



PIONEER

Pioneer Energy Services

Microresistivity Log

API No.	Company Murfin Drilling Company, Inc.		
15-153-20,904-00-00	Well Hatch No. 1-30X		
	Field Wildcat		
	County Rawlins	State	Kansas
	Location	2,000' FSL & 2,100' FEL	
	Sec: 30	Twp: 1S	Rge: 36W
	Permanent Datum	Ground Level	Elevation 3324
	Log Measured From	Kelly Bushing	5 Ft. Above Perm. Datum
	Drilling Measured From	Kelly Bushing	K.B. 3329 D.F. 3324 G.L. 3324
Date	8/6/2012		
Run Number	Two		
Depth Driller	4600		
Depth Logger	4600		
Bottom Logged Interval	4599		
Top Log Interval	3600		
Casing Driller	13,375 @ 251		
Casing Logger	249		
Bit Size	8.750 / 7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	800		
Density / Viscosity	9.3	69	
pH / Fluid Loss	10.0	4.8	
Source of Sample	Flowline		
Rm @ Meas. Temp	1.30 @ 76		
Rmf @ Meas. Temp	.98 @ 76		
Rmc @ Meas. Temp	1.76 @ 76		
Source of Rmf / Rmc	Charts		
Rm @ BHT	.81 @ 122		
Operating Rig Time	5 Hours		
Max Rec. Temp. F	122		
Equipment Number	108		
Location	Hays		
Recorded By	J. Long		
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.

