



Dual Induction Log

Pioneer Energy Services

API No.		Company John O. Farmer, Inc.	
15-051-26,360-00-00		Well Froelich C No. 1 - 31	
Field Emmerman Northeast		County Ellis State Kansas	
Location 1050' FNL & 990' FEL		Other Services CNL/CDL MEL	
Sec: 27 Twp: 12 S Rge: 16 W		Elevation	
Permanent Datum Ground Level Elevation 1948		K.B. 1956	
Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum		D.F. 1948	
Drilling Measured From Kelly Bushing		G.L. 1948	
Date	9/4/2012		
Run Number	One		
Depth Driller	3500		
Depth Logger	3505		
Bottom Logged Interval	3504		
Top Log Interval	200		
Casing Driller	8.625 @ 230		
Casing Logger	230		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	2000		
Density / Viscosity	8.8 58		
pH / Fluid Loss	10.0 8.8		
Source of Sample	Flowline		
Rm @ Meas. Temp	1.50 @ 79		
Rmf @ Meas. Temp	1.13 @ 79		
Rmc @ Meas. Temp	2.03 @ 79		
Source of Rmf / Rmc	Charts		
Rm @ BHT	1.07 @ 111		
Operating Rig Time	4 1/2 Hours		
Max Rec. Temp. F	111		
Equipment Number	17		
Location	Hays		
Recorded By	D. Martin		
Witnessed By	Austin Klaus		

<<< Fold Here >>>

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

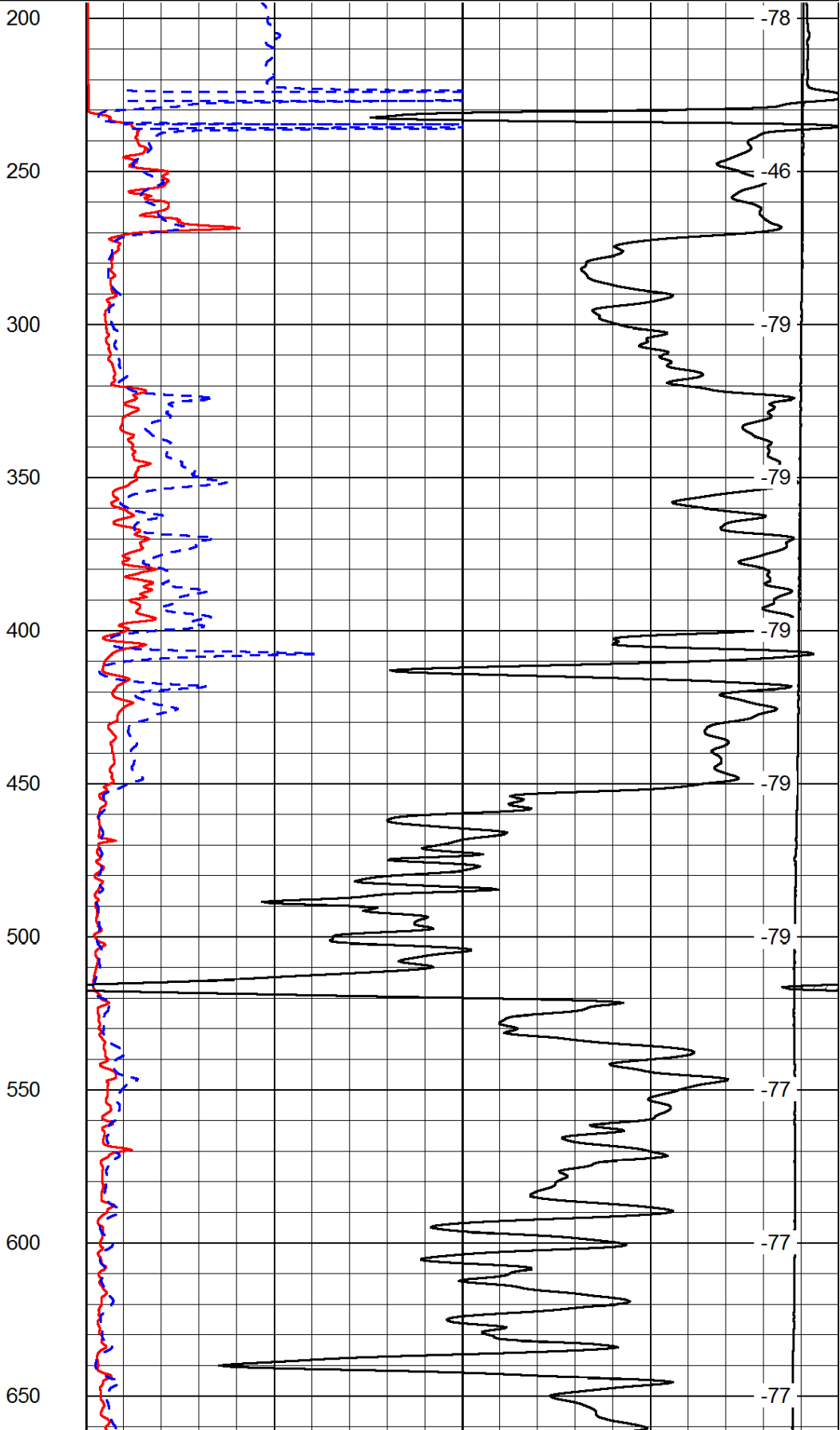
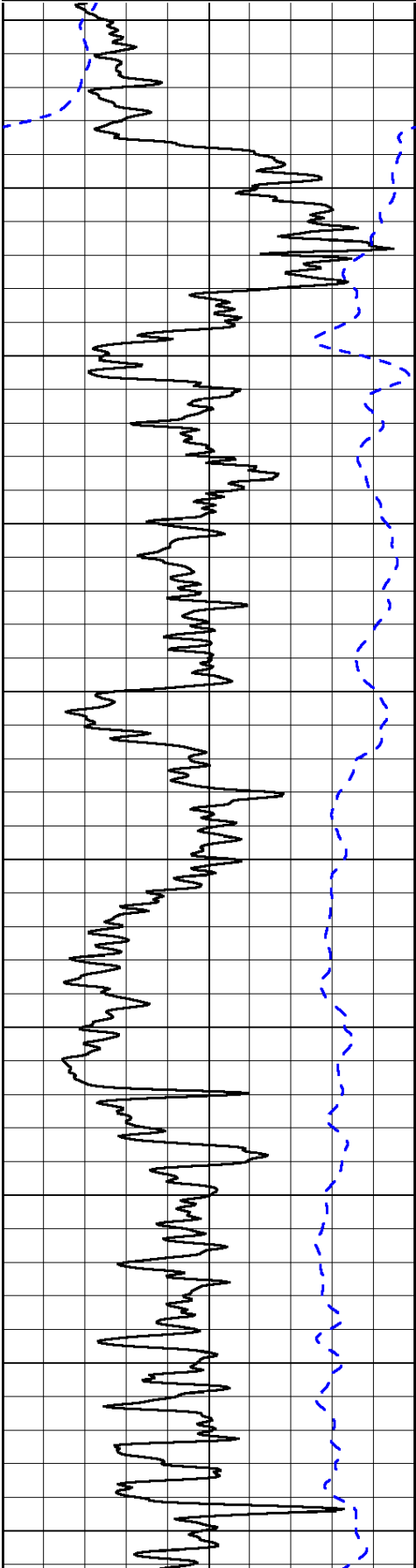
Thank you for using Pioneer Energy Services
www.pioneerres.com
785 625 3858
Walker, KS
I-70 Exit, 6 1/2 N to Emmerman Rd.,
1 W, 1 N Hopewell, 1/2 E, N Into

