

Rig:	ISDL 453
Field:	Tuna
Location:	Bass Strait
Well:	TNA A15A
Company:	ESSO Australia Pty. Ltd.

<h1>Gamma Ray Service</h1> <h2>1:500 Measured Depth</h2> <h3>Real Time log</h3>			
Total depth:	3283.0 m	K.B.	Top Drive
Spud date:	24-Nov-2004	G.L.	-59.40 m
Runs:	1 To 4	D.F.	31.32 m
Permanent datum:	Mean Sea Level	Elev.:	0 m
Log measured from:	Drill Floor	31.32 m above Perm. datum	
Depth reference:	Driller's Depth		
API serial no.	Y = 5774406.79 m X = 624347.95 m	Longitude	Latitude
		E148°25'10.377"	S38°10'10.832"

Depth logged:	560.00 m	To 3264.24 m	Mag decl:	13.22°	Other services: Directional Drilling, D&I
Date logged:	25-Nov-04 To	07-Dec-04	Mag dip:	-68.66°	

Bore hole record				Casing record			
Hole size	from	to	Size	Density	from	to	
8 1/2 in.	560.0 m	3283.0 m	13 3/8 in.	54.5 lb/ft	Surface	550.0 m	

Surface equipment		Software record			
Unit	OLU-FB-924	IDEAL wis	ID9_1C_01		
Depth system	DES-AB-9663	SPM	HSPM9_2C_08		
		LWD	N/A		
		MWD	V7.0 C00		

<p style="text-align: center;">DISCLAIMER</p> <p>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 OF 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.</p>		
<p>OTHER SERVICES FOR RUN1</p> <p>Directional Drilling</p> <p>Directional Surveys</p>	<p>OTHER SERVICES FOR RUN2</p> <p>Directional Drilling</p> <p>Directional Surveys</p>	<p>OTHER SERVICES FOR RUN3</p> <p>Directional Drilling</p> <p>Directional Surveys</p>
<p>REMARKS: RUN NUMBER 1</p> <p>8-1/2 in. hole was drilled from 560.0m to 1413.0m MD.</p> <p>Depth is referenced to Driller's Depth.</p> <p>Gamma Ray corrected for Tool Size, Bit Size and Mud Weight.</p> <p>Mud Type is KCl/PHPA/Glycol.</p> <p>POOH to investigate Tools. Gamma Ray data from 1393.0m to 1395.0m MD was affected due to the presence of noise.</p>	<p>REMARKS: RUN NUMBER 2</p> <p>8-1/2 in. hole was drilled from 1413.0m to 2475.0m MD.</p> <p>Depth is referenced to Driller's Depth.</p> <p>Gamma Ray corrected for Tool Size, Bit Size and Mud Weight.</p> <p>Mud Type is KCl/PHPA/Glycol.</p> <p>POOH to change saver sub on Top Drive and change bit.</p>	<p>REMARKS: RUN NUMBER 3</p> <p>8-1/2 in. hole was drilled from 2475.0m to 2630.0m MD.</p> <p>Depth is referenced to Driller's Depth.</p> <p>Gamma Ray corrected for Tool Size, Bit Size and Mud Weight.</p> <p>Mud Type is KCl/PHPA/Glycol.</p> <p>POOH due to low penetration rate.</p>

EQUIPMENT DESCRIPTION

RUN1

RUN2

RUN3

DOWNHOLE EQUIPMENT

6–3/4 in. PowerPulse*

MDC: V875–AE
MEC: 1533–BB
MDI: 1565–CA
MGR: 565–AA
DHS: 7.0C00

D&I — 19.45

GR — 18.81



23.81

6–5/8 in. NM Pony
S/N: ASS15700



15.31

8–3/8 in. NM Roller Reamer
S/N: GU2299



13.75

6–7/16 in. NM Pony
S/N: 9612058



11.64

7 in. PowerPak* Motor
A700GT 7:8
S/N: N7311
1.5 deg. Bent Housing
8–3/8 in. Motor Sleeve



9.19

DOWNHOLE EQUIPMENT

6–3/4 in. PowerPulse*

MDC: 401–AB
MEC: 1542–BB
MDI: 1559–BC
MGR: 521–AA
DHS: 7.0C00

D&I — 19.43

GR — 18.78



23.67

6–5/8 in. NM Pony
S/N: ASS15700



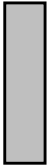
15.31

8–3/8 in. NM Roller Reamer
S/N: GU2299



13.75

6–7/16 in. NM Pony
S/N: 9612058



11.65

7 in. PowerPak* Motor
A700GT 7:8
S/N: N7268
1.0 deg. Bent Housing
8–3/8 in. Motor Sleeve



9.19

DOWNHOLE EQUIPMENT

6–3/4 in. PowerPulse*

MDC: 401–AB
MEC: 1542–BB
MDI: 1559–BC
MGR: 521–AA
DHS: 7.0C00

D&I — 19.43

GR — 18.78



23.67

6–5/8 in. NM Pony
S/N: ASS15700



15.31

6–7/16 in. NM Pony
S/N: 9612058



13.75

8–3/8 in. NM Roller Reamer
S/N: GU2299

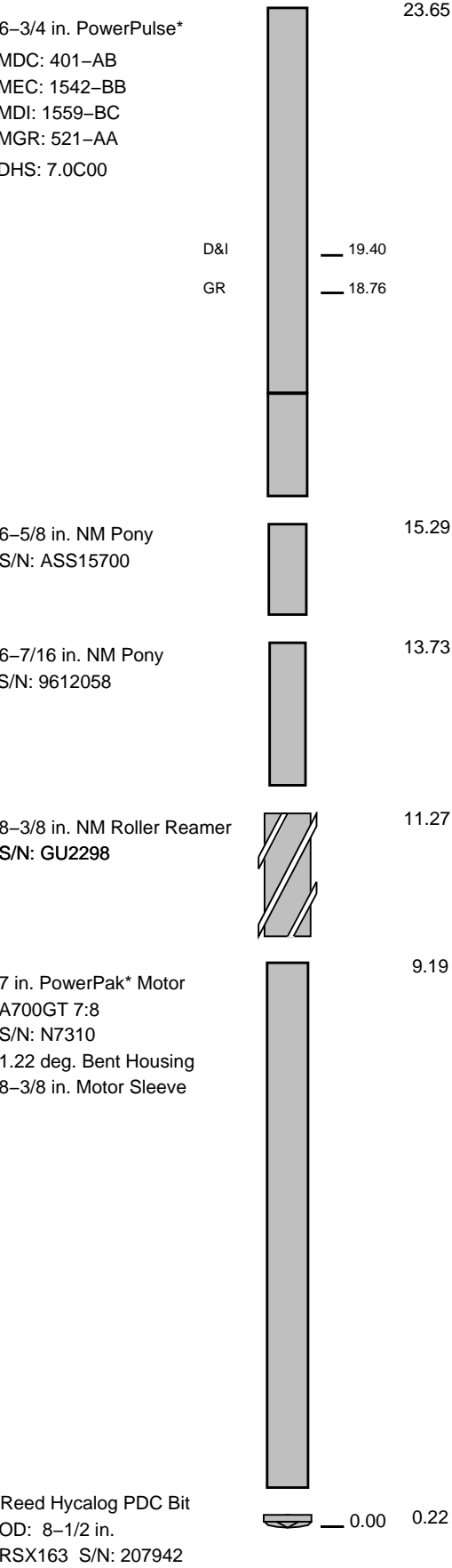


11.29

7 in. PowerPak* Motor
A700GT 7:8
S/N: N7268
1.22 deg. Bent Housing
8–3/8 in. Motor Sleeve



9.19



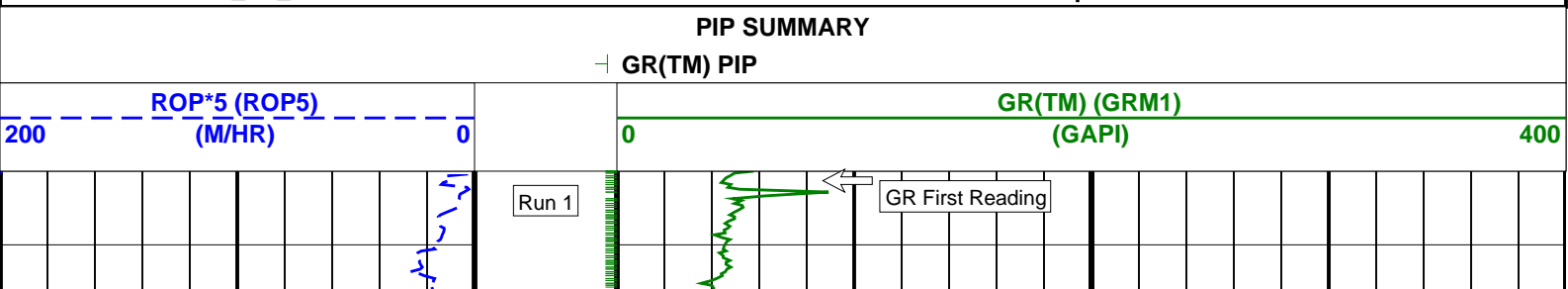
Maximum string diameter 8.50 in.
All lengths in Meters

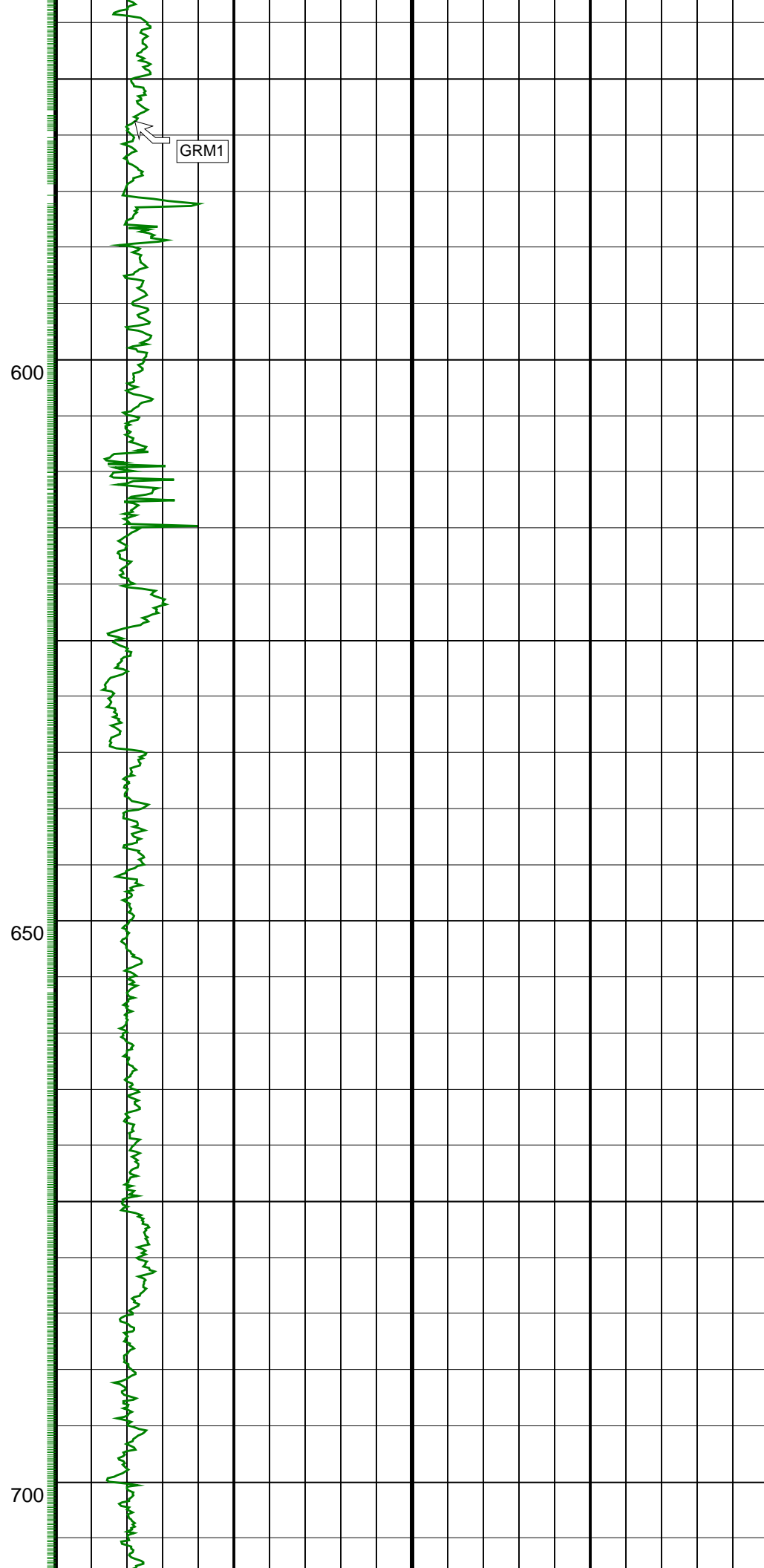
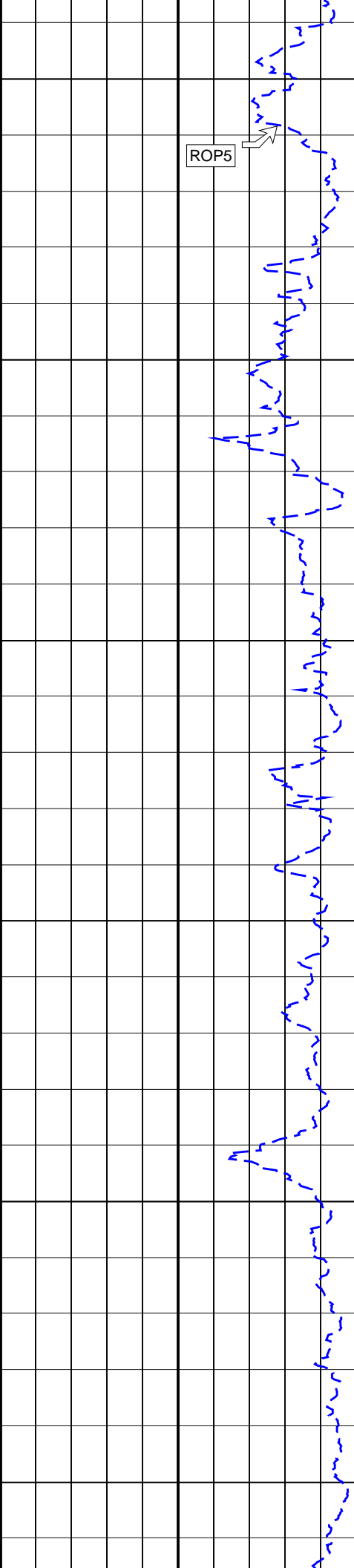
Bit Run Summary