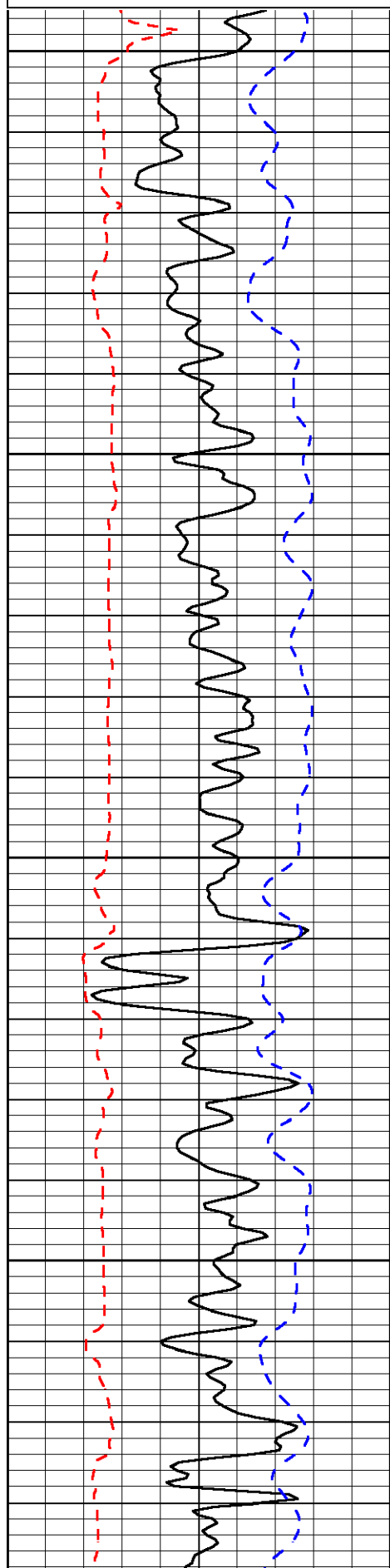
Comments

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

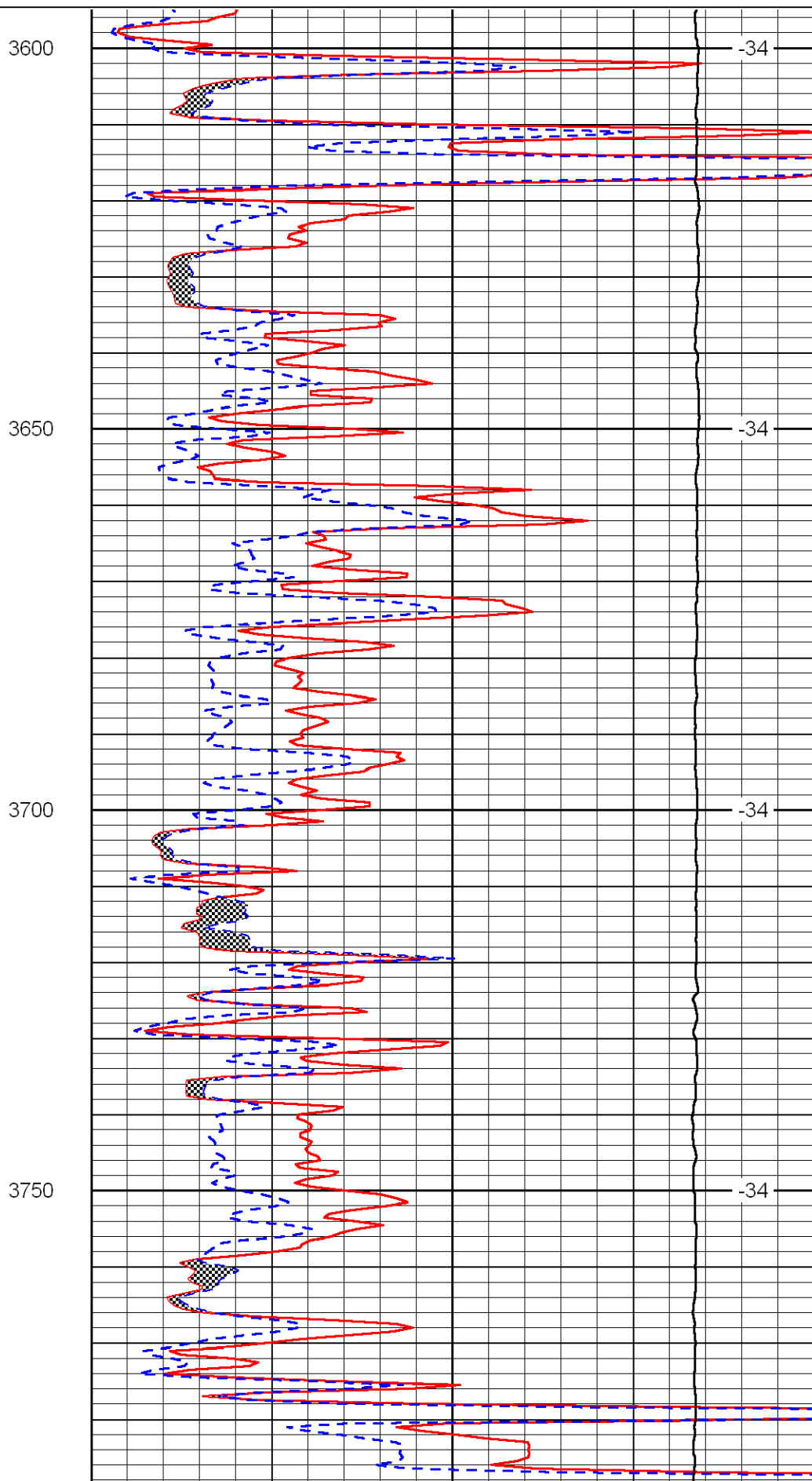
McDonald, 2 West to County Line Road (Road 1), 11 North to T (Z Road), 1/2 East, North Into

