



PIONEER

Pioneer Energy Services

Dual Induction Log

API No.

15-051-26,364-00-00

Company Hertel Oil Company, LLC

Well Legleiter-Stecklein Unit No. 1

Field Engel West

County Ellis

State

Kansas

Location

SE NW SW
1,725' FSL & 900' FWL

Sec: 33

Twp: 14S

Rge: 18W

Permanent Datum Ground Level Elevation 2037
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

Other Services
CNL/CDL
MEL
Elevation
K.B. 2045
D.F.
G.L. 2037

Date

8/21/2012

Run Number

One

Depth Driller

3750

Depth Logger

3751

Bottom Logged Interval

3750

Top Log Interval

200

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

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(785) 625-3858

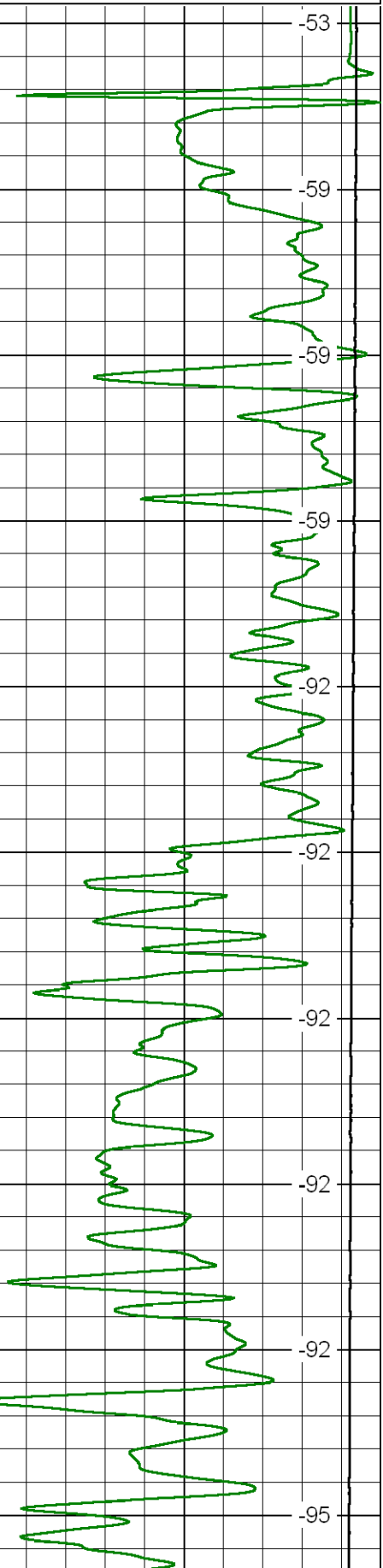
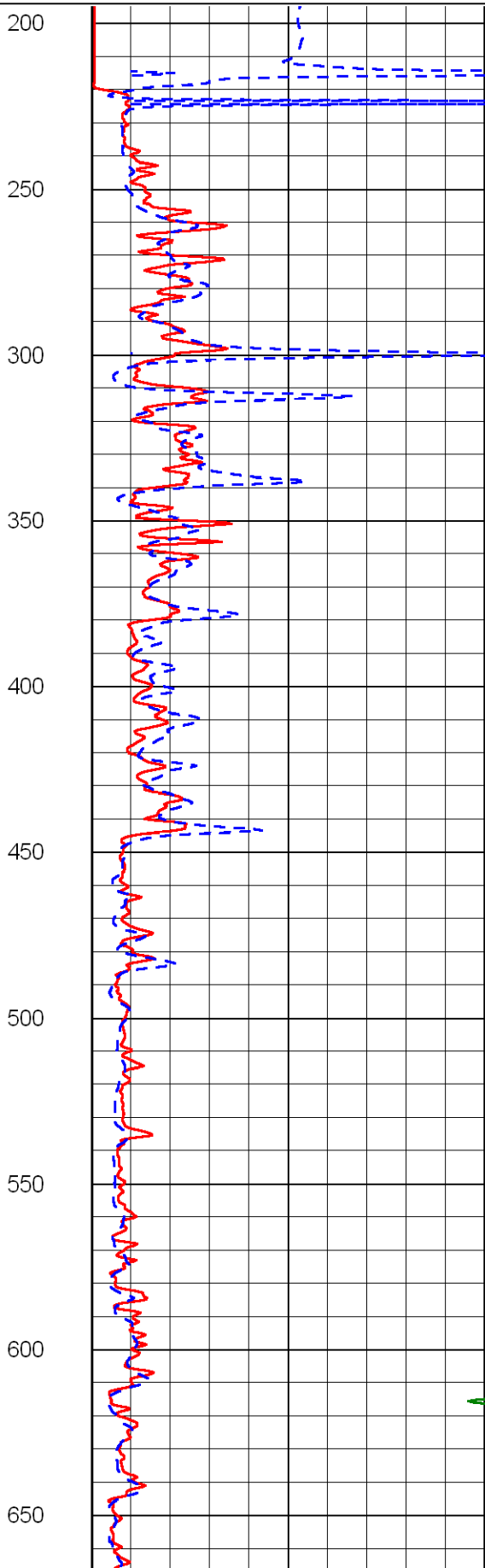
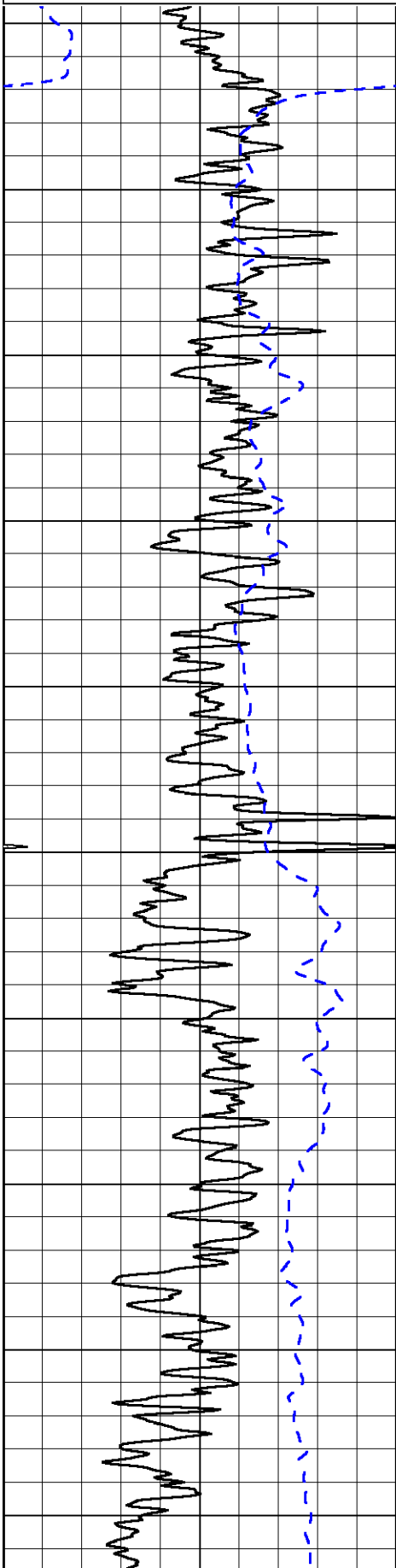
Hays, South to Antonino Blacktop, 1/2 West, North and West Into (At Tank Batteries)

