



Pioneer Energy Services

# Radiation Guard Log

15-009-25,876-00-00

Company **Hupfer Operating, Inc.**  
 Well **Morgenstern No. 6**  
 Field **Trapp**  
 County **Barton** State **Kansas**

Location **SW-NW-SE-NE  
1745' FNL & 1270' FEL**

Sec: **9** Twp: **16S** Rge: **13W**

Permanent Datum **Ground Level** Elevation **1910**  
 Log Measured From **Kelly Bushing** **8** Ft. Above Perm. Datum  
 Drilling Measured From **Kelly Bushing**

Other Services  
**NONE**  
 Elevation  
 K.B. 1918  
 D.F. 1918  
 G.L. 1910

Date	10/9/13
Run Number	One
Depth Driller	3396
Depth Logger	3392
Bottom Logged Interval	3391
Top Log Interval	450
Casing Driller	8.625 @ 479
Casing Logger	476
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	4,000
Density / Viscosity	9.2 50
pH / Fluid Loss	9.0 8.8
Source of Sample	Flowline
Rm @ Meas. Temp	.32 @ 72
Rmf @ Meas. Temp	.24 @ 72
Rmc @ Meas. Temp	.43 @ 72
Source of Rmf / Rmc	Charts
Rm @ BHT	.21 @ 110
Operating Rig Time	2 Hours
Max Rec. Temp. F	110
Equipment Number	108
Location	Hays
Recorded By	J. Henrickson
Witnessed By	Clint 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 Log-Tech, Inc.  
 (785) 625-3858

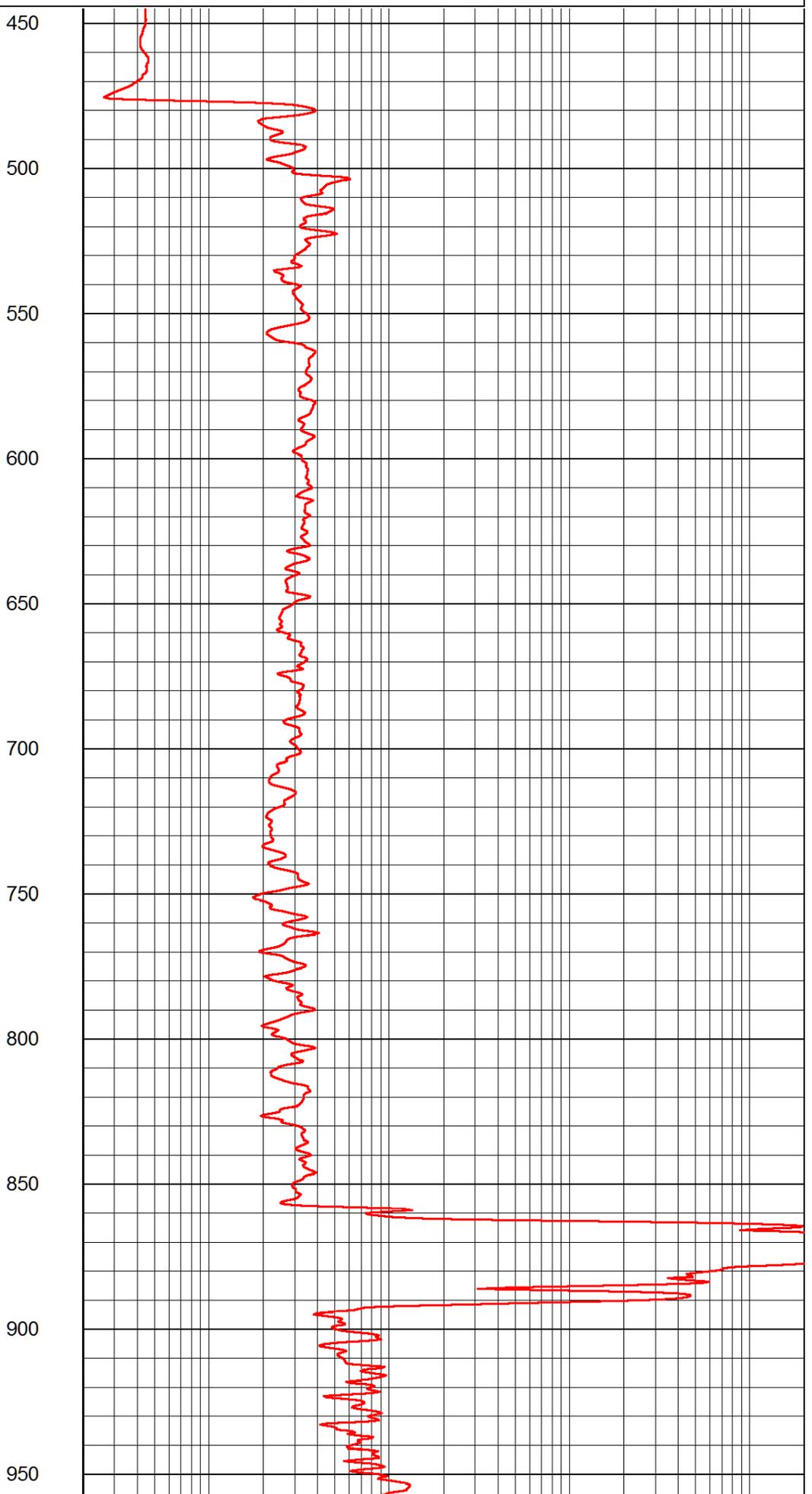
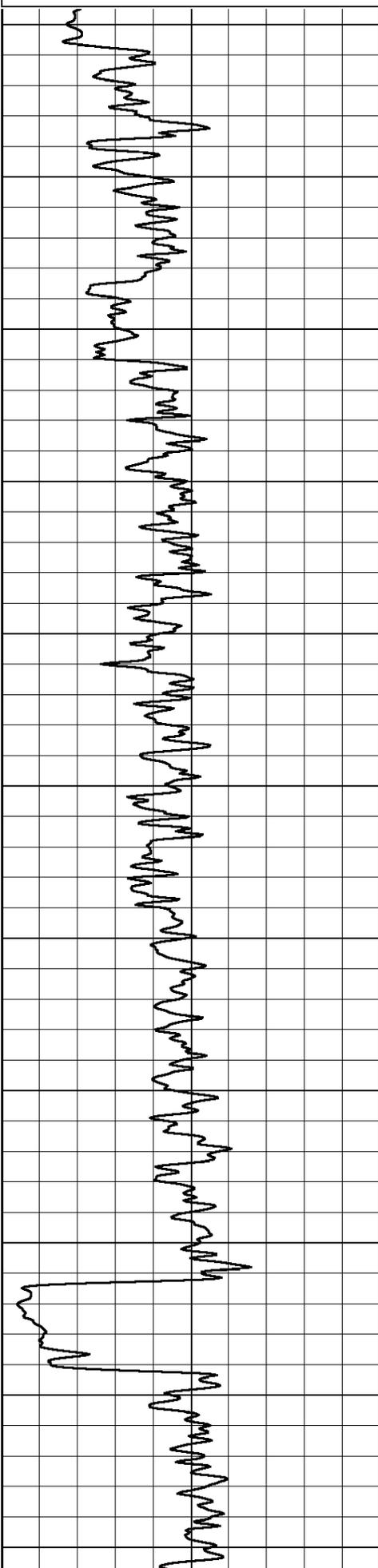
Russell Kansas  
 South to County Line, East to Susank Blk Top, 1 South, 3/4 East, South Into

