



PULSED NEUTRON DECAY LOG (QUICK LOOK)

FIELD BATTLEMENT MESA
CNTY GARFIELD STATE CO

COMPANY	URSA OPERATING COMPANY
WELL	BAT 34B-24-07-96
FIELD	BATTLEMENT MESA
COUNTY	GARFIELD

STATE COLORADO

LOCATION:

SEC.24	TWP.7S	RGE.
SHL: 1835'	FSL & 2056'	FWL
BHL: 1050'	FNL & 1966'	FEL

OTHER SERVICES:

PERM. DATUM GROUND LEVEL ELEV. 5182.5'
LOG MEASURED FROM K.B. 17 FT. ABOVE PERMANENT DATUM
DRILLING MEASURED FROM K.B.

ELEV.:K.B.	5199.5
D.F.	5199.5
G.L.	5182.5

DATE	10-MAR-2015
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RUN NO. ONE

DEPTH DRILLER	6197
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DEPTH LOGGER	5959
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BIM. LOG INTERVAL	5953
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10P LOG INTERVAL SURF-

OPEN HOLE SIZE	1.875
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TYPE FLOOD	WALLER
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DENS:	VLSC:	0.3
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NAME:	REC:	LEIP:
		191

TIME LEFT: 00:00:00	STATUS: READY
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TIME LOGGED ON BTM	INVA
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THE LOBBY ON BILL:	SEE 2
FOI/PA NO	14343

LOCATION	CASEP

RECEIVED BY	D M
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WITNESSED BY	CE
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BOREHOLE RECORD

BIIN NO	BTT	EBNM
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[illegible][illegible][illegible][illegible]

CASING RECORD	SIZE	W
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SURFACE STRING	8.625"	
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PROT. STRING	
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PROD. STRING	4.5"	1
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LINER

All interpretations of log data are opinions based on inferences from electrical or other measurements. We do not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

REMARKS	Rig: WFT CRANE #15045	Service Order # 113206870
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THIS IS THE PRIMARY LOG FOR THIS WELL

ALL LOGGED INTERVALS PER CUSTOMER REQUEST

Prints: 2

THANK YOU FOR CHOOSING WEATHERFORD WIRELINE SERVICES

EQUIPMENT DATA

[illegible]

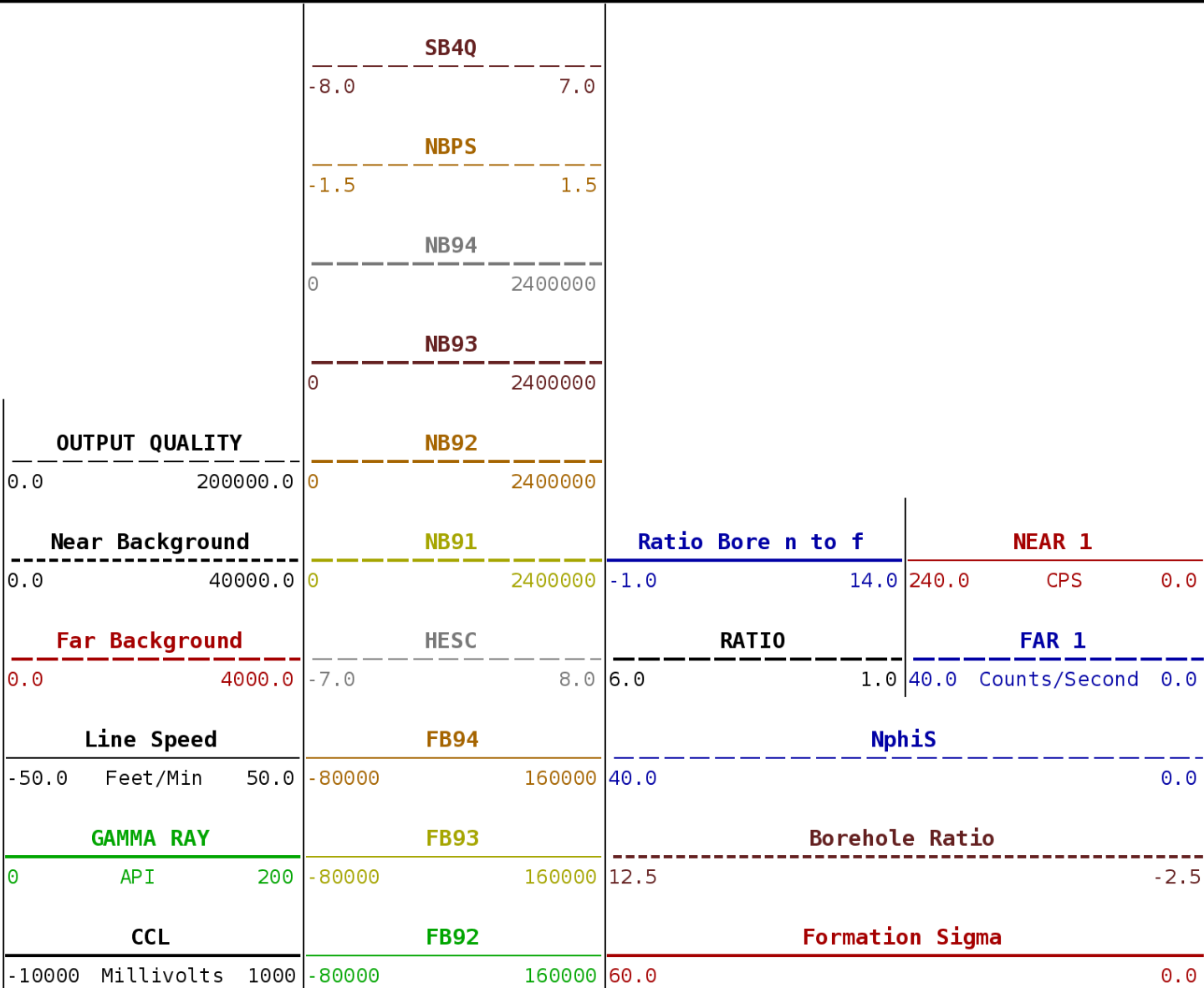
DEPTH SCALE: 5":100'

PROCESSED VERSION: 2012.07.18.162"

MAIN PASS

113206870 PNDMAIN

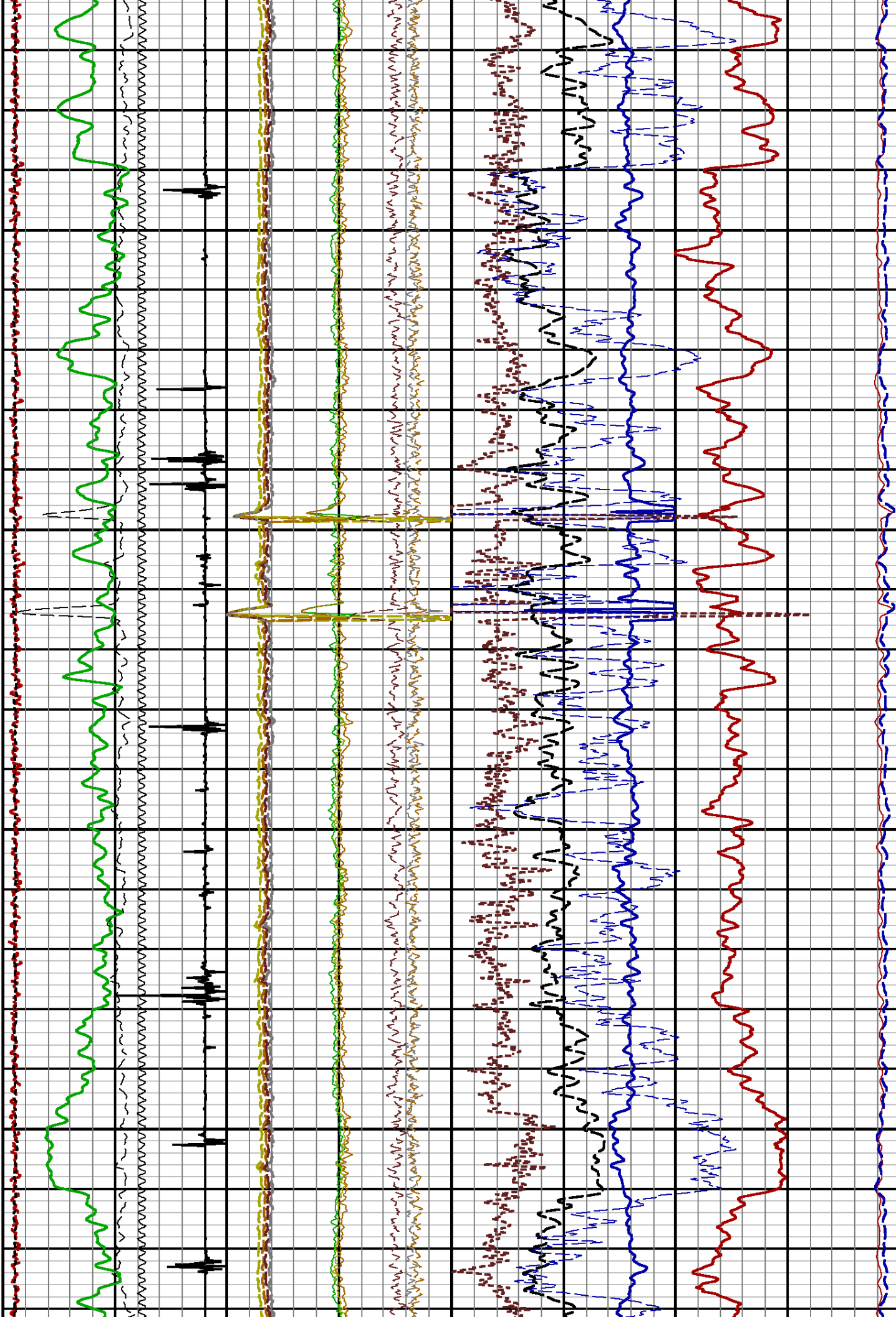
FINISH DEPTH: 1858.5 Feet DIRECTION: UP DATE: 03/11/2015 TIME: 07:49 MODE: ORIGINAL



