

HALLIBURTON

RESORVOIR  
MONITORING  
TOOL - ELITE

Company

URSA OPERATING COMPANY

Well

YATER 43D-18-07-95

Field

PARACHUTE

County

GARFIELD

State

CO

Company

URSA OPERATING COMPANY

Well

YATER 43D-18-07-95

Field

PARACHUTE

County

GARFIELD

State

CO

API No.: 5045227810000

Serv #: 902311419

Other Services

Location: SHL: 1679' FSL & 1107 FWL

Permanent Datum

GROUND LEVEL

Elevation

5519

Elevation

Log Measured From

KB

17 Ft. above perm. datum

K.B. 5536  
D.F. 5536  
G.L. 5519

Drilling Measured From

KB

Date @ Time Logged

04/12/2015 @ 10:30

Type Fluid in Hole

FRESH WATER

Run No.

ONE

Density of Fluid

8.4#

Depth - Driller

7037

Fluid Level

47

Depth - Logger

6784

Cement Top Est. Logged

SEE LOG

Bottom - Logged Interval

6759

Equipment / Location

11072147 / BRIGHTON

Top - Log Interval

3570

Recorded by

J. SCHMIDT

Max. Recorded Temp.

232 F

Witnessed by

J. CORNETT

CEMENTING DATA

Surface

Protection

Production

Liner

String

String

String

Date / Time Cemented

Primary / Squeeze

Expected

Compressive Strength

psi@

hrs

psi@

hrs

psi@

hrs

Cement Volume

Cement Type / Weight

/

/

/

/

/

/

Formulation

Mud Type / Mud Wgt.

/

/

/

/

/

/

Borehole Record

Run Number

Bit

From

To

Size

Weight

From

To

Casing & Tubing Record

Run Number

Bit

From

To

Size

Weight

From

To

CONDUCTOR

24

0

60

16

0

60

SURFACE

12.25

60

1818

8.625

0

1818

PRODUCTION

7.875

1818

6862

4.5

0

6862

&lt;&lt;&lt; Fold Here &gt;&gt;&gt;

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Comments

TOOLS WERE RAN IN 4.5" 11.6# CASING.

RMT3D-A RAN IN SIGMA MODE WITH A GENERATOR VOLTAGE OF 80.

YOUR CREW: L. SIMONS &amp; M. MEYER

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES.

Service Ticket No.

902311419

API No.

5045227810000

PGM Ver

WARRIOR 8

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

EQUIPMENT DATA

GAMMA

Run No.

ONE

Run No.

ONE

Run No.

ONE

Run No.

Serial No.

12105787

Serial No.

12386763

Serial No.

12210524

Serial No.

Model No.

TTTCU-002

Model No.

CBL-M

Model No.

RMT3D-A

Model No.

Diameter

1.69"

Diameter

2.75"

Diameter

2.125"

Diameter

LOGGING DATA

General Data

Pass

Depths

Well Head

Speed

Logging Run Comments

No

From

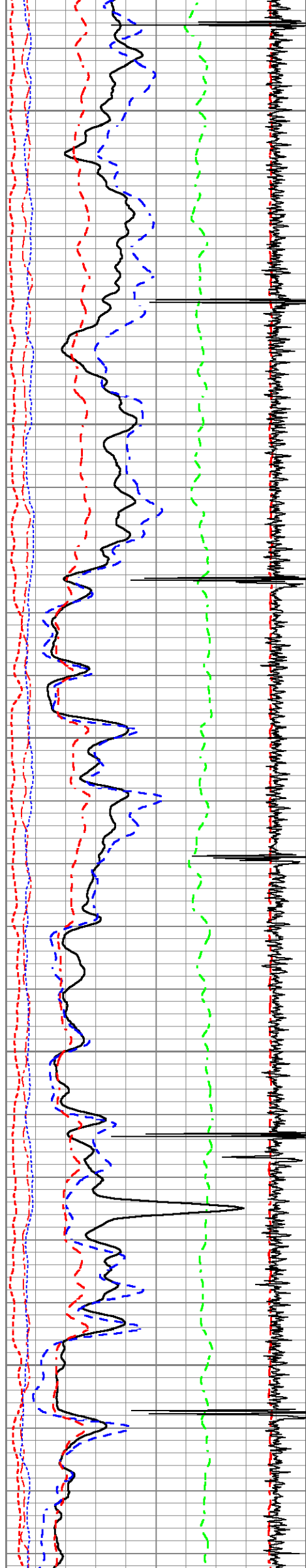
To

Pressure

Ft/Min







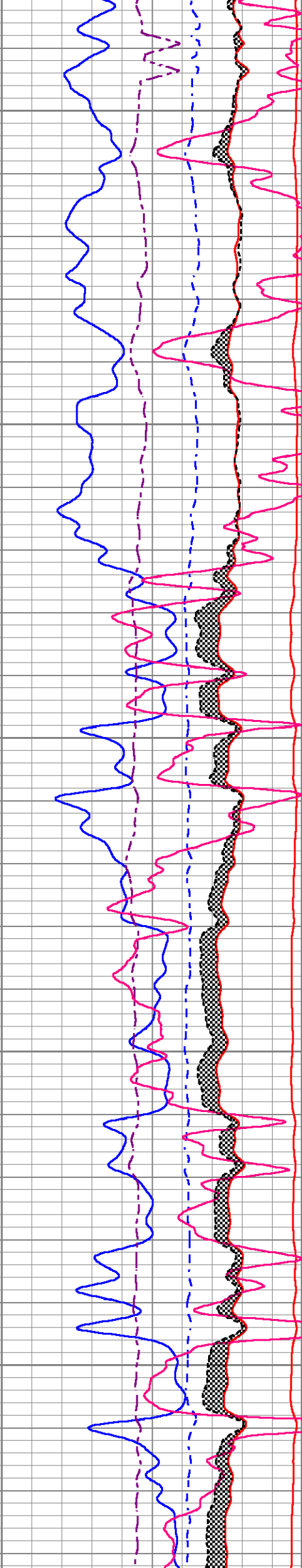
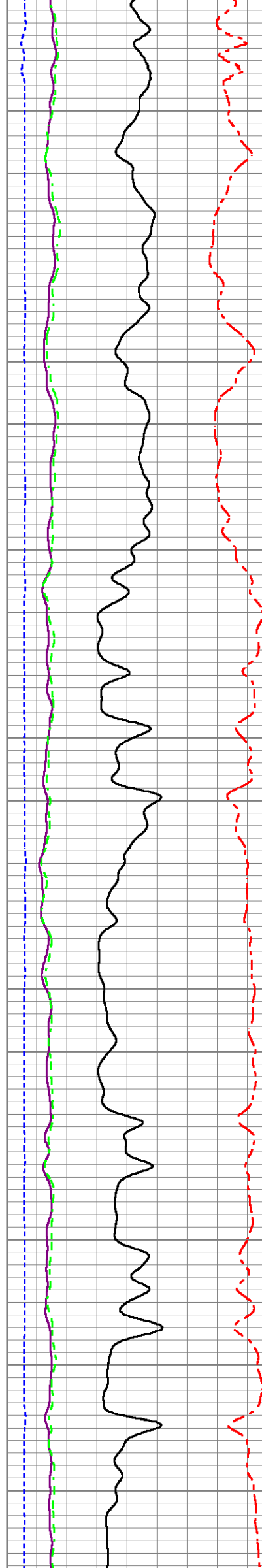
3700

