



Pioneer Energy Services

Microresistivity Log

API No.	Company Palmer Oil, Inc.		
	Well Willis # 23-5		
	Field Willis		
	County Stevens	State Kansas	
15-189-22,825-00-00	Location	NE NW SE NE 1,600' FNL & 700' FEL	
	Sec: 23	Twp: 32S	Rge: 37W
Permanent Datum	Ground Level	Elevation 3107	
Log Measured From	Kelly Bushing	13 Ft. Above Perm. Datum	
Drilling Measured From	From Kelly Bushing	K.B. 3120 D.F. 3107 G.L. 3107	
Date	12/1/2013		
Run Number	Two		
Depth Driller	6500		
Depth Logger	6475		
Bottom Logged Interval	6474		
Top Log Interval	4600		
Casing Driller	8.625 @ 1758		
Casing Logger	1756		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	2000		
Density / Viscosity	9.3 52		
pH / Fluid Loss	9.5 8.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	.82 @ 66		
Rmf @ Meas. Temp	.62 @ 66		
Rmc @ Meas. Temp	1.11 @ 66		
Source of Rmf / Rmc	Charts		
Rm @ BHT	.38 @ 141		
Operating Rig Time	5 Hours		
Max Rec. Temp. F	141		
Equipment Number	108		
Location	Hays		
Recorded By	J. Long		
Witnessed By	Wyatt Urban		

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

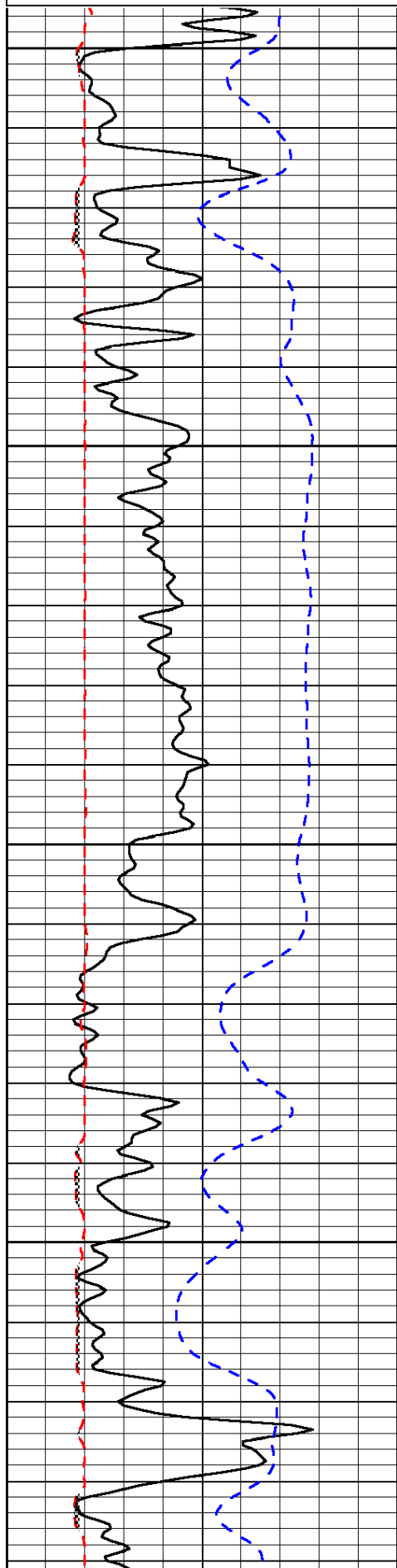
Comments

Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858

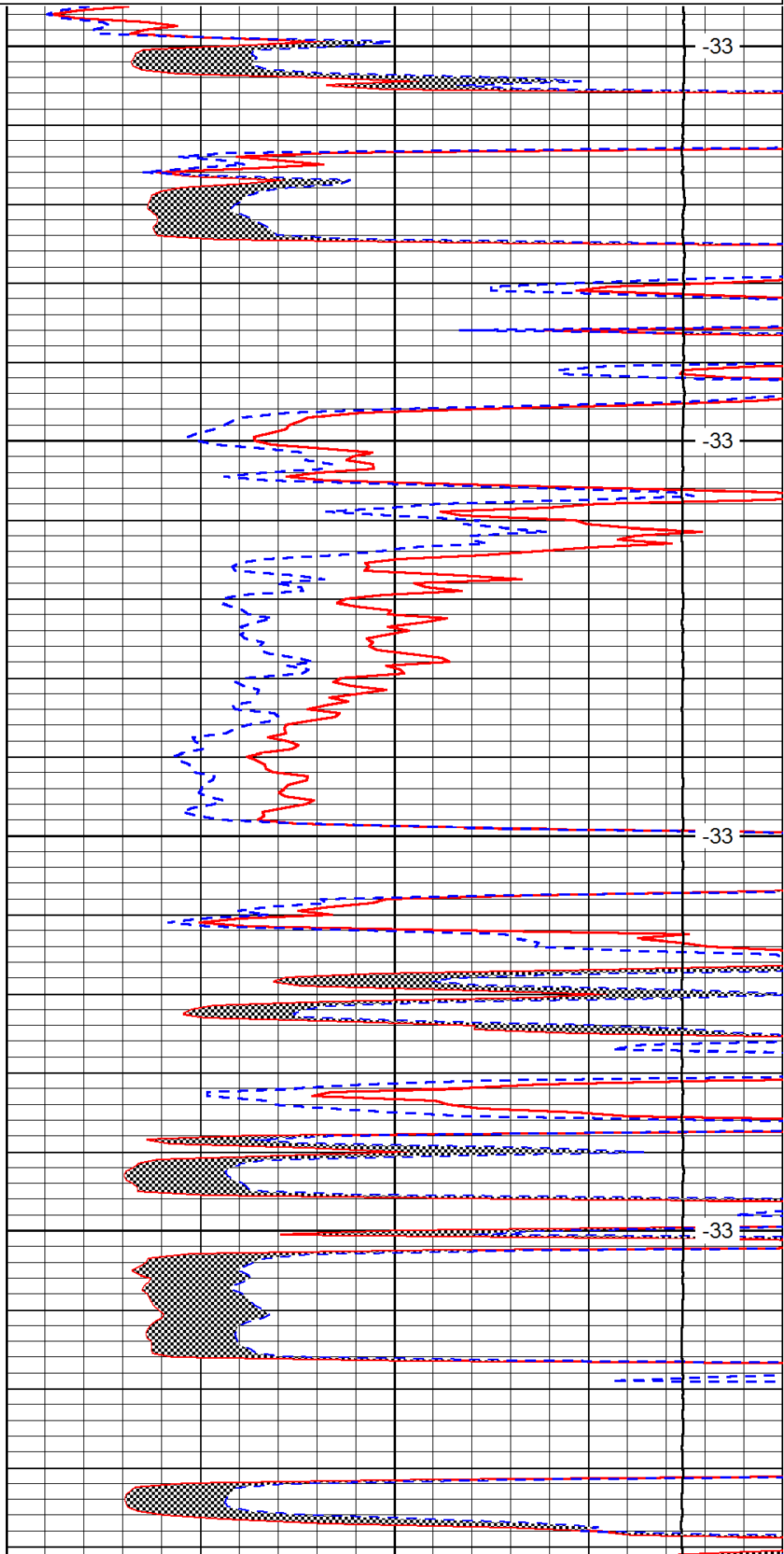
Moscow, 5 Southwest On Highway 56 to Road U, 1 West, 1/4 South, West Into

