

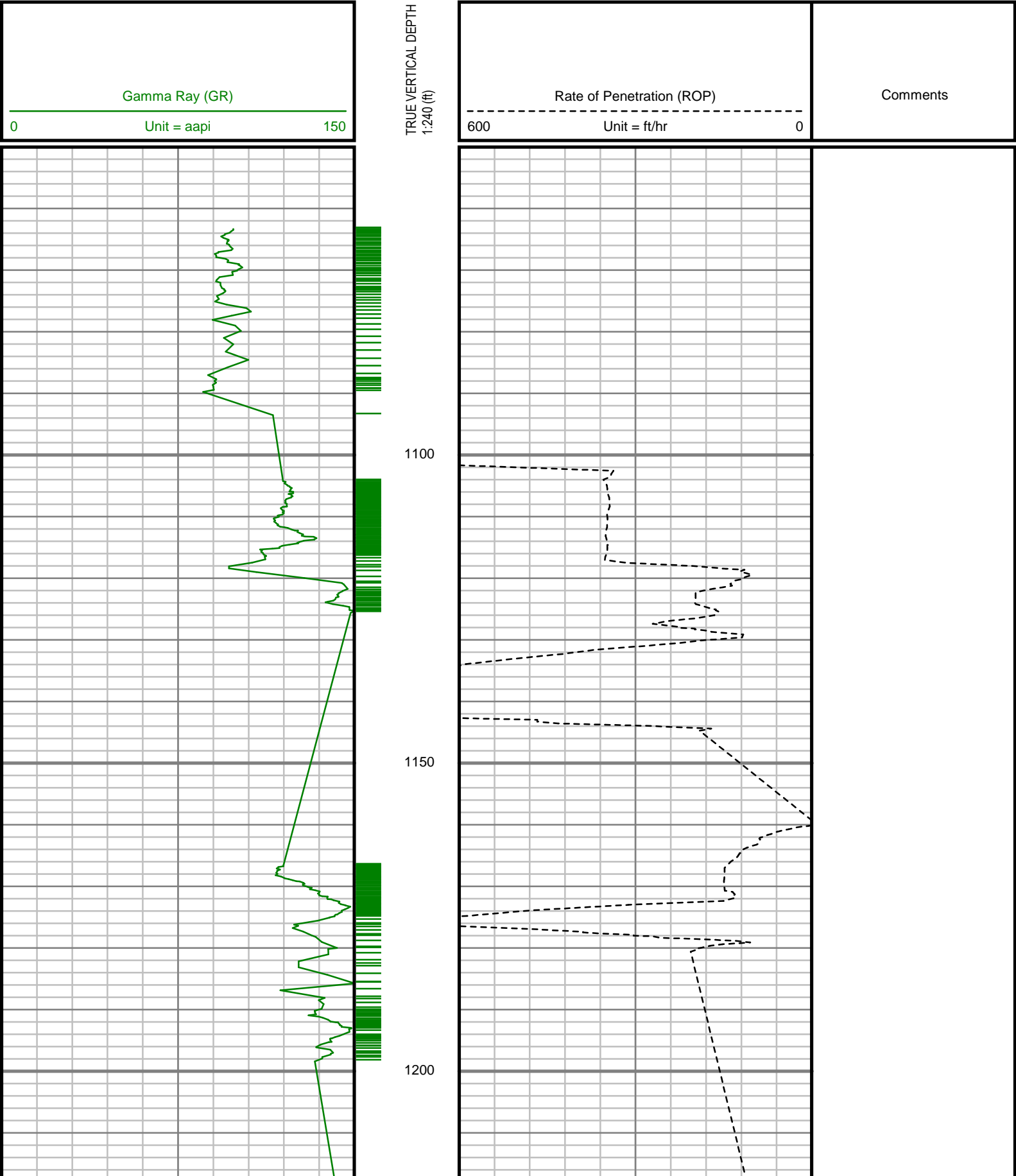
5" = 100' FEET TVD

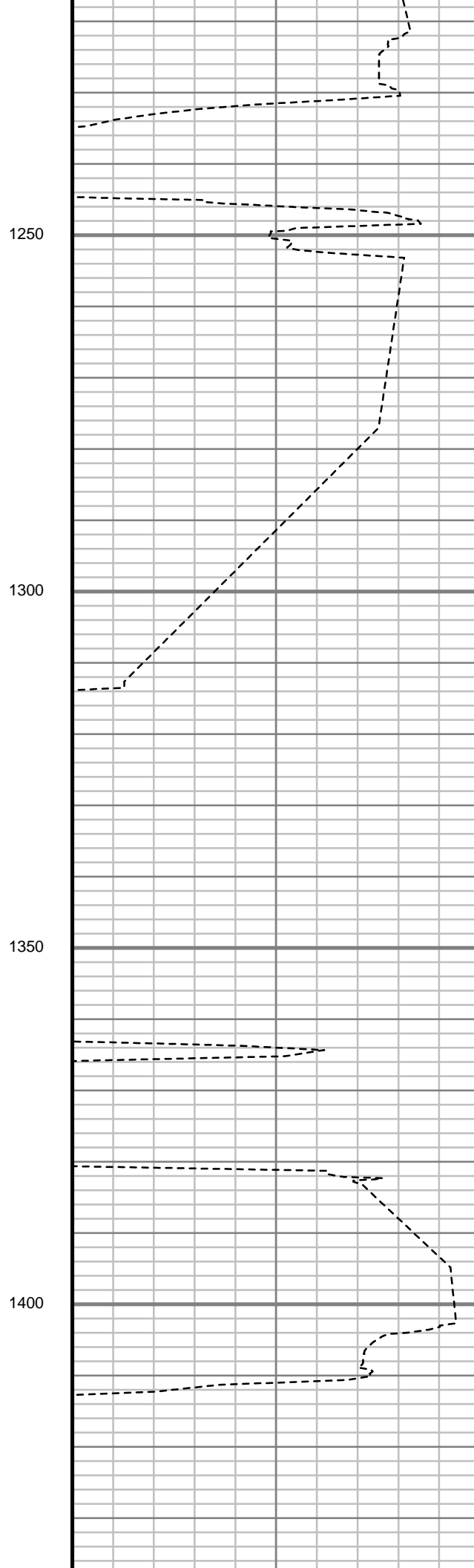
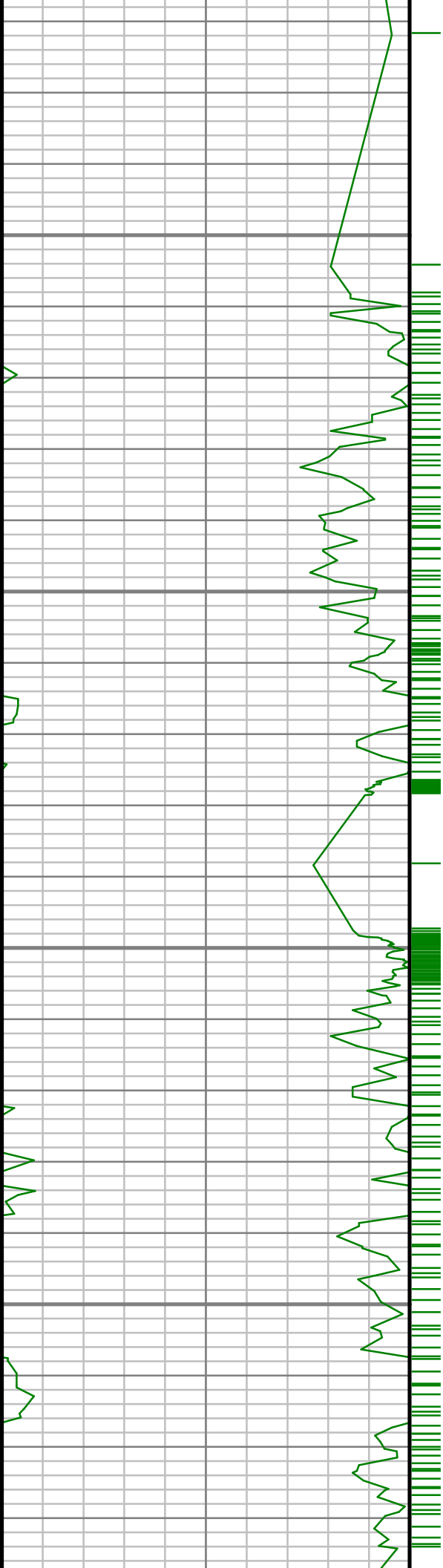
COMPANY : ENCANA OIL & GAS (U.S.A) INC WELL : DALE 4G-20H-0264 FIELD : WATTENBERG COUNTY : WELD STATE : COLORADO COUNTRY : U.S.A. UWI : 123-39726										COMPANY : ENCANA OIL & GAS (U.S.A) INC WELL : DALE 4G-20H-0264 FIELD : WATTENBERG COUNTY : WELD STATE : COLORADO COUNTRY : U.S.A. UWI : 123-39726									
