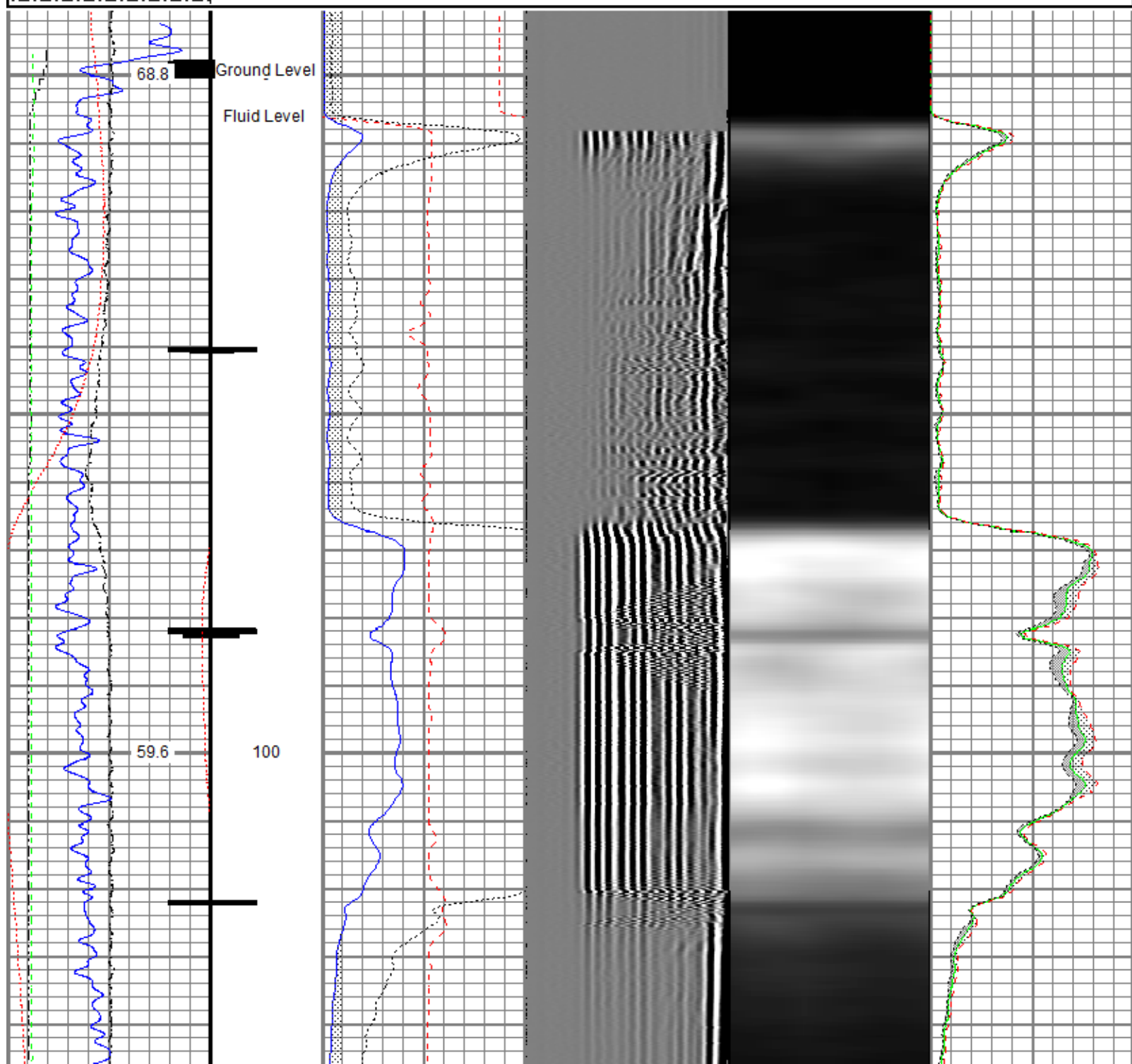
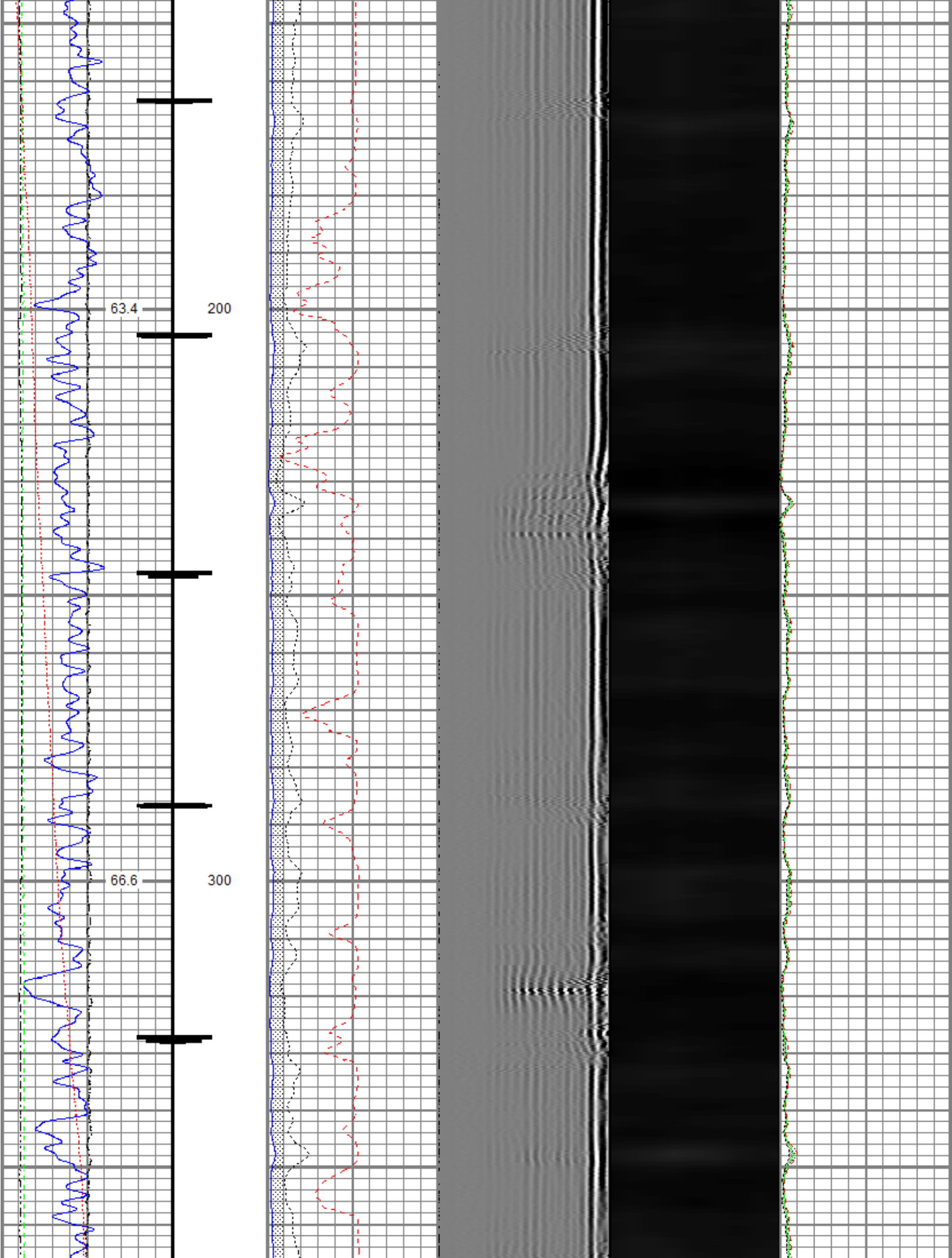
