



Radial Cement Bond

Gamma Ray

Casing Collar Log

COMPANY: Kerr Mcgee Oil & Gas Onshore LD.

WELL: Cook 15C-28HZ

FIELD: Wattenberg

COUNTY: Weld STATE: Colorado

Location: API #: 05-123-42141

SHL: 477 FSL & 1895 FEL

BHL:

Latitude: 40.132758

Longitude: -104.66636

Section: 16

Township: 2N

Range: 65W

Elevations

KB: 4910'

DF: 4909'

GL: 4885'

Other Services

Permanent Datum: G.L. Elevation: 4885 FT
Drill Measured From: K.B.
Log Measured From: K.B. = 25 FT above Permanent Datum

API #: 05-123-42141

Company: Kerr Mcgee Oil & Gas Onshore LD.

Well: Cook 15C-28HZ

Field: Wattenberg

County: Weld State: Colorado

Date: 08/12/2016

Run Number: One

Depth Driller: 18013 FT

Depth Logger: 7463 FT

Bottom Logged Interval: 7463 FT

Top Logged Interval: Surface

Fluid Type: Water

Fluid Top: Surface

Max. Rec. Temperature: N/A

Estimated Cement Top: Surface

Time on Bottom: 11:30

Unit Number: HD-311

Location: Ft Lupton

Recorded By: A. Ellsworth

Witnessed By: Jim Stuhr

Borehole Record

Tubing Record

Run Number	Bit Size	Top	Bottom	Size	Weight	Top	Bottom
One	13.5"	Surface	1890 FT				
Two	8.5"	1890 FT	18013 FT				

Casing Record

String	Size	Weight	Top	Bottom
Surface	9.625"	36 lbs/ft	Surface	1890 FT
Production	5.5"	17 lbs/ft	Surface	18013 FT

API #: 05-123-42141

Kerr Mcgee Oil & Gas Onshore LD.

Cook 15C-28HZ

EQUIPMENT DATA

Run	Trip	Instrument	Series No.	Serial No.	Distance to Reference
		PDN	029	1471A	4.810 ft

REMARKS

Log ran as per customer request
Depth referanced to casing tally reported short joint at 6514 FT
Adjusted log +14FT to correlate with short joint
Ran log from as deep as possible in heel to surface
Ran log with 1500 PSI surface induced pressure
Logging tools were clean and free of any debris upon compleation of operations

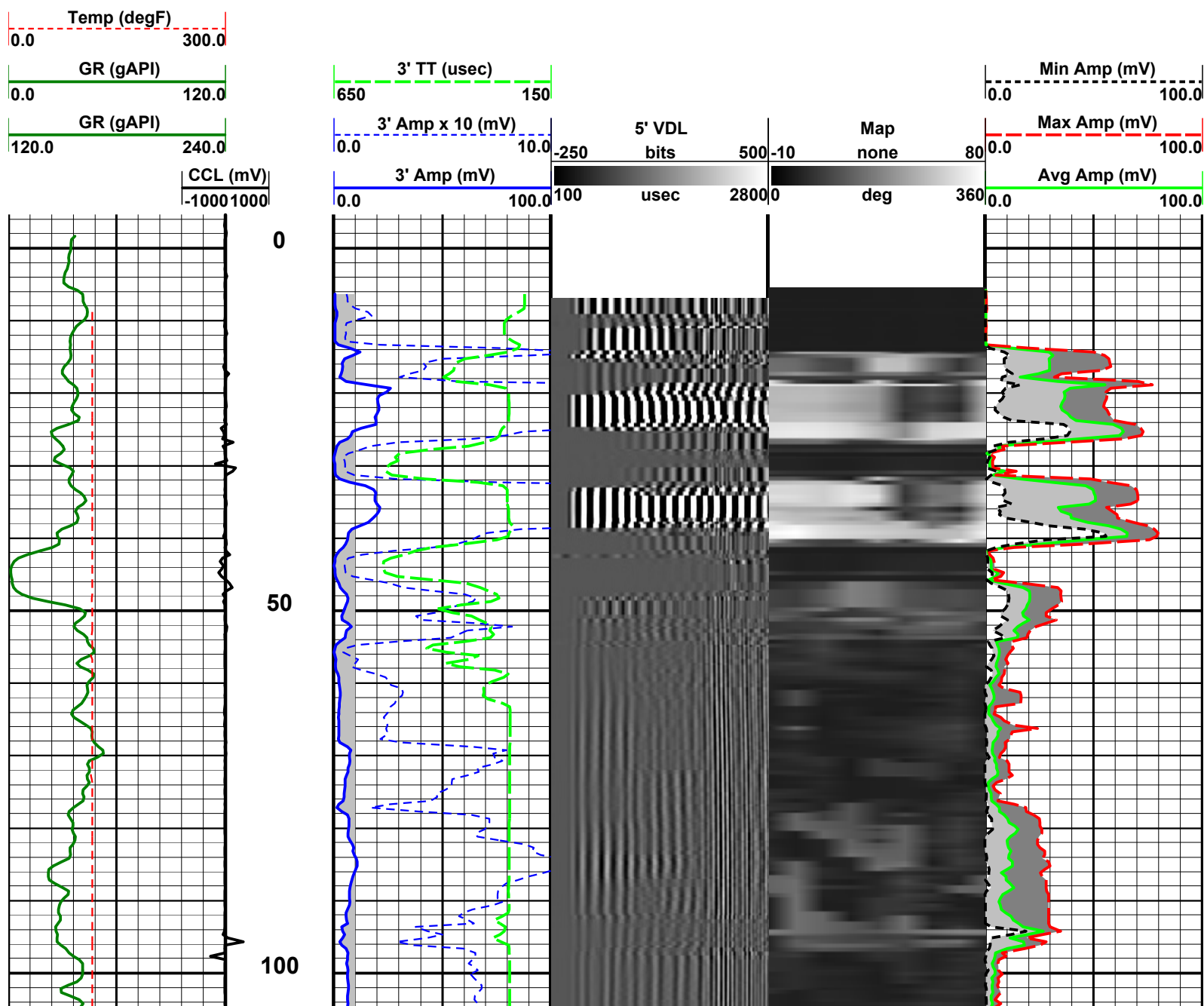
Thank you for choosing Reliance Oil Field Services

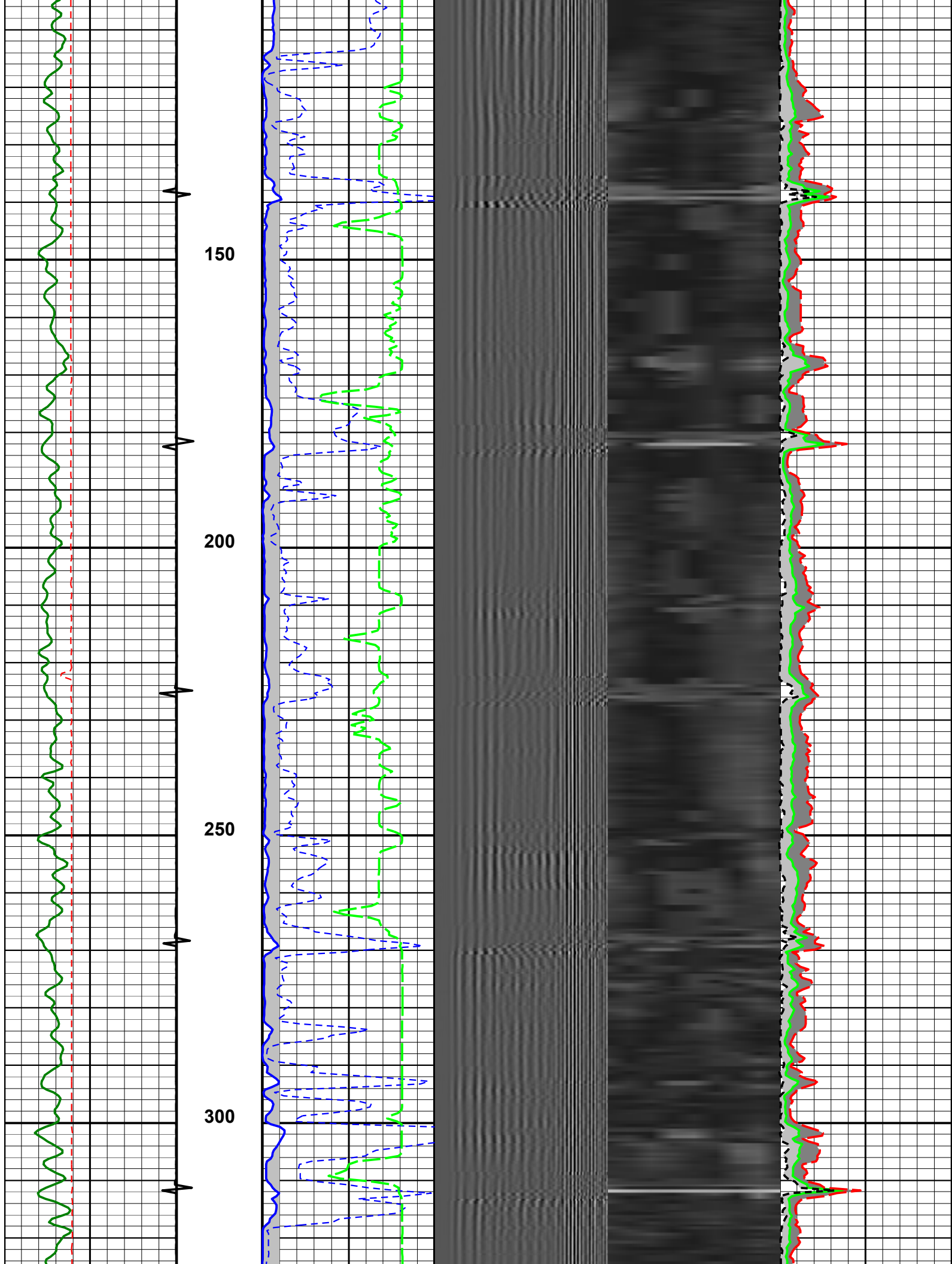
In making interpretations of logs, Contractor's employees will give the customer the benefit of their best judgement, but since all interpretations are opinions, based on inferences from electrical or other measurements, Contractor cannot, and does not, guarantee the accuracy or the correctness of any interpretation.

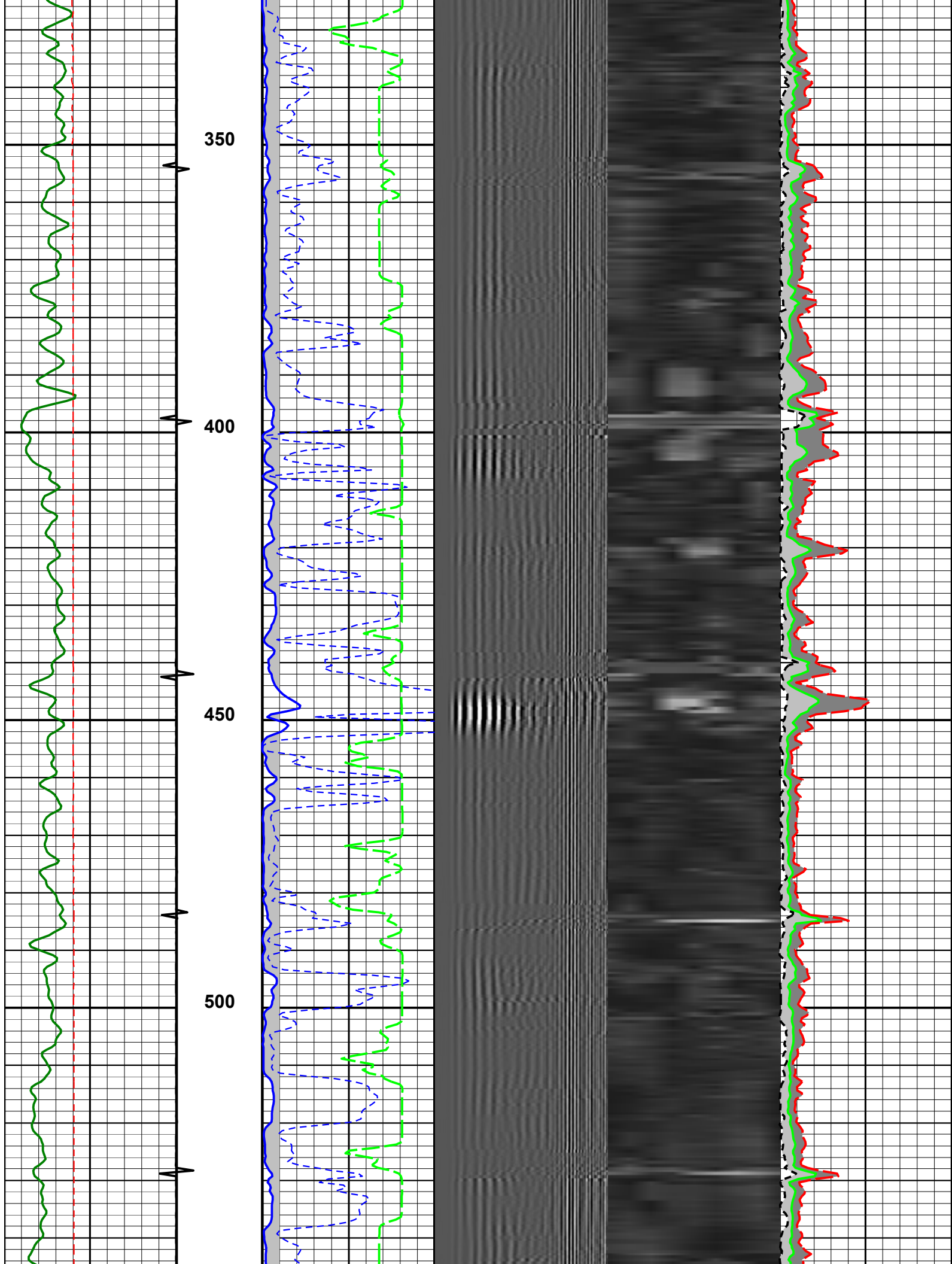
Main Pass Logged under 1500 PSI surface induced pressure

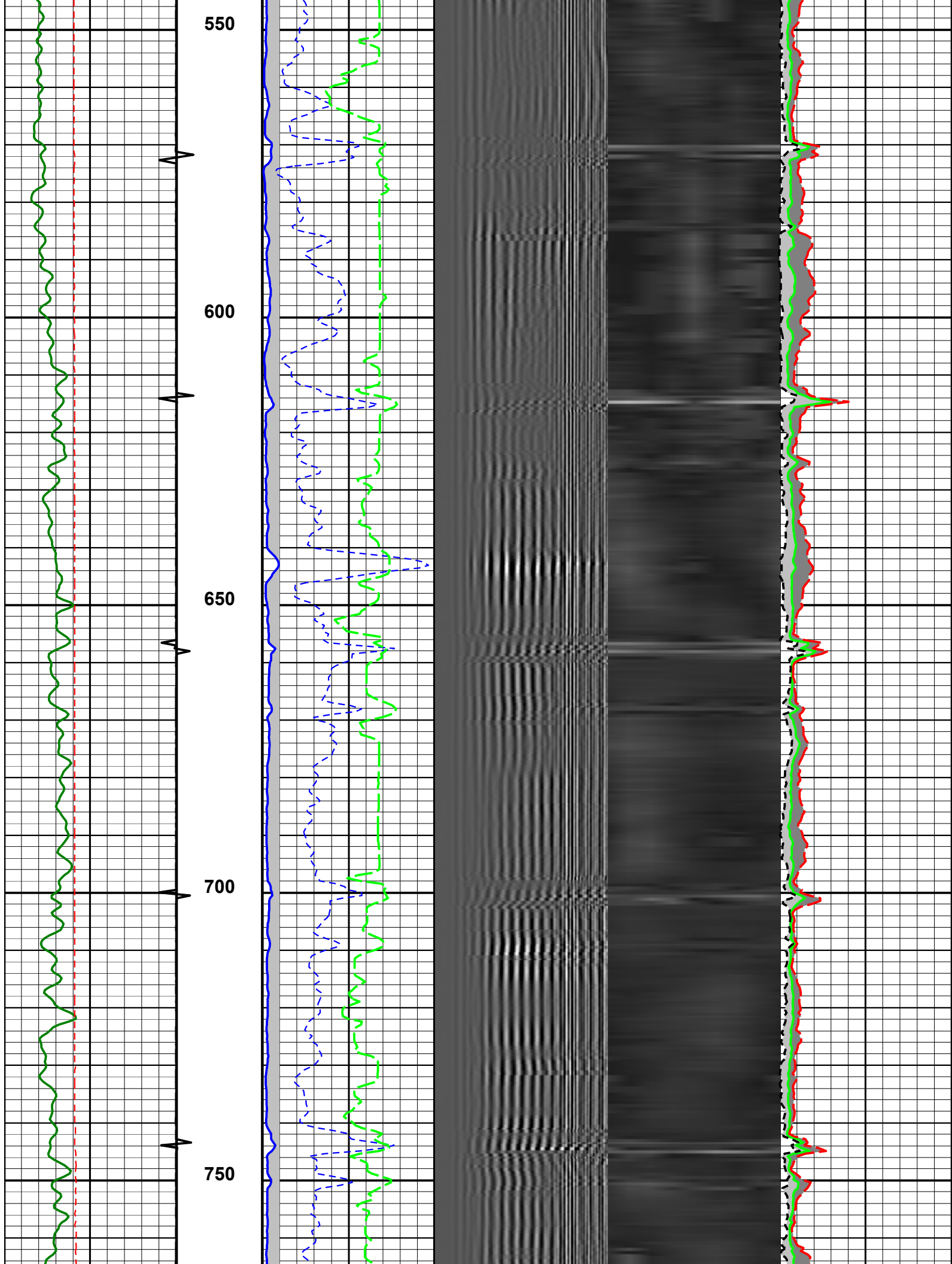
Company : Kerr Mcgee Oil & Gas Onshore LP
Well : Cook 15C-28HZ
Scale : 1 : 240
Depth in : Feet
Software : WinAPIot Ver. 5, 92, 12, 0

