



Pioneer Energy Services

Microresistivity Log

API No.	15-101-22,420-00-00		
Company	Larson Engineering, Inc.		
Well	Bockelman No. 2 - 19		
Field	Wildcat		
County	Lane	State	Kansas
Location	SE NW SW NE 1936' FNL & 2132' FEL		
Sec: 19	Twp: 18 S	Rge: 29 W	
Permanent Datum	Ground Level	Elevation 2834	Other Services CNL/CDL DIL
Log Measured From	Kelly Bushing	7 Ft. Above Perm. Datum	
Drilling Measured From	Kelly Bushing		

Date	2/1/2013
Run Number	Two
Depth Driller	4660
Depth Logger	4661
Bottom Logged Interval	4660
Top Log Interval	3600
Casing Driller	8.625 @ 259
Casing Logger	255
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	3300
Density / Viscosity	9.2 52
pH / Fluid Loss	10.0 6.8
Source of Sample	Flowline
Rm @ Meas. Temp	.80 @ 68
Rmf @ Meas. Temp	.60 @ 68
Rmc @ Meas. Temp	1.08 @ 68
Source of Rmf / Rmc	Charts
Rm @ BHT	.44 @ 123
Operating Rig Time	4 Hours
Max Rec. Temp. F	123
Equipment Number	108
Location	Hays
Recorded By	D. Martin
Witnessed By	Vern Schrag

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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 Log-Tech, Inc.
(785) 625-3858

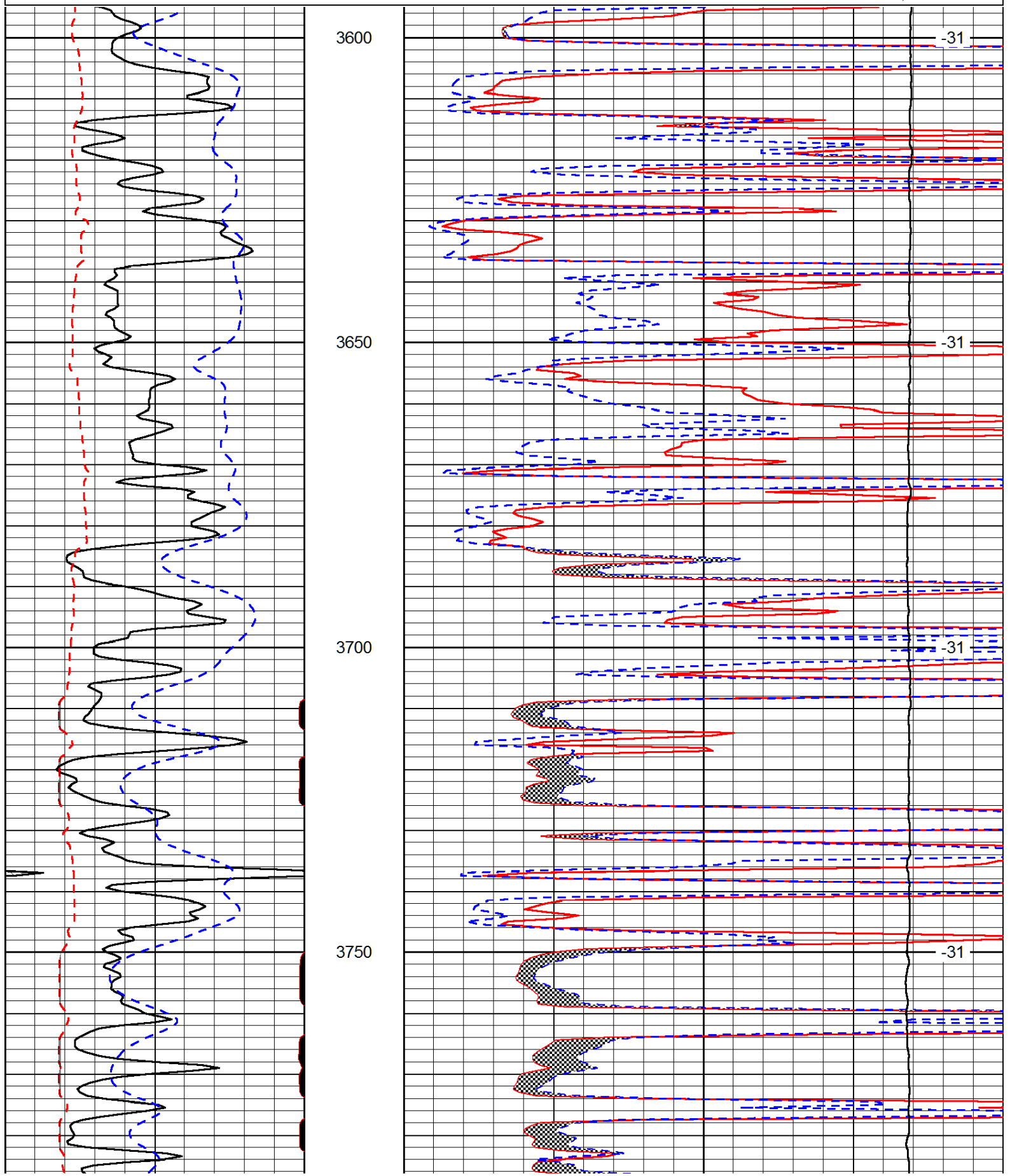
Dighton, KS
5 W to Gage Rd., 1/2 S, W Into

