



QUAD NEUTRON

Thru Casing

<div>Company EMBER RESOURCES</div>					
Well EMBER ENTICE 6-34-24-25					
Field ENTICE					
Country CANADA		Province ALBERTA			
Date	15-Jul-2019	CWI			
Job Code #	190715-VB2	Third Party Ref. #			
A/E #		Cement Top	N/A		
Depth Driller	1191.00 m	Type Fluid	dry		
PBSD Logger	1165.00 m	Fluid Level	1160.00 m		
Btm Log Interval	1165.00 m	Wellhead Pressure	250 kPa kPa		
Top Log Interval	25.00 m	Max. Temp.	35 °C		
Date / Time RIH	15-Jul-2019	Maximum Deviation			
Rig Time (h:h:mm)	5:00	Hoist Unit #	Unit 3		
Recorded By	Vince Benoit	Unit Location	Calgary		
Witnessed By	JAMES	Latitude/Longitude			
Wellbore Information					
Type	Size (mm)	WT (kg/m)	From (m)	To (m)	Grade
Surface Casing	219.10		0.00	113.00	
Production Casing	114.30		0.00	1191.00	

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Log is depth correlated to OH GR provided by customer.

Correlation Log Name:


Correlation Log Date:

Correlation Type:

Correlation Point:

TOOL DIAGRAM

EMBER ENTICE 6-34-24-25

Sensor	Offset (m)	Schematic	Description	Len (m)	OD (mm)	Wt (kg)
UHT UBRM	4.68 4.68		CableHeadSub QuadV2 to BOI Cable Head Sub	0.23	43.00	1.36
GR	4.26					
FGR	3.73					
CCL	2.87		QUADV2_TCA23 QuadV2 Telemetry Combo A	1.97	43.00	12.70
LNG SNG						
SNN LNN			QUADV2_MNA25 QuadV2 MN Section	2.13	43.00	14.51
BBRM BHT	0.13 0.13		QUADV2_BHTA08 Sensors For Processing	0.48	43.00	2.72

