

Schlumberger

TeleScope Gamma Ray

1 in. / 100 ft and 5 in. / 100 ft Measured Depth

Real Time Log

Company: ExxonMobil Oil Corporation

Well: PCU 296 6B1

Field: Piceance Creek

County: Rio Blanco

State: Colorado

Country: United States

Section: 6

Township: 2S

Range: 96W

APIN:

051031154600

Rig Name:

H&P 215

Rig Type:

Land Rig

FL: NDA27 Colorado State Planes, Northern Zone, US Foot

FL1: Latitude: N 39° 54' 19.064" Y: 219913 ft US

FL2: Longitude: W 108° 12' 15.612" X: 1241416 ft US

Log Measured From - Drill Floor: 7394.0 ft

Ground Level: 7367.0 ft



Permanent Datum - Mean Sea Level

Acquisition Dates: 18 Dec 10 to 24 Dec 10

Other Services:

Print Interval: 73.0(ft) to 4600.0(ft)

Directional Drilling

Index Types: Measured Depth

Index Scales: 1:1200 1" / 100', 1:240 5" / 100'

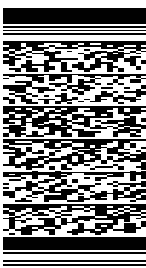
Depth Source: Driller's Depth

Depth Sensor: DES

Conveyance: Drill Pipe

Print Type: Final

Spud Date: 19-Dec-2010



Disclaimer

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

Content

1. Header
2. Disclaimer
3. Contents
4. Run001 1 in. / 100 ft MD Log
 - 4.1 Integration Summary
 - 4.2 Software Version
 - 4.3 Composite Summary
 - 4.4 Log (TeleScope Gamma Ray MD RT)
 - 4.5 Parameter Listing
5. Run001 5 in. / 100 ft MD Log
 - 5.1 Integration Summary
 - 5.2 Software Version
 - 5.3 Composite Summary
 - 5.4 Log (TeleScope Gamma Ray MD RT)
 - 5.5 Parameter Listing
6. Tail



Run001

1 in. / 100 ft MD Log

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
-------------------	--------------------	-----------------	--------------	------

Software Version

Acquisition System	Version
MaxWell	2.0.6803.0
Application Patch	SP-20100528-2.0.6803.1089

Tool Elements	Description	Software Version	Firmware Version
DRILLING_SURFACE	DRILLING_SURFACE	2.0.6803.1089	
PMGR	TeleScope - M10 Gamma Ray Assembly	2.0.6803.0	

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Acquisition Start Date	Acquisition Start Time
Run001	Drilling	Down	143.00 ft	4530.42 ft	18-Dec-2010	20:48:15

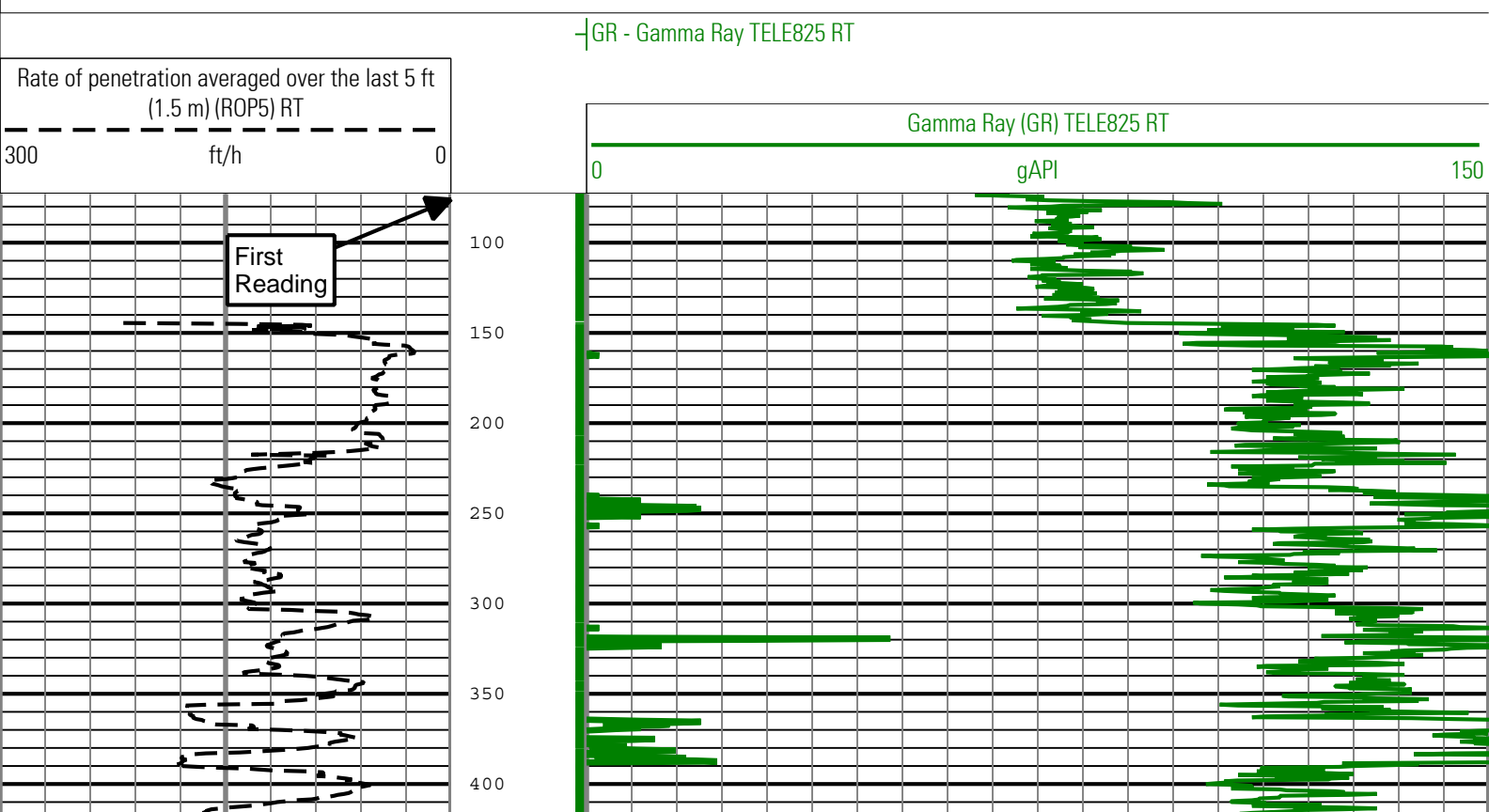
All depths are referenced to toolstring zero

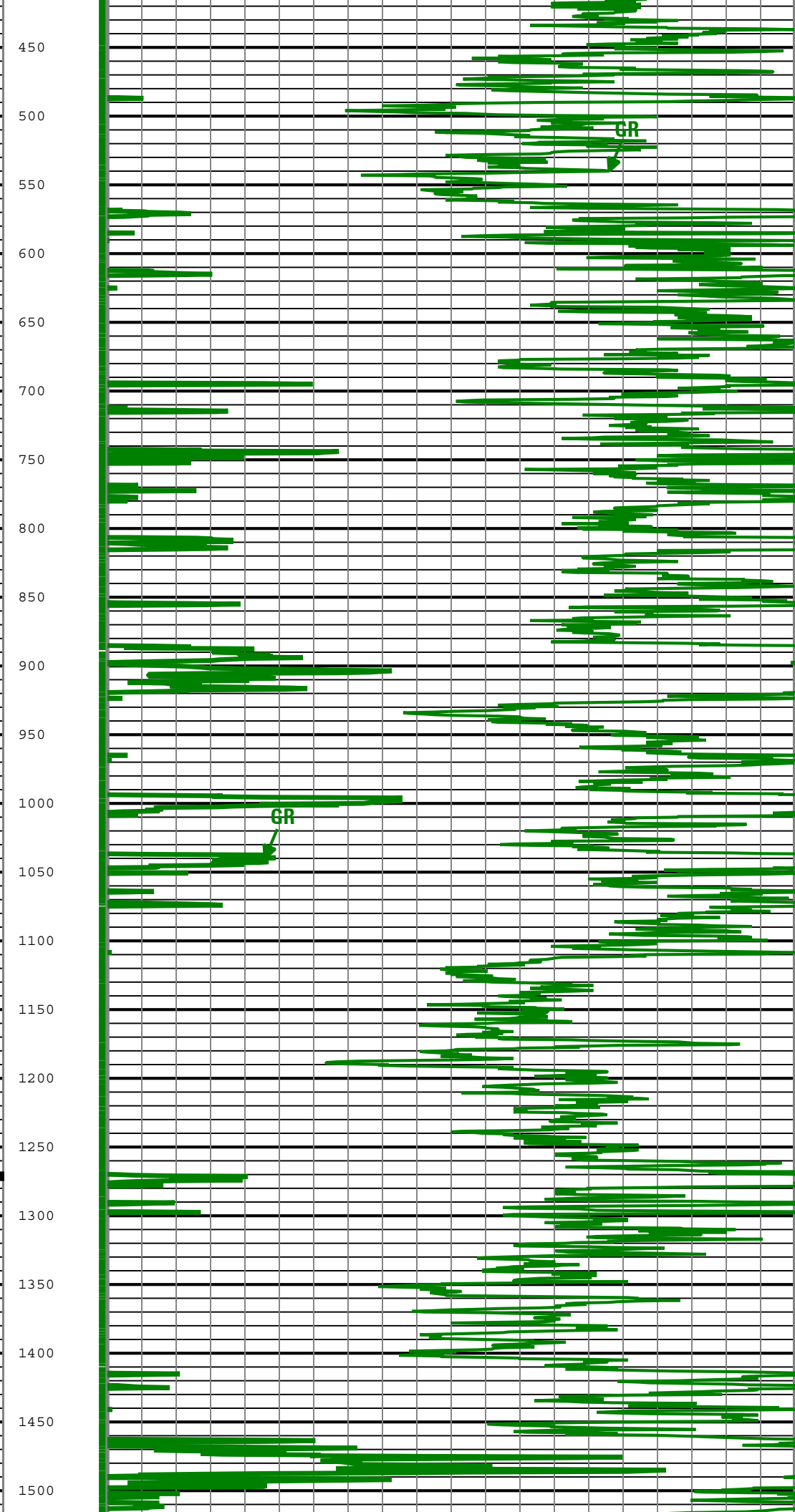
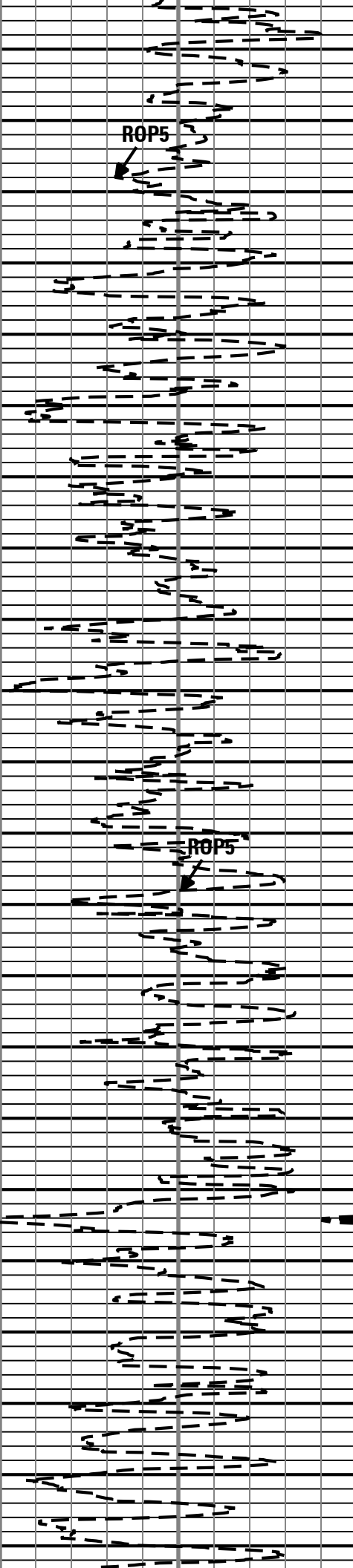
Log

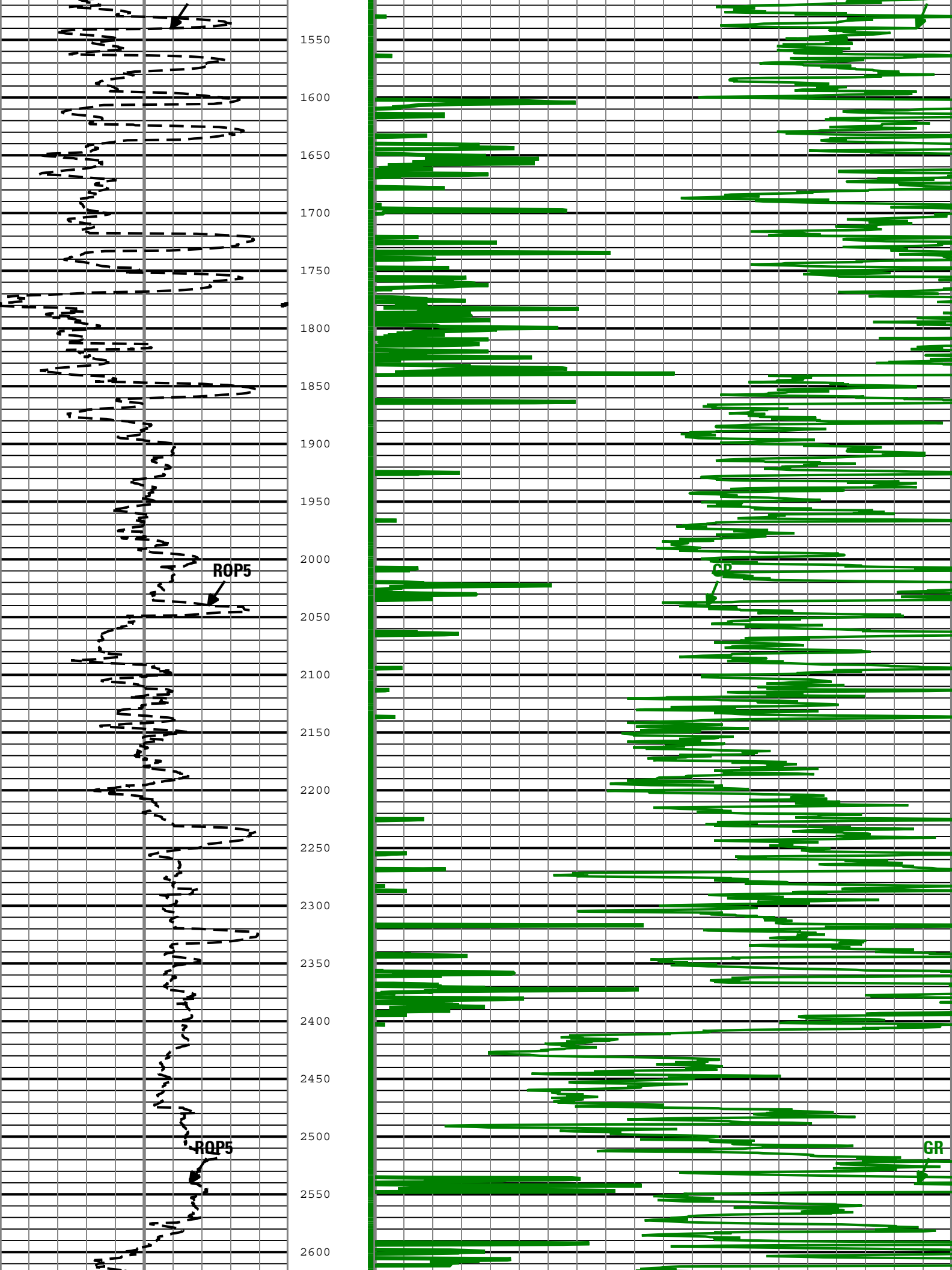
Run001: Drilling 6F61CC1B-BFF6-47D1-972C-617F0AB99552

