



Pioneer Energy Services

# Dual Induction Log

15-009-25,900-00-00

API No.

Company **K & N Petroleum, Inc.**

Well **Panning #6**

Field **Eberhardt**

County **Barton** State **Kansas**

Location **1950' FNL & 330' FEL**

Sec: **23** Twp: **19S** Rge: **11W**

Permanent Datum **Ground Level** Elevation **1774**

Log Measured From **Kelly Bushing** 8 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Other Services  
CNL/CDL  
MEL

Elevation

K.B. 1782  
D.F. 1774  
G.L. 1774

Date **12/1/2013**

Run Number **One**

Depth Driller **3425**

Depth Logger **3426**

Bottom Logged Interval **3425**

Top Log Interval **350**

Casing Driller **8.625 @ 382**

Casing Logger **382**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity,ppm CL **12,000**

Density / Viscosity **9.0 58**

pH / Fluid Loss **8.0 15.0**

Source of Sample **Flowline**

Rm @ Meas. Temp **.2 @ 54**

Rmf @ Meas. Temp **.15 @ 54**

Rmc @ Meas. Temp **.27 @ 54**

Source of Rmf / Rmc **Charts**

Rm @ BHT **.1 @ 110**

Operating Rig Time **3 Hours**

Max Rec. Temp. F **110**

Equipment Number **17**

Location **Hays**

Recorded By **C. Desaire**

Witnessed By **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 Pioneer Energy Services  
[www.pioneerenergy.com](http://www.pioneerenergy.com)  
 785 625 3858  
 Ellinwood KS, 1 1/2 N,  
 4 E, 1/2 N, W Into

Database File: c:\warrior\data\k & n petroleum\_panning #6\knhd.db  
 Dataset Pathname: dil\knstk  
 Presentation Format: dil2in  
 Dataset Creation: Sun Dec 01 20:25:57 2013  
 Charted by: Depth in Feet scaled 1:600

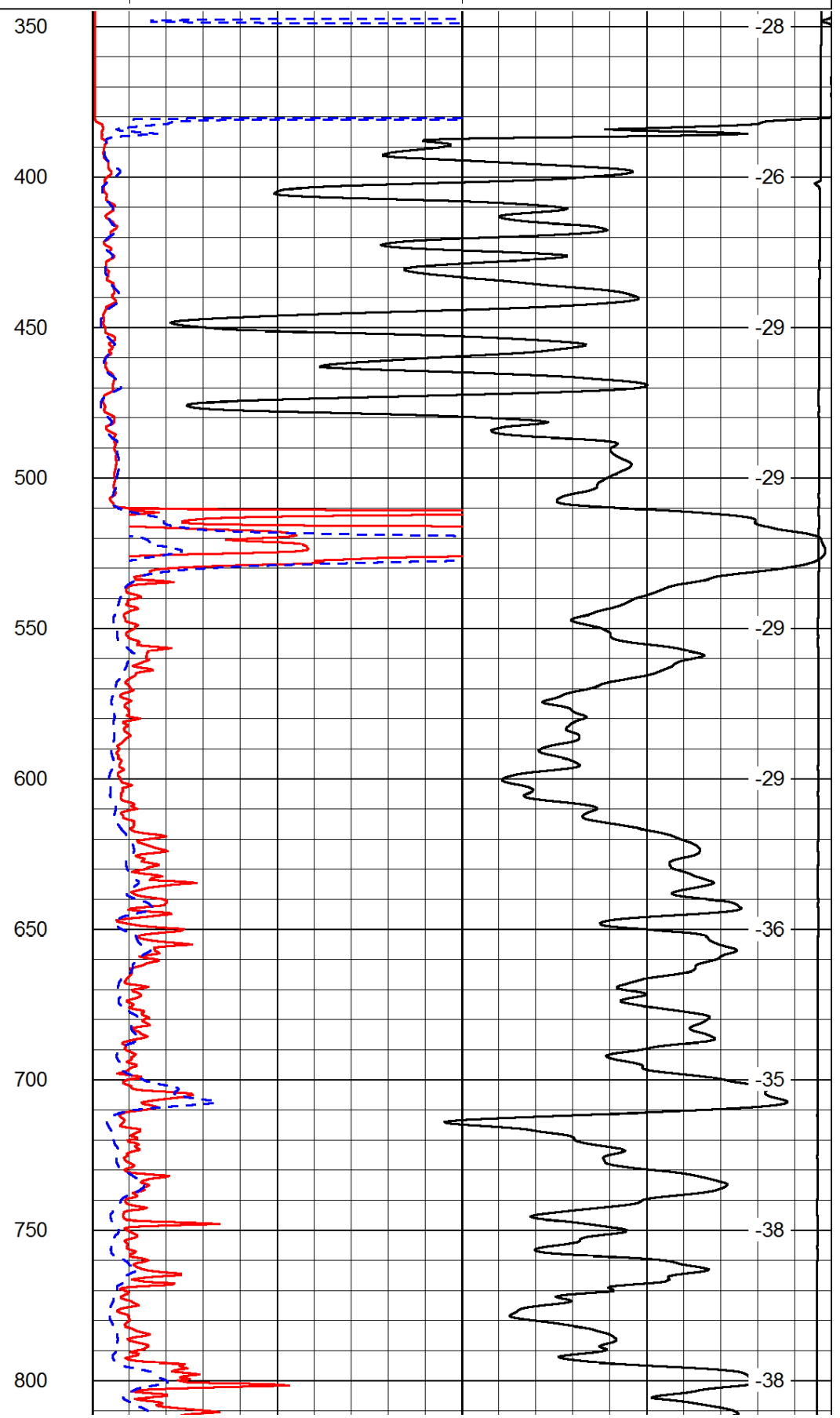
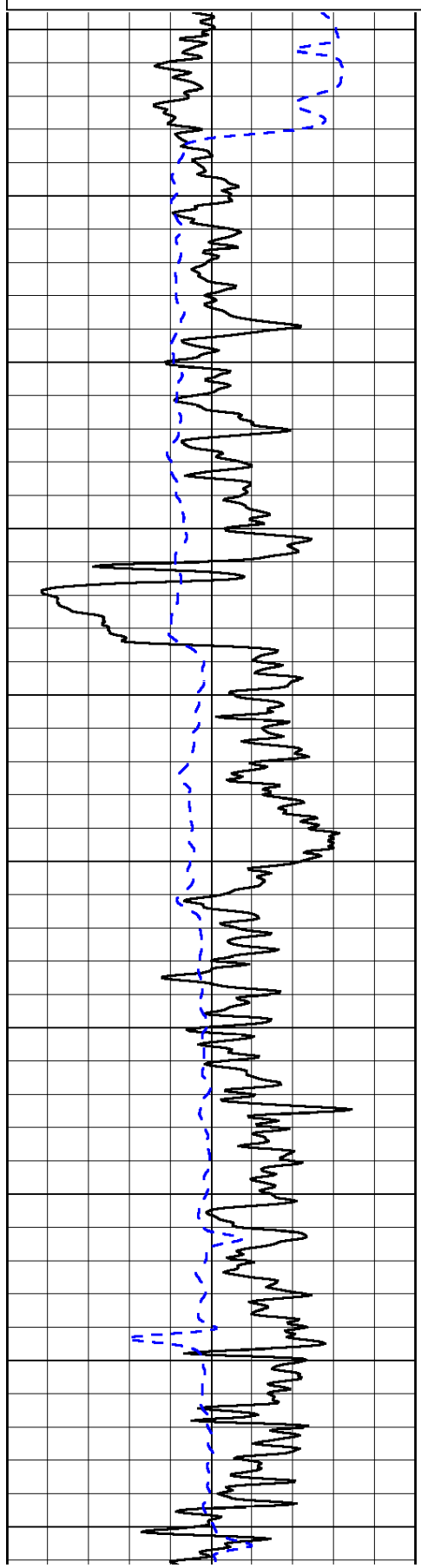
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-200	SP (mV)	0

