



Pioneer Energy Services

# Microresistivity Log

API No.	15-047-21643-00-00
Company	Toto Energy, LLC
Well	River Dance #25-1
Field	Wils
County	Edwards
State	Kansas
Location	N2 N2 S2 SW 1245' FSL / 1320' FWL
Sec: 25	Twp: 25S Rge: 16W
Other Services	CNL / CDL DIL

Permanent Datum	Ground Level	Elevation 2046
Log Measured From	Kelly Bushing	6 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Elevation	K.B. 2052	
	D.F. 2046	
	G.L. 2046	

Date	6/22/2014
Run Number	One
Depth Driller	4804
Depth Logger	4804
Bottom Logged Interval	4803
Top Log Interval	3500
Casing Driller	8.625 @ 307
Casing Logger	306
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	8900
Density / Viscosity	9.3 52
pH / Fluid Loss	9.0 11.2
Source of Sample	Flowline
Rm @ Meas. Temp	0.44 @ 80
Rmf @ Meas. Temp	0.33 @ 80
Rmc @ Meas. Temp	0.59 @ 80
Source of Rmf / Rmc	Charts
Rm @ BHT	0.28 @ 124
Operating Rig Time	4 Hours
Max Rec. Temp. F	124
Equipment Number	17
Location	Hays
Recorded By	R. Barnhart
Witnessed By	Sonia McDanel

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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

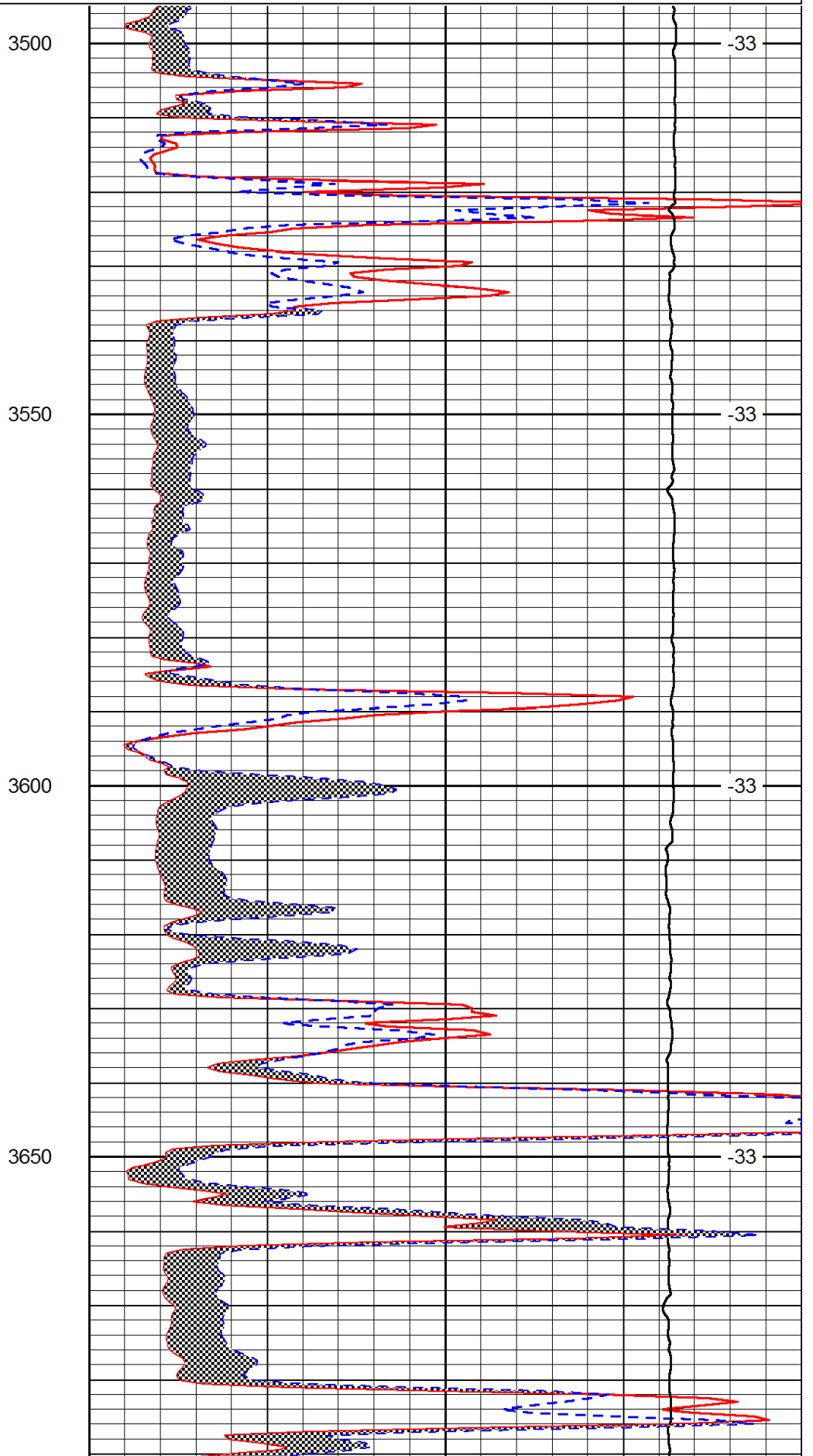
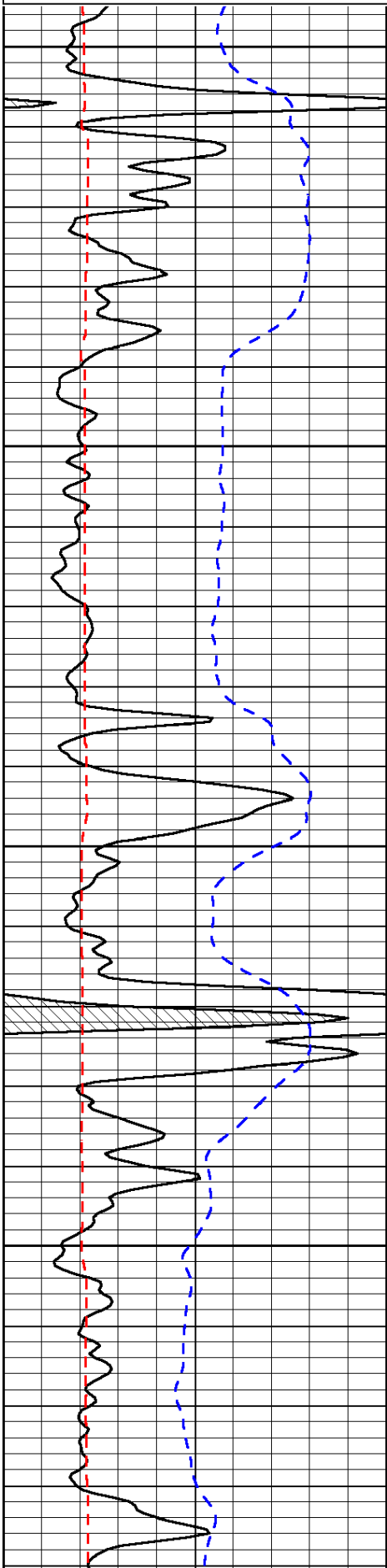
St. John, KS:  
Hwy 283 & Hwy 50: 7S to 70 Rd., 16E, 3/4S, E into