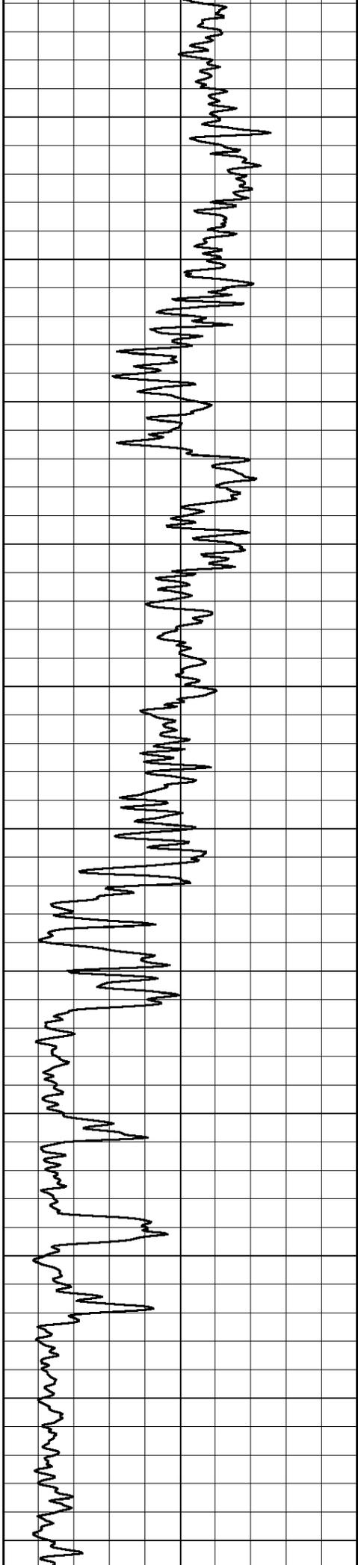
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 Presentation Format: rag2in  
 Dataset Creation: Wed Oct 09 11:07:42 2013  
 Charted by: Depth in Feet scaled 1:600

0 Gamma Ray (GAPI) 150

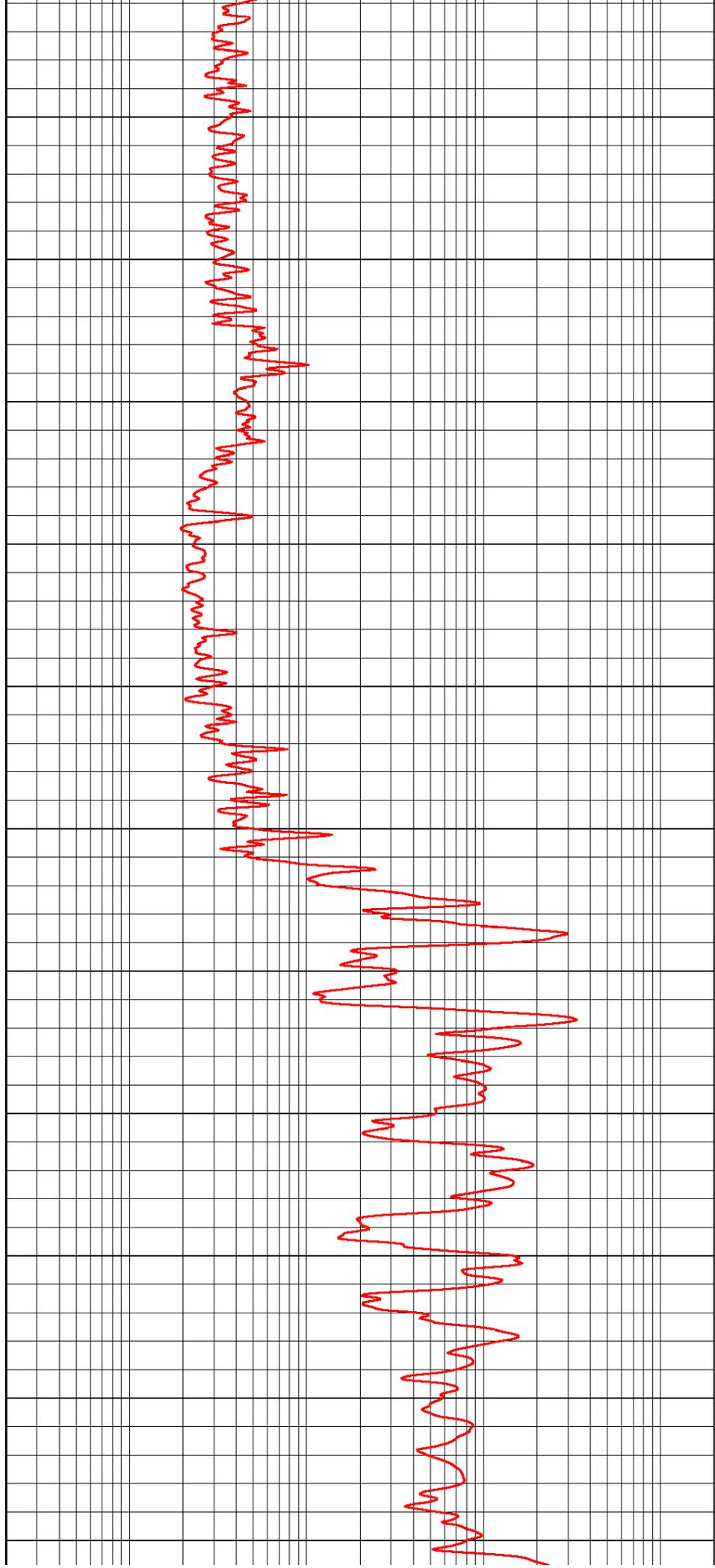
0.2 Igrd (Ohm-m)