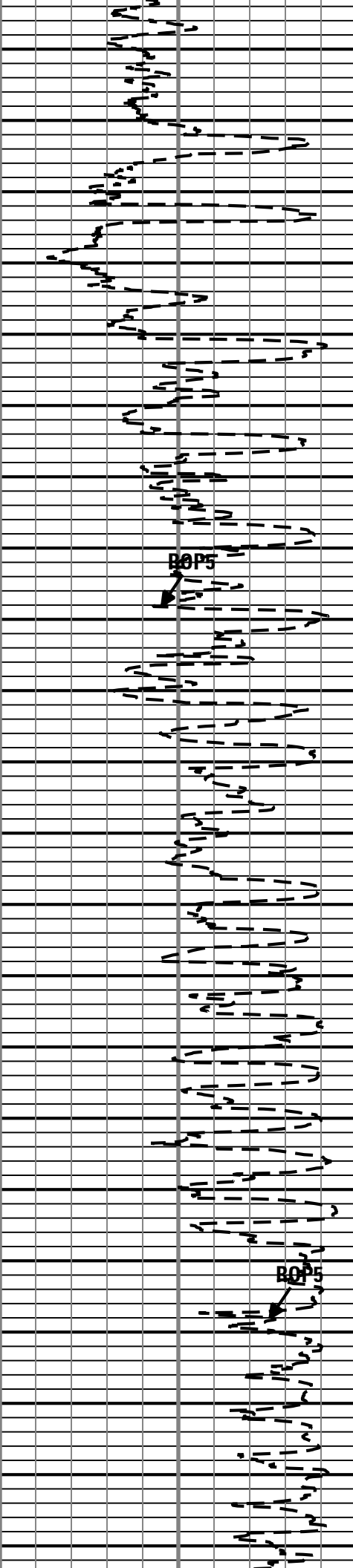
Description: TeleScope Gamma Ray Depth RT Format: Log (TeleScope Gamma Ray MD RT) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measured
Depth Creation Date: 07-Jan-2011 11:18:08

GR TELE825:TELE825:PMGR 6in - RT
ROP5 DRILLING_SURFACE 6in - RT









2650

2700

2750

2800

2850

2900

2950

3000

3050

3100

3150

3200

3250

3300

3350

3400

3450

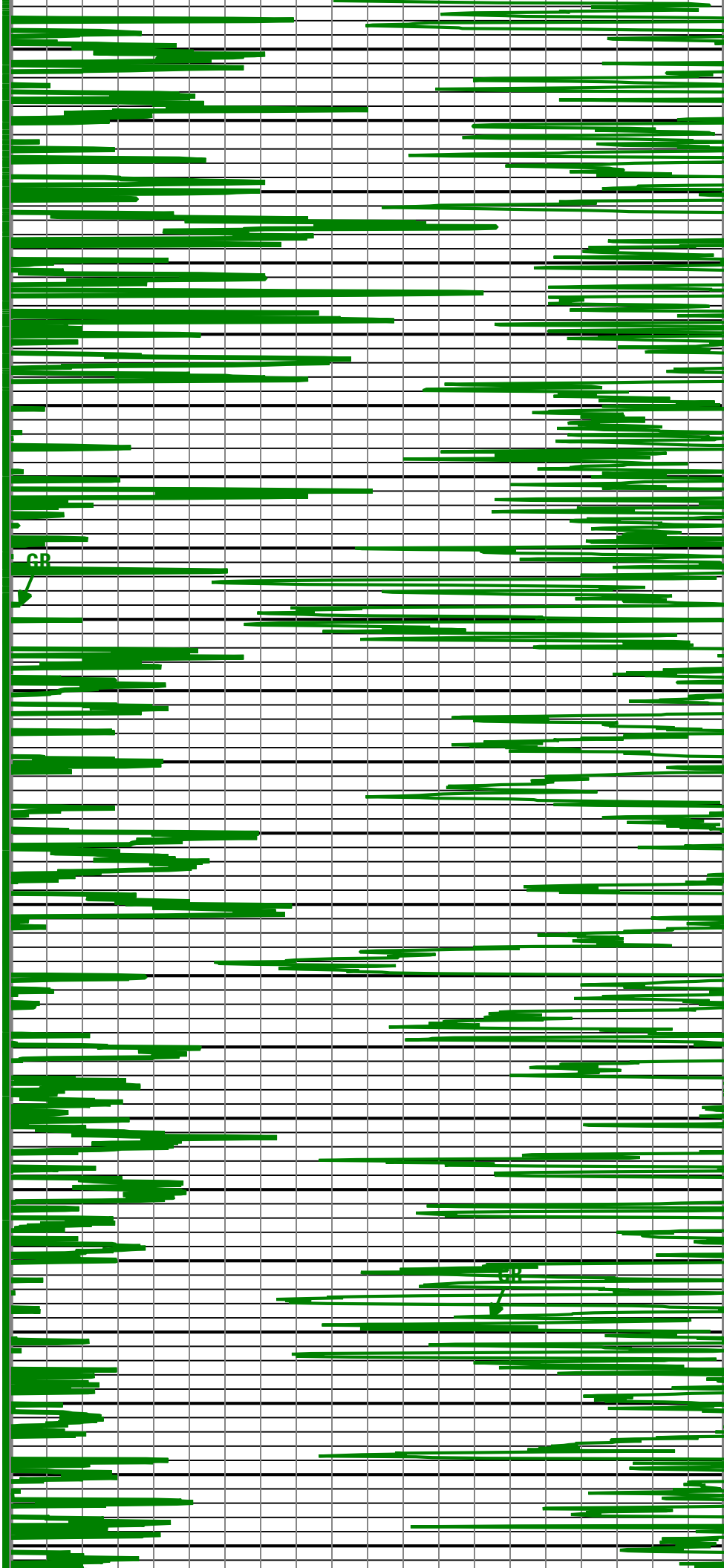
3500

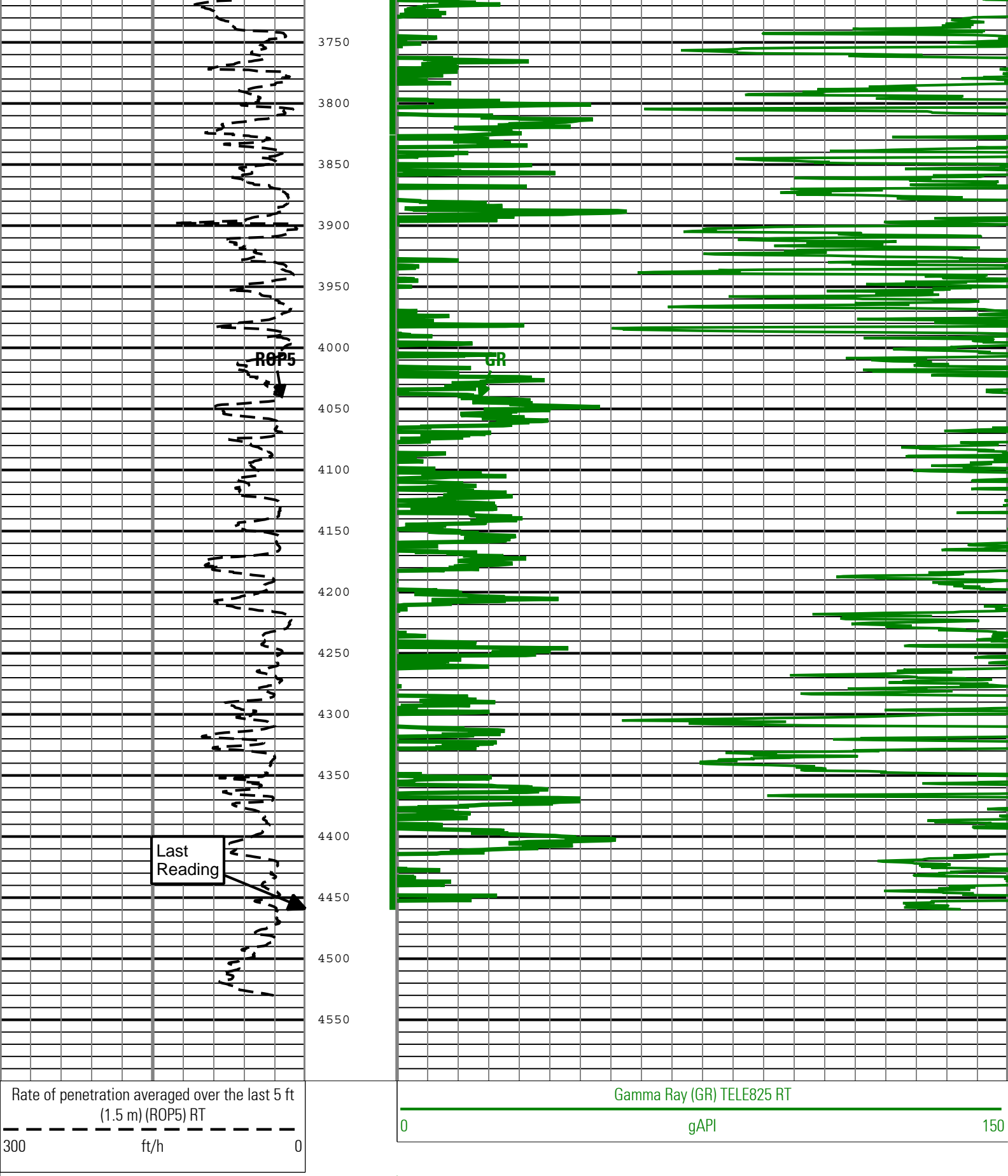
3550

3600

3650

3700





Description: TeleScope Gamma Ray Depth RT Format: Log (TeleScope Gamma Ray MD RT) Index Scale: 1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 07-Jan-2011 11:18:08

Channel Processing Parameters				
Parameter	Description	ToolPath	Value	Unit
BS	Bit Size	COMPLETION	14.75	in

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
DFD	9.3	18-Dec-2010 20:48:15	19-Dec-2010 23:00:00	143	1235.92
DFD	9	19-Dec-2010 23:00:00	20-Dec-2010 11:00:00	1235.92	2050.5
DFD	8.9	20-Dec-2010 11:00:00	21-Dec-2010 11:00:00	2050.5	3394.92
DFD	9	21-Dec-2010 11:00:00	21-Dec-2010 23:00:00	3394.92	3709.92
DFD	9.1	21-Dec-2010 23:00:00	22-Dec-2010 23:00:00	3709.92	3820.75
DFD	9.2	22-Dec-2010 23:00:00	23-Dec-2010 11:00:00	3820.75	4062.17
DFD	9.05	23-Dec-2010 11:00:00	23-Dec-2010 23:00:00	4062.17	4350.17
DFD	9.45	23-Dec-2010 23:00:00	24-Dec-2010 12:44:16	4350.17	4530.42

Parameter	Description	ToolPath	Value	Unit
OFFBTM_TH	Threshold for deciding whether the bit is off bottom	DnMWorkflow	0.1	ft