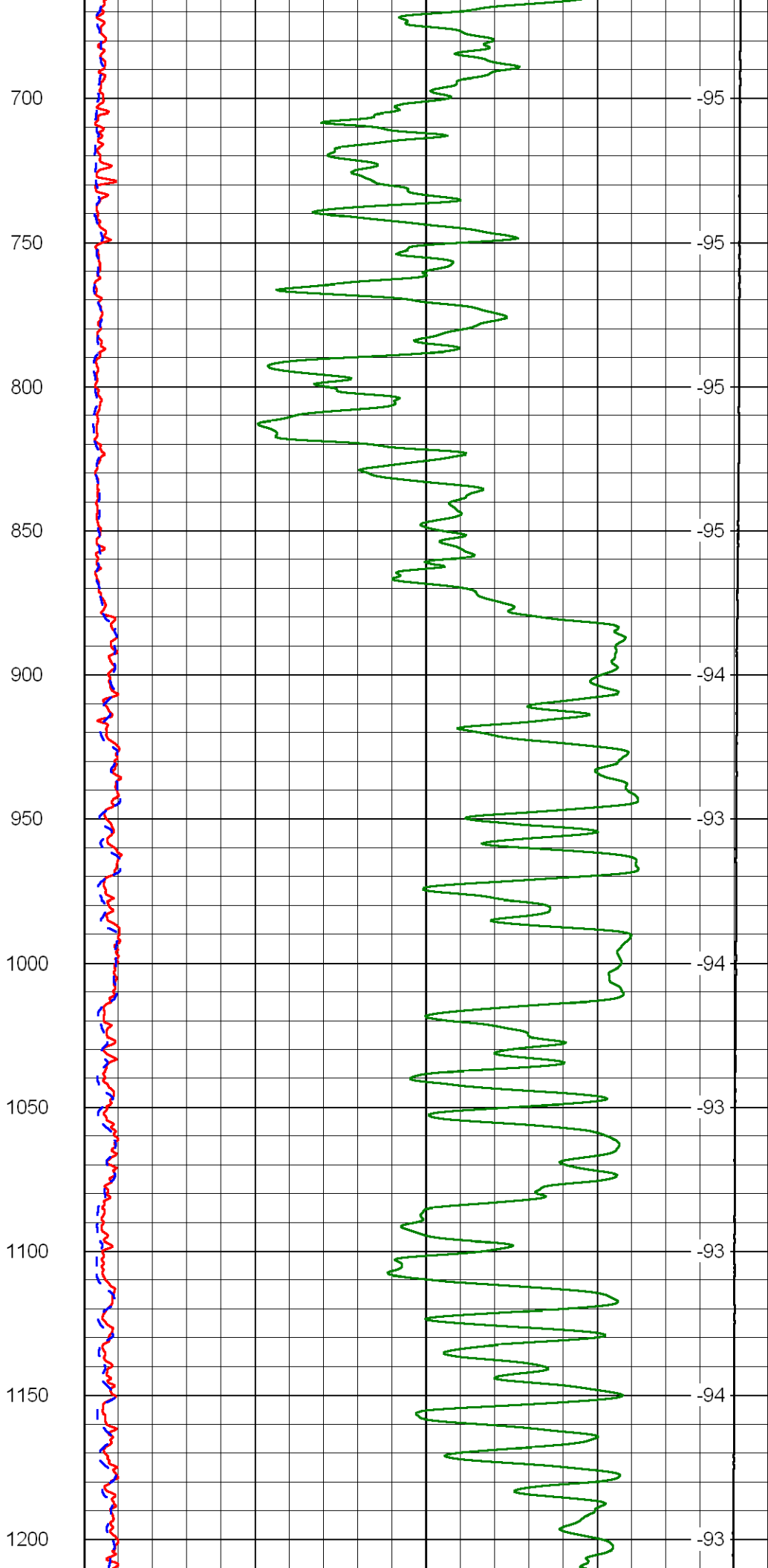
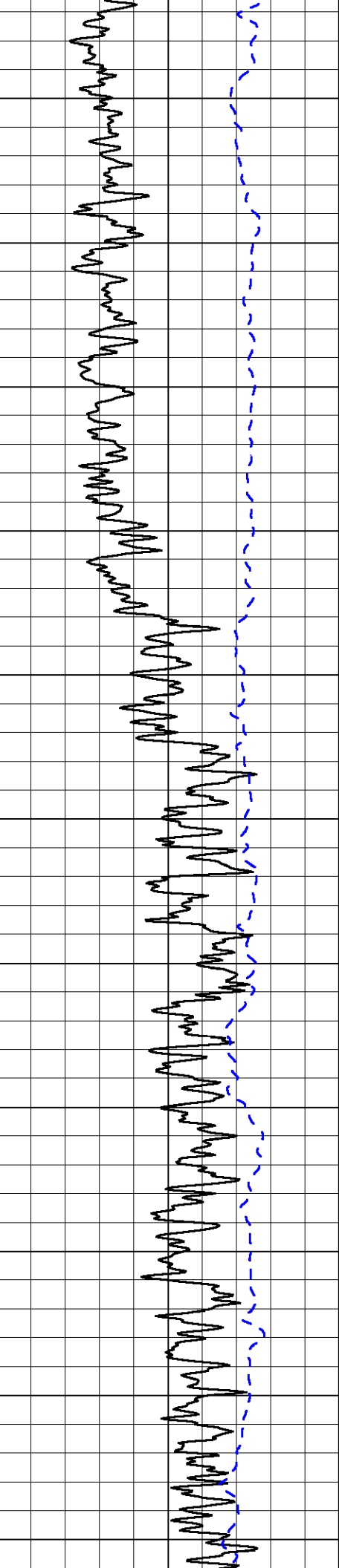
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Presentation Format: dil2in
Dataset Creation: Tue Aug 21 09:25:34 2012
Charted by: Depth in Feet scaled 1:600

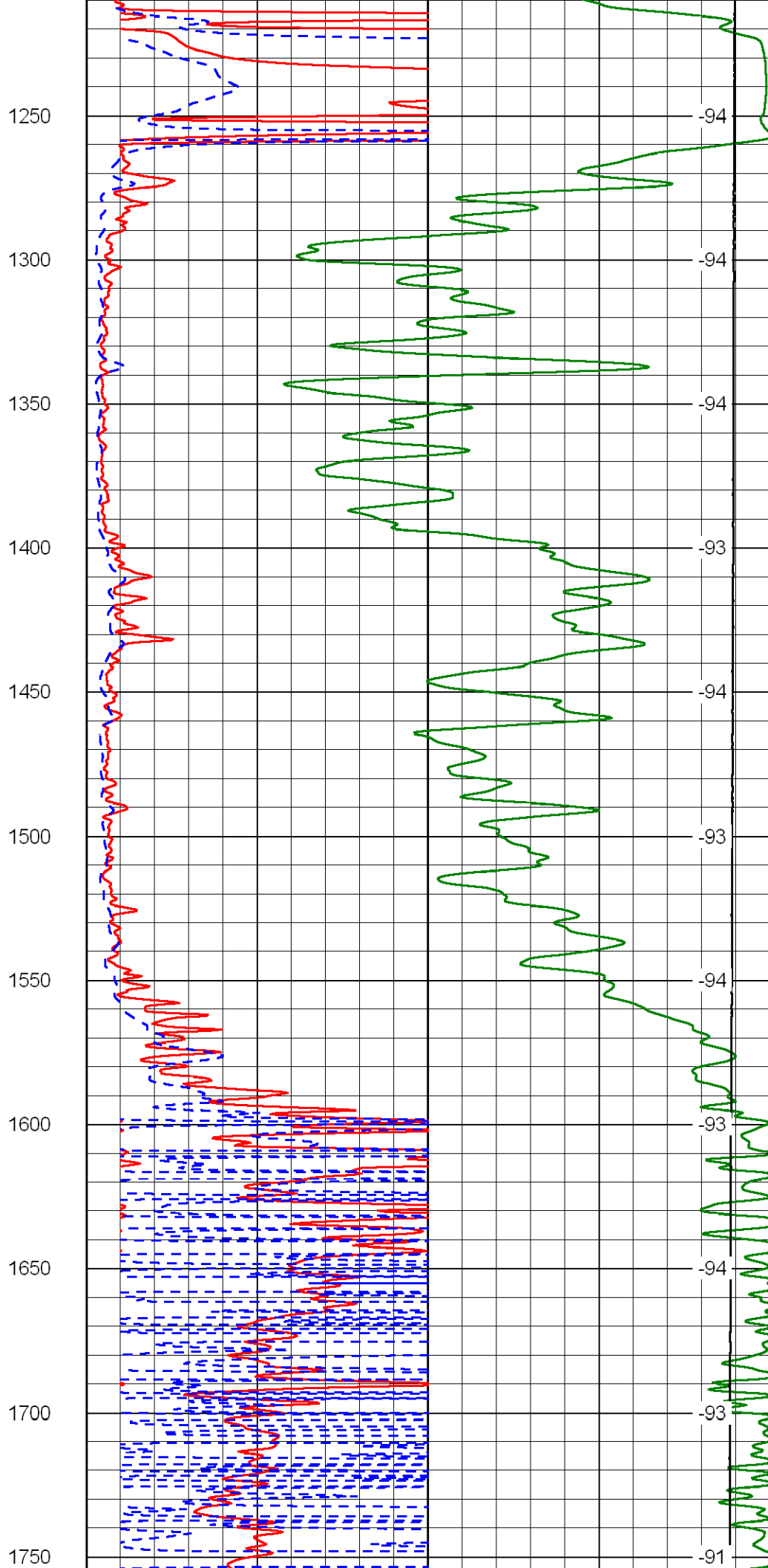
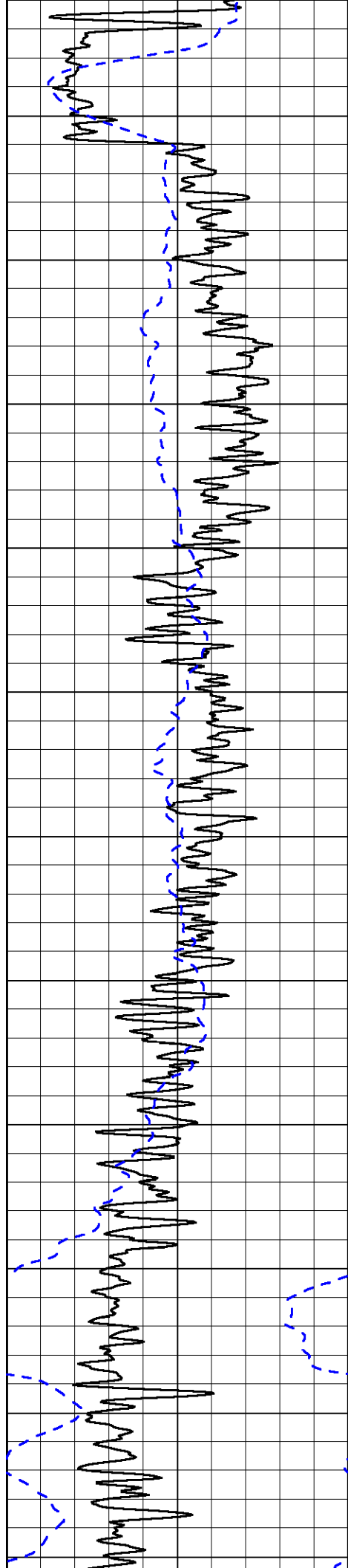
0	Gamma Ray	150
-200	SP	0