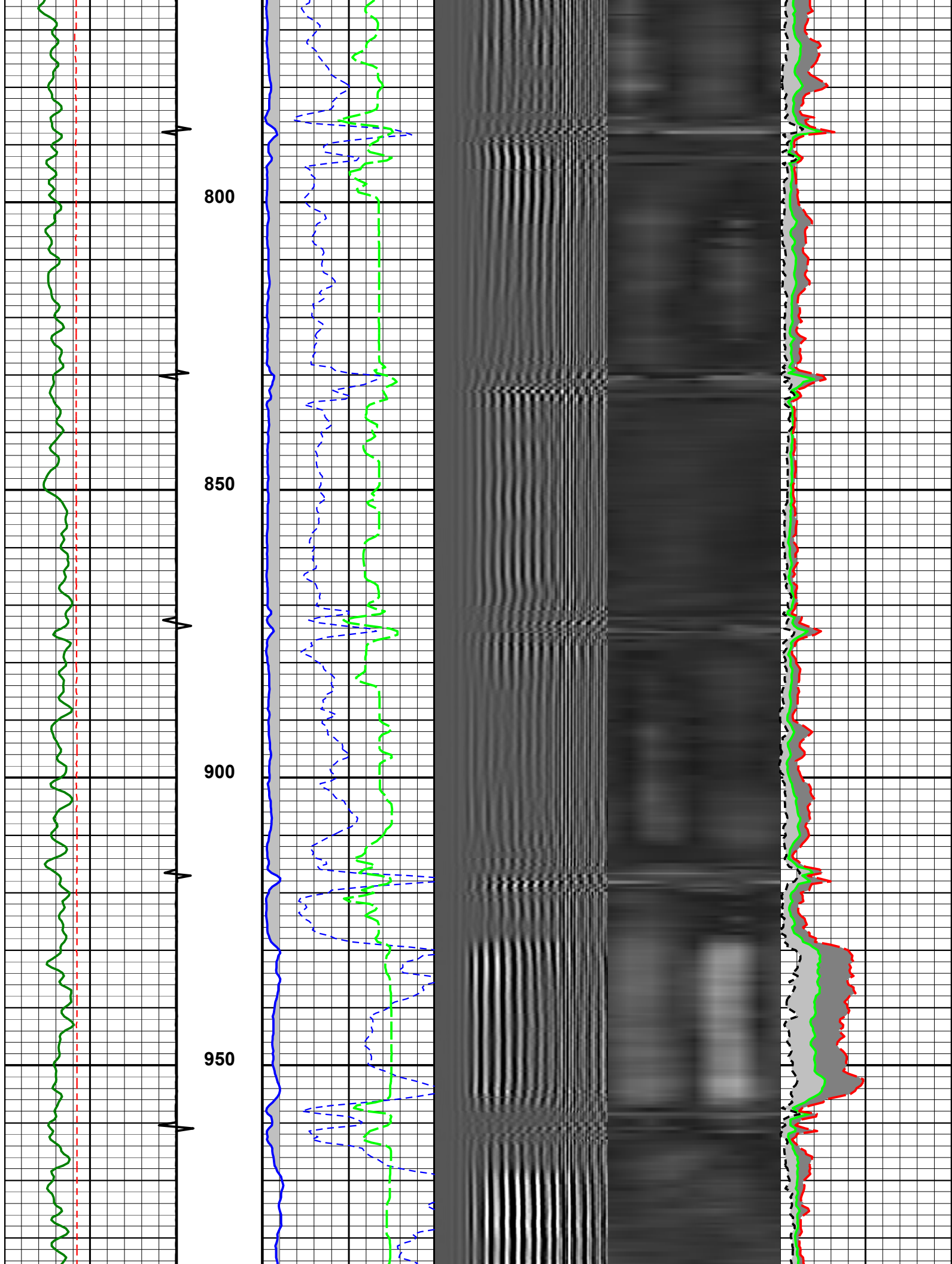
Date : 12.08.2016
Time : 13:11:40
Remarks :
File Name : Final