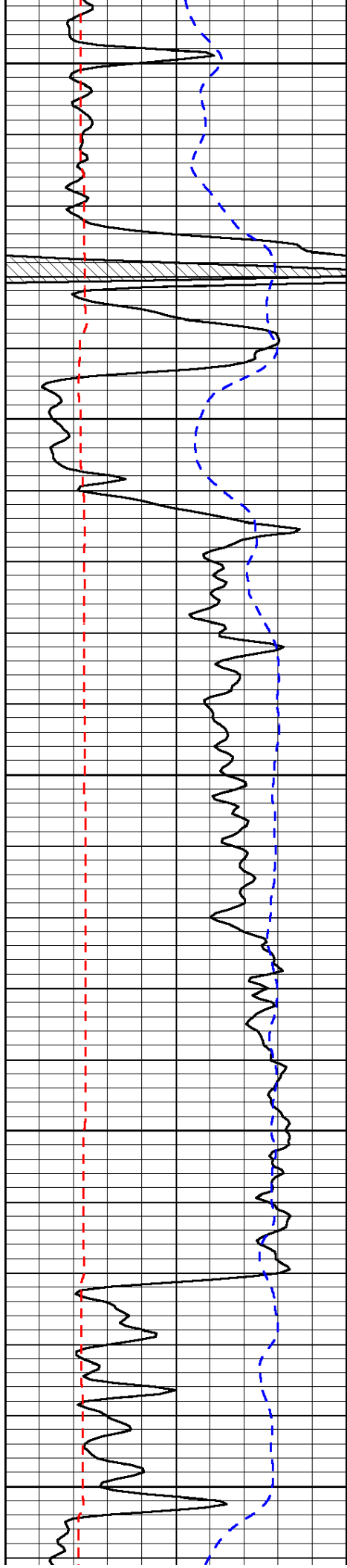
Database File: toto hd.db  
 Dataset Pathname: dil/totmain  
 Presentation Format: micro  
 Dataset Creation: Sun Jun 22 05:43:30 2014  
 Charted by: Depth in Feet scaled 1:240

