

Company: Woodside Energy Ltd

Well: Somerset-1
Field: T34P
Rig Name: Ocean Patriot
State: Tasmania
Country: Australia

Latitude: 39° 20' 36.76" S

Longitude: 142° 44' 56.14" E

Block: n.a

UWID: n.a

Rig Name: Ocean Patriot

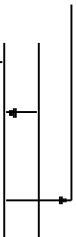
Rig Type: Semi-Submersible

FL: Otway Basin

FL1:

FL2:

Log Measured From - Drill Floor: 21.5 m
Reference Datum - Mean Sea Level
Permanent Datum - Least Astronomic Tide: 0.6 m



Ground Level: 503.0 m

Acquisition Dates:

24 Oct 09

Other Services:

Print Interval:

1275.0(m) to 2569.0(m)

Directional Surveys

Index Types:

Measured Depth

Shock and Vibrations

Index Scales:

1:200

Annulus Temperature and Pressure

Depth Source:

Driller's Depth

Depth Sensor:

DES

Conveyance:

Drill Pipe

Print Type:

Field

Spud Date:

19-Oct-2009

Disclaimer

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Survey Record

Survey Calculation			
Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	Grid North	Total Correction Formula :	Magnetic Dec - Grid Convergence
Grid Convergence :	-1.11 deg		

Rig Location			
Latitude :	39° 20' 36.76" S	Longitude :	142° 44' 56.14" E

Tie In Point					
Measured Depth:	0.00 m	Inclination:	0.00 deg	Azimuth:	0.00 deg
True Vertical Depth:	0.00 m	North Displacement:	0.00 m	East Displacement:	0.00 m
N/-S VSec Origin:	0.00 m	E/-W VSec Origin:	0.00 m	Vertical Section Azimuth:	0.00 deg

D&I Inits Computed and Values Used - Run 1			
Geomagnetic Model :	BGGM 2009	Geomagnetic Date :	20-Oct-2009
Computed Location B :	61074.75 nT +/- 300.00nT	Used Location B :	61074.75 nT +/- 300.00nT
Computed Location G :	999.45 mgn +/- 2.50mgn	Used Location G :	999.45 mgn +/- 2.50mgn
Computed Magnetic Dip :	-70.38 deg +/- 0.45deg	Used Magnetic Dip :	-70.38 deg +/- 0.45deg
Computed Magnetic Dec :	11.03 deg	Used Magnetic Dec :	11.03 deg
Computed Total Correction :	12.14 deg	Used Total Correction :	12.14 deg

D&I Inits Computed and Values Used - Run 2			
Geomagnetic Model :	BGGM 2009	Geomagnetic Date :	24-Oct-2009
Computed Location B :	61074.62 nT +/- 300.00nT	Used Location B :	61074.62 nT +/- 300.00nT
Computed Location G :	999.45 mgn +/- 2.50mgn	Used Location G :	999.45 mgn +/- 2.50mgn
Computed Magnetic Dip :	-70.38 deg +/- 0.45deg	Used Magnetic Dip :	-70.38 deg +/- 0.45deg
Computed Magnetic Dec :	11.03 deg	Used Magnetic Dec :	11.03 deg
Computed Total Correction :	12.14 deg	Used Total Correction :	12.14 deg

Survey Quality Index		
0 : Long, passed all criteria	2 : Long, failed mag criteria	10 : DMAG-Corrected

Survey Correction Index														
0 : No correction														

Seq	MD (m)	Incl (deg)	Azim (deg)	Course (m)	TVD (m)	V Sec (m)	N/ -S (m)	E/ -W (m)	Closure (m)	at Azi (deg)	DLS deg/30m	Tool Type	QI	CI
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP		
2	599.08	0.58	120.59	599.08	599.07	-1.54	-1.54	2.61	3.03	120.59	0.03	Manual	10	
3	684.35	0.43	120.90	85.27	684.34	-1.93	-1.93	3.26	3.78	120.62	0.05	Manual	10	
4	713.04	0.53	133.63	28.69	713.03	-2.07	-2.07	3.44	4.02	121.05	0.15	Manual	10	
5	972.34	0.91	95.08	259.30	972.31	-3.08	-3.08	6.36	7.07	115.85	0.07	Manual	10	
6	1001.37	0.91	84.18	29.03	1001.33	-3.08	-3.08	6.82	7.49	114.30	0.18	Manual	10	
7	1059.78	0.95	75.47	58.41	1059.73	-2.91	-2.91	7.75	8.28	110.59	0.08	Manual	10	
8	1090.08	0.78	51.04	30.30	1090.03	-2.72	-2.72	8.16	8.60	108.44	0.40	Manual	10	
9	1117.31	0.70	46.36	27.23	1117.26	-2.49	-2.49	8.42	8.78	106.46	0.11	Manual	10	
10	1203.66	0.94	59.46	86.35	1203.60	-1.76	-1.76	9.41	9.58	100.62	0.11	Manual	10	
11	1251.88	0.96	60.07	48.22	1251.81	-1.36	-1.36	10.10	10.19	97.68	0.01	Manual	10	

12	1395.50	0.44	87.23	143.62	1395.42	-0.73	-0.73	11.69	11.72	93.60	0.13	TeleScope	2	0
13	1423.48	0.35	95.19	27.98	1423.40	-0.74	-0.74	11.89	11.91	93.55	0.11	TeleScope	2	0
14	1450.69	0.32	100.66	27.21	1450.62	-0.76	-0.76	12.04	12.07	93.61	0.05	TeleScope	2	0
15	1739.63	0.22	152.34	288.93	1739.55	-1.39	-1.39	13.09	13.17	96.08	0.03	TeleScope	0	0
16	1855.31	0.00	12.14	115.68	1855.23	-1.59	-1.59	13.20	13.29	96.87	0.06	TeleScope	2	0
17	1885.00	0.43	189.27	29.69	1884.92	-1.70	-1.70	13.18	13.29	97.34	0.43	TeleScope	2	0
18	1933.81	0.33	335.46	48.81	1933.72	-1.75	-1.75	13.09	13.21	97.62	0.44	TeleScope	2	0
19	2029.52	0.80	194.45	95.72	2029.44	-2.15	-2.15	12.81	12.99	99.51	0.33	TeleScope	0	0
20	2086.65	0.81	197.53	57.12	2086.56	-2.91	-2.91	12.59	12.92	103.03	0.02	TeleScope	0	0
21	2201.88	0.95	192.05	115.24	2201.78	-4.63	-4.63	12.15	13.00	110.86	0.04	TeleScope	2	0
22	2288.48	0.99	182.79	86.60	2288.37	-6.08	-6.08	11.96	13.42	116.94	0.06	TeleScope	2	0
23	2316.76	1.04	183.07	28.27	2316.63	-6.58	-6.58	11.93	13.63	118.86	0.05	TeleScope	2	0
24	2345.02	1.11	183.92	28.26	2344.89	-7.10	-7.10	11.90	13.86	120.83	0.08	TeleScope	2	0
25	2374.64	1.29	186.60	29.62	2374.50	-7.72	-7.72	11.84	14.14	123.10	0.20	TeleScope	2	0
26	2403.54	1.34	188.03	28.90	2403.40	-8.38	-8.38	11.76	14.44	125.47	0.06	TeleScope	2	0
27	2518.96	1.53	189.94	115.42	2518.78	-11.23	-11.23	11.31	15.93	134.80	0.05	TeleScope	2	0
28	2546.16	1.43	187.93	27.20	2545.97	-11.92	-11.92	11.20	16.35	136.80	0.12	TeleScope	2	0

Run 2

Software Version

Acquisition System	Version
MaxWell	1.2.8706.0
Framework Patch	FWK-BGC-20090918-1.2.8706.1030
Application Patch	APL-BGC-DnM-1.2.8706.1021

Computation	Description	Version	
NEUTRON_PROC	Neutron Processing, ADN	1.2.8706.0	
ARC8GammaRayComput ation	ARC8 Gamma Ray Computation Package for both Real-time and Recorded Mode	1.2.8706.1021	
ARC8PressureComputatio	ARC8 Pressure Computation Package for both Real-time and Recorded Mode	1.2.8706.1021	
ARCResistivity	ARC Resistivity Computation Package for ARC Tool Family	1.2.8706.1021	
Tool Elements	Description	Software Version	Firmware Version
ARDC	ARC 8.25 Inch Tool Drilling Collar	1.2.8706.1021	
DRILLING_SURFACE	DRILLING_SURFACE	1.2.8706.1030	
ADNP	Azimuth Neutron Detector Package	1.2.8706.0	8.3

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Acquisition Start Date	Acquisition Start Time
Run 2	Drilling	Down	1274.72 m		24-Oct-2009	19:34:49

All depths are referenced to toolstring zero

Log

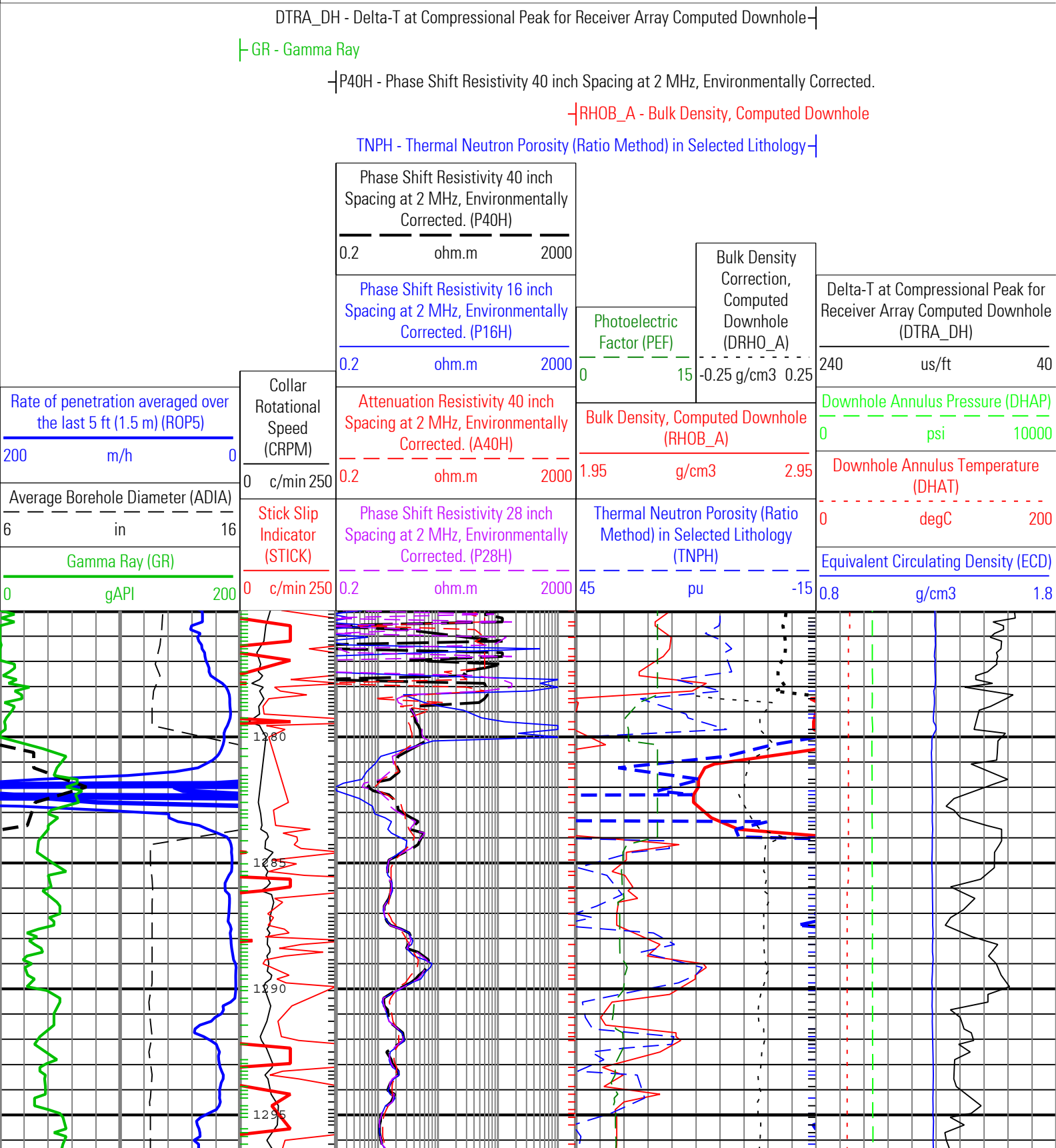
Run 2: Drilling E2100D83-971D-4474-8039-4856F35B64ED