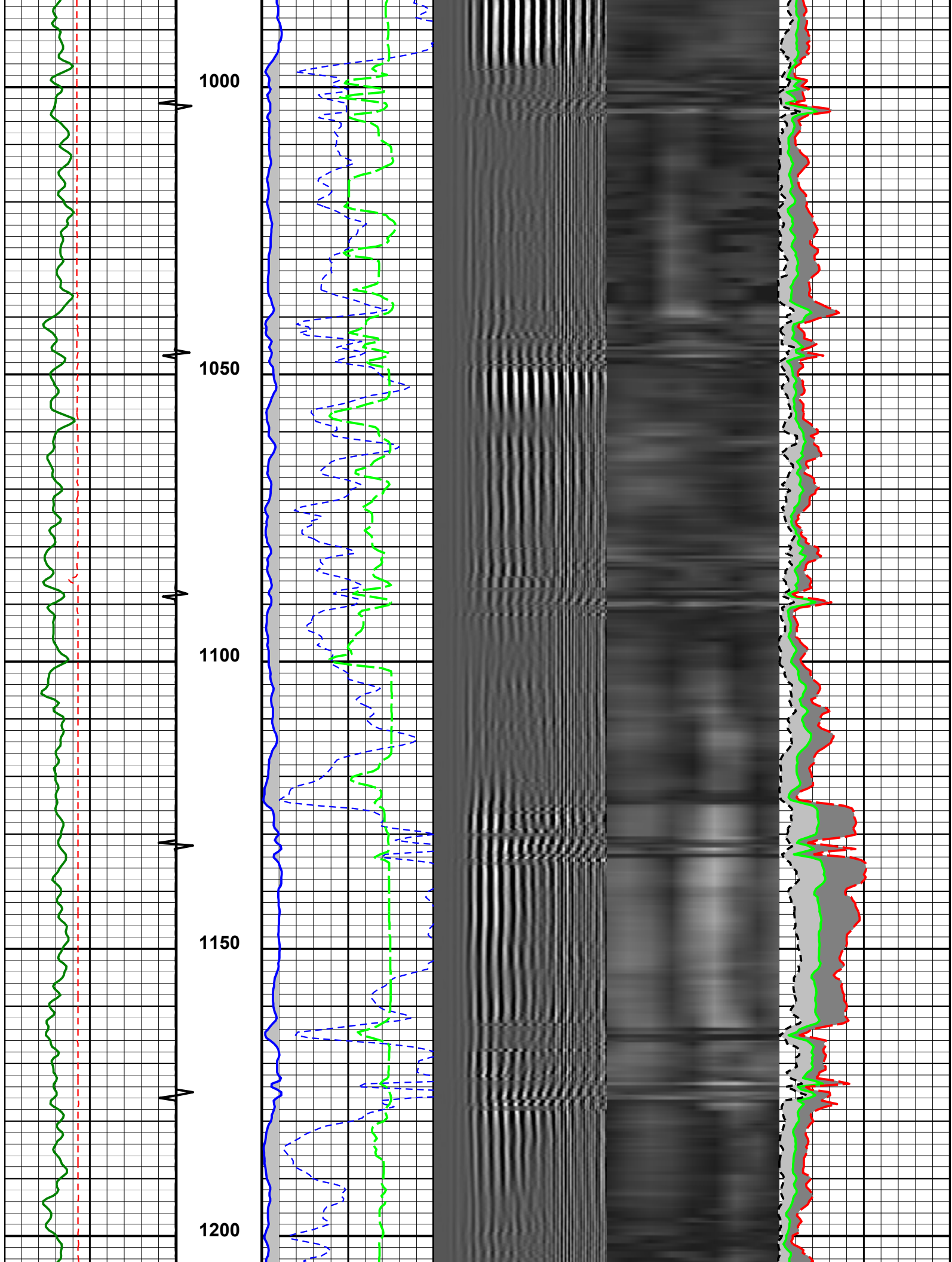


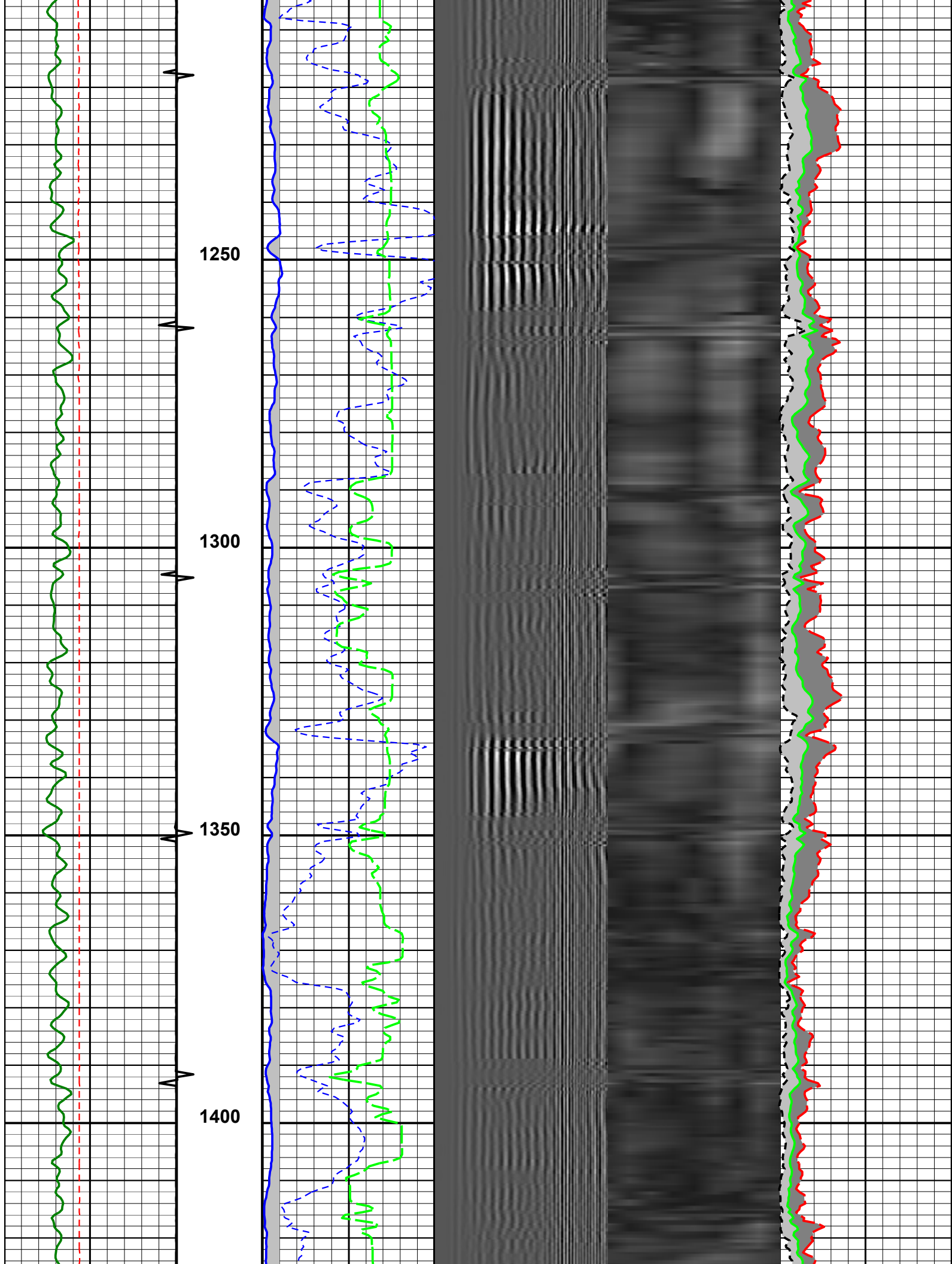


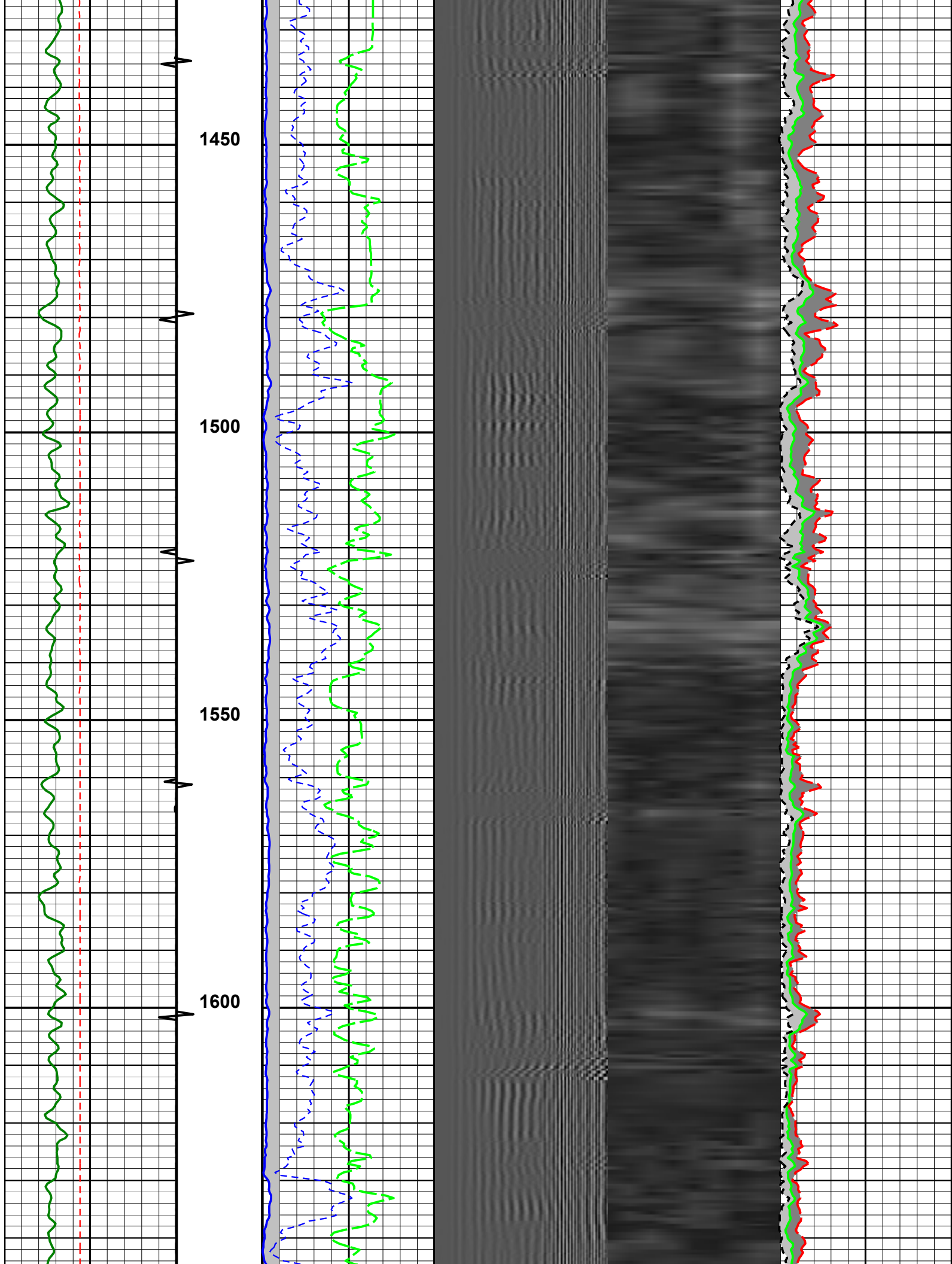


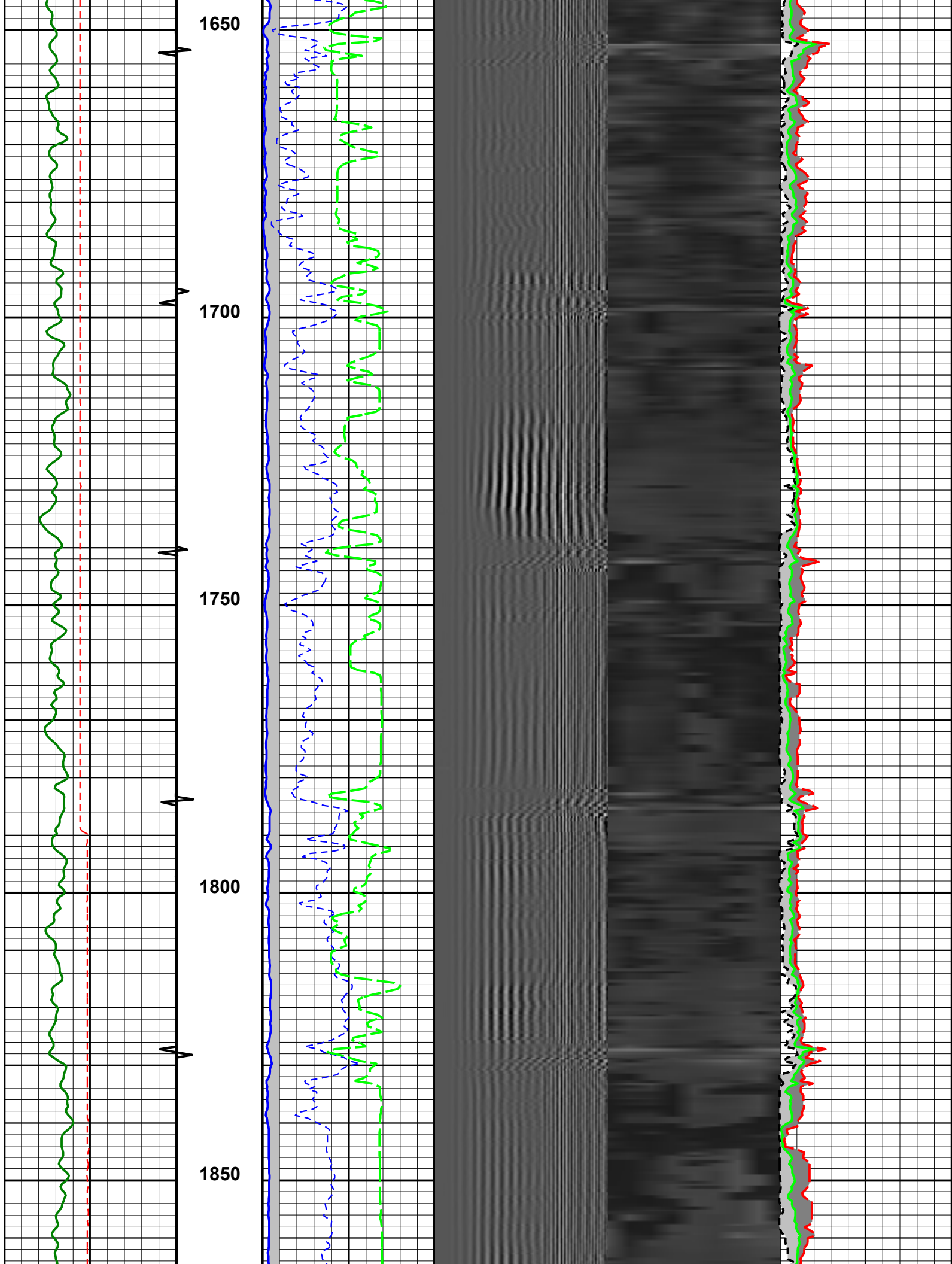


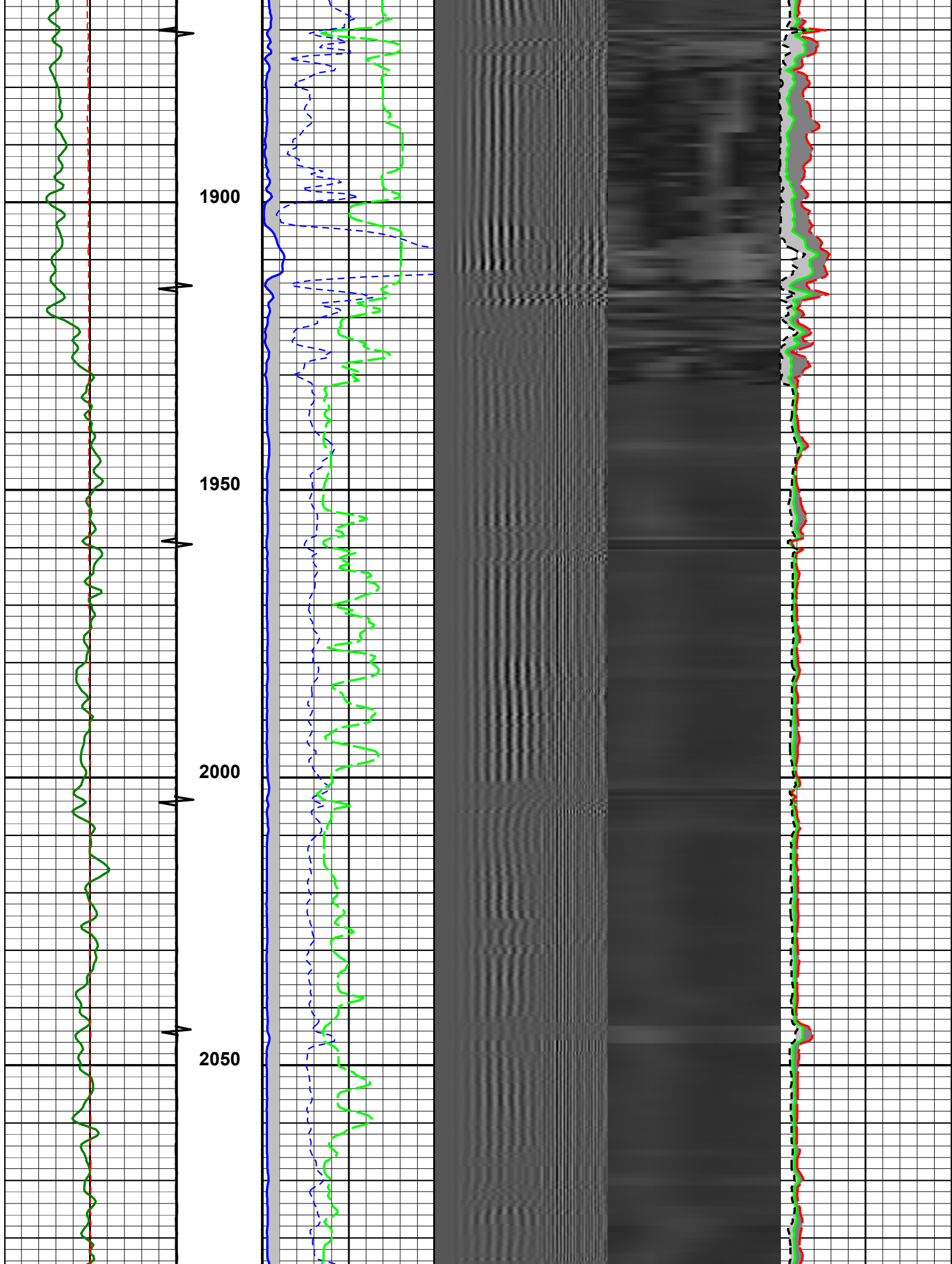


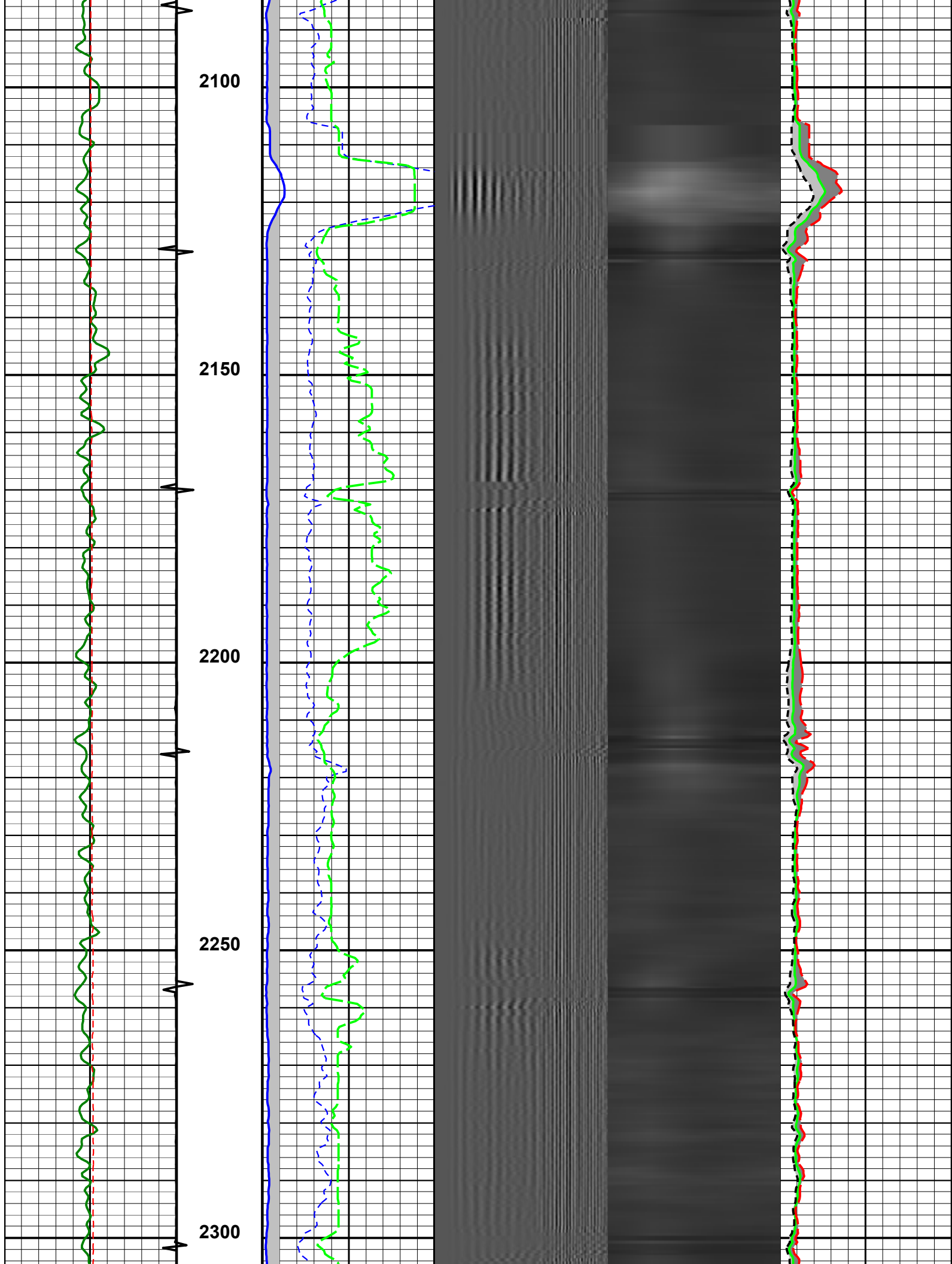


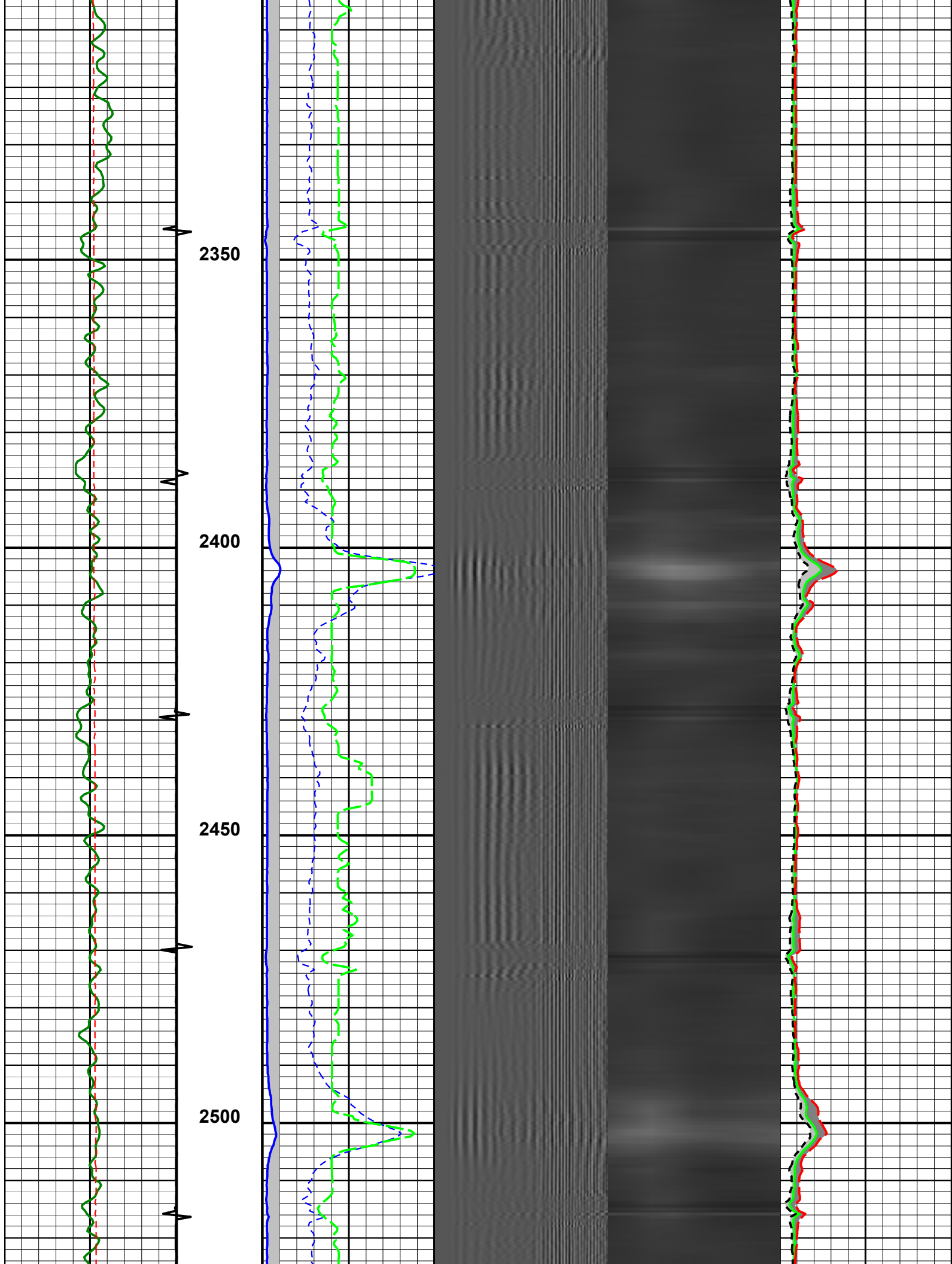


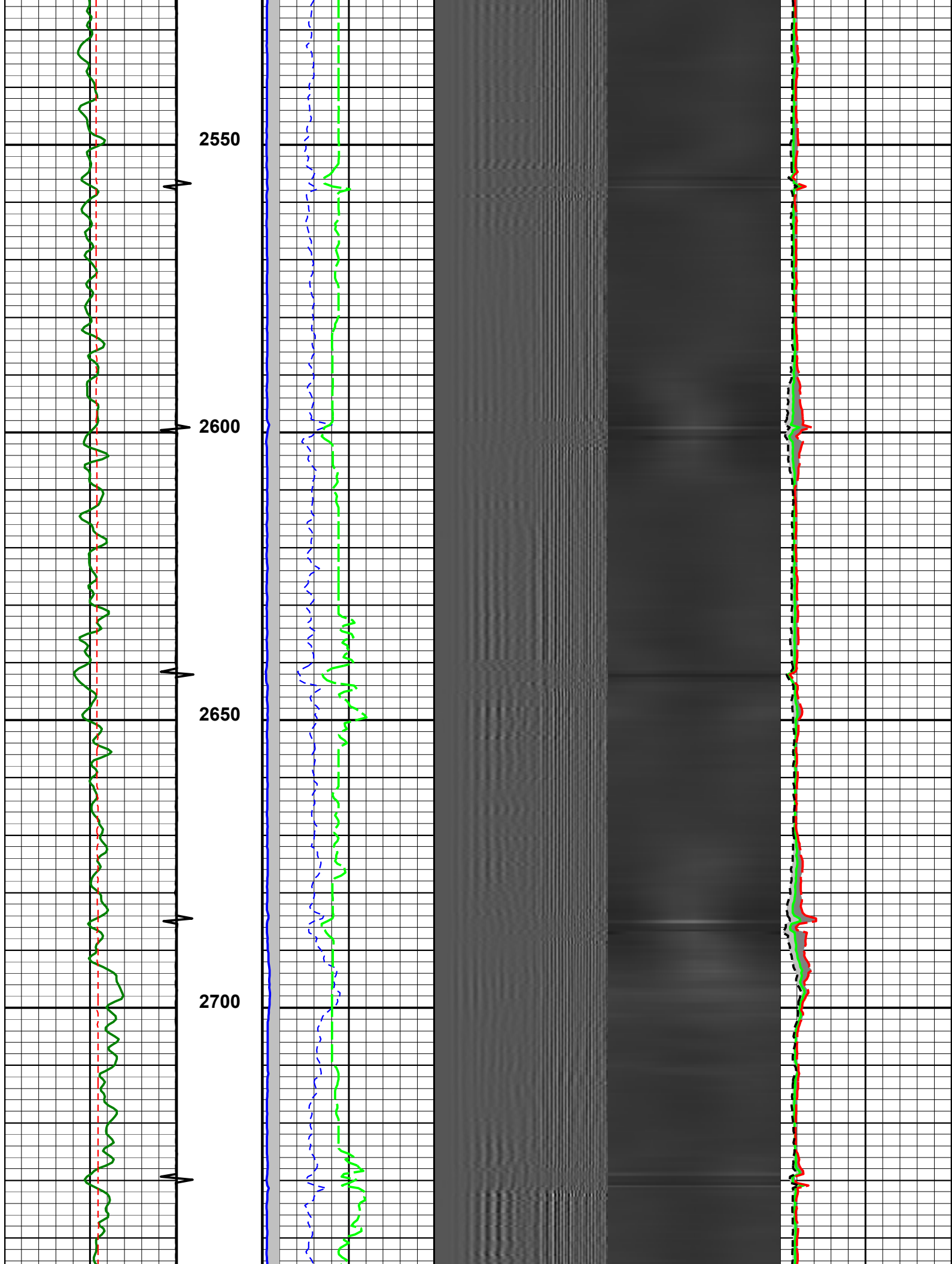


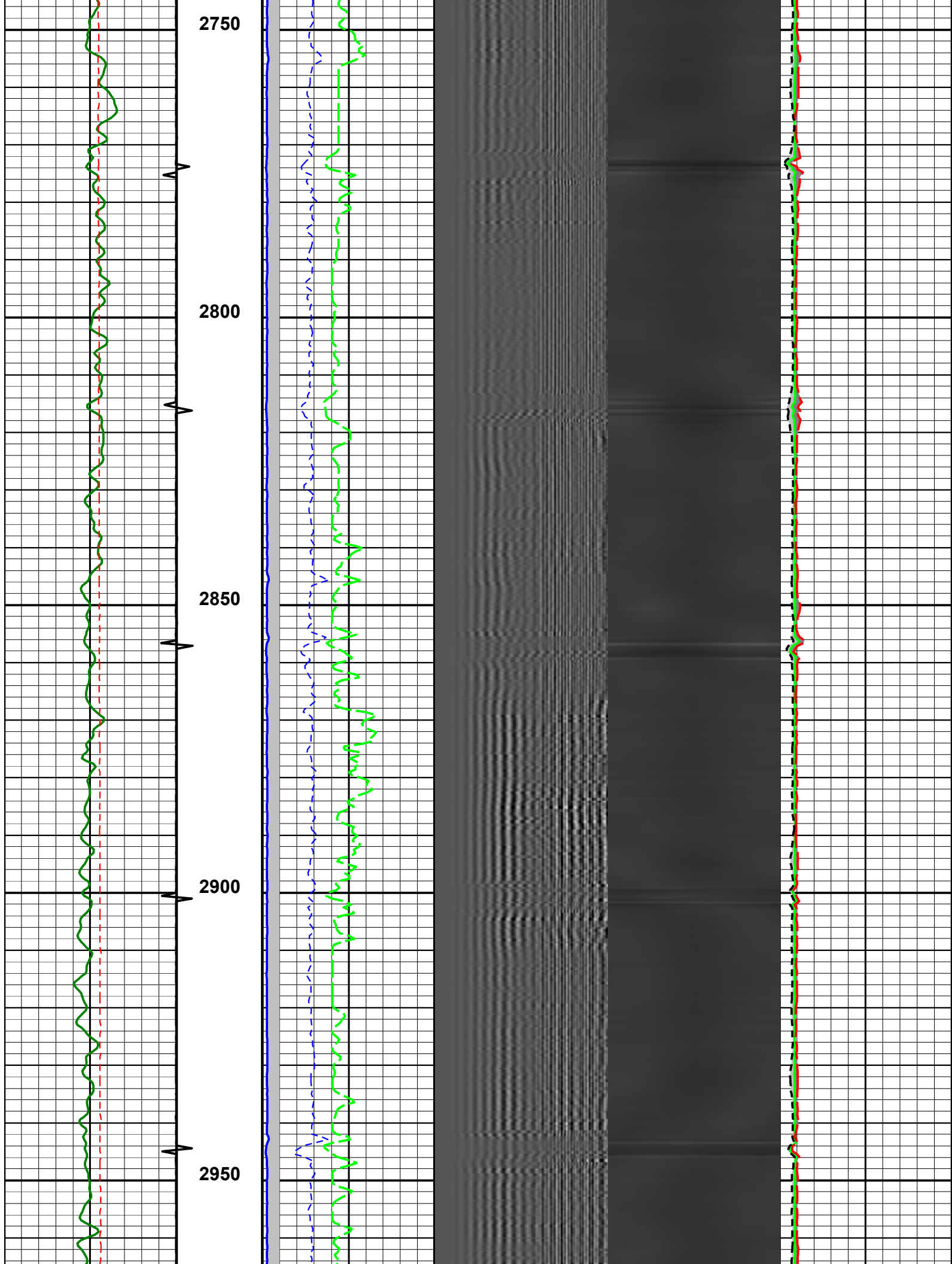


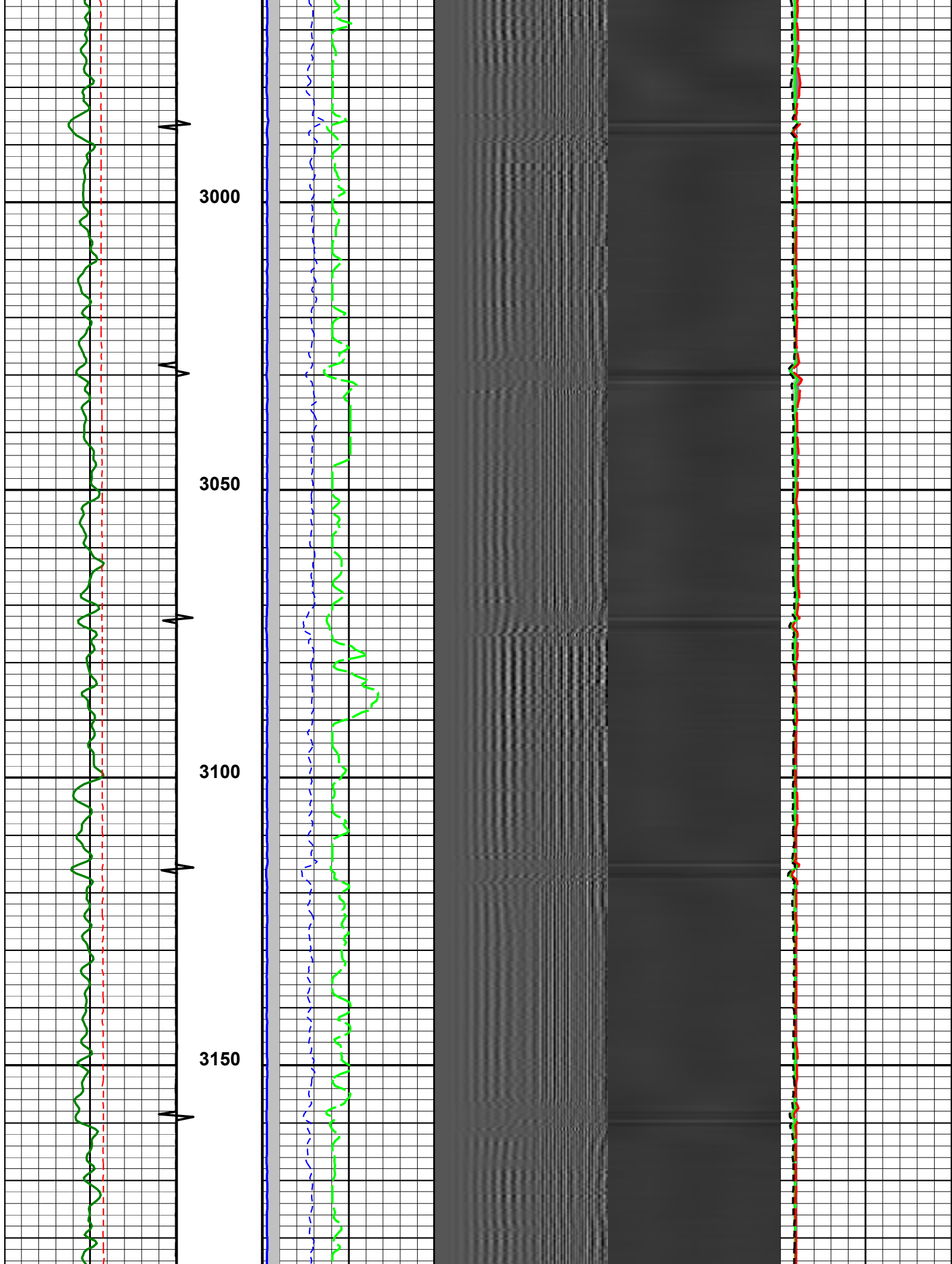


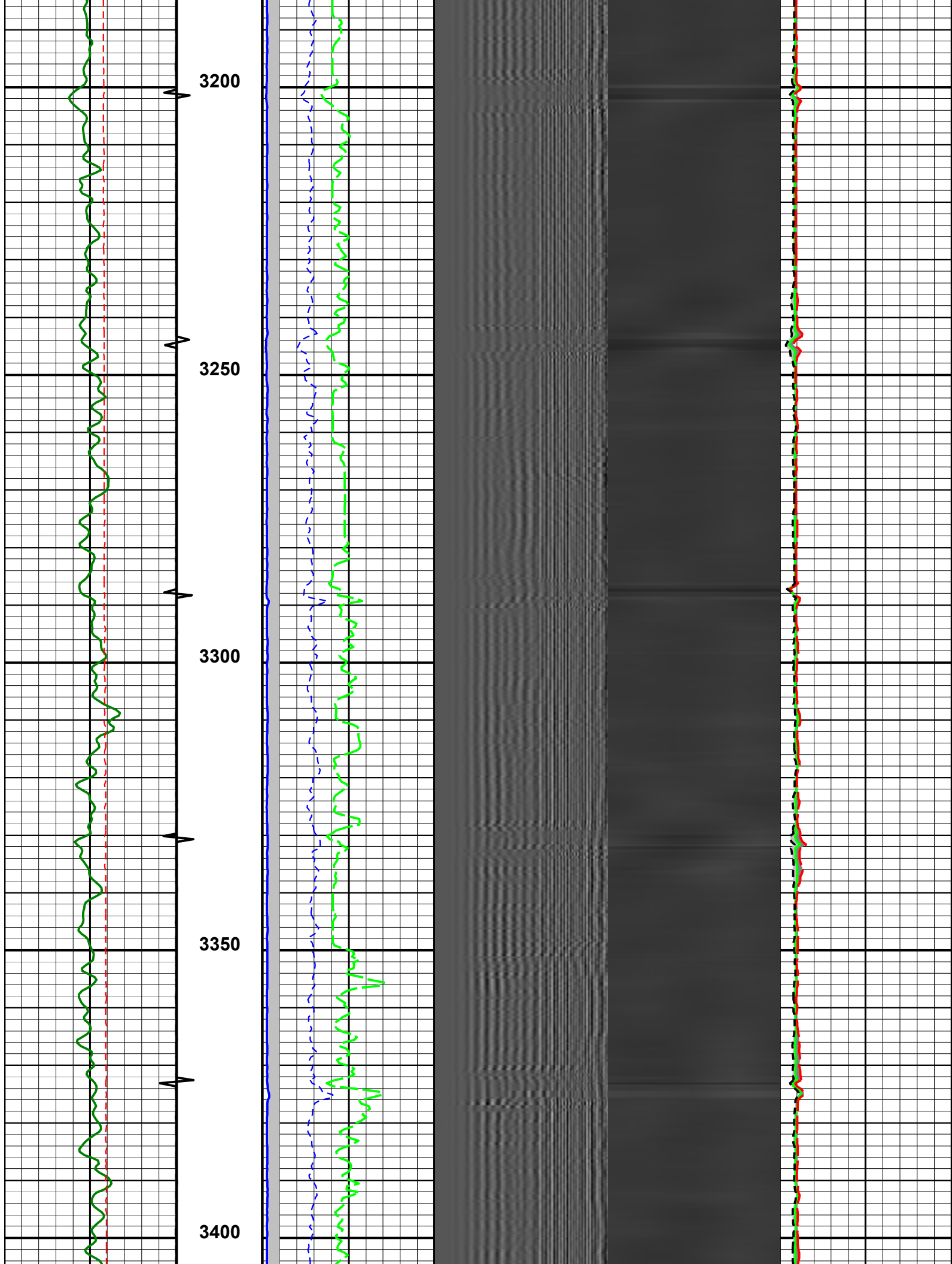


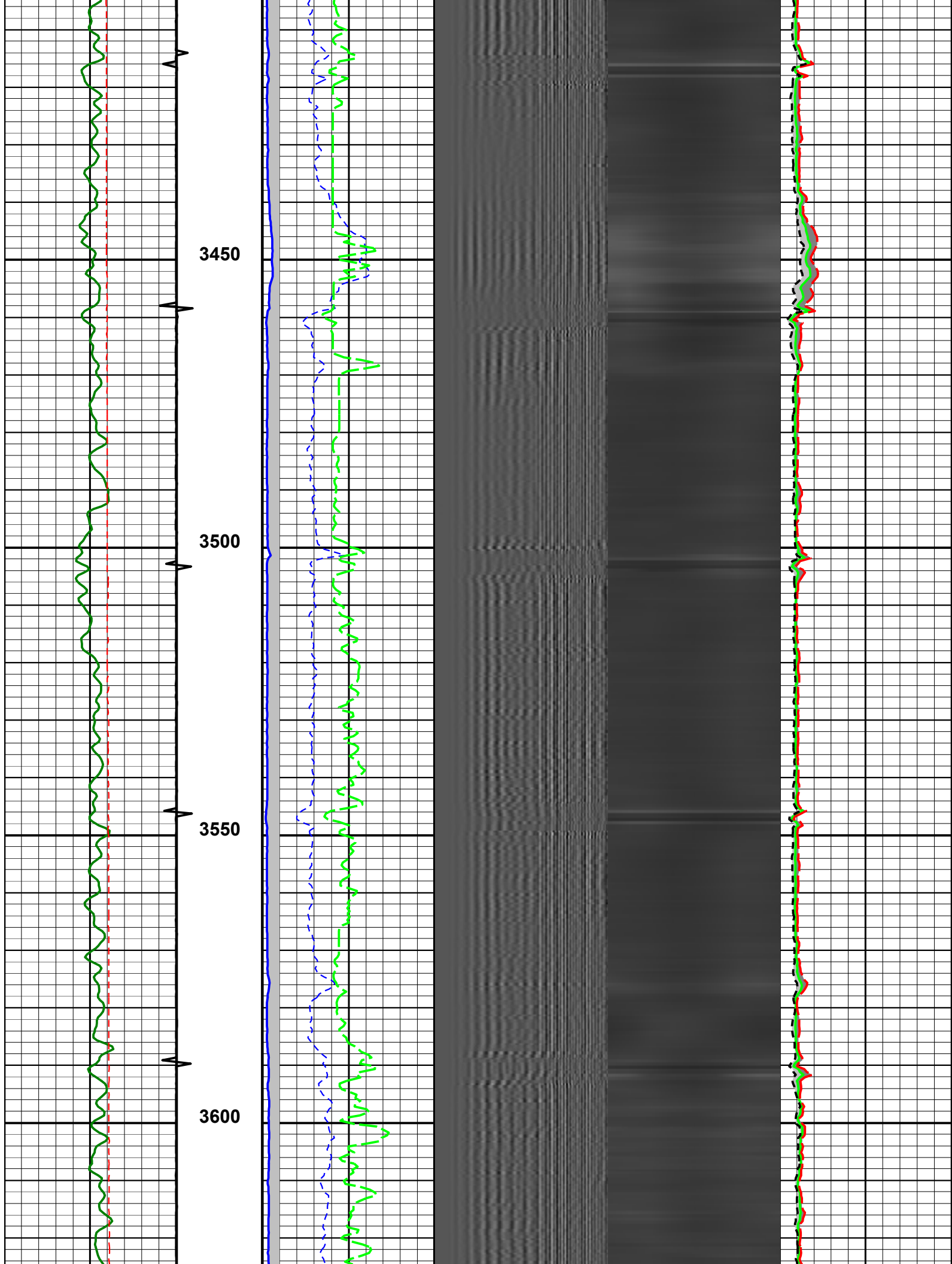


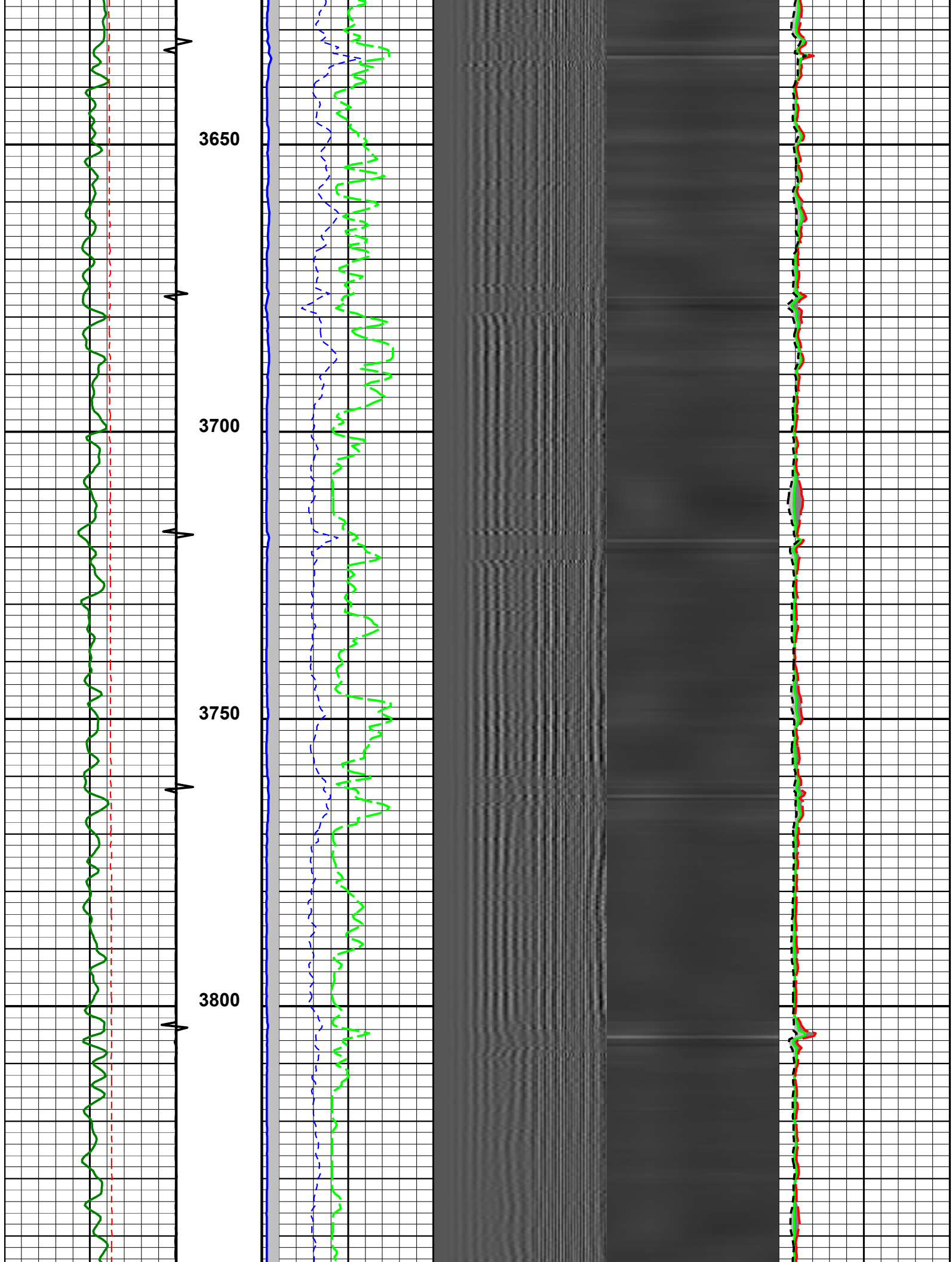


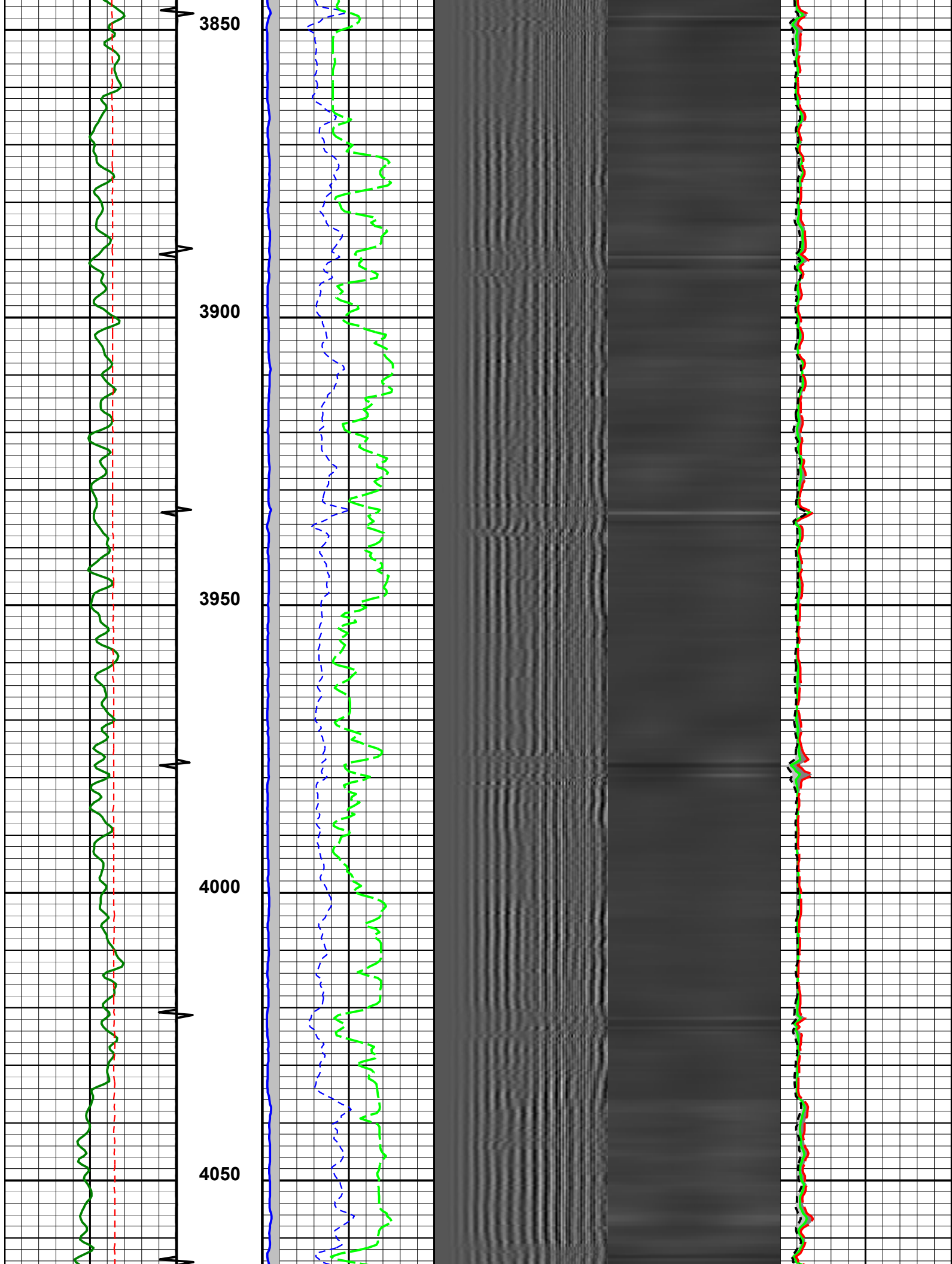


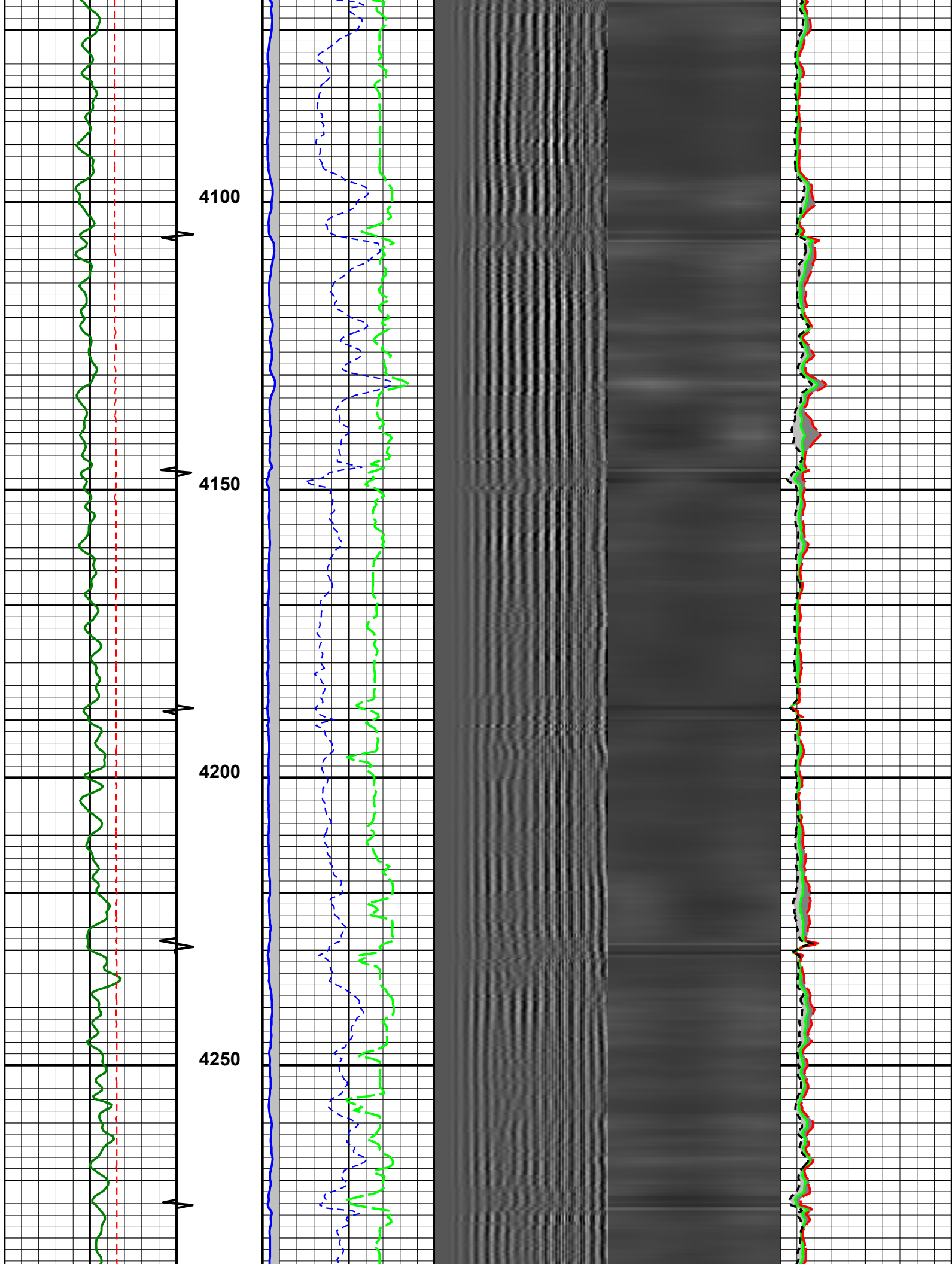


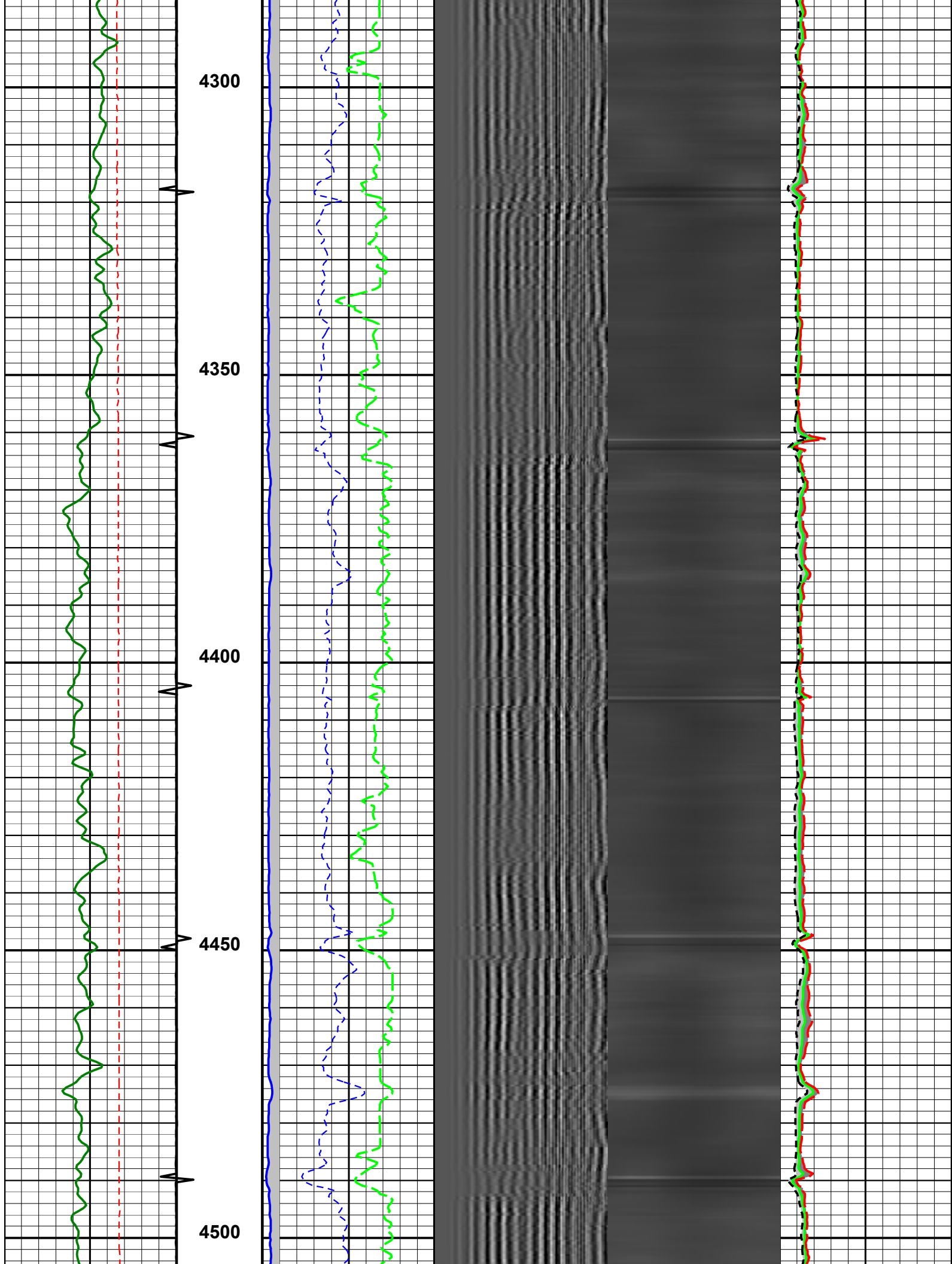


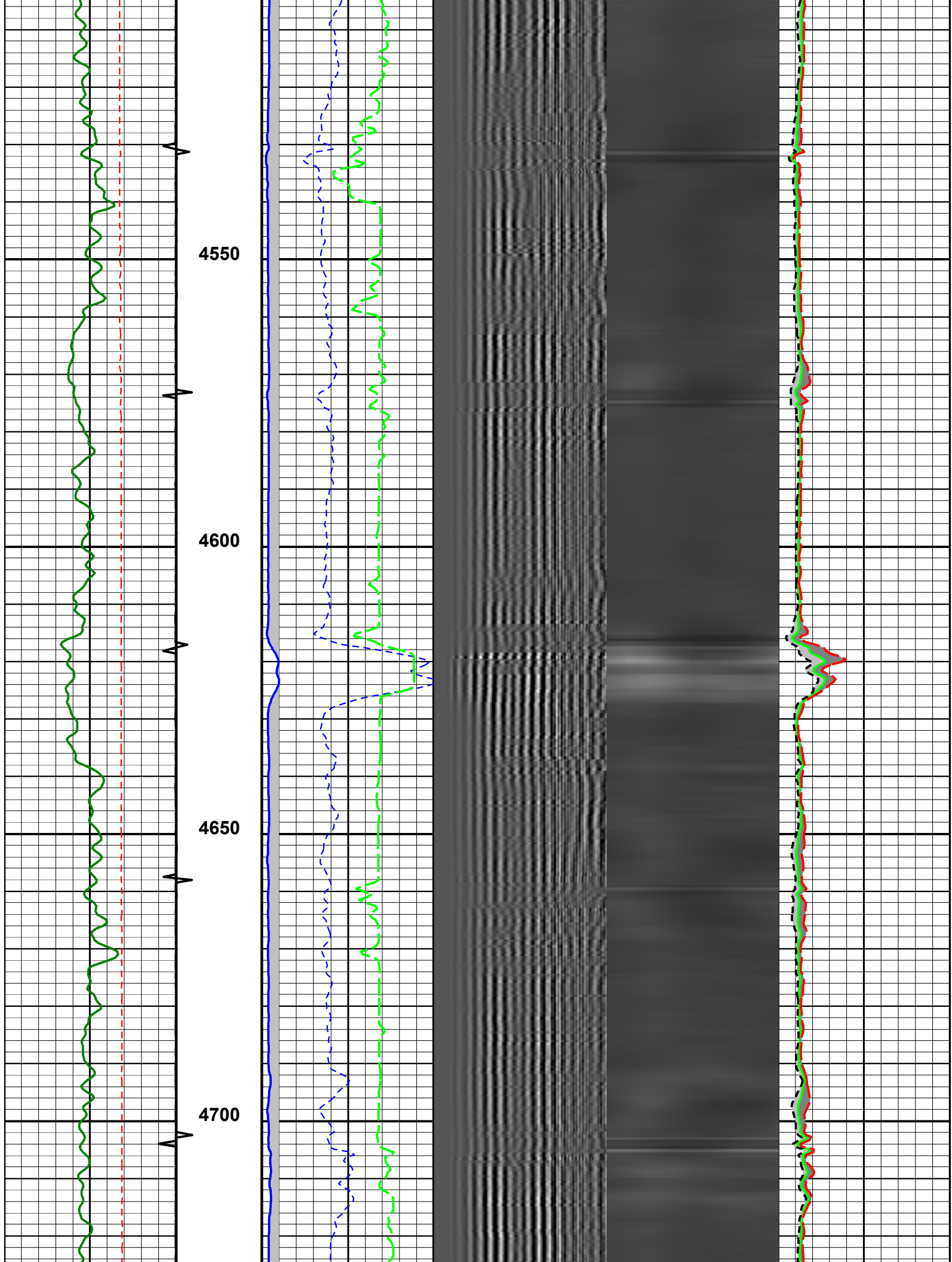


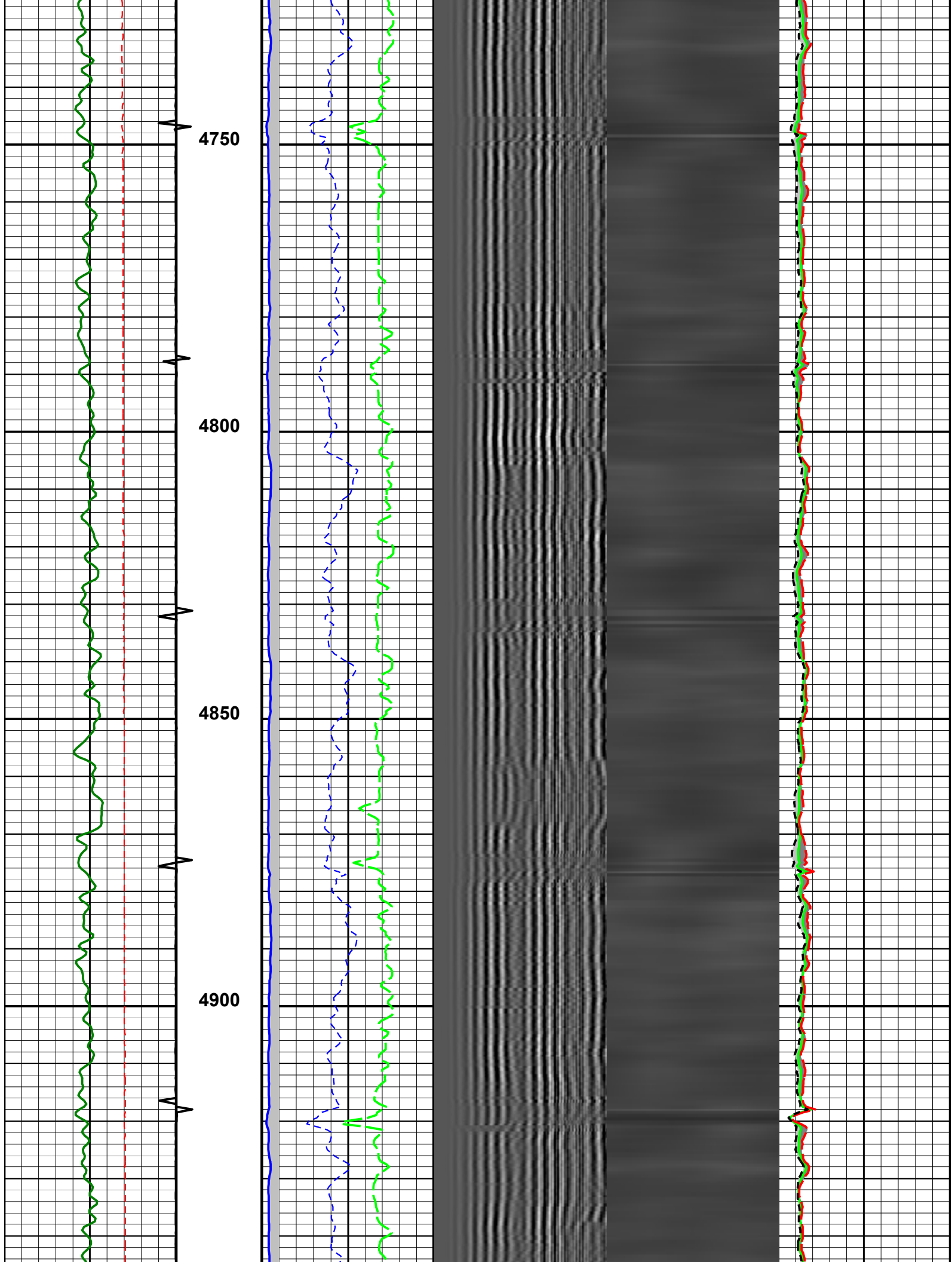


