



PIONEER

Pioneer Energy Services

Dual Induction Log

API No. 15-051-26776-00-00		Company BRUNGARDT OIL AND LEASING, INC.	
Well GRABBE A #1		Location 430' FNL & 1850' FWL	
Field SHOENCHEN WEST		Other Services CNL/CDL MEL	
County ELLIS		State KANSAS	
Sec: 21		Twp: 15S Rge: 18W	
Permanent Datum GROUND LEVEL		Elevation 2047	
Log Measured From KELLY BUSHING		5 Ft. Above Perm. Datum	
Drilling Measured From KELLY BUSHING		K.B. 2052 D.F. 2047 G.L. 2047	
Date 5/19/2015			
Run Number ONE			
Depth Driller 3699			
Depth Logger 3697			
Bottom Logged Interval 3696			
Top Log Interval 1200			
Casing Driller 8.625 @ 1209			
Casing Logger 1209			
Bit Size 7.875			
Type Fluid in Hole CHEMICAL			
Salinity, ppm CL 6000			
Density / Viscosity 9.2 46			
pH / Fluid Loss 10.0 6.4			
Source of Sample Flowline			
Rm @ Meas. Temp 0.60 @ 50			
Rmf @ Meas. Temp 0.45 @ 50			
Rmc @ Meas. Temp 0.81 @ 50			
Source of Rmf / Rmc Charts			
Rm @ BHT 0.27 @ 113			
Operating Rig Time 3 HOURS			
Max Rec. Temp. F 113			
Equipment Number 91			
Location Hays			
Recorded By D. SCHMIDT			
Witnessed By ROGER FISHER			

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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 Pioneer Energy Services
785.625.3858

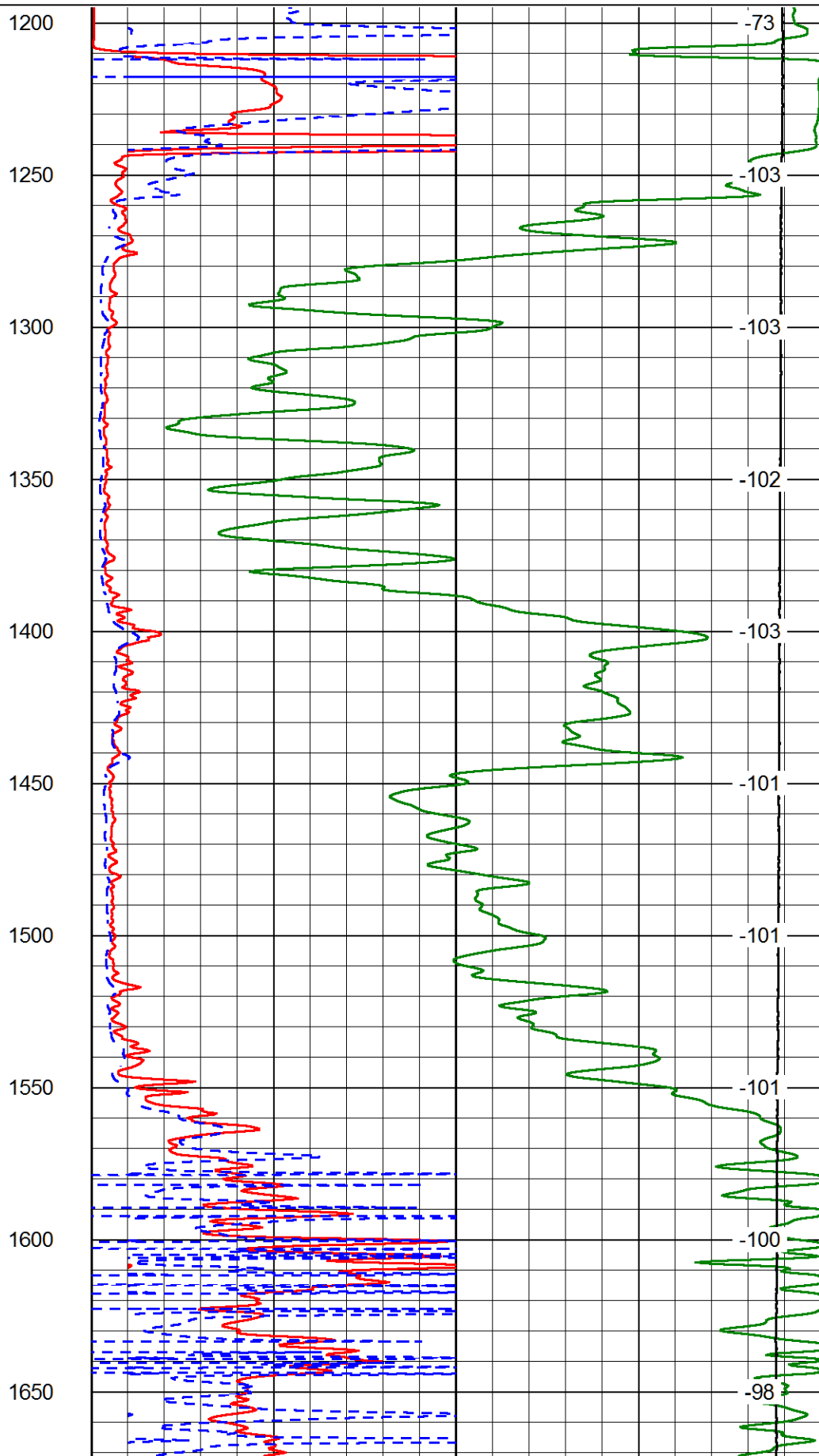
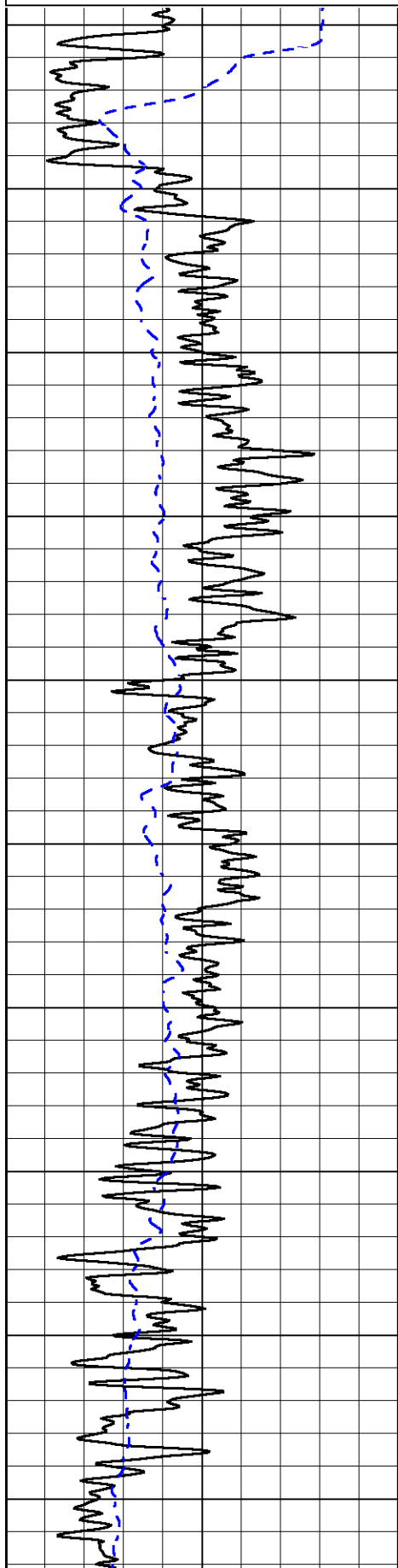
HAYS,
SOUTH ON HWY 183 TO CHETOLA GOLD RD,
3/4 WEST, SOUTH INTO

