



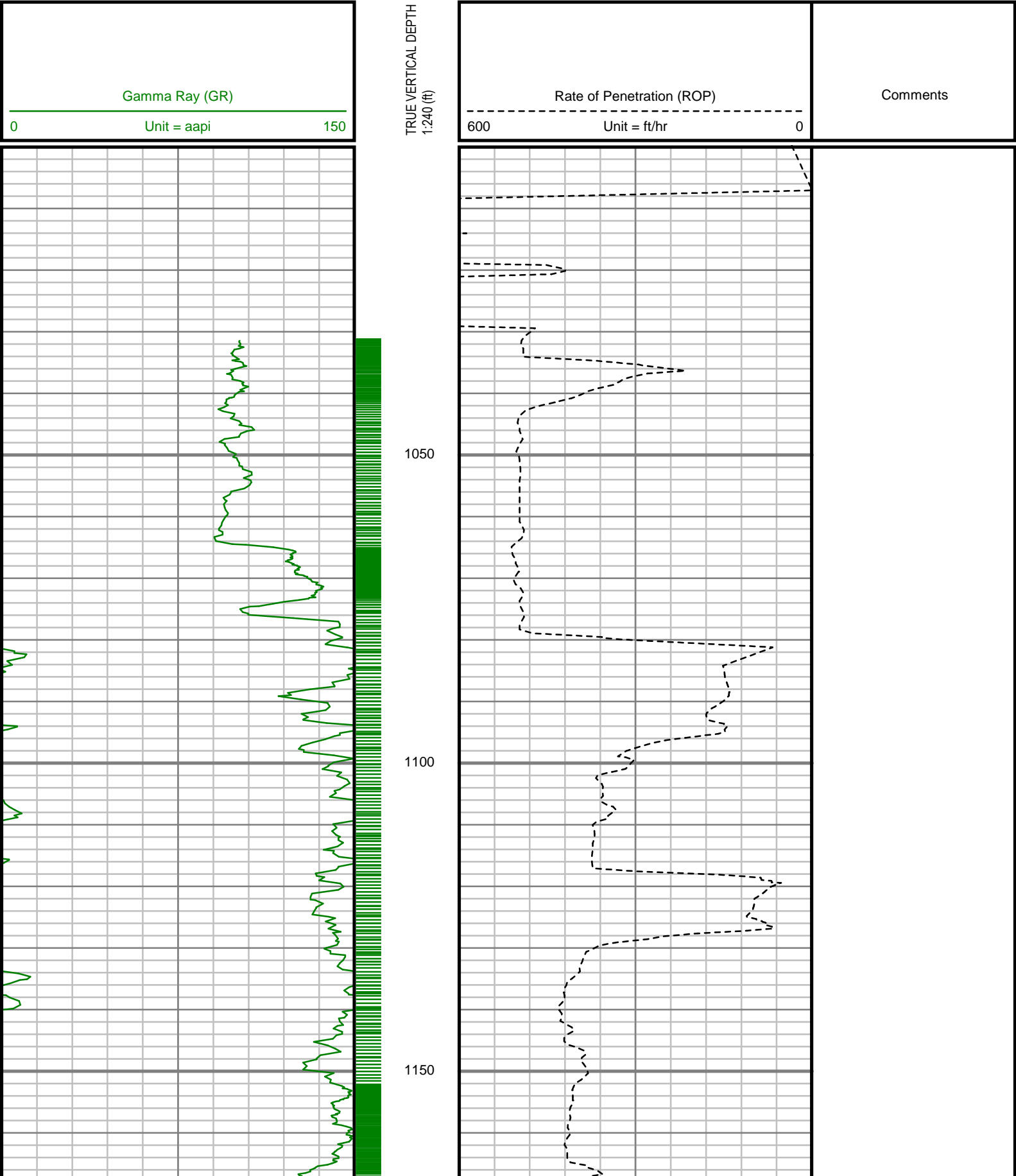
GAMMA RAY

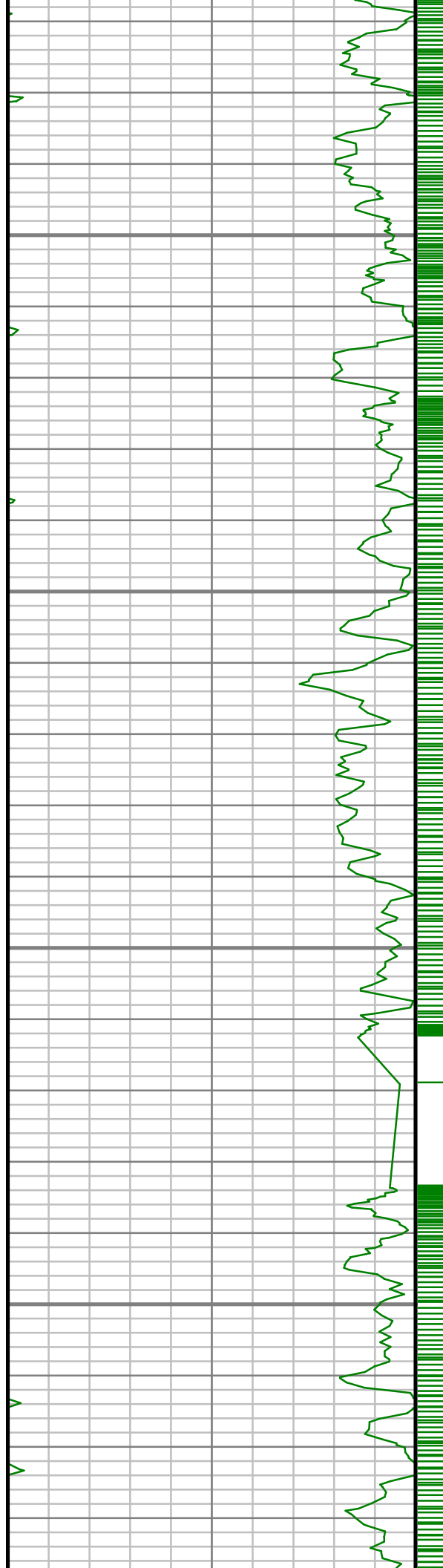
5" = 100' FEET TVD

COMPANY : ENCANA OIL AND GAS (U.S.A.) INC						COMPANY : ENCANA OIL AND GAS (U.S.A.) INC					
WELL : DALE 4J-20H-O264						WELL : DALE 4J-20H-O264					
FIELD : WATTENBERG						FIELD : WATTENBERG					
COUNTY : WELD						COUNTY : WELD					
STATE : COLORADO						STATE : COLORADO					
COUNTRY : U.S.A.						COUNTRY : U.S.A.					
UWI : 05-123-39729						UWI : 05-123-39729					
DEPTH REF. : RKB						DEPTH REF. : RKB					
REF. HEIGHT : 25.000 ft						REF. HEIGHT : 25.000 ft					
GROUND LEVEL : 4957.000 ft						GROUND LEVEL : 4957.000 ft					
BOREHOLE RECORD						DEVIATION RECORD					
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft						
12.25	0	1090	0 - 16	0	4510						
8.75	1090	7355	16 - 1	4510	6462						
6.125	7355	11702	1 - 90	6462	11702						
CASING RECORD											
CASING SIZE in	FROM ft	TO ft									
9.625	0	1080									
7	0	7340									
DRILLING CO.: H&P RLG: 278						LMD UNIT NO.: 46-C / G24DISTRICT: CASPER, CASPER SPUD DATE: 08/16/2014 LMD START DATE: 09/06/2014 LMD END DATE: 09/13/2014 TOTAL DEPTH: 11702 ft					
						DIRECTIONAL ROP					

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions as set out in our current price schedule.

