PIONEER

Pioneer Energy Services

Dual Induction Log

API No. 15-063-22152-00-00

Company H&C Oil Operating, Inc.

Well Bentley #36-3

Field Shanline Northeast

County Gove State Kansas

Location 2180' FSL & 1880' FWL

Sec: 36 Twp: 15S Rge: 28W

Other Services
CNL/CDL
MEL

Elevation
K.B. 2552
D.F.
G.L. 2541

Permanent Datum	Ground Level	Elevation 2541
Log Measured From	Kelly Bushing	11 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	

Date	11/21/2013		
Run Number	One		
Depth Driller	4450		
Depth Logger	4451		
Bottom Logged Interval	4450		
Top Log Interval	250		
Casing Driller	8.625 @ 265		
Casing Logger	265		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity,ppm CL	4000		
Density / Viscosity	9.2 60		
pH / Fluid Loss	10.5 7.2		
Source of Sample	Flowline		
Rm @ Meas. Temp	1.00 @ 54		
Rmf @ Meas. Temp	0.75 @ 54		
Rmc @ Meas. Temp	1.35 @ 54		
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.44 @ 123		
Operating Rig Time	4 Hours		
Max. Rec. Temp. F	123		
Equipment Number	91		
Location	Hays		
Recorded By	D. Schmidt		
Witnessed By	Marc Downing		

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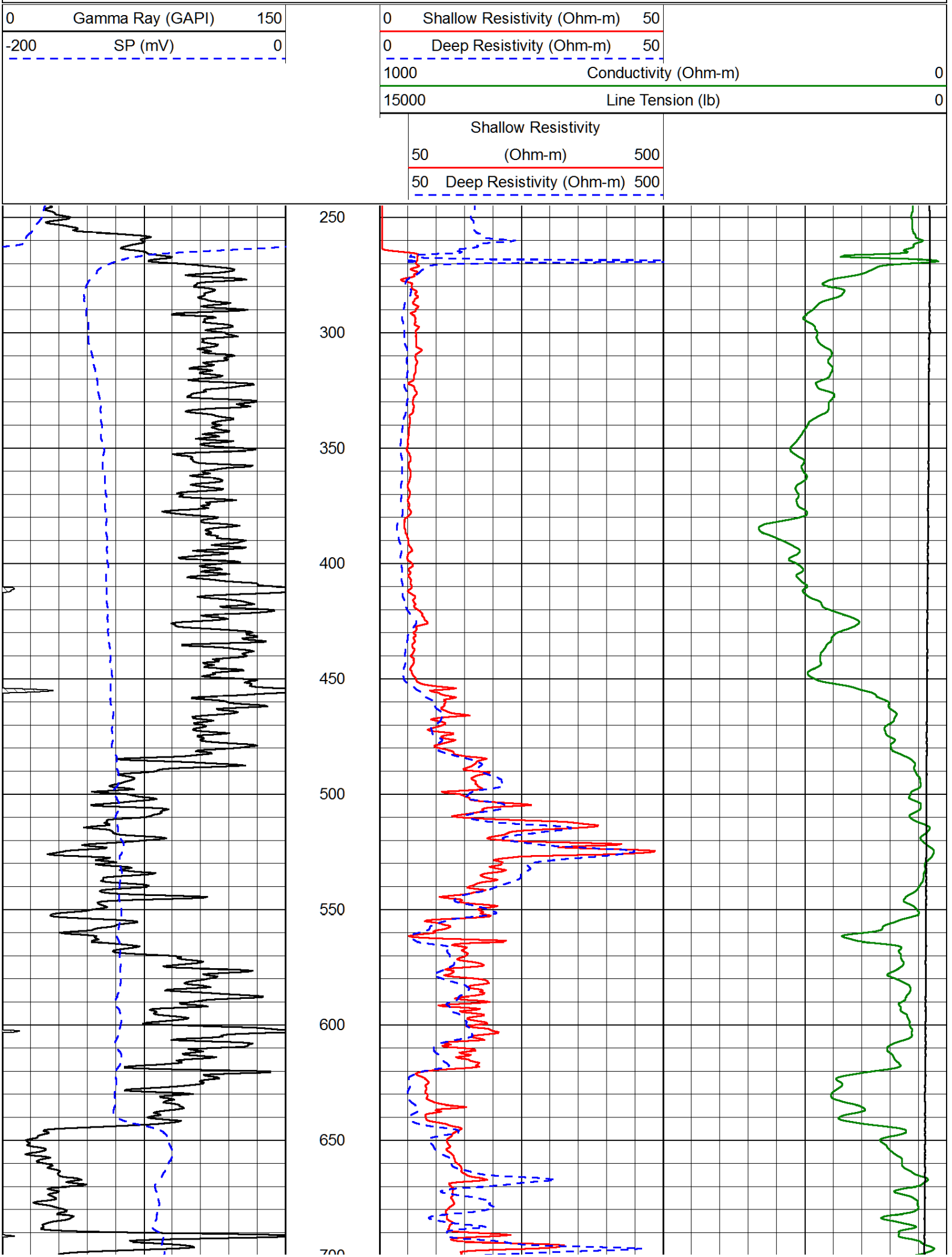
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