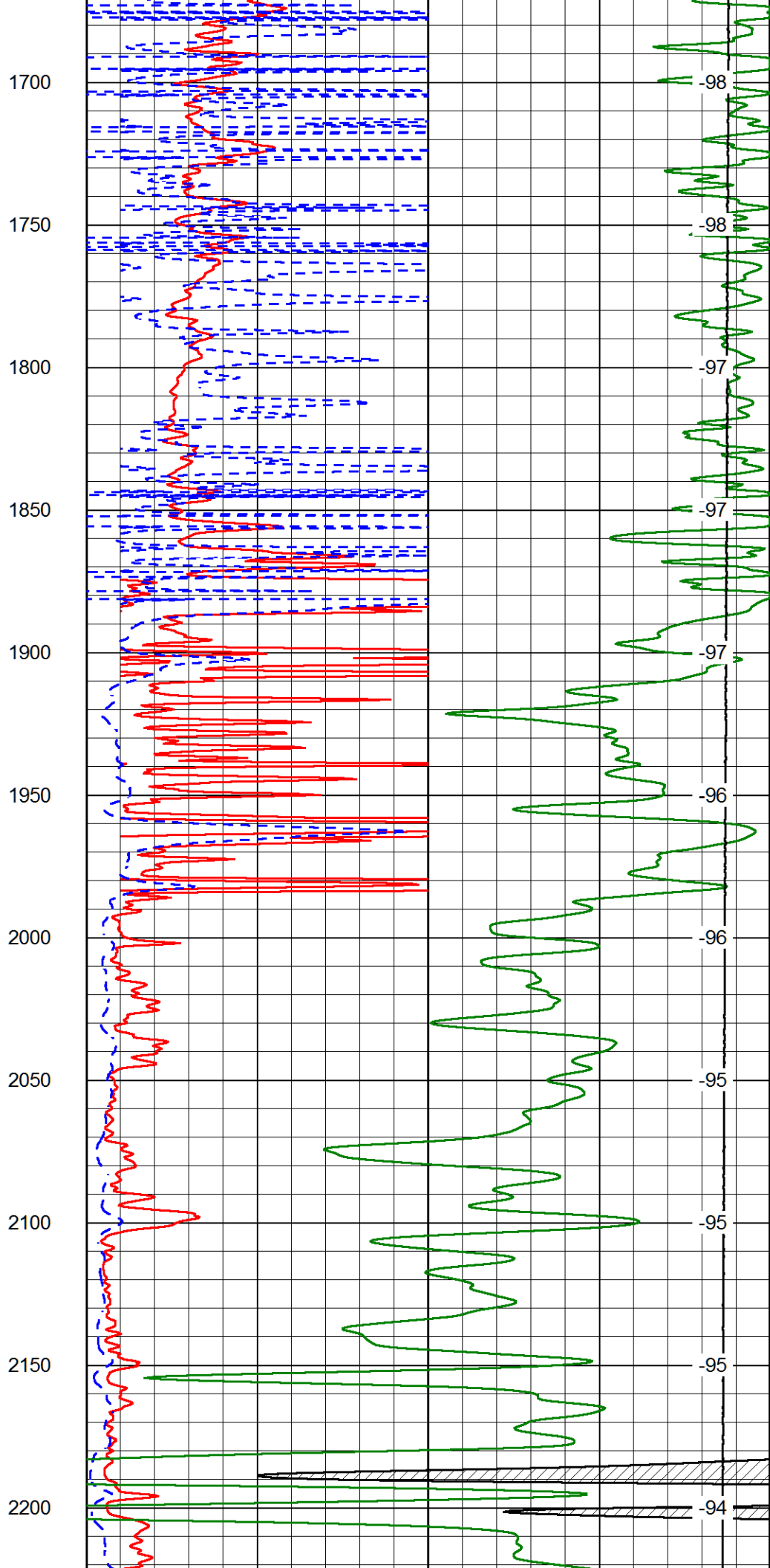
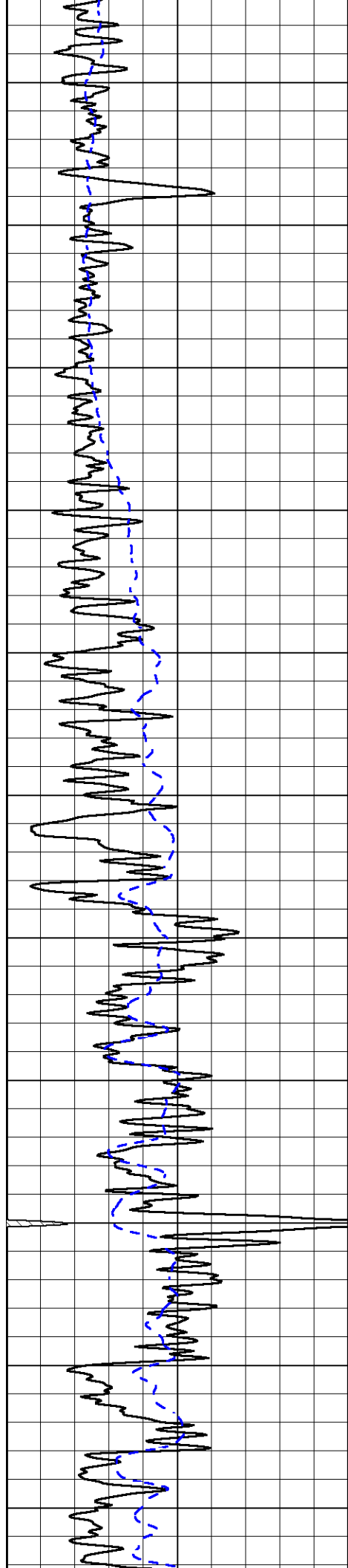
Database File
Dataset Pathname
Presentation Format
Dataset Creation
Charted by

