



Pioneer Energy Services

Dual Induction Log

API No.

15-167-23,916-00-00

Company American Warrior, Inc.

Well Eulert No. 18-35

Field Eulert

County Russell

State

Kansas

Location

900' FSL & 625' FWL

Other Services
CNL/CDL
MEL

Sec: 35

Twp: 11S

Rge: 15W

Permanent Datum

Log Measured From Kelly Bushing

Drilling Measured From Kelly Bushing

Elevation
K.B. 1803
D.F. 1811
G.L. 1803

Date

11/5/13

Run Number

One

Depth Driller

3366

Depth Logger

3369

Bottom Logged Interval

3368

Top Log Interval

850

Casing Driller

8.625 @ 861

Casing Logger

854

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

3,500

Density / Viscosity

9.2 60

pH / Fluid Loss

10.0 6.0

Source of Sample

Flowline

Rm @ Meas. Temp

.65 @ 62

Rmf @ Meas. Temp

.49 @ 62

Rmc @ Meas. Temp

.88 @ 62

Source of Rmf / Rmc

Charts

Rm @ BHT

.37 @ 110

Operating Rig Time

3 1/2 Hours

Max Rec. Temp. F

110

Equipment Number

108

Location

Hays

Recorded By

J. Henrickson

Witnessed By

Wyatt Urban

Jim Musgrove

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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

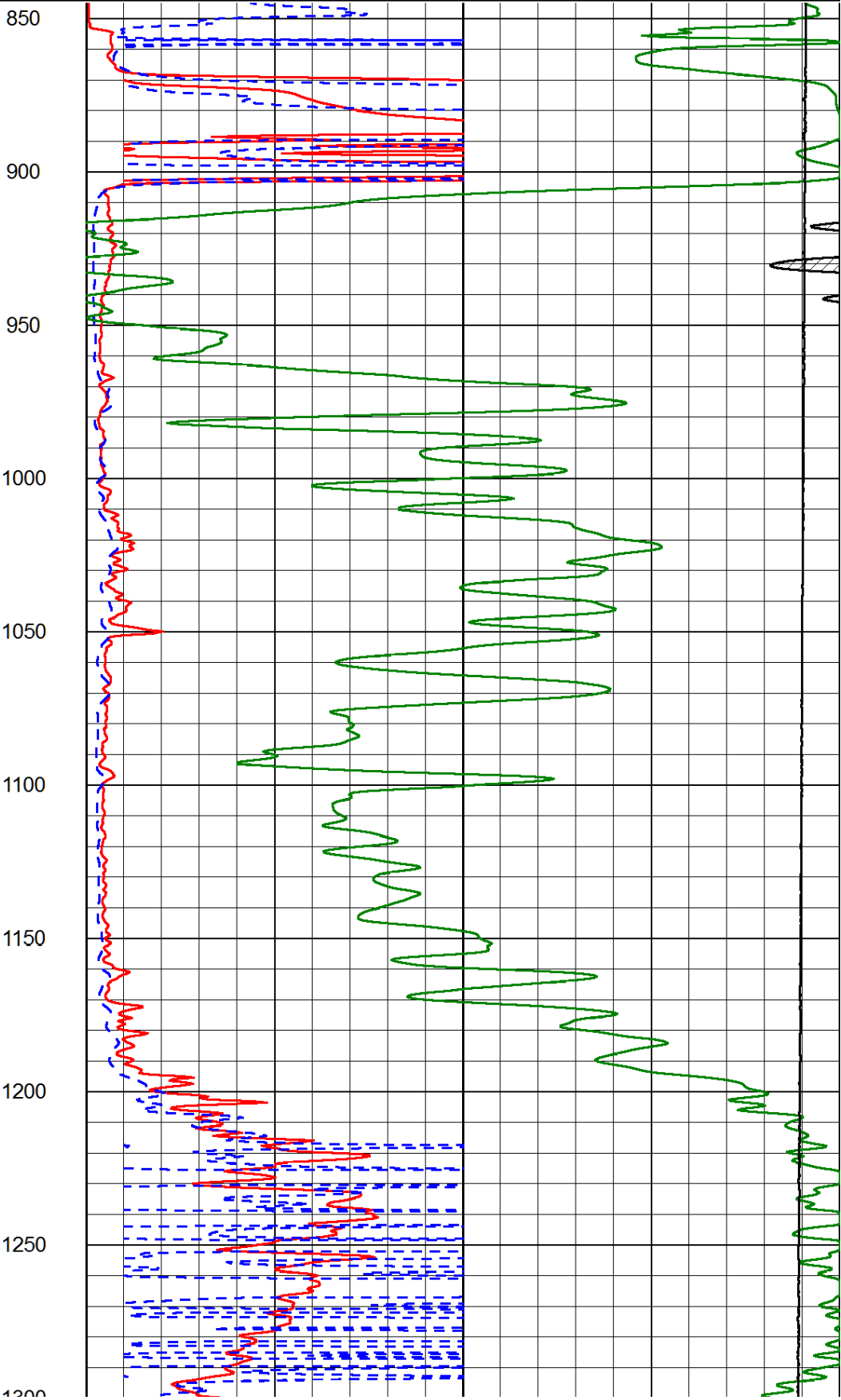
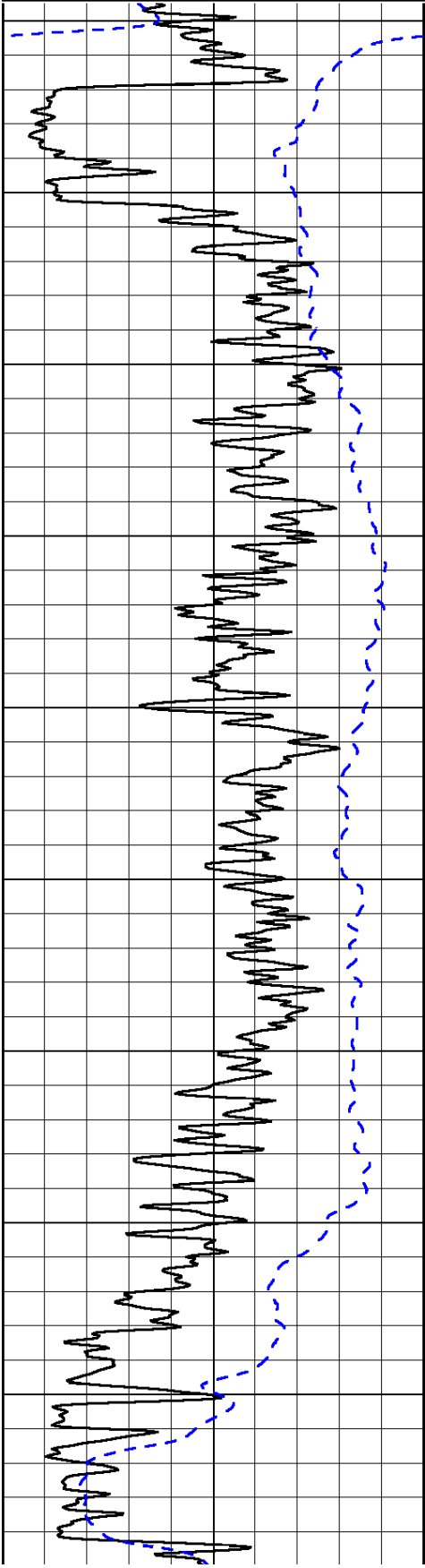
Thank you for using Log-Tech, Inc.
(785) 625-3858

