

Depth logged:	1300.0 m To 3431.4 m	Mag decl:	+13,249 deg.	Other services:
Date logged:	21-Jun-06 To 03-Jul-06	Mag dip:	-69.062 deg.	Directional Drilling, D&I

## Bit Run Summary

Run number		1	2							
Bit size	in	8.5	8.5							
Bit start depth	m	1300.0	2794.0							
Bit end depth	m	2794.0	3450.0							
Top interval logged	m	1300.0	2775.9							
Bottom interval logged	m	2775.9	3431.4							
Begin log: time		19:30	20:30							
Begin log: date		21 Jun 06	02 Jul 06							
End log: time		19:30	23:30							
End log: date		25 Jun 06	03 Jul 06							
<b>Mud data</b>										
Depth	m	2794.0	3417.0							
Type		KCl/PHPA/Gly	KCl/PHPA/Gly							
Mud weight	ppg	9.75	9.75							
Solids	%	6.1	7.4							
Chlorides	mg/l	41000	39000							
Rm		n/a	n/a							
Rmf		n/a	n/a							
Rmc		n/a	n/a							

Potassium	%	4.2	4.2								
<b>Environmental data</b>											
<b>GR</b>											
Mud weight	ppg	9.75	9.75								
Bit size	in	8.5	8.5								
<b>Resistivity</b>											
<b>Neutron porosity</b>											
Hole Size		n/a	n/a								
Mud weight		n/a	n/a								
Temperature		n/a	n/a								
Mud salinity		n/a	n/a								
Formation salinity		n/a	n/a								
Recording rate 1	SEC	3.83	3.83								
Recording rate 2	SEC	n/a	n/a								
Filtering GR		3 pt.	3 pt.								
Filtering density		n/a	n/a								
Filtering Neutron		n/a	n/a								
Company representative		G. Campbell	B. Davis	J. Bennett	B. Steel						
Schlumberger D&M Personnel		R. Burns	C. Skiba	C. Cocks	B. Manjenic						

<p style="text-align: center;"><b>DISCLAIMER</b></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>		
<b>OTHER SERVICES FOR RUN1</b> Directional Drilling Directional Surveys D&I	<b>OTHER SERVICES FOR RUN2</b> Directional Drilling Directional Surveys D&I	<b>OTHER SERVICES FOR RUN</b>
<b>REMARKS: RUN NUMBER 1</b> Depth is referenced to Driller's Depth.  Gamma Ray corrected for Tool Size, Bit Size, and Mud Weight.  Gamma Ray is not corrected for Potassium.  Mud type is KCl/PHPA/Glycol.  8.5 in. hole was drilled from 1300.0m to 2794.0m MD.  POOH due to obstruction in casing, Hole originally planned to be abandoned.	<b>REMARKS: RUN NUMBER 2</b> Depth is referenced to Driller's Depth.  Gamma Ray corrected for Tool Size, Bit Size, and Mud Weight.  Gamma Ray is not corrected for Potassium.  Mud type is KCl/PHPA/Glycol.  8.5 in. hole was drilled from 2794.0m to 3450.0m MD after original hole was re-entered whilst drilling through new cement plug.  GR data lost from 3179.5m to 3183.5m MD due to data entry error.  POOH upon reaching TD.	<b>REMARKS: RUN NUMBER</b>

<b>EQUIPMENT DESCRIPTION</b>		
<b>RUN1</b>	<b>RUN2</b>	<b>RUN</b>

DOWNHOLE EQUIPMENT

6-3/4 in. PowerPulse\*  
MDC: Z401  
MEC: 1533  
MDI: 1565  
MGR: 565  
DHS: V8.0C03

D&I — 19.40  
GR — 18.75



NM Pony  
S/N: ASS15700



NM Roller Reamer  
S/N: GU2299



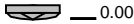
NM Pony  
S/N: 9612058



7 in. PowerPak\* Motor  
A700GT 7:8  
S/N: N7310  
1.5 deg. Bent Housing



Smith PDC Bit  
OD: 8-1/2 in.  
S73PX S/N: JT8946



Maximum string diameter 8.50 in.  
All lengths in Metres

DOWNHOLE EQUIPMENT

6-3/4 in. PowerPulse\*  
MDC: V875  
MEC: 064  
MDI: 738  
MGR: 503  
DHS: V8.0C03

D&I — 19.26  
GR — 18.61



NM Pony  
S/N: ASS15700



NM Roller Reamer  
S/N: GU2299



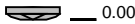
NM Pony  
S/N: 9612058



7 in. PowerPak\* Motor  
A700GT 7:8  
S/N: N7413  
1.5 deg. Bent Housing



Smith PDC Bit  
OD: 8-1/2 in.  
S616PX S/N: JW6578



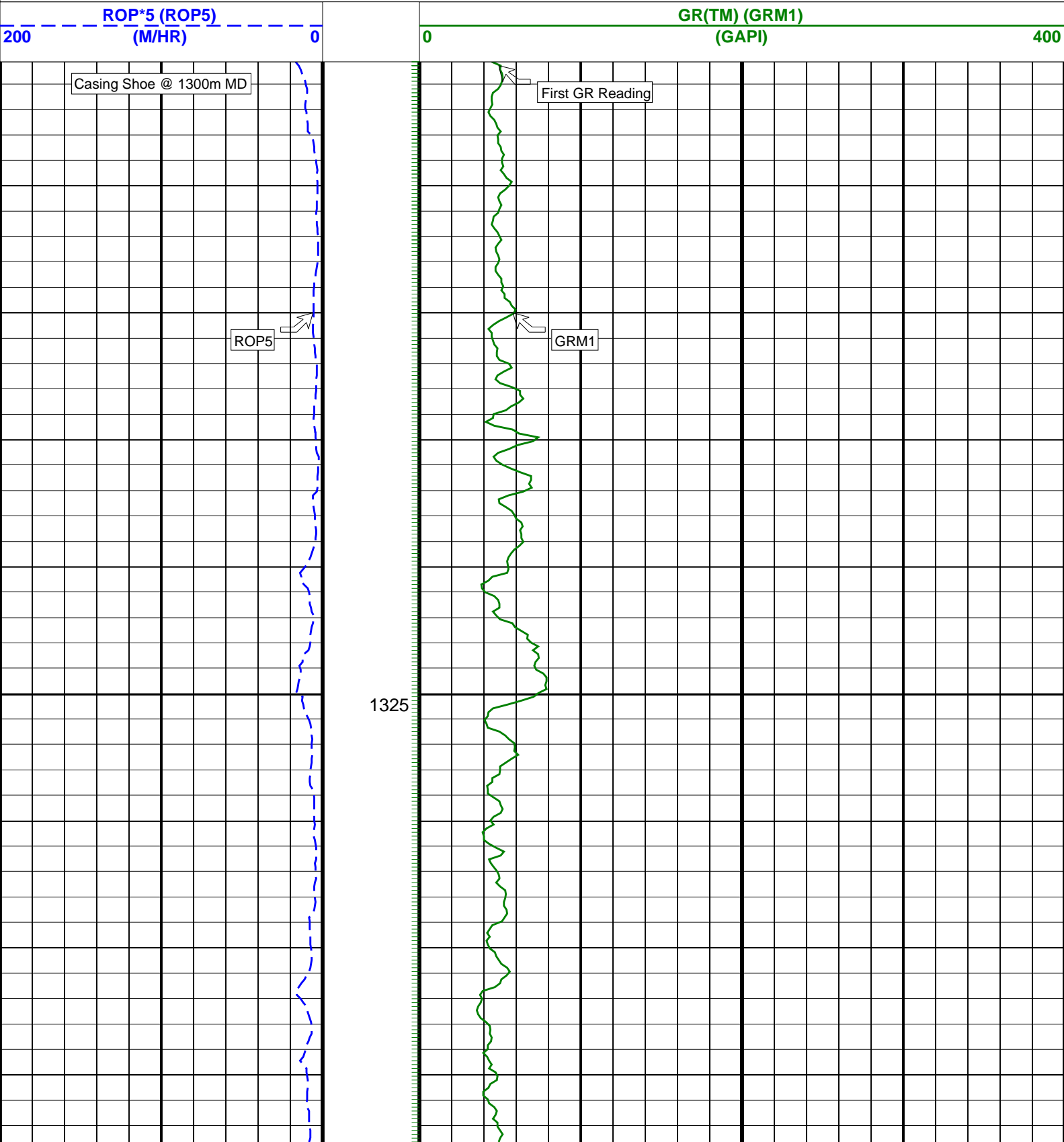
Maximum string diameter 8.50 in.  
All lengths in Metres

# WKF W31A RT 1:200 MD

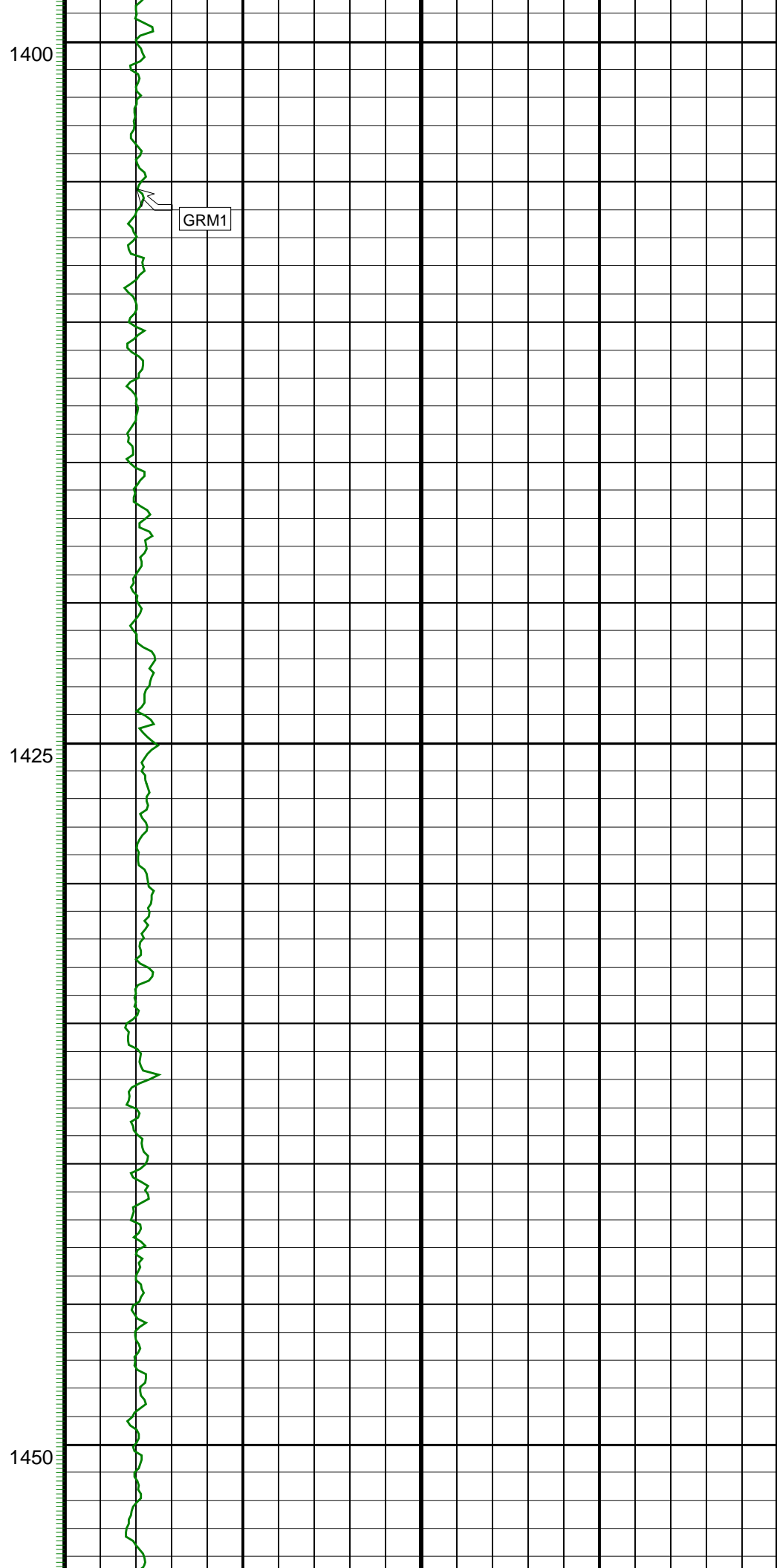
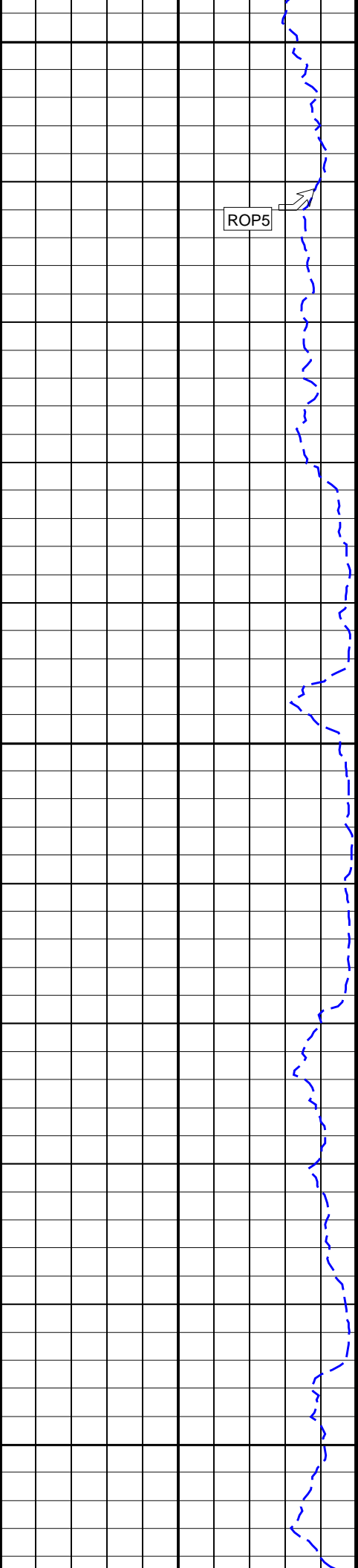
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## PIP SUMMARY

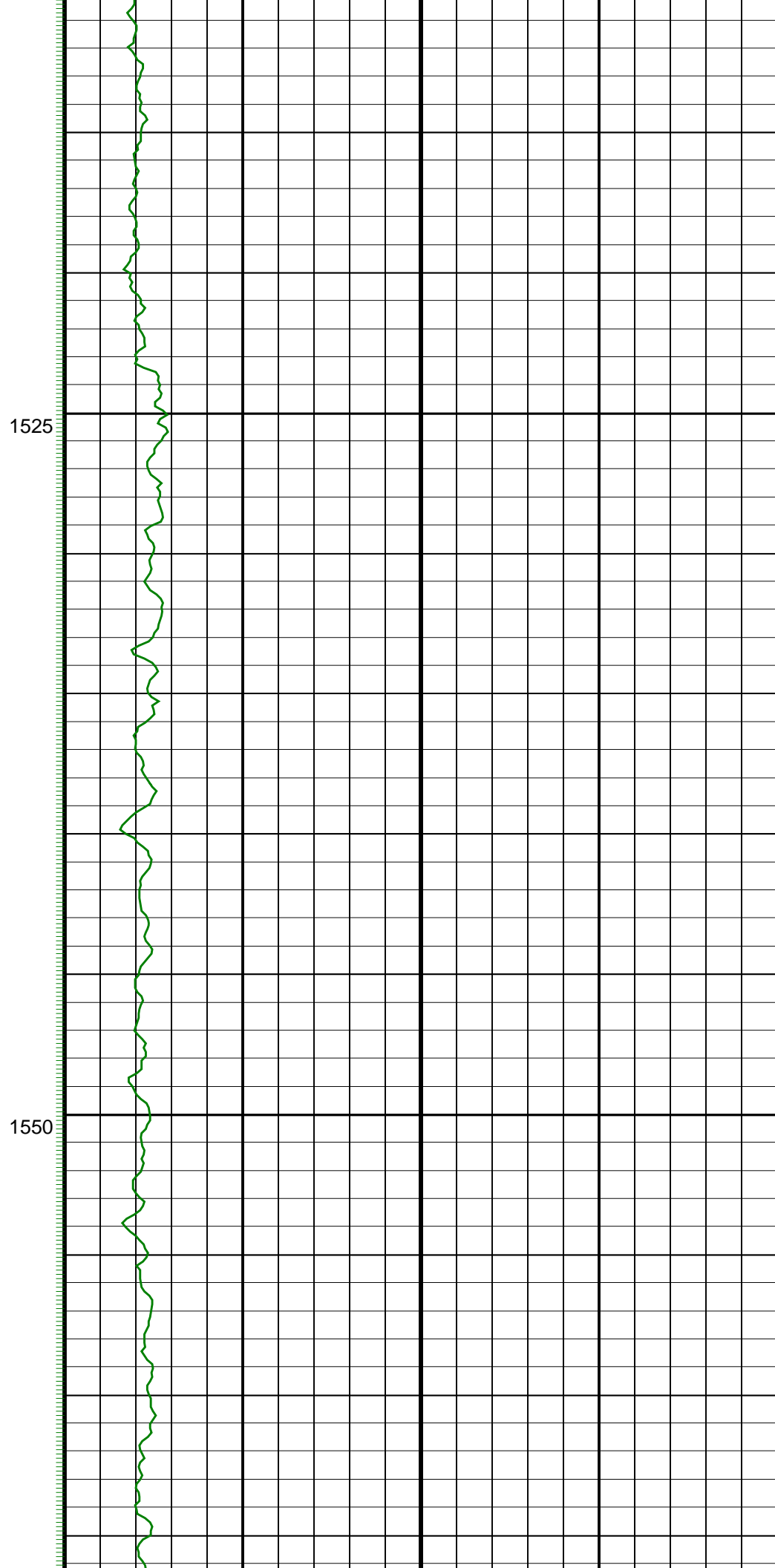
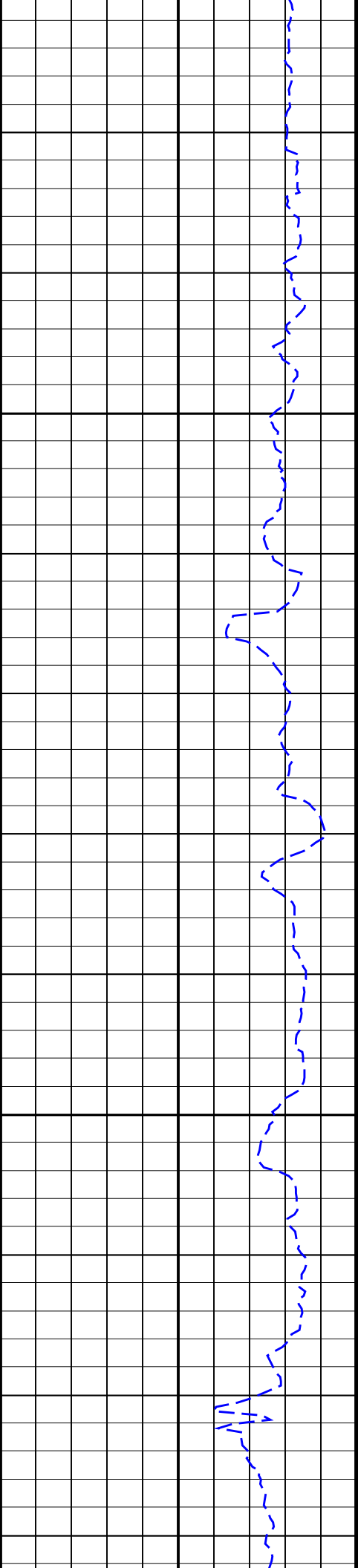
GR(TM) PIP



