ThruBit
A Schlumberger Company

Company: **SANDRIDGE ENERGY INC**

Well: **MYRA 3406 4−8H**
Field: **EASTHAM**
County: **HARPER** State: **KANSAS**

SPECTRAL DENSITY / DUAL SPACED NEUTRON
GAMMA RAY
MEMORY LOG

County: HARPER
Field: EASTHAM
Location: 290' FSL & 400' FEL
Well: MYRA 3406 4−8H
Company: SANDRIDGE ENERGY INC

LOCATION

290' FSL & 400' FEL

Elev.: K.B. 1347.00 ft
G.L. 1328.00 ft
D.F. 1347.00 ft

Permanent Datum: GROUND LEVEL Elev.: 1328.00 ft
Log Measured From: DRILLING FLOOR 19.00 ft above Perm. Datum
Drilling Measured From: DRILLING FLOOR

API Serial No.	Section	Township	Range
15077220300100	8	34S	6W

	Run 1	Run 2	Run
Logging Date	06 APRIL 2014		
Run Number	1		
Depth Driller	9140 ft		
Schlumberger Depth	9117 ft		
Bottom Log Interval	9098 ft		
Top Log Interval	2800 ft		
Casing Driller Size @ Depth	7.000 in @ 5296 ft	@	@
Casing Schlumberger	5294 ft		
Bit Size	6.125 in		
Type Fluid In Hole	WBM		
MUD Density / Viscosity	8.6 lbm/gal / 32 s		
MUD Fluid Loss / PH	50 cm3 / 11		
MUD Source Of Sample	SUCTION PIT		
RM @ Measured Temperature	4.100 ohm.m @ 58 degF	@	@
RMF @ Measured Temperature	3.100 ohm.m @ 58 degF	@	@
RMC @ Measured Temperature	5.100 ohm.m @ 58 degF	@	@
Source RMF / RMC	CALCULATED / CALCULATED		
RM @ MRT / RMF @ MRT	1.822 @ 139 / 1.377 @ 139	@ / @	@ / @
Maximum Recorded Temperatures	139 degF		
Circulation Stopped / Time	06APRIL2014 / 04:00		
Logger On Bottom / Time	06APRIL2014 / 05:20		
Unit Number / Location	4 / OKC, OK		
Recorded By	D. THOMAS		
Witnessed By	JAMES FRIZZELL		

	Run 1	Run 2	Run
Logging Date			
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
MUD Density / Viscosity			
MUD Fluid Loss / PH			
MUD Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF / RMC			
RM @ MRT / RMF @ MRT	@ / @		
Maximum Recorded Temperatures			
Circulation Stopped / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			

Run 3

Run 4

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: THRUBIT	OS1:
OS2: PORTAL	OS2:
OS3: BIT	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
SERVICE: LEVEL 4 − HORIZ MEMORY PUMP−DOWN − BIT DEPTH: 9059' LOG TO: 2800	
ALL SCALES AND PRESENTATIONS PER CLIENT REQUEST	
LIMESTONE MATRIX, 2.71 G/CC, USED TO CALCULATE POROSITIES	
TOOL STRING RAN WITH SWIVEL, SMALL DECENTRALIZER, NO STANDOFFS	
CEMENT VOLUME CALCULATIONS BASED ON 4.50" FUTURE CASING	
HSPM AND MDTOTCO USED TO CREATE LOG DEPTH	
LOG DEPTH CORRELATED TO MWD GAMMA RAY AT CUSTOMERS REQUEST	
RIG: LARIAT #20	
CREW: D. THOMAS, K. REED, J. DOTY	

RUN 1		RUN 2	
SERVICE ORDER #:	2732	SERVICE ORDER #:	
PROGRAM VERSION:	19C2−270	PROGRAM VERSION:	
FLUID LEVEL:	0 ft	FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1 | RUN 2

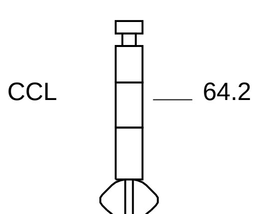
SURFACE EQUIPMENT

WITM (ThruBit)

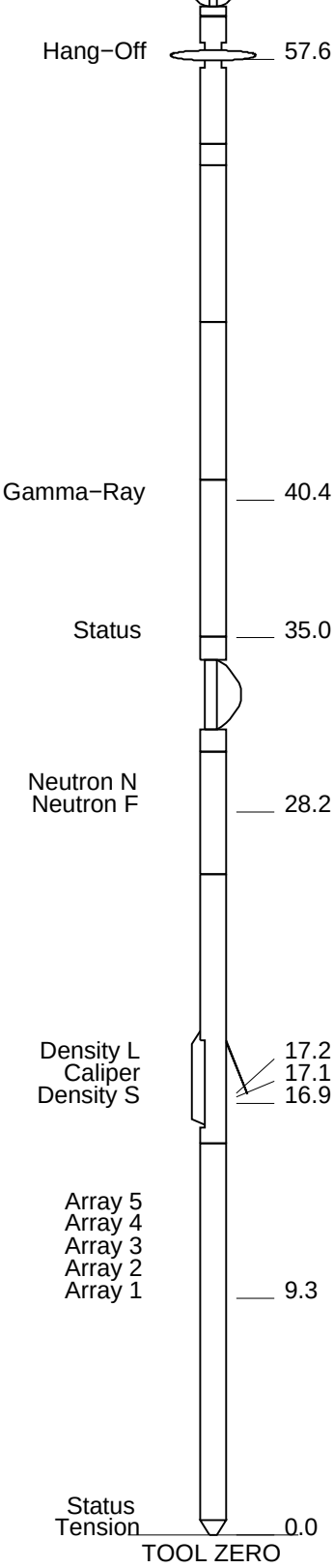
DOWNHOLE EQUIPMENT

TBT−A 67.1

THEAD
CCL
BDOT−B
THOT
T10_1
TBAT1 7
TBAT2 40



TMG−A 49
TBEX−A
TBN−A 25
NNLS−EWA
TBD−A 46
GGLS−FZ
TBI−A 24



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

Schlumberger

MAIN PASS (2"/100' SCALE)

MAXIS Field Log

Company: SANDRIDGE ENERGY INC **Well: MYRA 3406 4−8H**

Input DLIS Files

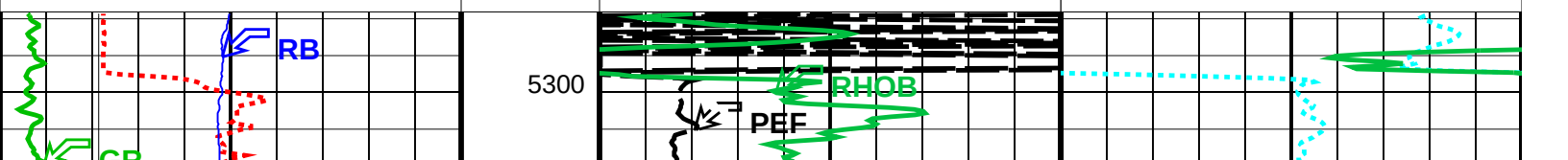
DEFAULT	ThruBit_016PUP	FN:15	PRODUCER	06−Apr−2014 13:12	9117.0 FT	2744.5 FT

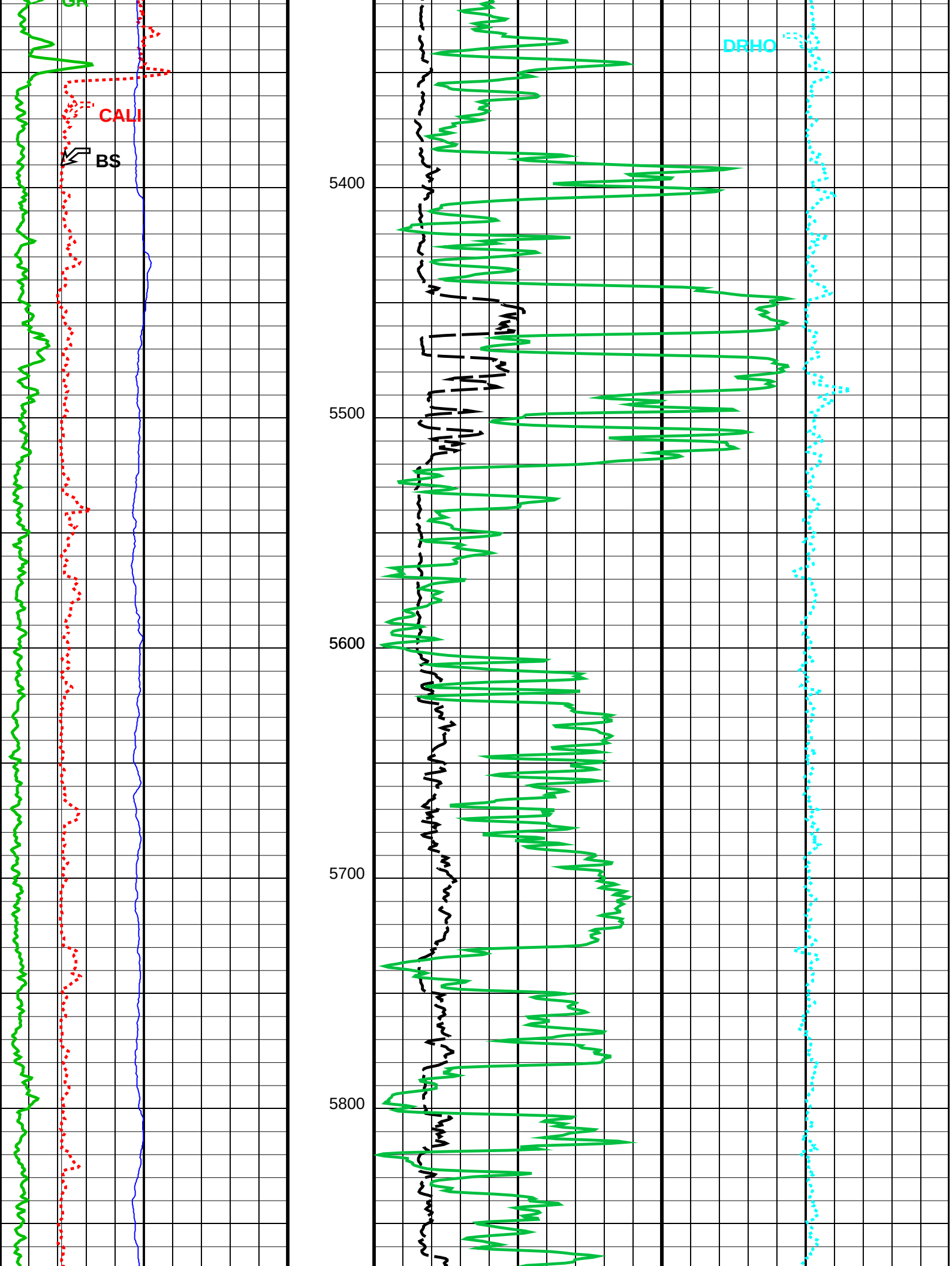
OP System Version: 19C2−270

TBT	SRPC−5292−ThruBit_RevA

Gamma Ray (GR)		
0	(GAPI)	150
Caliper (CALI)		
4	(IN)	14
Relative Bearing (RB)		
0	(DEG)	360
Bit Size (BS)		
4	(IN)	14