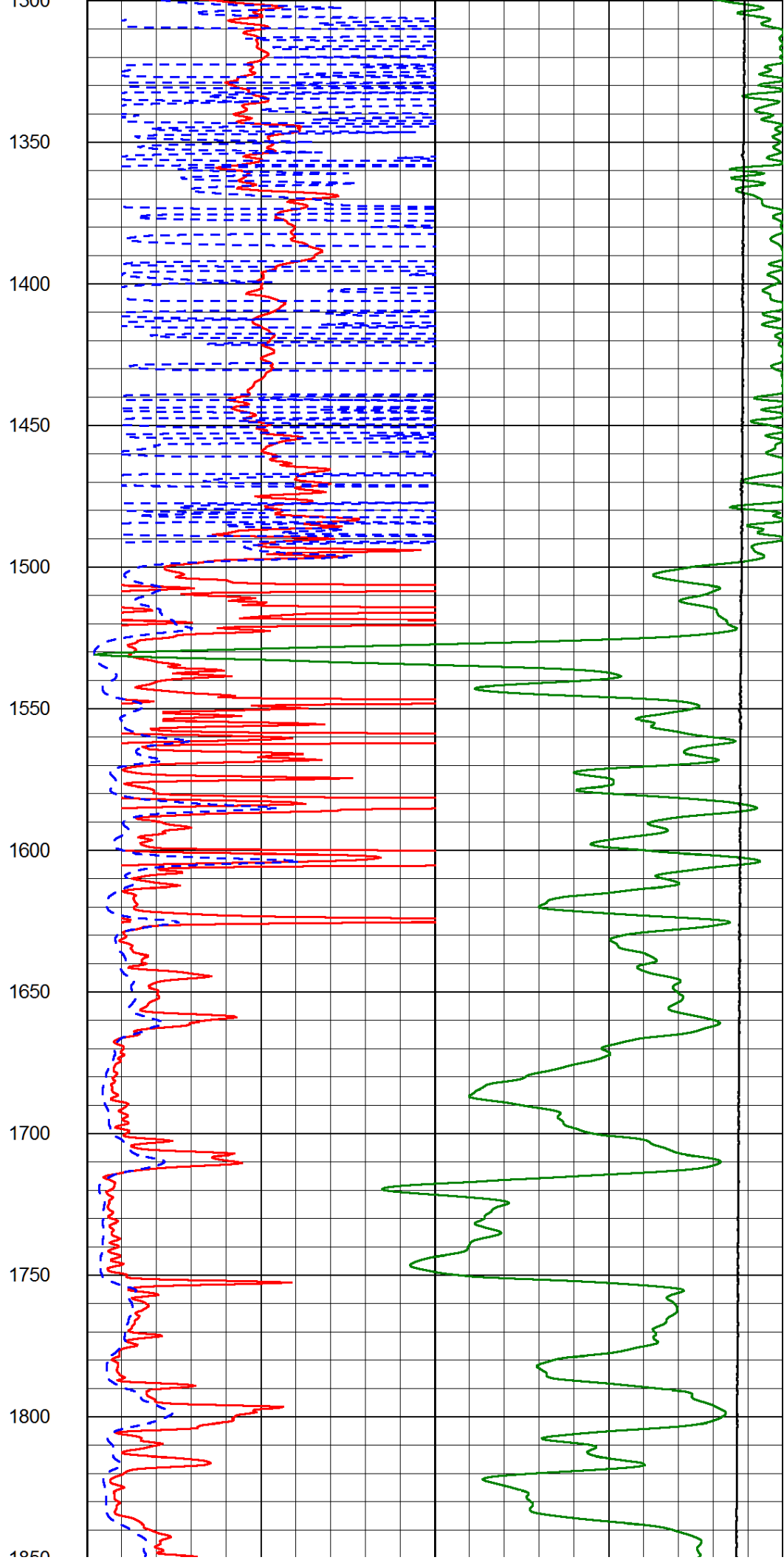
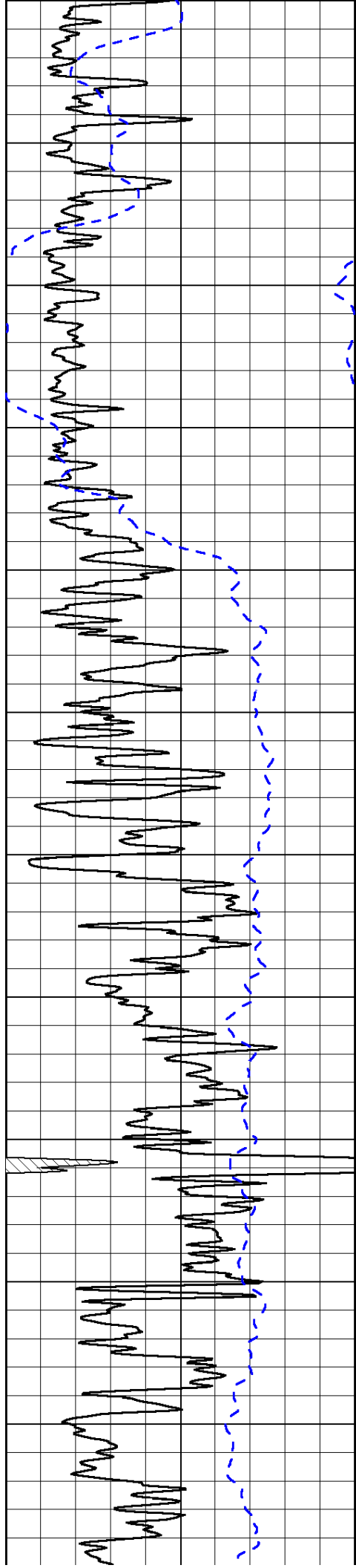
Russell Kansas
North to Mellard Rd, West to 180th, 2 1/2 North, West Into