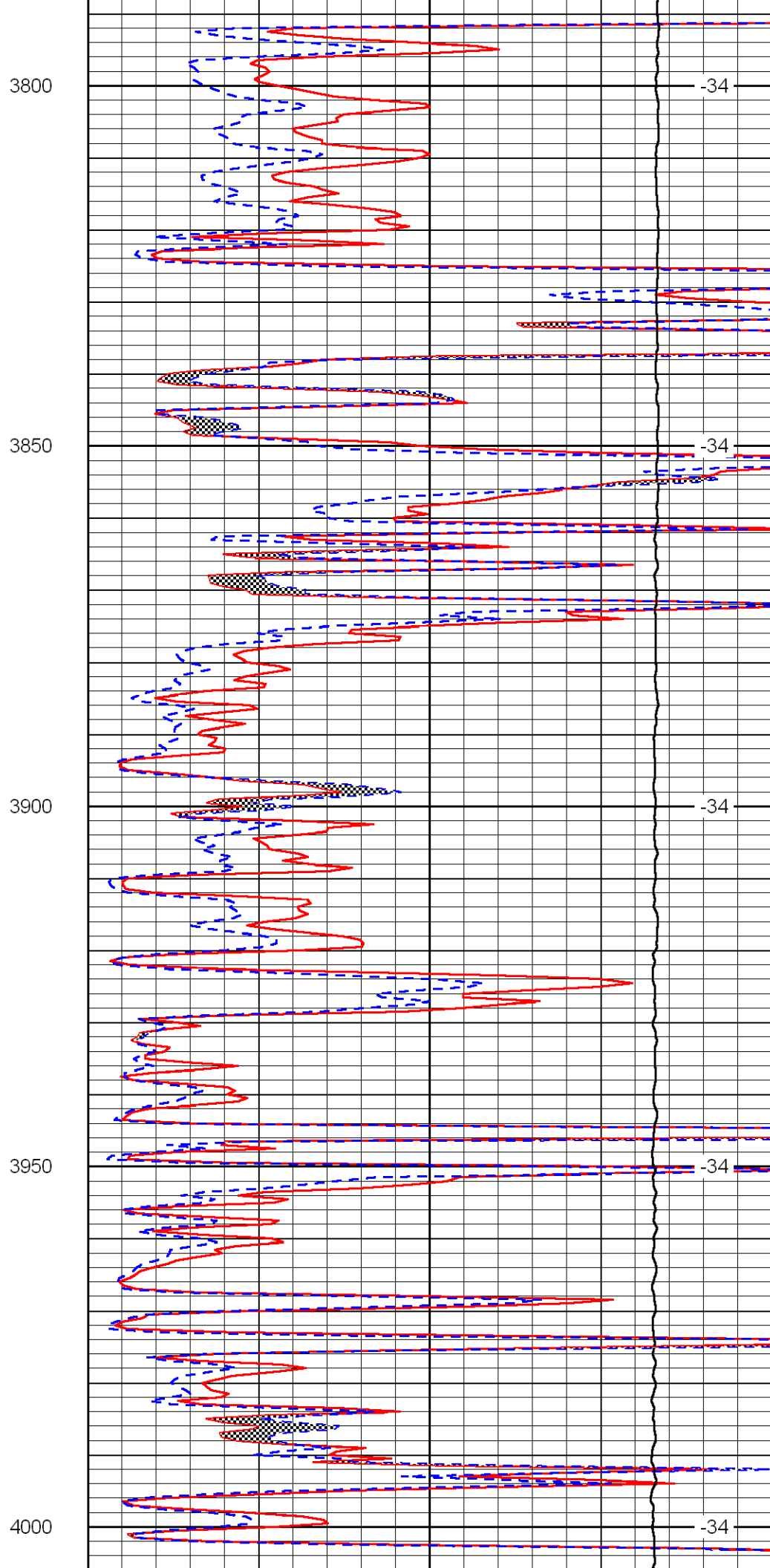
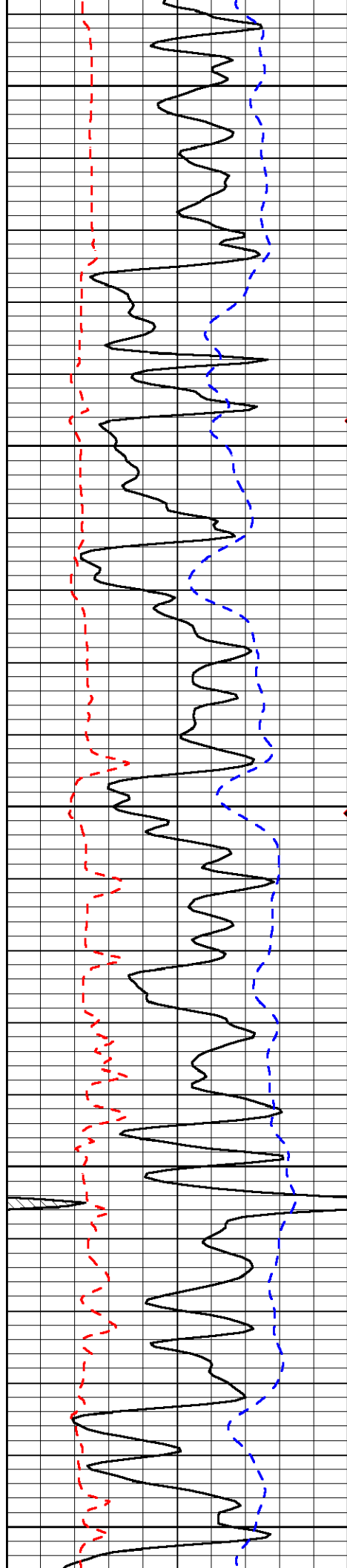
Database File: murfin_hatch_1-30xhd.db
Dataset Pathname: dil/murfstck
Presentation Format: micro
Dataset Creation: Mon Aug 06 10:24:03 2012
Charted by: Depth in Feet scaled 1:240