RHOB (RHOB)		
2	(G/C3)	3
PEF (PEF)		DRHO (DRHO)
0	(−−−−	10
	−0.5 (G/C3)	0.5

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BS
DRHO
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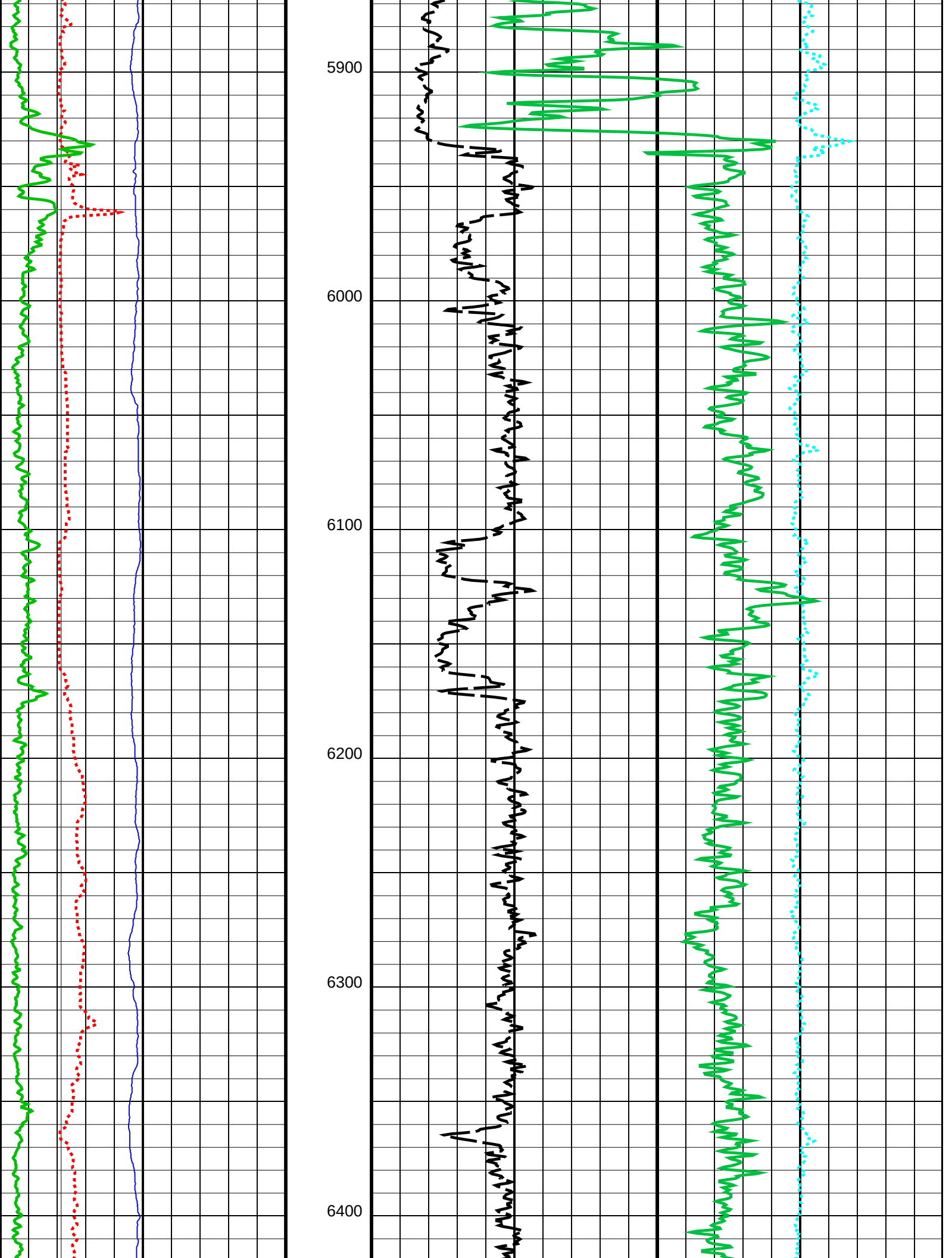
5600
5700
5800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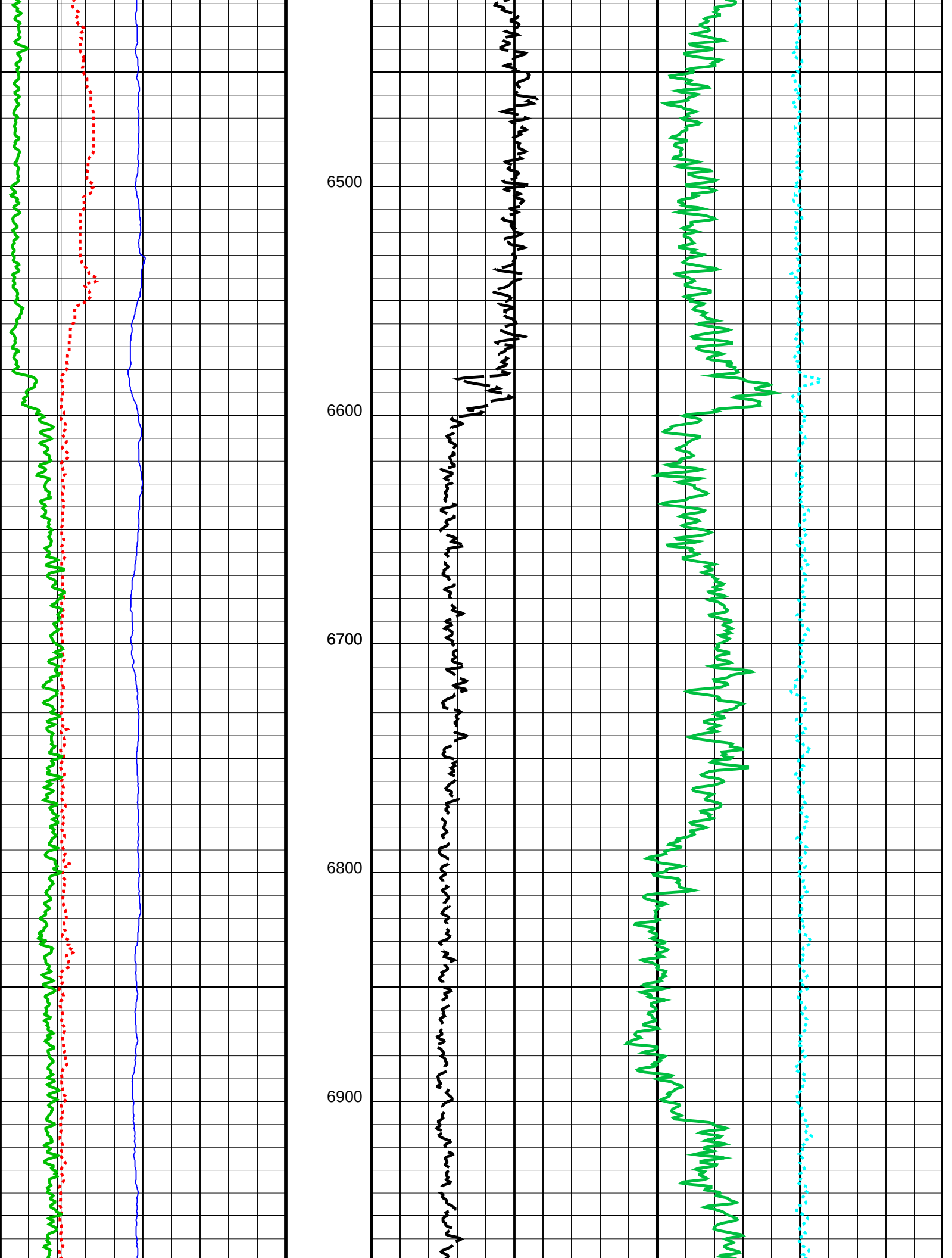
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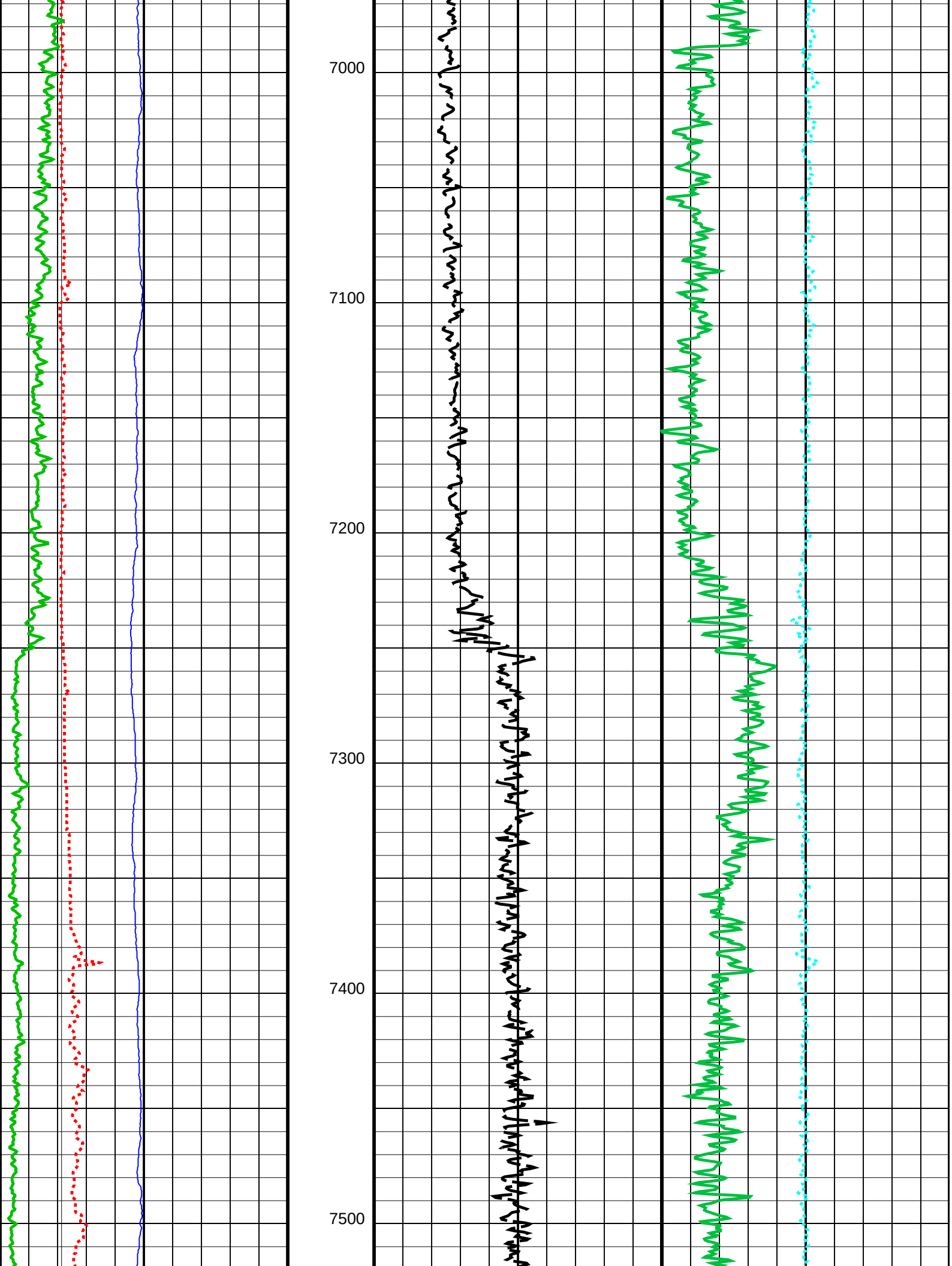
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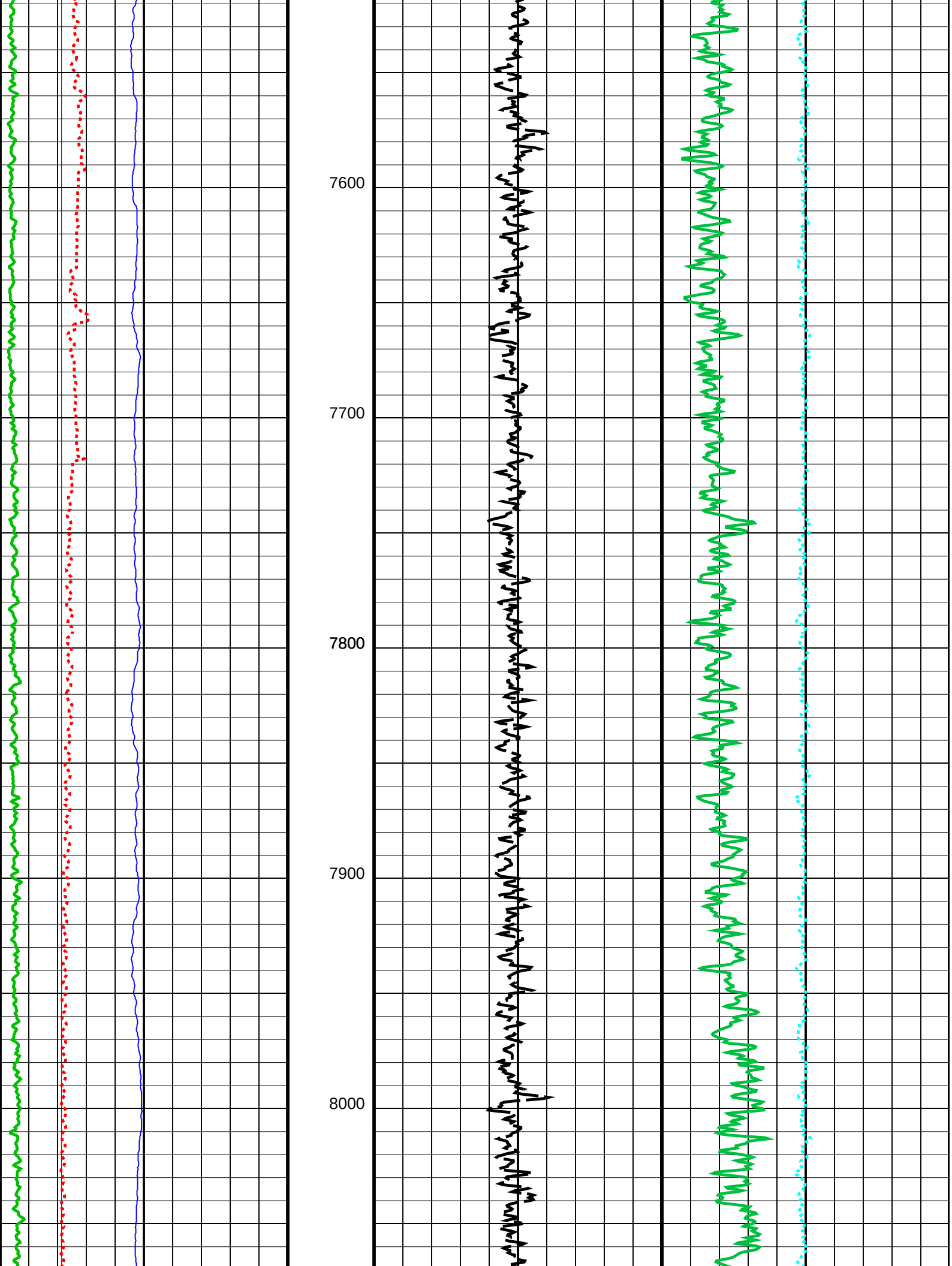
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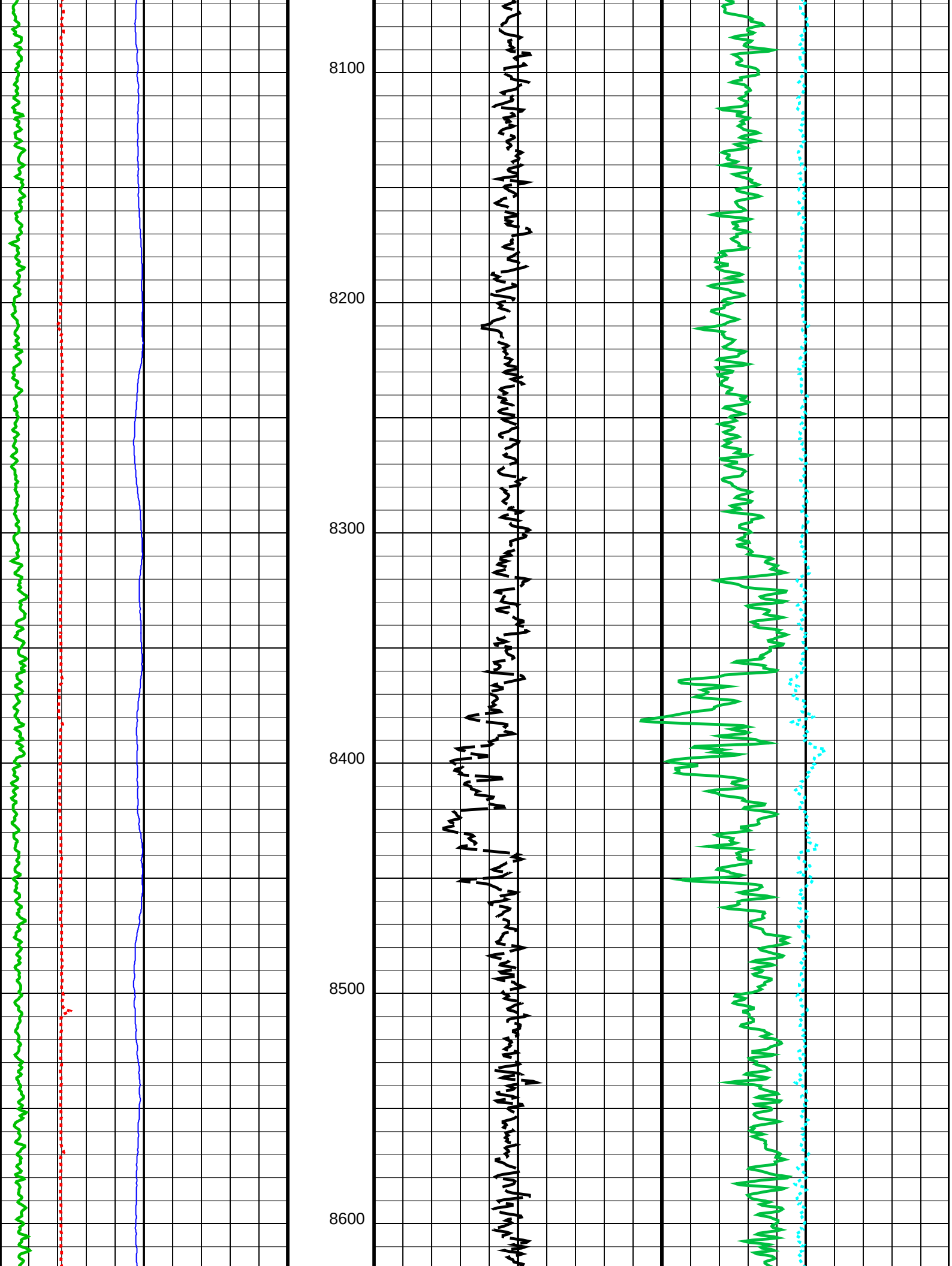
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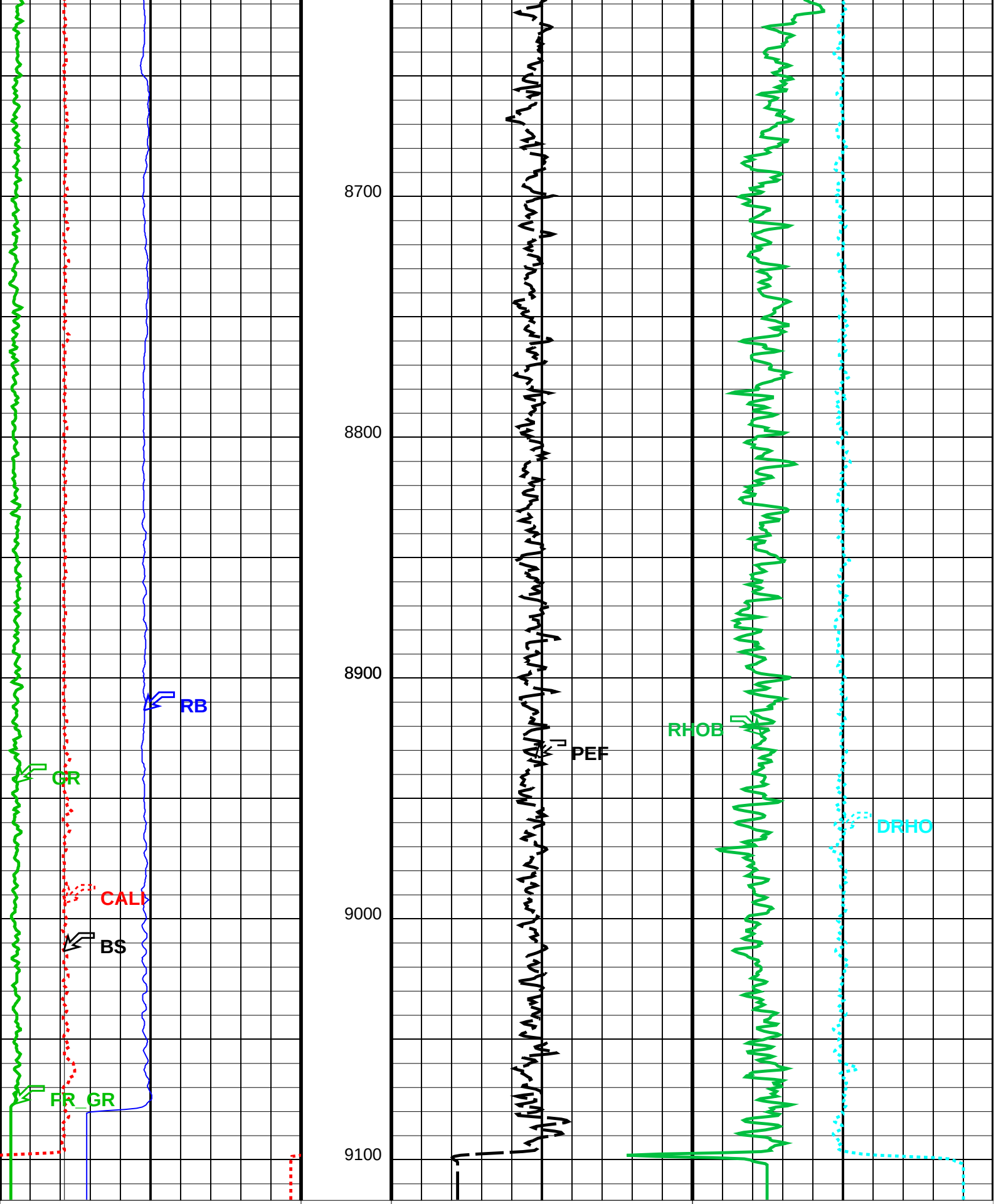


Bit Size (BS)		
4	(IN)	14

Relative Bearing (RB)		
0	(DEG)	360

PEF (PEF)		
0	(-----	10

DRHO (DRHO)		
−0.5	(G/C3)	0.5

RHOB (RHOB)		
2	(G/C3)	3

Caliper (CALI)		
4	(IN)	14

Gamma Ray (GR)		
0	(GAPI)	150

Parameters

DLIS Name	Description	Value	
	TBT−A: ThruBit String		
DHC	Density Hole Correction	CALIPER	
RB_OFFSET	Additional RB offset (degrees)	0.000	deg
TBD_CAL_BLOCK	TBD Calibration Block Type	THRUBIT	
TBD_SPIKE_REJECT	TBD Spike Detection Option	DETECT	
TBD_SPIKE_THRESHOLD	TBD Attenuation Change Threshold for Spike Detection	5.000	%
WMUD	Mud Weight	8.600	lbm/gal
	DIR: Directional Survey Computation		
SPVD	TVD of Starting Point	0.000	ft
TIMD	Along−hole depth of Tie−in Point	0.000	ft
TIVD	TVD of Tie−in Point	0.000	ft
	System and Miscellaneous		
BS	Bit Size	6.125	in

Format: TB_2INCH_NUCLEAR Vertical Scale: 2" per 100' Graphics File Created: 06−Apr−2014 13:20

OP System Version: 19C2−270

TBT	SRPC−5292−ThruBit_RevA

Input DLIS Files

DEFAULT	ThruBit_016PUP	FN:15	PRODUCER	06−Apr−2014 13:12	9117.0 FT	2744.5 FT

Schlumberger

MAIN PASS (5"/100' SCALE)

MAXIS Field Log

Company: SANDRIDGE ENERGY INC Well: MYRA 3406 4−8H

Input DLIS Files

DEFAULT	ThruBit_016PUP	FN:15	PRODUCER	06−Apr−2014 13:12	9117.0 FT	2744.5 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 838.56 ft3

Cement Volume = 416.39 ft3 (assuming 4.50 in casing O.D.)

Computed from 9116.0 ft to 5294.0 ft

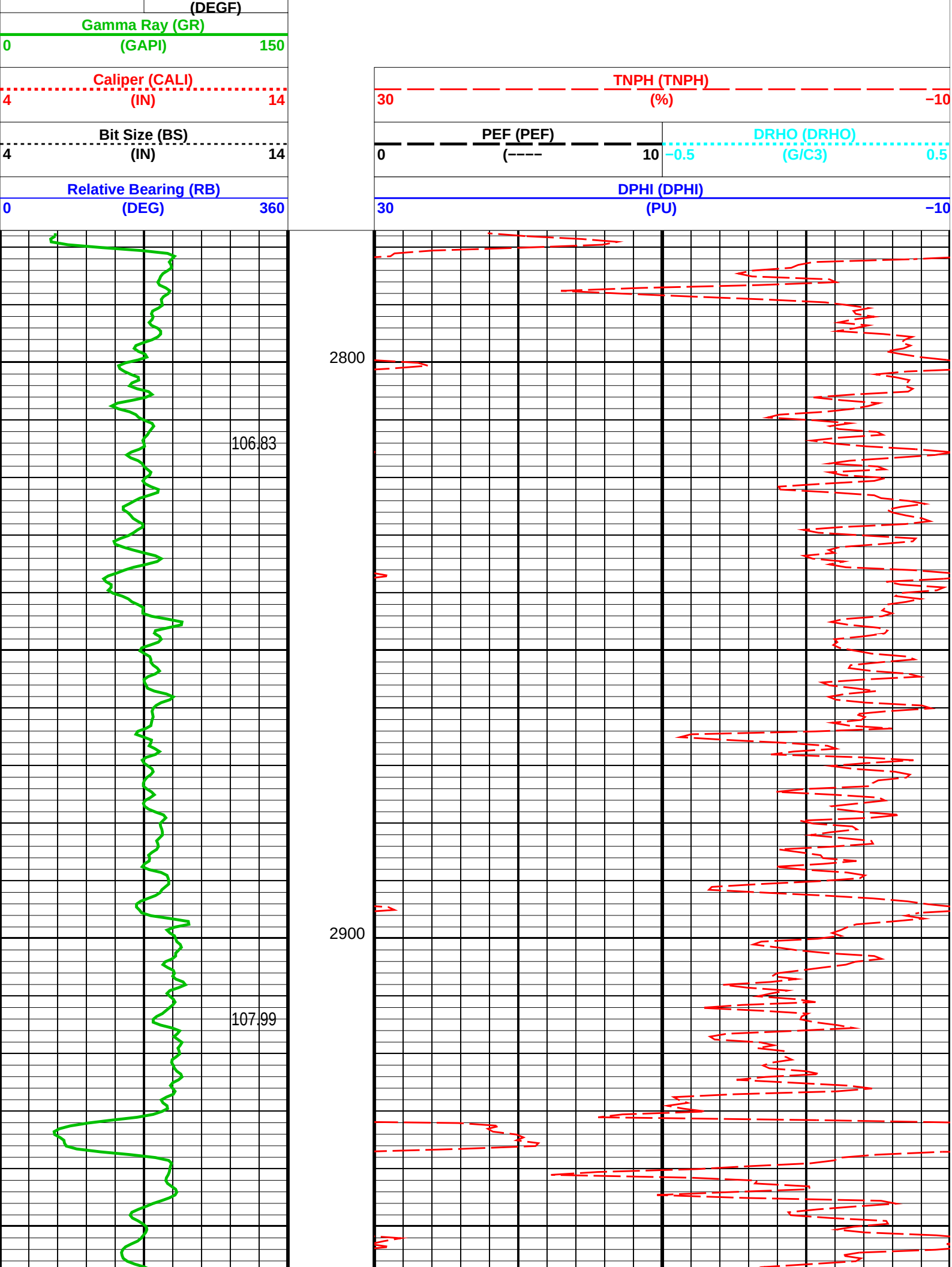
OP System Version: 19C2−270

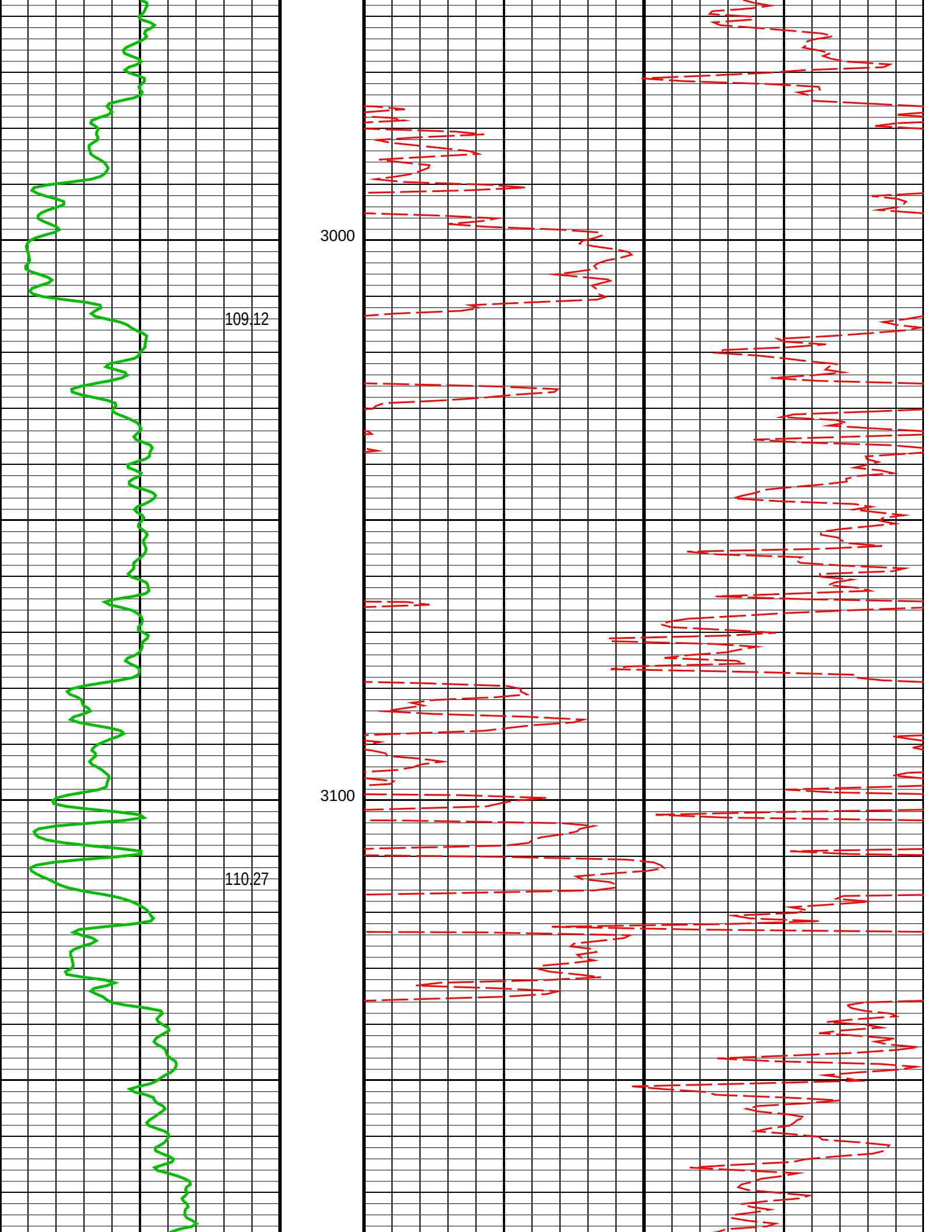
TBT	SRPC−5292−ThruBit_RevA

PIP SUMMARY

- Integrated Cement Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Hole Volume Minor Pip Every 10 F3