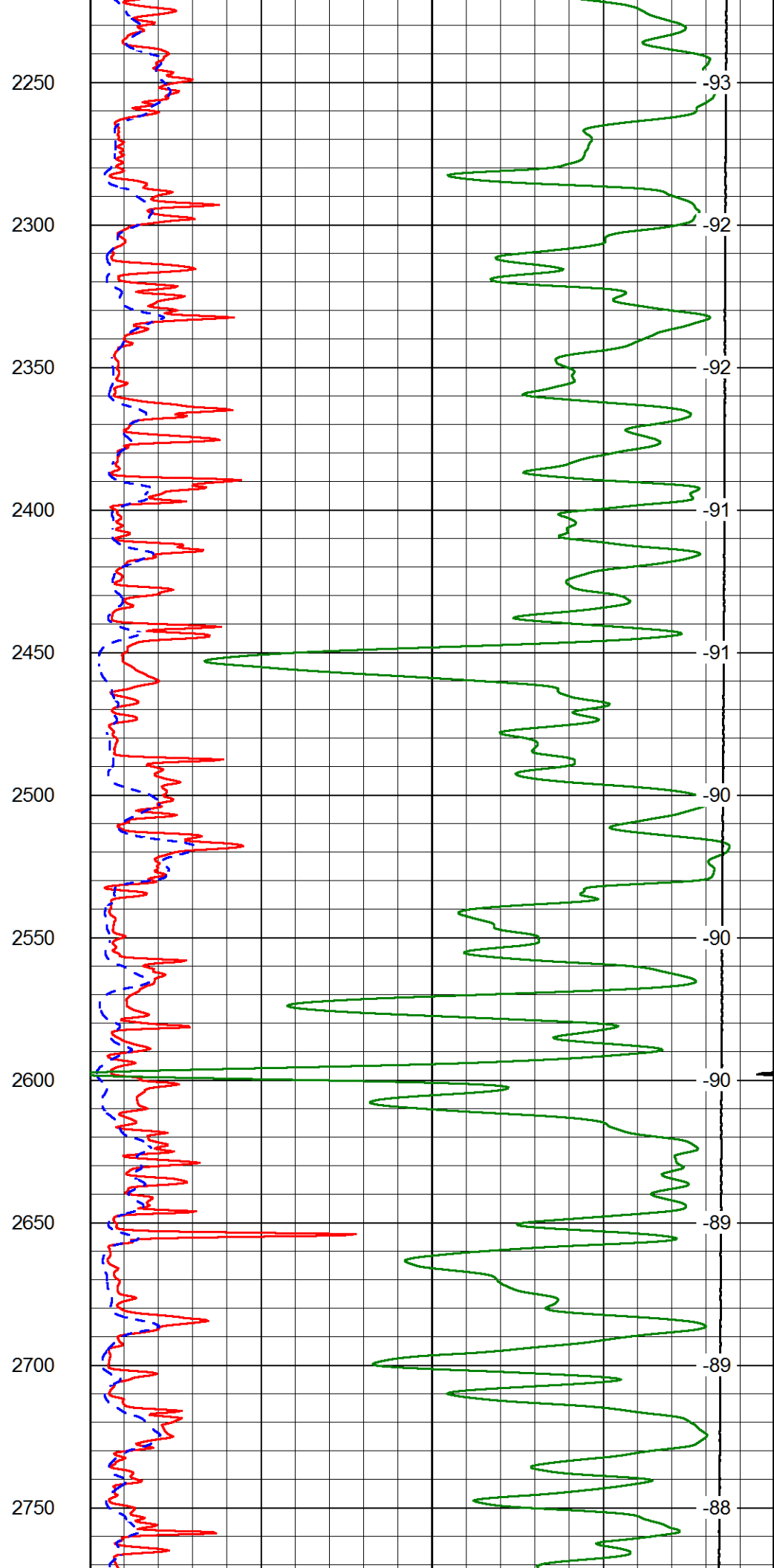
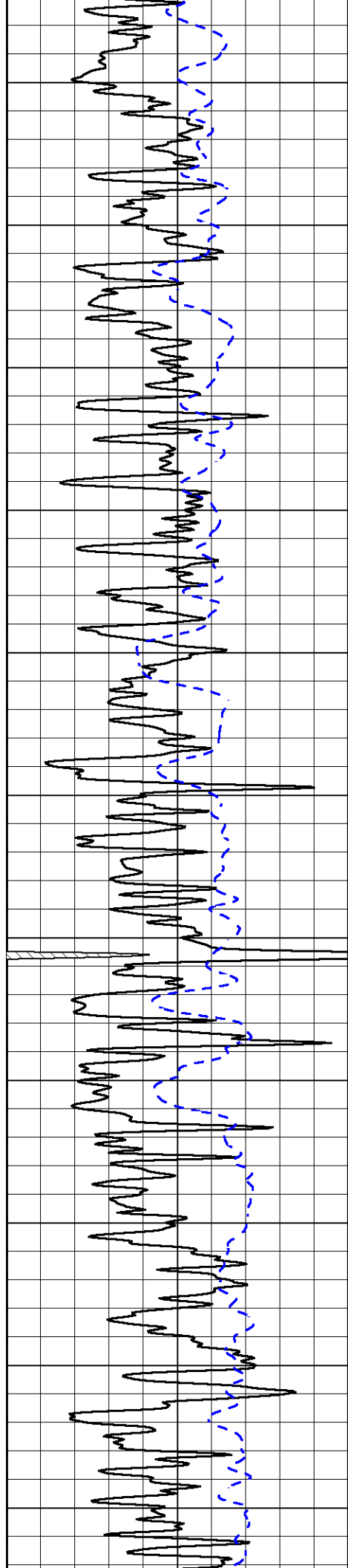
brungardt_grabbe a_1hd.db
DIL/brstkml2
dil2in
Tue May 19 16:10:22 2015
Depth in Feet scaled 1:600

