



Pioneer Energy Services

# Radiation Guard Log

15-083-21,868-00-00

API No.

Company American Warrior, Inc.

Well Cure No. 1 - 33

Field

County Hodgeman State Kansas

Location

1550' FNL & 335' FWL

Other Services  
BHCS

Sec: 33 Twp: 21 S Rge: 22 W

Permanent Datum Ground Level Elevation 2299

Log Measured From Kelly Bushing 11 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing

Elevation  
K.B. 2310  
D.F. 2299  
G.L. 2299

Date	12/6/2012	
Run Number	One	
Depth Driller	4474	
Depth Logger	4476	
Bottom Logged Interval	4475	
Top Log Interval	3700	
Casing Driller	8.625 @ 260	
Casing Logger	257	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	8000	
Density / Viscosity	9.2 @ 60	
pH / Fluid Loss	10.0 @ 10.0	
Source of Sample	Flowline	
Rm @ Meas. Temp	.40 @ 60	
Rmf @ Meas. Temp	.30 @ 60	
Rmc @ Meas. Temp	.54 @ 60	
Source of Rmf / Rmc	Charts	
Rm @ BHT	.20 @ 121	
Operating Rig Time	3 1/2 Hours	
Max Rec. Temp. F	121	
Equipment Number	17	
Location	Hays	
Recorded By	D. Martin	
Witnessed By	Kevin Timson	

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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

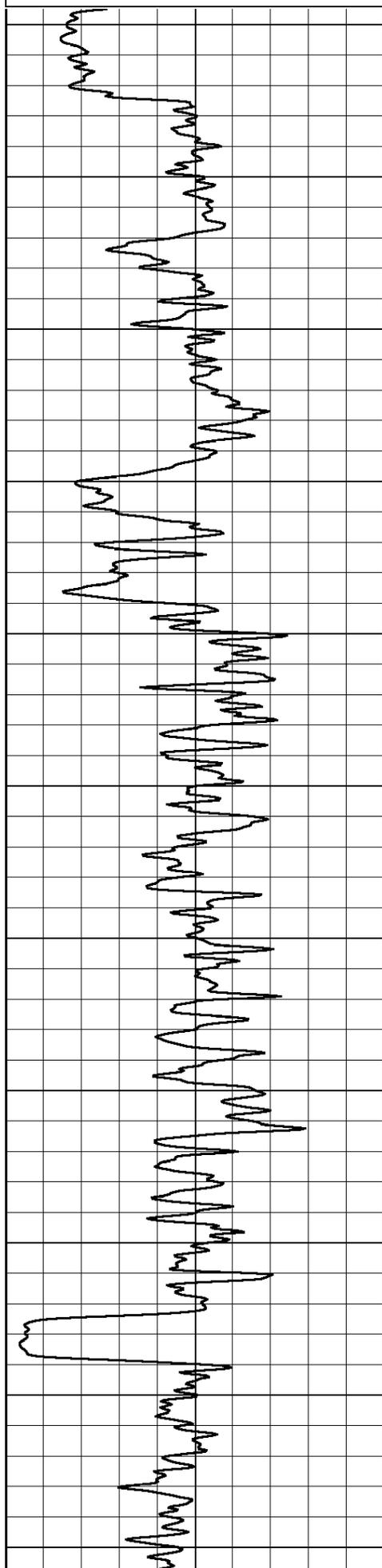
Thank you for using Log-Tech, Inc.  
(785) 625-3858  
  
Hanston, KS  
3 S to M Rd., 4 E to 232 Rd.,  
3/4 N, E Into

Database File: amwhd.db  
Dataset Pathname: rag/amwrag  
Presentation Format: rag2in  
Dataset Creation: Thu Dec 06 23:11:19 2012  
Charted by: Depth in Feet scaled 1:600

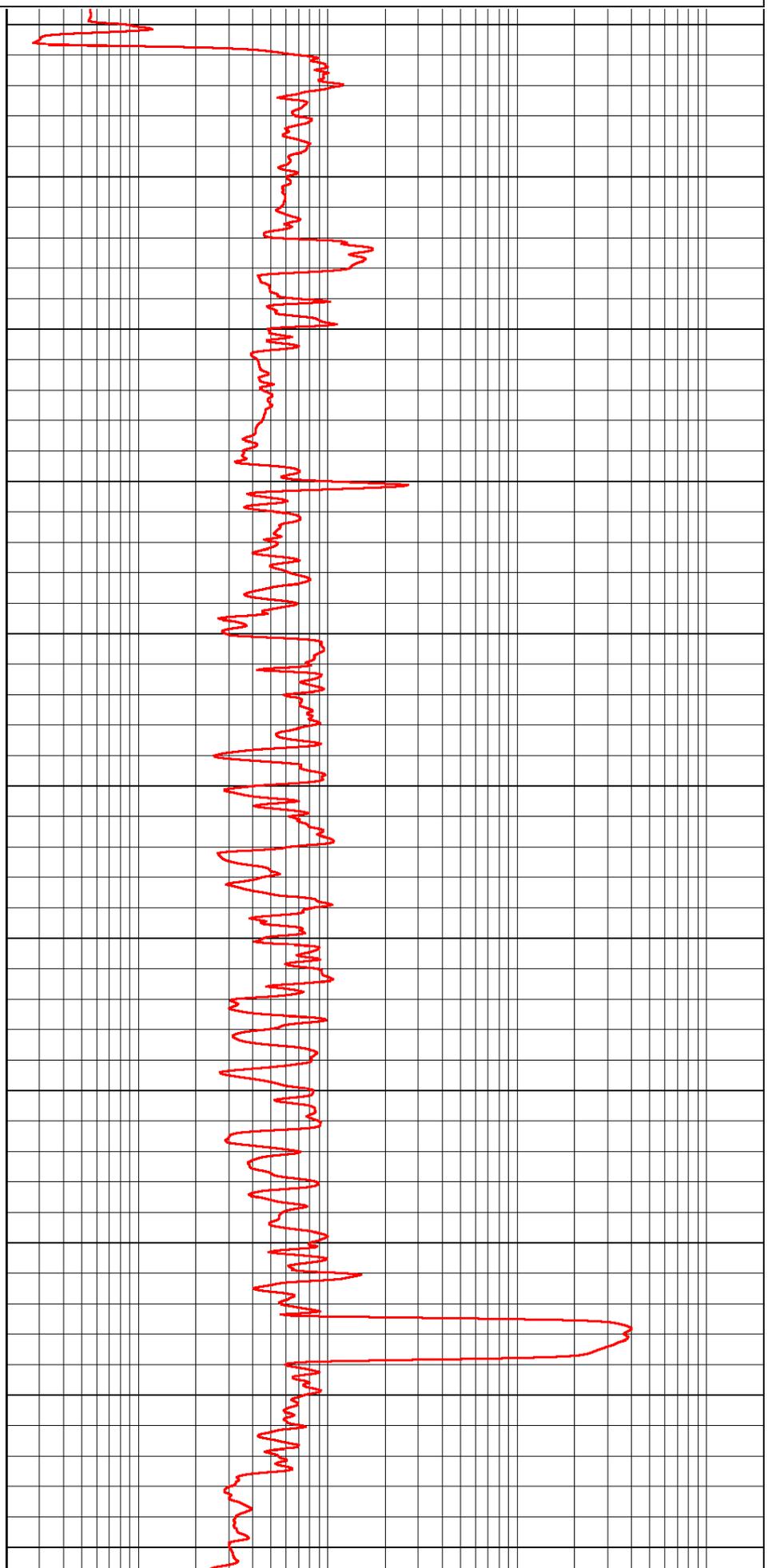
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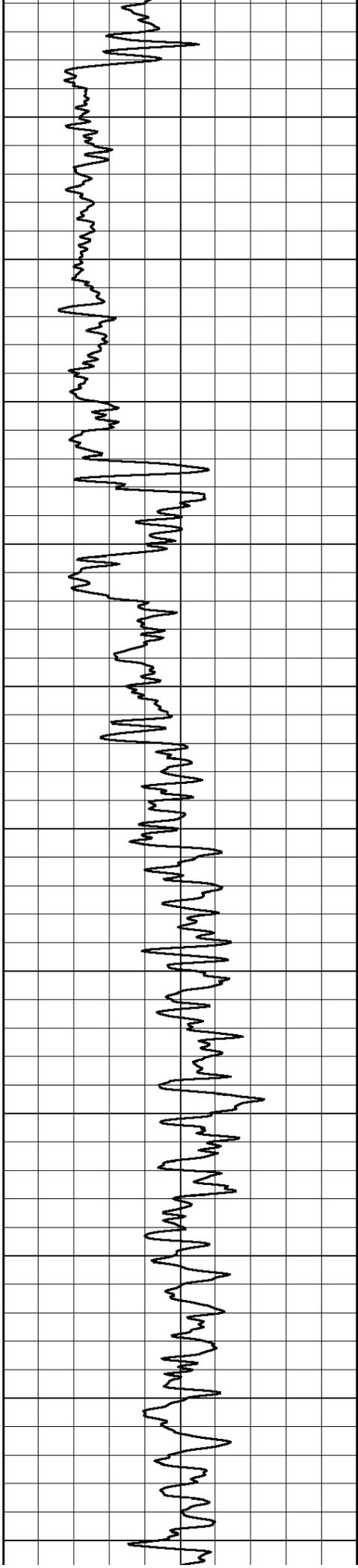
0.2 Igrd (Ohm-m)