	GR Temp (WTEP)	


(DEGF)
Gamma Ray (GR)
0 (GAPI) 150
Caliper (CALI)
4 (IN) 14
Bit Size (BS)
4 (IN) 14
Relative Bearing (RB)
0 (DEG) 360
TNPH (TNPH)
30 (%) −10
PEF (PEF)
0 (−−−− 10
DRHO (DRHO)
−0.5 (G/C3) 0.5
DPHI (DPHI)
30 (PU) −10
2800
2900
106.83
107.99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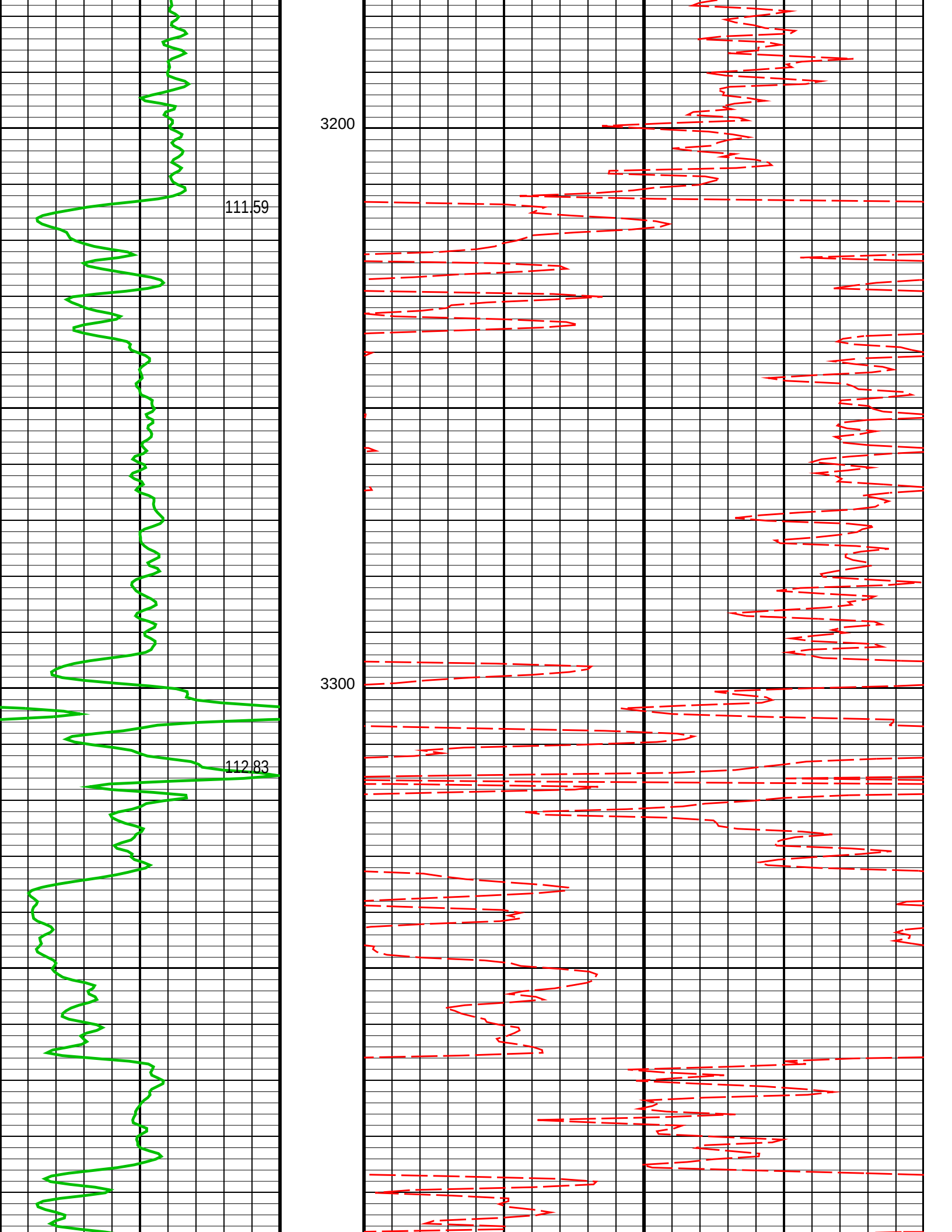
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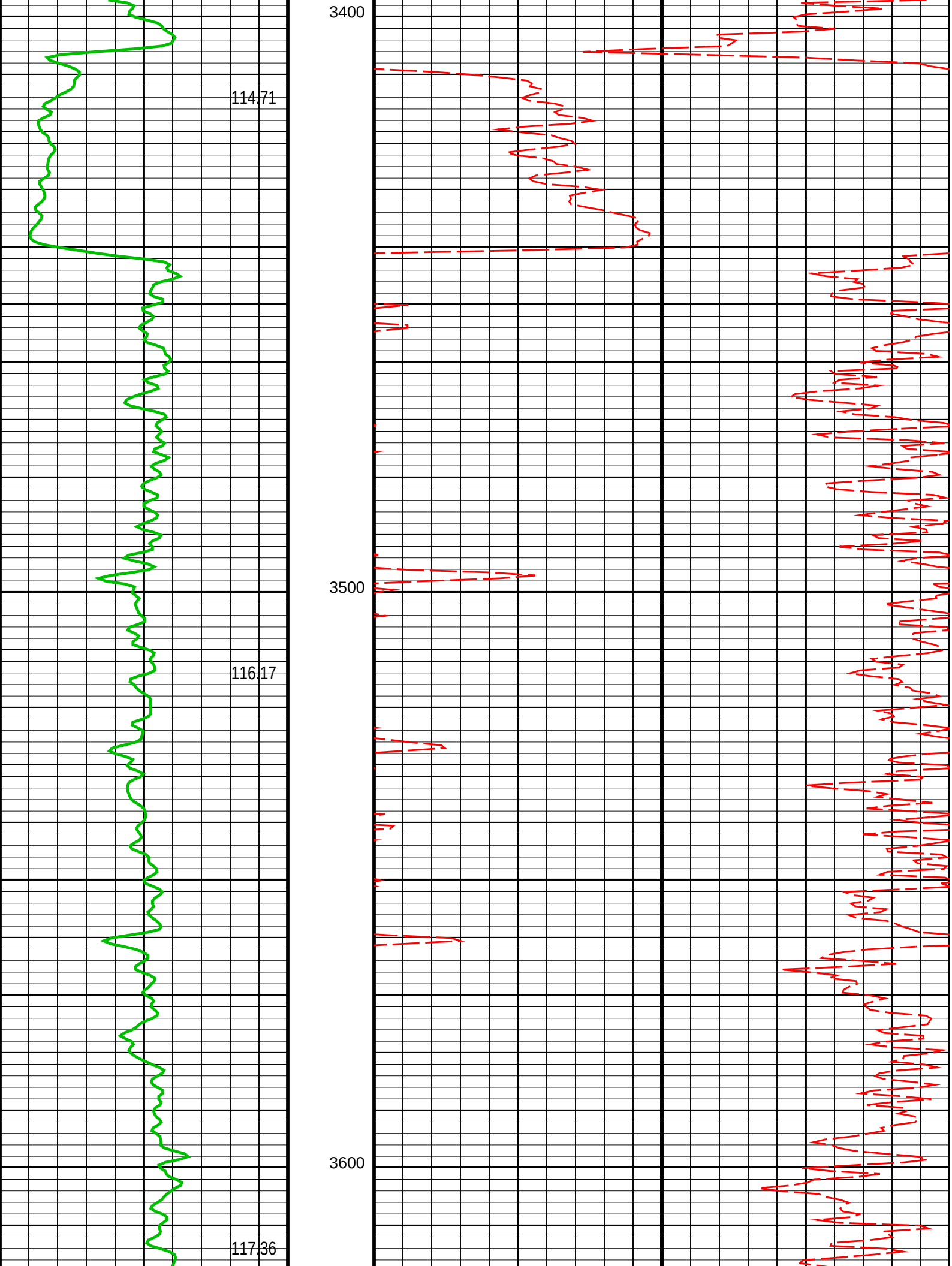
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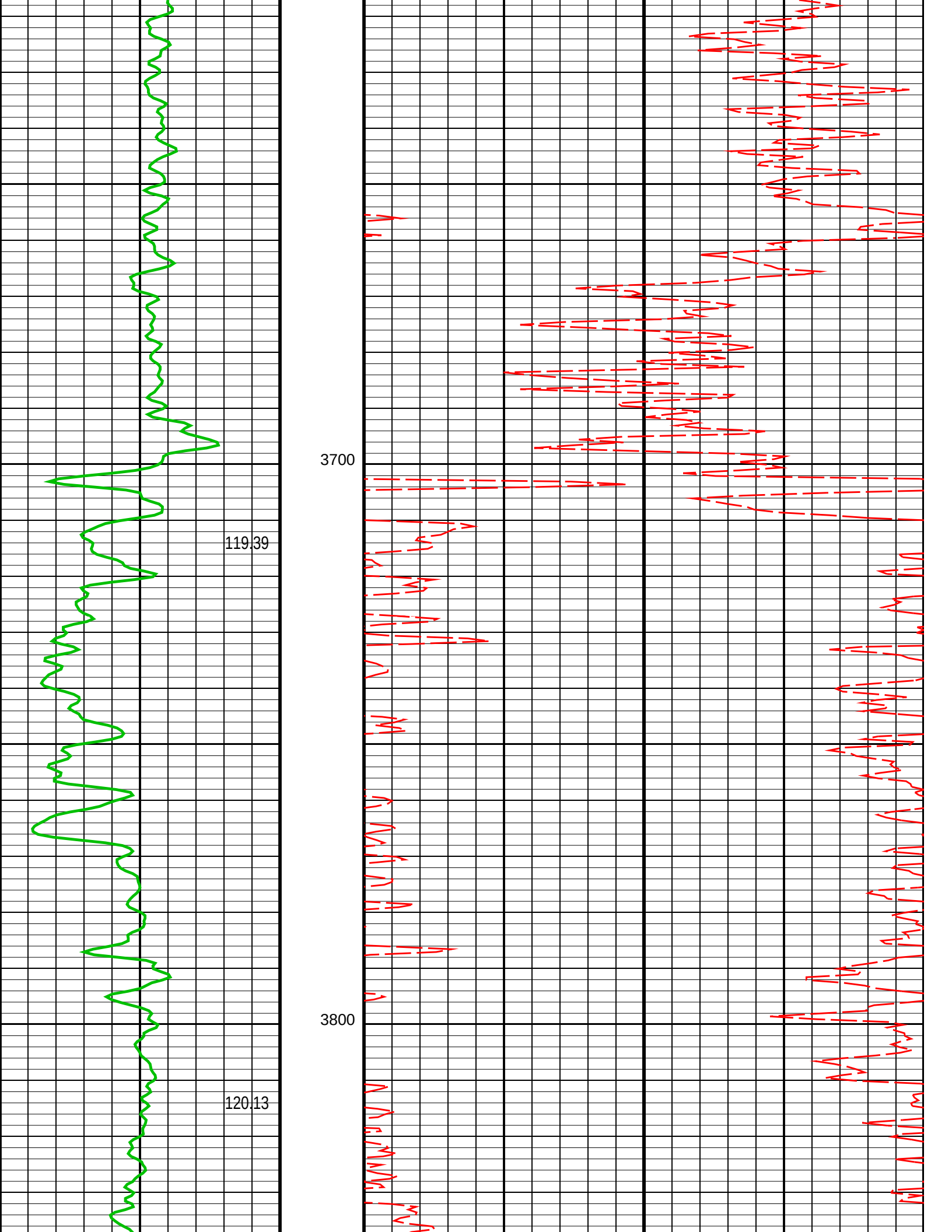
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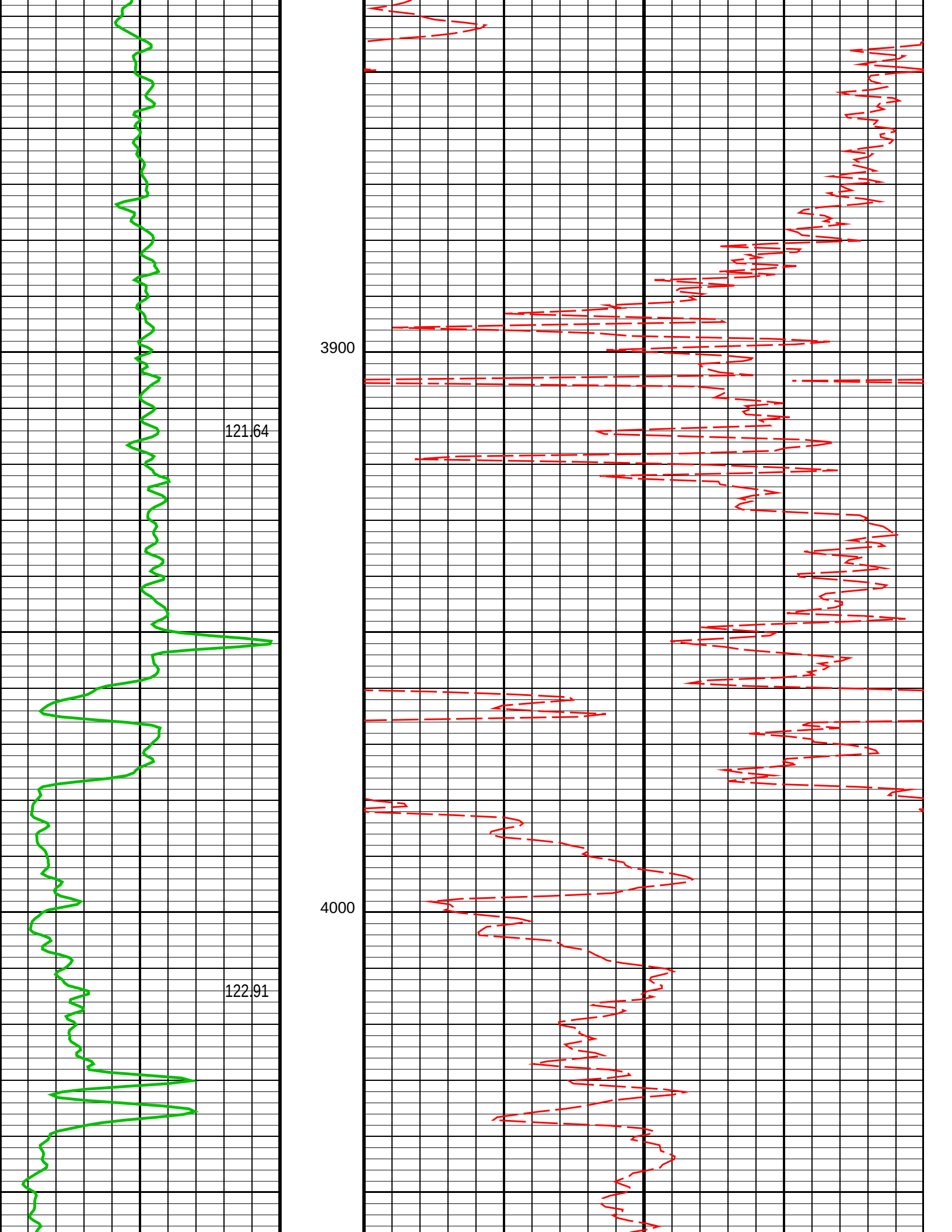