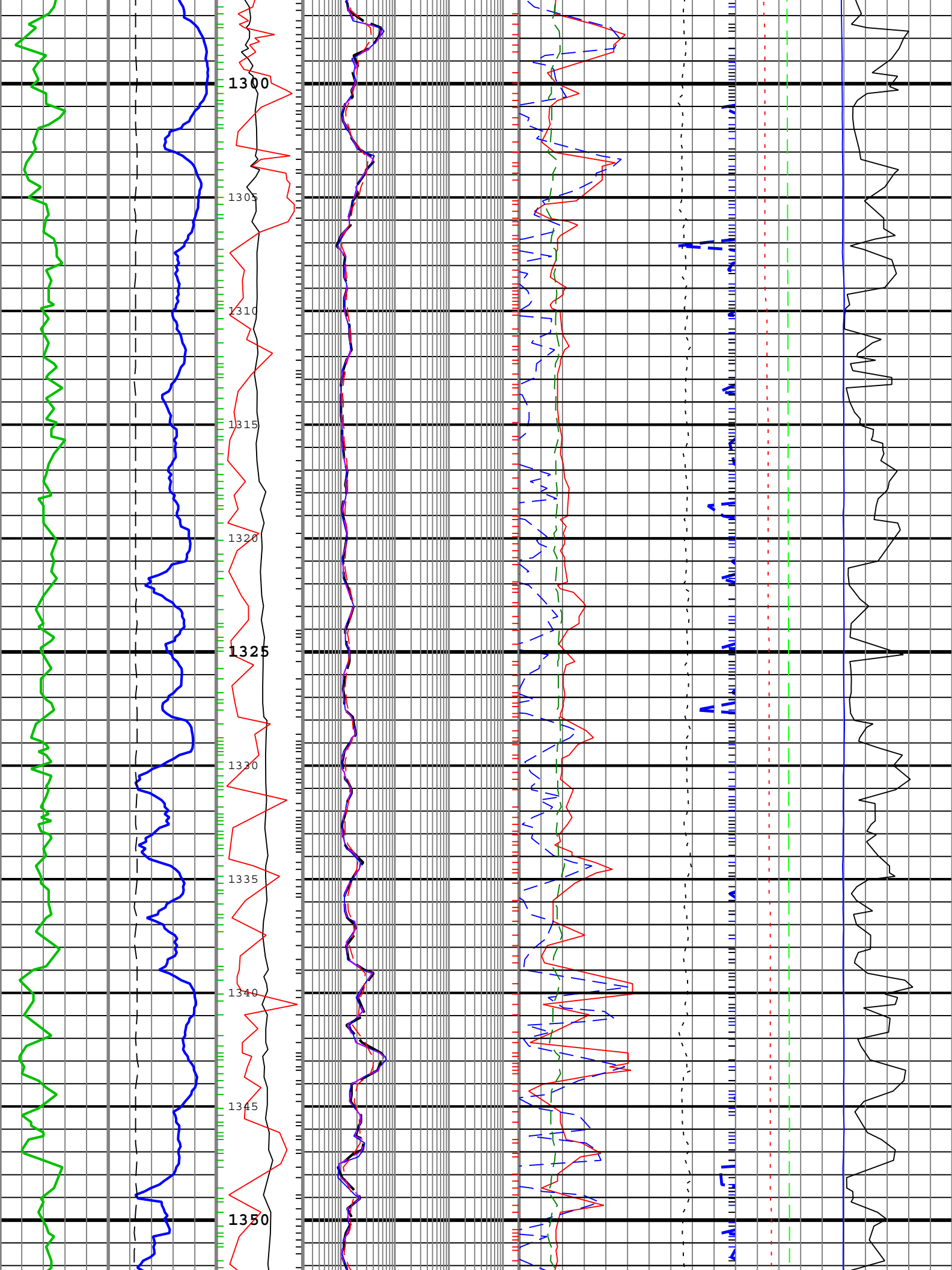
Description: ARC Dual Frequency 3-Log Resistivity Format: Log (RT Quad Combo - SADN8 Woodside) Index Scale: 1:200 Index Unit: m Index Type: Measured

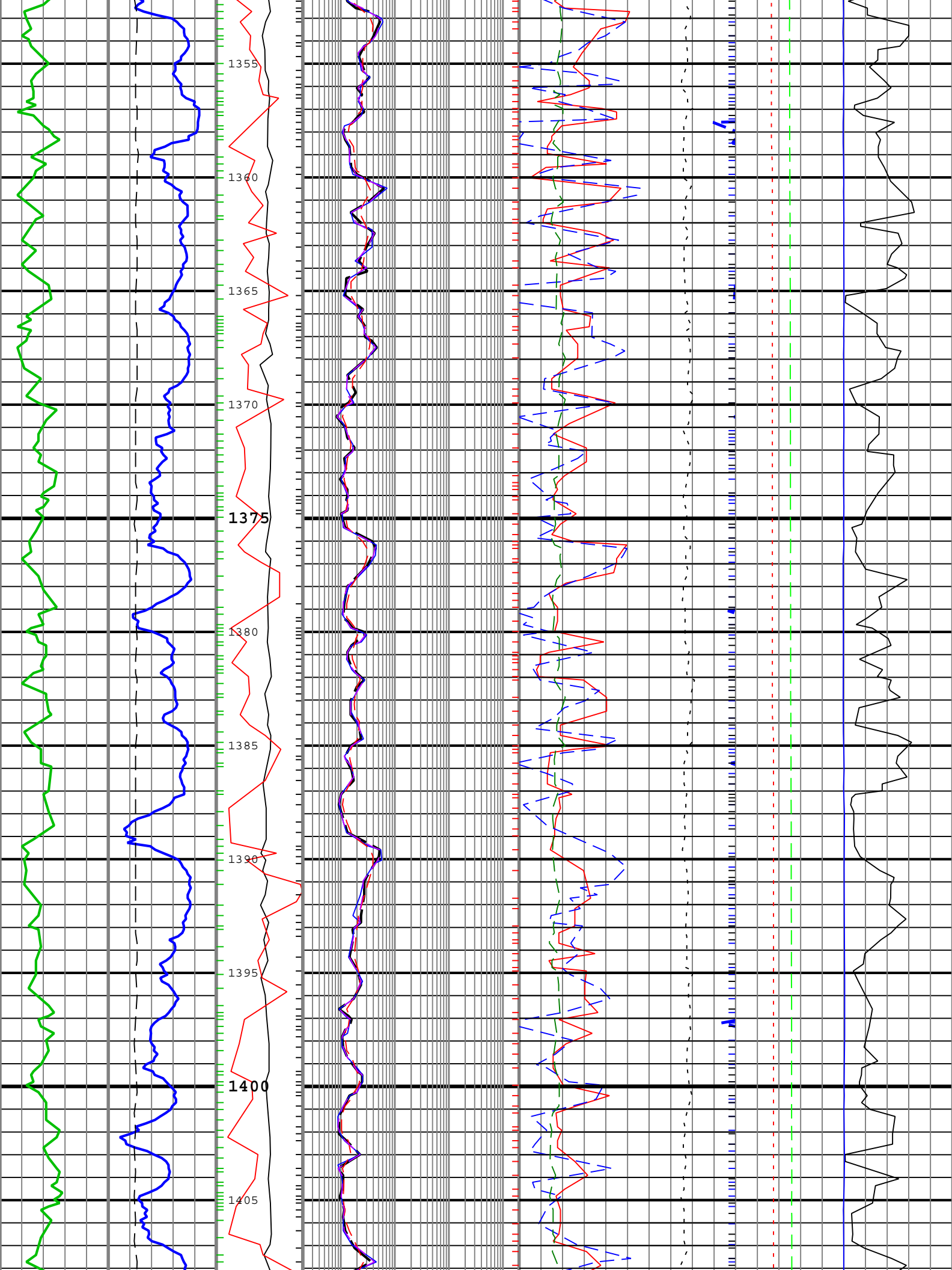
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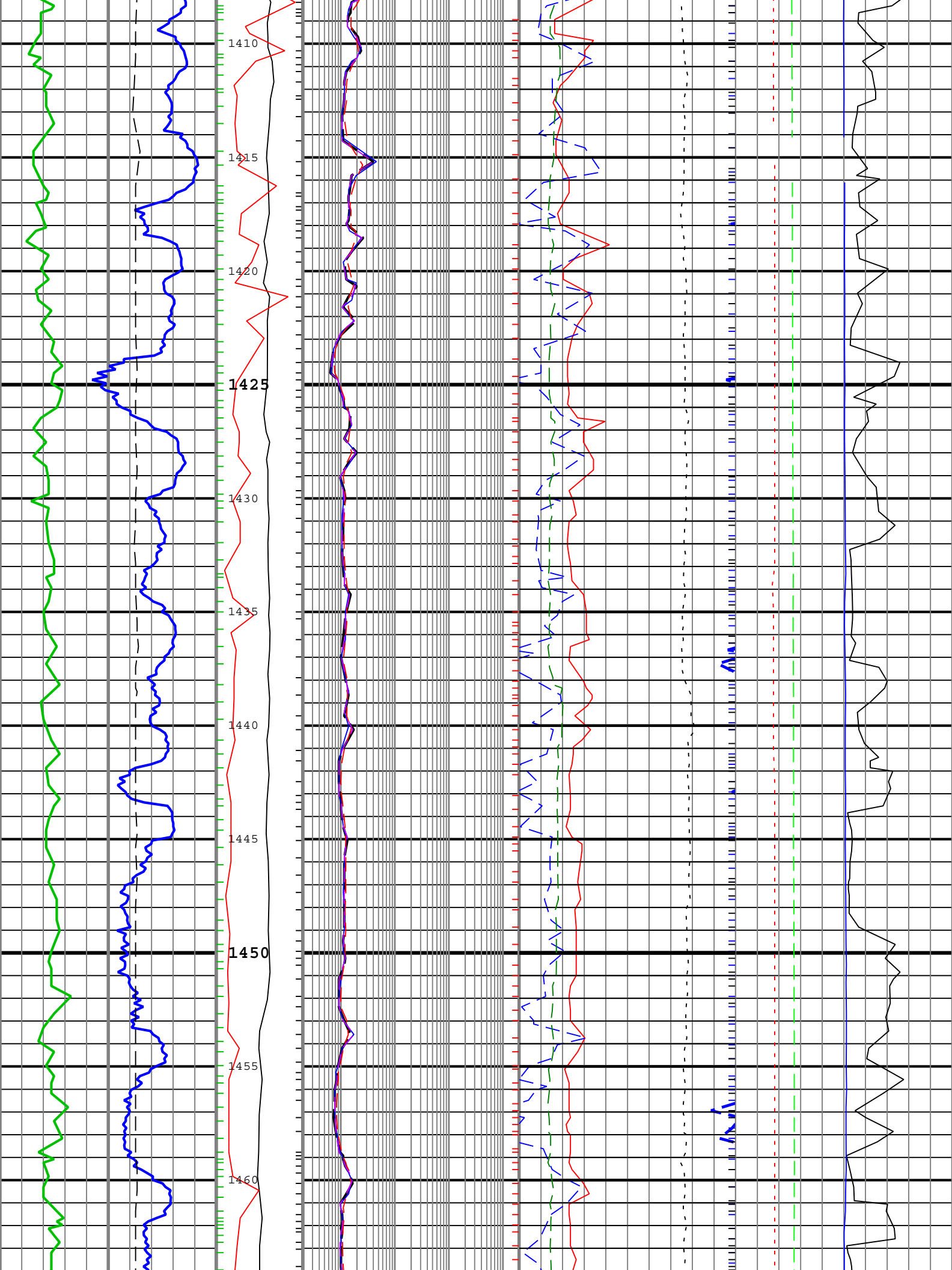
A40H	ARC8:ARC8:ARDC	6in - RT
ADIA	SADN8:SADN8	6in - RT
CRPM	TELE825:TELE825	6in - RT
DHAP	ARC8:ARC8	6in - RT
DHAT	ARC8:ARC8	6in - RT
DRHO_A	SADN8:SADN8	6in - RT
DTRA_DH	SONICVISION8:SONICVISION8	6in - RT
ECD	ARC8:ARC8:ARDC	6in - RT

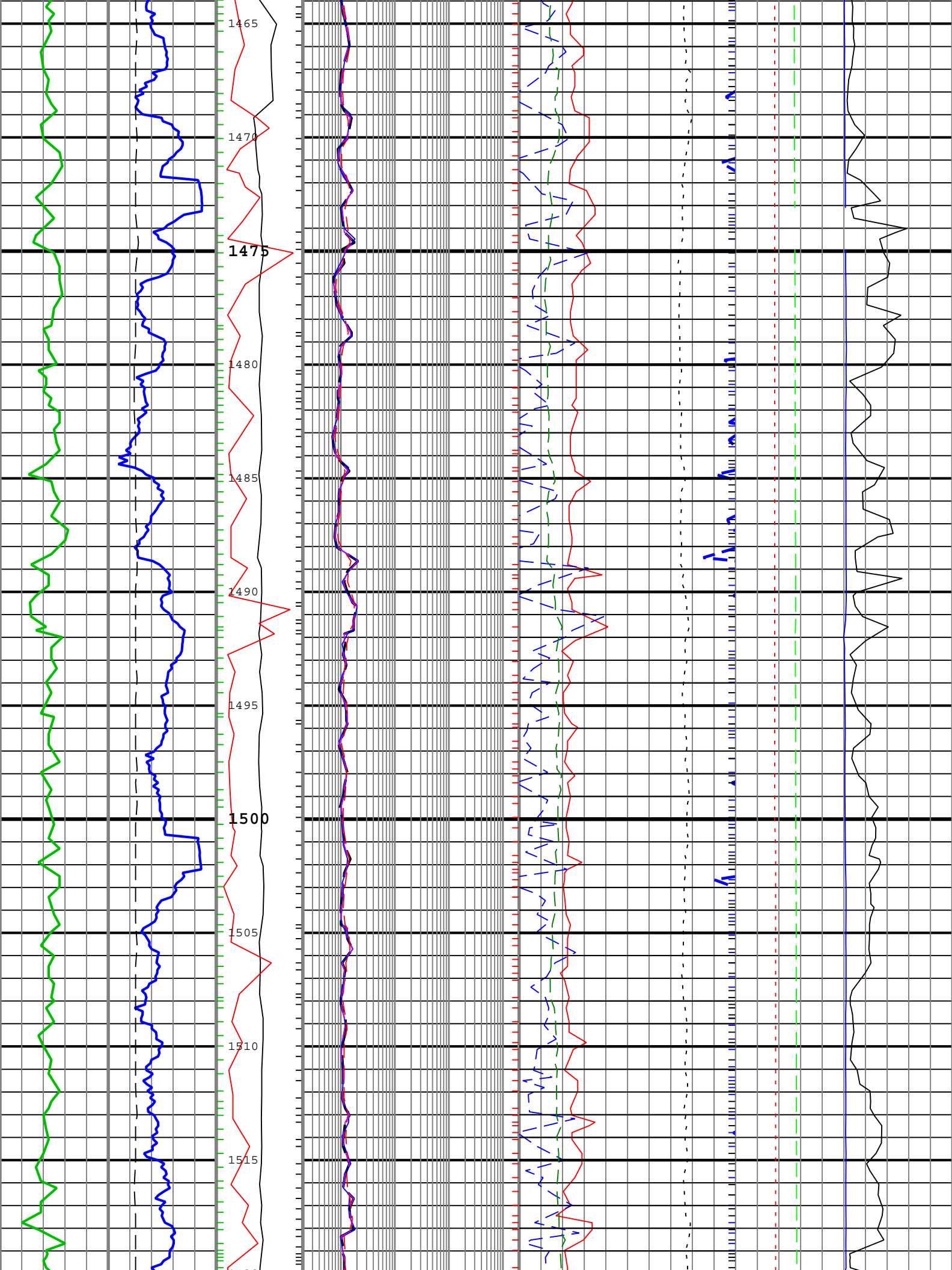
GR	ARC8:ARC8:ARDC	6in - RT
P16H	ARC8:ARC8:ARDC	6in - RT
P28H	ARC8:ARC8:ARDC	6in - RT
P40H	ARC8:ARC8:ARDC	6in - RT
PEF	SADN8:SADN8	6in - RT
RHOB_A	SADN8:SADN8	6in - RT
ROP5	DRILLING_SURFACE	6in - RT
STICK	TELE825:TELE825	6in - RT
TNPH	SADN8:SADN8:ADNP	6in - RT