Run001

5 in. / 100 ft MD Log

Integration Summary	
1. Integration of the First Term:	$\int \frac{1}{x^2} dx = -\frac{1}{x} + C_1$
2. Integration of the Second Term:	$\int \frac{1}{x^3} dx = -\frac{1}{2x^2} + C_2$
3. Integration of the Third Term:	$\int \frac{1}{x^4} dx = -\frac{1}{3x^3} + C_3$
4. Integration of the Fourth Term:	$\int \frac{1}{x^5} dx = -\frac{1}{4x^4} + C_4$
5. Integration of the Fifth Term:	$\int \frac{1}{x^6} dx = -\frac{1}{5x^5} + C_5$
6. Integration of the Sixth Term:	$\int \frac{1}{x^7} dx = -\frac{1}{6x^6} + C_6$
7. Integration of the Seventh Term:	$\int \frac{1}{x^8} dx = -\frac{1}{7x^7} + C_7$
8. Integration of the Eighth Term:	$\int \frac{1}{x^9} dx = -\frac{1}{8x^8} + C_8$
9. Integration of the Ninth Term:	$\int \frac{1}{x^{10}} dx = -\frac{1}{9x^9} + C_9$
10. Integration of the Tenth Term:	$\int \frac{1}{x^{11}} dx = -\frac{1}{10x^{10}} + C_{10}$
11. Integration of the Eleventh Term:	$\int \frac{1}{x^{12}} dx = -\frac{1}{11x^{11}} + C_{11}$
12. Integration of the Twelfth Term:	$\int \frac{1}{x^{13}} dx = -\frac{1}{12x^{12}} + C_{12}$
13. Integration of the Thirteenth Term:	$\int \frac{1}{x^{14}} dx = -\frac{1}{13x^{13}} + C_{13}$
14. Integration of the Fourteenth Term:	$\int \frac{1}{x^{15}} dx = -\frac{1}{14x^{14}} + C_{14}$
15. Integration of the Fifteenth Term:	$\int \frac{1}{x^{16}} dx = -\frac{1}{15x^{15}} + C_{15}$
16. Integration of the Sixteenth Term:	$\int \frac{1}{x^{17}} dx = -\frac{1}{16x^{16}} + C_{16}$
17. Integration of the Seventeenth Term:	$\int \frac{1}{x^{18}} dx = -\frac{1}{17x^{17}} + C_{17}$
18. Integration of the Eighteenth Term:	$\int \frac{1}{x^{19}} dx = -\frac{1}{18x^{18}} + C_{18}$
19. Integration of the Nineteenth Term:	$\int \frac{1}{x^{20}} dx = -\frac{1}{19x^{19}} + C_{19}$
20. Integration of the Twentieth Term:	$\int \frac{1}{x^{21}} dx = -\frac{1}{20x^{20}} + C_{20}$
21. Integration of the Twenty-First Term:	$\int \frac{1}{x^{22}} dx = -\frac{1}{21x^{21}} + C_{21}$
22. Integration of the Twenty-Second Term:	$\int \frac{1}{x^{23}} dx = -\frac{1}{22x^{22}} + C_{22}$
23. Integration of the Twenty-Third Term:	$\int \frac{1}{x^{24}} dx = -\frac{1}{23x^{23}} + C_{23}$
24. Integration of the Twenty-Fourth Term:	$\int \frac{1}{x^{25}} dx = -\frac{1}{24x^{24}} + C_{24}$
25. Integration of the Twenty-Fifth Term:	$\int \frac{1}{x^{26}} dx = -\frac{1}{25x^{25}} + C_{25}$
26. Integration of the Twenty-Sixth Term:	$\int \frac{1}{x^{27}} dx = -\frac{1}{26x^{26}} + C_{26}$
27. Integration of the Twenty-Seventh Term:	$\int \frac{1}{x^{28}} dx = -\frac{1}{27x^{27}} + C_{27}$
28. Integration of the Twenty-Eighth Term:	$\int \frac{1}{x^{29}} dx = -\frac{1}{28x^{28}} + C_{28}$
29. Integration of the Twenty-Ninth Term:	$\int \frac{1}{x^{30}} dx = -\frac{1}{29x^{29}} + C_{29}$
30. Integration of the Thirtieth Term:	$\int \frac{1}{x^{31}} dx = -\frac{1}{30x^{30}} + C_{30}$
31. Integration of the Thirty-First Term:	$\int \frac{1}{x^{32}} dx = -\frac{1}{31x^{31}} + C_{31}$
32. Integration of the Thirty-Second Term:	$\int \frac{1}{x^{33}} dx = -\frac{1}{32x^{32}} + C_{32}$
33. Integration of the Thirty-Third Term:	$\int \frac{1}{x^{34}} dx = -\frac{1}{33x^{33}} + C_{33}$
34. Integration of the Thirty-Fourth Term:	$\int \frac{1}{x^{35}} dx = -\frac{1}{34x^{34}} + C_{34}$
35. Integration of the Thirty-Fifth Term:	$\int \frac{1}{x^{36}} dx = -\frac{1}{35x^{35}} + C_{35}$
36. Integration of the Thirty-Sixth Term:	$\int \frac{1}{x^{37}} dx = -\frac{1}{36x^{36}} + C_{36}$
37. Integration of the Thirty-Seventh Term:	$\int \frac{1}{x^{38}} dx = -\frac{1}{37x^{37}} + C_{37}$
38. Integration of the Thirty-Eighth Term:	$\int \frac{1}{x^{39}} dx = -\frac{1}{38x^{38}} + C_{38}$
39. Integration of the Thirty-Ninth Term:	$\int \frac{1}{x^{40}} dx = -\frac{1}{39x^{39}} + C_{39}$
40. Integration of the Fortieth Term:	$\int \frac{1}{x^{41}} dx = -\frac{1}{40x^{40}} + C_{40}$
41. Integration of the Forty-First Term:	$\int \frac{1}{x^{42}} dx = -\frac{1}{41x^{41}} + C_{41}$
42. Integration of the Forty-Second Term:	$\int \frac{1}{x^{43}} dx = -\frac{1}{42x^{42}} + C_{42}$
43. Integration of the Forty-Third Term:	$\int \frac{1}{x^{44}} dx = -\frac{1}{43x^{43}} + C_{43}$
44. Integration of the Forty-Fourth Term:	$\int \frac{1}{x^{45}} dx = -\frac{1}{44x^{44}} + C_{44}$
45. Integration of the Forty-Fifth Term:	$\int \frac{1}{x^{46}} dx = -\frac{1}{45x^{45}} + C_{45}$
46. Integration of the Forty-Sixth Term:	$\int \frac{1}{x^{47}} dx = -\frac{1}{46x^{46}} + C_{46}$
47. Integration of the Forty-Seventh Term:	$\int \frac{1}{x^{48}} dx = -\frac{1}{47x^{47}} + C_{47}$
48. Integration of the Forty-Eighth Term:	$\int \frac{1}{x^{49}} dx = -\frac{1}{48x^{48}} + C_{48}$
49. Integration of the Forty-Ninth Term:	$\int \frac{1}{x^{50}} dx = -\frac{1}{49x^{49}} + C_{49}$
50. Integration of the Fiftieth Term:	$\int \frac{1}{x^{51}} dx = -\frac{1}{50x^{50}} + C_{50}$
51. Integration of the Fifty-First Term:	$\int \frac{1}{x^{52}} dx = -\frac{1}{51x^{51}} + C_{51}$
52. Integration of the Fifty-Second Term:	$\int \frac{1}{x^{53}} dx = -\frac{1}{52x^{52}} + C_{52}$
53. Integration of the Fifty-Third Term:	$\int \frac{1}{x^{54}} dx = -\frac{1}{53x^{53}} + C_{53}$
54. Integration of the Fifty-Fourth Term:	$\int \frac{1}{x^{55}} dx = -\frac{1}{54x^{54}} + C_{54}$
55. Integration of the Fifty-Fifth Term:	

Software Version	
------------------	--

Acquisition System	Version
--------------------	---------

Tool Elements	Description	Software Version	Firmware Version
DRILLING_SURFACE	DRILLING_SURFACE	2.0.6803.1089	
PMGR	TeleScope - M10 Gamma Ray Assembly	2.0.6803.0	

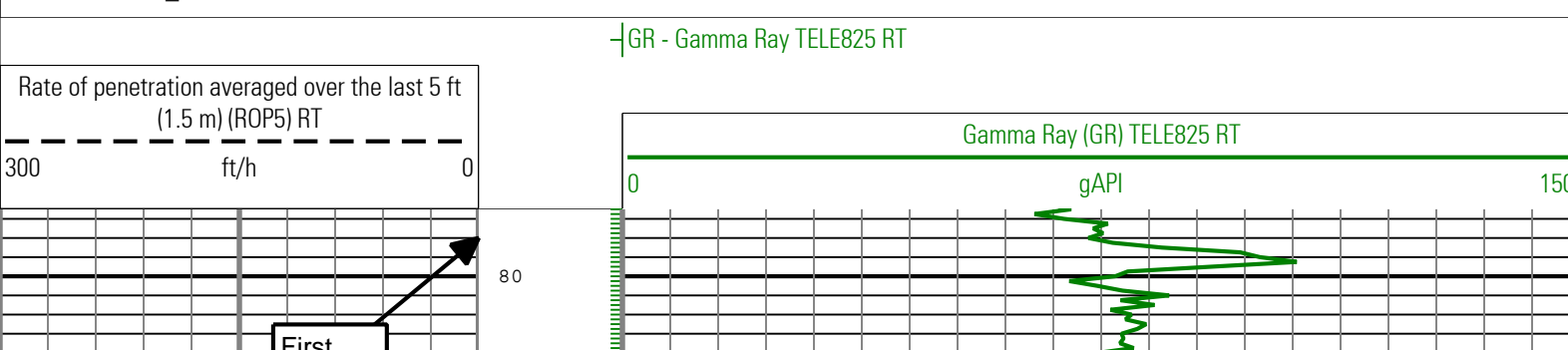
Pass Summary				
--------------	--	--	--	--

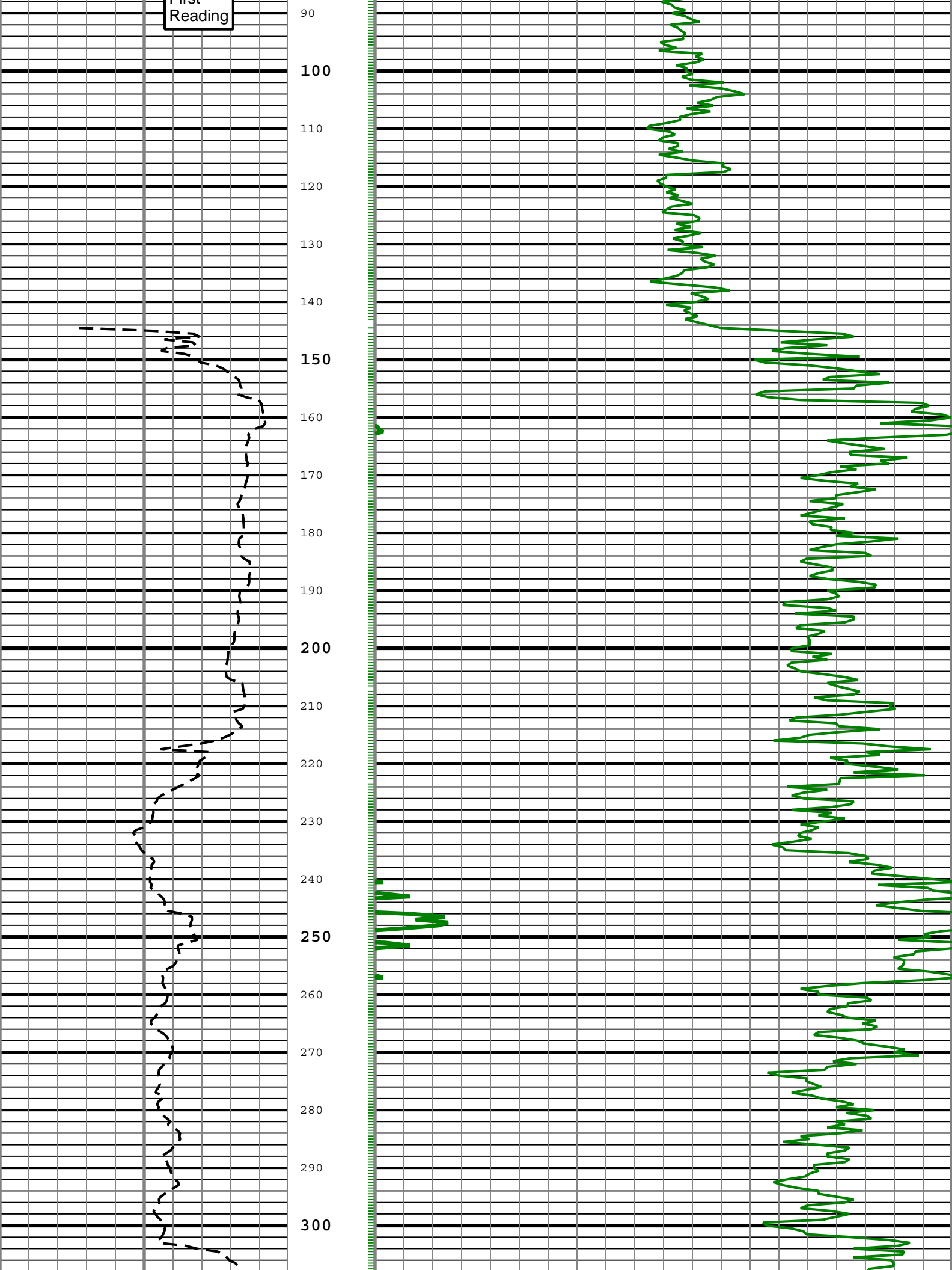
All depths are referenced to toolstring zero