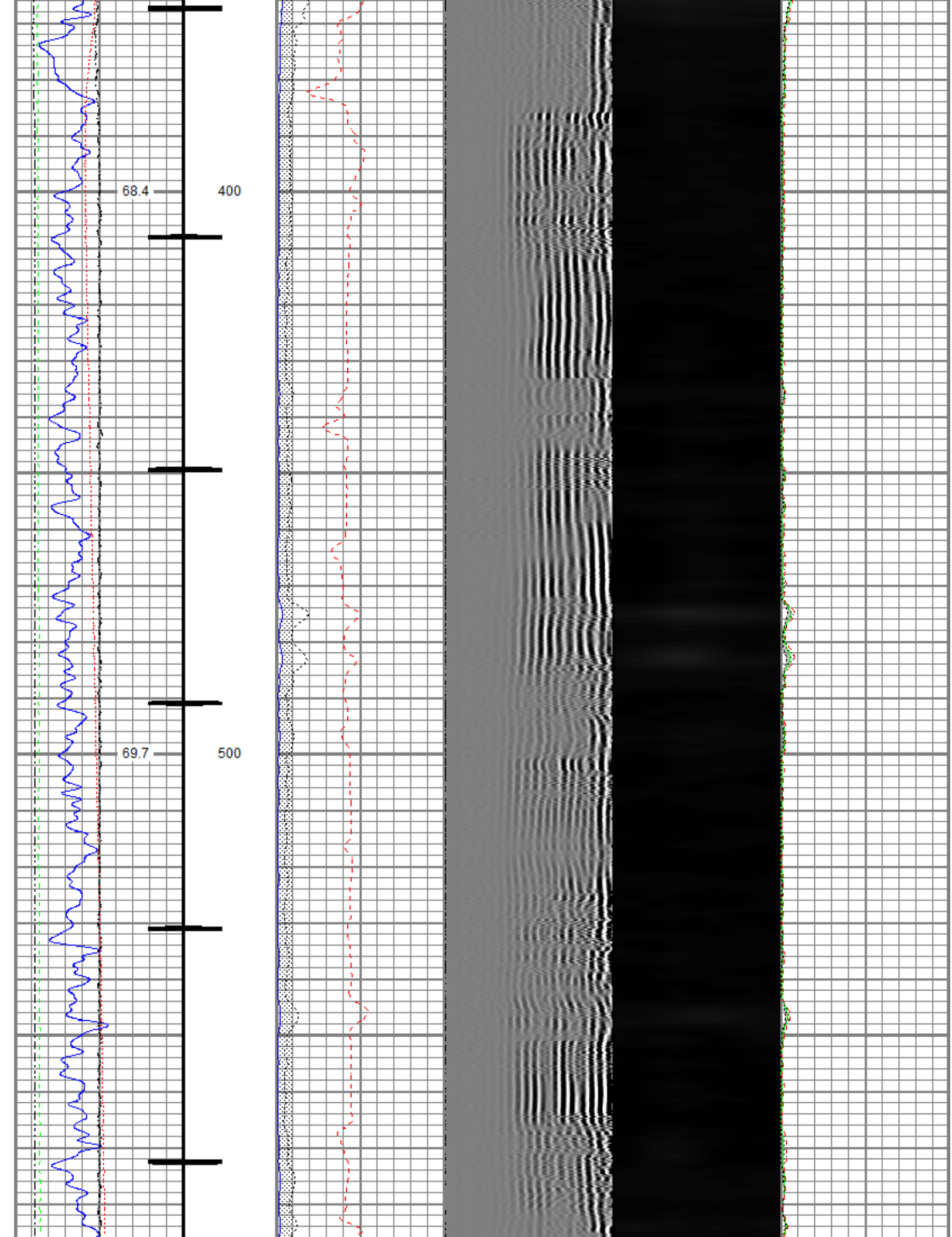


