



Pioneer Energy Services

Dual Induction Log

API No.

15-017-20,916-00-00

Company Range Oil Company, Inc.

Well Madden Unit No. 1

Field Wildcat

County Chase State Kansas

Location

NW-NW-SE-NW
1460' FNL & 1390' FWL

Other Services
CNL/CDL
MEL

Sec: 31

Twp: 19S

Rge: 6E

Elevation

Permanent Datum Ground Level Elevation 1460
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured From Kelly Bushing

K.B. 1469
D.F.
G.L. 1460

Date 6/2/2014

Run Number Two

Depth Driller 2262

Depth Logger 2260

Bottom Logged Interval 2259

Top Log Interval 200

Casing Driller 8.625 @ 200

Casing Logger 208

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 900

Density / Viscosity 8.9 52

pH / Fluid Loss 9.5 7.6

Source of Sample Flowline

Rm @ Meas. Temp 4.70 @ 82

Rmf @ Meas. Temp 3.53 @ 82

Rmc @ Meas. Temp 6.35 @ 82

Source of Rmf / Rmc Charts

Rm @ BHT 3.91 @ 99

Operating Rig Time 4 Hours

Max Rec. Temp. F 99

Equipment Number 10

Location Hays

Recorded By J. Henrickson

Witnessed By Ken Wallace

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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