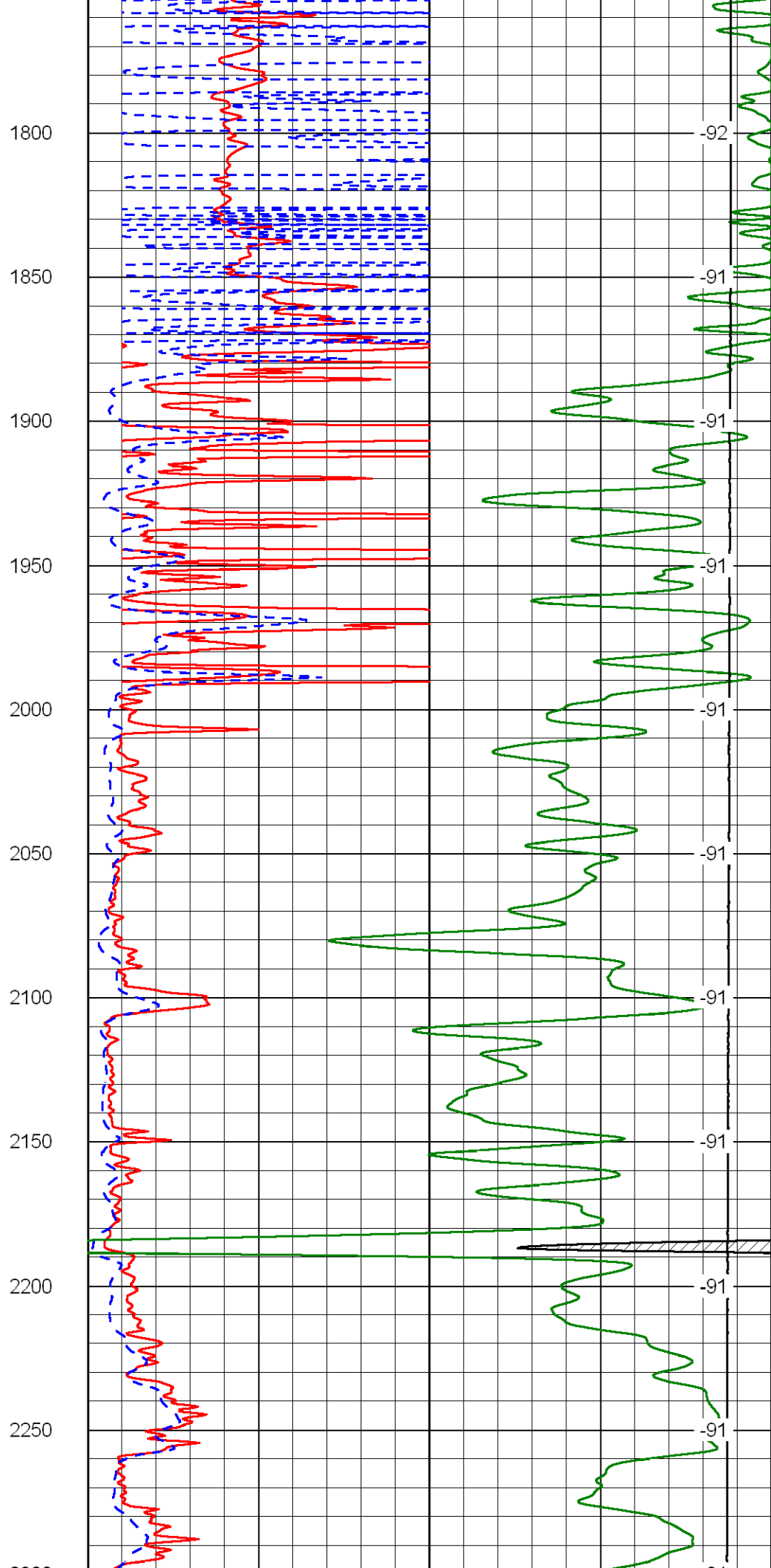
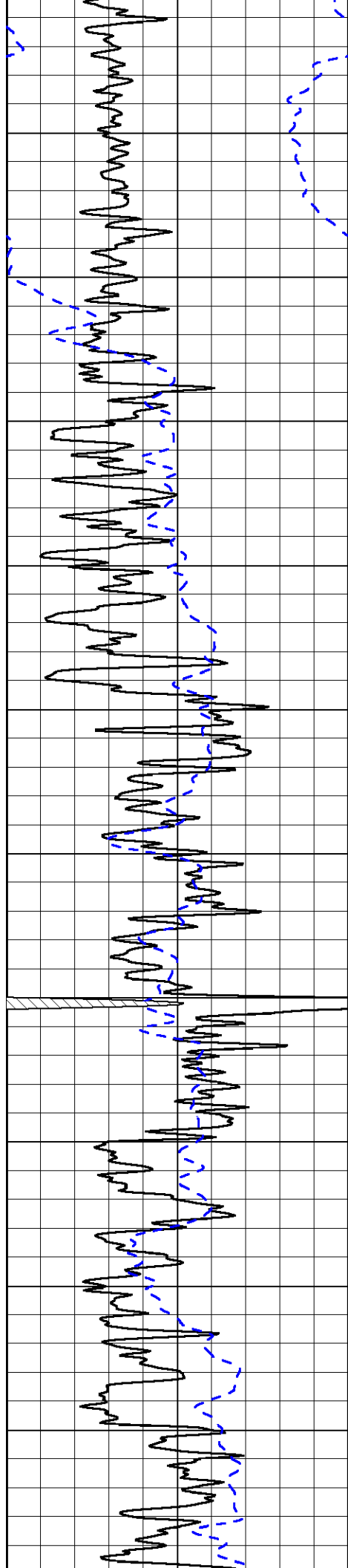
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0

