



Pioneer Energy Services

Microresistivity Log

API No.	15-153-20995-00-00		
Company	Murfin Drilling Company, Inc.		
Well	Frisbie #3-23		
Field	Happy Southwest		
County	Rawlins	State	Kansas
Location	1320' FNL & 1815' FWL		
Sec: 23	Twp: 2S	Rge: 36W	Other Services CNL/CDL DIL/BHCS

Permanent Datum	Ground Level	Elevation 3309	K.B. 3314
Log Measured From	Kelly Bushing	5 Ft. Above Perm. Datum	D.F. 3309
Drilling Measured From	Kelly Bushing		G.L. 3309
Date	3/24/2014		
Run Number	Two		
Depth Driller	4830		
Depth Logger	4830		
Bottom Logged Interval	4829		
Top Log Interval	3650		
Casing Driller	8.625 @ 345		
Casing Logger	345		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	1400		
Density / Viscosity	9.3	55	
pH / Fluid Loss	9.5	6.8	
Source of Sample	Flowline		
Rm @ Meas. Temp	0.92	@ 46	
Rmf @ Meas. Temp	0.69	@ 46	
Rmc @ Meas. Temp	1.24	@ 46	
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.34	@ 126	
Operating Rig Time	5 Hours		
Max Rec. Temp. F	126		
Equipment Number	91		
Location	Hays		
Recorded By	D. Schmidt		
Witnessed By	Rocky Milford		

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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

