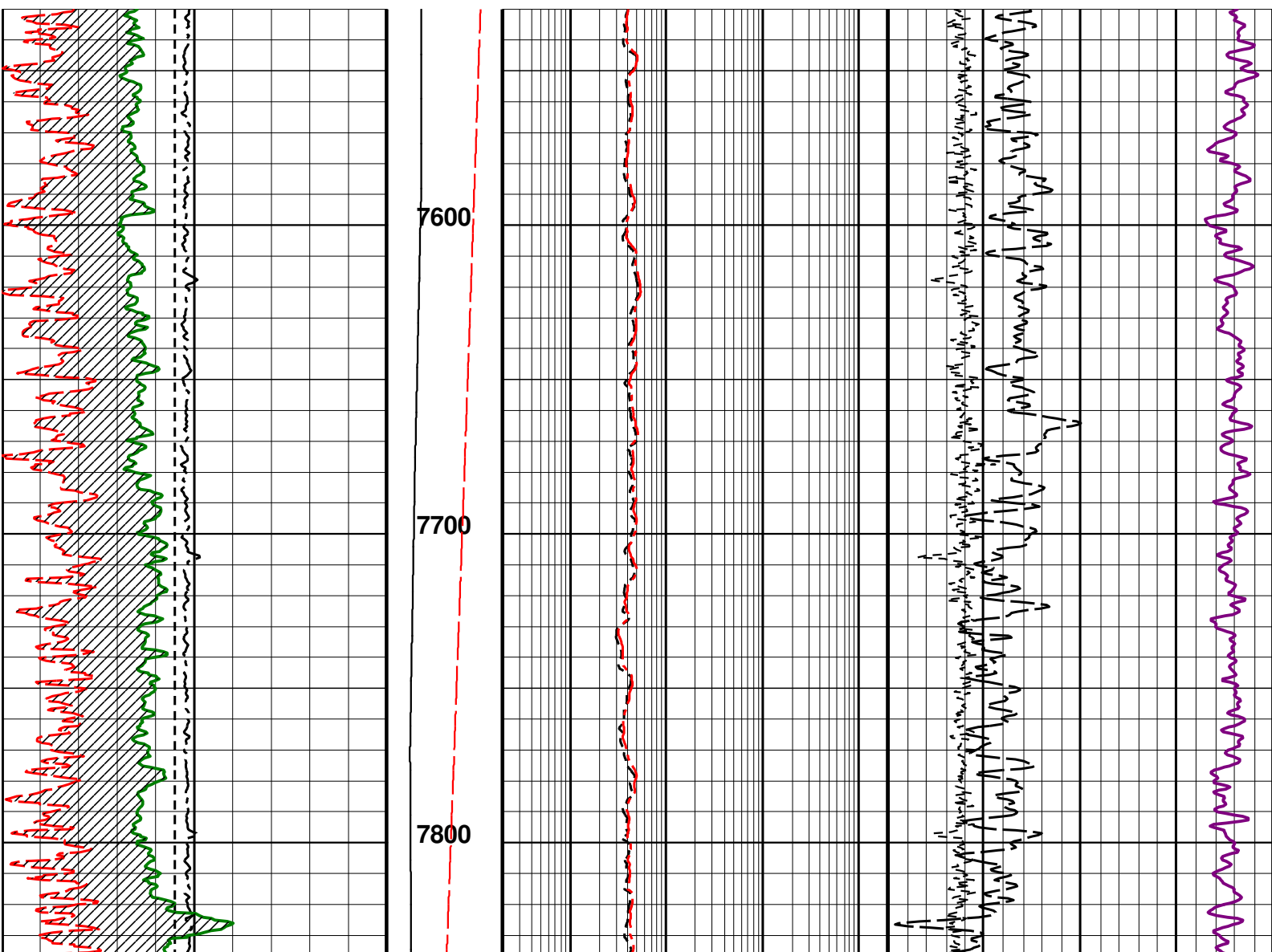
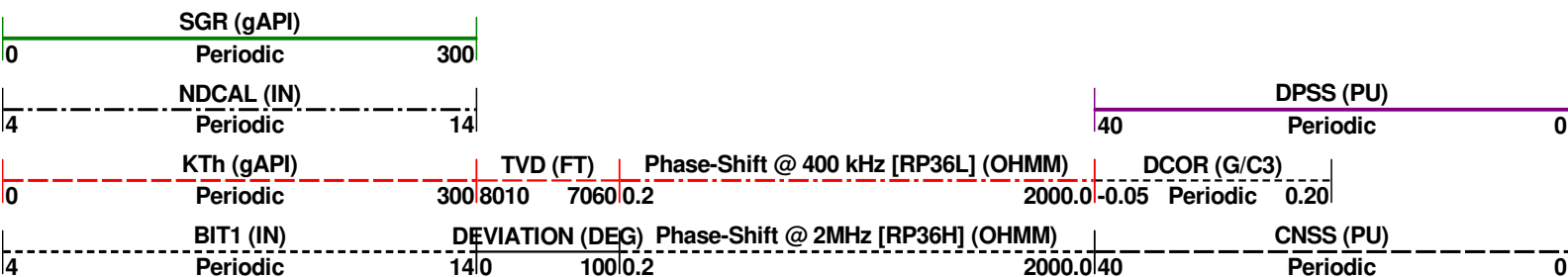
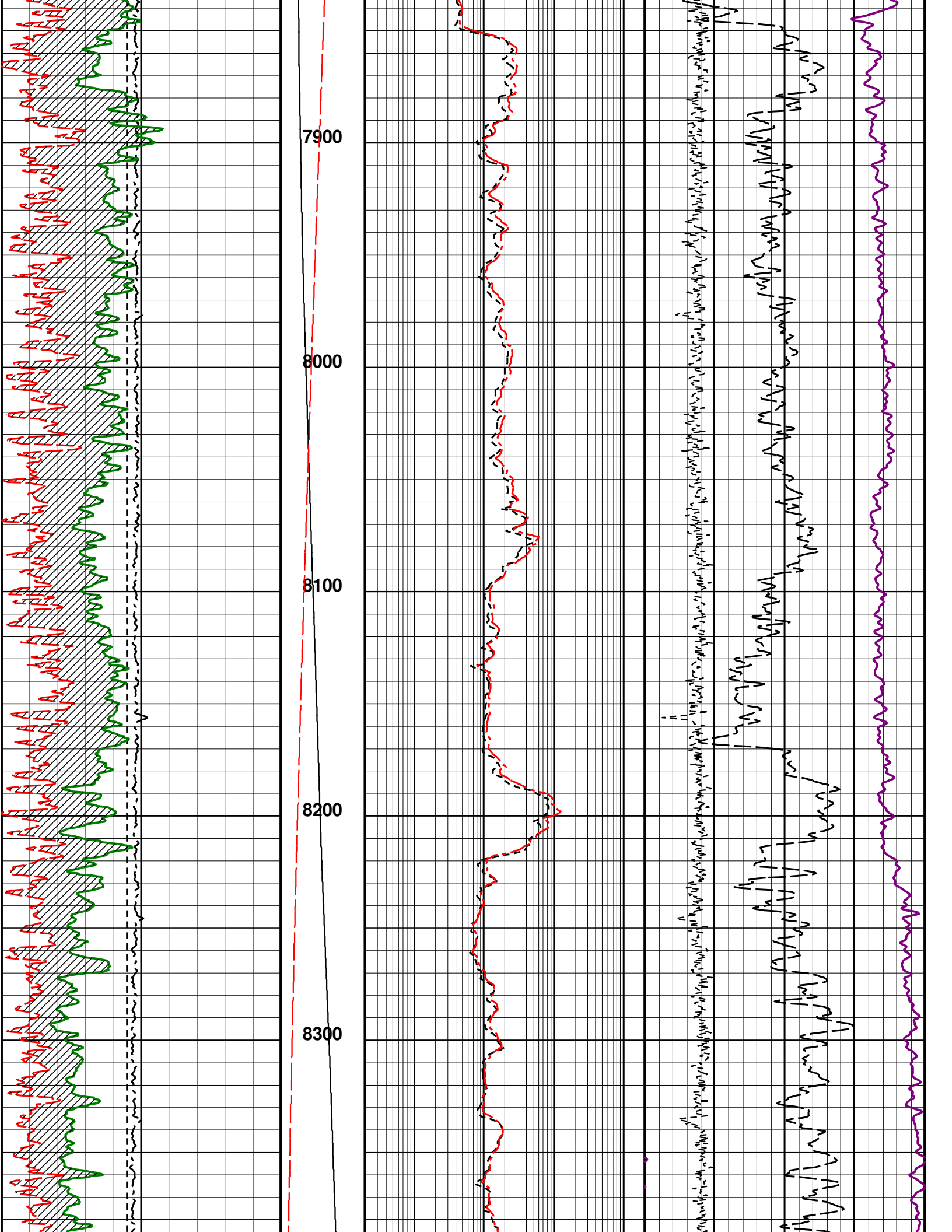


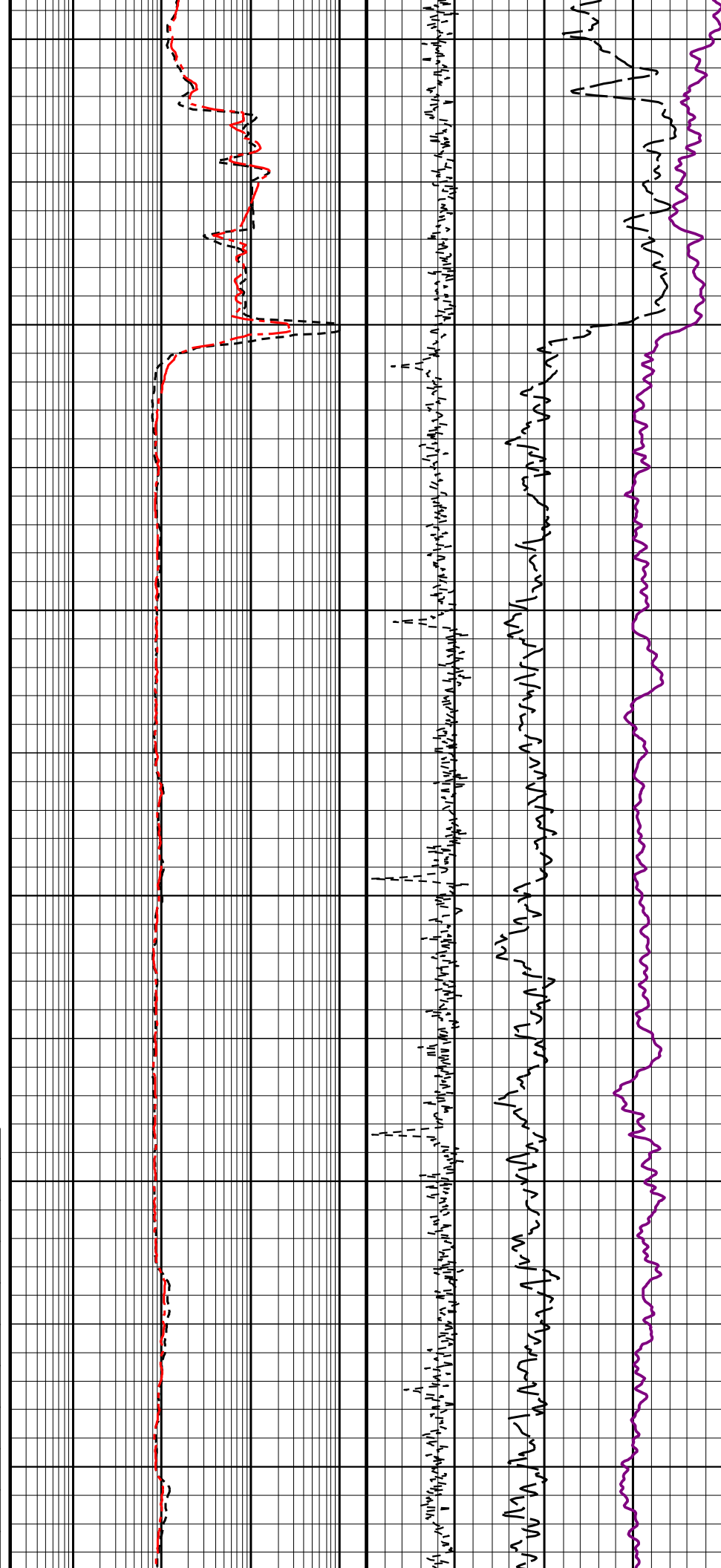
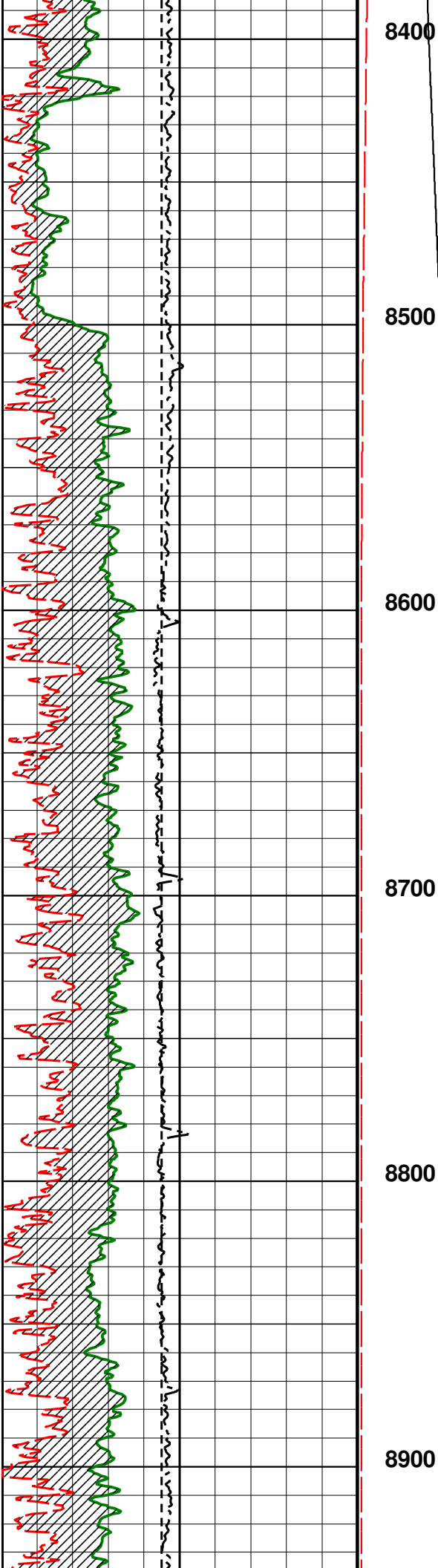
		MEASURED DEPTH COMPENSATED NEUTRON-DENSITY POROSITY PROPAGATION RESISTIVITY SPECTRAL GAMMA RAY LOG			
COMPANY: GREAT WESTERN OPERATING COMPANY LLC.		COMPANY: GREAT WESTERN OPERATING COMPANY LLC.			
WELL: B-FARM LD 18-392HC		WELL: B-FARM LD 18-392HC			
FIELD: WATTENBERG		FIELD: WATTENBERG			
COUNTY: ADAMS		COUNTY: ADAMS			
STATE: CO		STATE: CO			
API No. 05-001-10094-00 Location SEC 7 TWP 1S RNG 67W LAT 39.983706 LONG -104.933671 964 FNL 1843 FWL		Other Services N/A			
Permanent Datum: GROUND LEVEL Elevation: 5124.5 ft		Elev.: K.B. 5144.5 ft			
Log meas. from: KELLY BUSHING 20.0 ft above Perm. Datum		D.F. -----			
Drill. meas. from: KELLY BUSHING		G.L. 5124.5 ft			
Date	27-JAN-2019				
Run No.	1 (HORIZONTAL)	TVD			
Depth Driller	18619.0	8006.1 ft			
Depth Logger	18619.0	8006.1 ft			
Bottom Logged Interval	18471.1 ft	8006.0 ft			
Top Logged Interval	7586.0 ft	7286.6 ft			
Casing Driller	1756.0 ft	1755.0 ft			
Casing Logger	N/A	N/A			
Bitsize	8.5 in				
Type Fluid in Hole	OBM				
Density / Viscosity	10.5 ppg	60.0 sec/qt			
pH / Water Loss	N/A	N/A			
Source of Sample	N/A				
Rm at Meas. Temp.	N/A				
Rmf at Meas. Temp.	N/A				
Rmc at Meas. Temp.	N/A				
Source Rmf/Rmc	N/A	N/A			
Rm at BHT	N/A				
End Circulation	28-JAN-2019 @ 11:46				
Logger on Bottom	28-JAN-2019 @ 13:51				
Max. Recorded Temp.	250.8 °F				
Equip. No / Location	DL-414 OKC				
Recorded by	J. BERGERON	J. SLAFF			
Witnessed by	J. MILLS				
Fold Here					
In making interpretations of logs, Contractors employees will give the Customer the benefit of their best judgement, but since all interpretations are opinions, based on inferences from electrical or other measurements, Contractor cannot, and does not guarantee the accuracy or the correctness of any interpretation.					
ANTARES WinAPIot Software - Copyright (c) 1997 - 2008 ANTARES Datensysteme GmbH					
REMARKS TOOLS PUMPED DOWN FROM SURFACE; LOGGING PERFORMED WHILE TRIPPING OUT COMPENSATED NEUTRON-DENSITY PRESENTED IN SANDSTONE AND LIMESTONE MATRIX MAX DEVIATION: 90.68 DEG @ 14229.0 ft DRILLING RIG: PRECISION DRILLING 466 SURFACE CASING SIZE: 9.625 in, 36.0 lbm/ft FROM 0 ft TO 1756.0 ft BITSIZE: 8.5 in FROM 1756.0 ft TO 18619.0 ft ALL LOG DEPTHS WERE RECORDED WITH EDR (NOV TOTCO), AND CORRECTED TO PIPE TALLY					
EQUIPMENT DATA					
Run	Trip	Instrument	Serial No.	Series No.	Distance to Reference
1	1	TELEMETRY	3102017		189.83 ft
1	1	SGR	1460019		
1	1	GR-CN	1473016 U	1473016 L	
1	1	KNUCKLE	0813007		
1	1	DENSITY	1481004		
1	1	RESISTIVITY	PRTX0014		149.0 ft
1	1	STEEL COLLAR	DL-45XH-5	DL-45XH-9	
1	1	OMEGA COLLAR	RSA65006		
1	1	API 241P-10-107	77010	700670	

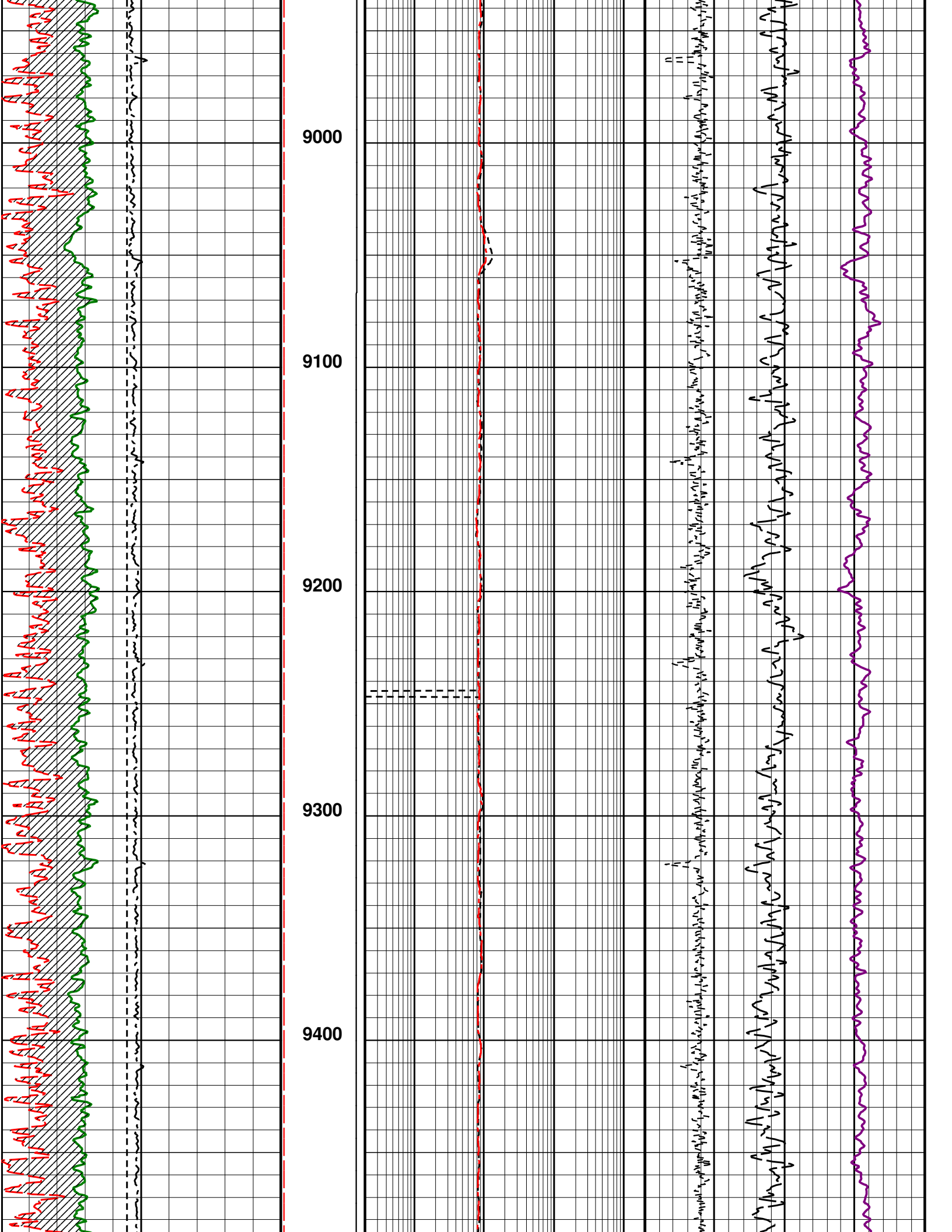
2" MAIN PASS SANDSTONE

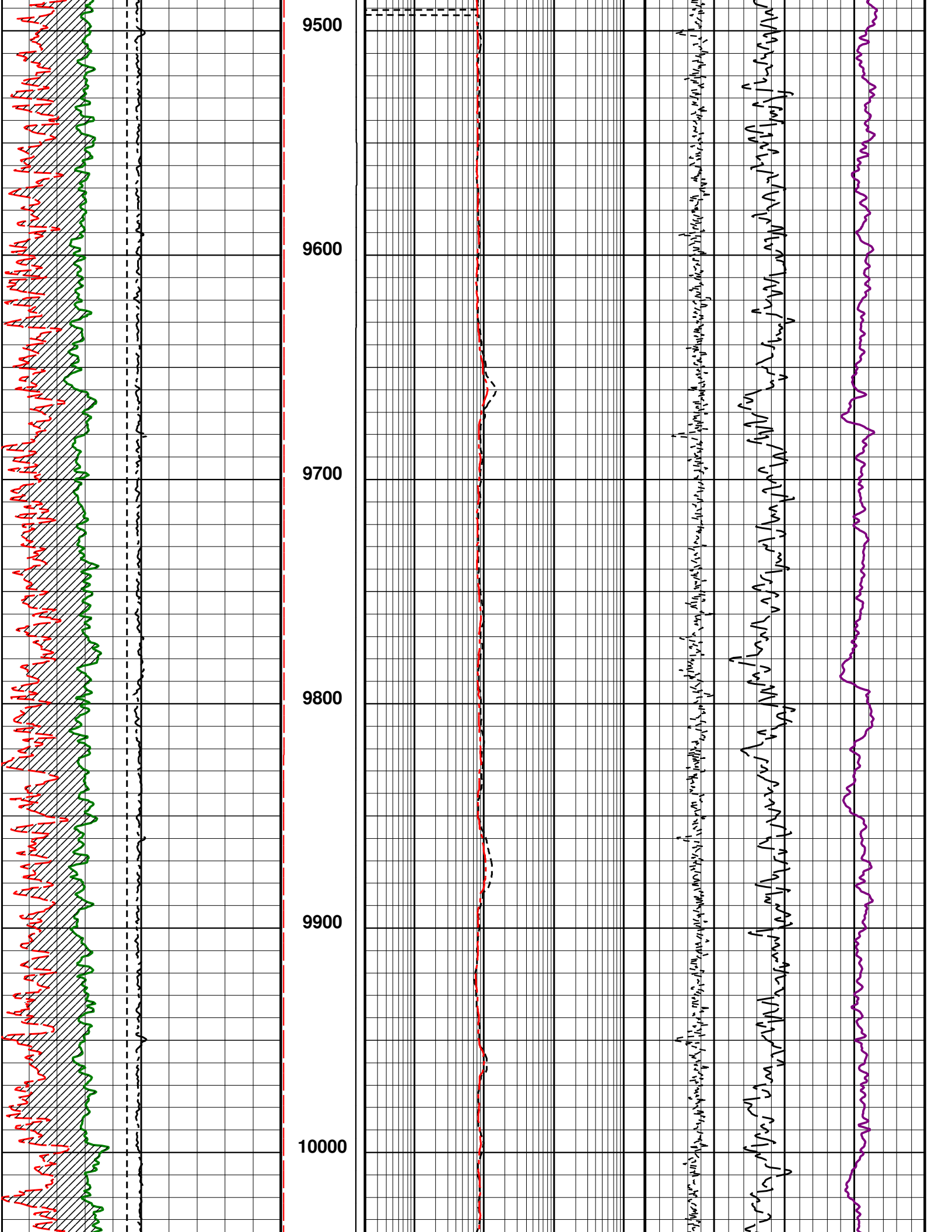
Company : GREAT WESTERN OPERATING COMPANY LLC Date : 29-Jan-2019
Well : B-FARM LD 18-392HC Time :
Scale : 1 : 600 Remarks : SANDSTONE MATRIX
Depth in : Feet
Software : WinAPlot Ver. 5, 75, 0, 0 File Name : 812_05-001-10094-00_FINAL MD

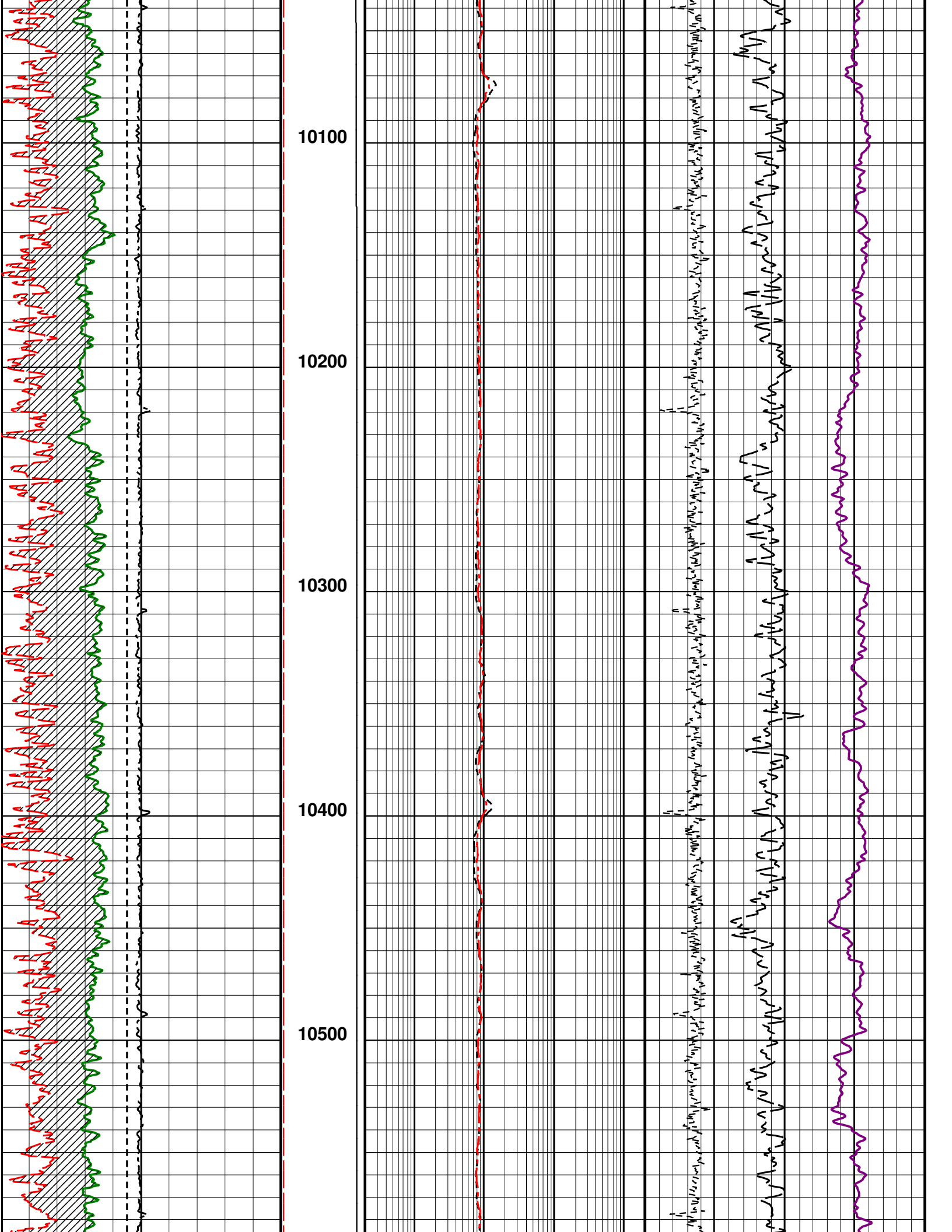


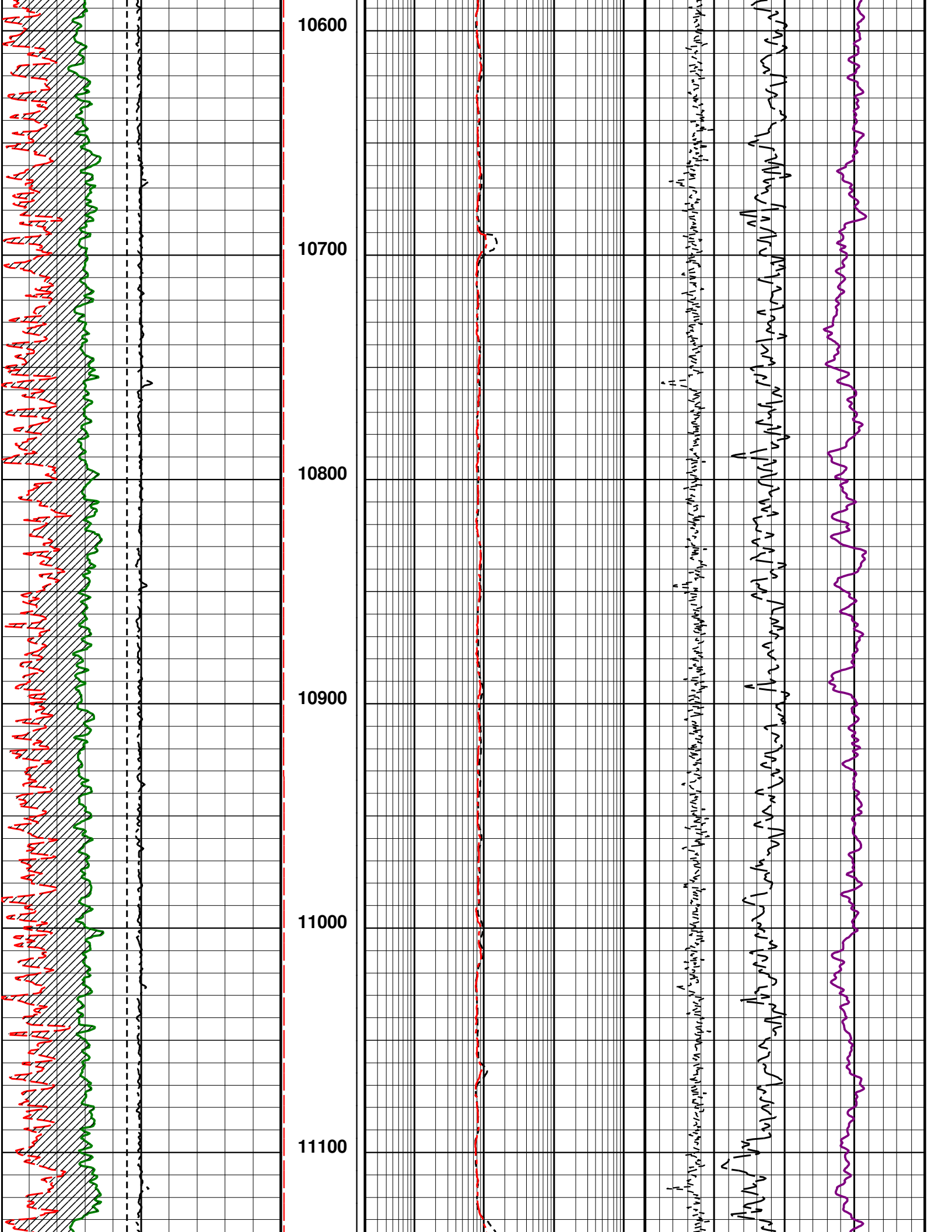


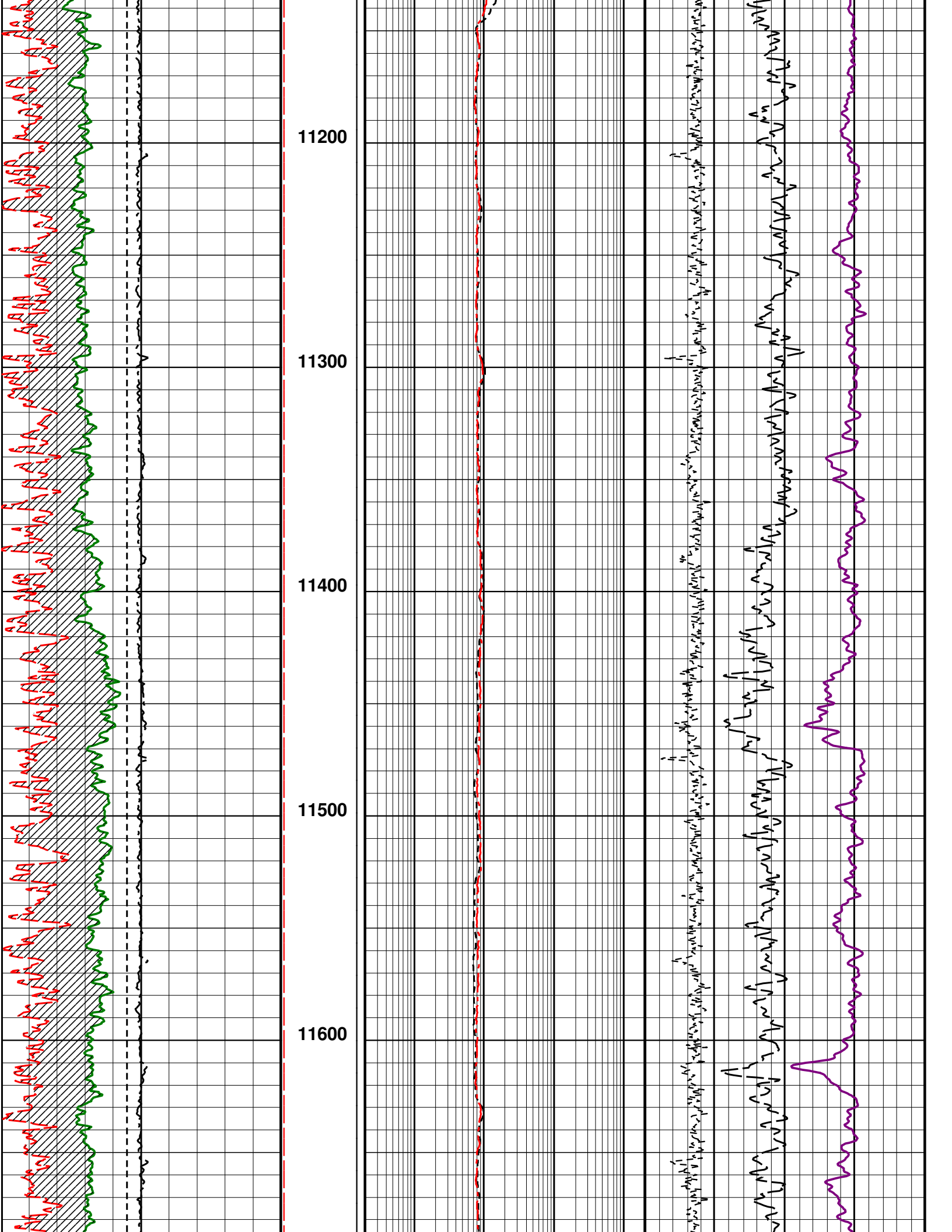


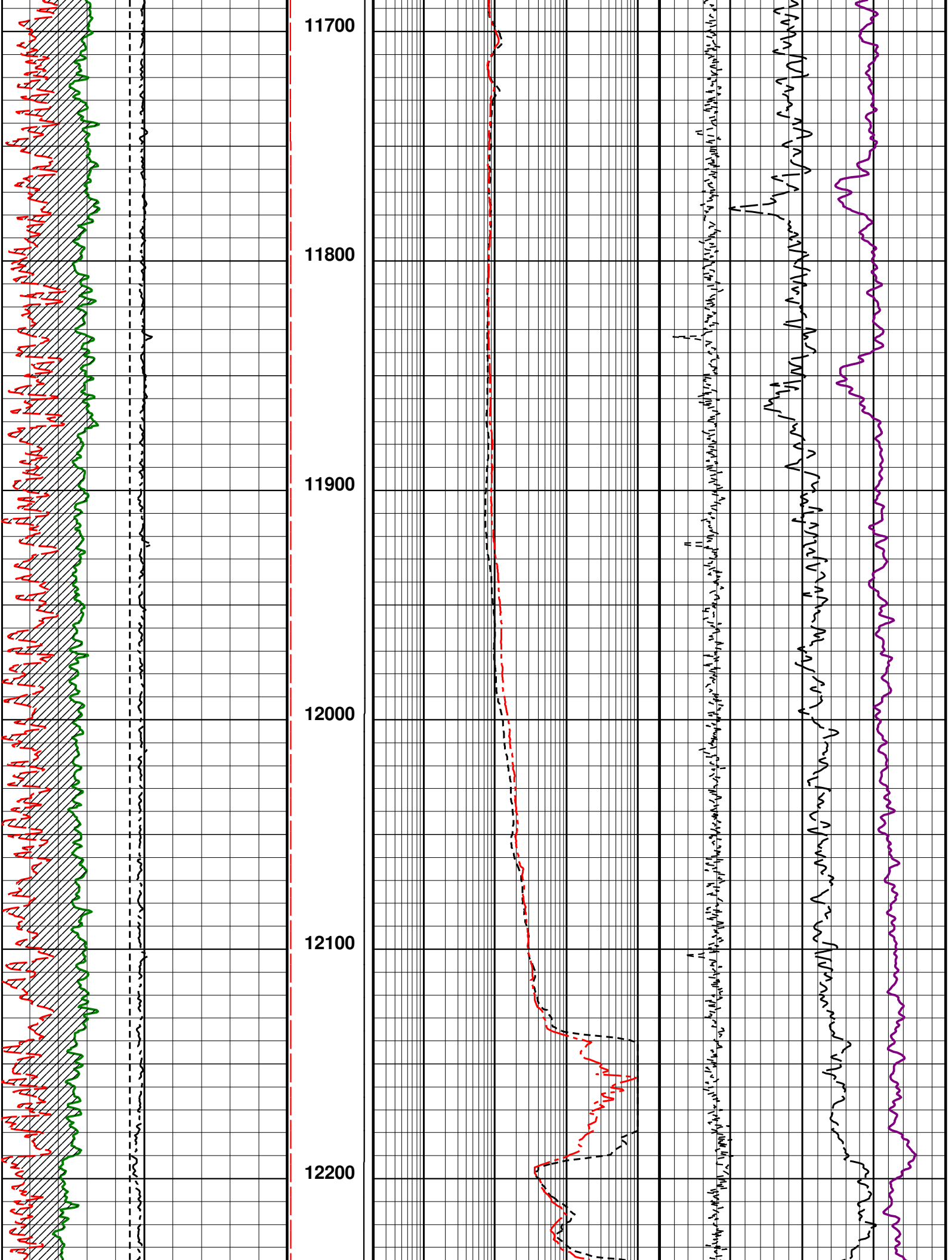


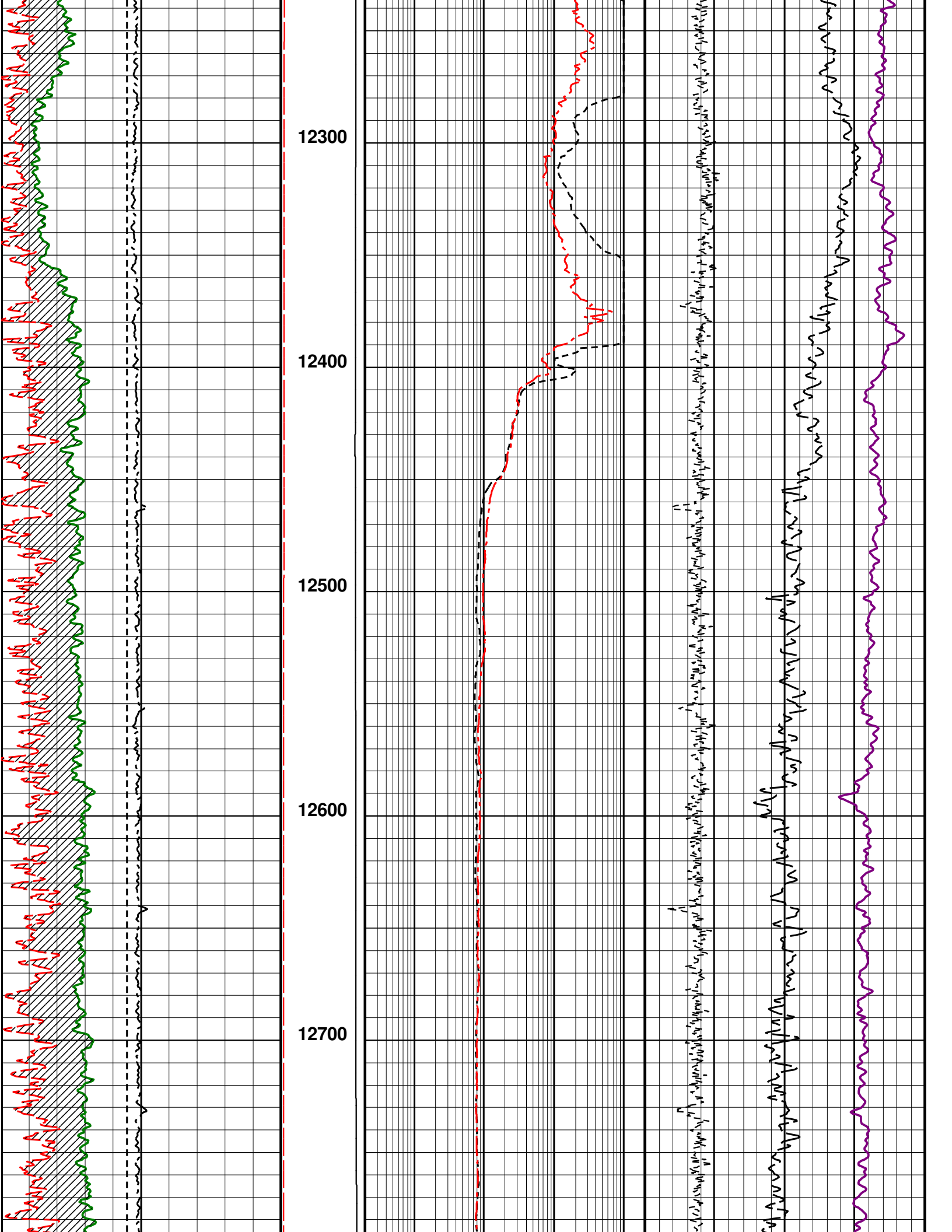


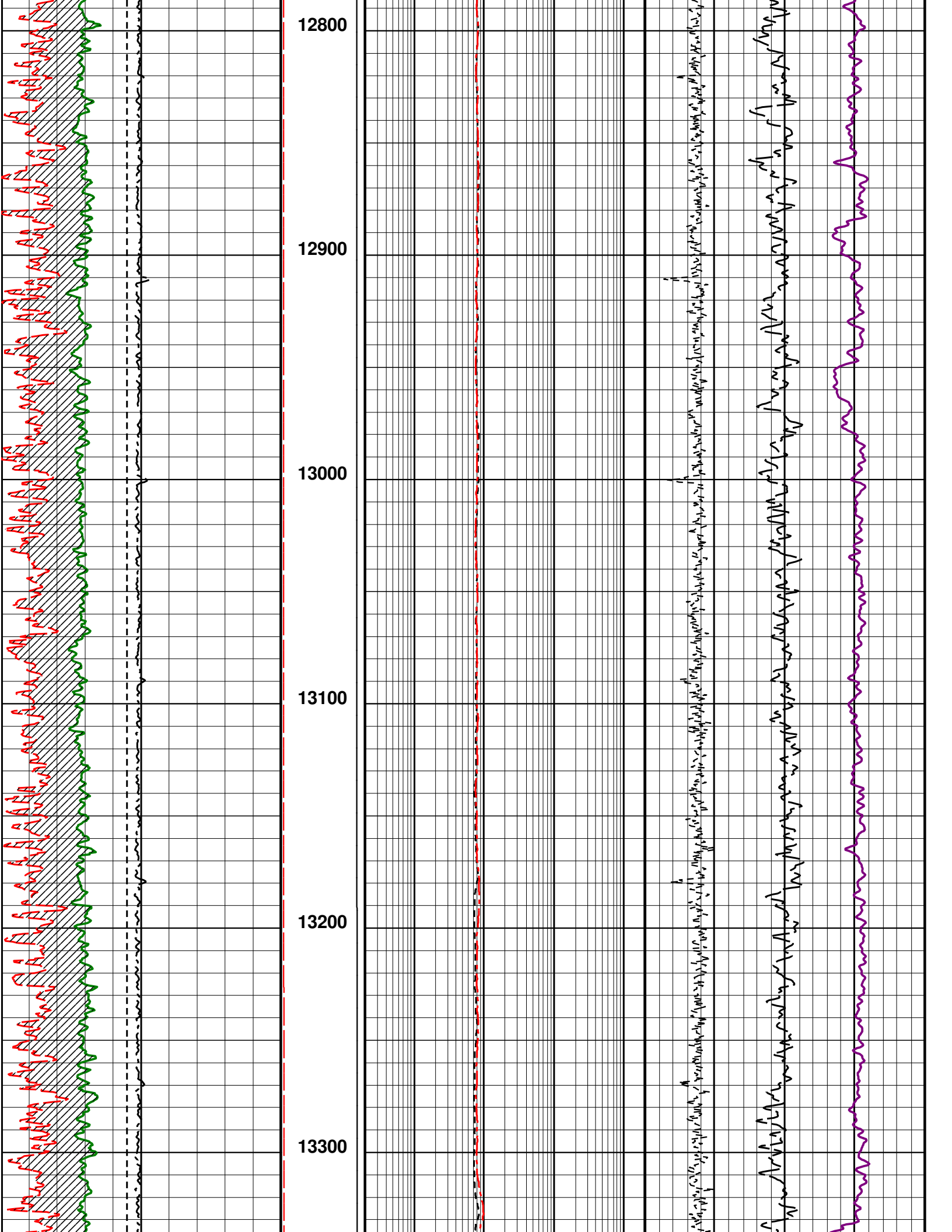


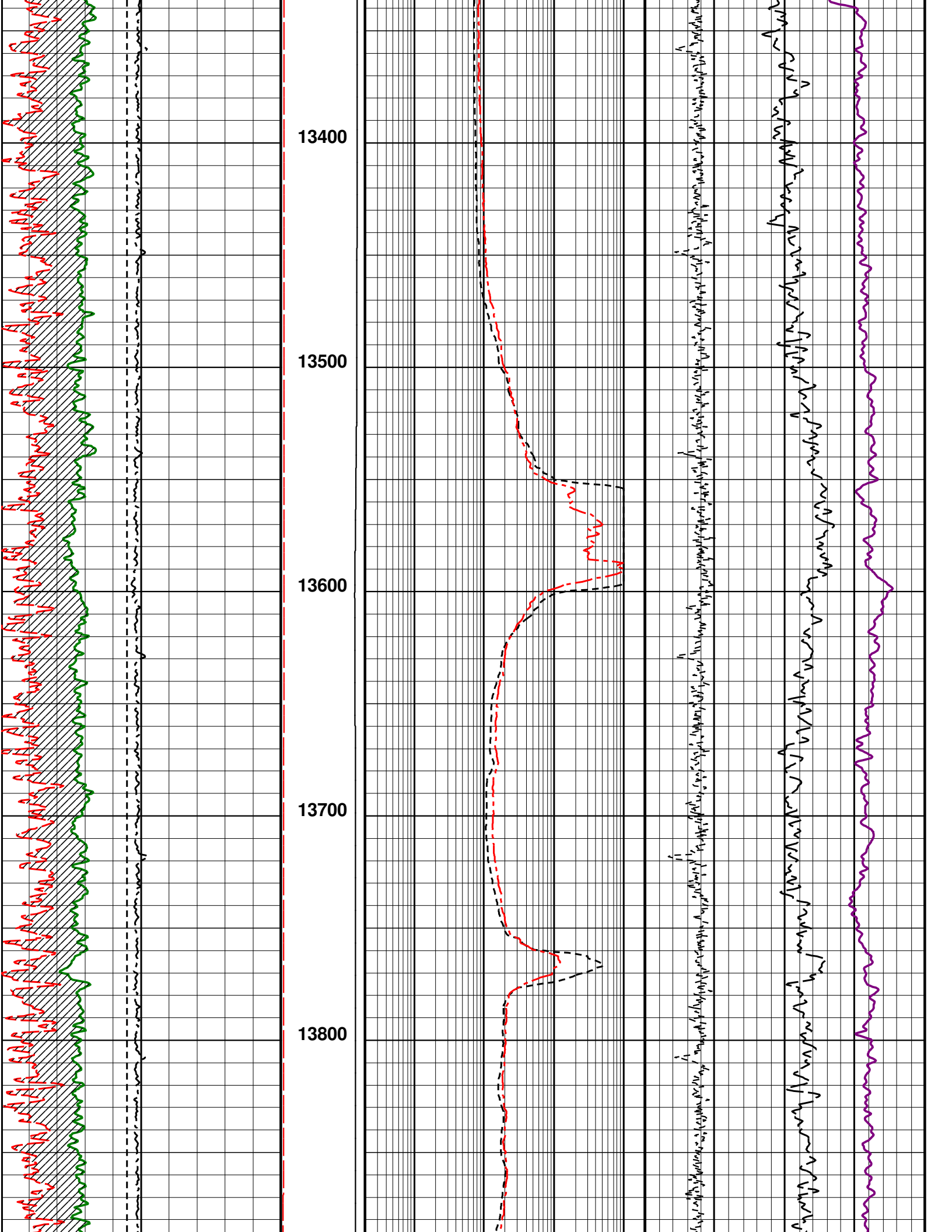


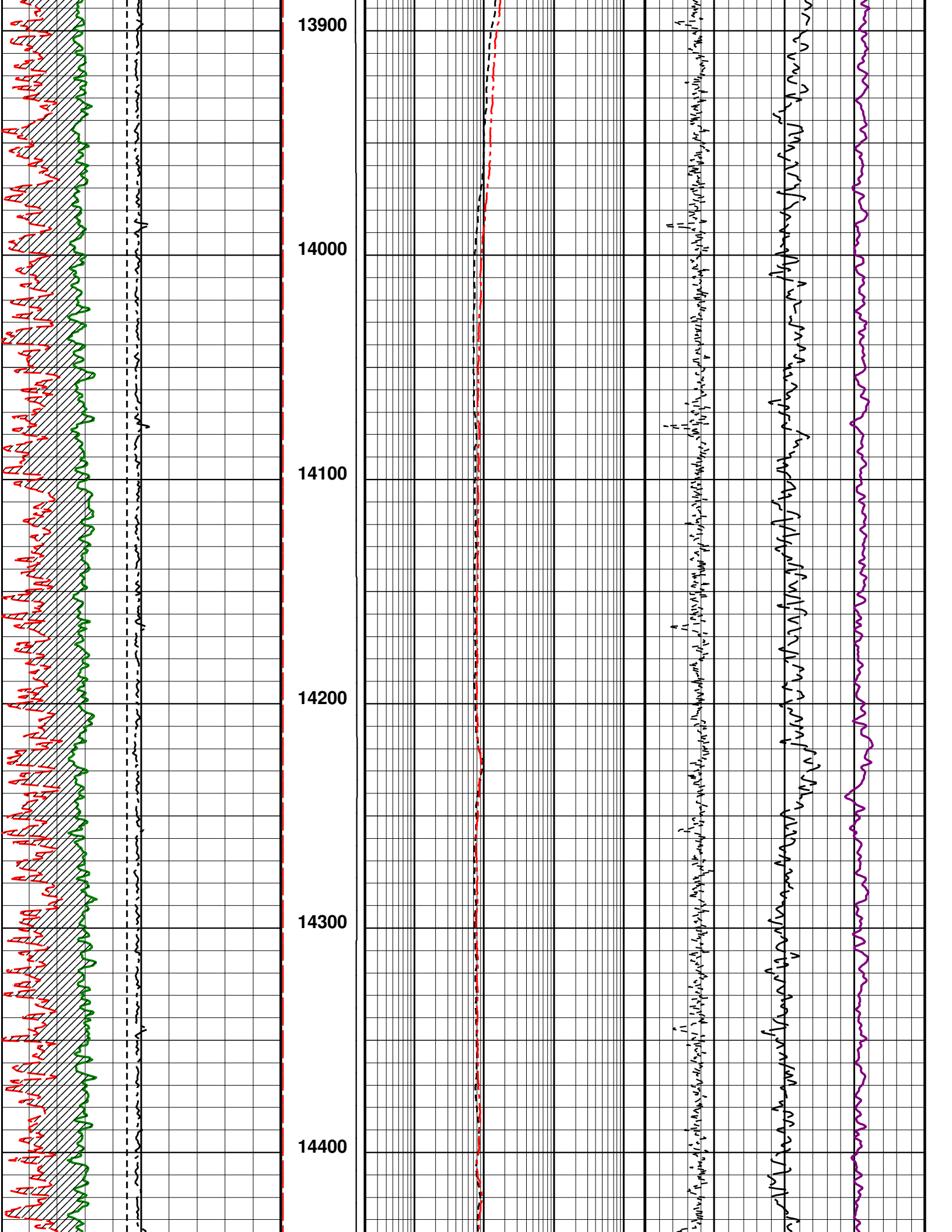


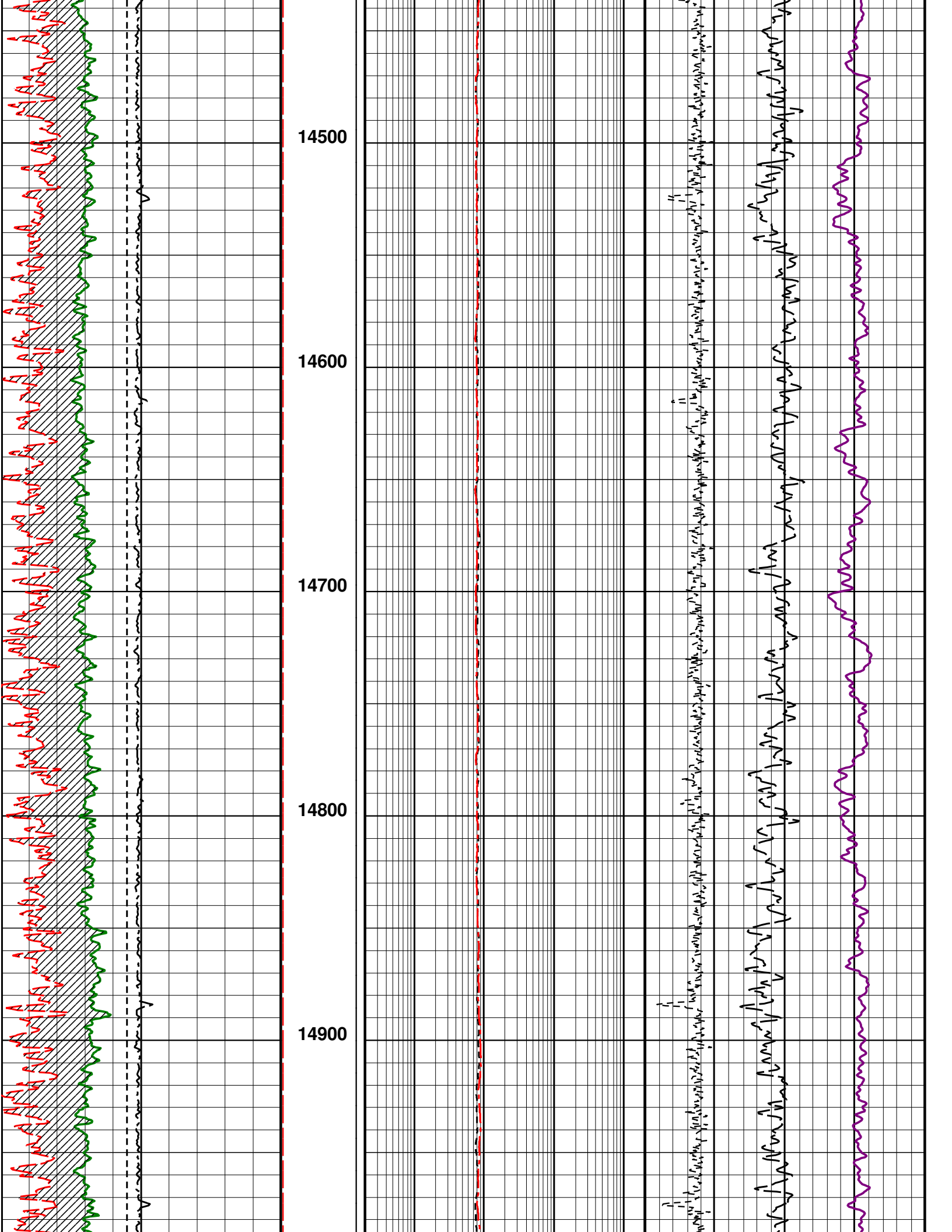


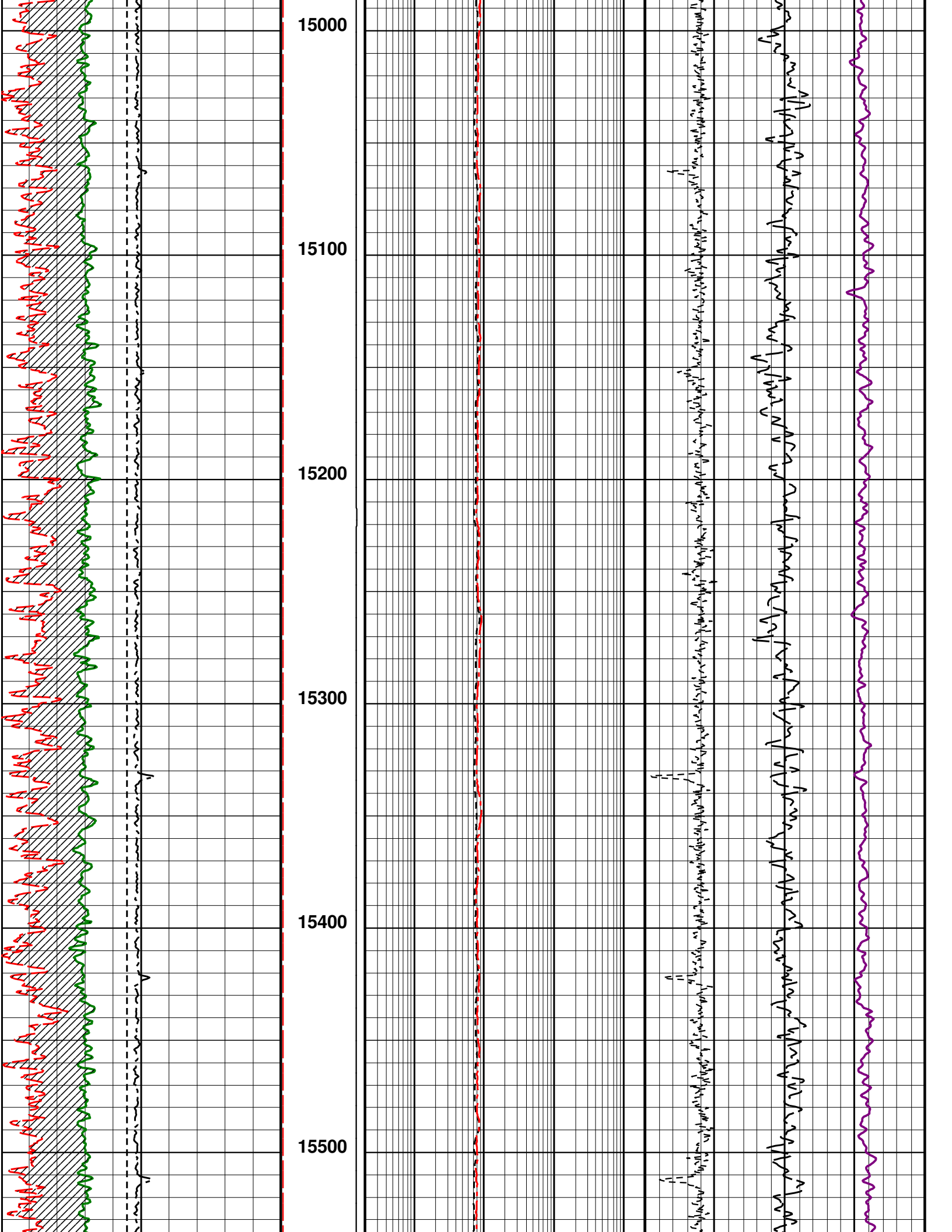


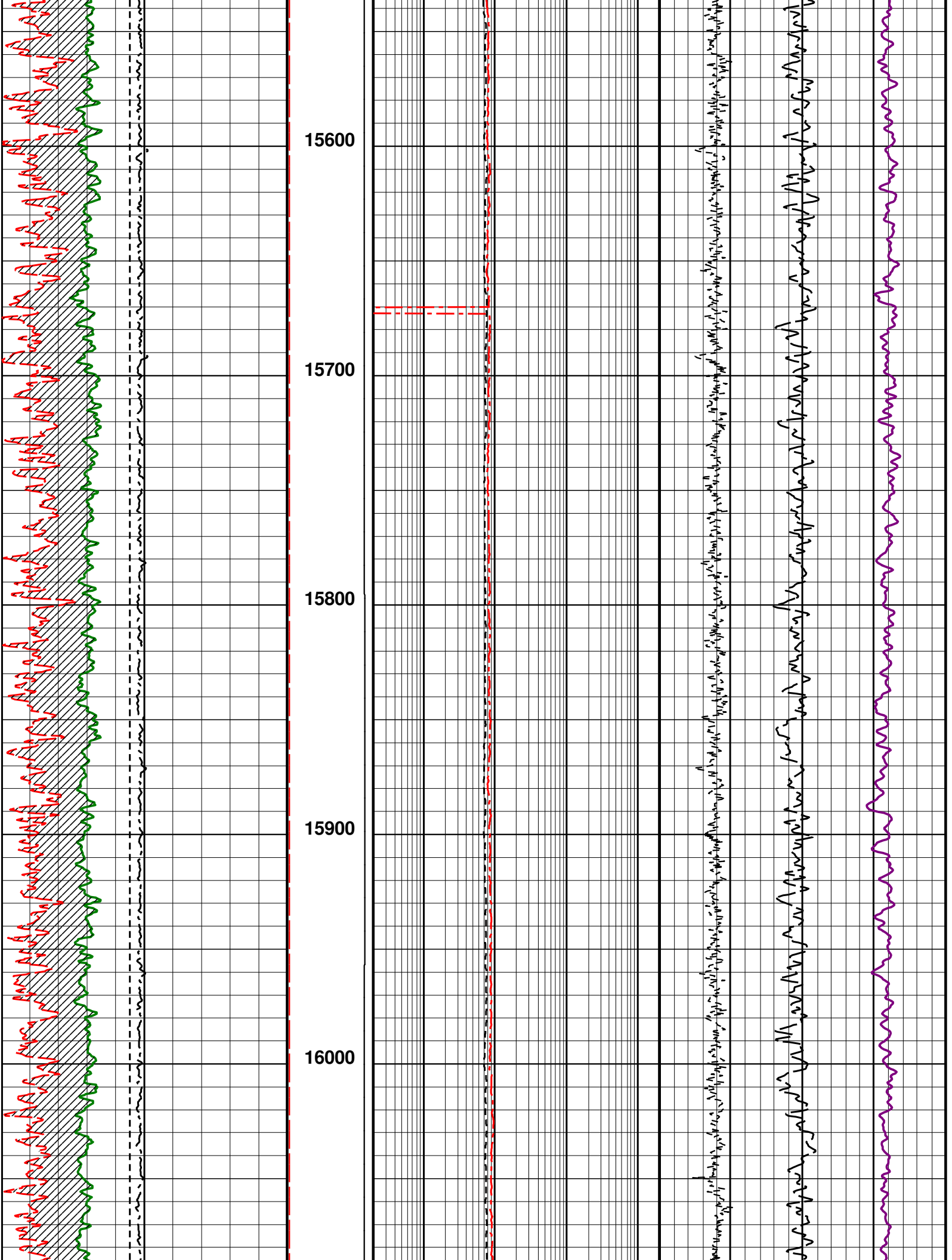


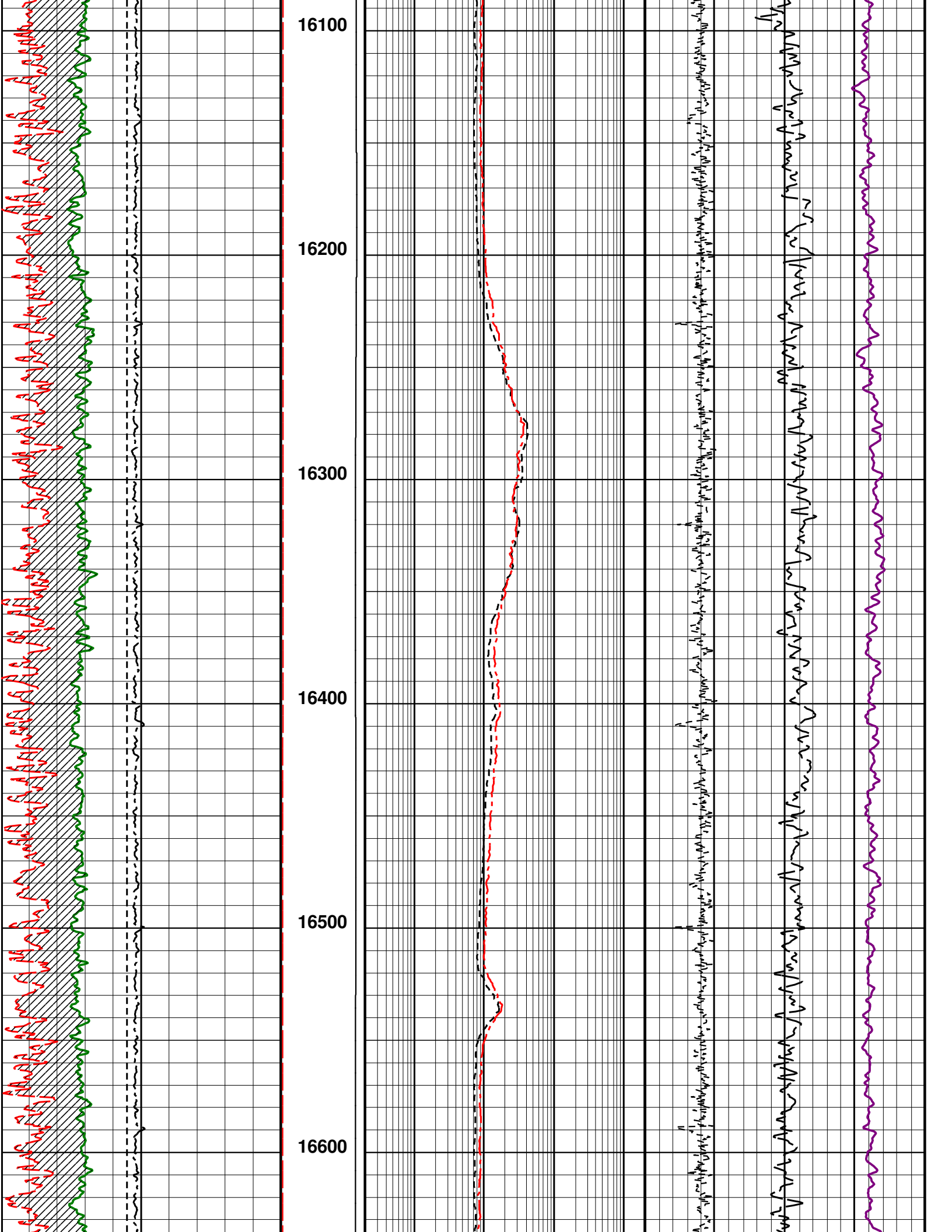


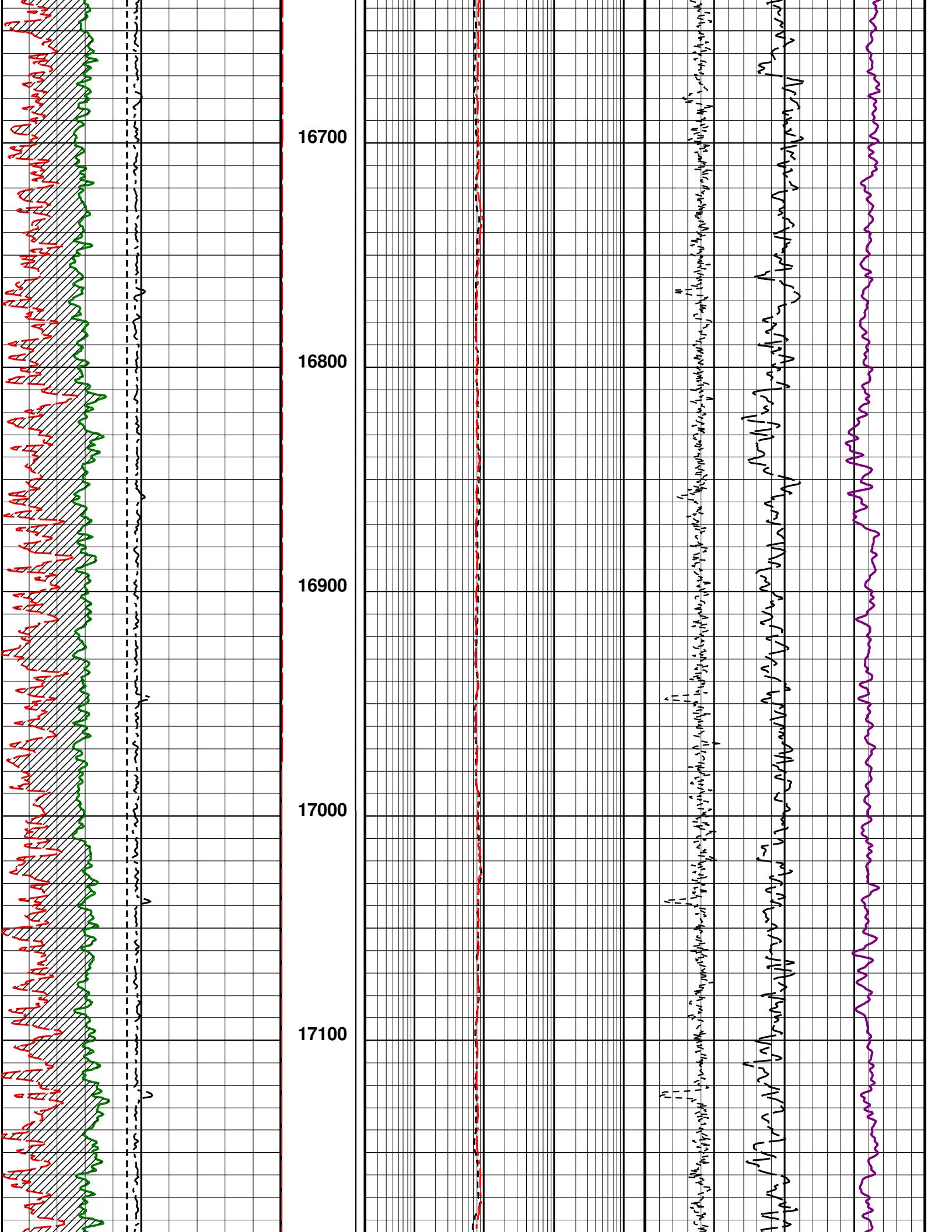


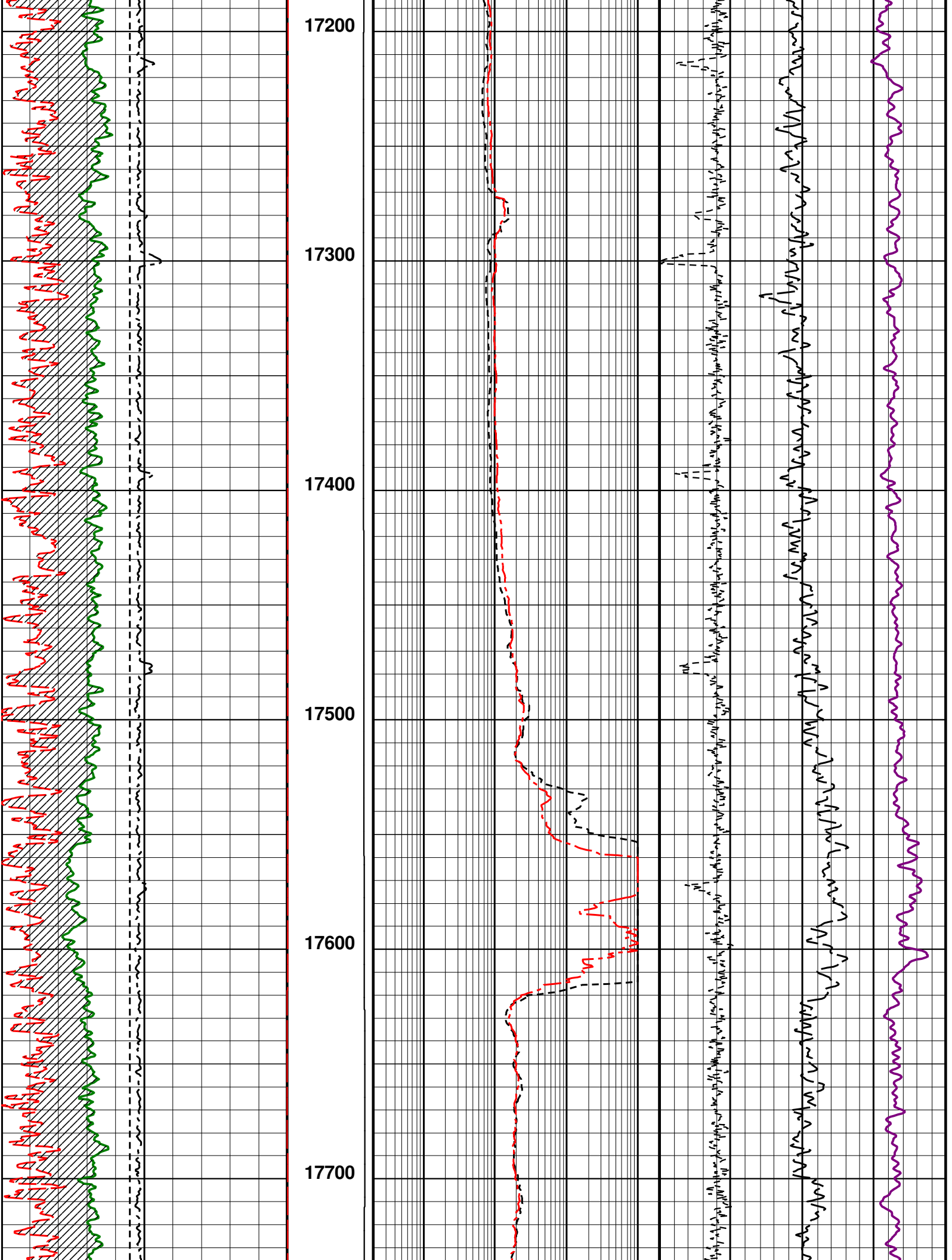


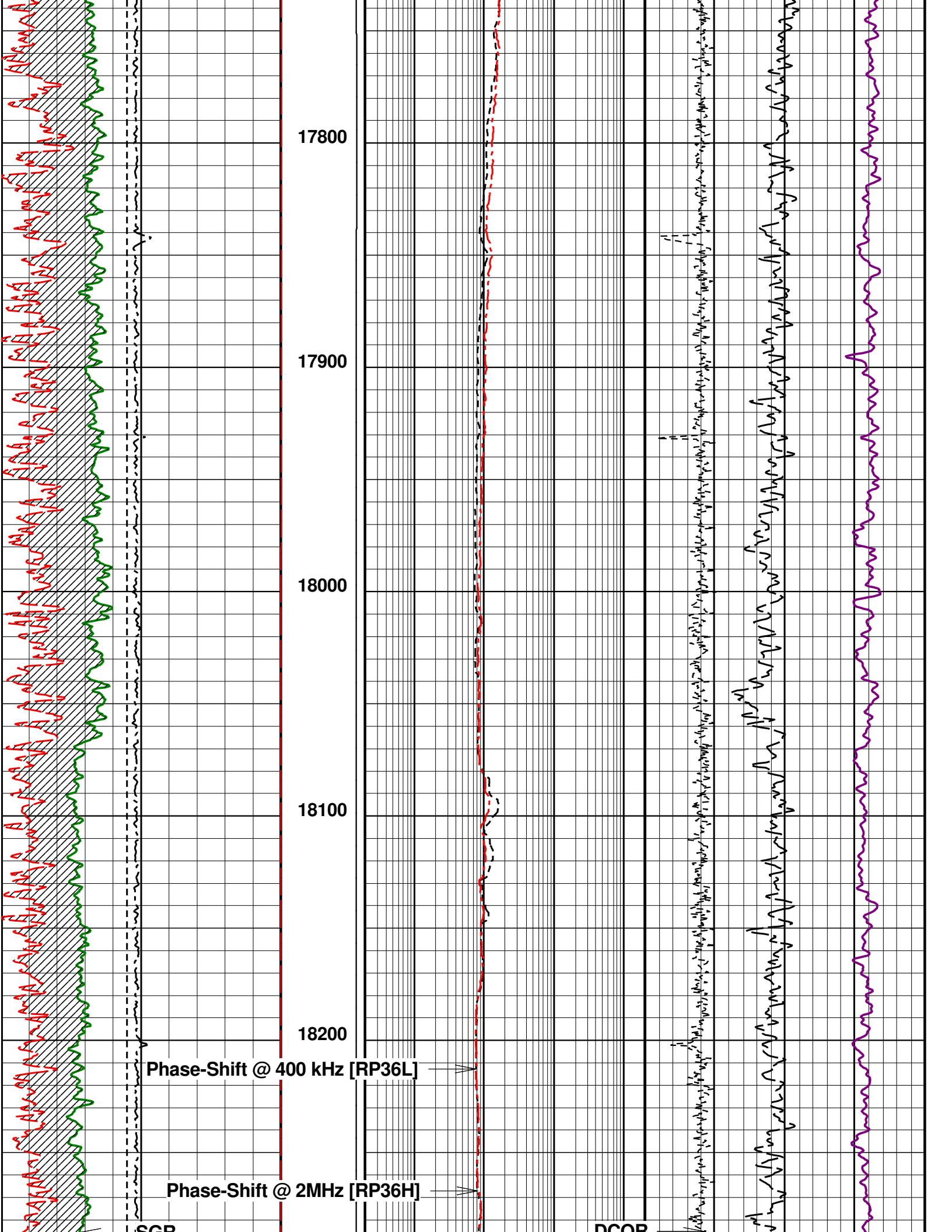


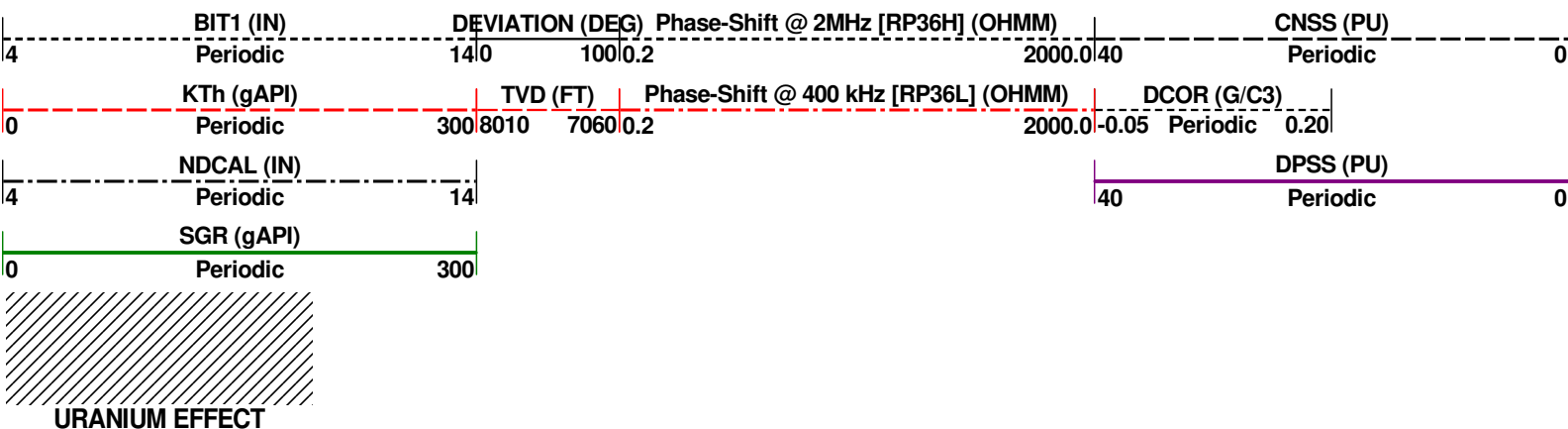
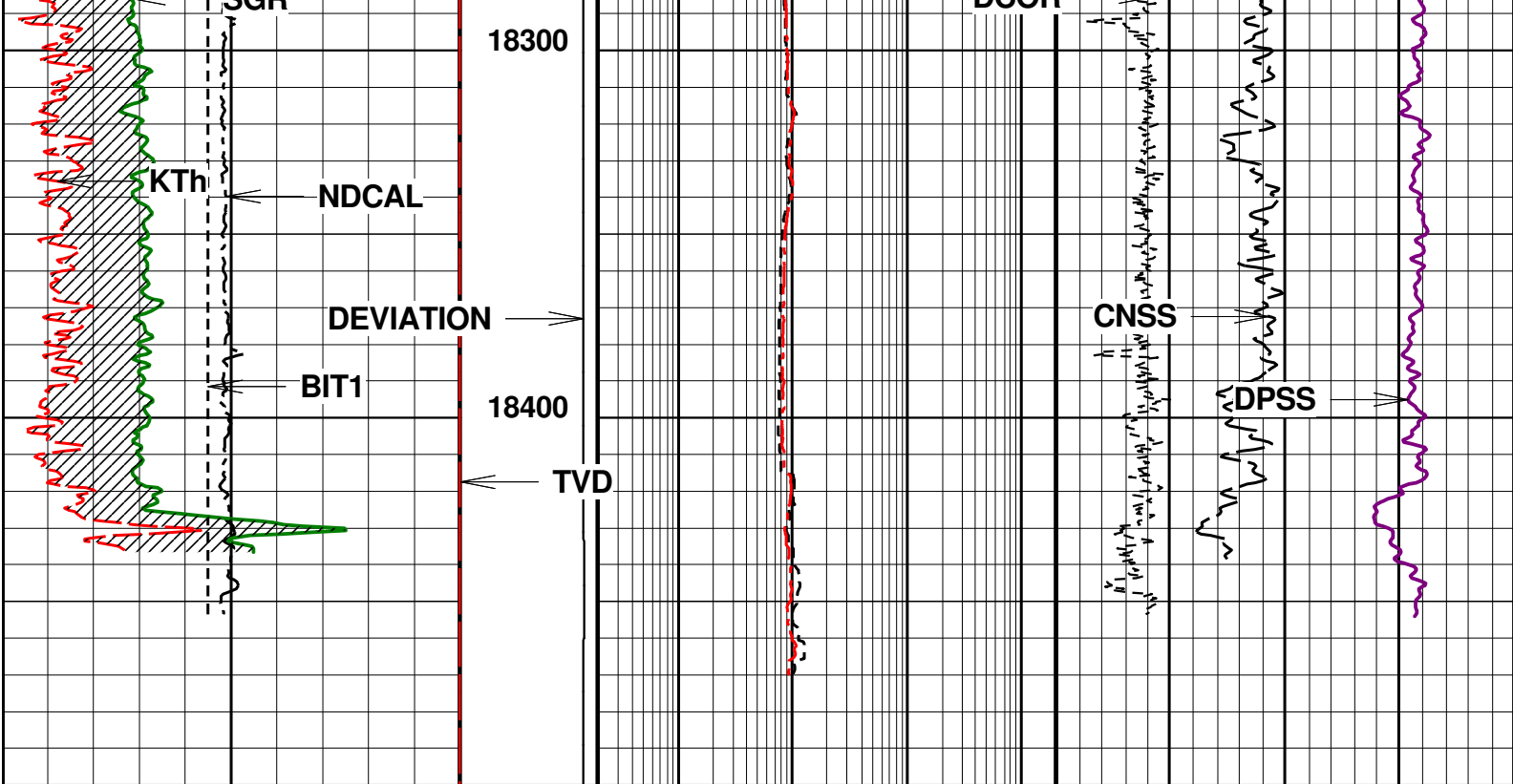