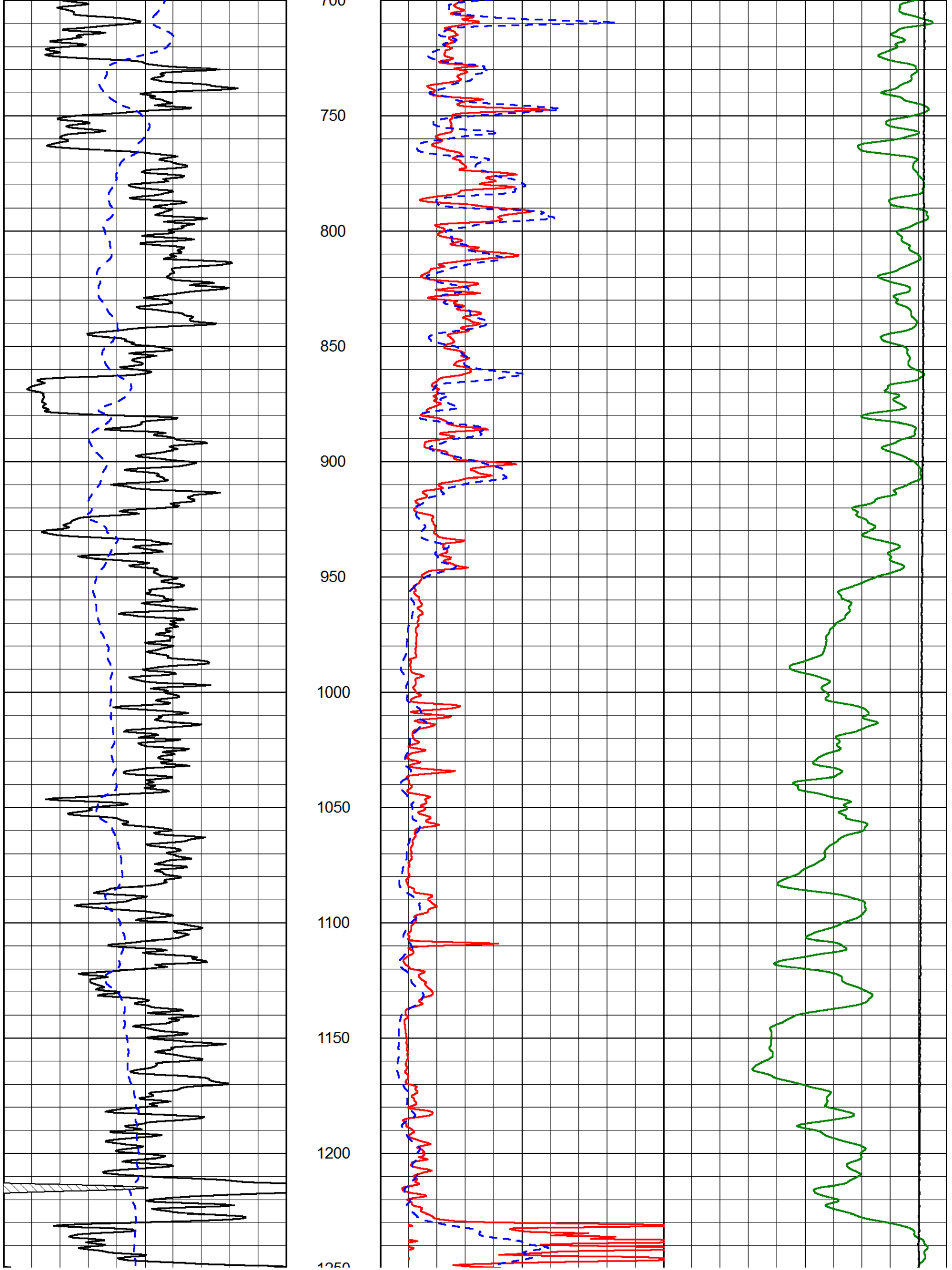
Comments

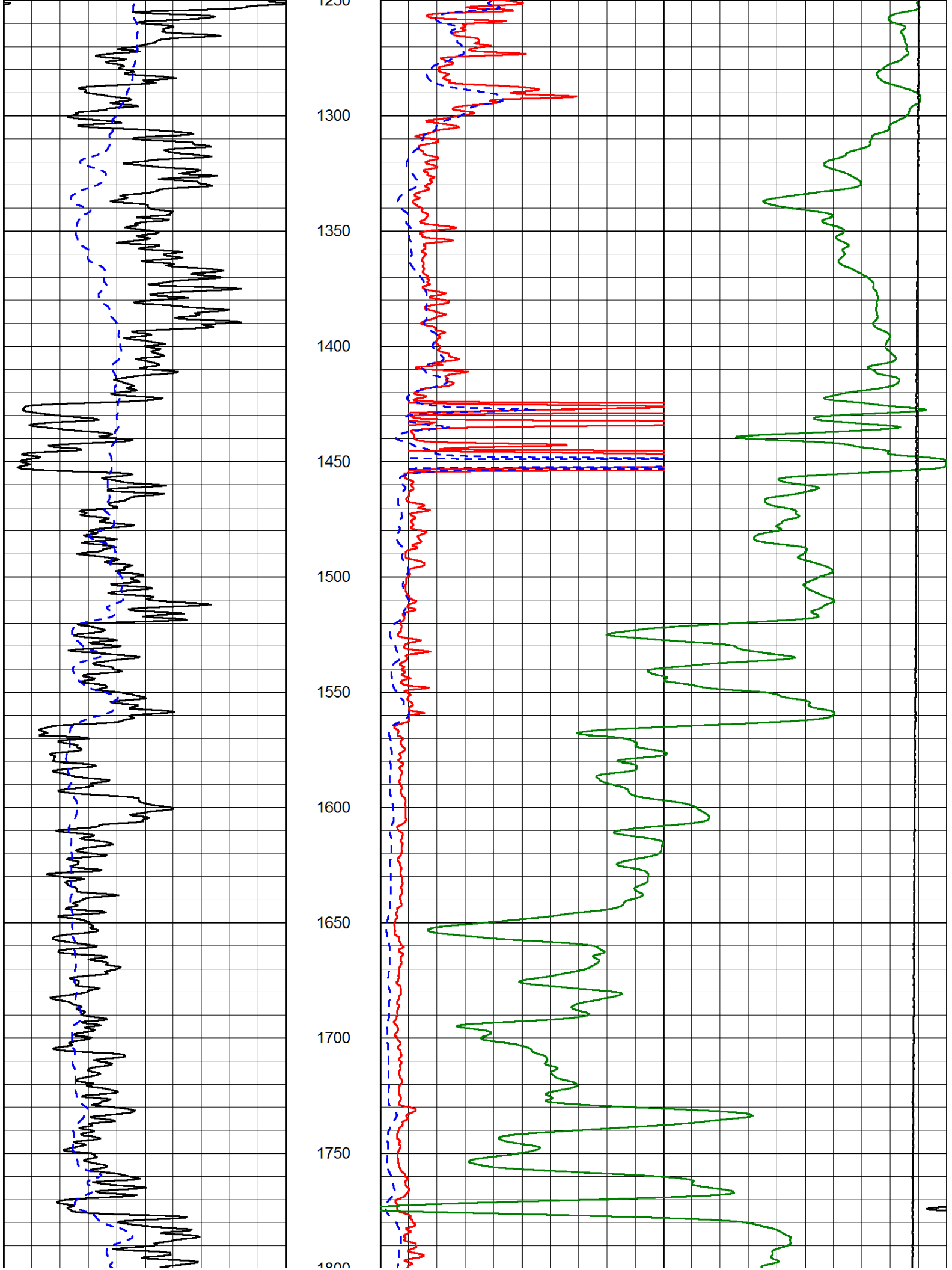
Thank you for using Log-Tech, Inc.
(785) 625-3858