1900

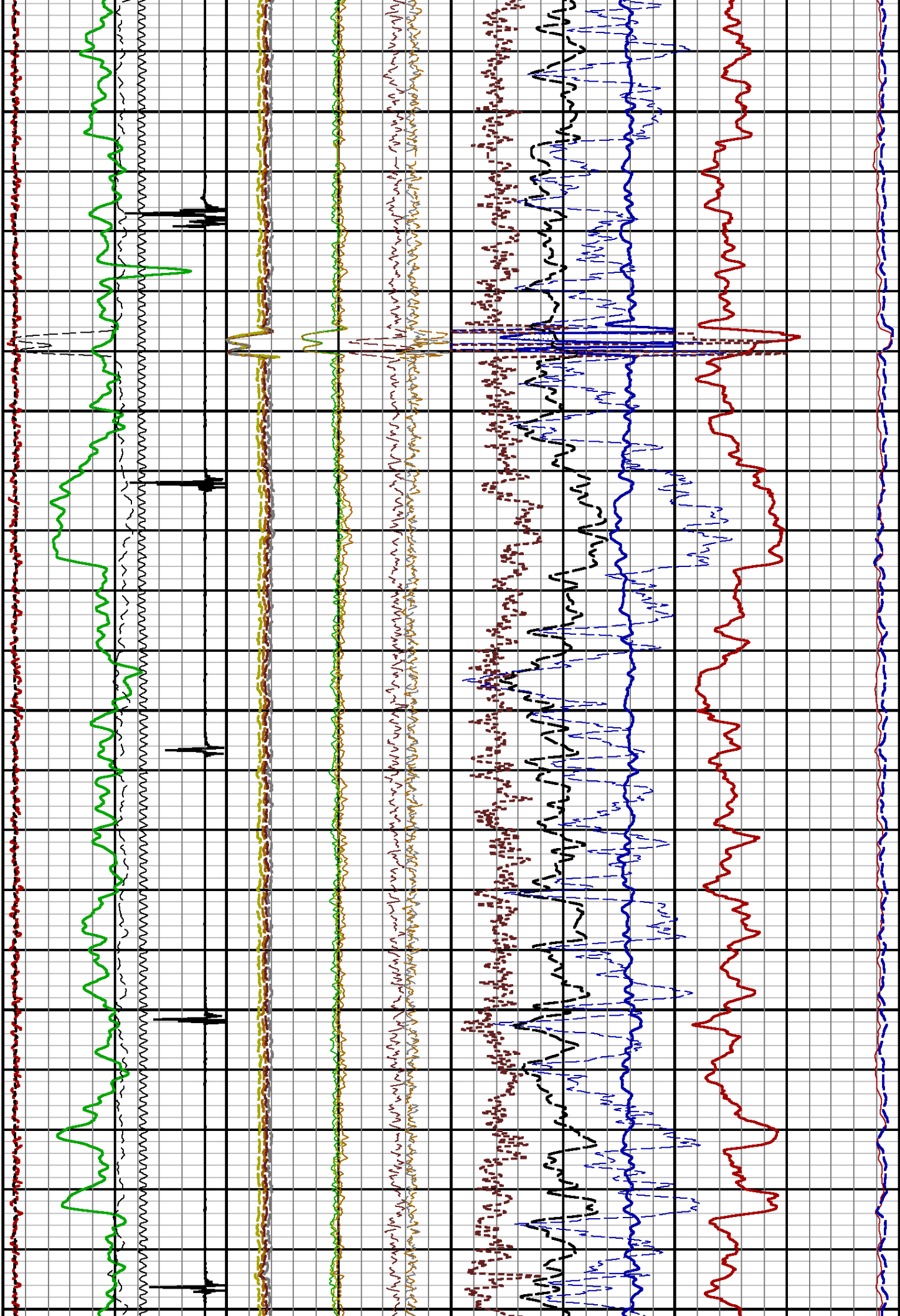
2000

2100



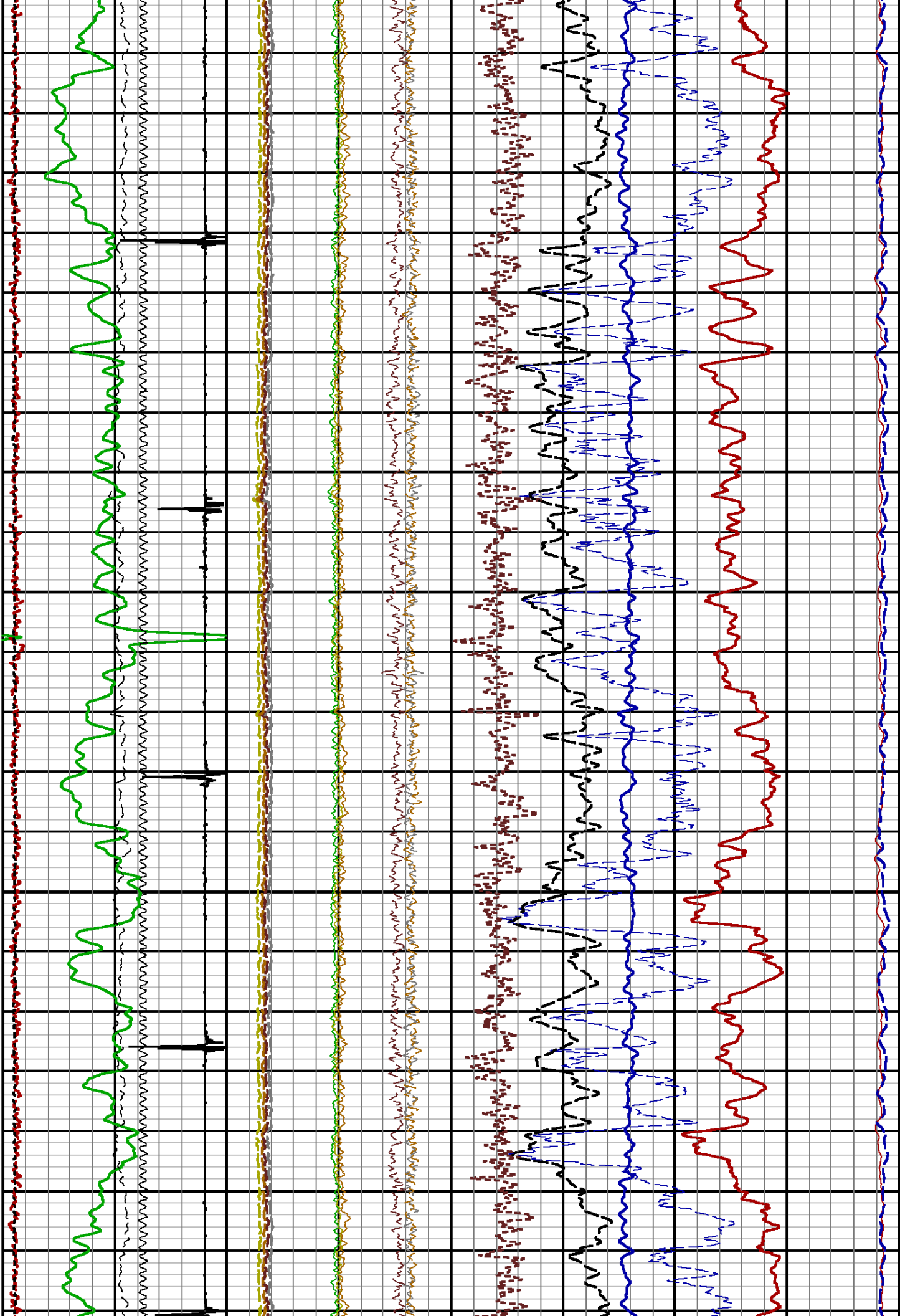
2200

2300



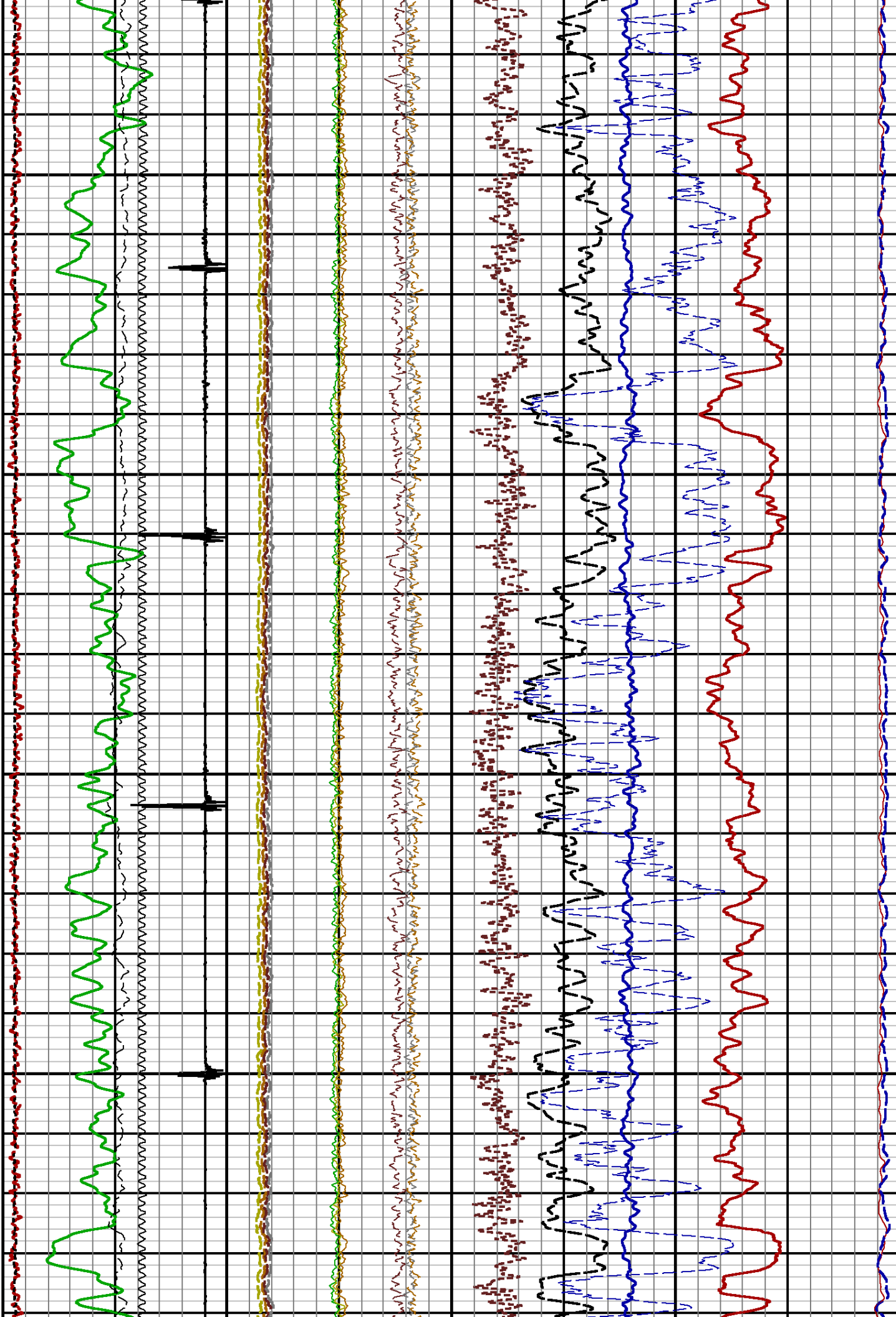
2400