2" MAIN PASS LIMESTONE

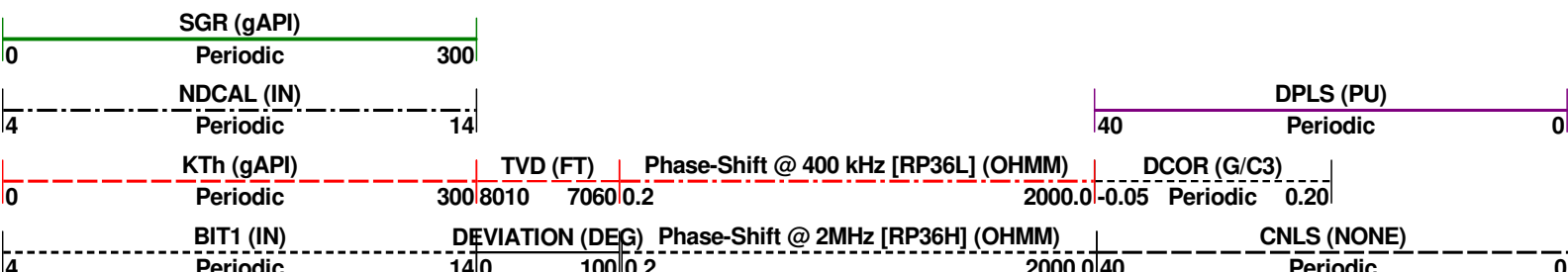
Company : GREAT WESTERN OPERATING COMPANY LLC Date : 29-Jan-2019

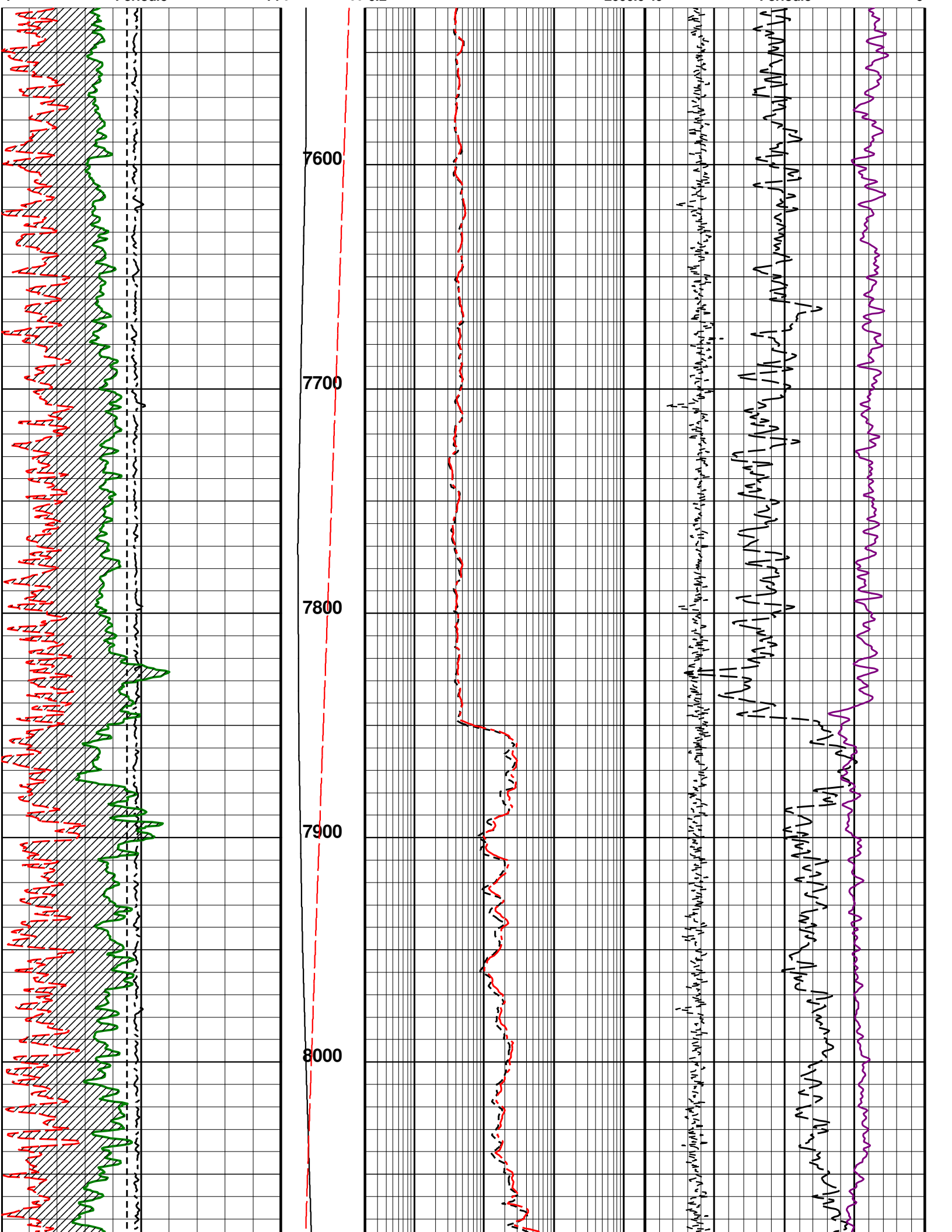
Well : B-FARM LD 18-392HC Time :

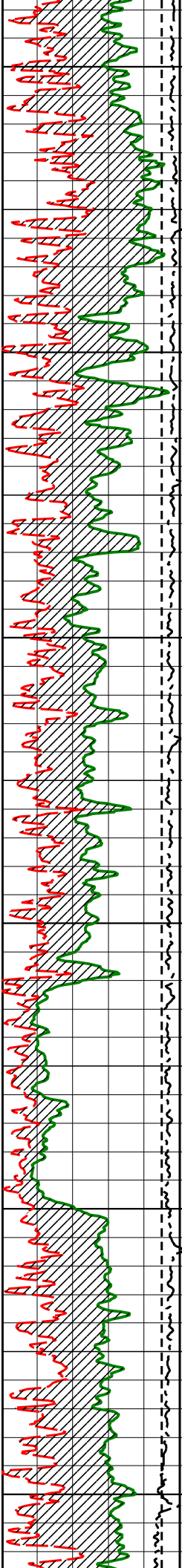
Scale : 1 : 600 Remarks : LIMESTONE MATRIX

Depth in : Feet

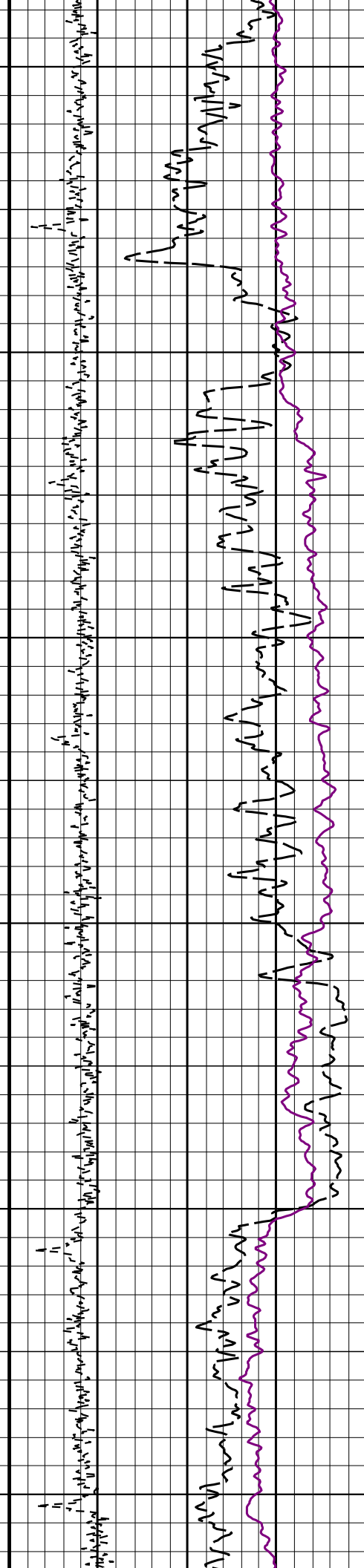
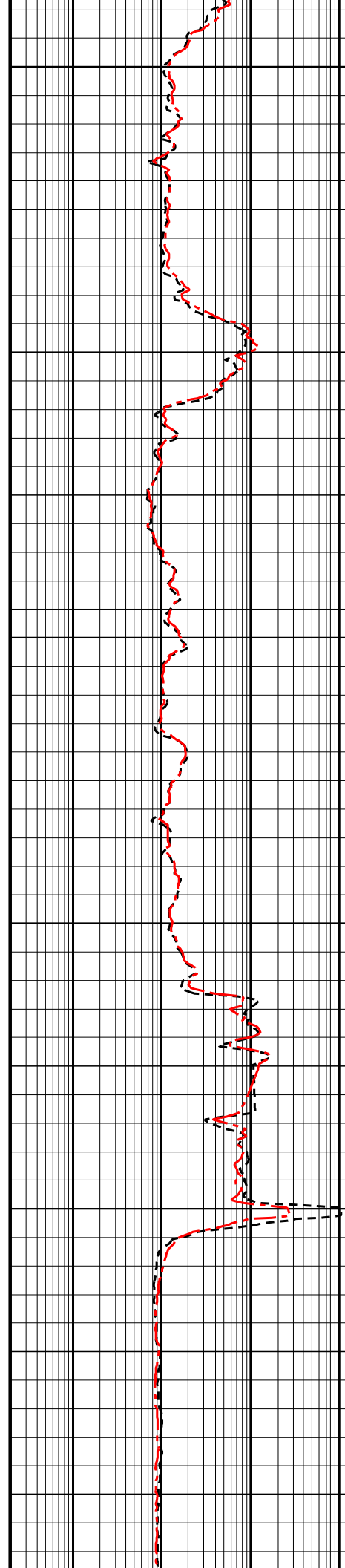
Software : WinAPIPlot Ver. 5, 75, 0, 0 File Name : 812_05-001-10094-00_FINAL MD

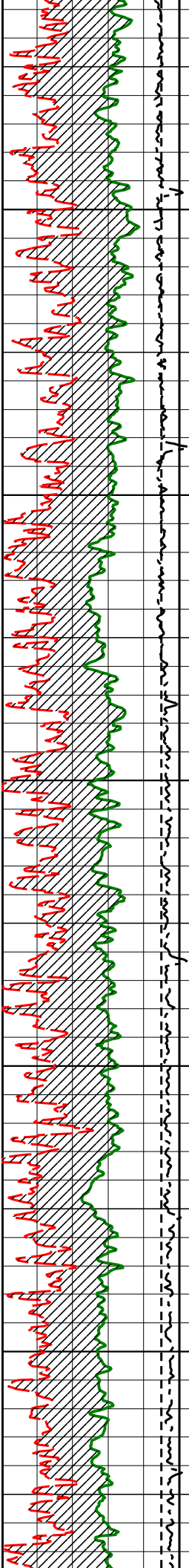






8100
8200
8300
8400
8500
8600





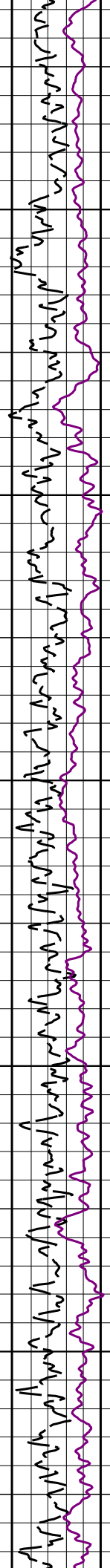
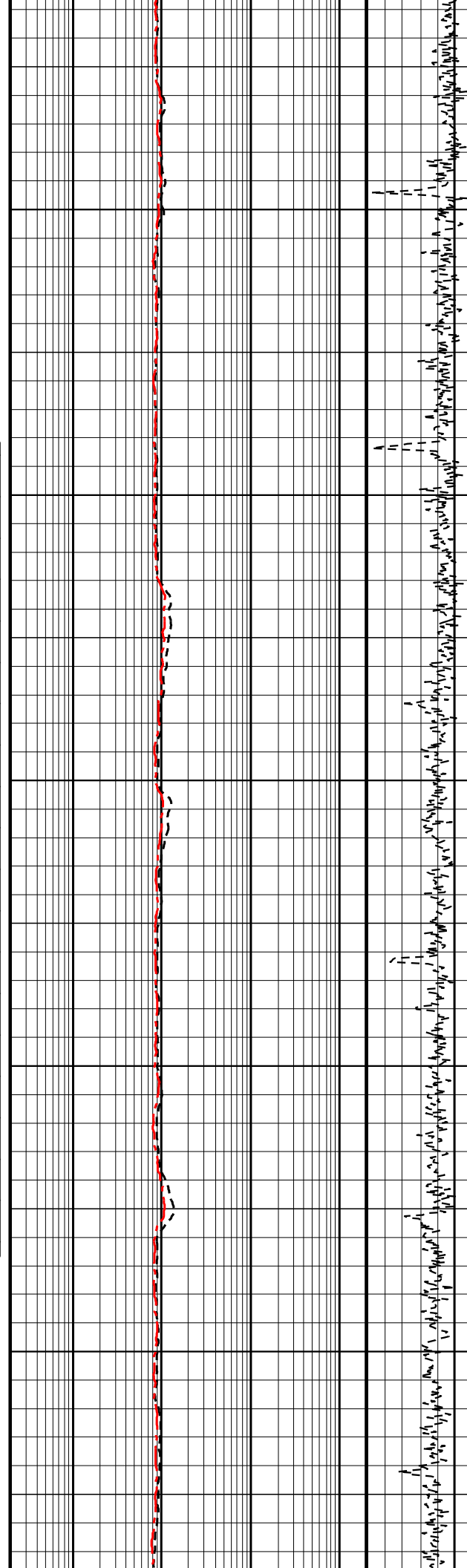
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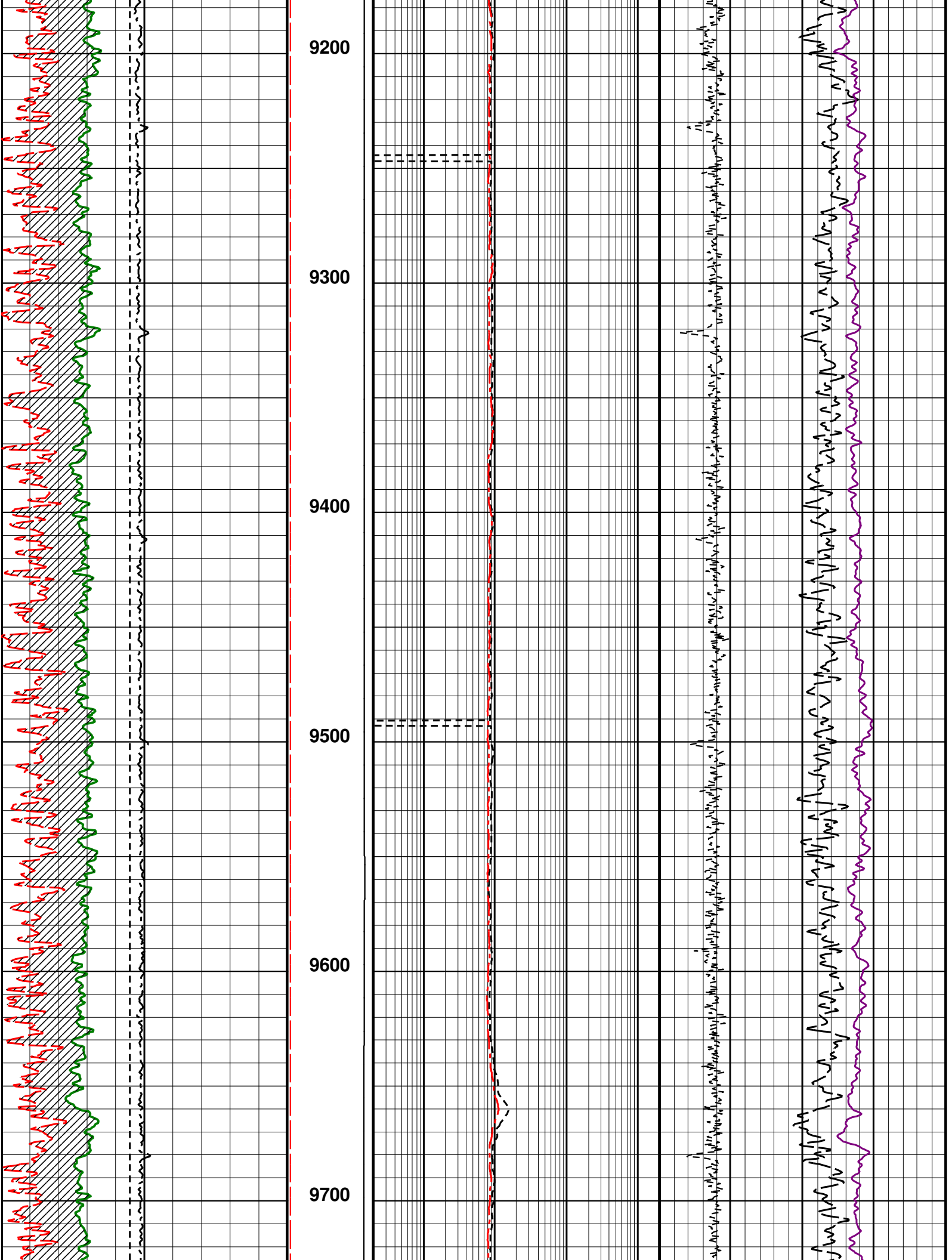
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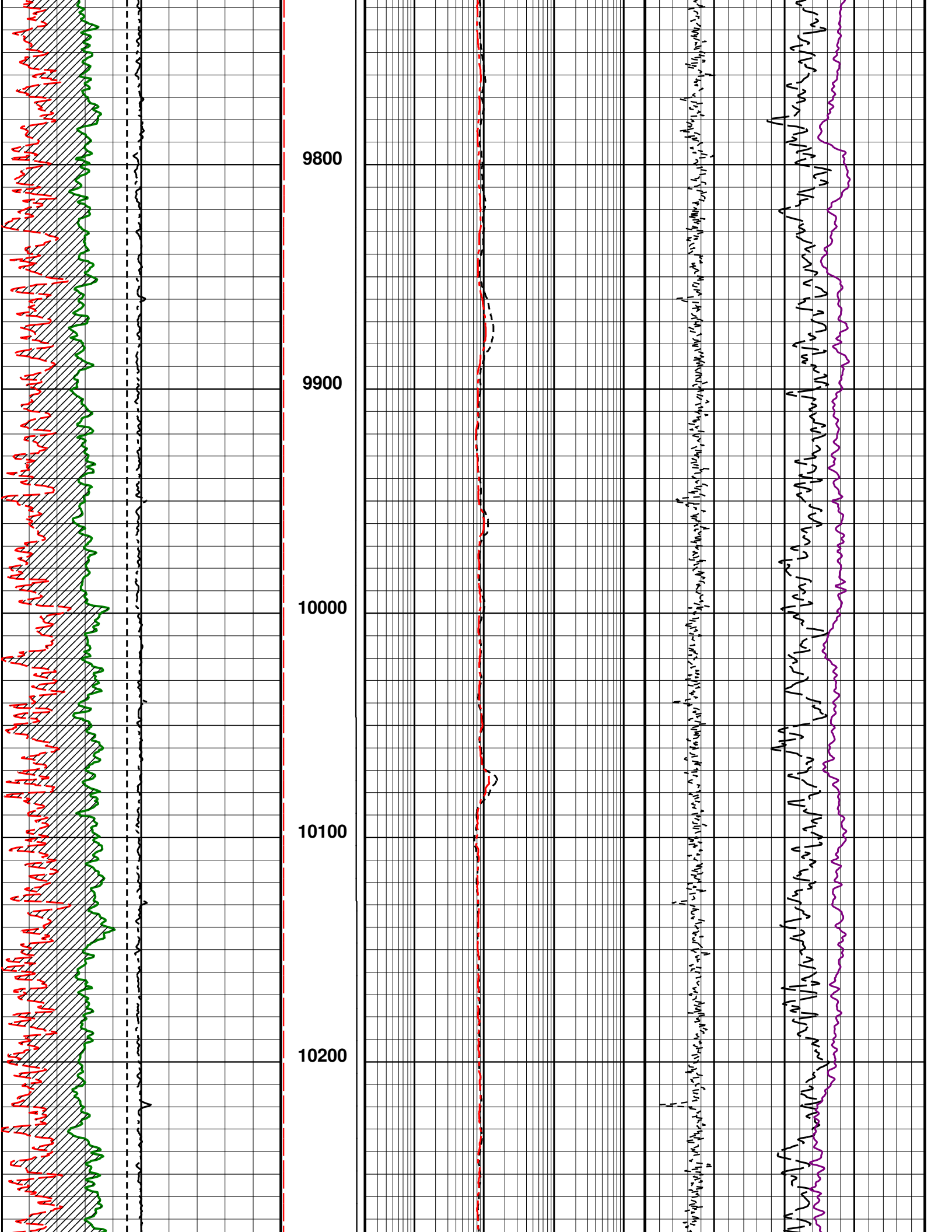
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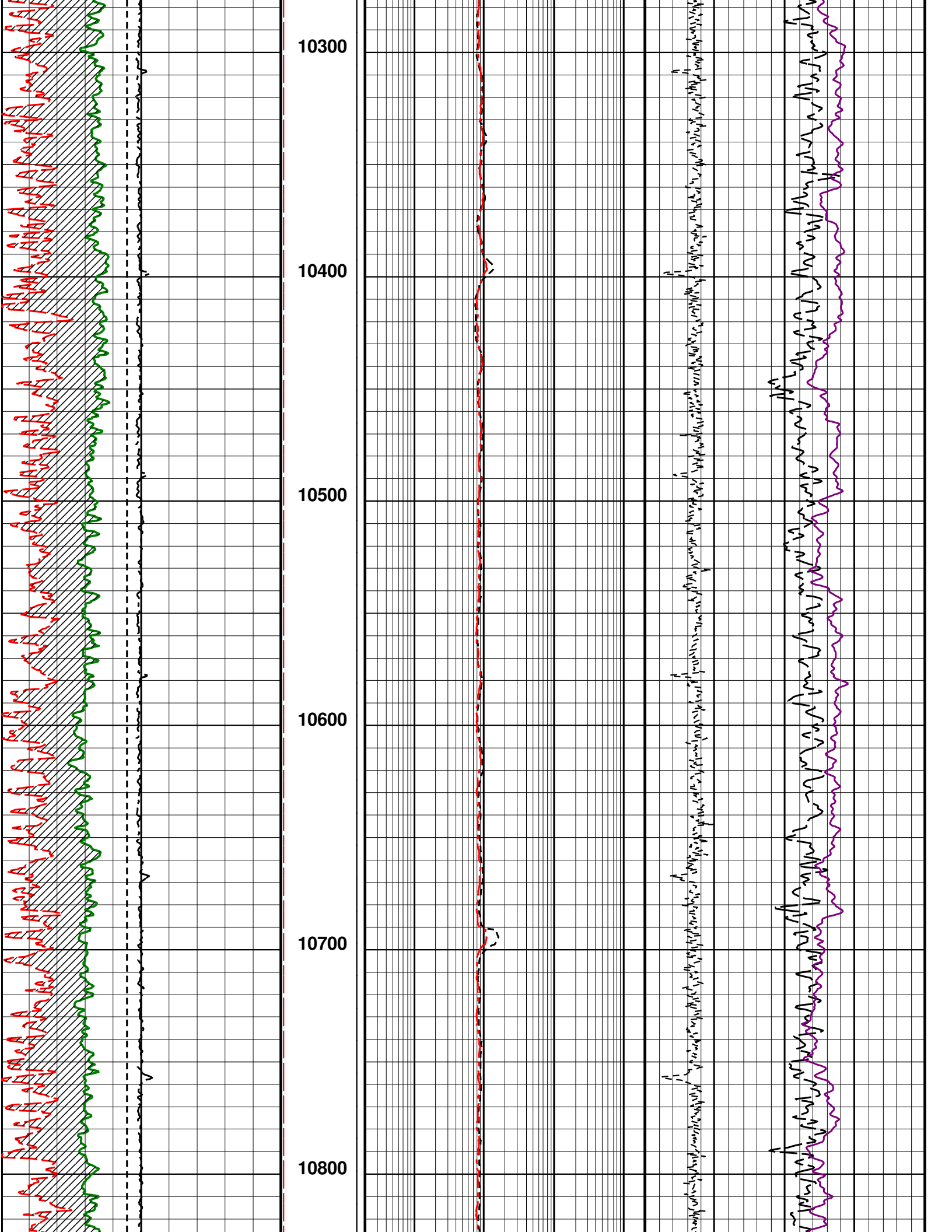
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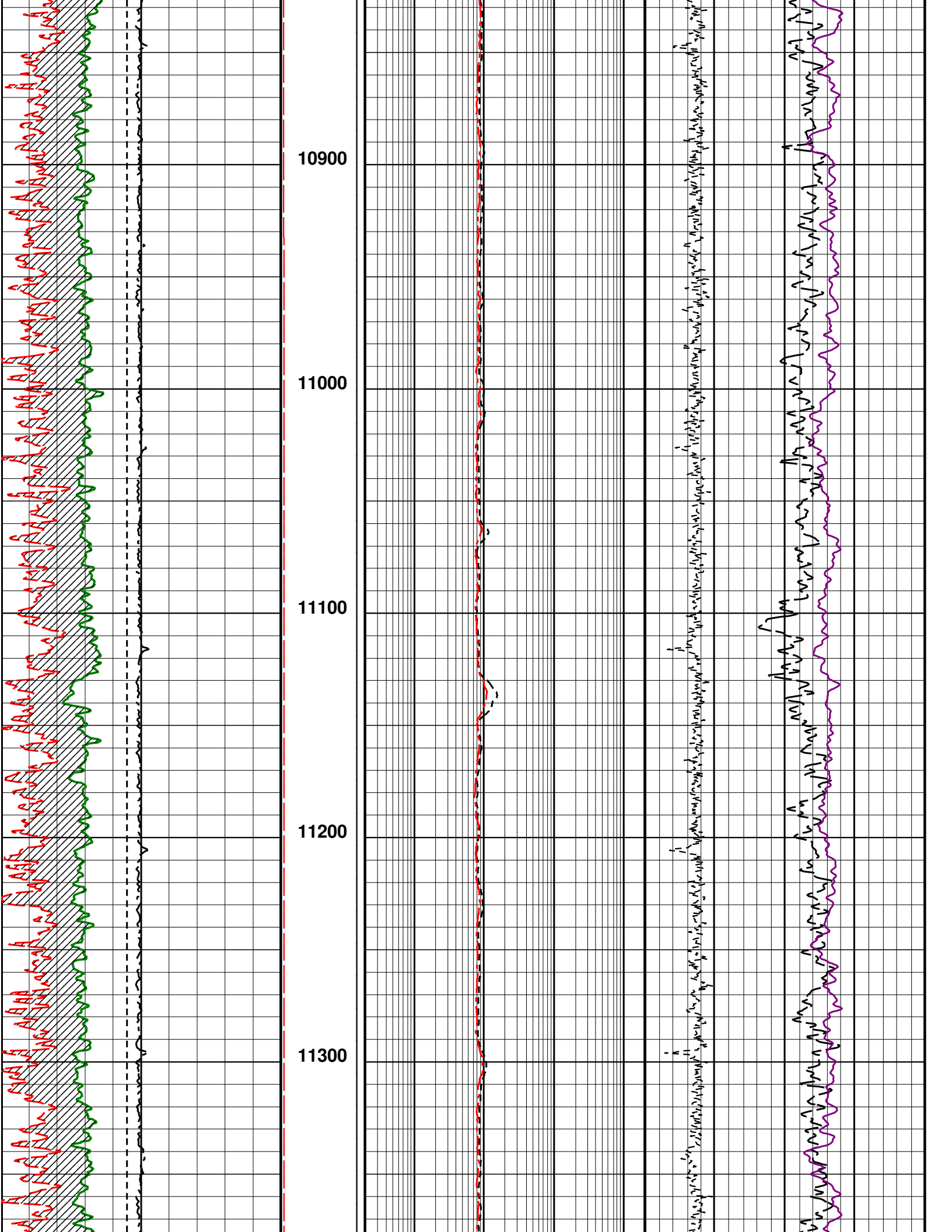
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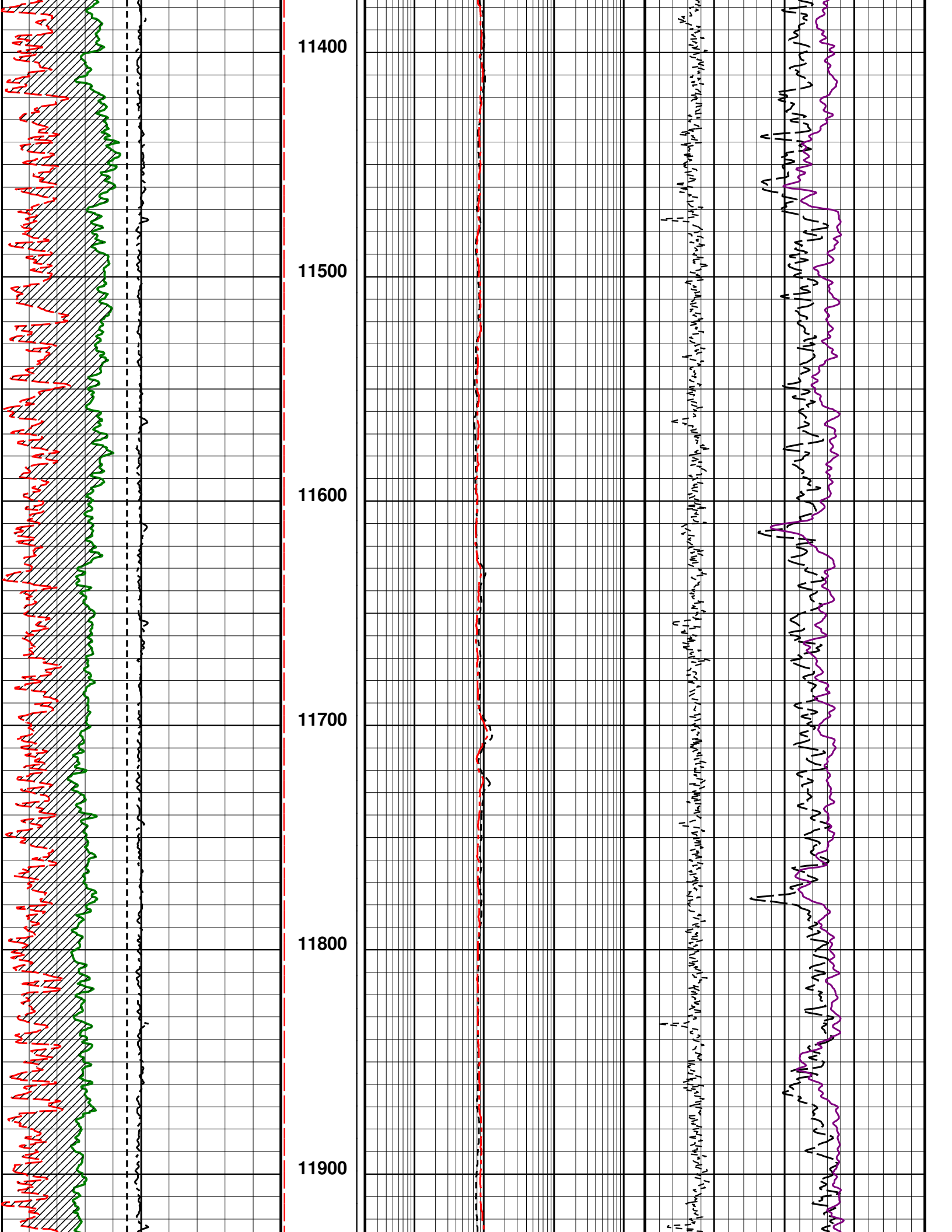


