



MIDWEST WIRELINE

# MICRORESISTIVITY LOG

Company Cobalt Energy, LLC  
 Well D6 Unit #1-34  
 Field Pianalto South  
 County Cheyenne  
 State Kansas

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Location: API #: 15-023-21559-00-00  
 2390 FSL 330 FWL  
 SEC 34 TWP 4S RGE 37W  
 Permanent Datum Ground Level Elevation 3336  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 CNL CDL  
 DIL  
 Elevation  
 K.B. 3341  
 D.F.  
 G.L. 3336

Date	11/13/2021
Run Number	One
Depth Driller	5060
Depth Logger	5058
Bottom Logged Interval	5057
Top Log Interval	3800
Casing Driller	8.625 @ 361
Casing Logger	361
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	600
Density / Viscosity	9.0 60
pH / Fluid Loss	11.0 8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.8 @ 60
Rmt @ Meas. Temp	.6 @ 60
Rmc @ Meas. Temp	1.08 @ 60
Source of Rmf / Rmc	CHARTS
Rm @ BHT	.38 @ 127
Operating Rig Time	3 Hours
Max Rec. Temp. F	127
Equipment Number	P-24
Location	HAYS
Recorded By	C McLaughlin
Witnessed By	Larry Nicholson
	D Schmidt

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

McDonald  
 West to 32 Rd., South to H Rd  
 1/2 South, East into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC  
 785-625-3858

Your Midwest Wireline Crew		This Log Record Was Witnessed By	
Engineer: C McLaughlin	Operator:	Primary Witness: Larry Nicholson	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Operator	Offset (ft)	Depth	Description	Length (ft)	C.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (934-226)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80		DIL-M&W (1987)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Dataset: cobalt\_d6 unit\_1-34.db: field/well/stkmel/pass4.3  
 Total length: 43.08 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\cobalt\_d6 unit\_1-34.db  
 Dataset field/well/stkmel/pass4.1/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	127	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	15	60	Off	5058

## Variable Description

A : Cement Factor (a)  
 BOREID : Borehole I.D.  
 BOTTEMP : Bottom Hole Temperature  
 CASEOD : Casing O.D.  
 CASETHCK : Casing Thickness  
 FLUIDDEN : Fluid Density  
 M : Cement Exp (m)  
 MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select  
 PERFS : Perforation Flag  
 SNDERR : Deep Sonde Error Correction  
 SNDERRM : Medium Sonde Error Correction  
 SPSHIFT : S.P. Baseline Offset  
 SRFTEMP : Surface Temperature  
 SZCOR : CN Size Cor. ?  
 TDEPTH : Total Depth



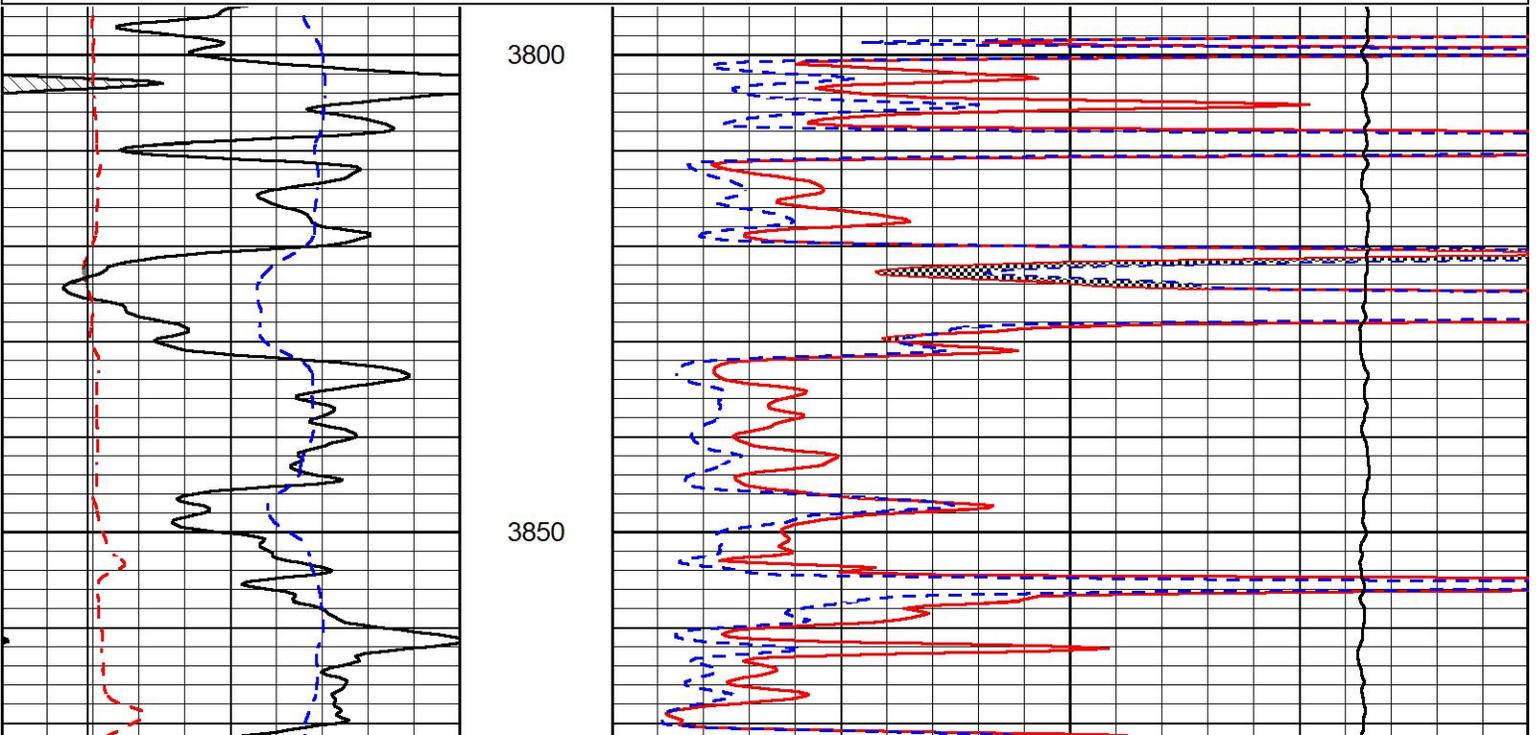
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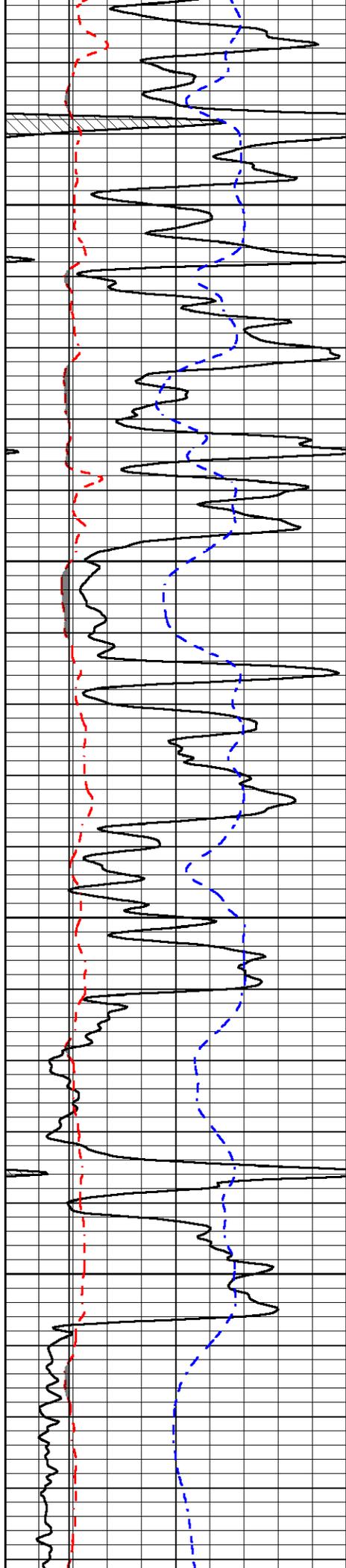
### MAIN PASS