2500



2600

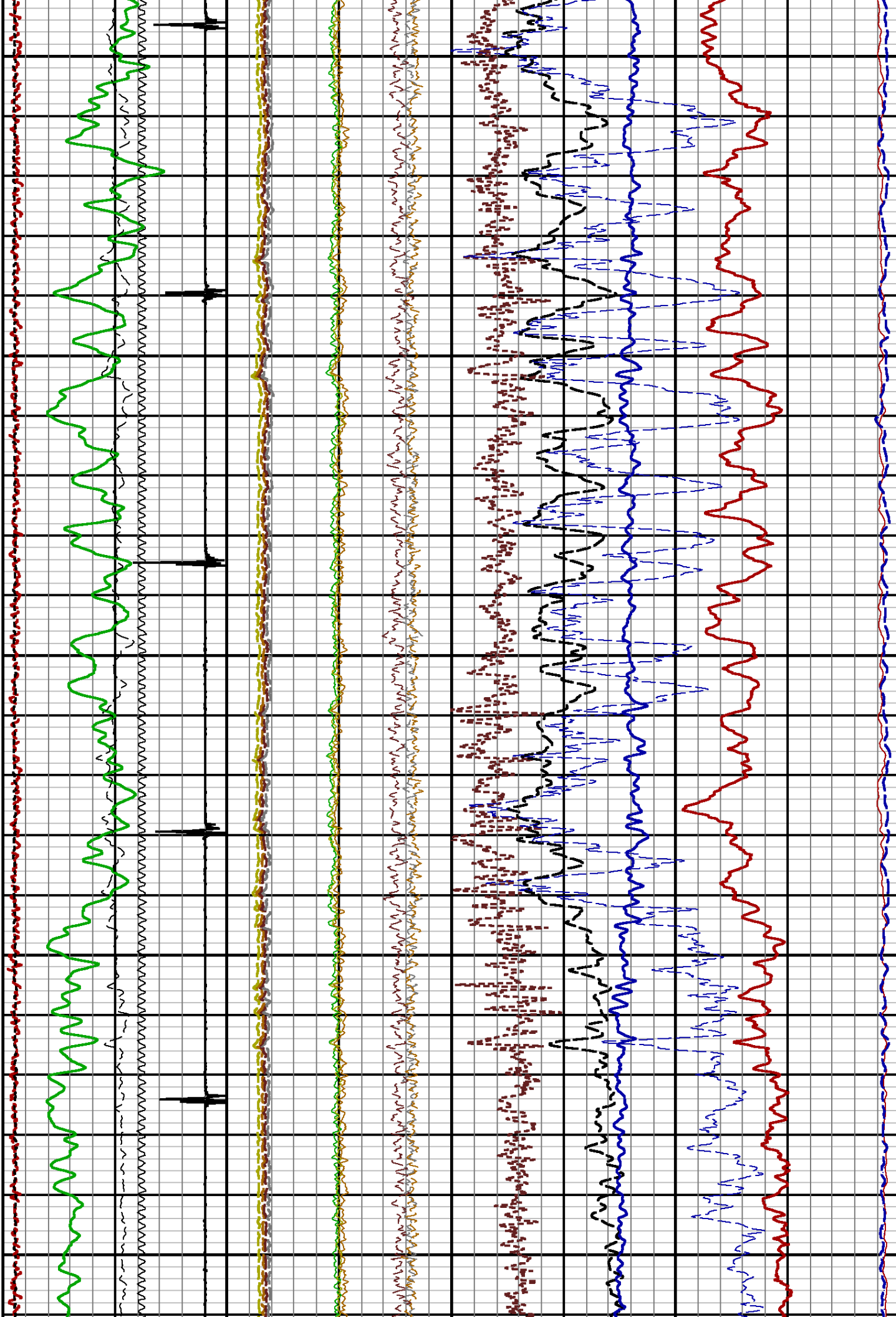
2700



2800

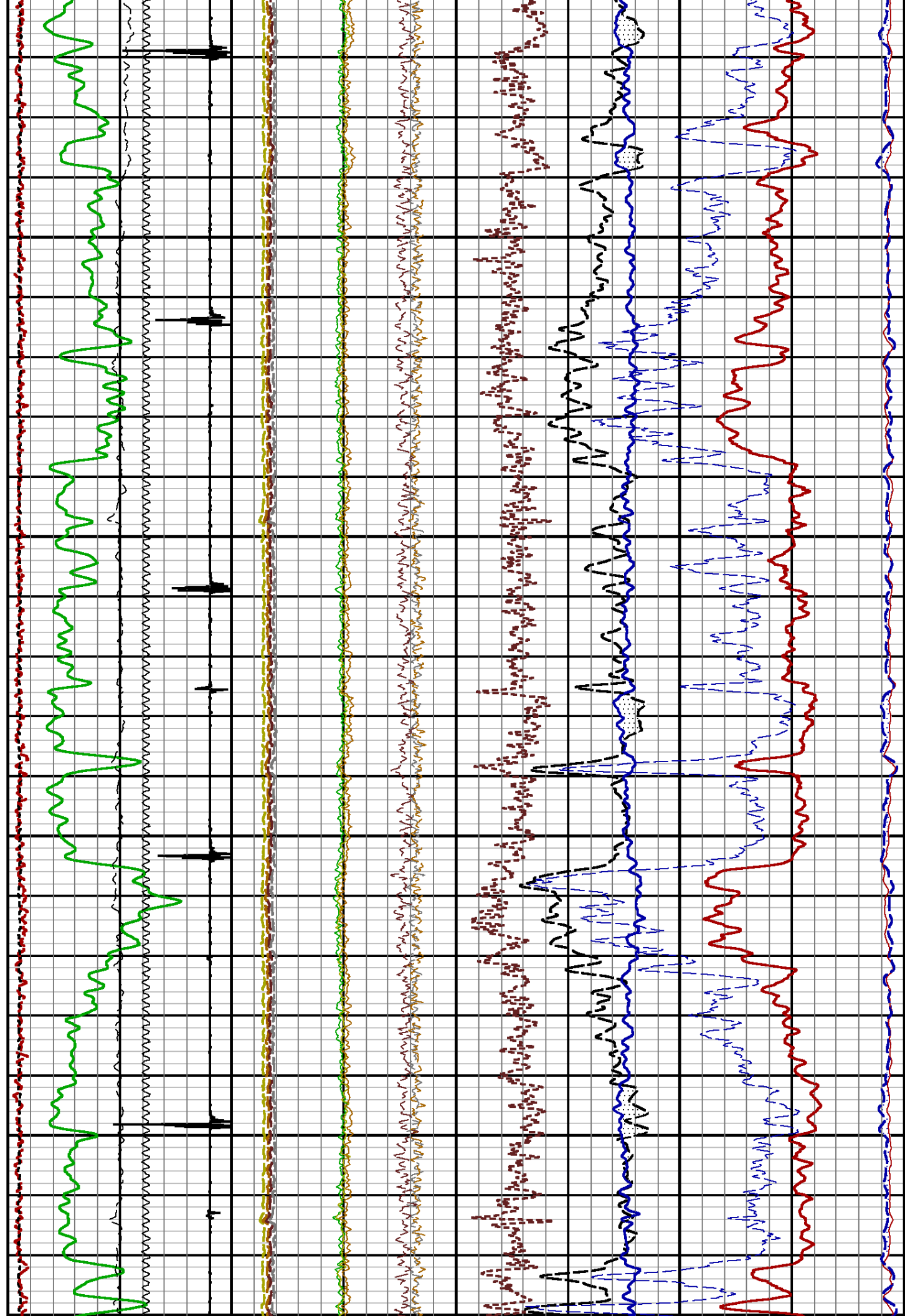
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3000



