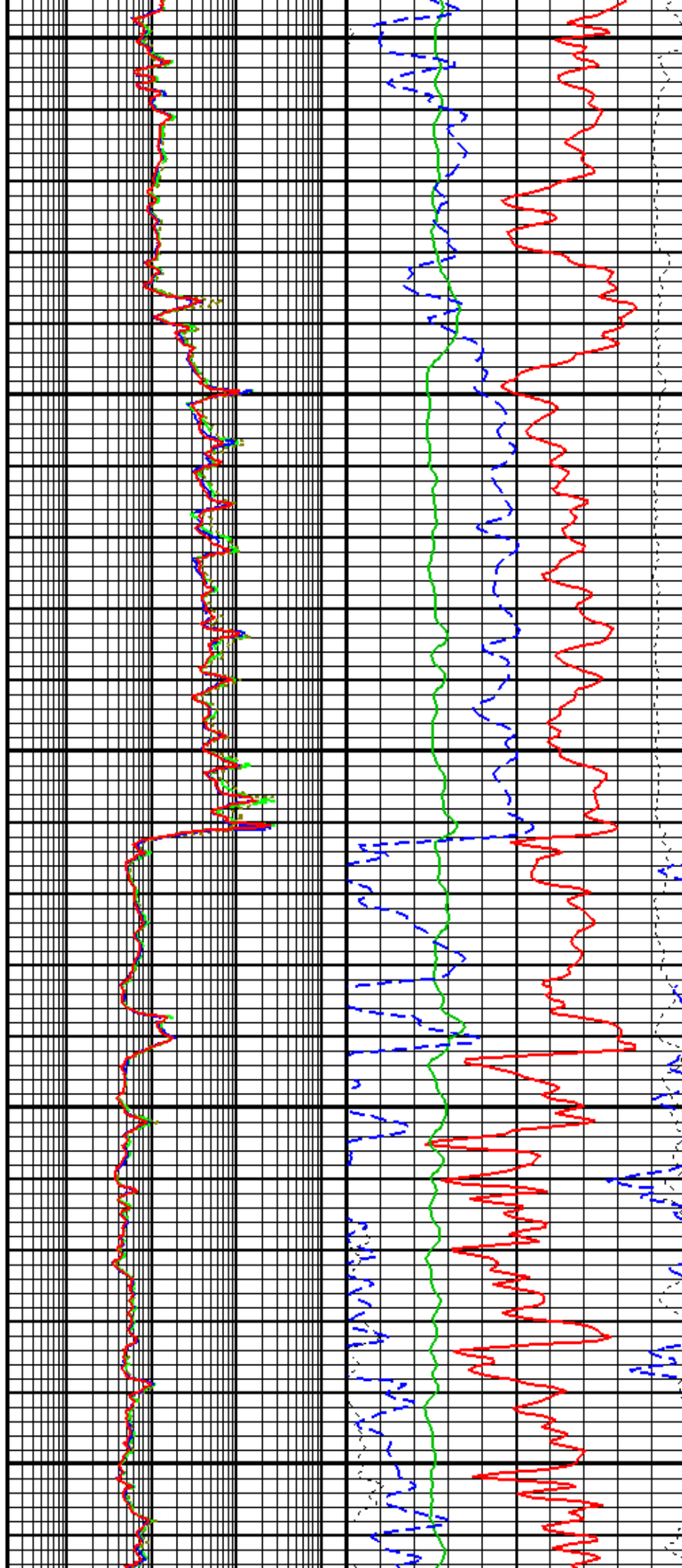
DPHI

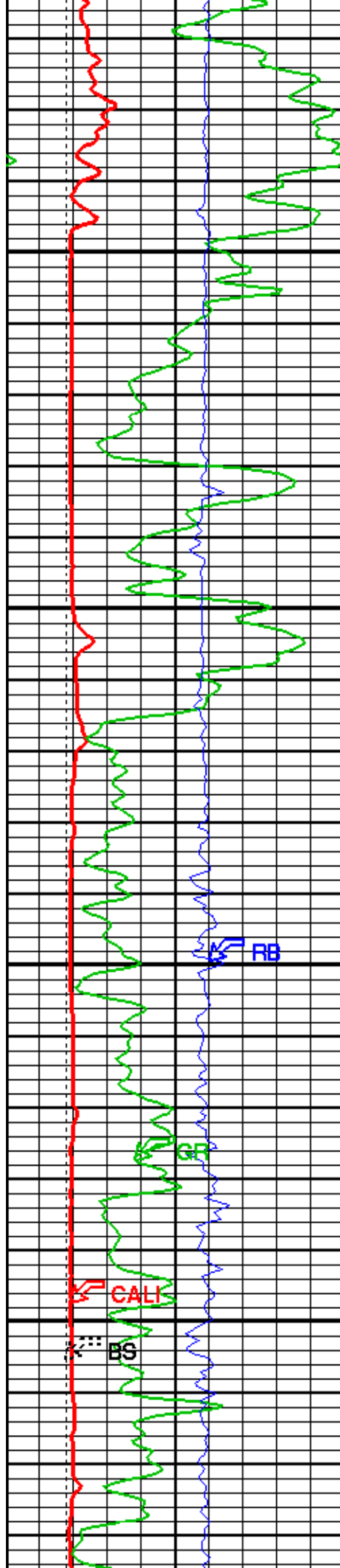


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5800

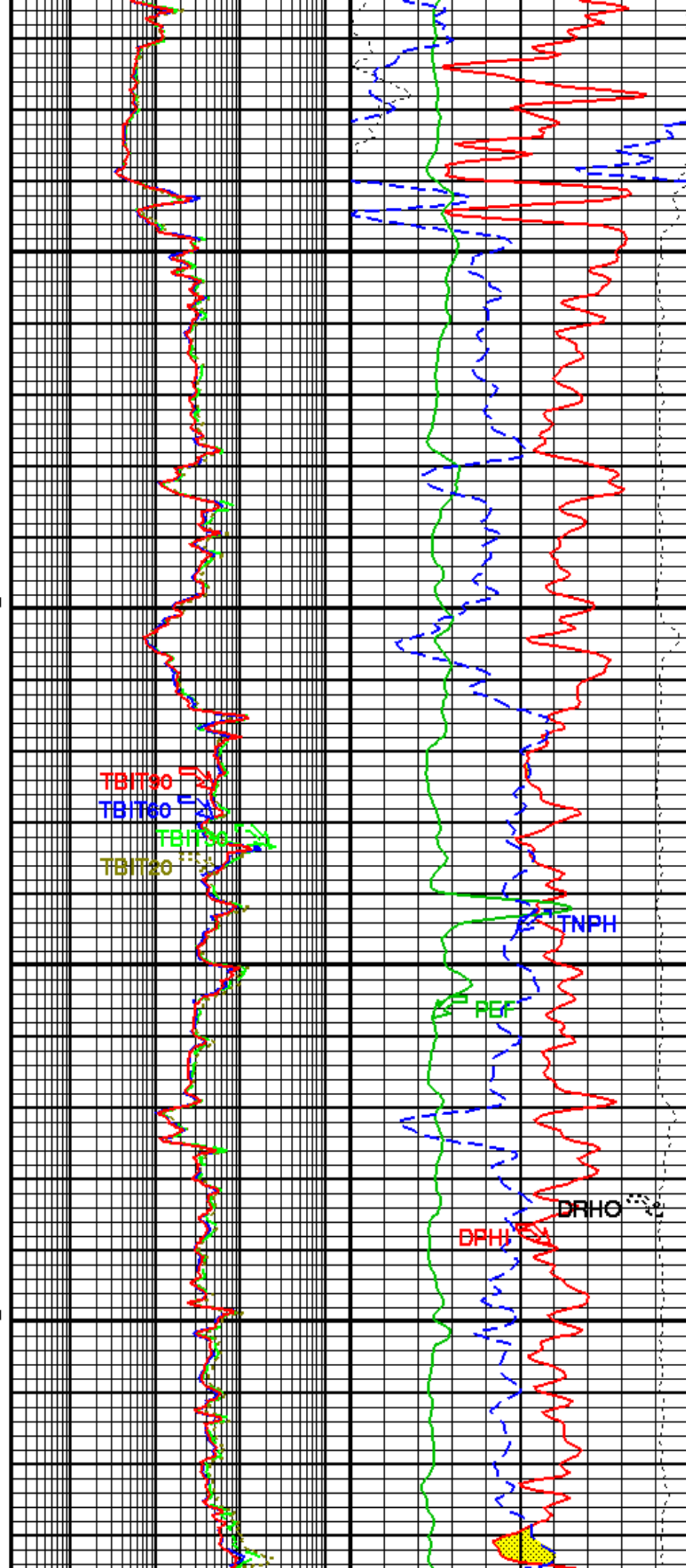
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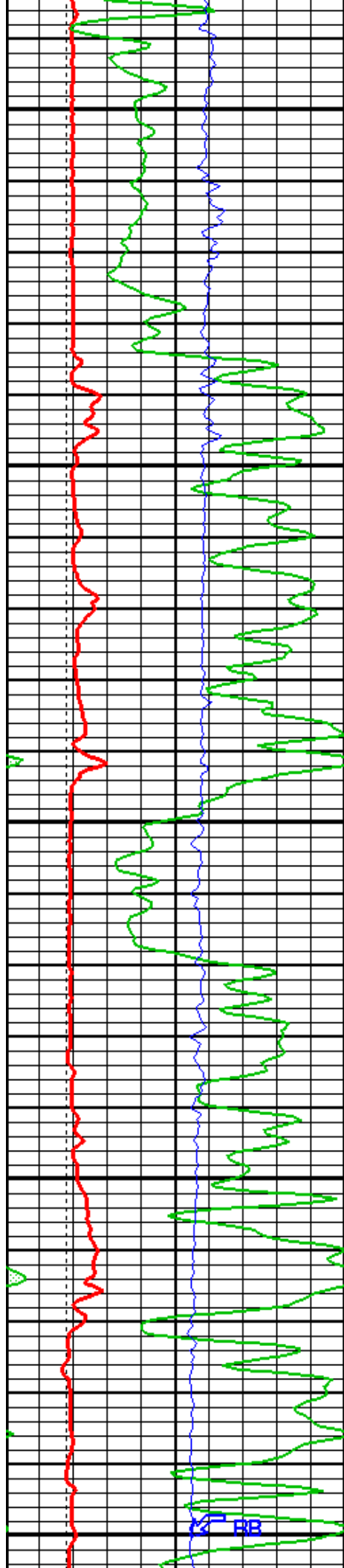




6000

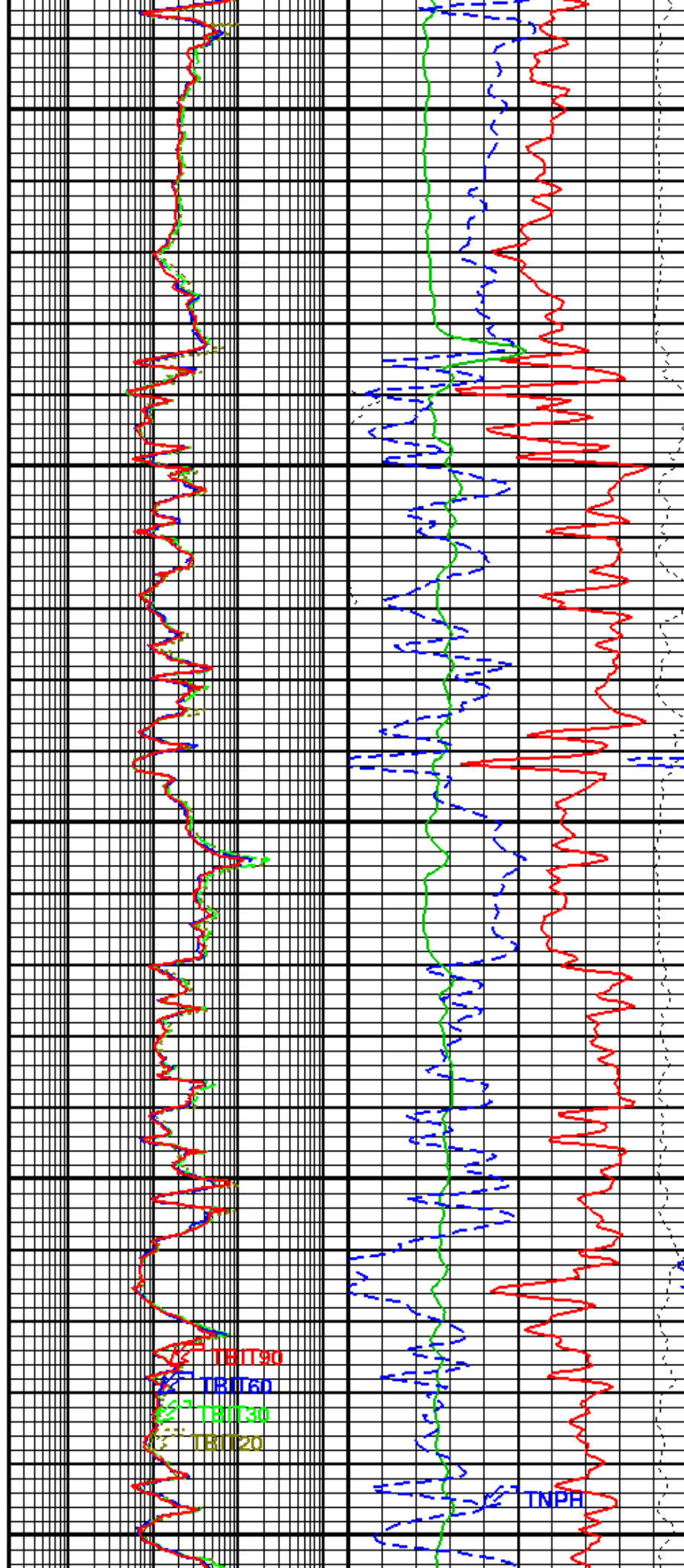
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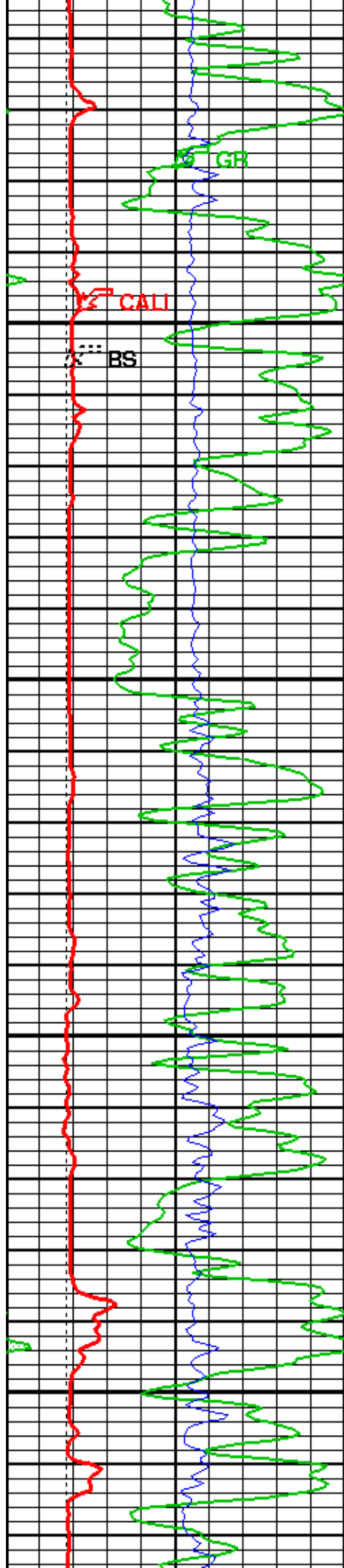