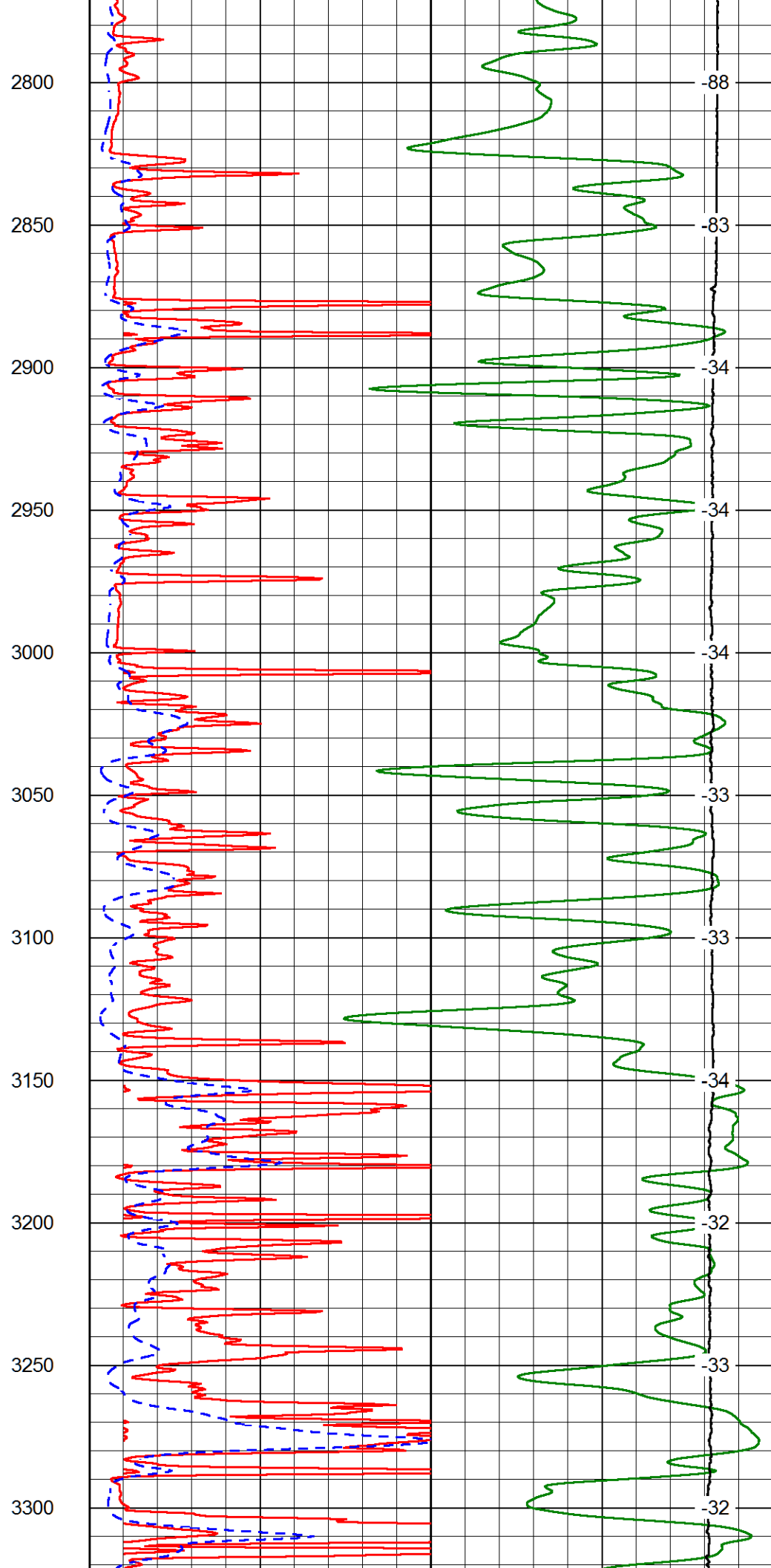
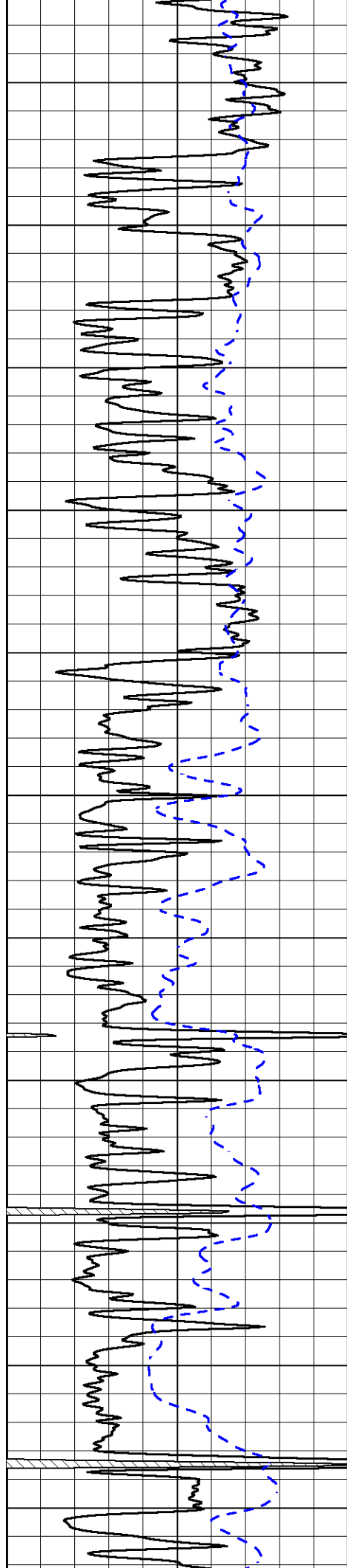
0	Gamma Ray	150
-200	SP (mV)	0

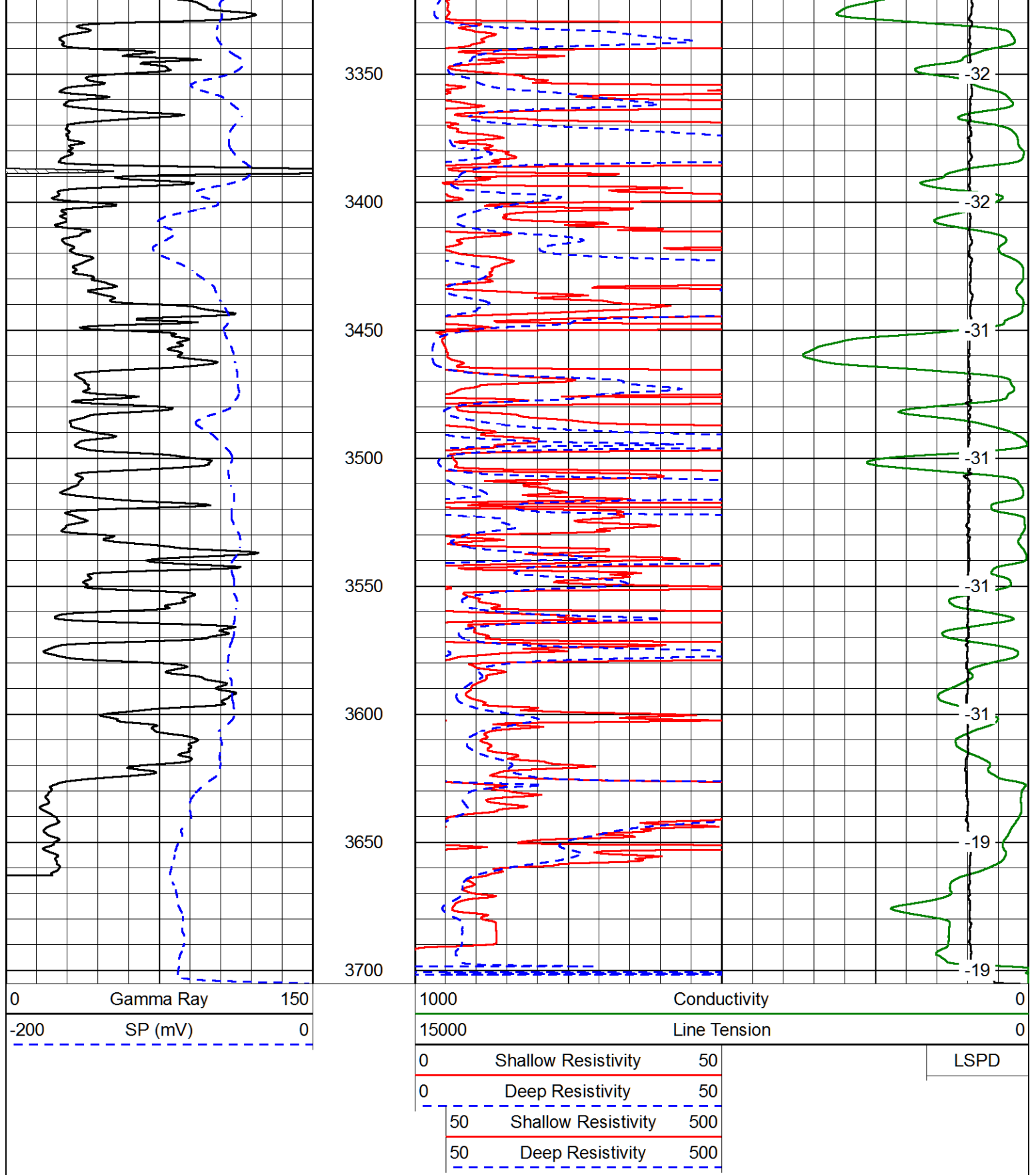
1000	Conductivity	0
15000	Line Tension	0
0	Shallow Resistivity	50
0	Deep Resistivity	50
50	Shallow Resistivity	500
50	Deep Resistivity	500







