

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

Well: BMA A14A

Field: **Bream A**

Rig: ISDL 453

State: **Victoria**

Rig: ISDL 453			
Field: Bream A			
Location: Bass Strait			
Well: BMA A14A			
Company: ESSO Australia Pty. Ltd.			
Gamma Ray Service			
1:500 Measured Depth			
Real Time Log			
Location			
Total depth:	3079.0 m	K.B.	Top Drive
Spud date:	01-August-2005	G.L.	-59.40 m
Runs:	1 To 2	D.F.	32.82 m
Permanent datum:	Mean Sea Level	Elev.:	0 m
Log measured from:	Drill Floor	32.82 m above Perm. datum	
Depth reference:	Driller's Depth		
Service Order no.	Y = 5738459.56 m	Longitude	Latitude
ASQ-05-11	X = 567344.81 m	E147°46'20.33"	S38°29'58.85"

Depth logged:	1006.0 m	To 3060.3 m	Mag decl:	13.06 deg.	Other services:	
Date logged:	01-Aug-05	To 10-Aug-05	Mag dip:	-69.04 deg.	Directional Drilling, D&I, APWD	
Bore hole record			Casing record			
Hole size	from	to	Size	Density	from	to
8-1/2 in.	1006.0 m	3079.0 m	10-3/4 in.	40.5 lb/ft	Surface	1006.0 m
Mud record			Borehole deviation record			
Type	from	to	Min	Max	from	to
KCl/HPA/Glycol	1006.0 m	3079.0 m	47.36 deg.	47.36 deg.	1005.0 m	1010.0 m
			42.52 deg.	47.36 deg.	1010.0 m	2157.0 m
			21.30 deg.	43.39 deg.	2157.0 m	3079.0 m
Surface equipment			Software record			
Unit	OLU-FB-924	IDEAL W/s	ID10_2B_08			
Depth system	DES-CA-ASQ04-0	SPM	HSPMT10_OC_12			
		LWD	N/A			
		MWD	V8.OB96			

Bit Run Summary

Run number		1	2							
Bit size	in	8.5	8.5							
Bit start depth	m	1006.0	2395.0							
Bit end depth	m	2395.0	3079.0							
Top interval logged	m	1006.0	2376.3							
Bottom interval logged	m	2376.3	3060.3							
Begin log: time		04:14	01:49							
Begin log: date		01-Aug-05	07-Aug-05							
End log: time		15:54	09:07							
End log: date		06-Aug-05	10-Aug-05							
Mud data										
Depth	m	2395.0	3079							
Type		KCl/PHPA/Gly.	KCl/PHPA/Gly.							
Mud weight	ppg	10.05	10.05							
Solids	%	8.3	8.2							
Chlorides	mg/L	44,500	47,000							
Rm		N/A	N/A							
Rmf		N/A	N/A							
Rmc		N/A	N/A							

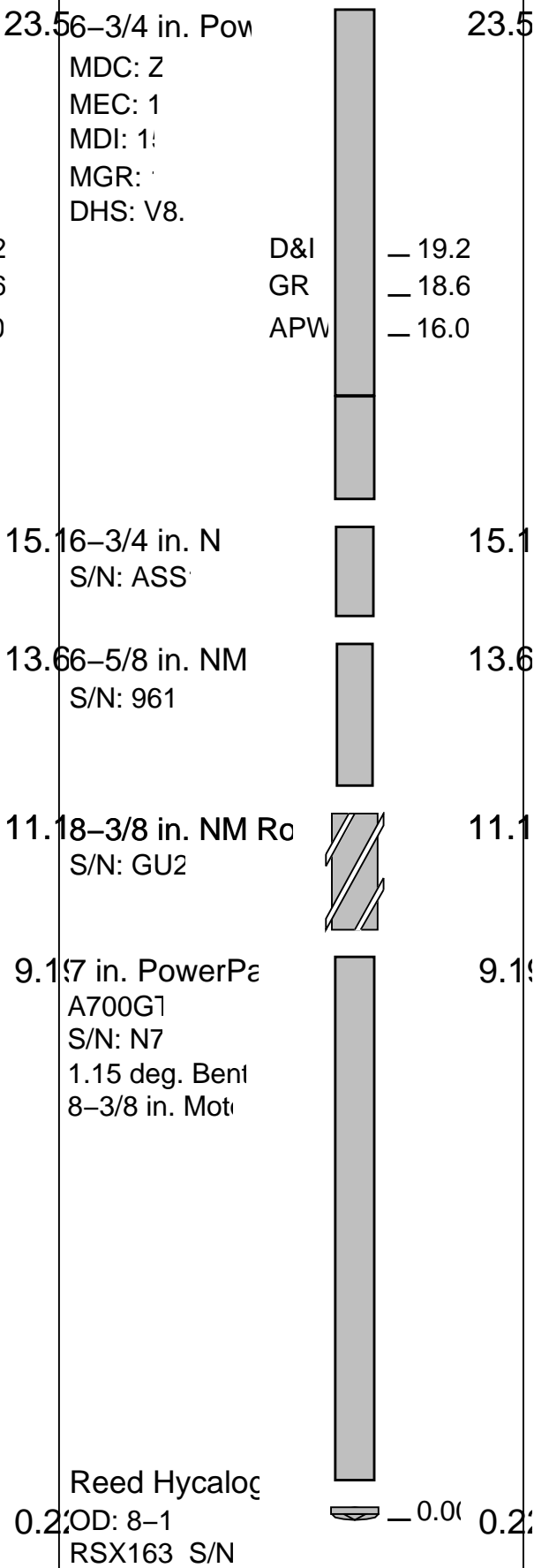
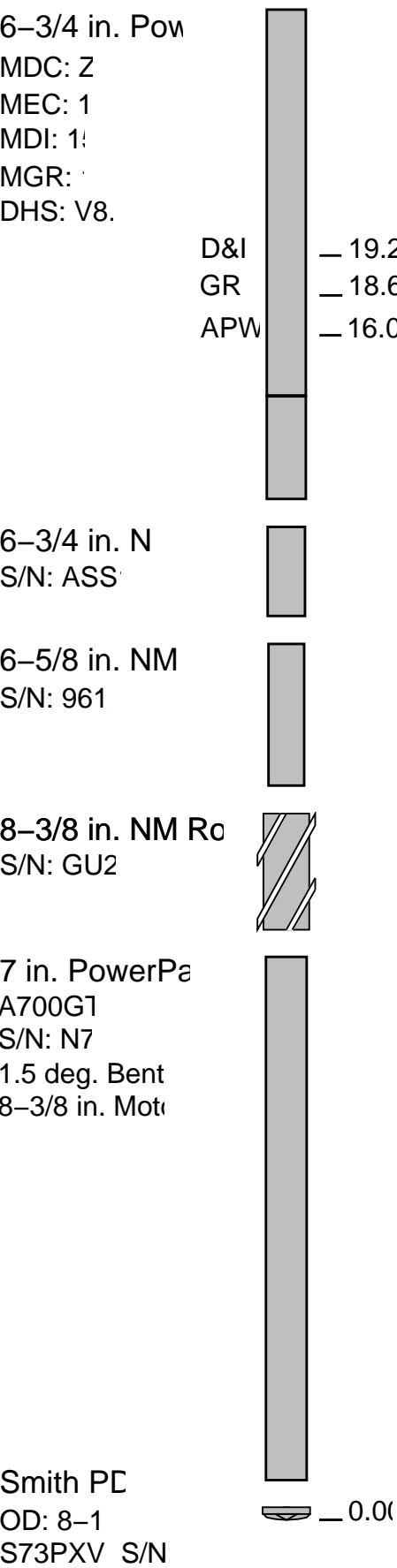
Potassium	%	1.2	1.2								
Environmental data											
GR											
Mud weight	ppg	10.05	10.05								
Bit size	in	8.5	8.5								
Resistivity											
Neutron porosity											
Hole Size		N/A	N/A								
Mud weight		N/A	N/A								
Temperature		N/A	N/A								
Mud salinity		N/A	N/A								
Formation salinity		N/A	N/A								
Recording rate 1	SEC	3.91	3.91								
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		B. Steele	B. Davis	J. McKinnon							
Schlumberger D&M Personnel		R. Borjas	L. Johnston	R. Burns	C. Cocks	L. Muskett					

<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>		
OTHER SERVICES FOR RUN1 Directional Drilling Directional Surveys Annular Pressure While Drilling	OTHER SERVICES FOR RUN2 Directional Drilling Directional Surveys Annular Pressure While Drilling	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 1 Depth is referenced to driller's depth Gamma Ray corrected for Tool Size, Bit Size and Mud Weight Mud Type is KCl/PHPA/Glycol 8-1/2 in. hole was drilled from 1006.0 m to 2395.0 m MD Low Data Density from 1438.0 m to 1454.0 m due to high ROP of reamed section Acquisition Loss from 1451.0 m to 1454.0 m POOH to change bit	REMARKS: RUN NUMBER 2 Depth is referenced to driller's depth Gamma Ray corrected for Tool Size, Bit Size and Mud Weight Mud Type is KCl/PHPA/Glycol 8-1/2 in. hole was drilled from 2395.0 m to 3079.0 m MD POOH due to TD of BMA A14A	REMARKS: RUN NUMBER