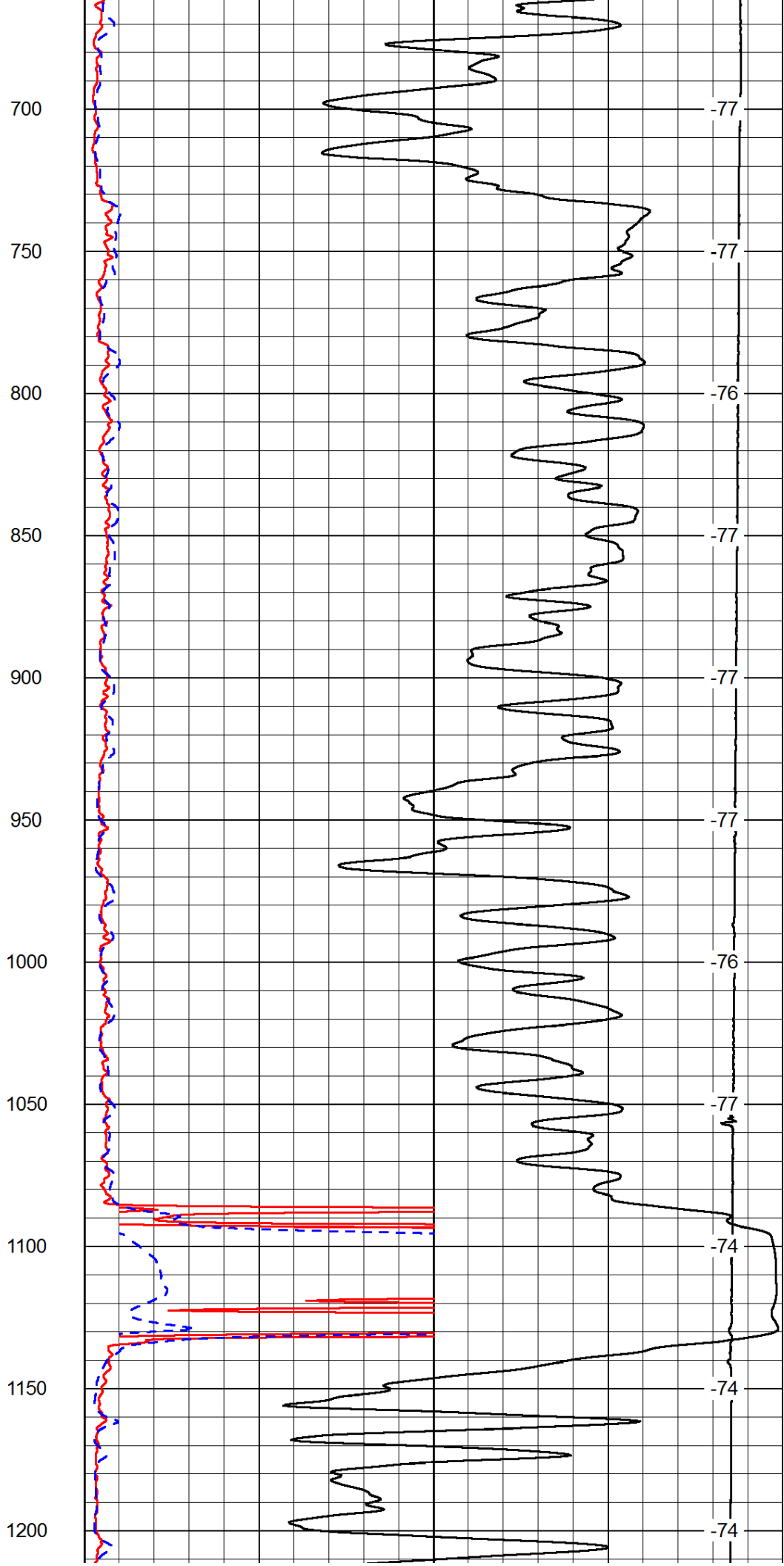
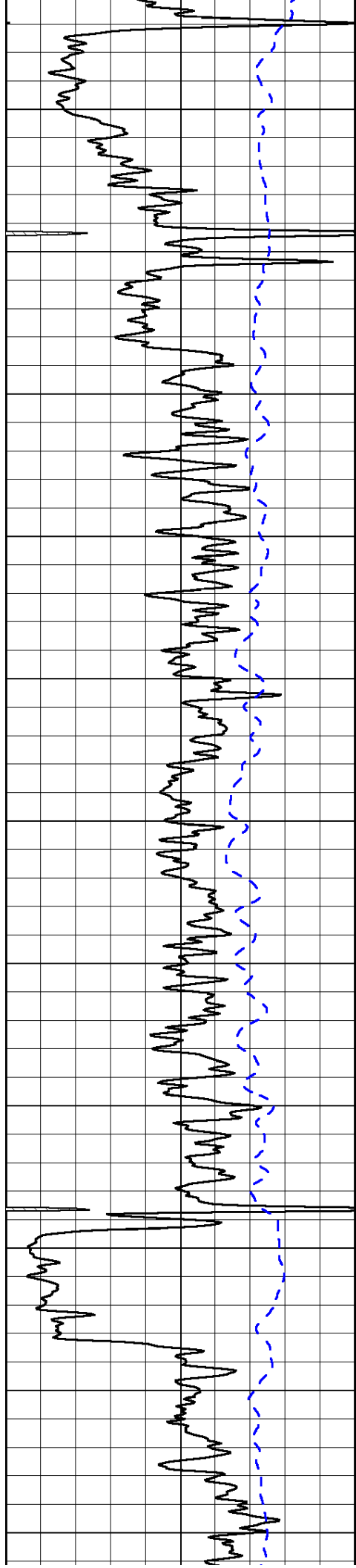
Database File: c:\warrior\data\farmer_froelich c #1-31\johnhd.db
Dataset Pathname: DIL\johnstk
Presentation Format: dil2in
Dataset Creation: Tue Sep 04 15:07:14 2012
Charted by: Depth in Feet scaled 1:600

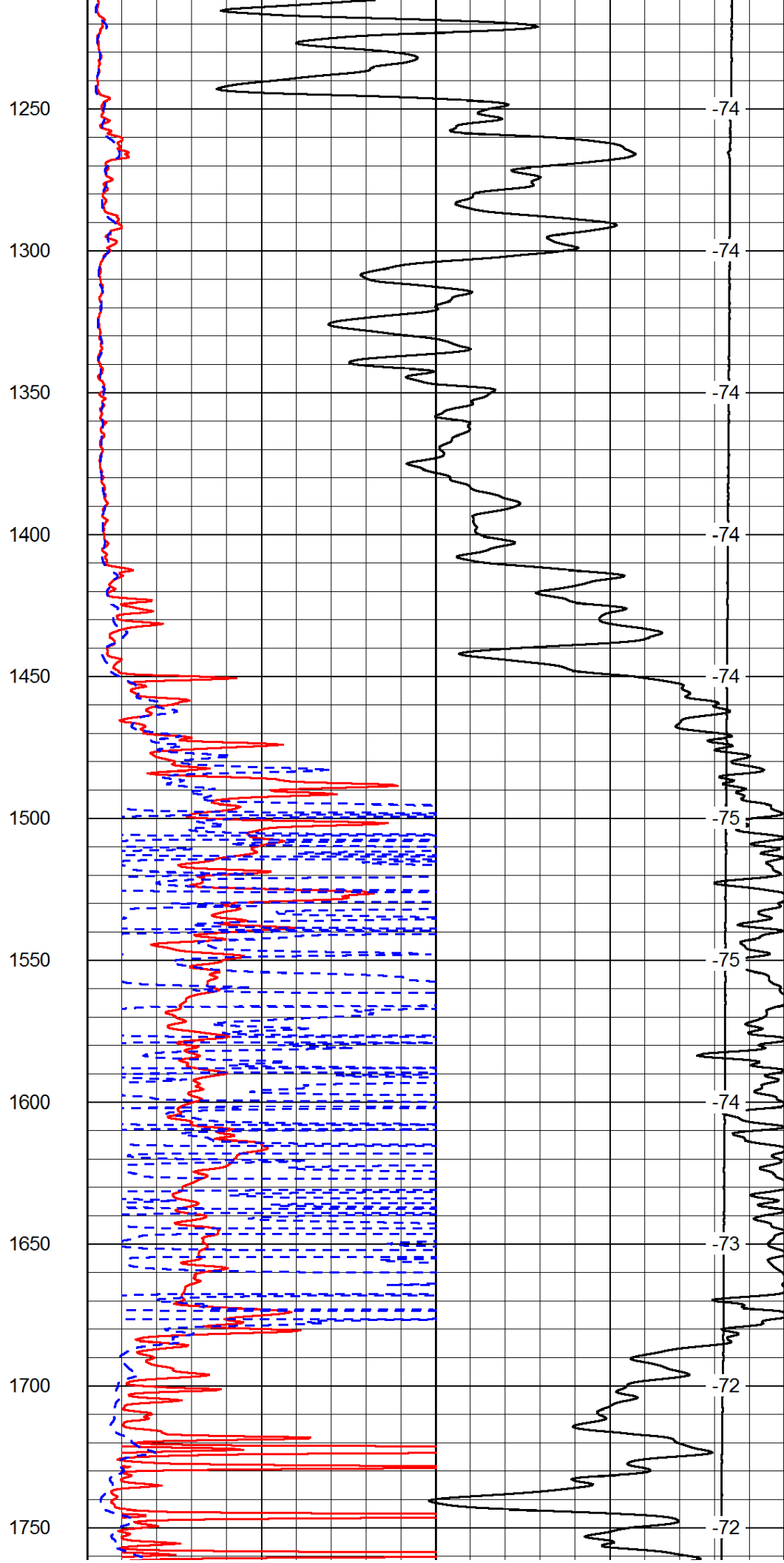
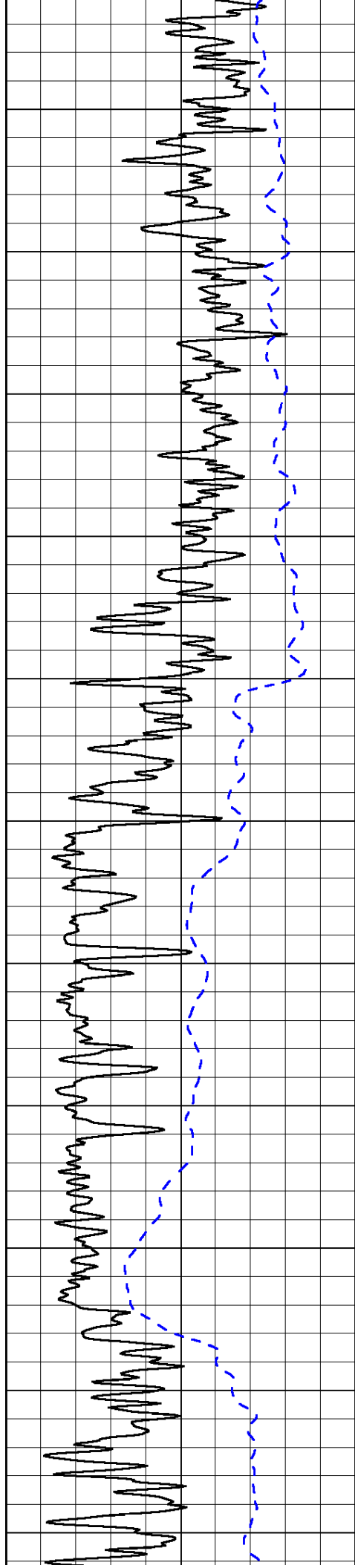
0	Gamma Ray	150
-200	SP (mV)	0

