



Radial Cement Bond
Variable Density Log
W/ Gamma/ CCL/ Temp

Company Antero Resources
Well Eldon Folger 2H
Field River Front
County Tyler
State WV

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Well Eldon Folger 2H
Field River Front
County Tyler State WV

Location: API #: 47-095-02784

Other Services

SEC	TWP	RGE	Elevation
Permanent Datum	Ground Level	Elevation	K.B.
Log Measured From	Kelly Bushing 30' A.P.D.		D.F.
Drilling Measured From	Kelly Bushing		G.L.

Date	17-Sep-2022			
Run Number	One			
Depth Driller	21,790'			
Depth Logger	7,004'			
Bottom Logged Interval	7,006'			
Top Log Interval	Surface			
Open Hole Size	8.75"			
Type Fluid	Water			
Density / Viscosity	8.3#			
Max. Recorded Temp.	137 Deg.F.			
Estimated Cement Top	4,448'			
Time Well Ready	11:00			
Time Logger on Bottom	11:20			
Equipment Number	104 P2 G2			
Location	Charleroi			
Recorded By	Matt McNally			
Witnessed By	Justin Deffie			
Borehole Record				
Run Number	Bit	From	To	Size
				Weight
				From
				To
Tubing Record				
Casing Record	Size		Wgt/Ft	Top
Conductor String				Bottom
Surface String				
Intermediate String				
Intermediate String				
Production String	5 1/2"		23#	Surface
				21,790'

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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

Primary Log on Well
Log Correlated to Marker Joint at 6,494'-6,506'
Depth Shift -34'
Main Pass 1,500 PSI
Repeat Pass 0 PSI
100 % Free Pipe= 71.9mv
100 % Bond=3.4mv

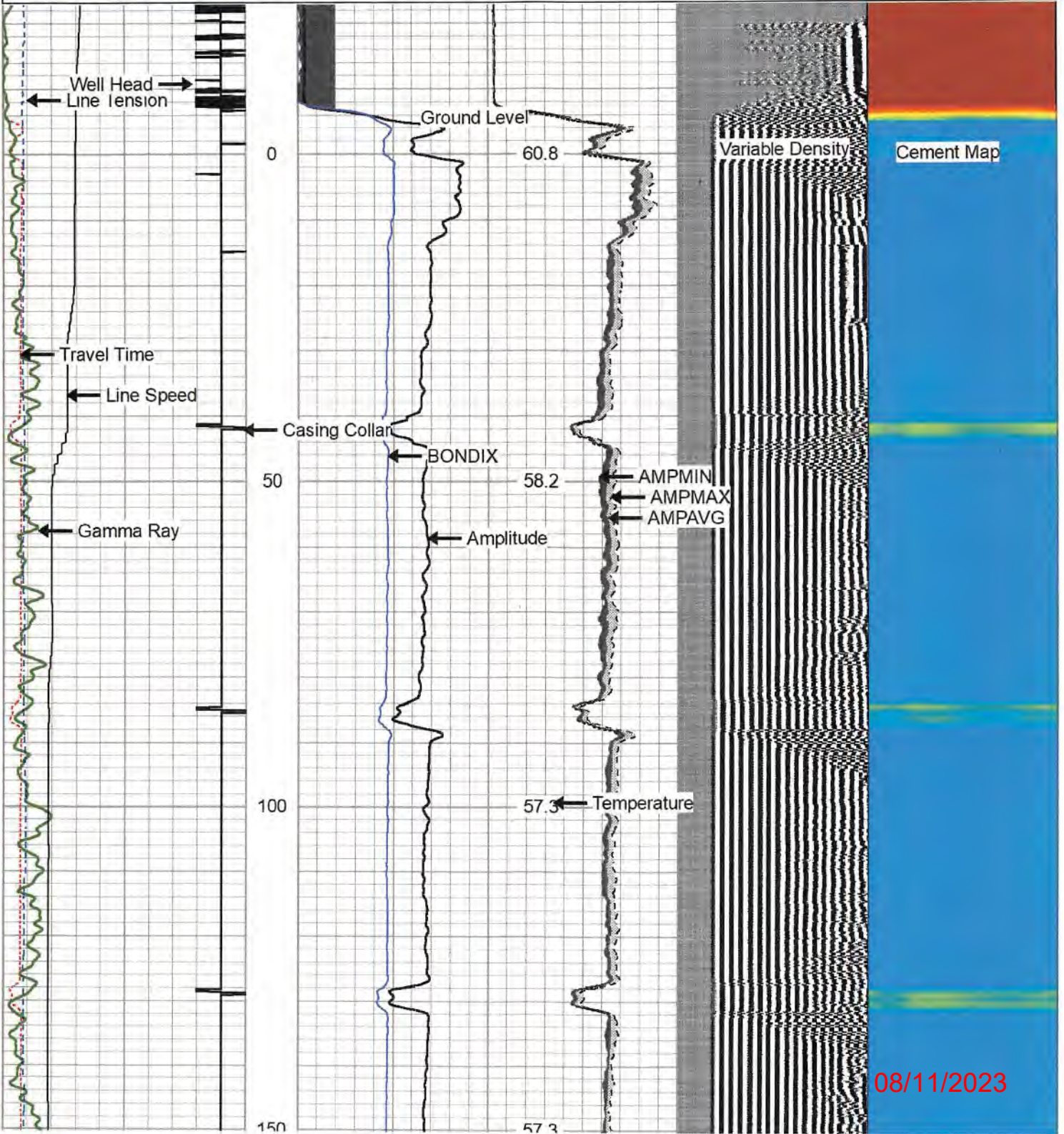
Thank You for Choosing Nine Energy of Charleroi, Pa.

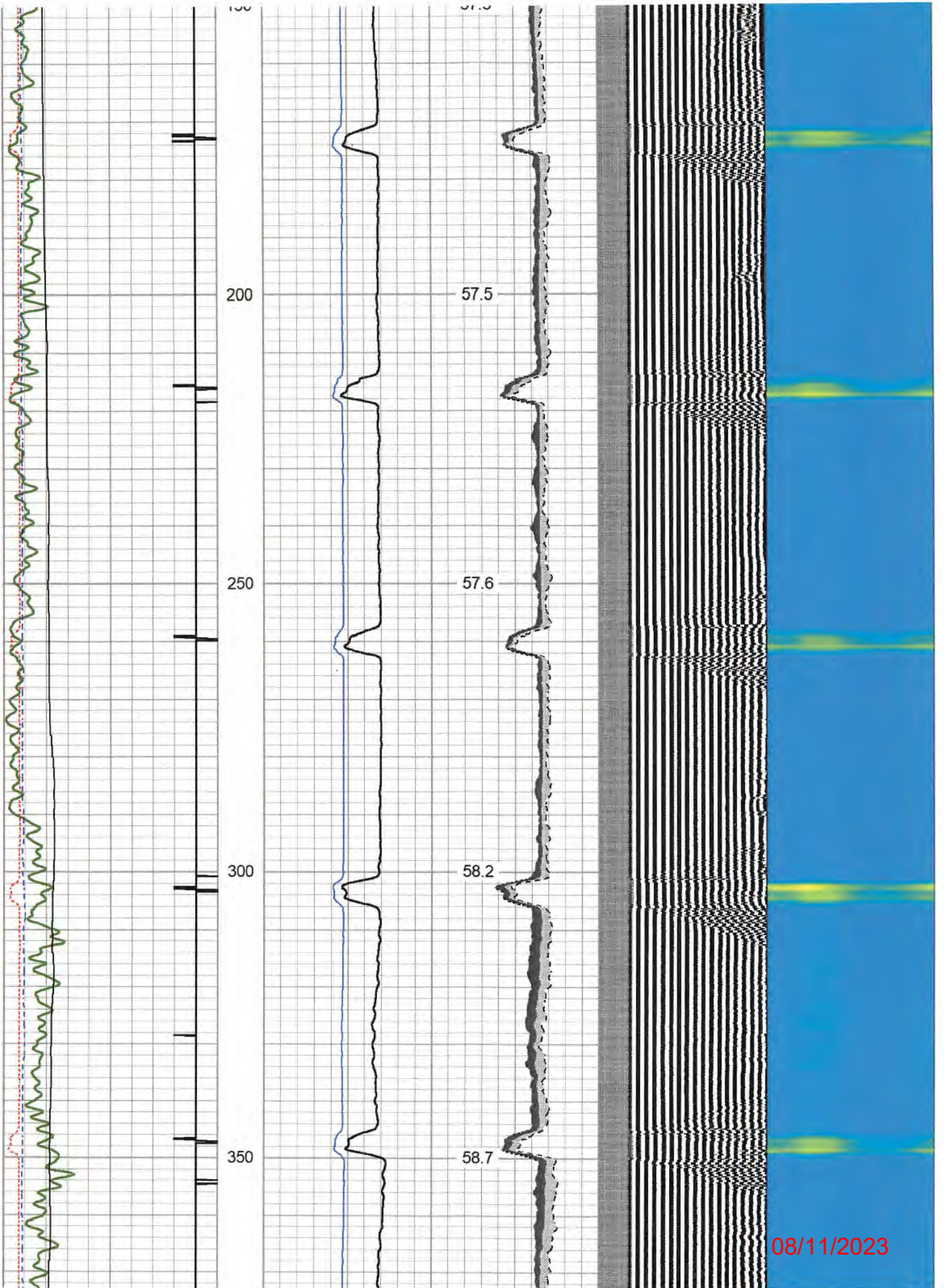


Main Pass 1,500 PSI

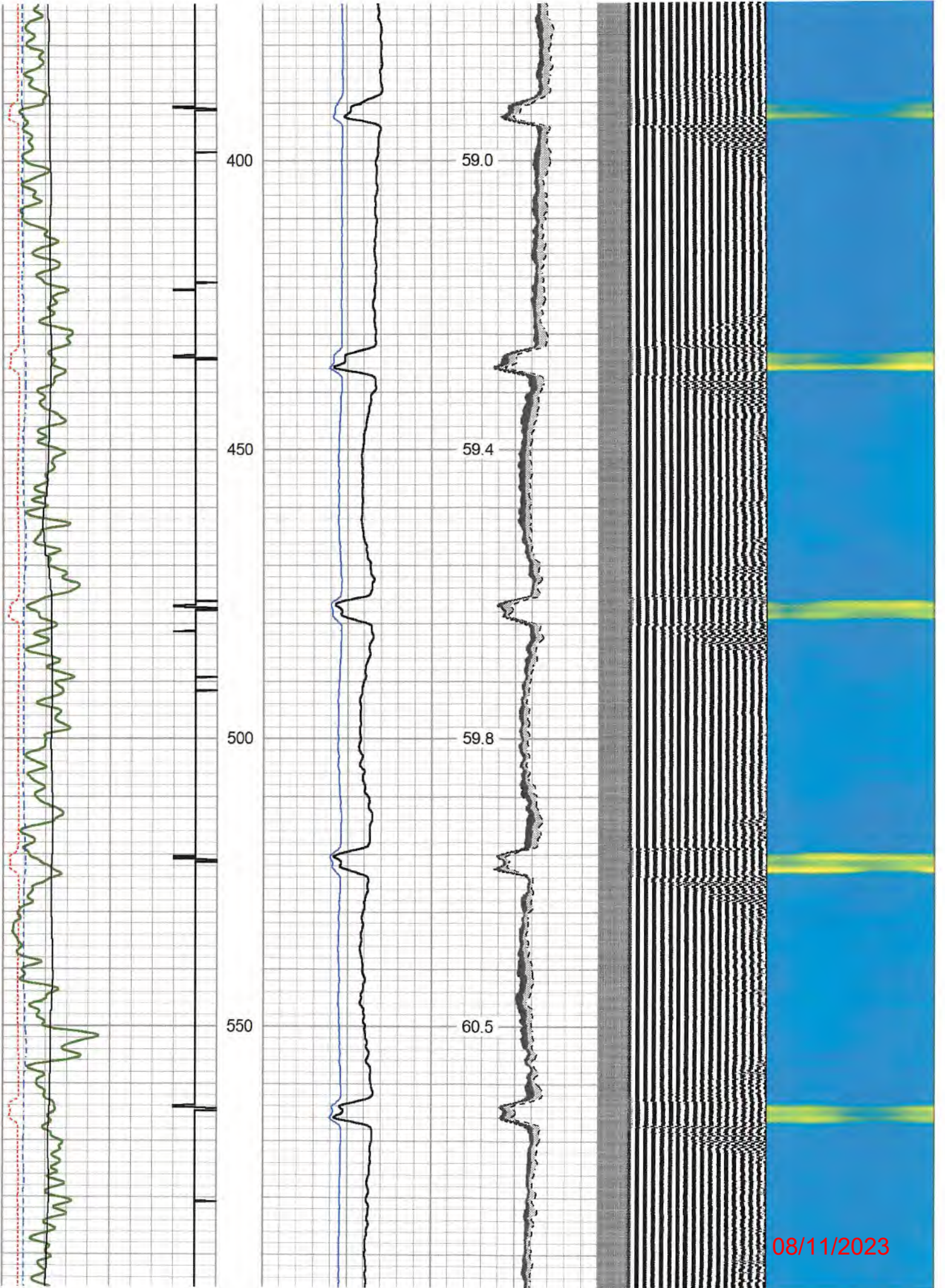
Database File antero_folger_2h_rcbl_17_sep_2022.db
 Dataset Pathname river_front/folger_2h/run1/pass4
 Presentation Format rcbl-bond index 1020
 Dataset Creation Fri Sep 16 21:57:07 2022
 Charted by Depth in Feet scaled 1:240

270	Travel Time (usec)	160	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	150	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150				
	Line Speed						TEMP					
-200	(ft/min)	200					(degF)					
0	Line Tension (lb)	3000										

