

HALLIBURTON

RESERVOIR
MONITORING
TOOL - ELITE

Company	URSA OPERATING COMPANY	Company	URSA OPERATING COMPANY
Well	B&V 33C-07-07-95	Well	B&V 33C-07-07-95
Field	WILDCAT	Field	WILDCAT
County	GARFIELD	County	GARFIELD
State	CO	State	CO
API No.:	05045227170000	Serv #:	903921659
Location:	SHL: 1963' FSL & 627' FWL BHL: 1920' FSL & 1993' FWL	Other Services	JB GR CBL
Permanent Datum		Sec: 7	Twp: 7S Rge: 95W
Log Measured From	KB	Elevation	5084'
Drilling Measured From	KB		
Date @ Time Logged	3/27/2017 @ 05:00	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.4#
Depth - Driller	6397'	Fluid Level	SURFACE
Depth - Logger	6942'	Cement Top Est. Logged	1080'
Bottom - Logged Interval	6907'	Equipment / Location	11703208 / BRIGHTON
Top - Log Interval	3166'	Recorded by	J.SCHMIDT
Max. Recorded Temp.	198 F	Witnessed by	L. GEIGER
CEMENTING DATA	Surface	Protection	Liner
	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.	/	/	/
Run Number	Bit	From	To
		Size	Weight
		From	To

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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

TOOLS WERE RAN IN 4.5" 11.6# CASING.

RMT RAN IN SIGMA MODE WITH A GENERATOR VOLTAGE OF 86V.

****THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES****

Service Ticket No.	903921659	API No.	05045227170000	PGM Ver	WARRIOR 8.0
The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client					
EQUIPMENT DATA					
GAMMA		CBL		RMT	
Run No.	ONE	Run No.	ONE	Run No.	ONE
Serial No.	12159411	Serial No.	11836468	Serial No.	12376244
Model No.	TTTCU-002	Model No.	CBL-M	Model No.	RMTi
Diameter	1.69"	Diameter	2.75"	Diameter	2.75"
LOGGING DATA					
General Data					
Pass	Depths		Well Head	Speed	Logging Run Comments
No	From	To	Pressure	Ft/Min	

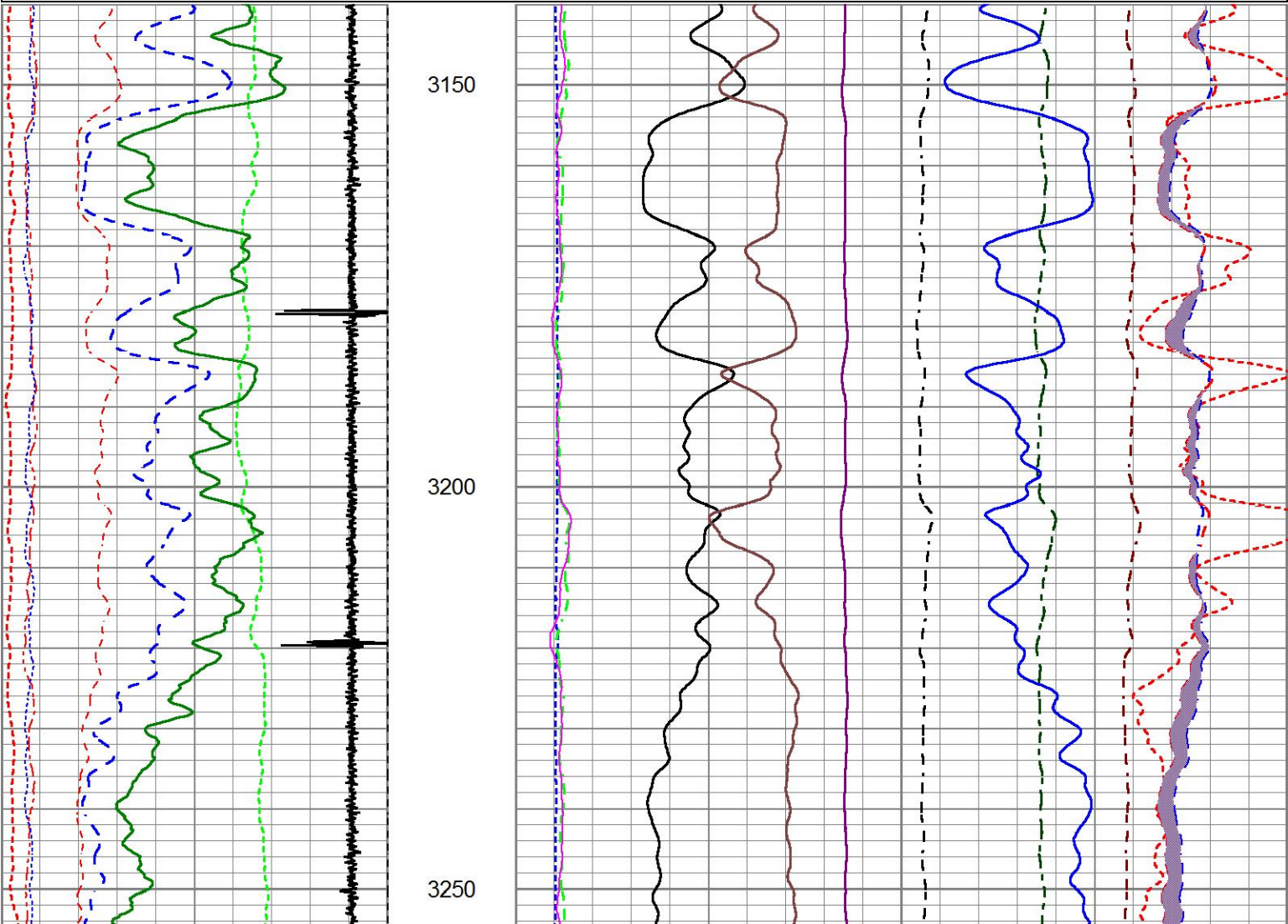
ONE	TD	SURFACE CSG	14.7 PSI	20			
	GAMMA		CBL		RMTI		
Pass	Scale		Scale		Scale		Scale
No.	L	R	L	R	L	R	L L
ONE	0	150	0	100	60	0	
DIRECTIONAL INFORMATION							
Maximum Deviation			deg. @		KOP		

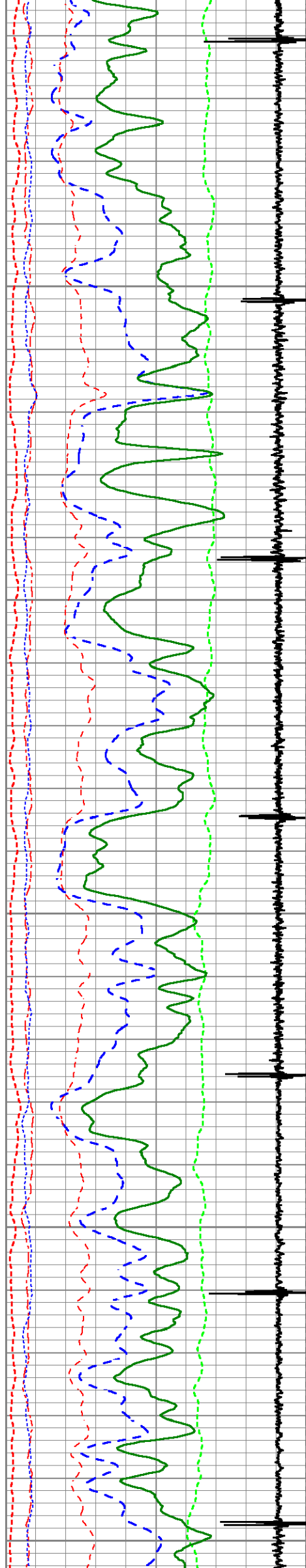
MAIN PASS

HALLIBURTON

5" = 100'

Database File		g:\ursa\b&v 33c-07-07-95\33c.db					
Dataset Pathname		MAIN					
Presentation Format		IRMTE_~1					
Dataset Creation		Mon Mar 27 11:05:25 2017					
Charted by		Depth in Feet scaled 1:240					
200	Near Bore Si (SGBN)	0	TENSION	0	RATIO (RNF)		1
0	OAI	100	0 (lb 1800	60	SGIN		0
10	FAR FIT ERR (SGFF)	40		0	RIN	9 60000	Near Counts (NCAP) 0
0	GR (GAPI)	150		0	RICF	6 60000	Far Counts (FCAP) 0
0	NEAR FIT ERR (SGFN)	100		0	H YIELD (YH2)	1 100000	FAR INTEL CT (FSIN) 0
-3500	CCL	350		0	H YIELD (YH1)	1 10000	(NEAR INTEL CT (NSIN) 0
0	IN FIT ERR (CFTR1) NEAR	1		0.9	PHIT ()	-0.1	ET INL NEAR (NNII
0	IN FIT ERR CFTR2) FAR	1			INOX2	50000	-1000
					-1500	1500	





