



Pioneer Energy Services

Dual Induction Log

Company Richland Oil Investments, LLC
Well Schonthalder No. 5
Field Lucky Lady
County Ellis **State** Kansas

Location 895' FNL & 665' FWL
 (Approx. NW/SE NW/NW)

Other Services
 CNL/CDL
 MEL

API No. 15-051-26,753-00-00
Permanent Datum Ground Level **Elevation** 2100
Log Measured From Kelly Bushing **7 Ft. Above Perm. Datum**
Drilling Measured From Kelly Bushing

Elevation
 K.B. 2107
 D.F. 2100
 G.L. 2100

Date	11/24/2014
Run Number	One
Depth Driller	3770
Depth Logger	3767
Bottom Logged Interval	3766
Top Log Interval	250
Casing Driller	8.625 @ 255
Casing Logger	262
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	3500
Density / Viscosity	9.4 53
pH / Fluid Loss	10.5 8.0
Source of Sample	Flowline
Rm @ Meas. Temp	.60 @ 68
Rmf @ Meas. Temp	.45 @ 68
Rmc @ Meas. Temp	.81 @ 68
Source of Rmf / Rmc	Charts
Rm @ BHT	.36 @ 114
Operating Rig Time	4 Hours
Max Rec. Temp. F	114
Equipment Number	108
Location	Hays
Recorded By	J. Long
Witnessed By	Anthony Luna

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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

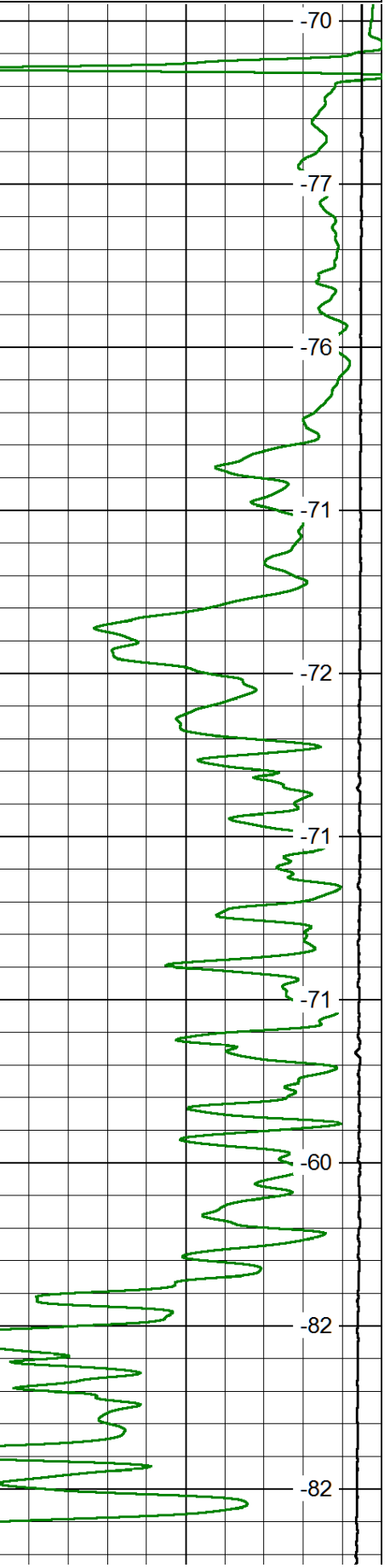
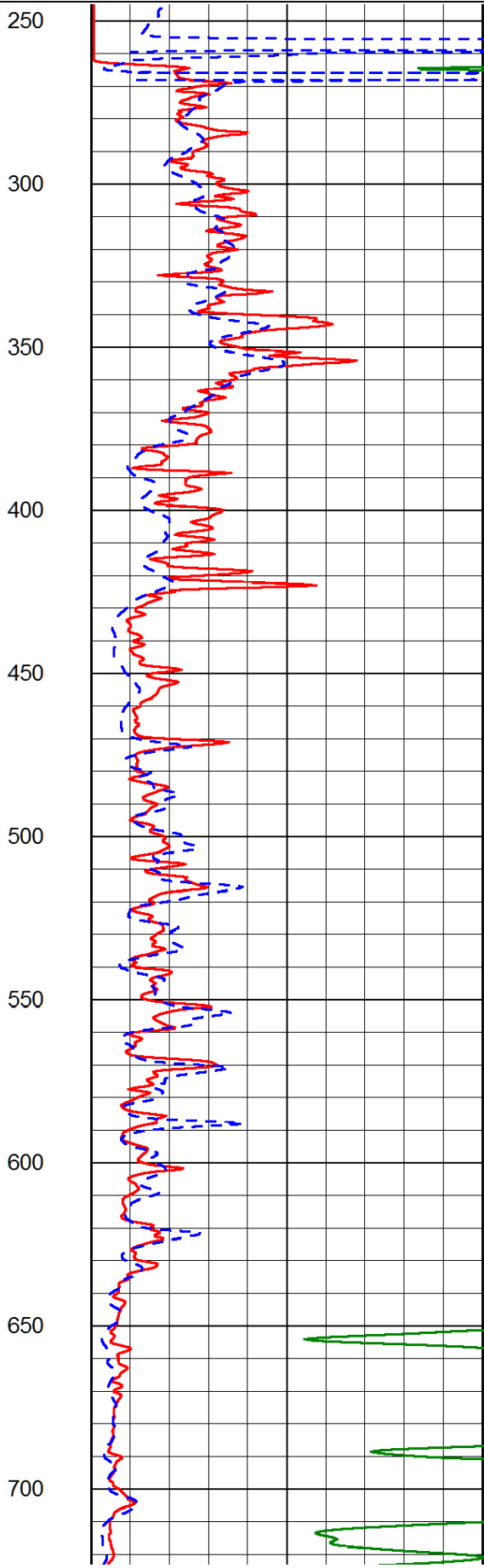
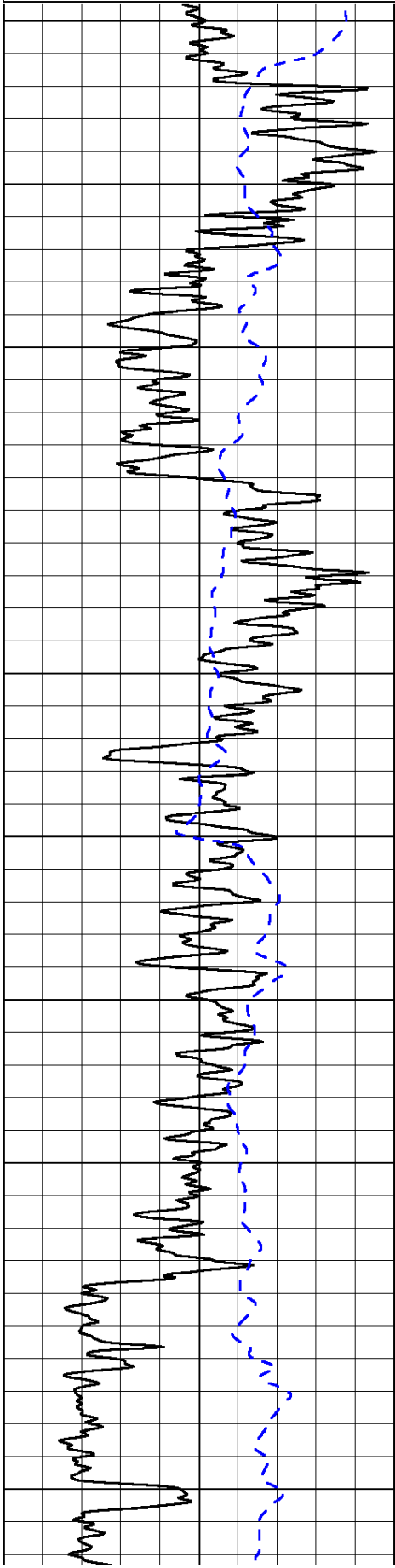
I-70 & Yocemento Exit, 2 1/2 North to Emmeram Road, 2 West to 170th Avenue, 7 1/2 North,
 1/2 West, North Into at Tank Batteries

