



DUAL INDUCTION LOG

Company AMERICAN WARRIOR, INC.
 Well LILLIE NO. 4-30
 Field SCHLESSIGER
 County ELLSWORTH
 State KANSAS

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 Well LILLIE NO. 4-30
 Field SCHLESSIGER
 County ELLSWORTH State KANSAS

Location: API #: 15-053-21340-00-00
 2,305' FNL & 1,610' FEL
 SEC 30 TWP 16S RGE 10W
 Permanent Datum GROUND LEVEL Elevation 1873'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services CNL/CDL MEL
 Elevation K.B. 1881', D.F. N/A, G.L. 1873'

Date	10/30/2015
Run Number	ONE
Depth Driller	3600'
Depth Logger	3602'
Bottom Logged Interval	3601'
Top Log Interval	400'
Casing Driller	8.625" @ 411'
Casing Logger	409
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	6100
Density / Viscosity	9.1 50
pH / Fluid Loss	9.5 8.4
Source of Sample	Flowline
Rm @ Meas. Temp	.58 @ 70
Rmt @ Meas. Temp	.44 @ 70
Rmc @ Meas. Temp	.78 @ 70
Source of Rmf / Rmc	Charts
Rm @ BHT	.36 @ 112
Operating Rig Time	3 1/2 HOURS
Max Rec. Temp. F	112
Equipment Number	108
Location	Hays
Recorded By	J. LONG
Witnessed By	KEVIN TIMSON

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
 WILSON, 13 SOUTH TO Q ROAD (NE 190 ROAD), 1/2 WEST, 1/2 SOUTH, EAST INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
 www.pioneerenergy.com 785-625-3858

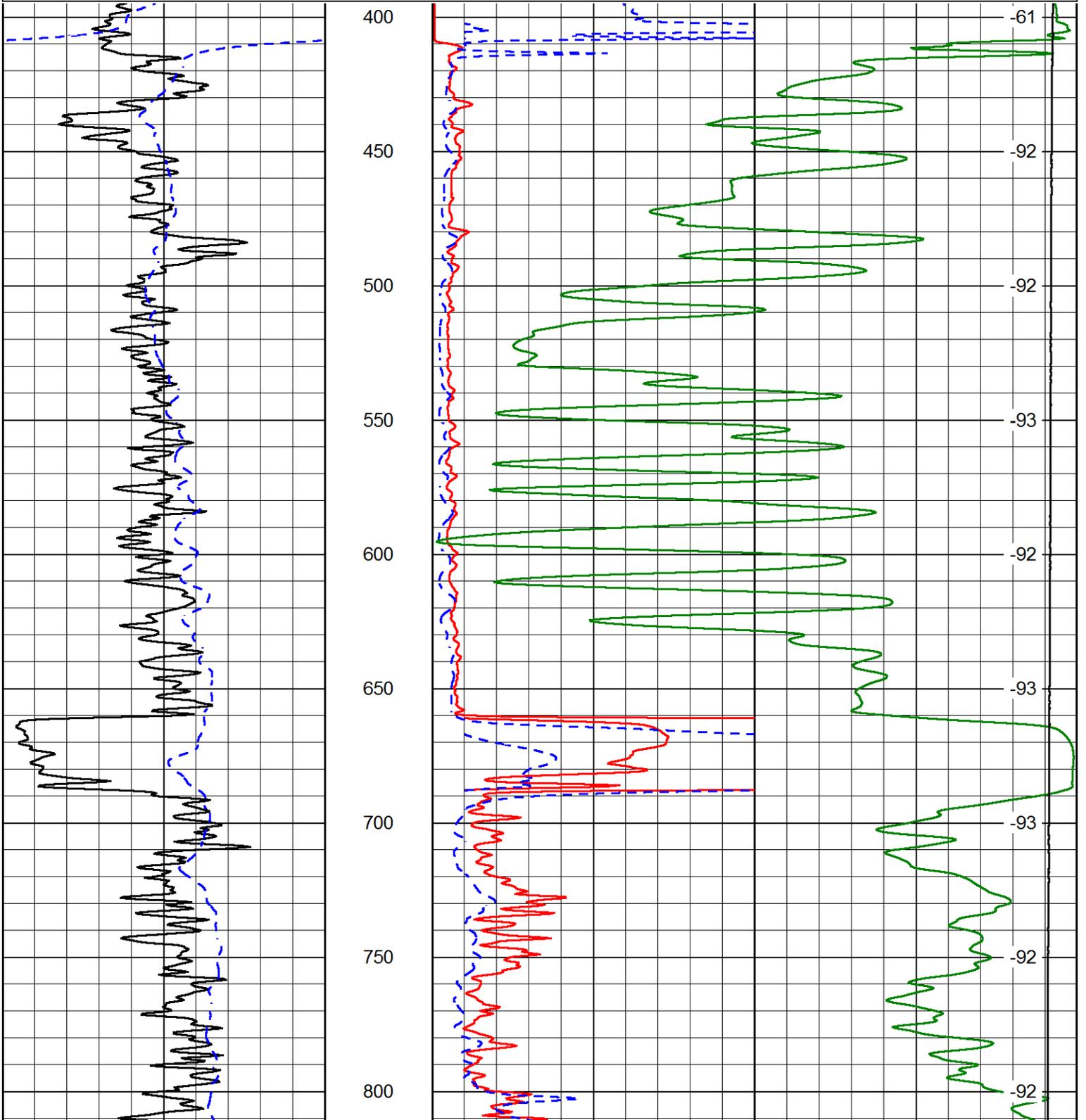
Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: J. LONG	Primary Witness: KEVIN TIMSON
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