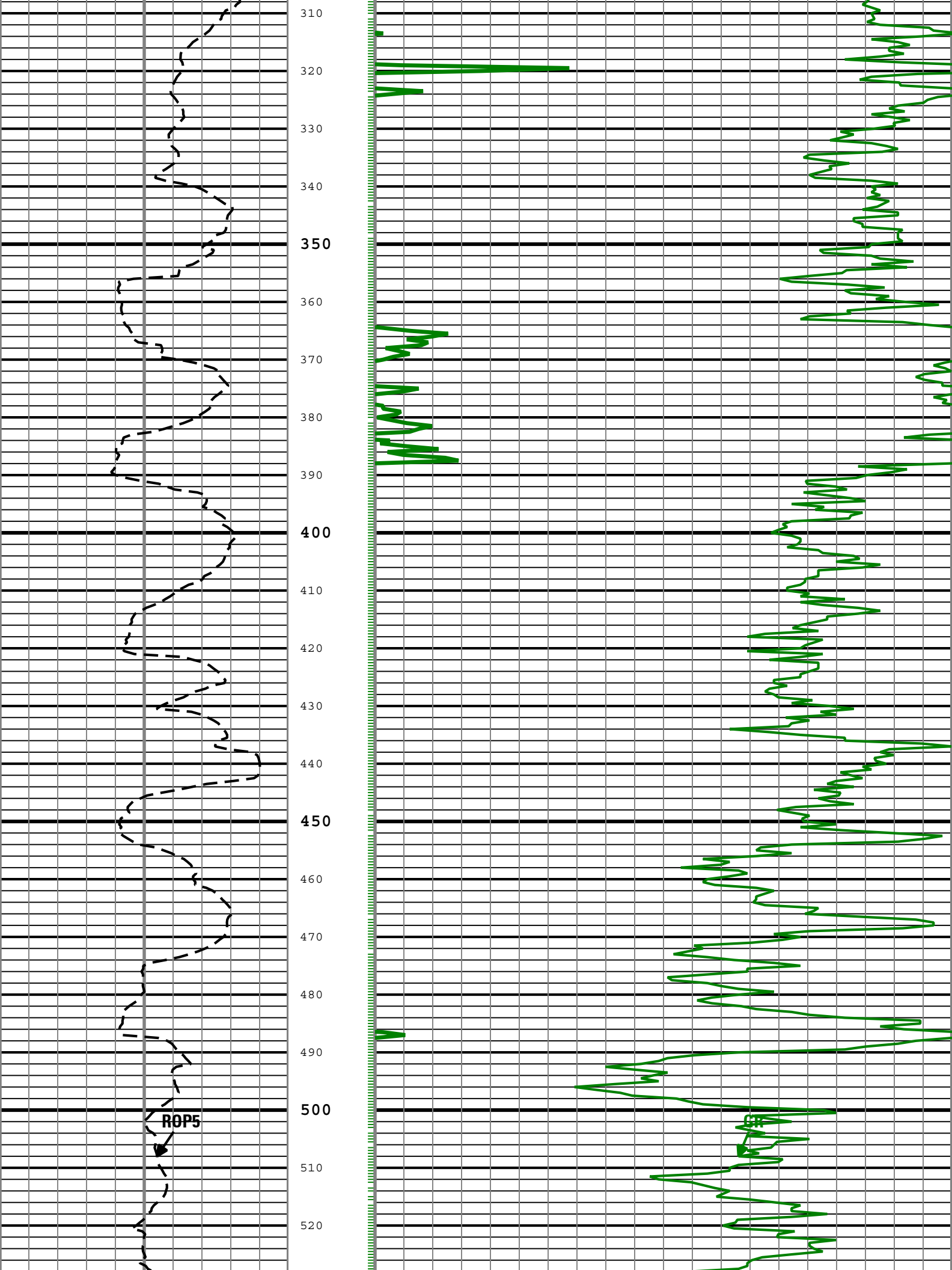
Log

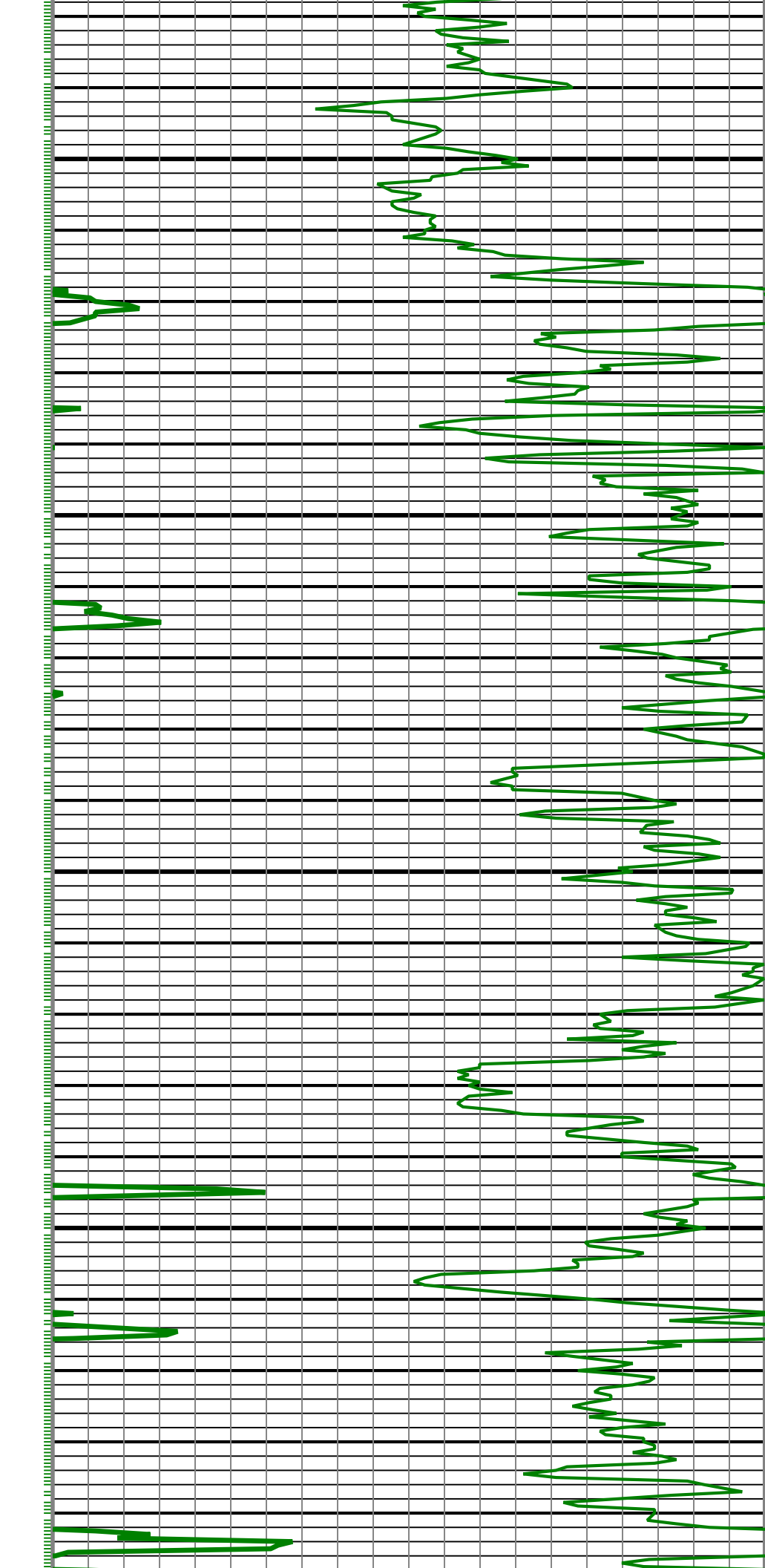
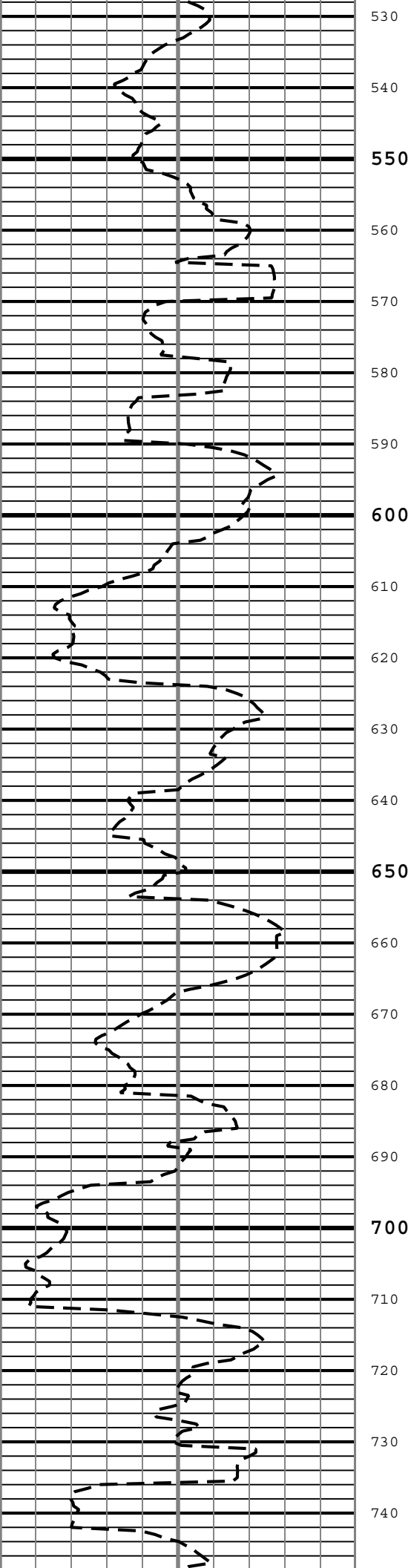
Run001: Drilling 6F61CC1B-BFF6-47D1-972C-617F0AB99552

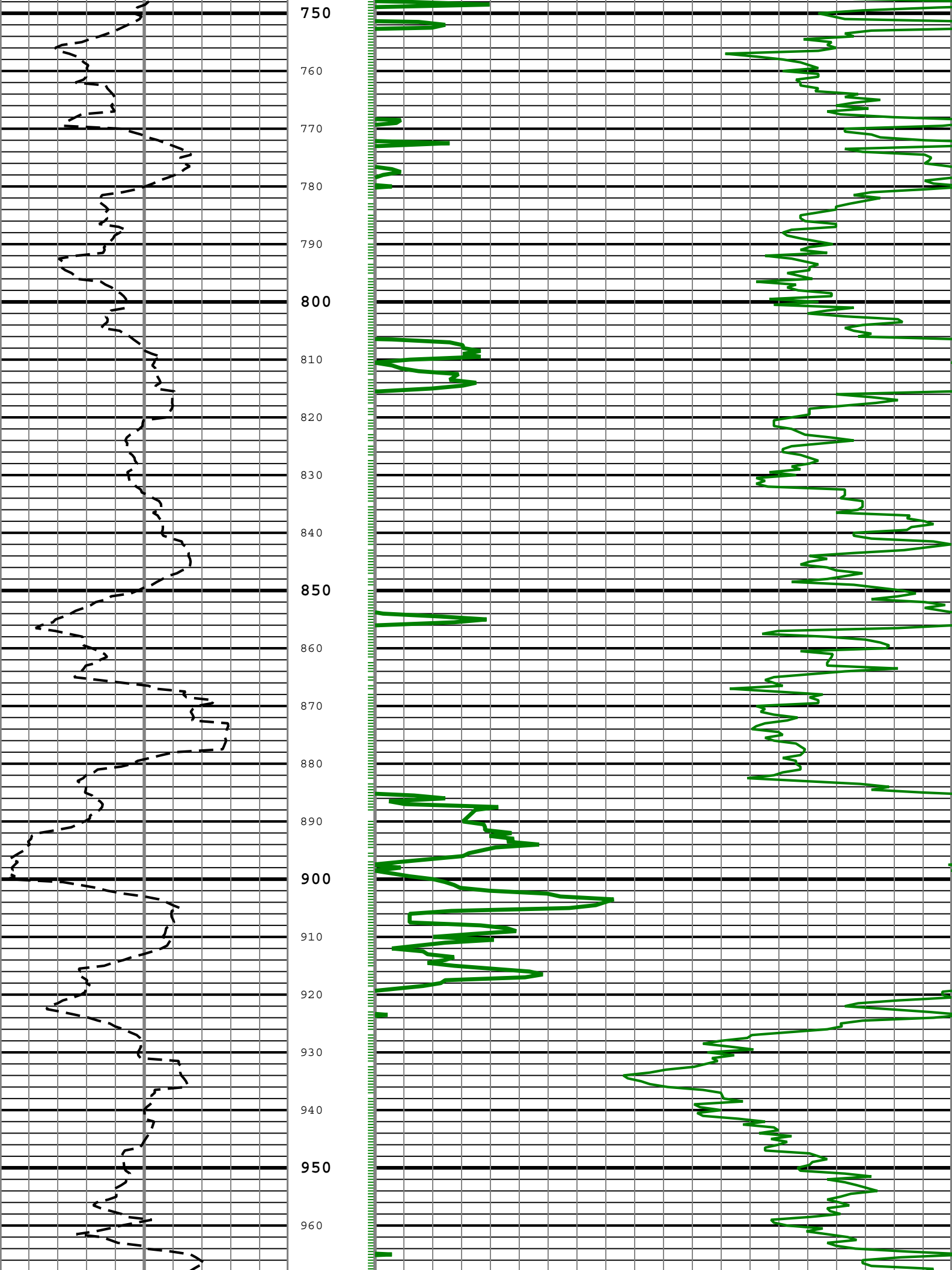
GR	TELE825:TELE825:PMGR	6in - RT
ROP5	DRILLING SURFACE	6in - RT

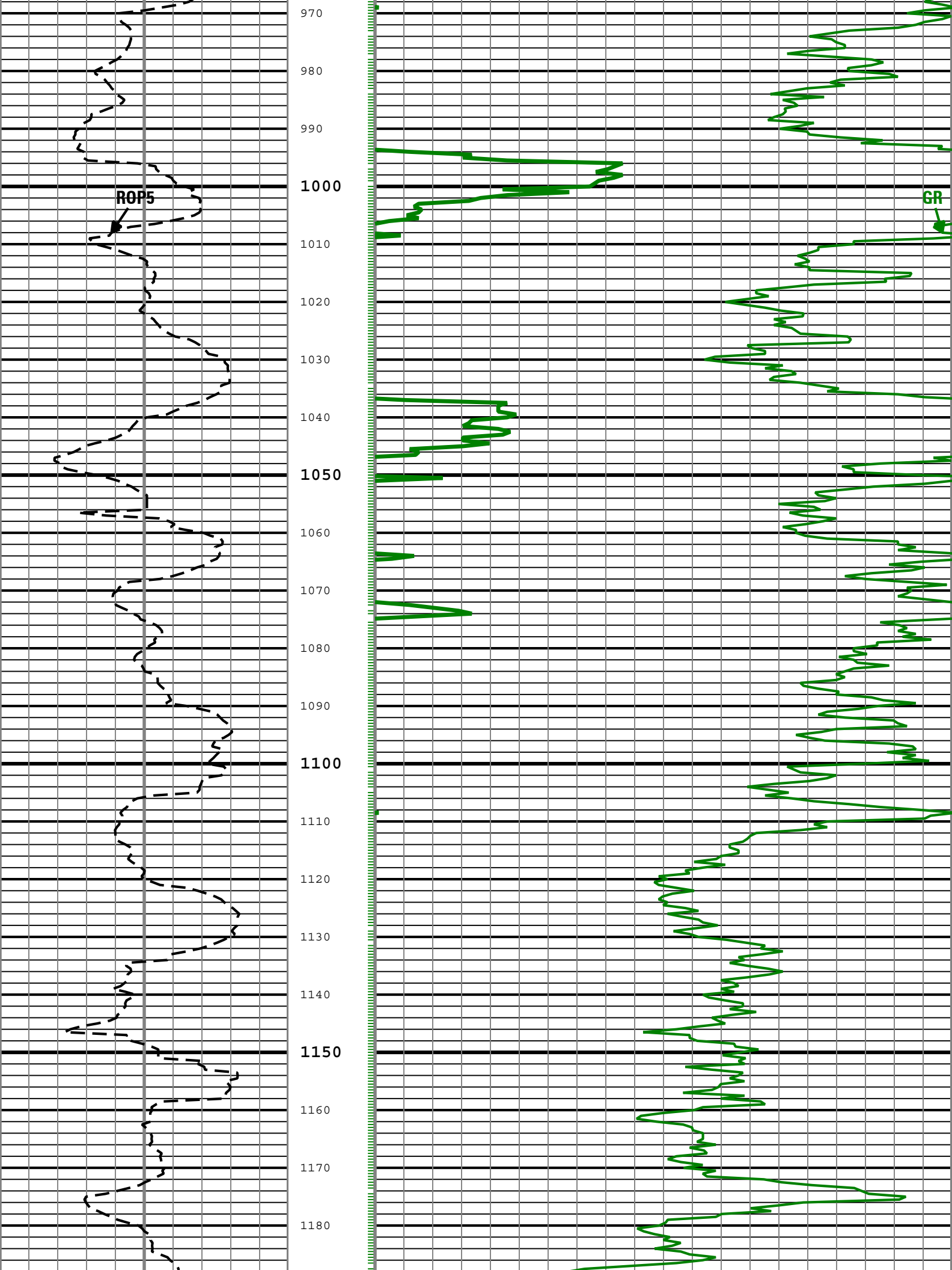


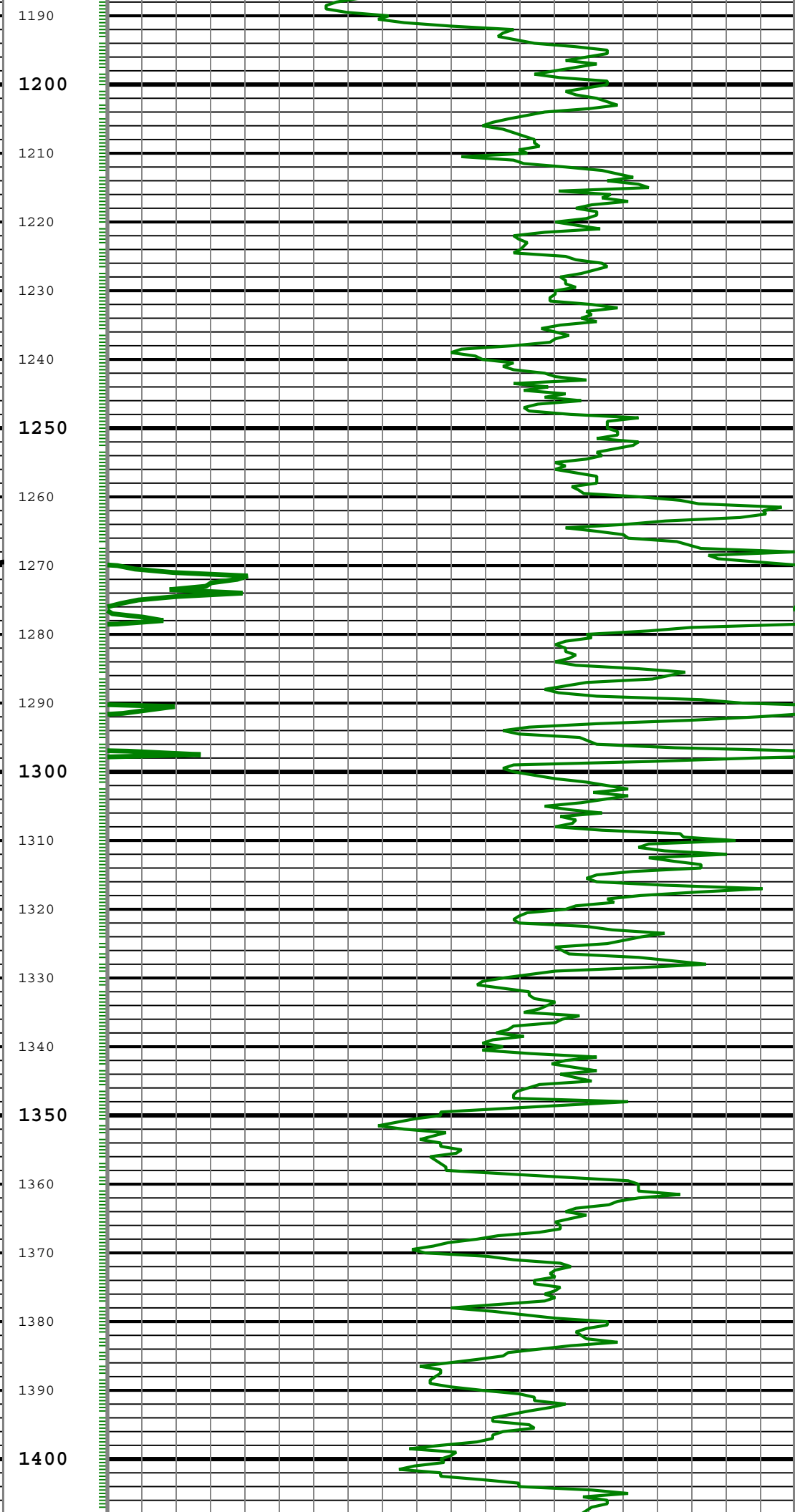
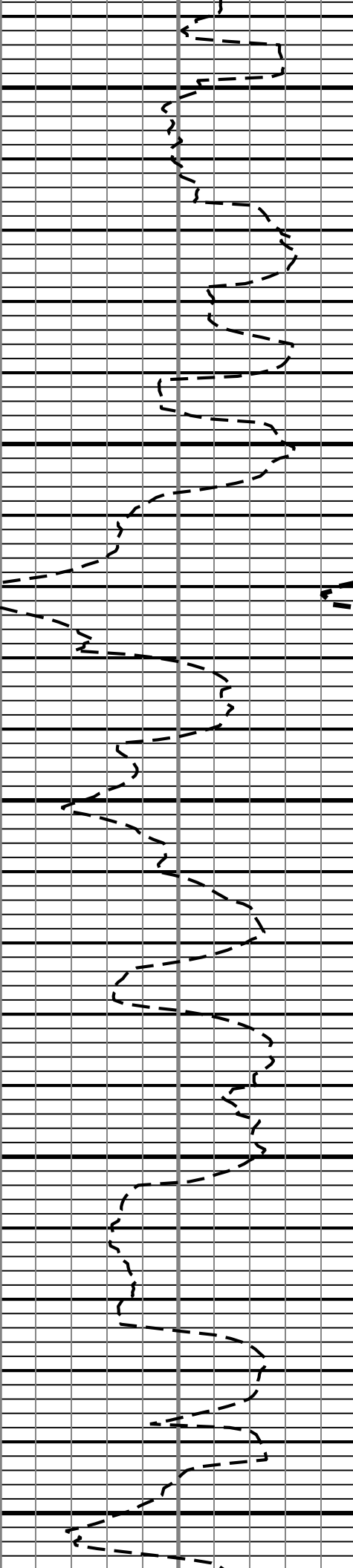