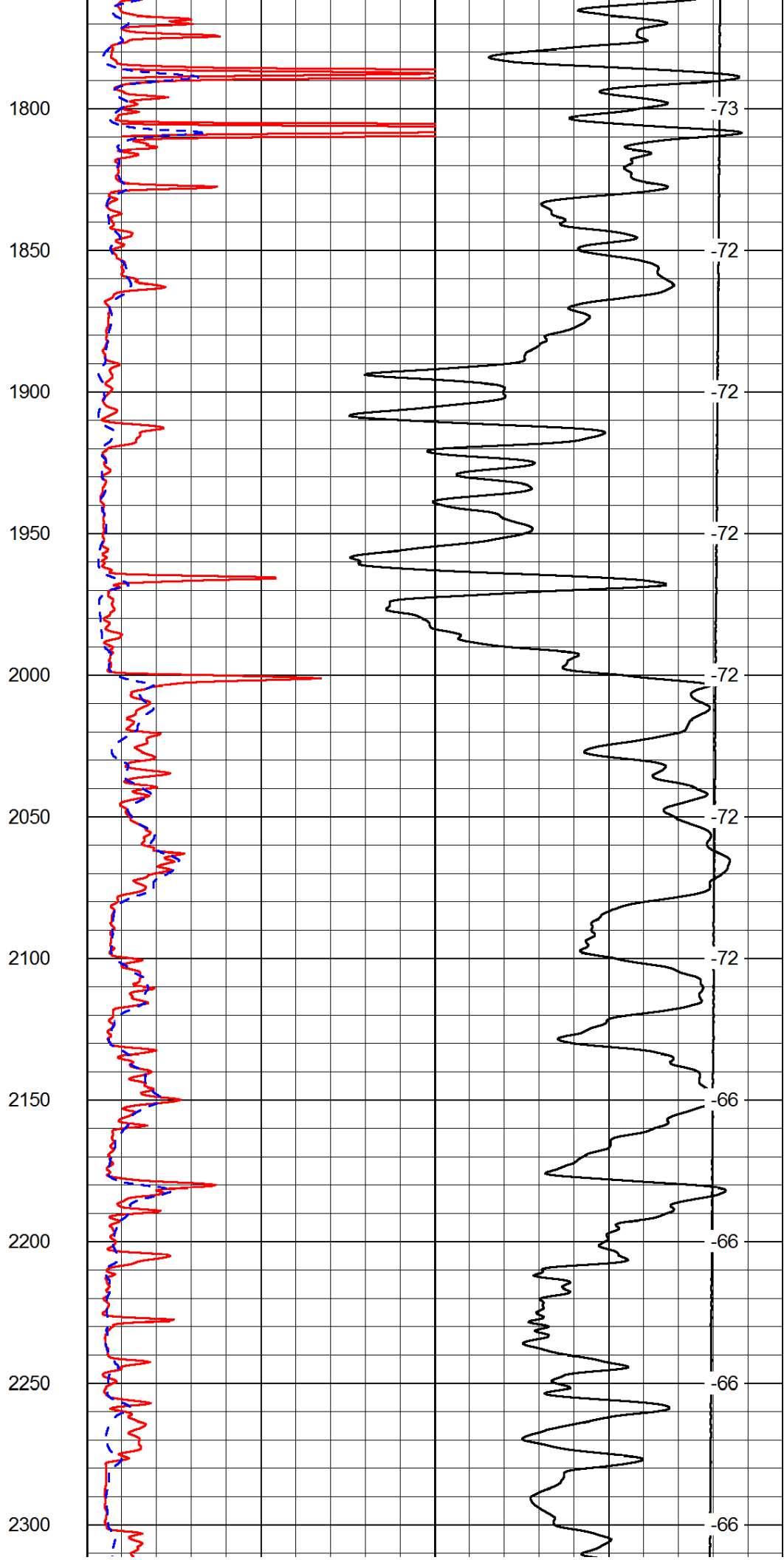
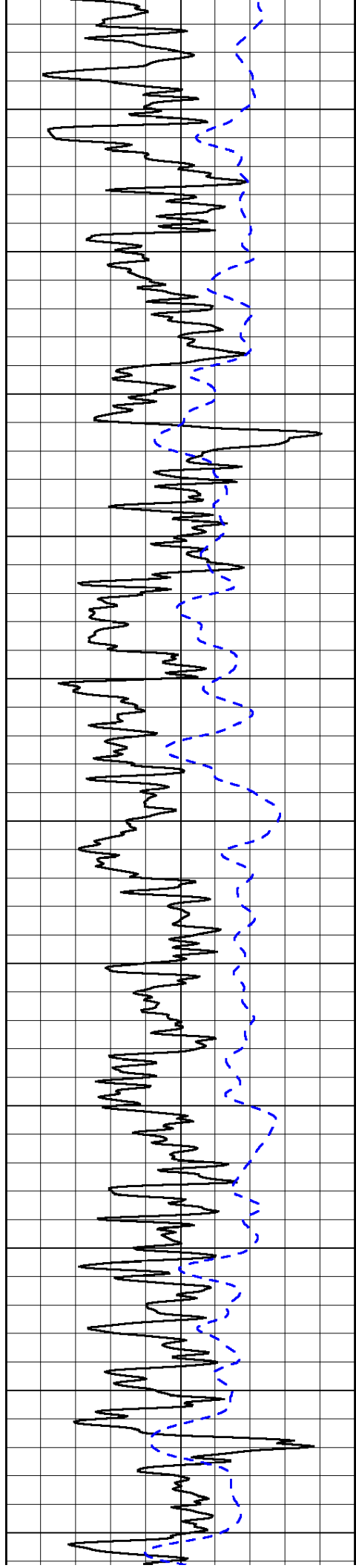
0	Shallow Resistivity	50
0	Deep Resistivity	50
1000	Conductivity	0
15000	Line Tension	0
50	Shallow Resistivity	500
50	Deep Resistivity	500