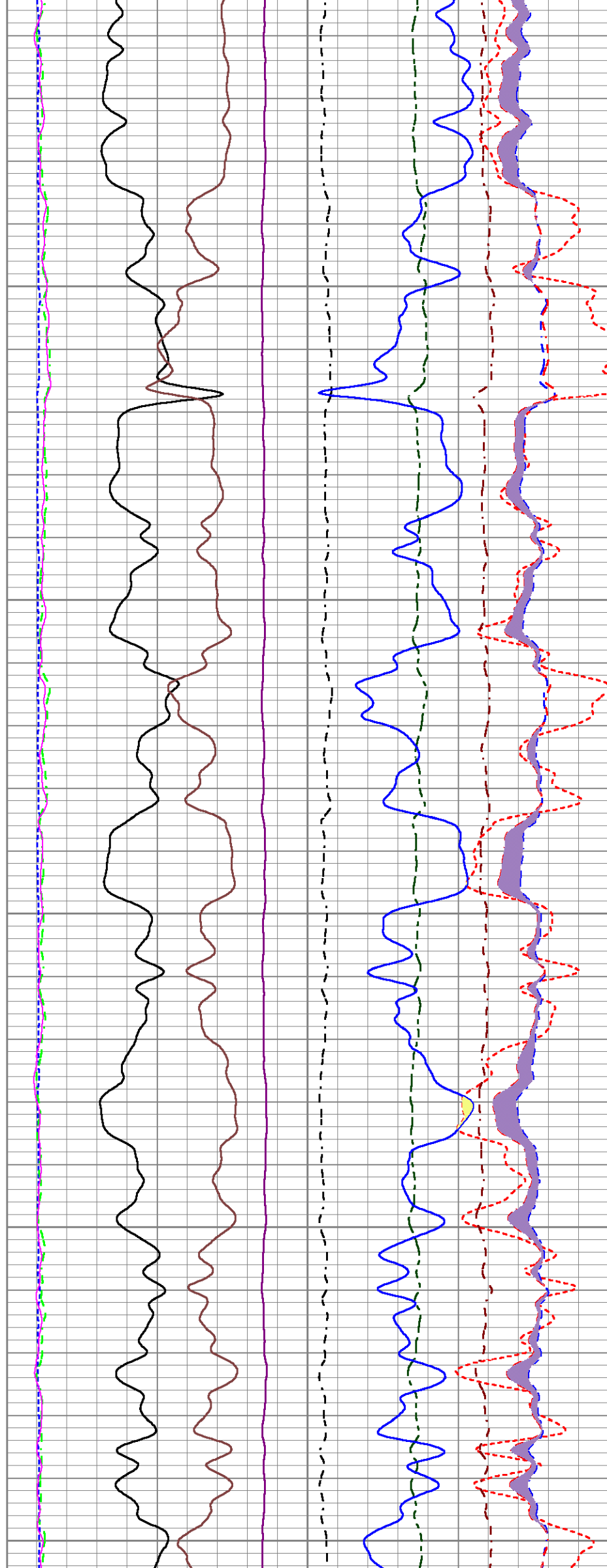
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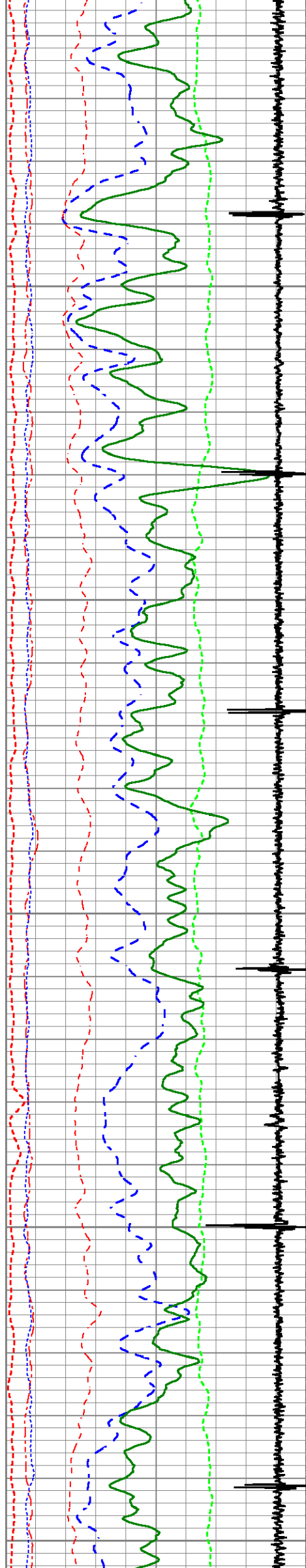
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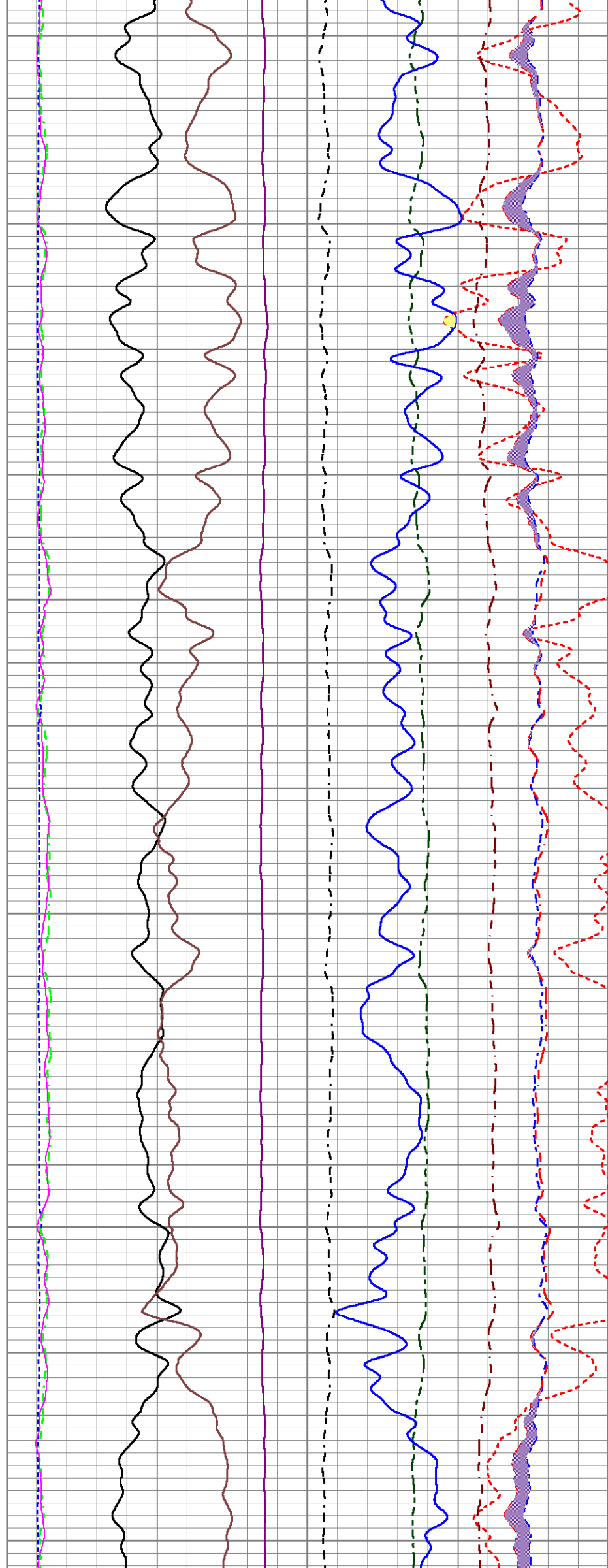
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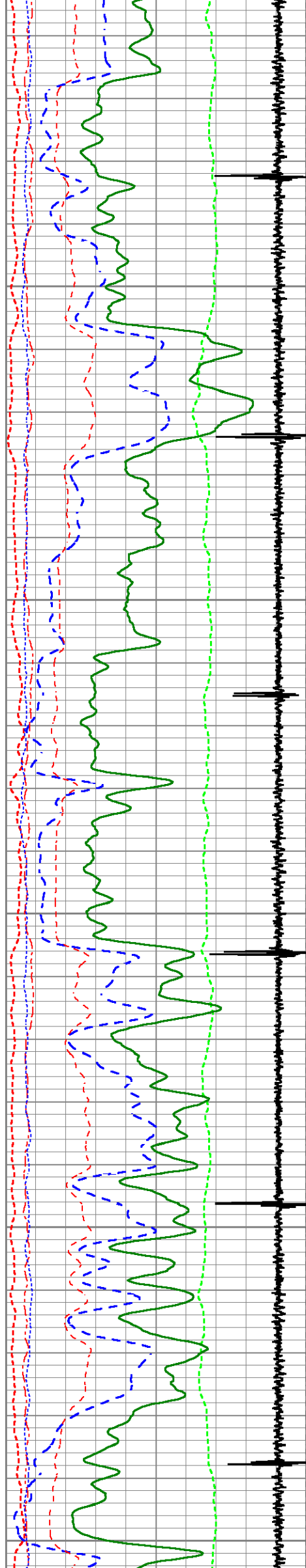
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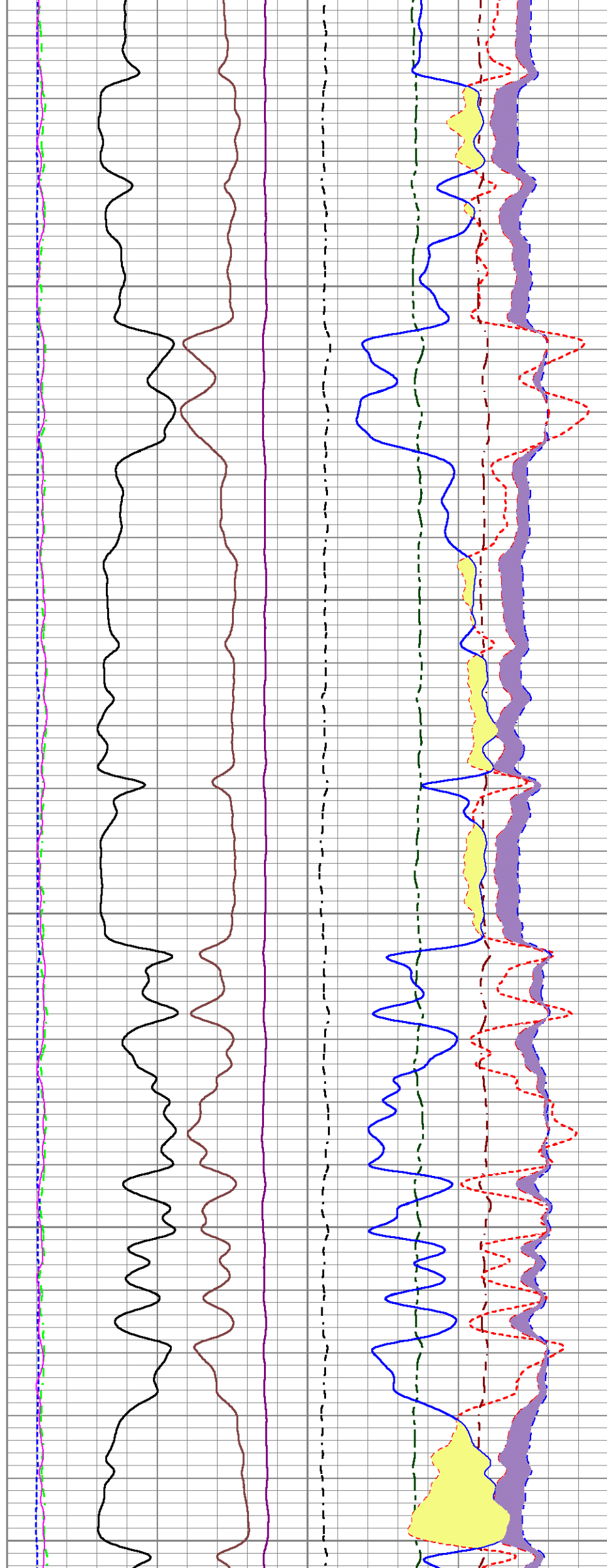
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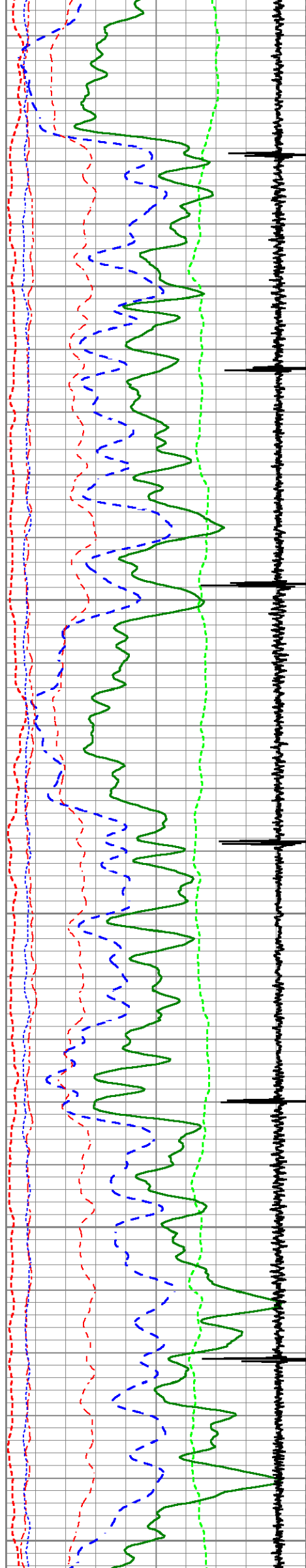
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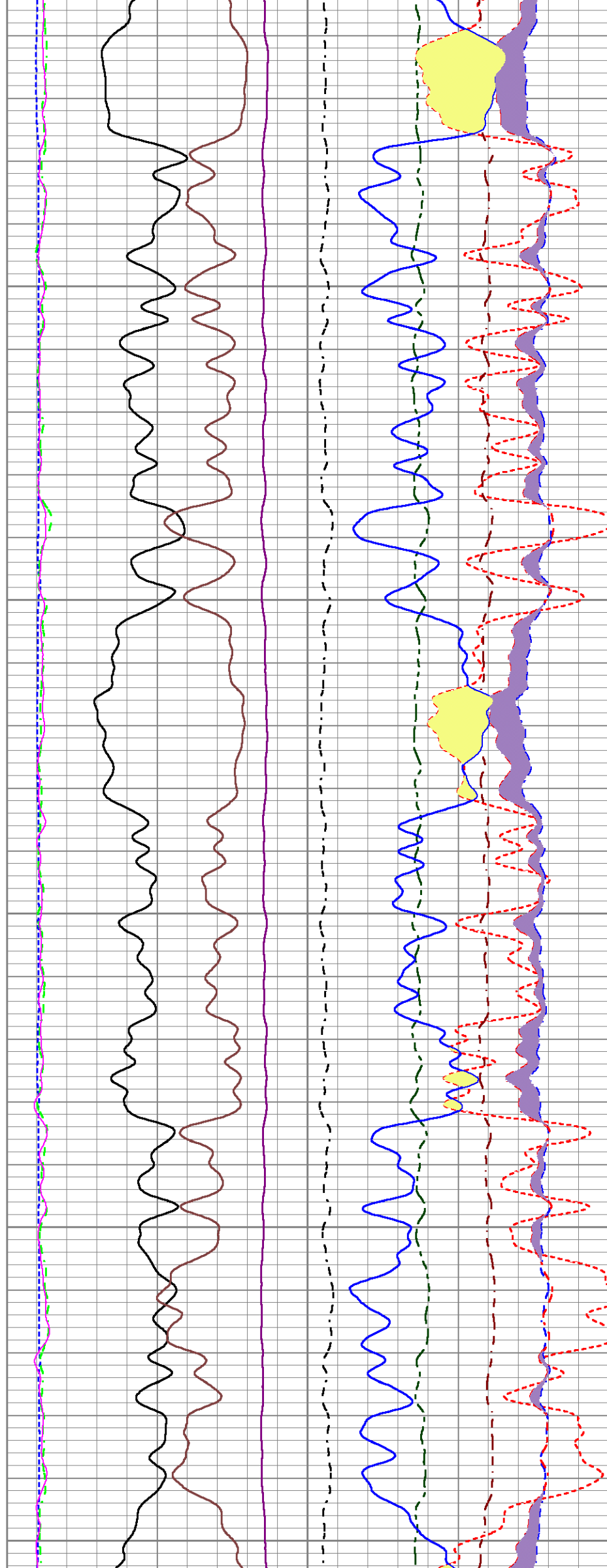
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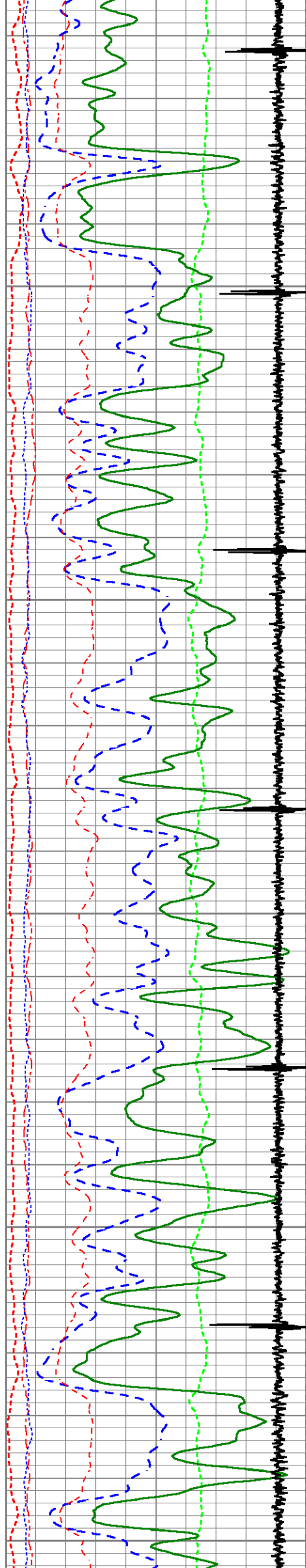
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4150