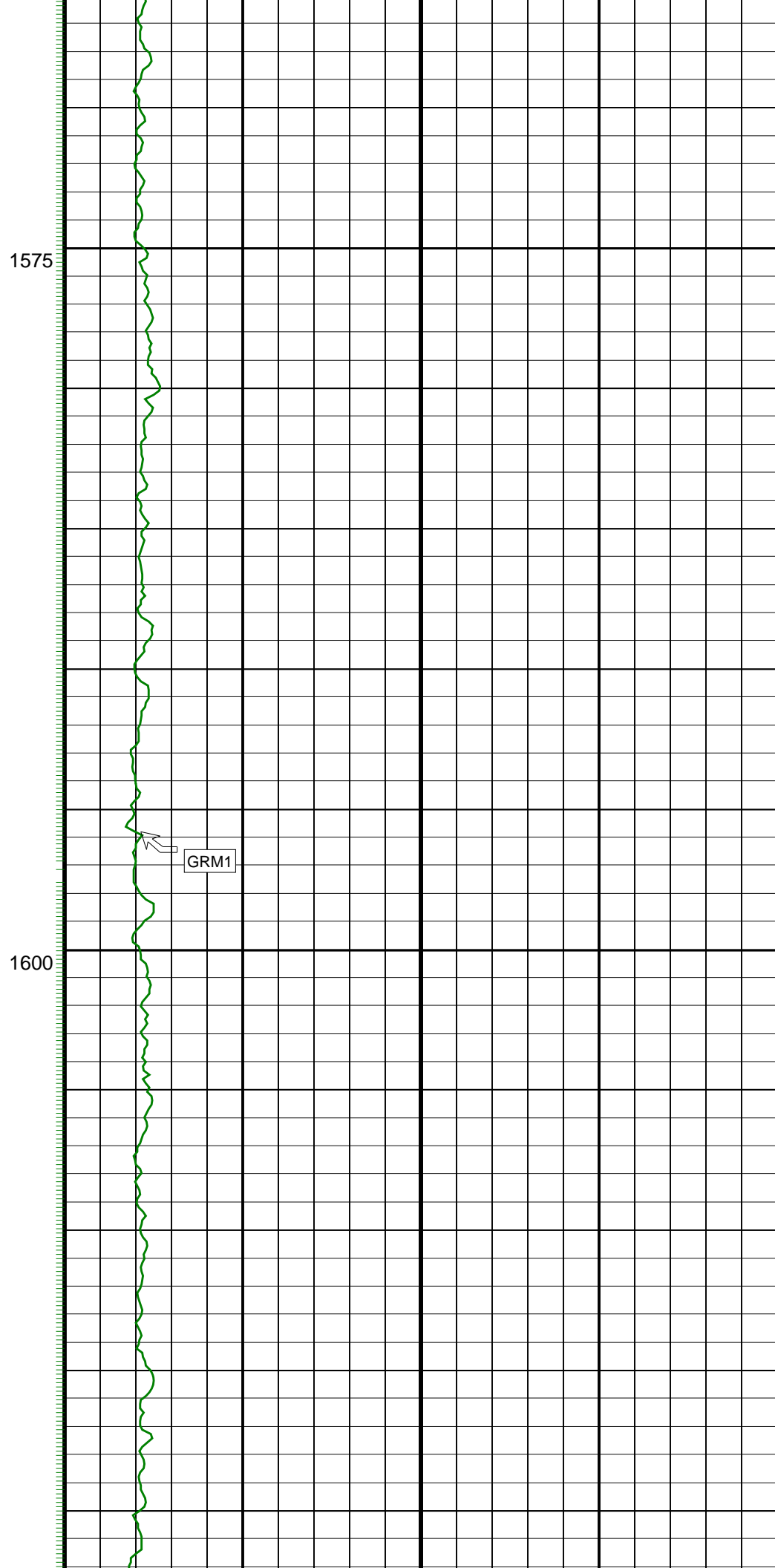
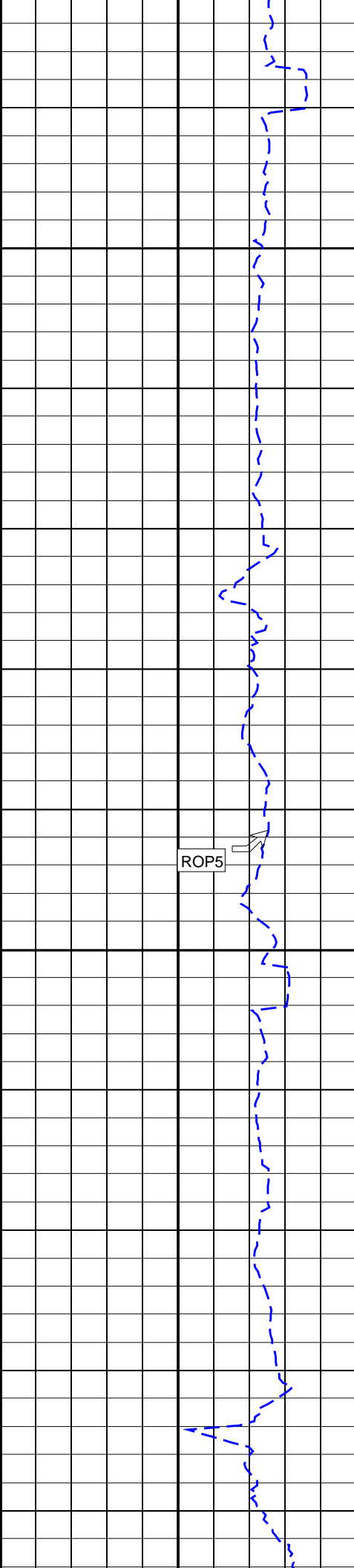


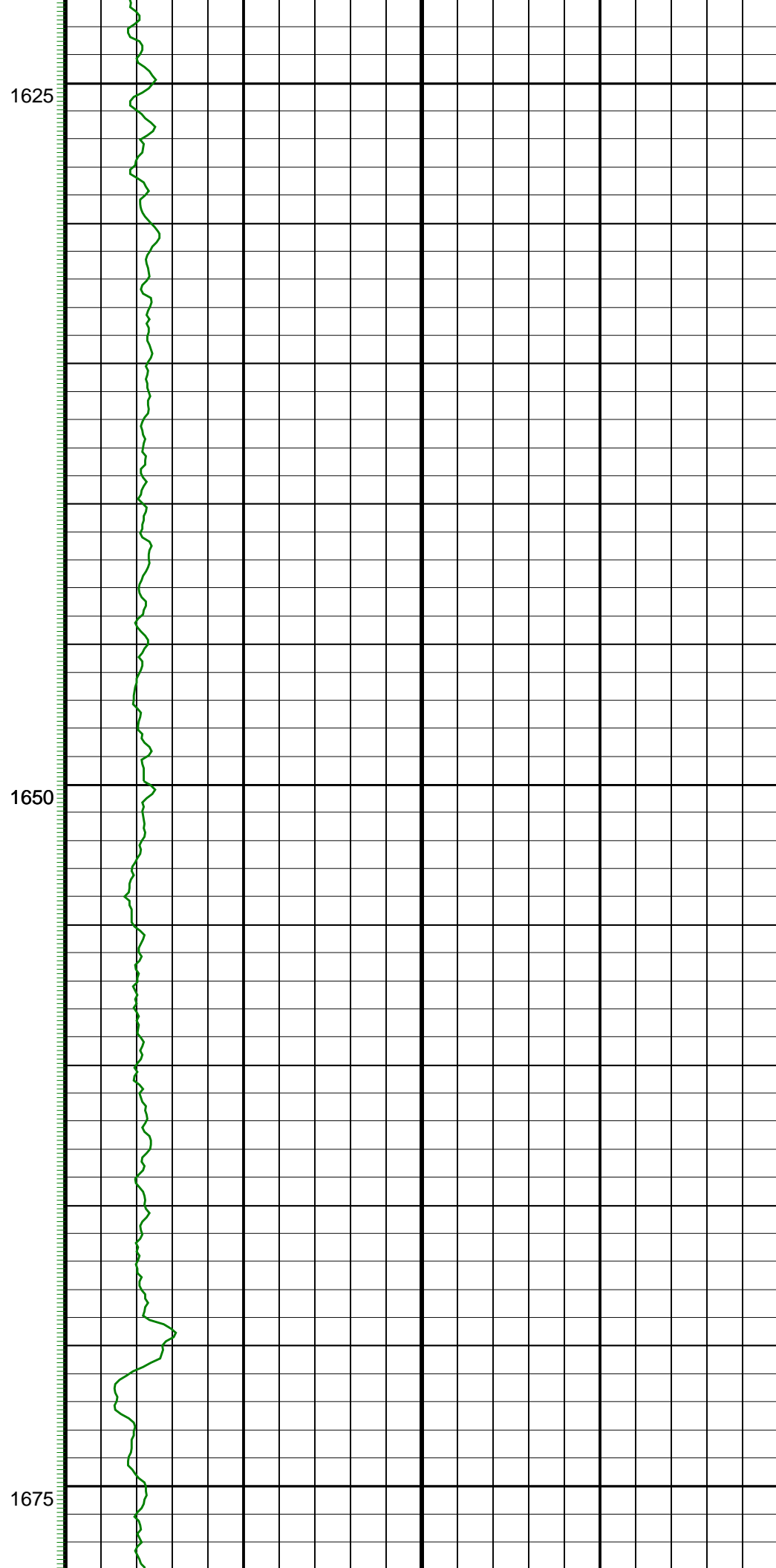
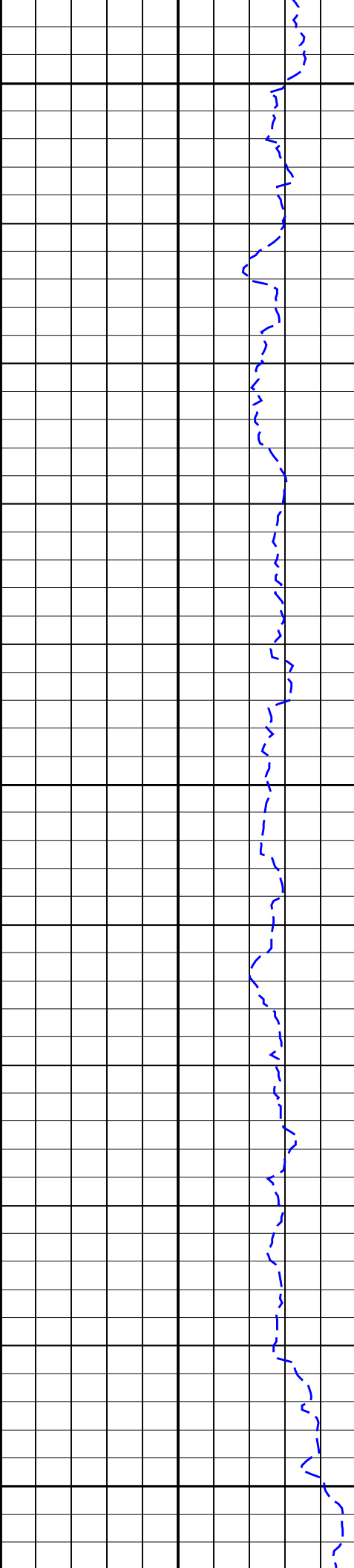


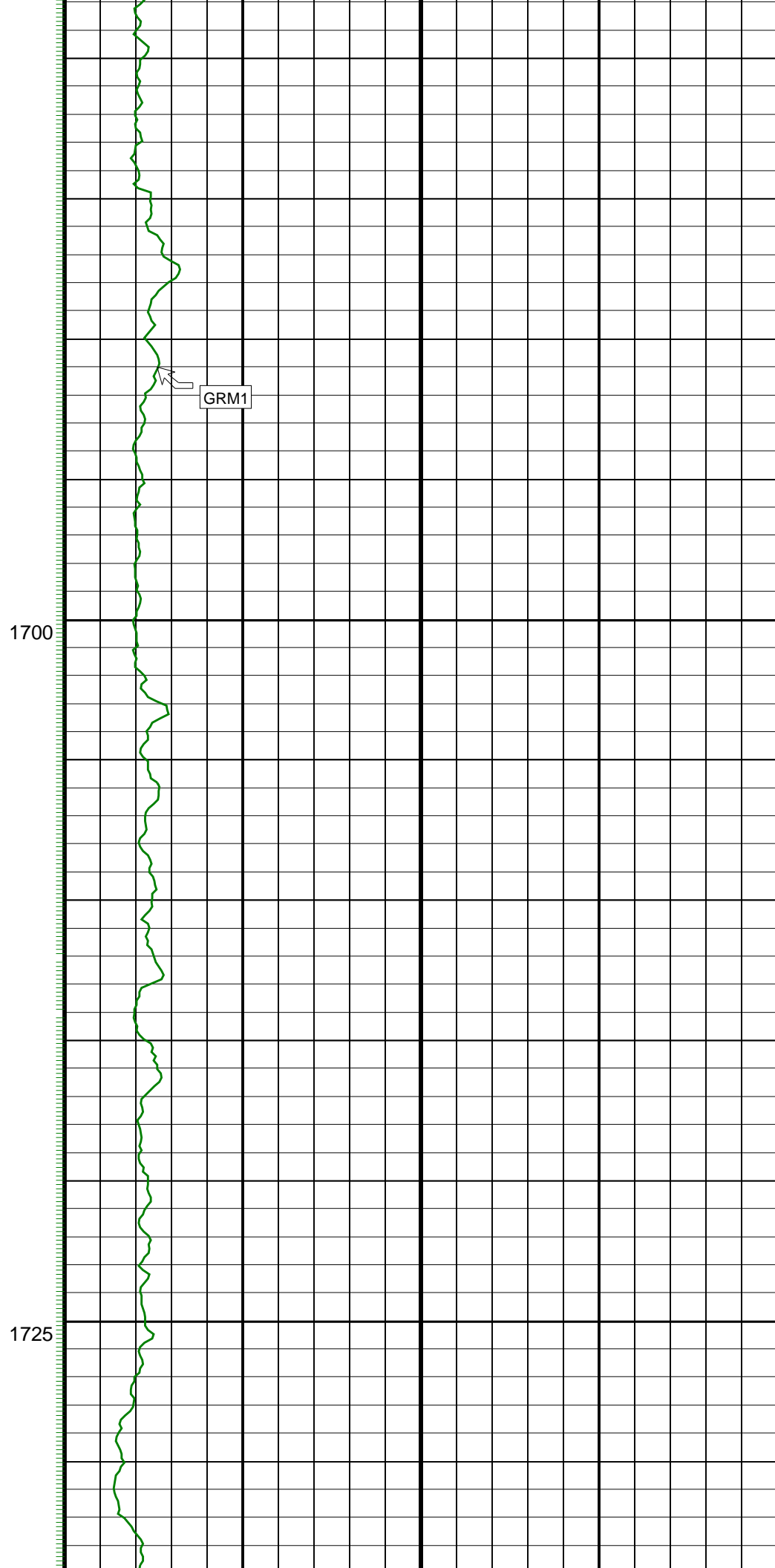
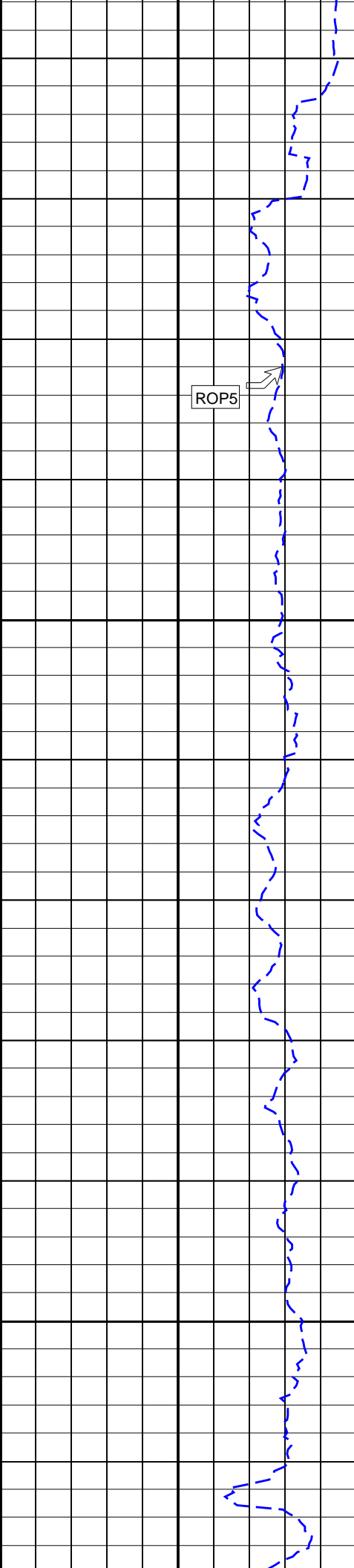


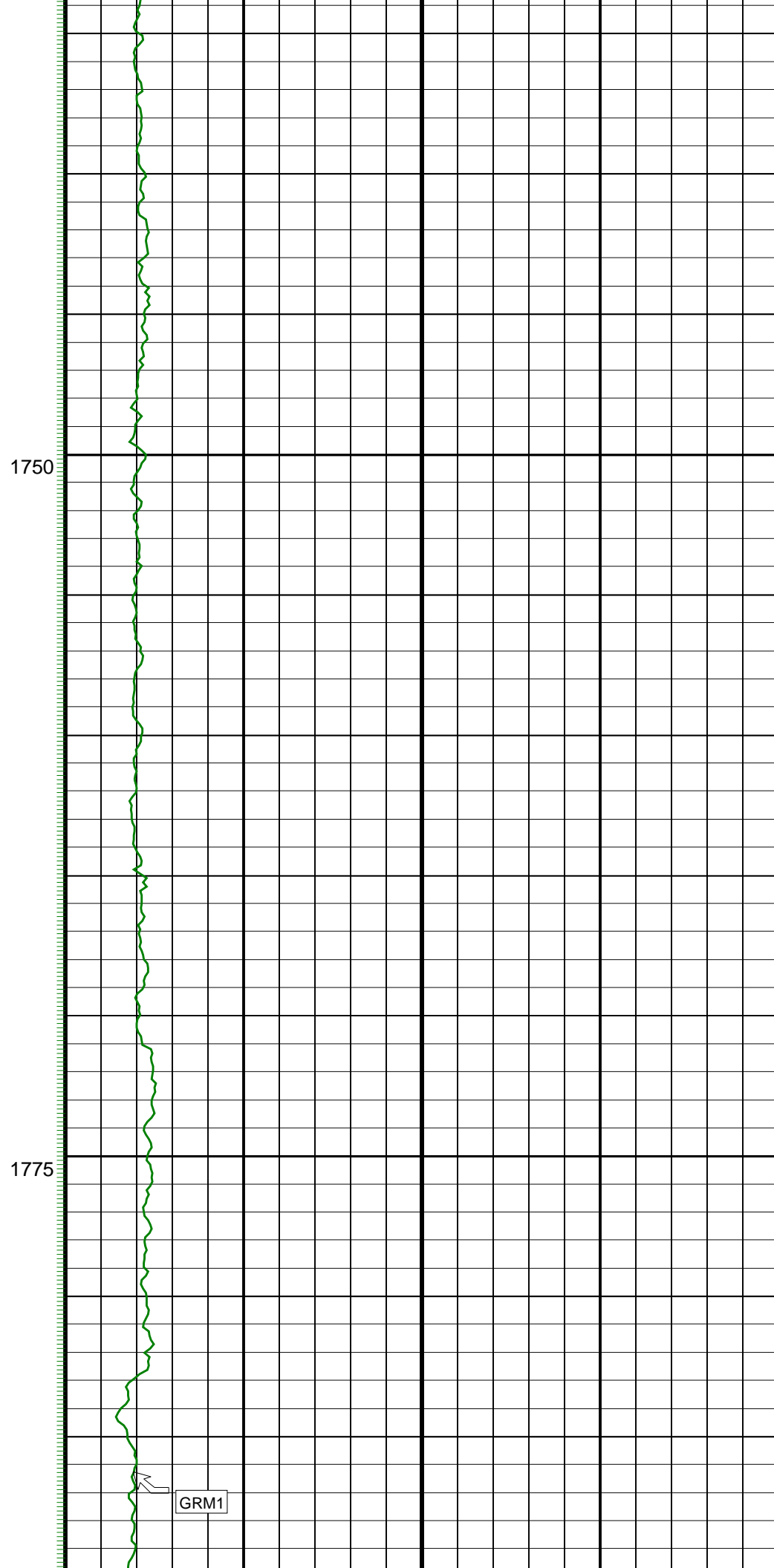
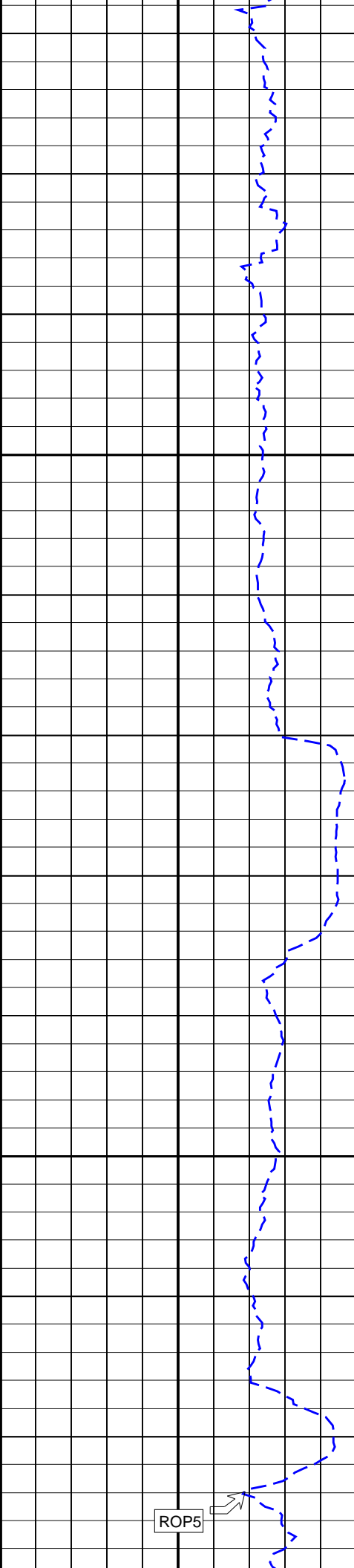