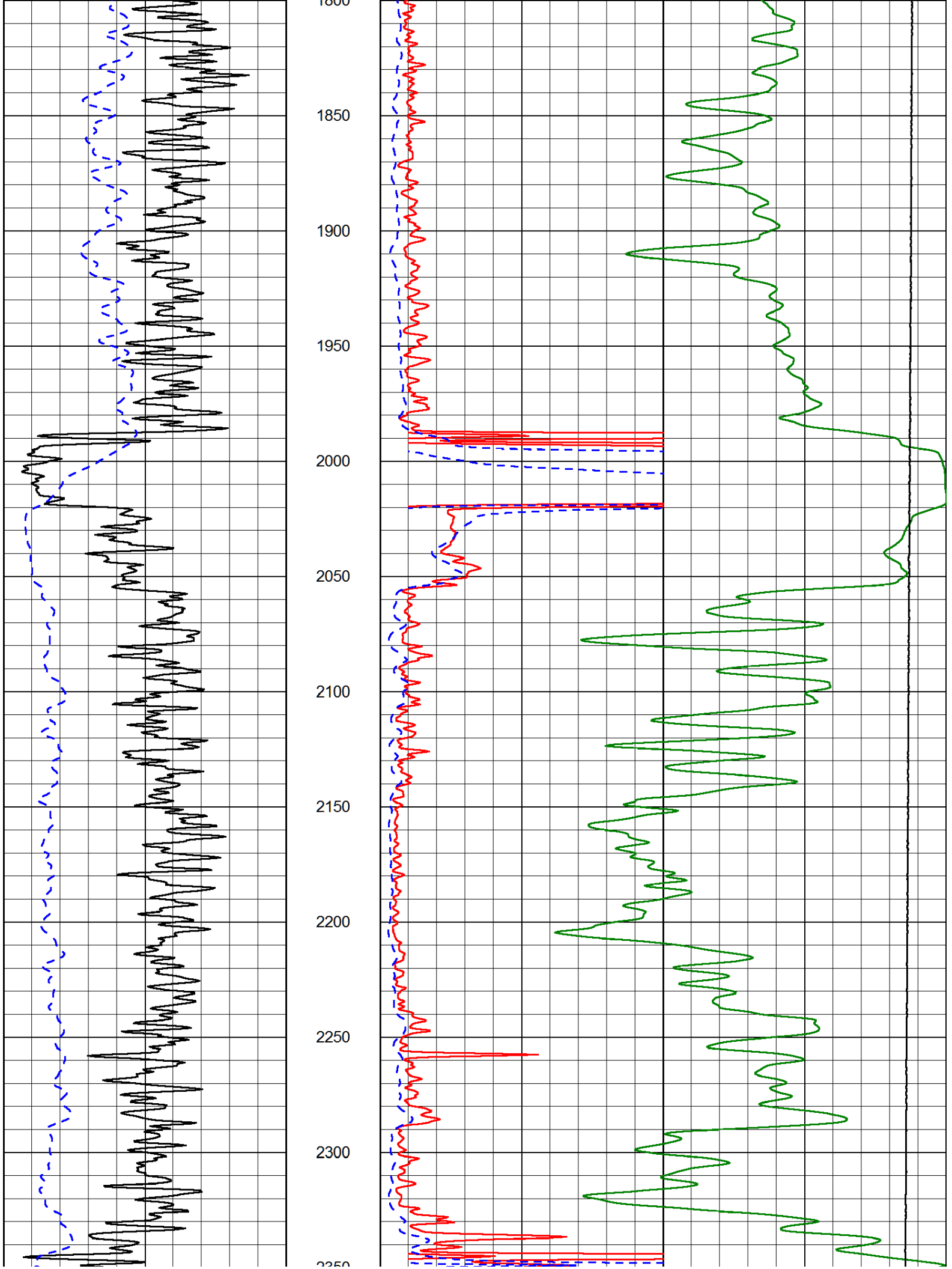
Pendennis,
2 West, 4 1/2 North, 3/4 West,
North into

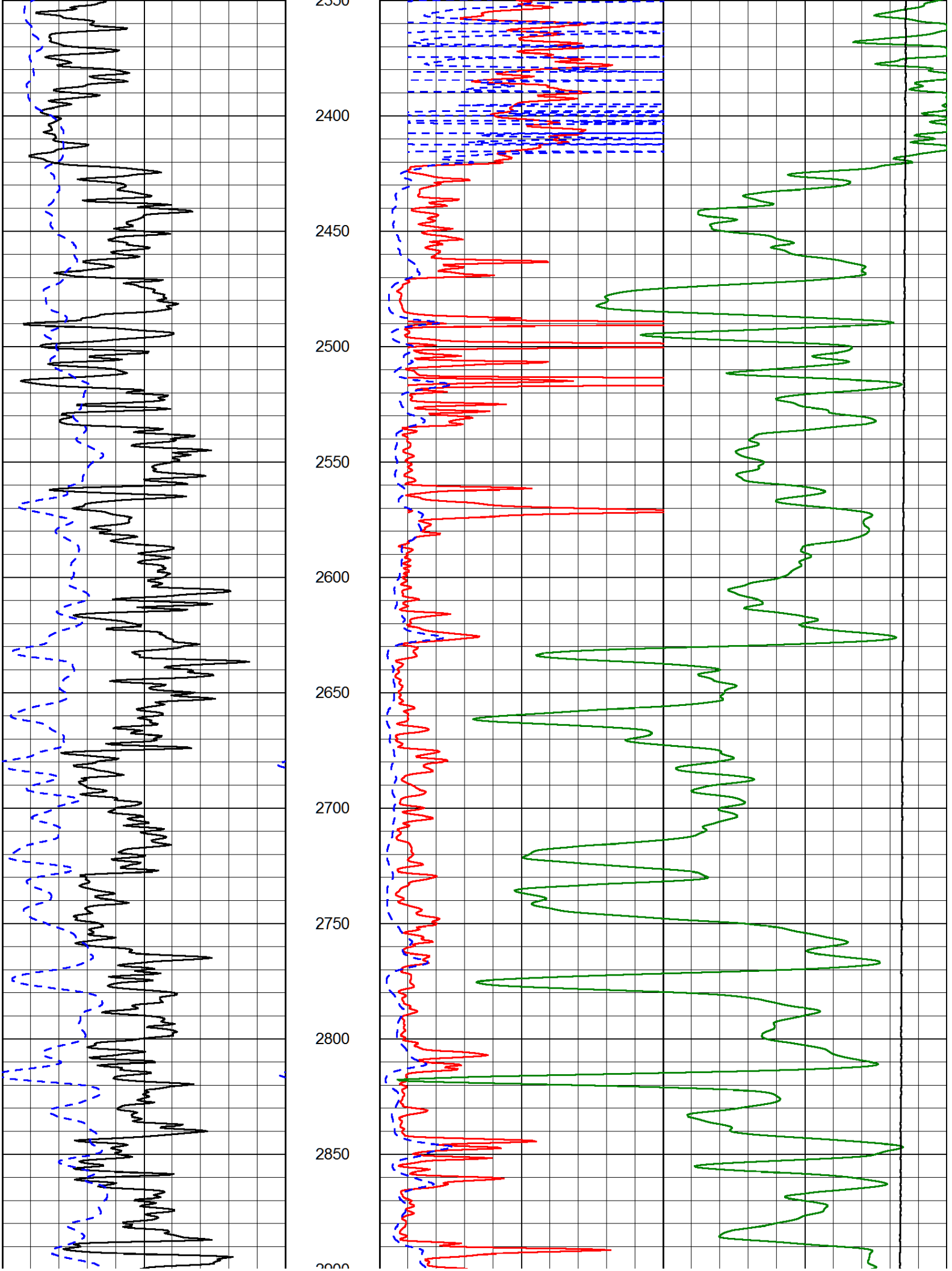
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Presentation Format:	dil2in
Dataset Creation:	Thu Nov 21 14:04:57 2013
Charted by:	Depth in Feet scaled 1:600