Dataset: QuadV2
 Total Length: 4.81 m
 Total Weight: 31.29 kg
 O.D.: 43.00 mm

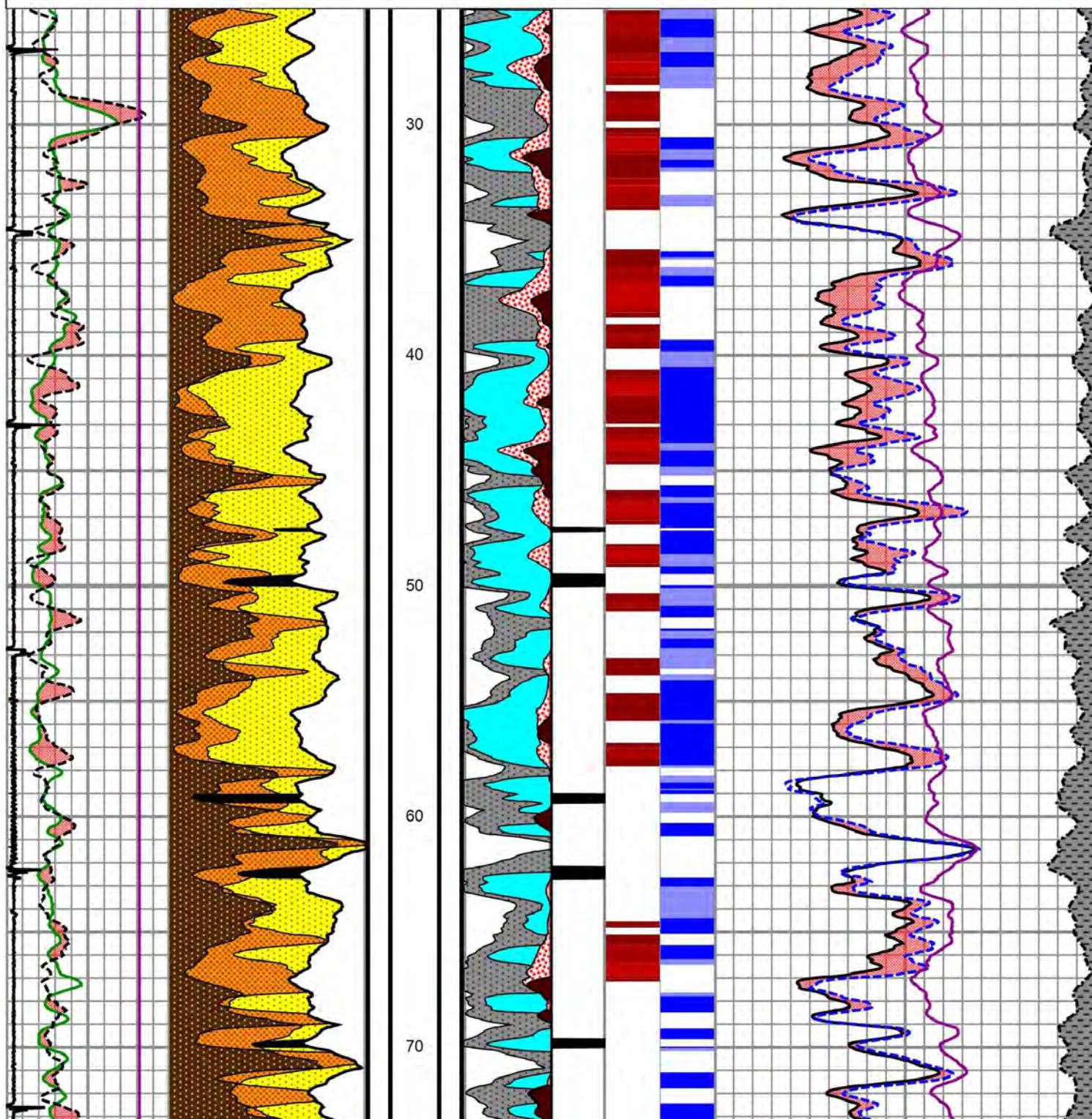
Measured Depth

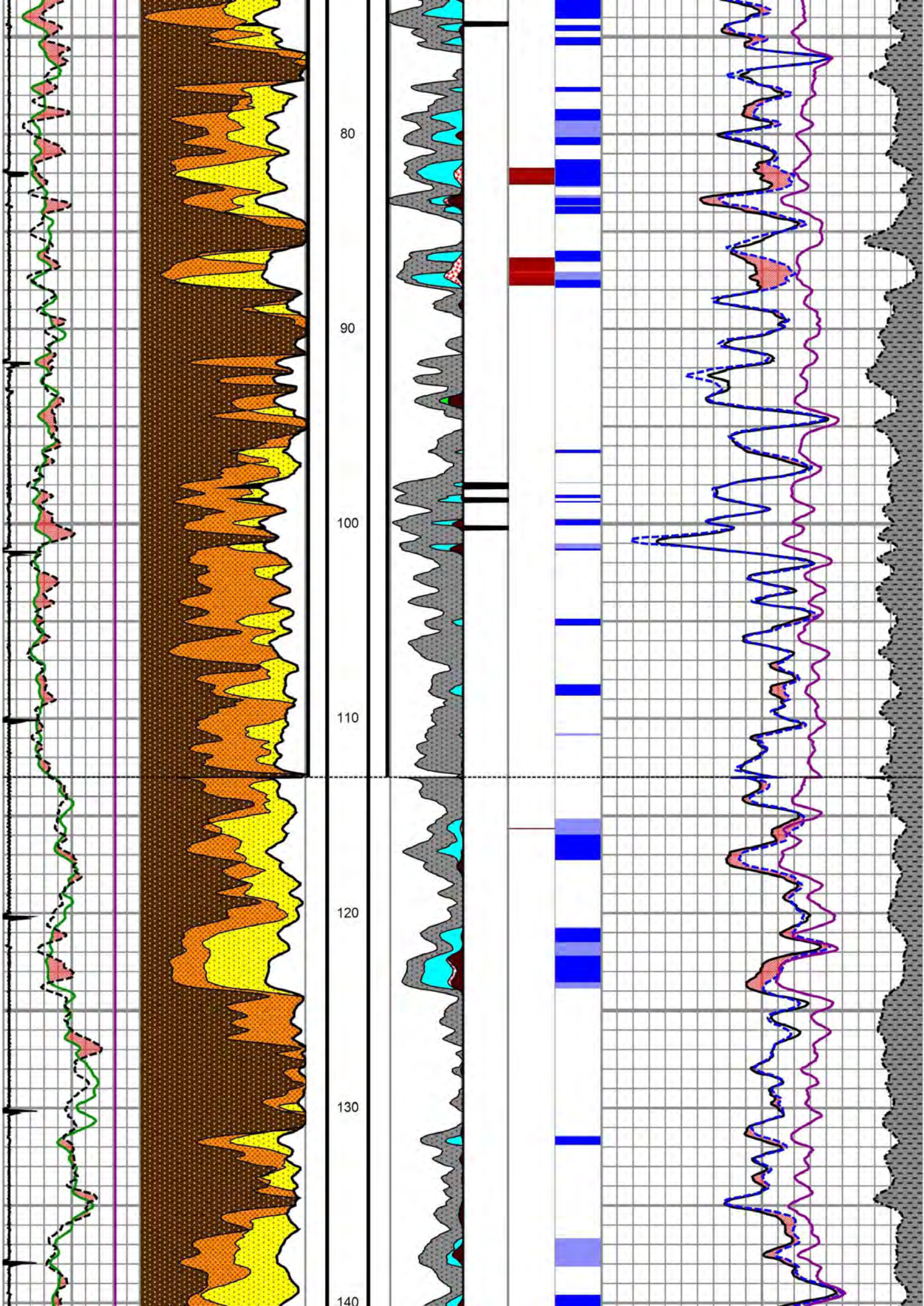
25.0 - 1165.0 m

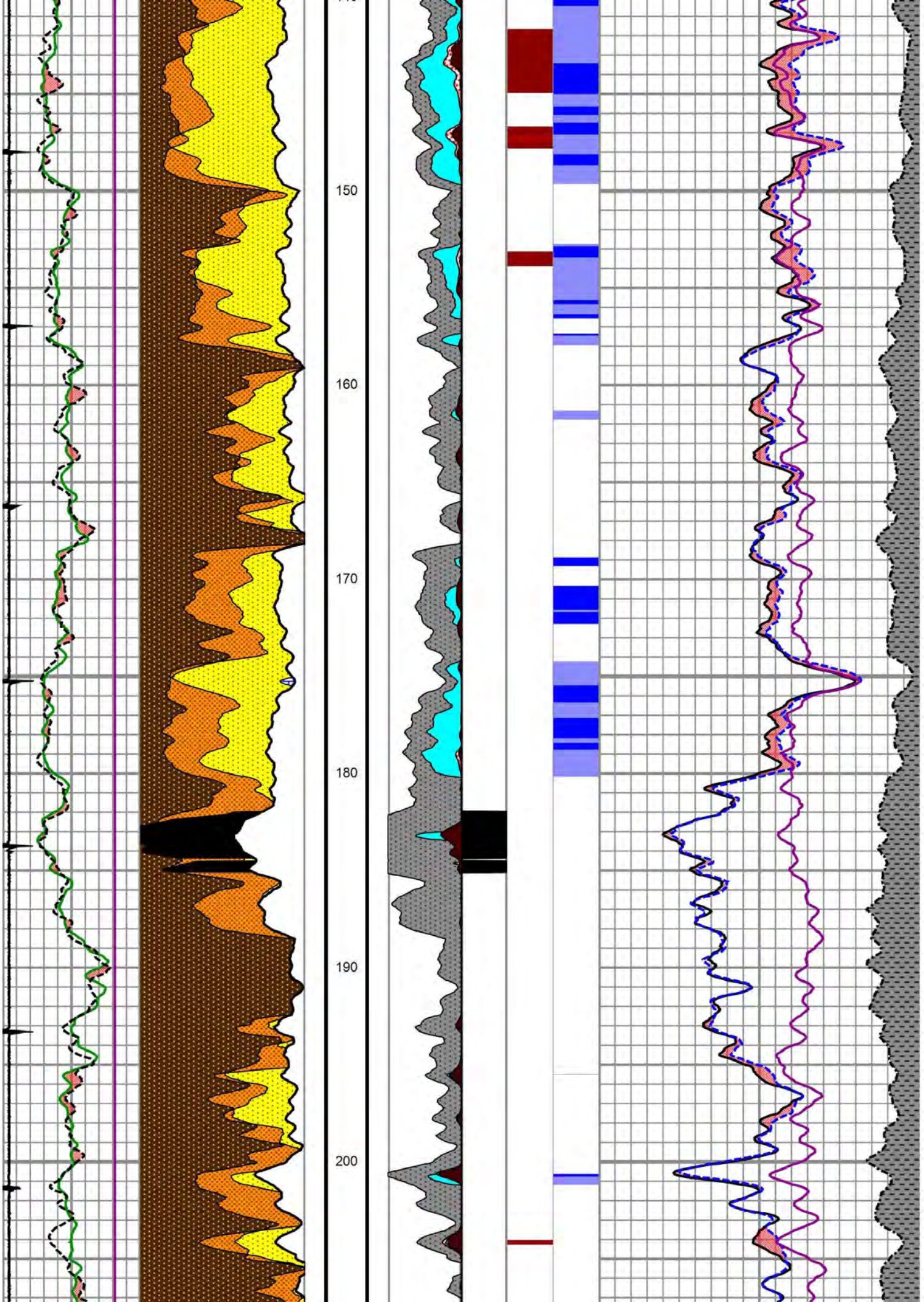
Database File: D:\WORK\CANADA\190715-VB2 EMBER 6-34-24-25\190715-VB2 EMBER 6-34-24-25 AK - COPY
 Presentation Format: QN GAS WATER FLAG.prs
 Dataset Printed: 2019-07-22 1:16:23 PM
 Depth in Meters scaled 1:240

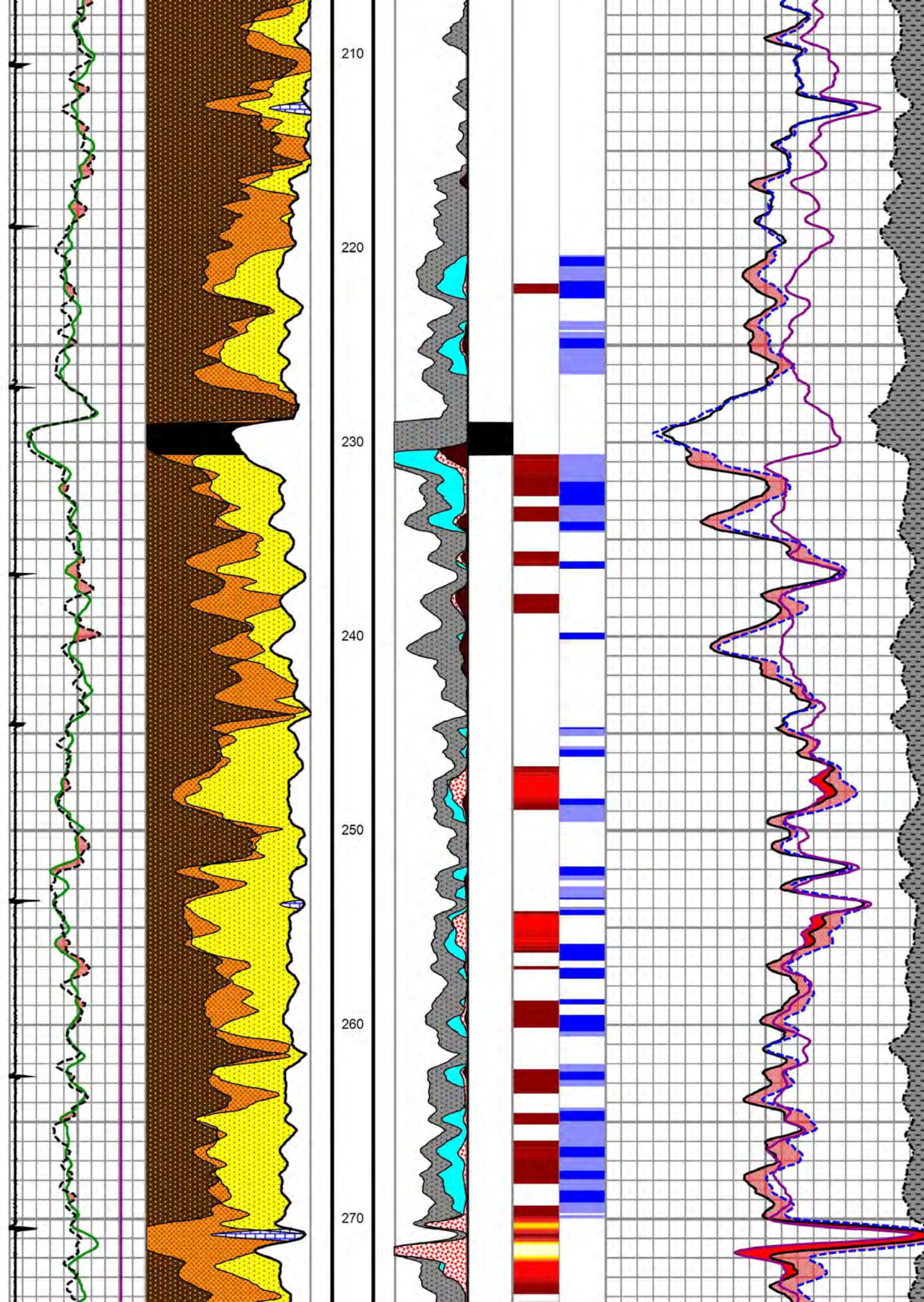
Primary Pass: main cor.las
 Processing: QN-1
 Charted by: akalstratov@roke.ca
 Software Version: 5.4.94