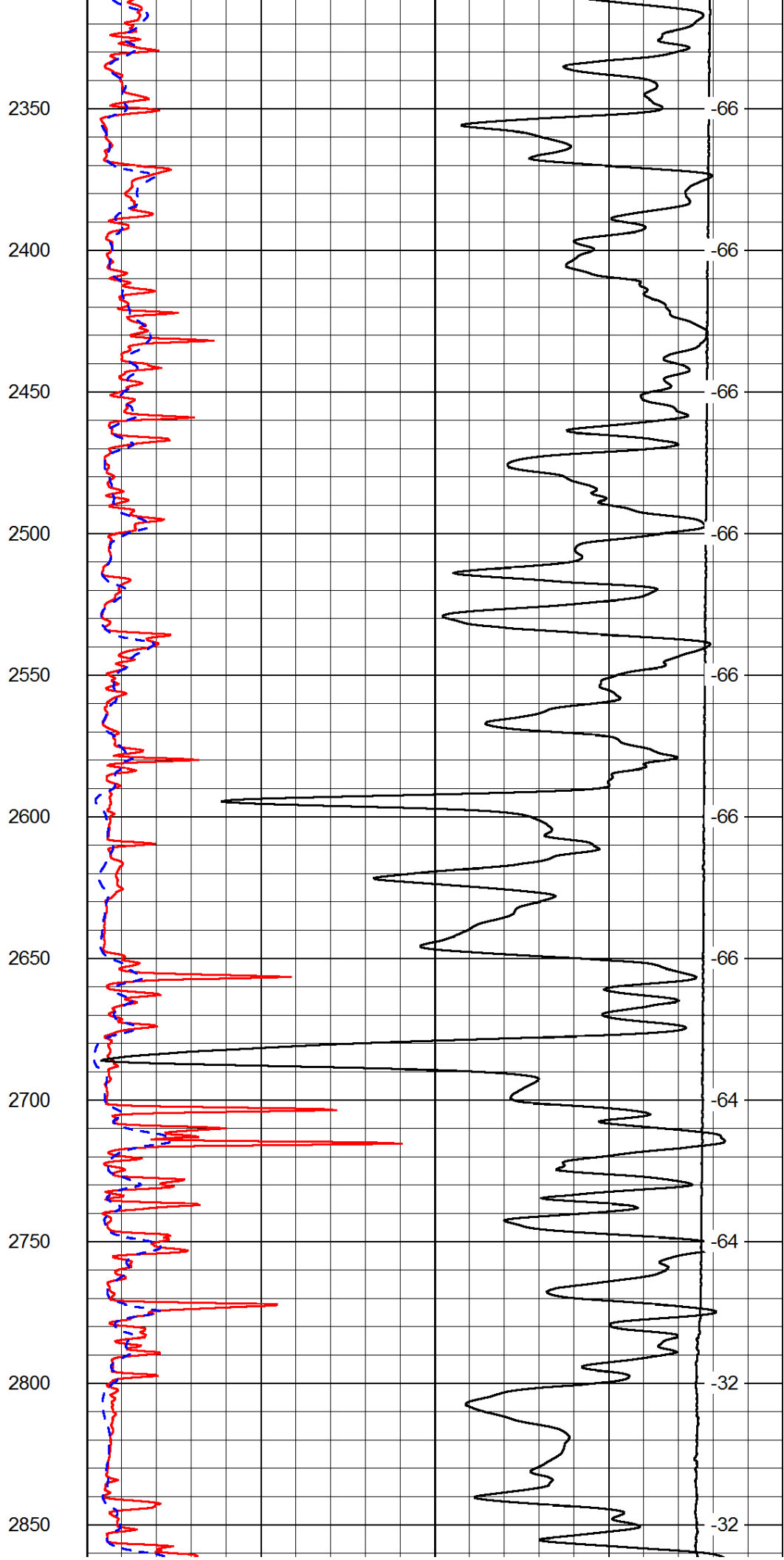
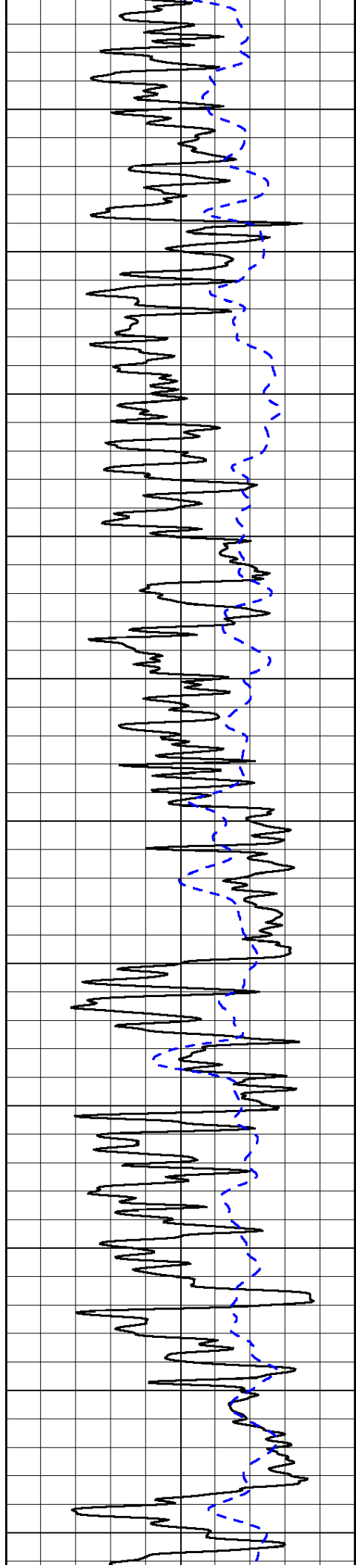
LSPD
0
0

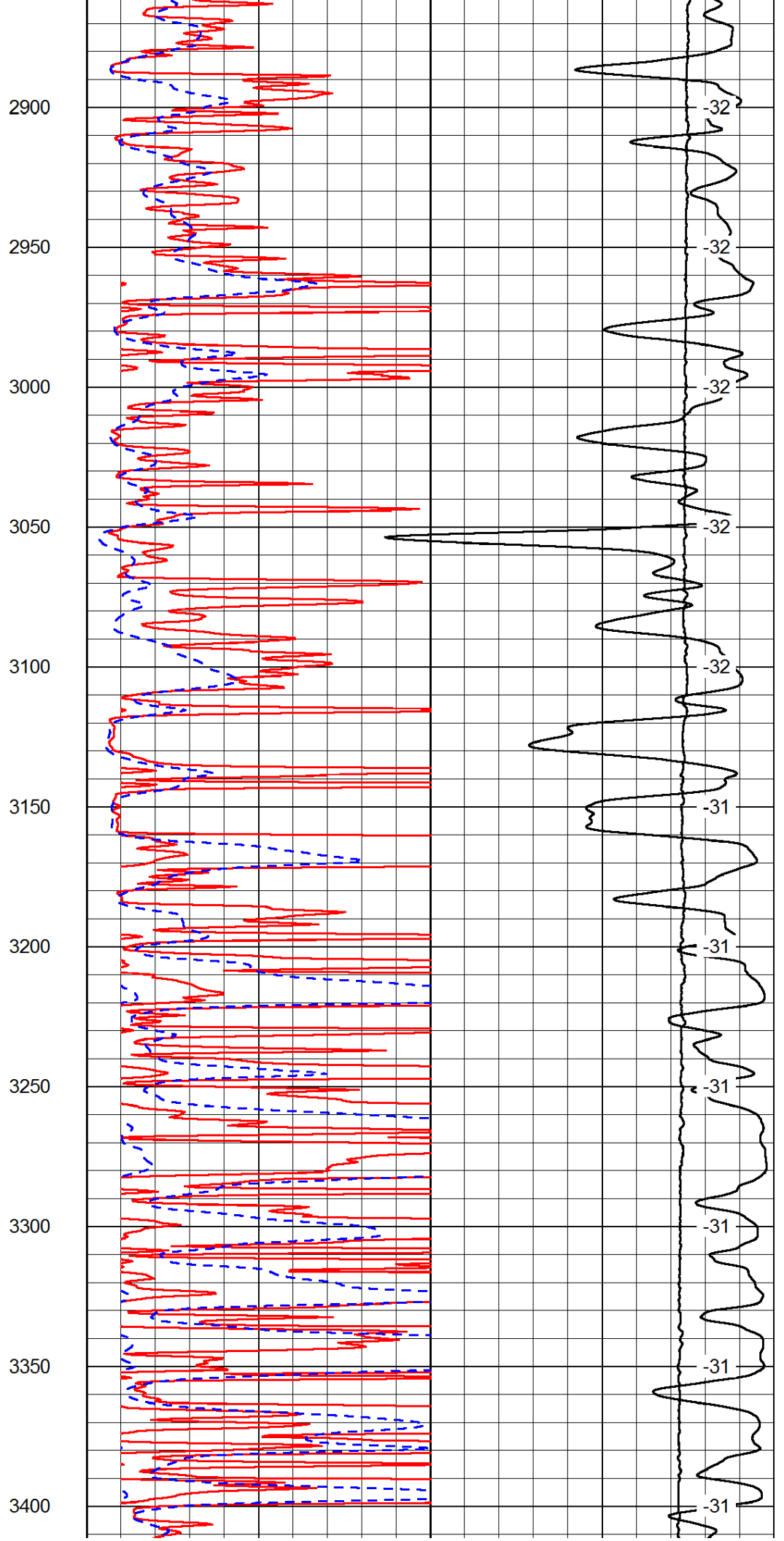
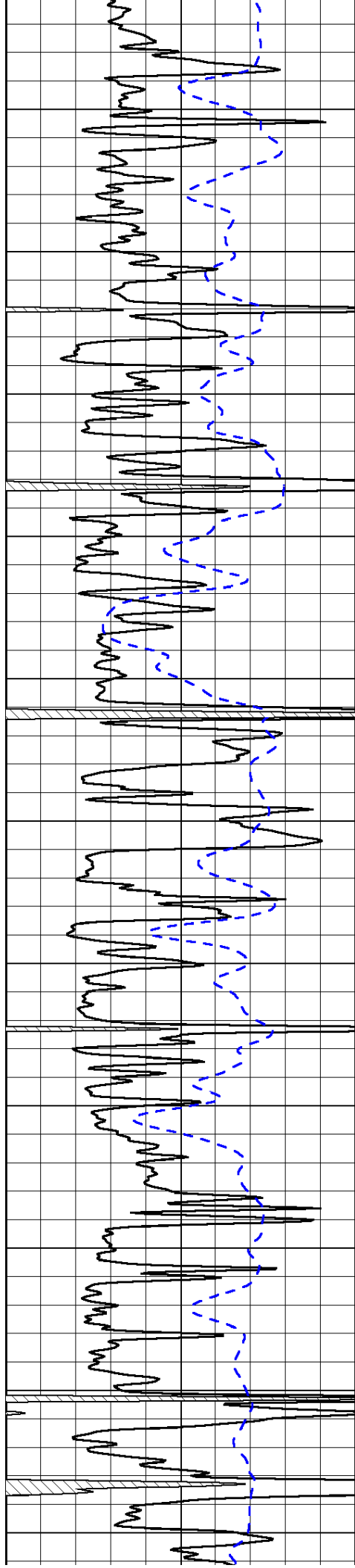