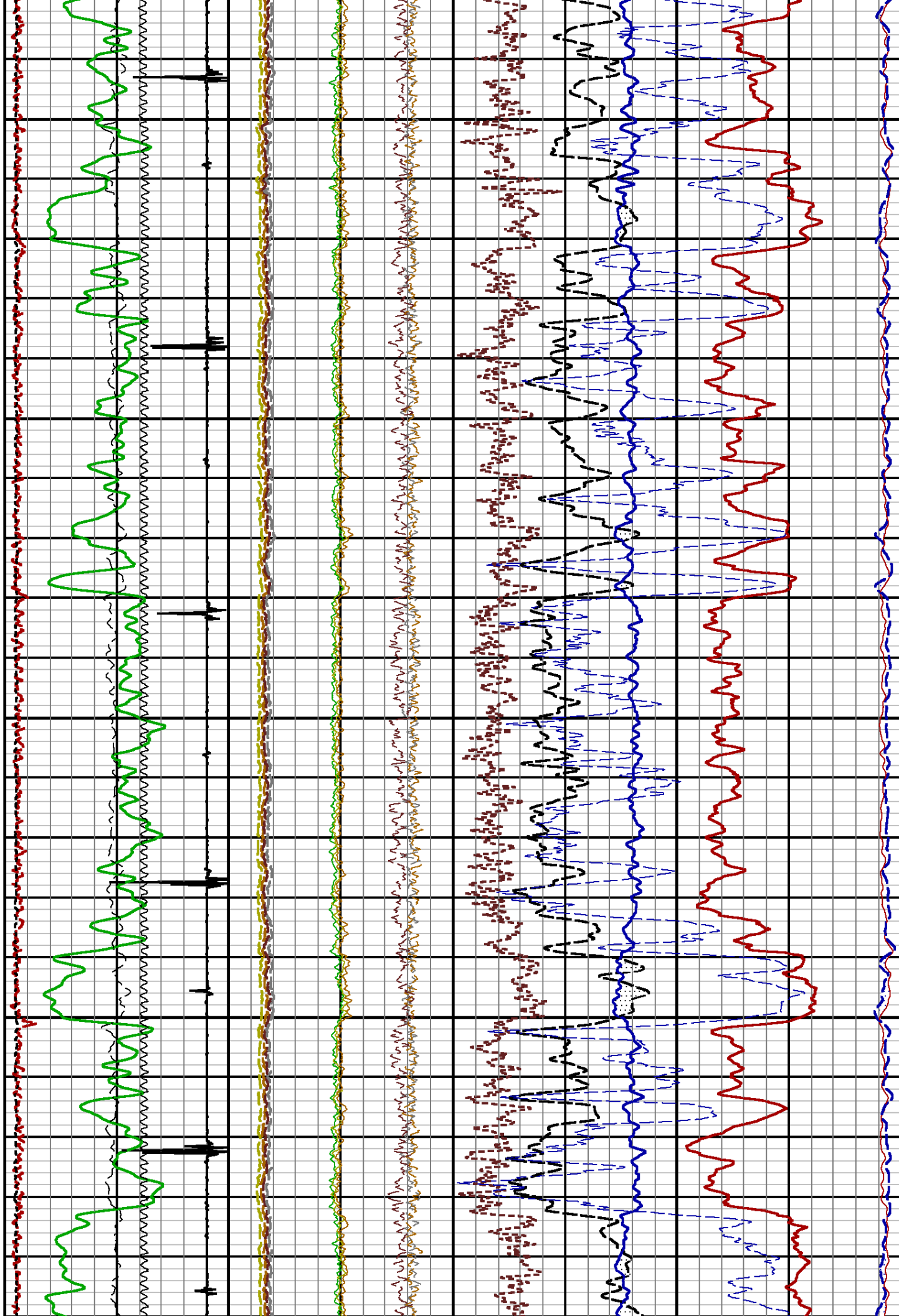
3100

3200



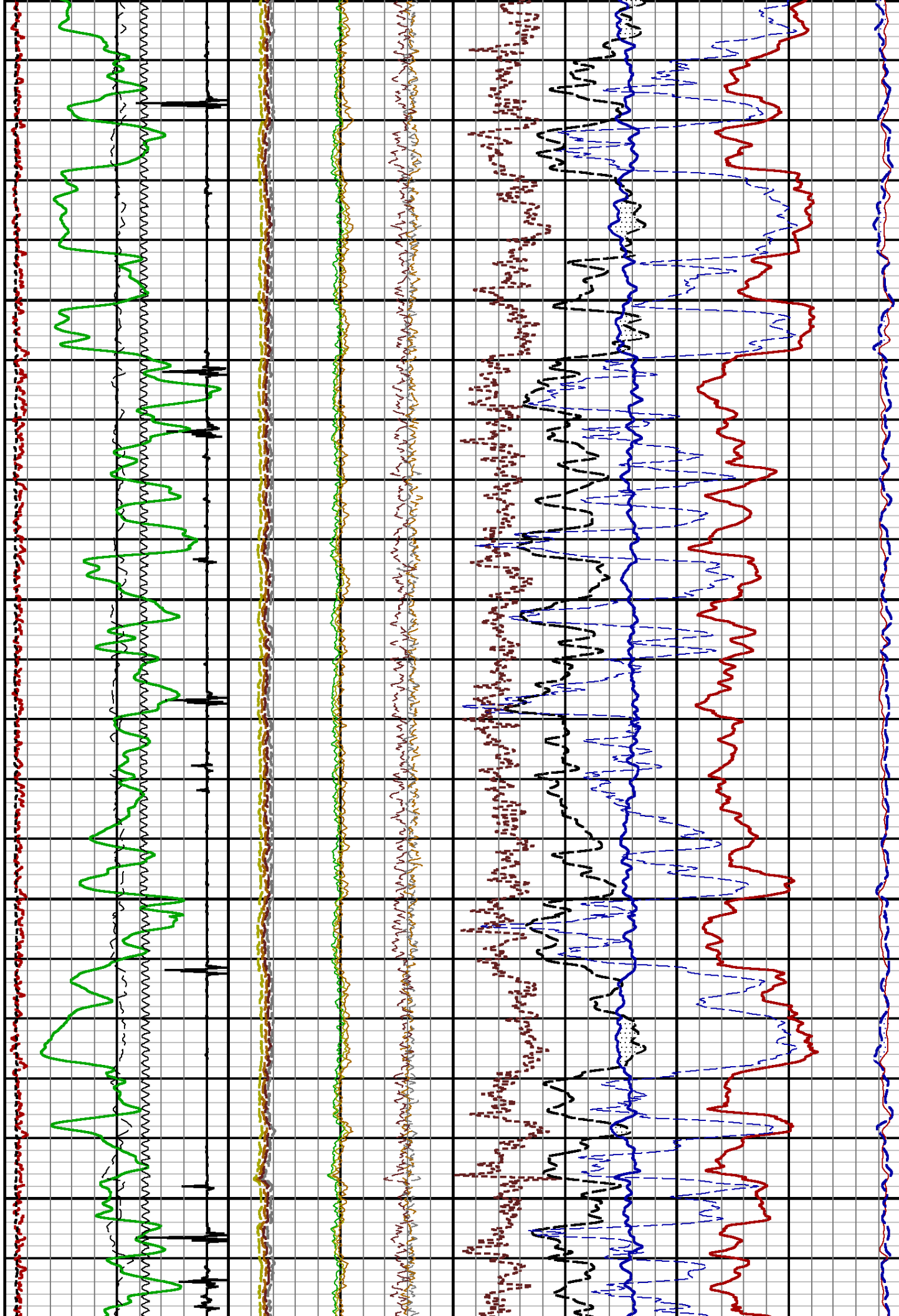
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3400