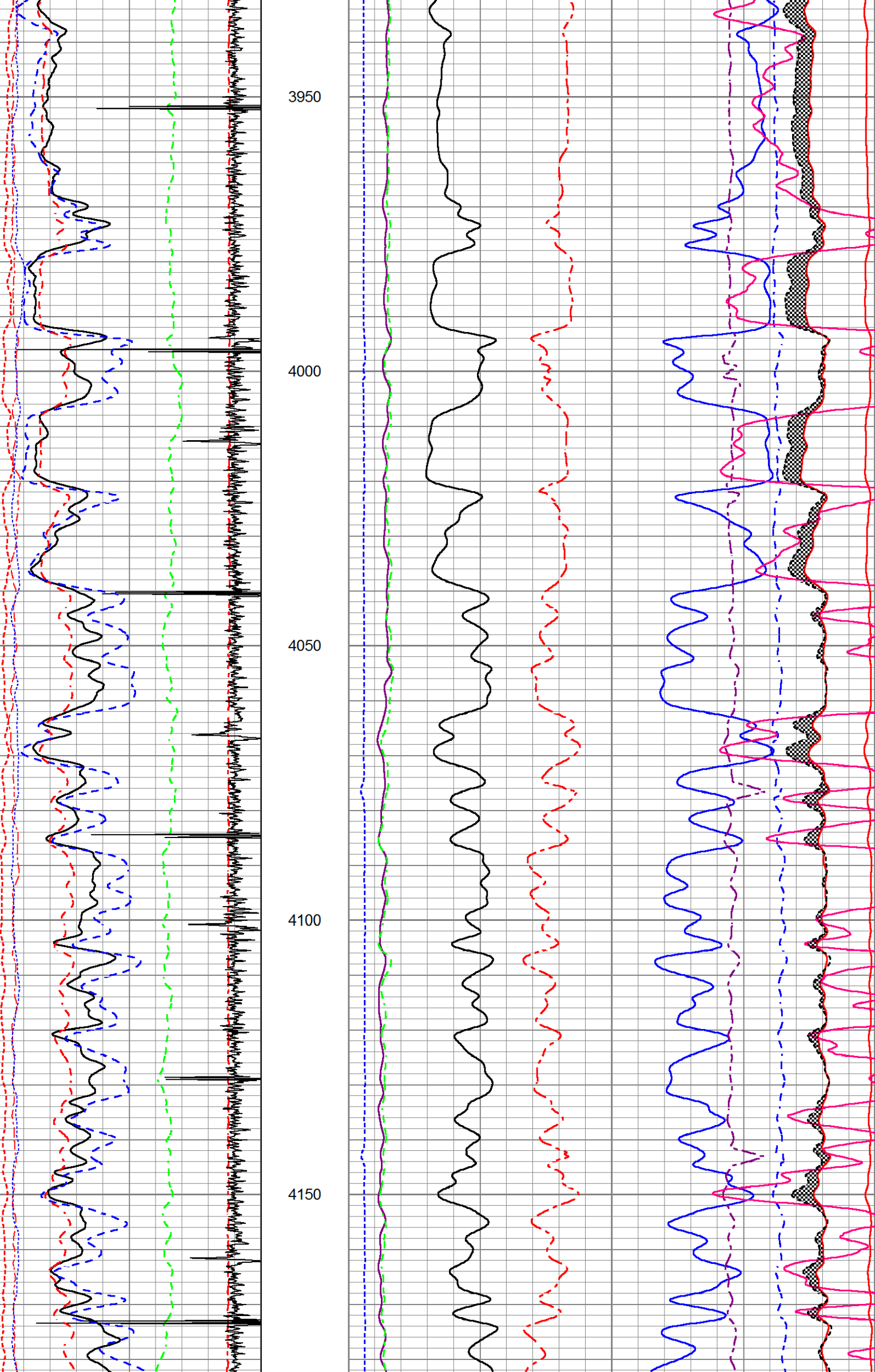
3750

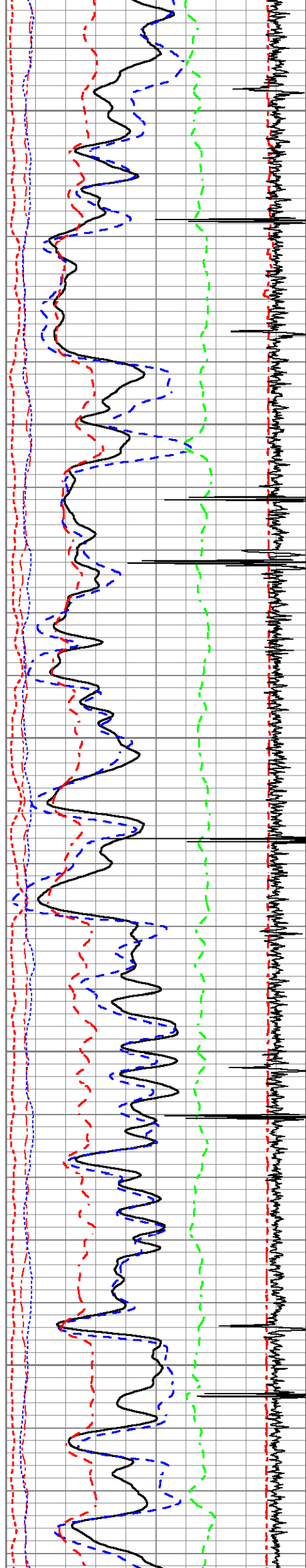
3800

3850

3900







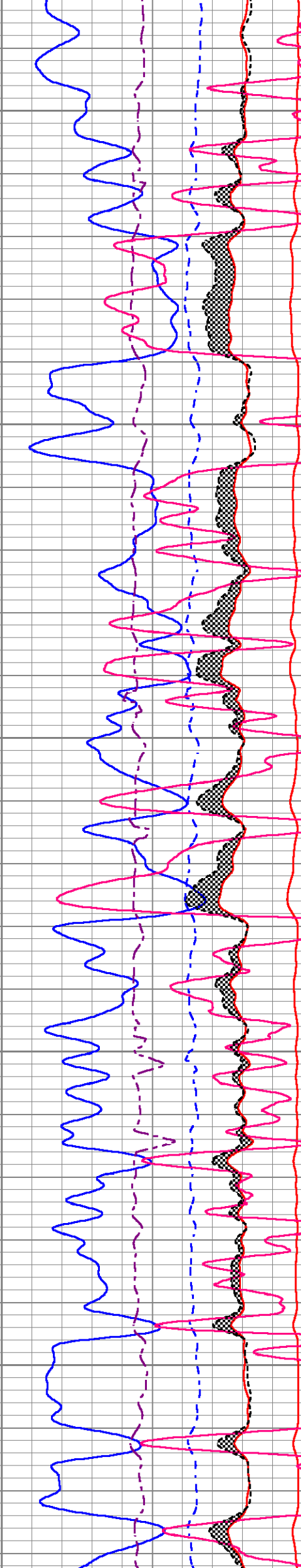
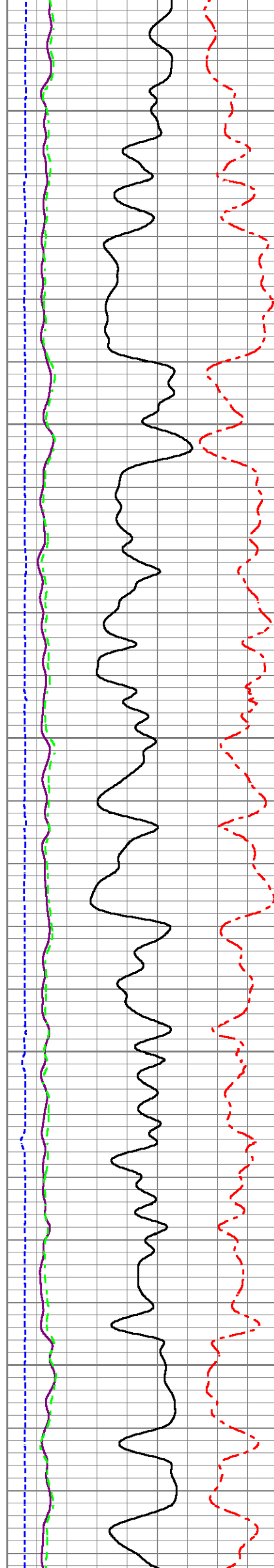
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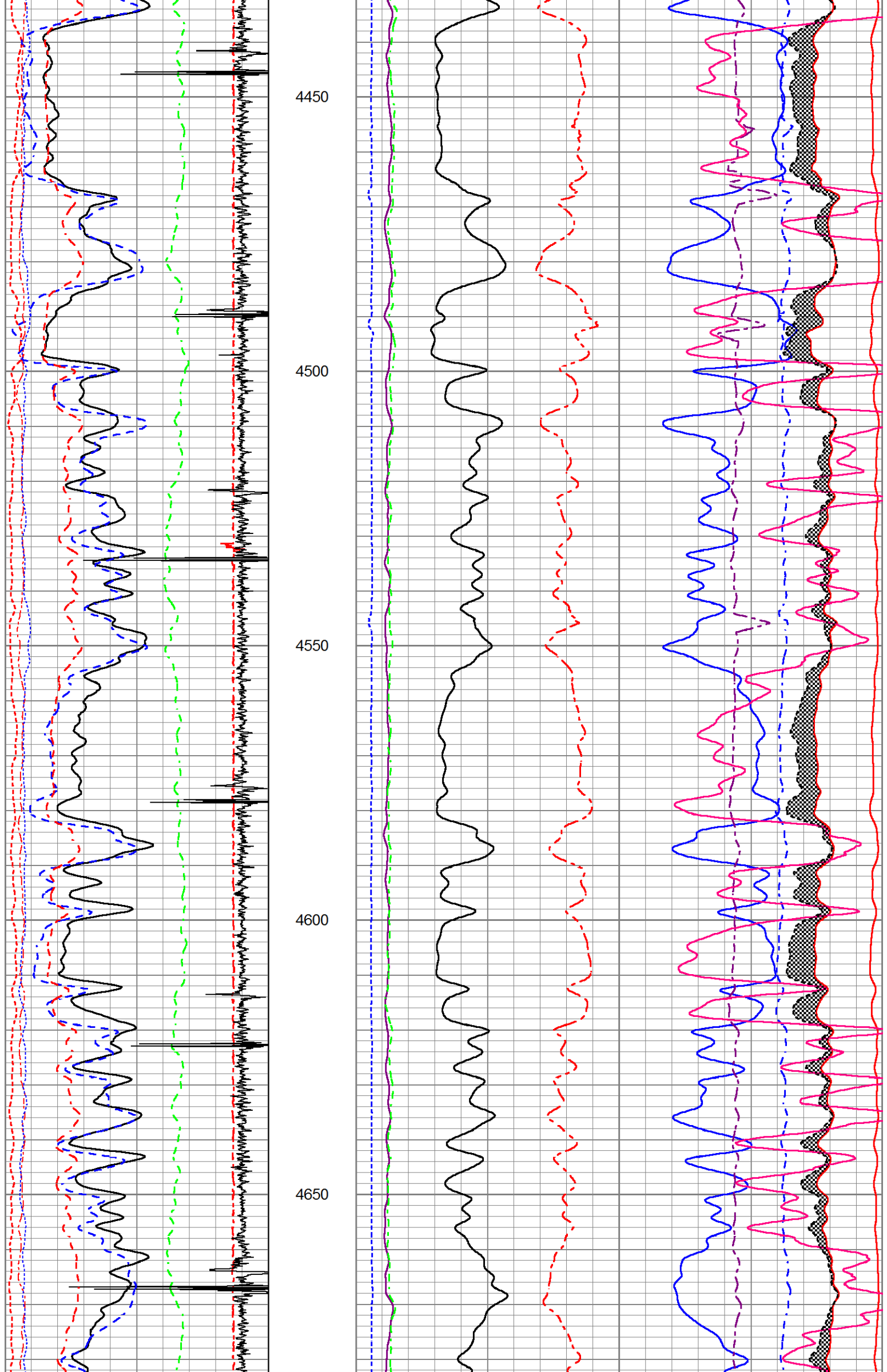
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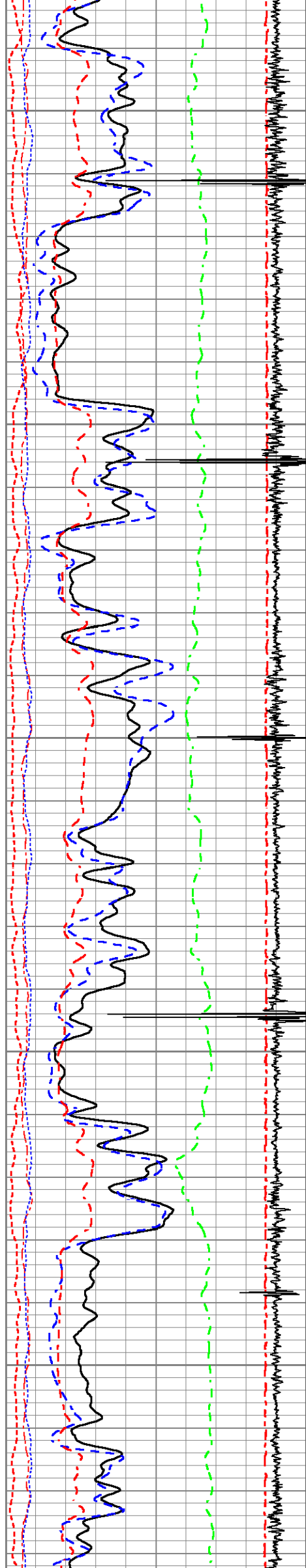
4300