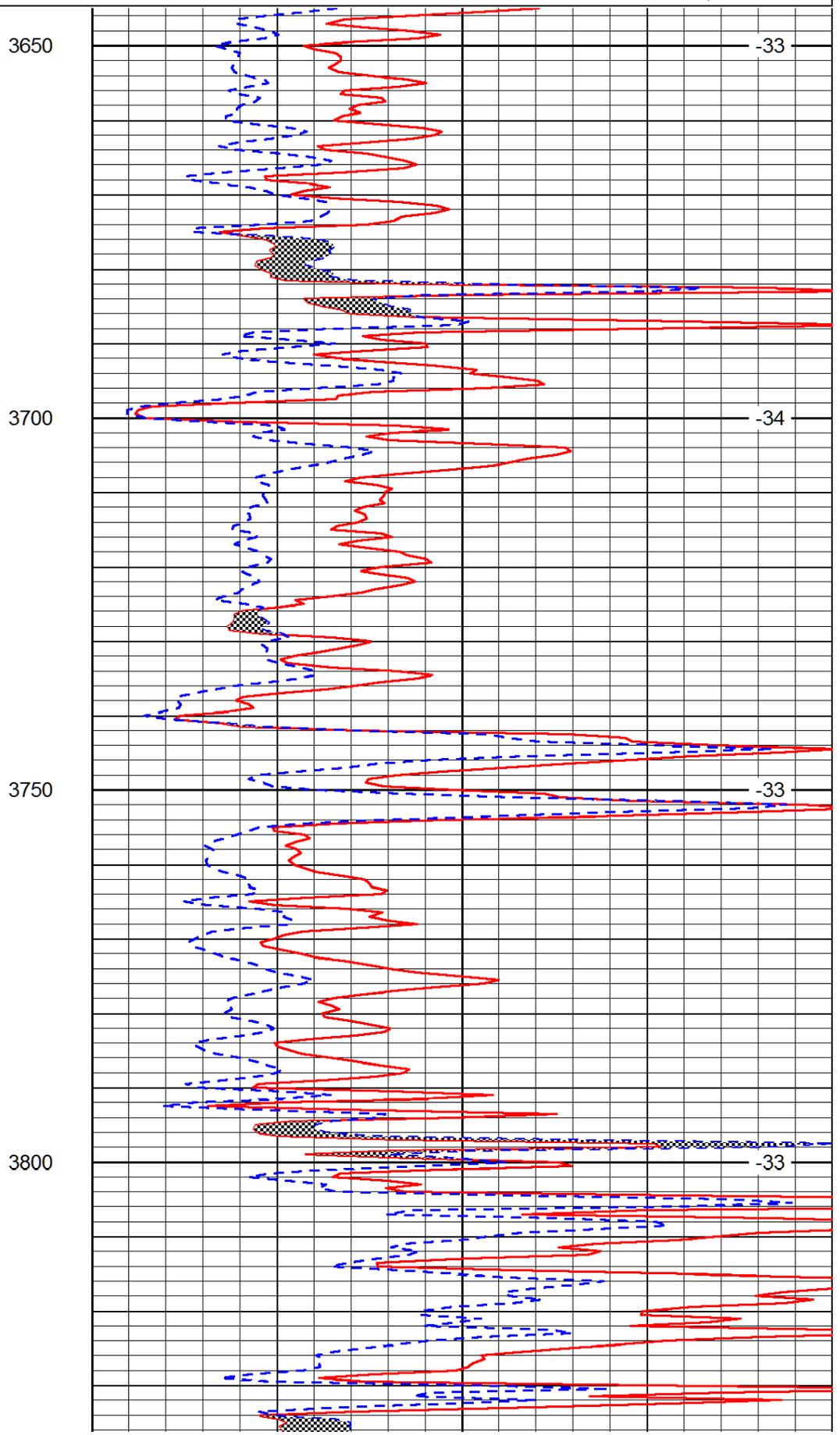
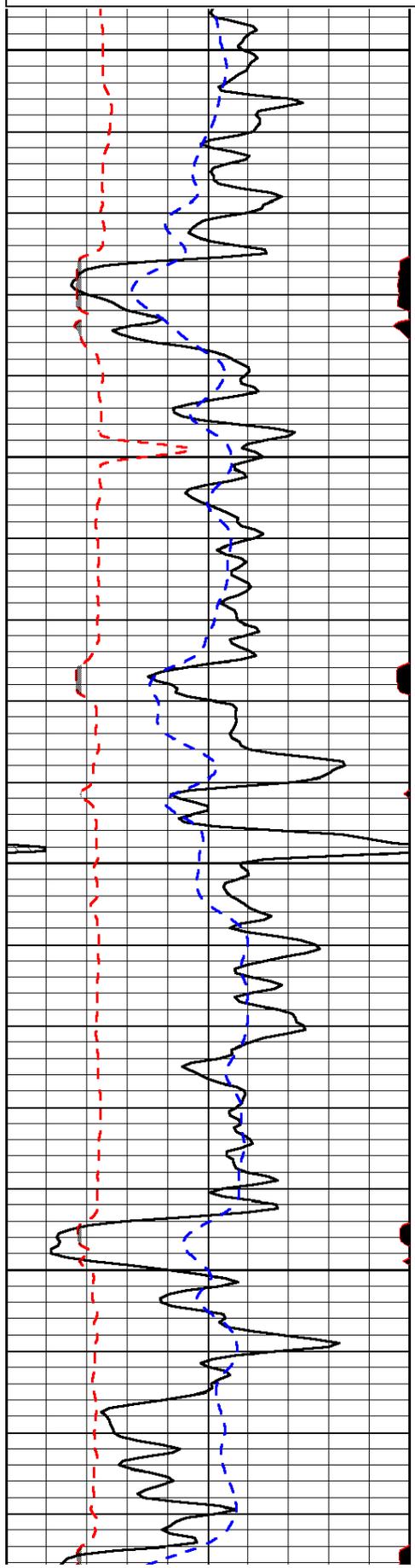
Thank you for using Log-Tech, Inc.
(785) 625-3858

