



PIONEER

Pioneer Energy Services

Microresistivity Log

API No.	Company Hertel Oil Company, LLC Well Legleiter-Stecklein Unit No. 1 Field Engel West County Ellis State Kansas		
15-051-26,364-00-00	Location SE NW SW 1,725' FSL & 900' FWL	Other Services CNL/CDL DIL	
	Sec: 33 Twp: 14S Rge: 18W	Elevation	
Permanent Datum	Ground Level	Elevation 2037	
Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum	
Drilling Measured From	Kelly Bushing	K.B. 2045 D.F. G.L. 2037	
Date	8/21/2012		
Run Number	Two		
Depth Driller	3750		
Depth Logger	3751		
Bottom Logged Interval	3750		
Top Log Interval	2900		
Casing Driller	8.625 @ 221		
Casing Logger	219		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	12700		
Density / Viscosity	9.0 52		
pH / Fluid Loss	10.0 8.8		
Source of Sample	Flowline		
Rm @ Meas. Temp	.25 @ 76		
Rmf @ Meas. Temp	.19 @ 76		
Rmc @ Meas. Temp	.34 @ 76		
Source of Rmf / Rmc	Charts		
Rm @ BHT	.17 @ 114		
Operating Rig Time	4 Hours		
Max Rec. Temp. F	114		
Equipment Number	108		
Location	Hays		
Recorded By	J. Long		
Witnessed By	Herb Deines		

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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.