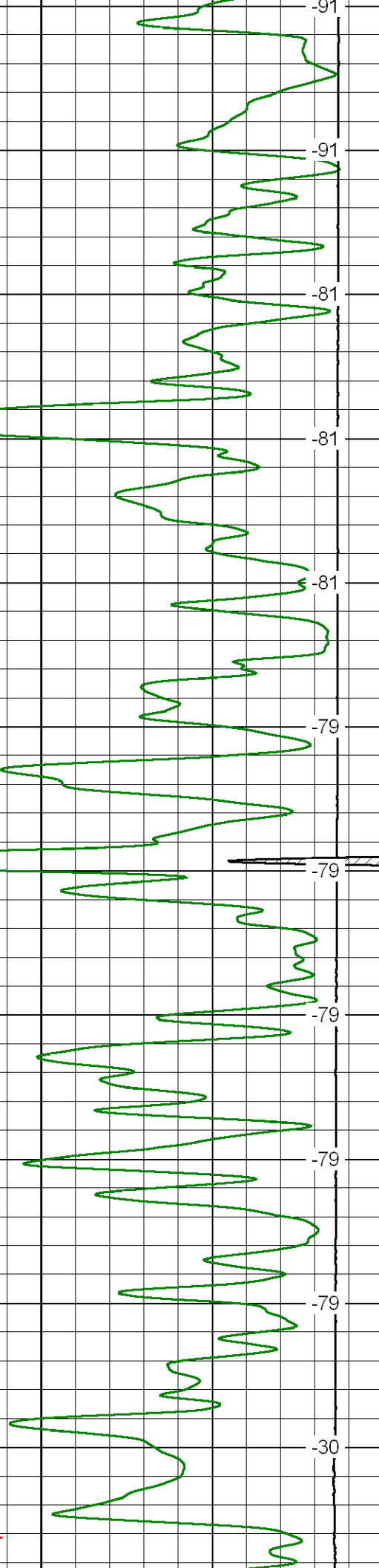
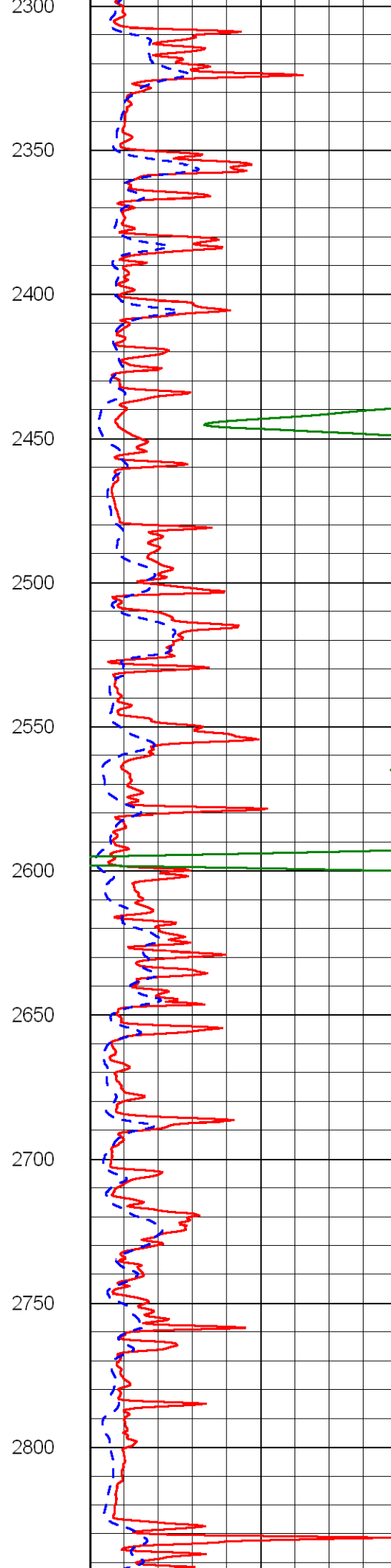
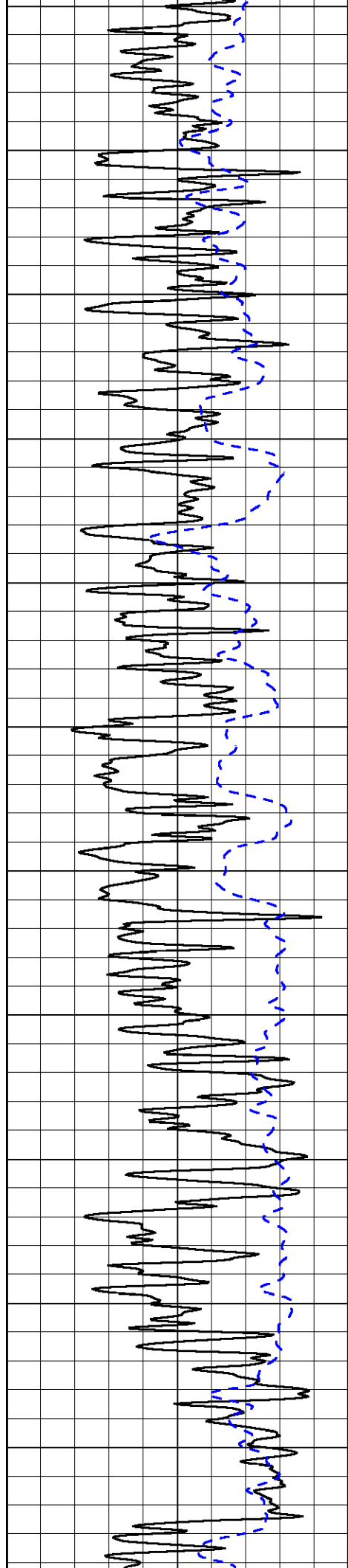
50	Shallow Resistivity	500
50	Deep Resistivity	500

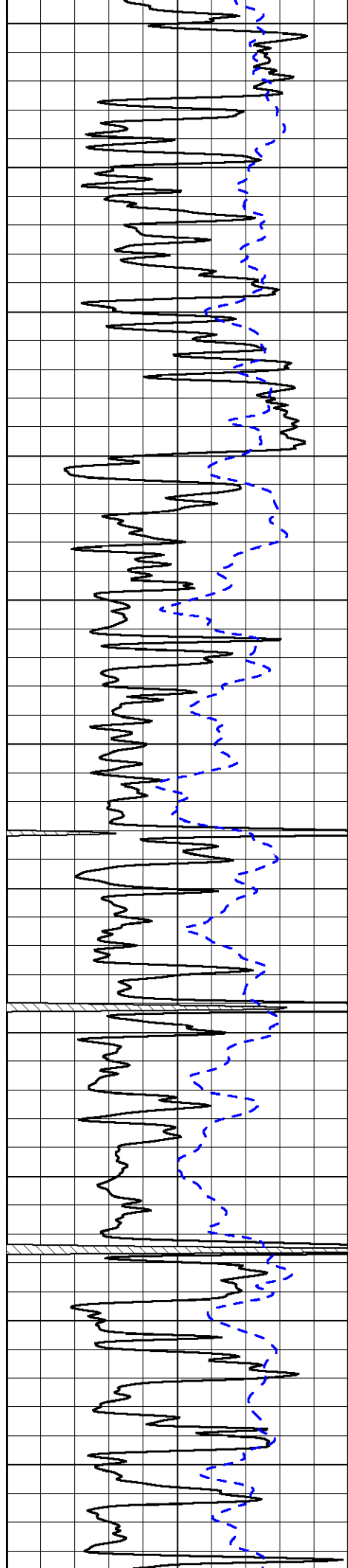




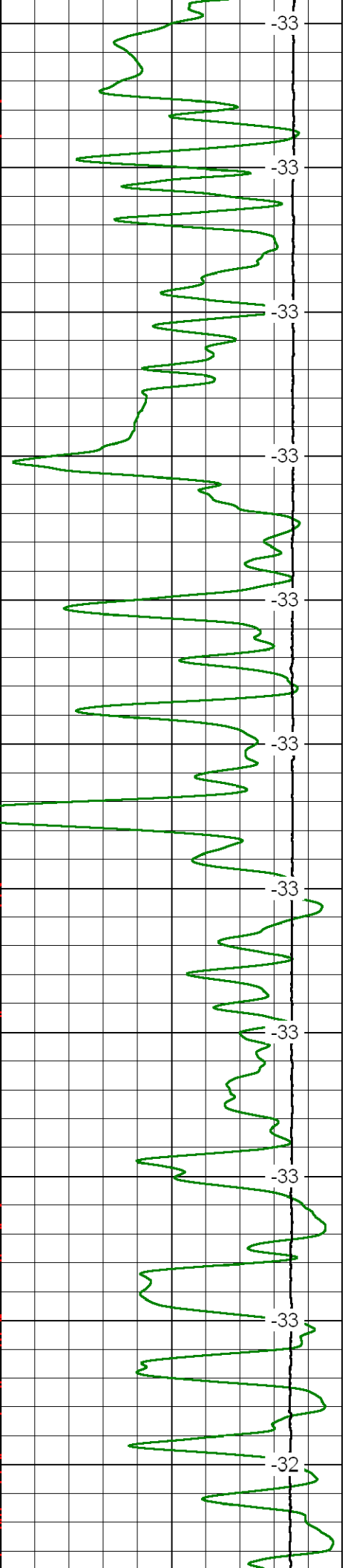
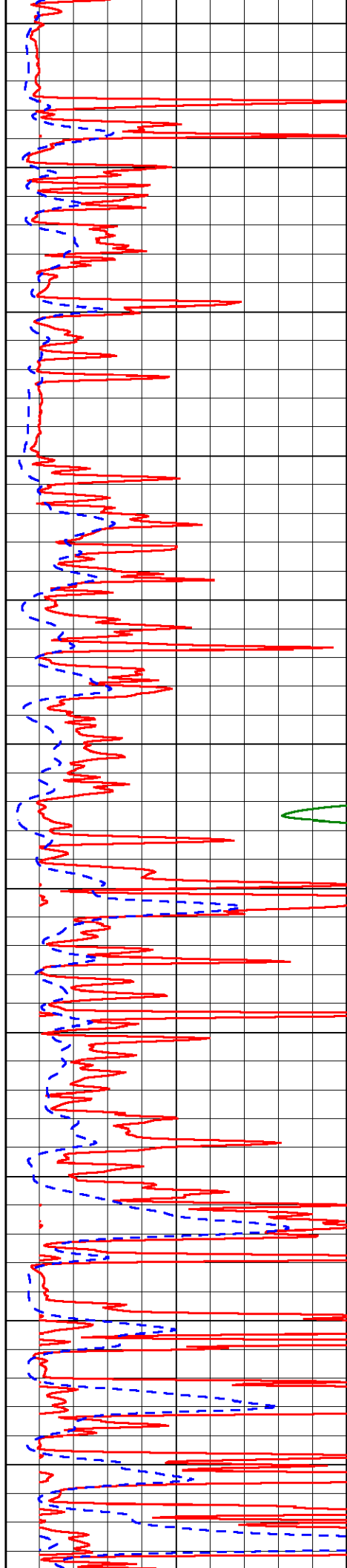