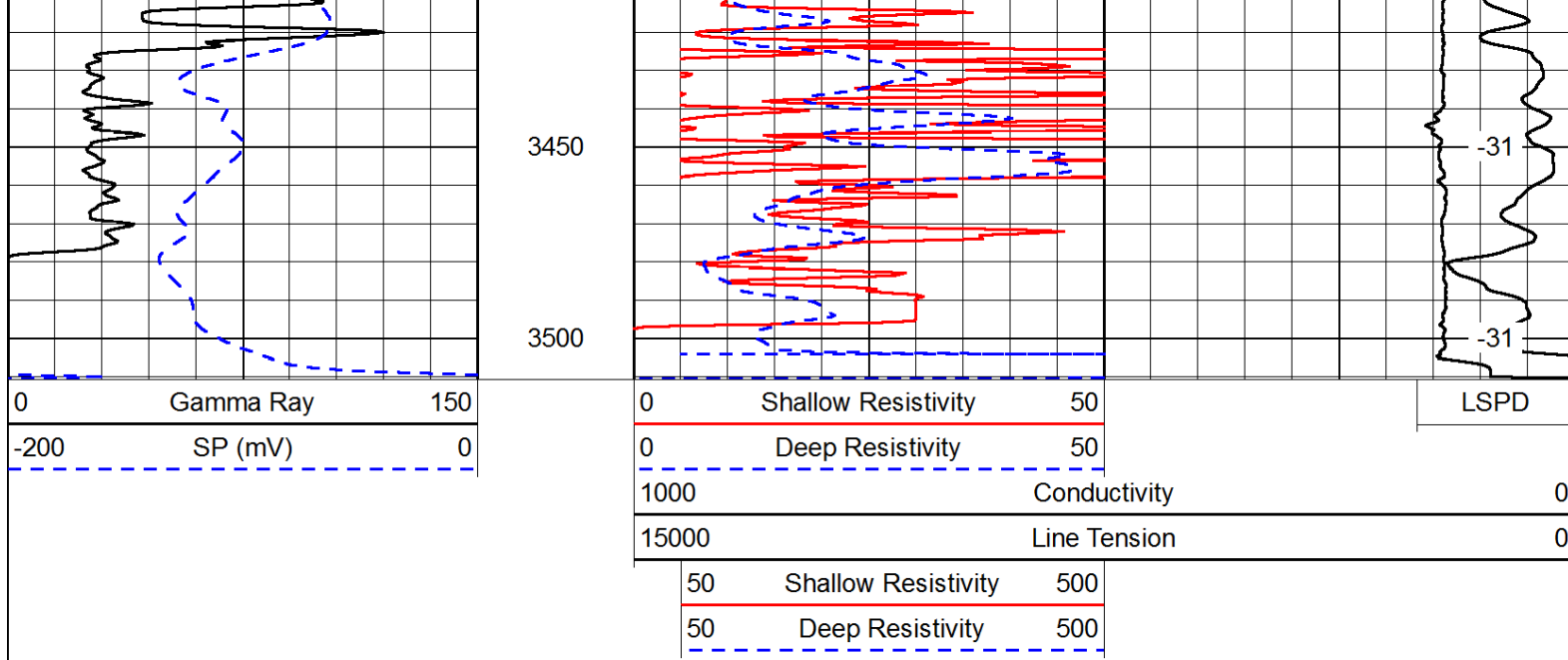




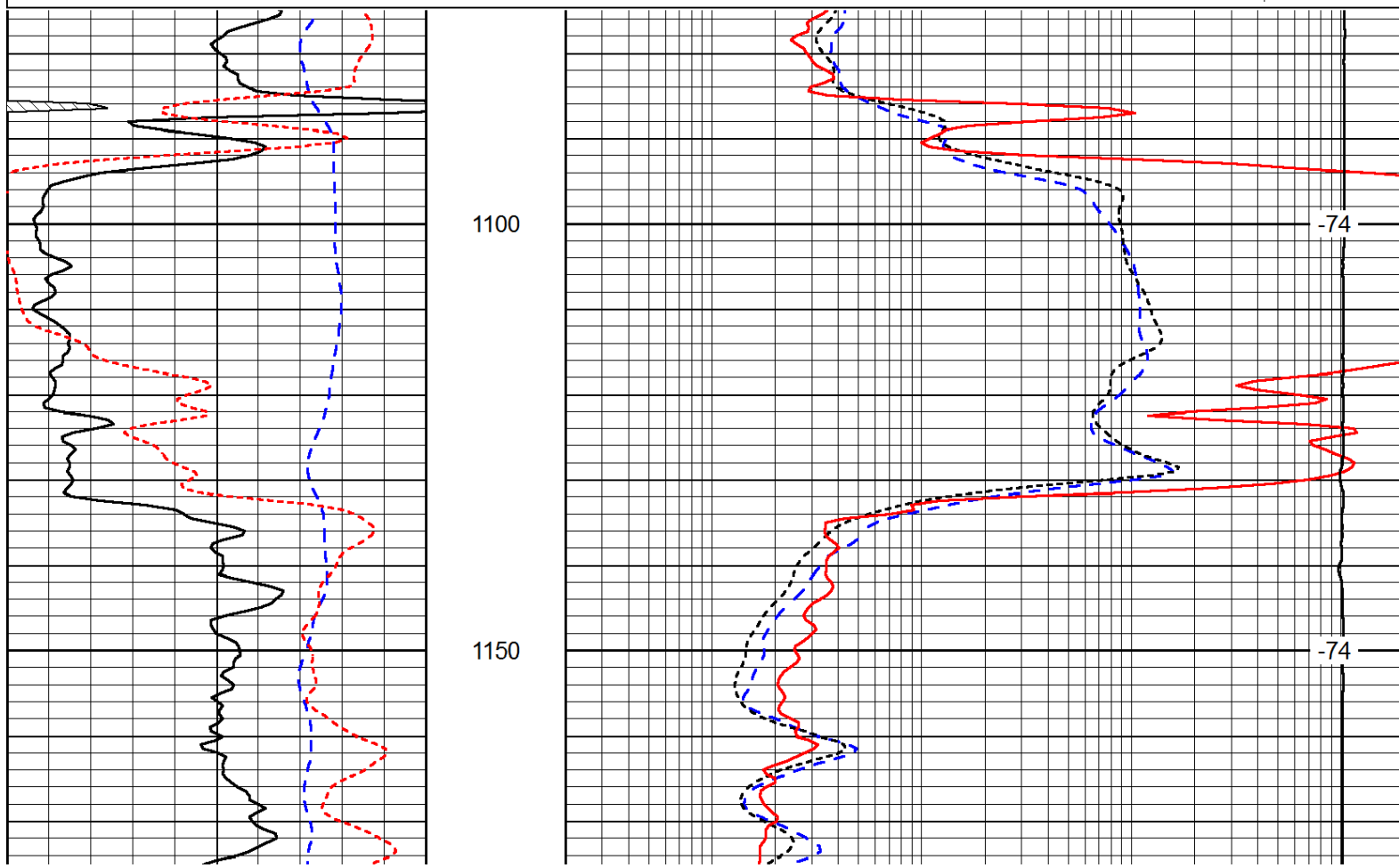
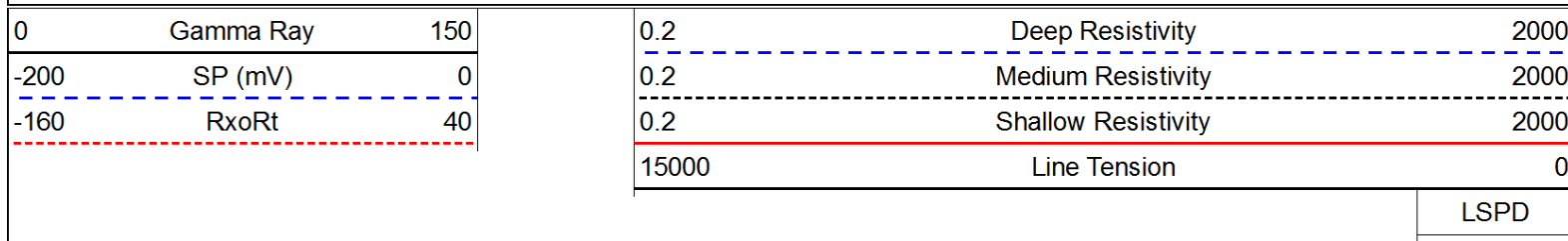