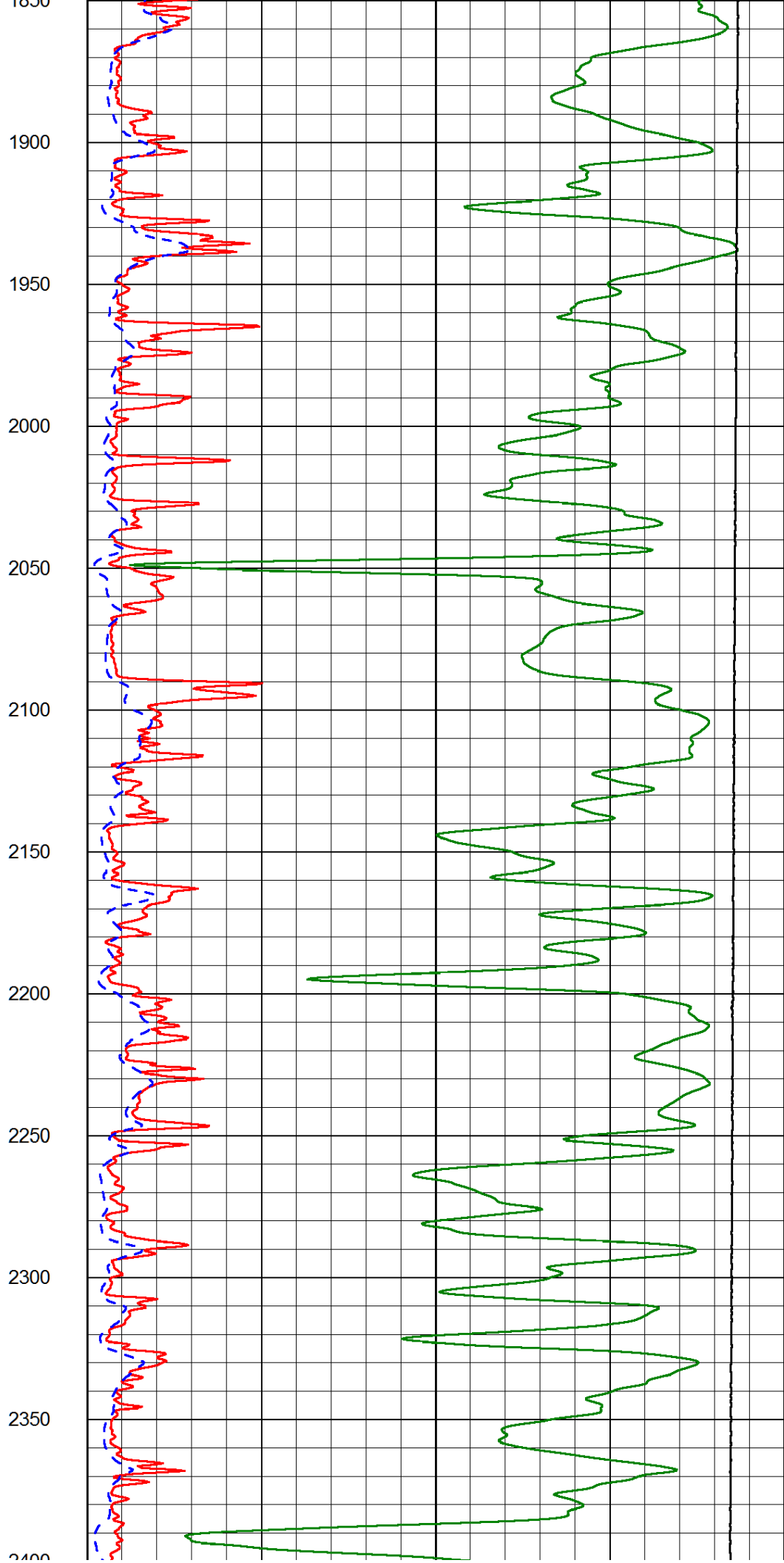
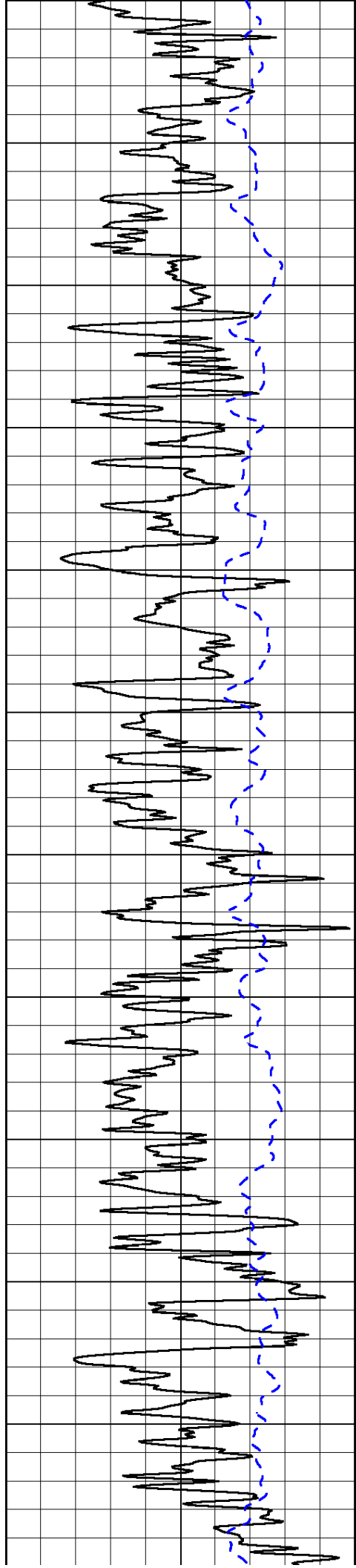
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Dataset Pathname: DIL/awstk
Presentation Format: dil2in
Dataset Creation: Tue Nov 05 10:58:40 2013
Charted by: Depth in Feet scaled 1:600

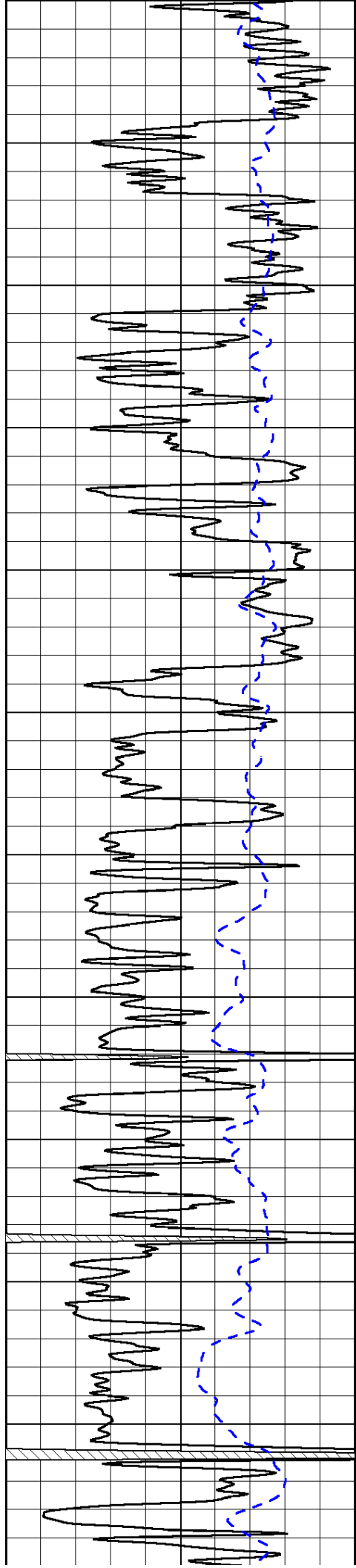
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
1000	Conductivity (Ohm-m)	0
15000	Line Tension (lb)	0
50	Shallow Resistivity (Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