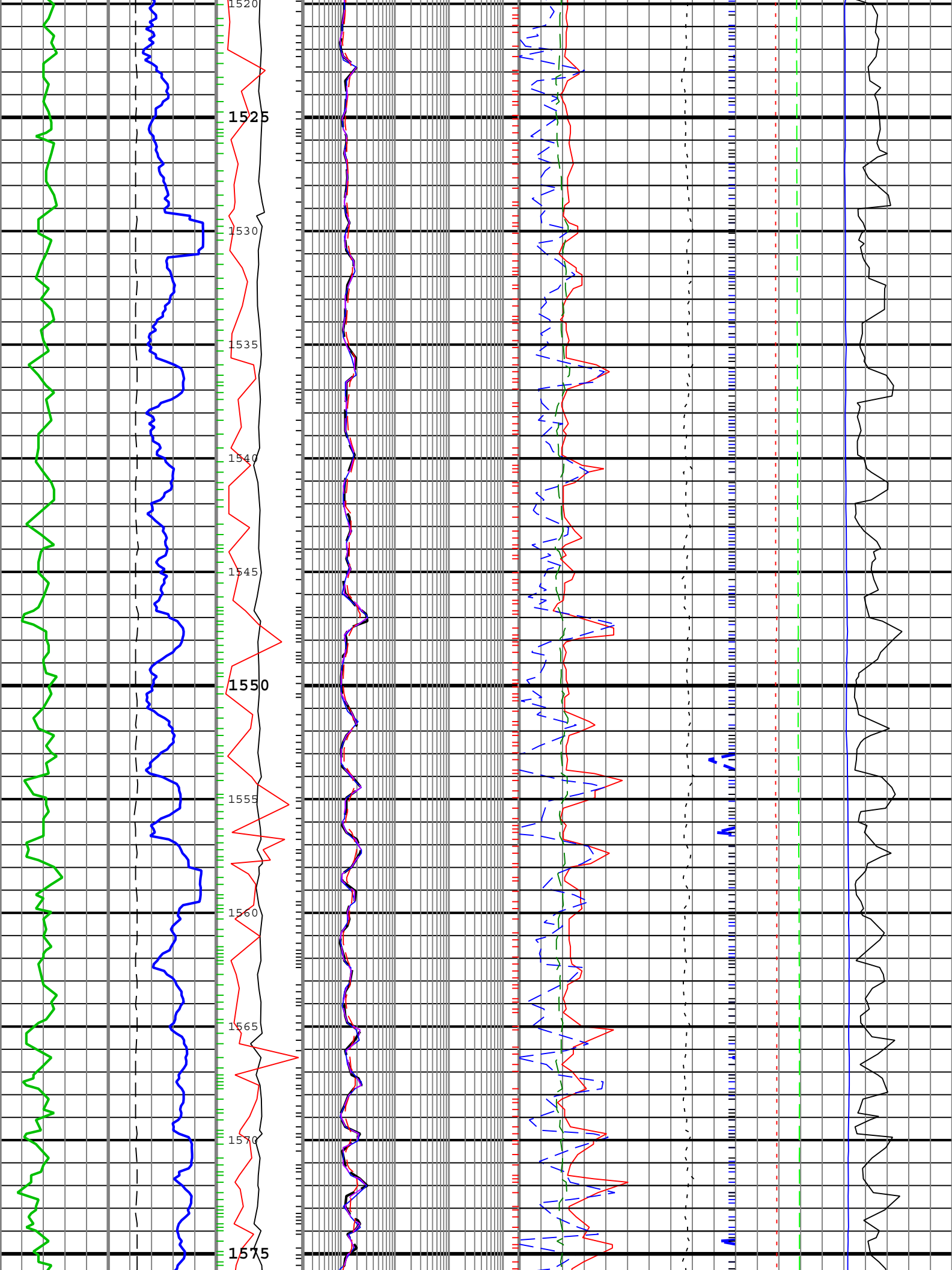


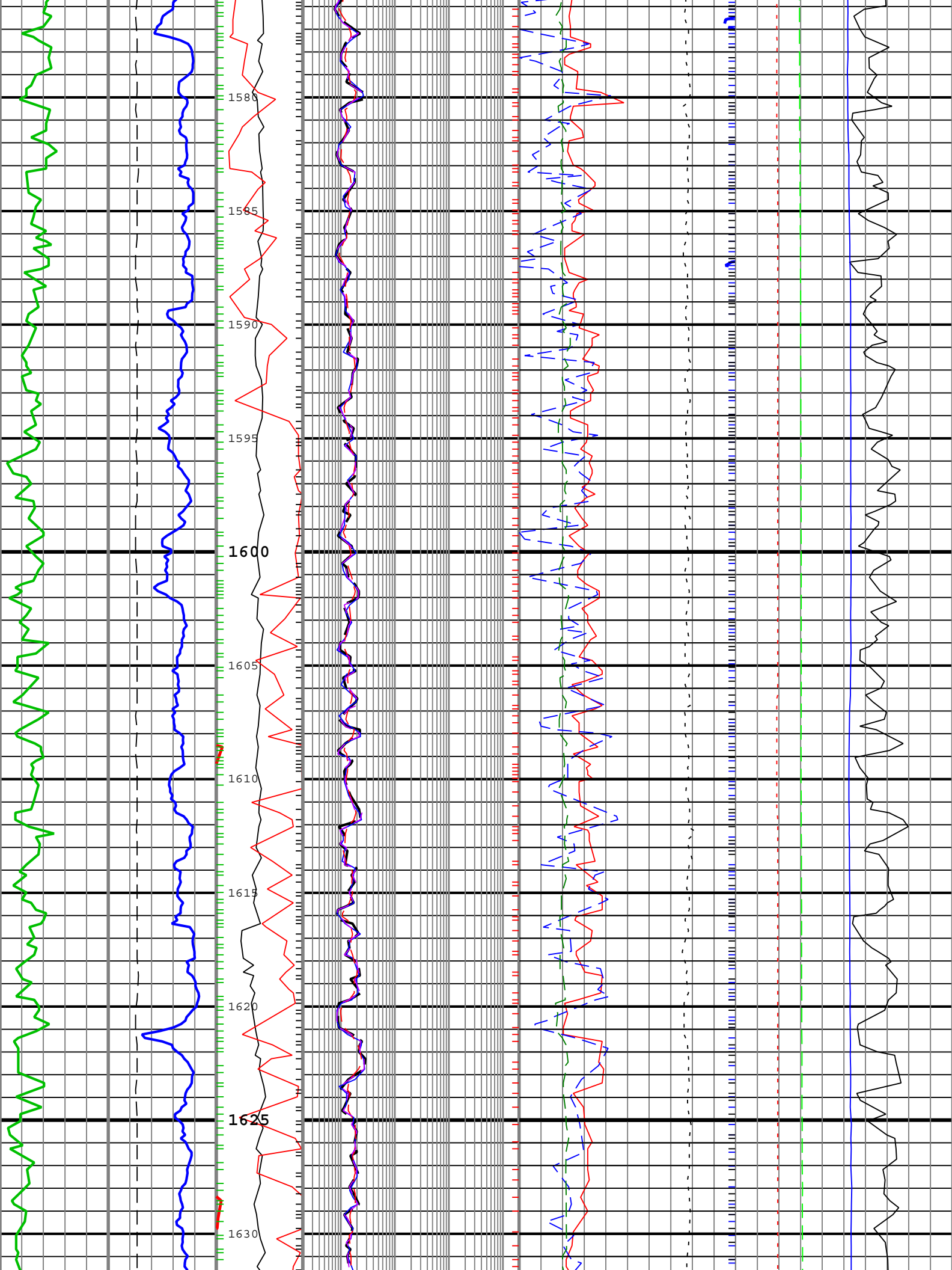


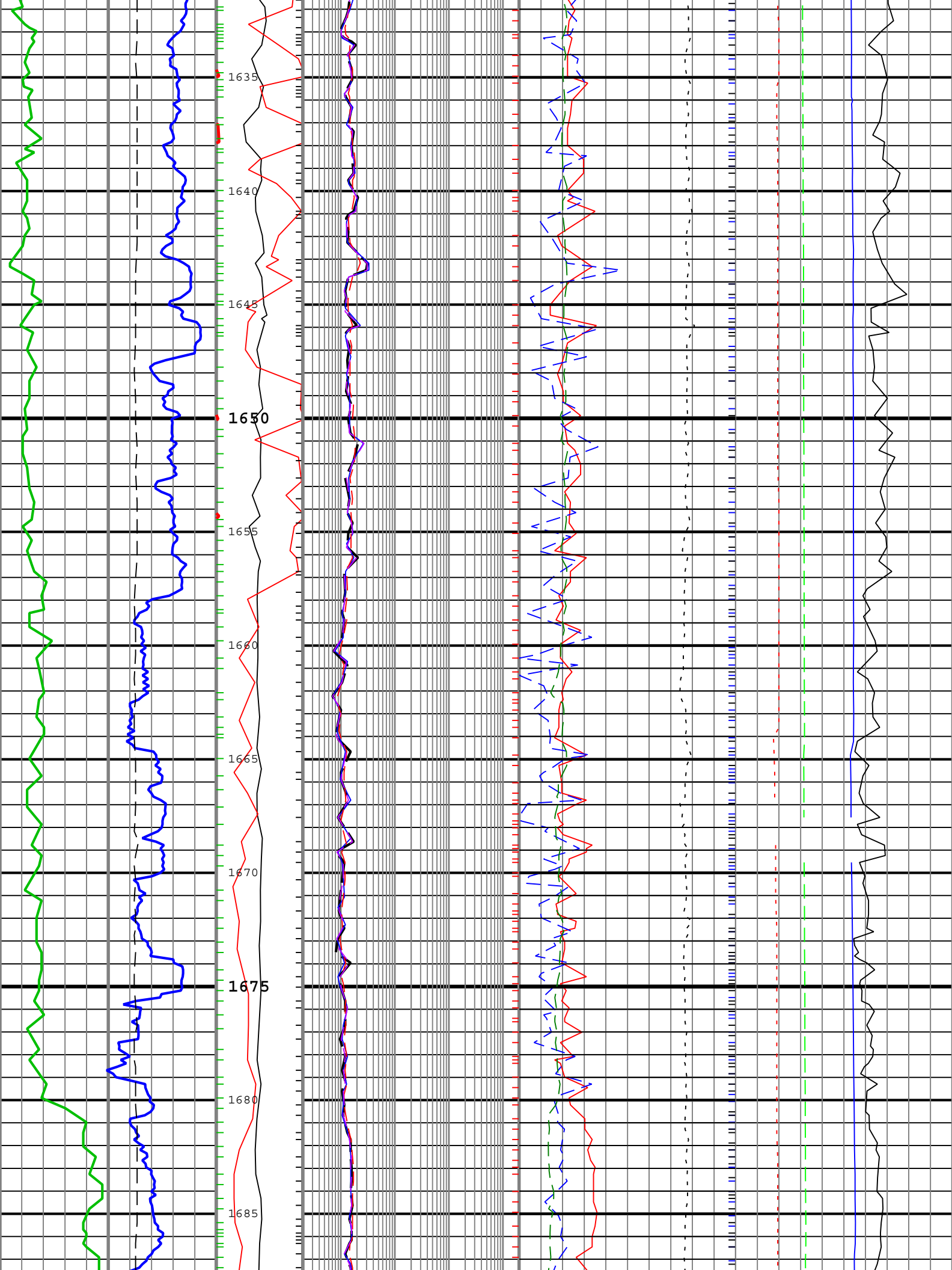


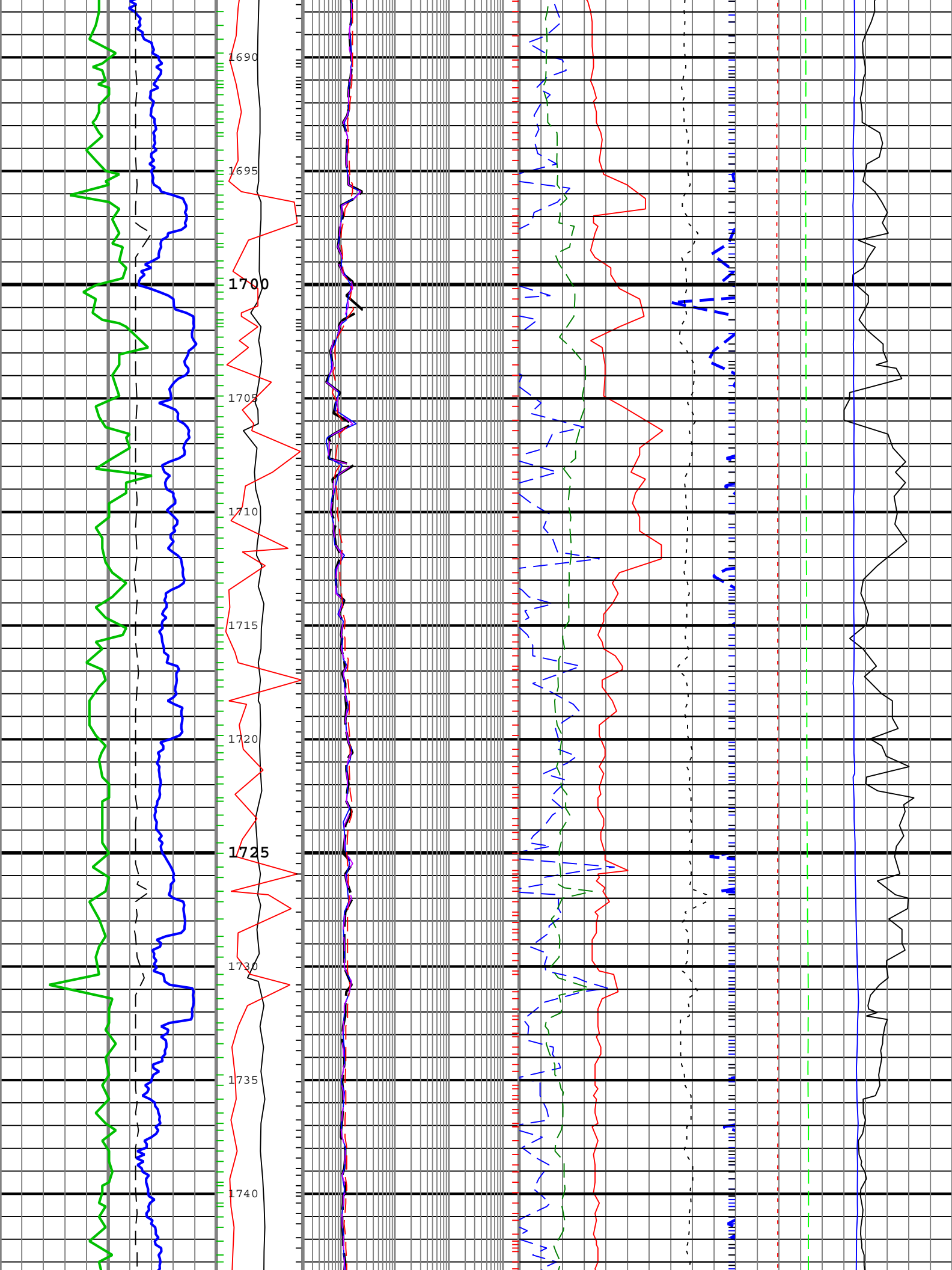