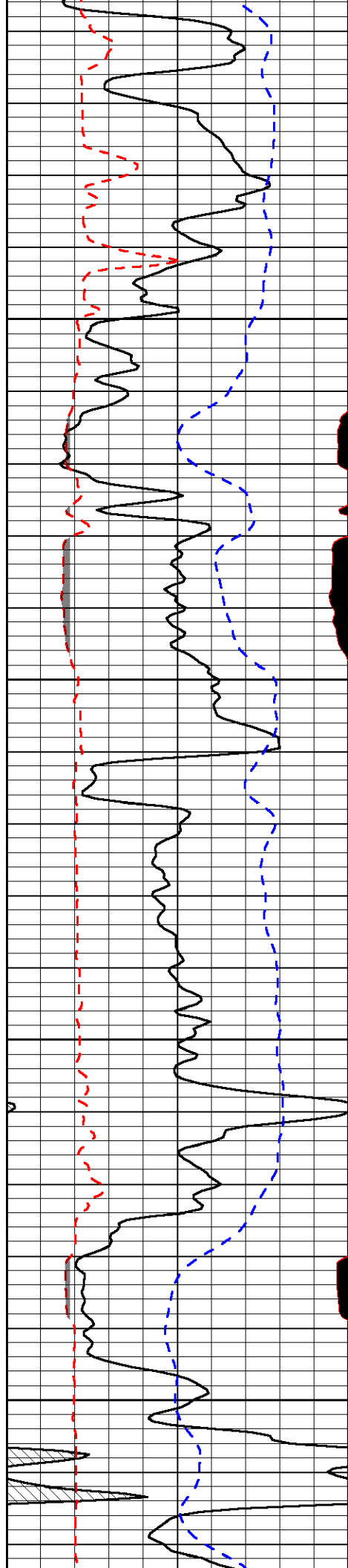
0	Gamma Ray	150
6	MCAL (GAPI)	16
2.875	Mud Cake (GAPI)	7.875
-200	SP	0



