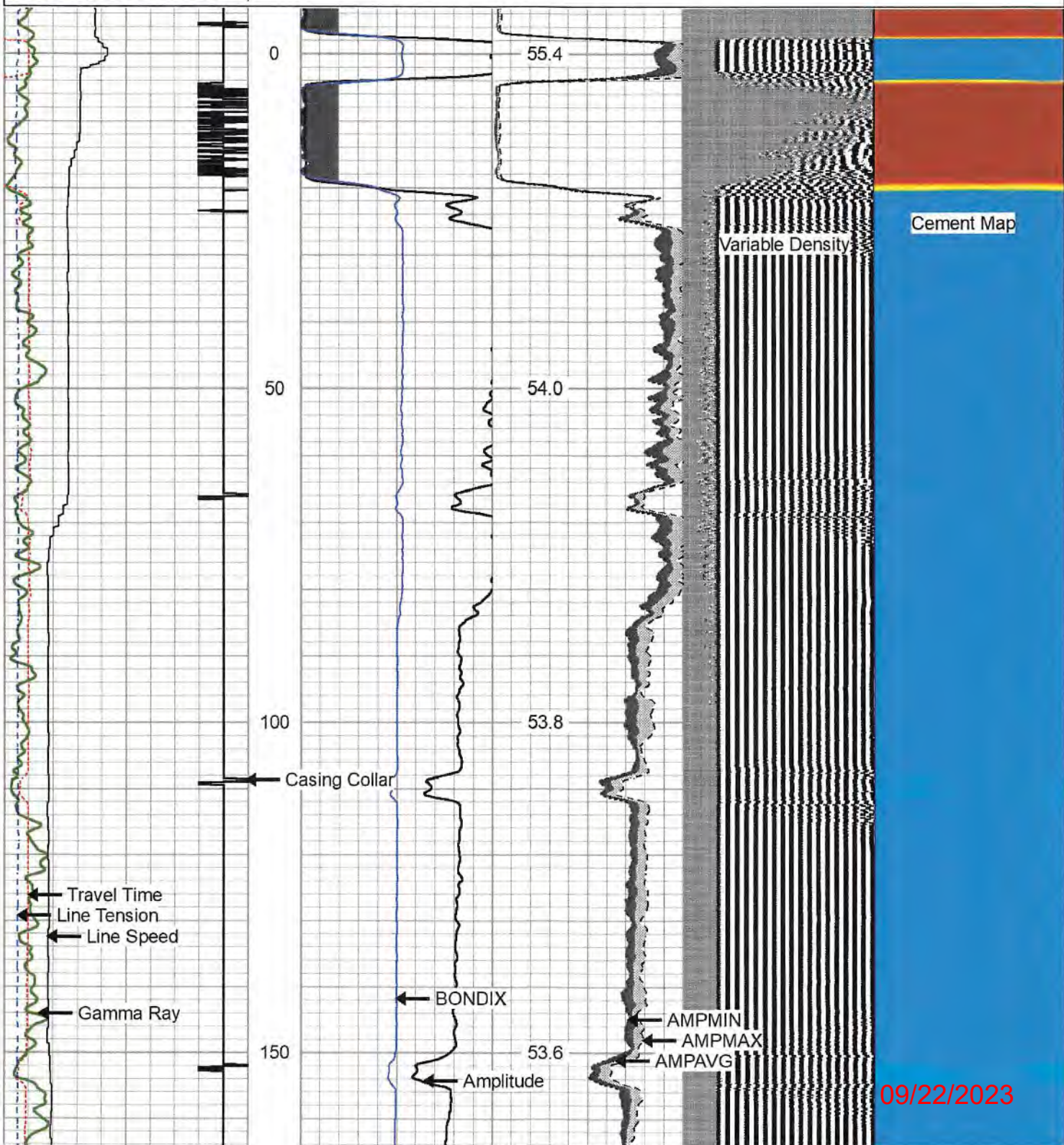
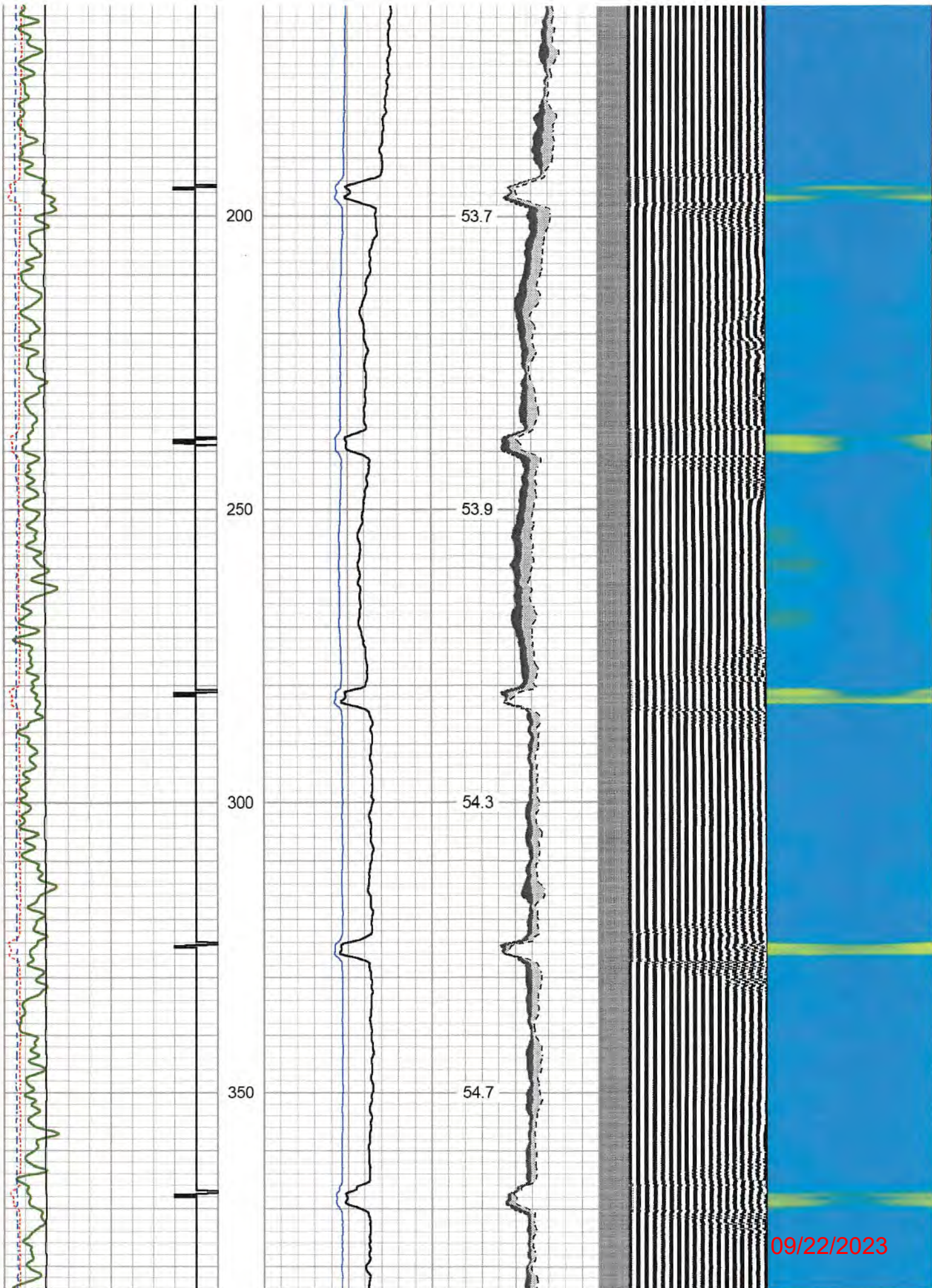
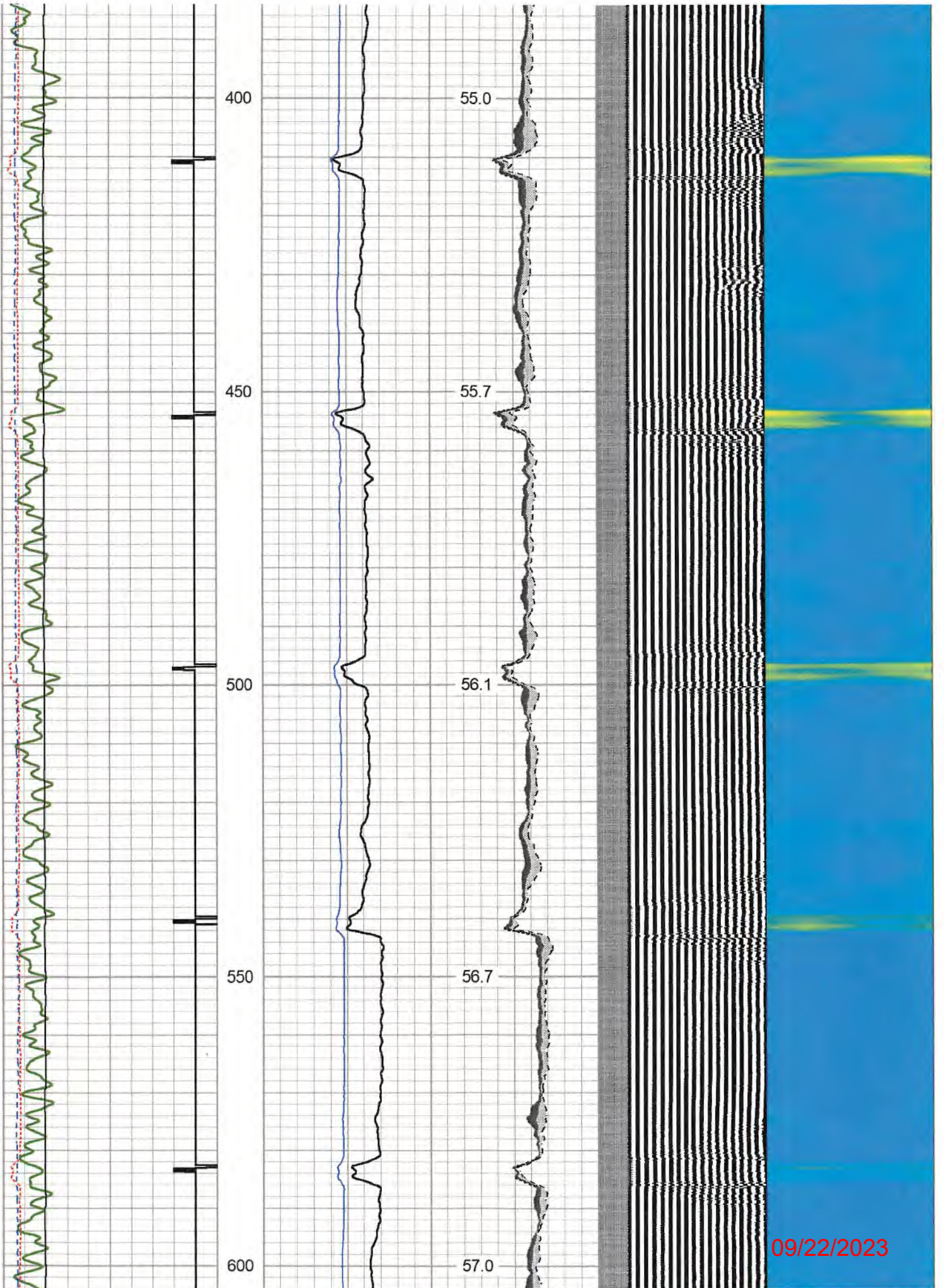


Database File antero_crystal_2h_rcbl_19_jan_2022.db
 Dataset Pathname crystal2h/rcbl/pass4
 Presentation Format rcbl 2
 Dataset Creation Thu Jan 19 12:46:50 2023
 Charted by Depth in Feet scaled 1:240

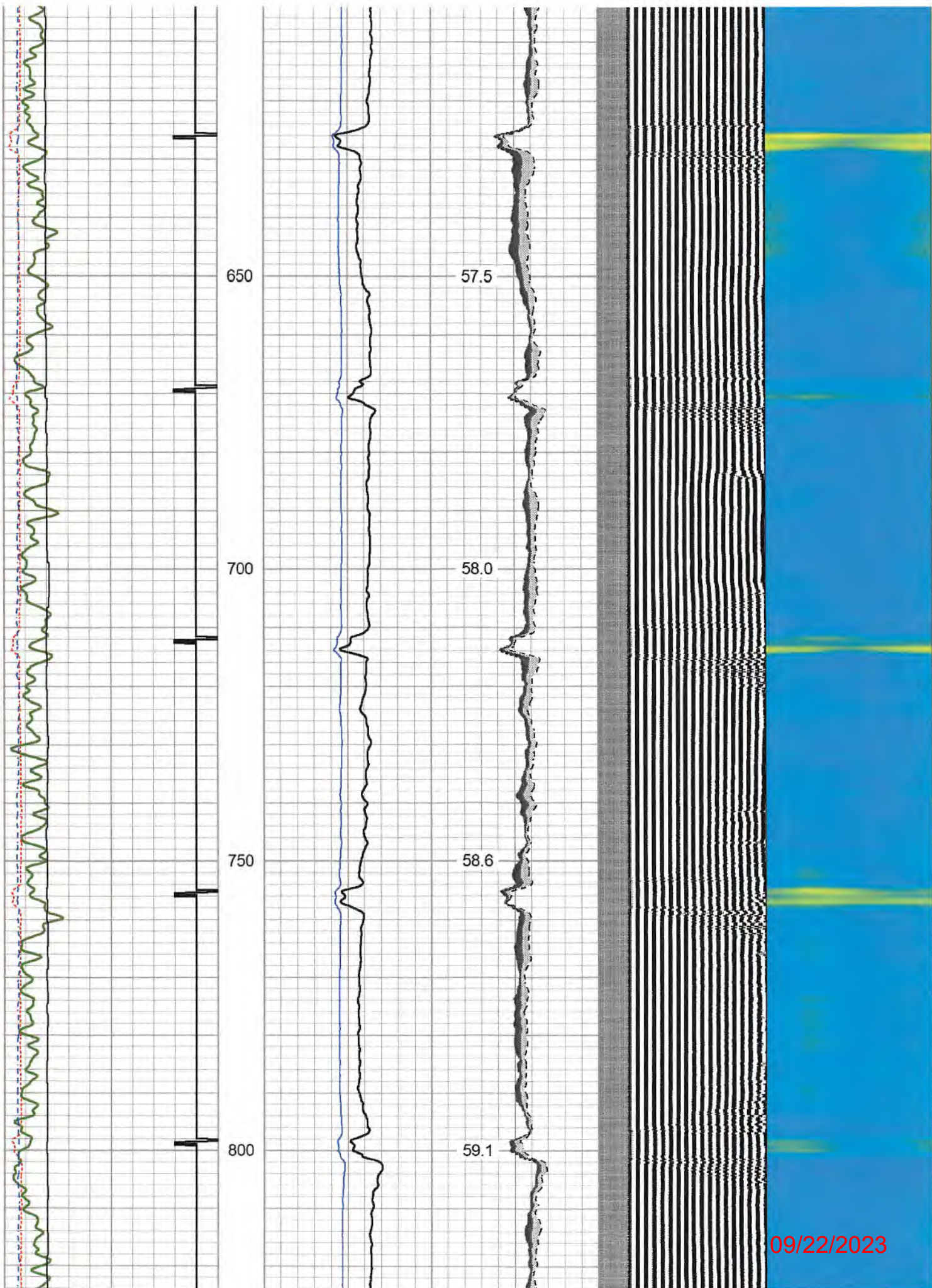
270	Travel Time (usec)	160	0	Amplitude (mV)	100	-5	AMPMIN	150	Variable Density	1	Cement Map	8
9	Casing Collar	-1	1	BONDIX	0	-5	AMPMAX	150	200	(usec)	1200	
0	Gamma Ray (GAPI)	150				-5	AMPAVG	150				
	Line Speed						TEMP					
-200	(ft/min)	200					(degF)					
0	Line Tension (lb)	5000										



