

# MWD - Gamma Ray

Schlumberger

## Recorded Mode, Composite

Country: The Netherlands

Company: Trias Westland B.V.

Well: NLW-GT-02-S1

Field: Naaldwijk

Rig Name: KCA Deutag T-207

Country: The Netherlands

Latitude: 51° 59' 26.962" N

UWID:

17HOL0035

Longitude: 4° 14' 22.357" E

Rig Name:

KCA Deutag T-207

Rig Type:

Land Rig

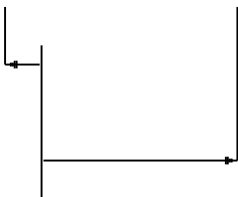
FL: NLW-GT-02-S1

FL1: Section: 17 1/2 in.

FL2: Job no.: 17HOL0035

Log Measured From: - Drill Floor: 8.42 m

Reference Datum - Mean Sea Level/Permanent Datum: - NAP  
Ground Level: 0.90 m



Acquisition Dates: 06-Apr-2018 -- 17-Apr-2018

Other Services:

Log Interval: 1081.00(m) -- 2386.00(m)

Direction & Inclination (Surveys)

Index Types: Measured Depth

Directional Drilling

Index Scales: 1:200, 1:1000

Depth Source: Driller's Depth

Depth Sensor: 3rd Party Depth

Print Type: Final

Spud Date: 08-Mar-2018

## Disclaimer

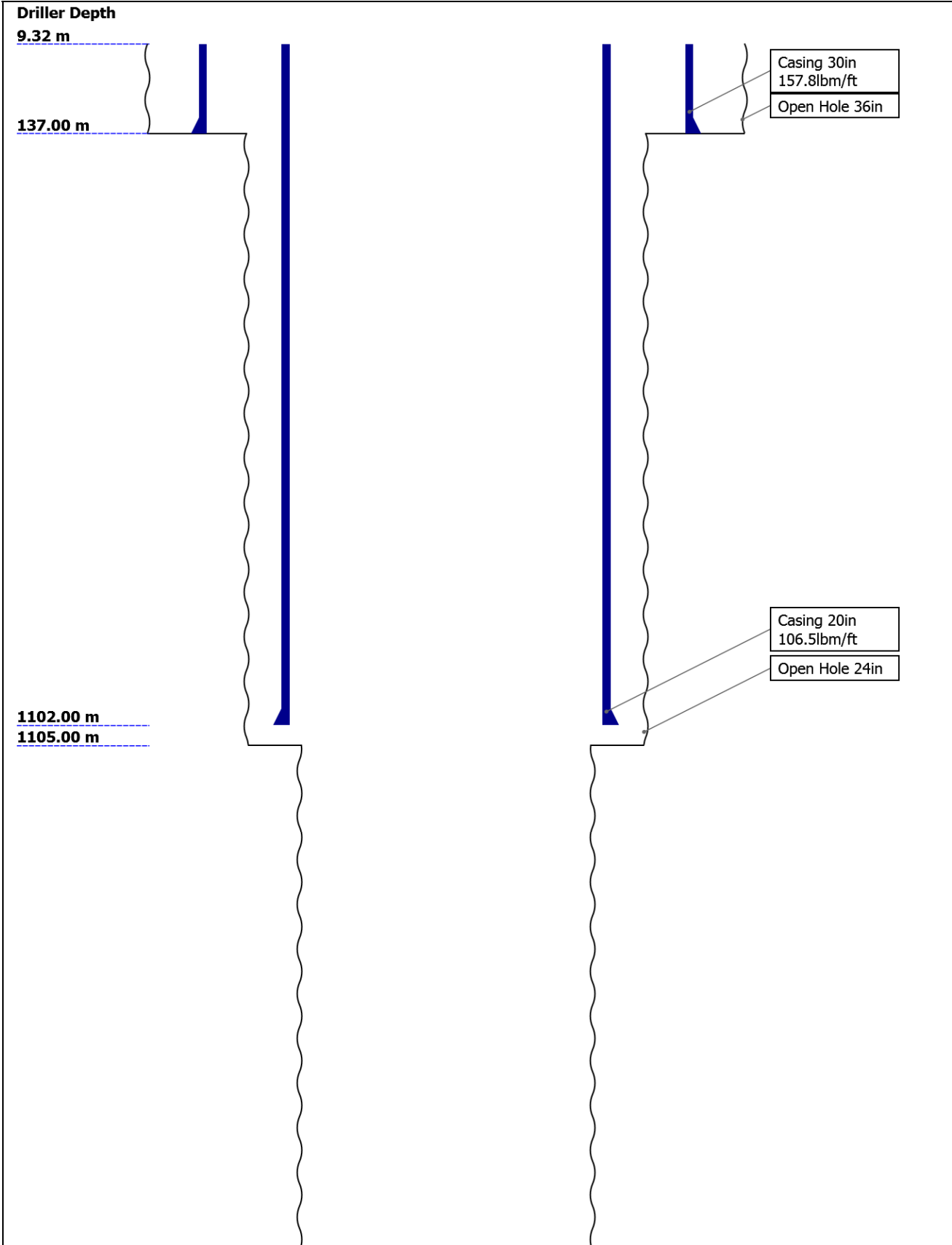
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (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.

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Well Sketch





## Remarks and Equipment Summary

All data from tool memory. All data acquired while drilling except where noted.

Run 4: Remarks

Run 5: Remarks

Run 5 and 17 1/2 in. section TD at 2385 m.

[illegible]

## Run 5: Toolstring

Length  
17 21

MP name Off  
17 7/32 in. Non-Mag Stab



## 15.4

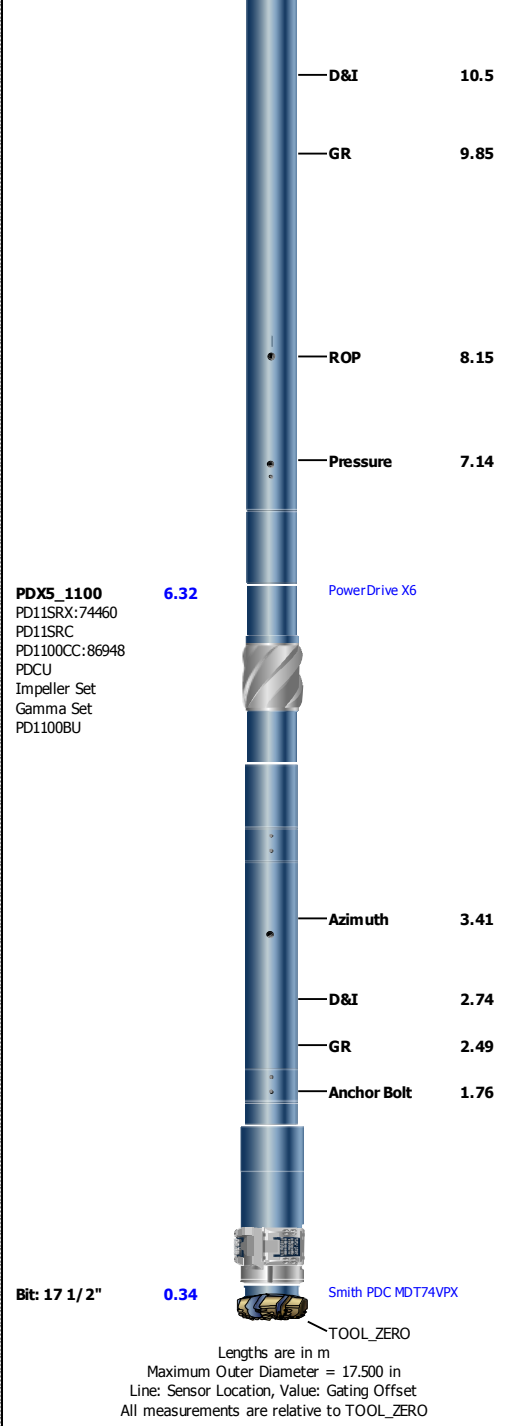
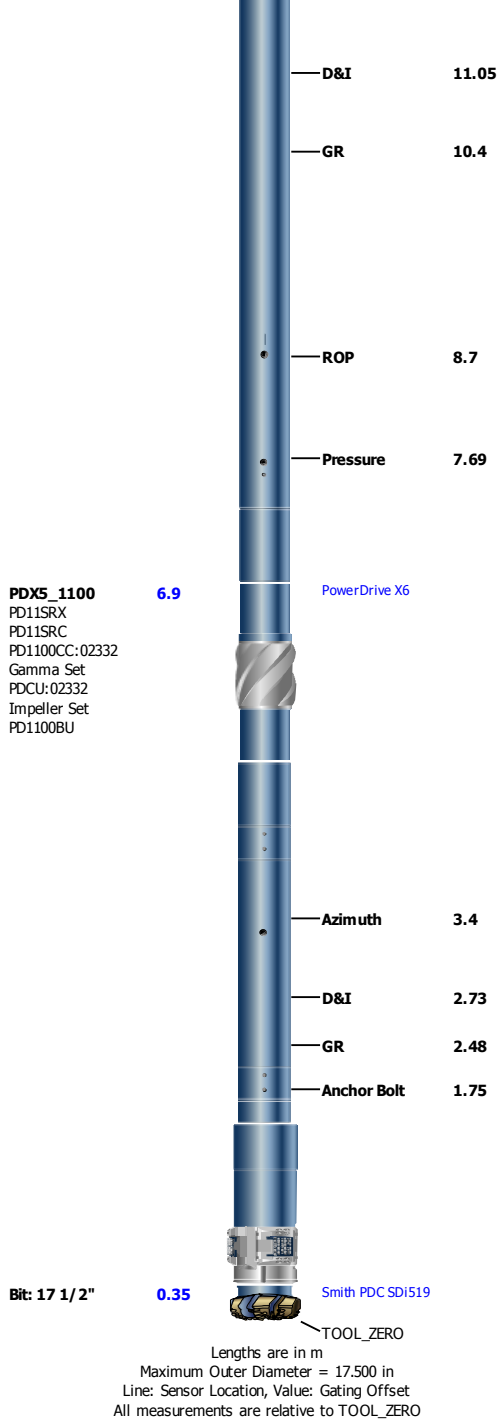
## X-Over

Equip name	Length	MP name	Offset
TELE900:E6072	15.37	TeleScope	
Upper Extender			
MDC900:E6072			
MMA:4042			
MDI:2141			
PMGR:223			
PMEA:3830			
MTA:2309			
MTK900:2311			
APWD:0124			
MSSD900:68888A			
Lower Extender:BA2			
3-11-12			

14.81

TeleScope





## 17.5 in. Section Composite

## MWD - Gamma Ray 1:200 MD

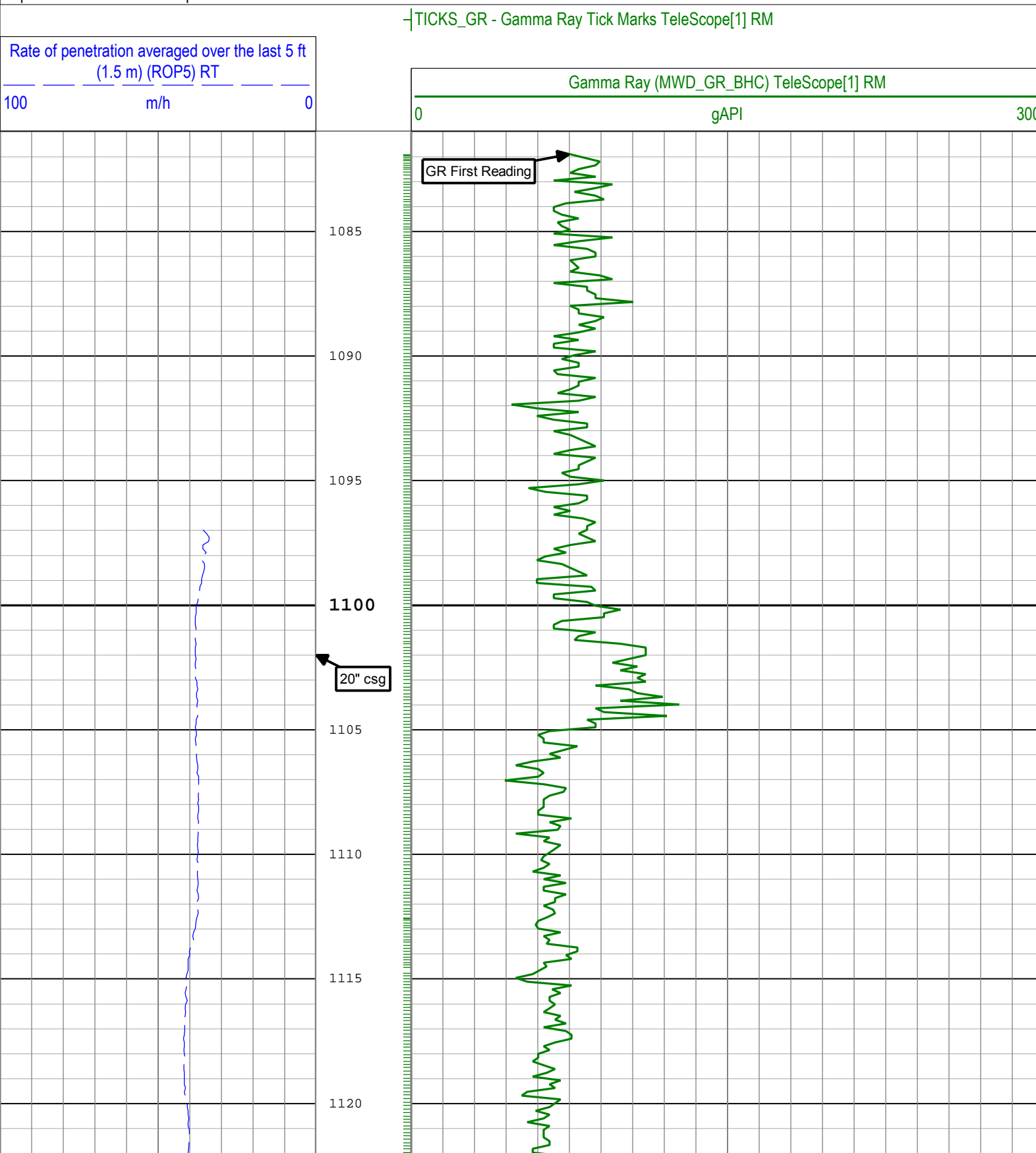
### Software Version

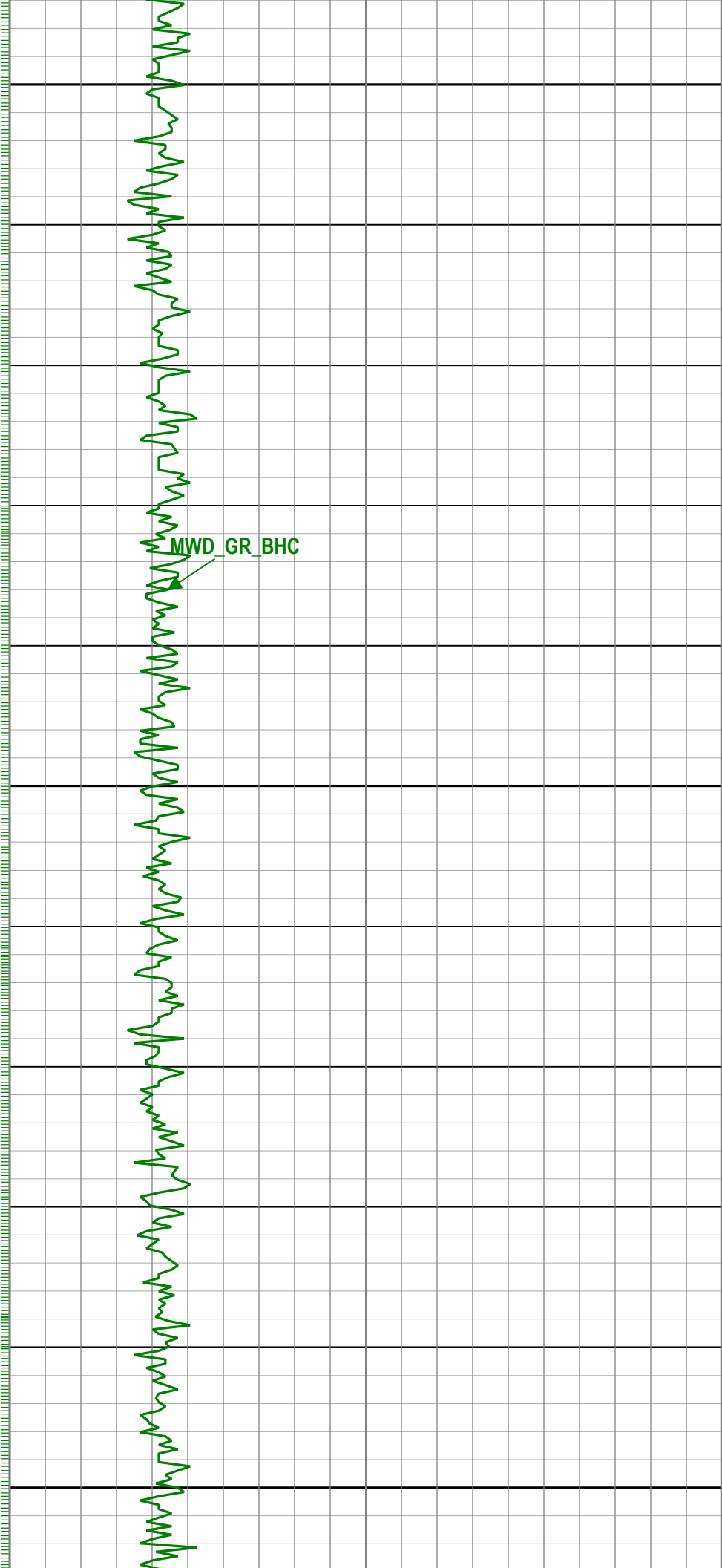
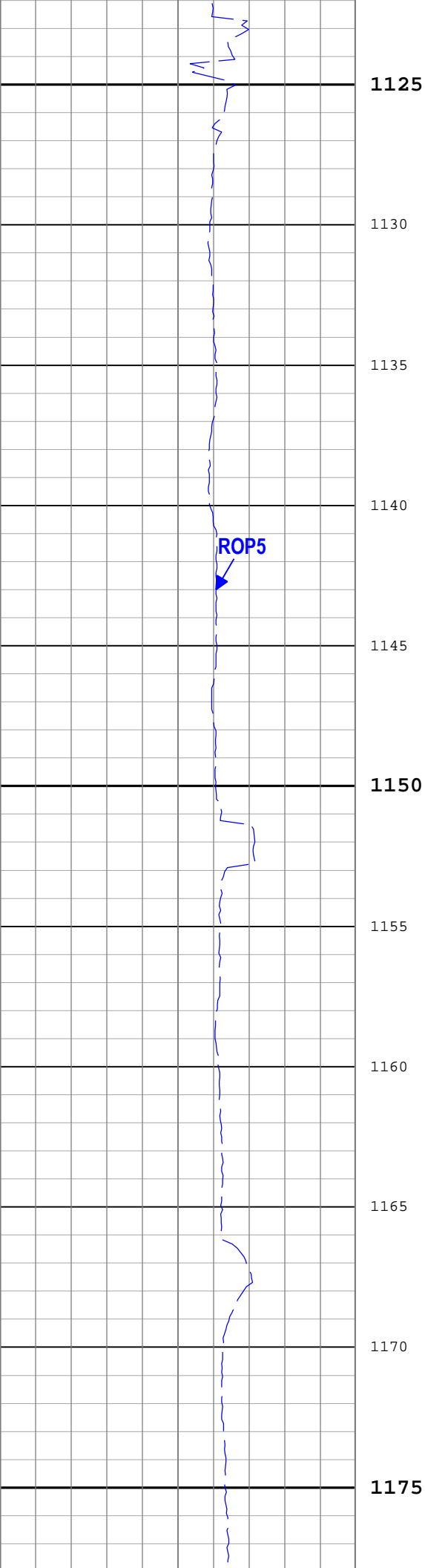
Acquisition System		Version	
Maxwell 2018 SP1		8.1.99839.3100	
Tool Interface	System Version	Loaded Version	
HSPM	20.3c.062	8.1.99839.3100	
Tool Elements	Description	Software Version	Firmware Version
PMGR	TeleScope - M10 Gamma Ray Assembly	8.1.99839.3100	V14.0
DRILLING_SURFACE	DRILLING_SURFACE	8.1.99839.3100	