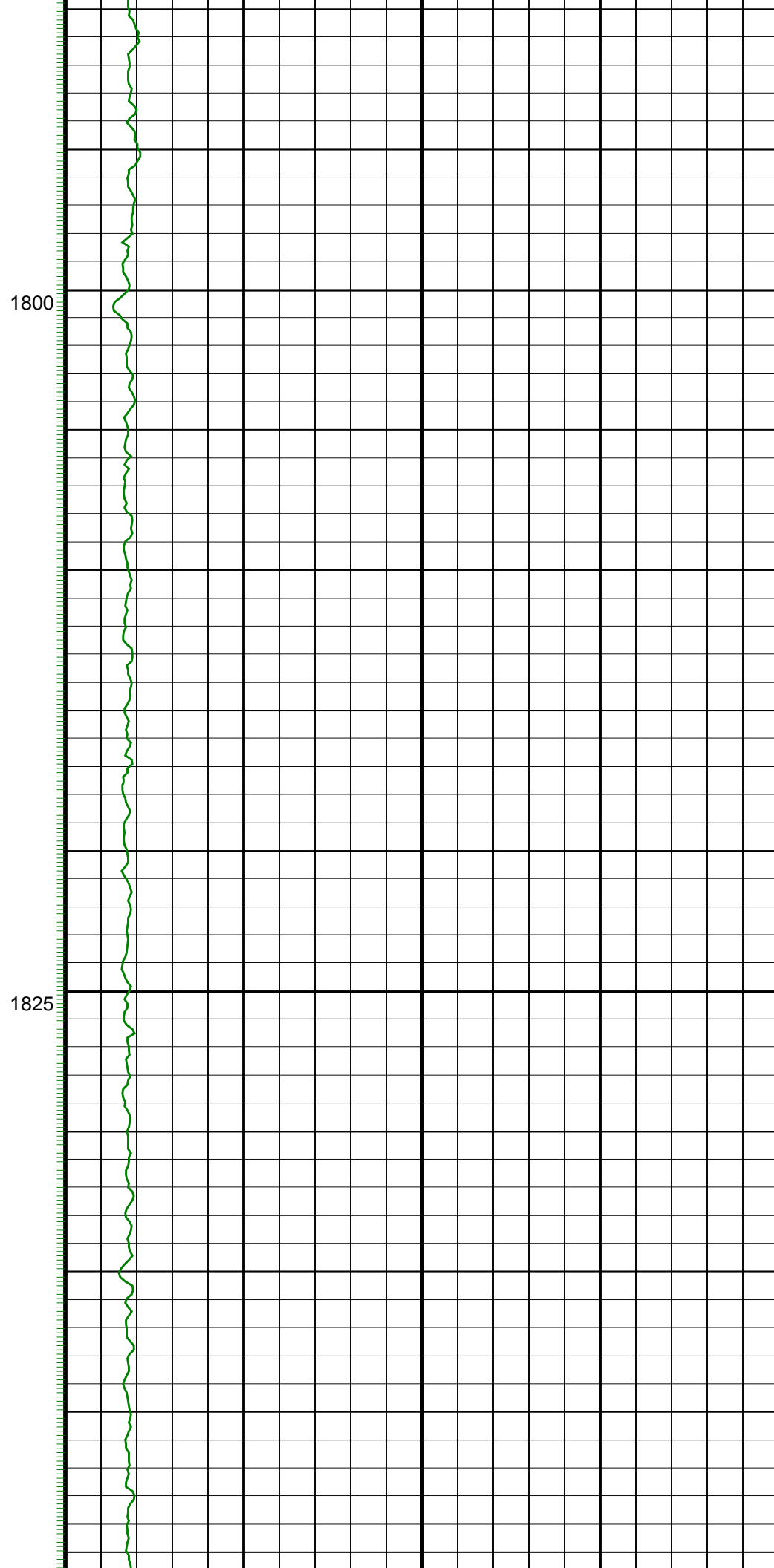
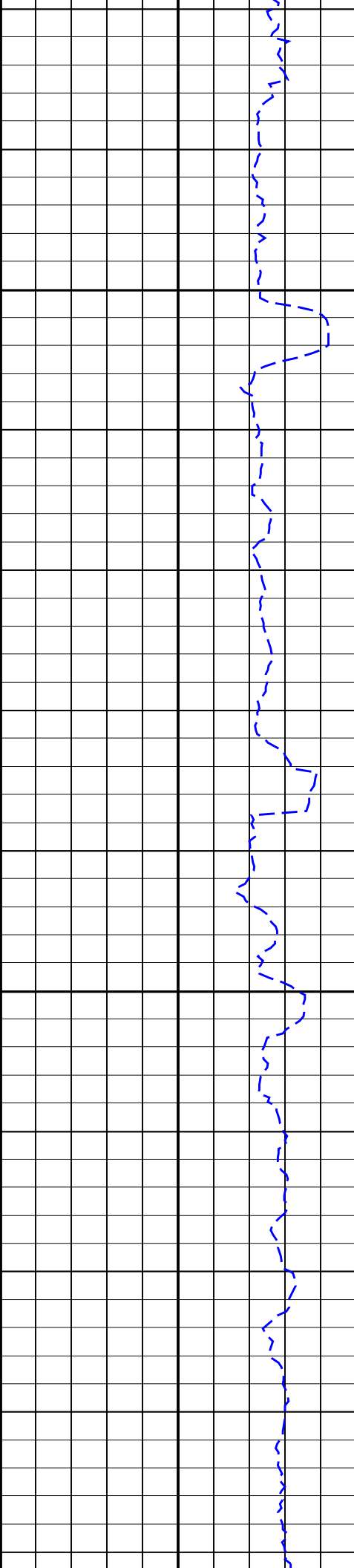


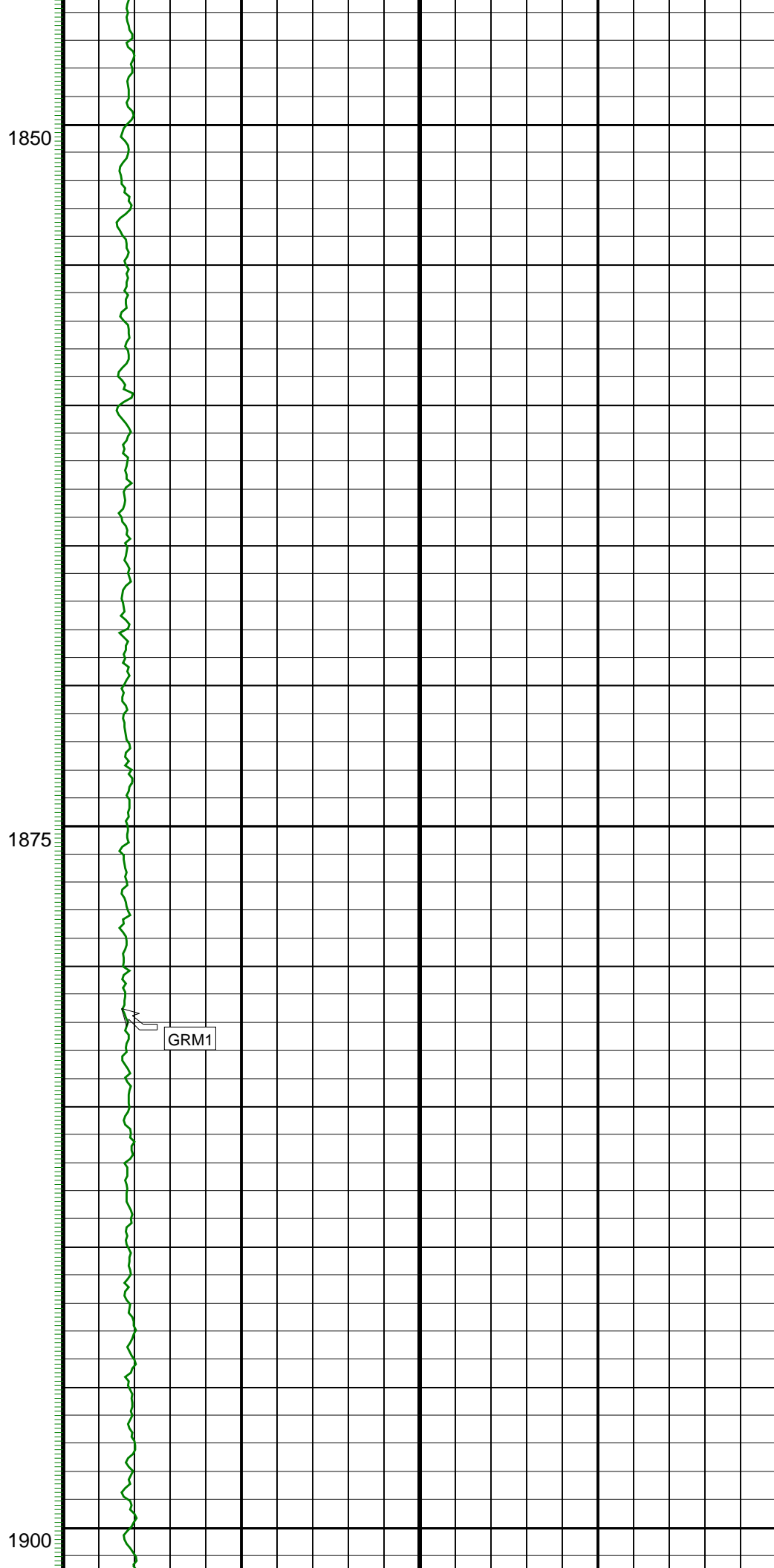
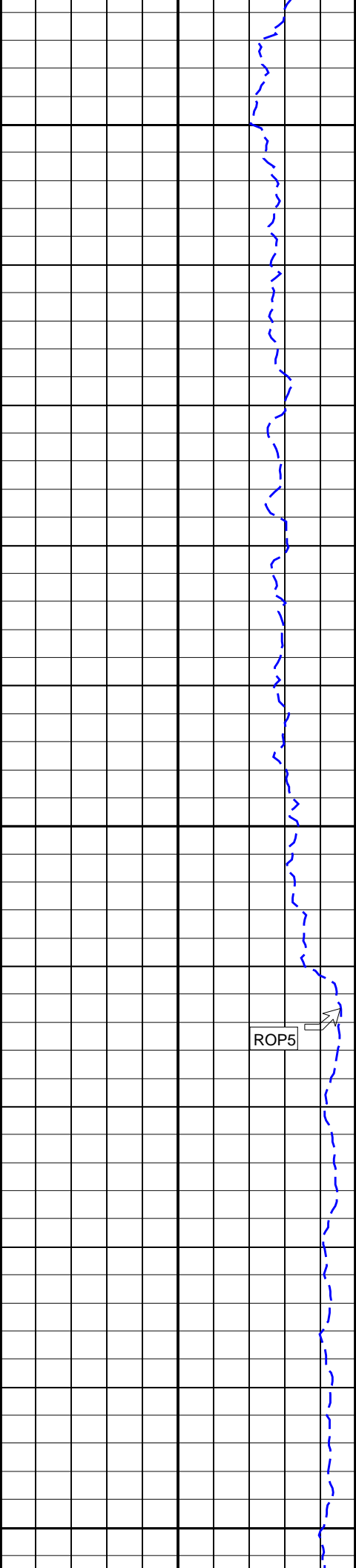


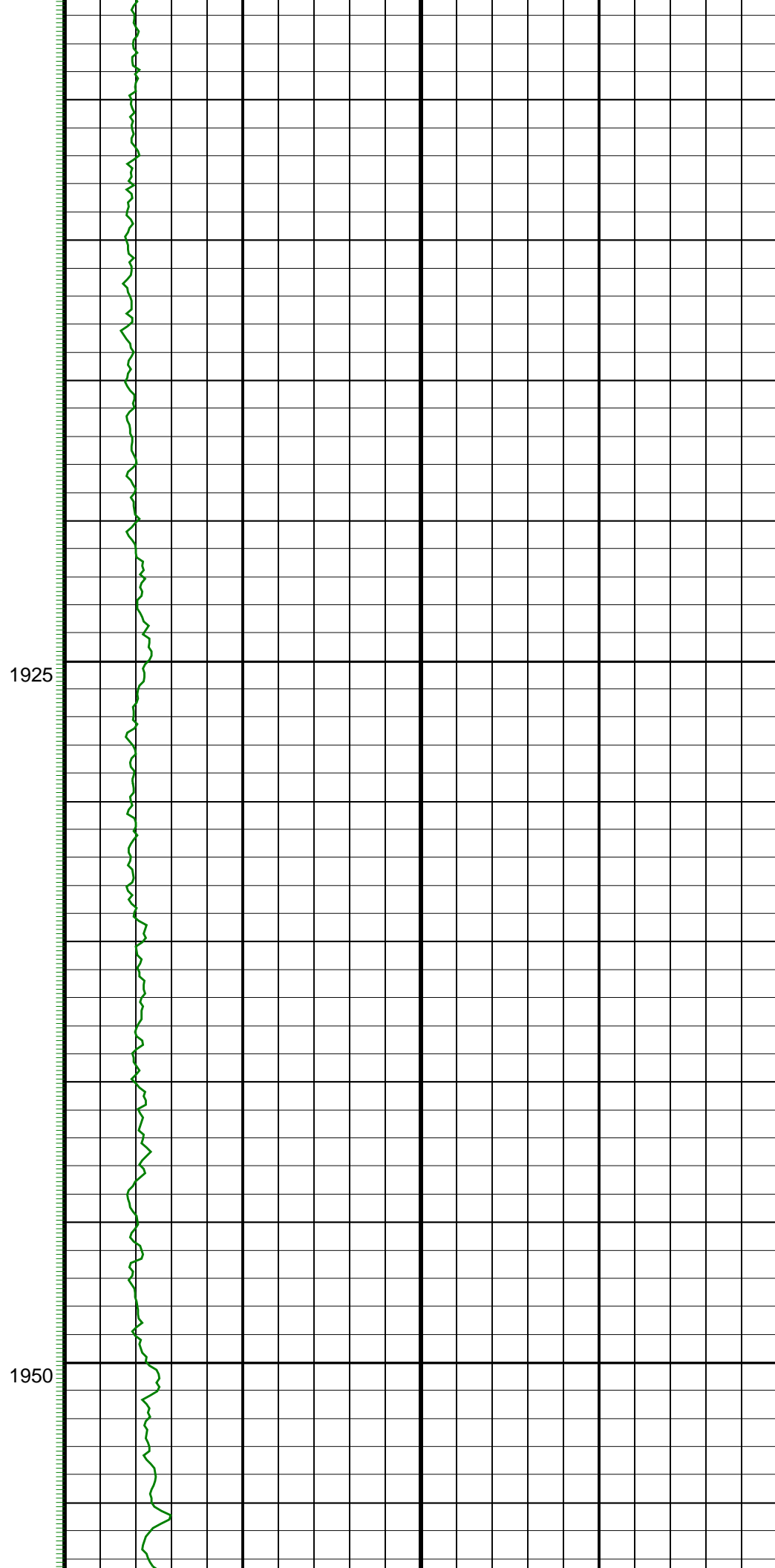
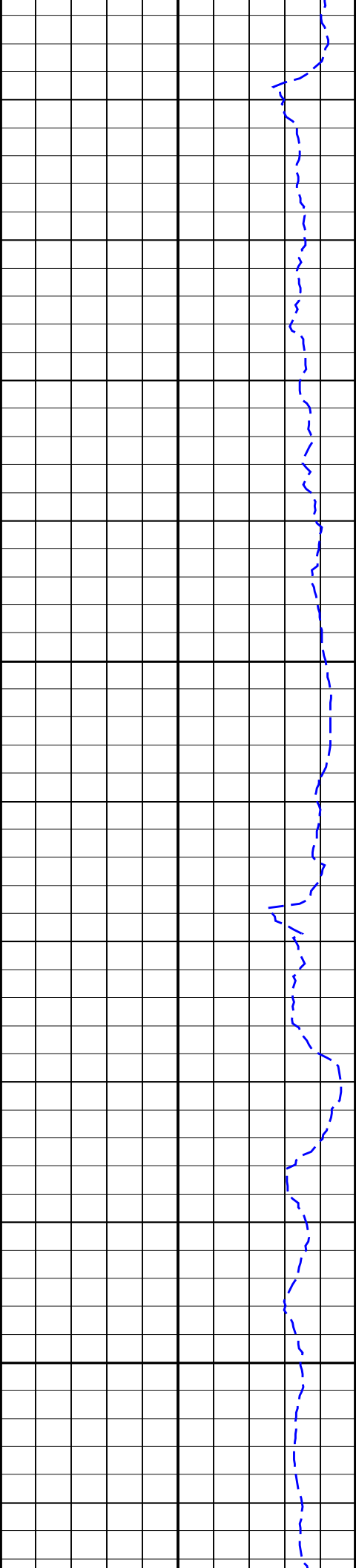


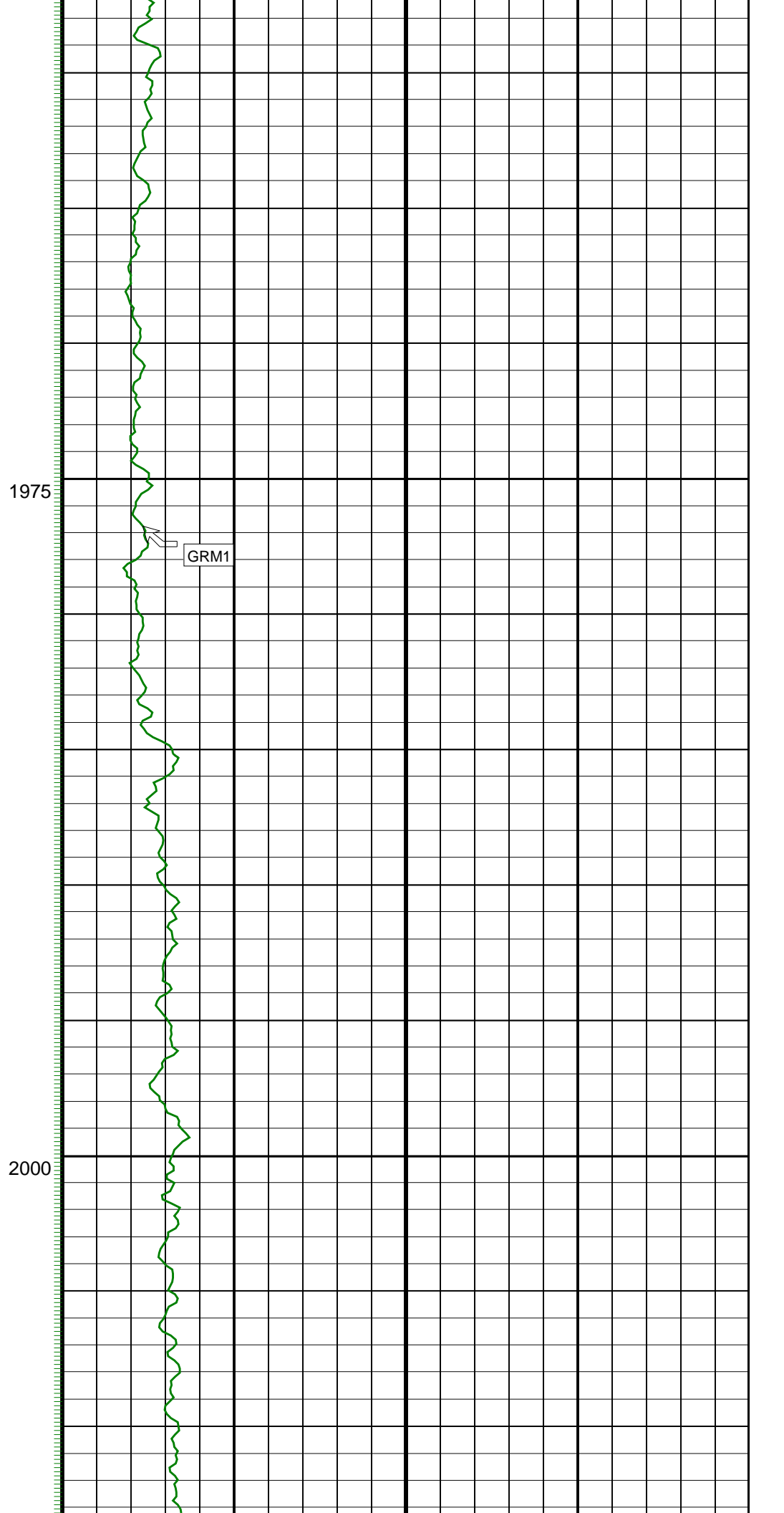
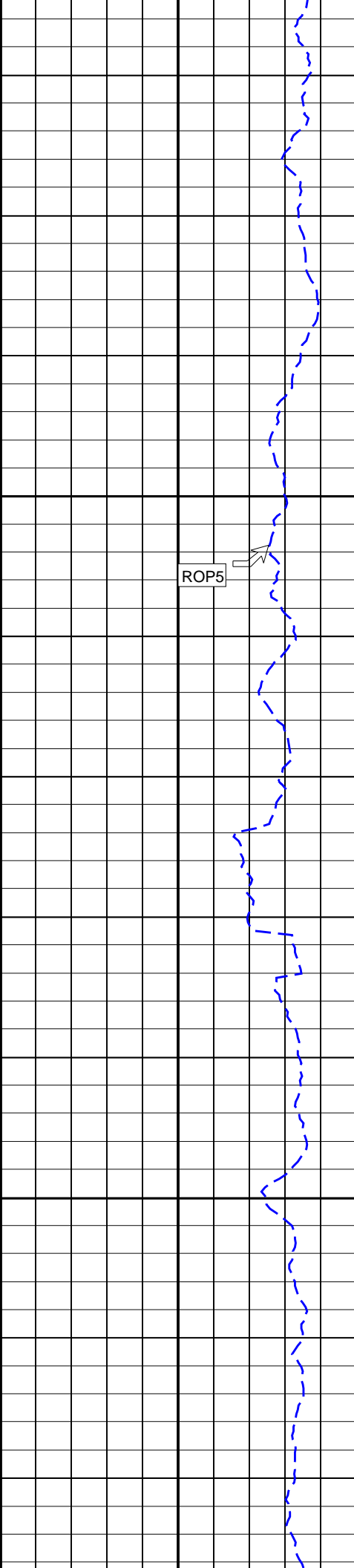