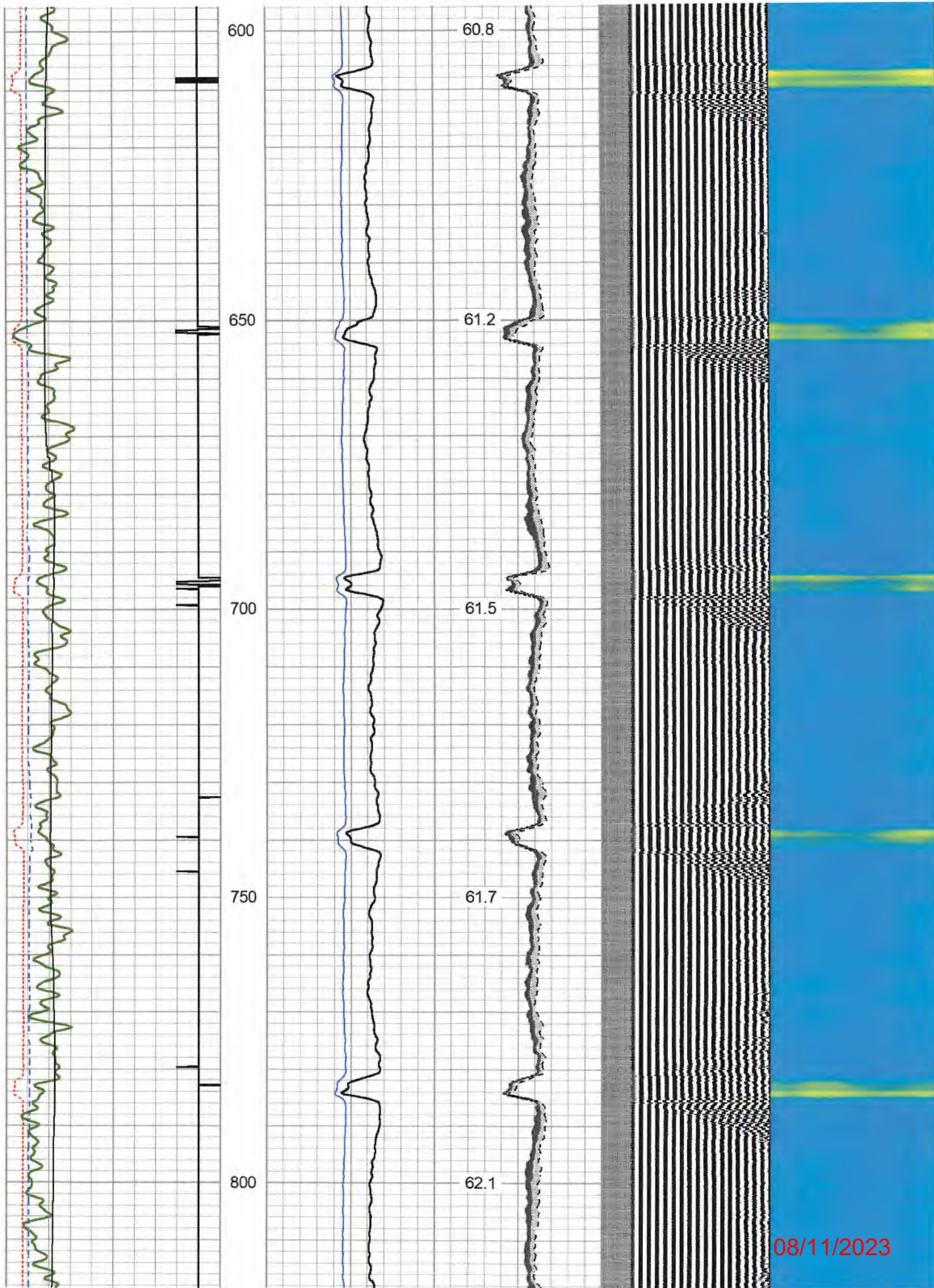


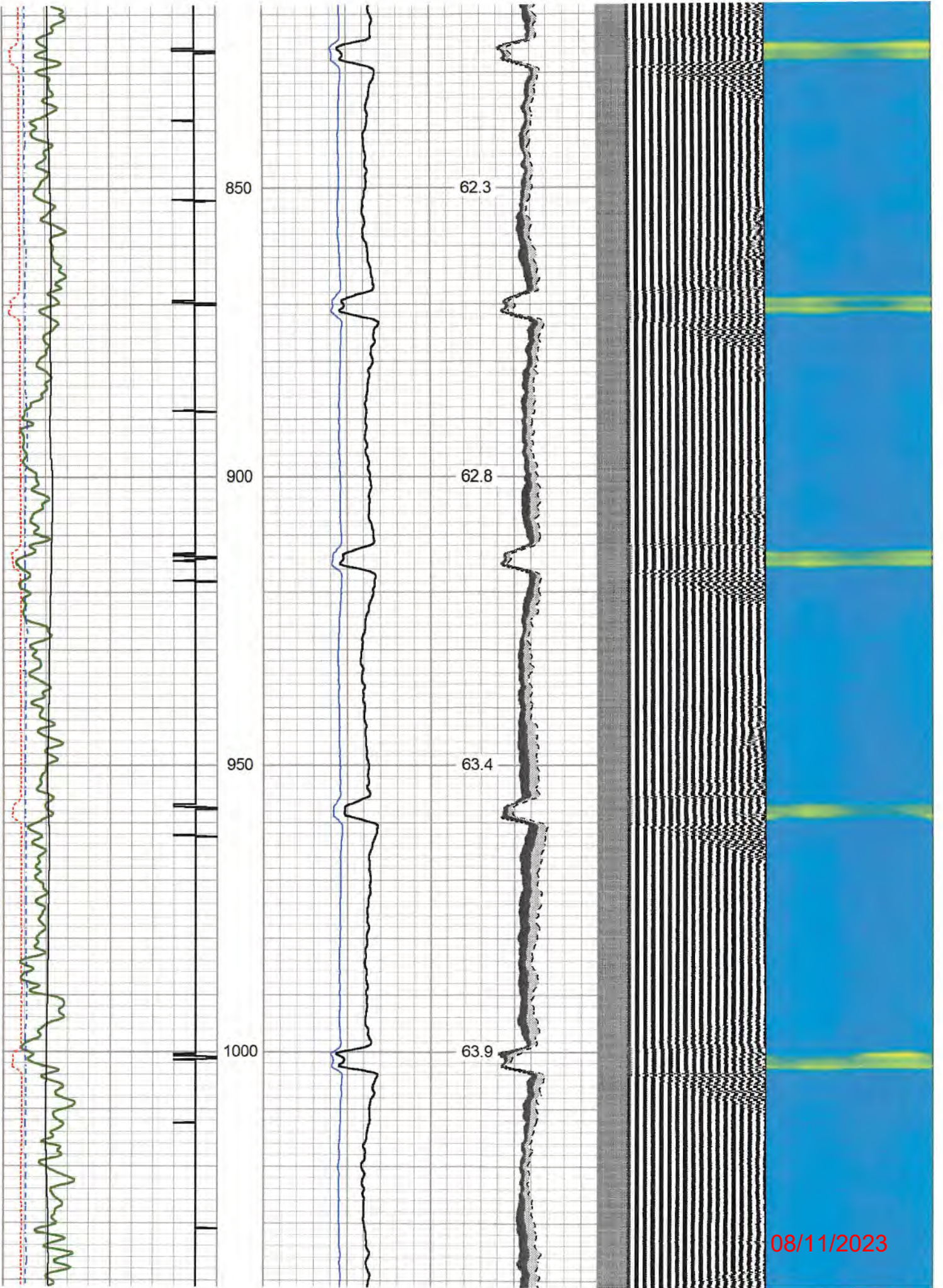


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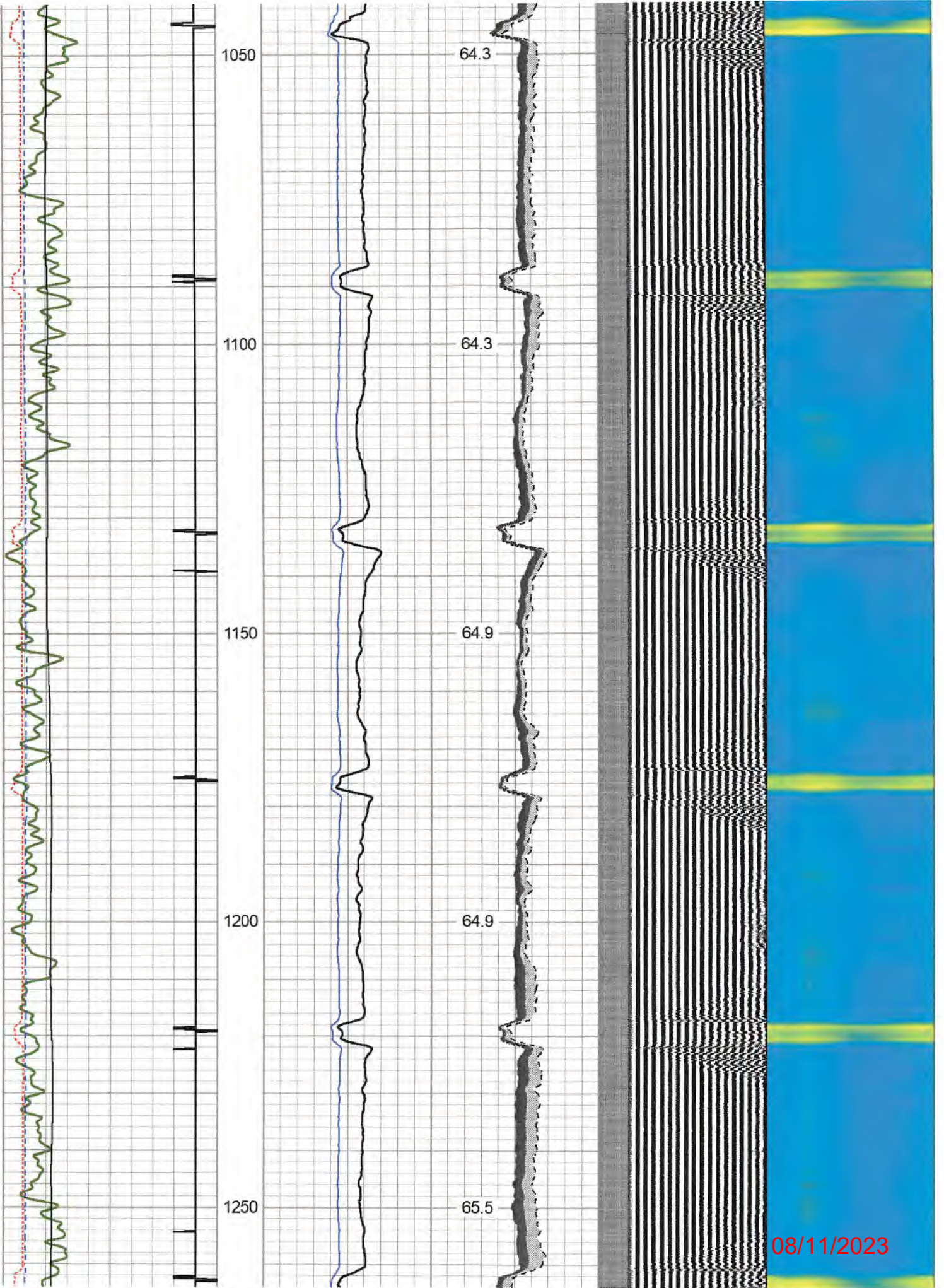


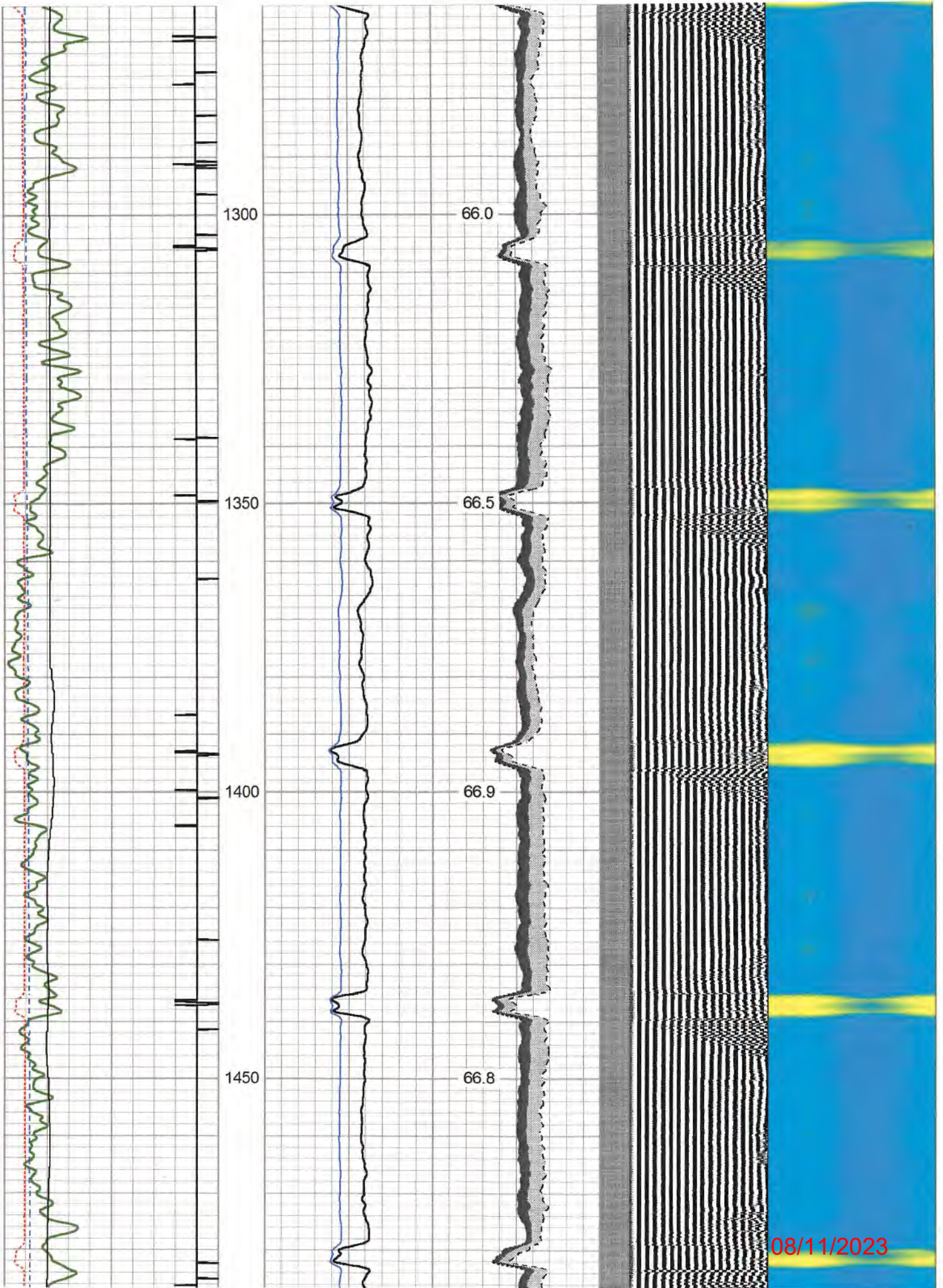
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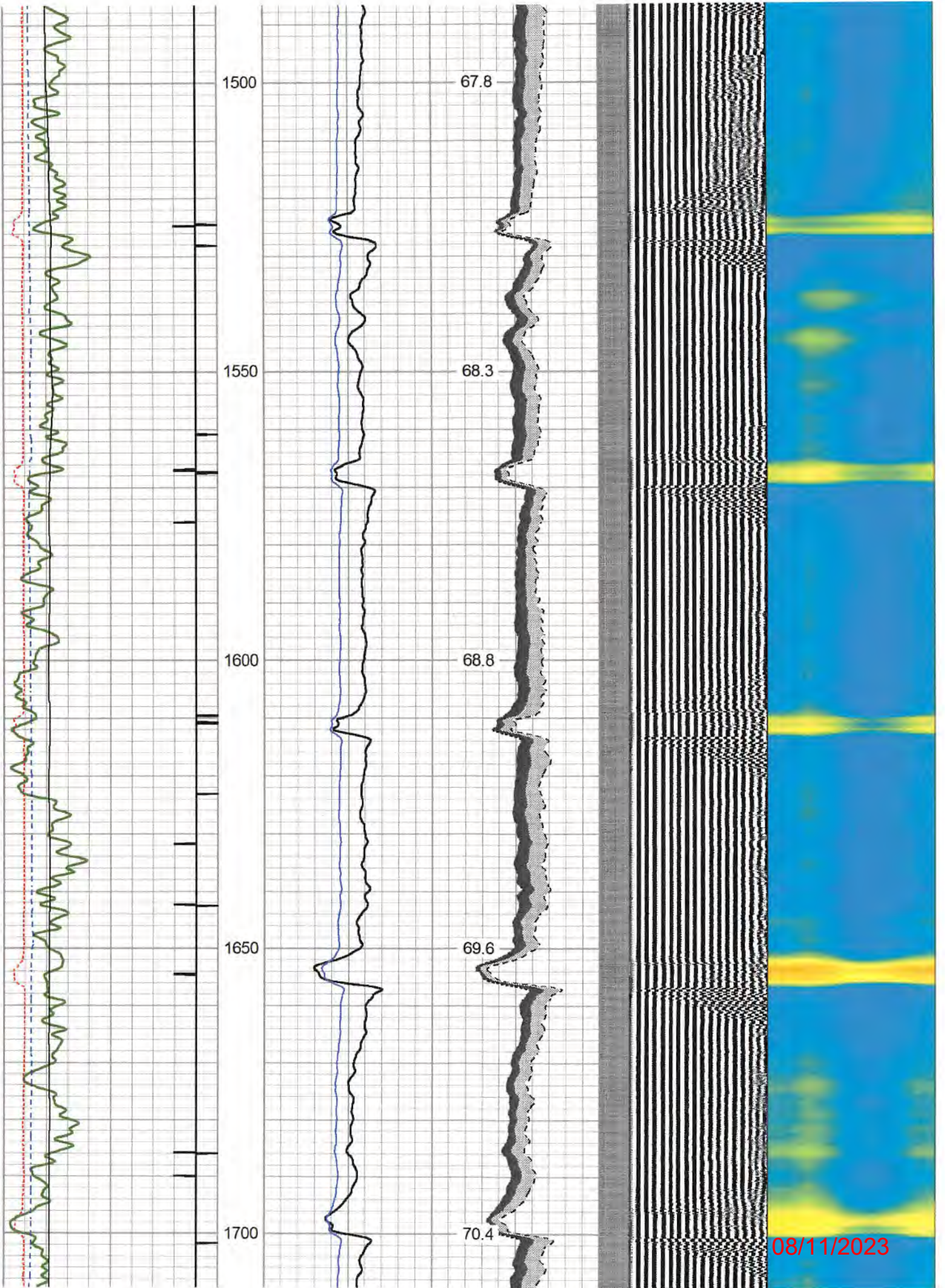