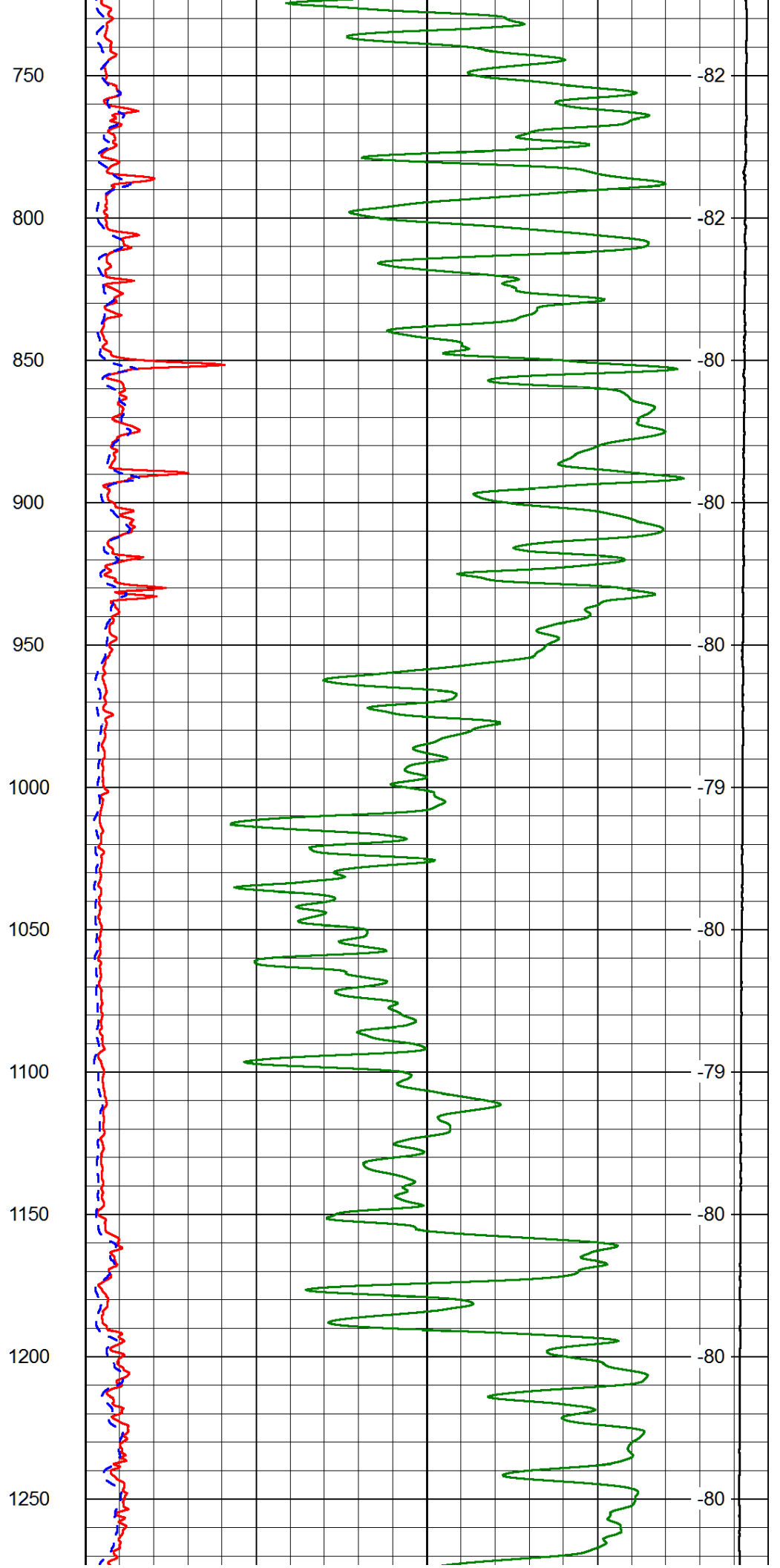
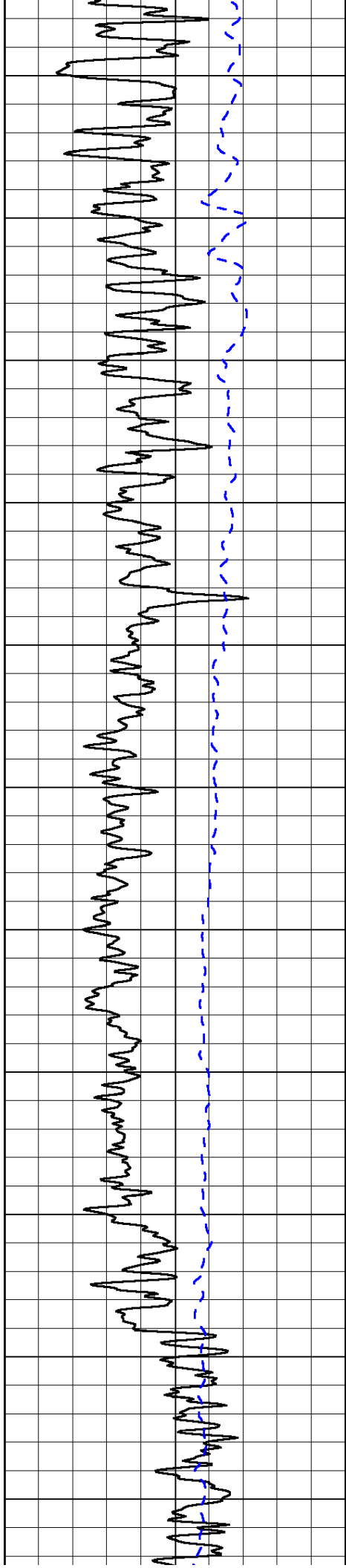
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Presentation Format: dil2in
Dataset Creation: Mon Nov 24 03:00:59 2014
Charted by: Depth in Feet scaled 1:600

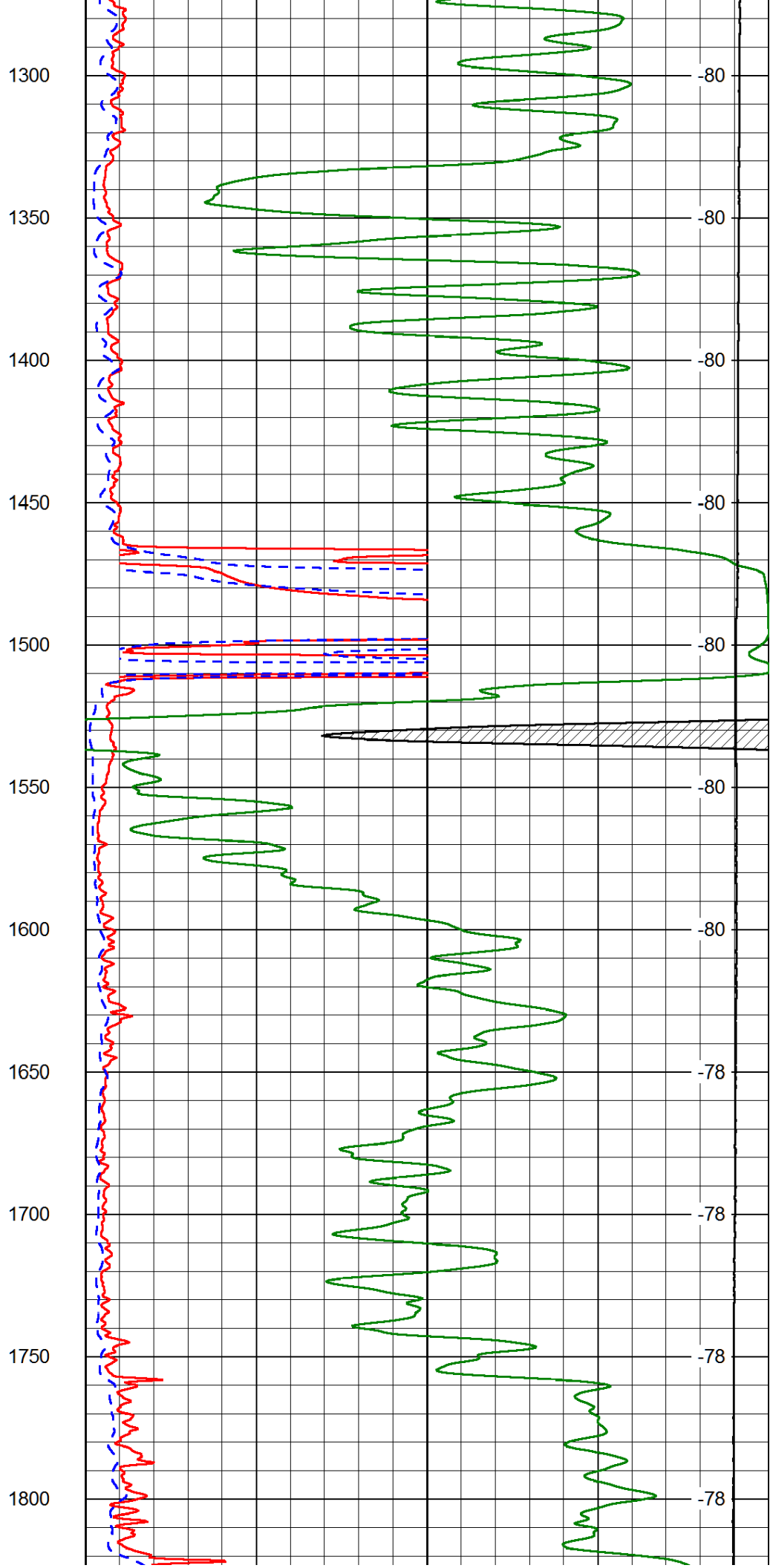
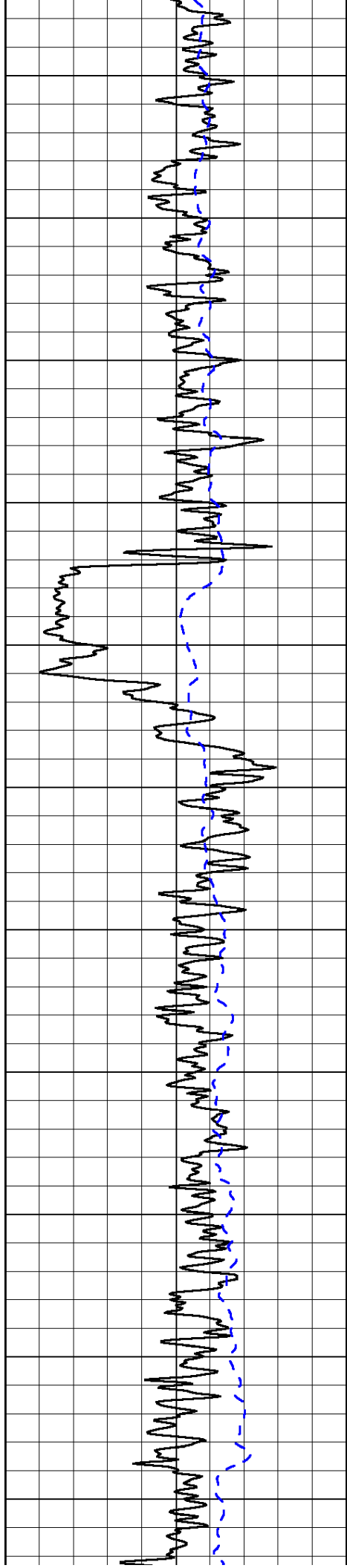
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-200 SP (mV) 0