ENCANA OIL AND GAS (U.S.A.) INC
DALE 4J-20H-O264
WATTENBERG FIELD
WELD COUNTY, COLORADO
05-123-39729



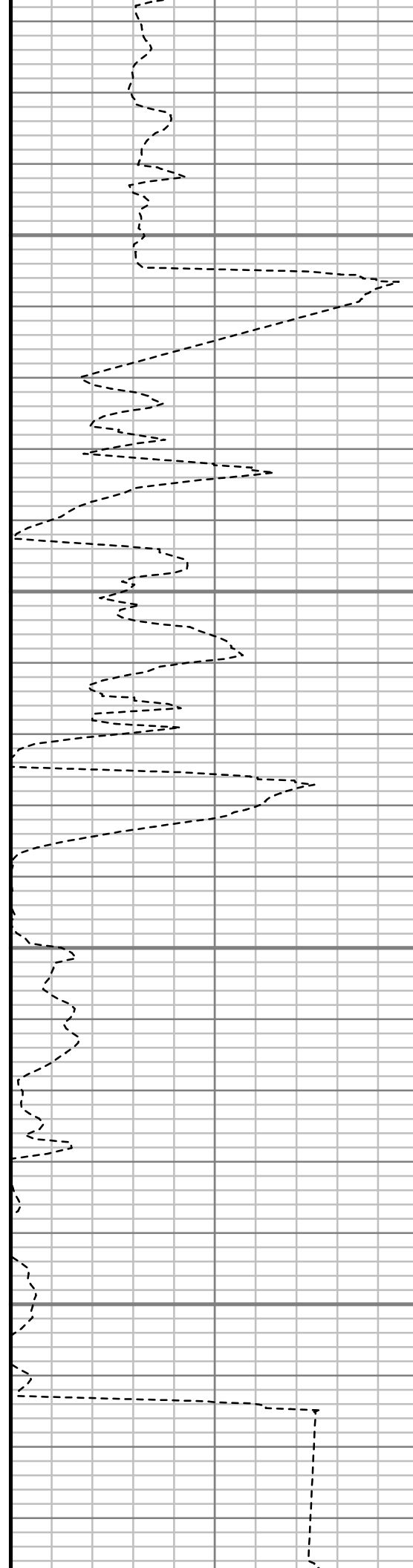


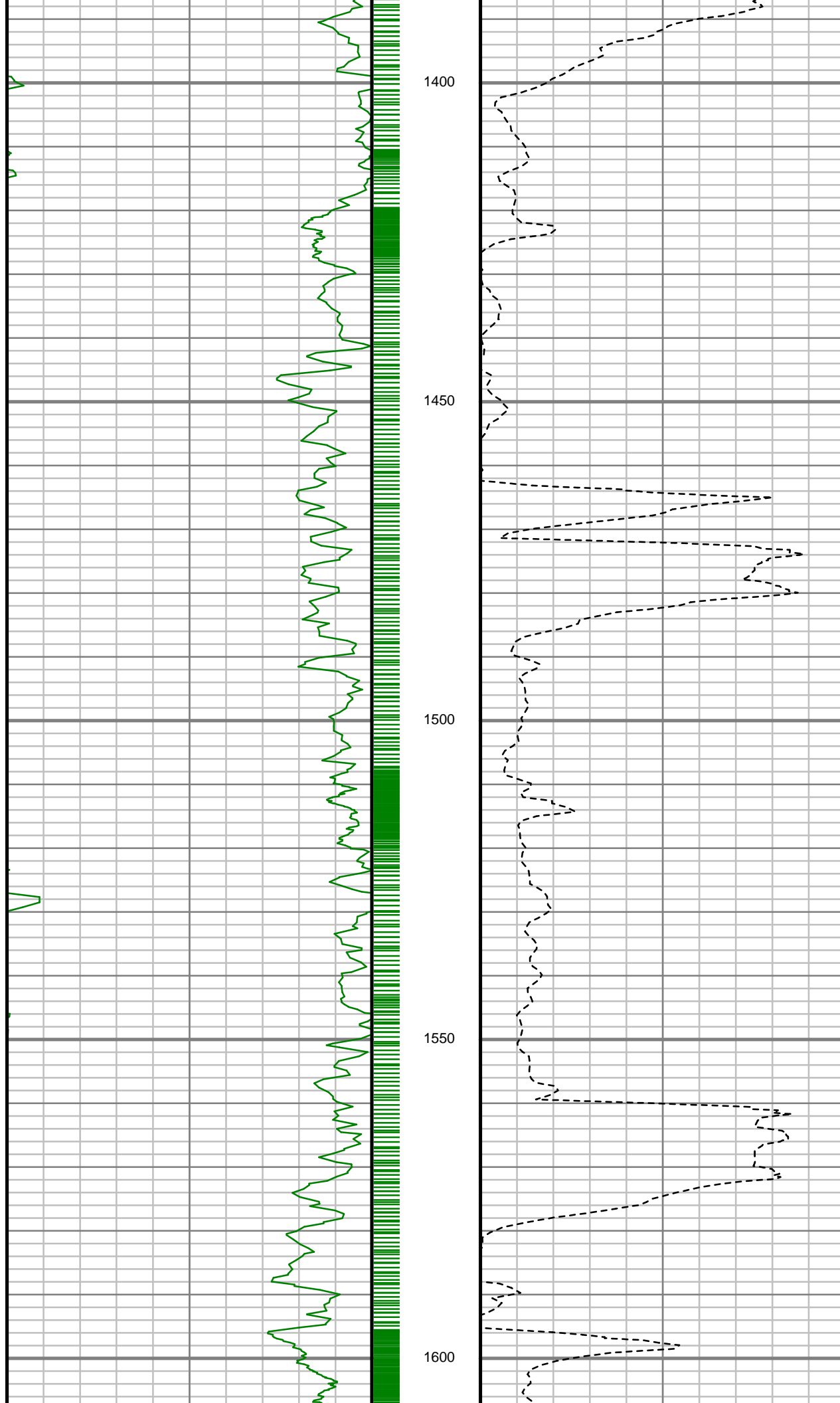
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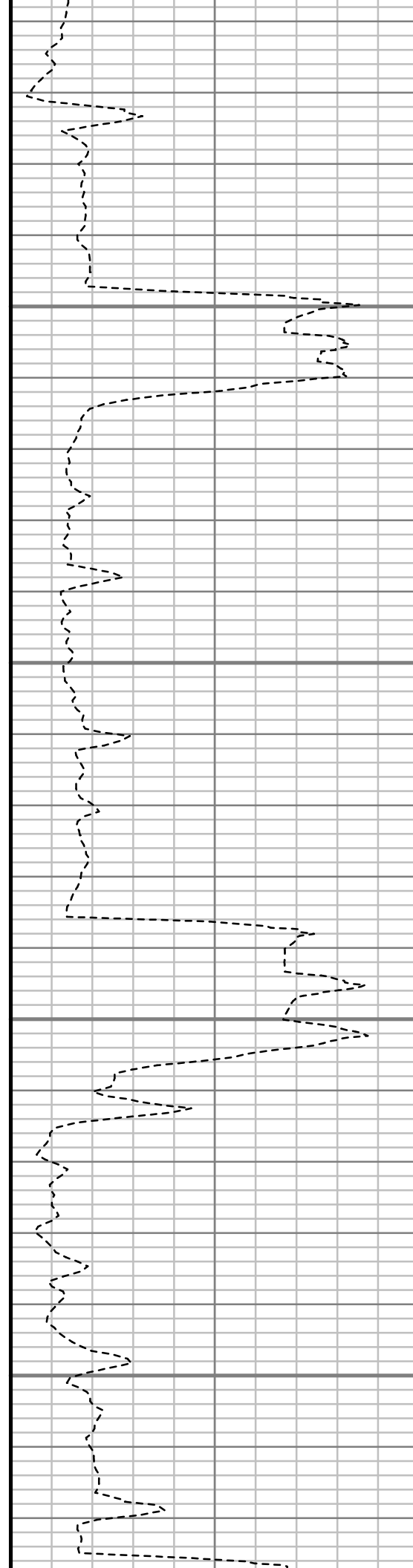
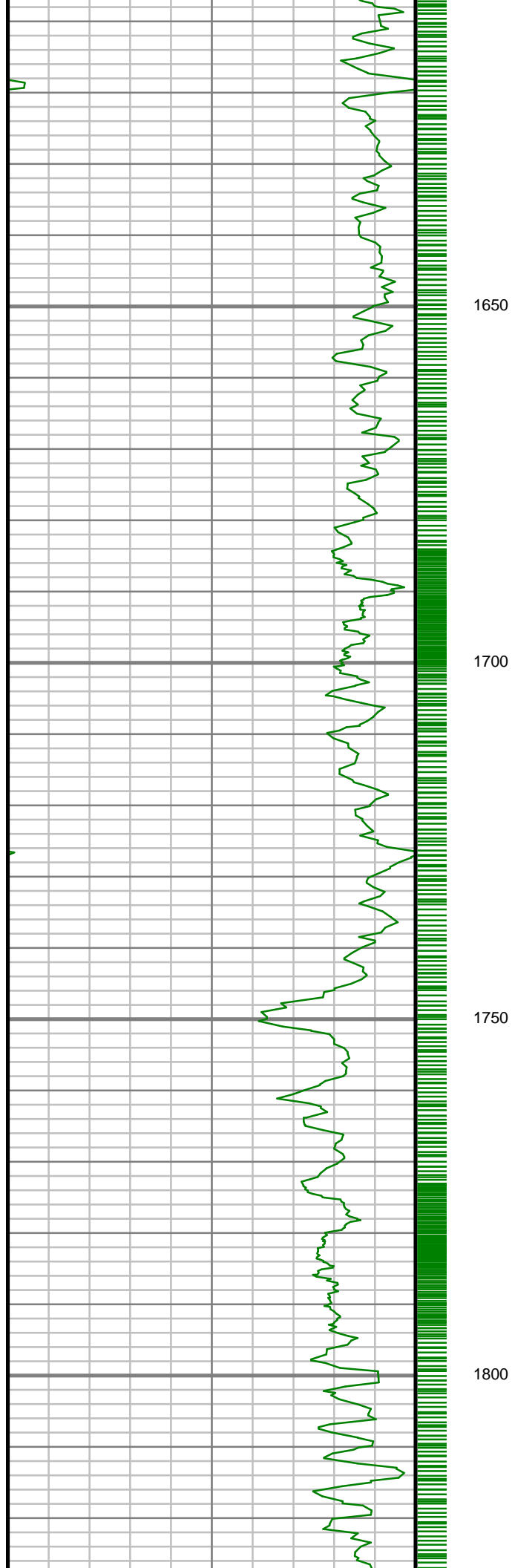
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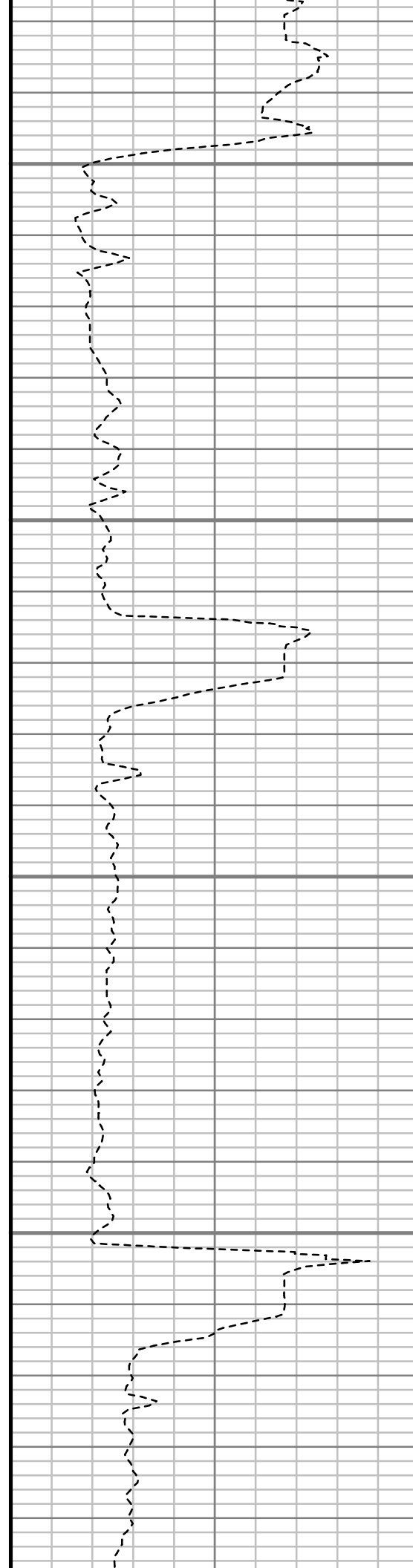
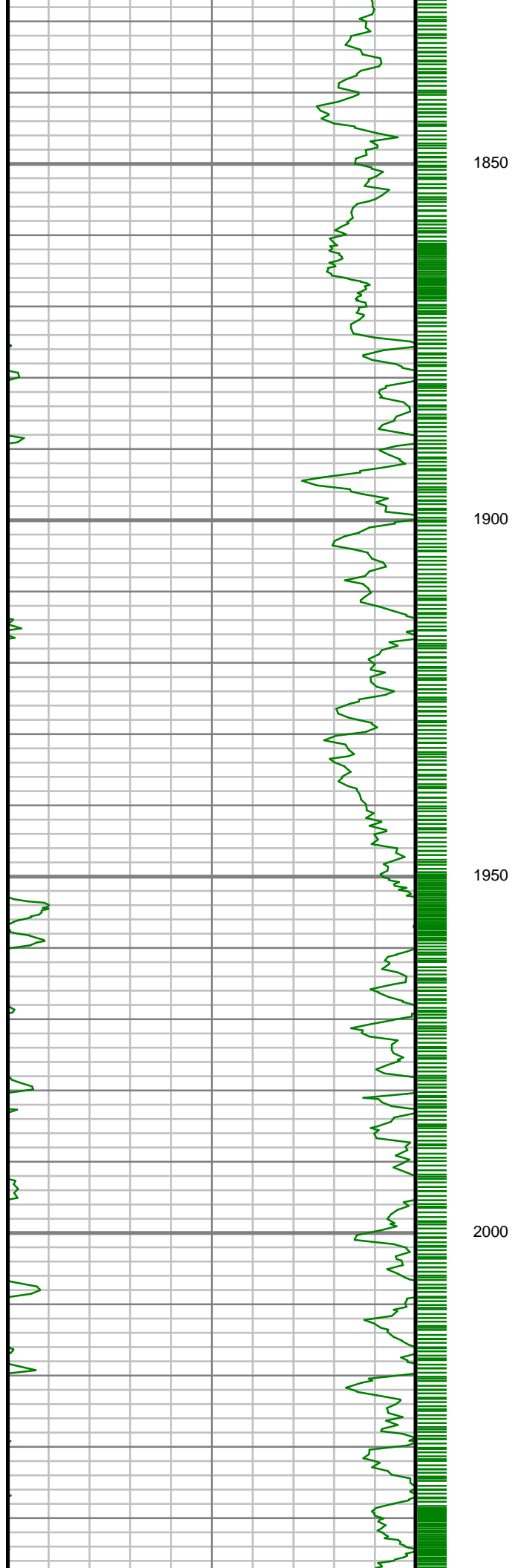
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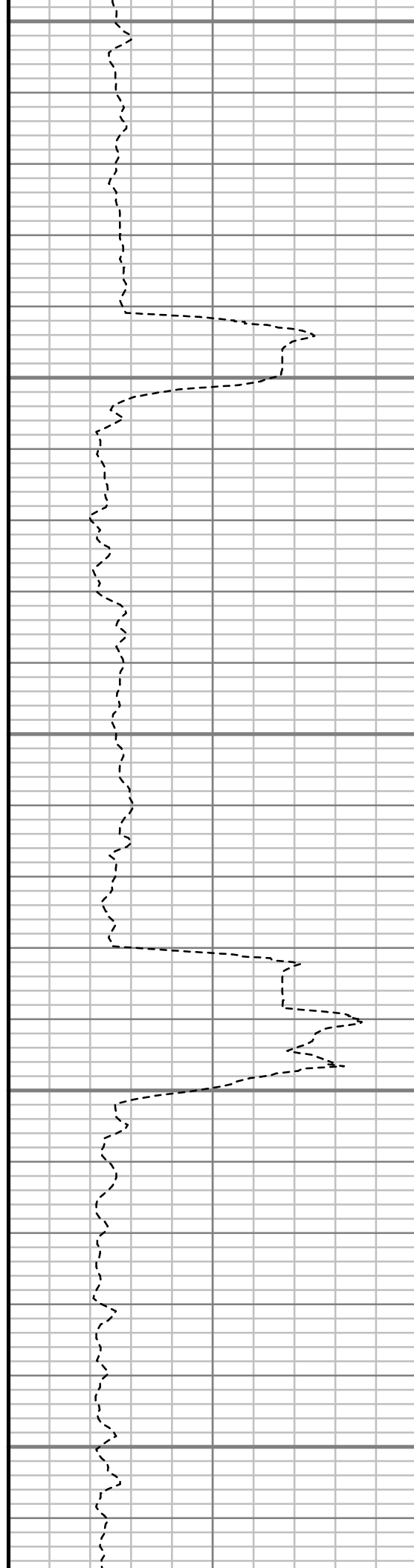
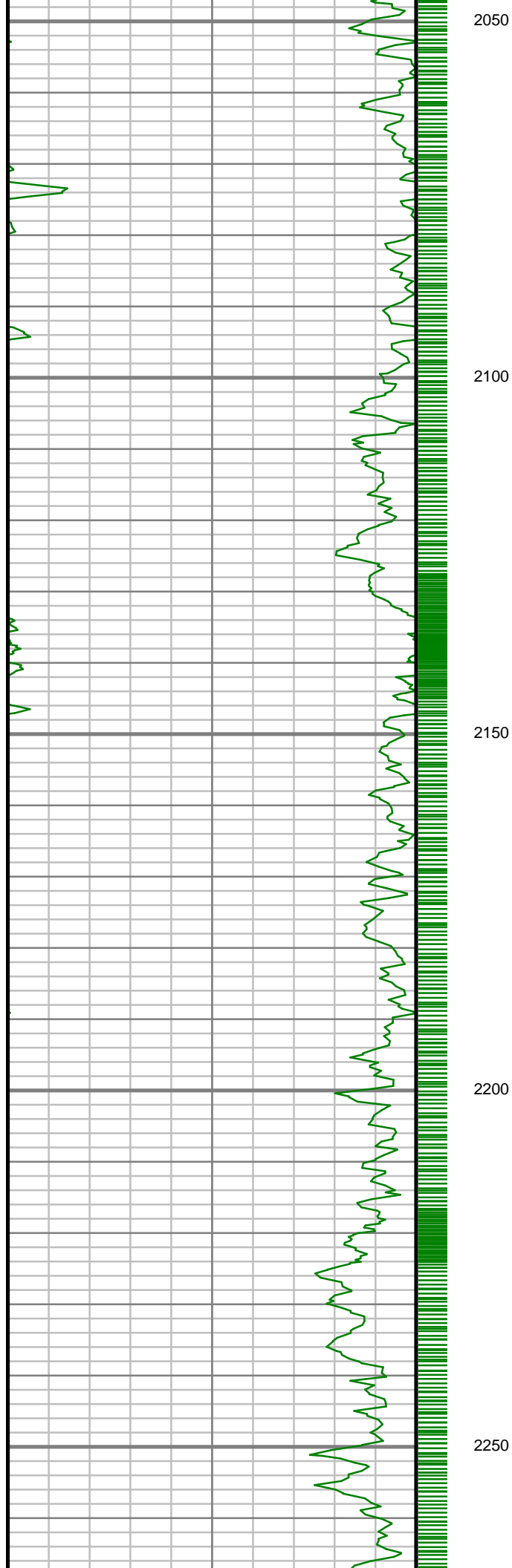
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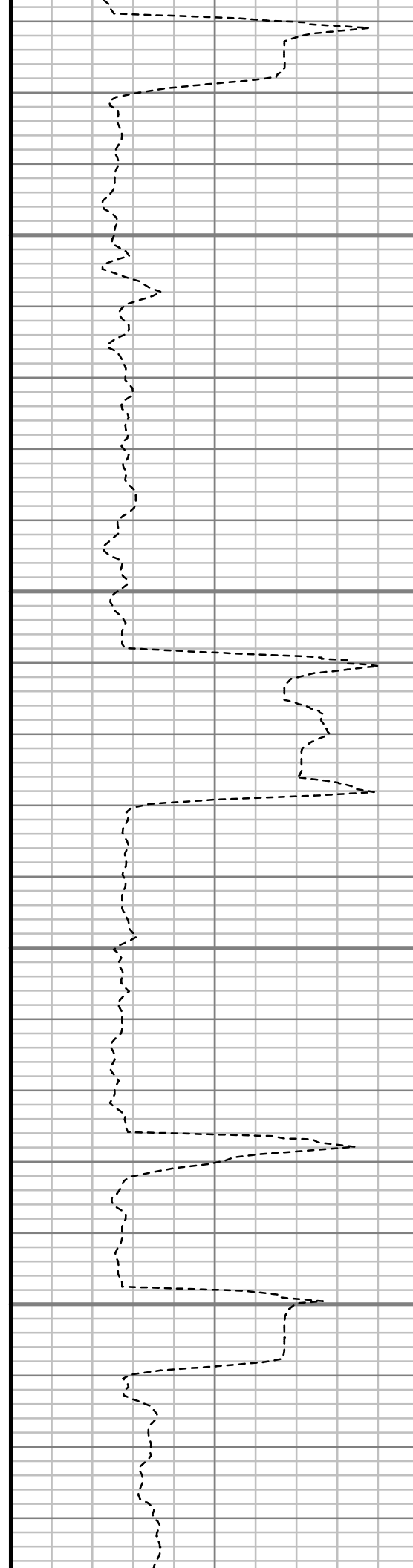
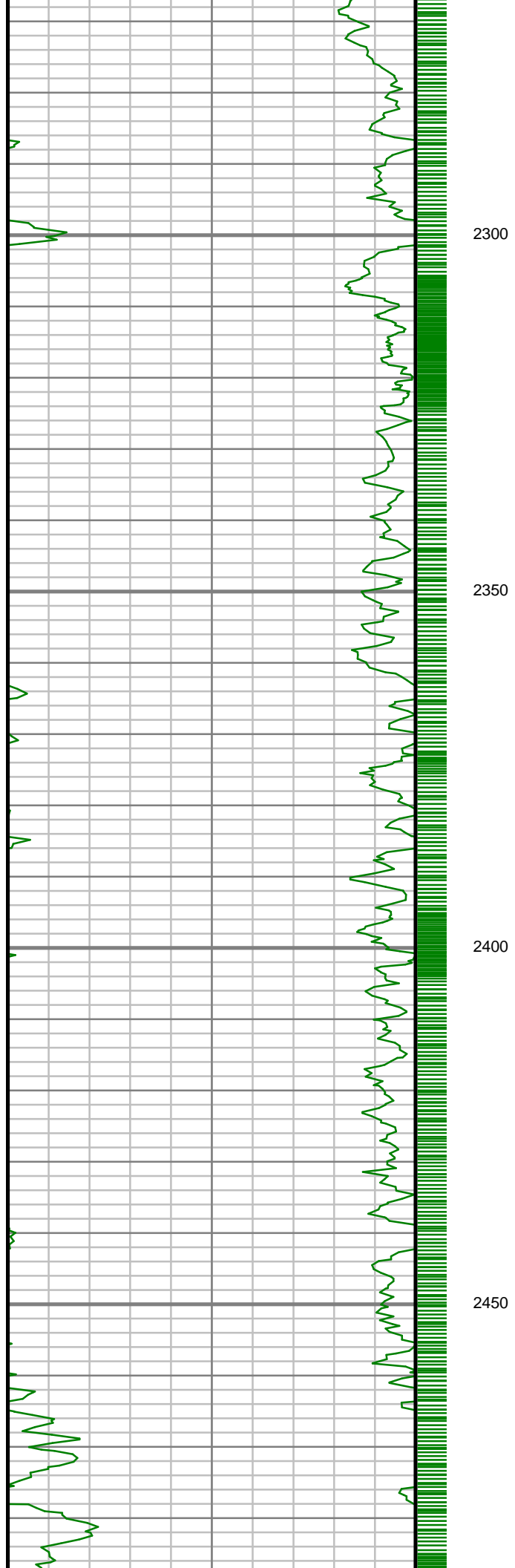


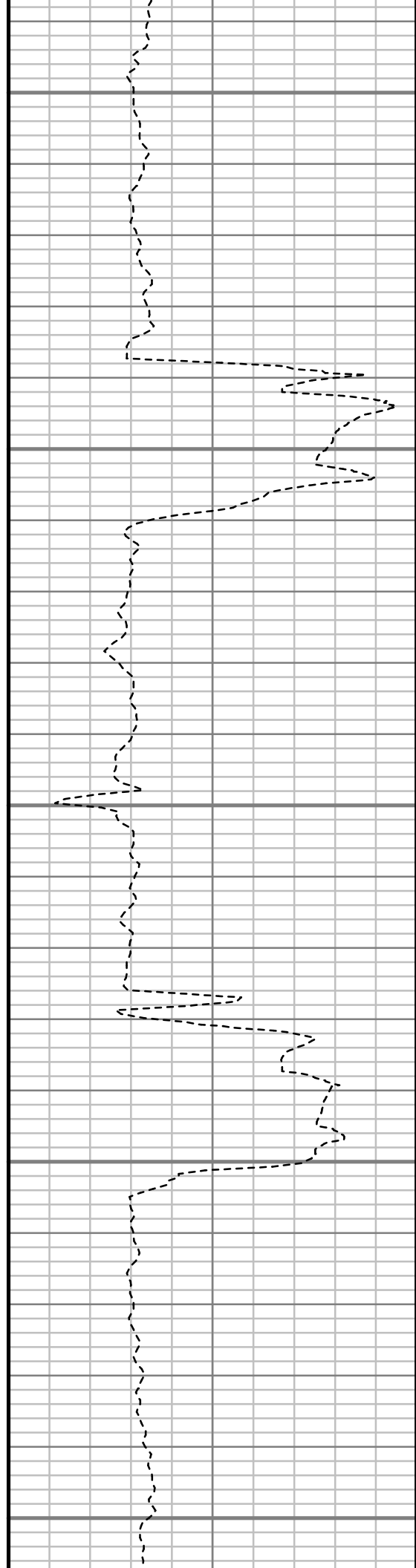
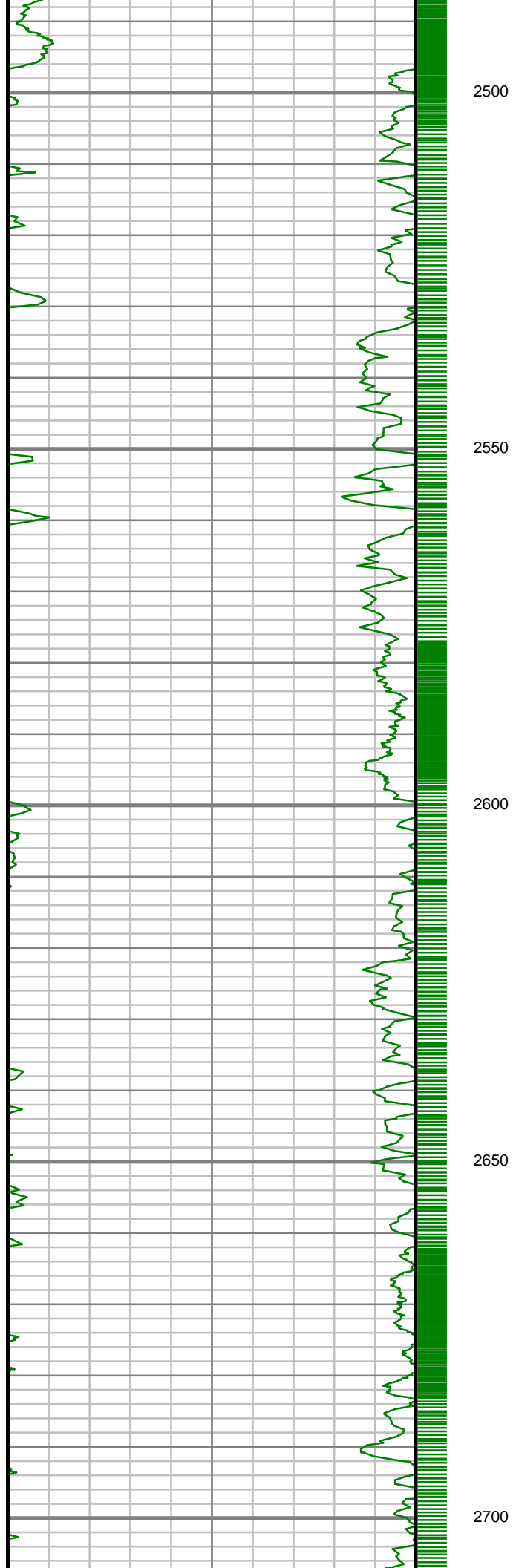