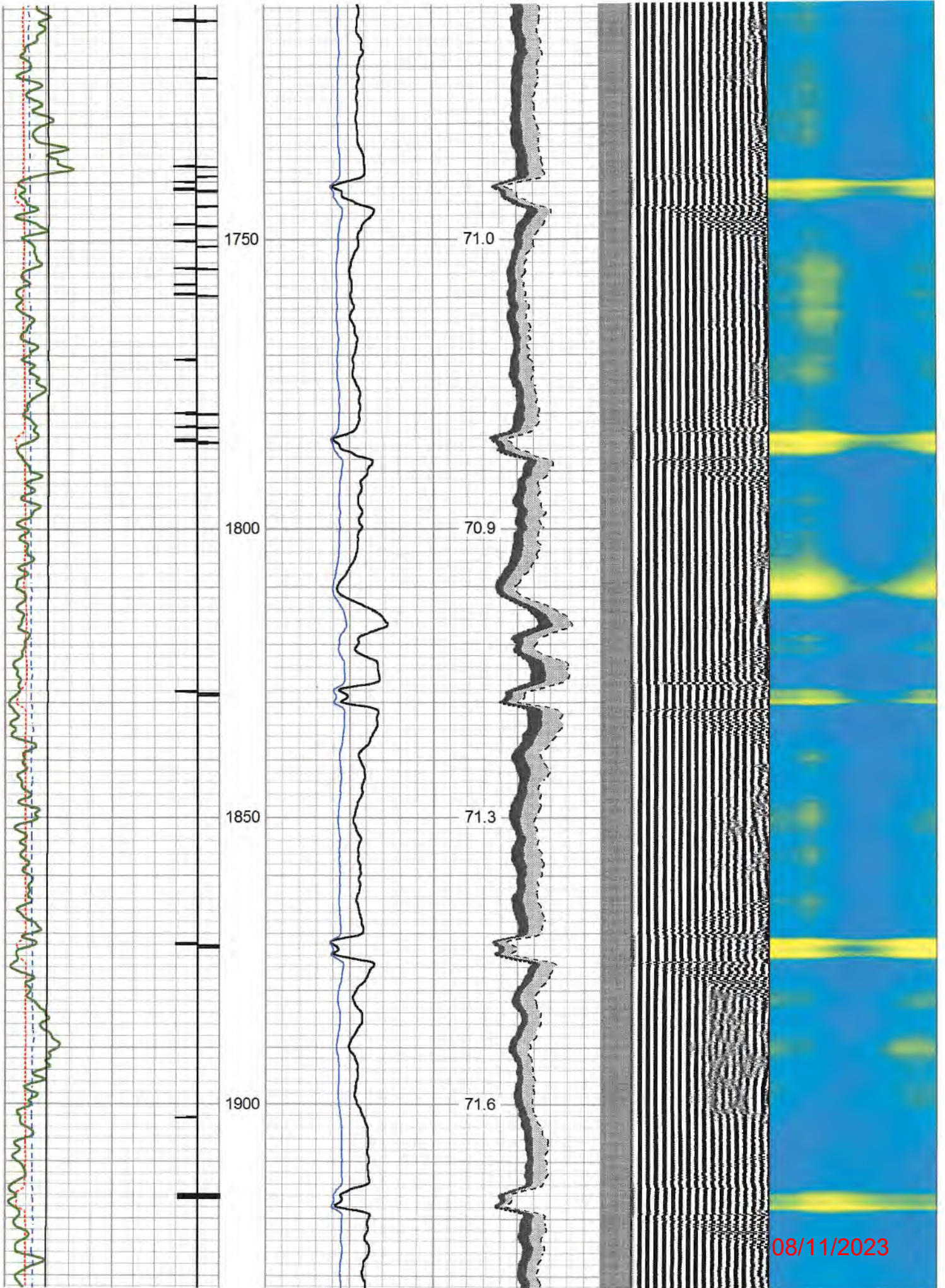
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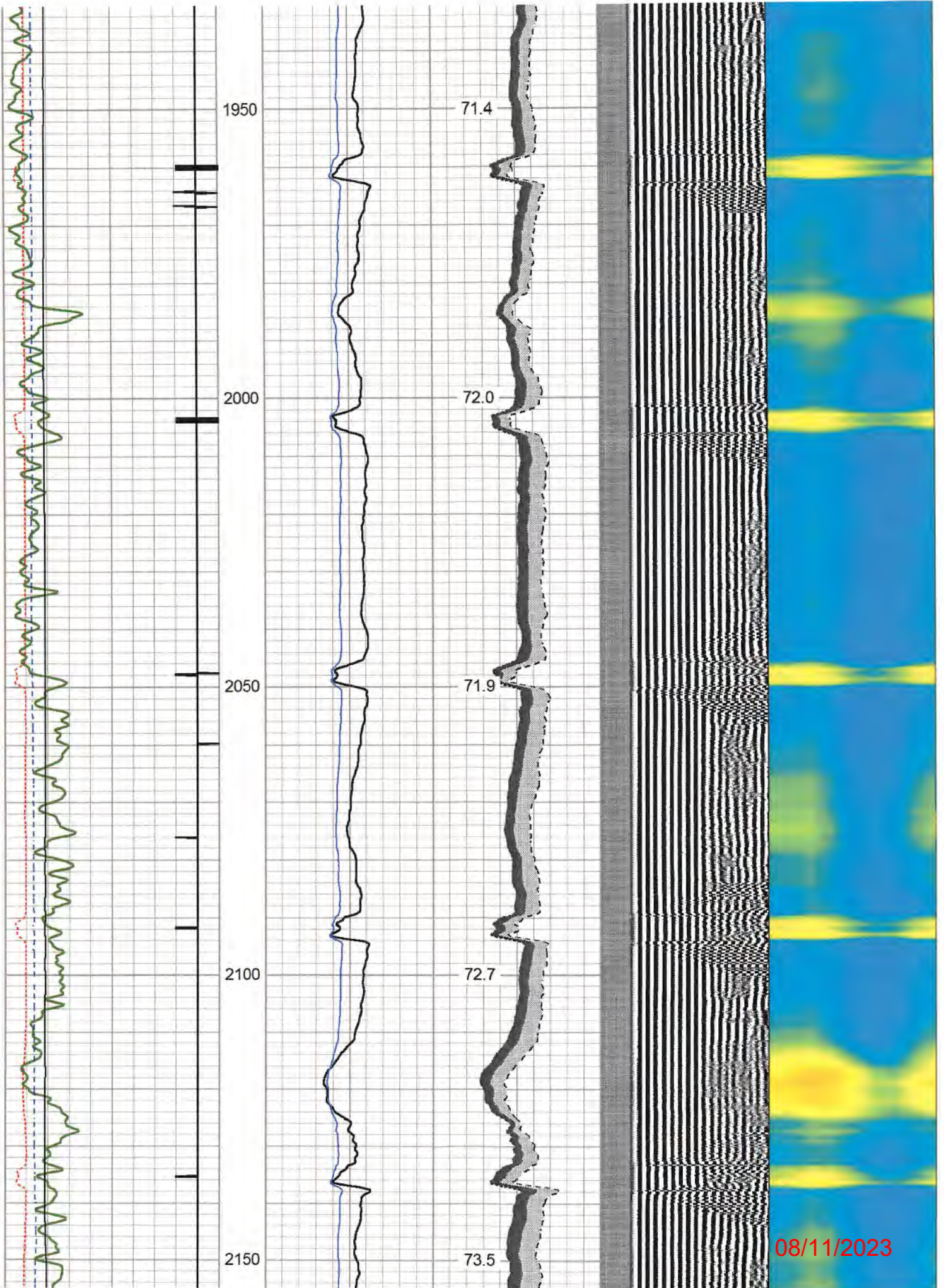


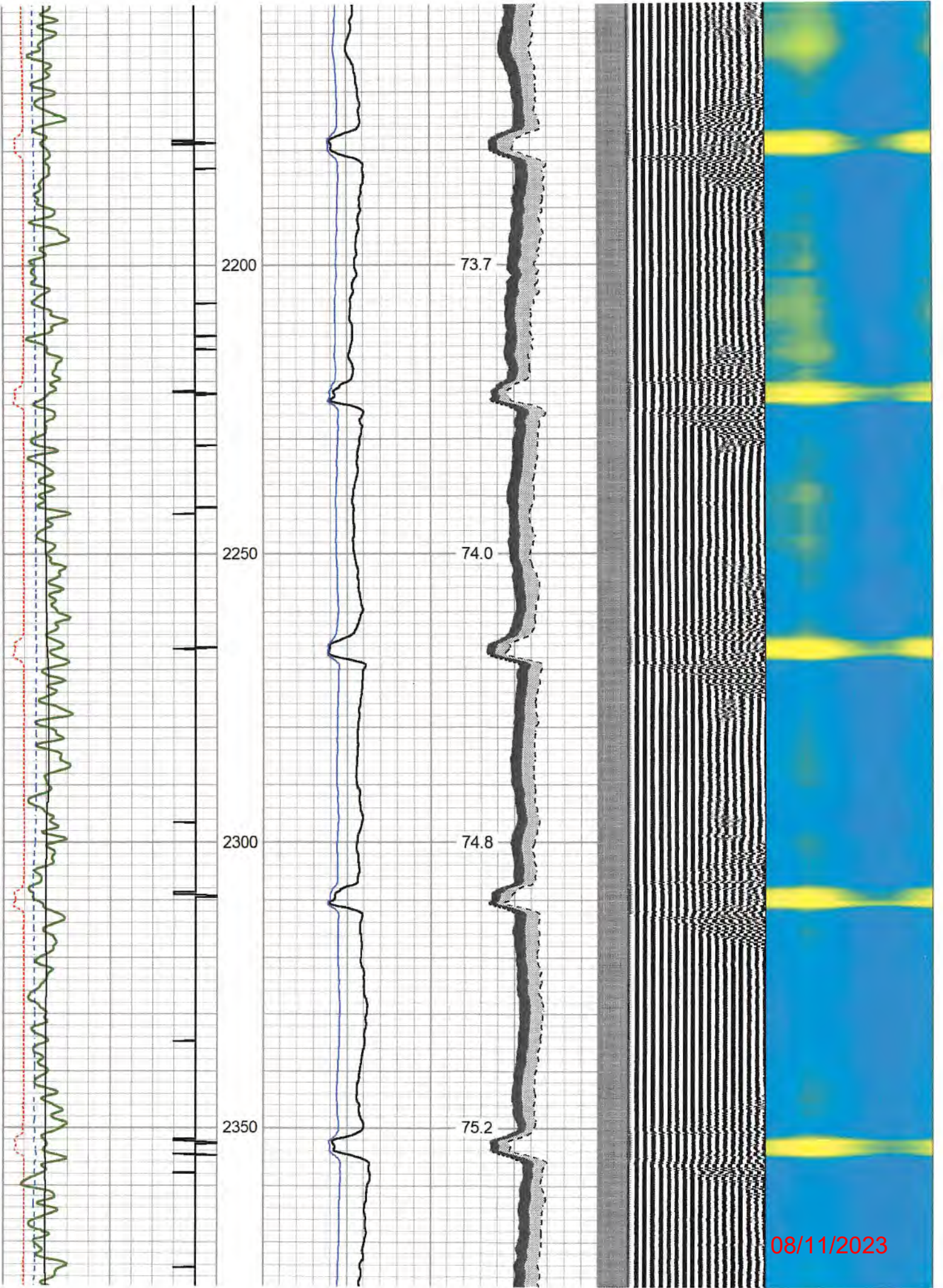


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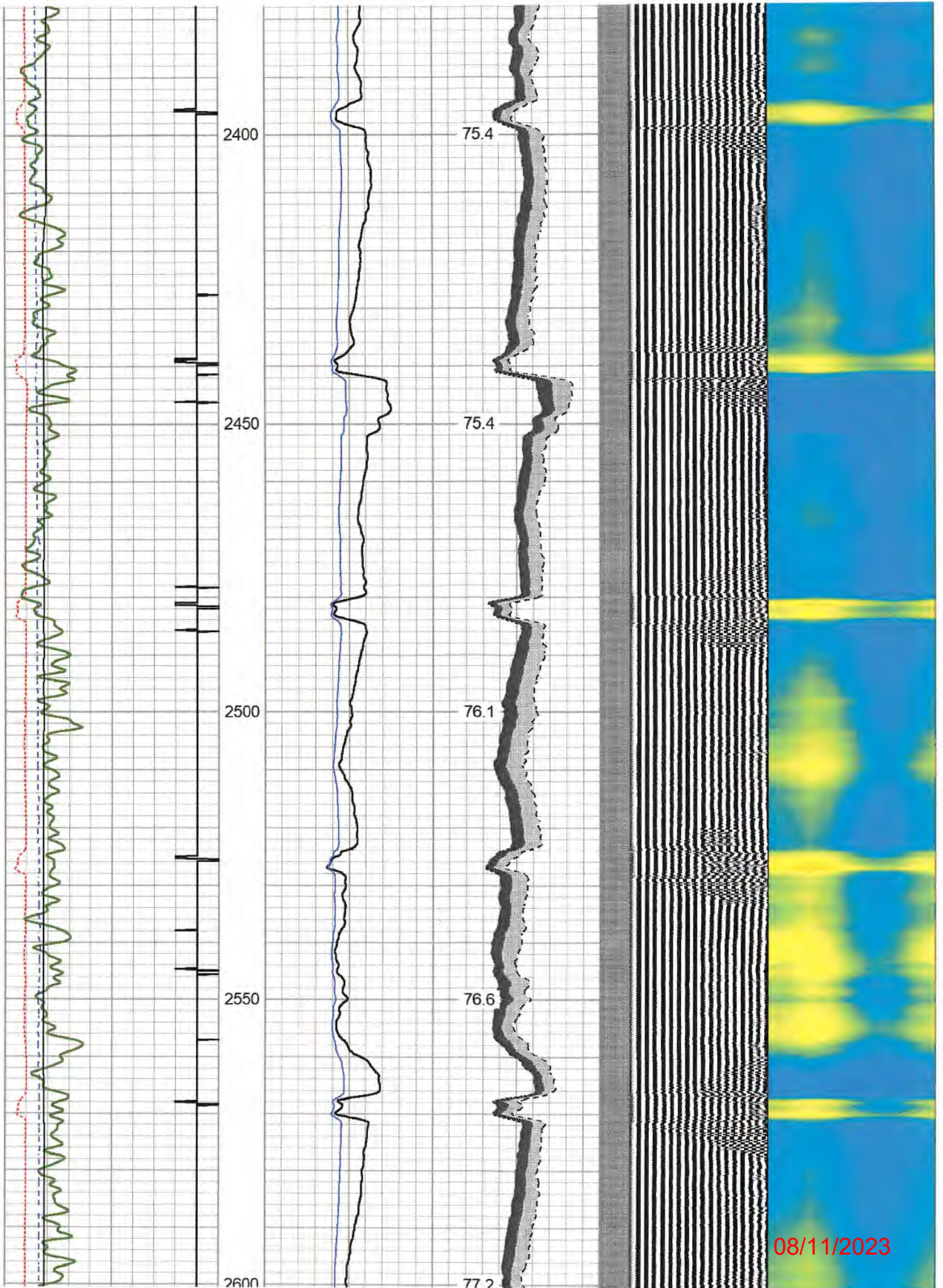


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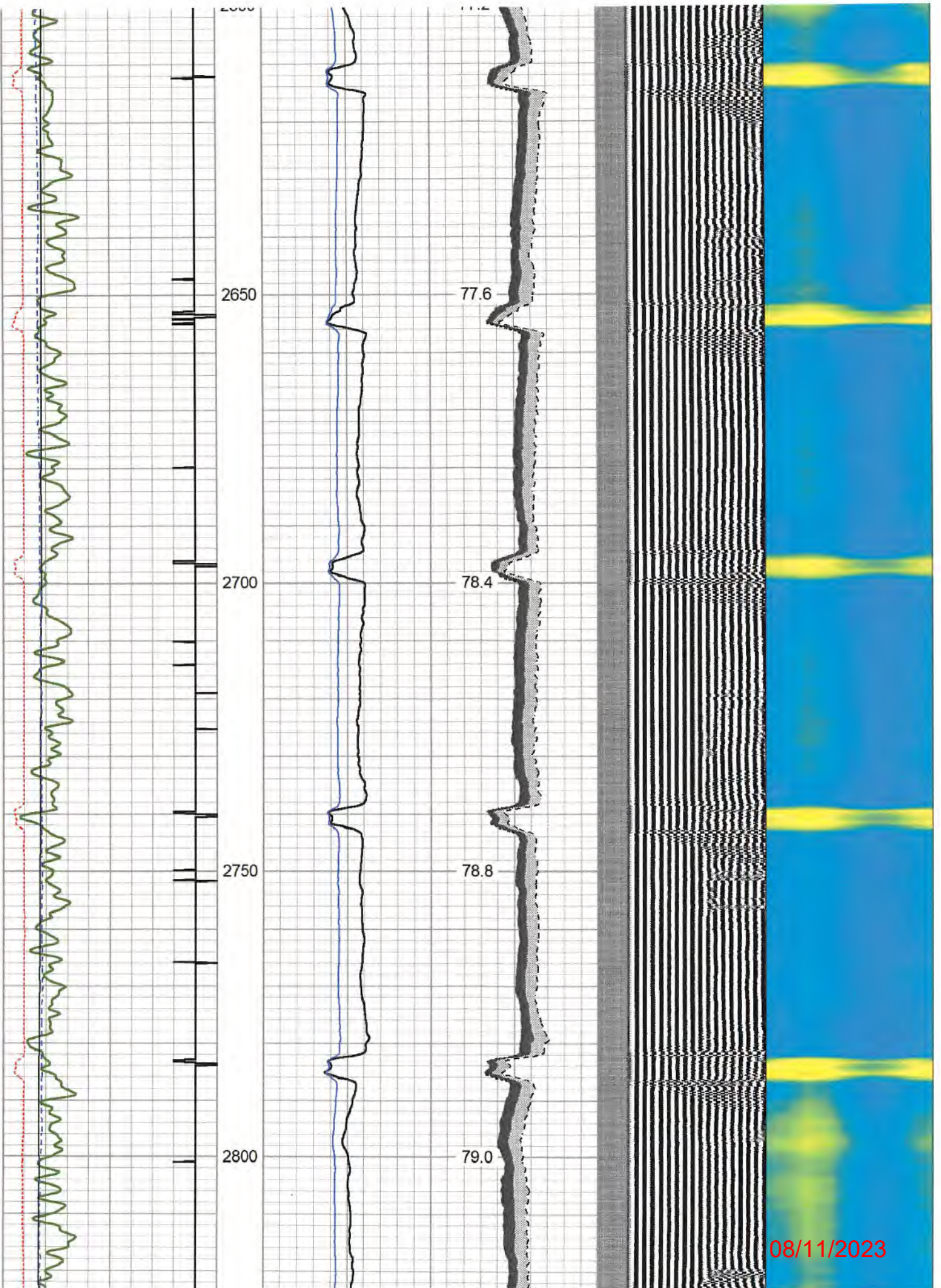