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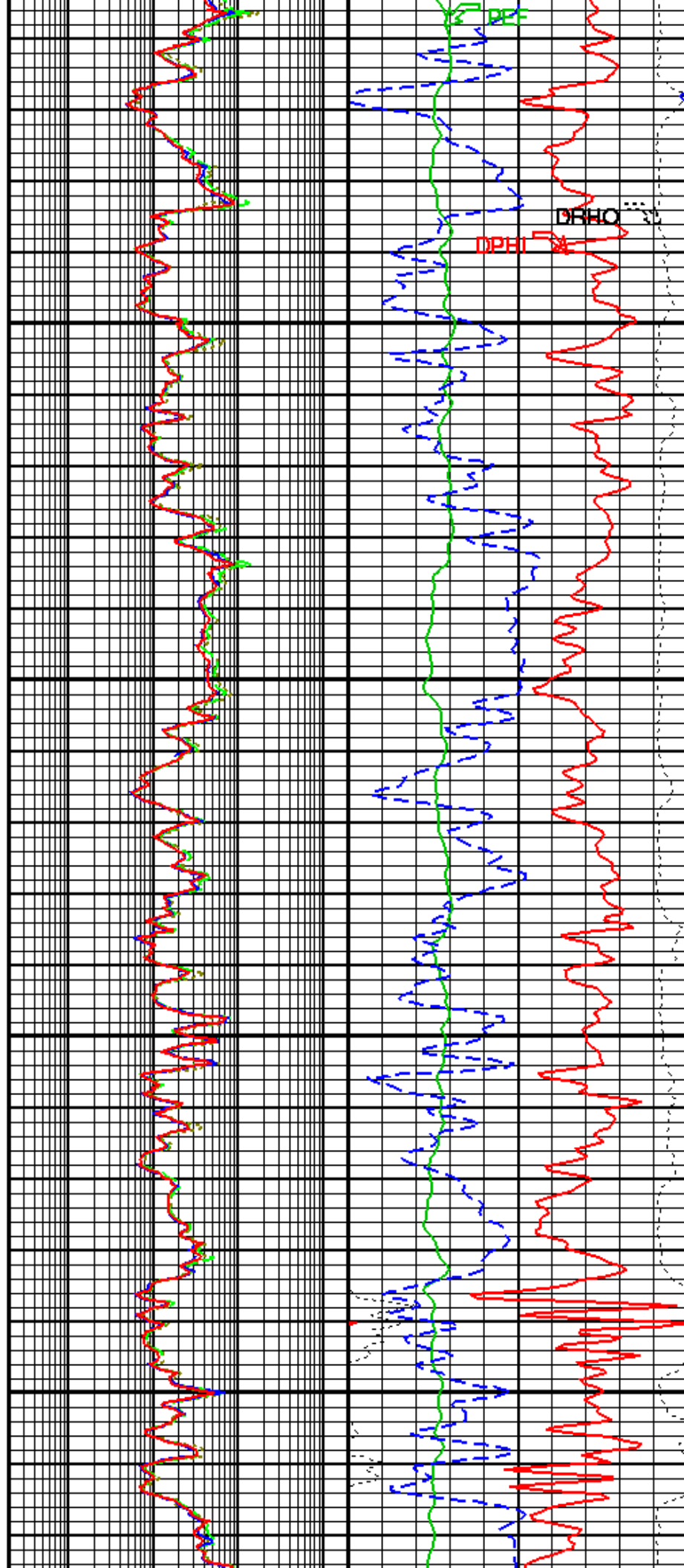
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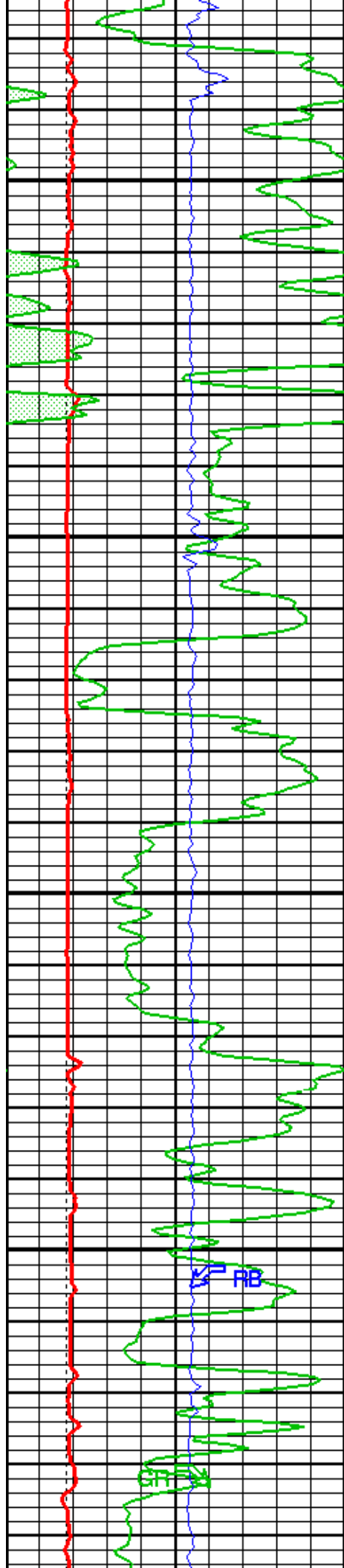




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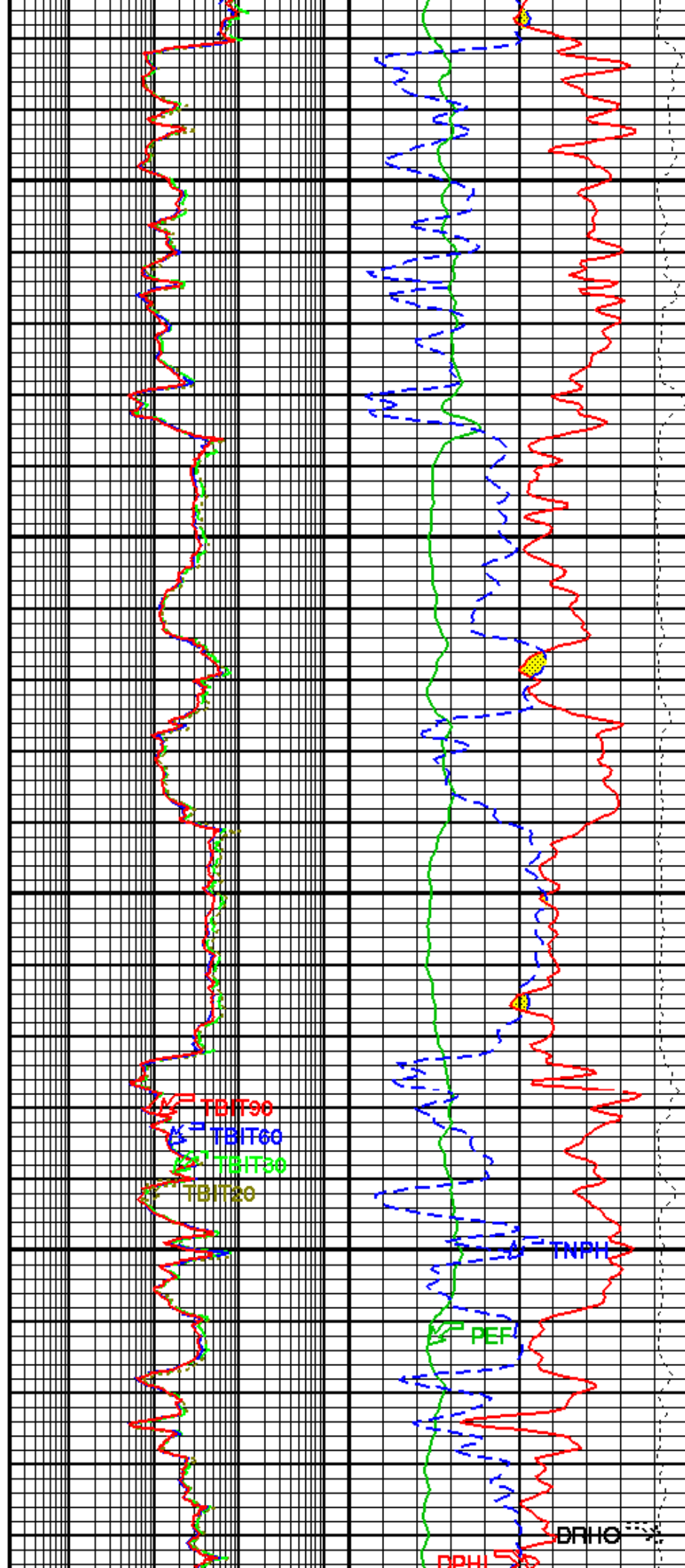
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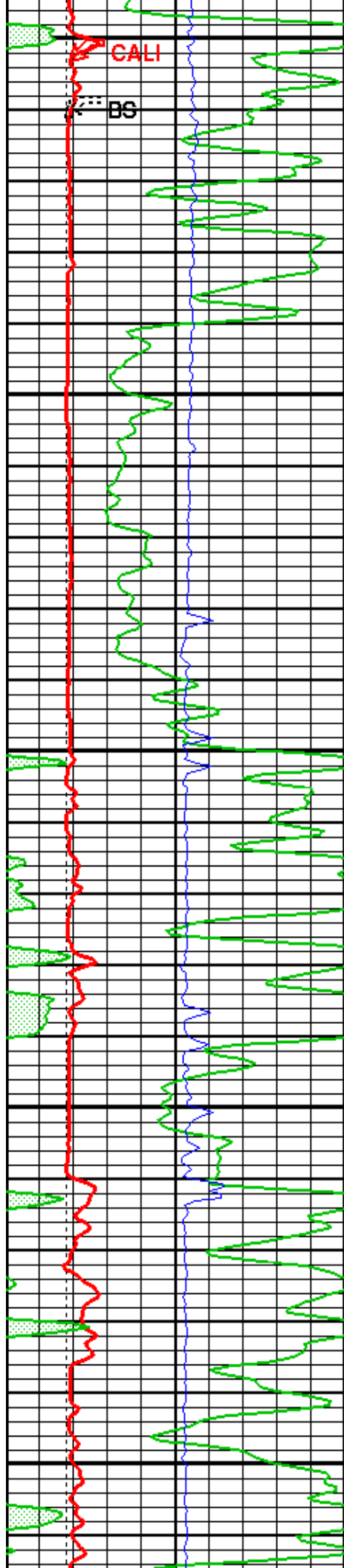