	Gamma Ray	150
6	MCAL (GAPI)	16
2.875	Mud Cake (GAPI)	7.875
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0

LSPD





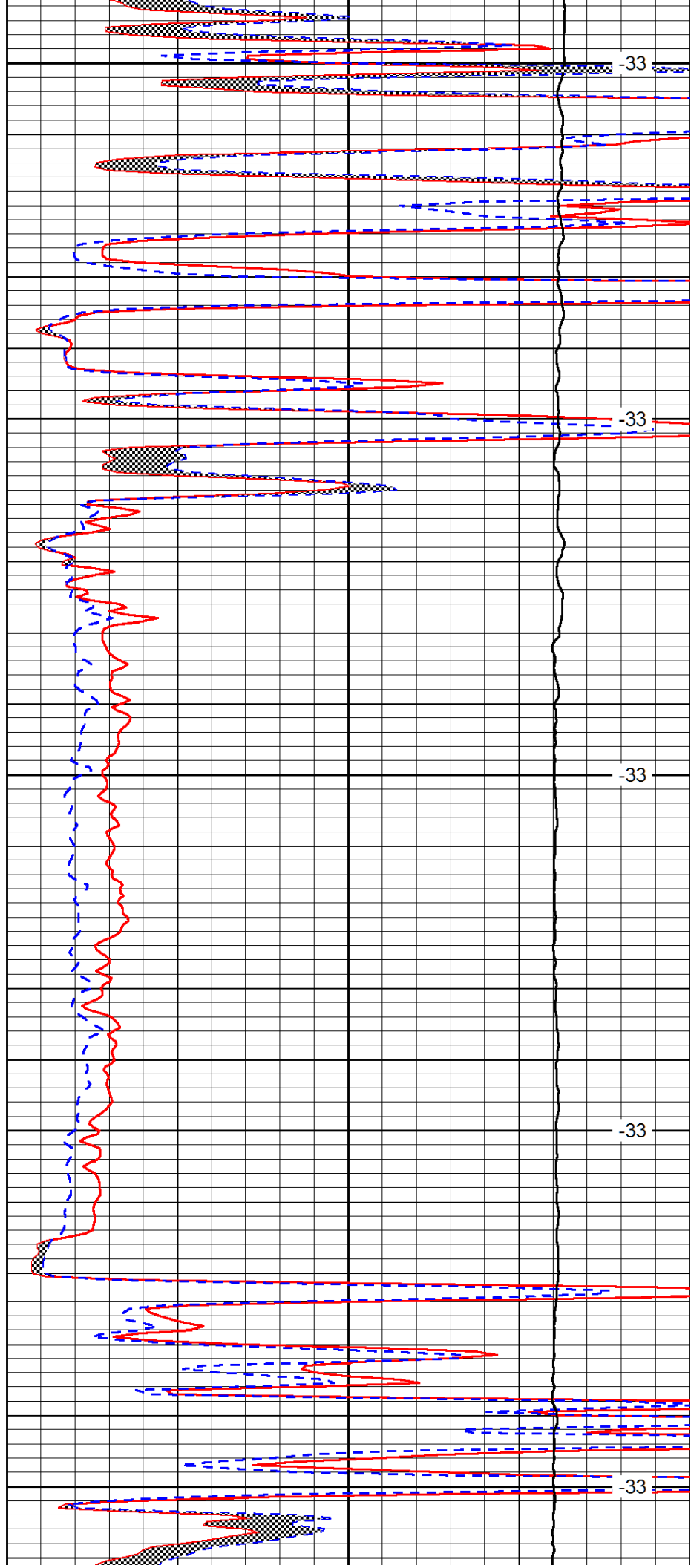
3700

3750

3800

3850

3900



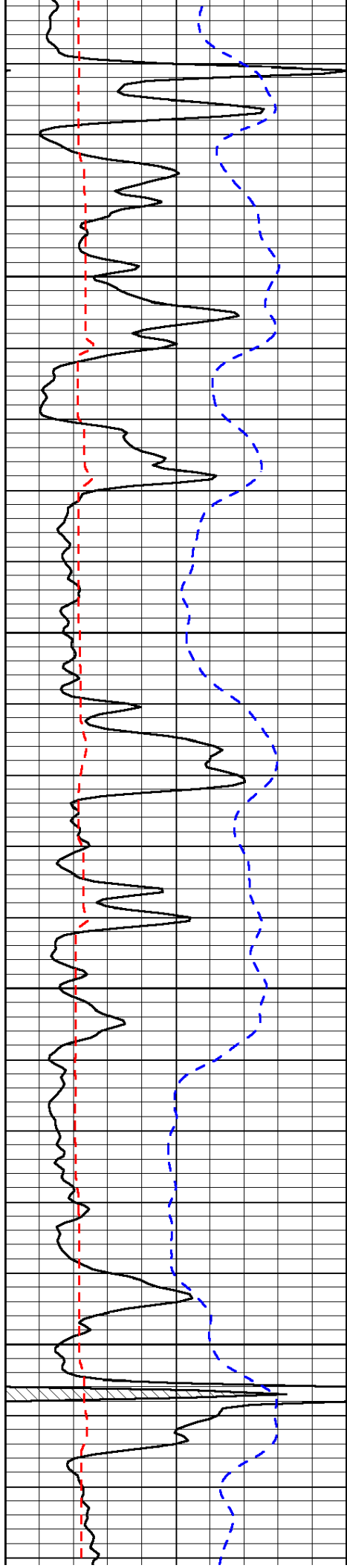
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-33