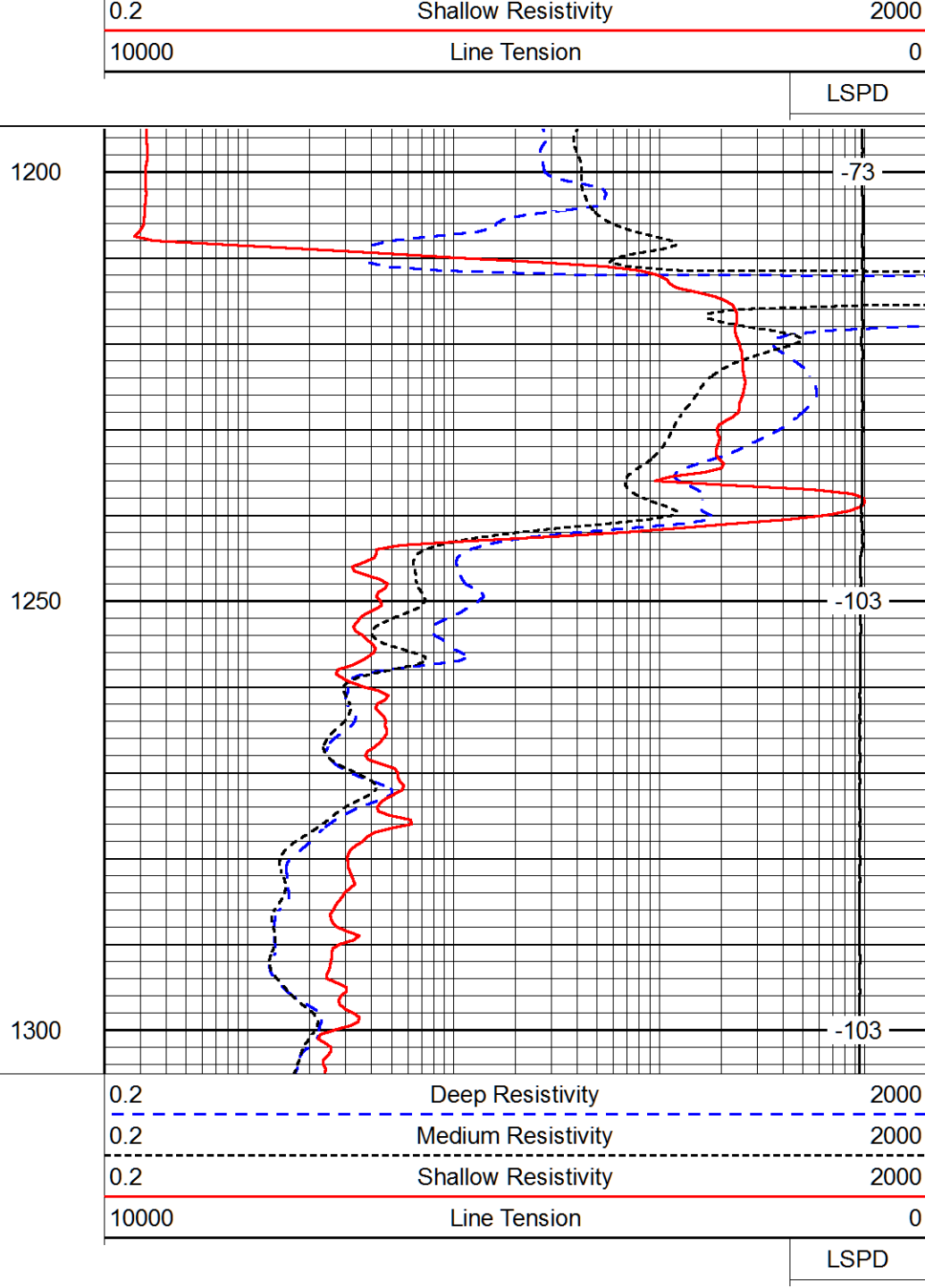
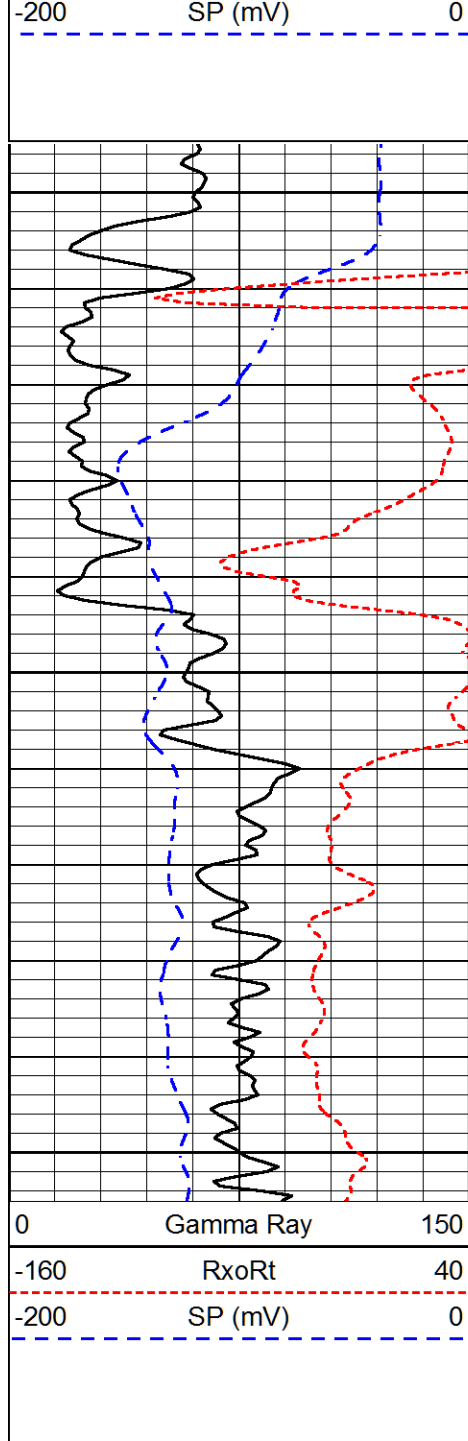




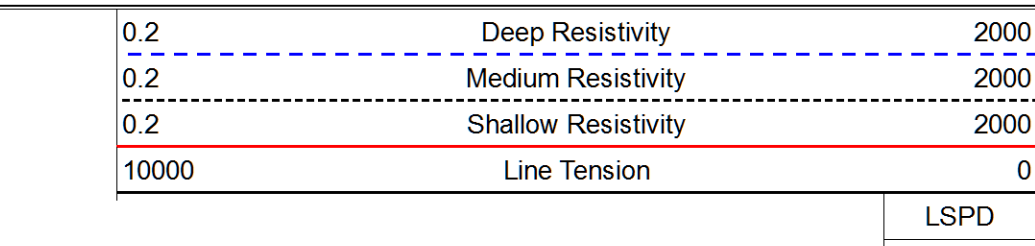
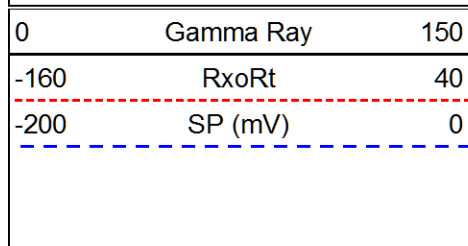
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Presentation Format	dil
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Charted by	Depth in Feet scaled 1:240