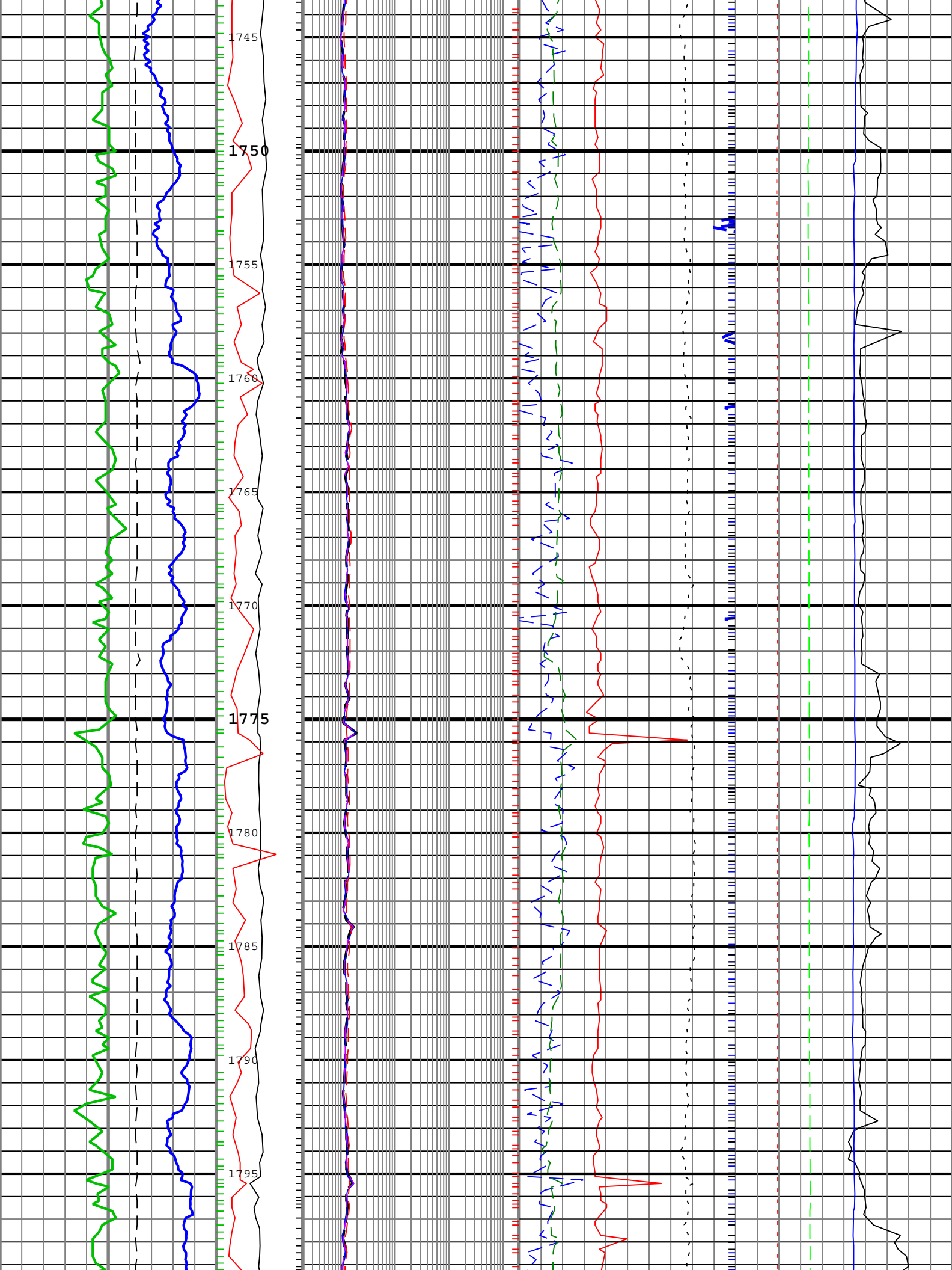


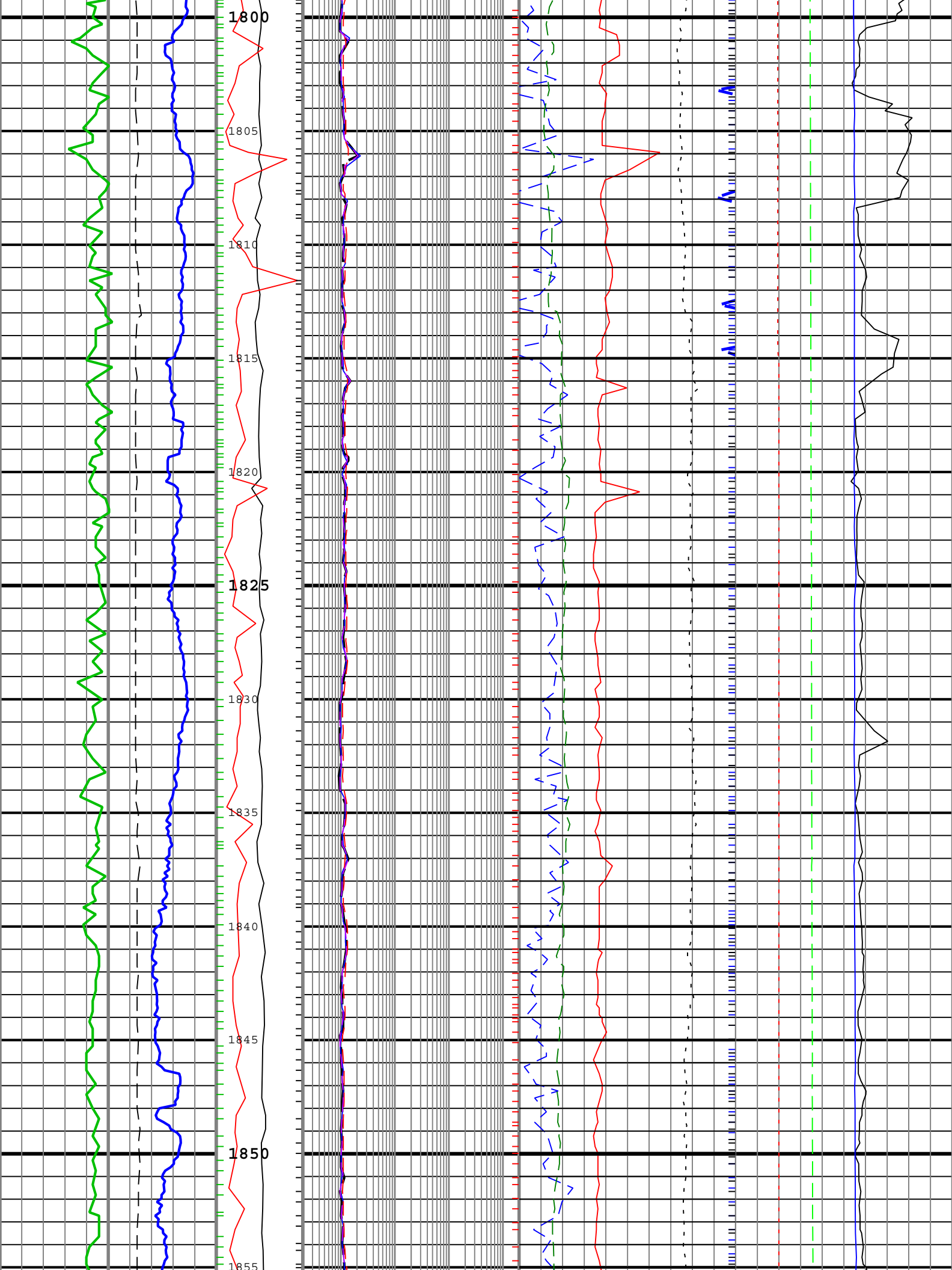


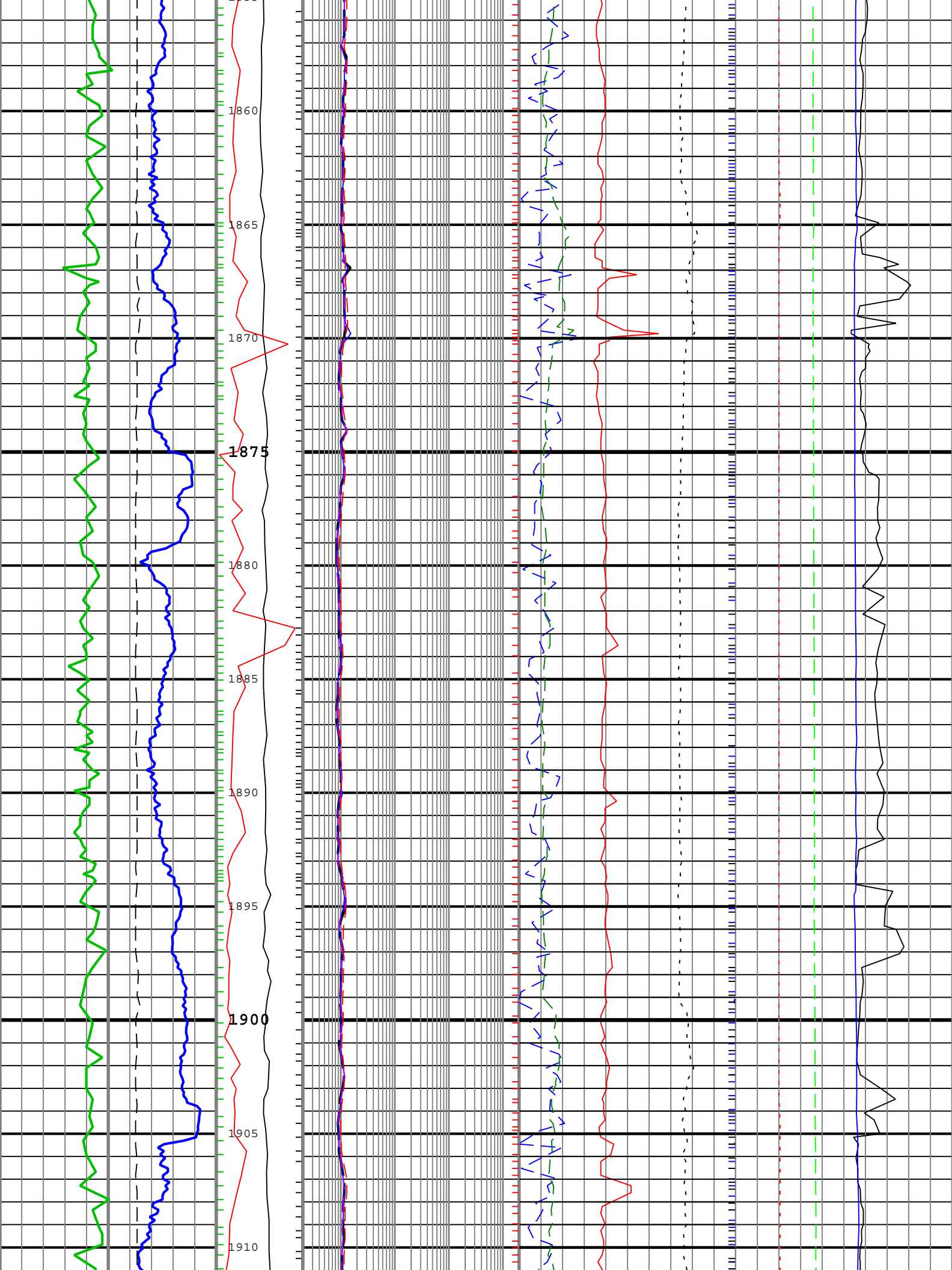


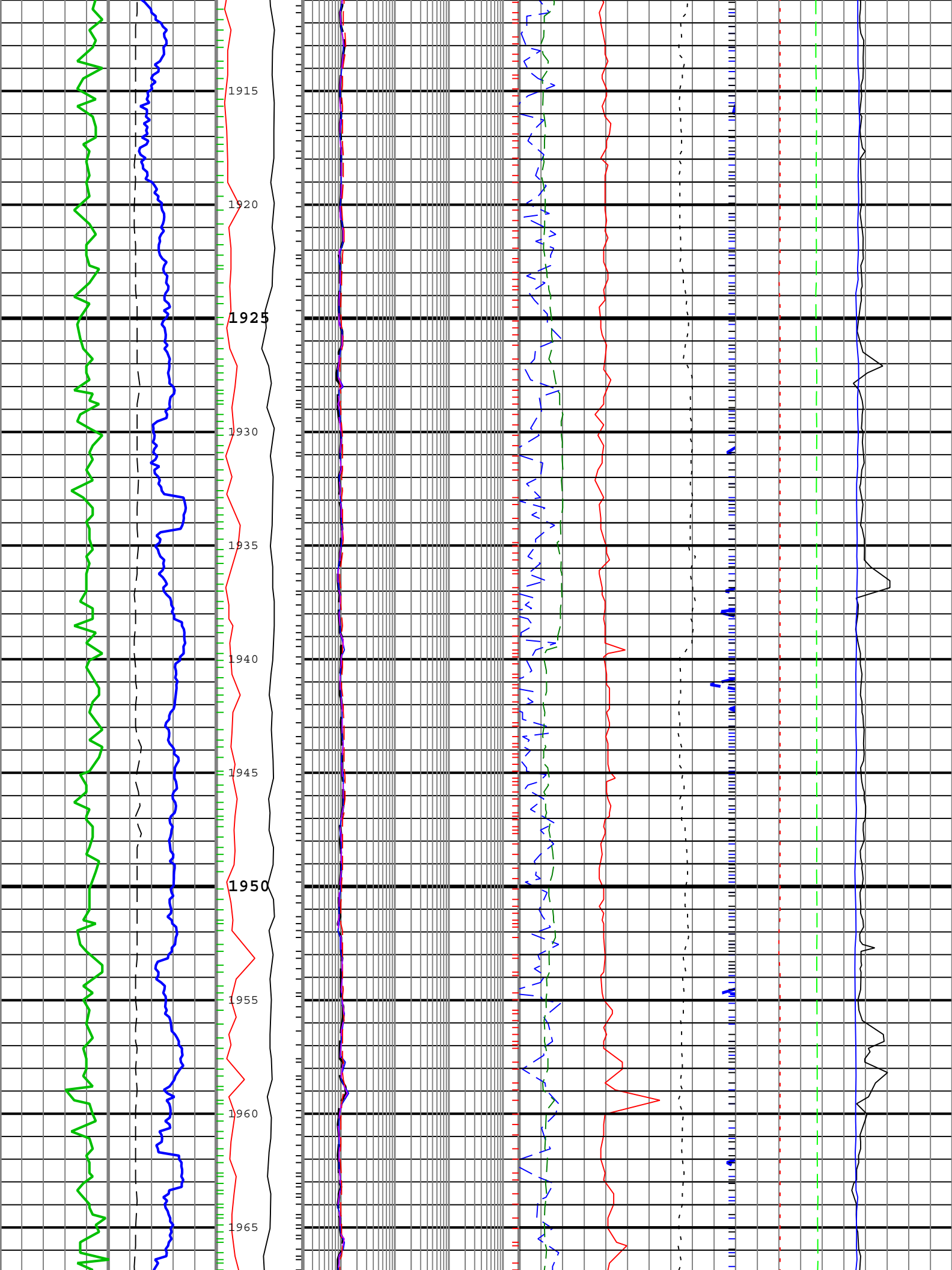