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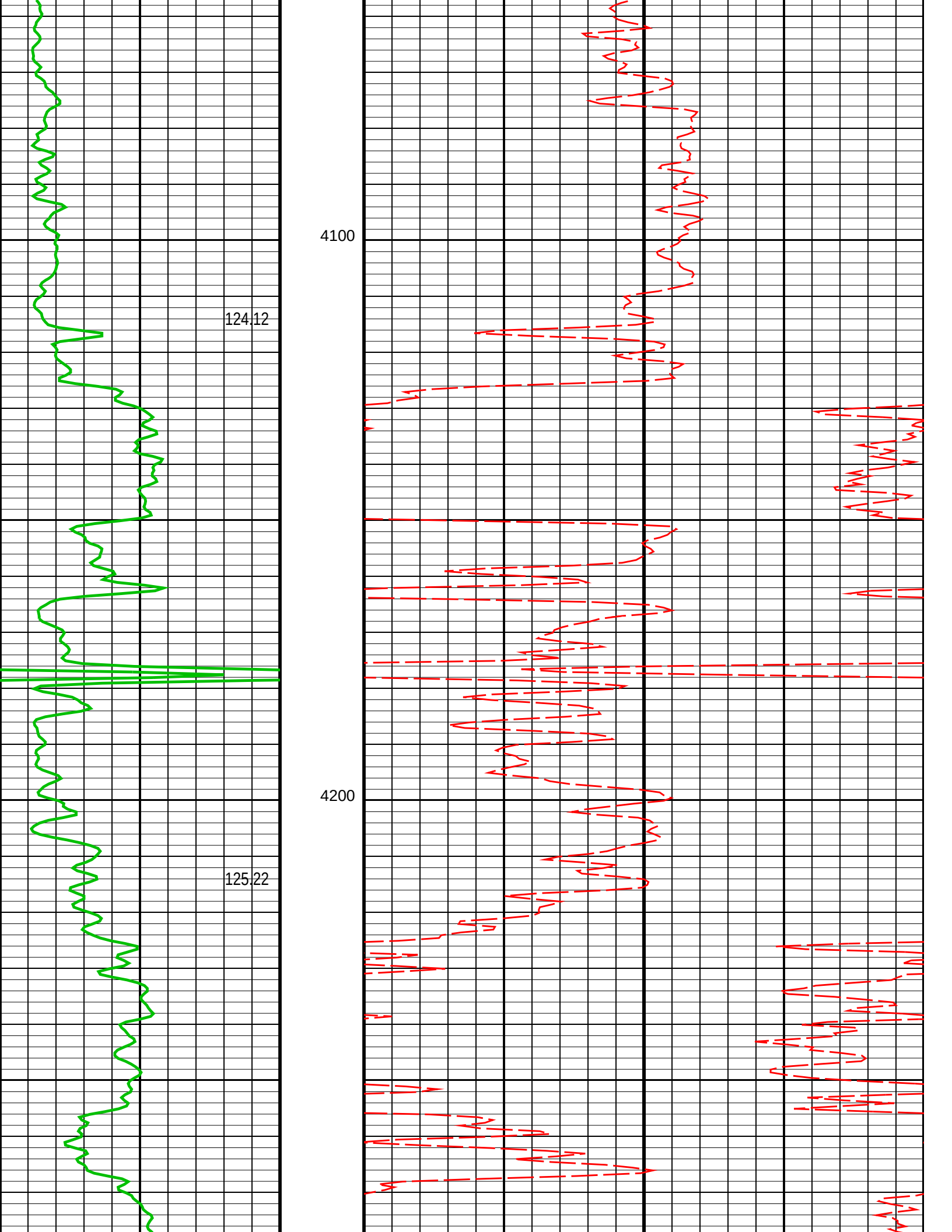
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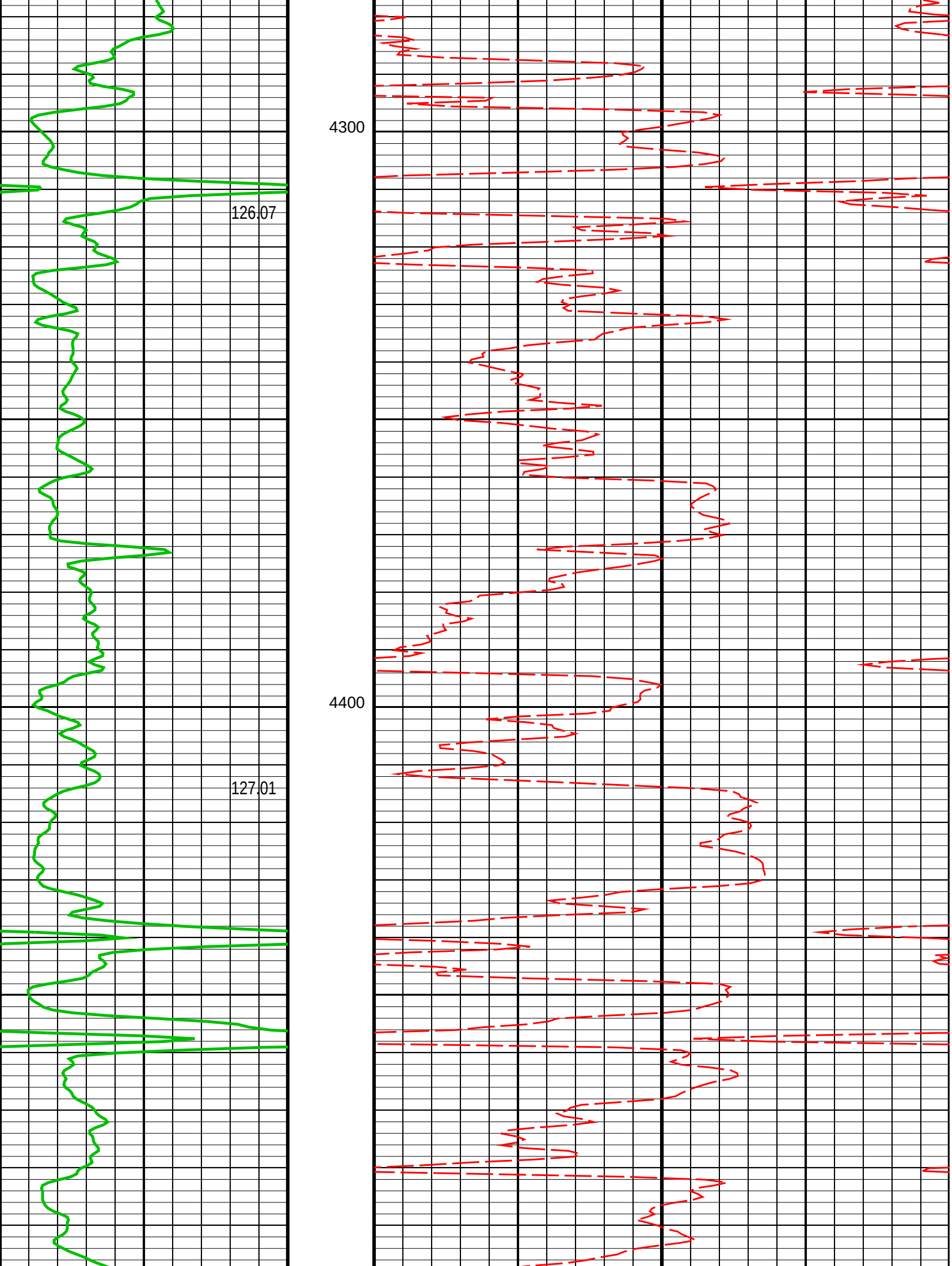
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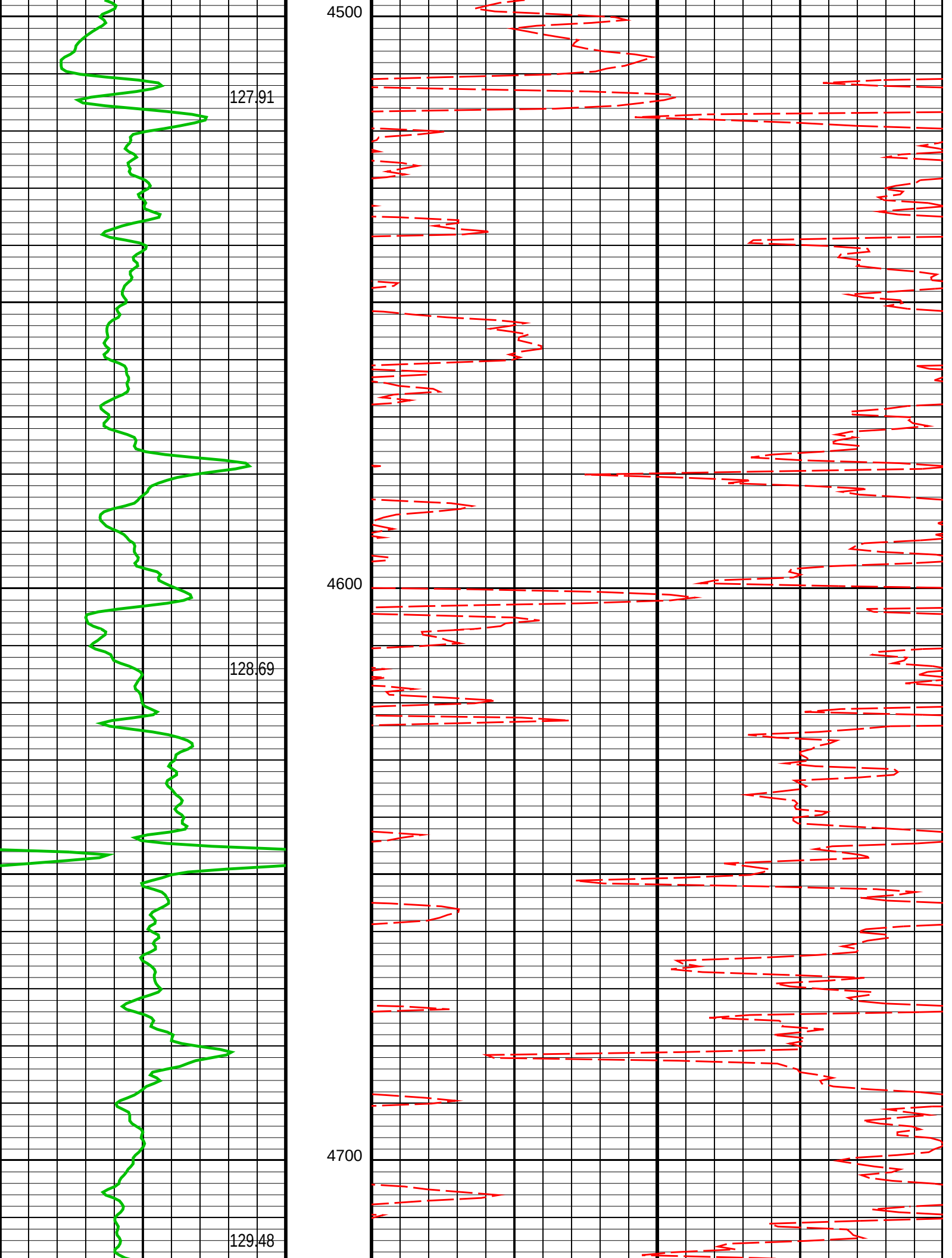
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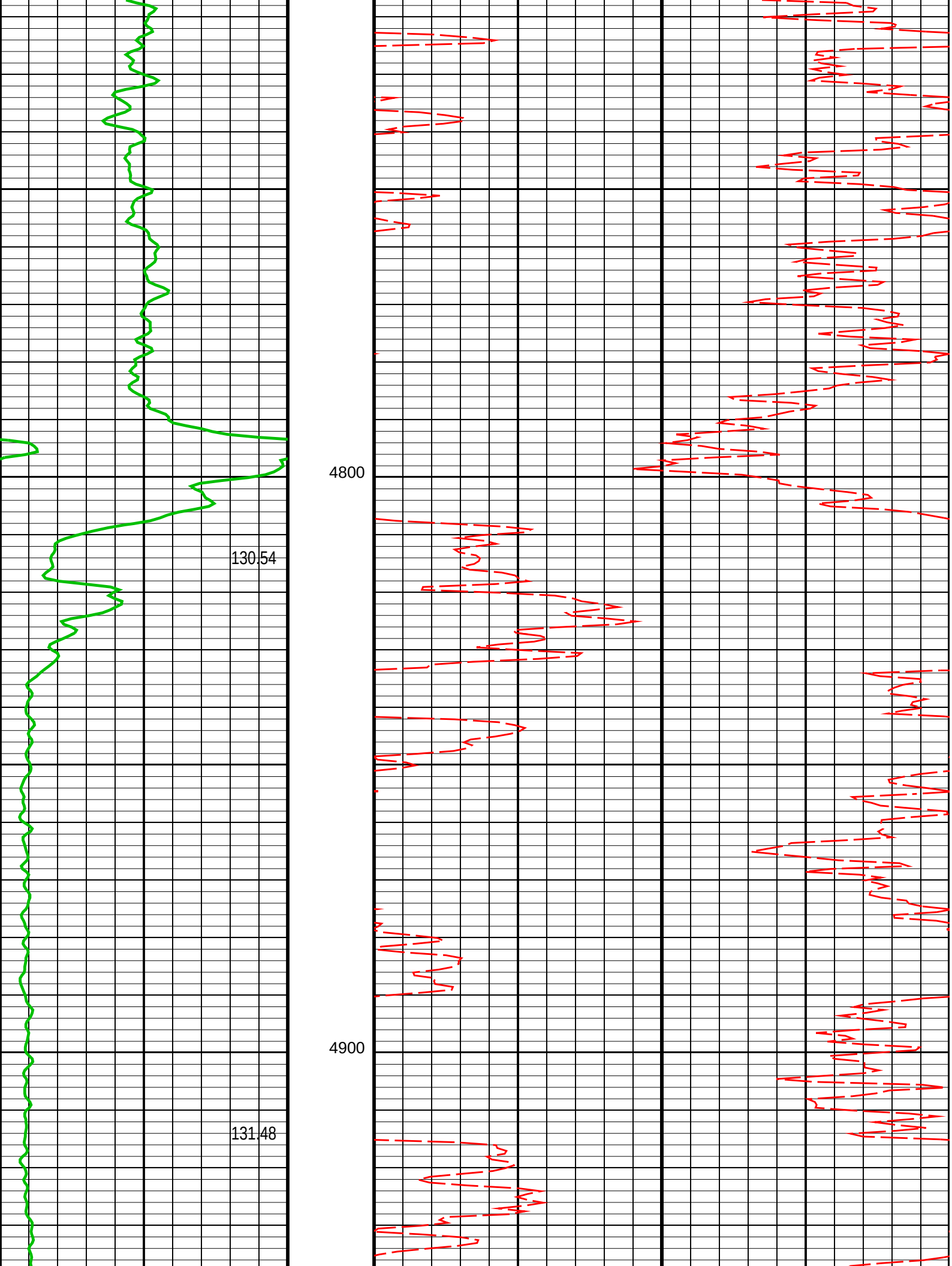
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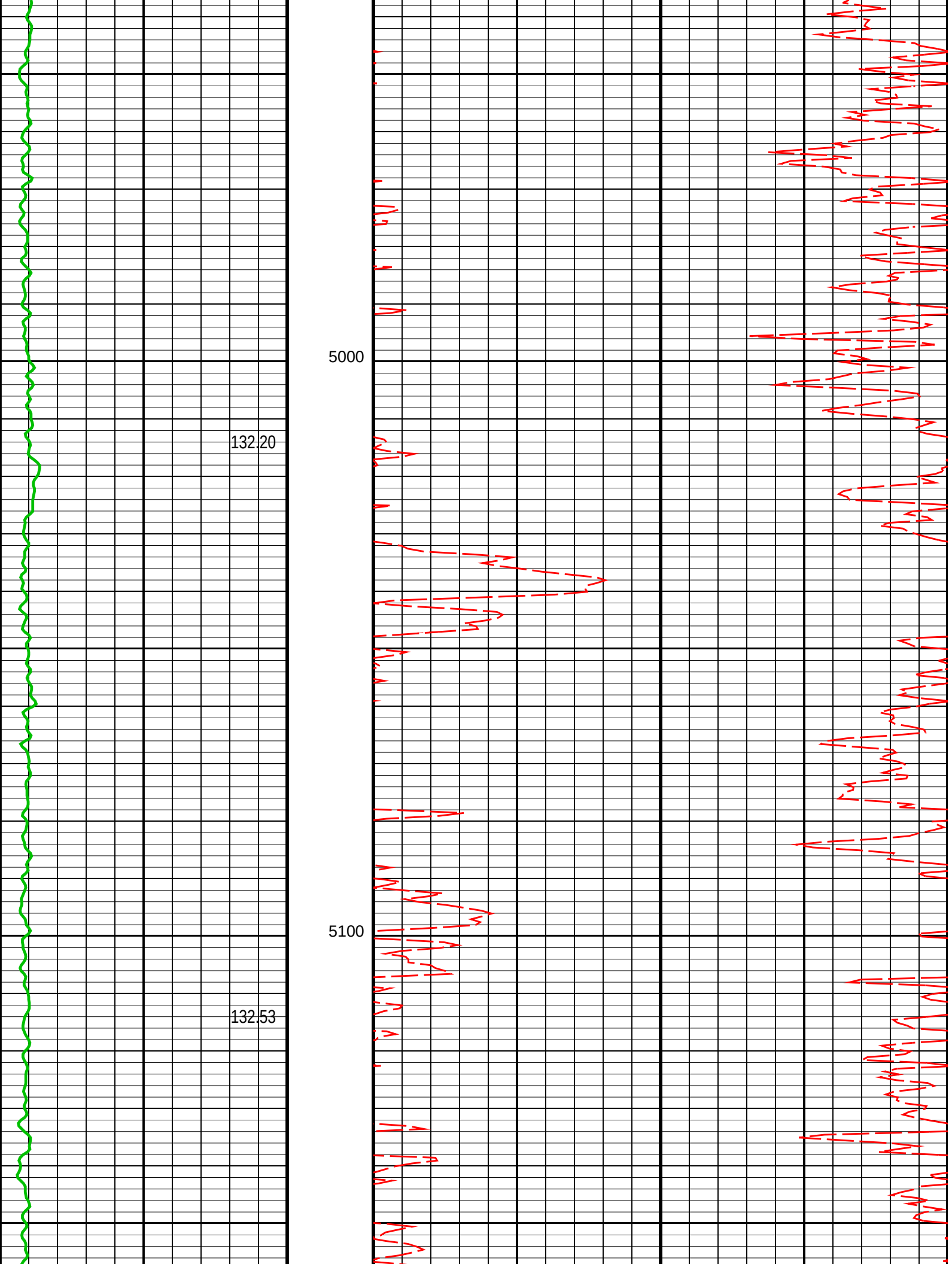
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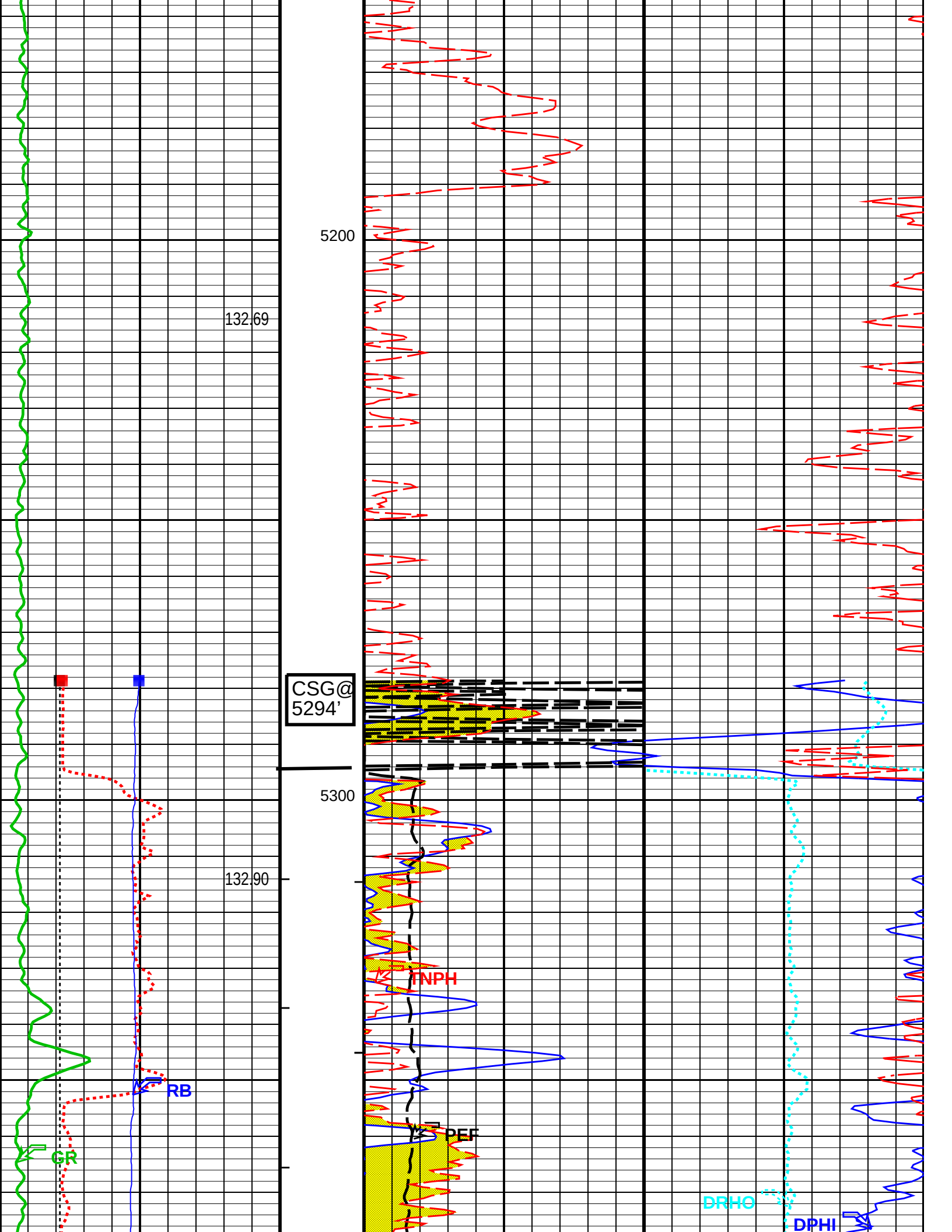