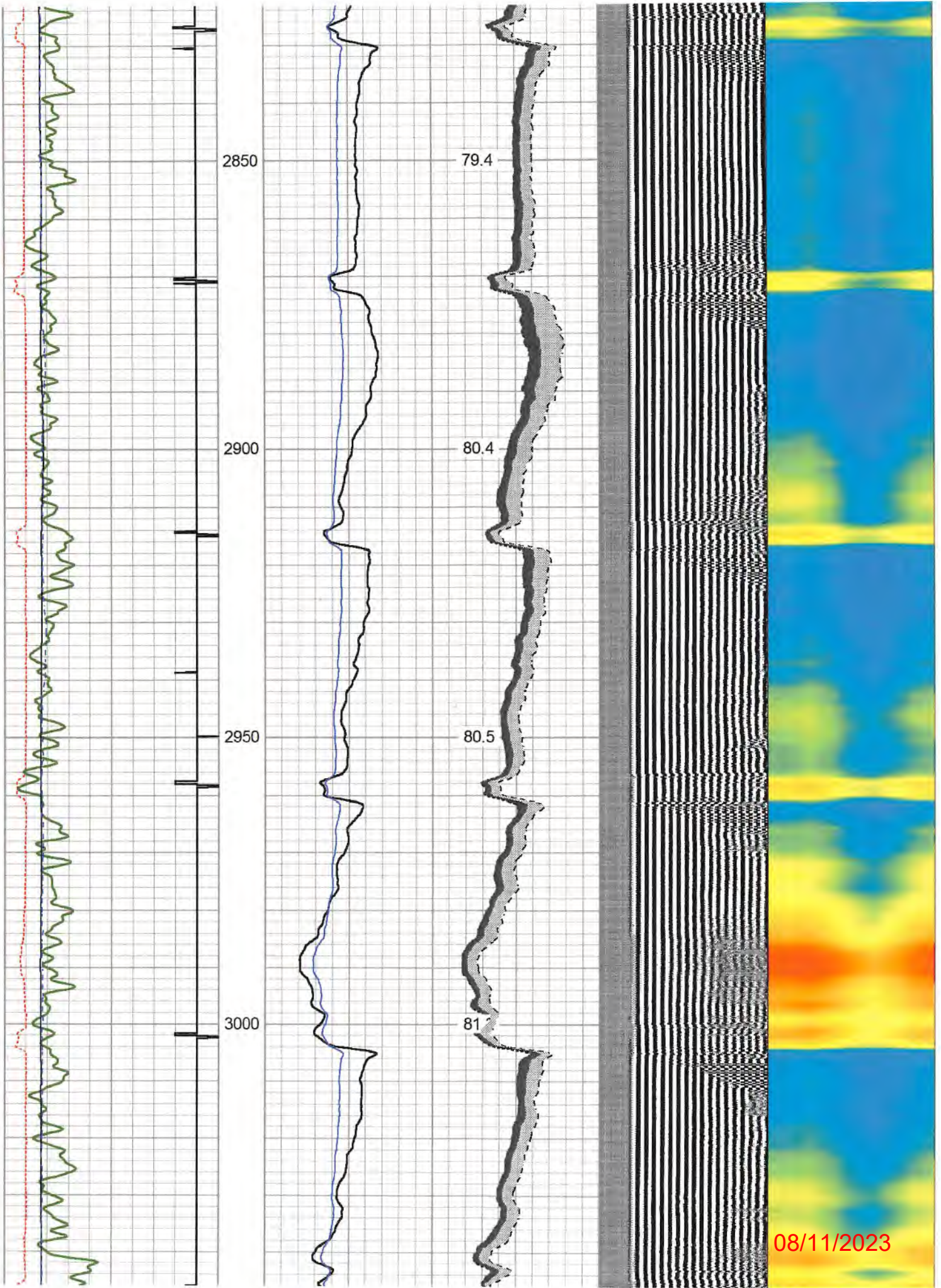
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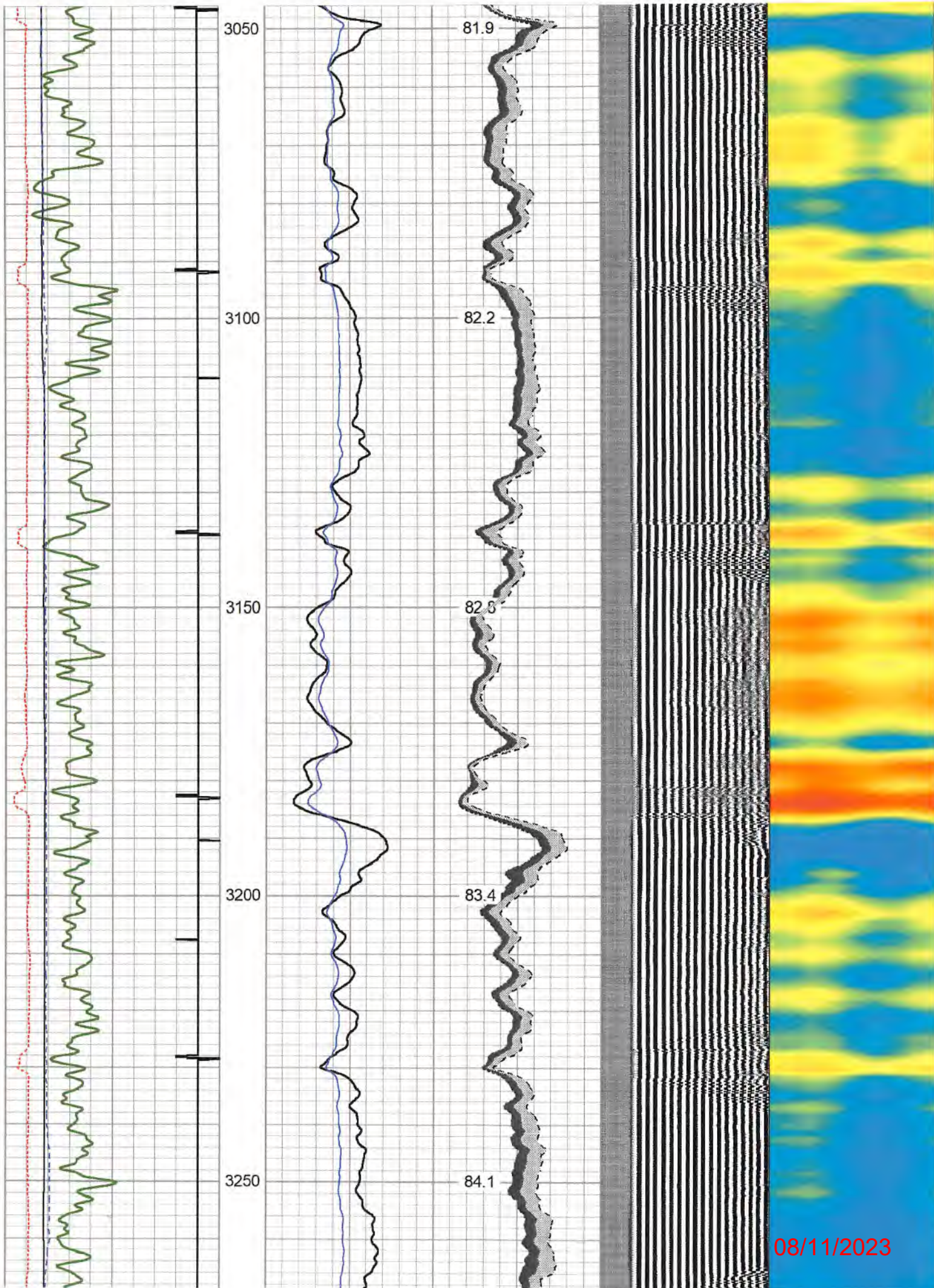
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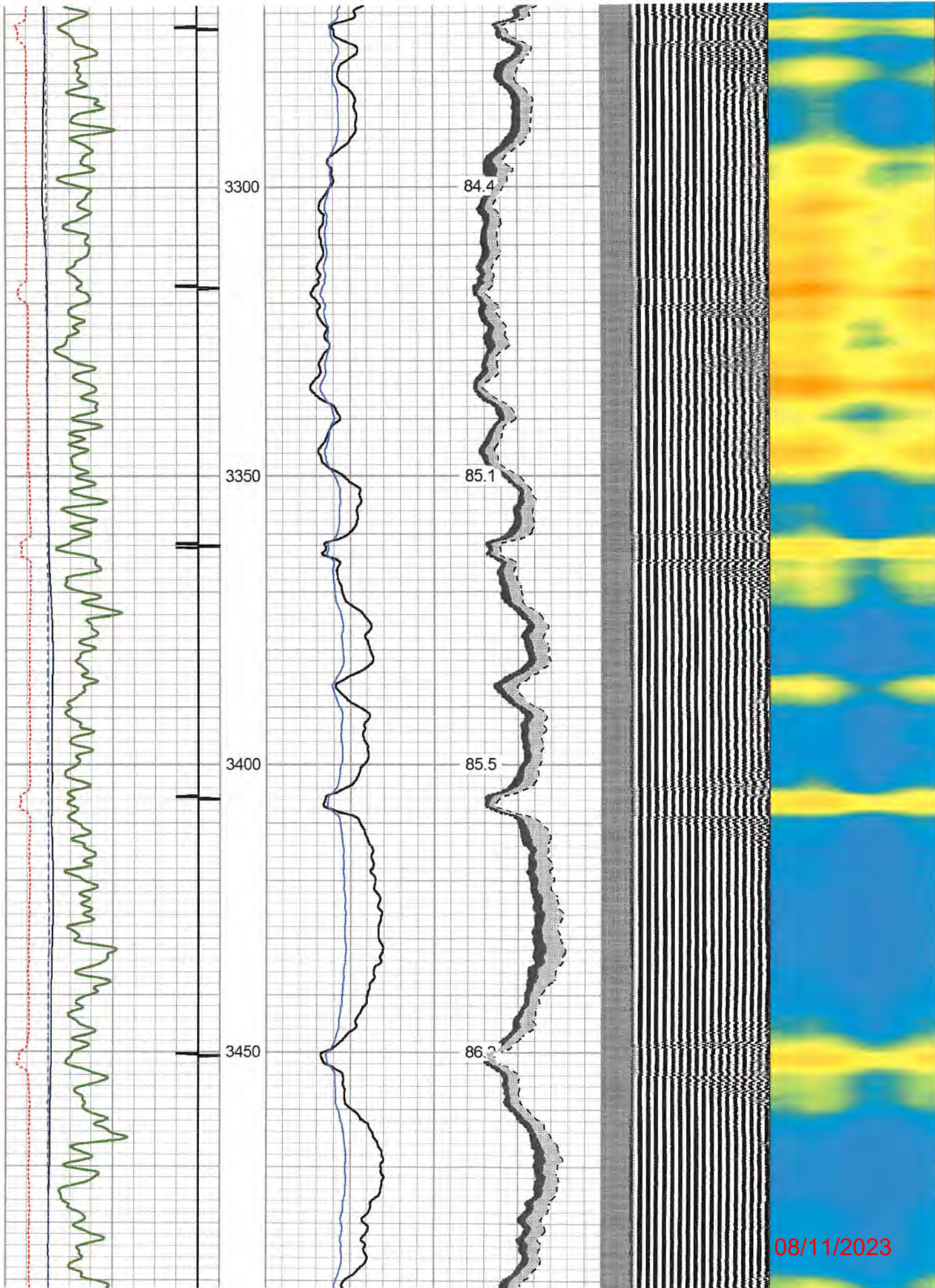
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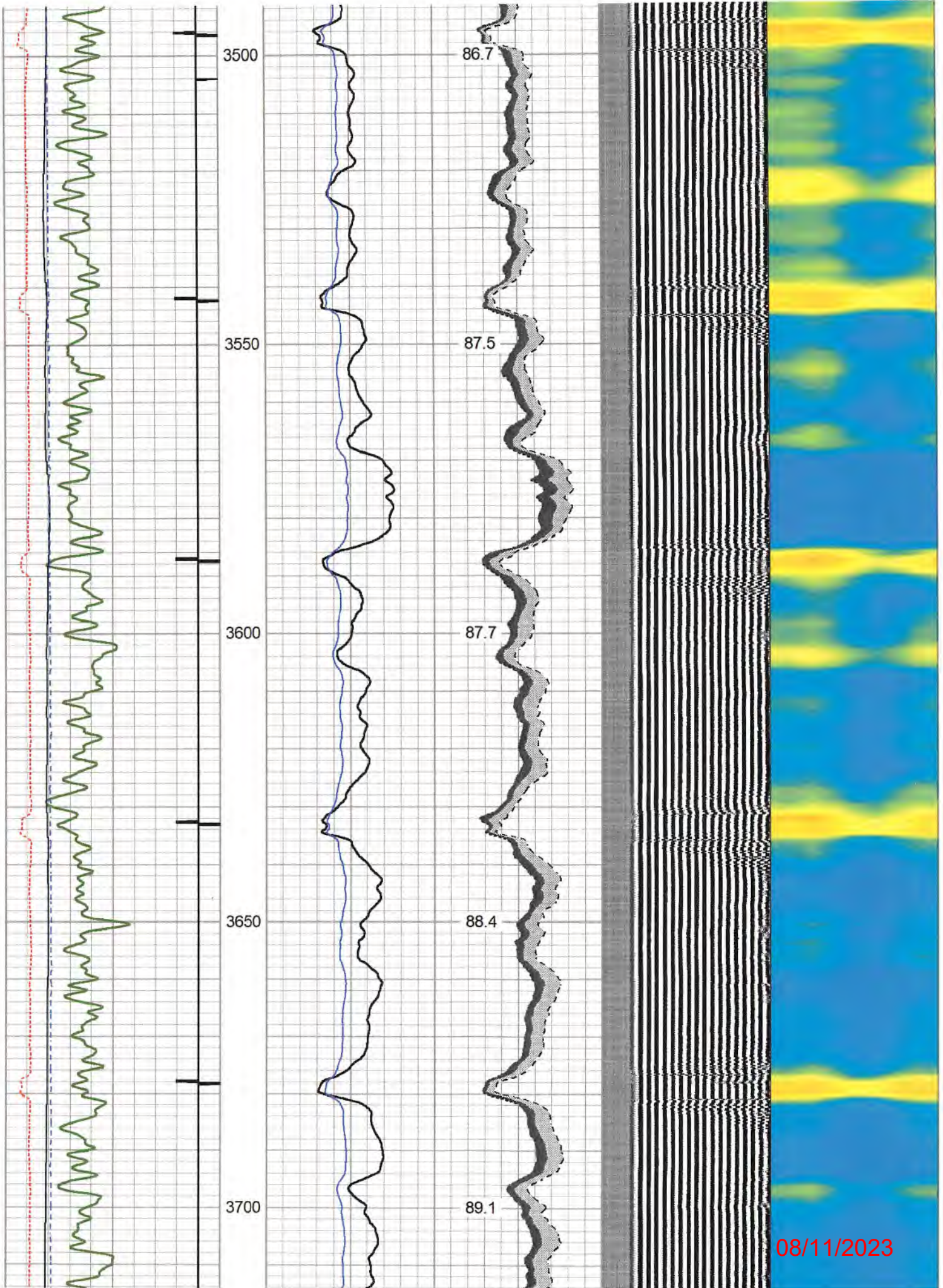


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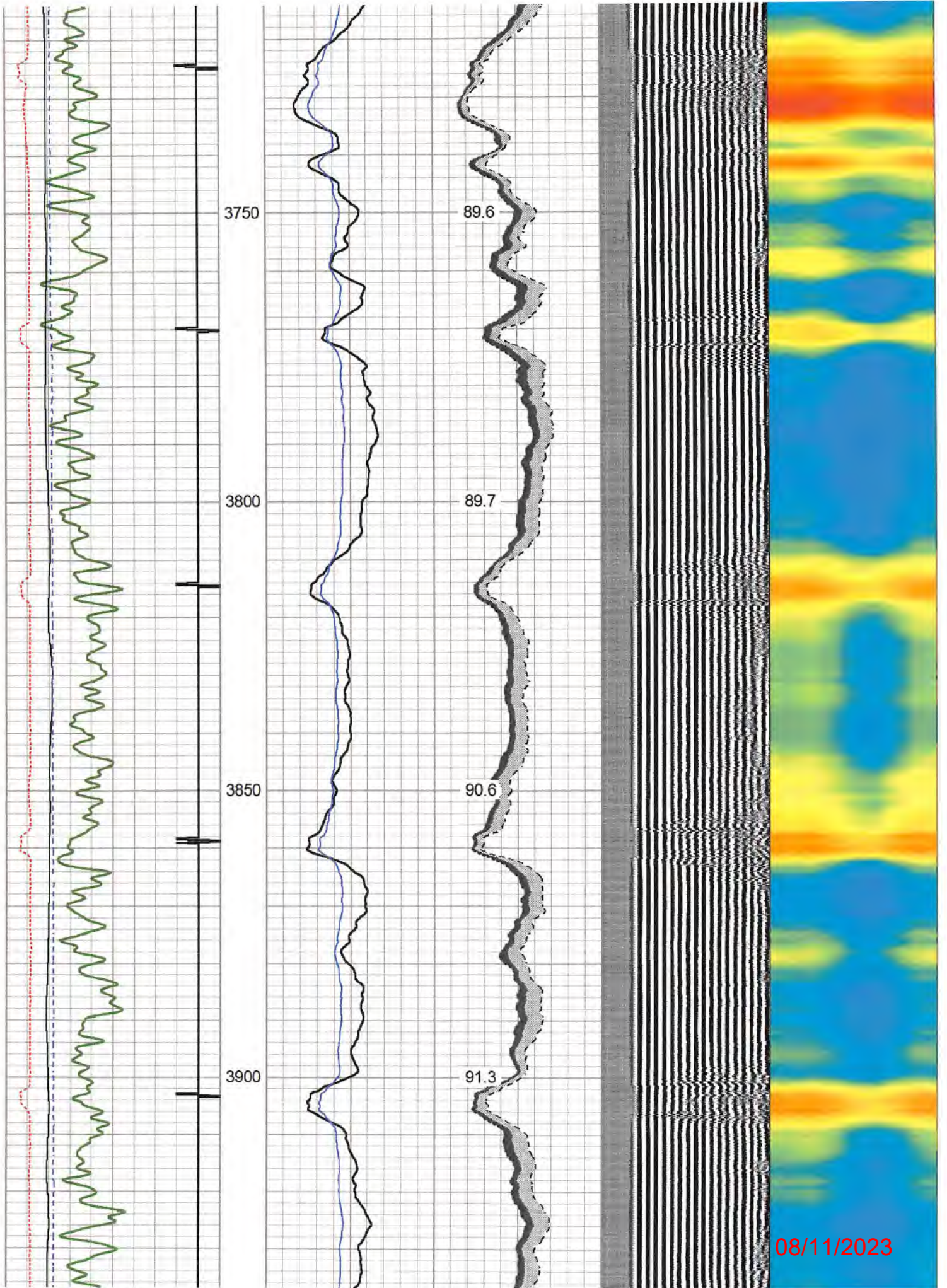