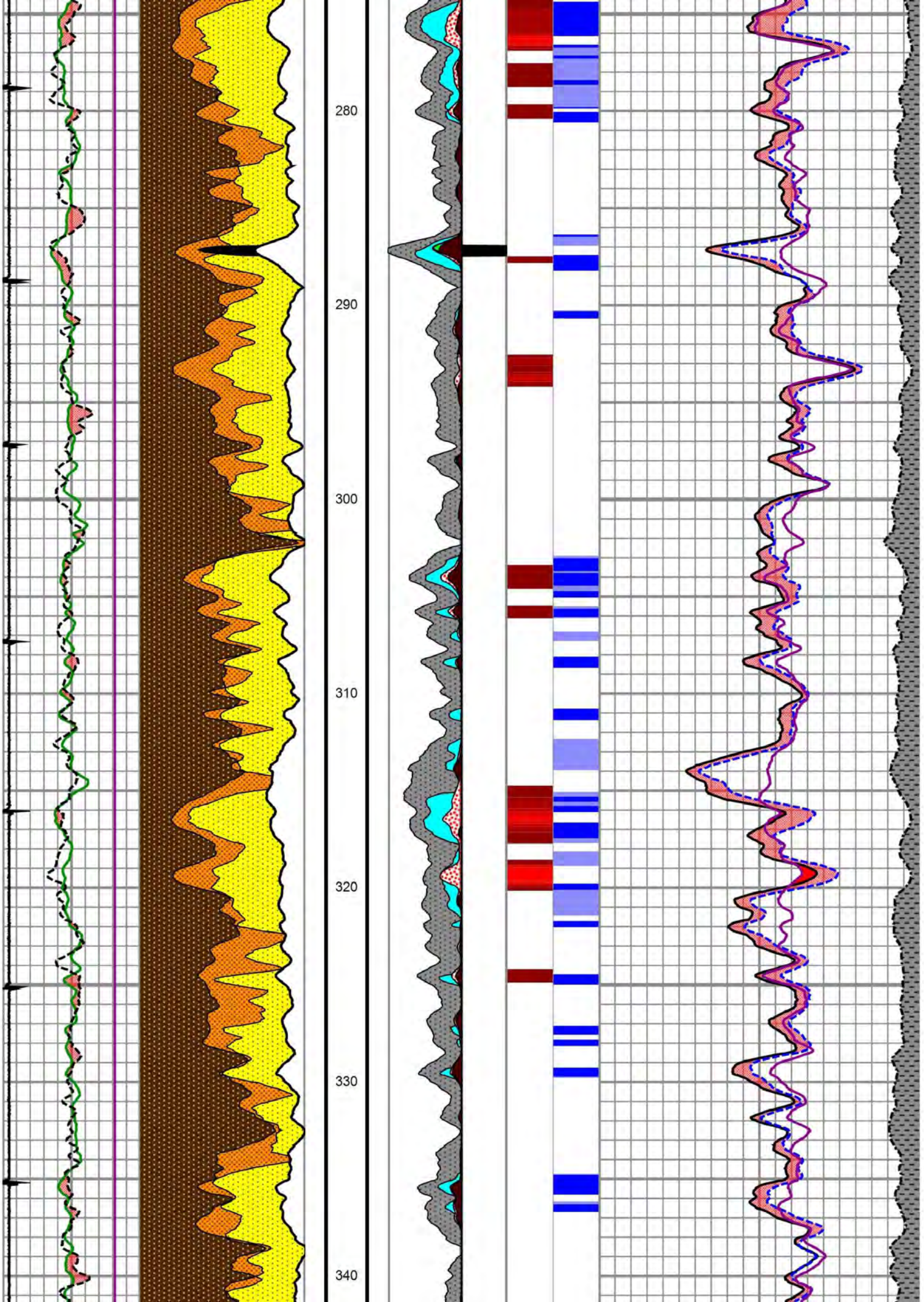
Gamma Ray [GR] (API) 150	100 QEP 0	Depth	Bound Oil	Coal	1 GA 0	3 WA 0	60	Total Porosity [QTP] (pu)	0
Filtered GR [FGR] (API) 150	Shale		Oil				60	Dual Neutron [DDN] (pu)	0
0 BRM 55000	Silt		Gas				60	Relative Density Porosity [NDPOR] (pu)	0
Casing Collar Locator 0 [CCL] 70000	Sand		Water				60	Quad Clay [QC] (pu)	0
High Permeability	Coal		Bound Water					Clay	
	High Bulk Density Material							Light Hydrocarbon	
								Light Bulk Density	