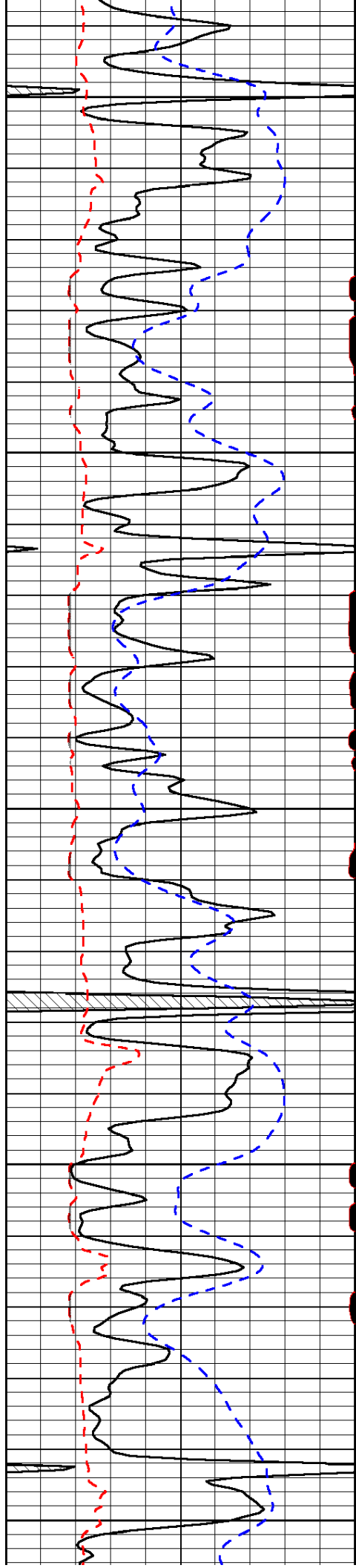
Database File: larshd.db
 Dataset Pathname: DIL/larstk
 Presentation Format: micro
 Dataset Creation: Fri Feb 01 15:35:01 2013
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	Mud Cake (in)	7.875
-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

LSPD
(ft/min)