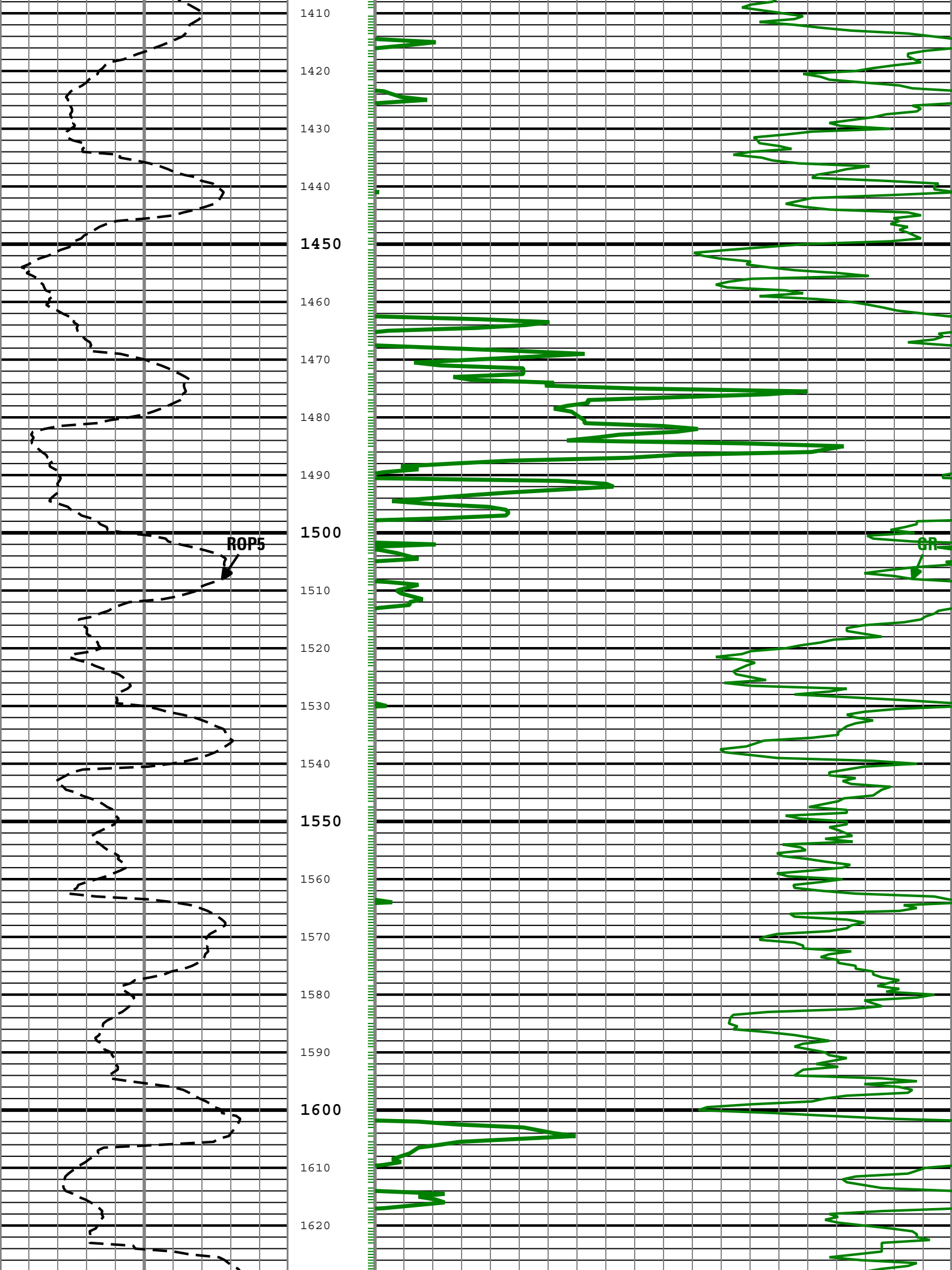


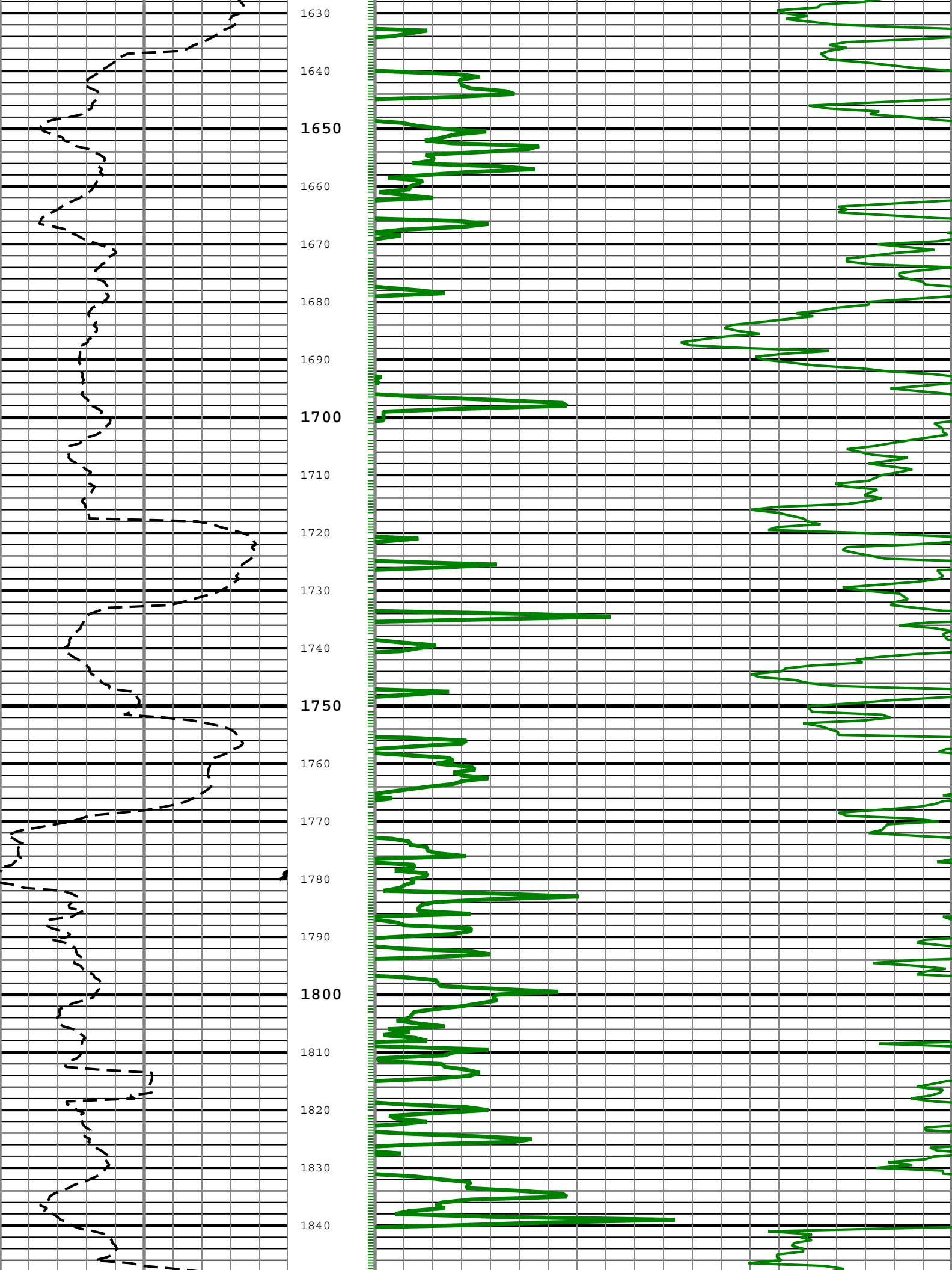


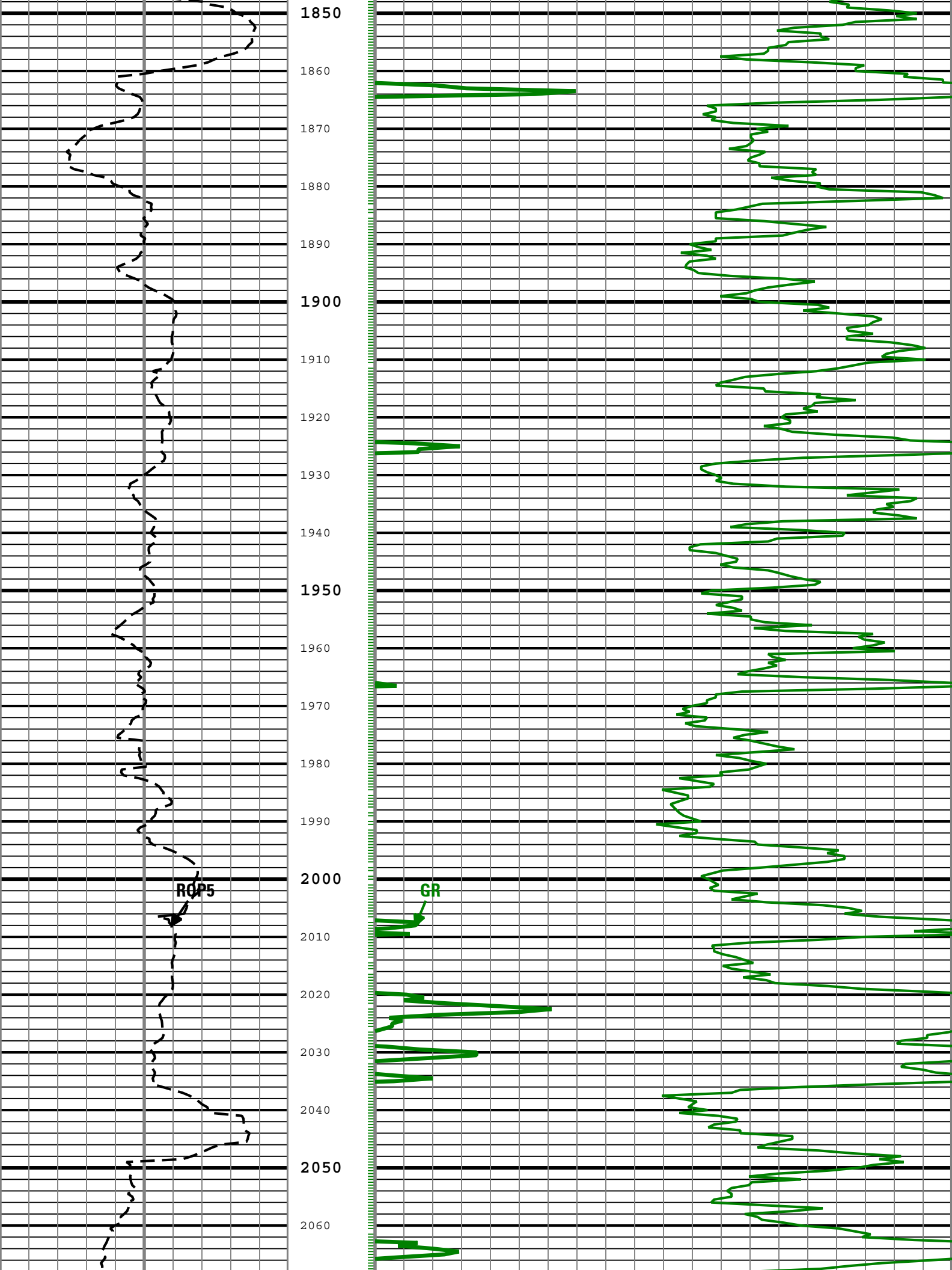


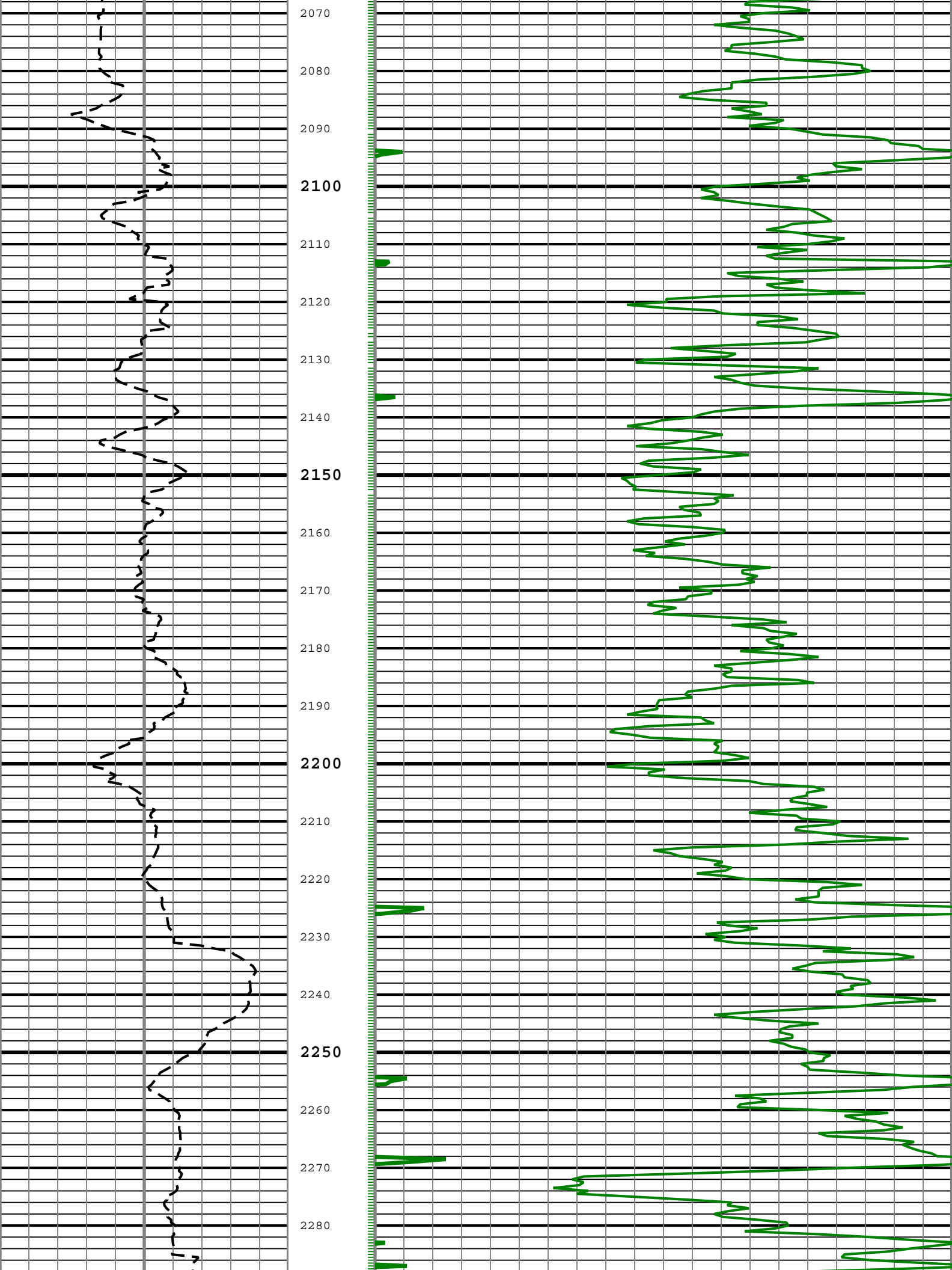


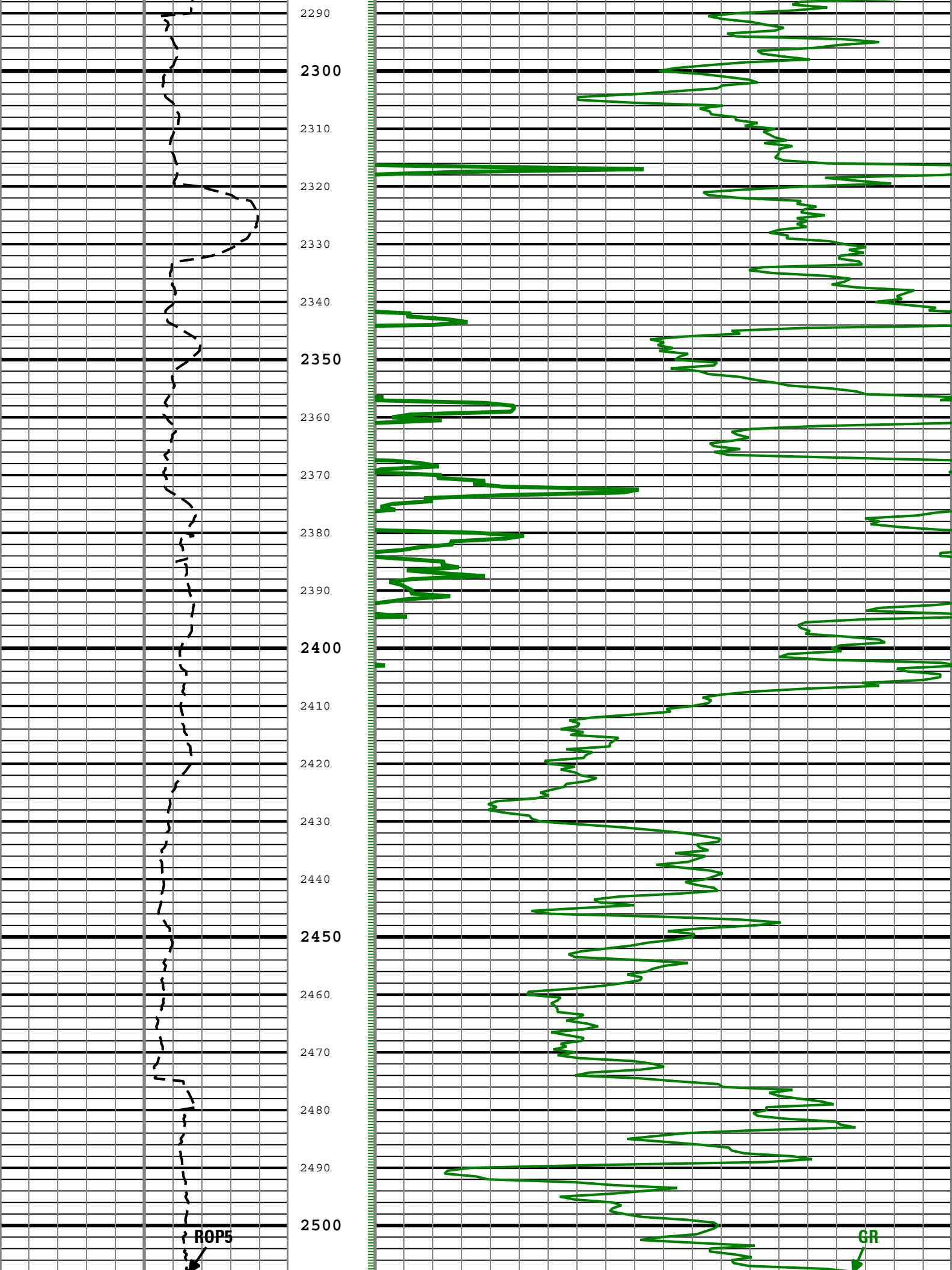


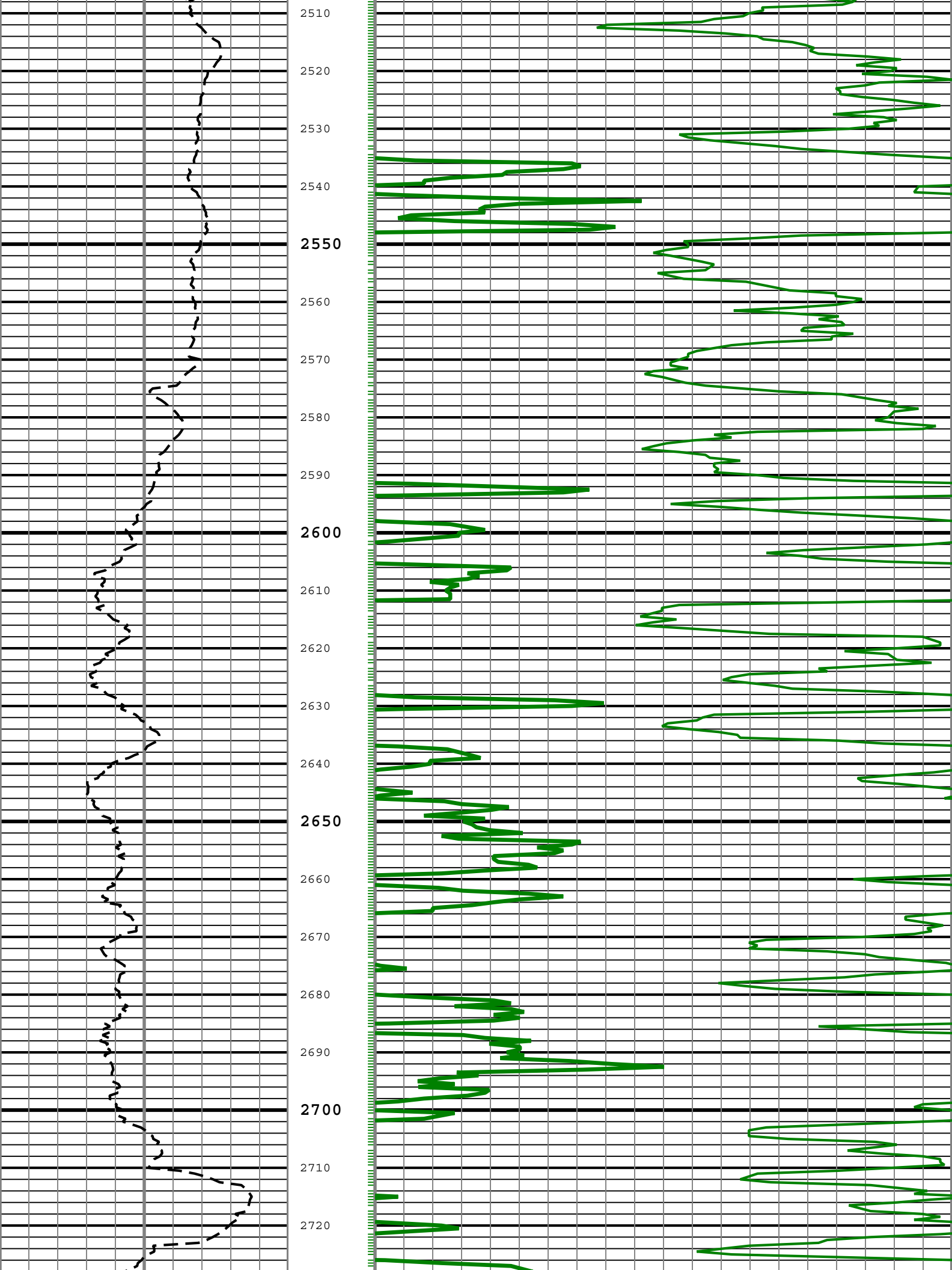


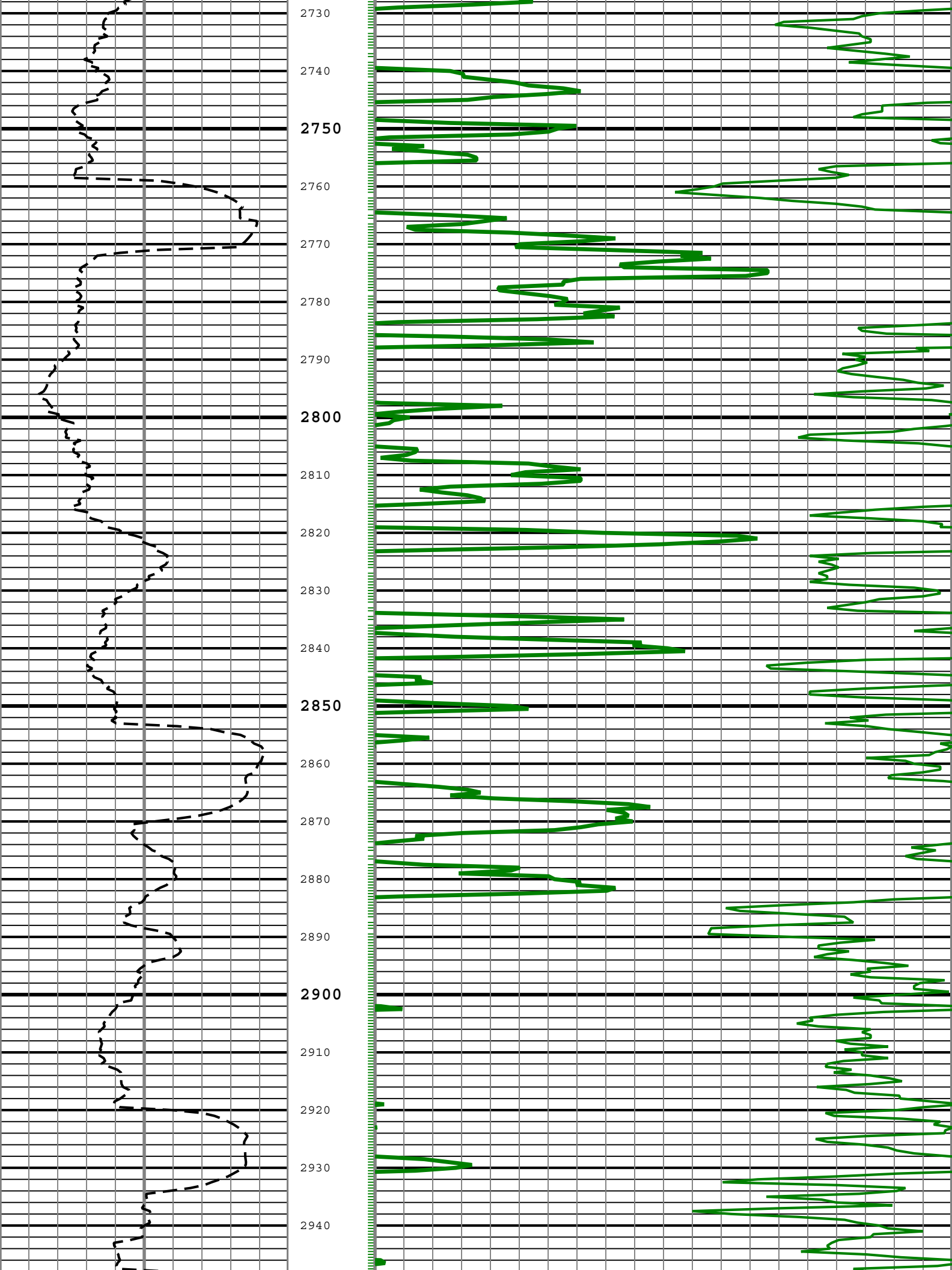


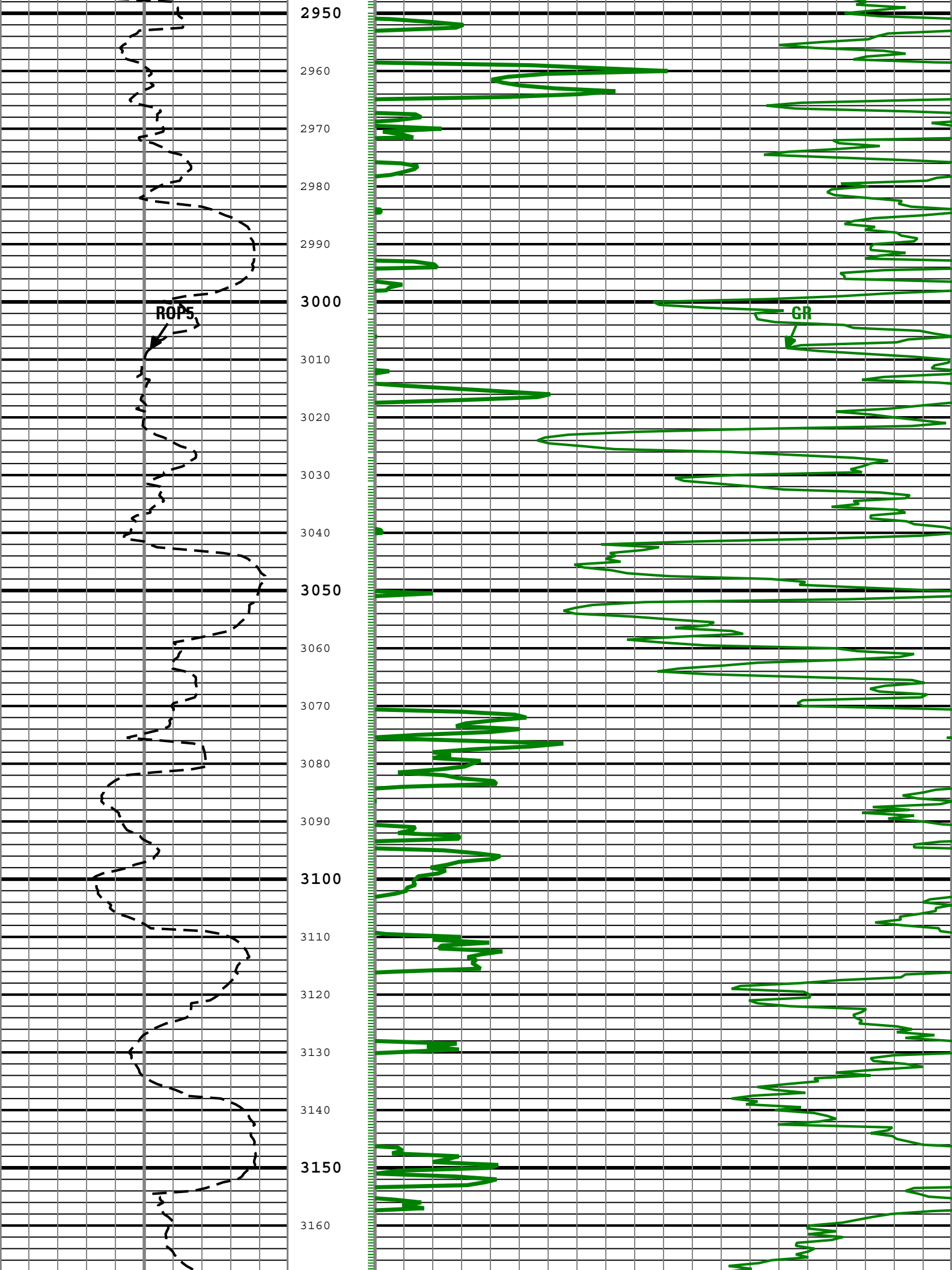


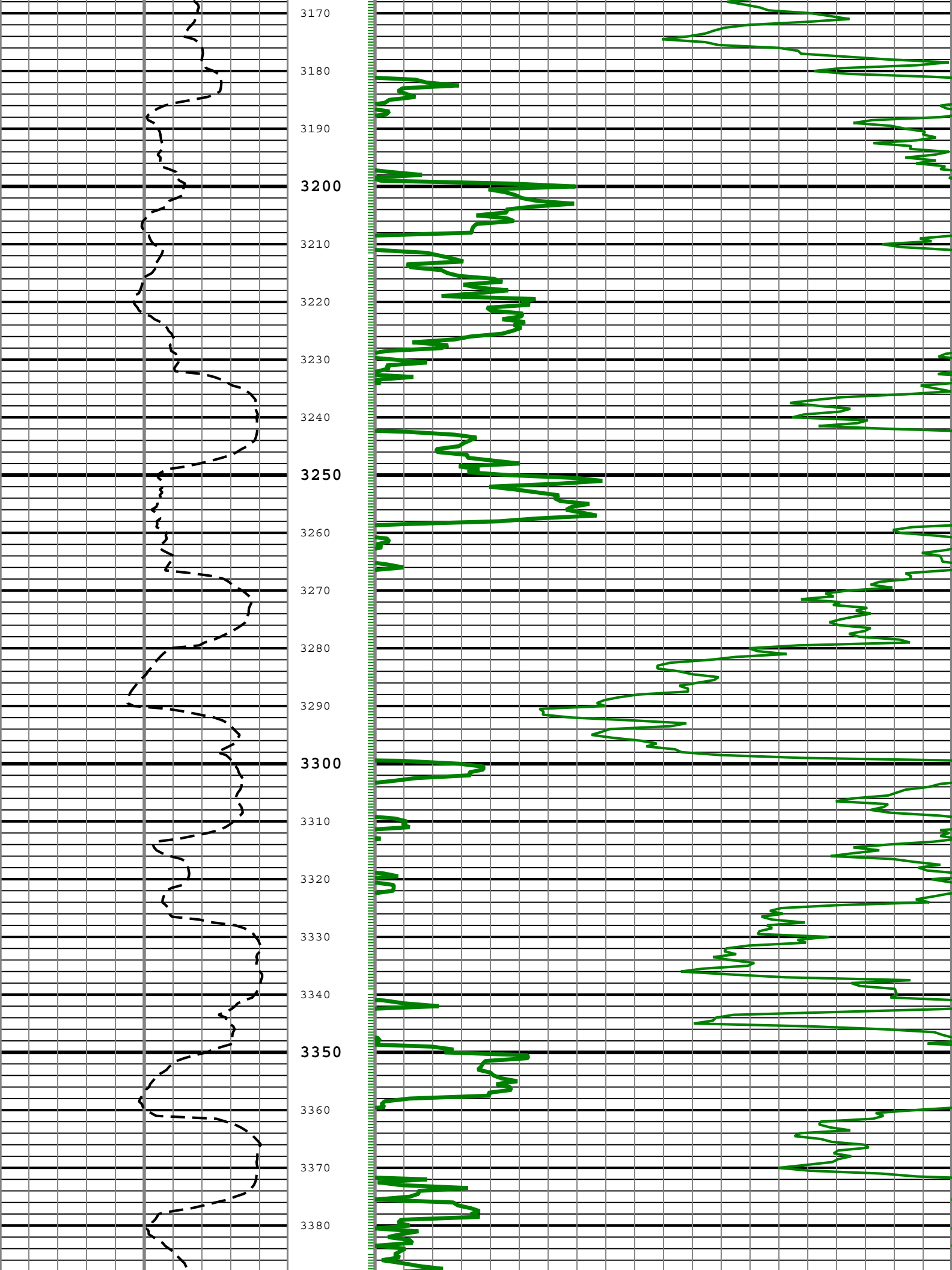


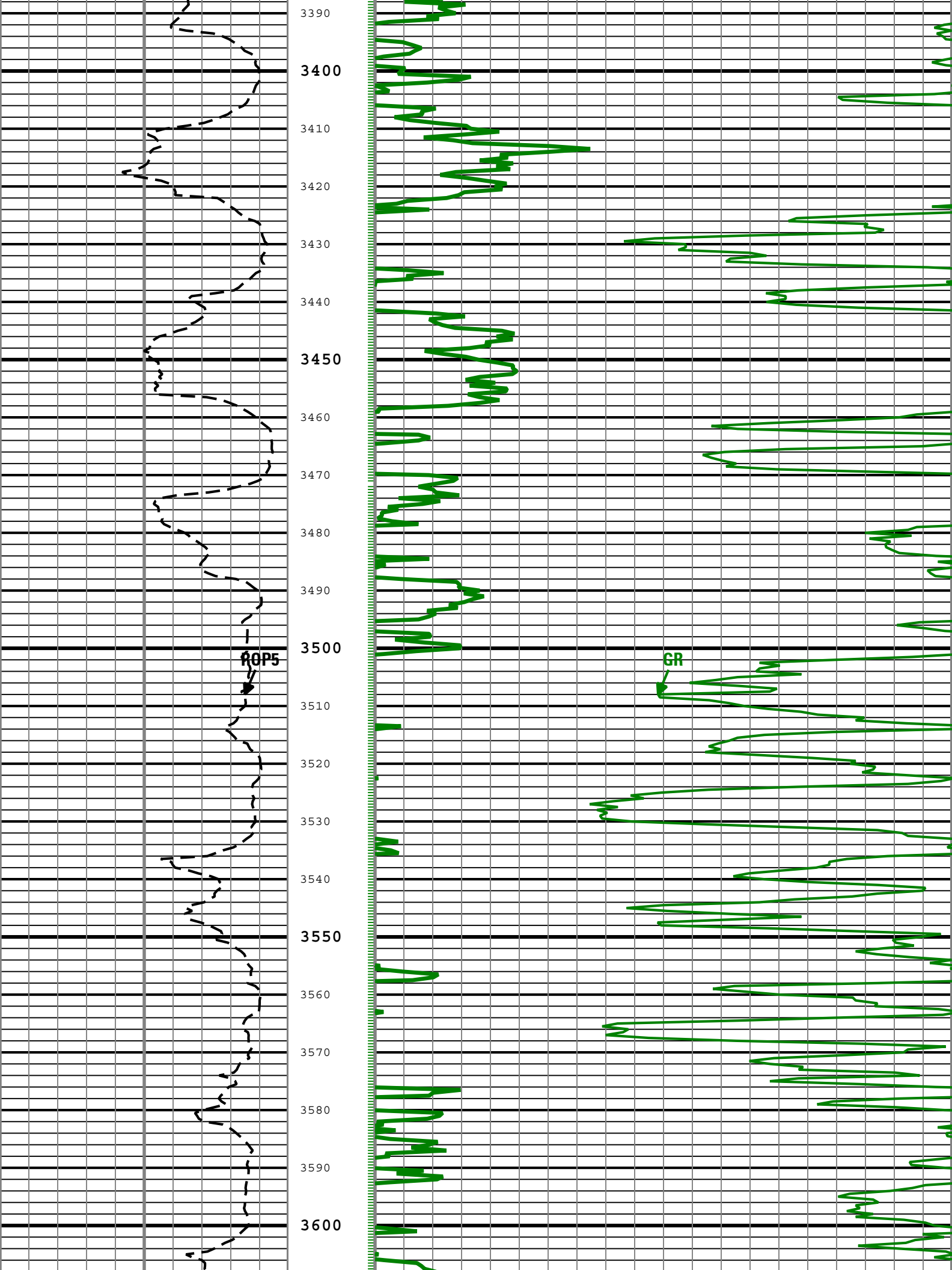


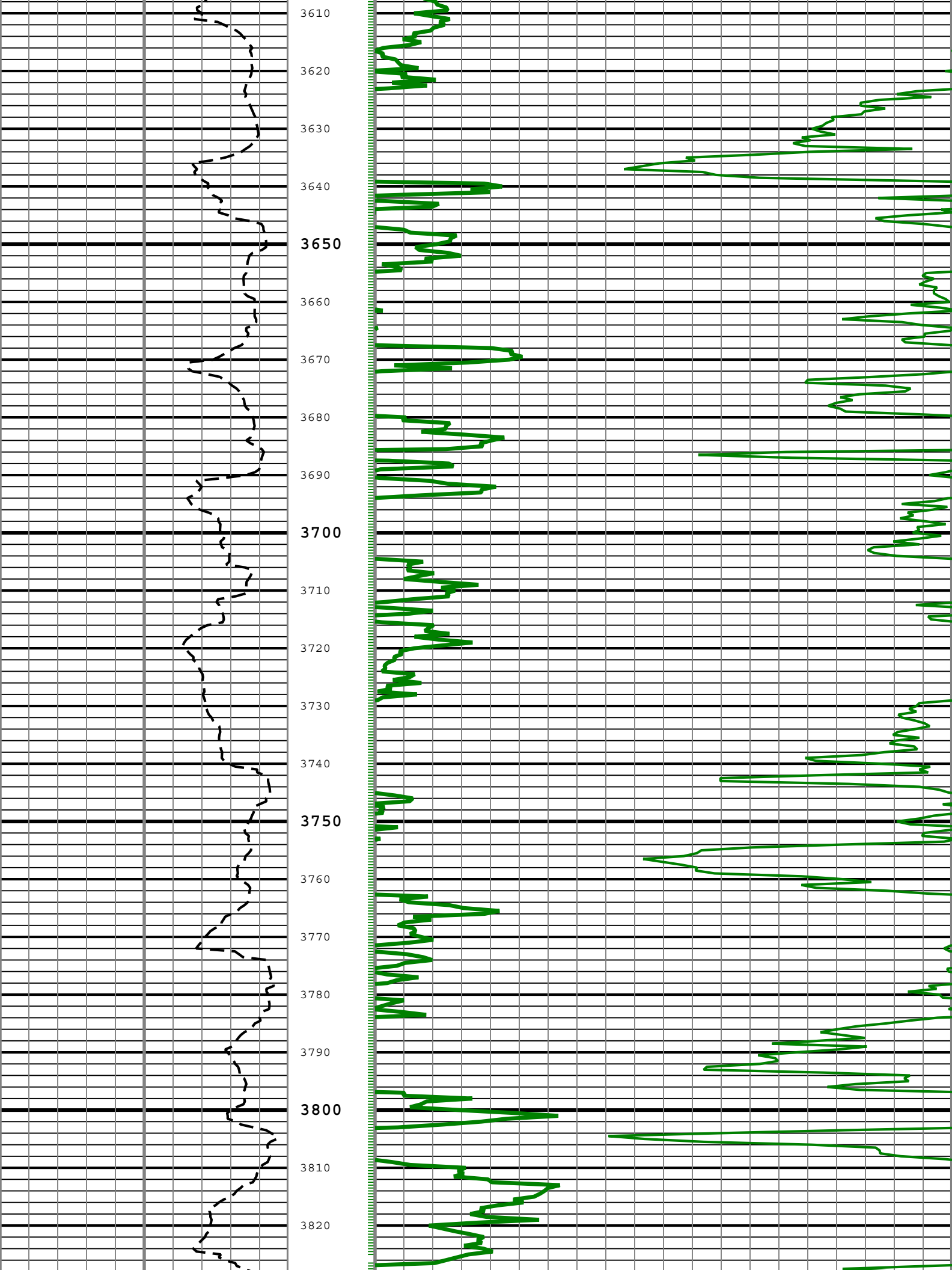