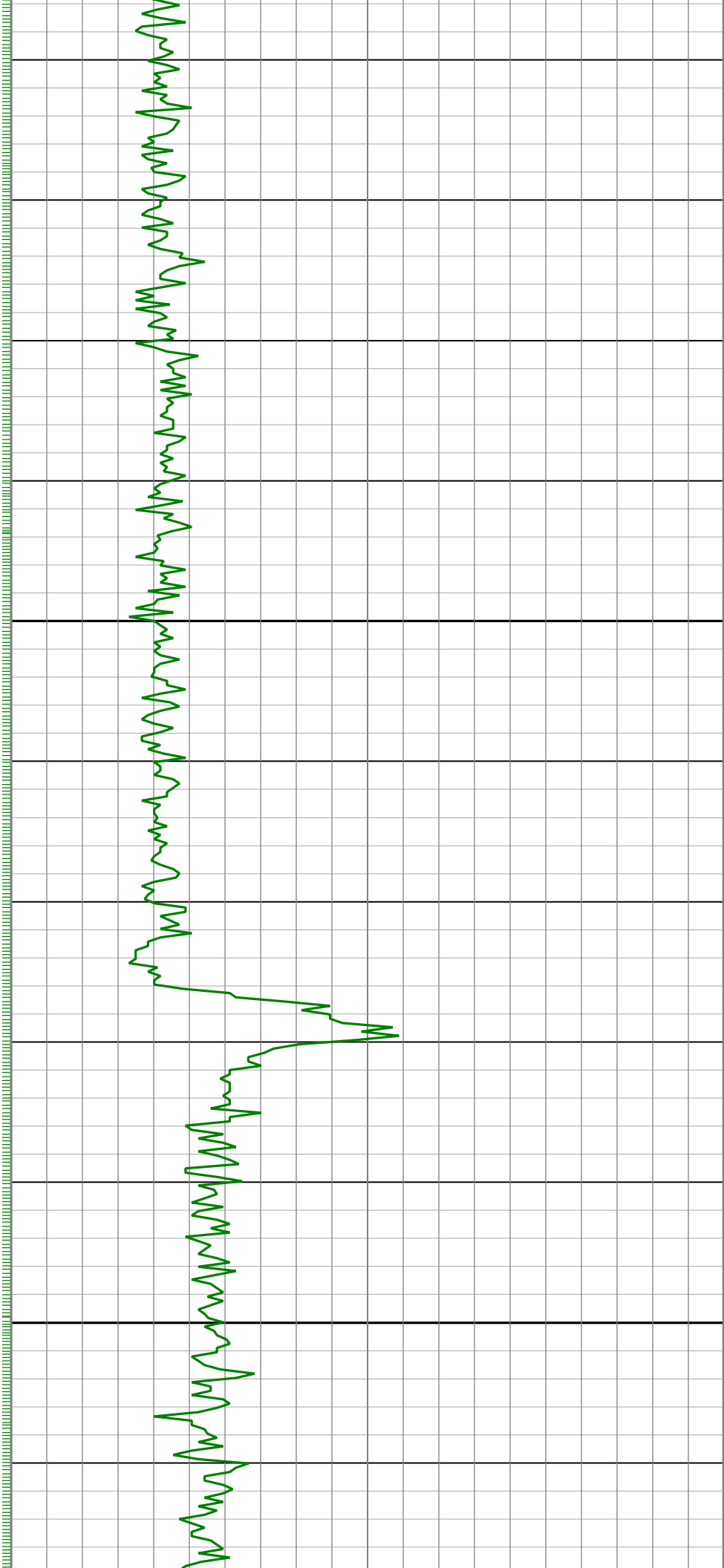
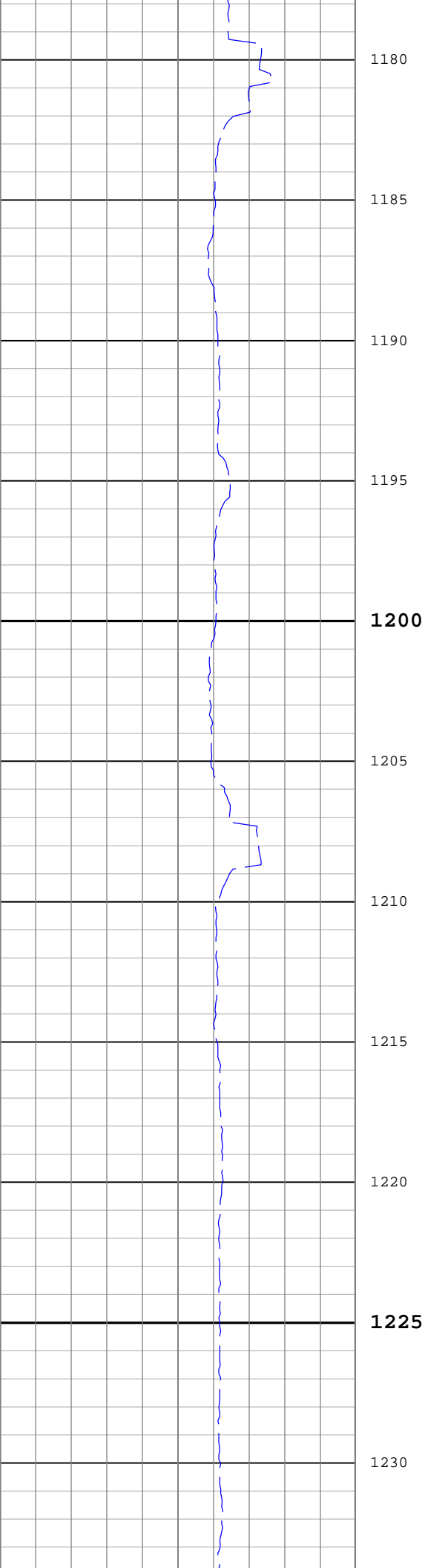
### Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run 4	Drilling	Down	1263.70 m	2185.64 m	06-Apr-2018 15:01:35	13-Apr-2018 09:39:39	Yes
Run 4	Drilling	Down	1263.70 m	2185.64 m	06-Apr-2018 15:01:35	13-Apr-2018 09:39:39	Yes

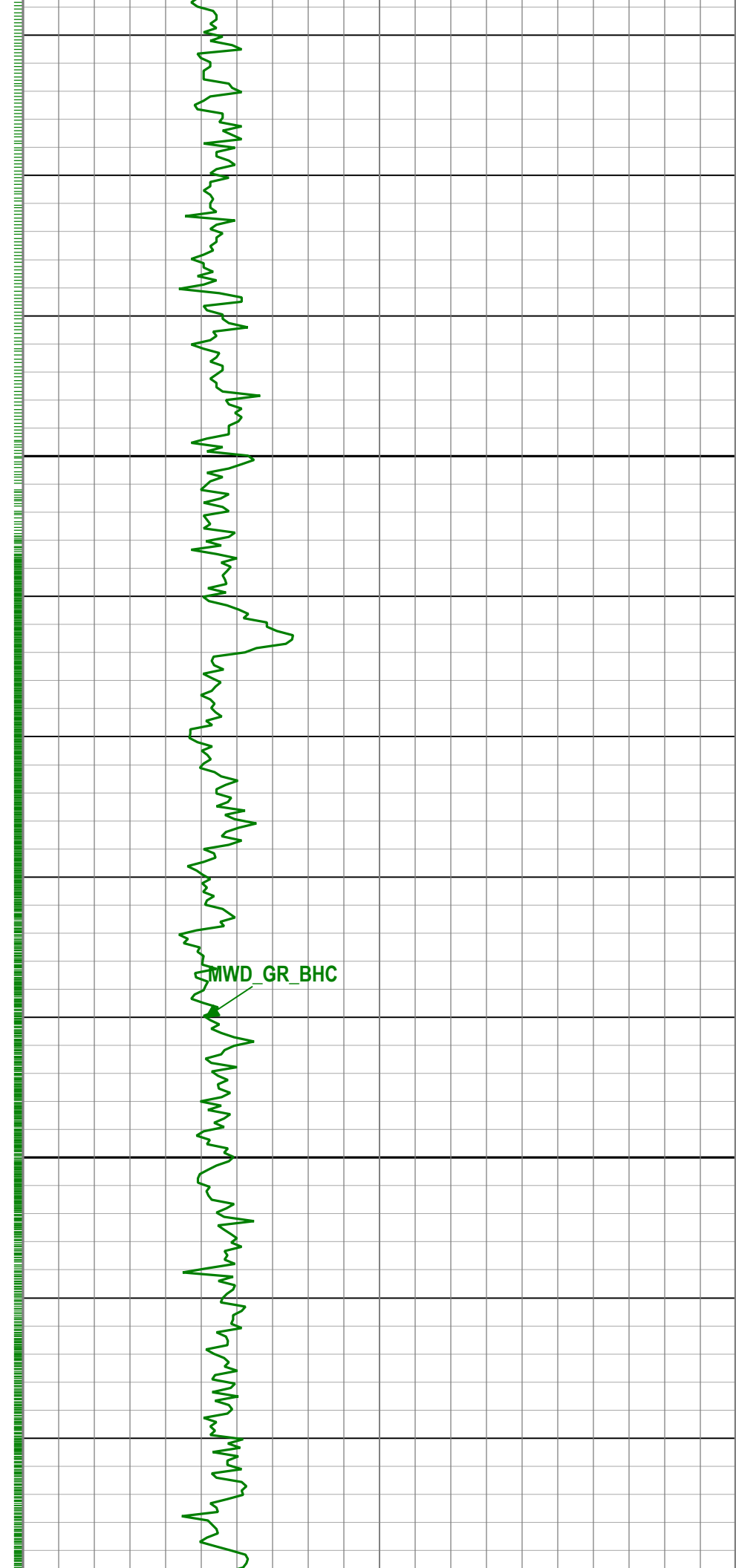
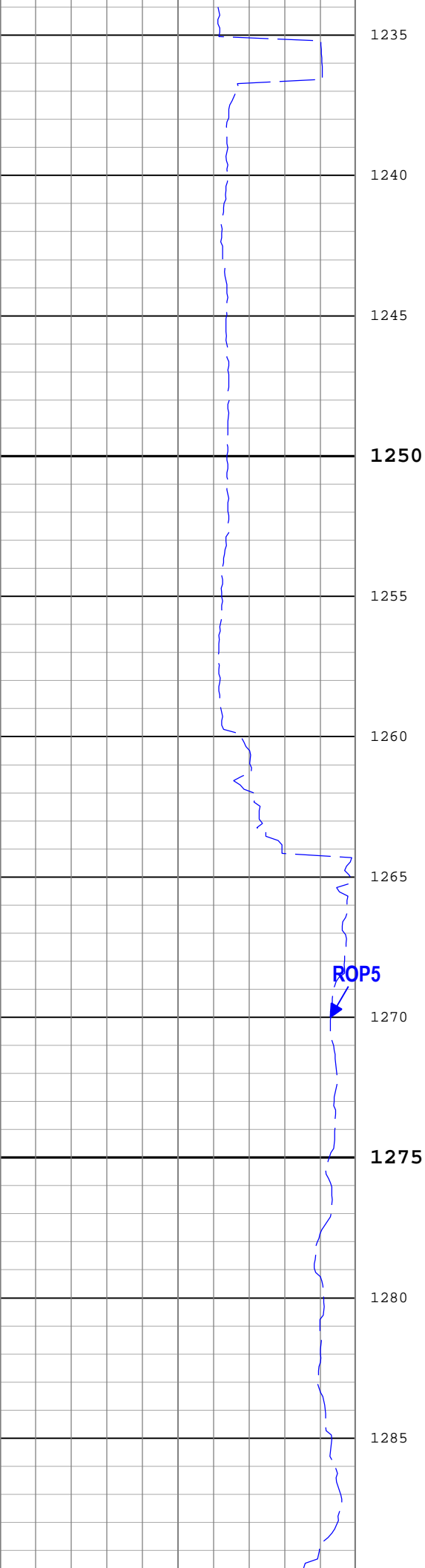
Description: TeleScope Gamma Ray Depth RT					Format: Log ( GR MWD and PD with ticks )	Index Scale: 1:200	Index Unit: m	Index Type: Measured
Depth	Creation Date: 19-Apr-2018 18:52:26							

