

HALLIBURTON

RESERVOIR
MONITORING TOOL
ELITE

Company

URSA OPERATING COMPANY LLC

Well

TOMPKINS 42A-08-07-95

Field

PARACHUTE

County

GARFIELD

State

CO

Company

URSA OPERATING COMPANY LLC

Well

TOMPKINS 42A-08-07-95

Field

PARACHUTE

County

GARFIELD

State

CO

API No.:

05045224780000

Serv. #:

903517876

Location:

SHL: 200' FSL & 560' FEL
BHL: 1430' FNL & 660' FEL

Other Services

Sec: 11

Twp: 6S

Rge: 92W

CBL-M

Permanent Datum

GROUND LEVEL

Elevation

5532'

Elevation

Log Measured From

KB

,

17' Ft. above perm. datum

K.B. 5549'
D.F. 5549'
G.L. 5532'

Drilling Measured From

KB

Date @ Time Logged

07 SEPT 2016 @ 12:00

Type Fluid in Hole

FRESH WATER

Run No.

ONE

Density of Fluid

8.4 PPG

Depth - Driller

7294'

Fluid Level

SURFACE

Depth - Logger

7024'

Cement Top Est. Logged

3250'

Bottom - Logged Interval

7024'

Equipment / Location

11808537 / RS. WY

Top - Log Interval

3365'

Recorded by

S. BURGIE

Max. Recorded Temp.

200 degF

Witnessed by

N/A

CEMENTING DATA

Surface

Protection

String

Production

Liner

Date / Time Cemented

String

String

N/A

N/A

Primary / Squeeze

N/A

N/A

N/A

N/A

Expected Compressive Strength

N/A

psi@ N/A hrs

N/A

psi@ N/A hrs

N/A

psi@ N/A hrs

Cement Volume

N/A

N/A

N/A

N/A

N/A

N/A

Cement Type / Weight

N/A

/ N/A

N/A

/ N/A

N/A

/ N/A

Formulation

N/A

N/A

N/A

N/A

N/A

N/A

Mud Type / Mud Wgt.

N/A

/ N/A

N/A

/ N/A

N/A

/ N/A

Borehole Record

Casing & Tubing Record

Run Number

Bit

From

To

Size

Weight

From

To

ONE

24"

SURFACE

60'

16"

75.5 #

SURFACE

60'

TWO

12.25"

60'

1771'

8.625"

32.0 #

SURFACE

1771'

THREE

7.875"

1771'

7294'

4.5"

11.6 #

SURFACE

7294'

<<< Fold Here >>>

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

ESTIMATED TOP OF CEMENT : 3250'
GAMMA BLANKET : 223 GAPI
FREE PIPE CALIBRATION DEPTH : 230'

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SVCS.
YOUR CREW TODAY : SONNY BURGIE, BLAKE RIDDEL, DANIEL FLINDERS, CHUCK SIMONS, BRAD BRUDERER

Service Ticket No.

903517876

API No.

05045224780000

PGM Ver

15.10.29001

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

XHU

GAMMA

RMTI

CBL

Run No.

ONE

Run No.

ONE

Run No.

ONE

Run No.

ONE

Serial No.

00000001

Serial No.

12105780

Serial No.

11680597

Serial No.

00000001

Model No.

XHU-3

Model No.

TTTC-U2

Model No.

RMTI

Model No.

CBLM

Diameter

1 11/16"

Diameter

1 11/16"

Diameter

2.25"

Diameter

2.75"

LOGGING DATA

General Data

Pass

No

Depths

From

To

Well Head

Pressure

Speed

Ft/Min

Logging Run Comments

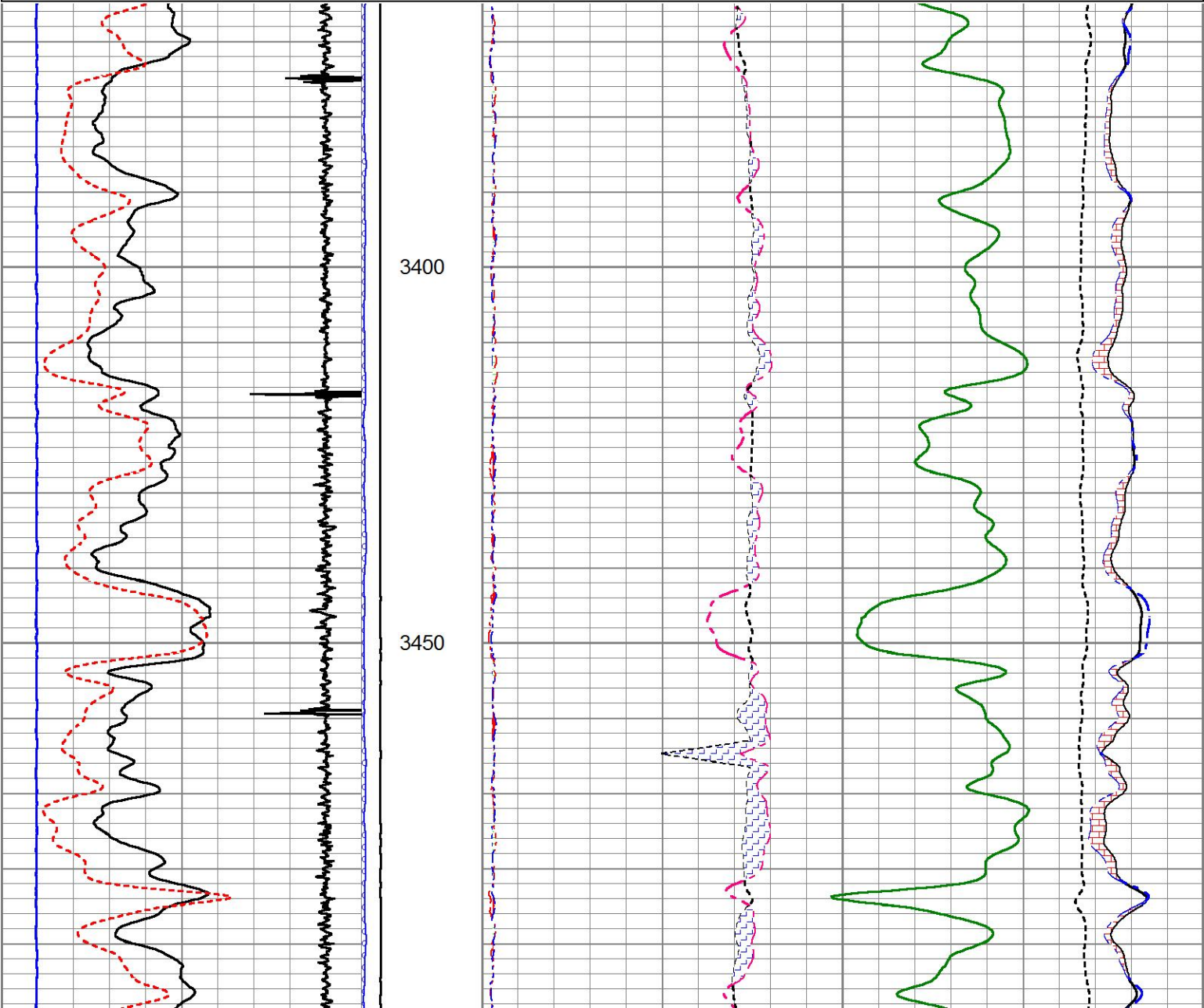
No.	FROM	TO	Pressure	Temp	Param			
ONE	3600'	3365'	0 PSI	20	REPEAT			
TWO	7024'	3365'	0 PSI	20	MAIN			
	GAMMA RAY		SIGMA		AMPLITUDE			
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
ONE	0	200	60	0	0	100		
TWO	0	200	60	0	0	100		
DIRECTIONAL INFORMATION								
Maximum Deviation			deg. @		KOP			