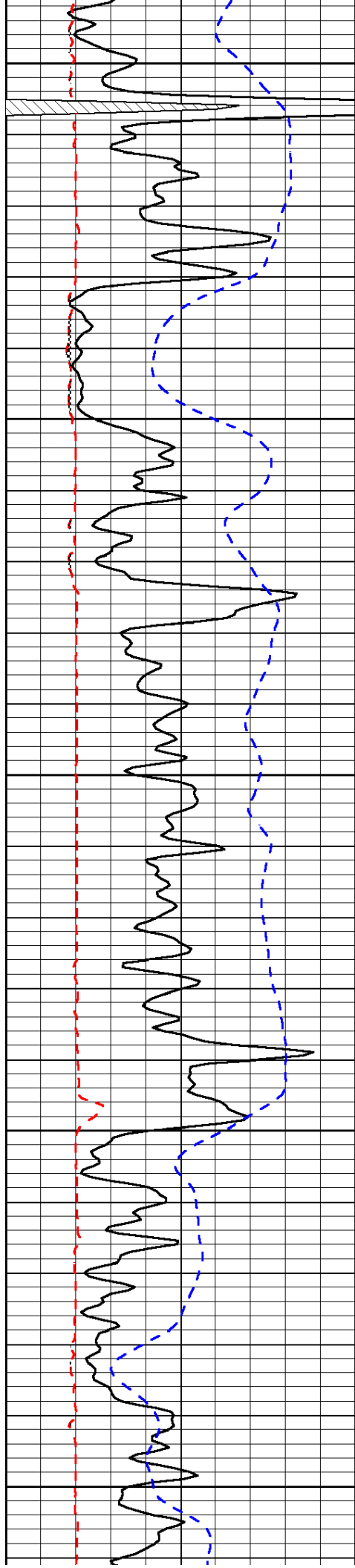
Database File: c:\warrior\data\palmer_willis # 23-5\palmer_willis_23-5hd.db
Dataset Pathname: dil/palmstck
Presentation Format: micro
Dataset Creation: Sun Dec 01 05:58:58 2013
Charted by: Depth in Feet scaled 1:240