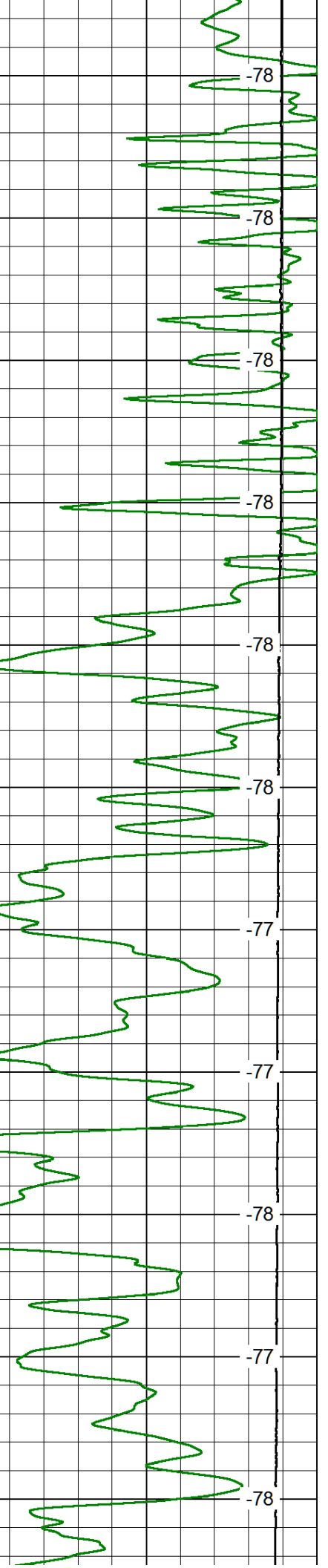
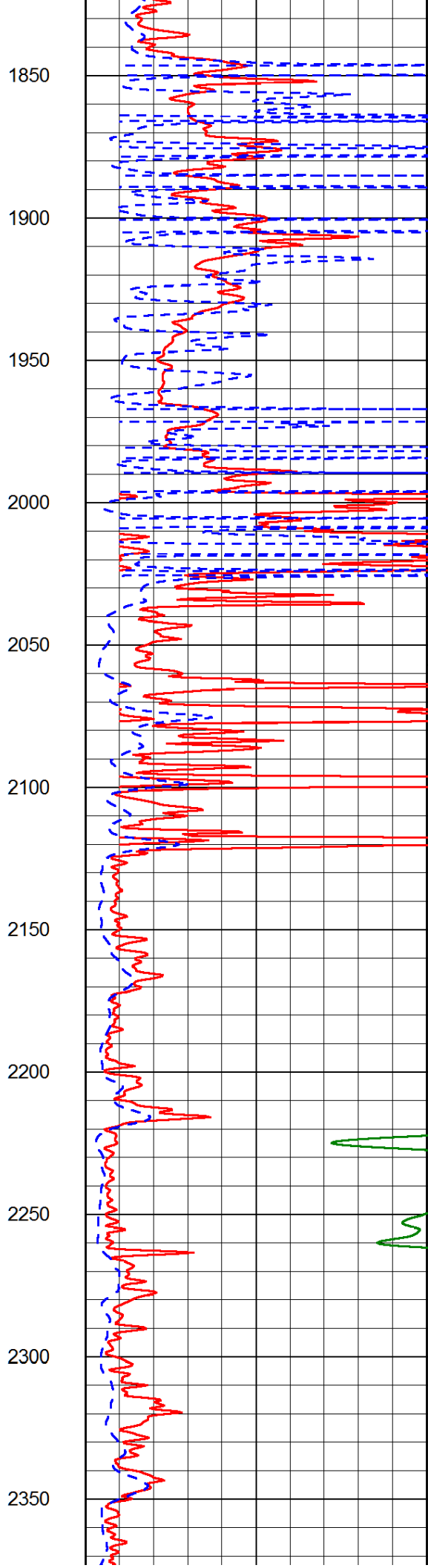
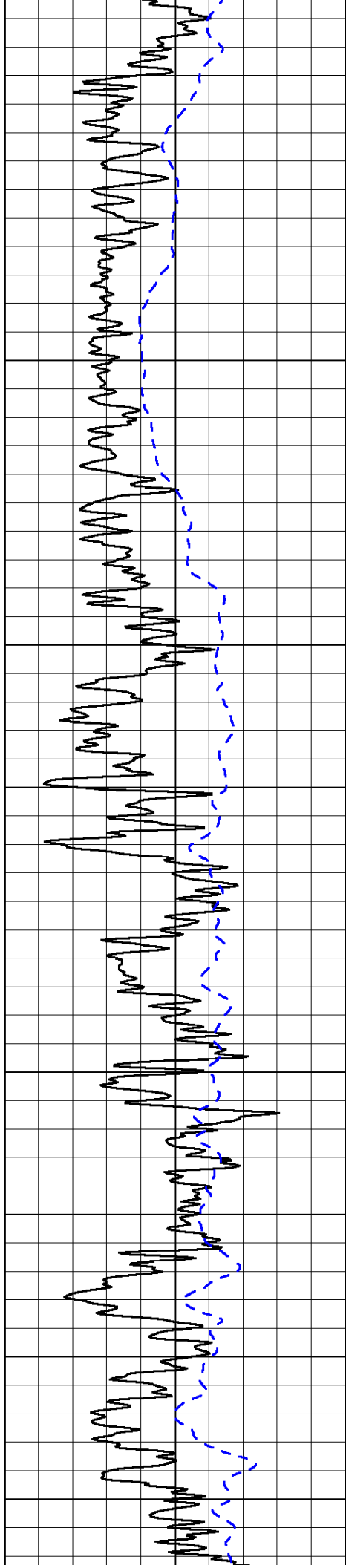
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0 Deep Resistivity 50
1000 Conductivity 0
15000 Line Tension 0
50 Shallow Resistivity 500
50 Deep Resistivity 500