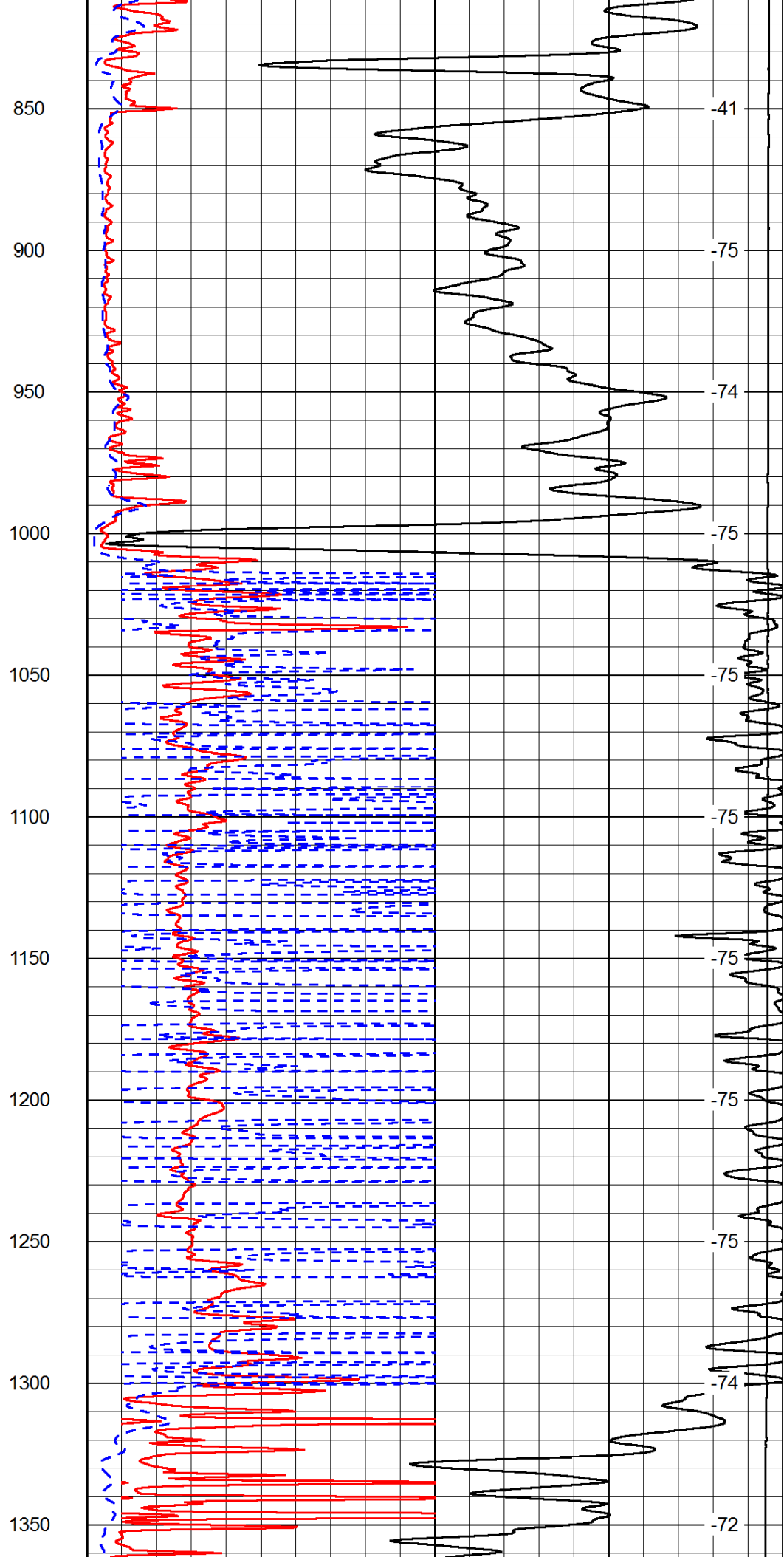
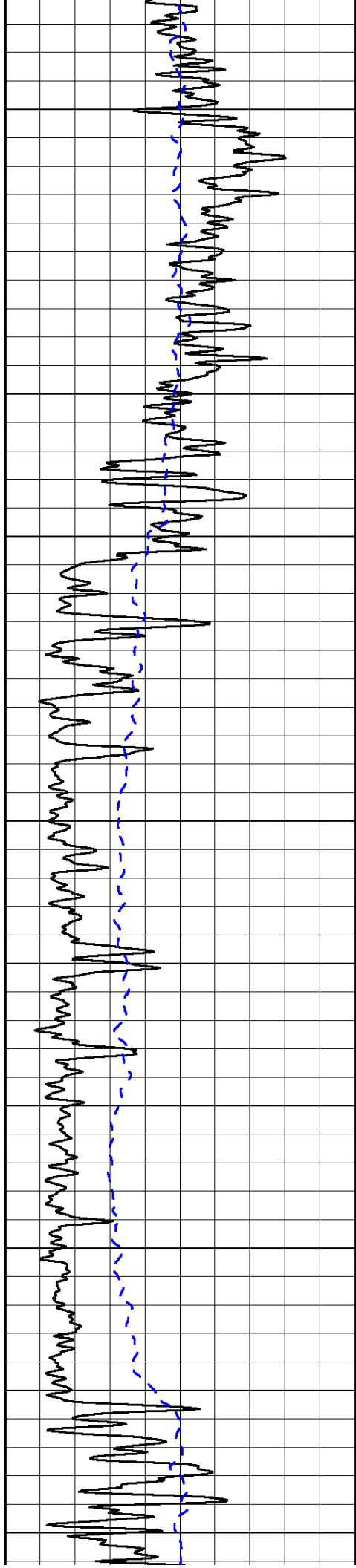
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0	Deep Resistivity	50