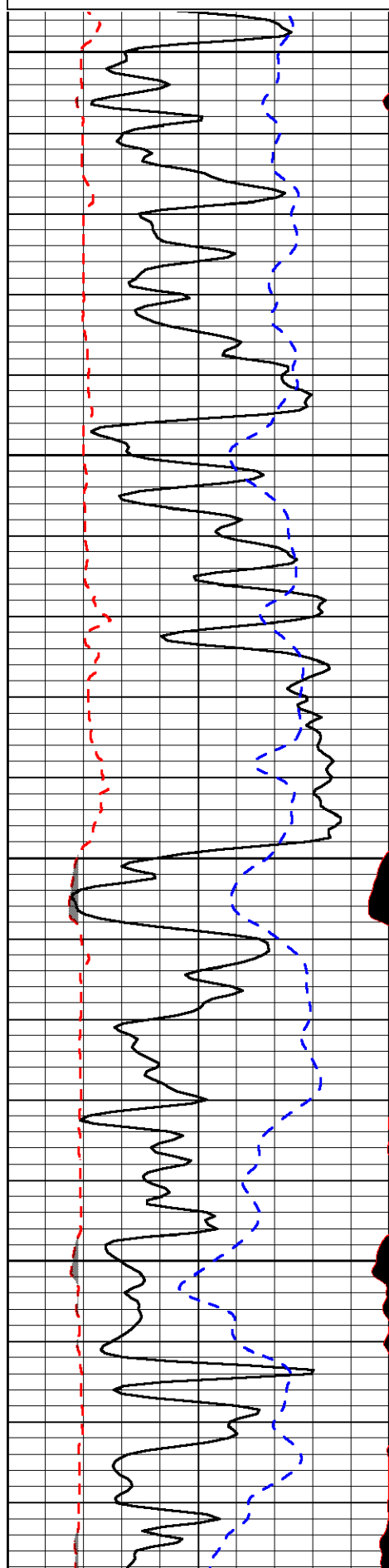
Comments

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

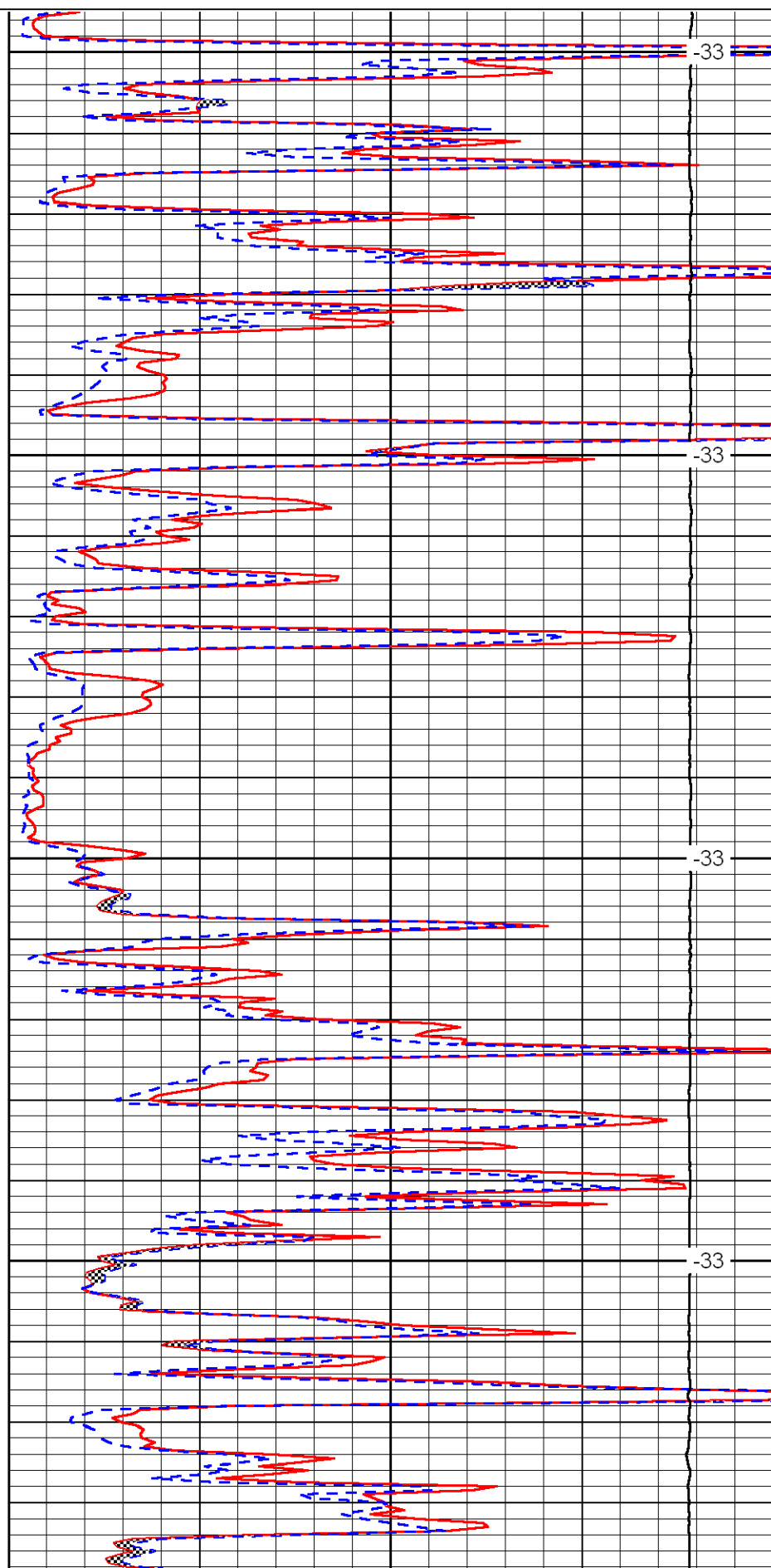
Hays, South to Antonino Blacktop, 1/2 West, North and West Into (At Tank Batteries)