4200

4250





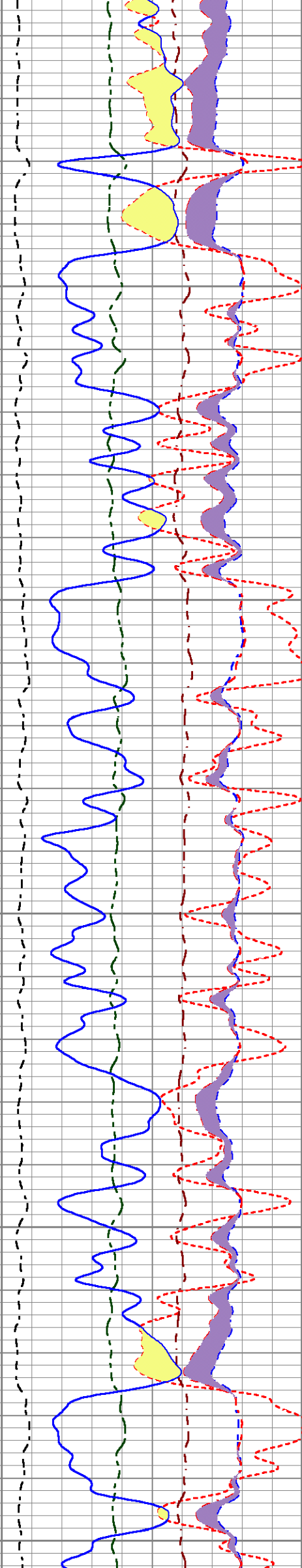
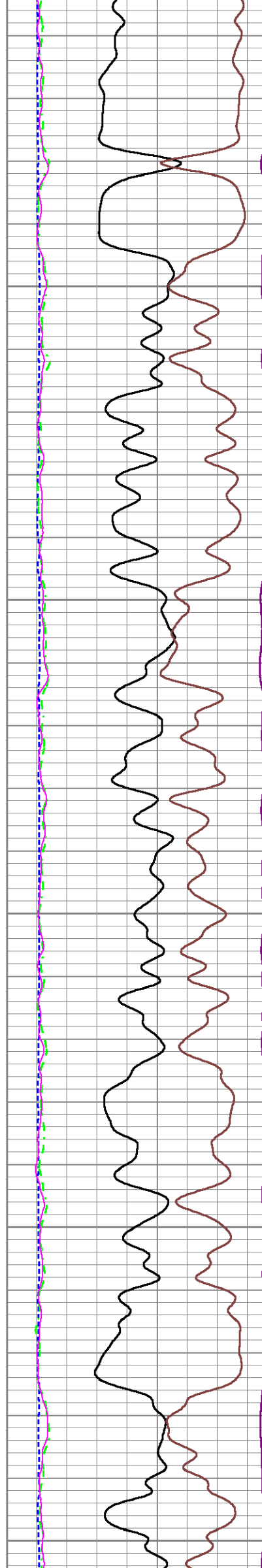
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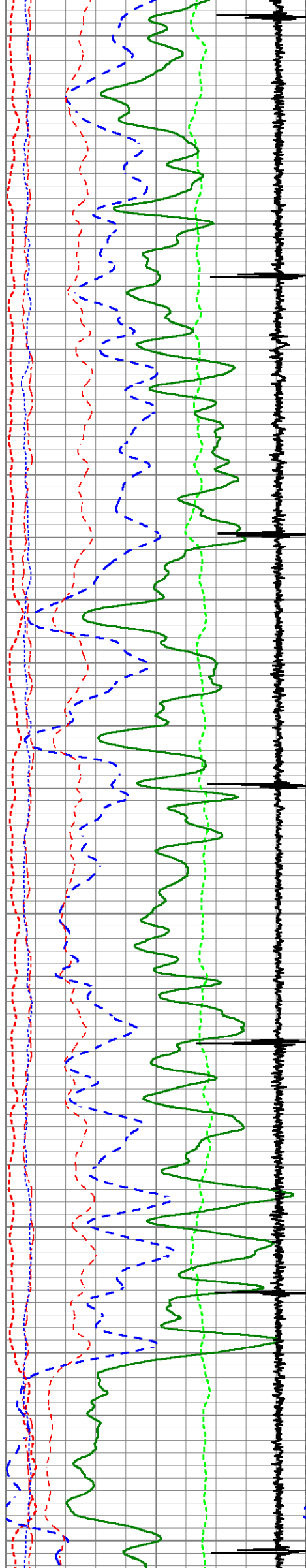
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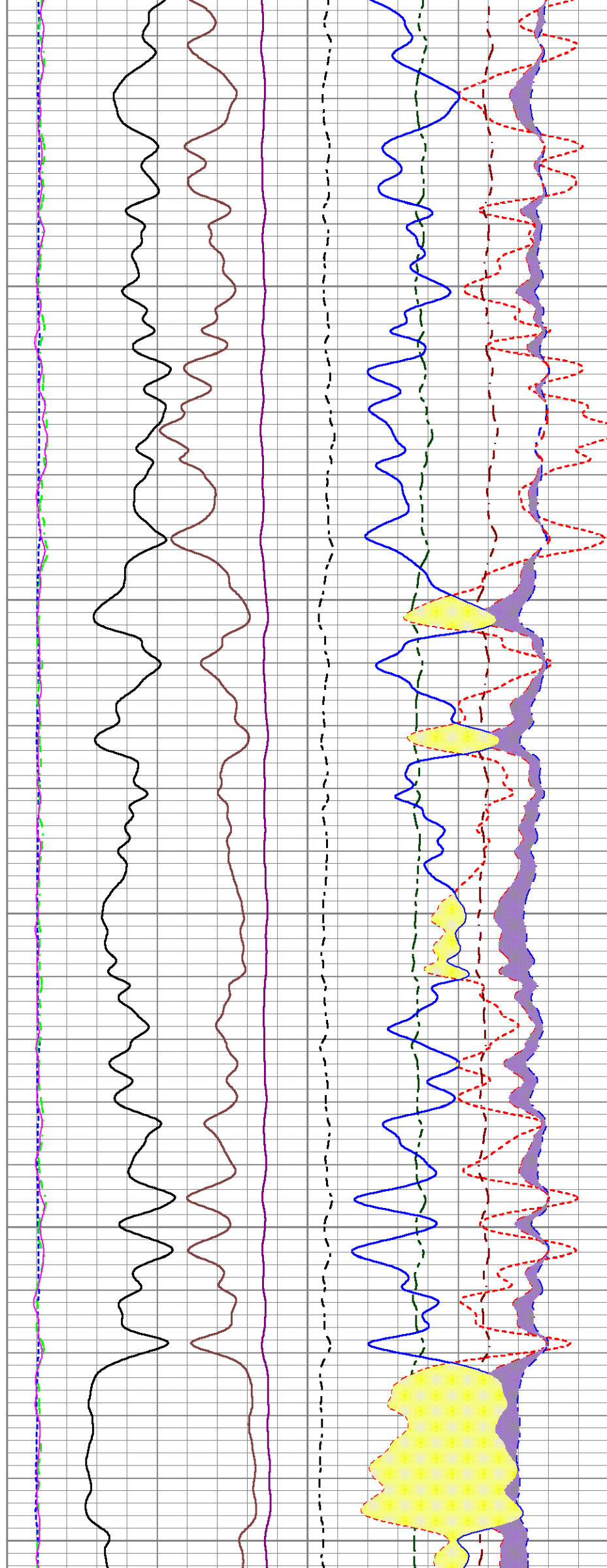
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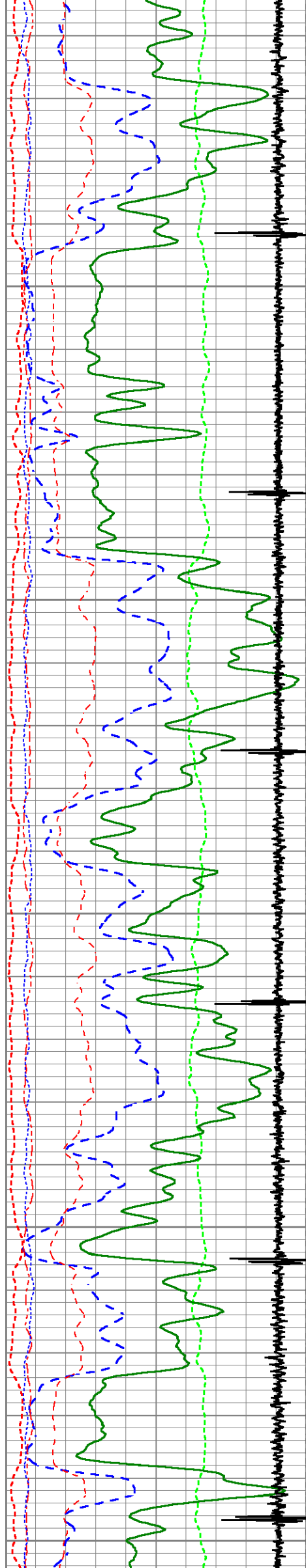
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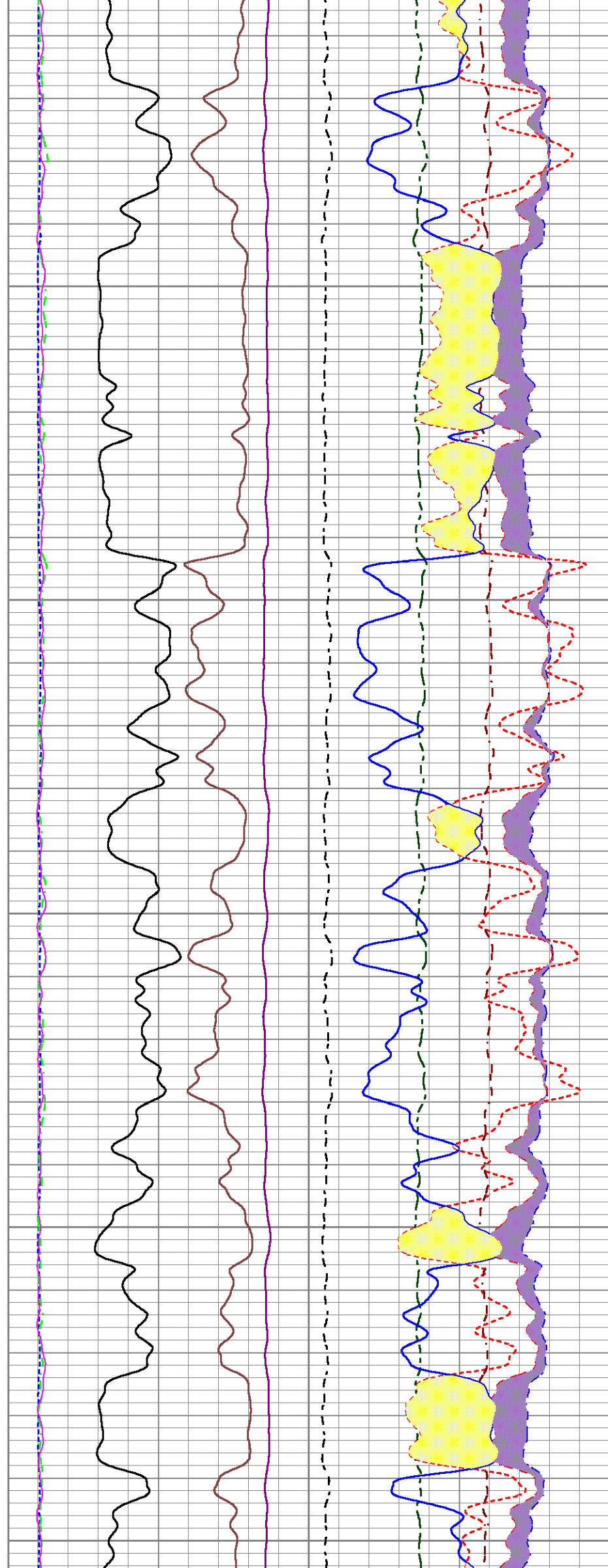