DEPTH REF. : RKB REF. HEIGHT : 25.000 ft GROUND LEVEL : 4957.000 ft										RKB to Ground Level G.L. to MEAN SEA LEVEL									
BOREHOLE RECORD						DEVIATION RECORD													
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg			FROM ft	TO ft												
12.25	0	1120	0 - 11			0	4576												
8.75	1120	7378	11 - 1			4576	6481												
6.125	7378	11562	1 - 83			6481	7312												
			83 - 91			7312	11562												
CASING RECORD																			
CASING SIZE in	FROM ft	TO ft																	
9.625	0	1115																	
7	0	7363																	
DRILLING CO. : H&P RIG : 278 LMD UNIT NO. : SPUD DATE : 08/20/2014 LMD START DATE : 10/01/2014 LMD END DATE : 10/06/2014								DISTRICT : CASPER, CASPER DEPTH : 5000 ft DEPTH : 11562 ft TOTAL DEPTH : 11562 ft											

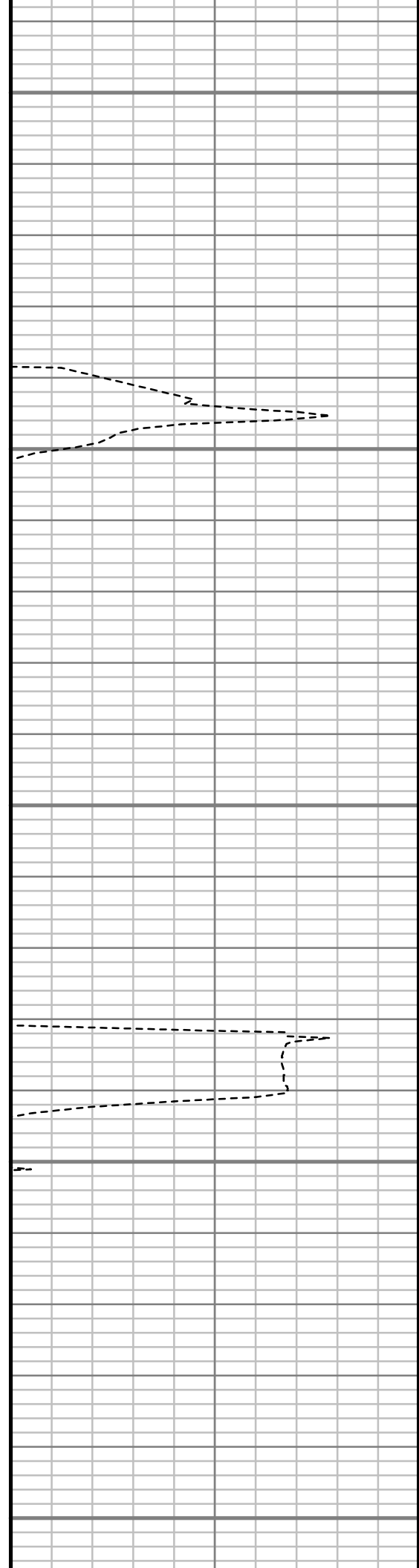
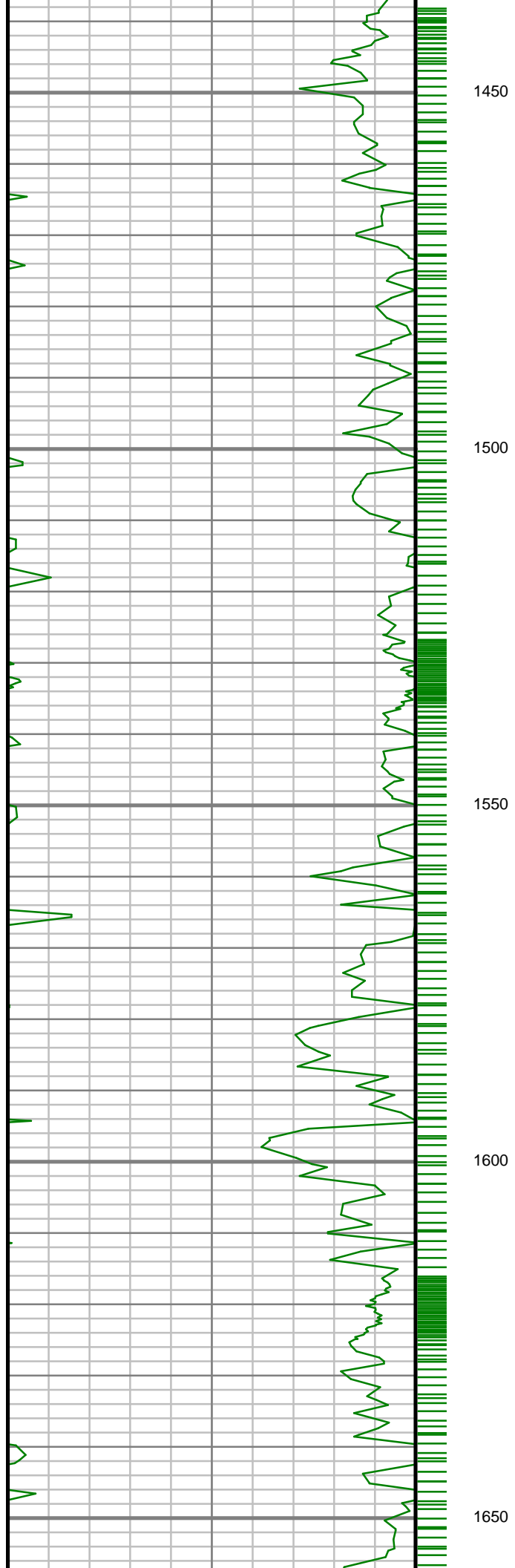
Run Data						
RUN NUMBER	1	2	3	4		
START DATE	08/20/2014	09/30/2014	10/03/2014	10/04/2014		