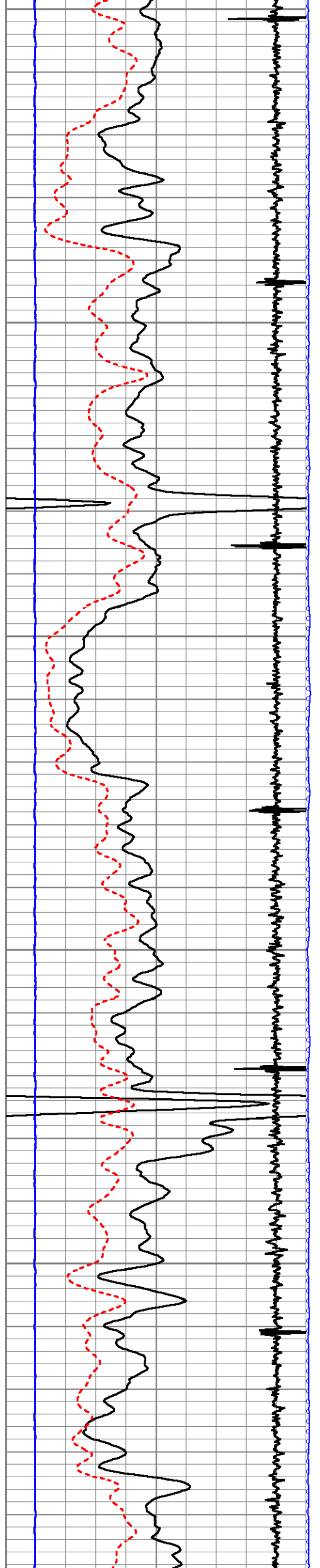
MAIN PASS

HALLIBURTON

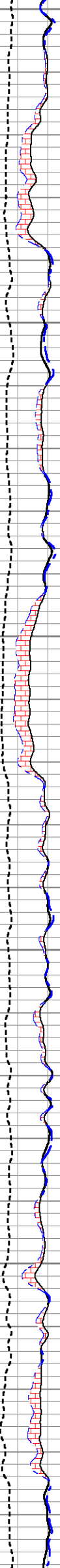
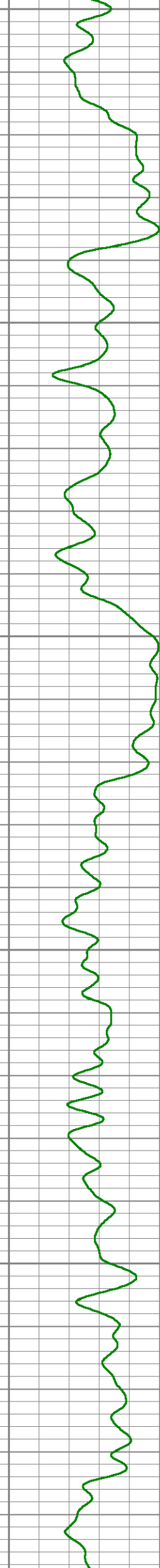
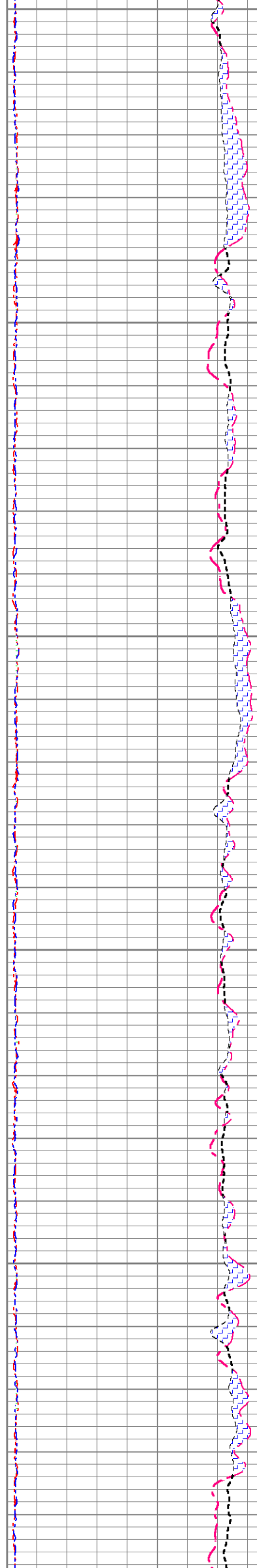
5" = 100'

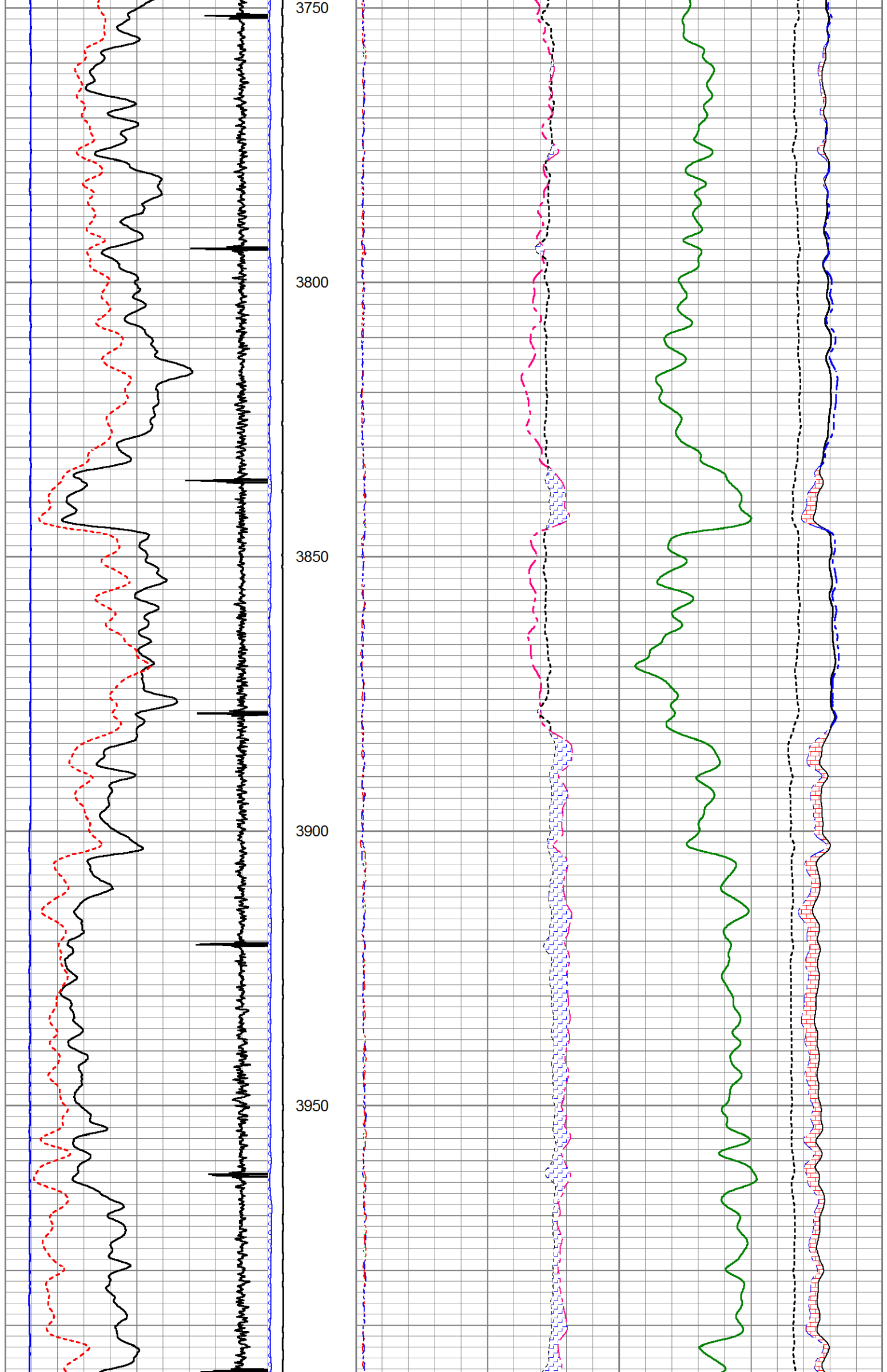
Database File		thompkins_42a_08_07_95.db										
Dataset Pathname		merge3										
Presentation Format		I1!!RM~1										
Dataset Creation		Wed Sep 07 20:29:32 2016										
Charted by		Depth in Feet scaled 1:240										
0	GR	200	LTEN	60	SGFF						0	
2700	CCL	-300			0	(lb/5000	2	RNF (Ratio Near/Far)		0.5	100000	FSIN
0	LSPD (ft/min)	200	0	OAI1100	1.65	RIN (Ratio Near/Far Incl)		0.65	60000	NCAP		0
10	SGINear	40			0	NFTR (Near Fit Error)		100	60000	FCAP		0
					0	FFTR (Far Fit Error)		100				