Database File cobalt\_d6 unit\_1-34.db  
 Dataset Pathname stkmel/pass4.1  
 Presentation Format \_micro  
 Dataset Creation Sat Nov 13 18:18:41 2021  
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
-200	SP (mV)	0

0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



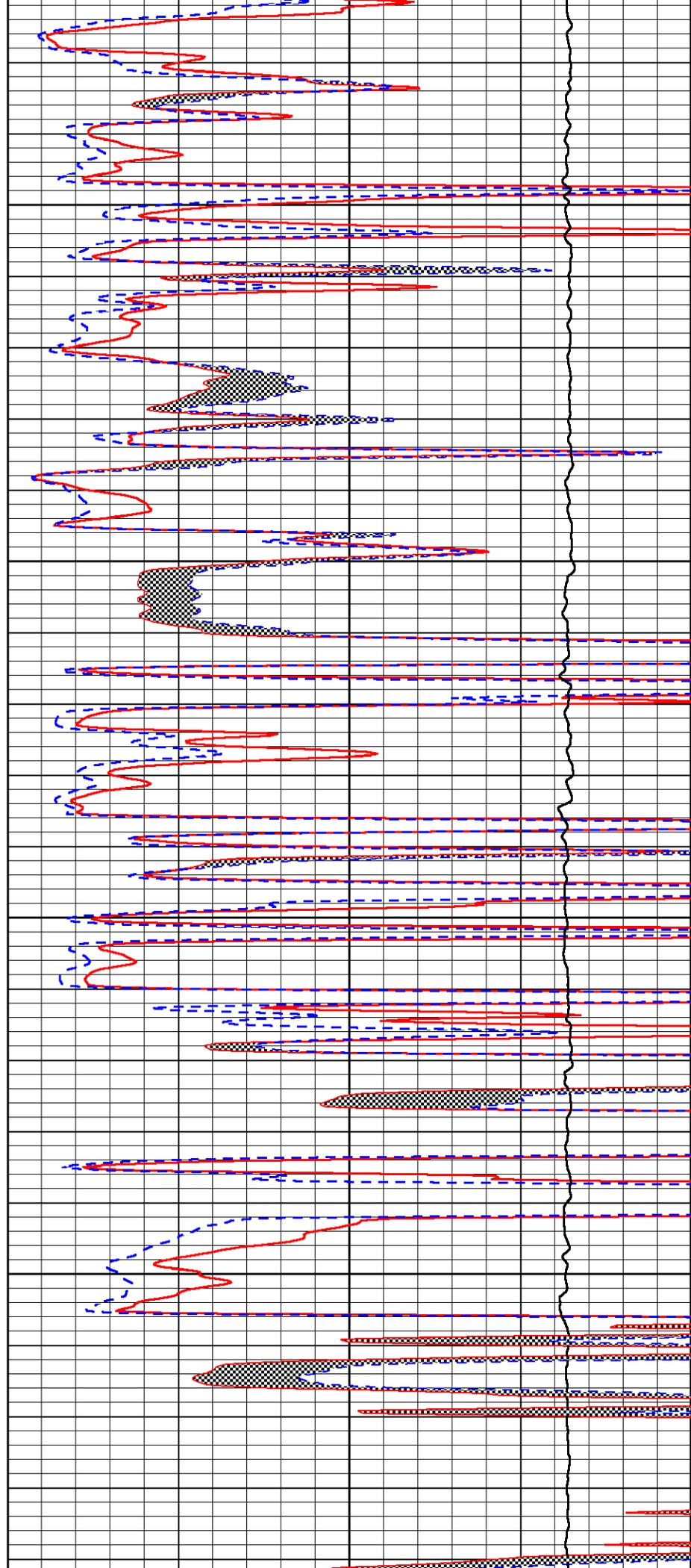


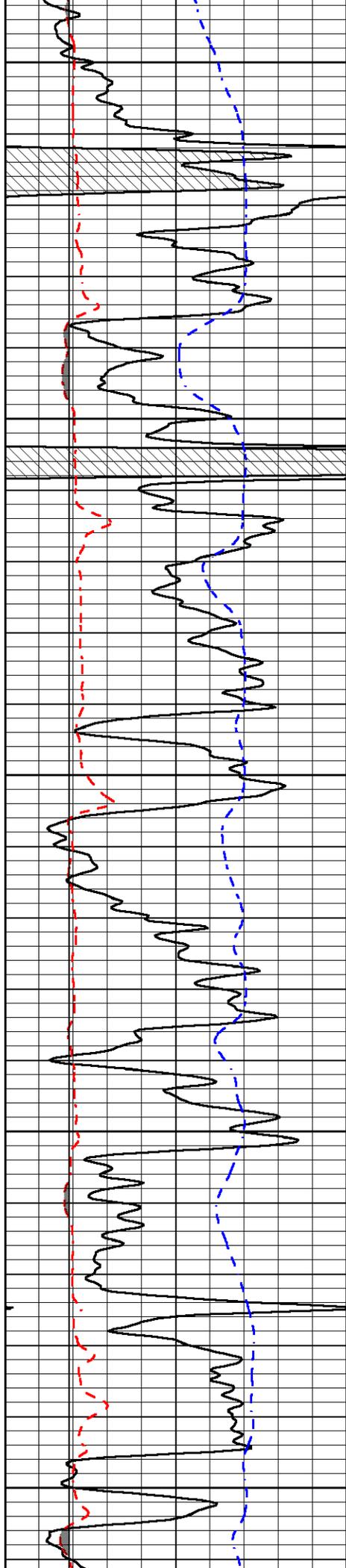
3900

3950

4000

4050





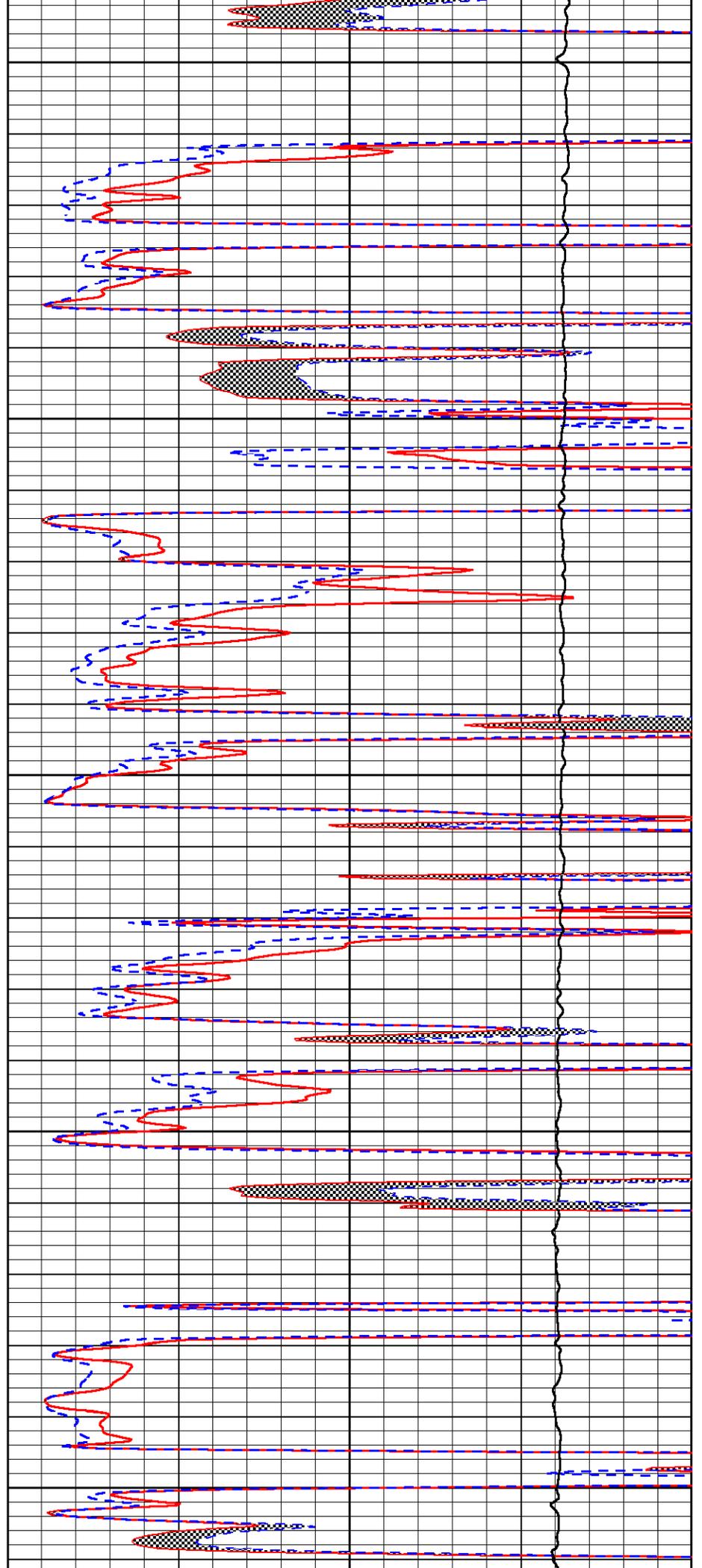
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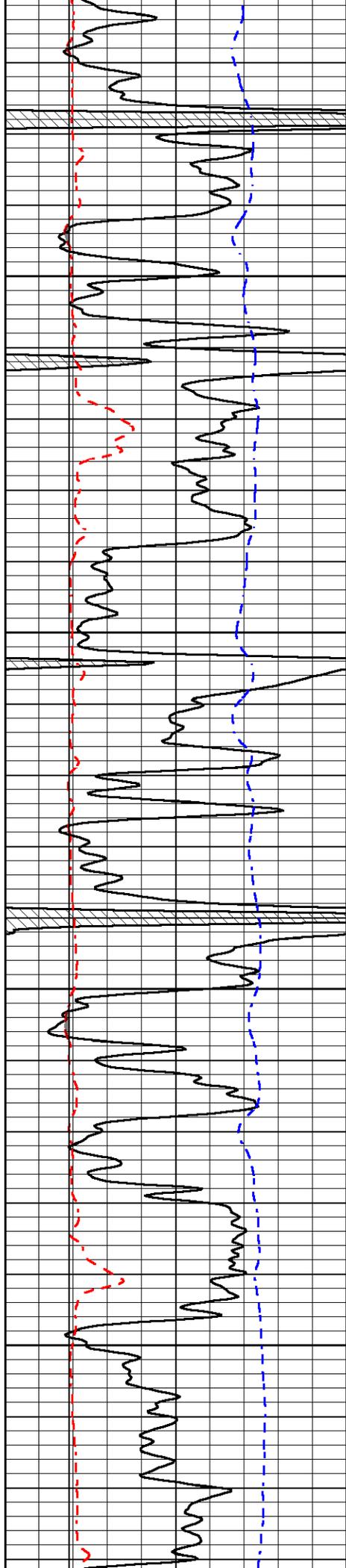
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4200