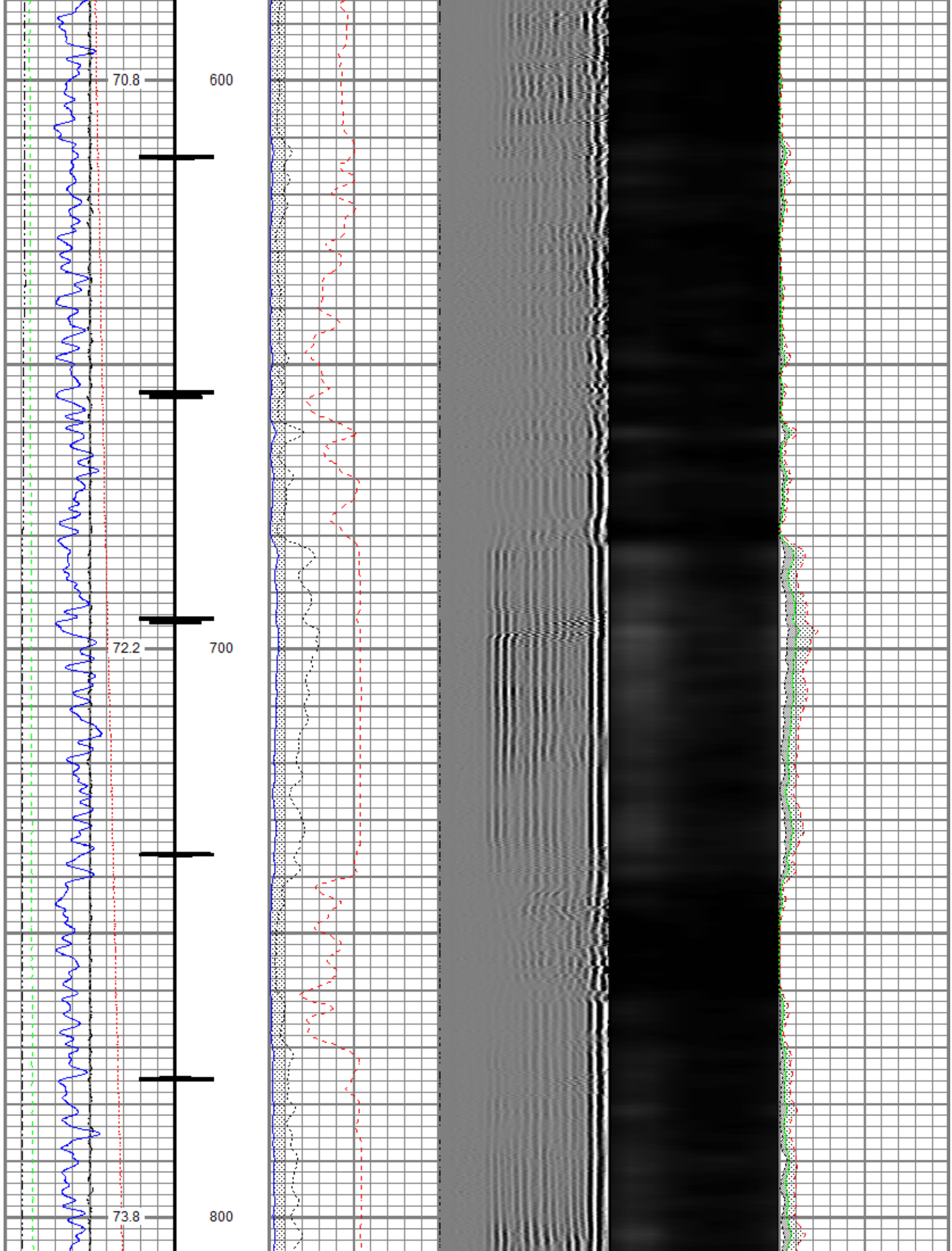
Database File anadarko_ranger 7-20hz\0512349357_anadarko_ranger 7-20hz_rbl_03-08-19.db
 Dataset Pathname main.4
 Presentation Format ros_radri
 Dataset Creation Sun Mar 10 11:38:11 2019
 Charted by Depth in Feet scaled 1:240