EQUIPMENT DESCRIPTION		
RUN1	RUN2	RUN
DOWNHOLE F	DOWNHOLE F	

DOWNHOLE LOG

DOWNHOLE LOG



Maximum string dia
All lengths in

Maximum string dia
All lengths in

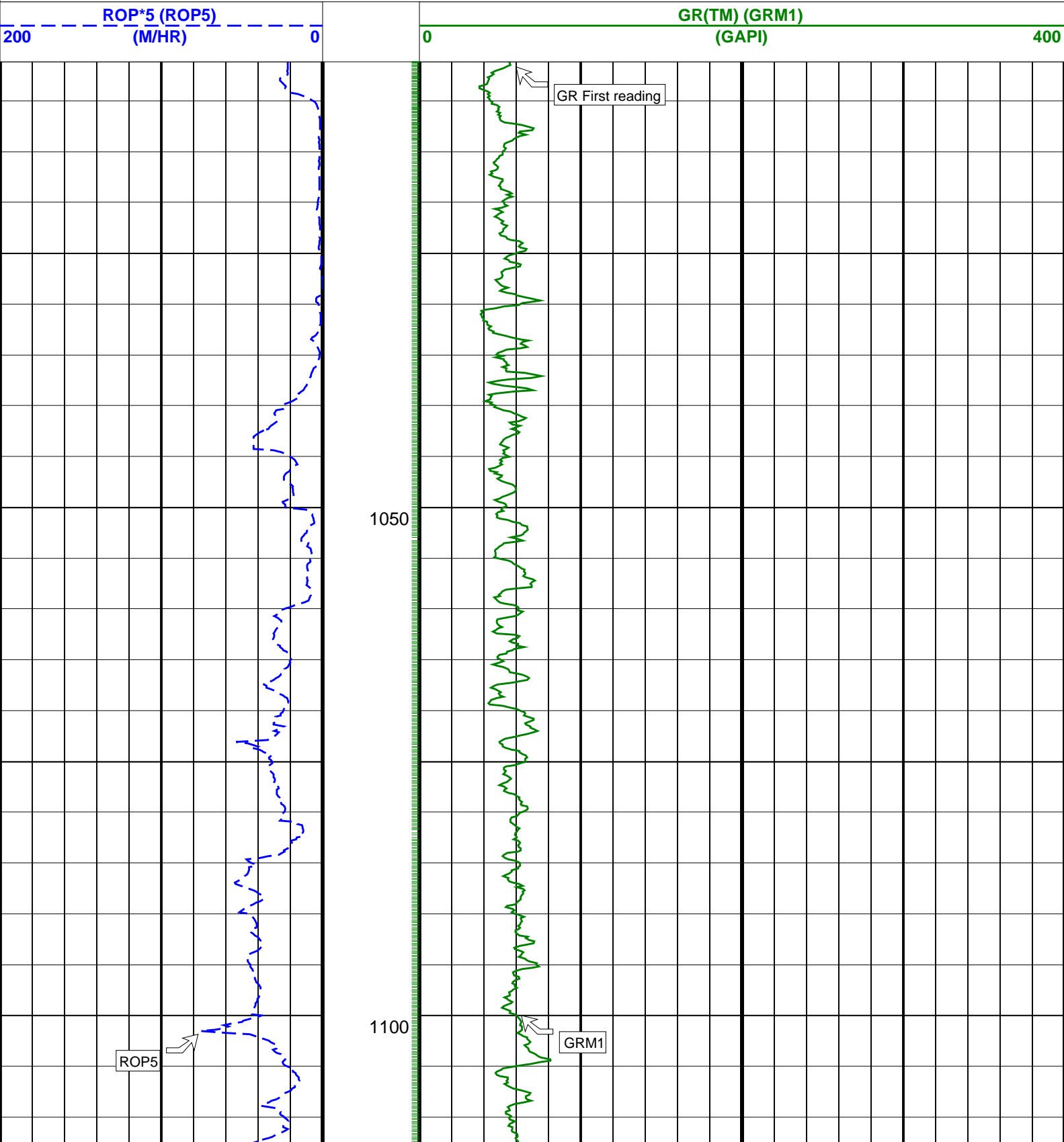
BMA A14A RT 1:500 MD

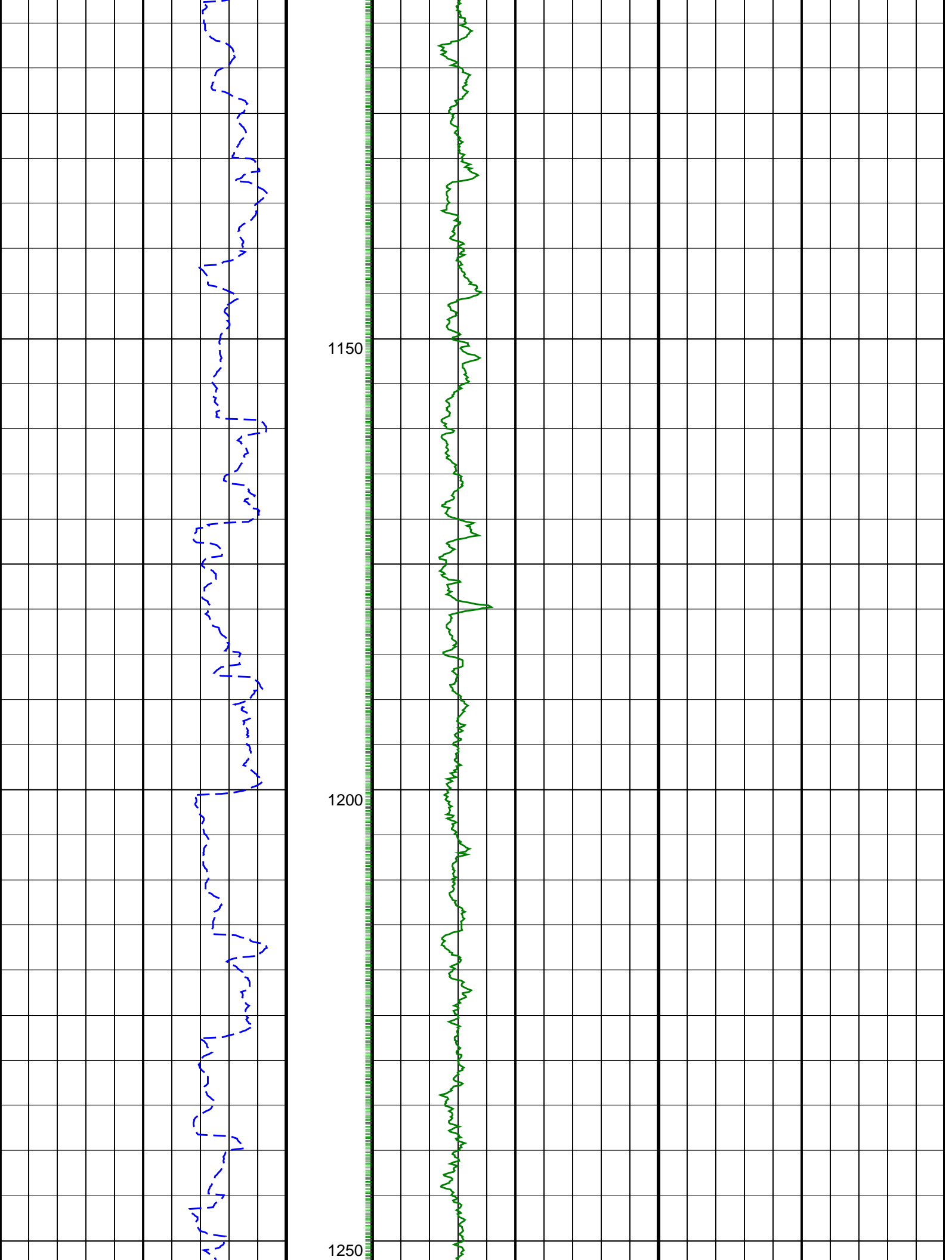
IDEAL Version: ID10_2C_01 <MD> Vertical Scale: 1:500