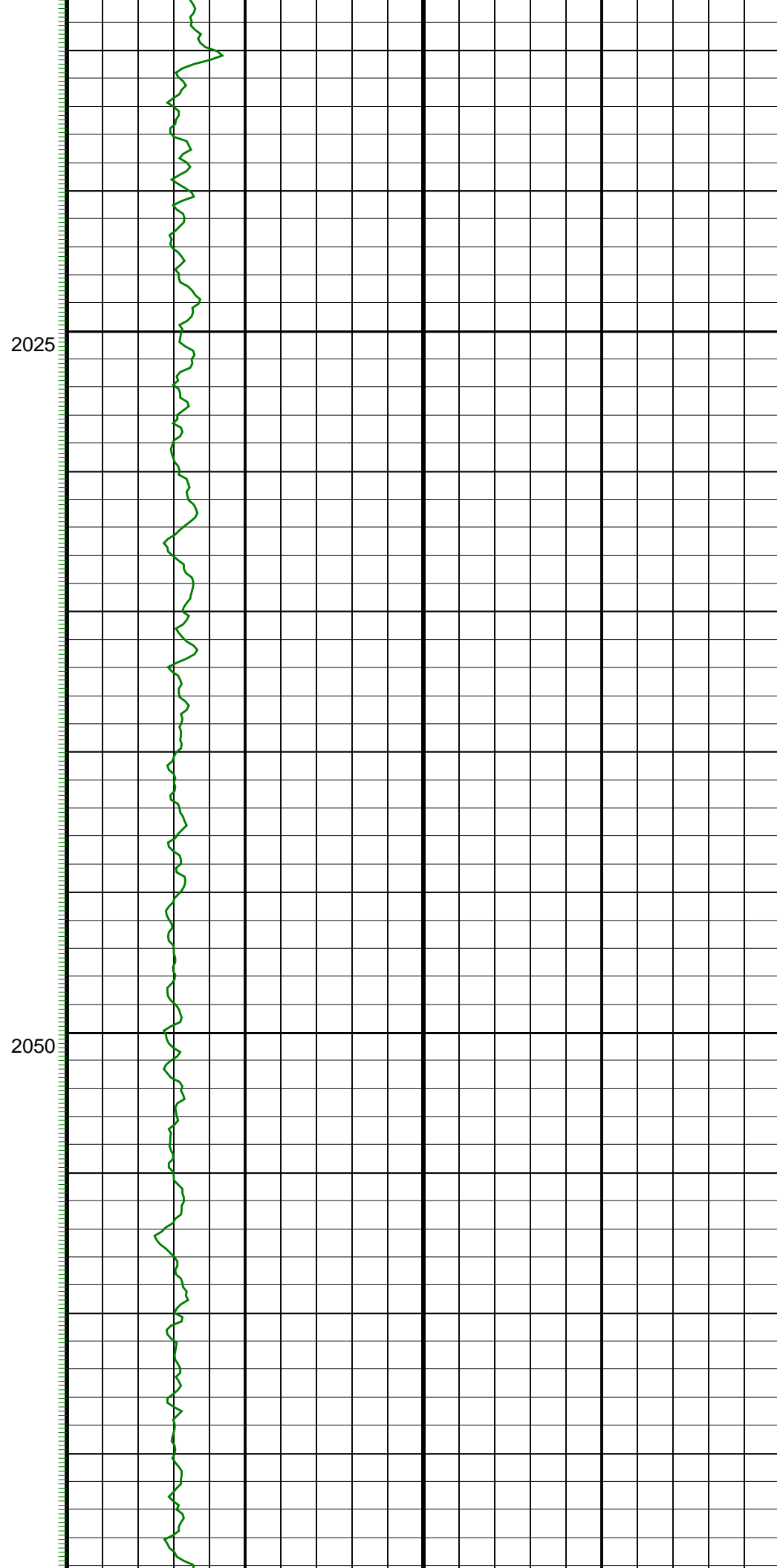
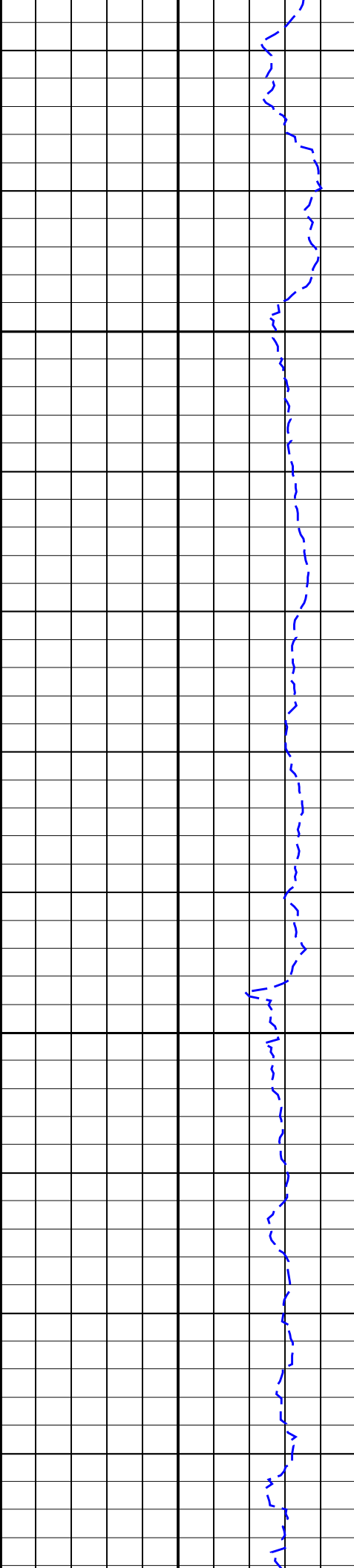




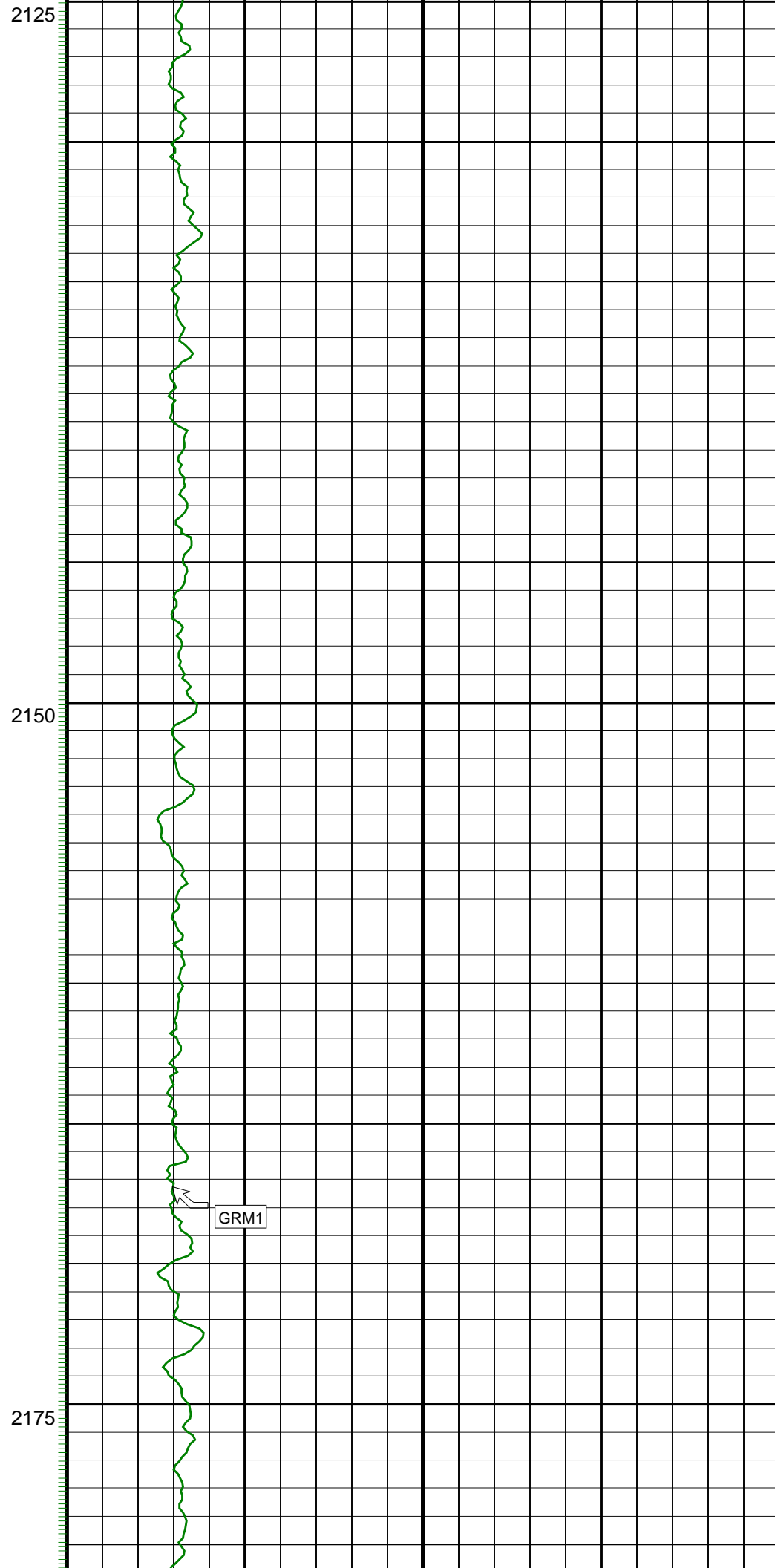
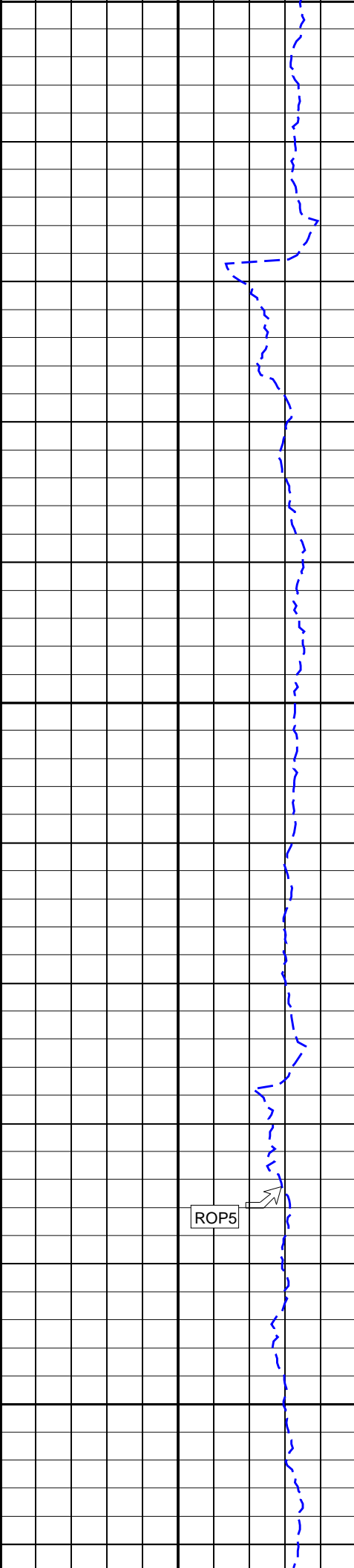




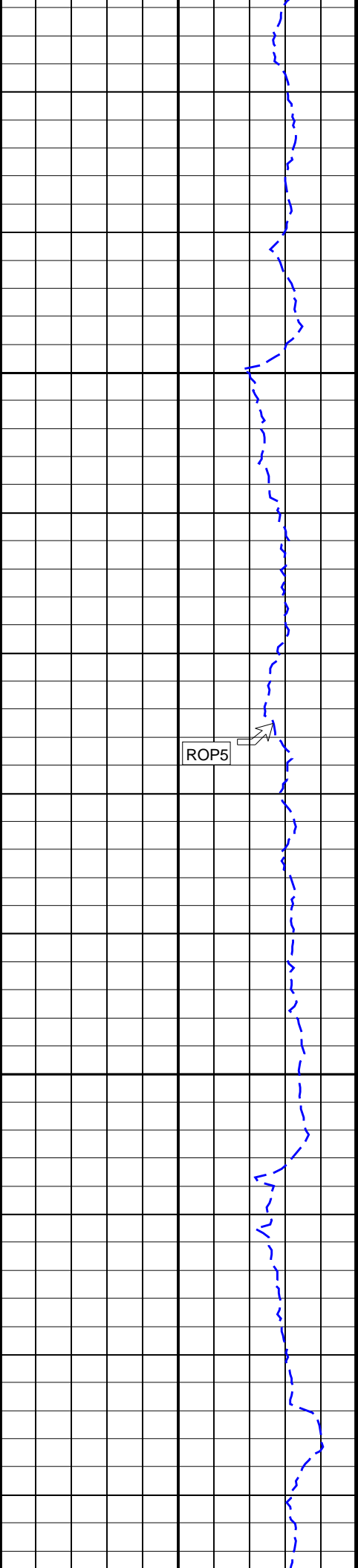






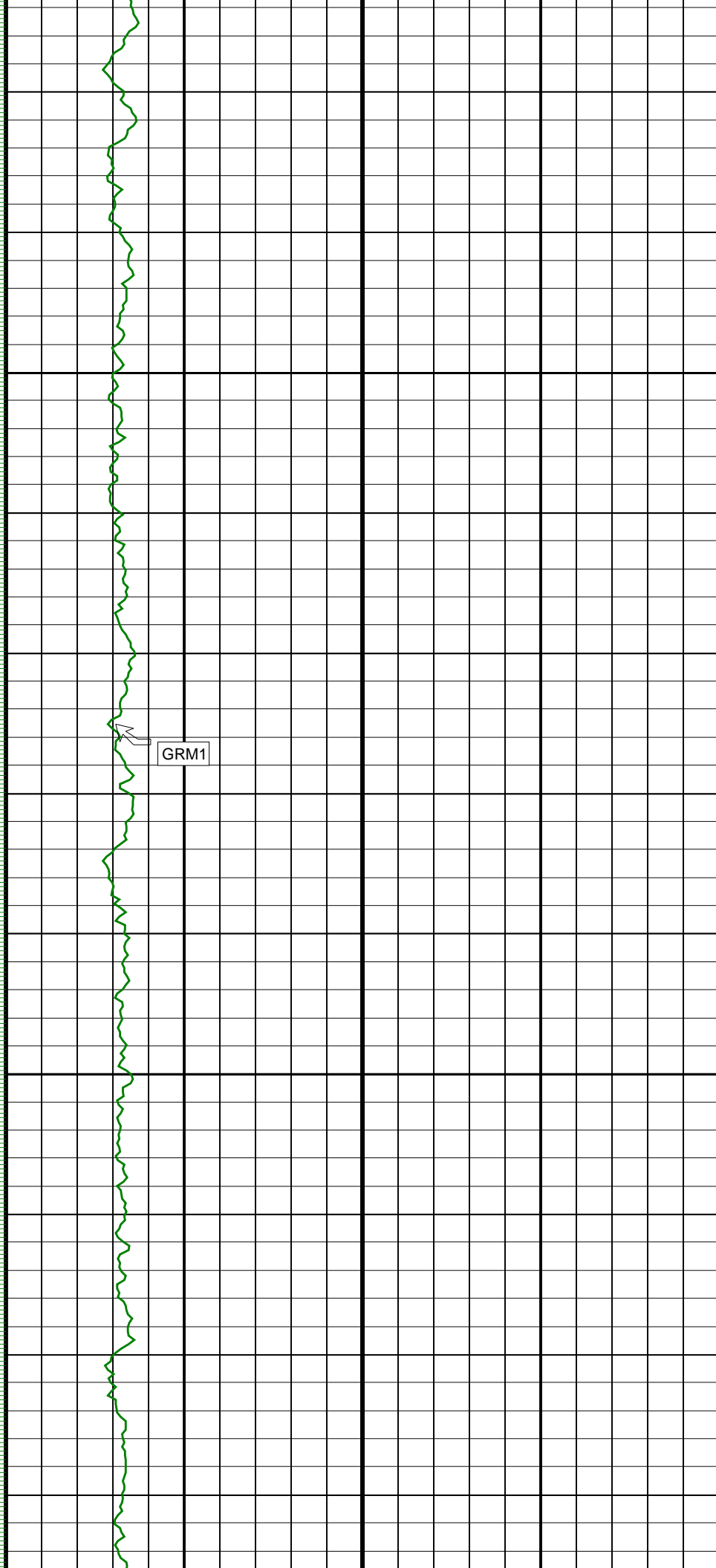




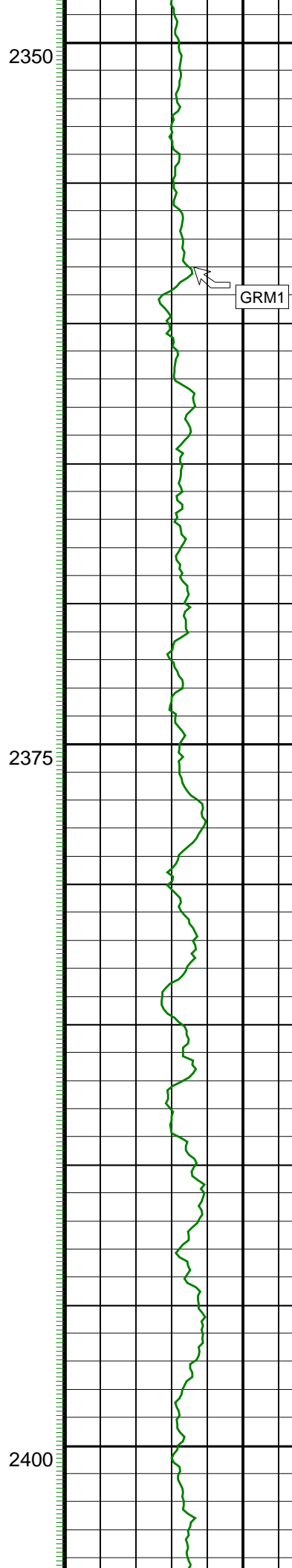
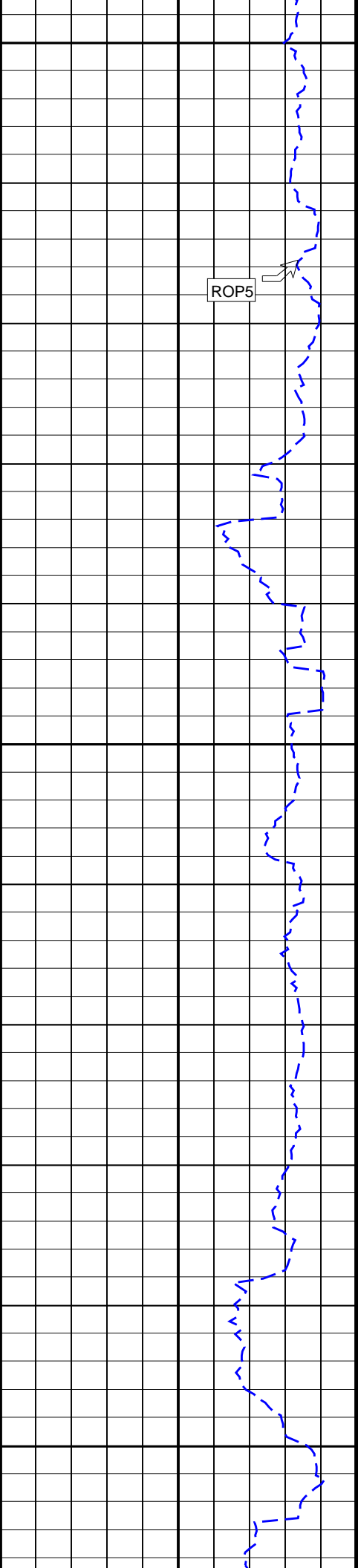