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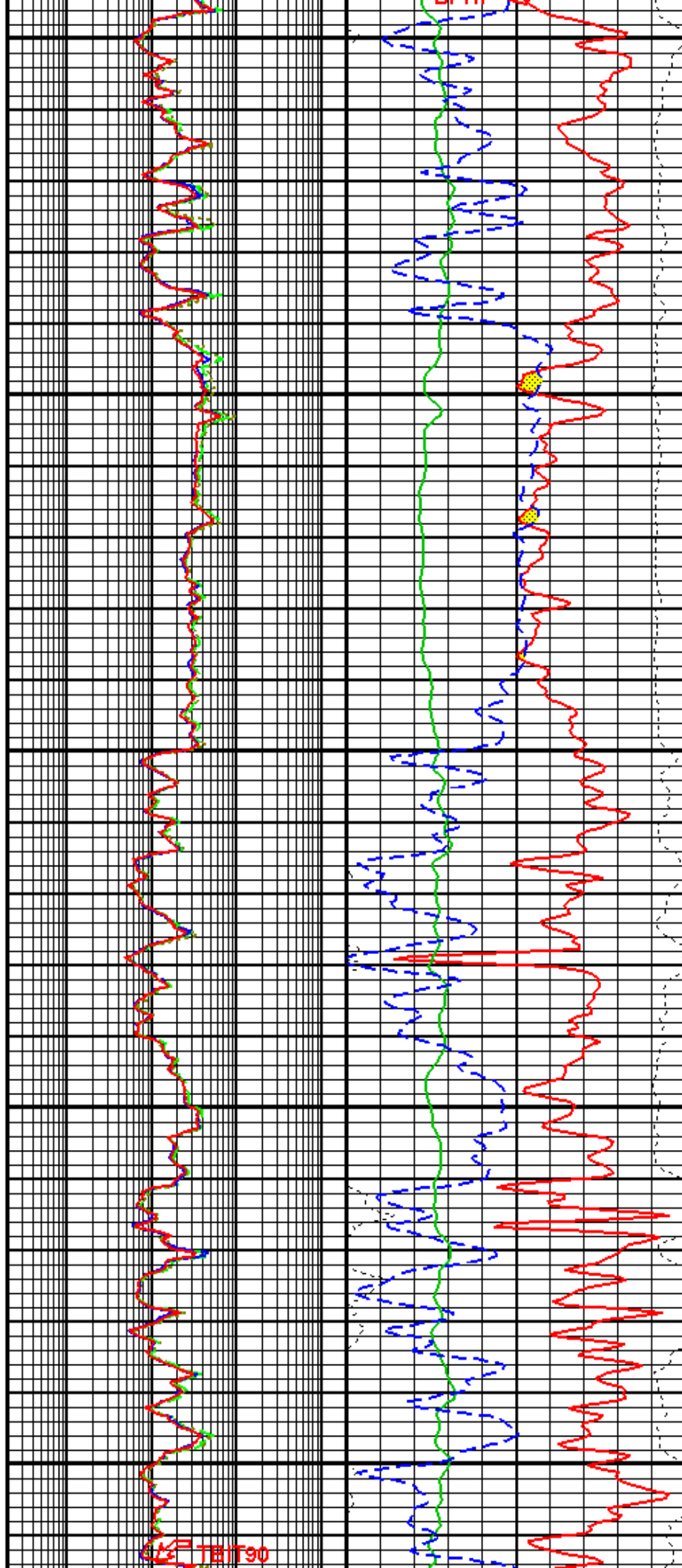


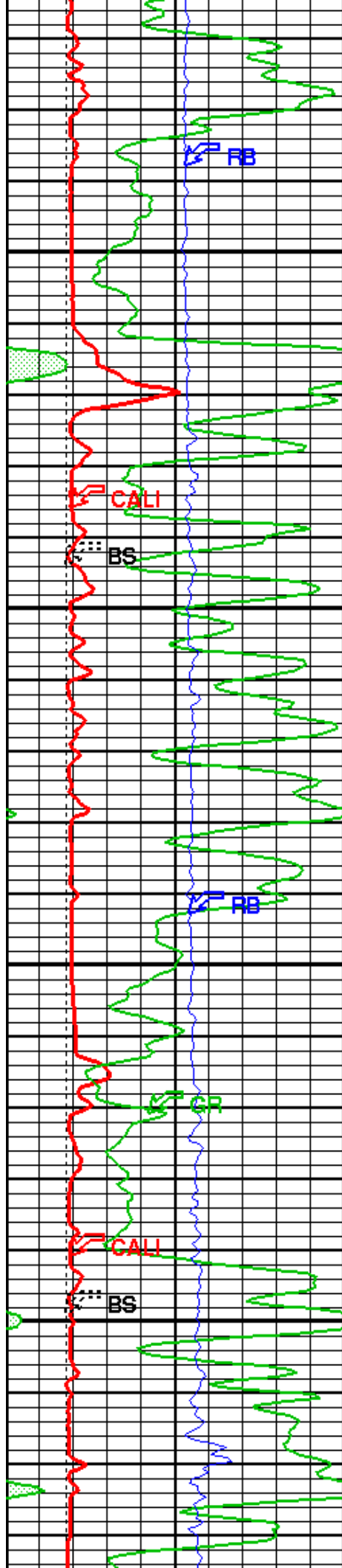


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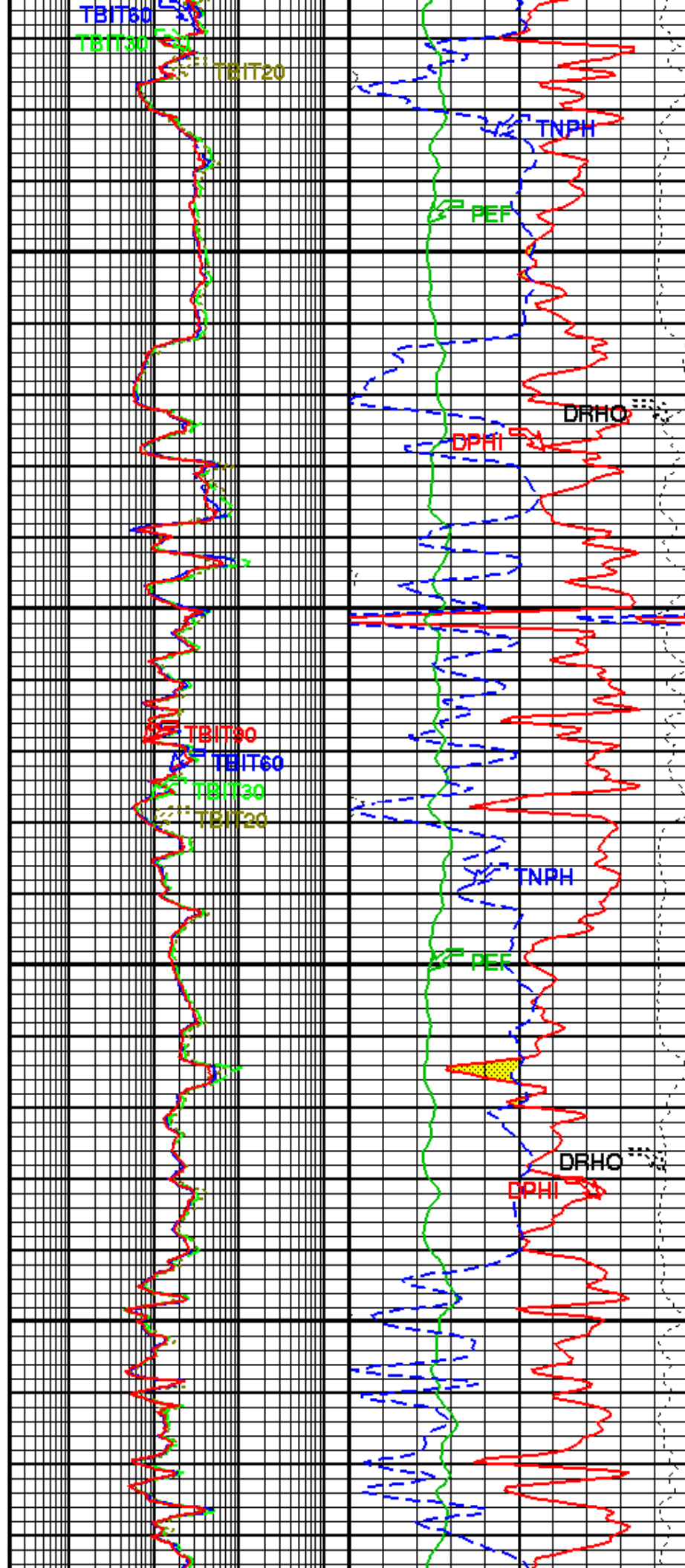
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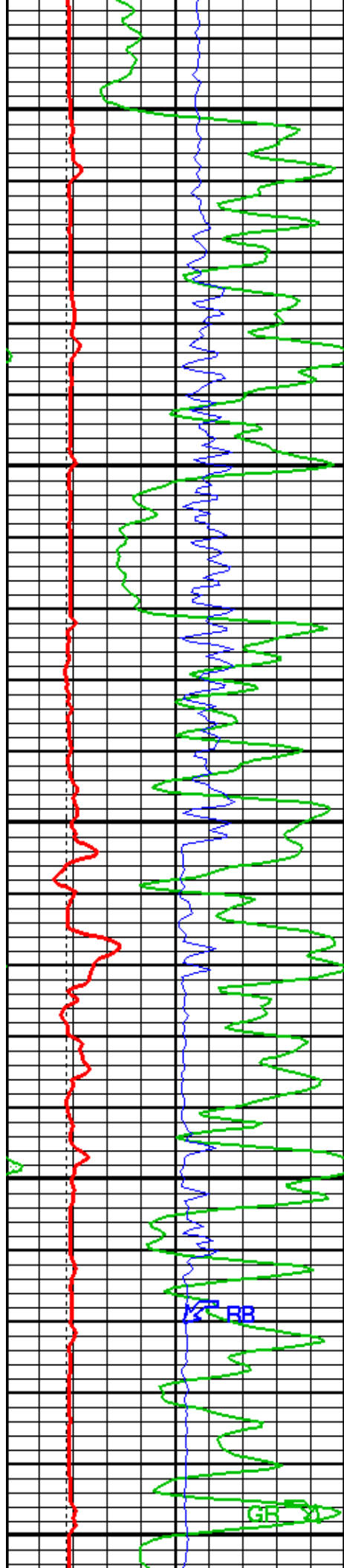




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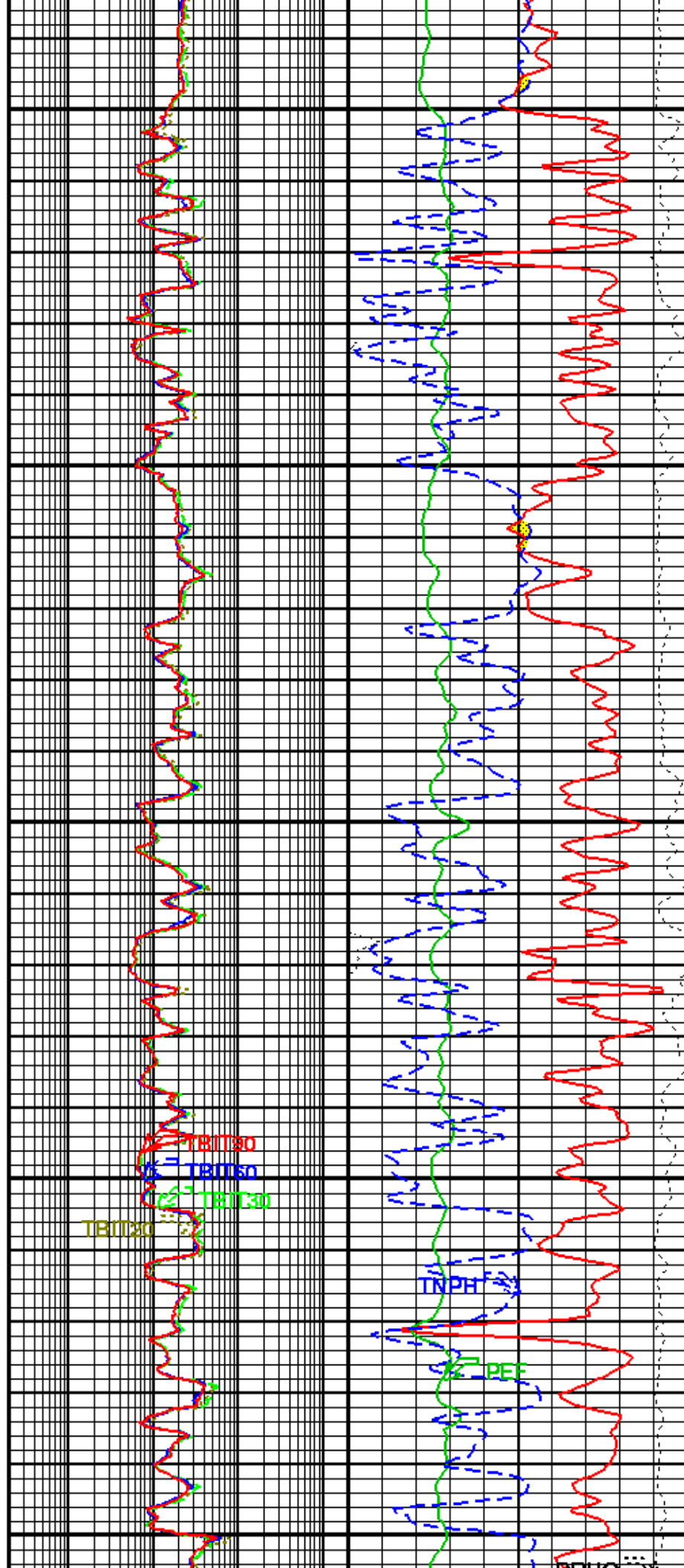
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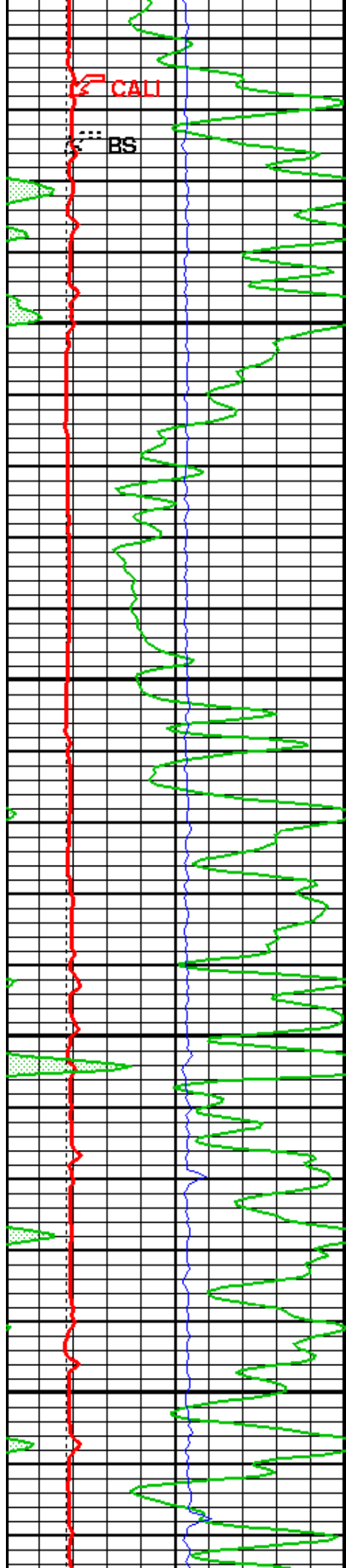