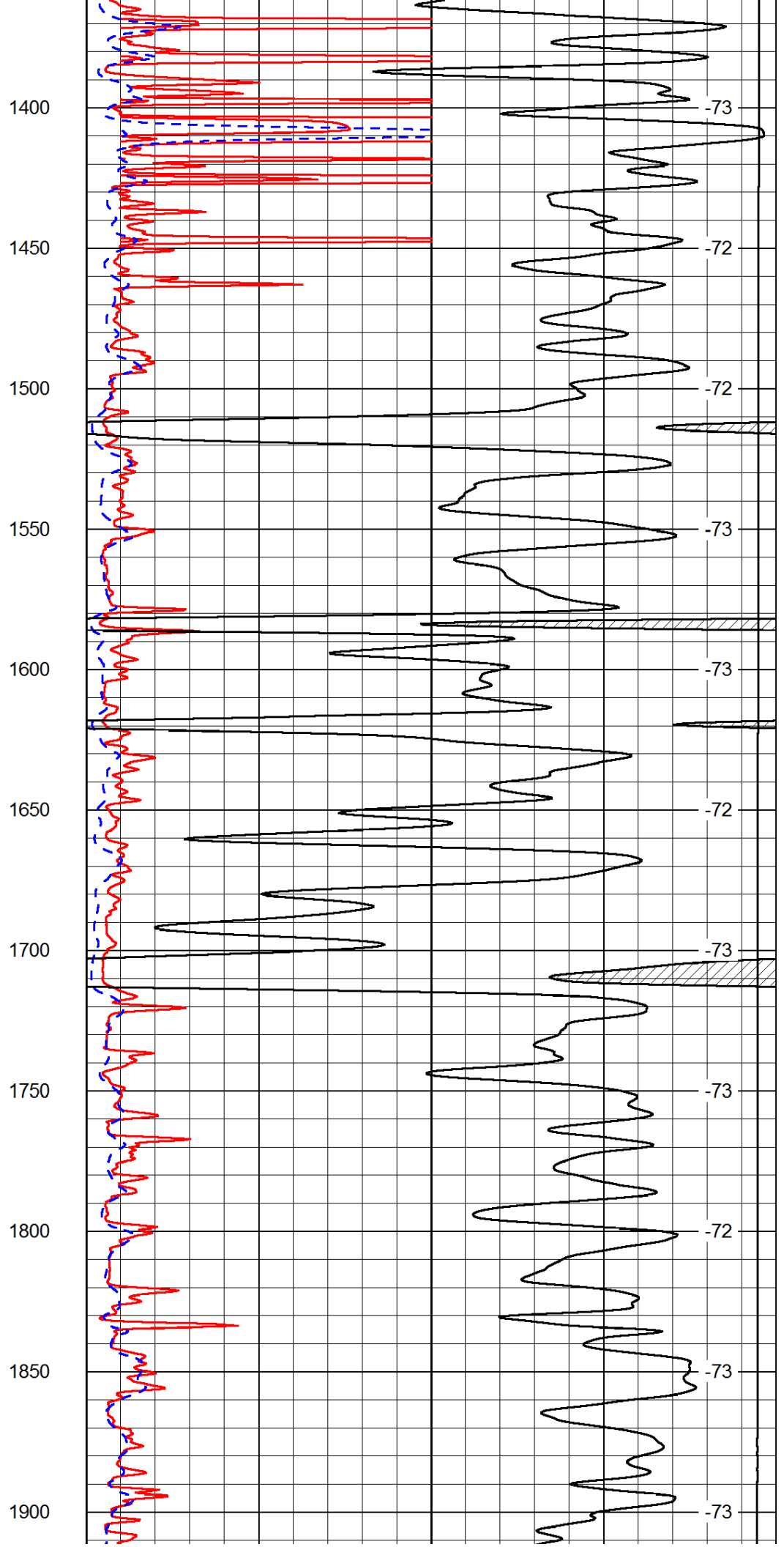
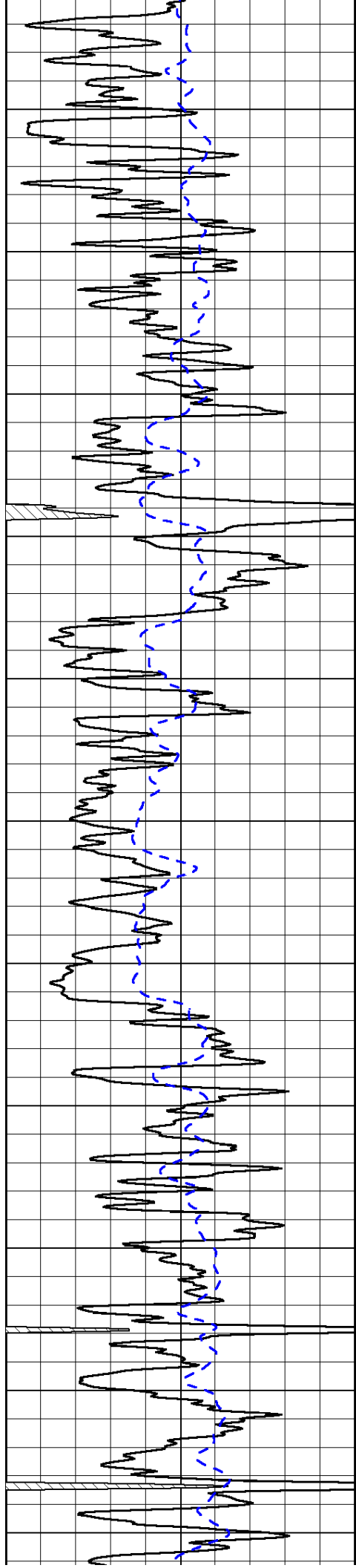
LSPD