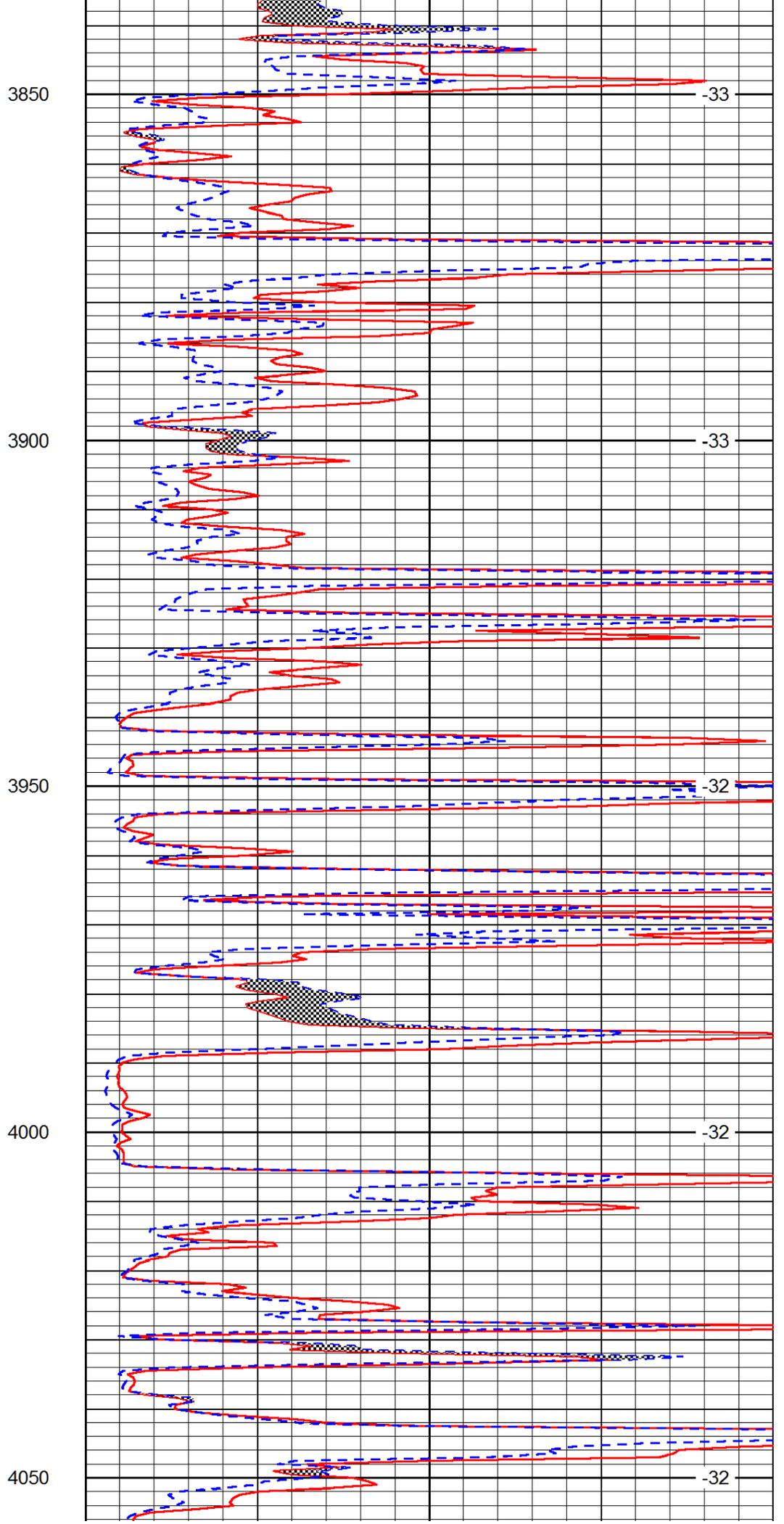
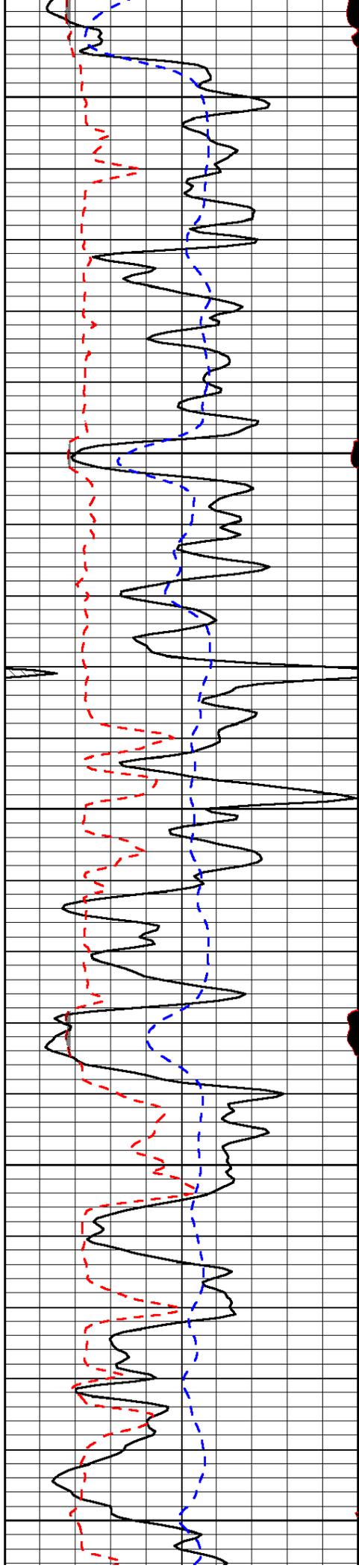
McDonald,
2 East to 5 Rd, 6 North to V Rd, 1/2 East,
South and West into