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



0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
15000	Line Weight	0





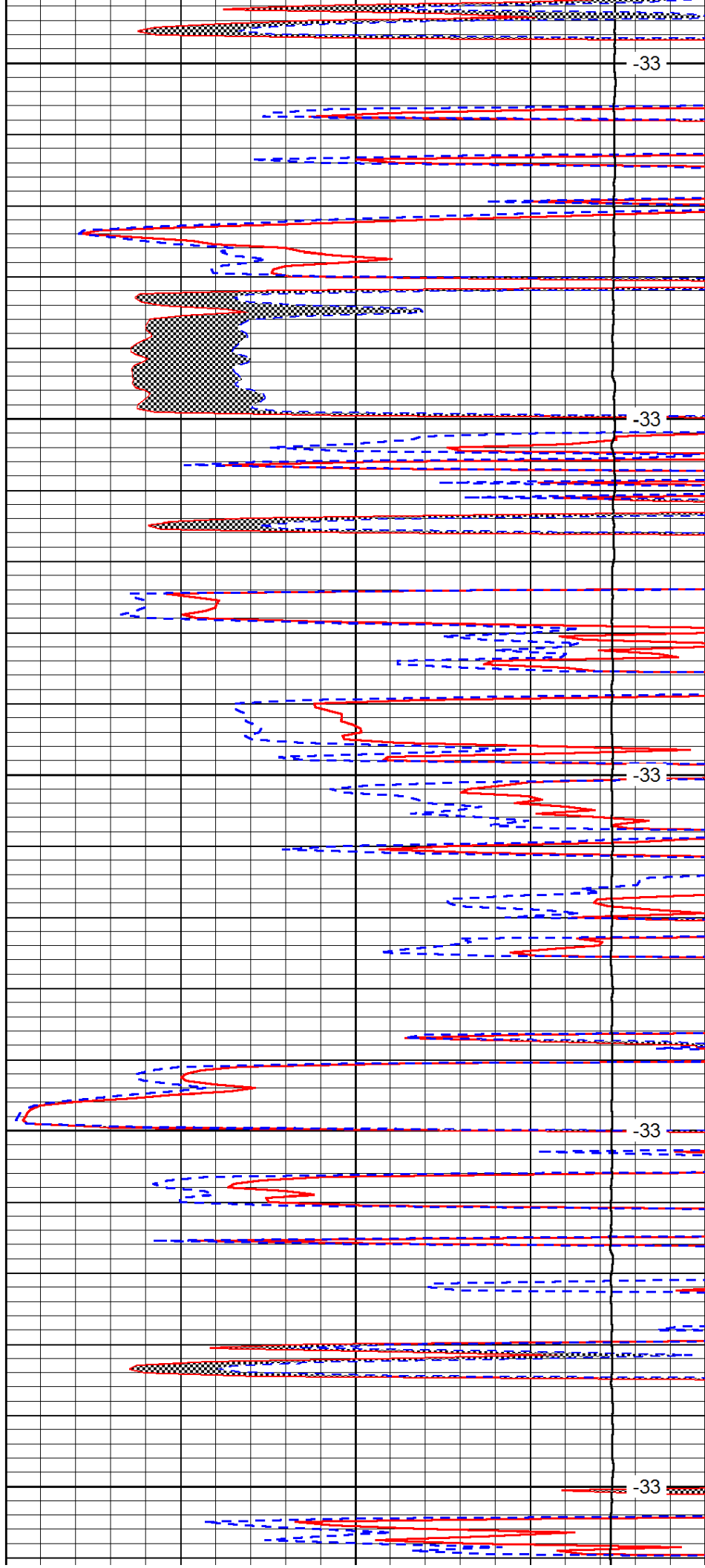
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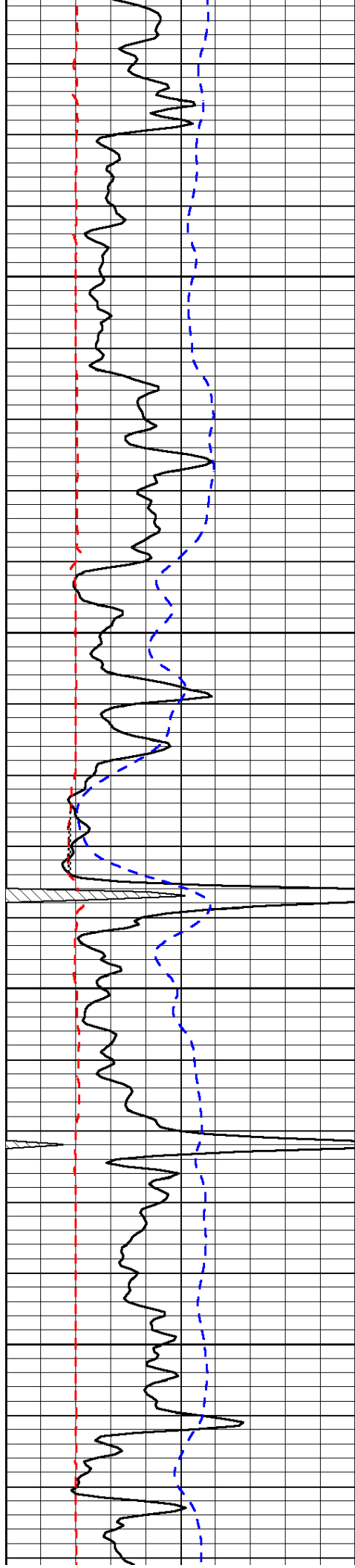
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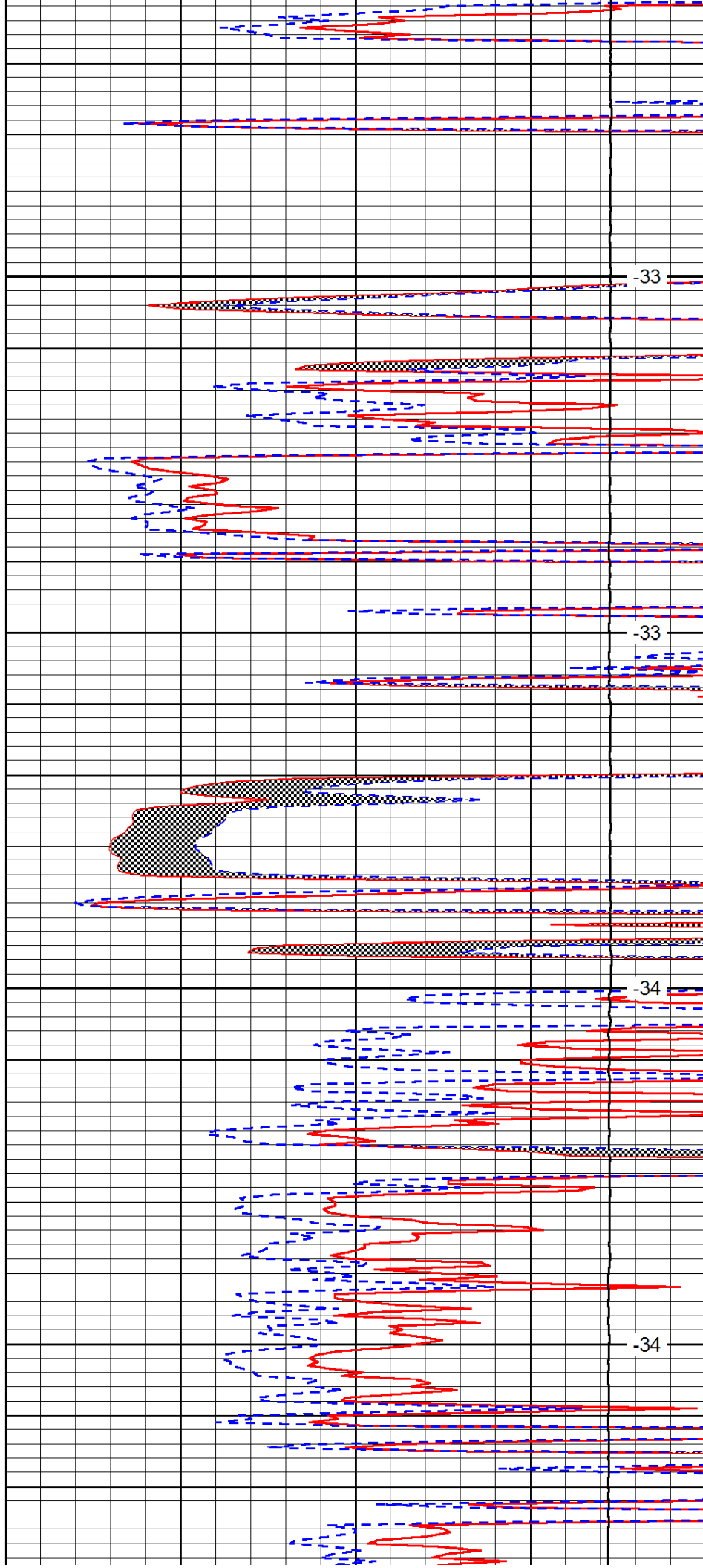