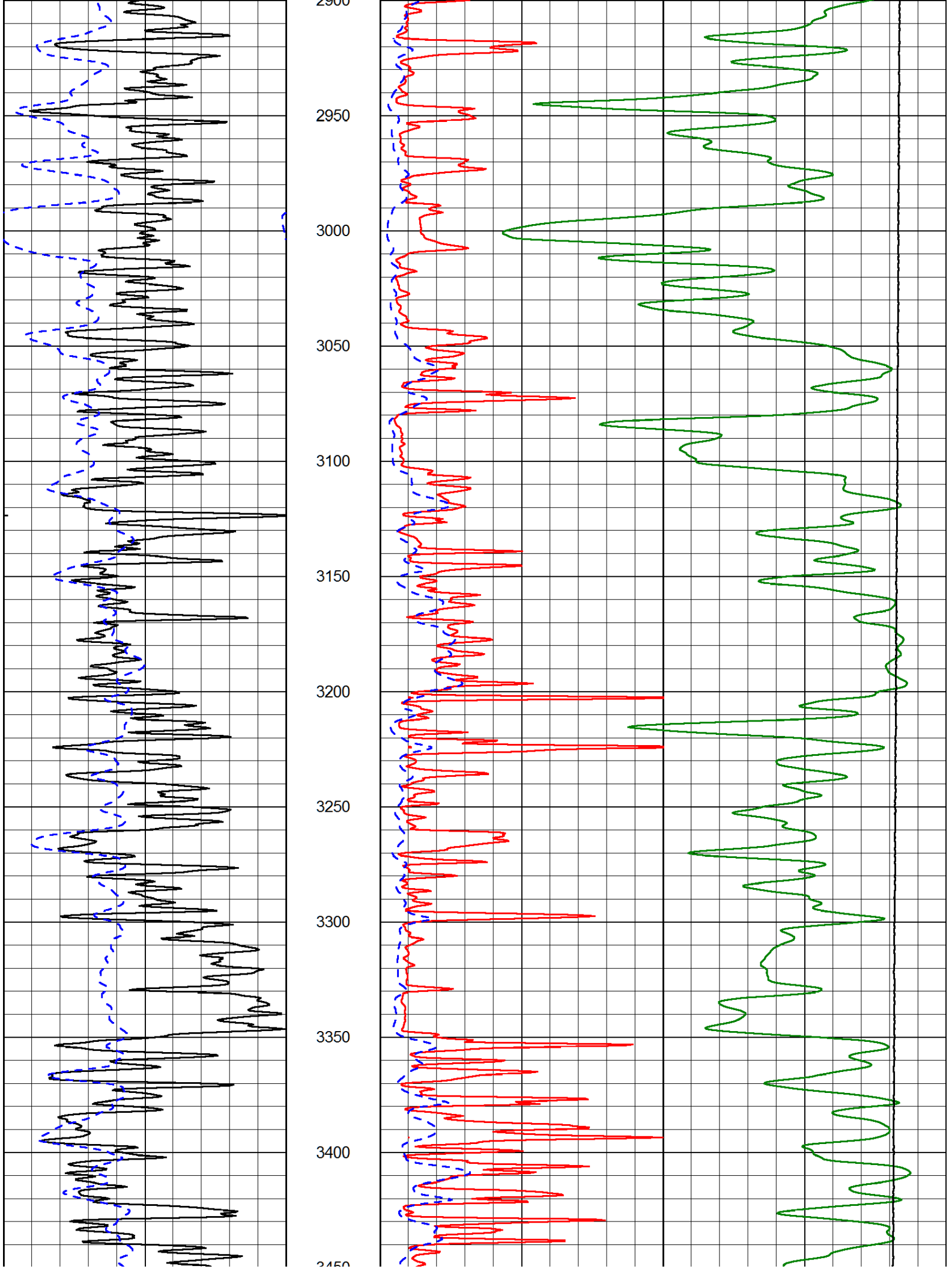

0 Gamma Ray (GAPI) 150
-200 SP (mV) 0
0 Shallow Resistivity (Ohm-m) 50
0 Deep Resistivity (Ohm-m) 50
1000 Conductivity (Ohm-m) 0
15000 Line Tension (lb) 0
Shallow Resistivity
50 (Ohm-m) 500
50 Deep Resistivity (Ohm-m) 500
250
300
350
400
450
500
550
600
650
700