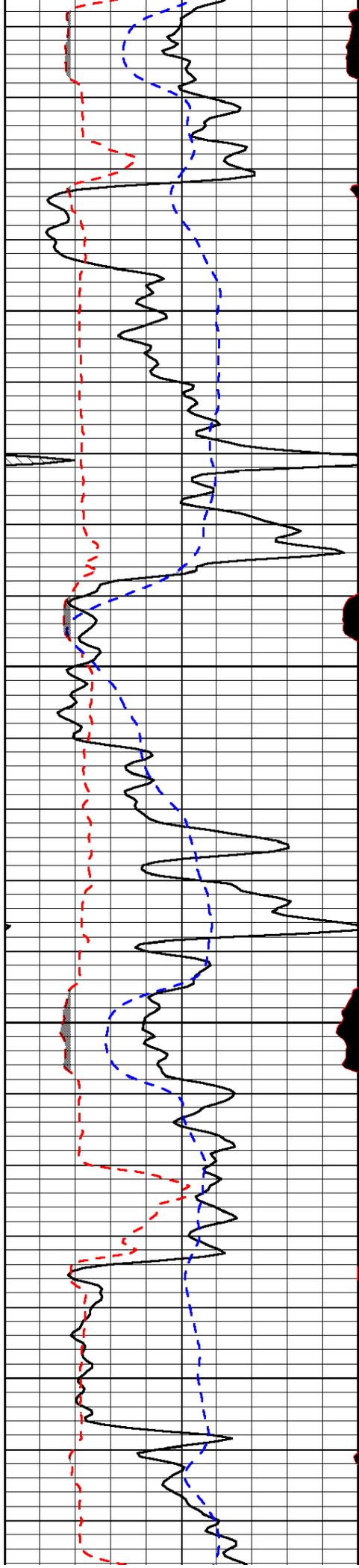
Database File: murfin_032414hd.db
 Dataset Pathname: dil/mrfstck
 Presentation Format: micro
 Dataset Creation: Tue Mar 25 02:47:56 2014
 Charted by: Depth in Feet scaled 1:240

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)