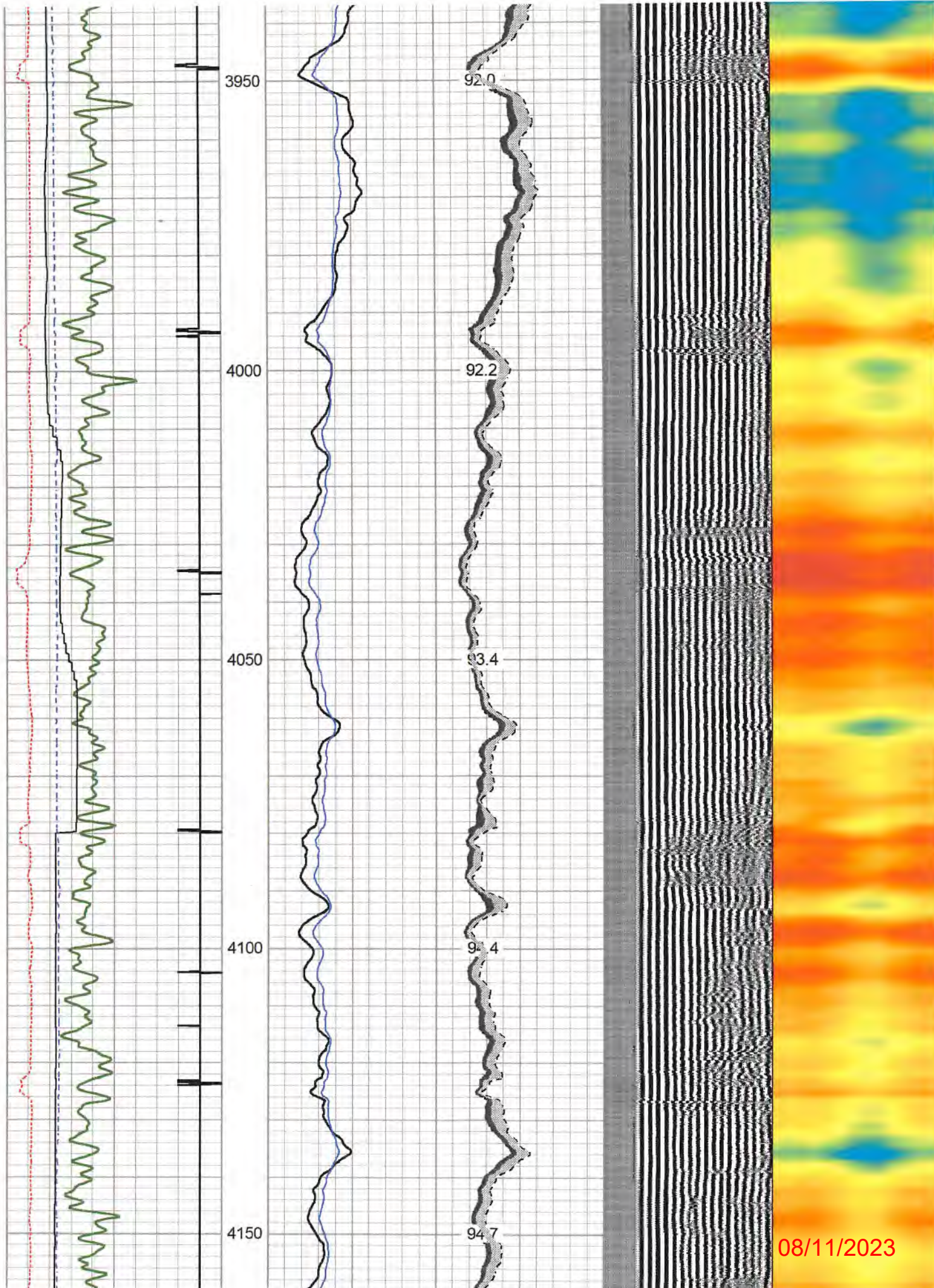
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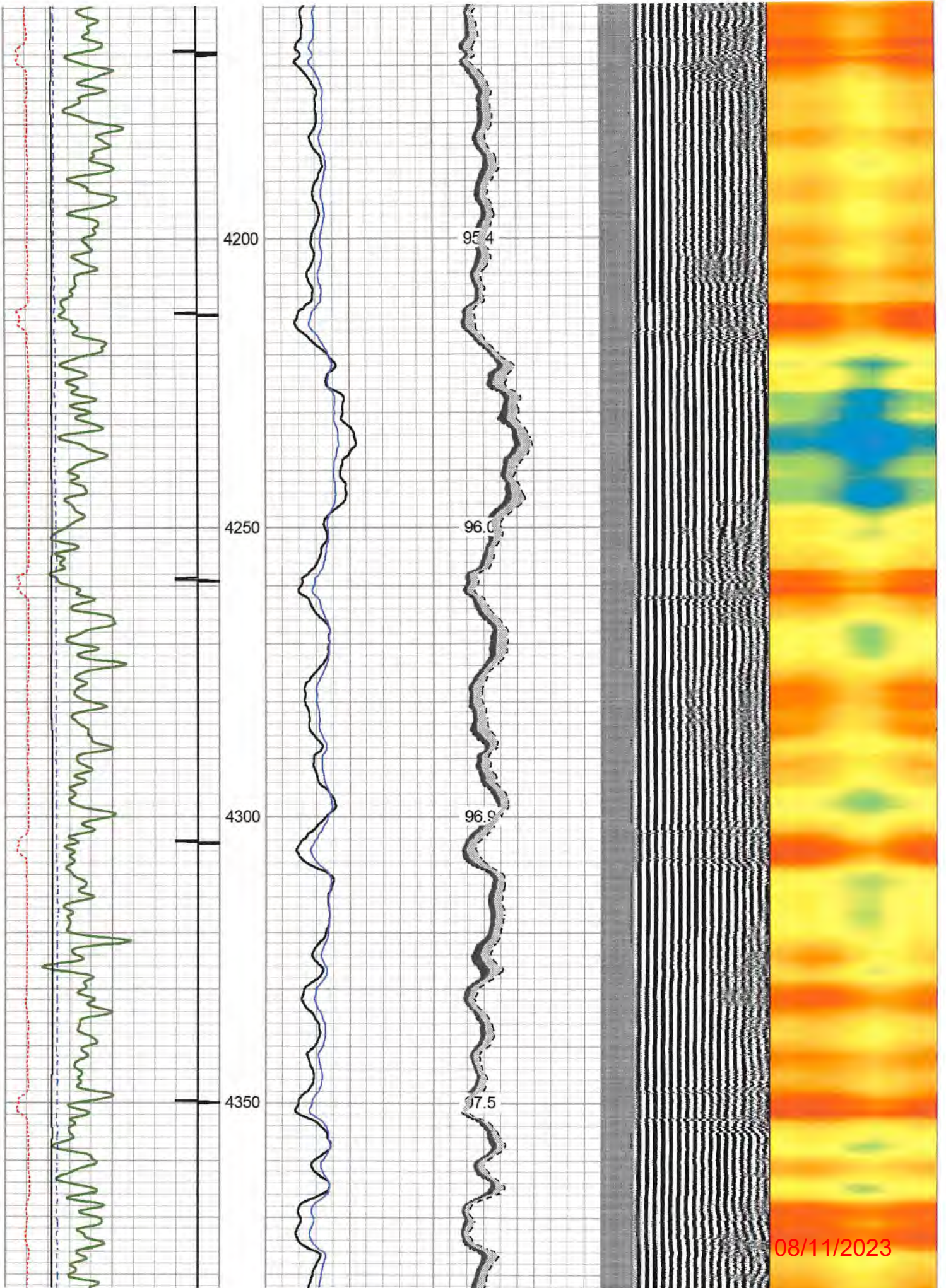


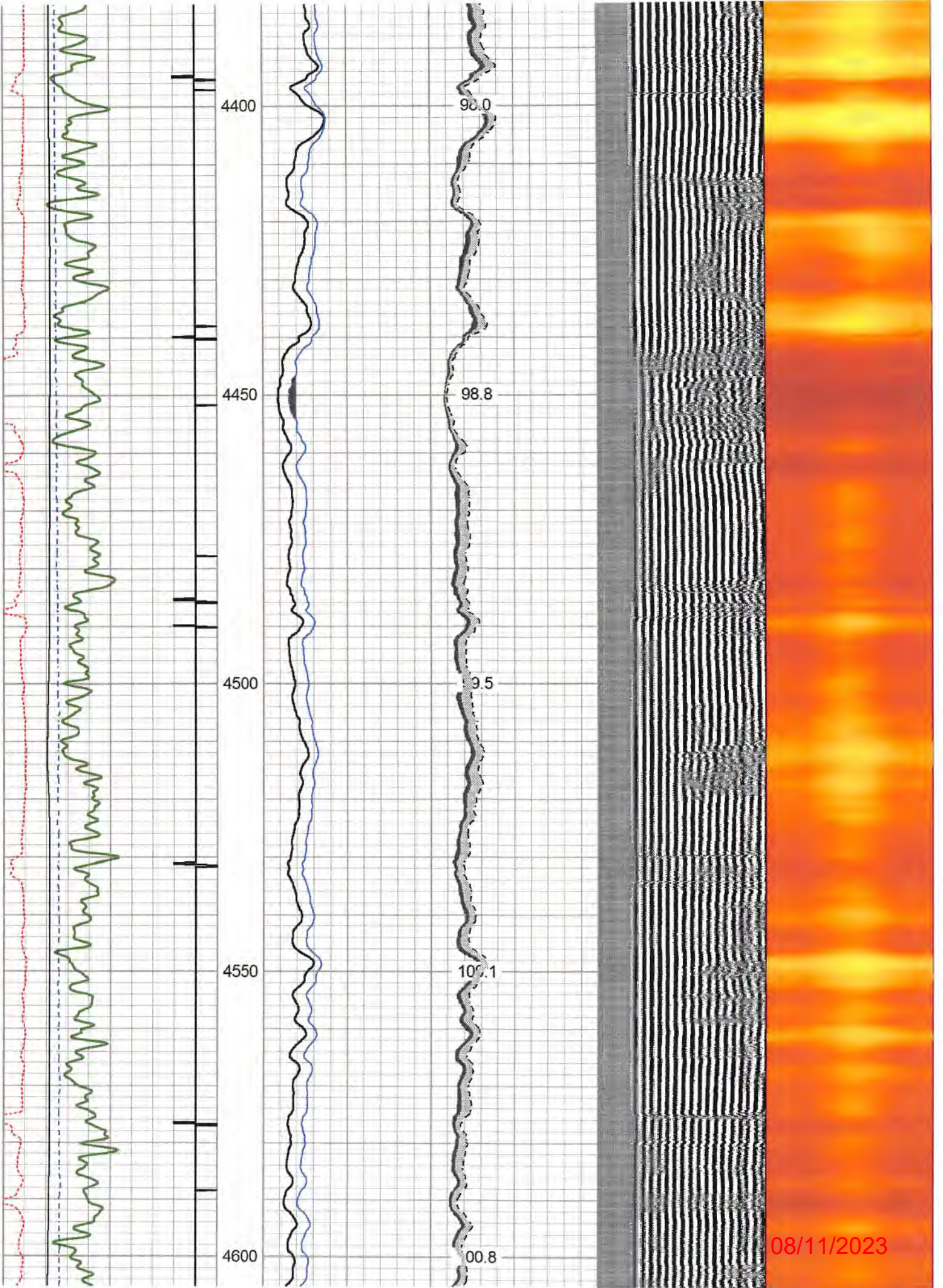


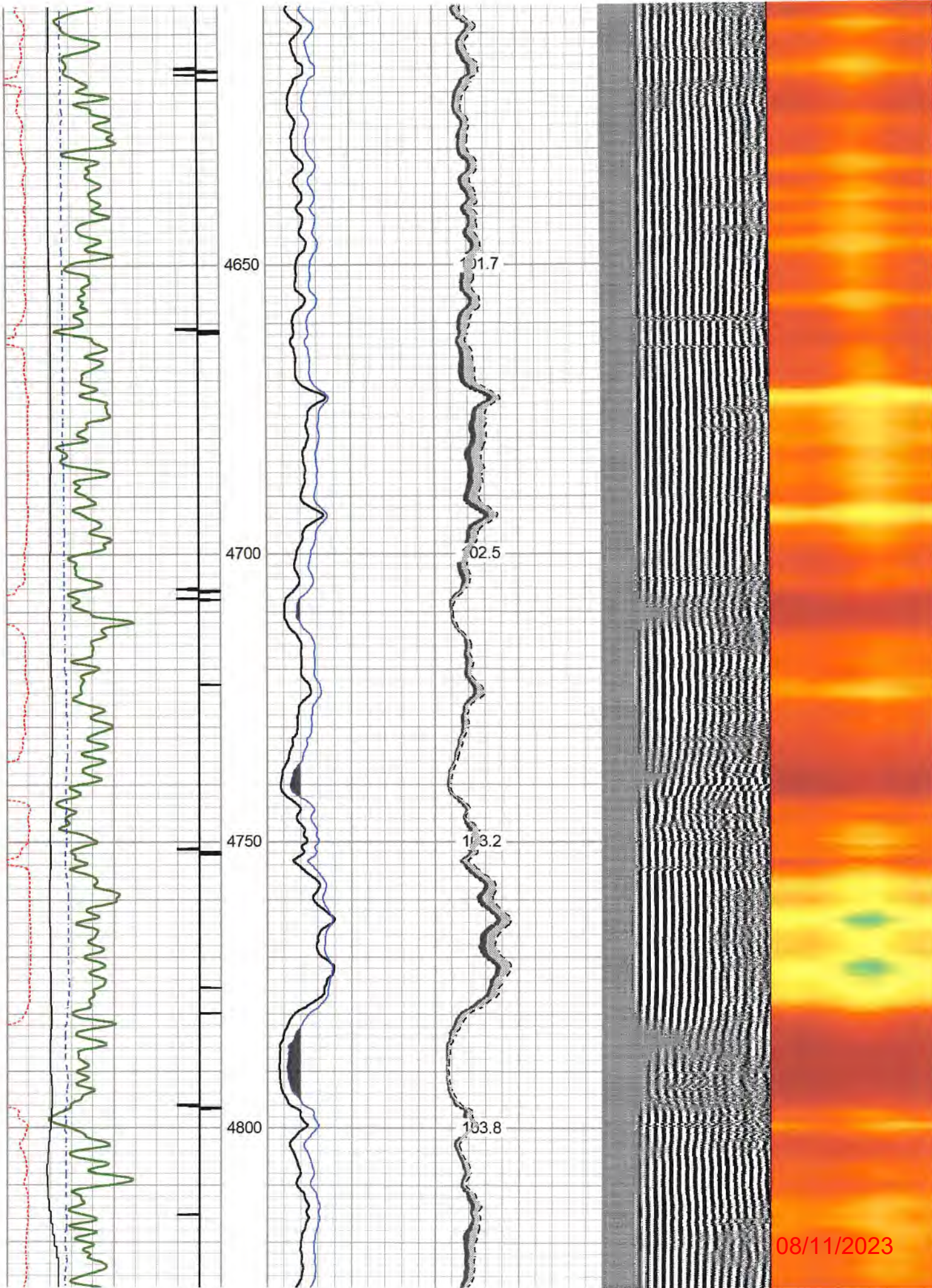
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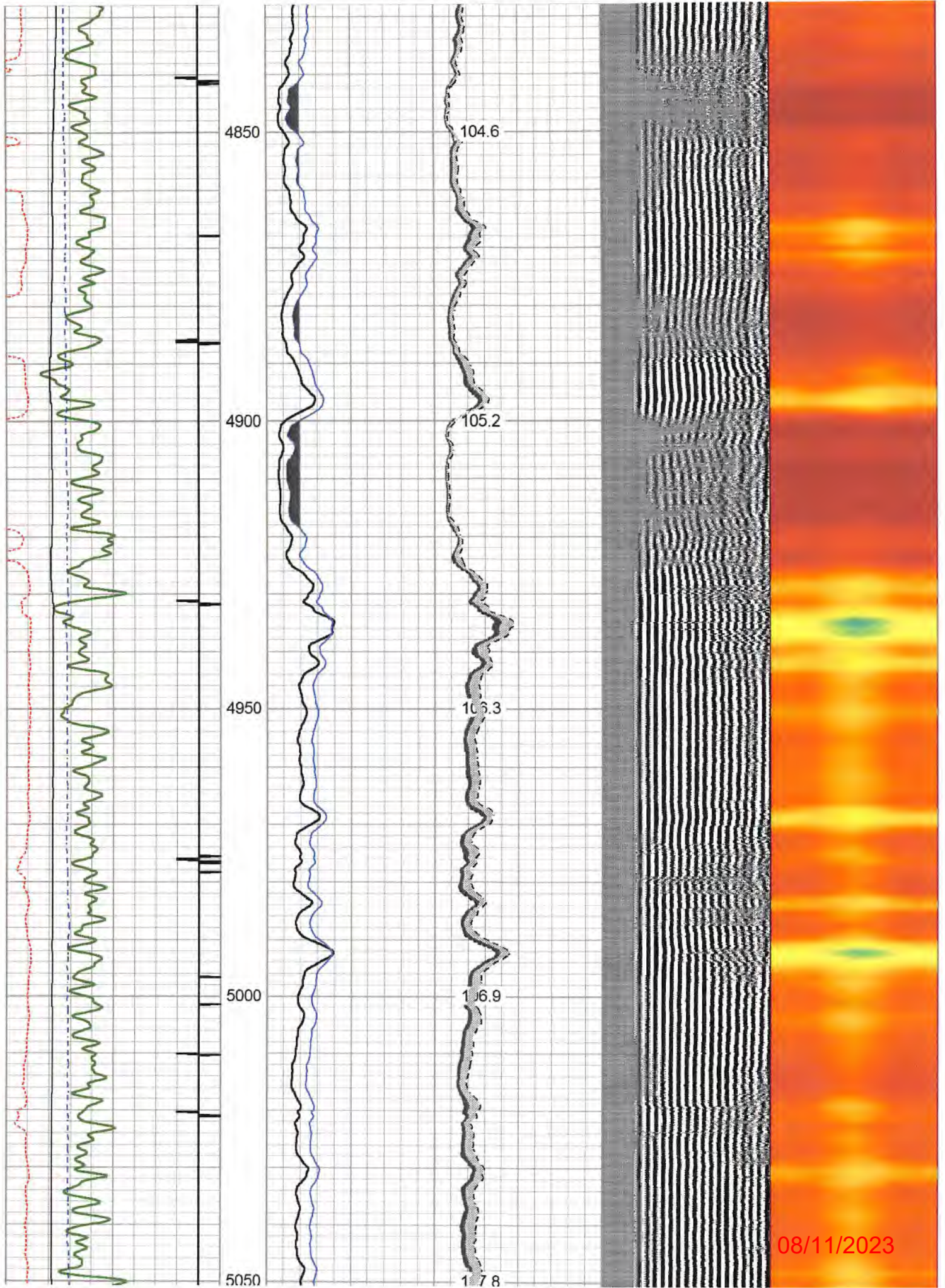