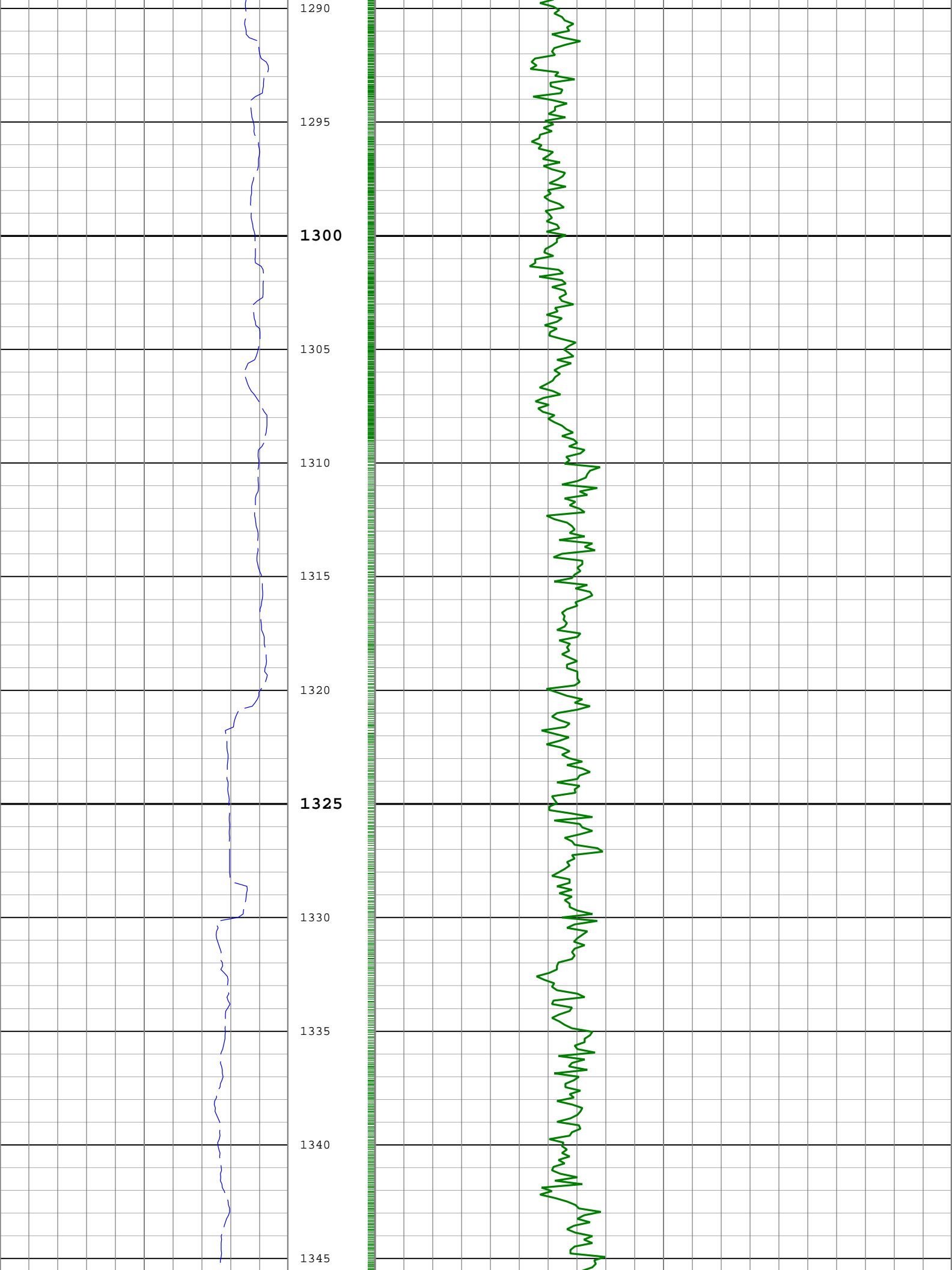


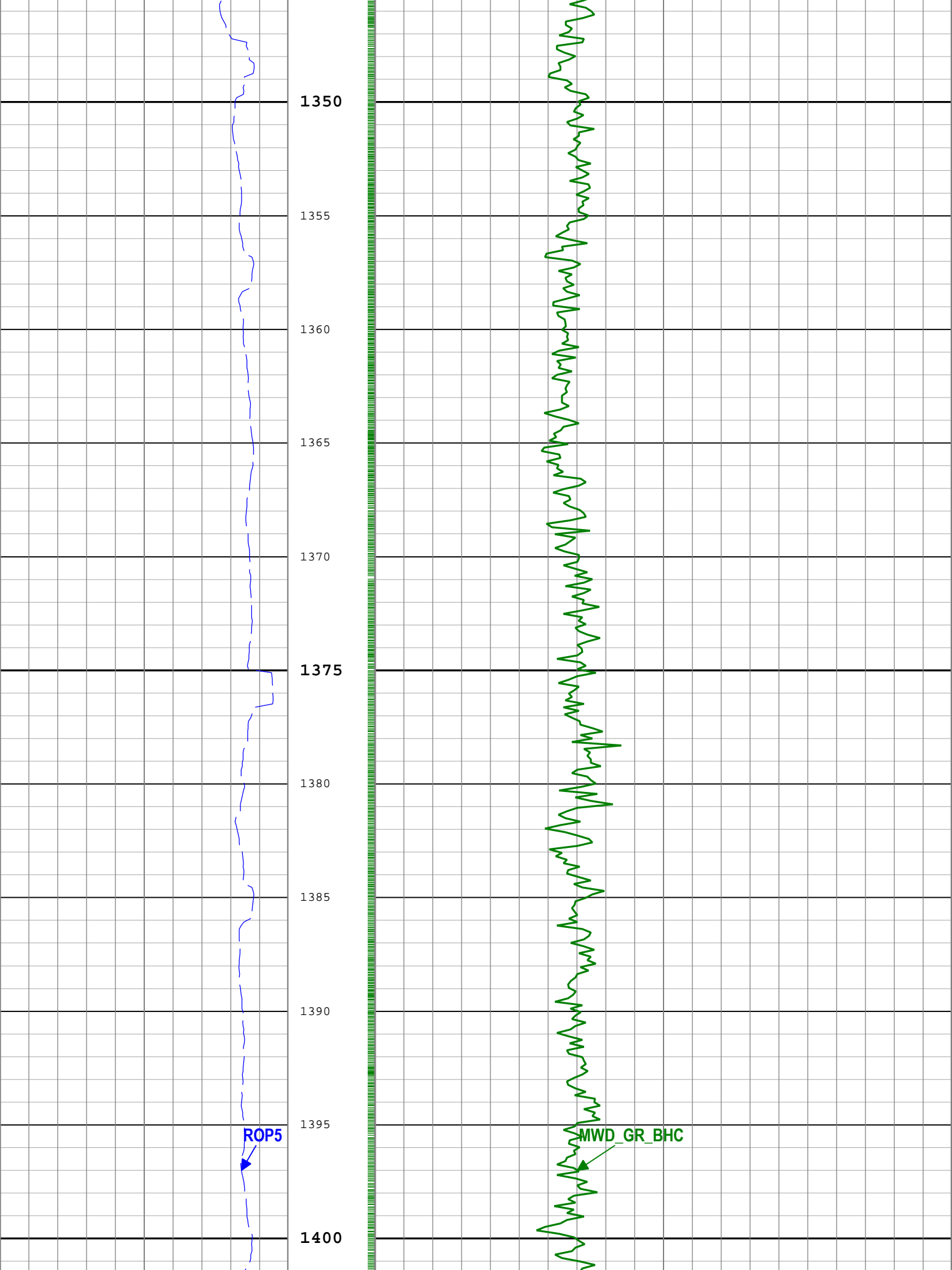


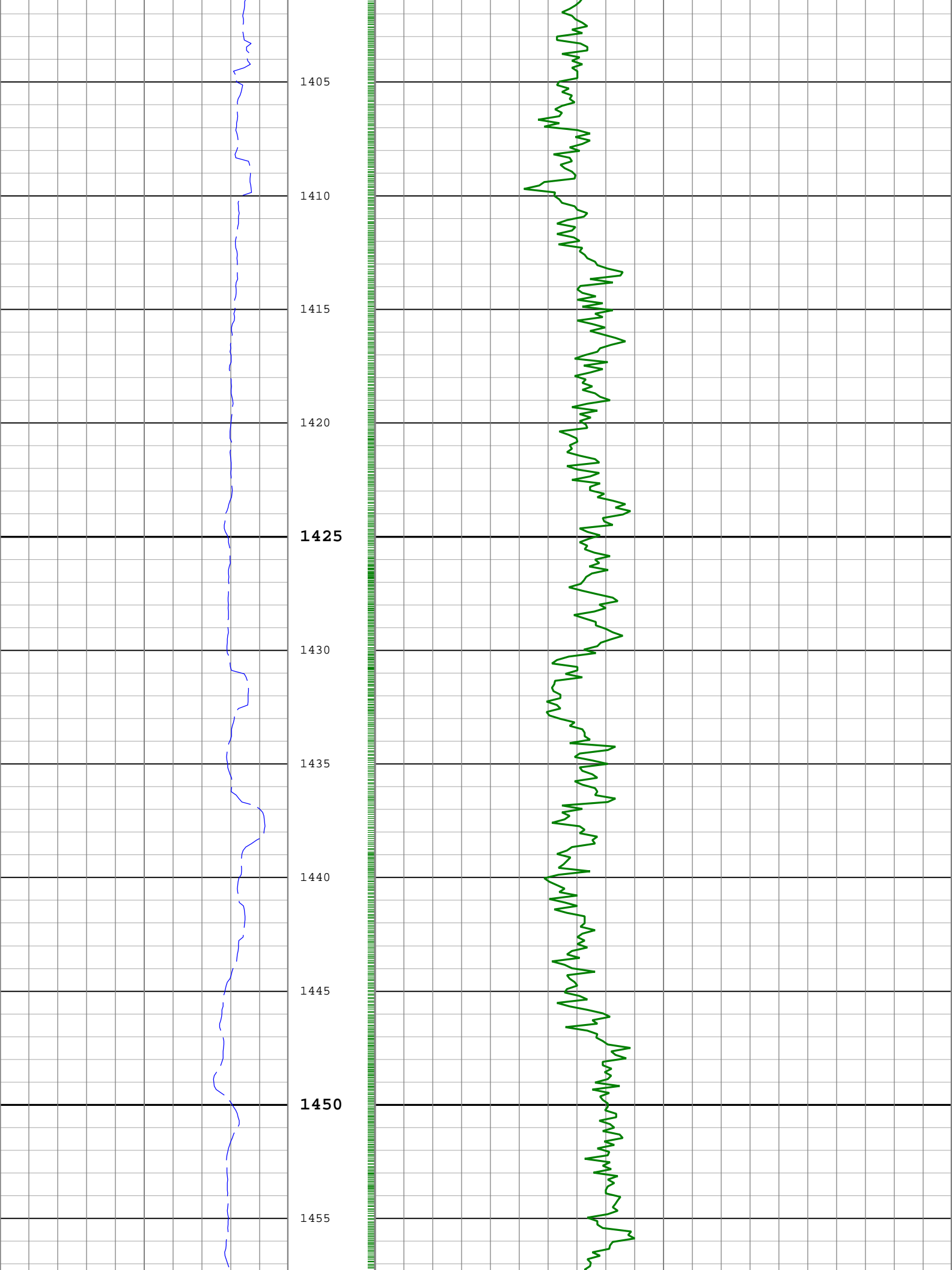


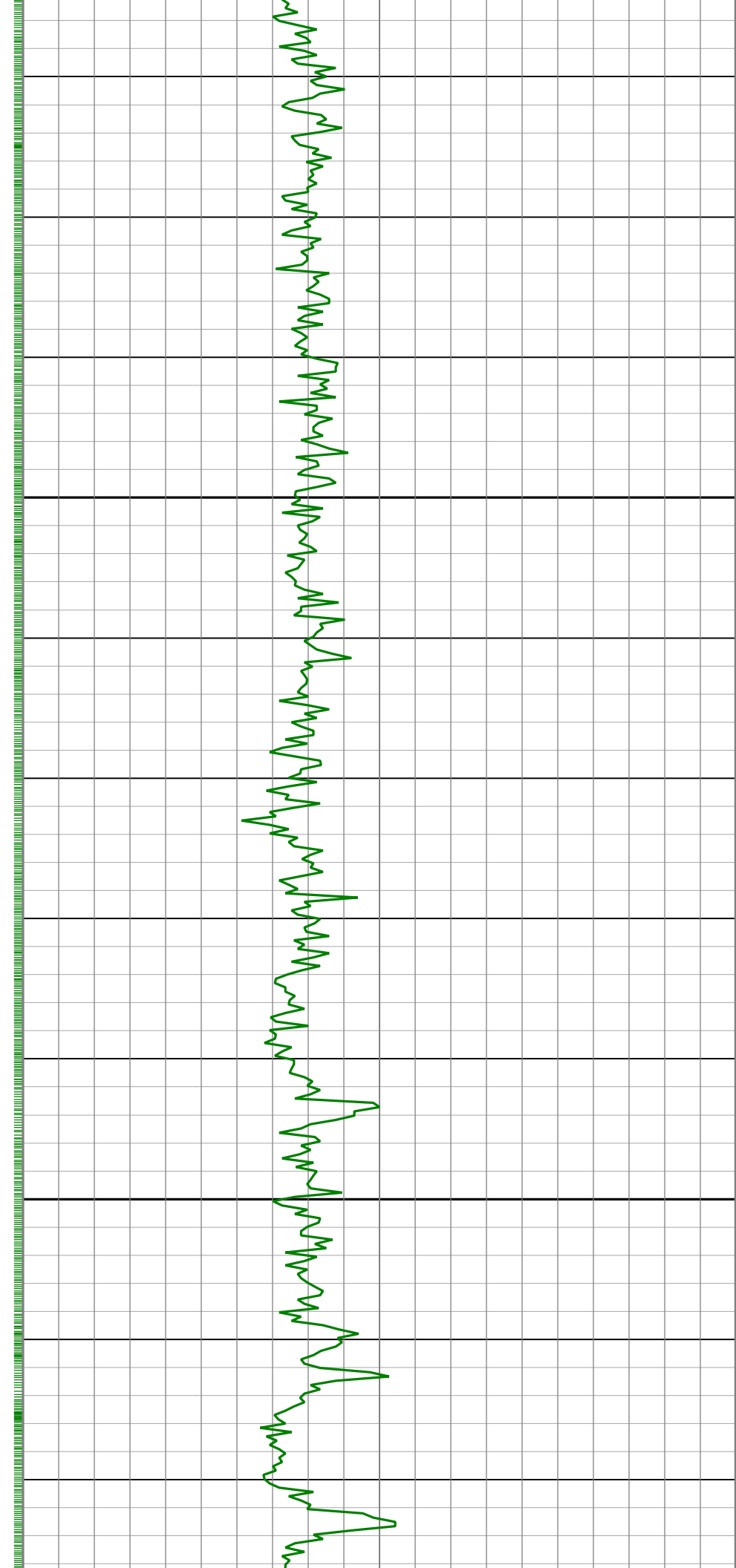
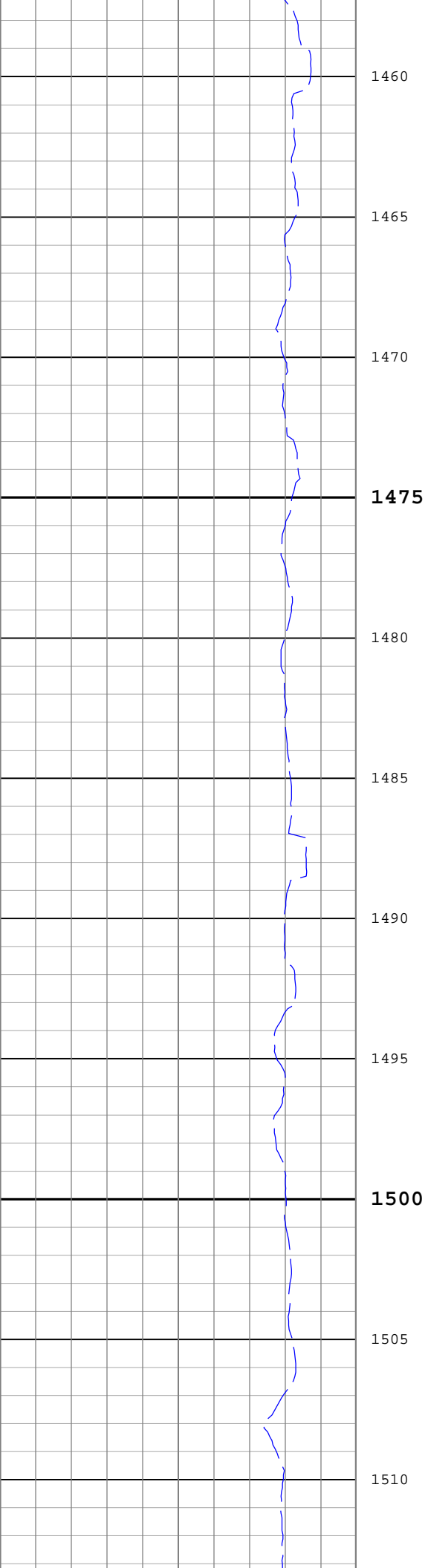