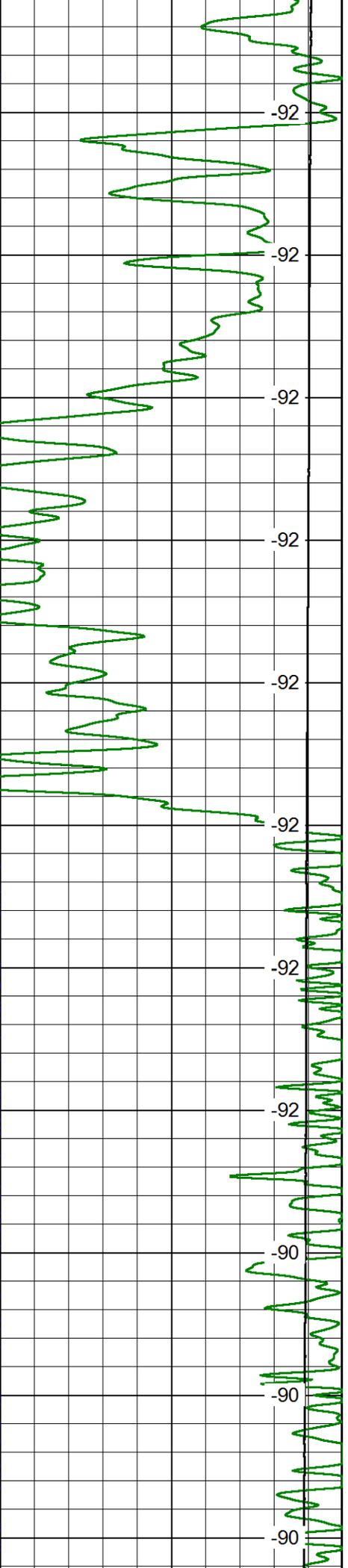
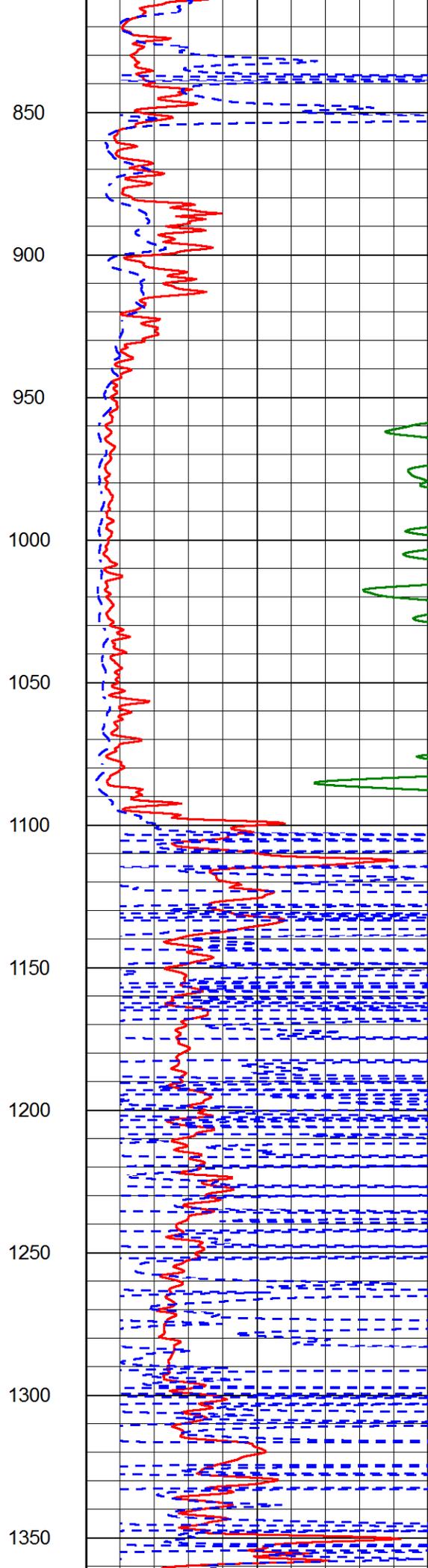
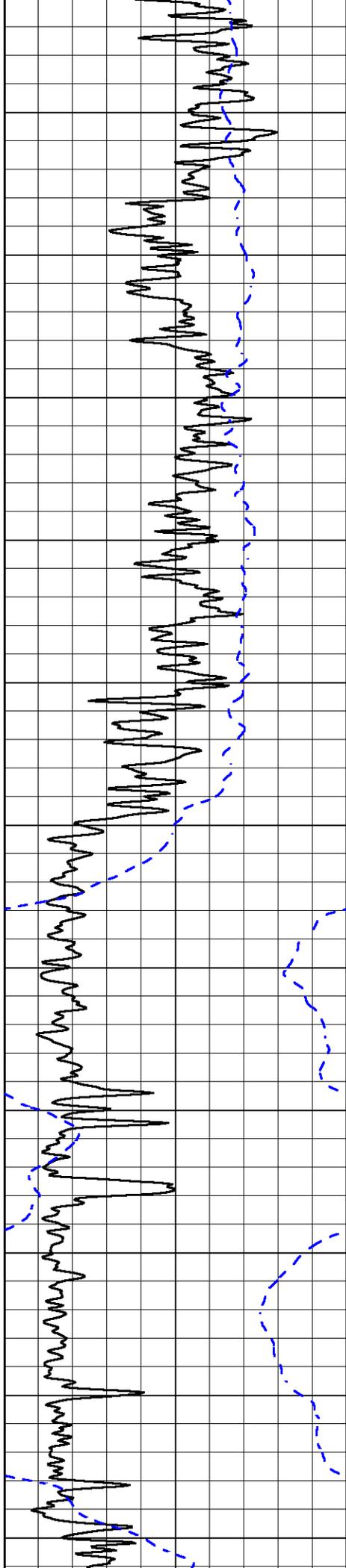
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 Dataset Creation Fri Oct 30 12:17:23 2015
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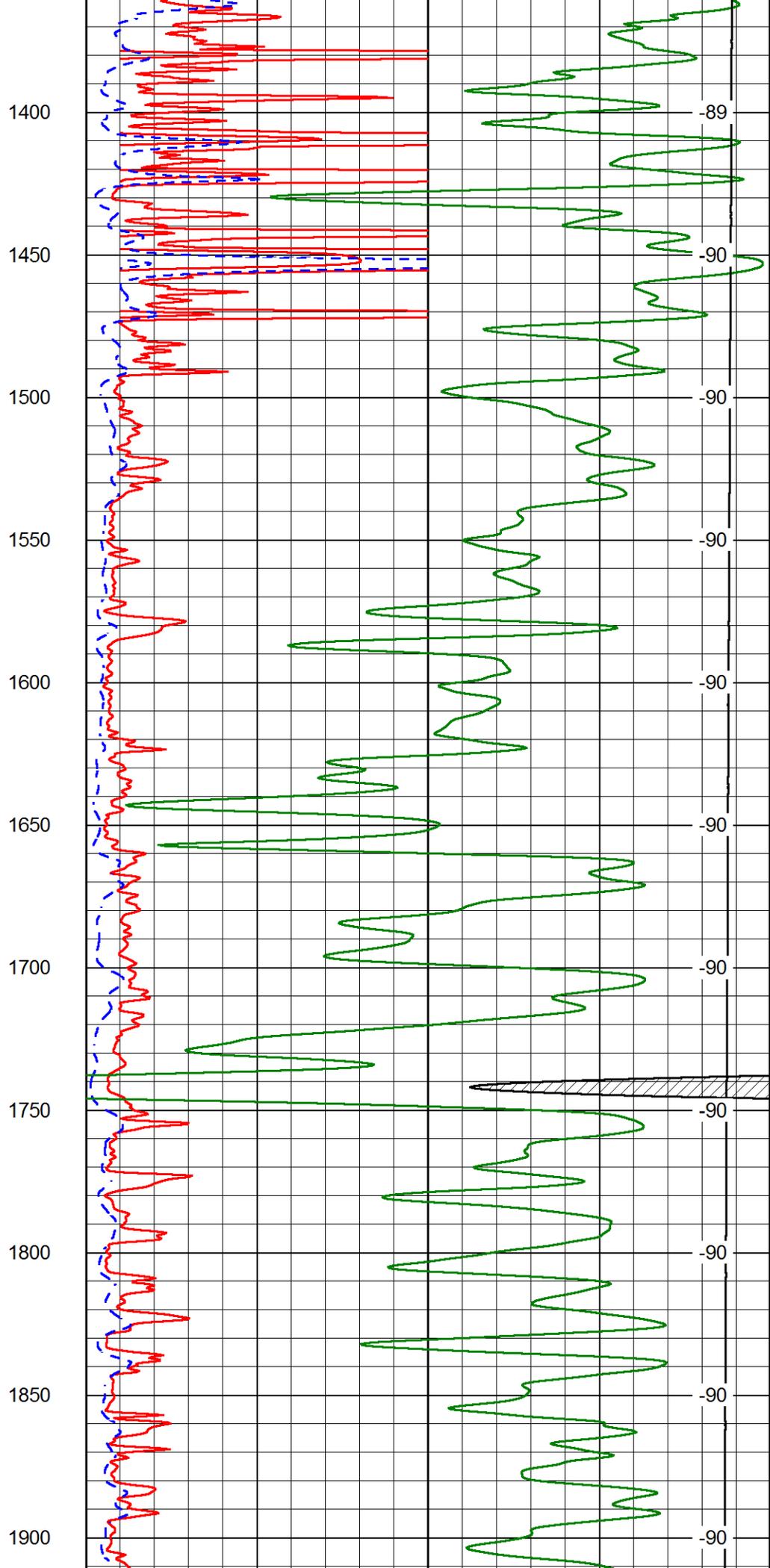
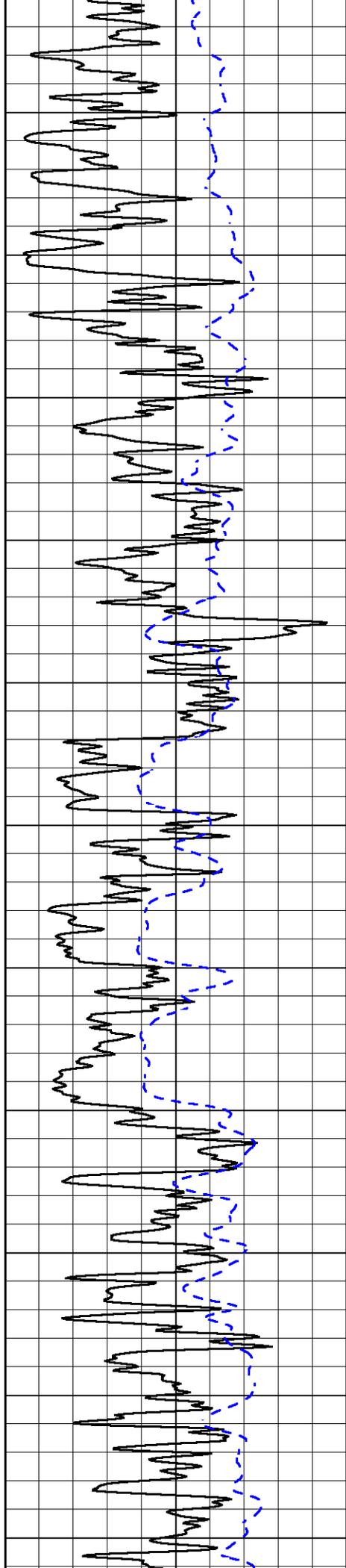
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-200	SP (mV)	0