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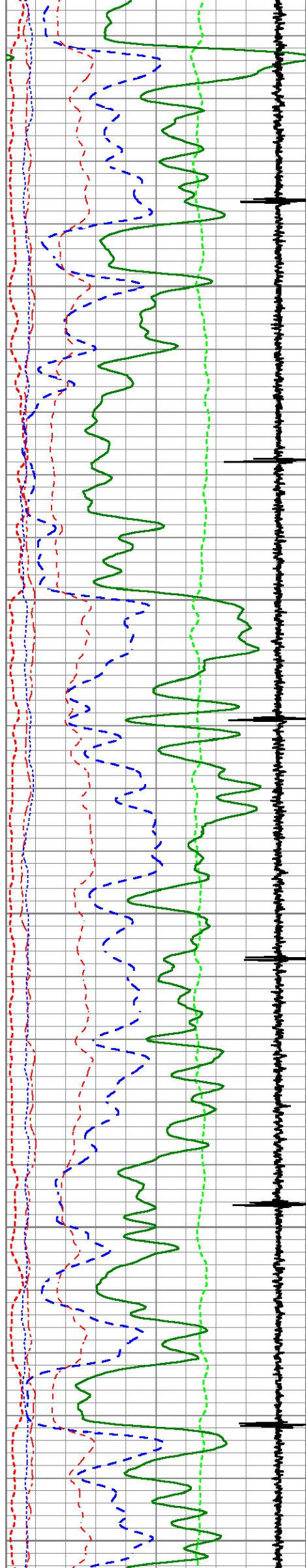
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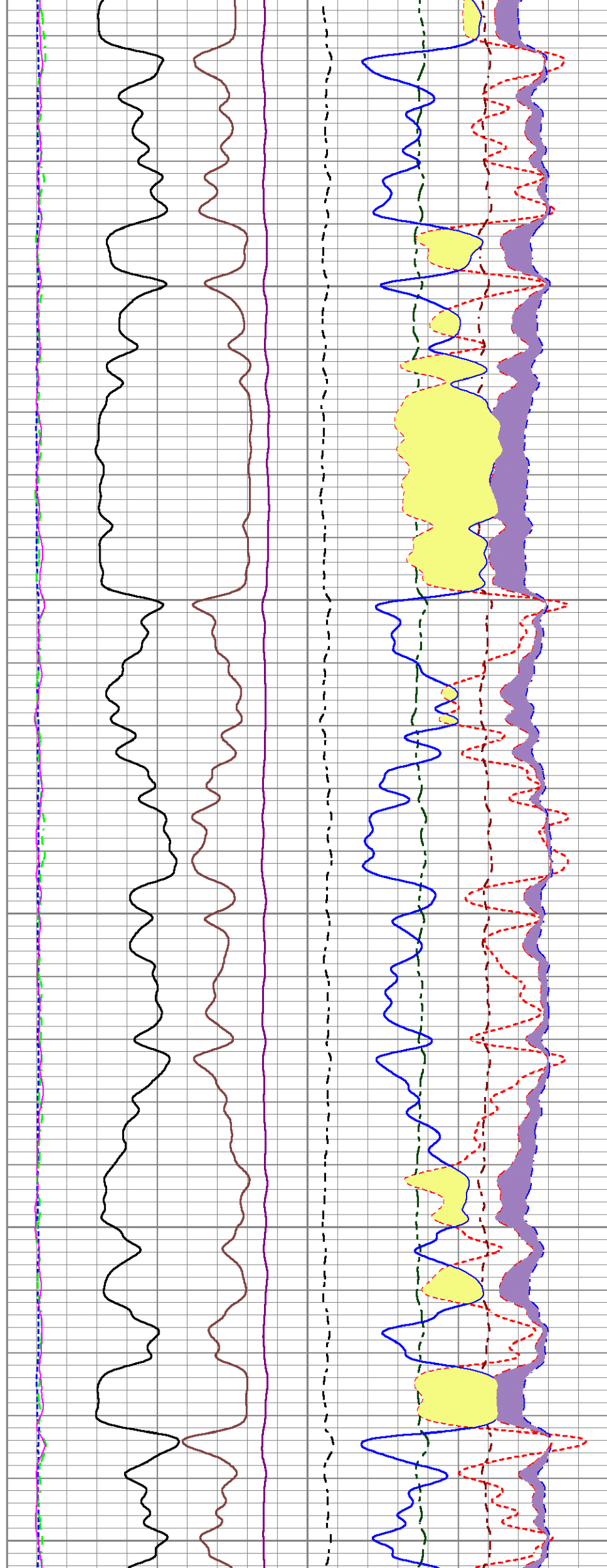
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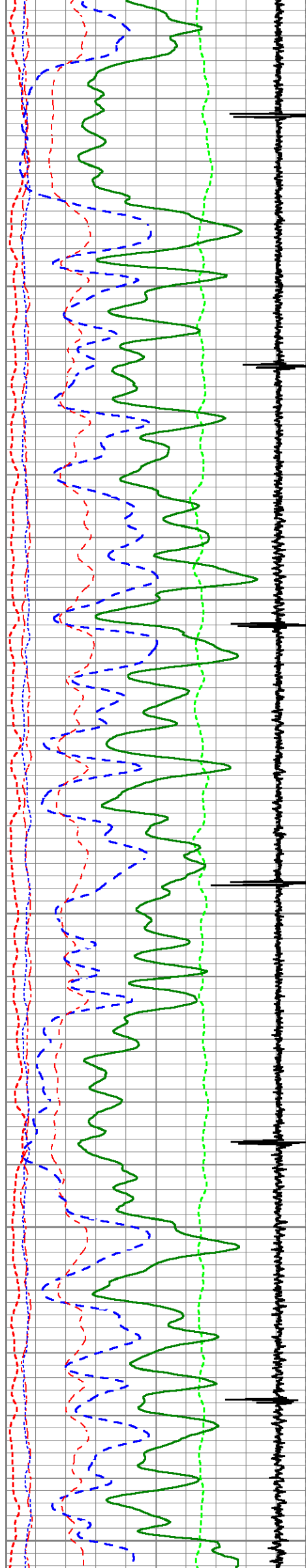
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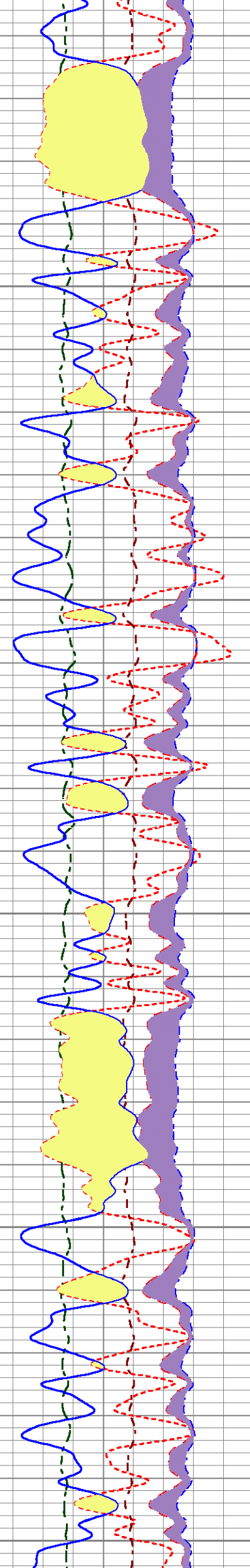
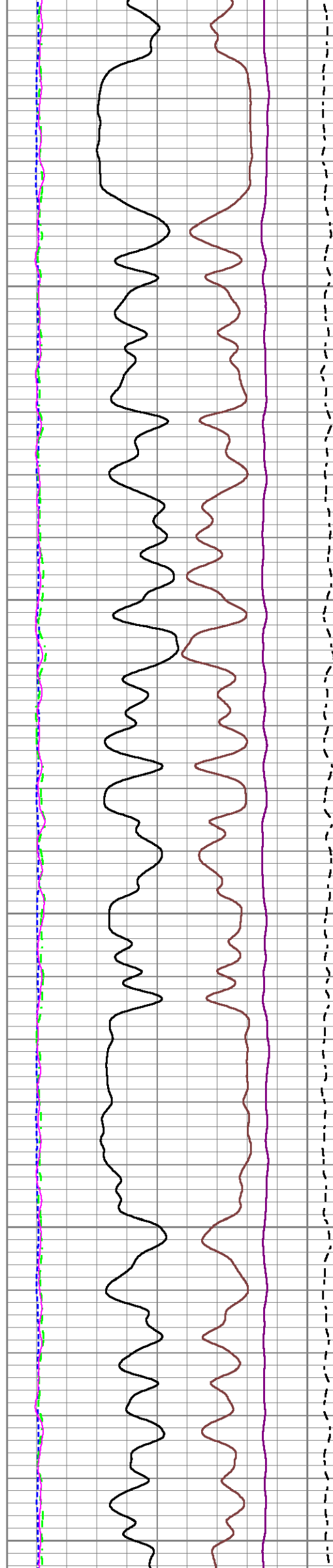
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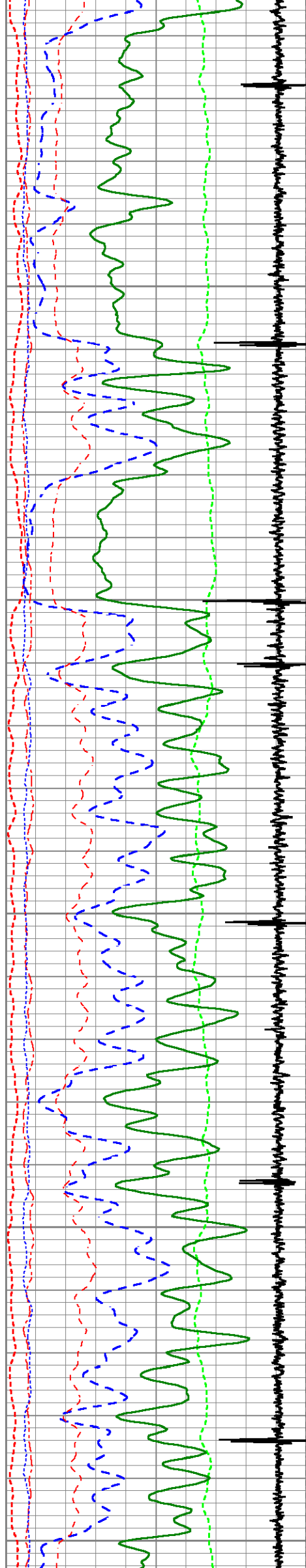