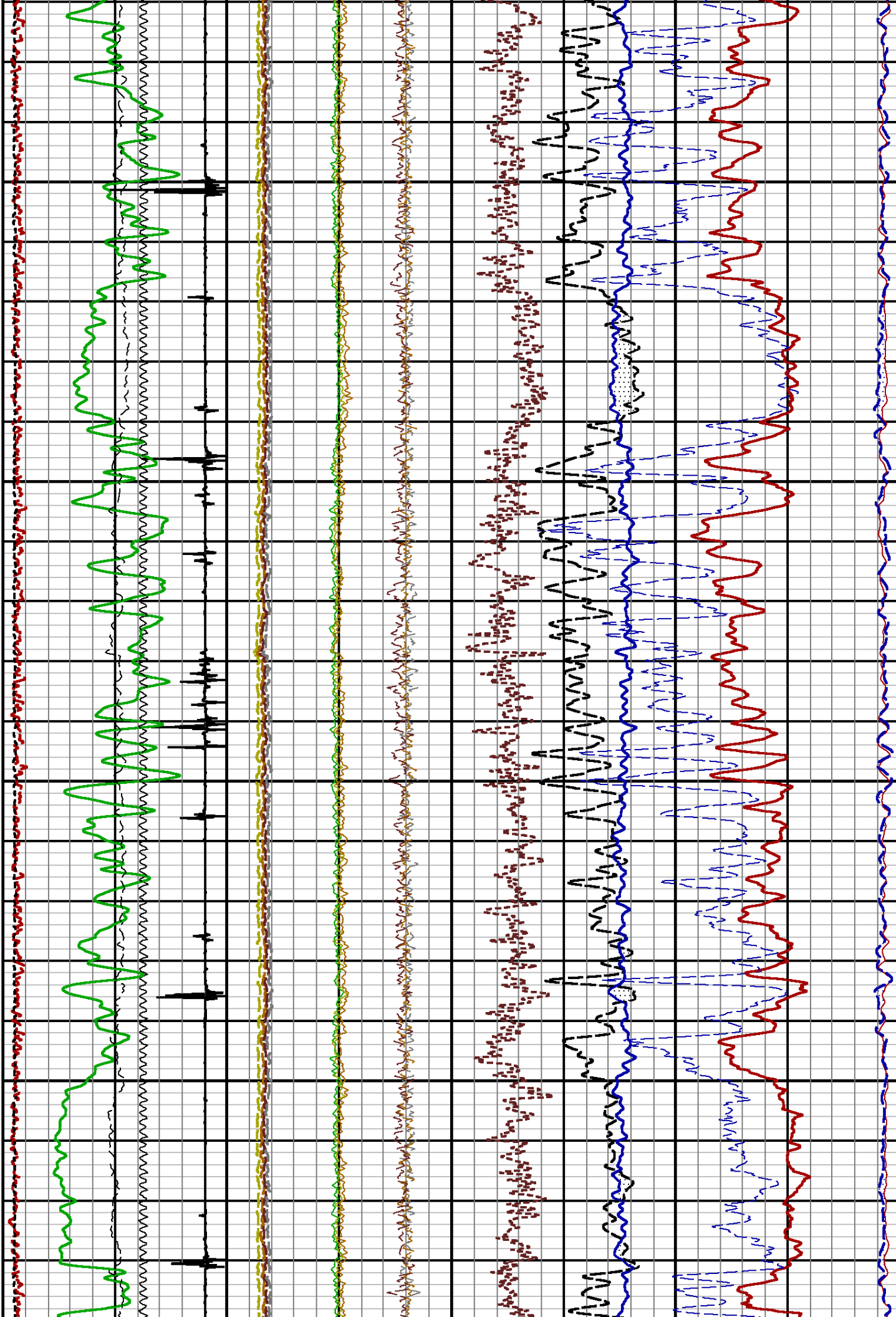
3500

3600



3700

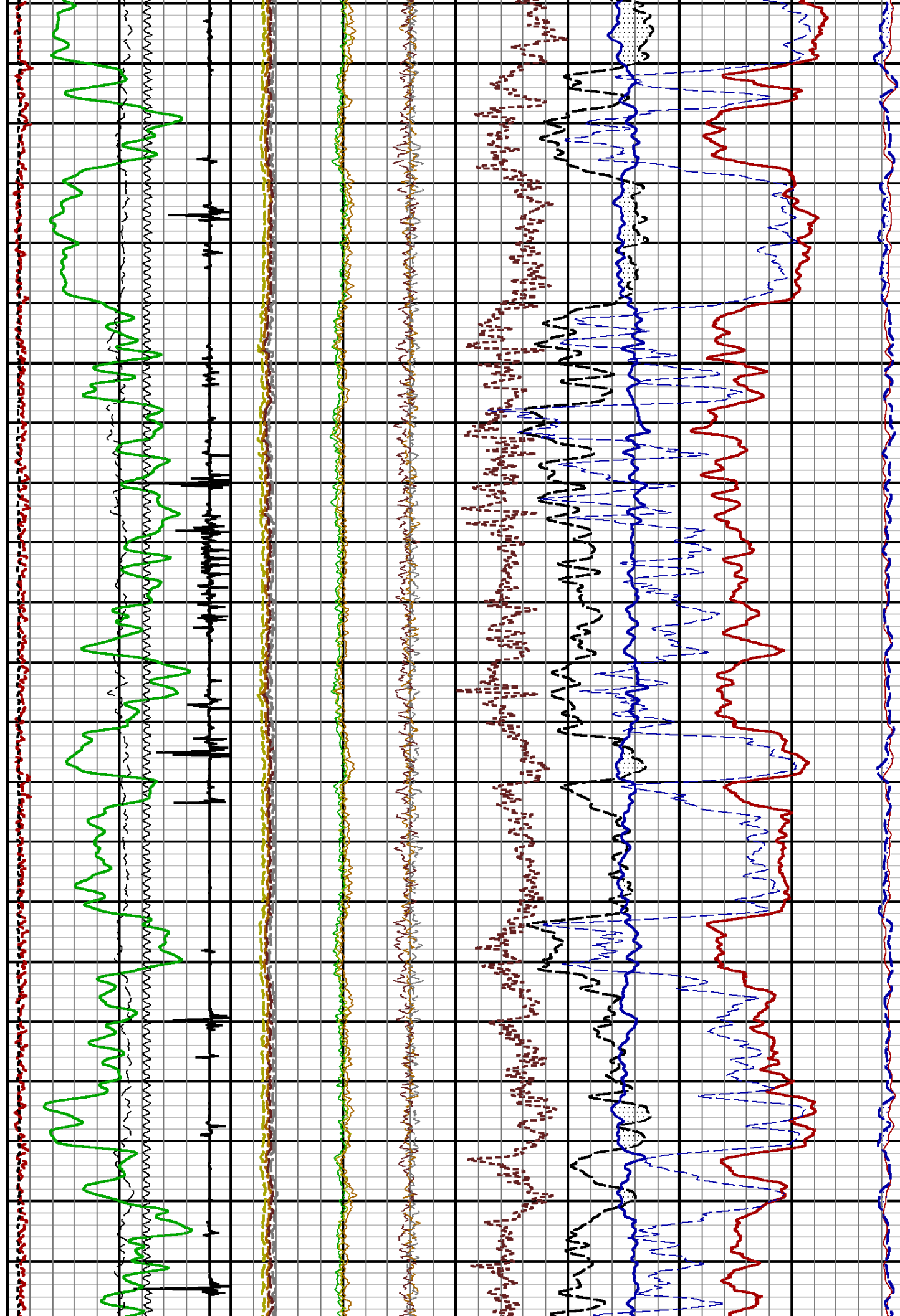
3800



3900

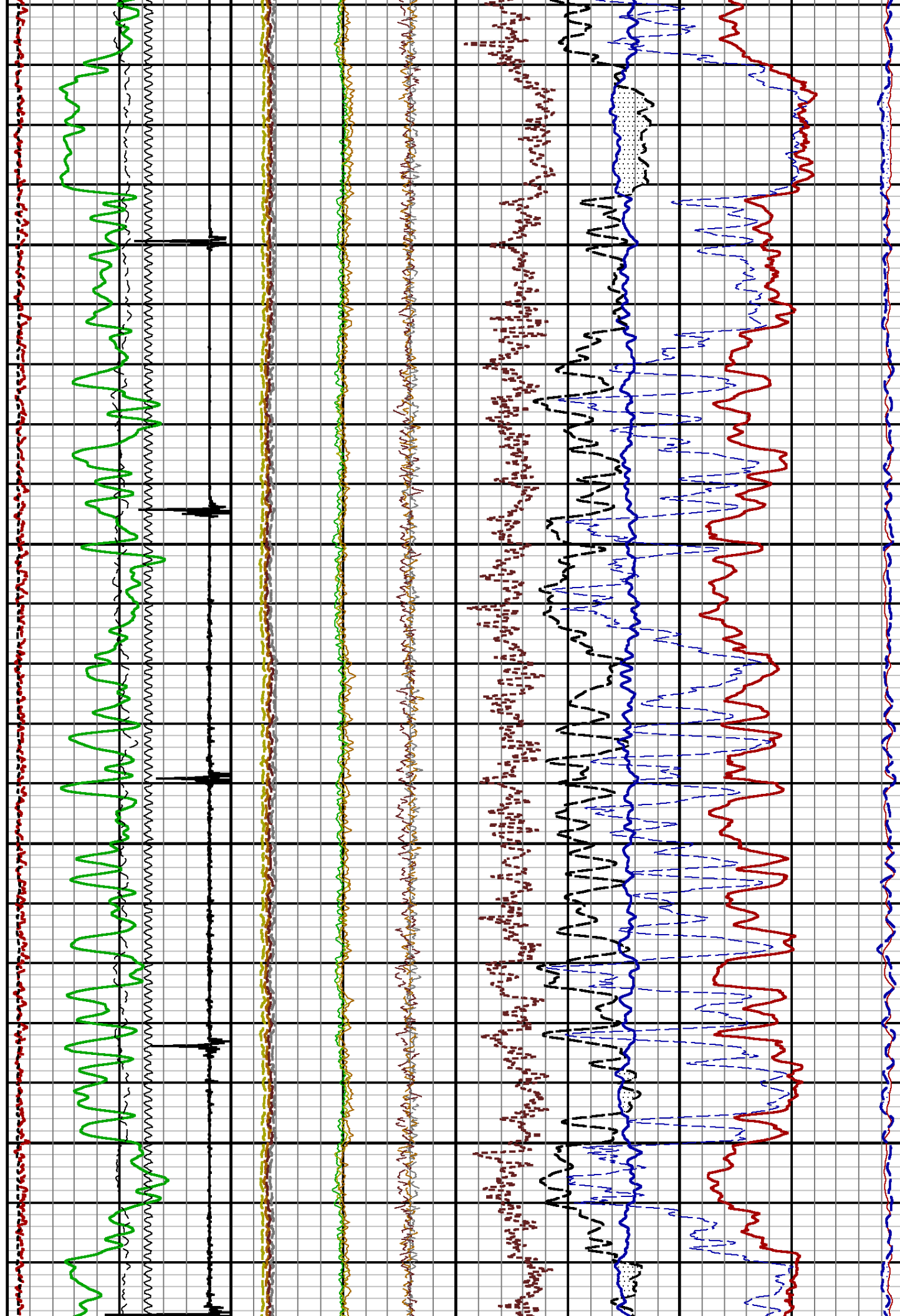
4000

4100



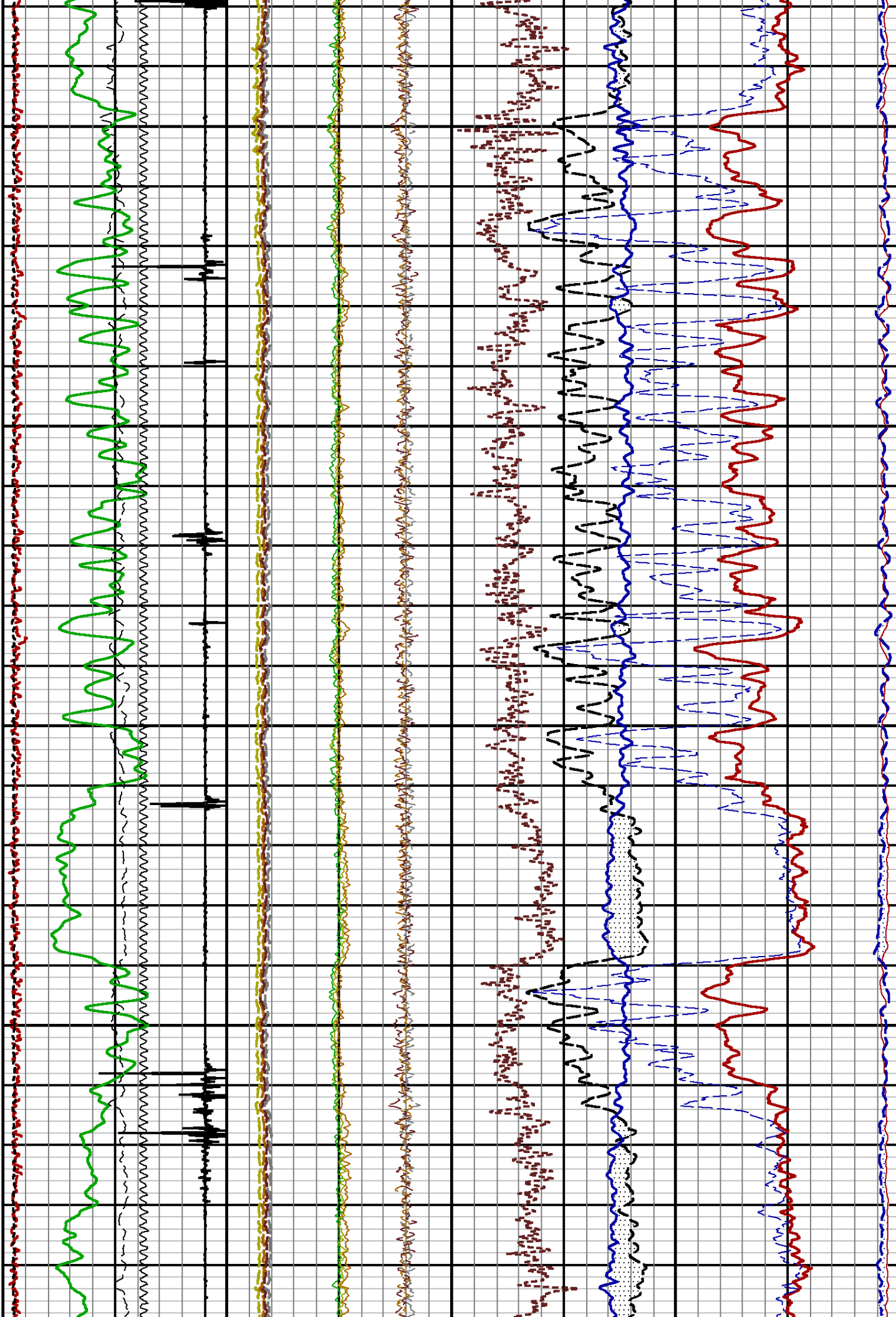
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4300



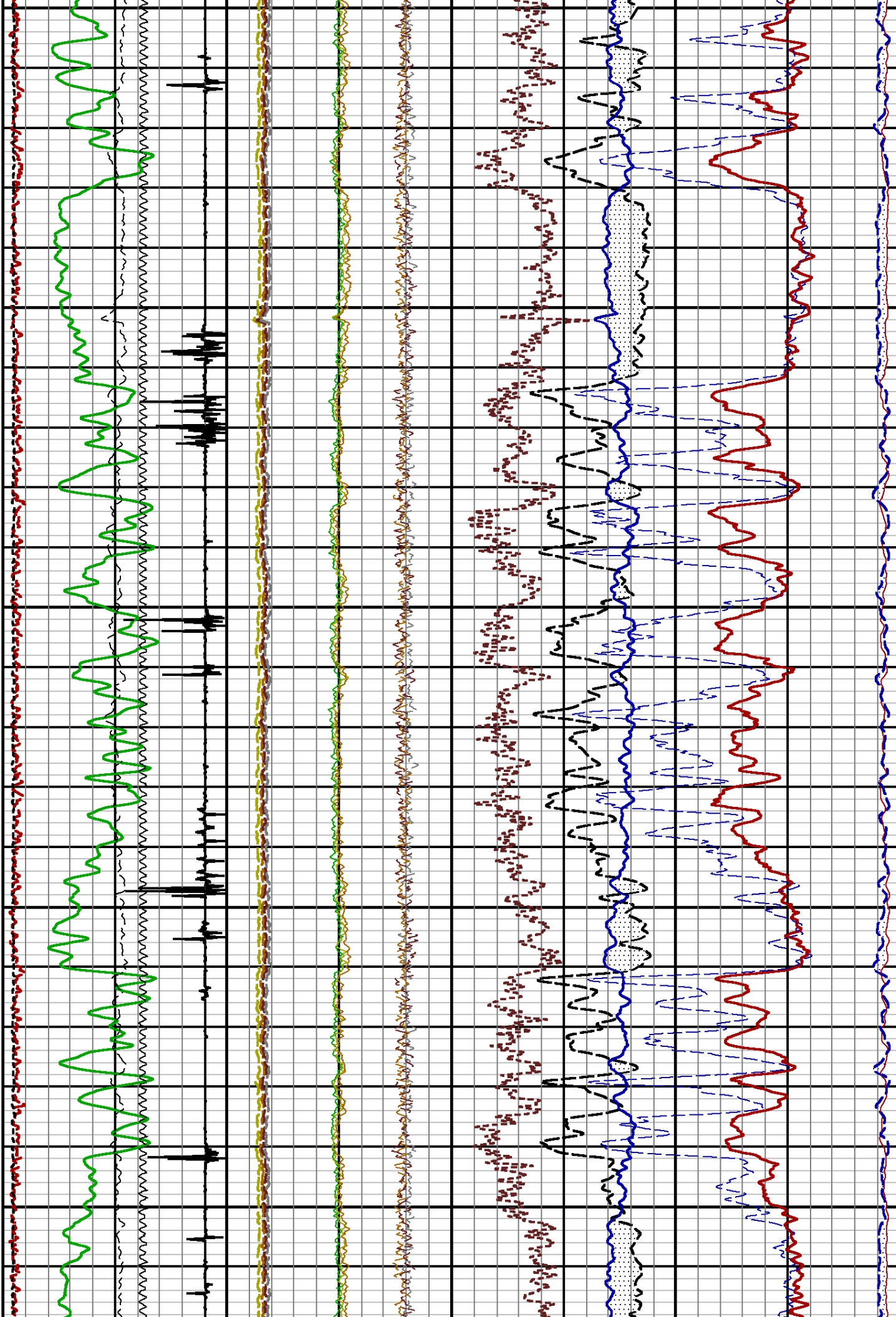
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4500