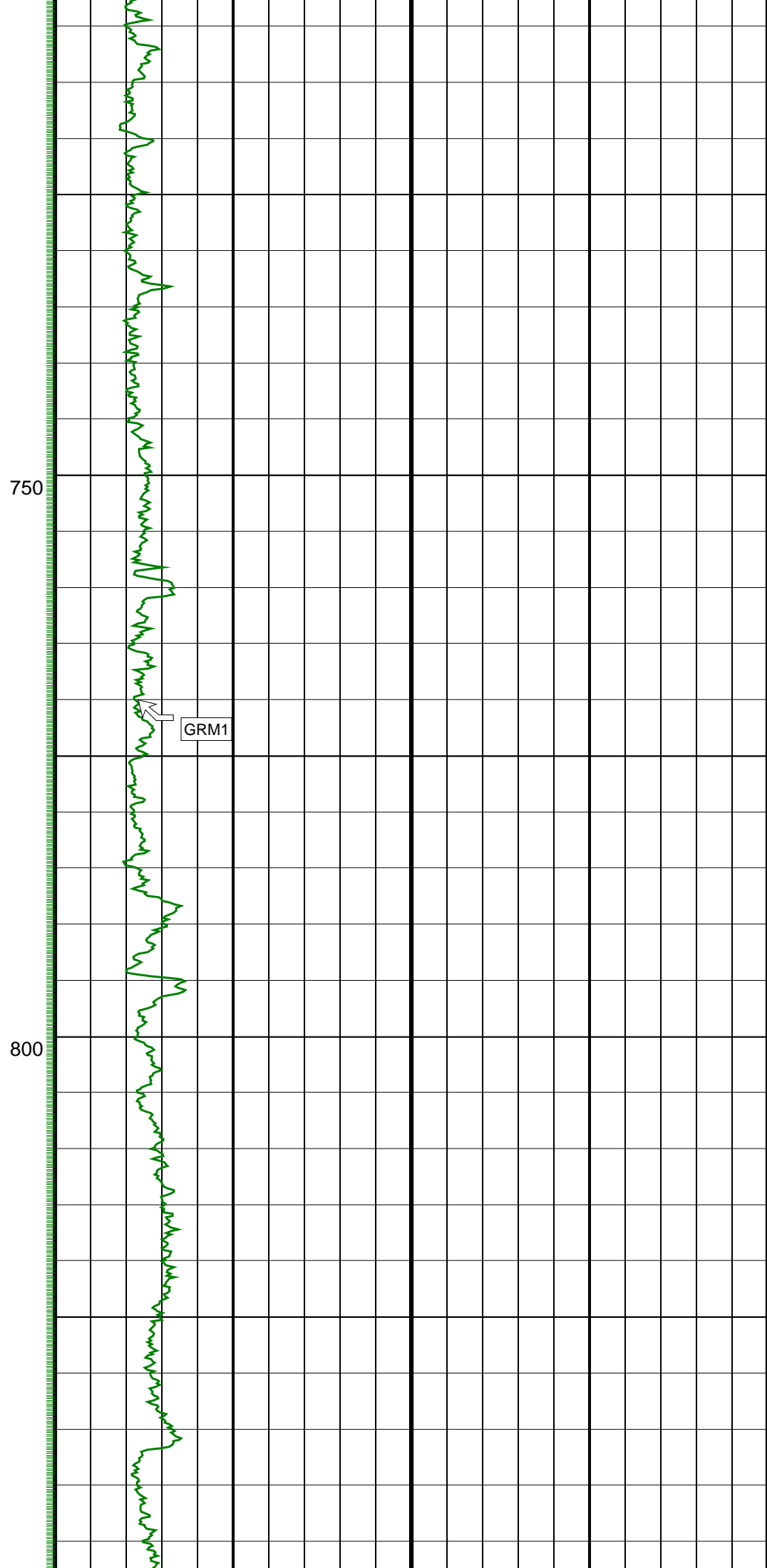
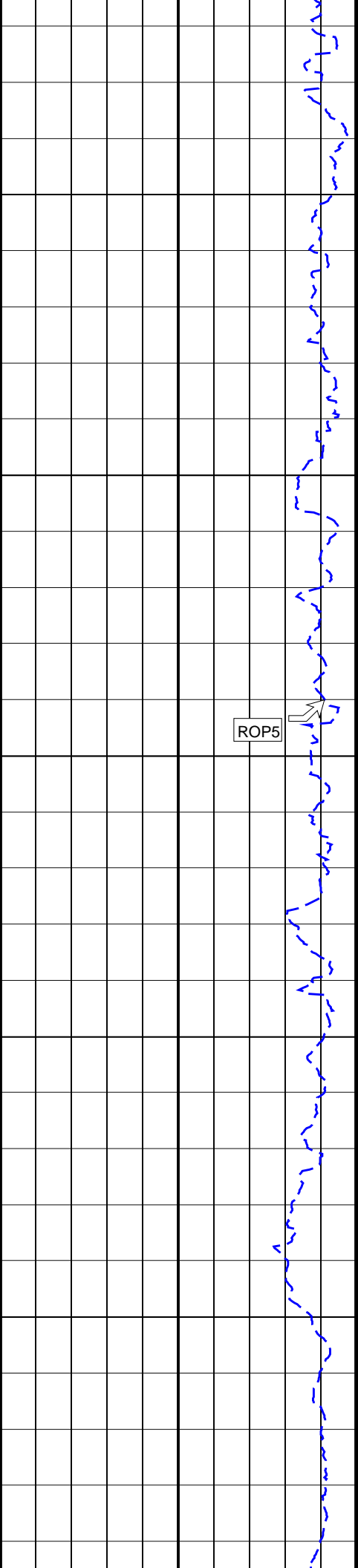
Run number		1	2	3	4					
Bit size	in.	8.5	8.5	8.5	8.5					
Bit start depth	m	560.0	1413.0	2475.0	2630.0					
Bit end depth	m	1413.0	2475.0	2630.0	3283.0					
Top interval logged	m	560.0	1394.2	2456.2	2610.6					
Bottom interval logged	m	1394.2	2456.2	2610.6	3264.2					
Begin log: time		08:50	14:03	01:21	02:04					
Begin log: date		25-Nov-04	28-Nov-04	03-Dec-04	05-Dec-04					
End log: time		00:00	18:33	21:30	12:17					
End log: date		28-Nov-04	01-Dec-04	03-Dec-04	07-Dec-04					
Mud data										
Depth	m	1411.0	2475.0	2360.0	3283.0					
Type		KCI/PHPA/Gly.	KCI/PHPA/Gly.	KCI/PHPA/Gly.	KCI/PHPA/Gly.					
Mud weight	ppg	9.9	9.9	9.9	10.0					
Solids	%	6.7	7.6	7.6	7.7					
Chlorides	mg/L	36,000	43,000	43,000	43,000					
Rm	OHMM@°C	N/A	N/A	N/A	N/A					
Rmf	OHMM@°C	N/A	N/A	N/A	N/A					
Rmc	OHMM@°C	N/A	N/A	N/A	N/A					
Potassium	%	3.8	4.2	4.2	4.1					
Environmental data										
GR										
Mud weight	ppg	9.9	9.9	9.9	10.0					
Bit size	in.	8.5	8.5	8.5	8.5					
Resistivity										
Neutron porosity										
Hole Size										
Mud weight										
Temperature										
Mud salinity										
Formation salinity										
Recording rate 1	SEC	4.36	4.36	4.36	4.36					
Recording rate 2	SEC	N/A	N/A	N/A	N/A					
Filtering GR		3 pt	3 pt	3 pt	3 pt					
Filtering density										
Filtering Neutron										
Company representative		G. Campbell	B. Steel	T.Bassett						
Anadrill personnel		K. Handley	R. Borjas	A. DeCastro	D.Hastie	C. Cocks	T. Auger			

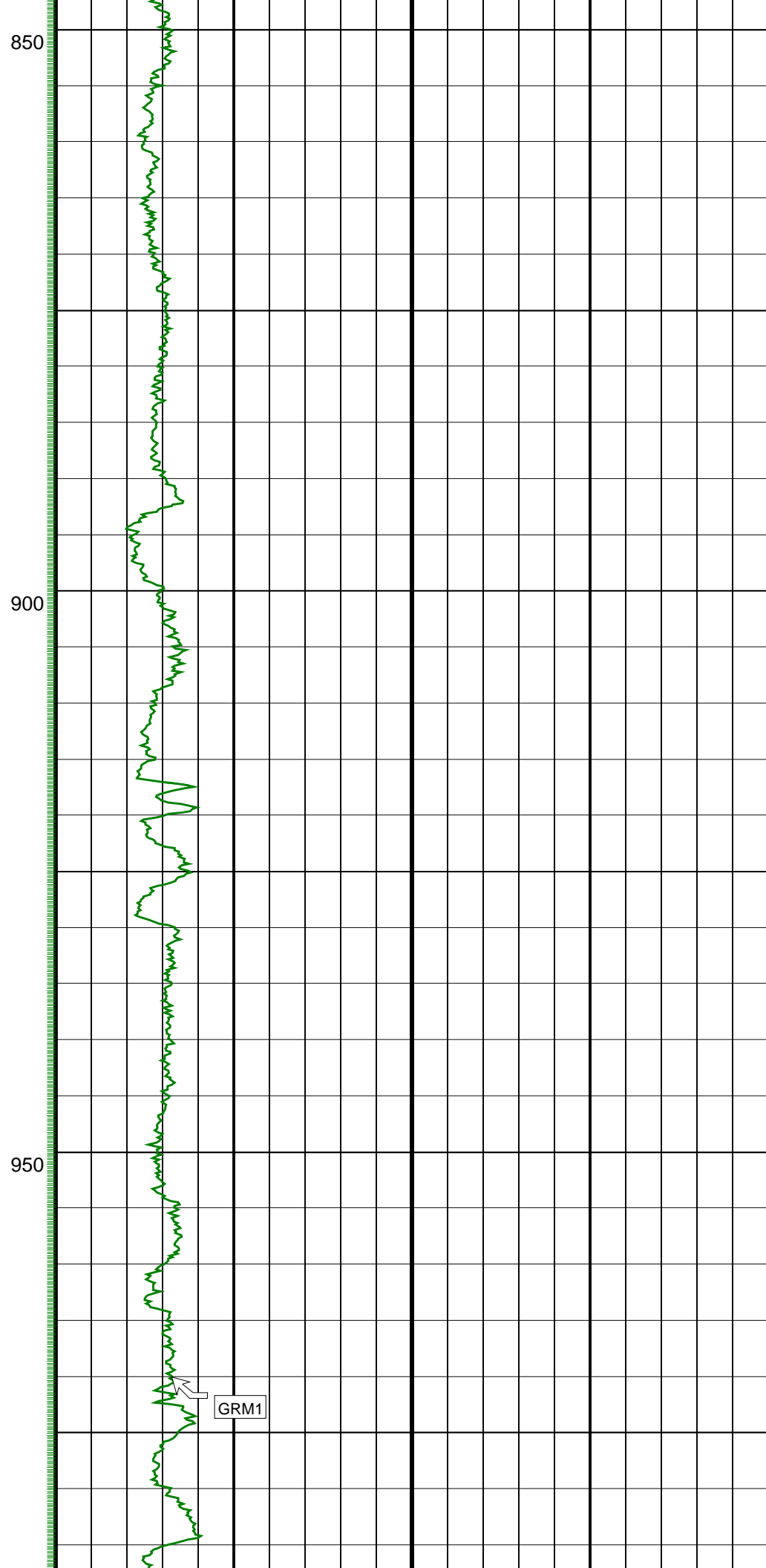
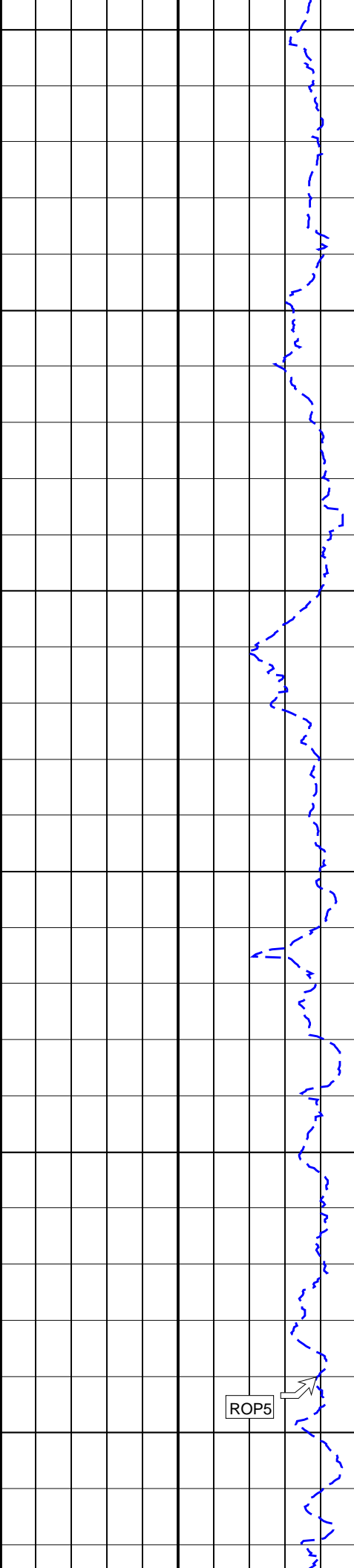
TNA A15A RT 1:500MD