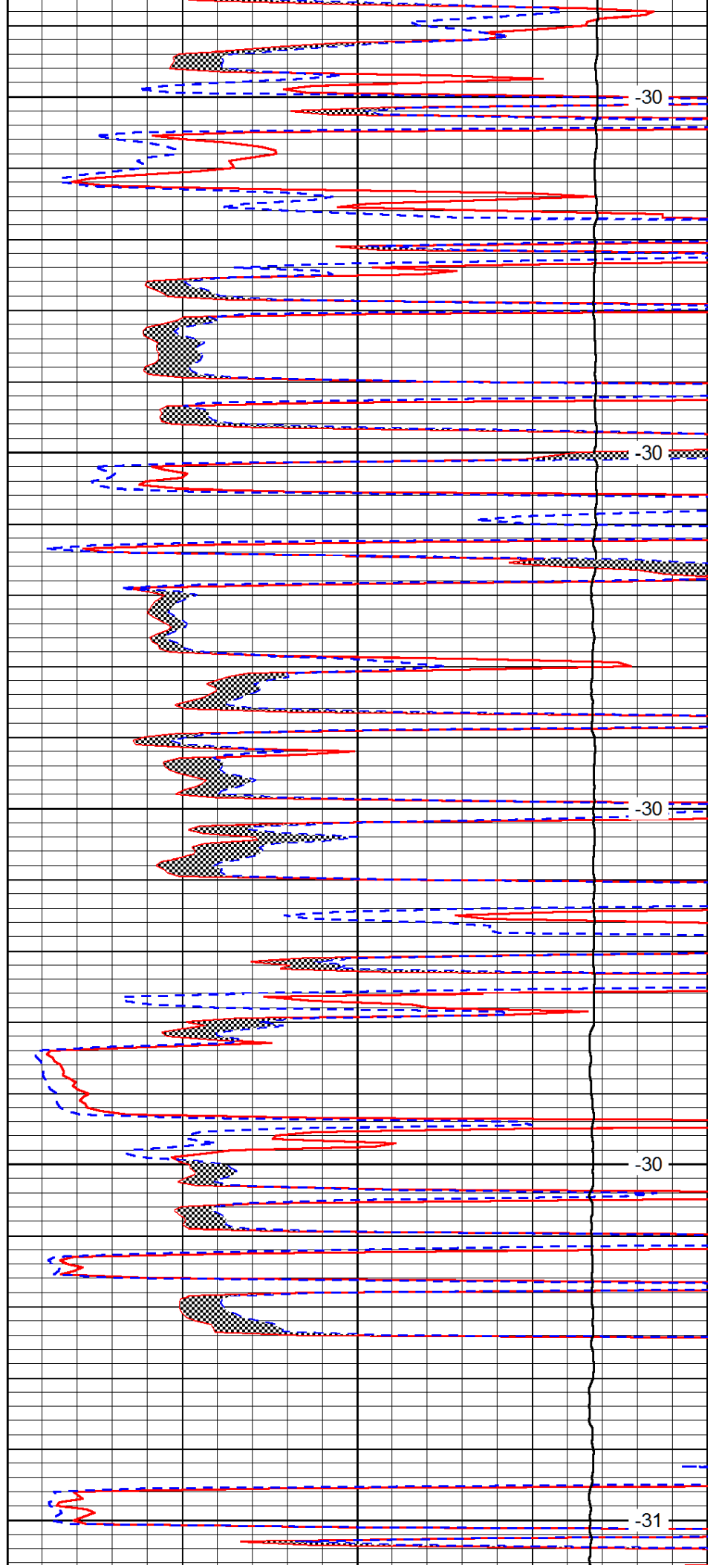
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3850