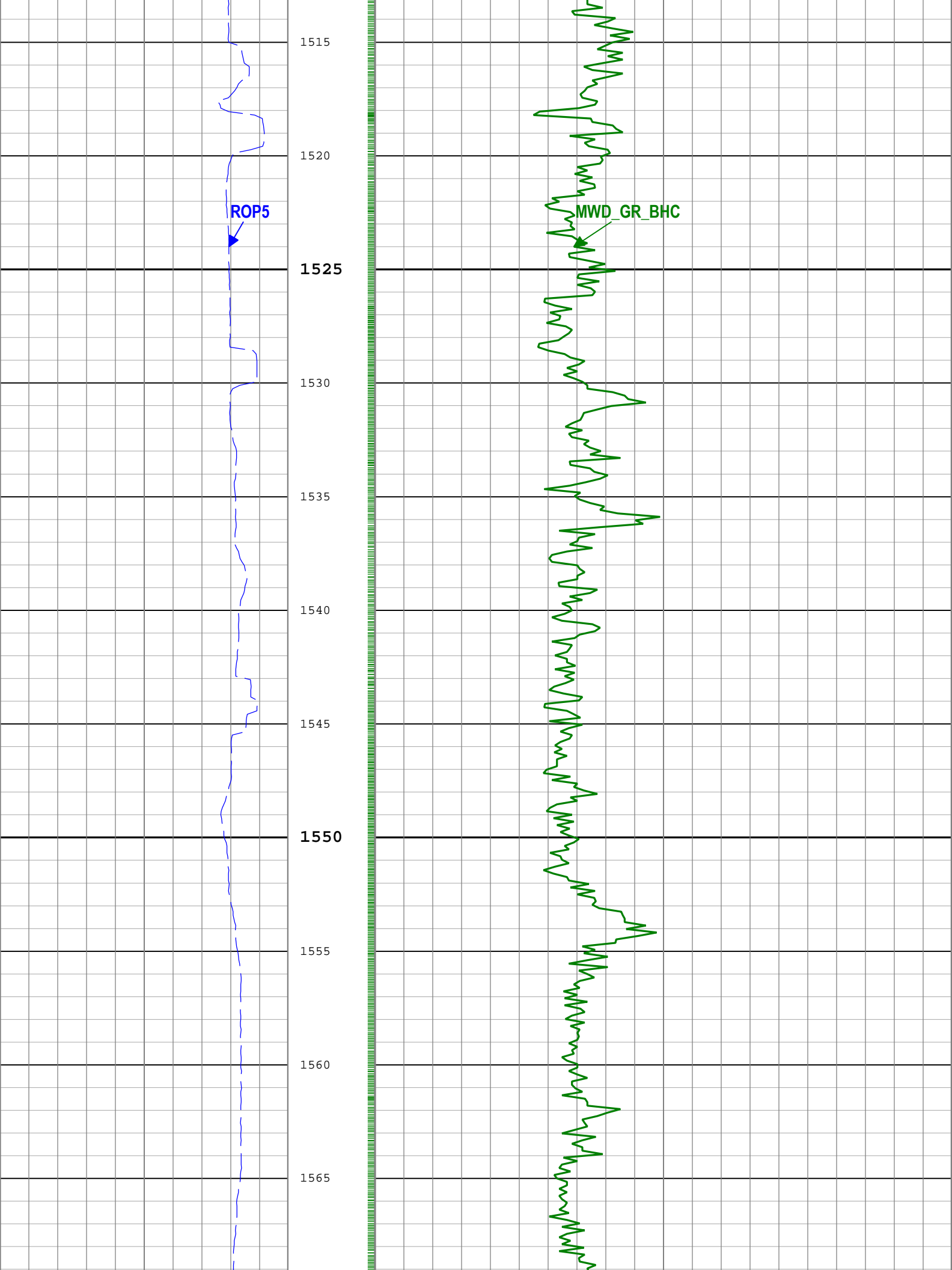


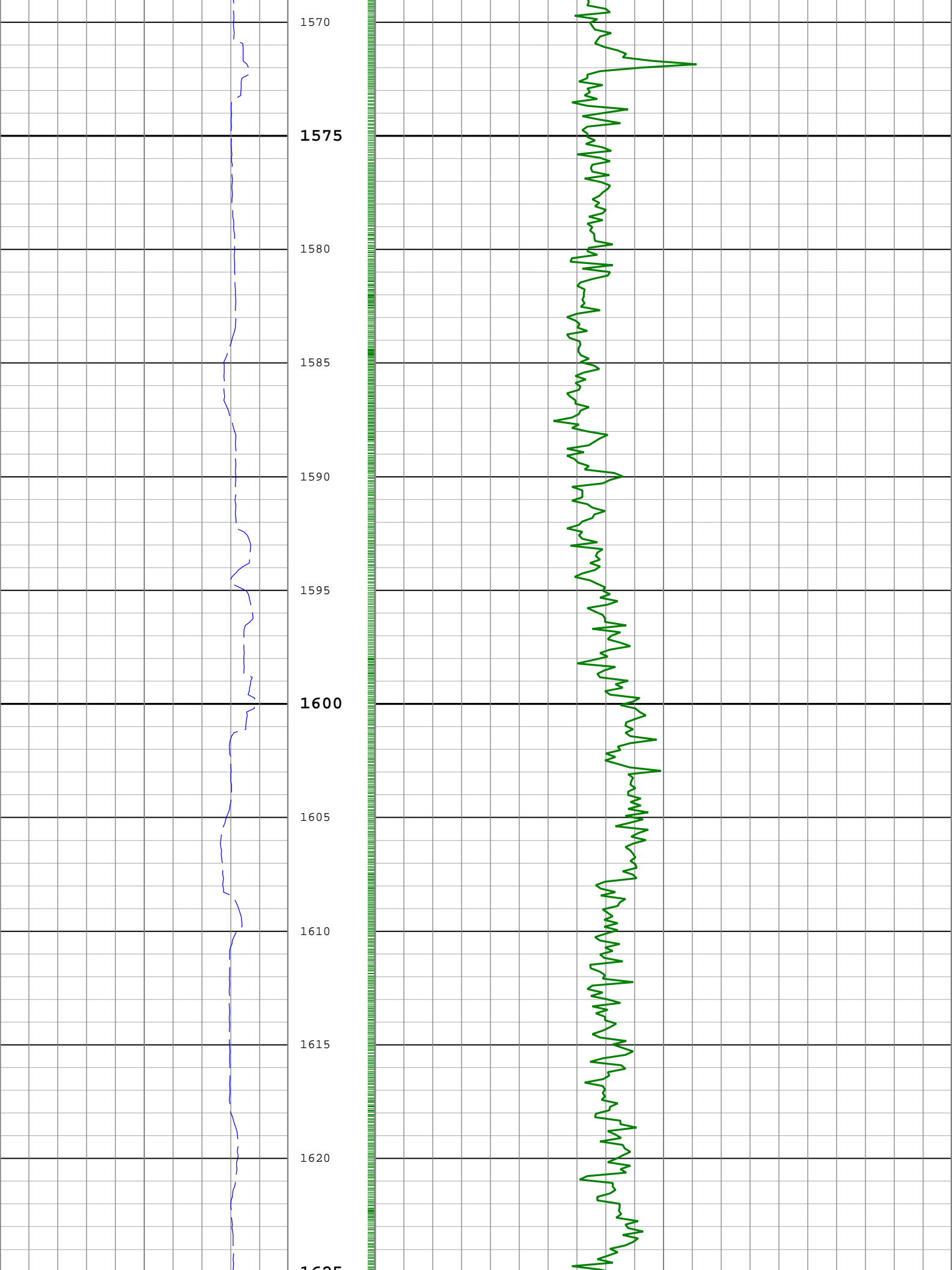


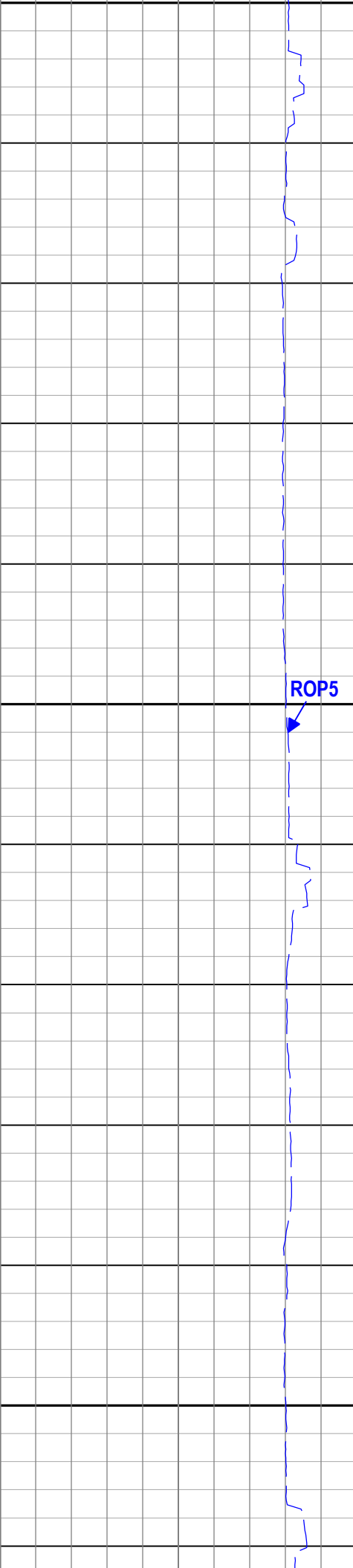




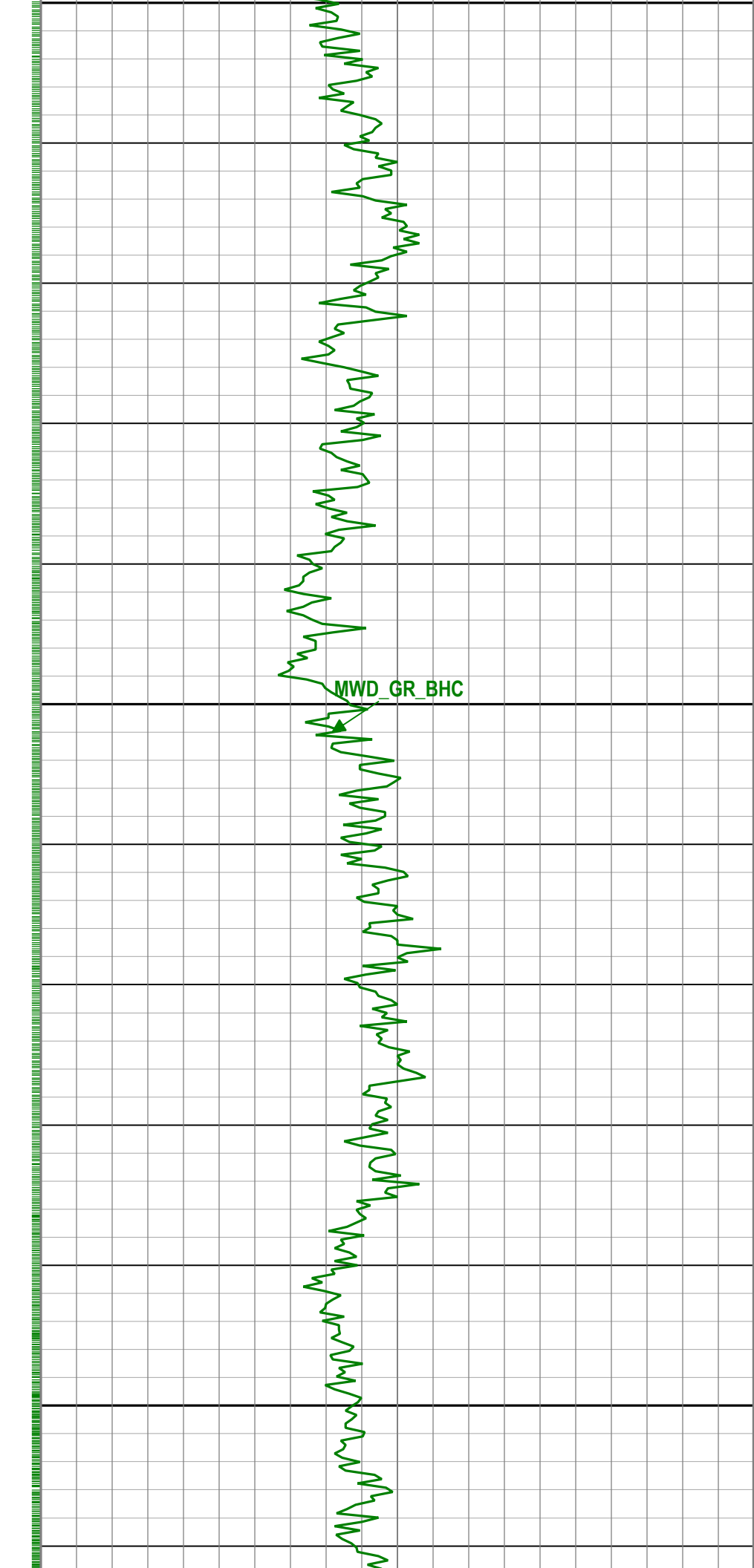






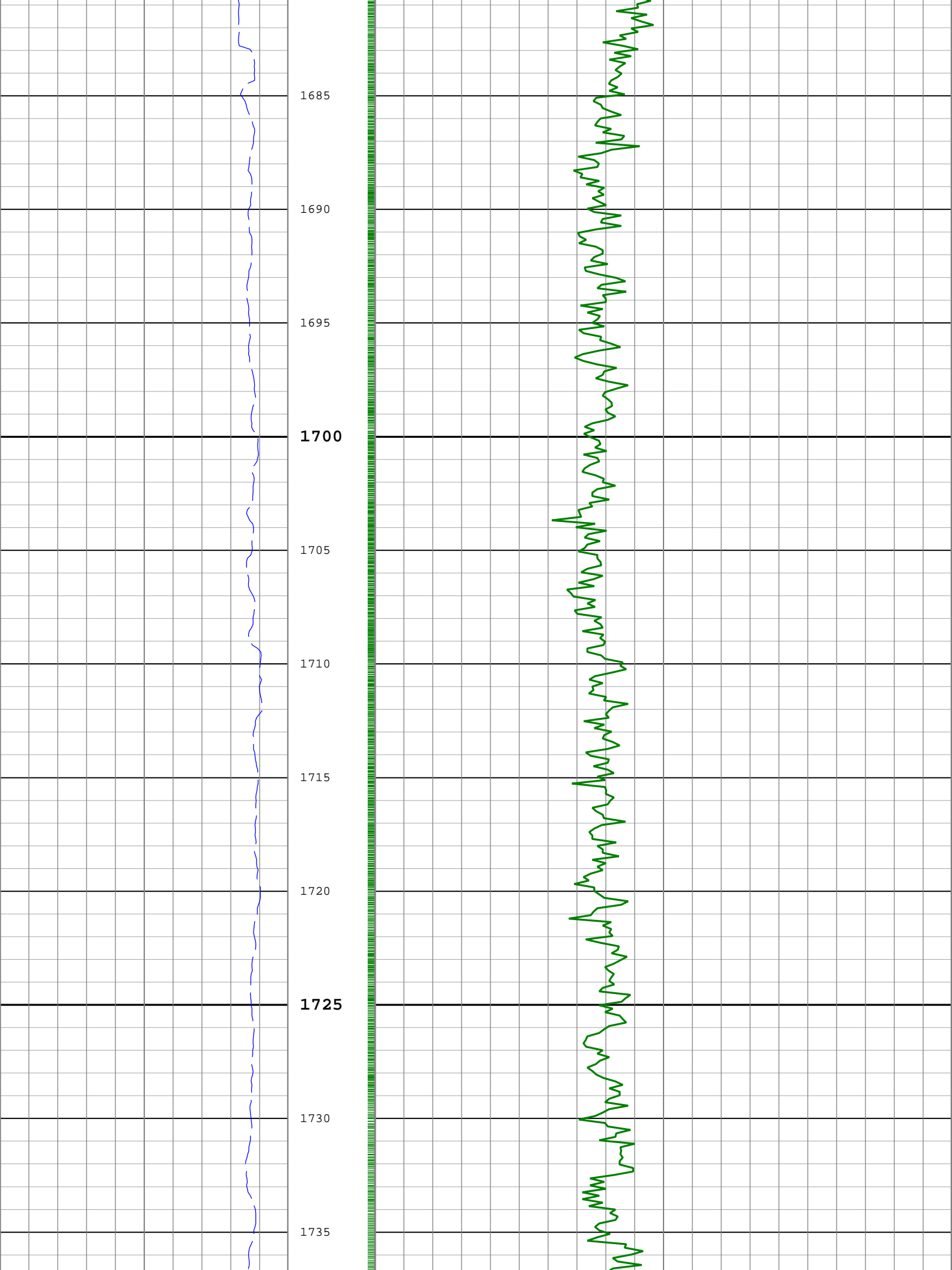


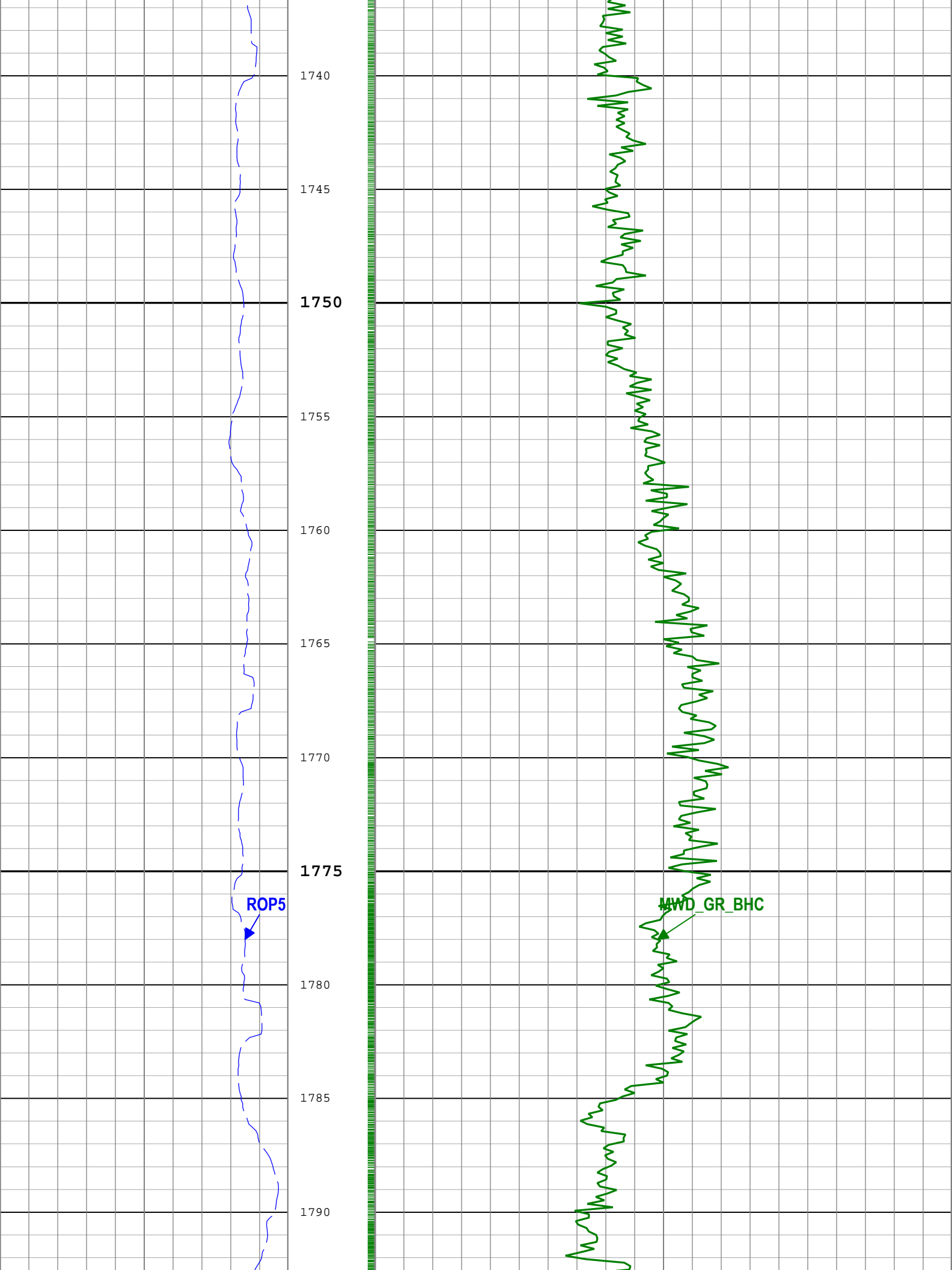
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1630  
1635  
1640  
1645  
1650  
1655  
1660  
1665  
1670  
1675  
1680