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CSG@
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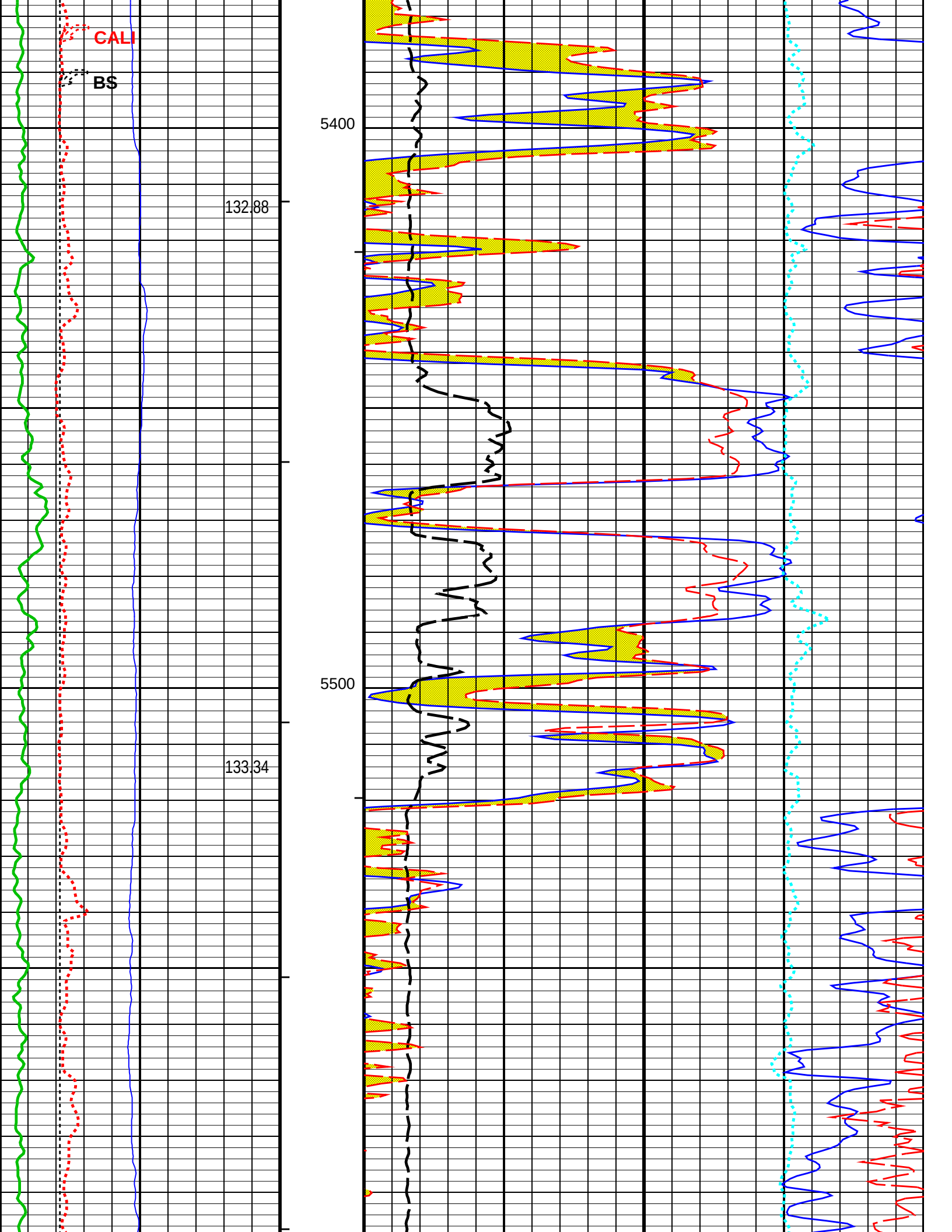
RB
PEF
GR
DRHO
DPHI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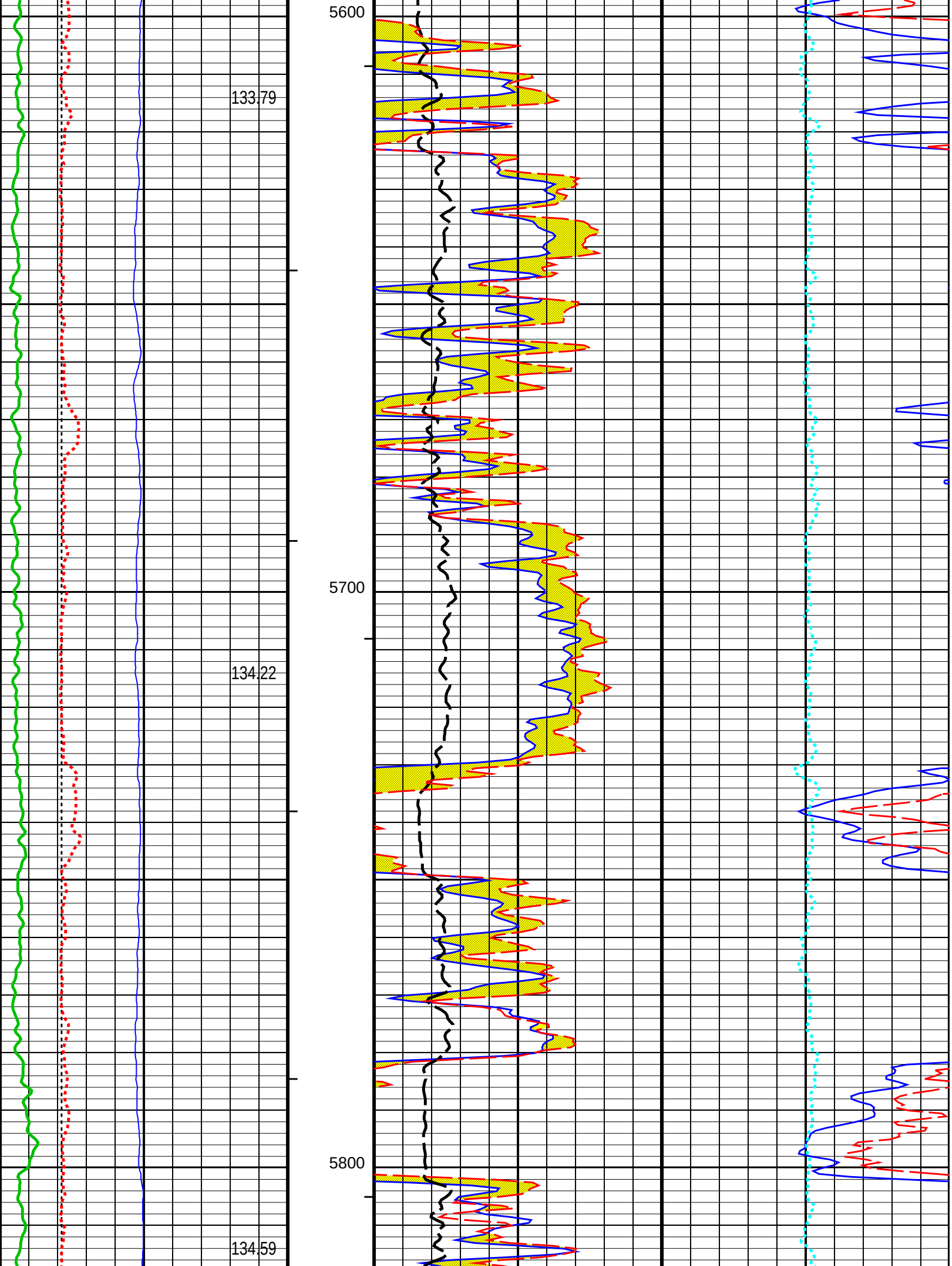
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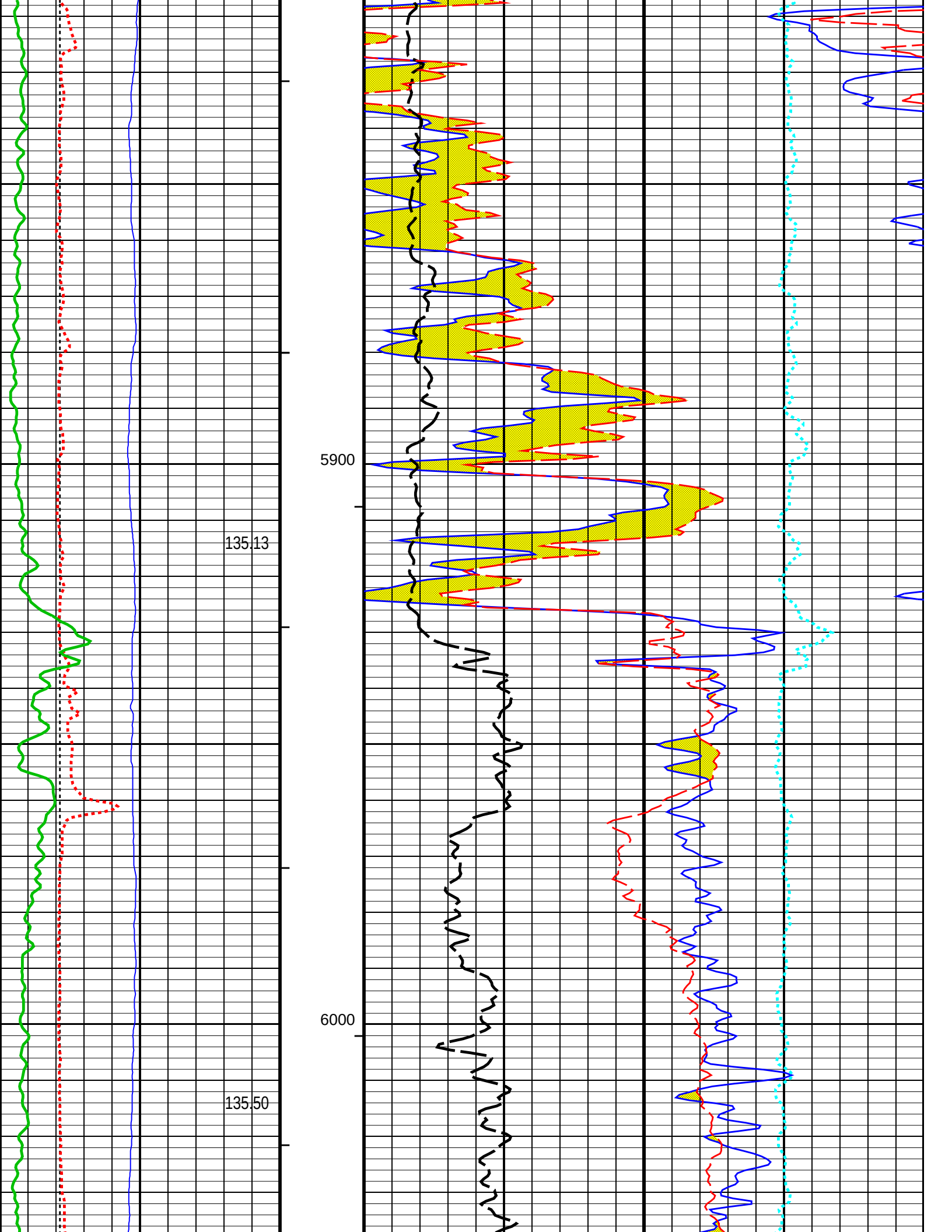
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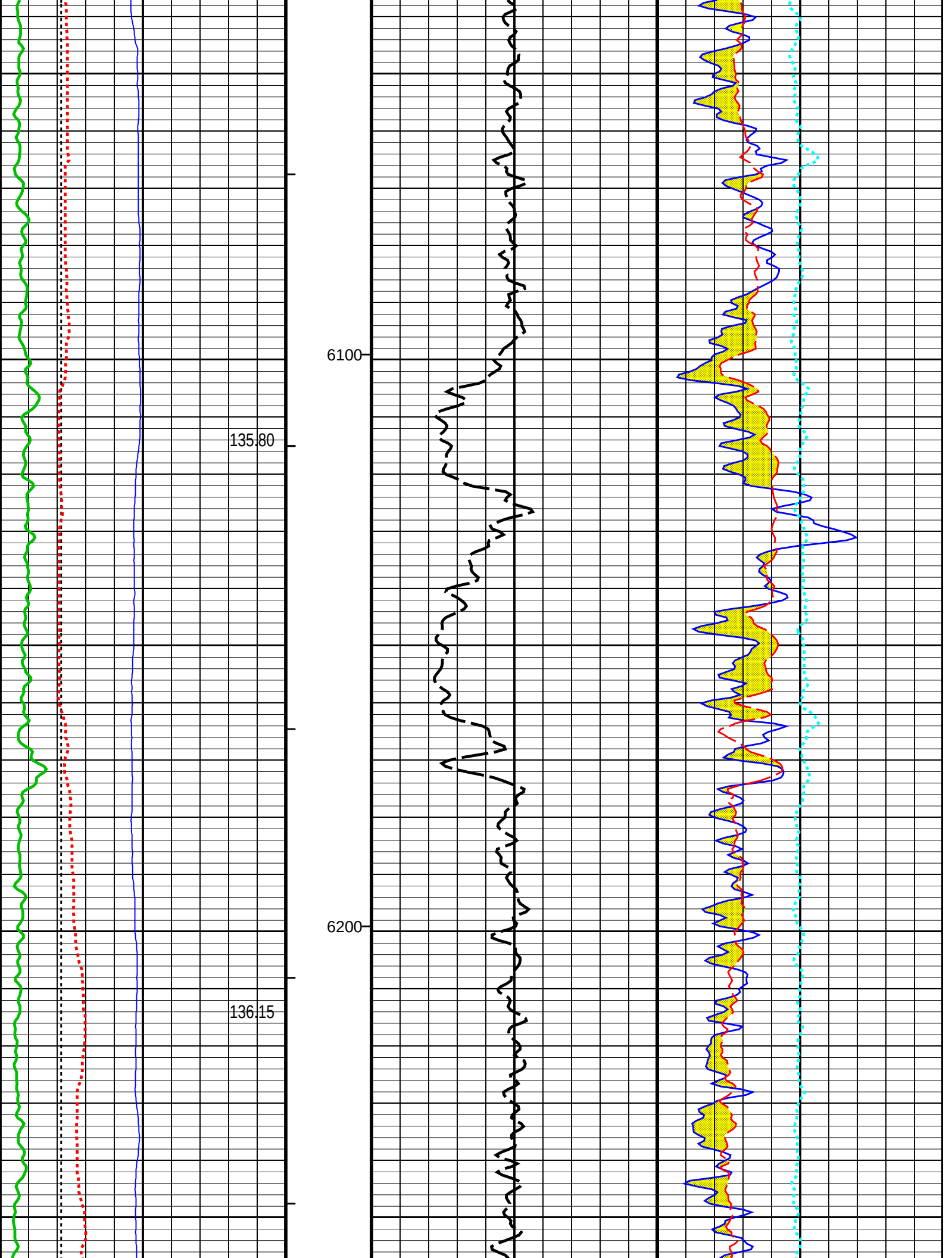
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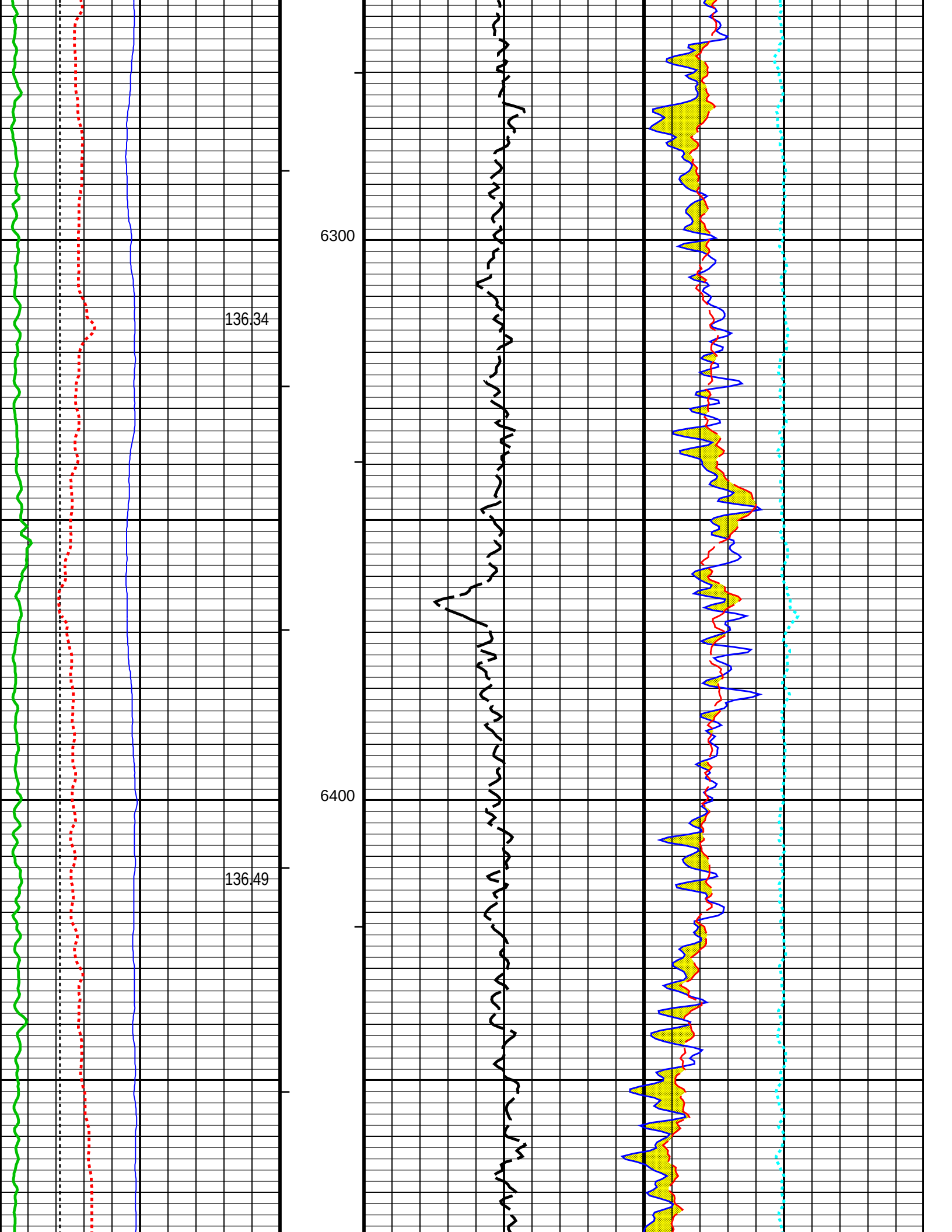