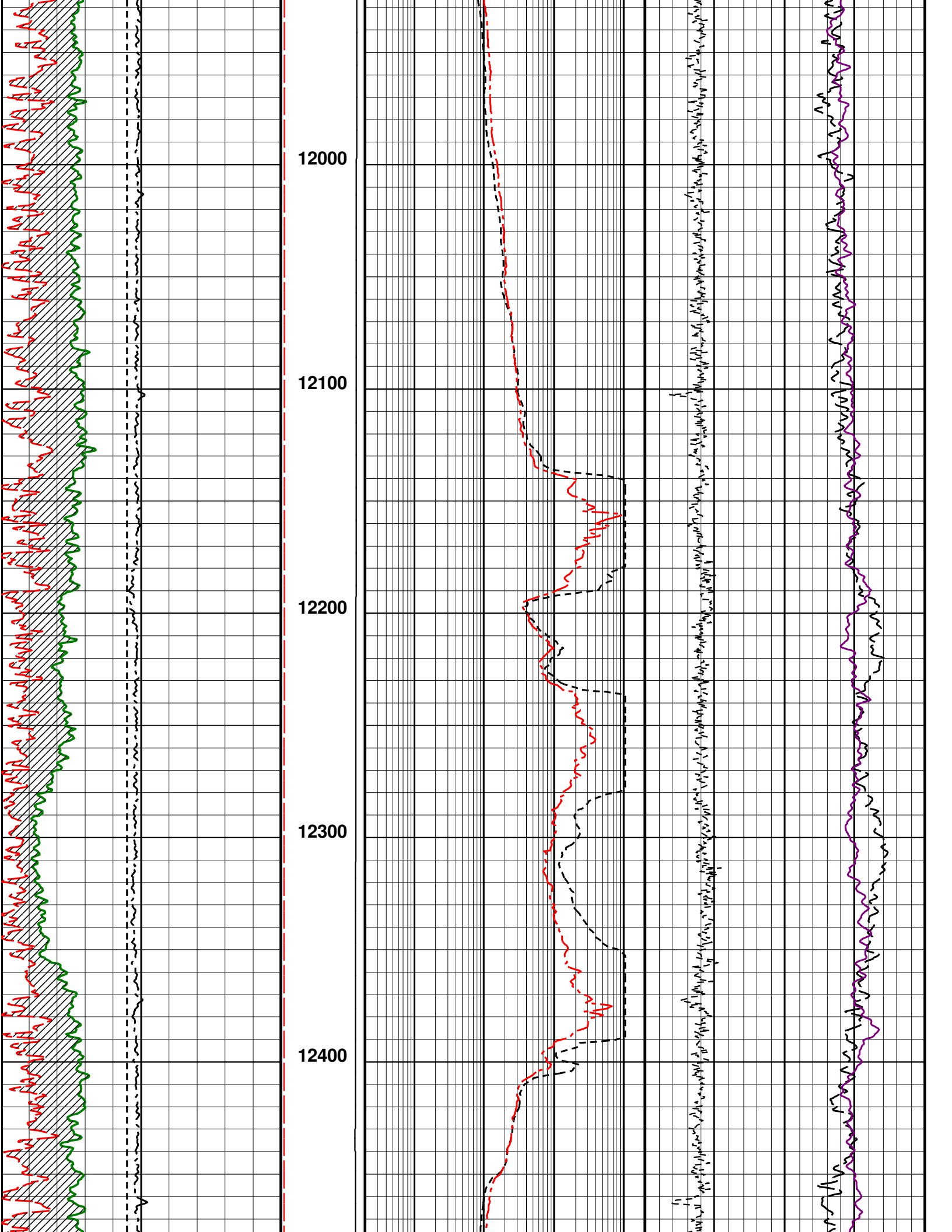


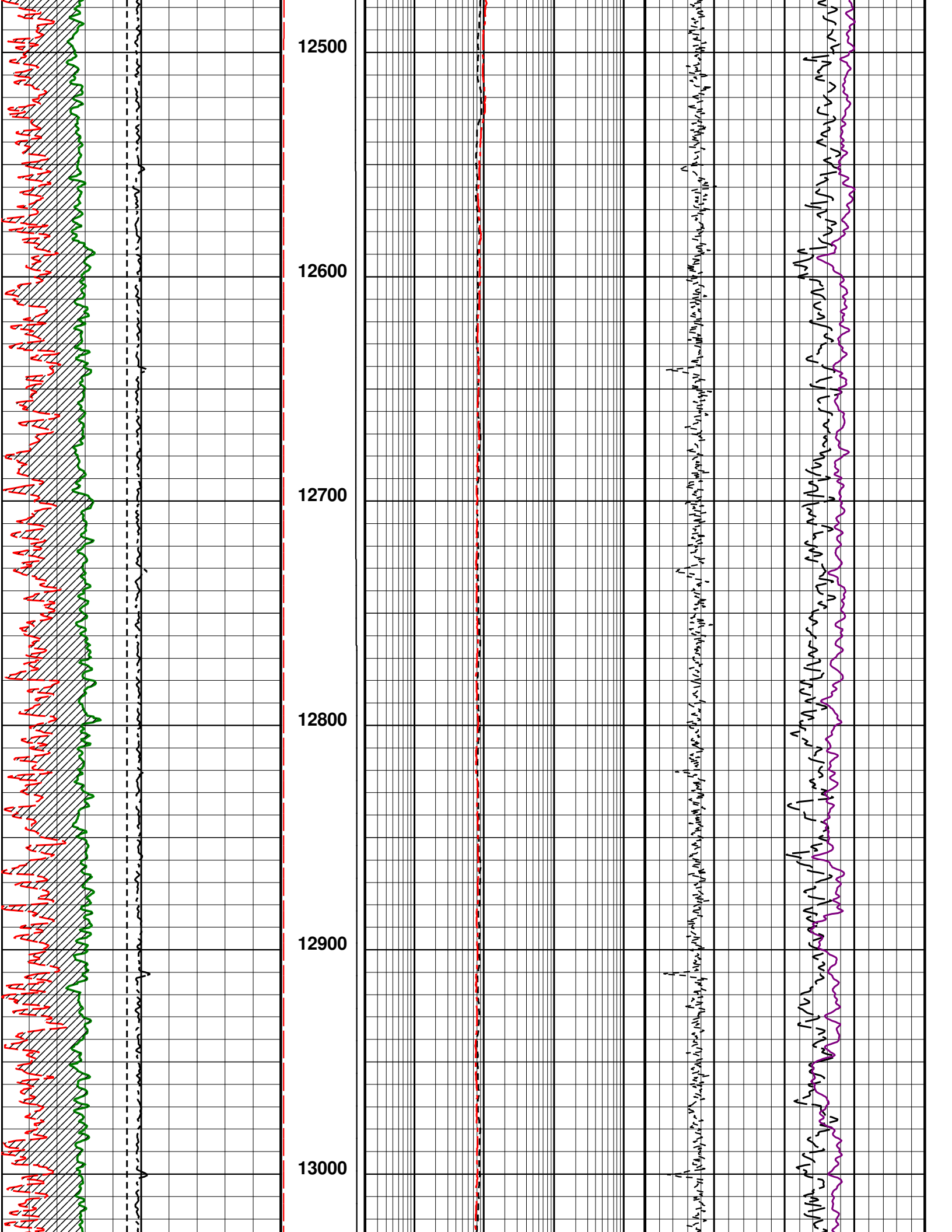


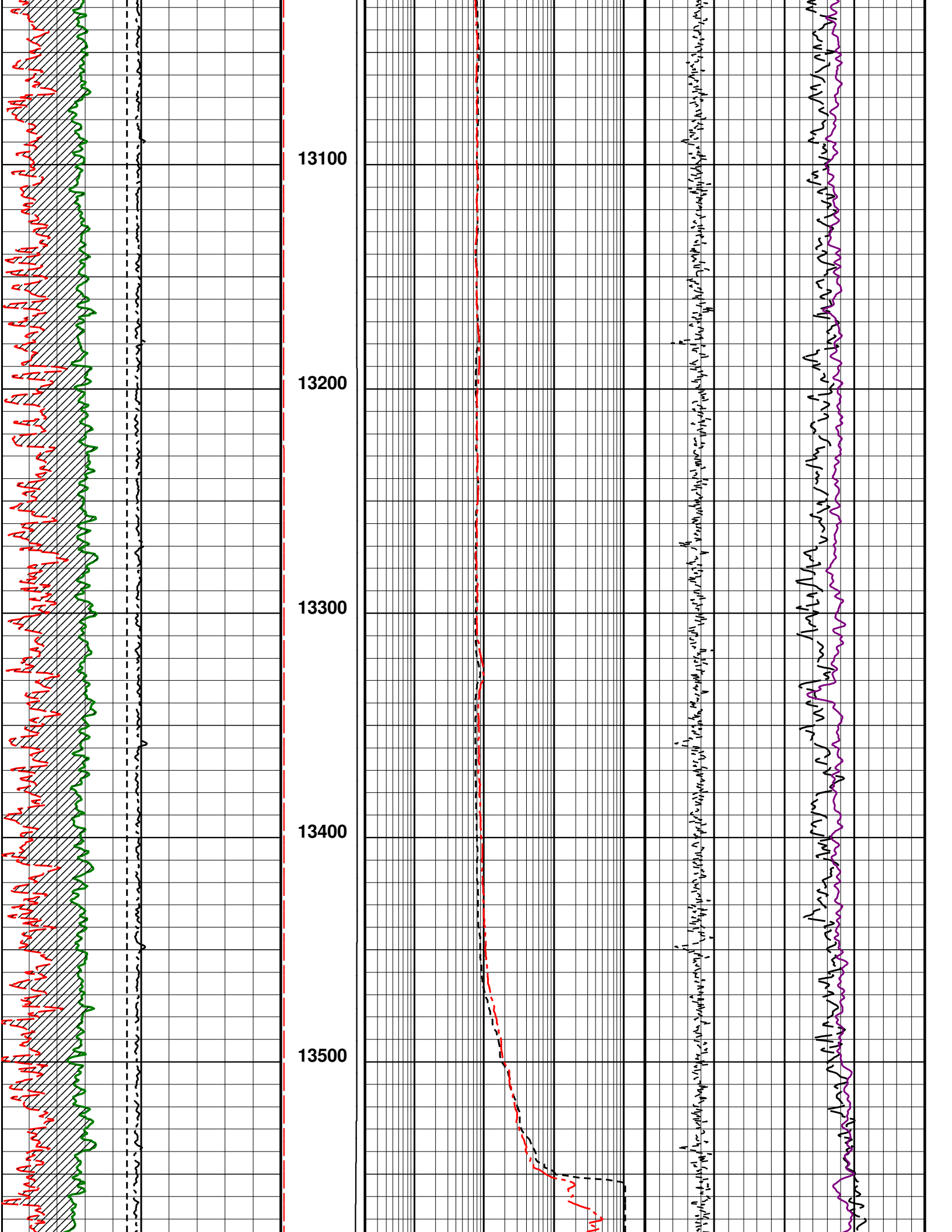


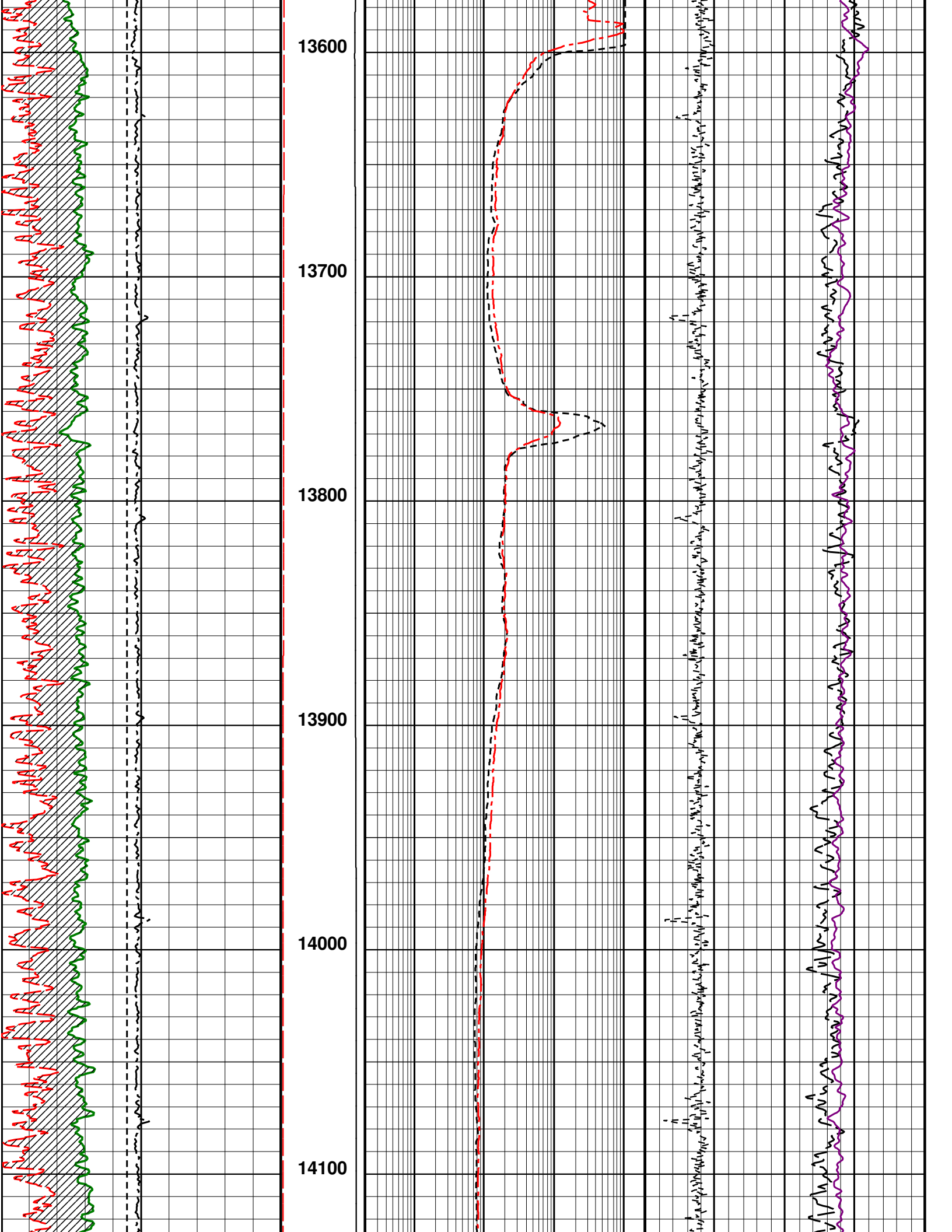


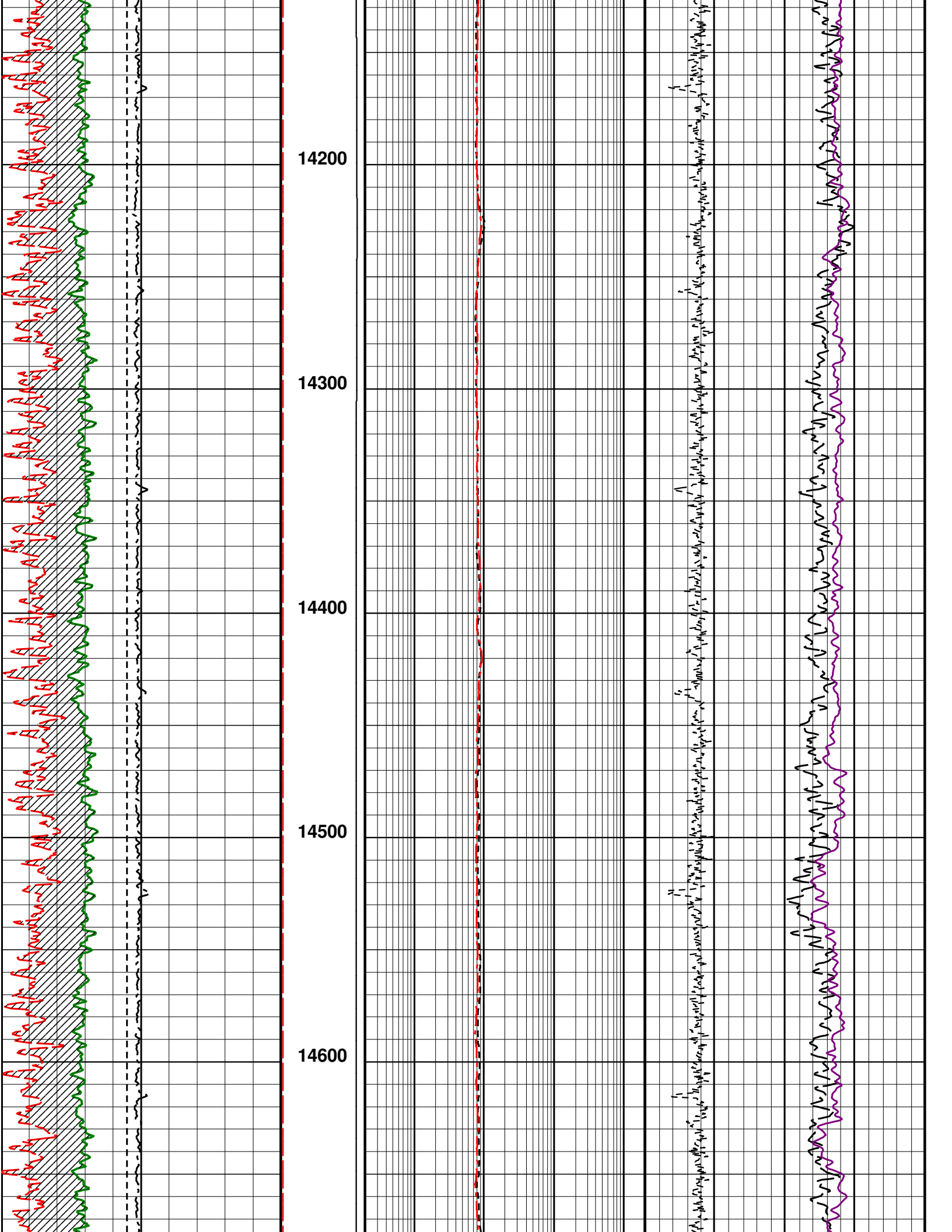


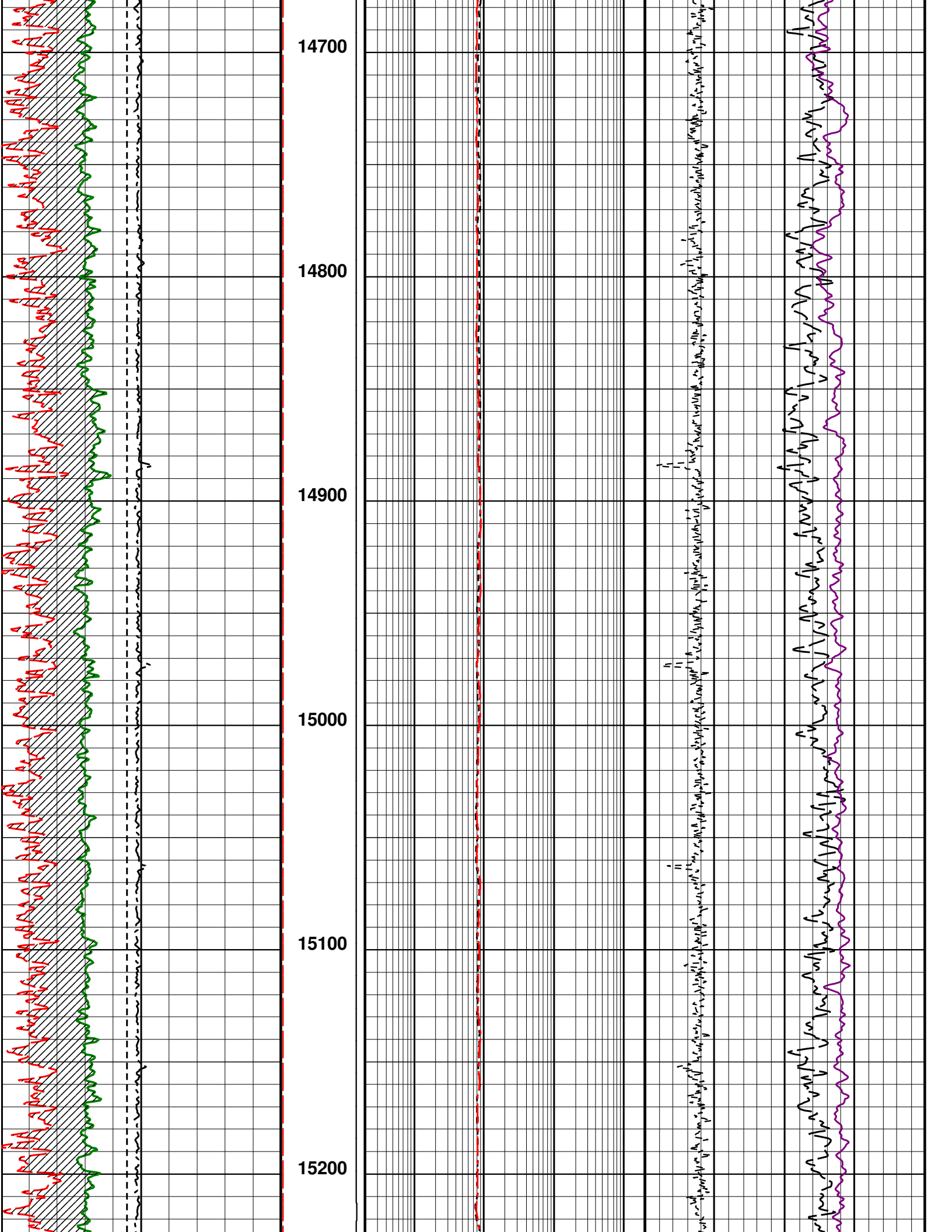


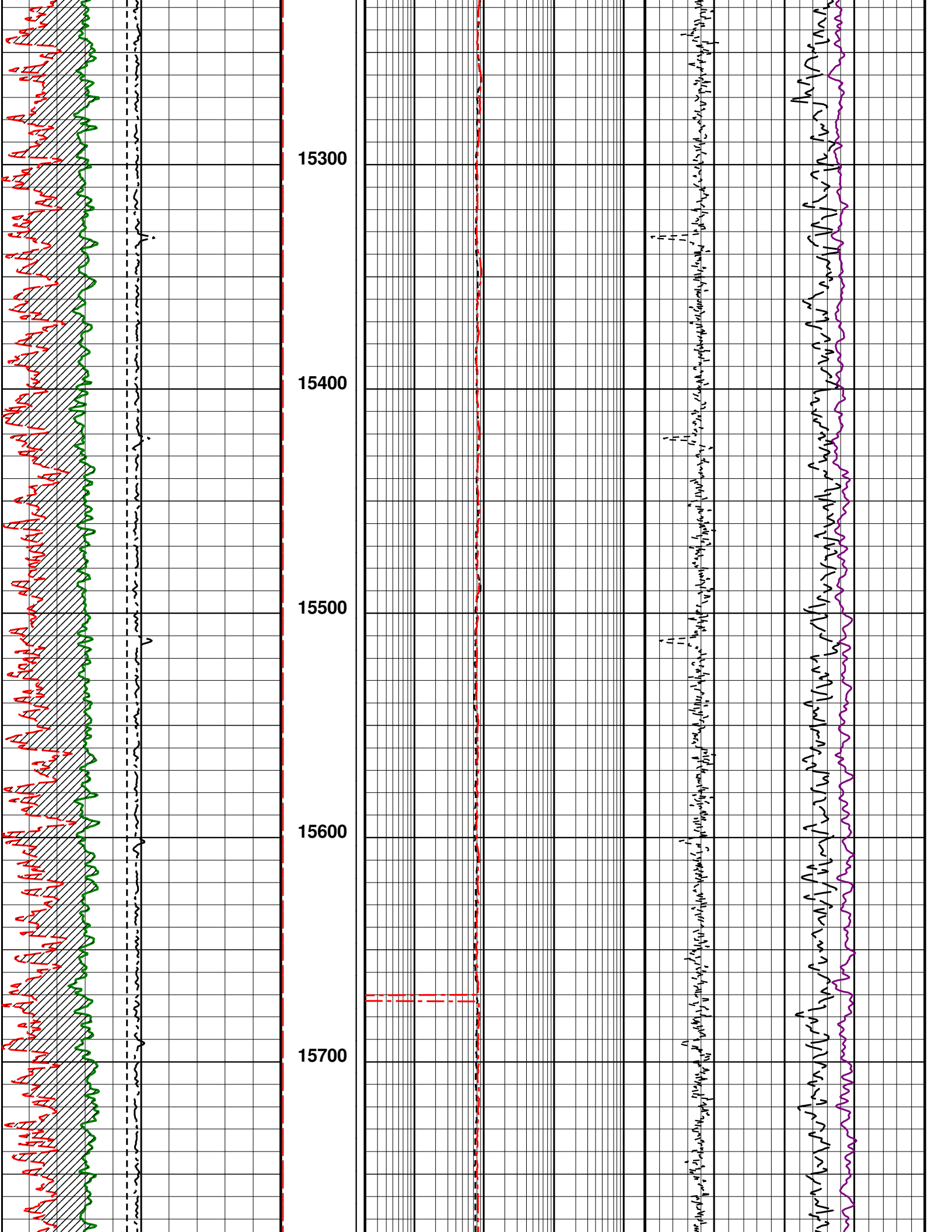


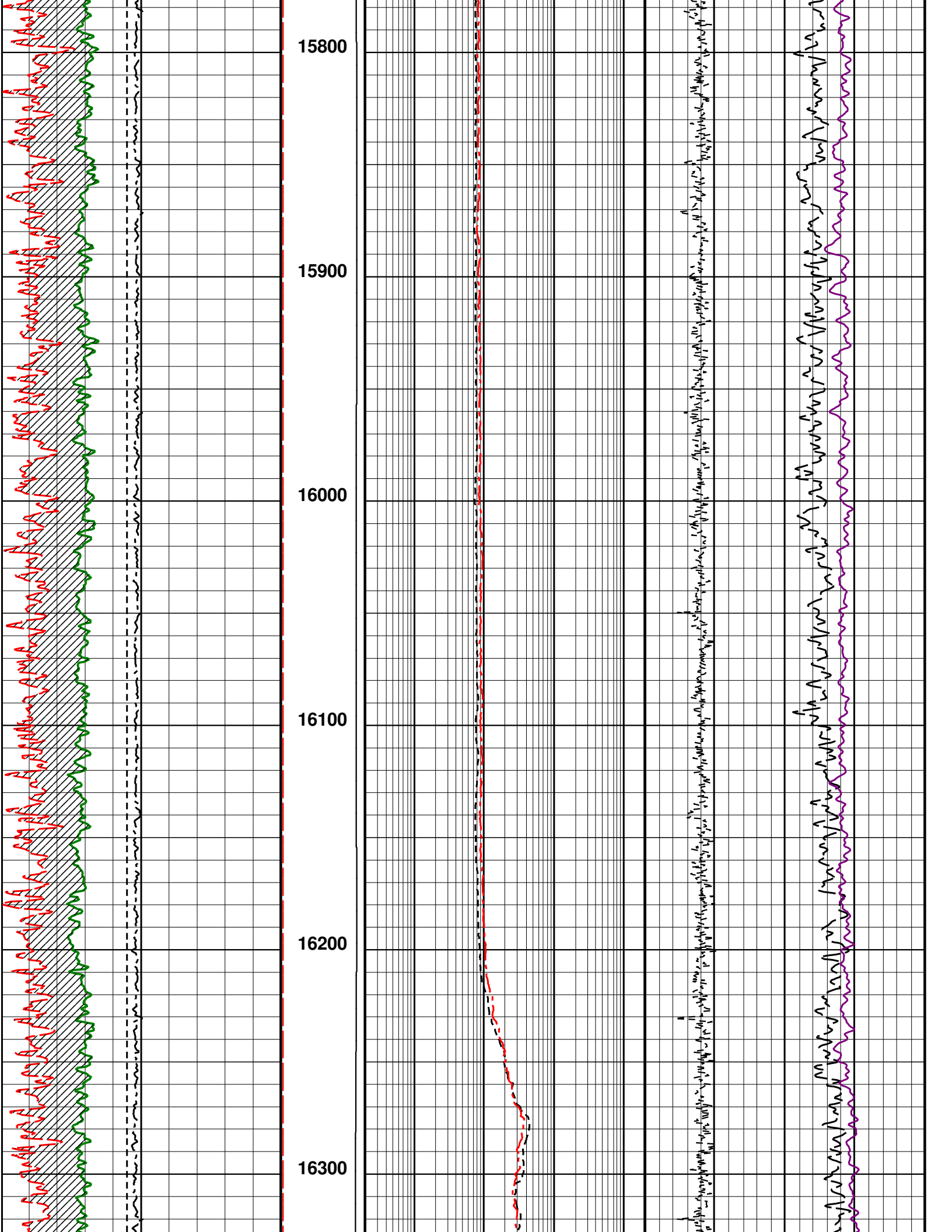


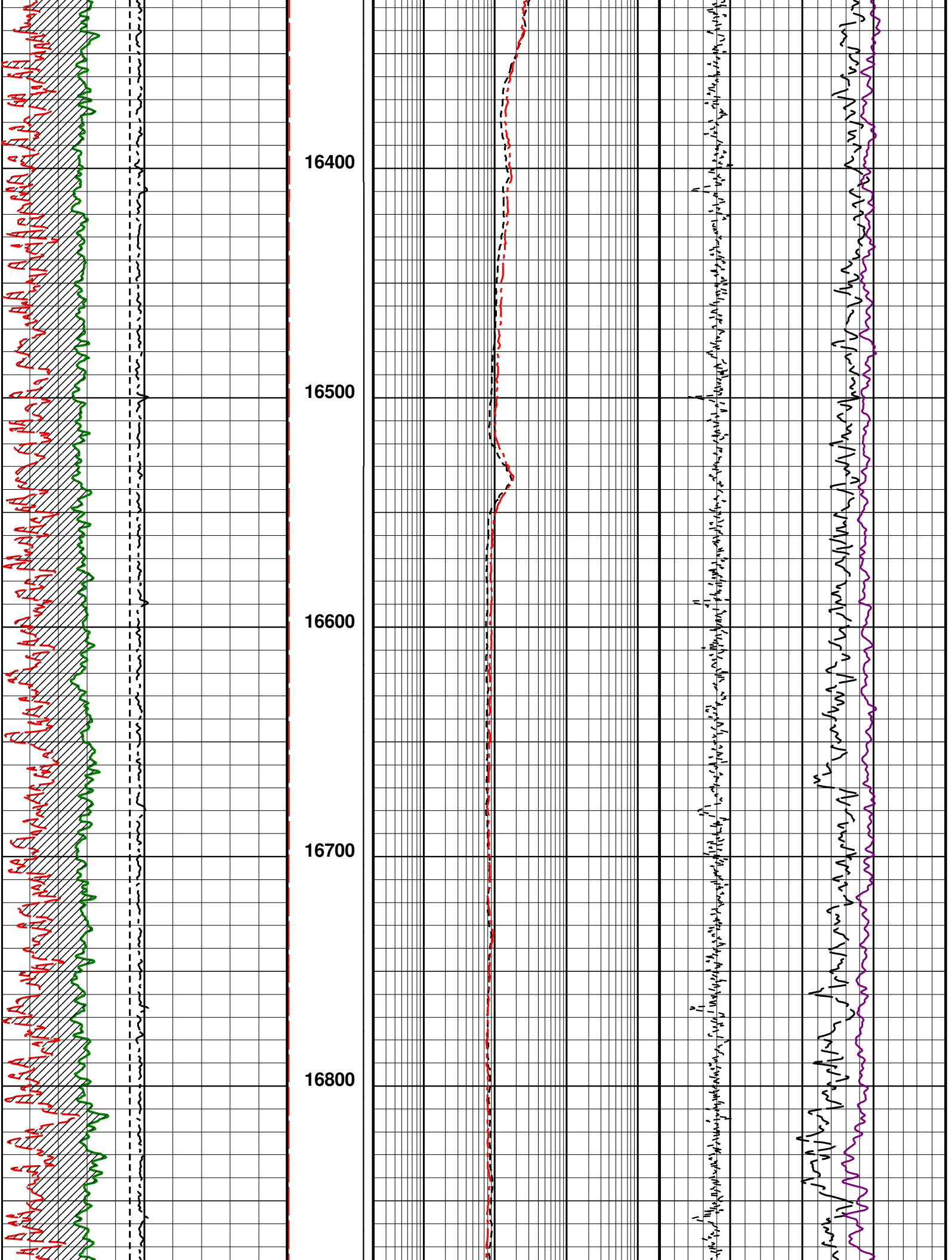


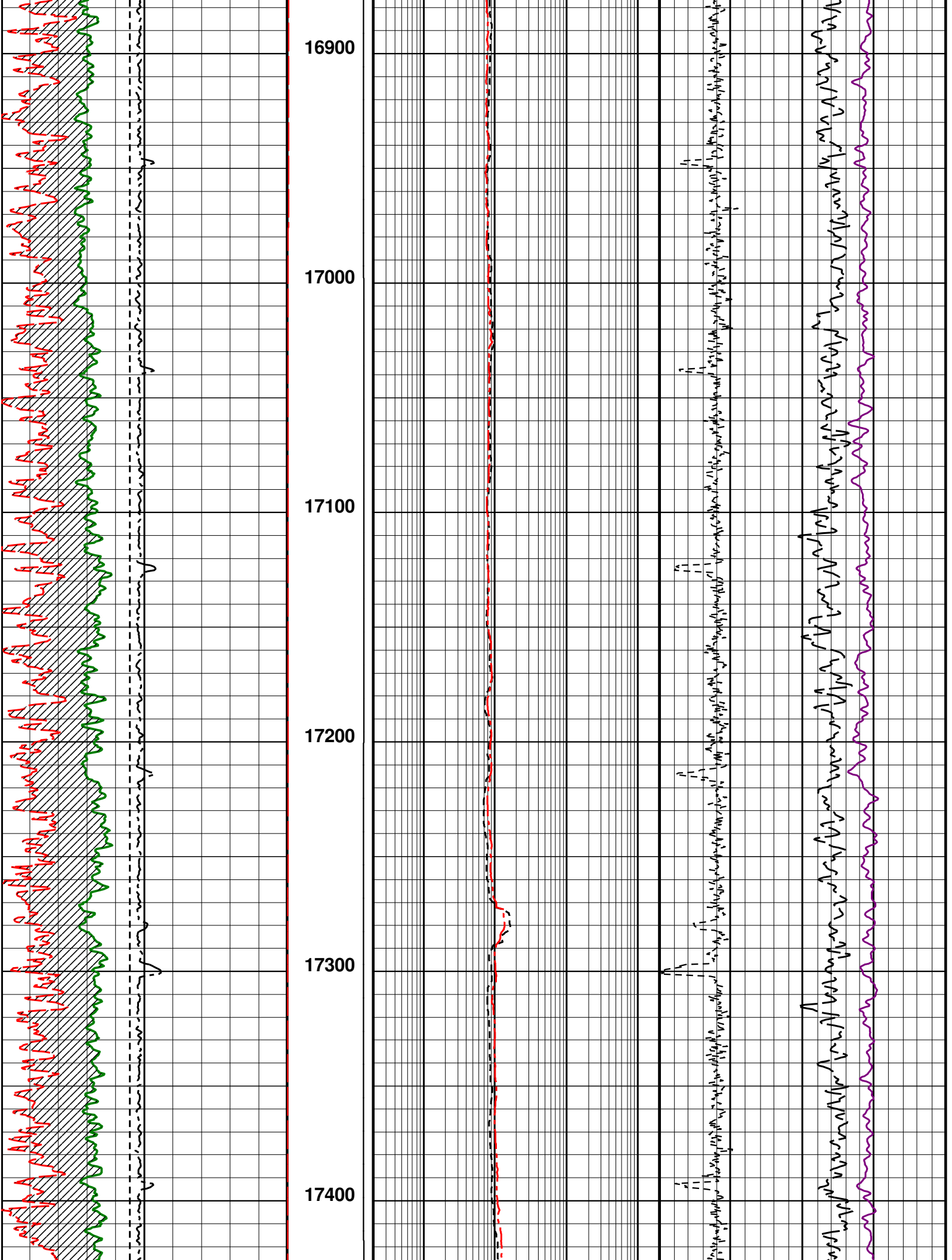


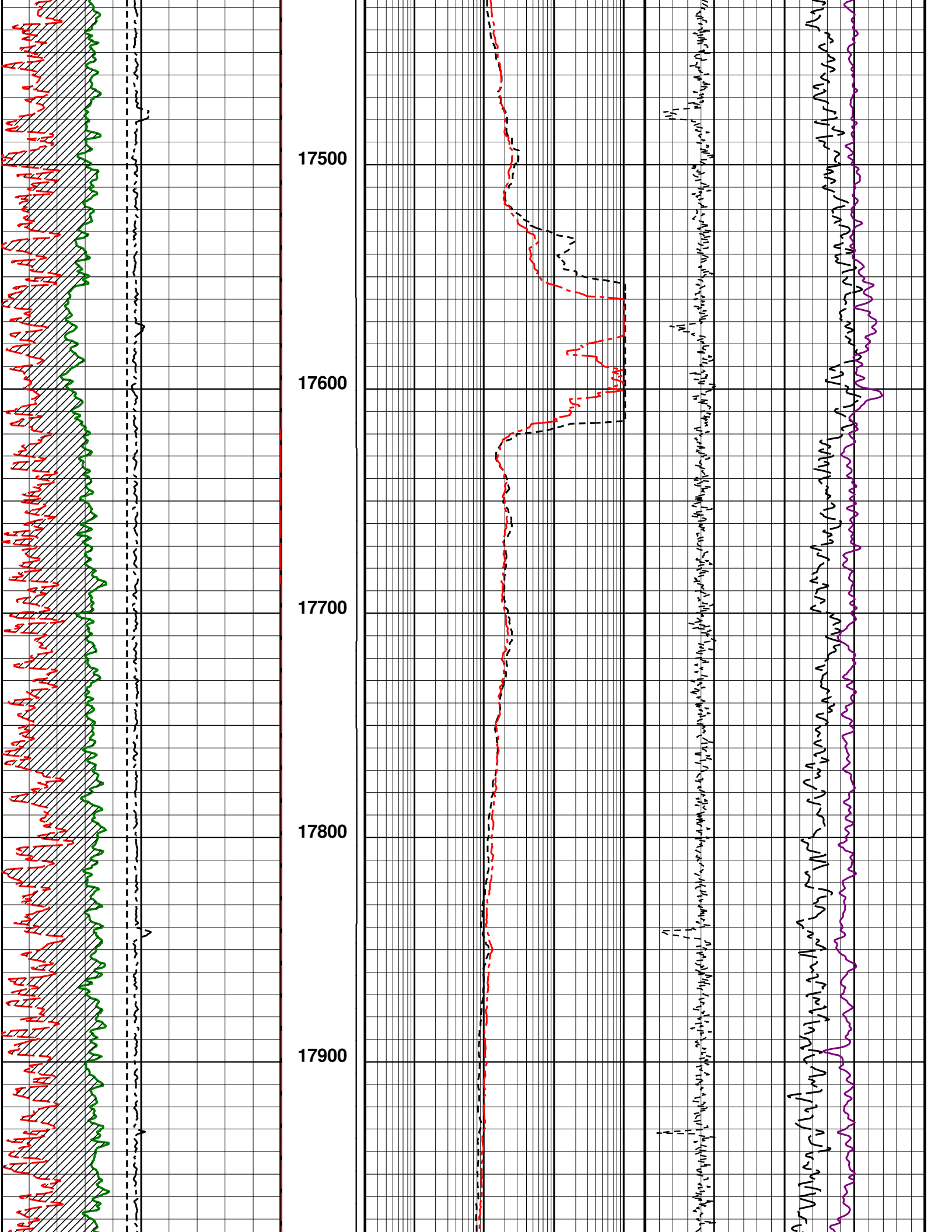


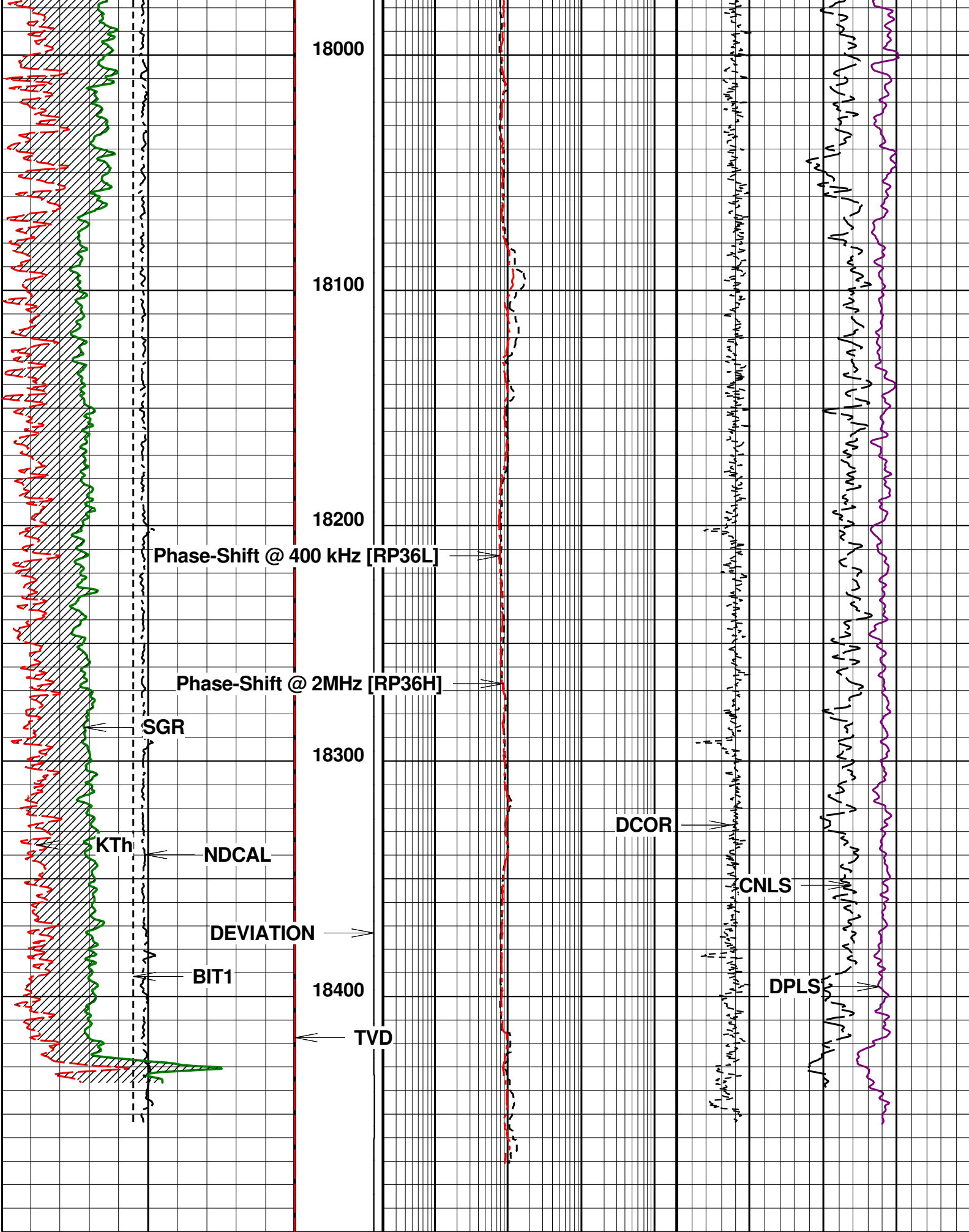


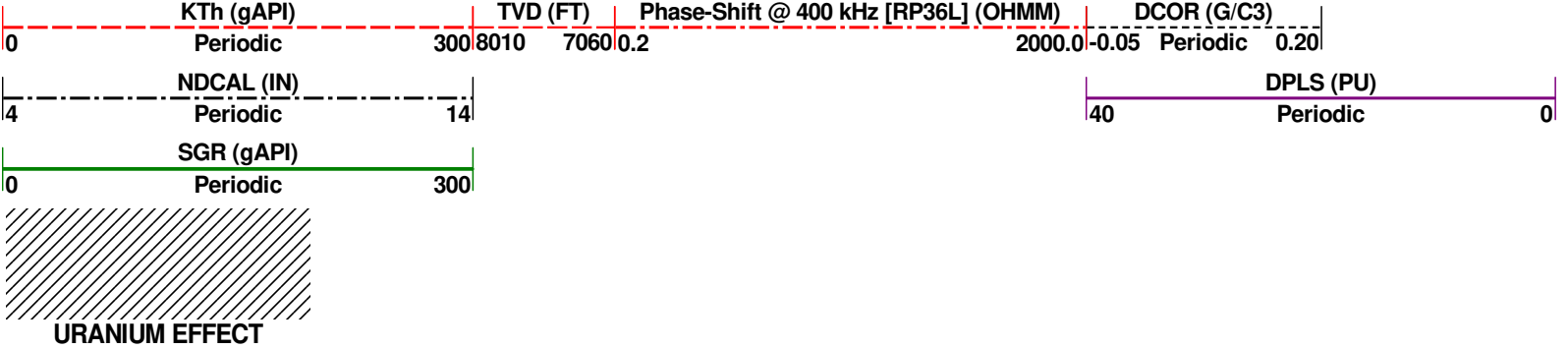






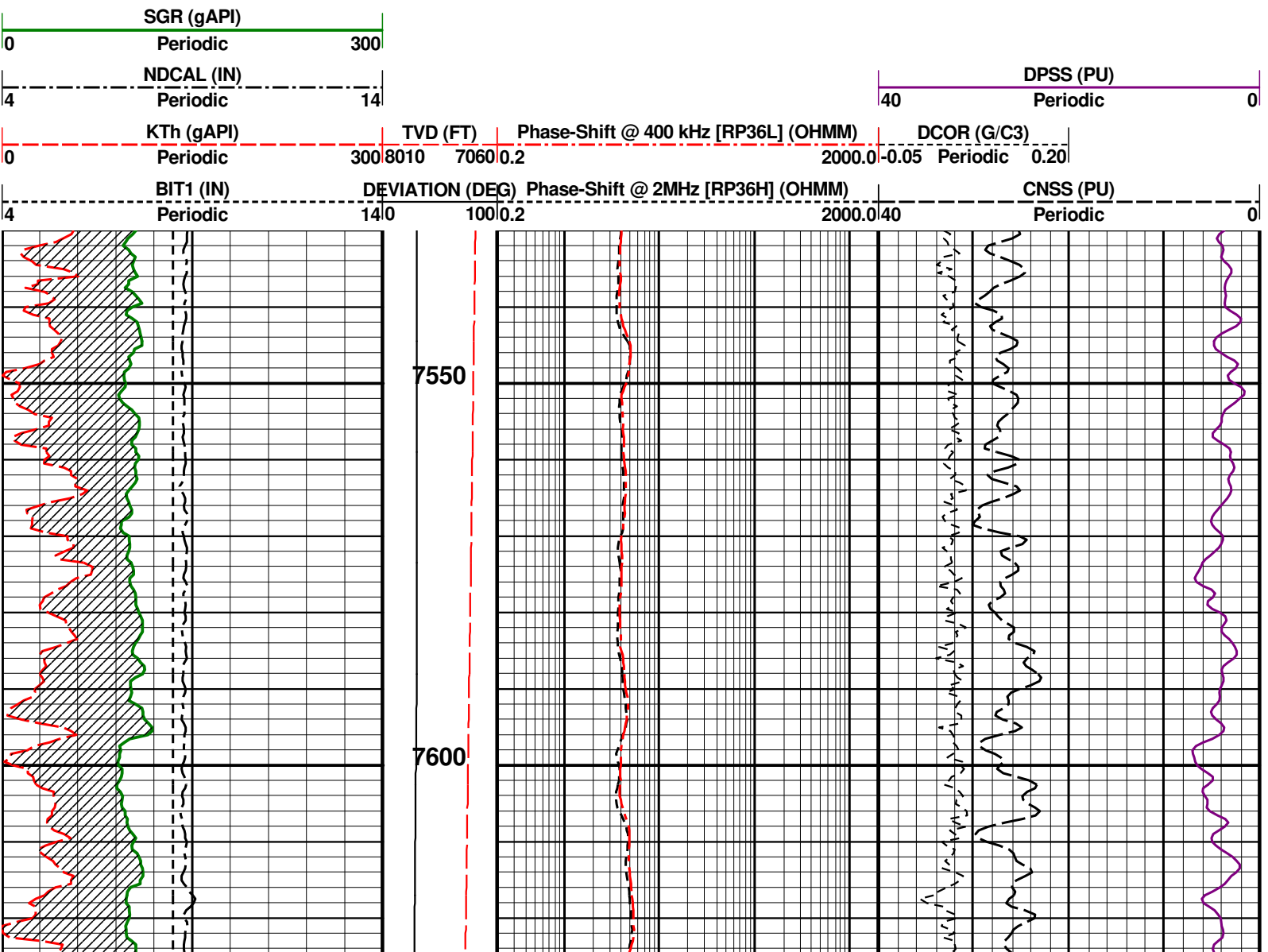


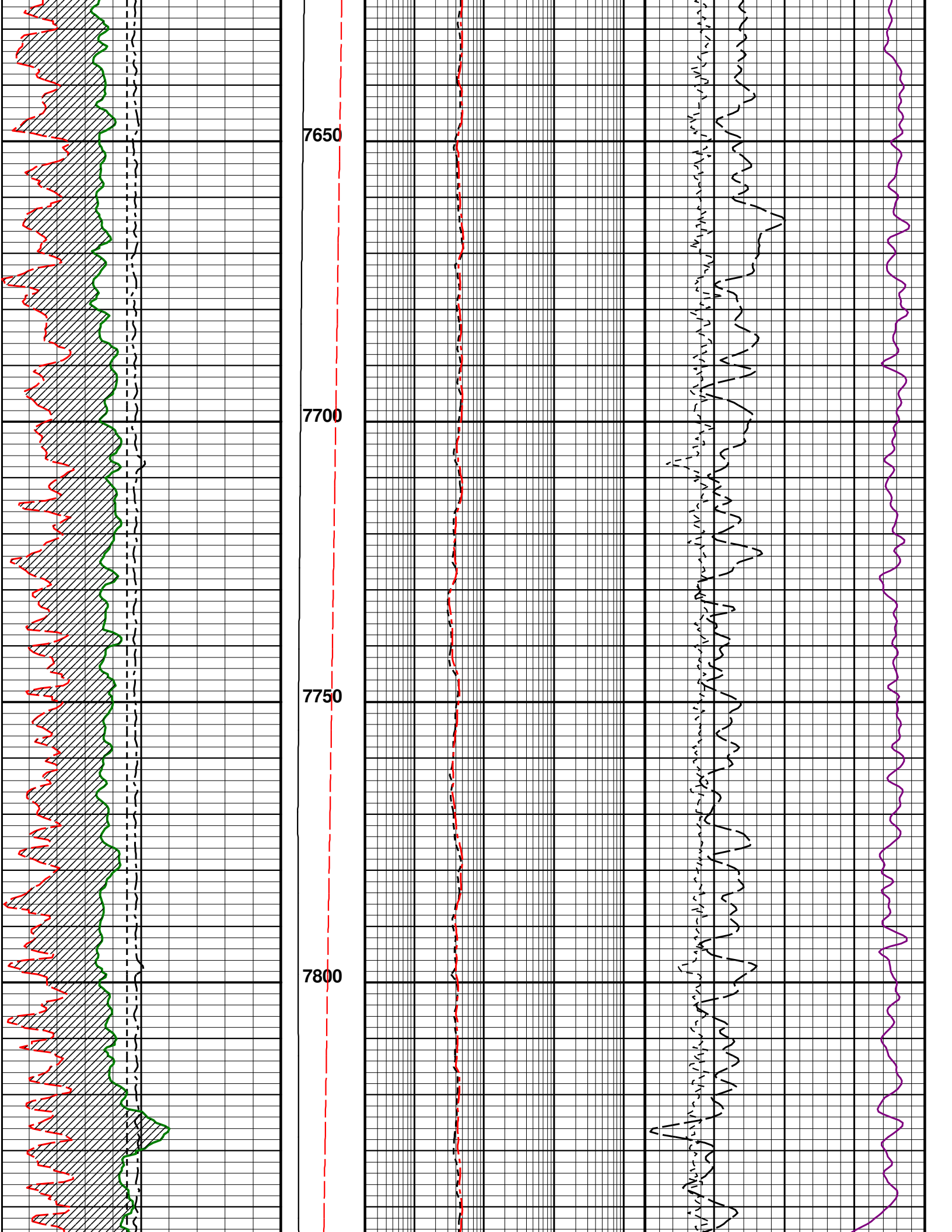


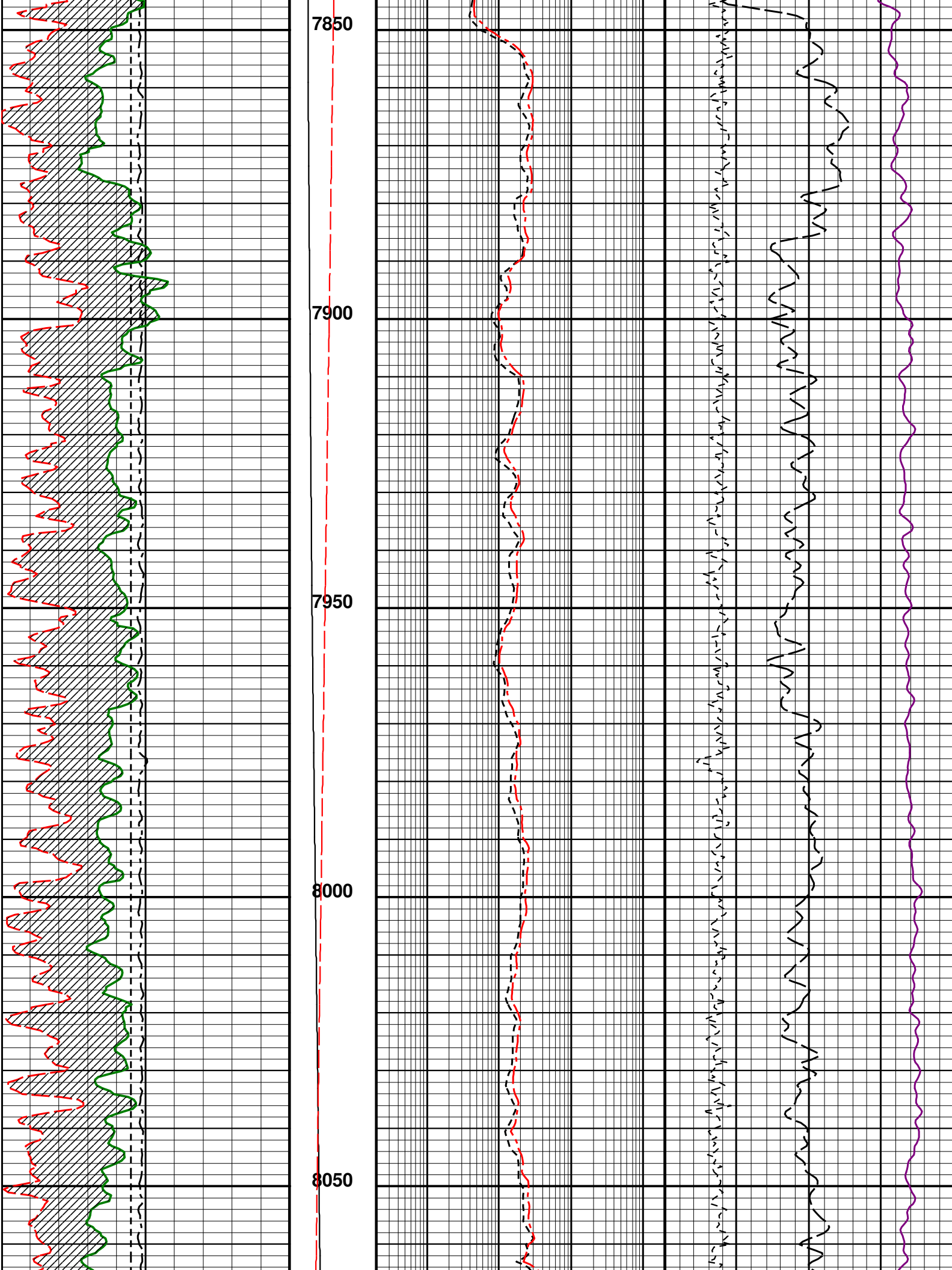


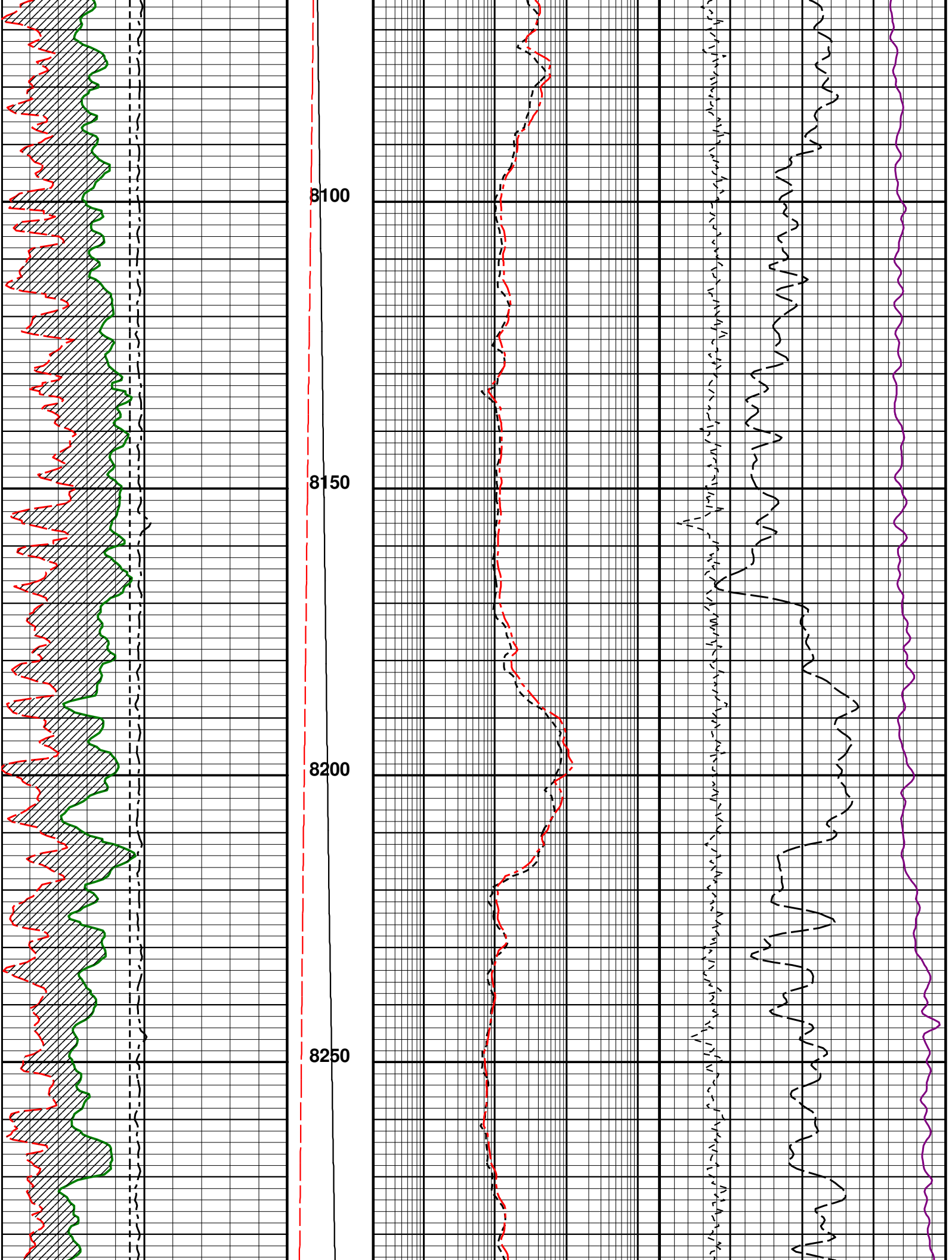
5" MAIN PASS SANDSTONE

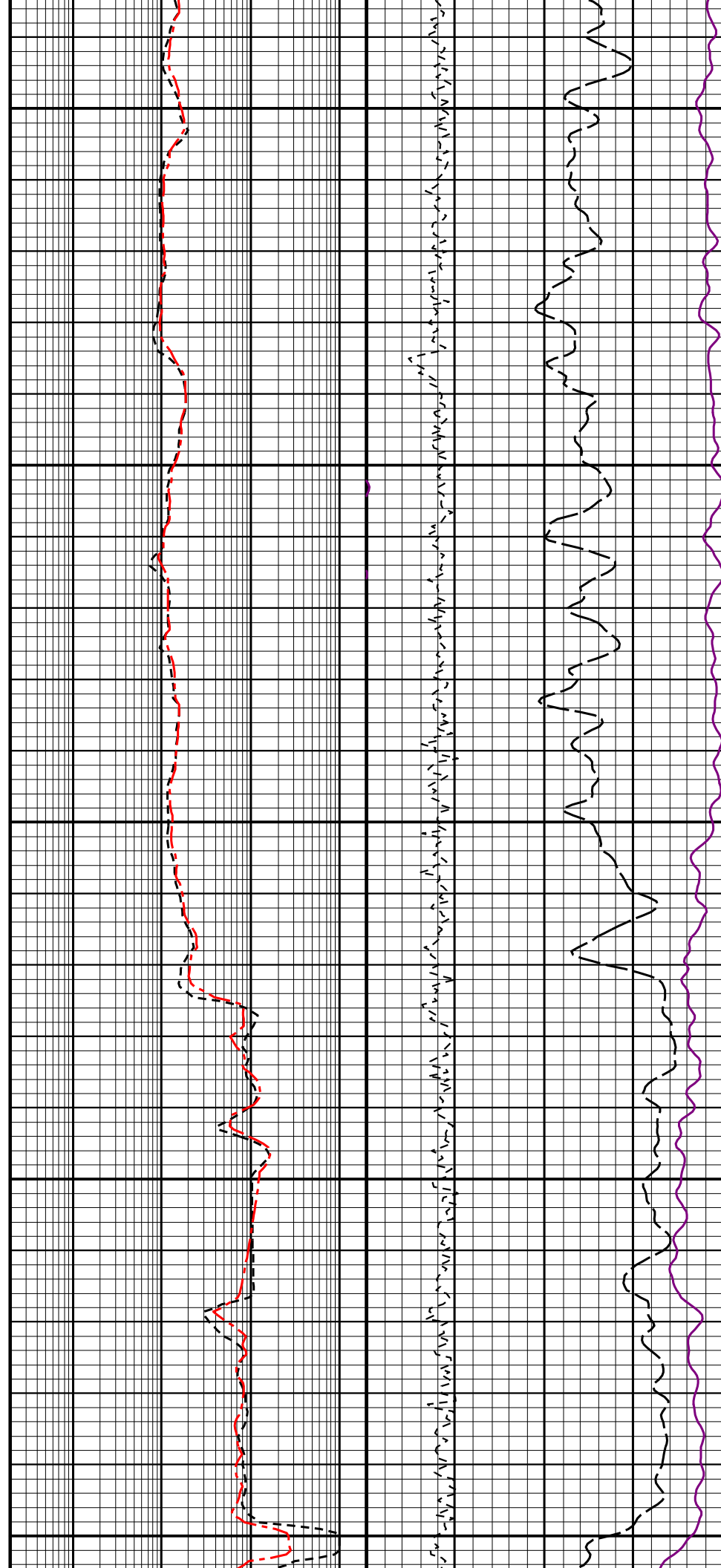
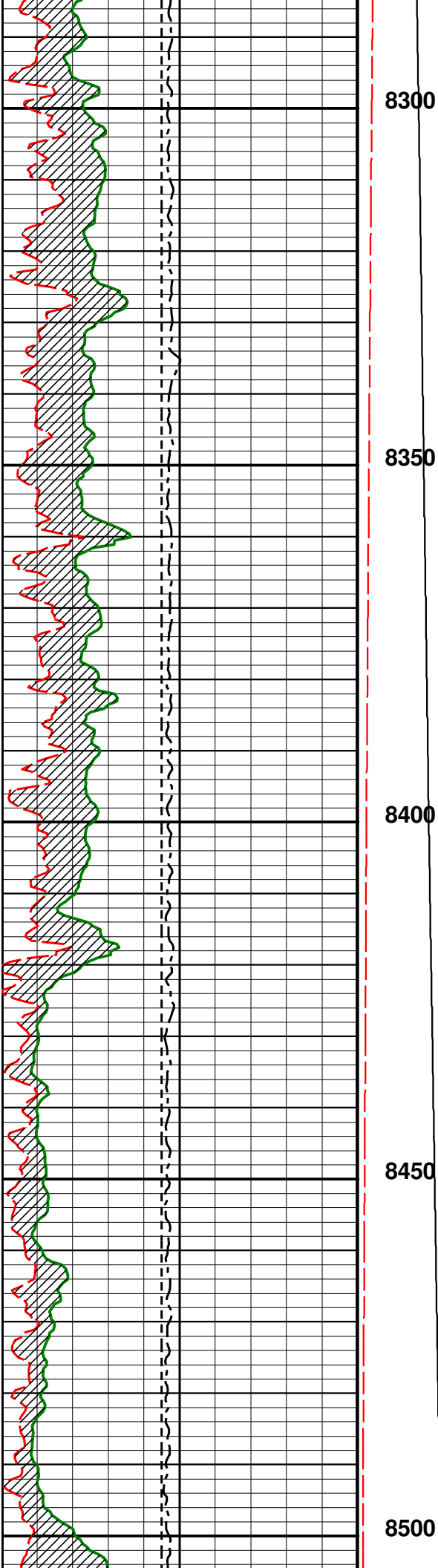
Company : GREAT WESTERN OPERATING COMPANY LLC Date : 29-Jan-2019
Well : B-FARM LD 18-392HC Time :
Scale : 1 : 240 Remarks : SANDSTONE MATRIX
Depth in : Feet
Software : WinAPlot Ver. 5, 75, 0, 0 File Name : 812_05-001-10094-00_FINAL MD

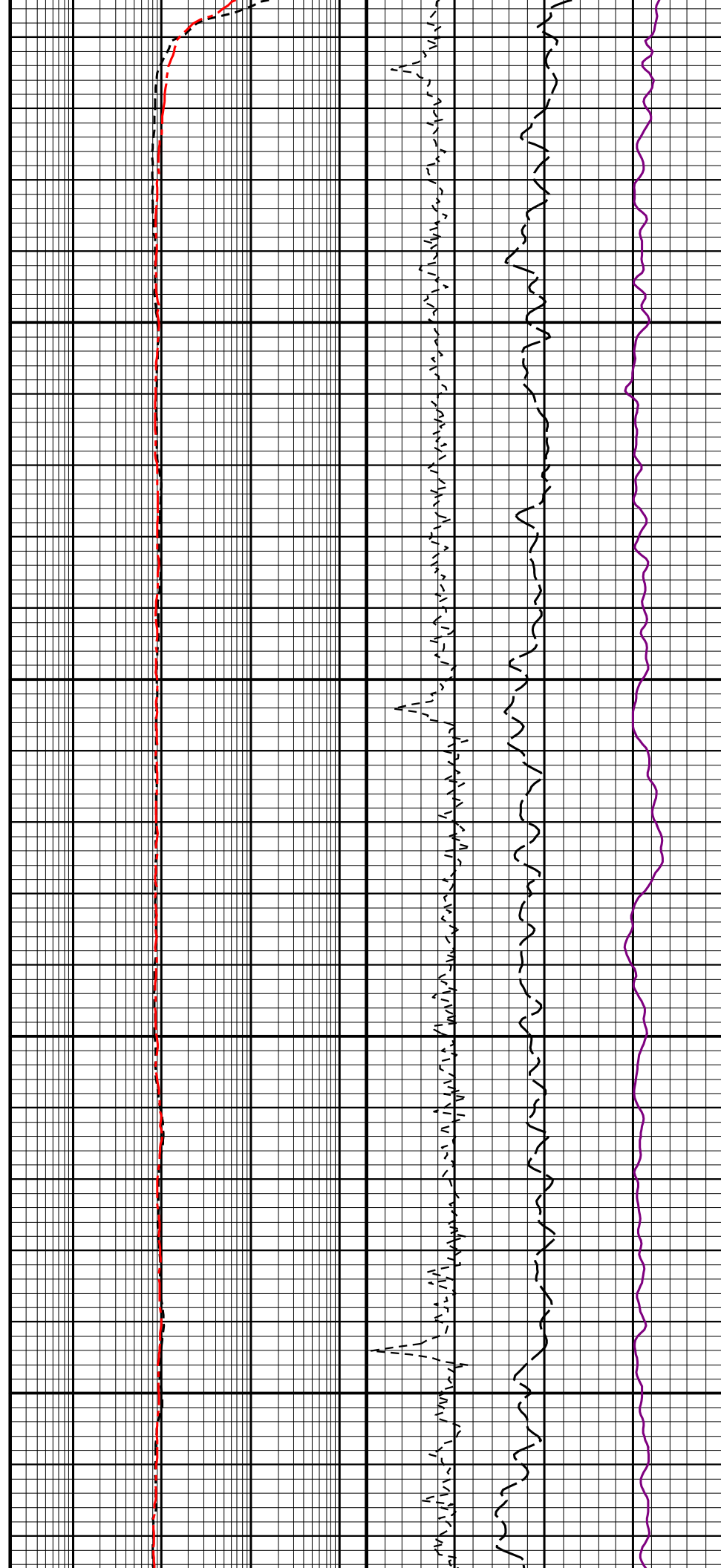
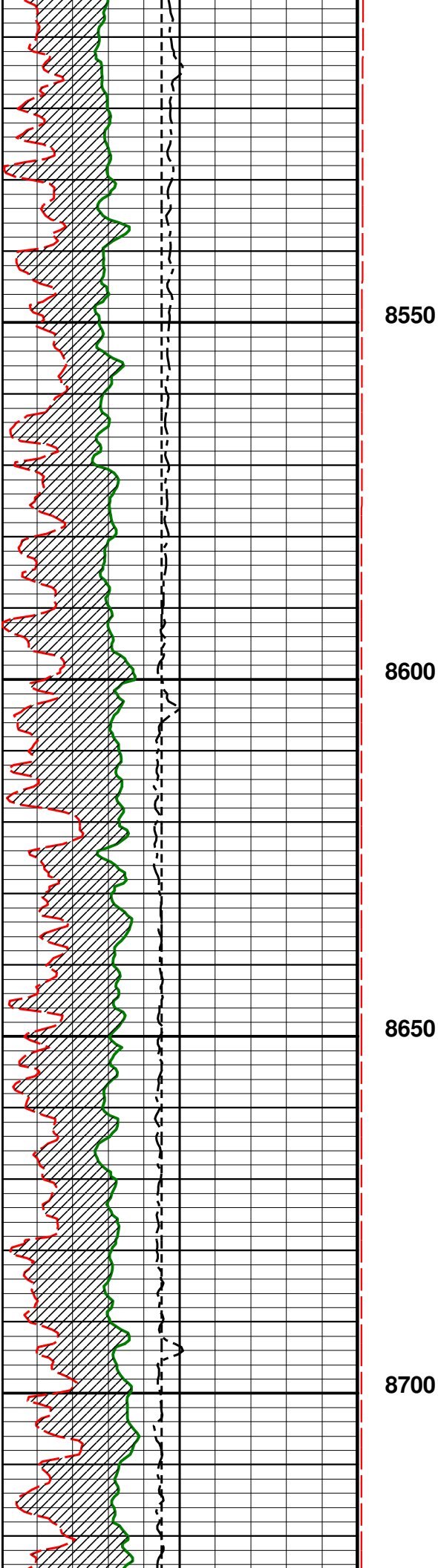


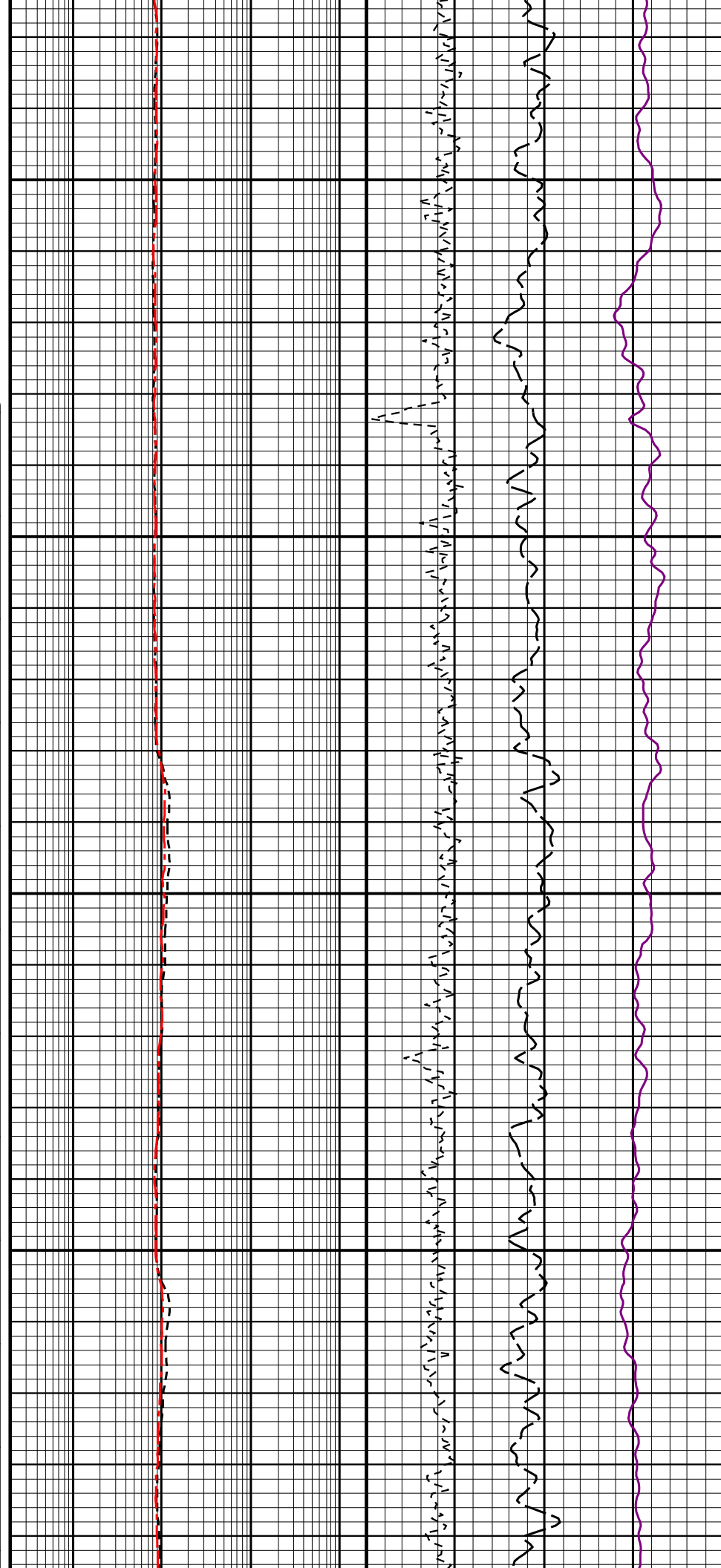
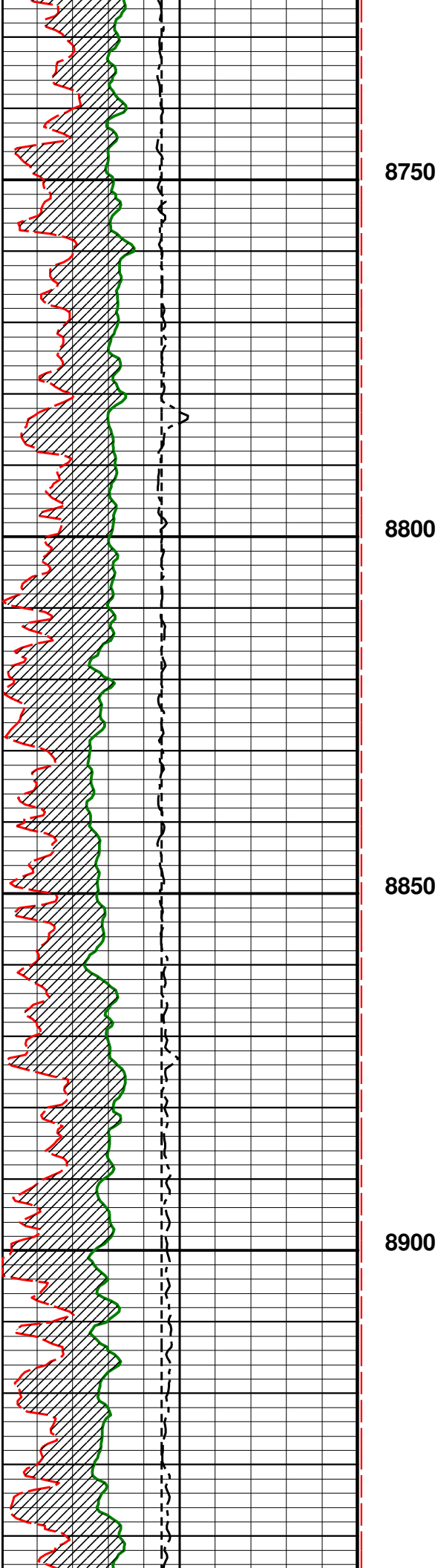


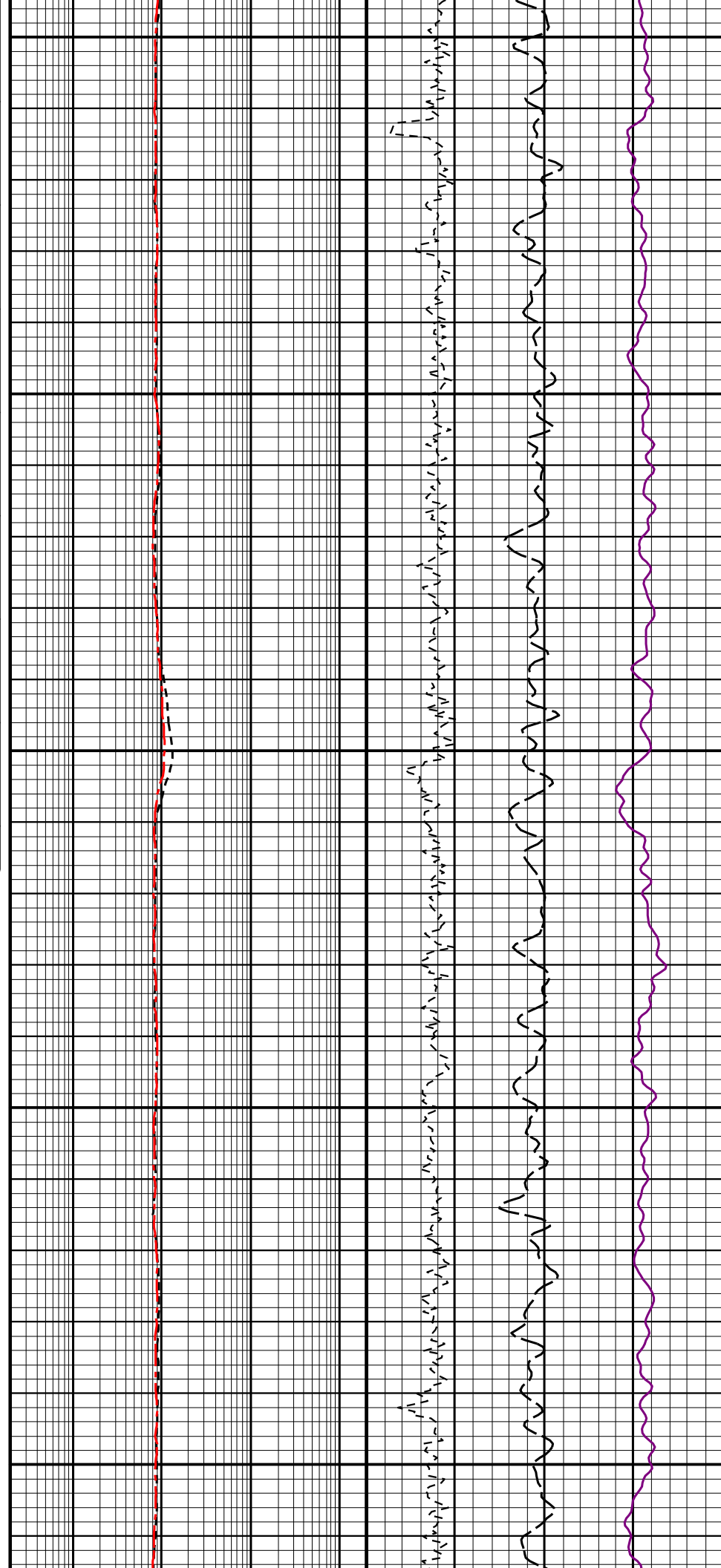
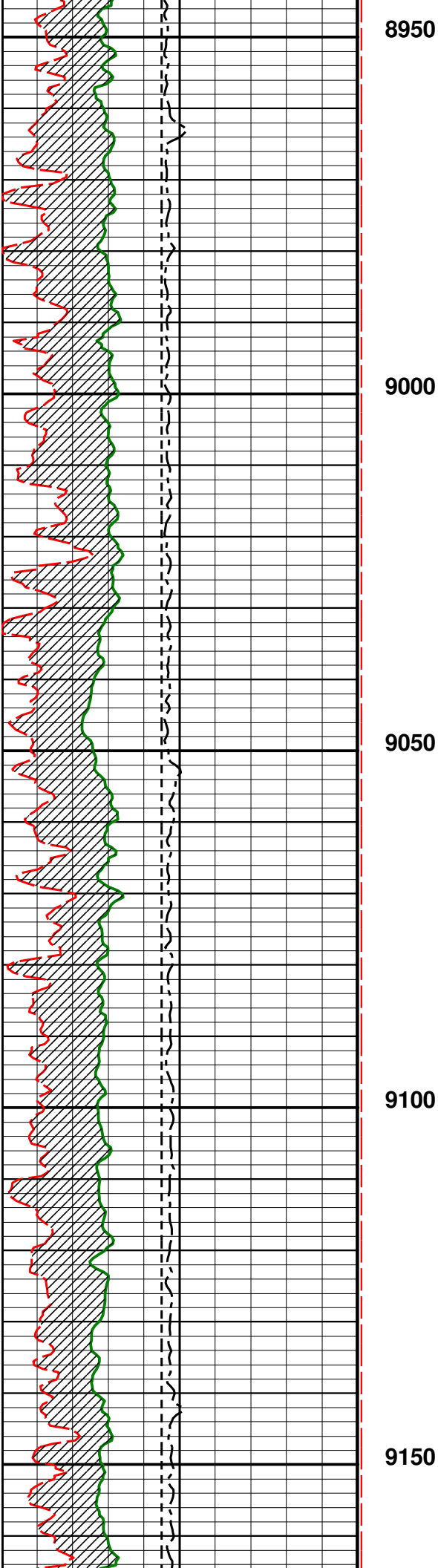


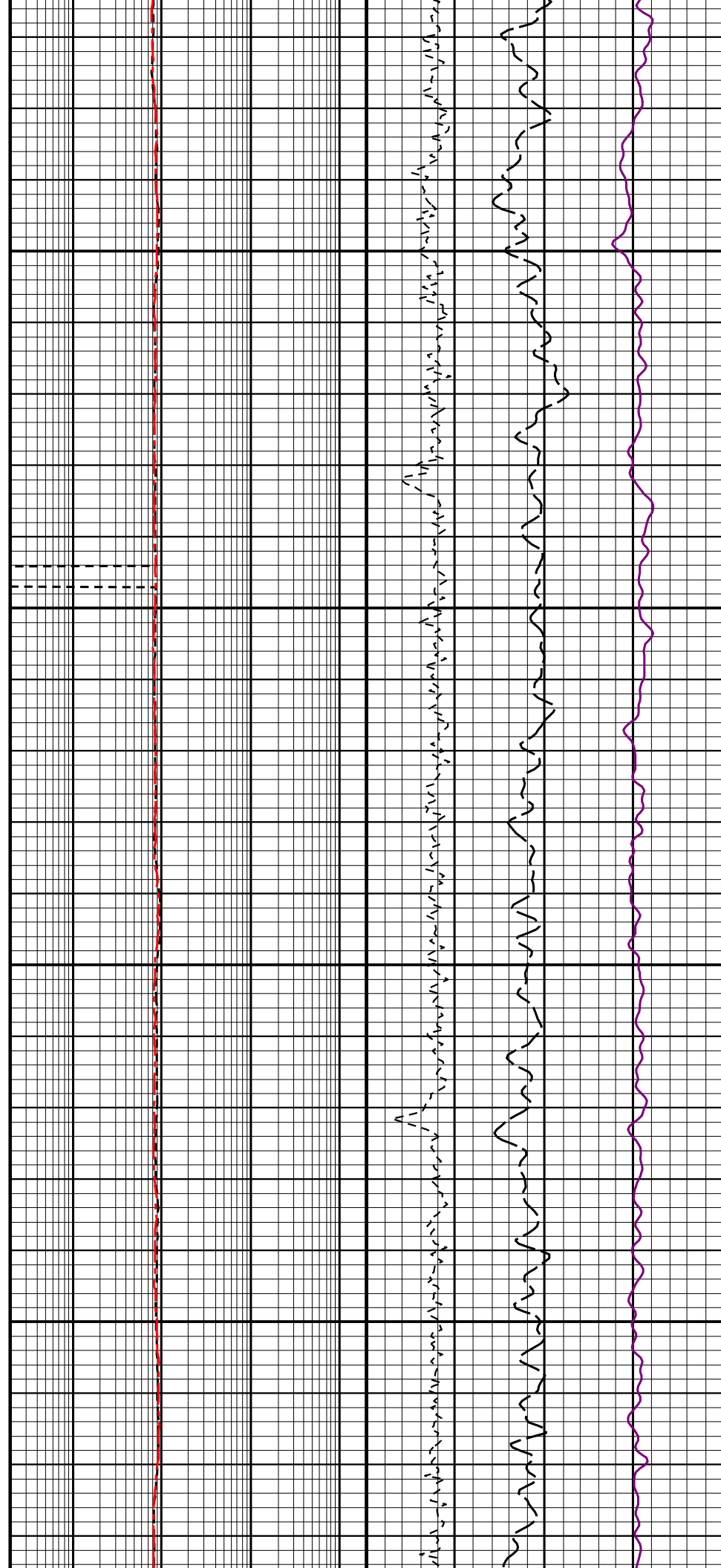
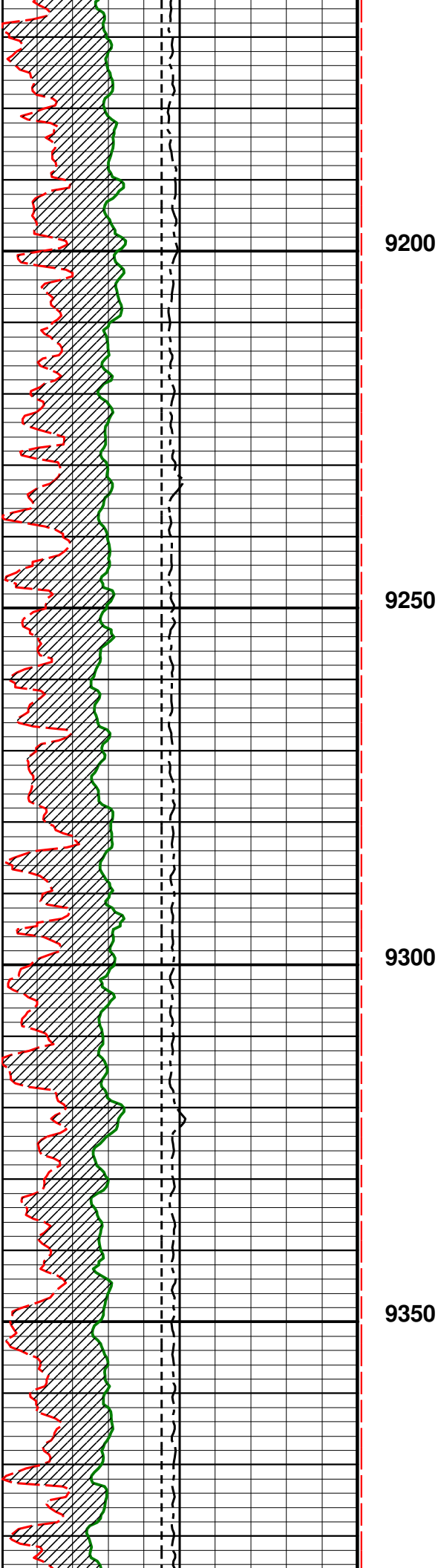


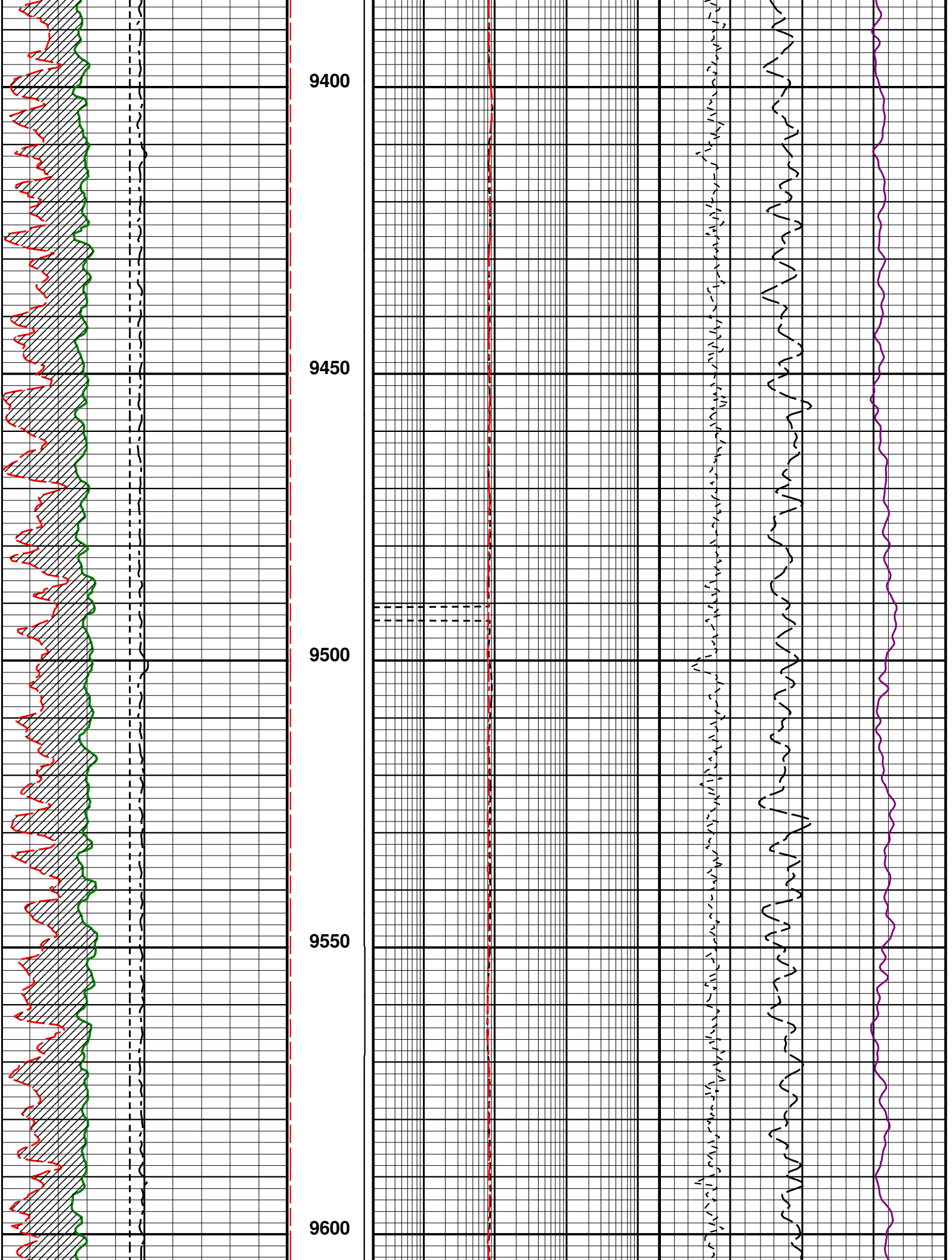


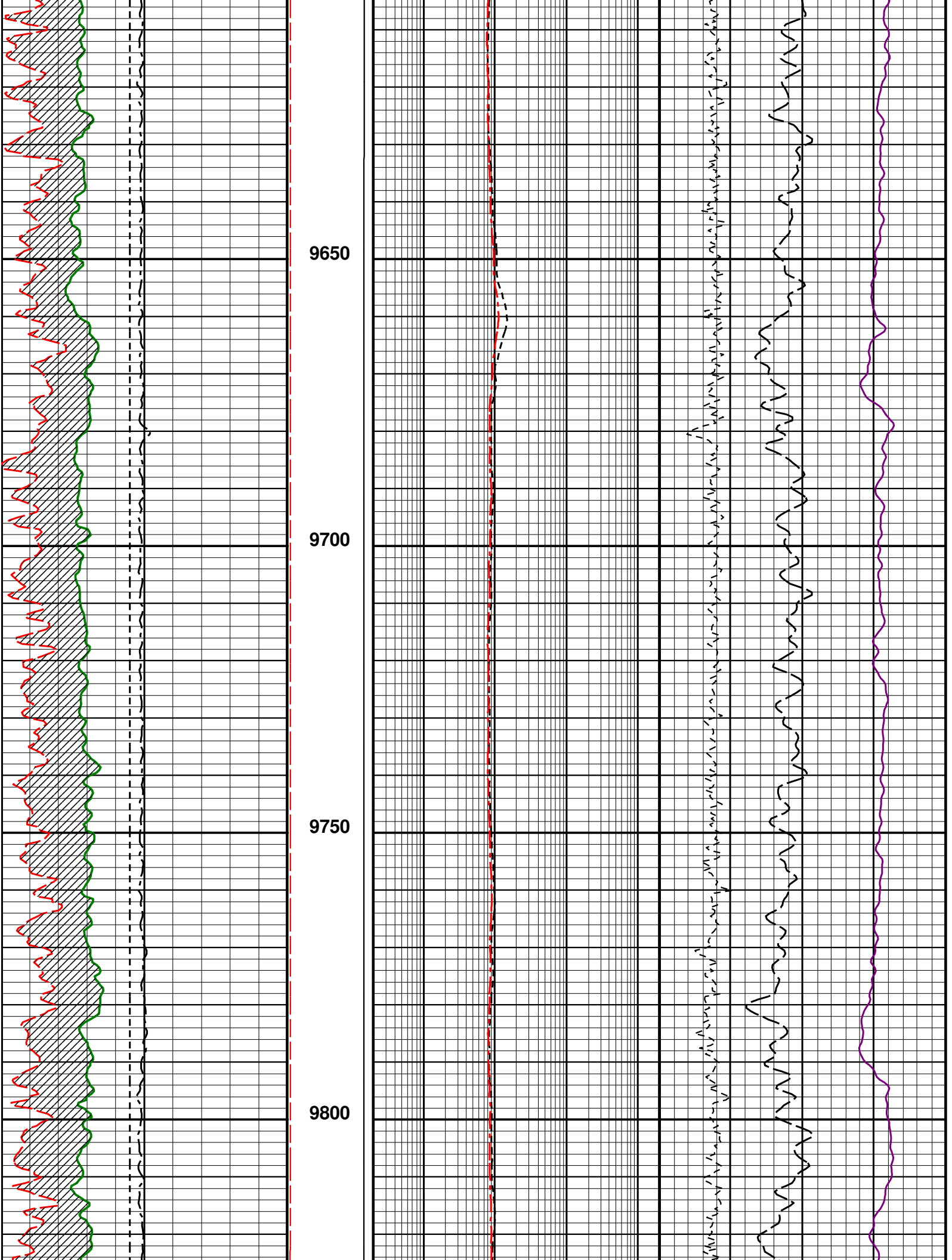


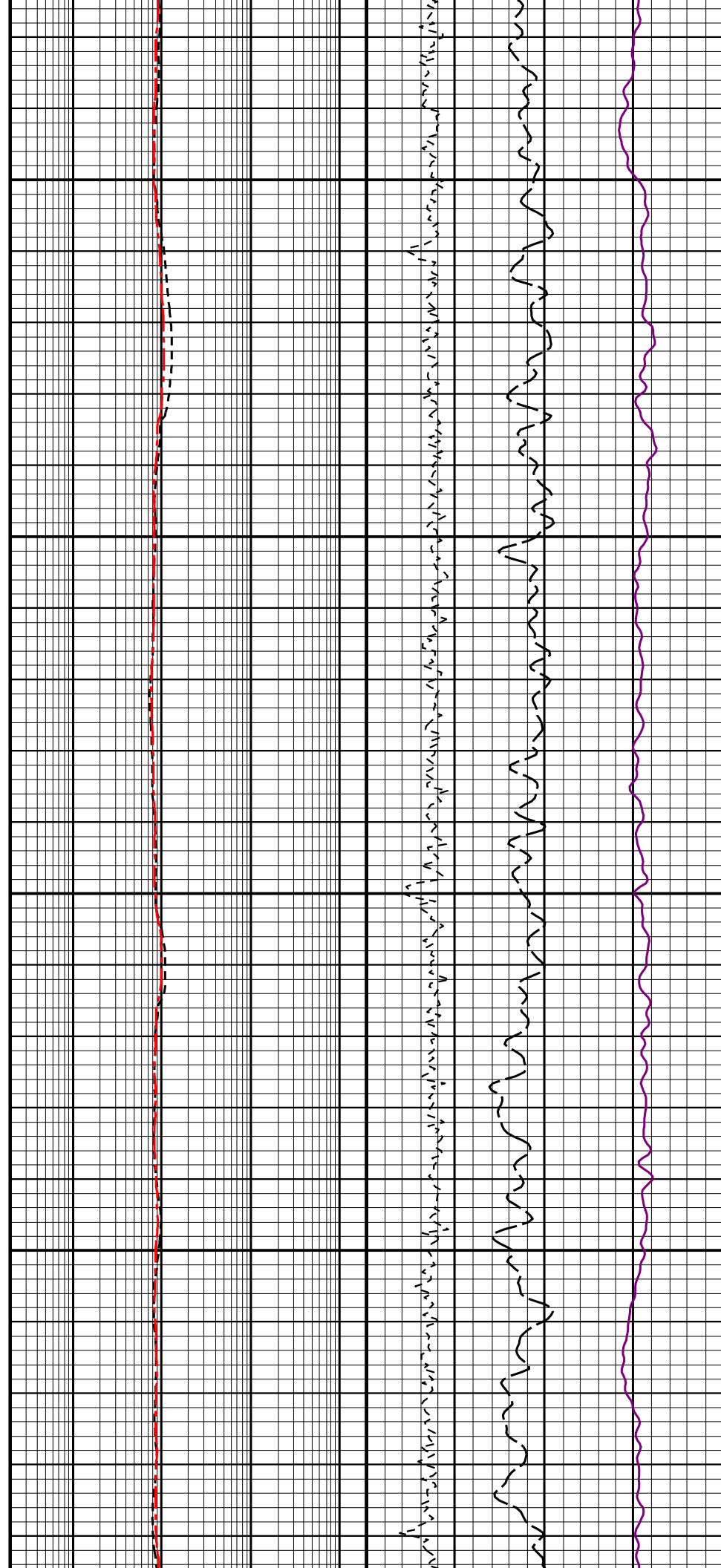
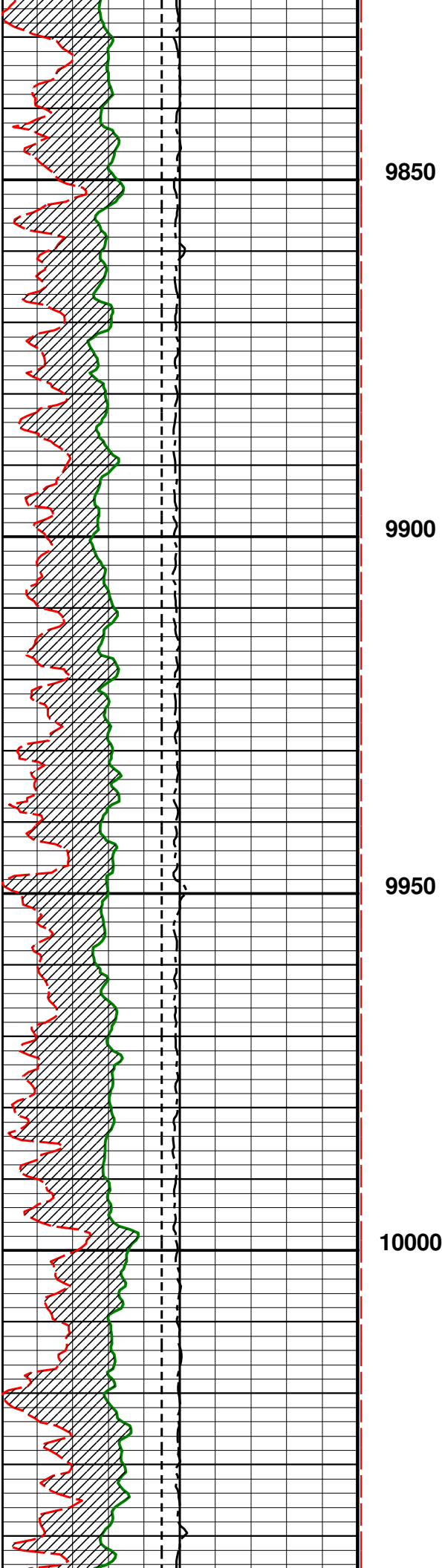


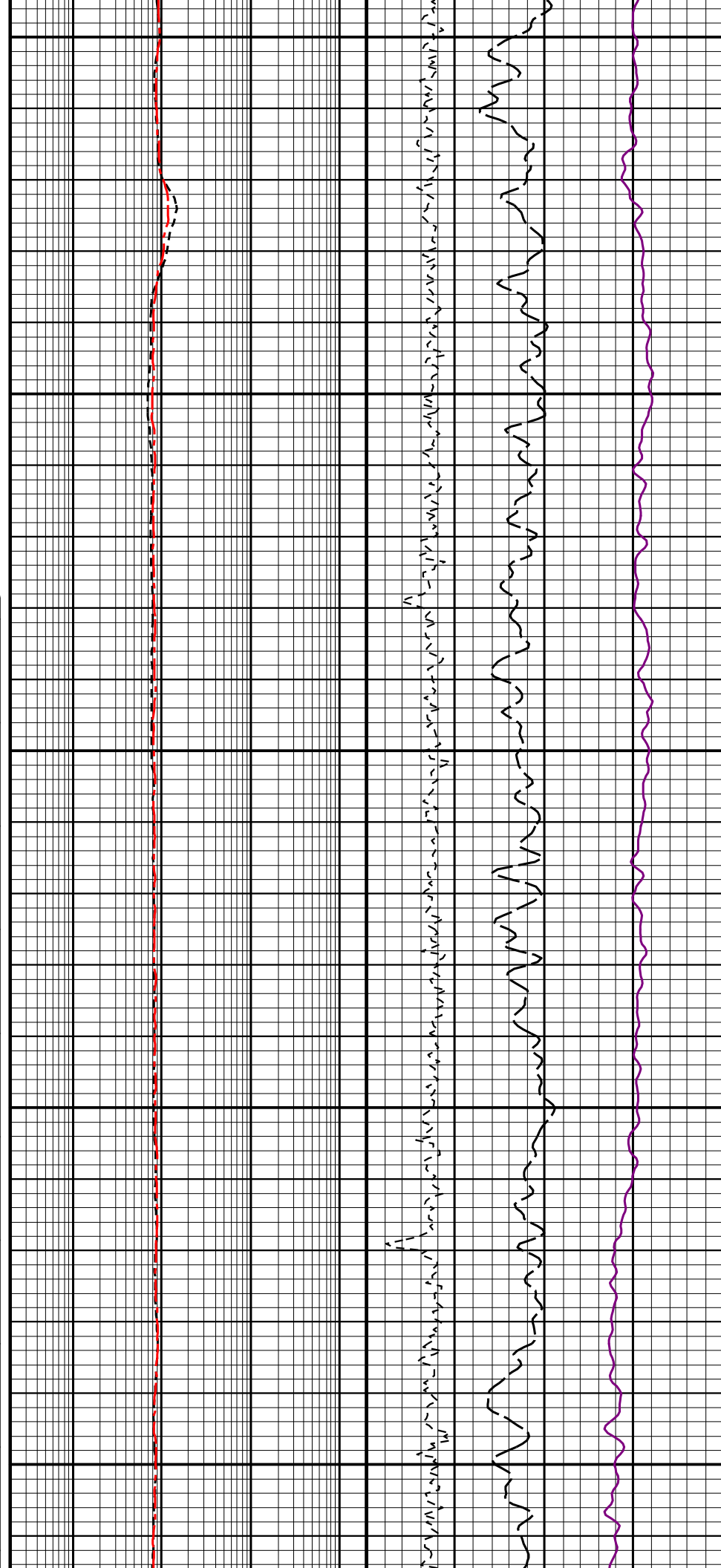
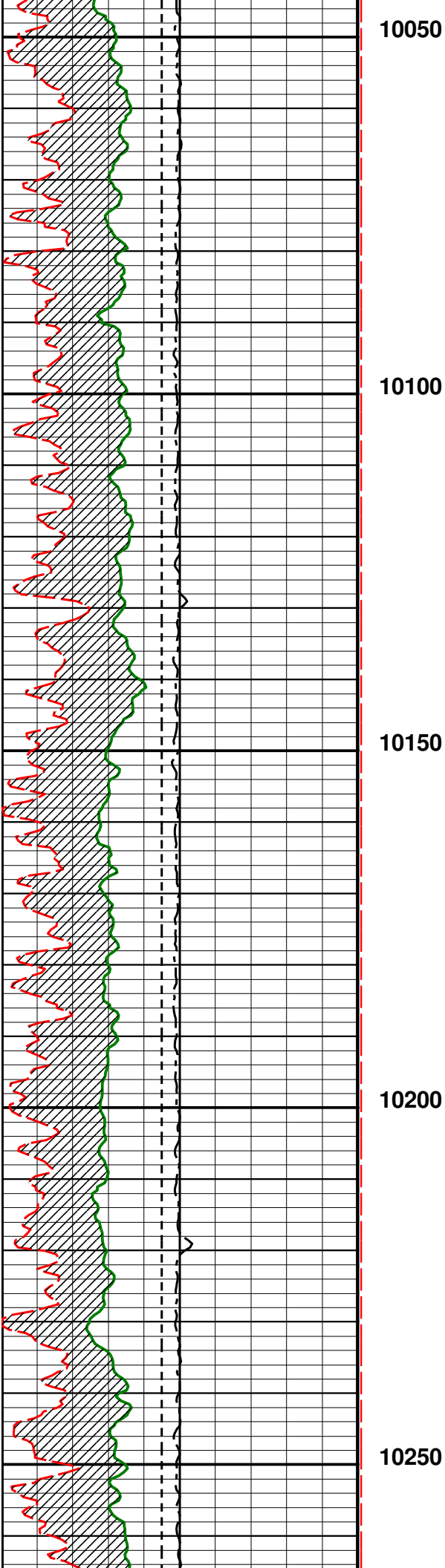


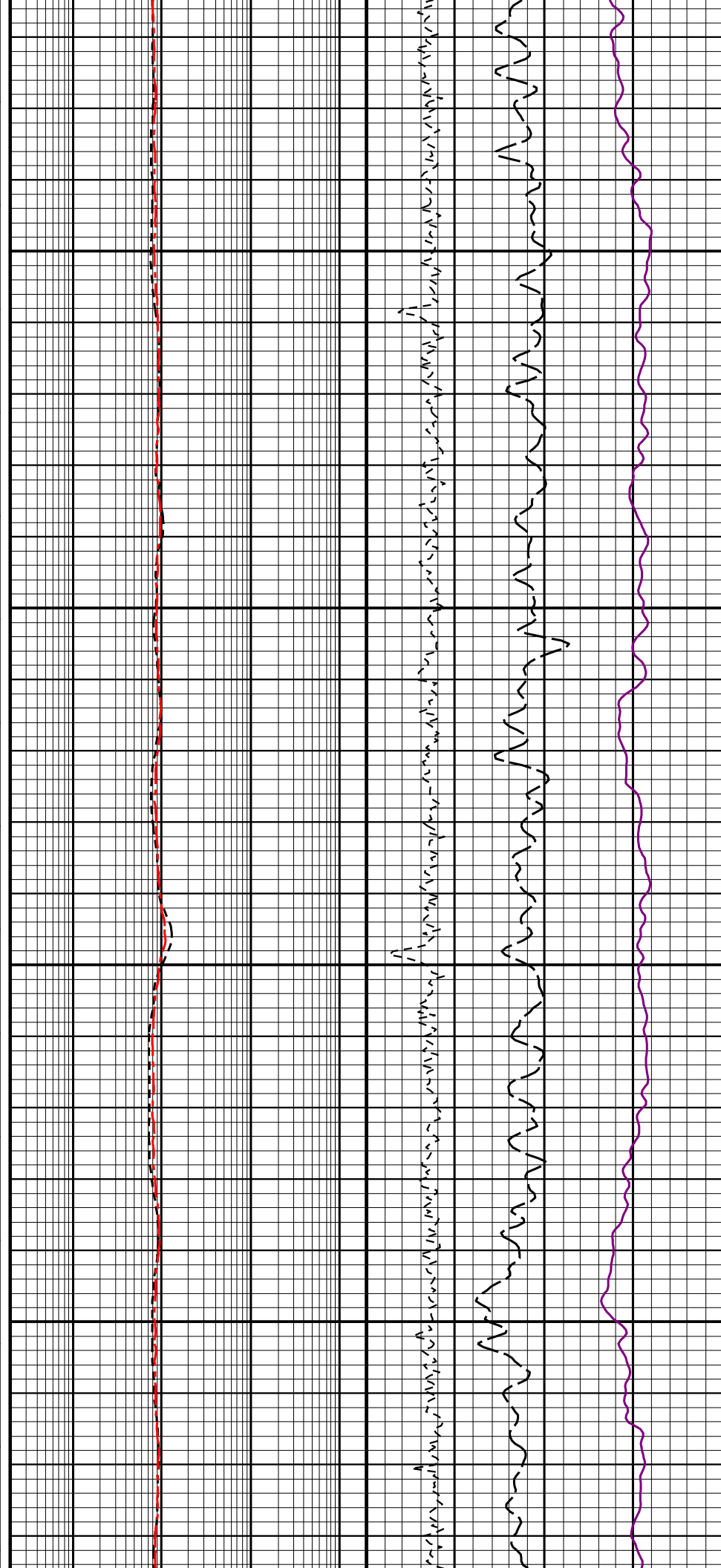
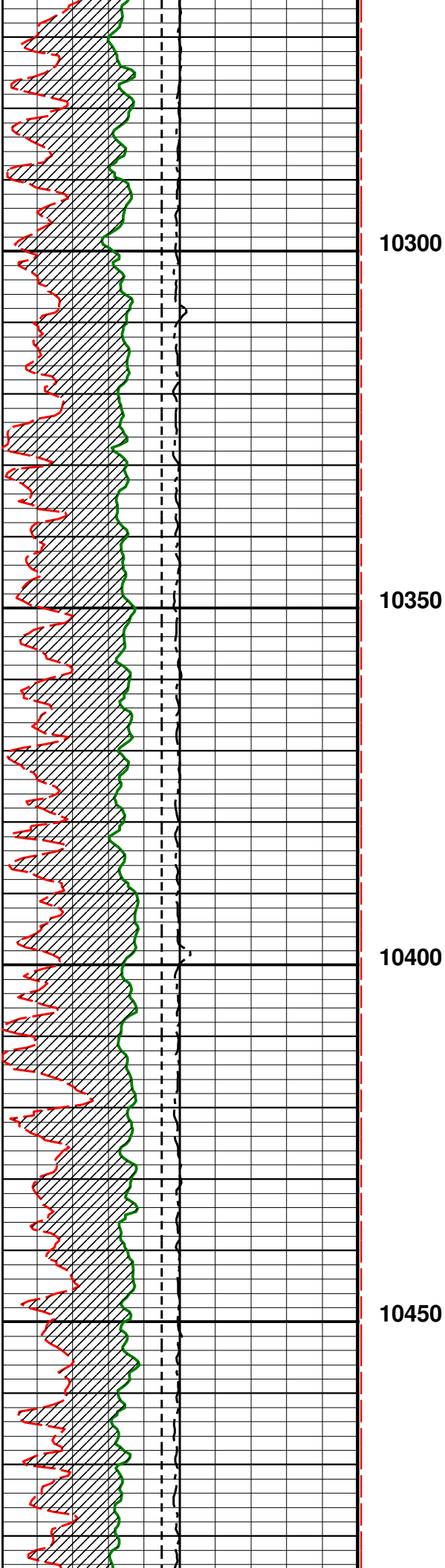


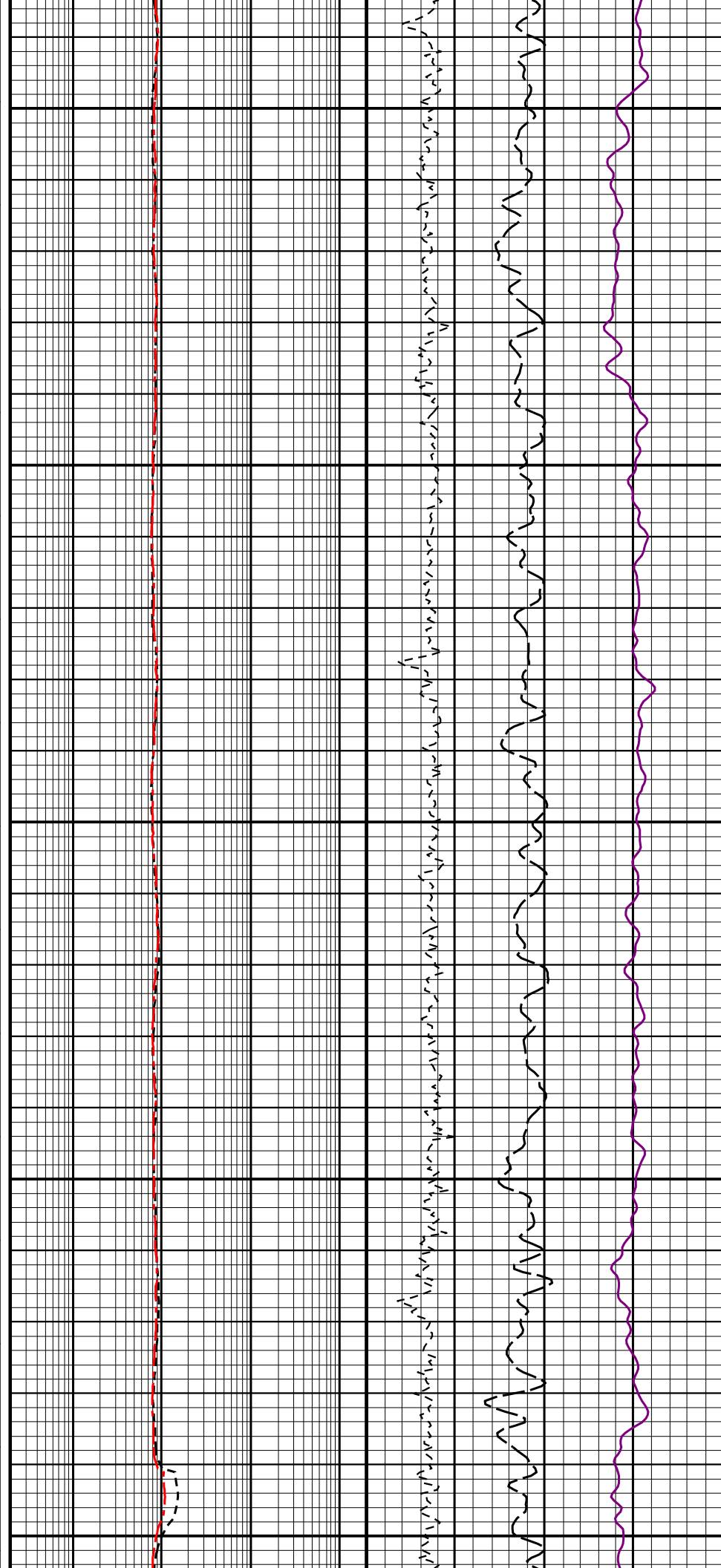
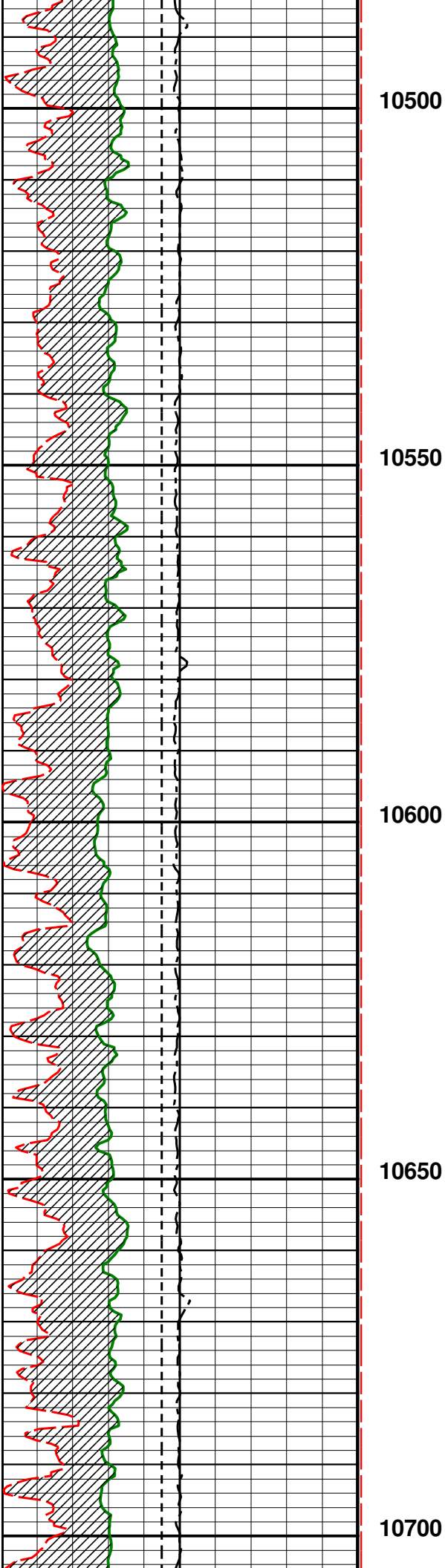


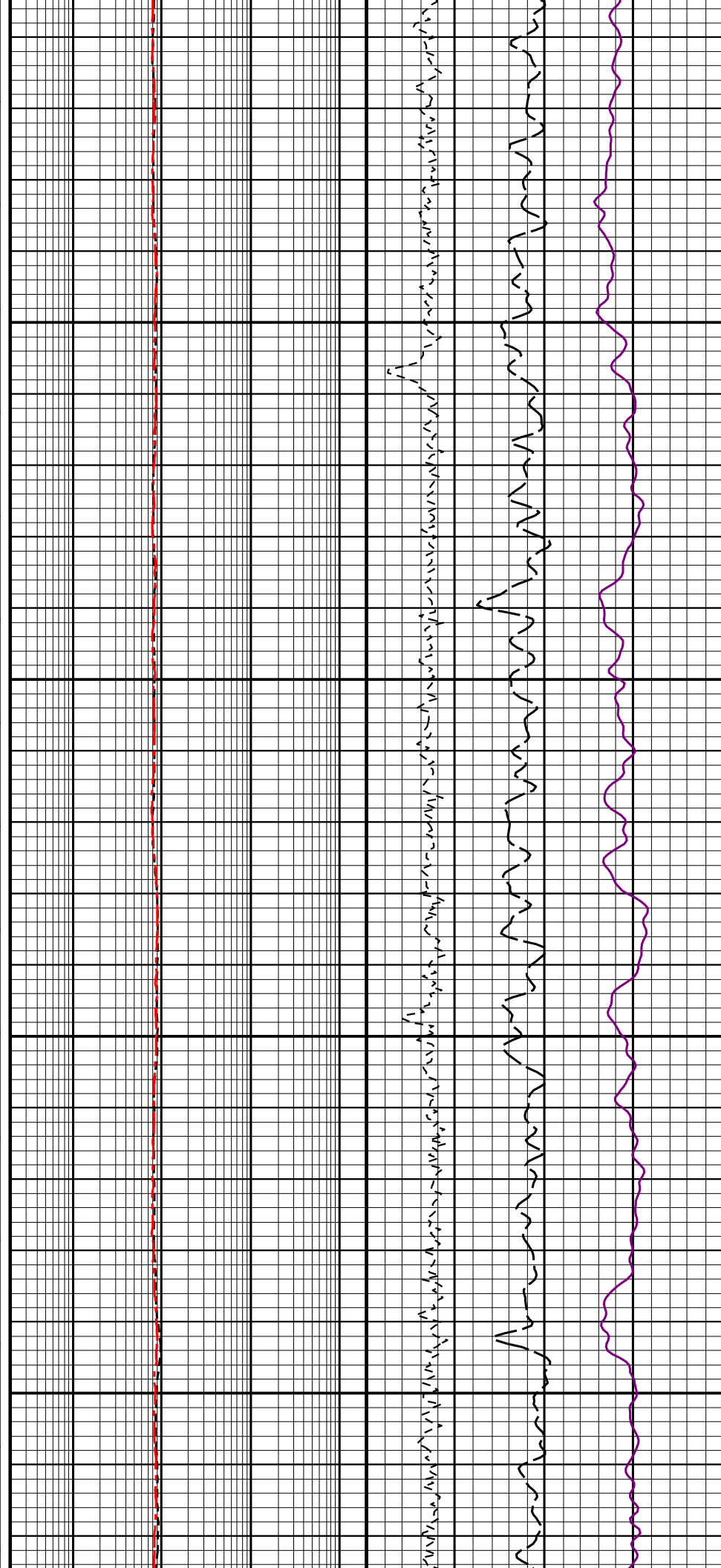
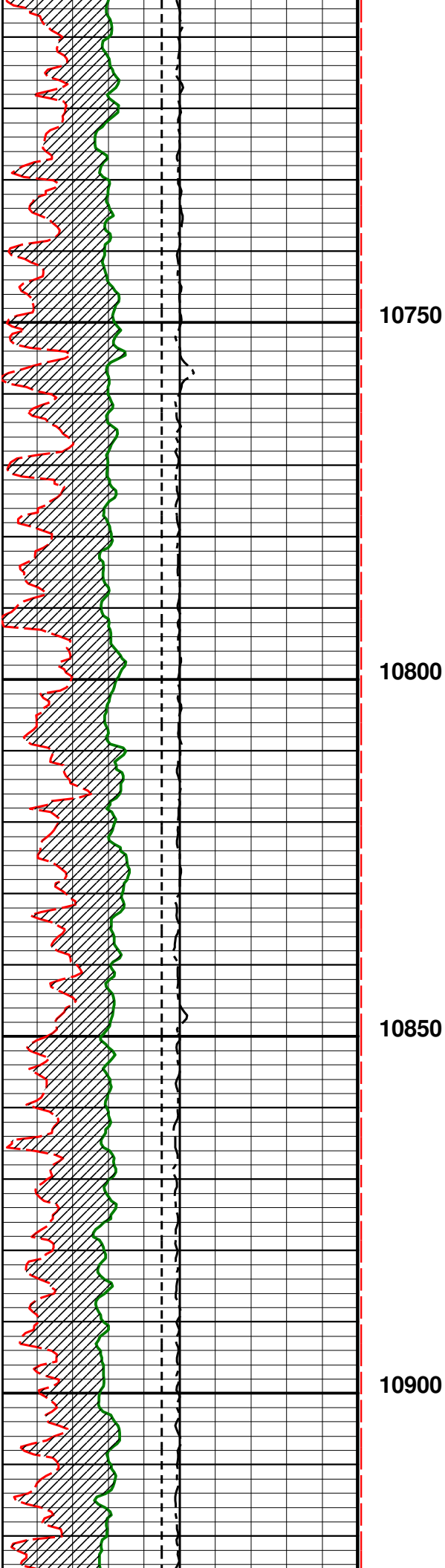


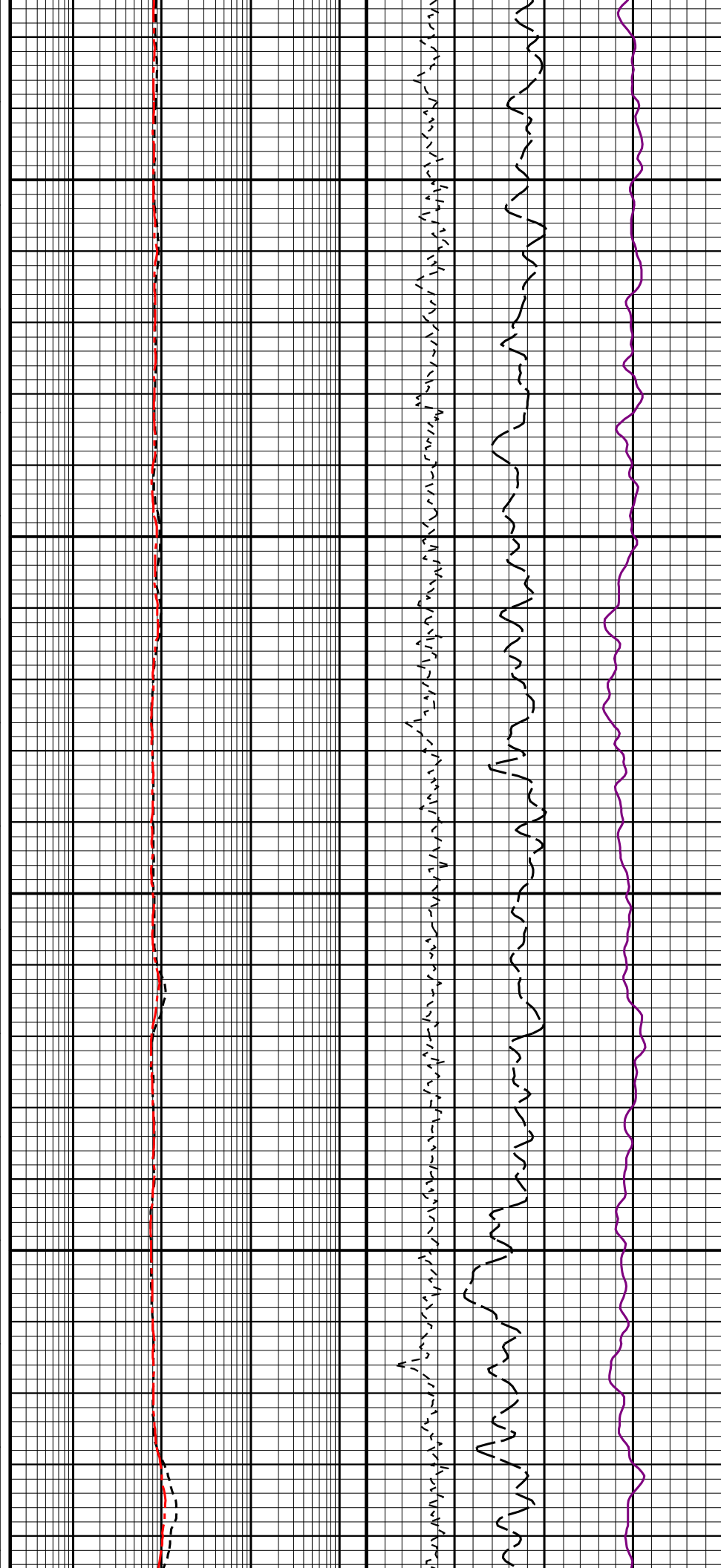
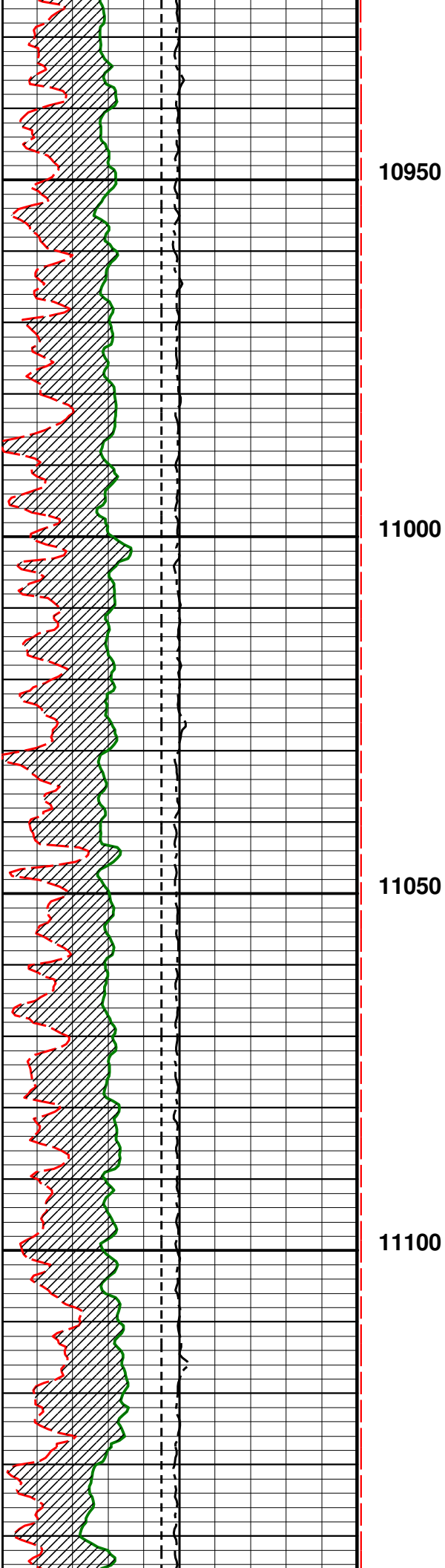