2000



250  
300  
350  
400  
450  
500  
550  
600  
650  
700  
750





800

850

900

950

1000

1050

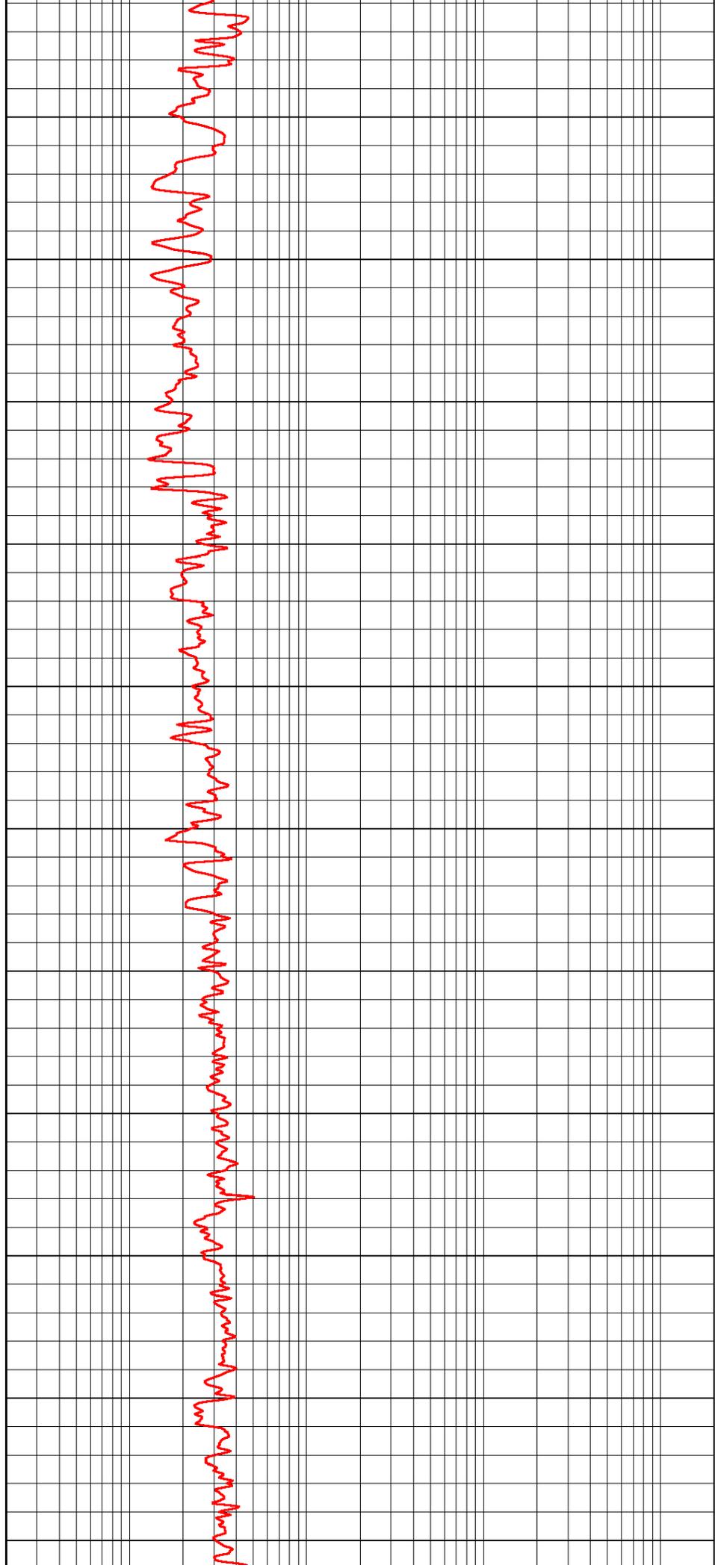
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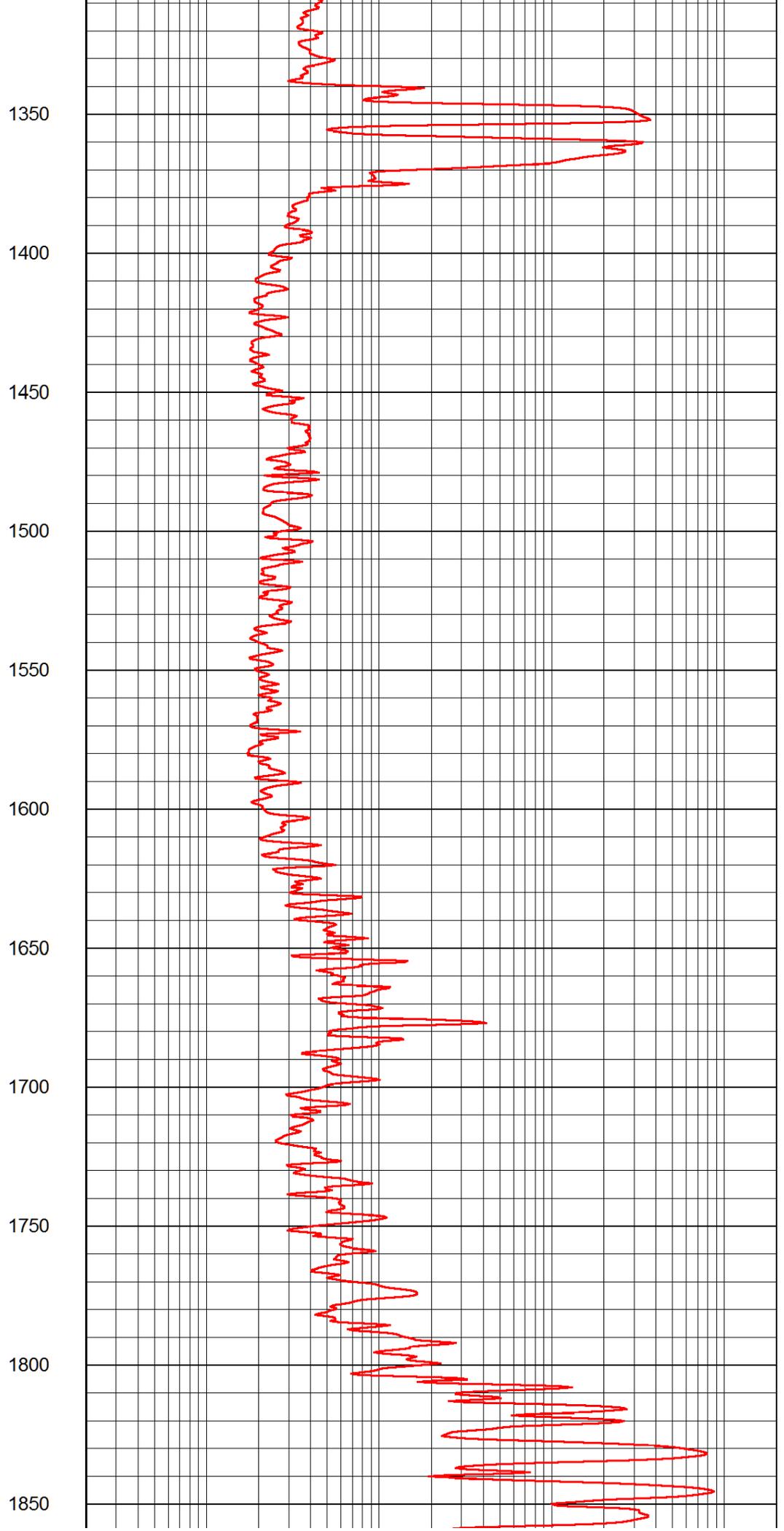
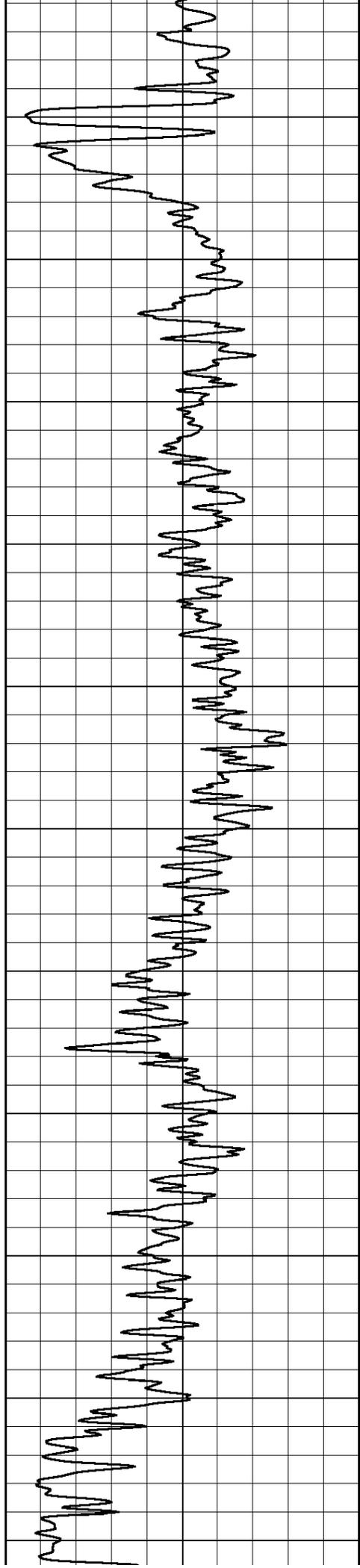
1150