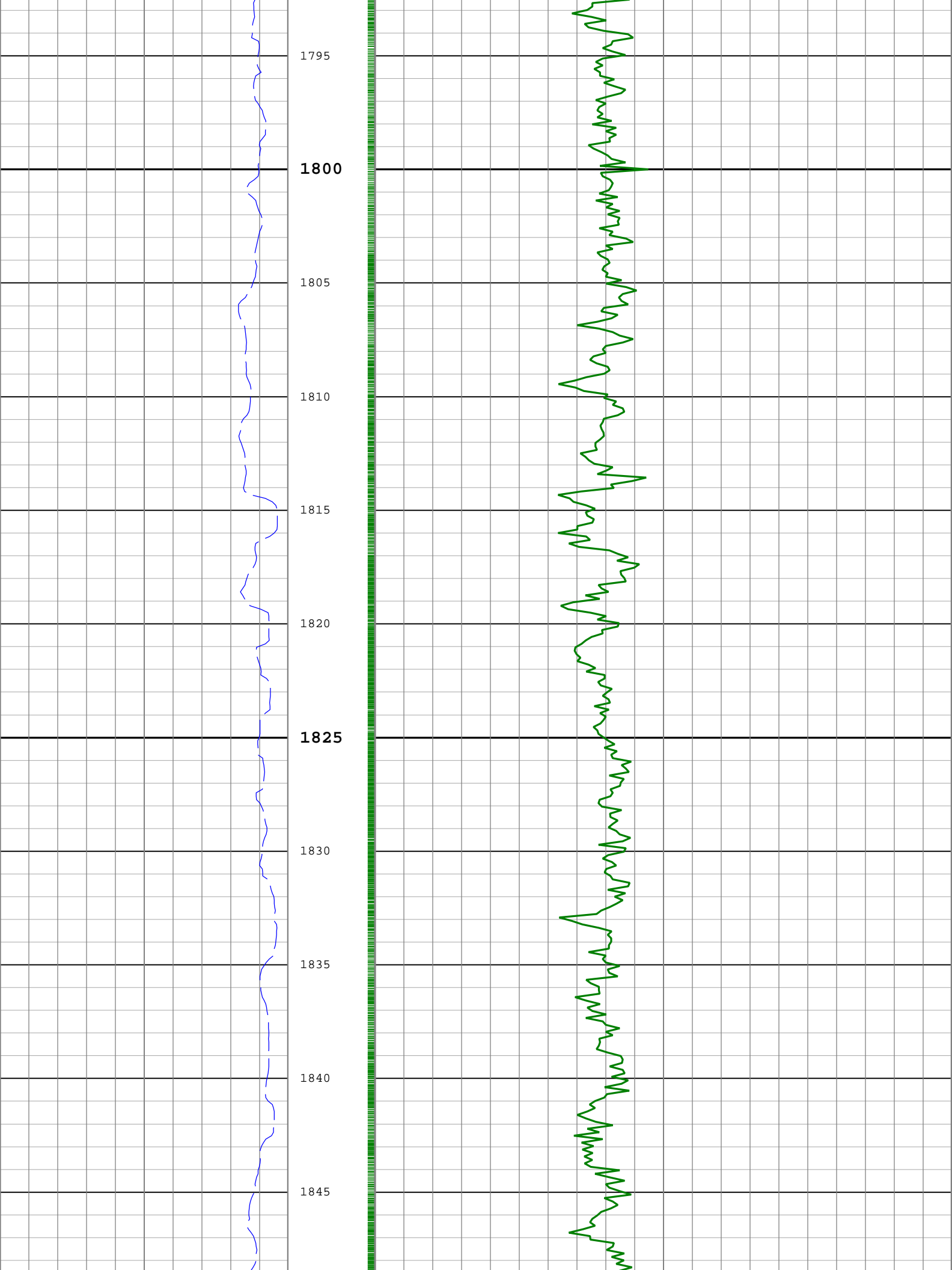


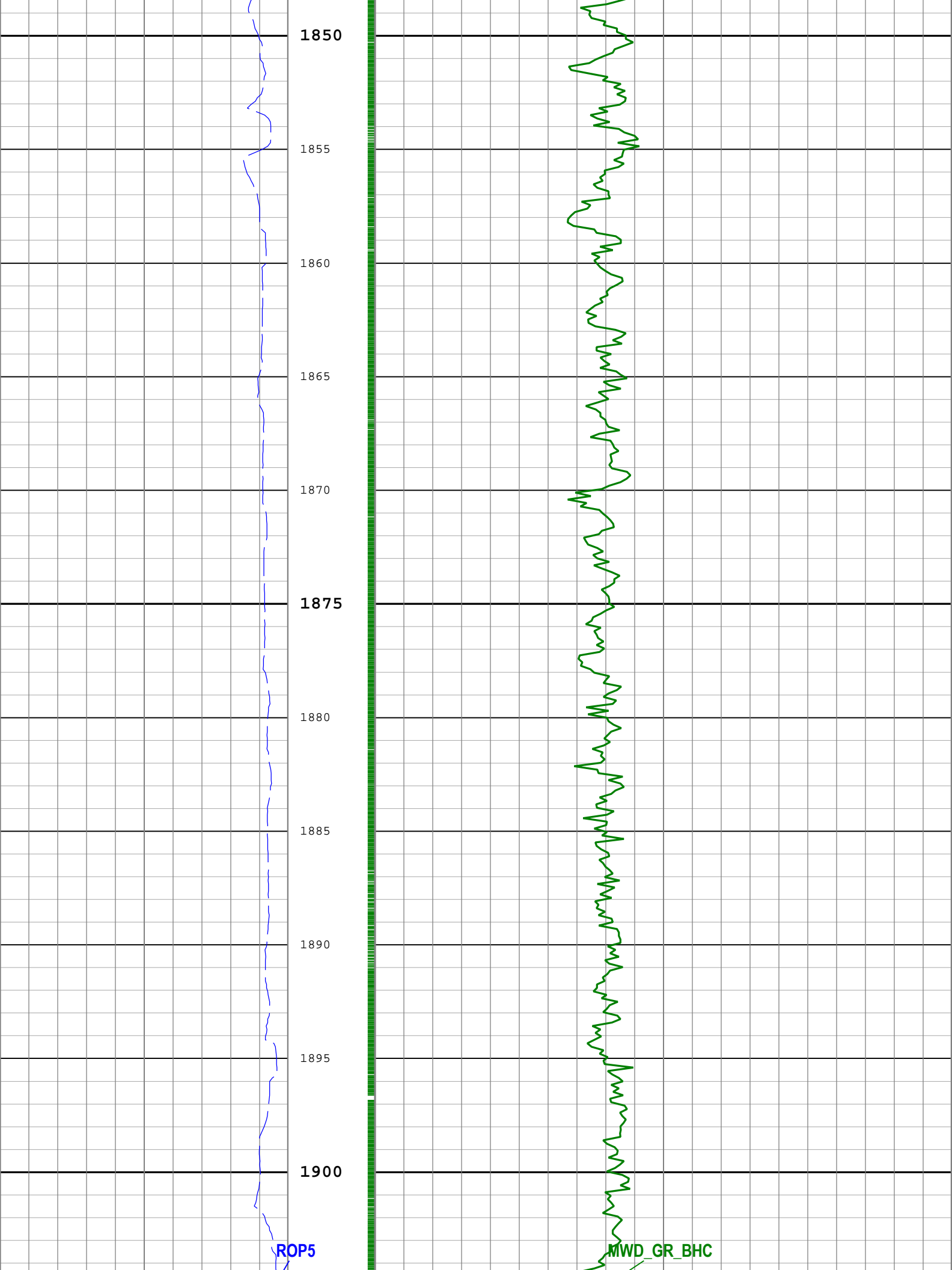
MWD GR BHC

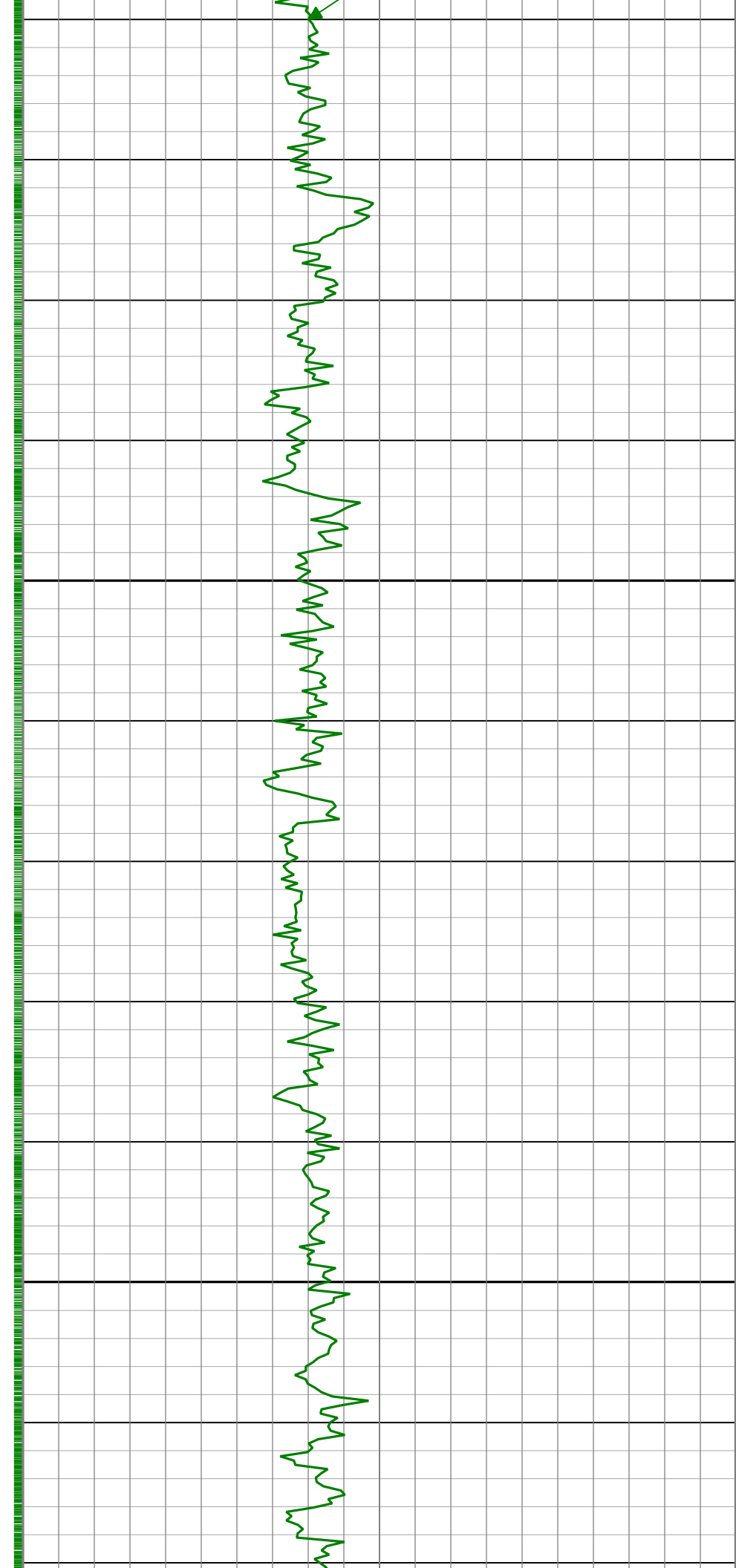
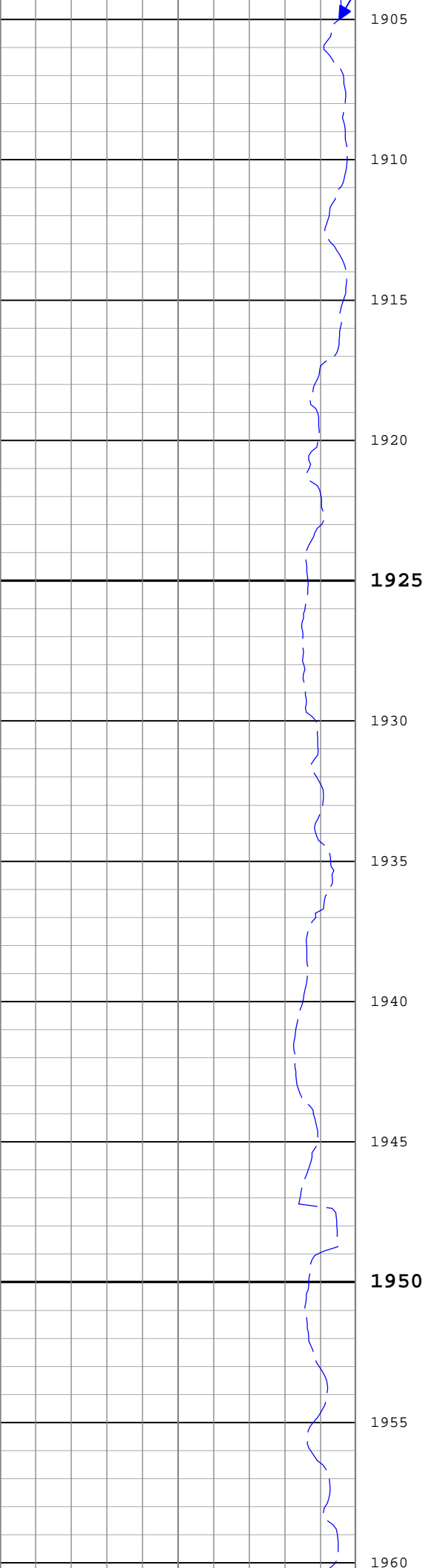