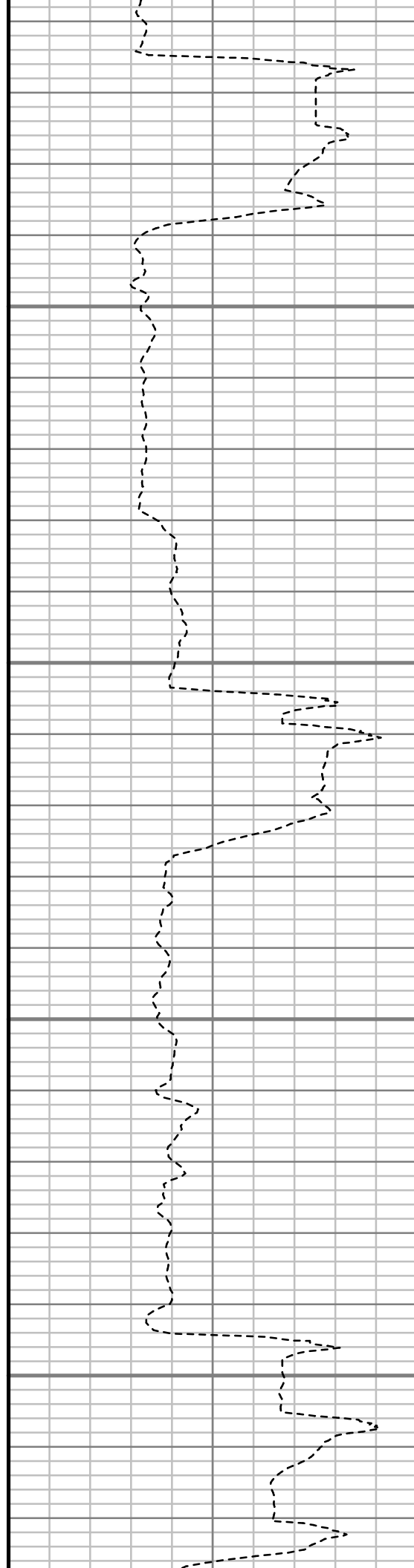
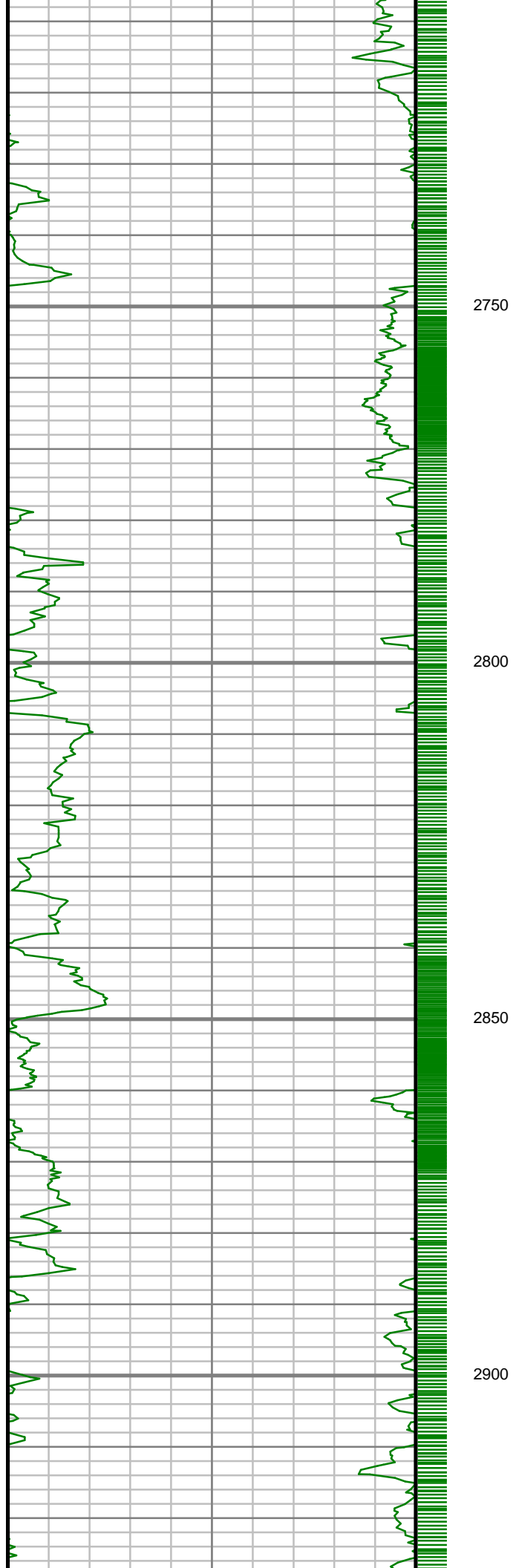


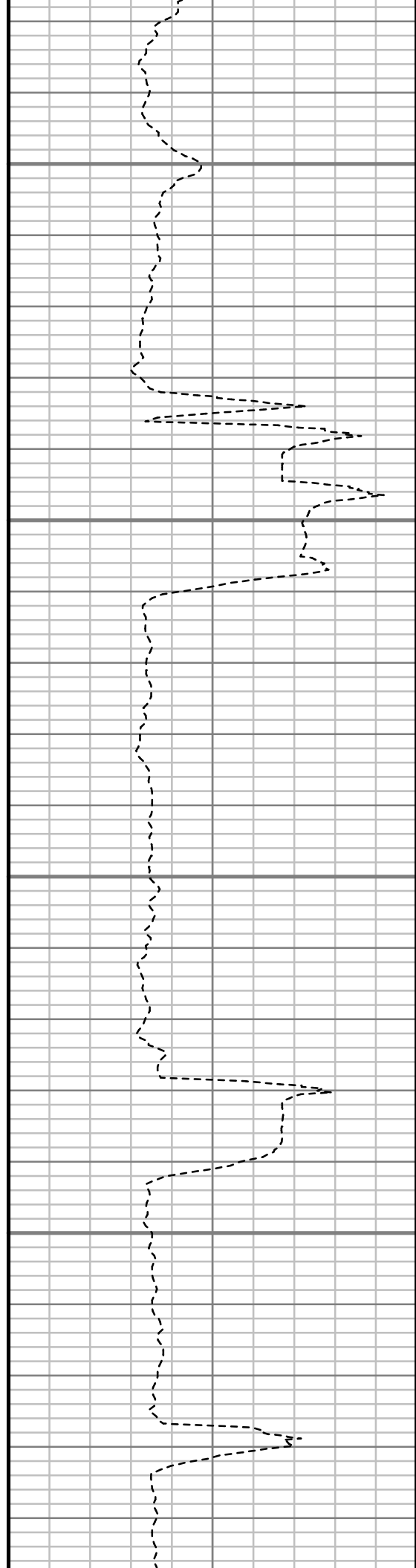
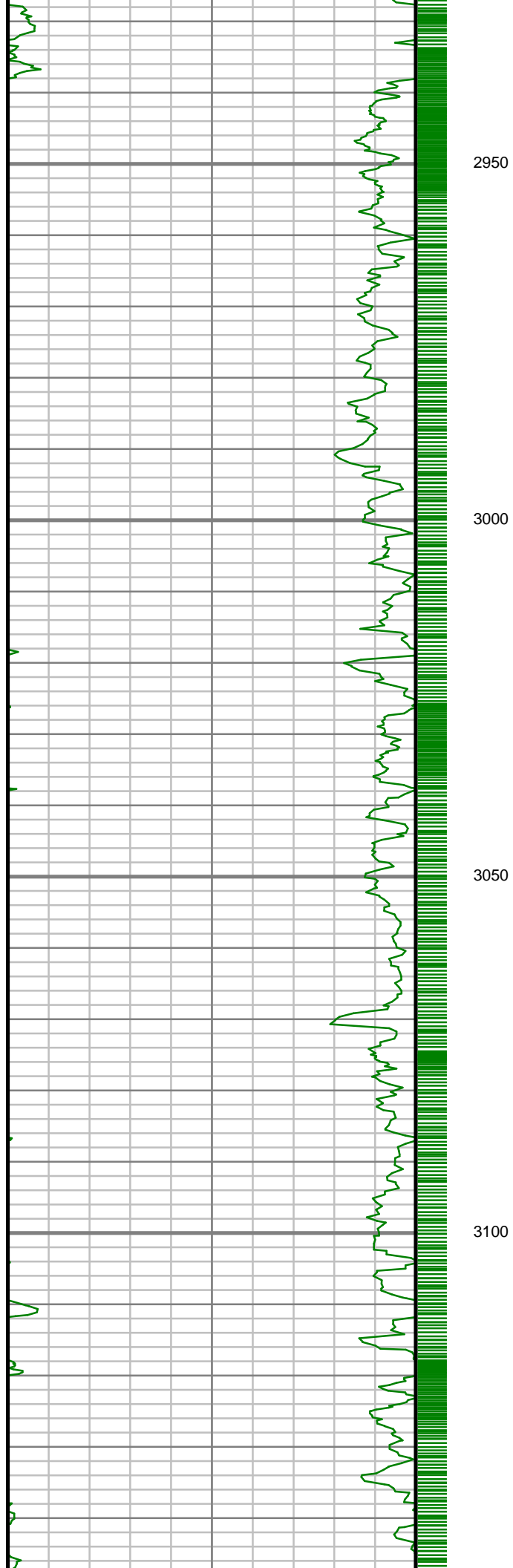


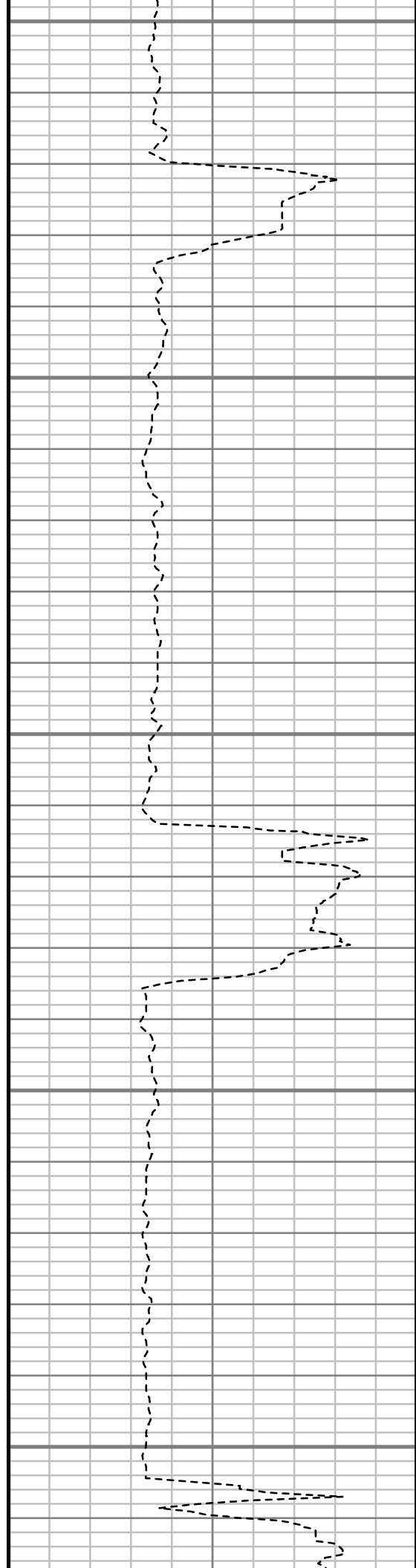
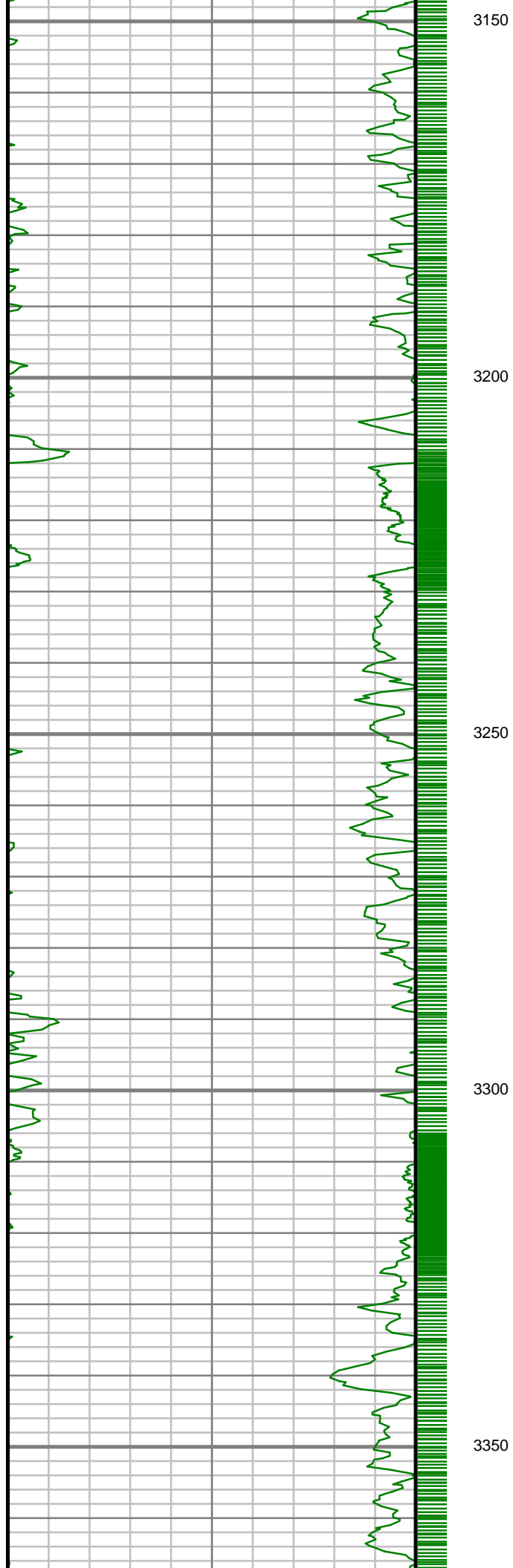