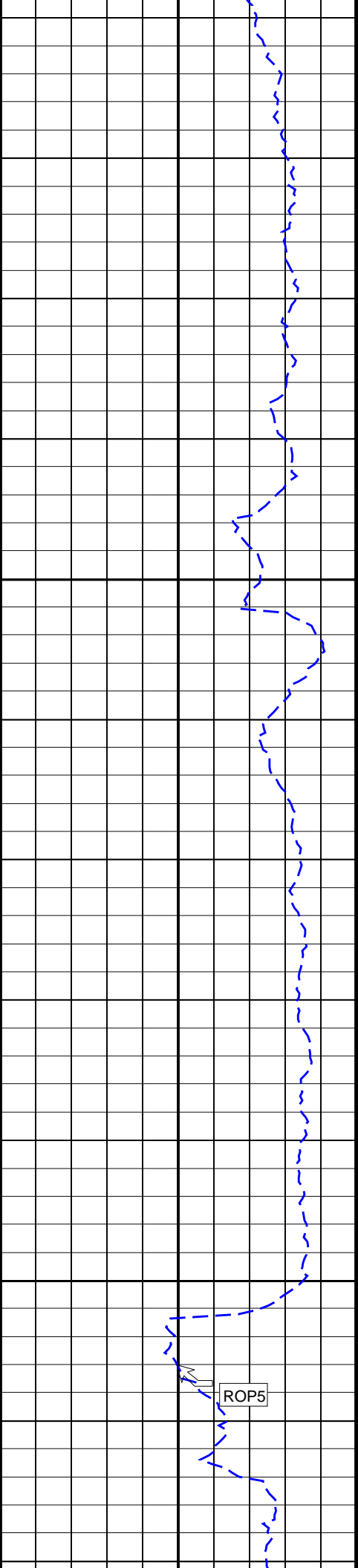
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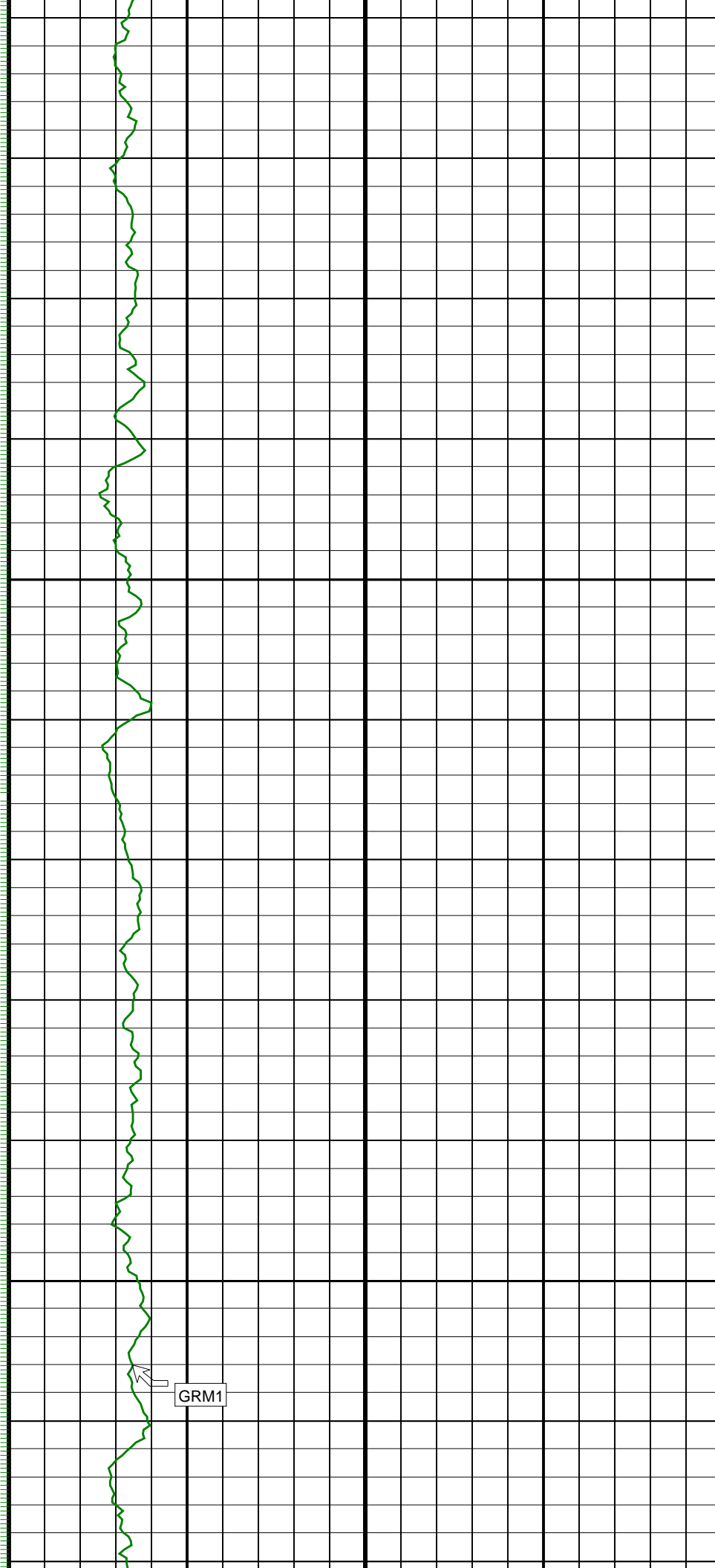




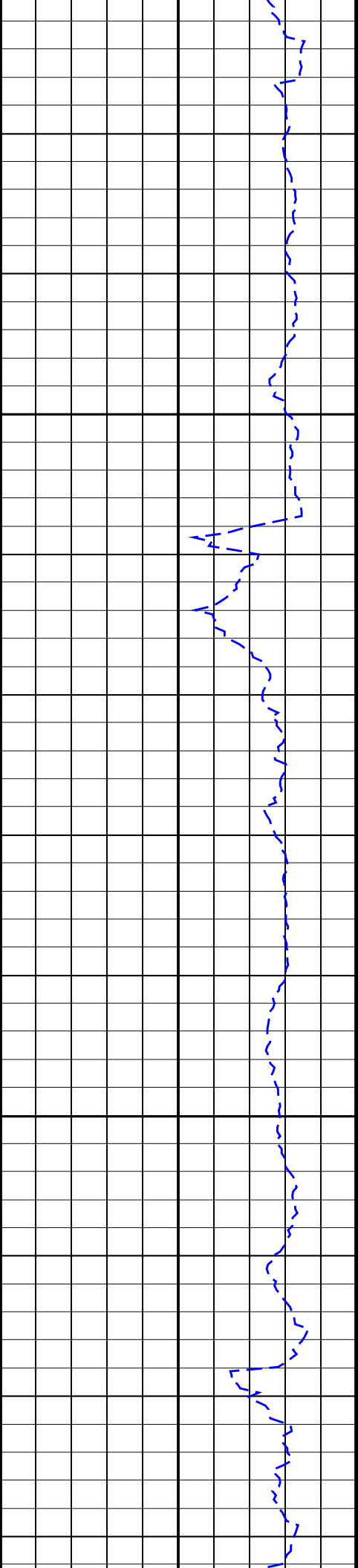


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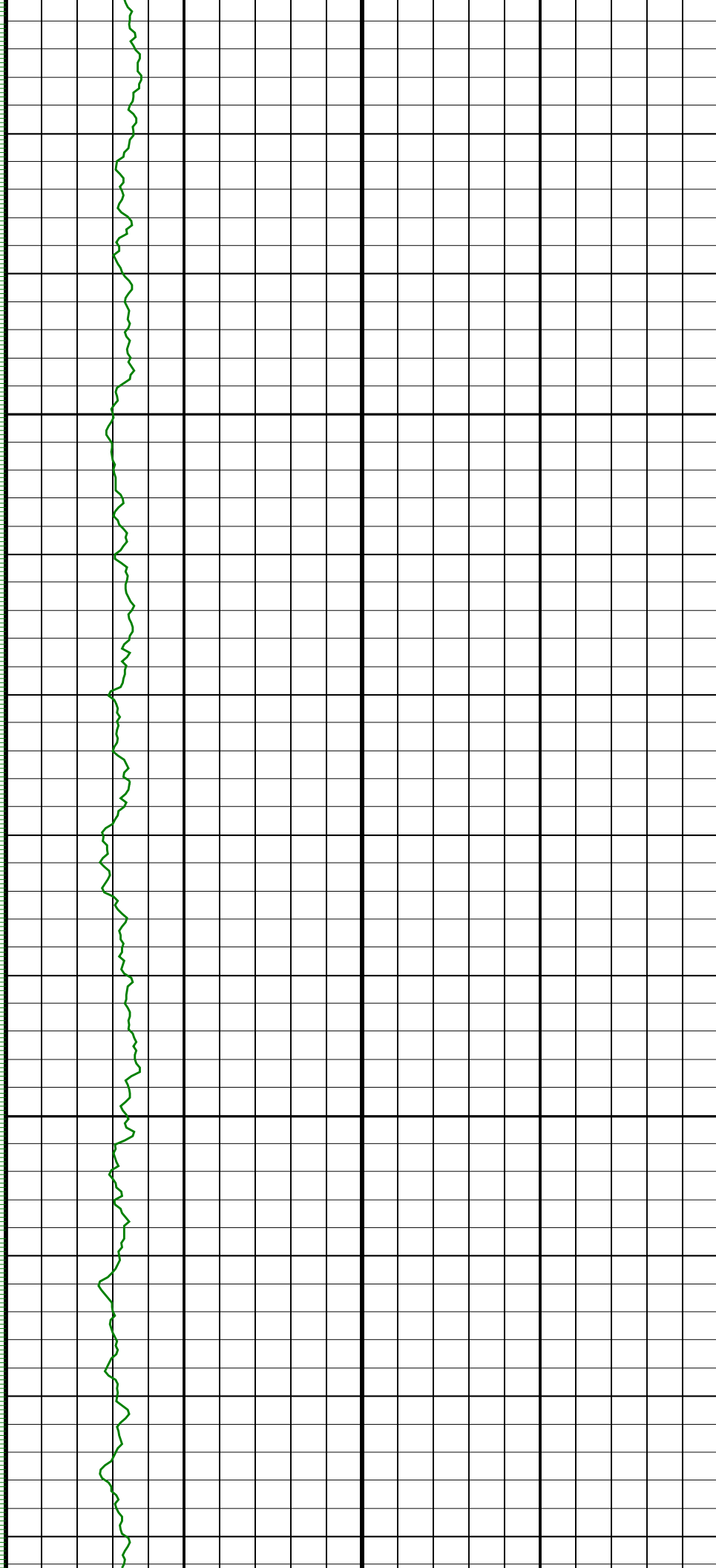




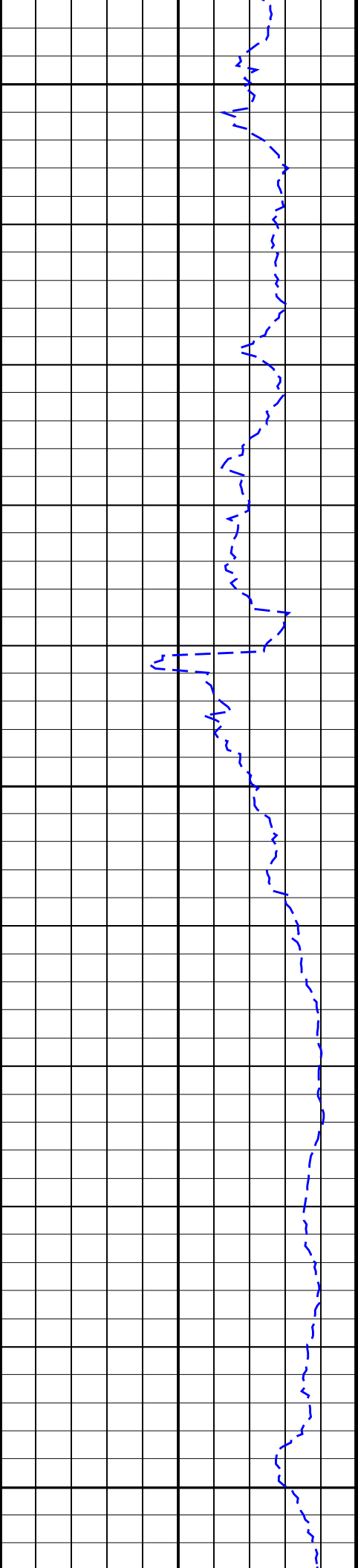


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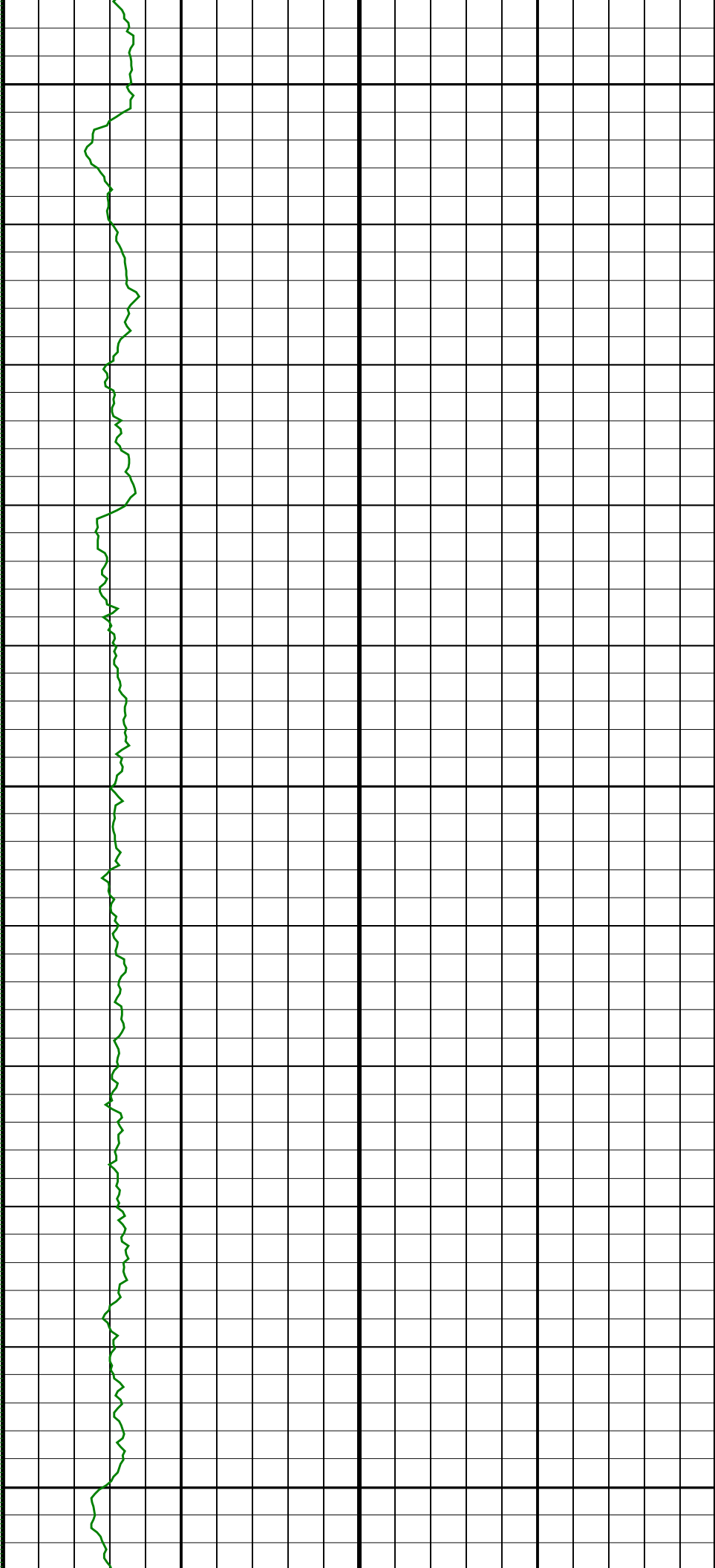




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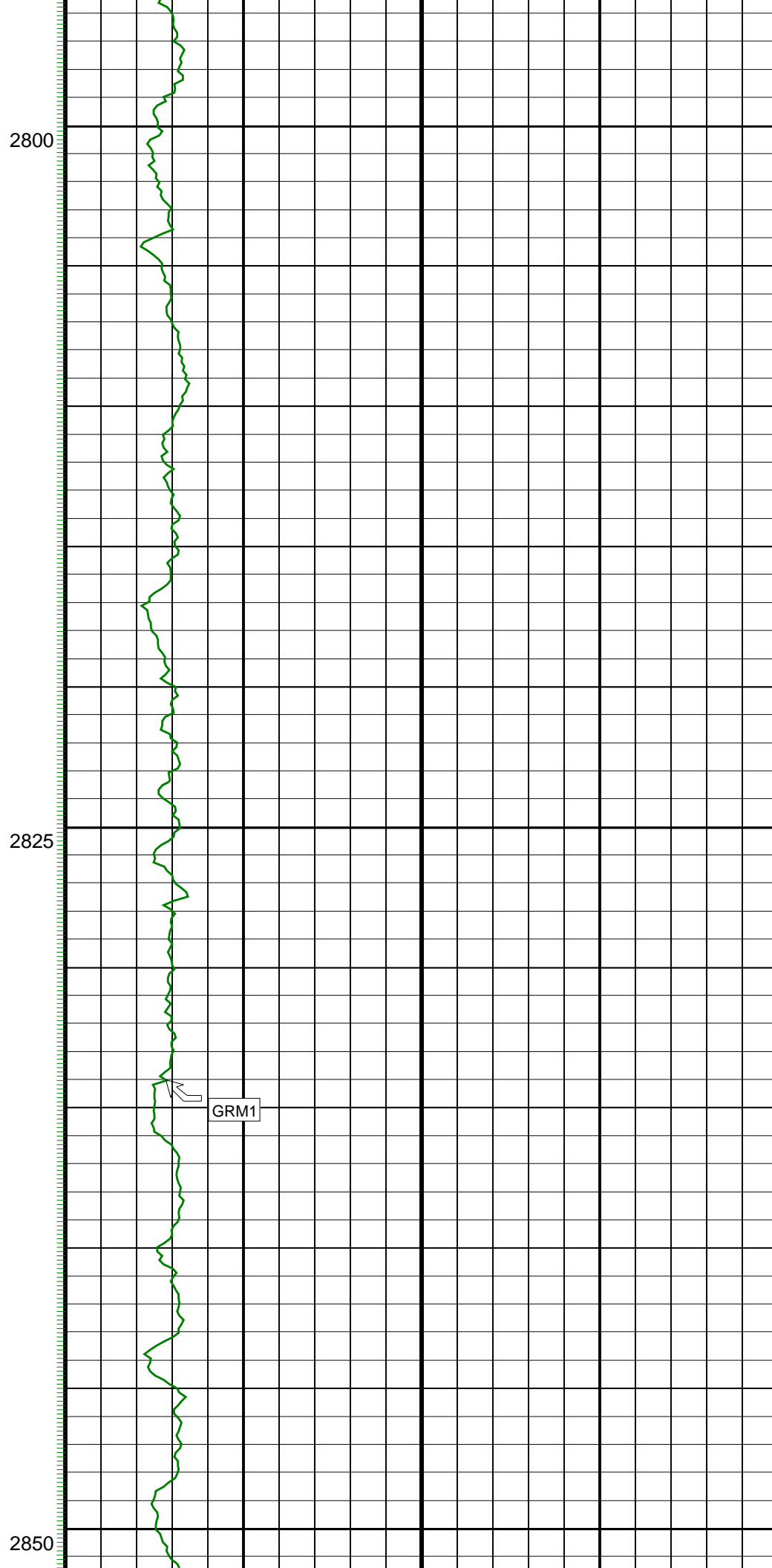
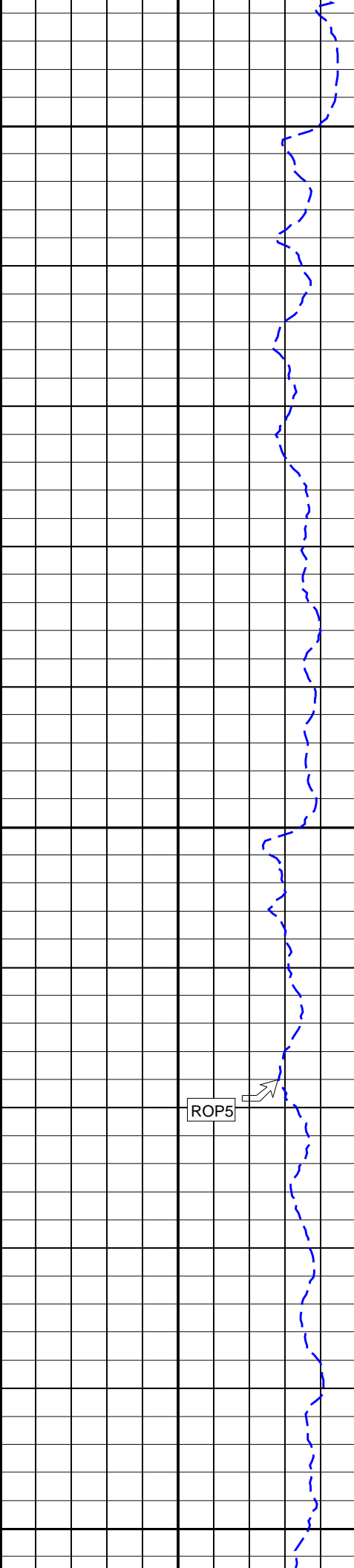