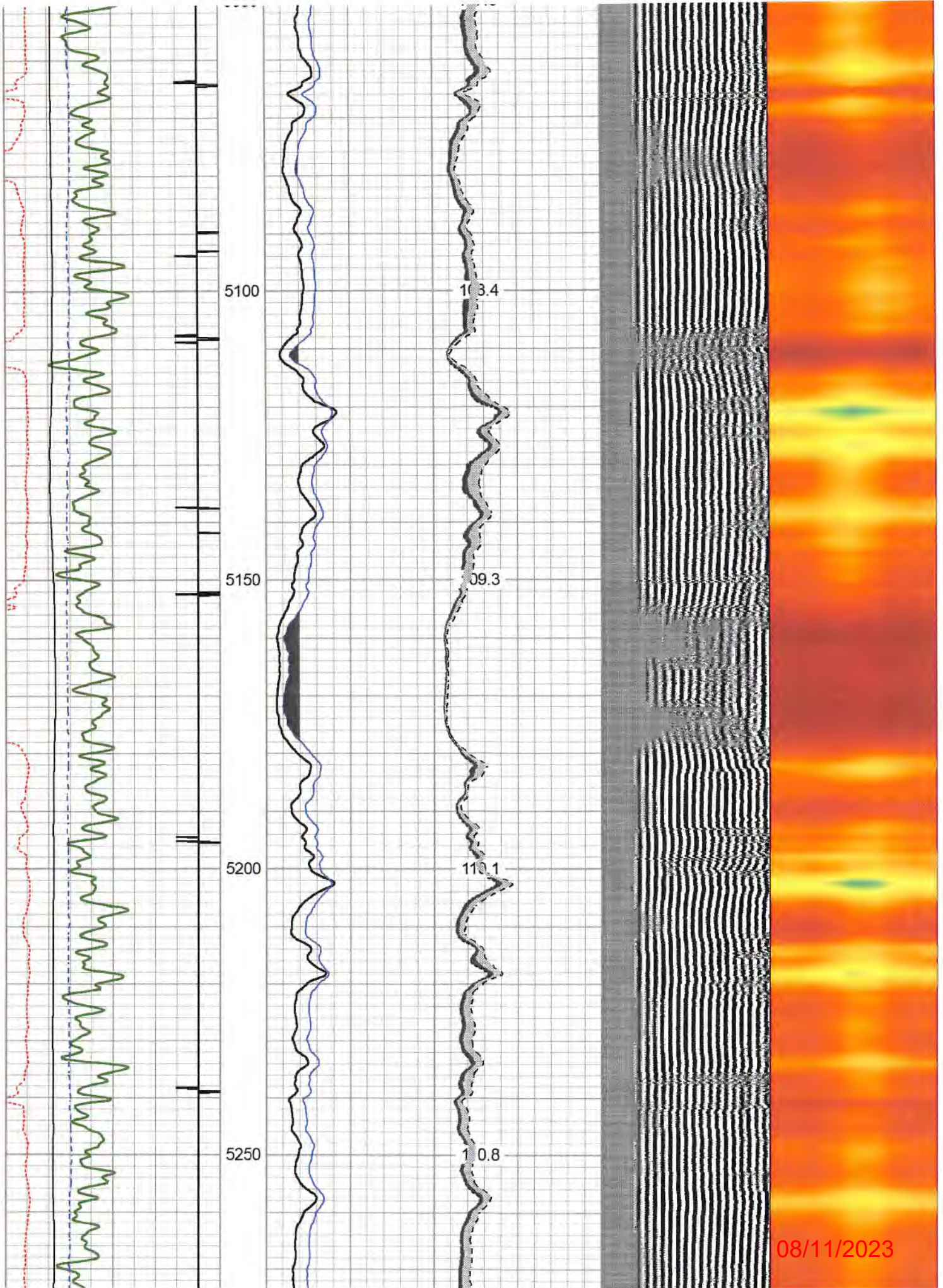




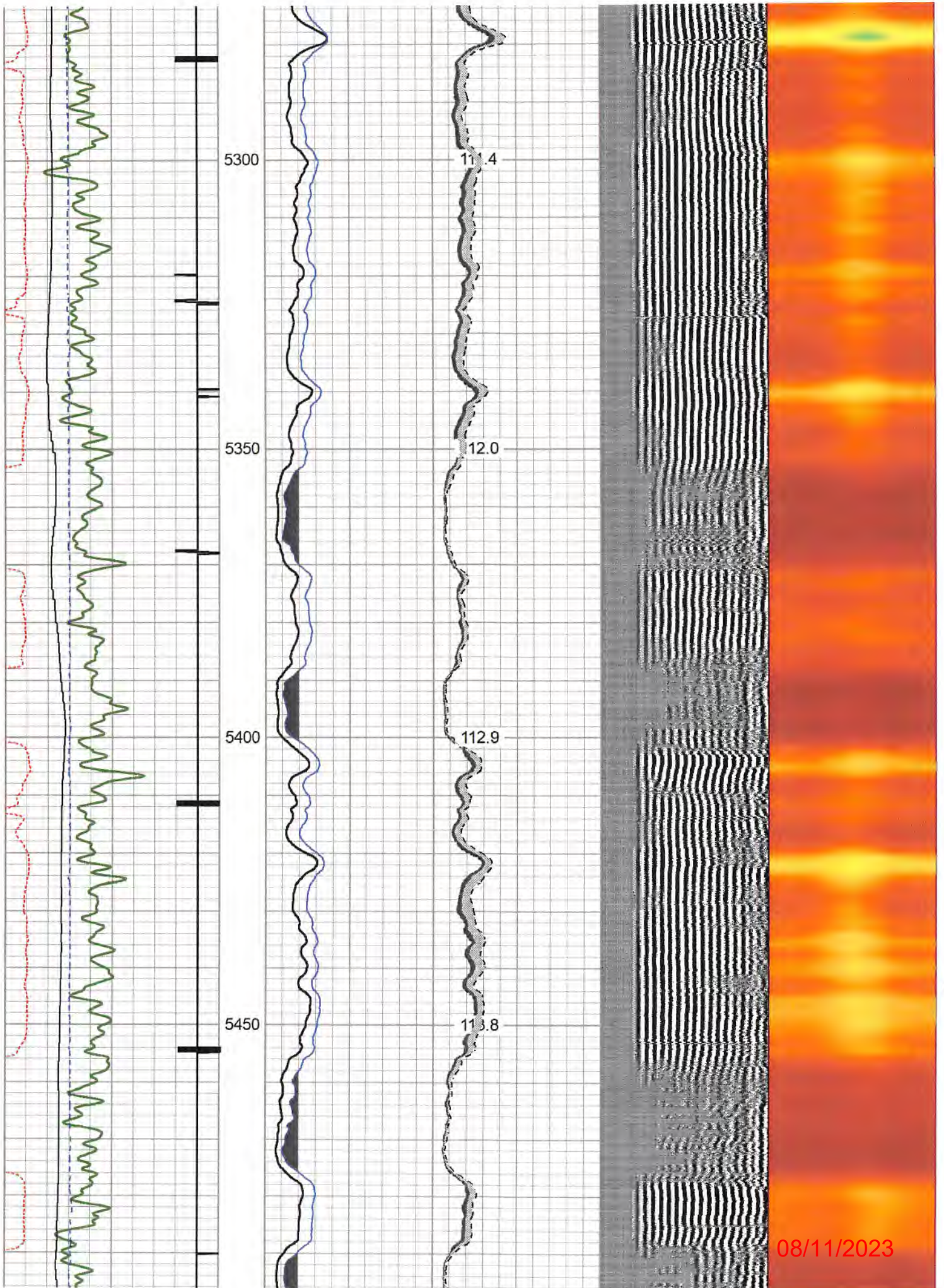
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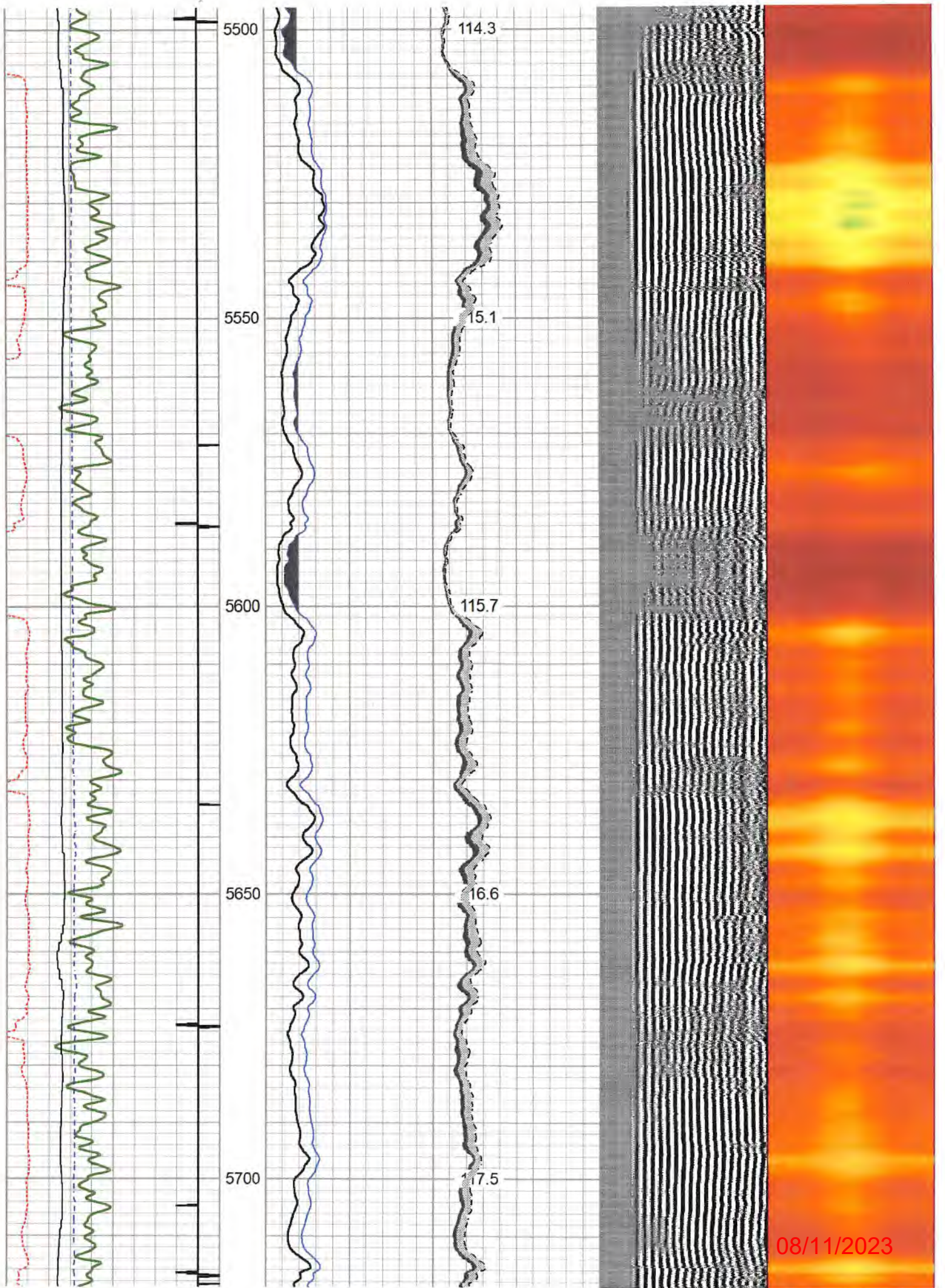
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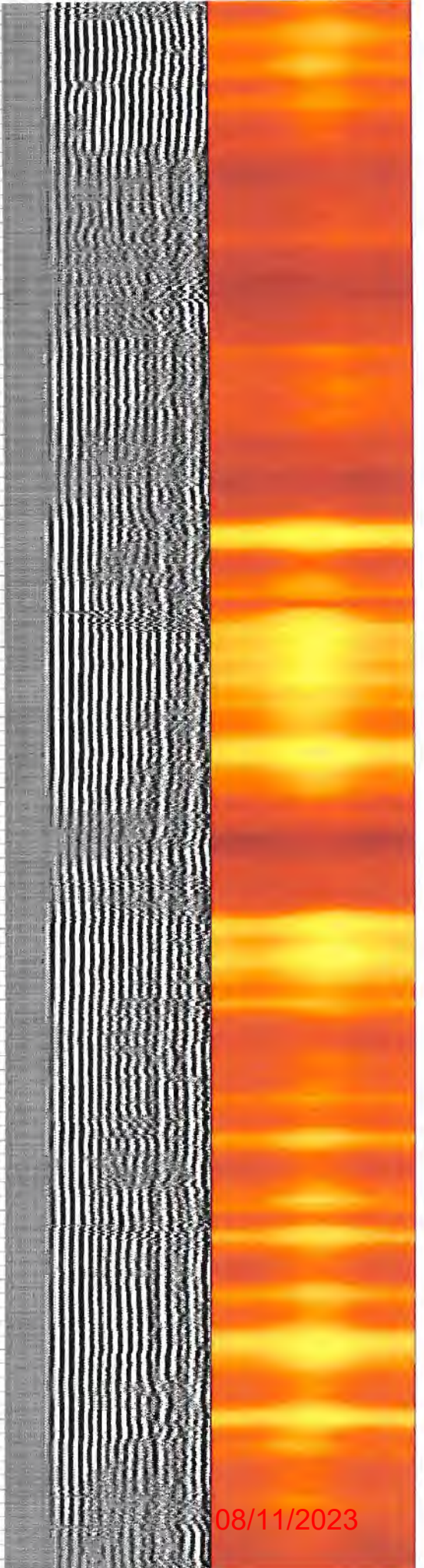
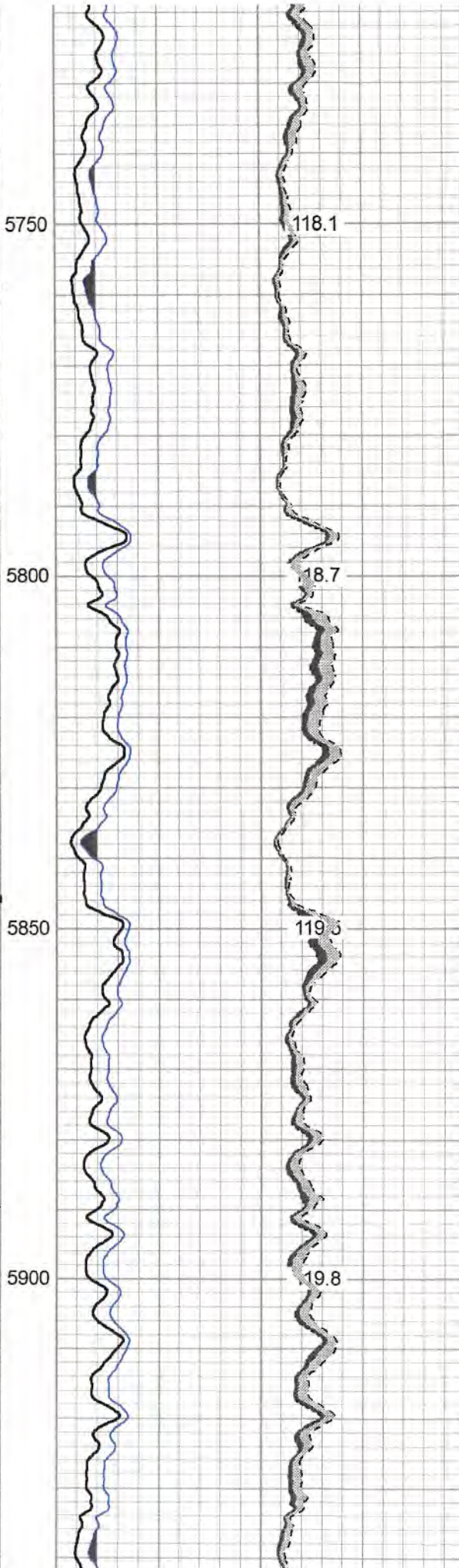
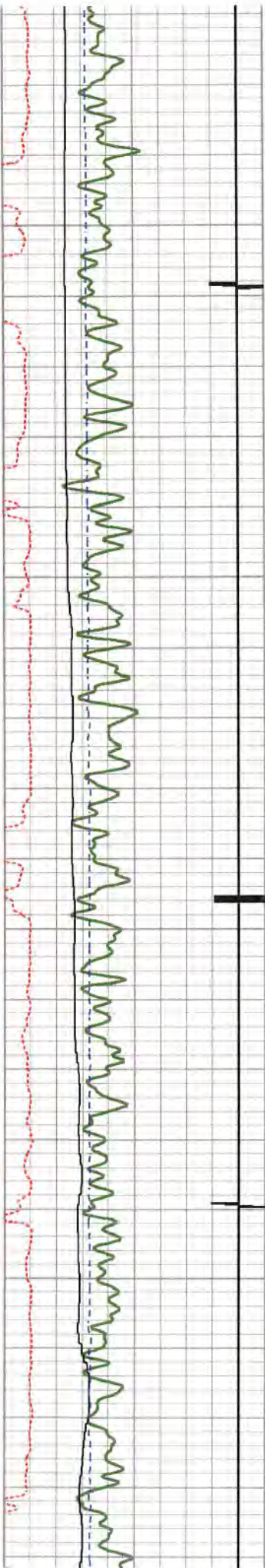