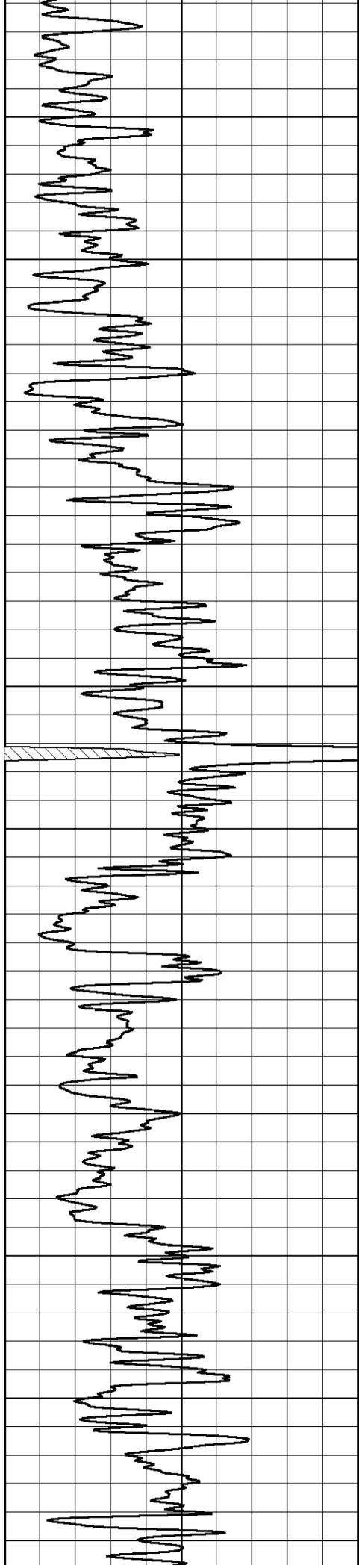
2000





1000  
1050  
1100  
1150  
1200  
1250  
1300  
1350  
1400  
1450  
1500





1550

1600

1650

1700

1750

1800

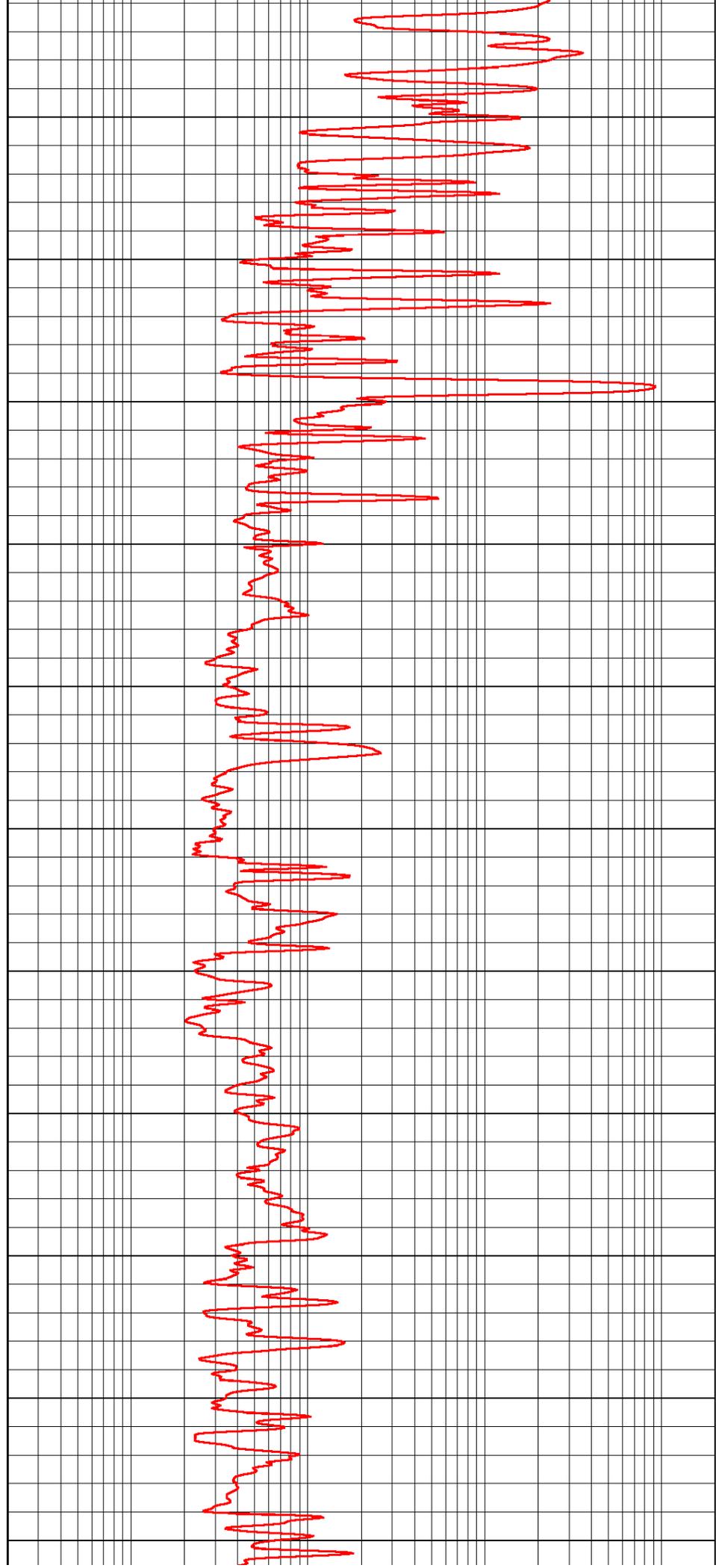
1850

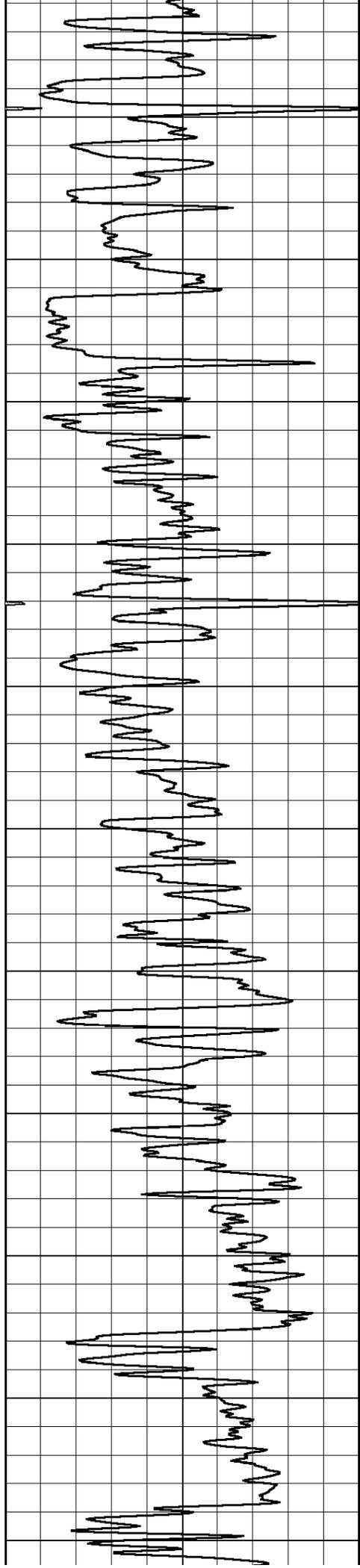
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