-33

-33

-33

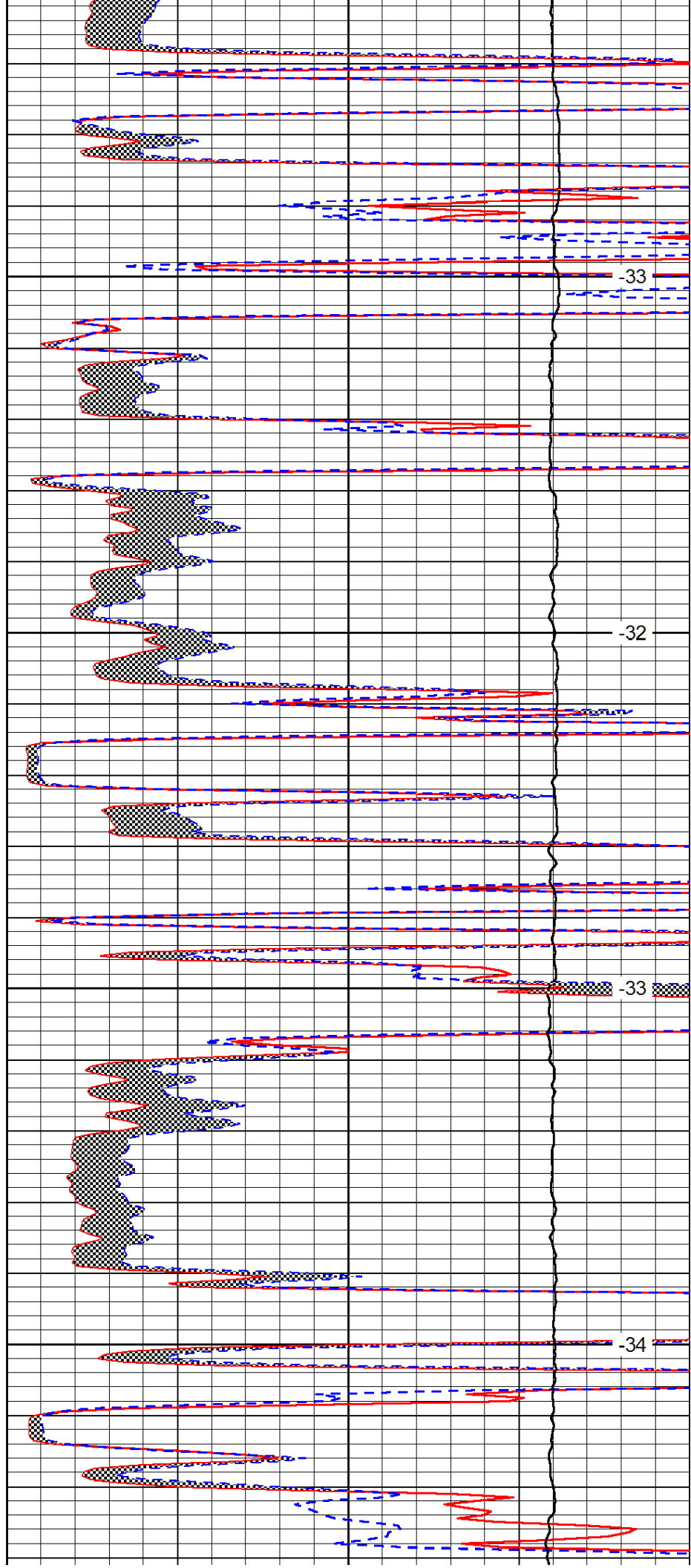


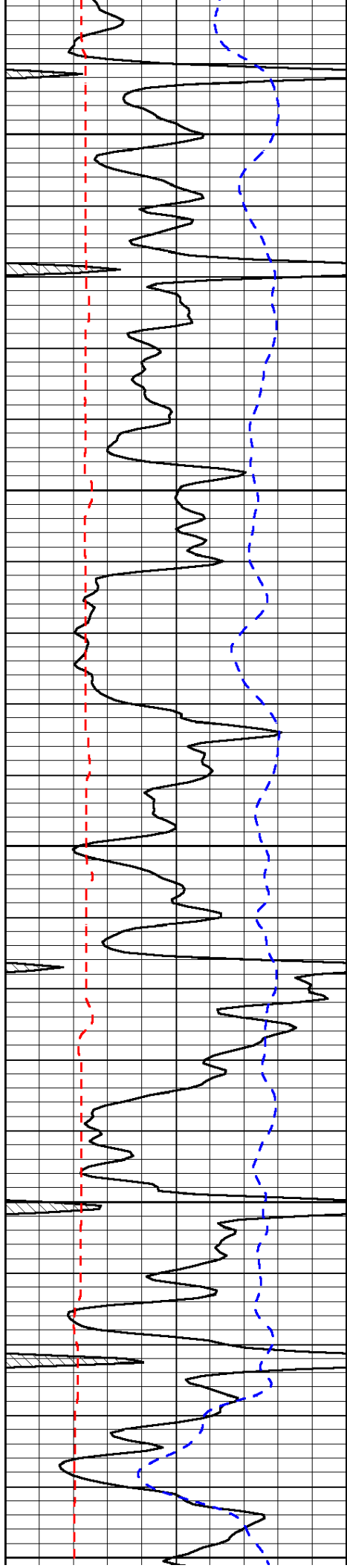
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