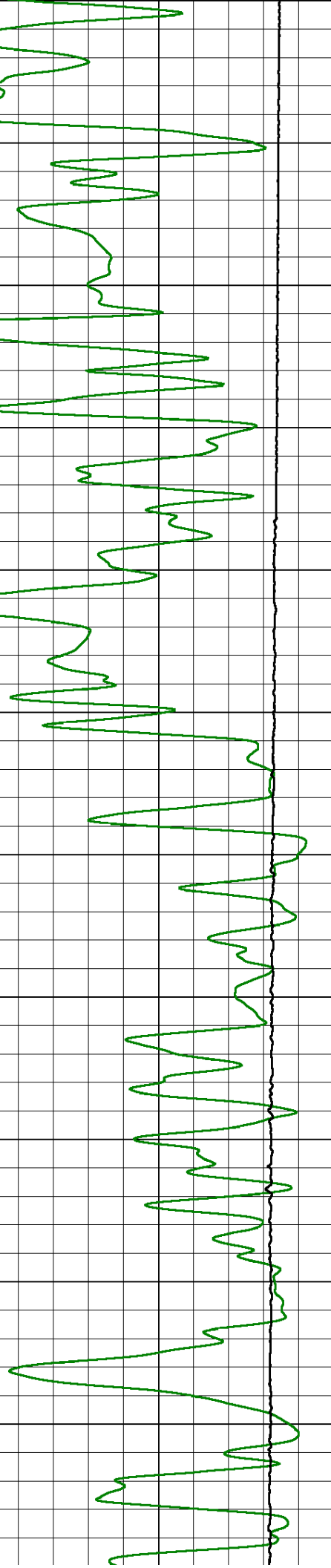
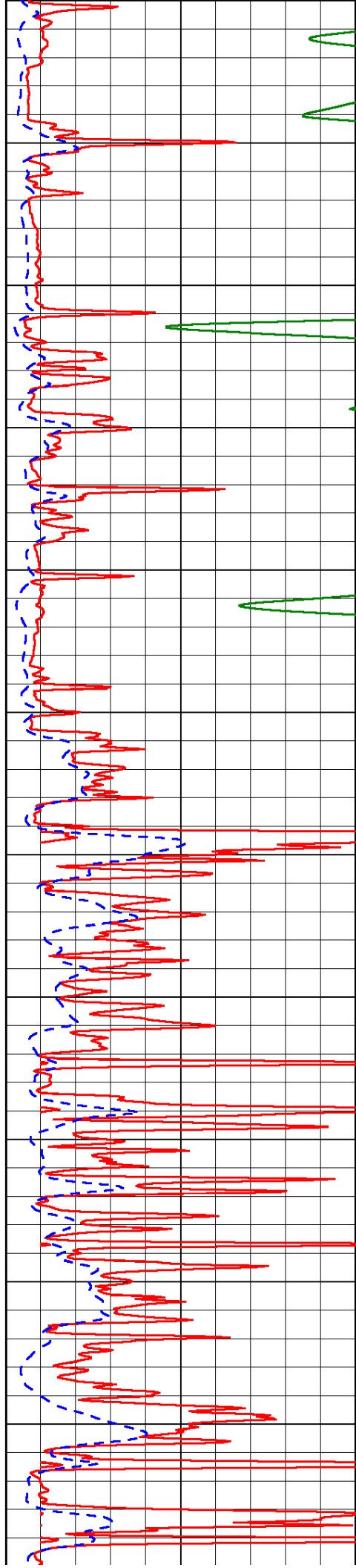