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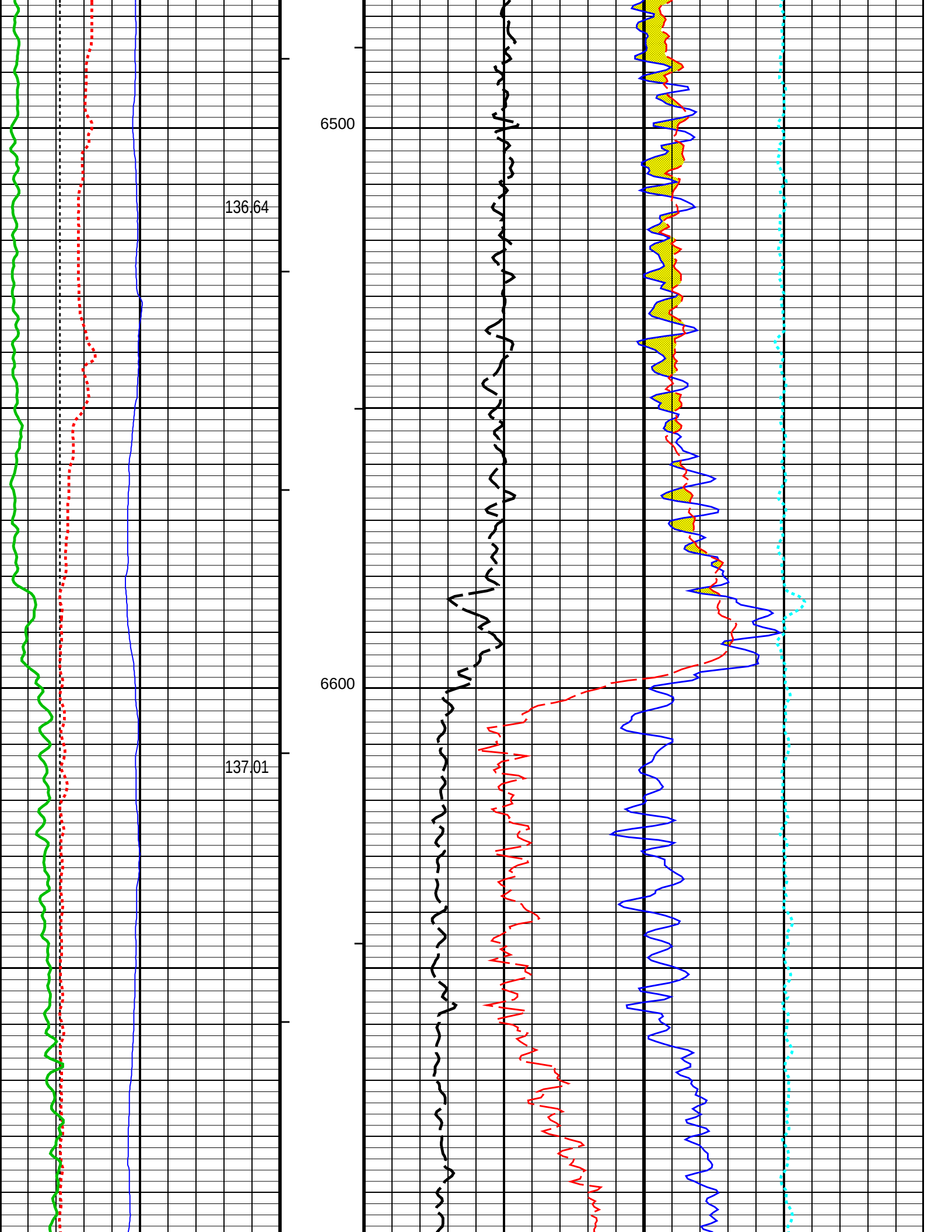
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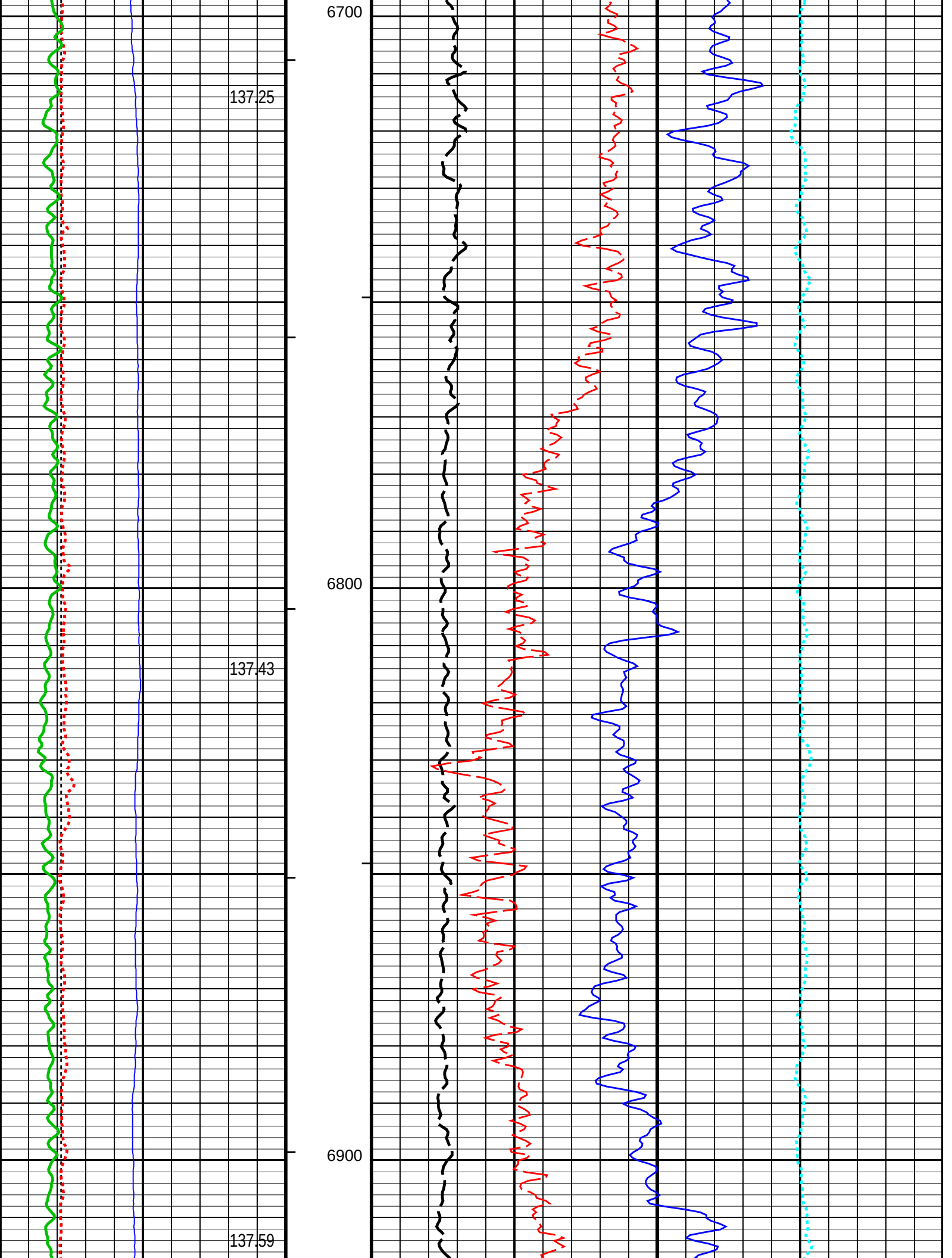
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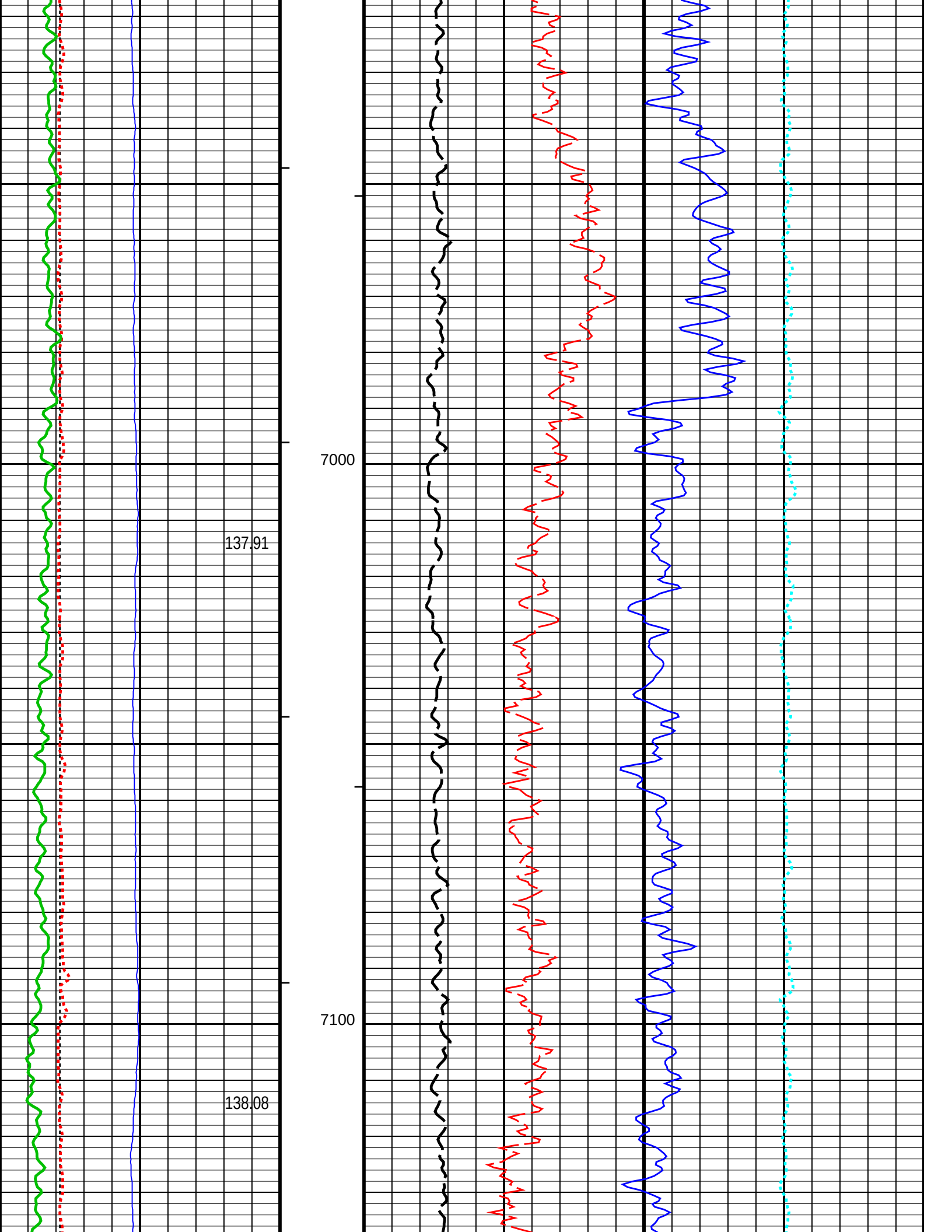
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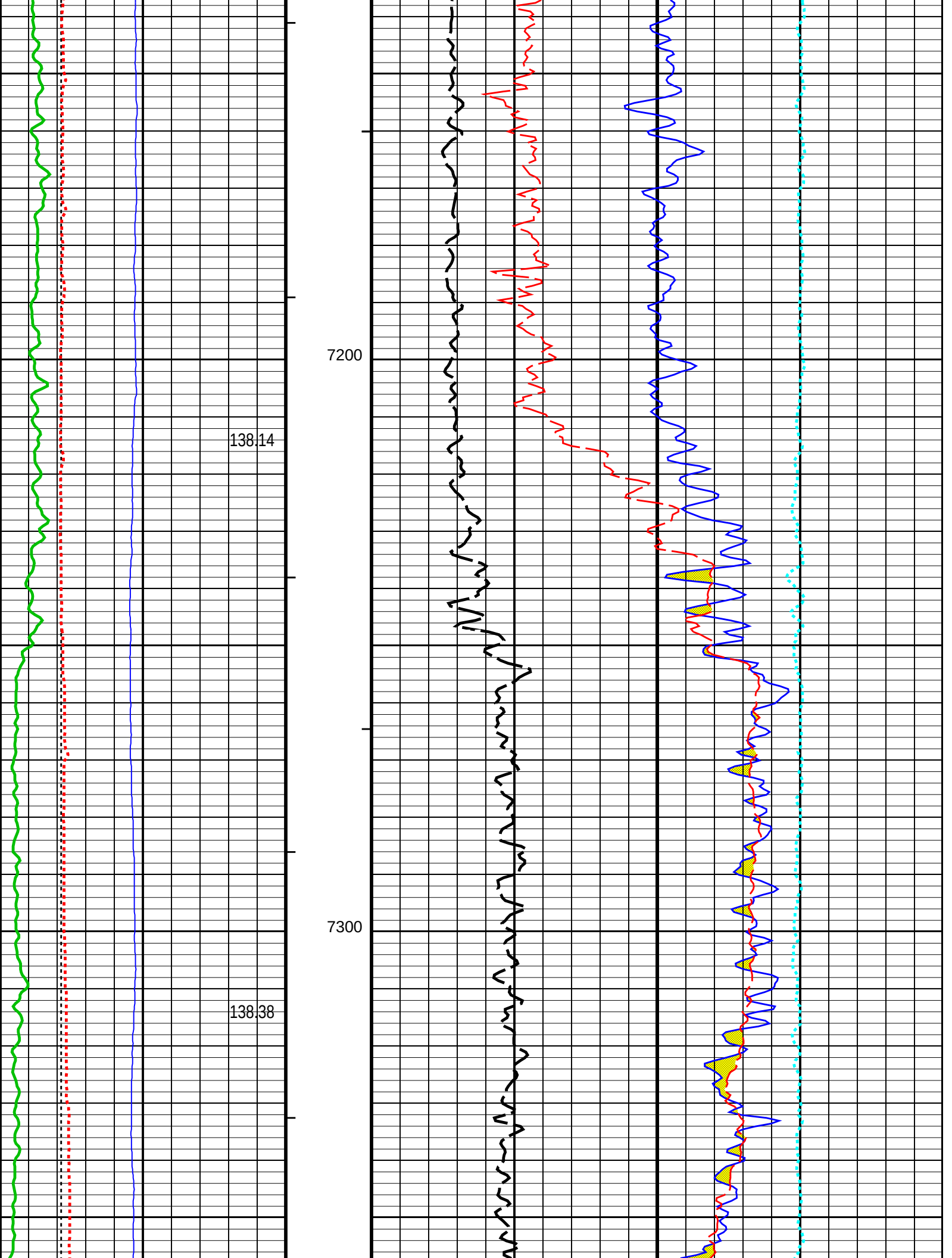
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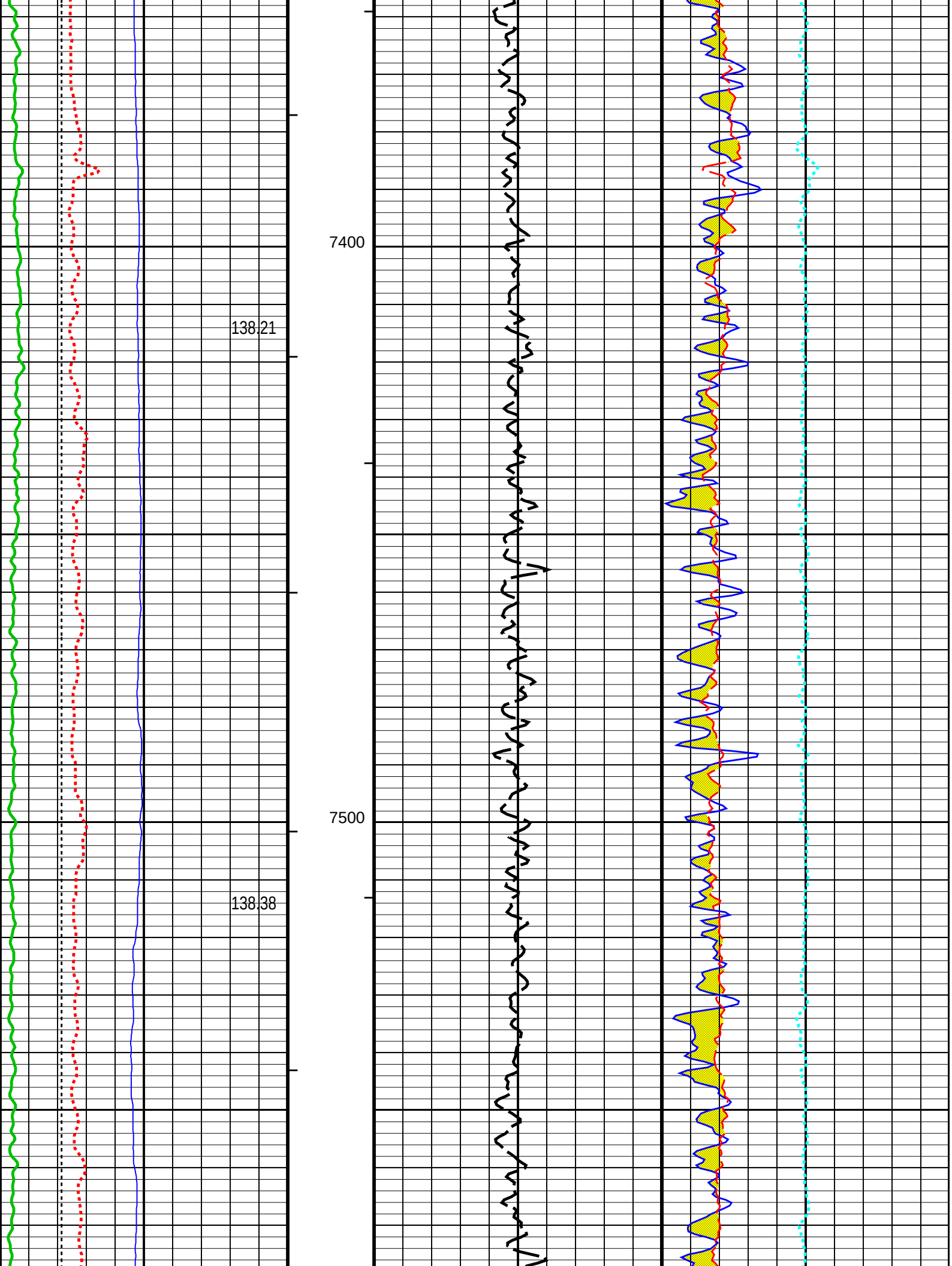
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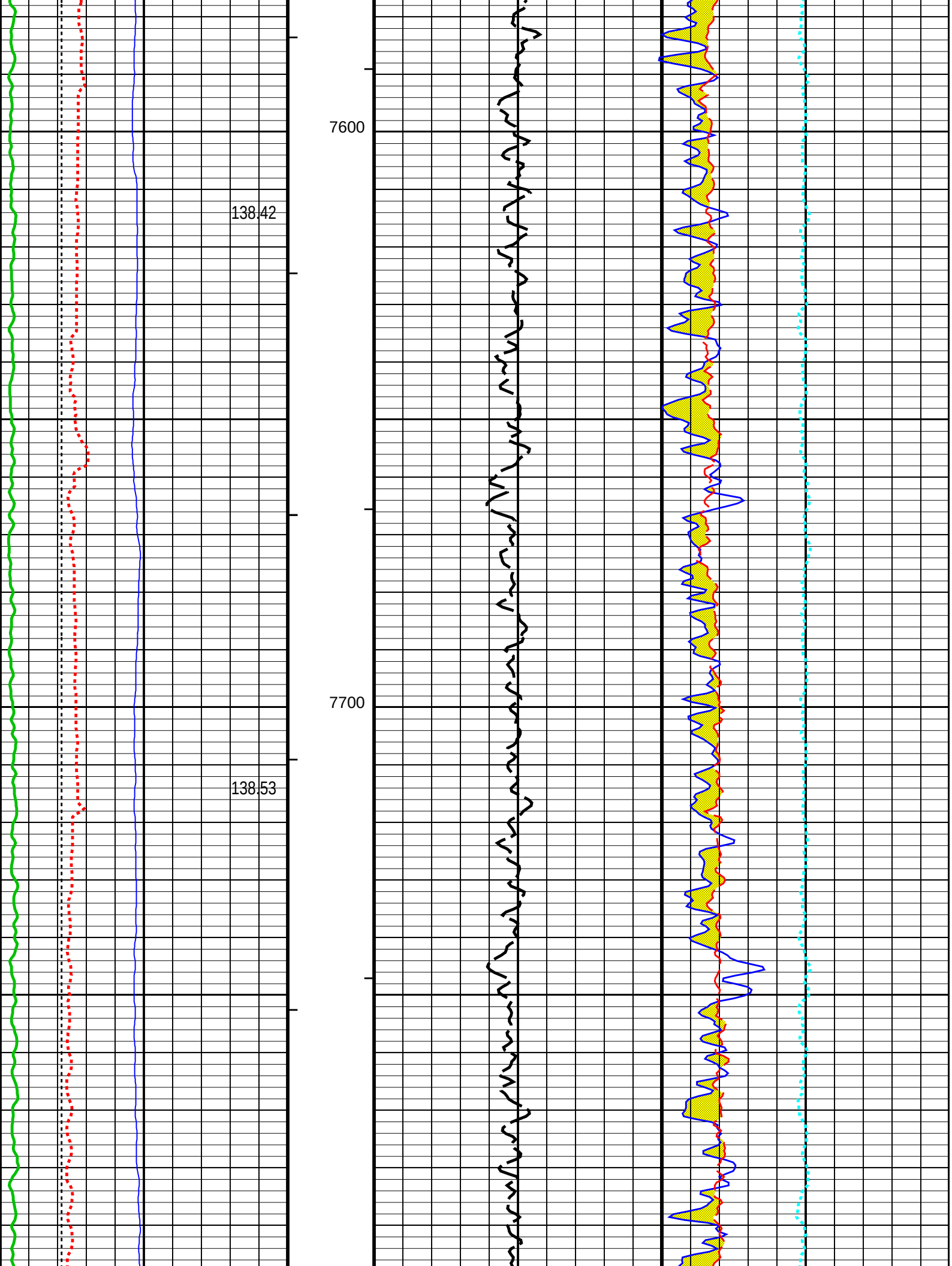