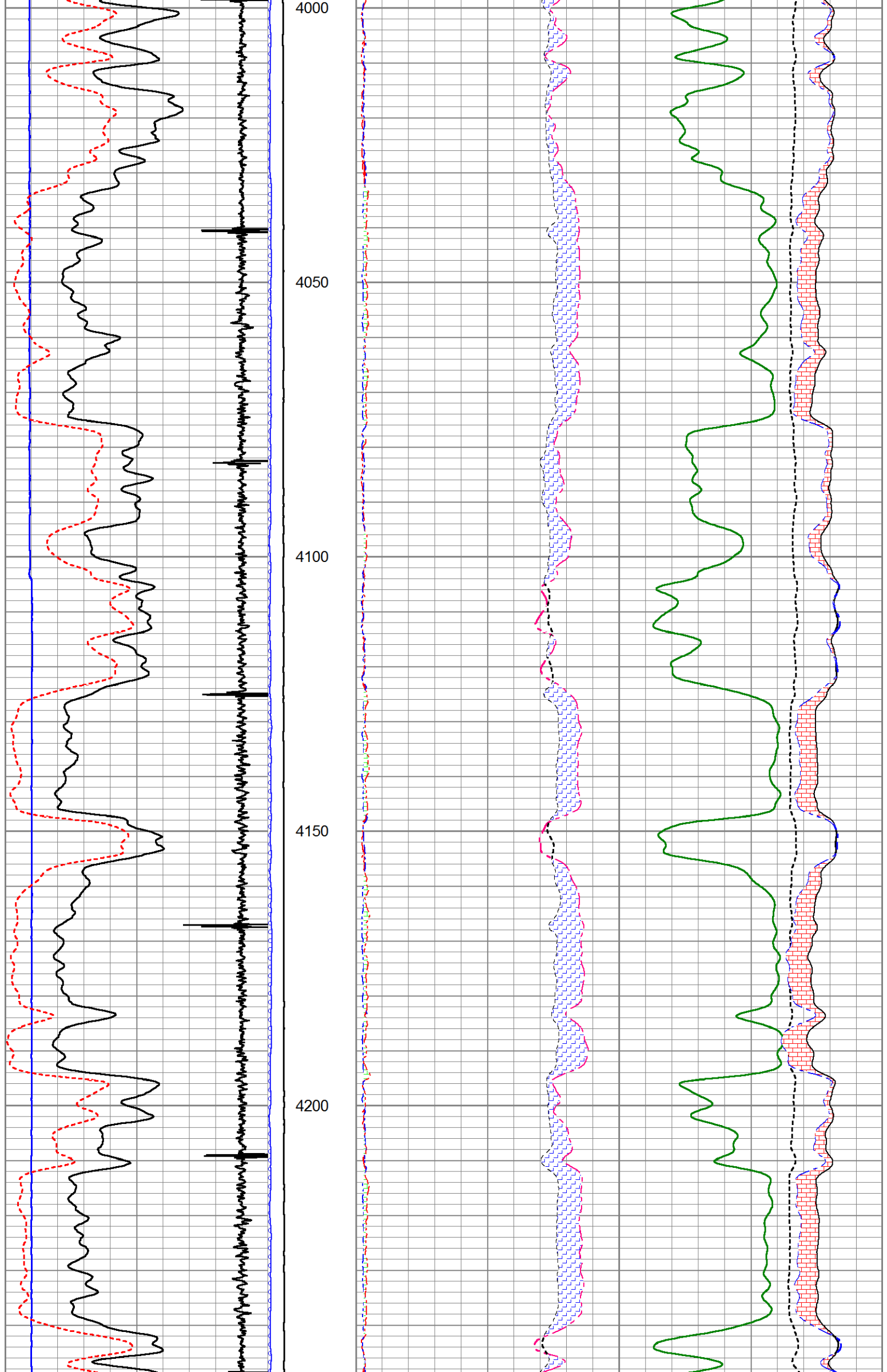


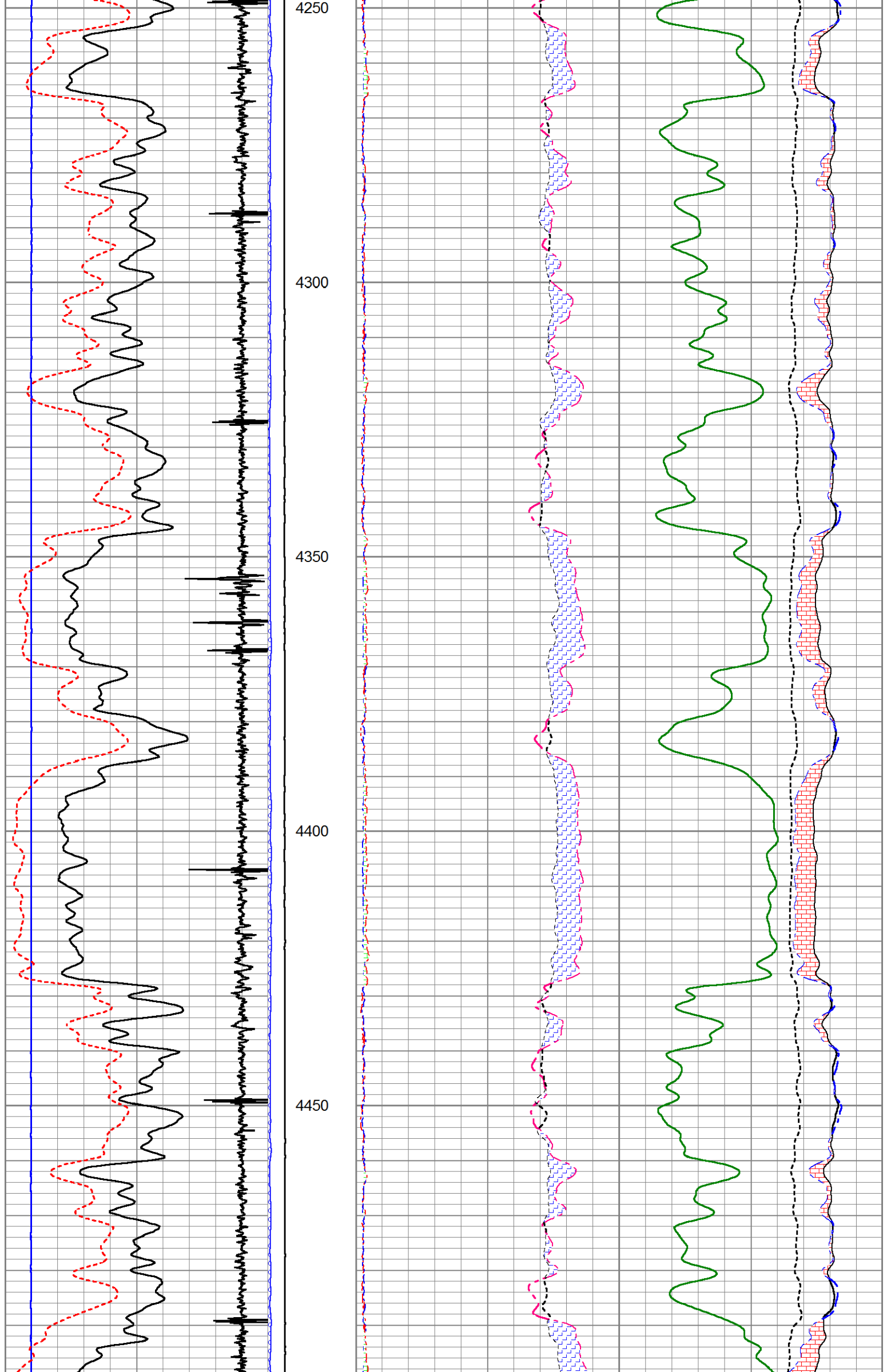


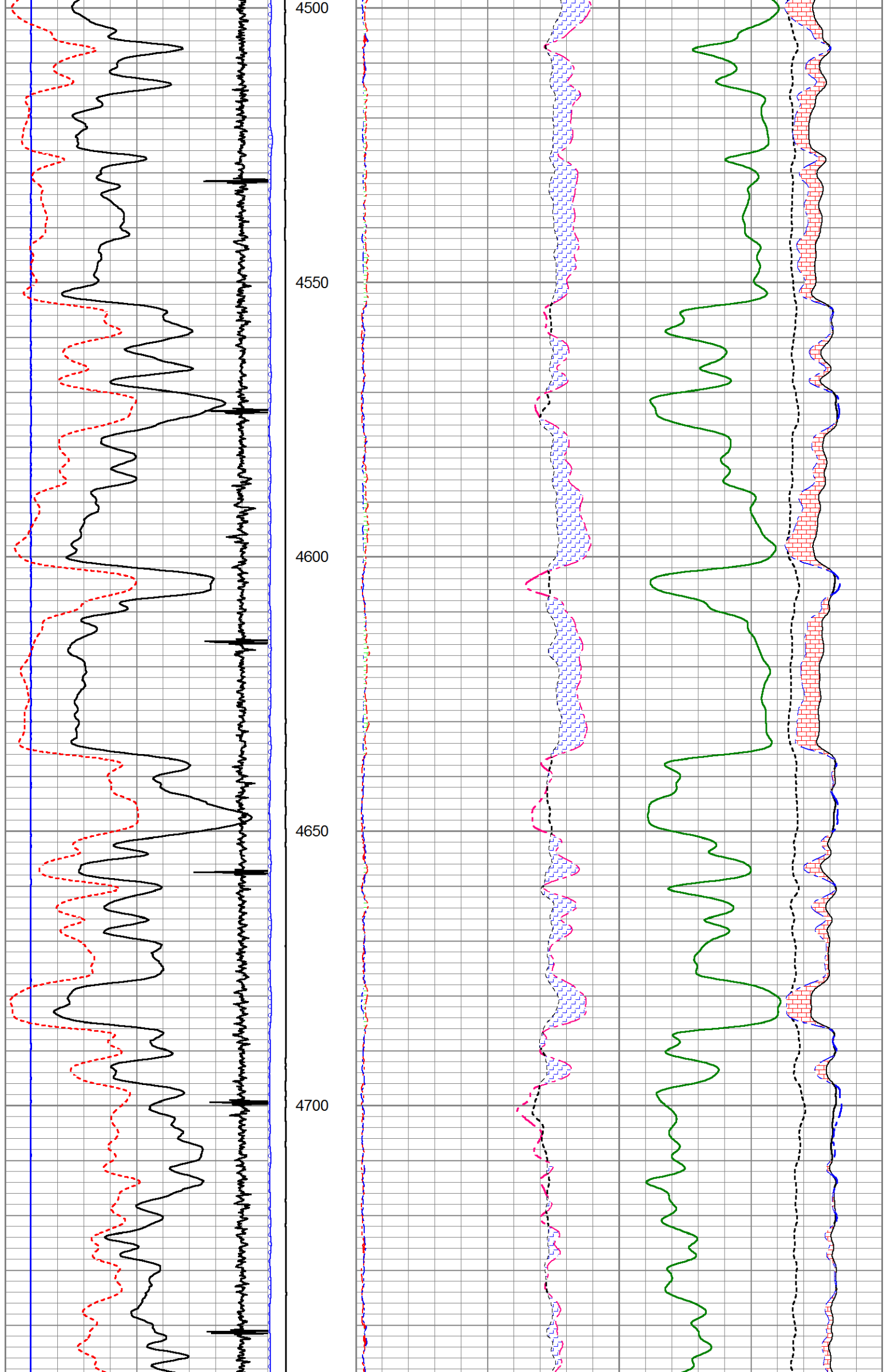
3500
3550
3600
3650
3700

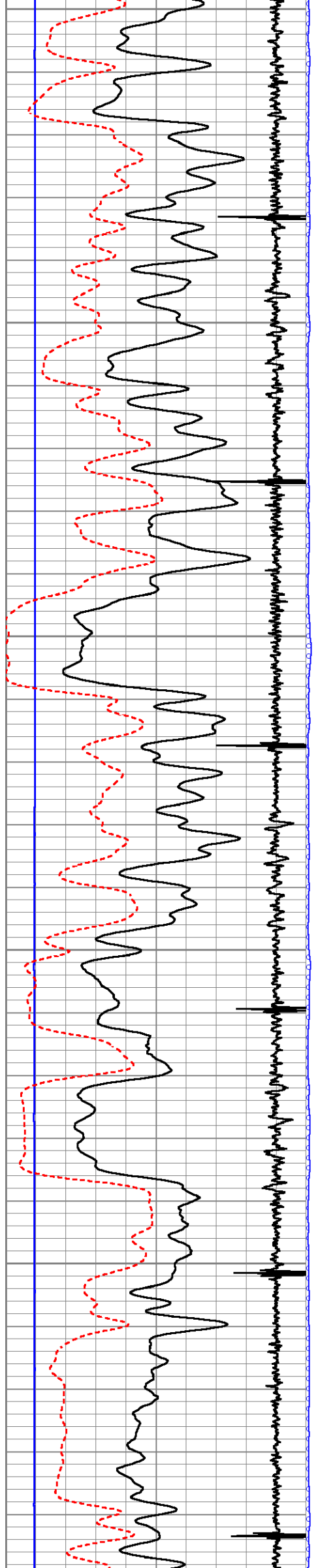




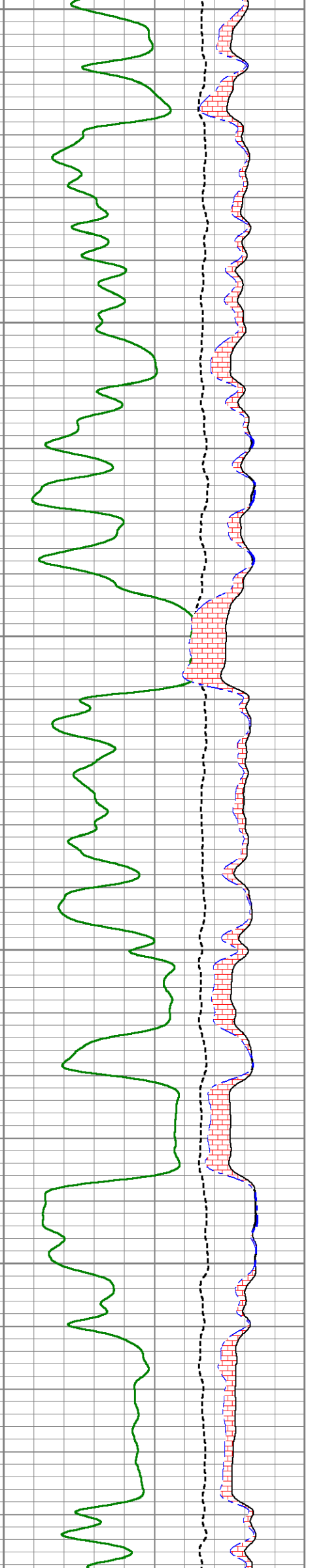
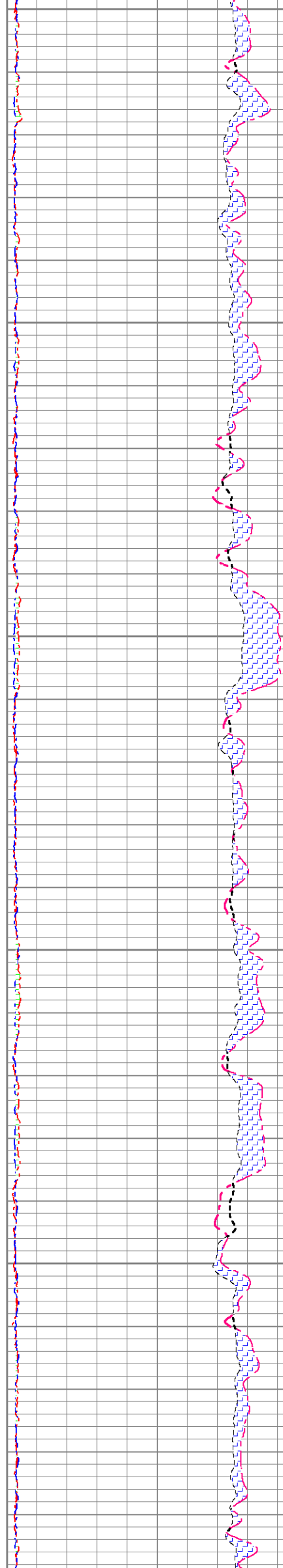