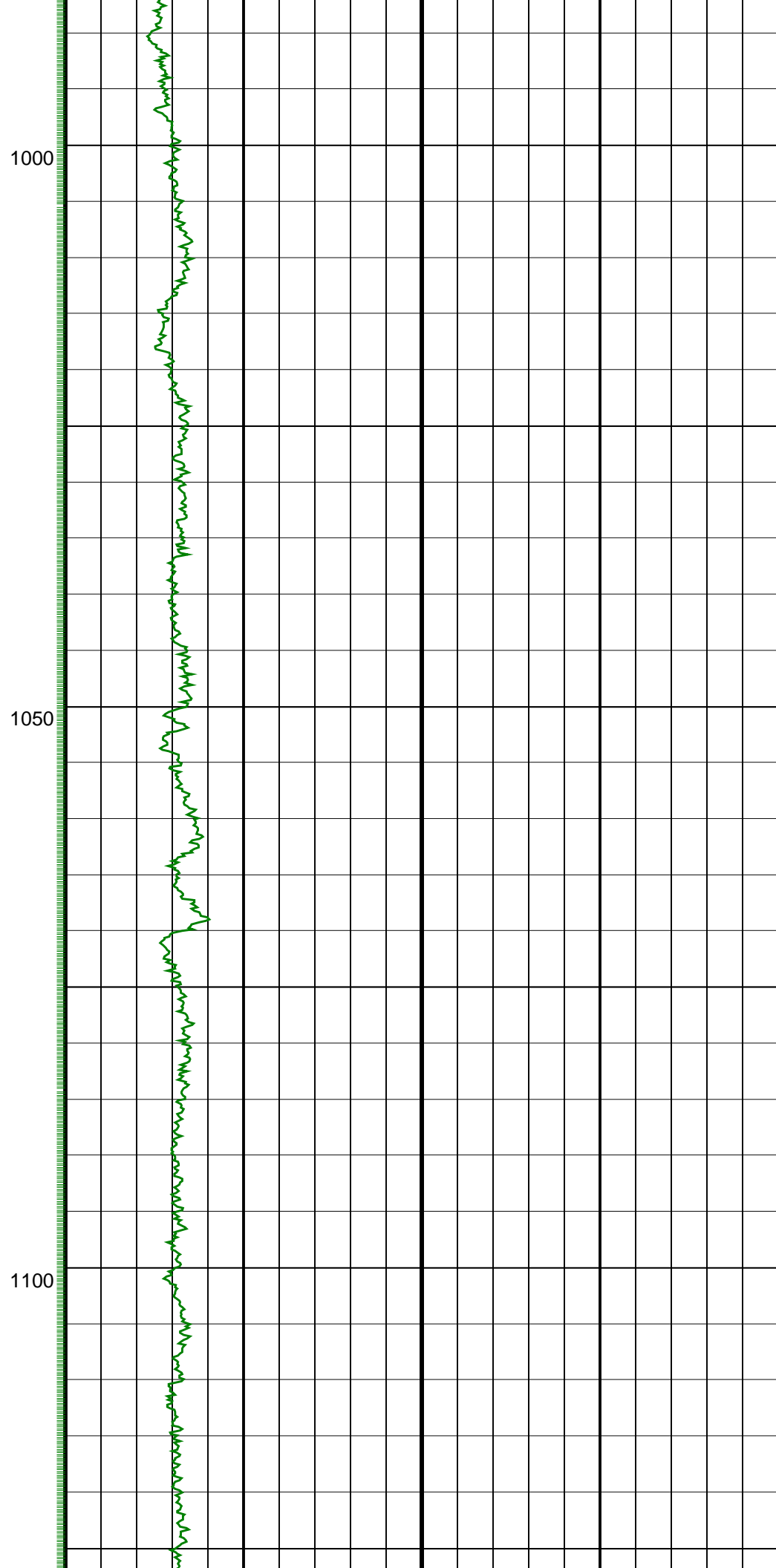
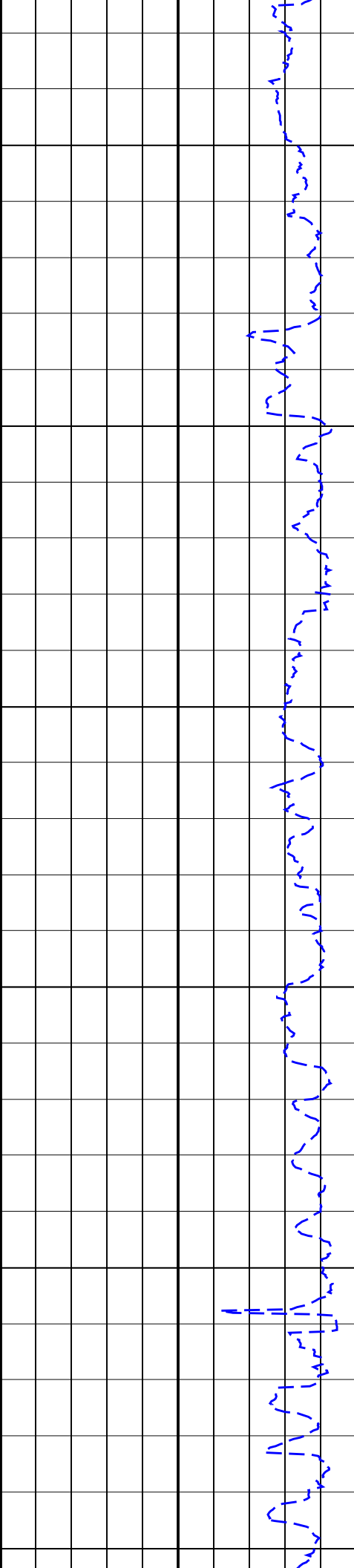
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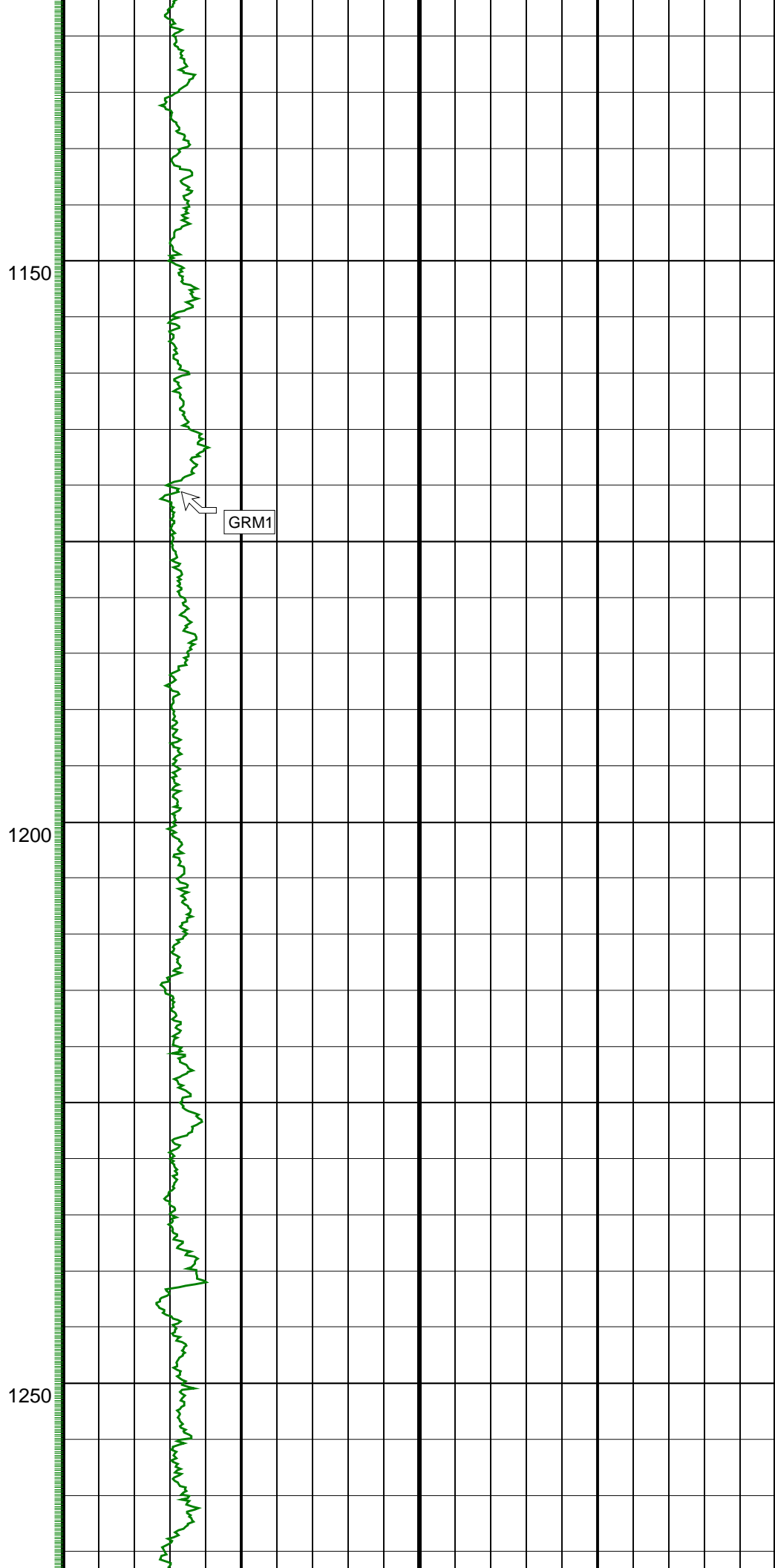
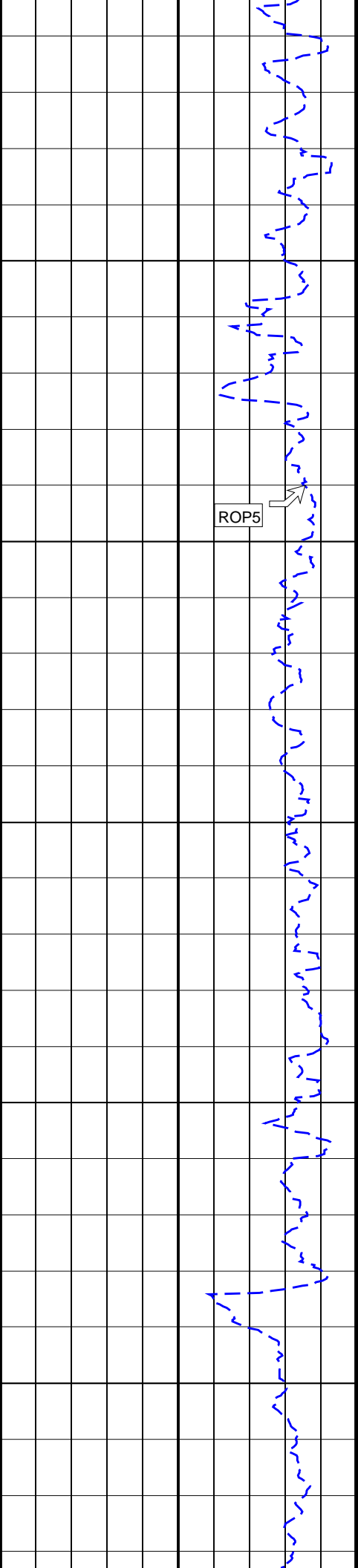