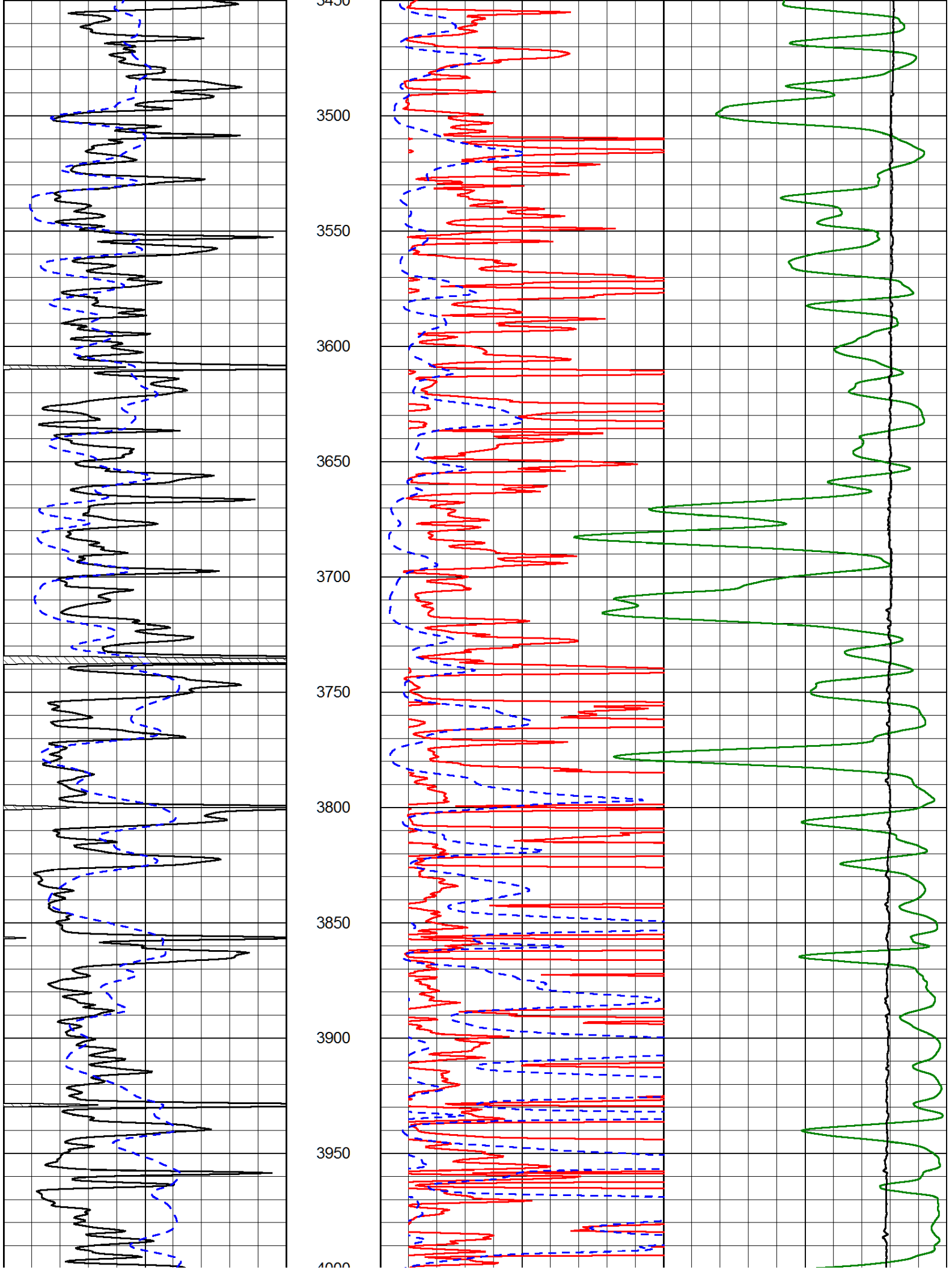

700
750
800
850
900
950
1000
1050
1100
1150
1200
1250

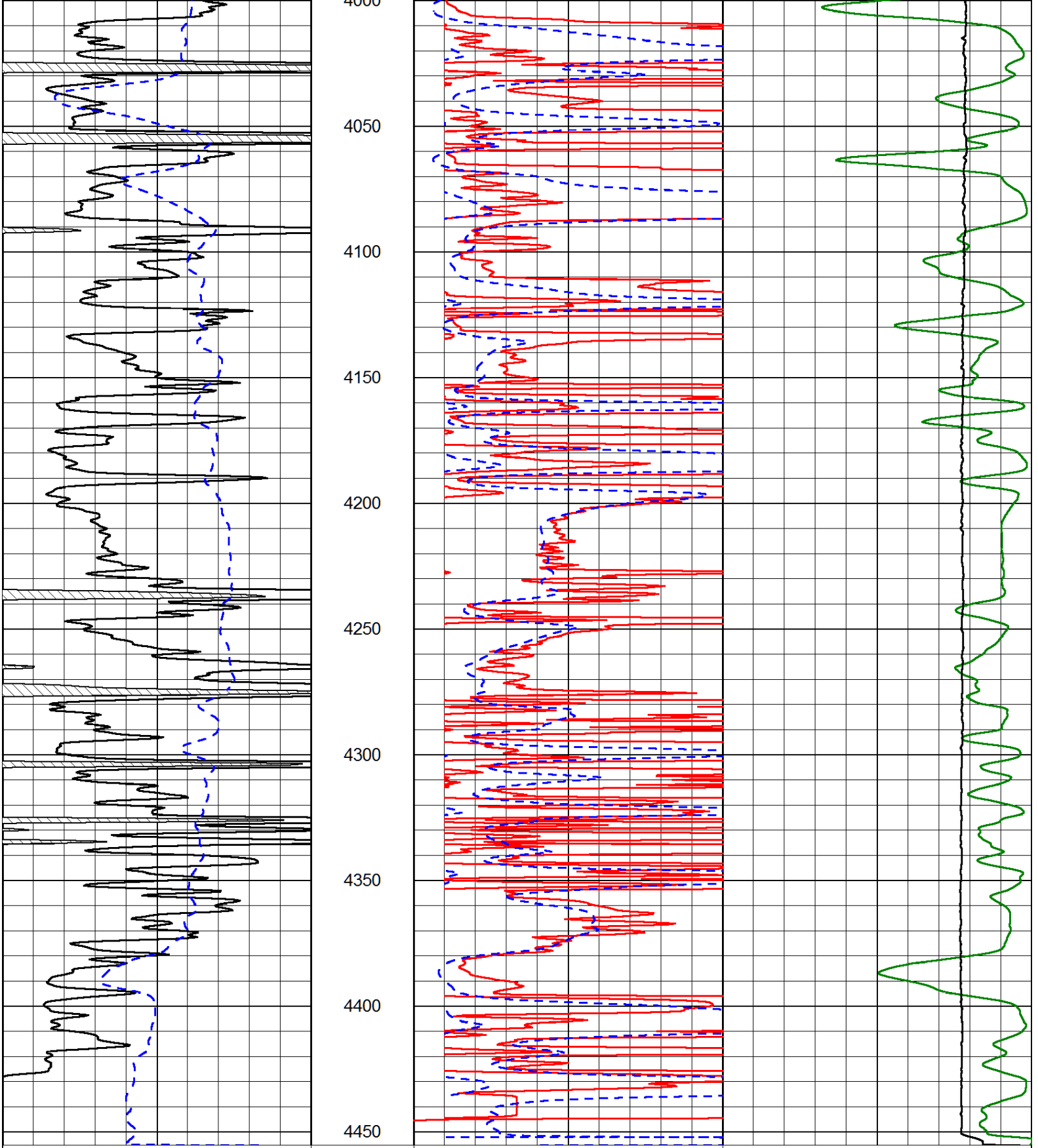

1250
1300
1350
1400
1450
1500
1550
1600
1650
1700
1750
1800


1800
1850
1900
1950
2000
2050
2100
2150
2200
2250
2300
2350

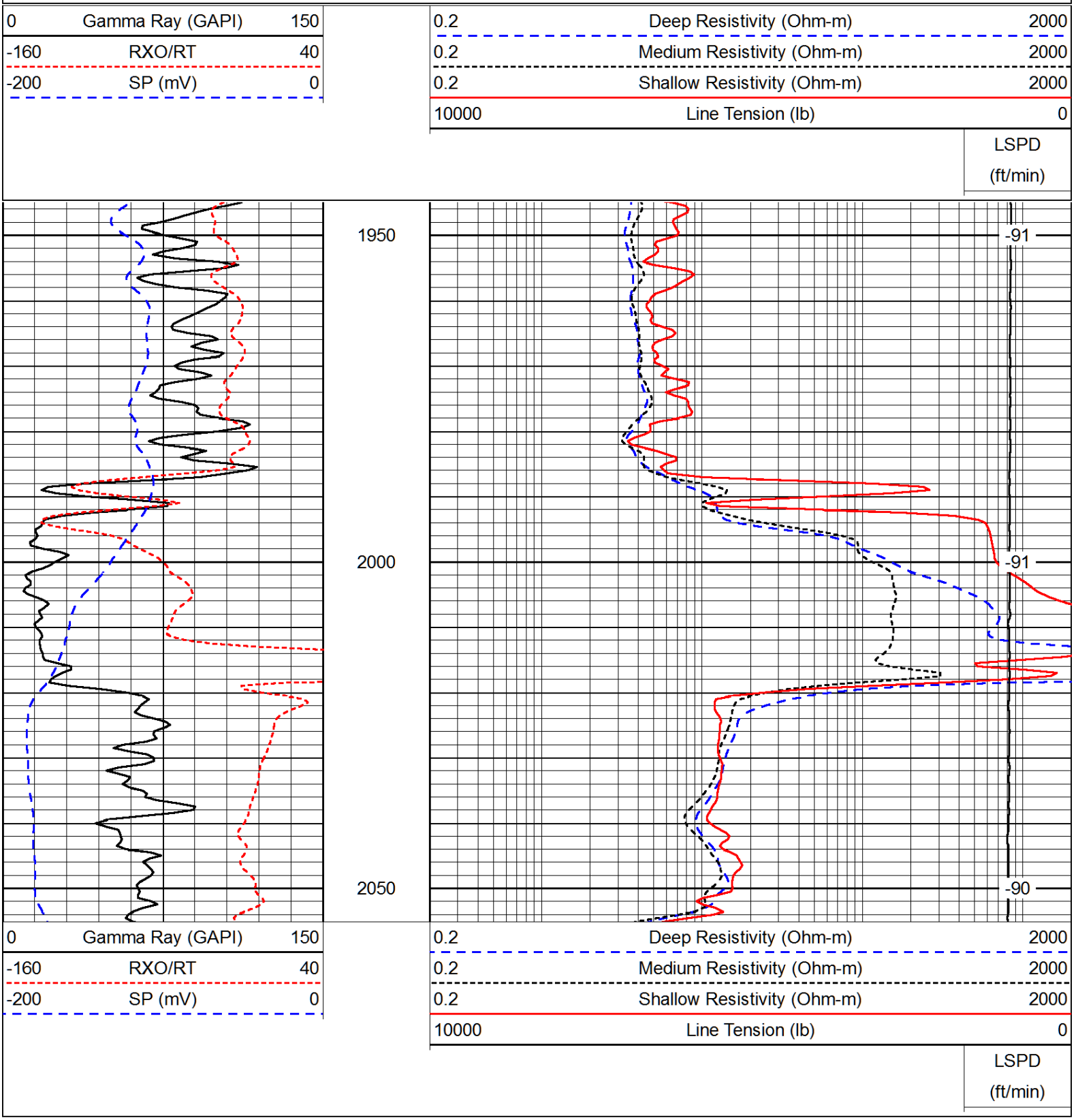

2350
2400
2450
2500
2550
2600
2650
2700
2750
2800
2850
2900


2900
2950
3000