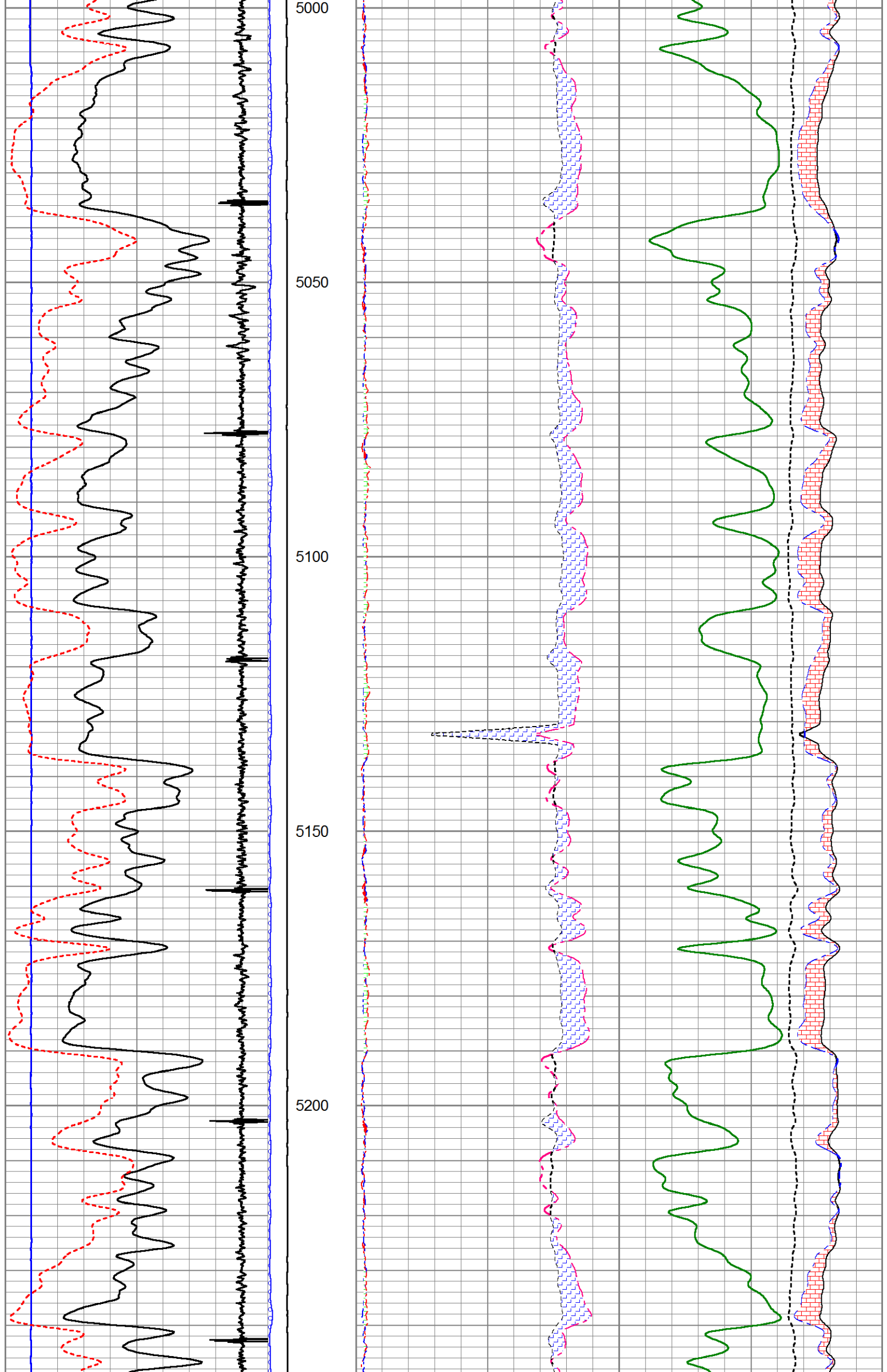


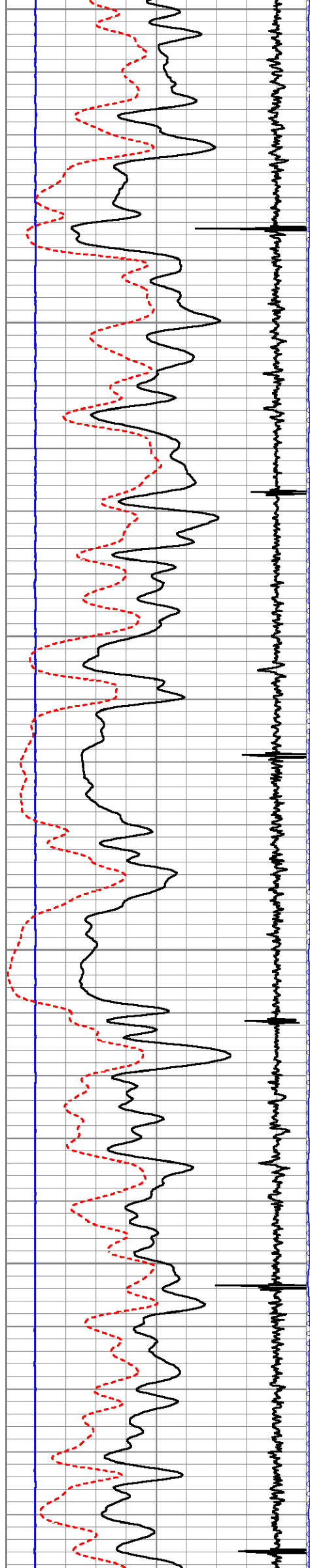




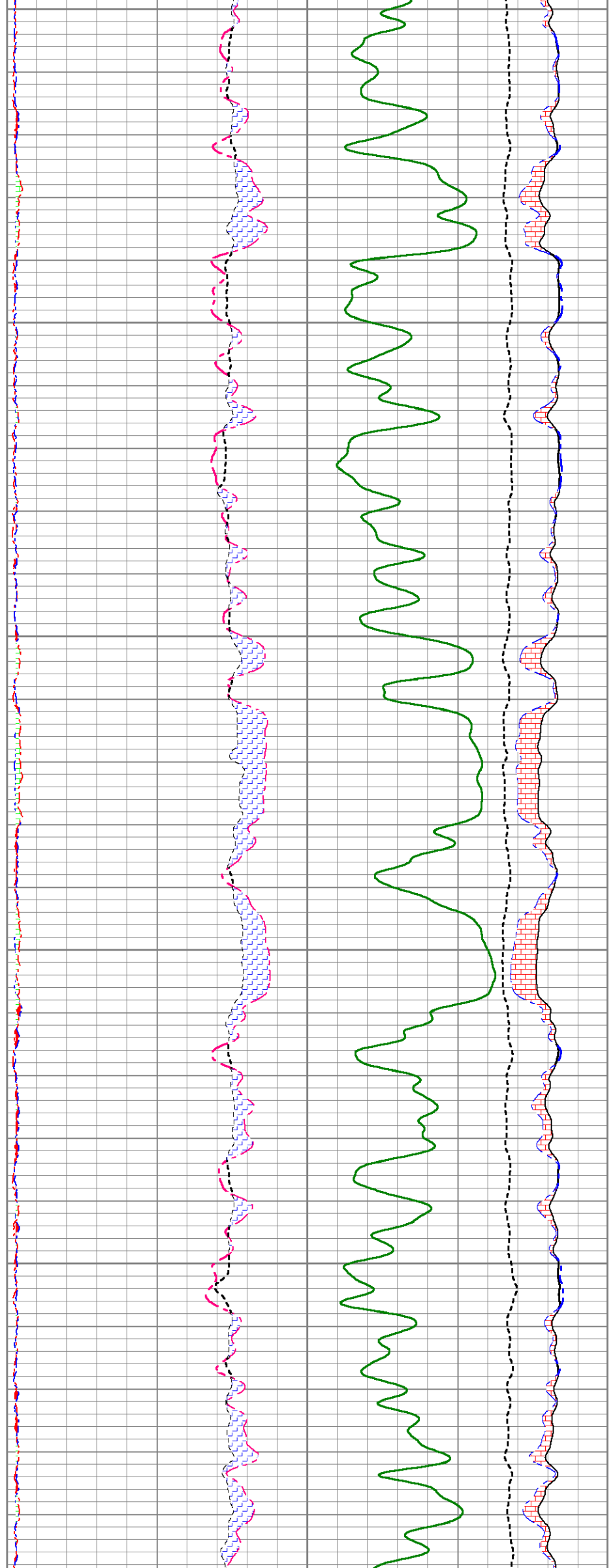
4750
4800
4850
4900
4950

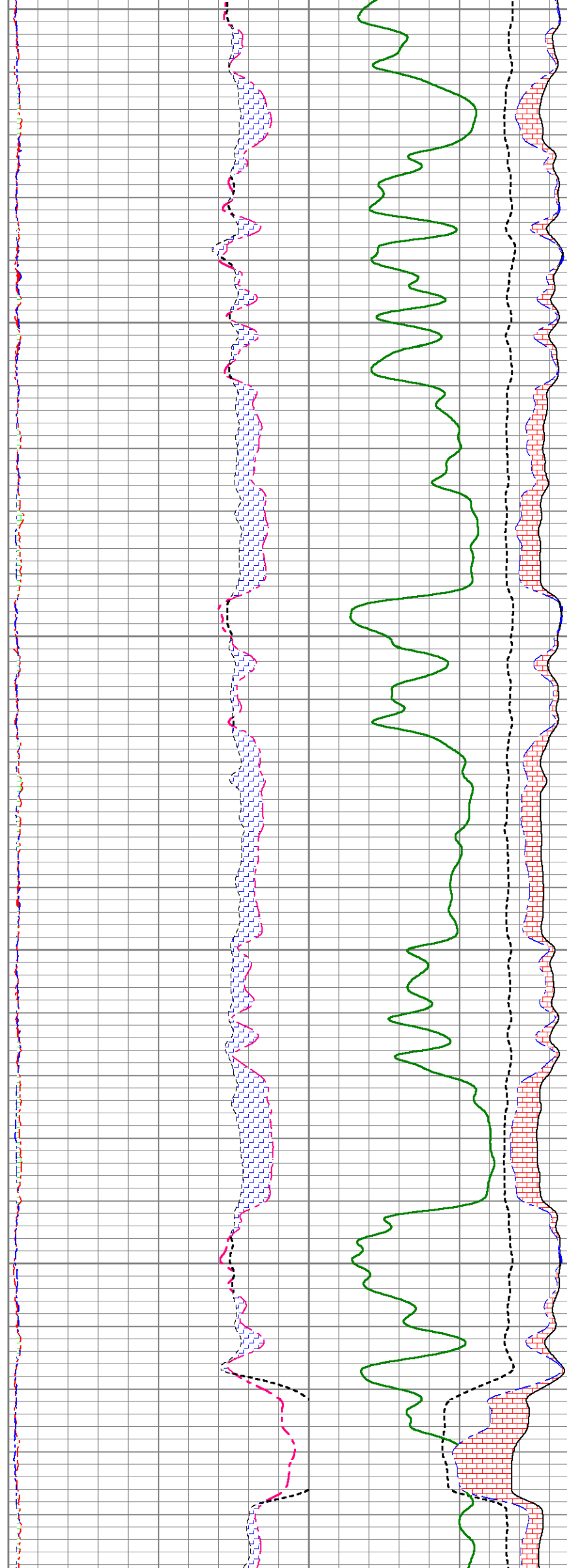