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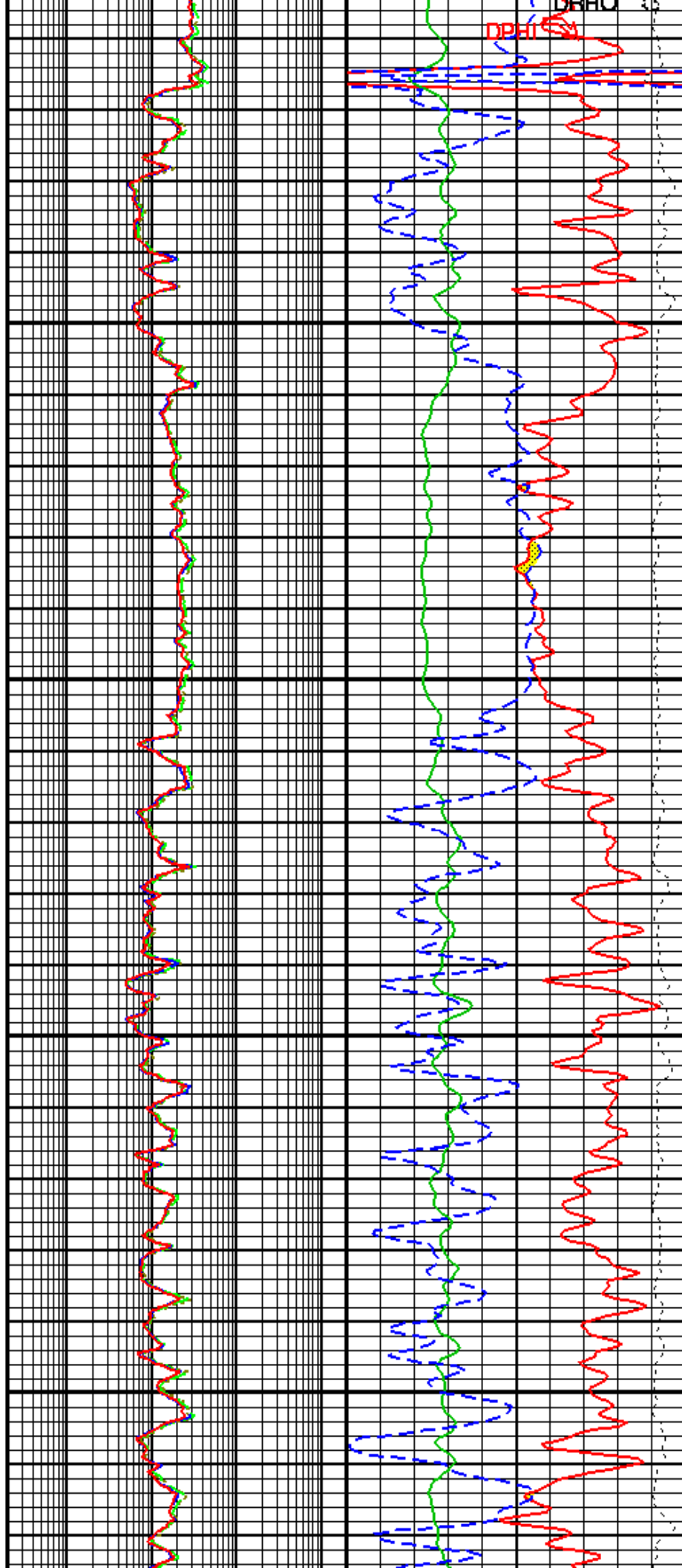
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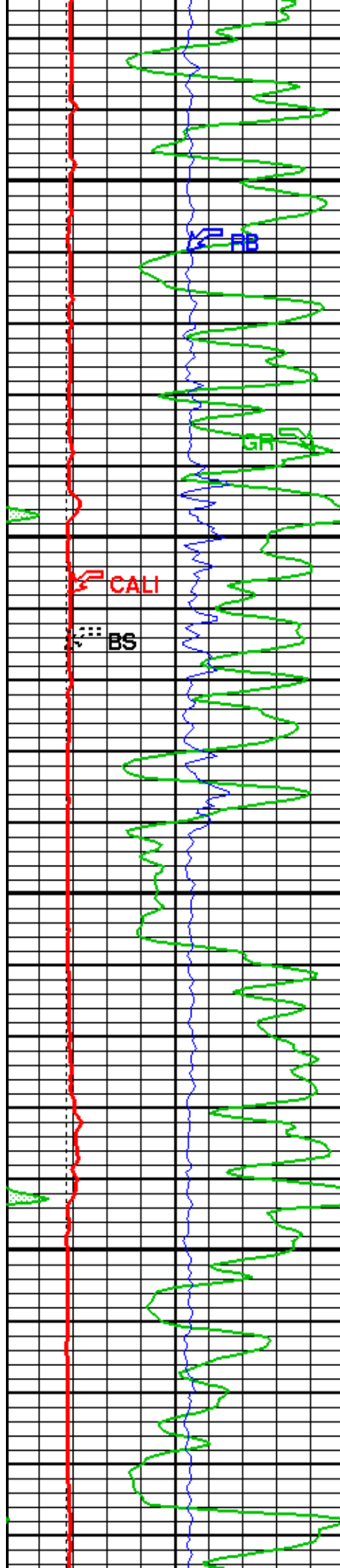




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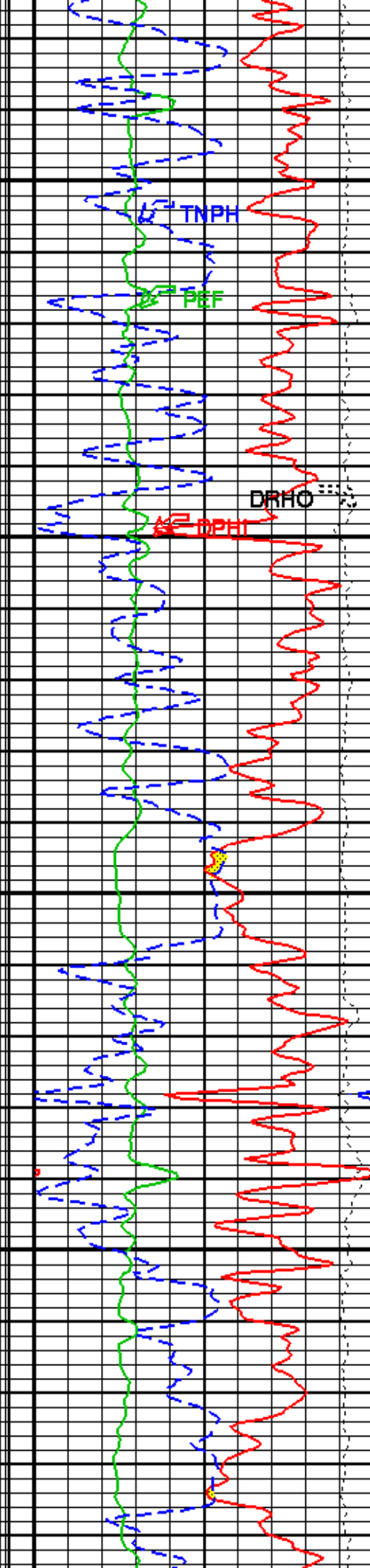
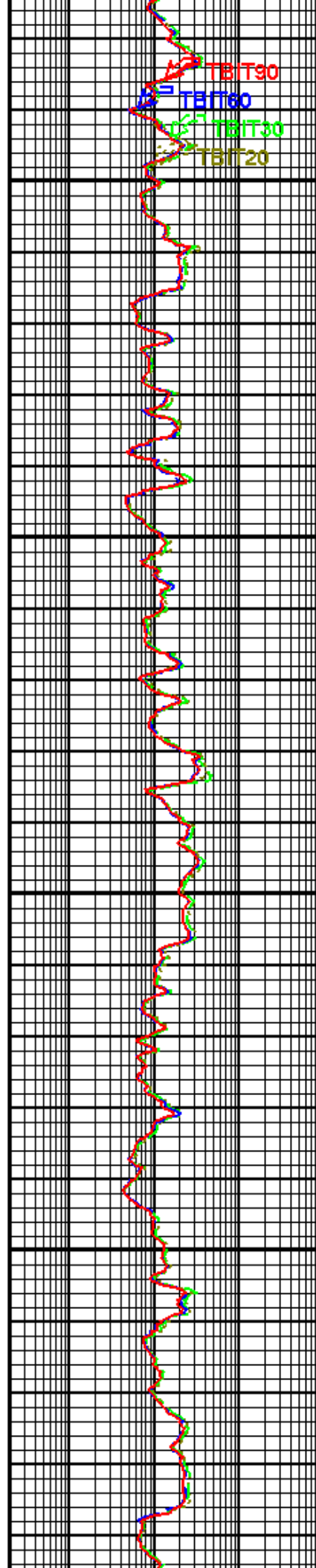
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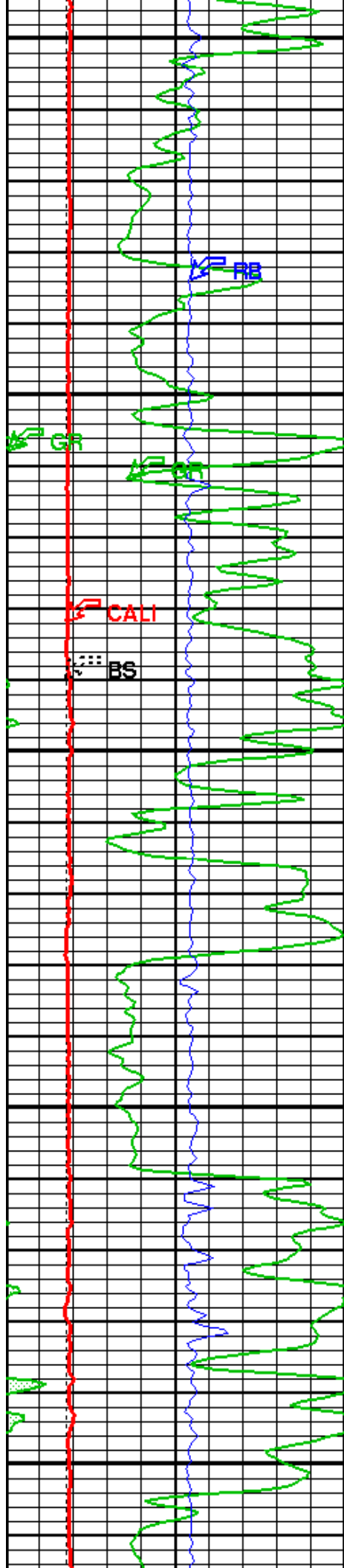