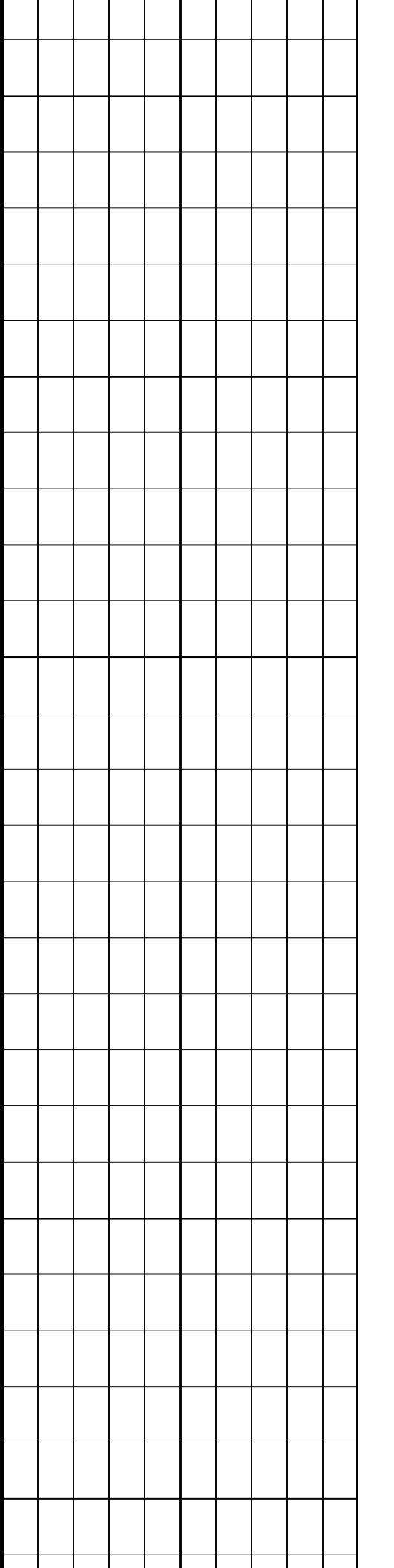
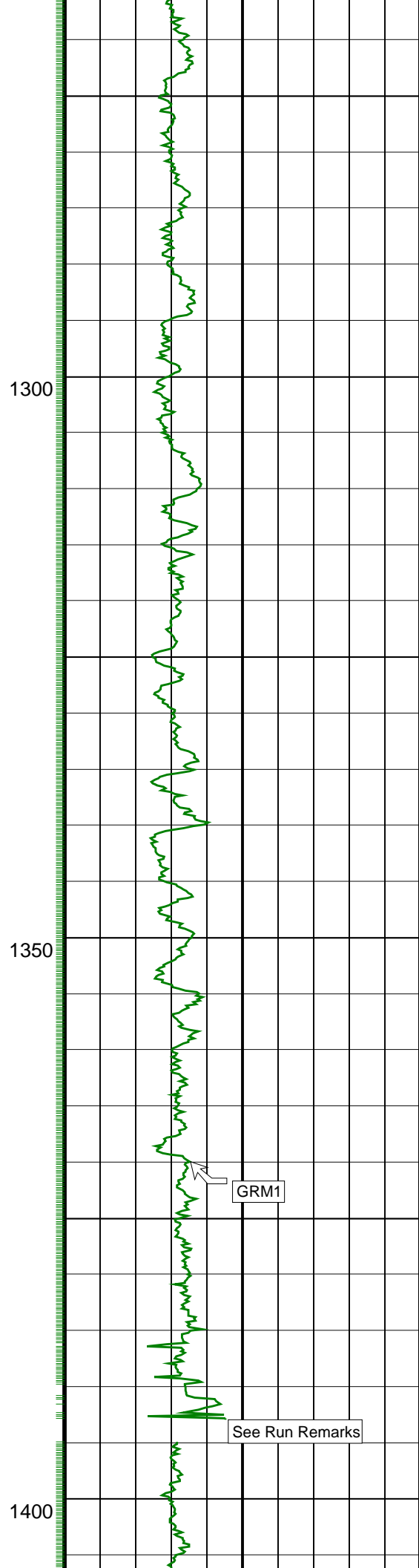
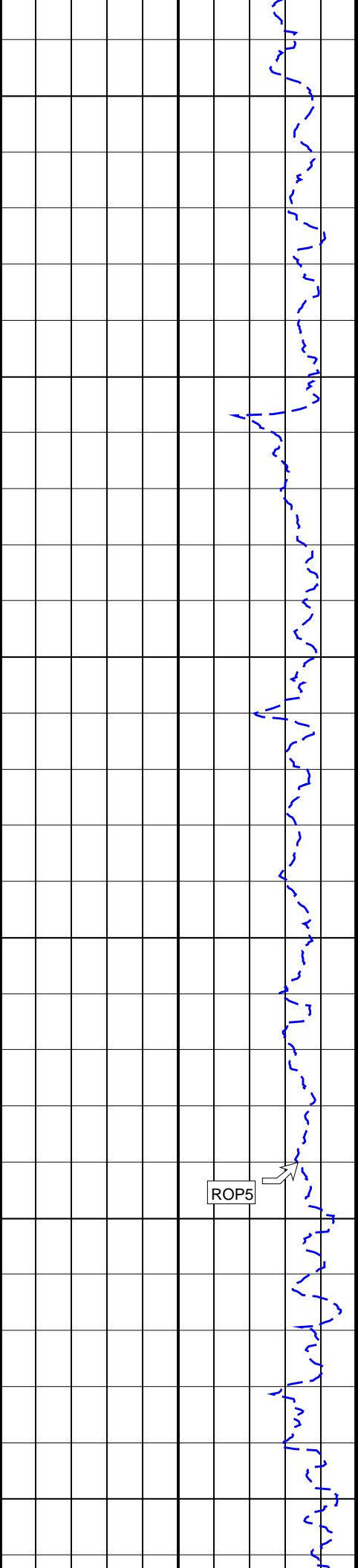