3900

3950

4000



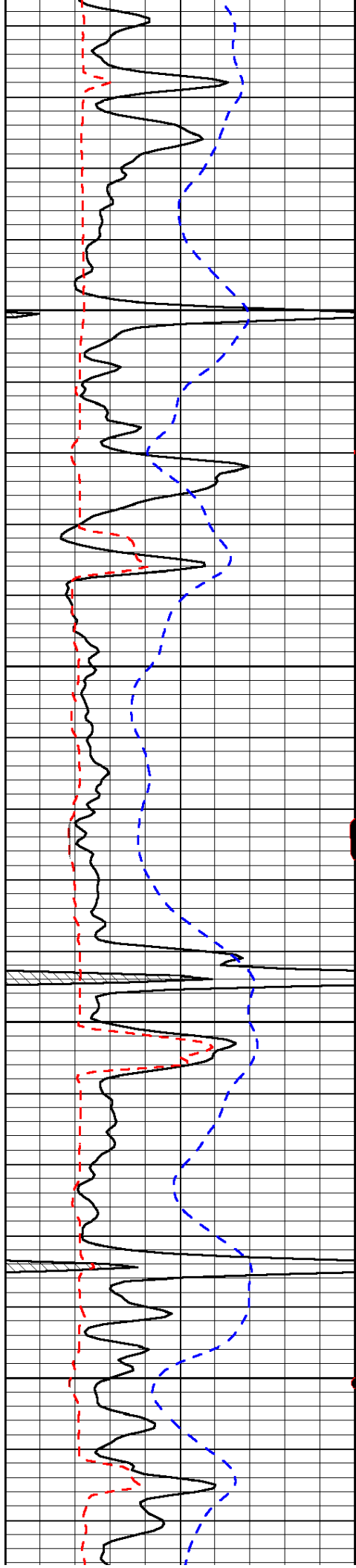
-30

-30

-30

-30

-31

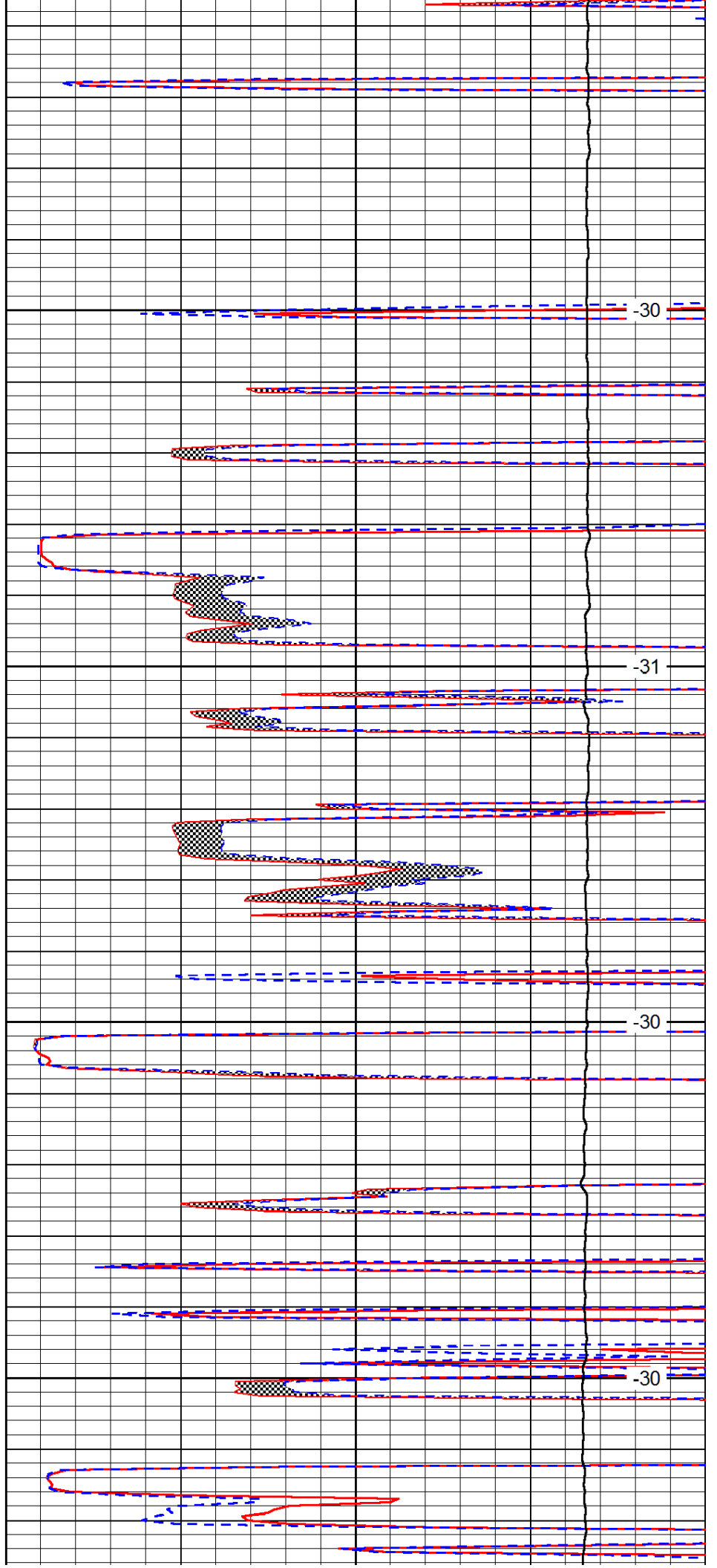


4050

4100

4150

4200