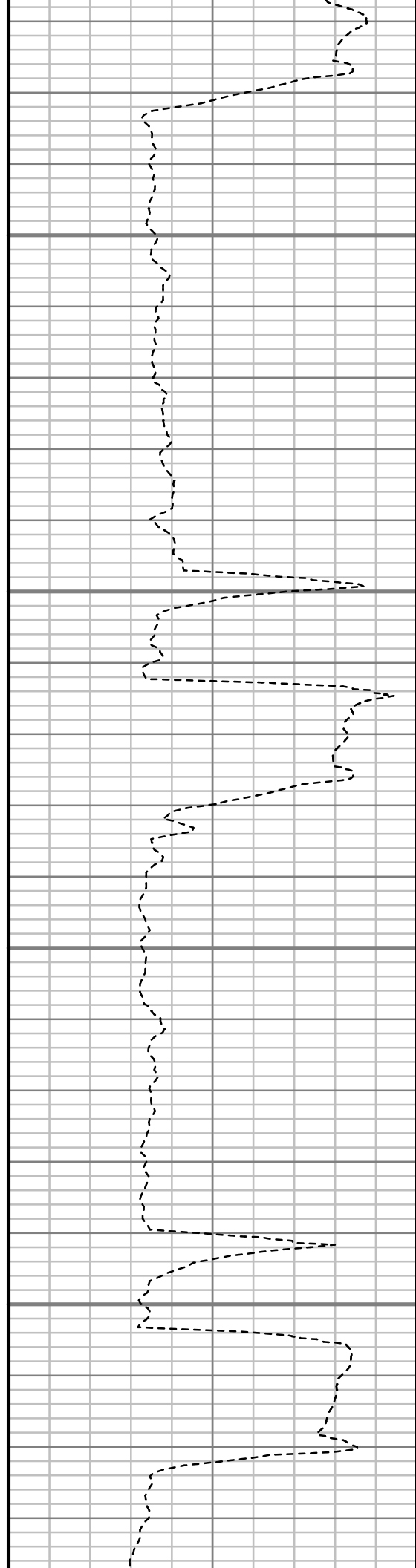
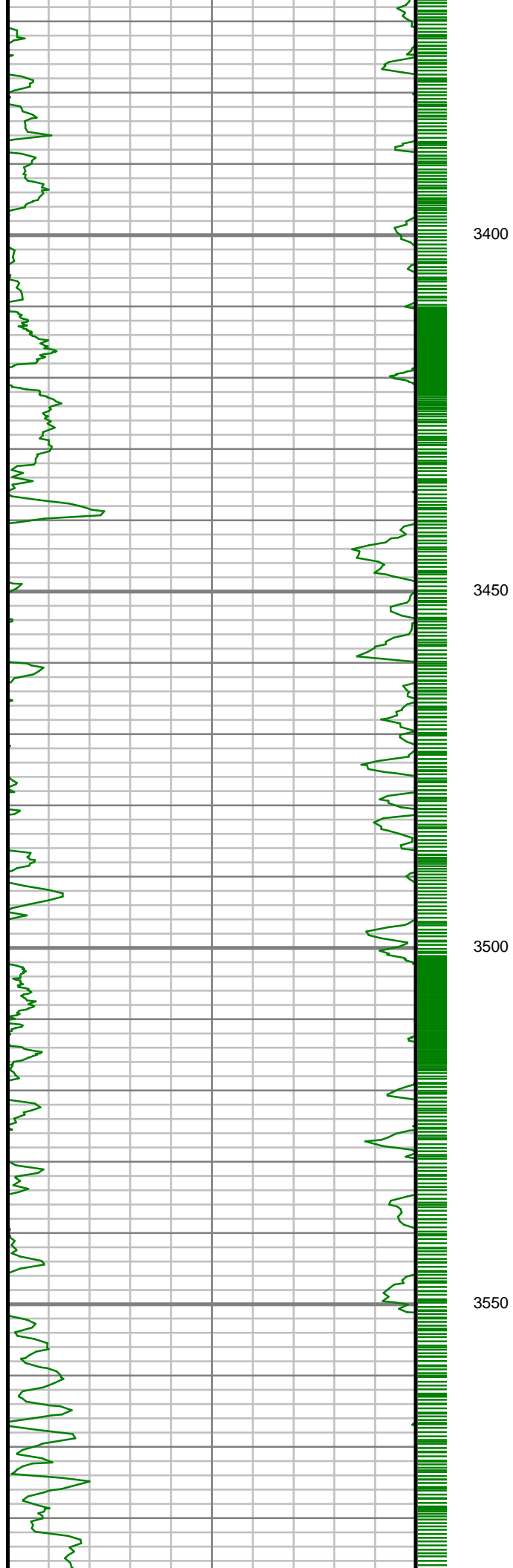


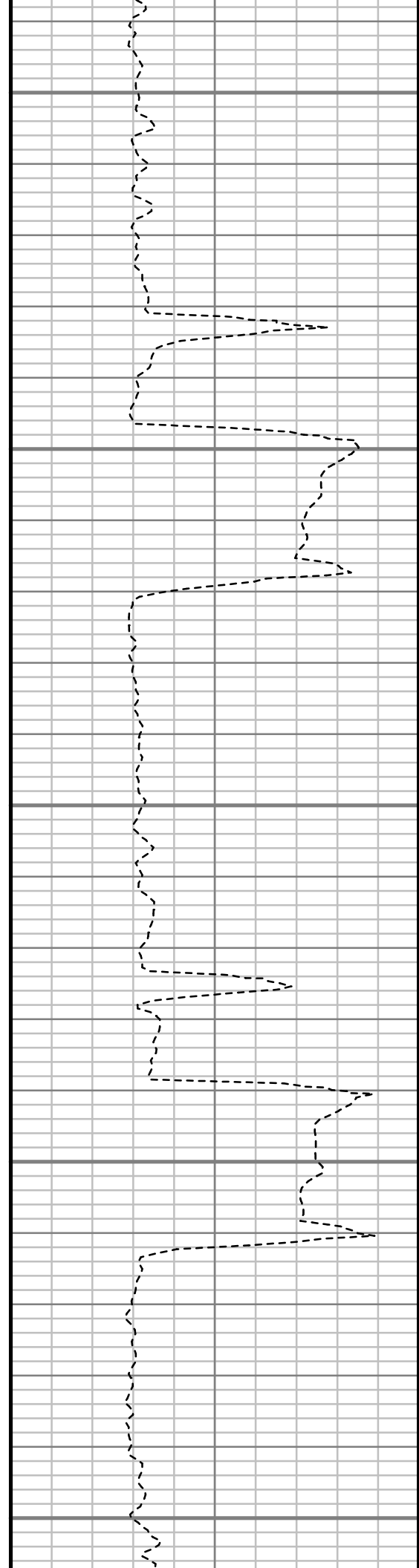
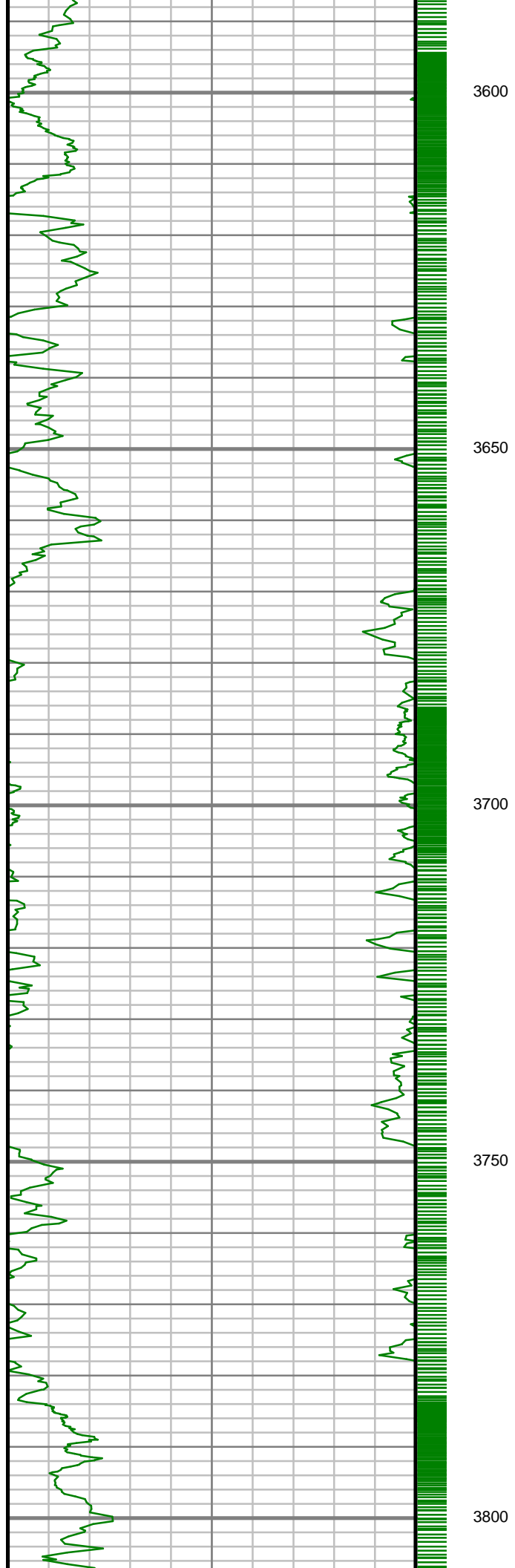


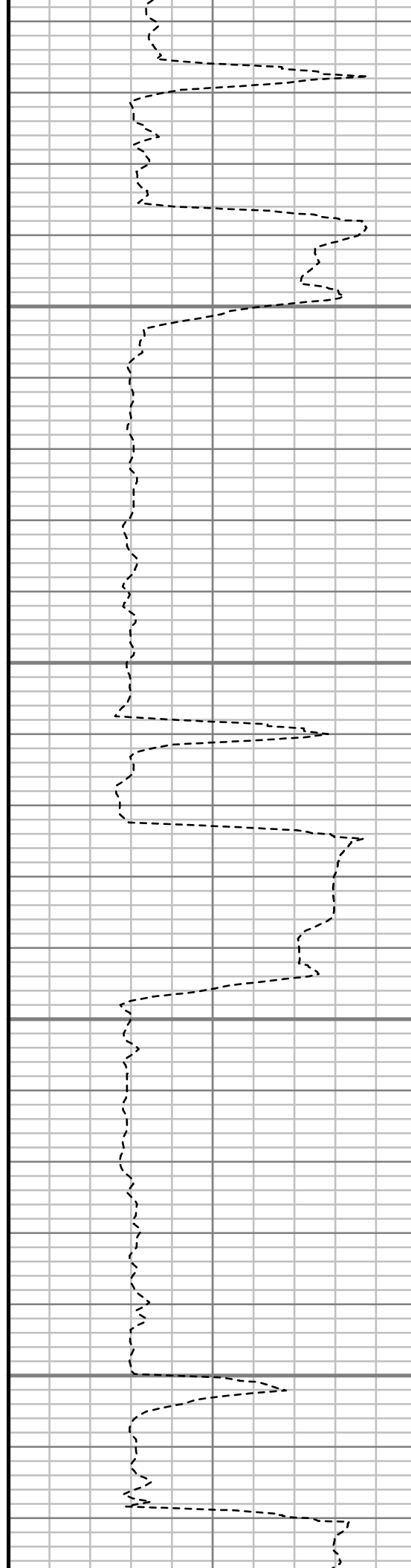
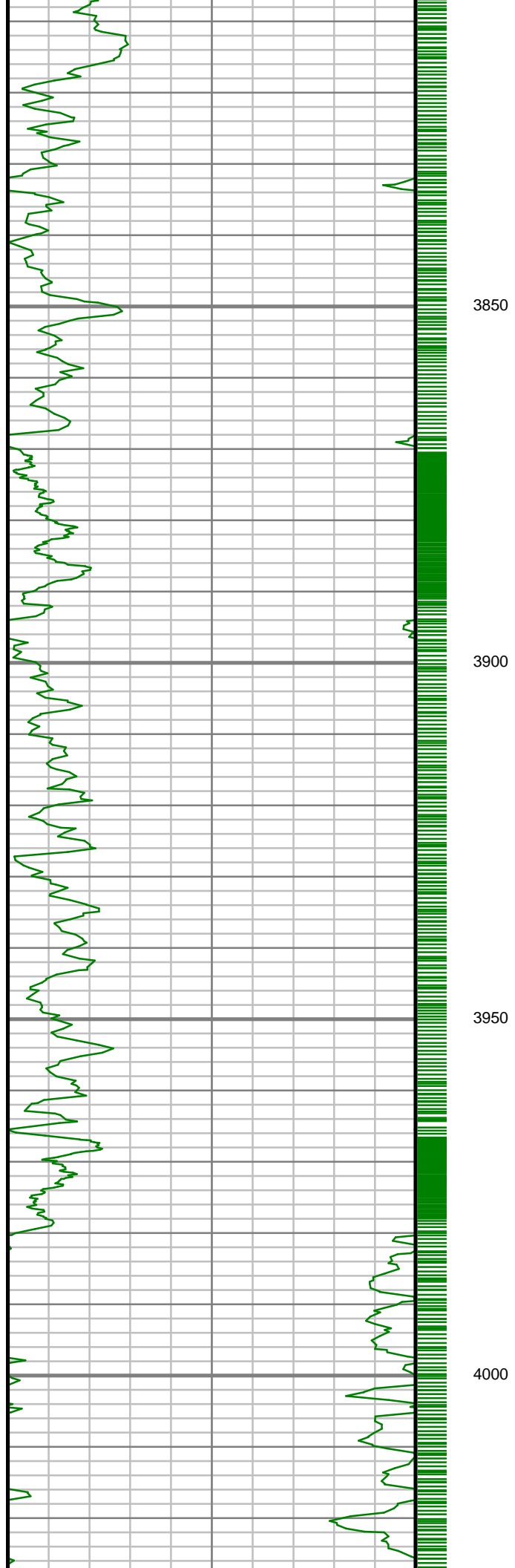