Graphics File Created: 17-Aug-2005 14:27

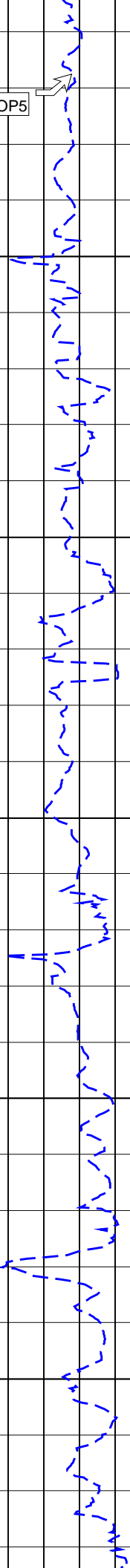
PIP SUMMARY

GR(TM) PIP





ROP5

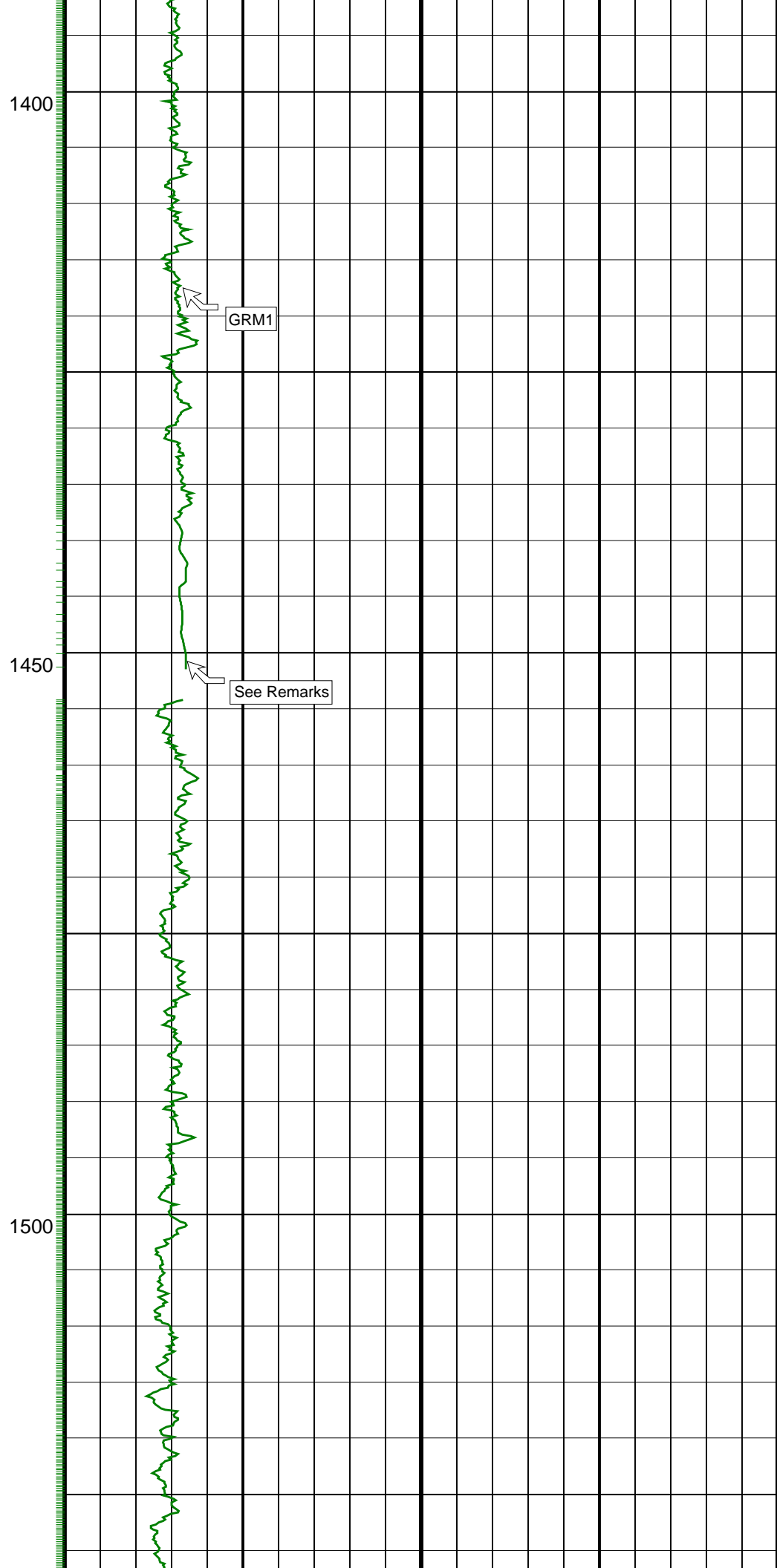
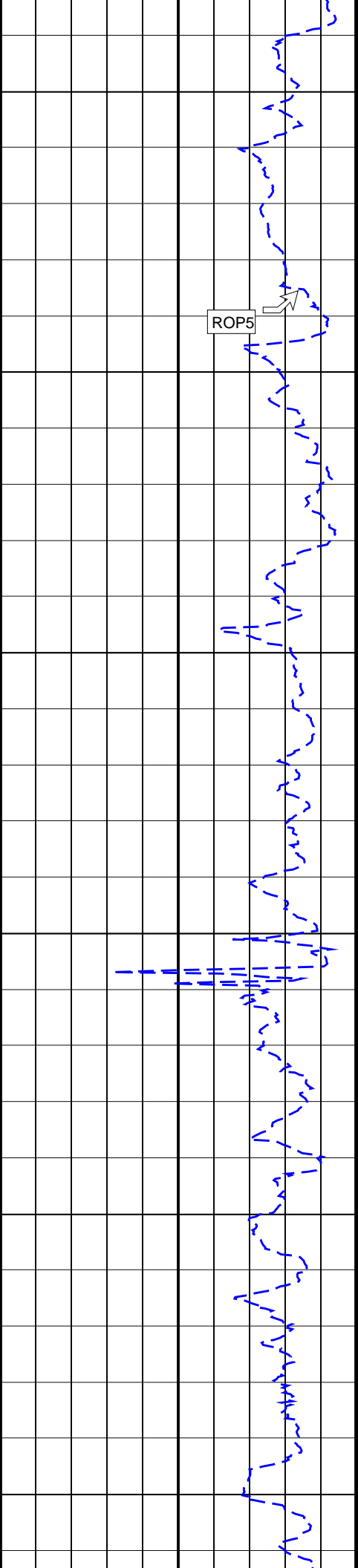