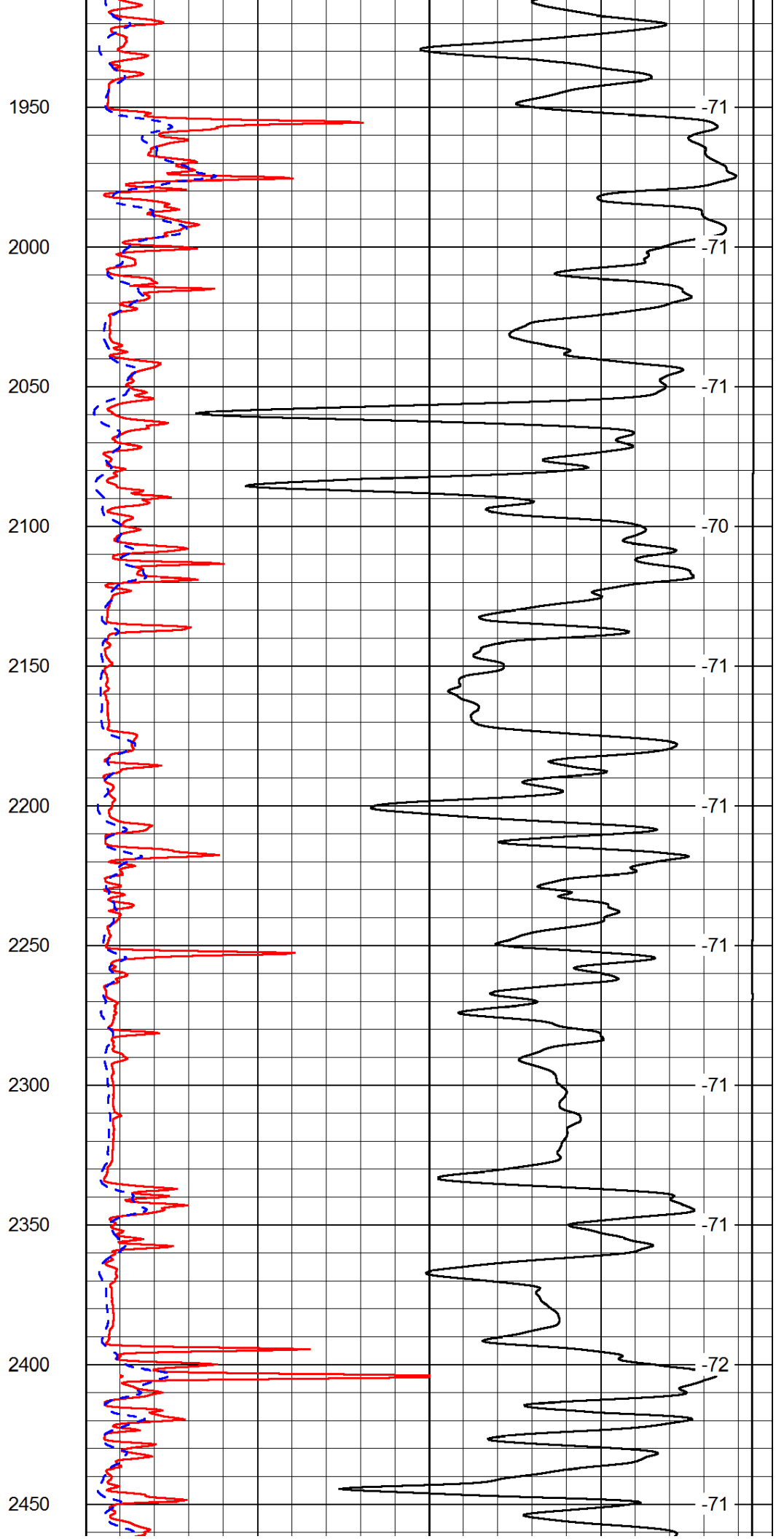
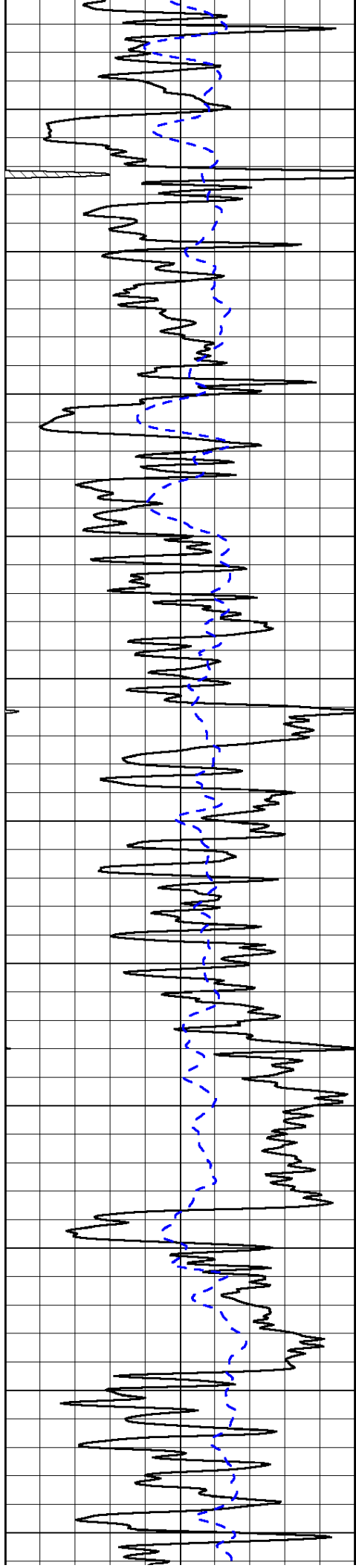
1000	Conductivity	0
15000	Line Tension	0

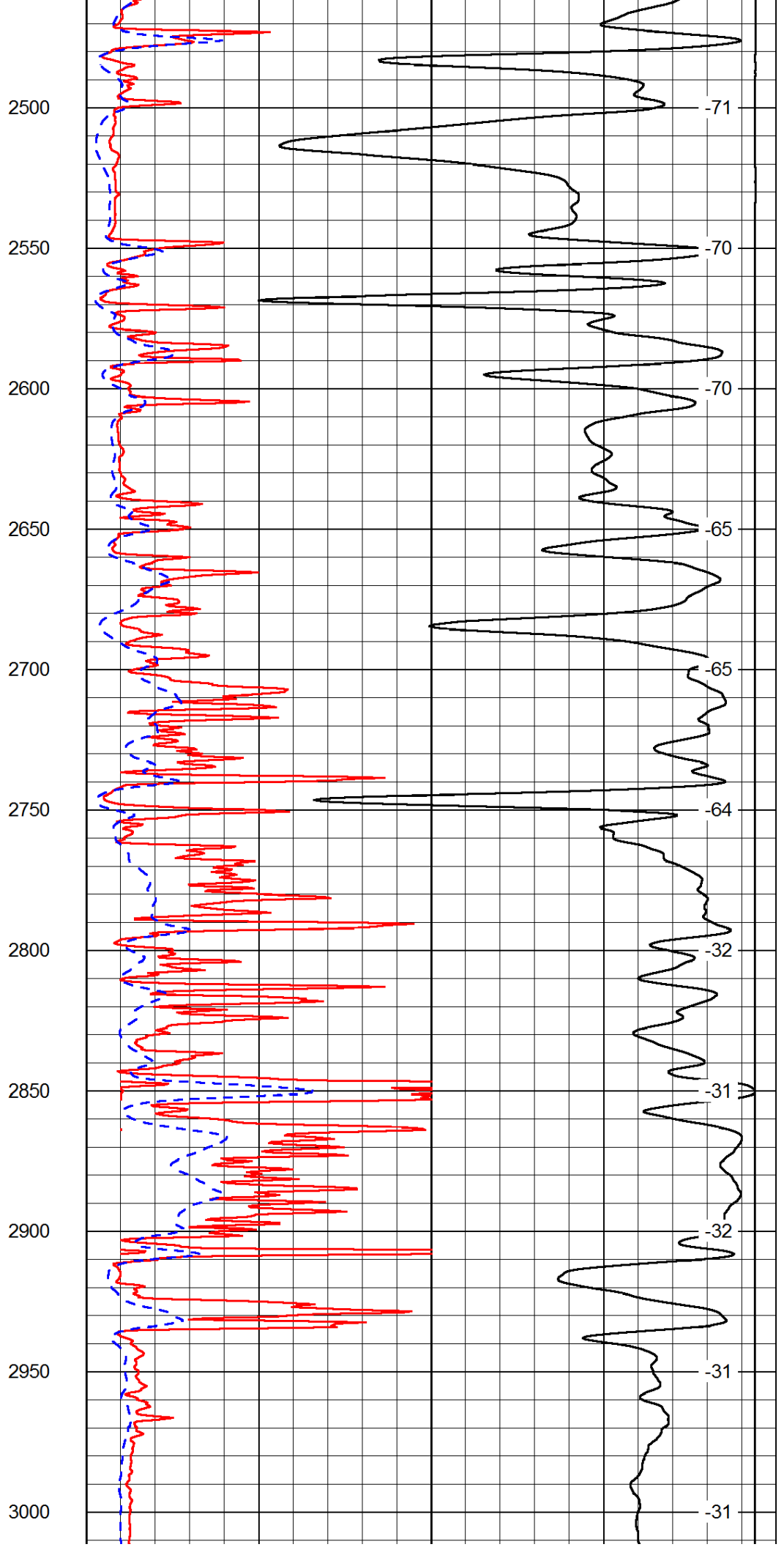
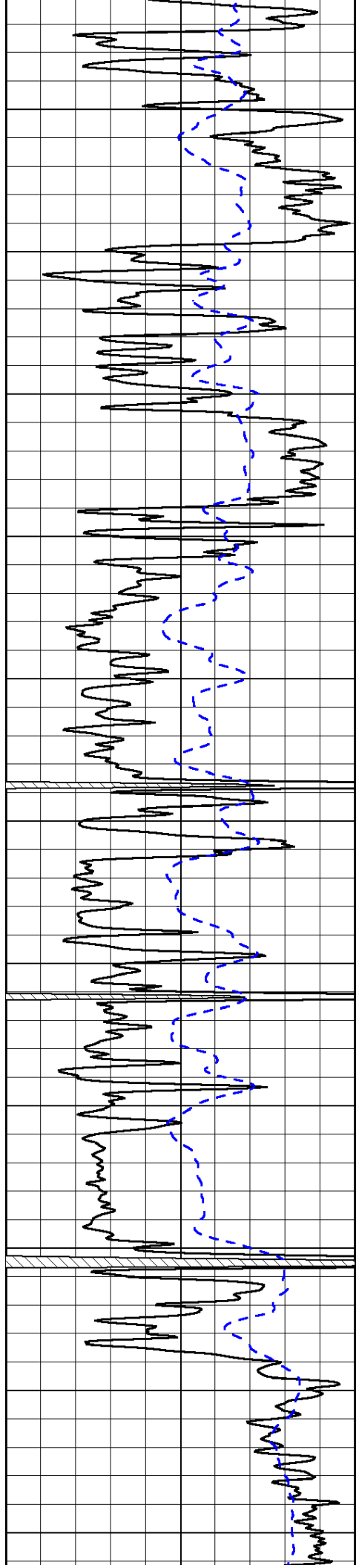
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50	Deep Resistivity	500