4350

4400







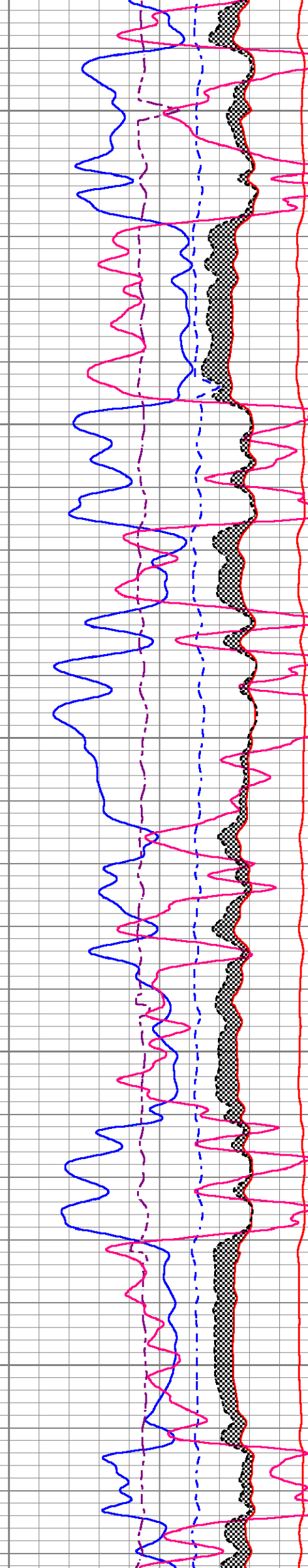
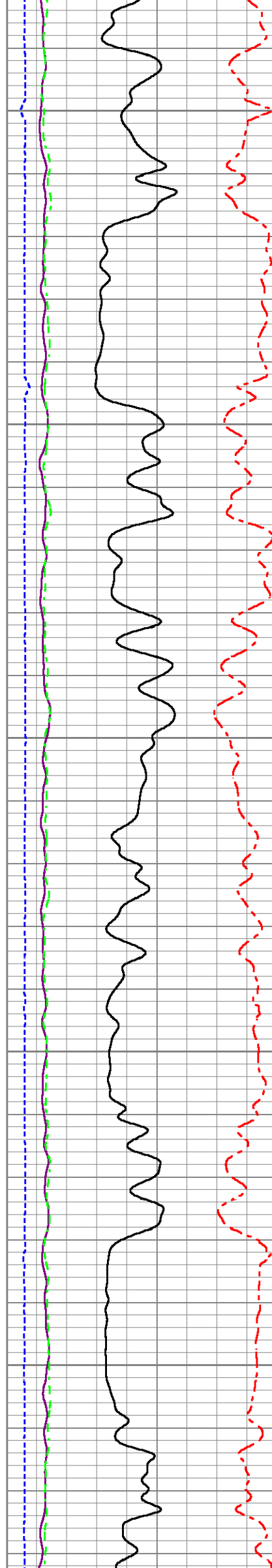
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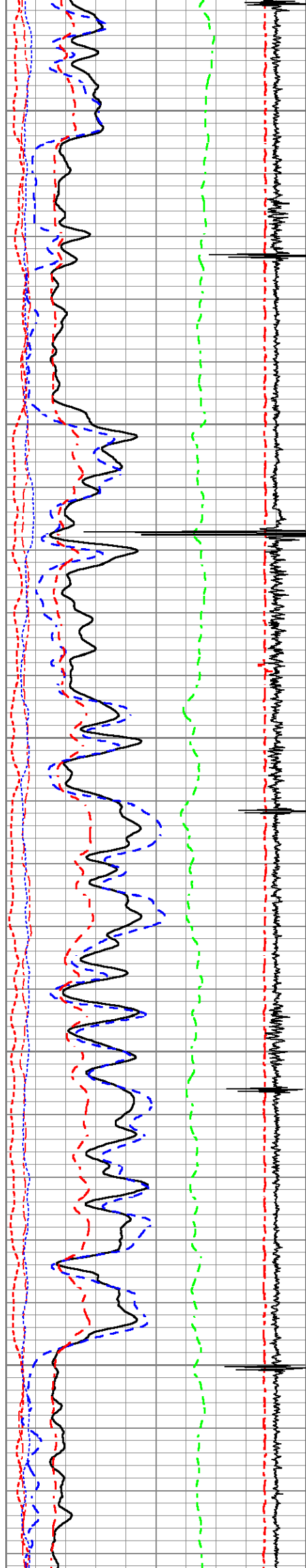
4800