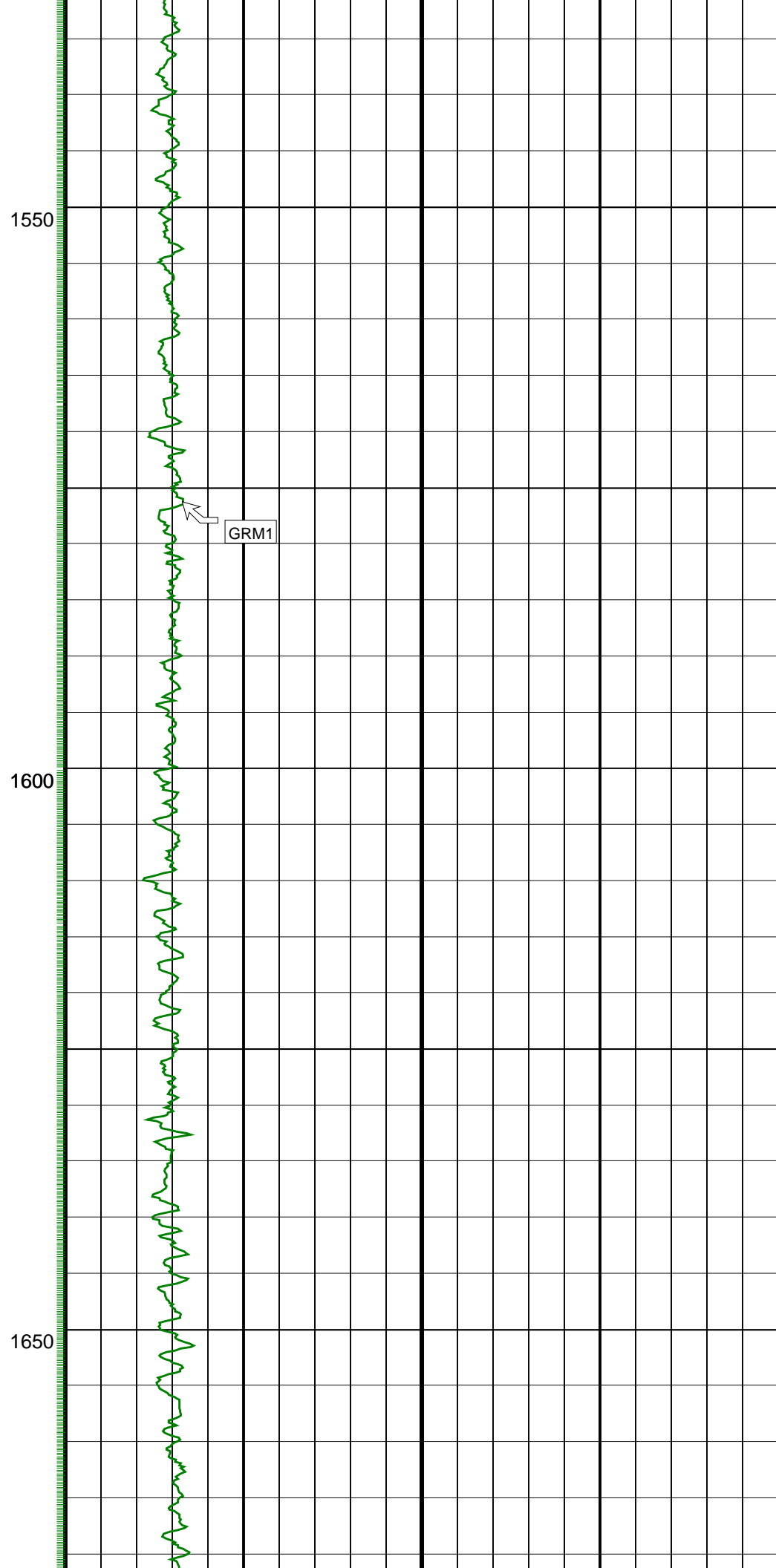
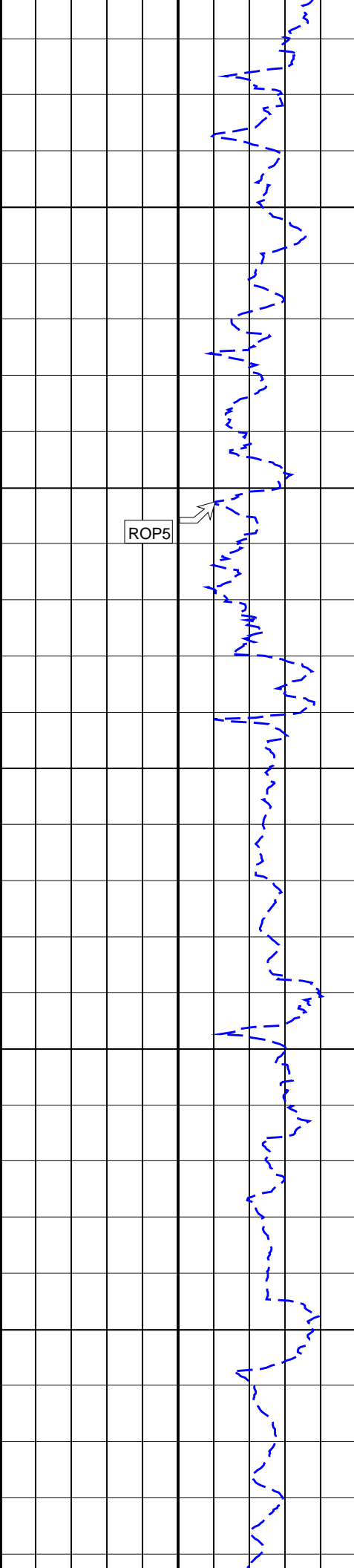
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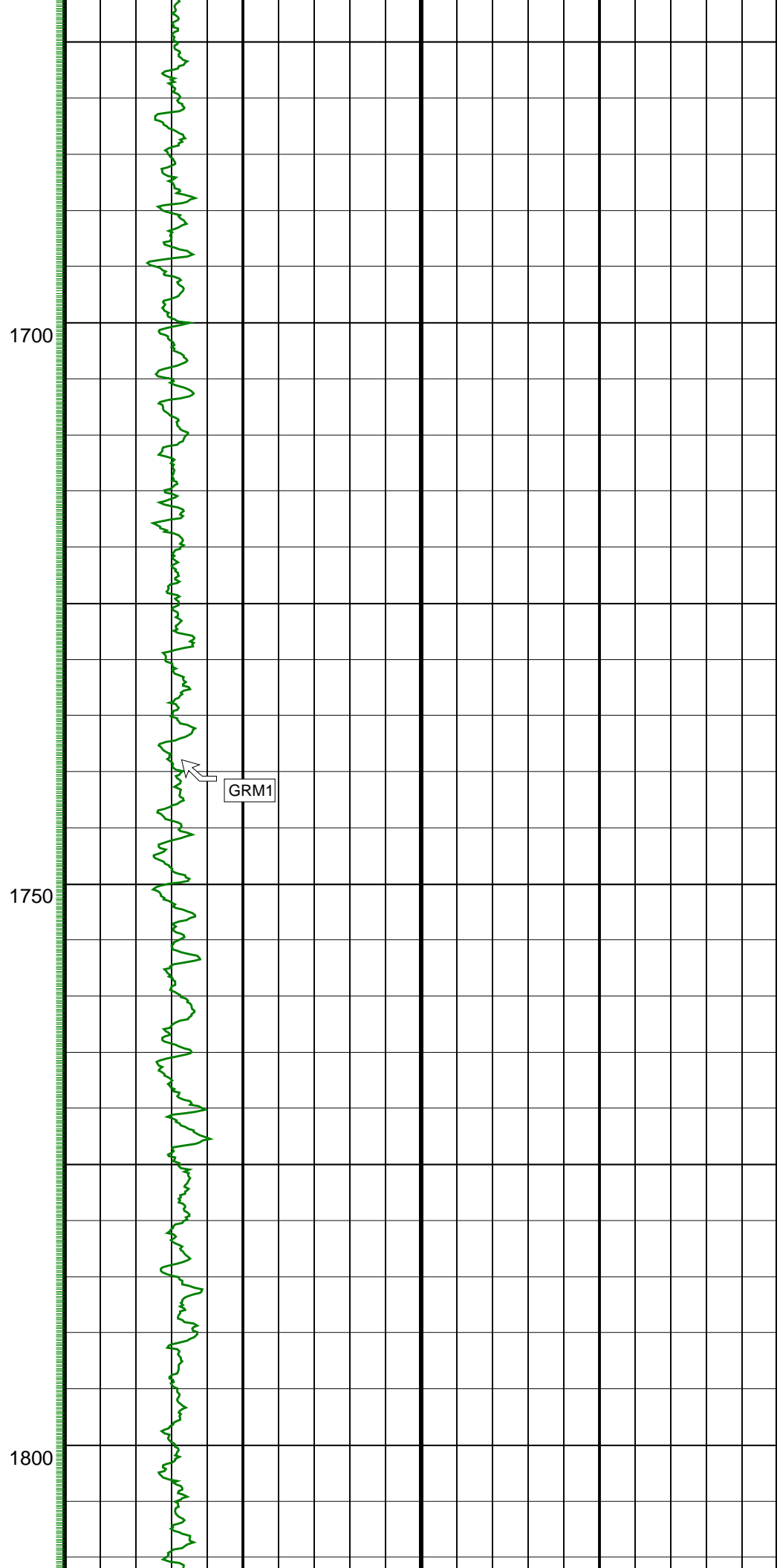
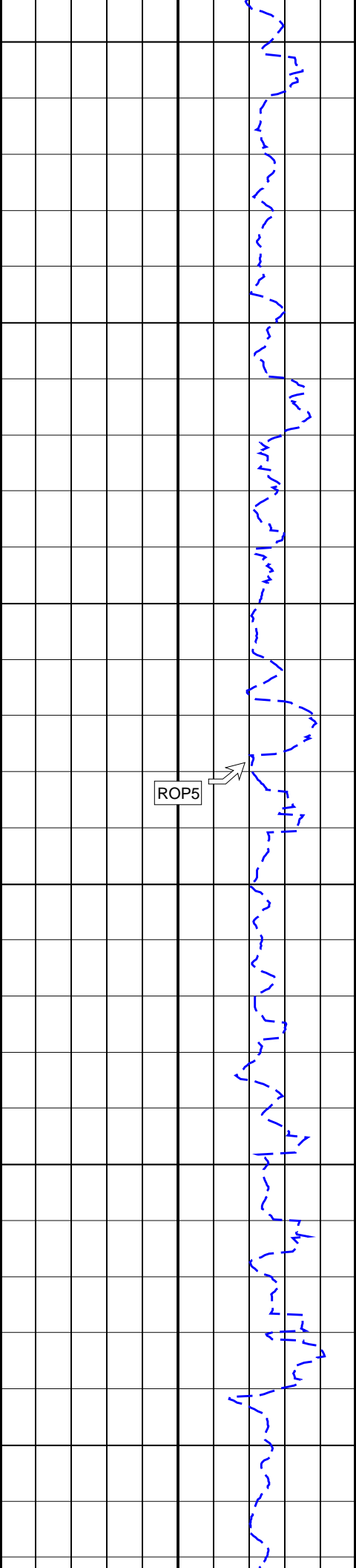
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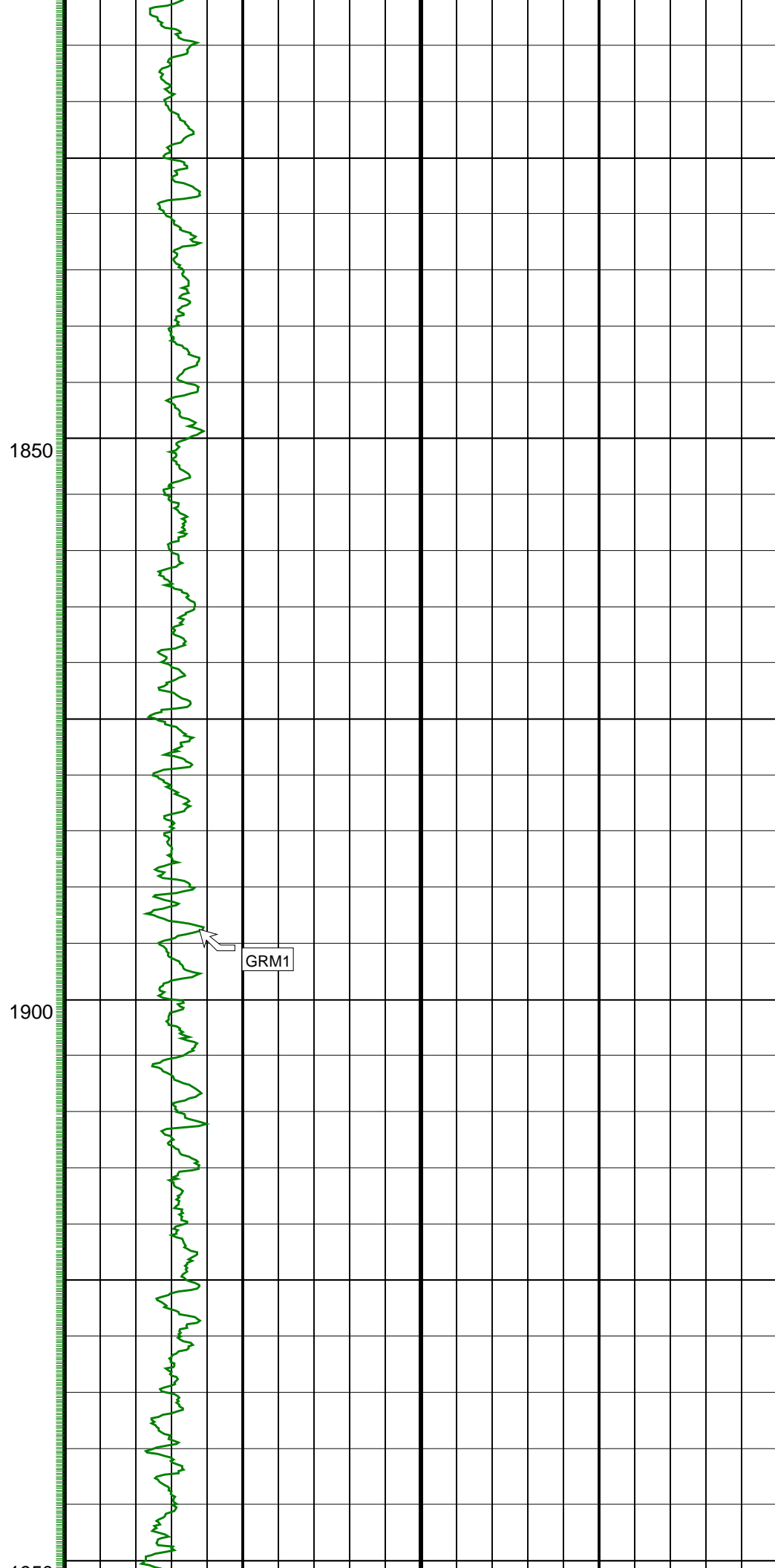
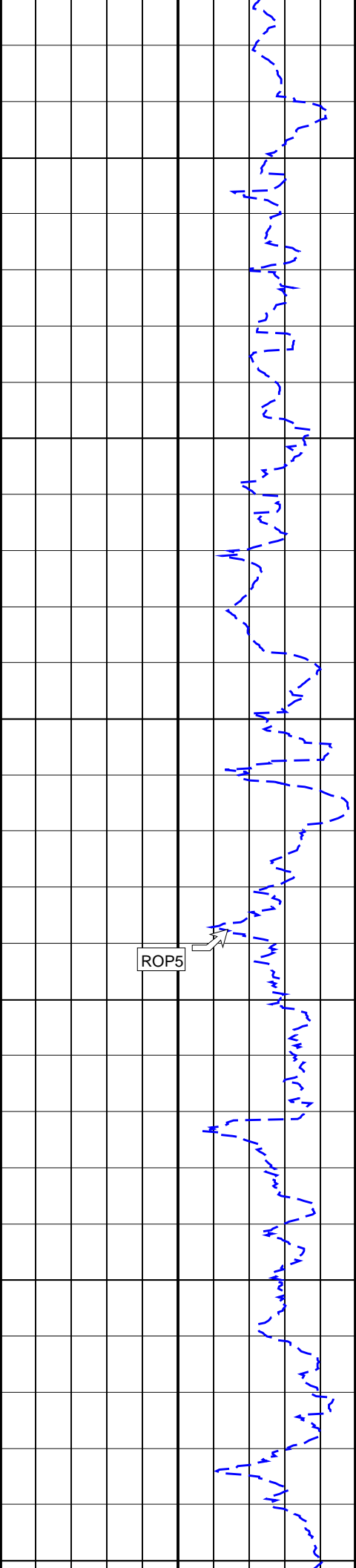
GRM1