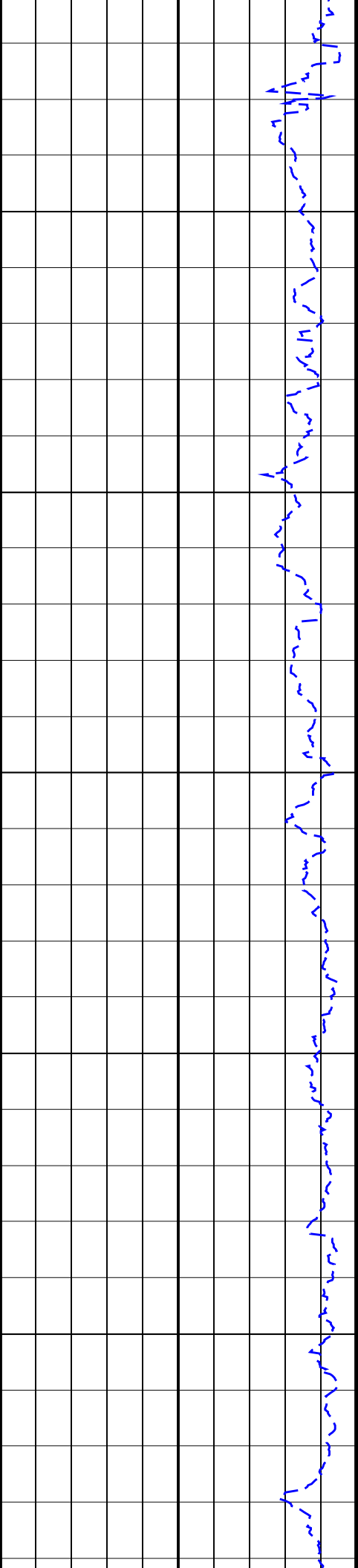








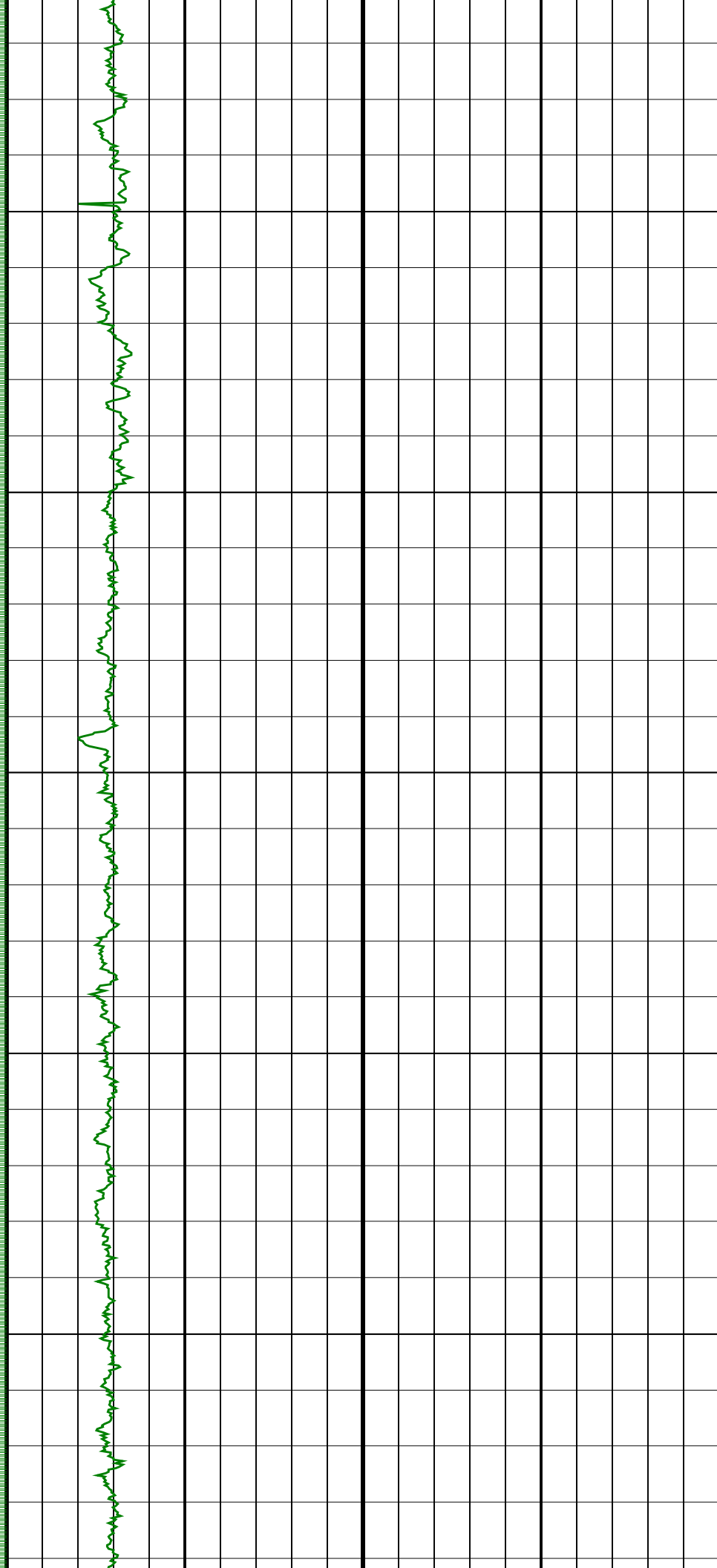


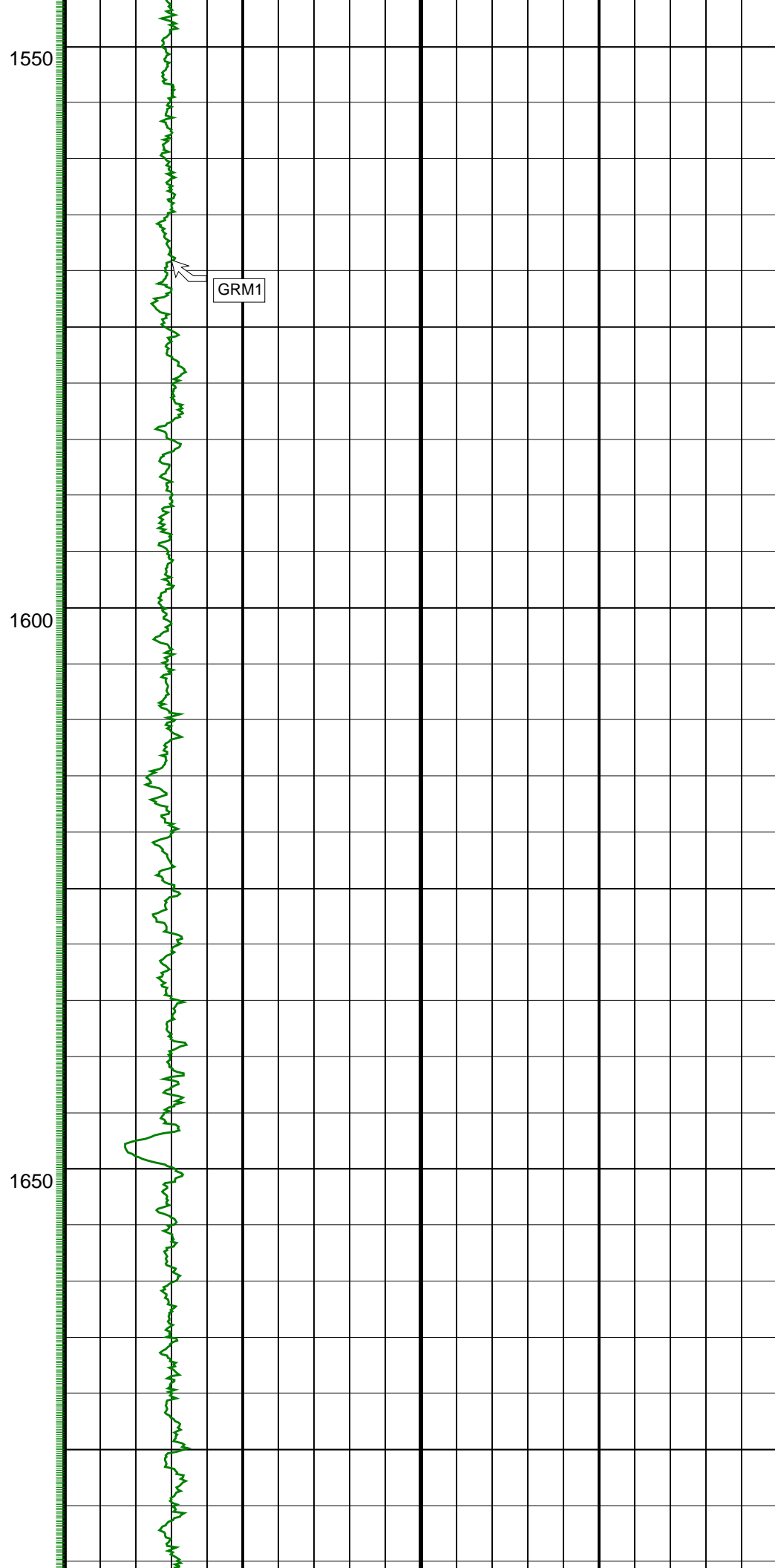
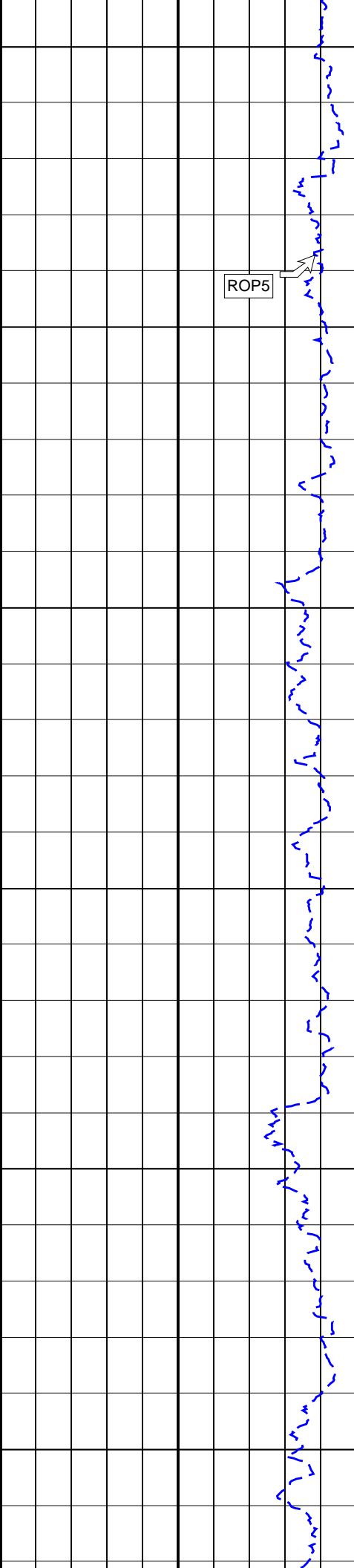


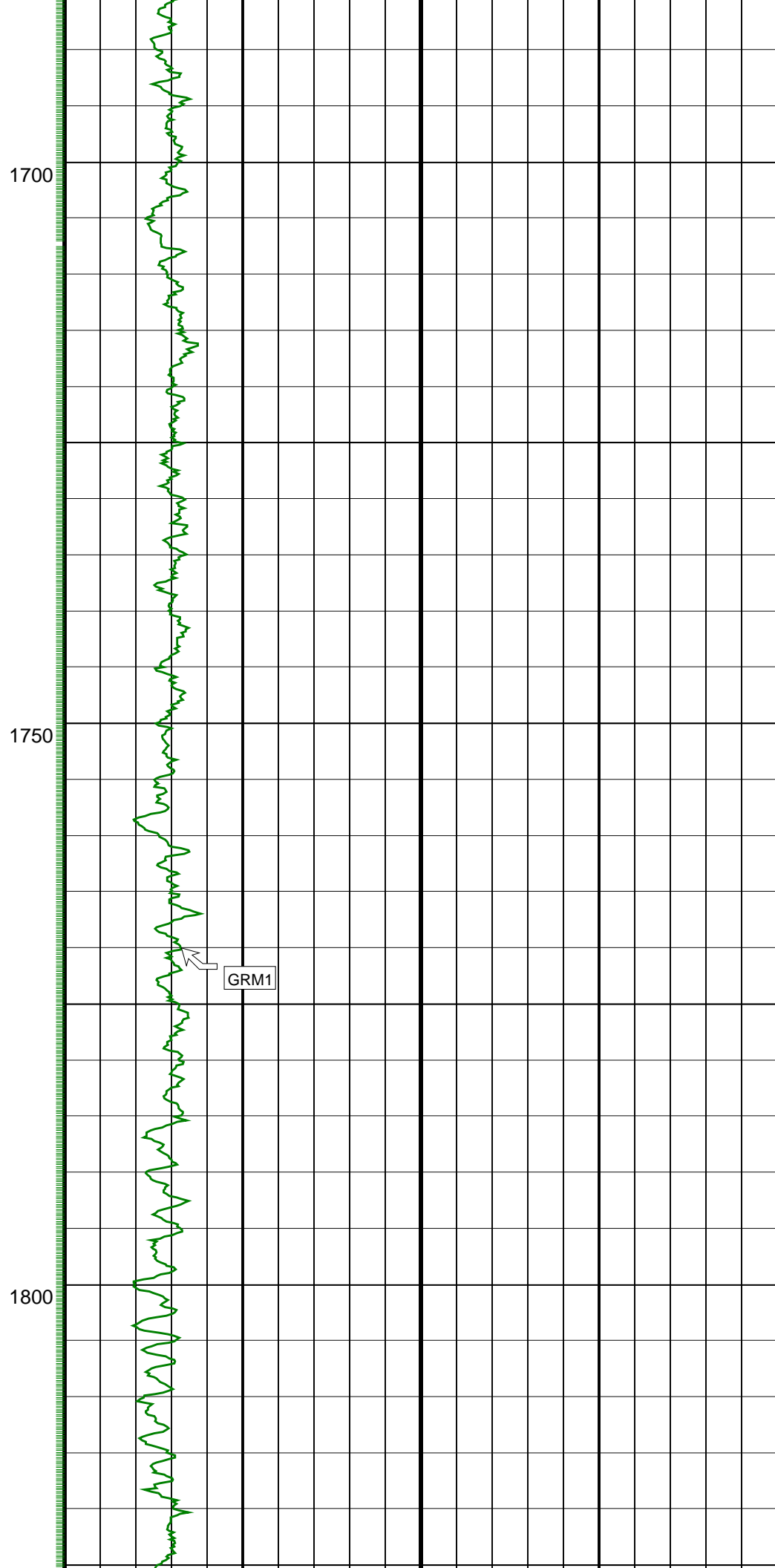
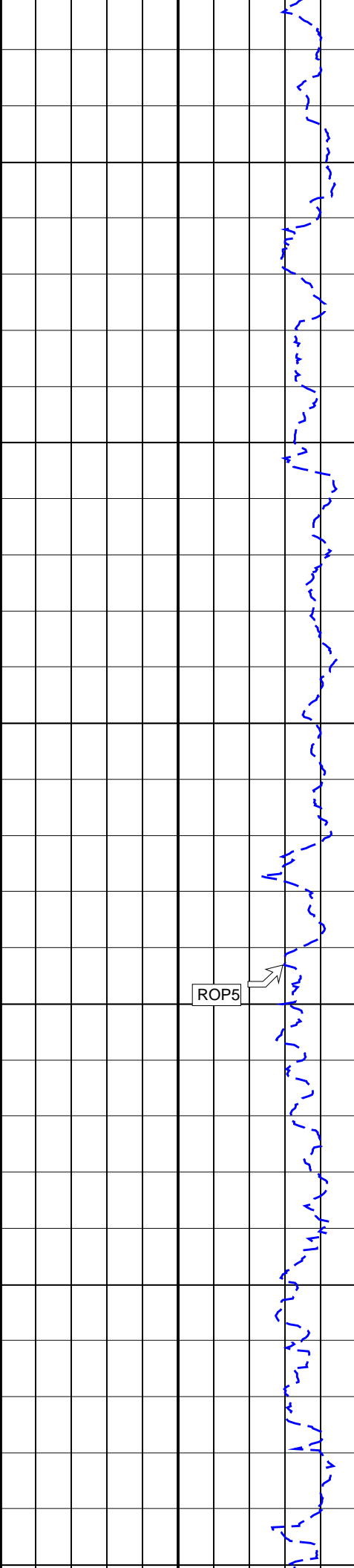
Run 2