4000

4050

4100





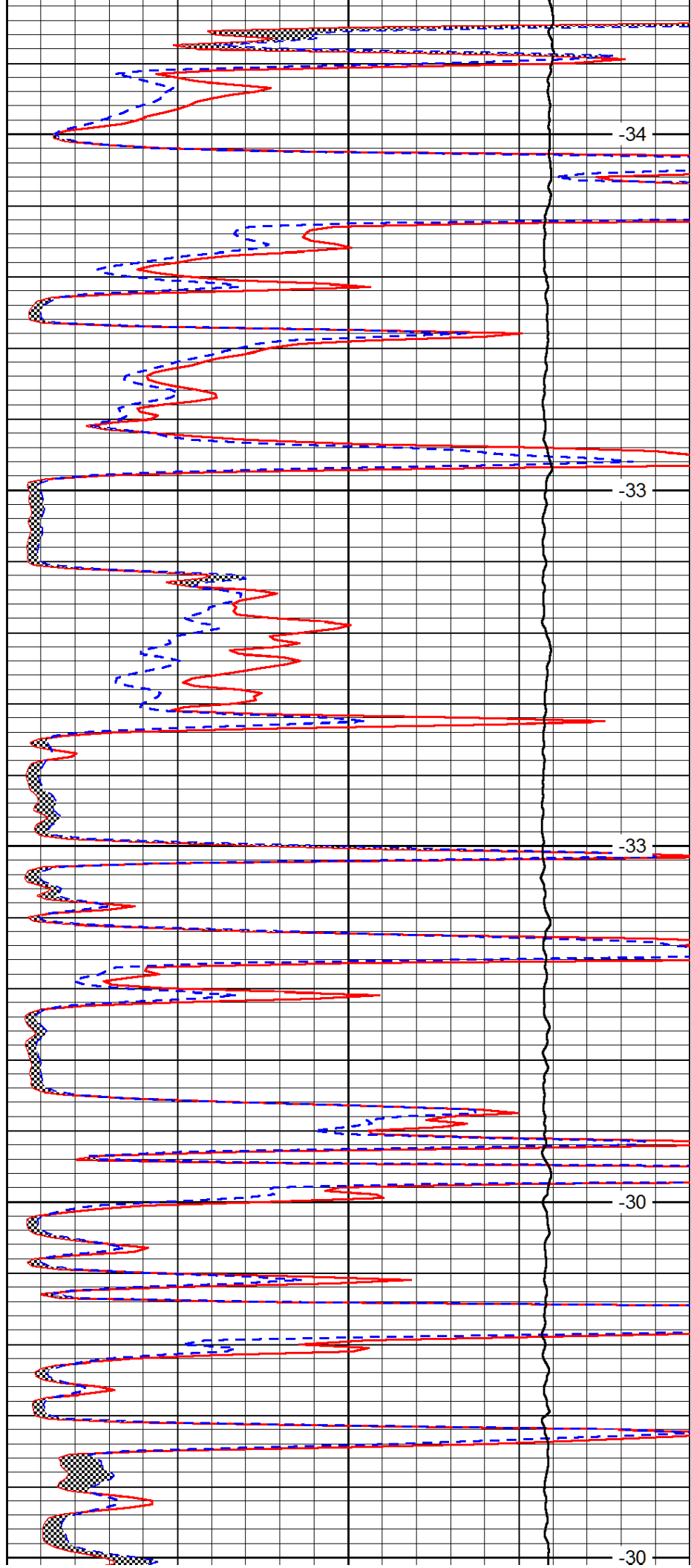
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4200