4850

4900







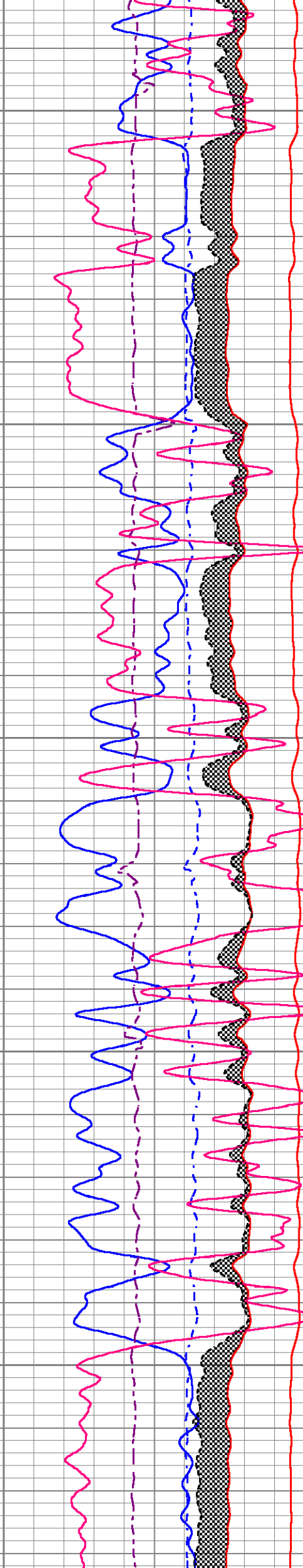
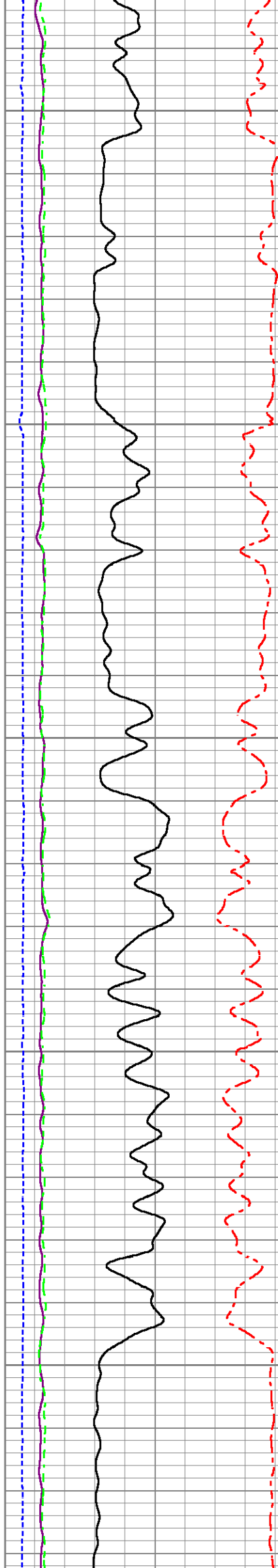
4950

5000

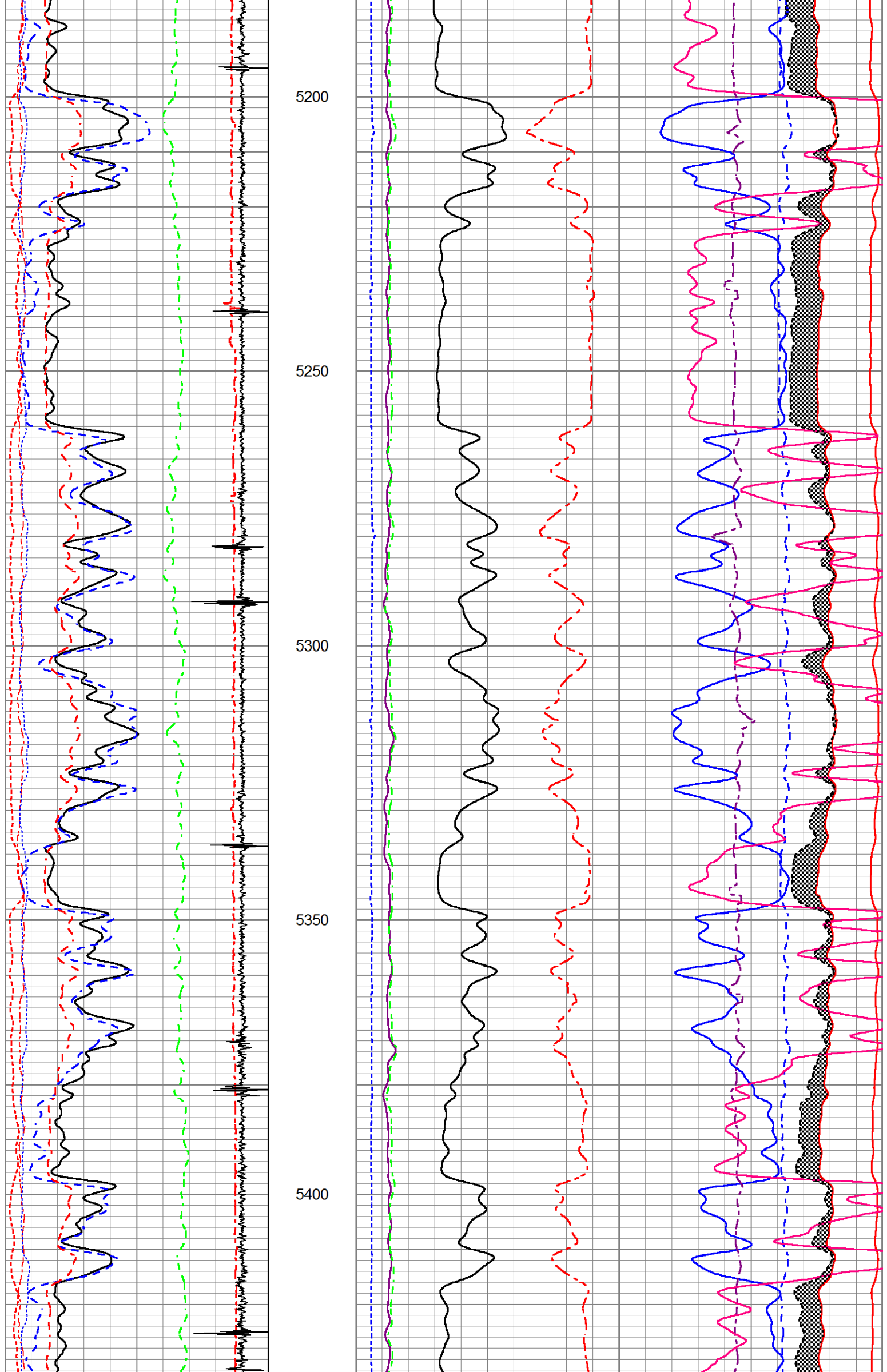
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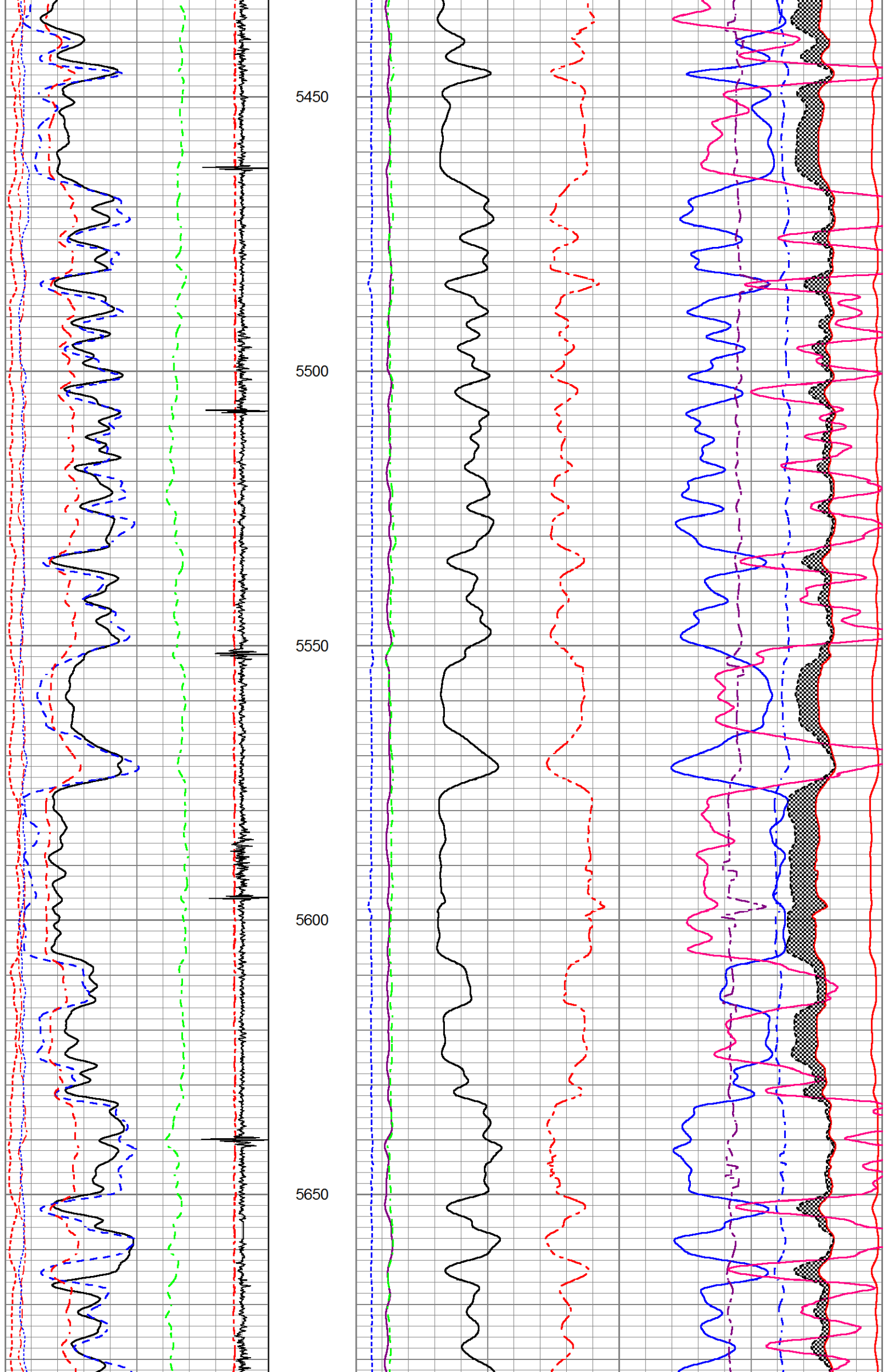
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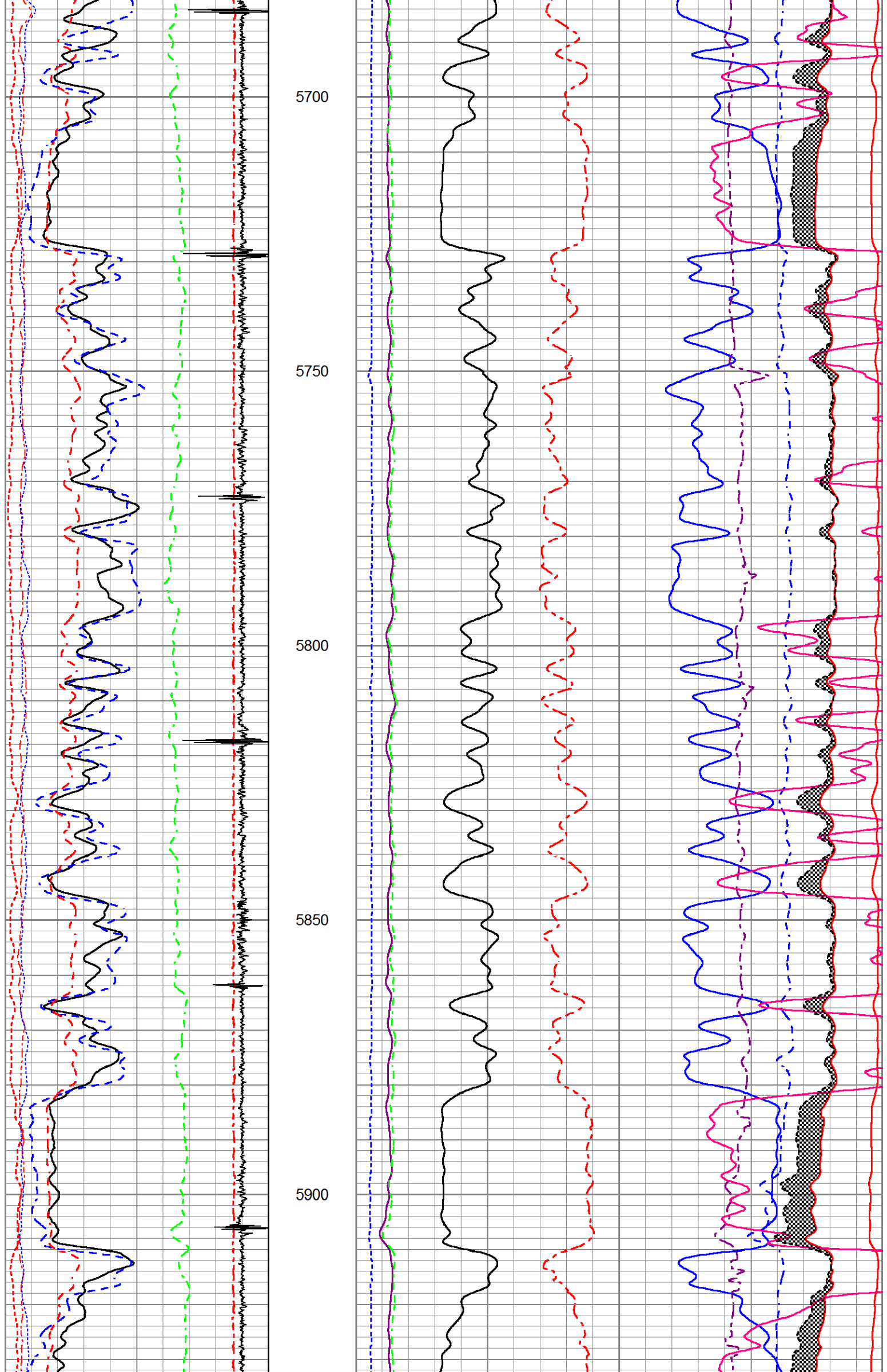
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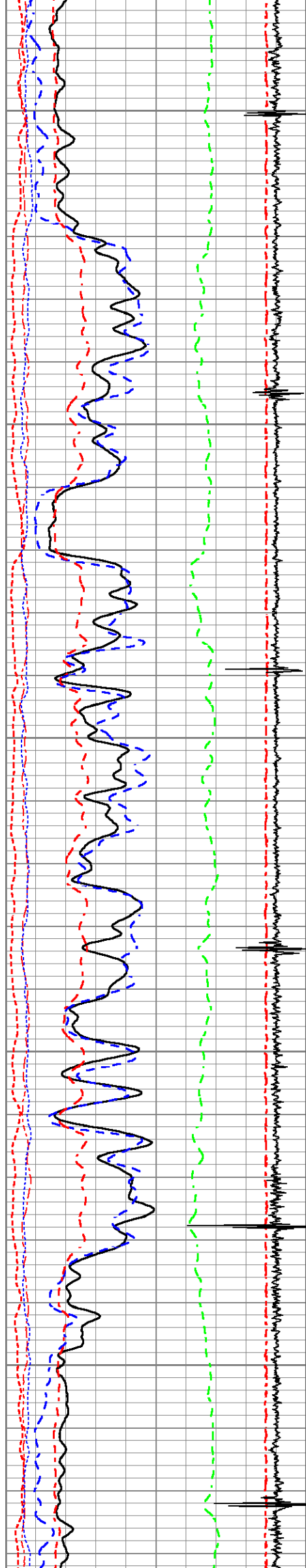