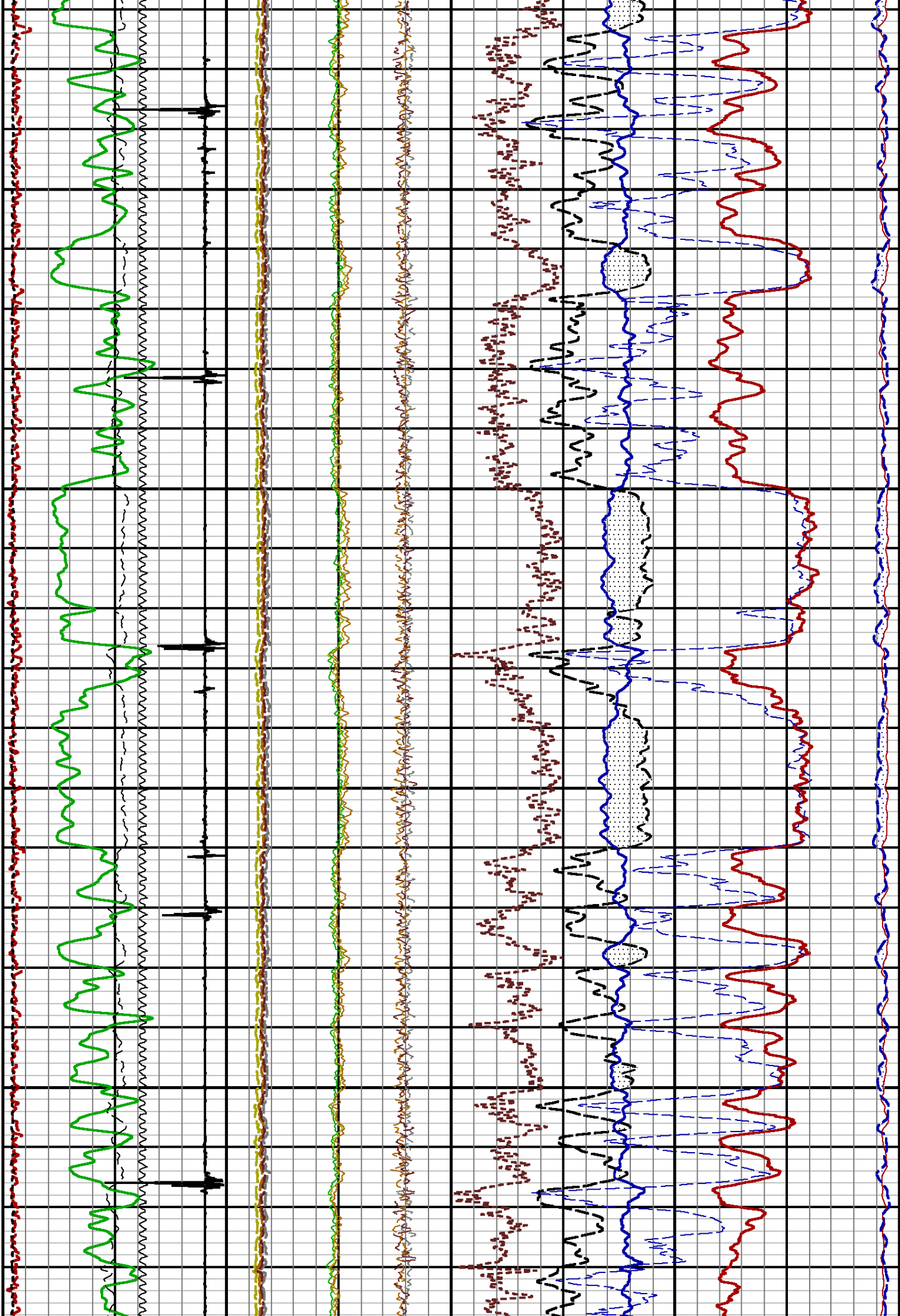
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4700



4800

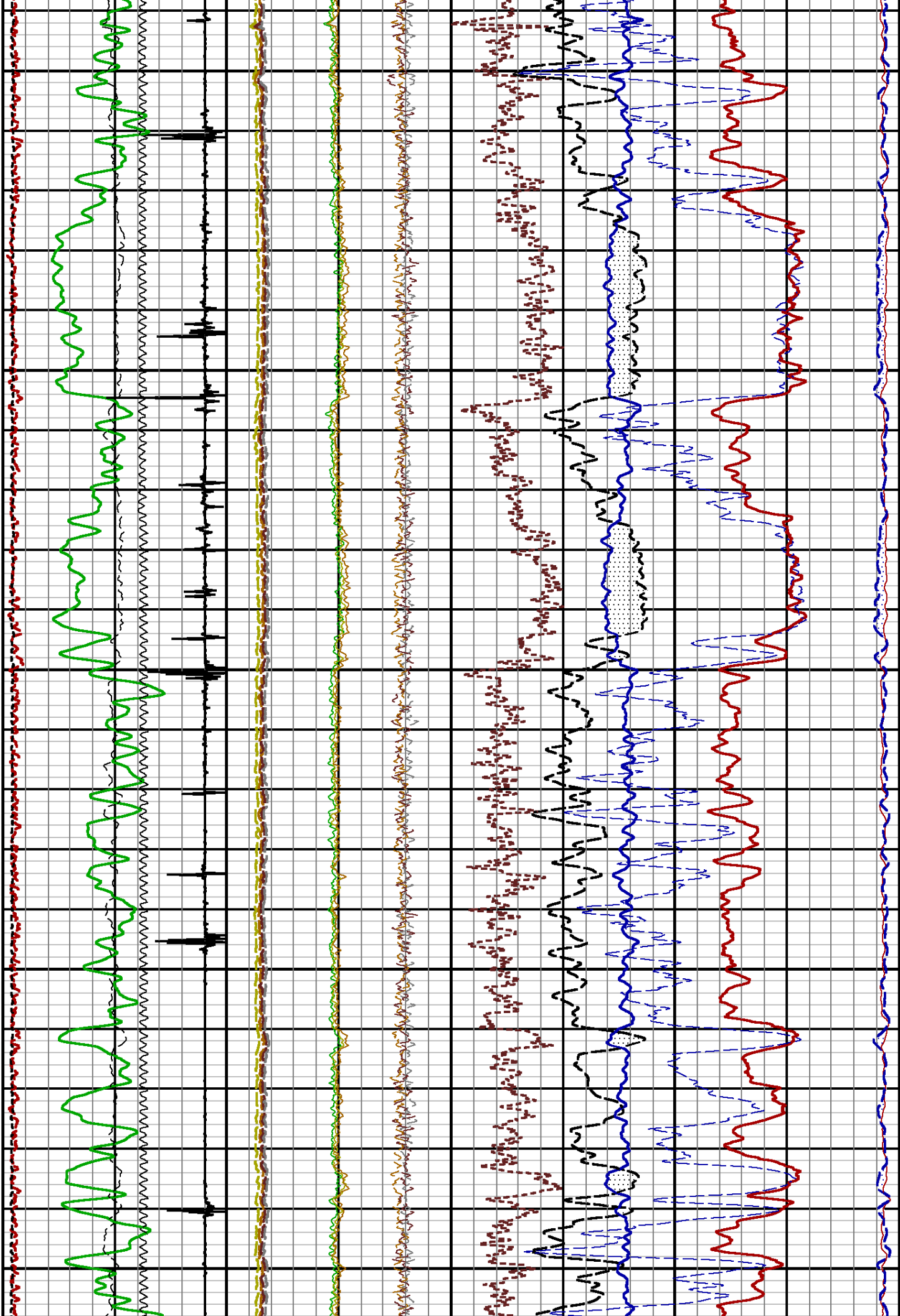
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5000

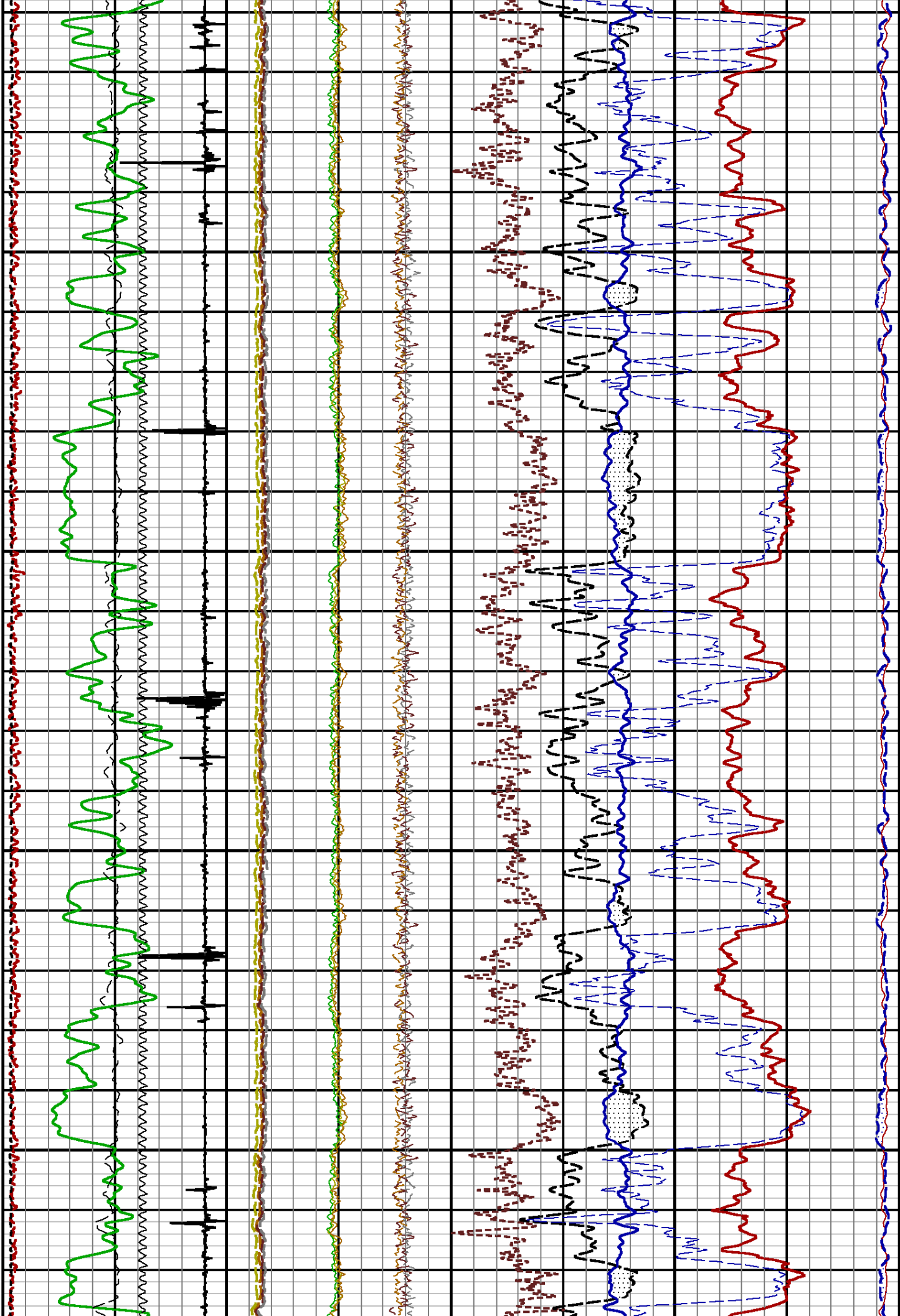
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5200