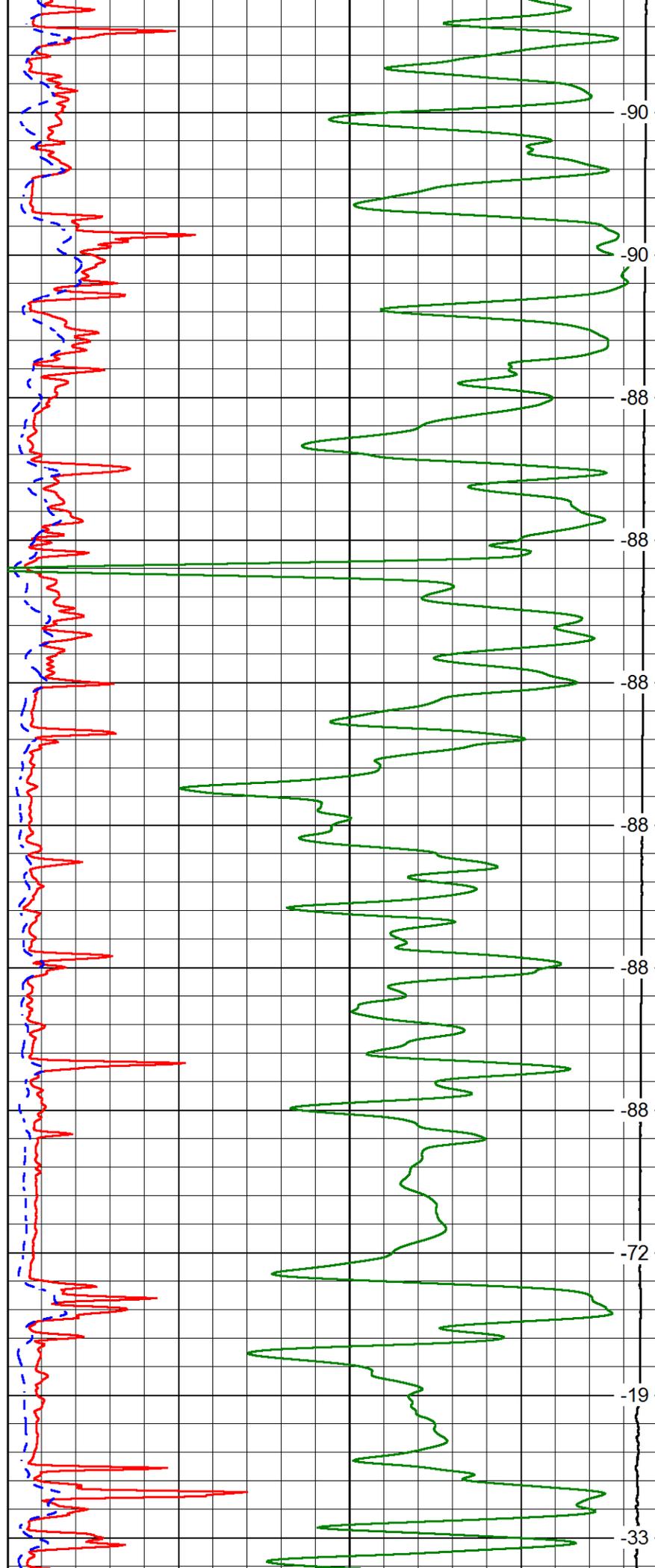
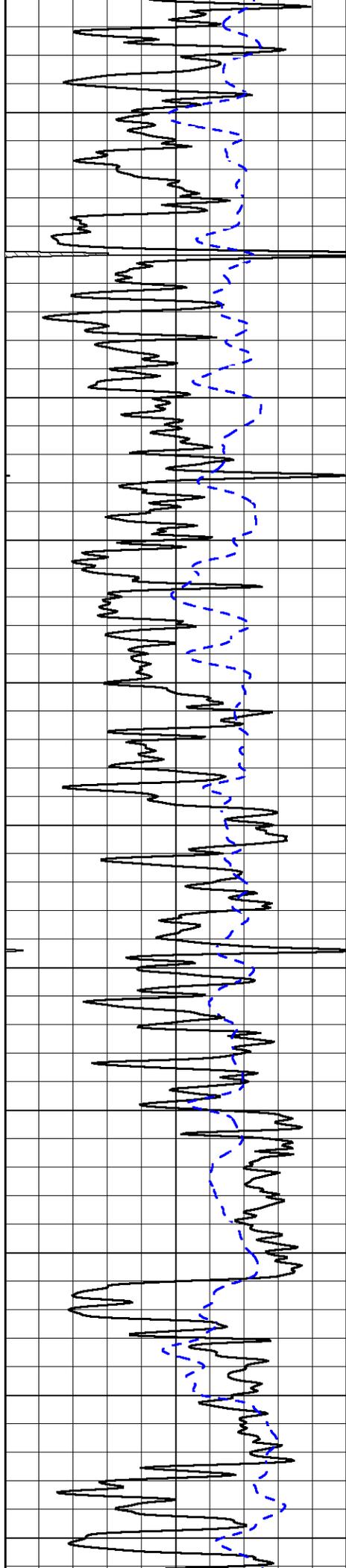
1000	Conductivity	0
15000	Line Tension (lb)	0

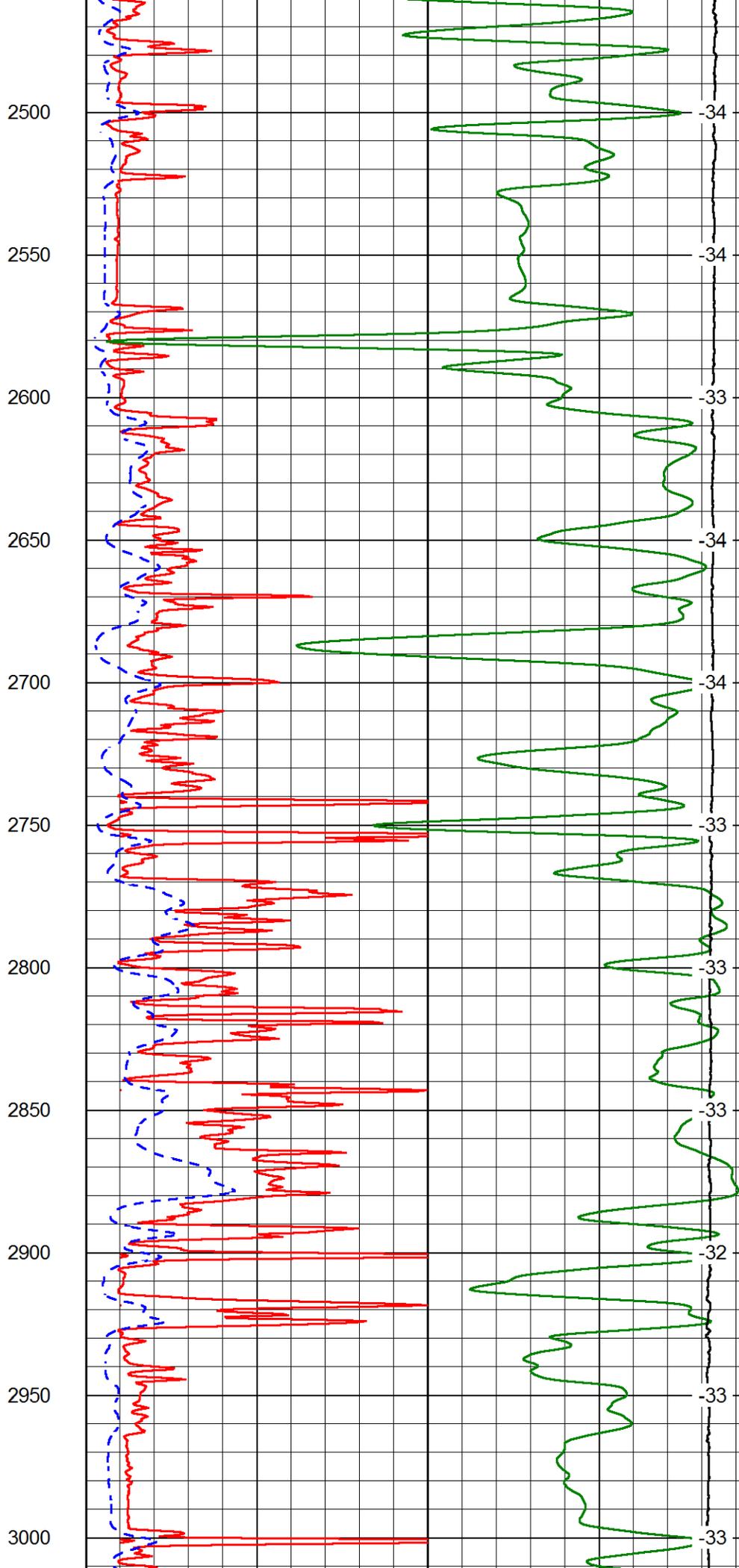
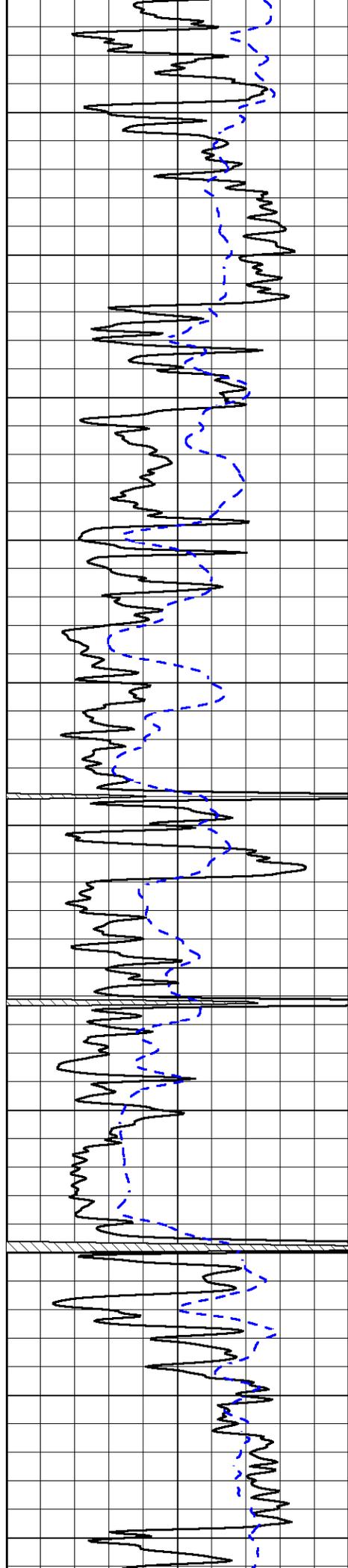
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0	Deep Resistivity (Ohm-m)	50	
Shallow Resistivity			
50	(Ohm-m)	500	
50	Deep Resistivity (Ohm-m)	500	