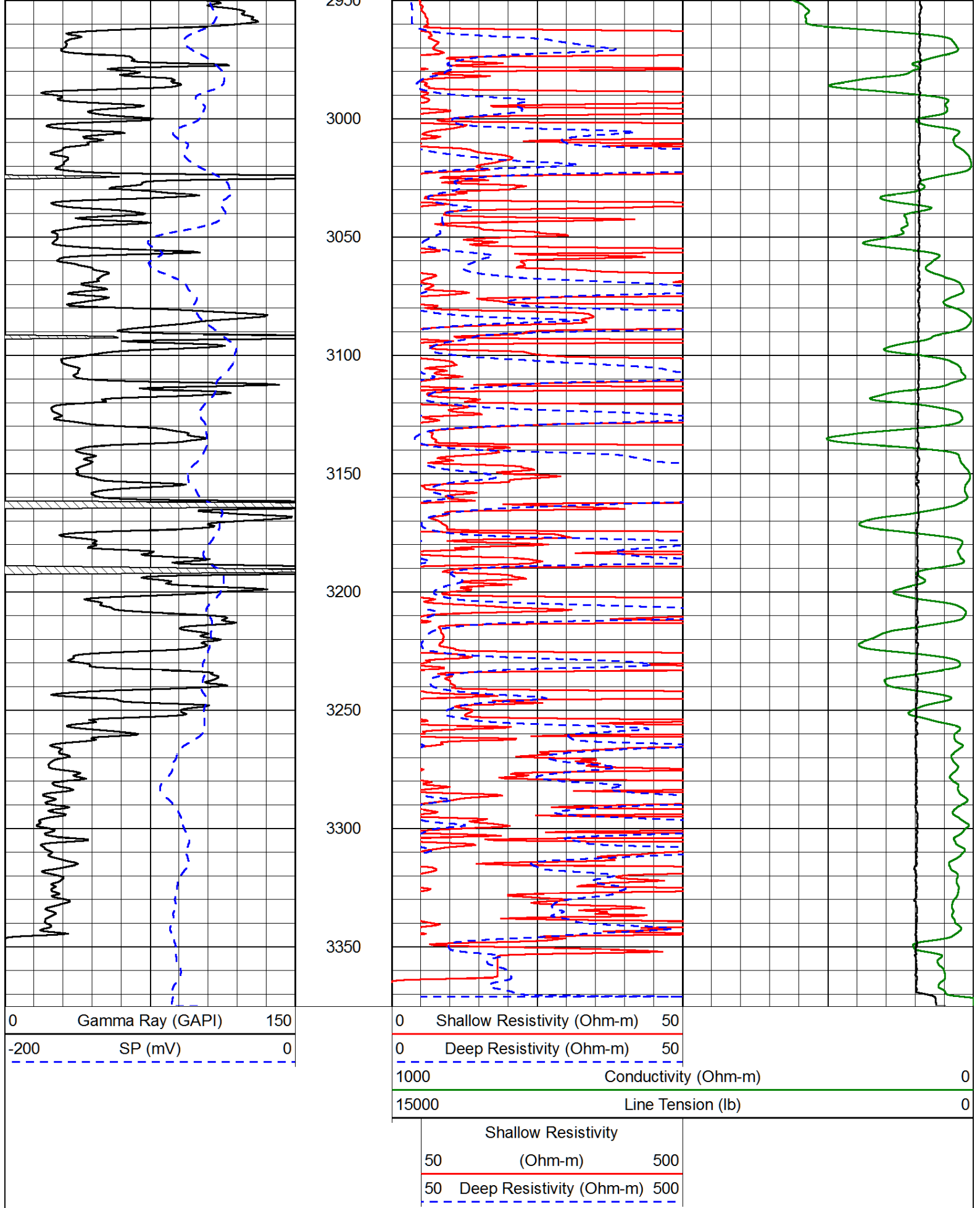




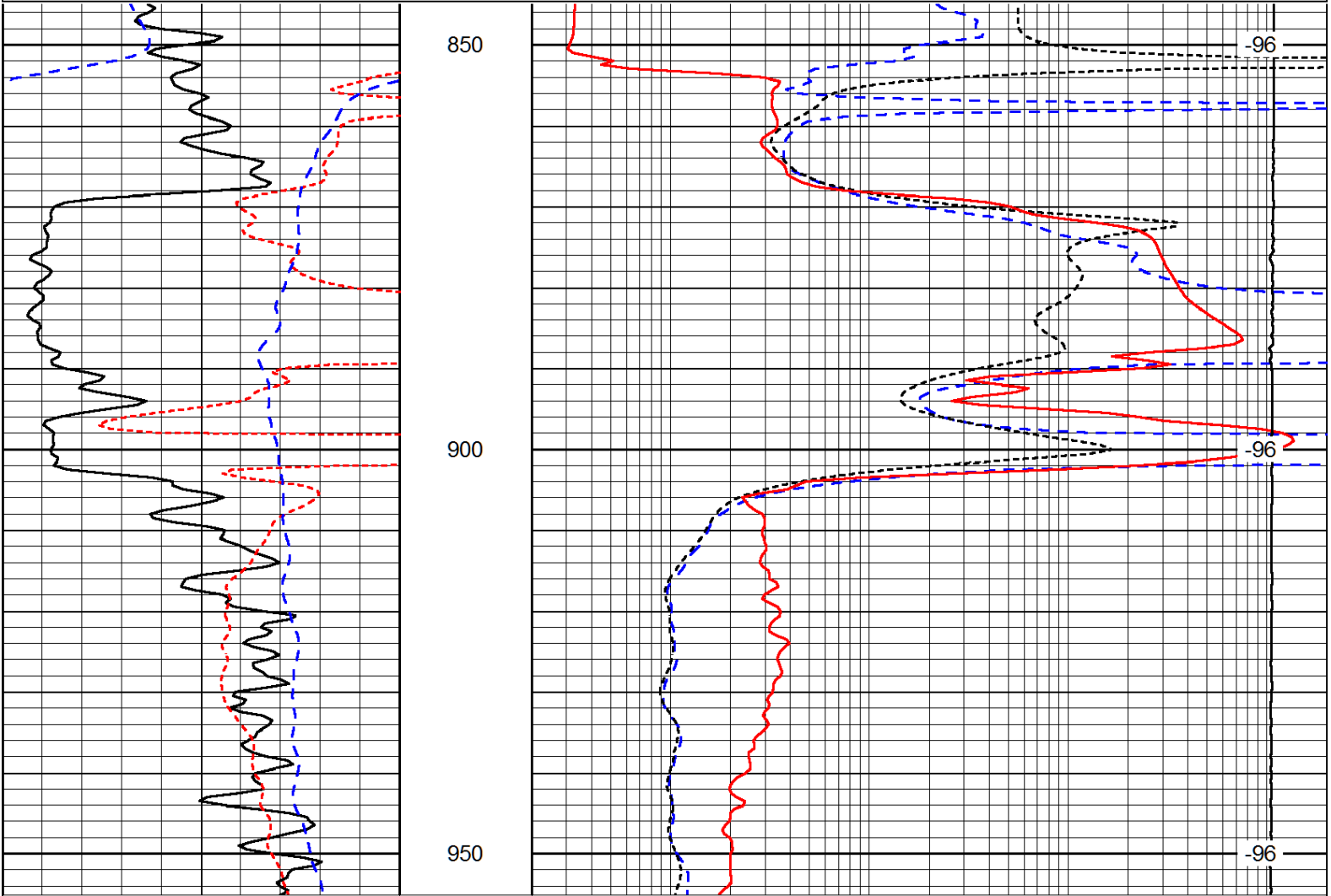


2400
2450
2500
2550
2600
2650
2700
2750
2800
2850
2900
2950





Presentation Format: dil			Dataset Creation: Tue Nov 05 10:58:40 2013		
Charted by:			Depth in Feet scaled 1:240		
0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXO/RT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0
			LSPD (ft/min)		



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-160	RXO/RT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000

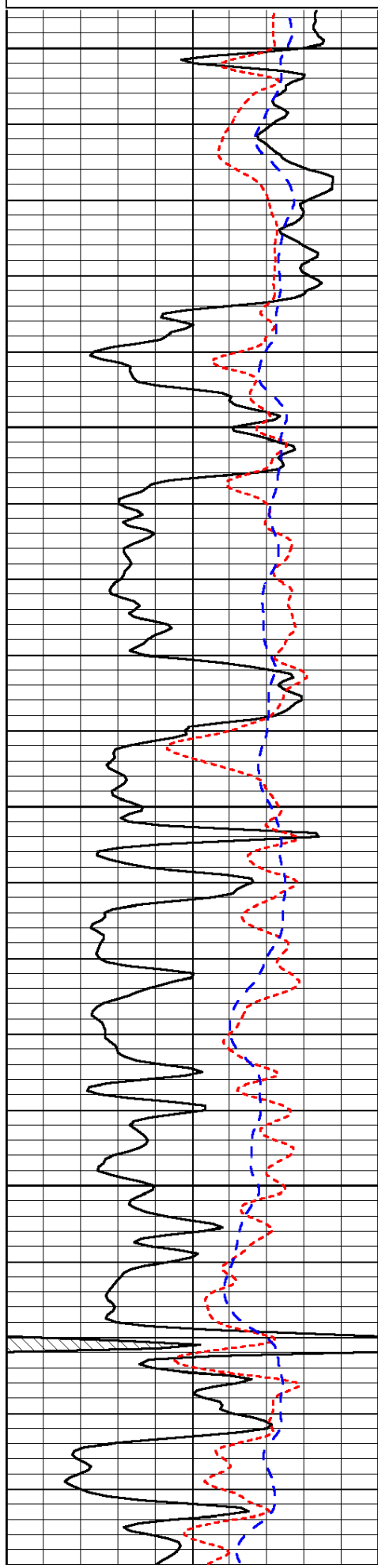
10000

Line Tension (lb)

0

LSPD

(ft/min)