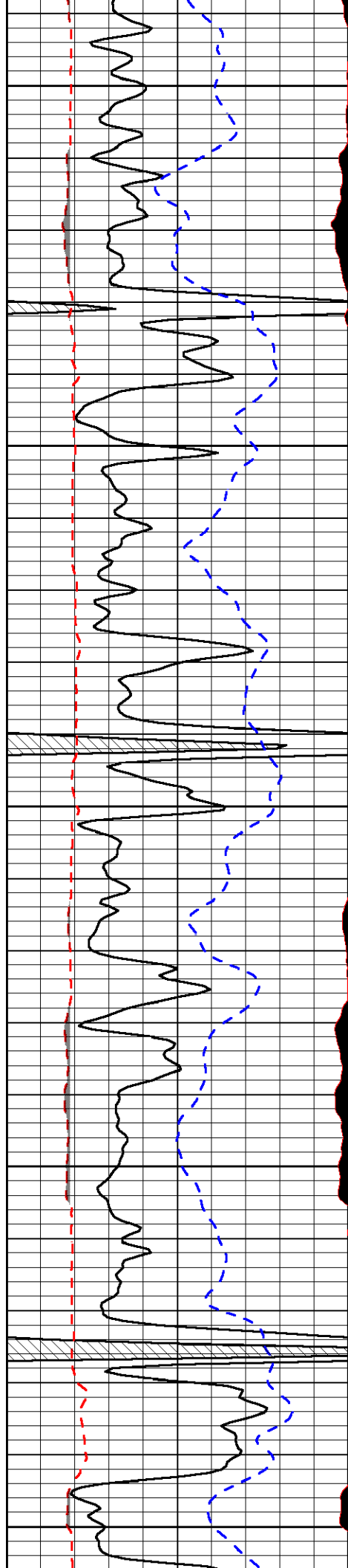
Database File: hertel_legleiter-stecklein_1hd.db
Dataset Pathname: dil/hertstck
Presentation Format: micro
Dataset Creation: Tue Aug 21 09:25:34 2012
Charted by: Depth in Feet scaled 1:240