Database File: c:\warrior\data\farmer_froelich c #1-31\johnhd.db
 Dataset Pathname: DIL\johnstk
 Presentation Format: dil
 Dataset Creation: Tue Sep 04 15:07:14 2012
 Charted by: Depth in Feet scaled 1:240



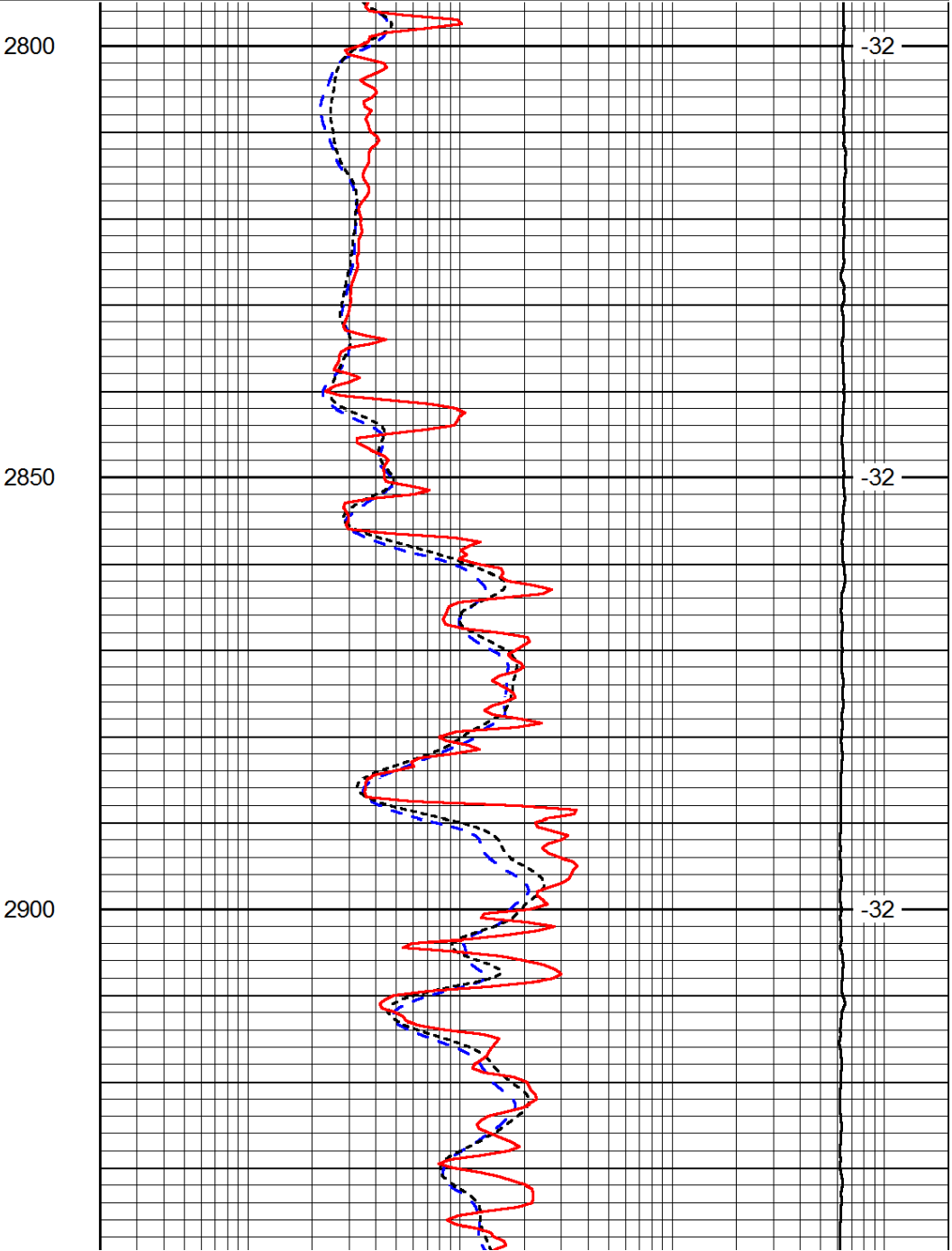
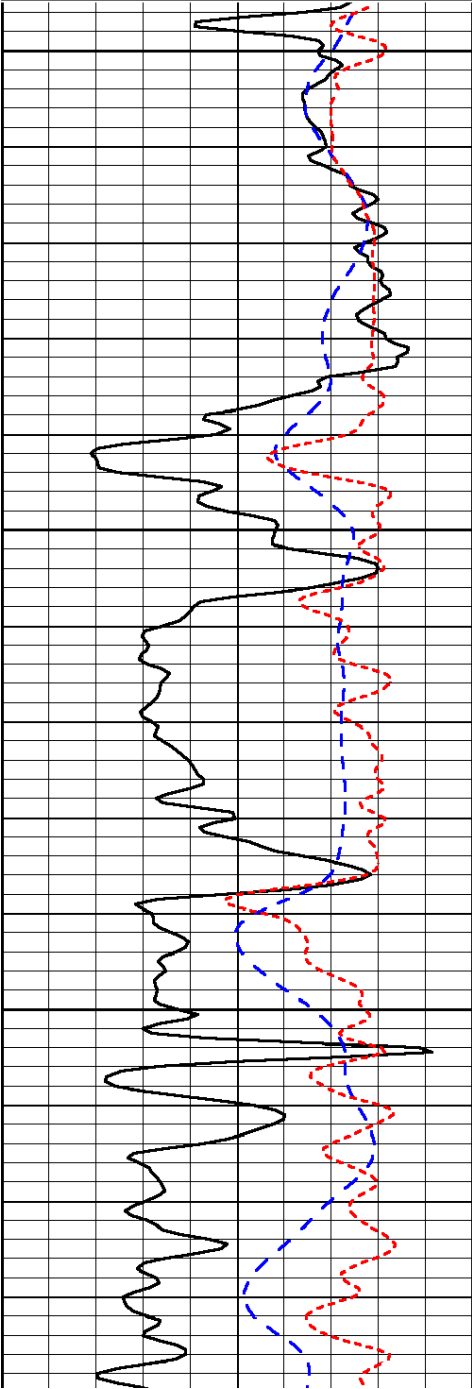
0	Gamma Ray	150
-200	SP (mV)	0
-160	RxoRt	40