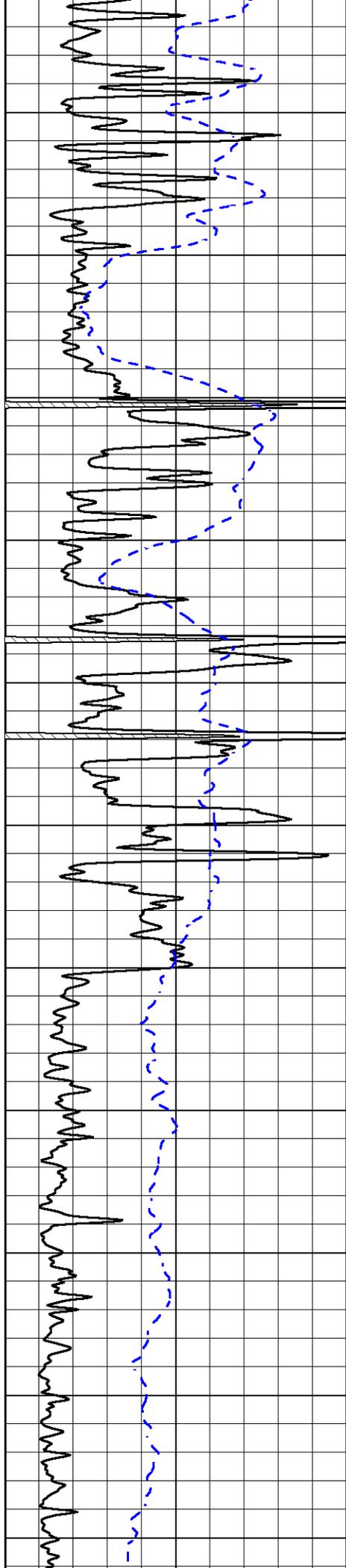












3050

3100

3150

3200

3250

3300

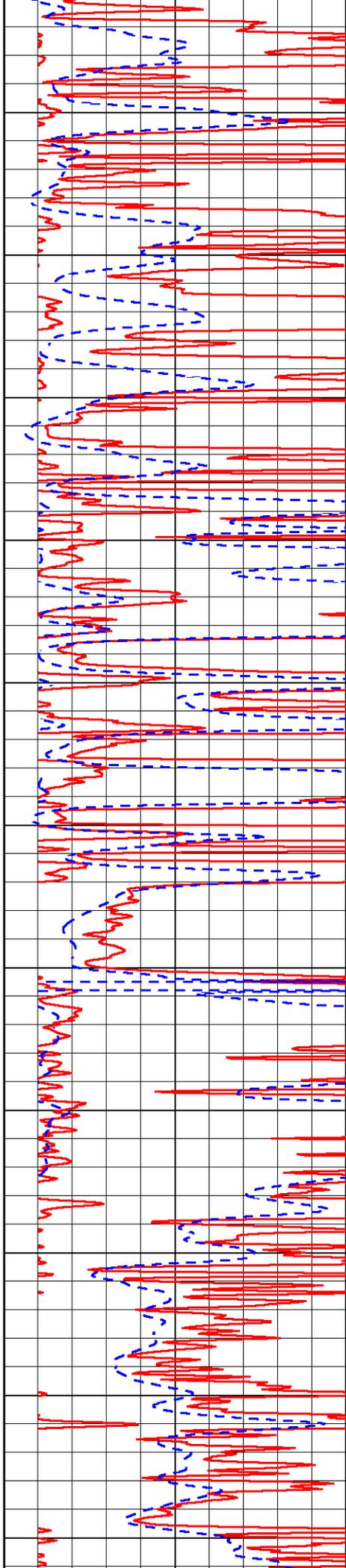
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3400