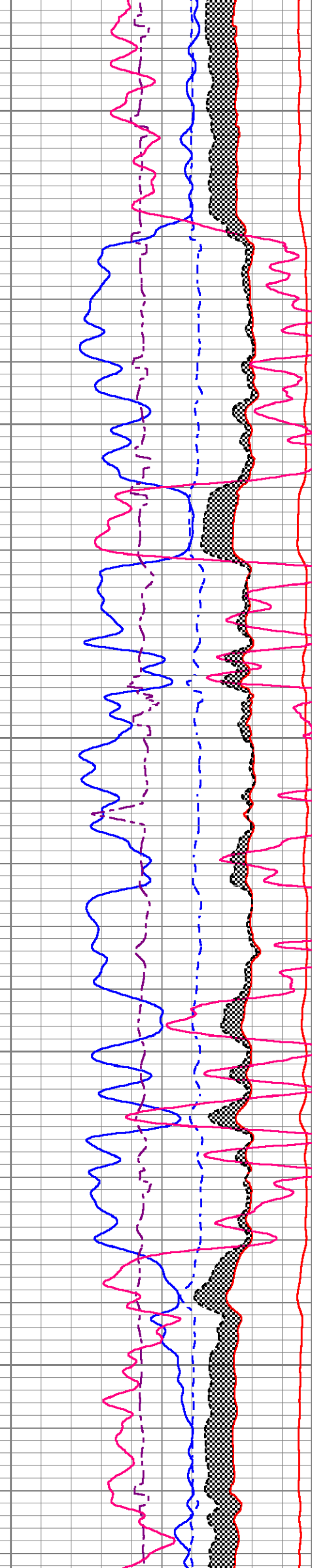
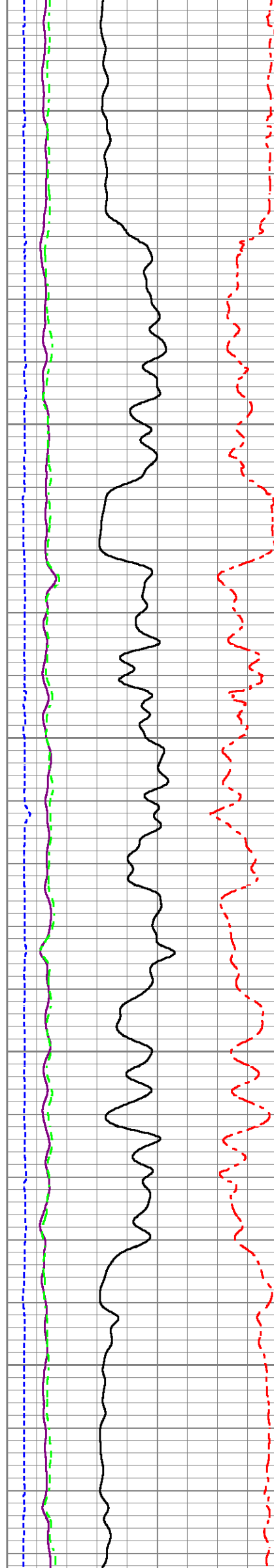
5950