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





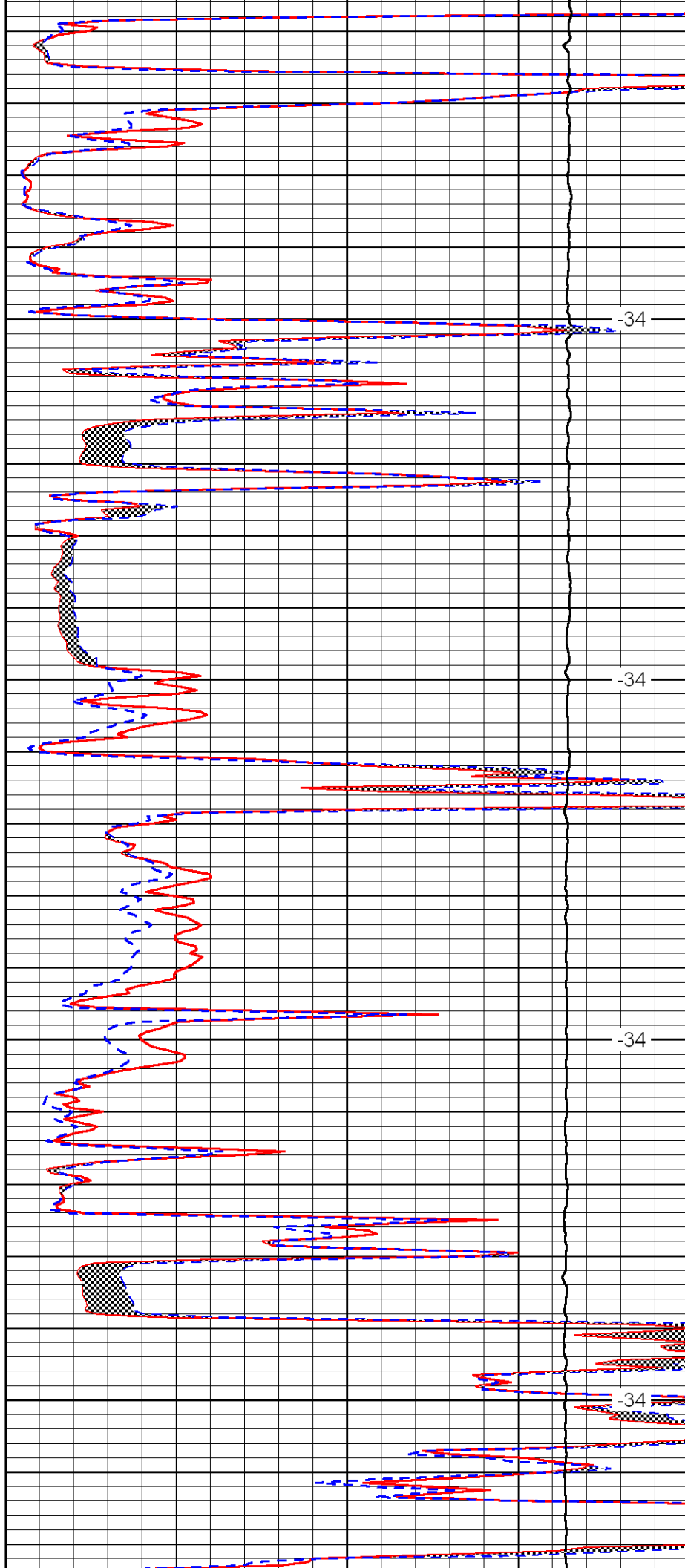


4050

4100

4150

4200