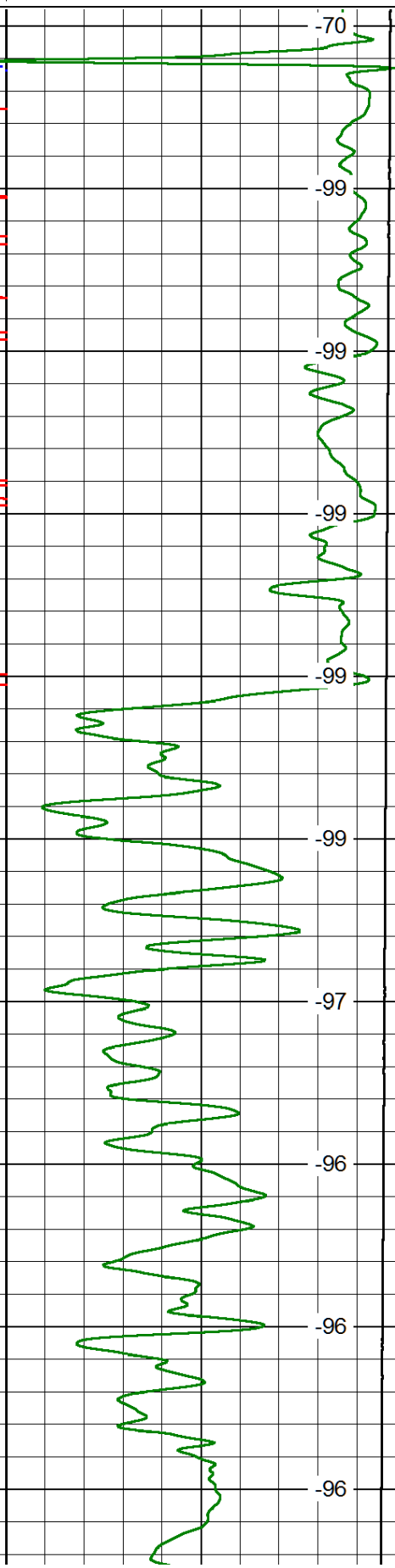
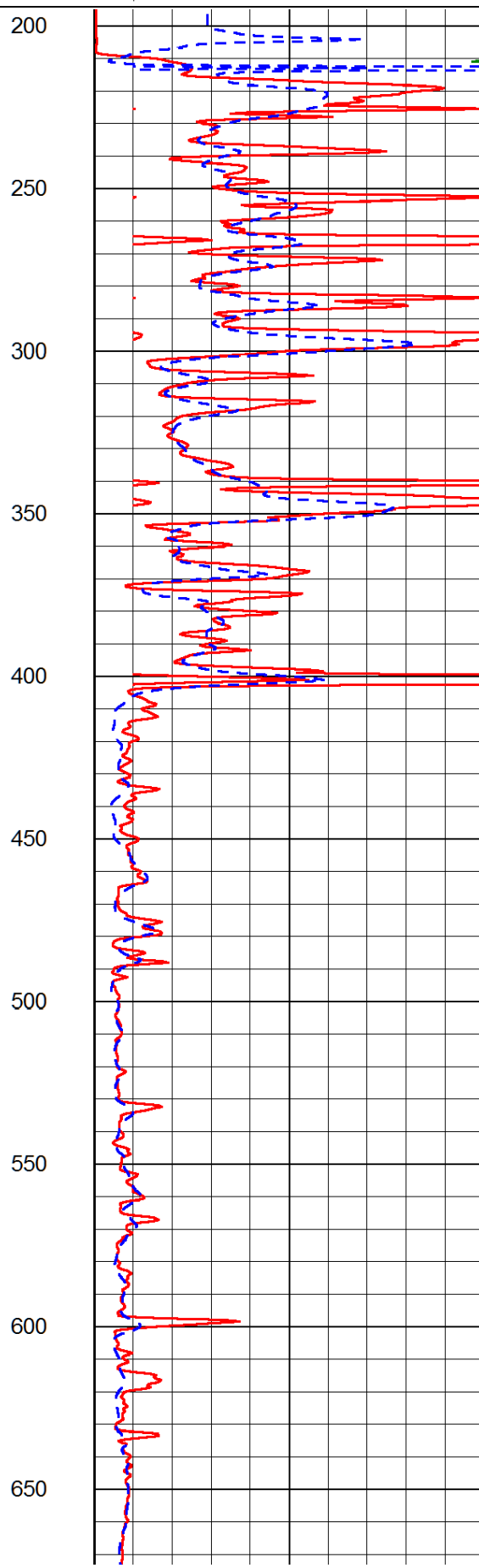
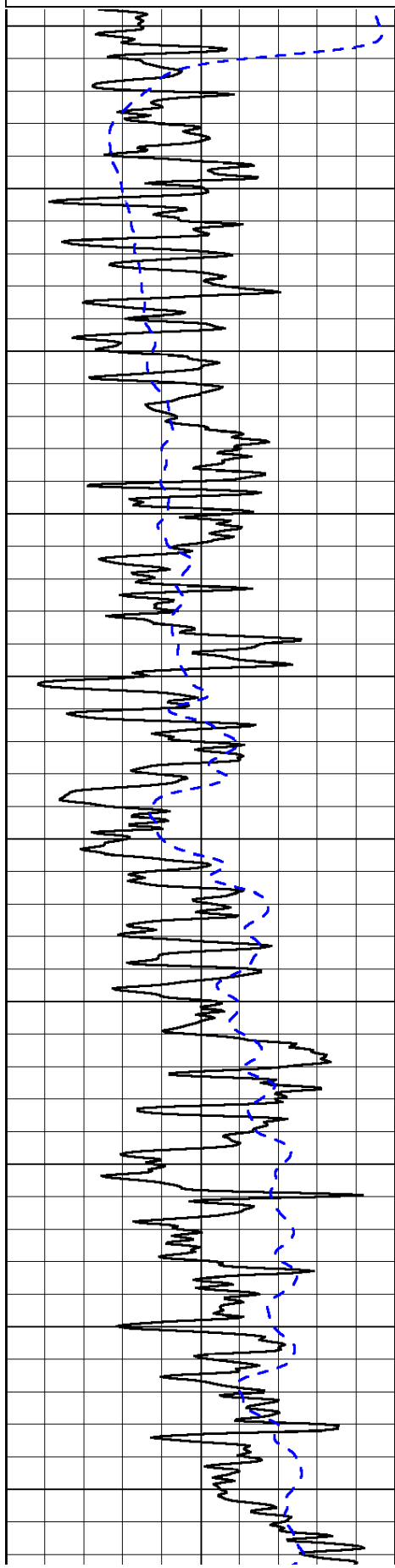
Thank you for using Log-Tech, Inc.
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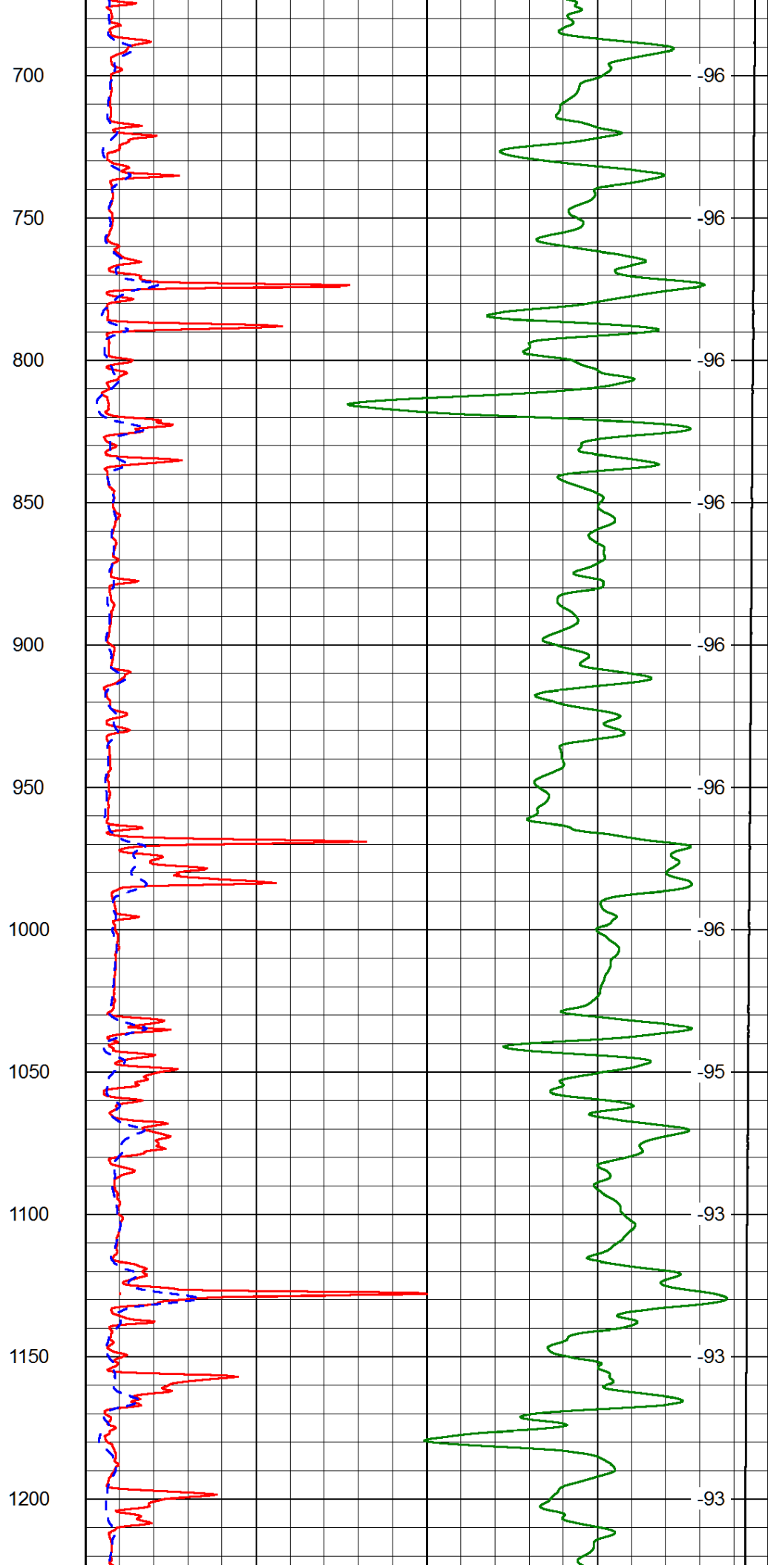
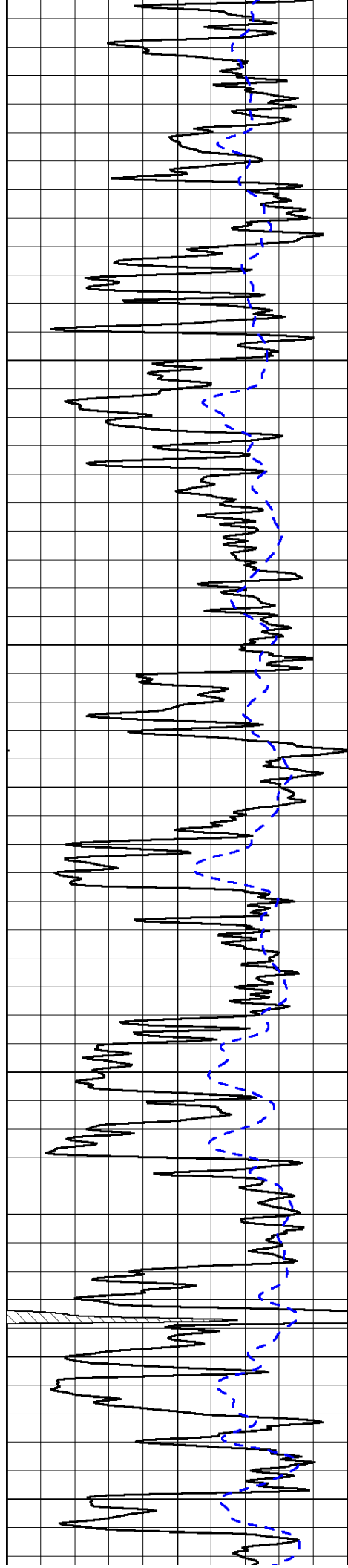
Marion Kansas
East to 4 Way Stop, 8 East, South Into