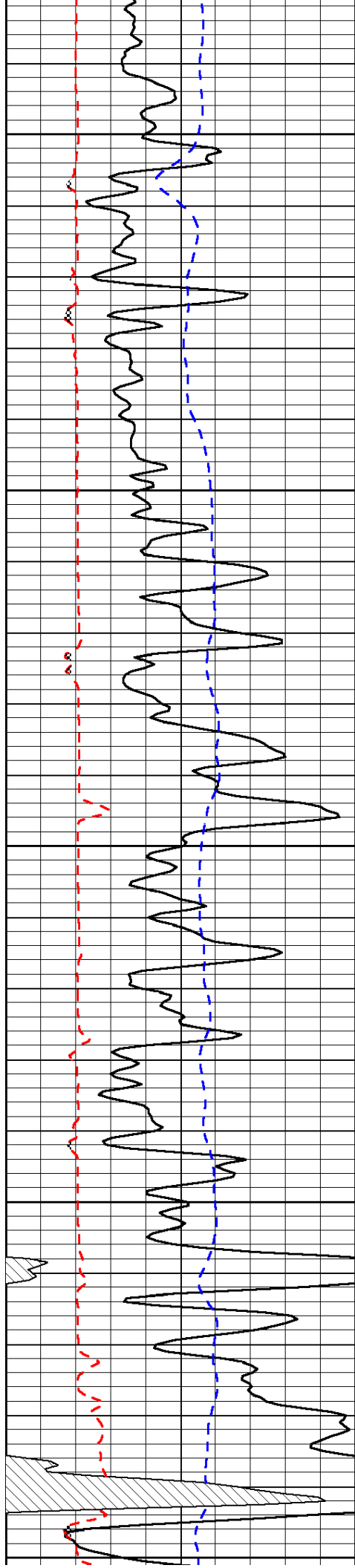
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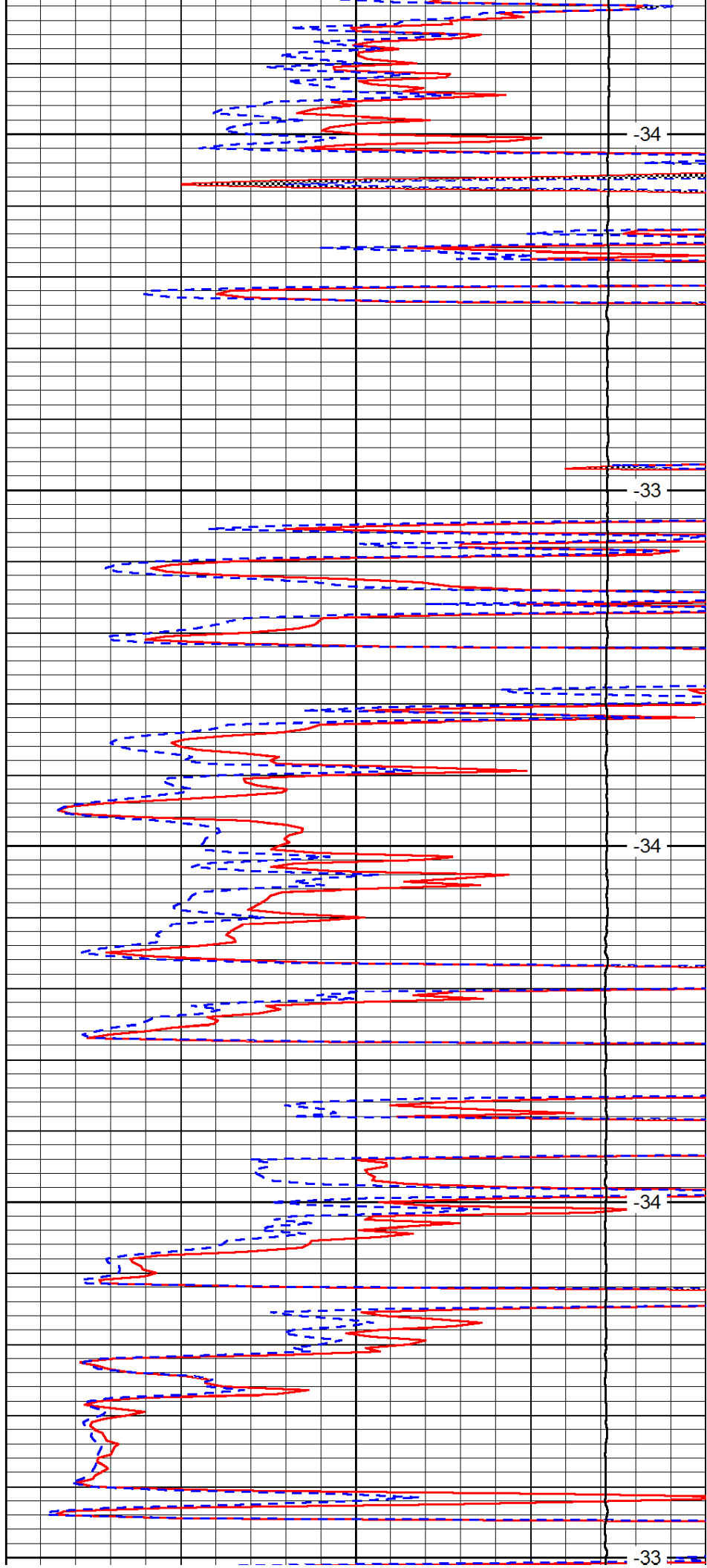
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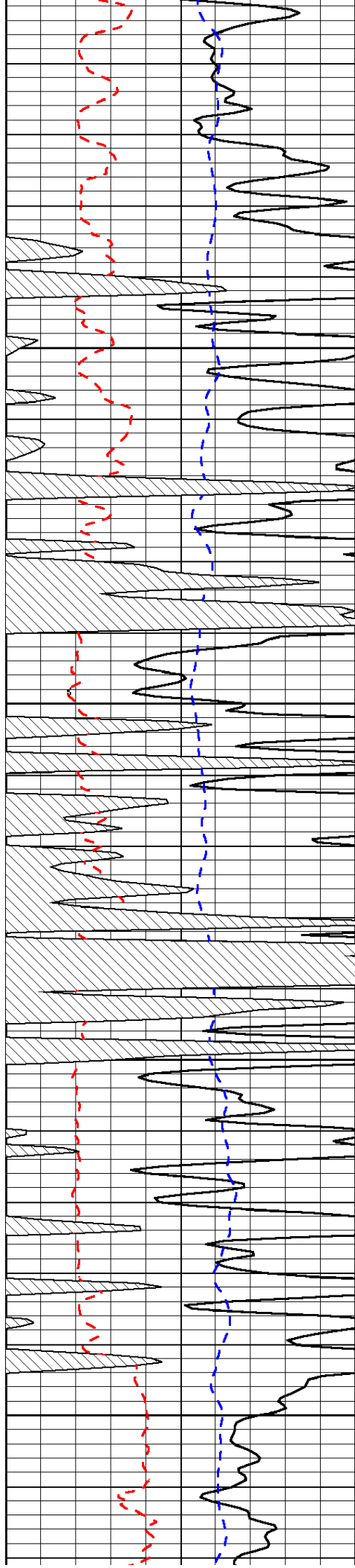
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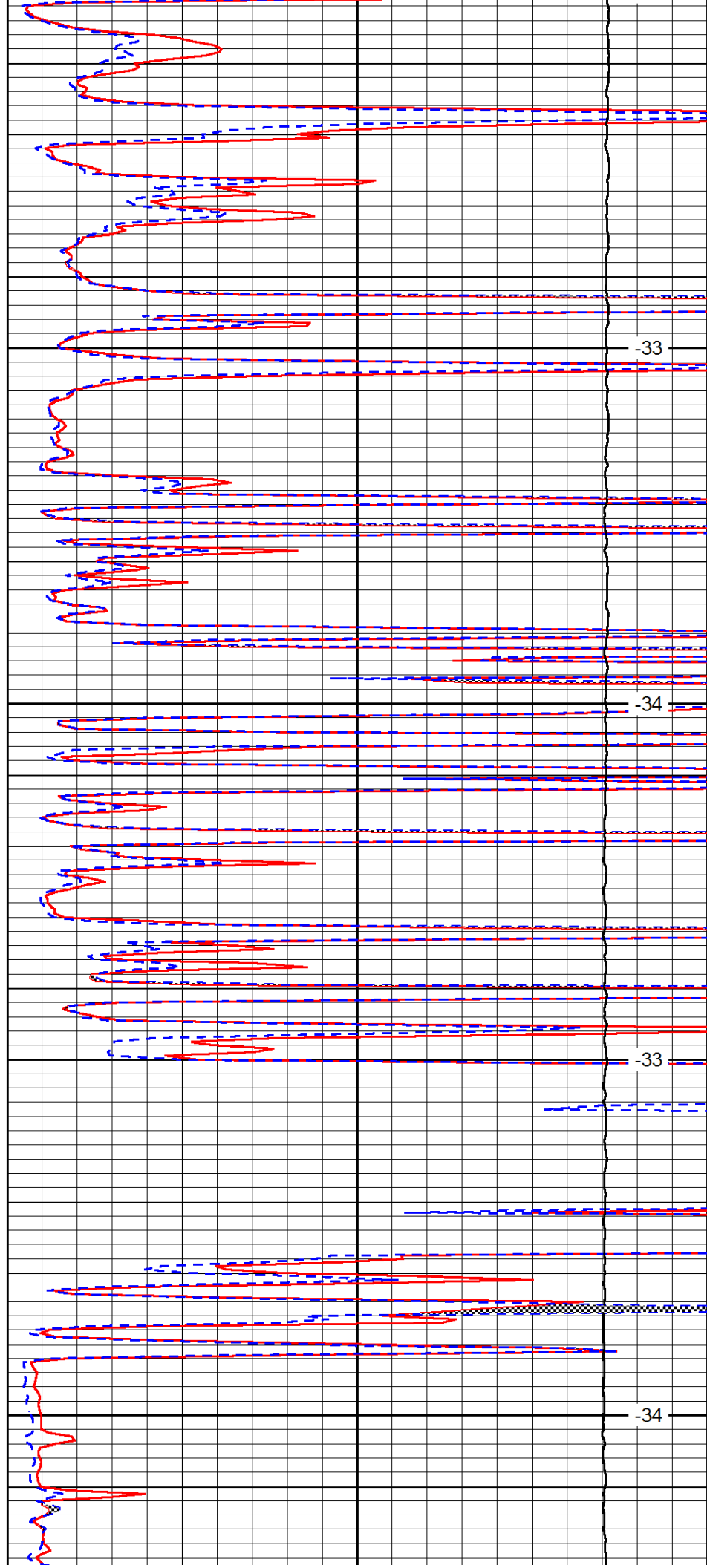