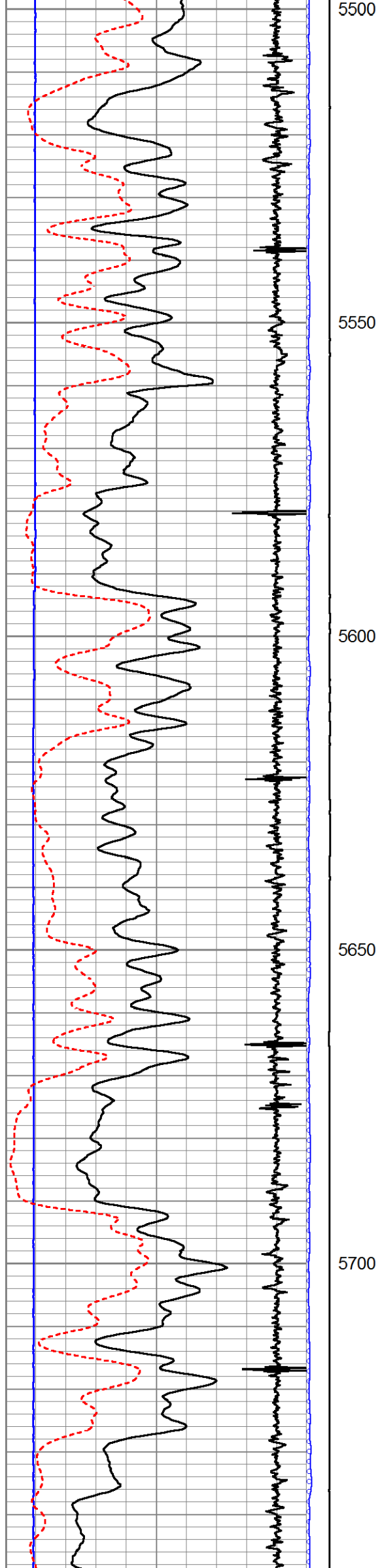


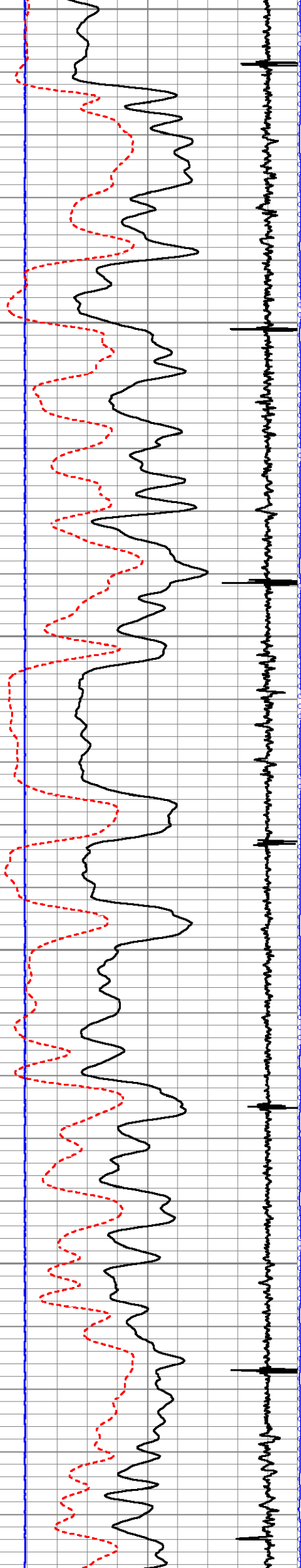




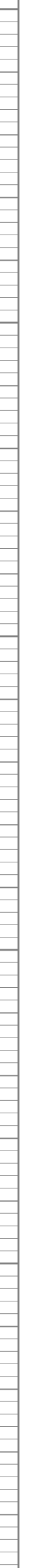
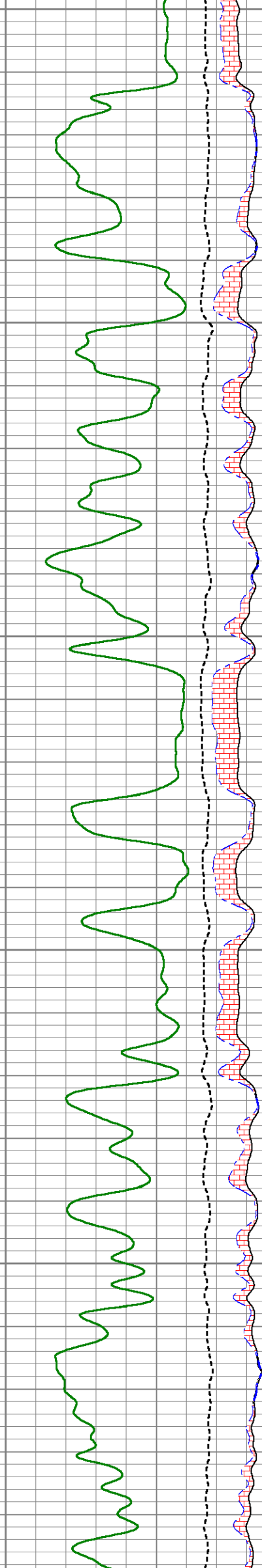
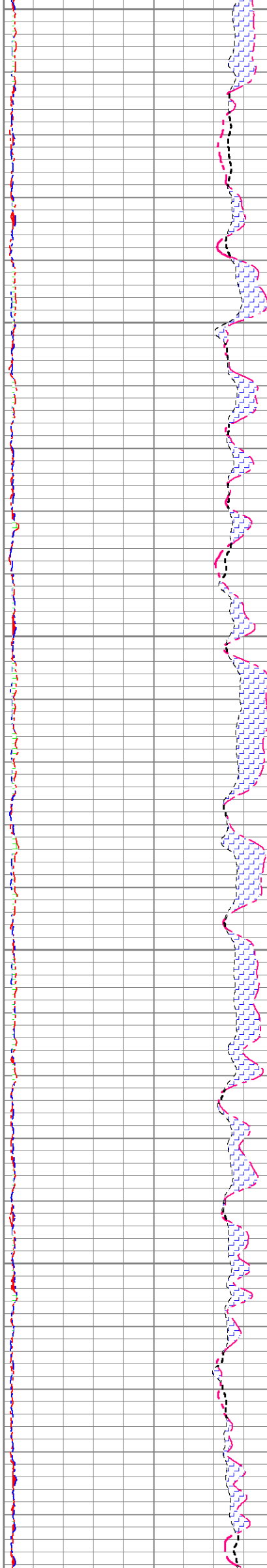
5250 5300 5350 5400 5450