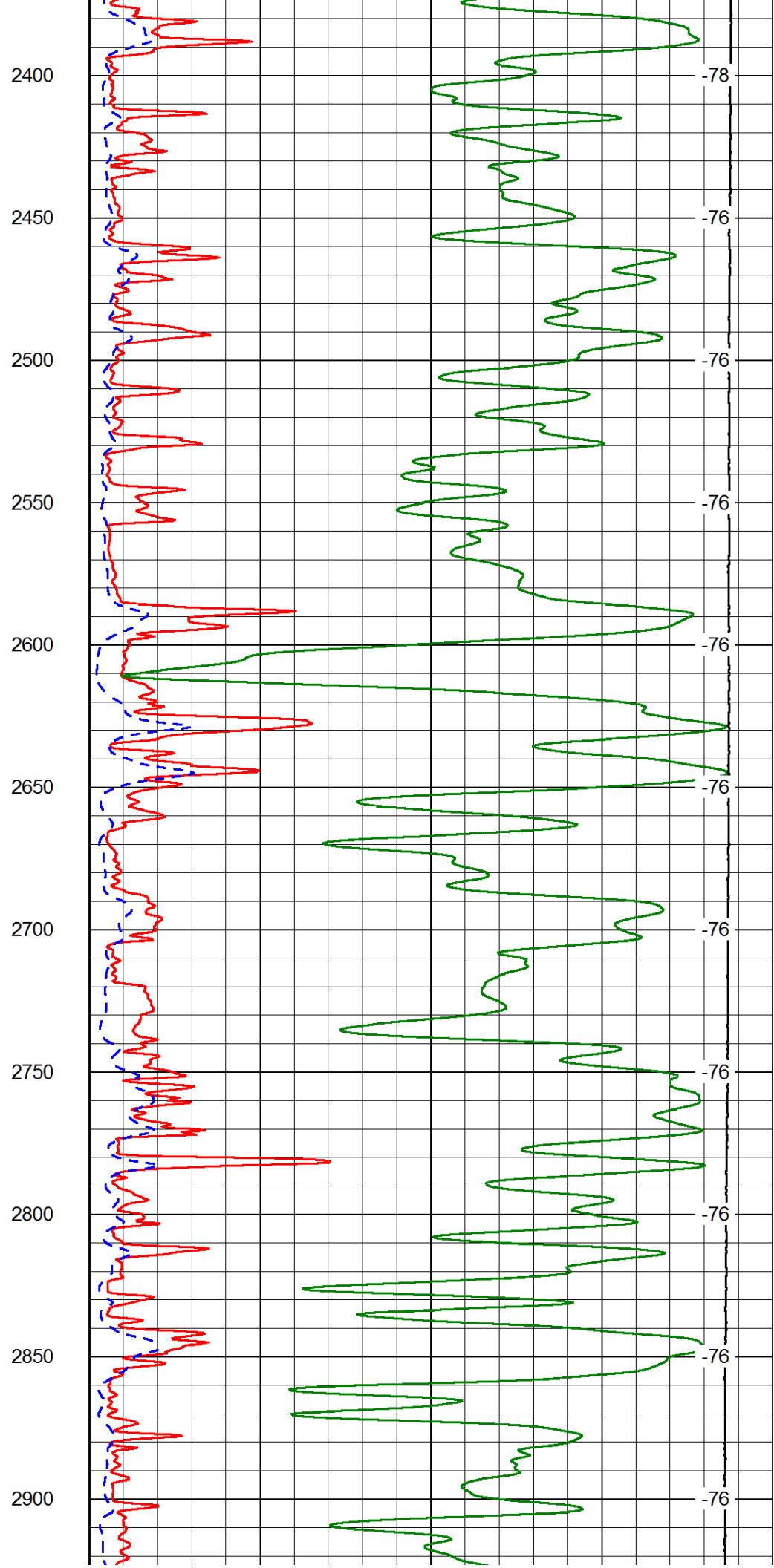
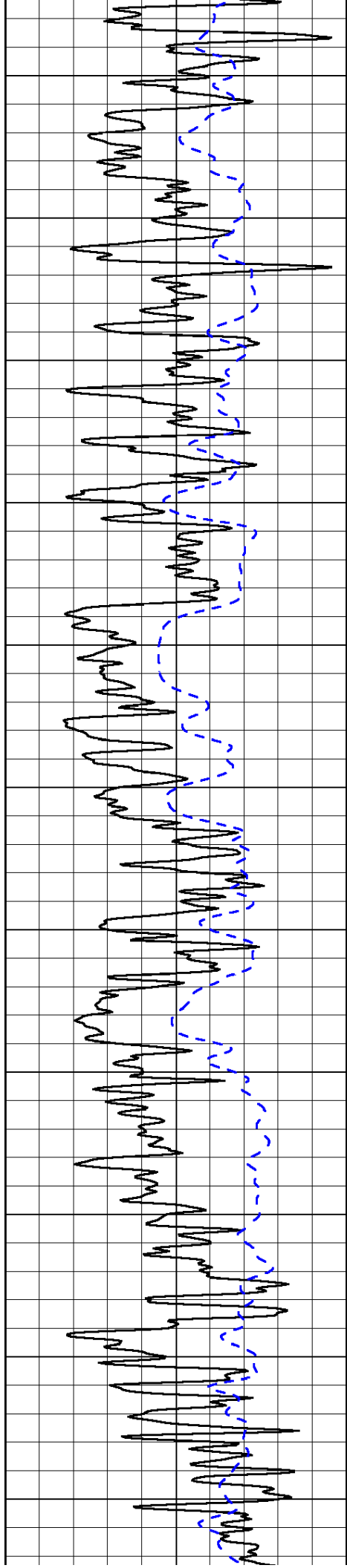
LSPD

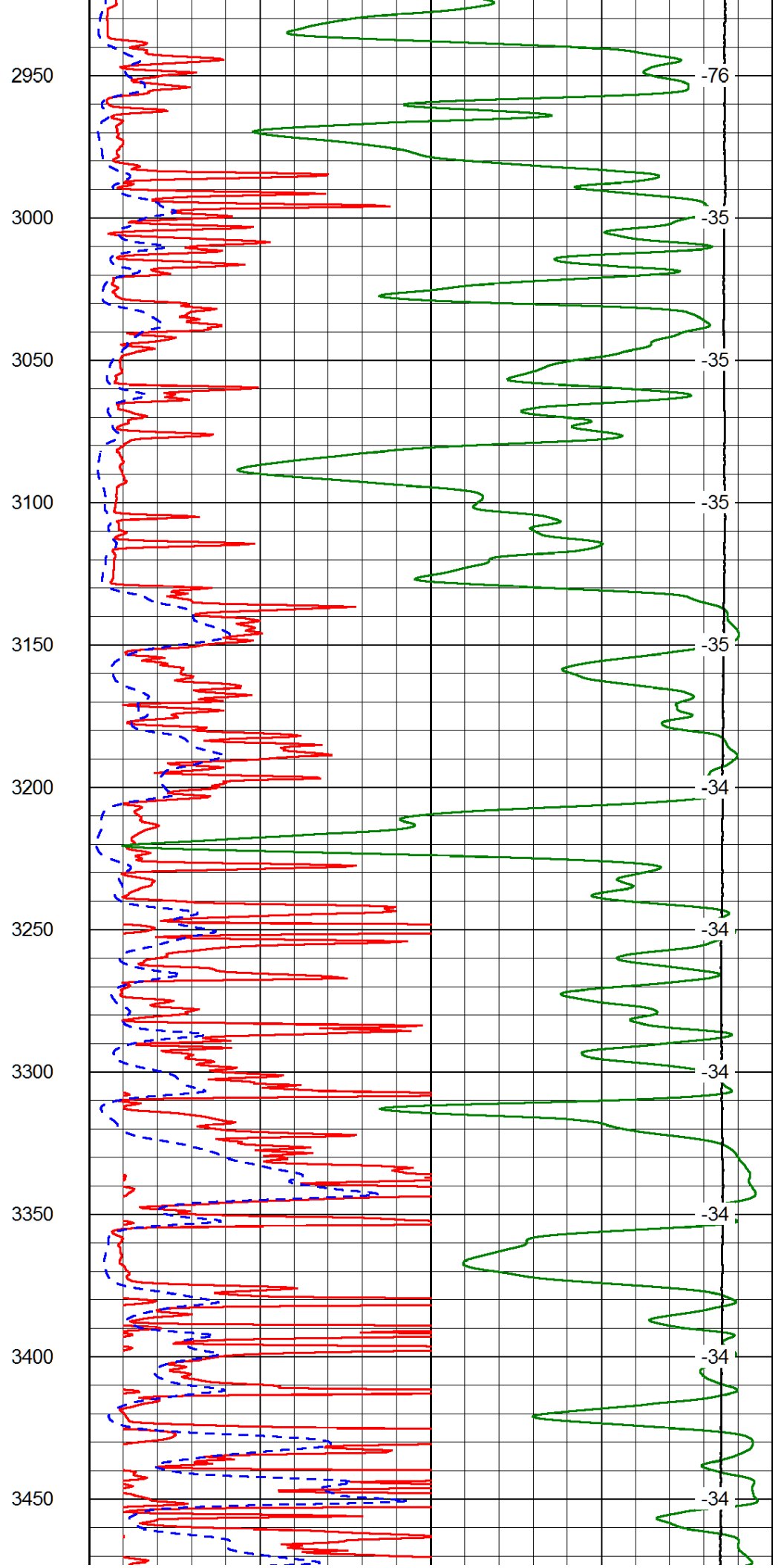
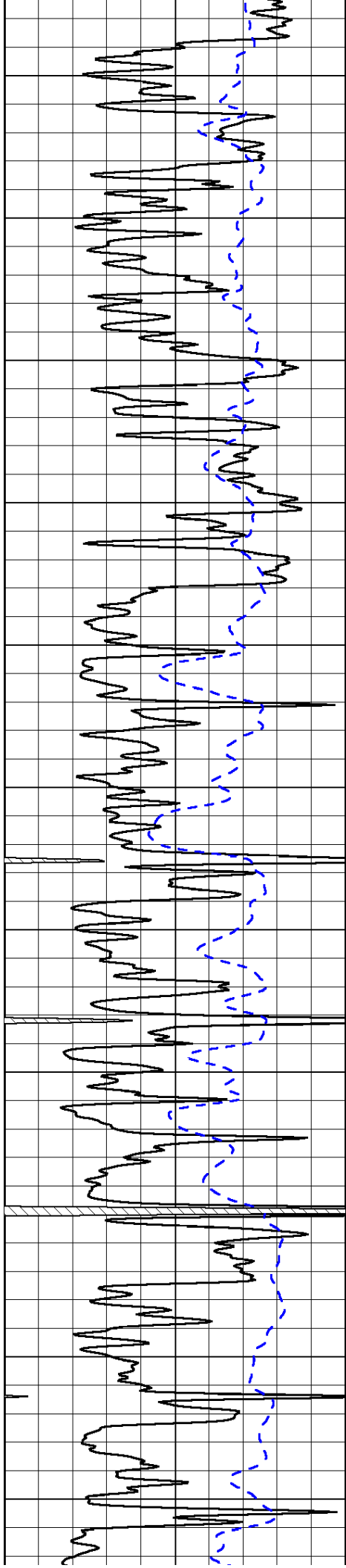