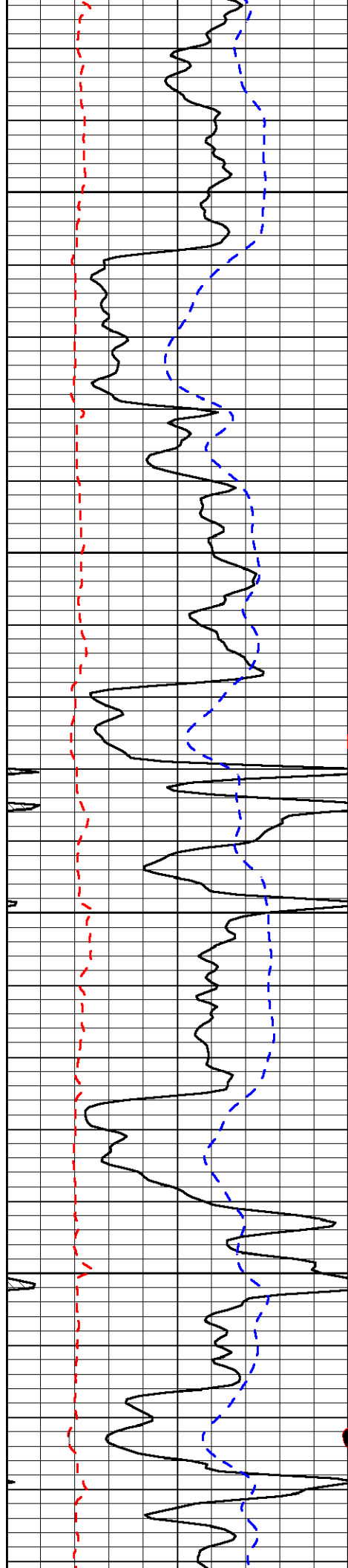


-34

-34

-34

-34

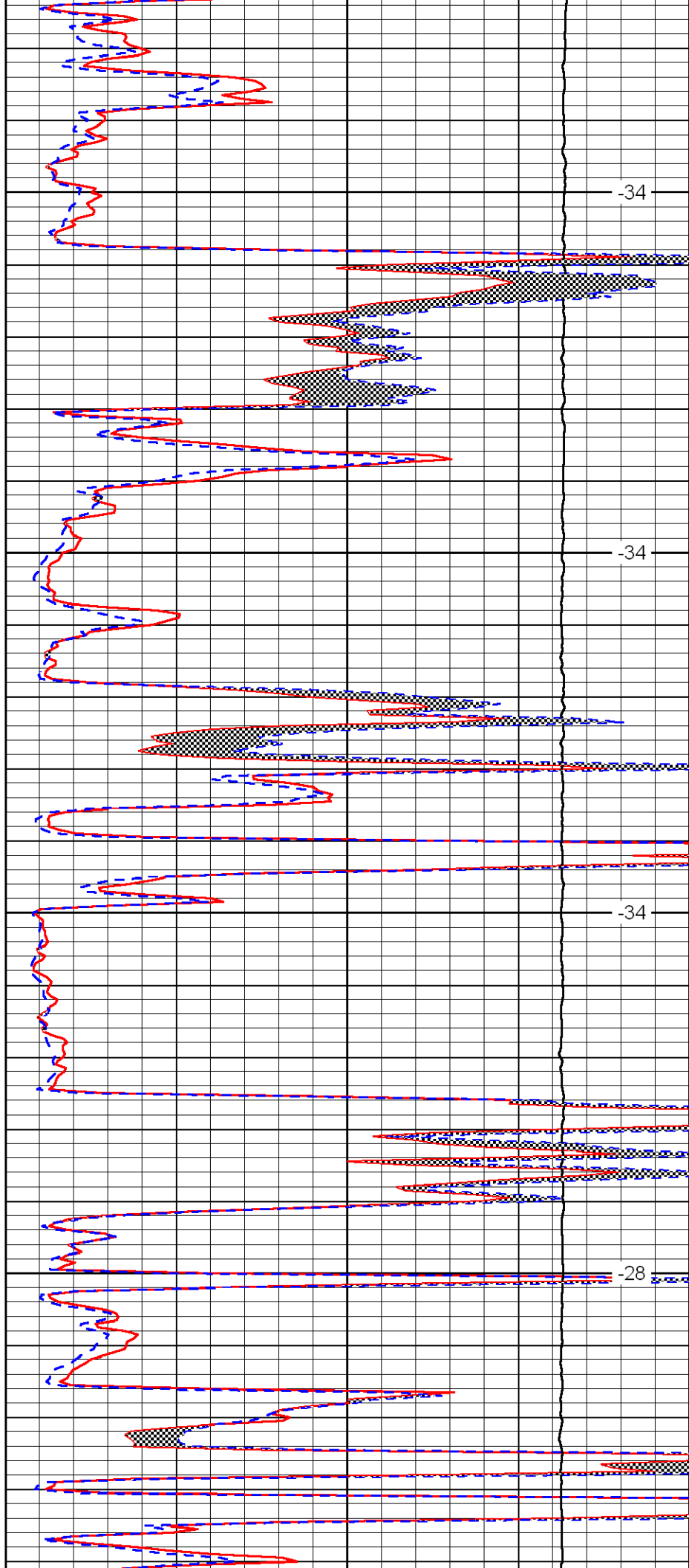


4250

4300

4350

4400

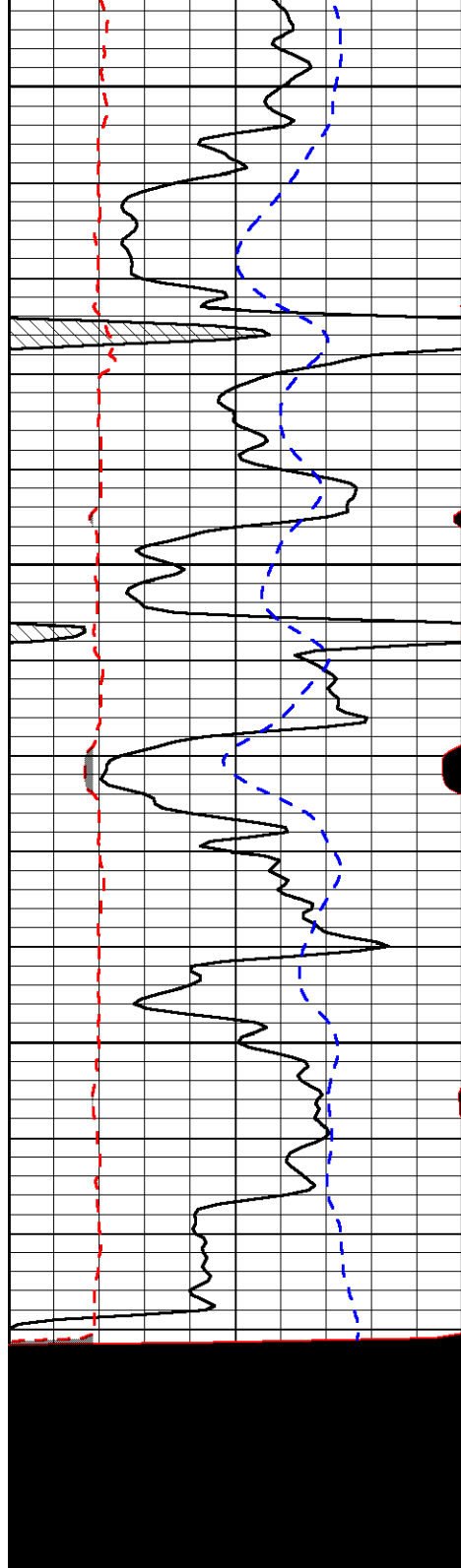