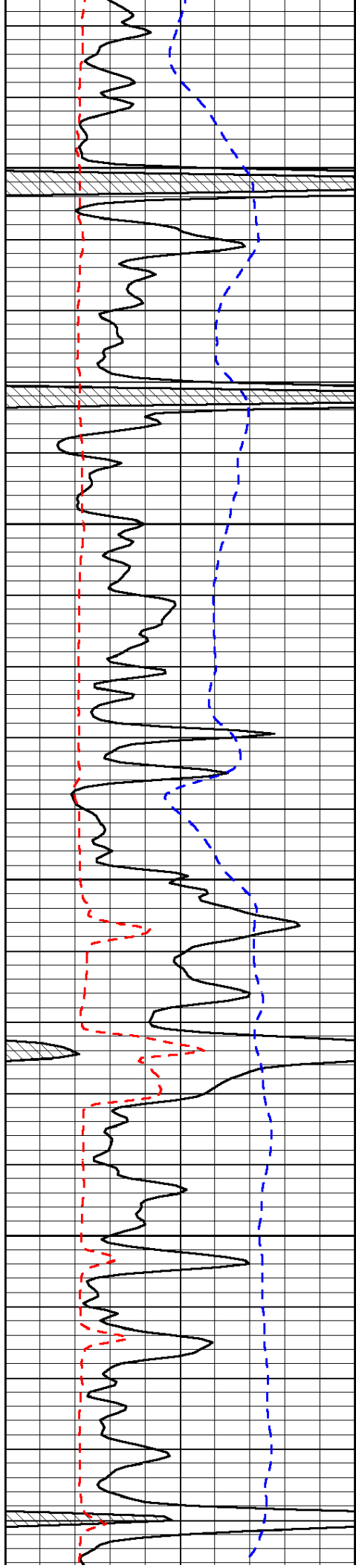


-30

-31

-30

-30

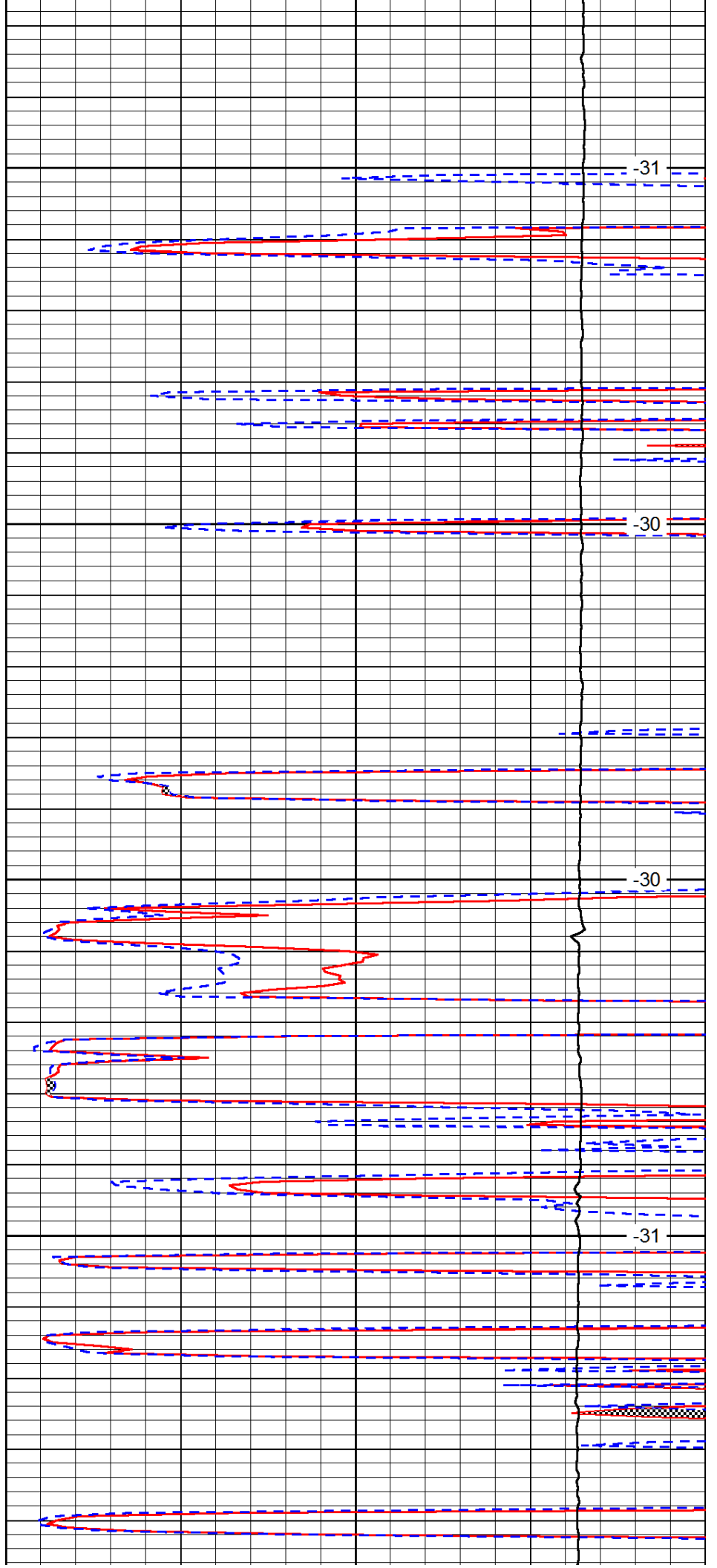


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4300

4350

4400