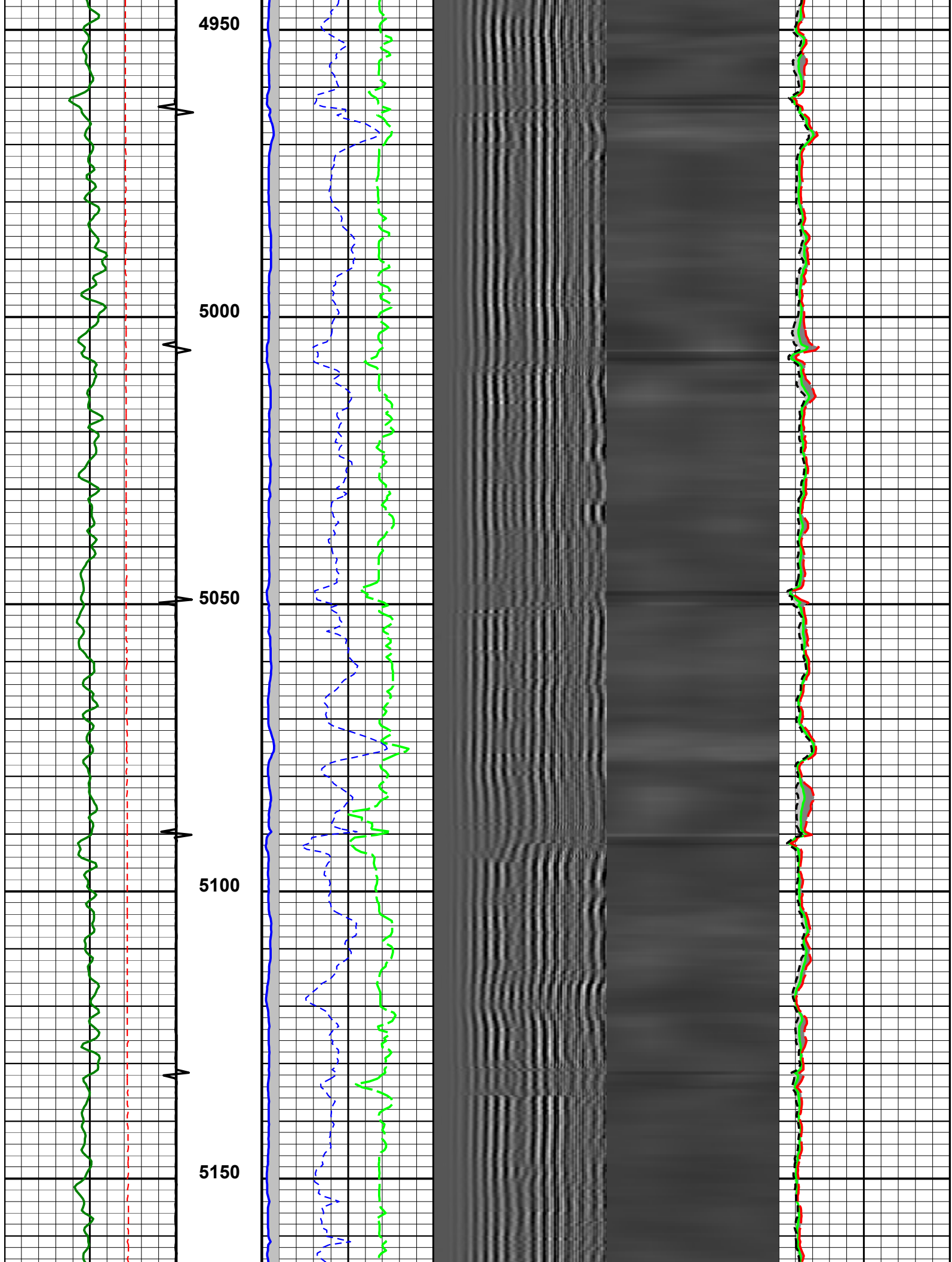


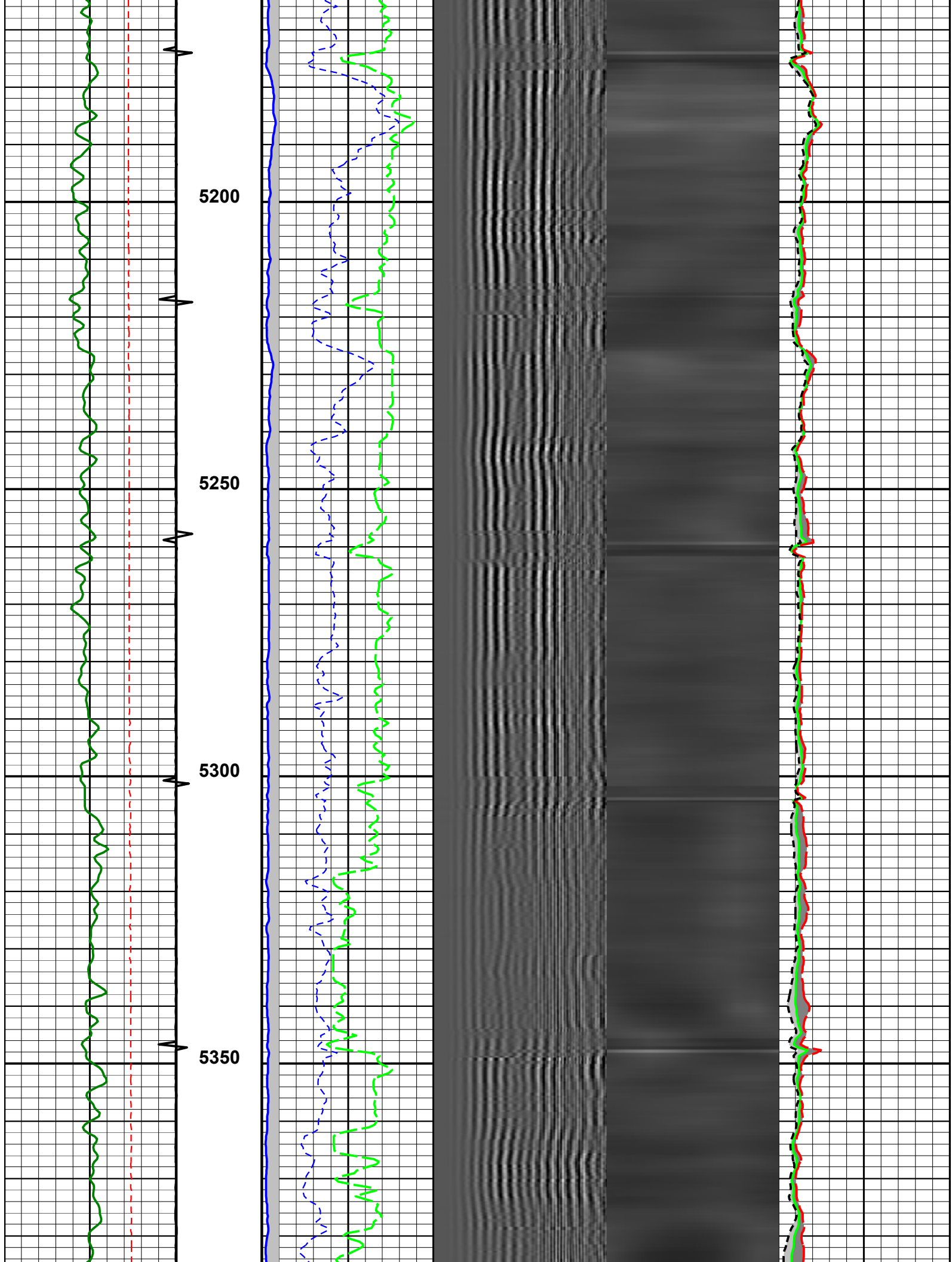


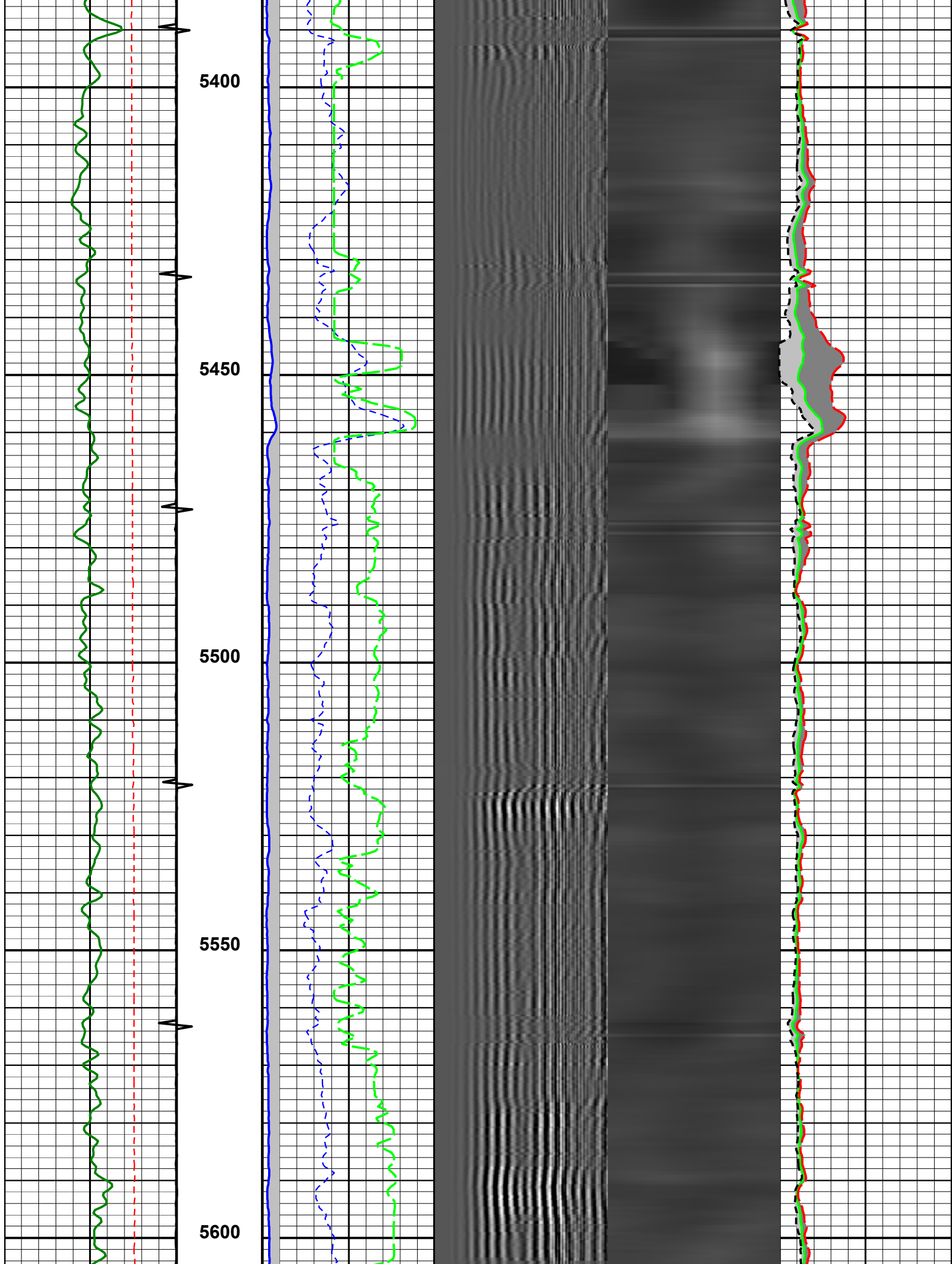


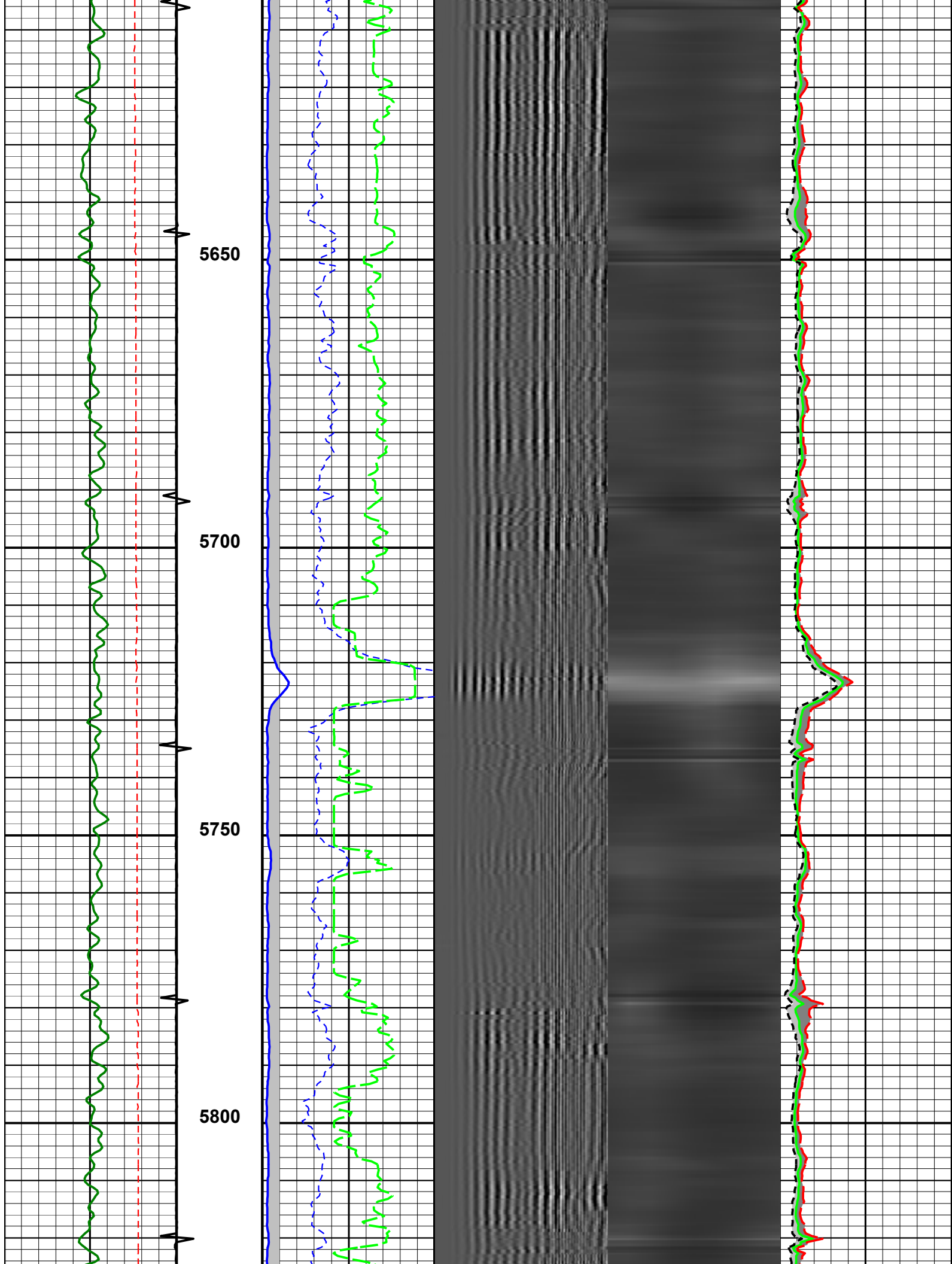


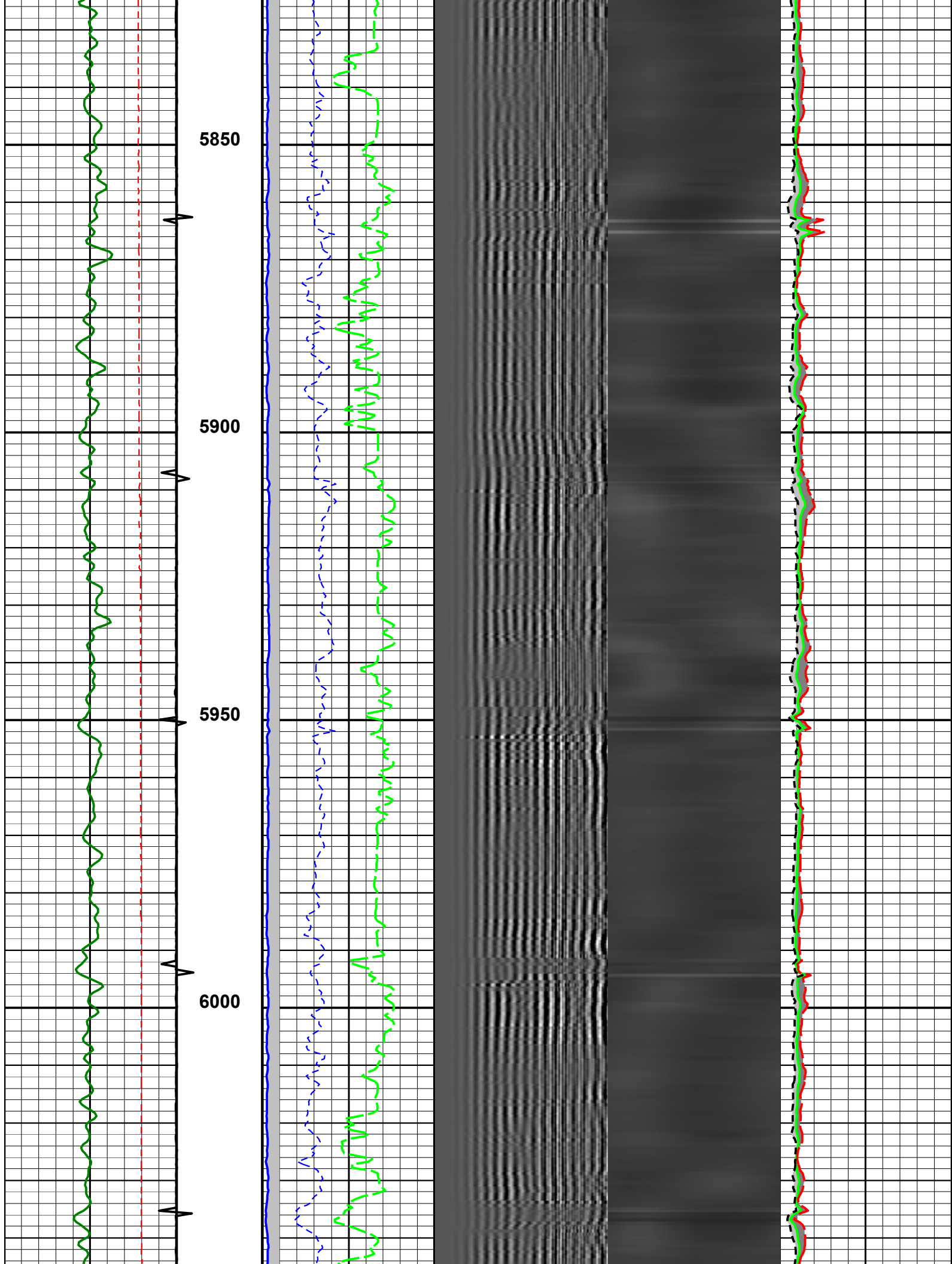


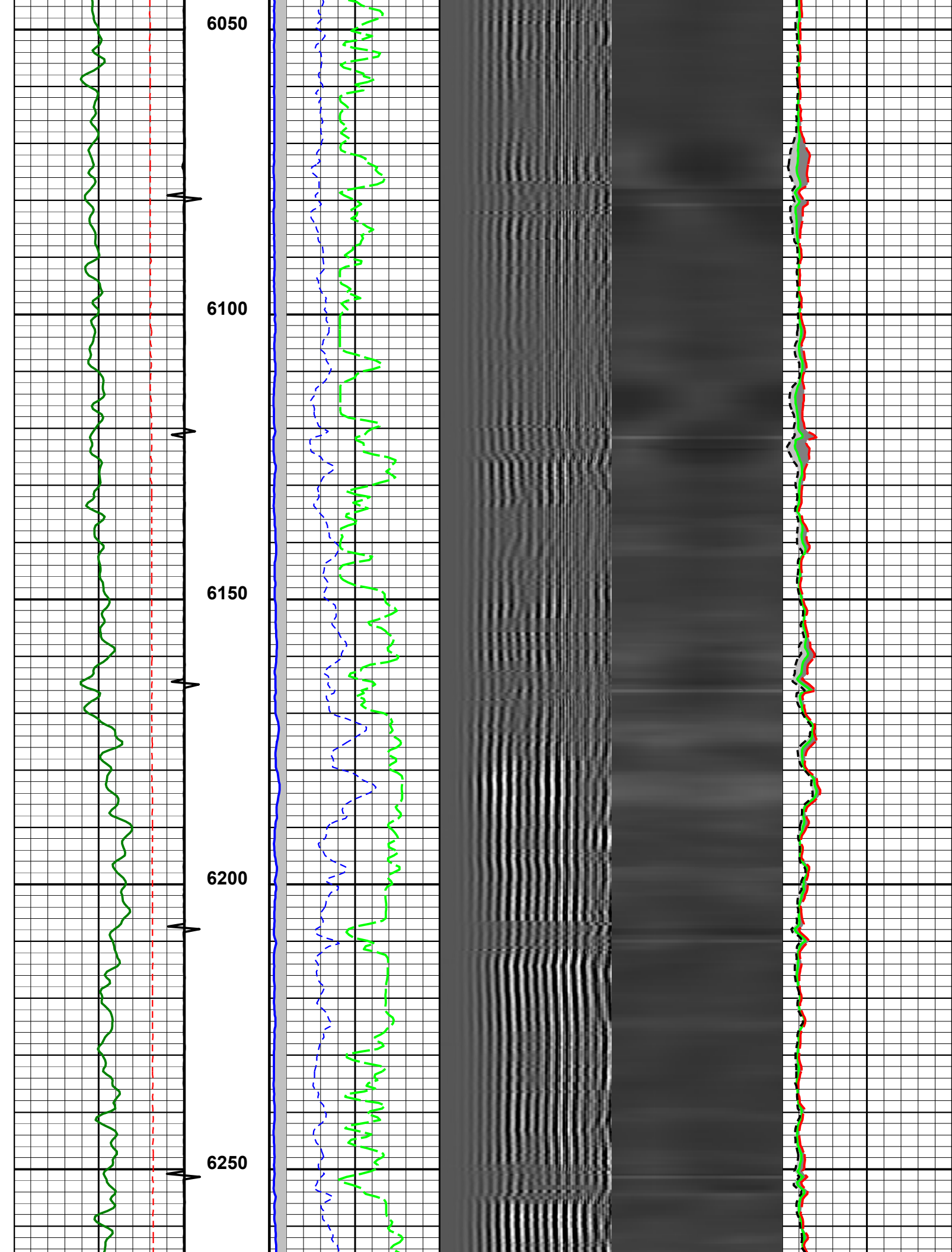


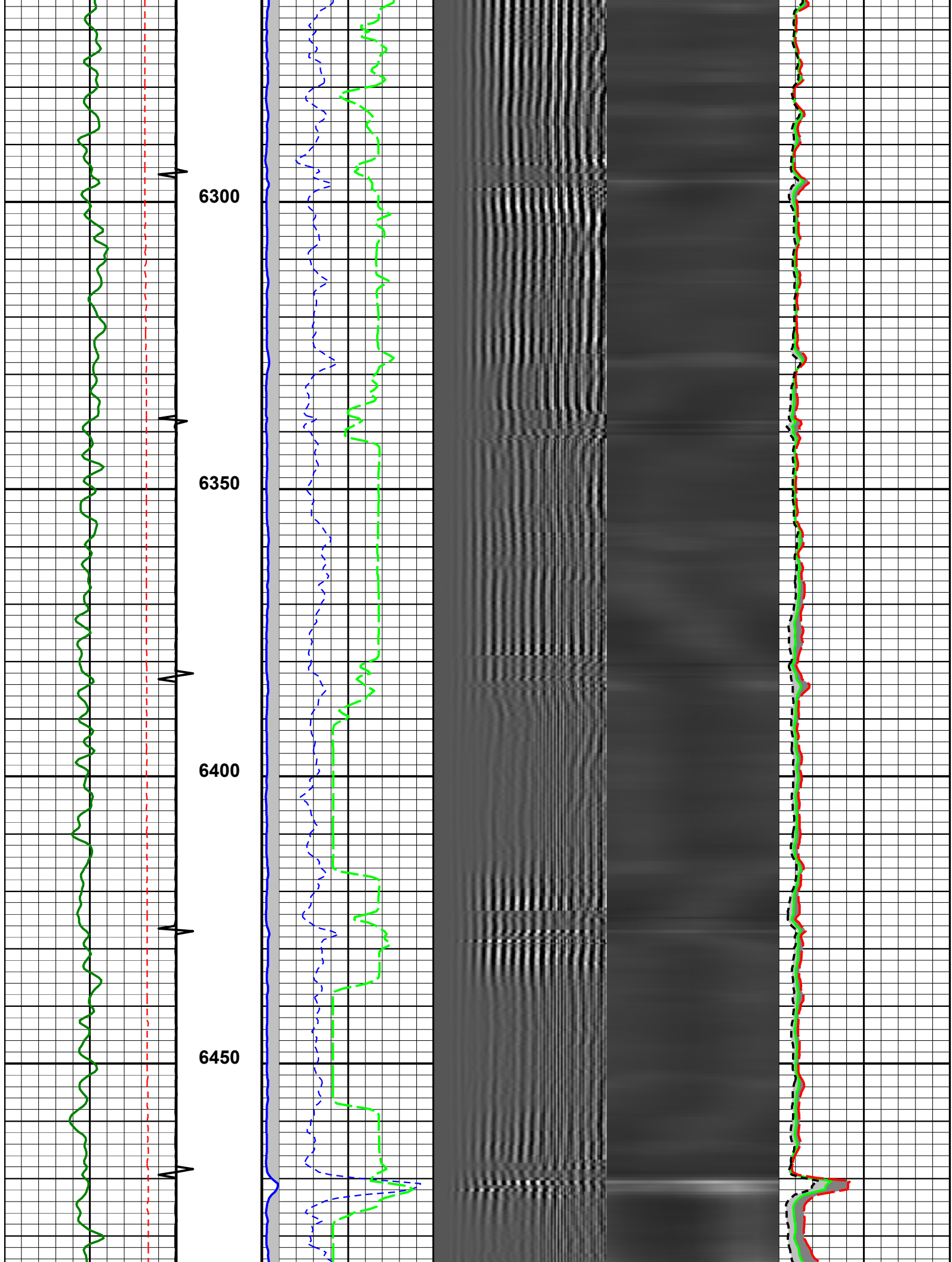


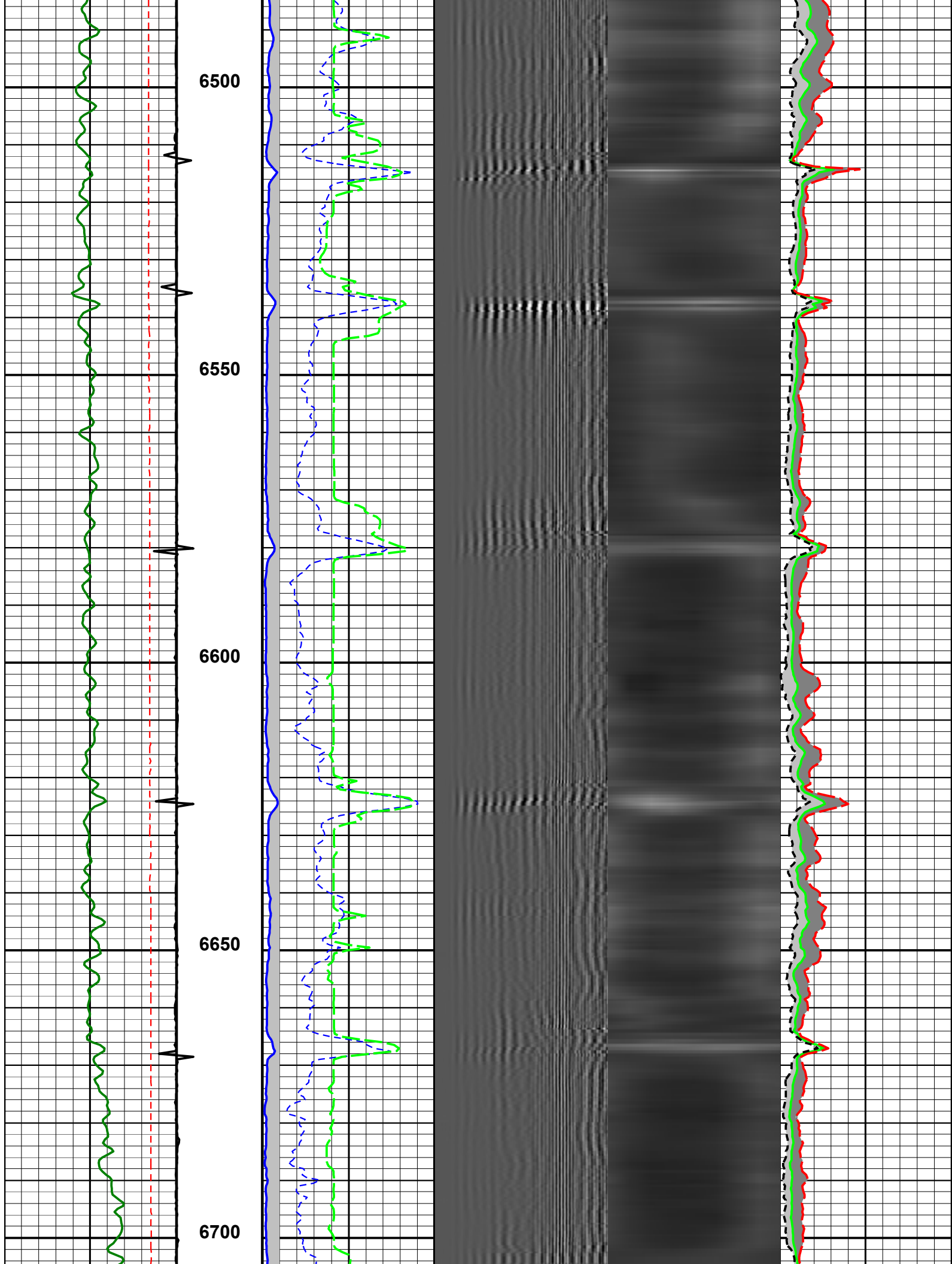


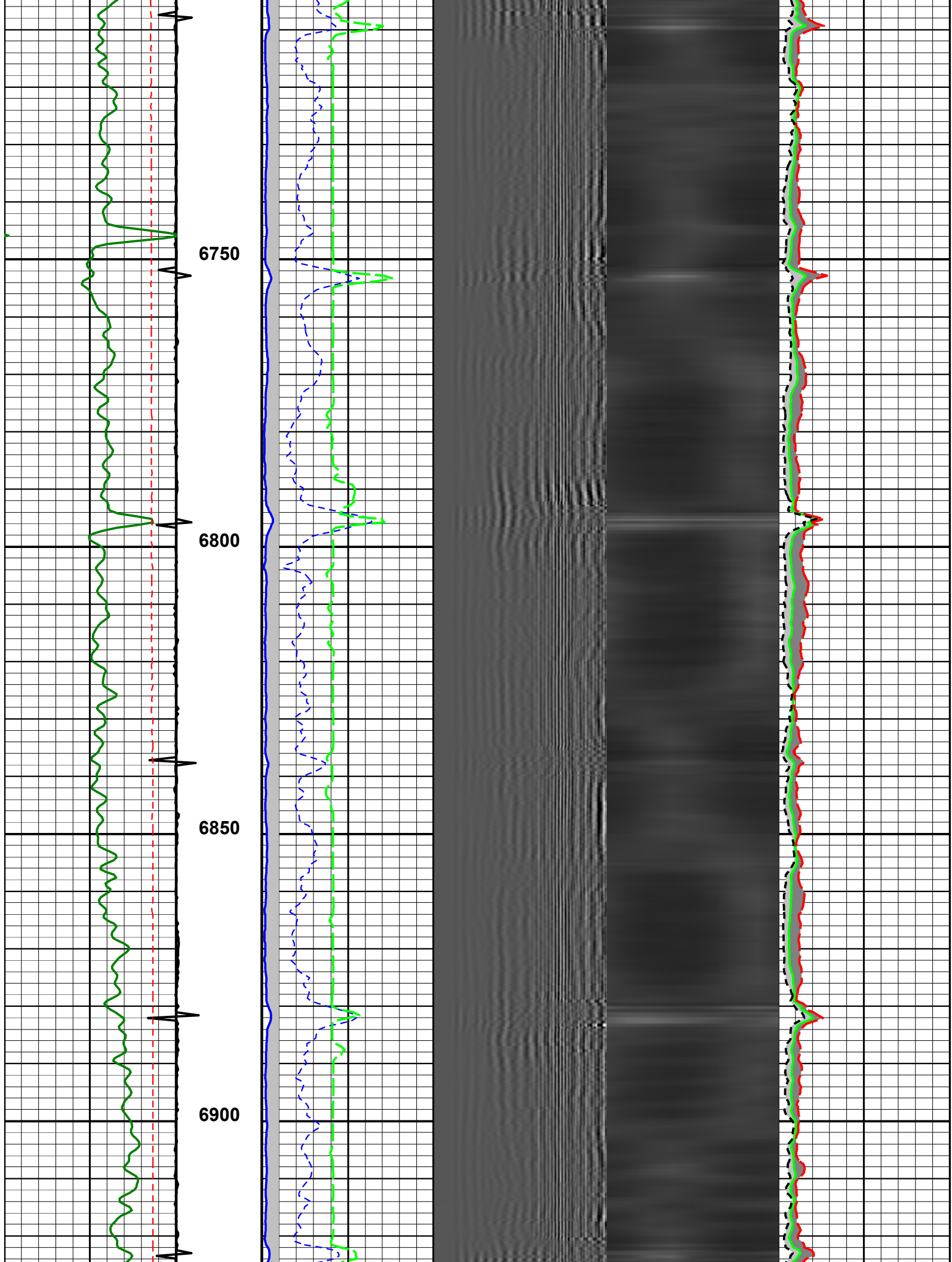


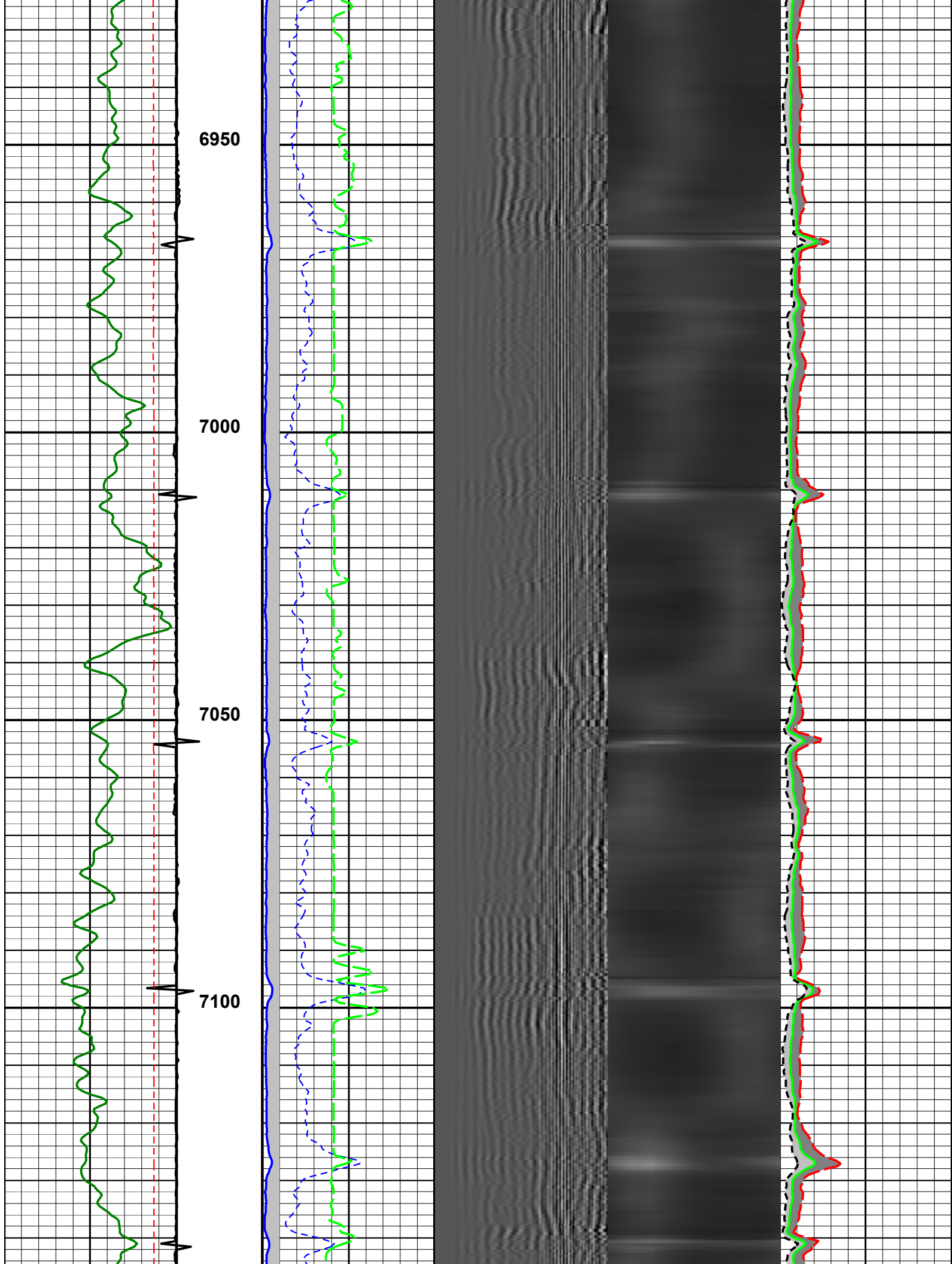


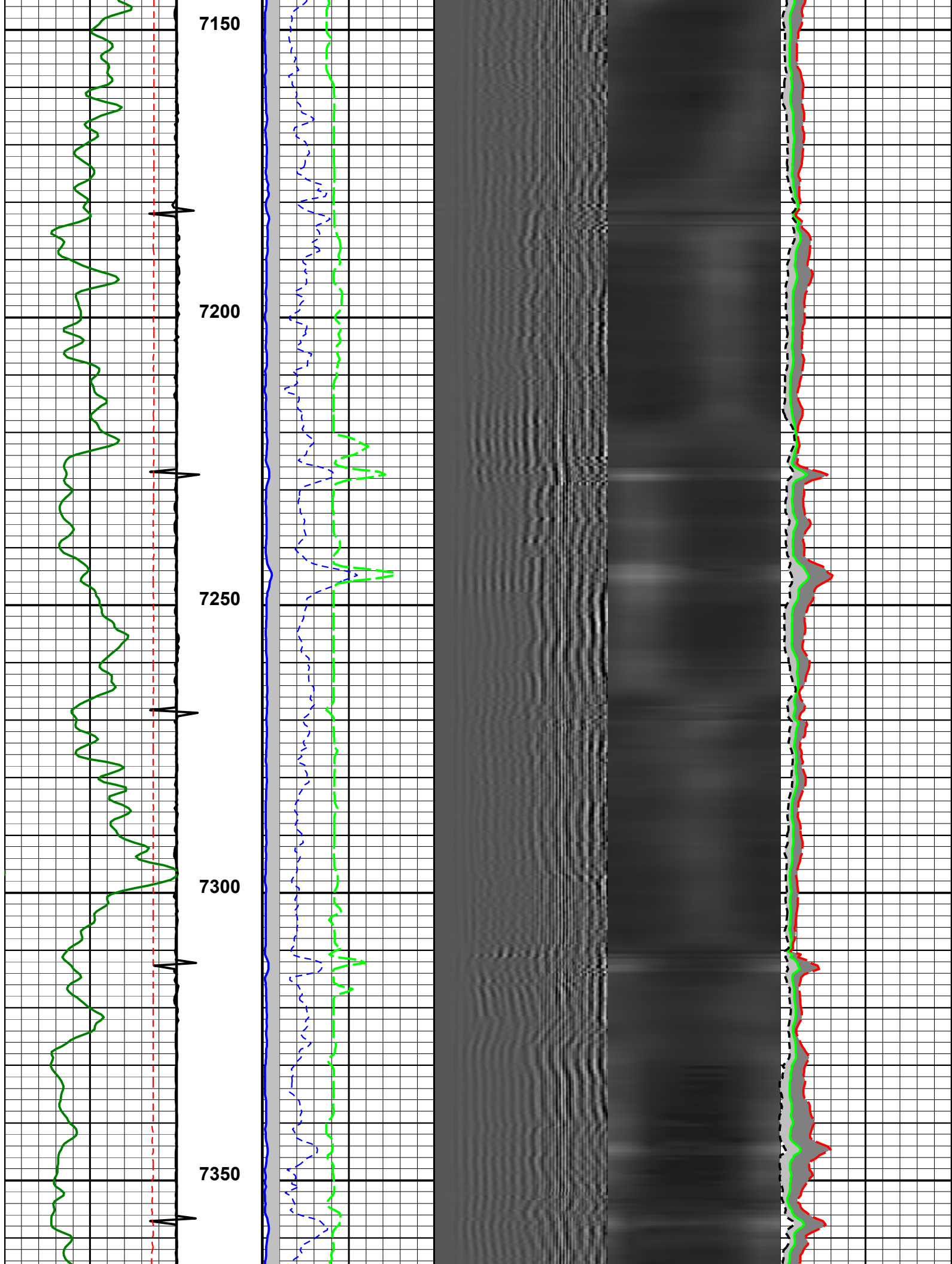


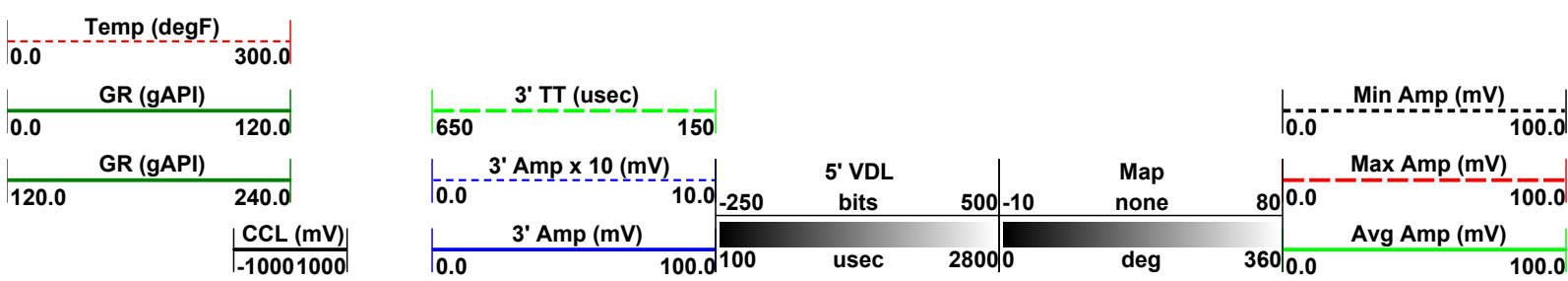


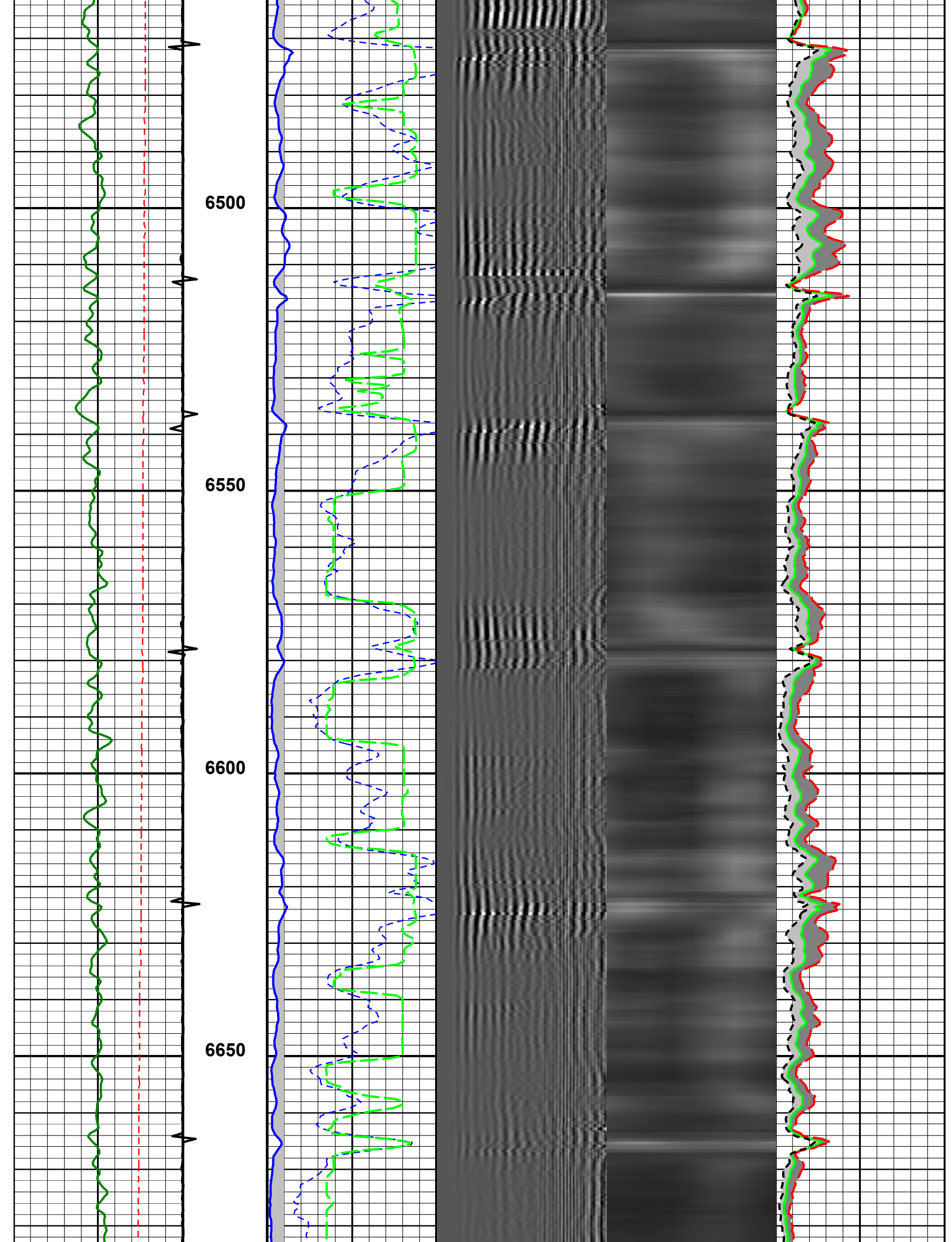


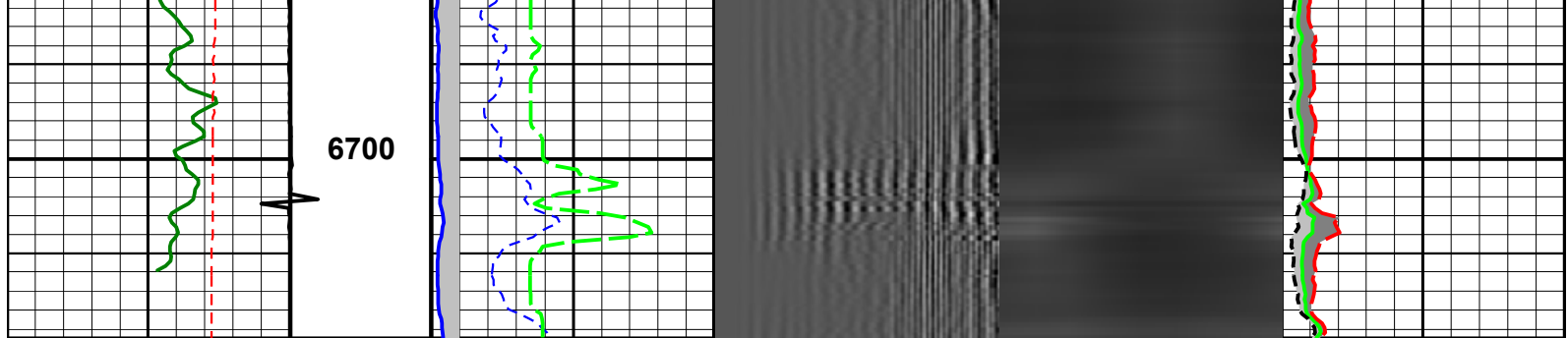












CCL (mV)
-1000 1000

3' Amp (mV)
0.0 100.0

5' VDL
bits
-250 500

Map
none 80

Avg Amp (mV)
0.0 100.0

GR (gAPI)
0.0 120.0

GR (gAPI)
120.0 240.0

Temp (degF)