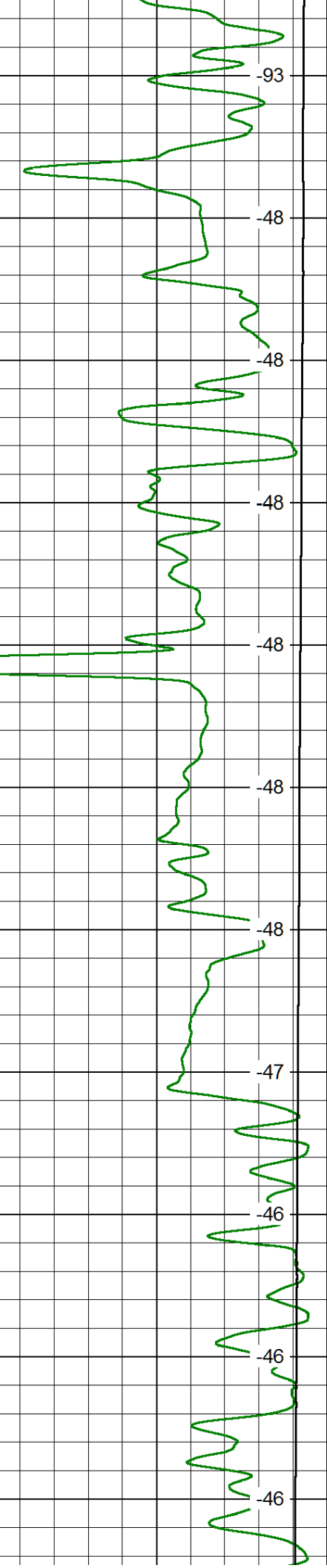
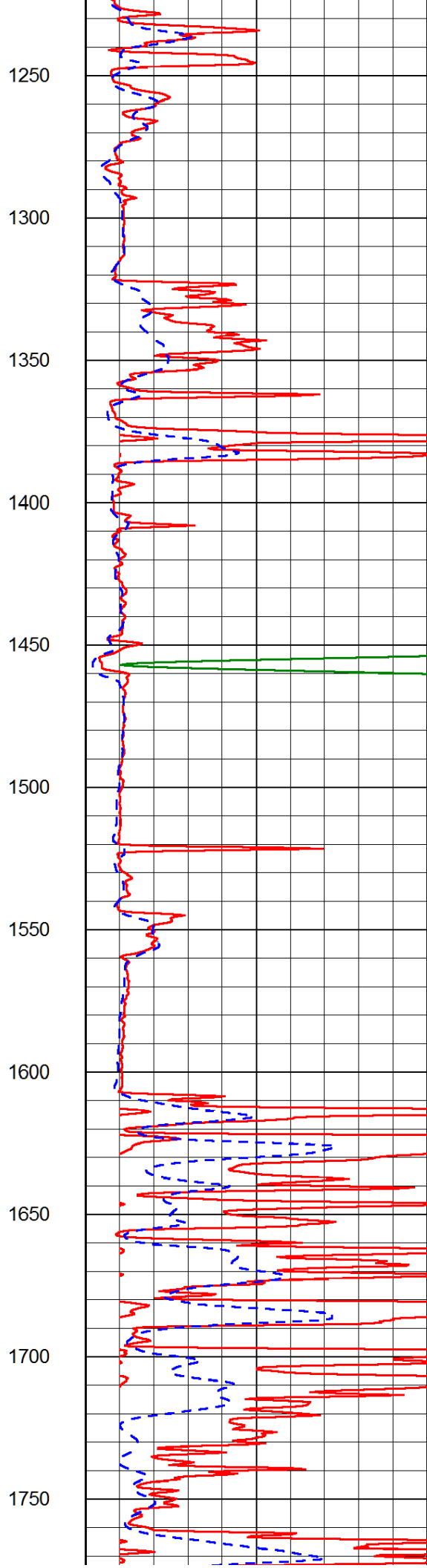
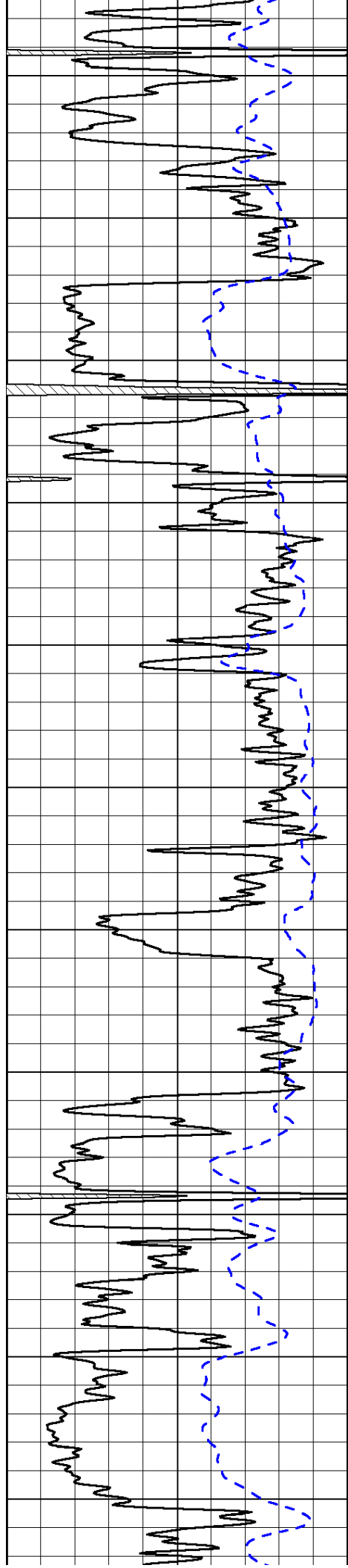
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Dataset Creation: Mon Jun 02 21:40:05 2014
Charted by: Depth in Feet scaled 1:600