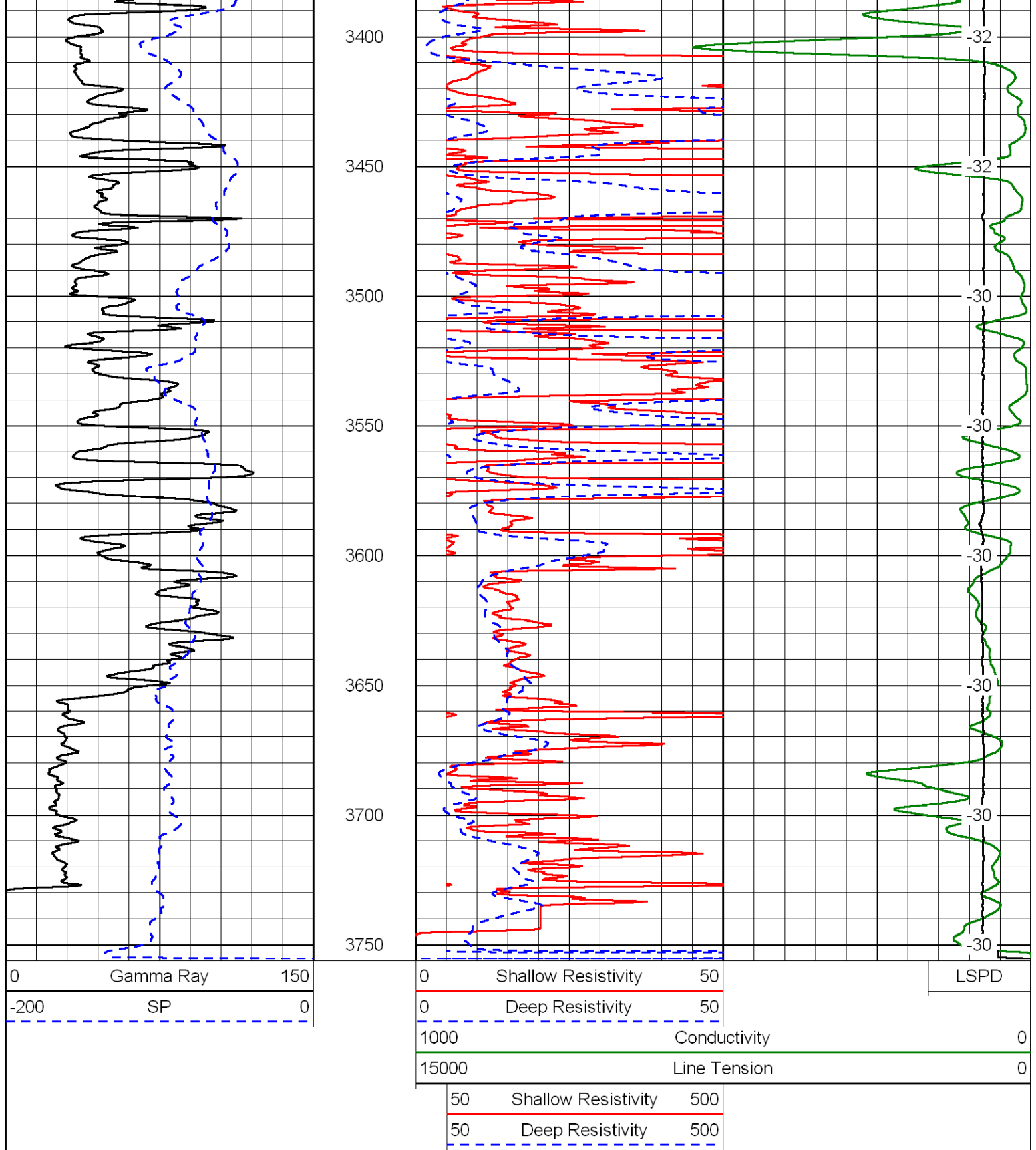




2850
2900
2950
3000
3050
3100
3150
3200
3250
3300
3350

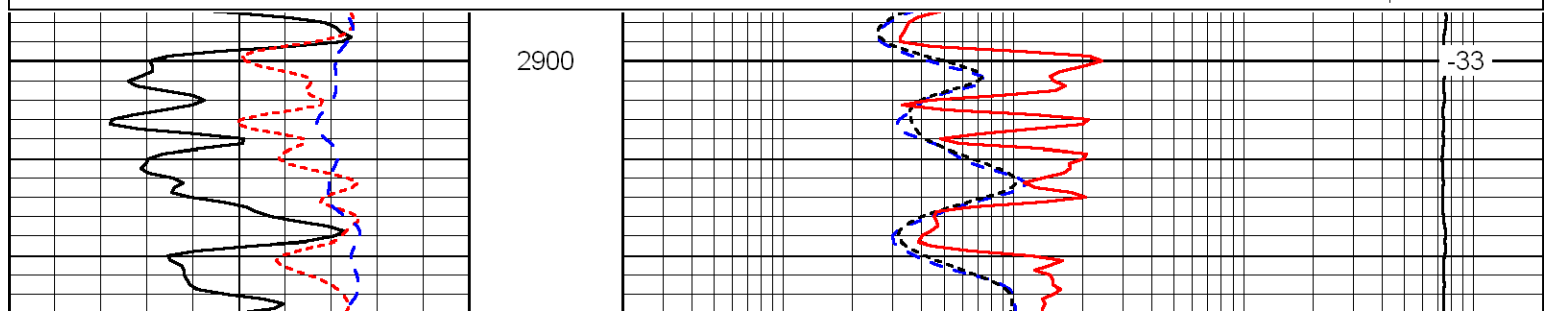
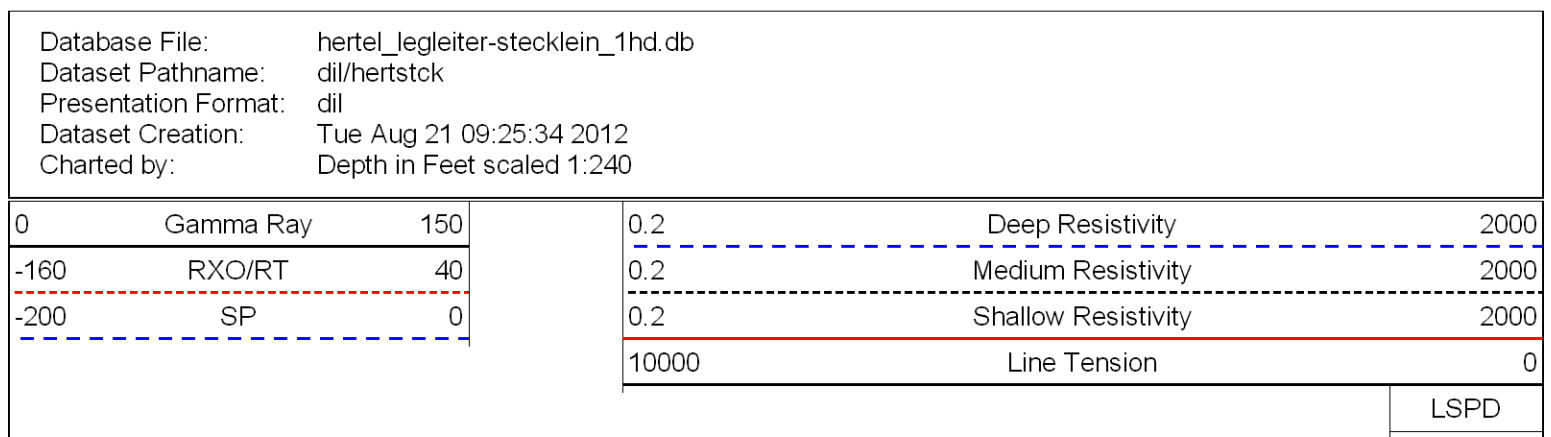
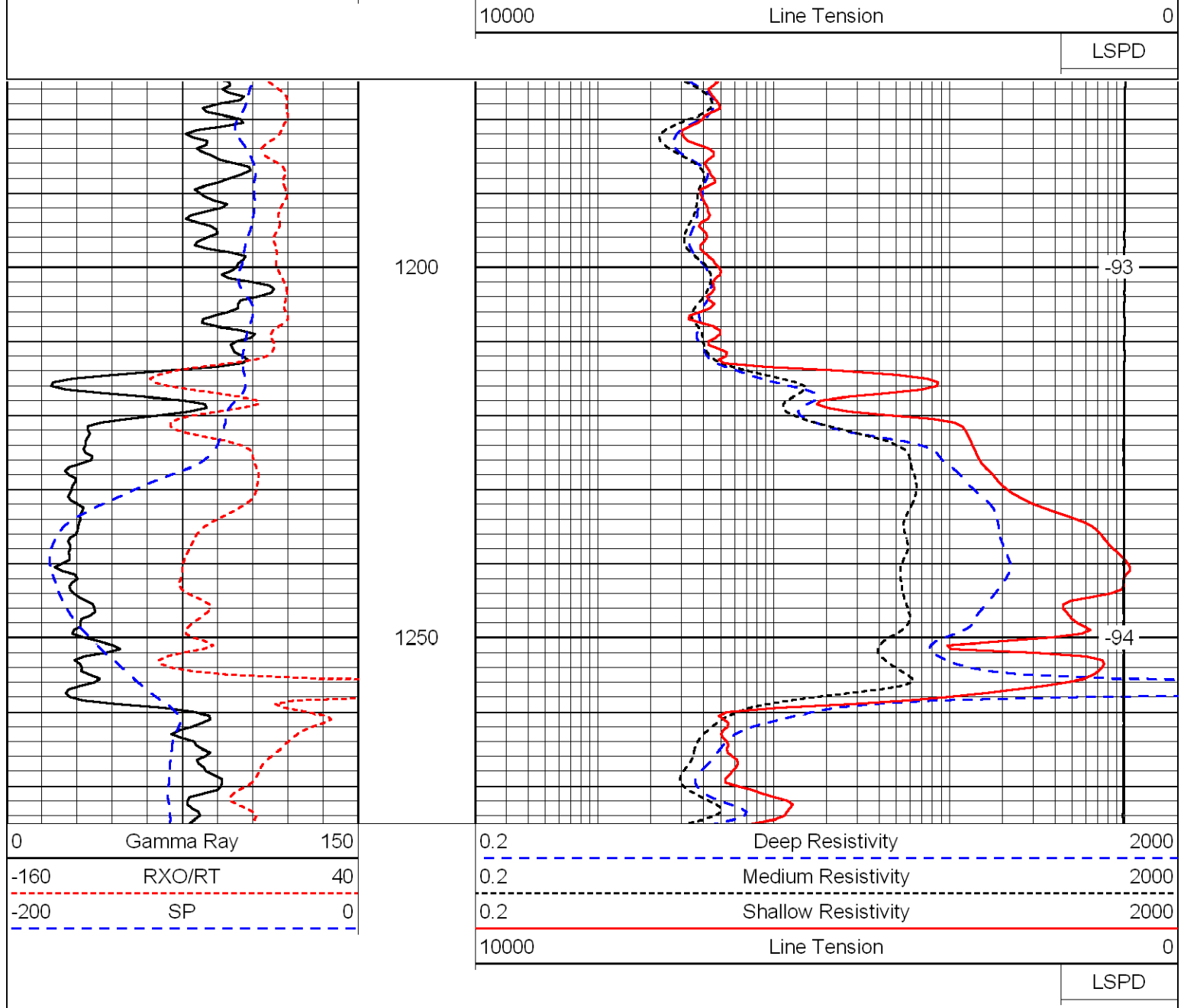


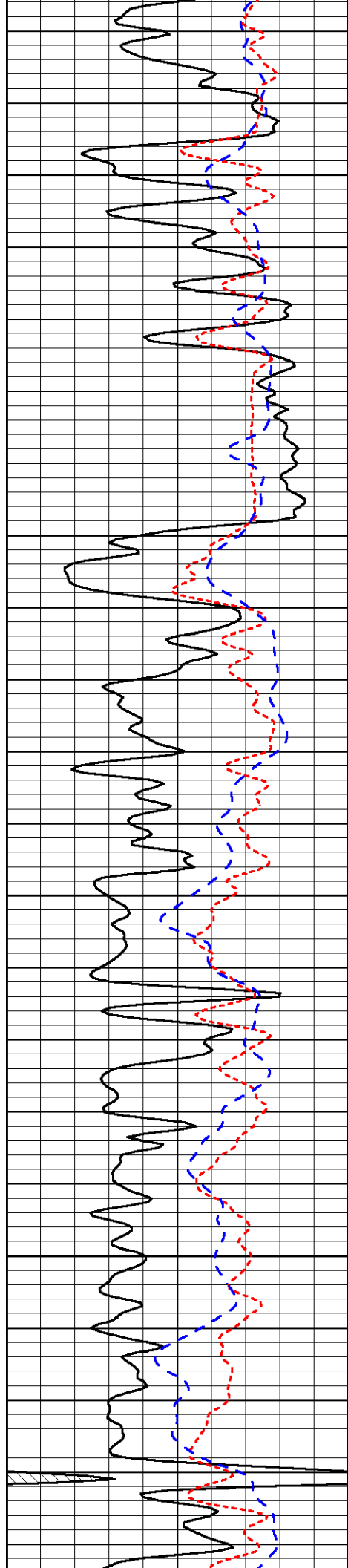
-33
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-32



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

0	Gamma Ray	150	0.2	Deep Resistivity	2000
-160	RXO/RT	40	0.2	Medium Resistivity	2000
-200	SP	0	0.2	Shallow Resistivity	2000