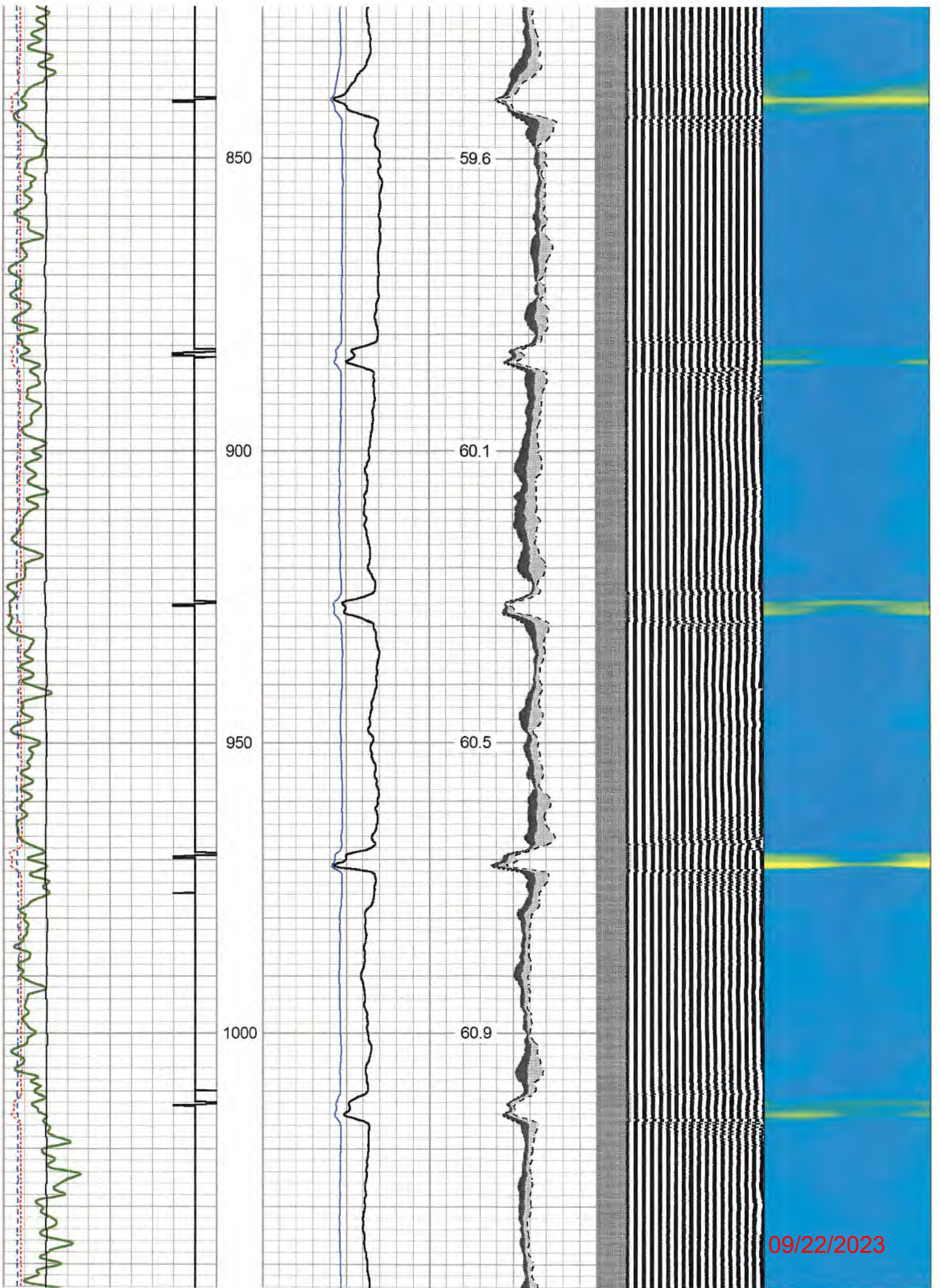




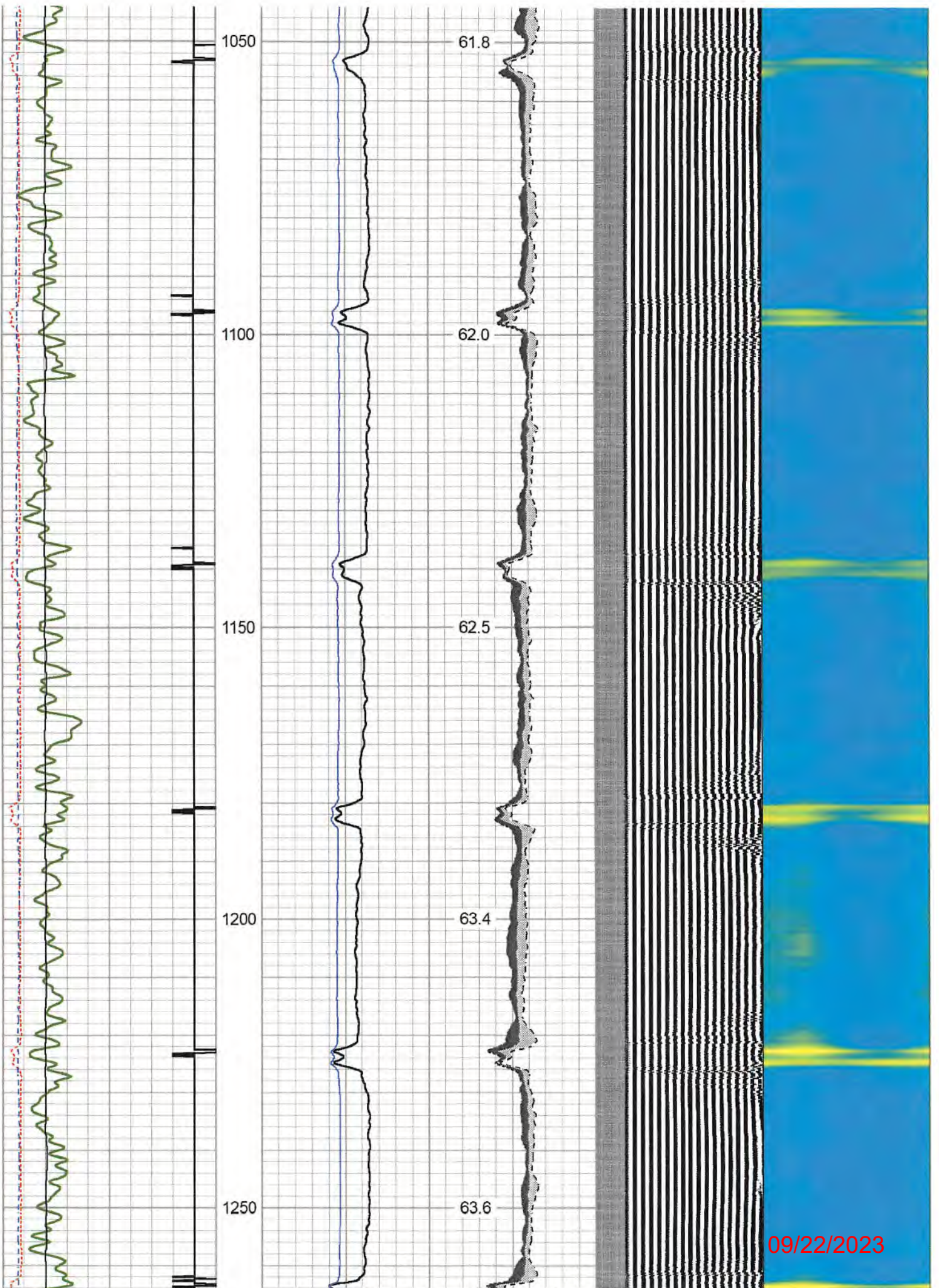
09/22/2023



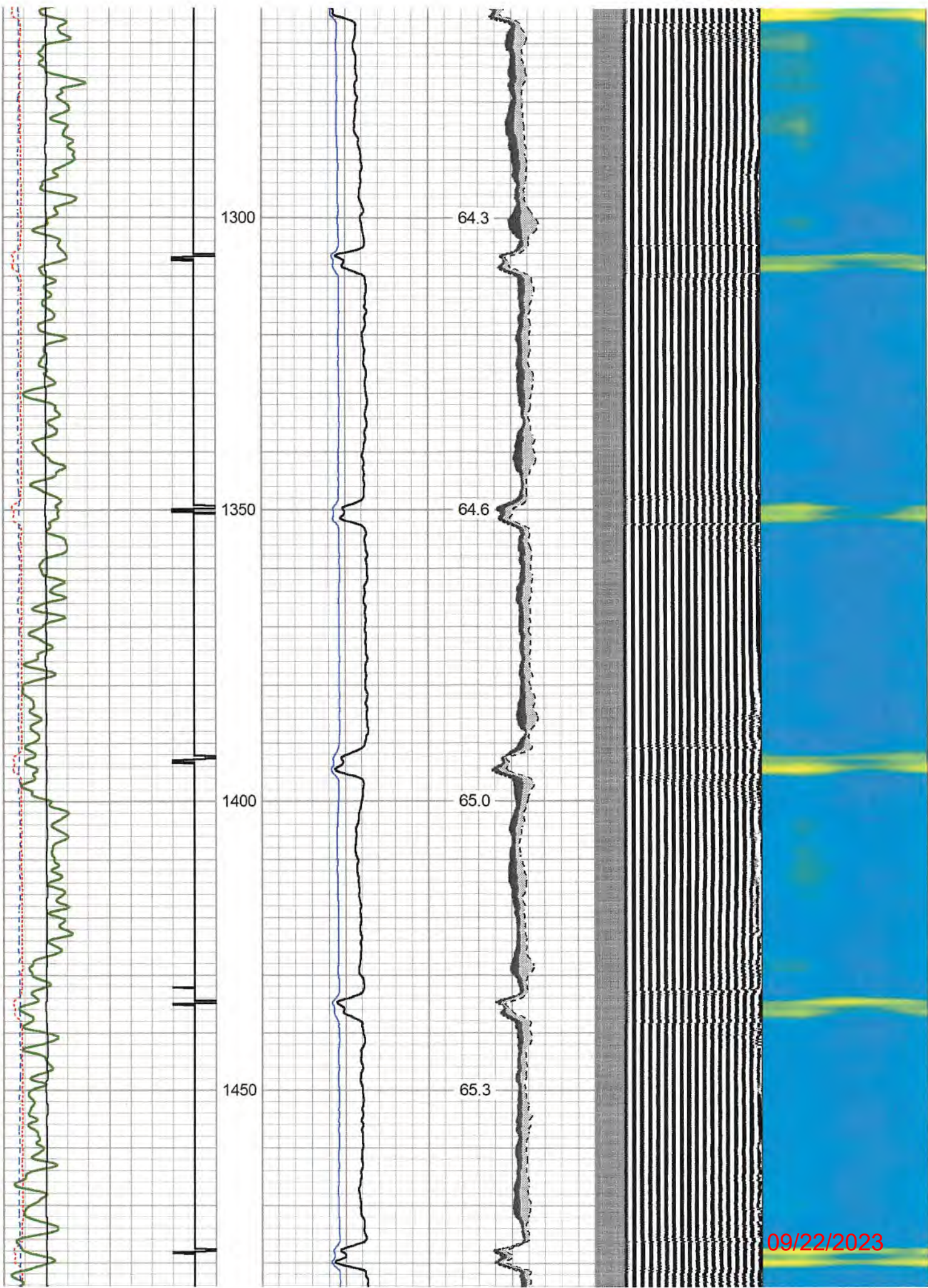
09/22/2023

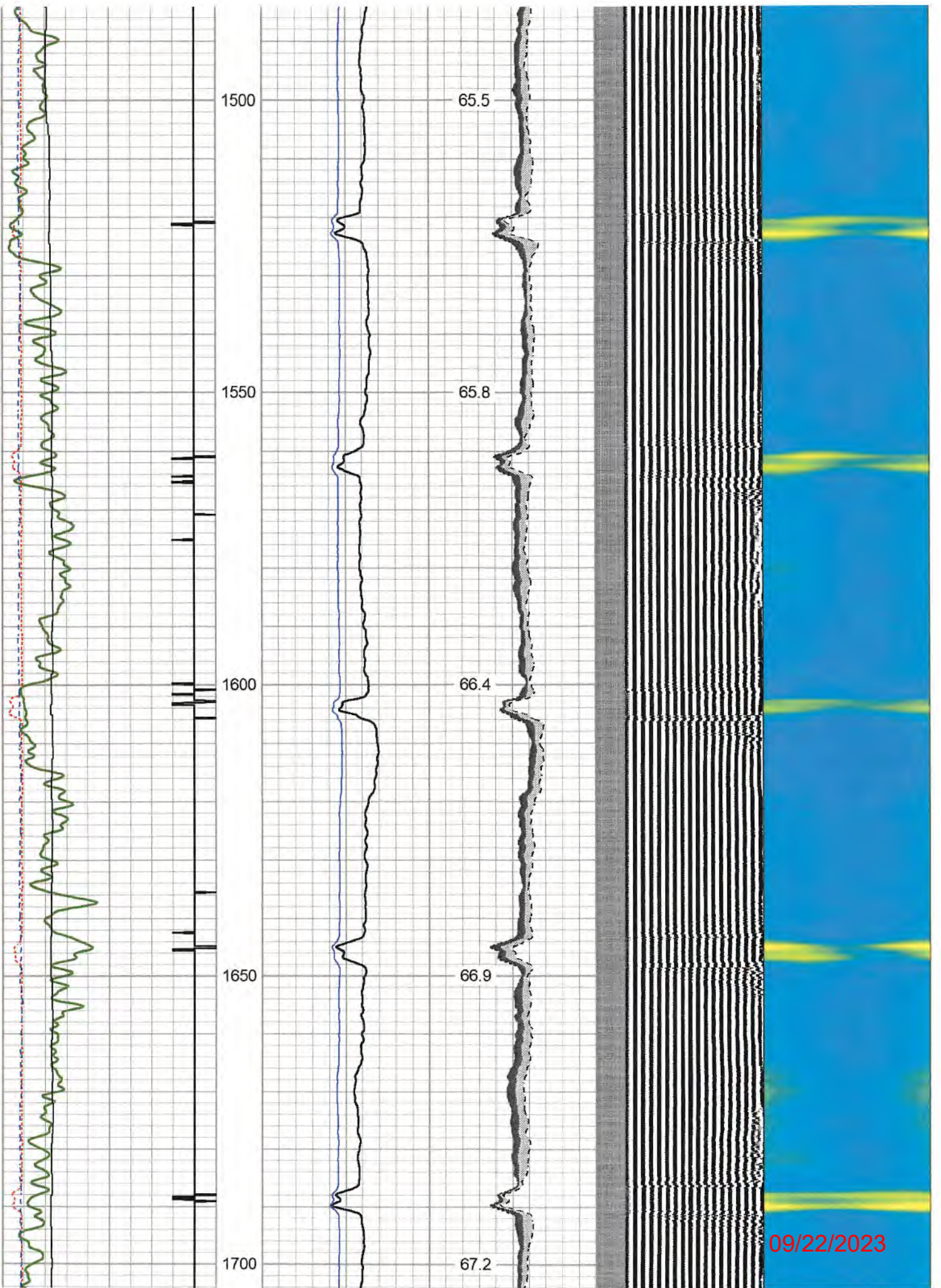


09/22/2023

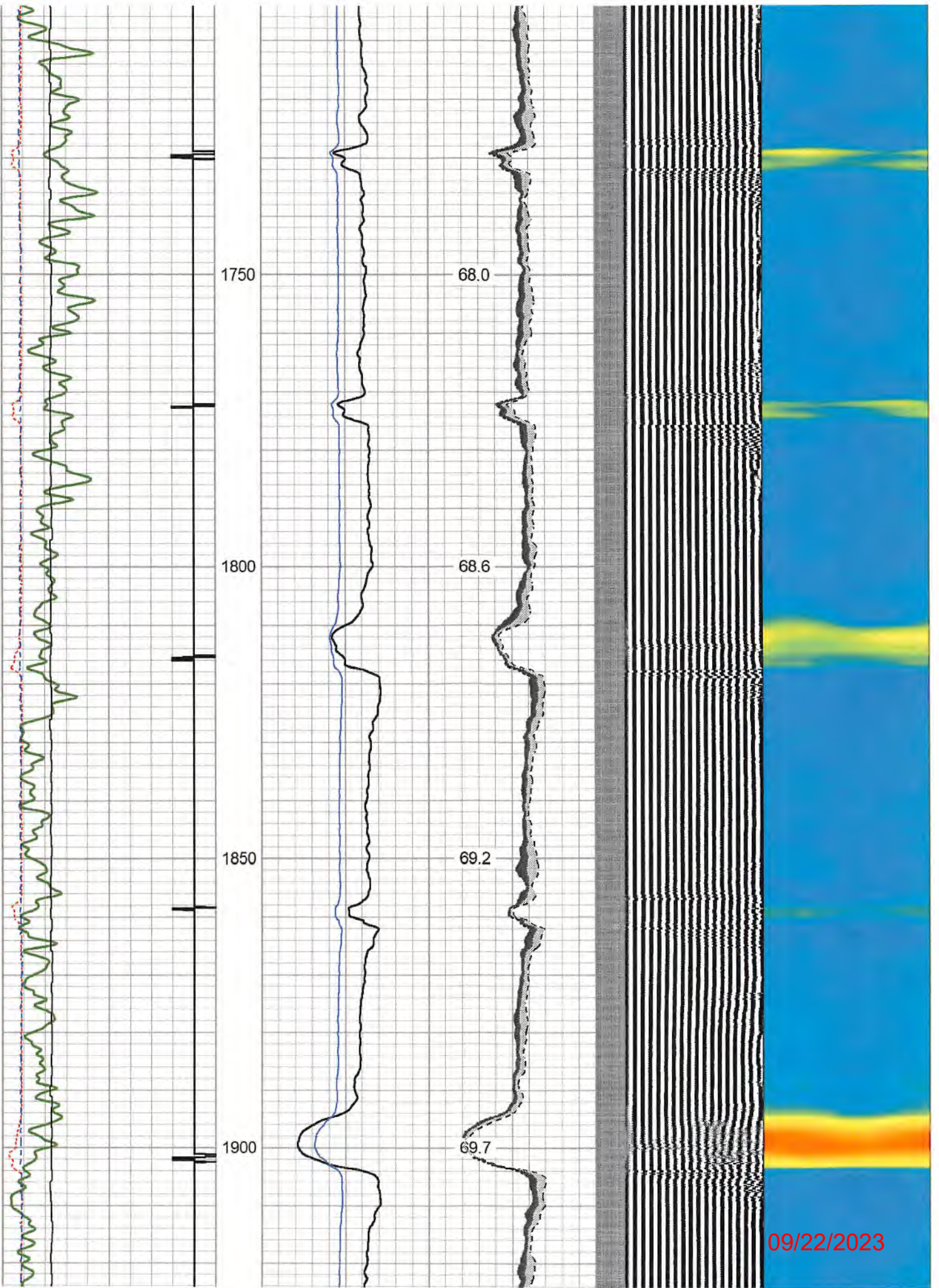


09/22/2023