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





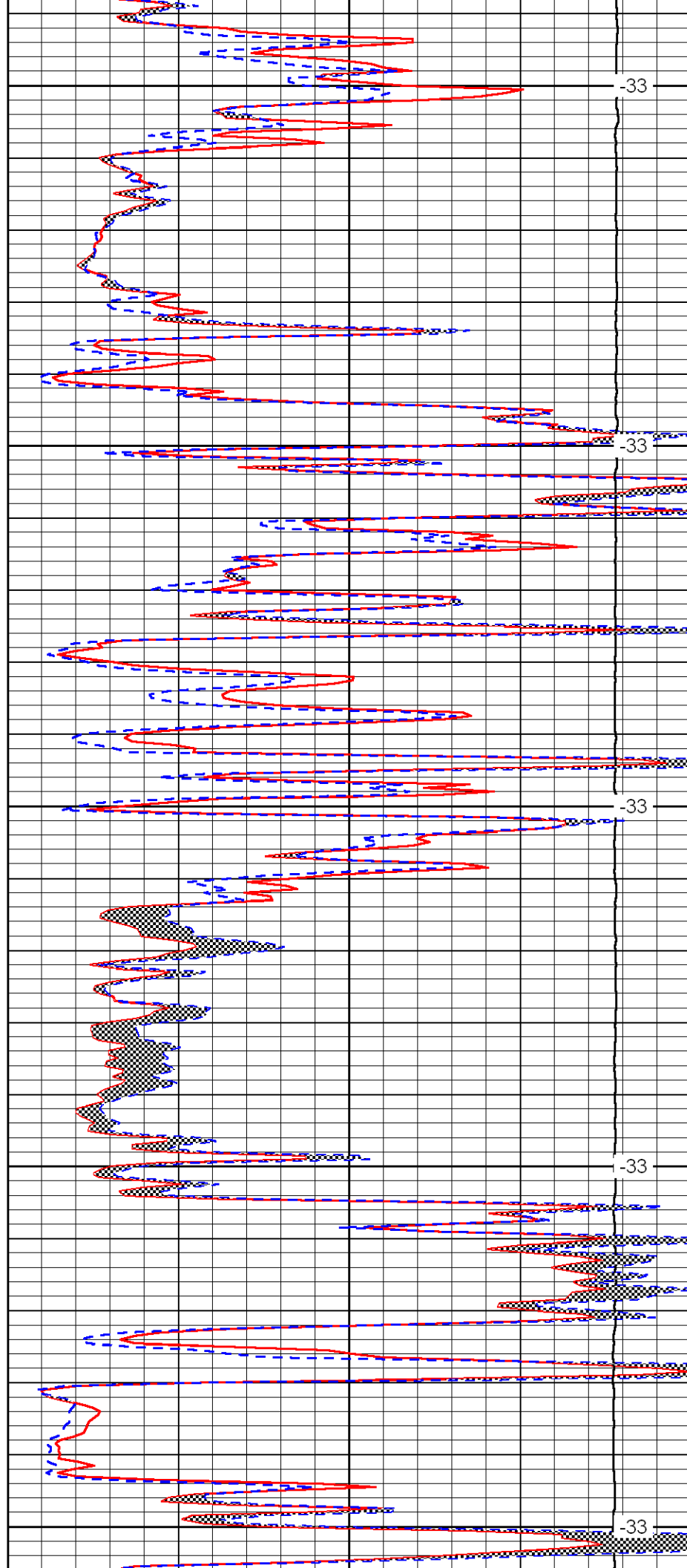
3100

3150

3200

3250

3300



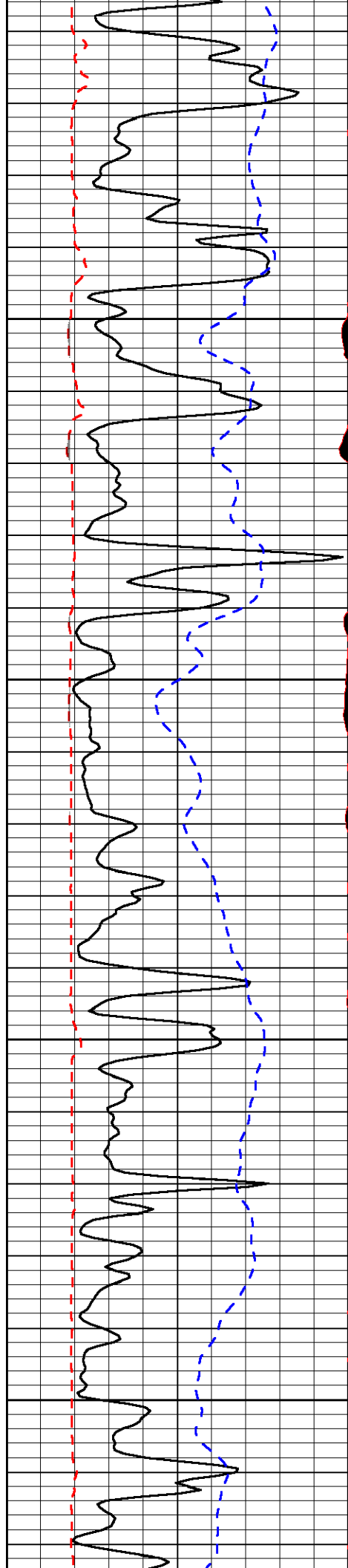
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-33