0.0 300.0

3' Amp x 10 (mV)
0.0 10.0

3' TT (usec)
650 150

100 usec 2800

-10 deg 360

Max Amp (mV)
0.0 100.0

Min Amp (mV)
0.0 100.0



>10

minavg

avgmax

Telemetry

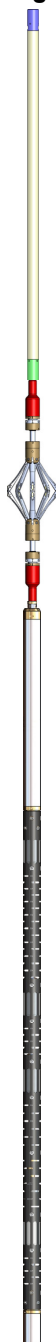
Identifier :0929A
Asset Number :047
Length :4.810 ft
Diameter :1.7 inch
Weight :17.6 lbs
Measure Point :0.741 ft : Gamma
Measure Point :3.976 ft : CCL

Inline Centralizer

Identifier :0595t
Asset Number :None
Length :2.887 ft
Diameter :2.7 inch
Weight :11.0 lbs

RSBT

Identifier :1333A
Asset Number :010
Length :9.783 ft
Diameter :2.7 inch
Weight :149.9 lbs
Measure Point :2.730 ft : CBL
Measure Point :4.229 ft : Far
Measure Point :5.230 ft : Near
Measure Point :5.728 ft : Radial



CCL 42.56 ft
41.73 ft

Gamma 38.49 ft

Radial 30.81 ft
Near 30.31 ft

Far 29.31 ft