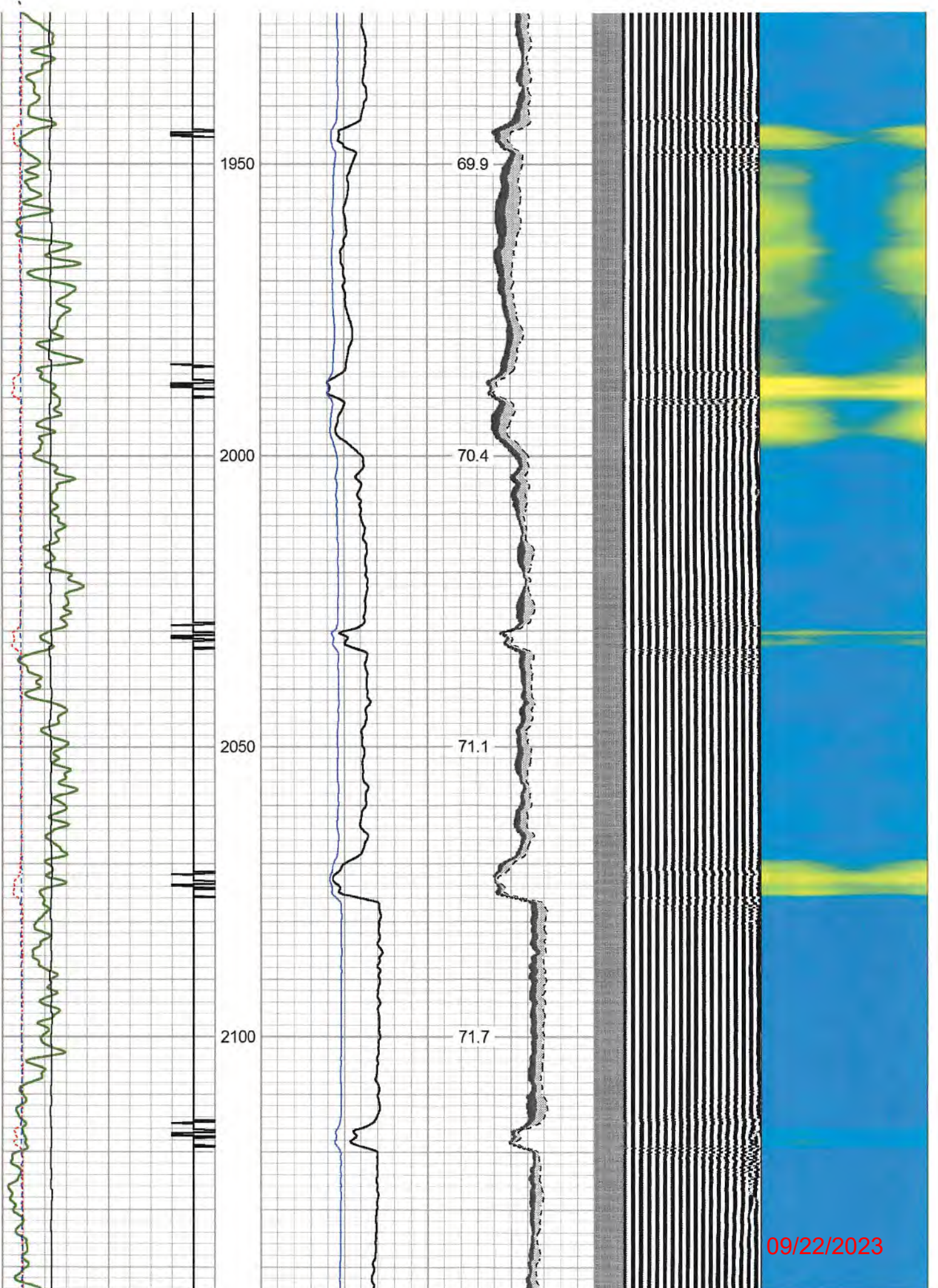


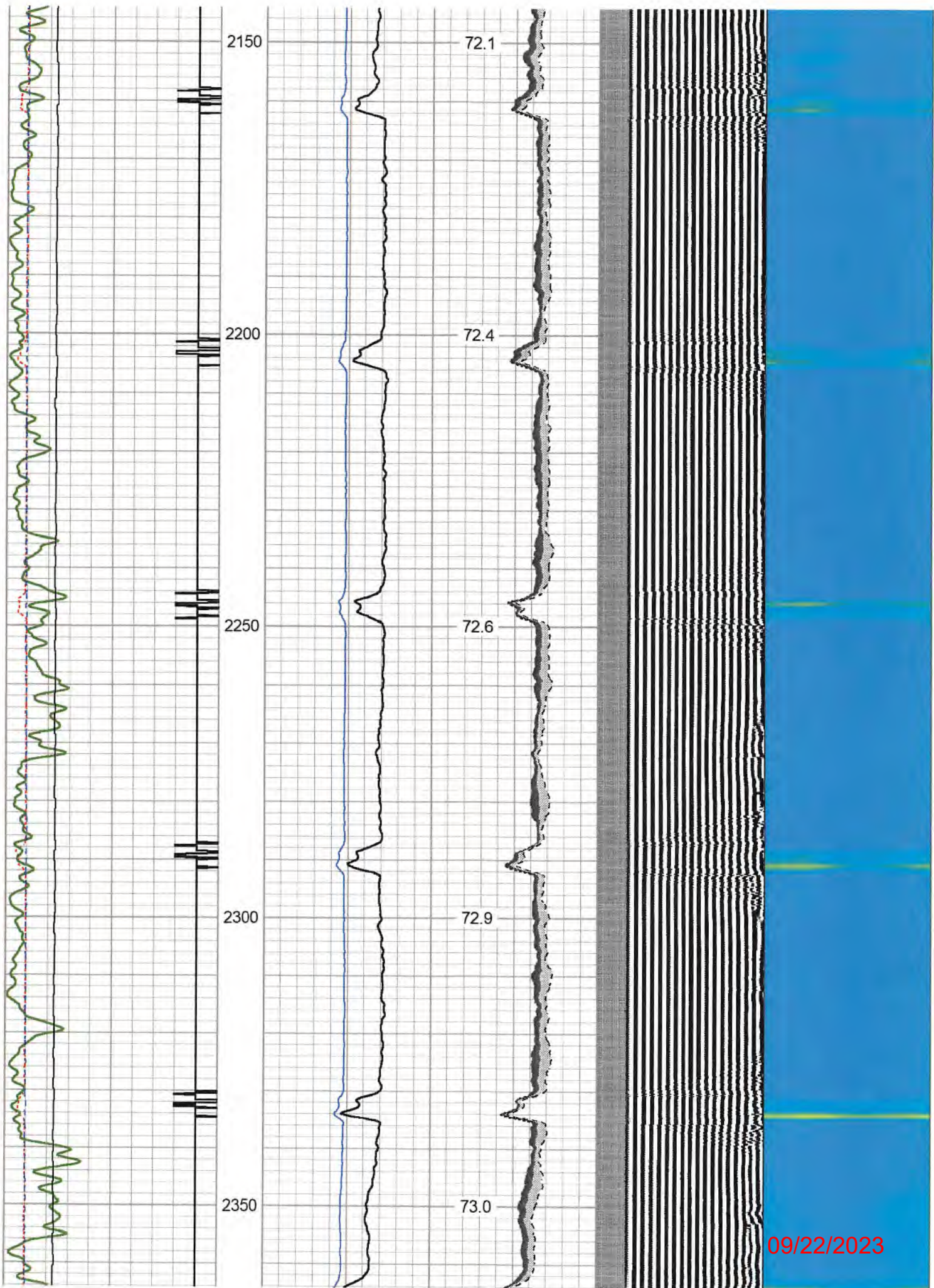


09/22/2023

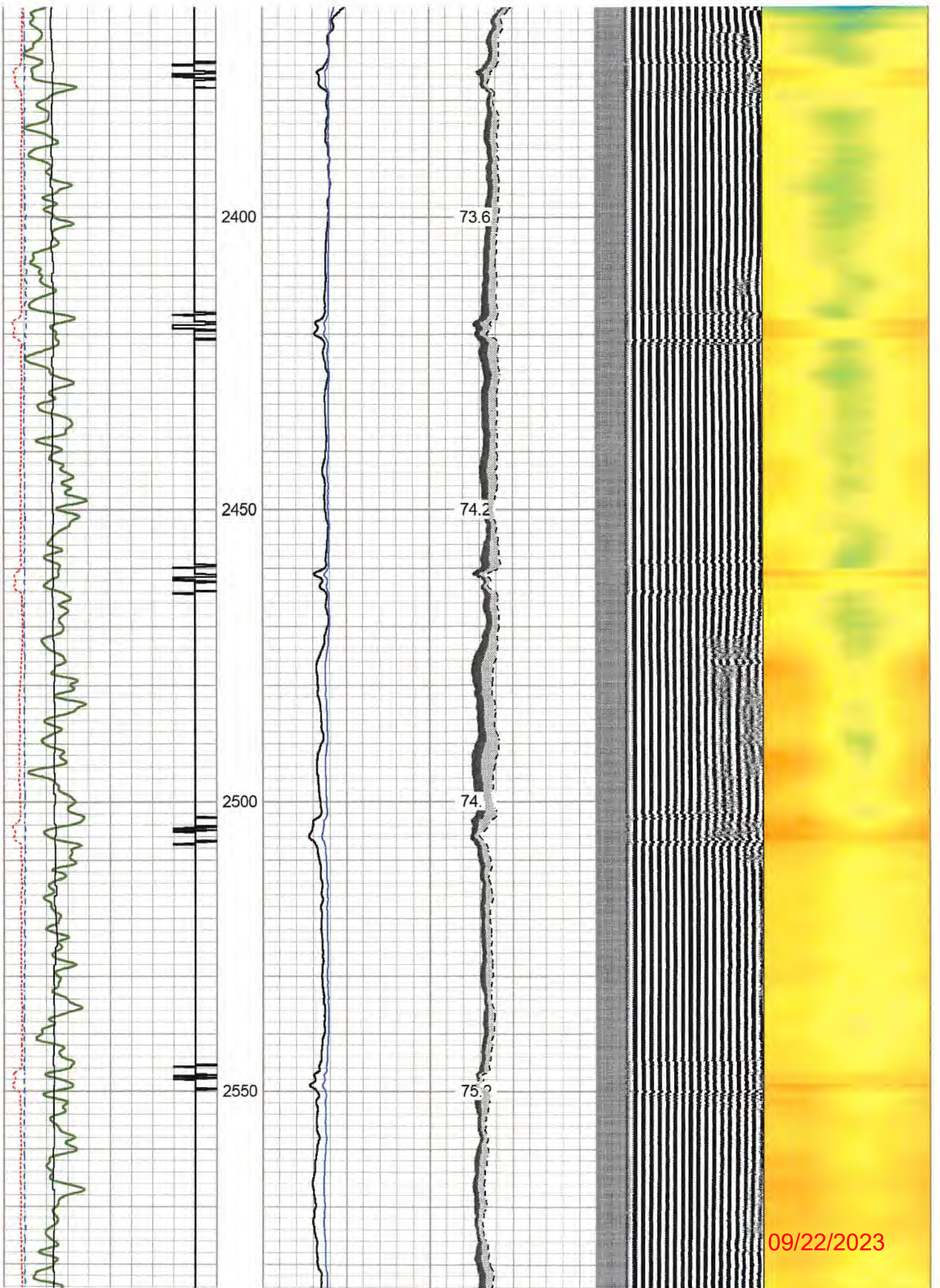


09/22/2023

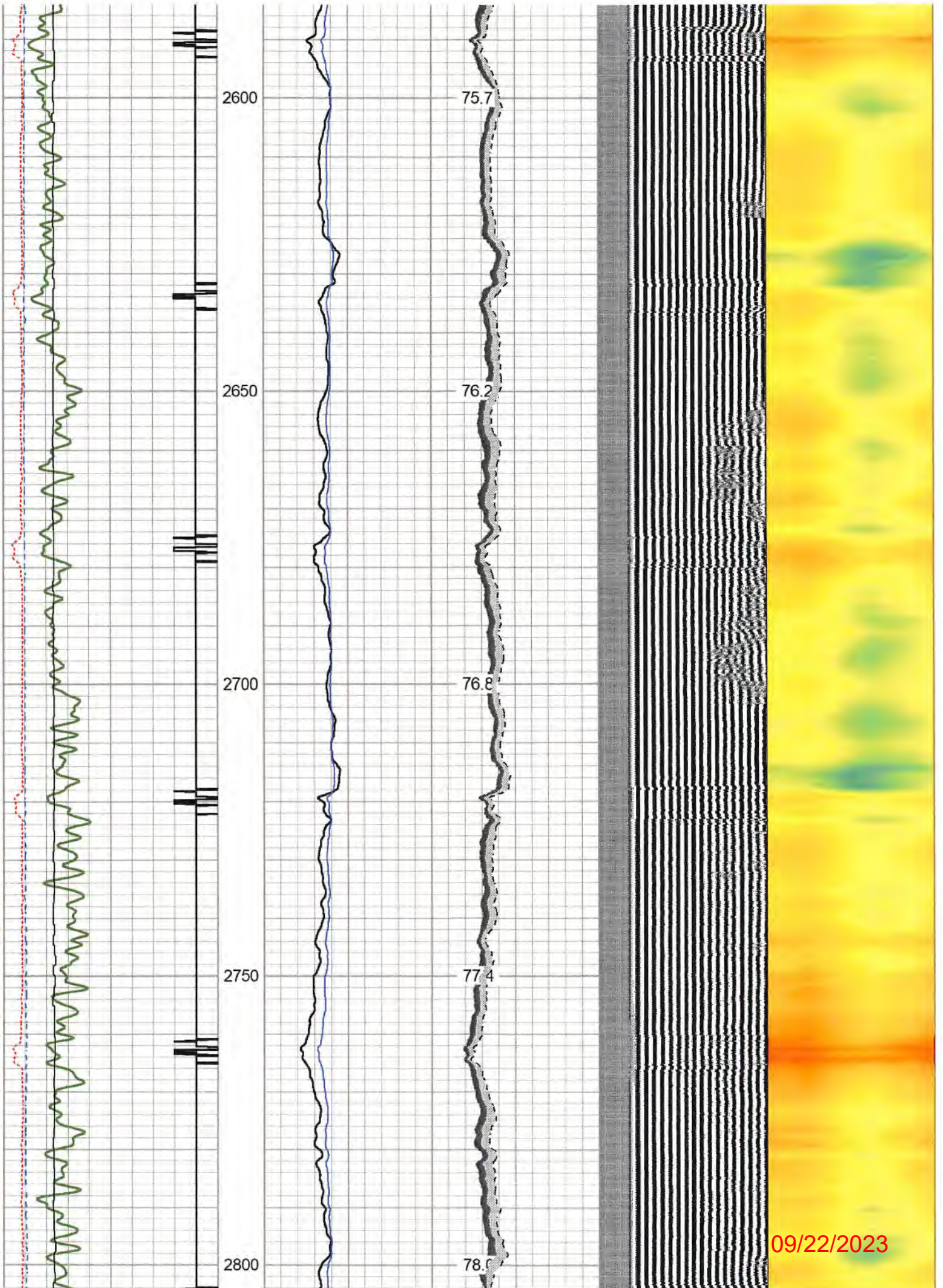




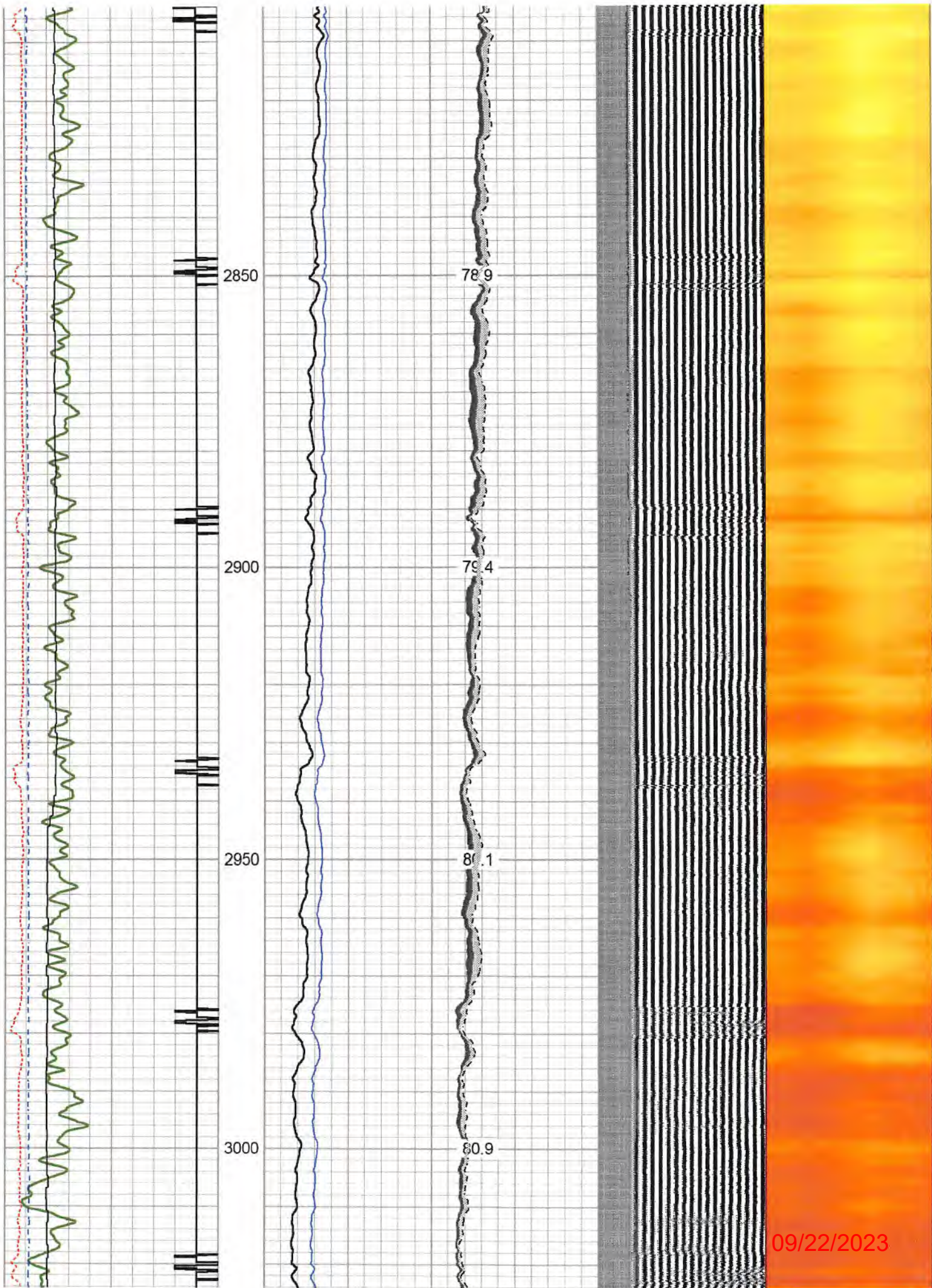
09/22/2023