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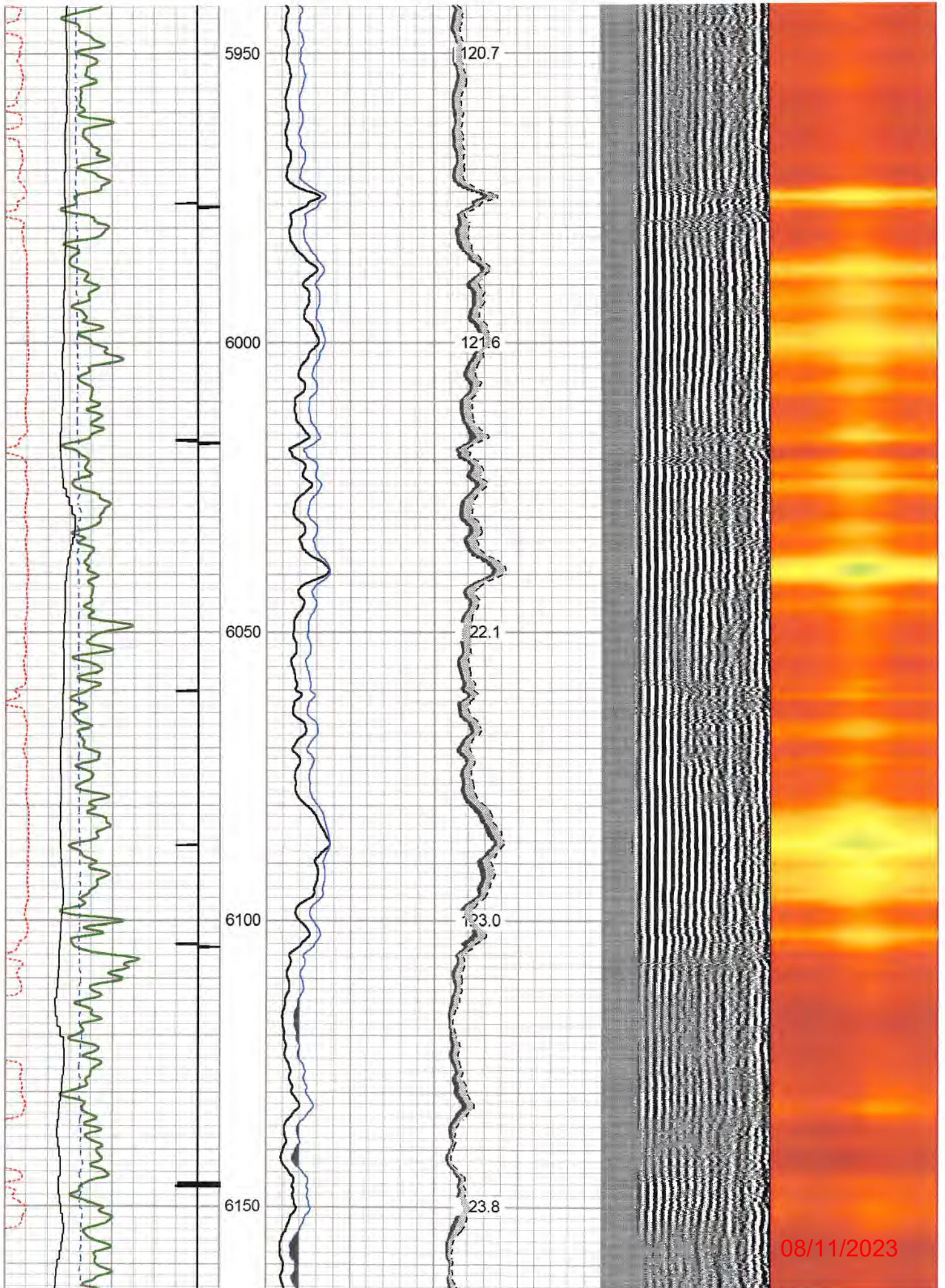


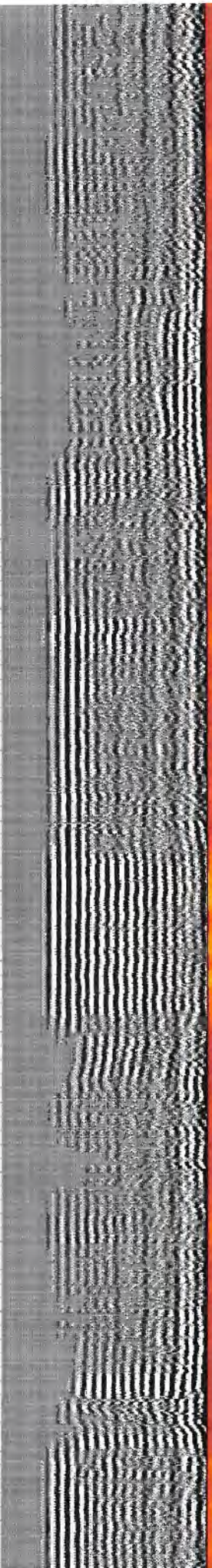
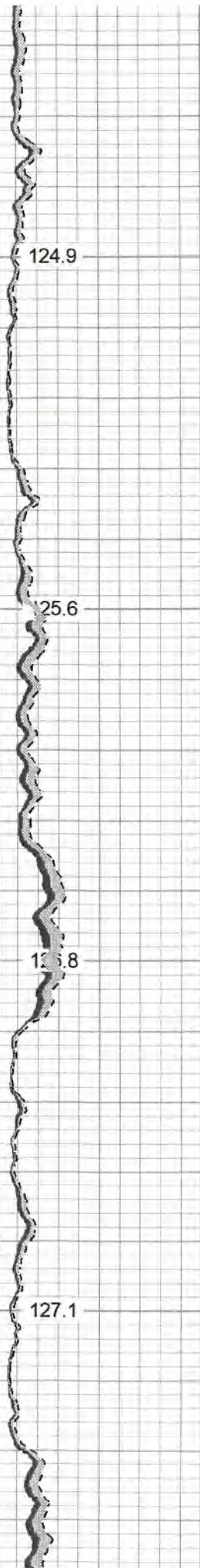
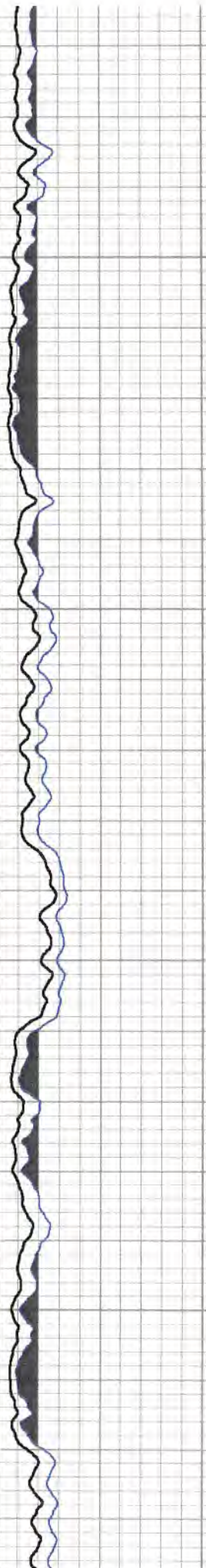
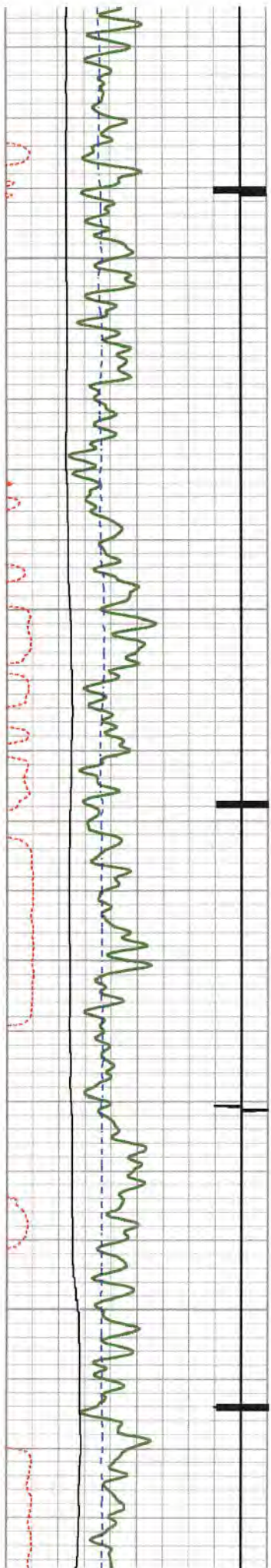
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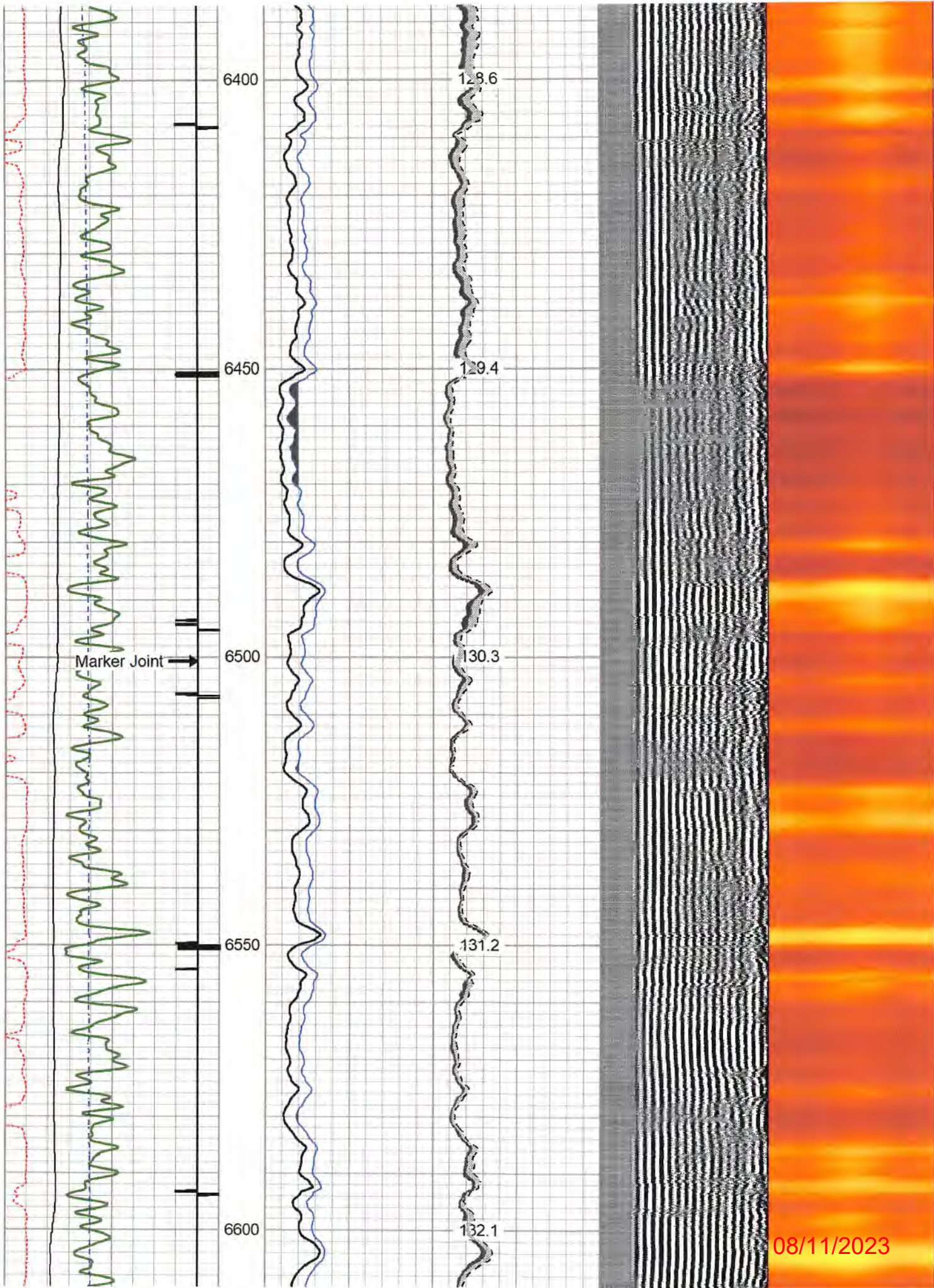


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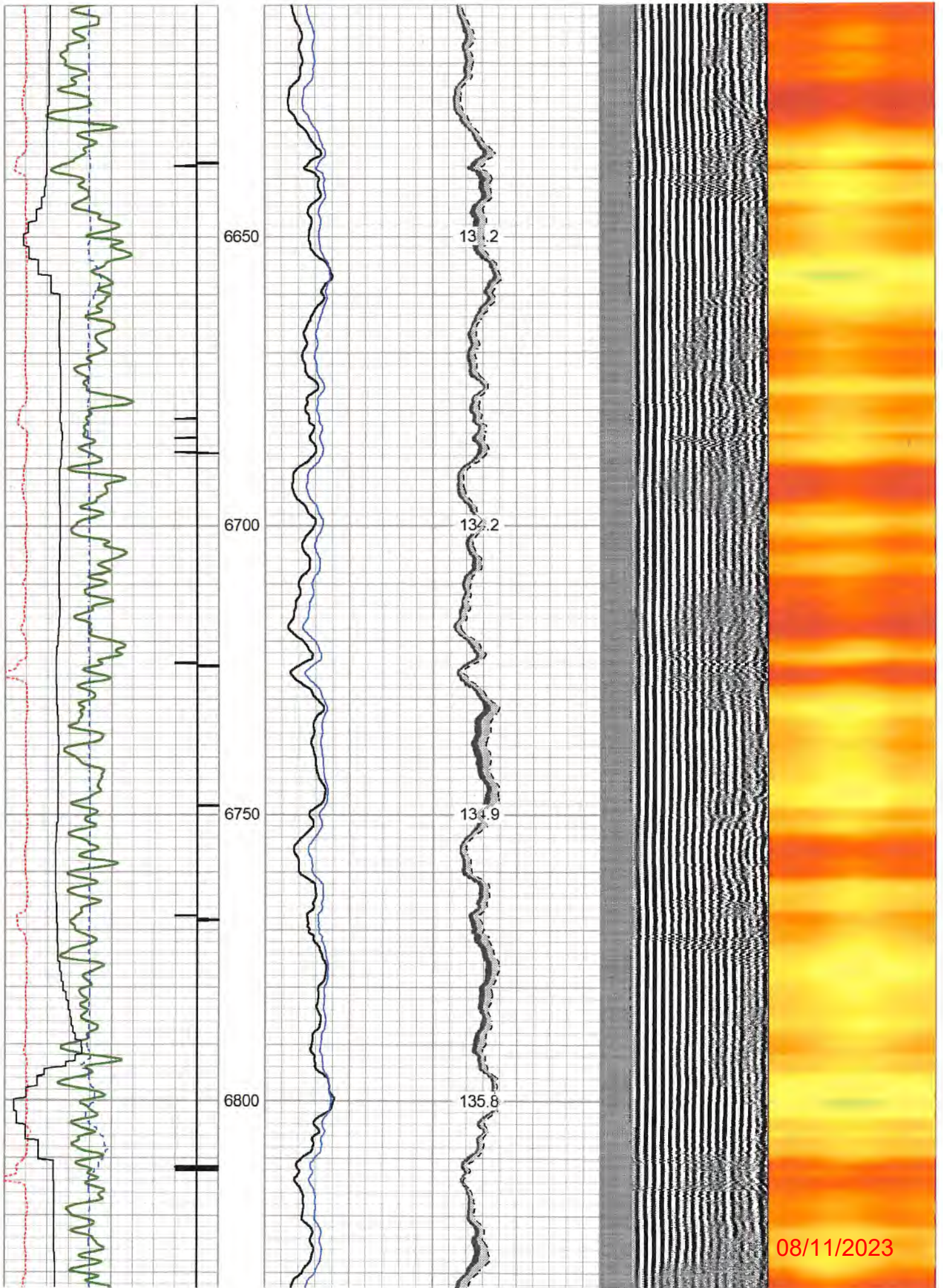