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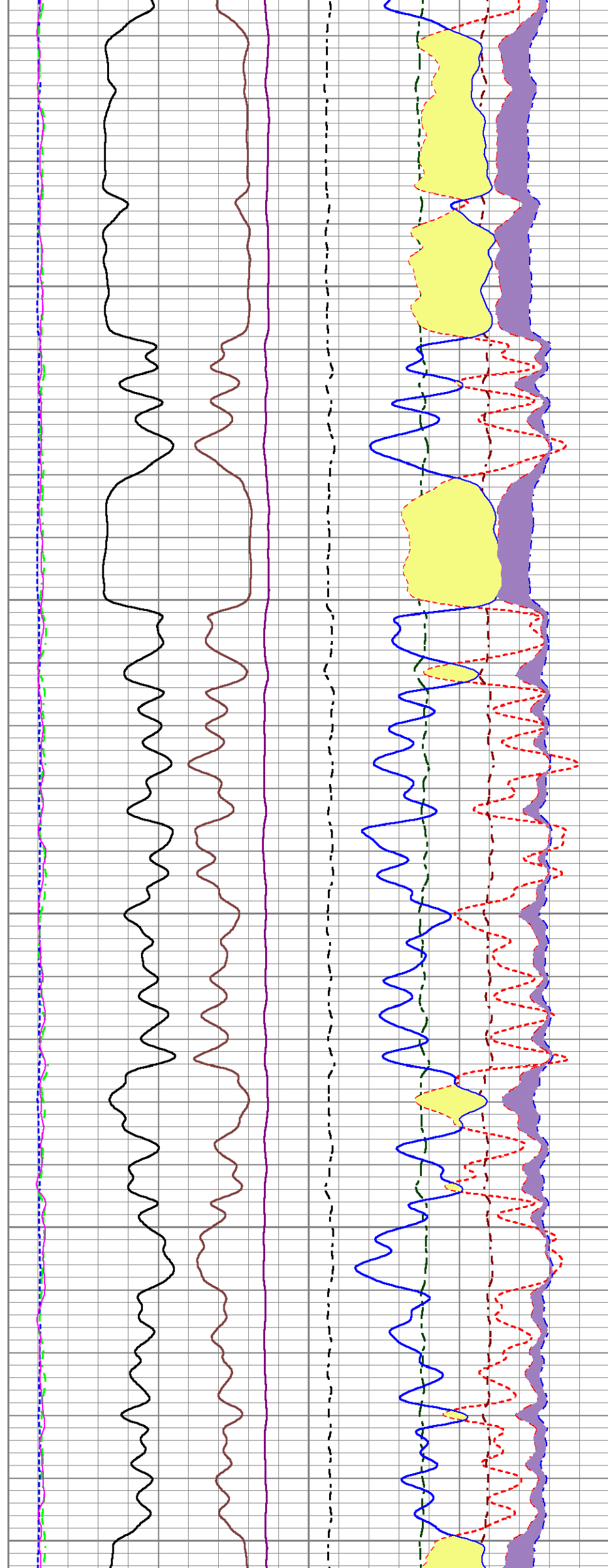
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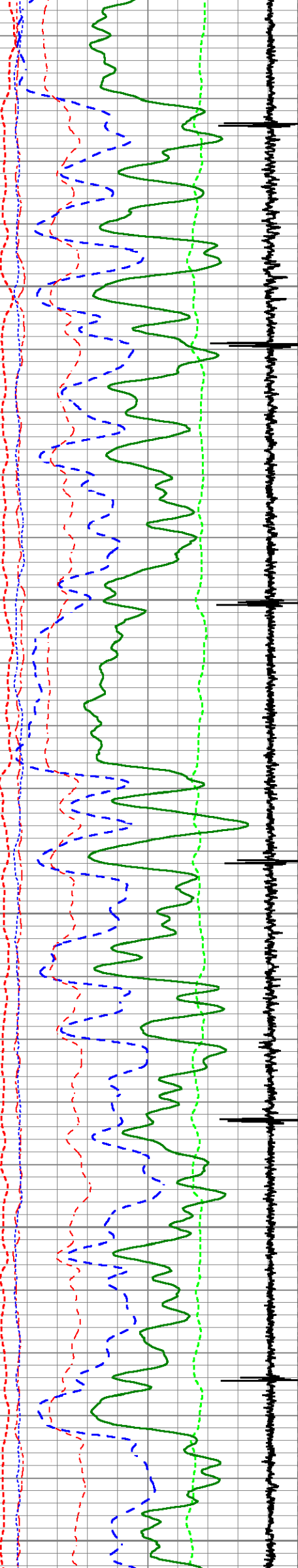
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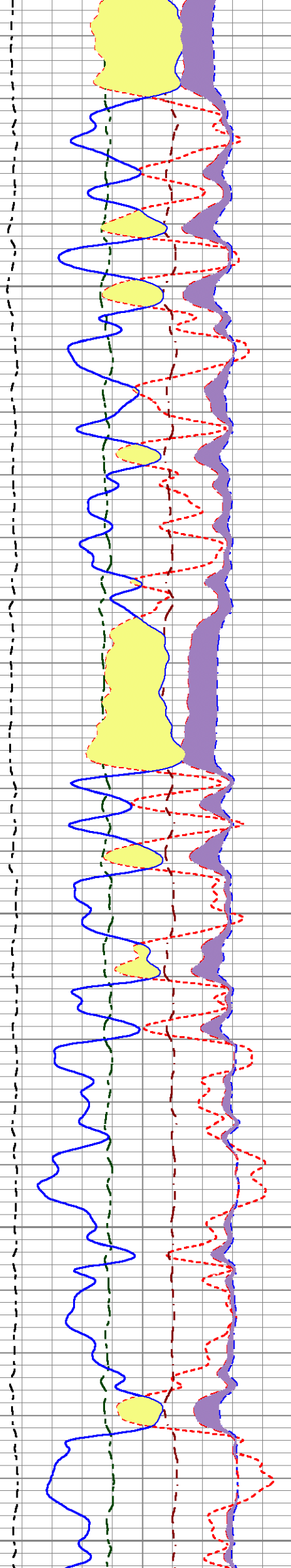
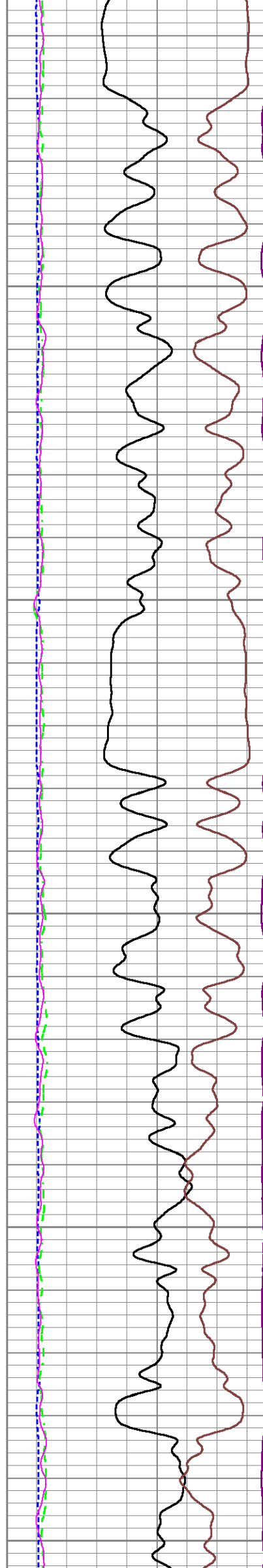
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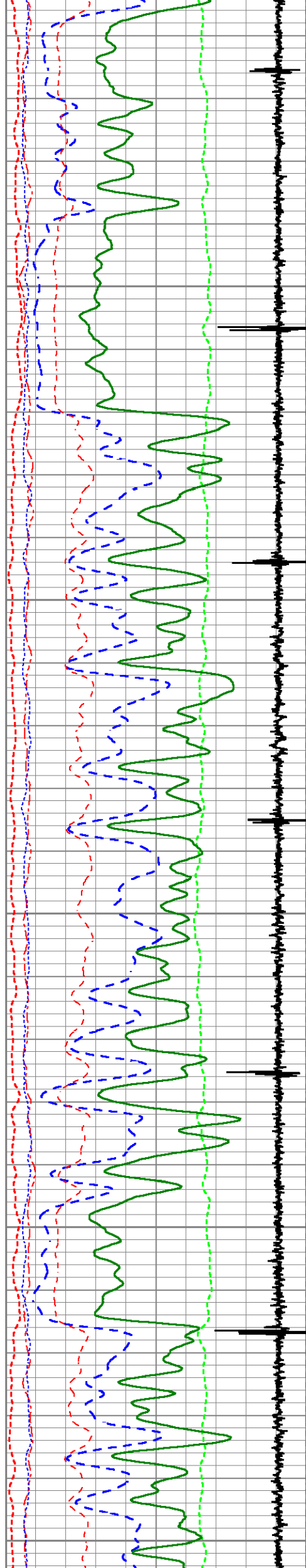