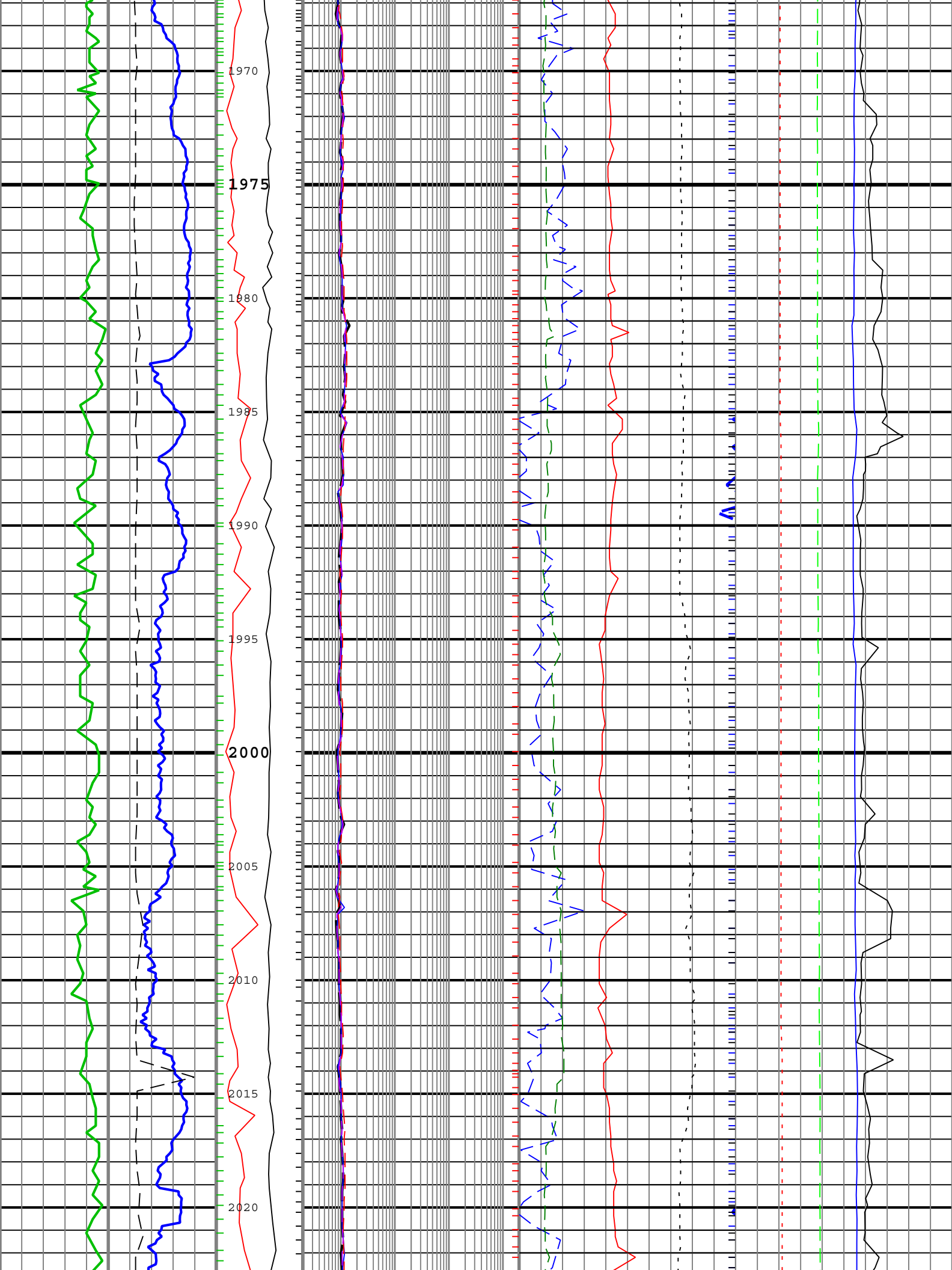


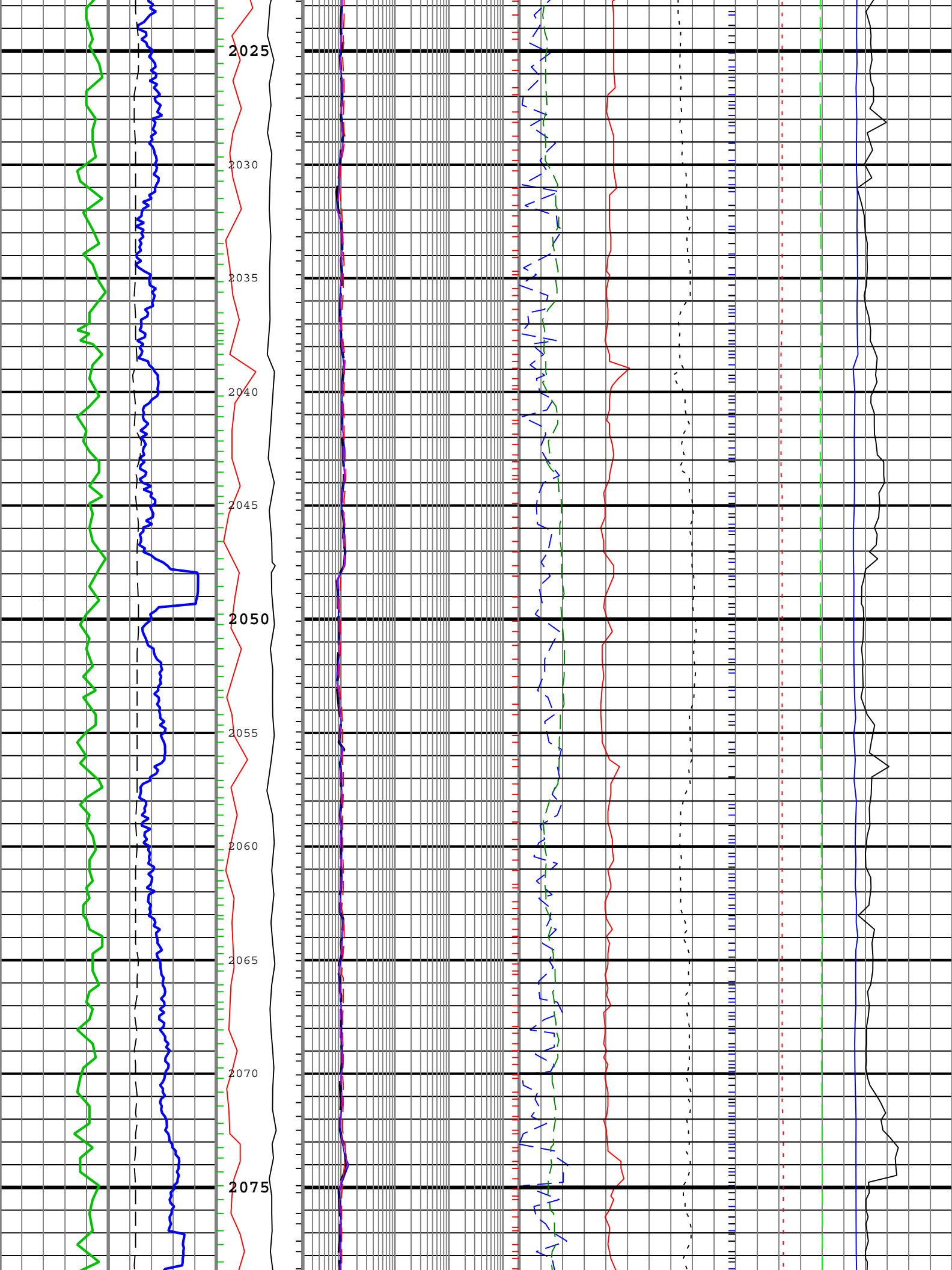


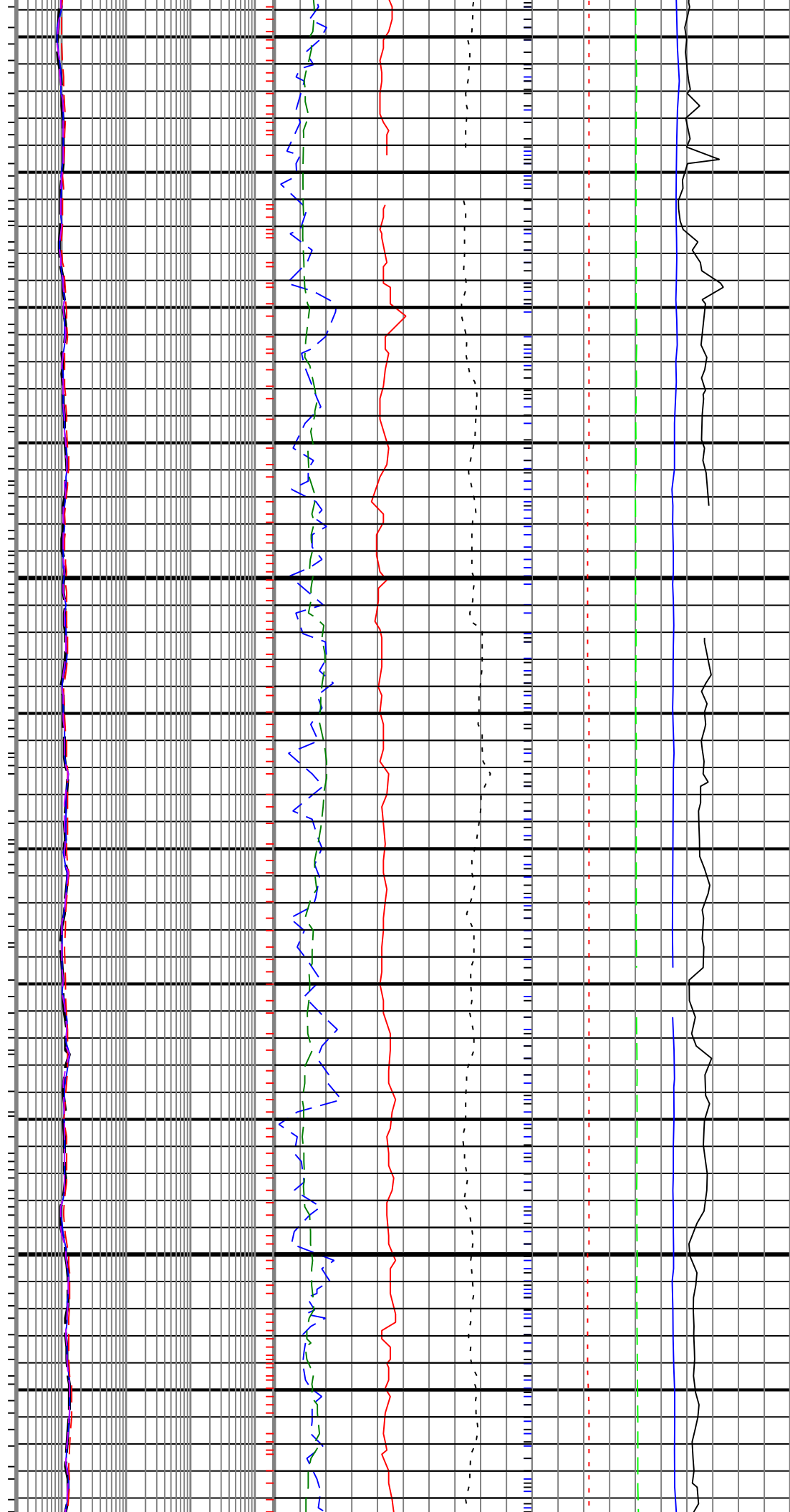
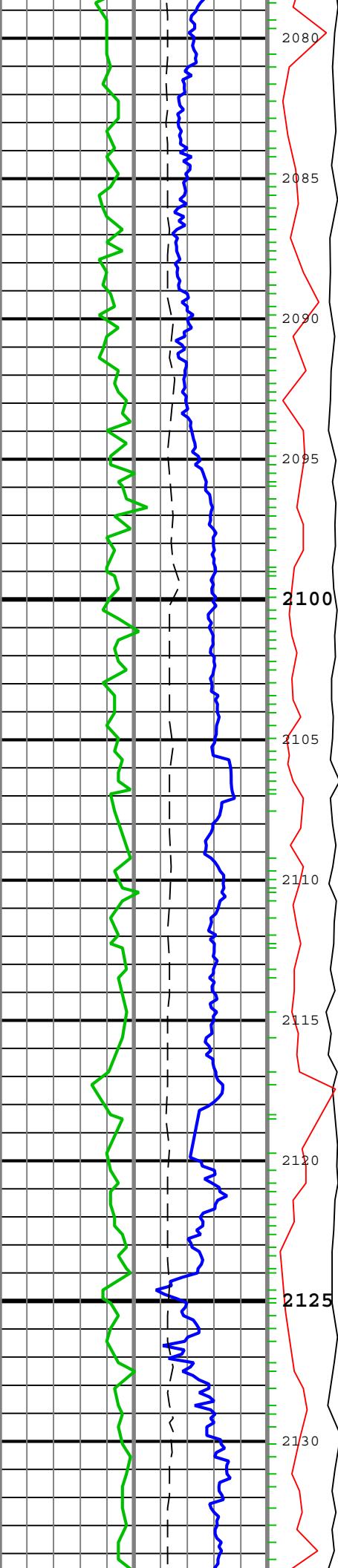