3450

3500

3550



-32

-32

-33

-32

-32

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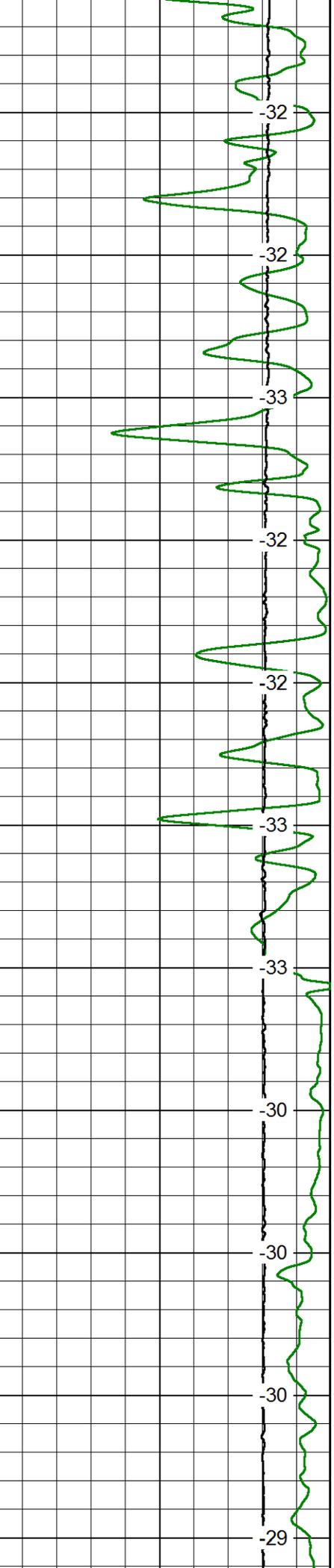
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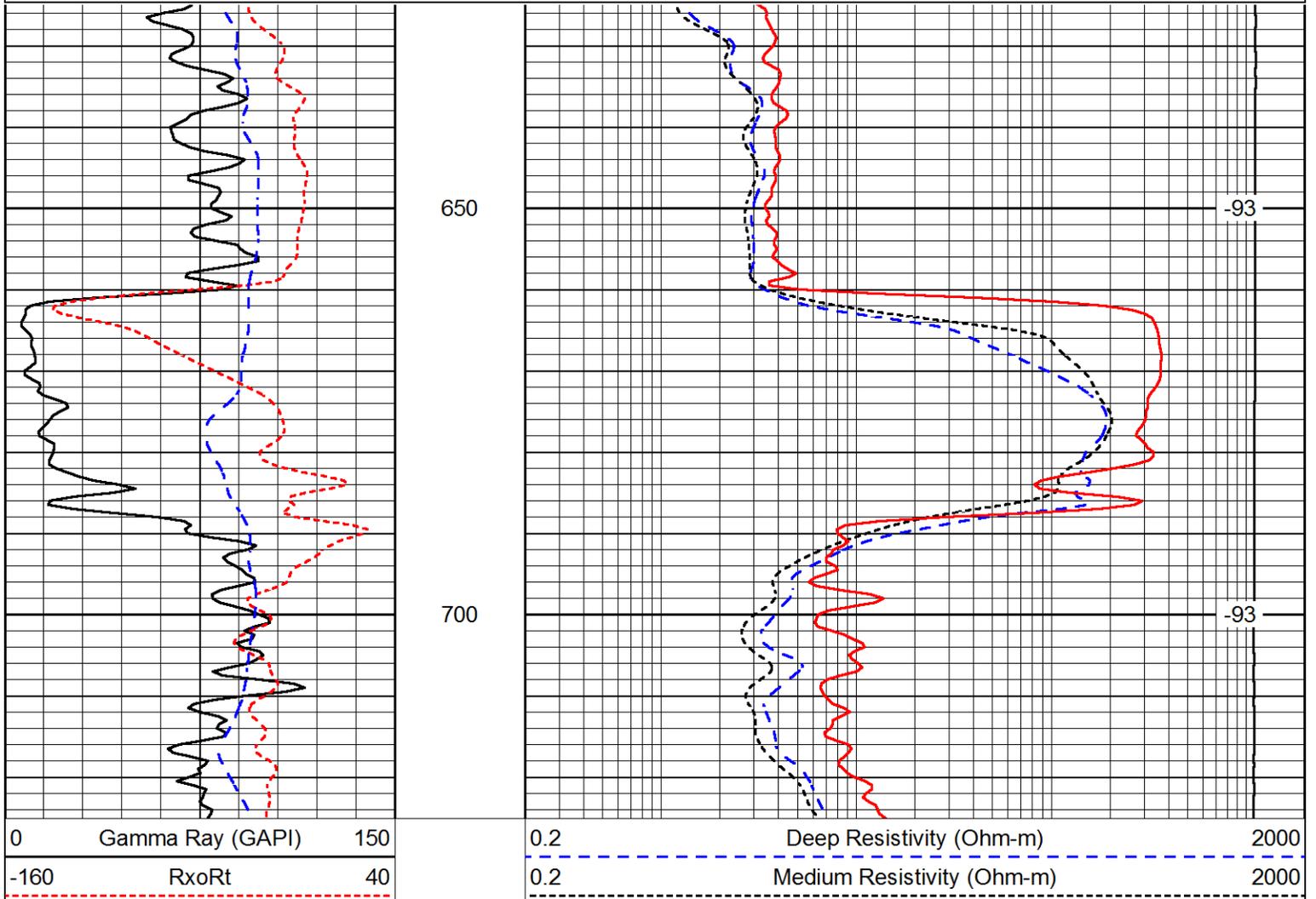
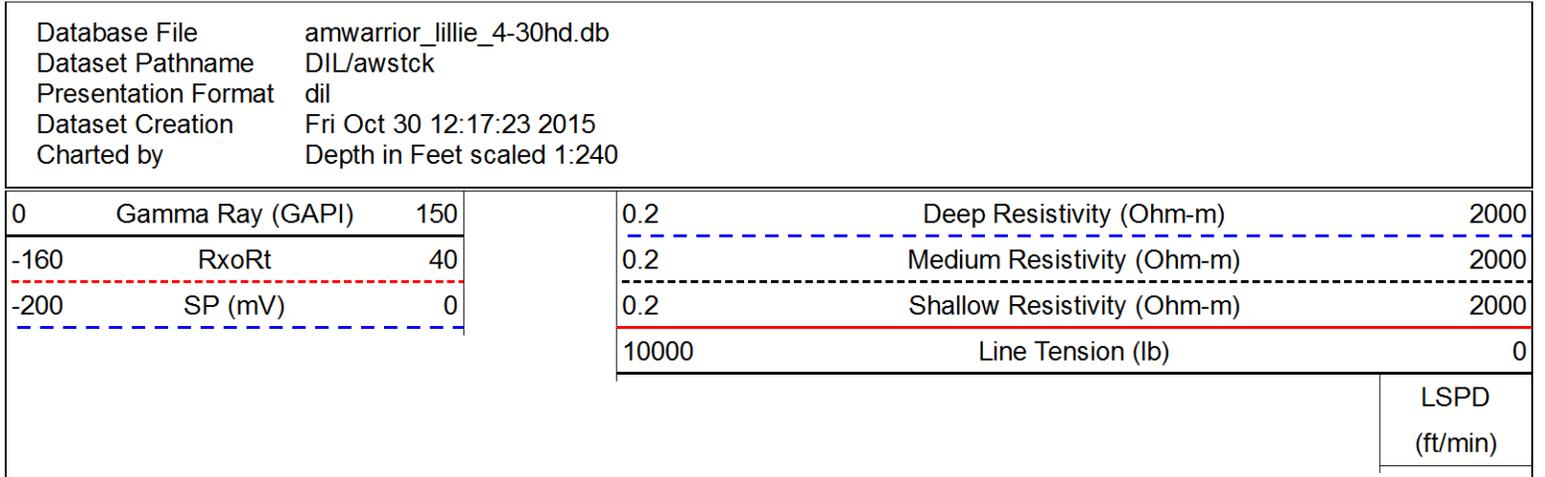
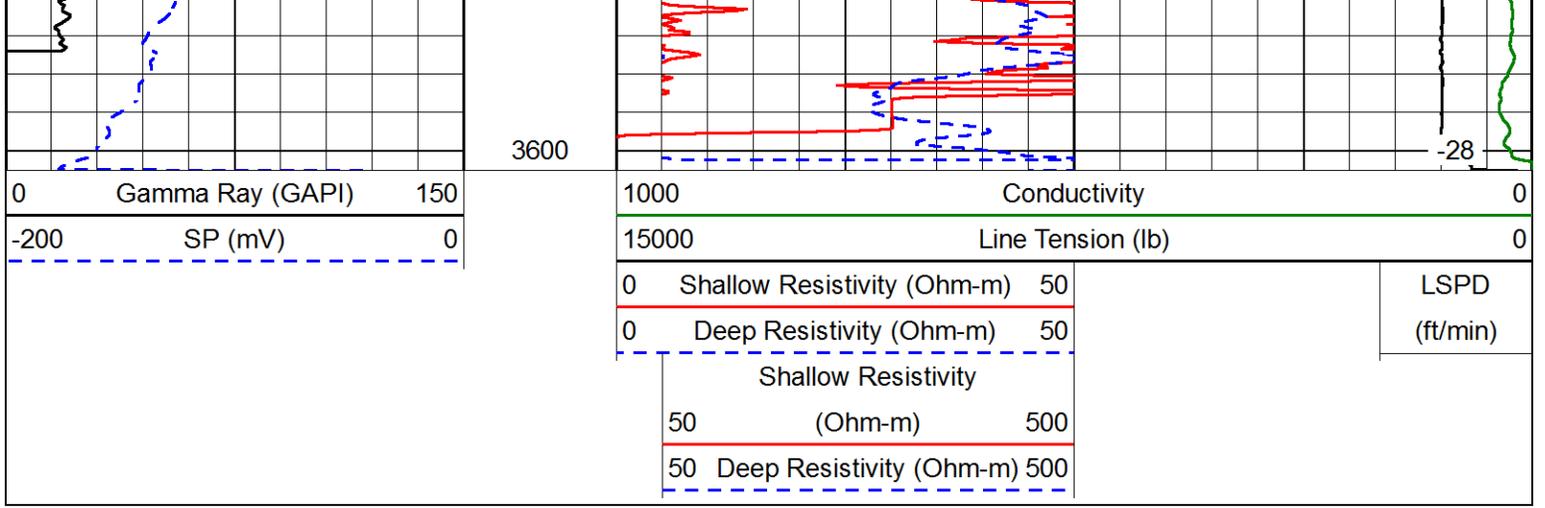
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-30

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-200 SP (mV) 0

0.2 Shallow Resistivity (Ohm-m) 2000

10000 Line Tension (lb) 0

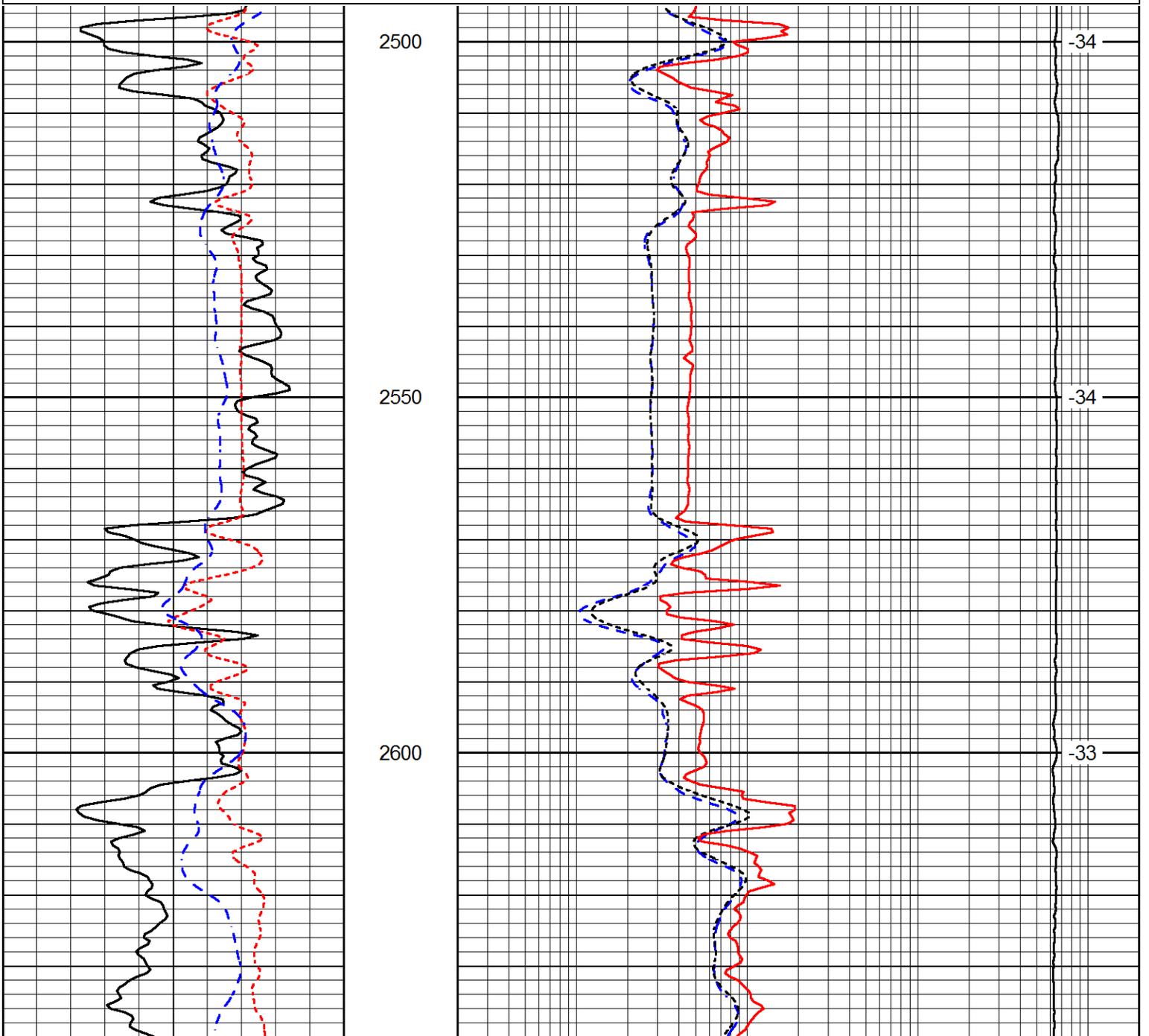
LSPD
(ft/min)