6000

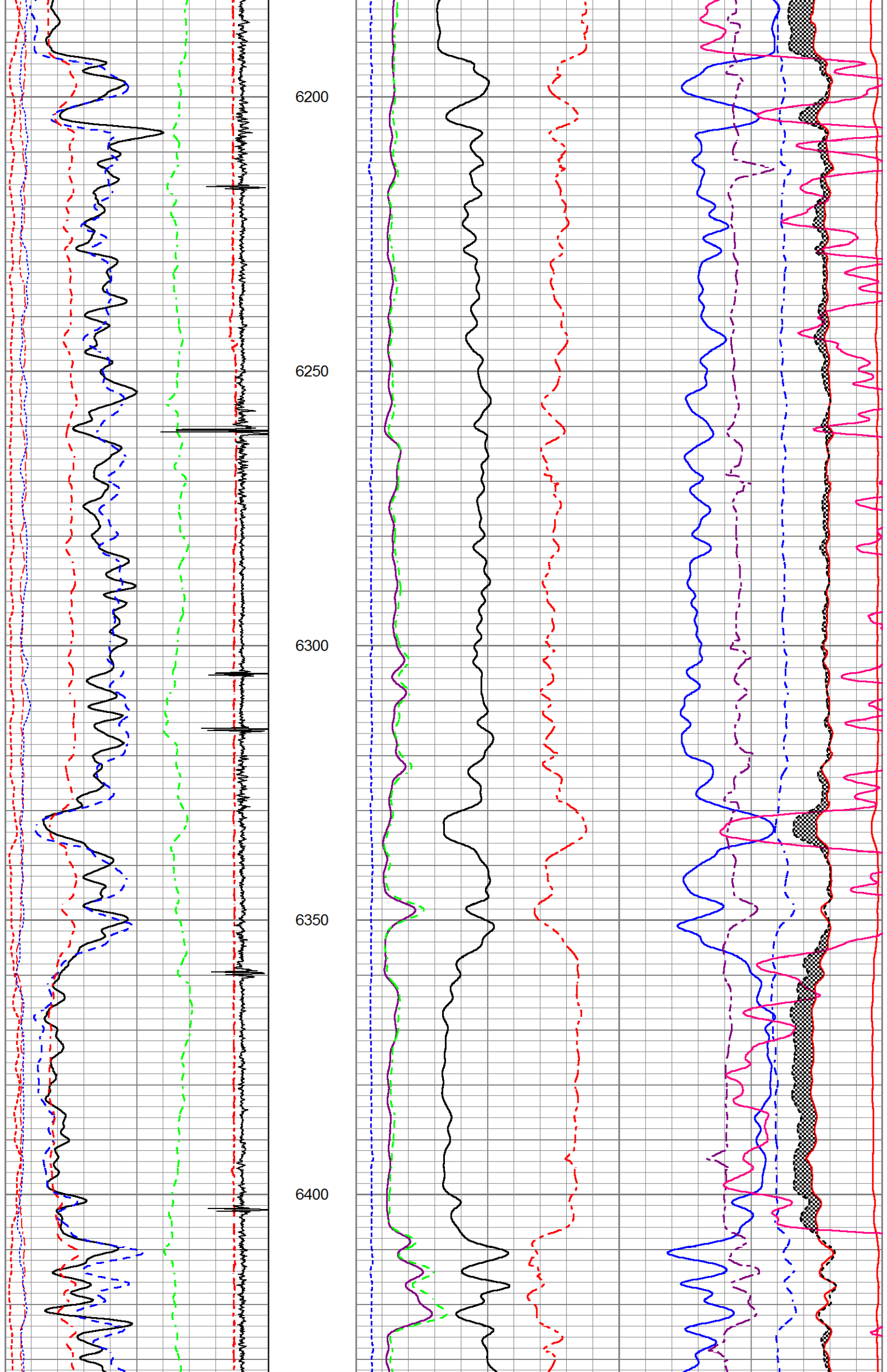
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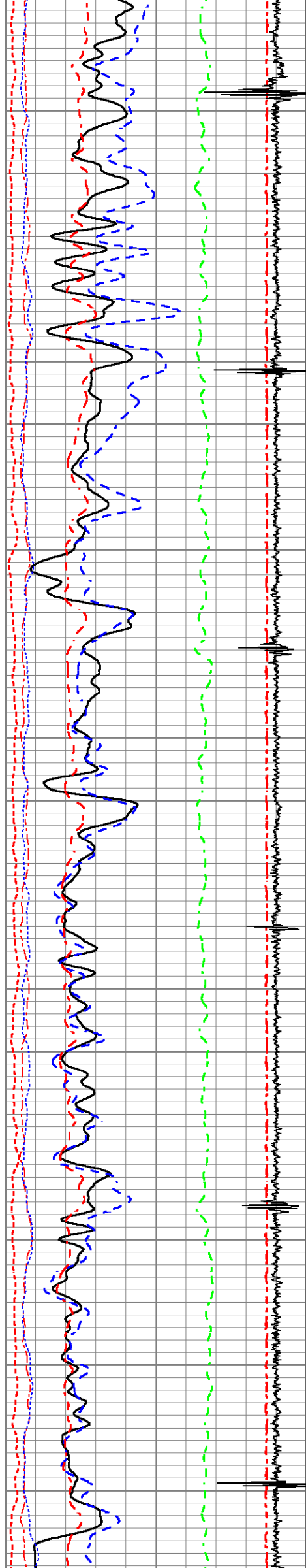
6100