4250

4300



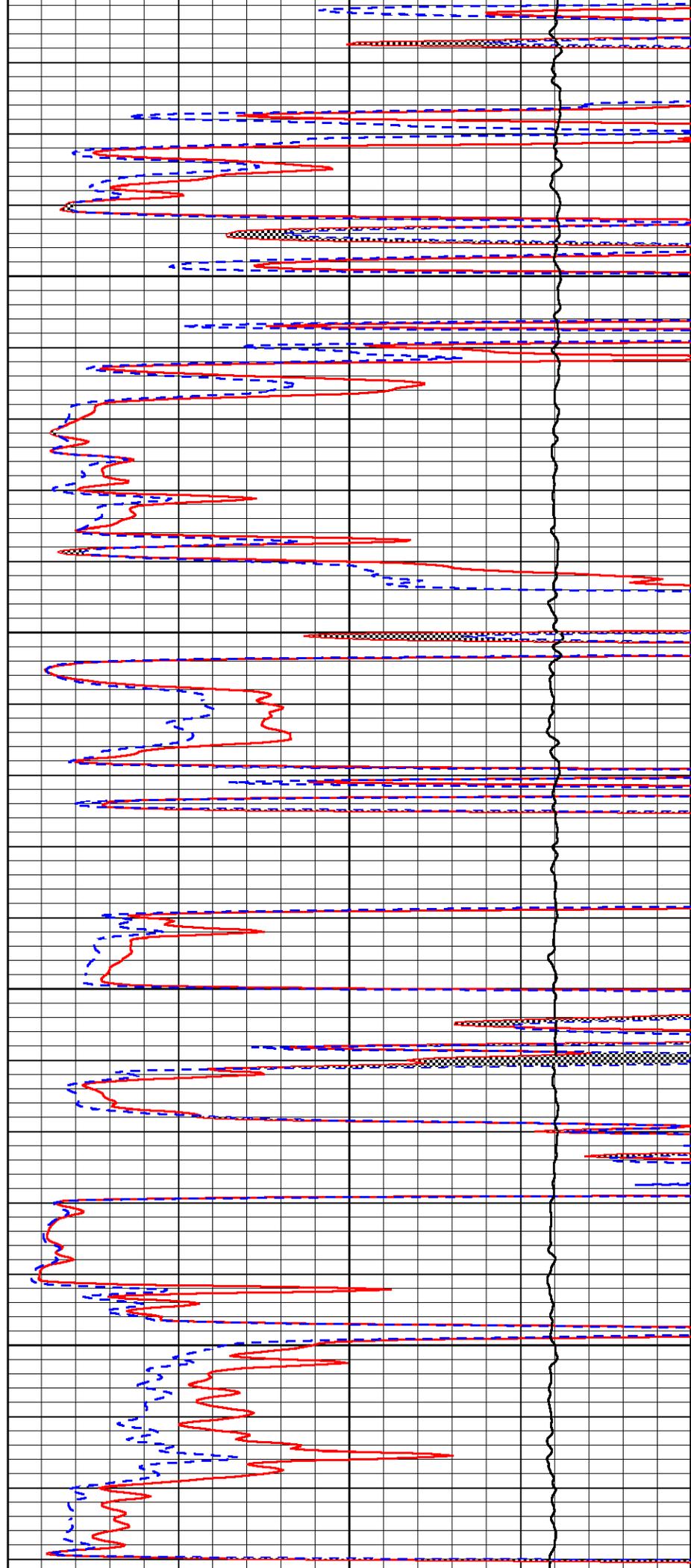


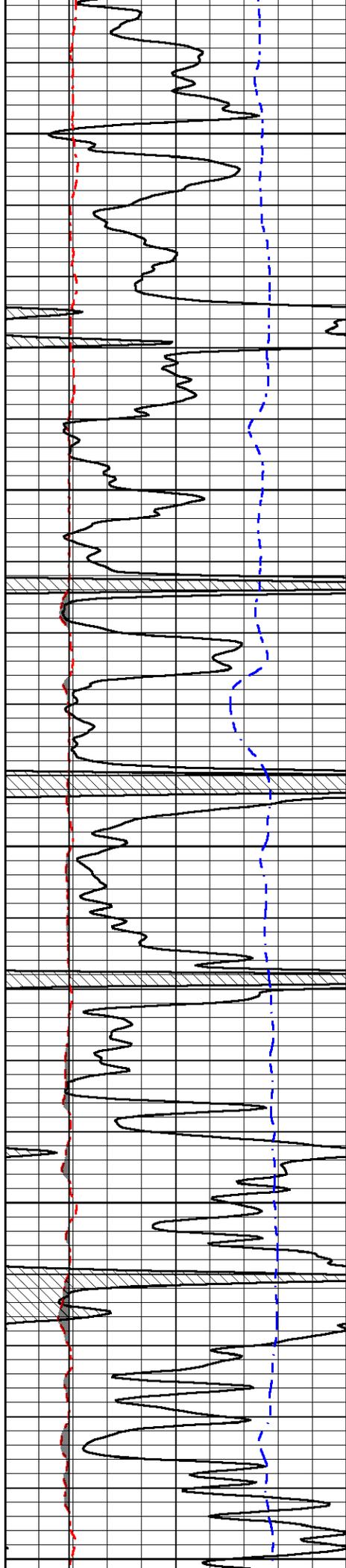
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4450

4500