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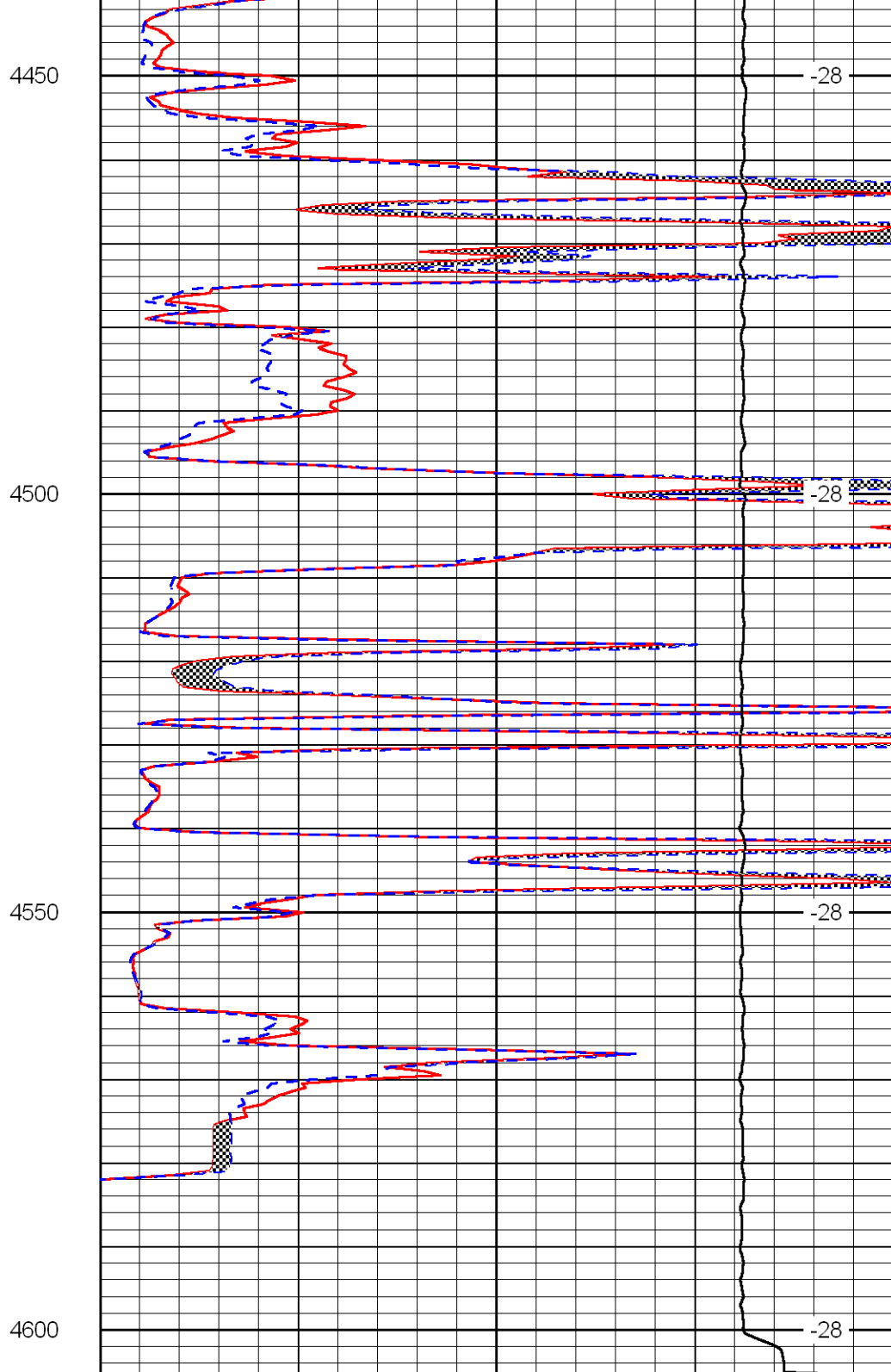
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-28



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



0	Micro Inverse 1 X 1	40
0	Micro Normal 2''	40
10000	Line Weight	0
		LSPD