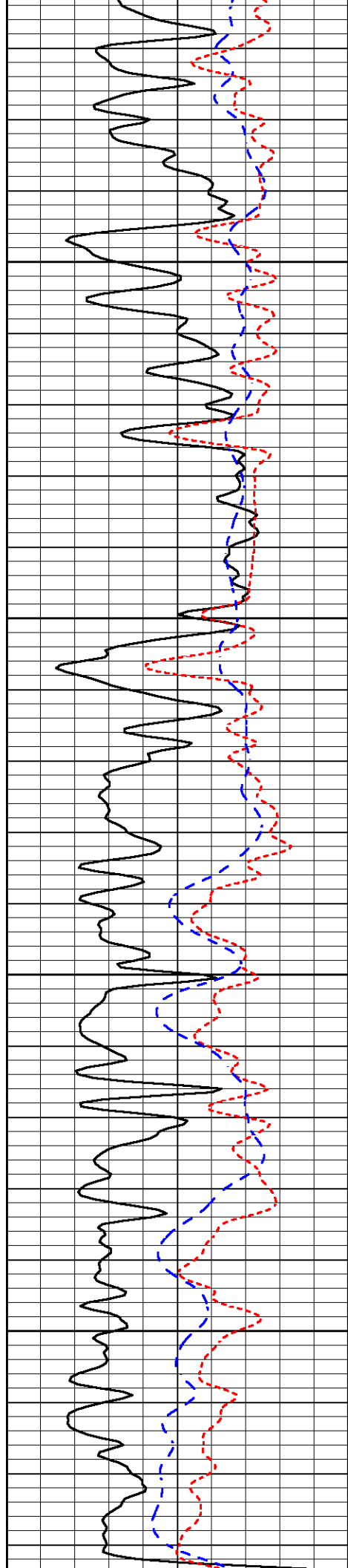
0	Gamma Ray	150
-160	RxoRt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000



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Dataset Pathname DIL/brstkml2
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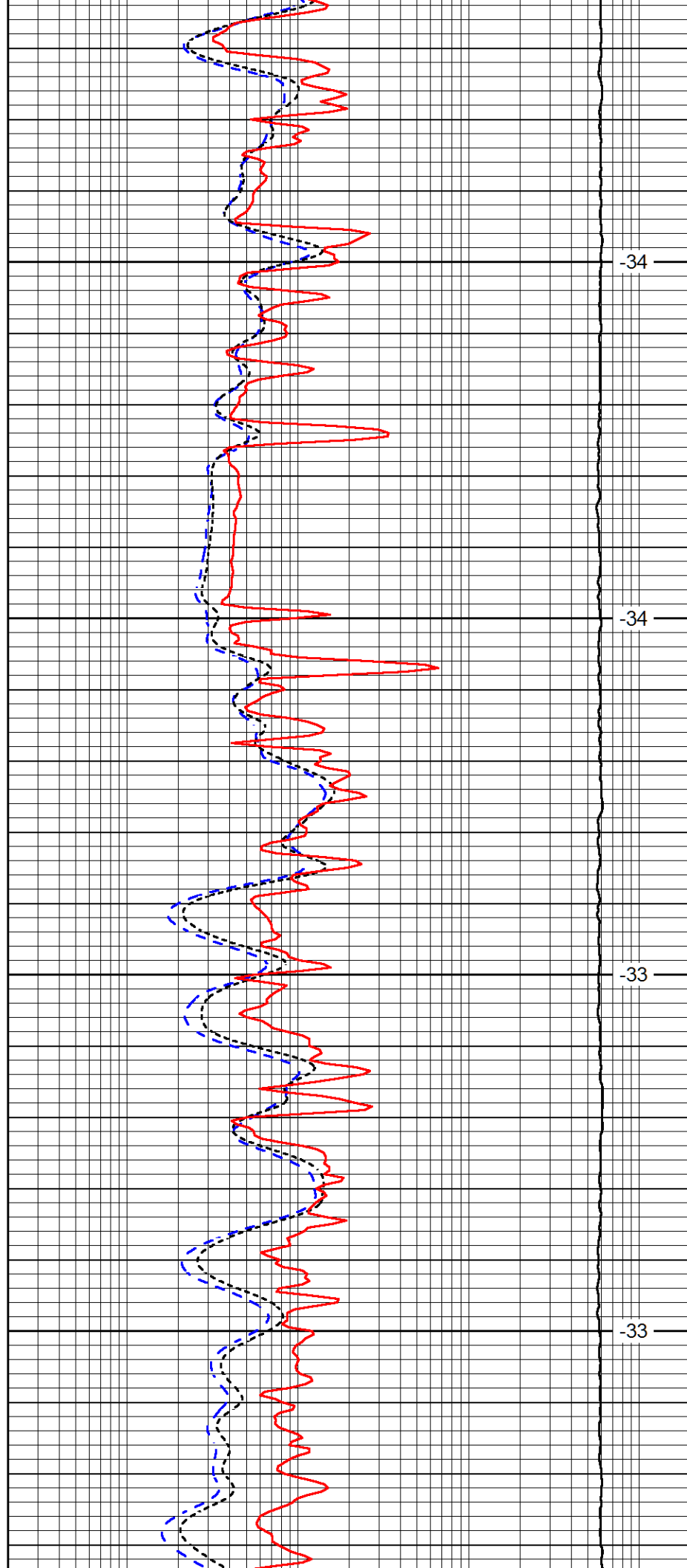