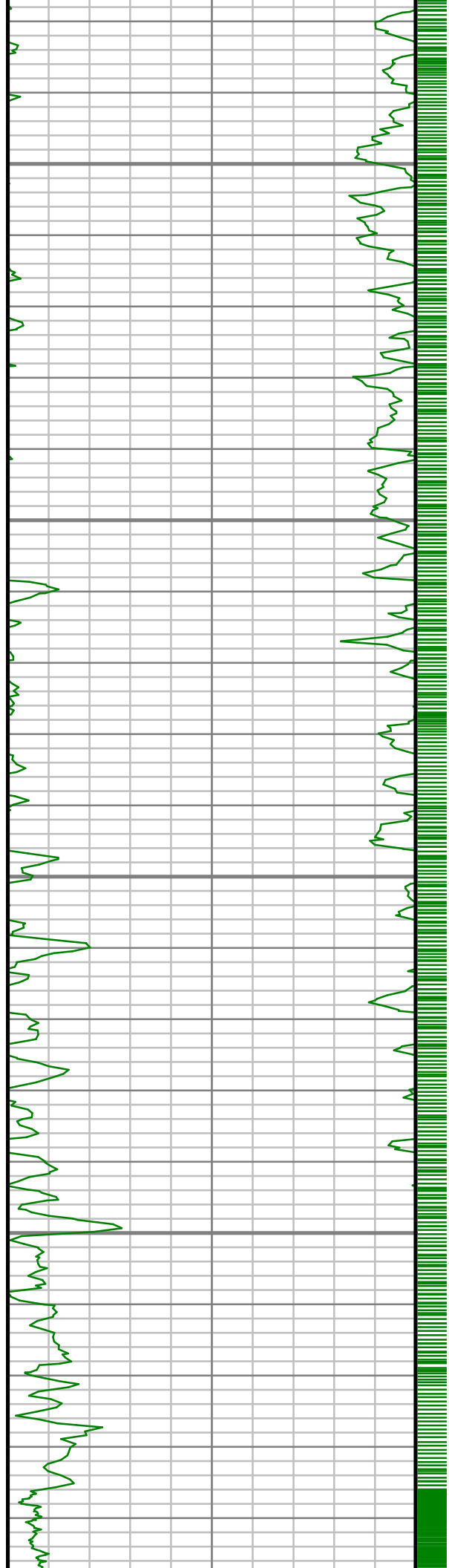










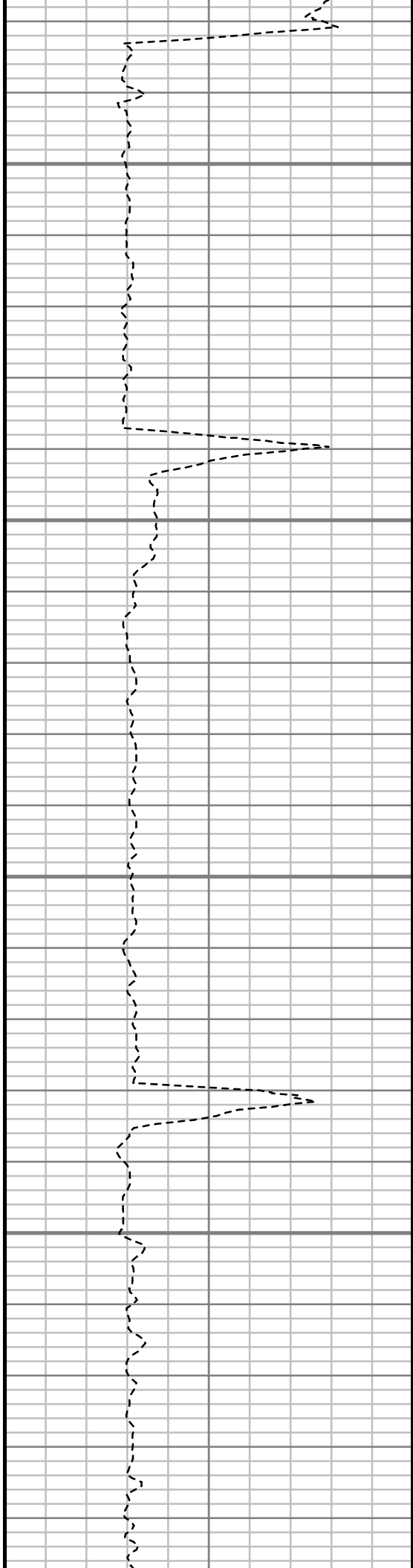


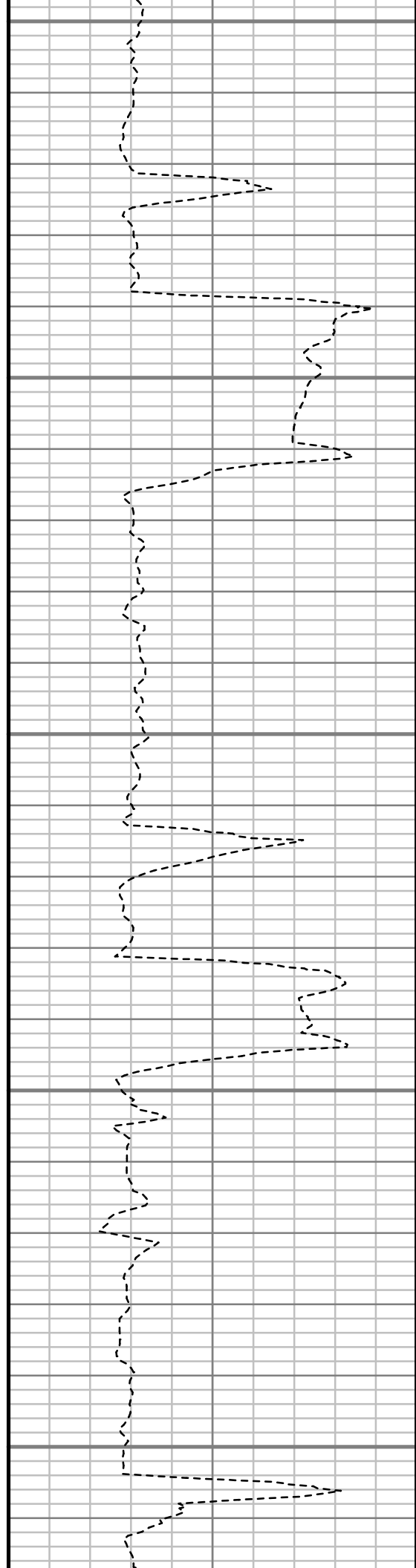
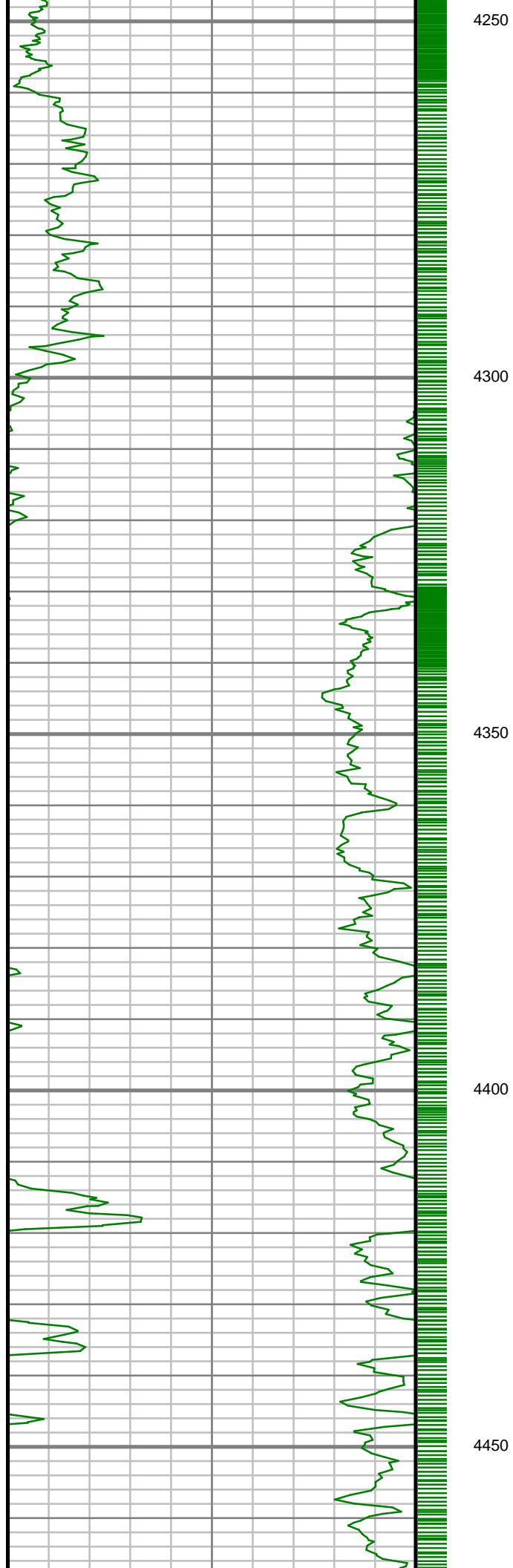
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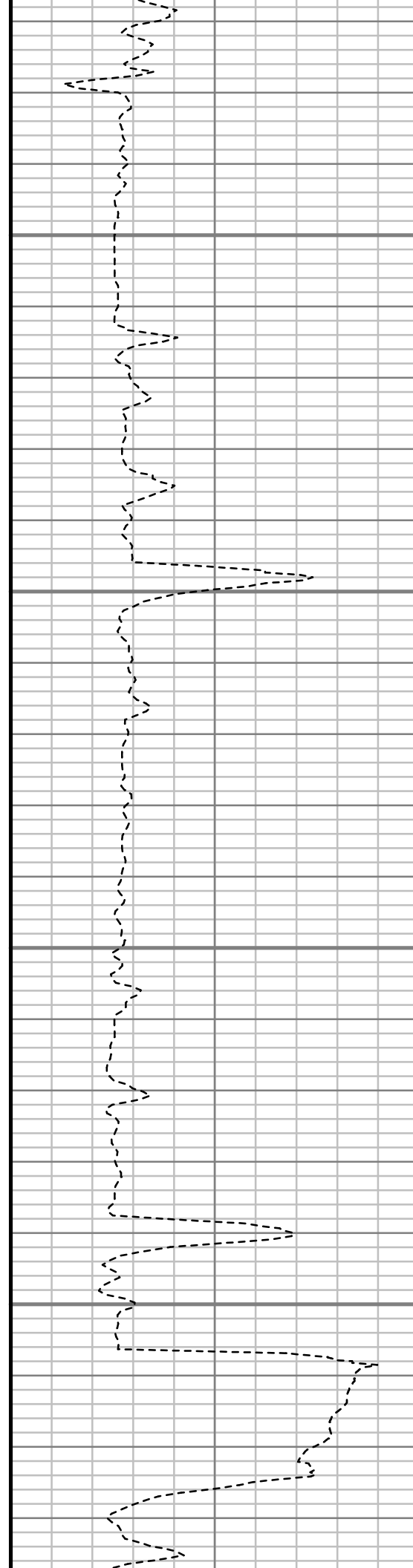
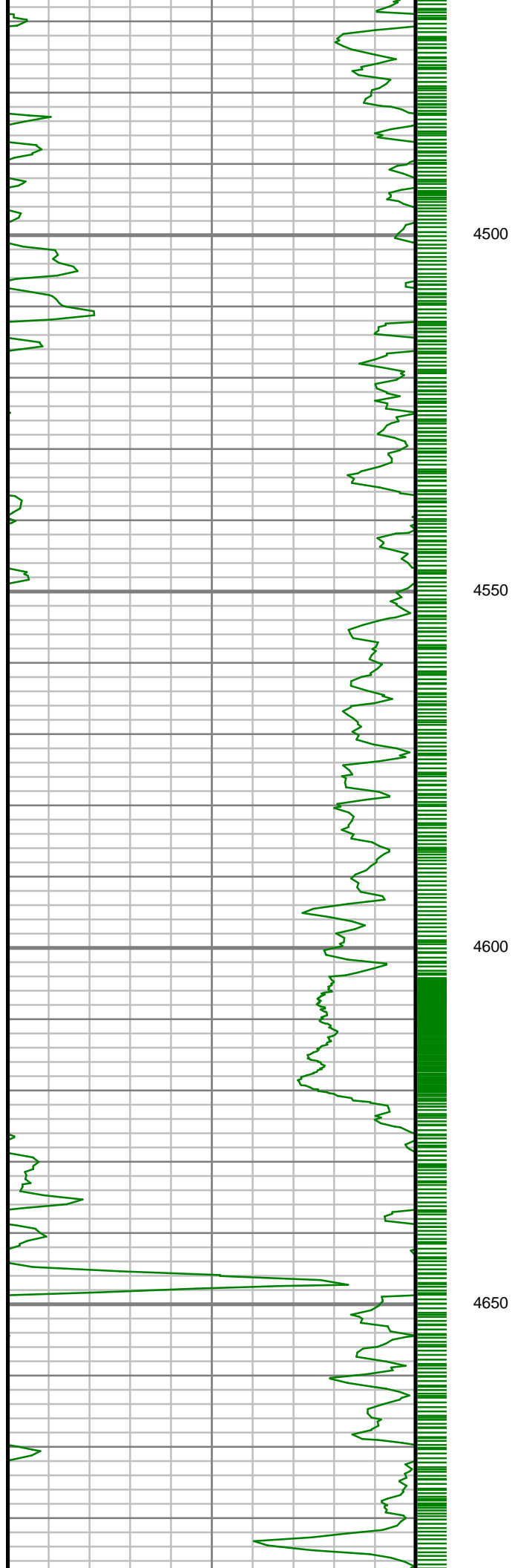
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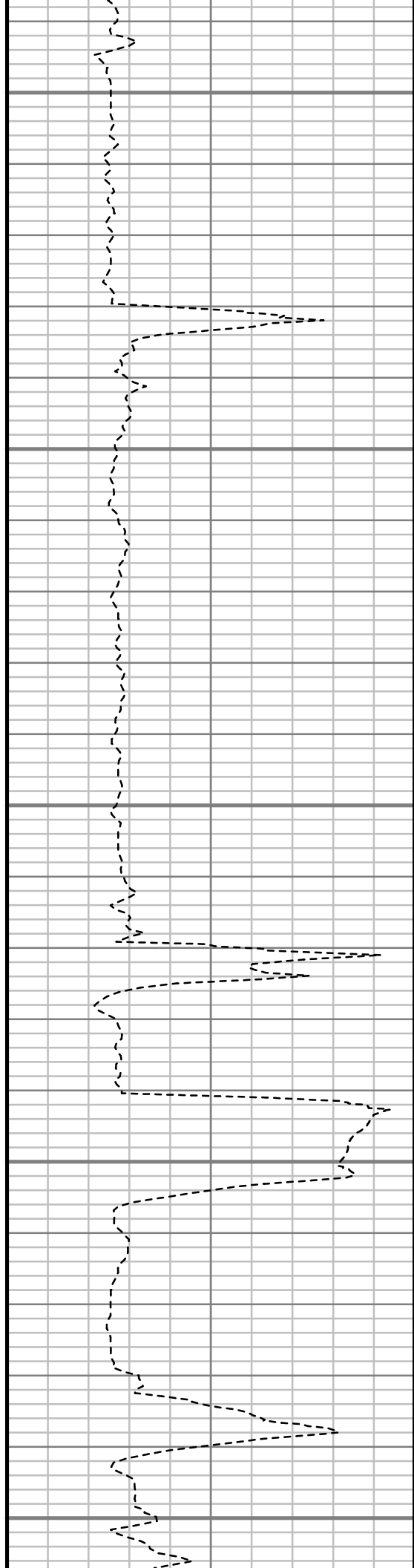
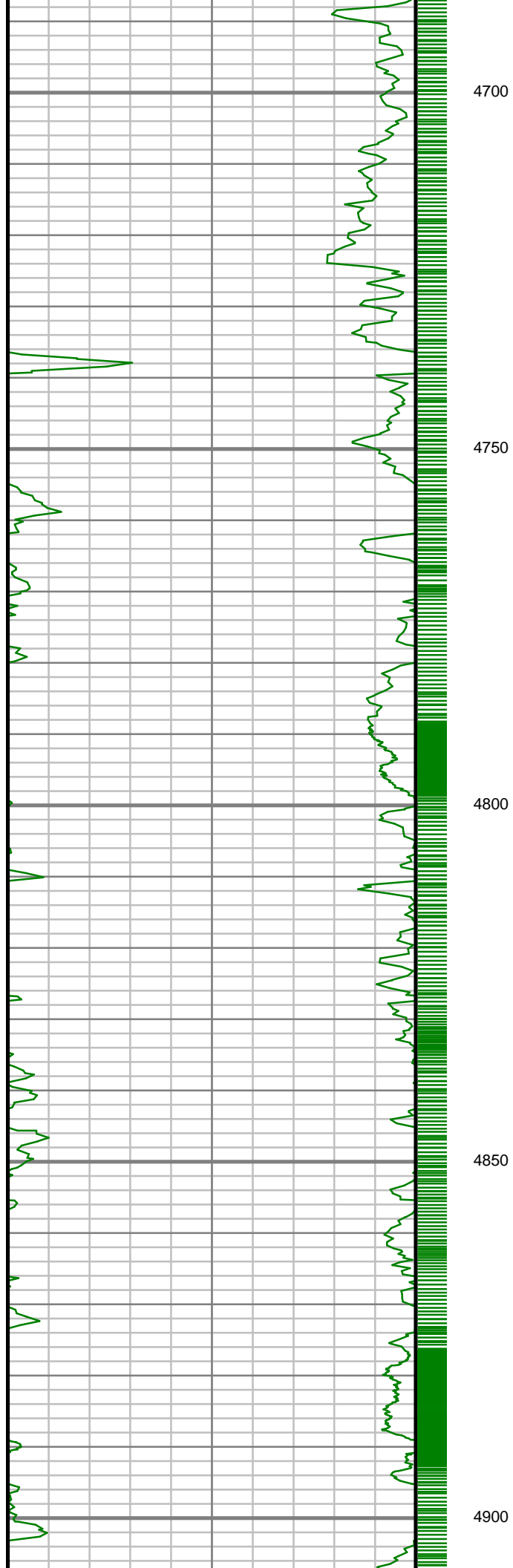
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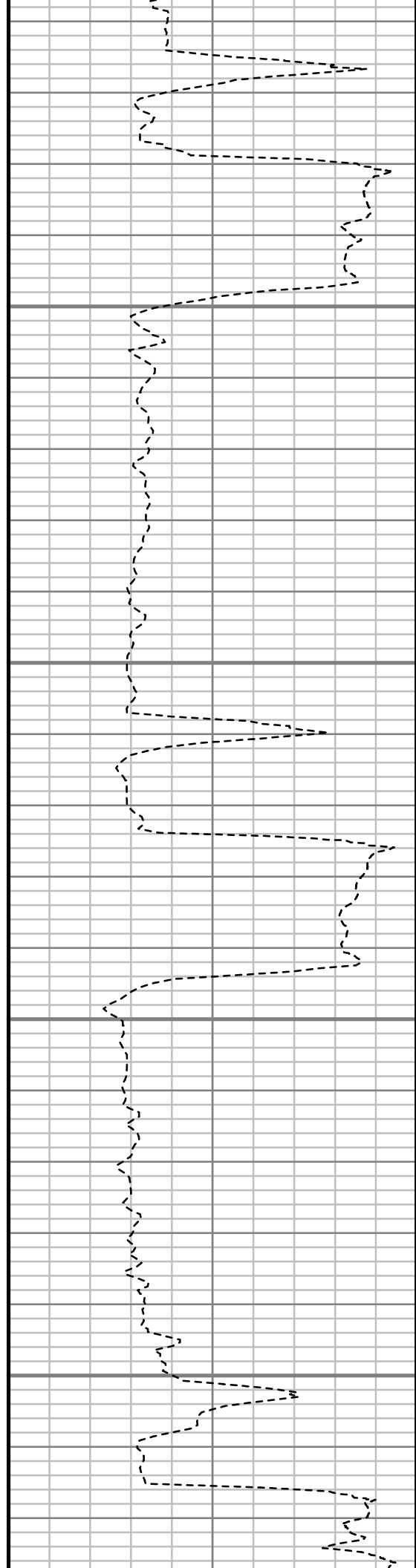
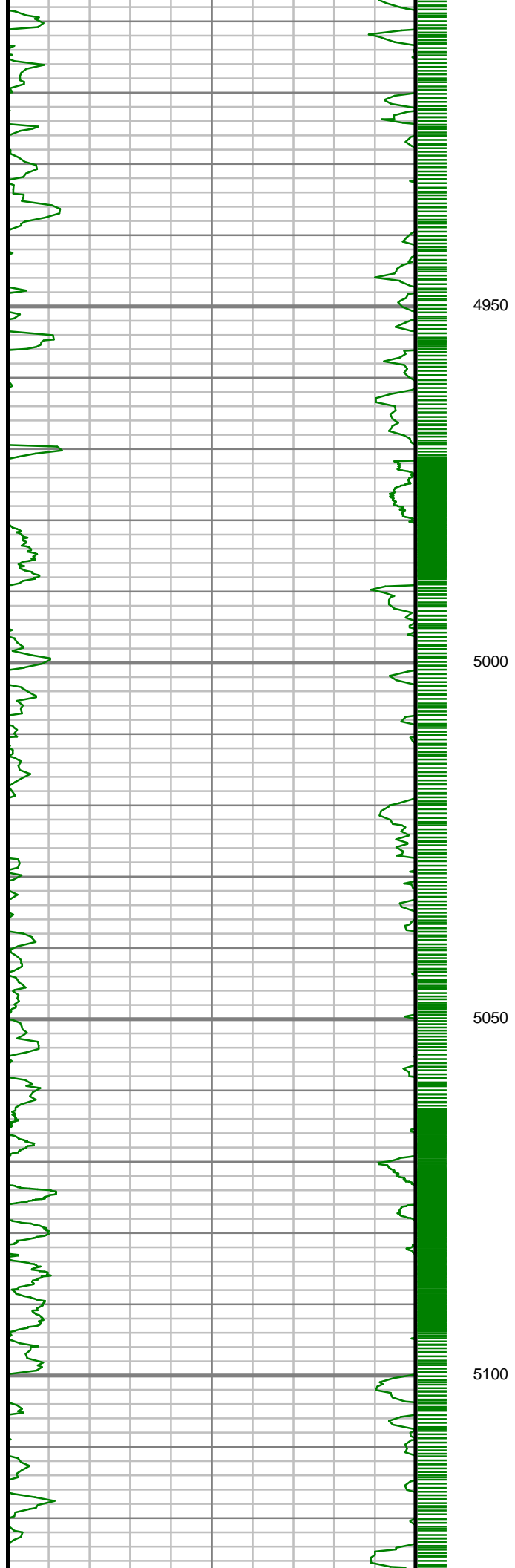
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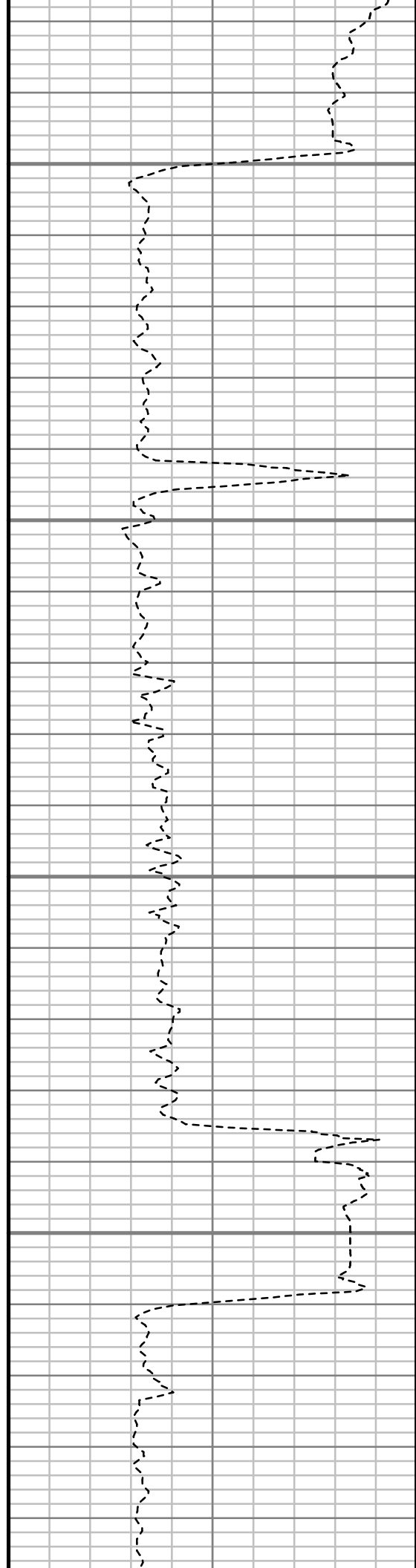
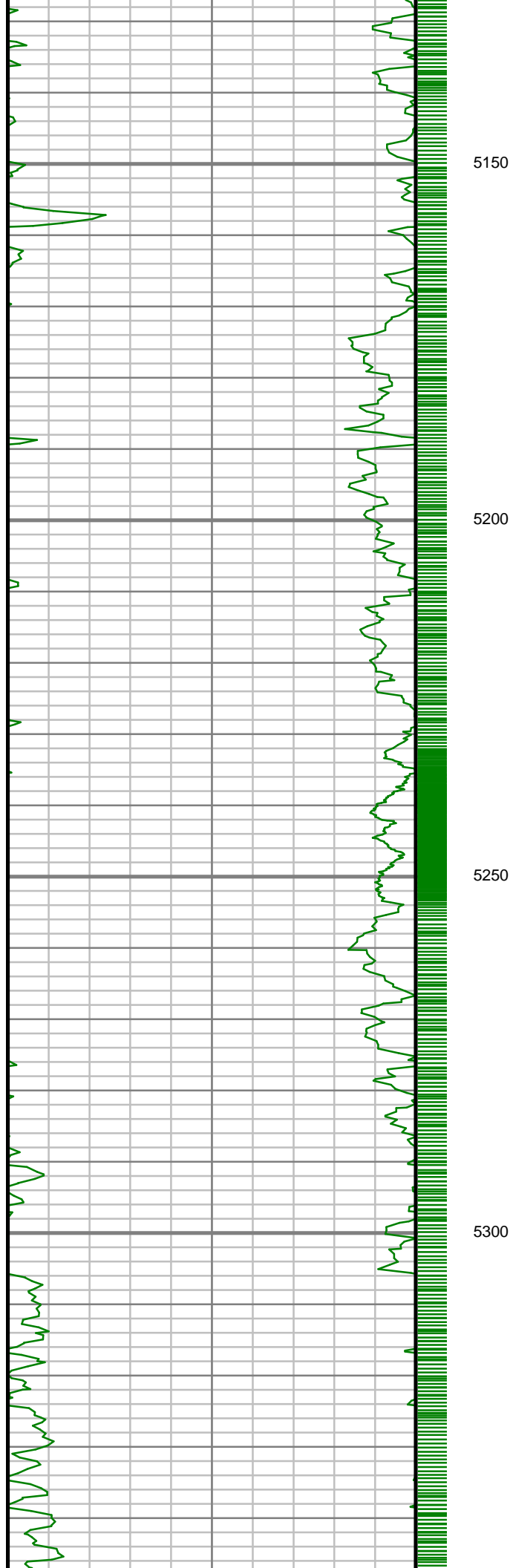