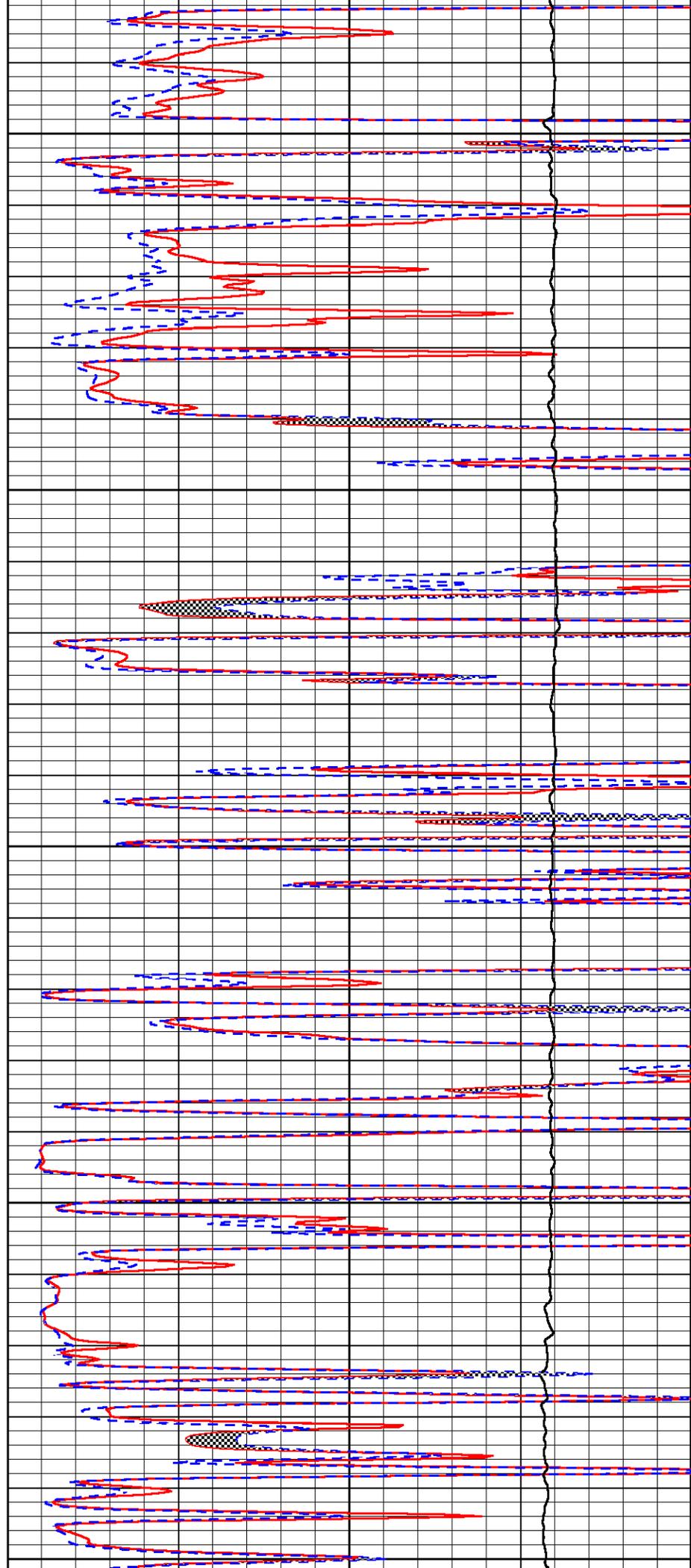
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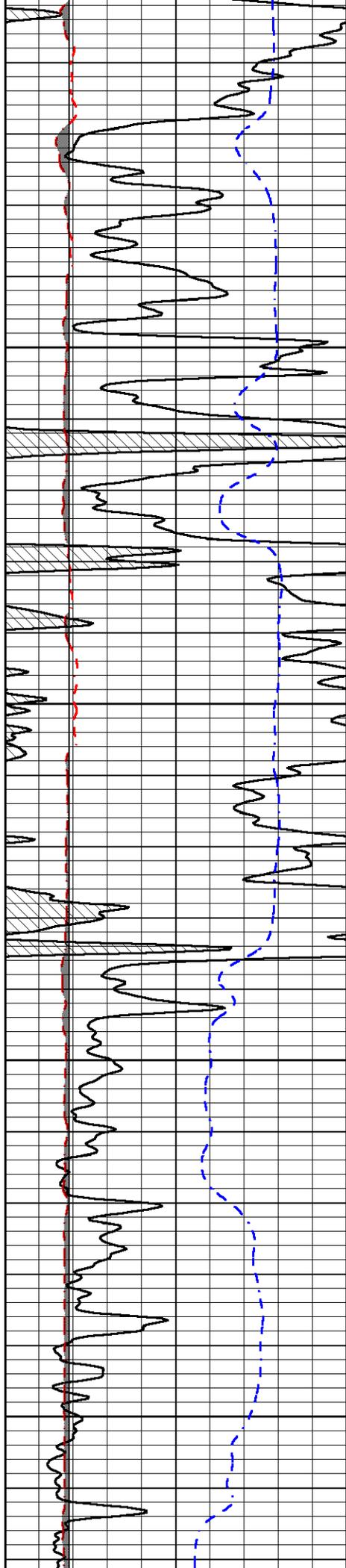
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4650