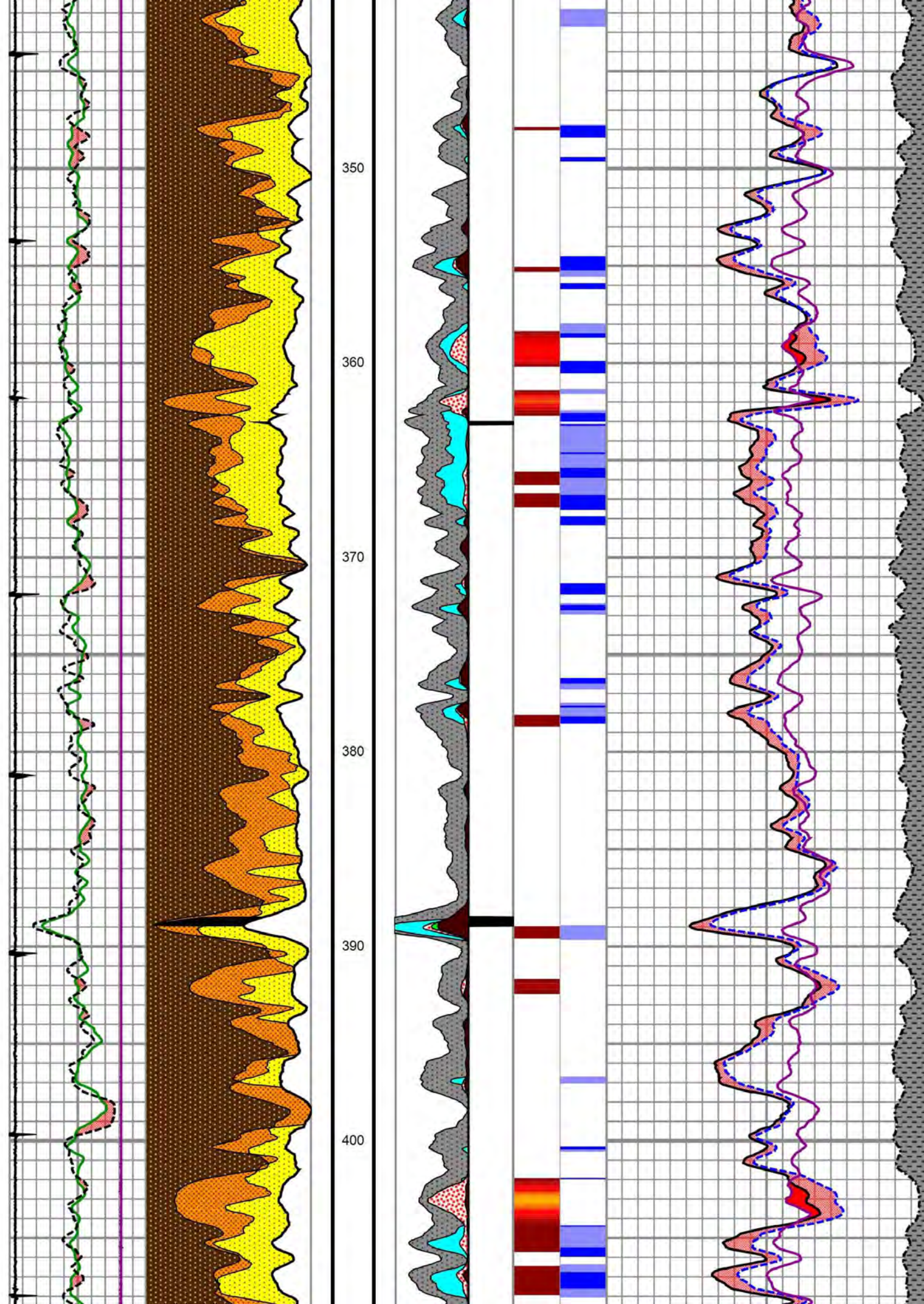


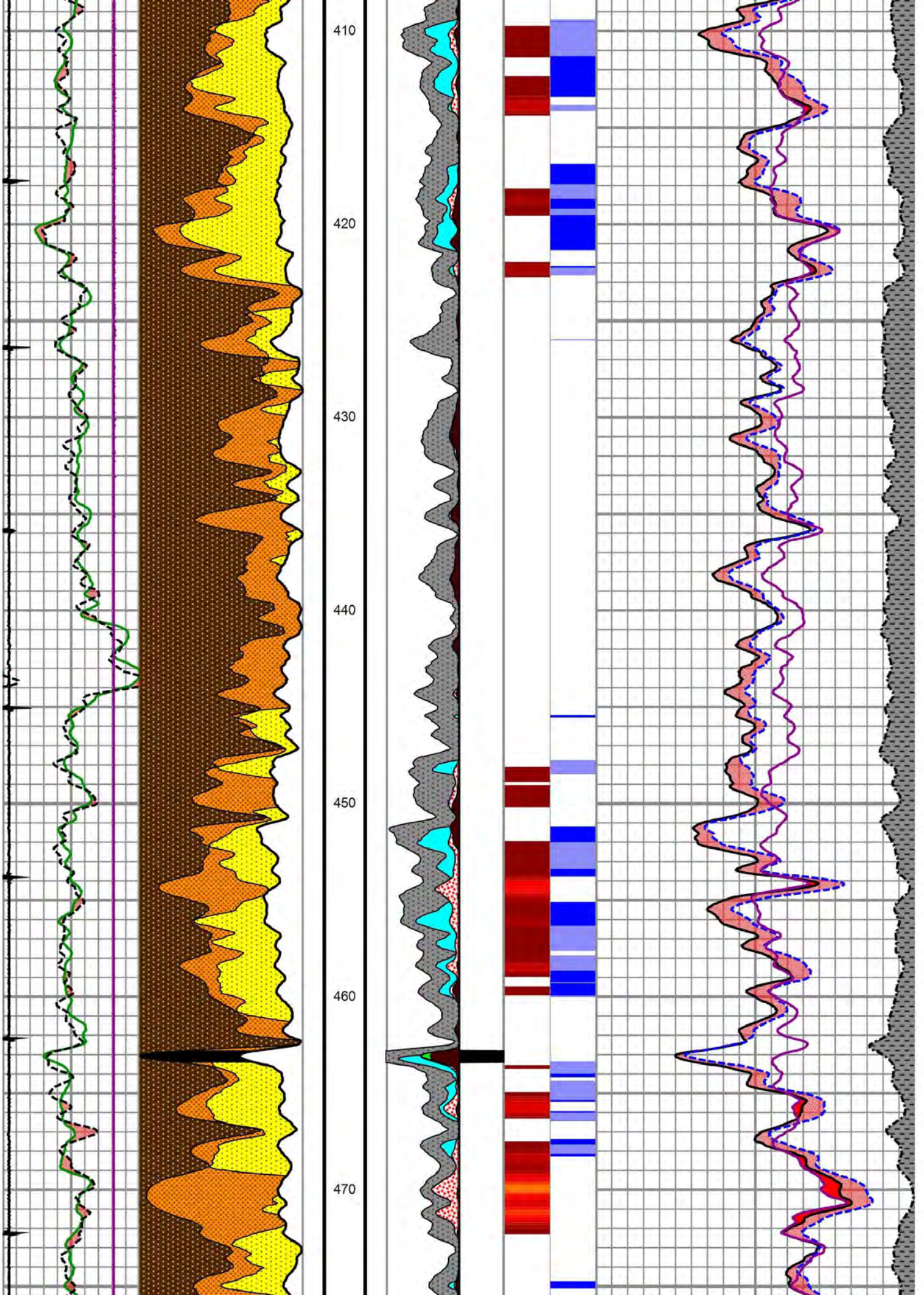