3050
3100
3150
3200
3250
3300
3350
3400
3450


3450
3500
3550
3600
3650
3700
3750
3800
3850
3900
3950
4000


4000
4050
4100
4150
4200
4250
4300
4350
4400
4450
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
Shallow Resistivity
50 (Ohm-m) 500
50 Deep Resistivity (Ohm-m) 500

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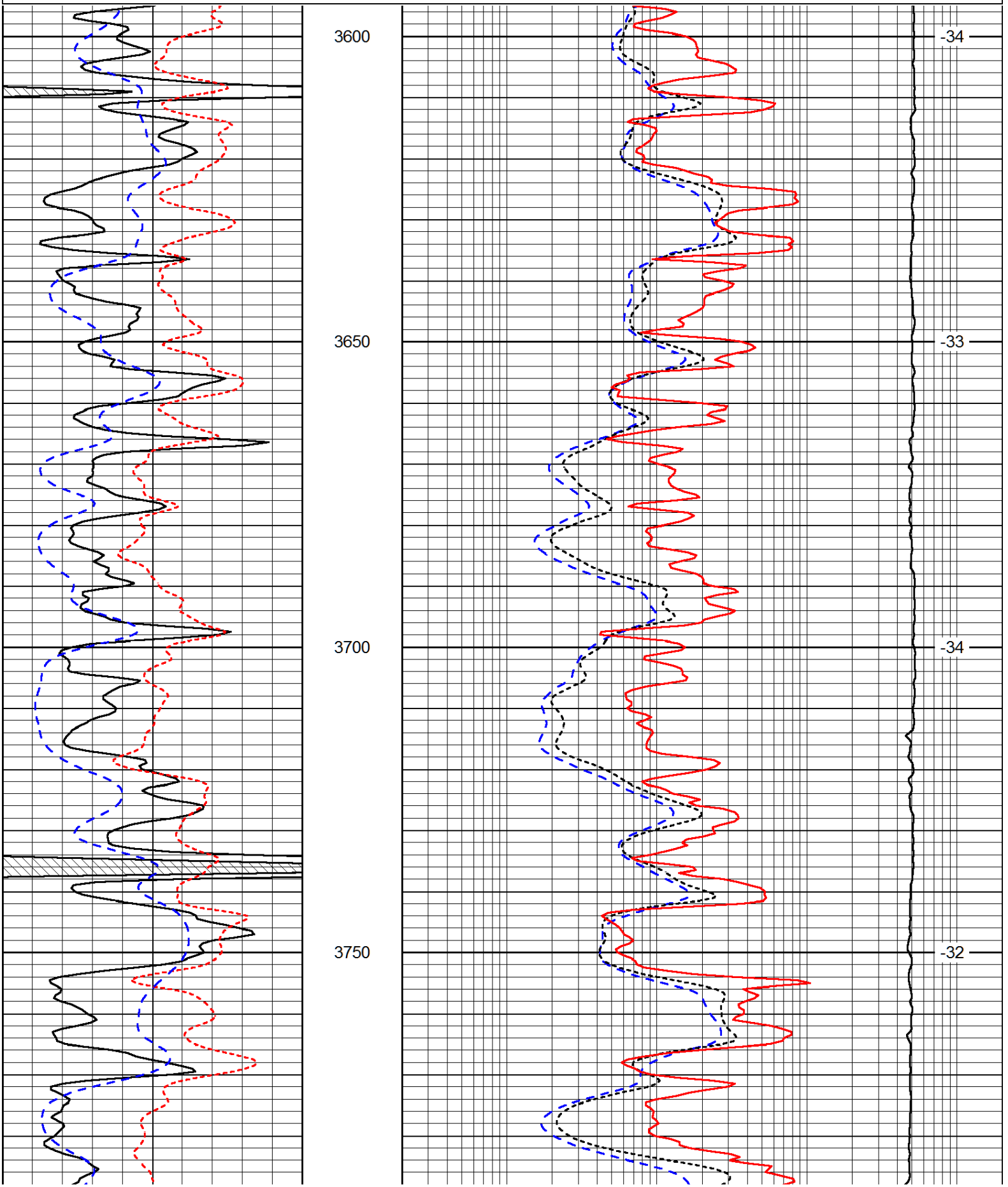