4700

4750



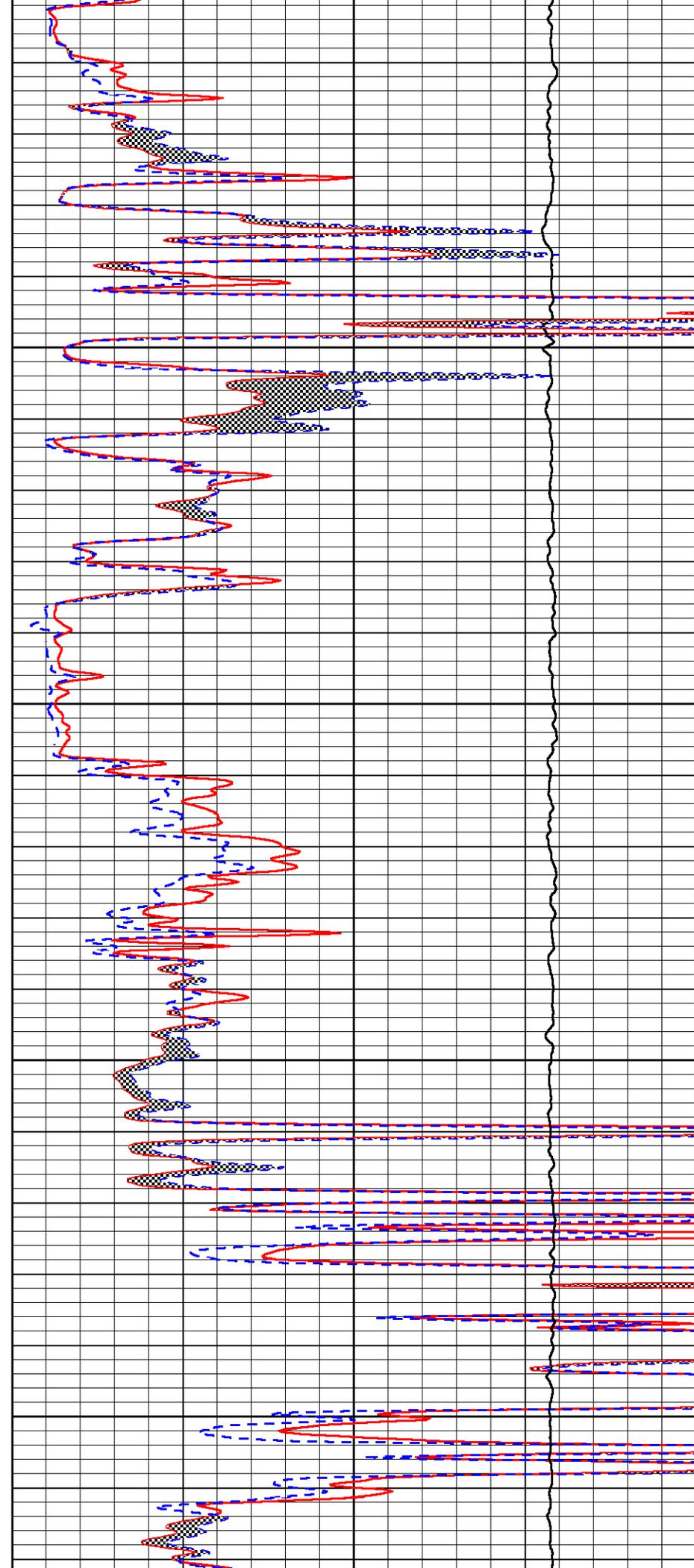


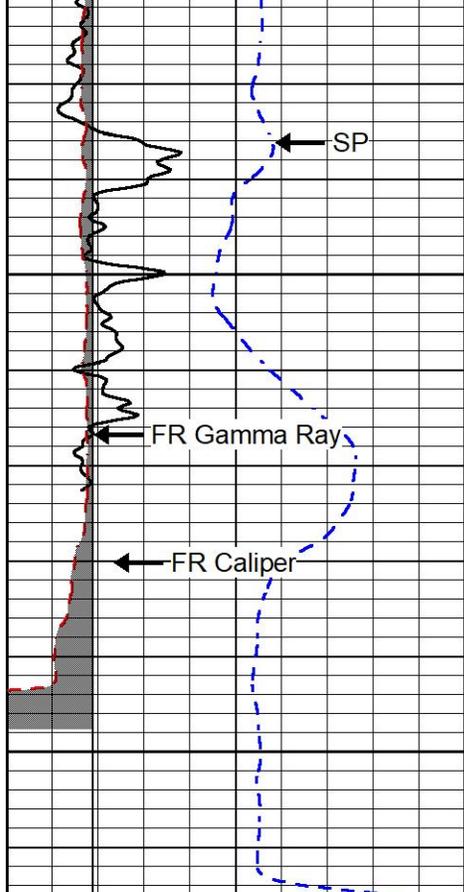
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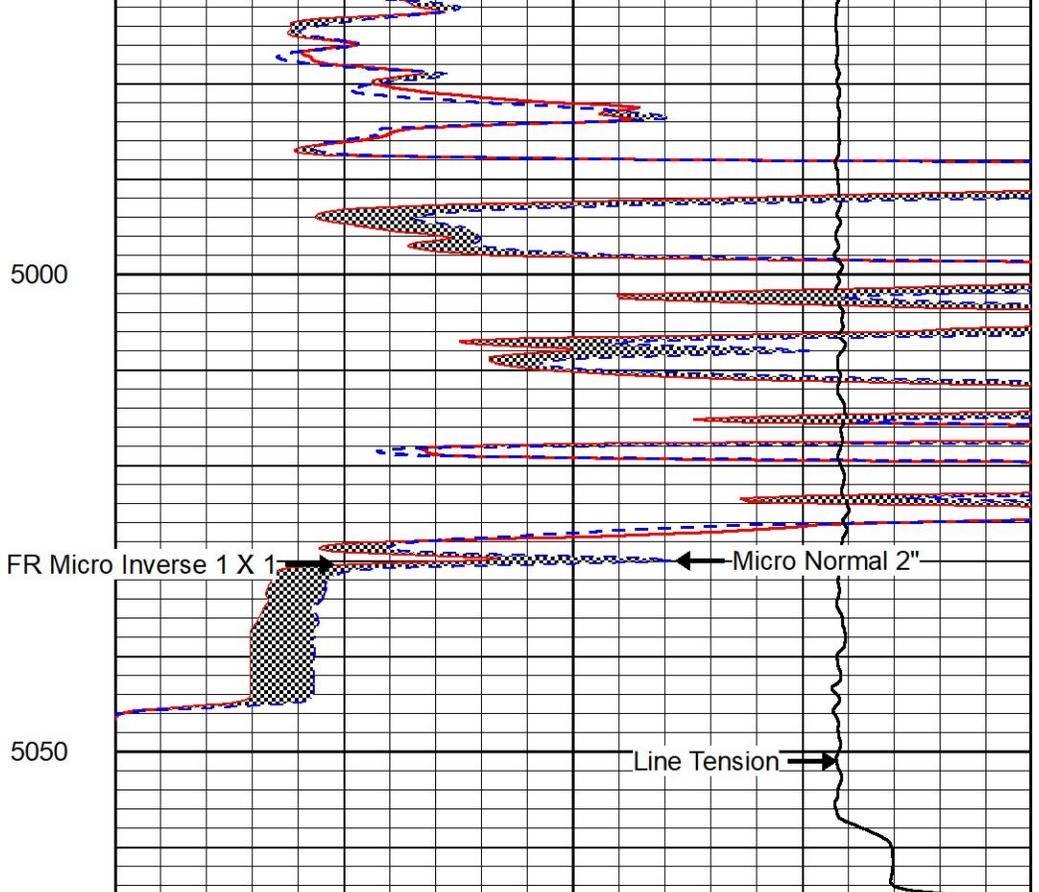
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4950