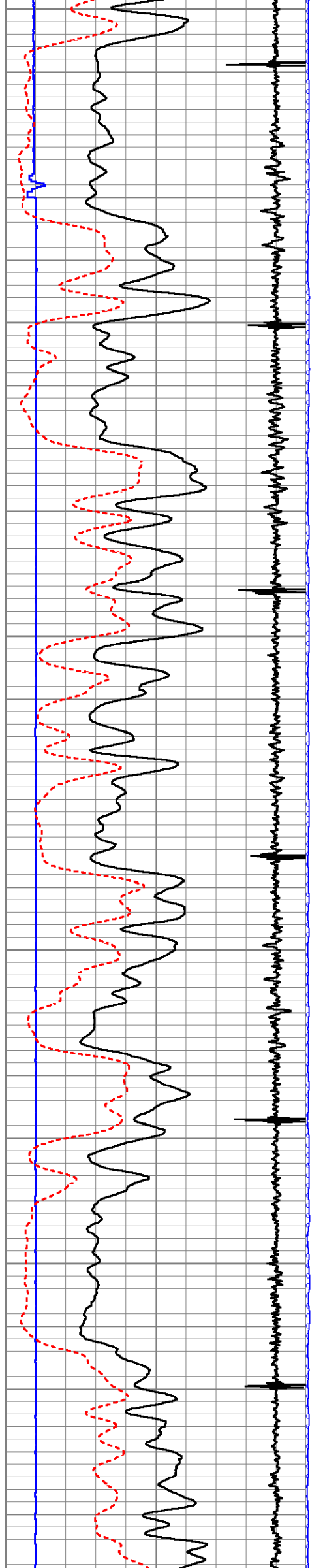




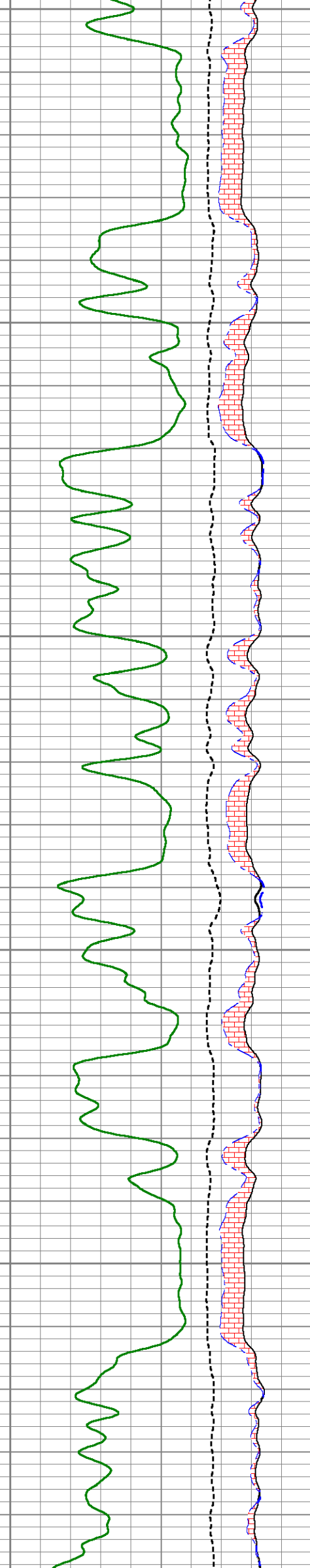
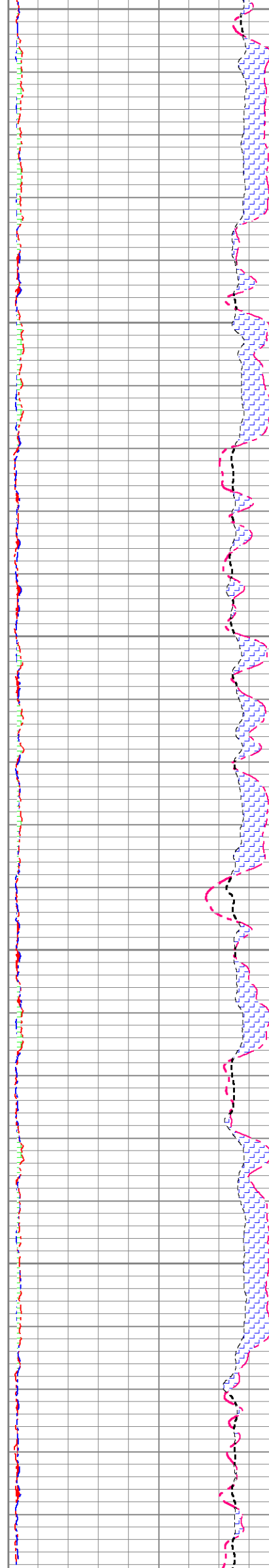