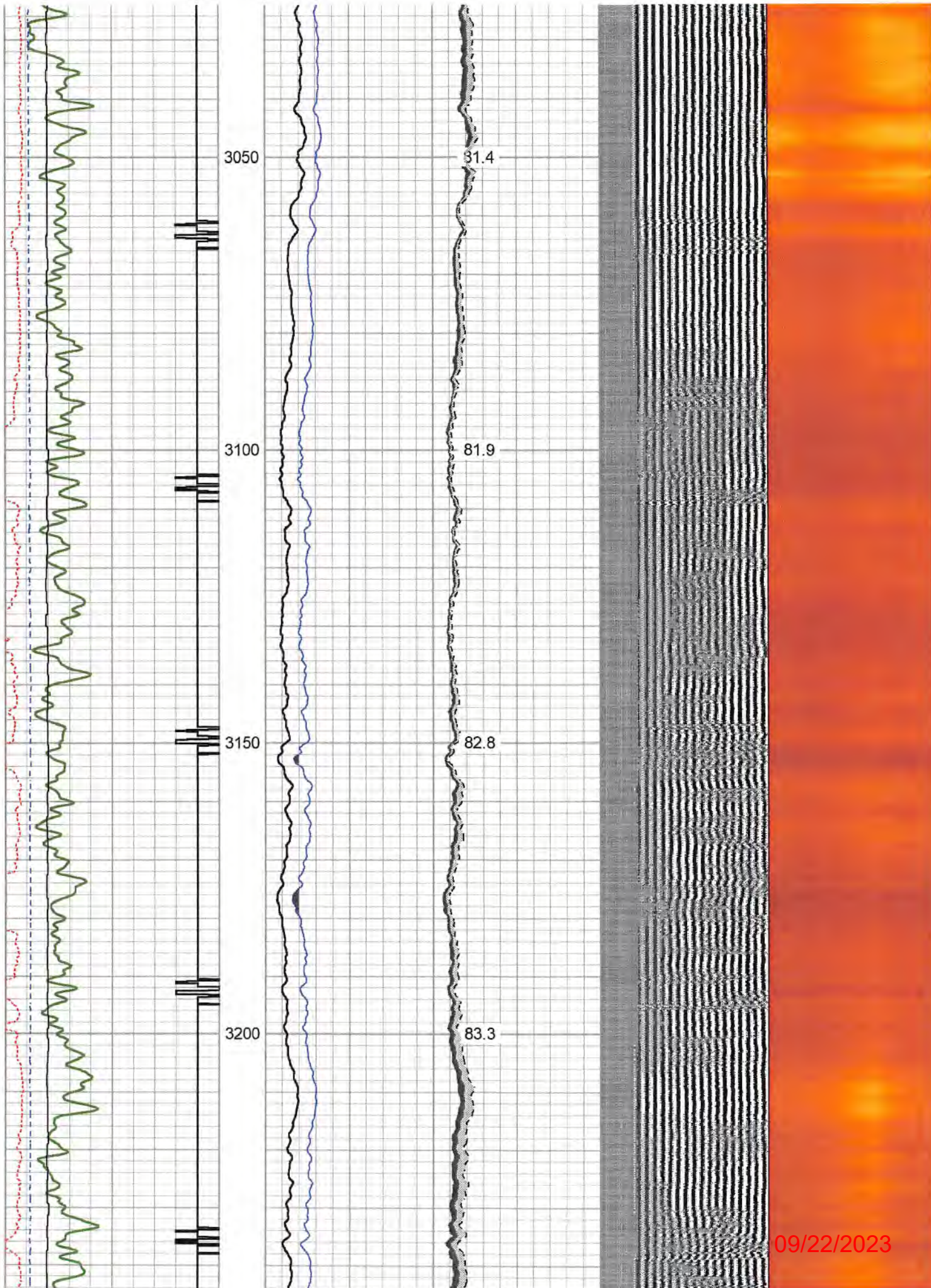
09/22/2023

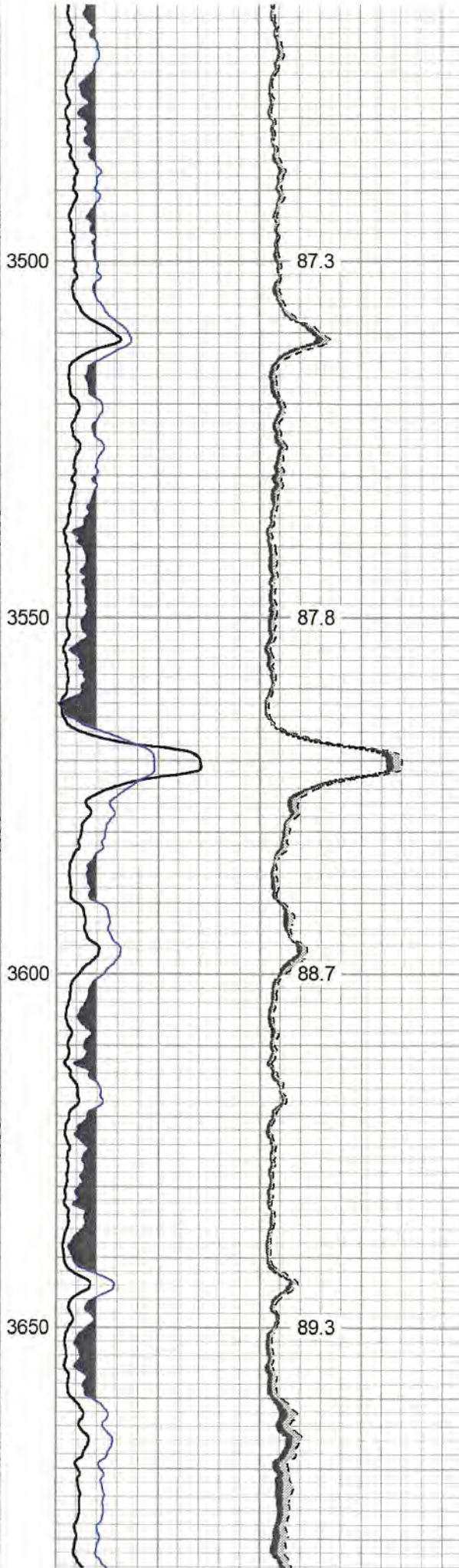
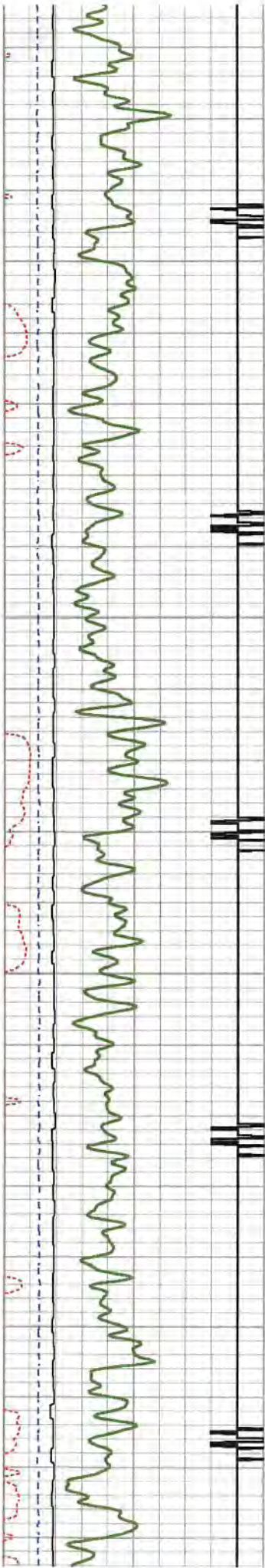


09/22/2023

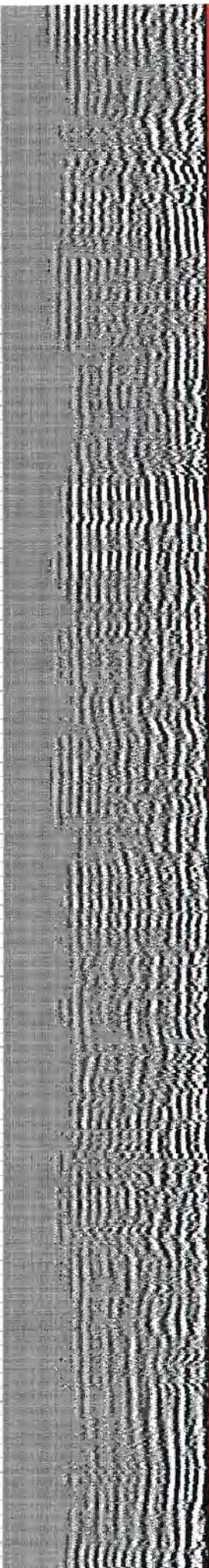
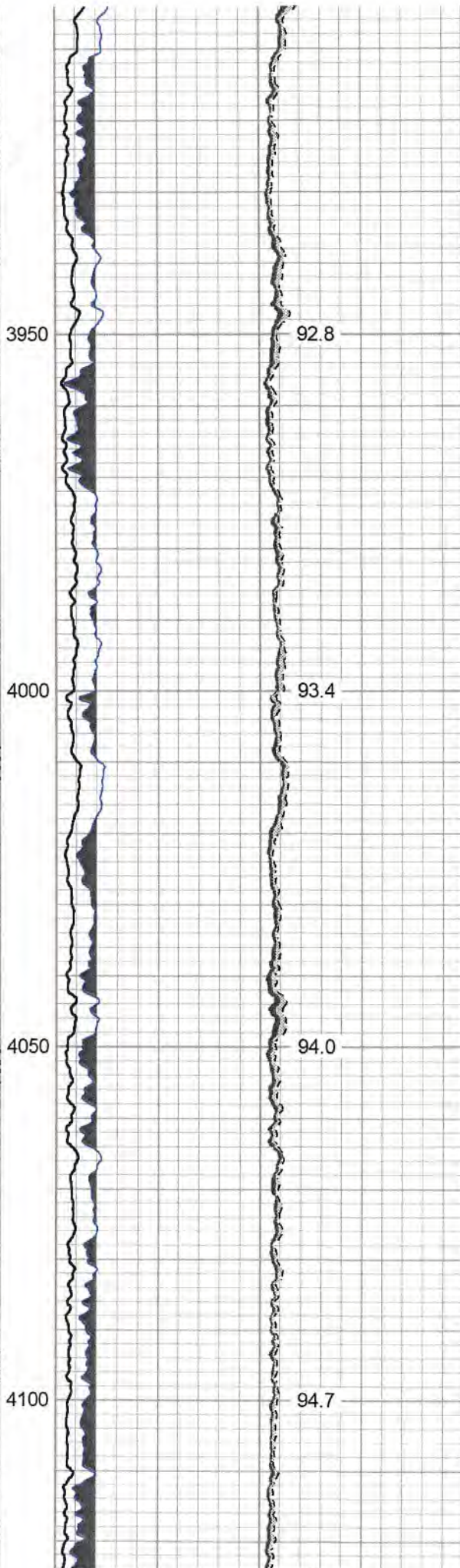
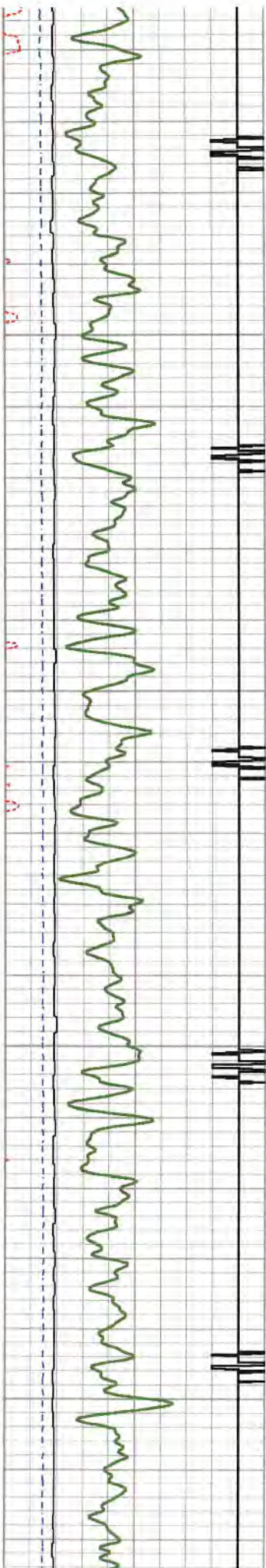