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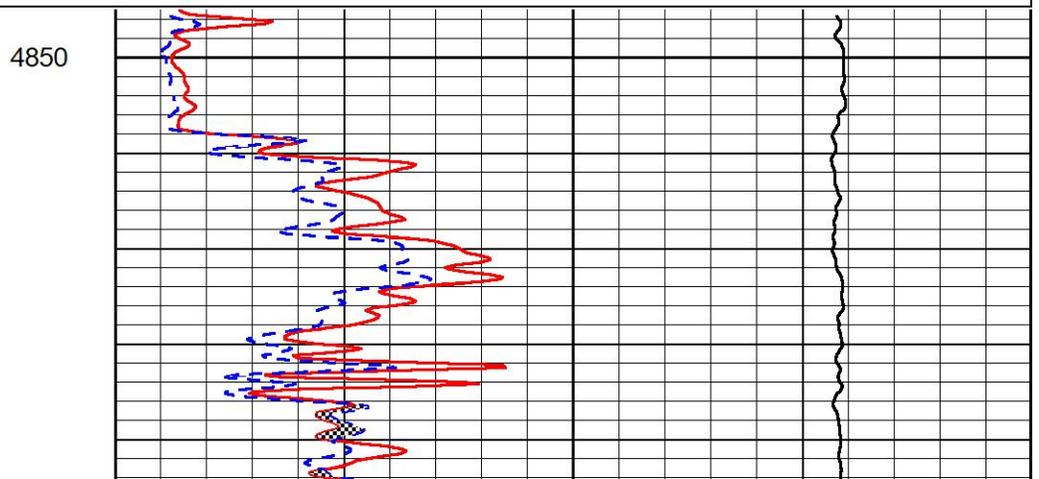
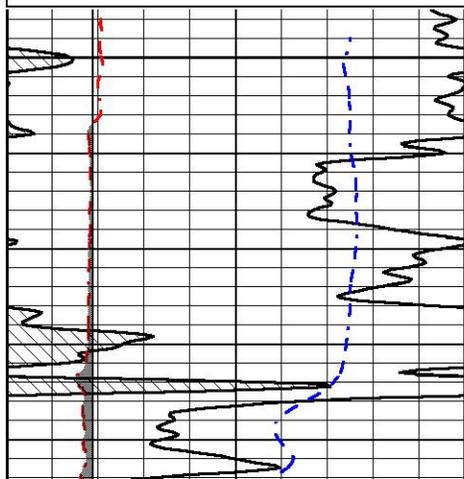
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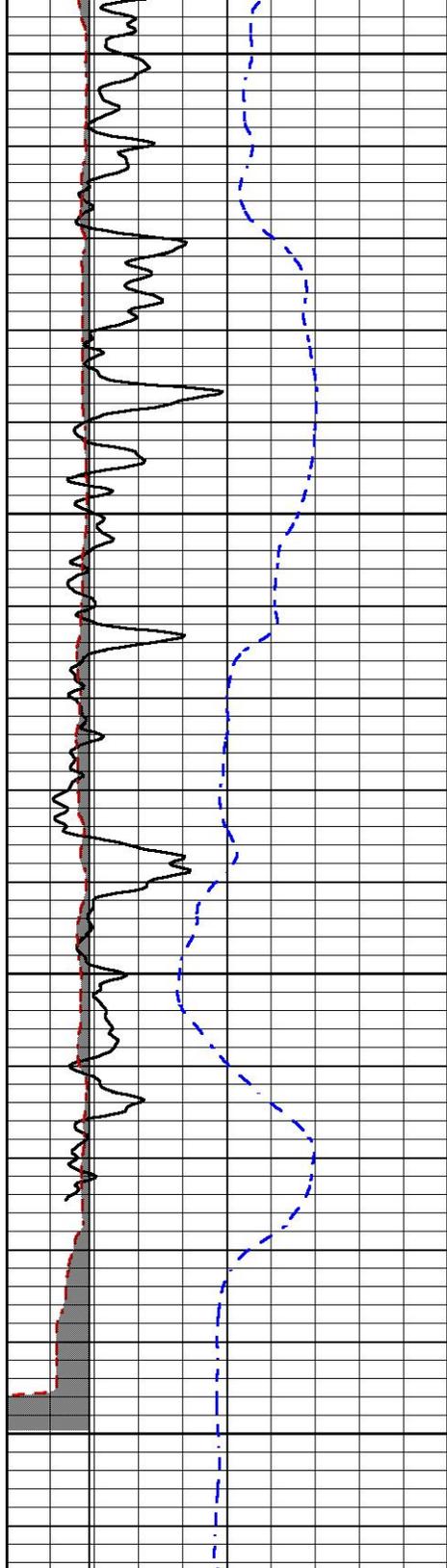
## REPEAT PASS