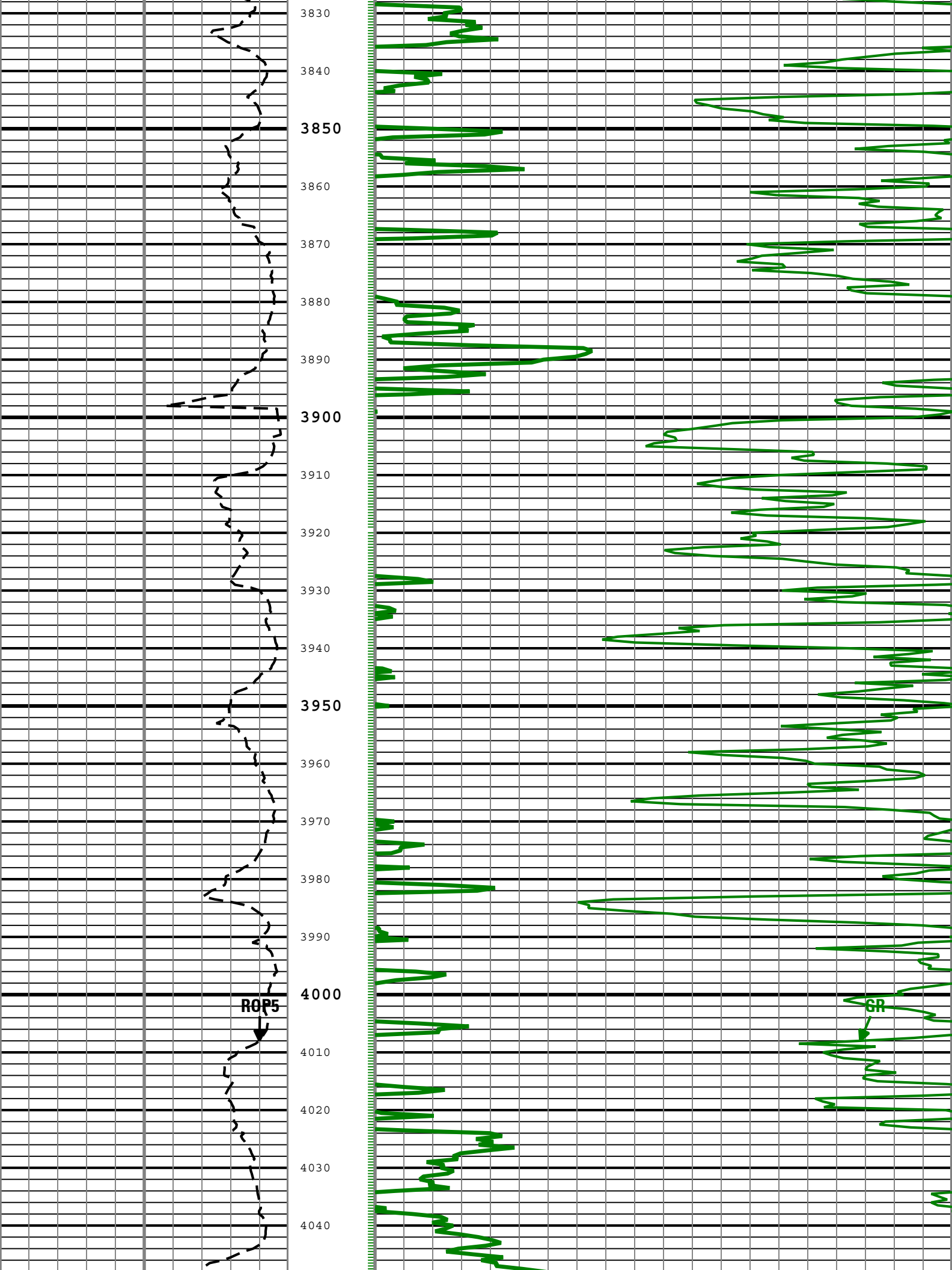


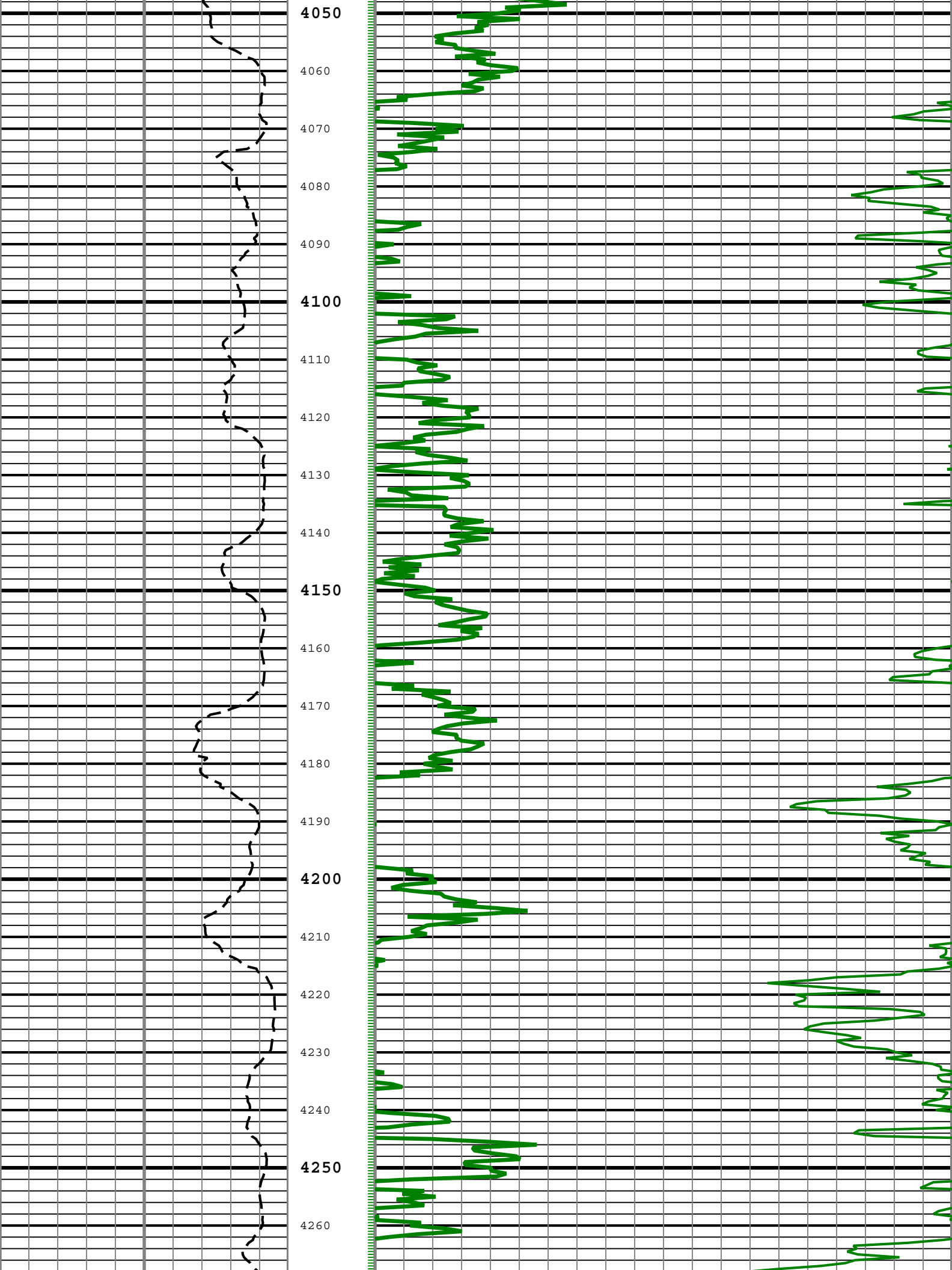


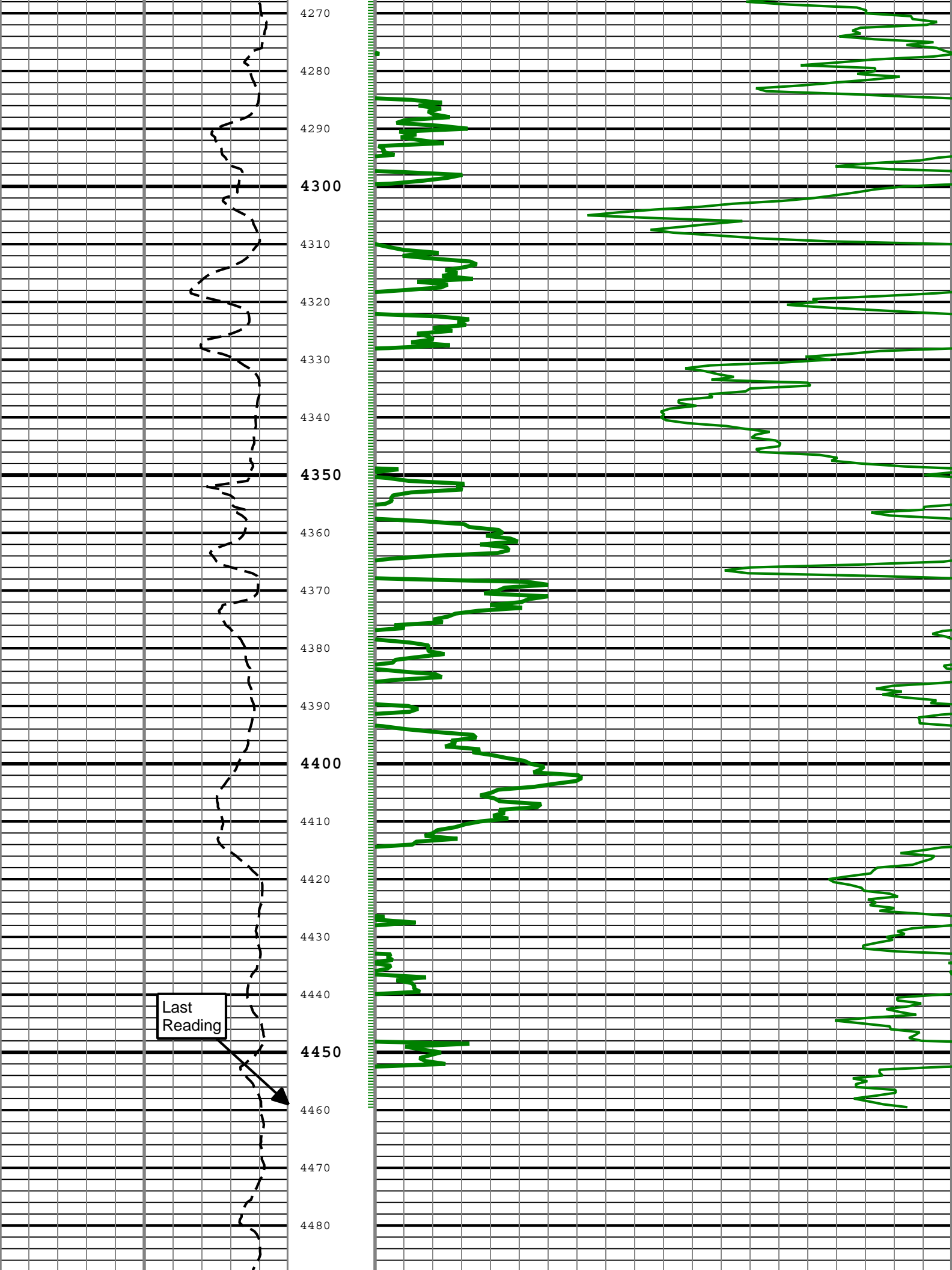


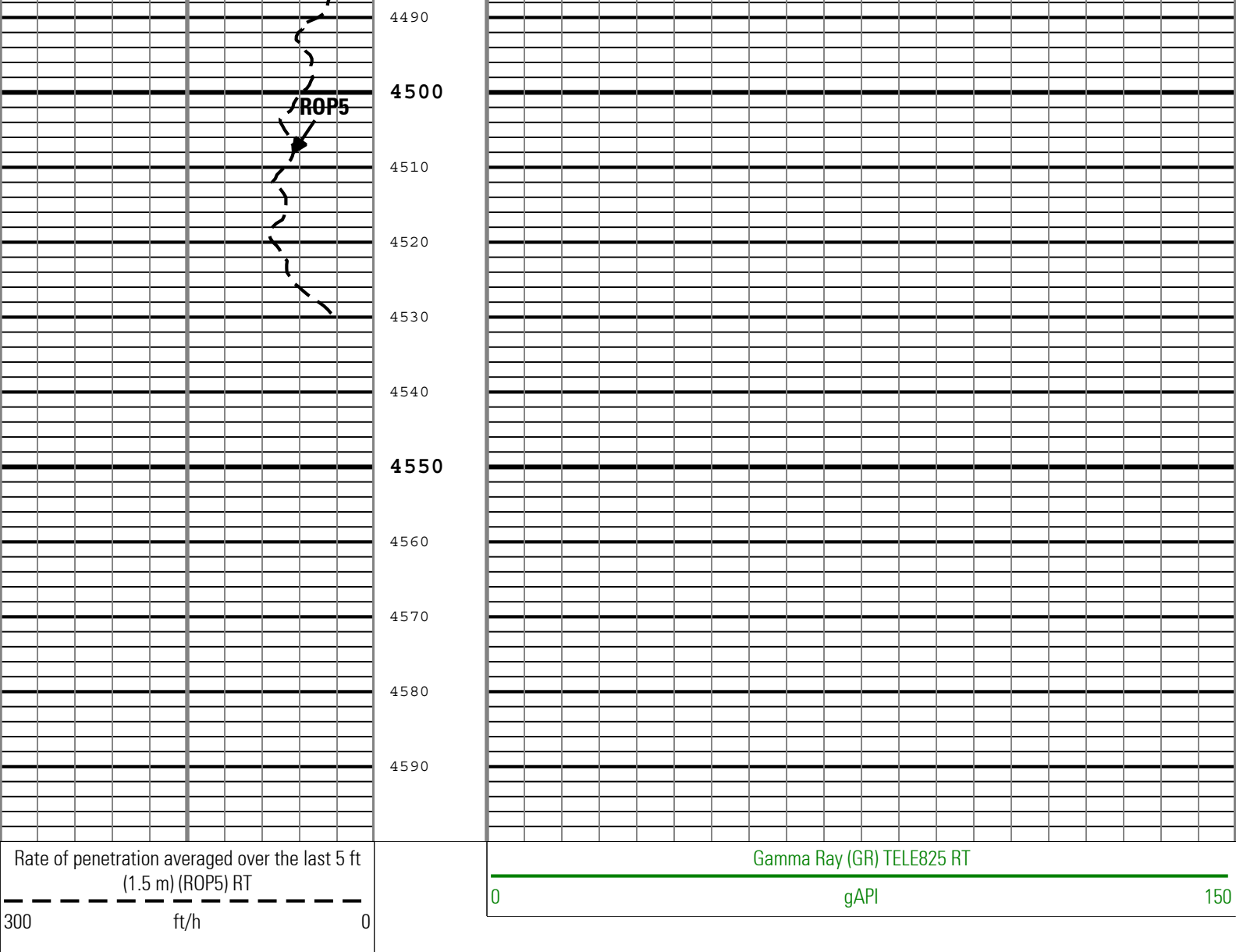












—GR - Gamma Ray TELE825 RT

Description: TeleScope Gamma Ray Depth RT Format: Log (TeleScope Gamma Ray MD RT) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 07-Jan-2011 11:18:09

Channel Processing Parameters				
Parameter	Description	ToolPath	Value	Unit
BS	Bit Size	COMPLETION	14.75	in
DEPTH_SEL	Depth Selection Parameter	DNMSESSION	Driller's Depth	