CBL 27.81 ft

Inline Centralizer
Identifier :0595b
Asset Number :None
Length :2.887 ft
Diameter :2.7 inch
Weight :11.0 lbs

Knuckle Joint
Identifier :0814
Asset Number :None
Length :2.854 ft
Diameter :1.7 inch
Weight :16.5 lbs

PDN
Identifier :1471A
Asset Number :029
Length :19.337 ft
Diameter :1.7 inch
Weight :85.8 lbs
Measure Point :7.575 ft : ShortSpace
Measure Point :8.051 ft : LongSpace



LongSpace 8.05 ft
ShortSpace 7.58 ft

Total Length : 42.56 ft
Total Weight : 291.89 lbs
Max Diameter : 2.7 inch

0.00 ft

File :

Gamma

Gamma Calibration

Acc

Two Point Calibration

GoodAmpPercentF

Array Calibration

GoodAmpPercentN

Array Calibration

No	Value	No	Value	No	Value	No	Value	No	Value
01:	10								

Tool name : **RSBT**Asset : **010**Series : **1333A**

Source ID :

GoodAmpPercentS**Array Calibration**

Time

Setup

Description

Setup Version 00000

No	Value	No	Value	No	Value	No	Value	No	Value	No	Value
01:	<input type="text" value="10"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Tool name : **RSBT**Asset : **010**Series : **1333A**

Source ID :

Amplitudes**RSBT Amplitude Calibration**

Time

Setup

Description

Setup Version 00000

Device DescriptionCasing ID Fluid Velocity Amplitude **Instrument Readings**

	<i>Near</i>	<i>Far</i>							
CBL Amplitudes	<input type="text" value="6490.870"/>	<input type="text" value="7339.970"/>							
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	
Radial Amplitudes	<input type="text" value="5565.980"/>	<input type="text" value="5479.440"/>	<input type="text" value="5792.180"/>	<input type="text" value="6143.380"/>	<input type="text" value="6237.380"/>	<input type="text" value="5866.010"/>	<input type="text" value="5760.950"/>	<input type="text" value="5637.710"/>	

File :

Tool name : **PDN**Asset : **029**Series : **1471A**

Source ID :

Porosity**Compensated Neutron Calibration**

Time

Setup

Description

Setup Version 00000

Curve Name	pt	Raw Value	User Value	Device	Mult.
<input type="text" value="Ratio"/>	<input type="text" value="1"/>	<input type="text" value="5.2237"/>	<input type="text" value="5.2237 none"/>	<input type="text"/>	<input type="text" value="1.000000"/>



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WELL: Cook 15C-28HZ
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Casing Collar Log