6150









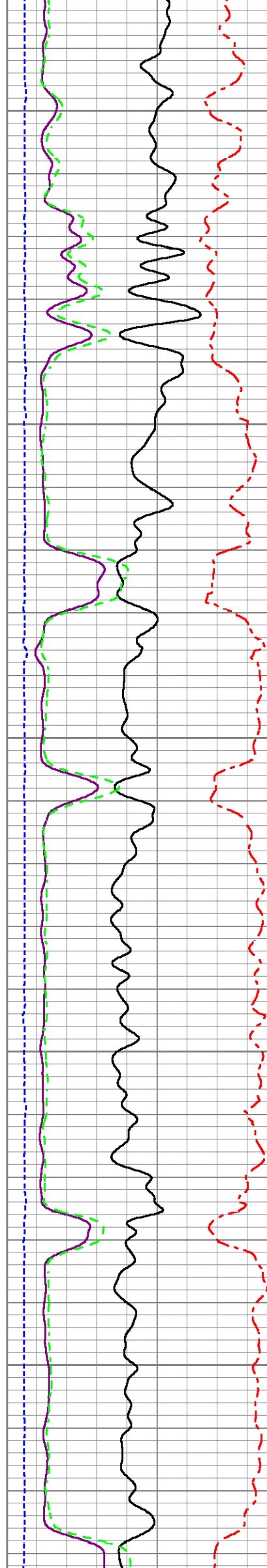
6450

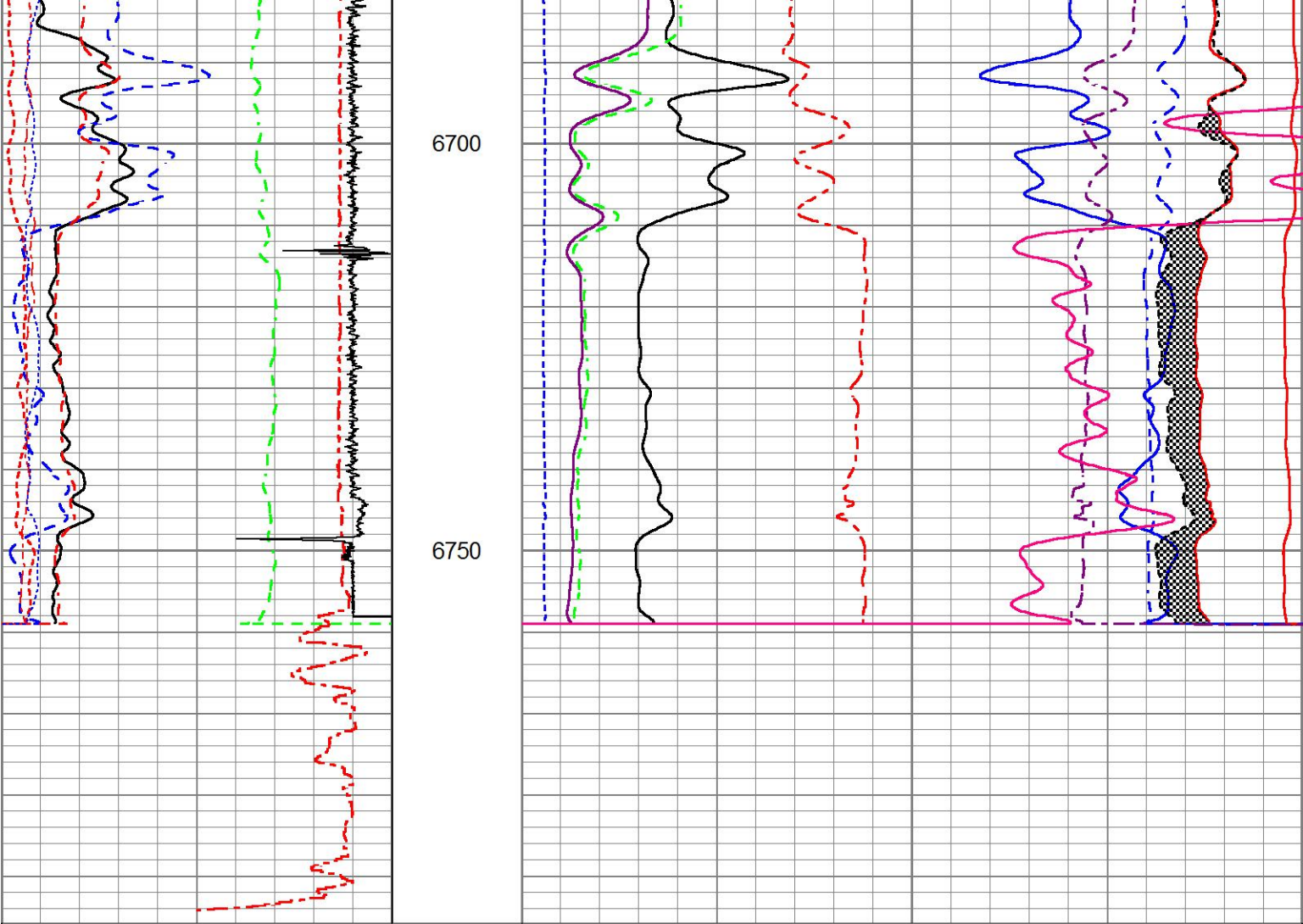
6500

6550

6600

6650





200	Rm3SGBN	0	TENSION	60	Rm3SGIN	0
0	Rm3OAI2	100		0	Rm3SATG ( )	1
0	GR (GAPI)	200		2	Rm3RNF	0.5
-20	LSPD (ft/min)	20		0	Rm3RIN	15
-540	CCL	60		0	Rm3RICF	6
10	Rm3SGFF	40		0	Rm3YH1	1
0	Rm3SGFN	100		0	Rm3YH2	1
0	Rm3CFTR1	1				
0	Rm3CFTR2	1				

MAIN PASS

HALLIBURTON

5" = 100'

REPEAT PASS

HALLIBURTON

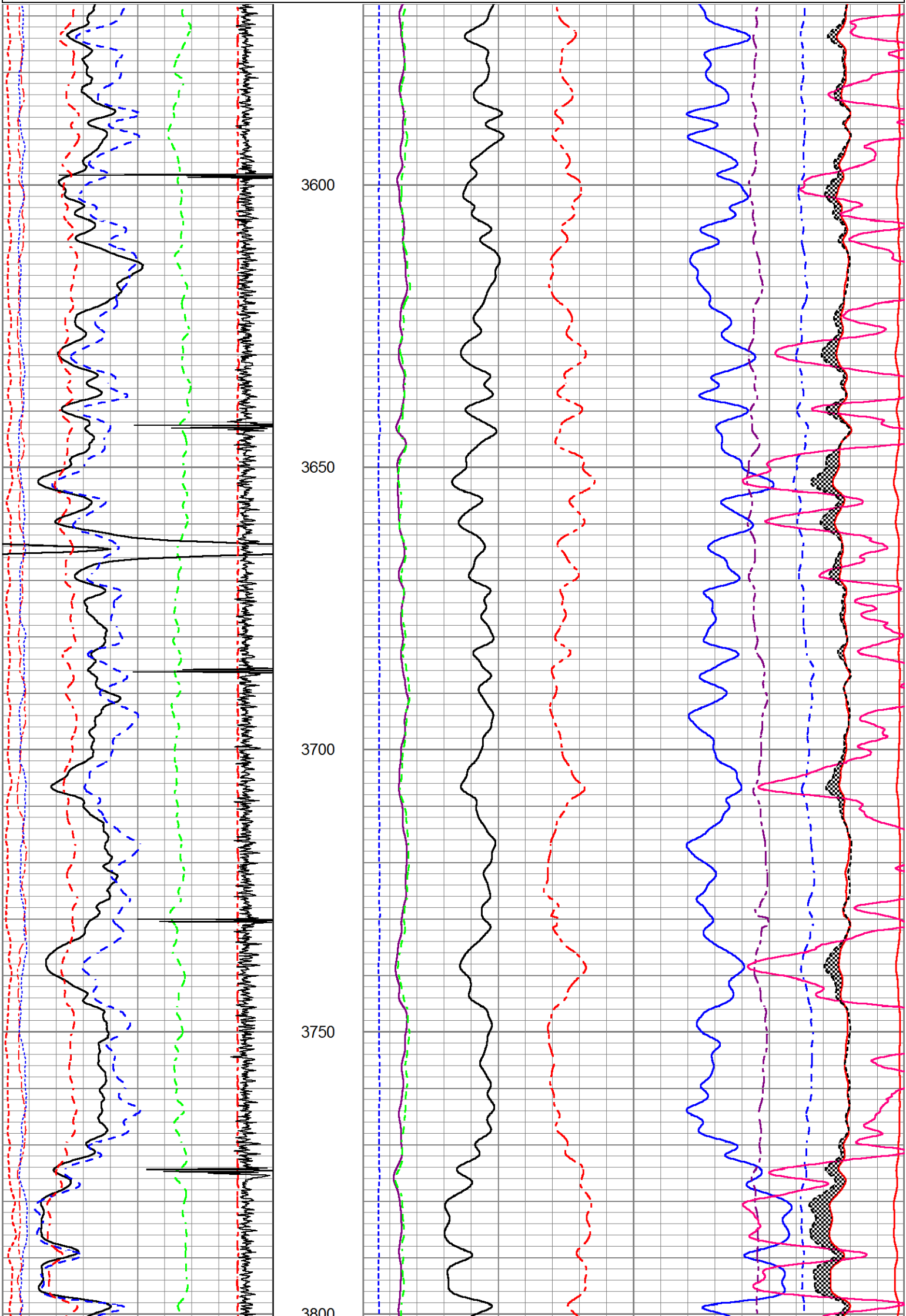
5" = 100'

Database File	d:\jobs\yater_43d.db
Dataset Pathname	RPT1
Presentation Format	1_URSA~2
Dataset Creation	Sun Apr 12 04:09:45 2015
Charted by	Depth in Feet scaled 1:240

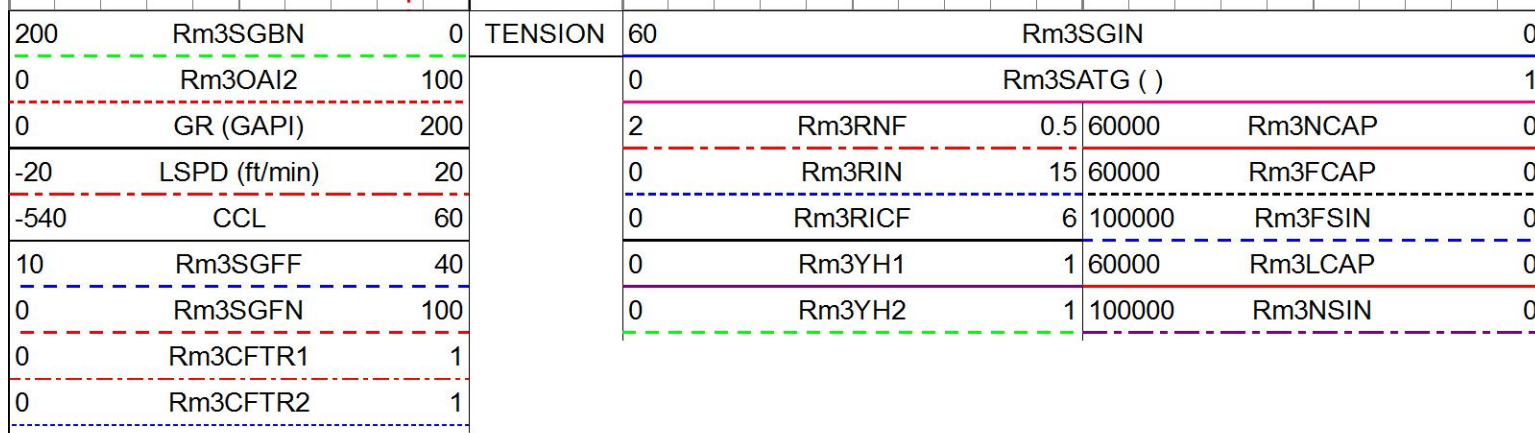
200	Rm3SGBN	0	TENSION	60	Rm3SGIN	0
0	Rm3OAI2	100		0	Rm3SATG ( )	1
0	GR (GAPI)	200		2	Rm3RNF	0.5
-20	LSPD (ft/min)	20		0	Rm3RIN	15
-540	CCL	60		0	Rm3RICF	6
10	Rm3SGFF	40		0	Rm3YH1	1