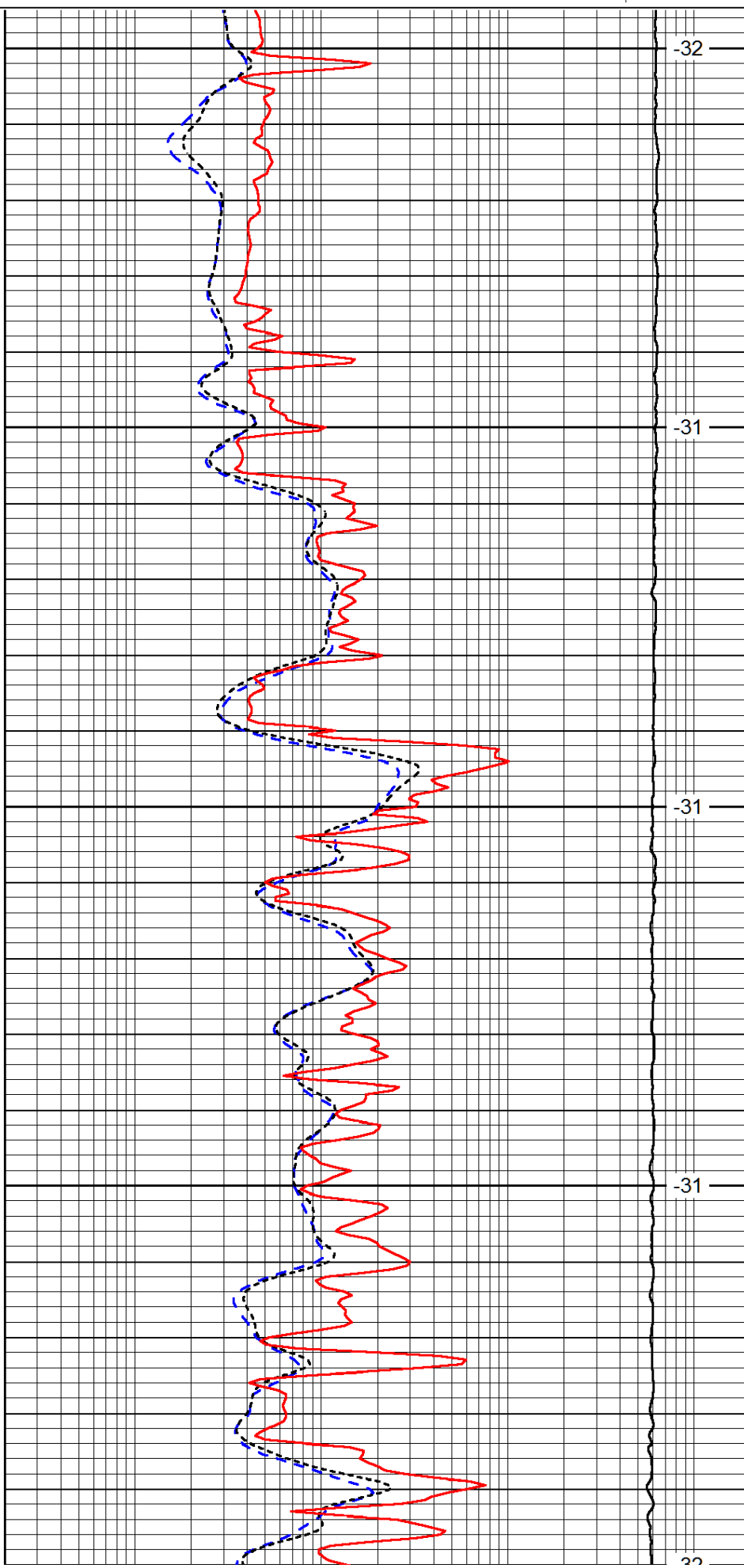
2600

2650

2700

2750

2800



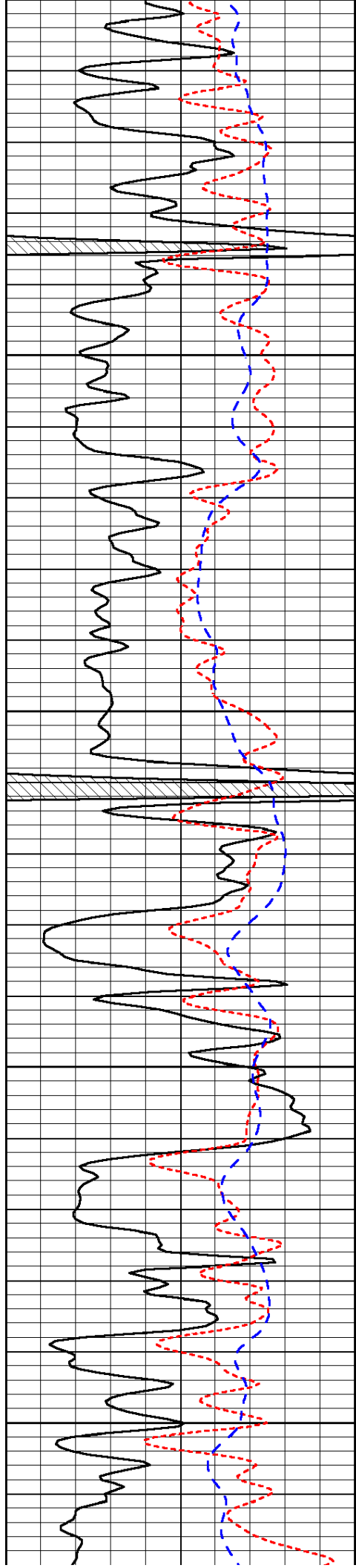
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-31