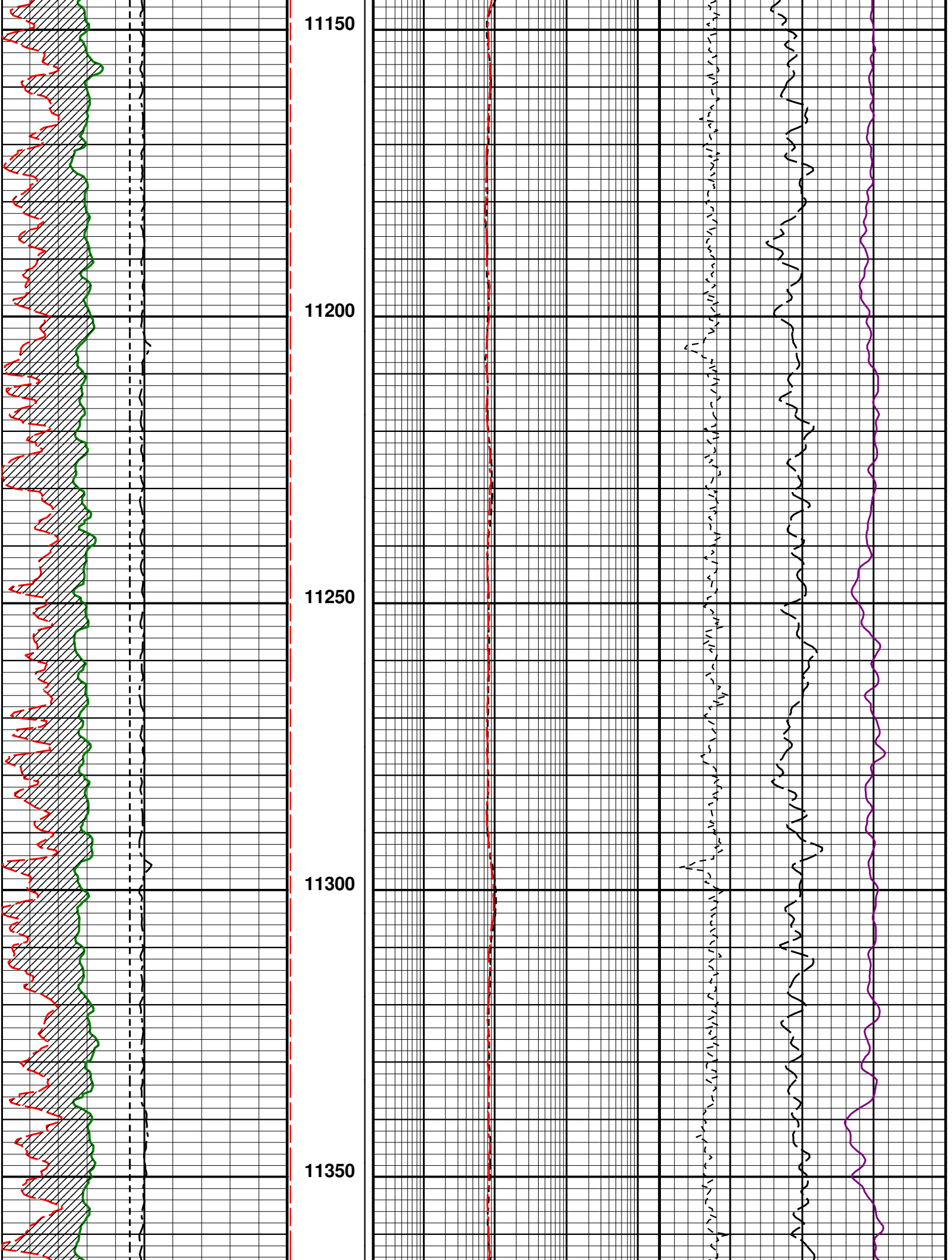


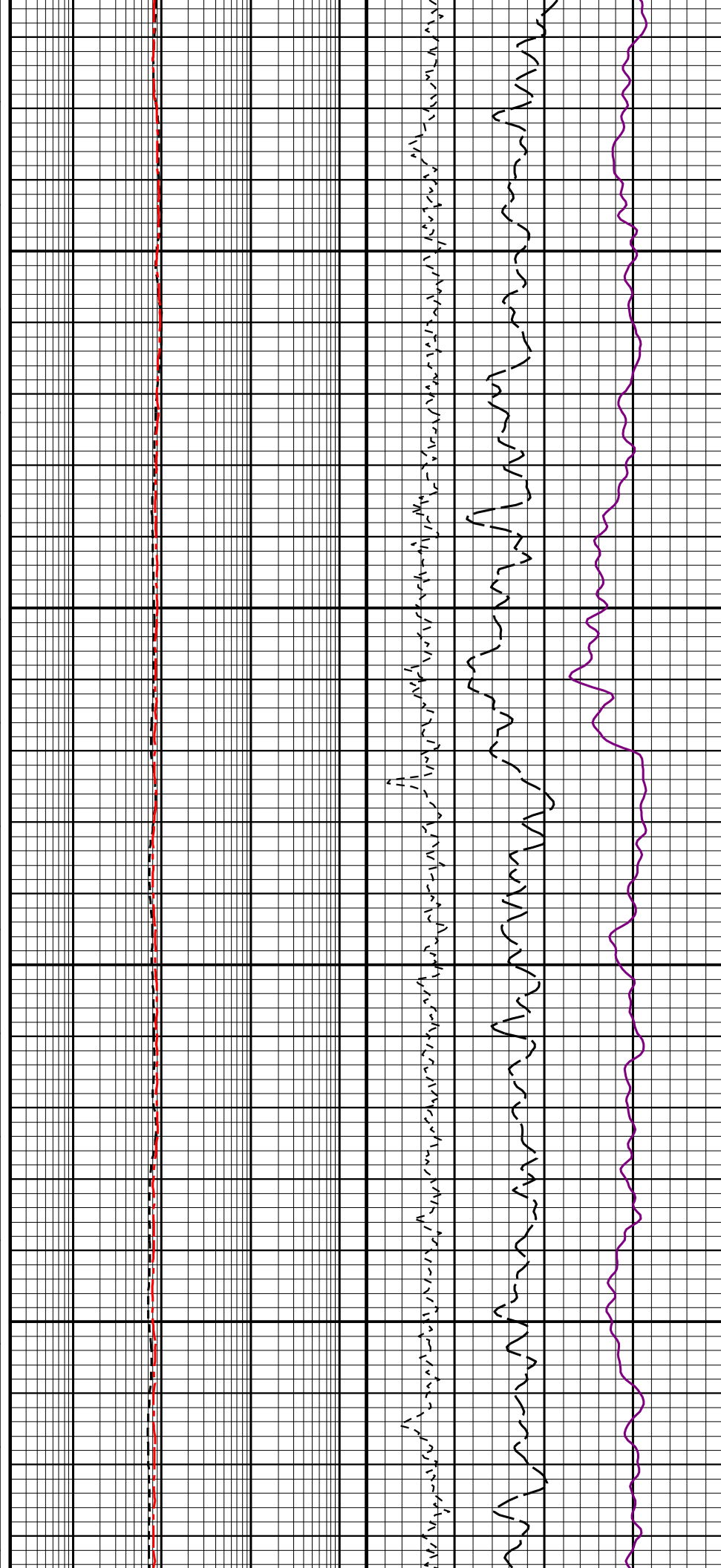
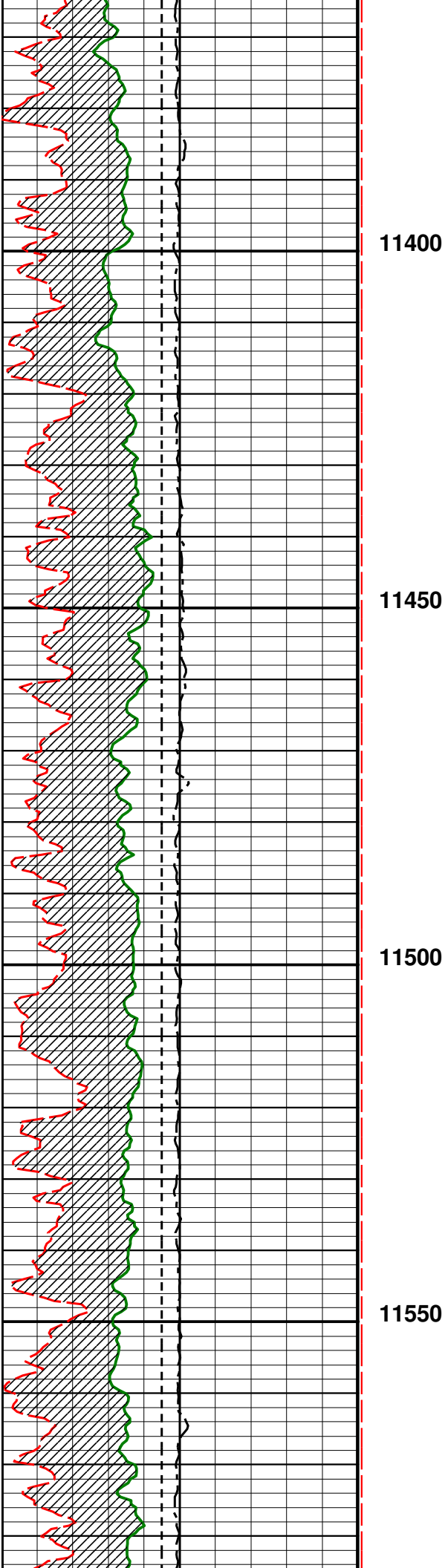


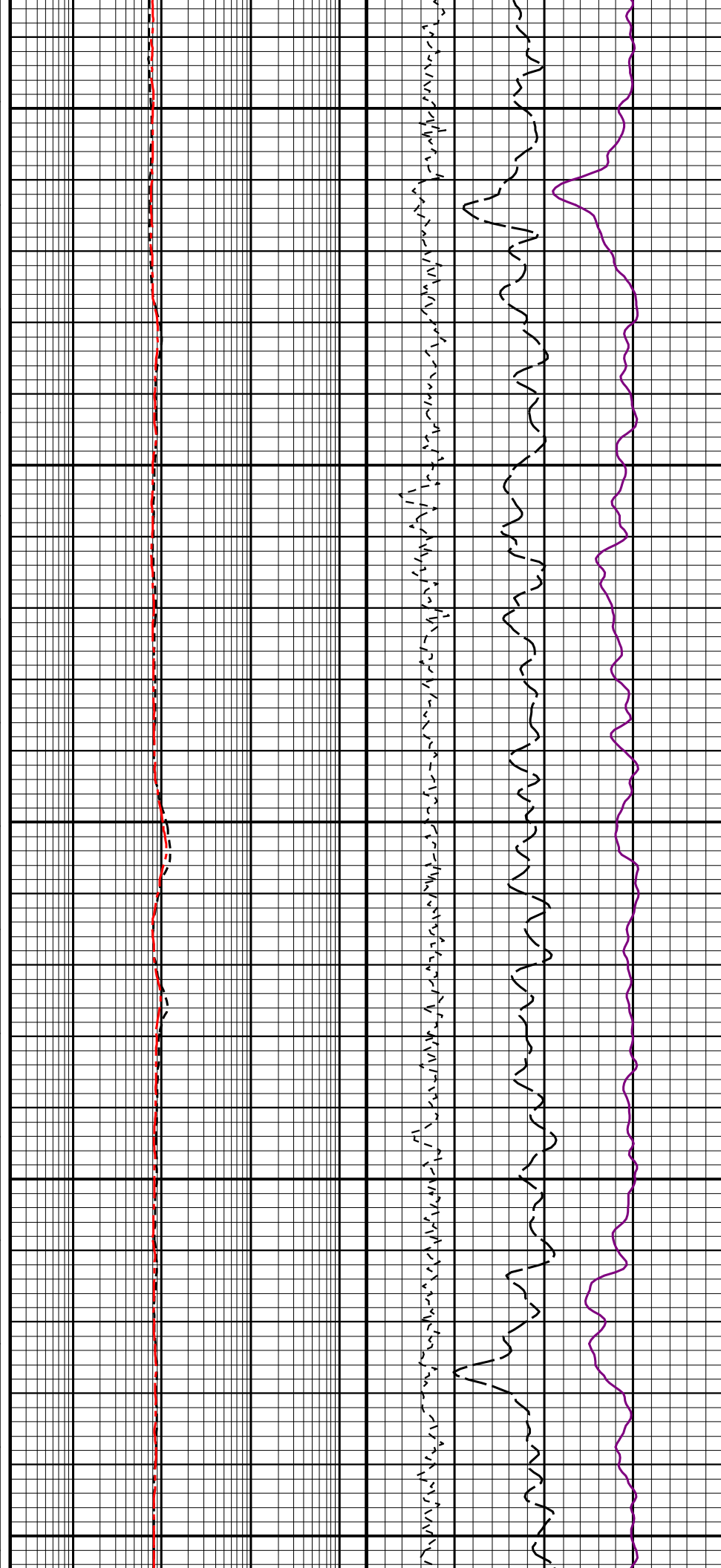
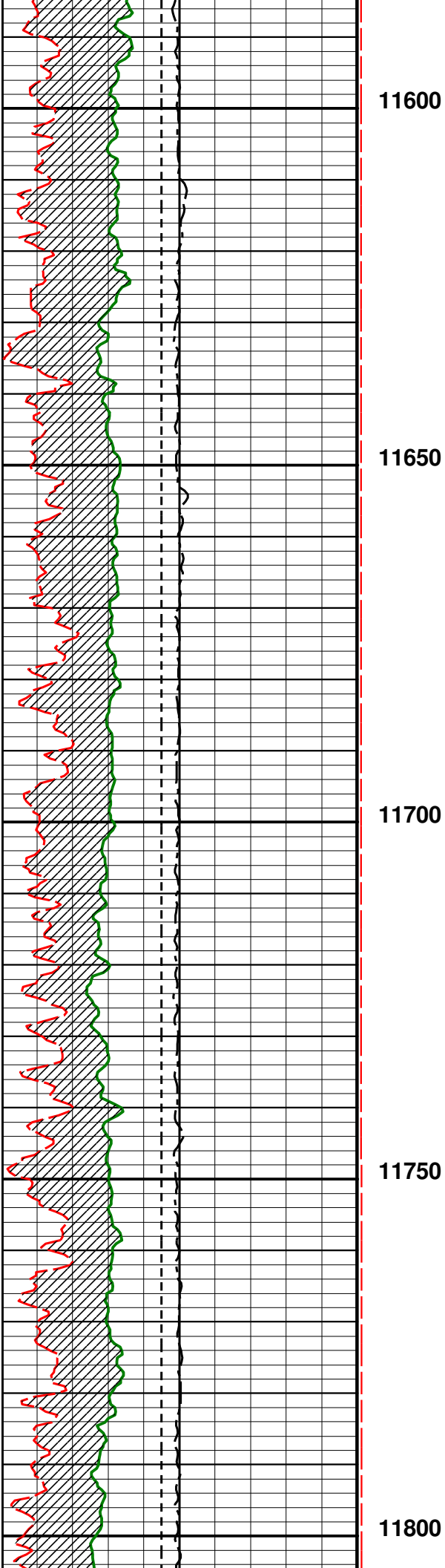


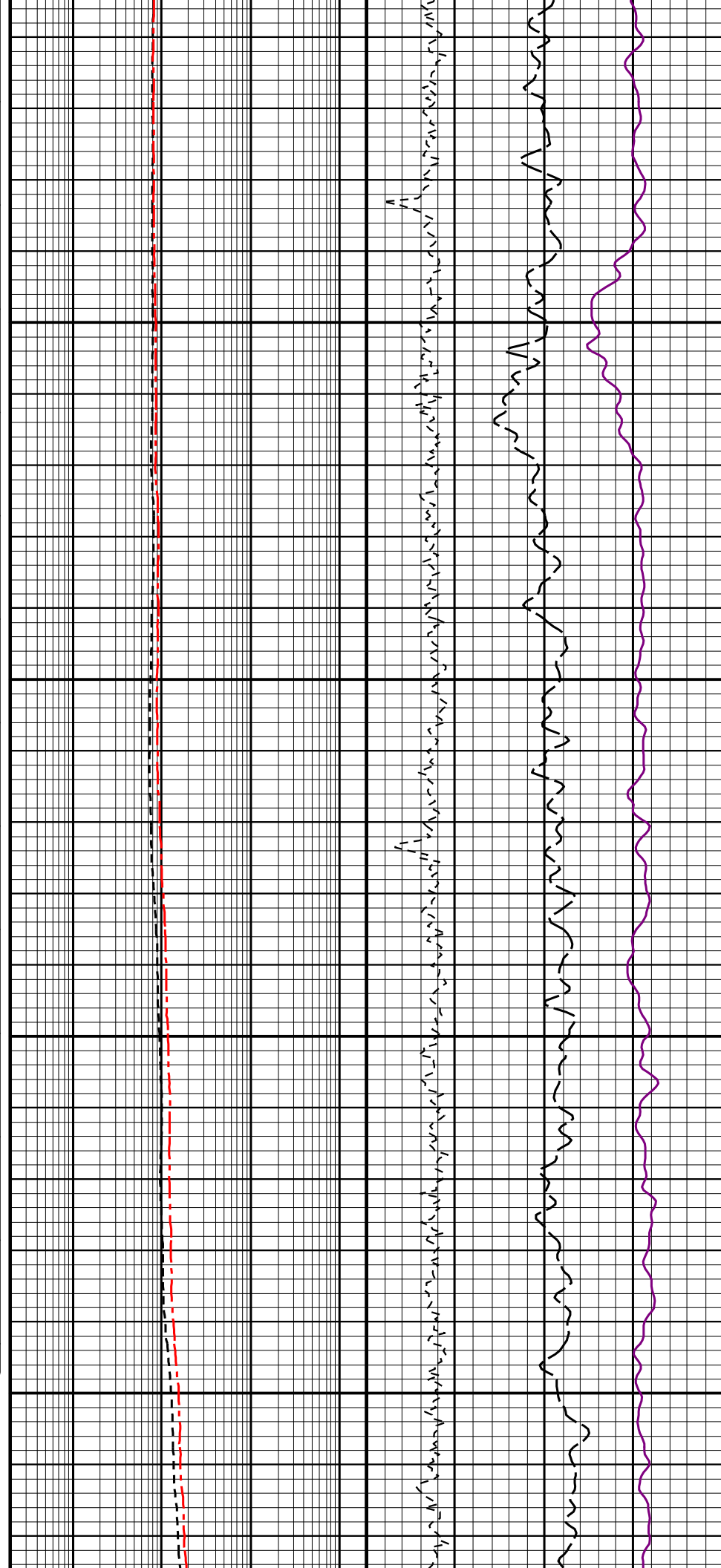
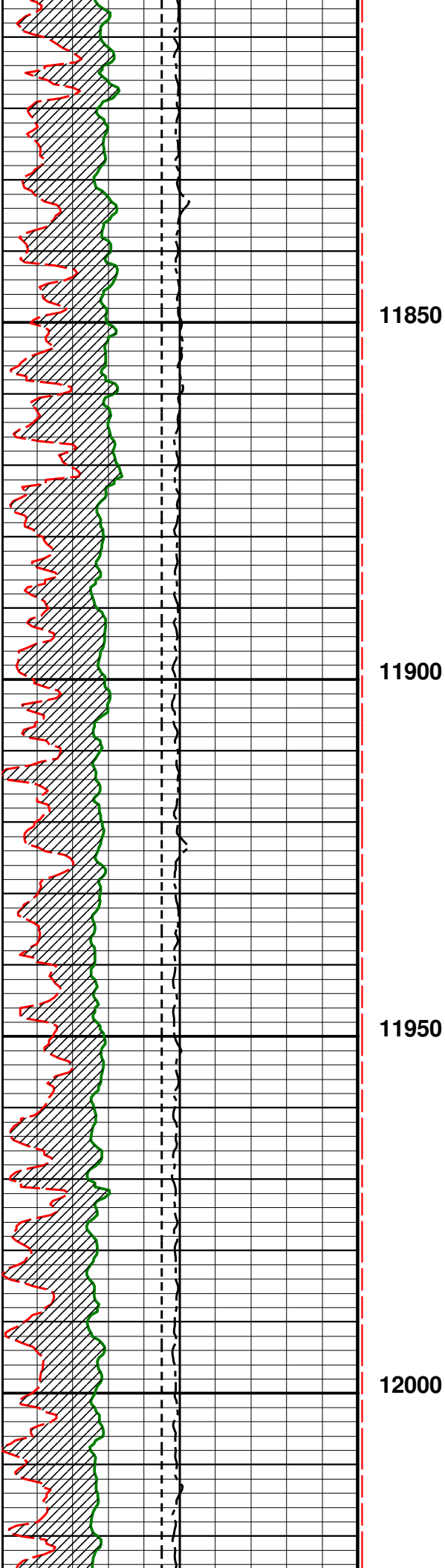


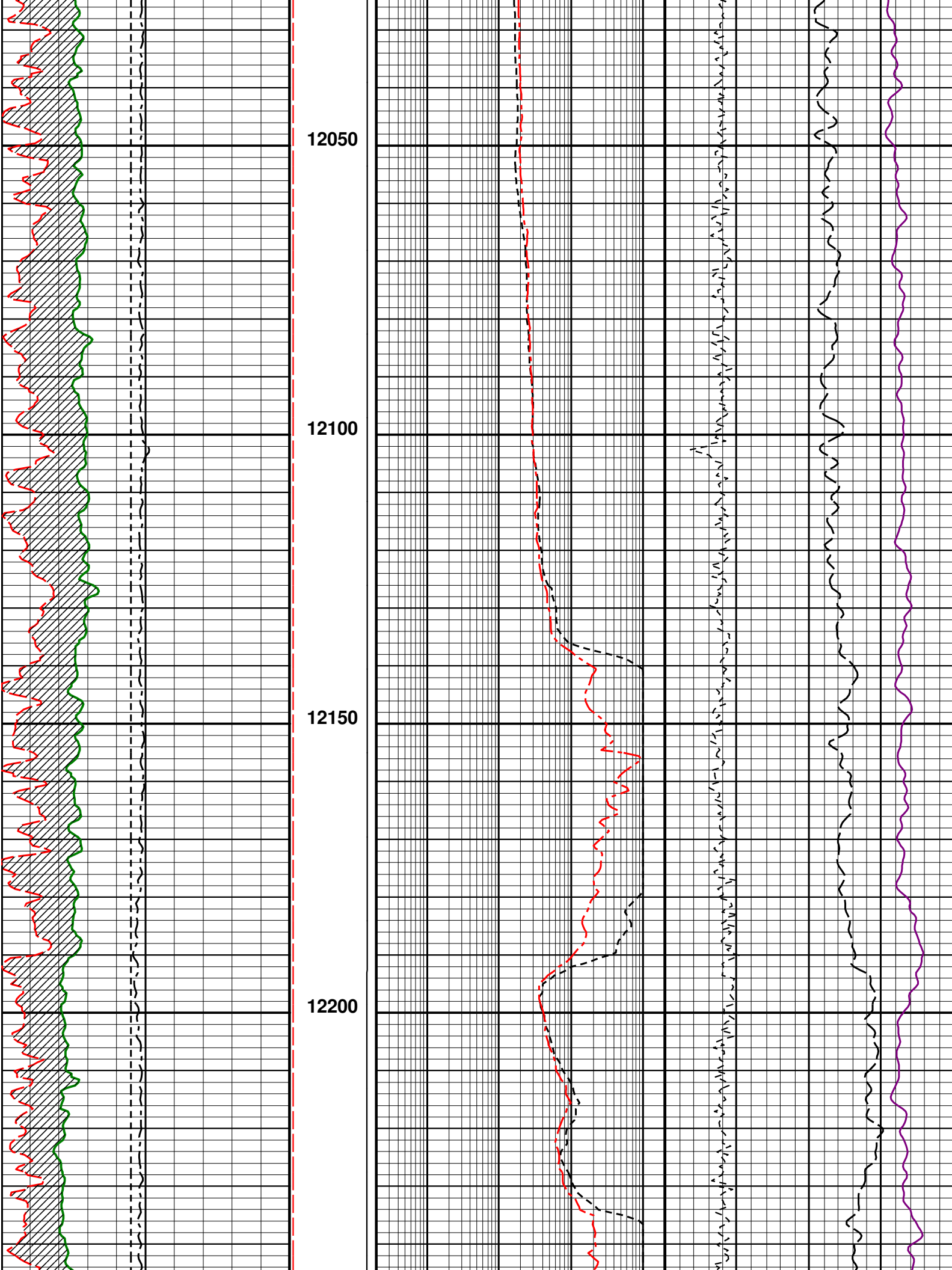


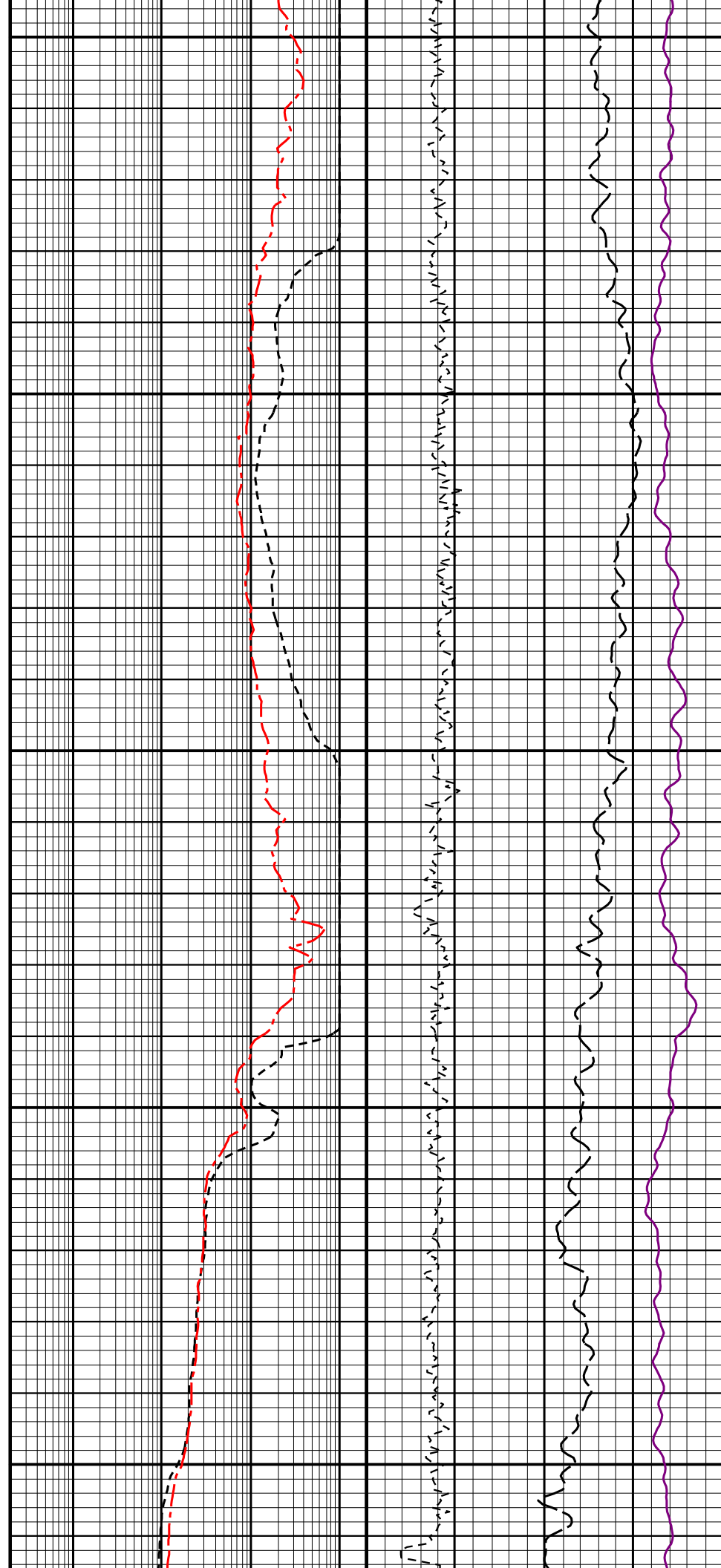
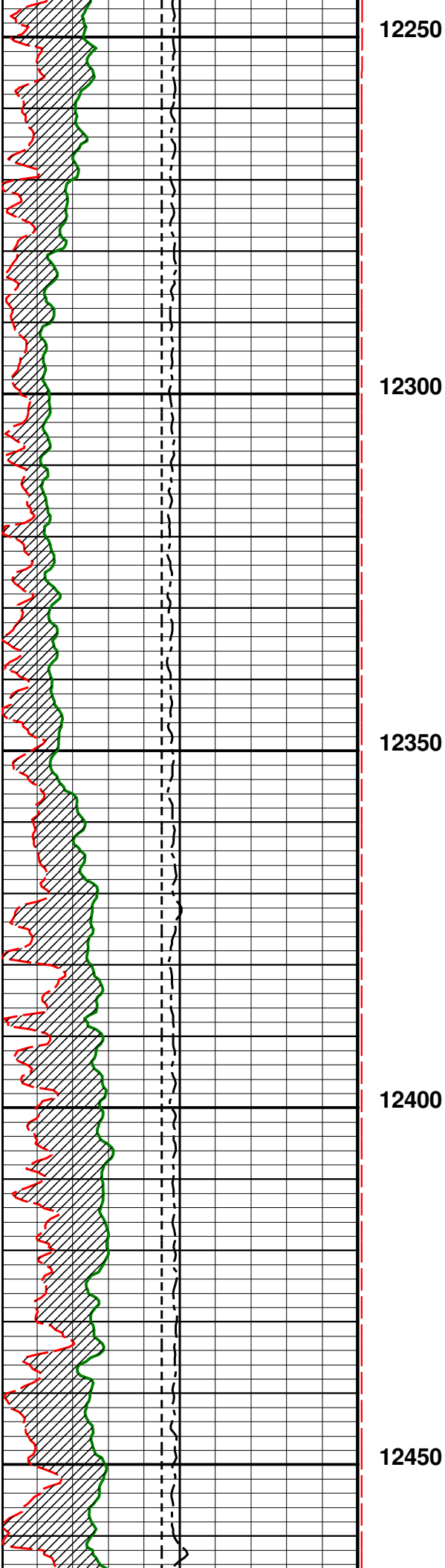


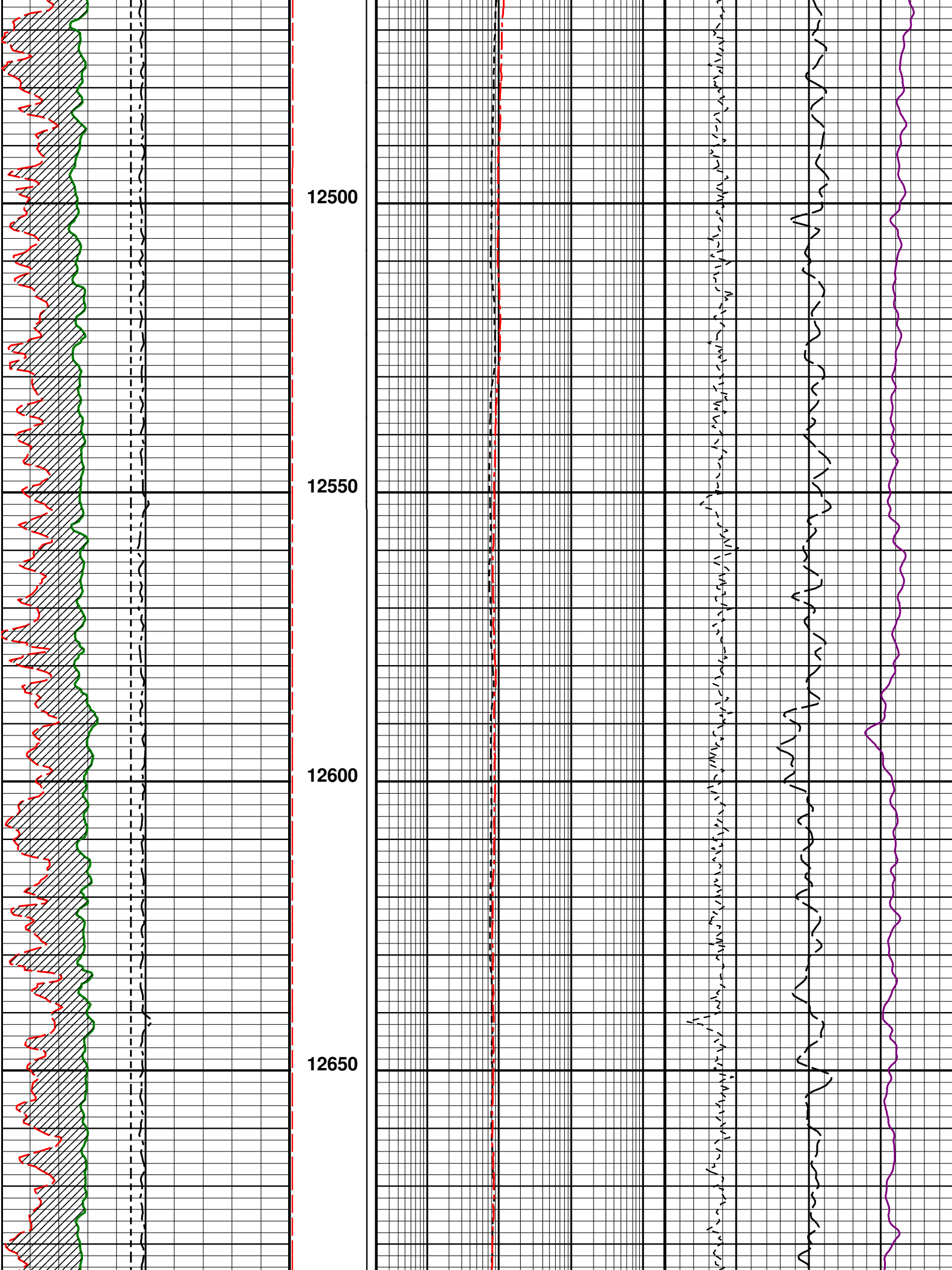


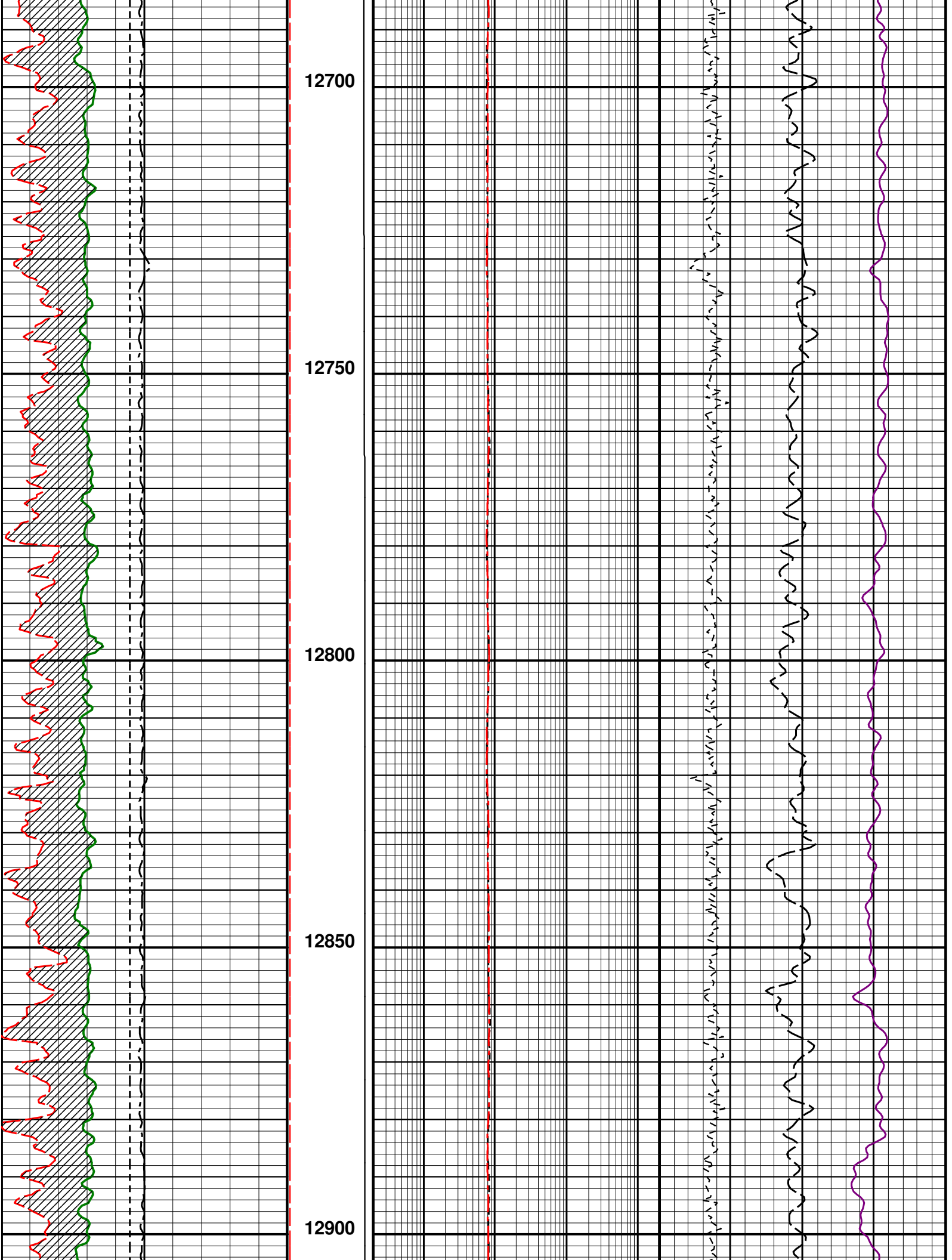


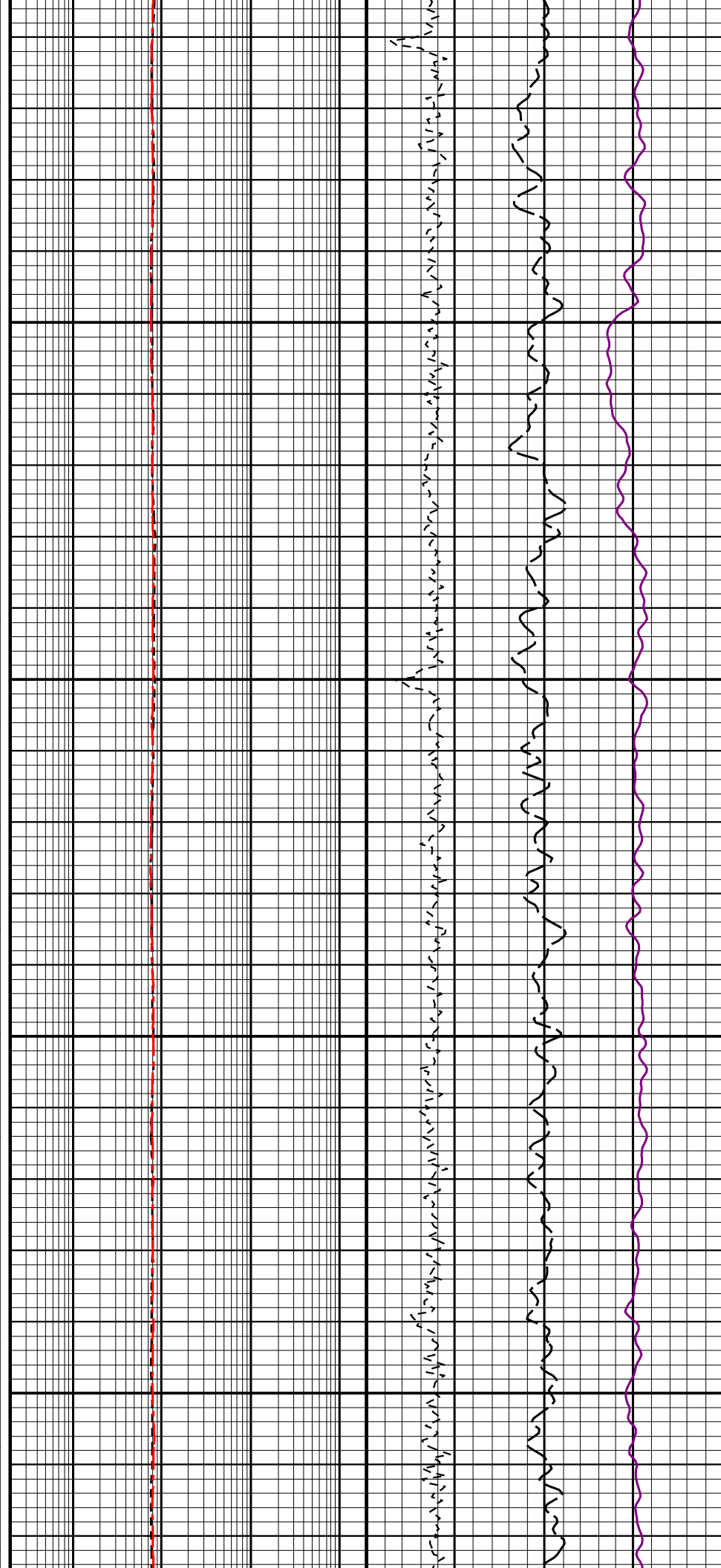
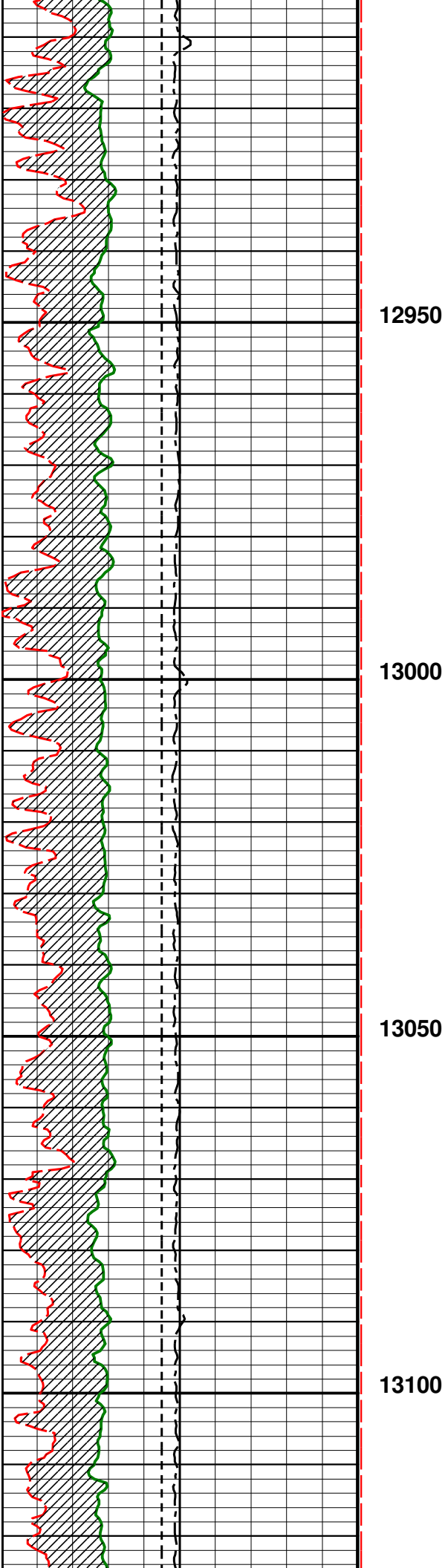


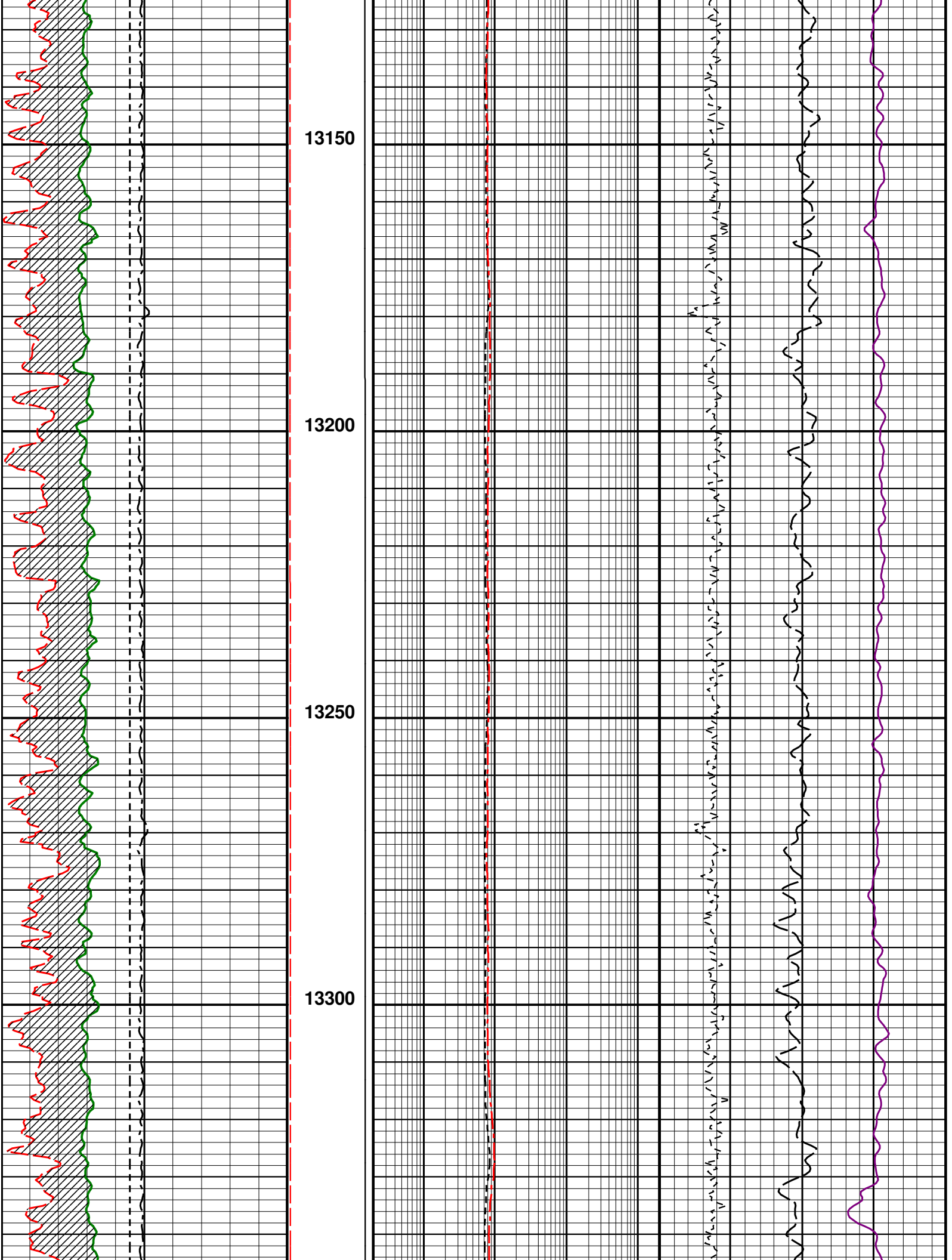


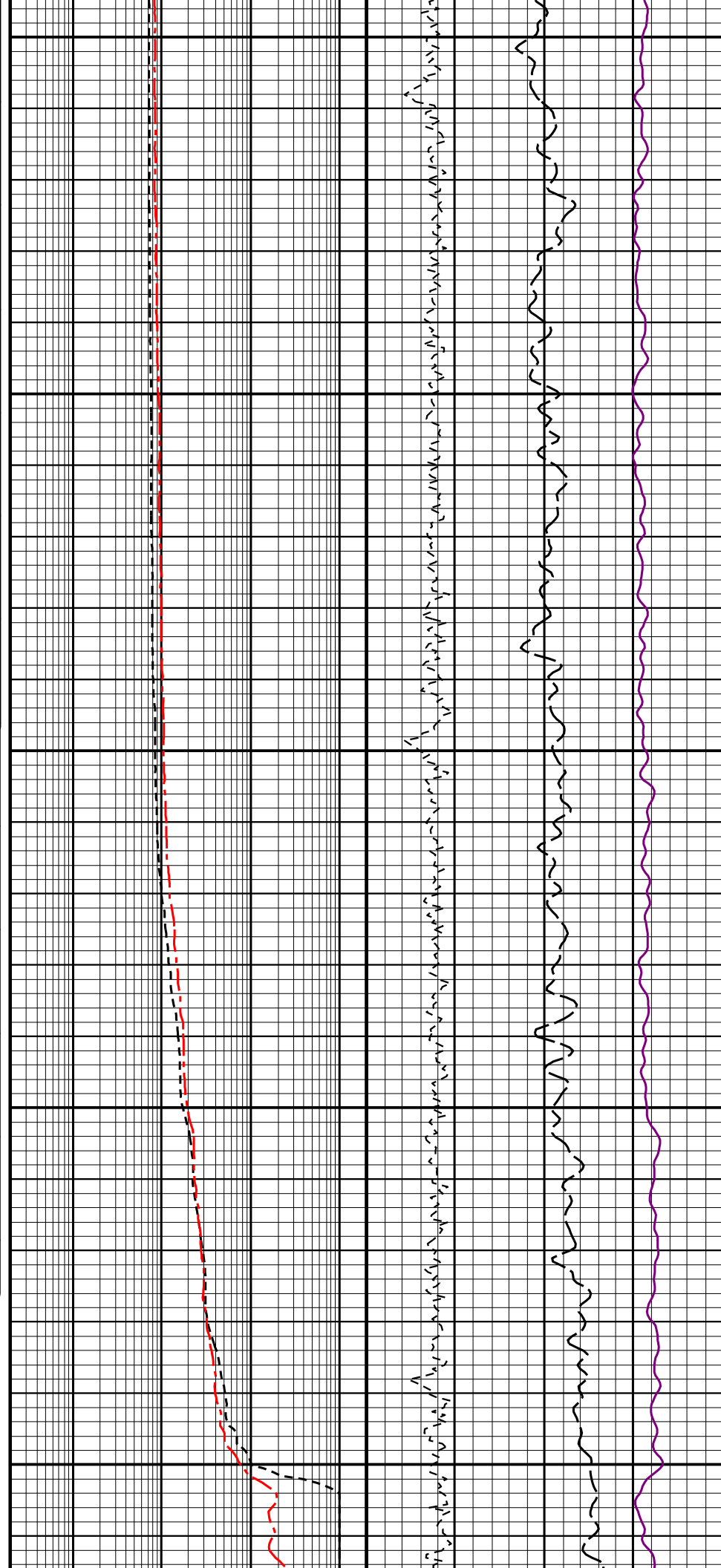
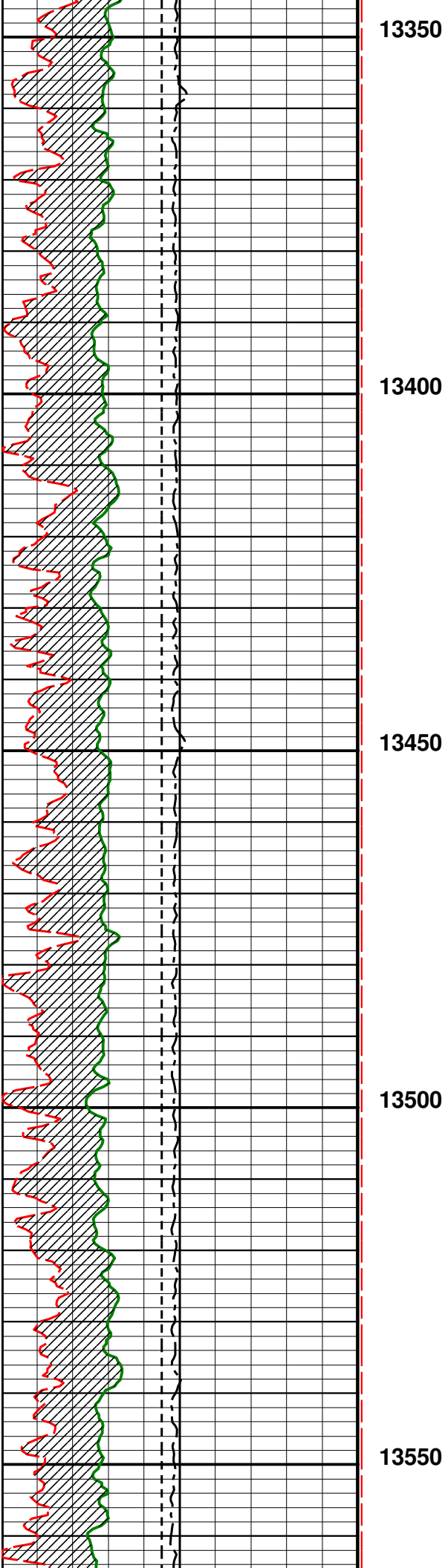


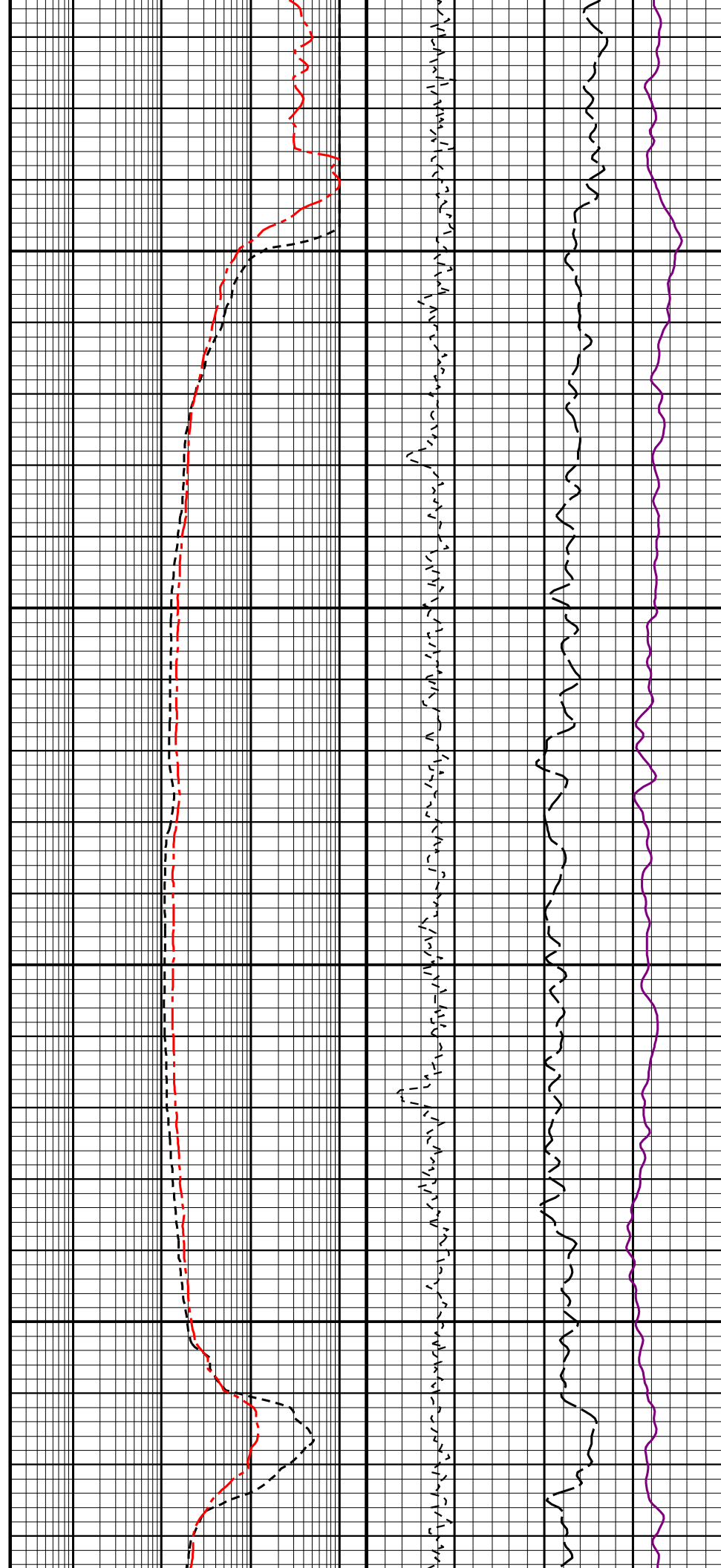
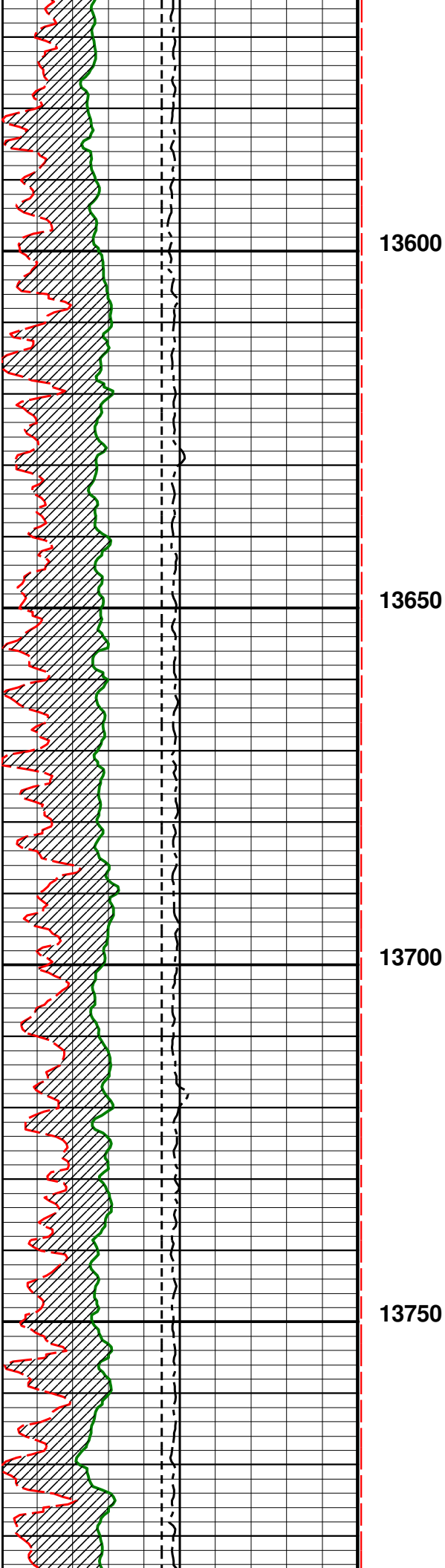


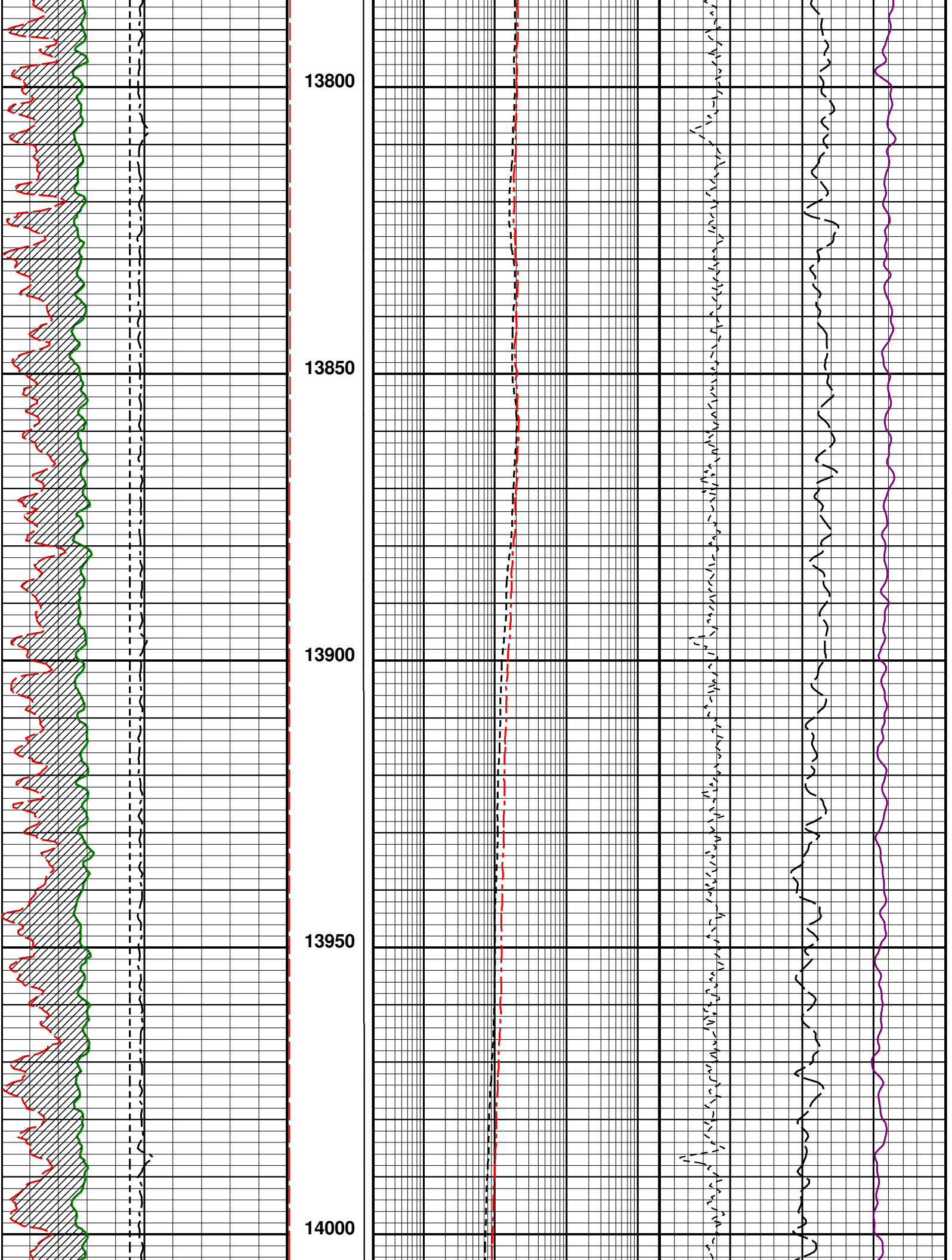


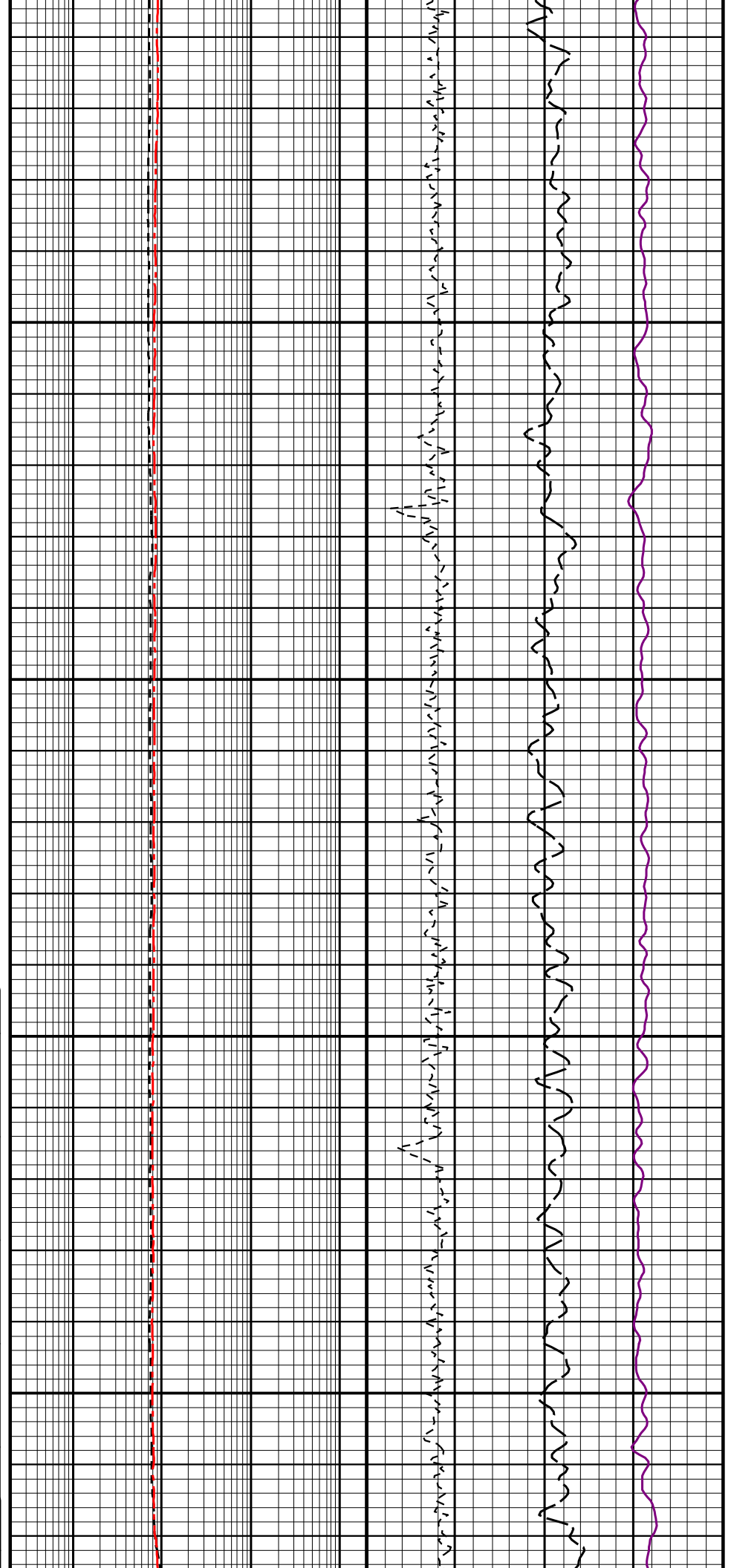
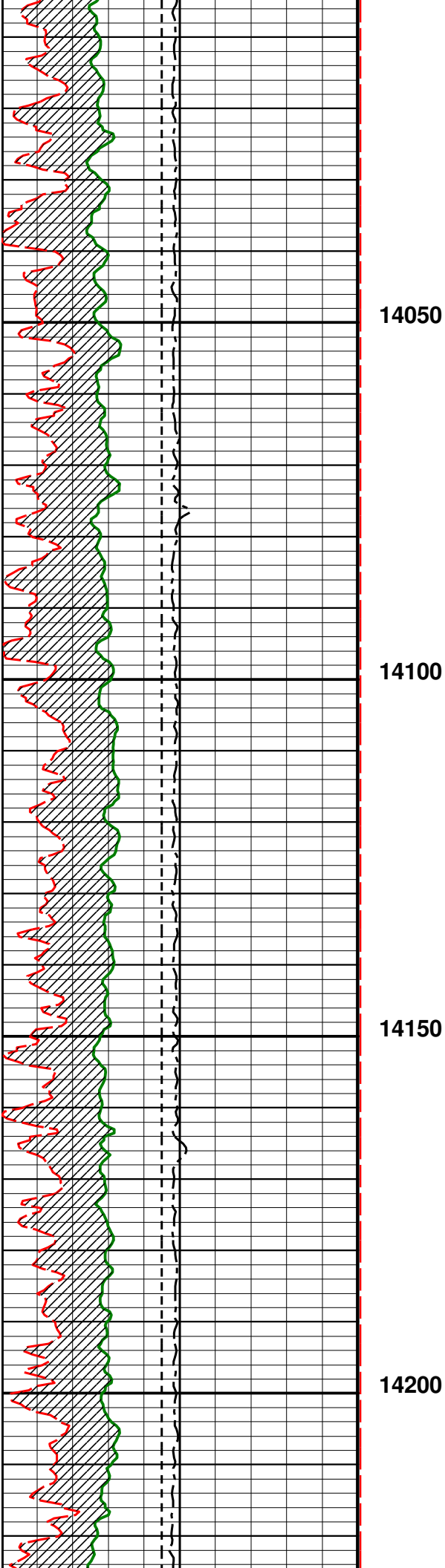


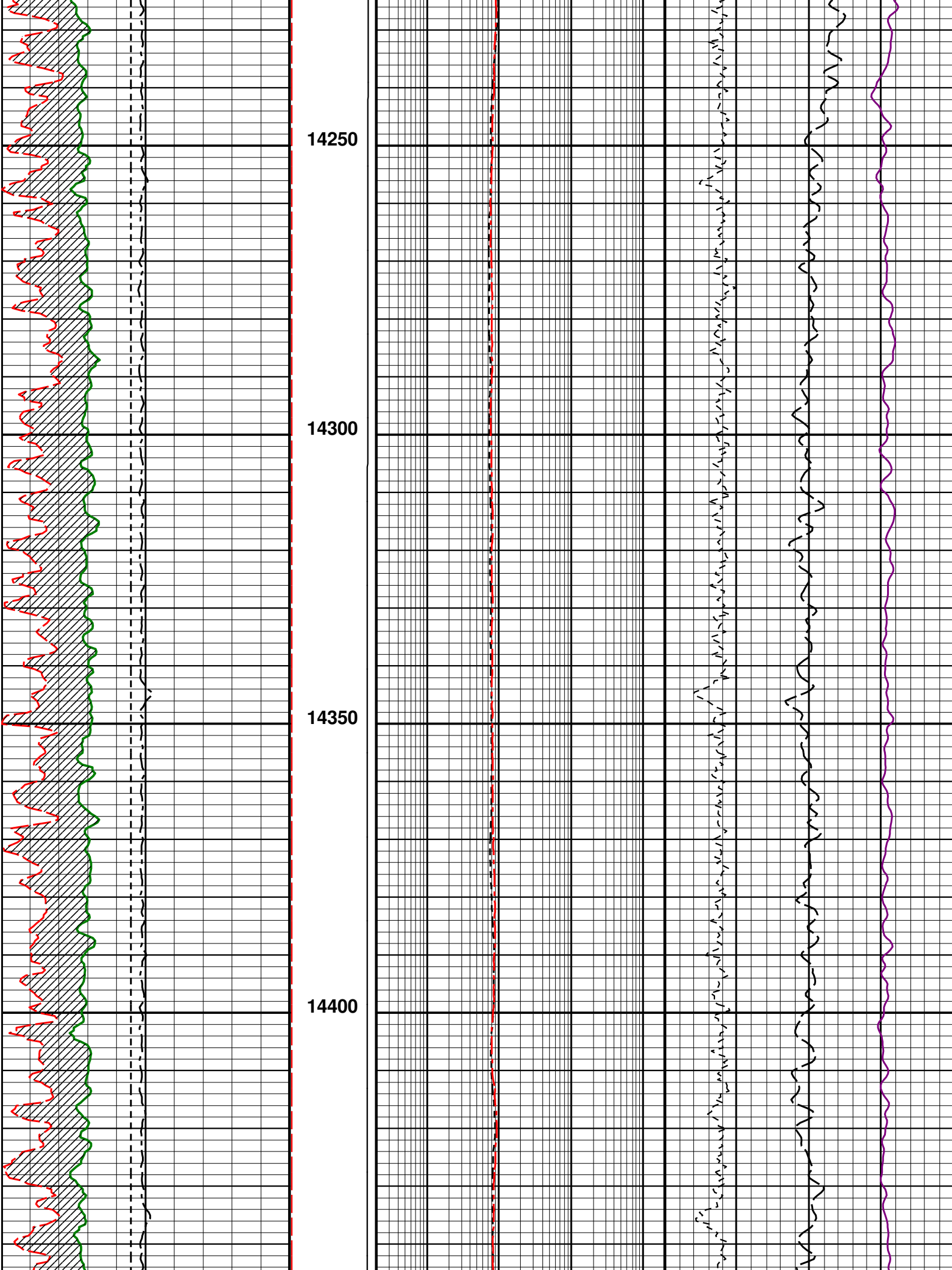


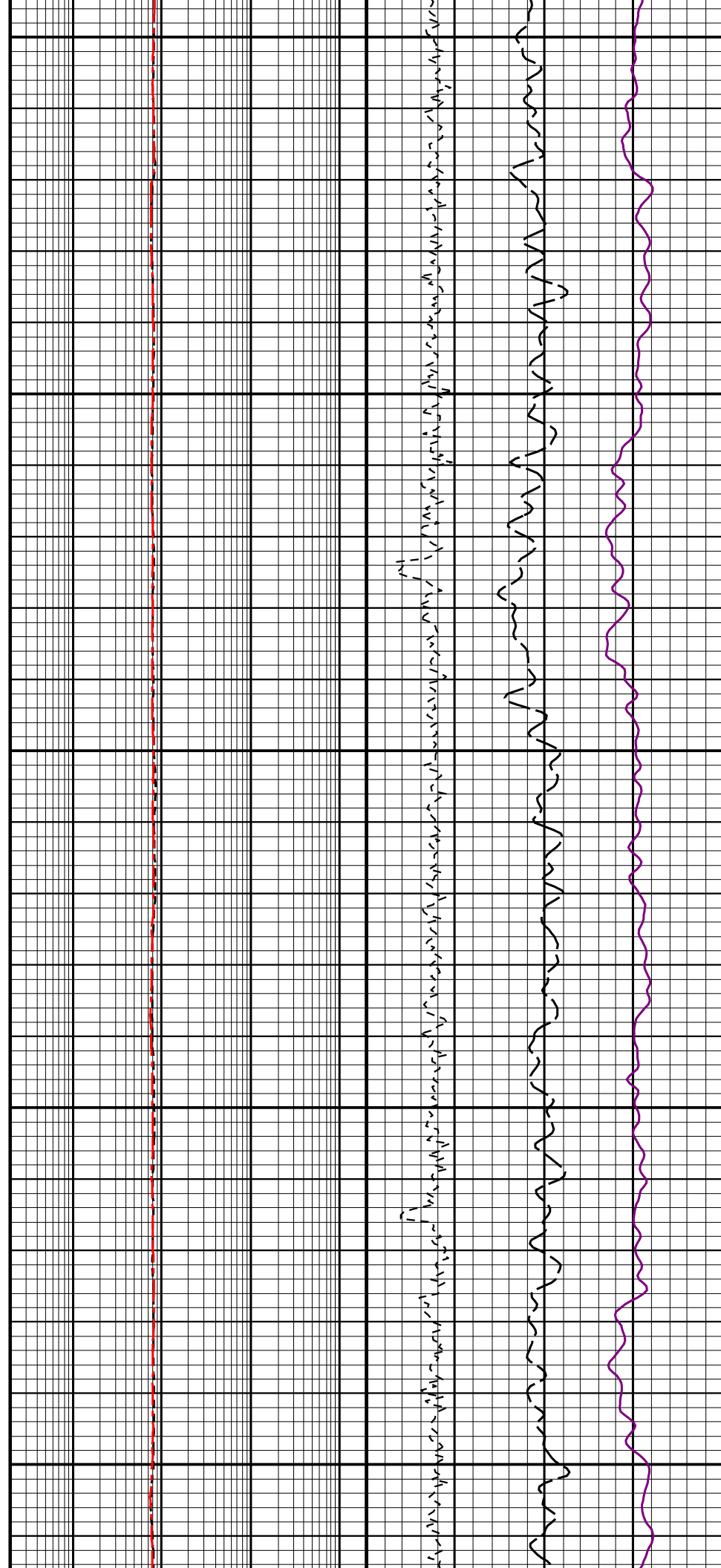
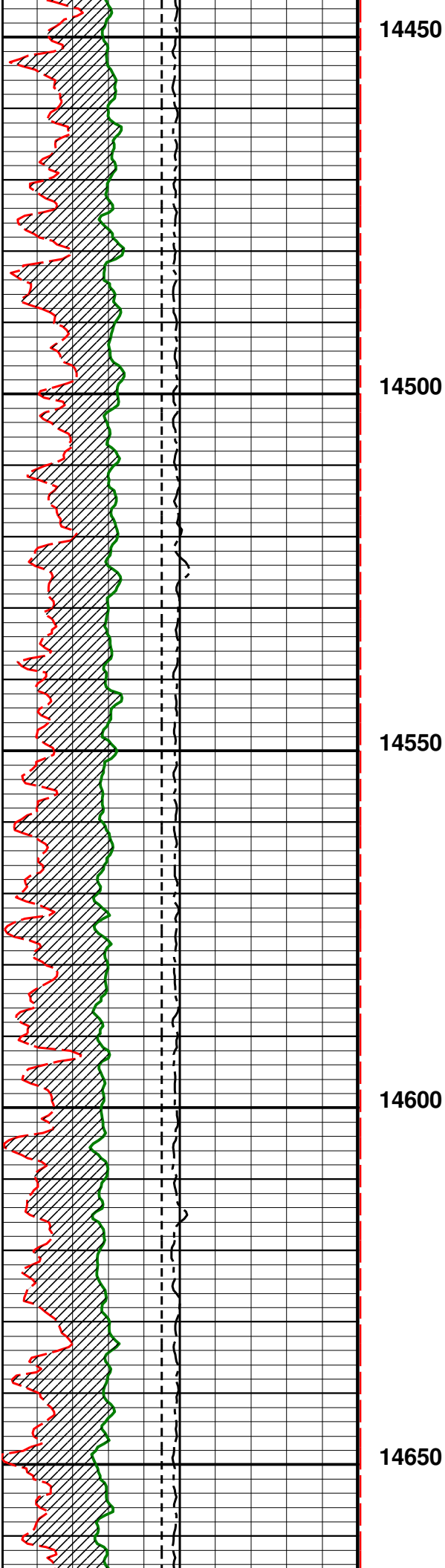