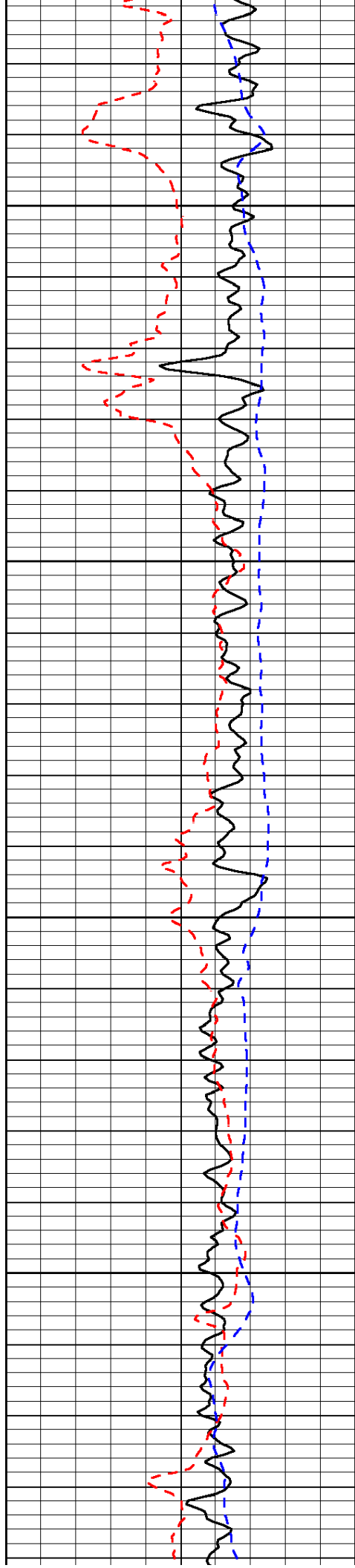
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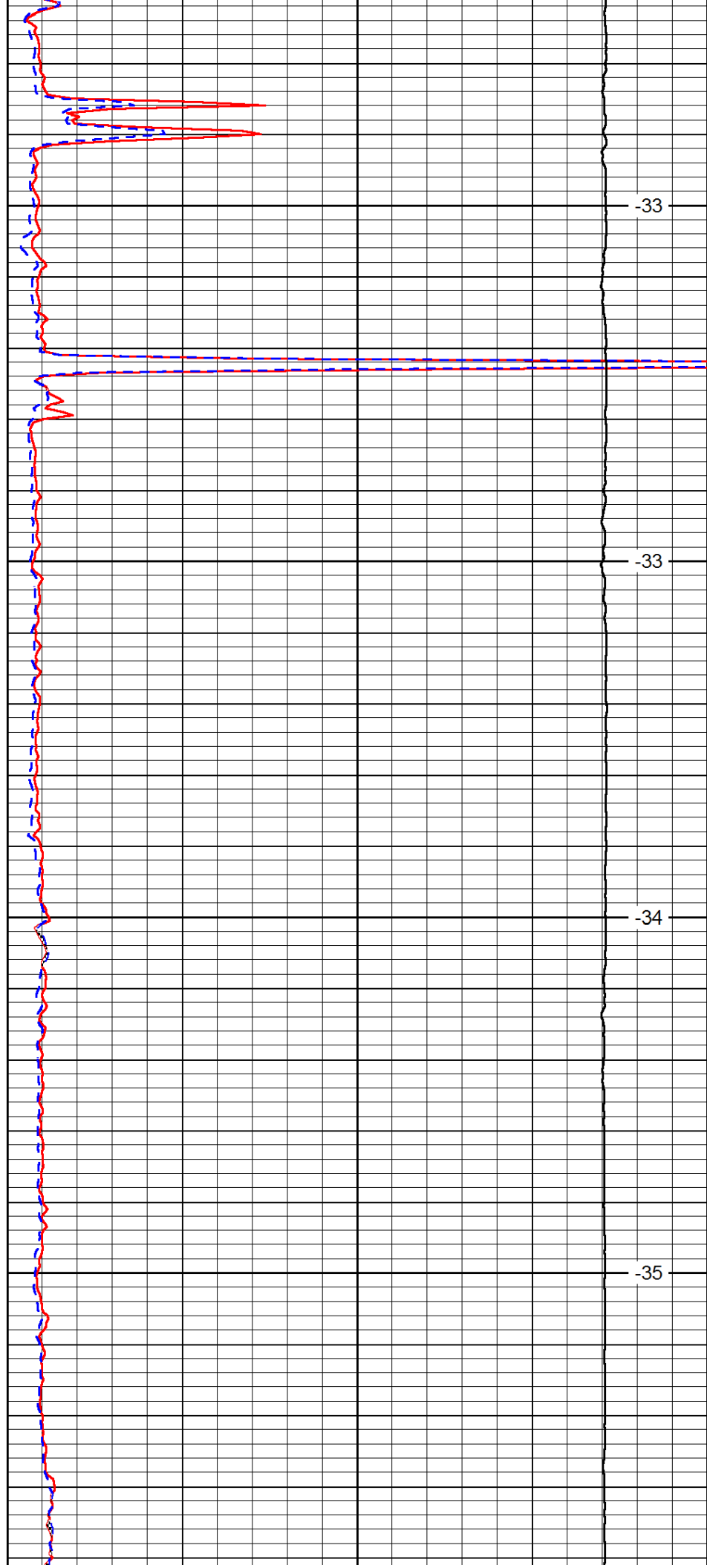