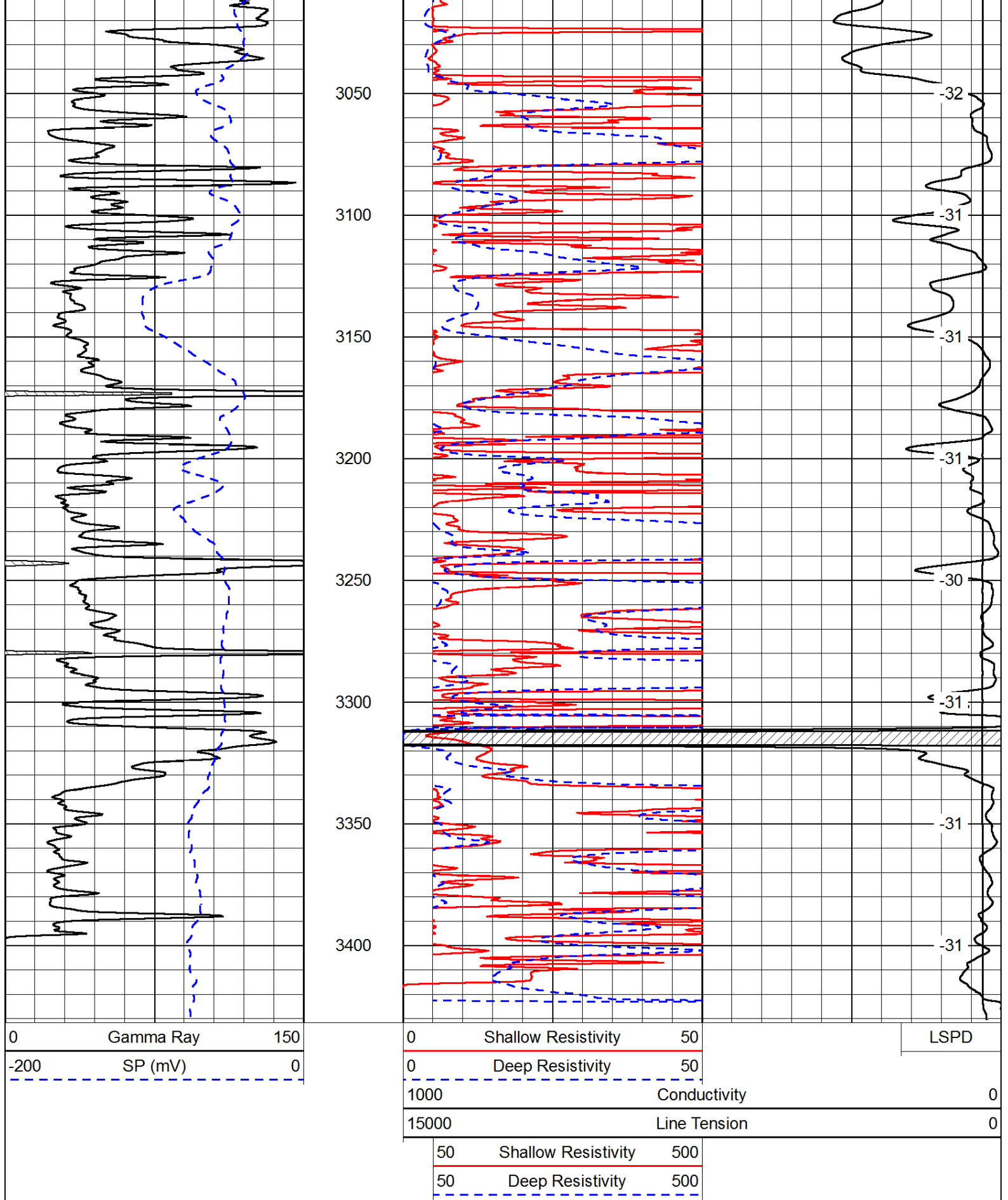








-71  
-70  
-70  
-65  
-65  
-64  
-32  
-31  
-32  
-31  
-31

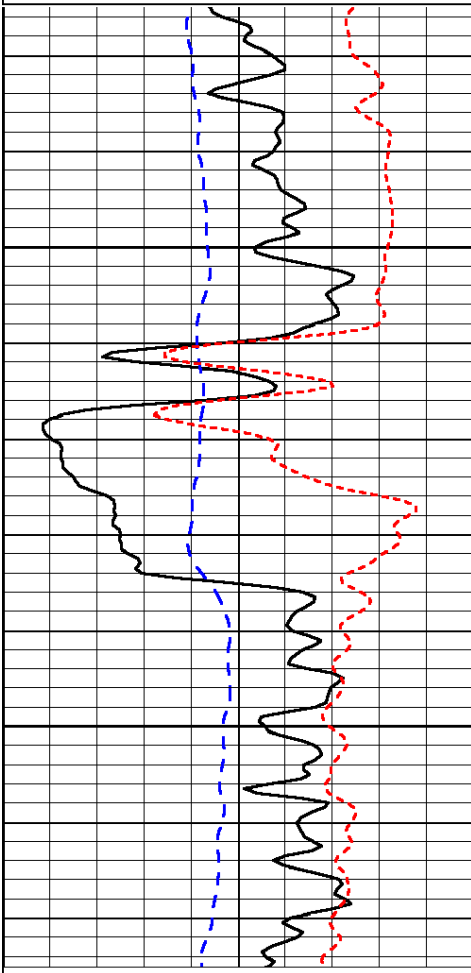


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 Presentation Format: dil  
 Dataset Creation: Sun Dec 01 20:25:57 2013  
 Charted by: Depth in Feet scaled 1:240