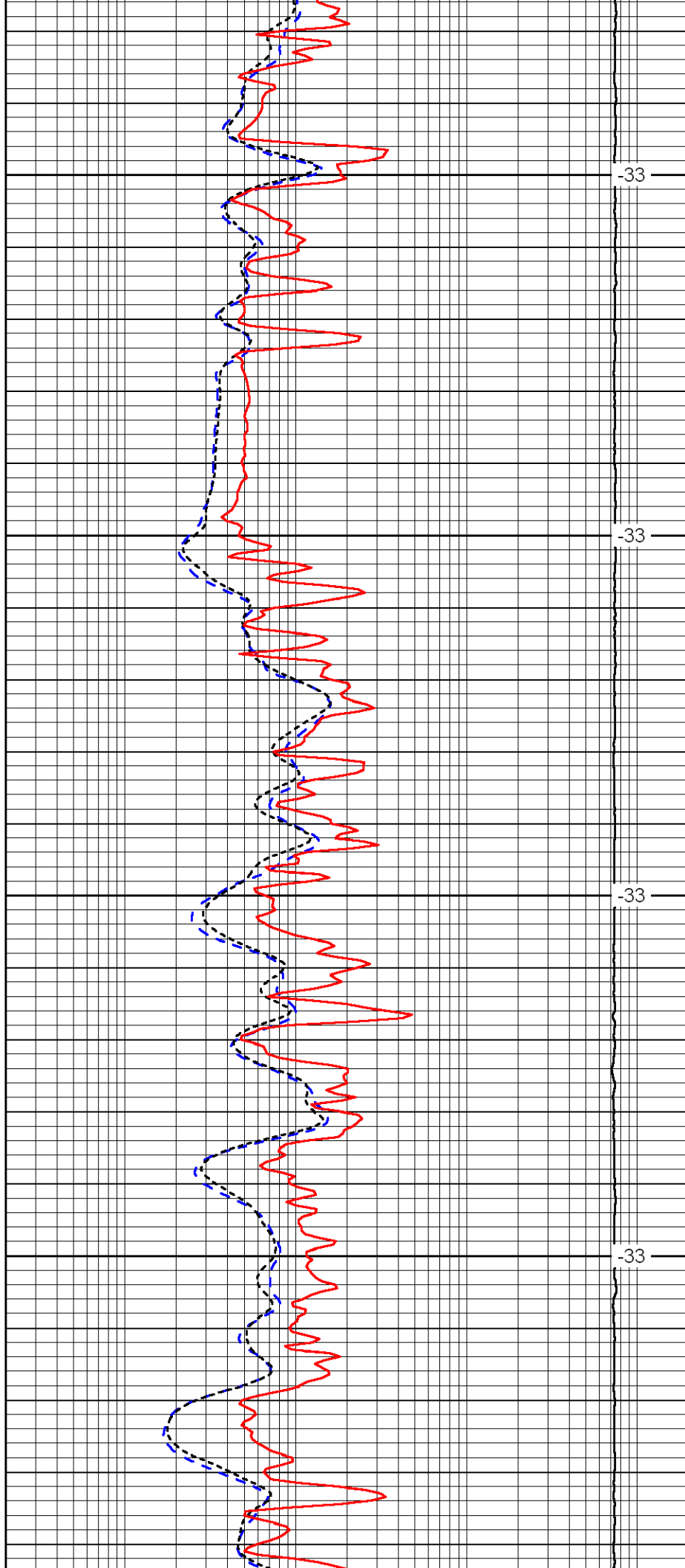


2950

3000

3050

3100

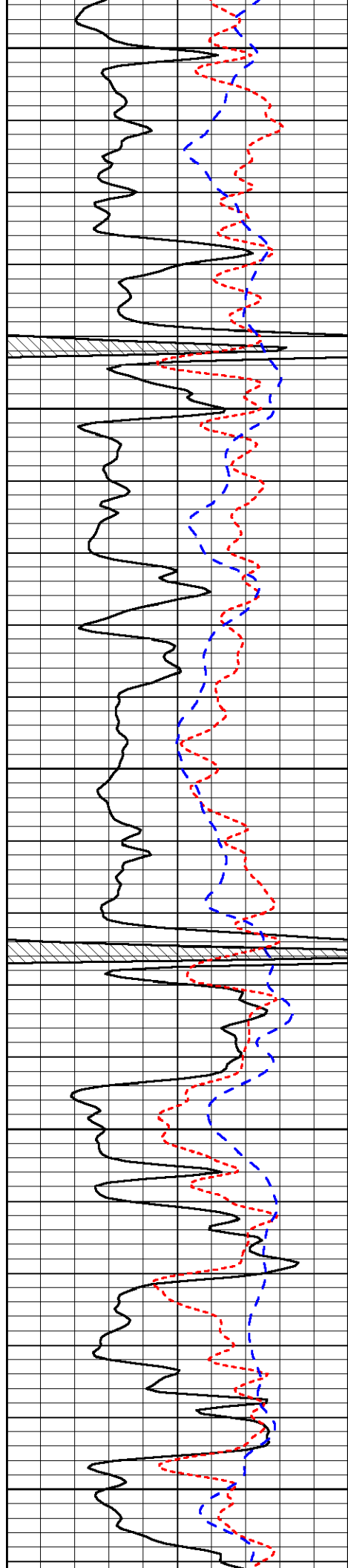


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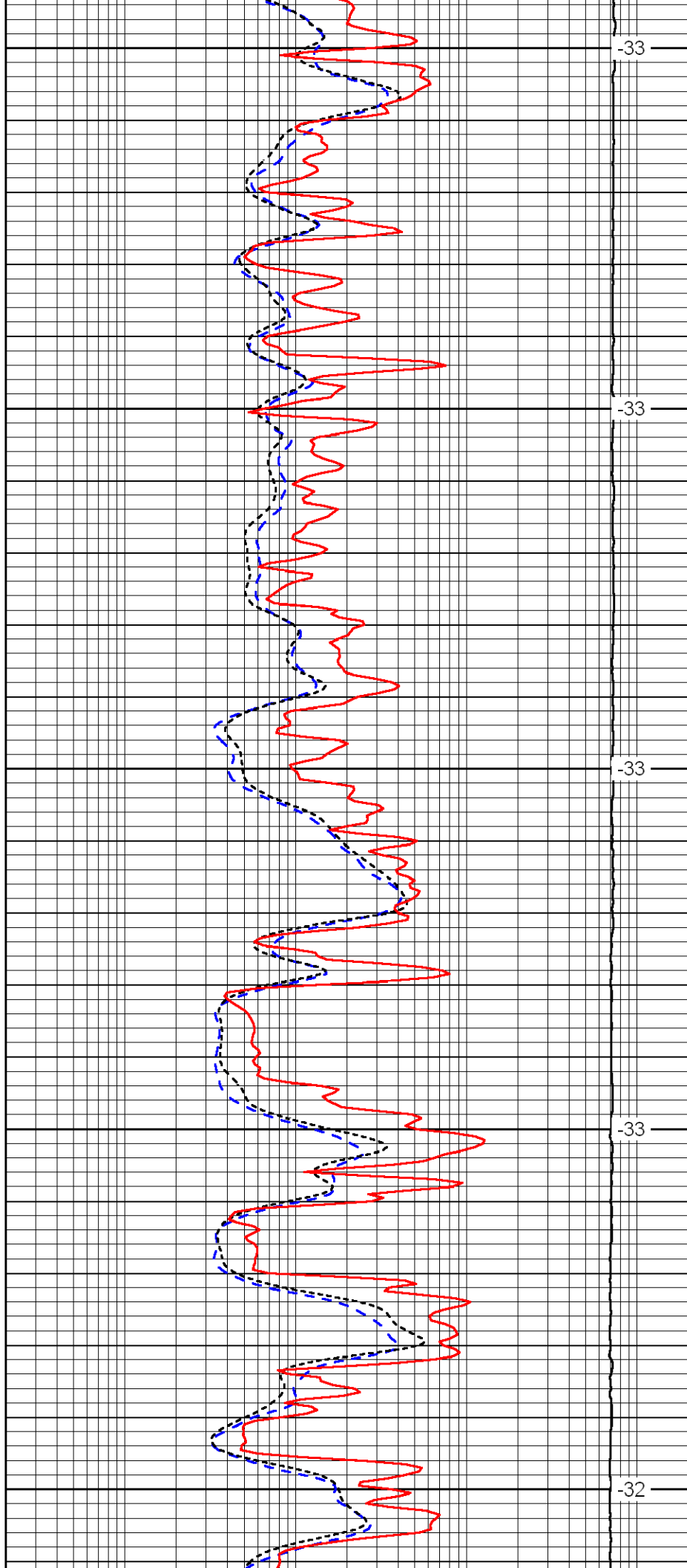
3150