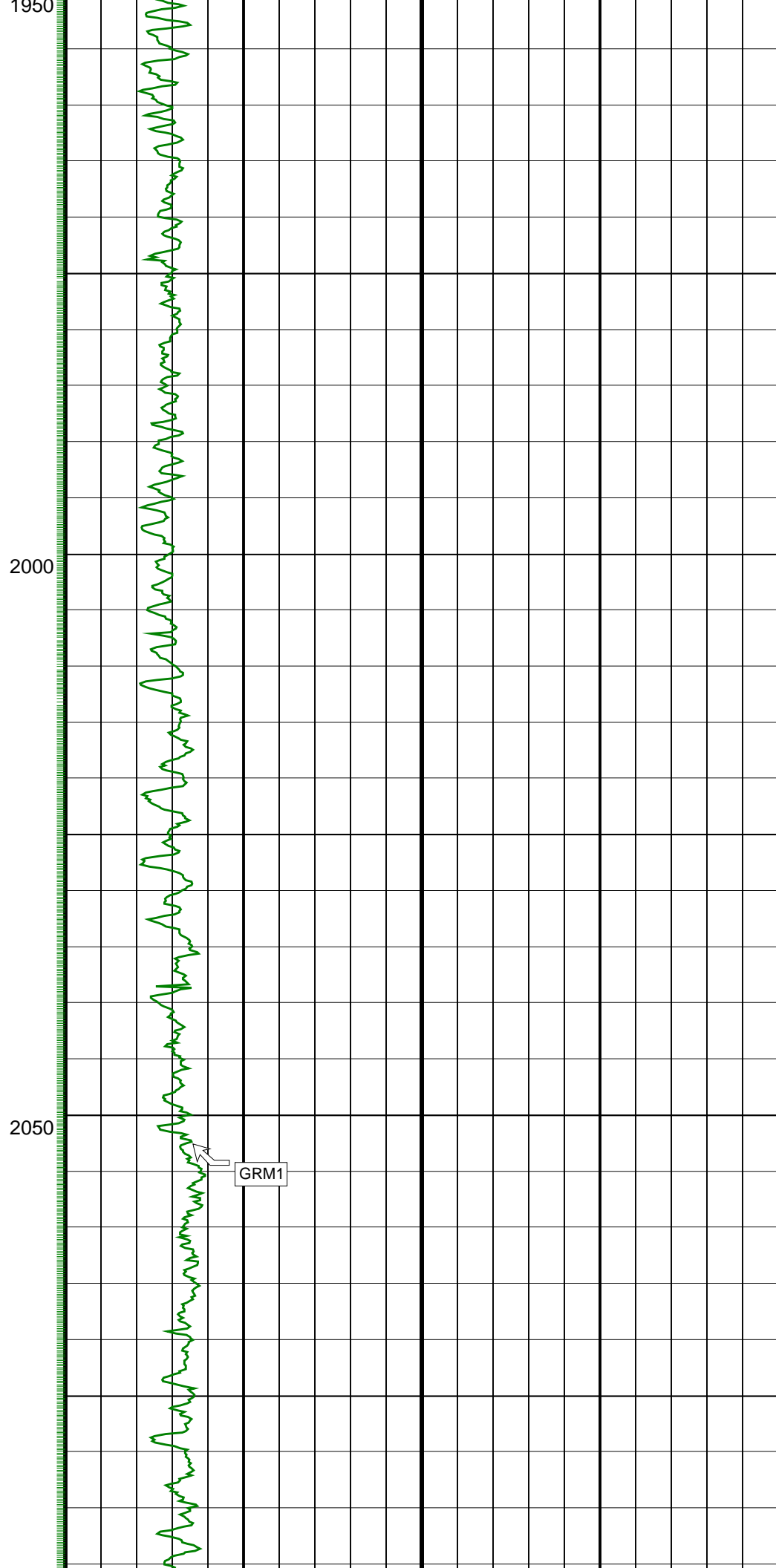
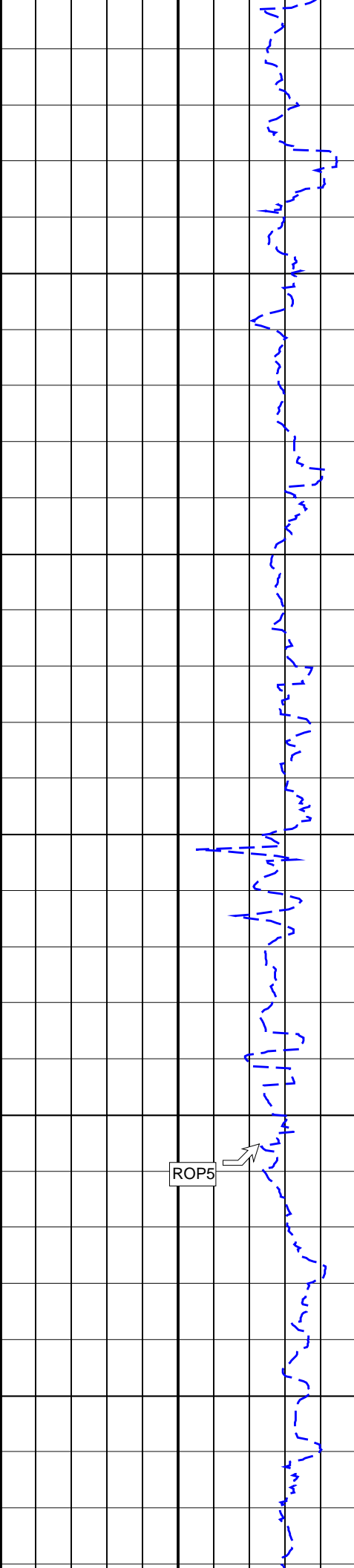


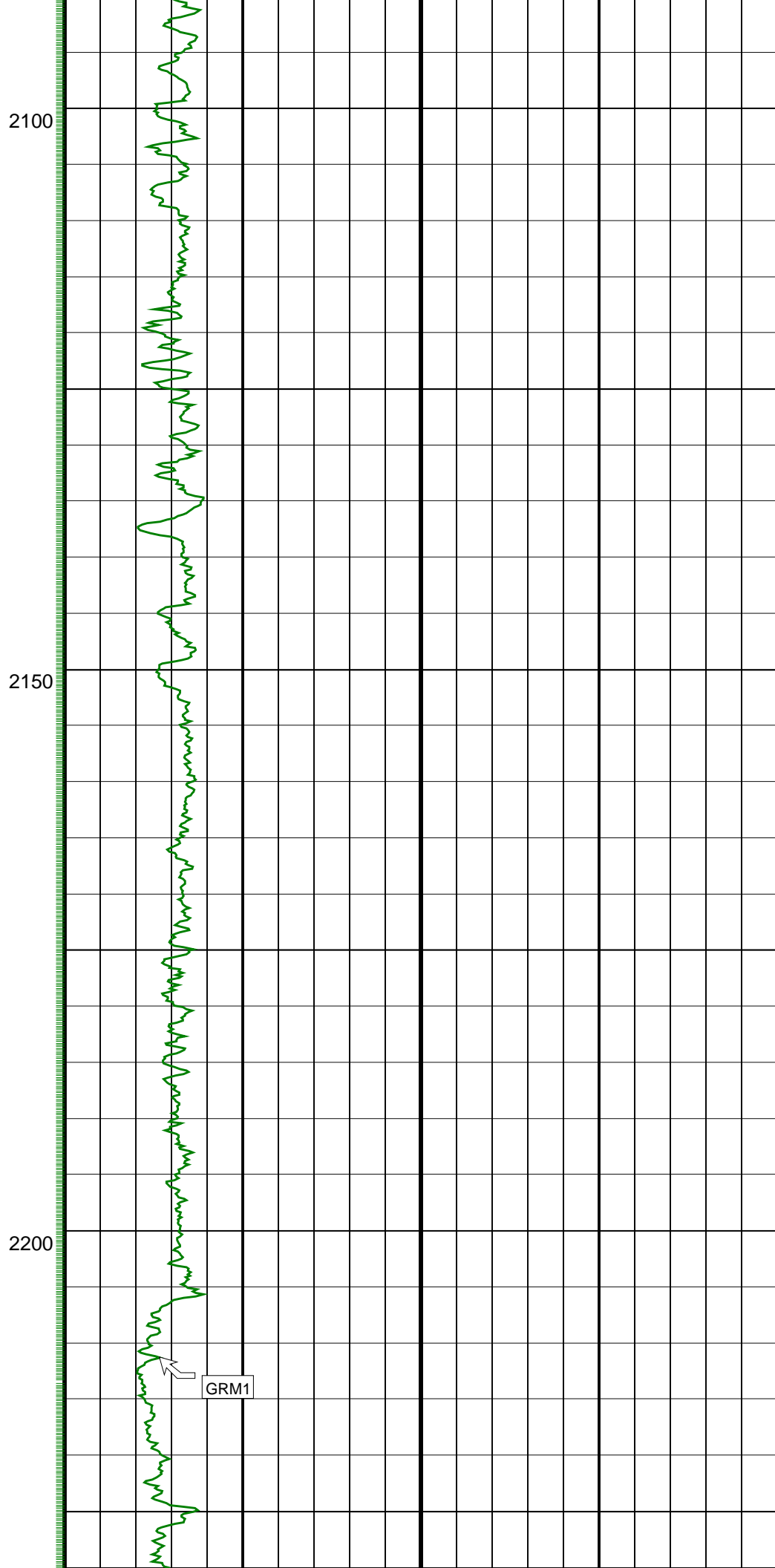
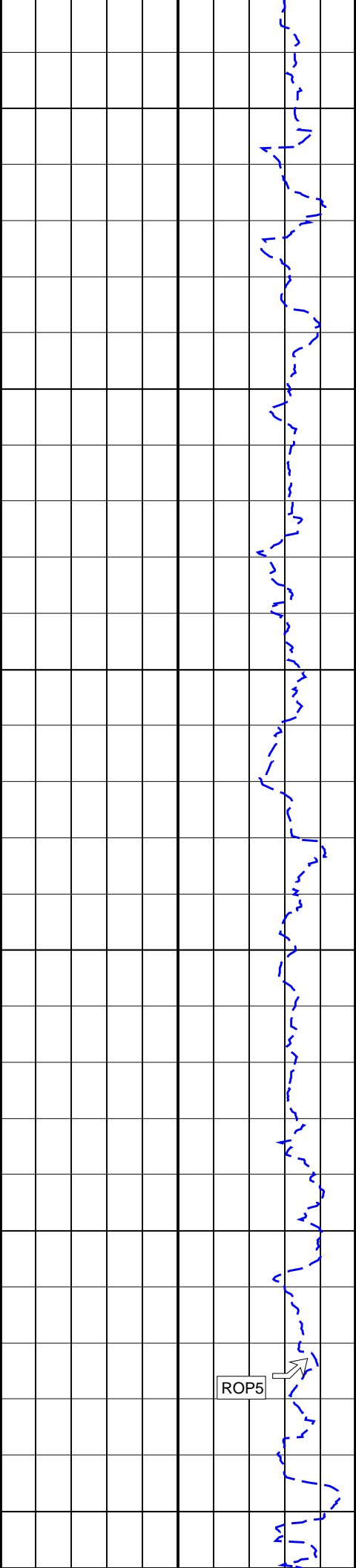