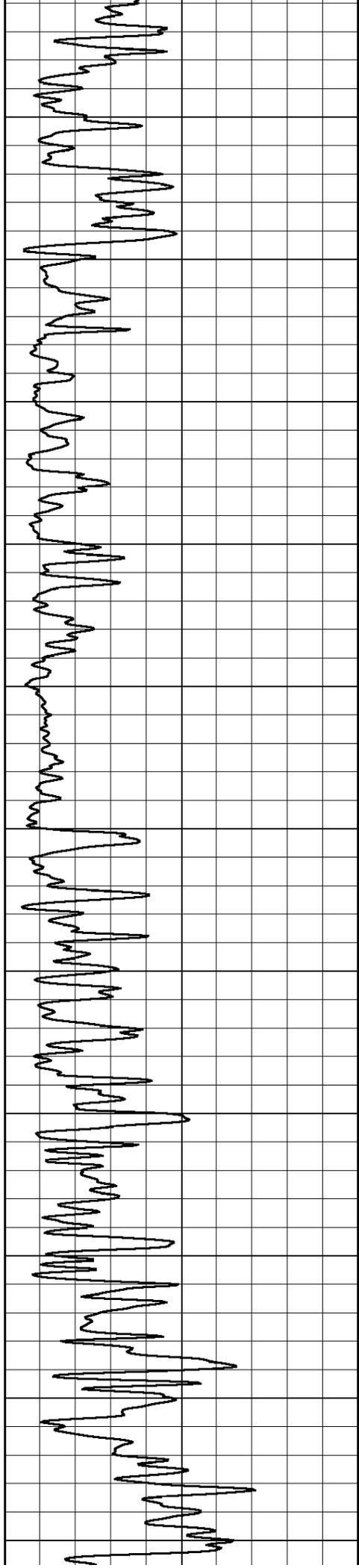
1200

1250

1300







1900

1950

2000

2050

2100

2150

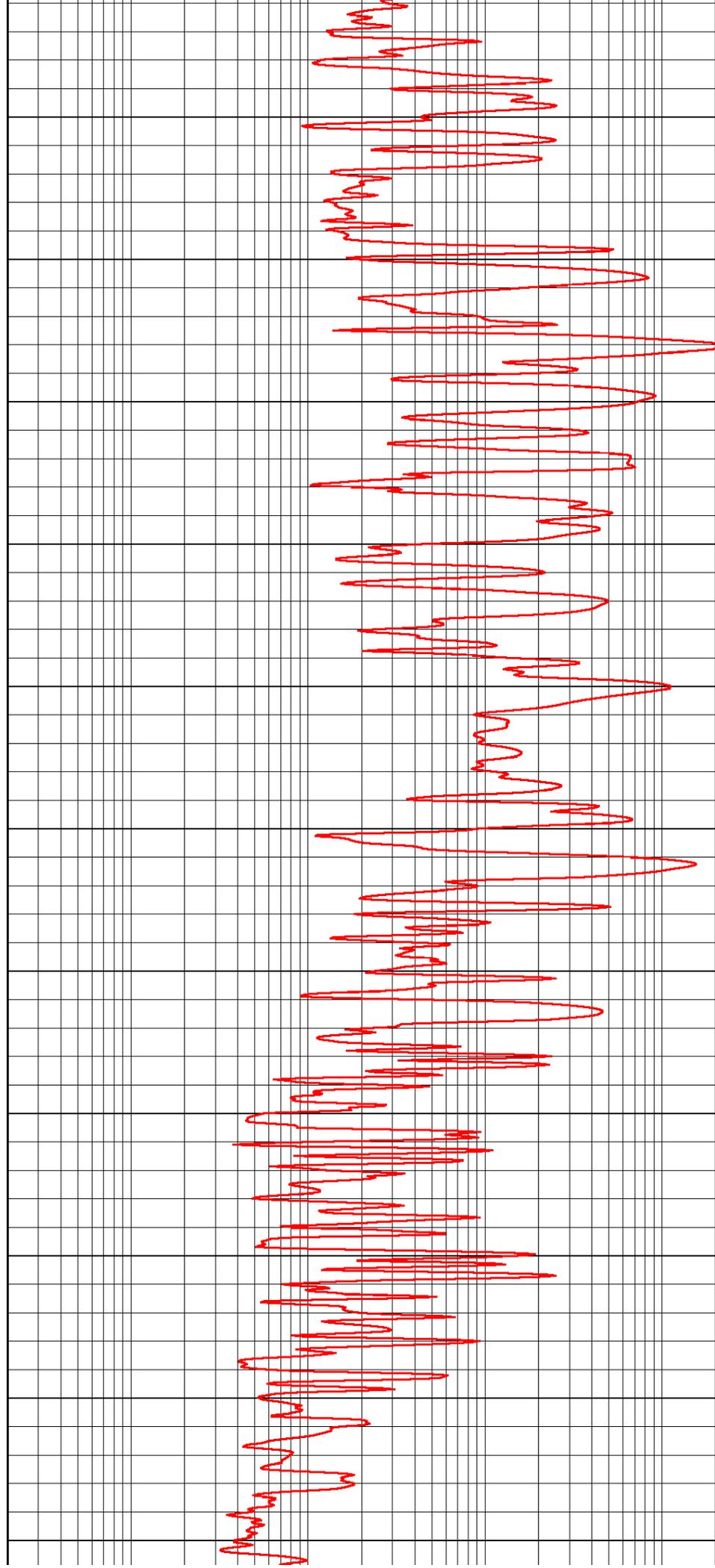
2200

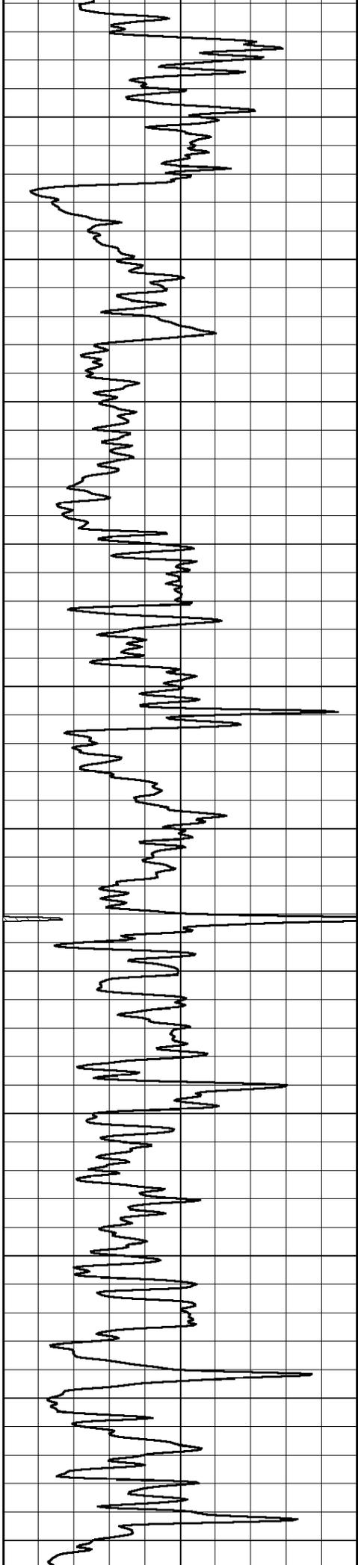
2250

2300