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

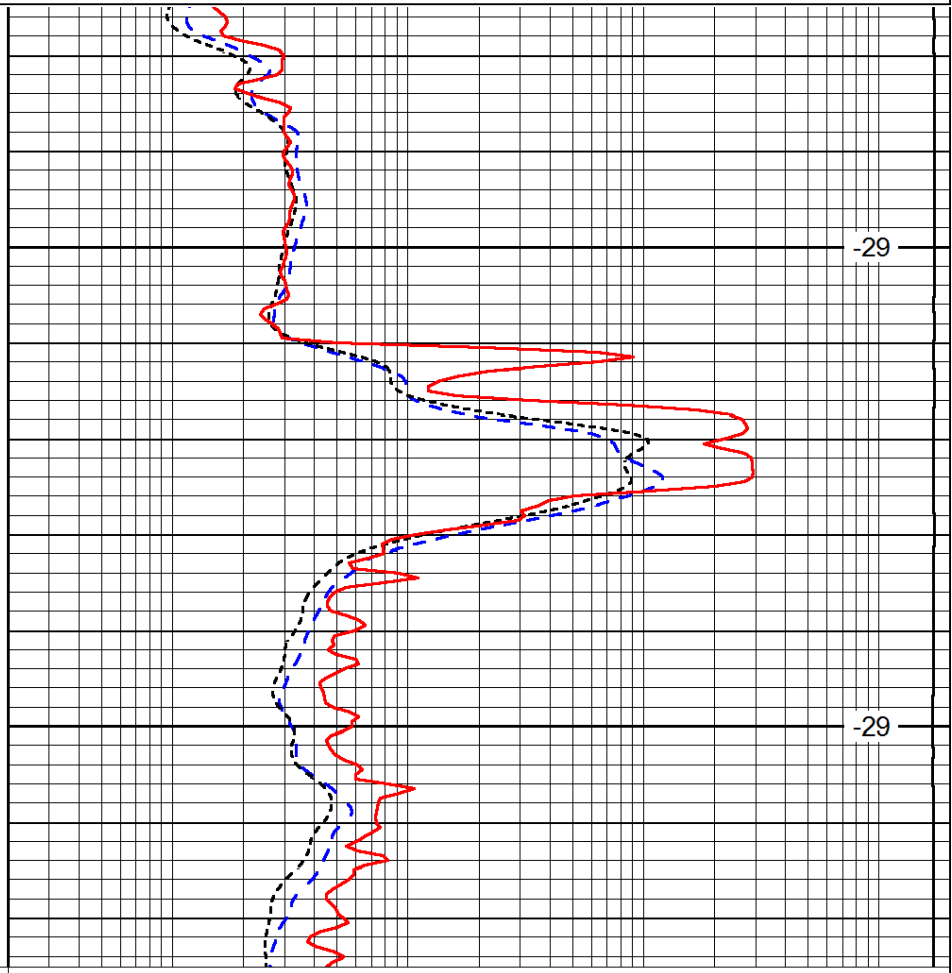
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD



500

550



-29

-29

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

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

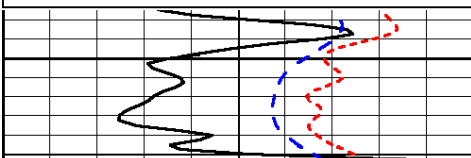
LSPD

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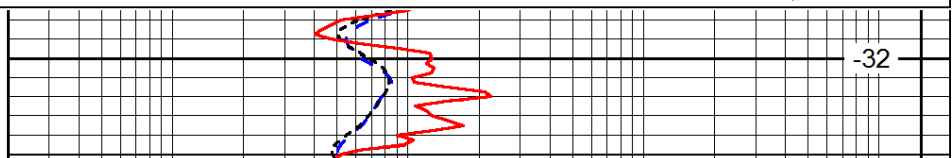
0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