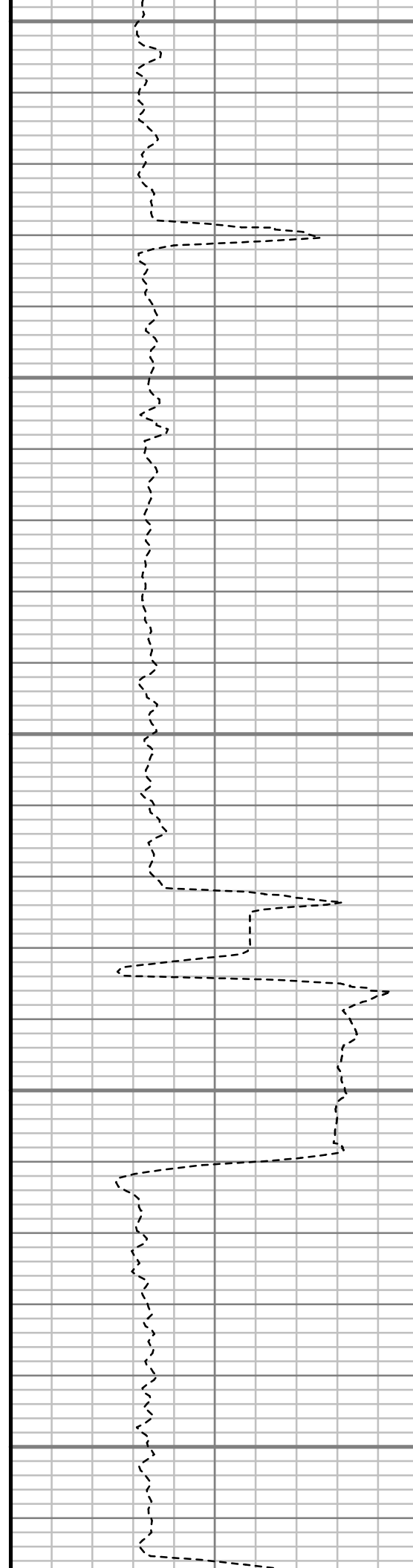
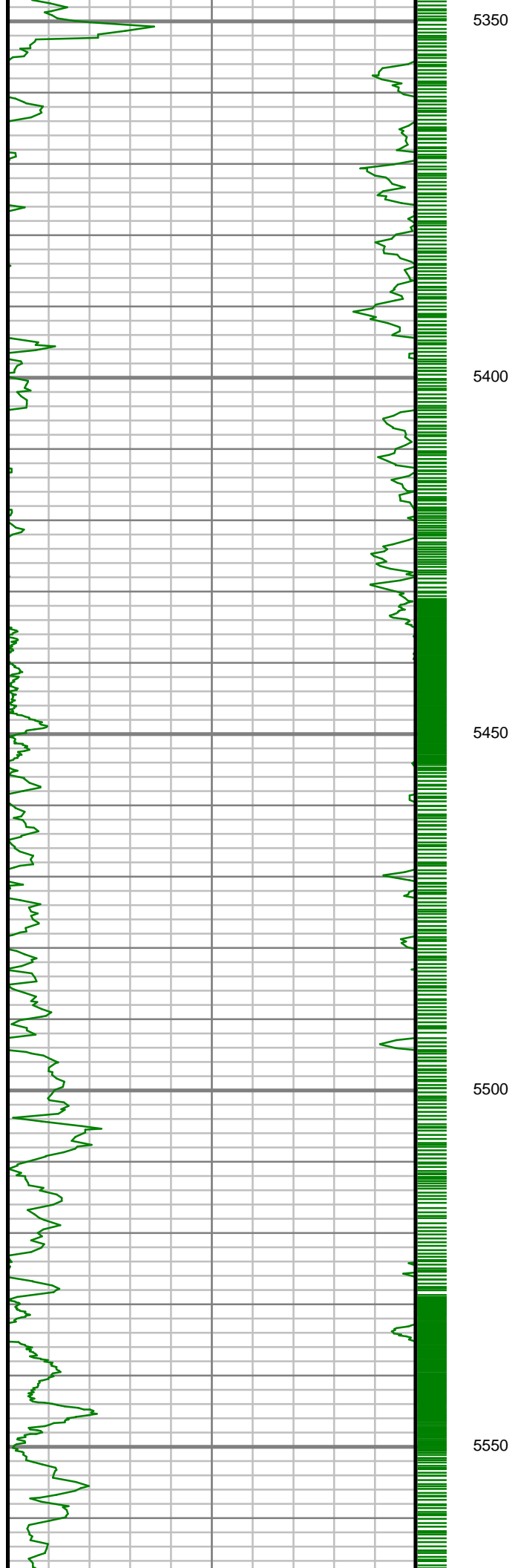


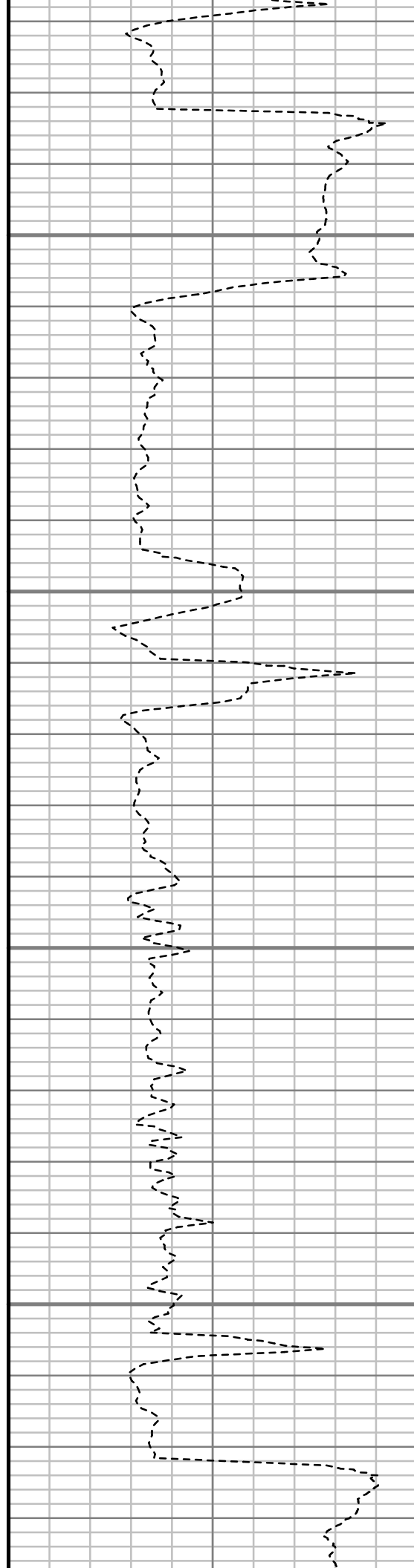
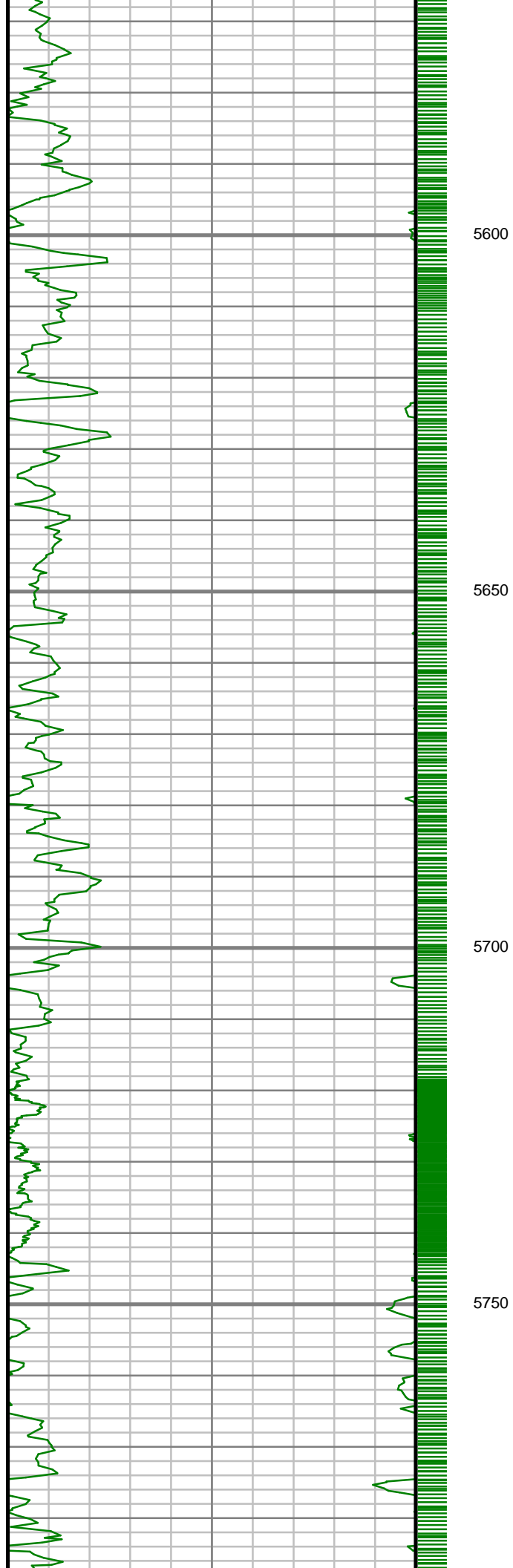