2350

2400





2450

2500

2550

2600

2650

2700

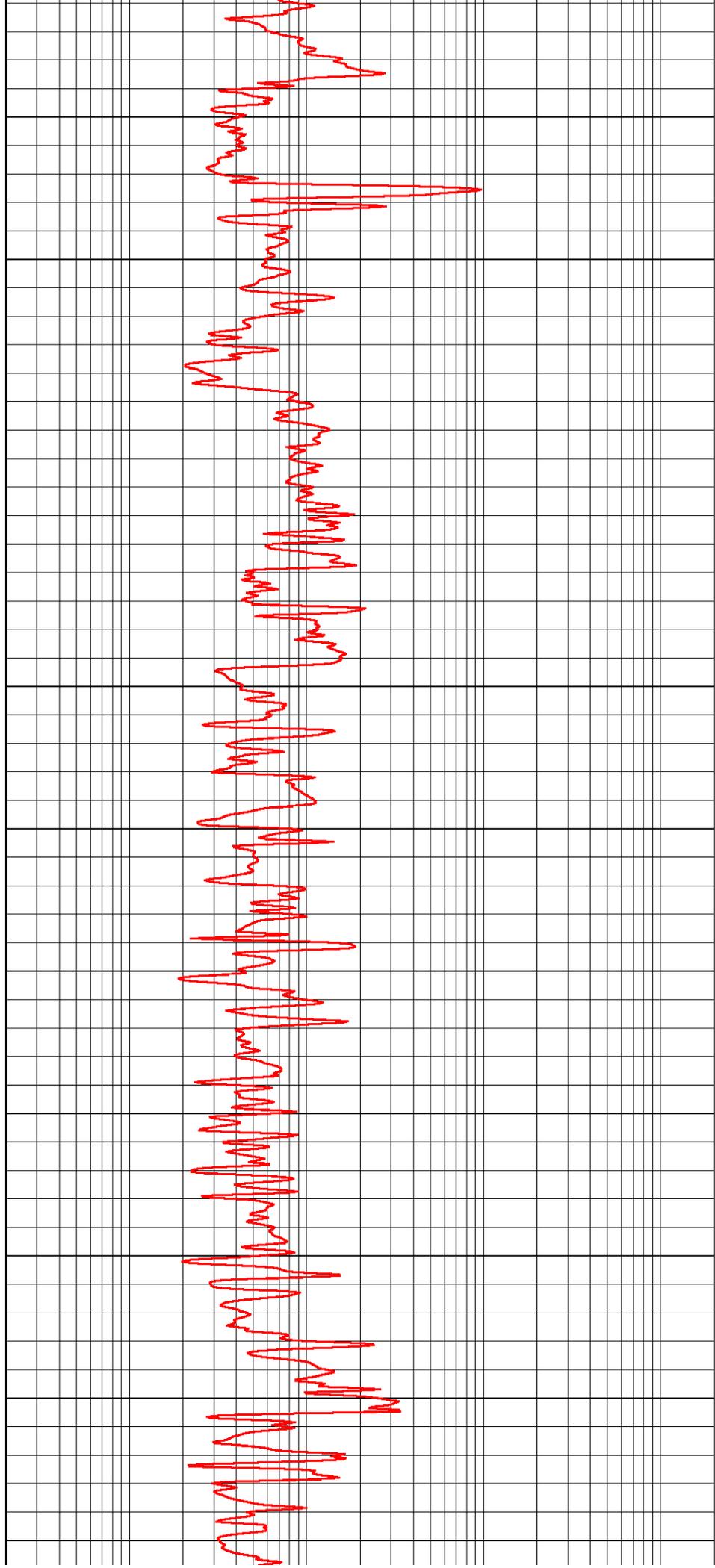
2750

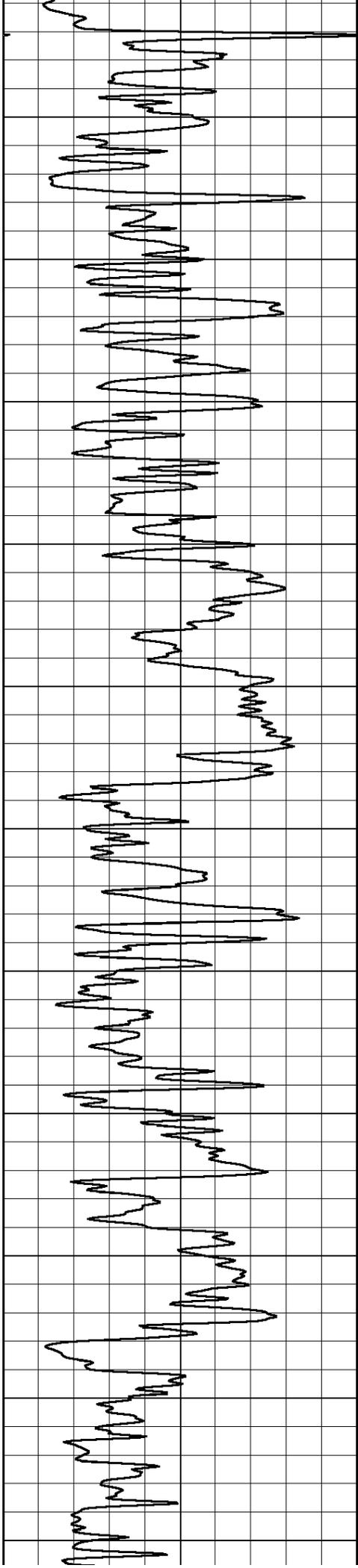
2800

2850

2900

2950





3000

3050

3100

3150

3200