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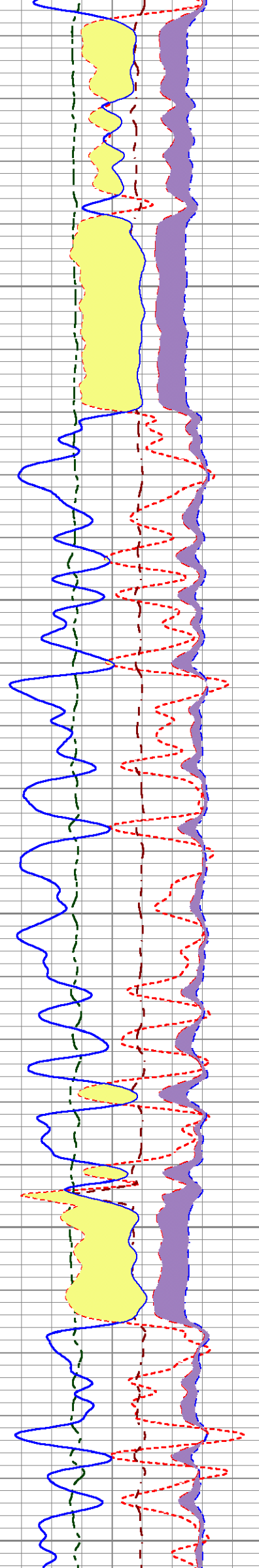
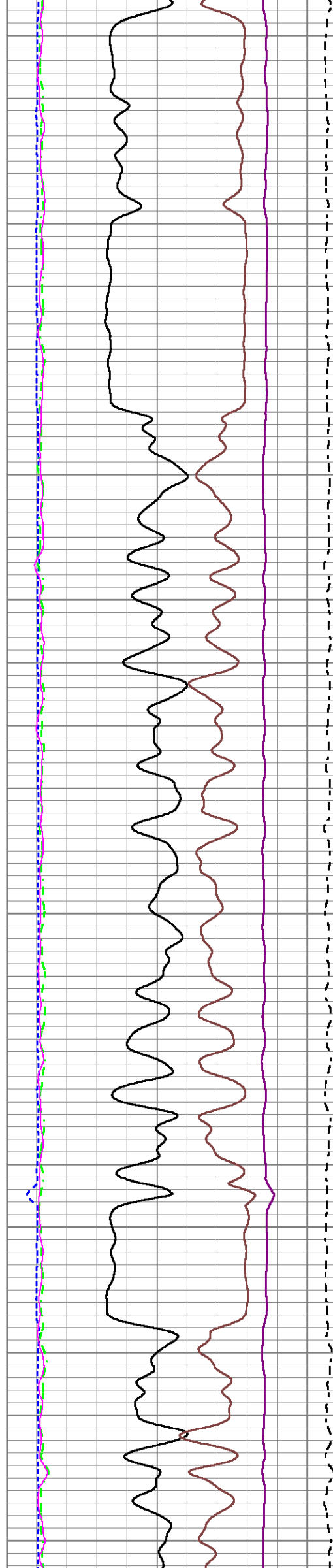
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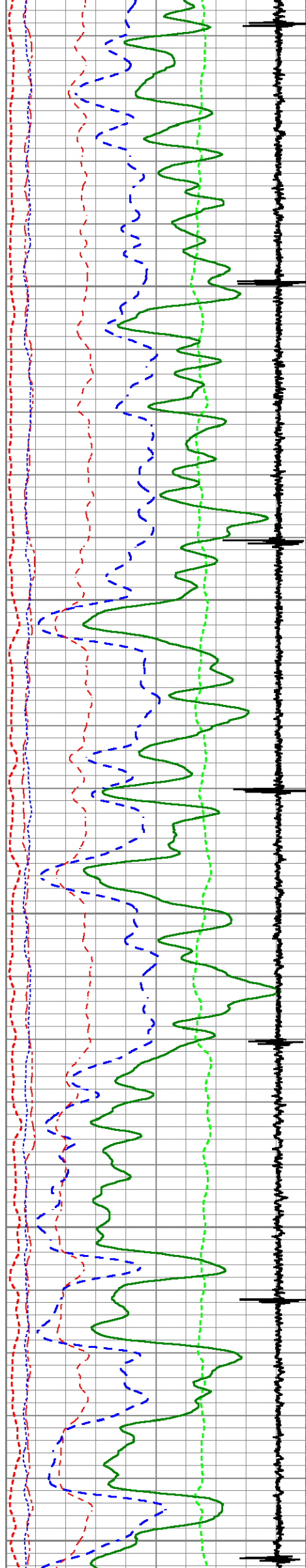
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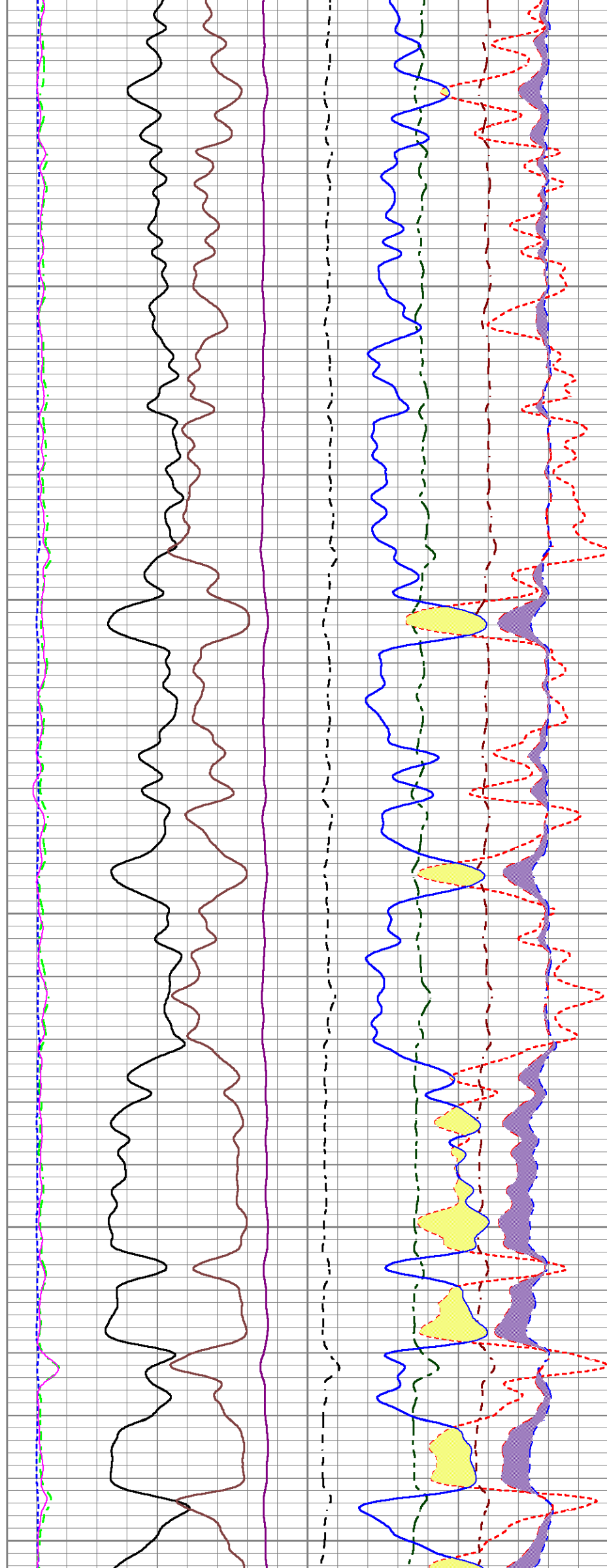
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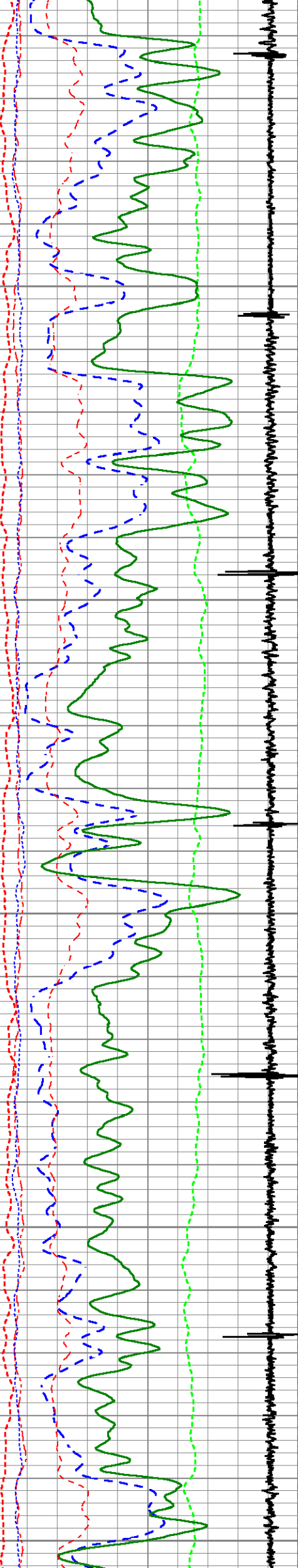
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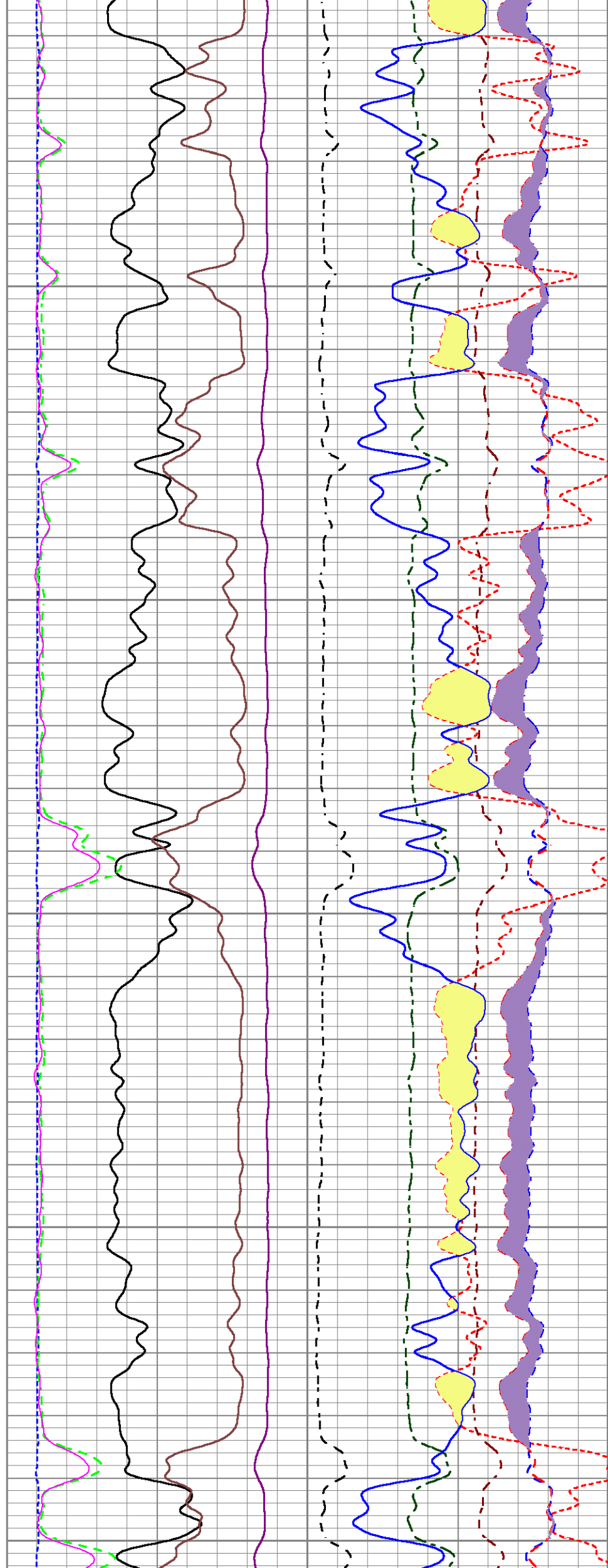