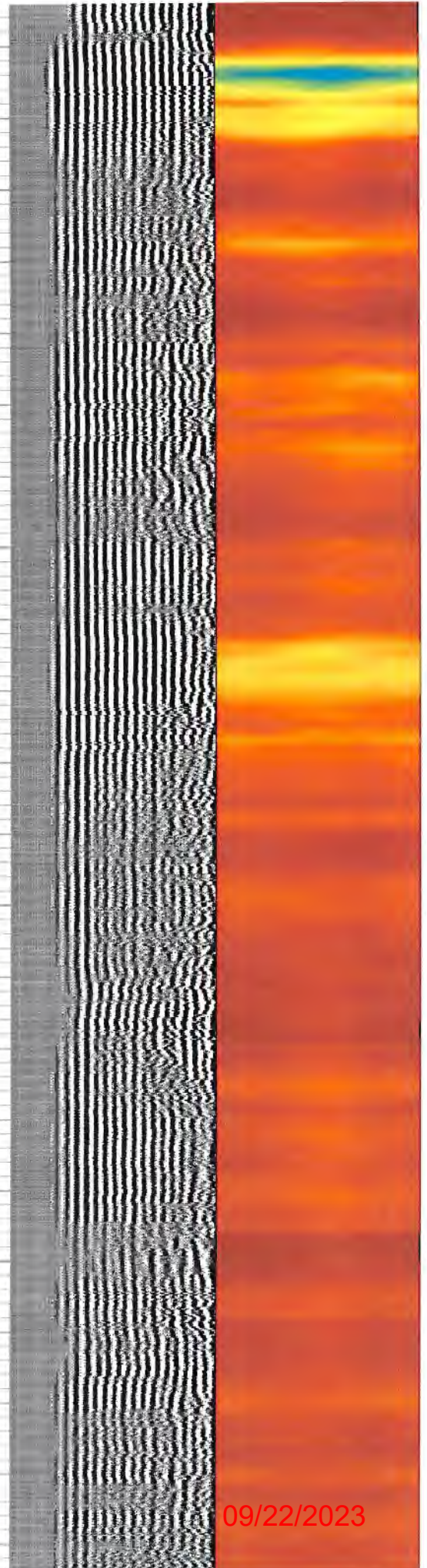
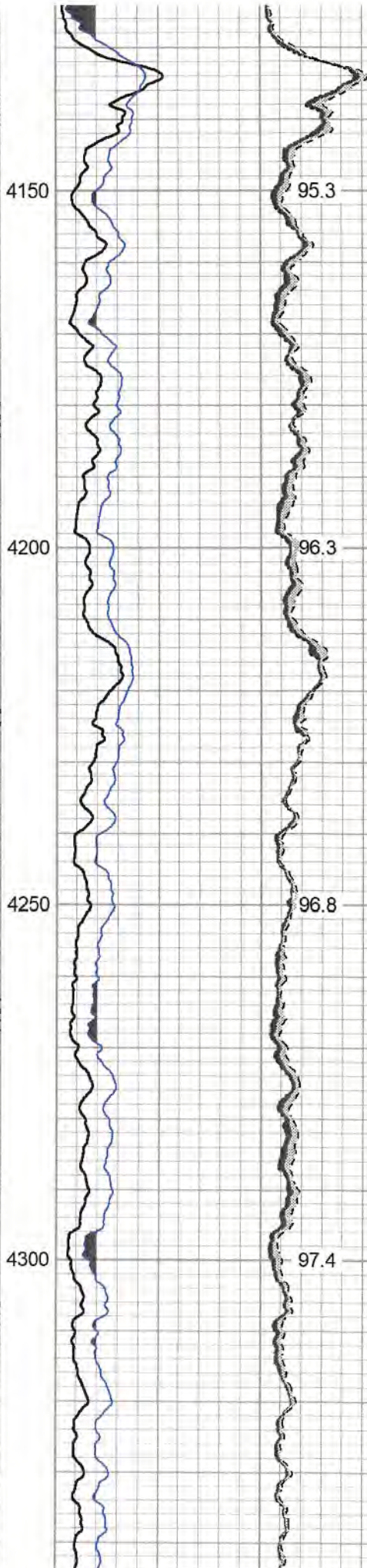
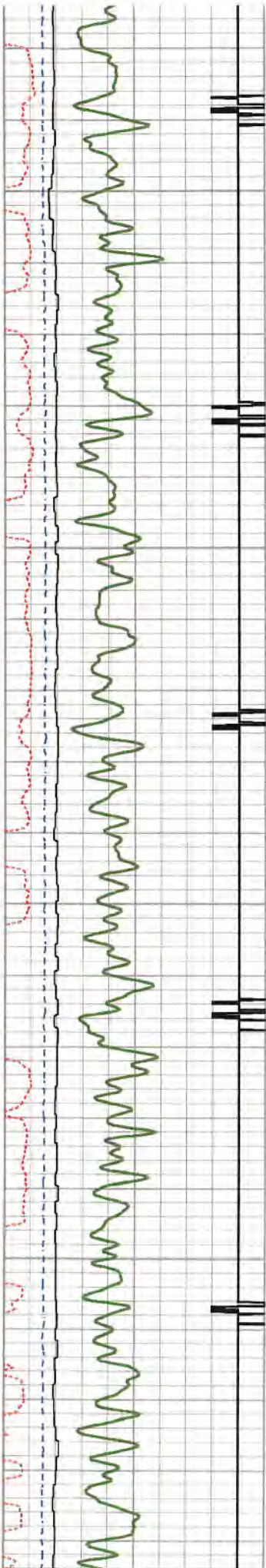
09/22/2023