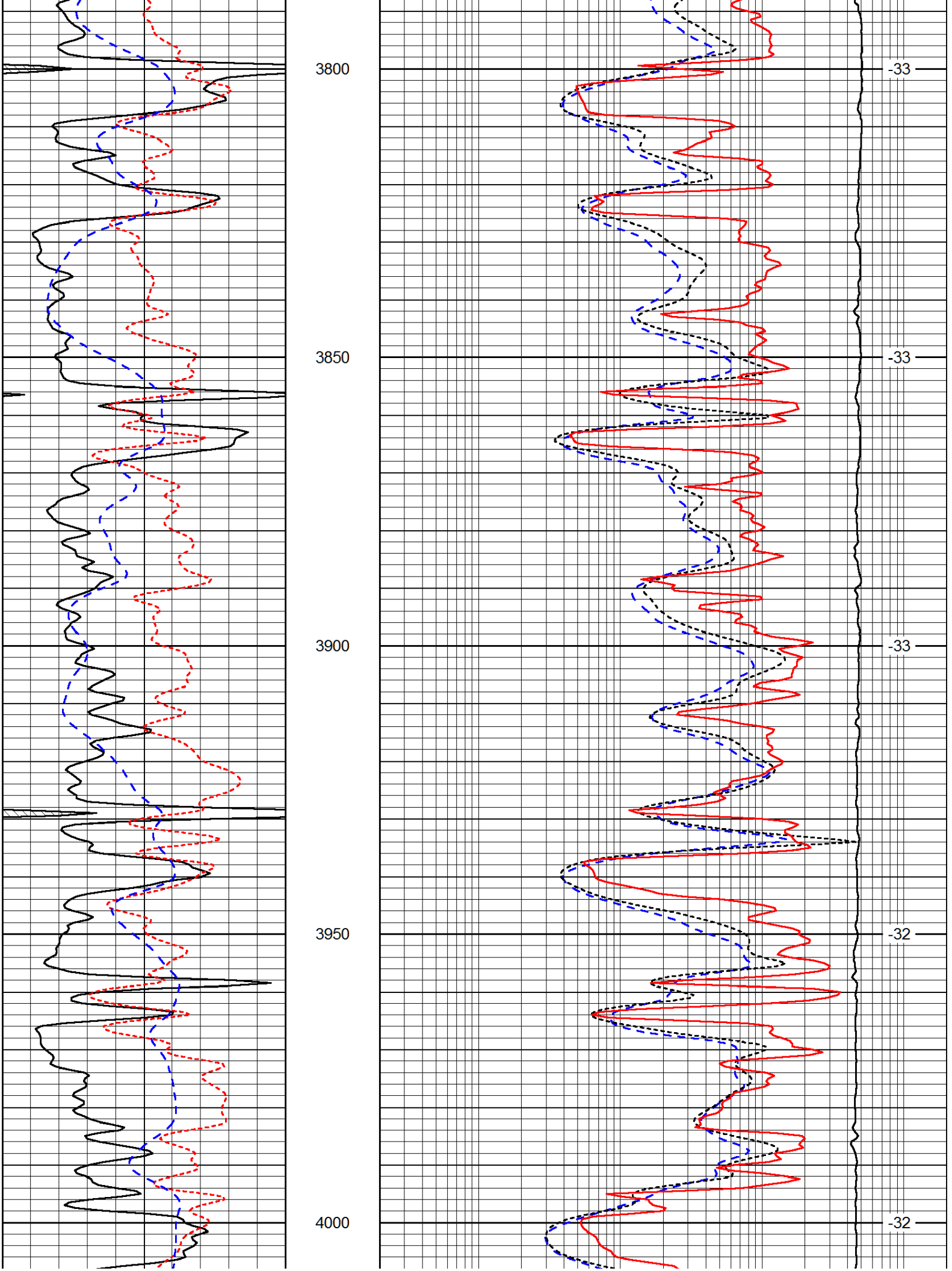
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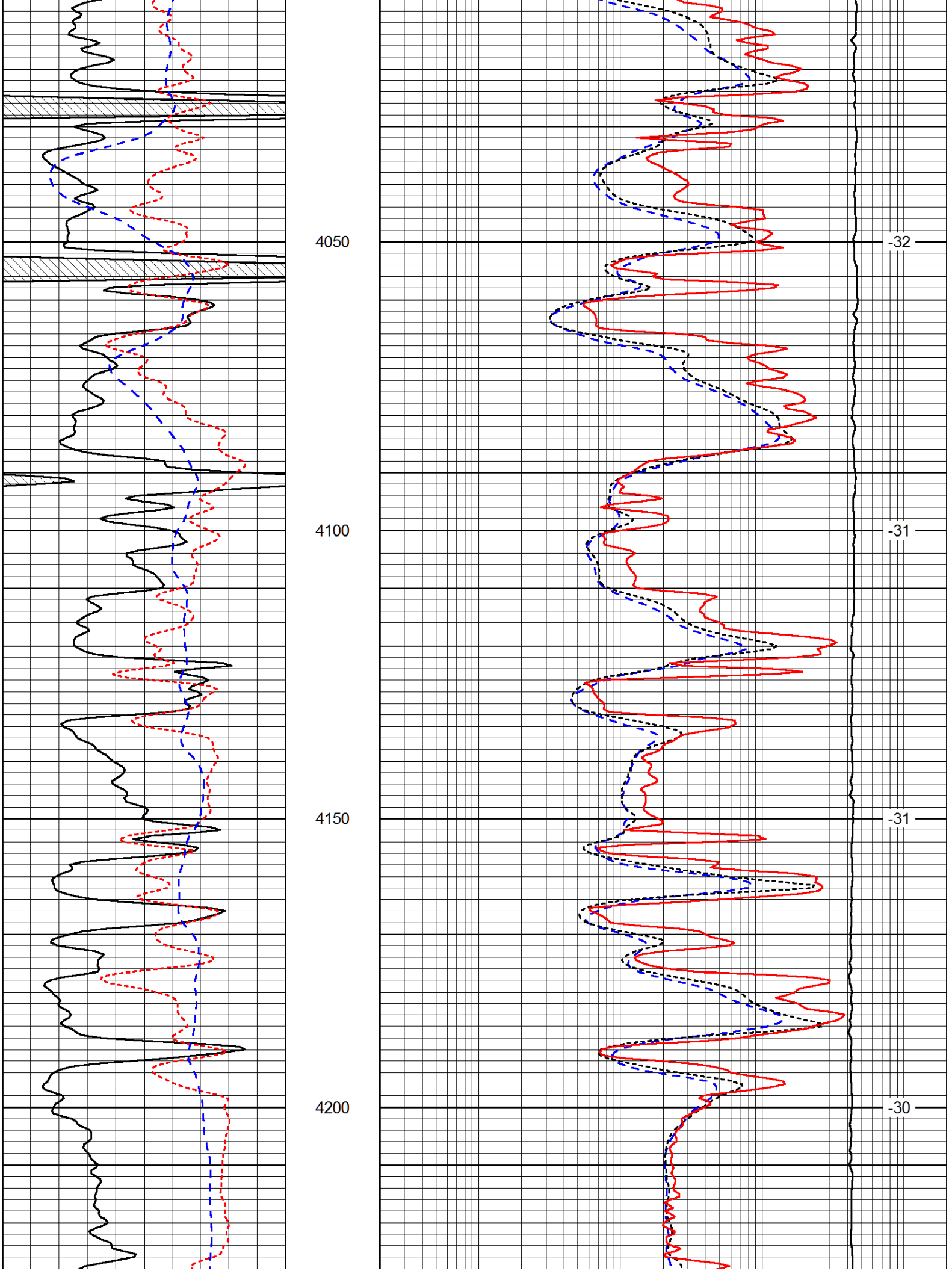
-160	RXO/RT	40
-200	SP (mV)	0