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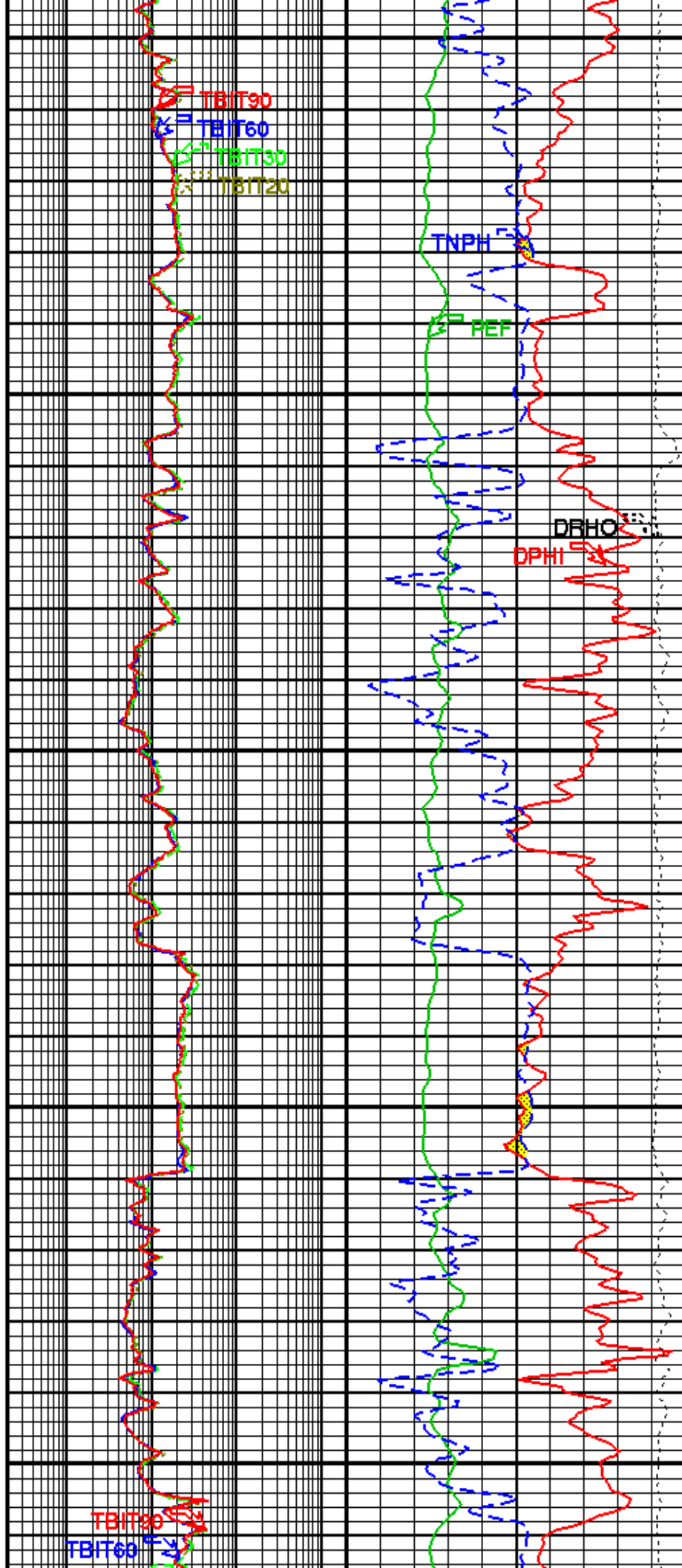


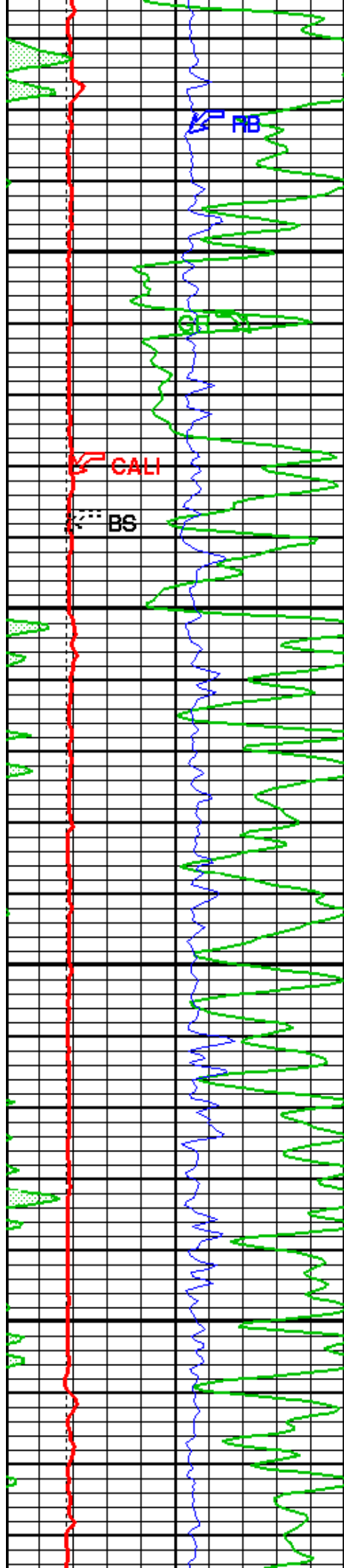


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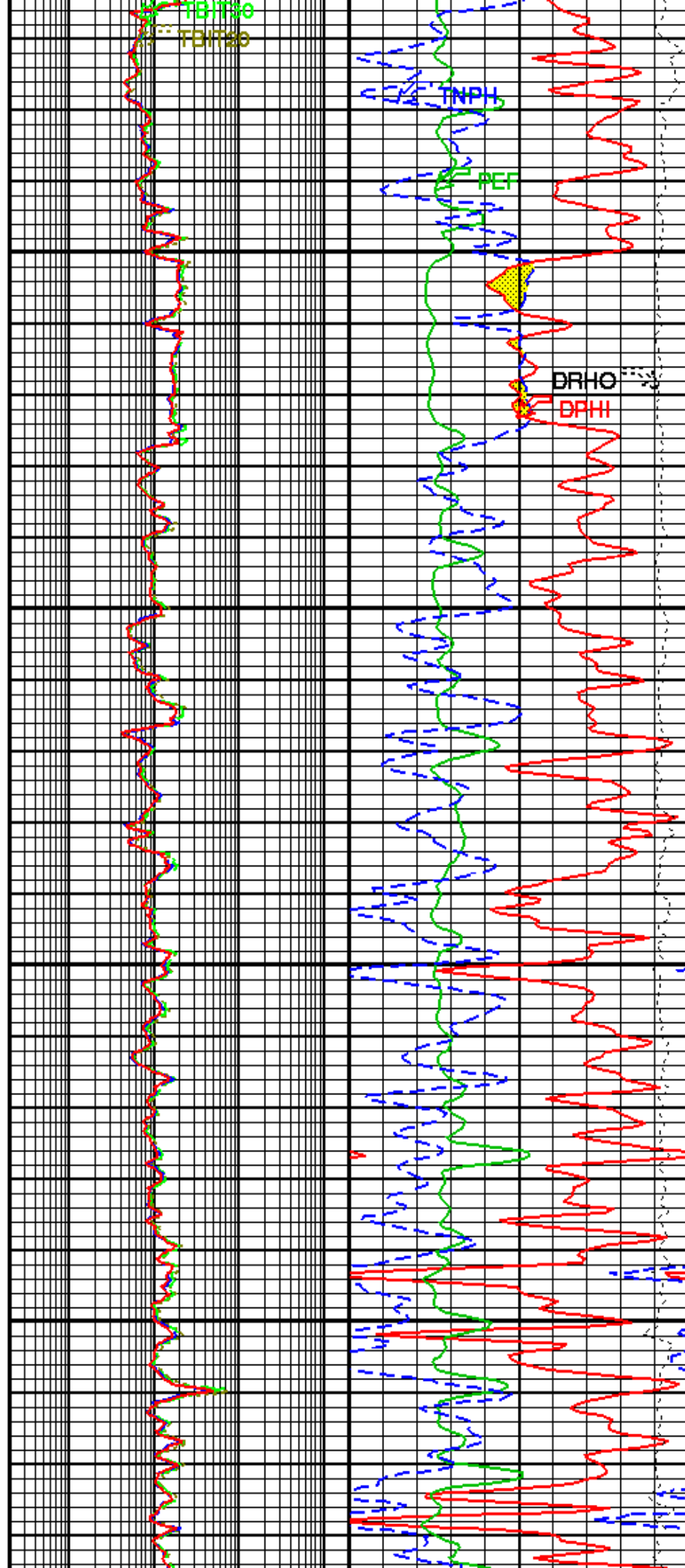
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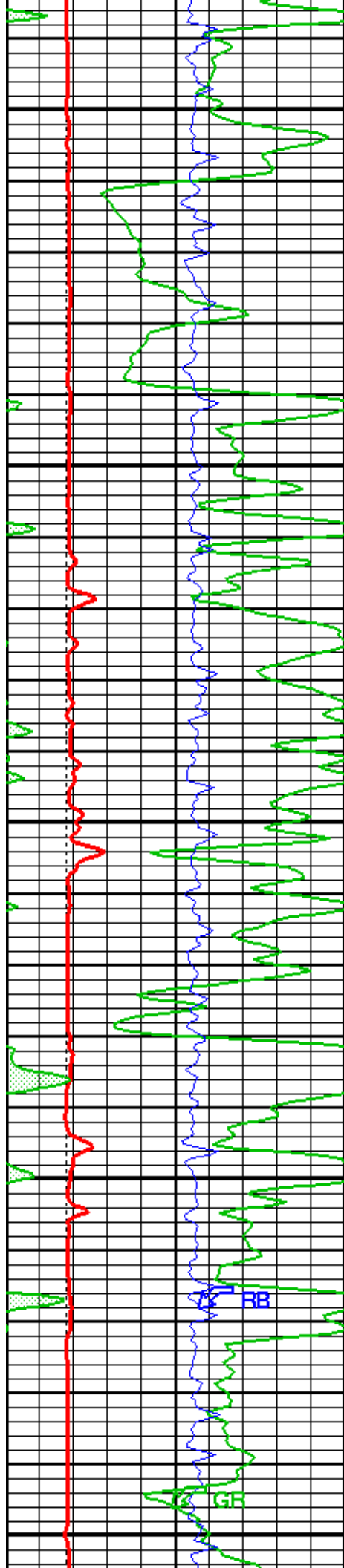




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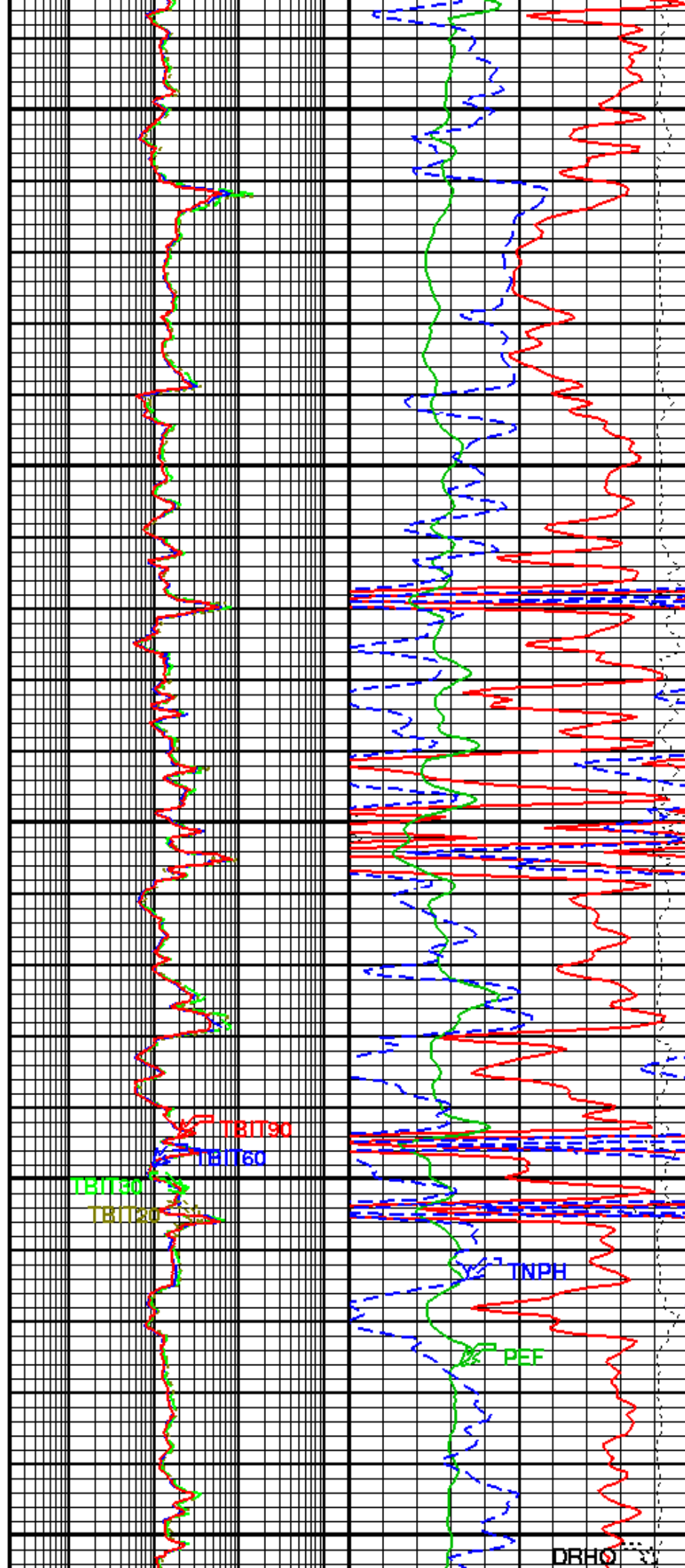
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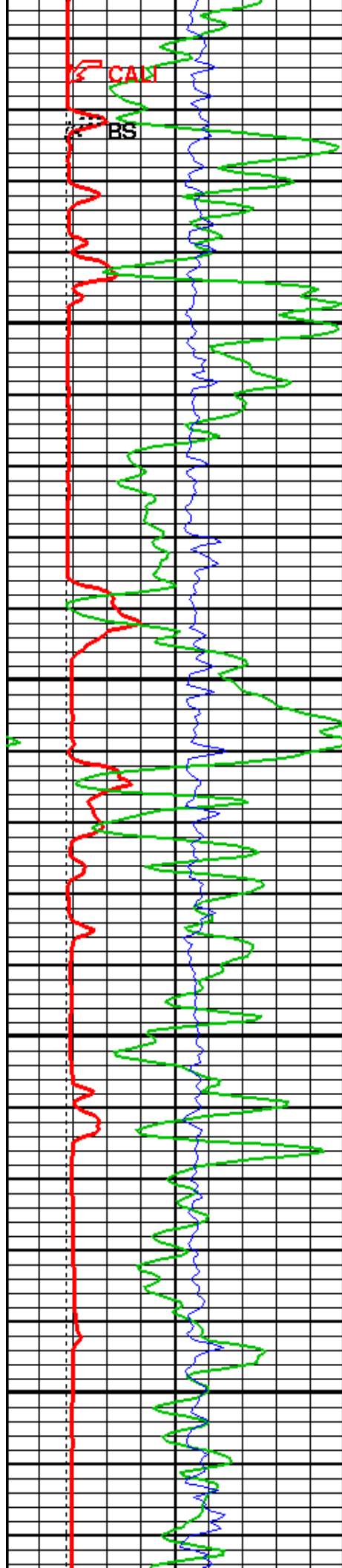