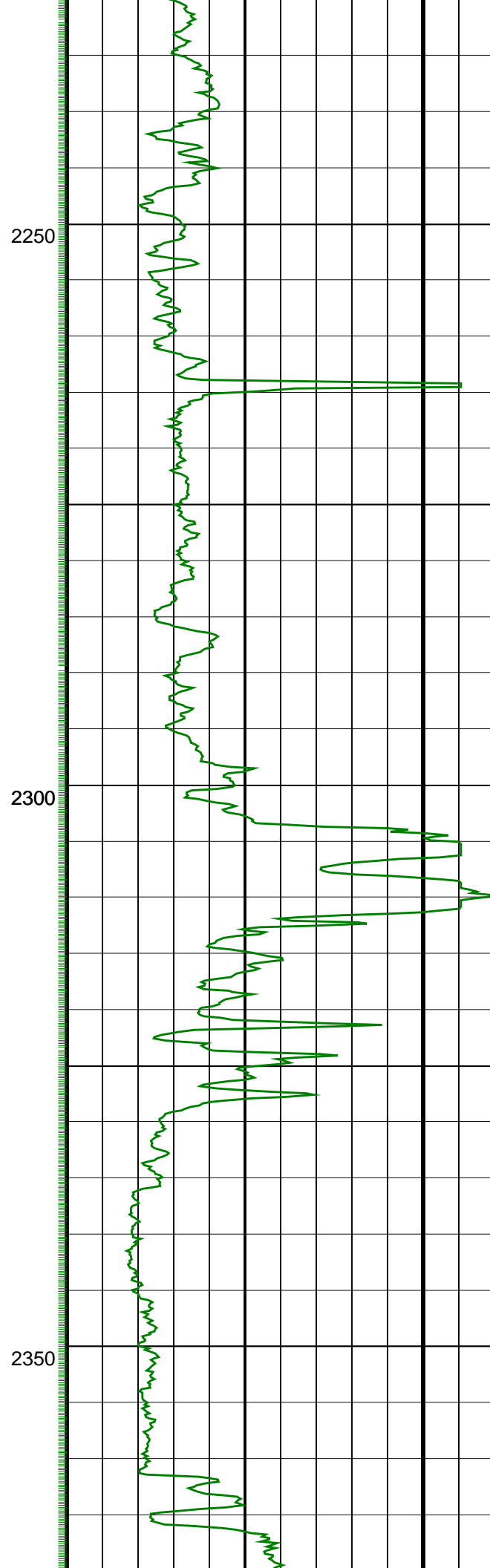
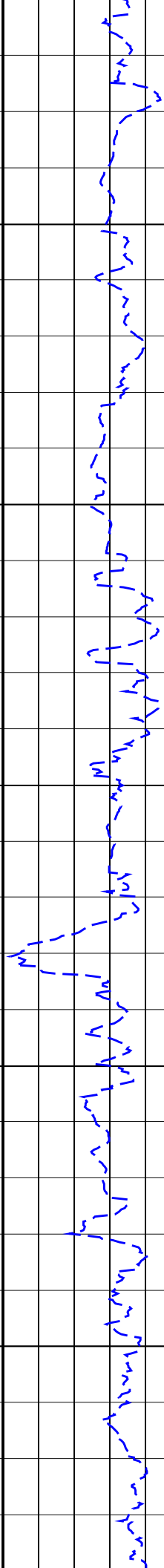


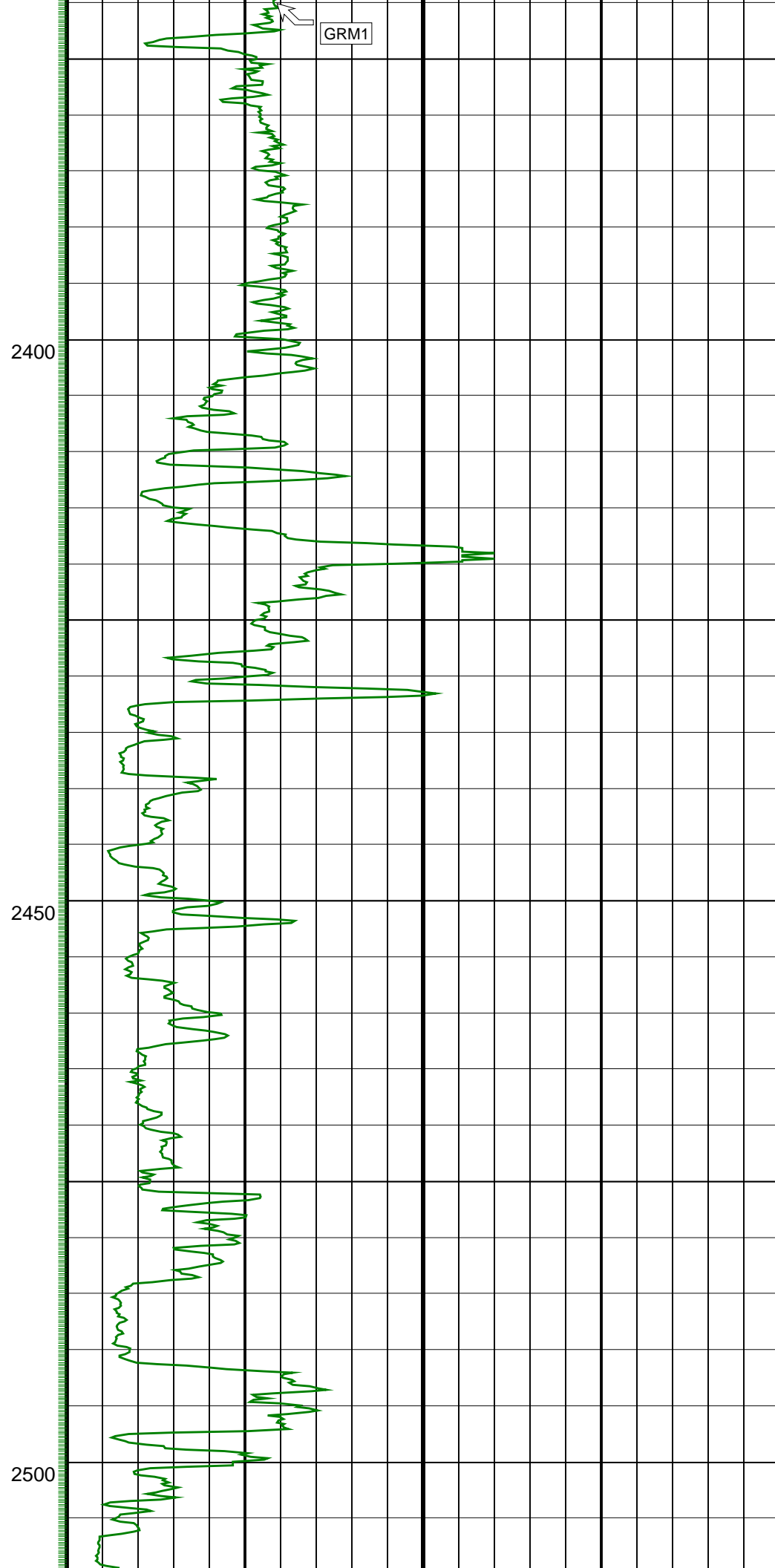
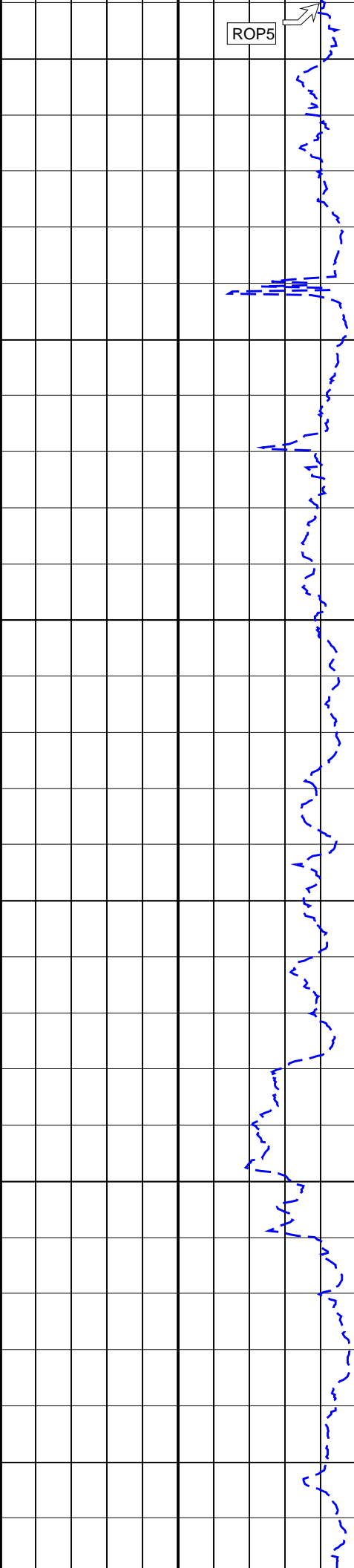