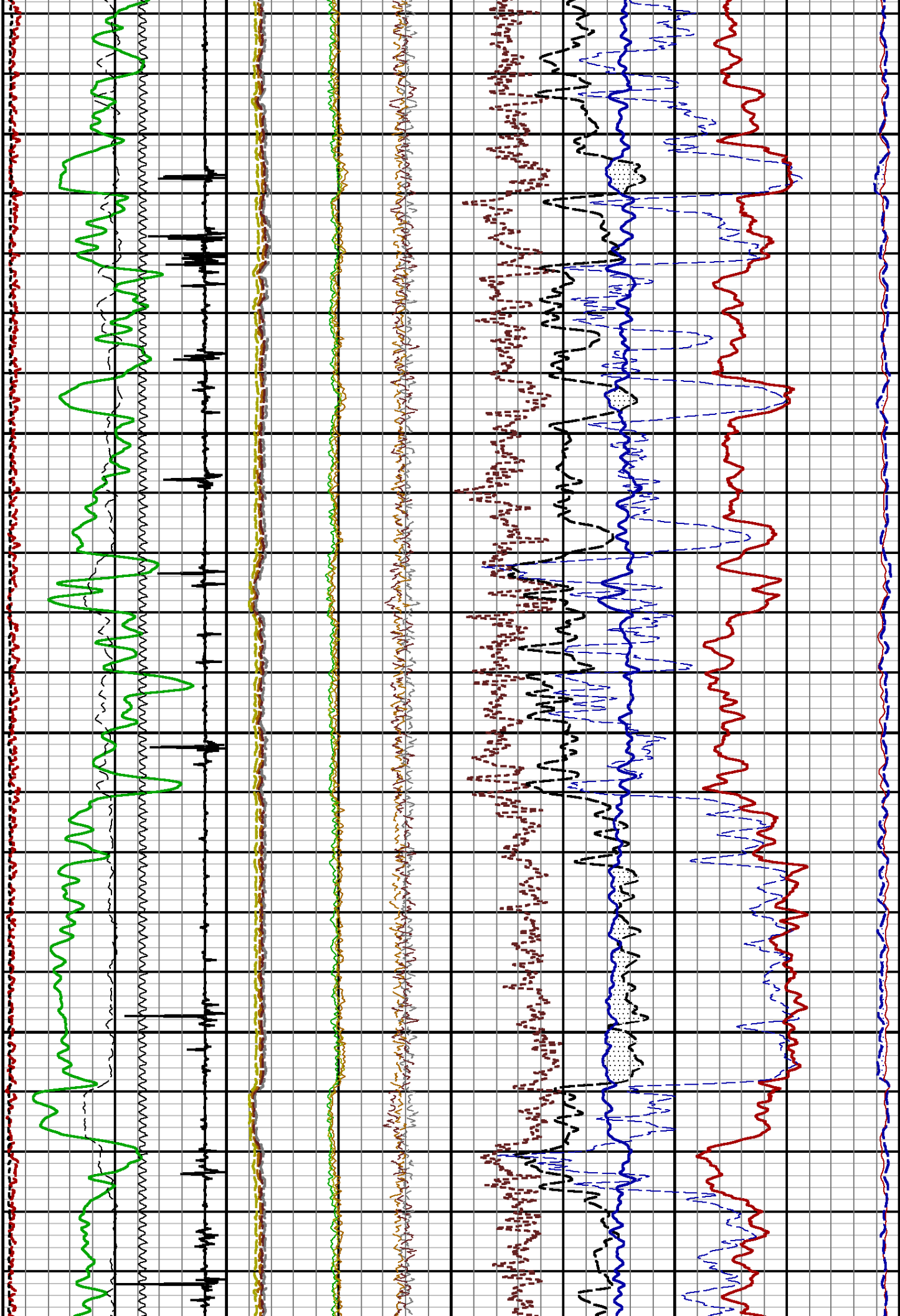
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5400



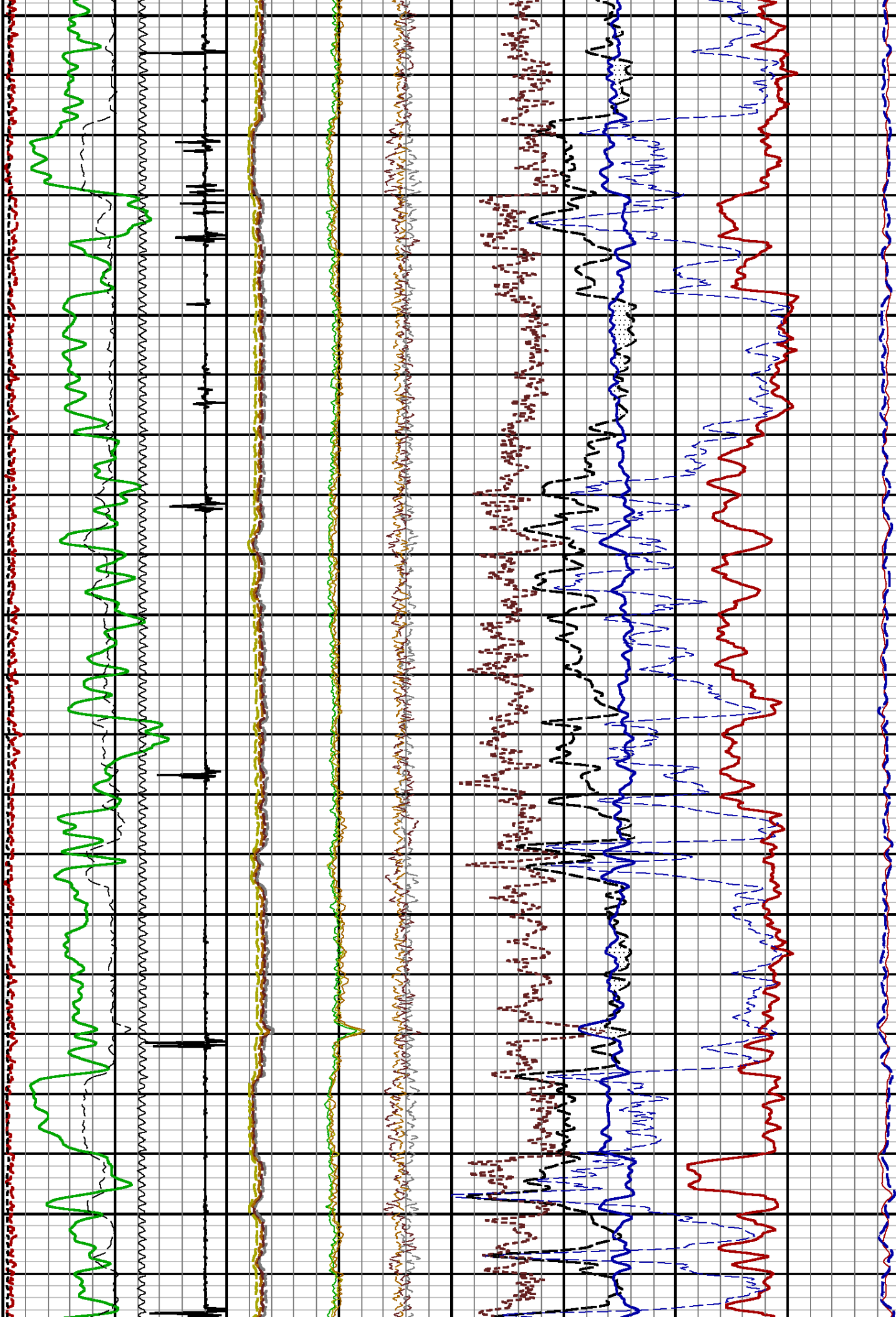
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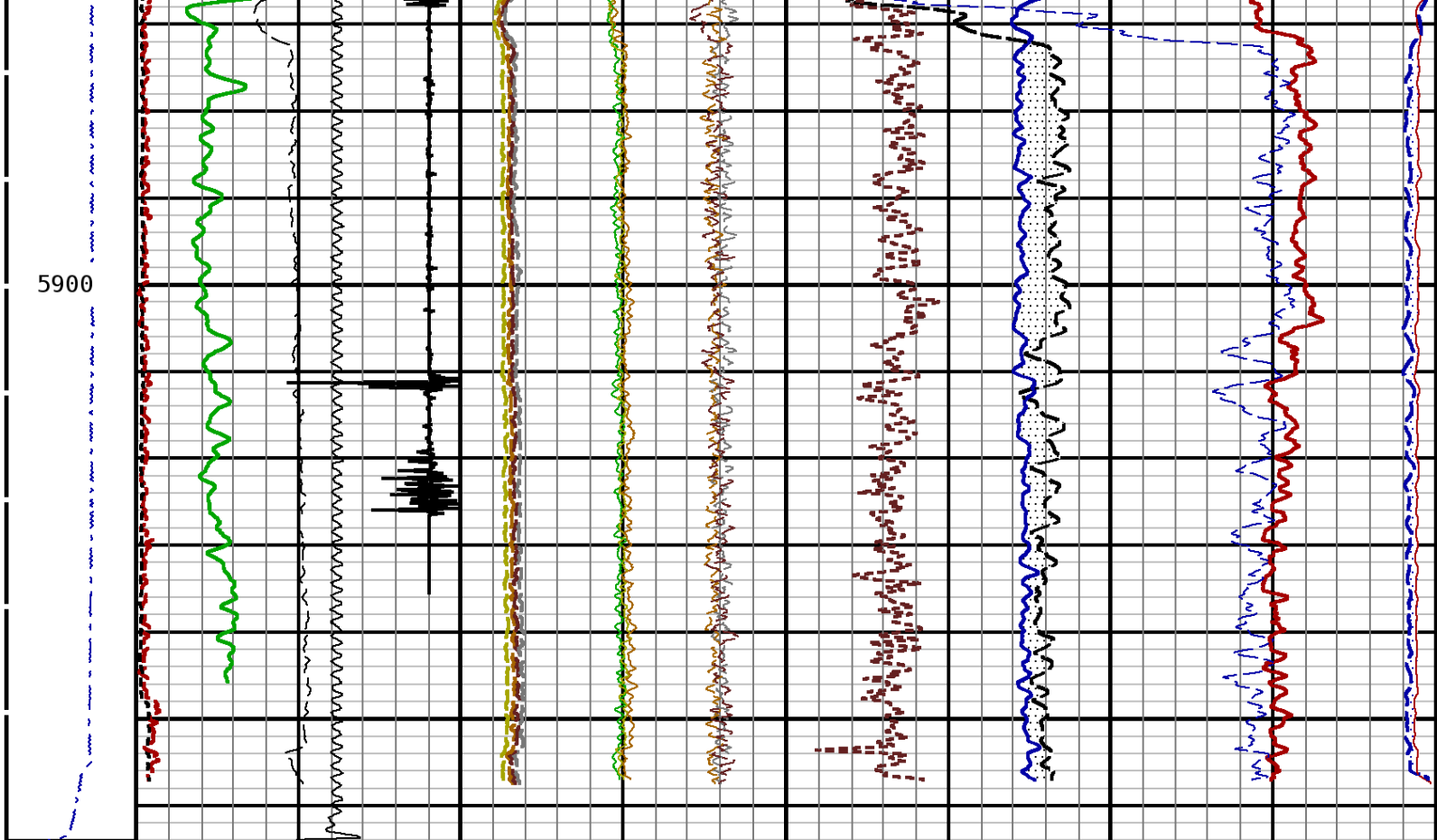
5600