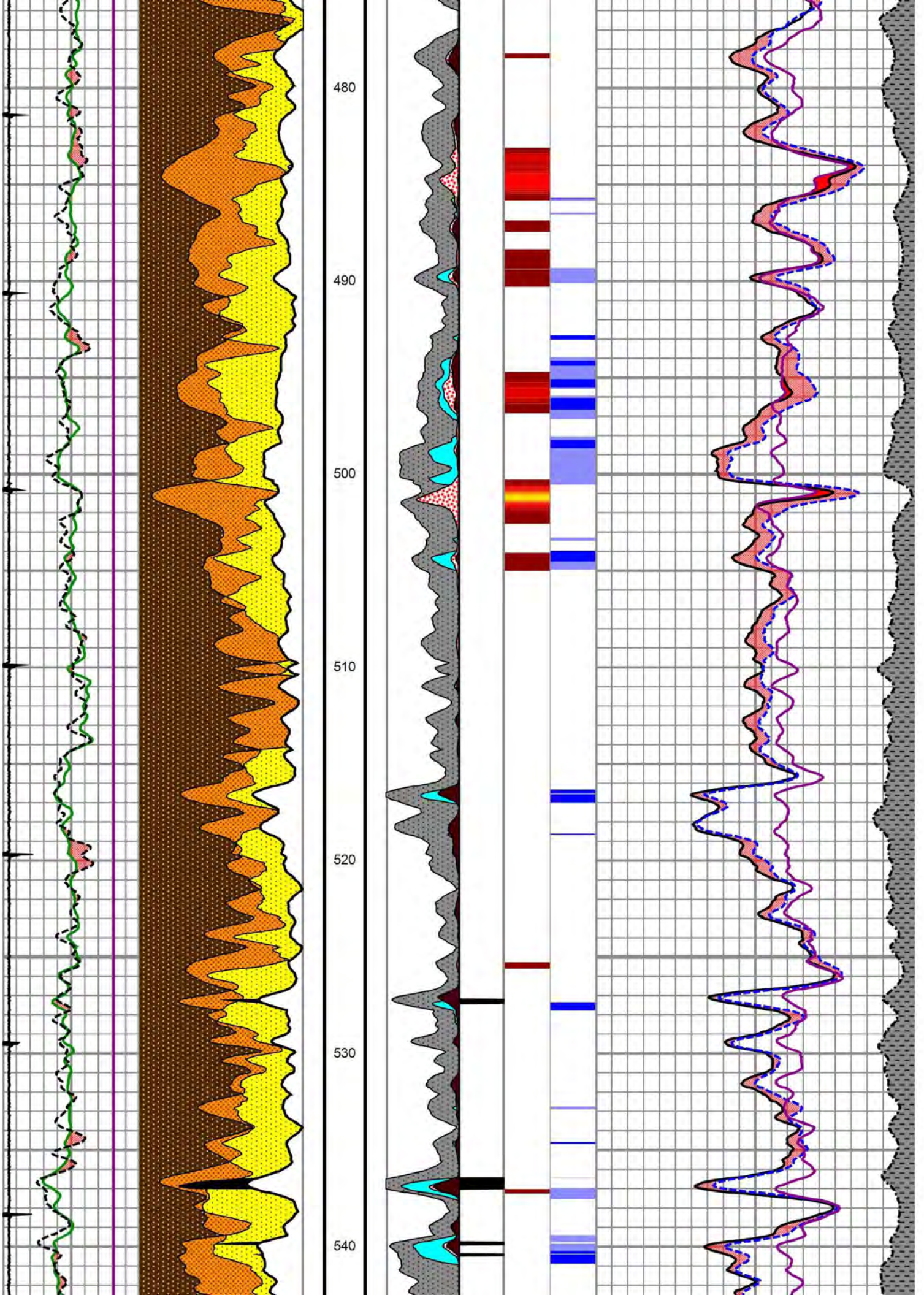


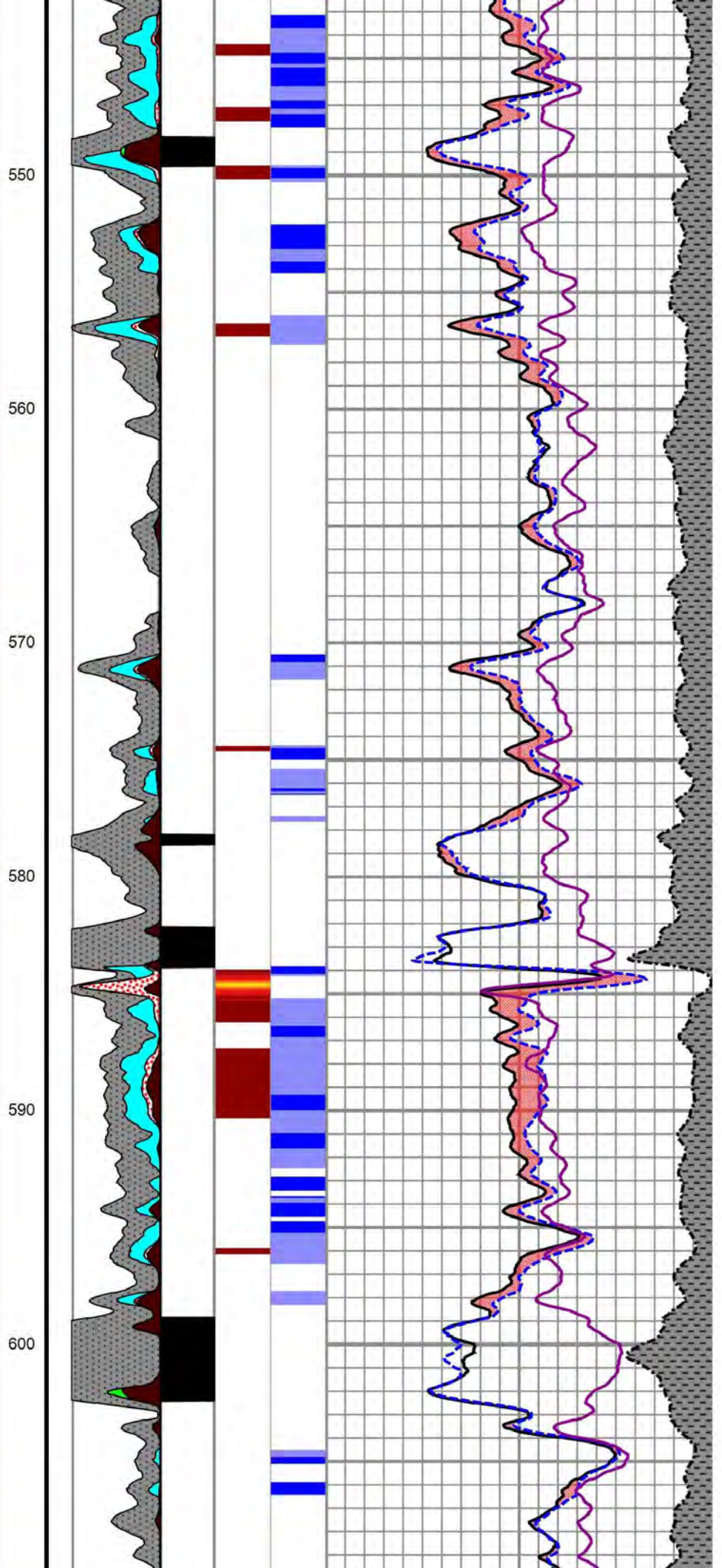
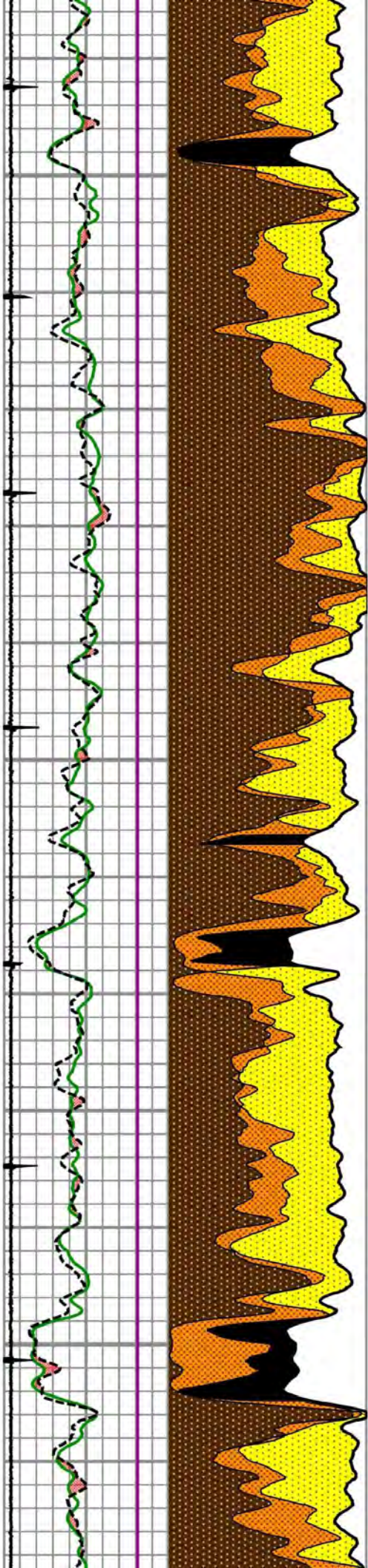