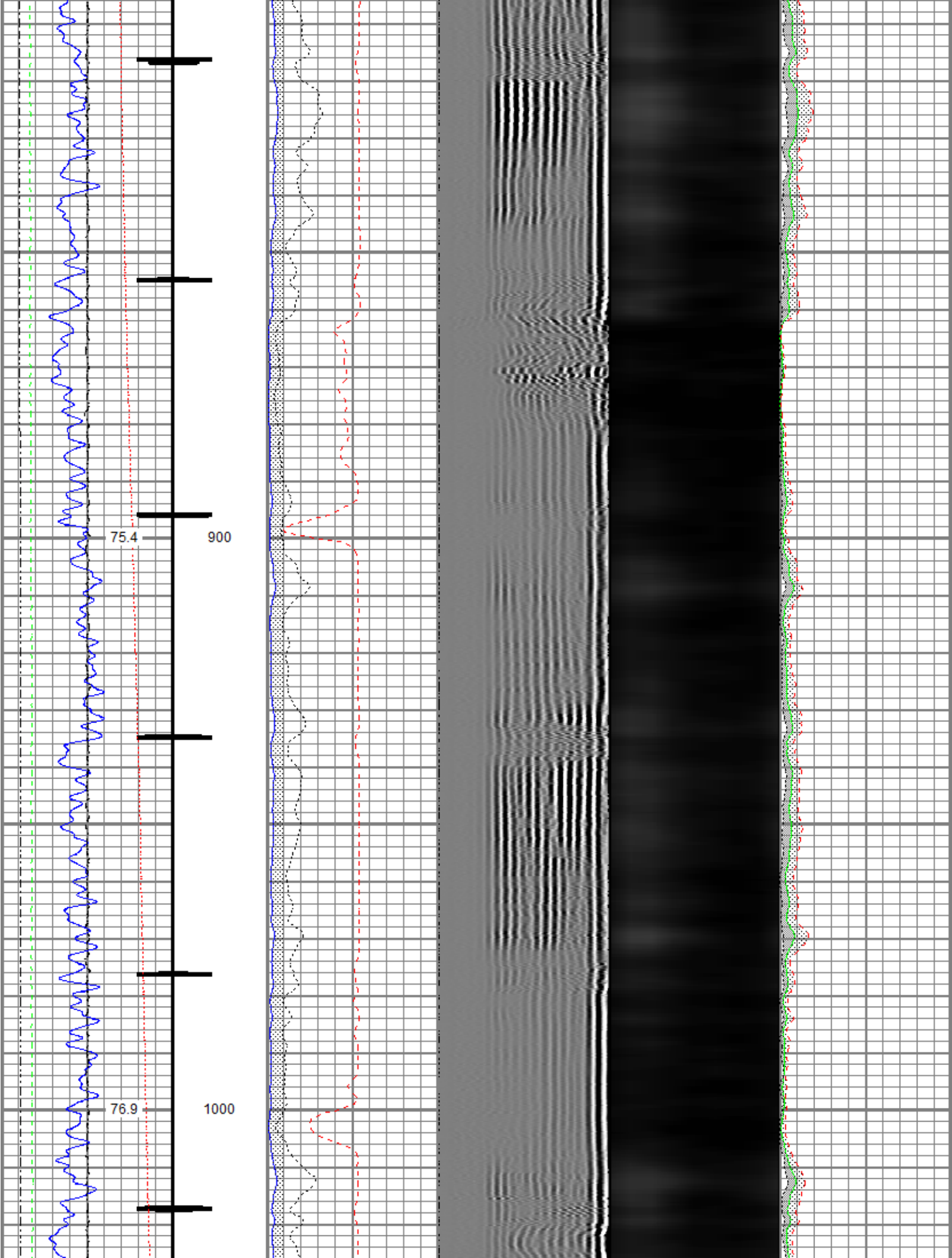
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150						
Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						