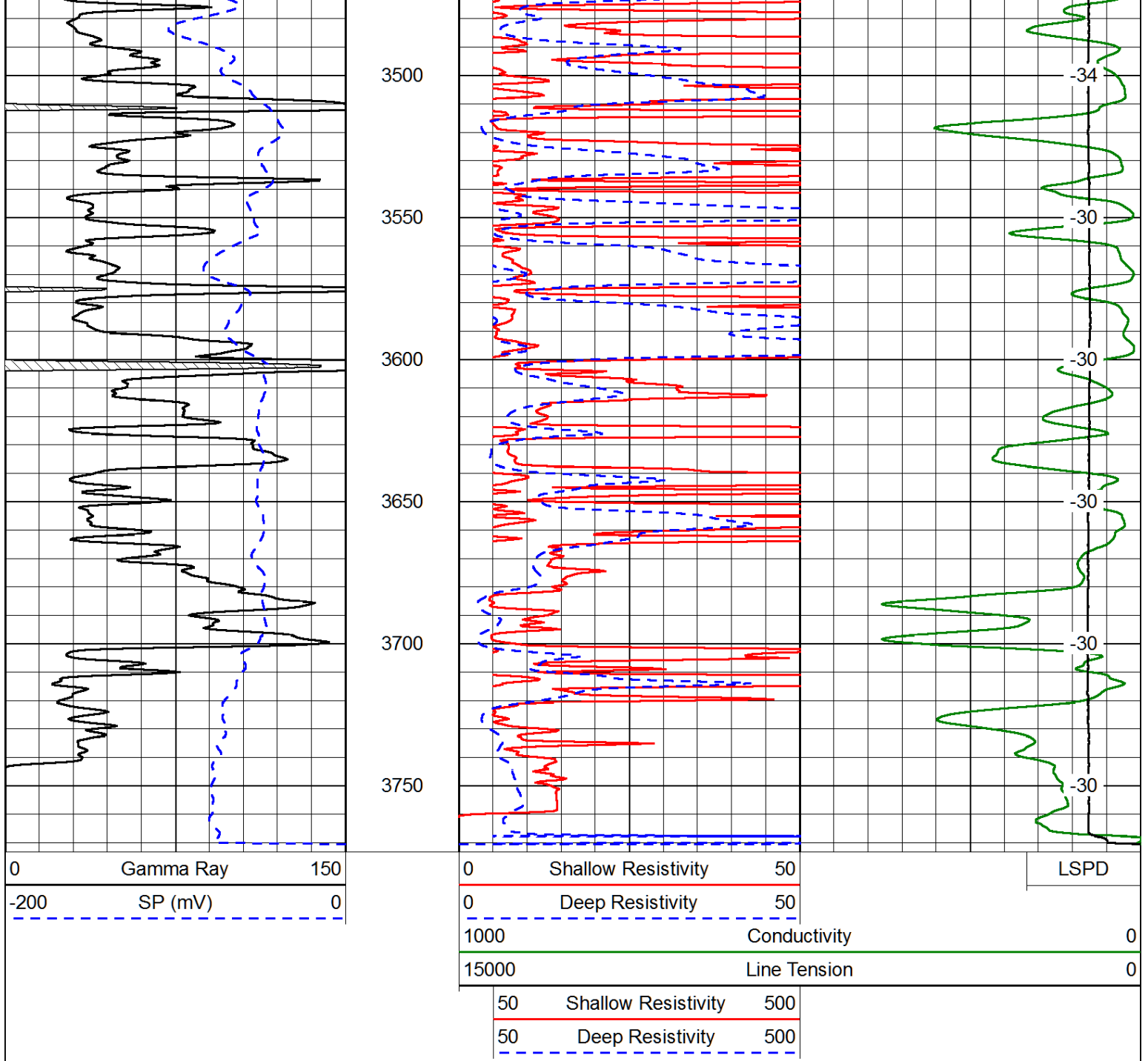




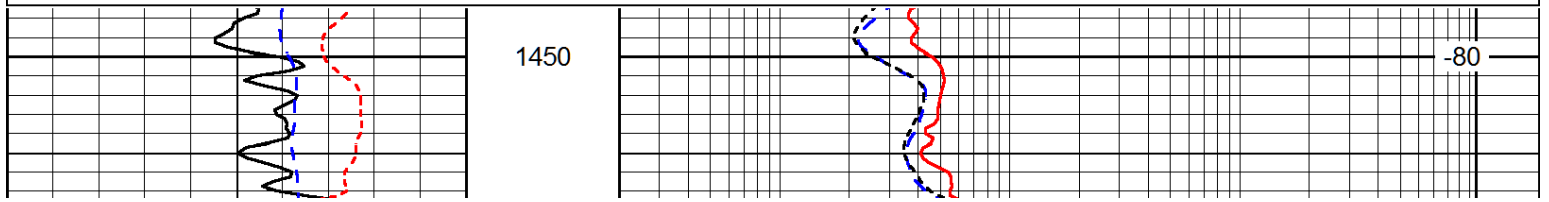
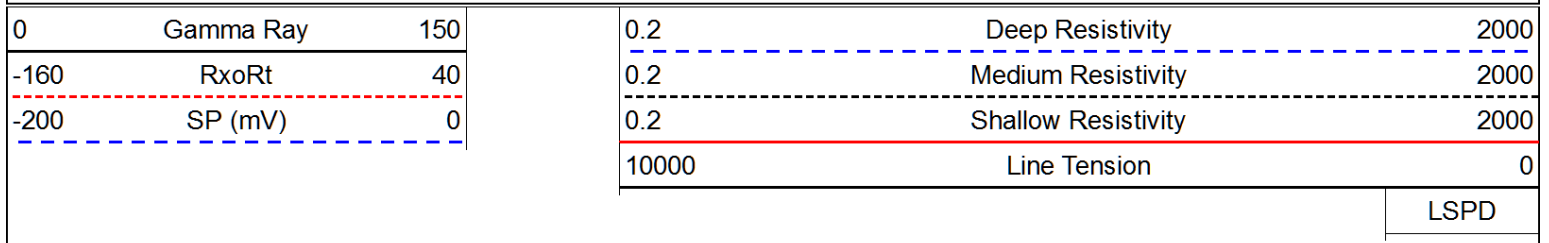