3250

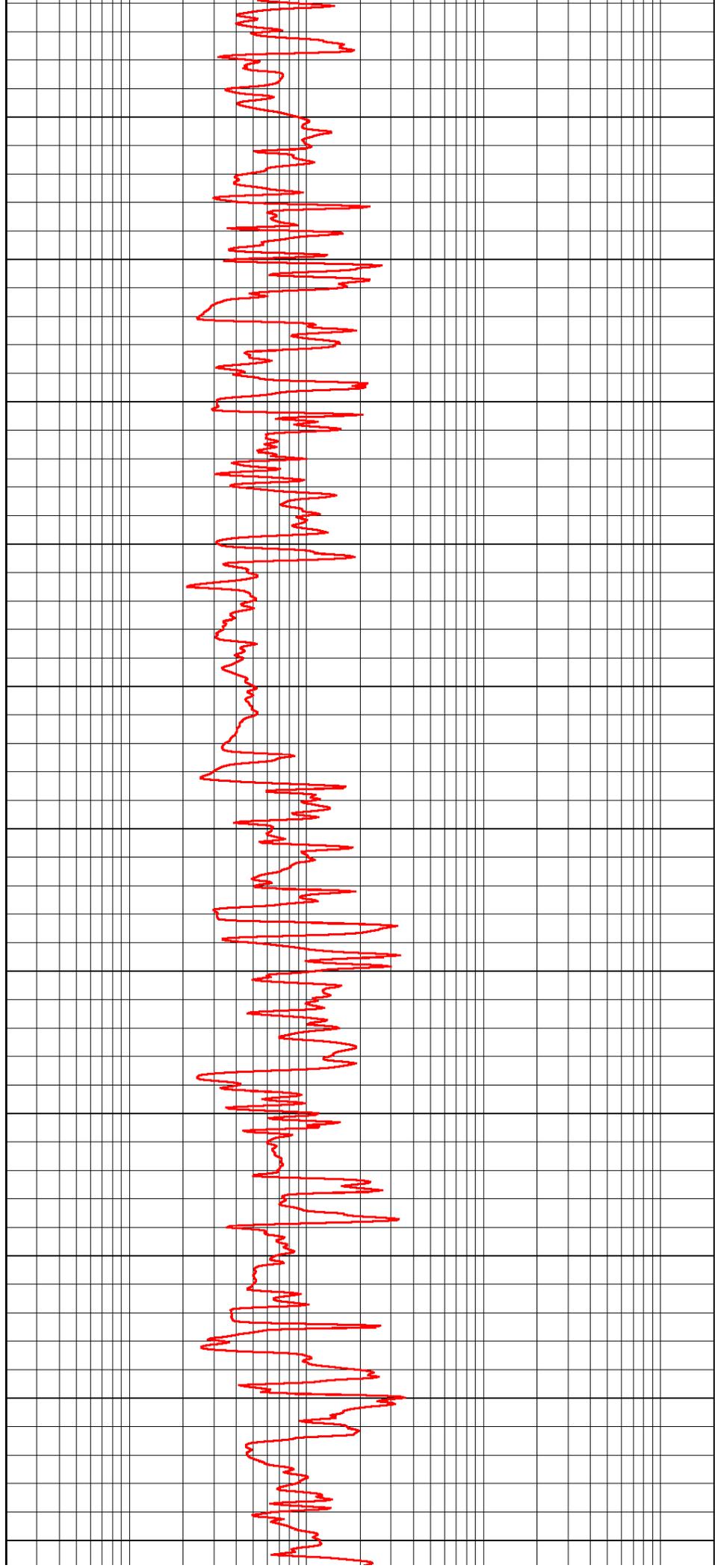
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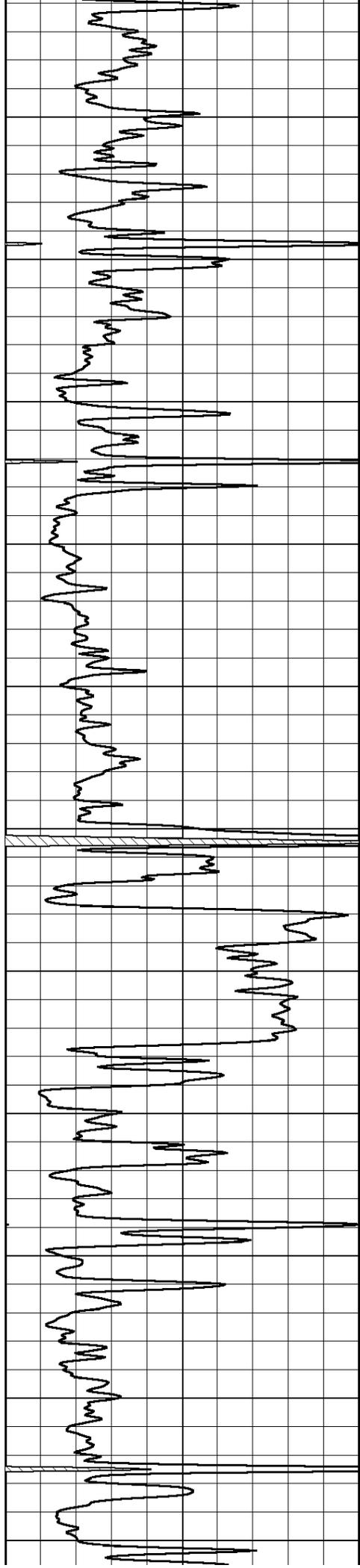
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3400