0	Rm3SGFN	100
0	Rm3CFTR1	1
0	Rm3CFTR2	1

0	Rm3YH2	1	100000	Rm3NSIN	0
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## REPEAT PASS

$$5'' = 100'$$

Log Variables Databased: \jobs\yater\_43d.db  
Dataset field/well/run1/MAIN1/\_vars

BHTEMP_Src	BHSAL2	BHSAL1	RUN3D?	POROSL2	POROSL1	POROS2	POROS1
TEMP	0	1	Yes	0	1	0	1
LTH	UHSGC	RHOCFL	RHOCF	SO in	BORSAL kppm	CASED?	MSGGN
Sandstone	NONE	0.15	0.25	0	150	Yes	1
USERFTT usec/ft	ZREF MRayl	CASEWGHT lb/ft	SRFTEMP degF	MudWgt lb/gal	CASETHCK in	CASEOD in	PERFS
0	1.7	11.6	0	8.4	0.25	4.5	0
TDEPTH ft	BOTTEMP degF	BITSIZE in					
0	100	7.875					

# Calibration Report

```
Database File      d:\jobs\yater_43d.db
Dataset Pathname  MAIN1
Dataset Creation   Sun Apr 12 04:55:28 2015
```


# Reservoir Monitor Tool I (3 Detector) Calibration Report

Serial-Model: 12210524-A


Carbon/Oxygen Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	80.00	80.00	0.00	+/-15.00	V
ITCR2	3268	3250	18	+/-250	cps
Near Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	60	60 +/-2	0.0270	5.53	<6.00
Fe	206	206 +/-2	0.0972	-----	-----
NGAIN = 0.997	NZOFF = 0.4				
Far Detector					
	Channel	Expected Value	Amplitude	FWHM	Tol.
H	61	60 +/-2	0.0350	5.60	<6.50
Fe	209	208 +/-2	0.0909	-----	-----
FGAIN = 0.995	FZOFF = -0.3				
Flask Temperature	62.2 degF				
Result	Logged	Expected Value	Diff.	Tol.	Units
NFER	2.14	2.10	0.04	+/-0.10	
FFER	1.82	1.80	0.02	+/-0.30	
LFER	1.26	1.60	-0.34	+/-0.60	
COIR2	0.44	0.45	-0.01	+/-0.02	
LIRI2	1.65	1.64	0.01	+/-0.05	
TCCR2	4744	5000	-256	+/-1000	cps
ITCR2	3168	3200	-32	+/-250	cps

Sigma Mode					
Stabilization					
Result	Logged	Expected Value	Diff.	Tol.	Units
GENV	81.00	80.00	1.00	+/-15.00	V
FCAP	10086	10000	86	+/-500	cps
Horizontal Water Tank					
Result	Logged	Expected Value	Diff.	Tol.	Units
NFER	2.10	2.10	-0.00	+/-0.10	
FFER	1.94	1.80	0.14	+/-0.30	
LFER	1.35	1.60	-0.25	+/-0.60	
N/F Normalizer	0.931	0.935	-0.004		
N/L Normalizer	0.106	0.111	-0.005		
N/F Inel Norm	0.601	0.610	-0.009		
N/L Inel Norm	0.056	0.055	0.001		
RNF	1.074	1.070	0.004	+/-0.120	
RNL	9.435	9.000	0.435	+/-1.000	
RINC	1.665	1.640	0.025	+/-0.180	
RINCL	17.945	18.000	-0.055	+/-2.000	
SGFN	24.10	24.00	0.10	+/-0.50	cu
SGFF	22.92	22.85	0.07	+/-0.50	cu
SGFL	22.01	22.00	0.01	+/-1.00	cu
FSIN	23934	24000	-66	+/-2000	cps
LSIN	2264	2400	-136	+/-500	cps
FCAP	10083	10000	83	+/-1000	cps
LCAP	1148	1200	-52	+/-200	cps
NFTR	0.84			<5.00	
FEFR	0.88			<5.00	

LFTR	1.14				<5.00	
NBKG	192				<500	cps
FBKG	110				<500	cps
LBKG	29				<500	cps
RTN	0.421	0.400		0.021	+/-0.100	usec
RTF	0.447	0.400		0.047	+/-0.100	usec
Calibration Software Modules						
HRMT3D Module	2015.3.19.0					
RMT3D Module	2015.3.19.1					
Log Data Acquisition Software Modules						
HRMT3D Module	2015.3.19.0					
RMT3D Module	2015.3.19.1					
Cement Bond Log Shop Calibration Report						
Serial-Model:		12386763-A				
Calibration Performed:		Sun Apr 12 03:38:14 2015				
Free Pipe Calibration						
TT	Measured	Units				
	245.7	usec				
Amplitude	643.0	mV				
Log Base Line	-5.7	mV				
Calibration References and Gain						
Name	Value	Units				
Pipe O.D.	4.500	in				
Pipe Weight	11.6	lb/ft				
Pipe Ref. Amp.	81.2	mV				
Amp. Gain	0.125					
Gamma Ray Calibration Report						
Type / Serial:		002 / 12105787				
SHOP CALIBRATION		Fri Apr 10 15:01:55 2015				
	Counts/Sec.	Gain	Offset	Jig	Units	
Background	37.7				cps	
Calibrator	384.0				cps	
		1.2112			GAPI/cps	
PRIMARY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0				cps	
Difference				0.0	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)
CCL	36.04		STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00
GR	33.78					
Temp	24.06					



TT3FT	21.81		TTTCU-002 (12105787) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00
AMP3FT	21.81					
Rm3TLGT	8.75					
Rm3LBACK	8.75					
Rm3LCAPT	8.75					
Rm3LINEL	8.75					
Rm3TFGT	8.25					
Rm3FBACK	8.25					
Rm3FCAPT	8.25					
Rm3FINEL	8.25					
Rm3TNGT	7.75					
Rm3NBACK	7.75					
Rm3NCAPT	7.75					
Rm3NINEL	7.75					
Rm3ImpBTEST	0.00					
Rm3ImpBCYC	0.00					
Rm3ImpBRGW	0.00					
Rm3ImpBRGO	0.00					
Rm3ImpState	0.00					
Rm3ImpPhase	0.00					
Rm3ImpCyc	0.00					
Rm3GenClampV	0.00					
Rm3LTemp	0.00					
Rm3LPMHV	0.00					
Rm3LPMI	0.00					
Rm3LPrgSt1	0.00					
Rm3LDetStat	0.00					
Rm3FTemp	0.00					
Rm3FPMHV	0.00					
Rm3FPMI	0.00					
Rm3FPrgSt1	0.00					
Rm3FDetStat	0.00					
Rm3NTemp	0.00					
Rm3NPMHV	0.00					
Rm3NPMI	0.00					
Rm3NPrgSt1	0.00					
Rm3NDetStat	0.00					
Rm3GenIonI	0.00					
Rm3Gen15BusV	0.00					
Rm3GenLvdsV	0.00					
Rm3GenSyncV	0.00					
Rm3GenClampV	0.00					
Rm3GenP5V	0.00					
Rm3GenP33V	0.00					
Rm3Gen200V	0.00					
Rm3GenP15VI	0.00					
Rm3GenTemp	0.00					
Rm3GenP5VI	0.00					
Rm3GenI	0.00					
Rm3GenPv	0.00					
Rm3GenCmd	0.00					
Rm3GenIspl	0.00					
Rm3GenIsplPv	0.00					
Rm3GenIsplCmc	0.00					
Rm3GenRepPv	0.00					
Rm3GenRepV	0.00					
Rm3GenRepSv	0.00					
Rm3GenContSt	0.00					
Dataset: yater_43d.db: field/well/run1/MAIN1						
Total length: 39.61 ft						
Total weight: 360.00 lb						
O.D.: 3.13 in						



Field	PARACHUTE		
County	GARFIELD	State	CO
HALLIBURTON	RESORVOIR MONITORING TOOL - ELITE		