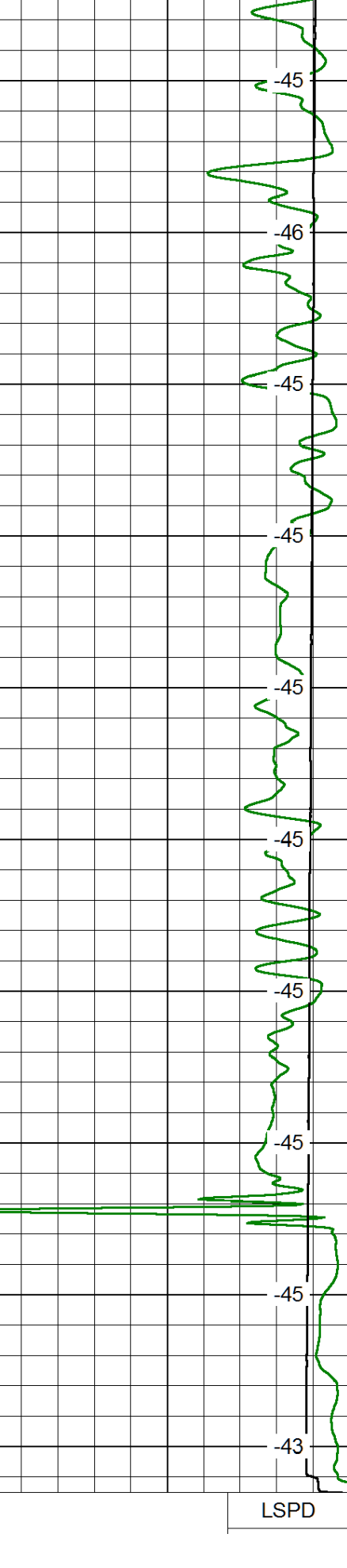
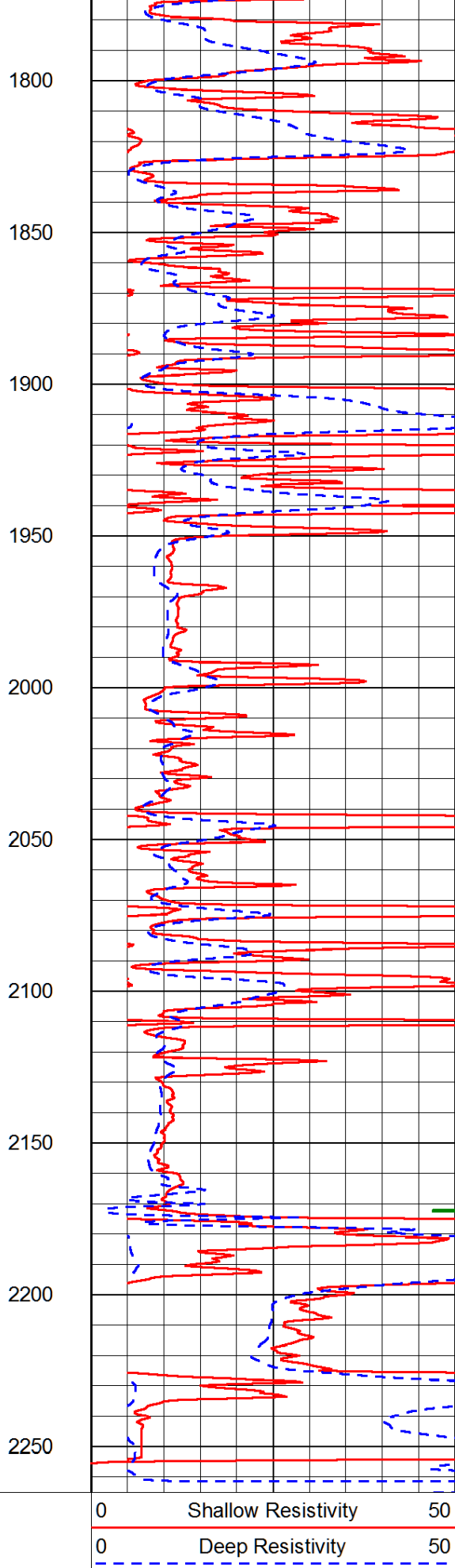
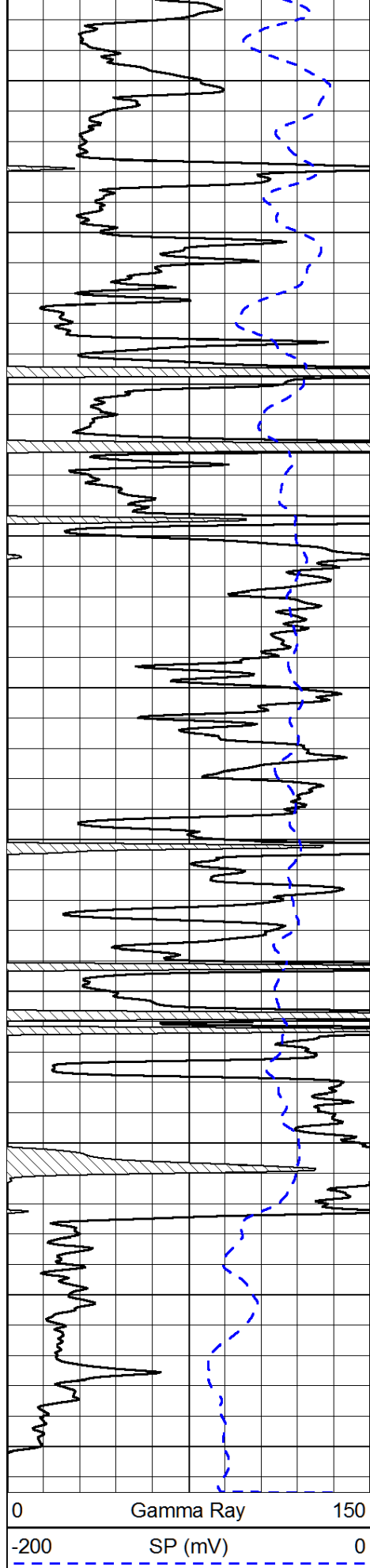
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-200	SP (mV)	0