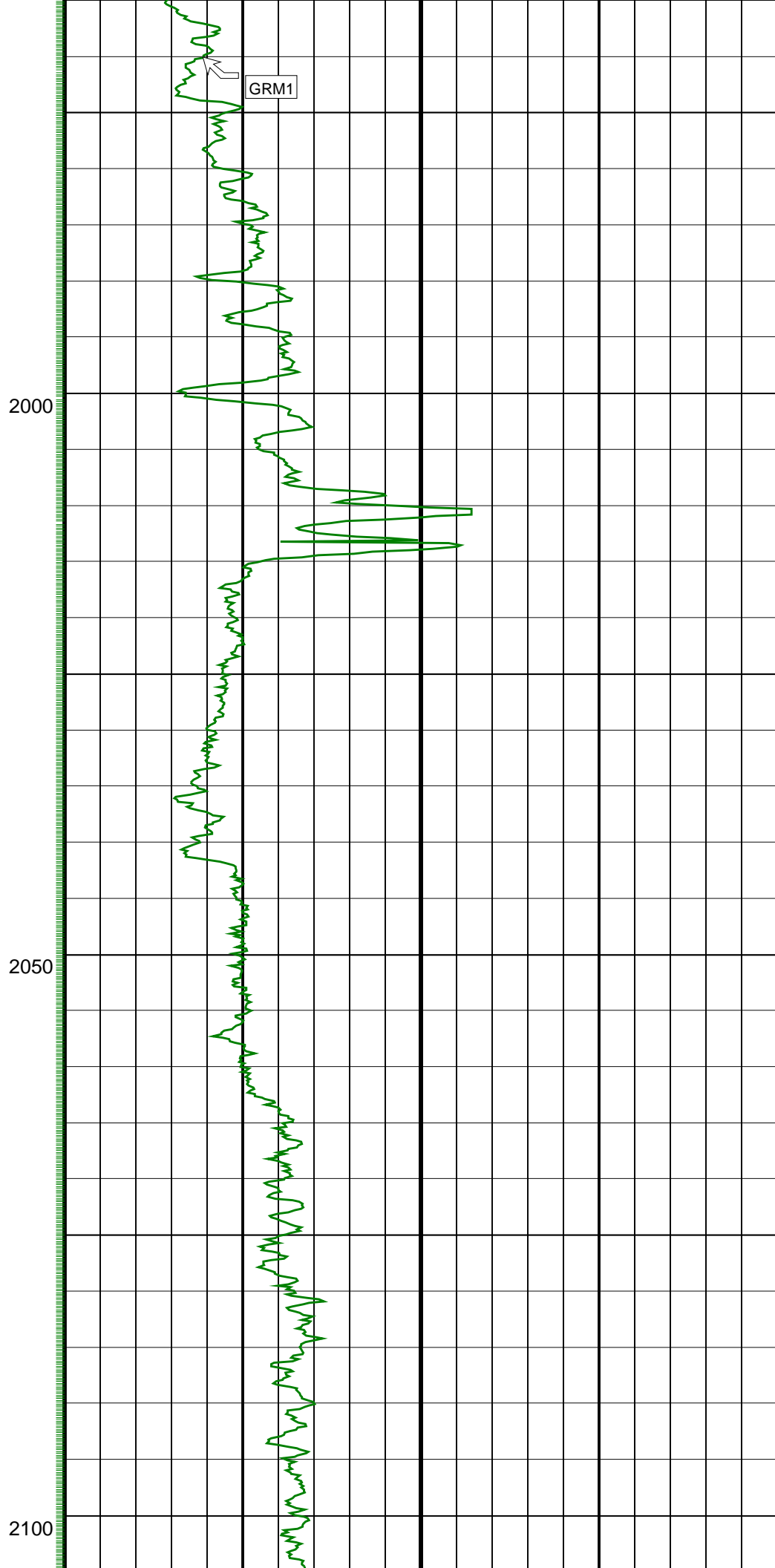
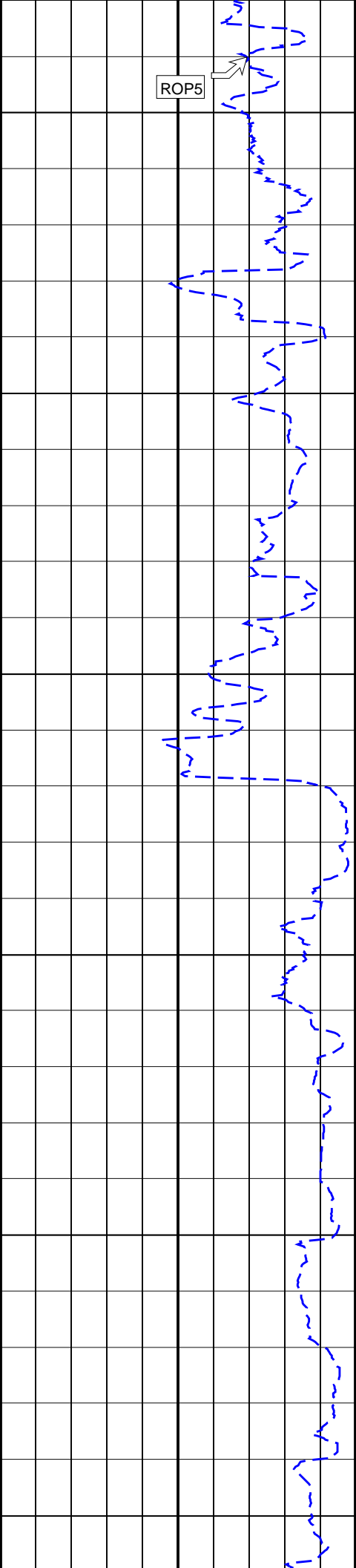
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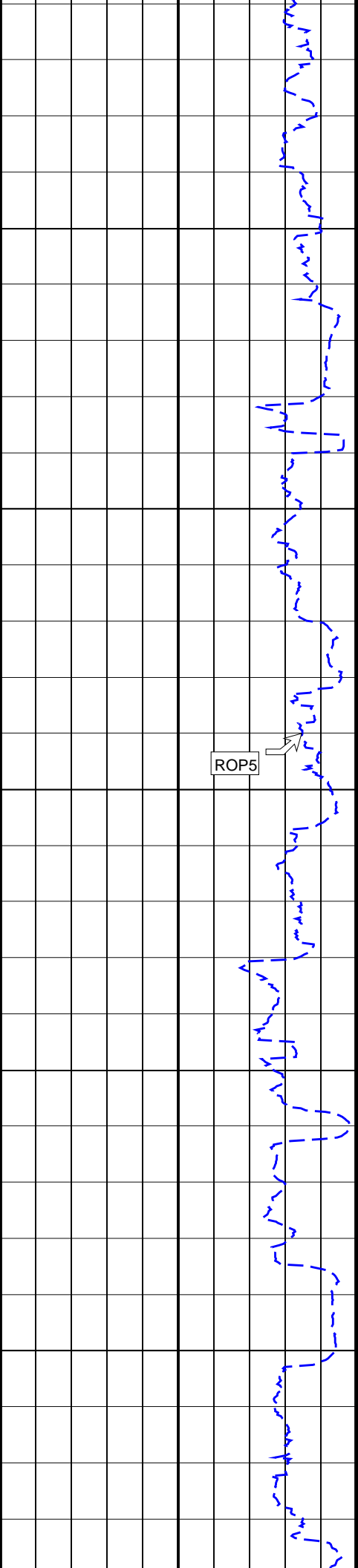
1500





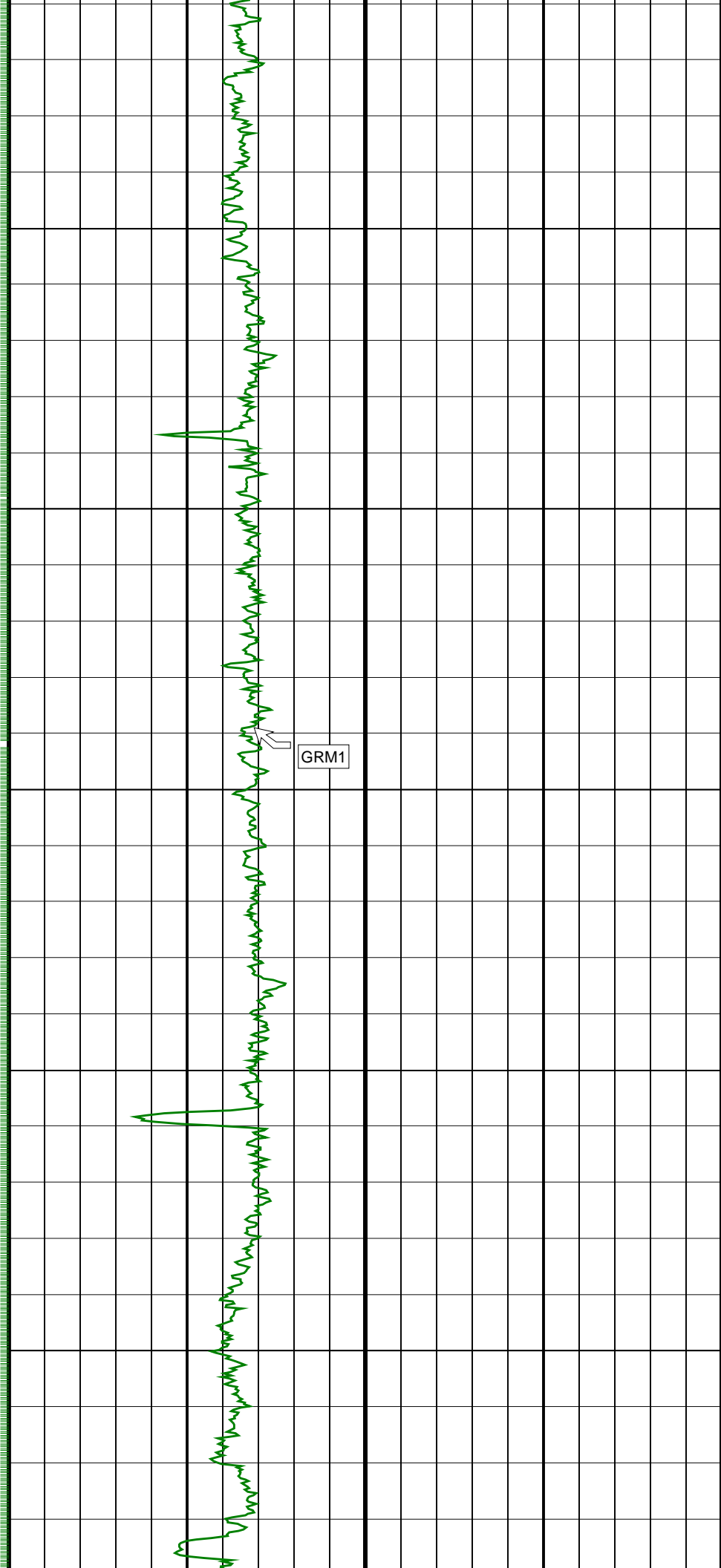


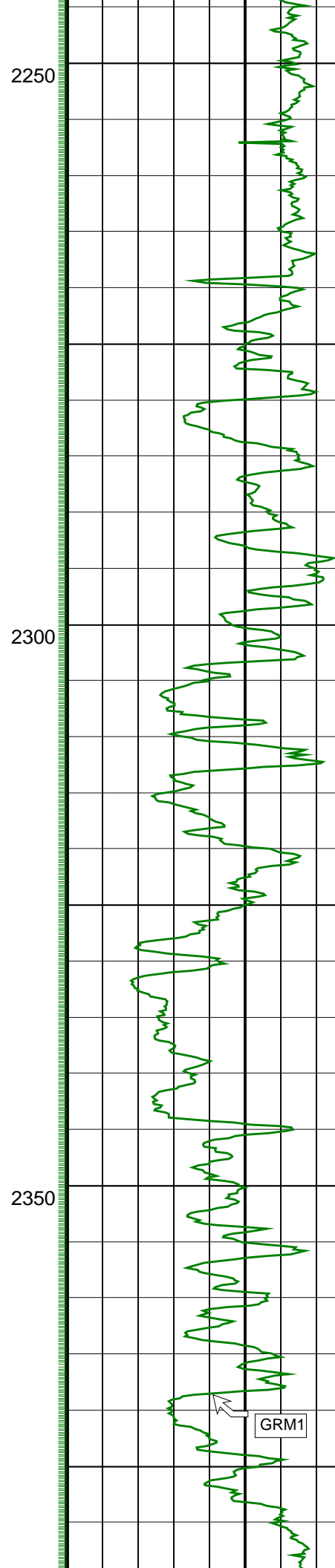
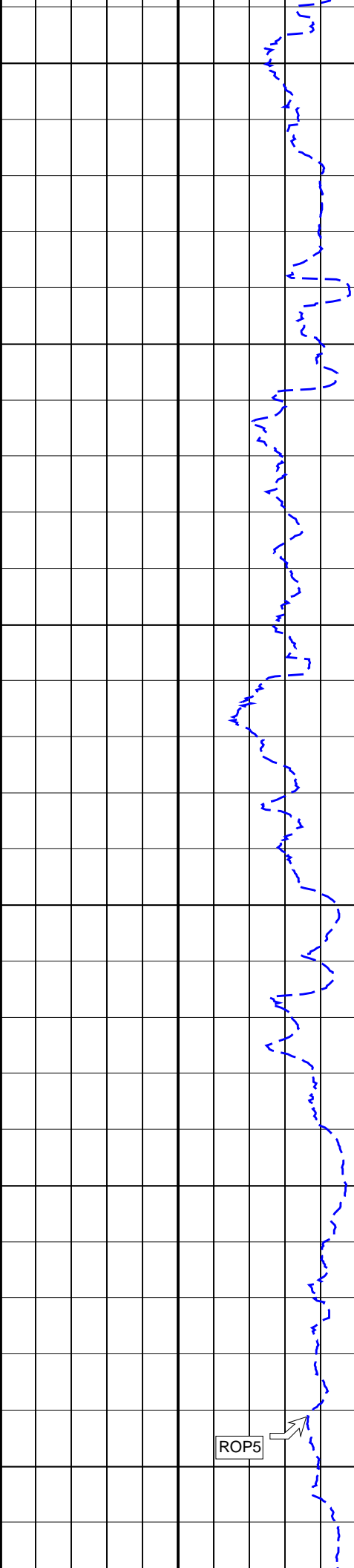