Database File cobalt\_d6 unit\_1-34.db  
 Dataset Pathname stkmel/pass3.1  
 Presentation Format \_micro  
 Dataset Creation Sat Nov 13 18:30:50 2021  
 Charted by Depth in Feet scaled 1:240

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10000	Line Weight (lb)	0





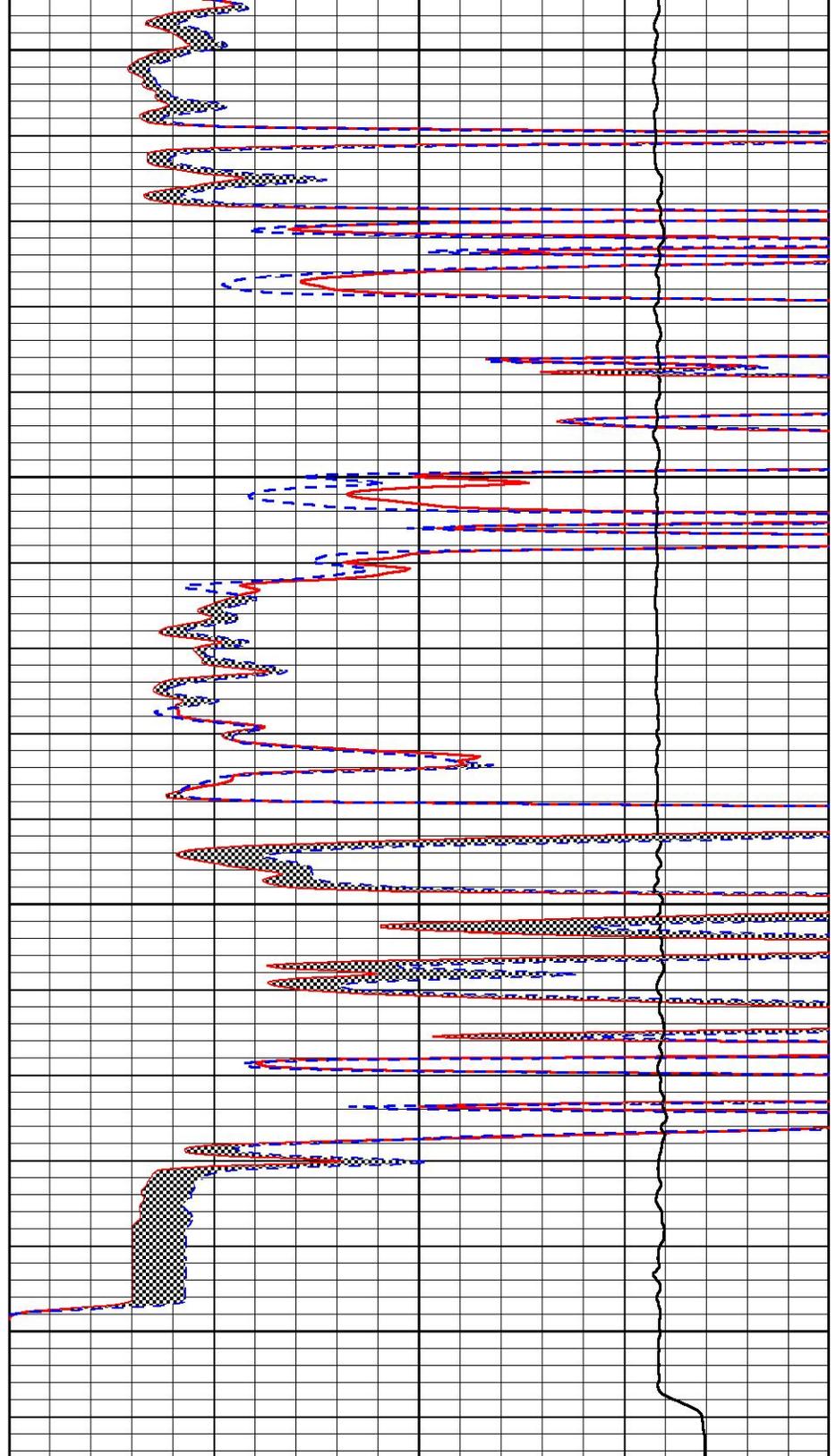
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4950

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5050

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
-200	SP (mV)	0



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