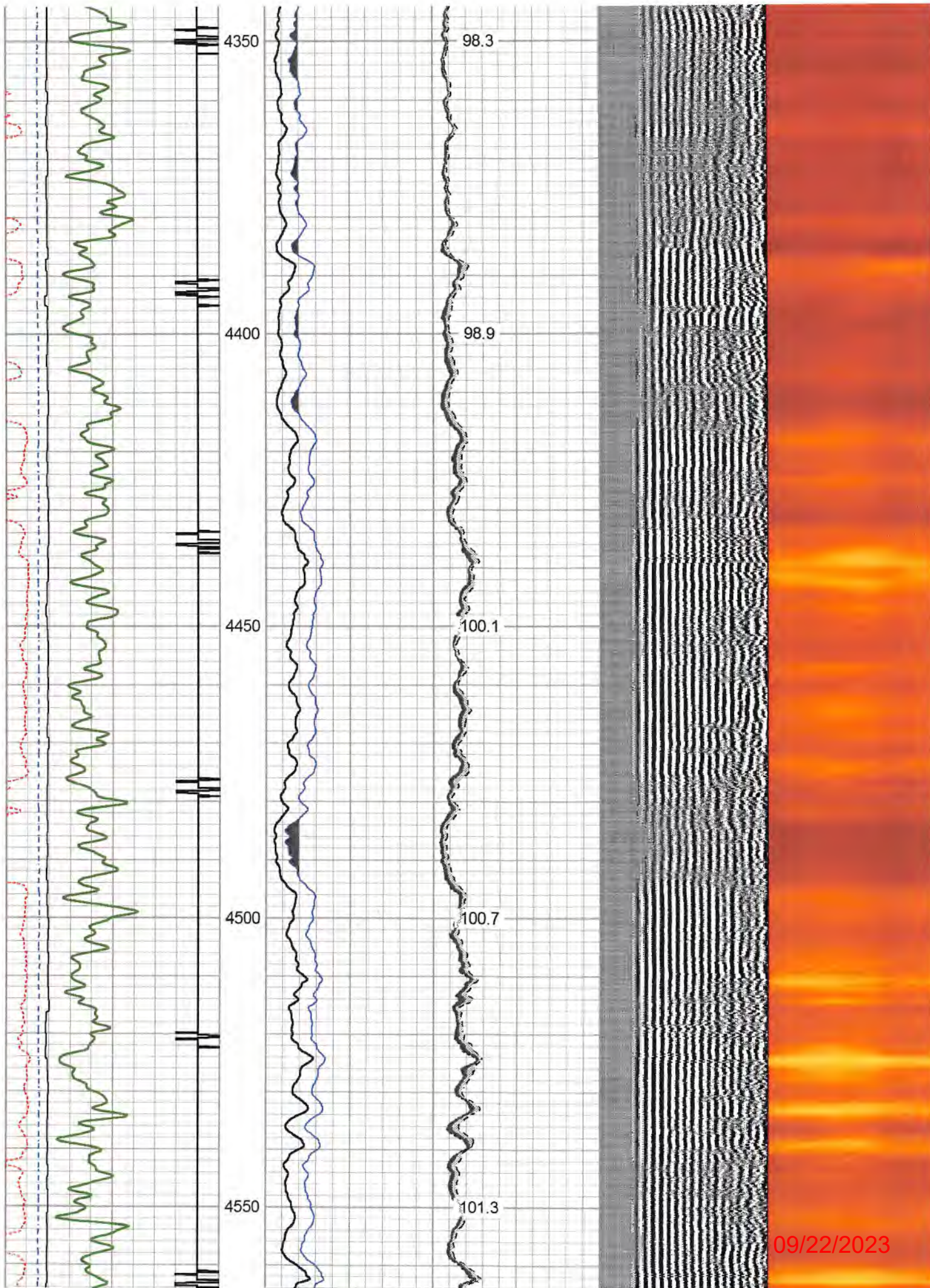


09/22/2023

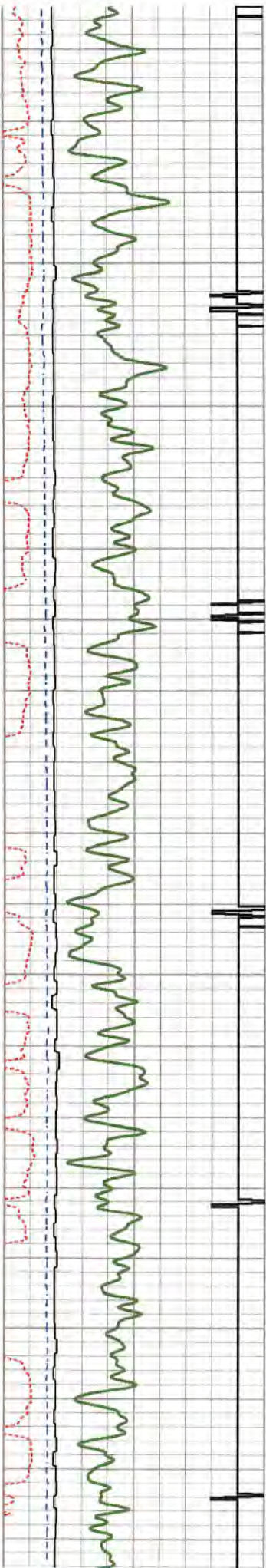




09/22/2023



09/22/2023

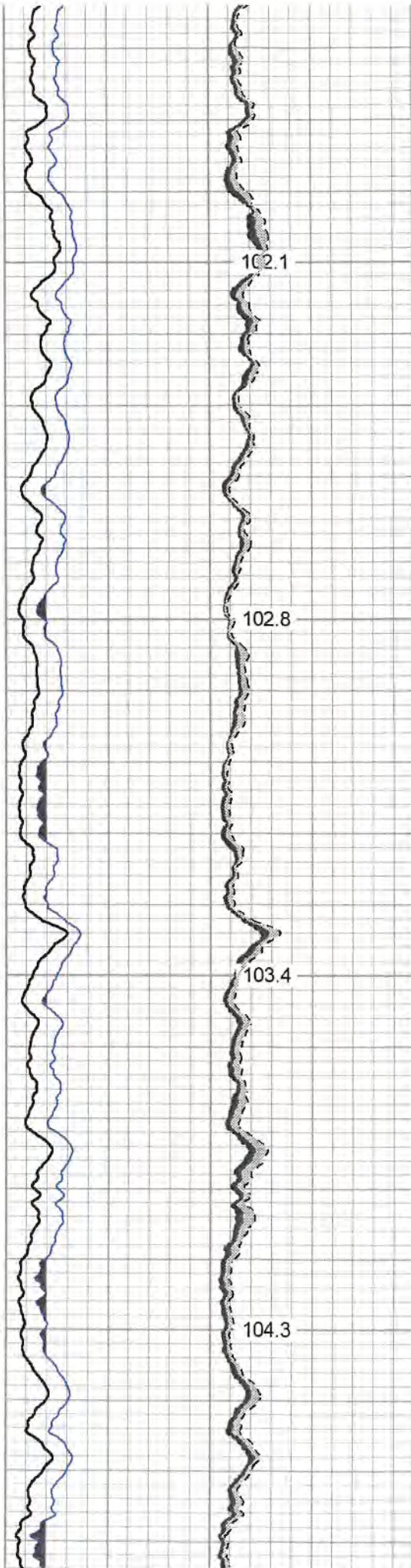


4600

4650

4700

4750

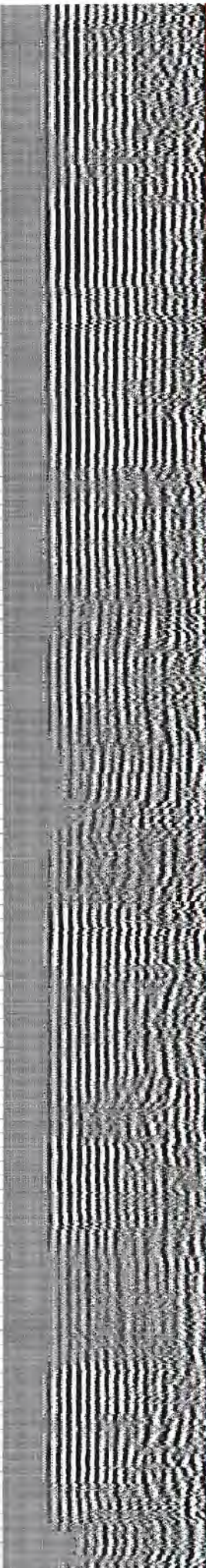


102.1

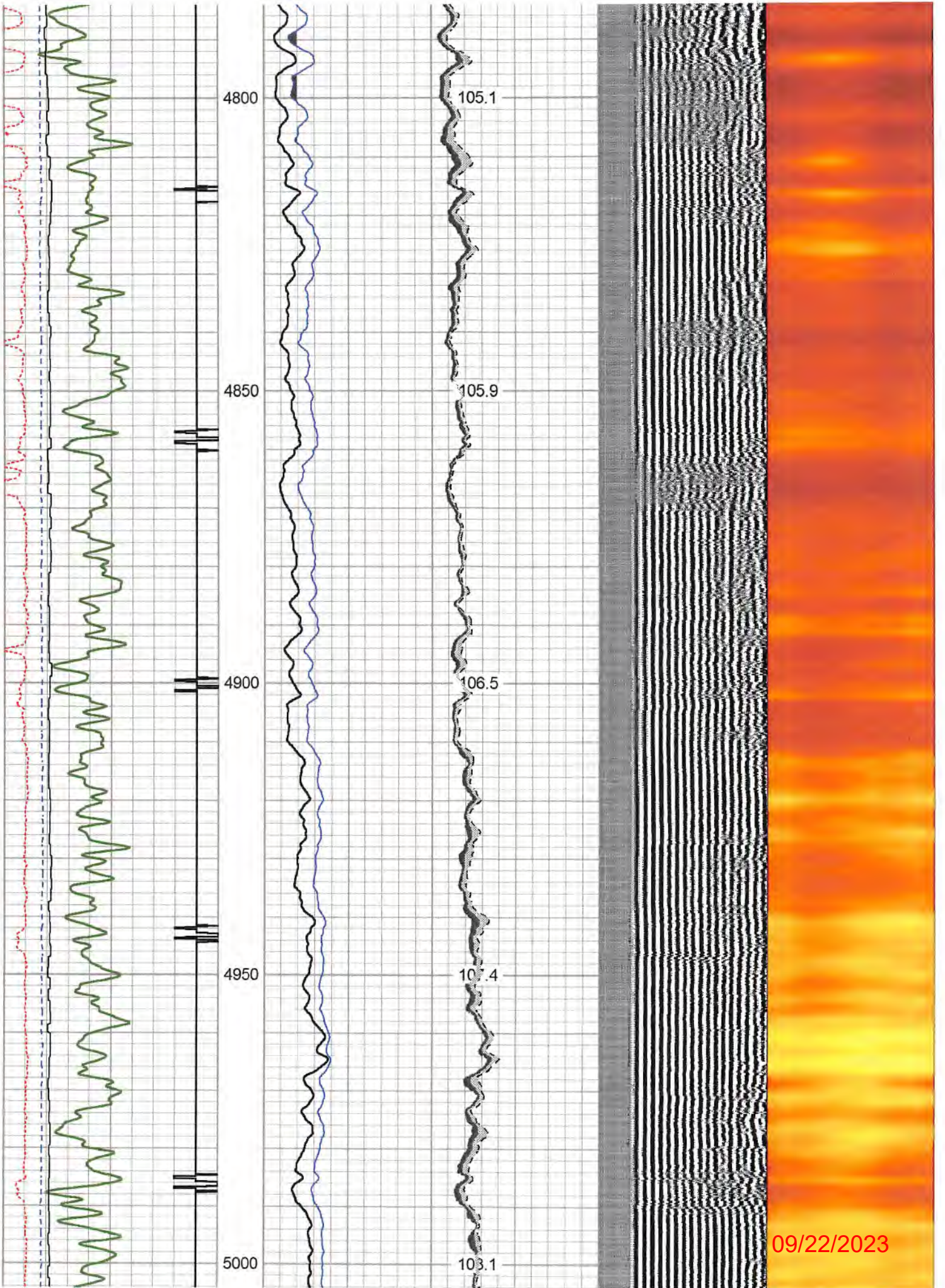
102.8

103.4

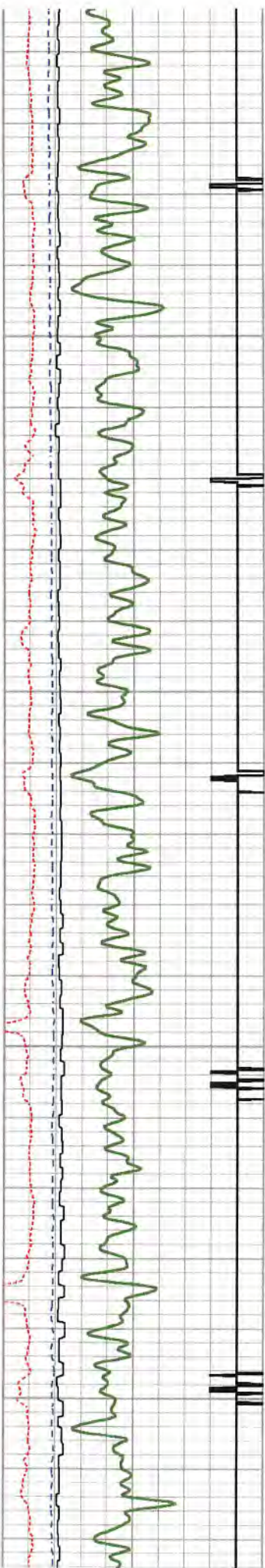
104.3



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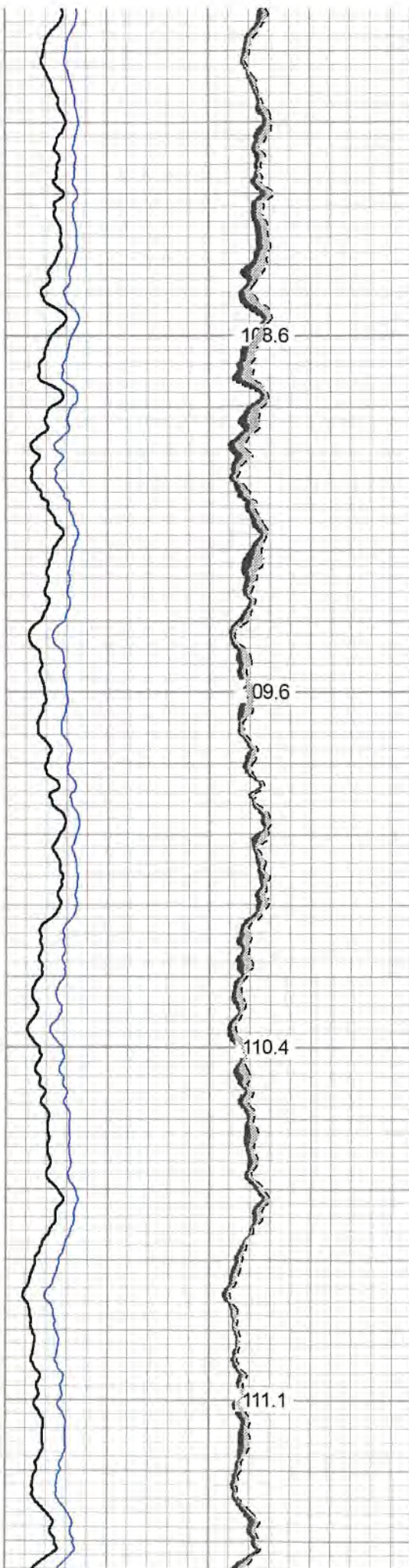


5050

5100

5150

5200

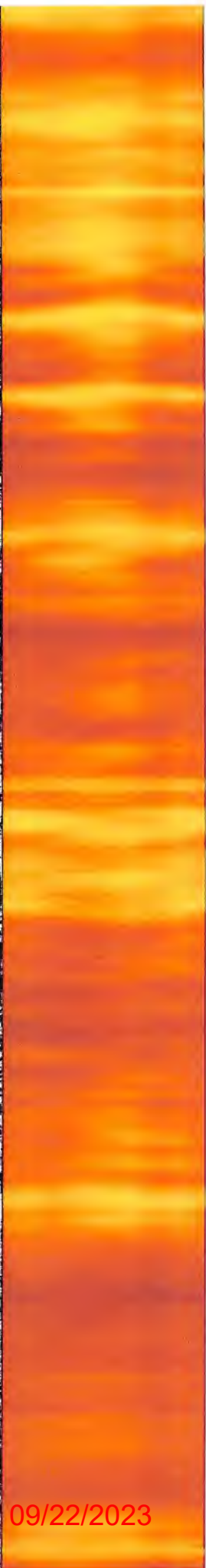
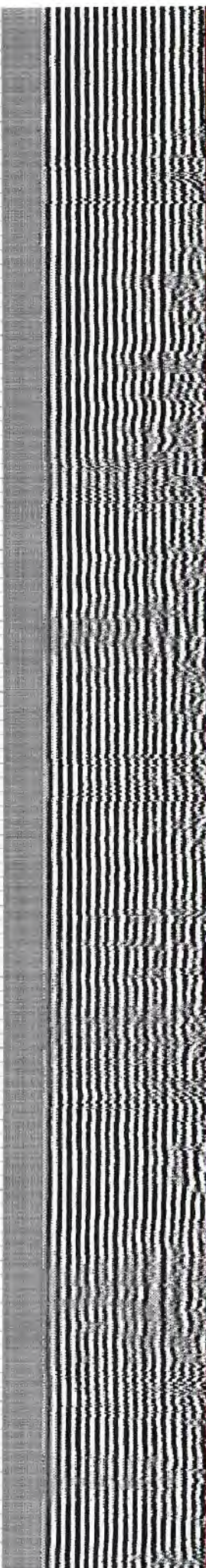


108.6

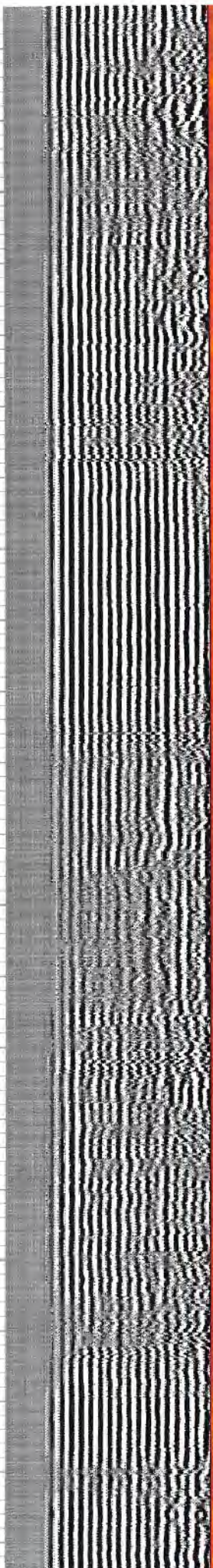
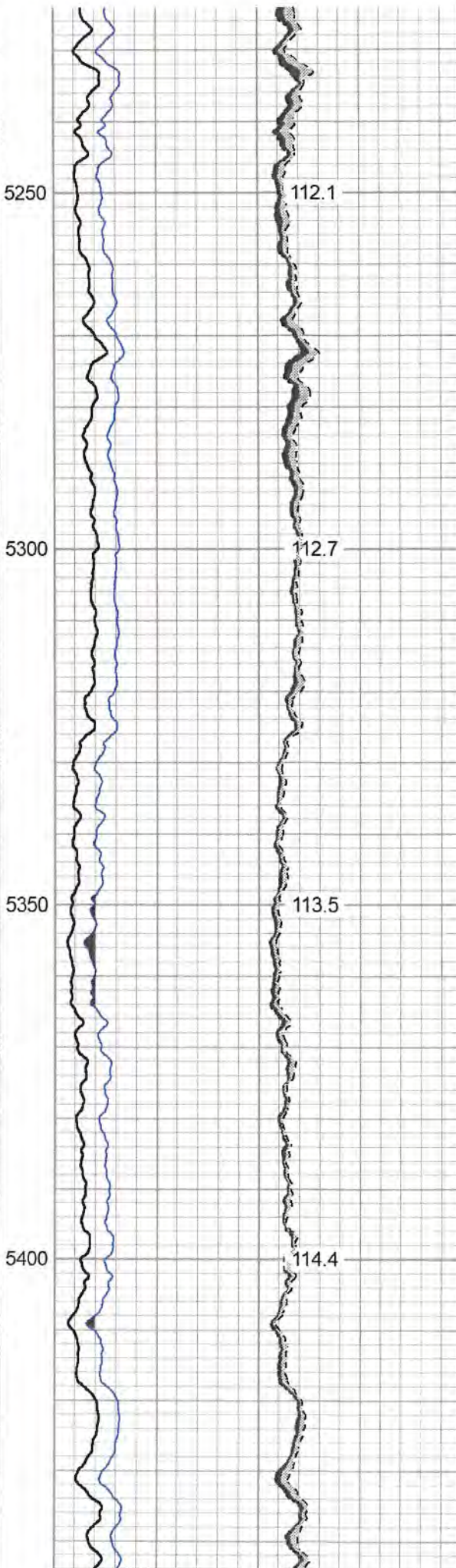
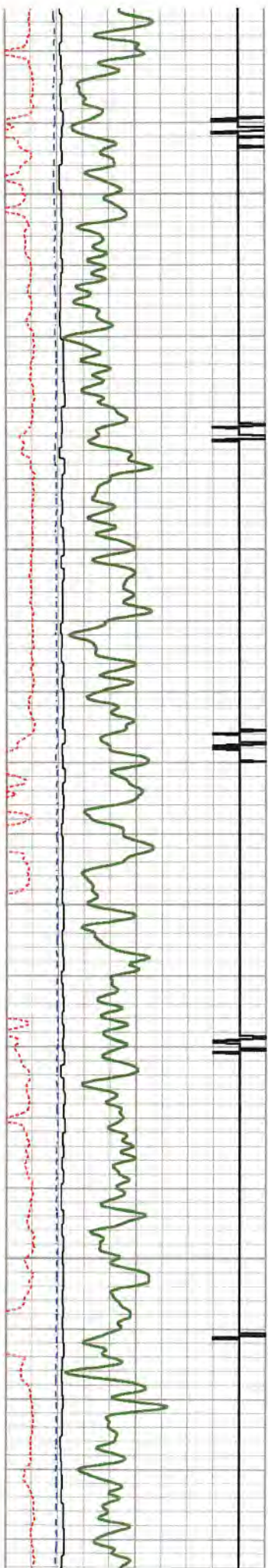
09.6