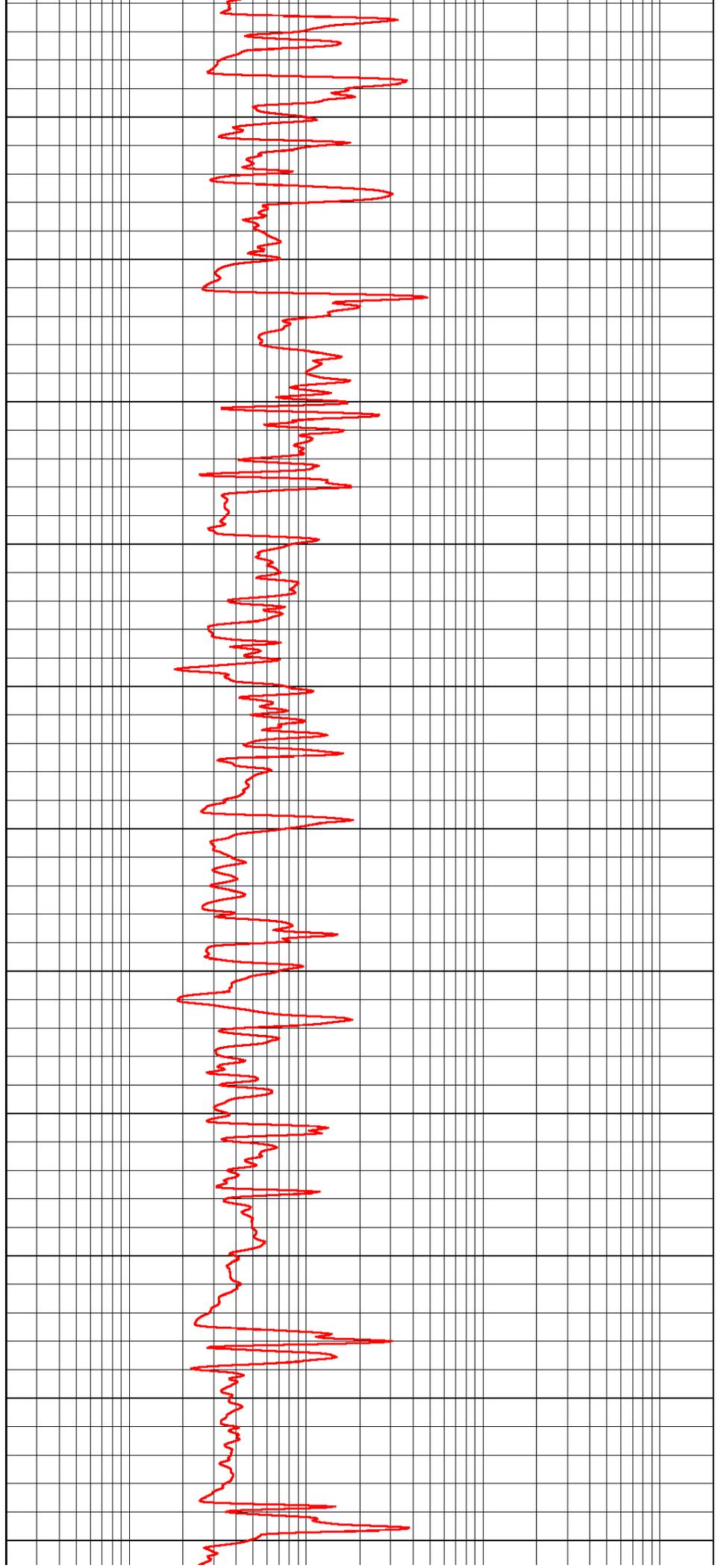
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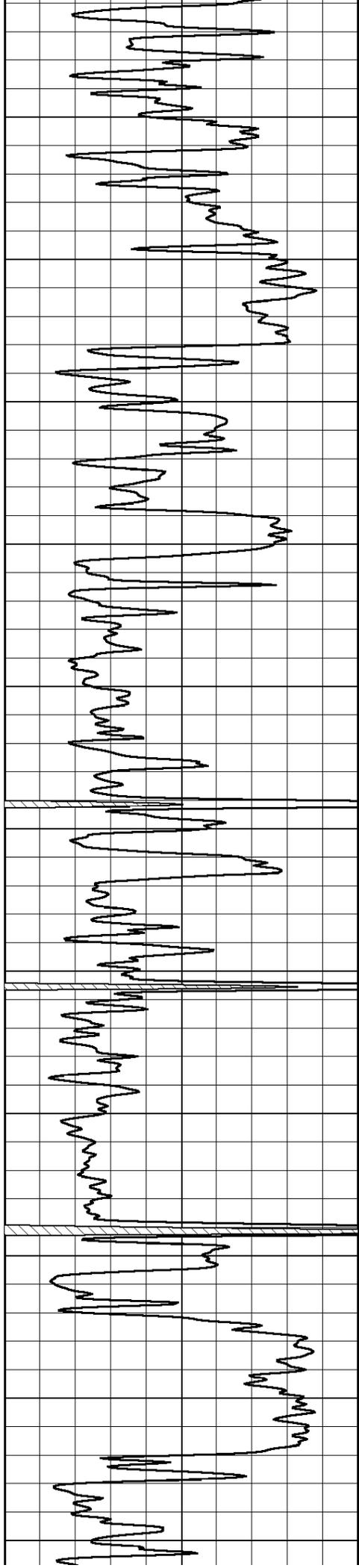
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2500

2550

2600





2650

2700

2750

2800

2850

2900

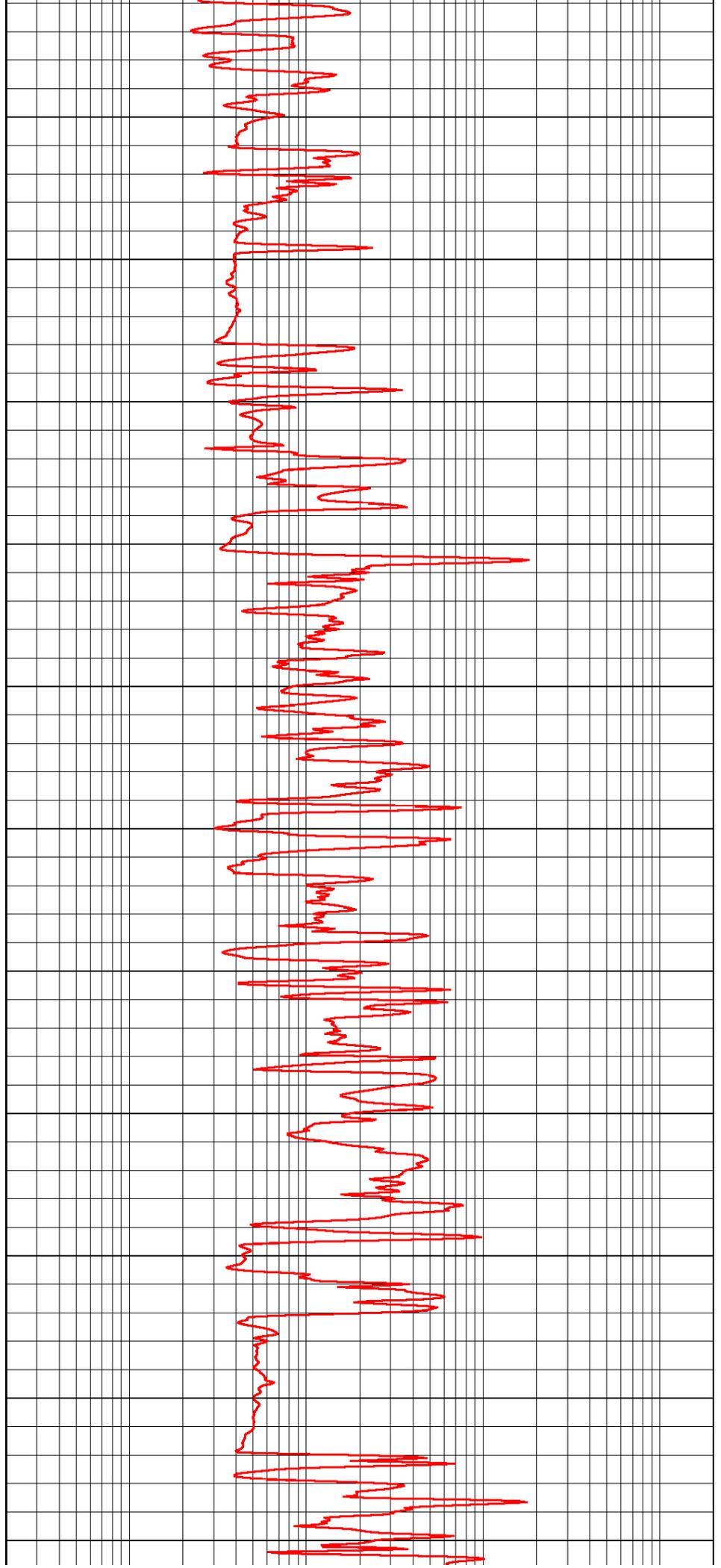
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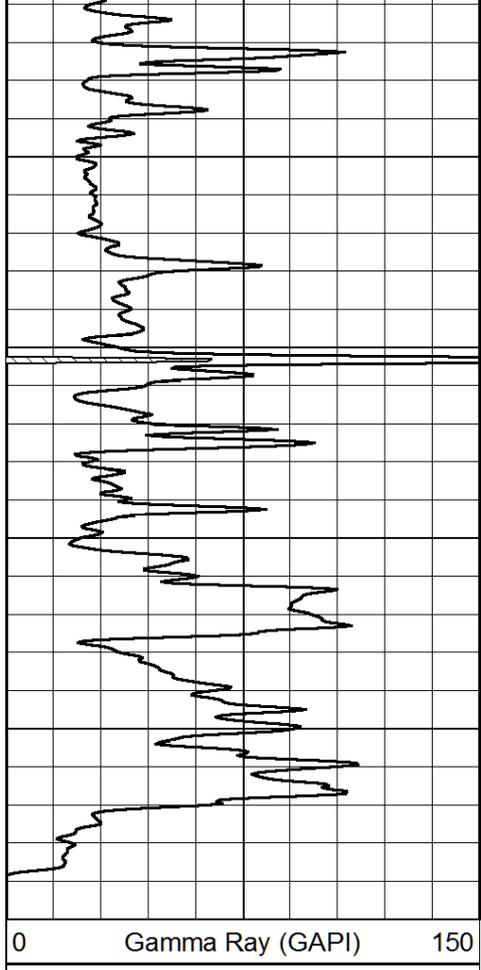
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3050