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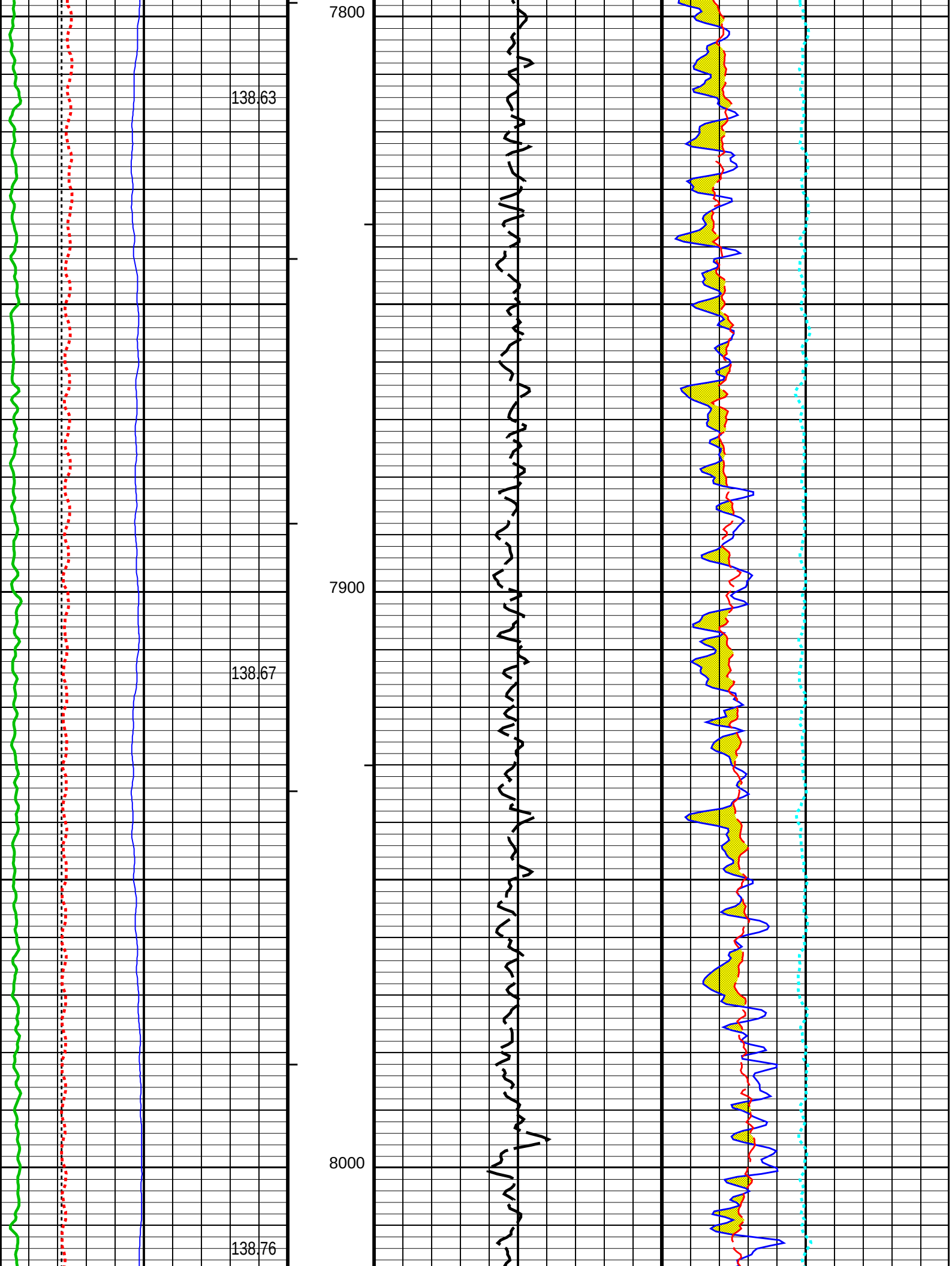
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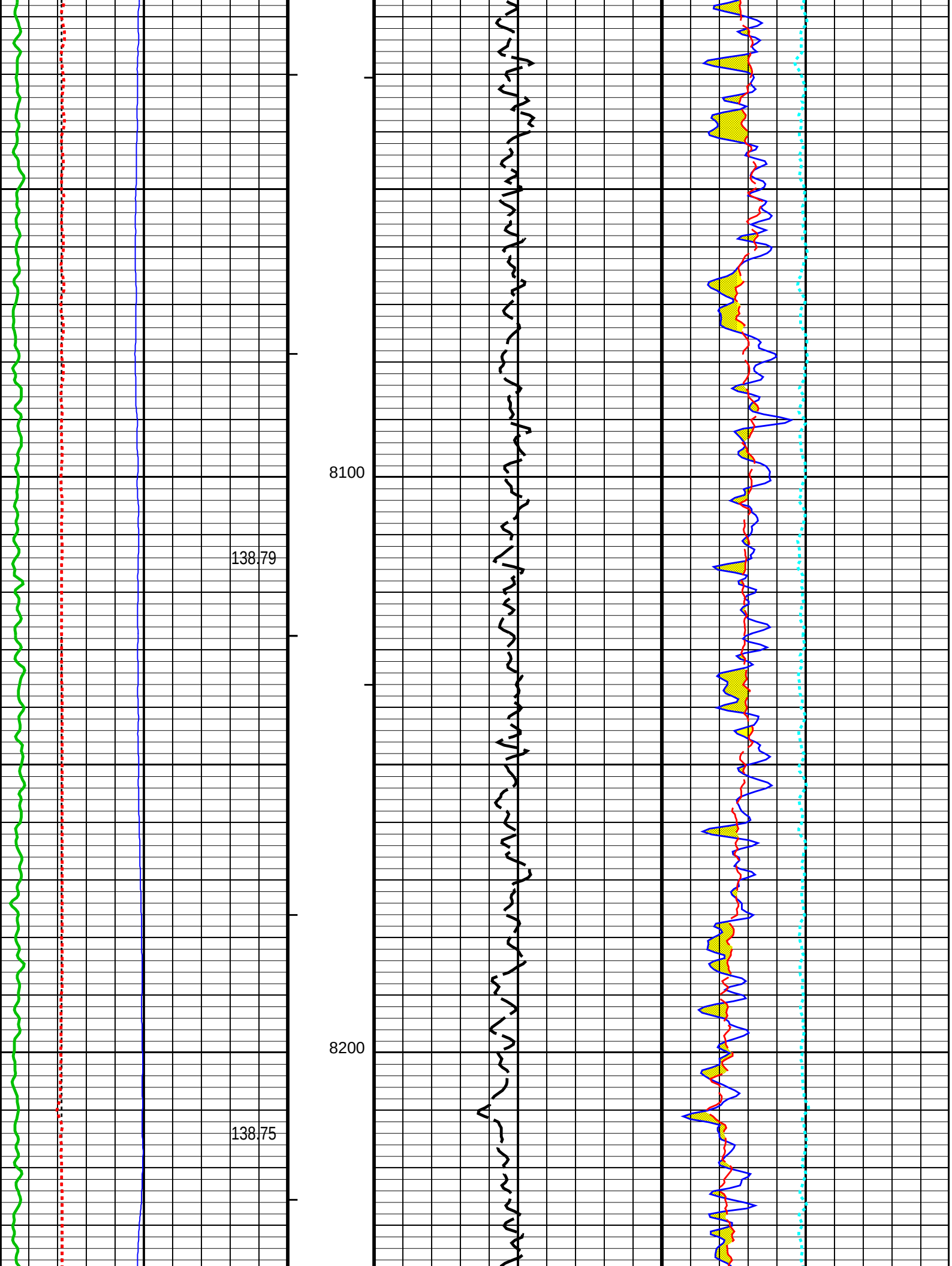
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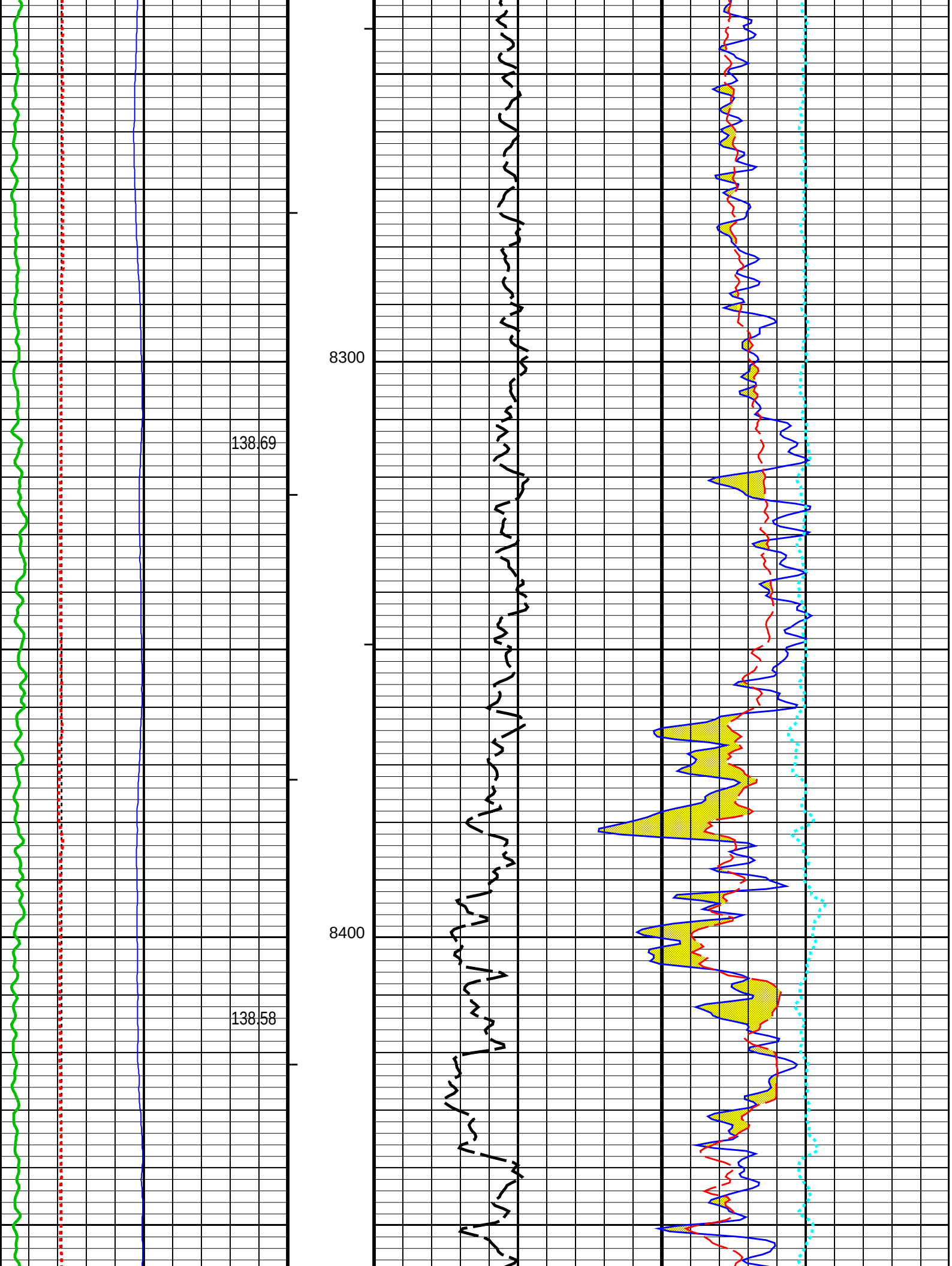
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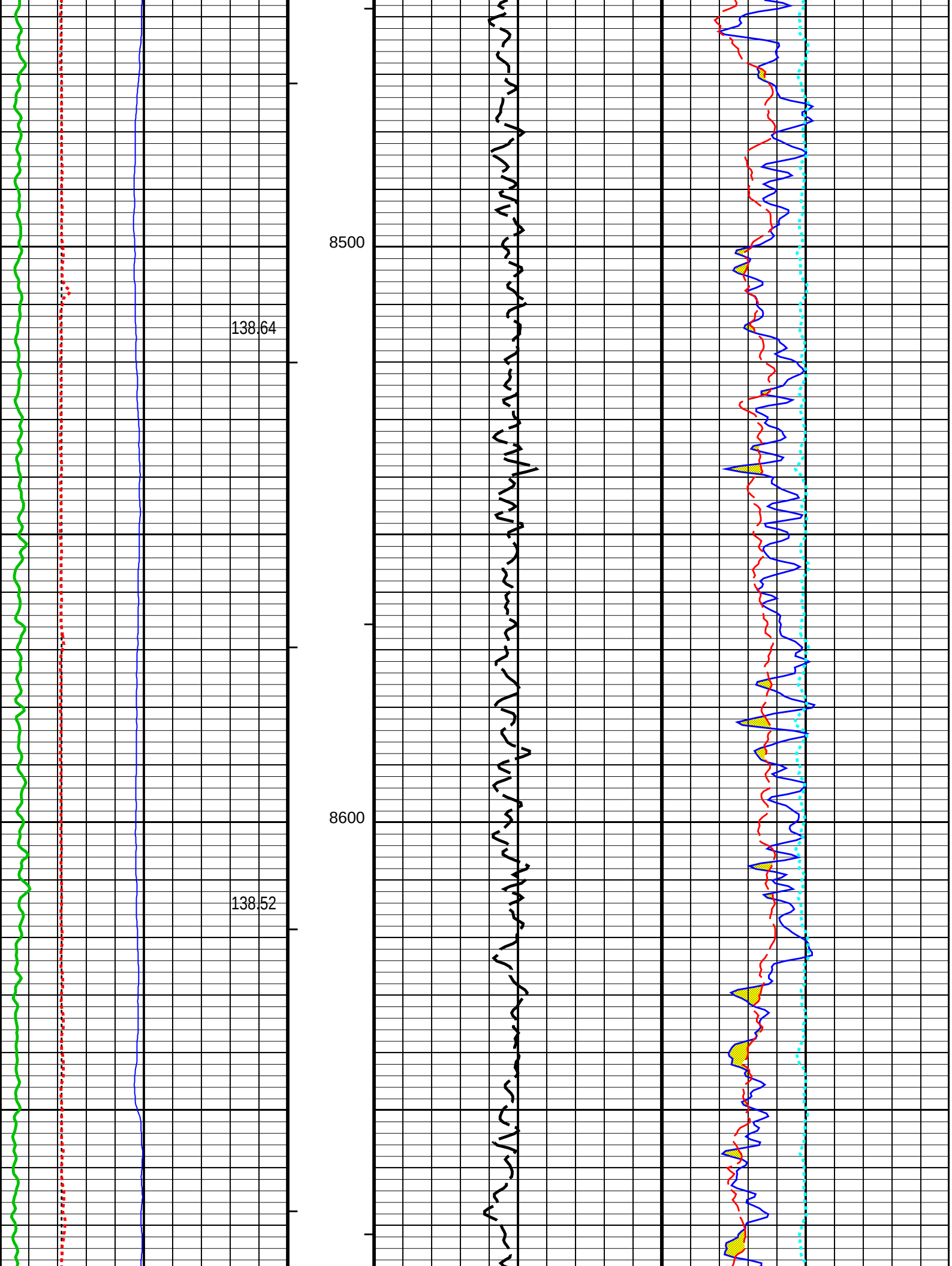
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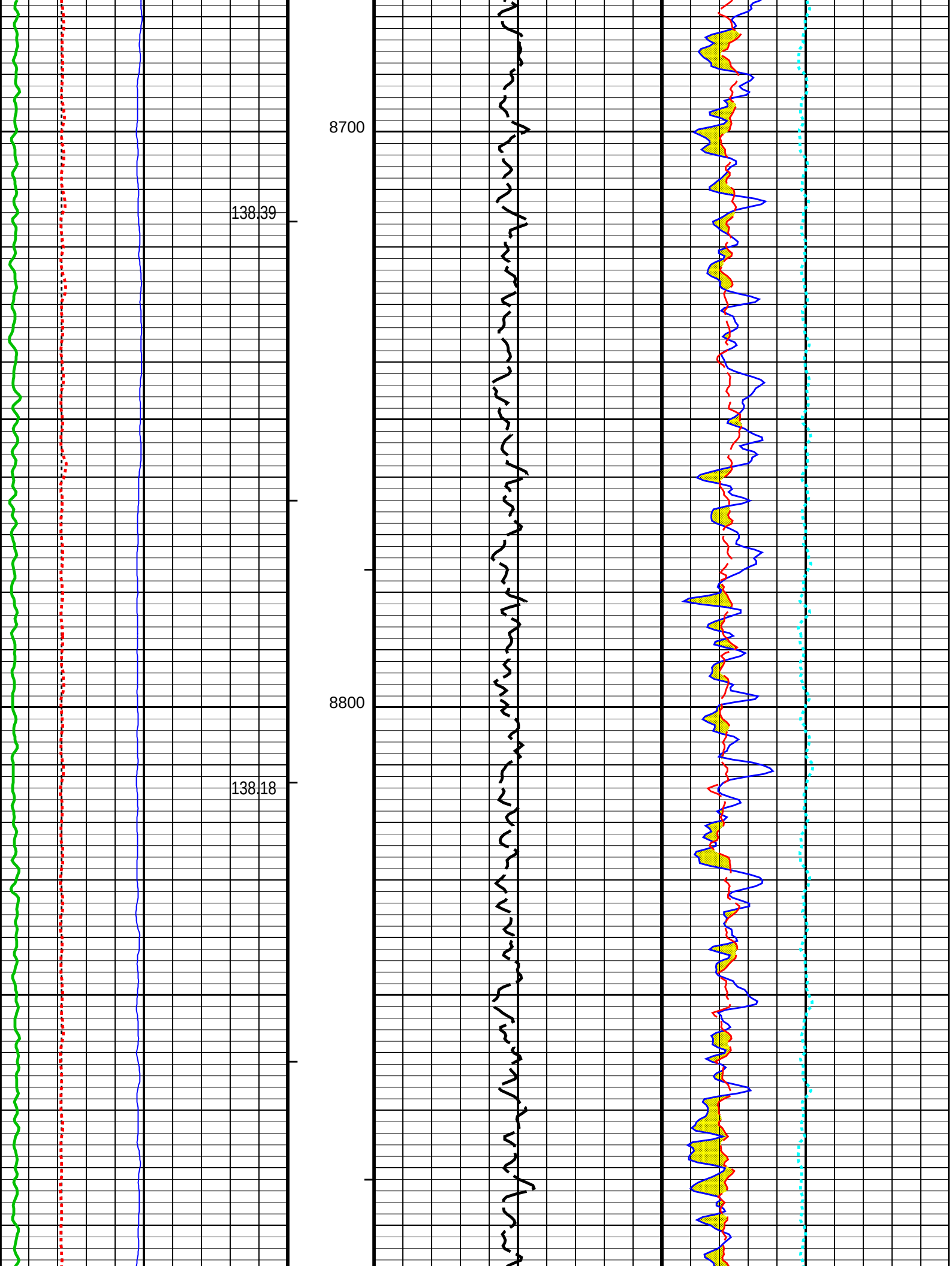
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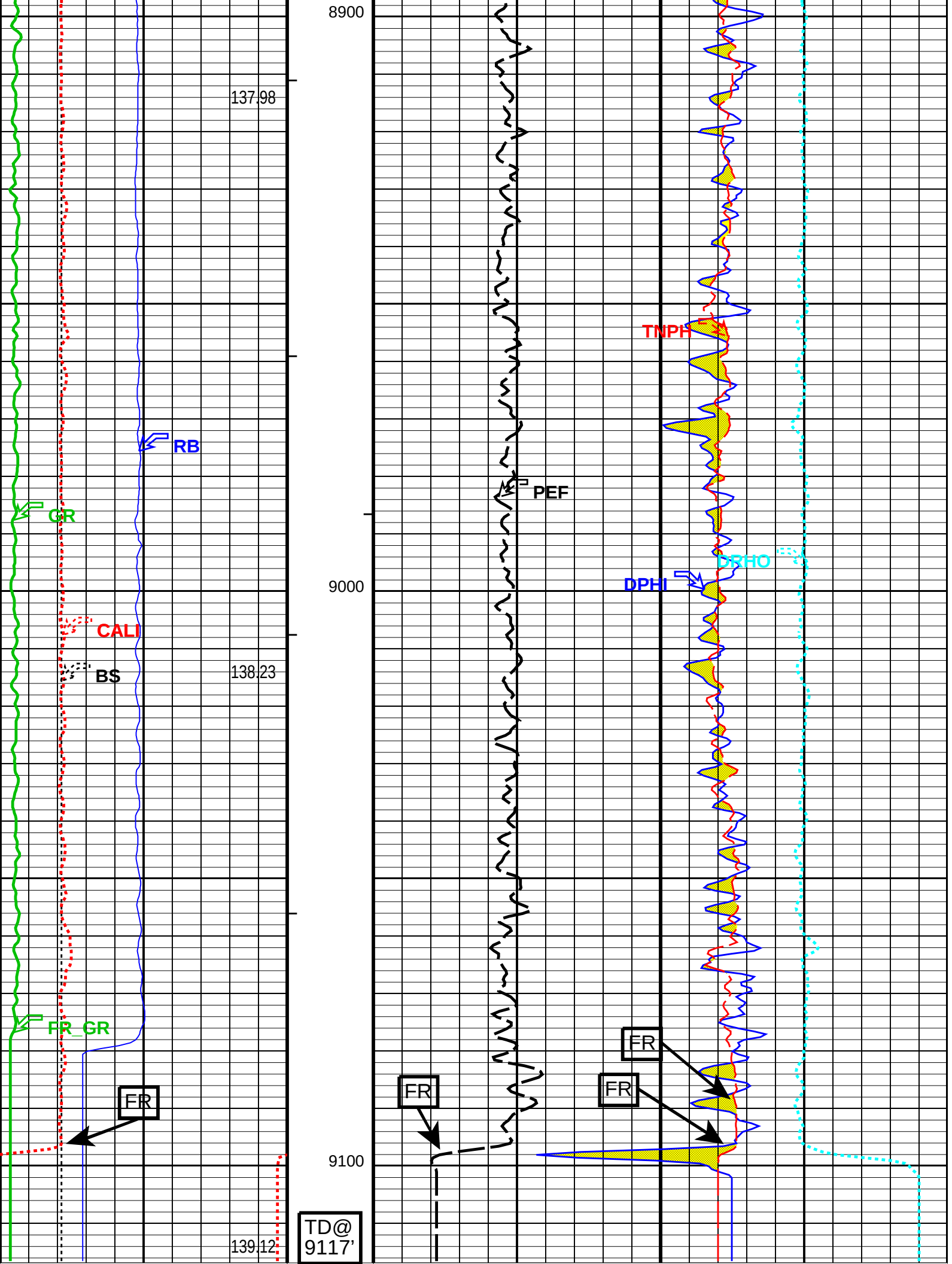
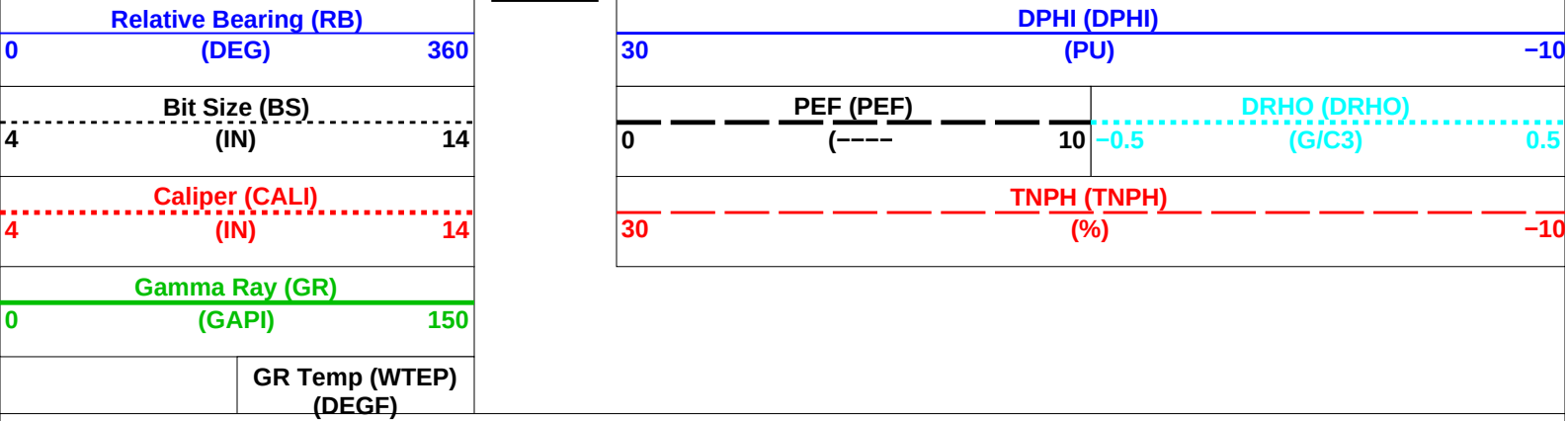
138.39
8800
138.18