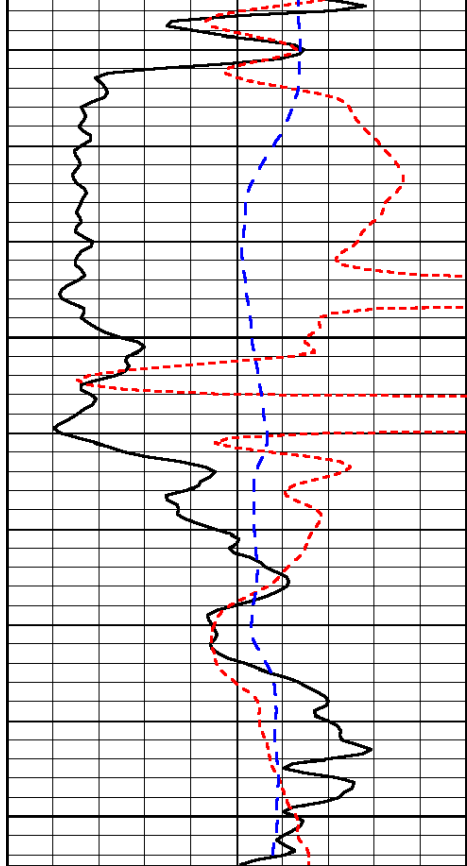






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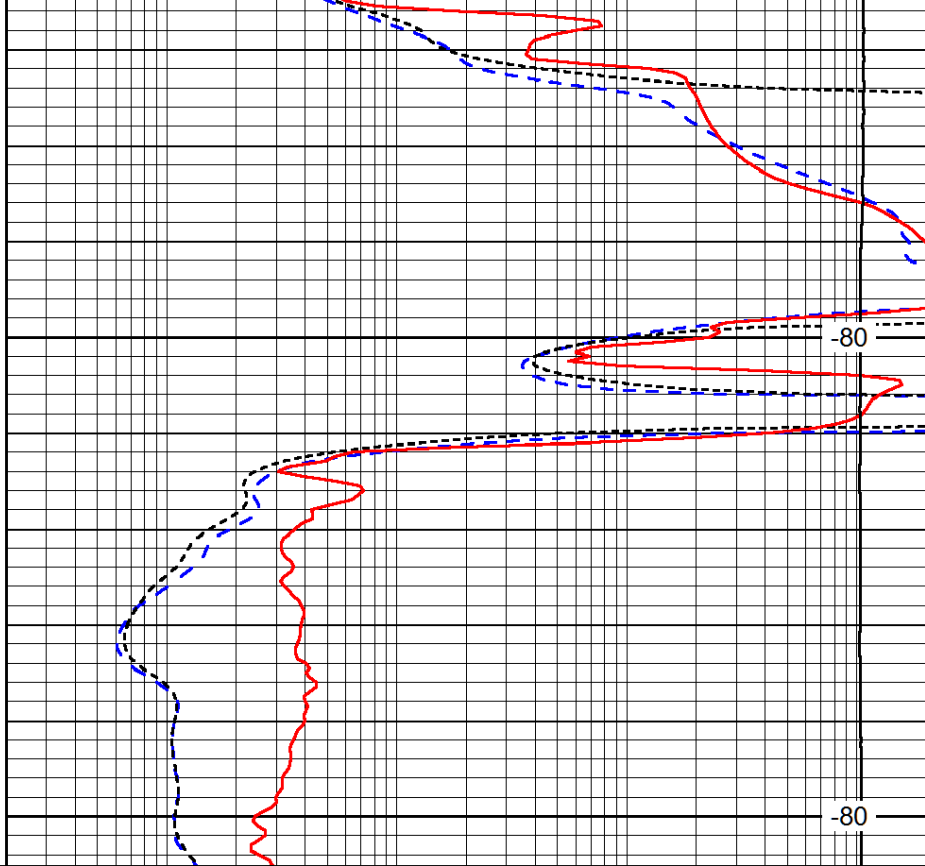




0	Gamma Ray	150
-160	RxoRt	40
-200	SP (mV)	0

1500

1550



0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

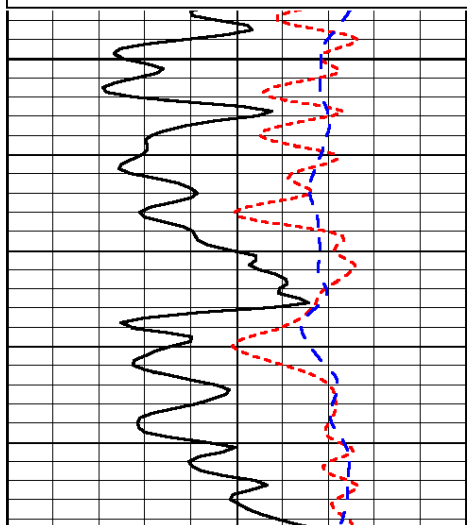
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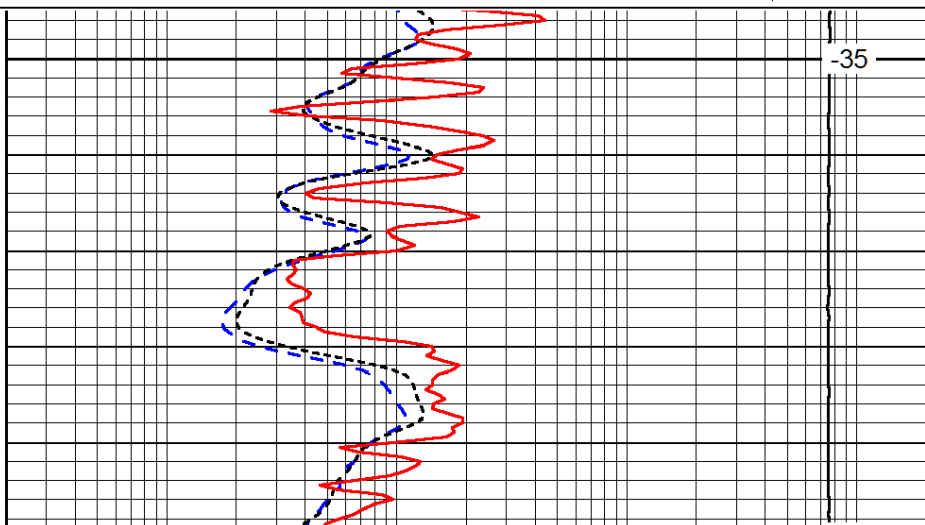
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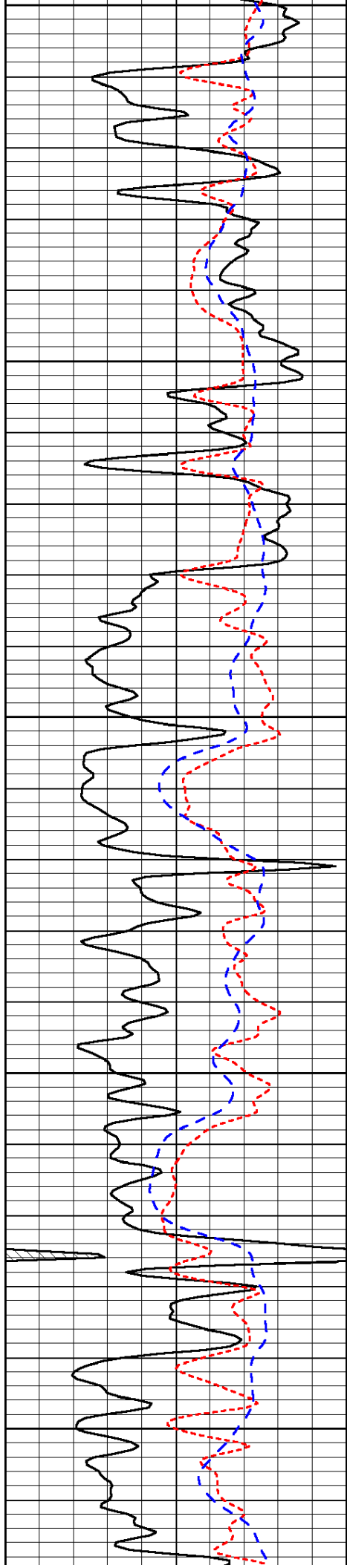
LSPD