4250

4300

4350



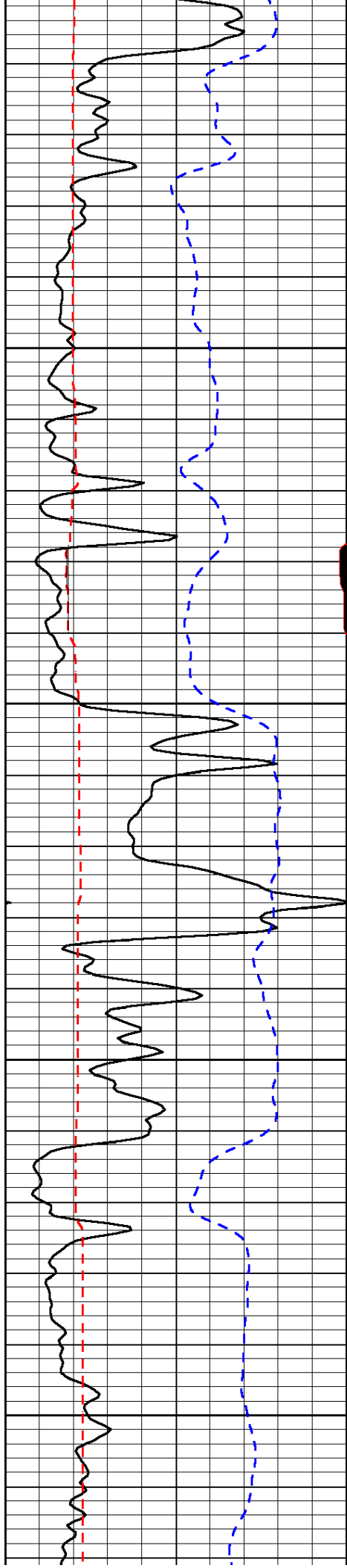
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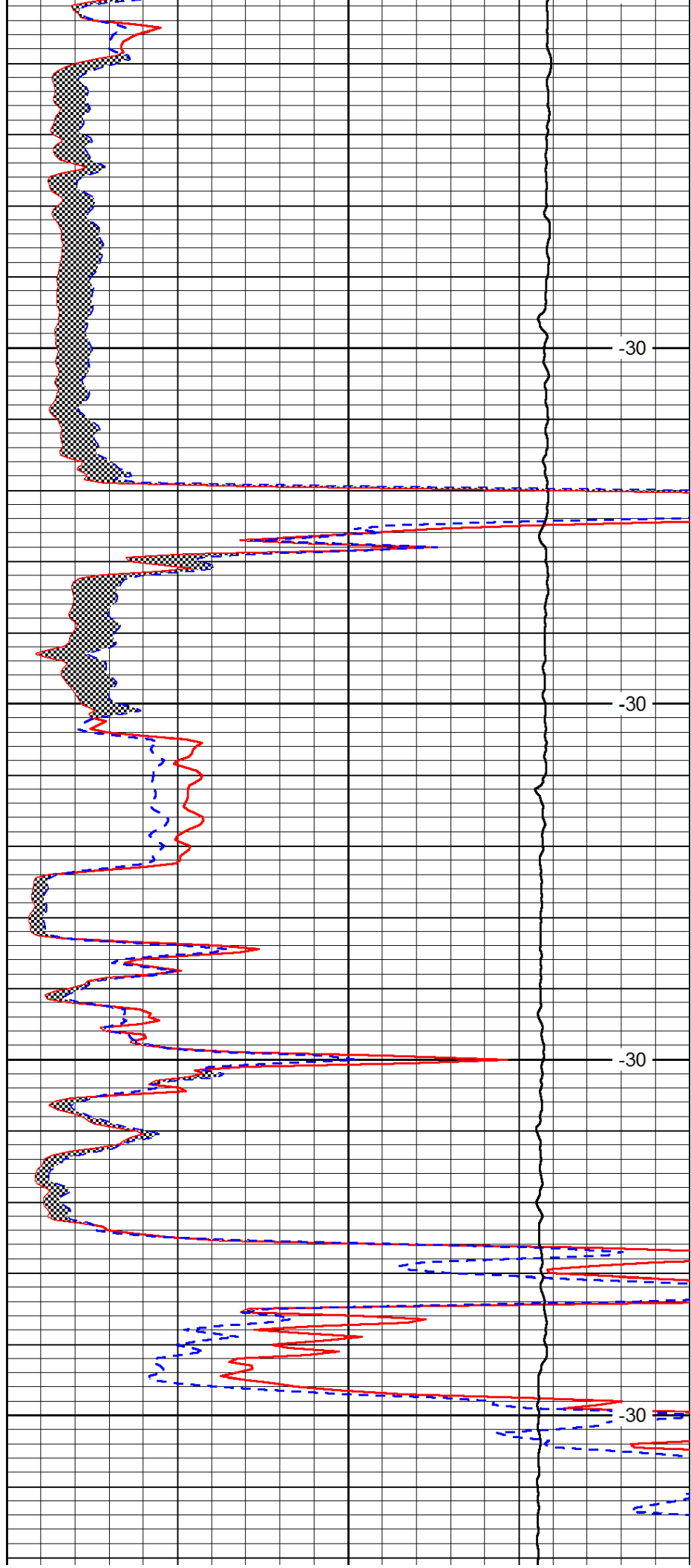