8900
137.98
RB
GR
PEF
TNPH
DRHO
DPHI
9000
CALI
BS
138.23
FR_GR
FR
FR
FR
FR
9100
TD@
9117'
139.12



PIP SUMMARY

- Integrated Cement Volume Major Pip Every 100 F3
- Integrated Cement Volume Minor Pip Every 10 F3
- Integrated Hole Volume Major Pip Every 100 F3
- Integrated Hole Volume Minor Pip Every 10 F3

Parameters

DLIS Name	Description	Value	
	TBT−A: ThruBit String		
BHS	Borehole Status	OPEN	
CSAL	Cement Salinity	0.000	ppm
CSID	Casing Size I.D.	6.366	in
DHC	Density Hole Correction	CALIPER	
FD	Fluid Density	1.000	g/cm3
FSAL	Formation Salinity	0.000	ppm
FSCO	Formation Salinity Correction Enabled? (for TBN)	NO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIME	
MDEN	Matrix Density	2.710	g/cm3
MT	Mud Type (for TBN and TBI correction)	WBM	
MWCO	Mud−Weight Correction Enabled? (for TBN)	NO	
RB_OFFSET	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	THRUBIT	
TBD_SPIKE_REJECT	TBD Spike Detection Option	DETECT	
TBD_SPIKE_THRESHOLD	TBD Attenuation Change Threshold for Spike Detection	5.000	%
TBN_BHC_OP	Borehole Correction Option (for TBN)	CALIPER	
TBN_CAL_TANK	TBN Calibration Tank Type	THRUBIT	
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	8.600	lbm/gal
	DIR: Directional Survey Computation		
SPVD	TVD of Starting Point	0.000	ft
TIMD	Along−hole depth of Tie−in Point	0.000	ft
TIVD	TVD of Tie−in Point	0.000	ft
	HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN	
MATR	Rock Matrix for Neutron Porosity Corrections	LIME	
	System and Miscellaneous		
BS	Bit Size	6.125	in
BSAL	Borehole Salinity	6000.0	ppm
CSIZ	Current Casing Size	7.000	in

Format: TB_5INCH_NUCLEAR Vertical Scale: 5" per 100' Graphics File Created: 06−Apr−2014 13:22

OP System Version: 19C2−270

TBT SRPC−5292−ThruBit_RevA

Input DLIS Files

DEFAULT ThruBit_016PUP FN:15 PRODUCER 06−Apr−2014 13:12 9117.0 FT 2744.5 FT

Schlumberger

CALIBRATIONS

MAXIS Field Log

ThruBit String / Equipment Identification

Primary Equipment:		
Induction Resistivity	TBI − A	24
Density	TBD − A	46
Gamma−Ray Logging Source	GGLS − FZ	
Thermal Neutron	TBN − A	25
Neutron Logging Source	NNLS − EWA	
Telemetry Memory GR	TMG − A	49
Battery	TBAT −	40
Battery	TBAT −	7

Auxiliary Equipment:

ThruBit String Master Calibration

TBI Master Calibration Sonde Errors

	Value	Nominal		Value	Nominal
Freq 1, A1, R	−468.140	−457.000	Freq 1, A1, X	634.127	300.000
−536.000 (Minimum) / −387.000 (Maximum)			−500.000 (Minimum) / 1100.00 (Maximum)		
Freq 1, A2, R	−136.340	−141.000	Freq 1, A2, X	530.899	320.000
−162.000 (Minimum) / −120.000 (Maximum)			−75.0000 (Minimum) / 700.000 (Maximum)		
Freq 1, A3, R	−32.8075	−28.0000	Freq 1, A3, X	−45.0742	50.0000
−38.0000 (Minimum) / −18.0000 (Maximum)			−375.000 (Minimum) / 475.000 (Maximum)		
Freq 1, A4, R	−17.2086	−16.0000	Freq 1, A4, X	246.795	300.000
−24.0000 (Minimum) / −8.00000 (Maximum)			25.0000 (Minimum) / 575.000 (Maximum)		
Freq 1, A5, R	−13.9751	−14.0000	Freq 1, A5, X	110.726	150.000
−21.0000 (Minimum) / −7.00000 (Maximum)			25.0000 (Minimum) / 275.000 (Maximum)		
Freq 2, A1, R	−246.744	−237.000	Freq 2, A1, X	391.978	150.000
−293.000 (Minimum) / −186.000 (Maximum)			−375.000 (Minimum) / 675.000 (Maximum)		
Freq 2, A2, R	−87.9339	−92.0000	Freq 2, A2, X	322.410	160.000
−106.000 (Minimum) / −76.0000 (Maximum)			−100.000 (Minimum) / 425.000 (Maximum)		
Freq 2, A3, R	−23.8202	−21.0000	Freq 2, A3, X	−80.8434	−20.0000
−28.0000 (Minimum) / −13.0000 (Maximum)			−325.000 (Minimum) / 250.000 (Maximum)		
Freq 2, A4, R	−19.7745	−20.0000	Freq 2, A4, X	77.2206	100.000
−28.0000 (Minimum) / −10.0000 (Maximum)			−75.0000 (Minimum) / 275.000 (Maximum)		
Freq 2, A5, R	−18.6890	−20.0000	Freq 2, A5, X	−20.0999	−25.0000
−27.0000 (Minimum) / −10.0000 (Maximum)			−125.000 (Minimum) / 75.0000 (Maximum)		
Freq 3, A1, R	Value	Nominal	Freq 3, A1, X	Value	Nominal

	−156.701	−149.000		221.891	25.0000
−193.000 (Minimum)	−108.000 (Nominal)	(Maximum)	−375.000 (Minimum)	425.000 (Nominal)	(Maximum)
Freq 3, A2, R	Value	Nominal	Freq 3, A2, X	Value	Nominal
	−67.2042	−70.0000		199.170	70.0000
−81.0000 (Minimum)	−57.0000 (Nominal)	(Maximum)	−125.000 (Minimum)	250.000 (Nominal)	(Maximum)
Freq 3, A3, R	Value	Nominal	Freq 3, A3, X	Value	Nominal
	−19.2283	−17.0000		−116.979	−90.0000
−23.0000 (Minimum)	−11.0000 (Nominal)	(Maximum)	−300.000 (Minimum)	125.000 (Nominal)	(Maximum)
Freq 3, A4, R	Value	Nominal	Freq 3, A4, X	Value	Nominal
	−21.2640	−22.0000		−34.9081	−50.0000
−31.0000 (Minimum)	−11.0000 (Nominal)	(Maximum)	−200.000 (Minimum)	100.000 (Nominal)	(Maximum)
Freq 3, A5, R	Value	Nominal	Freq 3, A5, X	Value	Nominal
	−21.0492	−22.0000		−116.377	−110.000
−32.0000 (Minimum)	−11.0000 (Nominal)	(Maximum)	−250.000 (Minimum)	−25.0000 (Nominal)	(Maximum)
Freq 4, A1, R	Value	Nominal	Freq 4, A1, X	Value	Nominal
	−85.6738	−80.0000		−8.32188	−190.000
−108.000 (Minimum)	−54.0000 (Nominal)	(Maximum)	−450.000 (Minimum)	75.0000 (Nominal)	(Maximum)
Freq 4, A2, R	Value	Nominal	Freq 4, A2, X	Value	Nominal
	−48.5418	−50.0000		47.6140	−75.0000
−60.0000 (Minimum)	−41.0000 (Nominal)	(Maximum)	−200.000 (Minimum)	50.0000 (Nominal)	(Maximum)
Freq 4, A3, R	Value	Nominal	Freq 4, A3, X	Value	Nominal
	−14.5641	−14.0000		−185.324	−190.000
−19.0000 (Minimum)	−8.00000 (Nominal)	(Maximum)	−350.000 (Minimum)	−25.0000 (Nominal)	(Maximum)
Freq 4, A4, R	Value	Nominal	Freq 4, A4, X	Value	Nominal
	−23.3880	**−25.0000**		**−201.615**	**−235.000**
−37.0000 (Minimum)	−11.0000 (Nominal)	(Maximum)	−400.000 (Minimum)	−75.0000 (Nominal)	(Maximum)
Freq 4, A5, R	Value	Nominal	Freq 4, A5, X	Value	Nominal
	−25.7837	−28.0000		−280.031	−300.000
−43.0000 (Minimum)	−12.0000 (Nominal)	(Maximum)	−475.000 (Minimum)	−125.000 (Nominal)	(Maximum)

Master: 25−Feb−2014 10:50

ThruBit String Master Calibration

TBI Master Calibration COMPLEX GAINS

Freq 1, R	Value	Nominal	Freq 1, X	Value	Nominal
	0.9980	1.000		−0.003990	0
	0.9969	1.000		0.002182	0
	0.9942	1.000		−0.005518	0
	0.9889	1.000		0.005109	0
	1.003	1.000		0.0009077	0
0.9500 (Minimum)	1.050 (Nominal)	(Maximum)	−0.05000 (Minimum)	0.05000 (Nominal)	(Maximum)
Freq 2, R	Value	Nominal	Freq 2, X	Value	Nominal
	0.9932	1.000		−0.01278	0
	0.9911	1.000		−0.007543	0
	0.9827	1.000		−0.007843	0
	0.9846	1.000		−0.004849	0
	0.9992	1.000		−0.01023	0
0.9500 (Minimum)	1.050 (Nominal)	(Maximum)	−0.05000 (Minimum)	0.05000 (Nominal)	(Maximum)
Freq 3, R	Value	Nominal	Freq 3, X	Value	Nominal
	1.005	1.000		0.002196	0

	1.005	1.000		−0.002196	0
	1.003	1.000		0.002052	0
	0.9940	1.000		0.001586	0
	0.9953	1.000		0.004697	0
	1.013	1.000		−0.0009248	0
0.9500 (Minimum)	1.050 (Maximum)		−0.05000 (Minimum)	0.05000 (Maximum)	

Freq 4, R	Value	Nominal	Freq 4, X	Value	Nominal
	1.004	1.000		−0.002239	0
	1.001	1.000		0.001124	0
	0.9944	1.000		−0.001514	0
	0.9957	1.000		0.003619	0
	1.024	1.000		−0.006227	0
0.9300 (Minimum)	1.070 (Maximum)		−0.05000 (Minimum)	0.05000 (Maximum)	

Master: 25−Feb−2014 10:50

ThruBit String Master Calibration

TBD Caliper Master Calibration

Caliper 12in Ring IN	Value	Nominal	Caliper 9in Ring IN	Value	Nominal	Caliper 6in Ring IN	Value	Nominal
	1861.5	1949.8		2027.4	2096.7		2191.4	2285.7
1799.8 (Minimum) 2099.8 (Maximum)			1946.7 (Minimum) 2246.7 (Maximum)			2135.7 (Minimum) 2435.7 (Maximum)		

Master: 3−Apr−2014 12:42

ThruBit String Master Calibration

TBD Density Master Calibration. PEEK Window, Thrubit blocks

Aluminium Density G/C3	Value	Nominal	Magnesium Density G/C3	Value	Nominal
	2.607	2.607		1.752	1.752
2.557 (Minimum)	2.657 (Maximum)		1.702 (Minimum)	1.802 (Maximum)	

LS1 Background CPS	Value	Nominal	SS1 Background CPS	Value	Nominal
	137.04	150.00		132.58	150.00
130.00 (Minimum)	170.00 (Maximum)		130.00 (Minimum)	170.00 (Maximum)	

LS4 Background CPS	Value	Nominal	SS1 Aluminium CPS	Value	Nominal
	27.81	31.00		5032.87	4900.00
27.00 (Minimum)	35.00 (Maximum)		4500.00 (Minimum)	5500.00 (Maximum)	

LS1 Aluminium CPS	Value	Nominal	SS1 Magnesium CPS	Value	Nominal
	926.76	850.00		8323.40	8000.00
750.00 (Minimum)	950.00 (Maximum)		7000.00 (Minimum)	9000.00 (Maximum)	

LS4 Aluminium CPS	Value	Nominal
	1052.1	955.00
843.00 (Minimum)	1068.0 (Maximum)	

LS1 Al + Sleeve CPS	Value	Nominal
EXCEEDS LIMIT	828.99	725.00
650.00 (Minimum)	800.00 (Maximum)	

LS4 Al + Sleeve CPS	Value	Nominal
EXCEEDS LIMIT	517.15	426.50
382.00 (Minimum)	471.00 (Maximum)	

LS1 Magnesium CPS	Value	Nominal
	6151.78	5750.00
5250.00 (Minimum)	6250.00 (Maximum)	

SS Slope	Value	Nominal
	1.645	1.645

1.520 (Minimum)	(Nominal)	1.770 (Maximum)	

LS Slope	Value	Nominal
	0.4180	0.4150
0.3800 (Minimum) (Nominal)	0.4500 (Maximum)	

Pef K Factor	Value	Nominal
	4.767	4.840
3.510 (Minimum) (Nominal)	6.170 (Maximum)	

Pef B Factor	Value	Nominal
	−0.6486	−0.5550
−0.7000 (Minimum) (Nominal)	−0.4100 (Maximum)	

Master: 3−Apr−2014 12:28

ThruBit String Master Calibration

Thermal Neutron Master Calibration

TNF, Background CPS	Value	Nominal
	0	1.0
0 (Minimum) (Nominal)	2.0 (Maximum)	

TNN, Background CPS	Value	Nominal
	0.017	1.0
0 (Minimum) (Nominal)	2.0 (Maximum)	

TNF, Tank CPS	Value	Nominal
	70.84	96.00
25.00 (Minimum) (Nominal)	200.0 (Maximum)	

TNN, Tank CPS	Value	Nominal
	2086.8	2860.0
750.00 (Minimum) (Nominal)	5700.0 (Maximum)	

TNF, Tank + Al Sleeve CPS	Value	Nominal
	2264.5	3040.0
727.00 (Minimum) (Nominal)	6080.0 (Maximum)	

TNN, Tank + Al Sleeve CPS	Value	Nominal
	23713.7	32350.0
8000.00 (Minimum) (Nominal)	64700.0 (Maximum)	

Tank + Al Sleeve Ratio	Value	Nominal
	11.004	10.797
10.300 (Minimum) (Nominal)	11.300 (Maximum)	

Tank + Al Sleeve Porosity PU	Value	Nominal
	14.46	14.40
13.40 (Minimum) (Nominal)	15.40 (Maximum)	

Tank, Ratio	Value	Nominal
	29.459	30.958
28.000 (Minimum) (Nominal)	34.000 (Maximum)	

Tank, Temperature DEGF	Value	Nominal
	56.8	70.0
20.0 (Minimum) (Nominal)	120 (Maximum)	

Master: 26−Mar−2014 13:58

ThruBit String Master Calibration

TMG Accelerometer Calibration

Minimum Ax, m/s2	Value	Nominal
NOT DONE	N/A	−9.810
−10.81 (Minimum) (Nominal)	−8.810 (Maximum)	

Maximum Ax, m/s2	Value	Nominal
NOT DONE	N/A	9.810
8.810 (Minimum) (Nominal)	10.81 (Maximum)	

Minimum Ay, m/s2	Value	Nominal
NOT DONE	N/A	−9.810
−10.81 (Minimum) (Nominal)	−8.810 (Maximum)	

Maximum Ay, m/s2	Value	Nominal
NOT DONE	N/A	9.810
8.810 (Minimum) (Nominal)	10.81 (Maximum)	

Minimum Az, m/s2	Value	Nominal
NOT DONE	N/A	0
−1.000 (Minimum) (Nominal)	1.000 (Maximum)	

Maximum Az, m/s2	Value	Nominal
NOT DONE	N/A	9.810
8.810 (Minimum) (Nominal)	10.81 (Maximum)	

RB Offset, degrees	Value	Nominal
	−17.00	0
−360.0 (Minimum) (Nominal)	360.0 (Maximum)	

Master: Calibration not done

ThruBit String Master Calibration

TMG Gamma−Ray Calibration

GR Background GAPI	Value	Nominal
	32.71	30.00
0	120.0	

GR Jig−Background GAPI	Value	Nominal
	164.1	170.8
136.6	205.0	

(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)	
Master: 26−Mar−2014 13:26							

Company: **SANDRIDGE ENERGY INC**

Well: **MYRA 3406 4−8H**
Field: **EASTHAM**
County: **HARPER**
State: **KANSAS**

SPECTRAL DENSITY / DUAL SPACED NEUTRON
GAMMA RAY
MEMORY LOG