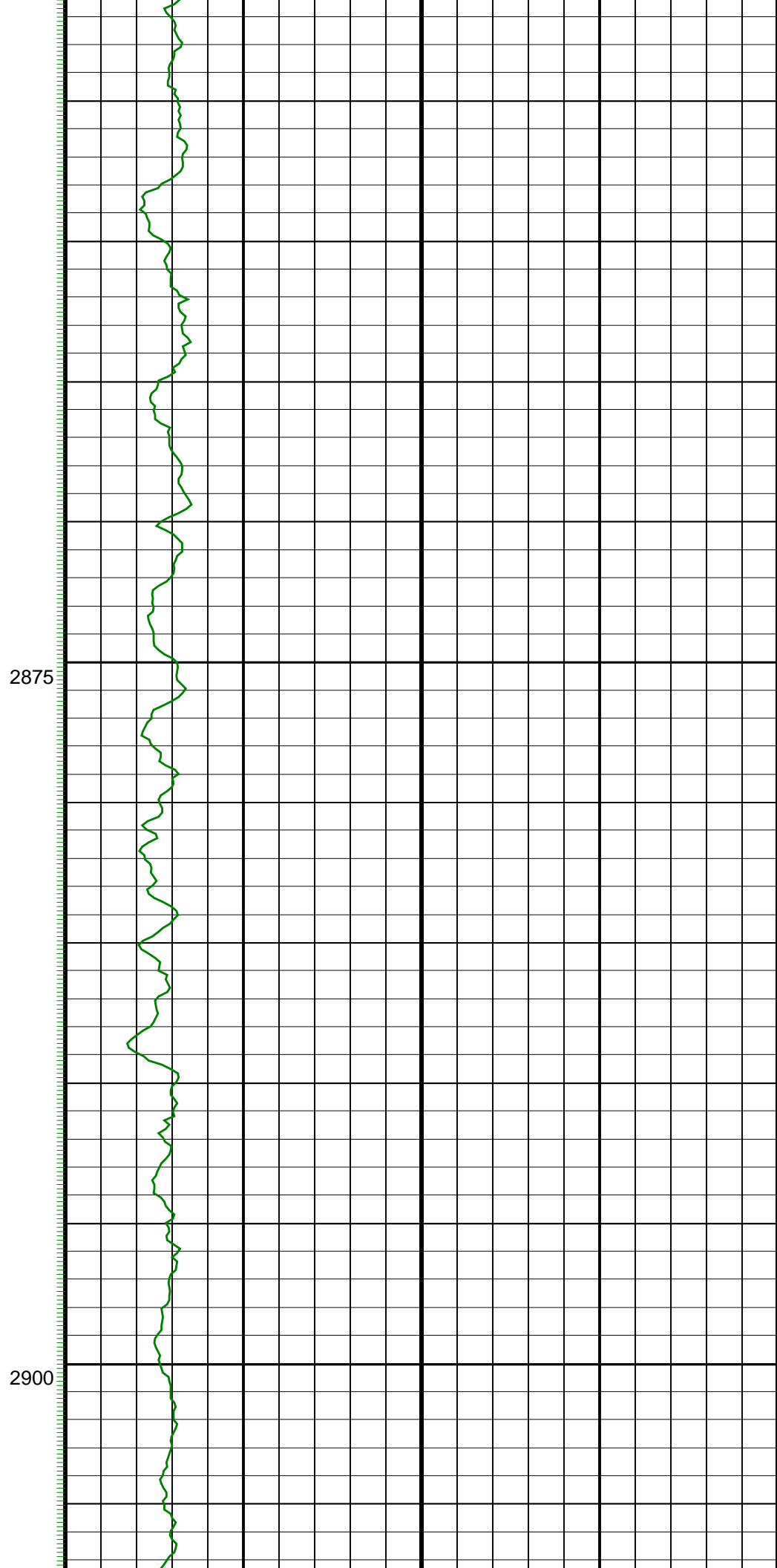
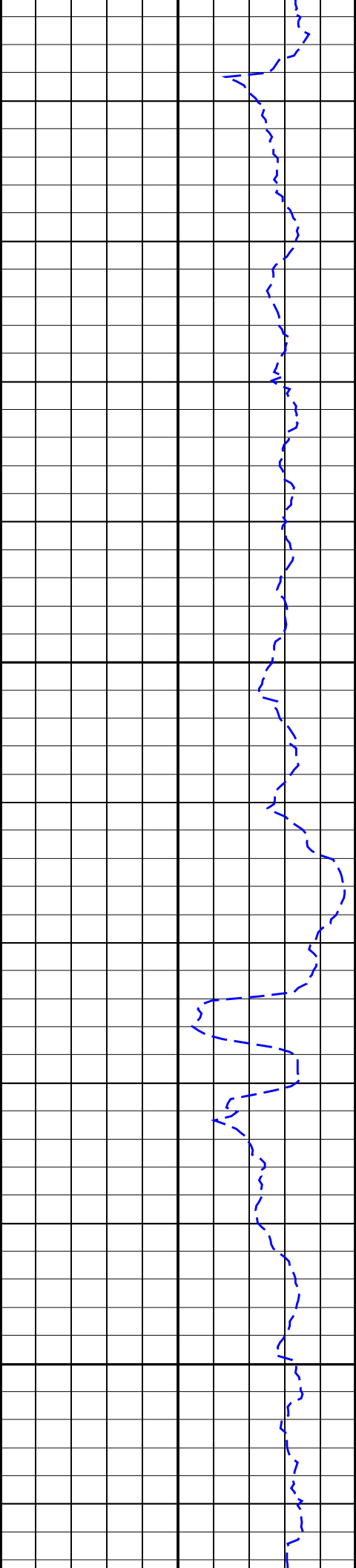
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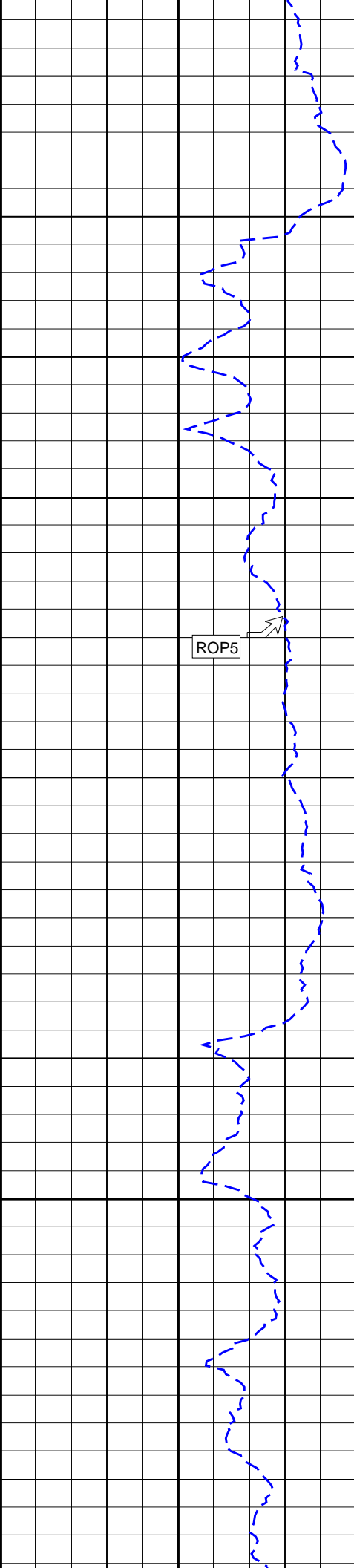
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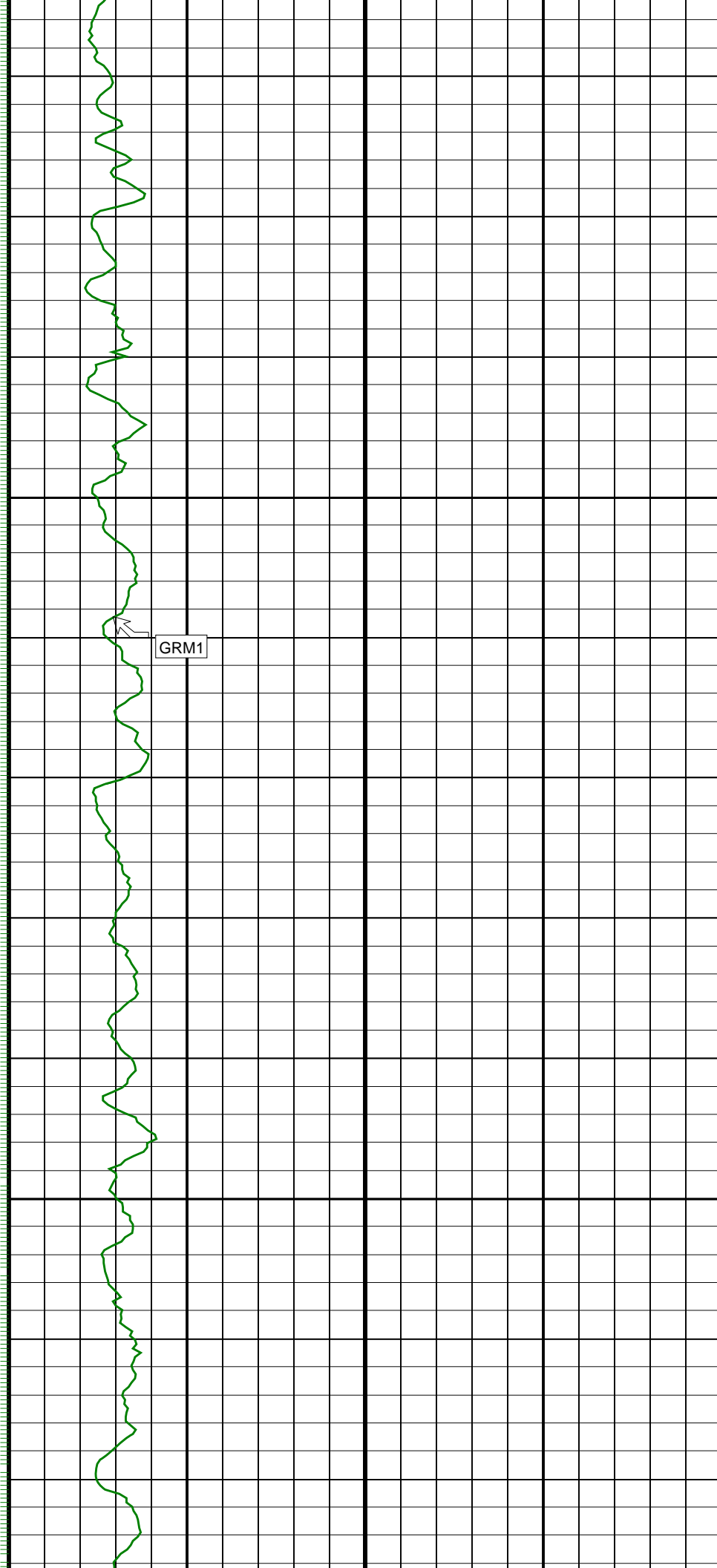


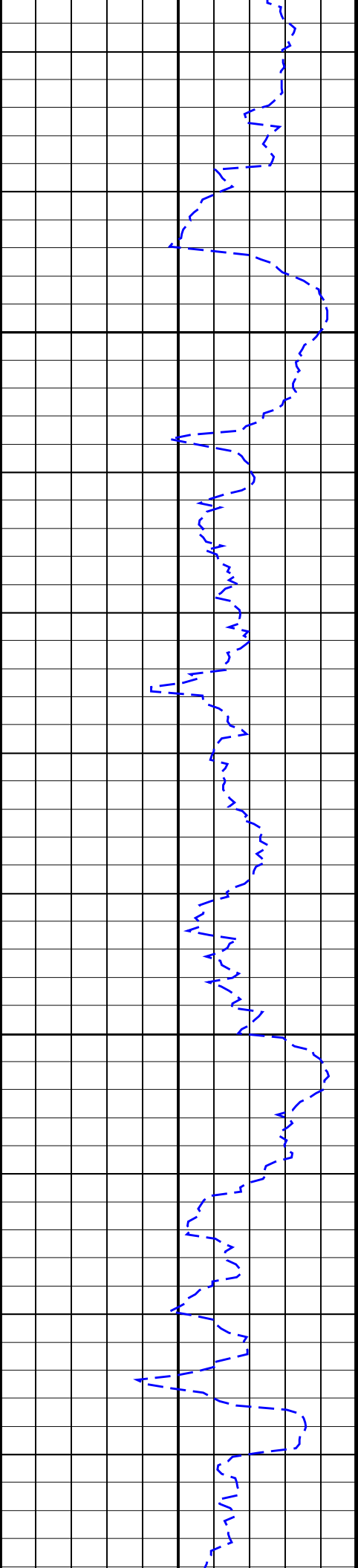




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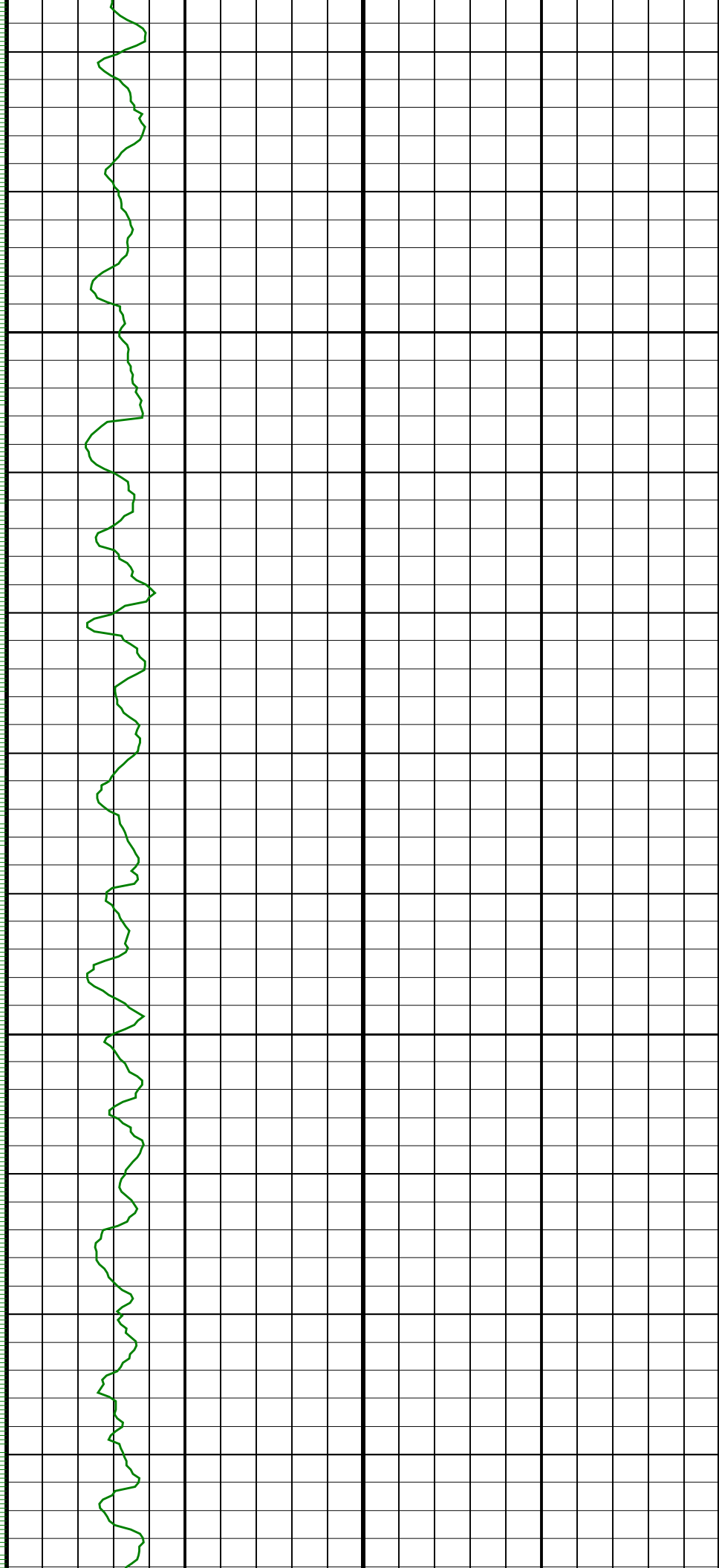
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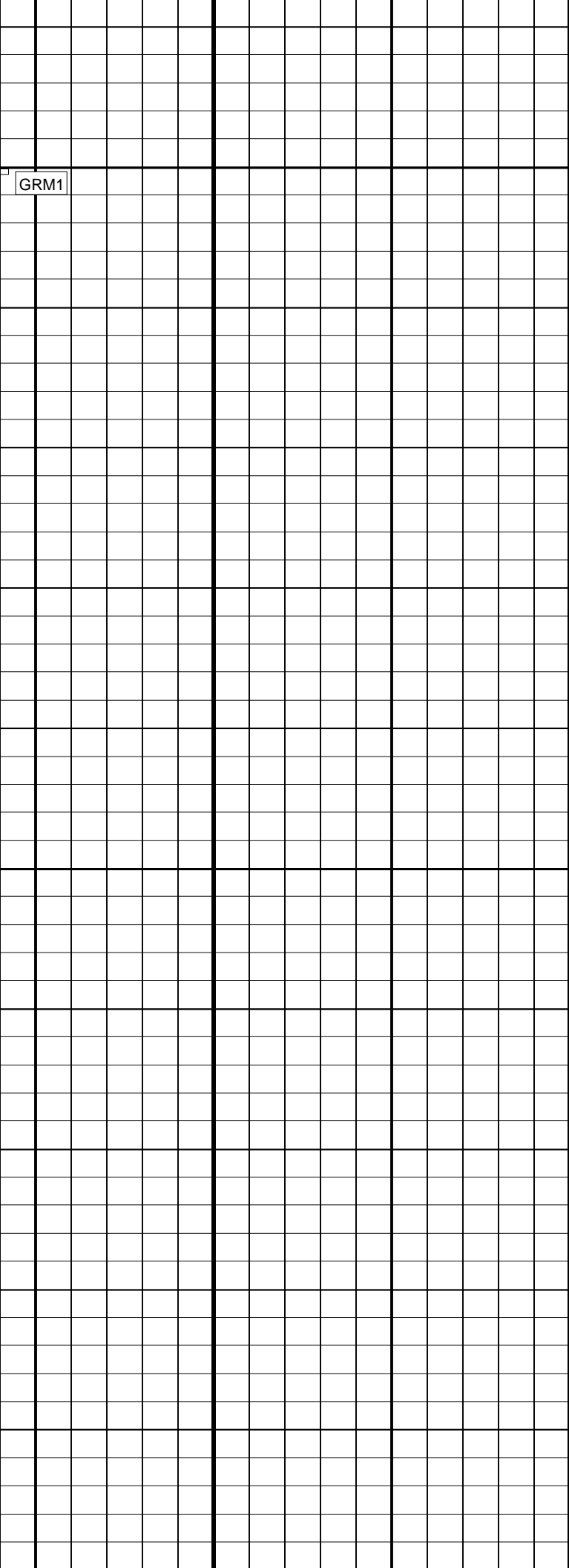
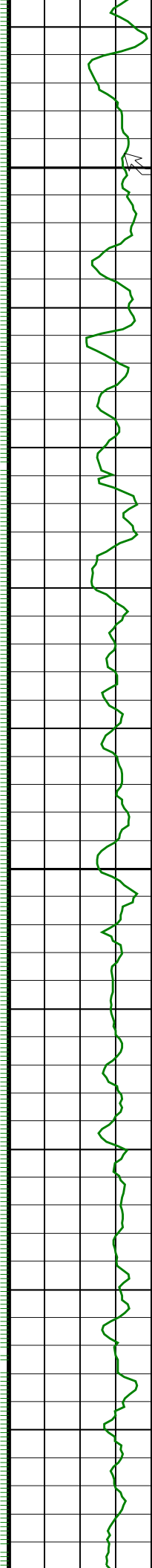
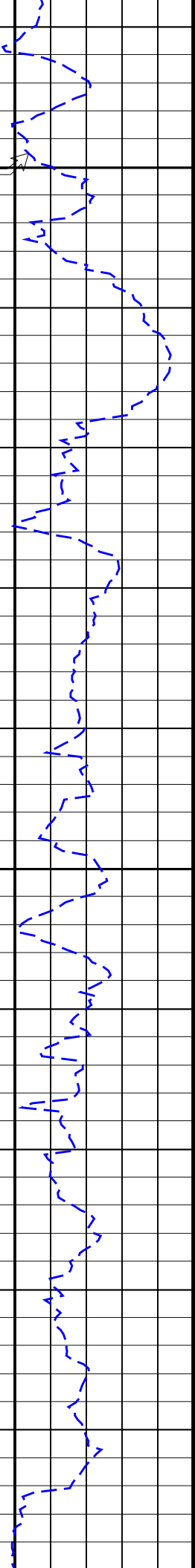