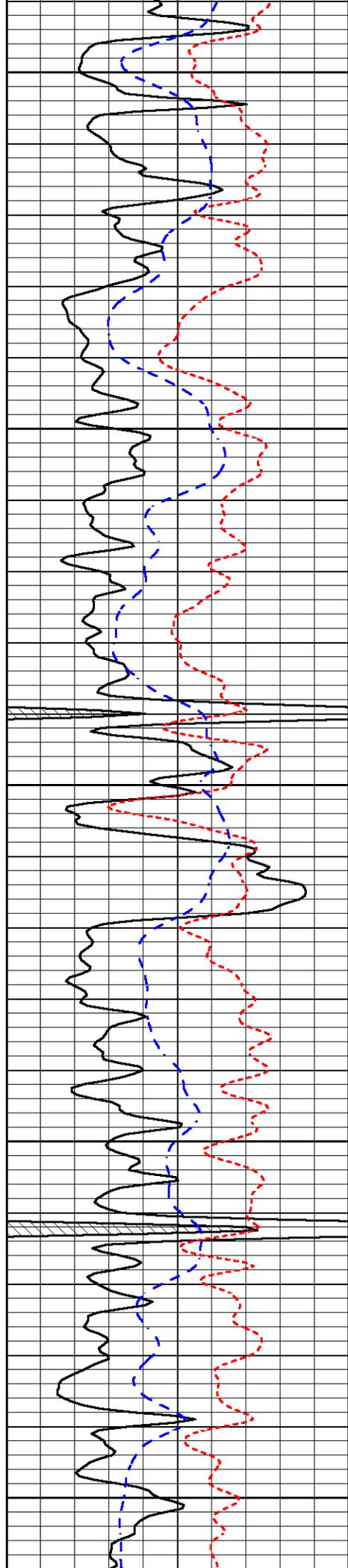
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Presentation Format dil
Dataset Creation Fri Oct 30 12:17:23 2015
Charted by Depth in Feet scaled 1:240

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

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)





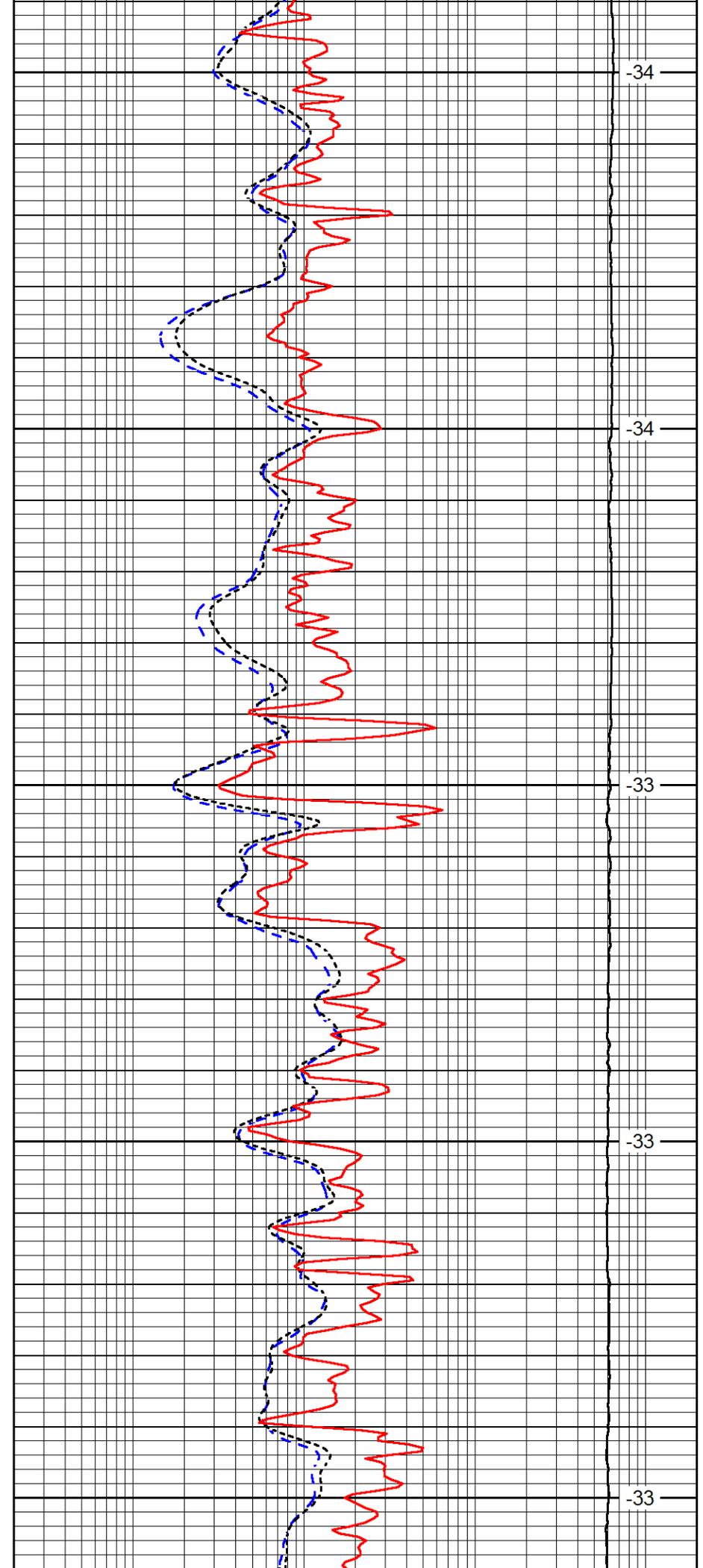
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2700