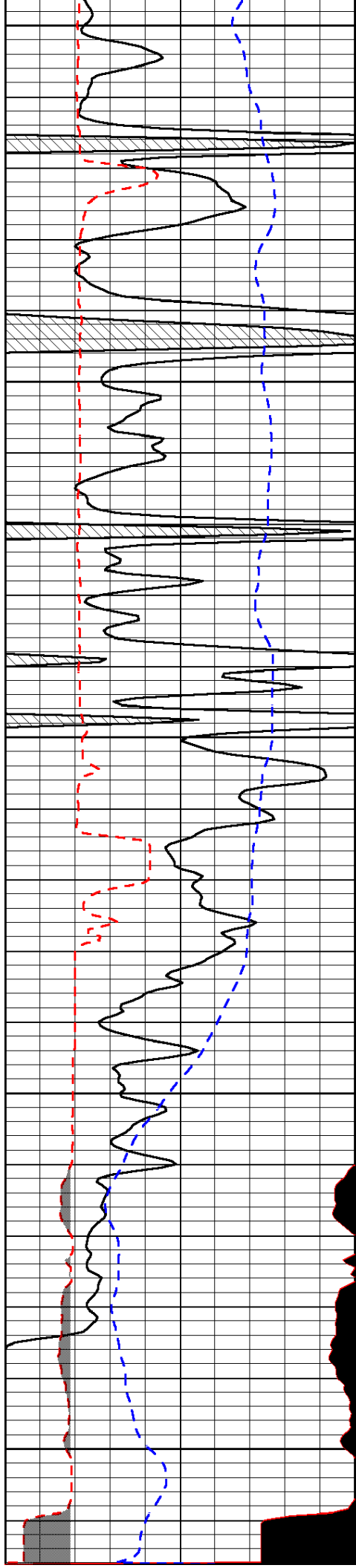


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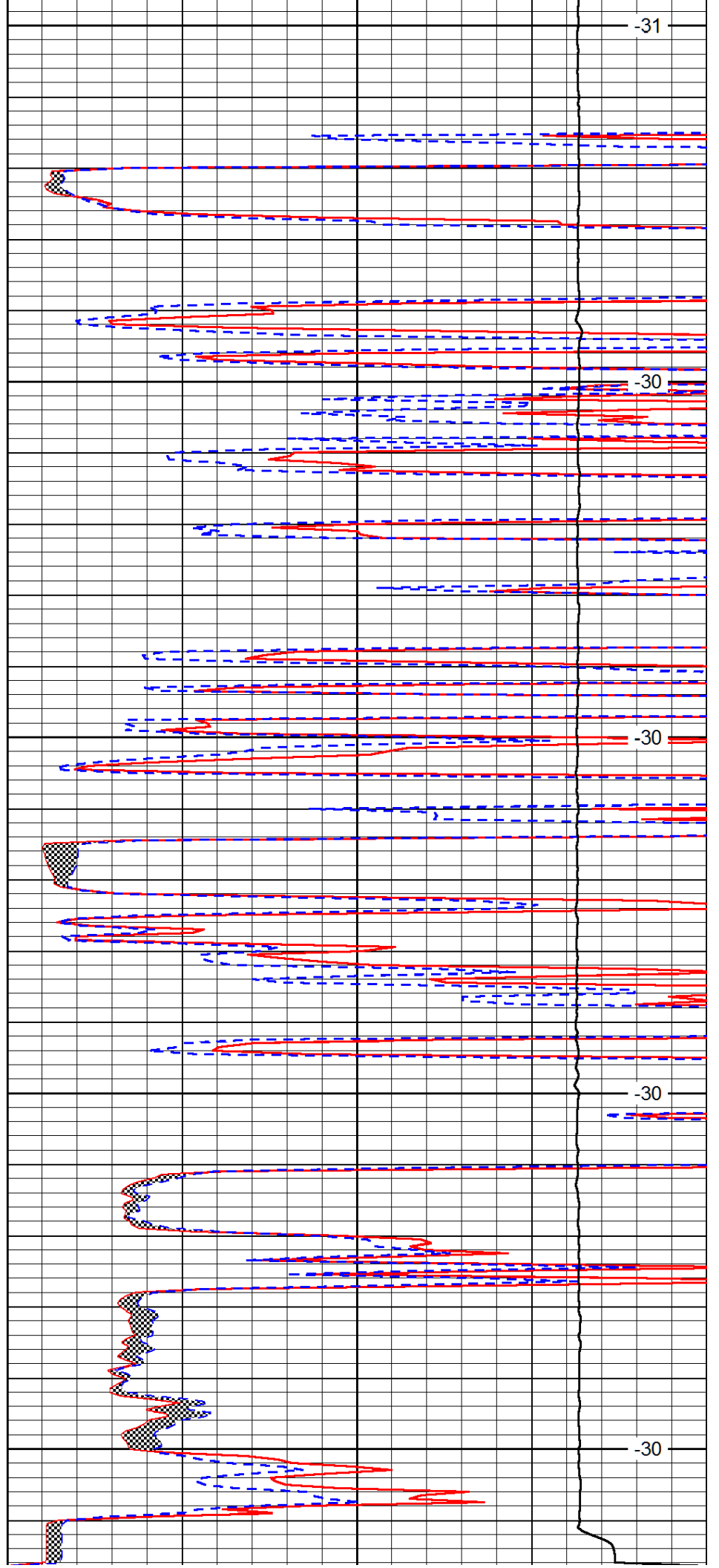
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4500

4550

4600

4650



-31

-30

-30

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-30

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