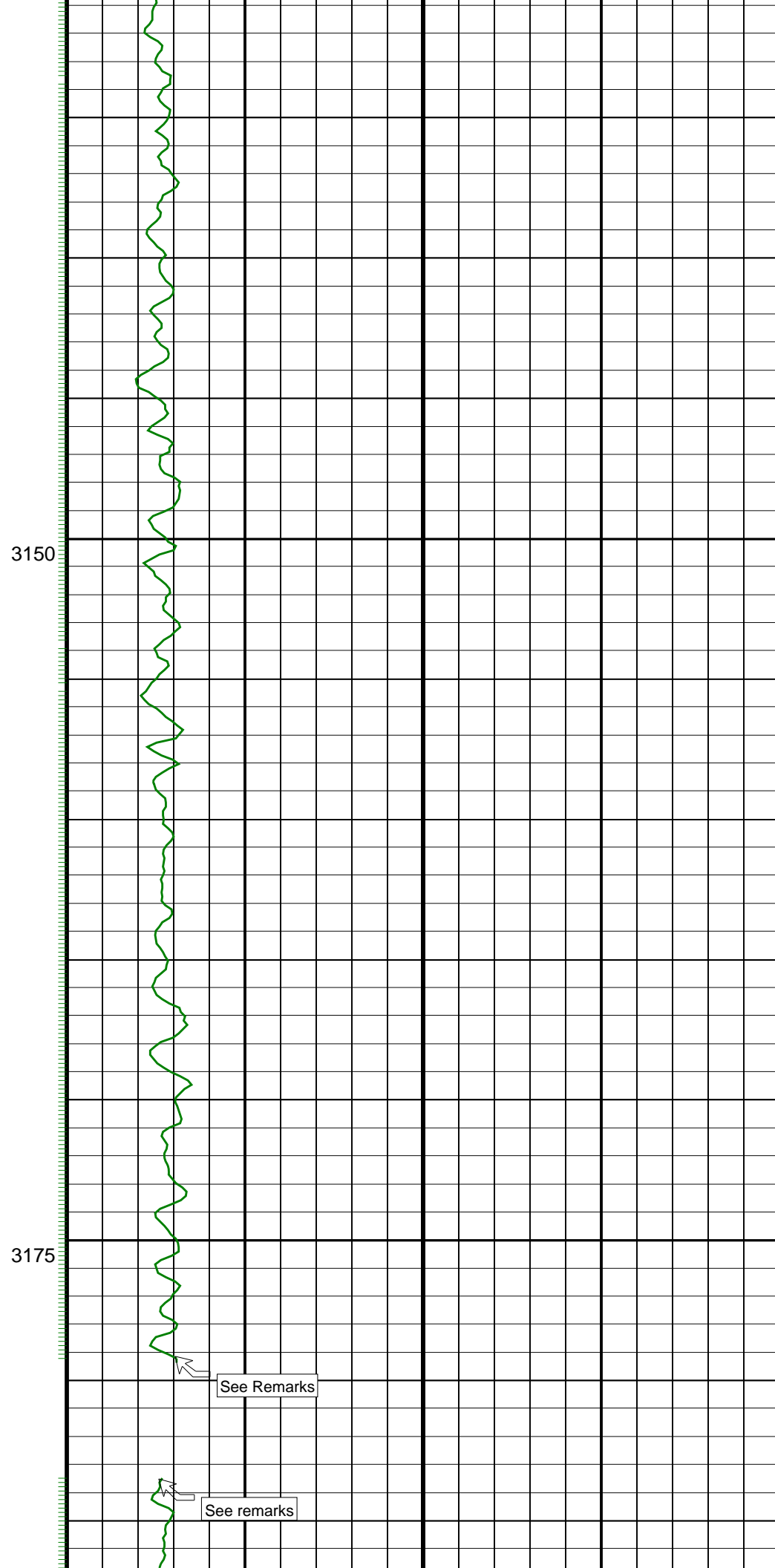
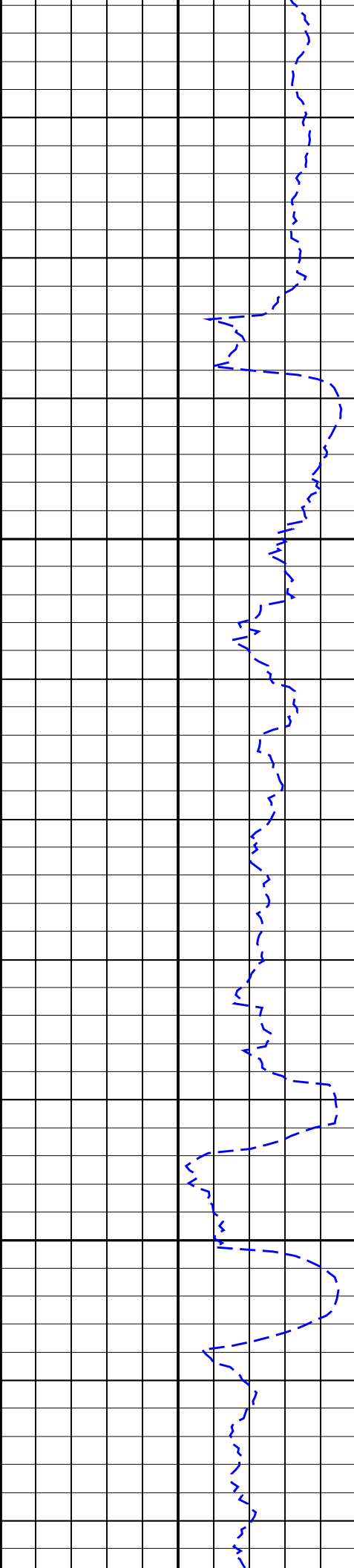
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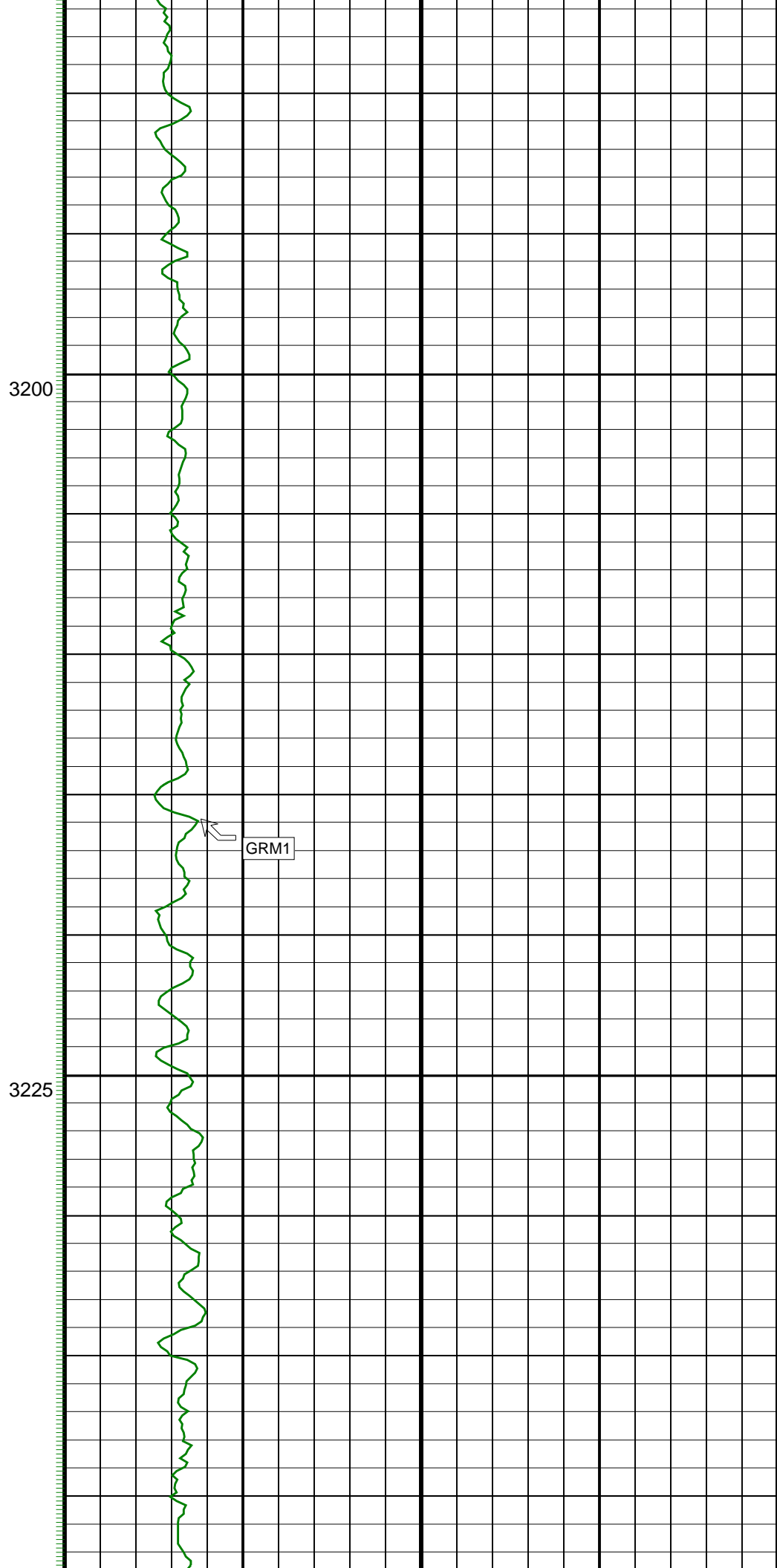
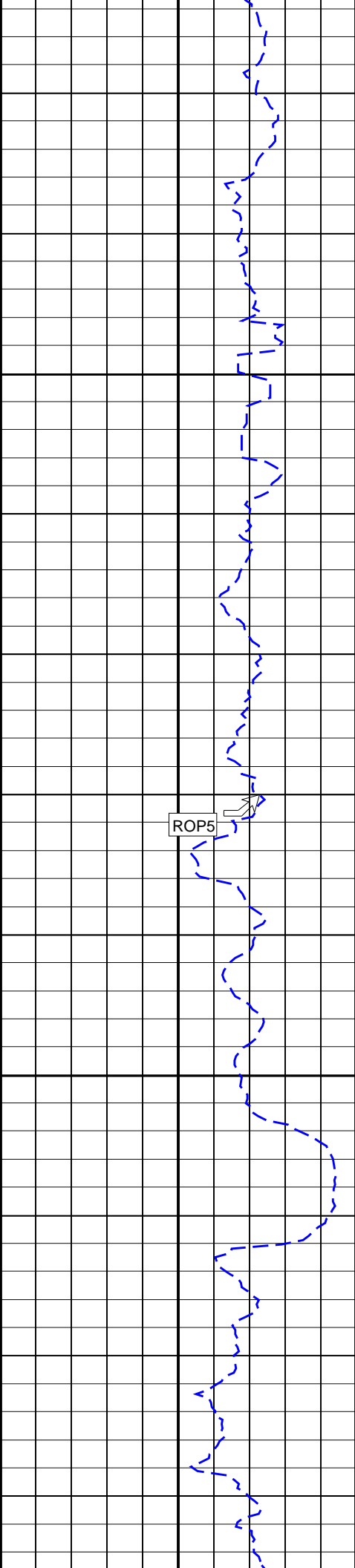
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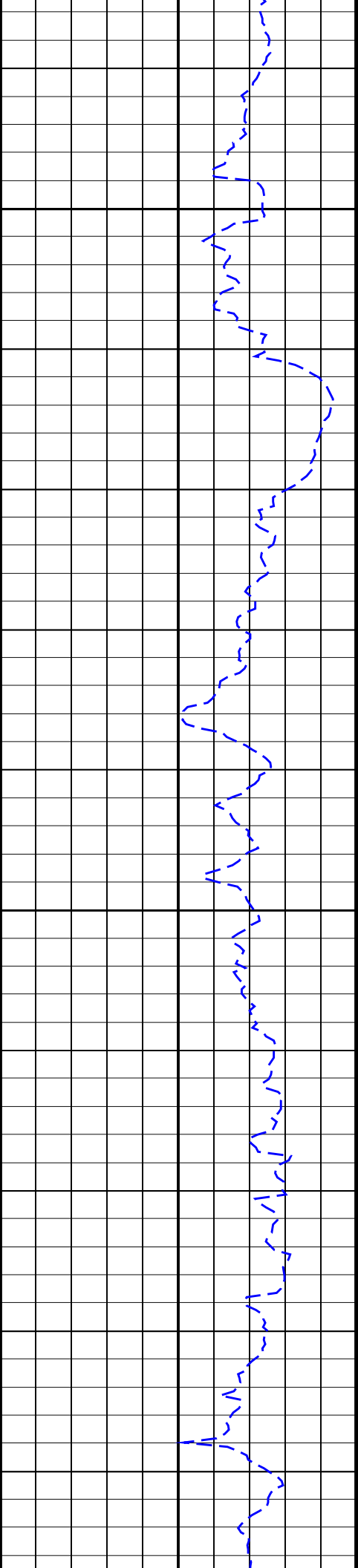






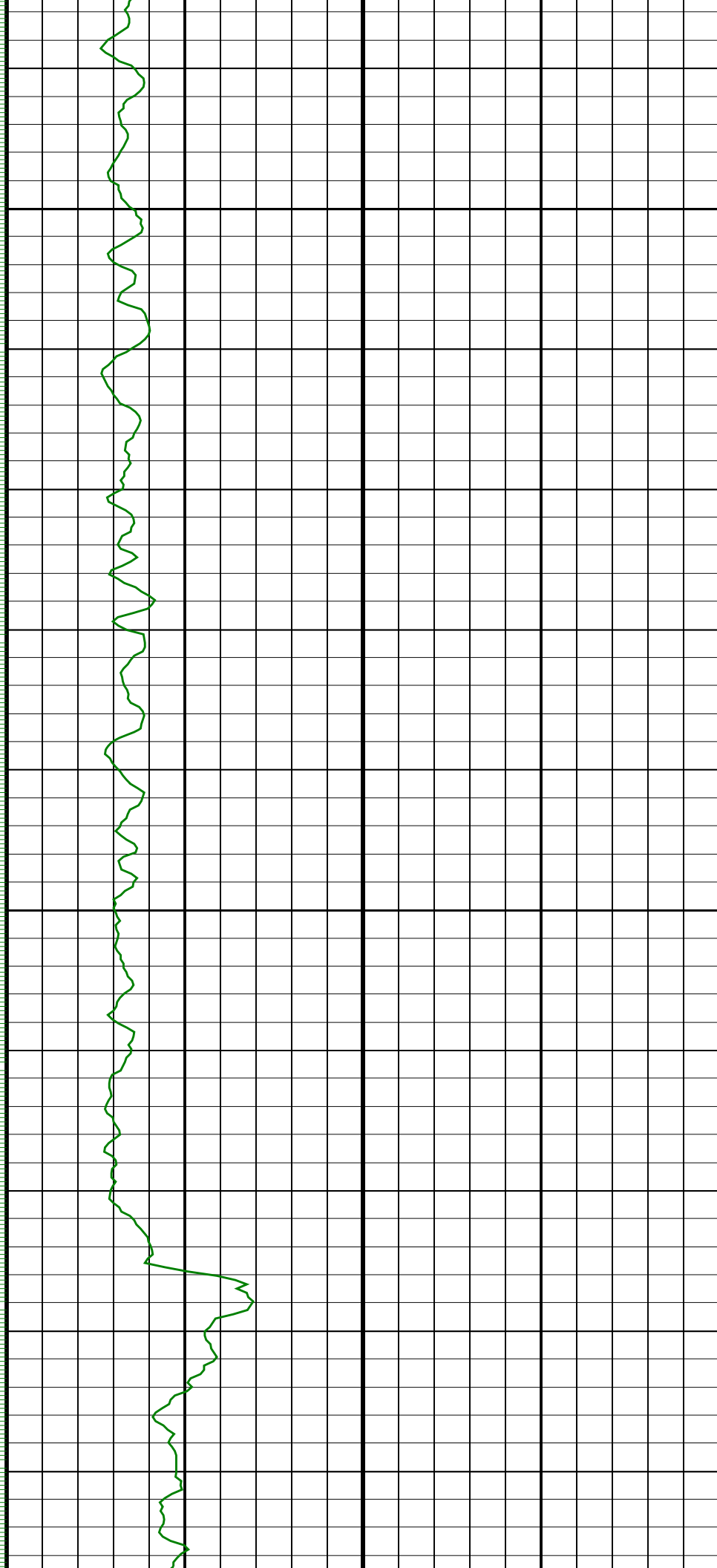


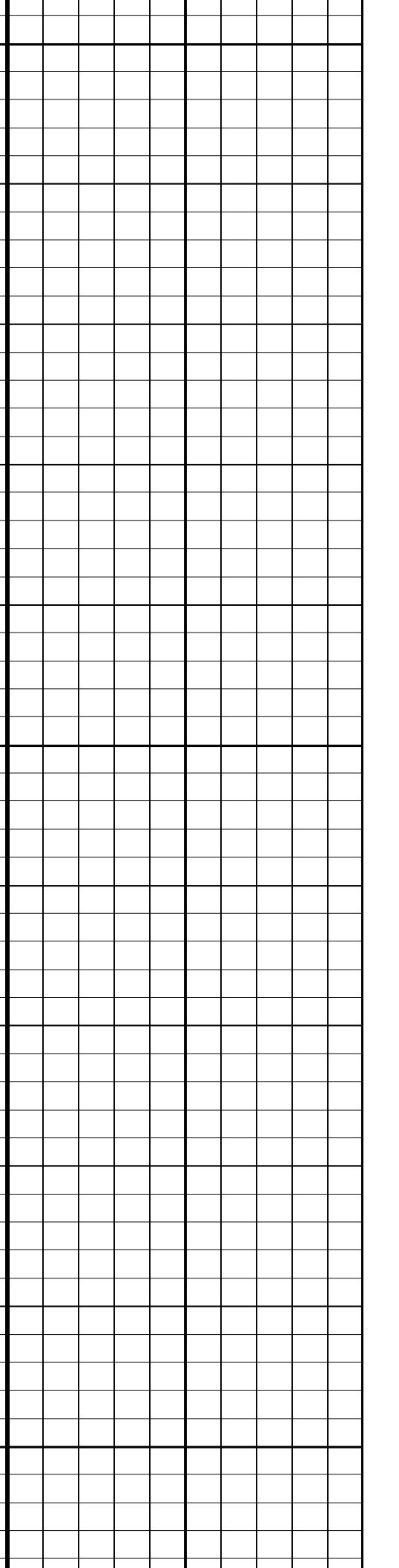
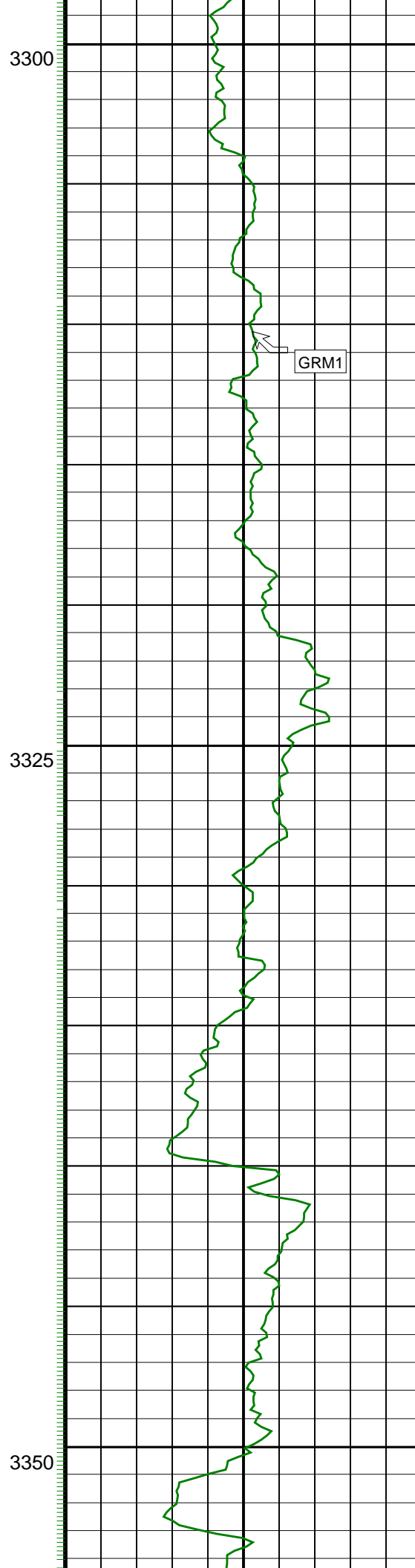
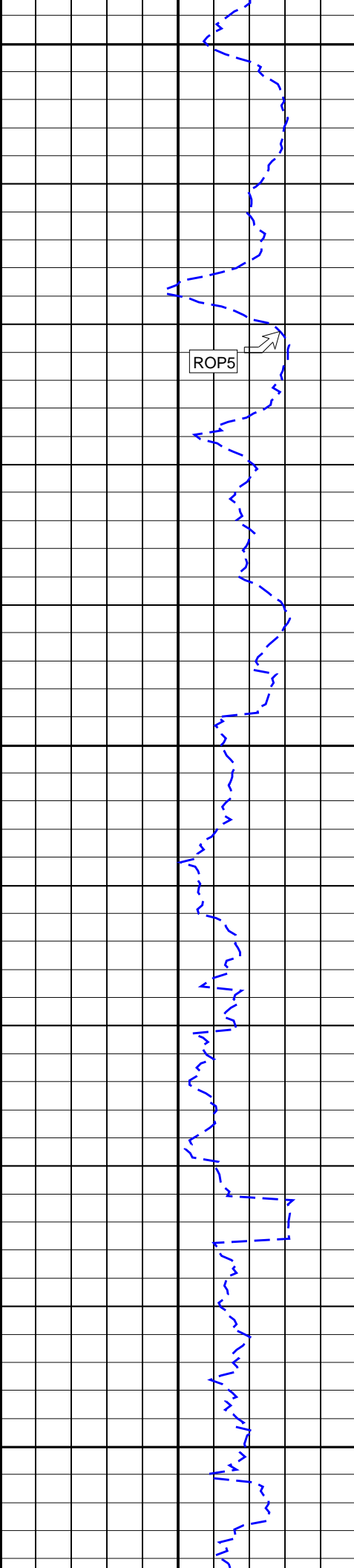