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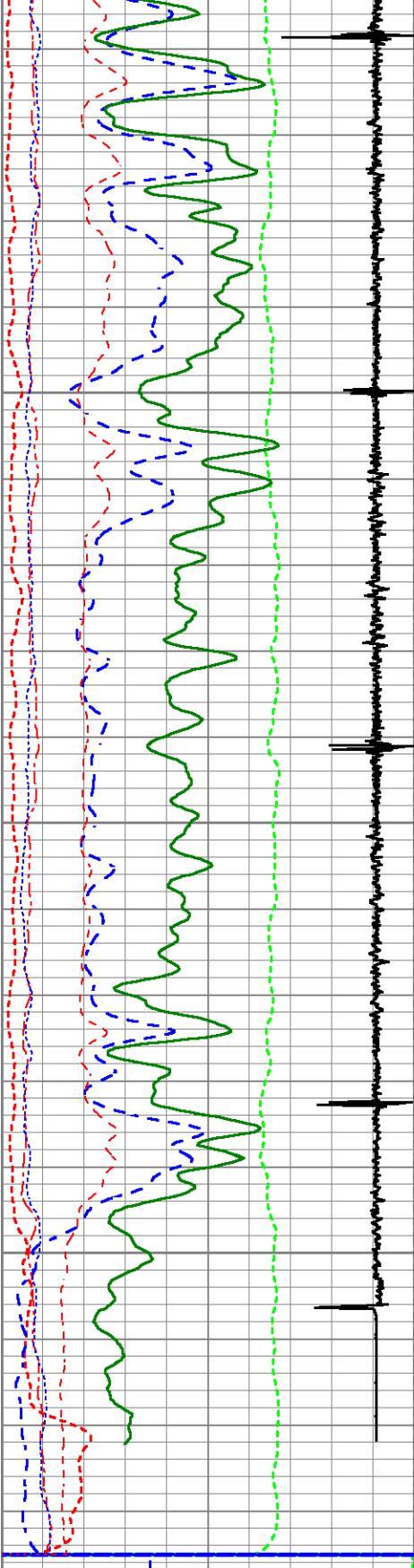
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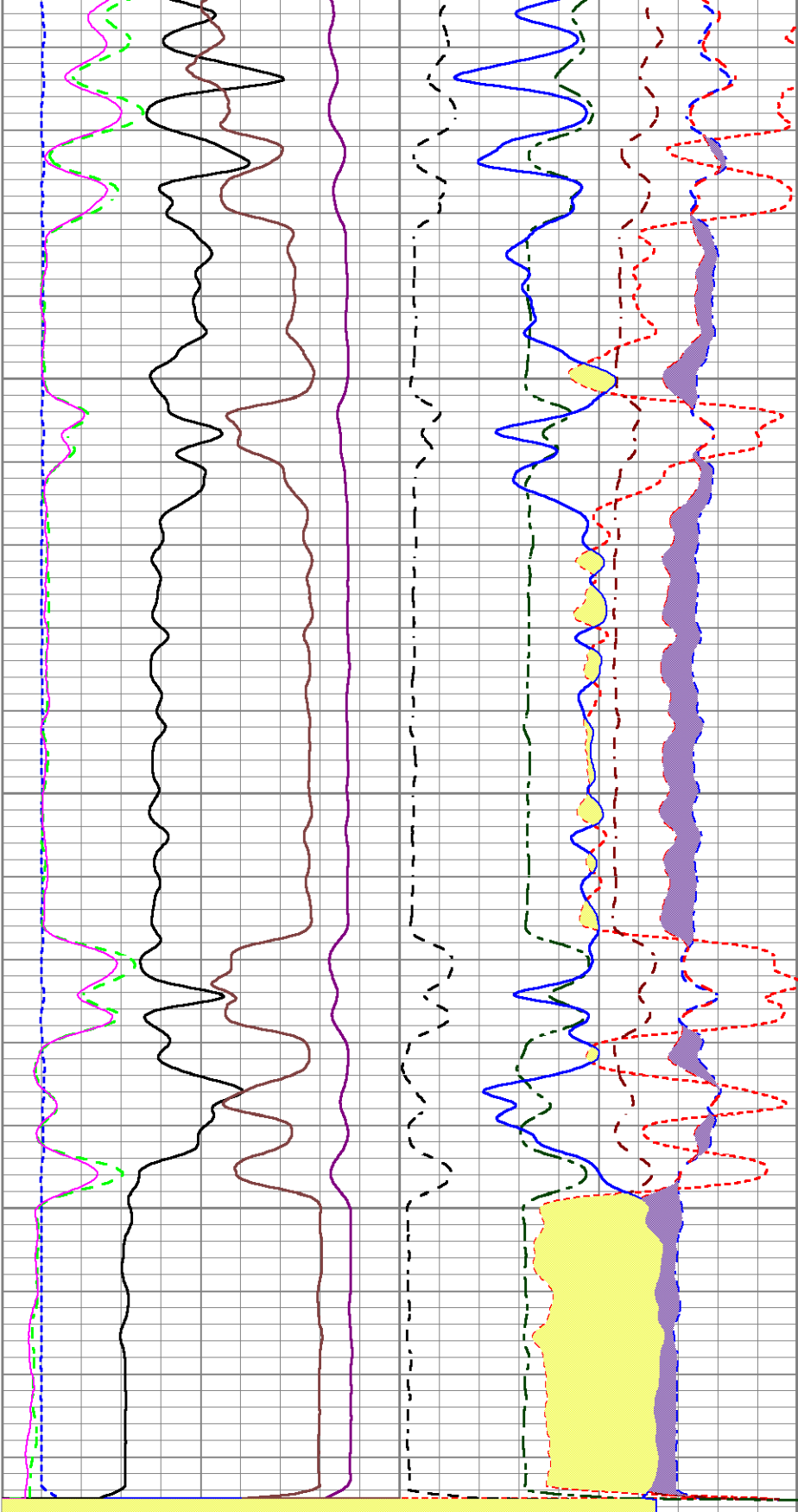
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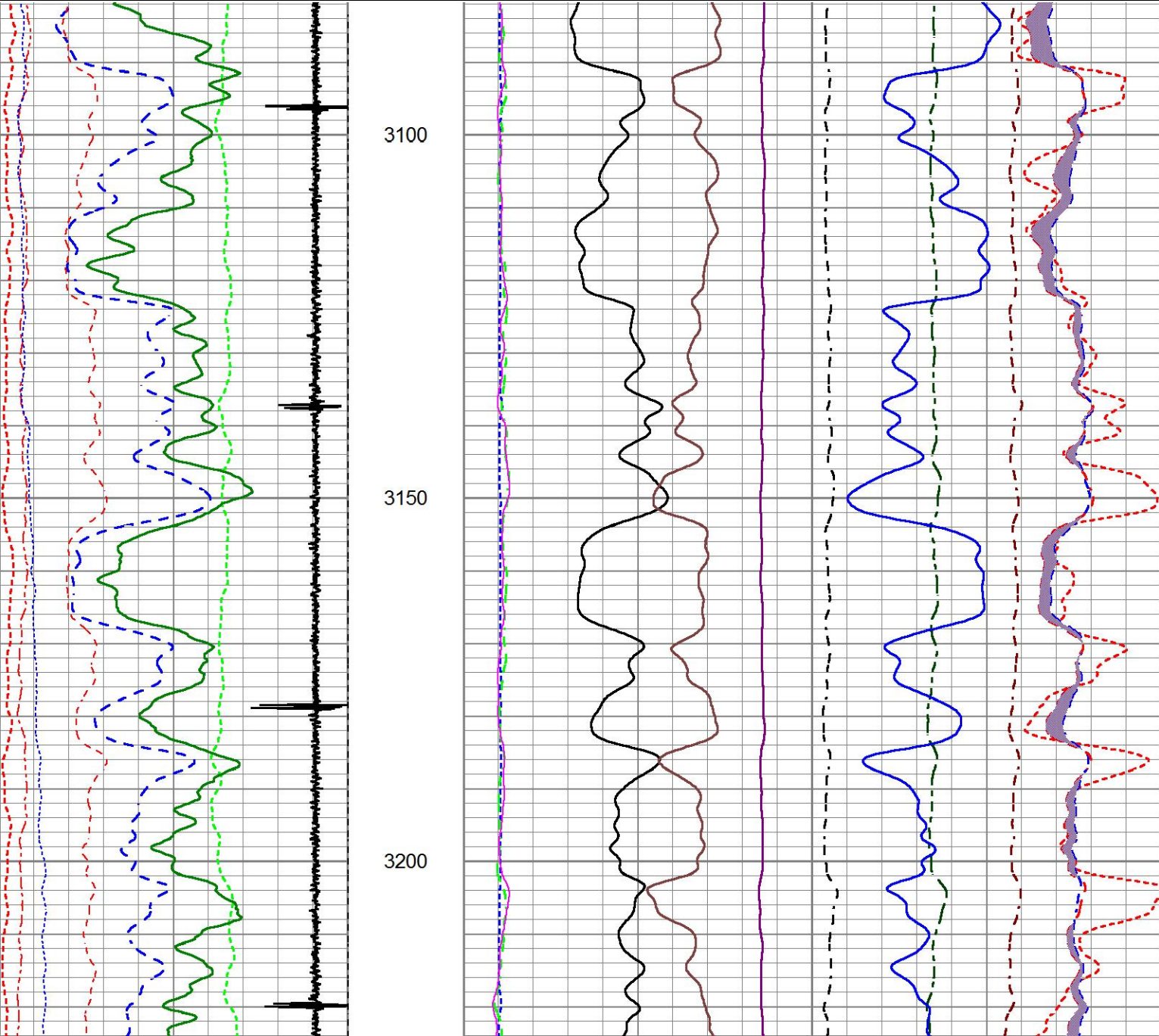
200	Near Bore Si (SGBN)	0
0	OAI	100
10	FAR FIT ERR (SGFF)	40
0	GR (GAPI)	150
0	NEAR FIT ERR (SGFN)	100
-3500	CCL	350
0	IN FIT ERR (CFTR1) NEAR	1
0	IN FIT ERR CFTR2) FAR	1