2750

2800

2850



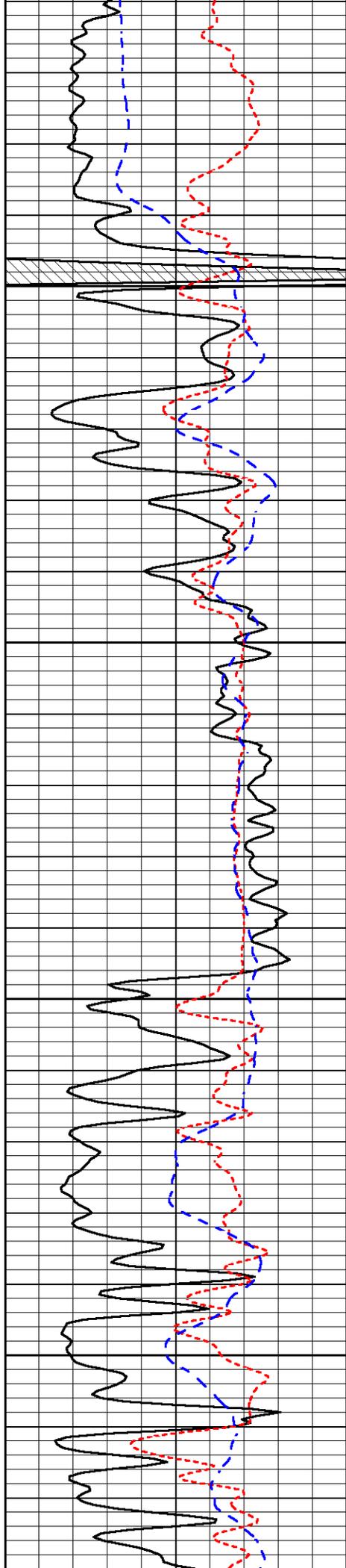
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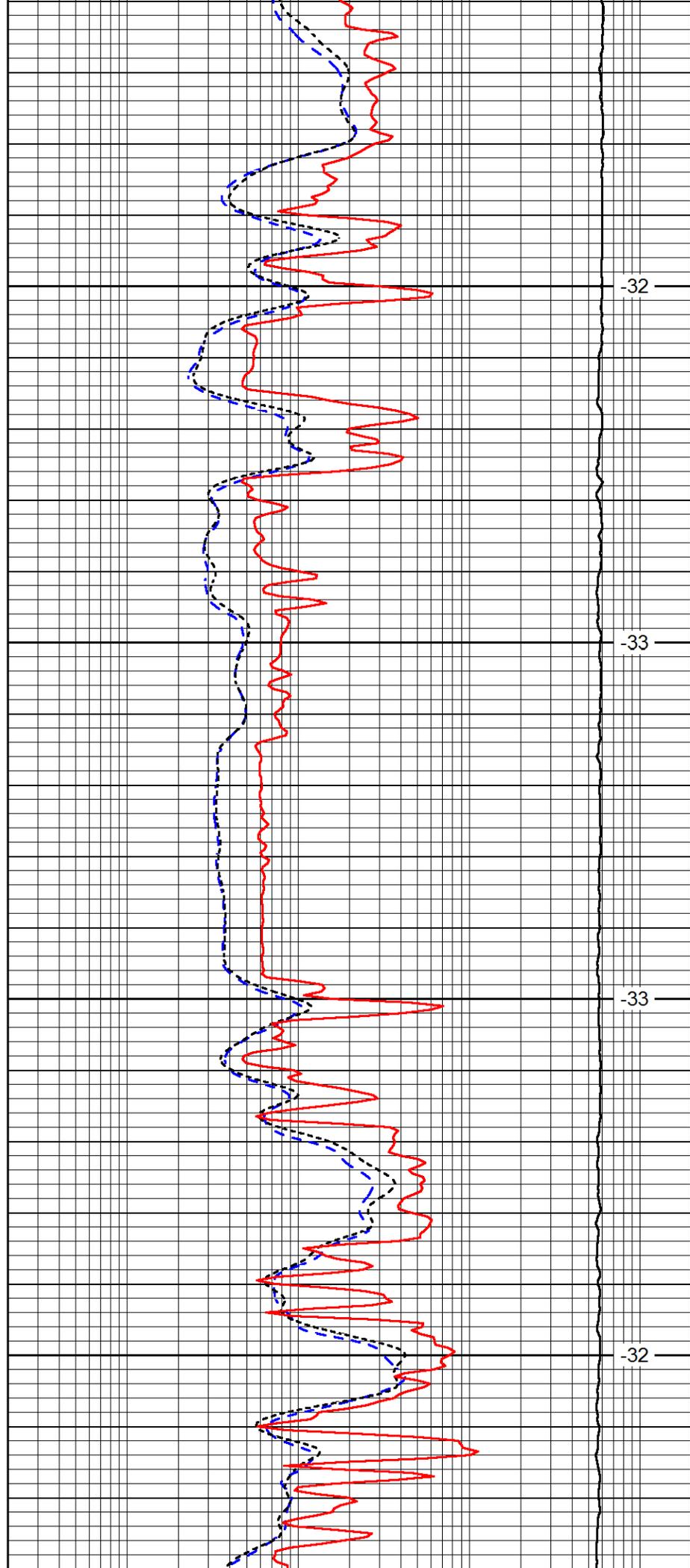


2900

2950

3000

3050

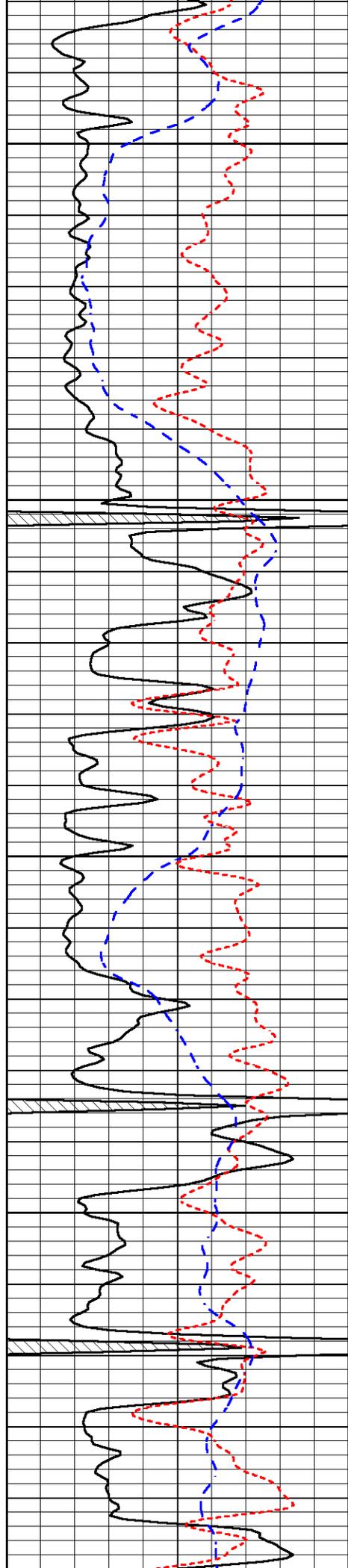


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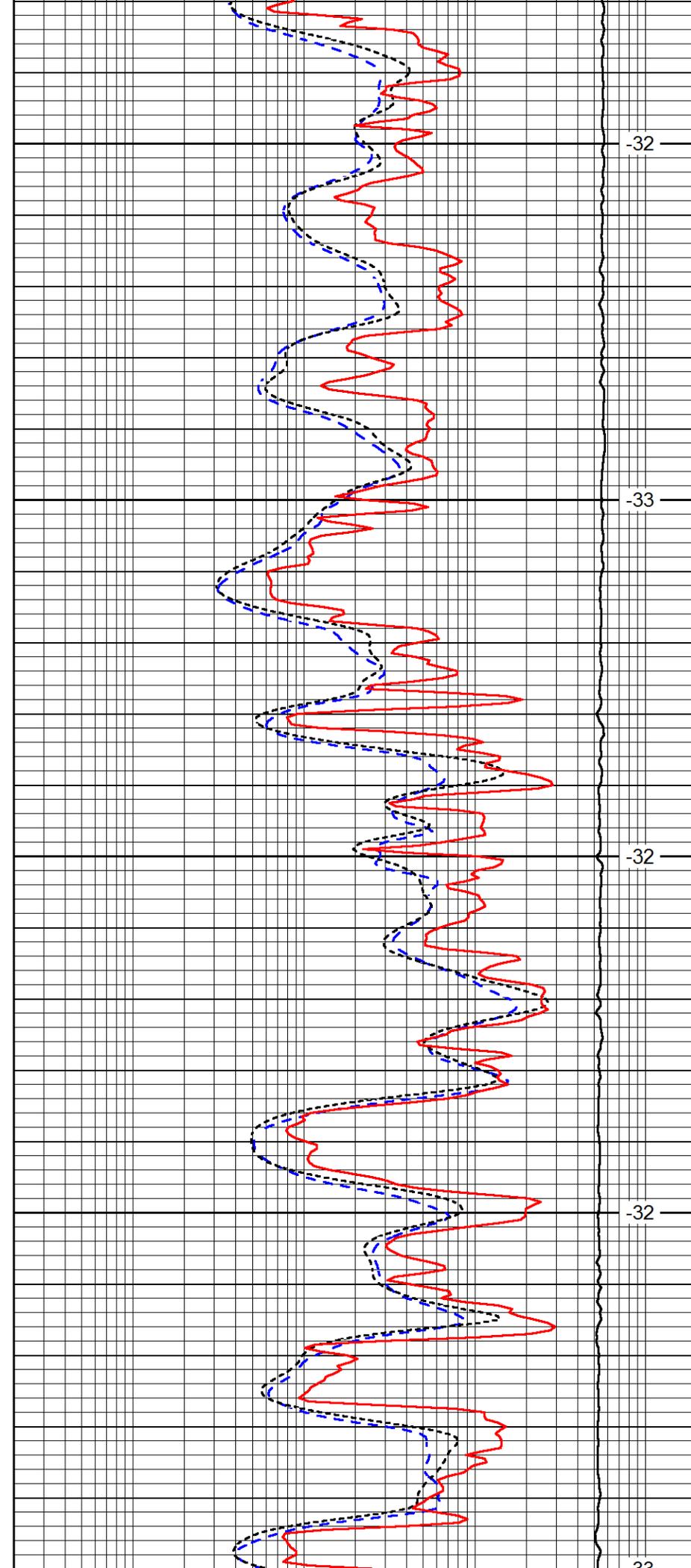
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3150