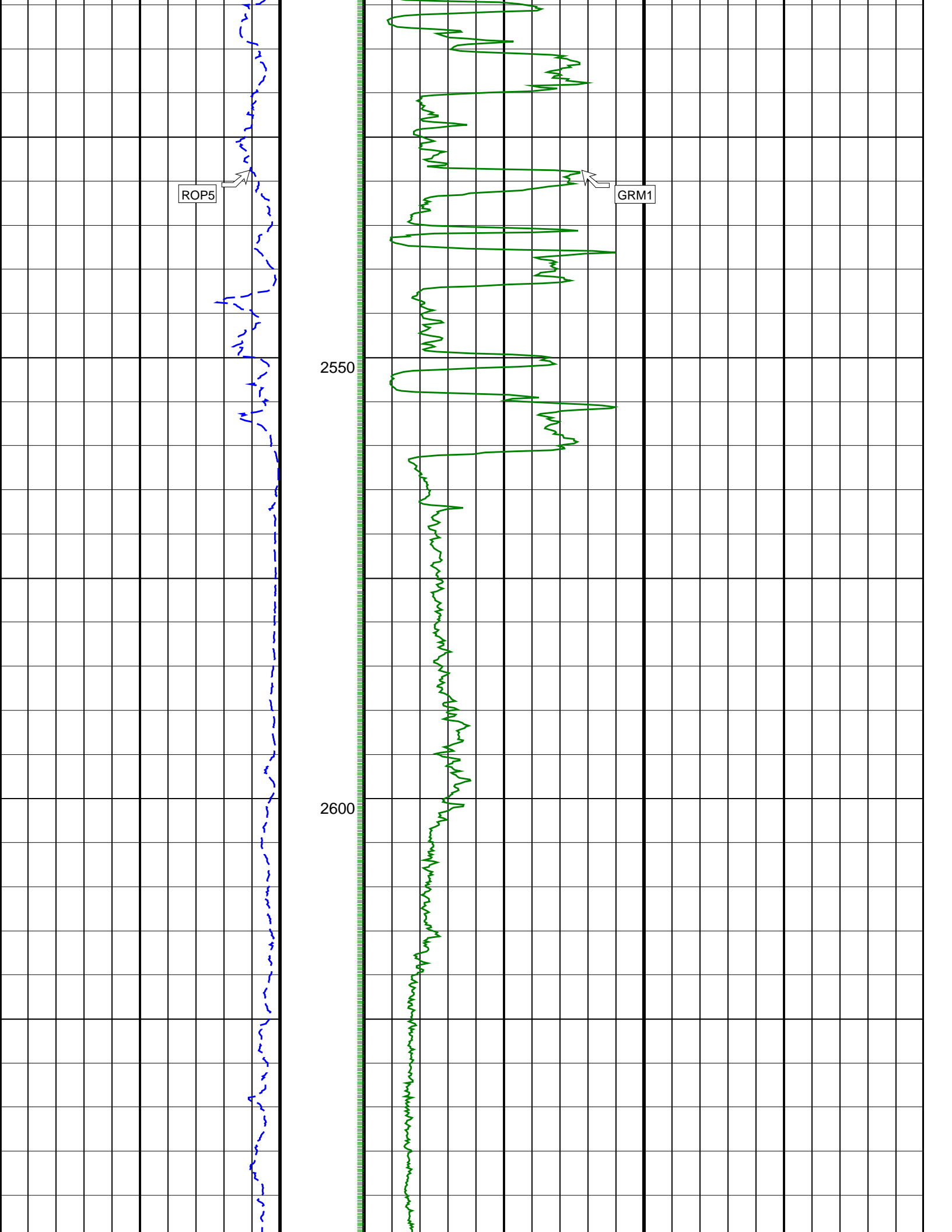


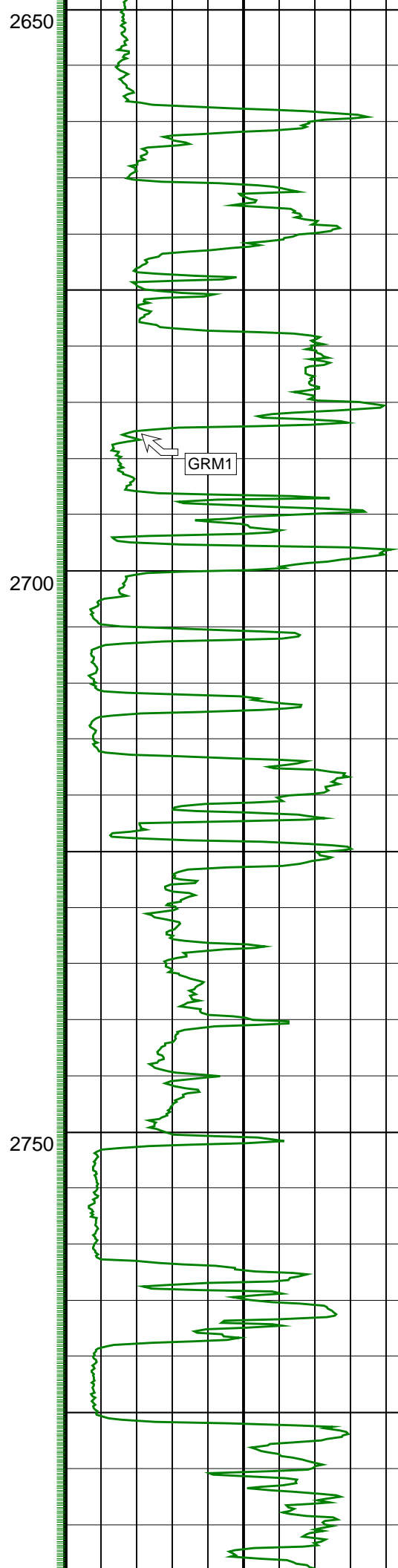
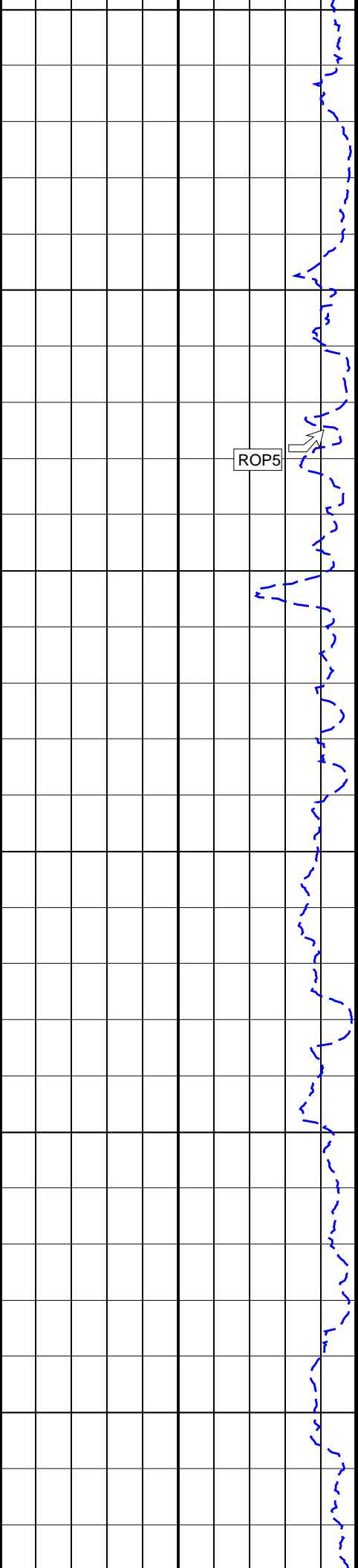


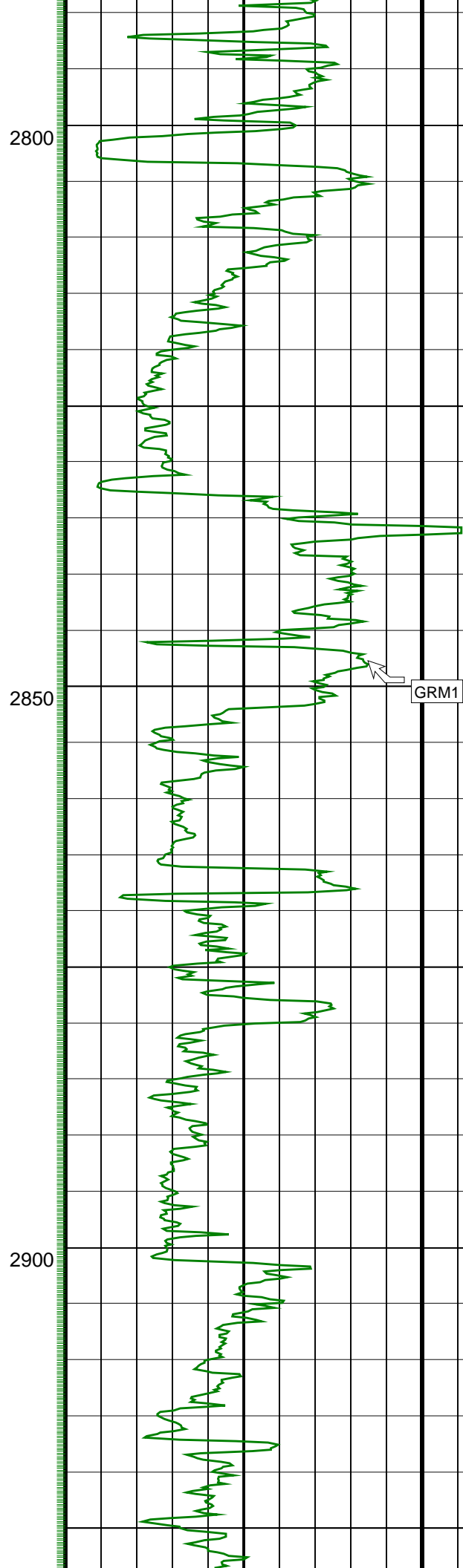
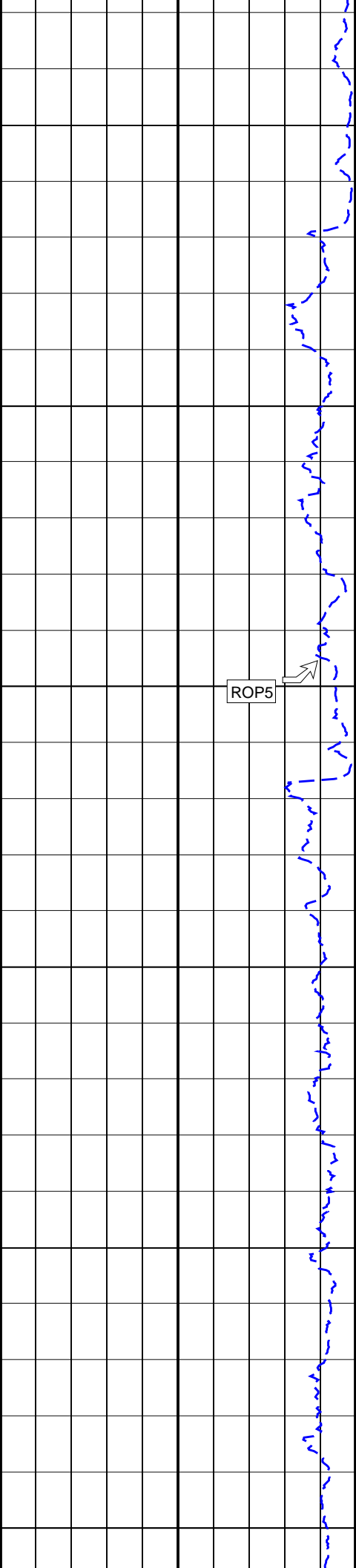