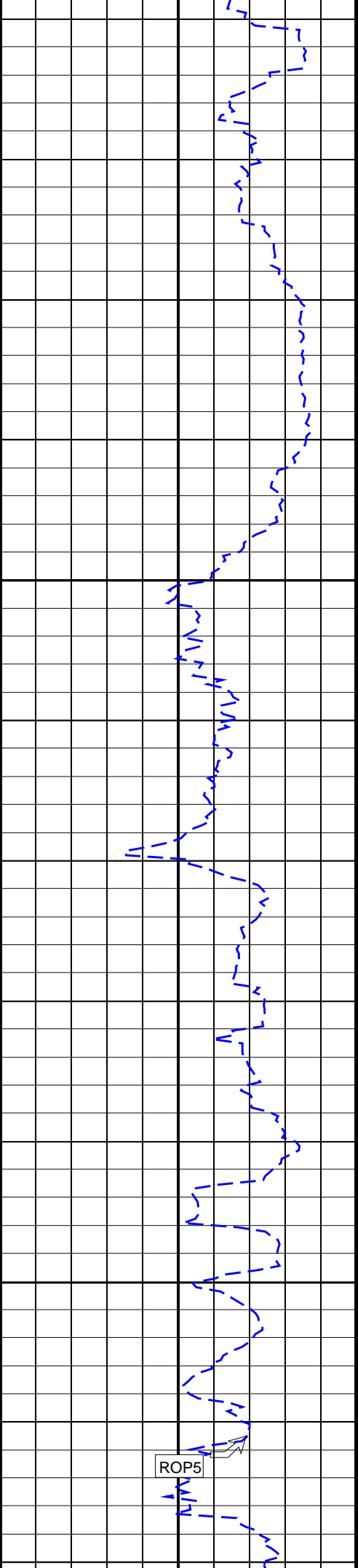
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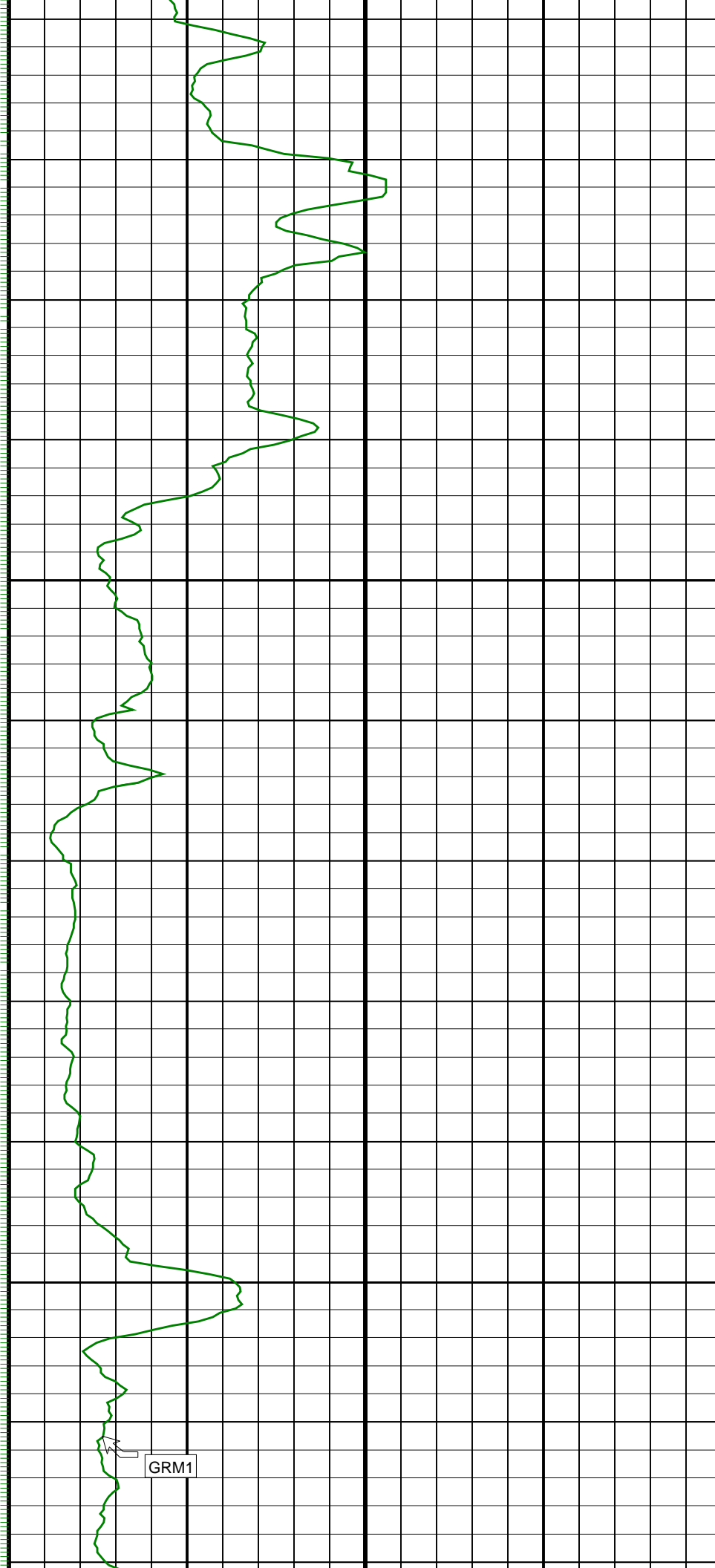




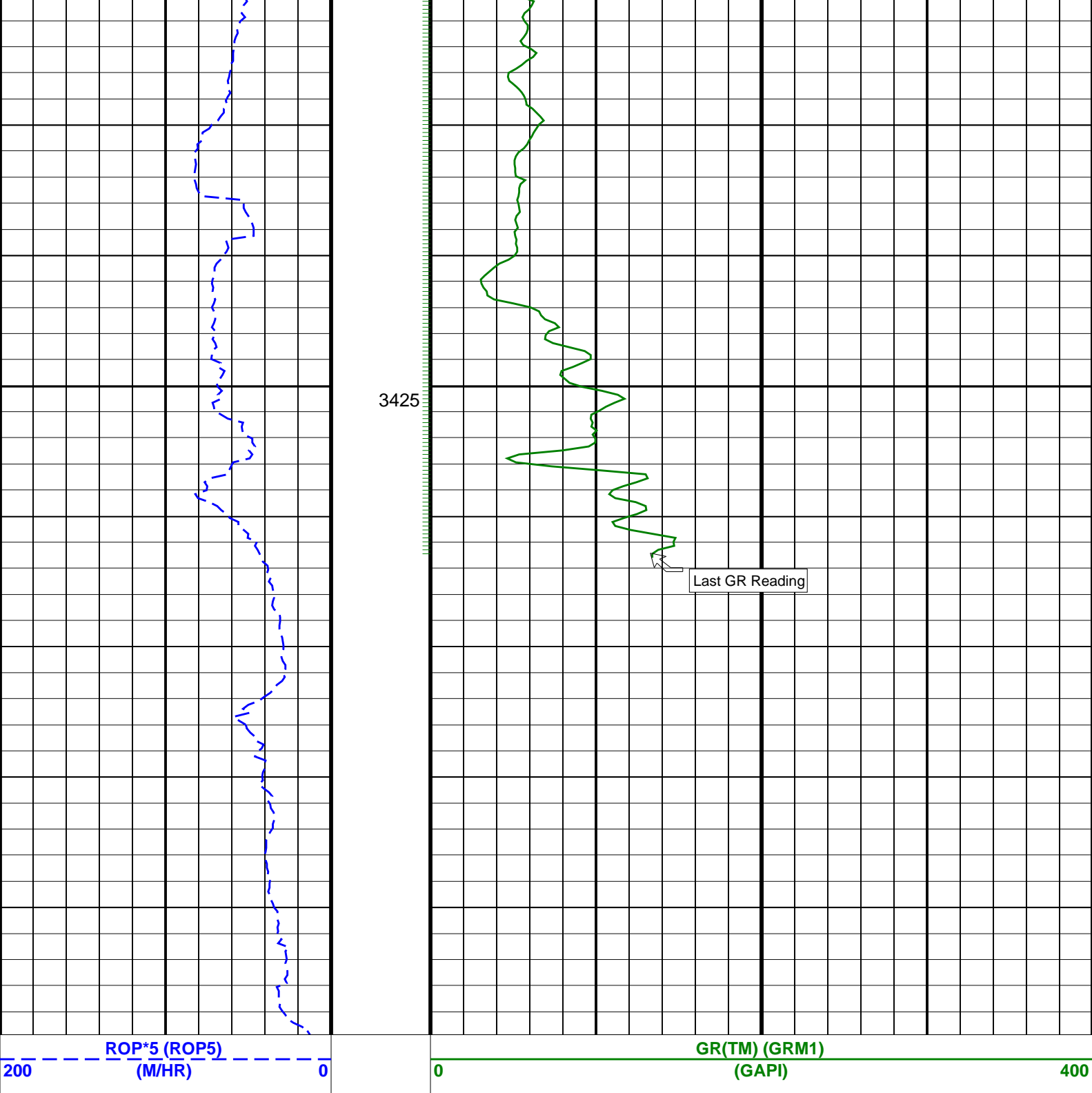


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3400



GRM1



### PIP SUMMARY

GR(TM) PIP

SCHLUMBERGER

Survey report

4-Jul-2006 01:55:42

Page 1 of 4

Client..... ESSO Australia Pty. Ltd.  
Field..... West Kingfish

Well..... WKF W31A  
Service number..... 06ASQ0011  
Engineer..... R.Burns, C.Skiba

Rig..... ISDL 453  
Victoria..... Victoria

Spud date..... 21 June 06  
Last survey date..... 03-Jul-06  
Total accepted surveys... 76  
MD of first survey..... 1300.00 m  
MD of last survey..... 3450.00 m

----- Survey calculation methods-----  
Method for positions..... Minimum curvature  
Method for DLS..... Mason & Taylor

----- Geomagnetic data -----  
Magnetic model..... BGGM version 2005  
Magnetic date..... 20-Jun-2006  
Magnetic field strength... 1202.45 HCNT

Depth reference-----  
Permanent datum..... Mean Sea Level  
Depth reference..... Driller's Depth  
GL above permanent..... -76.13 m  
KB above permanent..... Top Drive  
DF above permanent..... 33.43 m

----- Vertical section origin-----  
Latitude (+N/S-)..... -3.29 m  
Departure (+E/W-)..... 1.99 m

----- Platform reference point-----  
Latitude (+N/S-)..... 5727807.761 m  
Departure (+E/W-)..... 596265.029 m

Azimuth from Vsect Origin to target: 294.28 degrees

Magnetic dec (+E/W-)..... 13.25 degrees  
Magnetic dip..... -69.06 degrees

----- MWD survey Reference Criteria -----  
Reference G..... 1000.06 mGal  
Reference H..... 1202.45 HCNT  
Reference Dip..... -69.06 degrees  
Tolerance of G..... (+/-) 2.50 mGal  
Tolerance of H..... (+/-) 6.00 HCNT  
Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----  
Magnetic dec (+E/W-)..... 13.25 degrees  
Grid convergence (+E/W-).. -0.69 degrees  
Total az corr (+E/W-)..... 13.94 degrees  
(Total az corr = magnetic dec - grid conv)  
Survey Correction Type ...:  
I=Sag Corrected Inclination  
M=Schlumberger Magnetic Correction  
S=Shell Magnetic Correction  
F=Failed Axis Correction  
R=Magnetic Resonance Tool Correction  
D=Dmag Magnetic Correction

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SCHLUMBERGER Survey Report

4-Jul-2006 01:55:42

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
1	1300.00	57.11	269.74	0.00	975.11	651.92	-6.28	-714.54	714.57	269.50	0.00	TIP	None
2	1336.19	52.77	278.83	36.19	995.92	679.68	-4.13	-744.03	744.04	269.68	7.25	MWD	None
3	1365.80	52.20	282.53	29.61	1013.96	702.50	0.22	-767.10	767.10	270.02	3.08	MWD	None
4	1394.73	51.00	285.10	28.93	1031.93	724.79	5.62	-789.11	789.13	270.41	2.47	MWD	None
5	1422.96	50.80	288.55	28.23	1049.74	746.51	11.96	-810.08	810.17	270.85	2.90	MWD	None
6	1452.01	50.51	293.22	29.05	1068.16	768.93	19.97	-831.06	831.30	271.38	3.80	MWD	None
7	1480.72	51.01	300.69	28.71	1086.34	791.11	30.04	-850.85	851.38	272.02	6.16	MWD	None
8	1509.86	50.52	305.10	29.14	1104.77	813.41	42.29	-869.80	870.82	272.78	3.61	MWD	None
9	1536.36	50.50	305.15	26.50	1121.63	833.50	54.05	-886.52	888.17	273.49	0.05	MWD	None
10	1565.10	50.07	305.80	28.74	1139.99	855.19	66.88	-904.53	907.00	274.23	0.70	MWD	None
11	1596.20	49.60	306.00	31.10	1160.05	878.47	80.82	-923.78	927.31	275.00	0.48	MWD	None
12	1625.29	49.39	306.13	29.09	1178.94	900.12	93.84	-941.66	946.32	275.69	0.24	MWD	None
13	1654.10	48.92	306.07	28.81	1197.79	921.45	106.68	-959.27	965.18	276.35	0.50	MWD	None
14	1682.18	49.74	307.10	28.08	1216.09	942.26	119.38	-976.37	983.64	276.97	1.23	MWD	None
15	1710.86	49.37	307.23	28.68	1234.69	963.54	132.56	-993.76	1002.56	277.60	0.41	MWD	None
16	1738.95	48.77	307.19	28.09	1253.09	984.22	145.39	-1010.66	1021.07	278.19	0.65	MWD	None
17	1768.12	49.94	306.42	29.17	1272.09	1005.83	158.65	-1028.38	1040.55	278.77	1.37	MWD	None
18	1796.79	49.75	306.27	28.67	1290.58	1027.25	171.64	-1046.03	1060.02	279.32	0.24	MWD	None
19	1825.70	49.88	306.80	28.91	1309.24	1048.84	184.79	-1063.78	1079.71	279.85	0.45	MWD	None
20	1854.30	49.93	306.86	28.60	1327.66	1070.19	197.90	-1081.29	1099.25	280.37	0.07	MWD	None
21	1882.82	49.33	306.67	28.52	1346.13	1091.41	210.91	-1098.70	1118.76	280.87	0.66	MWD	None
22	1912.05	49.60	306.76	29.23	1365.13	1113.10	224.19	-1116.51	1138.79	281.35	0.29	MWD	None
23	1940.64	49.02	306.70	28.59	1383.77	1134.27	237.15	-1133.88	1158.42	281.81	0.62	MWD	None
24	1969.31	48.73	306.61	28.67	1402.62	1155.36	250.05	-1151.21	1178.05	282.25	0.32	MWD	None
25	1998.03	48.40	306.48	28.72	1421.63	1176.40	262.87	-1168.50	1197.71	282.68	0.37	MWD	None
26	2026.83	49.21	307.25	28.80	1440.60	1197.55	275.87	-1185.84	1217.51	283.10	1.05	MWD	None
27	2055.39	48.96	307.38	28.56	1459.30	1218.58	288.95	-1203.01	1237.22	283.51	0.29	MWD	None
28	2083.60	49.73	306.46	28.21	1477.68	1239.46	301.81	-1220.12	1256.89	283.89	1.12	MWD	None
29	2113.01	49.51	306.37	29.41	1496.73	1261.36	315.11	-1238.15	1277.61	284.28	0.24	MWD	None
30	2141.82	49.17	306.23	28.80	1515.50	1282.73	328.04	-1255.75	1297.89	284.64	0.38	MWD	None

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/100f)	Srvy tool type	Tool Corr (deg)
31	2170.51	49.05	306.30	28.70	1534.29	1303.96	340.87	-1273.25	1318.09	284.99	0.14	MWD	None
32	2199.15	48.82	306.15	28.64	1553.10	1325.08	353.64	-1290.67	1338.24	285.32	0.27	MWD	None
33	2228.17	48.79	306.25	29.02	1572.21	1346.45	366.53	-1308.29	1358.66	285.65	0.09	MWD	None
34	2256.96	48.86	306.07	28.79	1591.17	1367.65	379.32	-1325.78	1378.98	285.97	0.16	MWD	None
35	2286.00	48.98	306.44	29.04	1610.25	1389.07	392.26	-1343.43	1399.53	286.28	0.32	MWD	None
36	2314.77	49.03	306.52	28.77	1629.12	1410.29	405.17	-1360.89	1419.93	286.58	0.08	MWD	None
37	2343.36	49.15	307.22	28.59	1647.85	1431.38	418.14	-1378.18	1440.21	286.88	0.58	MWD	None
38	2372.31	49.07	307.34	28.95	1666.80	1452.70	431.39	-1395.59	1460.75	287.18	0.13	MWD	None
39	2400.92	49.08	307.58	28.61	1685.54	1473.75	444.54	-1412.75	1481.04	287.47	0.19	MWD	None
40	2429.82	50.11	307.35	28.90	1704.27	1495.18	457.93	-1430.22	1501.74	287.75	1.10	MWD	None
41	2458.44	49.78	307.28	28.62	1722.69	1516.52	471.21	-1447.64	1522.40	288.03	0.36	MWD	None
42	2487.55	49.36	307.30	29.11	1741.57	1538.11	484.63	-1465.27	1543.34	288.30	0.44	MWD	None
43	2516.05	48.95	307.52	28.50	1760.21	1559.11	497.73	-1482.40	1563.72	288.56	0.47	MWD	None
44	2544.63	48.63	307.57	28.58	1779.04	1580.03	510.83	-1499.44	1584.07	288.81	0.34	MWD	None
45	2573.46	49.23	307.06	28.83	1797.98	1601.21	524.01	-1516.73	1604.70	289.06	0.75	MWD	None
46	2602.09	48.82	306.99	28.63	1816.75	1622.29	537.02	-1533.99	1625.27	289.29	0.44	MWD	None
47	2630.74	48.35	307.15	28.65	1835.70	1643.24	549.97	-1551.13	1645.75	289.52	0.52	MWD	None
48	2659.33	49.48	306.27	28.59	1854.49	1664.29	562.85	-1568.41	1666.34	289.74	1.40	MWD	None
49	2688.04	49.16	306.25	28.71	1873.20	1685.58	575.73	-1585.96	1687.23	289.95	0.34	MWD	None
50	2717.04	49.63	305.71	29.00	1892.08	1707.14	588.67	-1603.78	1708.40	290.16	0.66	MWD	None

51	2745.60	49.37	305.68	28.56	1910.63	1728.43	601.34	-1621.42	1729.33	290.35	0.28	MWD	None
52	2774.72	49.18	305.78	29.12	1929.63	1750.06	614.22	-1639.33	1750.62	290.54	0.21	MWD	None
53	2803.78	49.96	305.78	29.06	1948.47	1771.74	627.16	-1657.28	1771.97	290.73	0.82	MWD	None
54	2832.31	49.50	305.25	28.53	1966.91	1793.09	639.80	-1675.00	1793.03	290.91	0.65	MWD	None
55	2861.12	48.72	305.24	28.80	1985.77	1814.46	652.37	-1692.78	1814.13	291.08	0.83	MWD	None

56	2889.66	49.20	305.47	28.55	2004.51	1835.60	664.83	-1710.34	1835.01	291.24	0.54	MWD	None
57	2918.51	48.85	306.13	28.85	2023.43	1856.94	677.57	-1728.00	1856.10	291.41	0.64	MWD	None
58	2946.57	48.71	307.42	28.06	2041.92	1877.54	690.20	-1744.91	1876.46	291.58	1.06	MWD	None
59	2974.93	49.27	306.73	28.36	2060.53	1898.41	703.10	-1761.98	1897.09	291.75	0.82	MWD	None
60	3004.03	49.85	306.59	29.10	2079.41	1920.04	716.33	-1779.75	1918.50	291.92	0.62	MWD	None

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Seq # -	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
61	3033.97	50.42	307.45	29.94	2098.60	1942.46	730.17	-1798.10	1940.70	292.10	0.89	MWD	None
62	3061.52	49.76	307.07	27.55	2116.27	1963.05	742.96	-1814.92	1961.10	292.26	0.80	MWD	None
63	3091.30	49.63	308.10	29.78	2135.54	1985.15	756.81	-1832.91	1983.01	292.44	0.81	MWD	None
64	3119.52	49.20	308.24	28.22	2153.89	2005.96	770.06	-1849.76	2003.65	292.60	0.48	MWD	None
65	3148.61	49.20	307.48	29.09	2172.90	2027.36	783.57	-1867.15	2024.90	292.77	0.60	MWD	None
66	3177.53	49.48	306.87	28.92	2191.75	2048.75	796.83	-1884.63	2046.16	292.92	0.57	MWD	None
67	3206.43	48.69	307.27	28.90	2210.67	2070.04	809.99	-1902.05	2067.34	293.07	0.89	MWD	None
68	3234.80	48.43	307.17	28.37	2229.45	2090.77	822.85	-1918.99	2087.97	293.21	0.29	MWD	None
69	3263.45	48.49	306.40	28.65	2248.45	2111.71	835.70	-1936.16	2108.82	293.35	0.62	MWD	None
70	3292.15	47.52	306.67	28.70	2267.65	2132.55	848.39	-1953.30	2129.59	293.48	1.05	MWD	None
71	3320.67	47.20	306.95	28.52	2286.97	2153.03	860.96	-1970.10	2150.01	293.61	0.41	MWD	None
72	3348.60	47.60	306.81	27.93	2305.88	2173.09	873.30	-1986.55	2170.03	293.73	0.45	MWD	None
73	3377.27	48.03	306.89	28.67	2325.13	2193.83	886.04	-2003.55	2190.72	293.86	0.46	MWD	None
74	3406.09	48.50	306.62	28.82	2344.31	2214.83	898.91	-2020.78	2211.69	293.98	0.54	MWD	None
75	3428.95	48.87	306.54	22.86	2359.41	2231.60	909.14	-2034.56	2228.45	294.08	0.50	MWD	None
76	3450.00	49.15	306.85	21.05	2373.21	2247.12	918.64	-2047.30	2243.96	294.17	0.53	Proj.	to TD

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Company: **ESSO Australia Pty. Ltd.**

**Schlumberger**

Well: **WKF W31A**

Field: **West Kingfish**

Rig: **ISDL 453**

State: **Victoria**

**Gamma Ray Service  
1:200 Measured Depth  
Real Time Log**