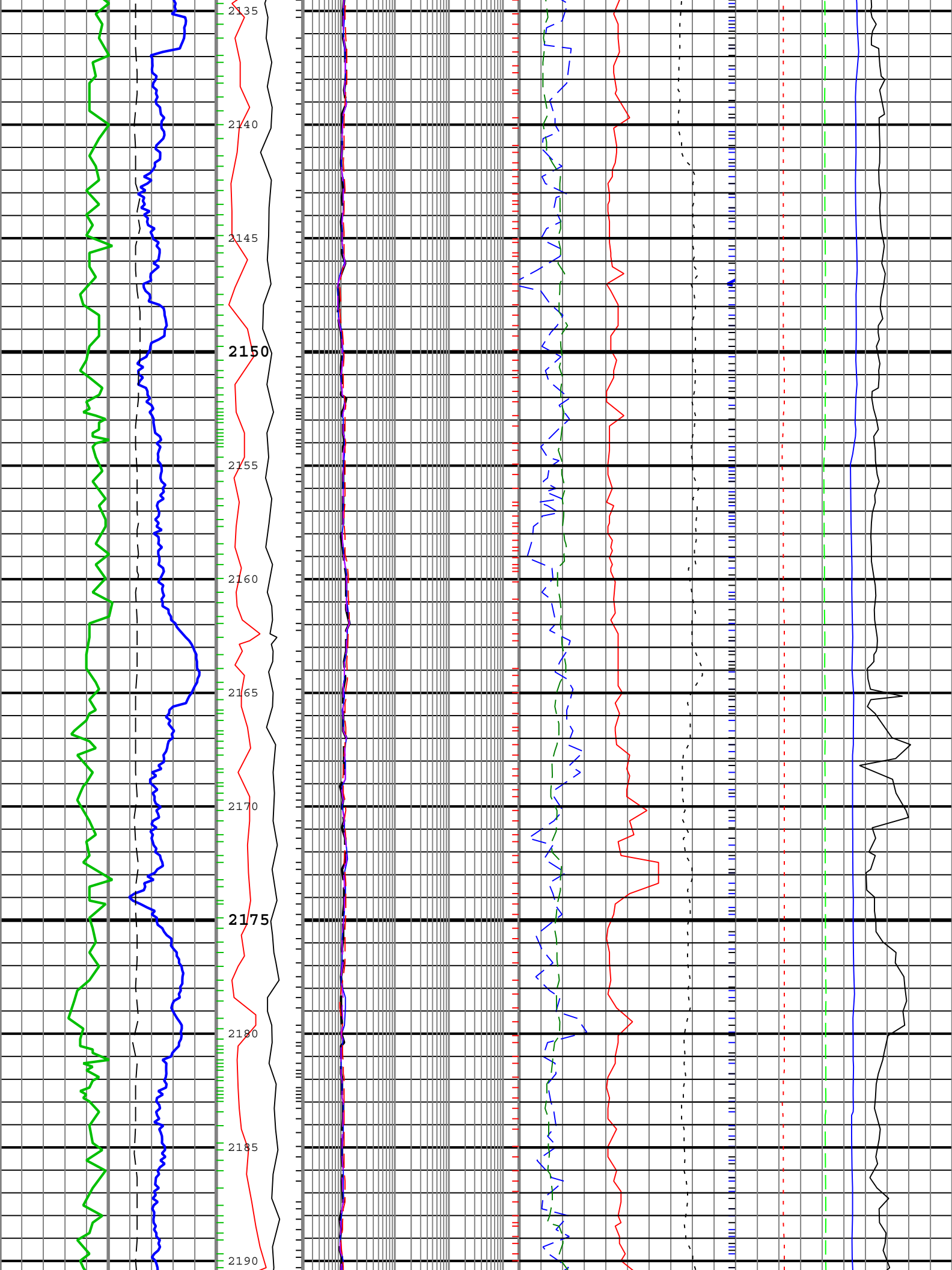


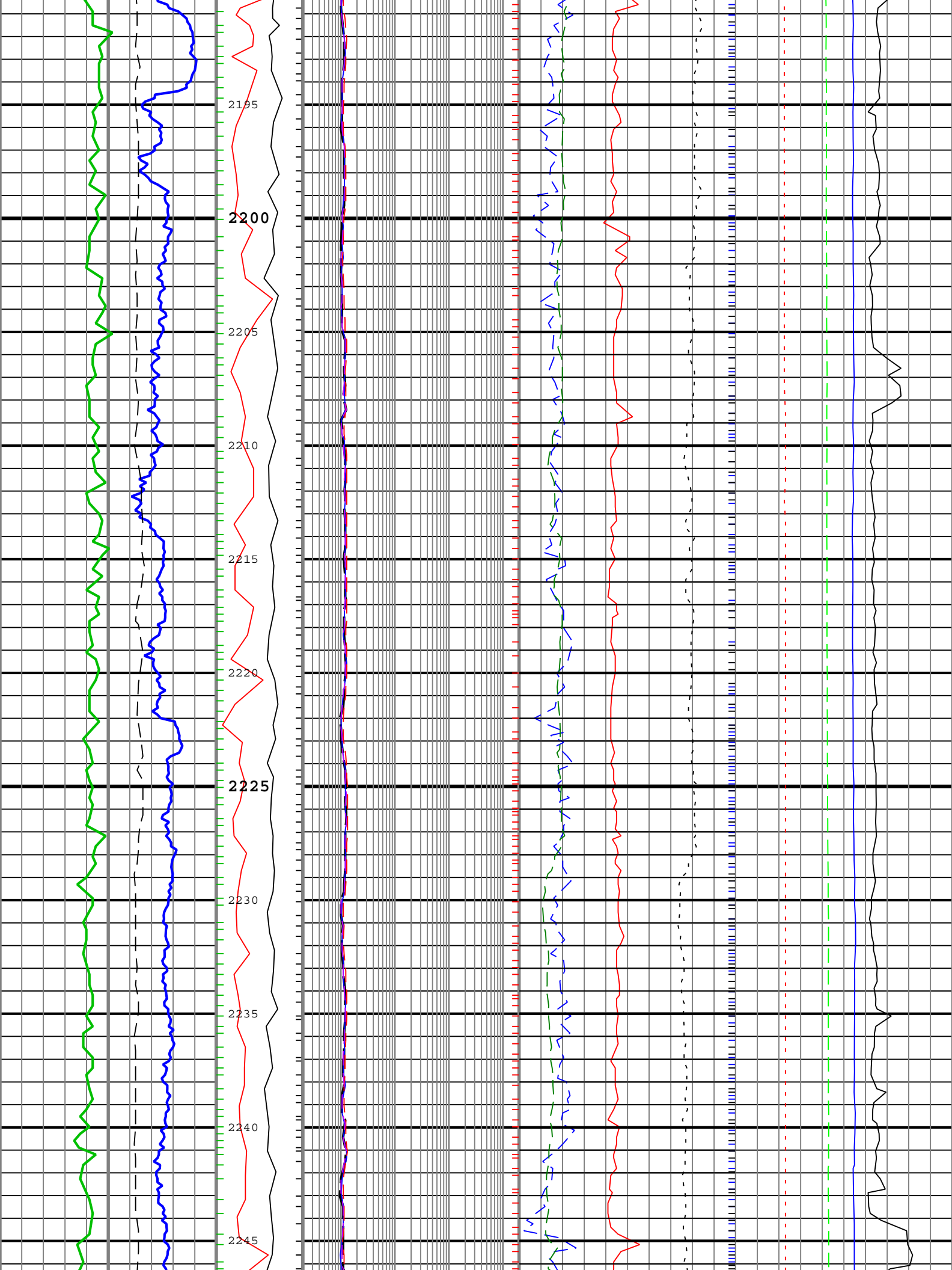


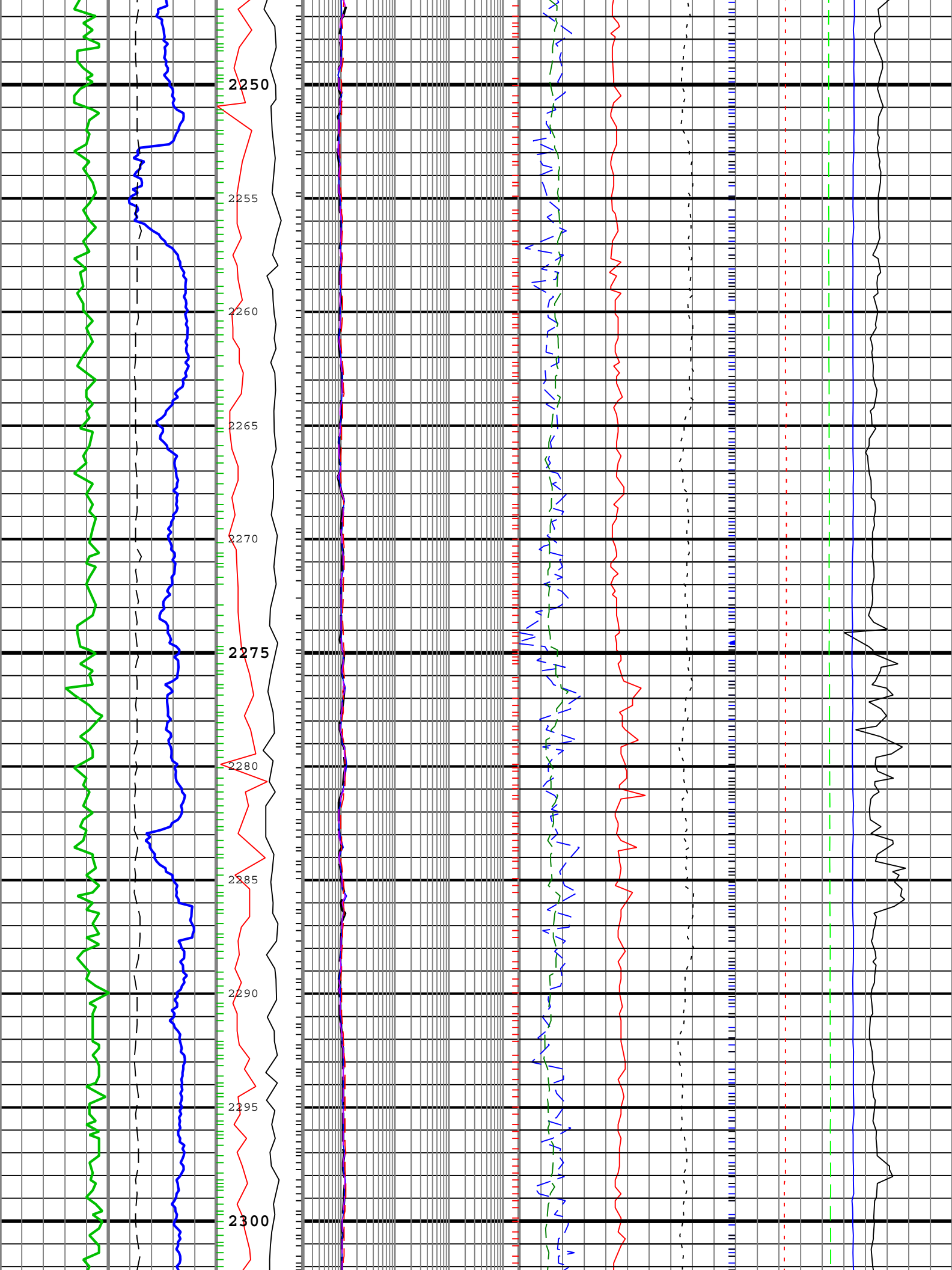


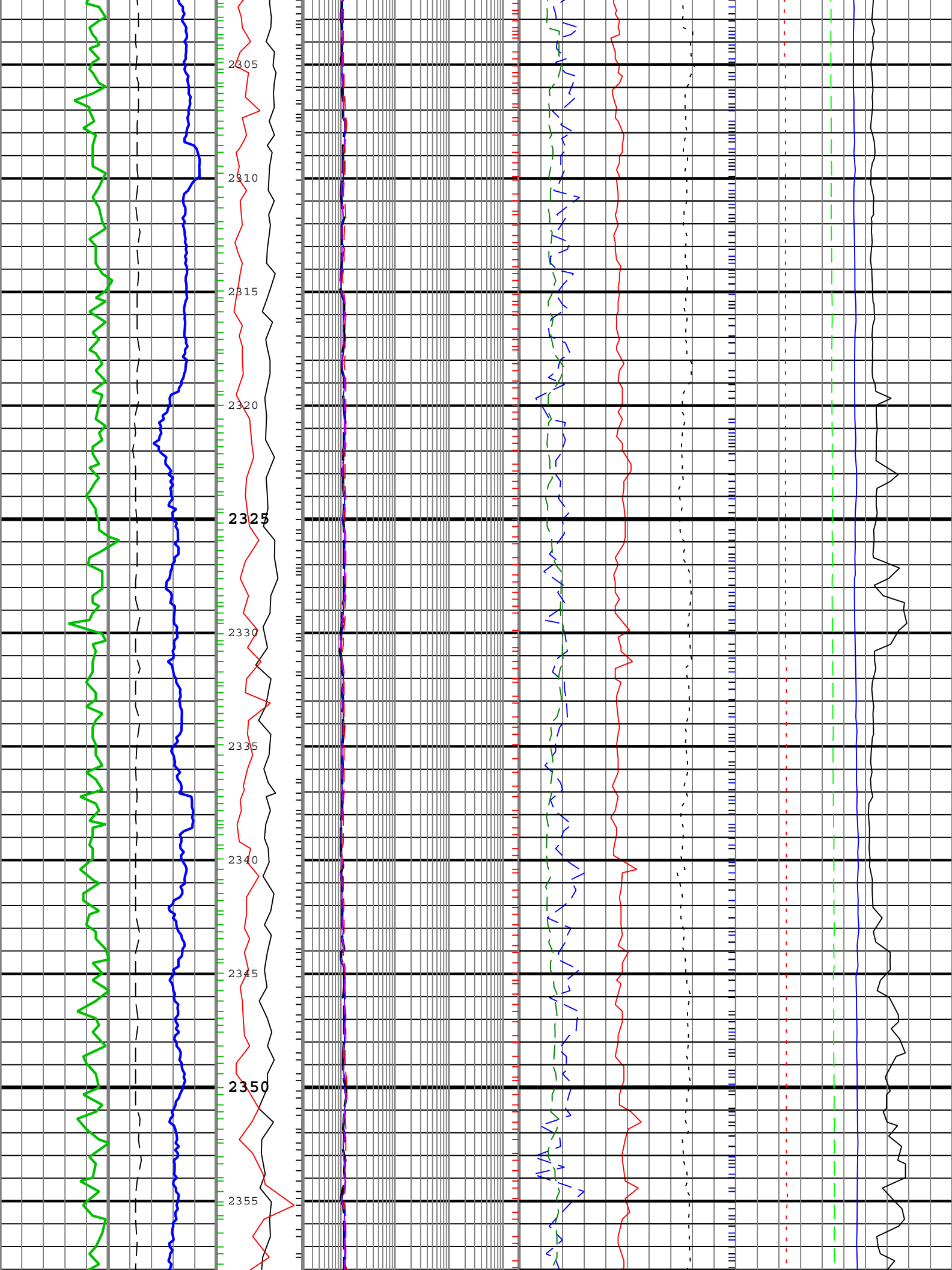


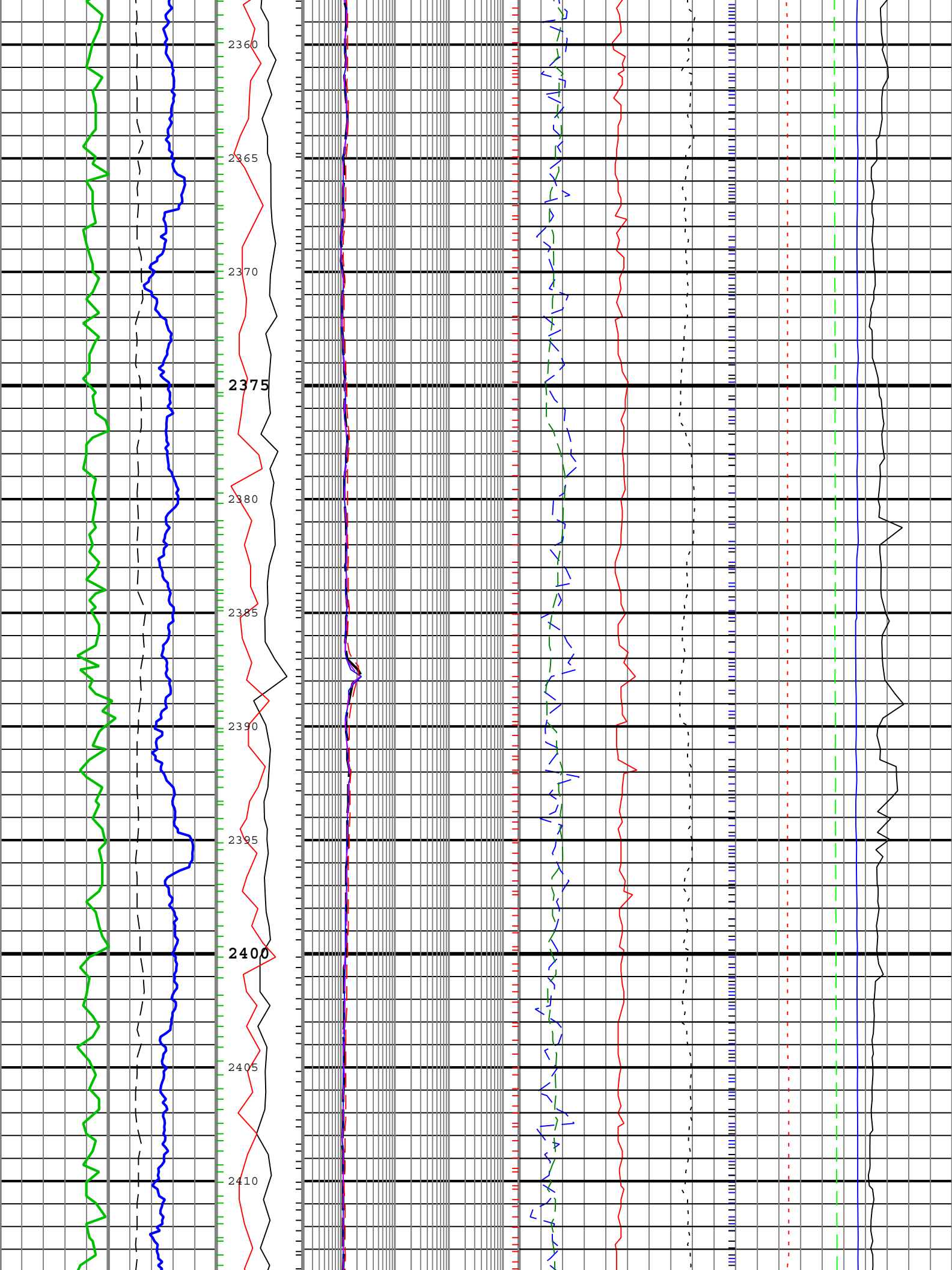


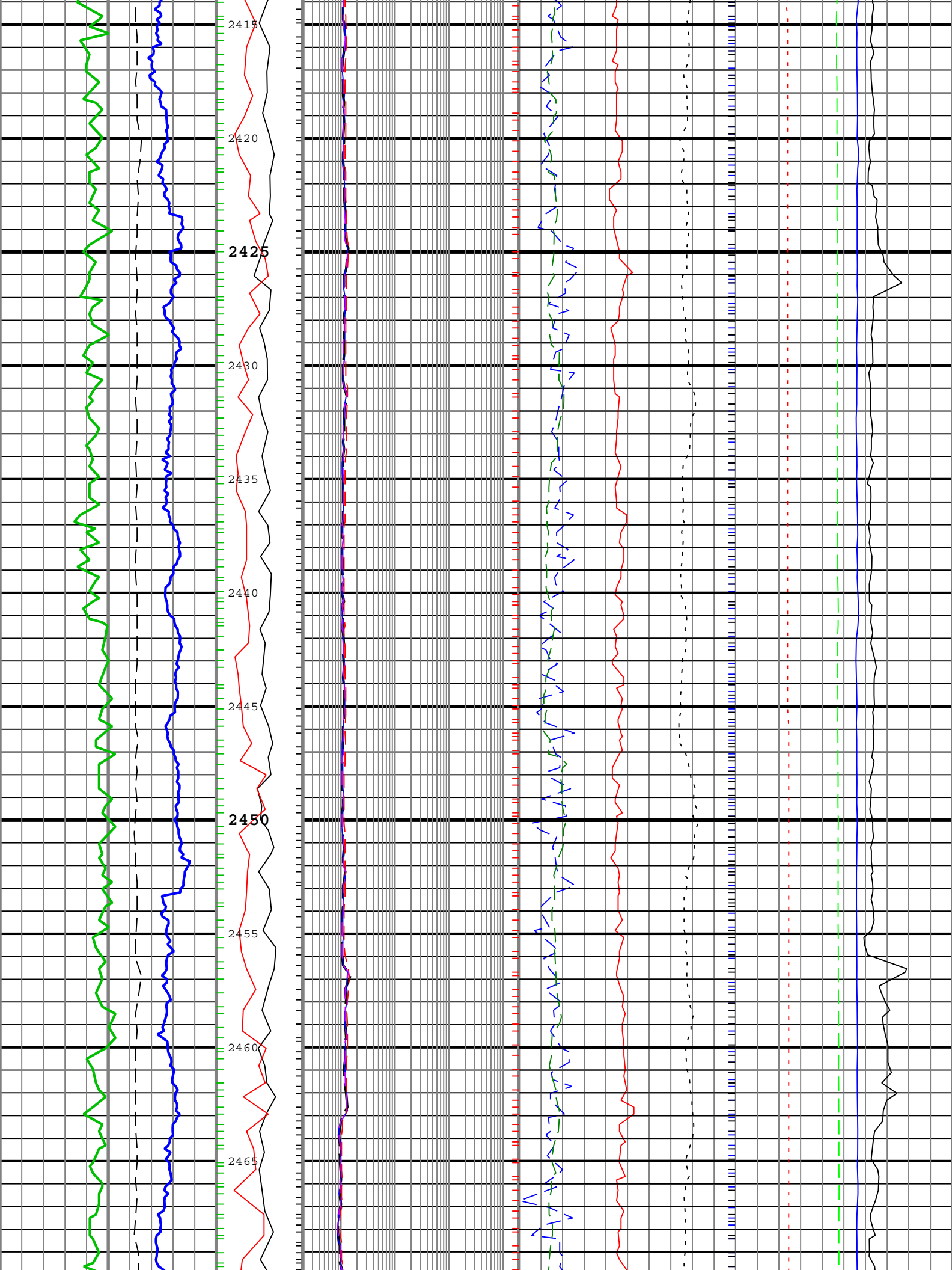


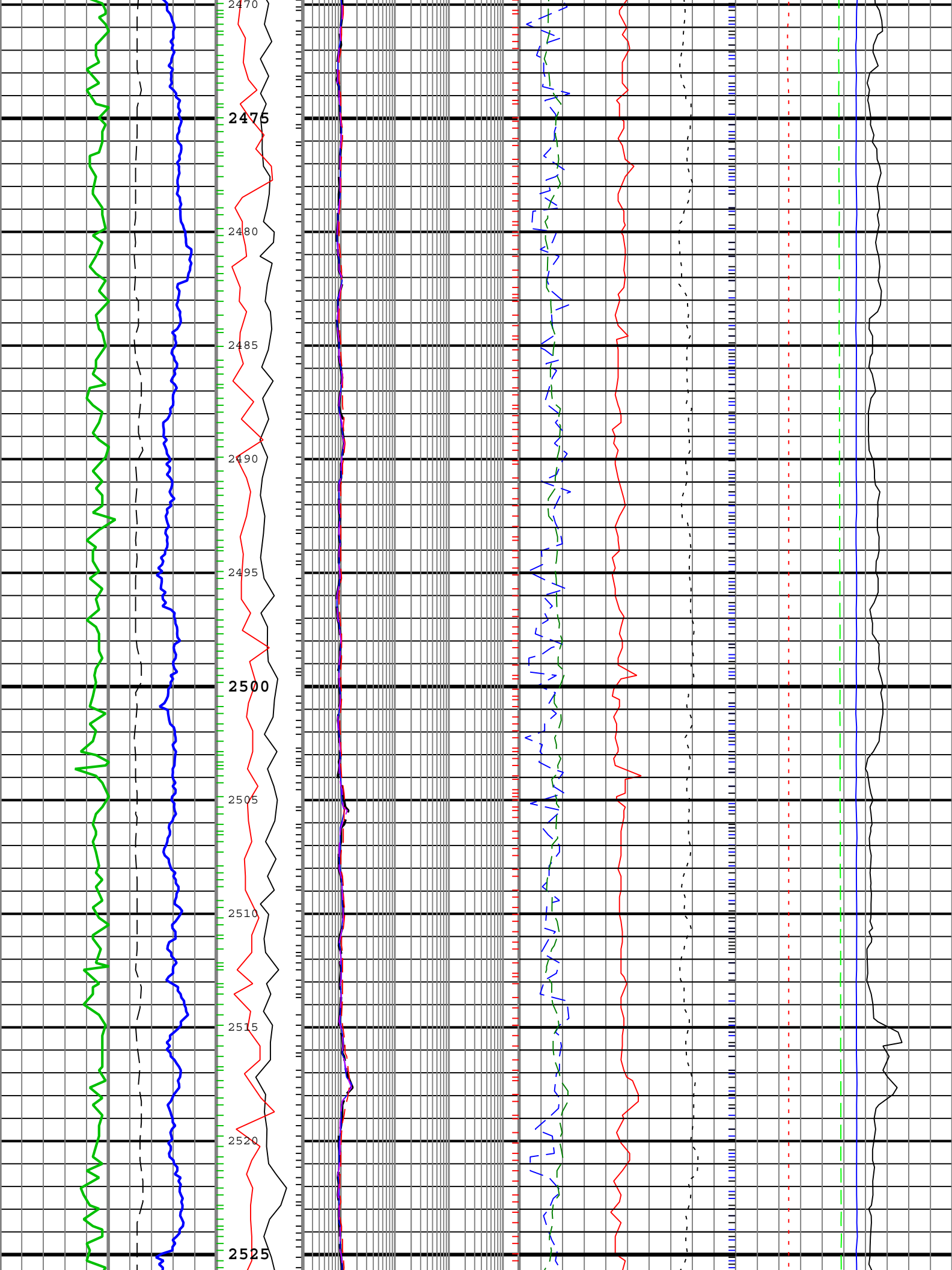


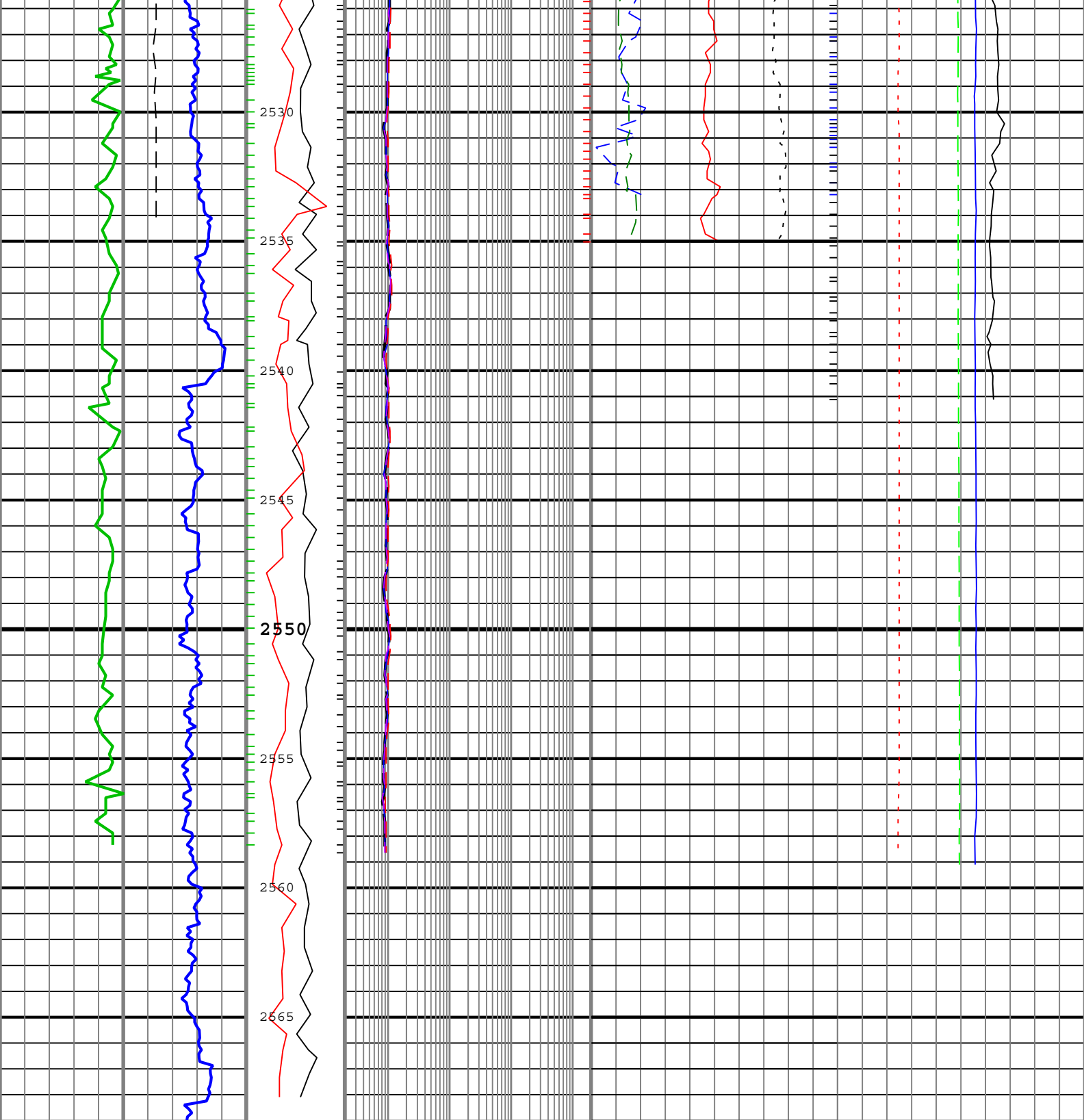












<div>Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5)</div> <div>200 m/h 0</div>	<div>Collar Rotational Speed (CRPM)</div> <div>0 c/min 250</div>	<div>Phase Shift Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected. (P40H)</div> <div>0.2 ohm.m 2000</div>	<div>Bulk Density, Computed Downhole (RHOB_A)</div> <div>1.95 g/cm3 2.95</div>	<div>Delta-T at Compressional Peak for Receiver Array Computed Downhole (DTRA_DH)</div> <div>240 us/ft 40</div>
<div>Average Borehole Diameter (ADIA)</div> <div>6 in 16</div>	<div>Stick Slip Indicator (STICK)</div> <div>0 c/min 250</div>	<div>Phase Shift Resistivity 16 inch Spacing at 2 MHz, Environmentally Corrected. (P16H)</div> <div>0.2 ohm.m 2000</div>	<div>Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH)</div> <div>45 pu -15</div>	<div>Downhole Annulus Pressure (DHAP)</div> <div>0 psi 10000</div>
<div>Gamma Ray (GR)</div> <div>0 gAPI 200</div>		<div>Attenuation Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected. (A40H)</div> <div>0.2 ohm.m 2000</div>	<div>Photoelectric Factor (PEF)</div> <div>0 15</div>	<div>Downhole Annulus Temperature (DHAT)</div> <div>0 degC 200</div>
			<div>Bulk Density Correction, Computed Downhole (DRHO_A)</div> <div></div>	<div>Equivalent Circulating Density (ECD)</div> <div>0 g/cm3 1000</div>

0.2ohm.m2000