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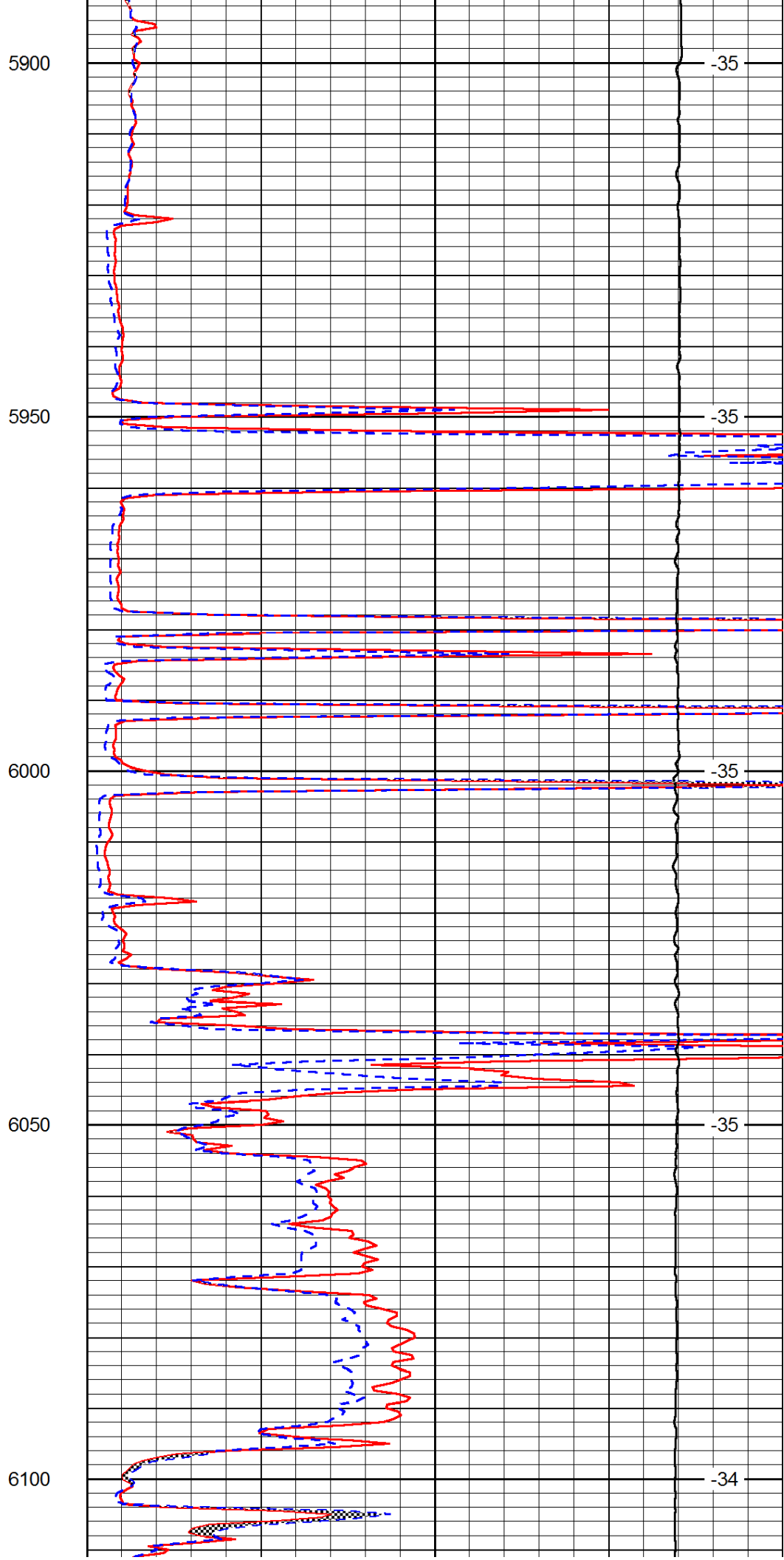
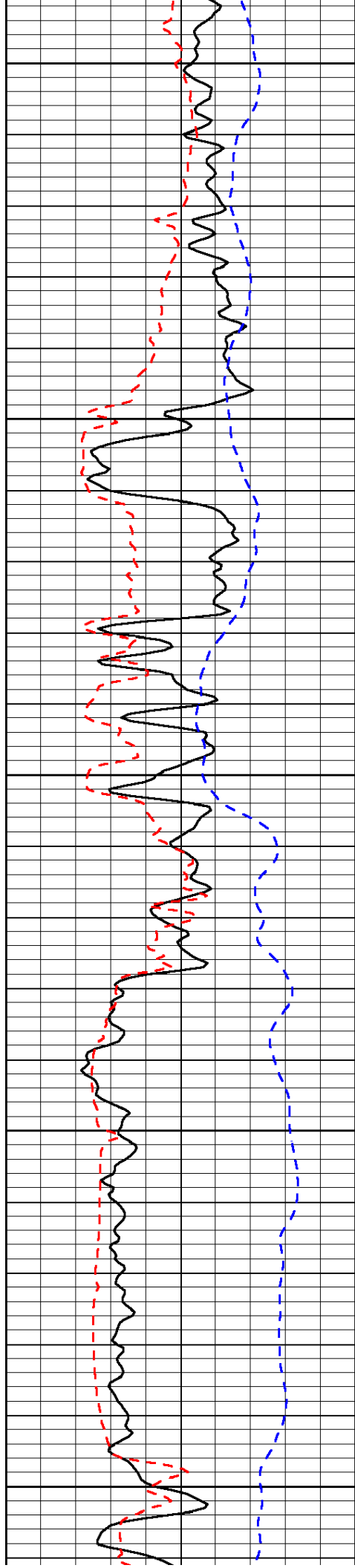