110.4

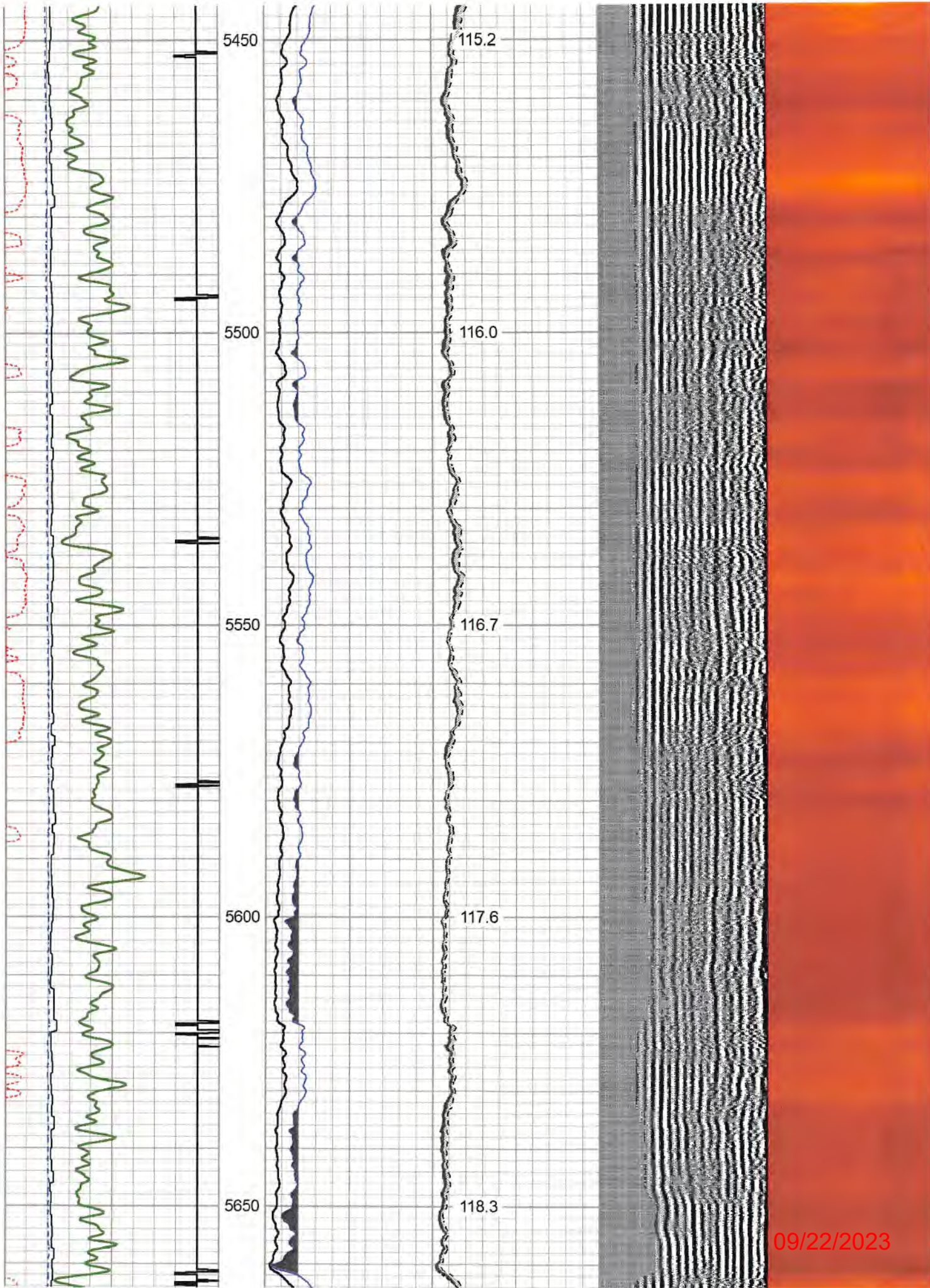
111.1



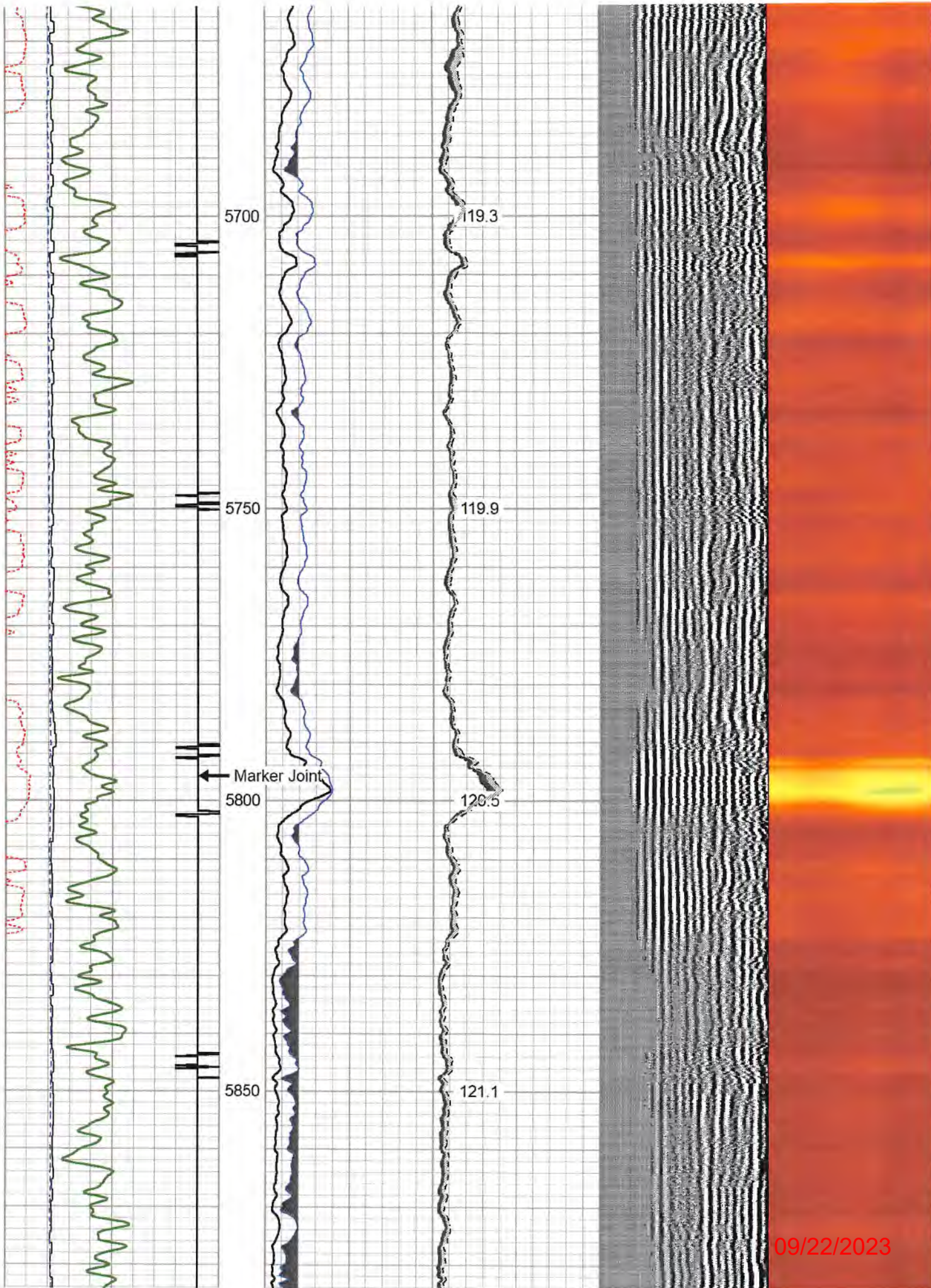
09/22/2023

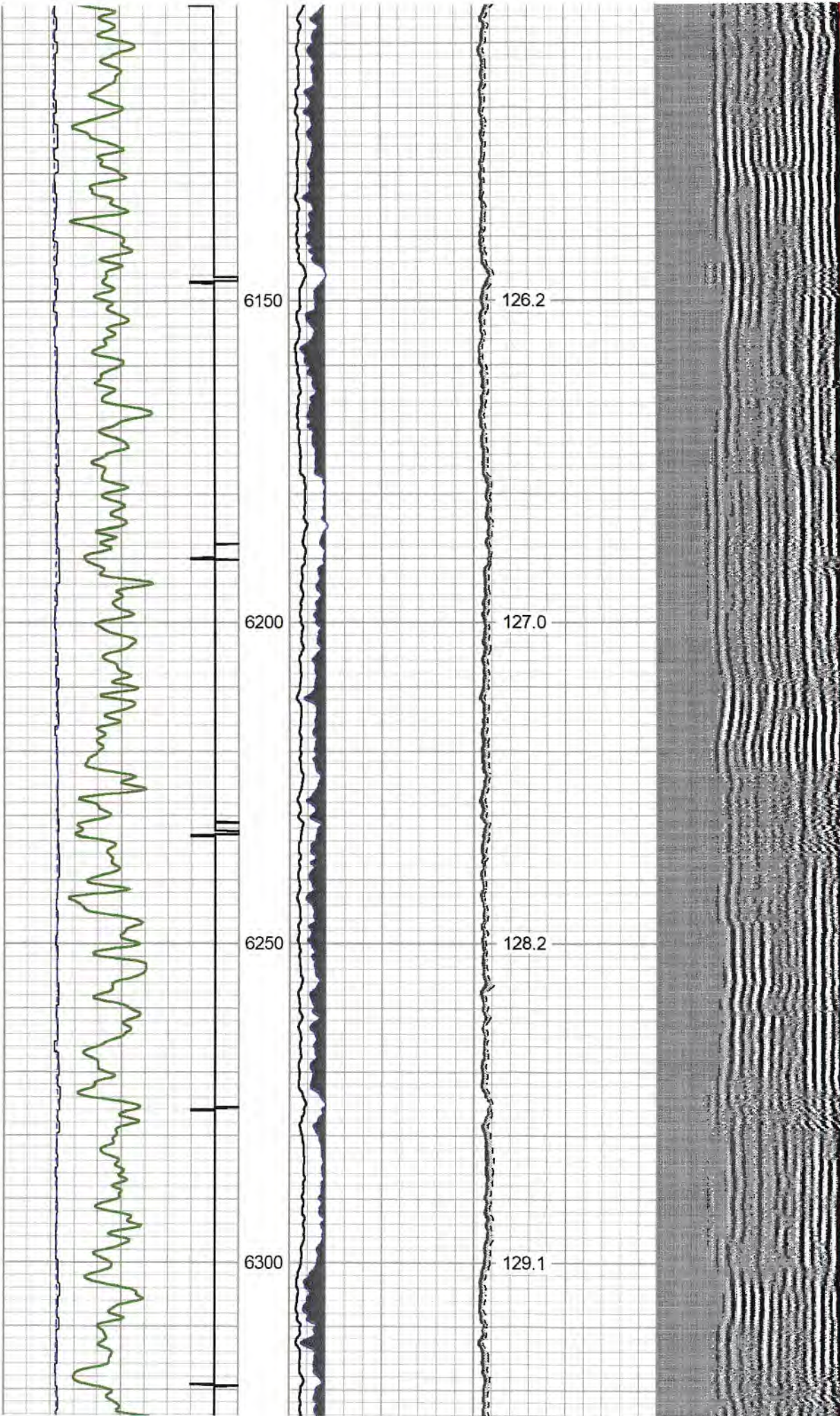


09/22/2023

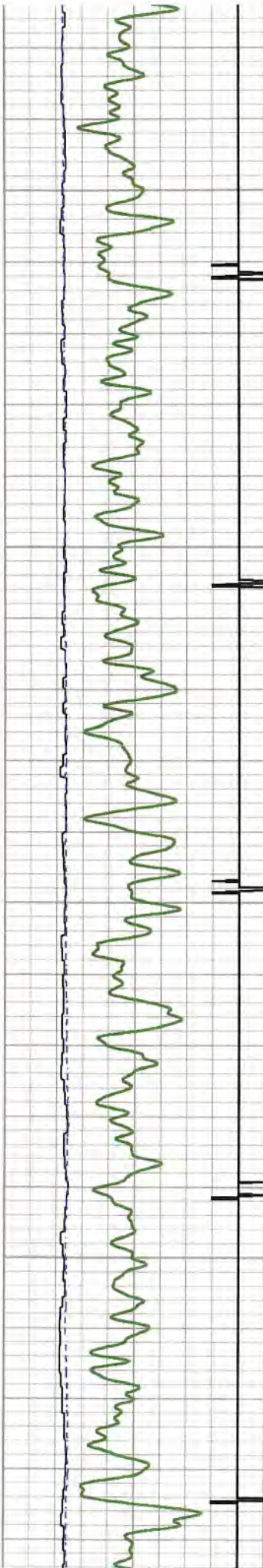


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09/22/2023



6350

6400

6450

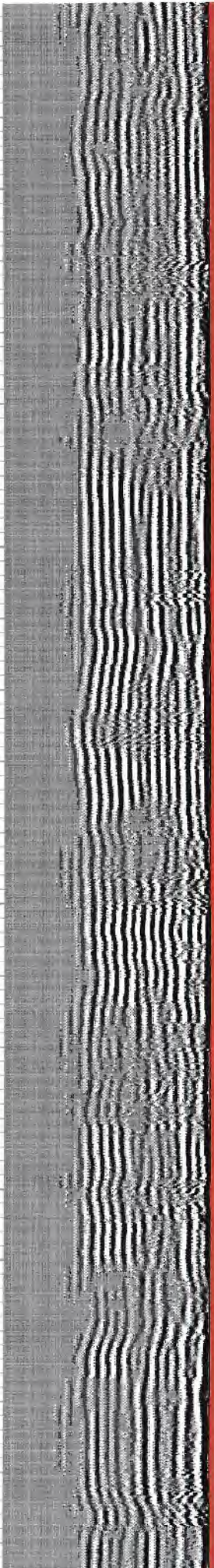
6500

129.9

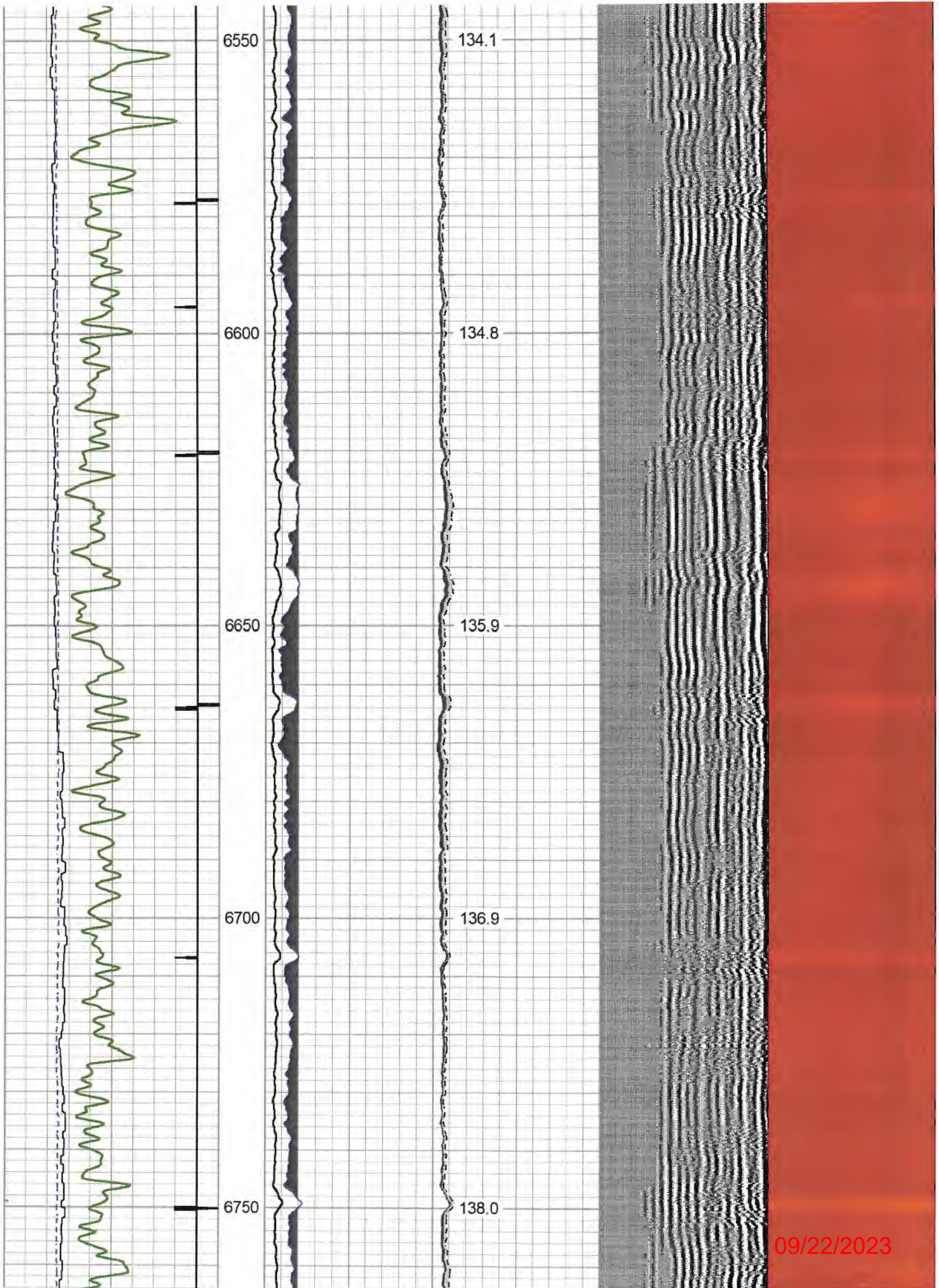
130.9

131.8

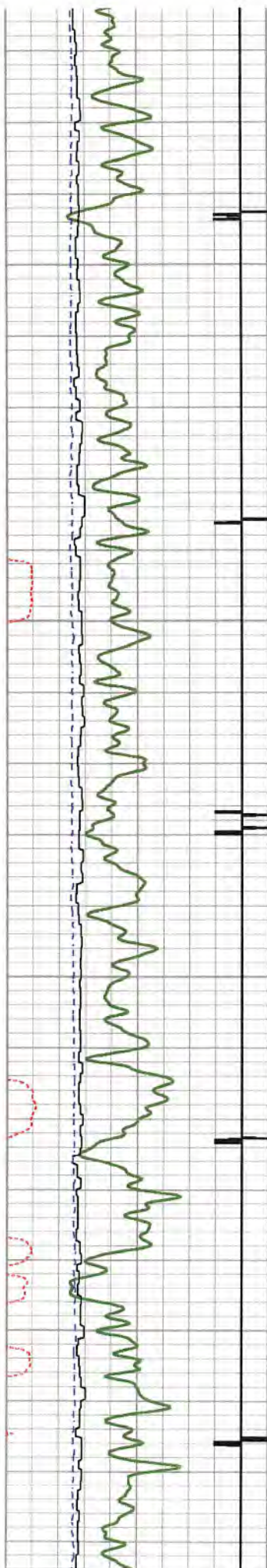
133.0



09/22/2023



09/22/2023

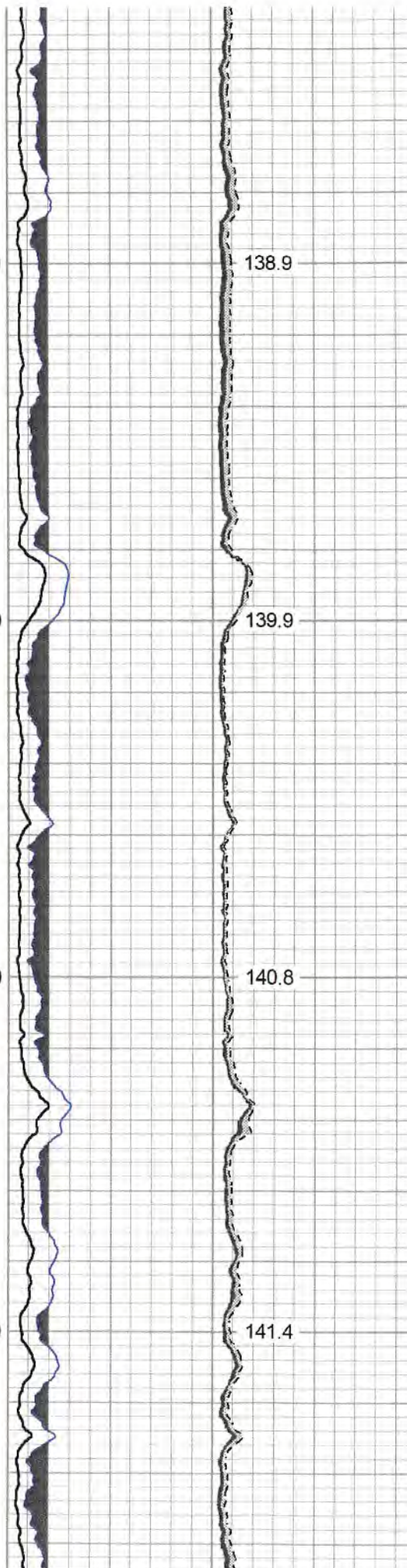


6800

6850

6900

6950

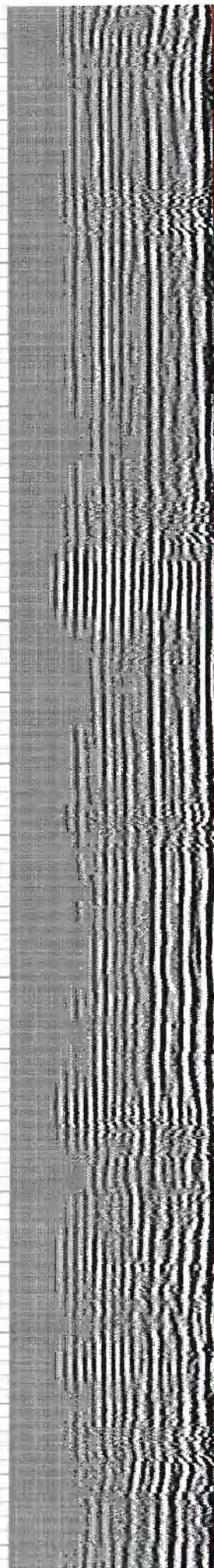


138.9

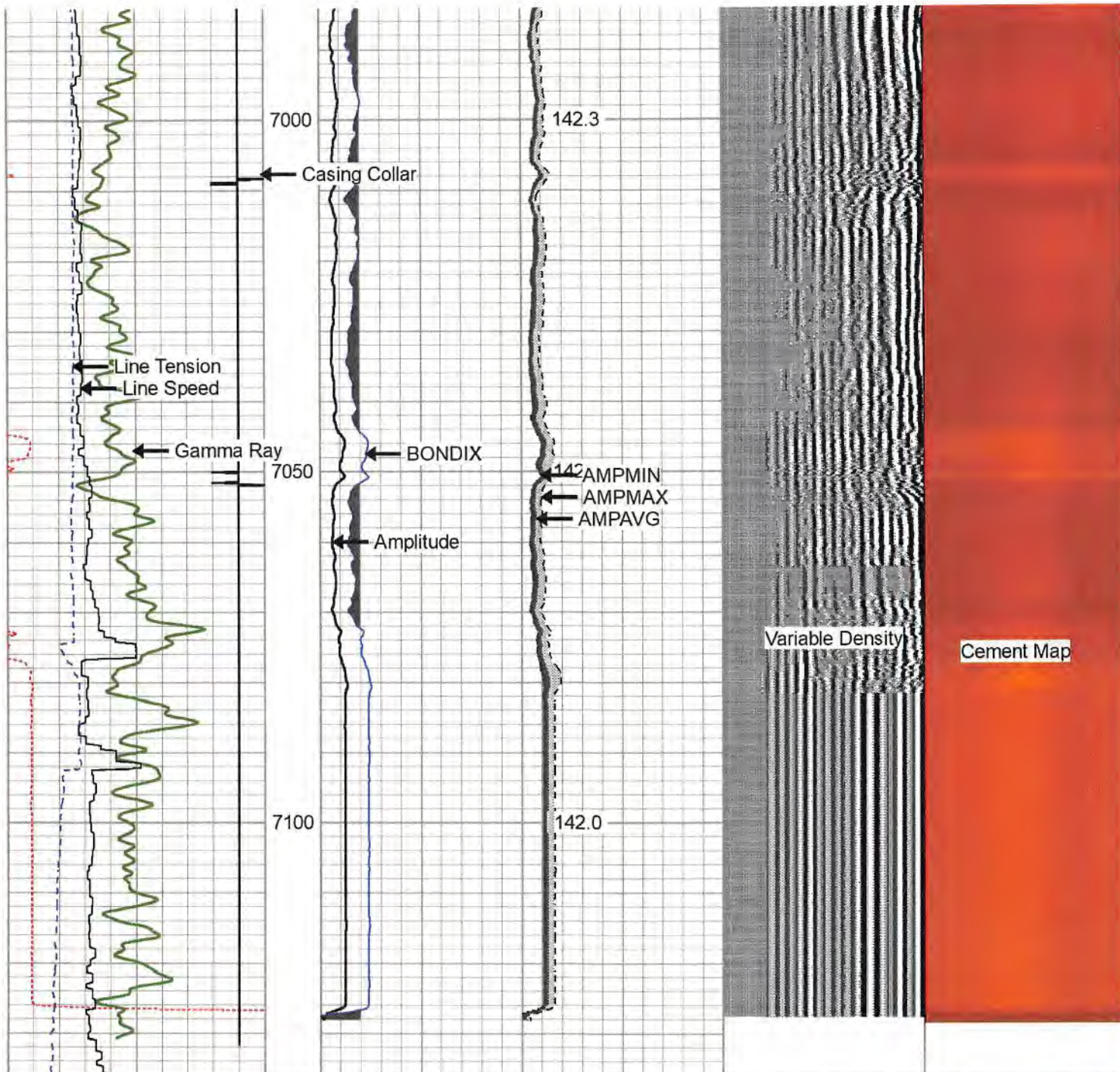
139.9

140.8

141.4



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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)	5000										



Repeat Pass 0 PSI

Database File antero_crystal_2h_rcbl_19_jan_2022.db
 Dataset Pathname crystal2h/rcbl/pass2
 Presentation Format rcbl 2

09/22/2023

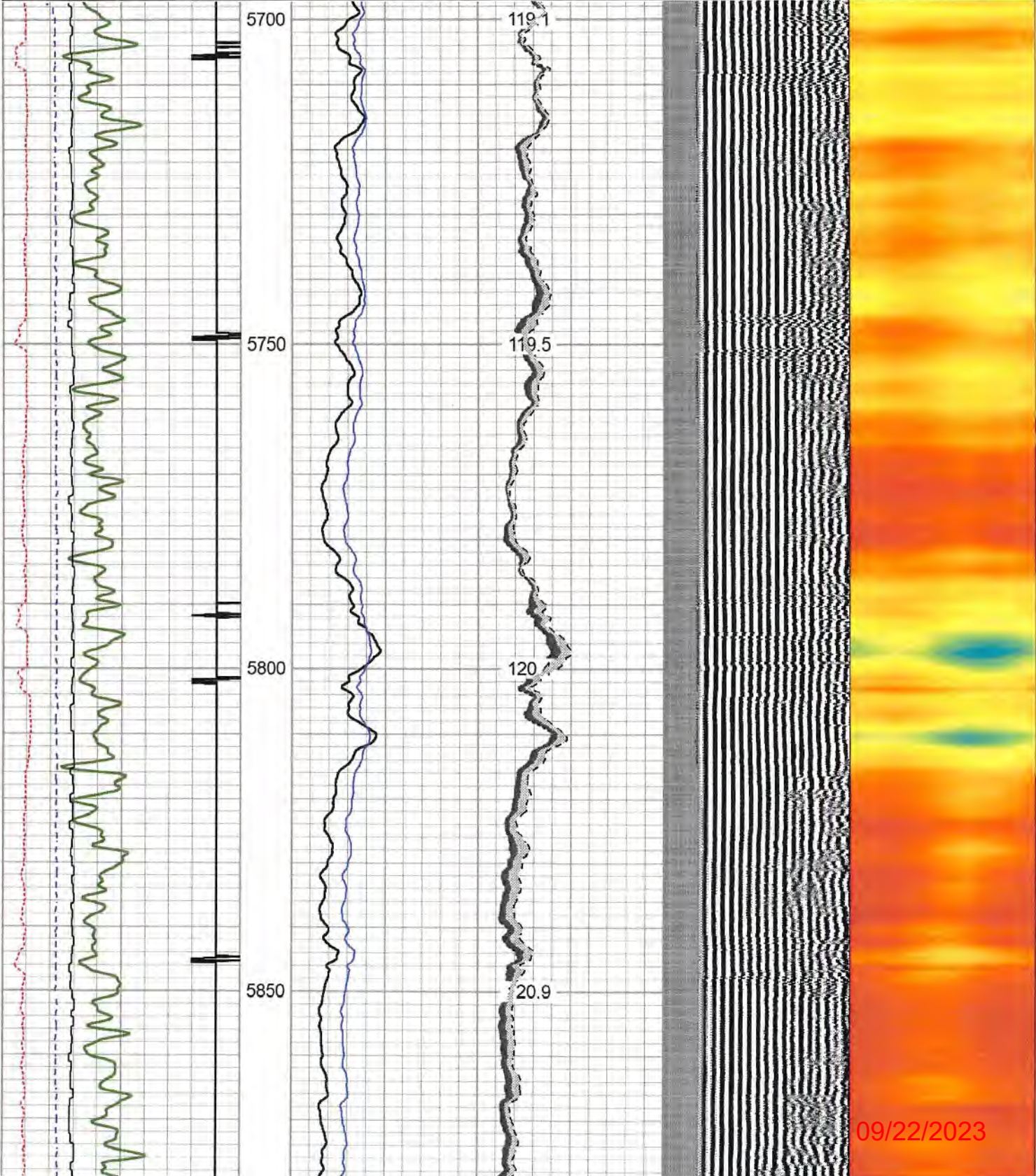
Dataset Creation
Charted by

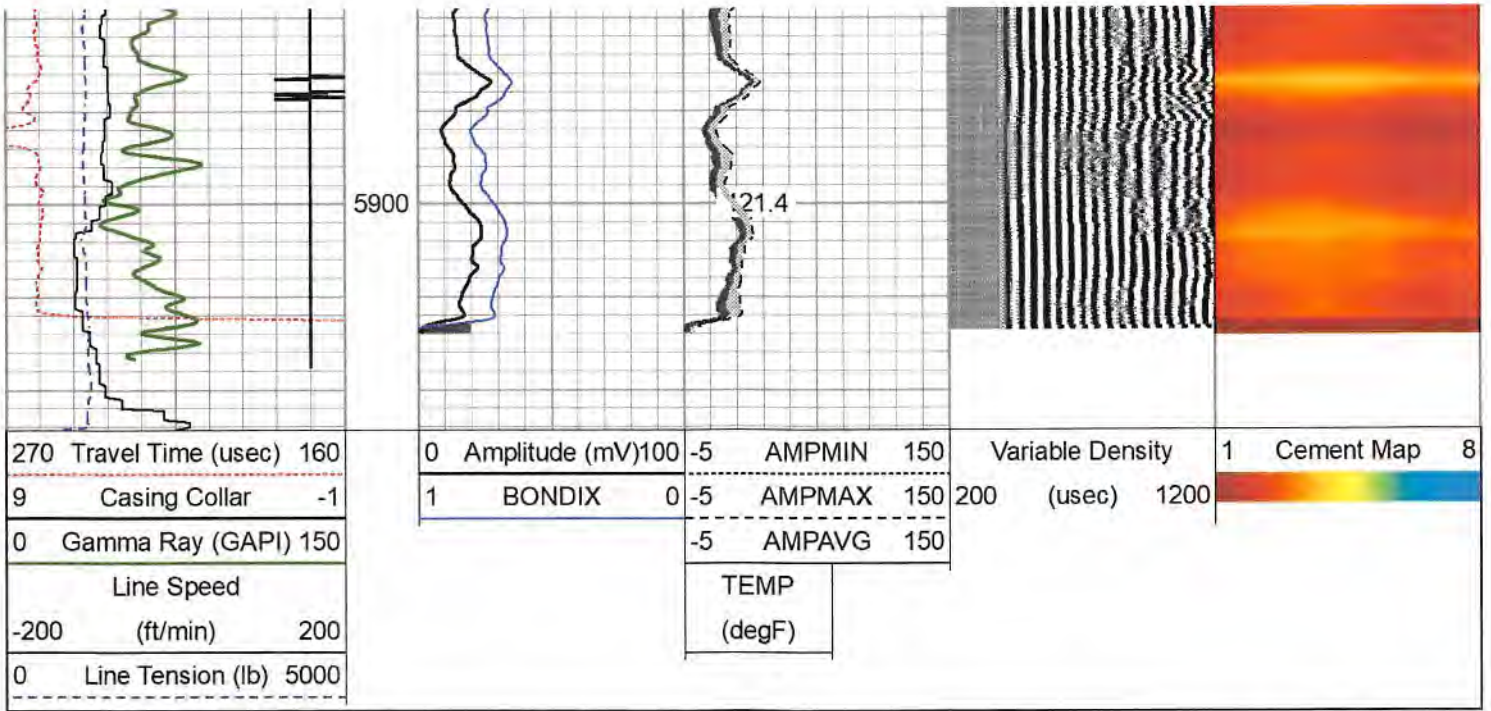
1 hu Jan 19 12:38:10 2023
Depth in Feet scaled 1:240

270	Travel Time (usec)	160
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
Line Speed		
-200	(ft/min)	200
0	Line Tension (lb)	5000

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		





Log Variables

Database: C:\ProgramData\Warrior\Data\antero_crystal_2h_rcbl_19_jan_2022.db
Dataset: field/crystal2h/rcbl/pass4/_vars_

Top - Bottom

BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MINAMPL
TEMP	7.875	141	5.5	0.361	20	71.9	2.2
MINATTN	PERFS	PPT	SRFTEMP	TDEPTH			
10.8	No	261	50	6925			

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

Calibration Report

Database File antero_crystal_2h_rcbl_19_jan_2022.db
Dataset Pathname crystal2h/rcbl/pass4
Dataset Creation Thu Jan 19 12:46:50 2023