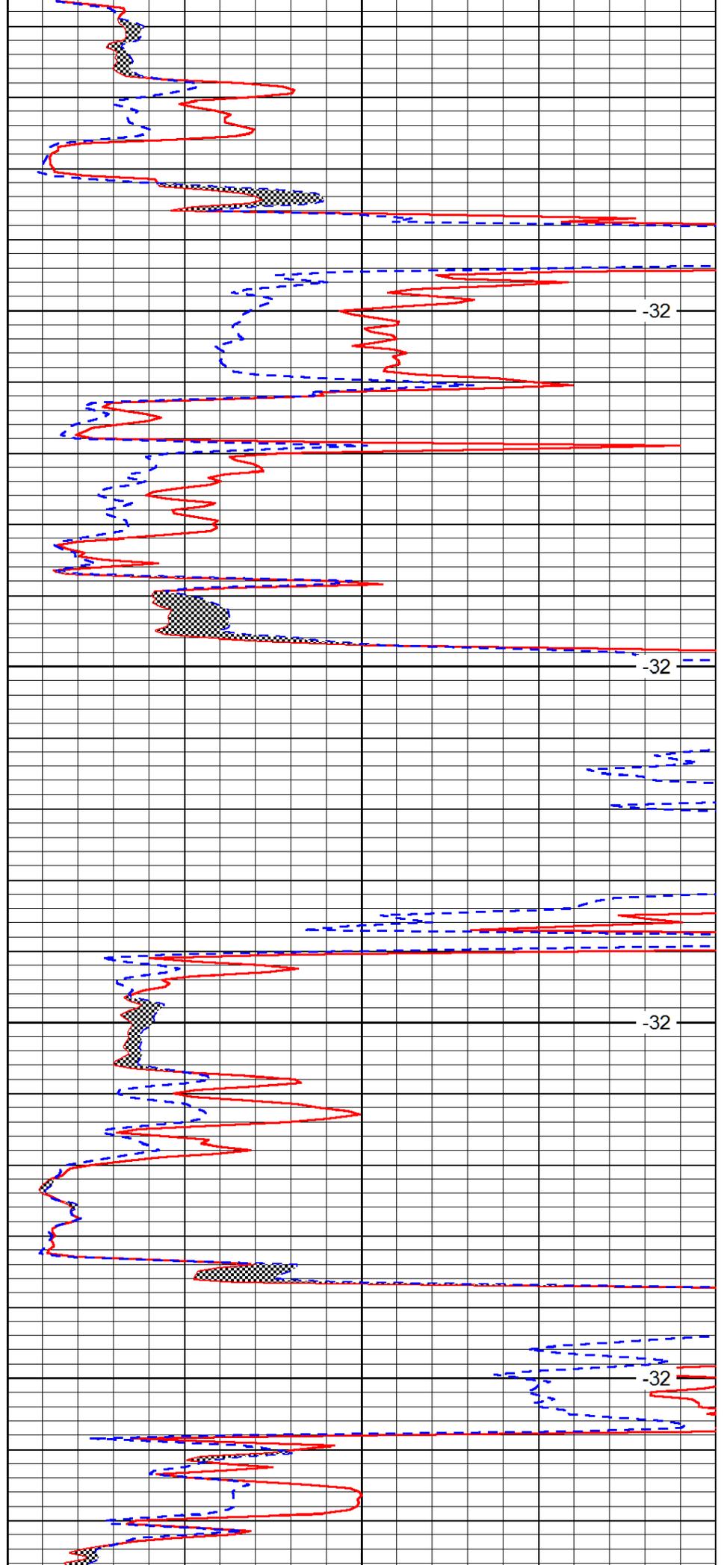


4100

4150

4200

4250

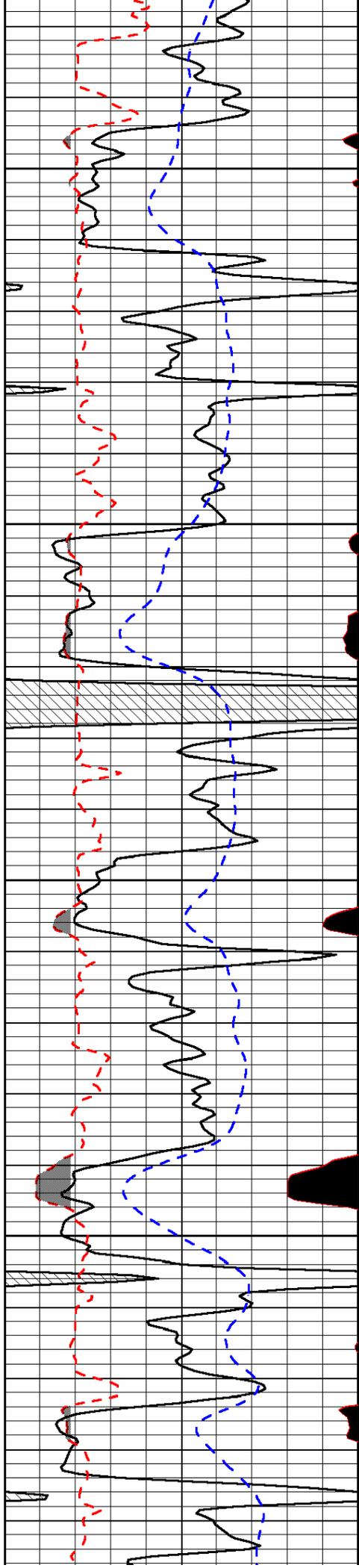