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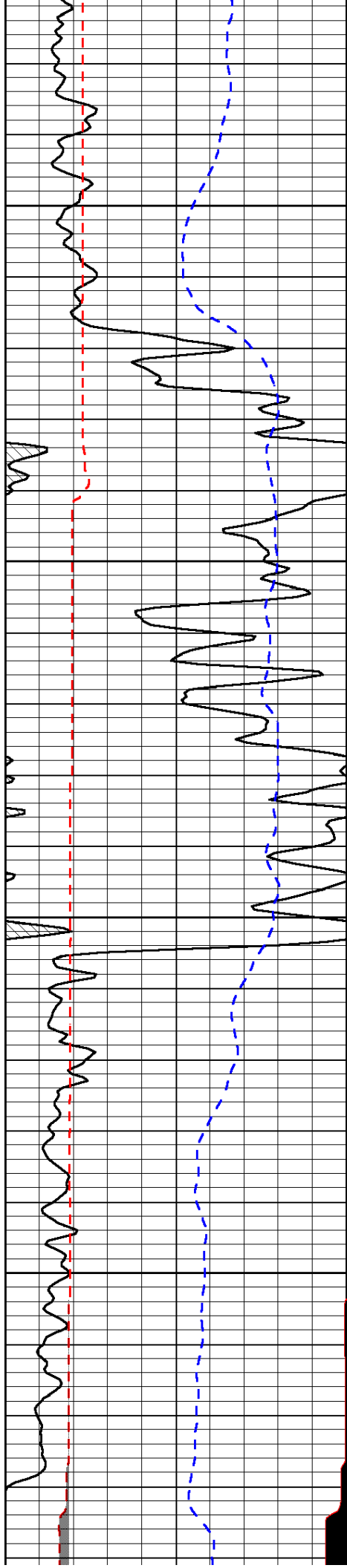