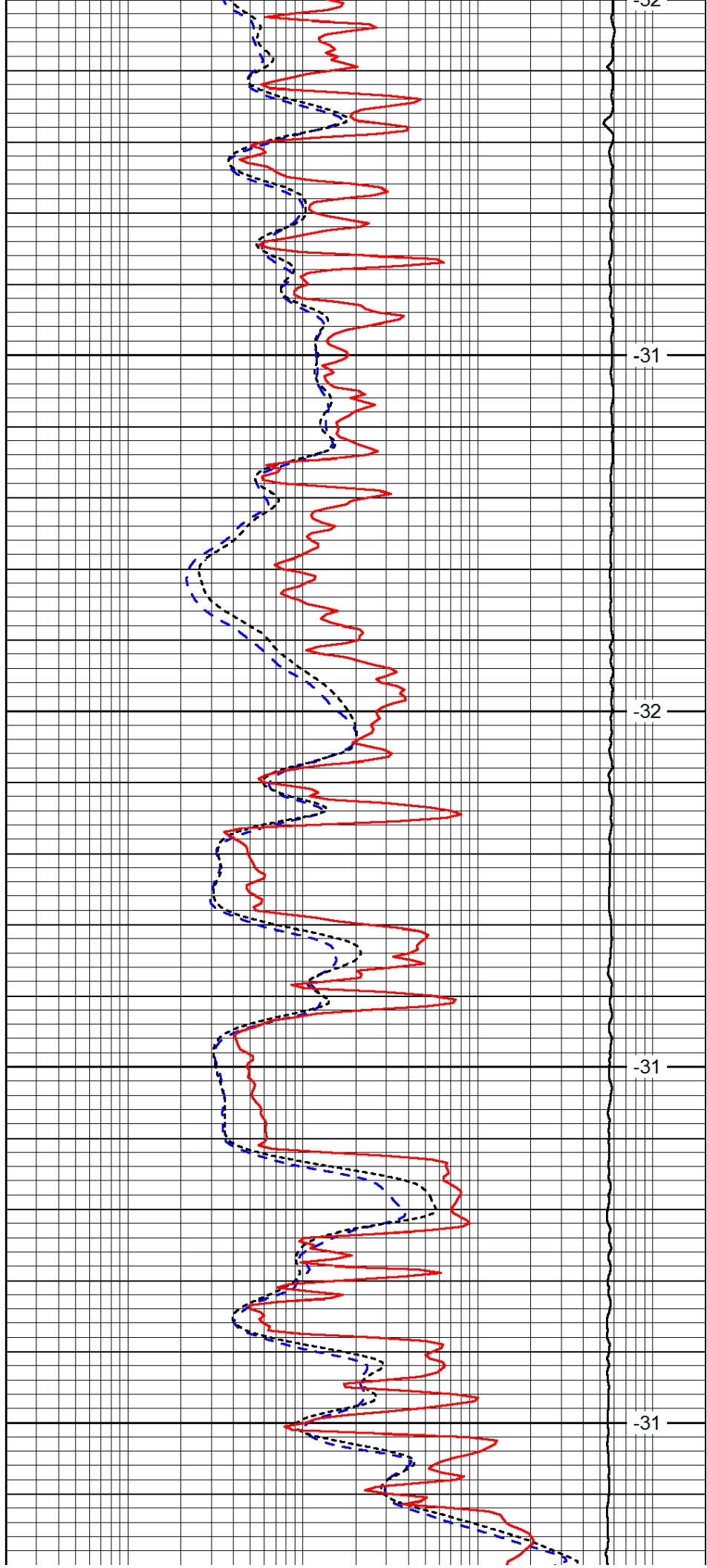
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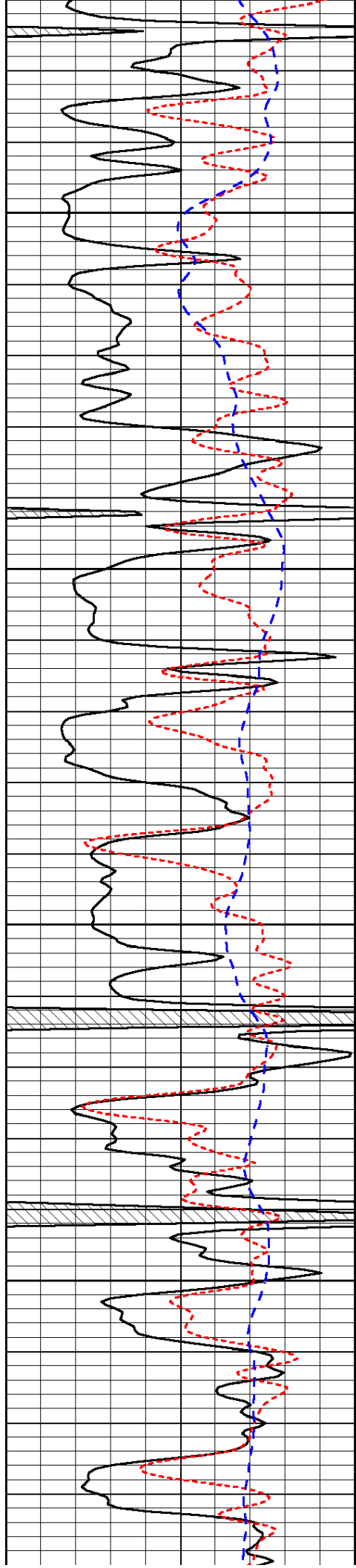
-30