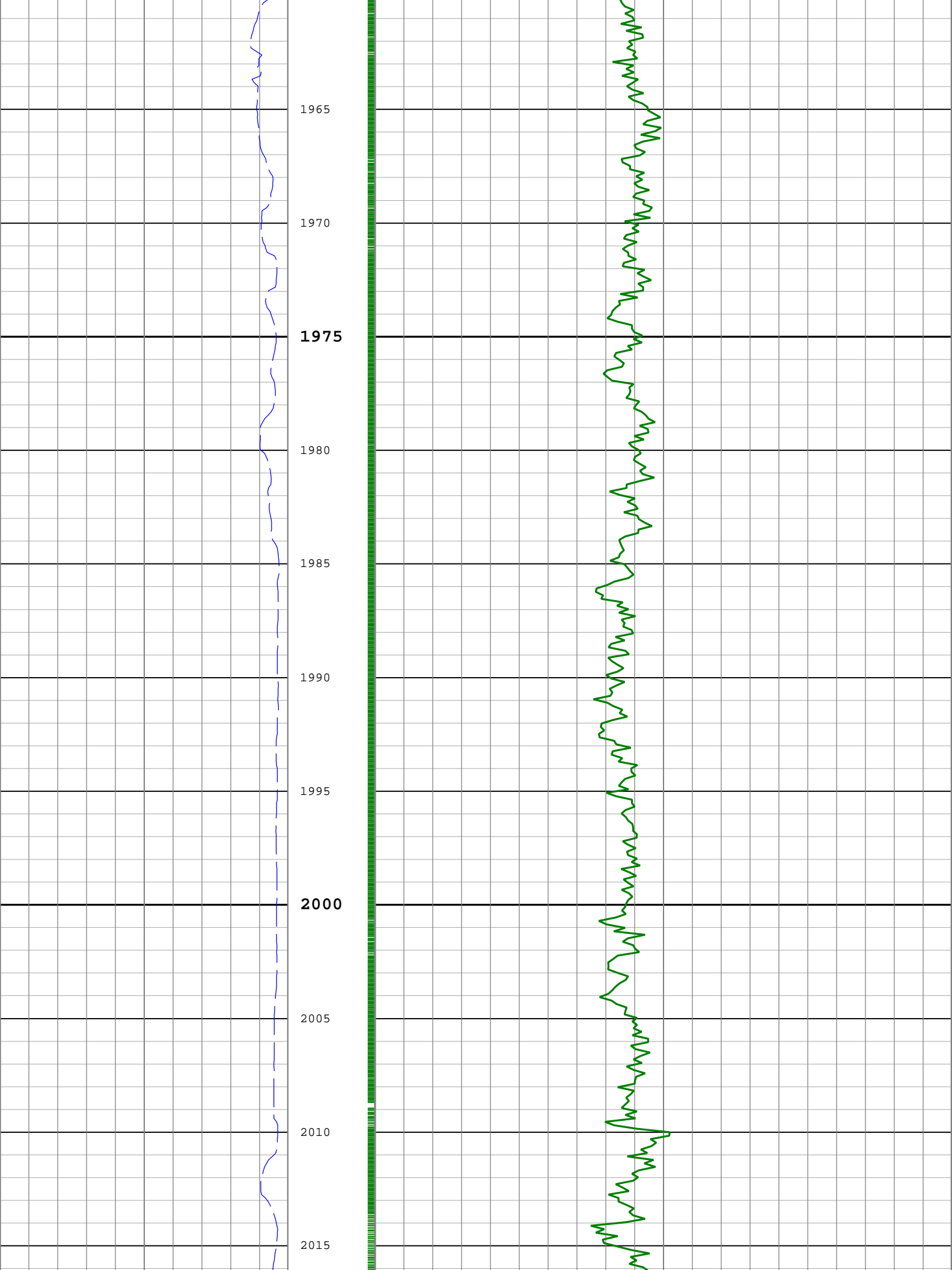


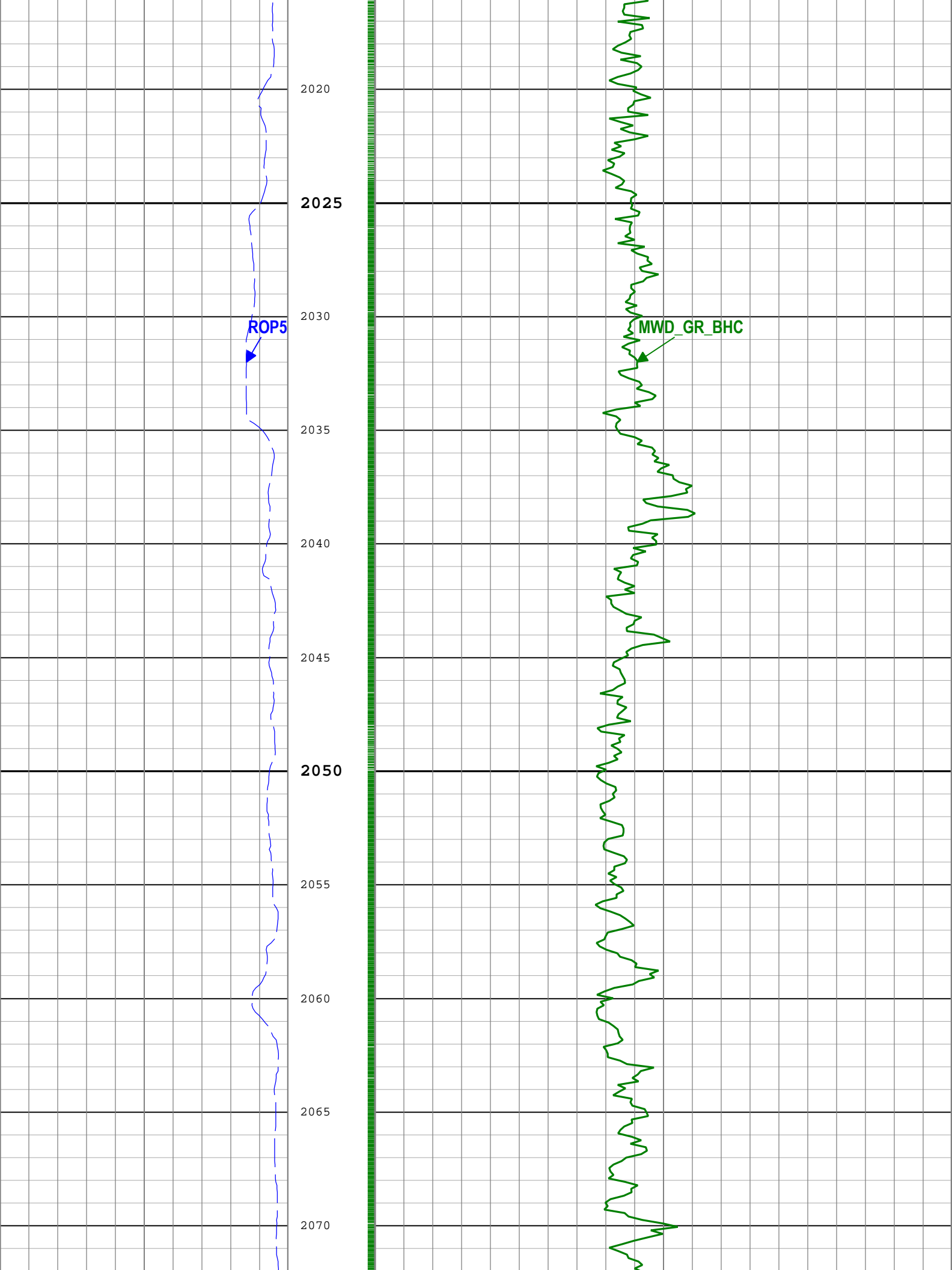


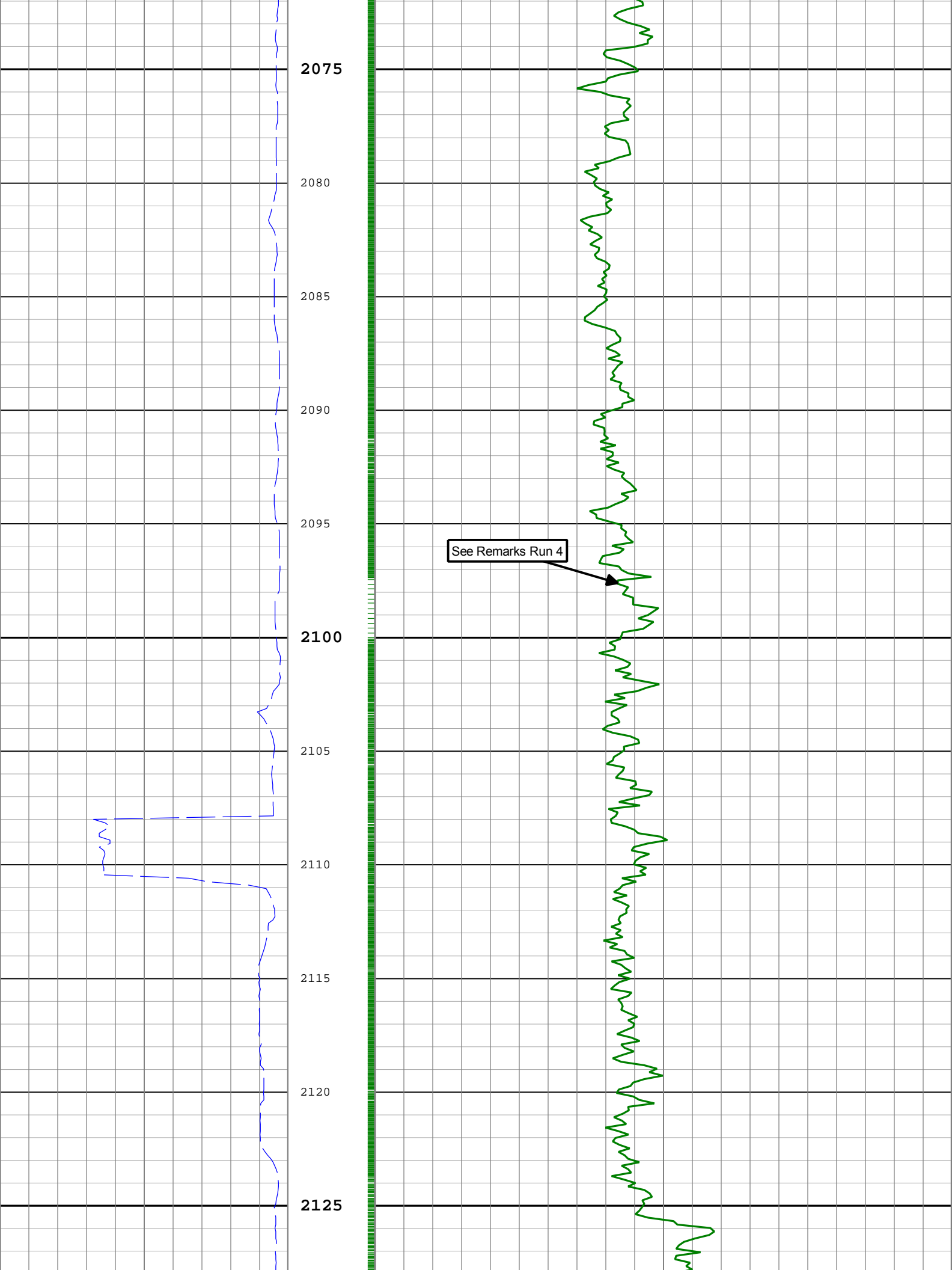




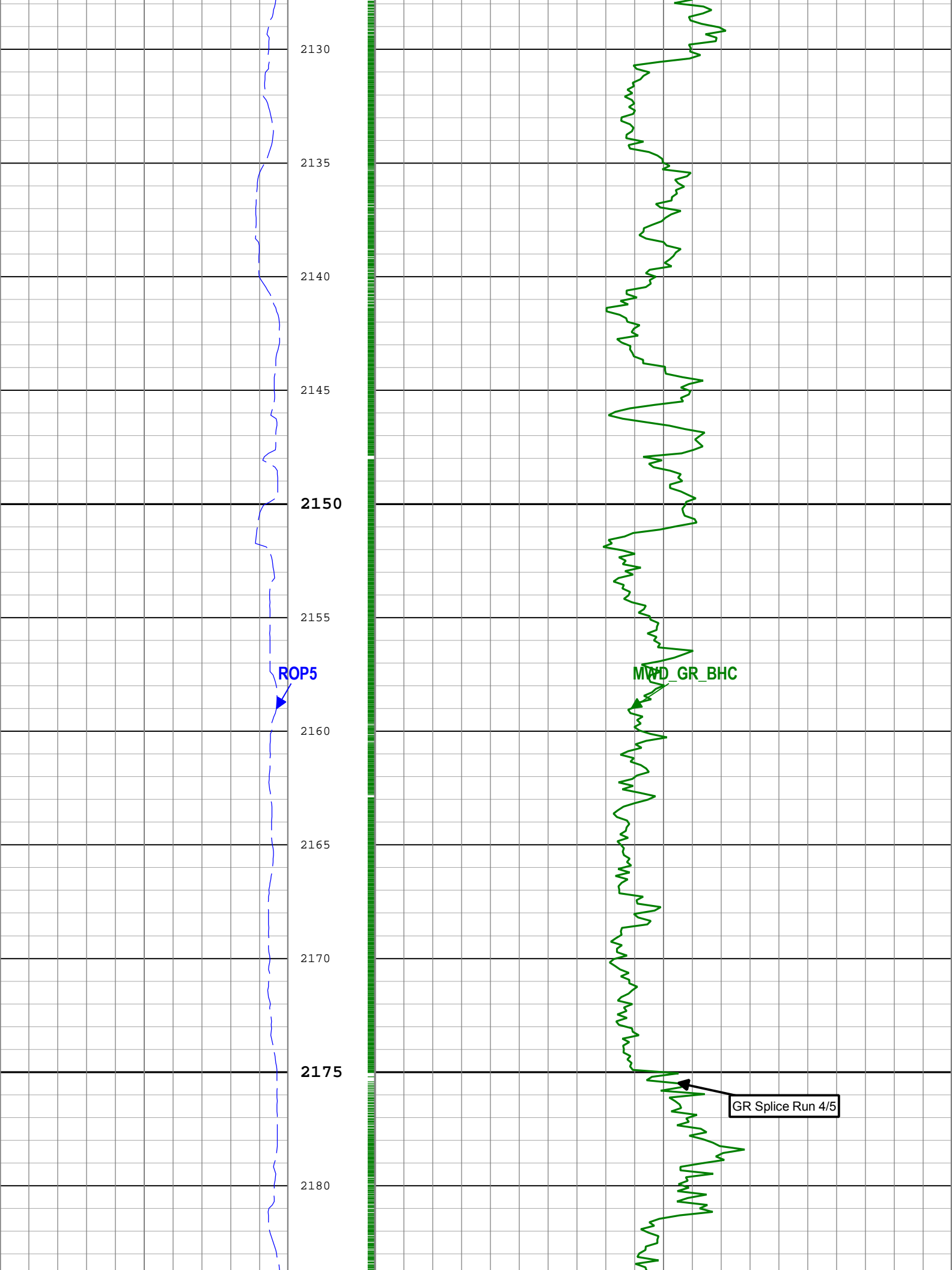


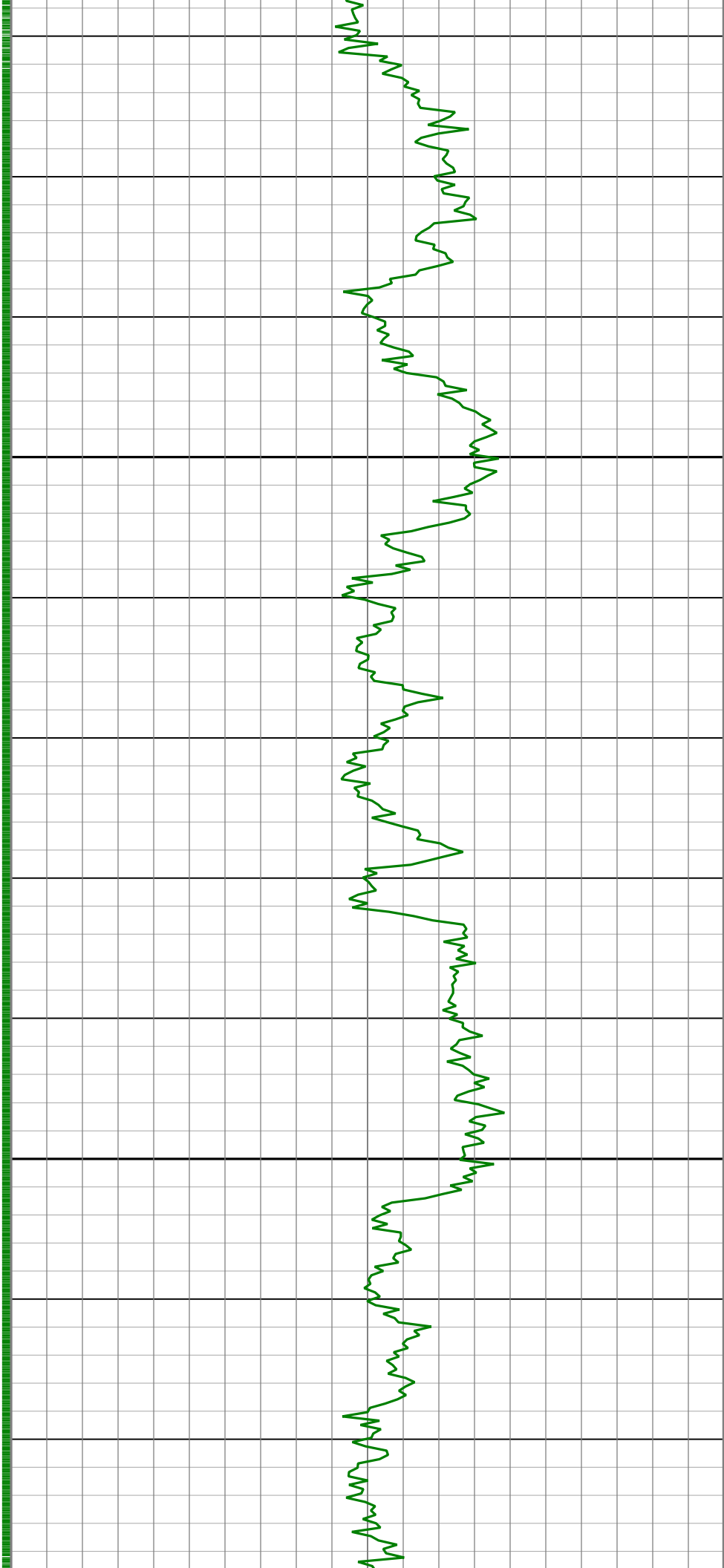
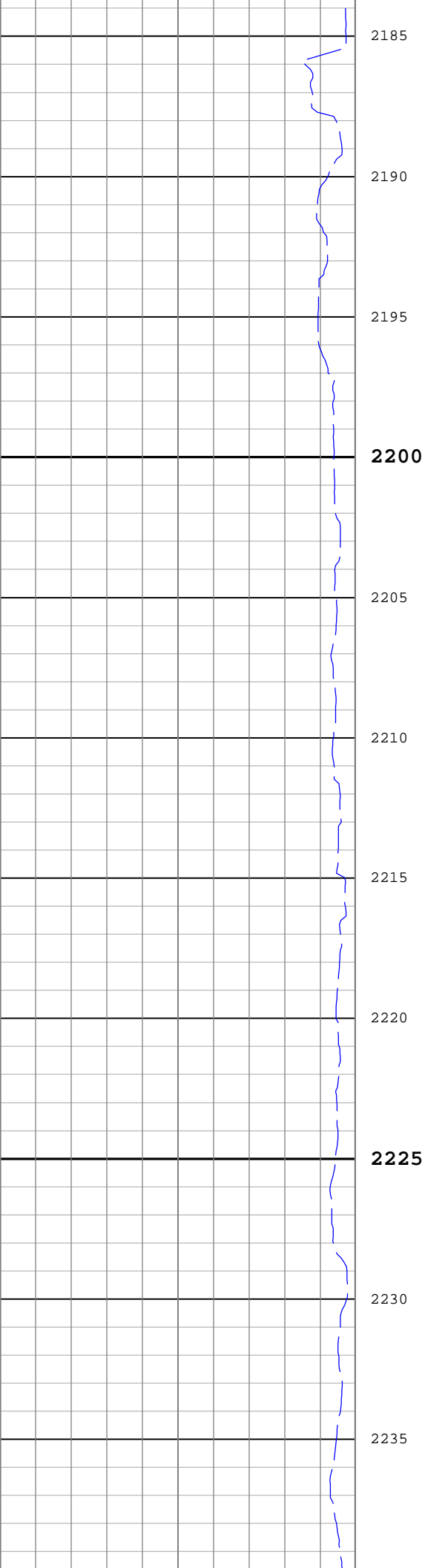