Phase Shift Resistivity 28 inch Spacing at 2 MHz, Environmentally Corrected. (P28H)

0.2ohm.m2000

0.8g/cm3

-0.25 g/cm3 0.25

TNPH - Thermal Neutron Porosity (Ratio Method) in Selected Lithology

RHOB_A - Bulk Density, Computed Downhole

P40H - Phase Shift Resistivity 40 inch Spacing at 2 MHz, Environmentally Corrected.

GR - Gamma Ray

DTRA_DH - Delta-T at Compressional Peak for Receiver Array Computed Downhole

Description: ARC Dual Frequency 3-Log Resistivity Format: Log (RT Quad Combo - SADN8 Woodside) Index Scale: 1:200 Index Unit: m Index Type: Measured
Depth Creation Date: 27-Oct-2009 08:56:19

Channel Processing Parameters

Parameter	Description	ToolPath	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	Time Zoned	%
BHT	Bottom Hole Temperature	Borehole	40	degC
BS	Bit Size	COMPLETION	Depth Zoned	in
DFD	Drilling Fluid Density	Borehole	Time Zoned	g/cm3
DFT	Drilling Fluid Type	Borehole	Water	
FLEV	Depth of Drilling Fluid Level to LMF (Log Measured From)	Borehole	2.44	m
GGRD	Geothermal Gradient	Borehole	1.1	degF/100ft
GRSE	Generalized Mud Resistivity Selection	Borehole	Computed (GEN-9)	
GTSE	Generalized Temperature Selection	Borehole	Gradient From Surface	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MST	Mud Sample Temperature	Borehole	Time Zoned	degC
RHO_SEAWATER	Density of the Sea Water	Borehole	1.02	g/cm3
RMS	Resistivity of Mud Sample	Borehole	Time Zoned	ohm.m
SF_FLAG	Mud Return to Sea Floor (No Riser)?	Borehole	No	
SHT	Surface Hole Temperature	Borehole	10	degC

Depth Zone Parameters

Parameter	Value	Start (m)	Stop (m)
BS	17.5	1275	1280
BS	12.25	1280	

All depths are actual.

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (m)	Stop Depth (m)