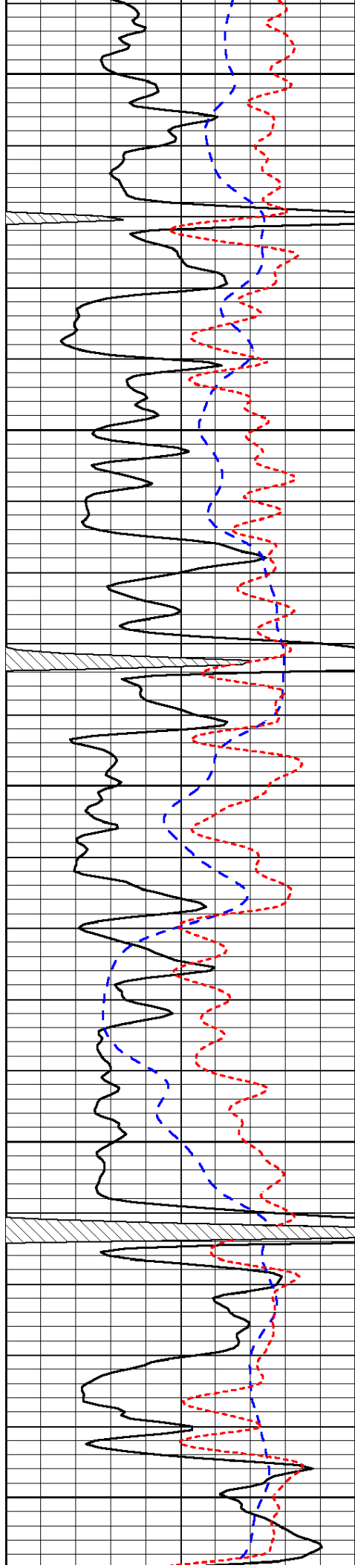
0.2	Deep Resistivity	2000
0.2	Medium Resistivity	2000
0.2	Shallow Resistivity	2000
15000	Line Tension	0
		LSPD

Database File:	c:\warrior\data\farmer_froelich c #1-31\johnhd.db
Dataset Pathname:	DIL/johnstk
Presentation Format:	dil
Dataset Creation:	Tue Sep 04 15:07:14 2012
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