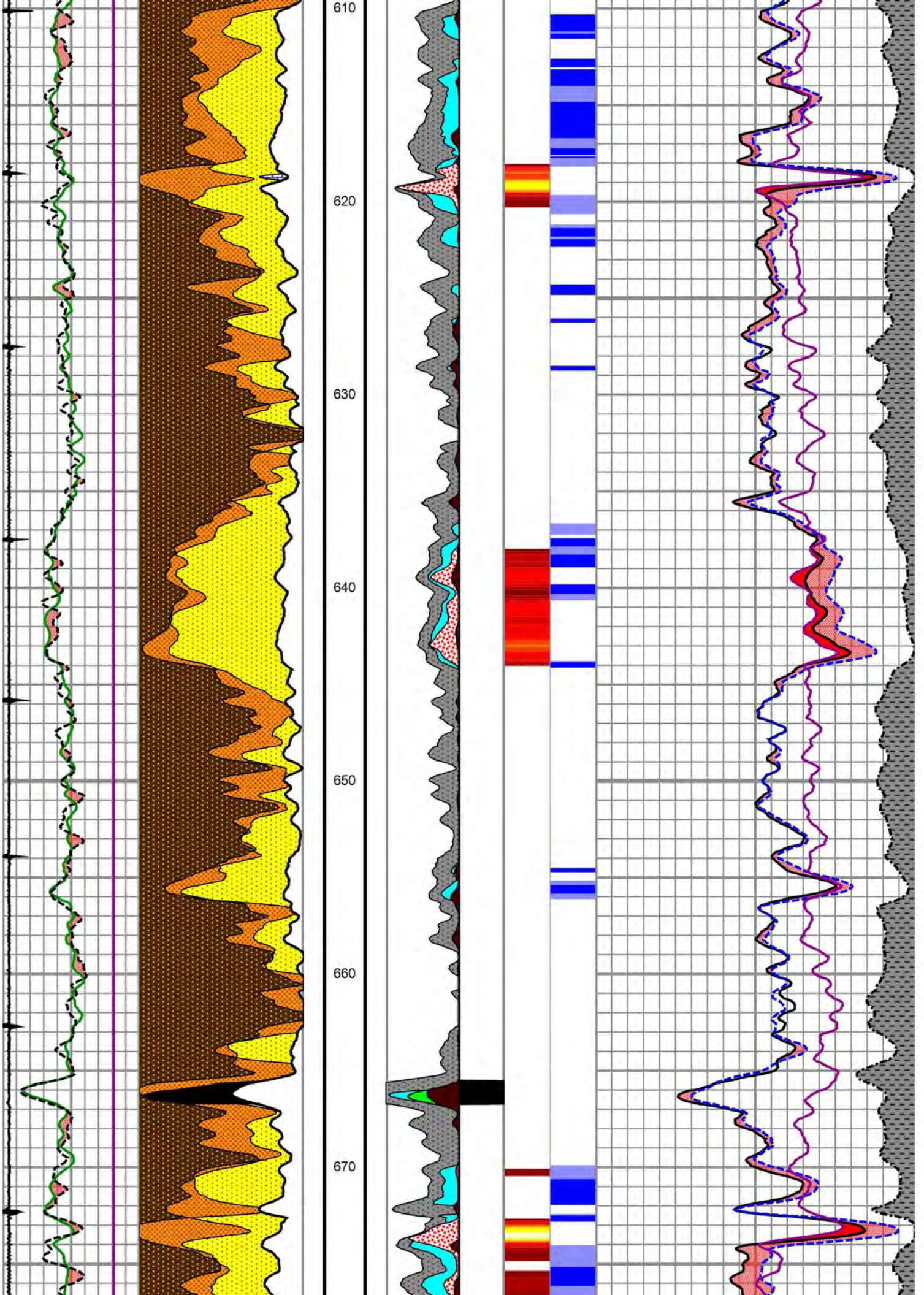


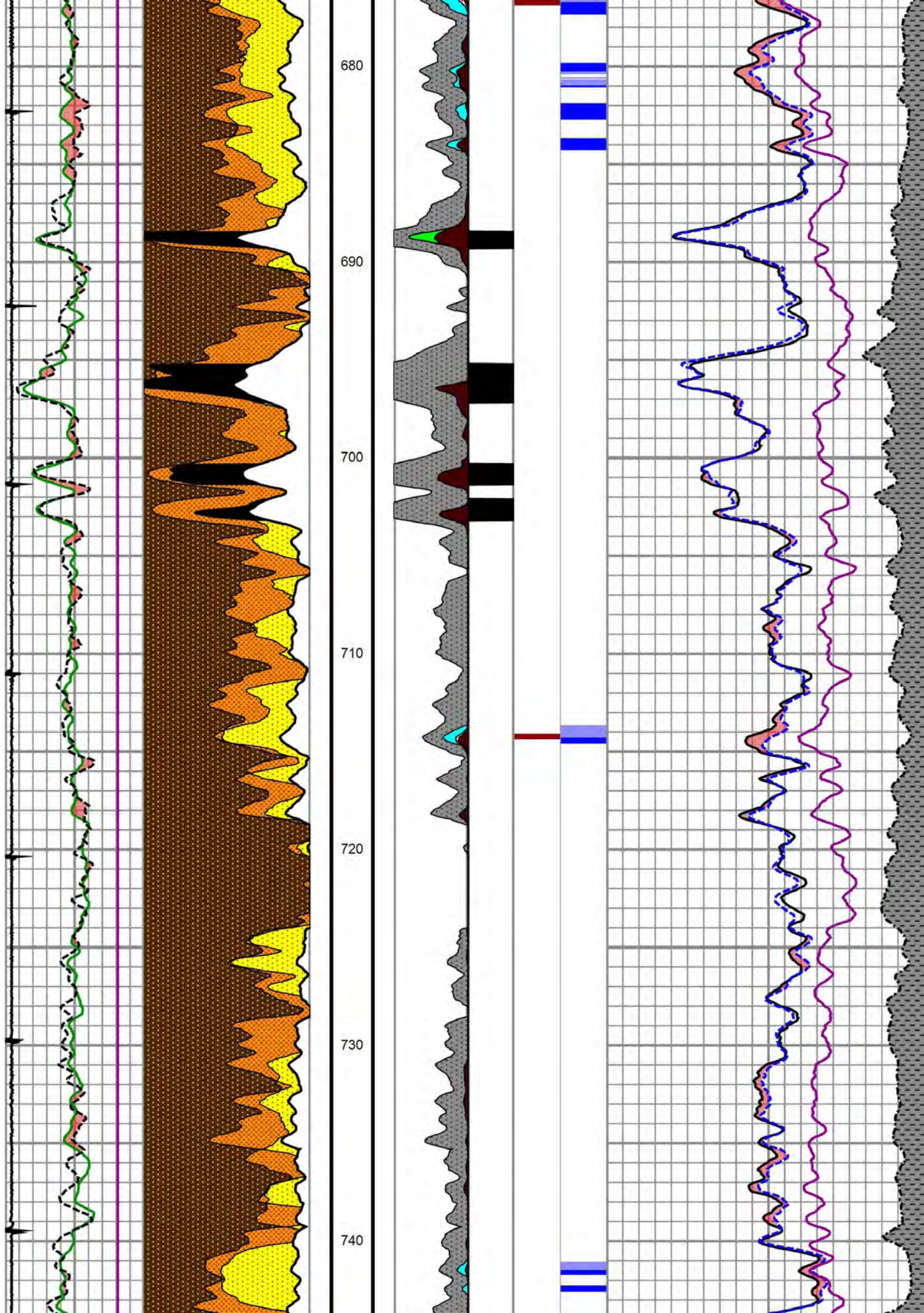


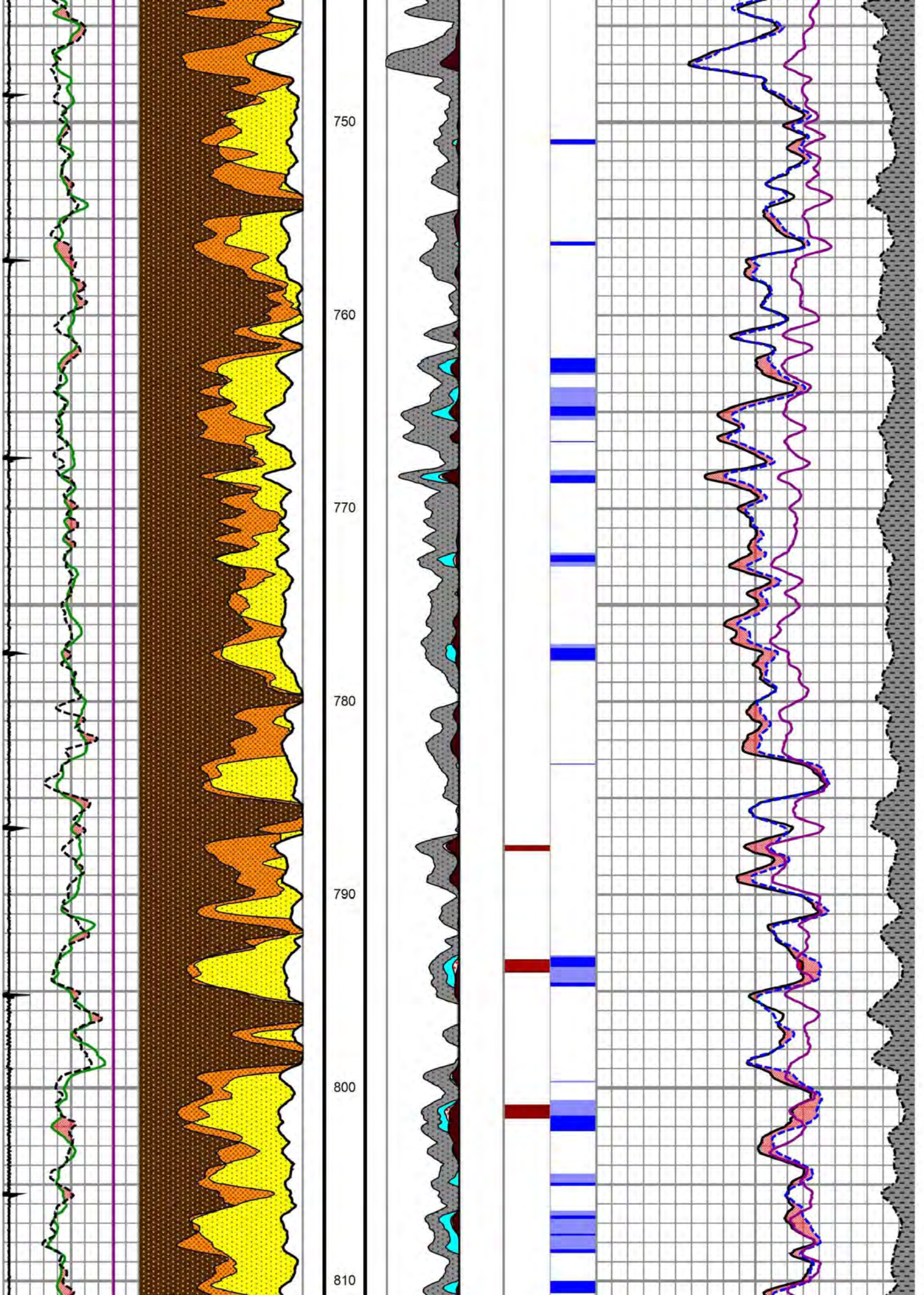


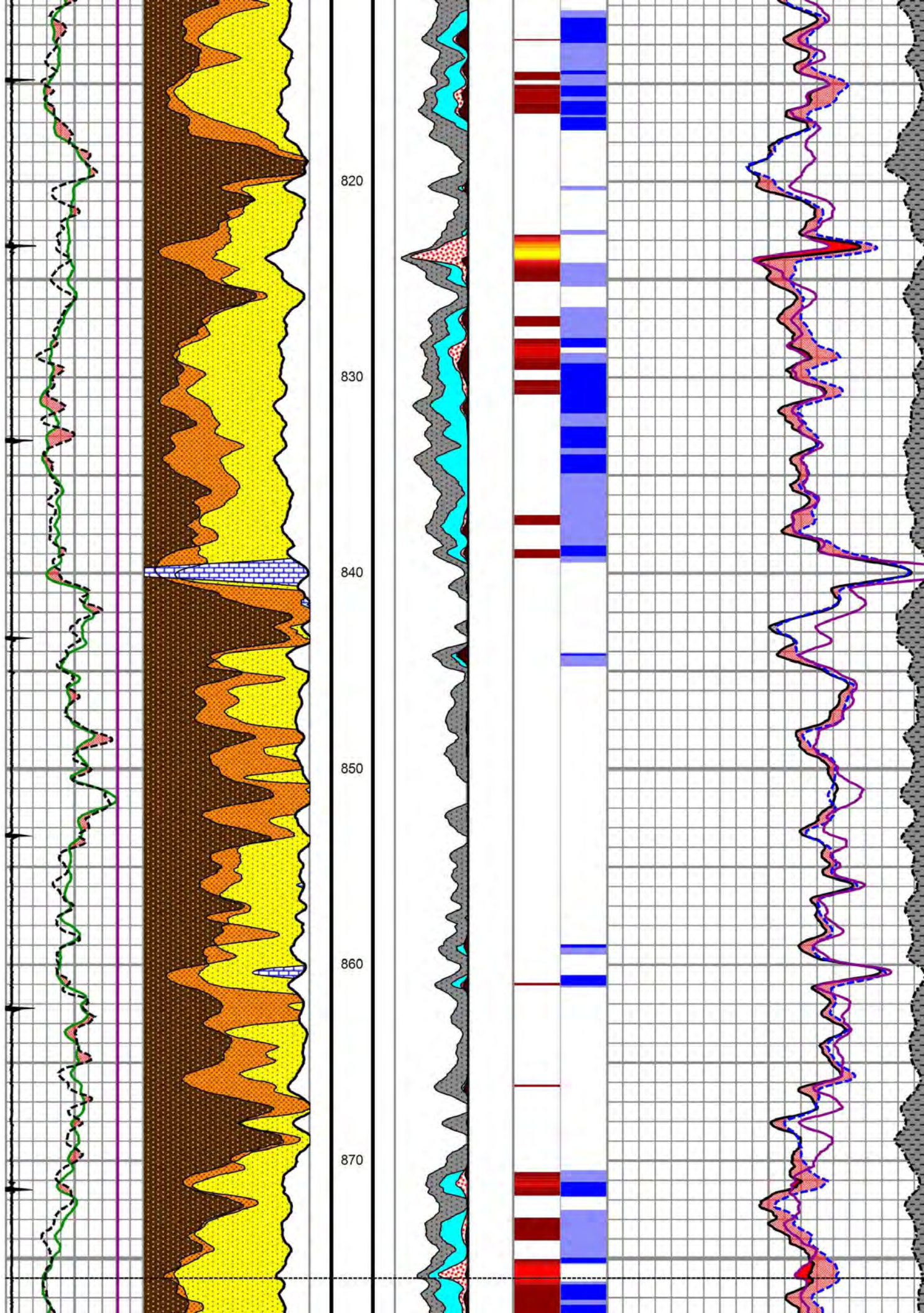


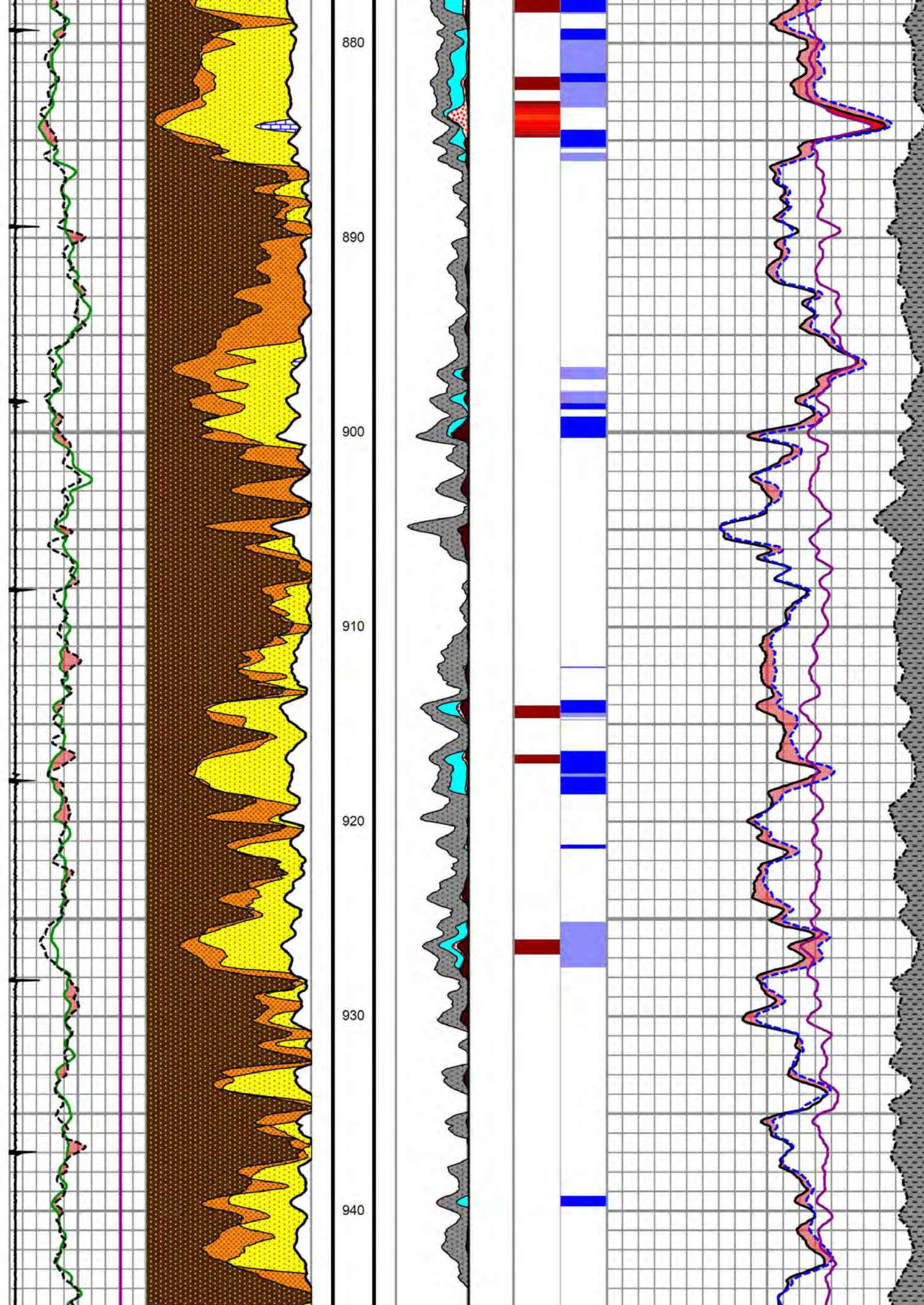


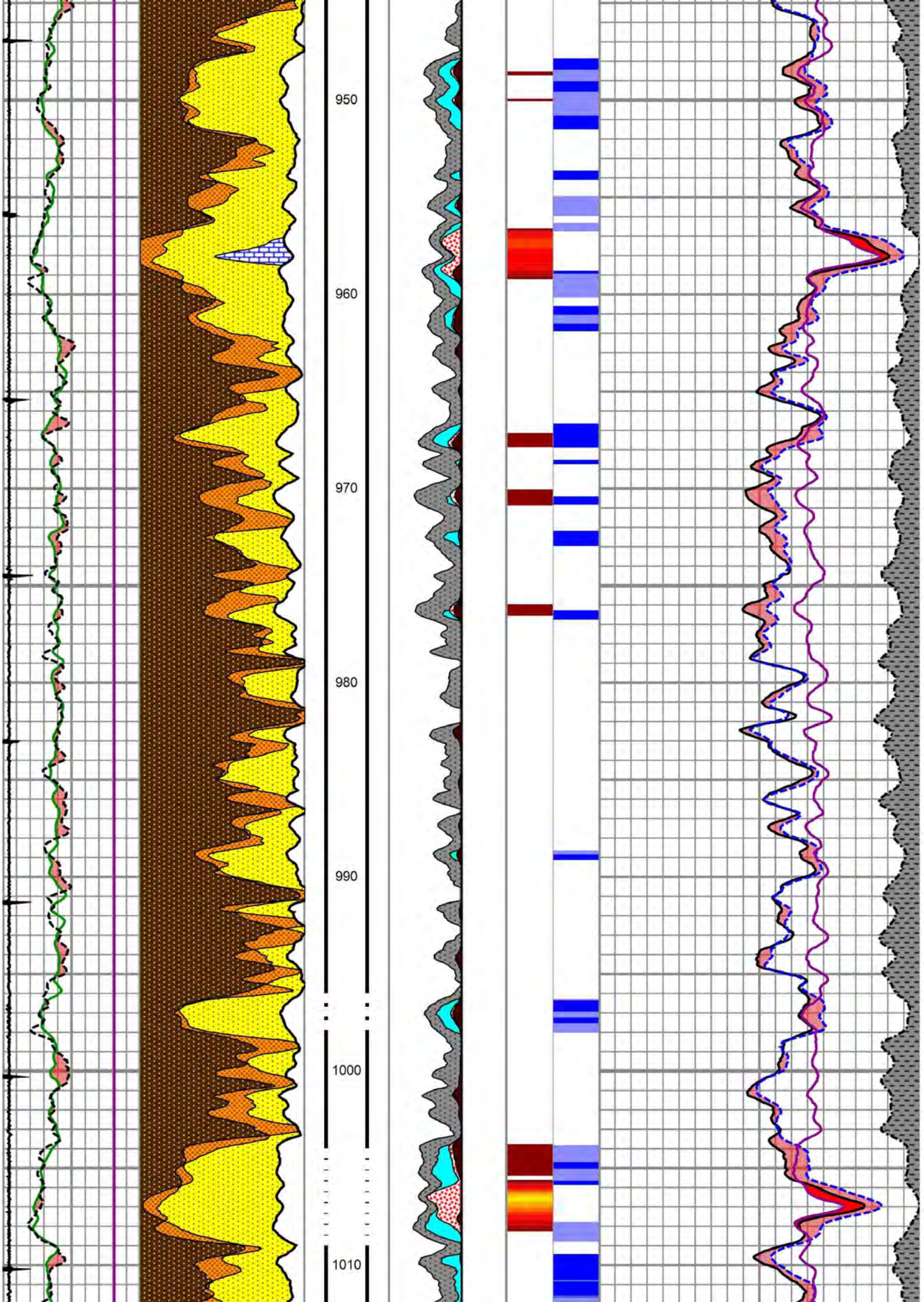


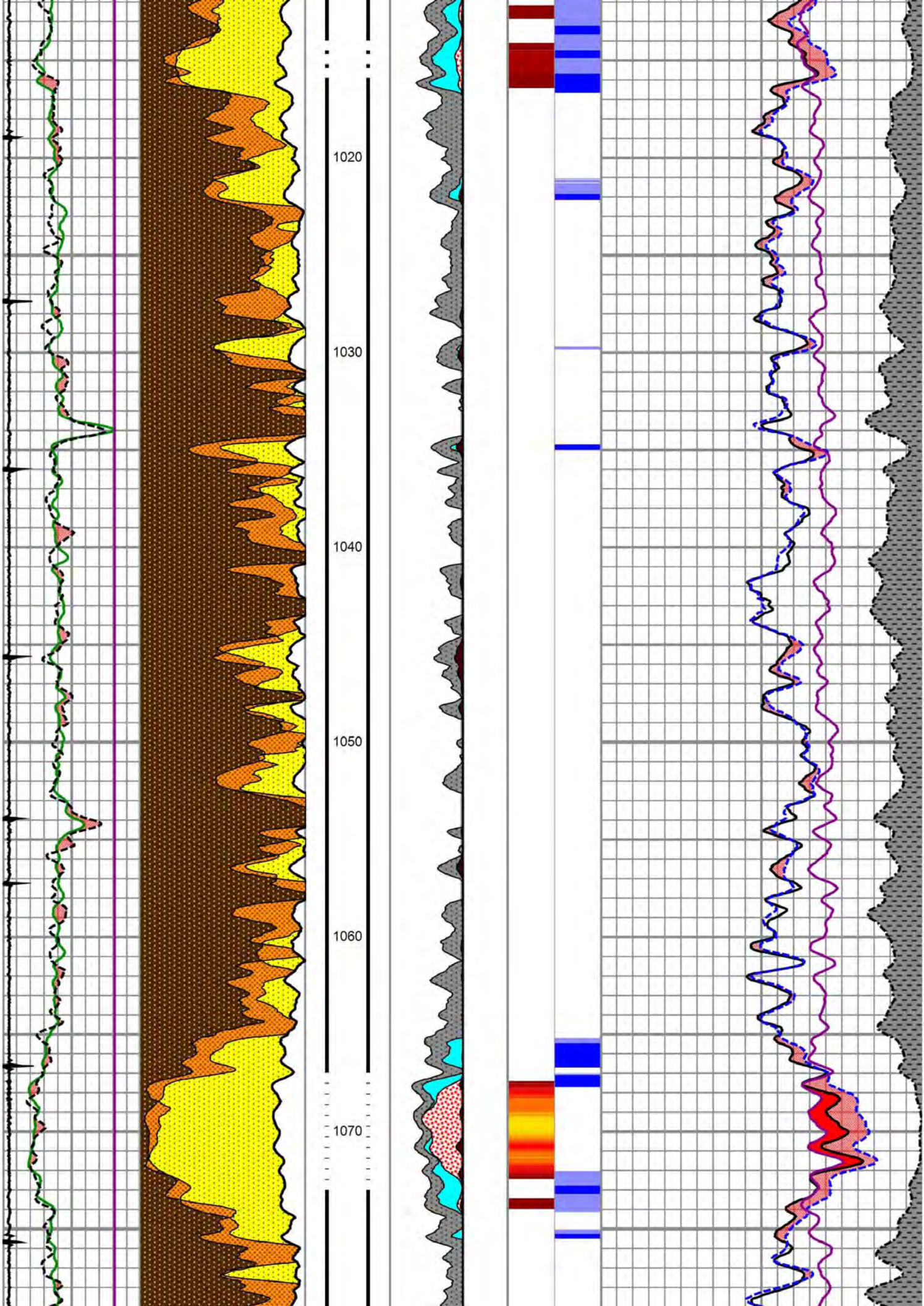


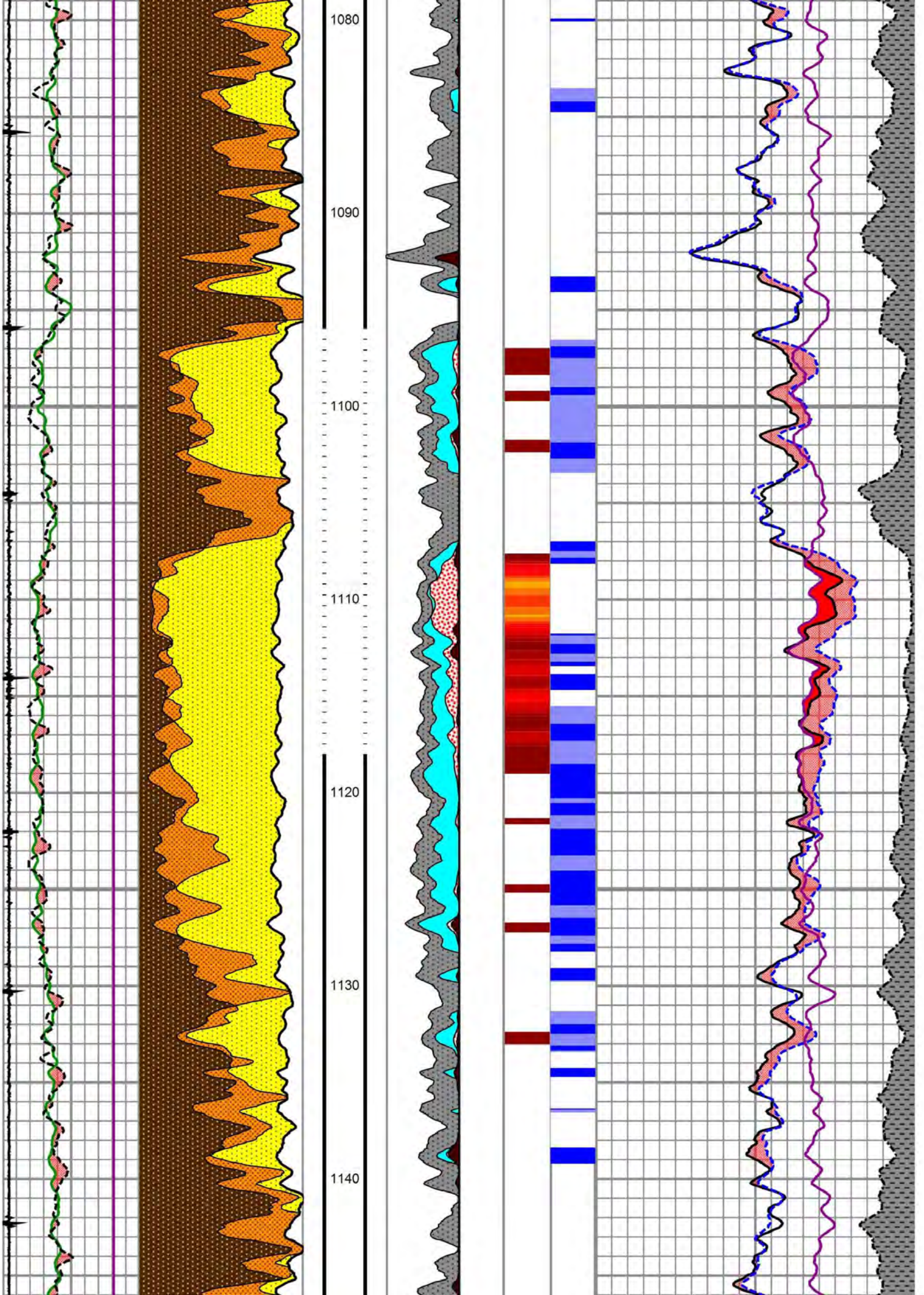












Counts	1	0	1	0					
Saturation	QLce	ddn:0	clay:20	boundwater:0	waterfreeoil:0	boundoil:0	filter:0.3	swak:False	
	coll maxclay:False	coll swqcfp:True	use snnp-innp:False	snnp-innp:0	swoilcor:120827-HK				
Lithology	shale:7	silt (bliquid):6	sand:0	collector:7	calcite min:-4	calcite max:-10	coal porosity:35	hcoal:45	