8400

8500

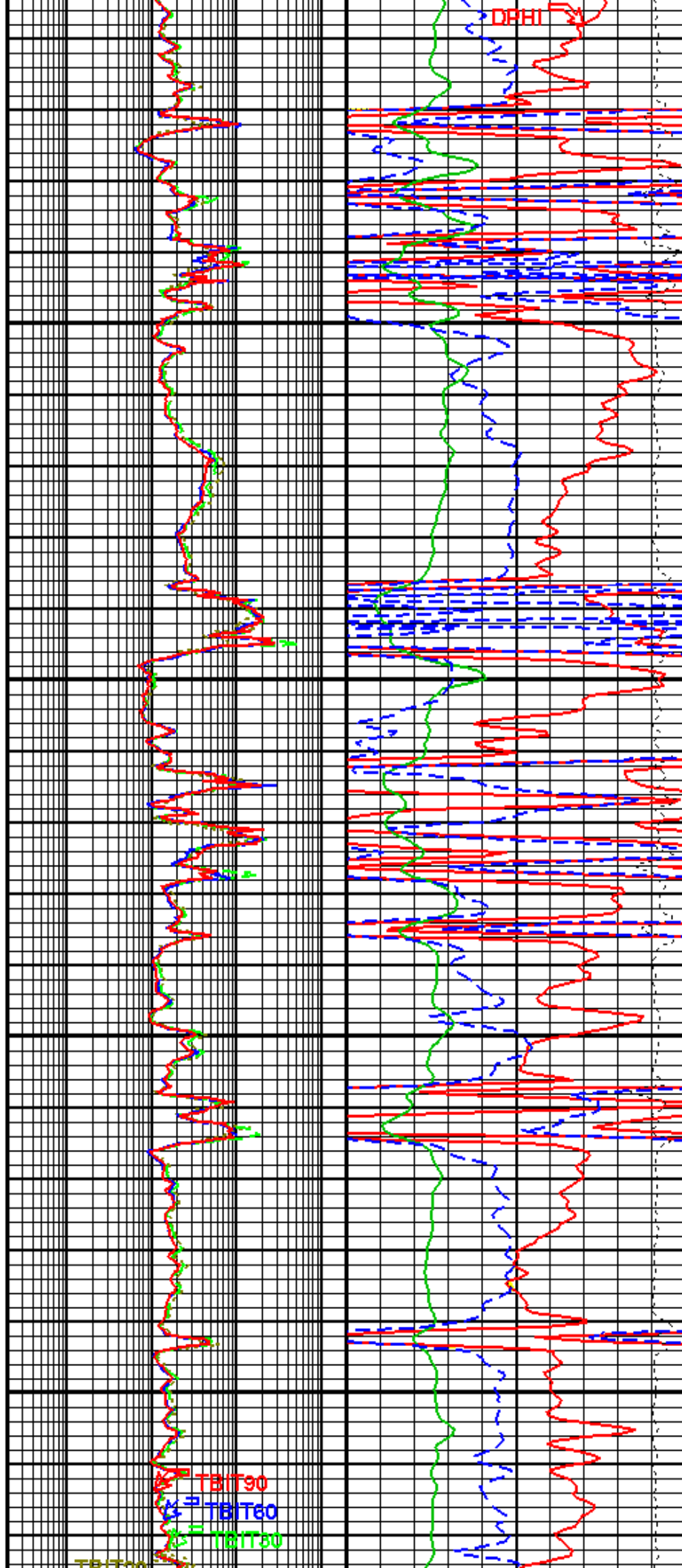


DRHO



8600

8700

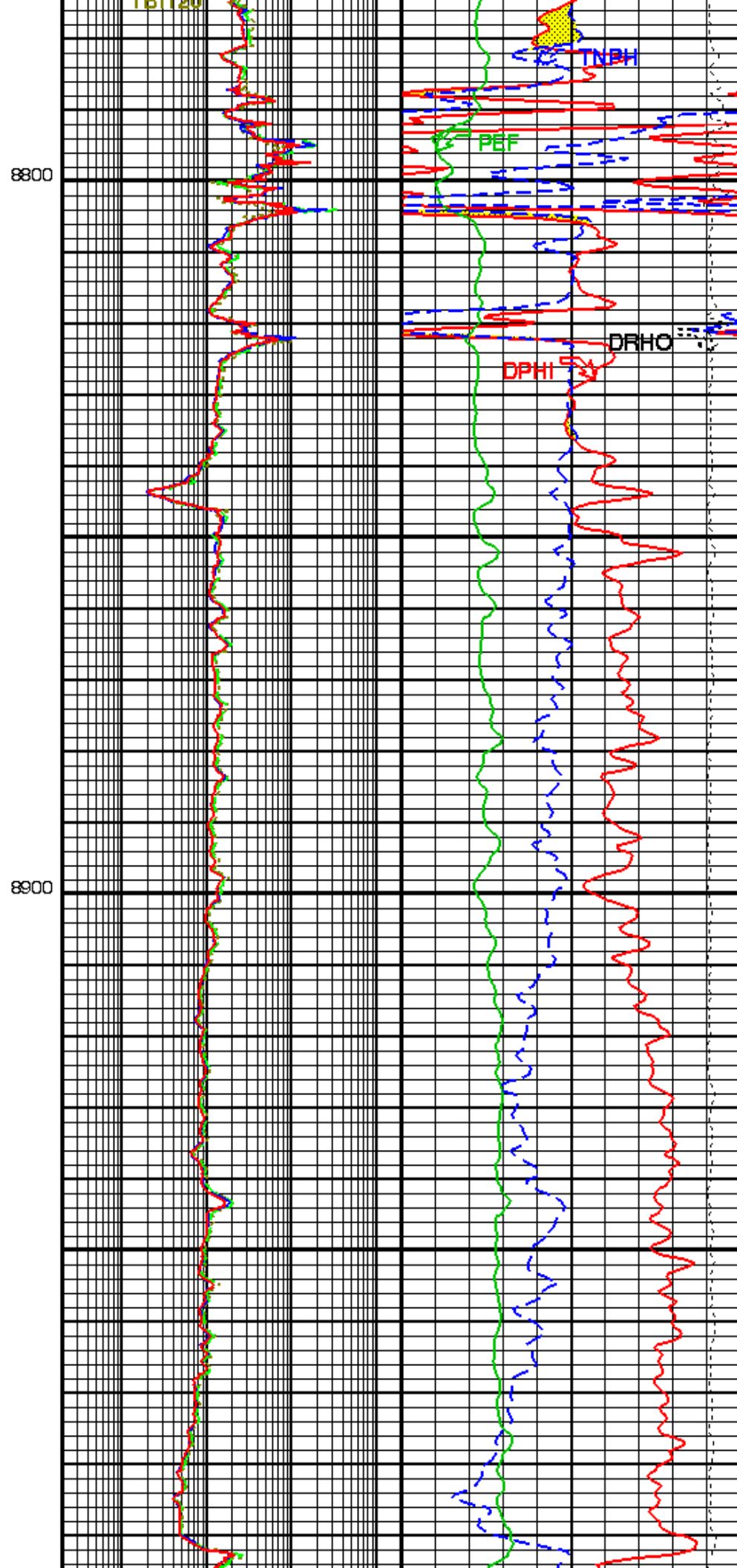
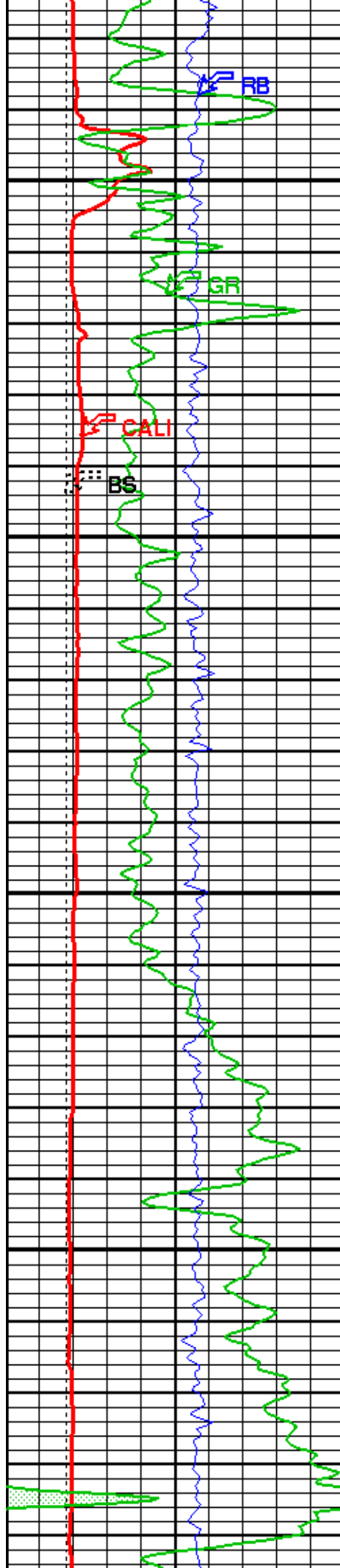