3200

3250

3300



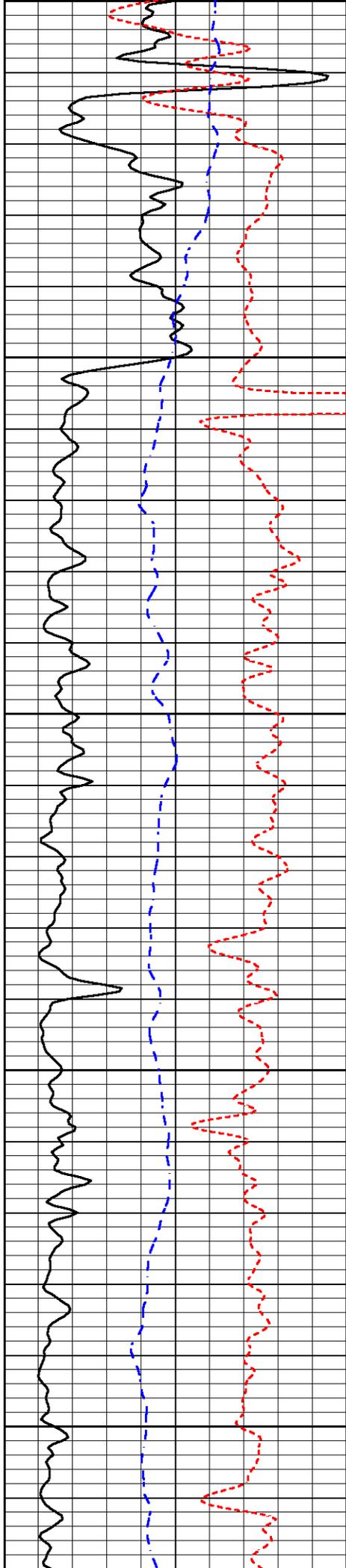
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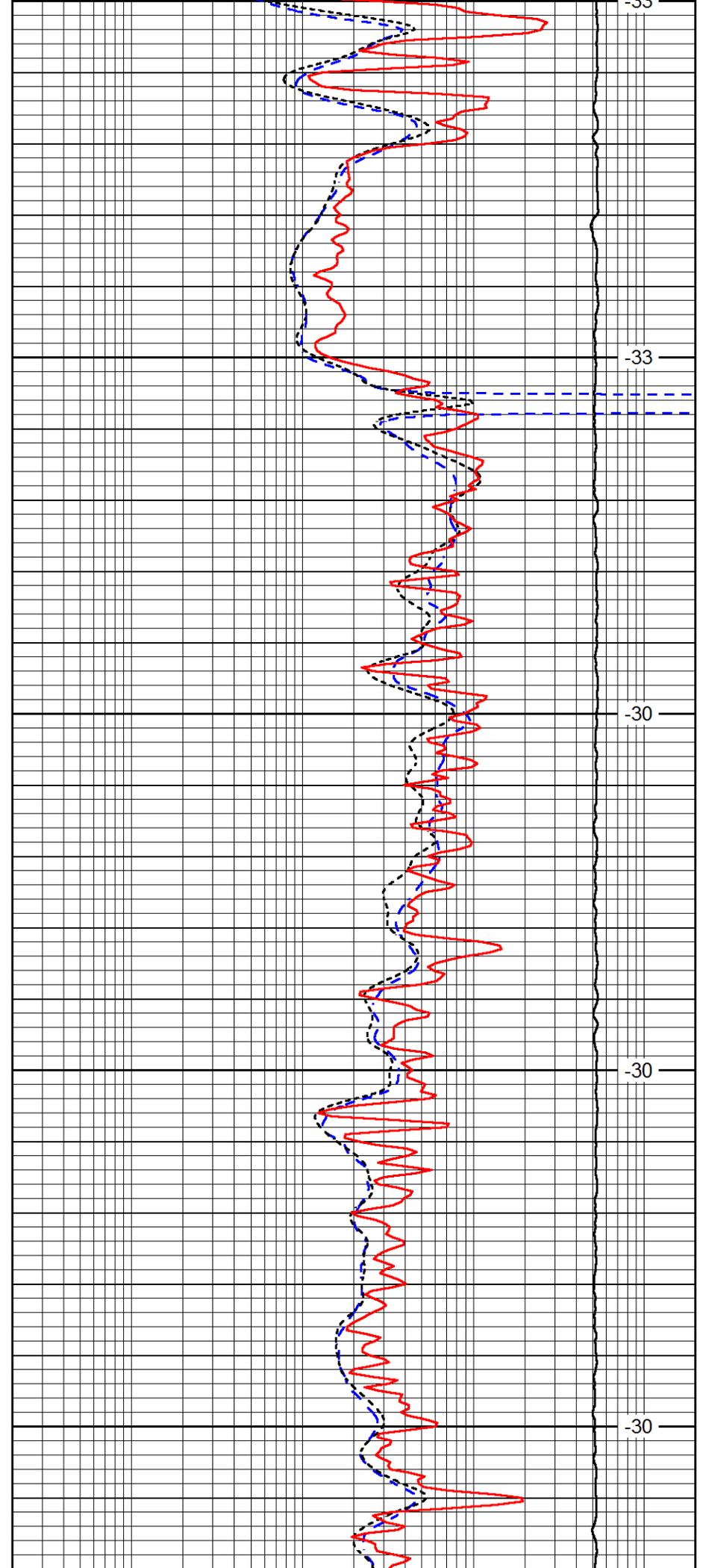
3500

3350

3400

3450

3500



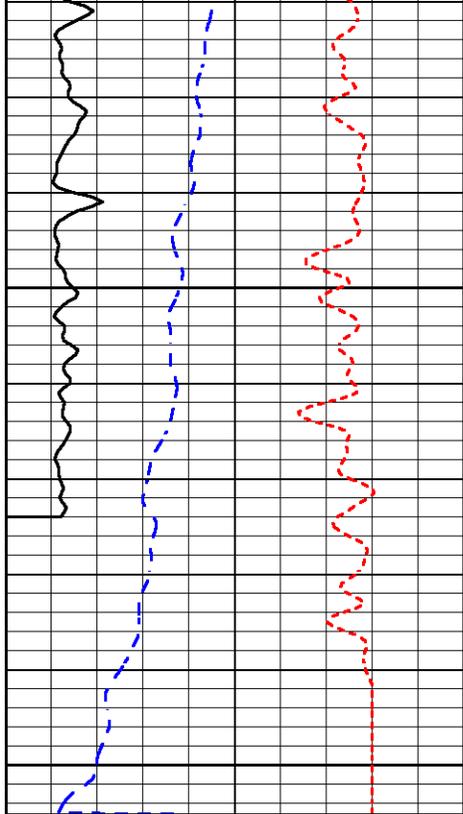
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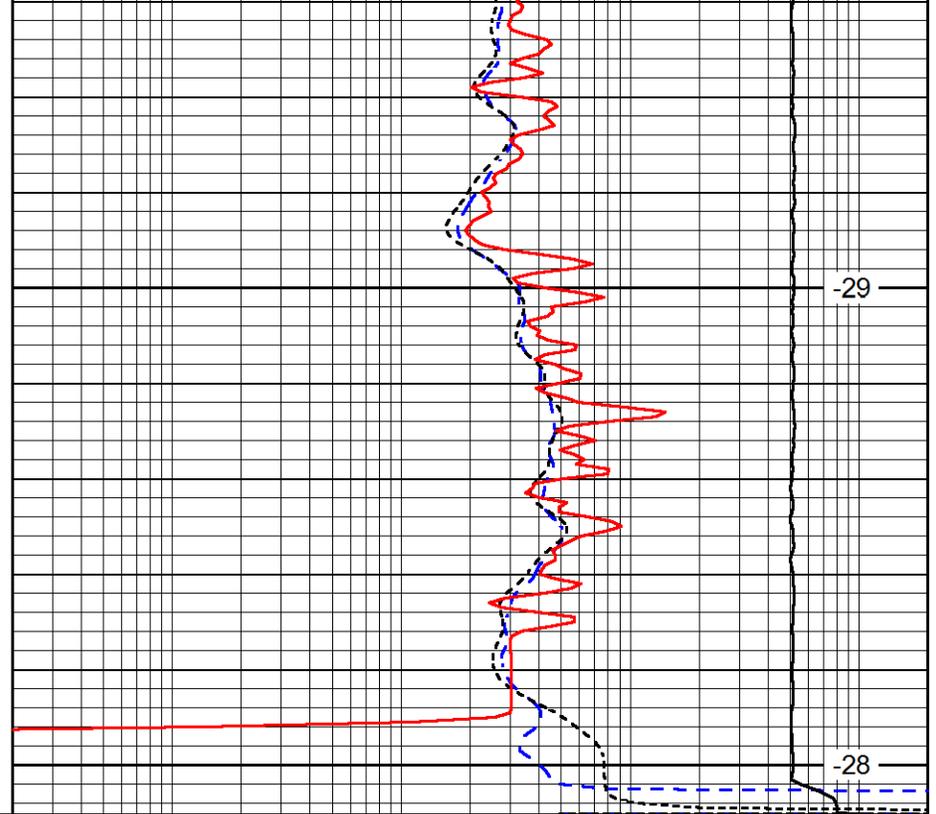
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0	Gamma Ray (GAPI)	150
-160	RxoRt	40
-200	SP (mV)	0

3550

3600



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

-29

-28

LSPD
(ft/min)