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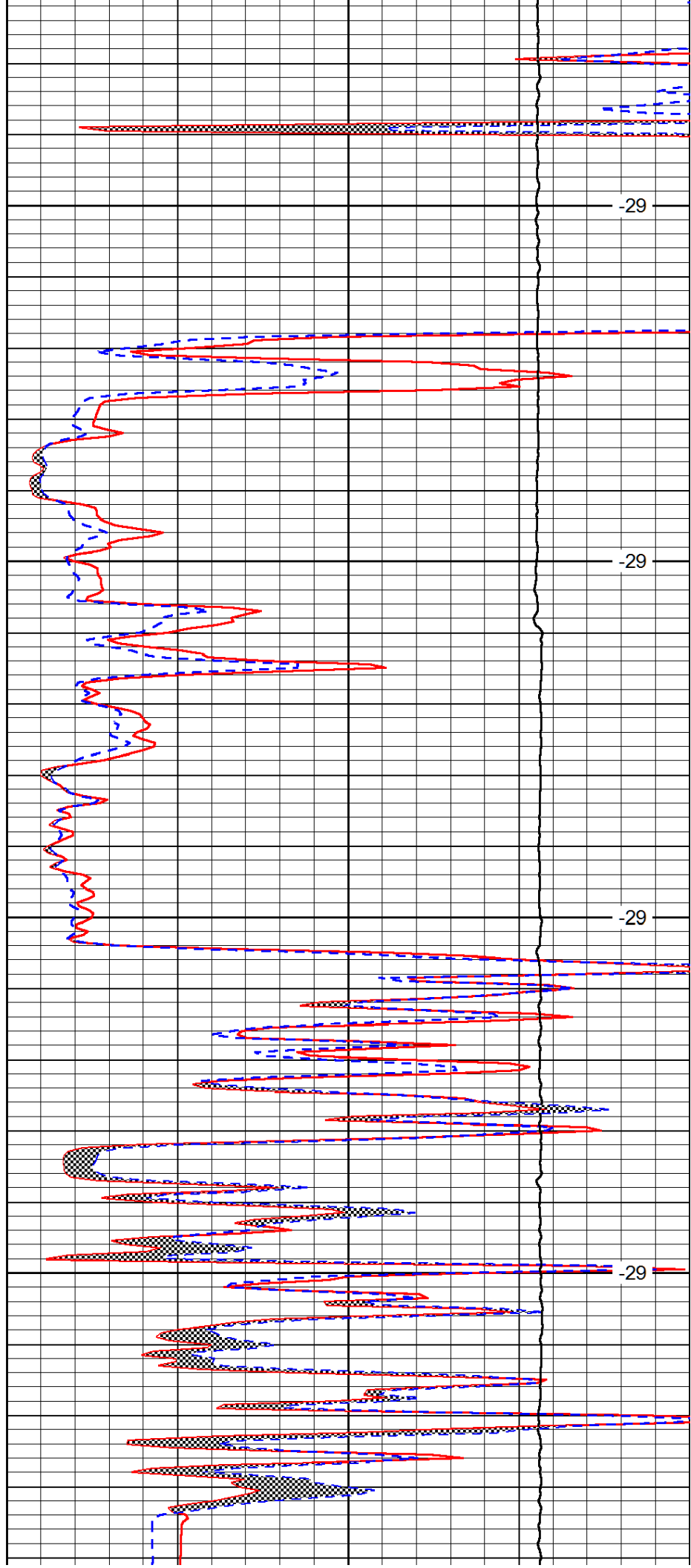


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4700

4750

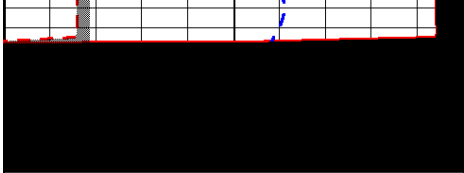


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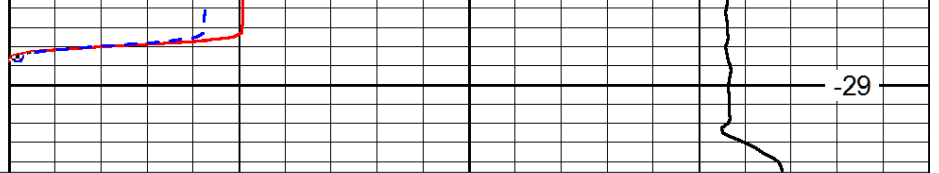
-29

-29

-29



4800



0	Gamma Ray	150
6	MCAL (GAPI)	16
2.875	Mud Cake (GAPI)	7.875
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0

LSPD