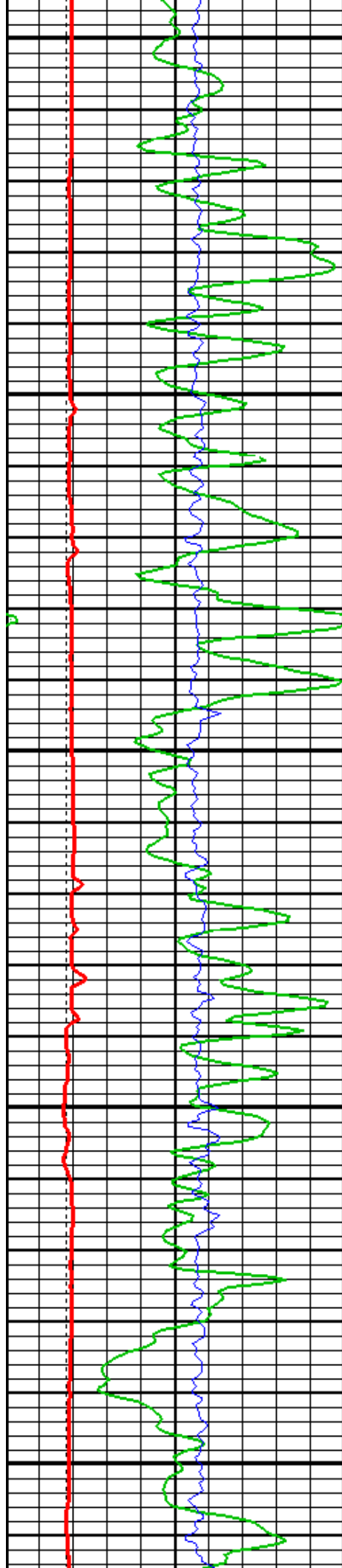
DHFI

TBIT90

TBIT60

TBIT50

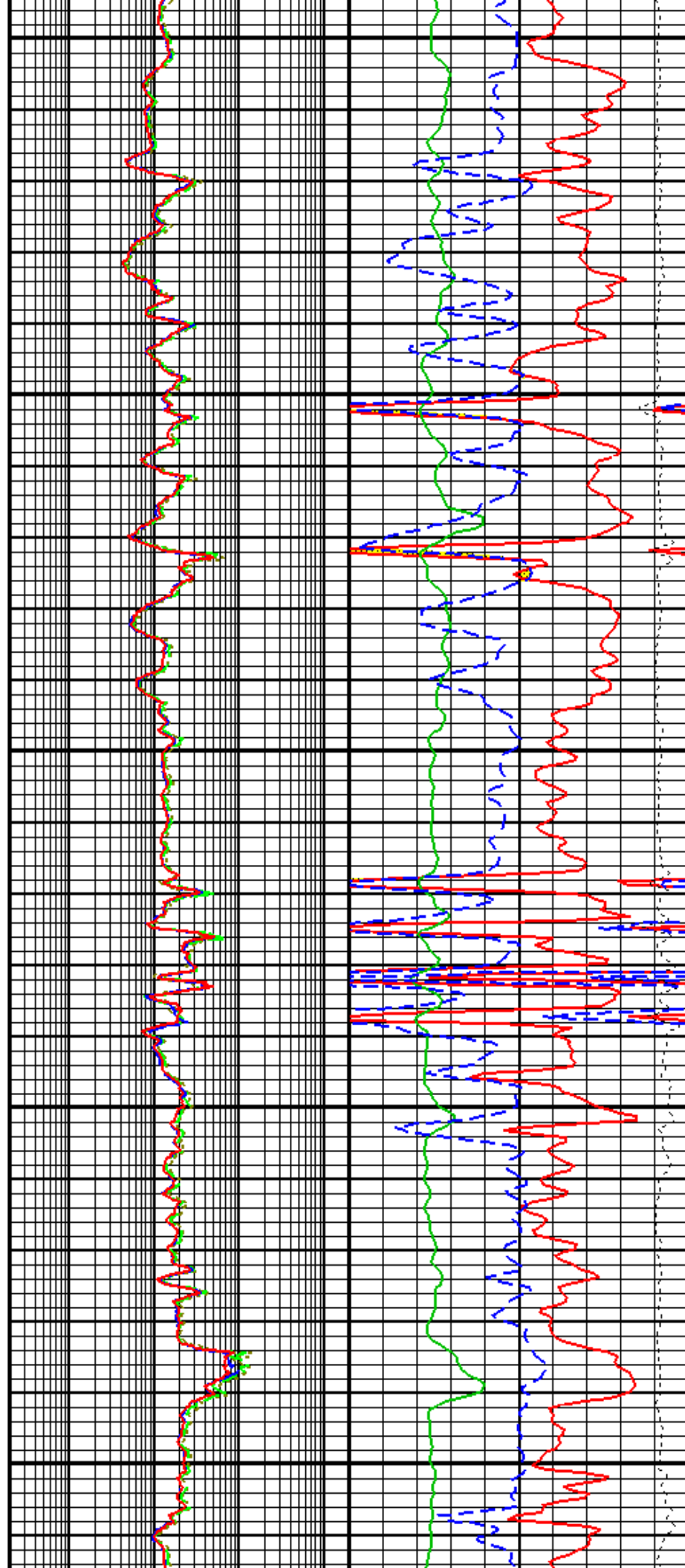


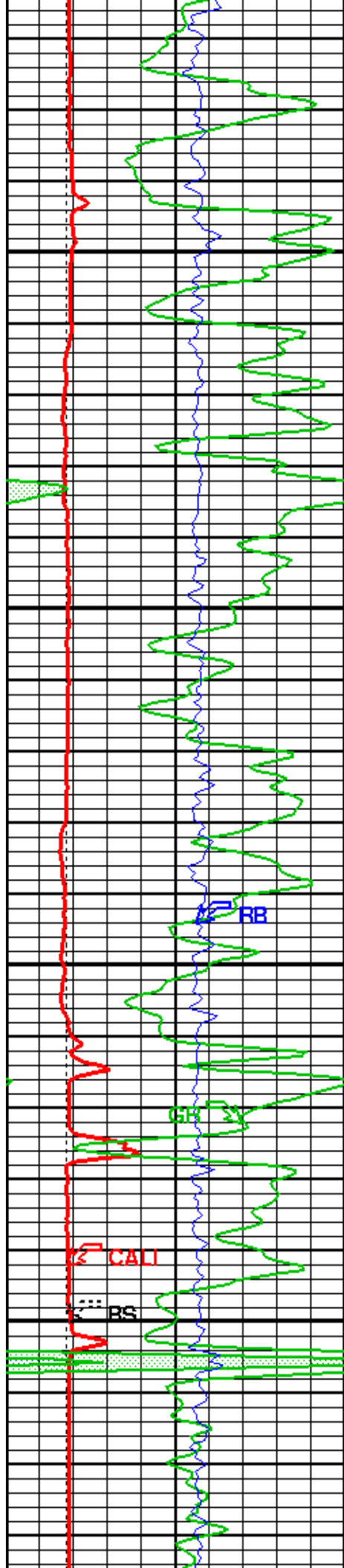


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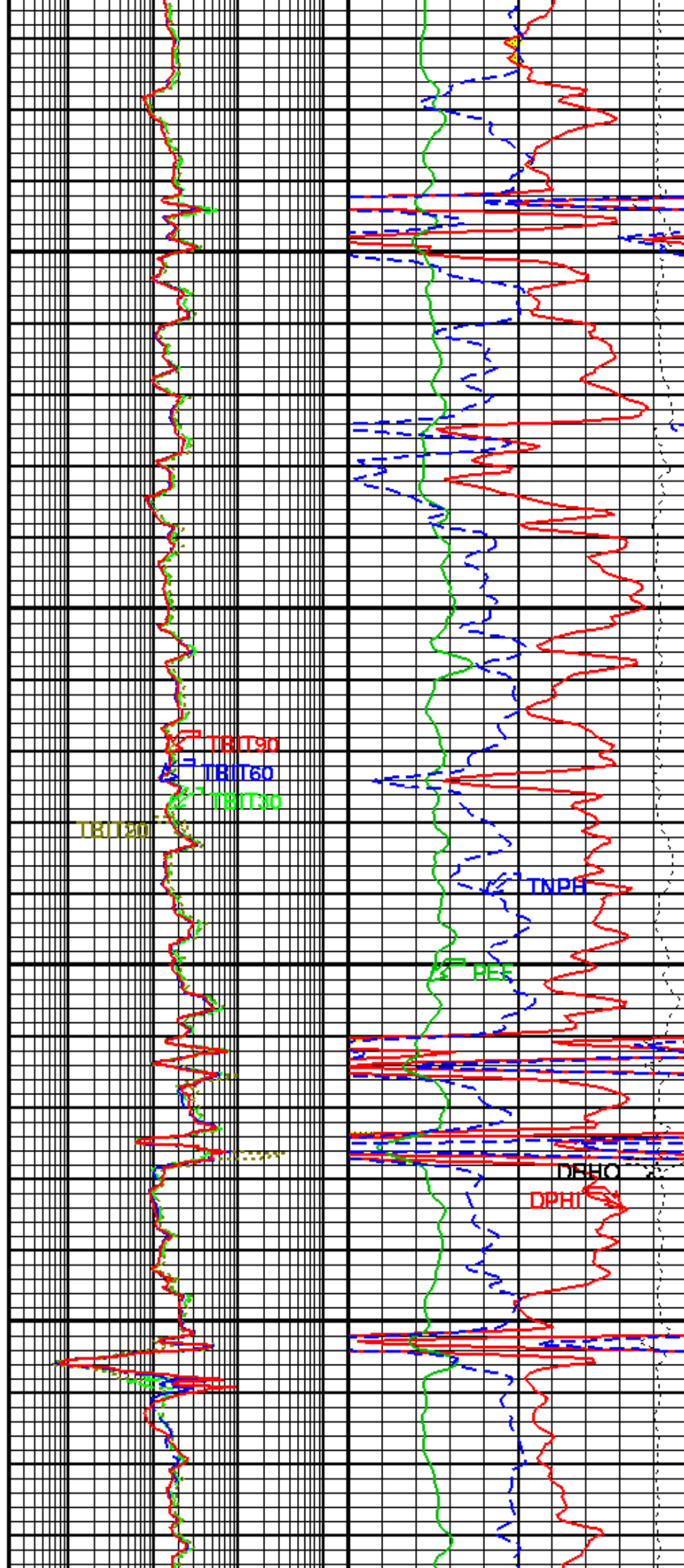
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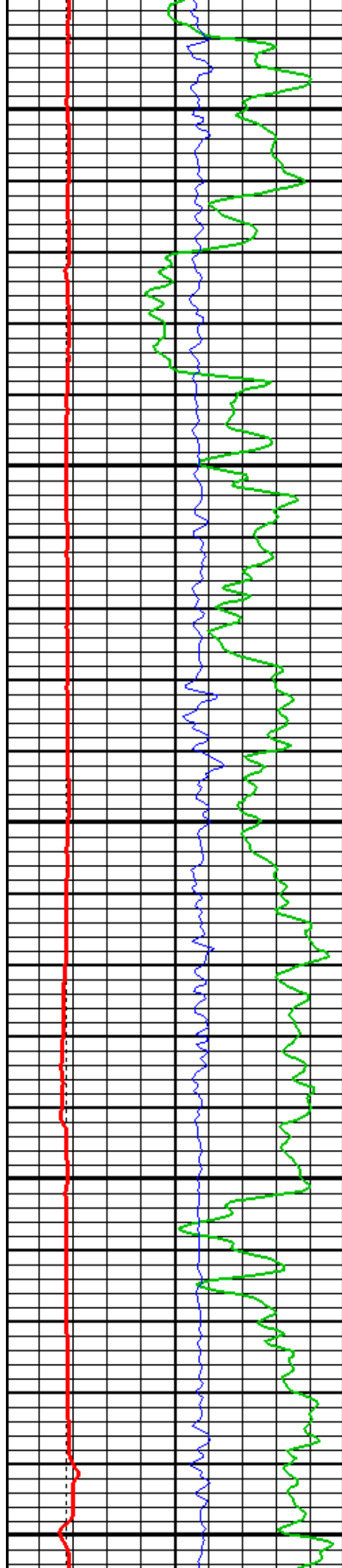




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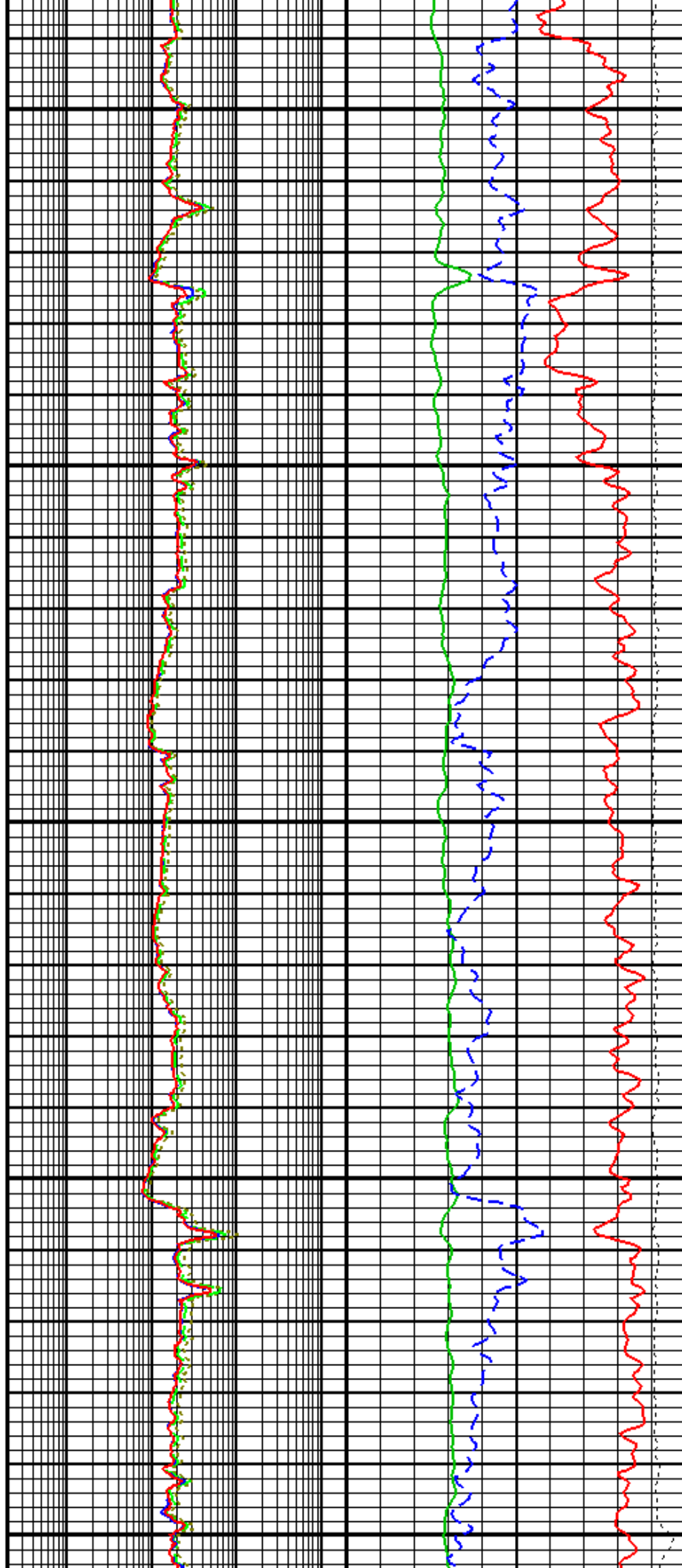
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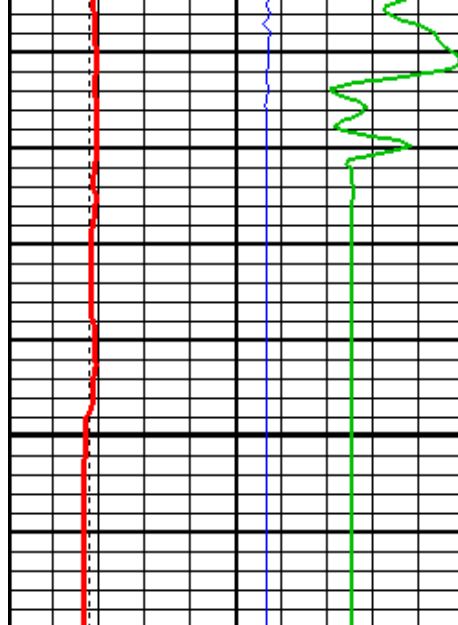