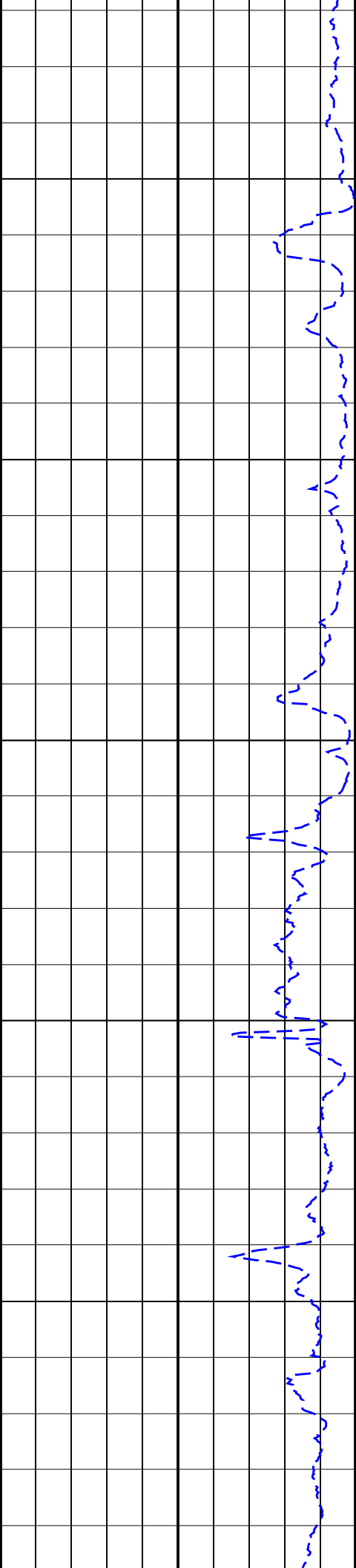


2150

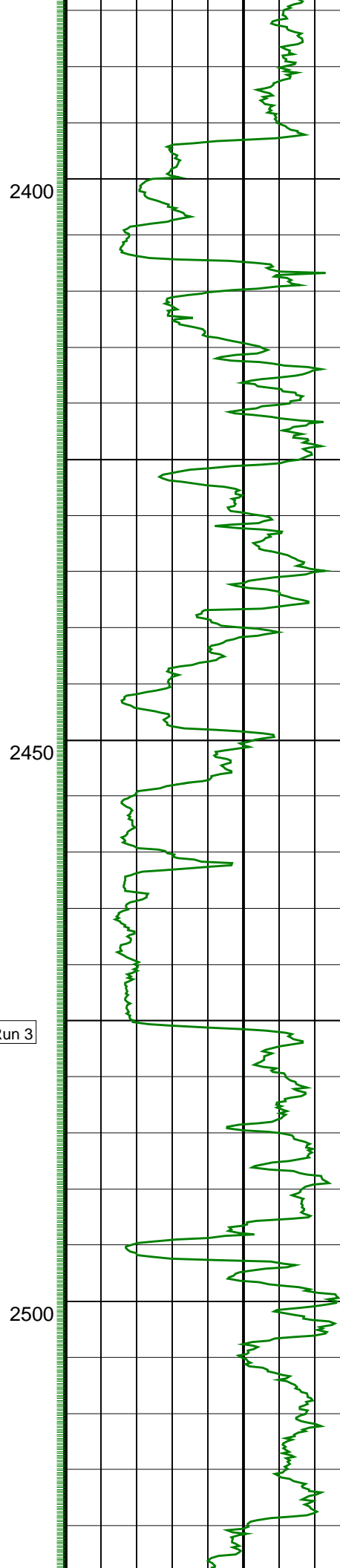
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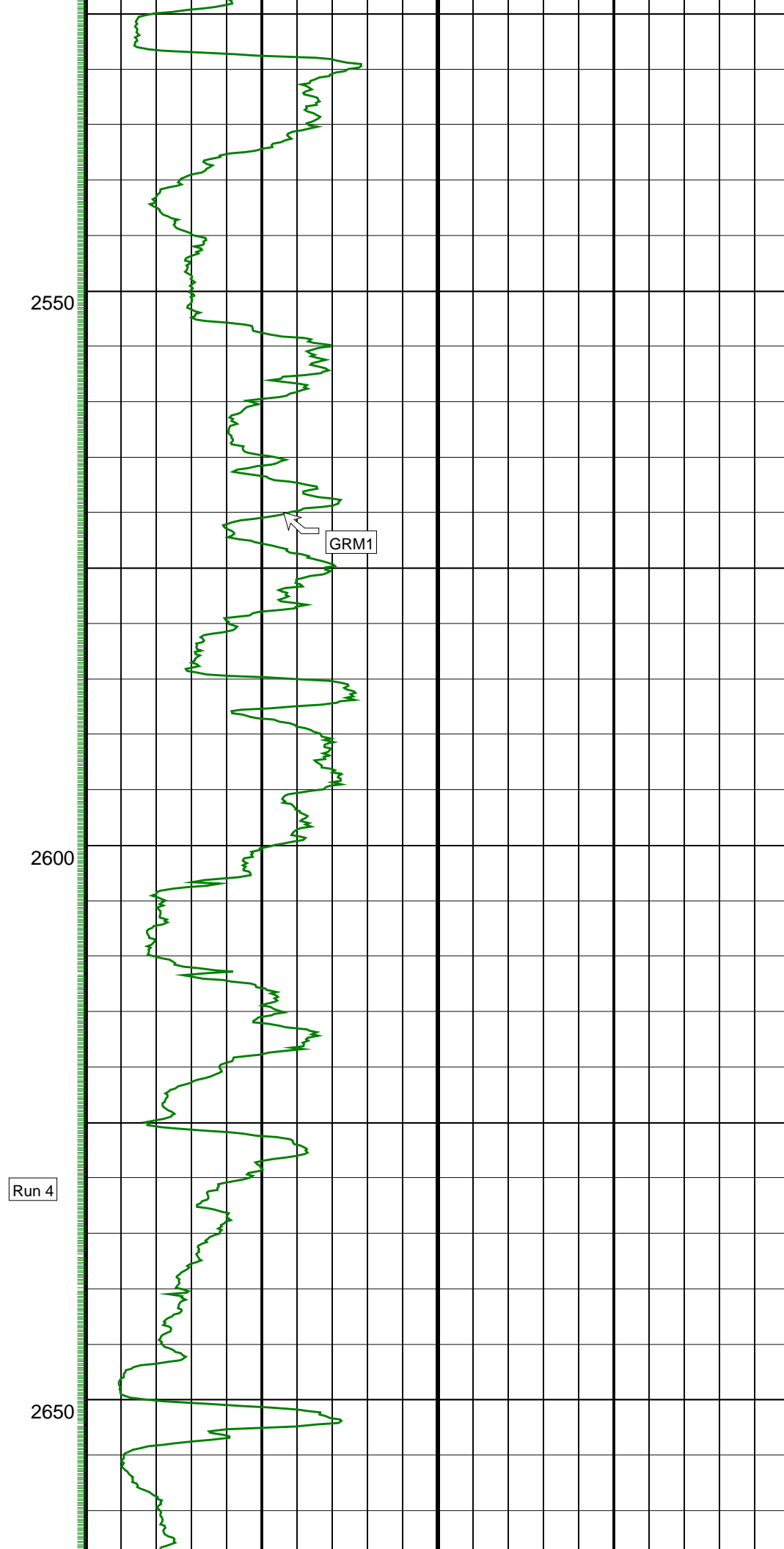
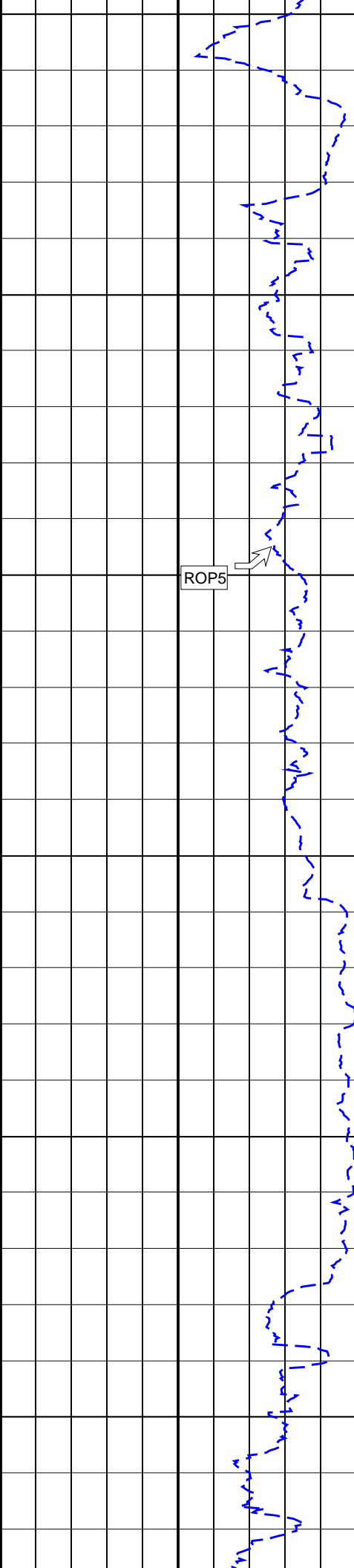


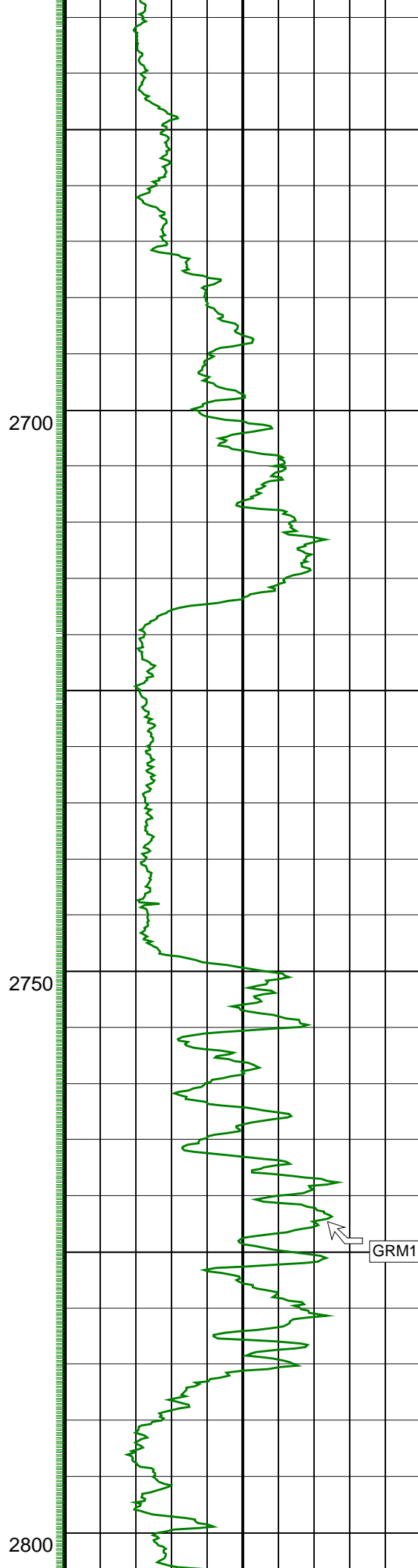
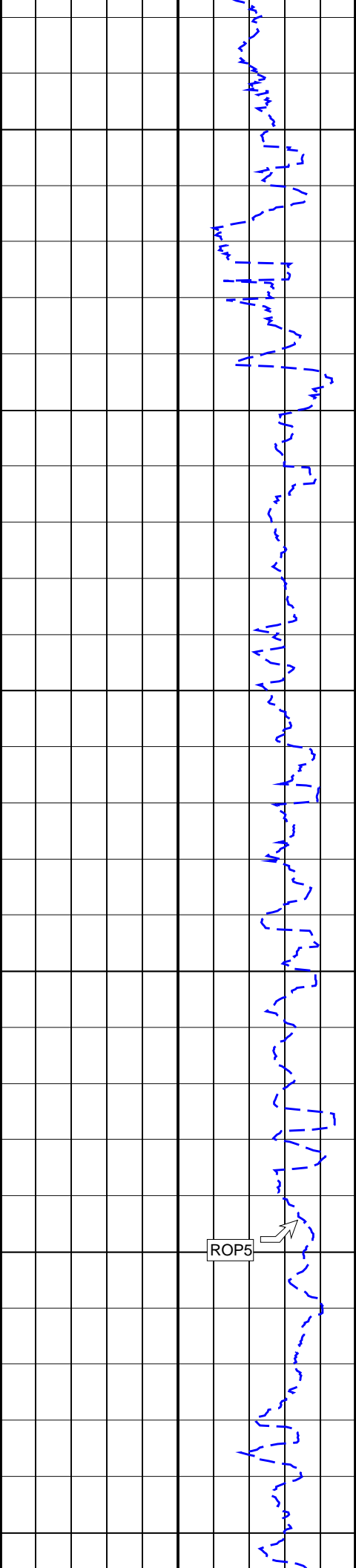


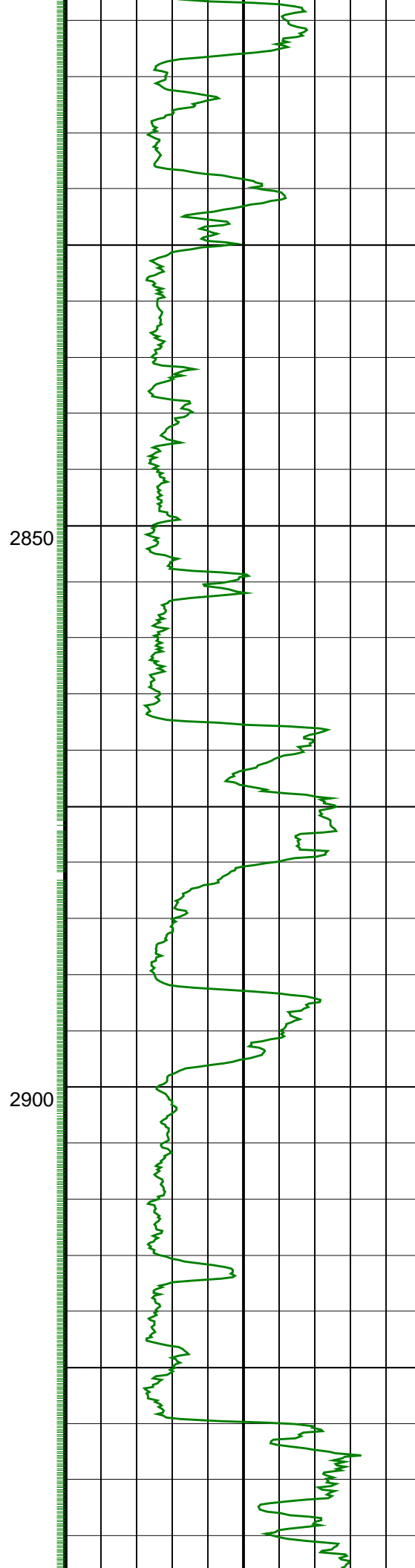
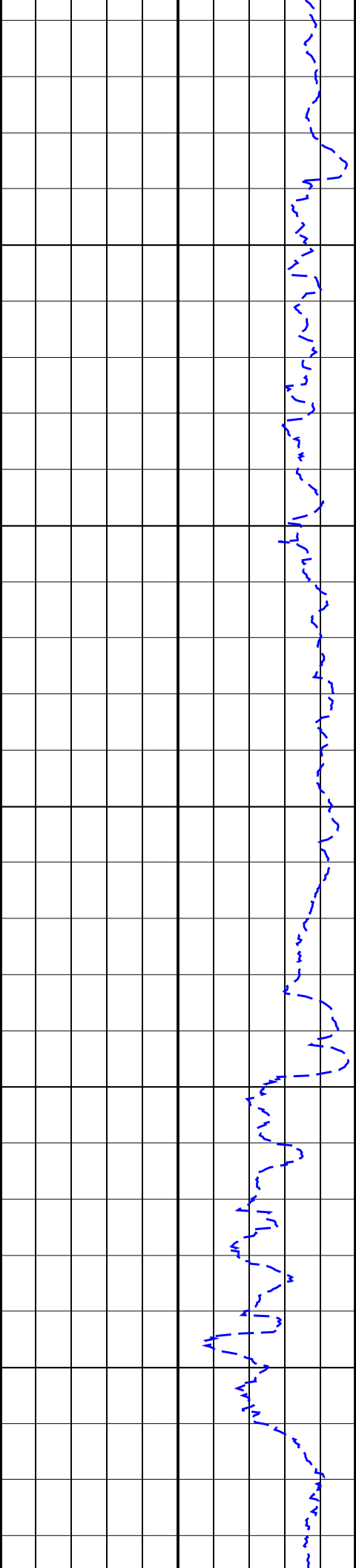