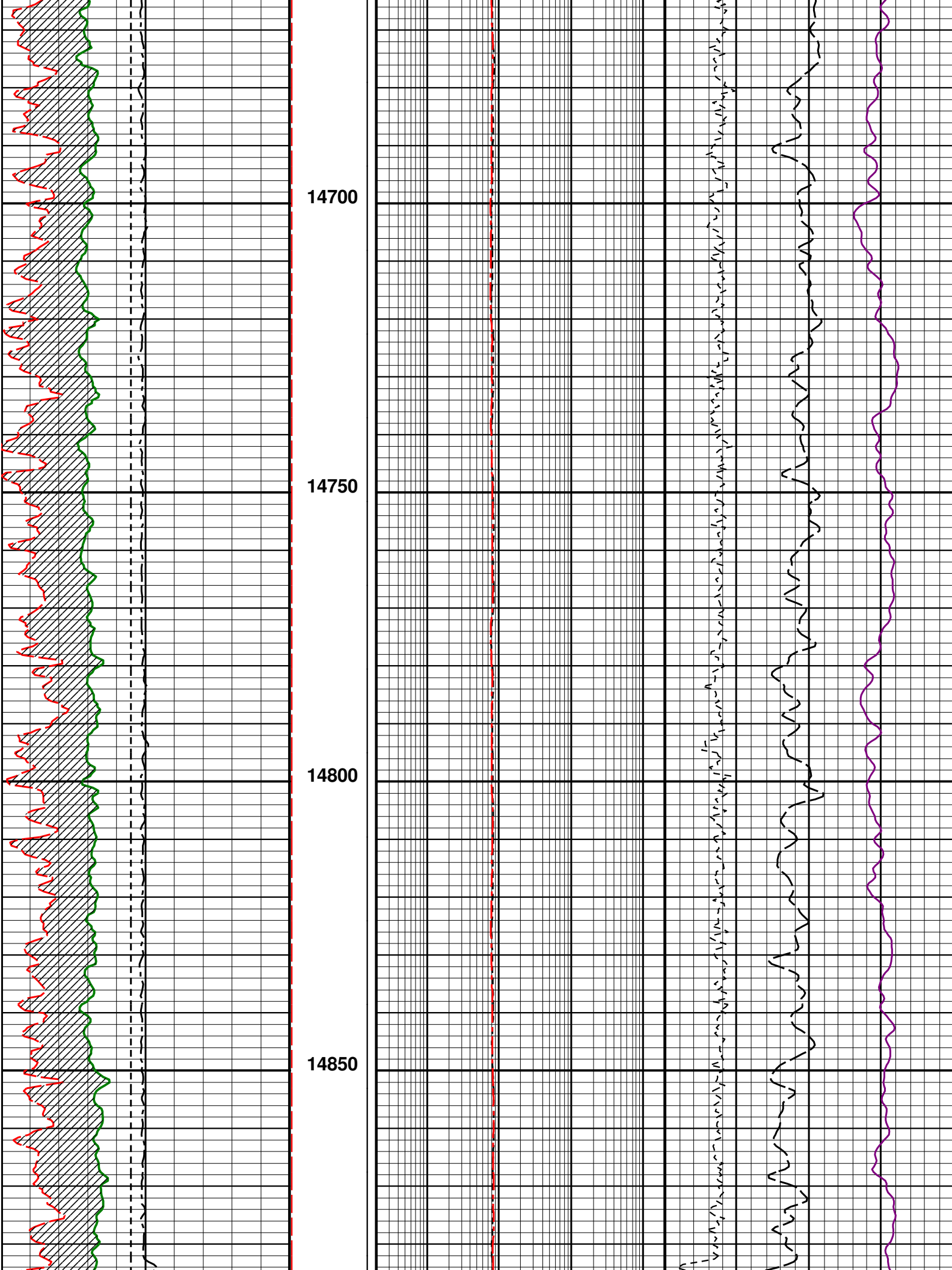


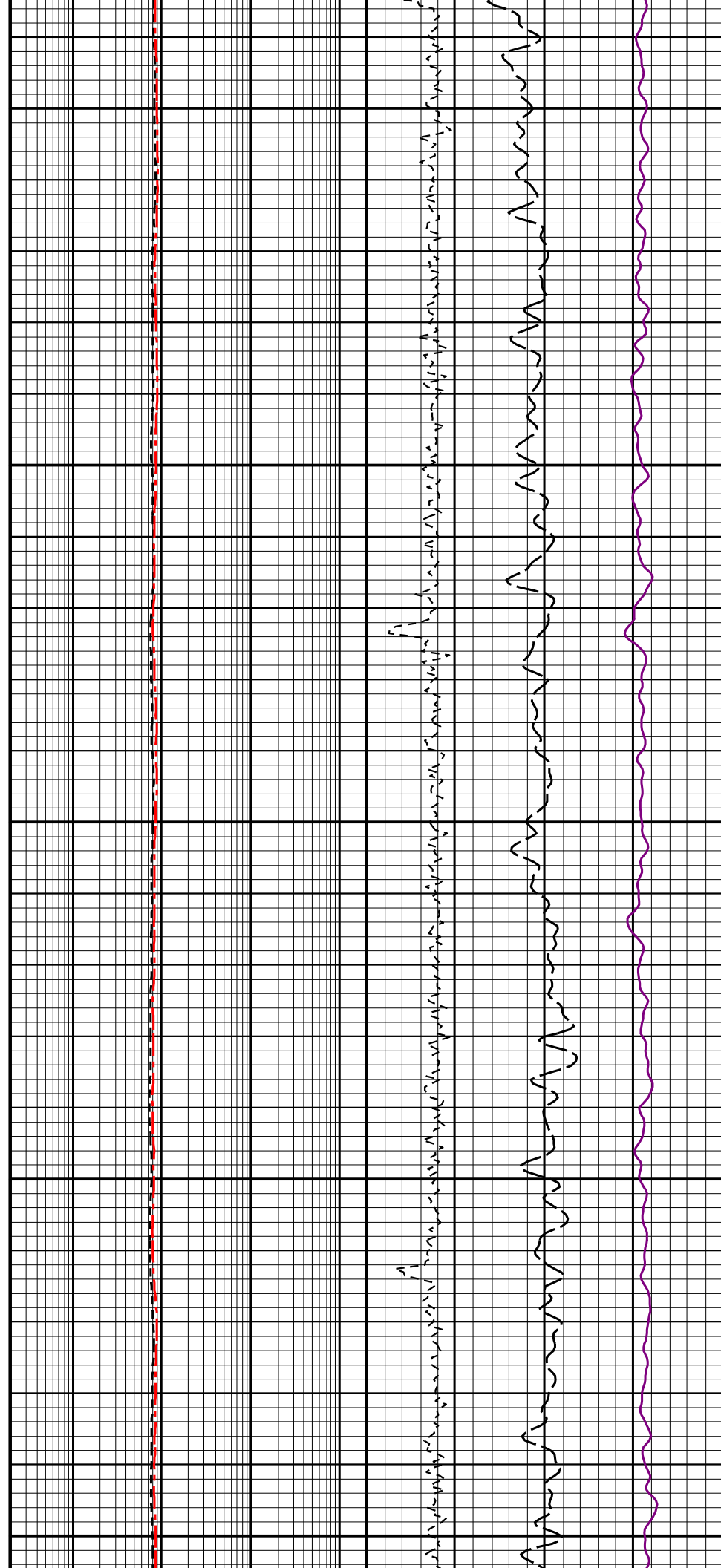
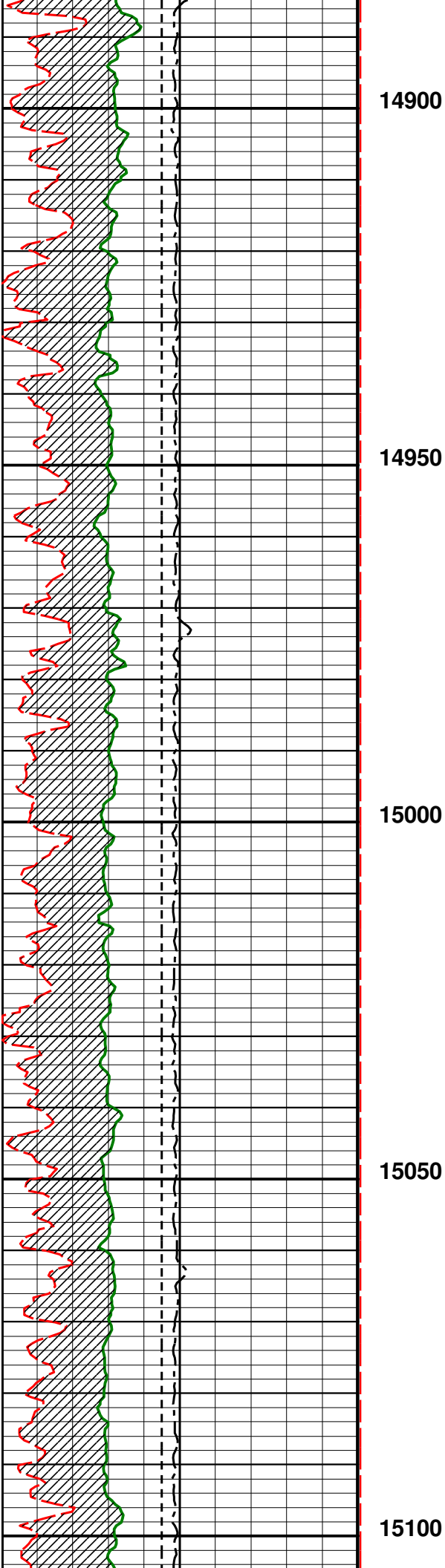


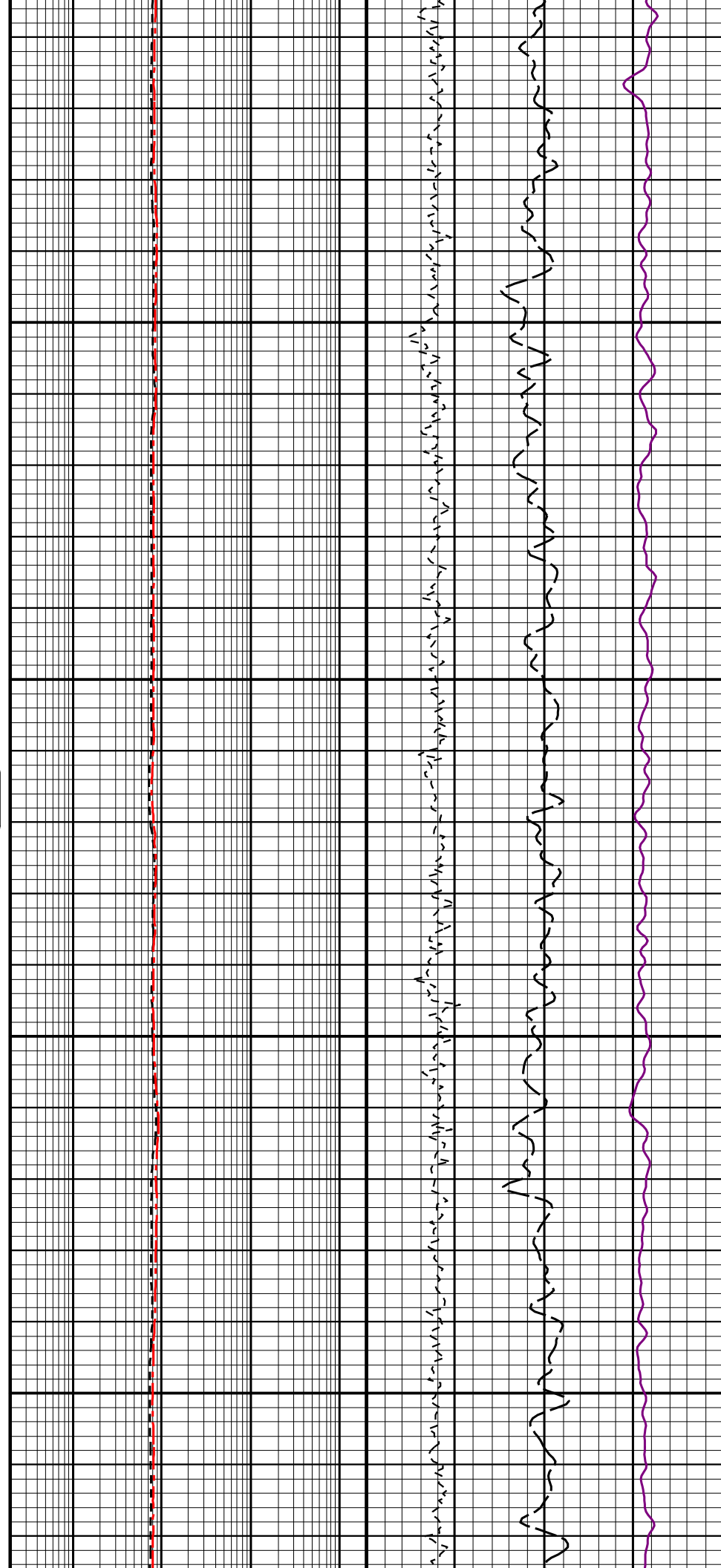
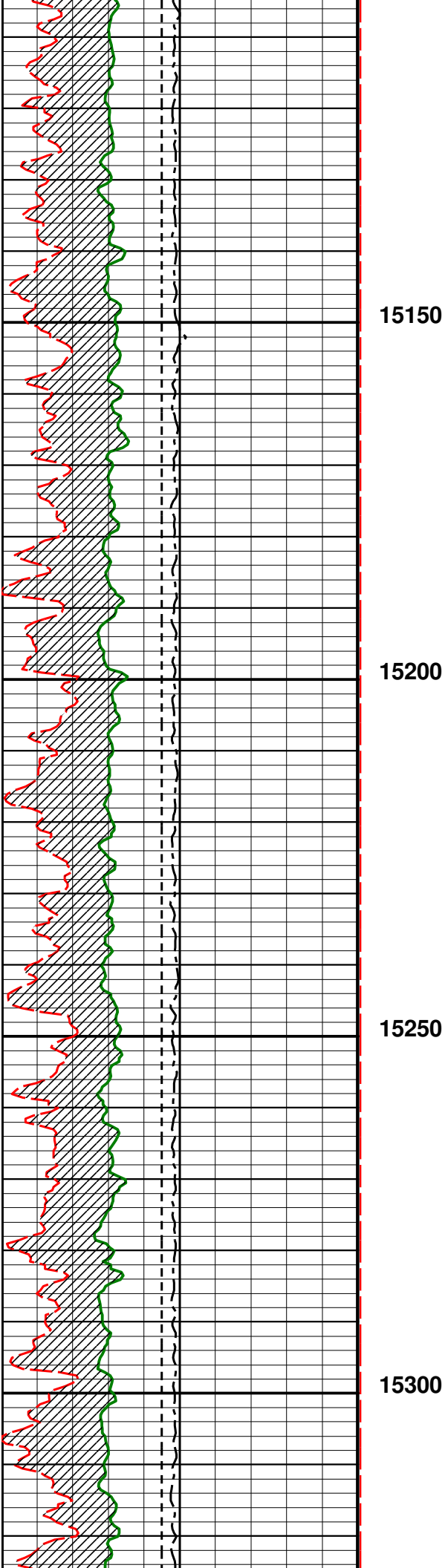


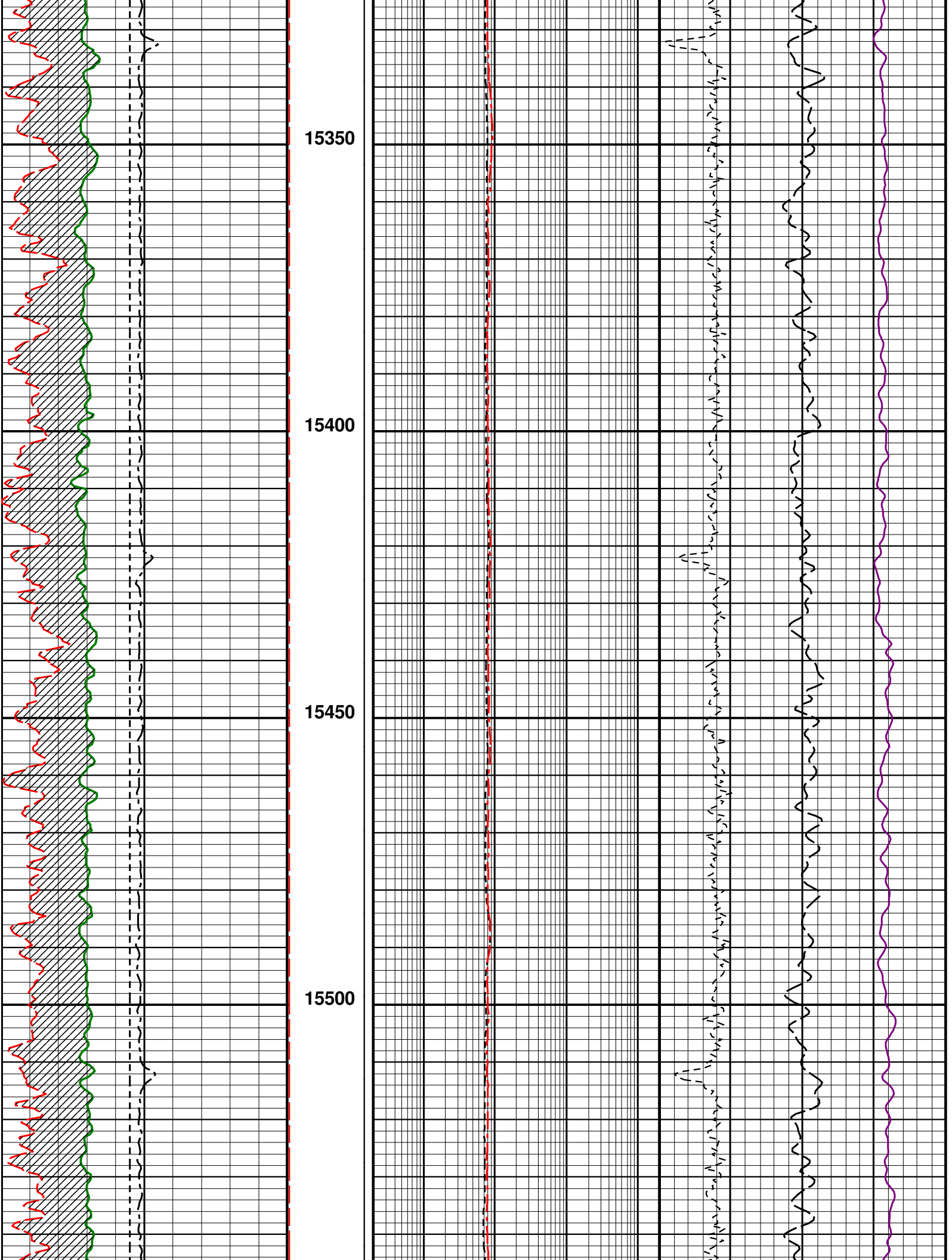


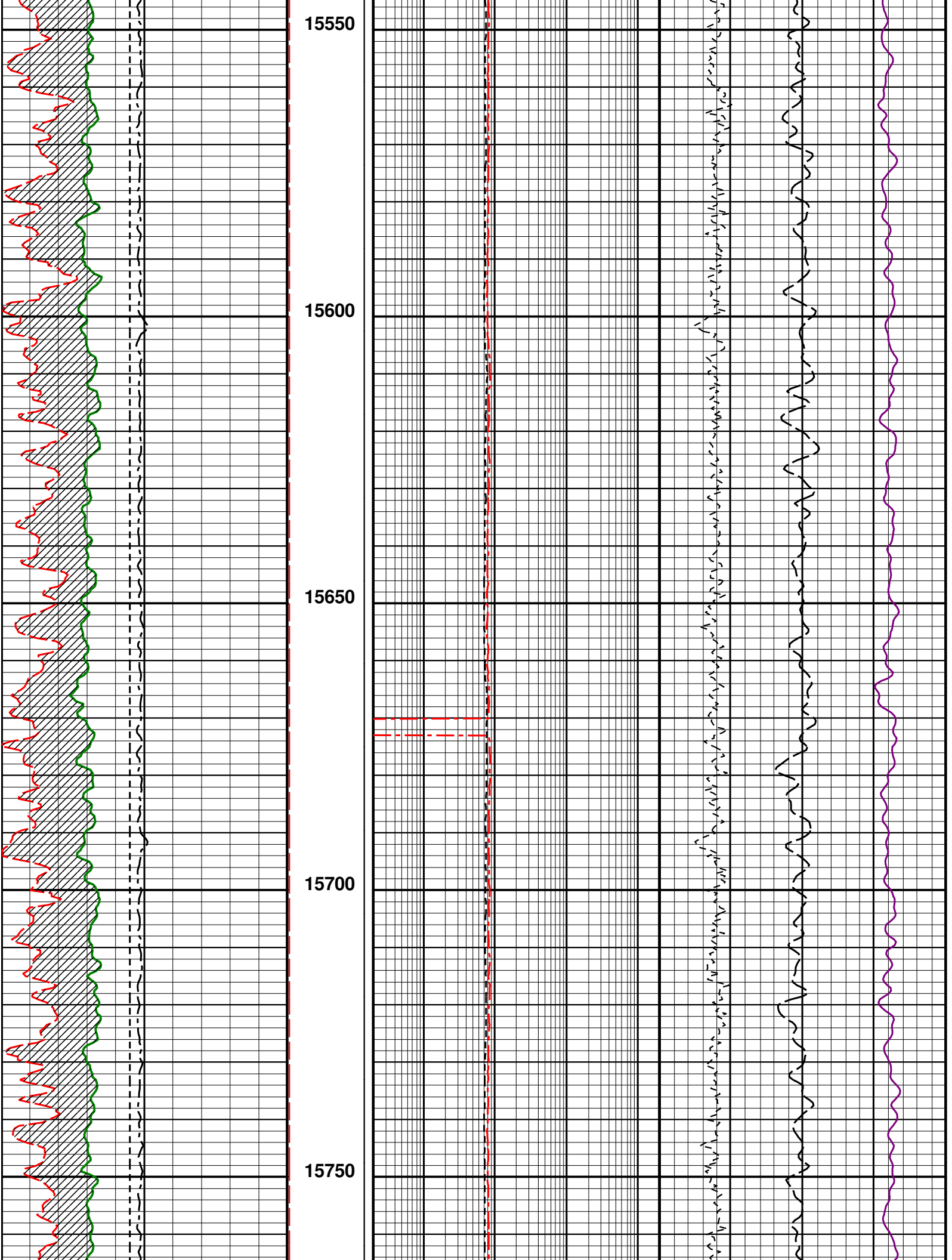


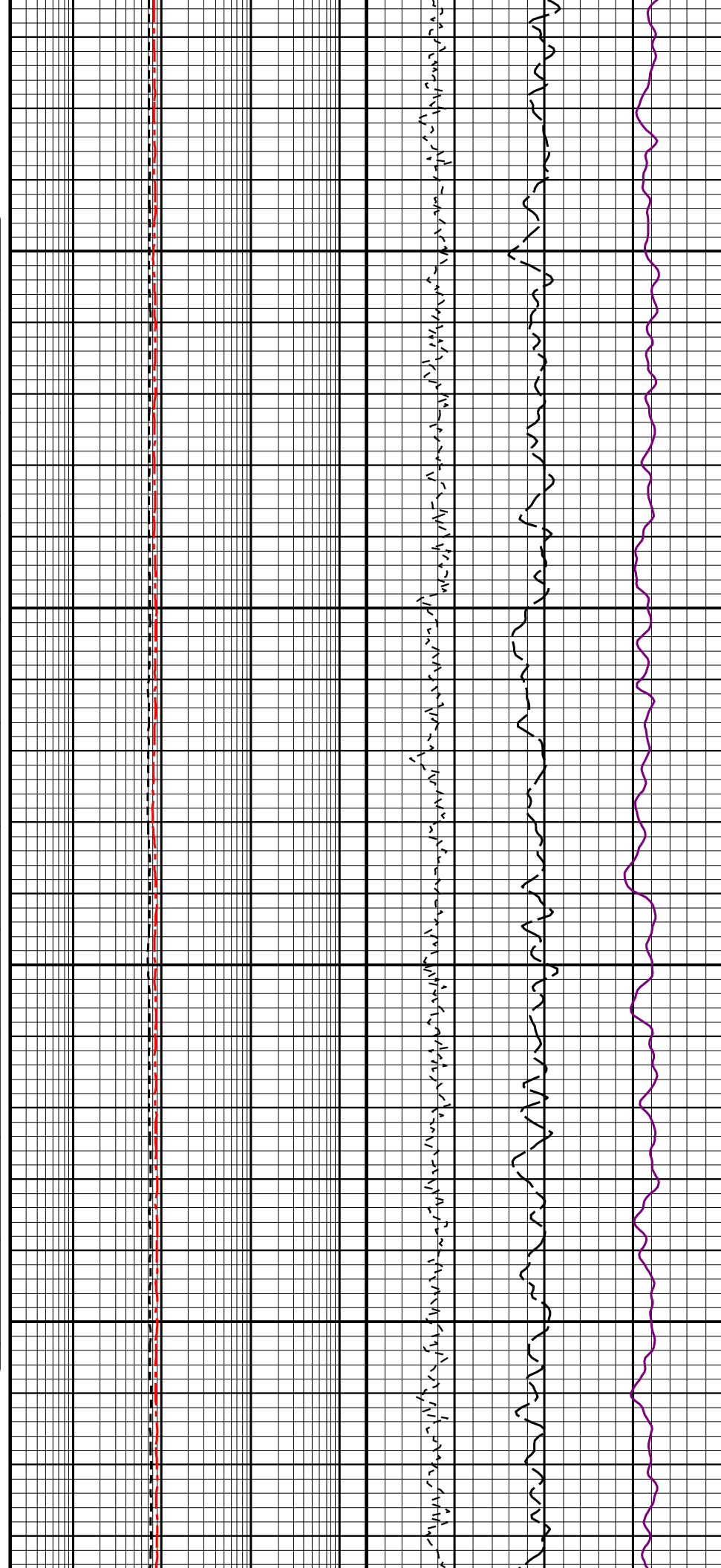
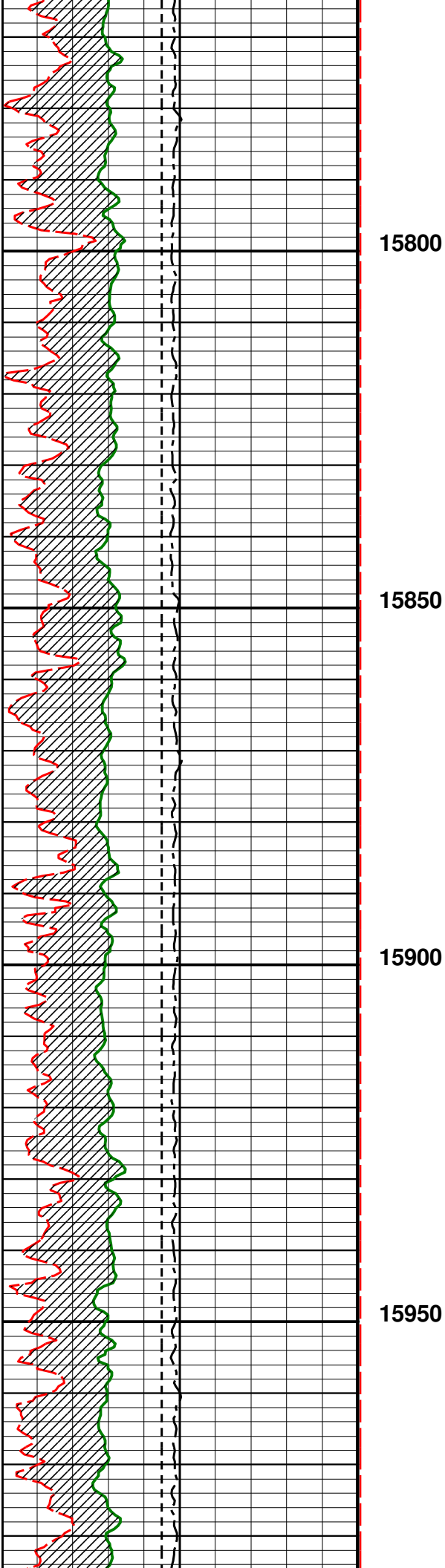


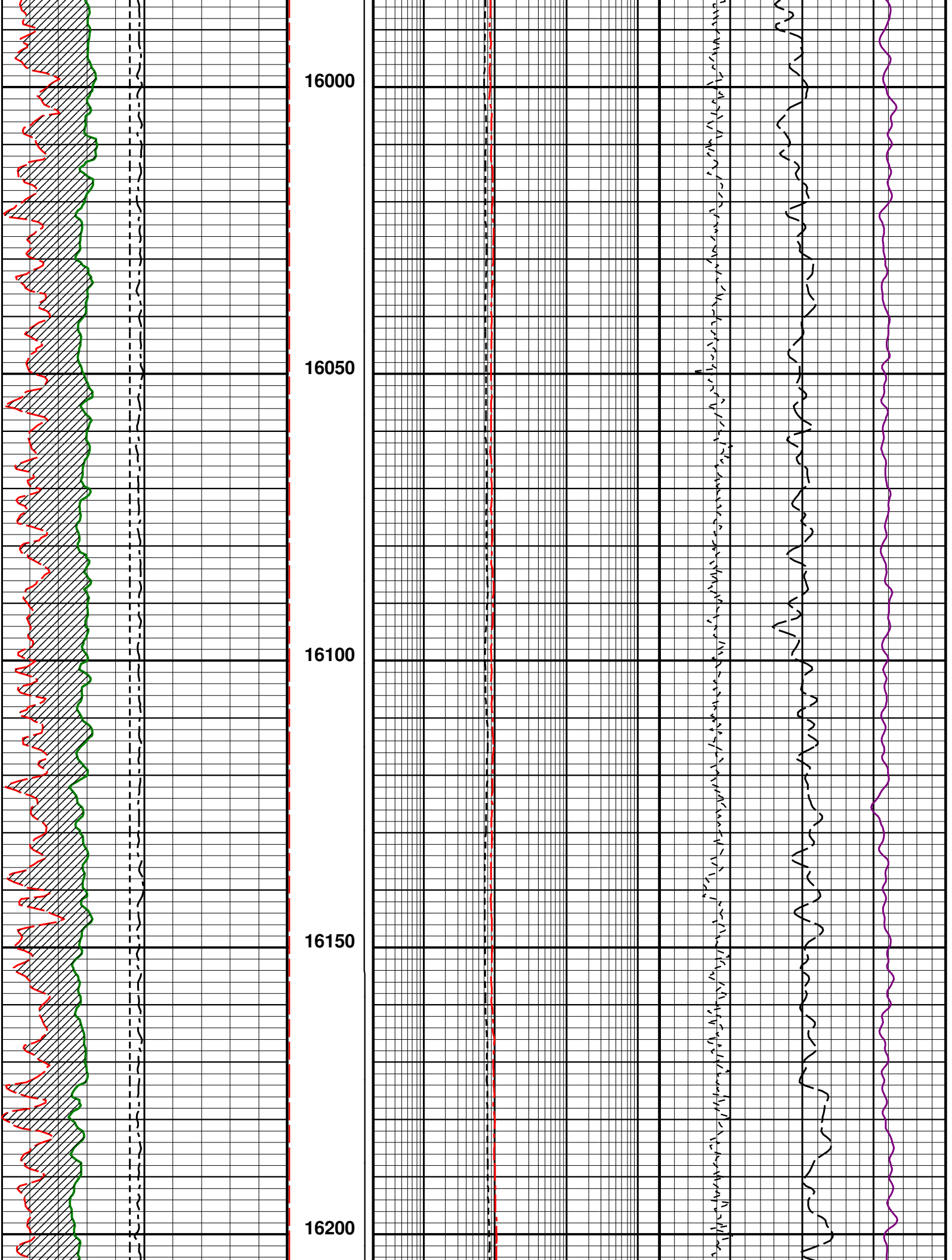


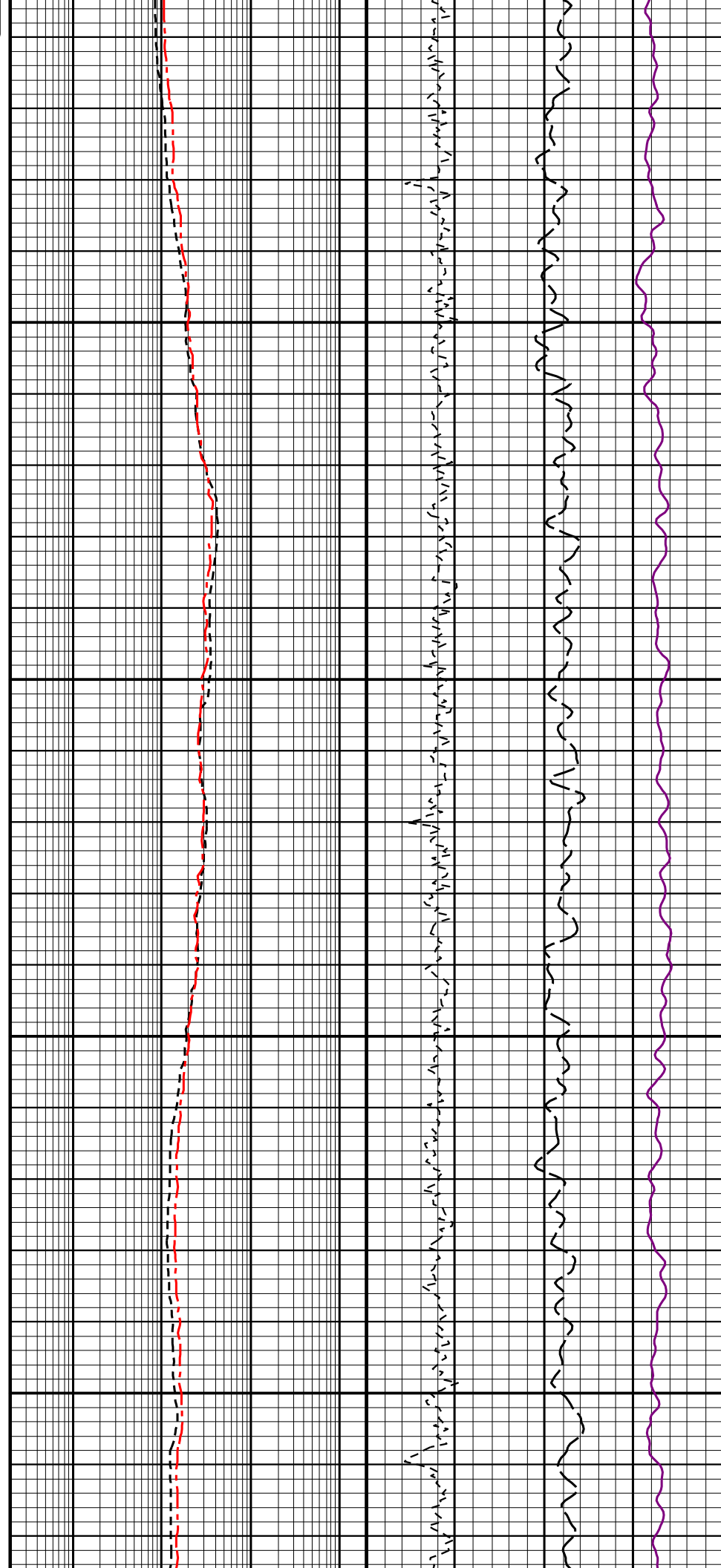
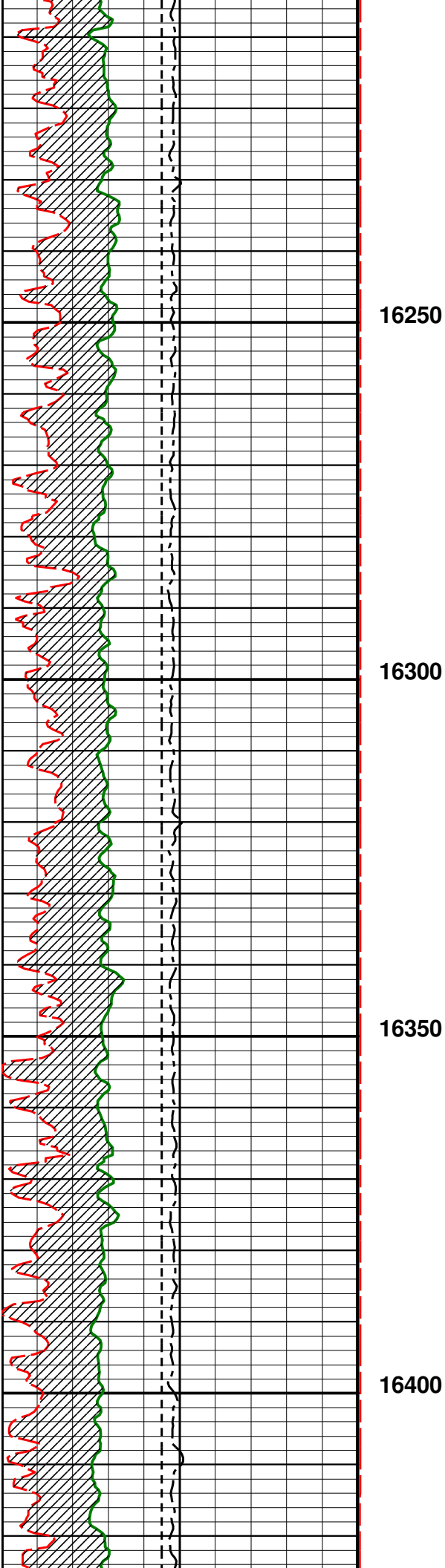


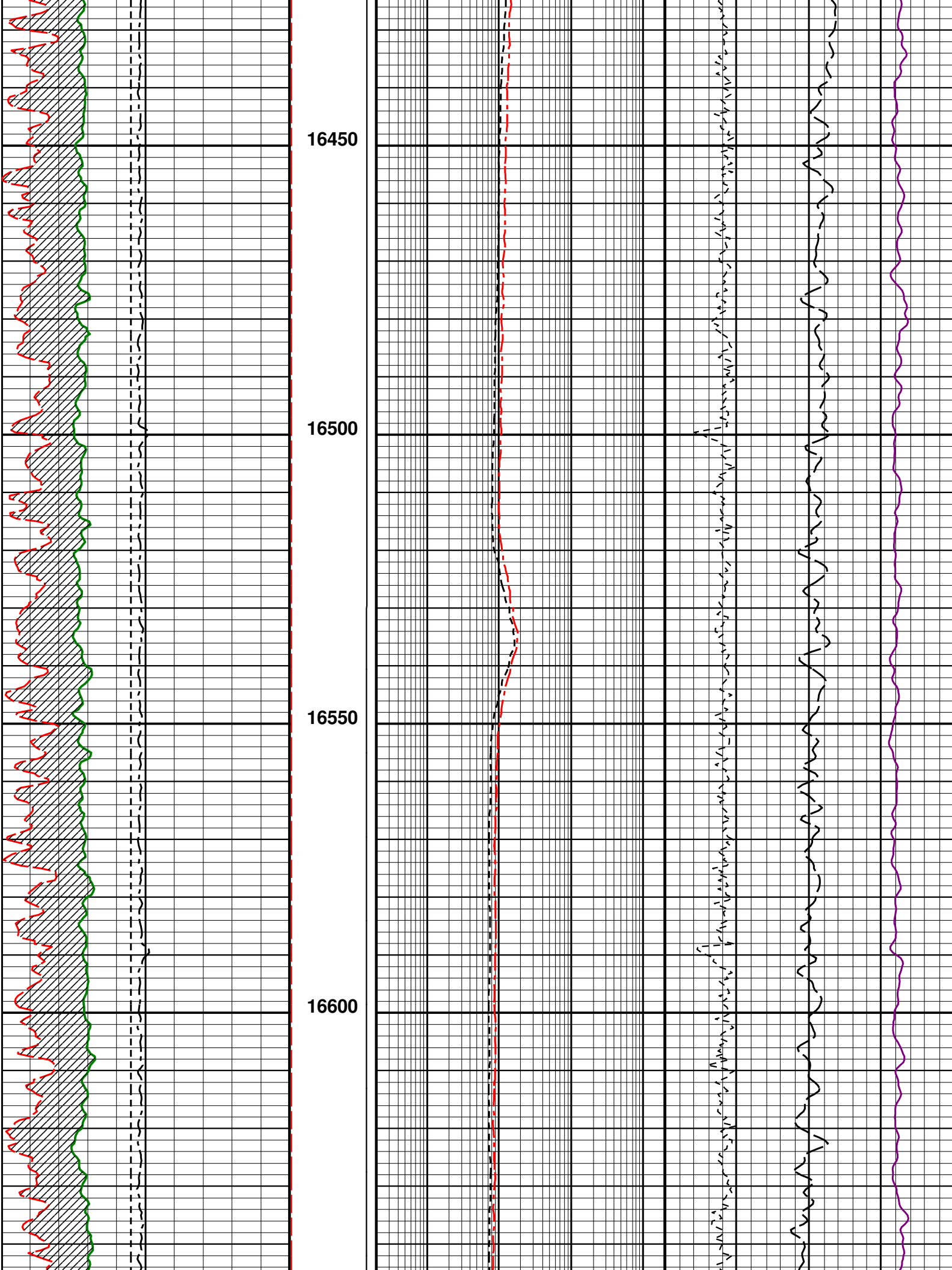


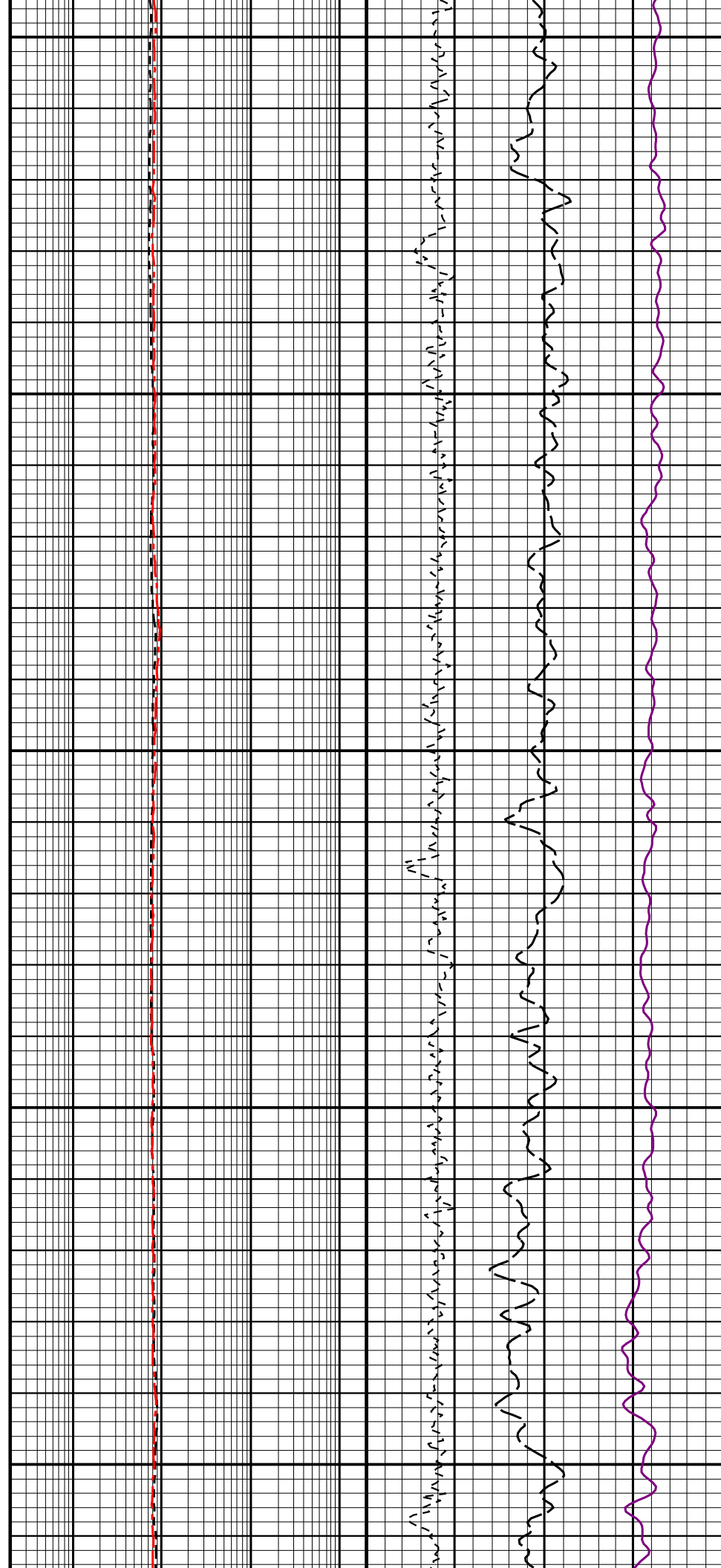
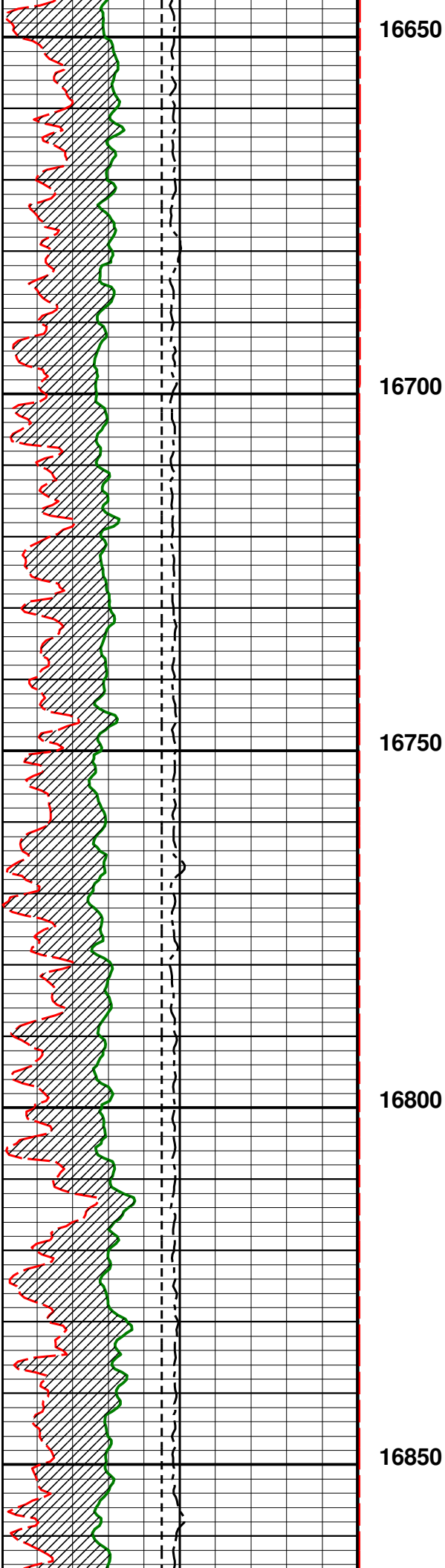


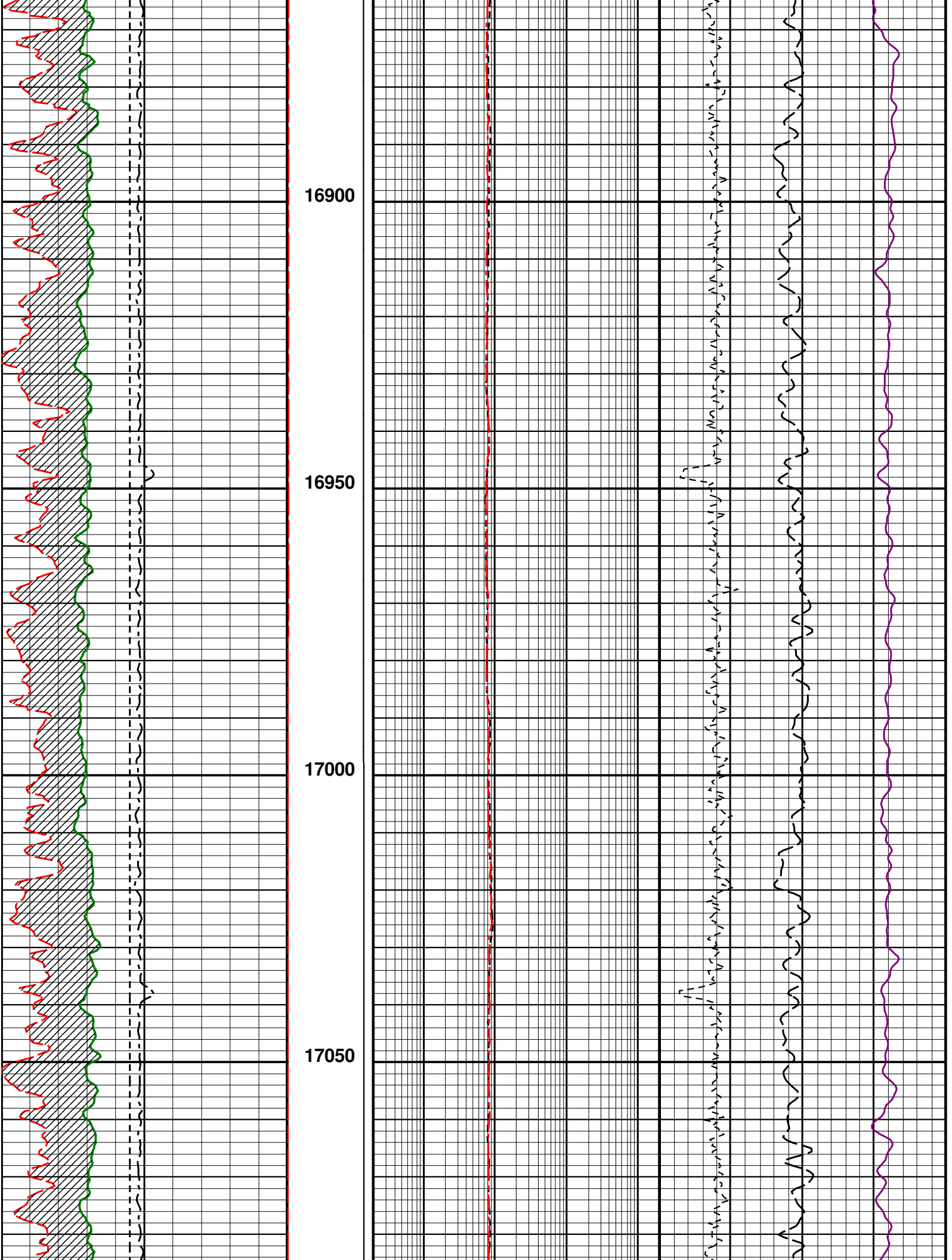


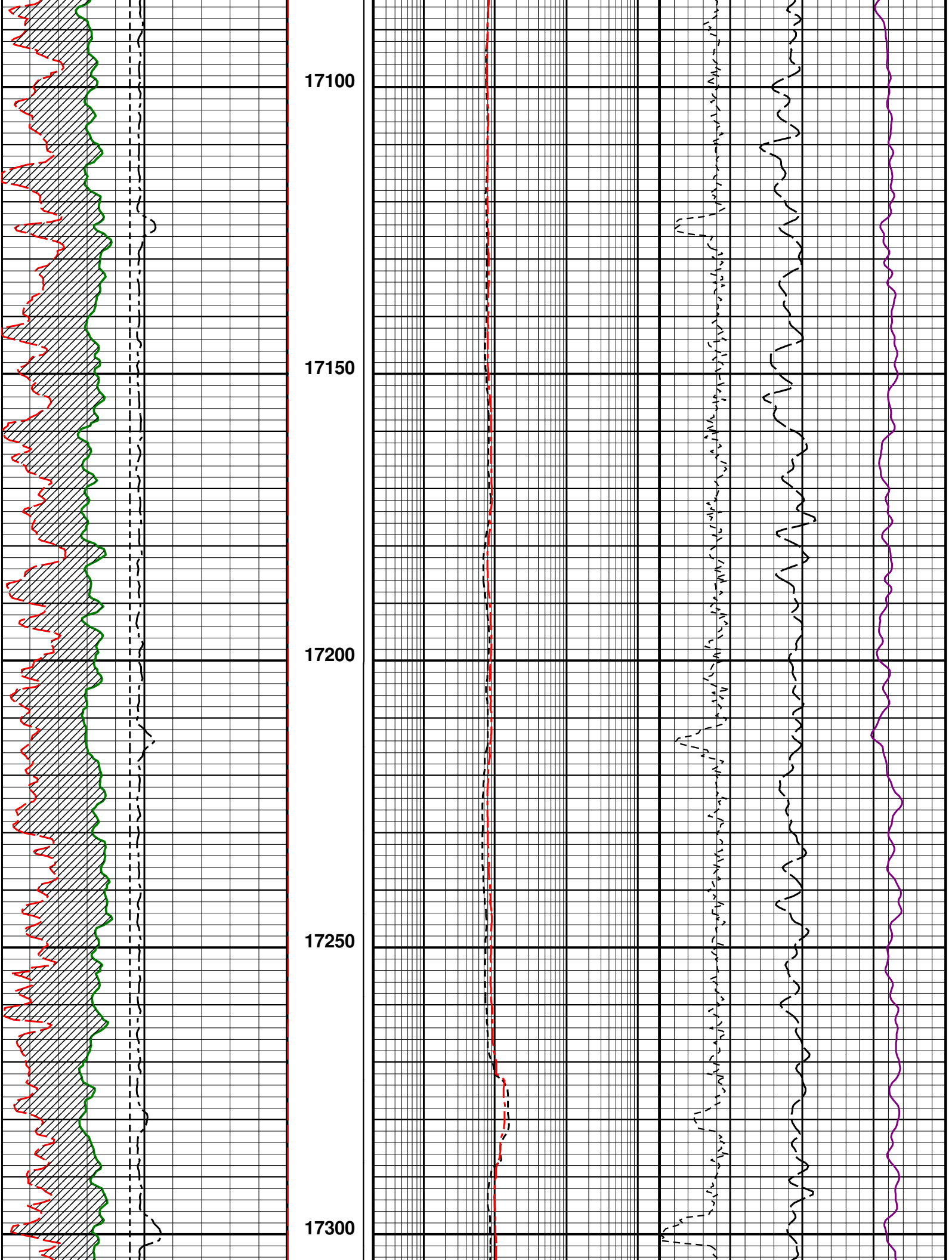


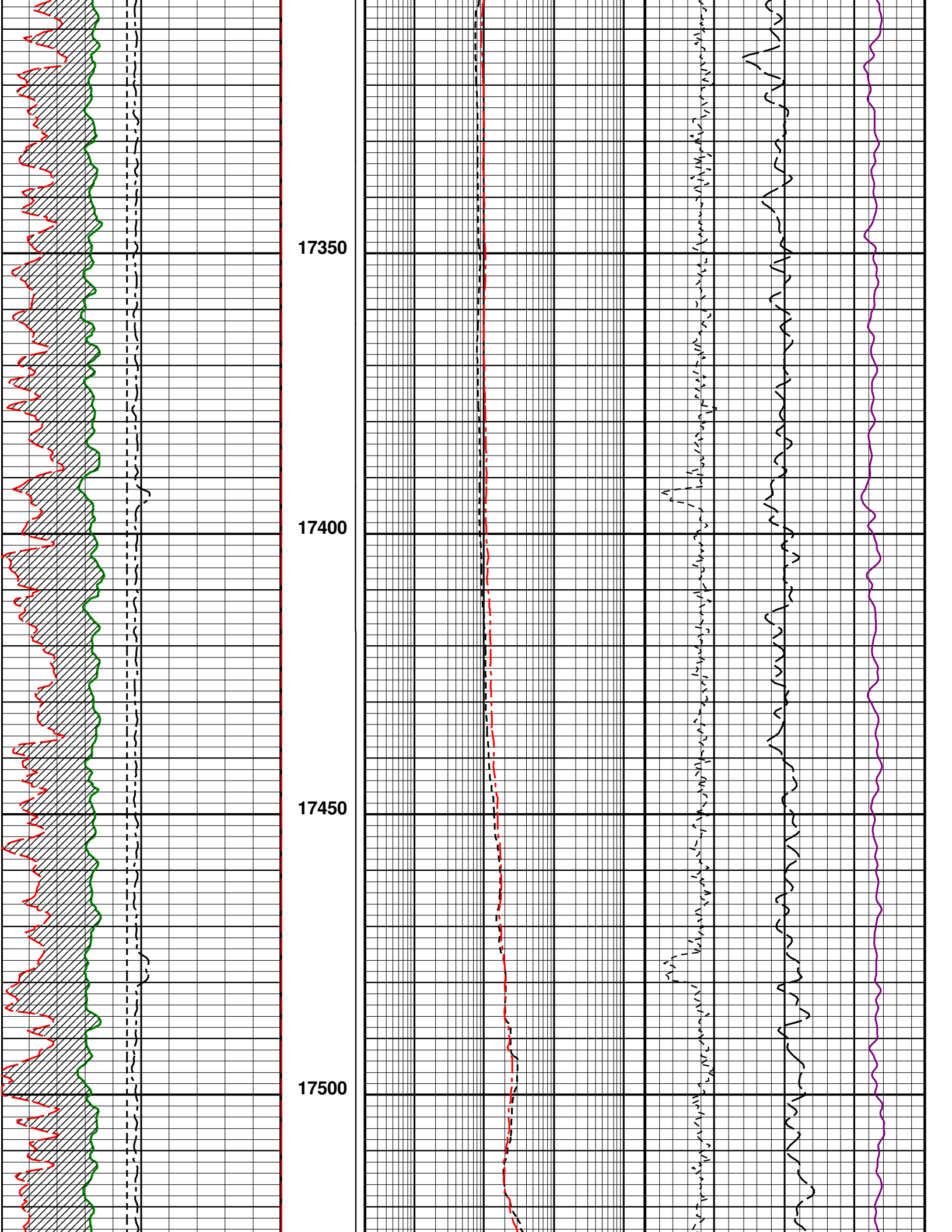


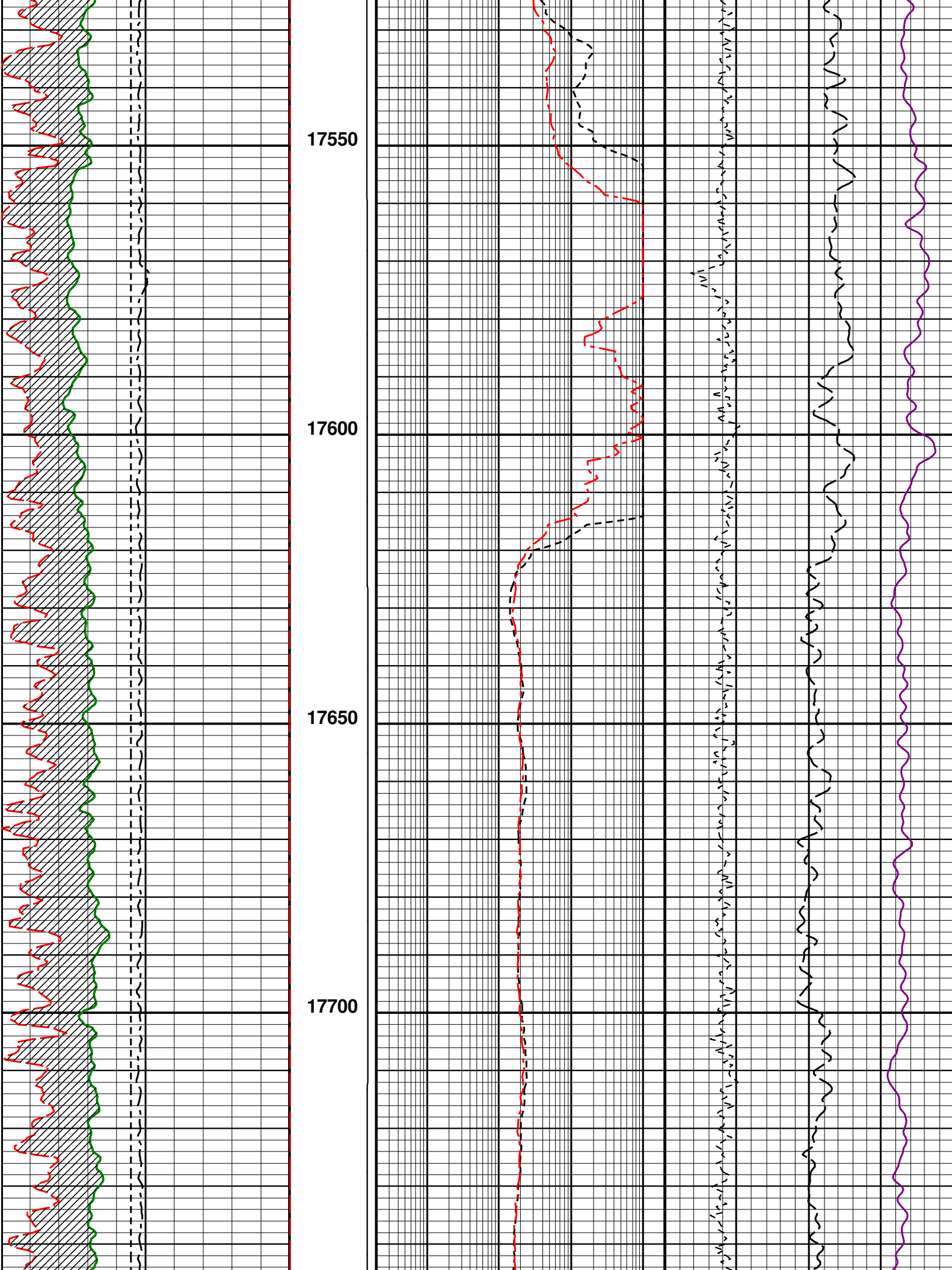


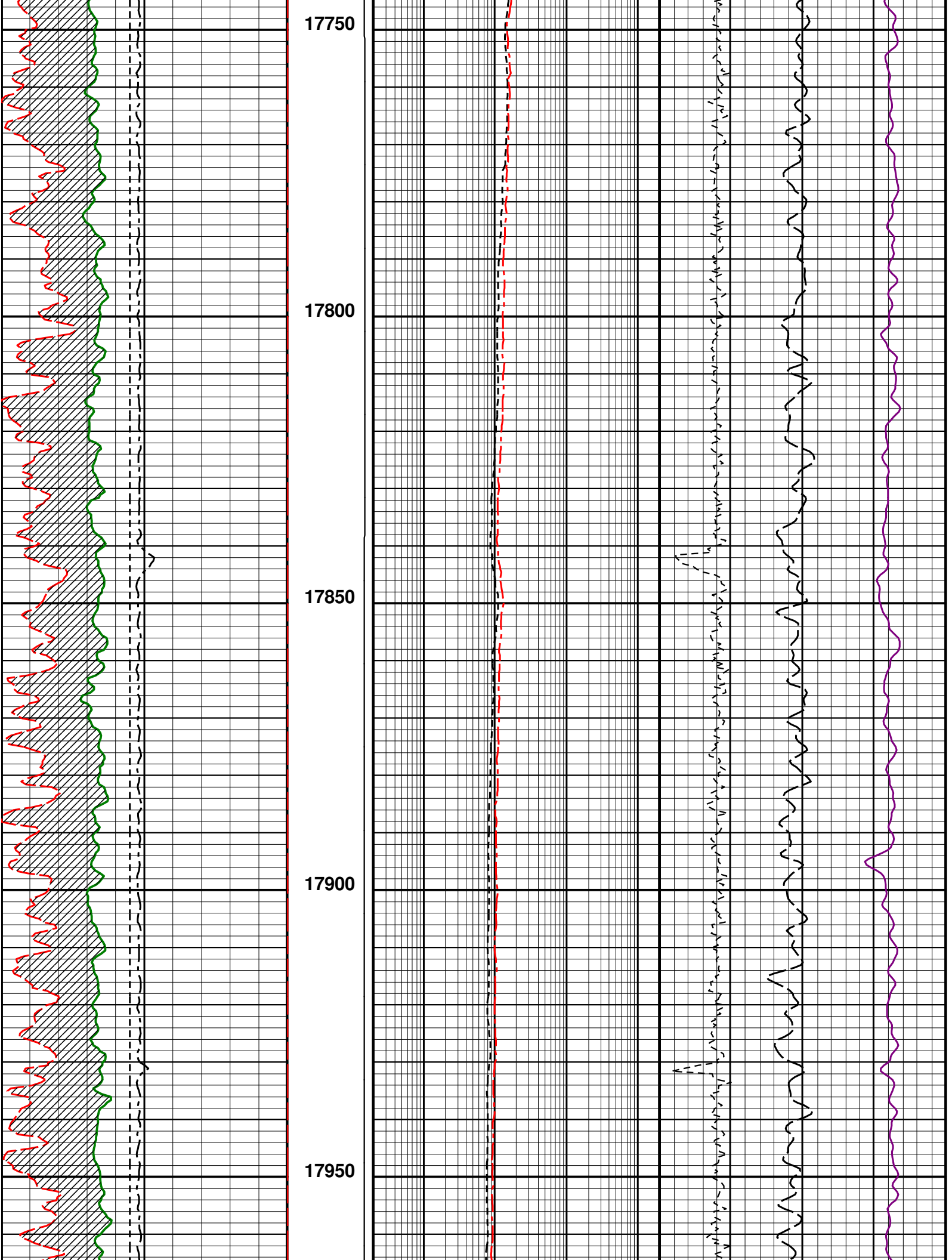


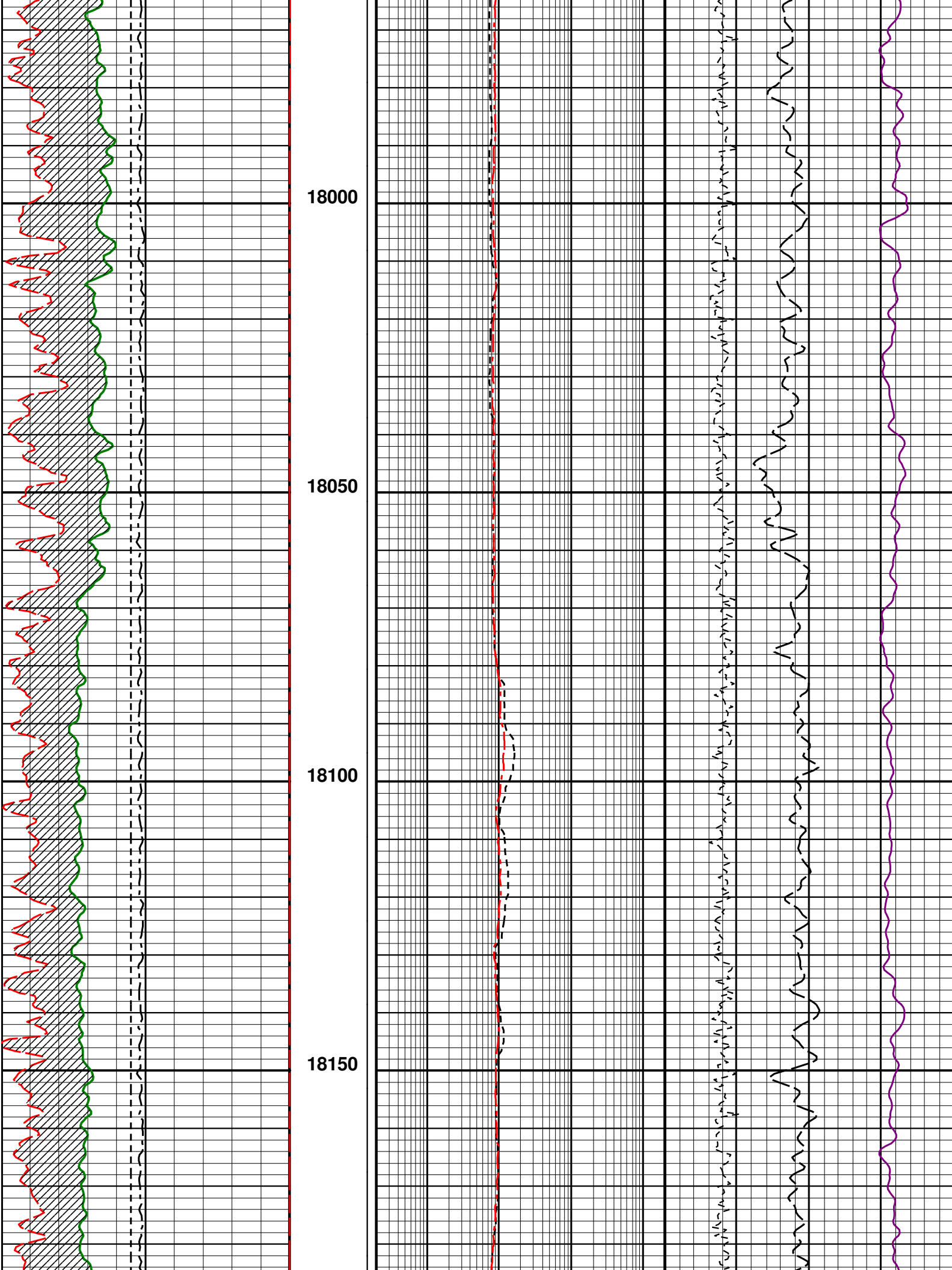


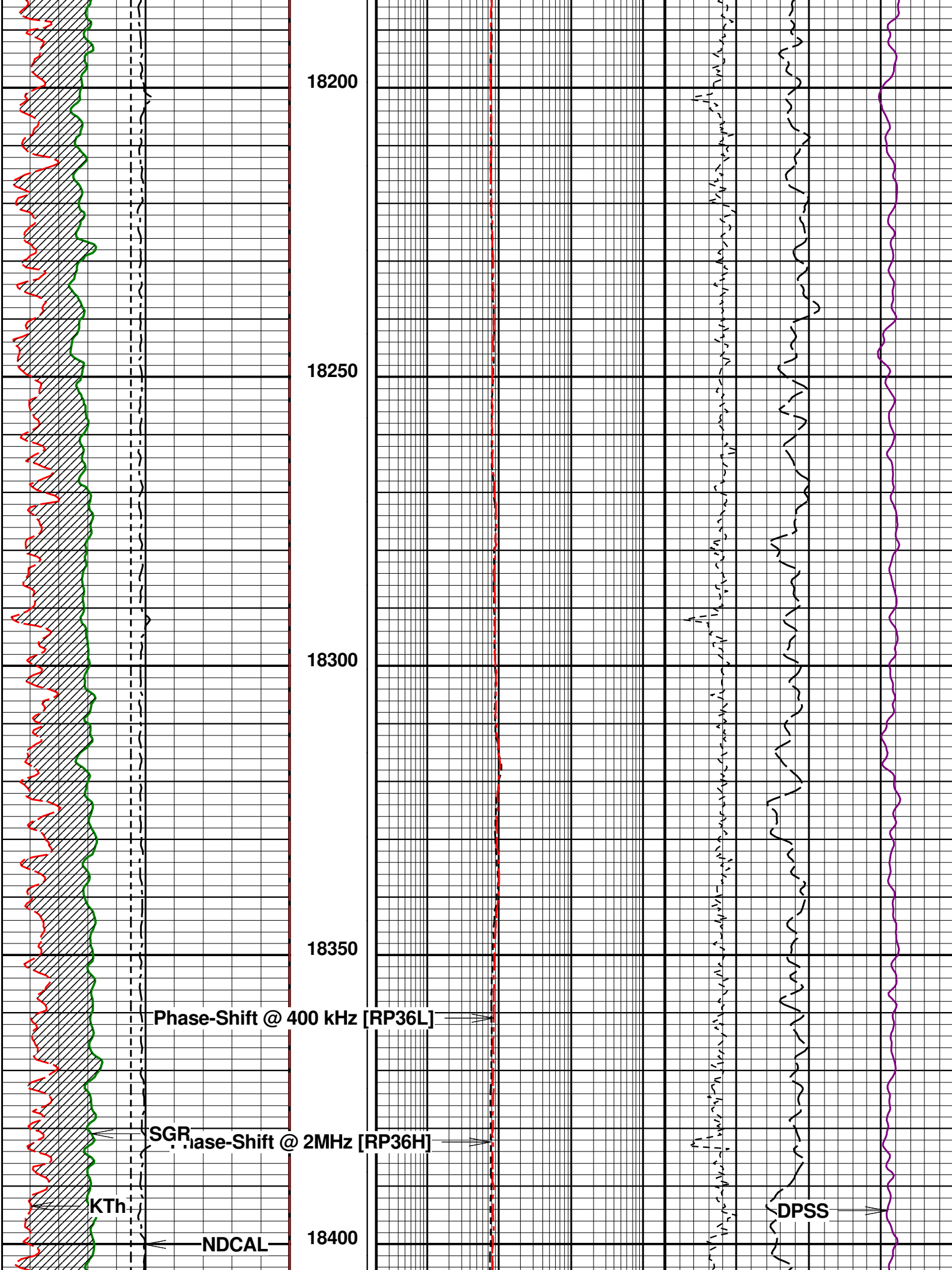


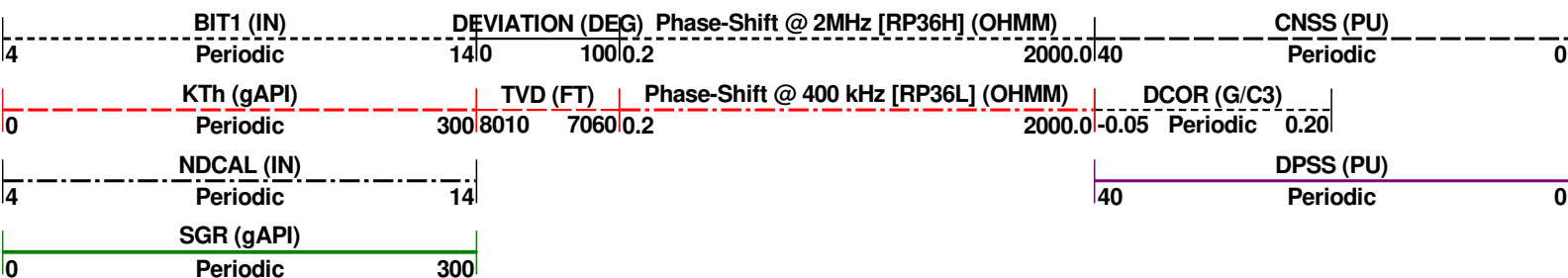
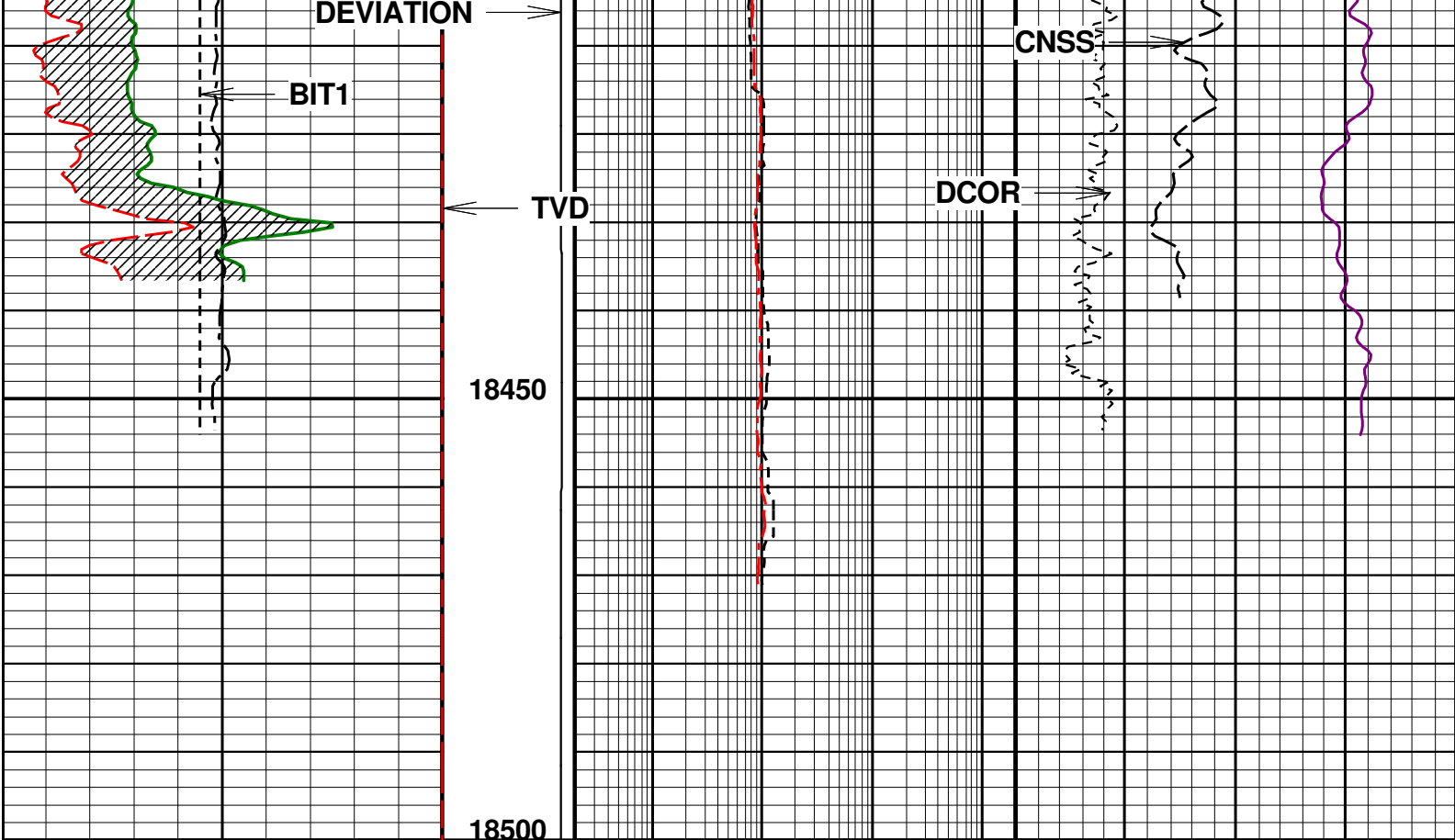