DFD	Drilling Fluid Density	Borehole	Time Zoned	lbm/gal
GR_MULTIPLIER	Gamma Ray Multiplier	TELE825:TELE825:PMGR	1	

Time Zone Parameters					
Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
DFD	9.3	18-Dec-2010 20:48:15	19-Dec-2010 23:00:00	143	1235.92
DFD	9	19-Dec-2010 23:00:00	20-Dec-2010 11:00:00	1235.92	2050.5
DFD	8.9	20-Dec-2010 11:00:00	21-Dec-2010 11:00:00	2050.5	3394.92
DFD	9	21-Dec-2010 11:00:00	21-Dec-2010 23:00:00	3394.92	3709.92
DFD	9.1	21-Dec-2010 23:00:00	22-Dec-2010 23:00:00	3709.92	3820.75
DFD	9.2	22-Dec-2010 23:00:00	23-Dec-2010 11:00:00	3820.75	4062.17
DFD	9.05	23-Dec-2010 11:00:00	23-Dec-2010 23:00:00	4062.17	4350.17
DFD	9.45	23-Dec-2010 23:00:00	24-Dec-2010 12:44:16	4350.17	4530.42

Company: ExxonMobil Oil Corporation

Well: PCU 296 6B1

Field: Piceance Creek

County: Rio Blanco

State: Colorado

Country: United States



Schlumberger

TeleScope Gamma Ray

1 in. / 100 ft and 5 in. / 100 ft Measured Depth

Real Time Log