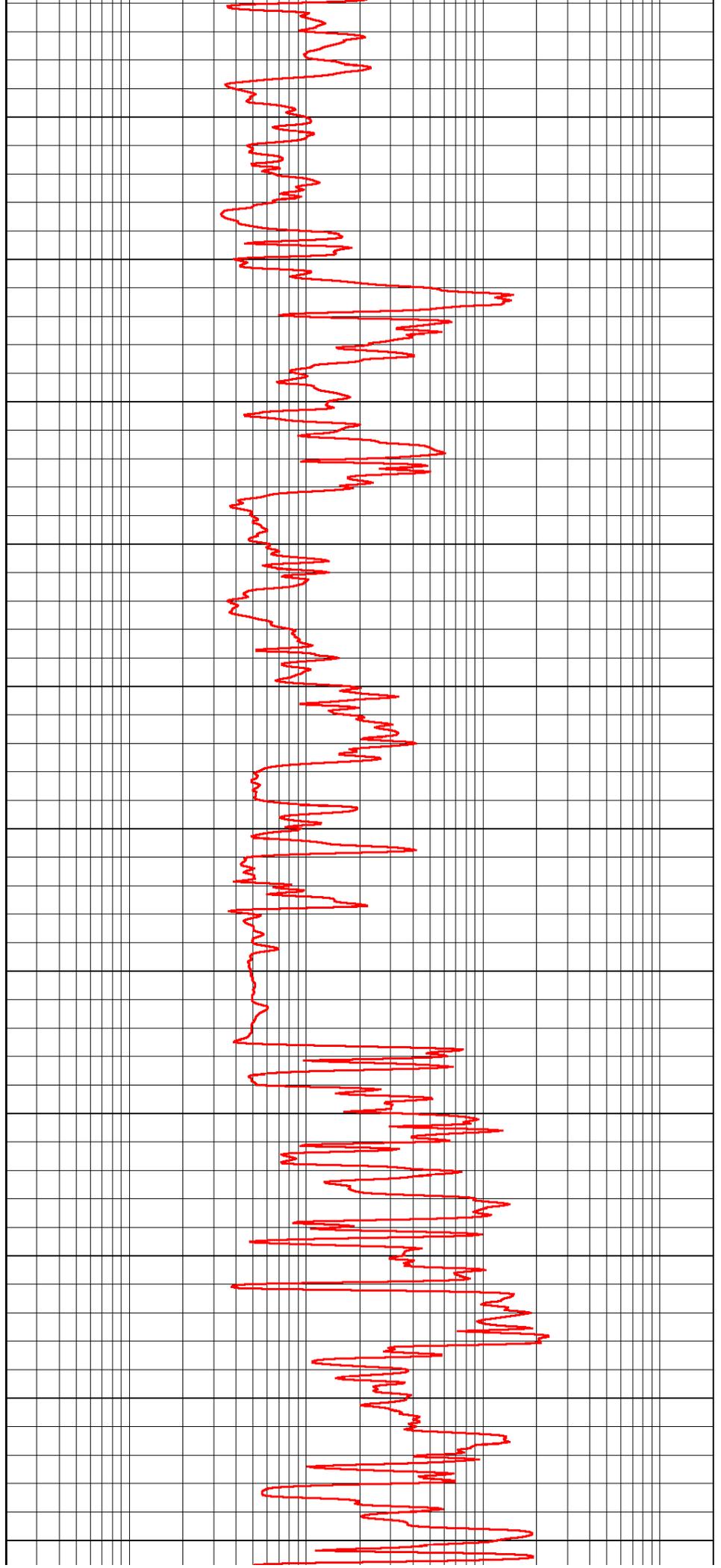
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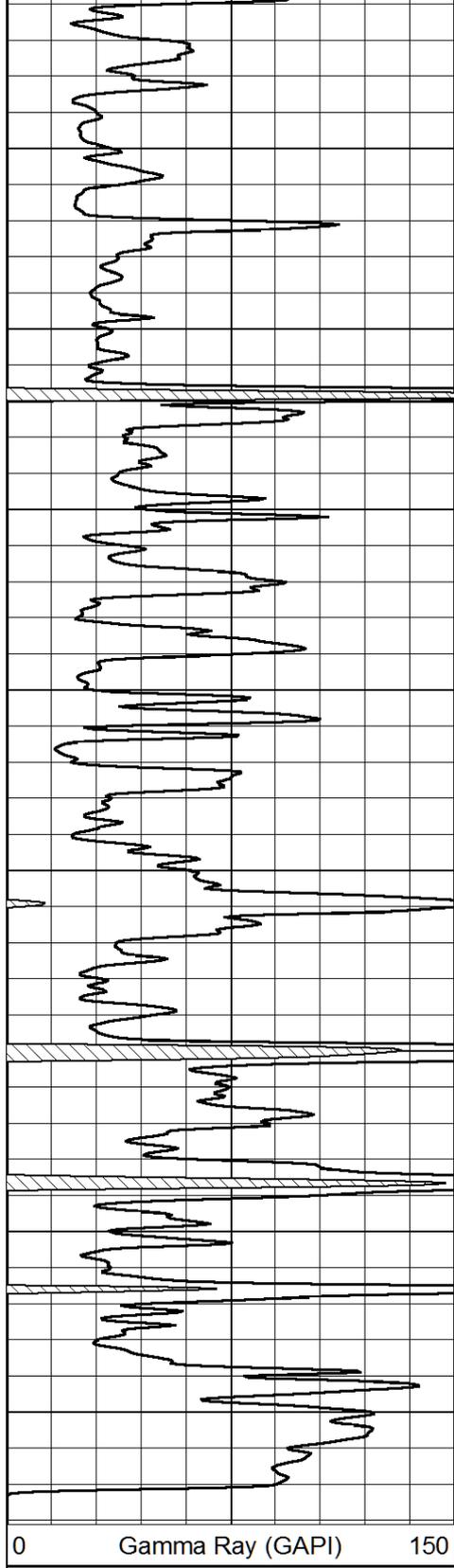