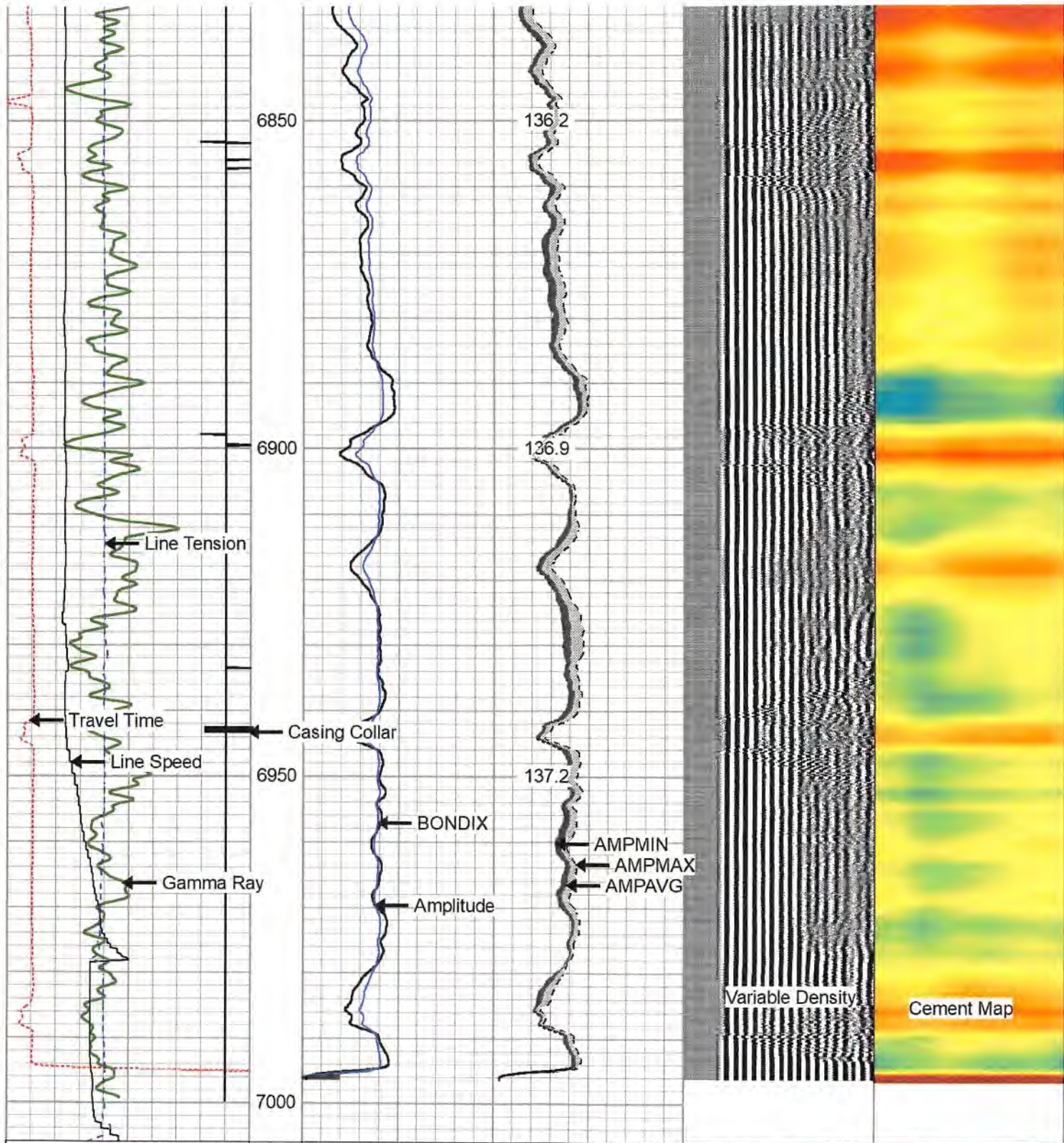


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270	Travel Time (usec)	160
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
Line Speed		
-200	(ft/min)	200
0	Line Tension (lb)	3000

0	Amplitude (mV)	100	-5	AMPMIN	150
1	BONDIX	0	-5	AMPMAX	150
			-5	AMPAVG	150
TEMP					
(degF)					

Variable Density	1	Cement Map	8
200 (usec)	1200		



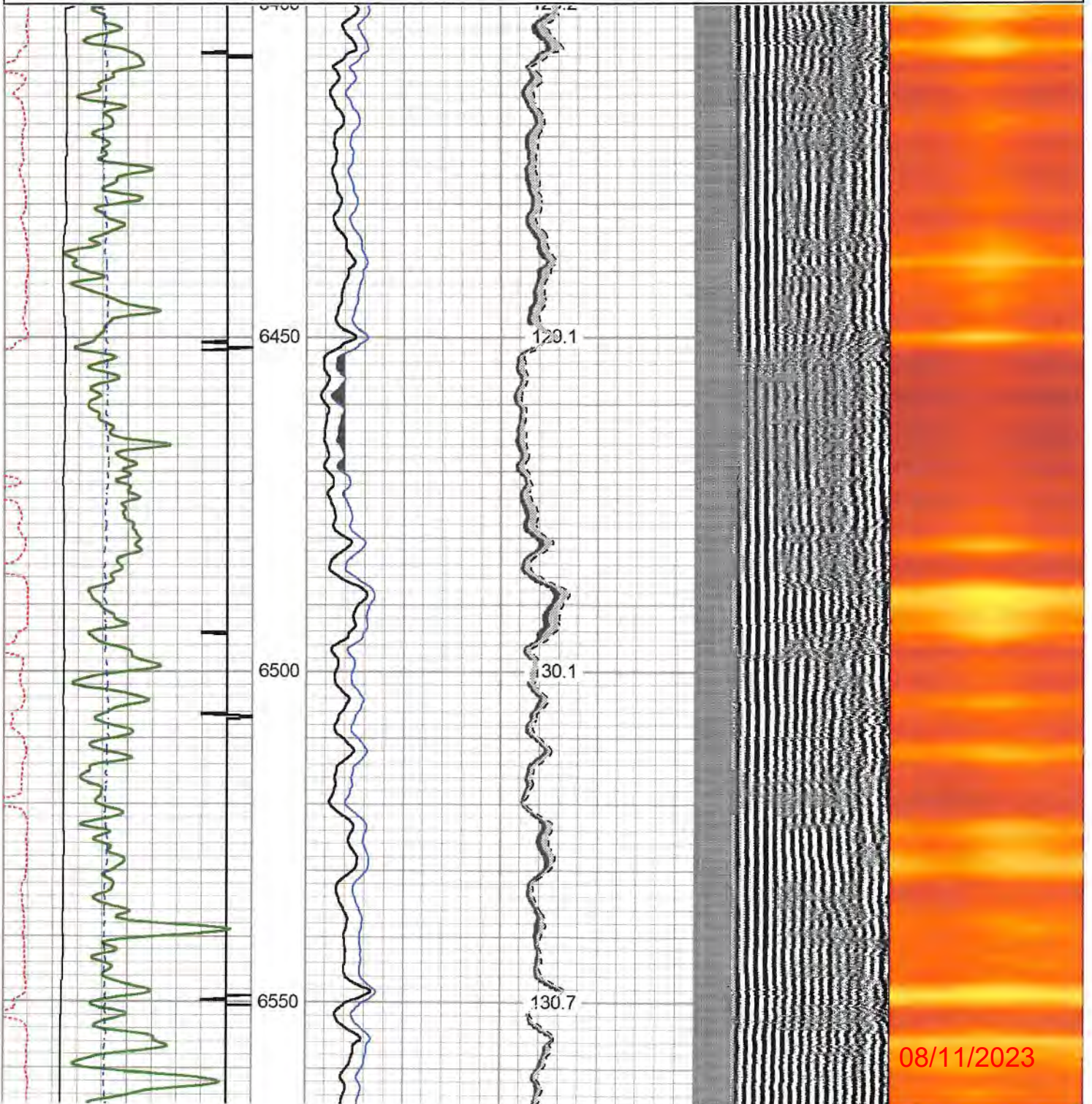
Repeat Pass 0 PSI

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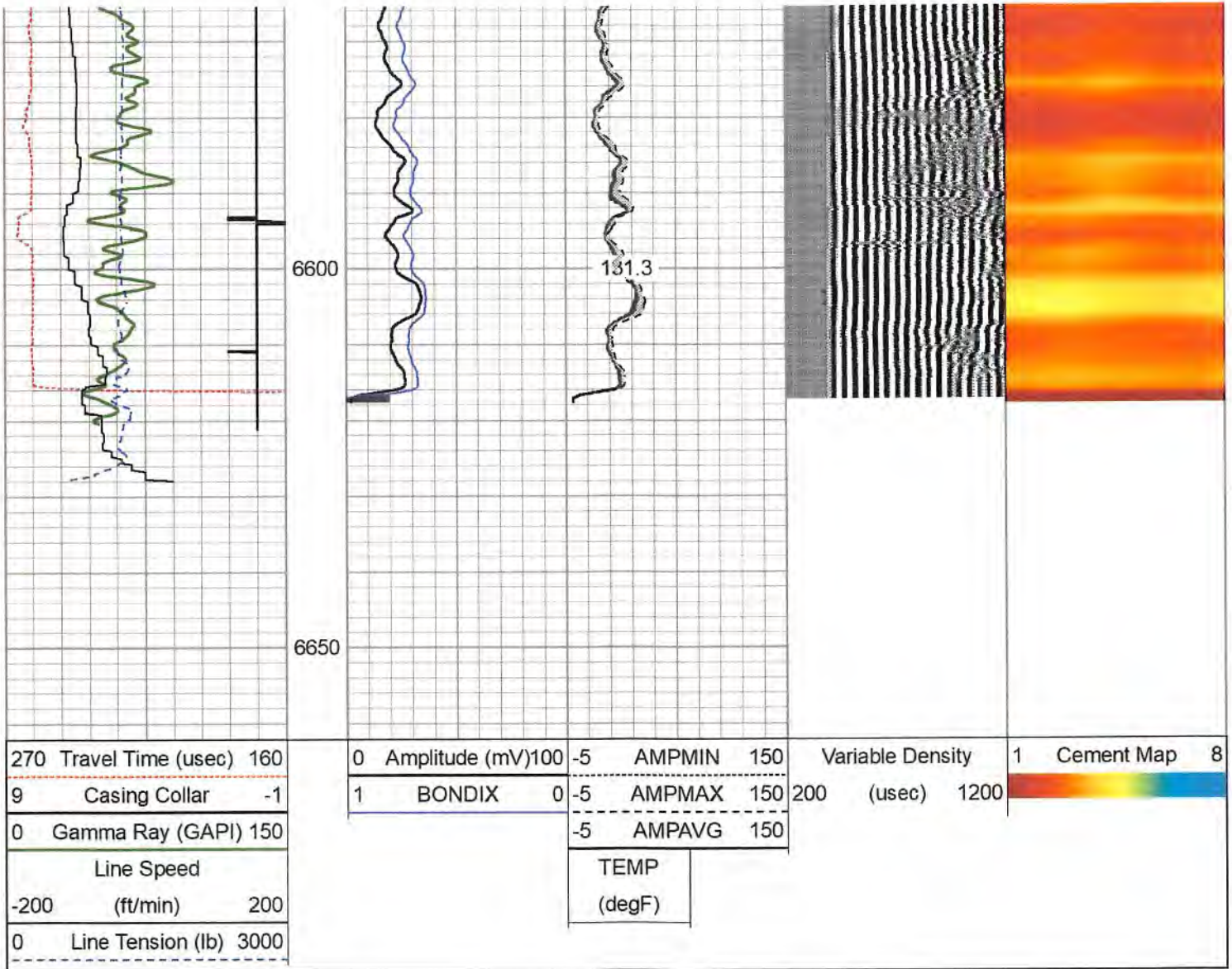
Nine

Database File antero_folger_2h_rcbl_17_sep_2022.db
 Dataset Pathname river_front/folger_2h/run1/pass2
 Presentation Format rcbl-bond index 1020
 Dataset Creation Fri Sep 16 21:52:05 2022
 Charted by Depth in Feet scaled 1:240

270	Travel Time (usec)	160	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	150	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150				
	Line Speed						TEMP					
-200	(ft/min)	200					(degF)					
0	Line Tension (lb)	3000										



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Log Variables

Database: C:\ProgramData\Warrior\Data\antero_folger_2h_rcbl_17_sep_2022.db
 Dataset: river_front/folger_2h/run1/pass4/_vars_

Top - Bottom

BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL
	in	degF	in	in	lb/ft	mV	mV
TEMP	7.875	137	5.5	0.415	23	71.9	3.4
MINATTN	PERFS	PPT	SRFTEMP	TDEPTH			
db/ft		usec	degF	ft			
9.6	No	261	65	7004			

Variable Description

BHTEMP_Src : BHTEMP Input Source Selector
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 CASEWGHT : Casing Weight
 MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude
 MINATTN : Minimum Attenuation
 PERFS : Perforation Flag
 PPT : Predicted Pipe Time
 SRFTEMP : Surface Temperature
 TDEPTH : Total Depth

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Calibration Report

Database File antero folger 2h rcbl 17 sep 2022 db

Dataset Pathname river_front/folger_2h/run1/pass4
 Dataset Creation Fri Sep 16 21:57:07 2022

Gamma Ray Calibration Report

Serial Number: 275
 Tool Model: Probe
 Performed: Thu Apr 07 08:17:10 2016
 Calibrator Value: 100.0 GAPI
 Background Reading: 35.0 cps
 Calibrator Reading: 160.0 cps
 Sensitivity: 0.5000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1312-32
 Tool Model: Probe275T
 Calibration Casing Diameter: 5.500 in
 Calibration Depth: 191.158 ft

Master Calibration, performed Fri Sep 16 00:13:48 2022:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.010	0.704	3.400	71.921	98.818	2.382
CAL	0.846	0.967				
5'	0.008	0.702	3.400	71.921	98.785	2.608
SUM						
S1	0.001	0.722	0.000	100.000	138.577	-0.101
S2	0.002	0.691	0.000	100.000	145.135	-0.243
S3	0.001	0.753	0.000	100.000	132.905	-0.120
S4	0.000	0.728	0.000	100.000	137.364	-0.042
S5	-0.000	0.681	0.000	100.000	146.902	0.009
S6	-0.000	0.671	0.000	100.000	149.002	0.002
S7	-0.000	0.689	0.000	100.000	145.086	0.062
S8	0.000	0.725	0.000	100.000	138.080	-0.042

Internal Reference Calibration, performed (Not Performed):

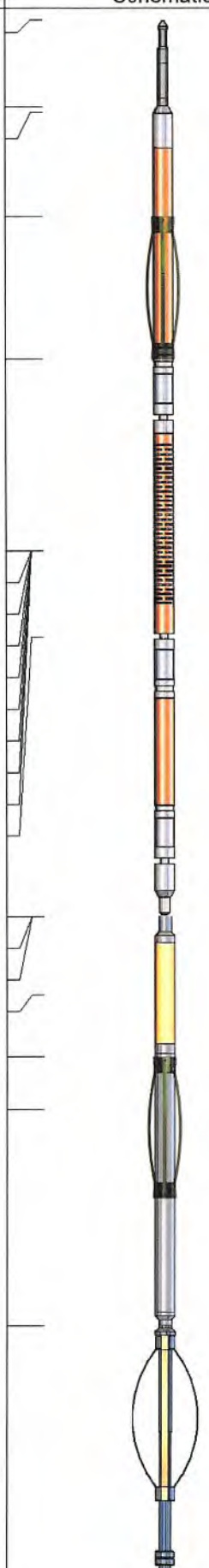
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.846	0.967	1.000	0.000

Air Zero Calibration, performed Thu Sep 15 21:55:09 2022:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	

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S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
CHD	18.07		CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00	
RBT HeadVolt	17.05 16.99						
CENT	15.78			CENT-Overbody Antelope (SP-919-0233)	1.67	4.88	5.00
Temp	14.14						
WVFS8	11.91			RBT-Probe275T (FW1312-32) Probe 2.75" Radial with Integral Temperature Sub	9.39	2.75	90.00
WVFS7	11.91						
WVFS6	11.91						
WVFS5	11.91						
WVFS4	11.91						
WVFS3	11.91						
WVFS2	11.91						
WVFS1	11.91						
WV3FT	11.91						
WV5FT	10.91						
GR WVFCAL HEADVOLT CCL	7.66 7.66 7.66 6.75						
CENT	6.03						
GR	5.42			GR-Probe (275) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00
				CENT-Overbody Antelope (SP-919-0233)	1.67	4.88	5.00
CENT	2.88		CENT-Probe275 2.75" Centralizer	2.88	2.75	20.00	

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Dataset:	antero_folger_2h_rcbl_17_sep_2022.db: river_front/folger_2h/run1/pass4
Total length:	18.07 ft
Total weight:	178.00 lb
O.D.:	4.88 in



Company	Antero Resources
Well	Eldon Folger 2H
Field	River Front
County	Tyler
State	WV