2800
2850
2900
2950
3000



-32
-31
-32
-31
-31

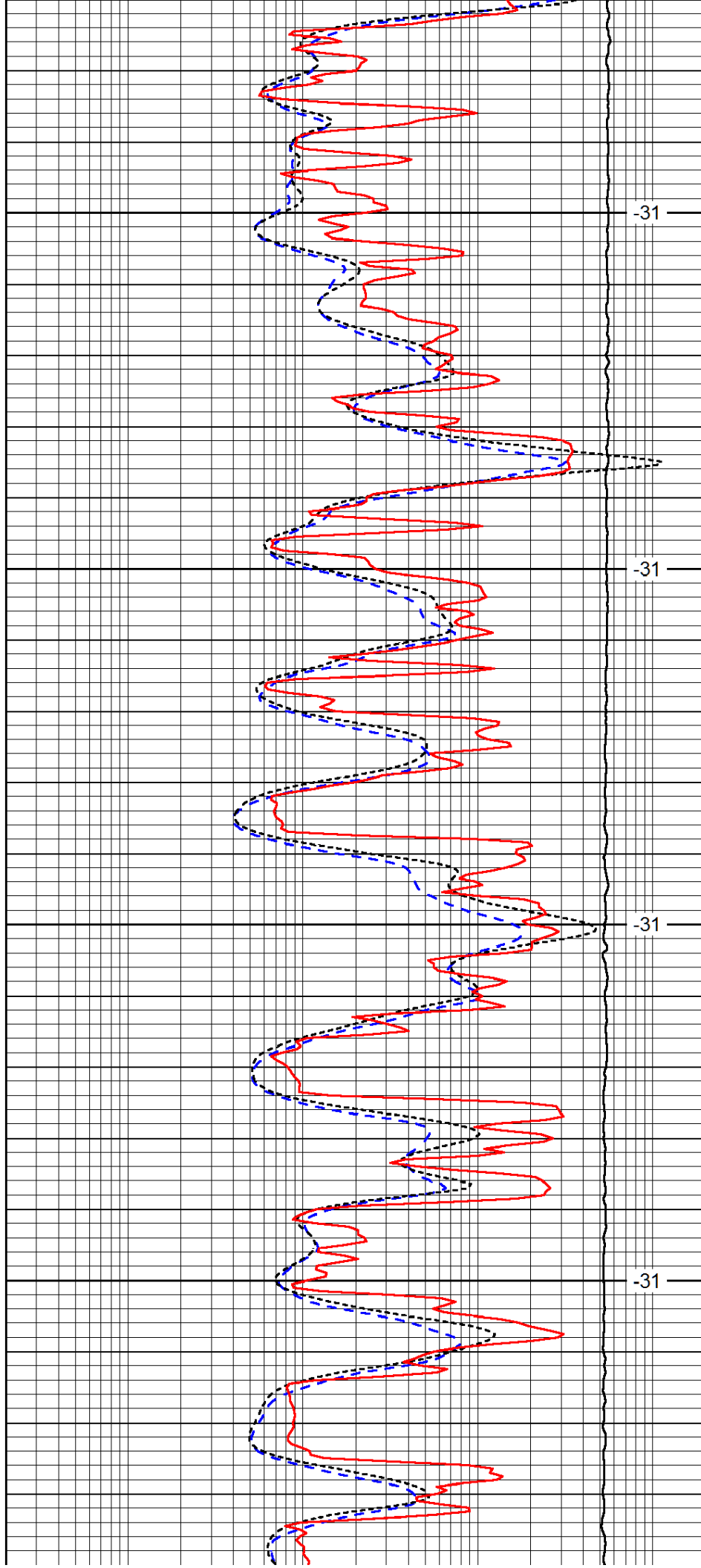


3050

3100

3150

3200

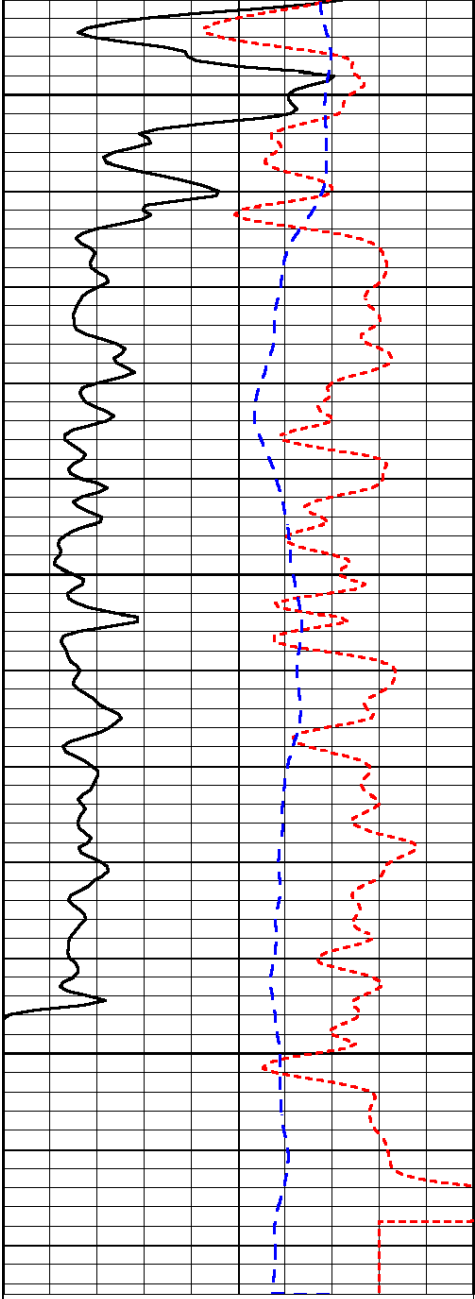


-31

-31

-31

-31

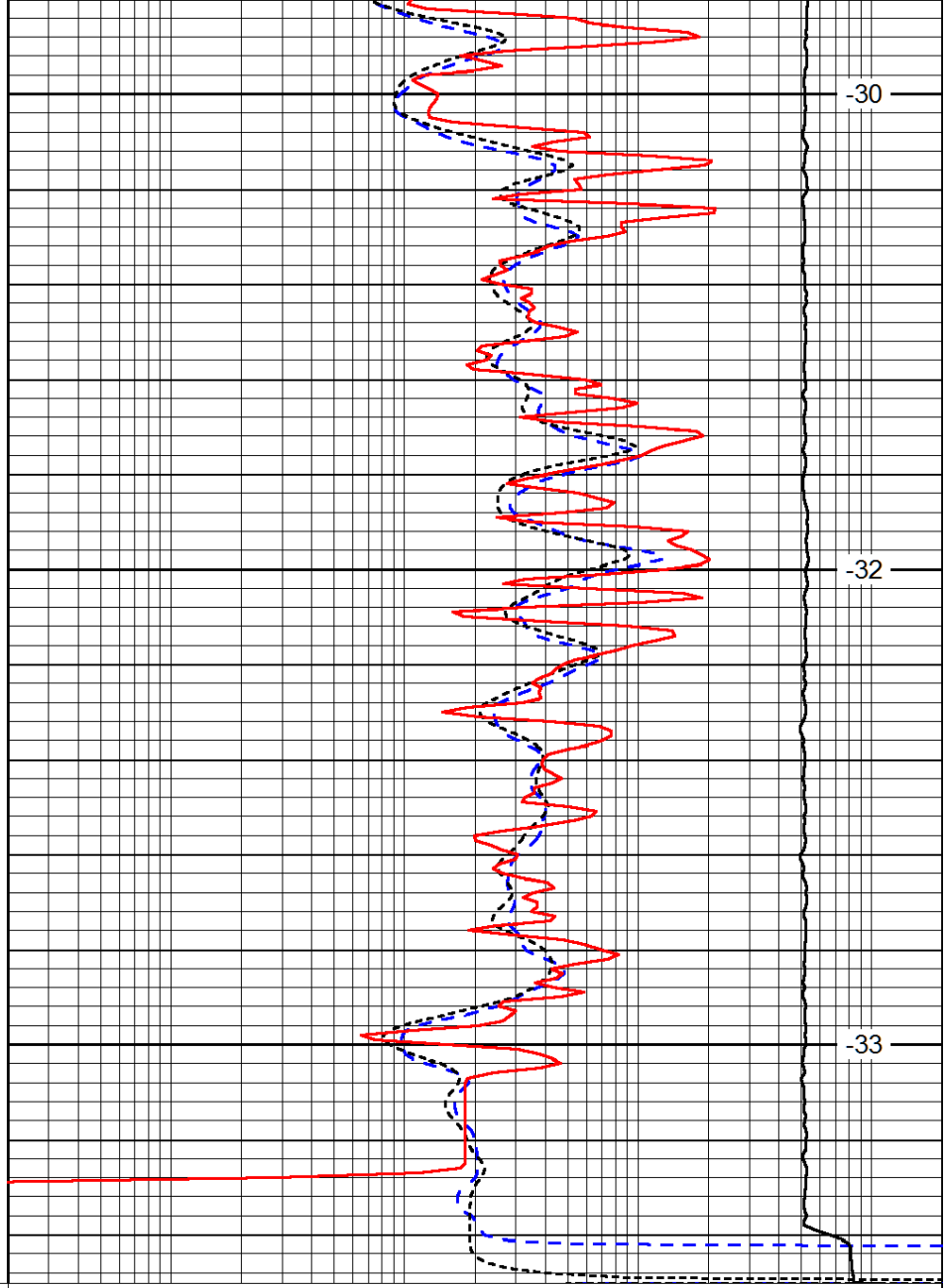


0	Gamma Ray (GAPI)	150
-160	RXO/RT	40
-200	SP (mV)	0

3250

3300

3350



0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

LSPD
(ft/min)