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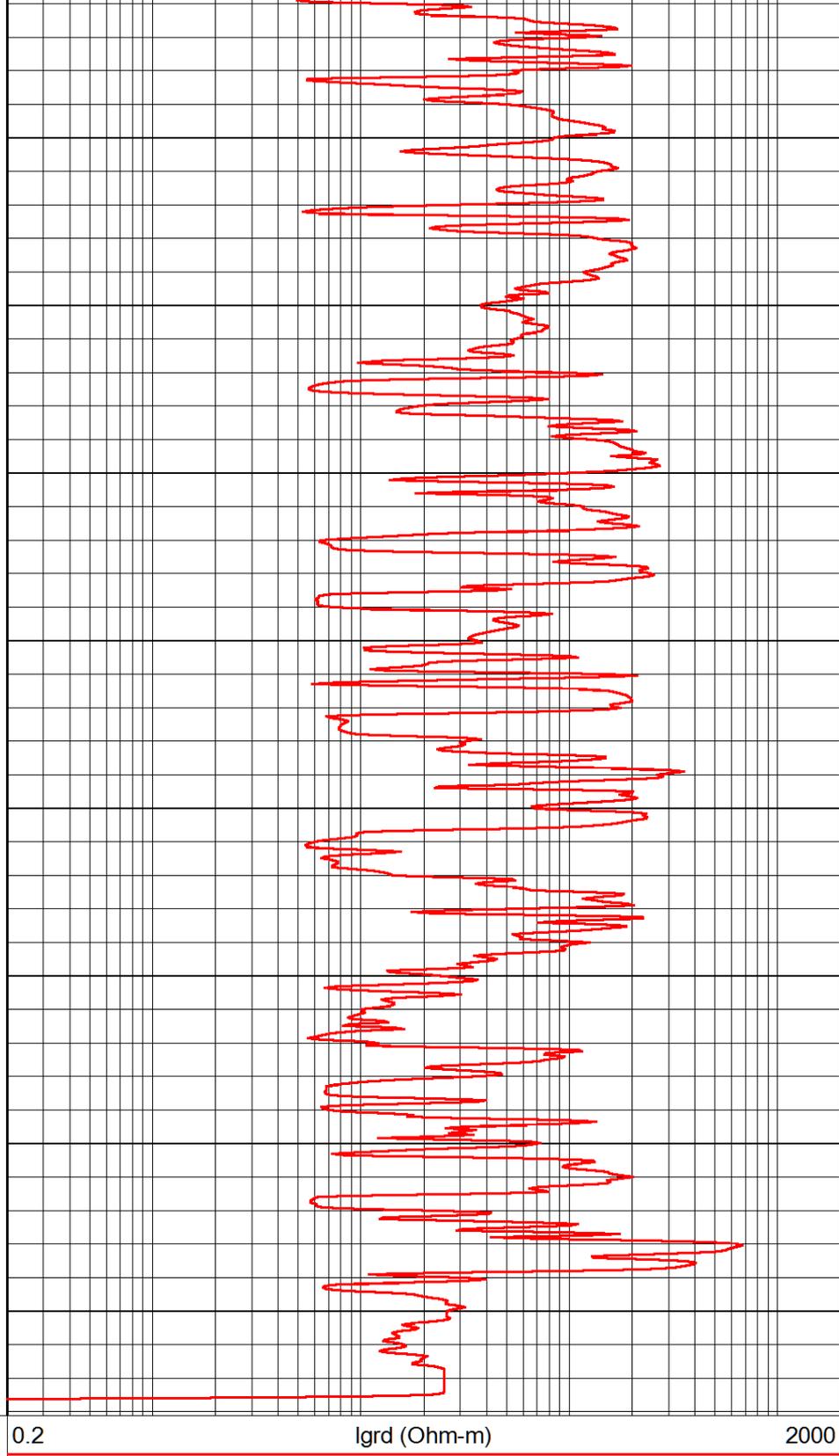