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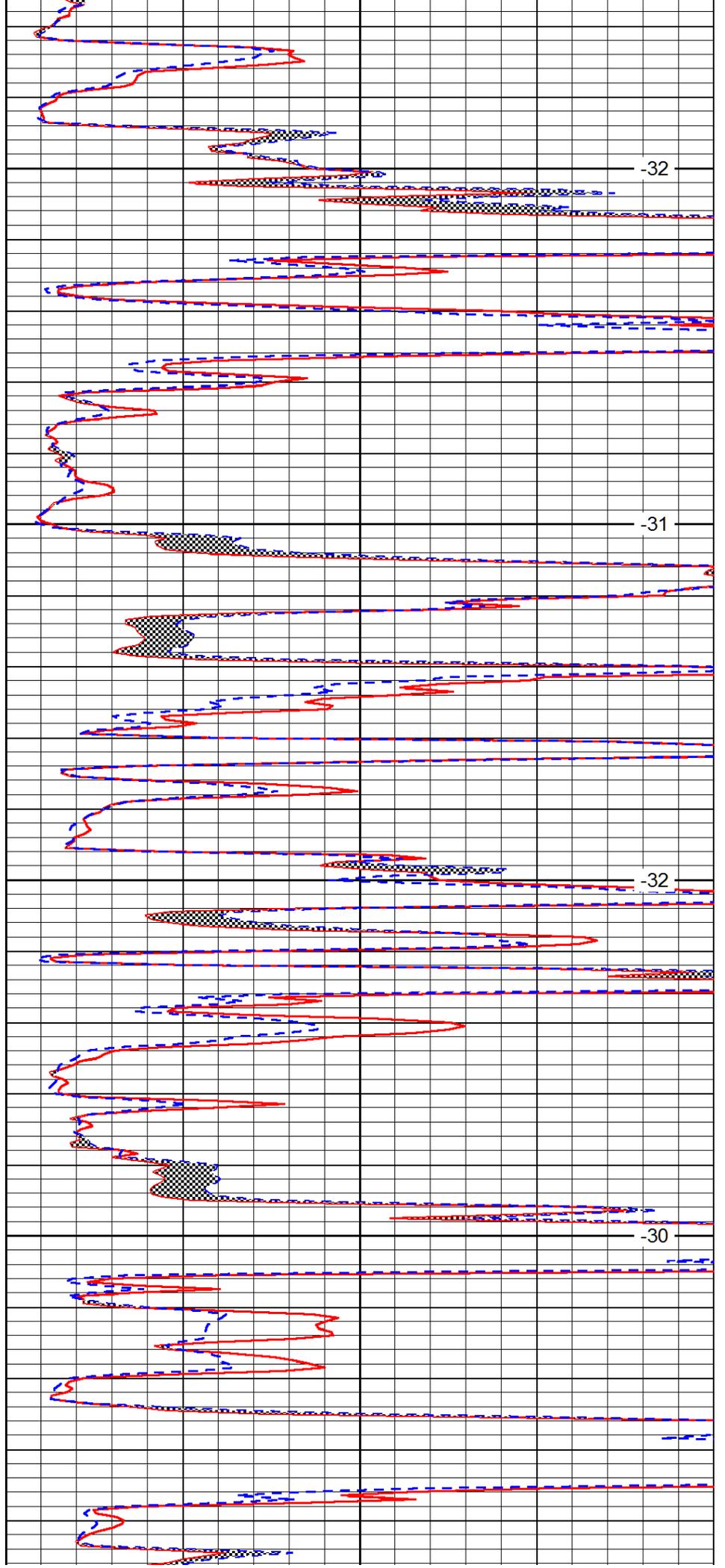