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





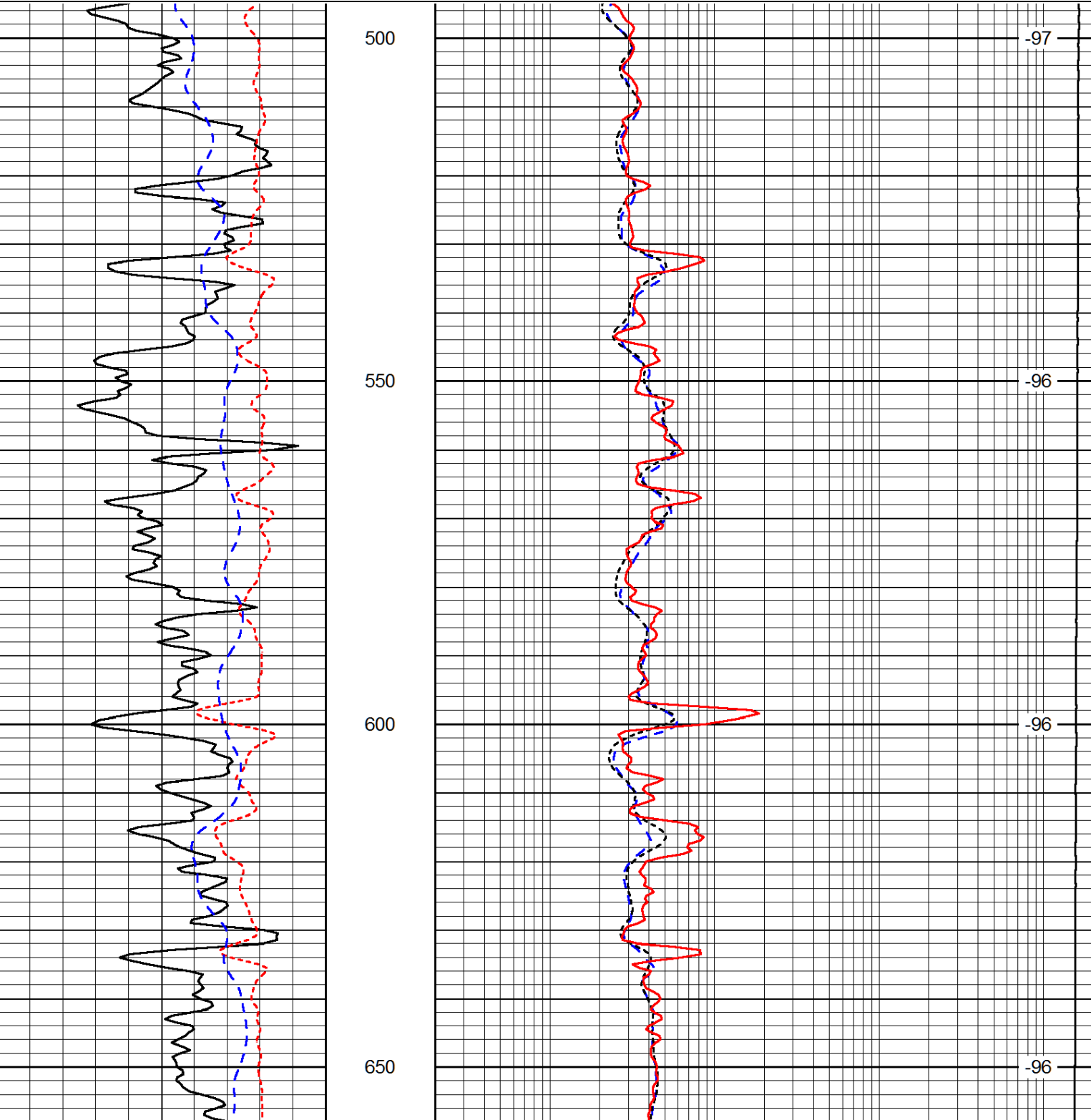


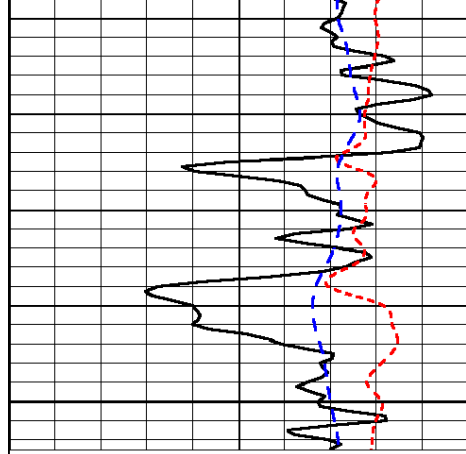


50 Shallow Resistivity 500

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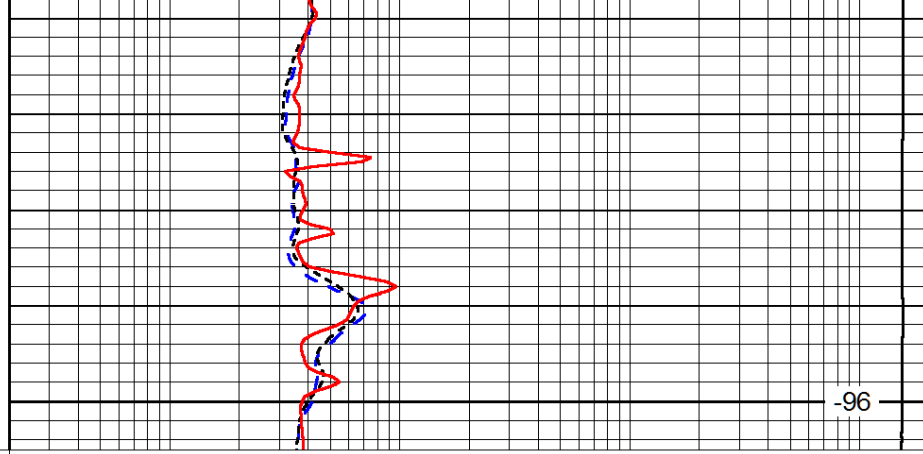
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-160	RXO/RT	40	0.2	Medium Resistivity	2000
-200	SP (mV)	0	0.2	Shallow Resistivity	2000
			10000	Line Tension	0
					LSPD





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

700



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

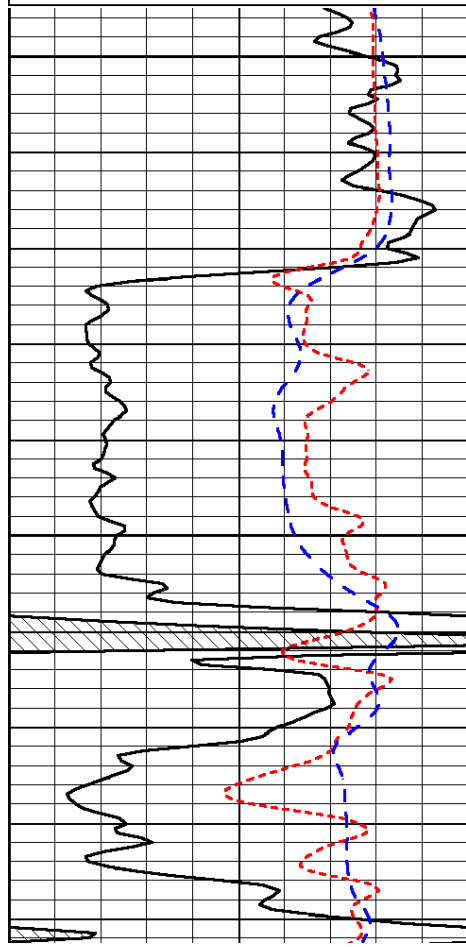
LSPD

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 Dataset Pathname: DIL/rangeall
 Presentation Format: dil
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 Charted by: Depth in Feet scaled 1:240

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-160	RXO/RT	40
-200	SP (mV)	0

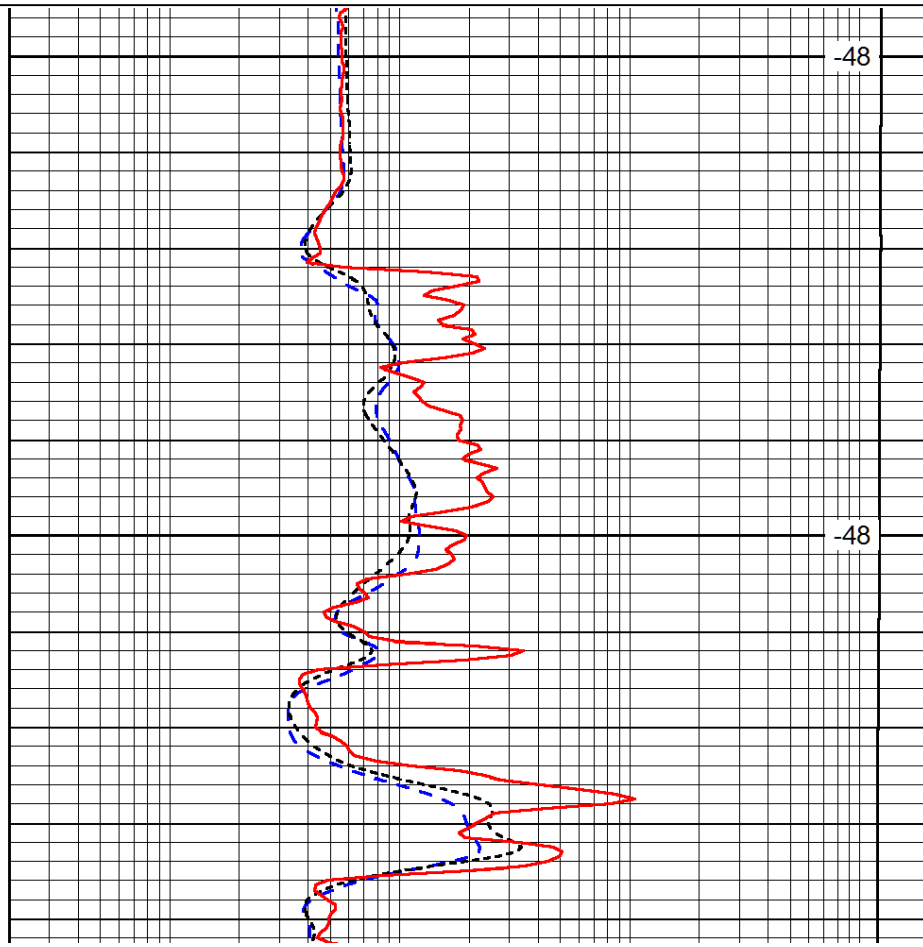
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0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
10000	Line Tension	0