3550  
3600  
3650  
3700  
3750  
3800  
3850  
3900  
3950  
4000  
4050





4100  
4150  
4200  
4250  
4300  
4350  
4400  
4450



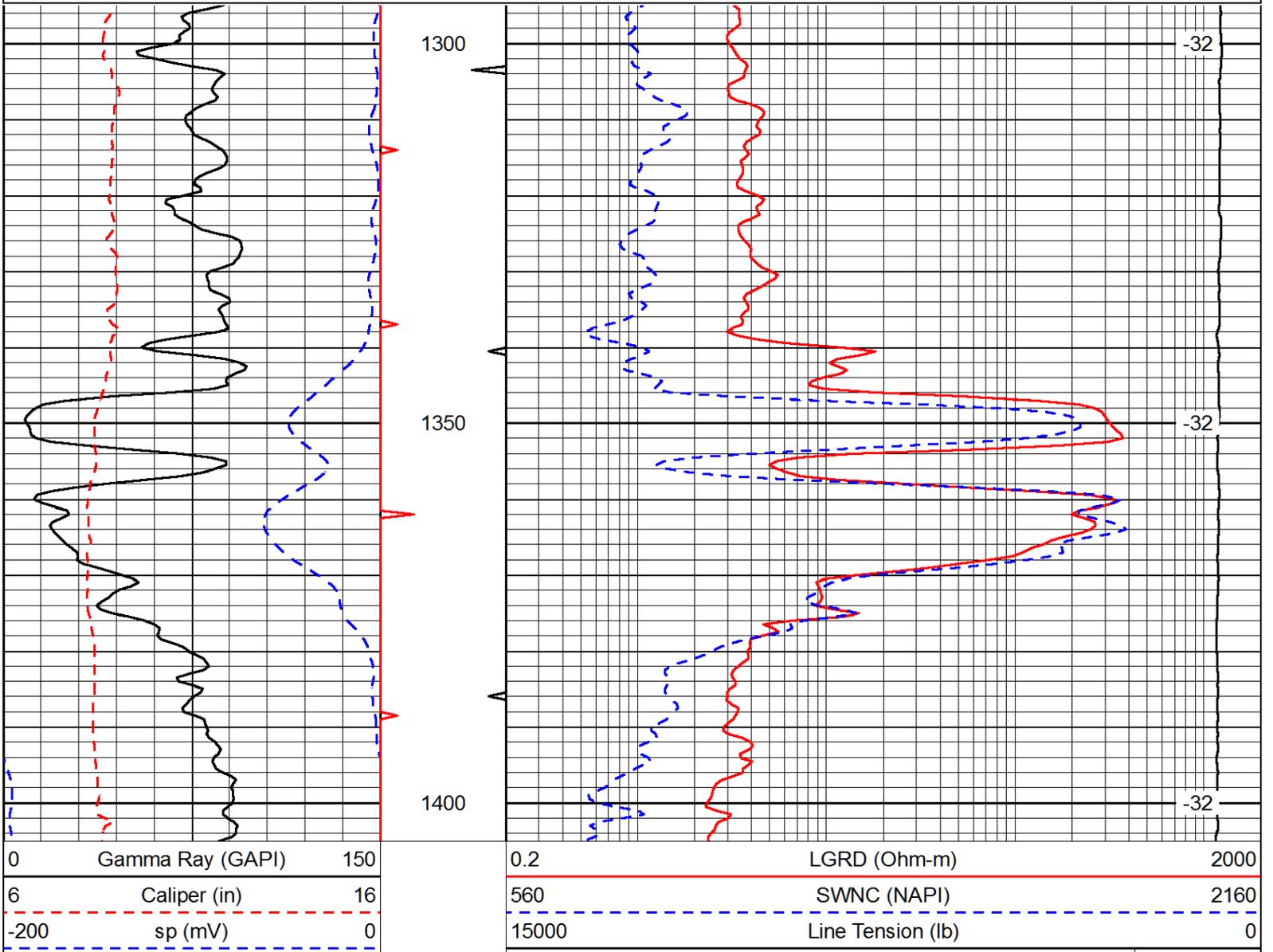
0.2 Lgrd (Ohm-m) 2000

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 Presentation Format: rag  
 Dataset Creation: Thu Dec 06 23:11:19 2012  
 Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
6	Caliper (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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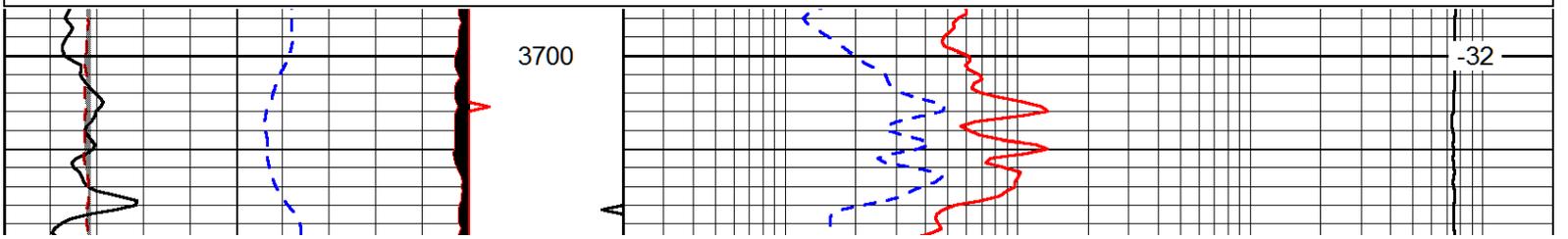
LSPD  
(ft/min)

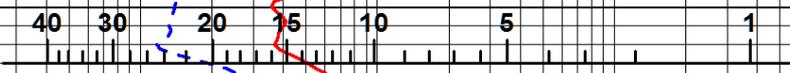
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15000	Line Tension (lb)	0

LSPD  
(ft/min)





POROSITY Limestone (FLUID FILLED HOLE)

3750

-32

3800

-32

3850

-32

3900

-31