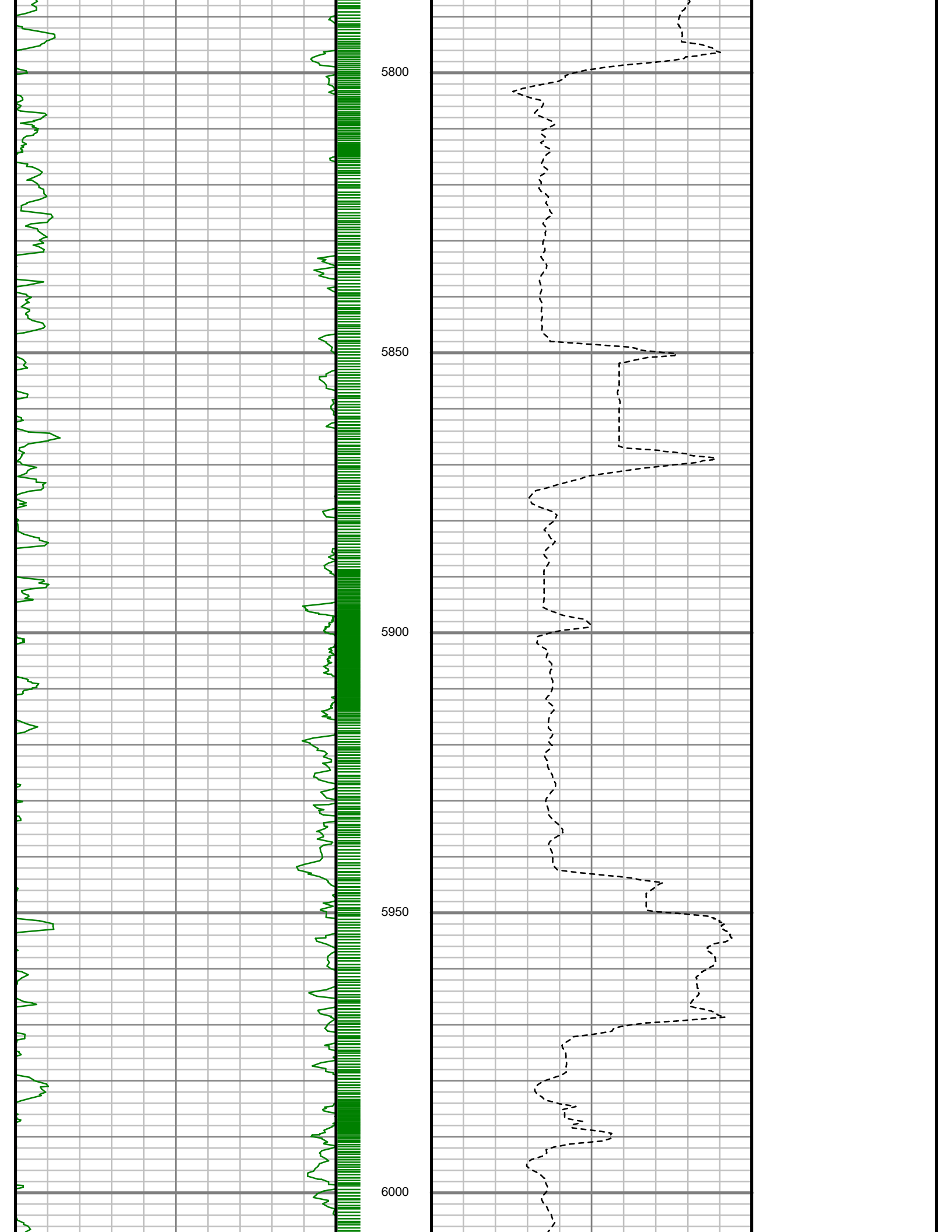


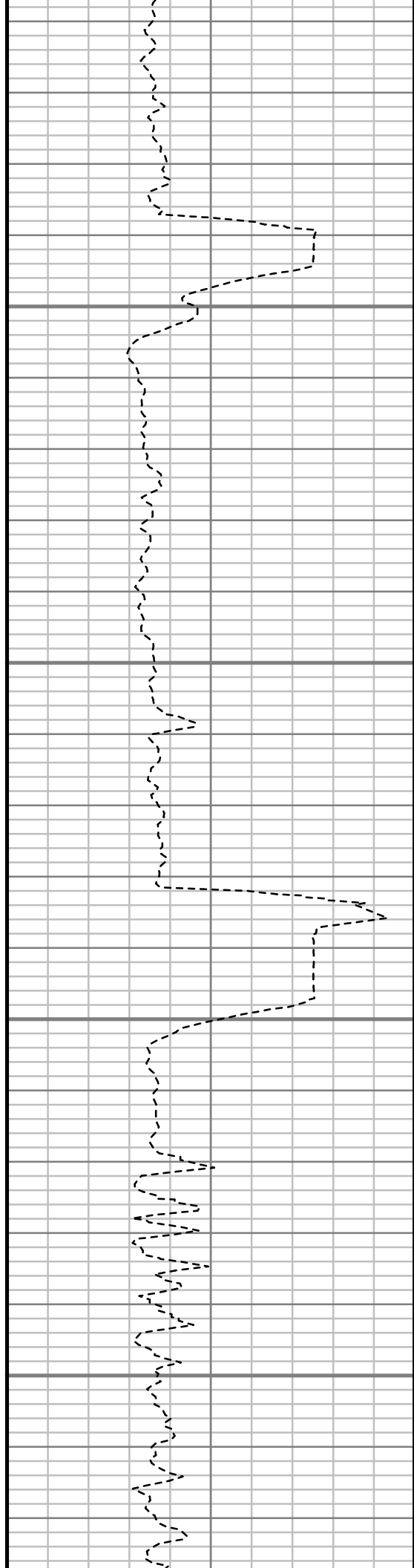
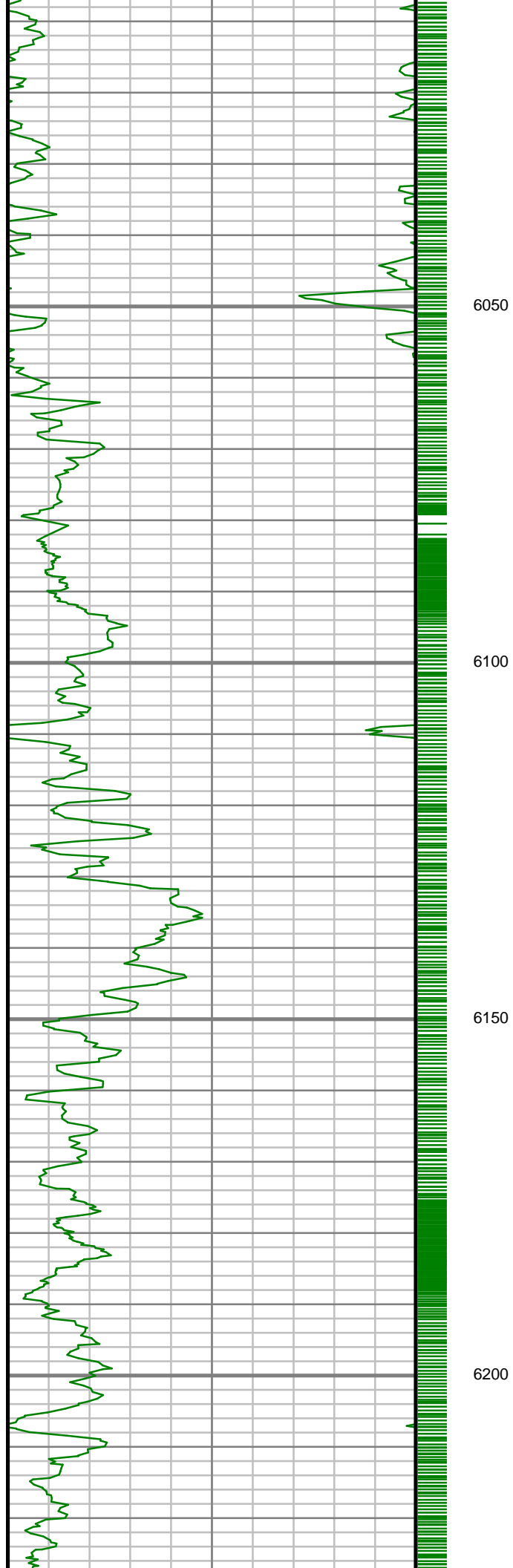


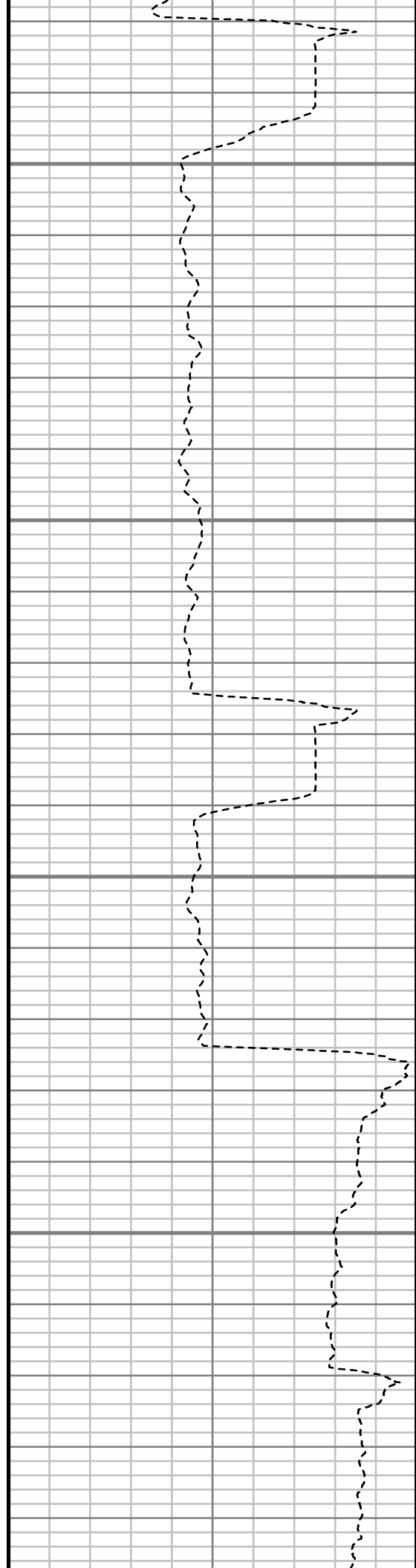
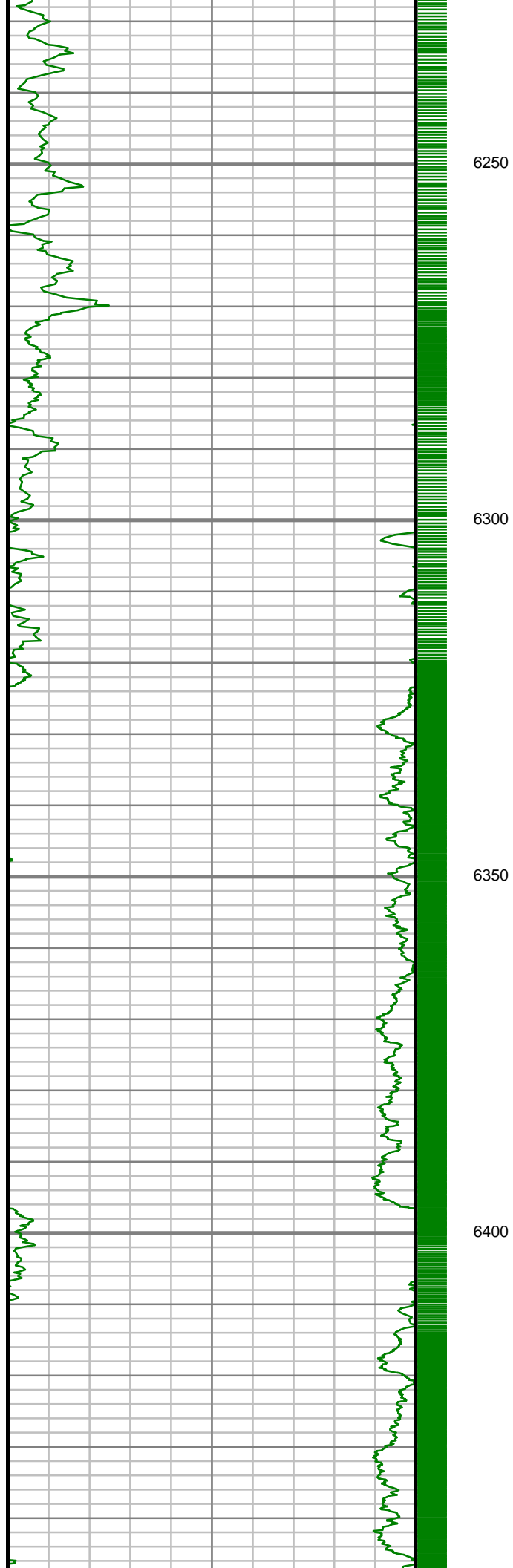


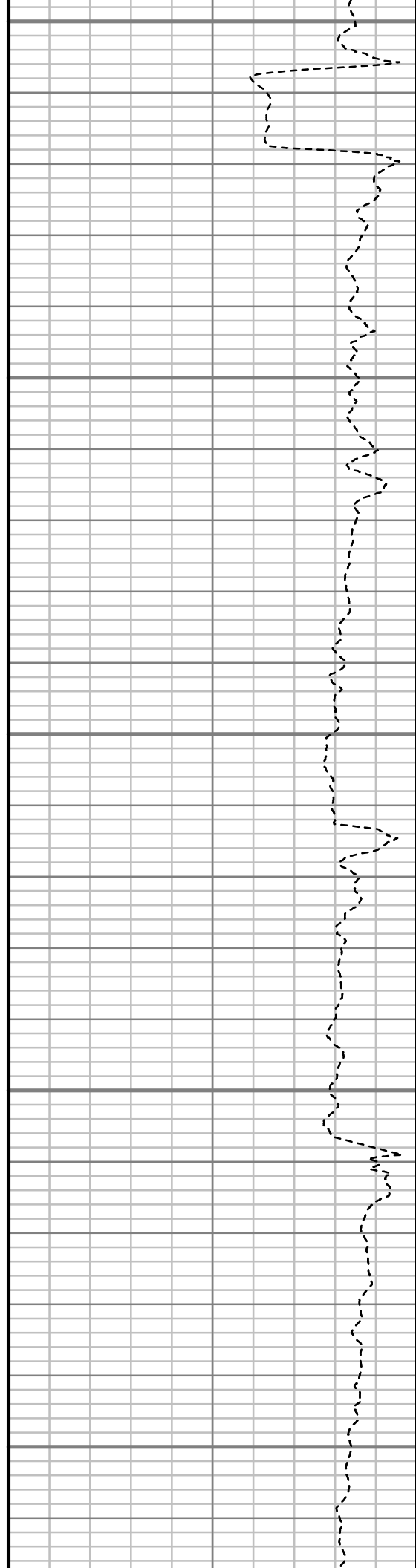
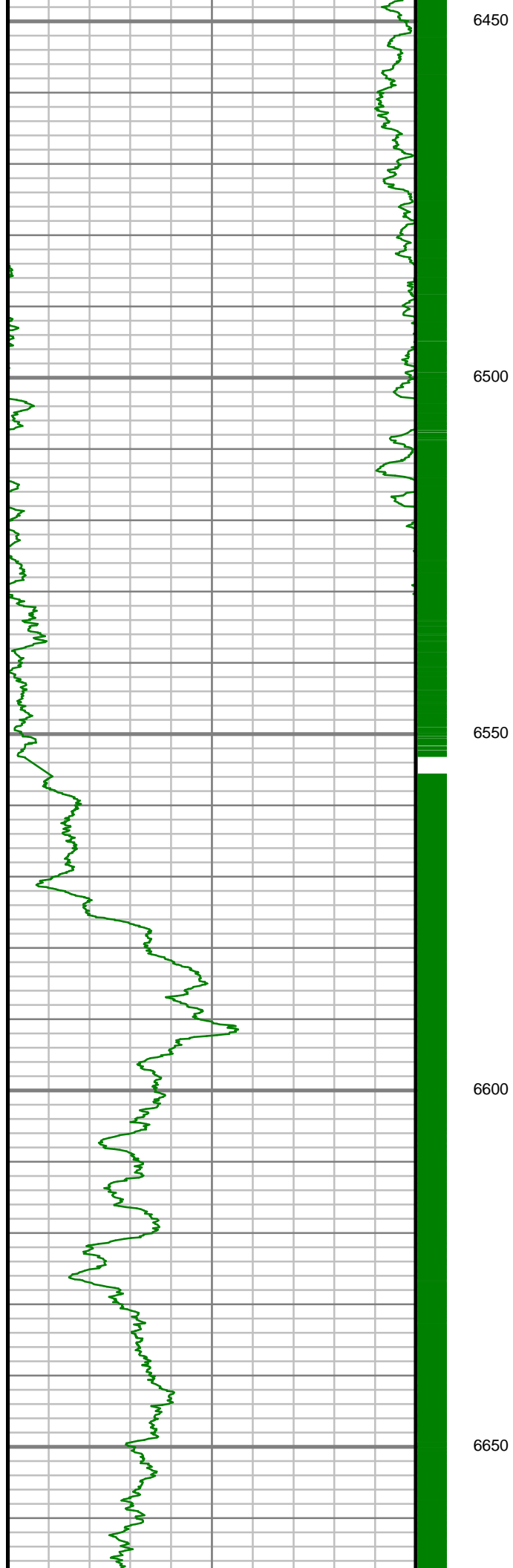


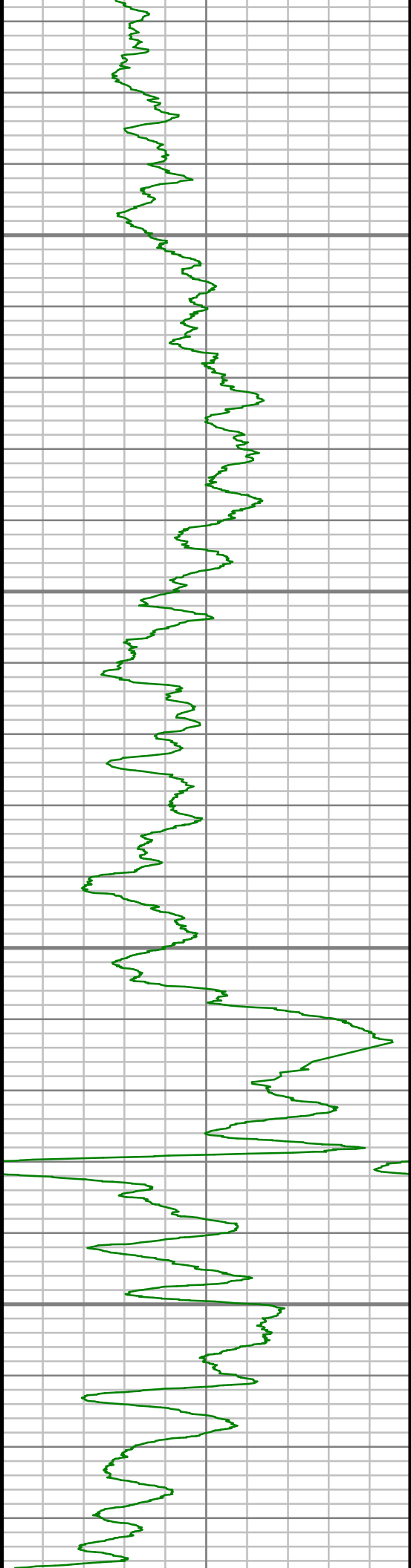










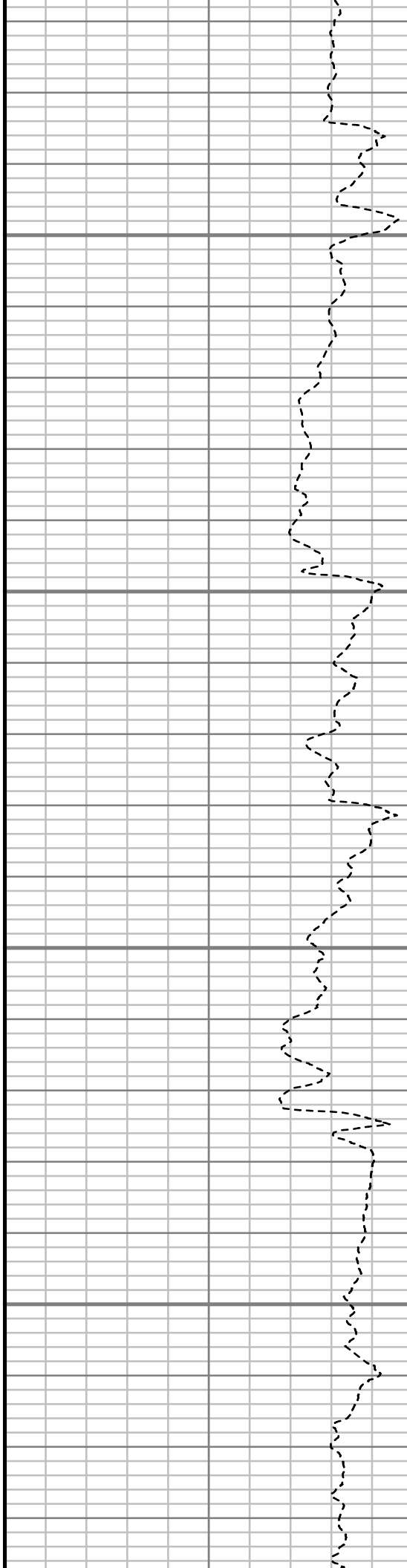


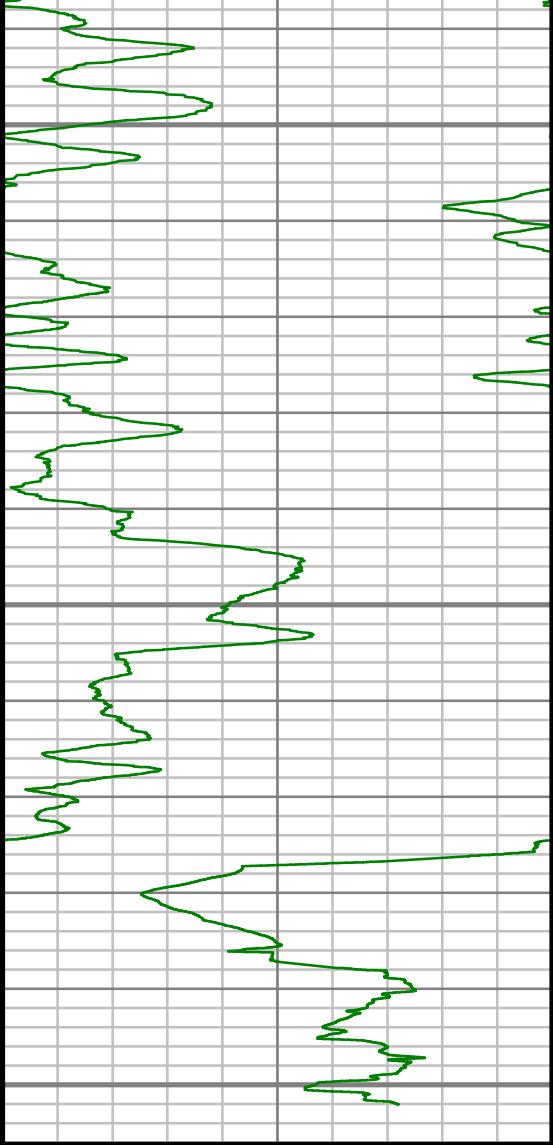
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6750