-33

-33

-33

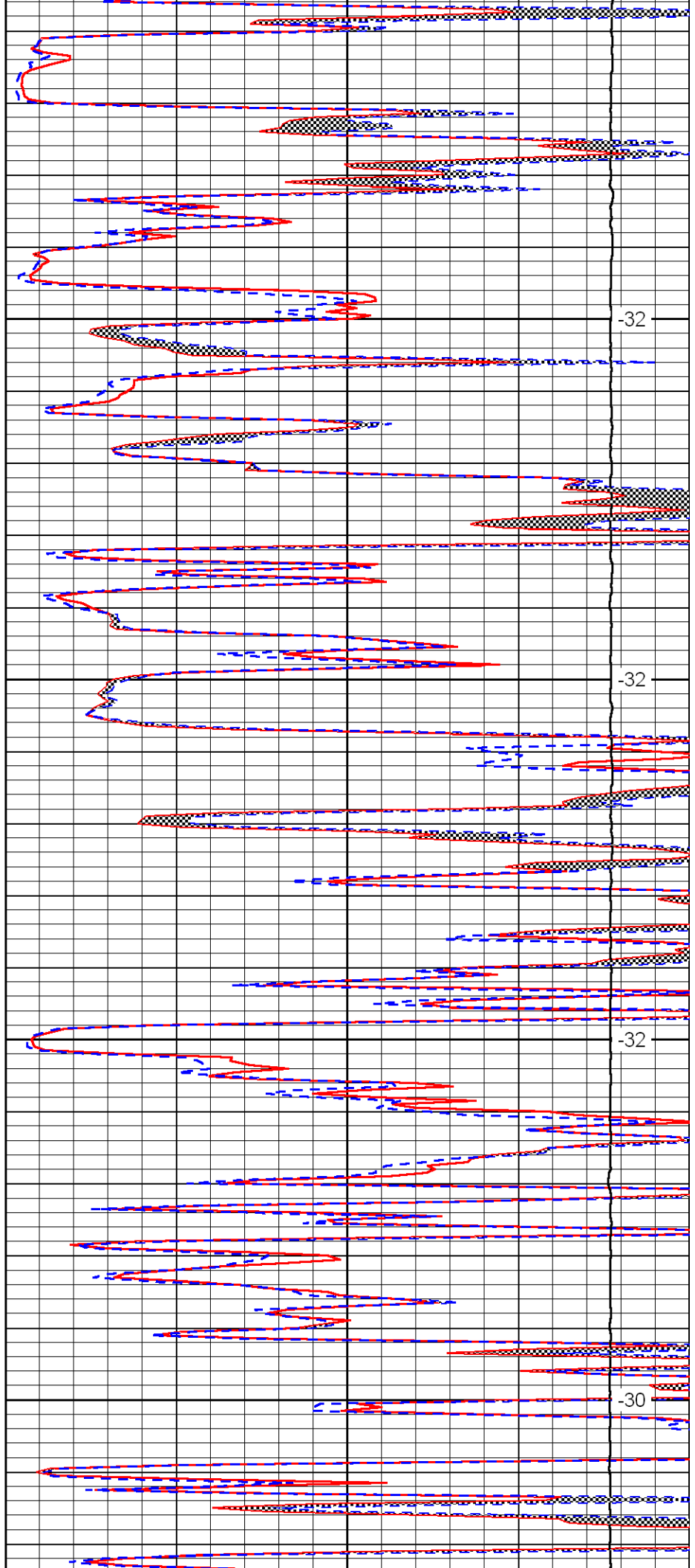


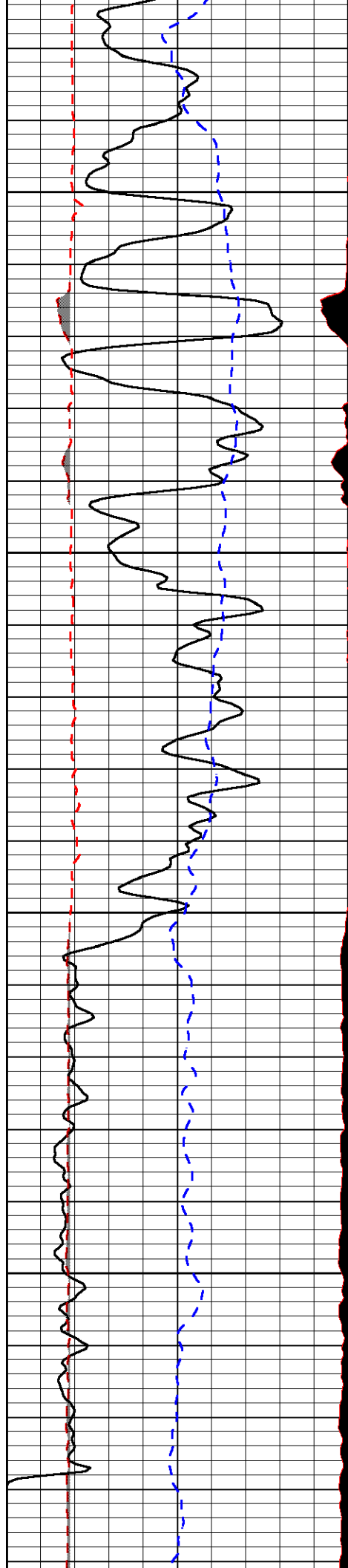
3350

3400

3450

3500



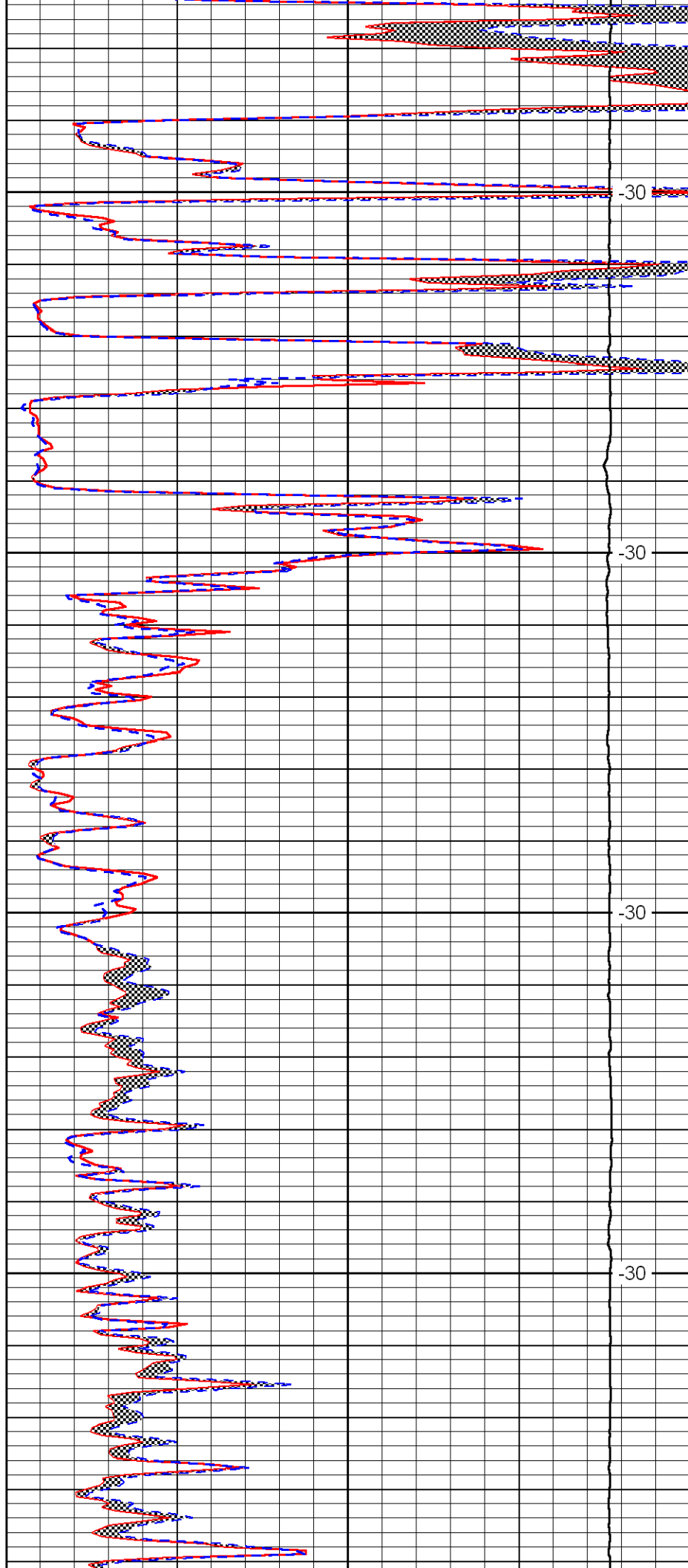


3550

3600

3650

3700

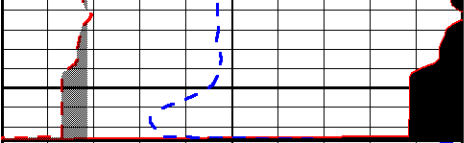


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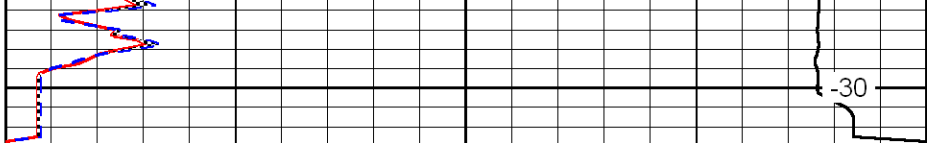
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LSPD