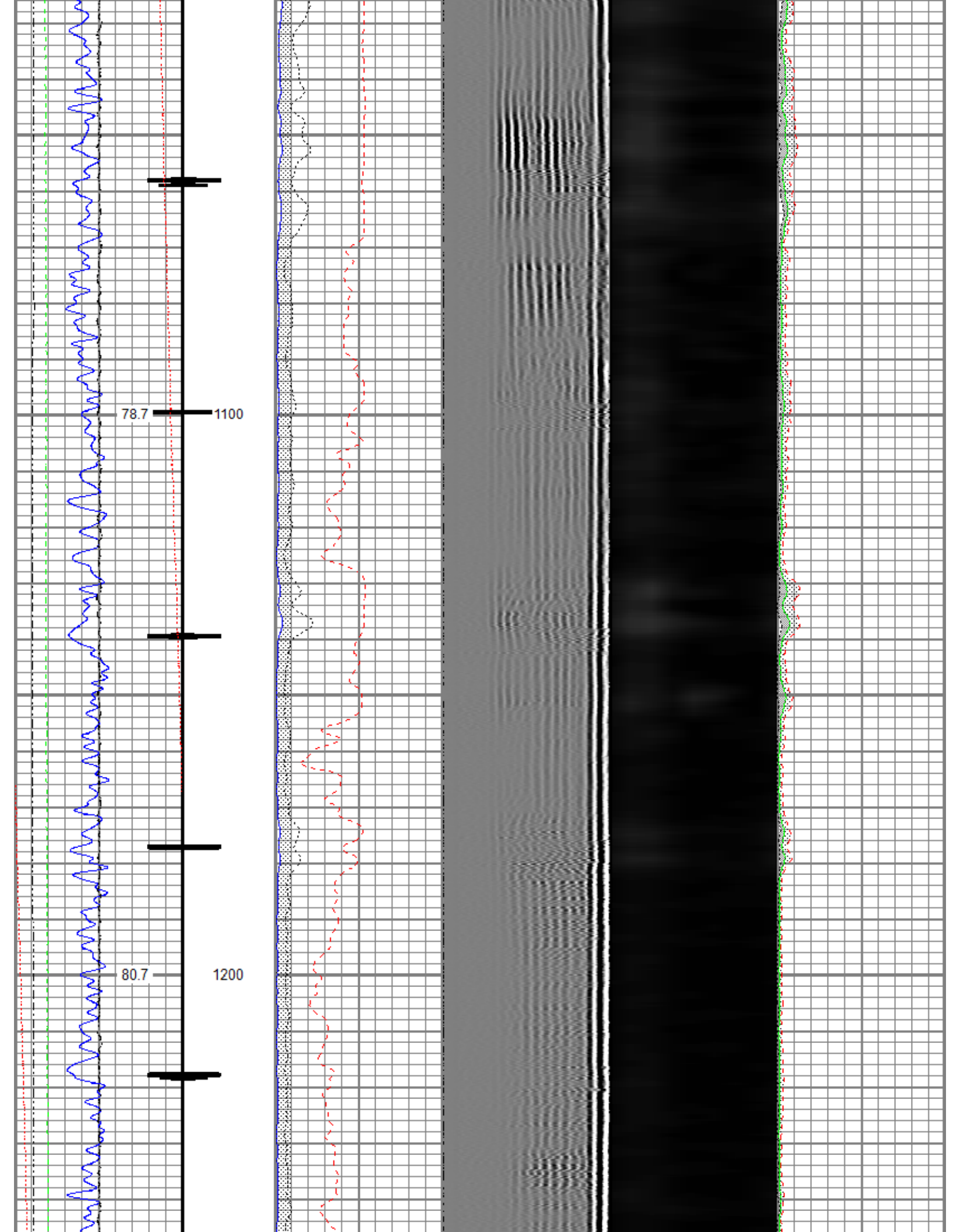


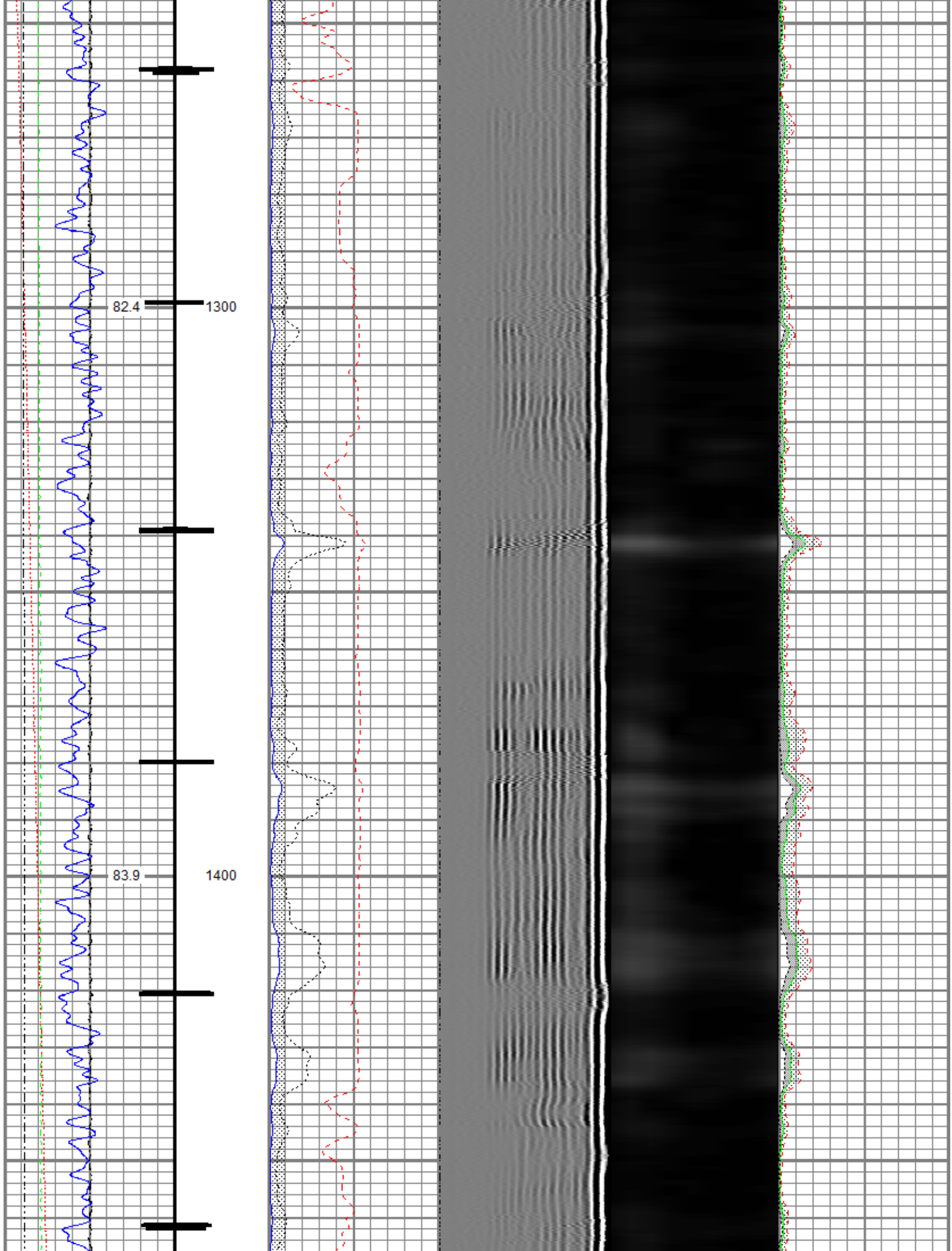


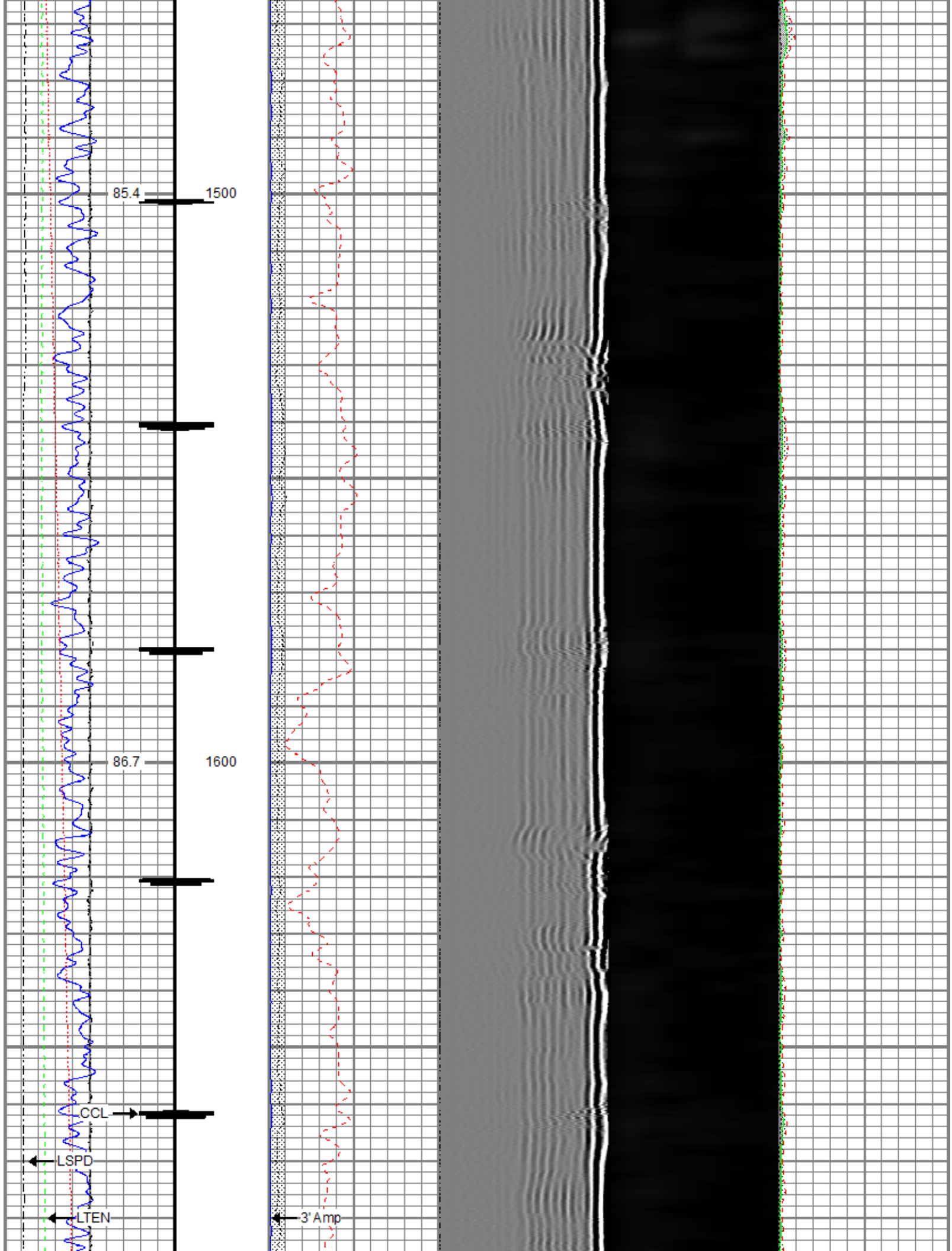


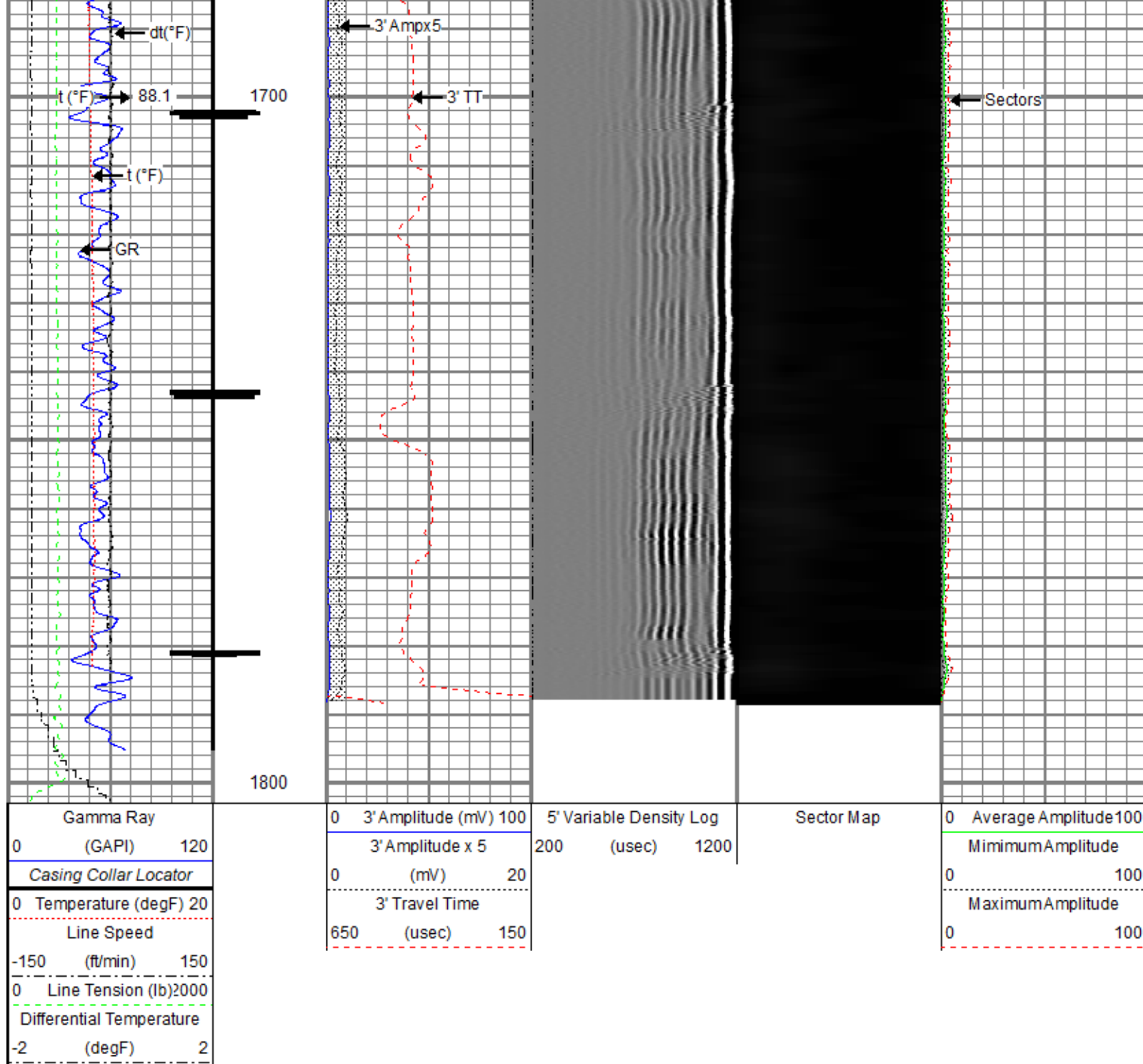








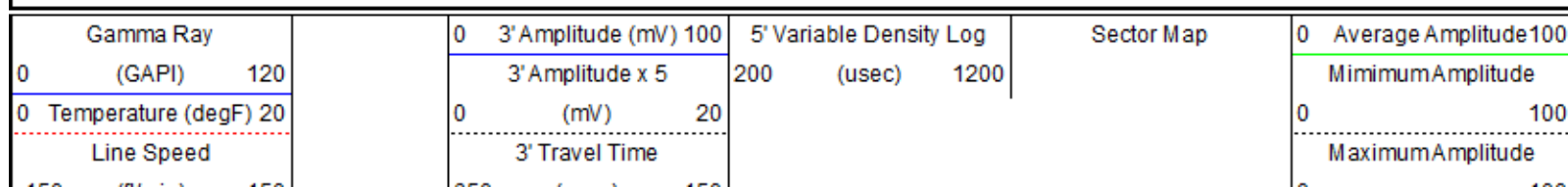


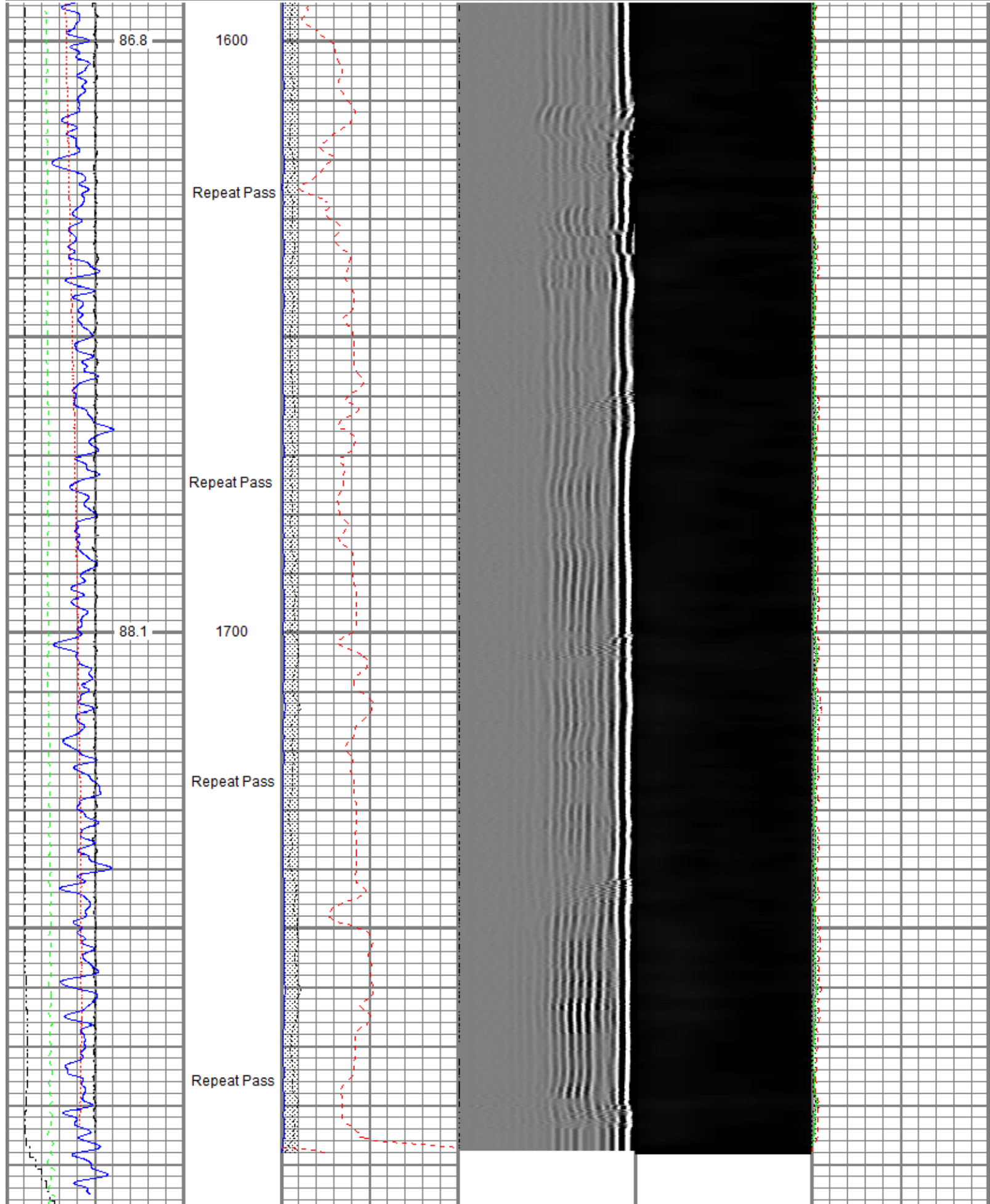


Repeat Pass

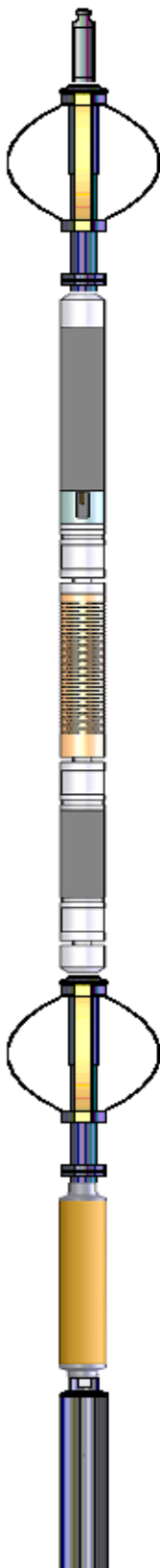
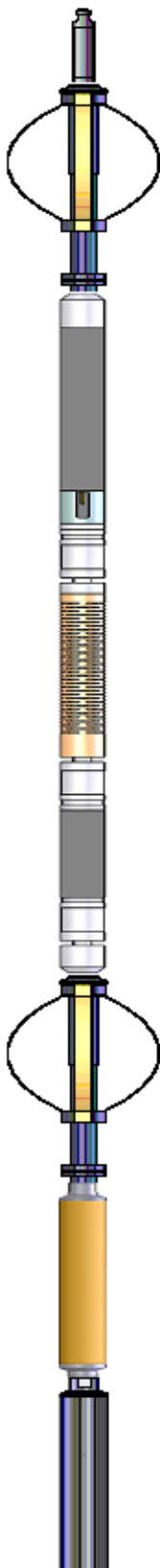
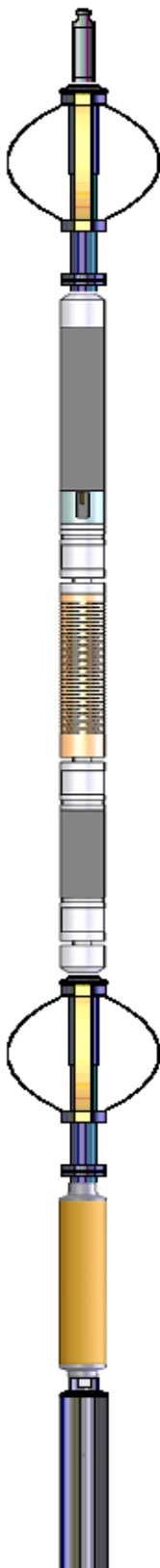
Recorded With 0 PSI Surface Induced Pressure

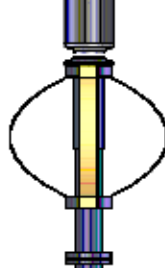
Database File anadarko_ranger 7-20hz\0512349357_anadarko_ranger 7-20hz_rbl_03-08-19.db
 Dataset Pathname repeat.2
 Presentation Format ros_radri
 Dataset Creation Sun Mar 10 11:35:19 2019
 Charted by Depth in Feet scaled 1:240





		1800										
Gamma Ray			0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100		
0	(GAPI)	120	3' Amplitude x 5		200	(usec)	1200	Minimum Amplitude				
0	Temperature (degF)	20	0	(mV)	20			0	100			