LSPD



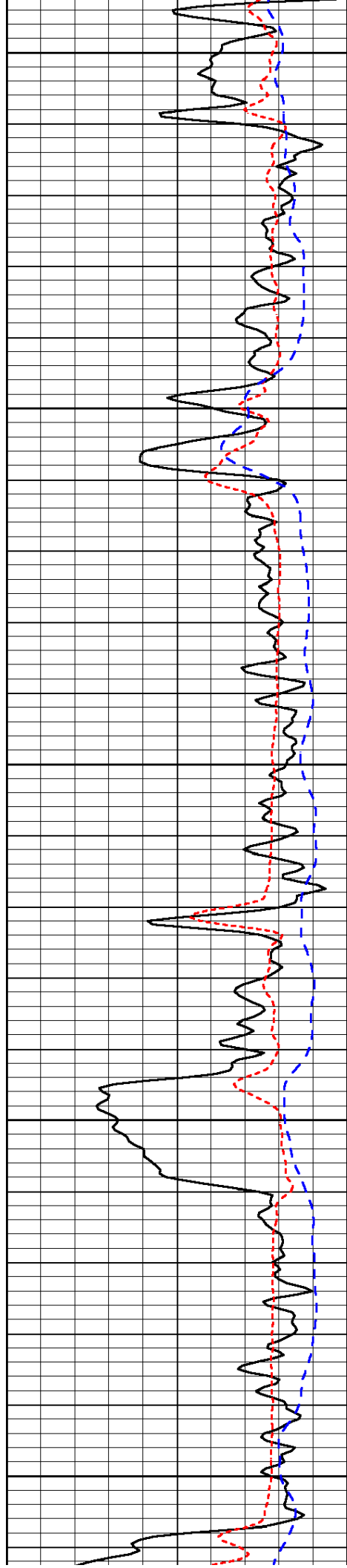
1300

1350



-48

-48



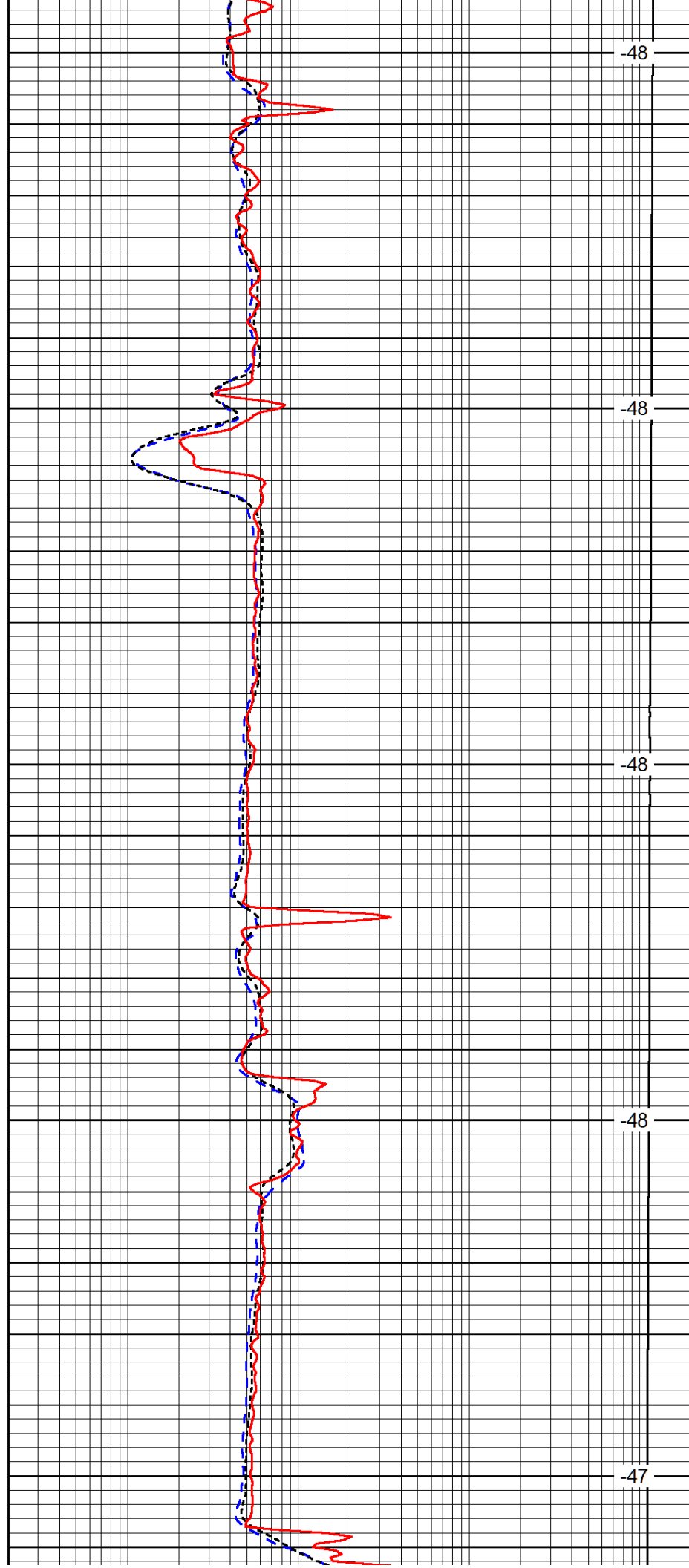
1400

1450

1500

1550

1600



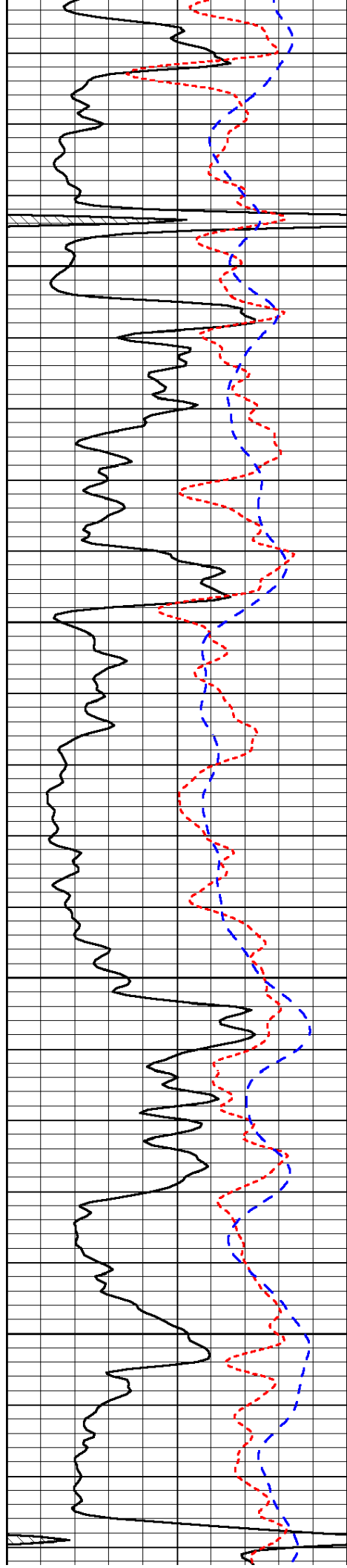
-48

-48

-48

-48

-47

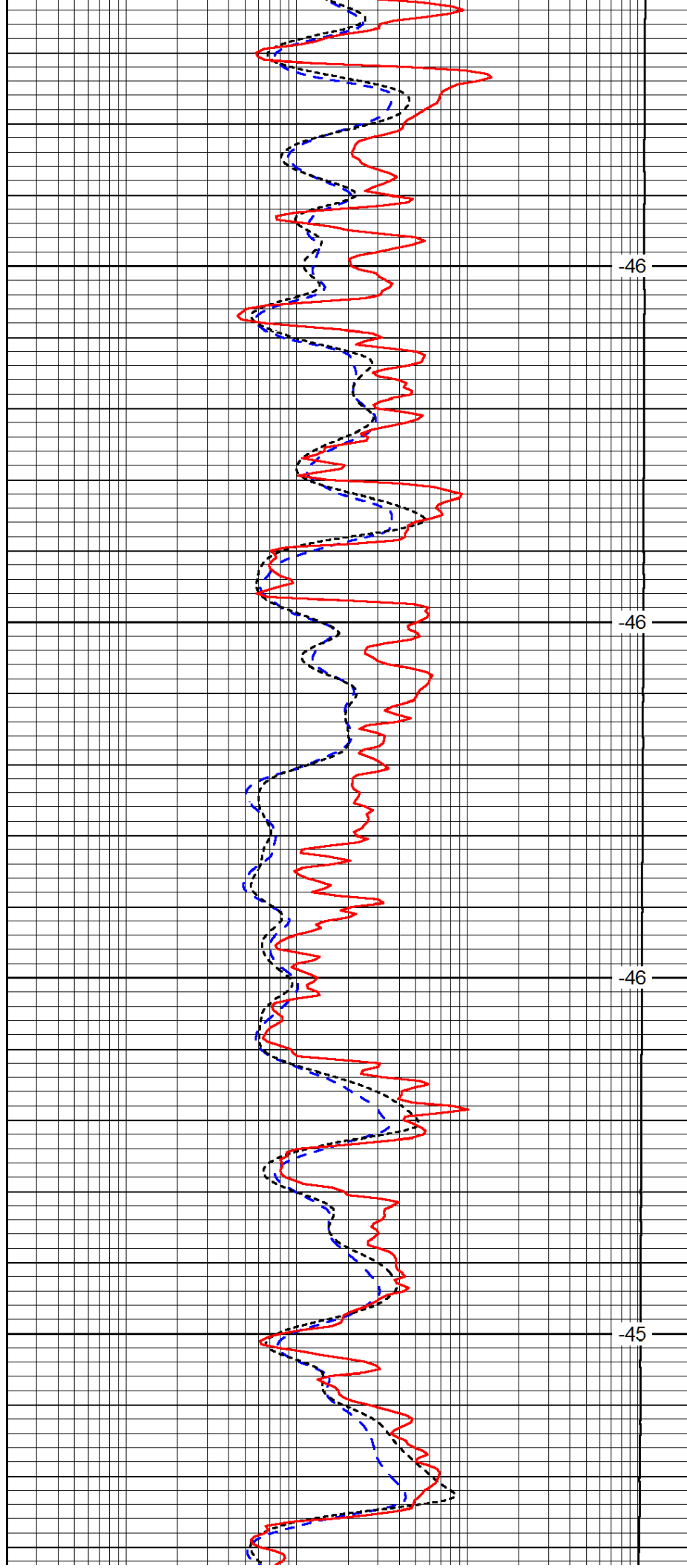