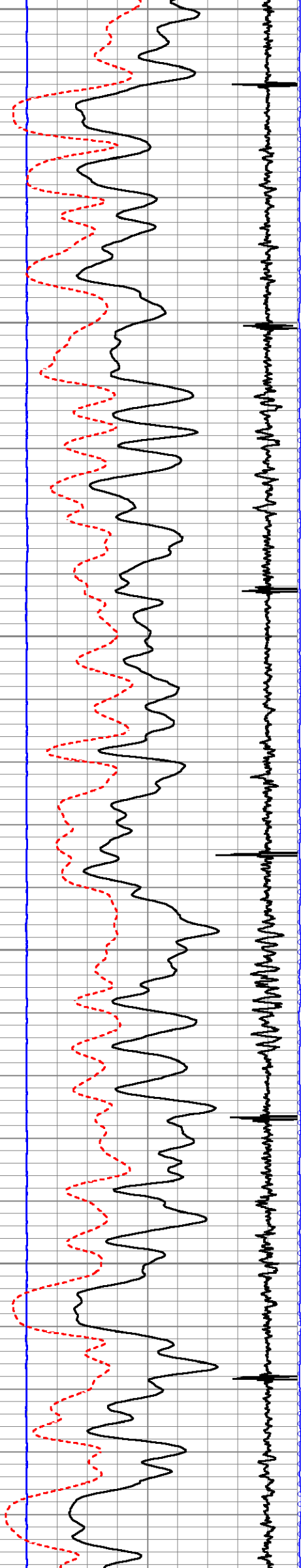
5750 5800 5850 5900 5950



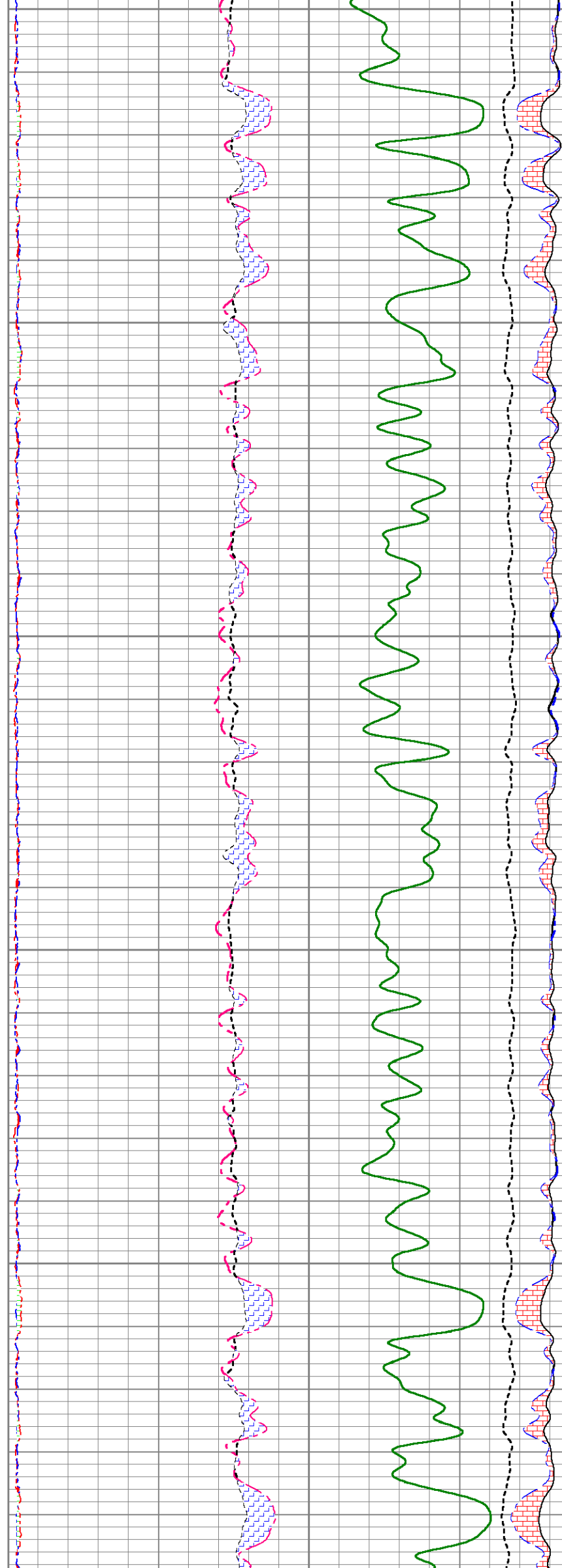


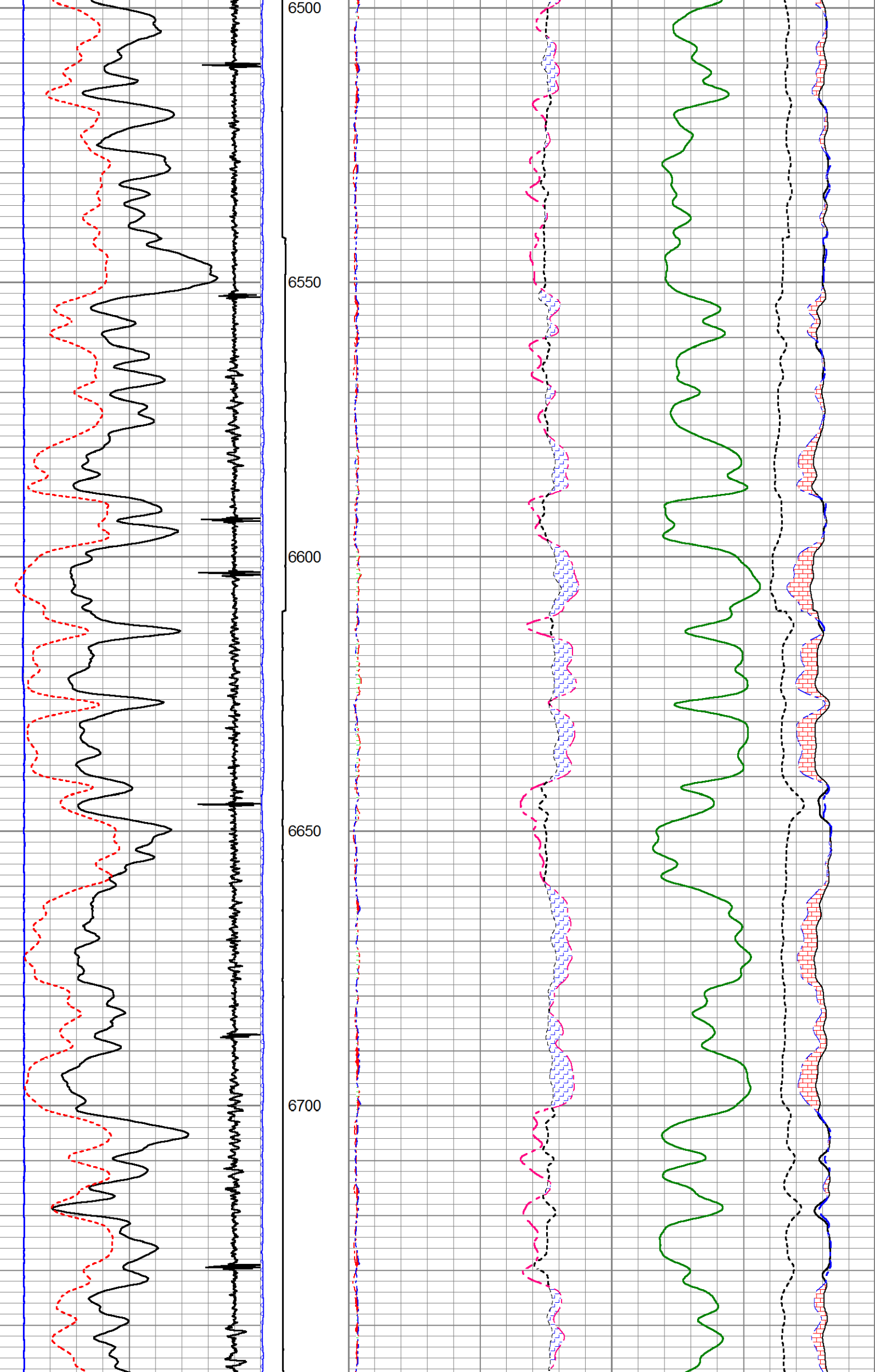
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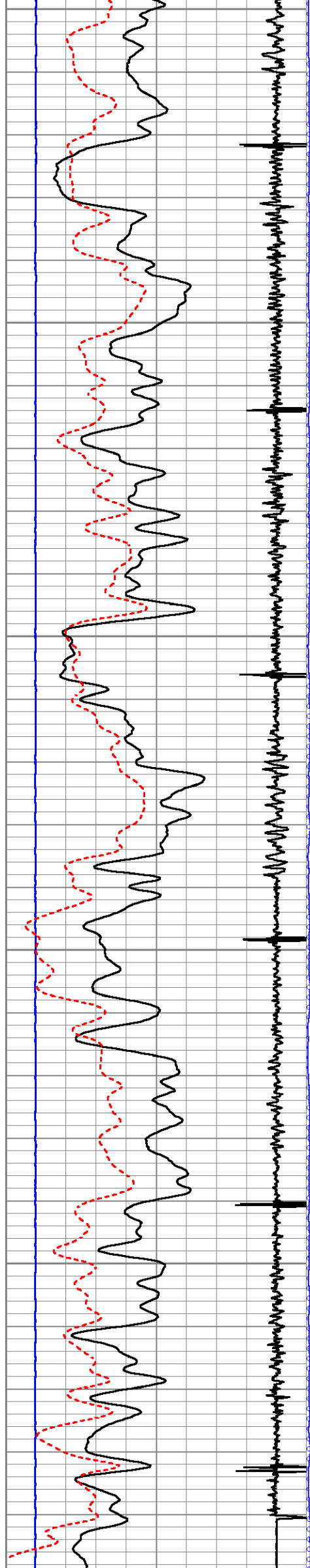




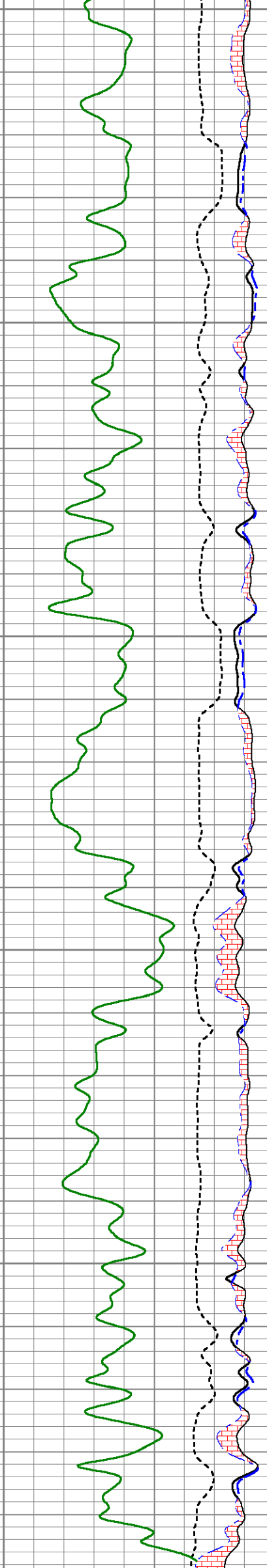
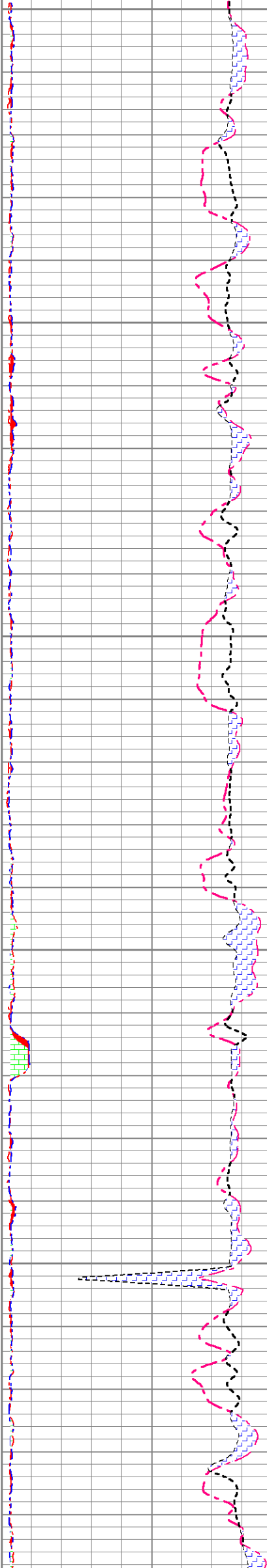
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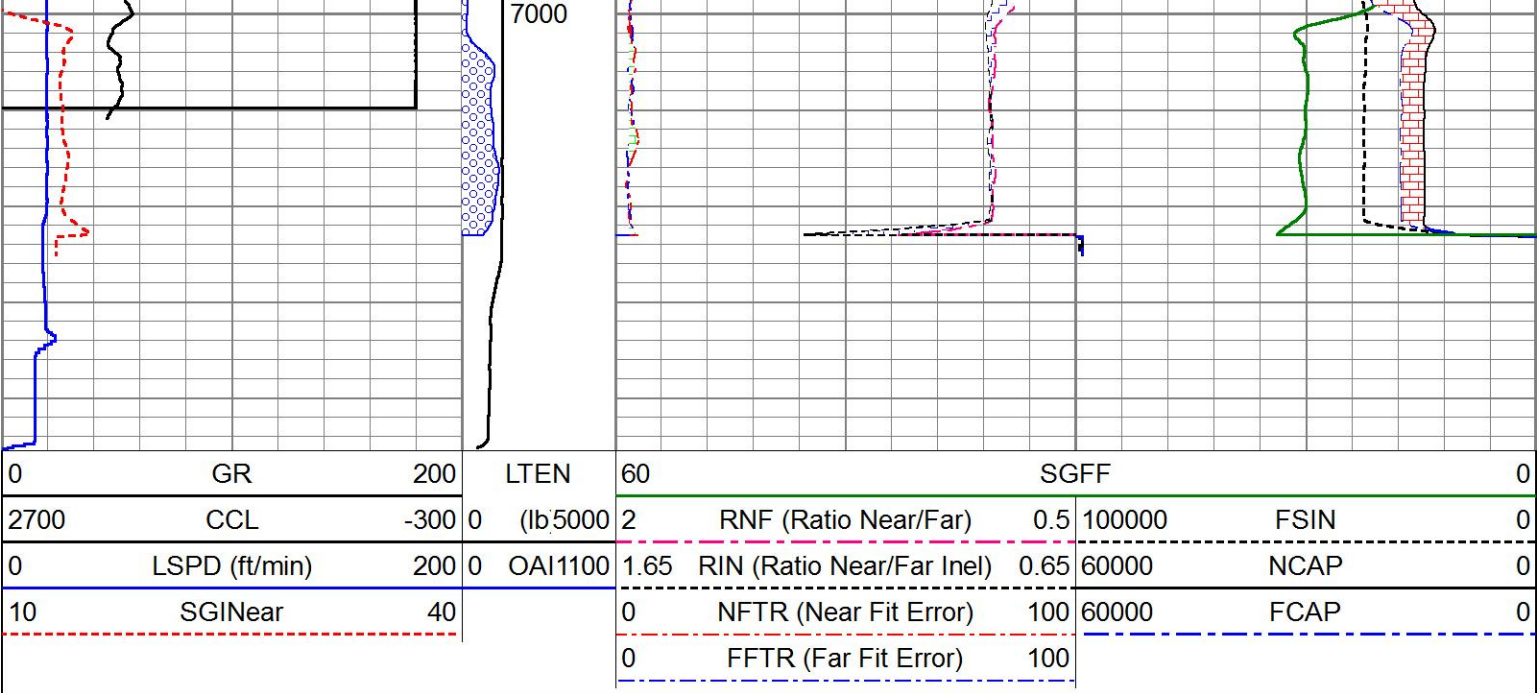