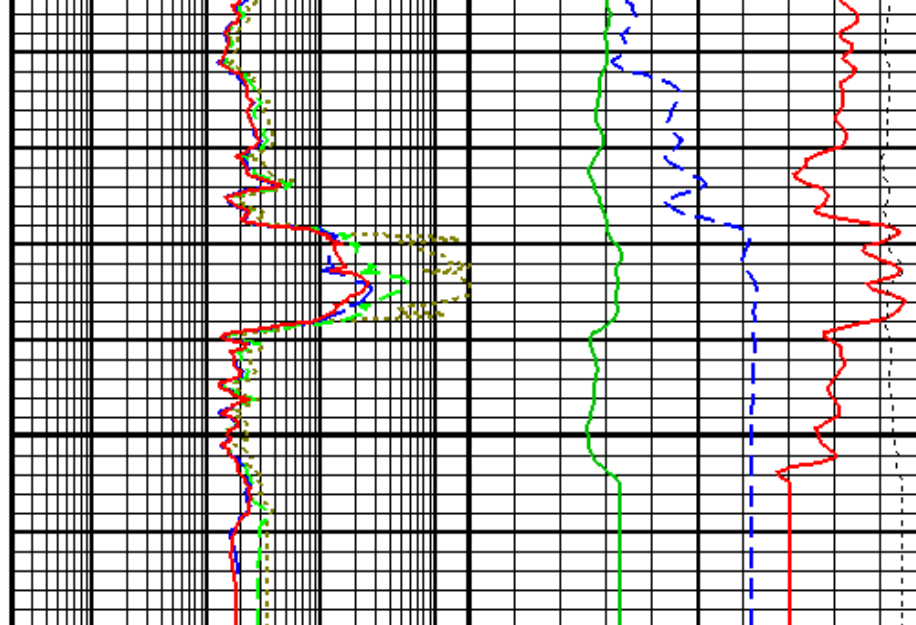
9600

9600





9700



Bit Size (BS)		
7	(IN)	17
Gamma Ray (GR)		
0	(GAPI)	150
Gamma Ray 1 (GR)		
150	(GAPI)	300
Gamma Ray 2 (GR)		
300	(GAPI)	450
Gamma Ray 3 (GR)		
450	(GAPI)	600
Gamma Ray 4 (GR)		
600	(GAPI)	750
Caliper (CALI)		
7	(IN)	17
gr wrap1 From LHT1 to GR1		
gr wrap2 From LHT1 to GR2		
gr wrap3 From LHT1 to GR3		
gr wrap4 From LHT1 to GR4		
Relative Bearing		
	(RB)	
0	(DEG)	940

TBI 20 Inch Investigation (TBIT20)		
0.2	(OHMM)	2000
TBI 30 Inch Investigation (TBIT30)		
0.2	(OHMM)	2000
TBI 60 Inch Investigation (TBIT60)		
0.2	(OHMM)	2000
TBI 90 Inch Investigation (TBIT90)		
0.2	(OHMM)	2000
DPHI (DPHI)		
0.3	(V/V)	-0.1
DRHO (DRHO)		
-1.8	(G/C3)	0.2
PEF (PEF)		
0	(---)	10
TNPH (TNPH)		
0.3	(V/V)	-0.1

Parameters

DLIS Name	Description	Value
TBT-A: ThruBit String		
BHS	Borehole Status	OPEN
BSCO	Borehole Salinity Correction Enabled? (for TBN)	NO
CSAL	Cement Salinity	0.000 ppm
CSID	Casing Size I.D.	8.800 in
DHC	Density Hole Correction	CALIPER
FD	Fluid Density	1.000 g/cm3
FSAL	Formation Salinity	0.000 ppm
FSOC	Formation Salinity Correction Enabled? (for TBN)	NO

FSCO	Formation Salinity Correction Enabled? (for TBN)	NO	
MATR	Rock Matrix for Neutron Porosity Corrections	SAND	g/cm3
MDEN	Matrix Density	2.650	
MT	Mud Type (for TBN and TBI correction)	WBM	
MWCO	Mud Weight Correction Enabled? (for TBN)	NO	
RB_OFFSET	TMG additional RB offset (degrees)	0.000	deg
SOCO	Stand-Off Correction Enabled? (for TBN)	NO	
SOFF	TBN Standoff	0.000	in
TBD_CAL_BLOCK	TBD Calibration Block Type	SCHLUMBERGER	
TBD_SPIKE_REJECT	TBD Spike Detection Option	CORRECT	
TBD_SPIKE_THRESHOLD	TBD Attenuation Change Threshold for Spike Detection	5.000	%
TBI_ALGO	TBI Algorithm Selection	AIT	
TBI_BHC_MODE	Borehole Correction Mode (for TBI)	SOLVE_FOR_STANDOFF	
TBI_BHC_OP	Borehole Correction Option (for TBI)	CALIPER	
TBI_CALTYP	TBI Mastercal Type	SCHLUMBERGER	
TBI_REPL_ARRAY_DEST	TBI: Replace This Array	NONE	
TBI_REPL_ARRAY_SOURCE	TBI: With This Array	NONE	
TBI_RMUD_SRC	RMUD Source for Borehole Correction (for TBI)	DATA_CHANNEL_RMUD	
TBI_TC_OP	Induction Temperature Correction Option	LOWER	
TBN_ALGO	Porosity Algorithm	SCHMID	
TBN_BHC_OP	Borehole Correction Option (for TBN)	CALIPER	
TBN_CAL_TANK	TBN Calibration Tank Type	SCHLUMBERGER	
TBN_FILTER	Filter Length	3_POINT	
TBN_PRES_OP	Pressure Correction Enabled? (for TBN)	NO	
TBN_TEMP_OP	Temperature Correction Enabled? (for TBN)	NO	
TBN_WPRE	Well Pressure (for TBN)	14.696	psi
WMUD	Mud Weight	9.000	lbm/gal
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
MATR	Rock Matrix for Neutron Porosity Corrections	SAND	
System and Miscellaneous			
BS	Bit Size	8.750	in
BSAL	Borehole Salinity	1100.0	ppm
CSIZ	Current Casing Size	9.625	in
MST	Mud Sample Temperature	65.000	degF
RMB	Resistivity of Mud - BHT	0.398	ohm.m
RMS	Resistivity of Mud Sample	1.090	ohm.m

Format: TB_TCOM Vertical Scale: 5" per 100'

Graphics File Created: 20-Mar-2017 22:16

OP System Version: 19C2-270

TBT SRPC-5318-ThruBit-SP3.4

Input DLIS Files

ThruBit_008PUP

FN:6

20-Mar-2017 22:05

9720.0 FT

2643.5 FT

Schlumberger

CALIBRATIONS

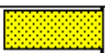
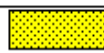







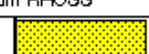






MAXIS Field Log

ThruBit String / Equipment Identification











Primary Equipment:

Induction Resistivity	TBI - A	49
Density	TBD - A	31
Gamma-Ray Logging Source	GGLS - FZ	3216
Thermal Neutron	TBN - A	3
Neutron Logging Source	NNLS - EWA	3746
Telemetry	WCIB -	
Telemetry Memory GR	TMG - A	10
Battery 2	TBAT -	35





Auxiliary Equipment:






	1027.2	1220.0		6546.49	7900.00
850.00 (Minimum)	(Nominal)	1590.0 (Maximum)	5530.00 (Minimum)	(Nominal)	10270.0 (Maximum)
LS2 Aluminium CPS		Value	Nominal	SS2 Aluminium CPS	
	970.468	1140.00		3338.32	4050.00
800.000 (Minimum)	(Nominal)	1480.00 (Maximum)	2840.00 (Minimum)	(Nominal)	5270.00 (Maximum)
LS3 Aluminium CPS		Value	Nominal	SS3 Aluminium CPS	
	946.772	1080.00		2830.43	3420.00
760.000 (Minimum)	(Nominal)	1400.00 (Maximum)	2400.00 (Minimum)	(Nominal)	4450.00 (Maximum)
LS4 Aluminium CPS		Value	Nominal	SS4 Aluminium CPS	
	732.84	830.00		2881.0640	3360.0000
580.00 (Minimum)	(Nominal)	1080.0 (Maximum)	2350.0000 (Minimum)	(Nominal)	3700.0000 (Maximum)
Magnesium RHOLS		Value	Nominal	Magnesium RHOSS	
	1.7014	1.6880		1.6956	1.6700
1.6630 (Minimum)	(Nominal)	1.7130 (Maximum)	1.6350 (Minimum)	(Nominal)	1.7050 (Maximum)
Magnesium PEF		Value	Nominal	Magnesium RHOB	
	2.5040	2.5210		1.7063	1.7040
2.3700 (Minimum)	(Nominal)	2.6700 (Maximum)	1.6870 (Minimum)	(Nominal)	1.7210 (Maximum)
Magnesium + Sleeve RHOLS		Value	Nominal	Magnesium + Sleeve RHOSS	
	1.8667	1.8550		2.1702	2.1520
1.7950 (Minimum)	(Nominal)	1.9150 (Maximum)	2.0920 (Minimum)	(Nominal)	2.2120 (Maximum)
Magnesium + Sleeve PEF		Value	Nominal	Magnesium + Sleeve RHOB	
	7.6057	6.8000		1.6102	1.6060
5.1000 (Minimum)	(Nominal)	8.5000 (Maximum)	1.5780 (Minimum)	(Nominal)	1.6340 (Maximum)

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ThruBit String Master Calibration					
Thermal Neutron Master Calibration					
TNF, Background CPS		Value	Nominal	TNN, Background CPS	
	0.15	1.0		0.031	1.0
0 (Minimum)	(Nominal)	2.0 (Maximum)	0 (Minimum)	(Nominal)	2.0 (Maximum)
TNF, Tank CPS		Value	Nominal	TNN, Tank CPS	
	10670	27990		29724	69600
9330 (Minimum)	(Nominal)	56000 (Maximum)	23200 (Minimum)	(Nominal)	139200 (Maximum)
TNF, Tank + Al Sleeve CPS		Value	Nominal	TNN, Tank + Al Sleeve CPS	
	614.37	1750.0		6744.46	18350.0
580.00 (Minimum)	(Nominal)	3500.0 (Maximum)	6100.00 (Minimum)	(Nominal)	36700.0 (Maximum)
Tank + Al Sleeve Ratio		Value	Nominal	Tank + Al Sleeve Porosity PU	
	10.978	11.128		15.19	15.19
10.528 (Minimum)	(Nominal)	11.728 (Maximum)	14.69 (Minimum)	(Nominal)	15.69 (Maximum)
Tank, Ratio		Value	Nominal	Tank, Temperature DEGF	
	2.7860	2.6300		55.0	70.0
2.0300 (Minimum)	(Nominal)	3.2300 (Maximum)	20.0 (Minimum)	(Nominal)	120 (Maximum)

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ThruBit String Master Calibration					
TMG Accelerometer Calibration					
Minimum Ax, m/s ²		Value	Nominal	Maximum Ax, m/s ²	
	-9.316	-9.810		10.10	9.810
-10.81 (Minimum)	(Nominal)	-8.810 (Maximum)	8.810 (Minimum)	(Nominal)	10.81 (Maximum)
Minimum Ay, m/s ²		Value	Nominal	Maximum Ay, m/s ²	
	10.10	9.810		10.10	9.810

		-9.512	-9.810			9.807	9.810
-10.81 (Minimum)	(Nominal)	-8.810 (Maximum)		8.810 (Minimum)	(Nominal)	10.81 (Maximum)	
Minimum Az, m/s2		Value	Nominal	Maximum Az, m/s2		Value	Nominal
		-0.007211	0			9.709	9.810
-1.000 (Minimum)	(Nominal)	1.000 (Maximum)		8.810 (Minimum)	(Nominal)	10.81 (Maximum)	
FB Offset, degrees		Value	Nominal				
		-12.22	0				
-360.0 (Minimum)	(Nominal)	360.0 (Maximum)					
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ThruBit String Master Calibration						
TMG Gamma-Ray Calibration						
GR Background GAPI			Value	Nominal	GR Jig-Background GAPI	
			71.74	30.00		
0 (Minimum)	(Nominal)	120.0 (Maximum)			128.0 (Minimum)	192.0 (Maximum)
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Company: **TERRA ENERGY PARTNERS**

Schlumberger

Well: **TR 313-21-597**

Field: **TRAIL RIDGE**

County: **GARFIELD**

State: **COLORADO**

ARRAY INDUCTION
SPECTRAL DENSITY/DUAL SPACED NEUTRON
MEMORY LOG