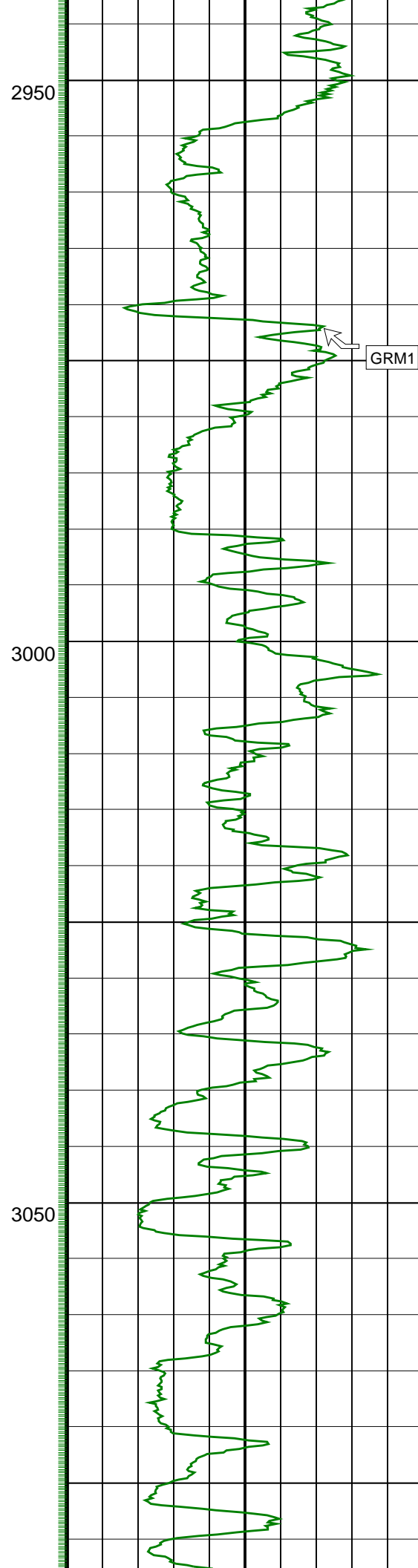
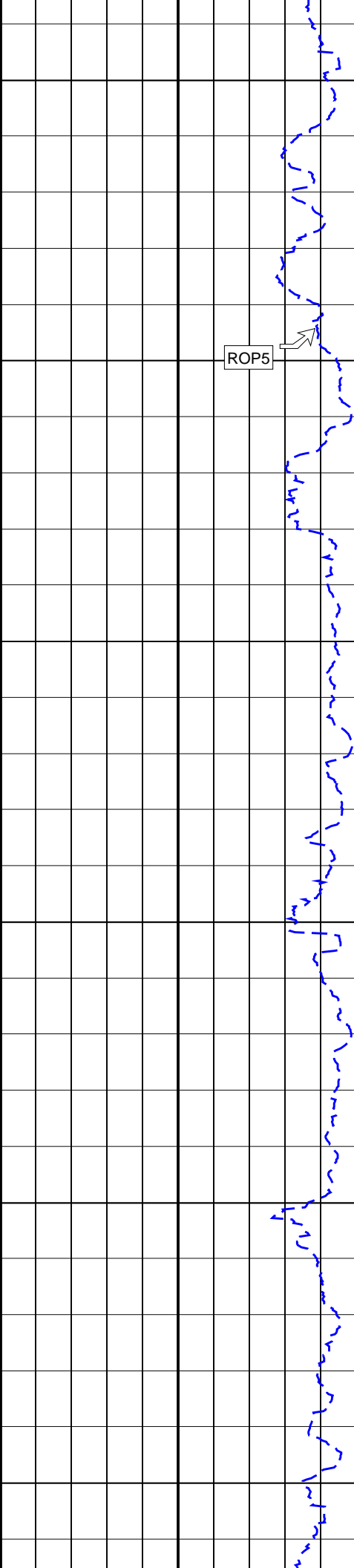
Run 3

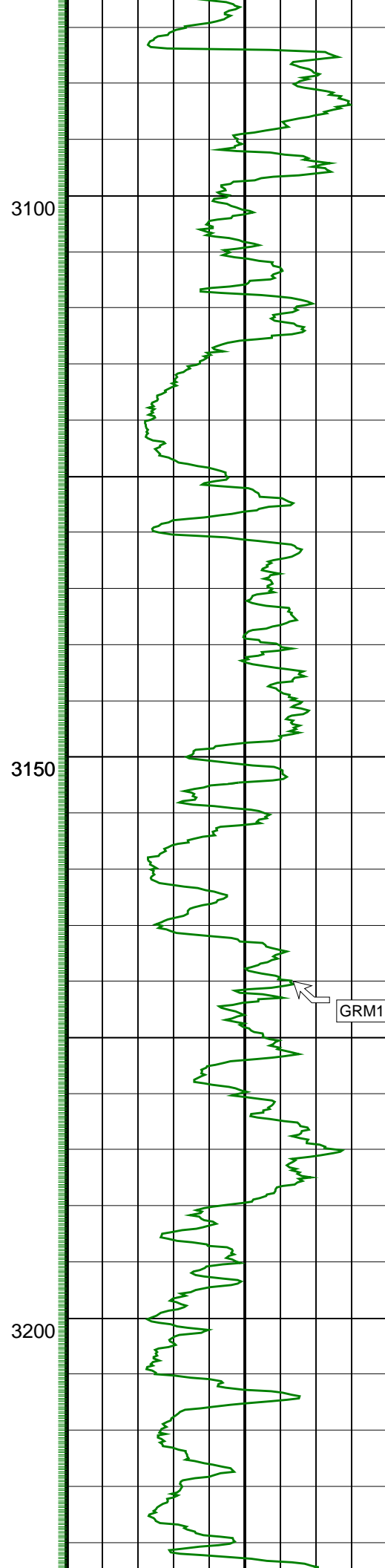
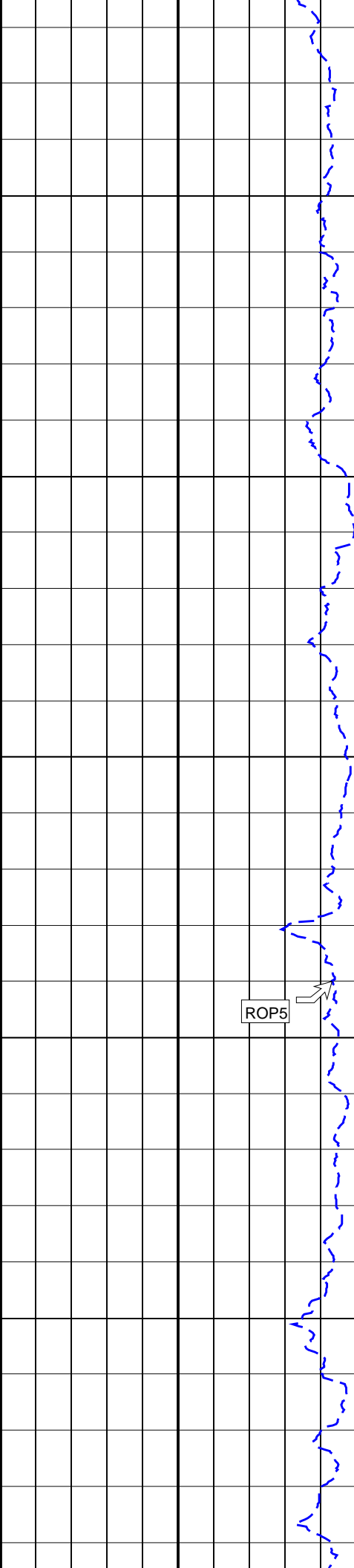


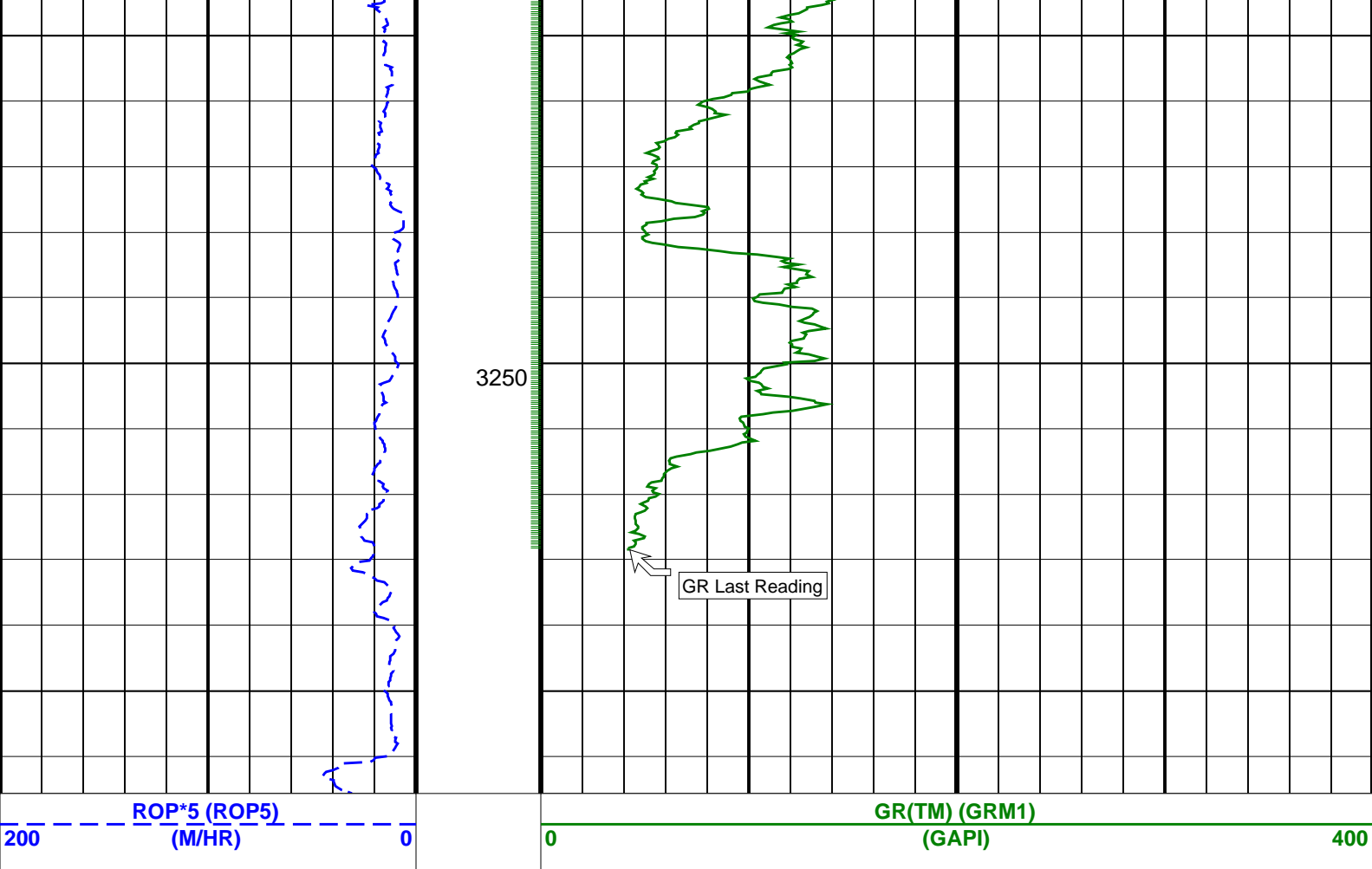












PIP SUMMARY
+ GR(TM) PIP

Company:	ESSO Australia Pty. Ltd.	Schlumberger
Well:	TNA A15A	
Field:	Tuna	
Rig:	ISDL 453	
State:	Victoria	
Gamma Ray Service 1:500 Measured Depth Real Time log		