6750
6800
6850
6900
6950

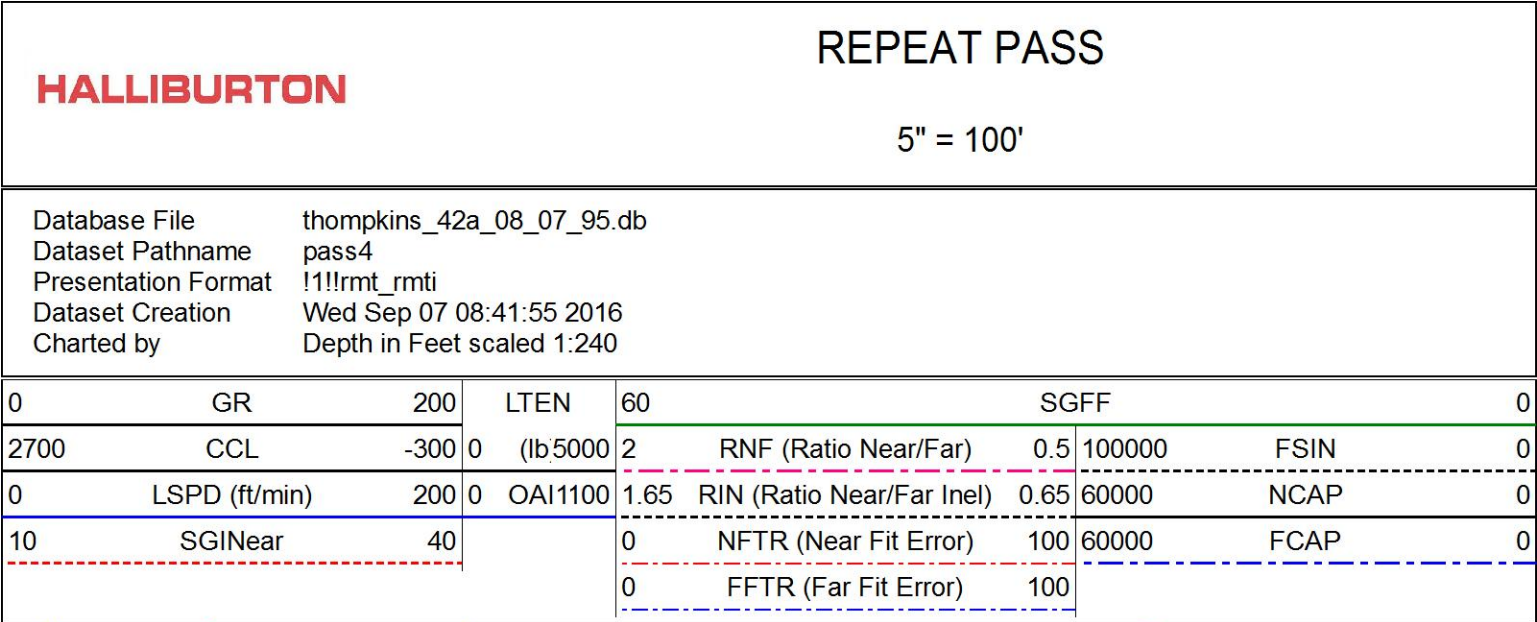




MAIN PASS

HALLIBURTON

5" = 100'

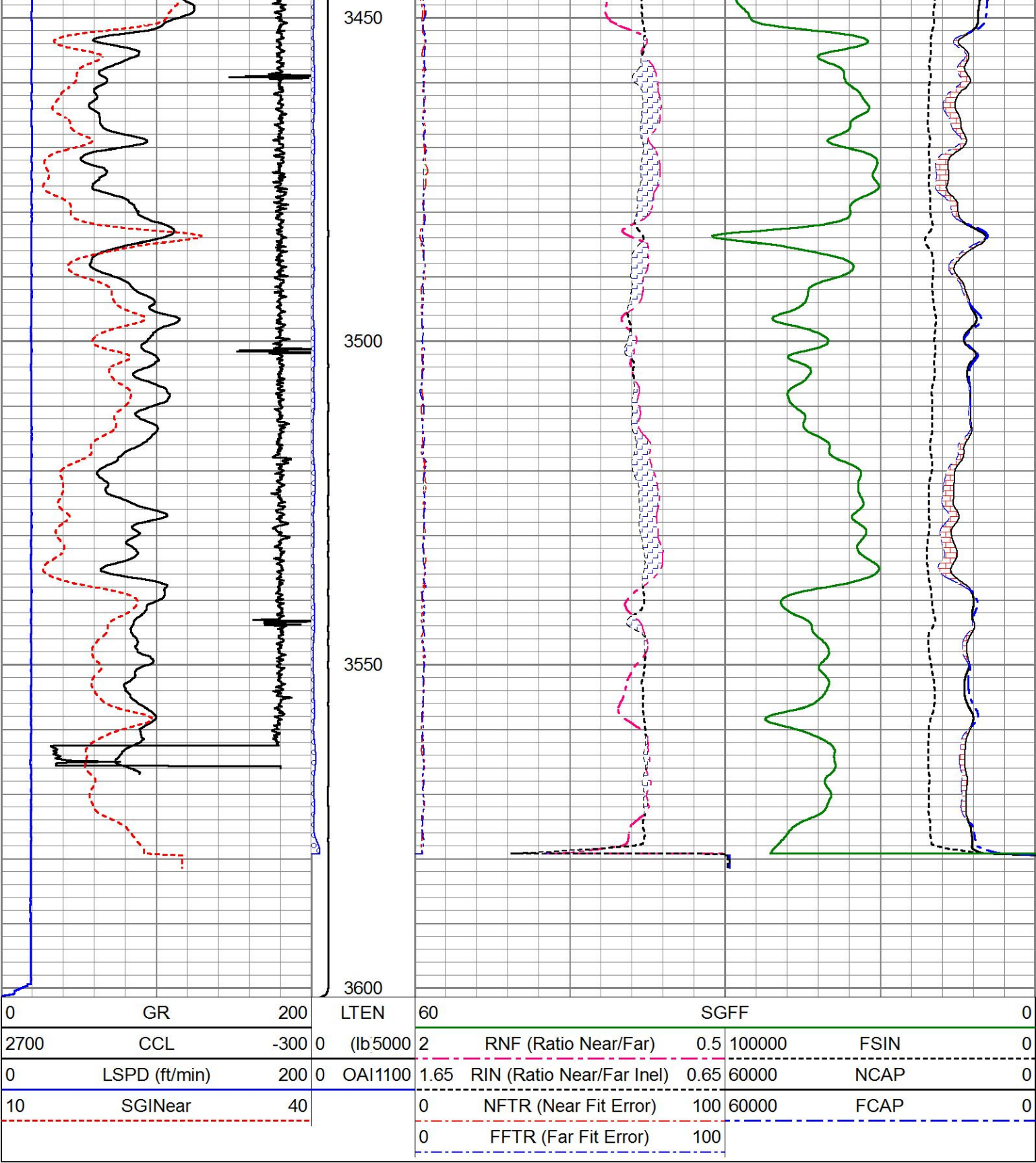


REPEAT PASS

HALLIBURTON

5" = 100'

Database File thompkins_42a_08_07_95.db
Dataset Pathname pass4
Presentation Format !1!!rmt_rmti
Dataset Creation Wed Sep 07 08:41:55 2016
Charted by Depth in Feet scaled 1:240



REPEAT PASS

HALLIBURTON

5" = 100'

Log Variables

DatabaseC:\ProgramData\Warrior\Data\thompkins_42a_08_07_95.db
Dataset field/well/run1/pass4/_vars_

Top - Bottom

BHSAL1	BHSAL2	BHTEMP_Src	BITSIZE	BORSAL	BOTTEMP	CASED?	CASEOD
1	0	TEMP	in 10	kppm 150	degF 100	Yes	in 4.5
CASETHCK	CASEWGHT	LTH	MSGGN	MudWgt	PERFS	POROS1	POROS2
in 0	lb/ft 11.6	Sandstone	1	lb/gal 8.4	0	1	0

Stabilization

Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	84.00	80.00	4.00	+/-15.00	V
FCAP	9744	10000	-256	+/-500	cps

Horizontal Water Tank

Result	Logged	Expected Value	Diff.	Tol.	Units
N/F Normalizer	0.92	0.95	-0.03		
N/F Inel Norm	0.60	0.61	-0.01		
RNF	1.09	1.07	0.02	+/-0.12	
RINC	1.68	1.64	0.04	+/-0.18	
SGFN	24.13	24.00	0.13	+/-0.50	cu
SGFF	22.93	22.85	0.08	+/-0.50	cu
FSIN	23037	24000	-963	+/-2000	cps
FCAP	9704	10000	-296	+/-1000	cps
NFTR	0.80			<5.00	
FFTR	0.91			<5.00	
NBKG	216			<500	cps
FBKG	105			<500	cps
RTN	0.37	0.40	-0.03	+/-0.10	usec
RTF	0.42	0.40	0.02	+/-0.10	usec

Calibration Software Modules

HRMTI Module	2015.5.4.0
RMTI Module	2015.10.16.1

Log Data Acquisition Software Modules

HRMTI Module	2015.5.4.0
RMTI Module	2015.10.16.1

Gamma Ray Calibration Report

Type / Serial: 002 / 12105780

SHOP CALIBRATION

Mon Sep 05 10:59:30 2016

	Counts/Sec.	Gain	Offset	Jig	Units
Background	28.5				cps
Calibrator	160.5				cps
		1.6899			GAPI/cps

PRIMARY VERIFICATION


Background	46.0				cps
Calibrator	265.1				cps
Difference				219.0	GAPI

BEFORE SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00

CCL	35.14					
GR	32.88		TTTCU-002 (12105780) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00
			XHU-003 (000001) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00
RmtTFGT	22.23					
RmtTNGT	21.73		RMTI-A (11680597) Halliburton RMTI Tool	14.00	2.13	77.00
RmtFP5V	13.98		X-OVER-GoxSondex Go Box x Sondex Pin CrossOver	0.27	1.69	1.00
RmtNFwvMcsP	13.98					
RmtCommFWa	13.98	CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00	
Temp	8.89					
TT3FT	6.64	HCBLM-A (1) Halliburton HCBLM Tool	9.38	2.75	116.00	
AMP3FT	6.64					
WVF5FT	5.68					
WVF3FT	2.16					
LLMTEN	0.00	CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00	
Dataset: thompkins_42a_08_07_95.db: field/well/run1/pass4 Total length: 38.71 ft Total weight: 352.00 lb O.D.: 3.13 in						

Company	URSA OPERATING COMPANY LLC
Well	TOMPKINS 42A-08-07-95
Field	PARACHUTE

County	GARFIELD	State	CO
HALLIBURTON	RESERVOIR MONITORING TOOL ELITE		