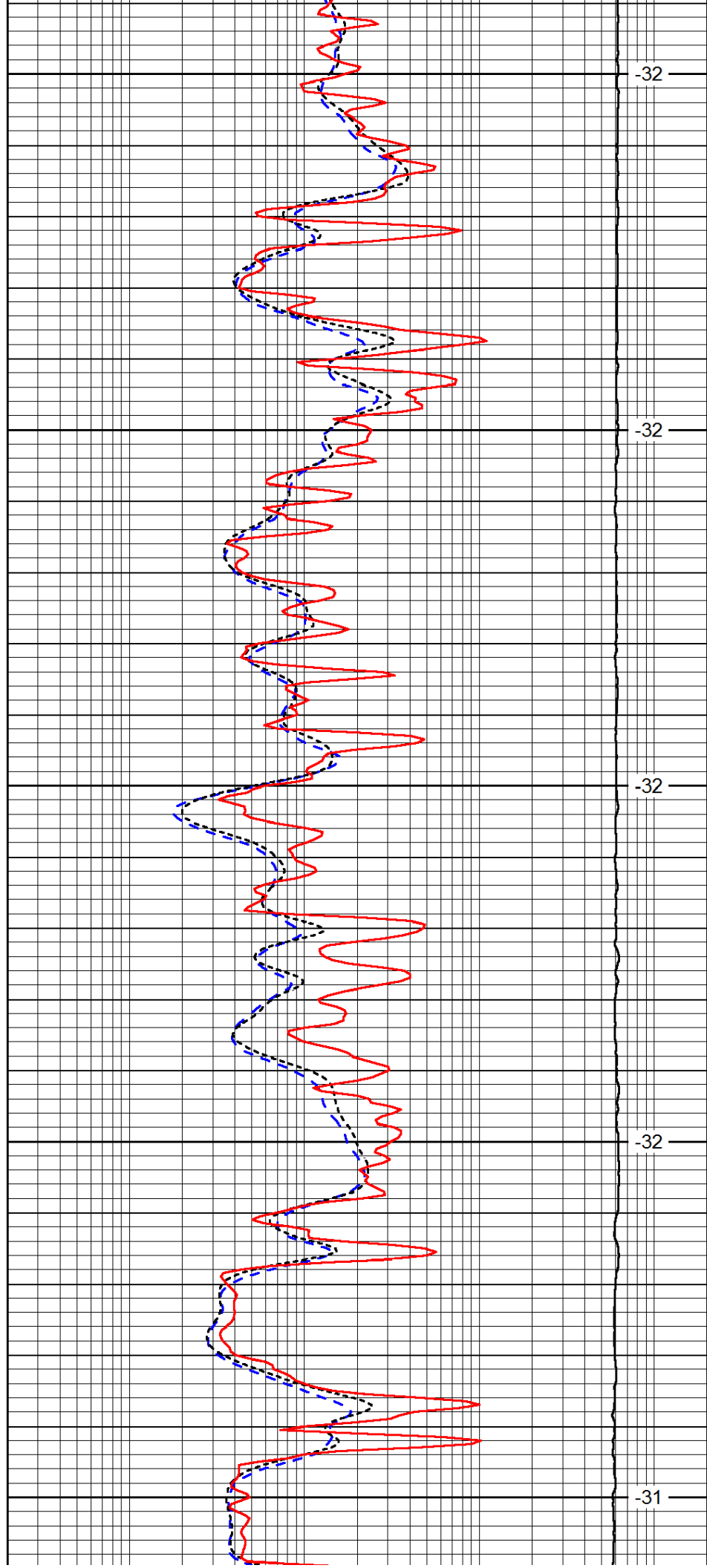
2950

3000

3050

3100

3150



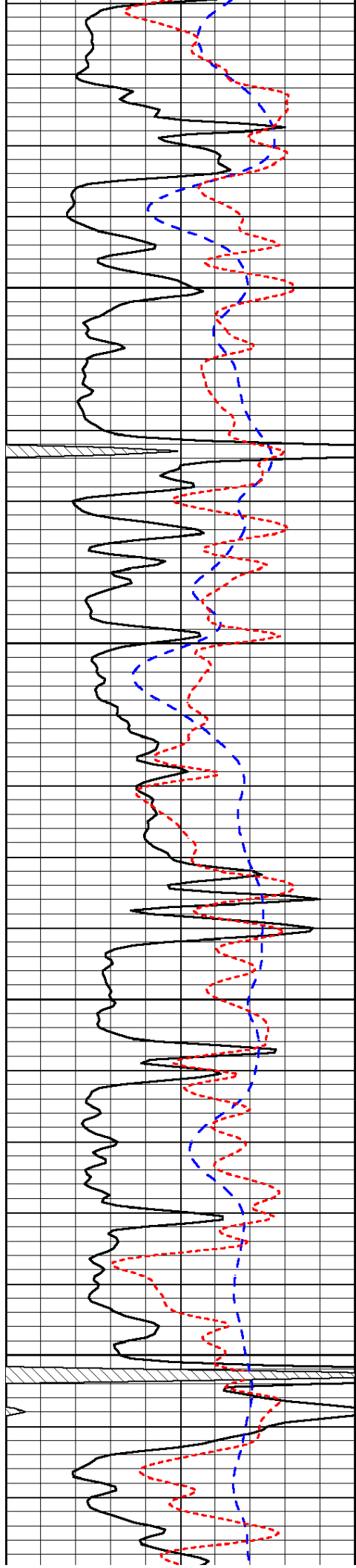
-32

-32

-32

-32

-31

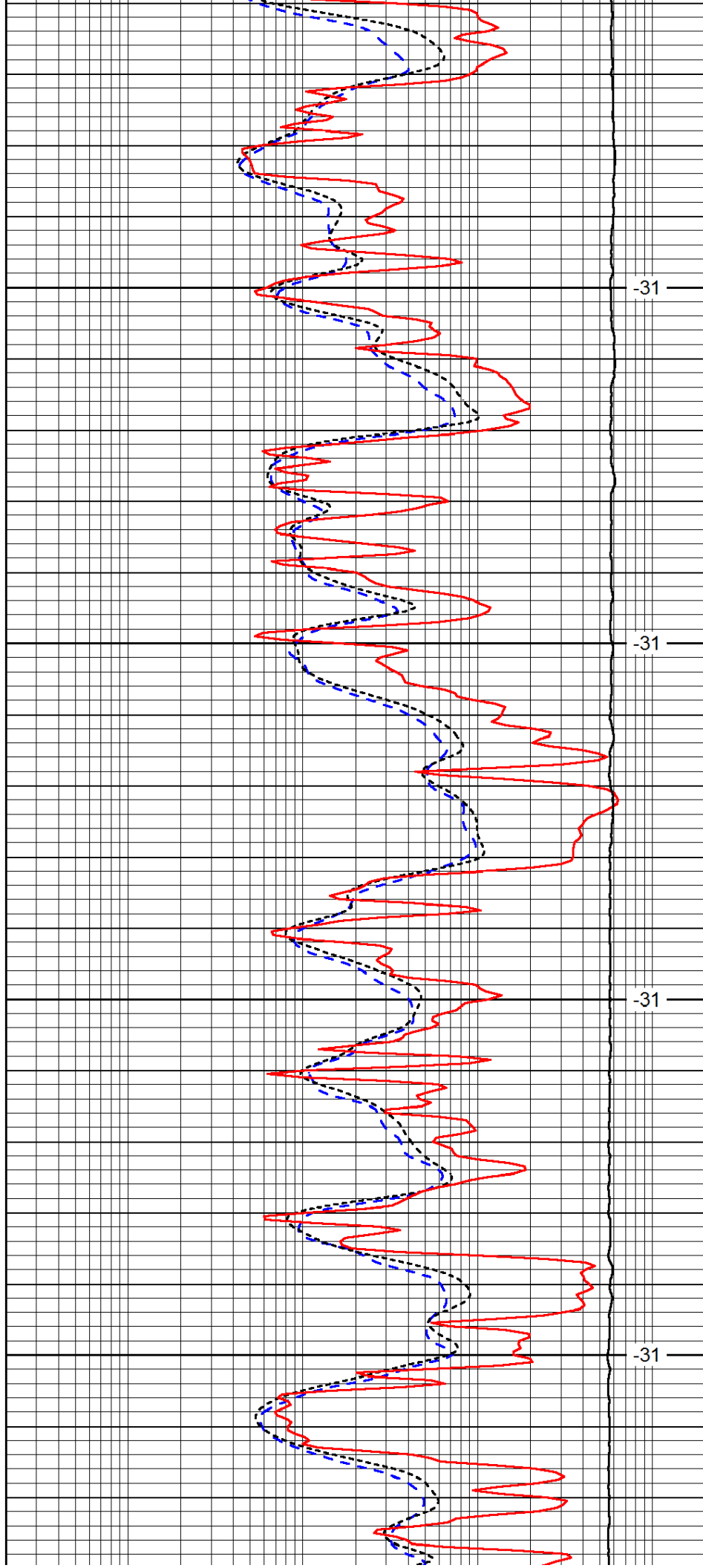


3200

3250

3300

3350

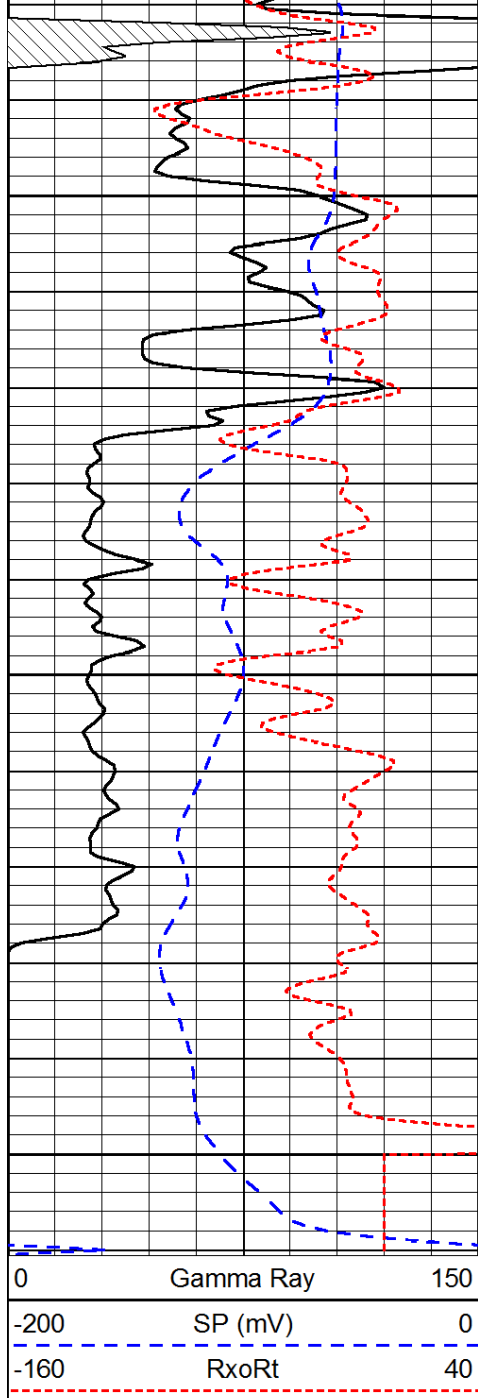


-31

-31

-31

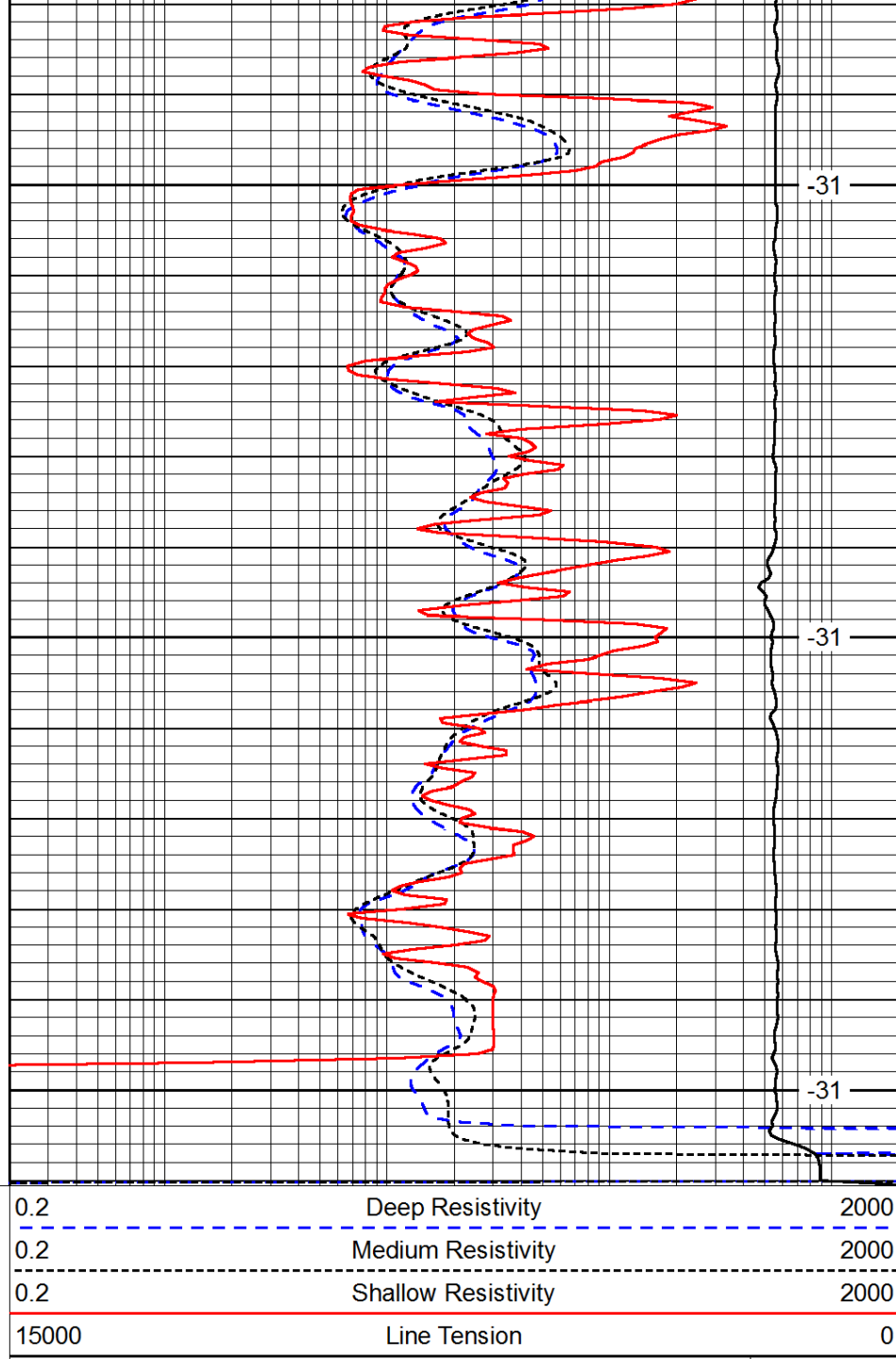
-31



3400

3450

3500



-31

-31

-31

LSPD