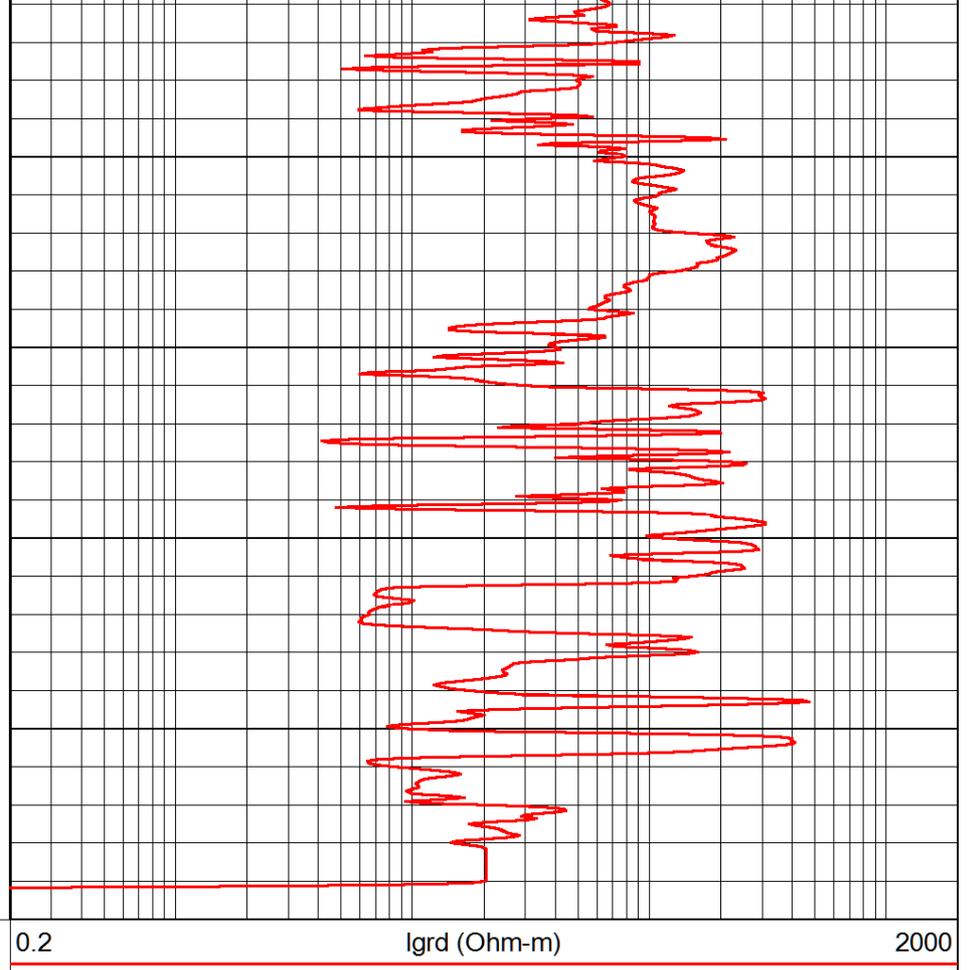
3100

3150





3200  
3250  
3300  
3350  
3400



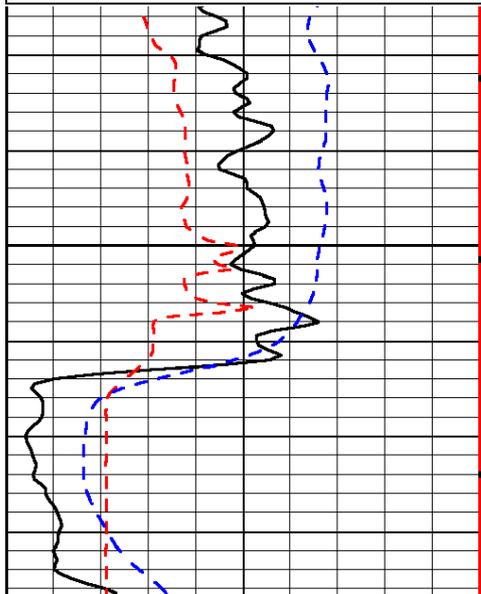
0.2 2000

Database File: hupfer\_morgenstern\_6hd.db  
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 Dataset Creation: Wed Oct 09 11:07:42 2013  
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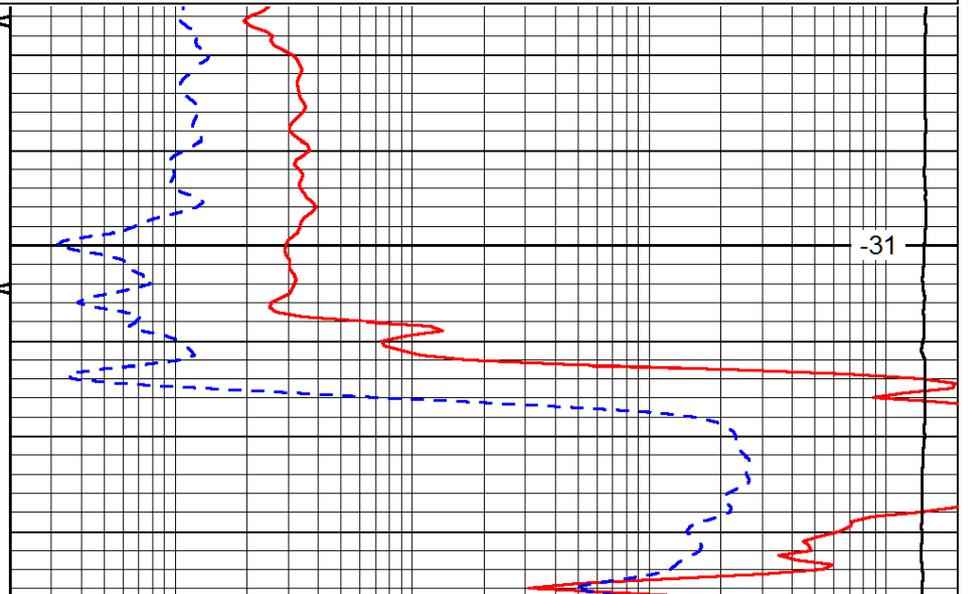
0	Gamma Ray (GAPI)	150
6	SCAL (in)	16
-200	sp (mV)	0