2950

3000

3050

3100

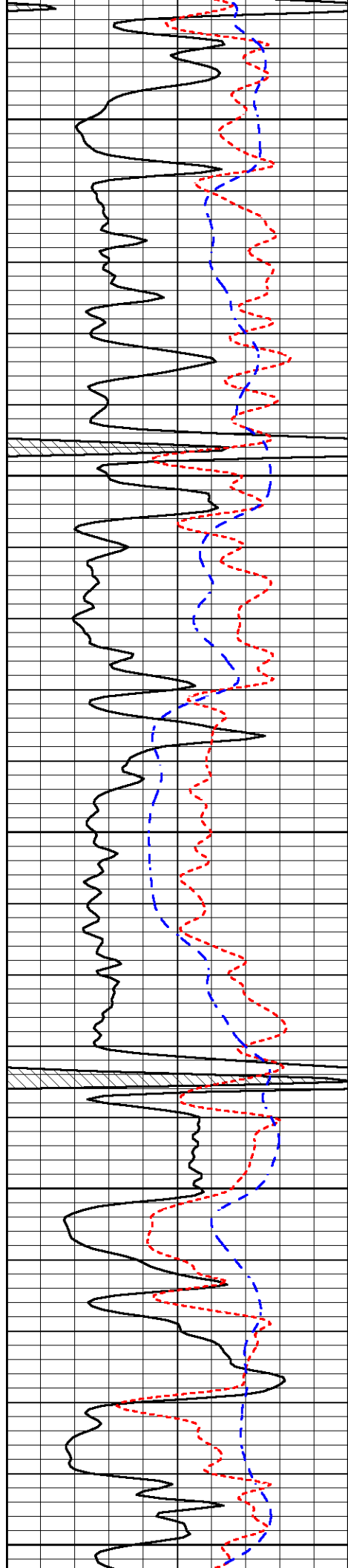


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-34

-33

-33



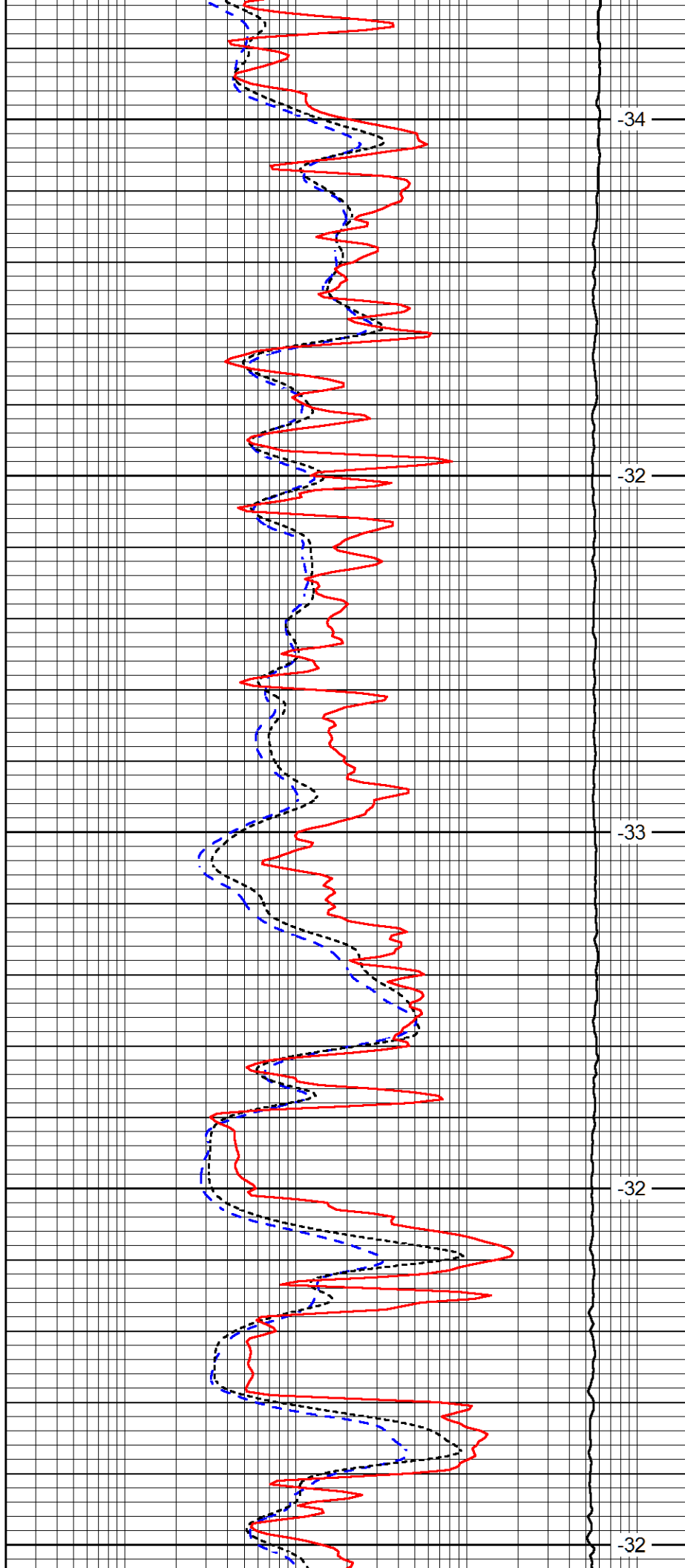
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3200

3250

3300

3350



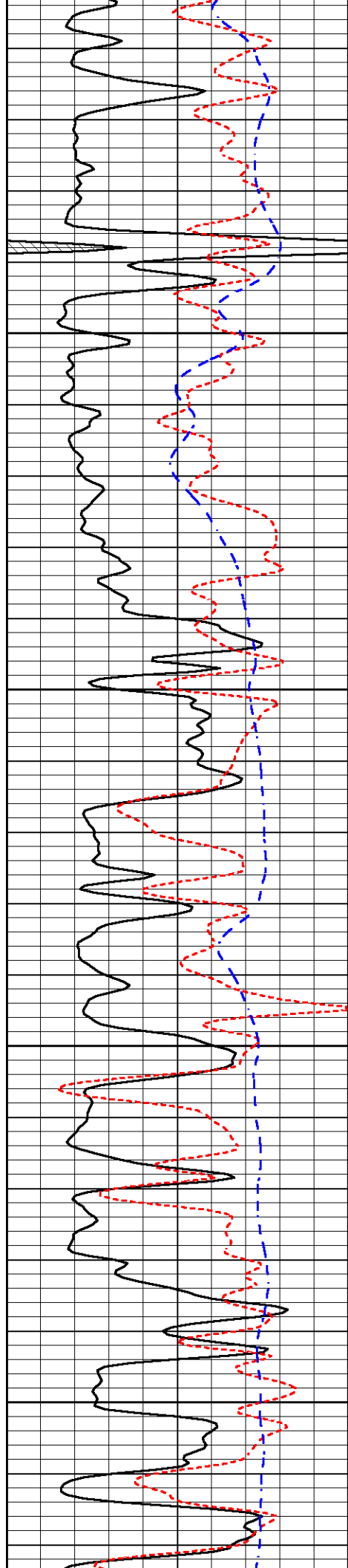
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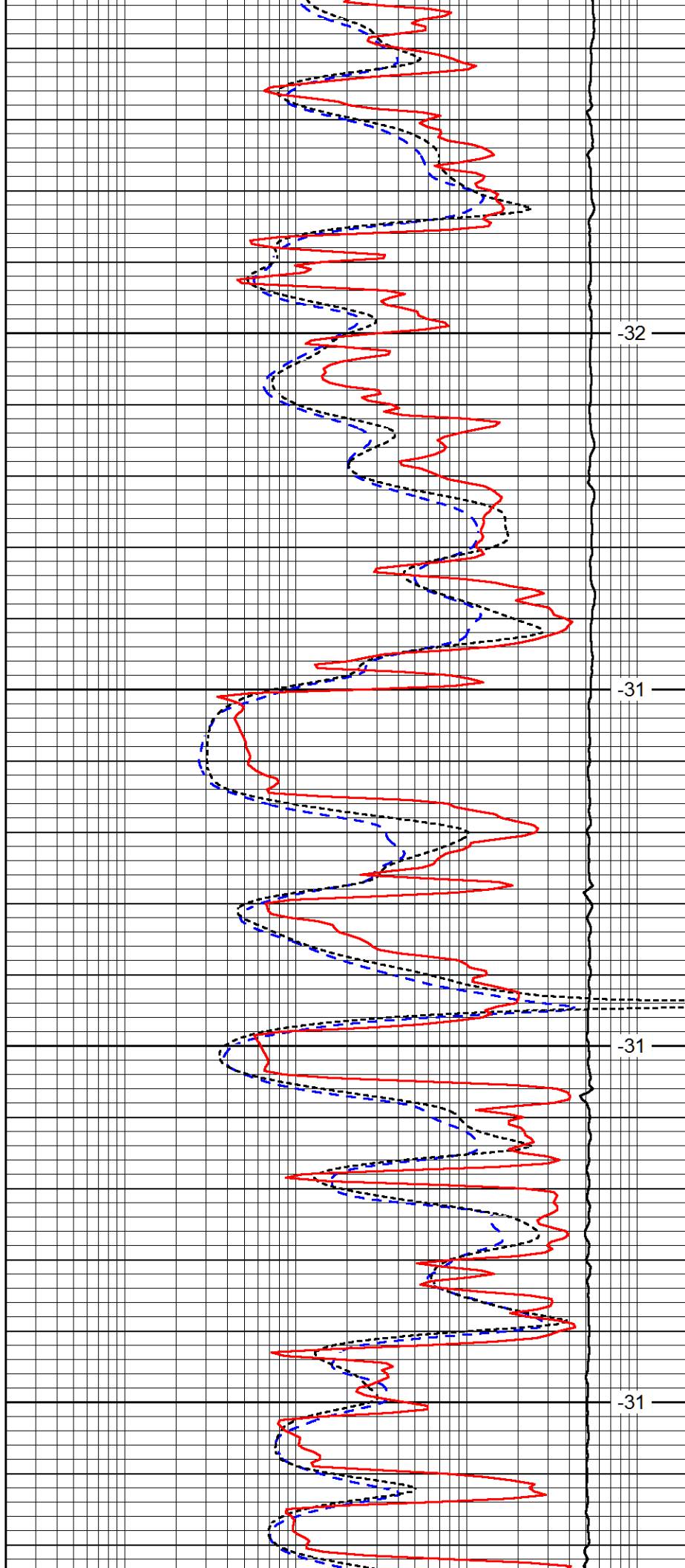