BHK	5.77	24-Oct-2009 19:34:49	26-Oct-2009 02:52:07	1274.72	1626.46
BHK	5.77	26-Oct-2009 02:52:07	27-Oct-2009 05:09:59	1626.46	2451.68
BHK	4.52	27-Oct-2009 05:09:59		2451.68	
DFD	1.29	24-Oct-2009 19:34:49	26-Oct-2009 02:52:31	1274.72	1626.54
DFD	1.26	26-Oct-2009 02:52:31	27-Oct-2009 05:10:29	1626.54	2451.68
DFD	1.3	27-Oct-2009 05:10:29		2451.68	
MST	19.4	24-Oct-2009 19:34:49	26-Oct-2009 04:24:53	1274.72	1673.78
MST	18.8	26-Oct-2009 04:24:53	27-Oct-2009 01:55:15	1673.78	2342.67
MST	20	27-Oct-2009 01:55:15		2342.67	
RMS	0.08	24-Oct-2009 19:34:49	26-Oct-2009 04:24:53	1274.72	1673.78
RMS	0.09	26-Oct-2009 04:24:53	27-Oct-2009 01:55:15	1673.78	2342.67

RMS	0.1	27-Oct-2009 01:55:15		2342.67	
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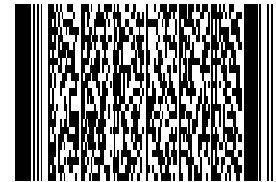
All depth are at tool zero.

Tool Control Parameters				
Parameter	Description	ToolPath	Value	Unit
OFFBTM_TH	Threshold for deciding whether the bit is off bottom	DnMWorkflow	Time Zoned	m

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (m)	Stop Depth (m)
OFFBTM_TH	0.6	24-Oct-2009 19:34:49	25-Oct-2009 23:15:02	1274.72	1529.56
OFFBTM_TH	0.5	25-Oct-2009 23:15:02	26-Oct-2009 00:11:46	1529.56	1558.04
OFFBTM_TH	0.4	26-Oct-2009 00:11:46	26-Oct-2009 18:26:10	1558.04	2126.79
OFFBTM_TH	0.5	26-Oct-2009 18:26:10	26-Oct-2009 18:26:39	2126.79	2127.1
OFFBTM_TH	0.6	26-Oct-2009 18:26:39	26-Oct-2009 18:36:19	2127.1	2132.63
OFFBTM_TH	0.4	26-Oct-2009 18:36:19		2132.63	

All depth are at tool zero.

Company:	Woodside Energy Ltd
Well:	Somerset-1
Field:	T34P
Rig Name:	Ocean Patriot
State:	Tasmania
Country:	Australia



	VISION Service
	1:200 Measured Depth
	Real Time Log