6800

6850





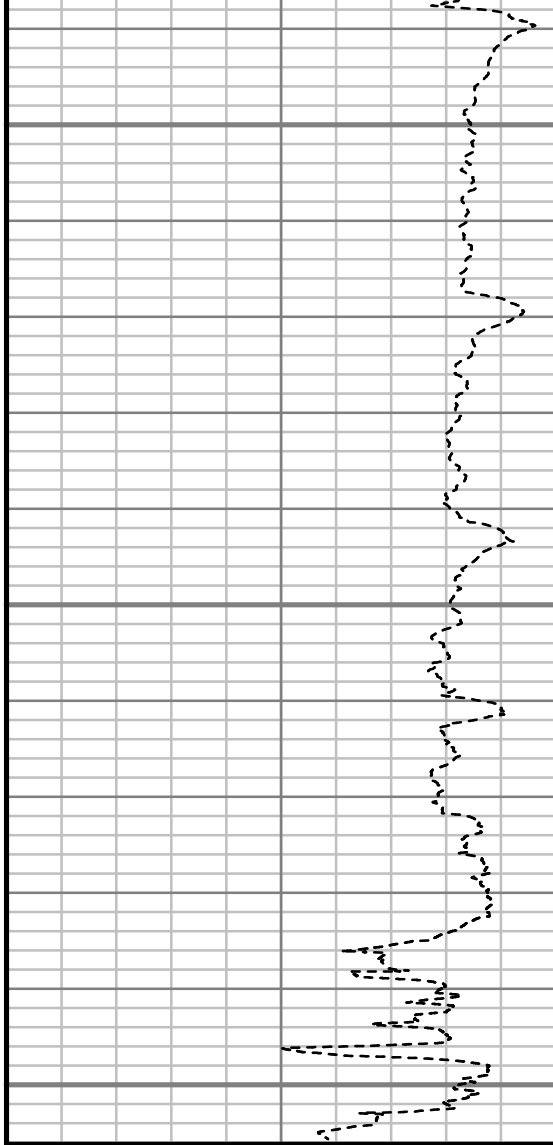
Gamma Ray (GR)		
0	Unit = aapi	150

6900

6950

7000

TRUE VERTICAL DEPTH
1:240 (ft)



Rate of Penetration (ROP)		
600	Unit = ft/hr	0

Comments

MWD Survey Report

Well Location	DALE
Well Name	DALE 4J-20H-O264
Survey Date	8/16/2014
Latitude	40°7'3.504"N
Longitude	104°34'18.408"W
Btotal	52557 nT
Dip	66.74 deg
Magnetic Declination	8.39 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (25.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 15.57Azim (deg)
Operator(s)	C. WILSON, S. WAXLER, T. LE

Well Notes

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	"/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
140.00	0.44	53.70	140.00	0.42	0.32	0.43	0.54	53.70	0.31
201.00	0.63	322.38	201.00	0.81	0.72	0.42	0.83	30.15	1.27
263.00	1.13	91.05	262.99	1.16	0.98	0.82	1.28	39.99	2.57
323.00	1.89	90.18	322.97	1.57	0.96	2.40	2.59	68.09	1.27
354.00	2.42	106.00	353.95	1.70	0.78	3.54	3.62	77.52	2.55
384.00	3.29	112.41	383.91	1.60	0.28	4.94	4.95	86.75	3.09
445.00	4.34	106.79	444.78	1.34	-1.05	8.77	8.83	96.85	1.84
506.00	4.46	104.77	505.60	1.32	-2.33	13.28	13.48	99.94	0.32
568.00	5.59	108.72	567.36	1.19	-3.91	18.47	18.88	101.95	1.90
629.00	6.78	103.89	628.00	1.13	-5.73	24.78	25.43	103.01	2.13
689.00	8.24	107.31	687.49	1.11	-7.86	32.32	33.26	103.66	2.54
751.00	9.46	108.63	748.75	0.70	-10.81	41.39	42.78	104.63	2.00
812.00	10.91	106.26	808.78	0.36	-14.02	51.68	53.55	105.18	2.47
873.00	12.14	104.15	868.55	0.45	-17.21	63.44	65.74	105.18	2.13
934.00	13.28	101.43	928.06	1.12	-20.17	76.53	79.15	104.76	2.12
995.00	14.43	100.02	987.28	2.36	-22.88	90.89	93.72	104.13	1.95
1043.00	14.34	100.63	1033.78	3.45	-25.01	102.62	105.62	103.70	0.37
1087.00	14.25	101.25	1076.41	4.33	-27.08	113.29	116.48	103.44	0.40

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
1178.00	13.72	106.44	1164.72	5.01	-32.32	134.63	138.45	103.50	1.49
1270.00	14.87	104.85	1253.87	4.99	-38.43	156.50	161.15	103.80	1.31
1361.00	15.48	104.77	1341.69	5.31	-44.52	179.54	184.97	103.93	0.68
1453.00	15.92	105.03	1430.26	5.60	-50.92	203.60	209.87	104.04	0.48
1525.00	15.26	102.40	1499.61	6.21	-55.52	222.39	229.22	104.02	1.35
1616.00	14.48	100.96	1587.56	7.79	-60.25	245.26	252.55	103.80	0.94
1708.00	15.25	102.17	1676.49	9.43	-64.99	268.38	276.13	103.61	0.90
1800.00	15.13	102.41	1765.27	10.81	-70.12	291.93	300.23	103.51	0.15
1891.00	13.84	106.46	1853.38	11.30	-75.76	313.96	322.98	103.57	1.79
2073.00	14.20	105.53	2029.96	10.97	-87.90	356.36	367.04	103.86	0.23
2256.00	13.57	103.95	2207.61	11.60	-99.09	398.82	410.95	103.95	0.40
2439.00	13.30	106.85	2385.60	11.73	-110.37	439.81	453.44	104.09	0.40
2622.00	13.46	105.55	2563.63	11.27	-122.18	480.48	495.77	104.27	0.18
2804.00	13.86	105.02	2740.48	11.48	-133.52	521.94	538.75	104.35	0.23
2994.00	14.39	103.30	2924.74	12.63	-144.85	566.91	585.12	104.33	0.35
3184.00	14.74	103.63	3108.63	14.39	-155.98	613.38	632.90	104.27	0.19
3373.00	14.17	103.75	3291.65	15.94	-167.14	659.22	680.07	104.23	0.31
3563.00	13.89	104.48	3475.98	17.11	-178.36	703.88	726.12	104.22	0.17

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
3753.00	13.95	103.89	3660.40	18.22	-189.56	748.18	771.82	104.22	0.08
3942.00	14.23	104.13	3843.72	19.47	-200.70	792.83	817.84	104.21	0.16
4131.00	15.79	105.90	4026.26	19.91	-213.42	840.10	866.78	104.25	0.86
4320.00	14.61	104.04	4208.65	20.40	-226.24	887.95	916.32	104.29	0.68
4510.00	16.49	104.64	4391.69	21.48	-238.86	937.28	967.24	104.30	0.99
4700.00	14.62	106.62	4574.72	21.48	-252.54	986.34	1018.16	104.36	1.02
4890.00	15.44	99.89	4758.24	23.54	-263.74	1034.23	1067.33	104.31	1.02
5081.00	12.51	99.31	4943.57	28.31	-271.46	1079.70	1113.30	104.11	1.53
5271.00	10.87	105.23	5129.62	30.67	-279.49	1117.31	1151.73	104.04	1.07
5461.00	12.08	106.61	5315.82	30.41	-289.88	1153.64	1189.51	104.10	0.65
5652.00	9.04	102.78	5503.57	30.78	-298.91	1187.43	1224.48	104.13	1.63
5842.00	6.50	113.80	5691.82	29.97	-306.55	1211.82	1250.00	104.20	1.54
6033.00	5.38	100.78	5881.80	29.17	-312.58	1230.50	1269.58	104.25	0.91
6223.00	3.93	100.65	6071.17	30.48	-315.45	1245.65	1284.97	104.21	0.76
6414.00	1.83	84.61	6261.92	32.13	-316.38	1255.11	1294.37	104.15	1.17
6462.00	1.68	84.08	6309.90	32.66	-316.23	1256.58	1295.76	104.13	0.30
6509.00	2.03	77.98	6356.88	33.30	-315.99	1258.08	1297.15	104.10	0.84
6556.00	3.43	23.97	6403.83	35.07	-314.53	1259.46	1298.14	104.02	5.91

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
6605.00	6.12	11.67	6452.65	39.13	-310.63	1260.58	1298.29	103.84	5.84
6652.00	8.46	6.49	6499.27	45.05	-304.74	1261.48	1297.77	103.58	5.17
6700.00	10.95	4.63	6546.58	53.01	-296.68	1262.25	1296.65	103.23	5.23
6747.00	13.93	1.77	6592.47	62.89	-286.58	1262.79	1294.89	102.79	6.48
6795.00	17.58	1.00	6638.66	75.52	-273.55	1263.09	1292.37	102.22	7.60
6842.00	22.26	1.42	6682.84	91.03	-257.55	1263.44	1289.42	101.52	9.97
6890.00	25.98	2.59	6726.64	110.09	-237.95	1264.14	1286.34	100.66	7.81
6937.00	31.02	3.27	6767.93	131.97	-215.56	1265.29	1283.52	99.67	10.75
6985.00	35.44	2.11	6808.08	157.60	-189.30	1266.51	1280.58	98.50	9.32
7034.00	39.98	1.67	6846.83	186.72	-159.35	1267.49	1277.47	97.17	9.28
7081.00	46.55	1.89	6881.03	217.98	-127.17	1268.50	1274.85	95.72	13.97
7128.00	54.09	2.49	6911.02	253.15	-91.05	1269.89	1273.15	94.10	16.08
7176.00	61.56	1.85	6936.57	292.64	-50.48	1271.42	1272.42	92.27	15.61
7223.00	69.22	0.13	6956.13	333.96	-7.79	1272.14	1272.16	90.35	16.63
7271.00	77.11	358.70	6970.02	378.05	38.11	1271.65	1272.23	88.28	16.69
7295.00	81.18	359.11	6974.54	400.62	61.67	1271.20	1272.70	87.22	17.03
7433.00	88.92	0.58	6986.43	532.86	199.05	1270.83	1286.33	81.10	5.71
7524.00	90.40	0.45	6986.97	620.73	290.04	1271.65	1304.31	77.15	1.63

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
7616.00	91.01	359.13	6985.83	709.25	382.03	1271.31	1327.47	73.27	1.58
7711.00	91.98	359.62	6983.36	800.45	476.99	1270.28	1356.88	69.42	1.15
7806.00	92.42	359.38	6979.71	891.67	571.92	1269.46	1392.34	65.75	0.53
7901.00	91.98	358.51	6976.06	982.64	666.83	1267.71	1432.40	62.26	1.03
7996.00	90.77	358.54	6973.77	1073.43	761.77	1265.26	1476.89	58.95	1.28
8091.00	90.27	358.75	6972.91	1164.31	856.74	1263.02	1526.18	55.85	0.57
8186.00	89.56	358.73	6973.05	1255.24	951.72	1260.93	1579.78	52.96	0.74
8280.00	88.39	357.60	6974.73	1344.92	1045.65	1257.92	1635.77	50.26	1.73
8377.00	87.95	358.77	6977.83	1437.44	1142.55	1254.85	1697.08	47.68	1.28
8472.00	87.65	358.73	6981.48	1528.31	1237.46	1252.77	1760.89	45.35	0.32
8567.00	89.36	358.84	6983.96	1619.23	1332.40	1250.76	1827.48	43.19	1.81
8661.00	88.63	358.91	6985.61	1709.25	1426.37	1248.92	1895.87	41.21	0.79
8756.00	89.63	359.64	6987.06	1800.43	1521.35	1247.72	1967.56	39.36	1.31
8851.00	90.57	359.05	6986.89	1891.64	1616.34	1246.63	2041.24	37.64	1.17
8945.00	88.35	357.92	6987.78	1981.48	1710.29	1244.15	2114.95	36.03	2.65
9040.00	88.29	358.89	6990.56	2072.21	1805.22	1241.50	2190.92	34.52	1.03
9134.00	88.99	0.69	6992.79	2162.64	1899.18	1241.16	2268.78	33.17	2.05
9229.00	88.02	0.98	6995.26	2254.48	1994.14	1242.54	2349.58	31.93	1.07

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
9324.00	87.38	359.96	6999.07	2346.12	2089.06	1243.32	2431.05	30.76	1.27
9419.00	89.26	0.28	7001.86	2437.65	2184.01	1243.52	2513.22	29.66	2.01
9514.00	92.39	357.50	7000.49	2528.62	2278.97	1241.69	2595.28	28.58	4.41
9609.00	89.97	357.34	6998.54	2618.87	2373.84	1237.41	2677.00	27.53	2.56
9704.00	92.05	356.75	6996.86	2708.93	2468.70	1232.52	2759.27	26.53	2.28
9800.00	93.39	356.84	6992.31	2799.72	2564.44	1227.16	2842.93	25.57	1.40
9895.00	93.33	0.53	6986.74	2890.45	2659.23	1224.98	2927.81	24.73	3.88
9990.00	92.98	359.67	6981.51	2981.87	2754.09	1225.15	3014.30	23.98	0.98
10085.00	92.52	1.17	6976.95	3073.46	2848.97	1225.85	3101.50	23.28	1.65
10180.00	90.20	2.19	6974.69	3165.65	2943.89	1228.63	3189.99	22.65	2.67
10275.00	90.20	1.96	6974.36	3258.02	3038.83	1232.08	3279.10	22.07	0.24
10371.00	89.50	1.65	6974.61	3351.27	3134.78	1235.11	3369.32	21.50	0.80
10466.00	90.81	1.80	6974.36	3443.51	3229.74	1237.97	3458.87	20.97	1.39
10561.00	90.17	1.52	6973.55	3535.72	3324.69	1240.73	3548.66	20.46	0.73
10656.00	88.29	1.28	6974.83	3627.82	3419.65	1243.06	3638.57	19.98	1.99
10752.00	85.47	0.47	6980.05	3720.53	3515.49	1244.52	3729.27	19.49	3.06
10847.00	88.19	0.46	6985.31	3812.10	3610.33	1245.28	3819.06	19.03	2.87
10942.00	88.93	0.49	6987.70	3903.79	3705.30	1246.07	3909.21	18.59	0.78

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
11037.00	90.30	0.63	6988.34	3995.54	3800.29	1247.01	3999.65	18.17	1.45
11133.00	89.60	359.57	6988.43	4088.06	3896.28	1247.17	4091.02	17.75	1.33
11228.00	90.44	0.39	6988.40	4179.57	3991.28	1247.14	4181.59	17.35	1.23
11323.00	88.66	359.56	6989.15	4271.06	4086.28	1247.10	4272.34	16.97	2.06
11419.00	88.92	358.17	6991.18	4362.99	4182.23	1245.20	4363.67	16.58	1.47
11514.00	88.05	357.10	6993.68	4453.34	4277.12	1241.29	4453.60	16.18	1.45
11638.00	85.52	356.33	7000.63	4570.49	4400.71	1234.20	4570.50	15.67	2.13

5" = 100' FEET TVD