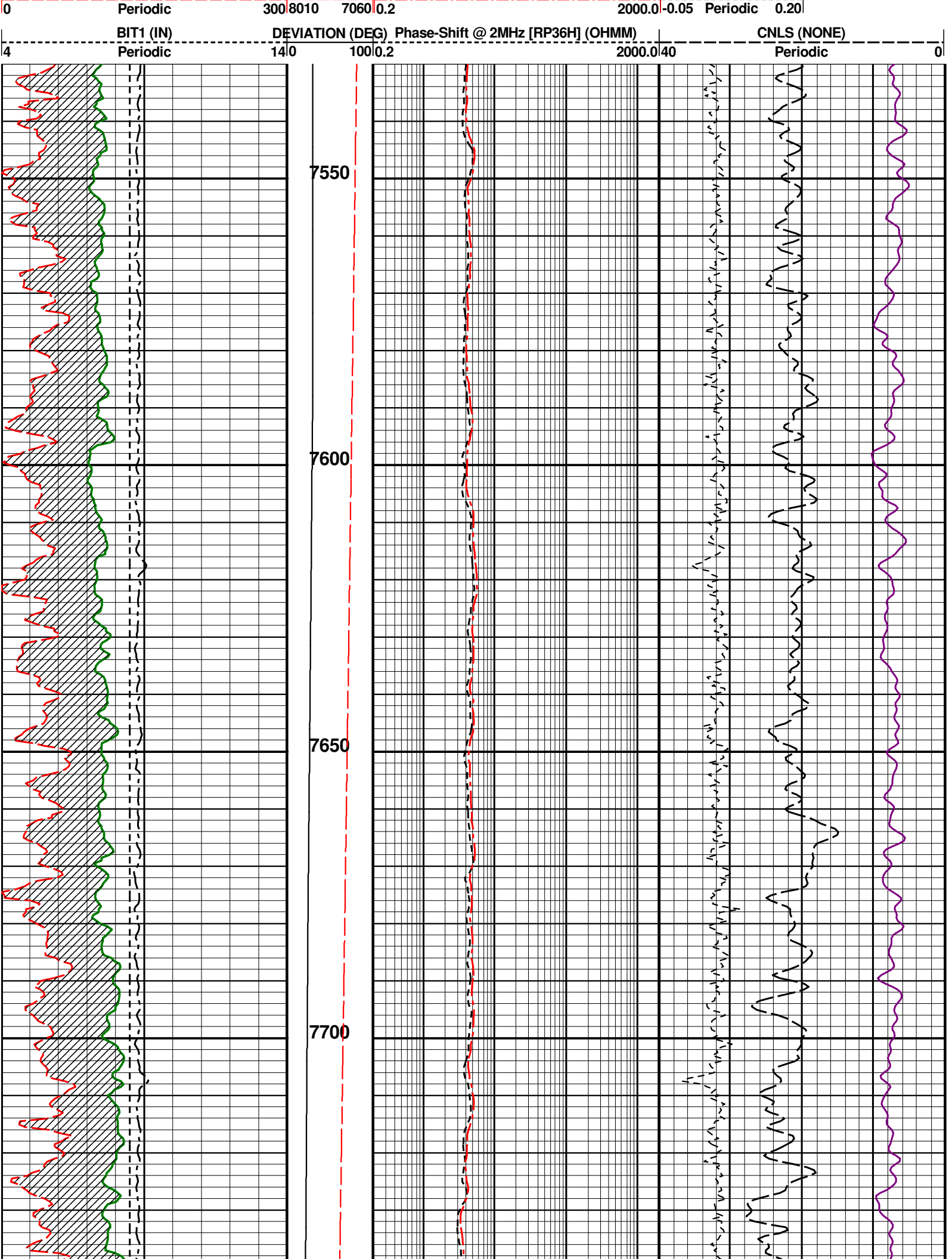


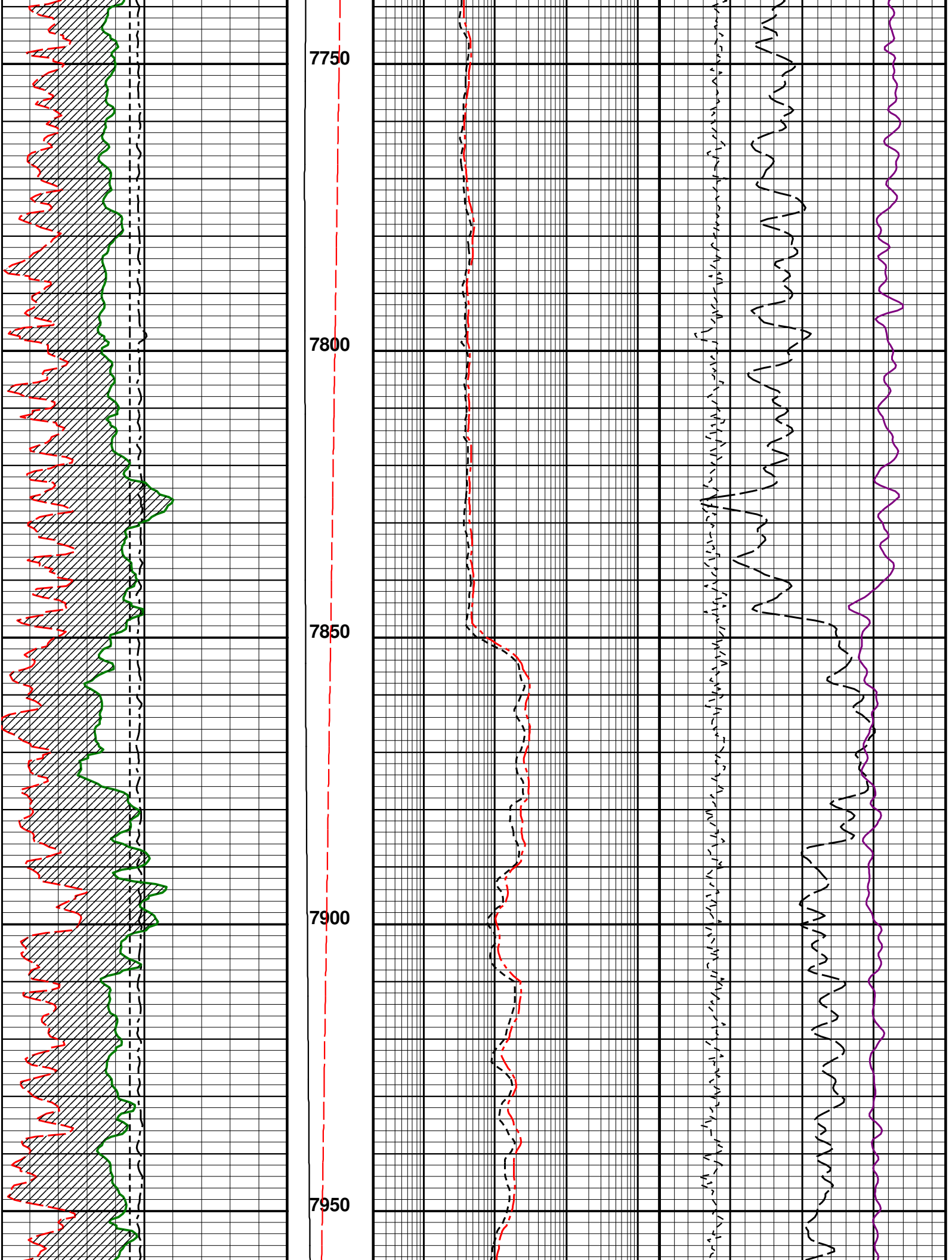


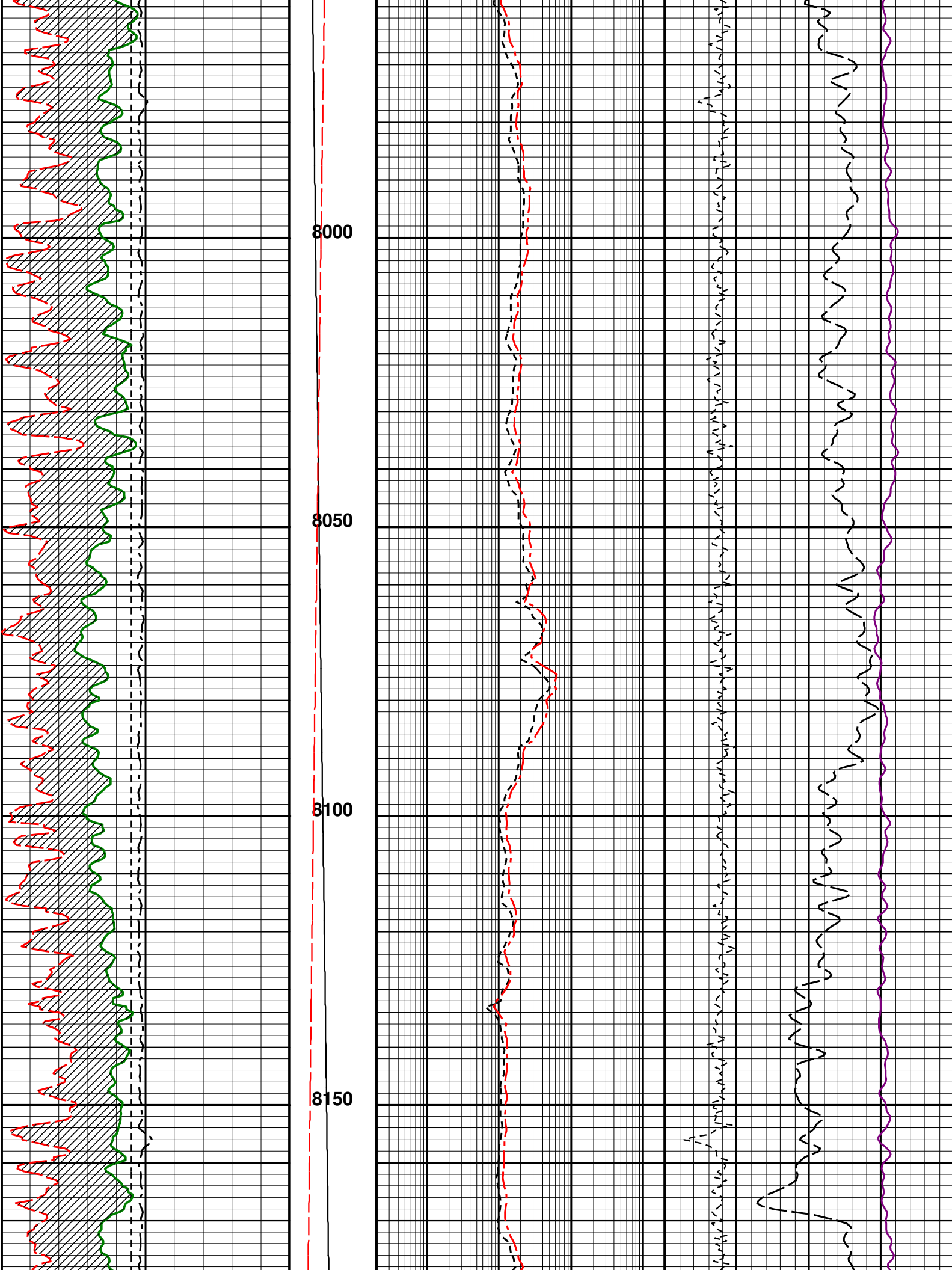
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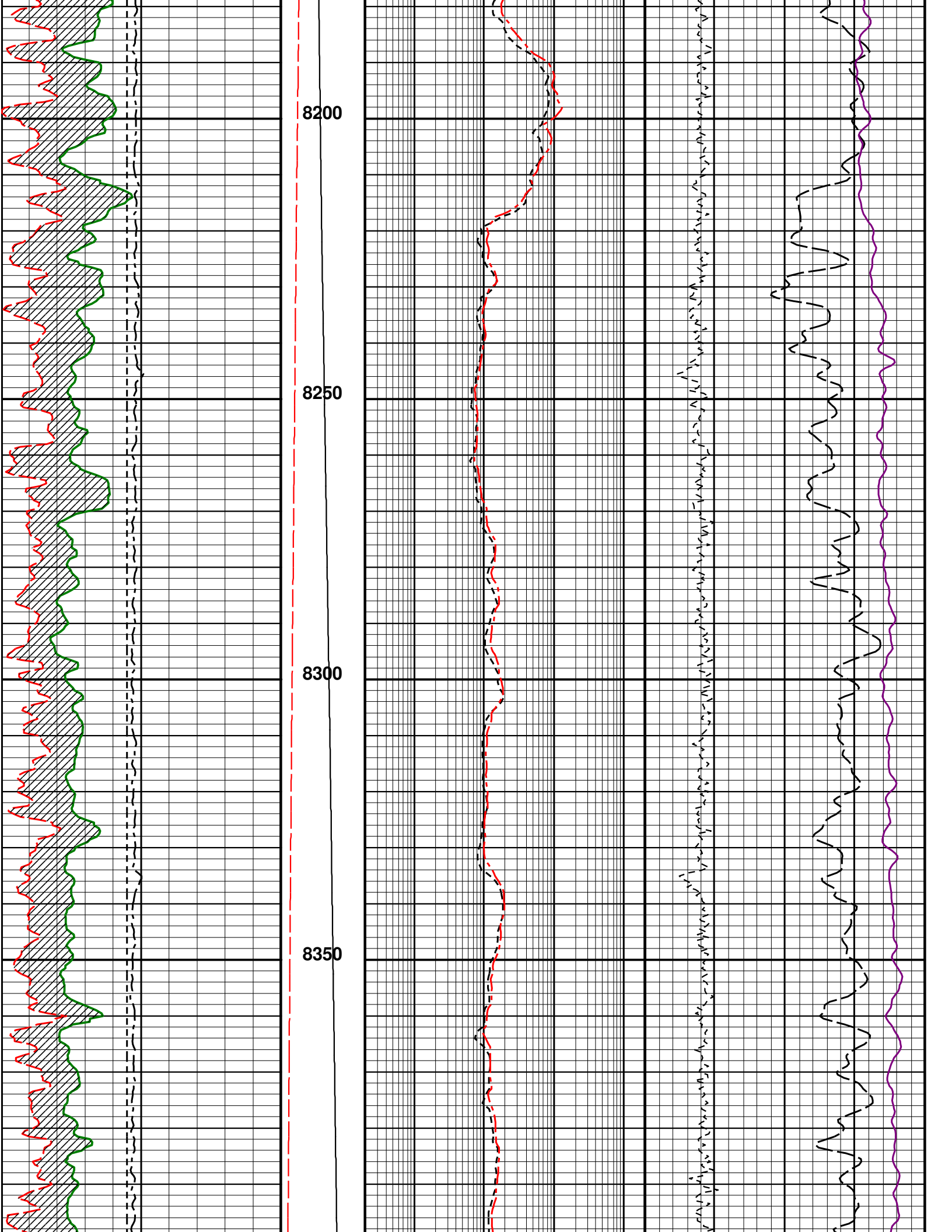
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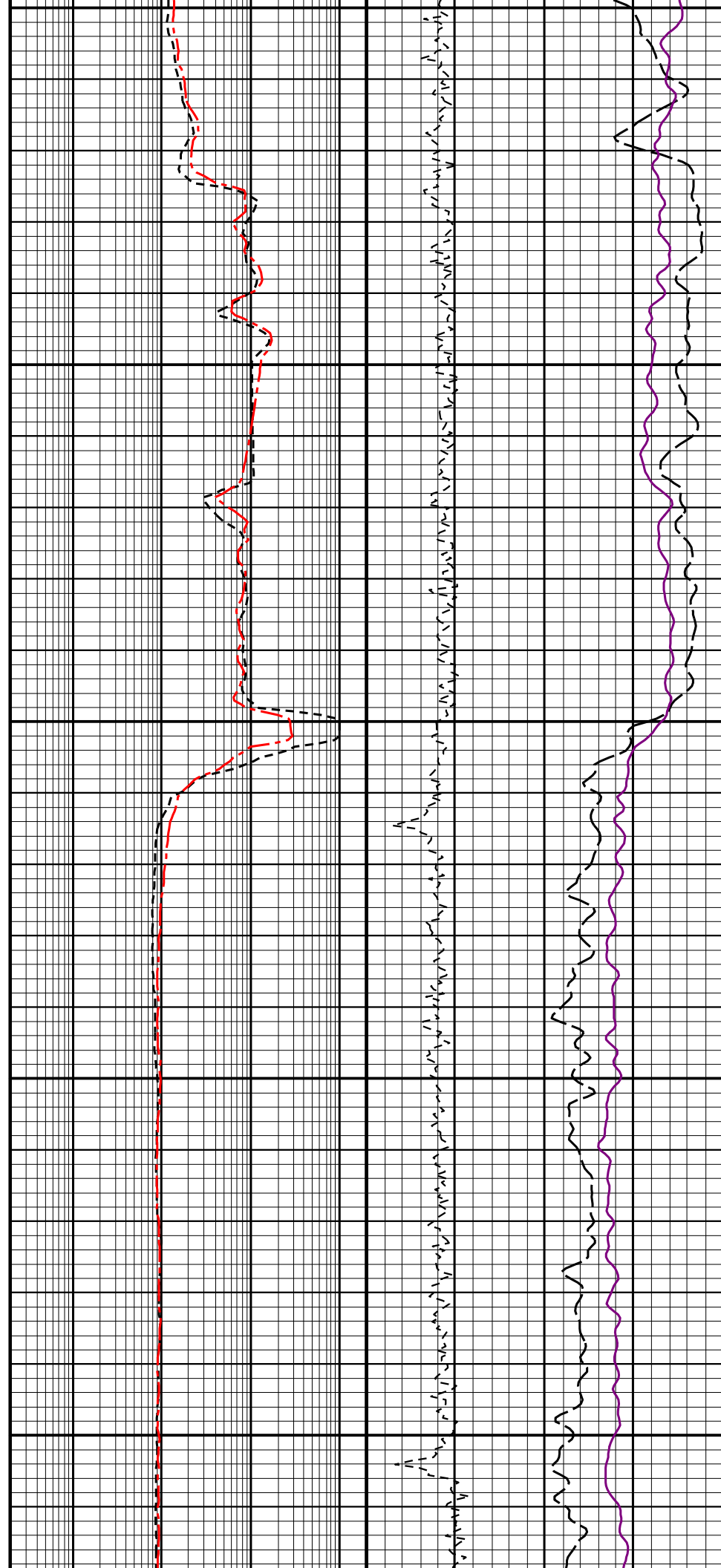
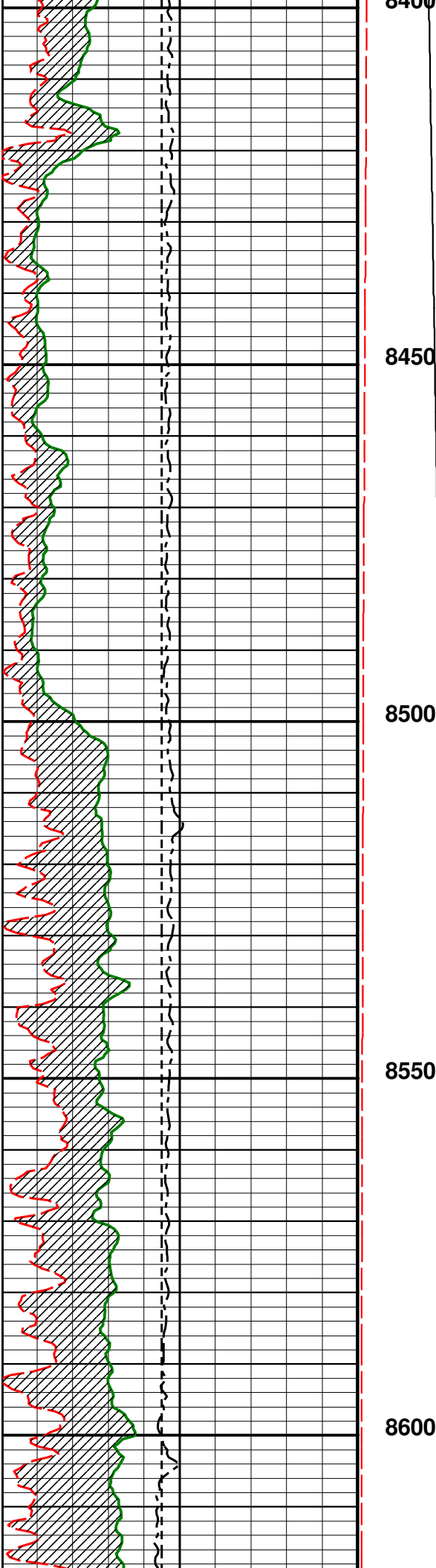


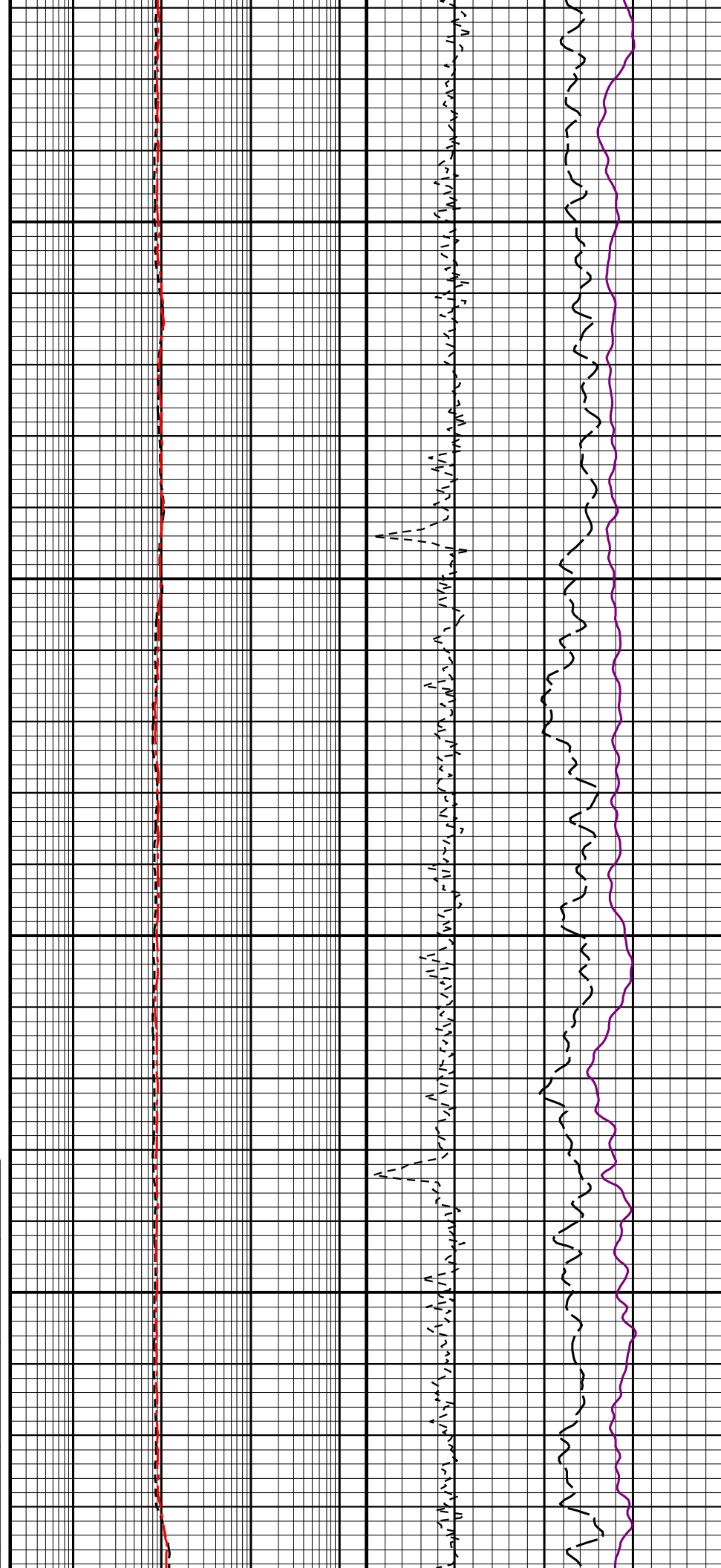
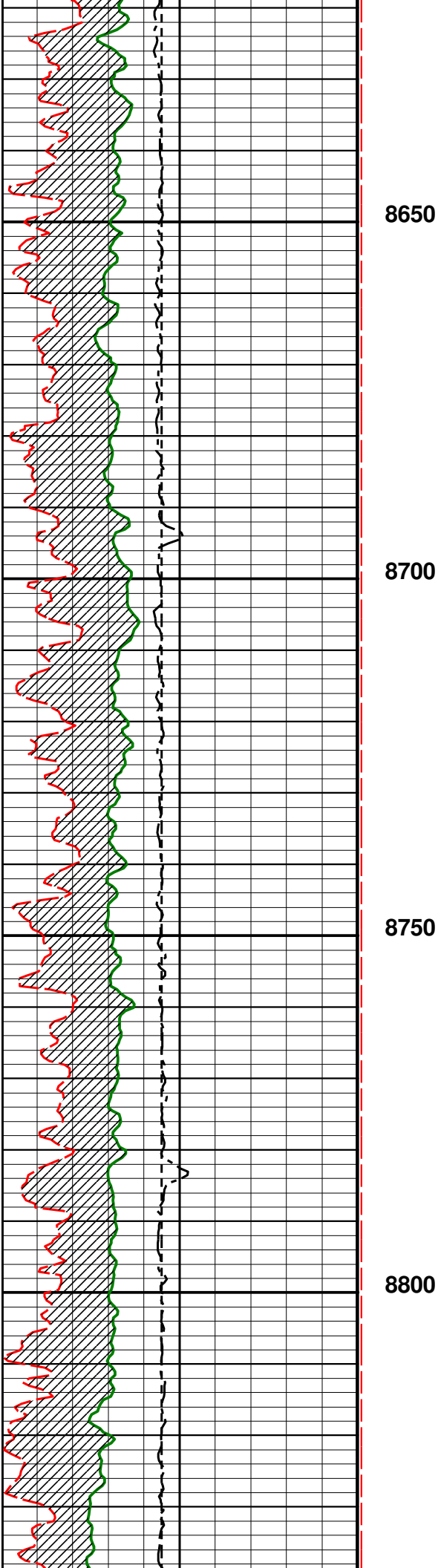


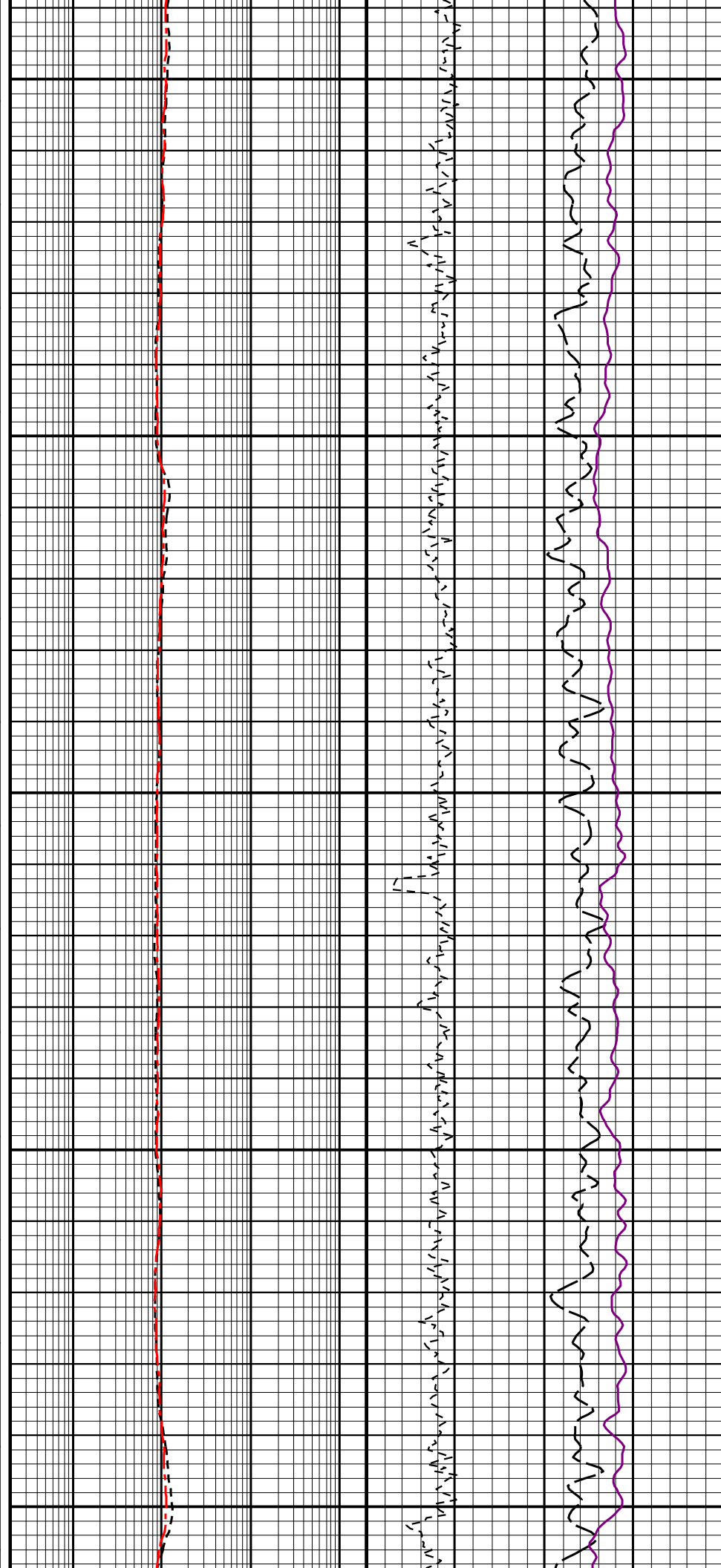
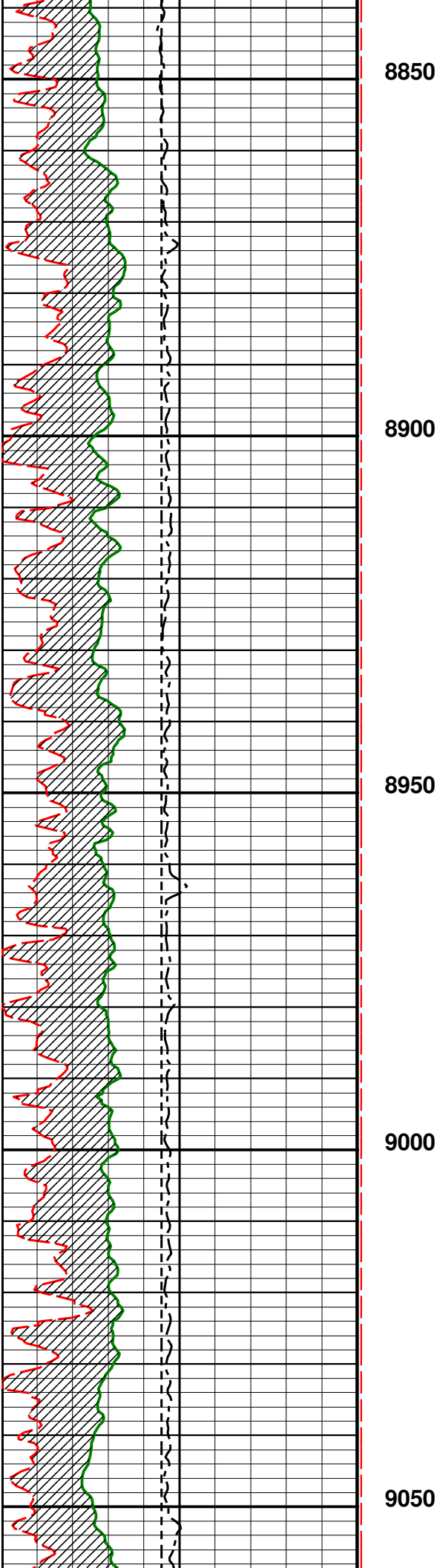


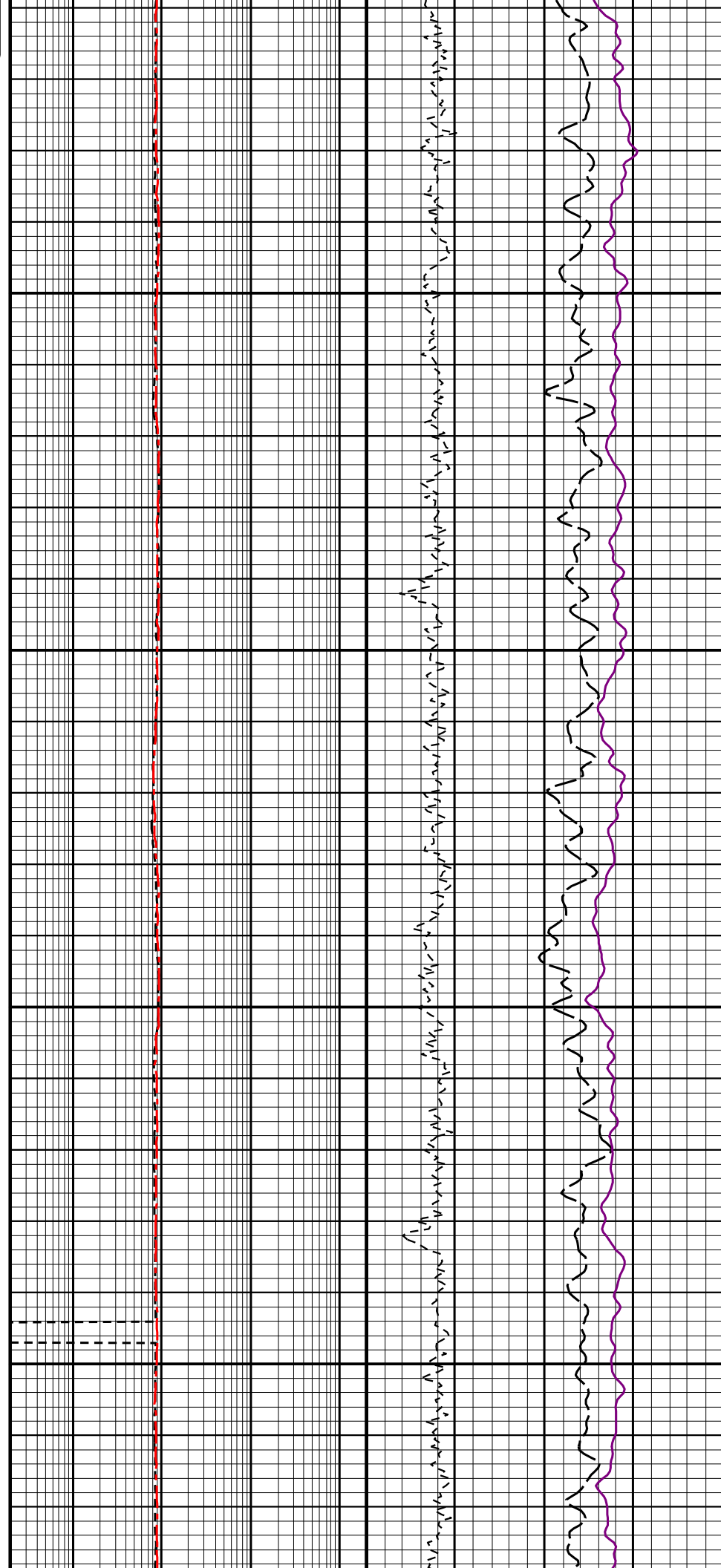
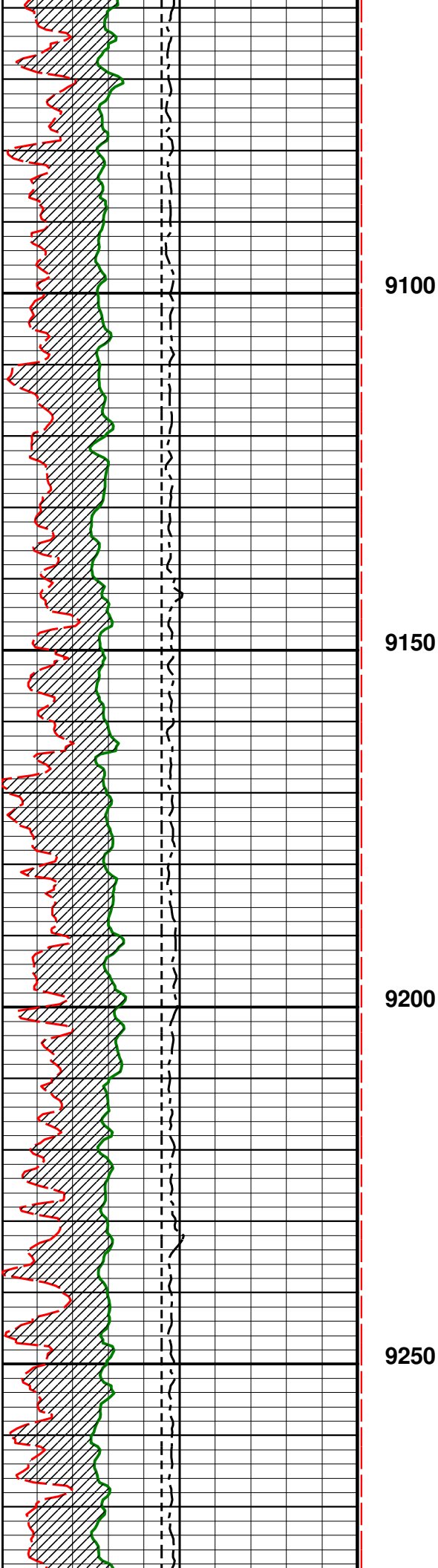


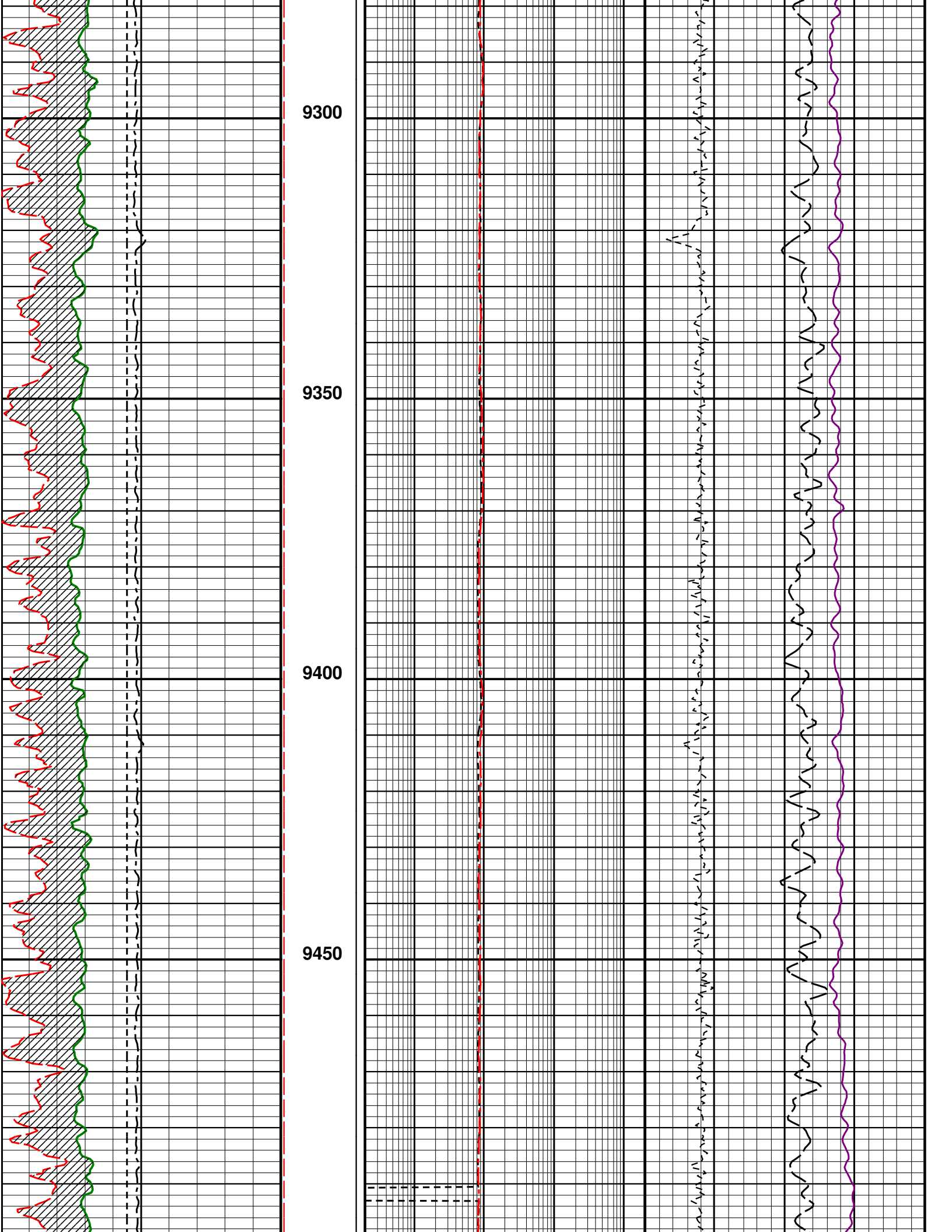


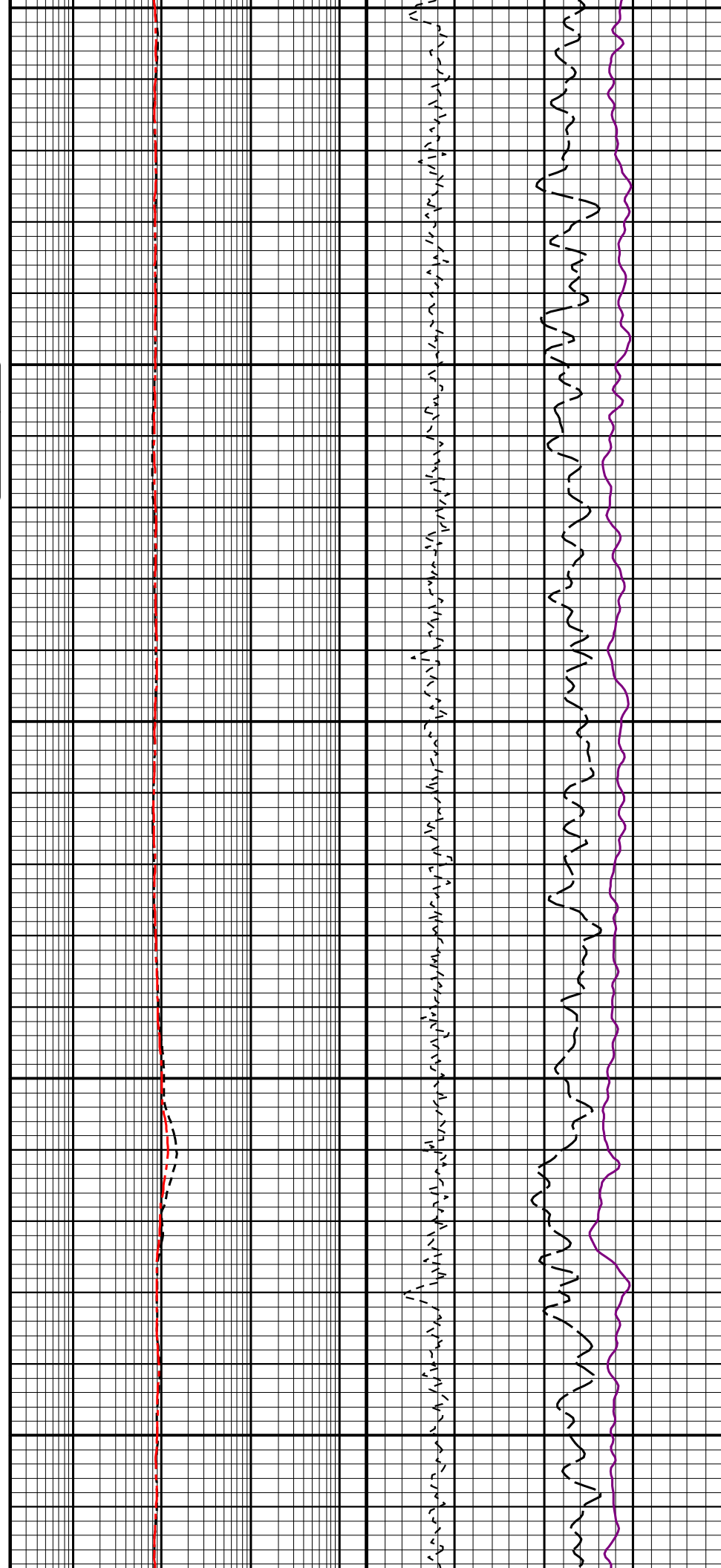
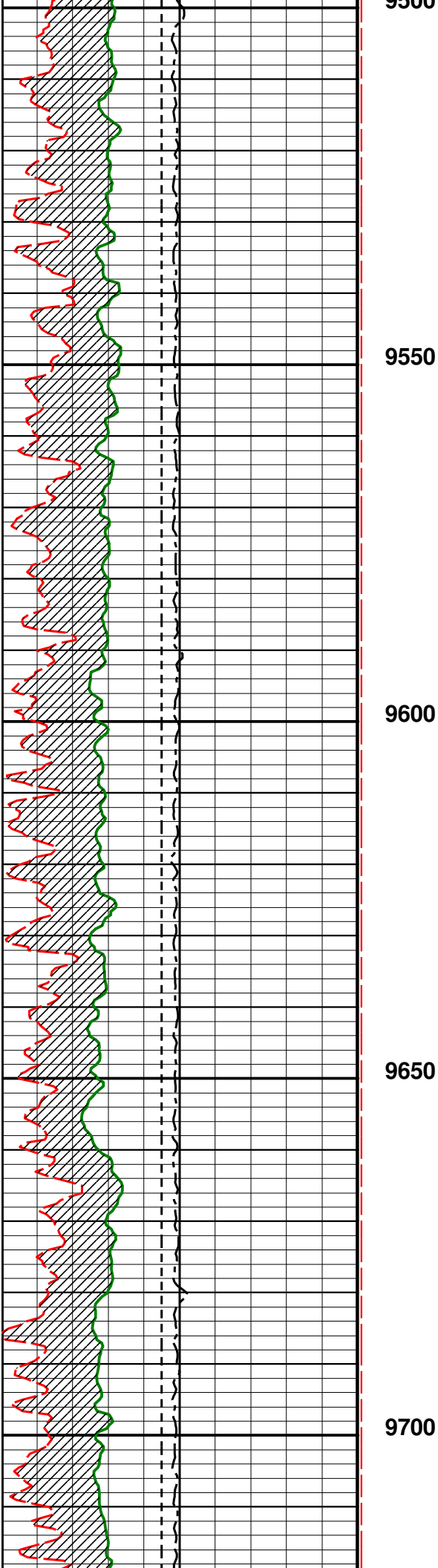


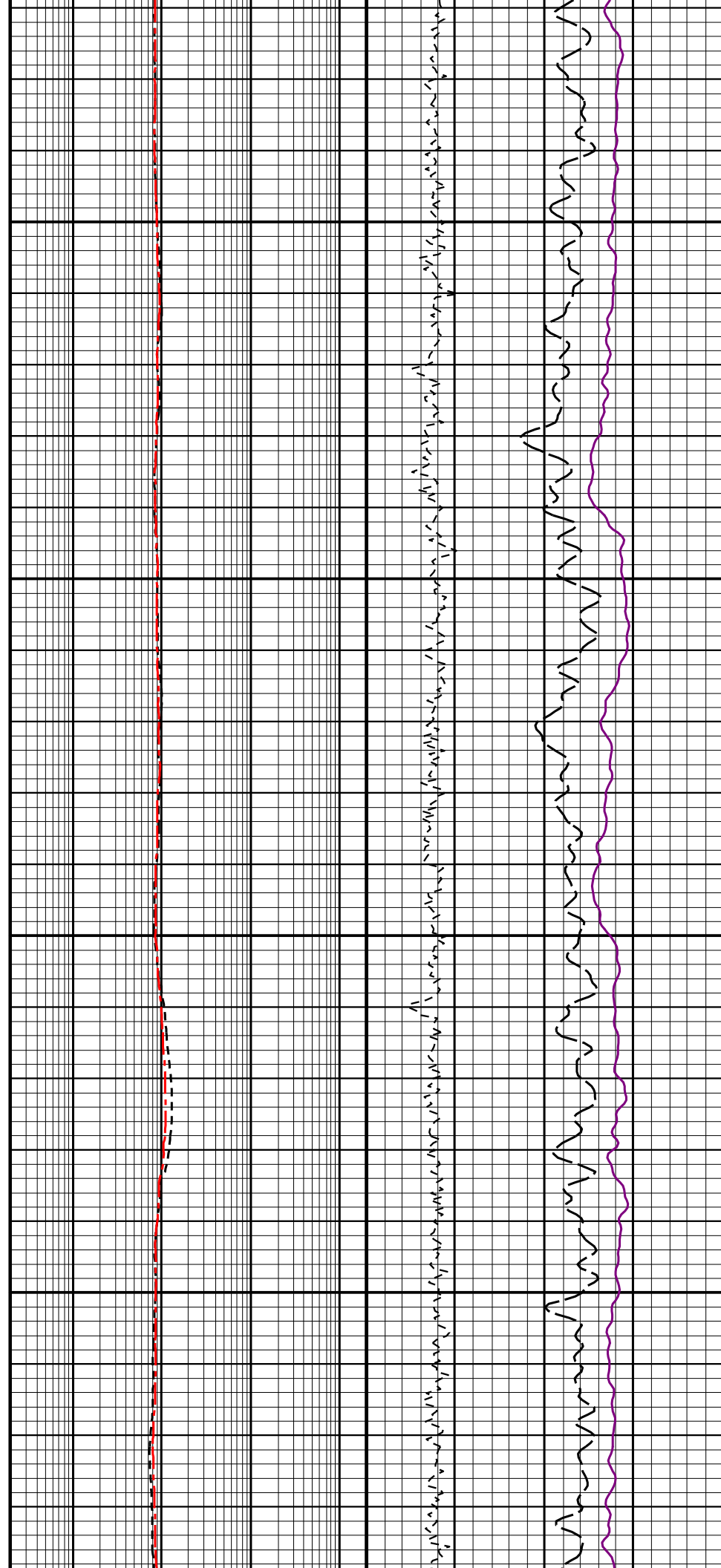
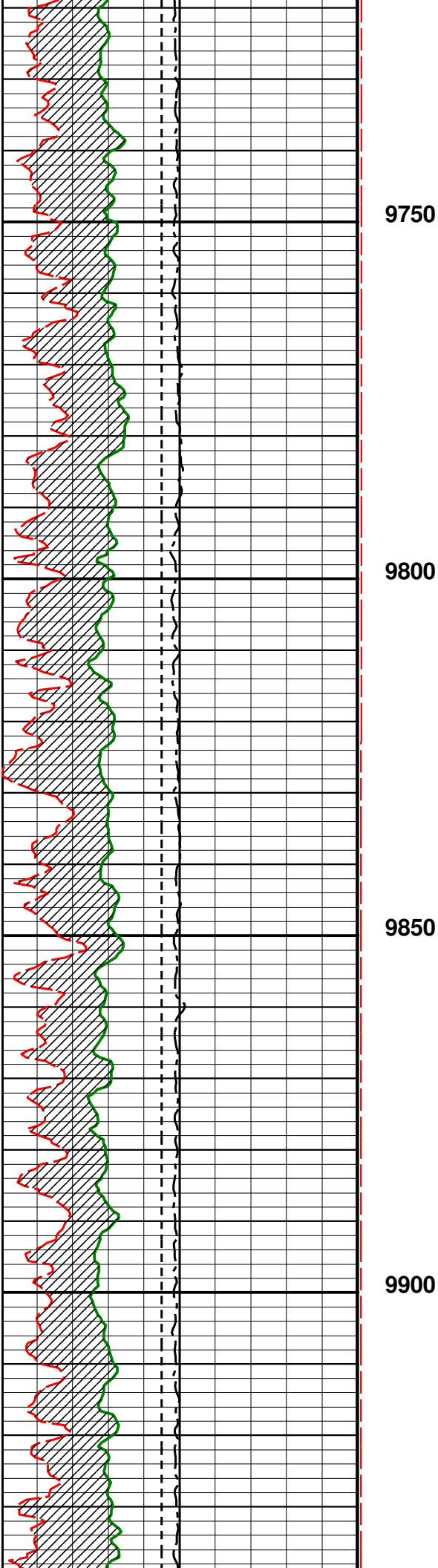


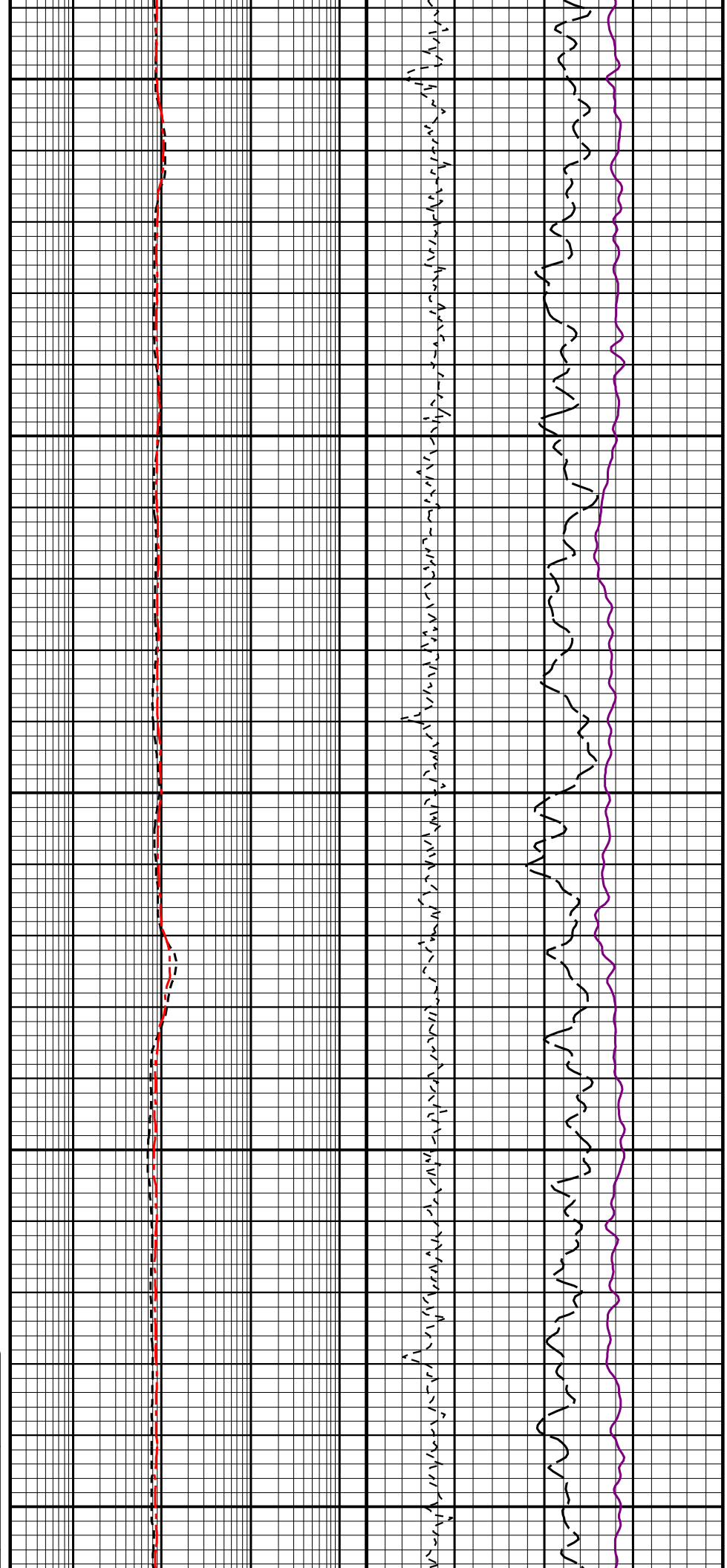
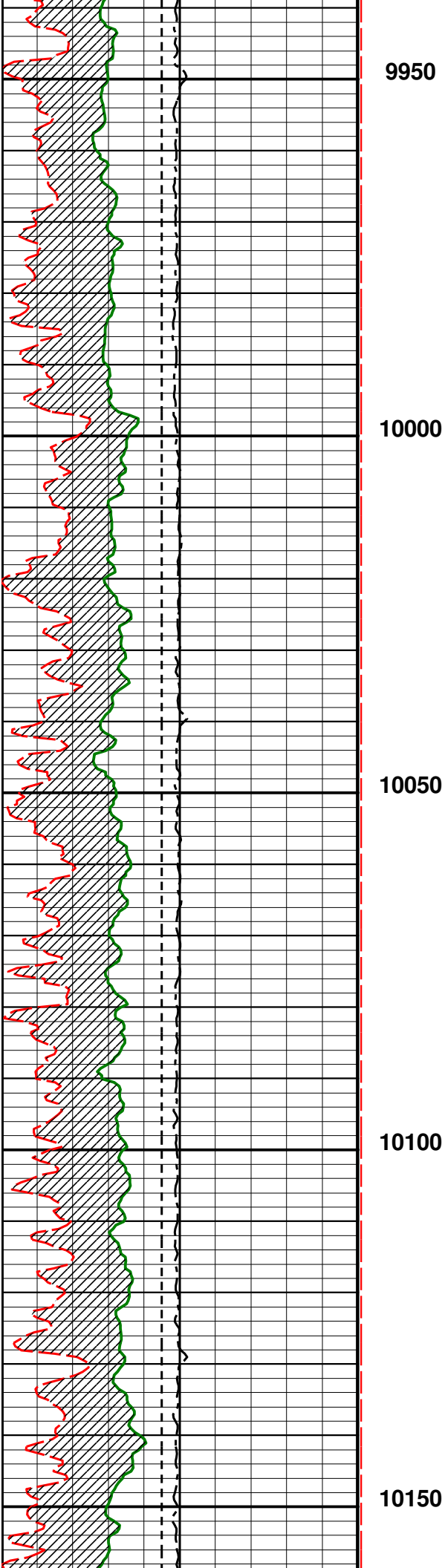


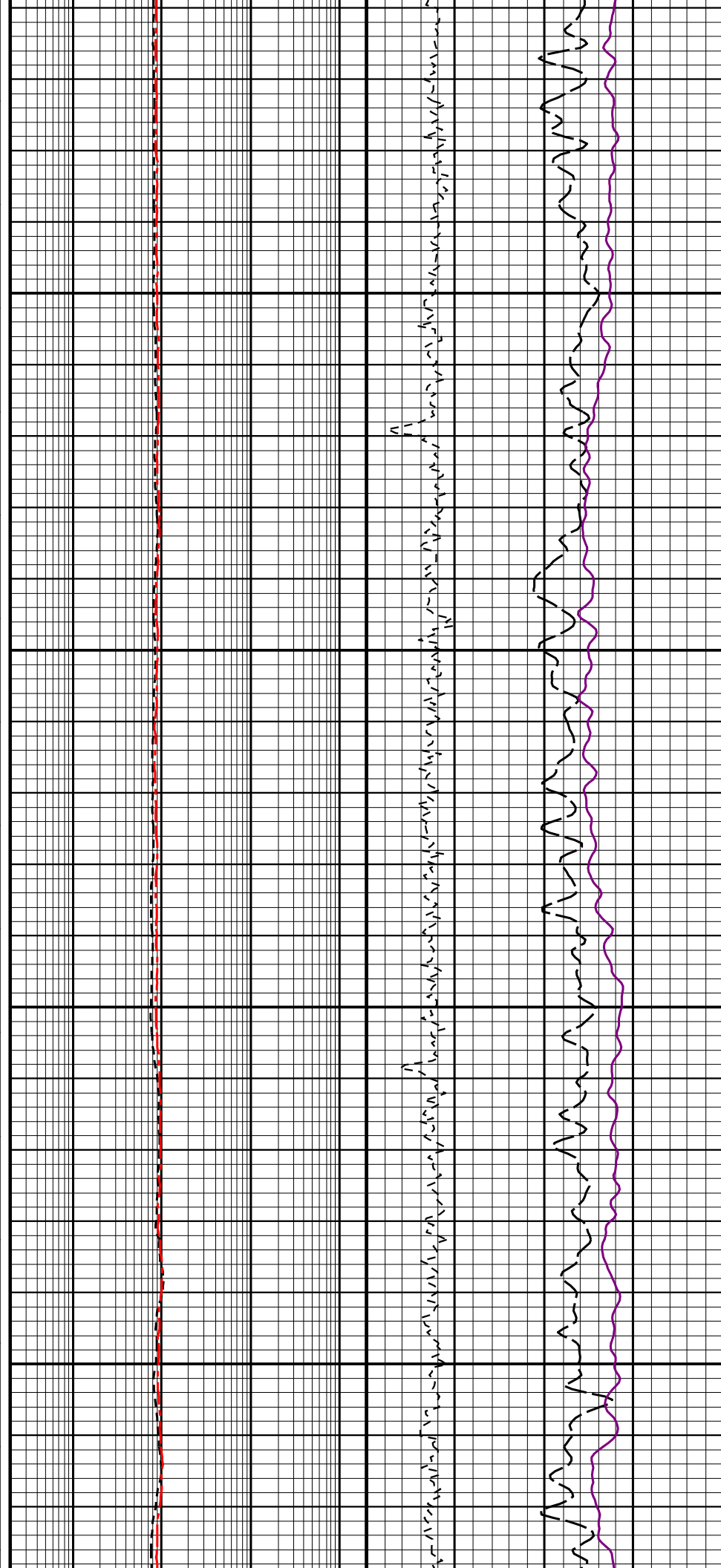
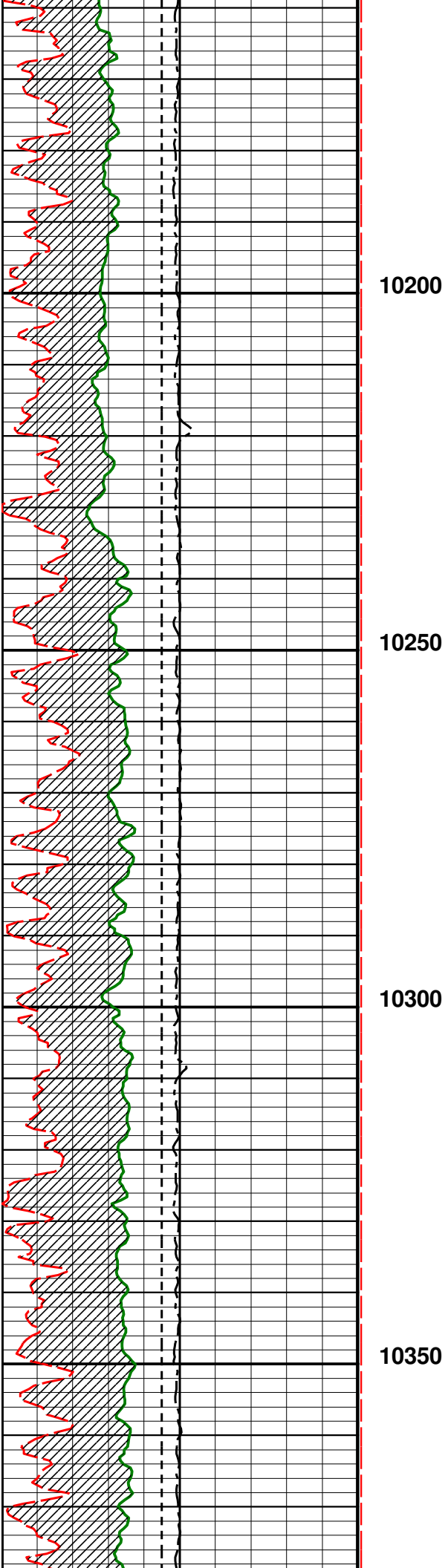


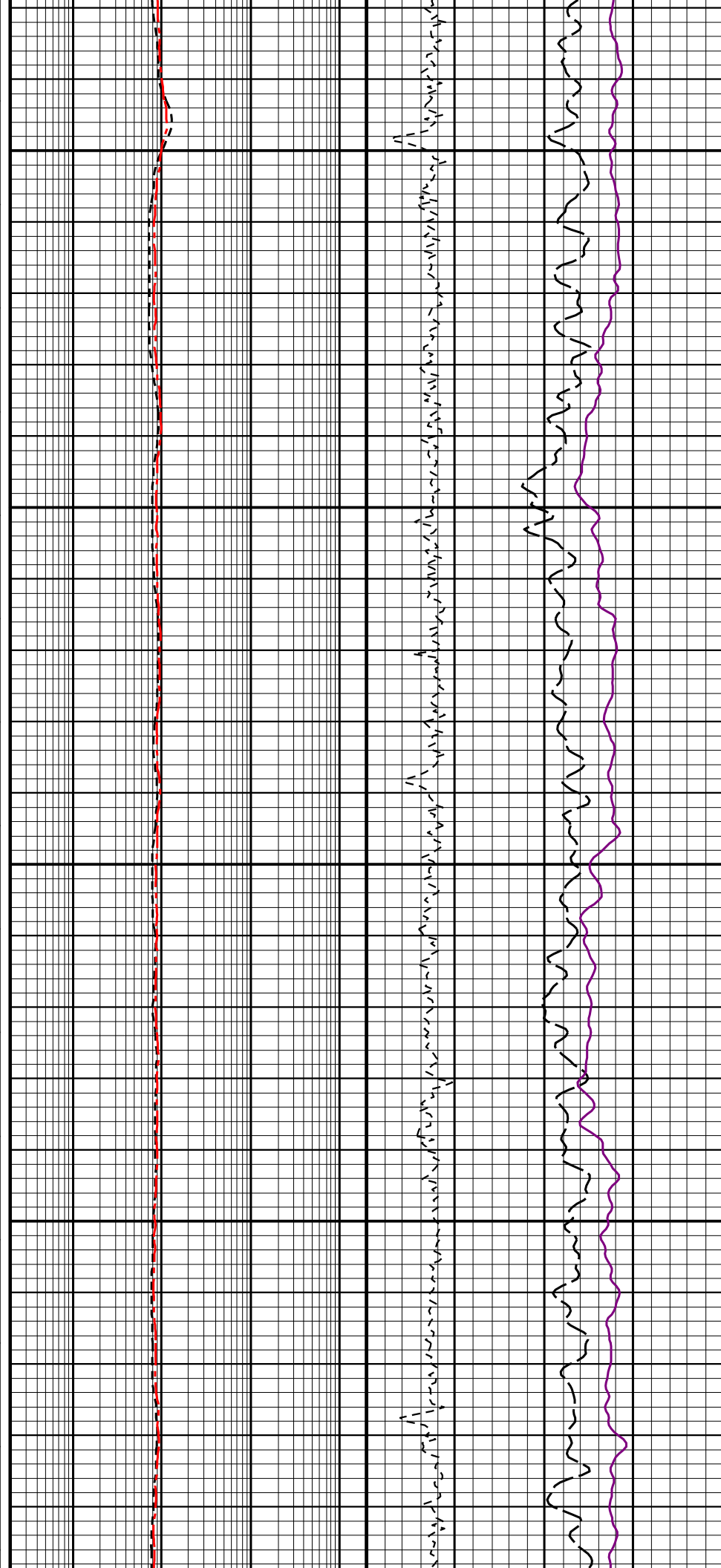
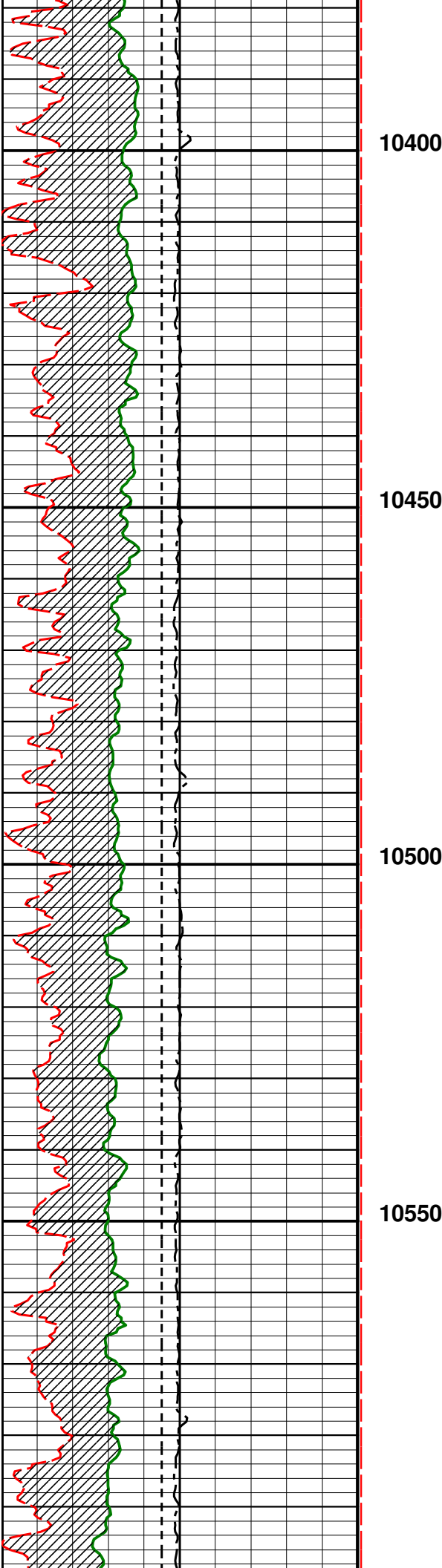


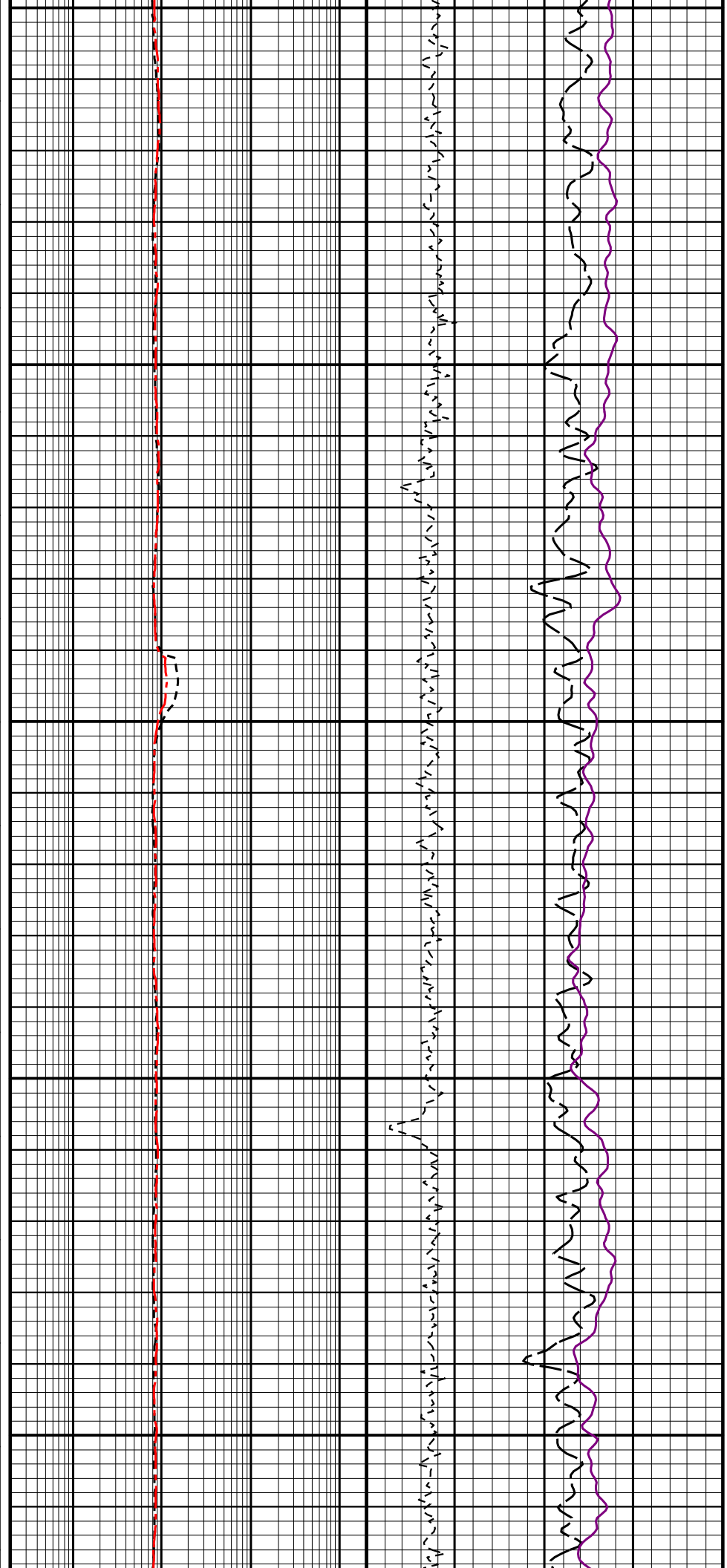
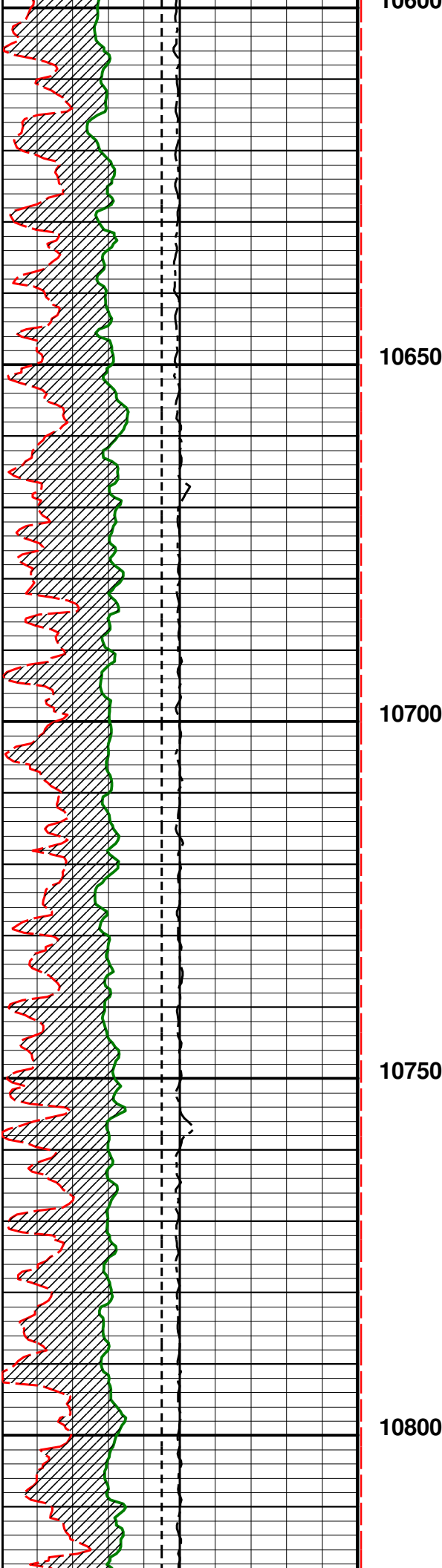


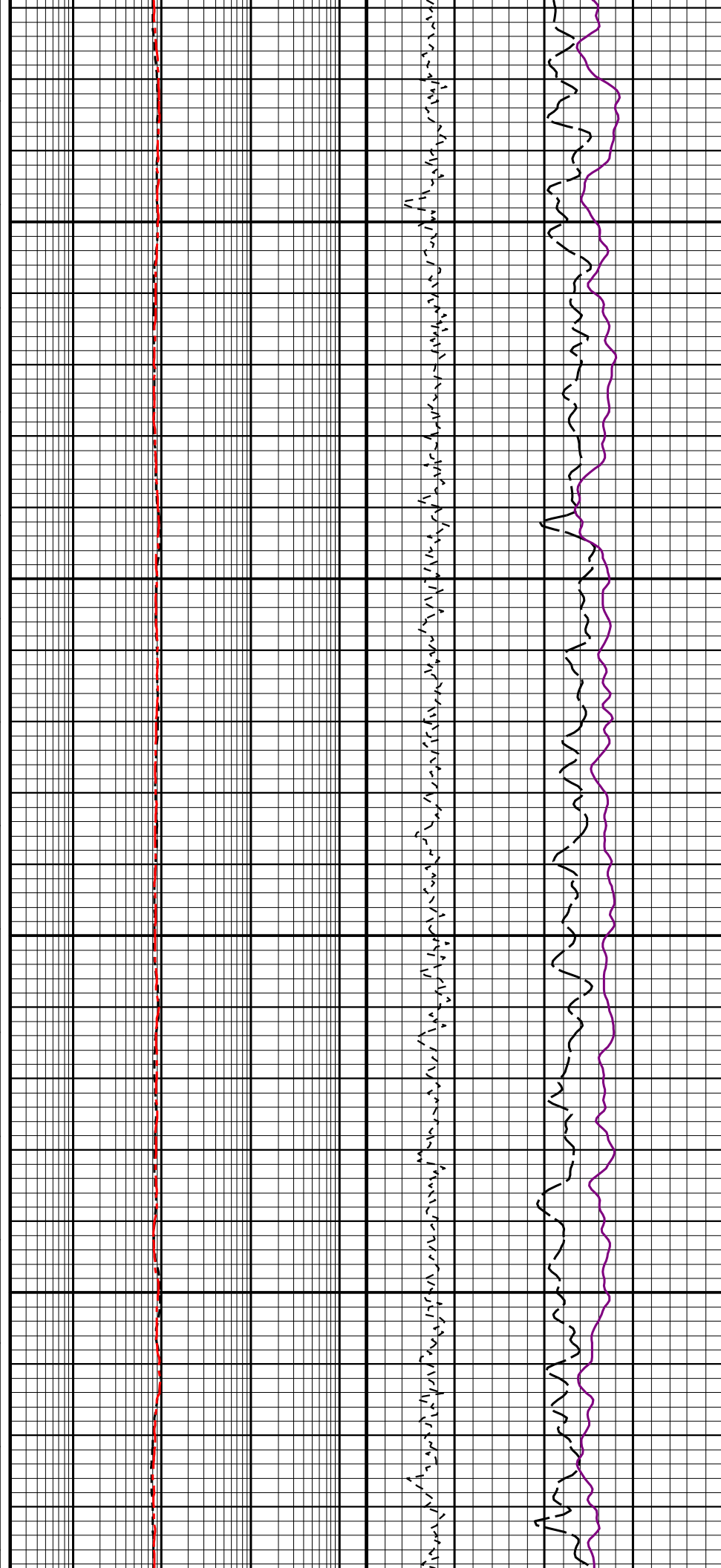
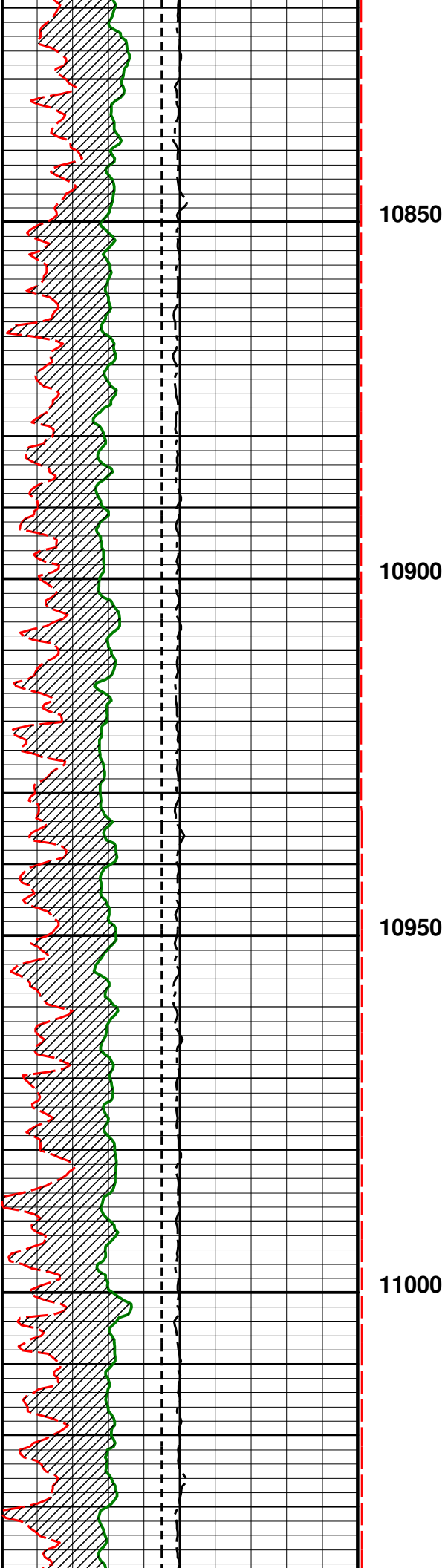


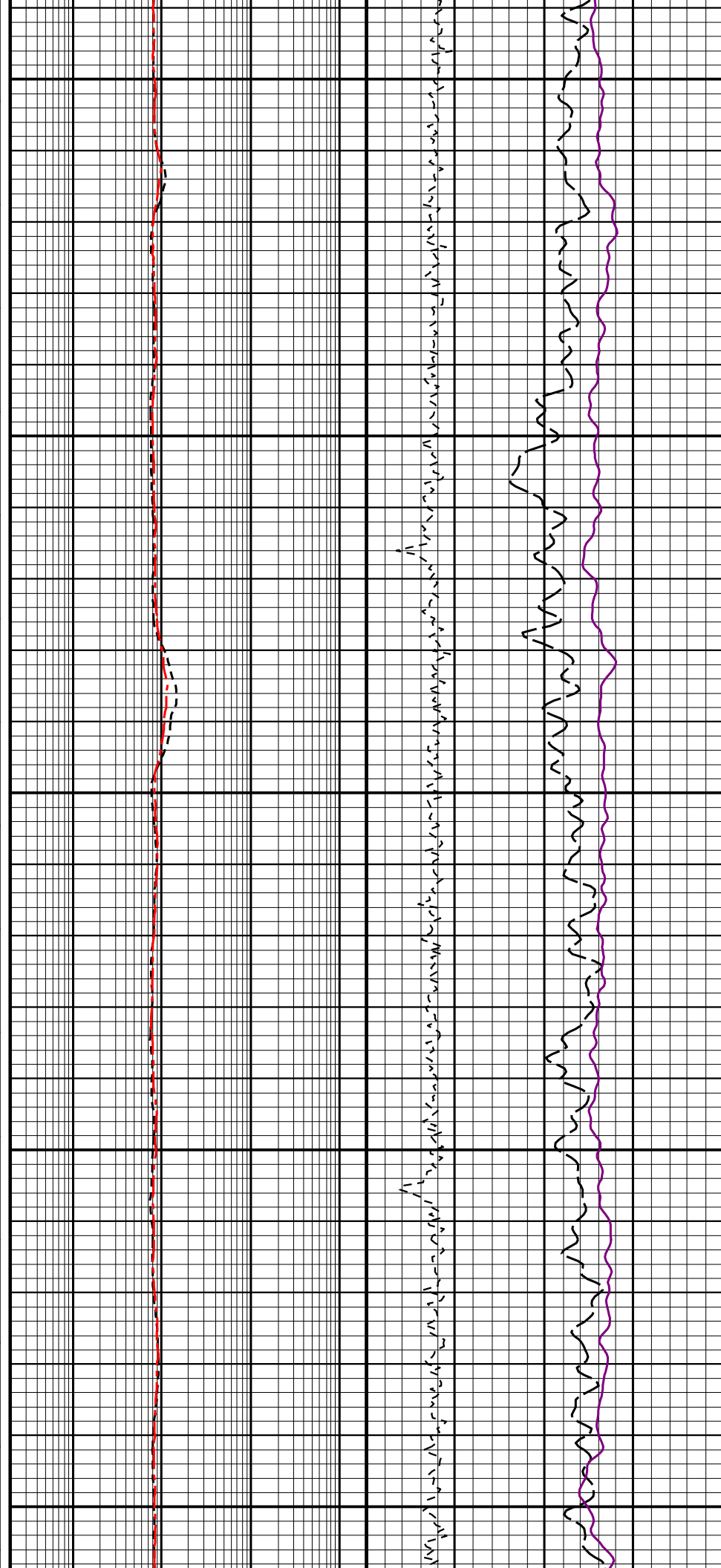
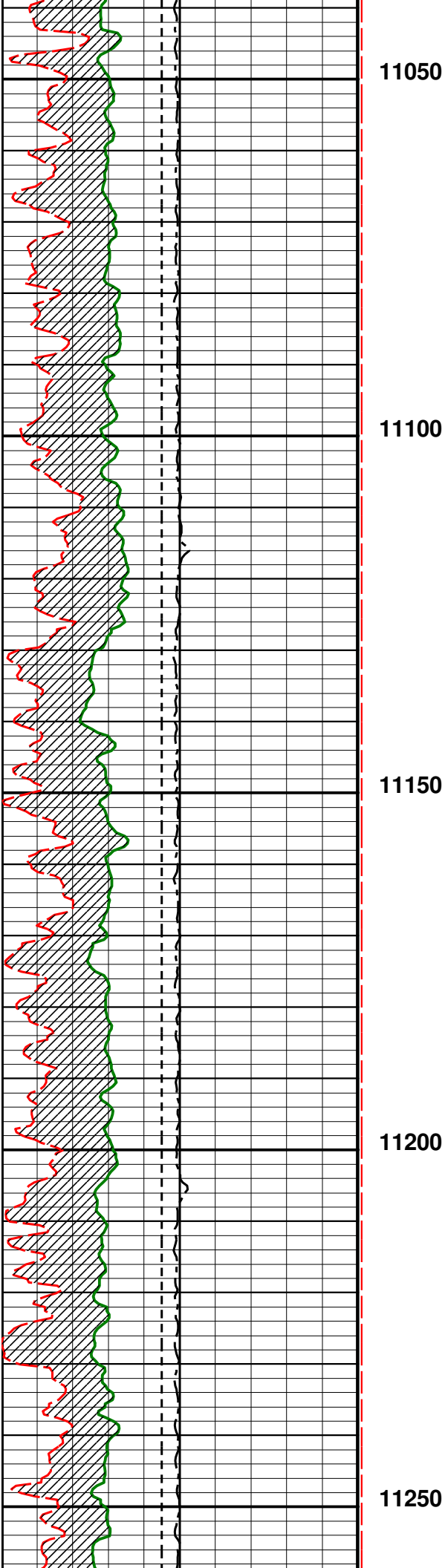