5700

5800





Tension 02000	CCL		FB92		Formation Sigma	
	-10000	Millivolts 1000	-80000	160000	60.0	0.0
	GAMMA RAY		FB93		Borehole Ratio	
	0	API 200	-80000	160000	12.5	-2.5
	Line Speed		FB94		NphiS	
	-50.0	Feet/Min 50.0	-80000	160000	40.0	0.0
	Far Background		HESC		RATIO	
	0.0	4000.0	-7.0	8.0	6.0	1.0
	Near Background		NB91		Ratio Bore n to f	
	0.0	40000.0	0	2400000	-1.0	14.0
OUTPUT QUALITY		NB92		FAR 1		
0.0	200000.0	0	2400000	40.0	Counts/Second 0.0	
		NB93		NEAR 1		
		0		240.0	CPS 0.0	
		NB94				
		0				
		NBPS				
		-1.5				
		SB4Q				
		-8.0				
		7.0				

START DEPTH: 5964.1 DIRECTION: UP DATE: 03/11/2015 TIME: 07:49 MODE: ORIGINAL									
113206870 PNDMAIN									
MAIN PASS									
DEPTH SCALE: 5":100'					LOGGED VERSION: 2012.07.18.162"				

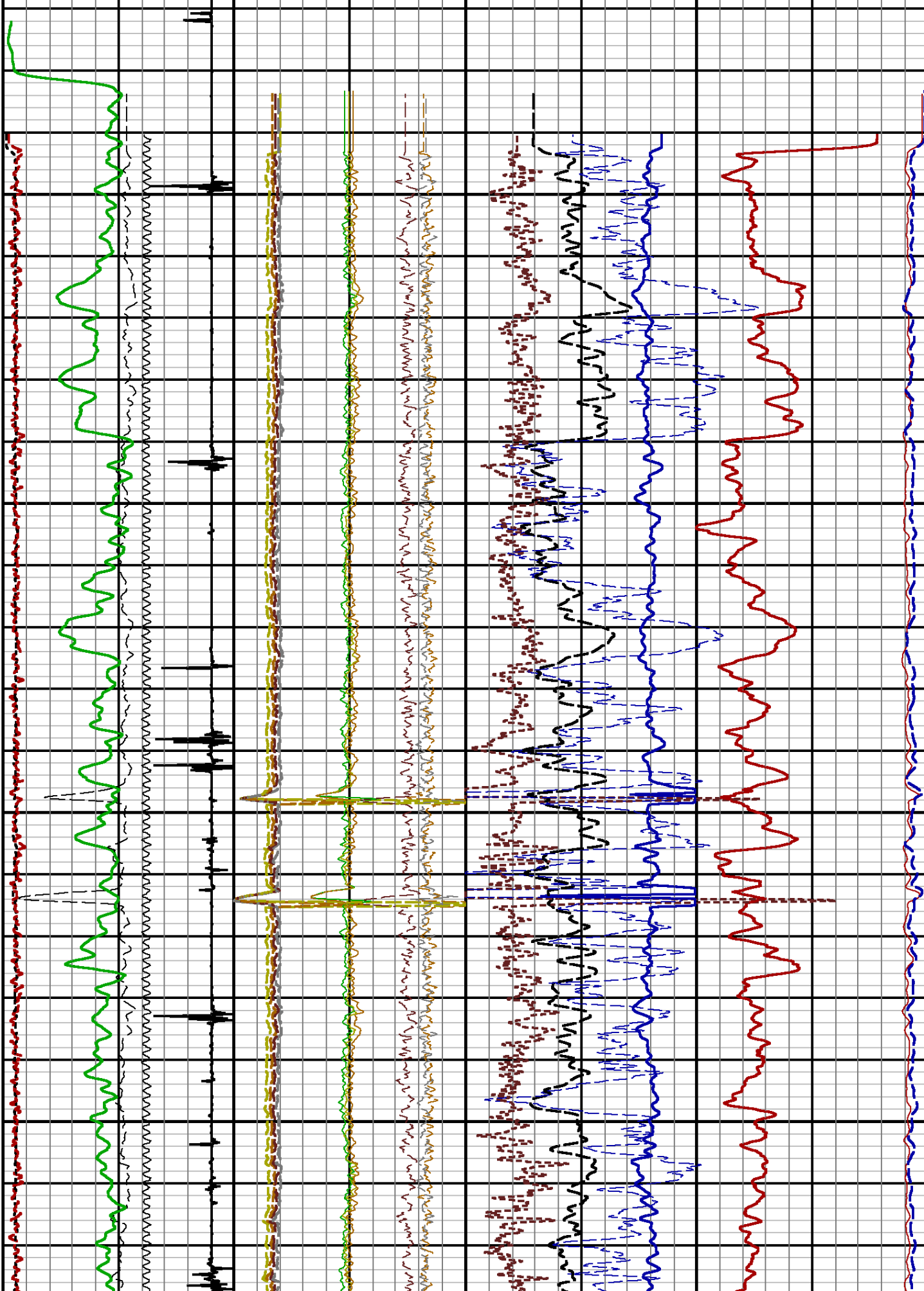
DEPTH SCALE: 5":100'					PROCESSED VERSION: 2012.07.18.162"					
REPEAT PASS										

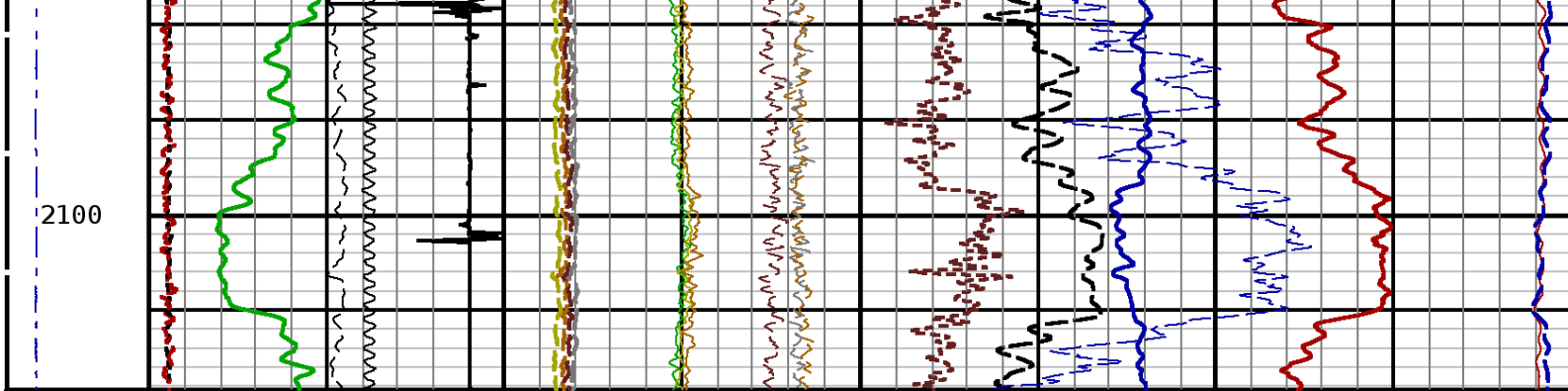
113206870 PNDREPEAT										
FINISH DEPTH: 1858.3 Feet			DIRECTION: UP		DATE: 03/11/2015		TIME: 07:54		MODE: ORIGINAL	

<div>Line Speed</div> <div>-50.0 Feet/Min 50.0</div> <div>Far Background</div> <div>0.0 4000.0</div> <div>Near Background</div> <div>0.0 40000.0</div> <div>CCL</div> <div>-10000 Millivolts 1000</div> <div>GAMMA RAY</div> <div>0 API 200</div> <div>OUTPUT QUALITY</div> <div>0.0 200000.0</div>			HESC		-7.0 8.0		SB4Q		-8.0 7.0	
			NBPS		-1.5 1.5		FB94		-80000 160000	
			FB93		-80000 160000		Ratio Bore n to f		FAR 1	
			FB92		-80000 160000				40.0 Counts/Second 0.0	
			NB94		0 2400000		RATIO		NEAR 1	
			NB93		0 2400000		6.0 1.0		240.0 CPS 0.0	
			NB92		0 2400000		NphiS		40.0 0.0	
			NB91		0 2400000		Formation Sigma		60.0 0.0	
							Borehole Ratio			
			Tension			0 2000		0.0 200000.0		12.5

1900

2000





Tension 0 2000	OUTPUT QUALITY 0.0 200000.0		NB91 0 2400000		Borehole Ratio 12.5 -2.5	
	GAMMA RAY 0 API 200		NB92 0 2400000		Formation Sigma 60.0 0.0	
	CCL -10000 Millivolts 1000		NB93 0 2400000		NphiS 40.0 0.0	
	Near Background 0.0 40000.0		NB94 0 2400000		RATIO 6.0 1.0	
	Far Background 0.0 4000.0		FB92 -80000 160000		NEAR 1 240.0 CPS 0.0	
	Line Speed -50.0 Feet/Min 50.0		FB93 -80000 160000		Ratio Bore n to f -1.0 14.0	
			FB94 -80000 160000		FAR 1 40.0 Counts/Second 0.0	
			NBPS -1.5 1.5			
			SB4Q -8.0 7.0			
			HESC -7.0 8.0			

START DEPTH: **2118.4** DIRECTION: **UP** DATE: **03/11/2015** TIME: **07:54** MODE: **ORIGINAL**
113206870 PNDREPEAT

REPEAT PASS
DEPTH SCALE: **5":100'** LOGGED VERSION: **2012.07.18.162"**

1 7/16 Adapter Head

Weight 2.2 LBS.
Length 12 IN.
Max. Diameter

Total Stack Weight in air
Total Stack Length 32.0 FT.

Pulsed Neutron Processor

Weight 49 LBS.
Length 12.9 FT.
Max. Diameter 1.69 IN.

Pulsed Neutron Detectors

Weight 29.9 LBS
Length 19.0 FT.
Max. Diameter 1.69 IN.

Pulsed Neutron Generator

Weight 26 LBS.
Length 8.7 FT.
Max. Diameter 1.69 IN.

CCL 28.51 FT.

GR 19.15 FT.

FAR DETECTOR 7.66 FT
From Target ()

NEAR DETECTOR 7.02 FT
From Target ()

TARGET 7.10 FT.

1.00 in. dia.
(cm)

1.44 in. dia.
(cm)

1.69 in. dia.

1.69 in. dia.

1.69 in. dia.

COMPANY URSA OPERATING COMPANY

WELL BAT 34B-24-07-96

FIELD BATTLEMENT MESA

COUNTY GARFIELD

STATE COLORADO



Weatherford®