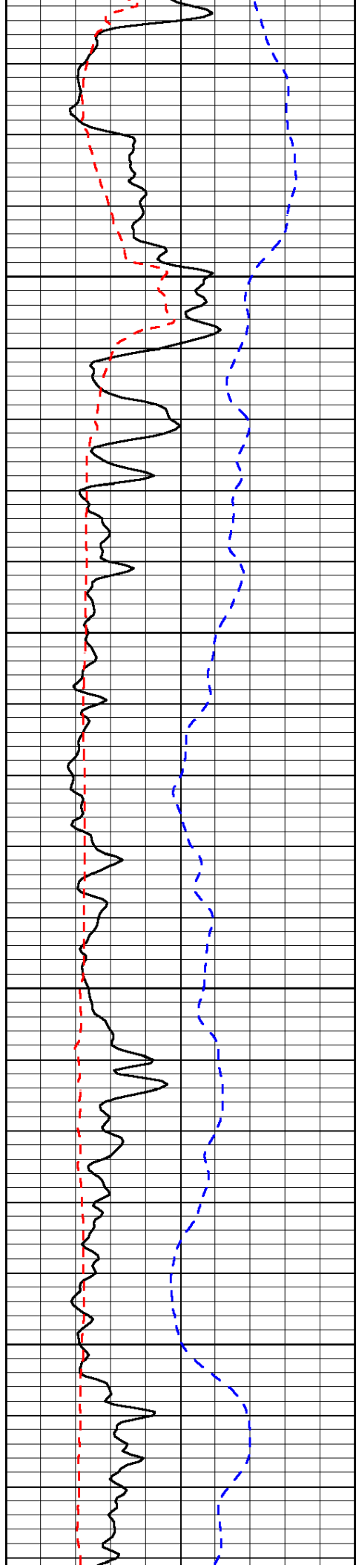
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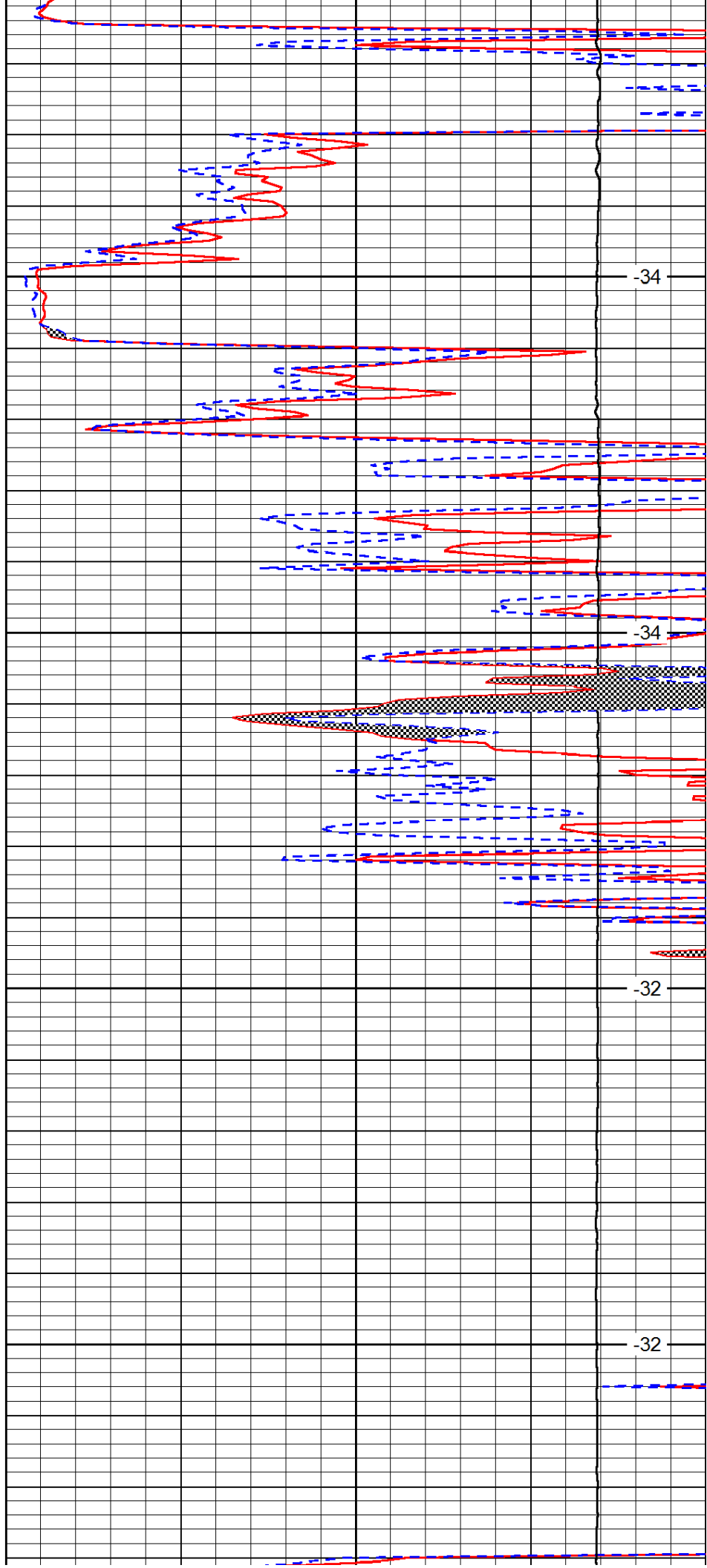