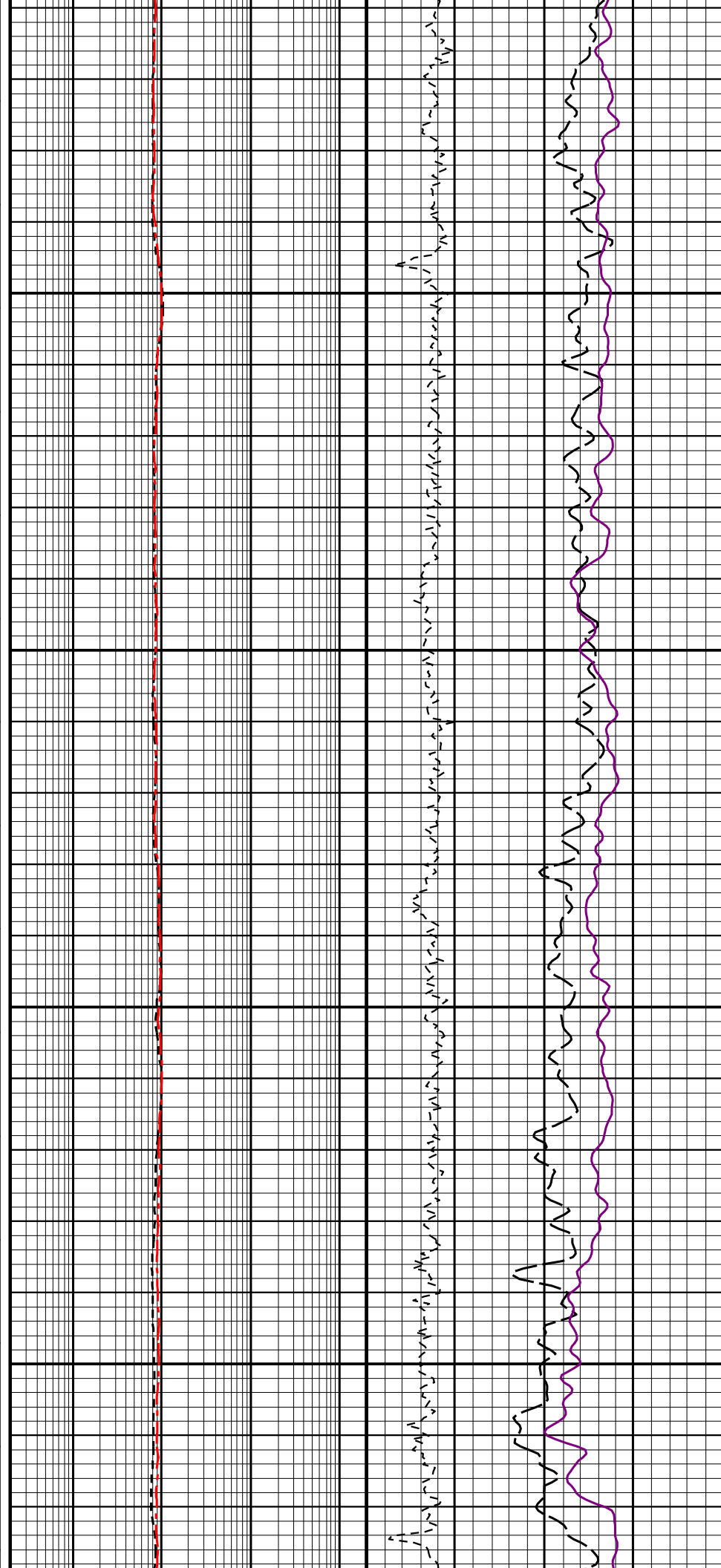
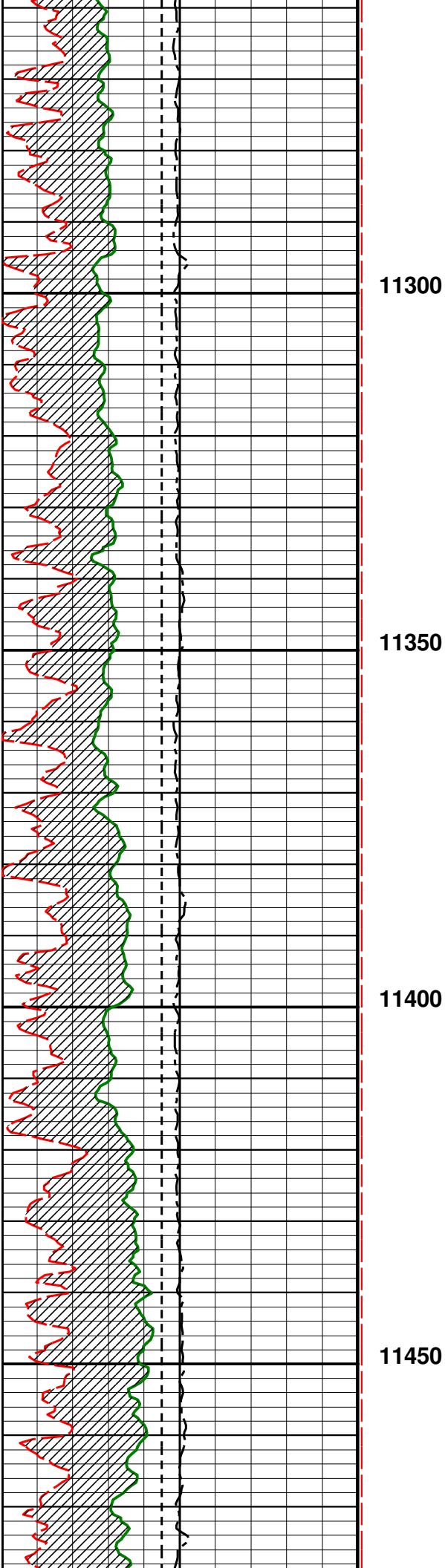


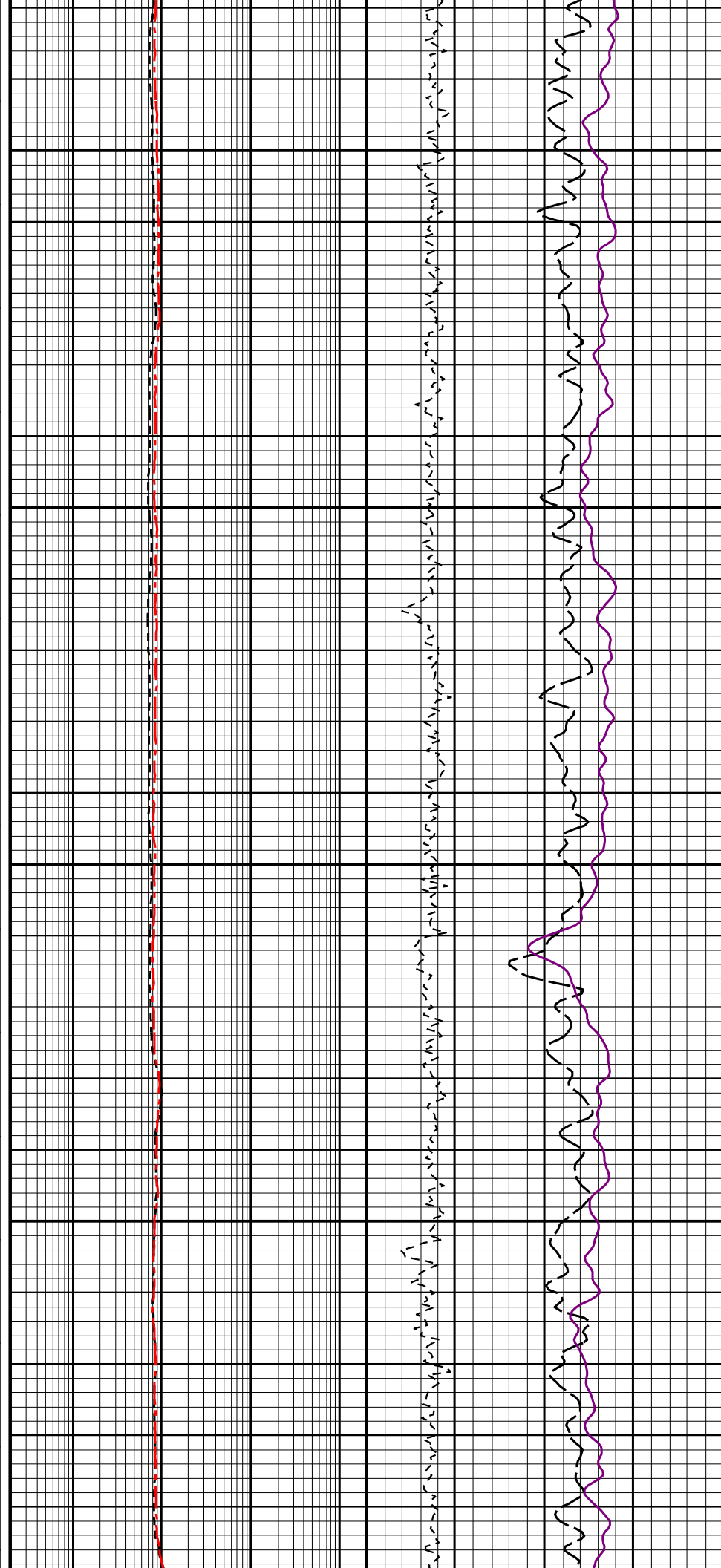
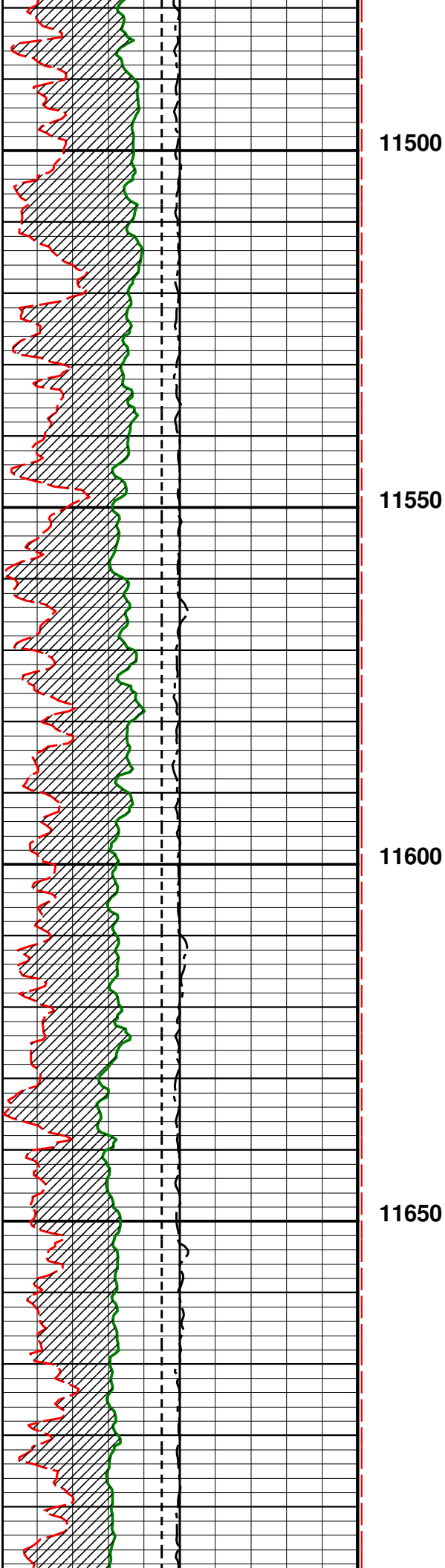


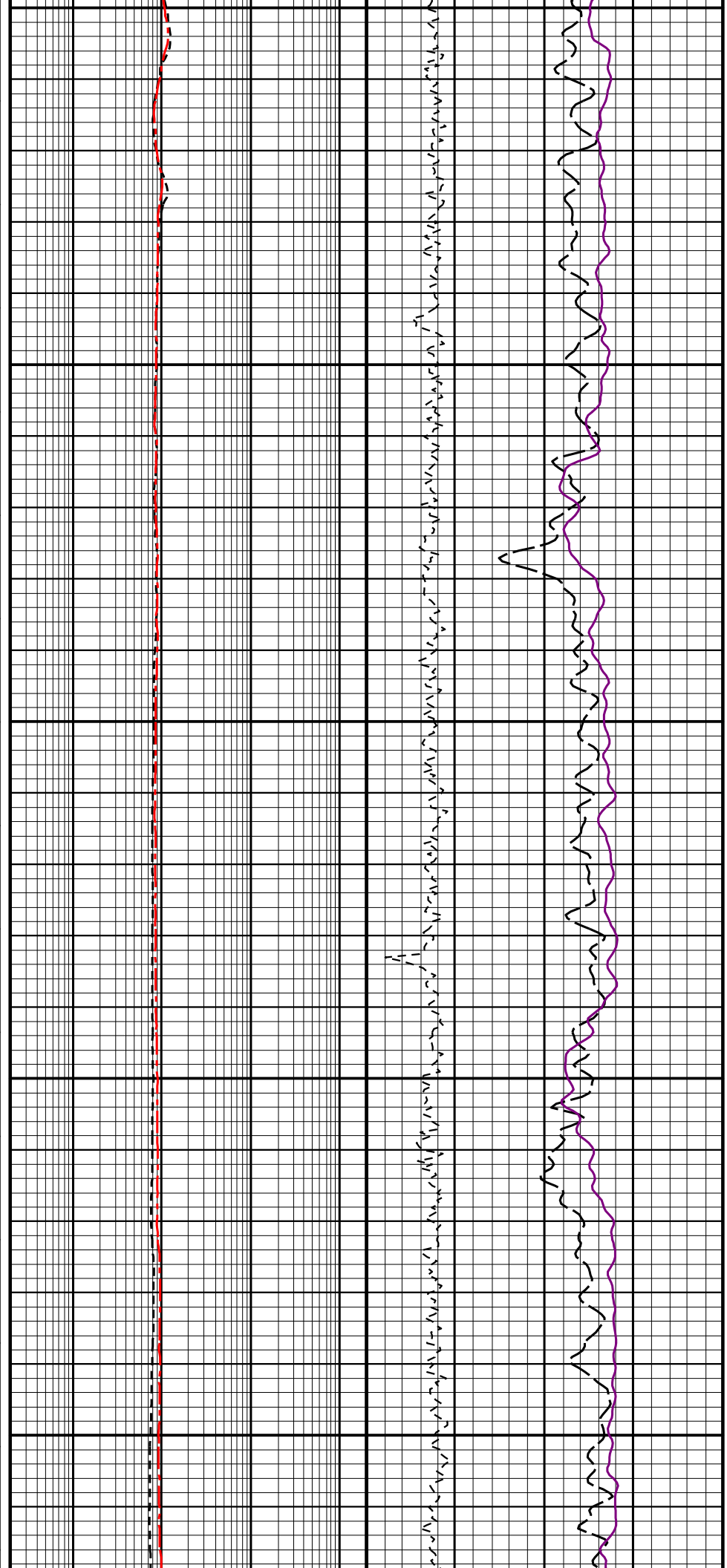
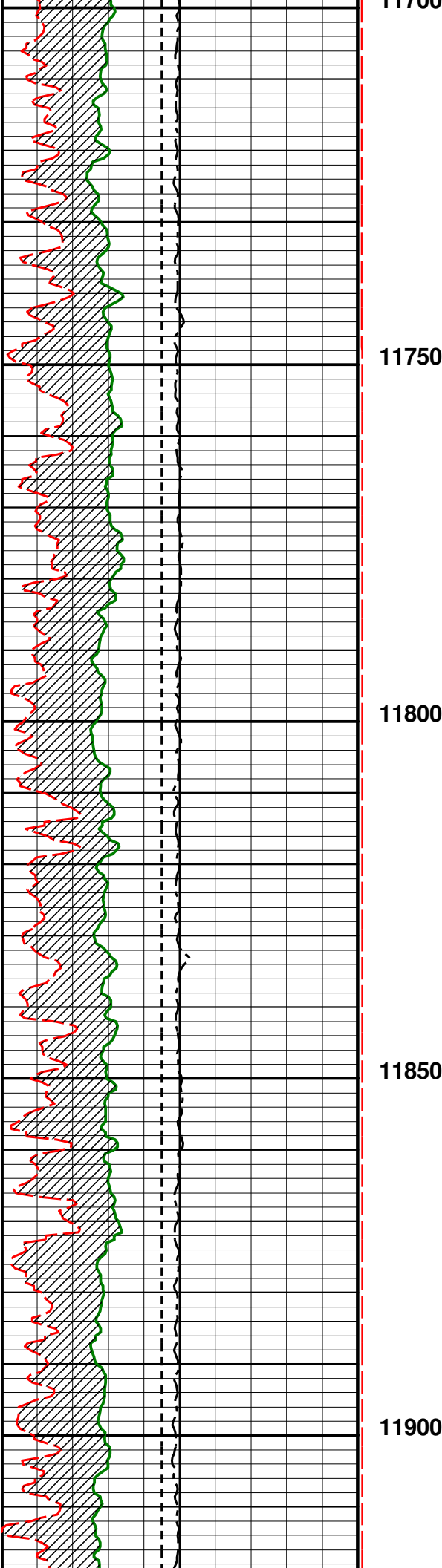


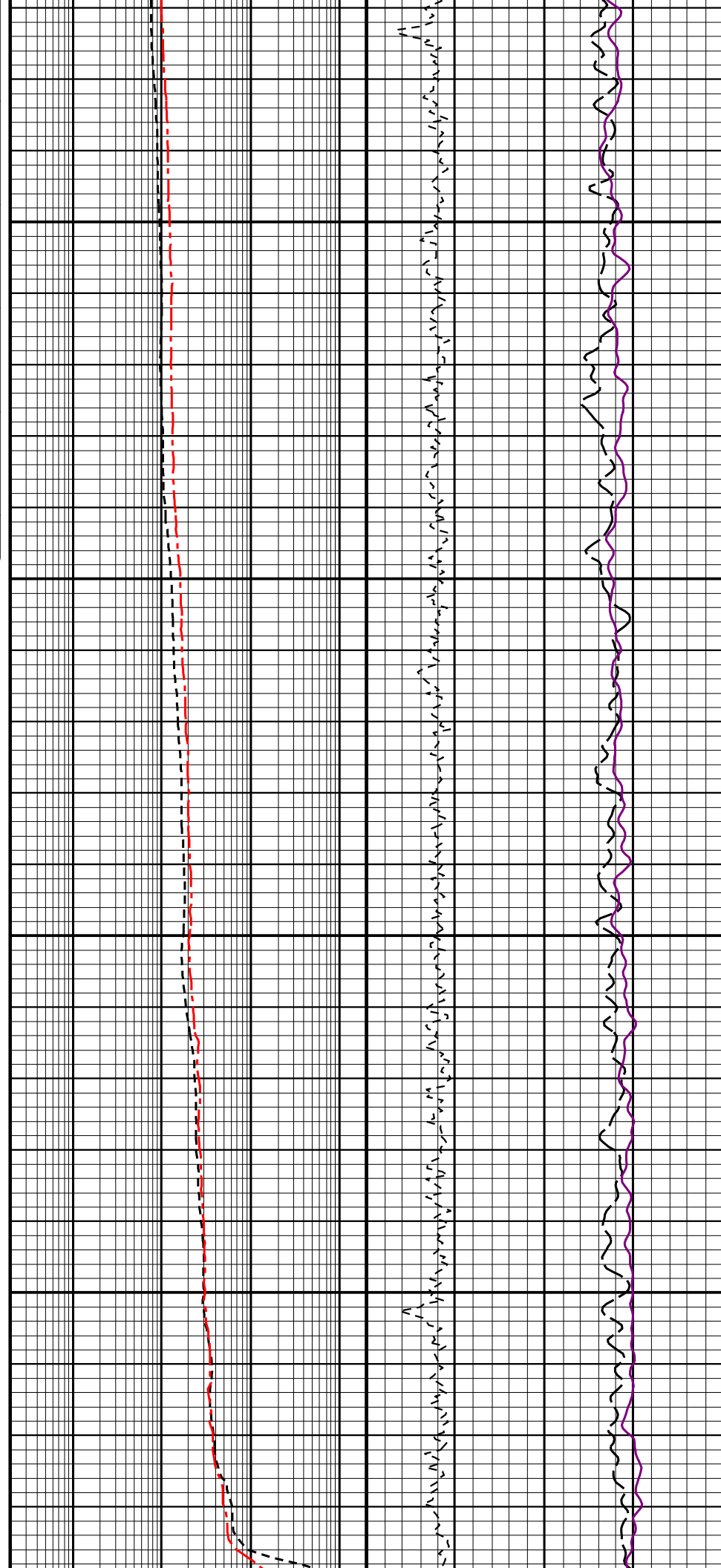
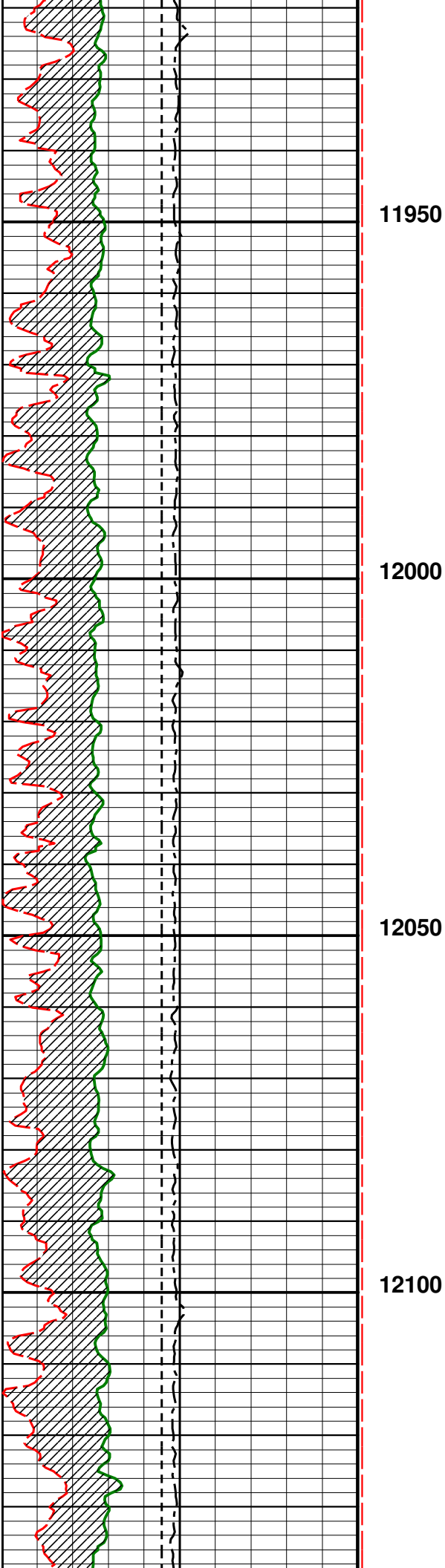


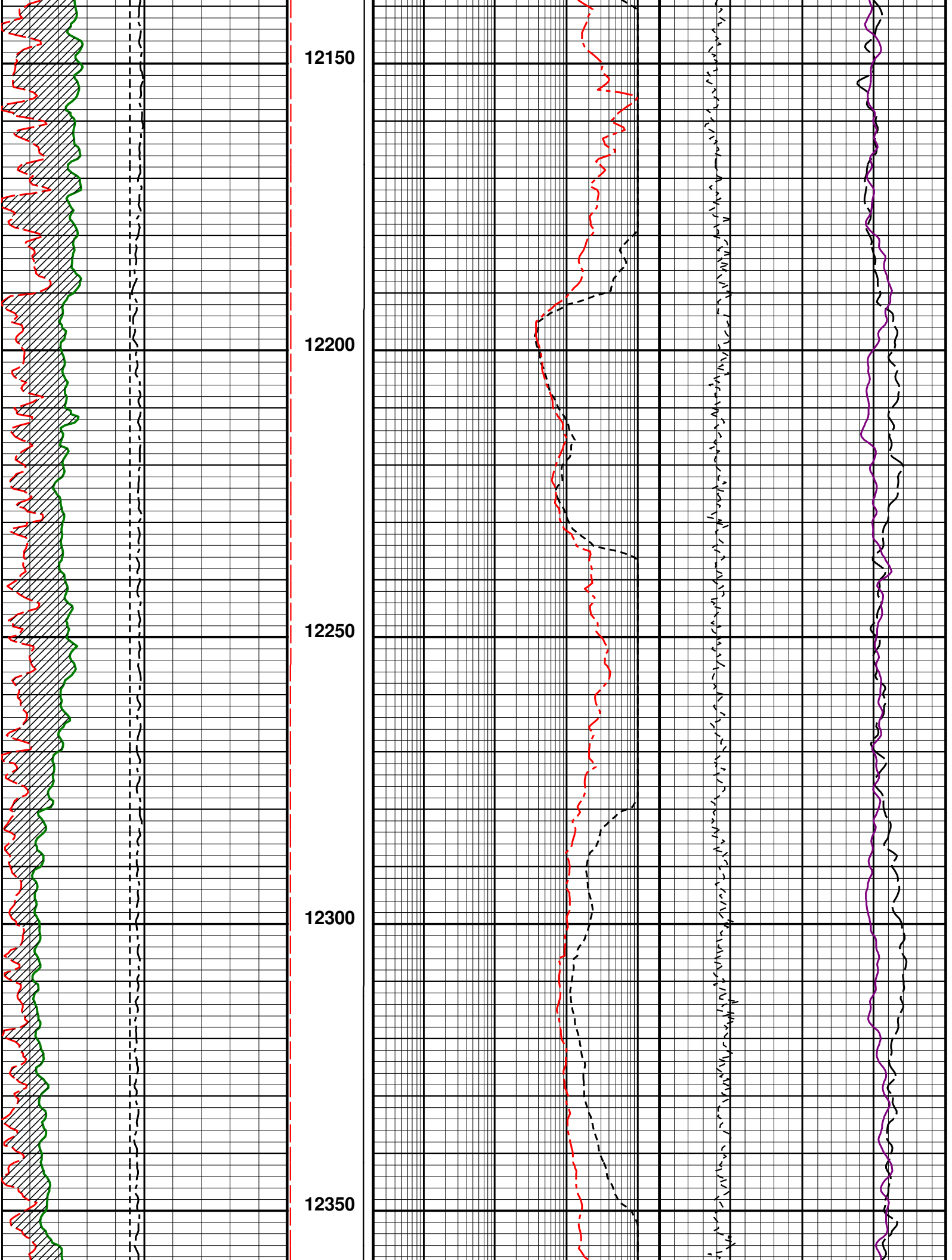


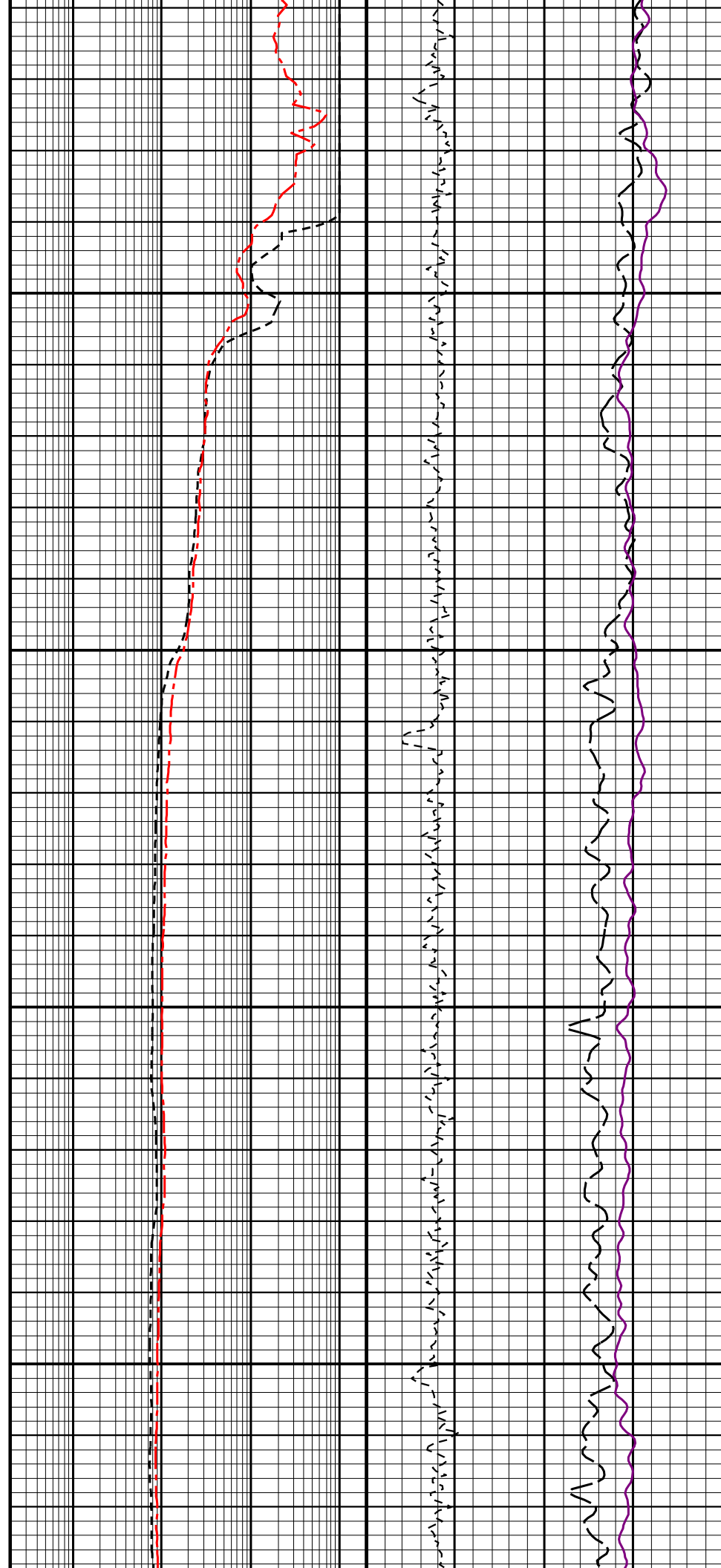
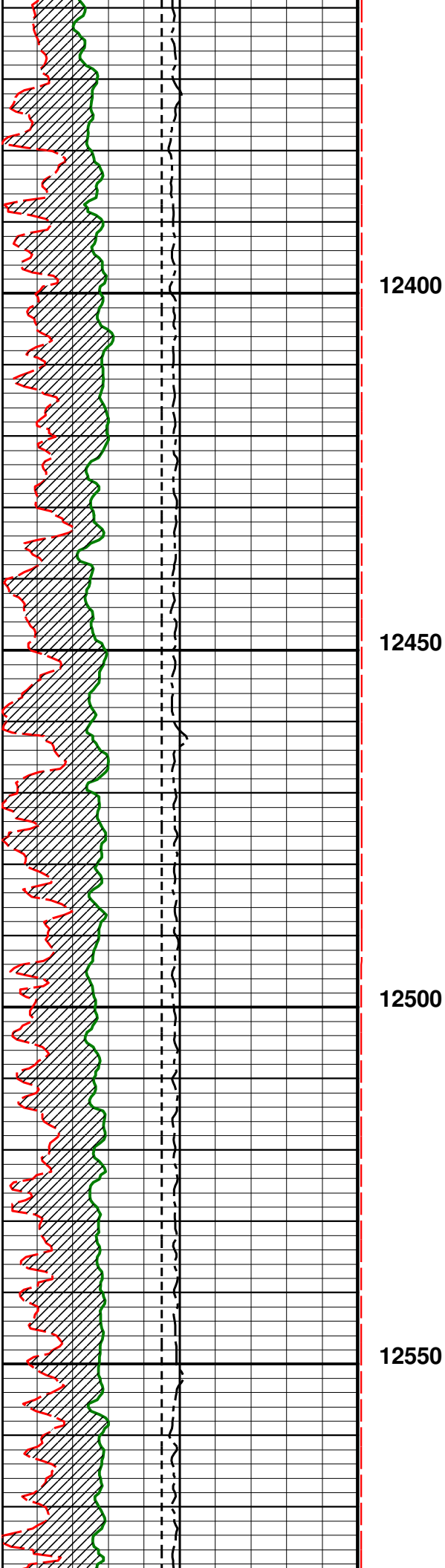


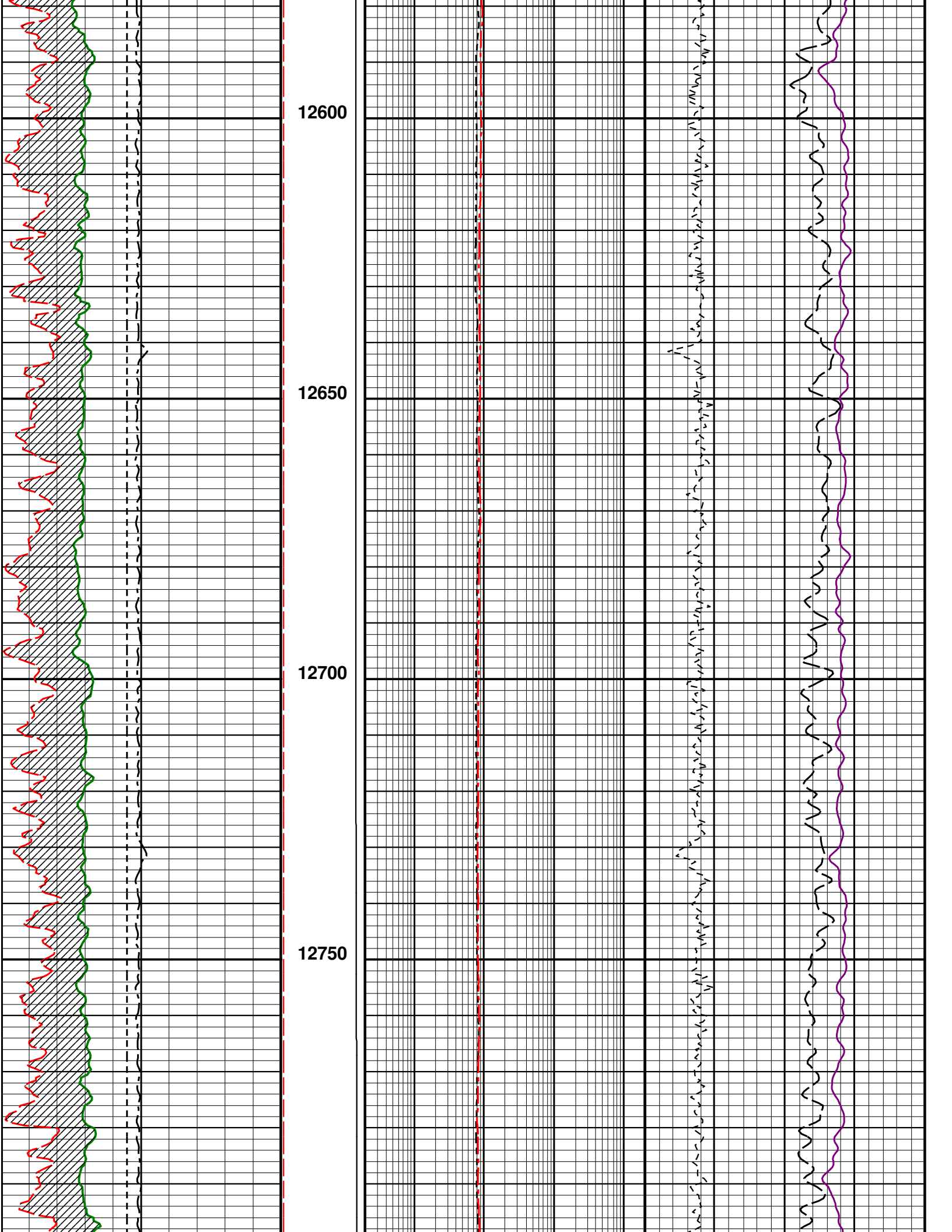


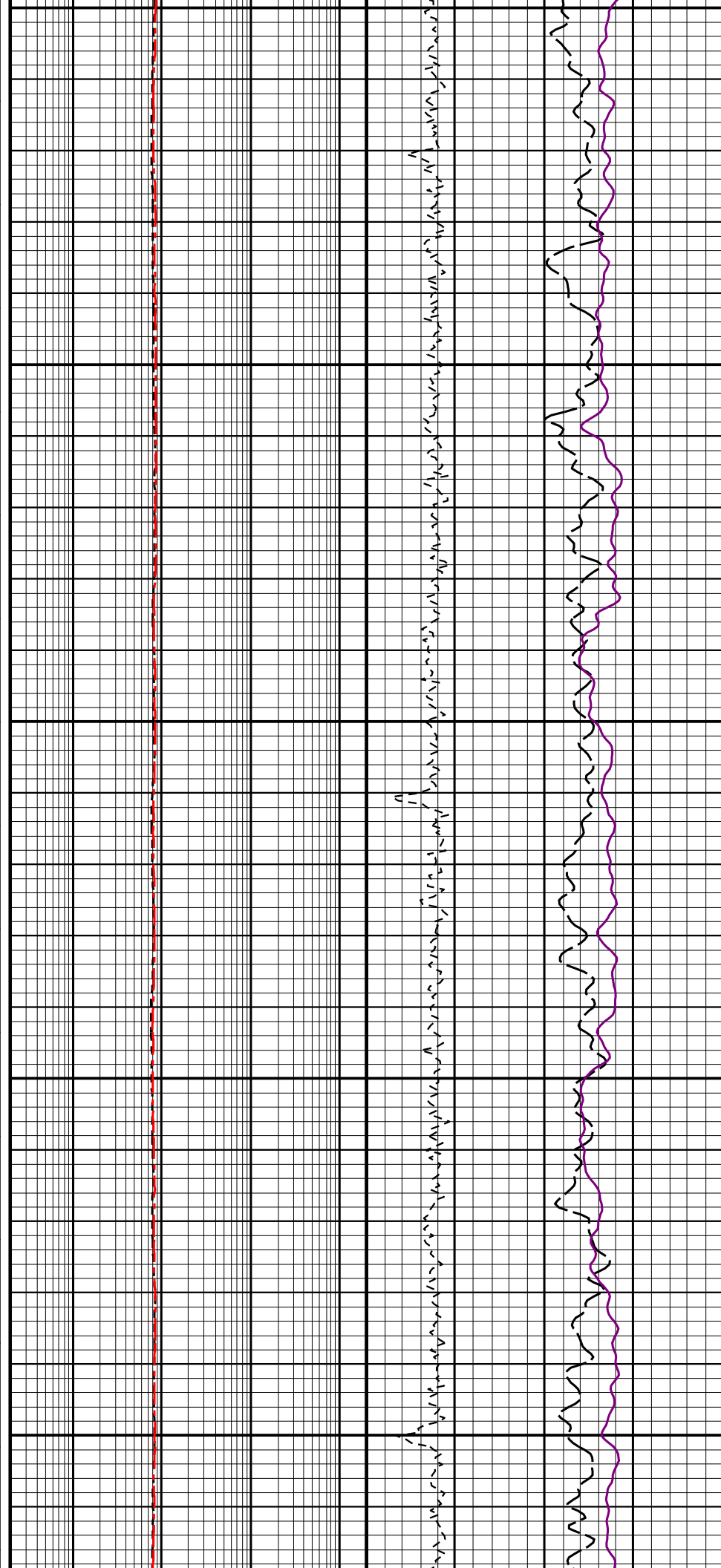
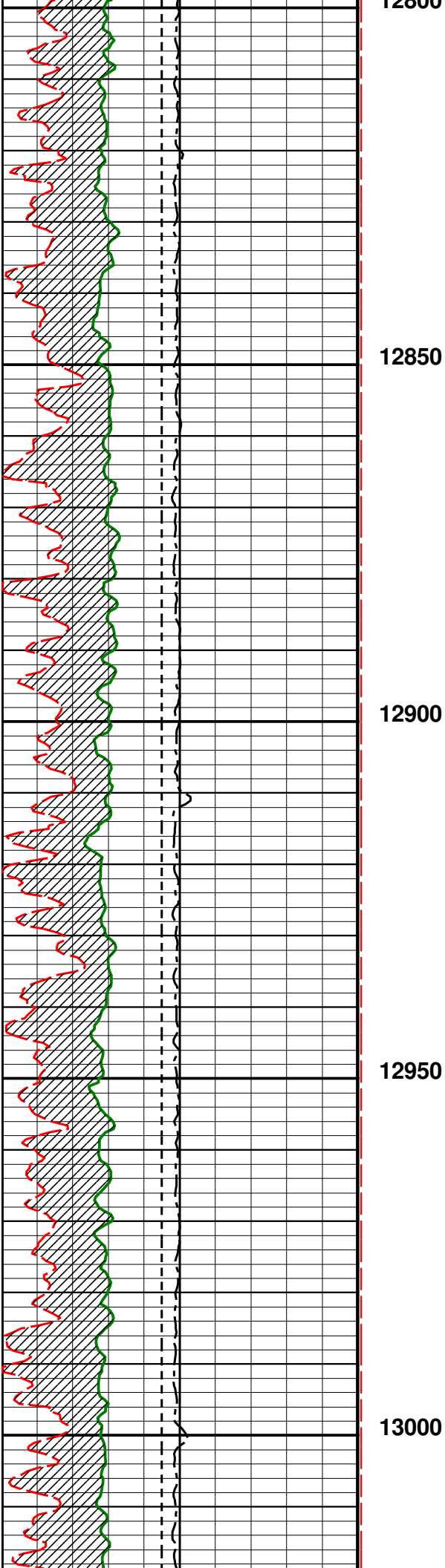


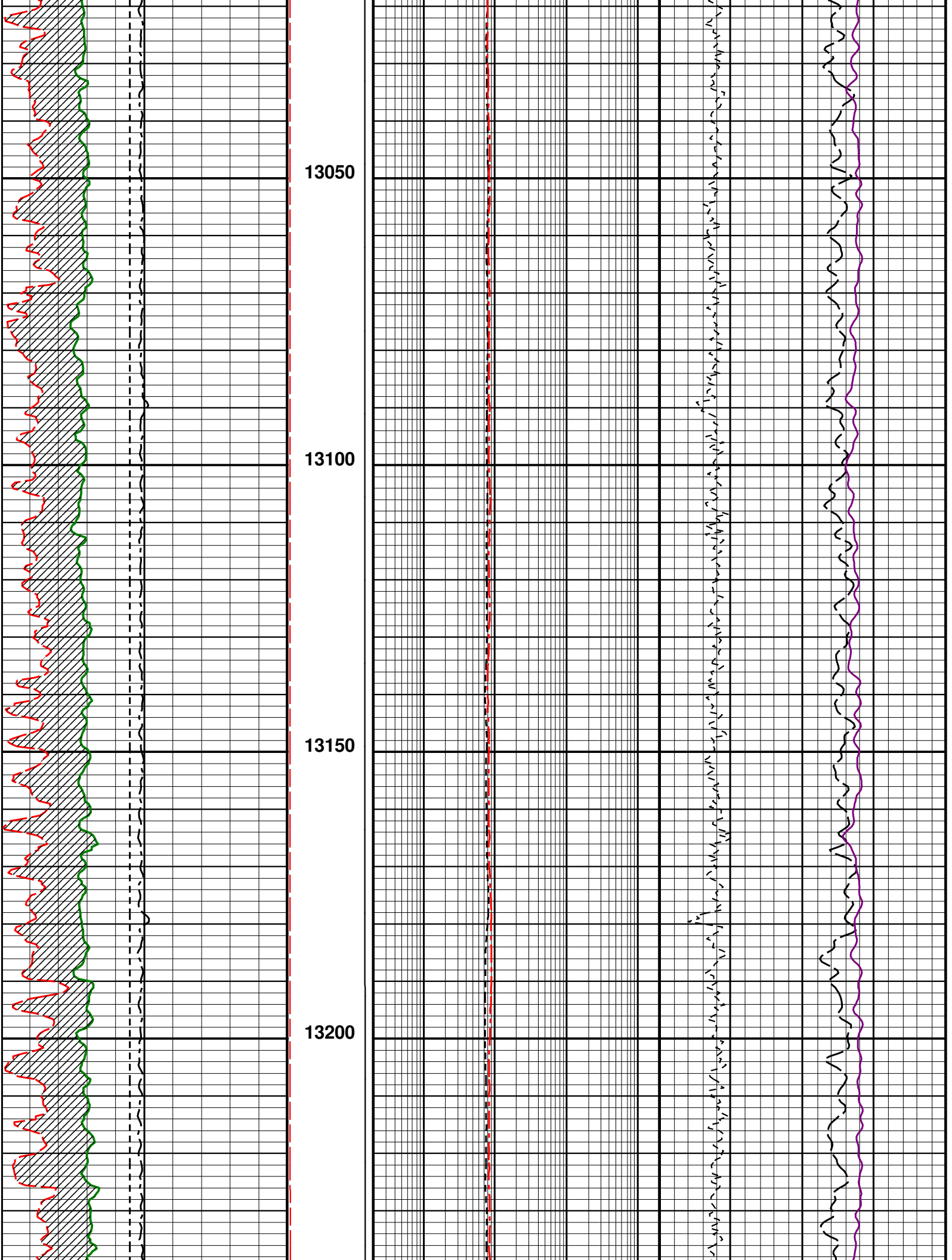


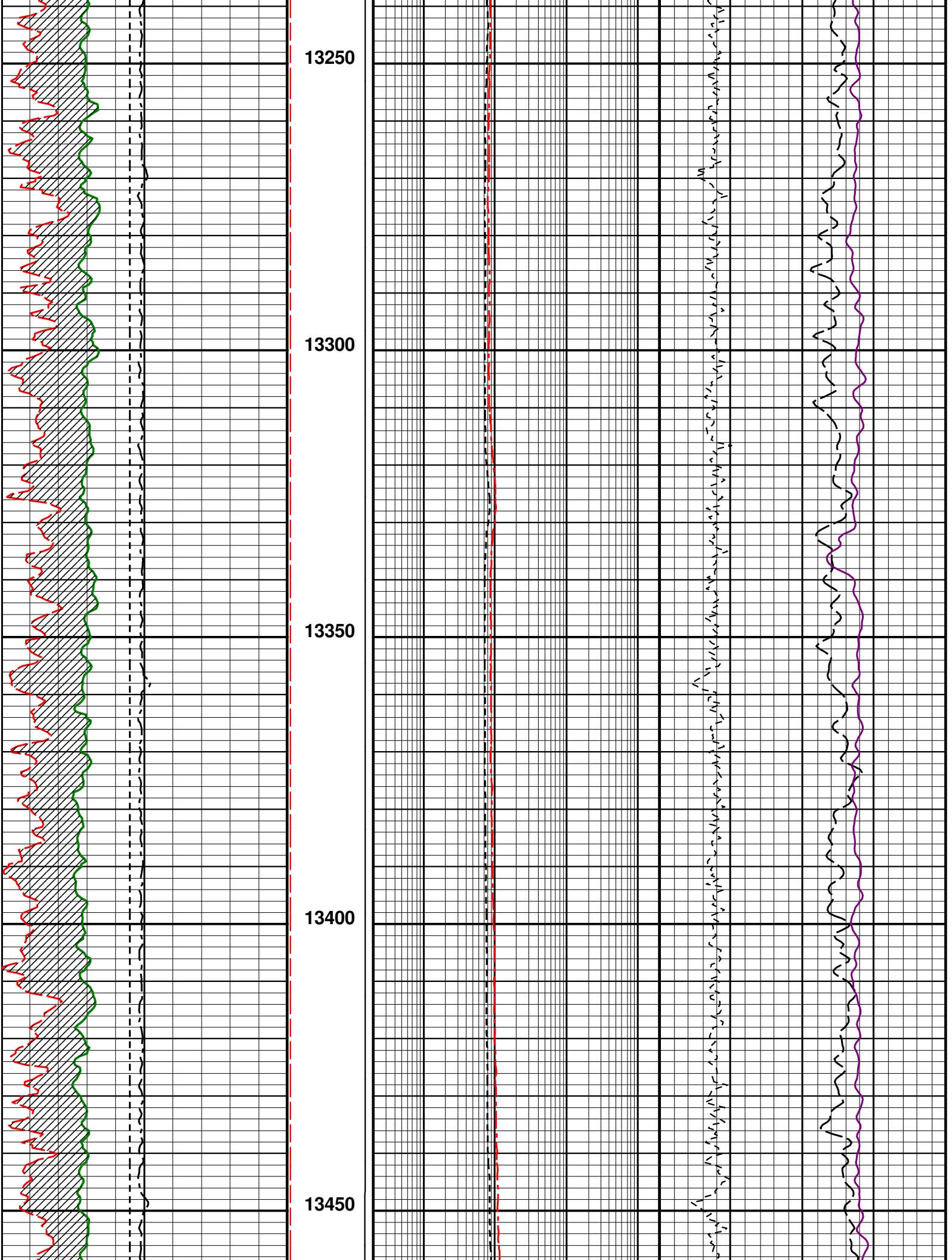


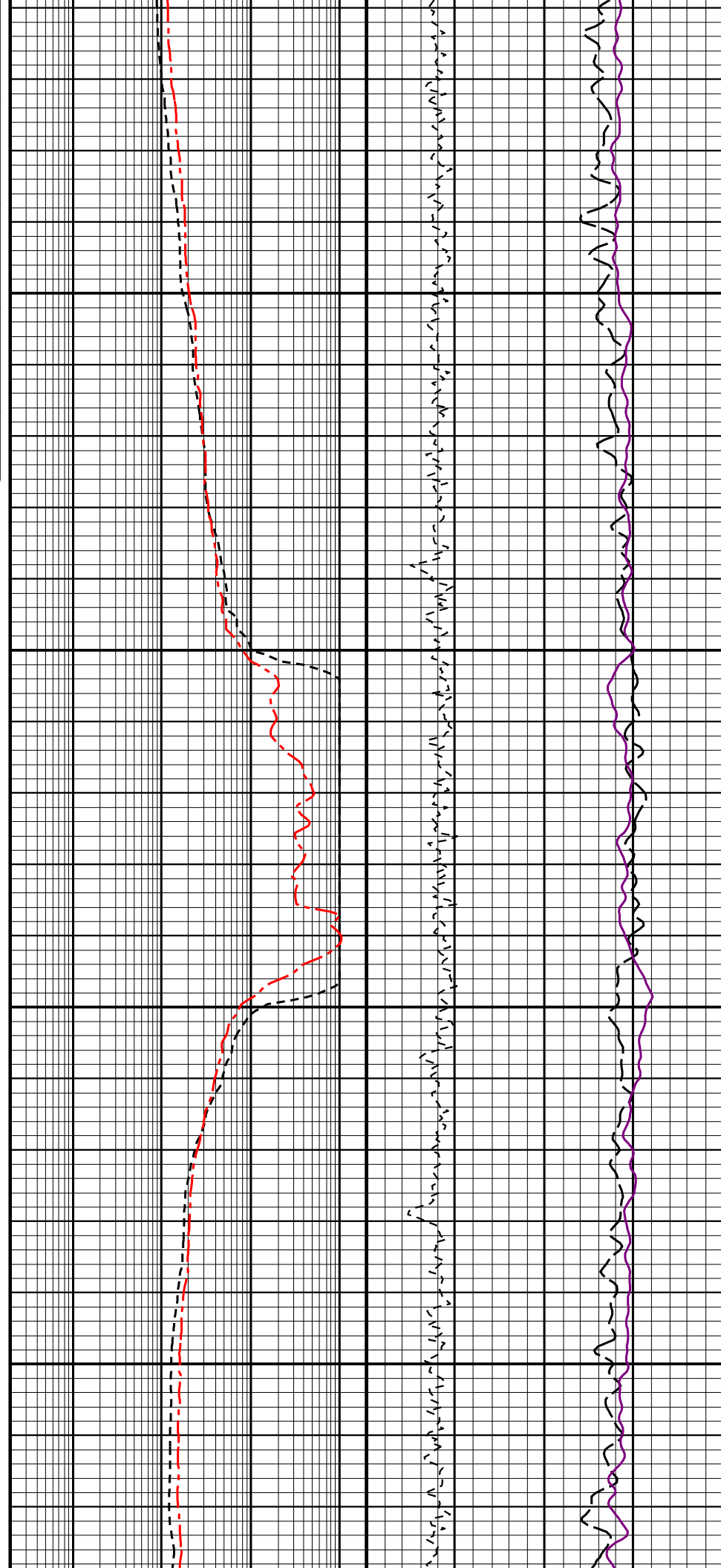
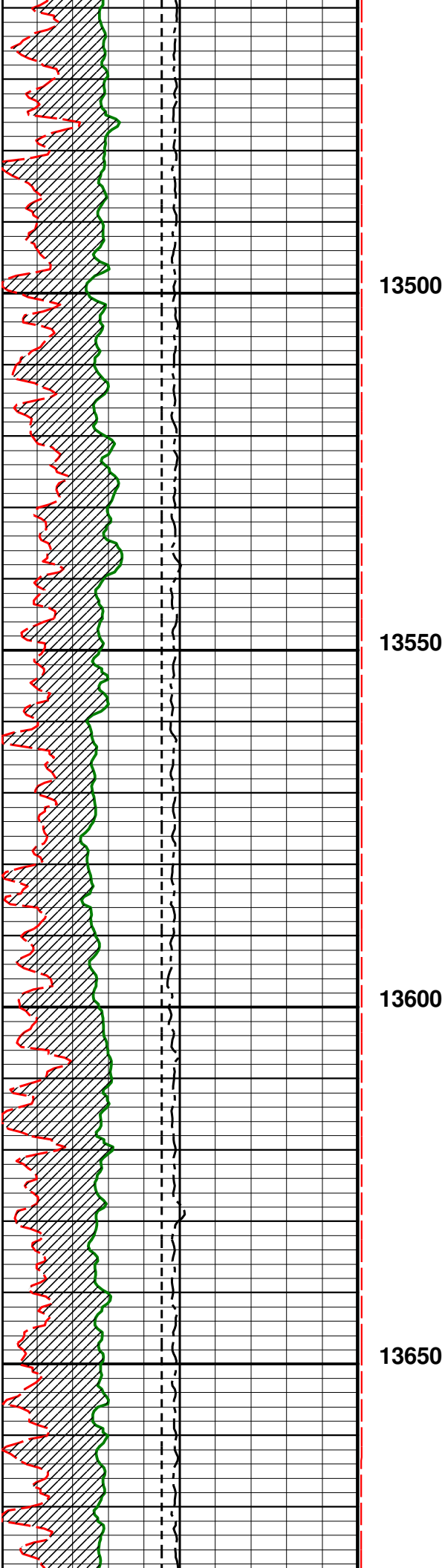


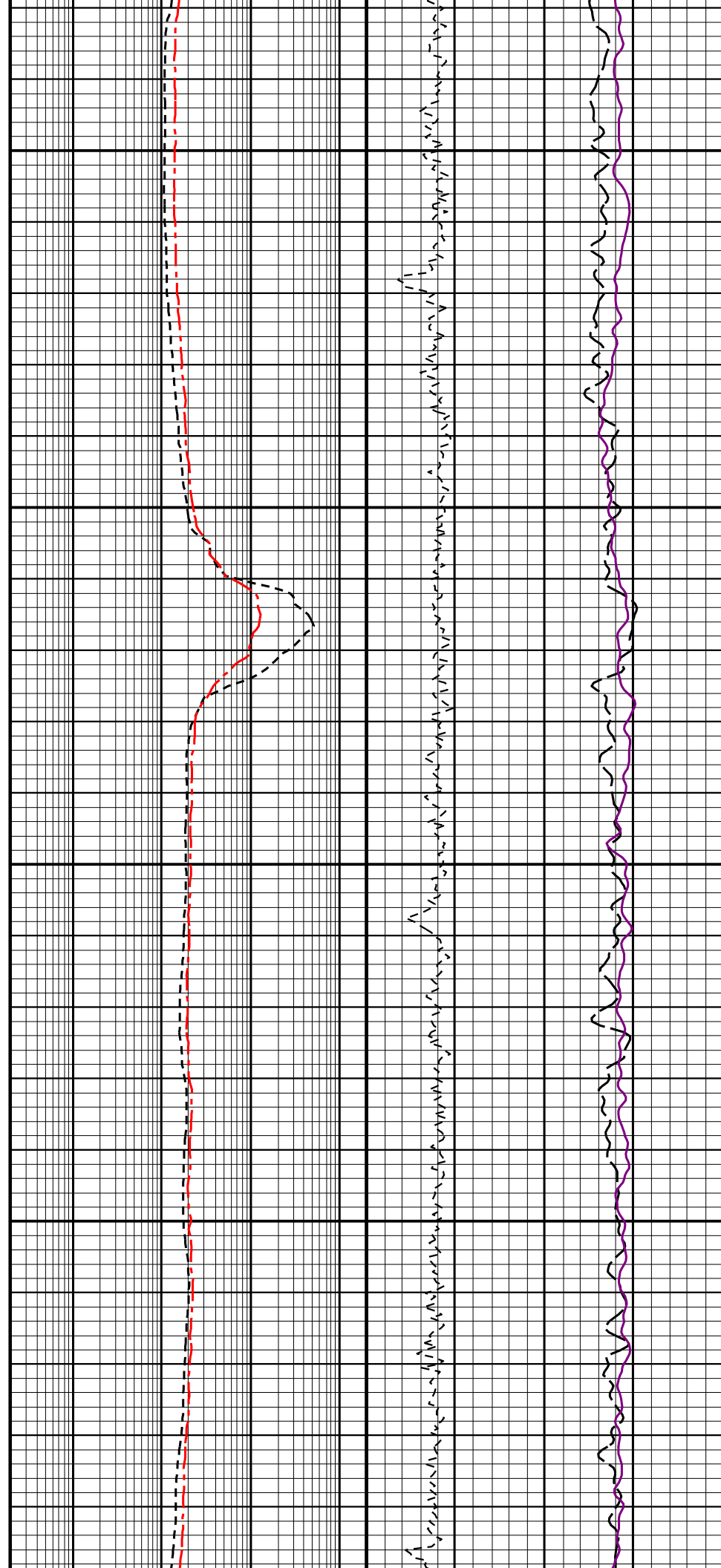
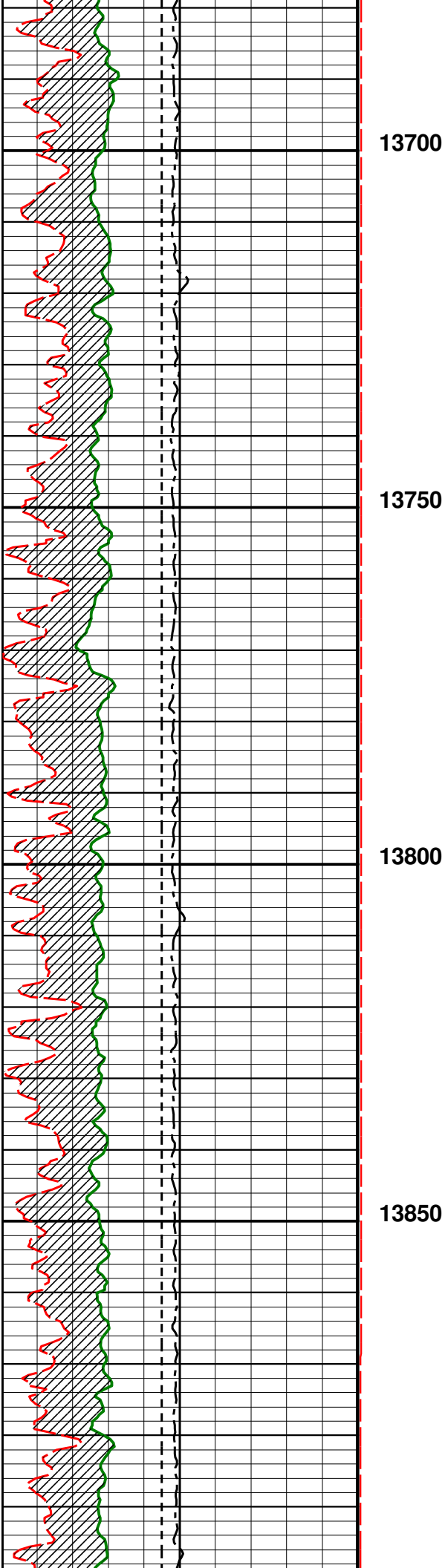


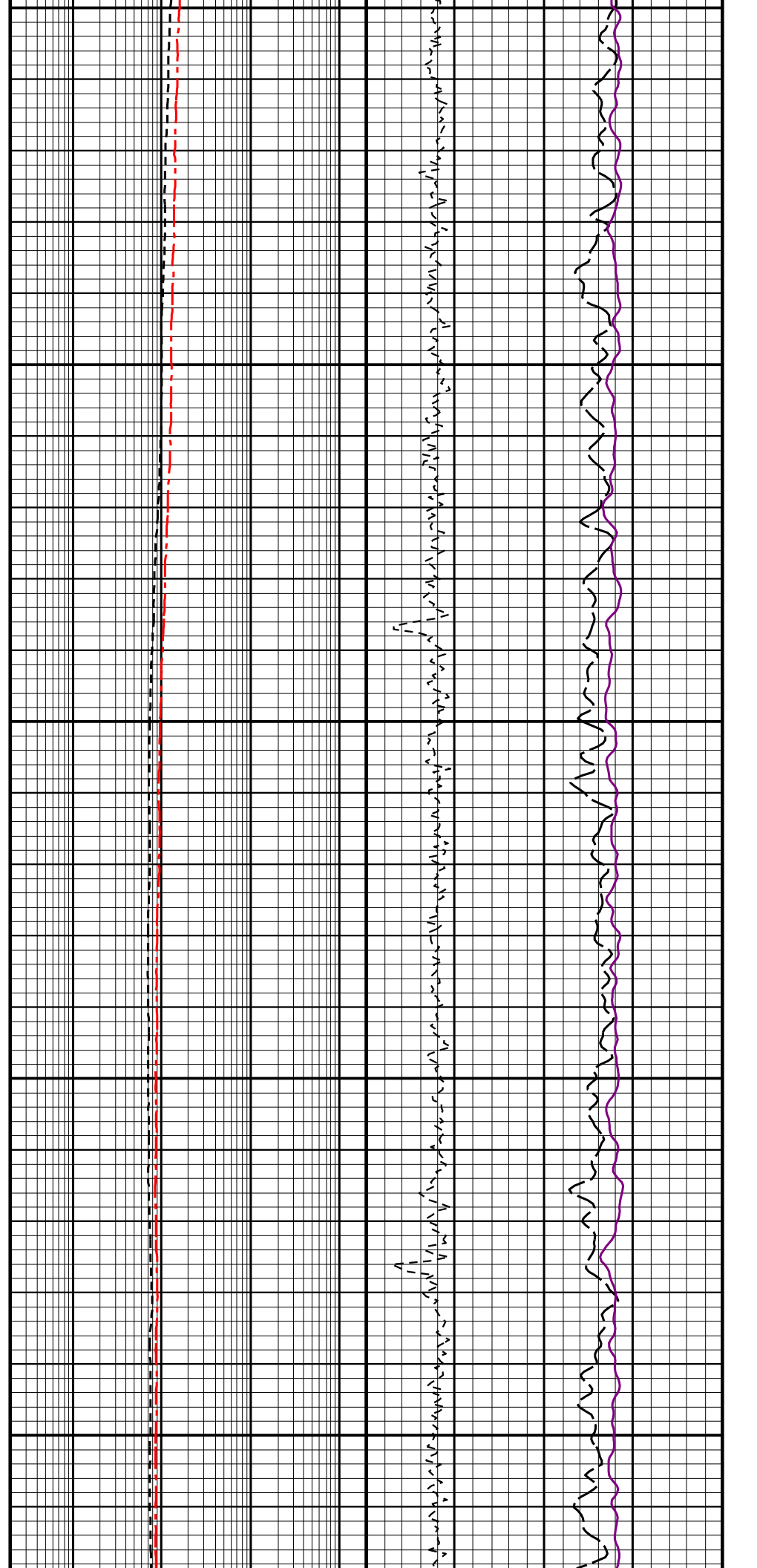
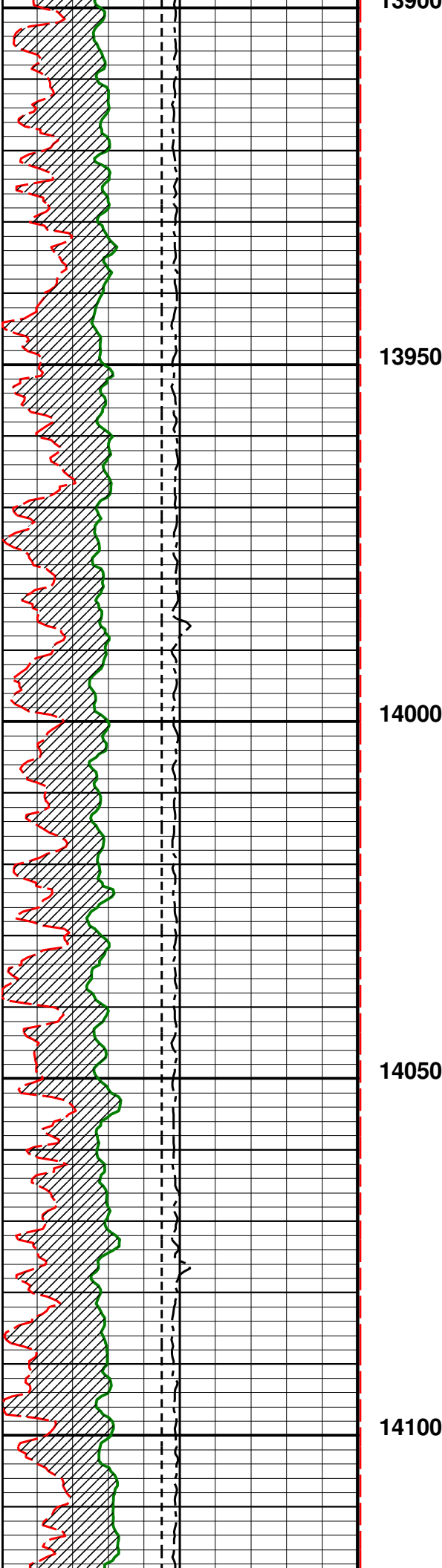


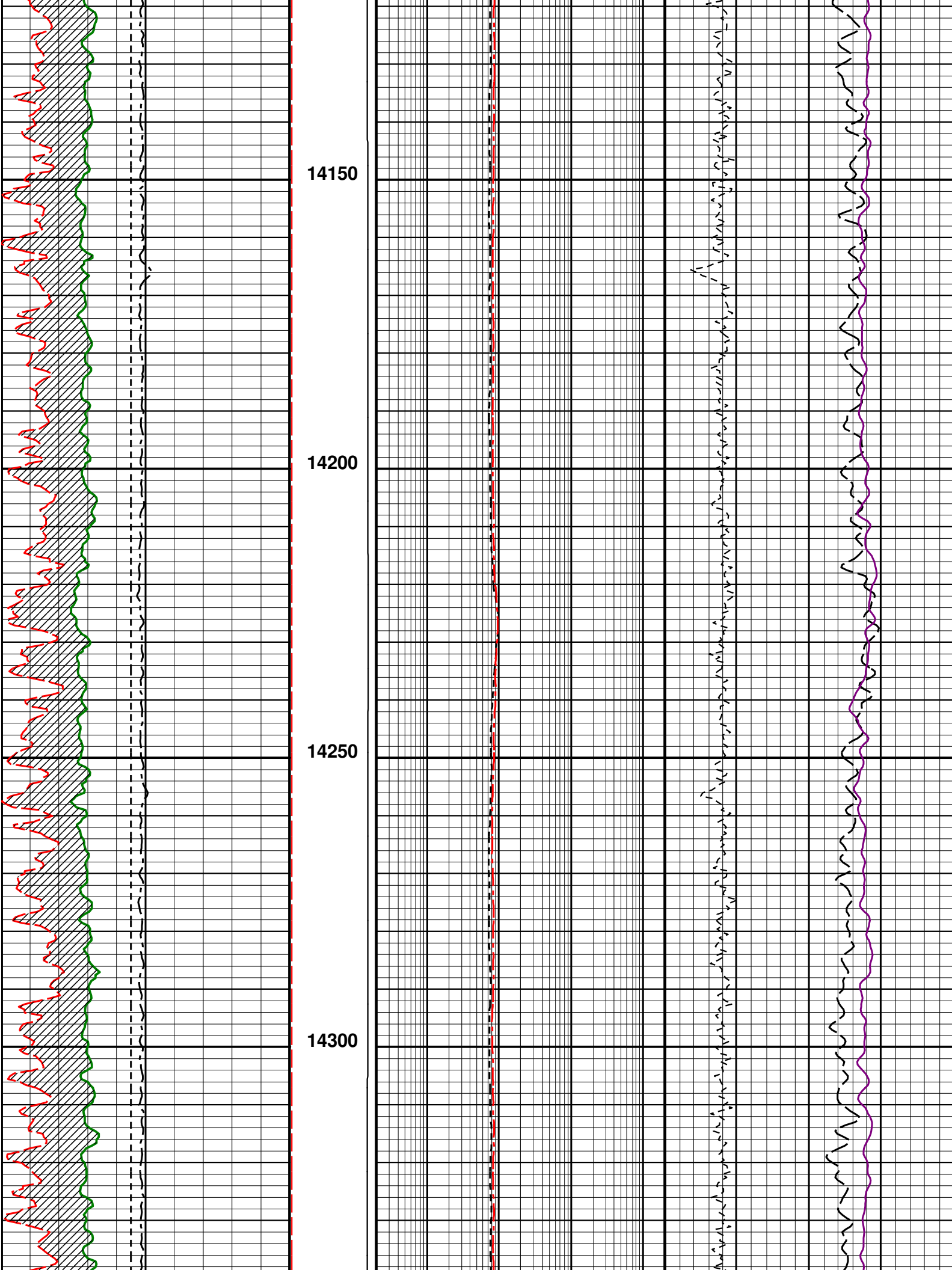


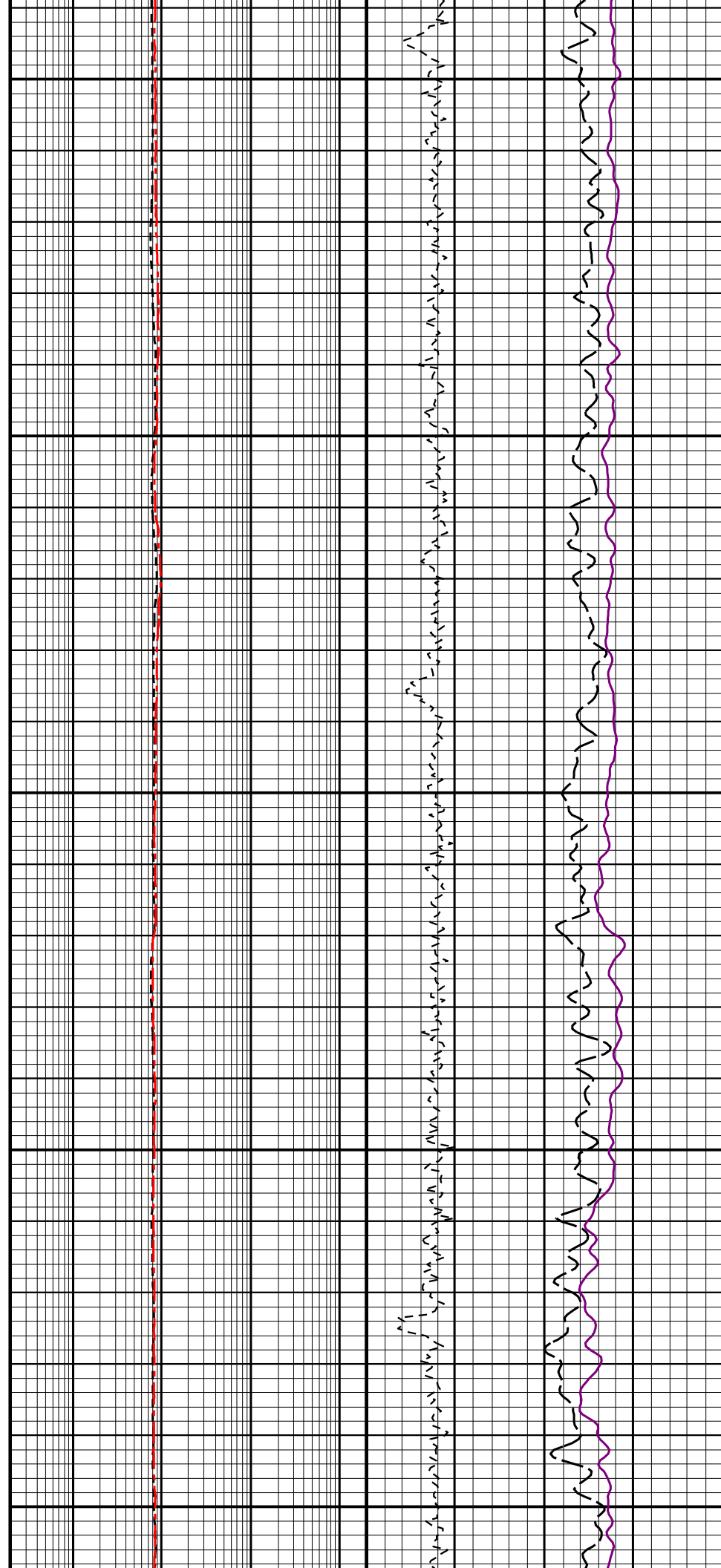
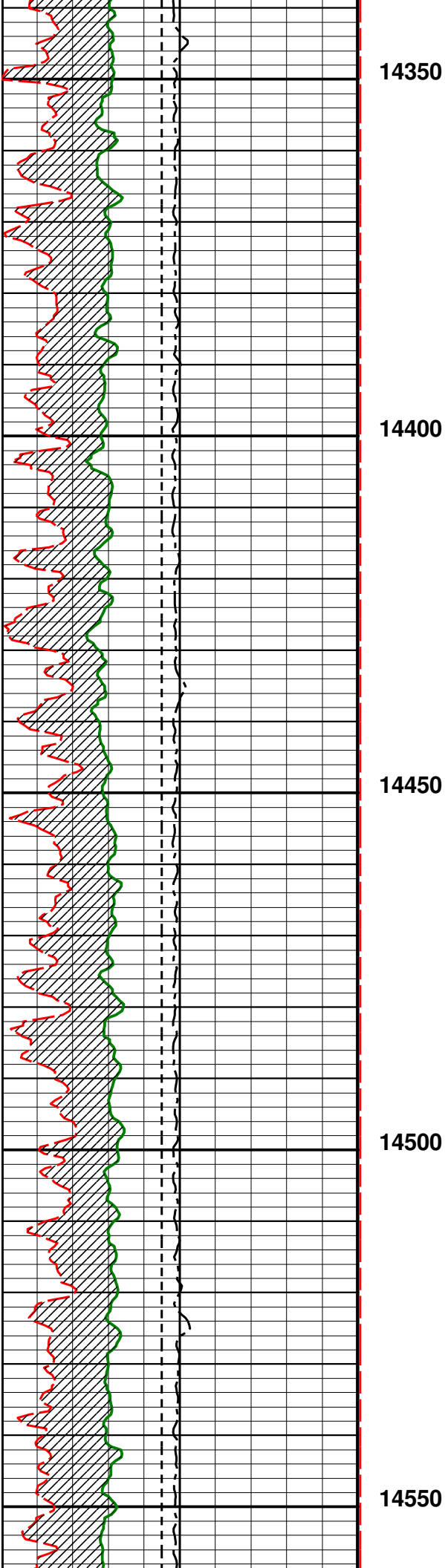


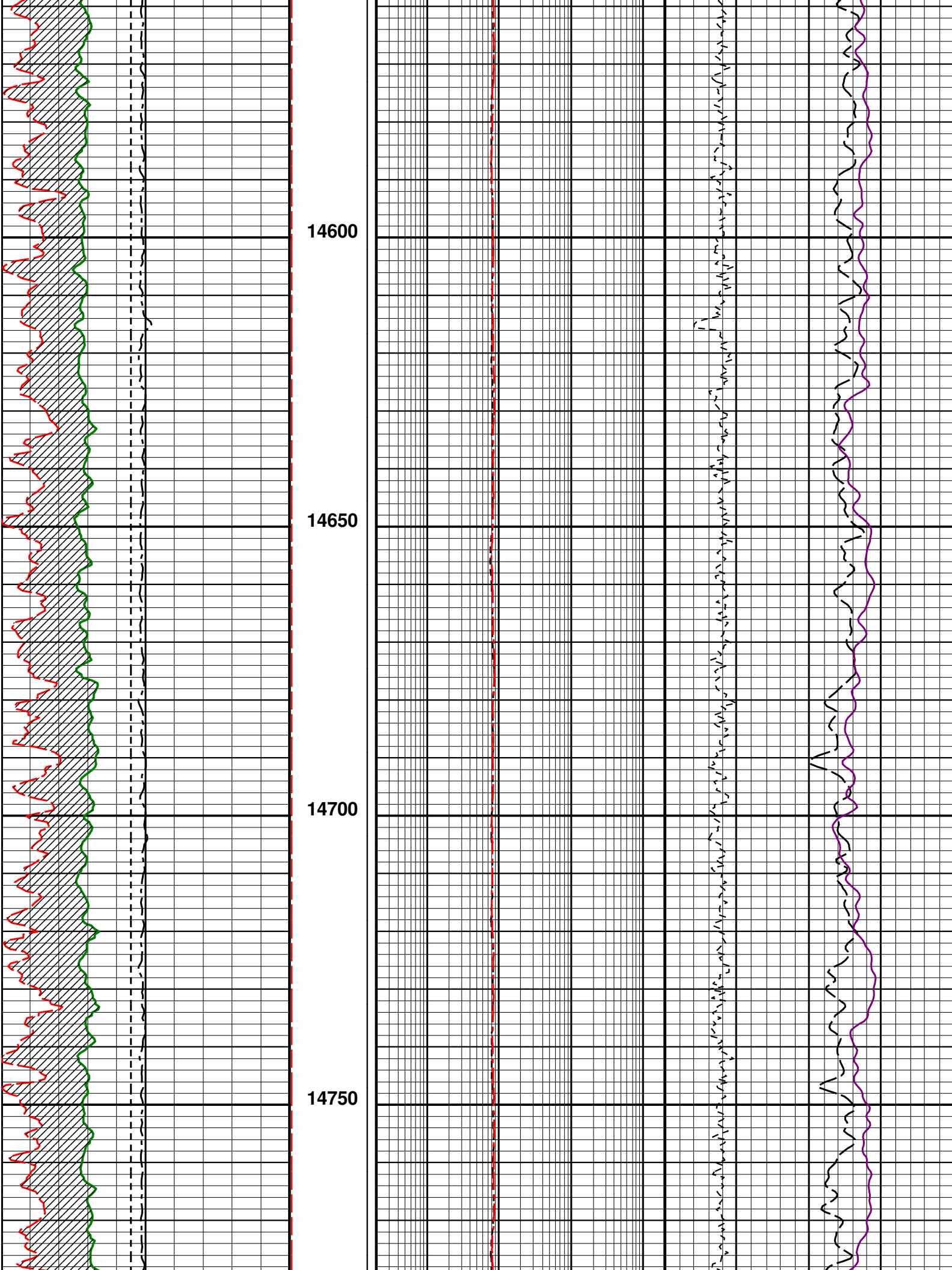


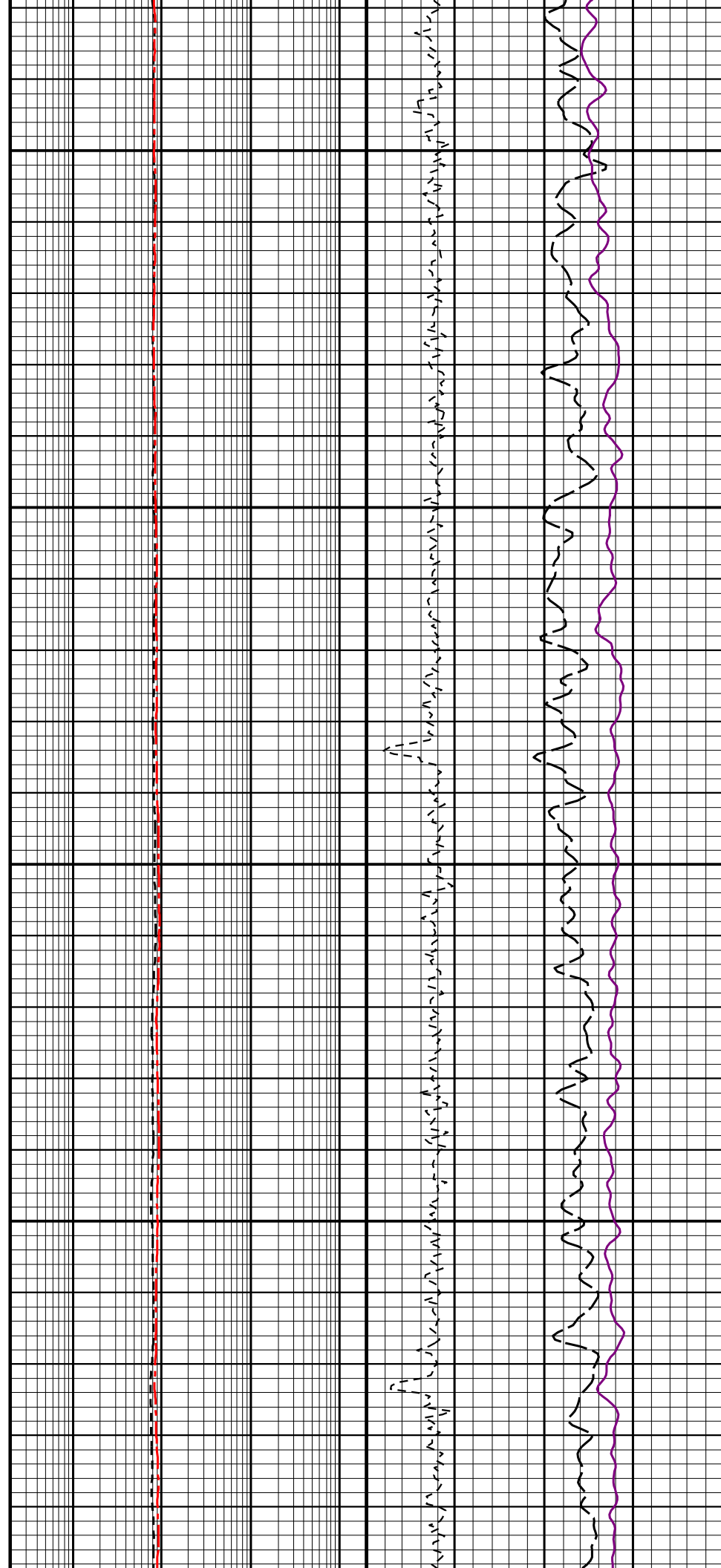
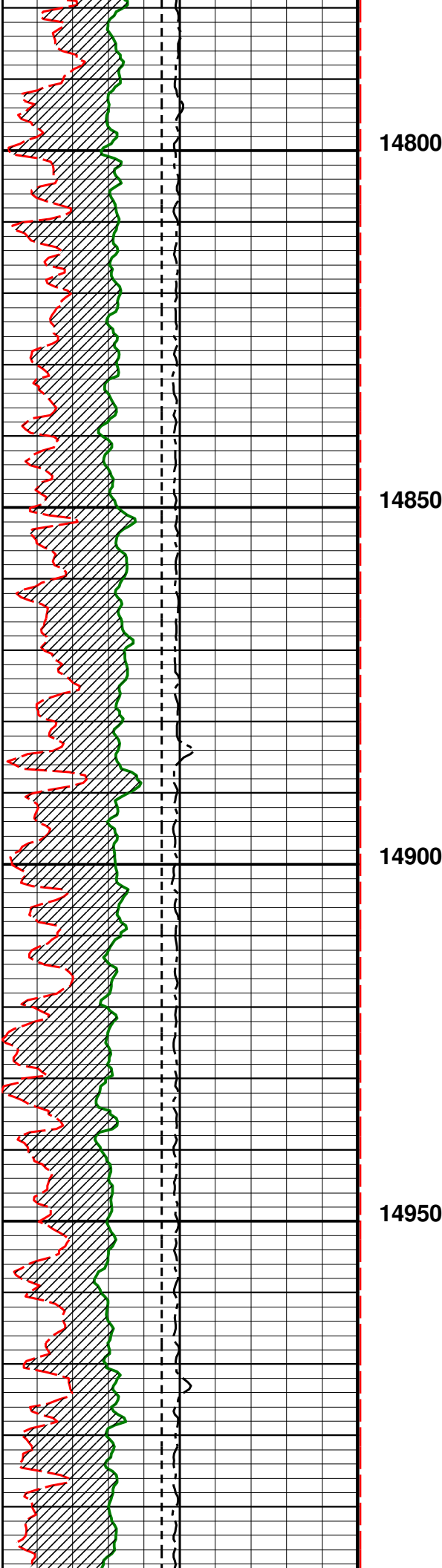