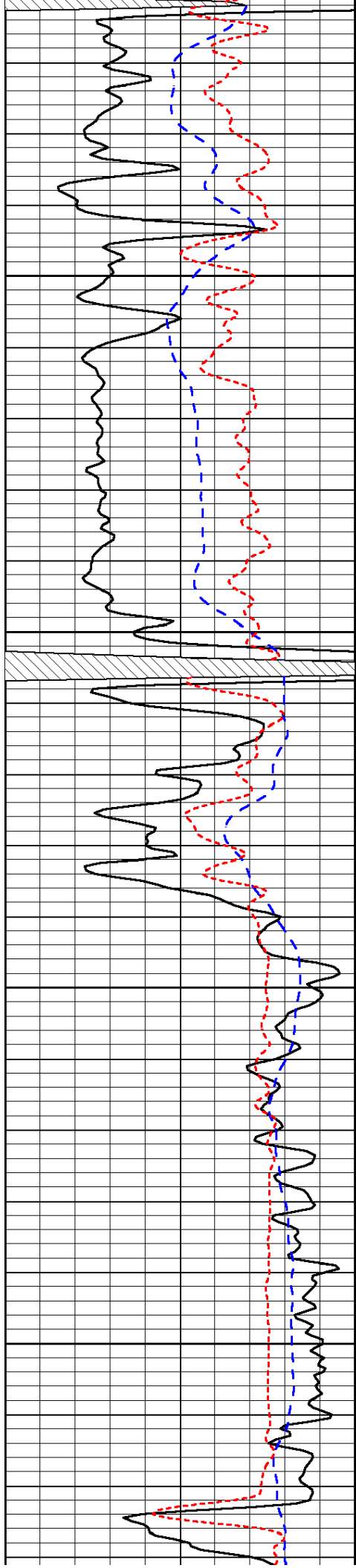
LSPD



2800



-32

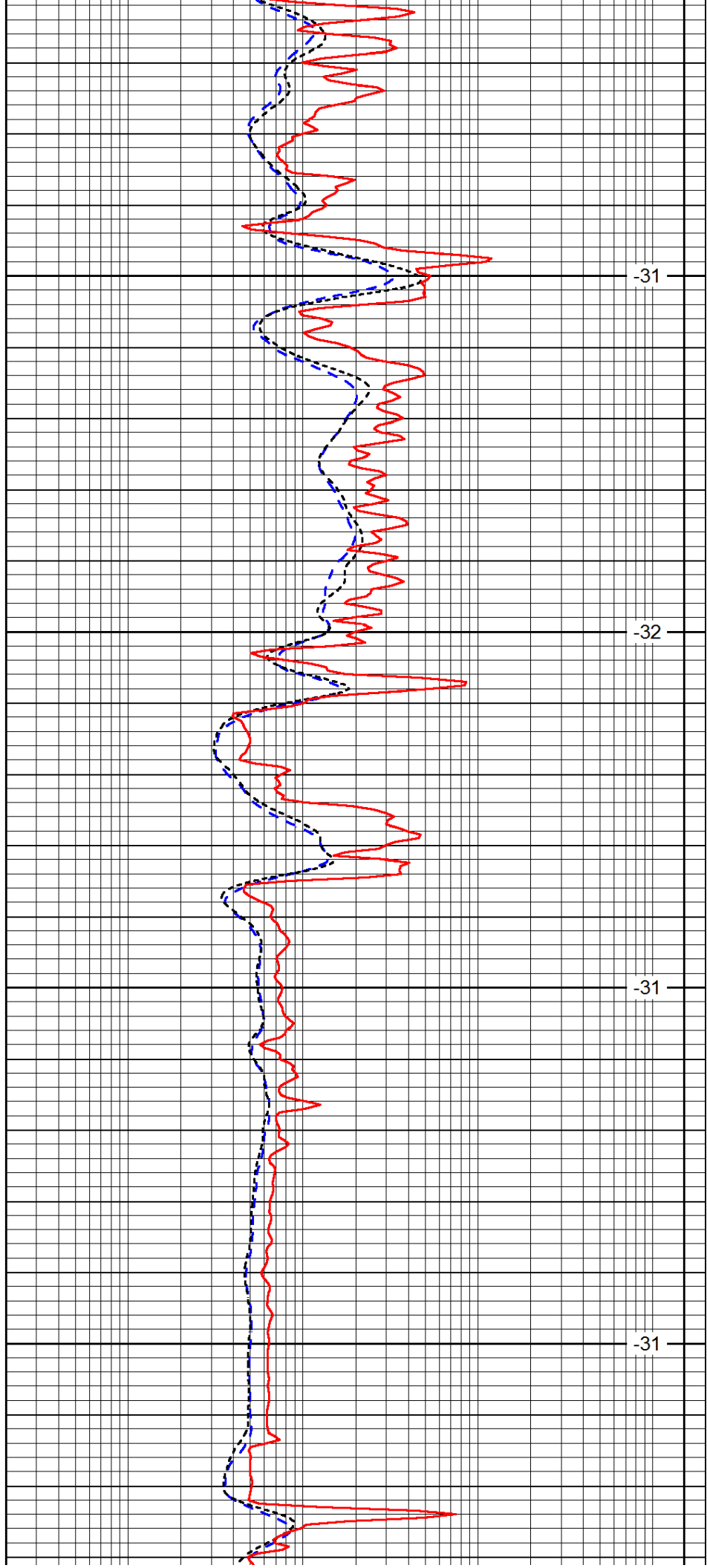


2850

2900

2950

3000

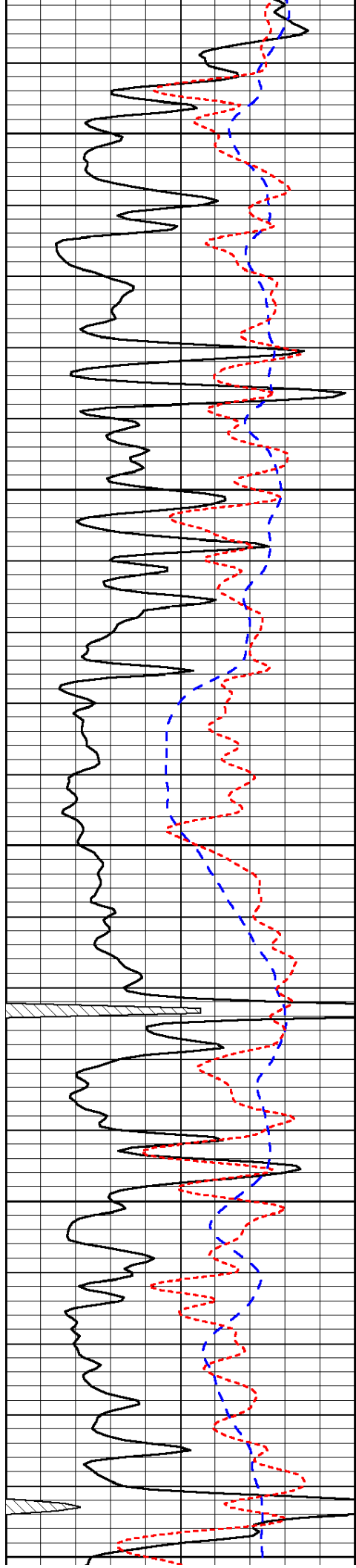


-31

-32

-31

-31



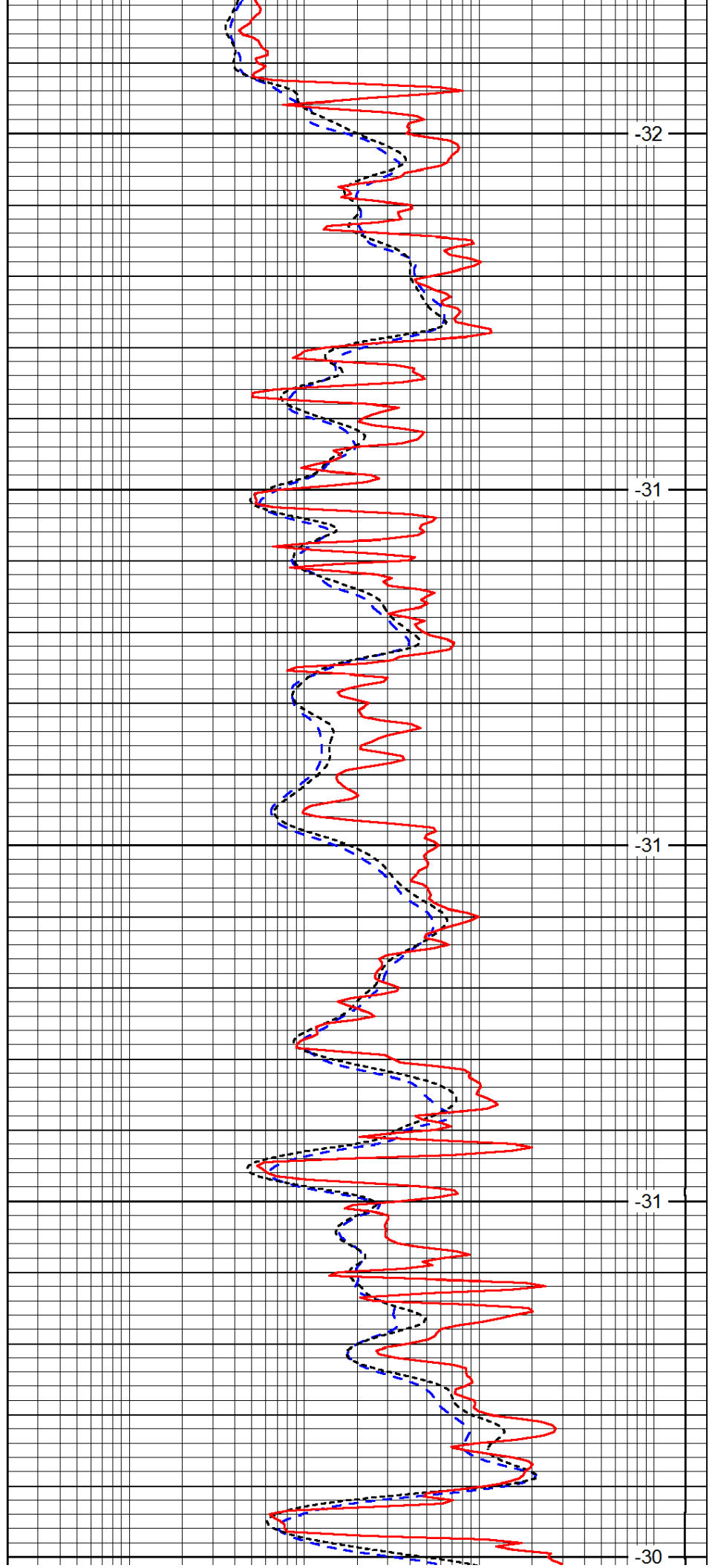
3050

3100

3150

3200

3250