Gamma Ray Calibration Report

Serial Number: FW1211-86
Tool Model: Probe
Performed: Sun Nov 13 11:04:25 2022

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.5000 GAPI/cps

09/22/2023

Segmented Cement Bond Log Calibration Report

Serial Number: 2.75"
 Tool Model: Probe275T
 Calibration Casing Diameter: 5.500 in
 Calibration Depth: 720.117 ft

Master Calibration, performed Thu Jan 19 10:32:37 2023:


	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	0.928	2.200	71.921	75.763	1.645
CAL	0.993	1.490				
5'	-0.005	0.956	2.200	71.921	72.595	2.554
SUM						
S1	0.089	0.975	0.000	100.000	112.910	-10.064
S2	0.006	0.903	0.000	100.000	111.477	-0.659
S3	-0.001	0.963	0.000	100.000	103.779	0.077
S4	-0.005	0.966	0.000	100.000	102.977	0.518
S5	-0.009	0.951	0.000	100.000	104.175	0.929
S6	-0.013	0.945	0.000	100.000	104.462	1.320
S7	0.000	0.933	0.000	100.000	107.173	-0.041
S8	0.004	0.918	0.000	100.000	109.335	-0.402

Internal Reference Calibration, performed Wed Nov 23 14:17:52 2011:

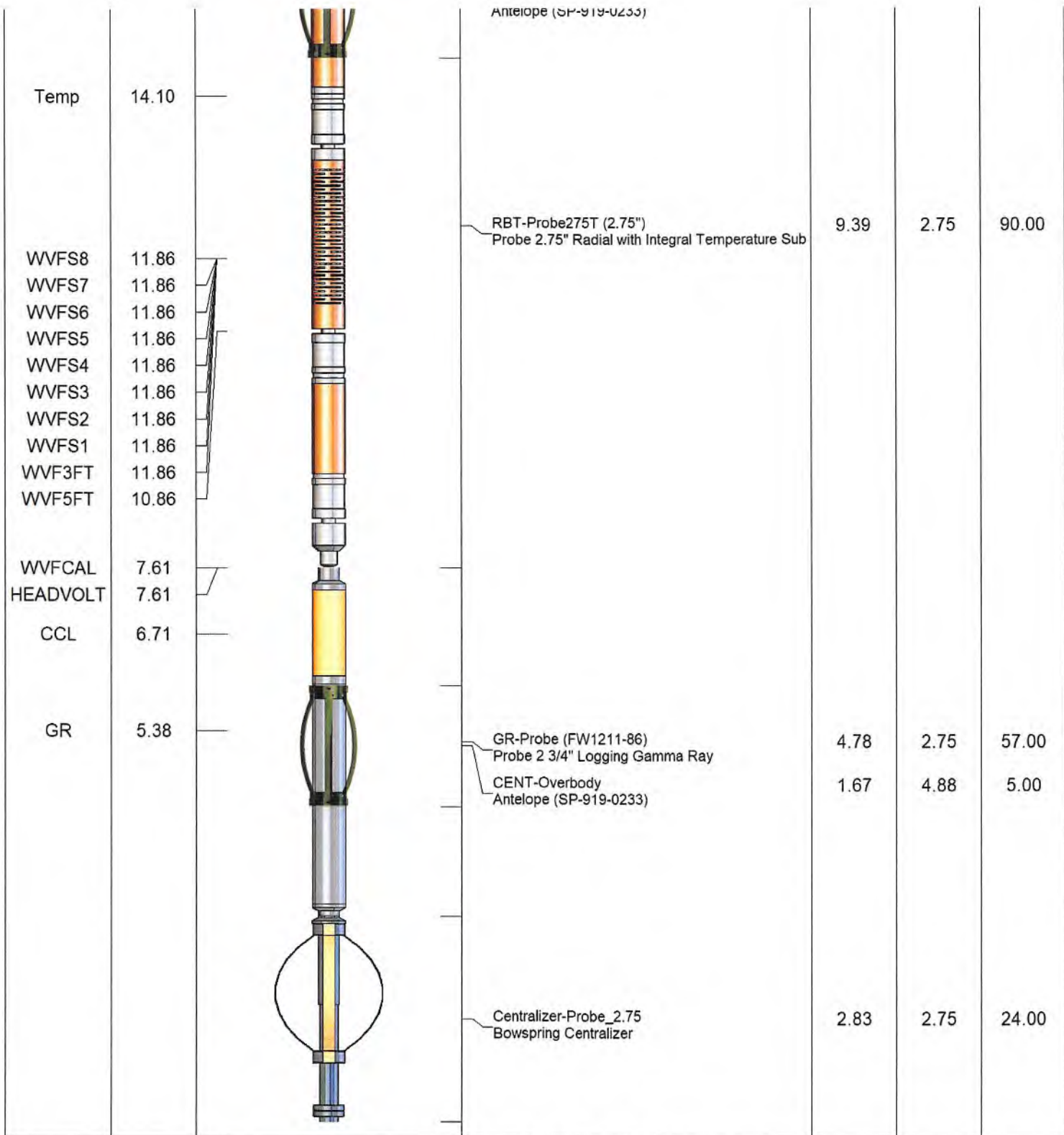
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.993	1.490	1.000	0.000

Air Zero Calibration, performed Wed Jan 11 18:02:46 2023:

	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	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HeadVolt	16.95		CHD-Titan Standard 1 7/16" Cable Head	1.02	1.44	1.00
			CENT-Overbody Antenna (SR-010-0001)	1.67	4.88	5.00

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Dataset: antero_crystal_2h_rcbl_19_jan_2022.db: field/crystal2h/rcbl/pass4
 Total length: 18.03 ft
 Total weight: 182.00 lb
 O.D.: 4.88 in

RECEIVED
Office of Oil and Gas



Company ANTERO RESOURCES
 Well Beech Run Crystal 2H
 Field Rabbit Ears
 County Tyler
 State WV

JUN 23 2023

WV Department of
Environmental Protection

09/22/2023