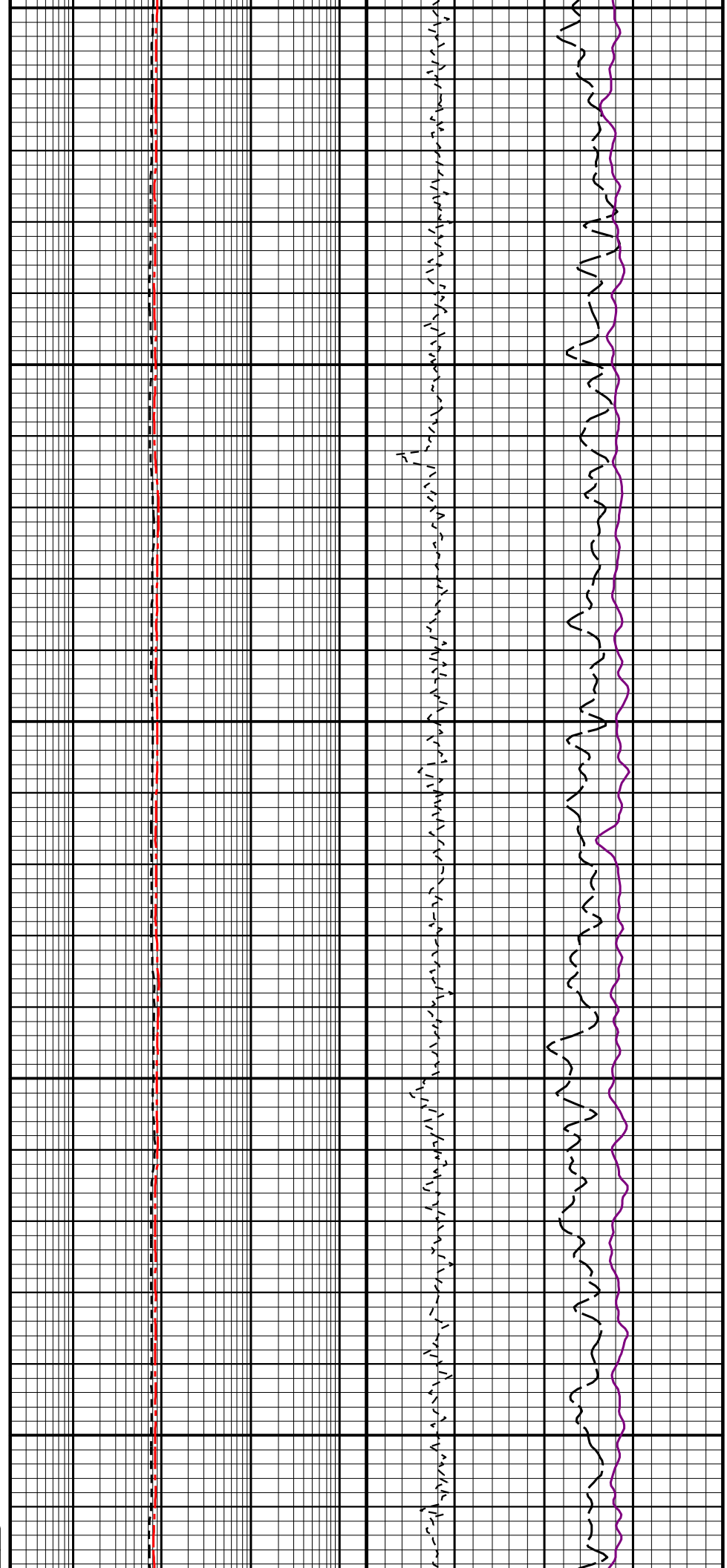
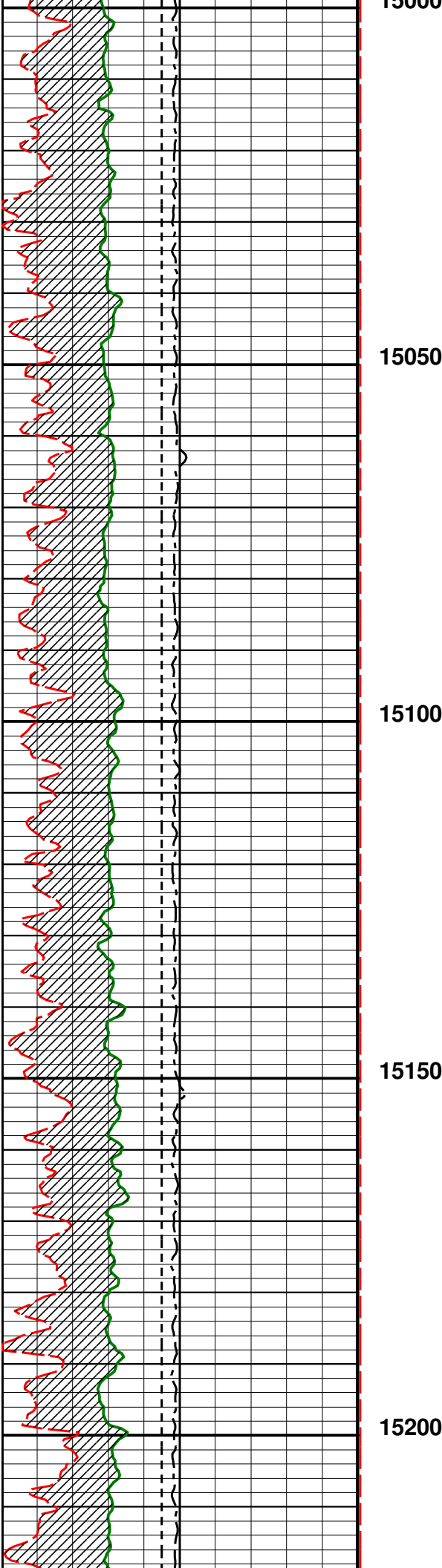


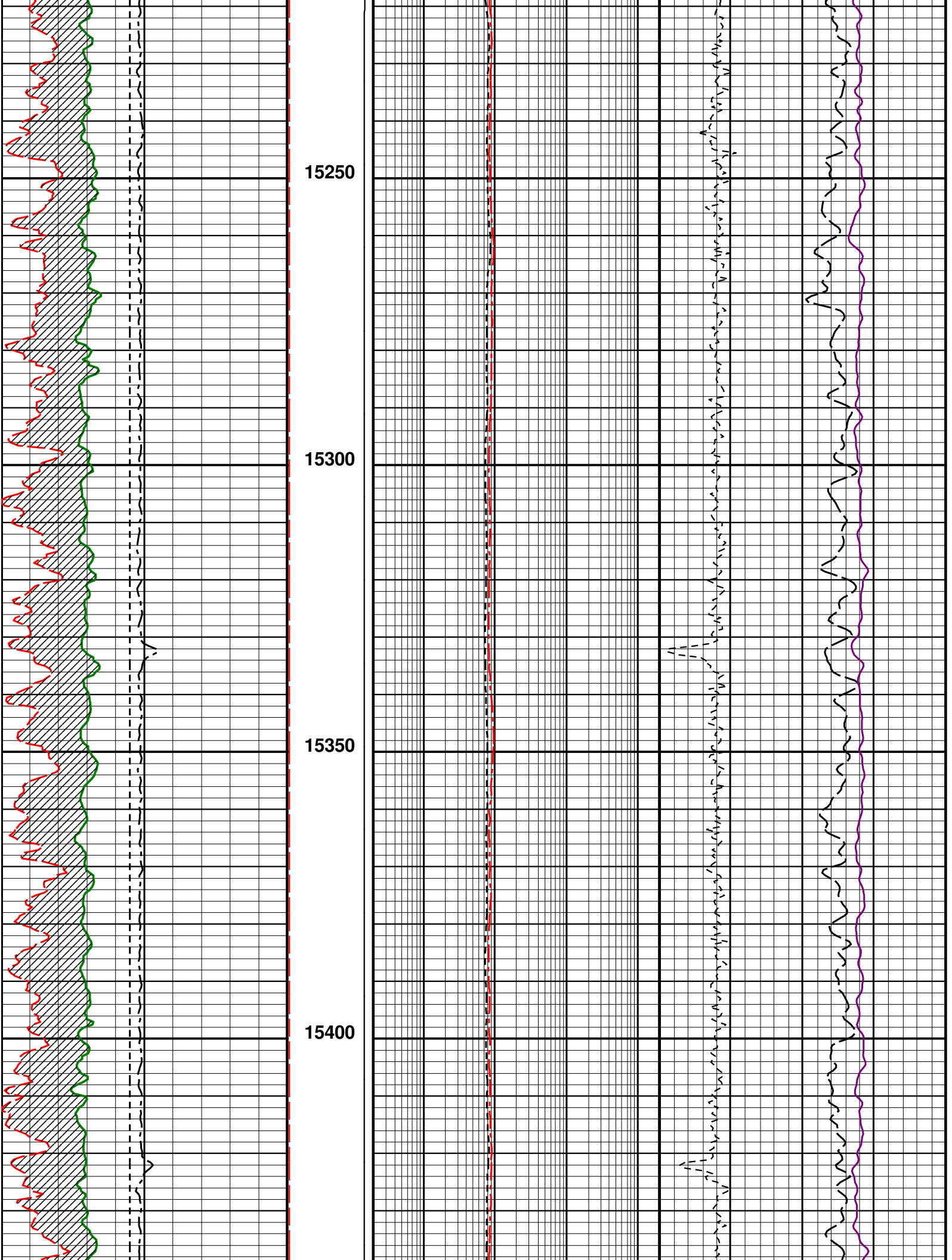


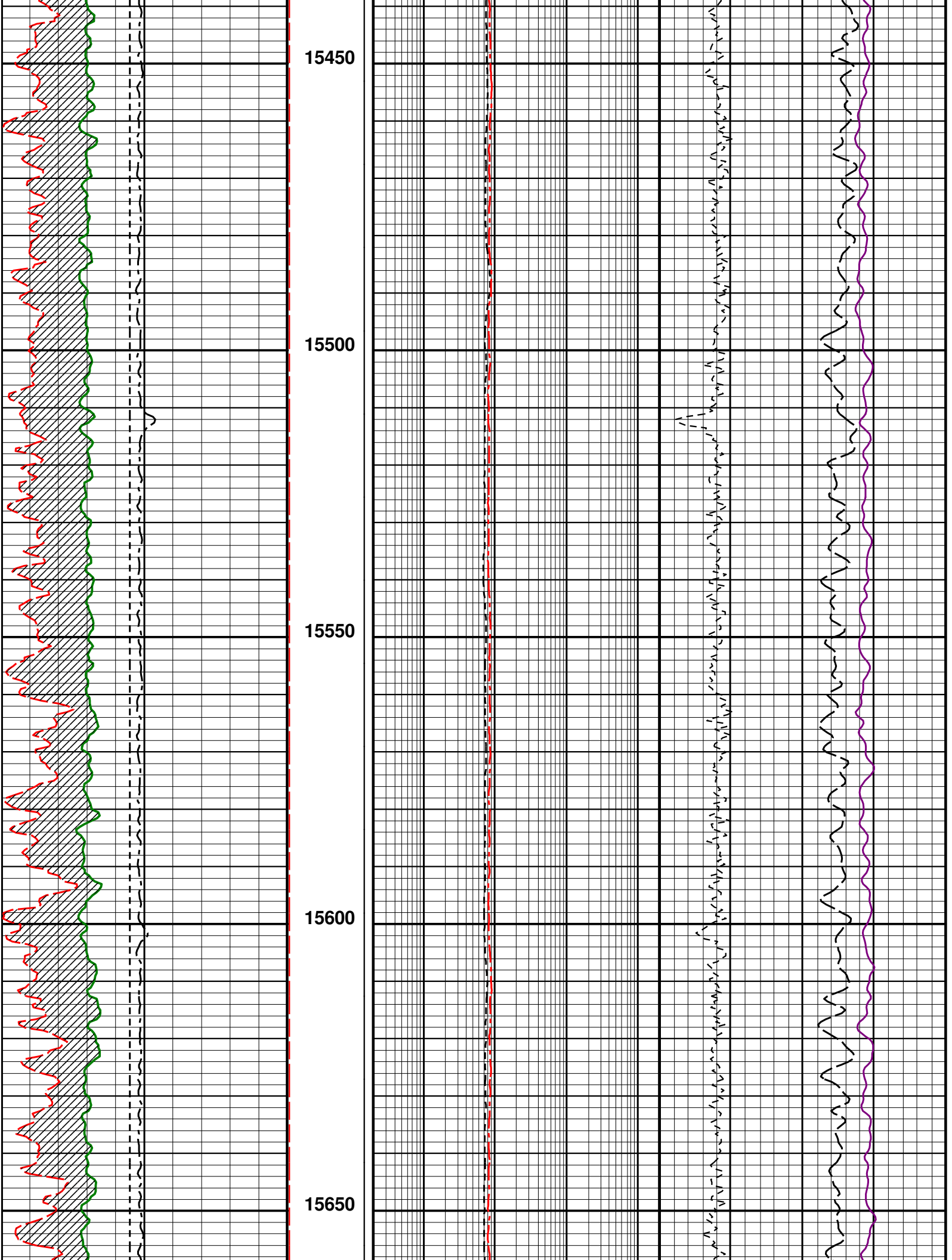


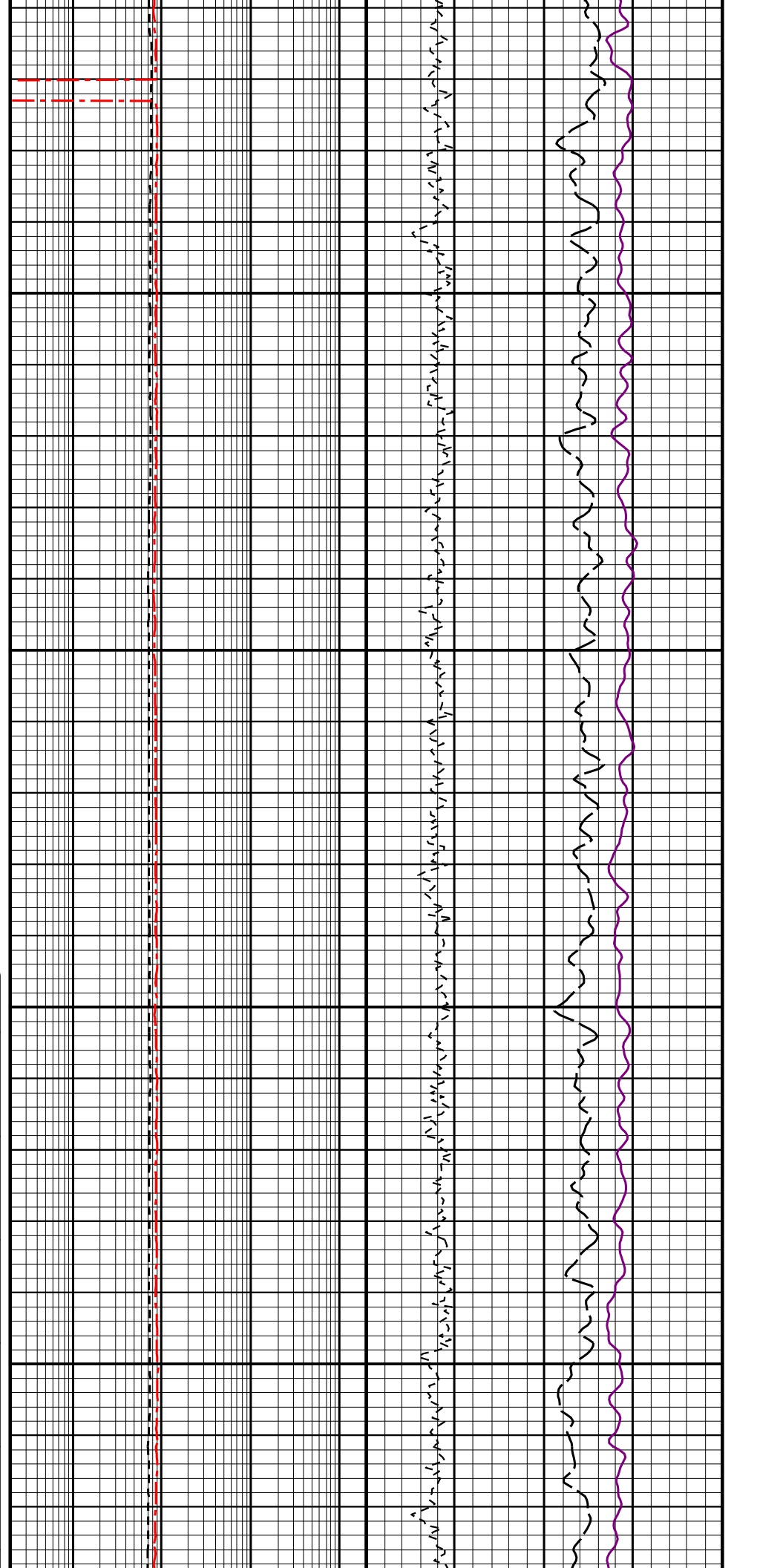
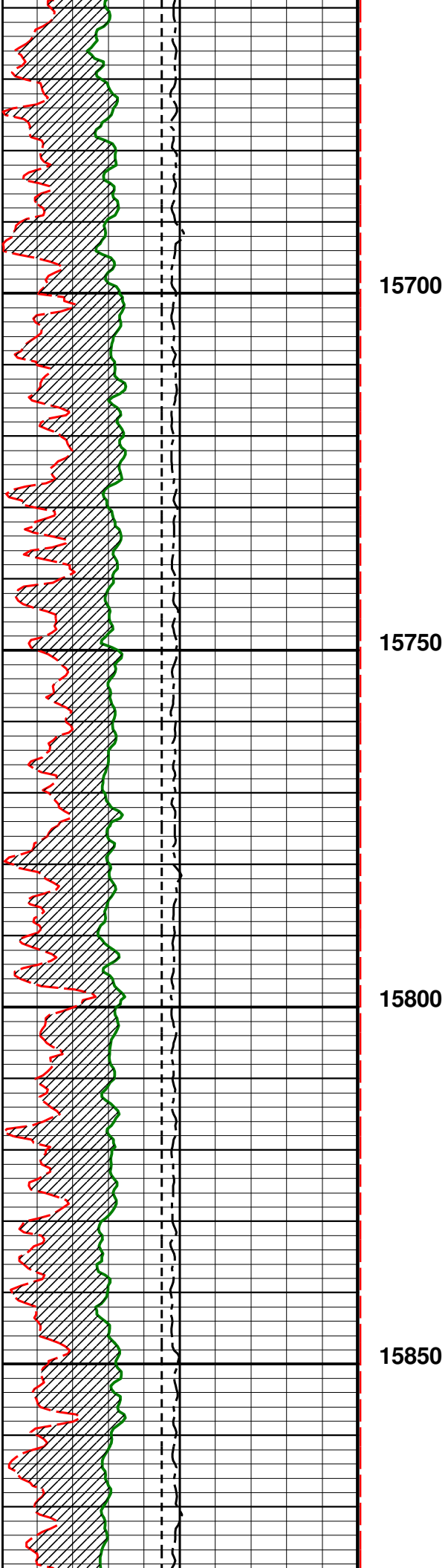


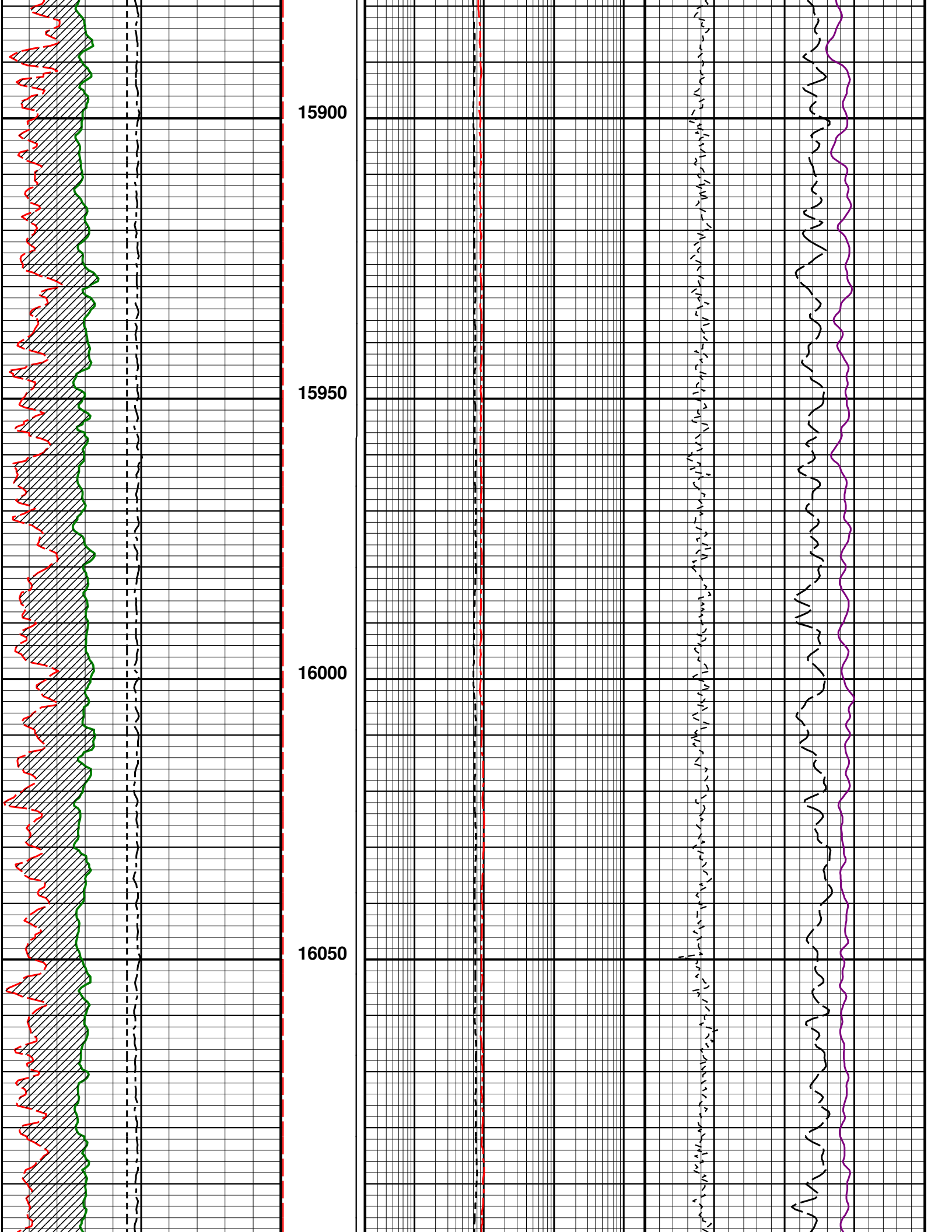


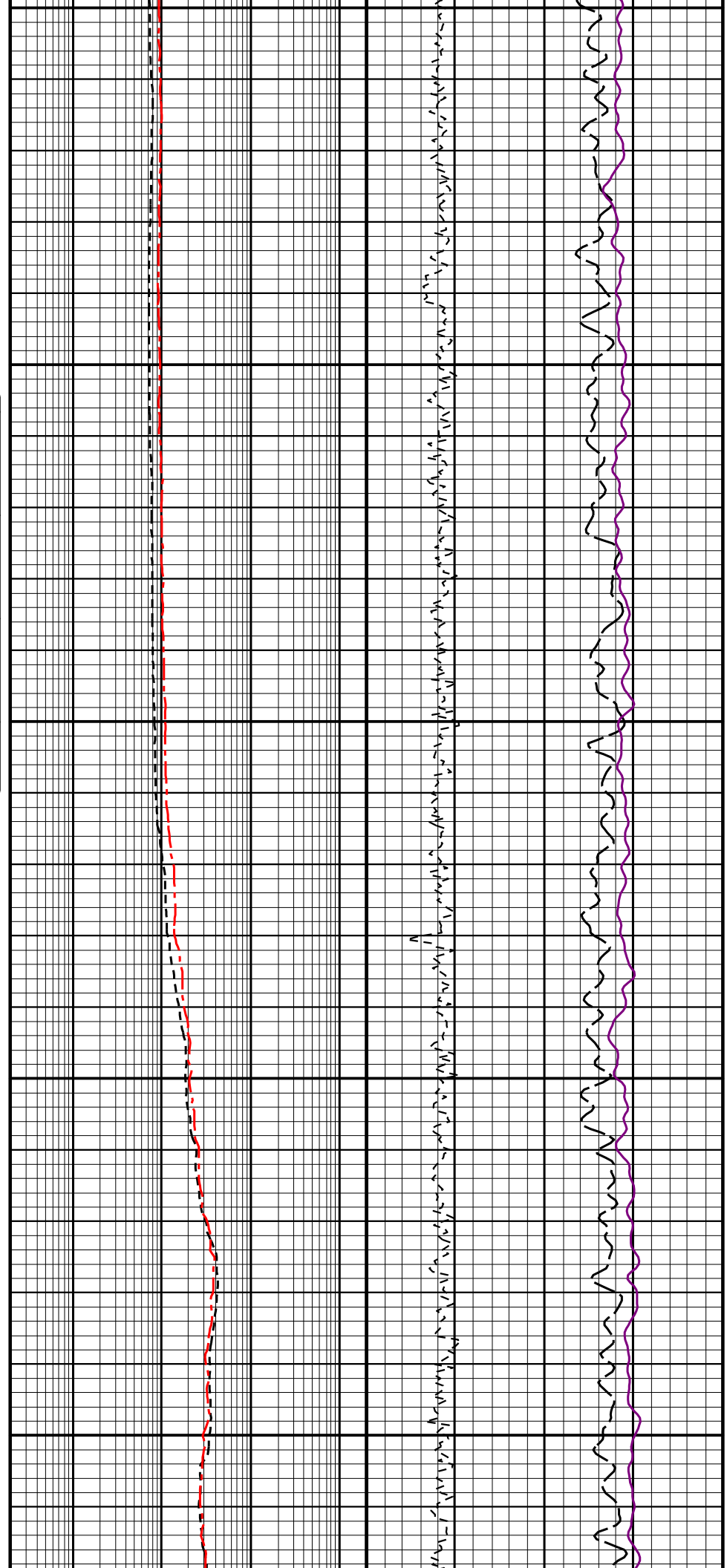
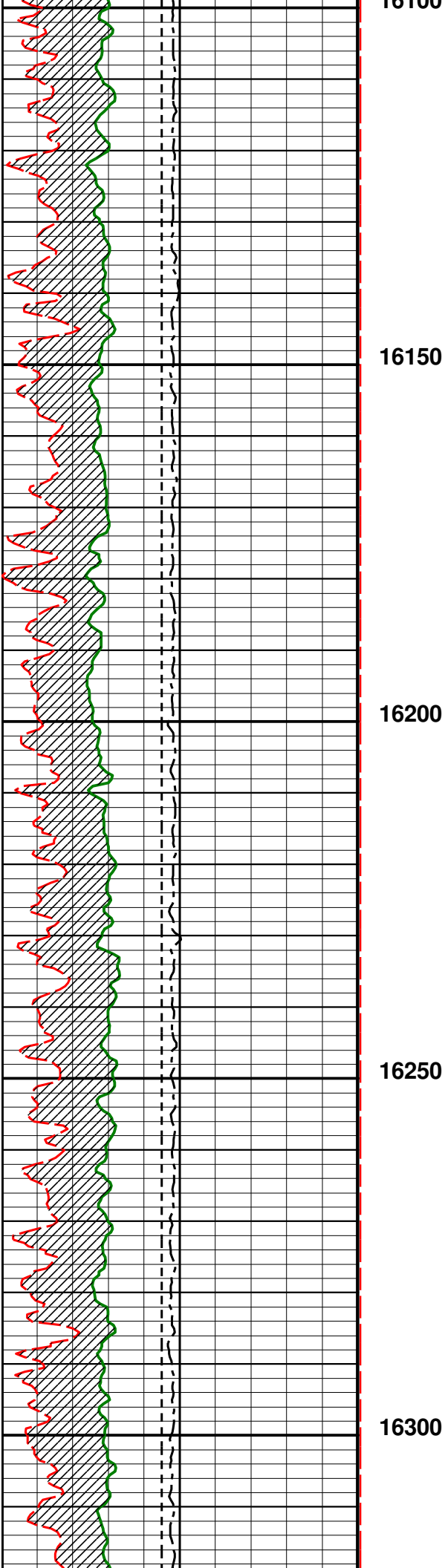


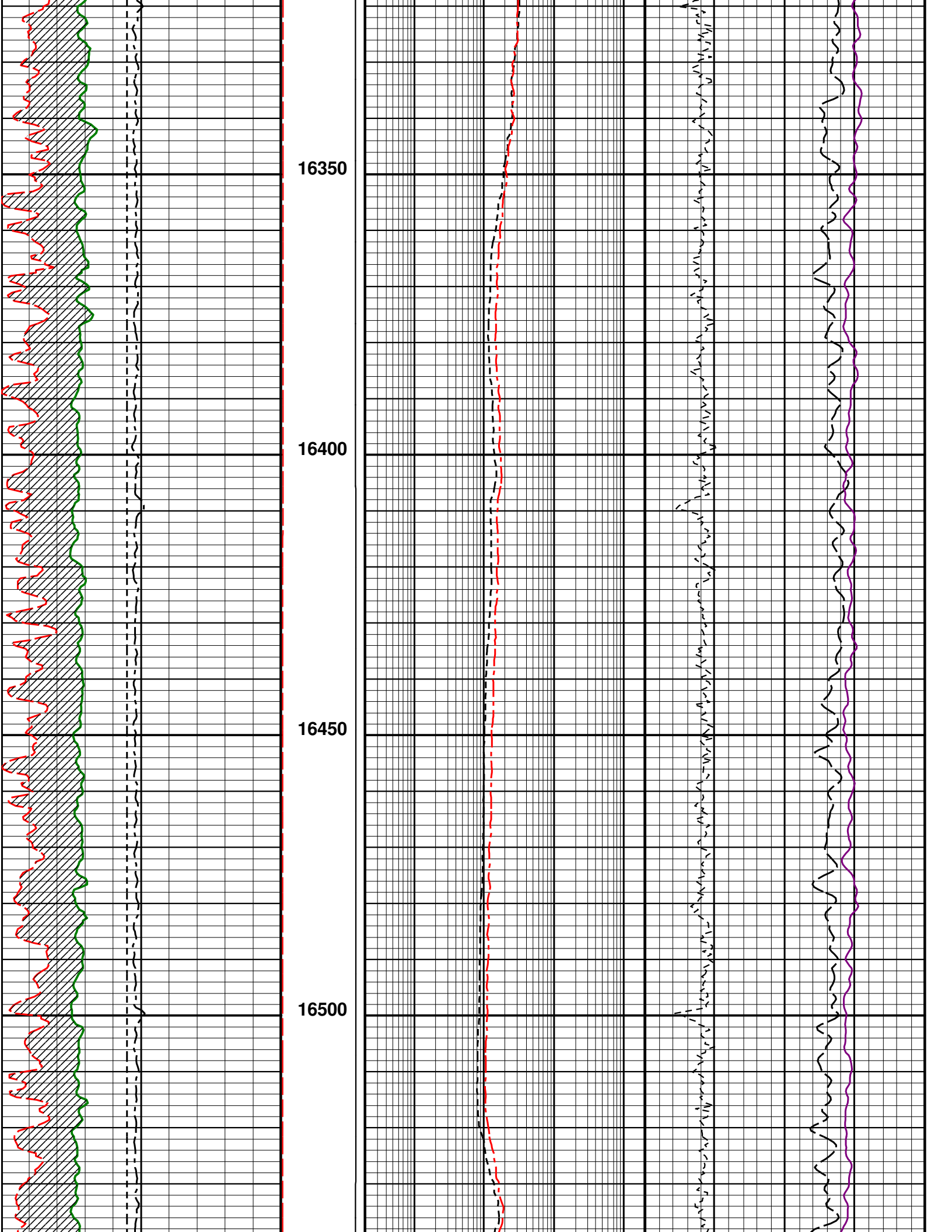


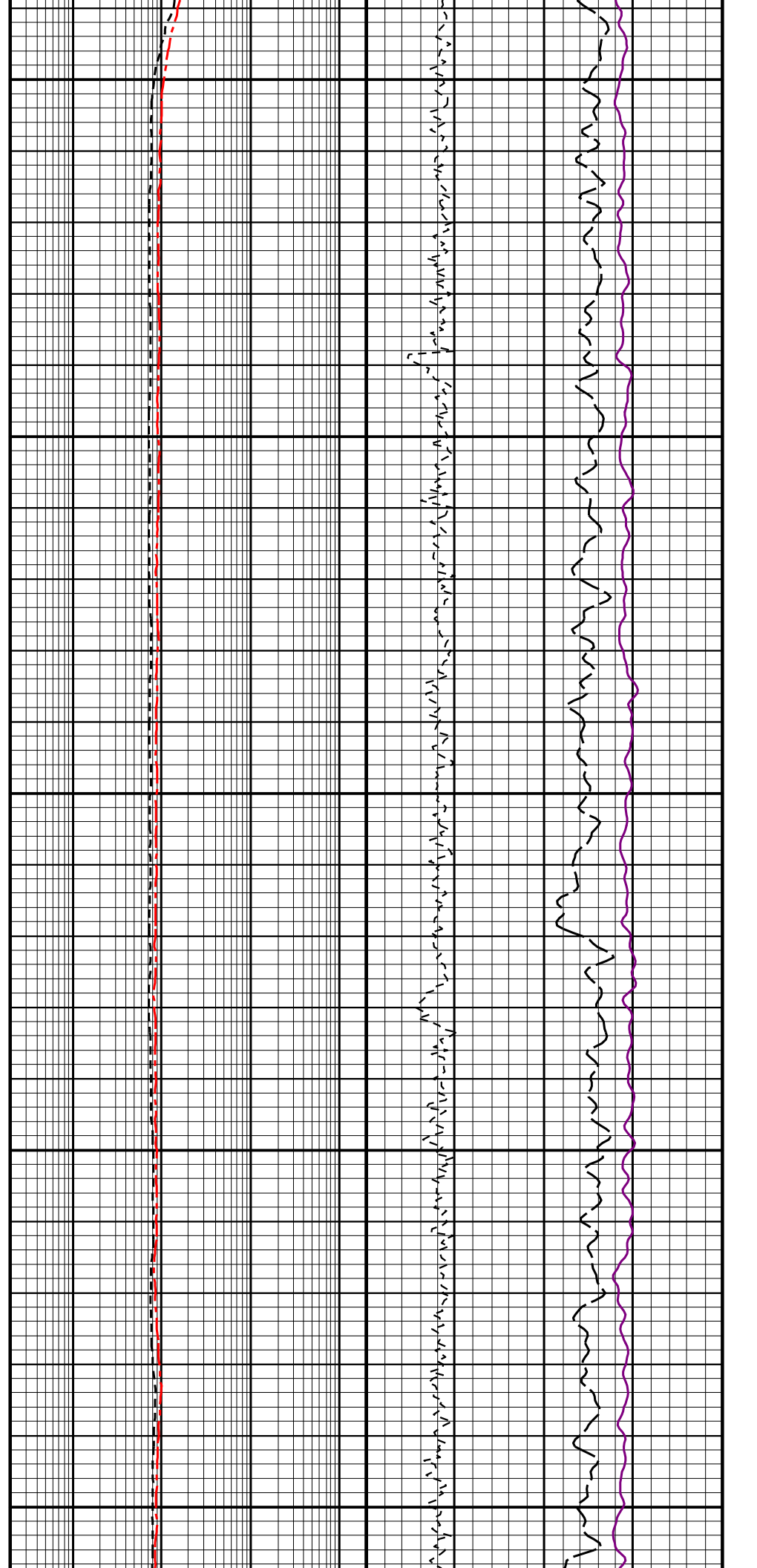
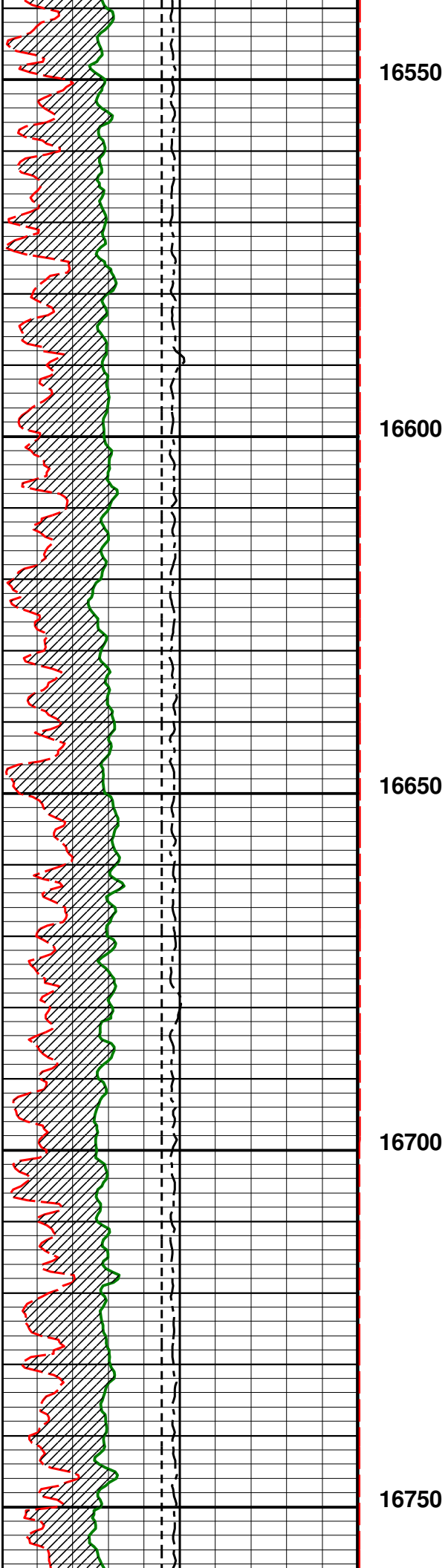


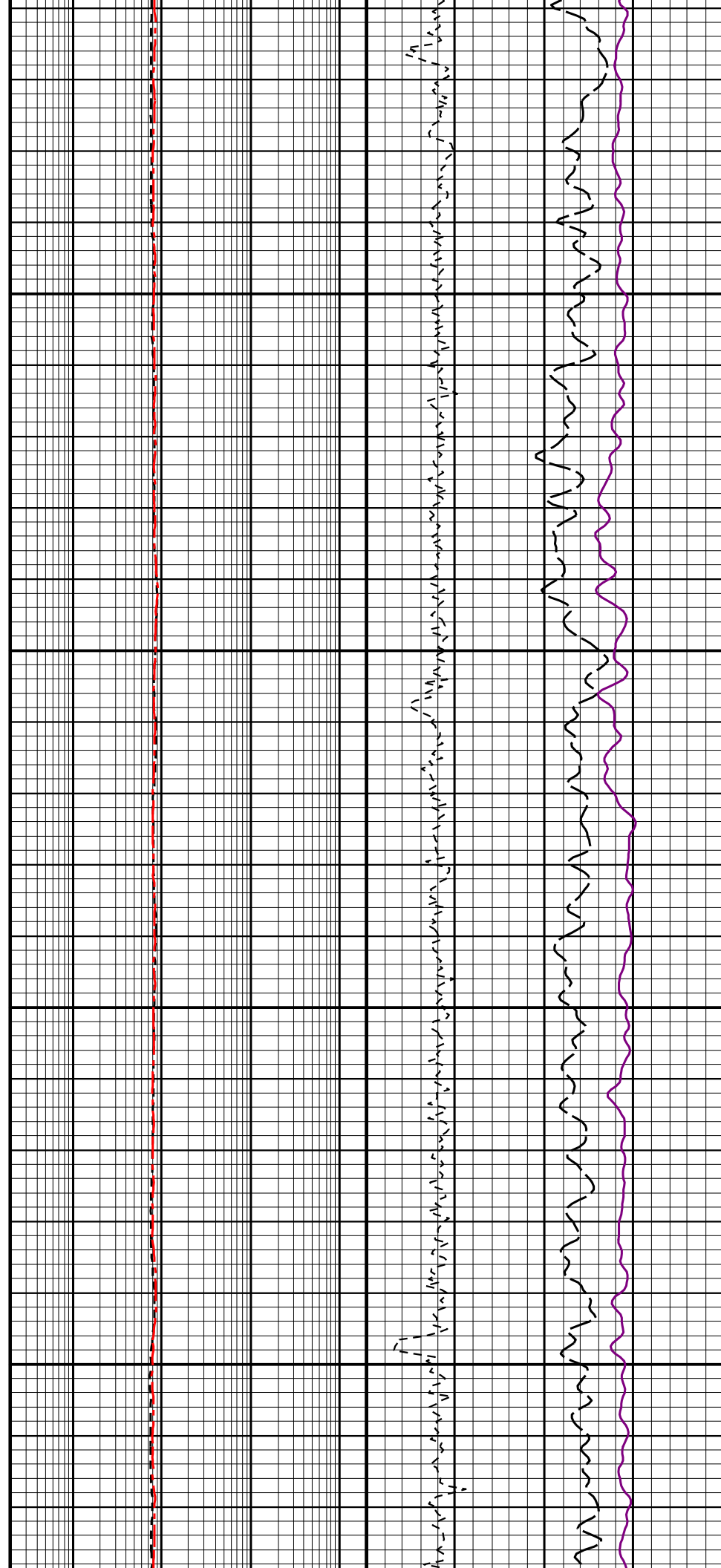
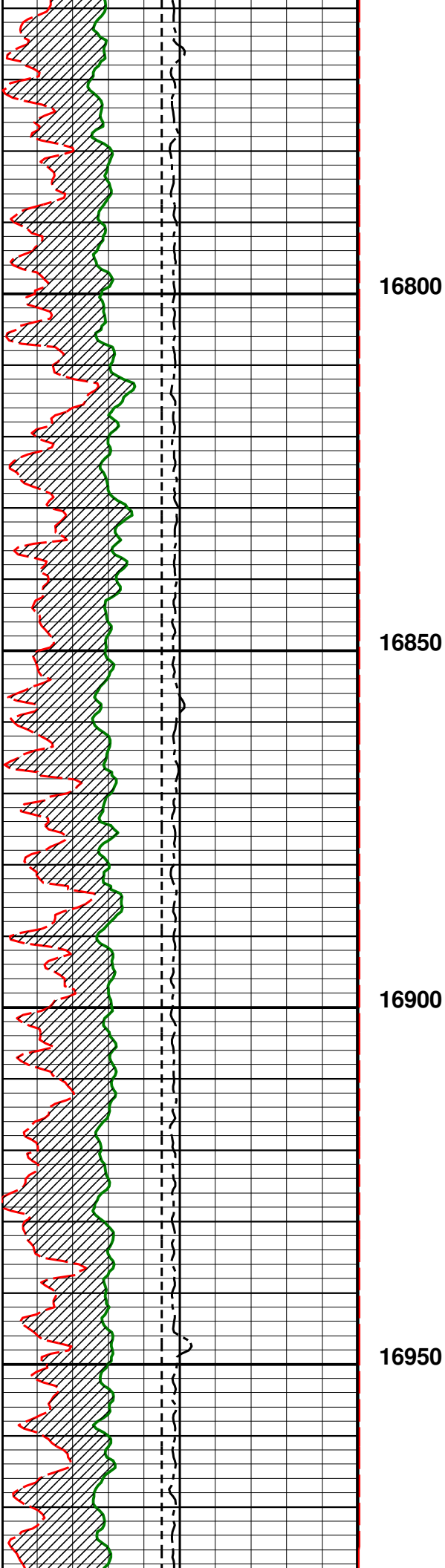


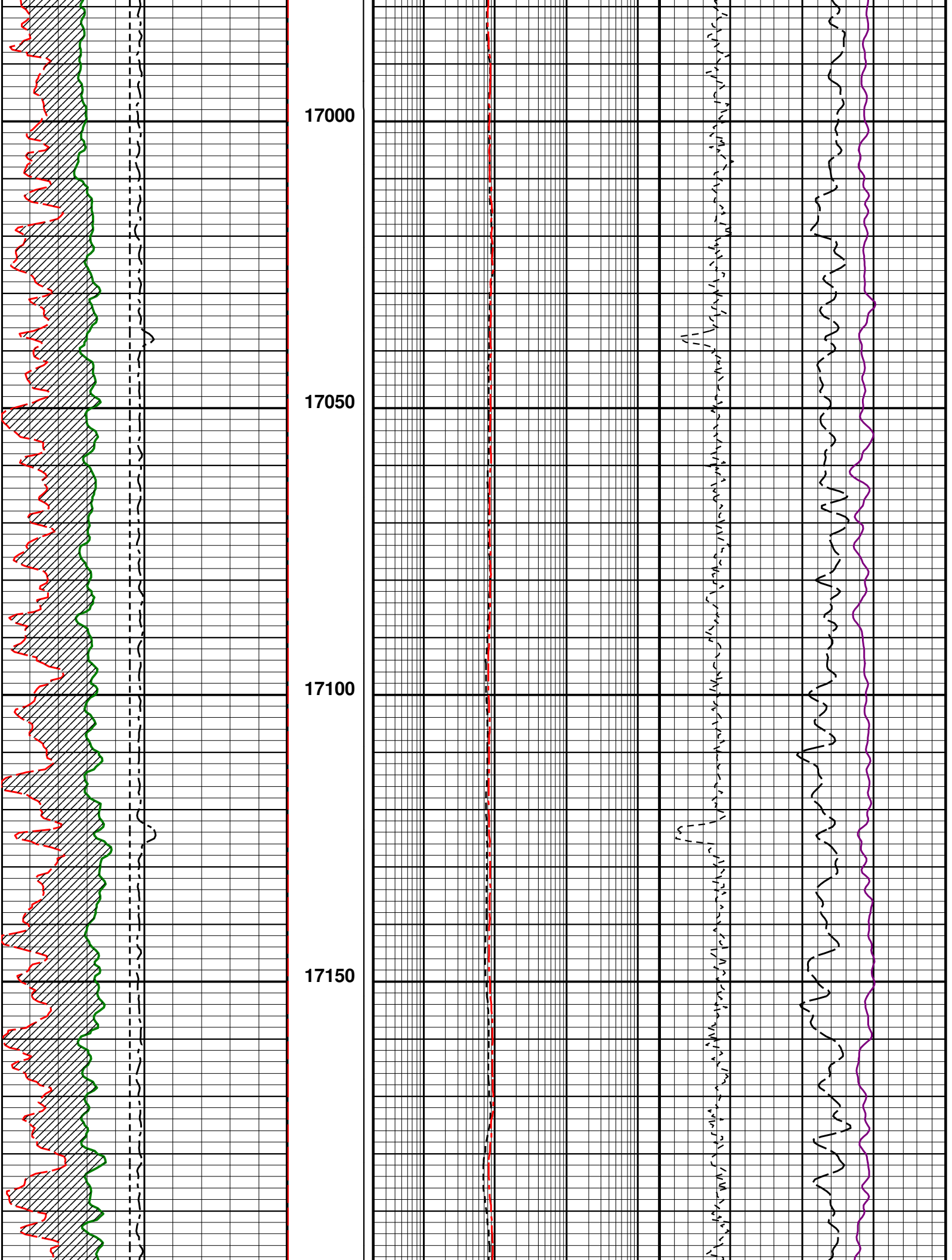


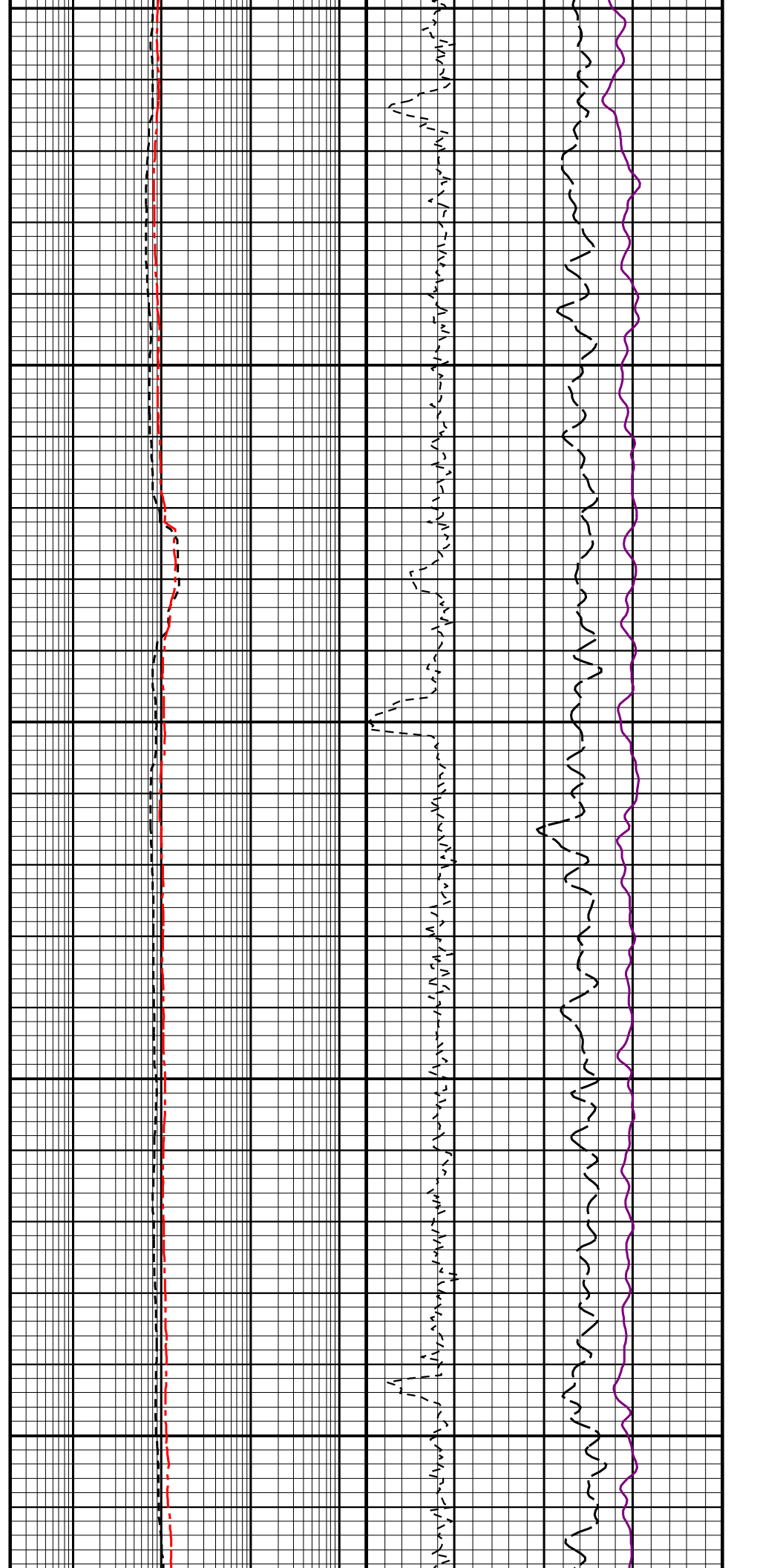
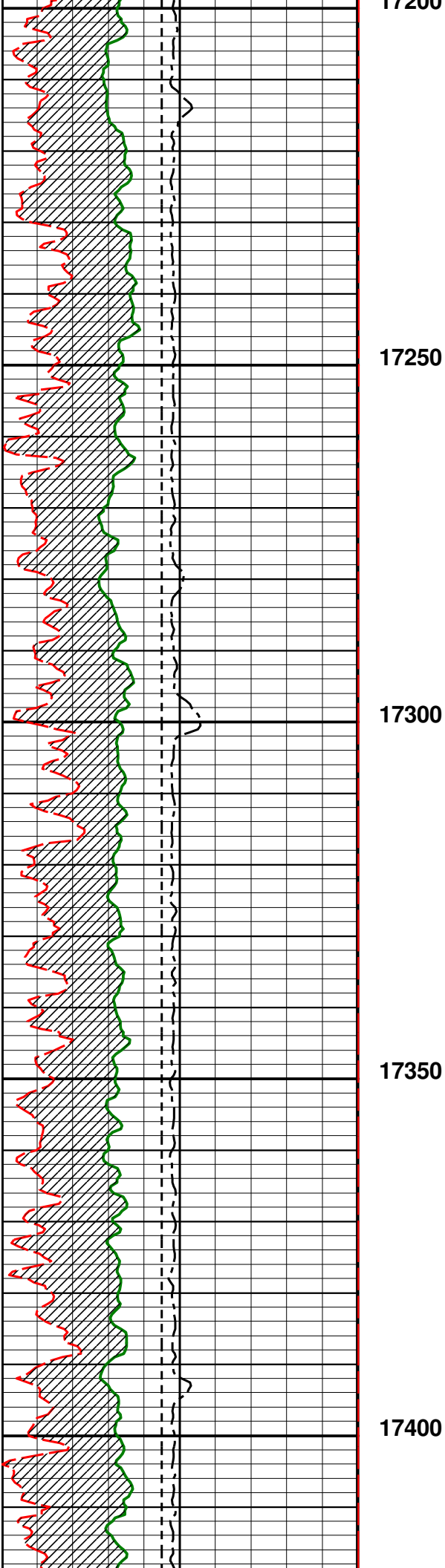


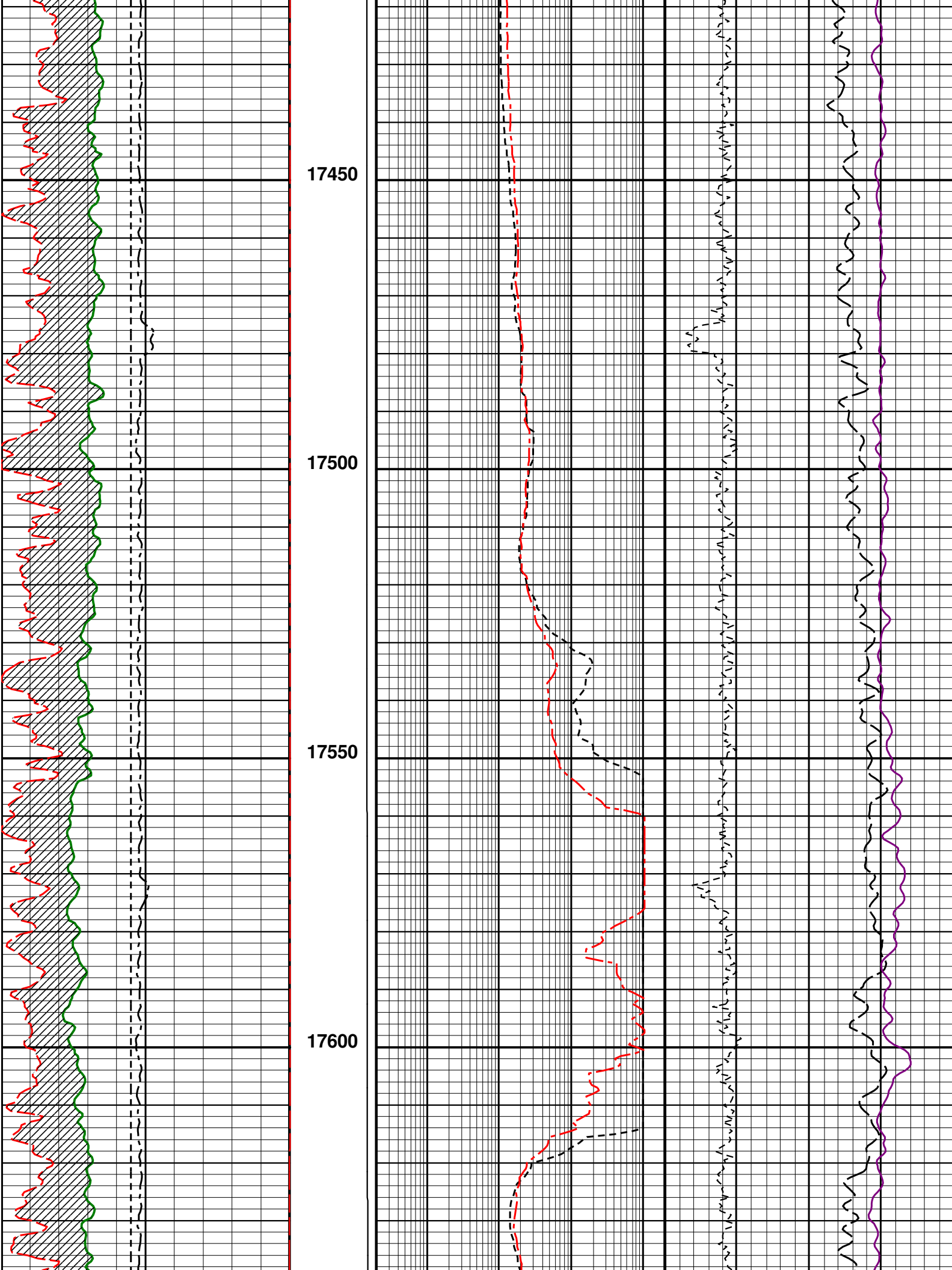


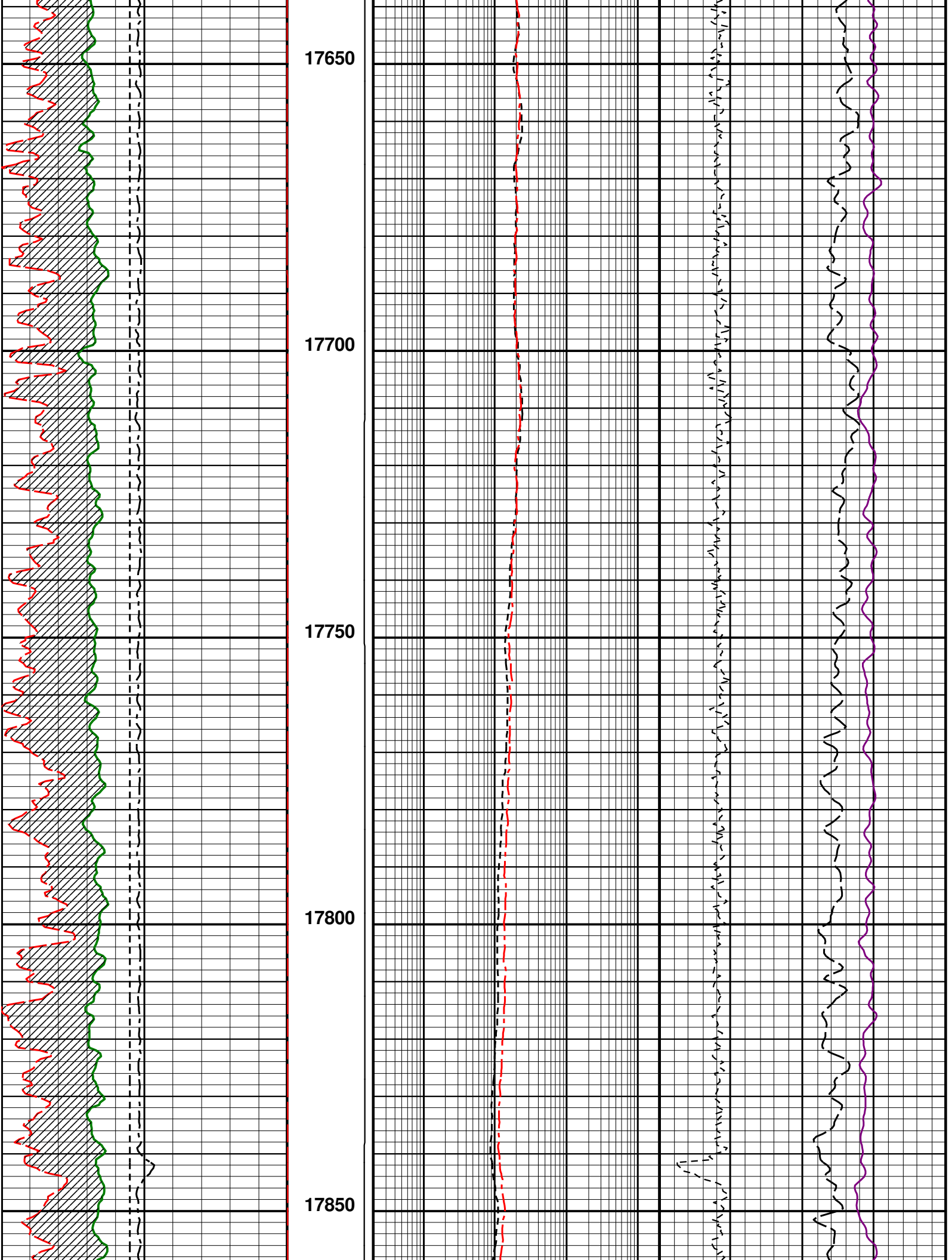


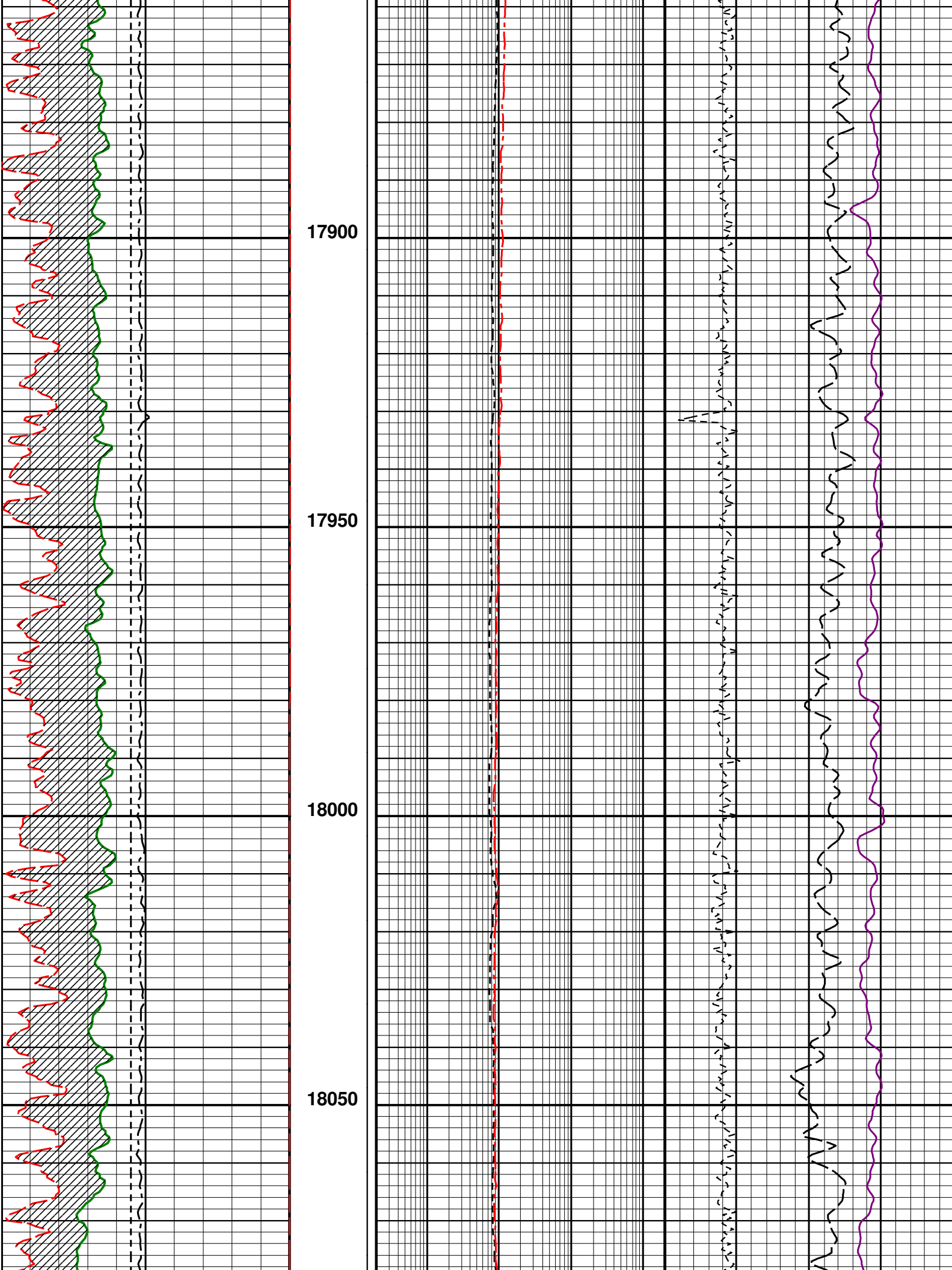


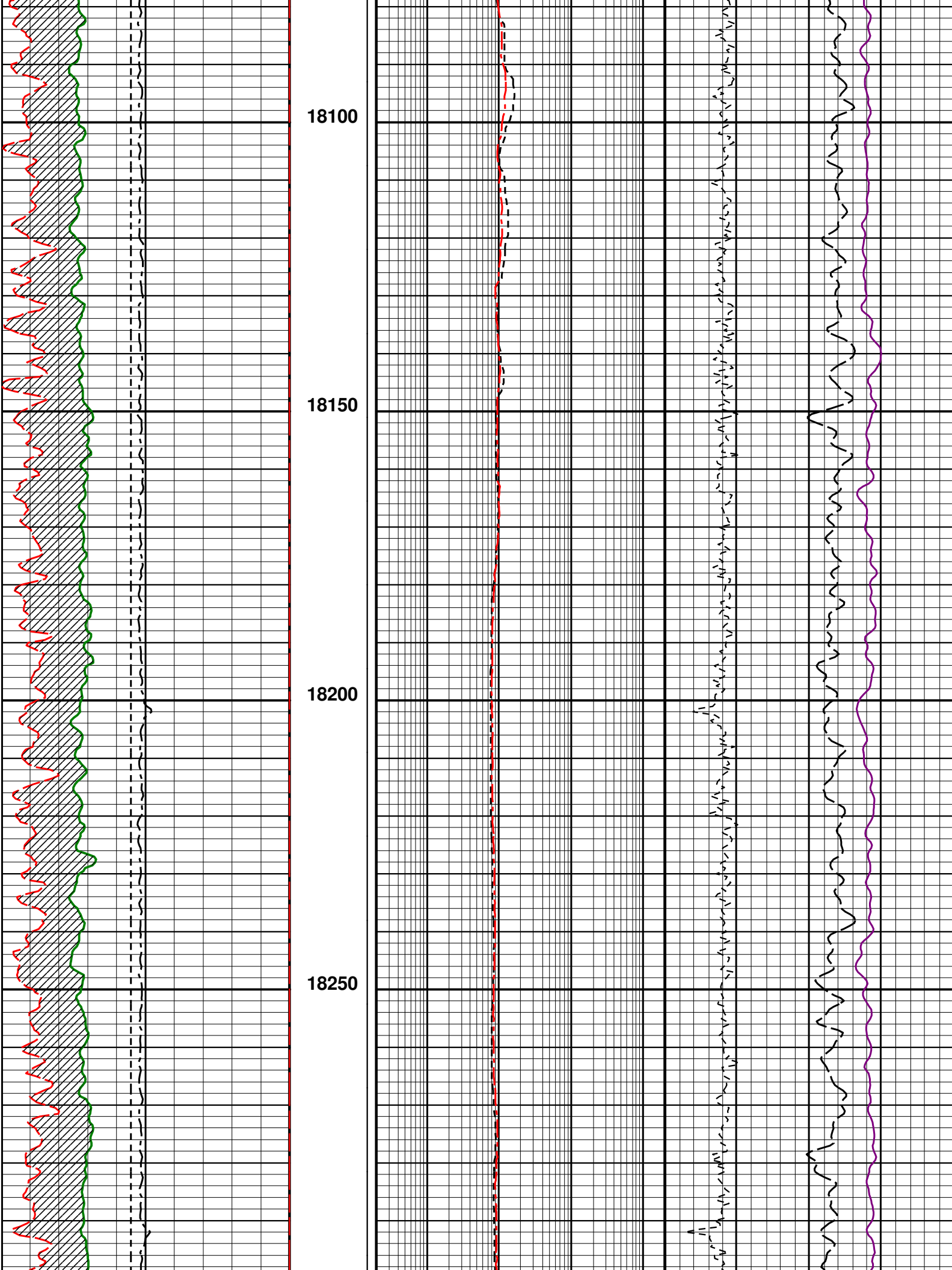


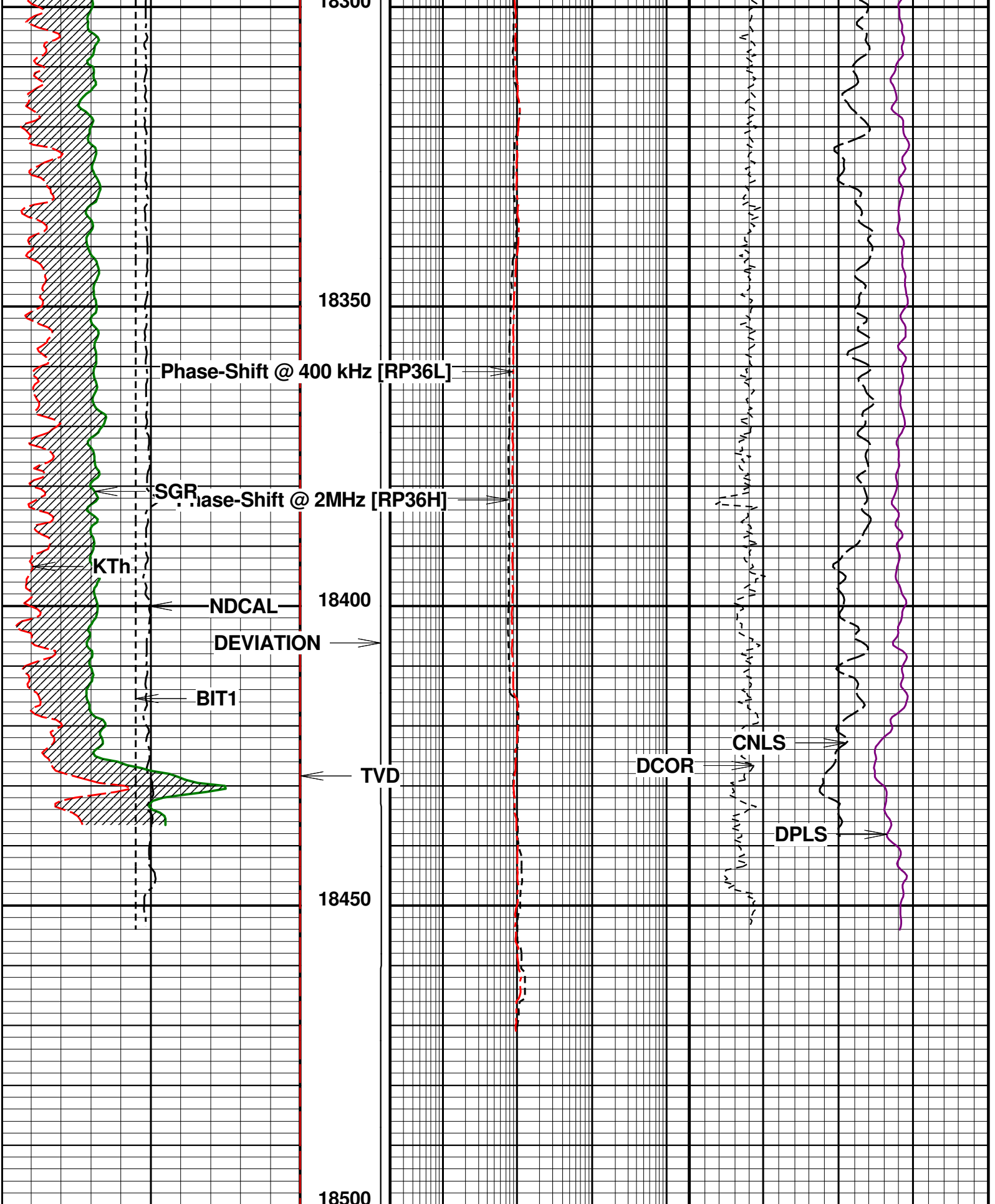




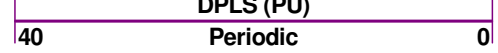
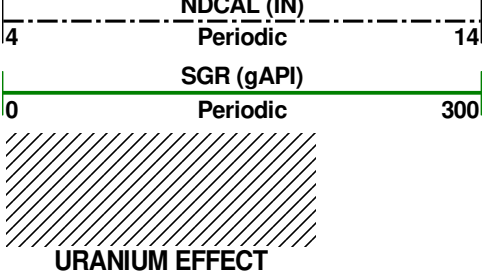








4	BIT1 (IN)	DEVIATION (DEG)	Phase-Shift @ 2MHz [RP36H] (OHMM)	CNLS (NONE)	0
Periodic	140	1000.2	2000.040	Periodic	
0	KTh (gAPI)	TVD (FT)	Phase-Shift @ 400 kHz [RP36L] (OHMM)	DCOR (G/C3)	0.20
Periodic	3008010	7060	2000.0	-0.05	Periodic



File :

Tool name : **Density**

Asset : **004**

Series : **1481**

Source ID :

Density

Density Calibration

Time Jan / 11 / 2019 18:42:37

Setup

Description 1481004_79967B_2019JAN11_JB

Setup Version 00046

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
LSDensity	1	0.245686	1.71 g/c3	Concrete Block	31.421570	-6.010
MSDensity	1	0.210846	1.71 g/c3	Concrete Block	74.408160	-13.979
SSDensity	1	0.240213	1.71 g/c3	Concrete Block	129.074300	-29.295
LSDensity	2	0.277193	2.7 g/c3	Aluminum Block		
MSDensity	2	0.224151	2.7 g/c3	Aluminum Block		
SSDensity	2	0.247883	2.7 g/c3	Aluminum Block		

File :

Tool name : **Dual Neutron**

Asset : **016**

Series : **1473**

Source ID :

Gamma

Gamma Calibration

Time Jan / 11 / 2019 17:03:47

Setup

Description GR1473016_1619-93_2019JAN11_JS

Setup Version 00046

Block	Raw Value	User Value	Device	Device SN	Mult.
Background	41.6892				
Jig ON	347.881				
Gamma	306.1918	274.9996 gAPI	Gamma Ray Jig	1513-95	0.8981284

287 325

Gamma Primary Verification

Time Jan / 11 / 2019 17:13:27

Setup

Description GR1473016_1619-93_2019JAN11_JS

Setup Version 00046

Block	Device	Device SN	Raw Value	User Value
Background			41.6264	
Jig ON	Gamma Ray Ji	1619-93	325.822	

Gamma

255.245 gAPI

244.5 255.5

Tool name : **Dual Neutron**Asset : **016**Series : **1473**

Source ID :

Ratio**Compensated Neutron Calibration**

Time Jan / 11 / 2019 17:29:08

Setup

Description 1473016_77812_2019JAN11_JS

Setup Version 00046

Curve Name	pt	Raw Value	User Value	Device	Mult.
Ratio	1	16.8149	17 none	Neutron Ratio	1.011008

16.15 17.85

Compensated Neutron Primary Verification

Time Jan / 11 / 2019 17:32:04

Setup

Description 1473016_77812_2019JAN11_JS

Setup Version 00046

Curve Name	pt	Device	Device Value	User Value
CN	1	Neutron Porosity	23 pu	24.2168 pu

21.16 24.84

0913 Telemetry3102

Identifier : 0913
Asset Number : 017
Length : 4.003 ft
Diameter : 1.7 inch
Weight : 14.6 lbs
Measure Point : 0.000 ft : State

State 21.74 ft

1460 Spectrum Gamma

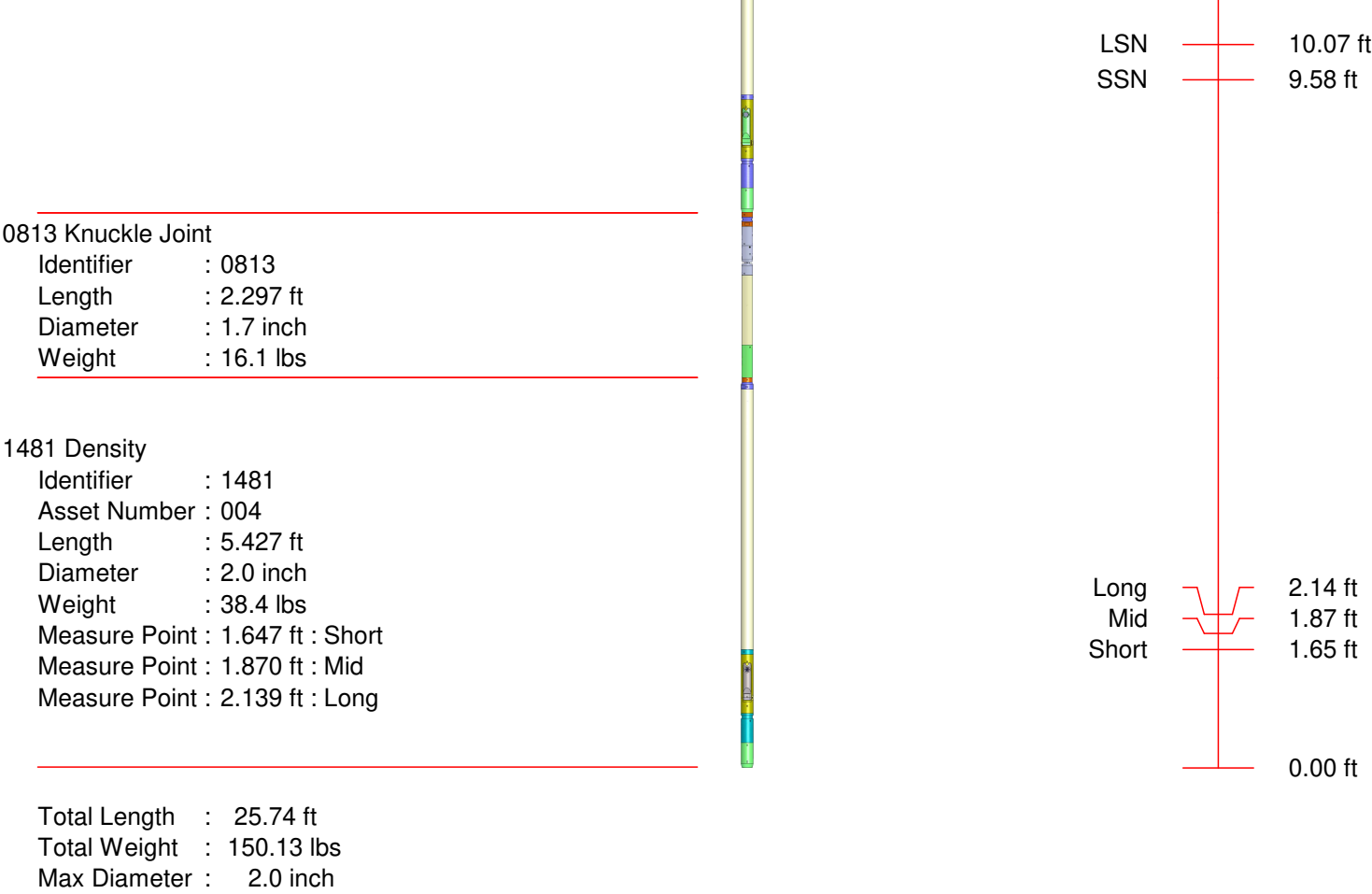
Identifier : 1460
Asset Number : 019
Length : 3.950 ft
Diameter : 2.0 inch
Weight : 22.7 lbs
Measure Point : 1.247 ft : Spectrum


Spectrum 19.04 ft

GR 17.11 ft

1473 Dual Neutron

Identifier : 1473
Asset Number : 016
Length : 10.069 ft
Diameter : 2.0 inch
Weight : 58.4 lbs
Measure Point : 1.854 ft : SSN
Measure Point : 2.343 ft : LSN
Measure Point : 9.383 ft : GR



	<div>COMPANY: GREAT WESTERN OPERATING COMPANY LLC.</div> <div>WELL: B-FARM LD 18-392HC</div> <div>FIELD: WATTENBERG</div> <div>COUNTY: ADAMS</div> <div>STATE: COLORADO</div>
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