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3450

3500

3550

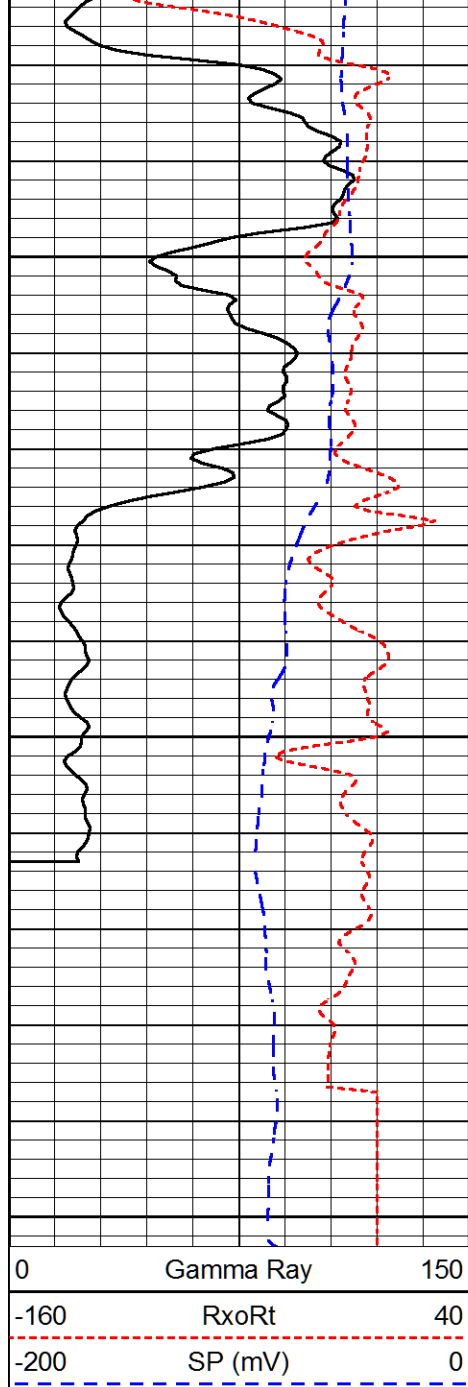


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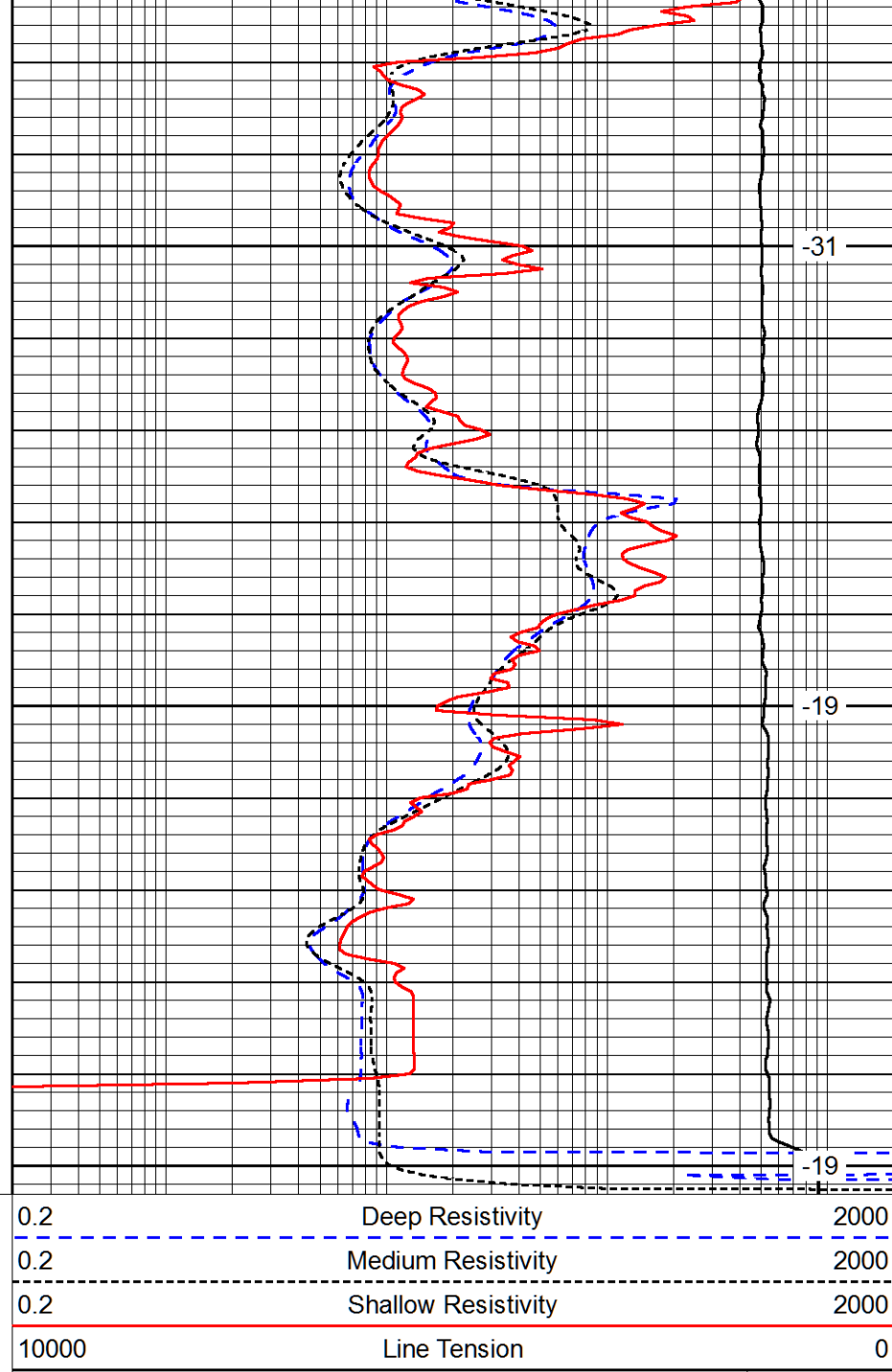
-31



3600

3650

3700



-31

-19

-19

LSPD