	use:qc	lgrshale:85	lgrsand:25	lgrcolcut:1	carbonate:False	dolasmud:False	minclayfe:20	qtpqlfe:20	
	fe100:20	nofe:20	Hish:30	Larionov:old					
Effective Porosity	SH	lithology:gr shale/qc silt							
Zone 3									
Top: 876.00 m	Bottom: 1165.00 m	low compaction		nuclear caliper gain:1	water:43 kppm	oil:15 API	I-factor:23	ce gain:0	clay tie:1004
Curve	A	B	Gain	Shift	Curve	WT	Cutoff	Min	Max
QTP	65	-11	1	-5	DGR	0	10	0	65
QL	30.25	-28.5	1.1	-1	GR	0	20	0	60
DDN	2.16	-26.9	0.9	-8	DDN	35	8	0	60
QC	0.0011	-1.5	0.28	-1.5	QC	0	1	0	100
SNNp	-174	60	-174	60	PROP	0	0	0	60
LNNp	-15	46.2267	-15	46.2267	CE	0	3	0	60
SNGp	-159	86.4095	-159	86.4095	COAL	1	42	0	60
LNGp	-21	64.4076	-21	64.4076	calcite	1	15	0	60
FGR	1	0	1.8	0	CEp	65	4	0	100
CEp	1	0	2.2	23					
SNNpost	1	0	1	0					
SNGpost	1	0	1	0					
CNL	1	0	1	3					
IntCounts	1	0	1	0					
Saturation	QLce	ddn:0	clay:20	boundwater:0	waterfreeoil:0	boundoil:0	filter:0.3	swak:False	
	coll maxclay:False	coll swqcfp:True	use snnp-innp:False	snnp-innp:0	swoilcor:120827-HK				
Lithology	shale:7	silt (bliquid):6	sand:0	collector:7	calcite min:-4	calcite max:-10	coal porosity:35	hcoal:45	
	use:qc	lgrshale:65	lgrsand:25	lgrcolcut:1	carbonate:False	dolasmud:False	minclayfe:20	qtpqlfe:20	
	fe100:20	nofe:20	Hish:30	Larionov:old					
Effective Porosity	SH	lithology:gr shale/qc silt							