4300

4350

4400

4450

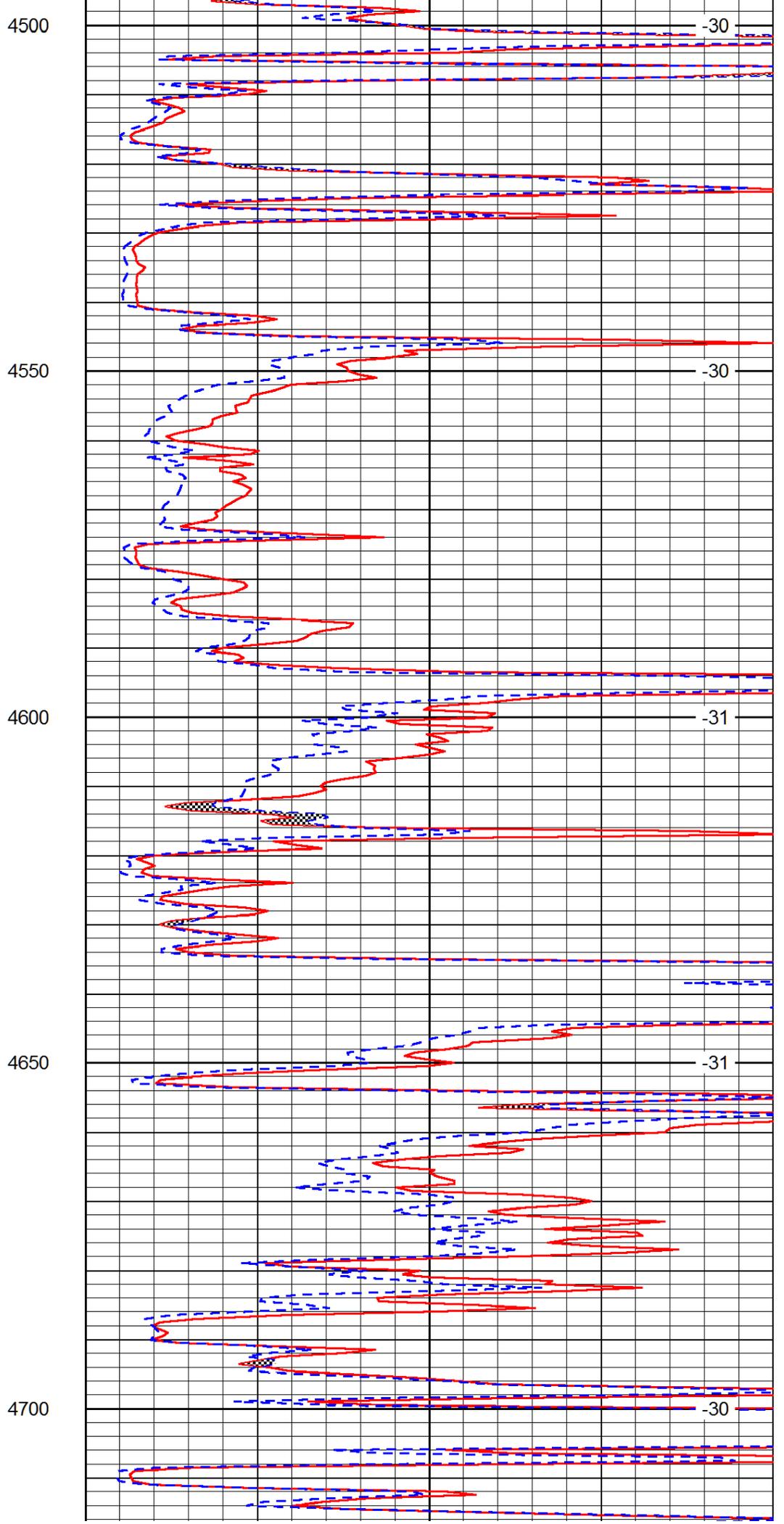
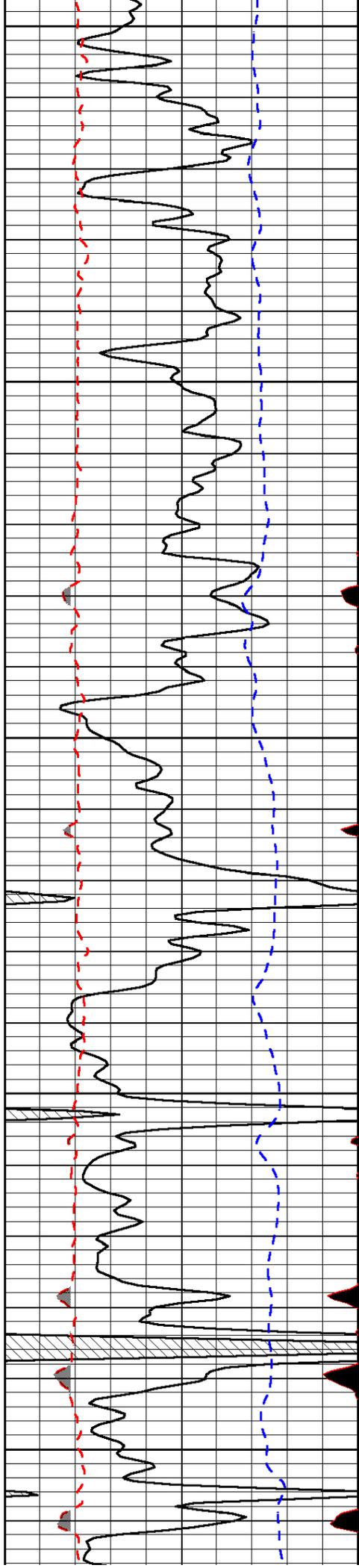