1650

1700

1750

1800

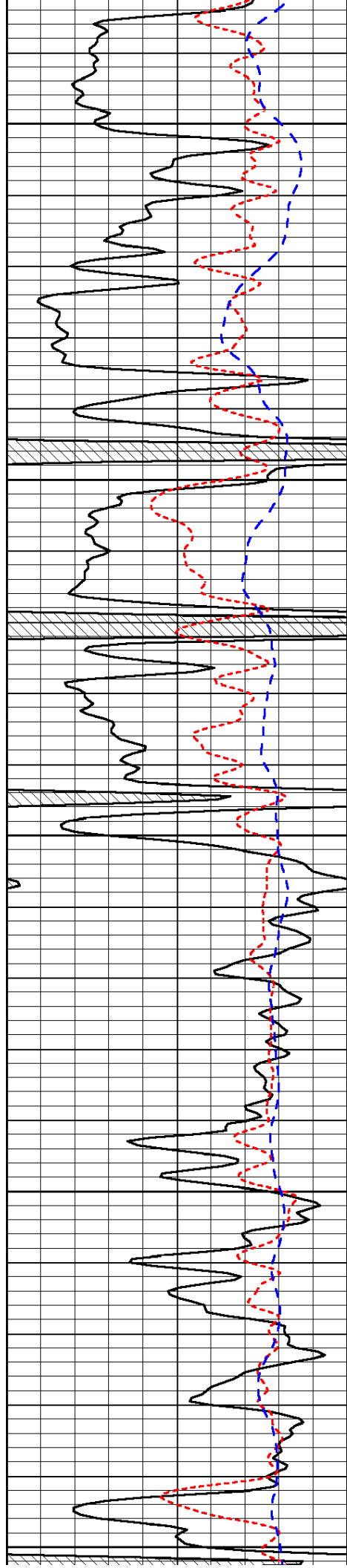


-46

-46

-46

-45



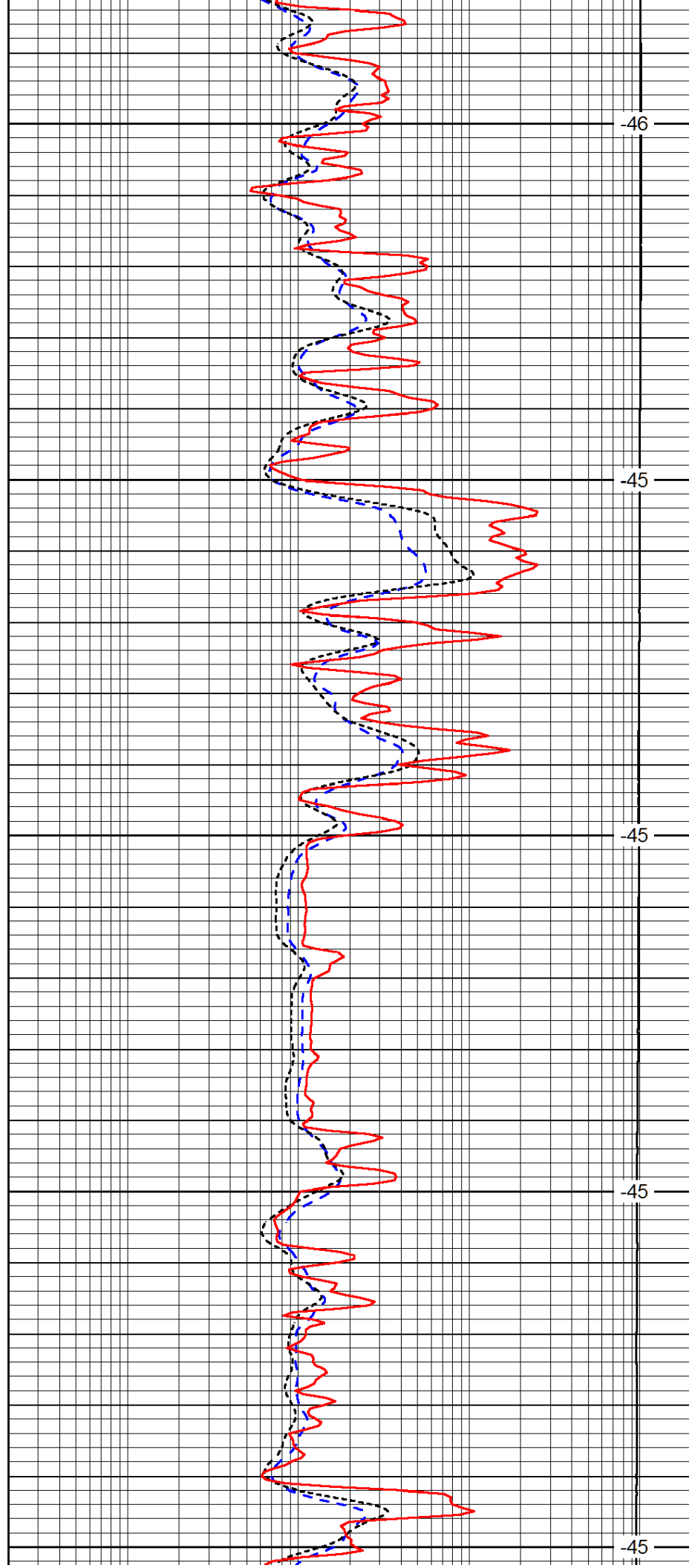
1850

1900

1950

2000

2050



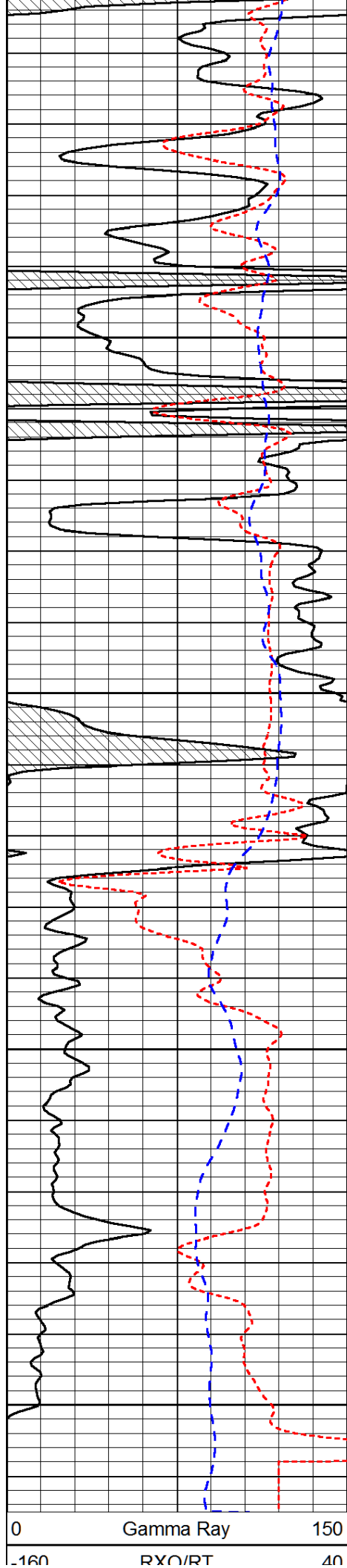
-46

-45

-45

-45

-45



2100

2150