3200

3250

3300

3350



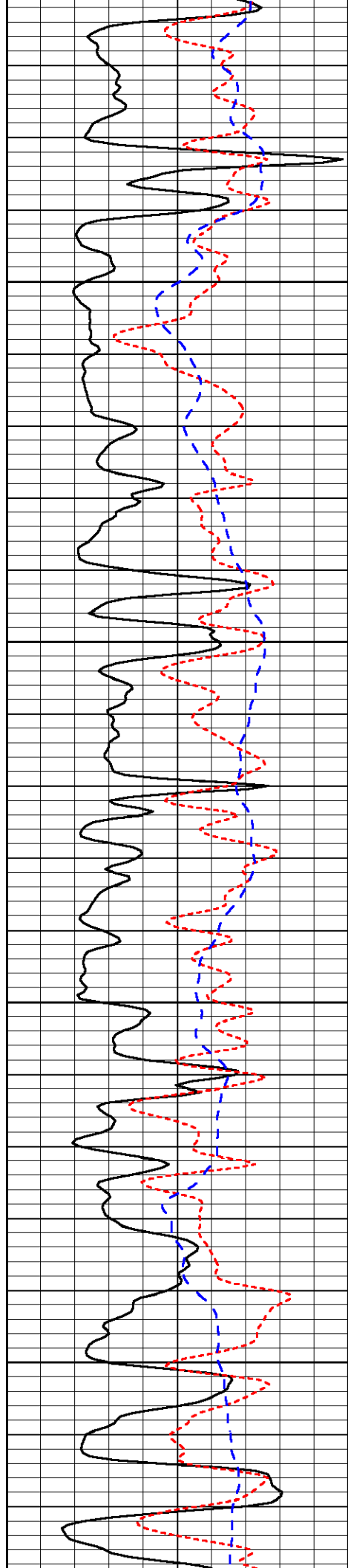
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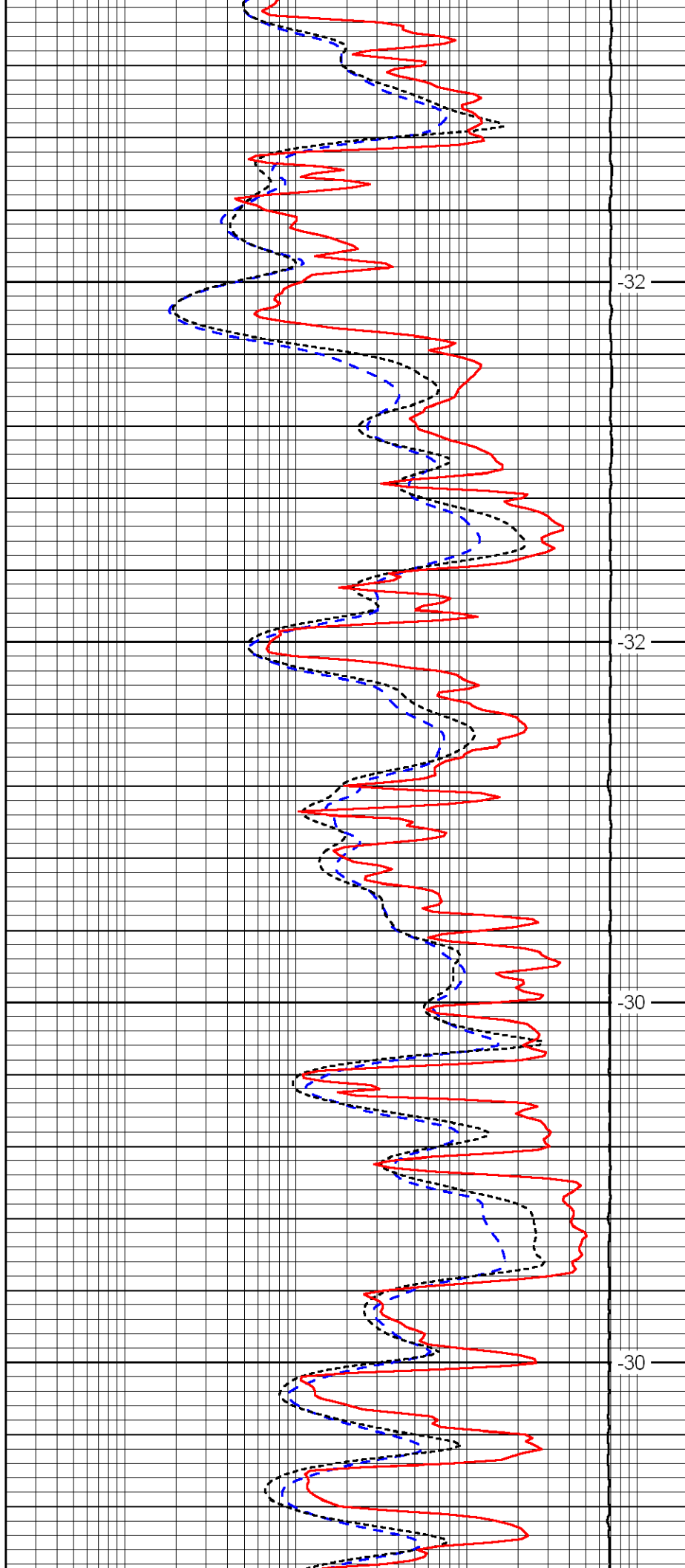


3400

3450

3500

3550

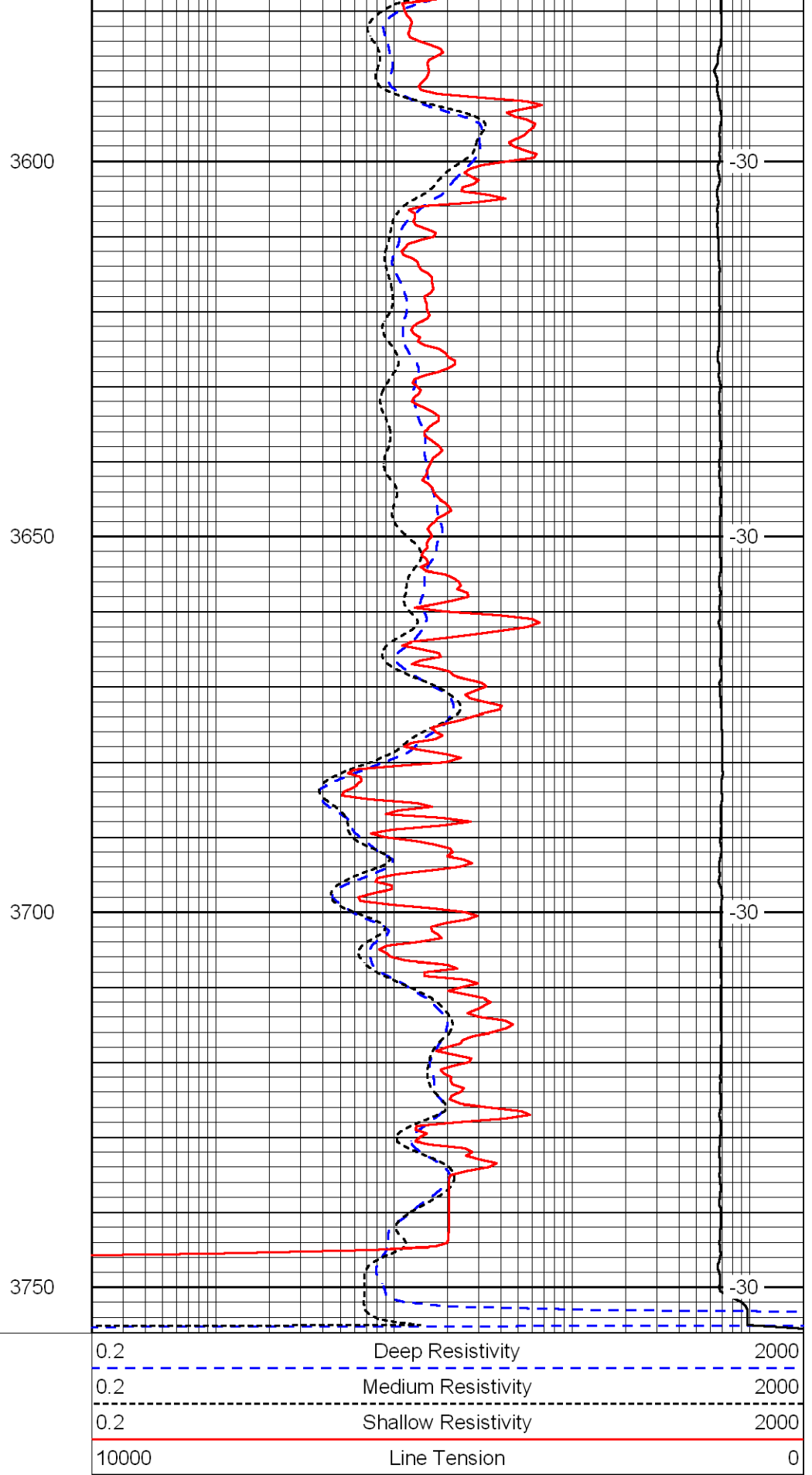
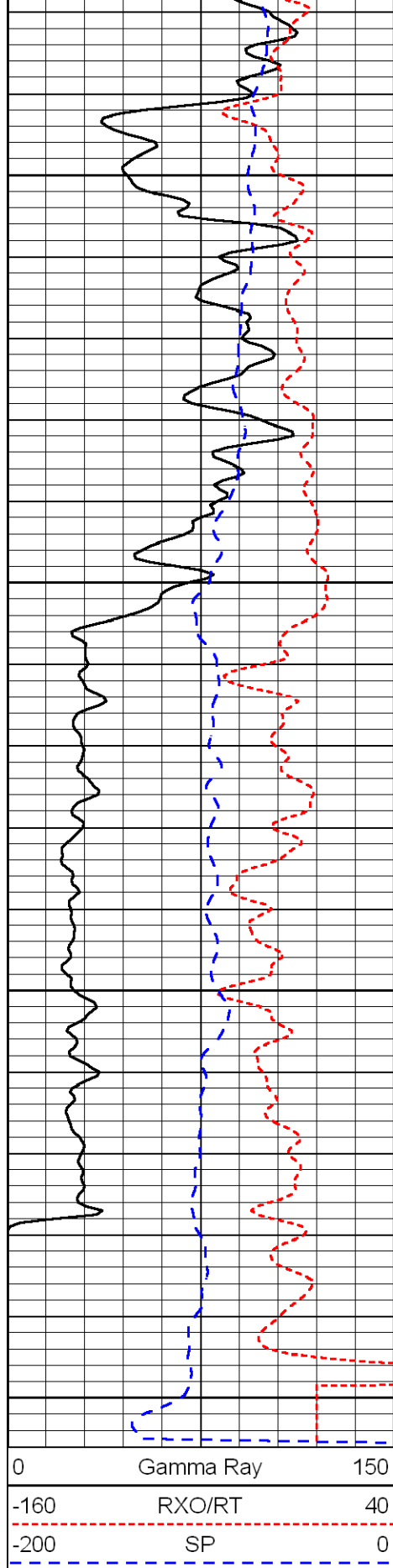


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LSPD