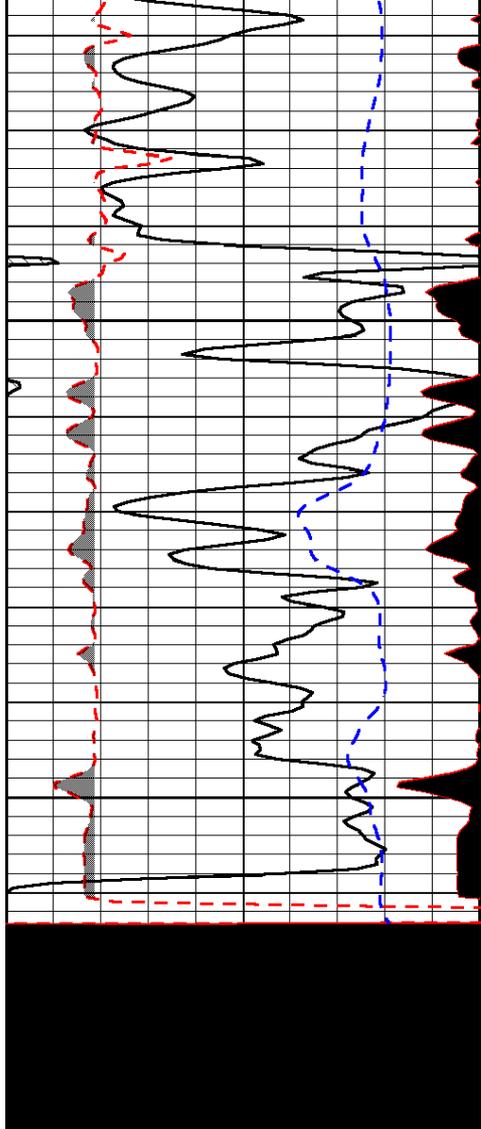
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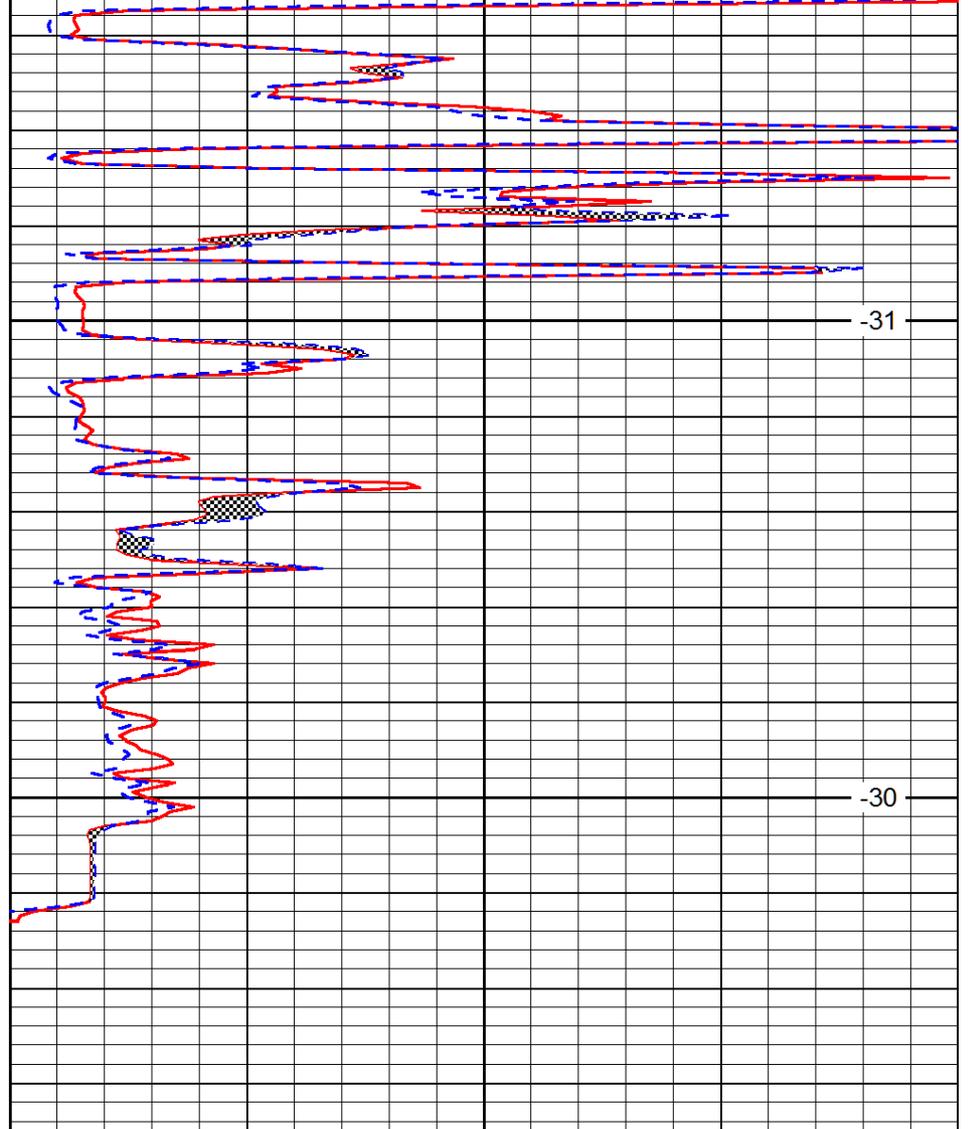




4750

4800

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-31

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