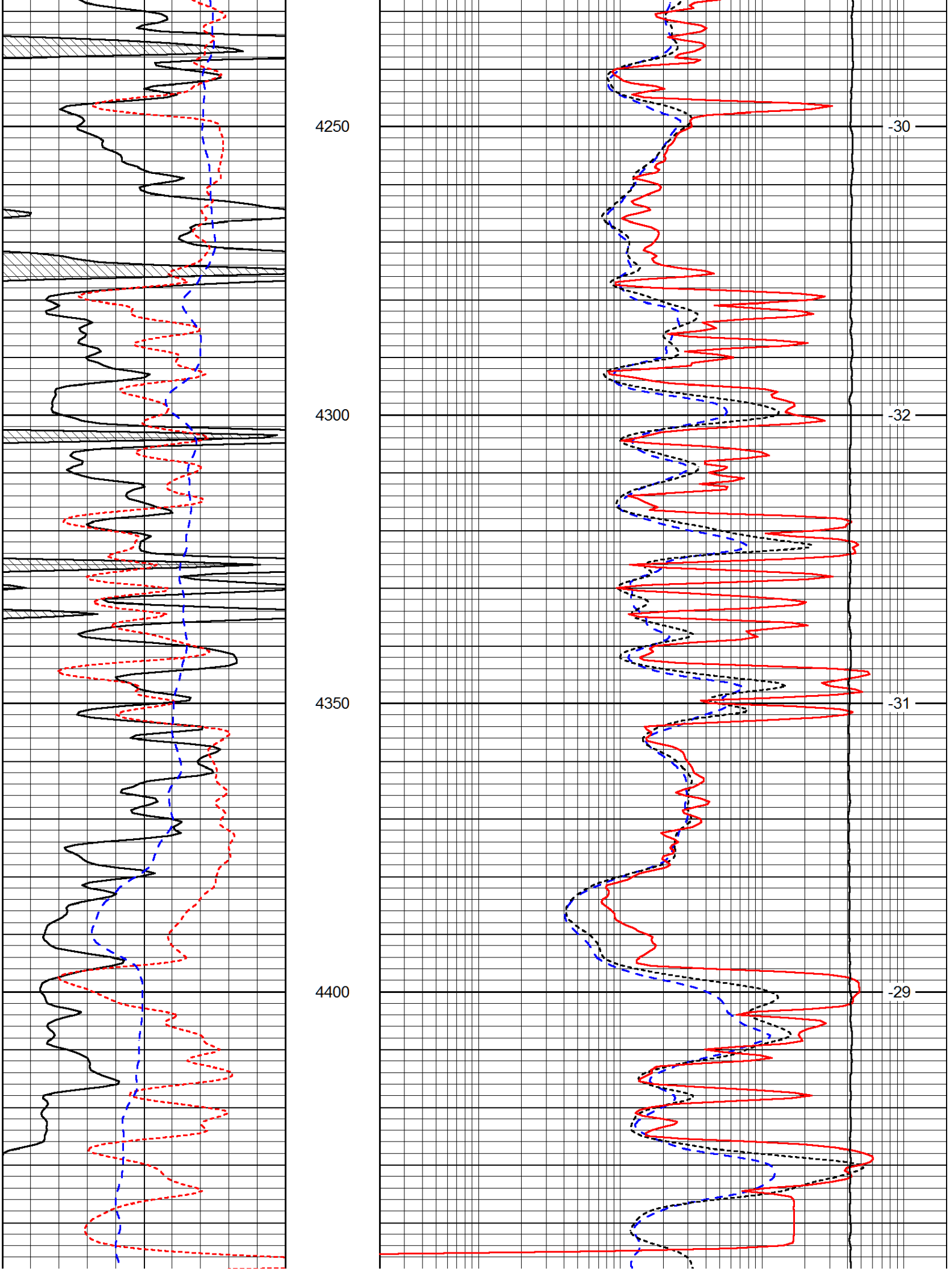
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

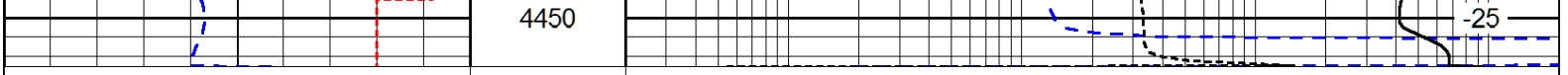
LSPD
(ft/min)




3800
3850
3900
3950
4000
-33
-33
-33
-32
-32


4050
4100
4150
4200
-32
-31
-31
-30


4250
4300
4350
4400
-30
-32
-31
-29



0	Gamma Ray (GAPI)	150
-160	RXO/RT	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)