3000



-35



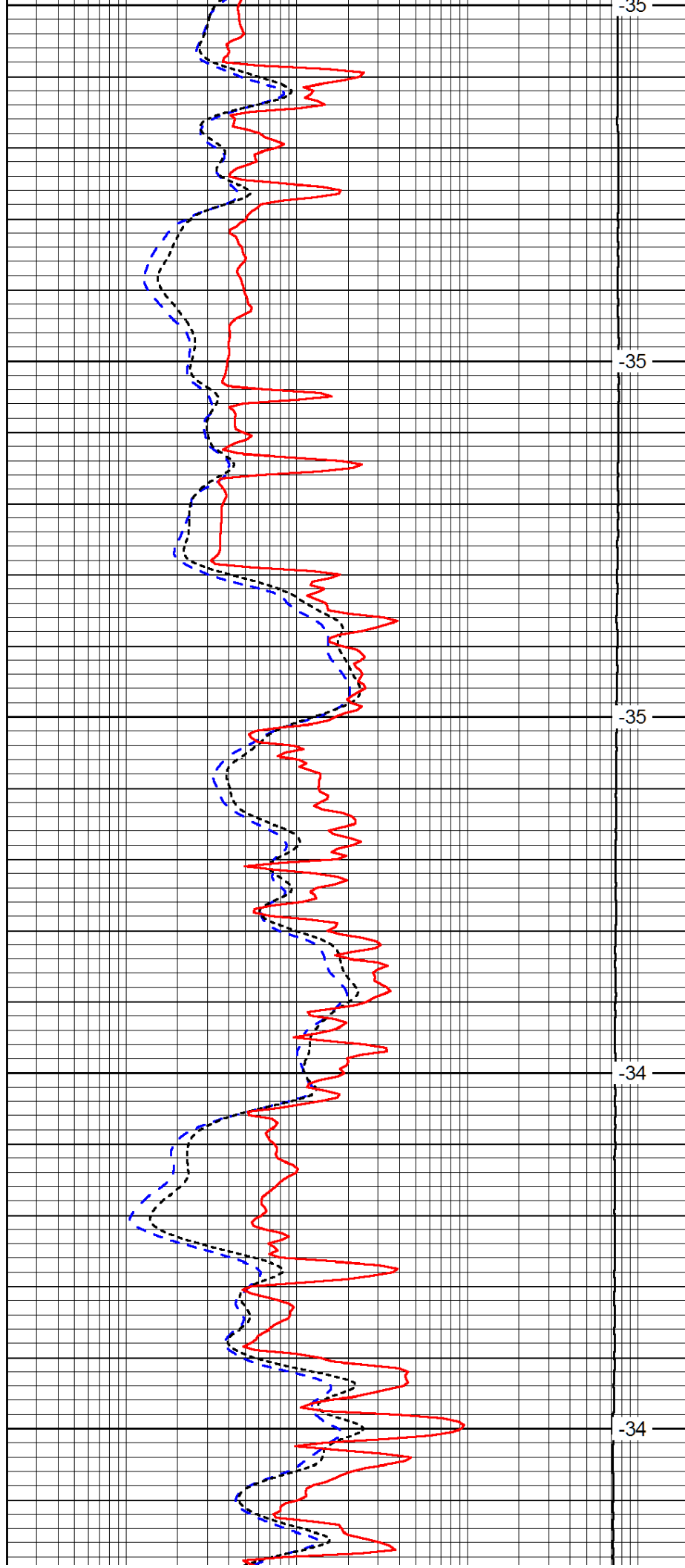
3050

3100

3150

3200

3250



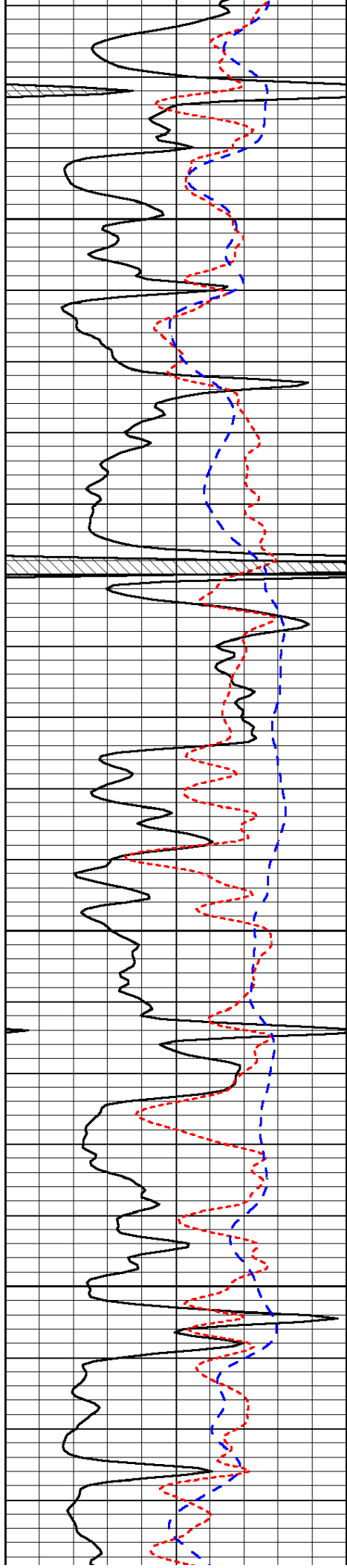
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-35