0.2	LGRD (Ohm-m)	2000
560	SWNC (NAPI)	2160
15000	Line Tension (lb)	0

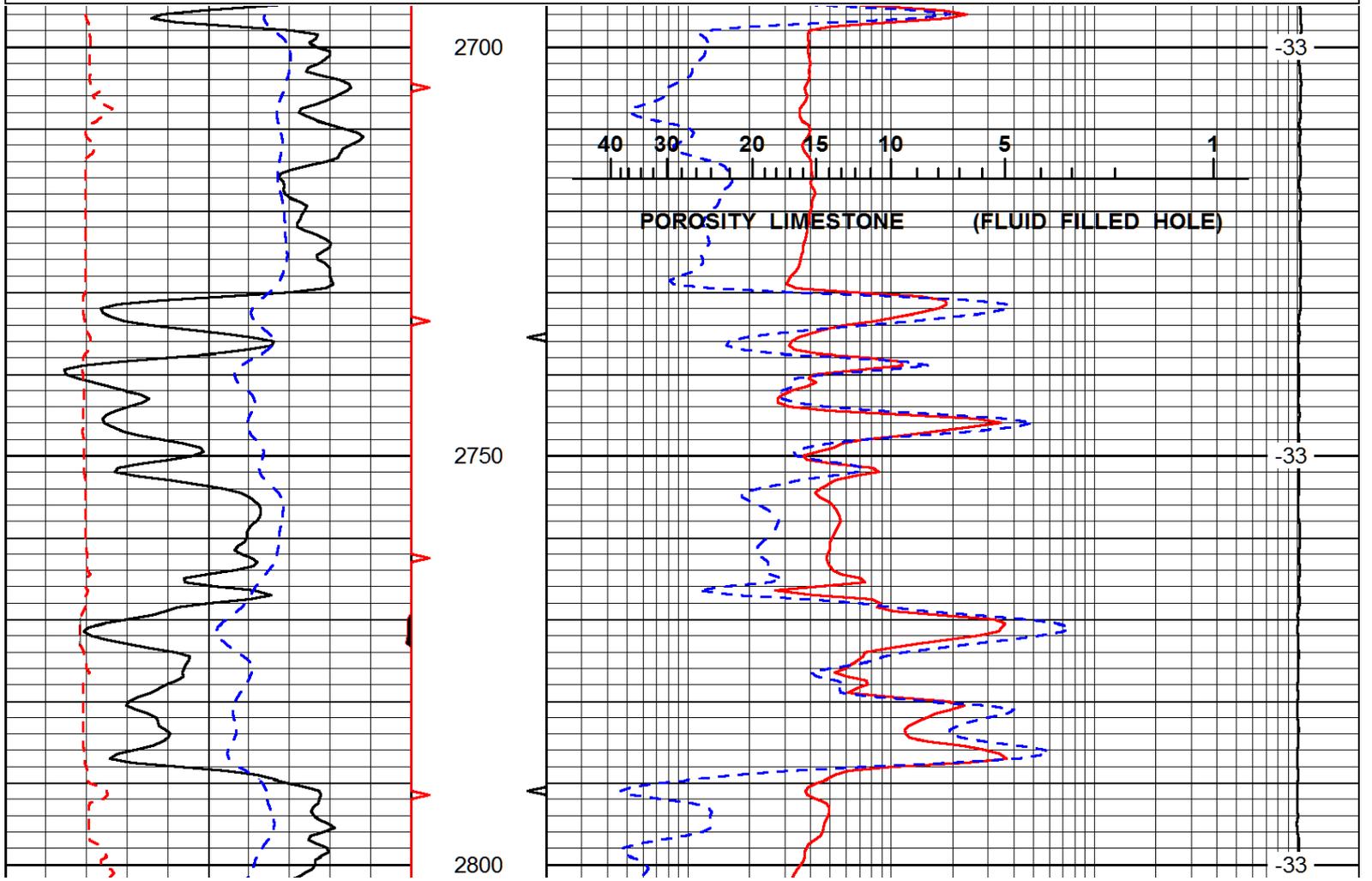
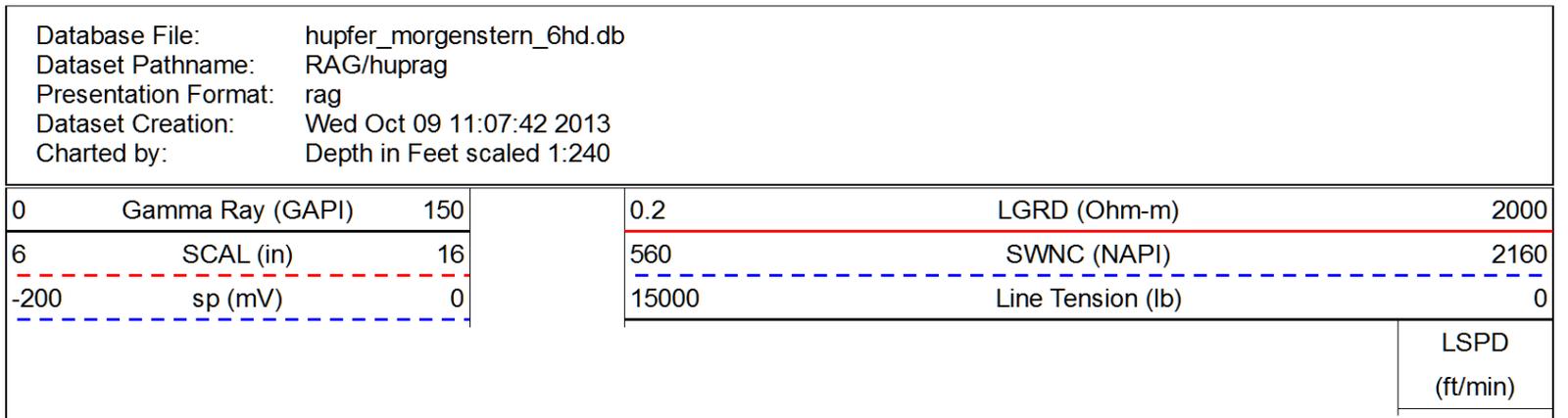
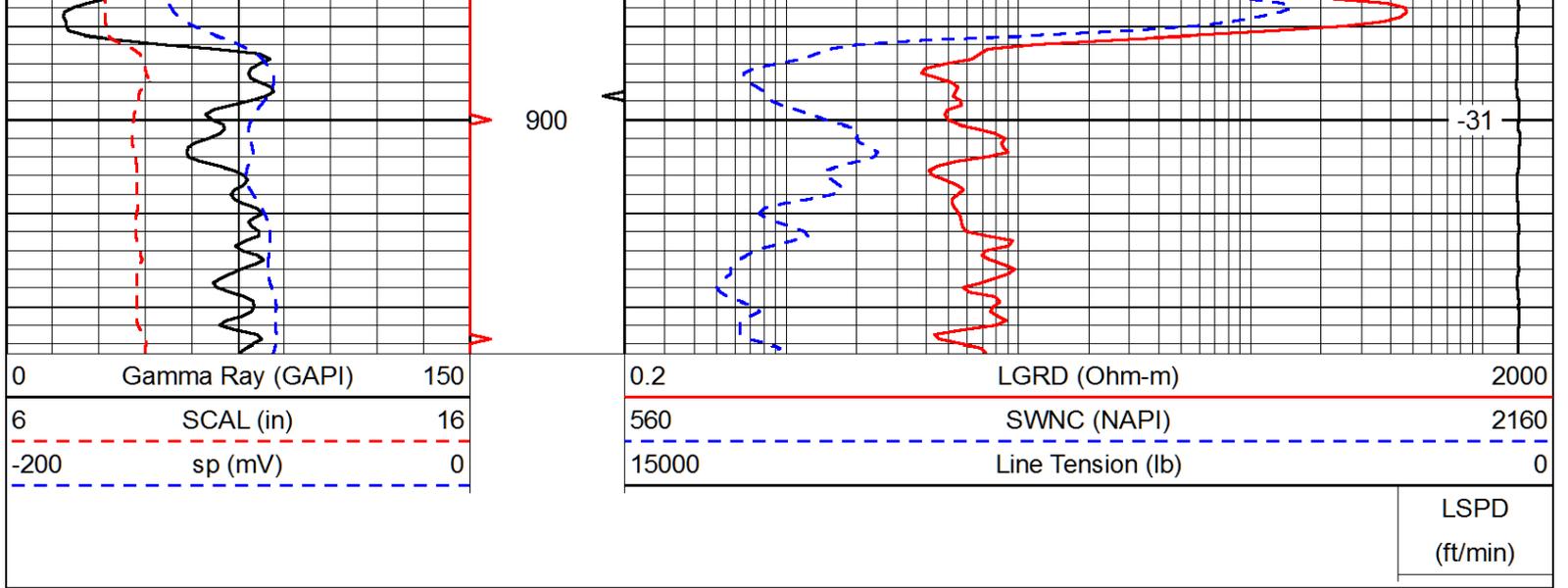
LSPD  
(ft/min)