Line Speed			3' Travel Time				Maximum Amplitude					
-150	(ft/min)	150	650	(usec)	150			0	100			
0	Line Tension (lb)	2000										
Differential Temperature												
-2	(degF)	2										

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	18.23		Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
			Probe Radii-2750 RBT (FW1302-002) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS8	16.00					
WVFS7	16.00					
WVFS6	16.00					
WVFS5	16.00					
WVFS4	16.00					
WVFS3	16.00					
WVFS2	16.00					
WVFS1	16.00					
WVFCAL	16.00					
WVF3FT	16.00					
WVF5FT	15.00					
CCL\$2 CCL\$1	7.38		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
	7.38		Probe CCL-2750 SA (FW1307-076) Probe 2-3/4" Digital Stand Alone Six Magnet Logging CCL	2.66	2.75	35.00
GR	5.24		Probe GR-2750 SA (FW1307-078) Probe 2-3/4" Digital Stand Alone Gamma Ray	3.33	2.75	55.00



Probe CENT-2750
Probe 2-3/4" Electric Inline Bowspring Centralizer

2.88

2.75

20.00

Dataset: 0512349357_anadarko_ranger 7-20hz_rbl_03-08-19.db: field/well/run1/main.4
Total length: 25.06 ft
Total weight: 258.60 lb
O.D.: 2.75 in

Calibration Report

Database File c:\programdata\warrior\data\anadarko_ranger 7-20hz\0512349357_anadarko_ranger 7-20hz_rbl_03-08-19.db
Dataset Pathname main.4
Dataset Creation Sun Mar 10 11:38:11 2019

Gamma Ray Calibration Report

Serial Number: FW1307-078
Tool Model: 2750 SA
Performed: Mon Oct 01 11:32:38 2018

Calibrator Value: 637.0 GAPI

Background Reading: 108.2 cps
Calibrator Reading: 1134.5 cps

Sensitivity: 0.6207 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: FW1302-002
Tool Model: 2750 RBT

Calibration Casing Diameter: 9.625 in
Calibration Depth: 0.000 ft

Master Calibration, performed Fri Mar 08 09:36:28 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.005	0.818	0.800	51.280	62.103	0.474
CAL	1.287	1.292				
5'	0.011	0.548	0.800	51.280	93.967	-0.197
SUM						
S1	-0.000	0.939	0.000	100.000	106.435	0.024
S2	0.008	0.866	0.000	100.000	116.641	-0.959
S3	0.007	0.762	0.000	100.000	132.421	-0.914
S4	0.005	0.717	0.000	100.000	140.485	-0.721
S5	0.006	0.720	0.000	100.000	140.156	-0.852
S6	0.005	0.782	0.000	100.000	128.648	-0.663
S7	0.006	0.867	0.000	100.000	116.175	-0.712
S8	0.006	0.938	0.000	100.000	107.325	-0.676

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	1.287	1.292	1.000	0.000

	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

Temperature Calibration Report

Serial Number: FW1302-002
 Tool Model: 2750 RBT
 Performed: Mon Oct 01 11:32:15 2018

	Reference	Reading
Low Reference:	100.00 degF	110.72 degF
High Reference:	350.00 degF	409.18 degF

Gain: 0.84
 Offset: 7.26
 Delta Spacing: 1



Company Kerr-McGee Oil & Gas Onshore, L.P.
Well Ranger 7-20HZ
Field Wattenberg
County Weld
State Colorado