-35

-34

-34

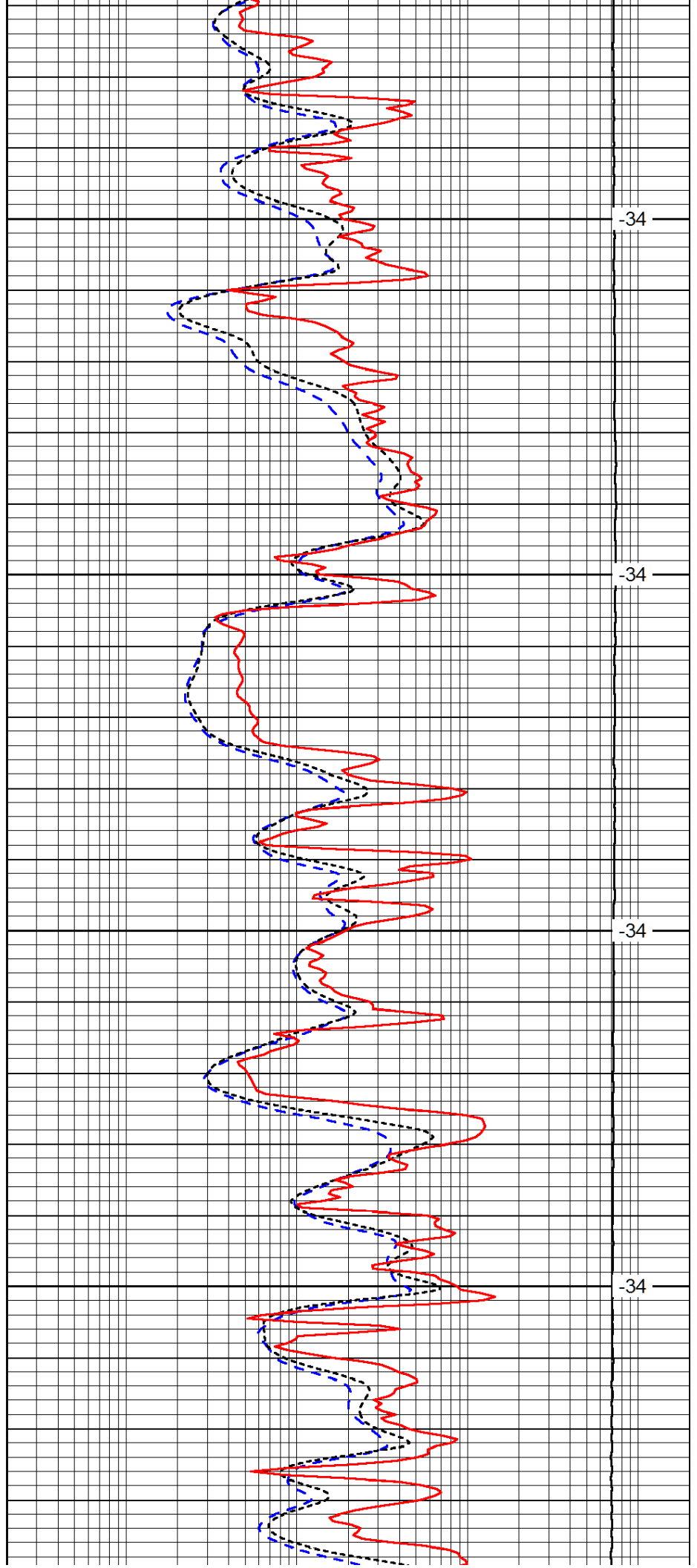


3300

3350

3400

3450

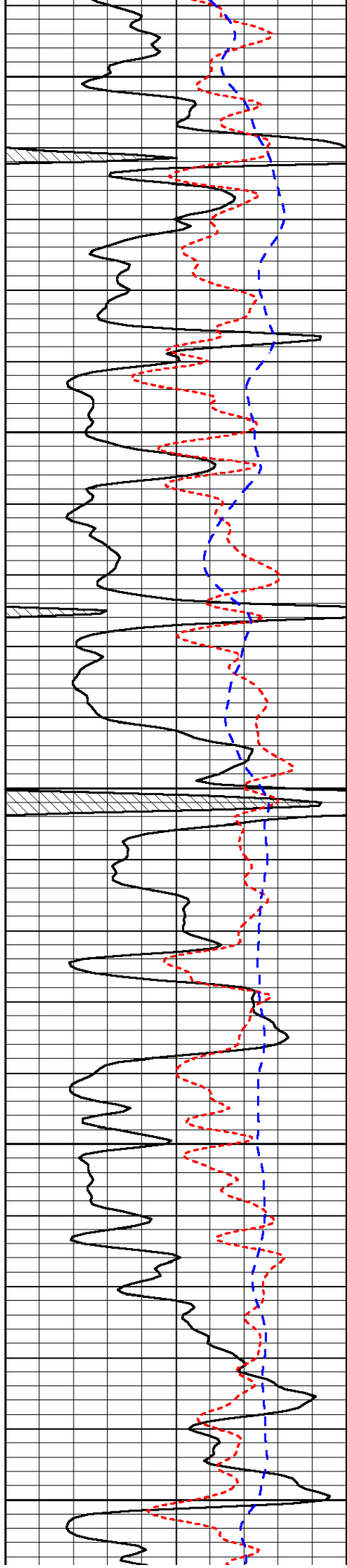


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-34

-34

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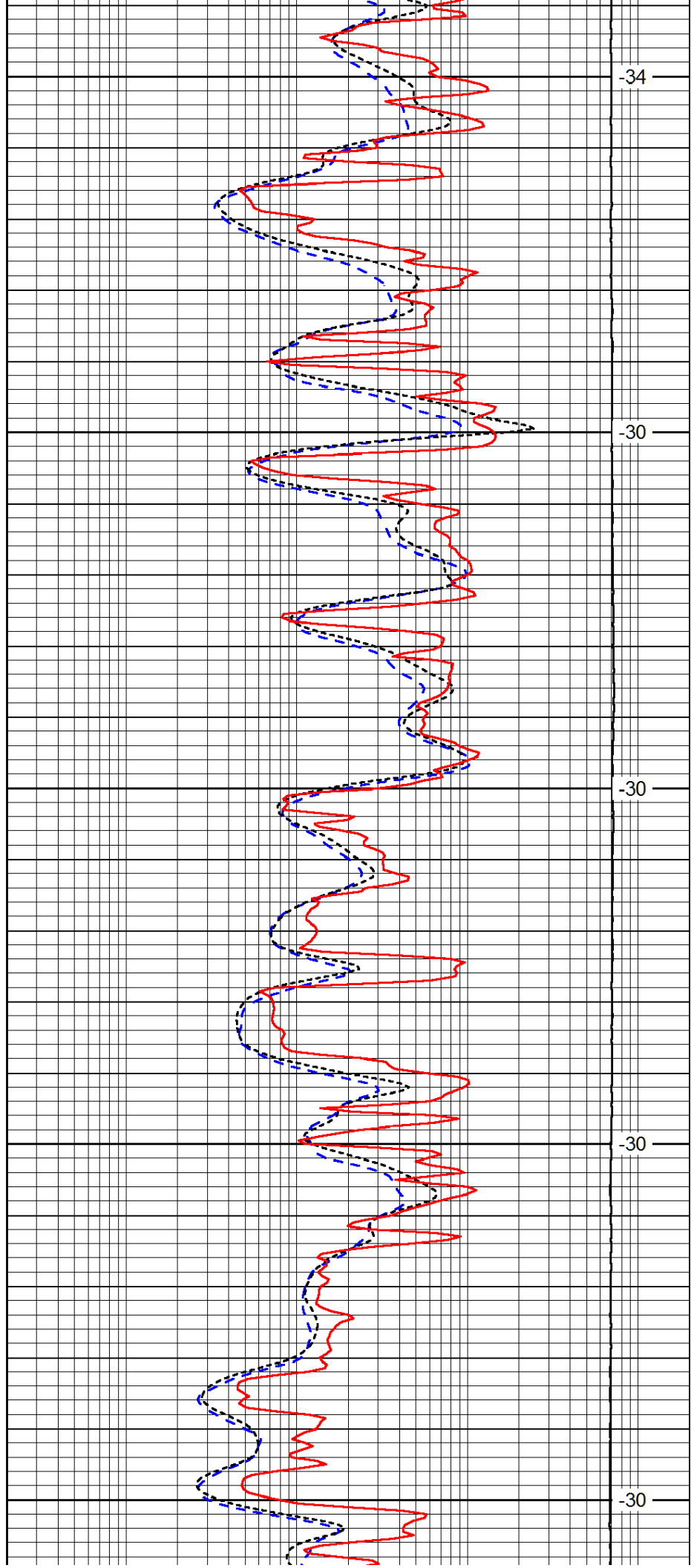
3500

3550

3600

3650

3700



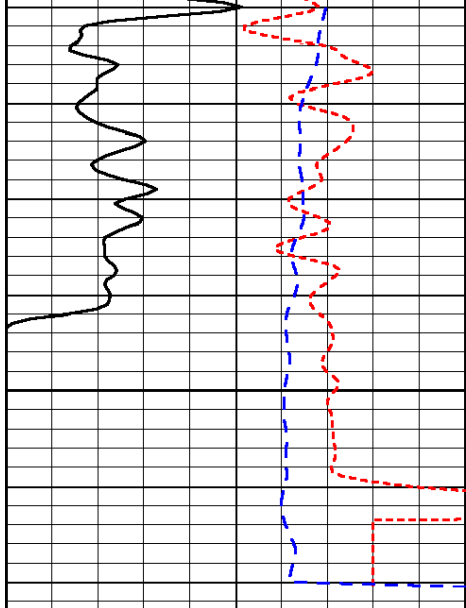
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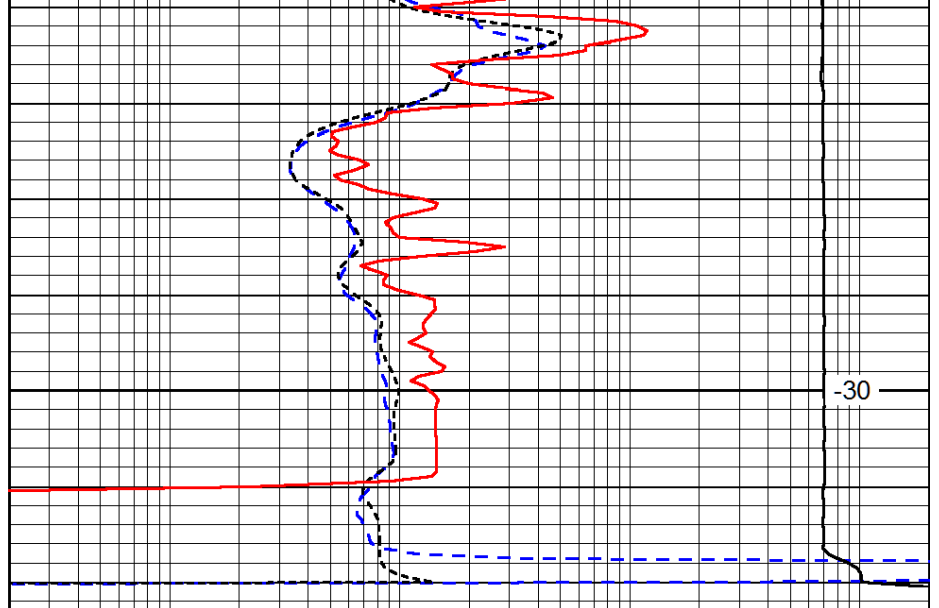
-30

-30



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3750



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-30

LSPD