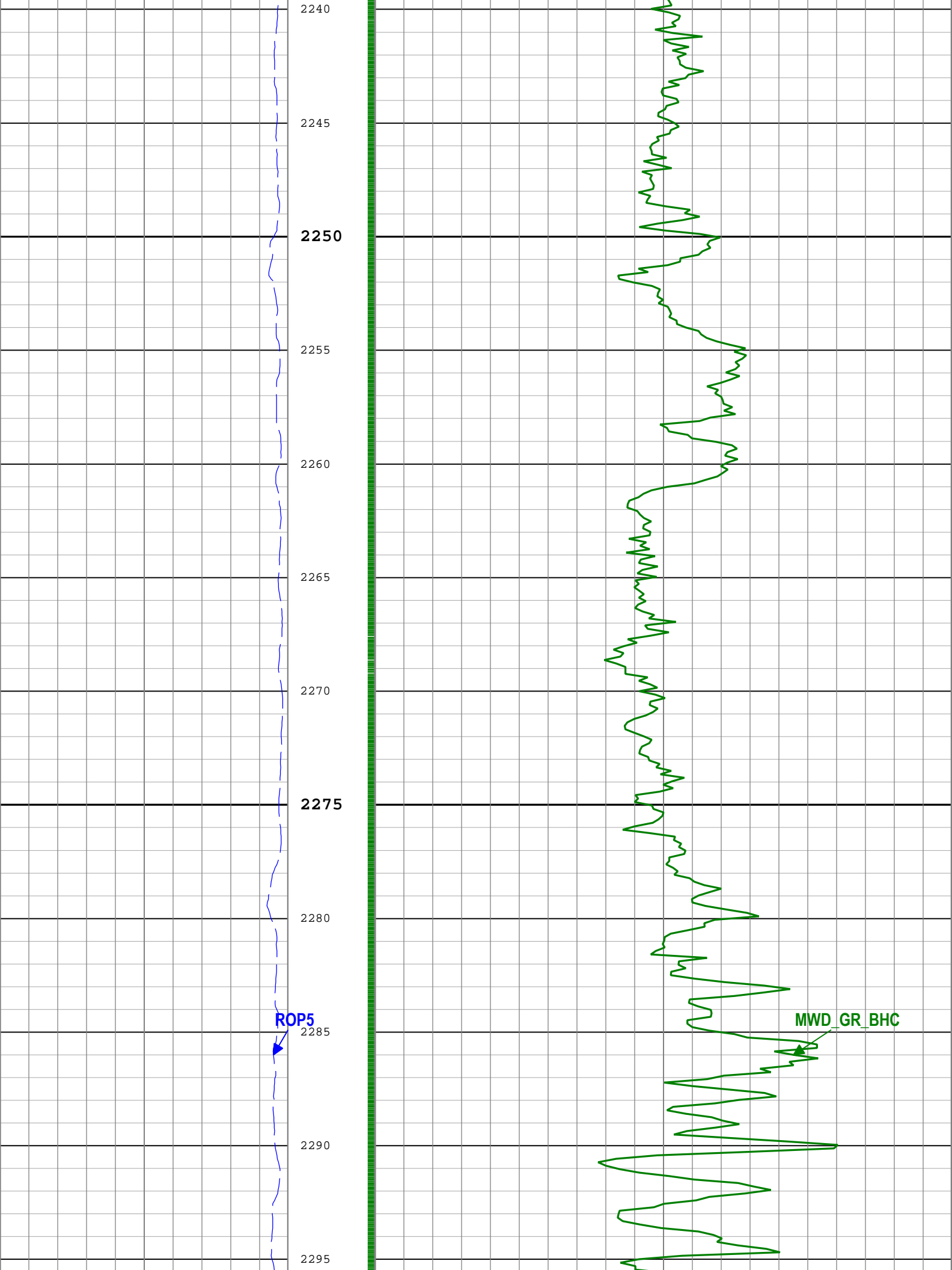


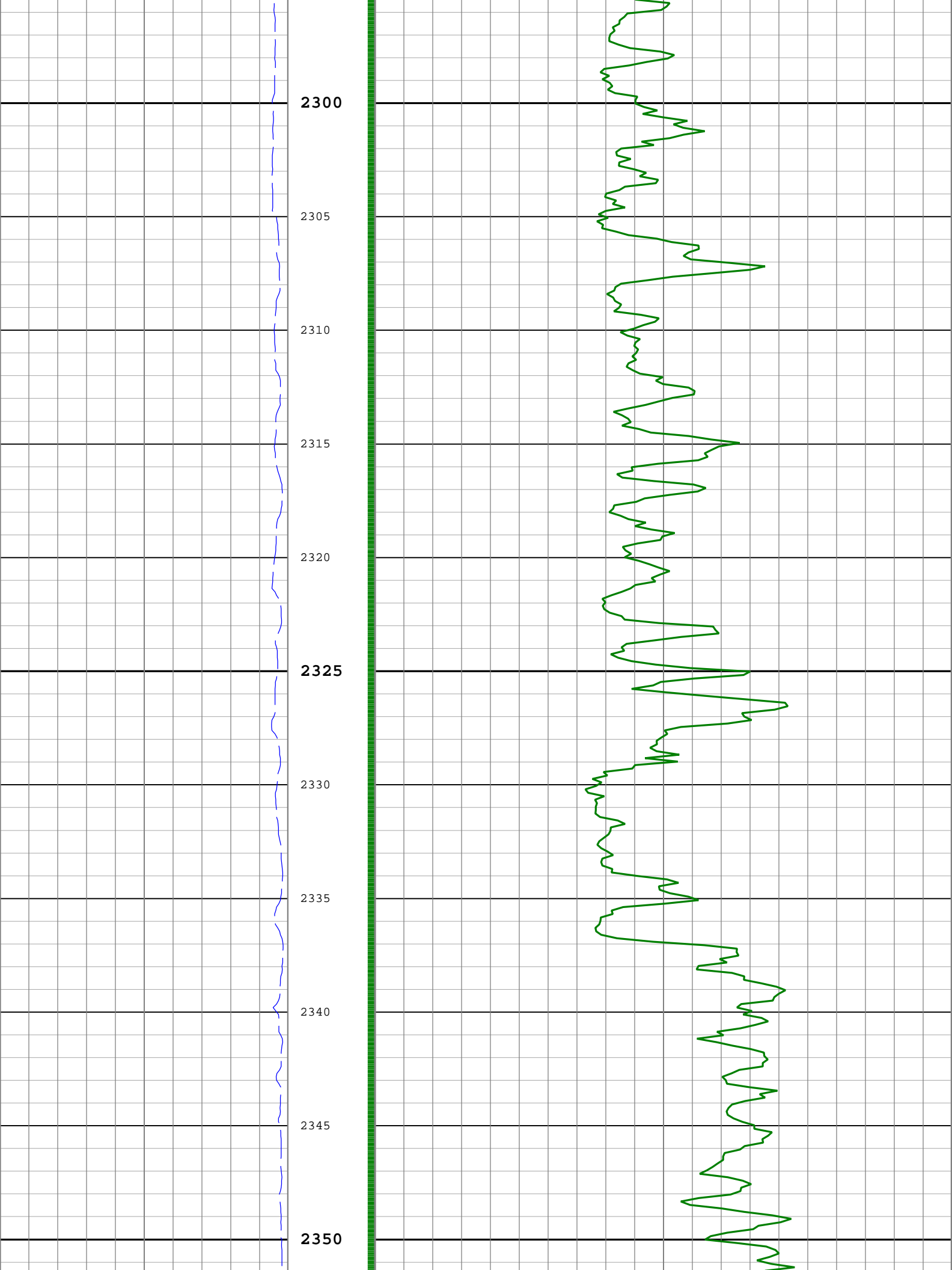


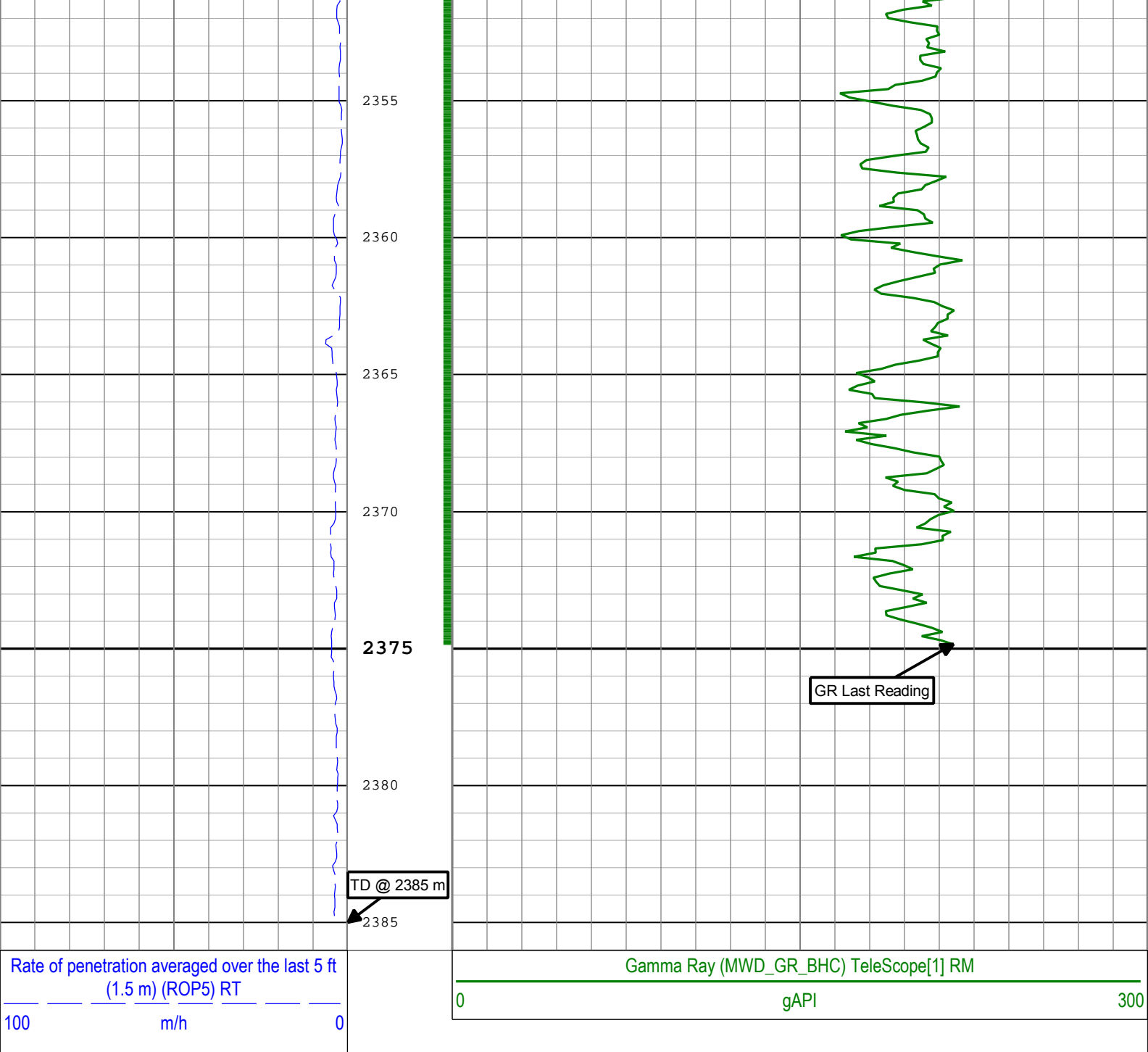












—TICKS\_GR - Gamma Ray Tick Marks TeleScope[1] RM

Description: TeleScope Gamma Ray Depth RT Format: Log ( GR MWD and PD with ticks ) Index Scale: 1:200 Index Unit: m Index Type: Measured  
Depth Creation Date: 19-Apr-2018 18:52:26

## 17.5 in. Section Composite

## MWD - Gamma Ray 1:1000 MD

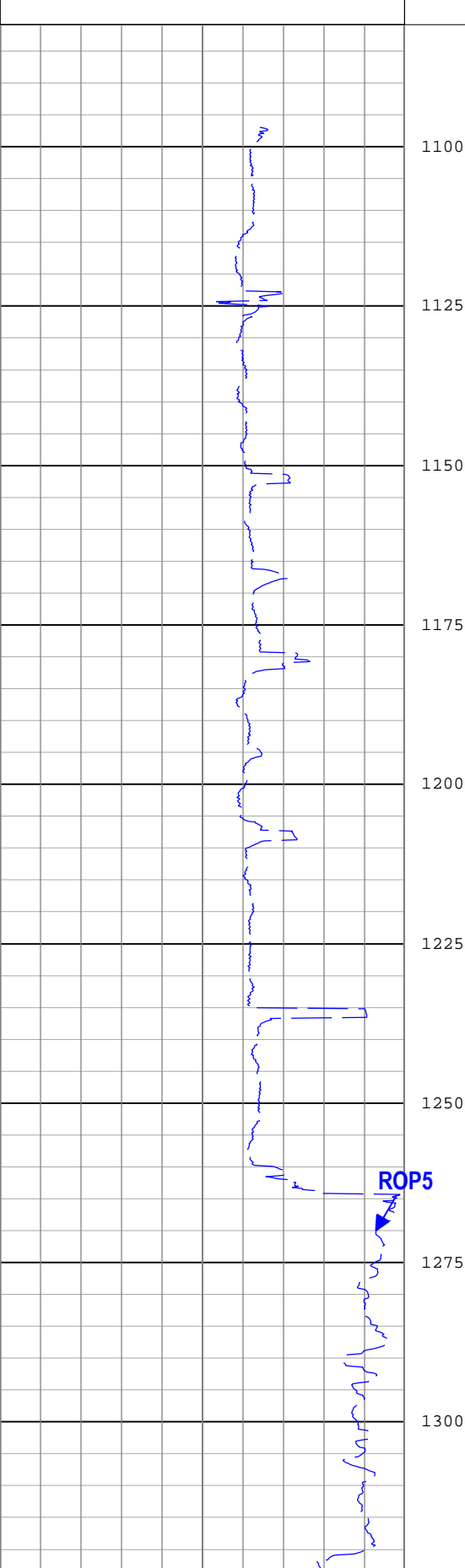
### Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run 4	Drilling	Down	1263.70 m	2185.64 m	06-Apr-2018 15:01:35	13-Apr-2018 09:39:39	Yes
Run 4	Ream Down 1	Down	1092.33 m	1264.01 m	07-Apr-2018 08:59:11	07-Apr-2018 16:00:37	Yes
Run 5	Ream Down 1	Down	2174.34 m	2185.64 m	14-Apr-2018 02:05:50	14-Apr-2018 02:39:27	Yes
Run 5	Drilling	Down	2185.37 m	2384.81 m	13-Apr-2018 10:30:25	17-Apr-2018 09:51:19	Yes

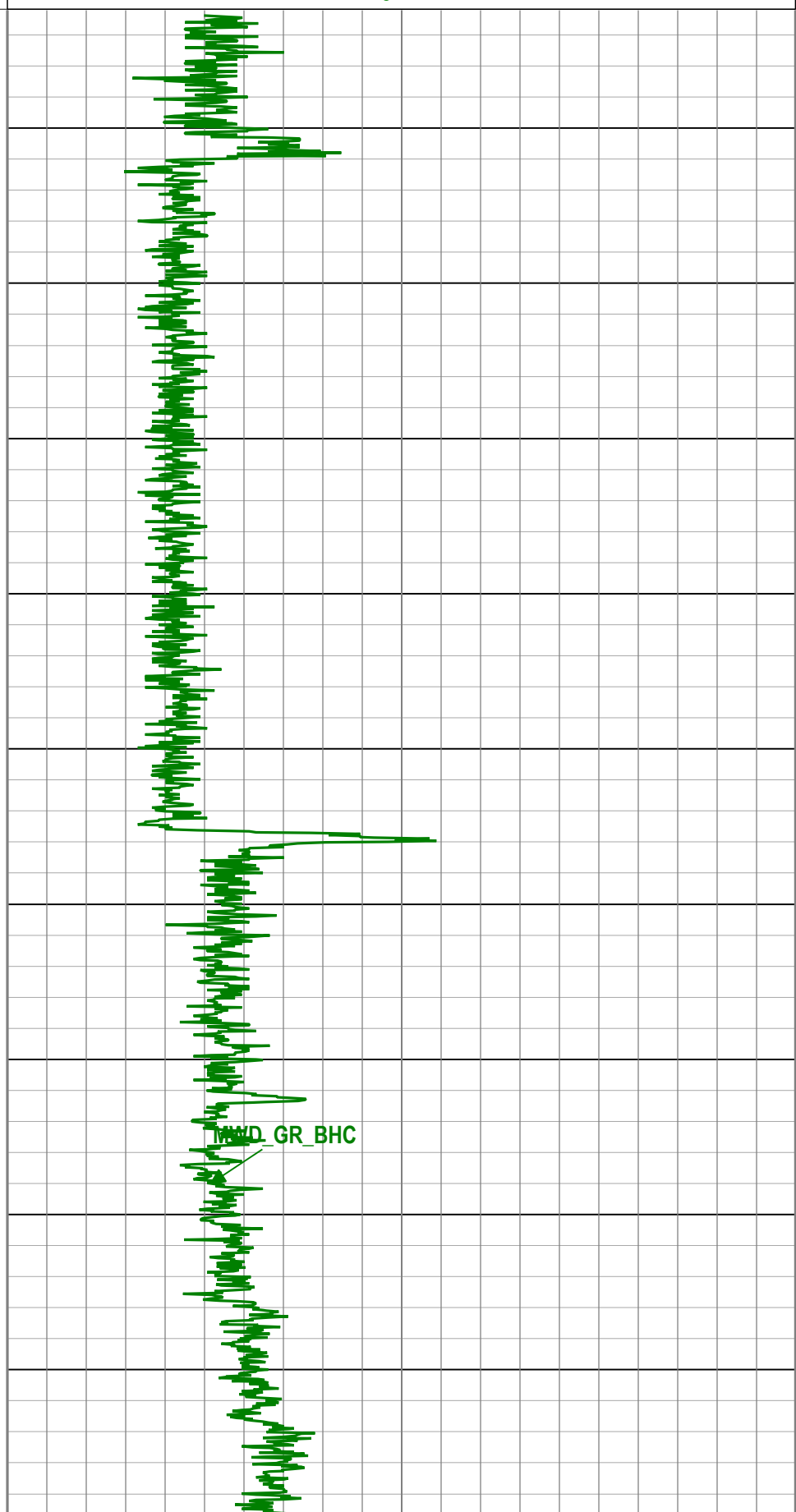
All depths are referenced to toolstring zero

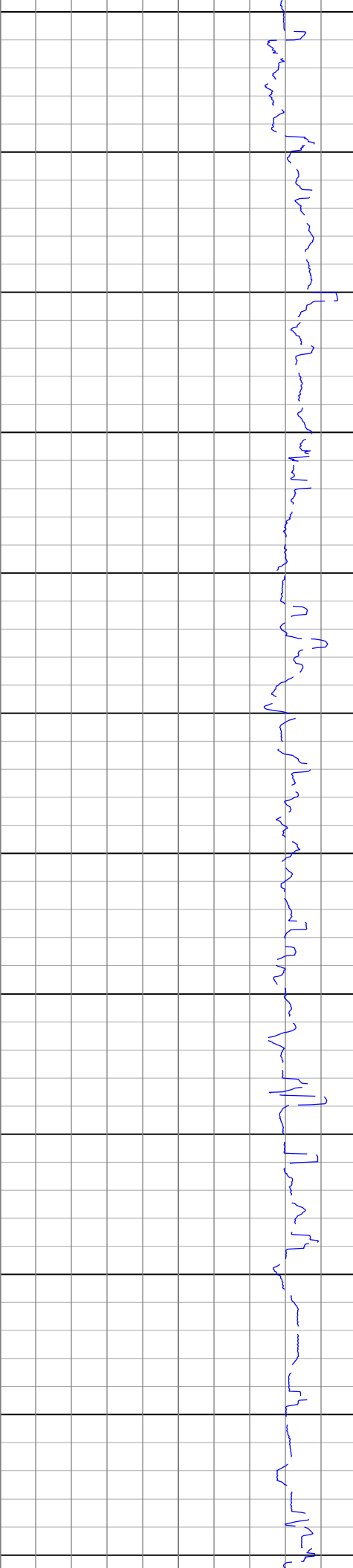
Description: TeleScope Gamma Ray Depth RT Format: Log ( GR MWD and PD no ticks ) Index Scale: 1:1000 Index Unit: m Index Type: Measured  
Depth Creation Date: 19-Apr-2018 18:52:34