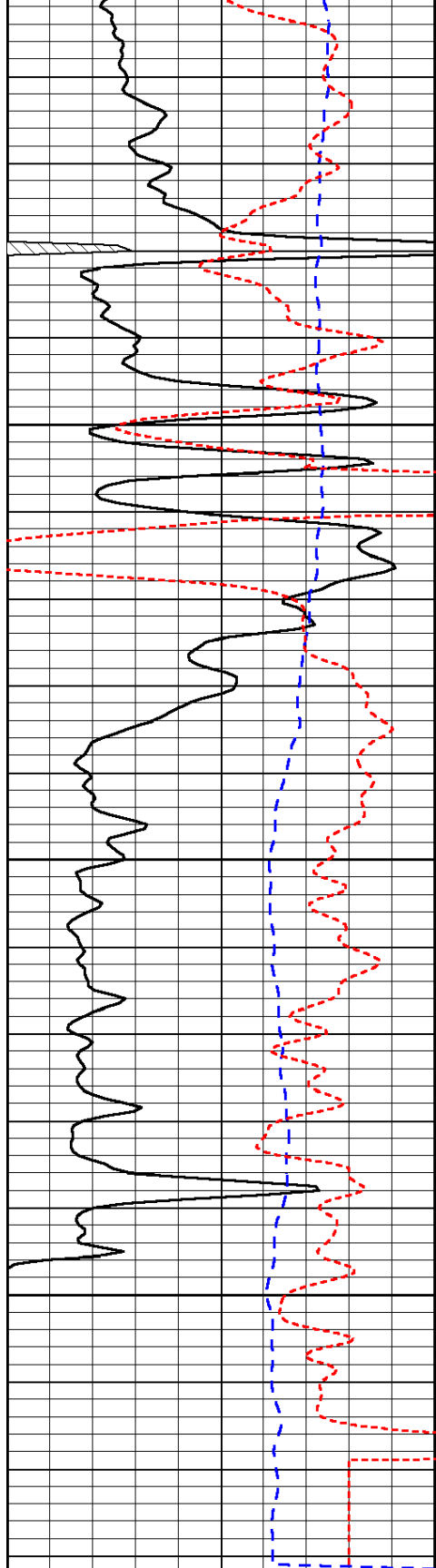
-32

-31

-31

-31

-30

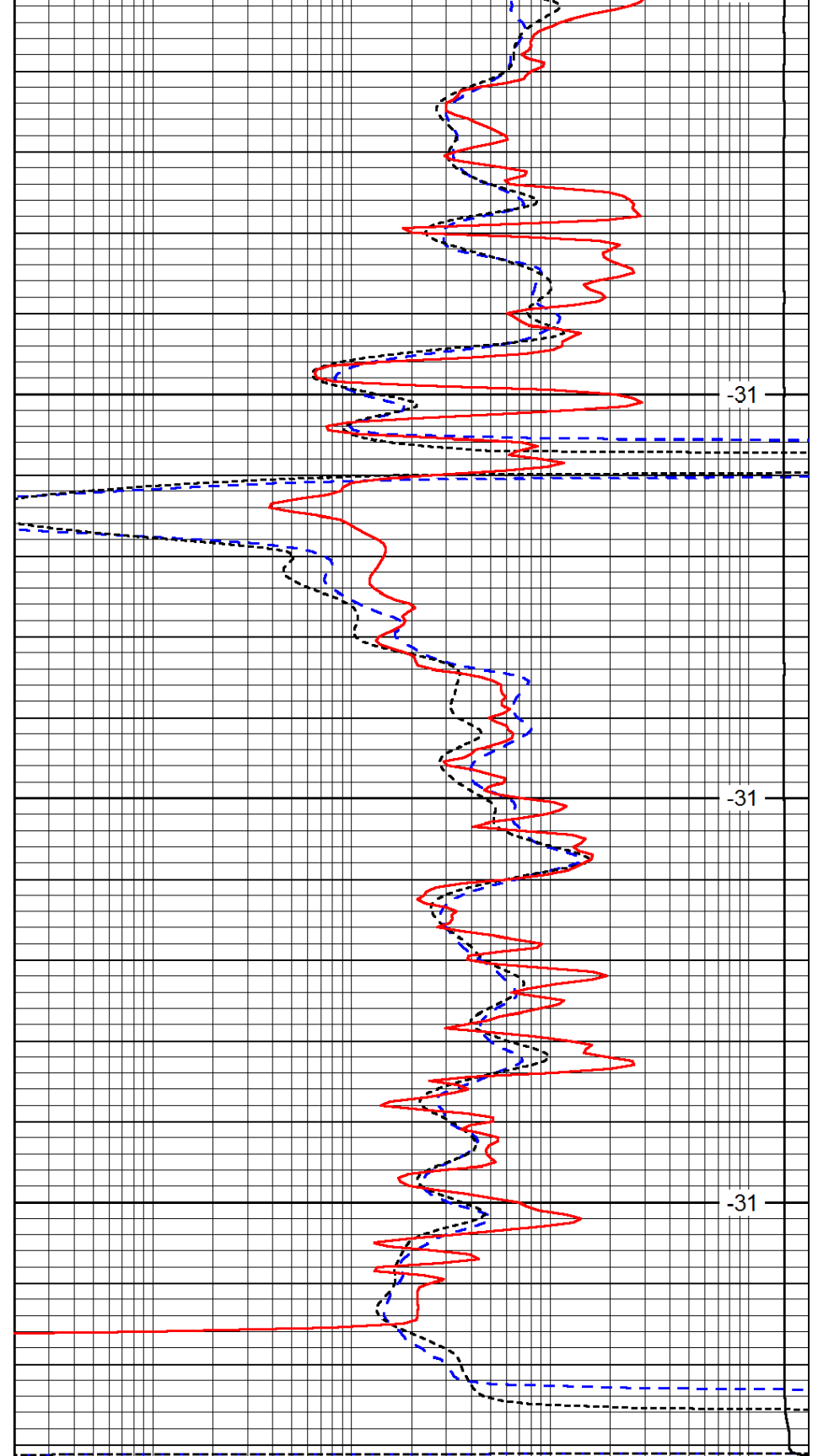


0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

3300

3350

3400



-31

-31

-31

0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0

LSPD