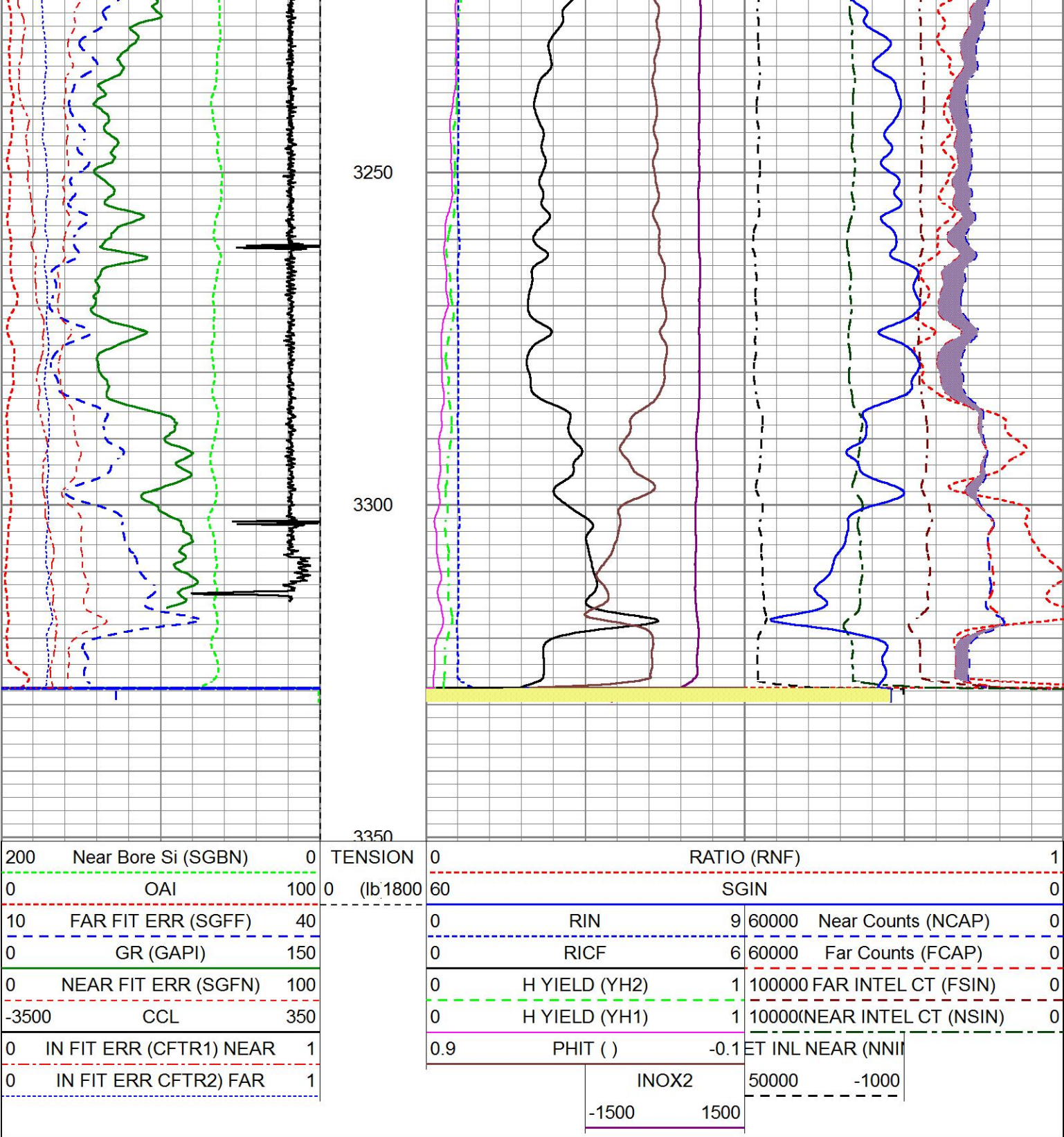


0	RATIO (RNF)				1
0	SGIN				0
0	RIN	9	60000	Near Counts (NCAP)	0
0	RICF	6	60000	Far Counts (FCAP)	0
0	H YIELD (YH2)	1	100000	FAR INTEL CT (FSIN)	0
0	H YIELD (YH1)	1	10000	(NEAR INTEL CT (NSIN)	0
0.9	PHIT ()	-0.1	ET INL NEAR (NNII		
	INOX2		50000	-1000	
	-1500	1500			

Database File g:\ursa\b&v 33c-07-07-95\33c.db
Dataset Pathname RPT
Presentation Format IRMTE_~1
Dataset Creation Mon Mar 27 10:30:12 2017
Charted by Depth in Feet scaled 1:240

200	Near Bore Si (SGBN)	0	TENSION	0	RATIO (RNF)		1
0	OAI	100	0 (lb.1800	60	SGIN		0
10	FAR FIT ERR (SGFF)	40		0	RIN	9	60000 Near Counts (NCAP)
0	GR (GAPI)	150		0	RICF	6	60000 Far Counts (FCAP)
0	NEAR FIT ERR (SGFN)	100		0	H YIELD (YH2)	1	100000 FAR INTEL CT (FSIN)
-3500	CCL	350		0	H YIELD (YH1)	1	10000(NEAR INTEL CT (NSIN)
0	IN FIT ERR (CFTR1) NEAR	1		0.9	PHIT ()	-0.1	ET INL NEAR (NNII
0	IN FIT ERR CFTR2) FAR	1			INOX2		50000 -1000
					-1500	1500	





MAIN PASS

5" = 100'

Log Variables

Database:g:\ursa\b&v 33c-07-07-95\33c.db

Dataset field/well/run1/MAIN/_vars_


Top - Bottom

BHSAL1	BHSAL2	BHTEMP_Src	BITSIZE in	BORSAL kppm	BOTTEMP degF	CASED?	CASEOD in
1	0	TEMP	7.875	150	200	Yes	4.5
CASETHCK in	CASEWGHT lb/ft	LIRISHFTF	LIRISHFTN	LTH	MAXAMPL mV	MINAMPL mV	MINATTN db/ft
0.25	11.6	0	0	Sandstone	82	1	0.8
MSGGN	MudWgt lb/gal	PERFS	POROS1	POROS2	PPT usec	RHO CF	SO in
1	8.4	0	1	0	0	0.25	0

	0.1	0	0	0.20	0
SRFTEMP degF 50	TDEPTH ft 6500	UHSGC NONE	USERFTT usec/ft 0	ZREF MRayl 1.7	

Calibration Report		
Database File	g:\ursa\b&v 33c-07-07-95\33c.db	
Dataset Pathname	MAIN	
Dataset Creation	Mon Mar 27 11:05:25 2017	
Cement Bond Log Shop Calibration Report		
Serial-Model:	11836468-A	
Calibration Performed:	Sun Mar 26 19:34:08 2017	
Free Pipe Calibration		
	Measured	Units
TT	245.6	usec
Amplitude	408.0	mV
Log Base Line	19.3	mV
Calibration References and Gain		
Name	Value	Units
Pipe O.D.	4.500	in
Pipe Weight	11.6	lb/ft
Pipe Ref. Amp.	82.0	mV
Amp. Gain	0.208	

Gamma Ray Calibration Report						
Type / Serial:			002 / 12159411			
SHOP CALIBRATION		Mon Feb 20 15:54:04 2017				
	Counts/Sec.	Gain	Offset	Jig	Units	
Background	27.6				cps	
Calibrator	317.4				cps	
		1.4943			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	35.86		STNDCH-STND_CH 1.4375 IN CABLE HEAD	1.50	1.44	1.00

GR	33.60		TTTCU-002 (12159411) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	37.00
			XHU-003 (000001) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00
RmtTFGT	22.95					
RmtTNGT	22.45		RMTI-A (12376244) Halliburton RMTI Tool	14.00	2.13	77.00
RmtFP5V	14.70					
RmtNFwvMcsPI	14.70		X-OVER-SondexxGo Sondex Box x Go Pin Cross Over	0.31	1.69	1.00
RmtCommFWa	14.70		CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
Temp	9.57					
TT3FT	7.32		HCBLM-A (11836468) Halliburton HCBLM Tool	9.38	2.75	116.00
AMP3FT	7.32					
WVF5FT	6.36					
WVF3FT	2.84		CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
			AUH-001 (11072111) Adaptor Ultrawire/Halliburton	0.38	1.69	3.00
LLMTEN	0.00		BUL-001 (000001) Bullnose	0.30	1.69	1.50
Dataset: 33c.db: field/well/run1/MAIN Total length: 39.43 ft Total weight: 293.50 lb O.D.: 3.13 in						

Company	URSA OPERATING COMPANY					
Well	B&V 33C-07-07-95					
Field	WILDCAT					
County	GARFIELD					
State	CO					

County	GARFIELD	State	CO
HALLIBURTON	RESERVOIR MONITORING TOOL - ELITE		