Rate of penetration averaged over the last 5 ft  
(1.5 m) (ROP5) RT  
100 m/h 0

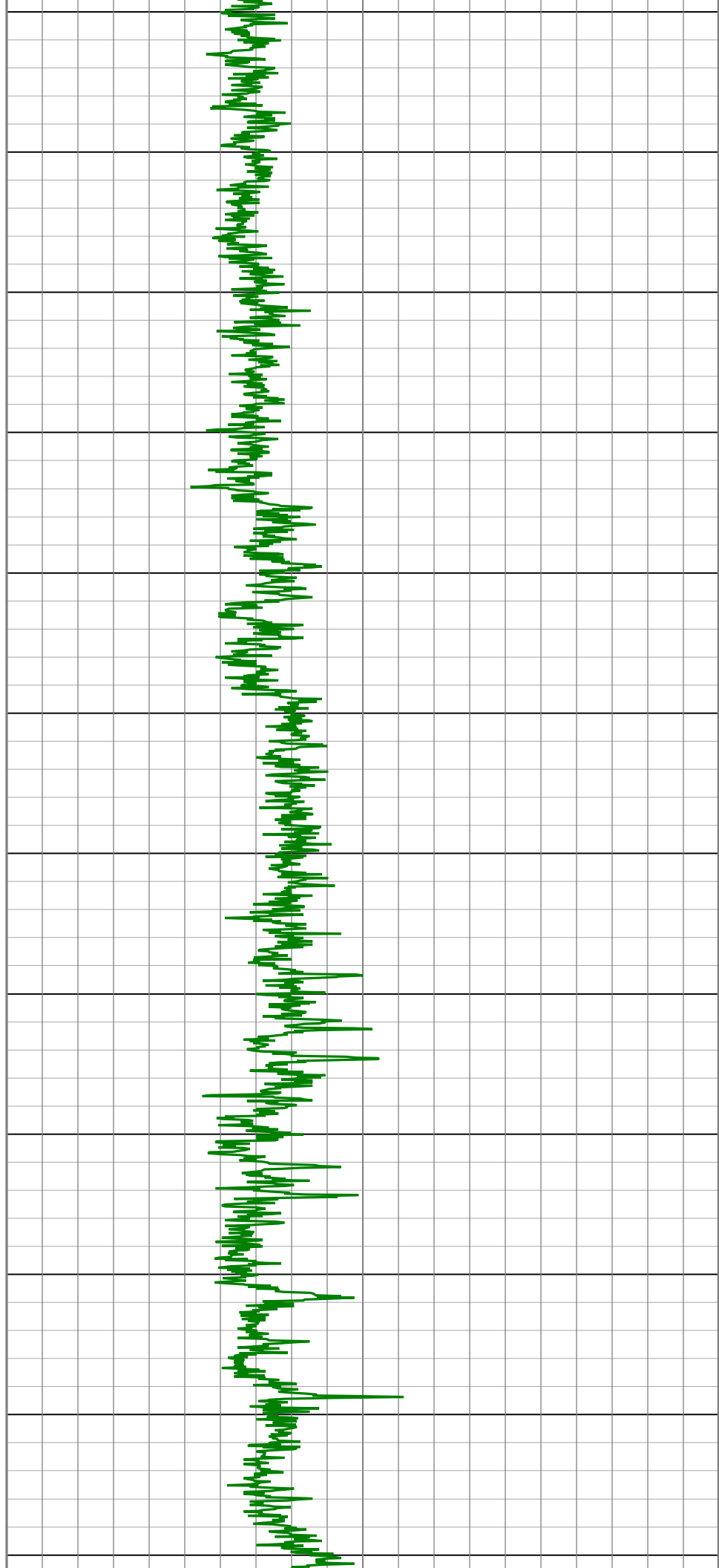


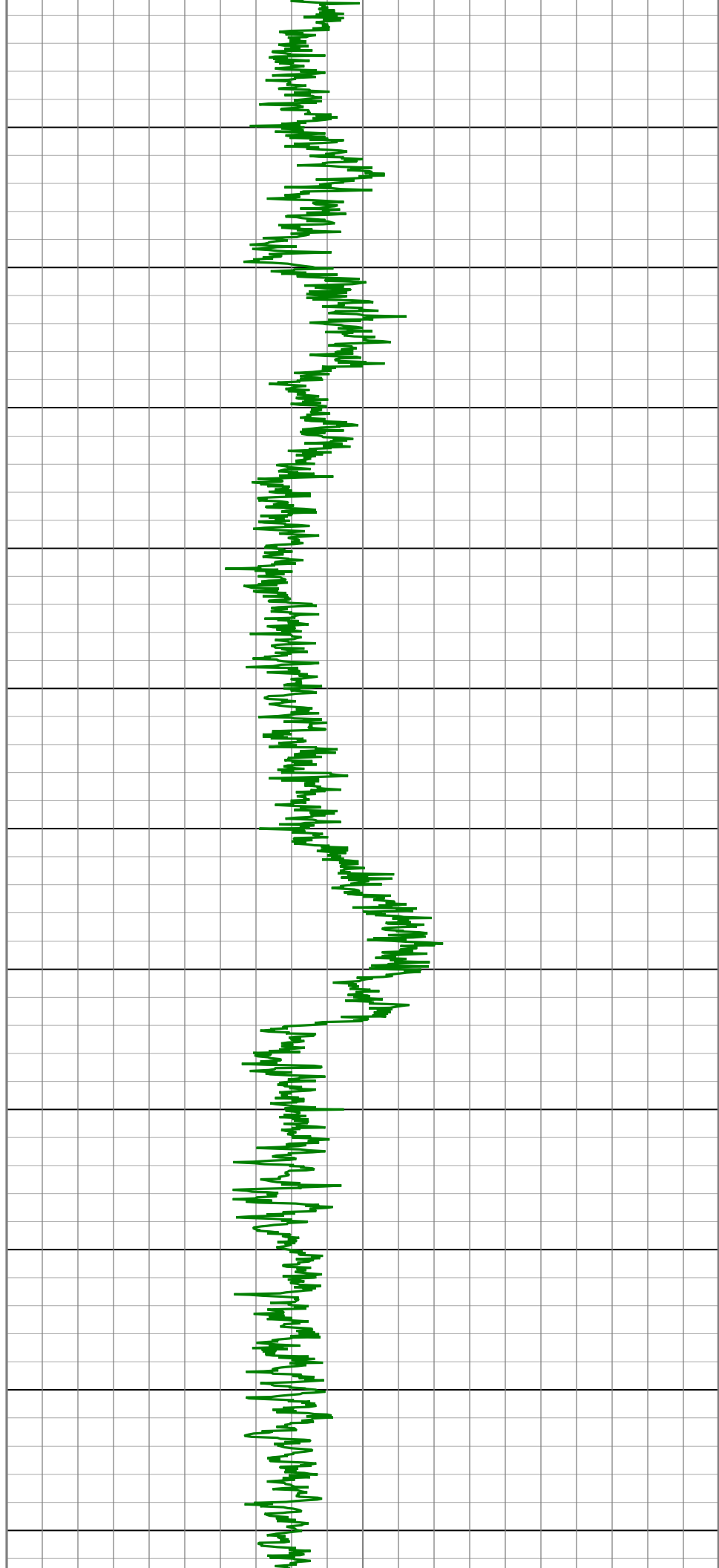
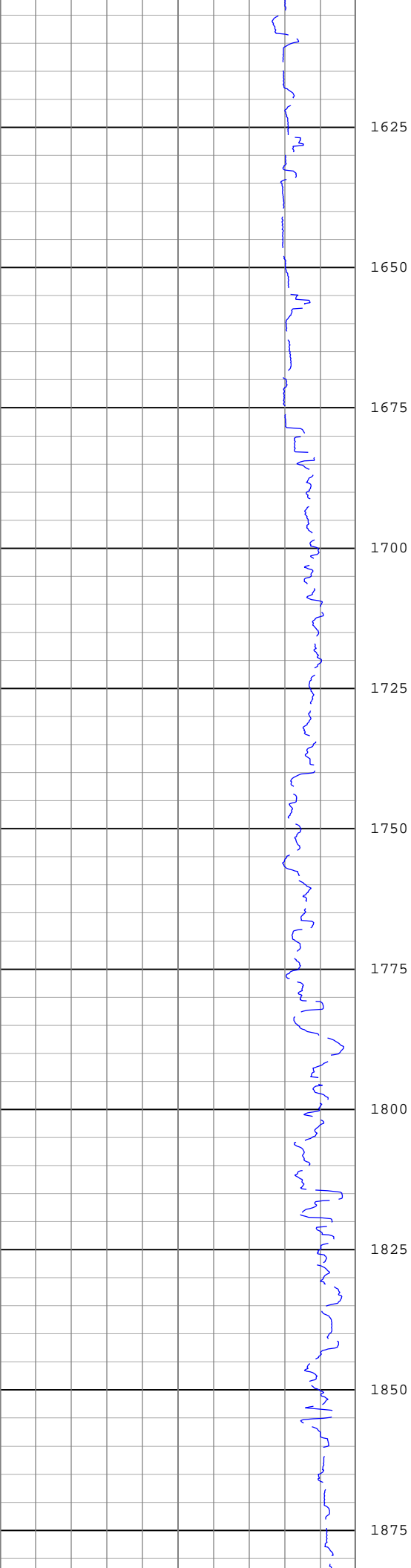
Gamma Ray (MWD\_GR\_BHC) TeleScope[1] RM  
0 gAPI 300



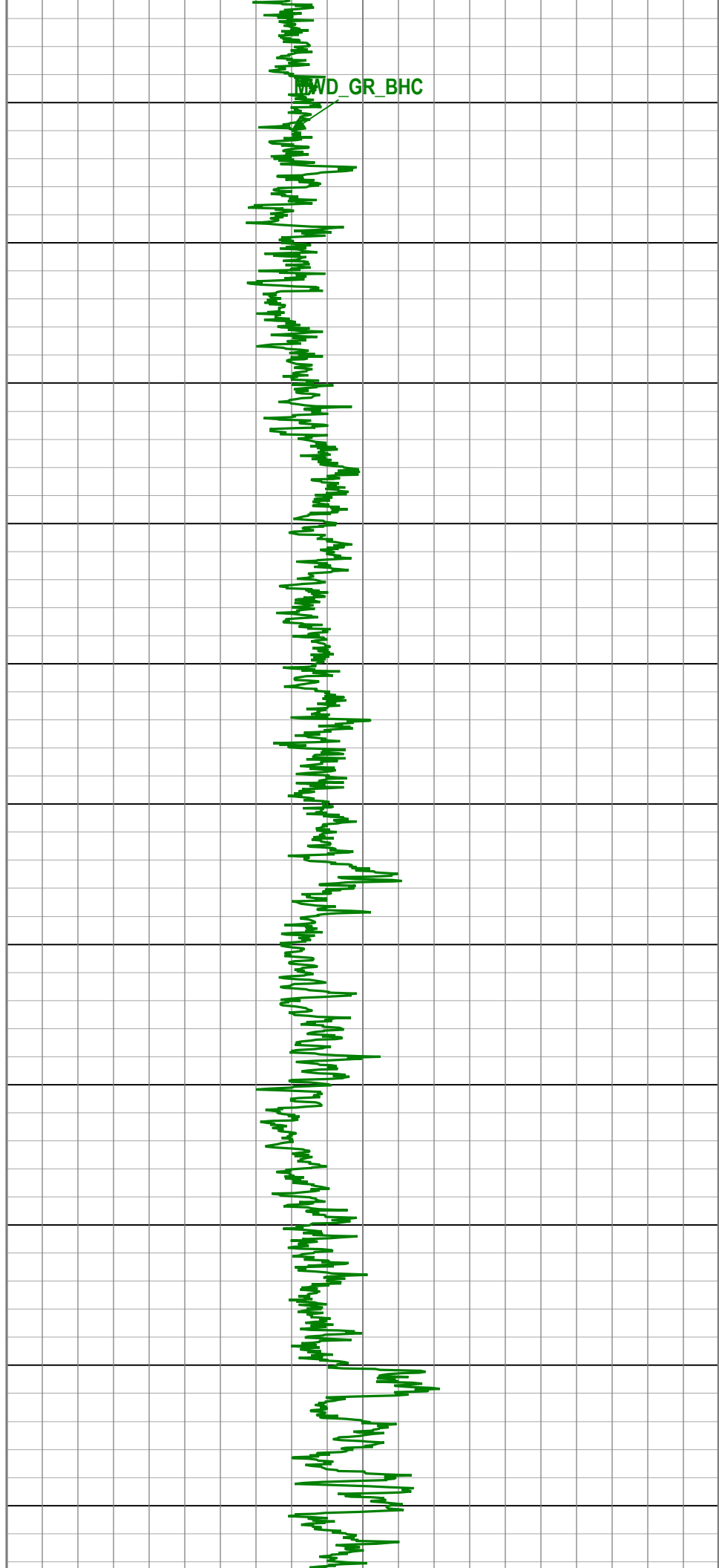
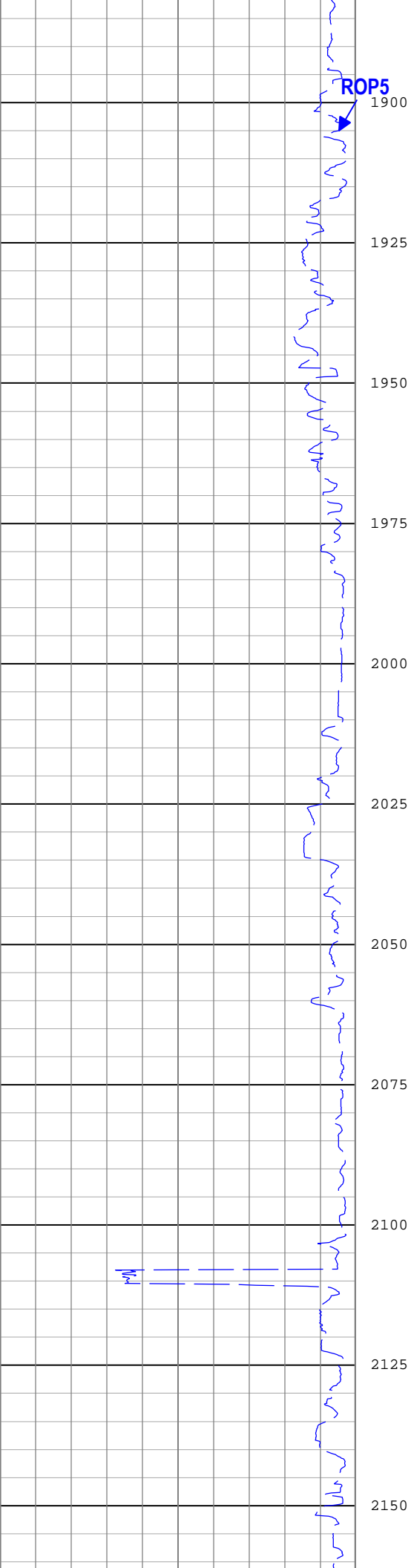


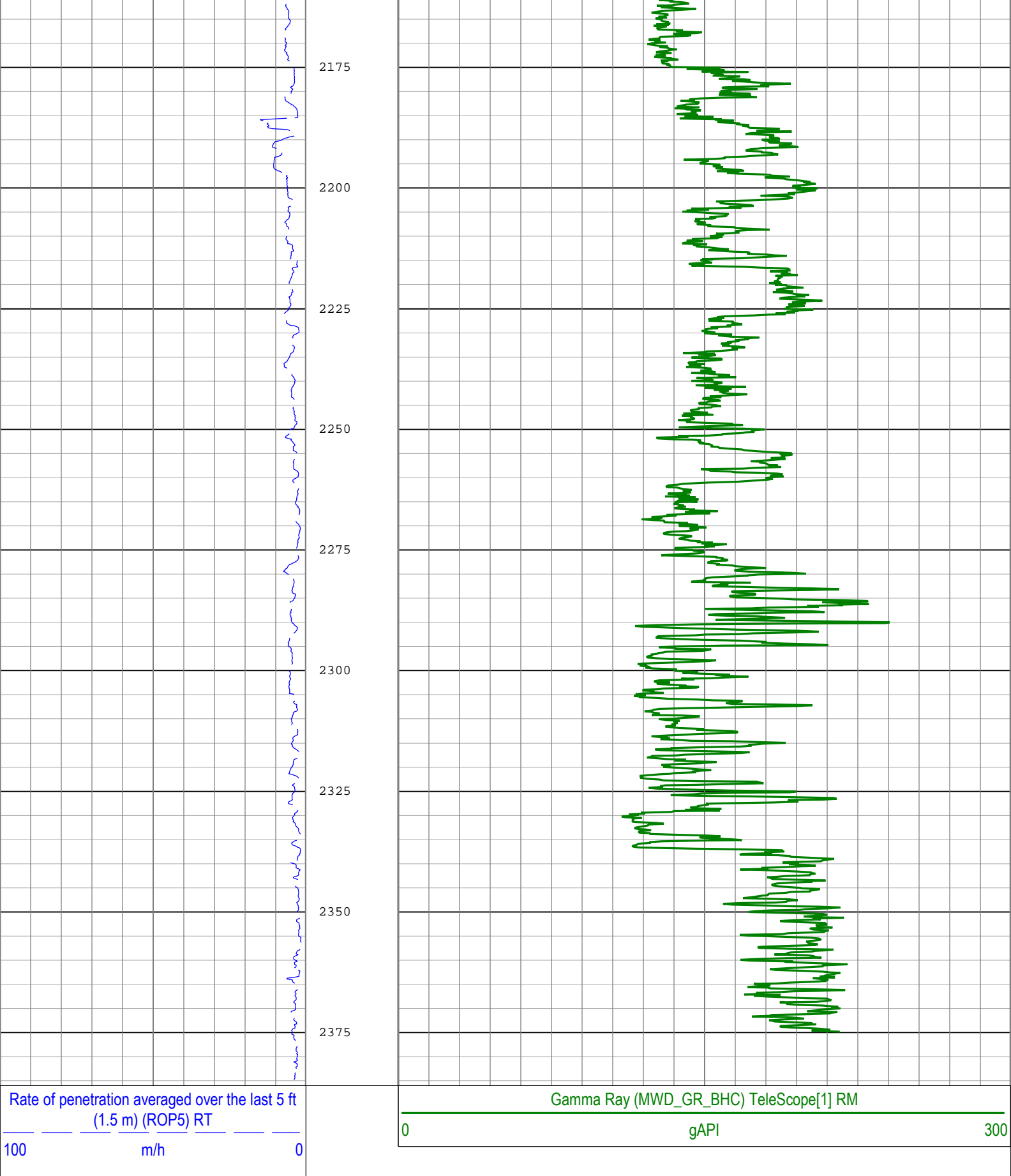
1325  
1350  
1375  
1400  
1425  
1450  
1475  
1500  
1525  
1550  
1575  
1600











Description: TeleScope Gamma Ray Depth RT    Format: Log ( GR MWD and PD no ticks )    Index Scale: 1:1000    Index Unit: m    Index Type: Measured  
Depth    Creation Date: 19-Apr-2018 18:52:34

## Channel Processing Parameters

### Run 4: Parameters

Parameter	Description	Tool	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	3.42	%

BS	Bit Size	DNMSESSION	Depth Zoned	in
DFD	Drilling Fluid Density	Borehole	1.2	g/cm3
GR_SRC	GR Input Channel Name	TELE900	GAMMA_CPS	

Run 4Depth Zoned Parameters			
Parameter	Value	Start ( m )	Stop ( m )
BS	24	1081	1105
BS	17.5	1105	2185.64
All depth are actual.			

Run 5: Parameters				
Parameter	Description	Tool	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	5	%
BS	Bit Size	DNMSESSION	17.5	in
DFD	Drilling Fluid Density	Borehole	1.27	g/cm3
GR_SRC	GR Input Channel Name	TELE900	GAMMA_CPS	

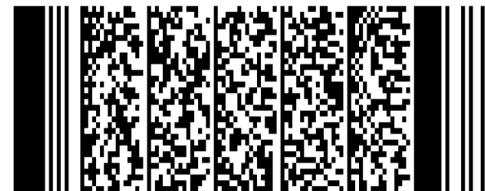
Tool Control Parameters				
Calibration Report				

TELE900 (TeleScope 900) Calibration - Run 4							
Primary Equipment :							
Gamma Ray Cartridge		PMGR		223			
GAMMA_SF - Gamma Ray: Blanket							
Master (Time Frame File):		17:50:15 02-Mar-2018					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div></div>
Gamma Ray Calibration Gain		Master	1.0000	0.7500	0.8431	1.2500	<div><div></div><div></div><div></div><div></div></div>

TELE900 (TeleScope 900) Calibration - Run 5							
Primary Equipment :							
Gamma Ray Cartridge		PMGR		712			
GAMMA_SF - Gamma Ray: Blanket							
Master (Time Frame File):		13:45:44 19-Mar-2018					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div></div>
Gamma Ray Calibration Gain		Master	1.0000	0.7500	0.9608	1.2500	<div><div></div><div></div><div></div><div></div><div></div></div>

Company:	Trias Westland B.V.
Well:	NLW-GT-02-S1
Field:	Netherlands

Field: Naaldwijk  
Rig Name: KCA Deutag T-207



Country: The Netherlands

**Schlumberger**  
MWD - Gamma Ray  
Recorded Mode, Composite