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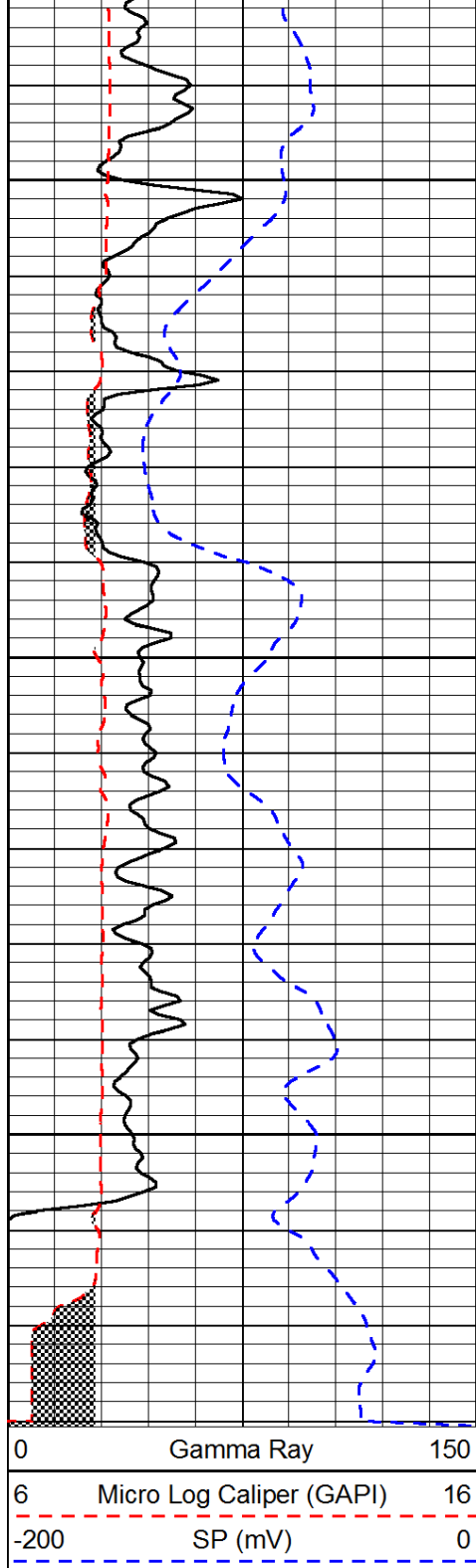


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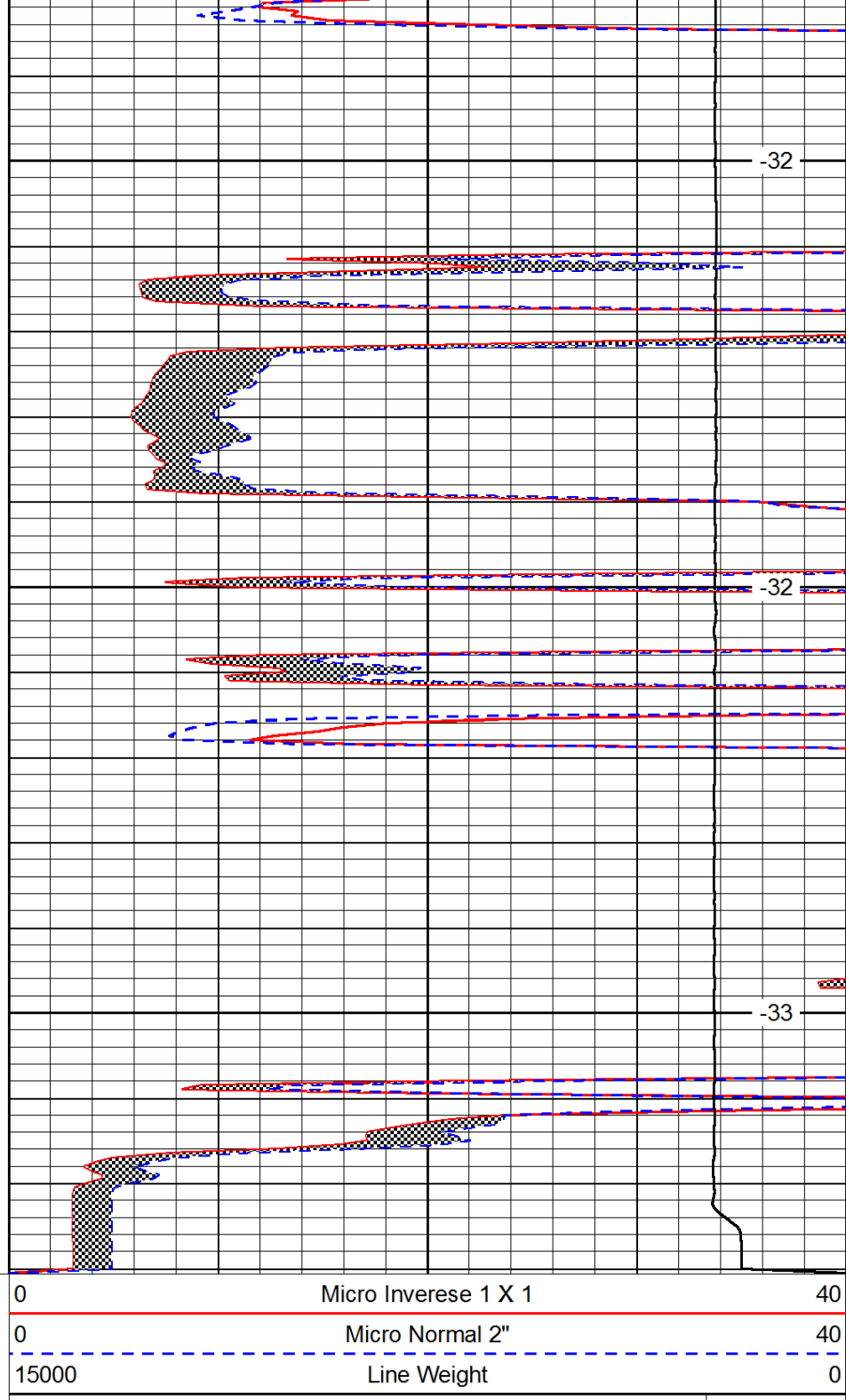
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LSPD