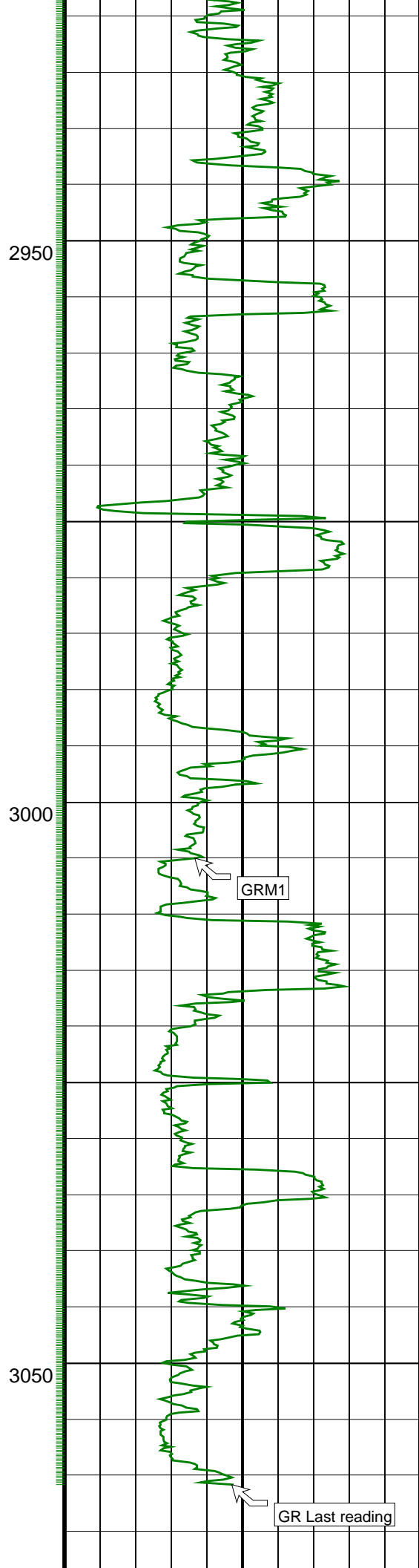
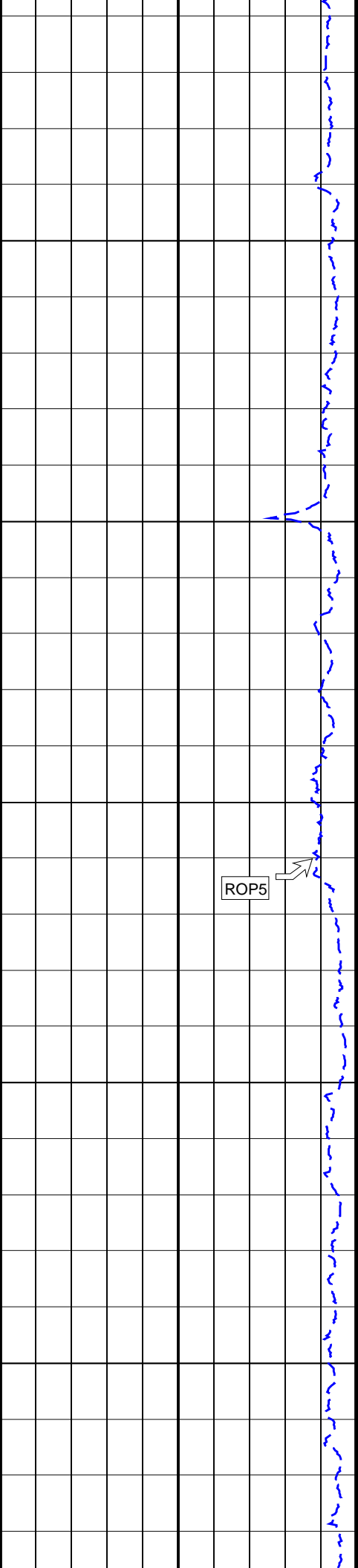












Seq # -	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/ 100f)	Srvy tool type	Tool Corr (deg)
31	1885.59	45.01	141.31	29.13	1460.10	1037.36	-992.14	338.12	1048.17	161.18	0.75	MWD	None
32	1914.06	44.71	142.27	28.47	1480.28	1055.47	-1007.92	350.55	1067.14	160.82	0.79	MWD	None
33	1943.35	45.24	142.01	29.29	1501.00	1074.19	-1024.26	363.25	1086.77	160.47	0.58	MWD	None
34	1972.06	45.11	142.49	28.71	1521.24	1092.63	-1040.36	375.72	1106.13	160.14	0.39	MWD	None
35	2000.86	44.50	142.00	28.80	1541.68	1111.00	-1056.41	388.14	1125.46	159.83	0.74	MWD	None
36	2029.65	45.14	143.24	28.79	1562.10	1129.42	-1072.53	400.46	1144.86	159.53	1.15	MWD	None
37	2058.03	44.53	143.43	28.38	1582.22	1147.69	-1088.59	412.41	1164.09	159.25	0.67	MWD	None
38	2086.87	44.76	143.21	28.84	1602.74	1166.19	-1104.84	424.52	1183.59	158.98	0.29	MWD	None
39	2116.15	44.77	143.06	29.28	1623.53	1184.99	-1121.33	436.89	1203.44	158.71	0.11	MWD	None
40	2144.19	44.20	143.04	28.04	1643.53	1202.89	-1137.04	448.70	1222.37	158.46	0.62	MWD	None
41	2173.44	43.39	145.02	29.25	1664.65	1221.47	-1153.42	460.59	1241.98	158.23	1.66	MWD	None
42	2201.31	41.23	148.37	27.87	1685.26	1239.01	-1169.08	470.90	1260.36	158.06	3.41	MWD	None
43	2230.50	39.70	149.84	29.19	1707.47	1256.99	-1185.34	480.63	1279.07	157.93	1.88	MWD	None
44	2258.57	38.38	153.43	28.07	1729.27	1274.00	-1200.88	489.03	1296.64	157.84	2.84	MWD	None
45	2287.66	36.21	158.00	29.09	1752.42	1291.25	-1216.93	496.29	1314.24	157.81	3.68	MWD	None
46	2317.11	33.85	163.58	29.45	1776.54	1308.02	-1232.87	501.87	1331.11	157.85	4.12	MWD	None
47	2345.91	30.65	174.25	28.80	1800.91	1323.33	-1247.89	504.88	1346.15	157.97	6.90	MWD	None
48	2371.19	29.56	183.12	25.28	1822.79	1335.73	-1260.53	505.18	1357.99	158.16	5.52	MWD	None
49	2401.98	27.88	188.74	30.79	1849.80	1349.75	-1275.23	503.67	1371.10	158.45	3.15	MWD	None
50	2431.04	27.95	192.07	29.06	1875.48	1362.27	-1288.61	501.22	1382.66	158.75	1.64	MWD	None
51	2459.71	27.61	194.37	28.67	1900.84	1374.30	-1301.62	498.16	1393.69	159.06	1.20	MWD	None
52	2488.24	27.52	194.87	28.53	1926.14	1386.04	-1314.39	494.83	1404.45	159.37	0.27	MWD	None
53	2516.66	27.26	195.20	28.42	1951.37	1397.62	-1327.02	491.44	1415.09	159.68	0.32	MWD	None
54	2544.64	27.14	193.50	27.98	1976.26	1409.02	-1339.41	488.27	1425.63	159.97	0.86	MWD	None
55	2573.20	27.03	192.95	28.56	2001.68	1420.73	-1352.07	485.30	1436.52	160.26	0.29	MWD	None
56	2602.67	27.36	192.33	29.47	2027.90	1432.91	-1365.21	482.35	1447.91	160.54	0.45	MWD	None
57	2631.19	27.47	193.05	28.52	2053.21	1444.78	-1378.02	479.46	1459.05	160.82	0.37	MWD	None
58	2659.59	27.14	193.77	28.40	2078.45	1456.49	-1390.69	476.44	1470.04	161.09	0.50	MWD	None
59	2688.14	27.17	193.98	28.55	2103.85	1468.15	-1403.34	473.32	1481.01	161.36	0.11	MWD	None
60	2716.45	27.56	193.47	28.31	2128.99	1479.82	-1415.98	470.23	1492.02	161.63	0.49	MWD	None

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	2745.48	27.81	192.90	29.03	2154.70	1491.96	-1429.11	467.15	1503.53	161.90	0.38	MWD	None
62	2774.02	26.99	193.26	28.54	2180.04	1503.80	-1441.91	464.18	1514.78	162.16	0.89	MWD	None
63	2803.23	27.69	193.40	29.21	2205.99	1515.86	-1454.96	461.09	1526.28	162.42	0.73	MWD	None
64	2831.87	27.41	192.87	28.64	2231.38	1527.80	-1467.86	458.08	1537.68	162.67	0.40	MWD	None
65	2860.78	26.60	192.87	28.91	2257.14	1539.65	-1480.66	455.16	1549.04	162.91	0.85	MWD	None
66	2889.41	25.64	192.82	28.63	2282.84	1551.03	-1492.95	452.35	1559.97	163.14	1.02	MWD	None
67	2917.79	24.91	192.45	28.38	2308.51	1561.99	-1504.77	449.70	1570.53	163.36	0.80	MWD	None
68	2946.12	24.10	192.49	28.33	2334.28	1572.63	-1516.24	447.17	1580.81	163.57	0.87	MWD	None
69	2975.67	23.38	192.32	29.55	2361.33	1583.41	-1527.86	444.61	1591.24	163.77	0.75	MWD	None
70	3004.42	22.82	191.96	28.75	2387.78	1593.66	-1538.89	442.24	1601.17	163.97	0.61	MWD	None
71	3032.80	22.11	192.02	28.38	2414.00	1603.52	-1549.50	439.98	1610.75	164.15	0.76	MWD	None
72	3059.49	21.59	192.07	26.69	2438.78	1612.55	-1559.21	437.91	1619.54	164.31	0.59	MWD	None
73	3079.00	21.30	192.10	19.51	2456.94	1619.03	-1566.19	436.42	1625.86	164.43	0.45	Proj.	to TD

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

Schlumberger

Well: **BMA A14A**

Field: **Bream A**

Rig: **ISDL 453**

State: **Victoria**

Gamma Ray Service

1:500 Measured Depth

Real Time Log