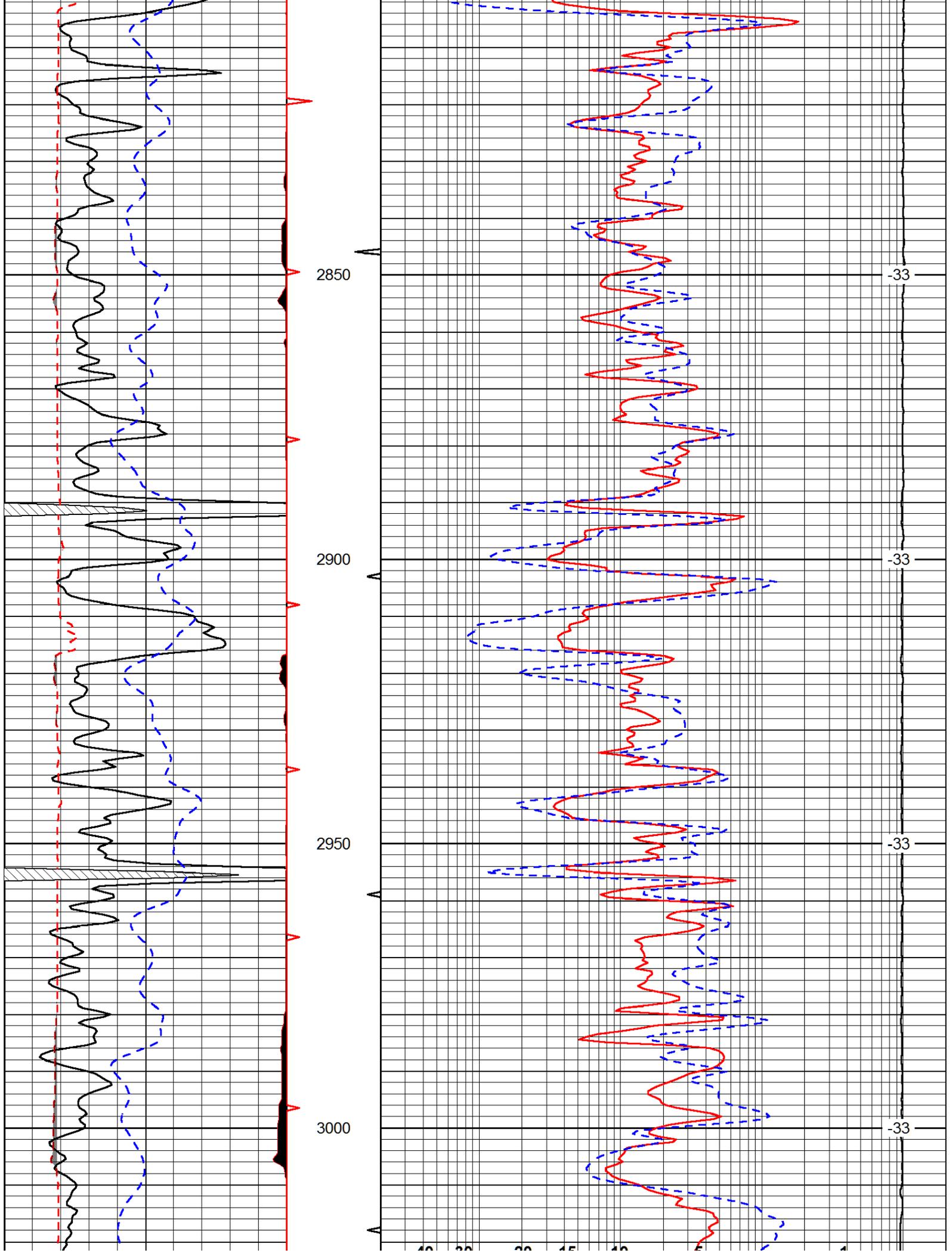


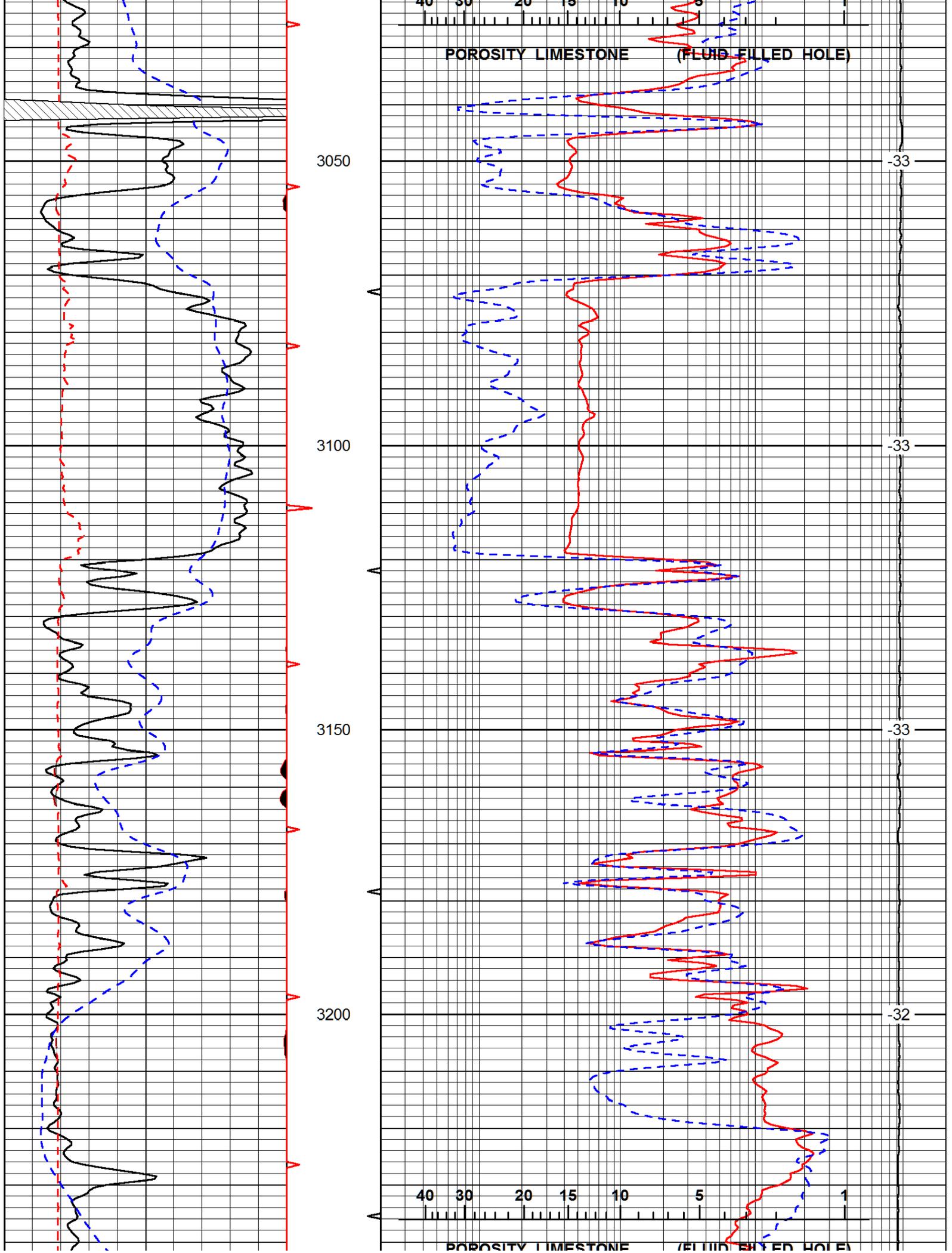
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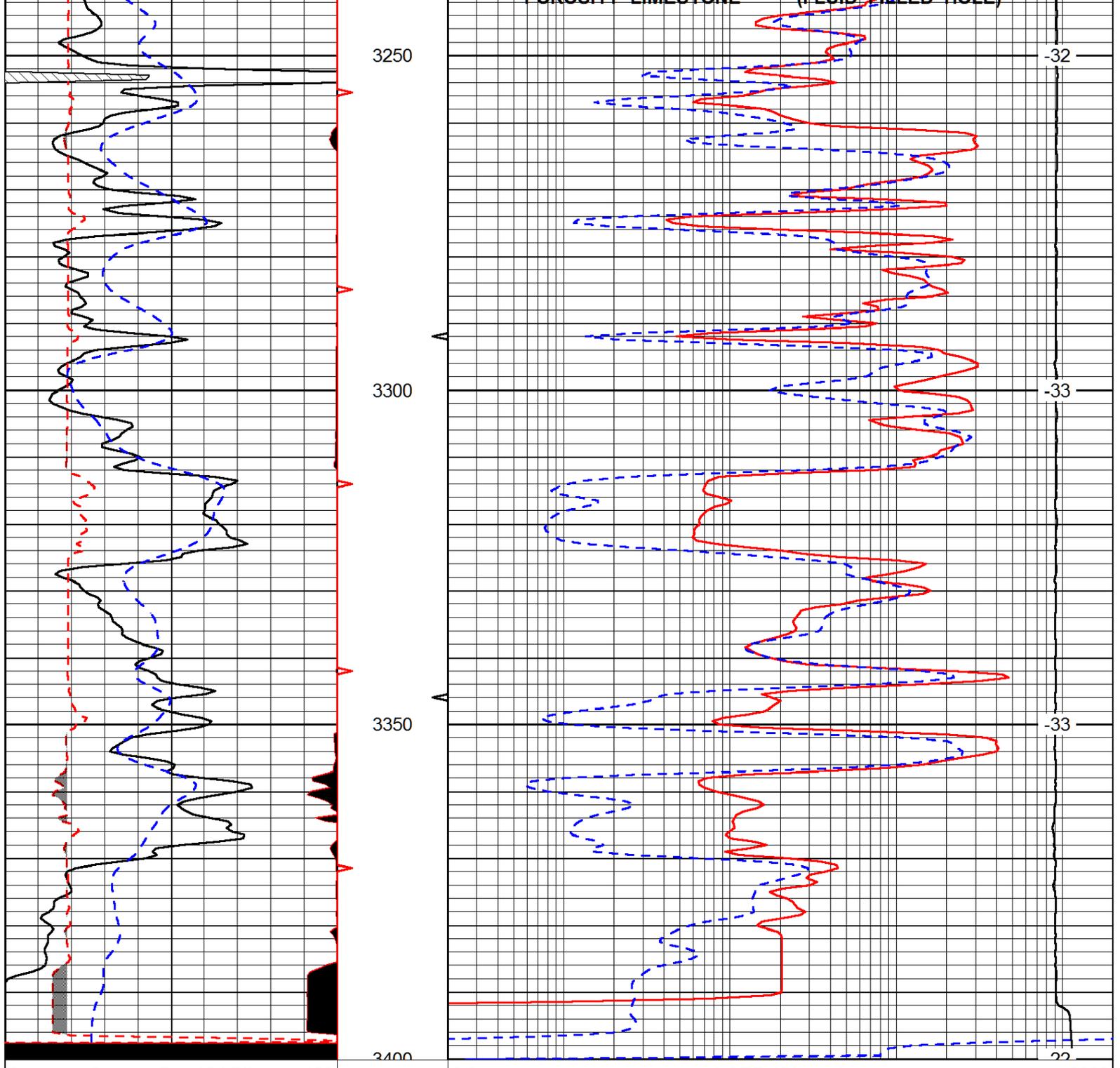
-31







FORGOTTEN LIMESTONE (FRESH FILLED TOLL)



0	Gamma Ray (GAPI)	150
6	SCAL (in)	16
-200	sp (mV)	0

0.2	LGRD (Ohm-m)	2000
560	SWNC (NAPI)	2160
15000	Line Tension (lb)	0

LSPD  
(ft/min)