2200

2250

Gamma Ray

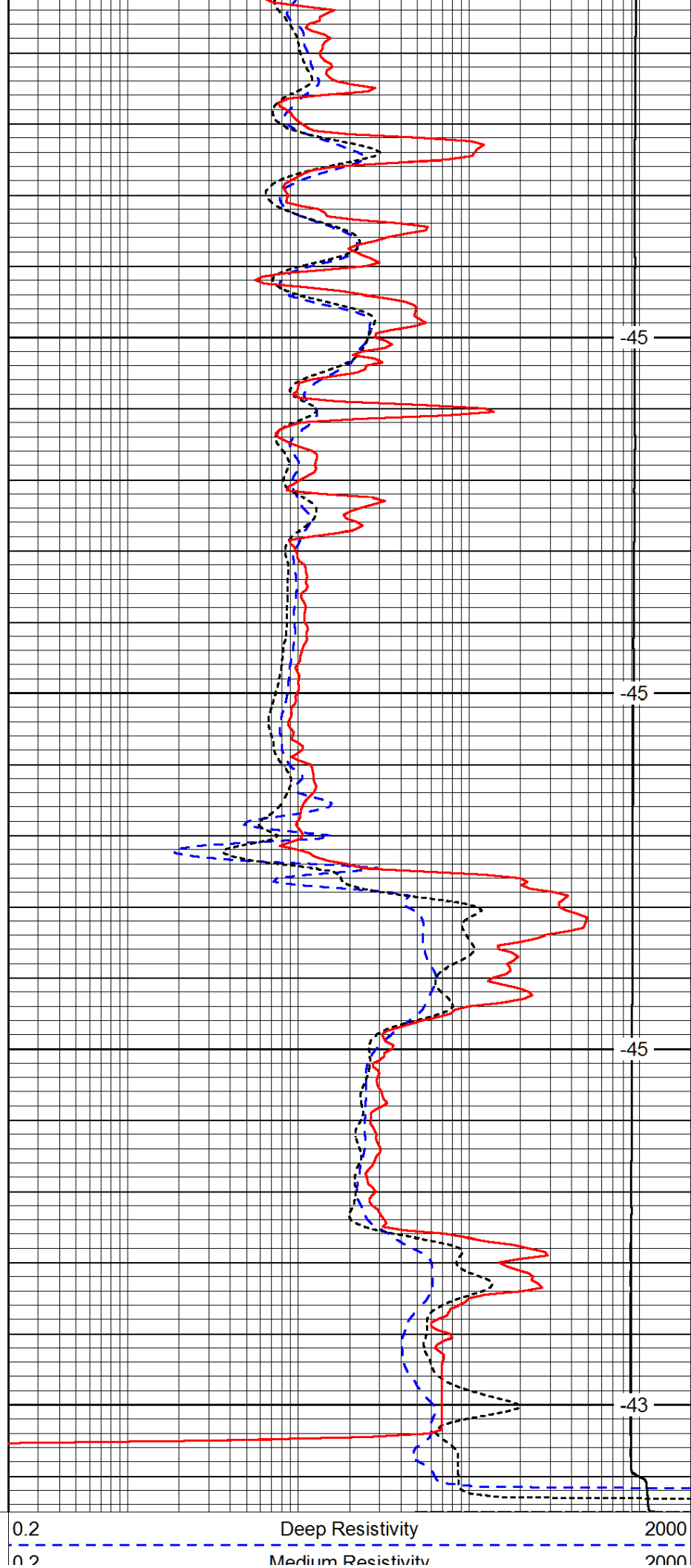
RXO/RT

0

160

150

40



45

45

45

43

Deep Resistivity

Medium Resistivity

0.2

0.2

2000

2000

100	10000	10
-200	SP (mV)	0

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