START TIME	0045	0730	1030	0230		
END DATE	08/20/2014	10/02/2014	10/04/2014	10/06/2014		
END TIME	0915	0630	0115	0825		
DEPTH IN (ft)	0	1120	7378	7509		
DEPTH OUT (ft)	1120	7378	7509	11562		
LOG TOP (ft)	-	5000	7323	7454		
LOG BOTTOM (ft)	-	7323	7454	11506		
HOLE SIZE (in)	12.25	8.75	6.125	6.125		
MUD DATA @ (ft)	1120	7378	7378	11562		
MUD TYPE	WATER-BASED	WATER-BASED	WATER-BASED	WATER-BASED		
DENSITY (lb / gal)	8.5	10.55	10.85	10.9		
VISCOSITY (s / qt)	26	36	37	36		
pH	-	8.1	8	8.1		
FLUID LOSS (cm3 / 30)	-	-	-	-		
SALINITY (ppm)	-	-	-	-		
Rm (ohmm @ deg F)	-	-	-	-		
Rmf (ohmm @ deg F)	-	-	-	-		
MAX TEMP (deg F)	122	176	173	230		
Rm @ MAX TEMP (ohmm)	-	-	-	-		
LWD ENGINEER #1	S. WAXLER	S. WAXLER	S. WAXLER	S. WAXLER		
LWD ENGINEER #2	C. WILSON	C. WILSON	C. WILSON	C. WILSON		
LWD ENGINEER #3	T. LE	-	-	-		
LOG WITNESS #1	-	-	-	-		
LOG WITNESS #2	-	-	-	-		

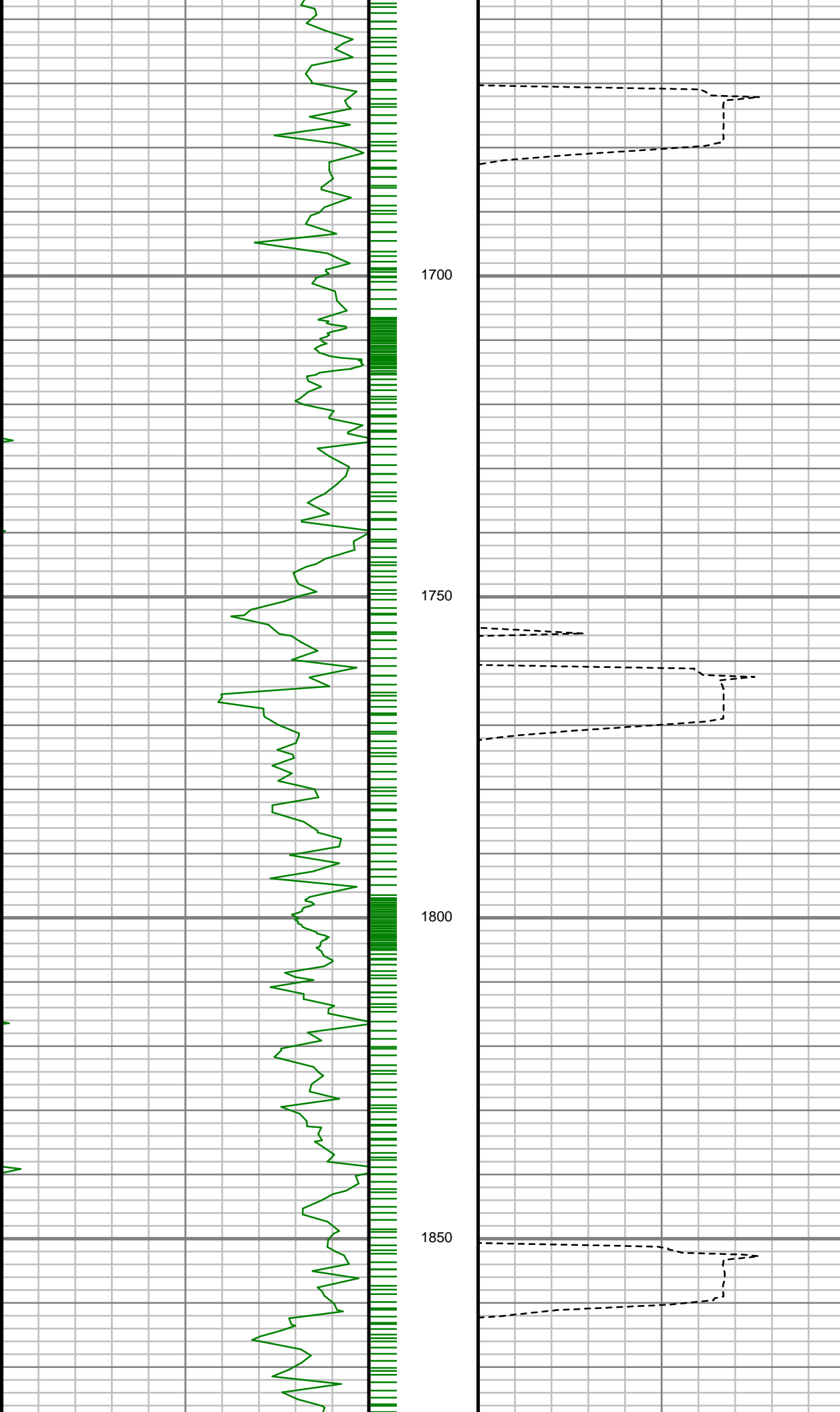
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

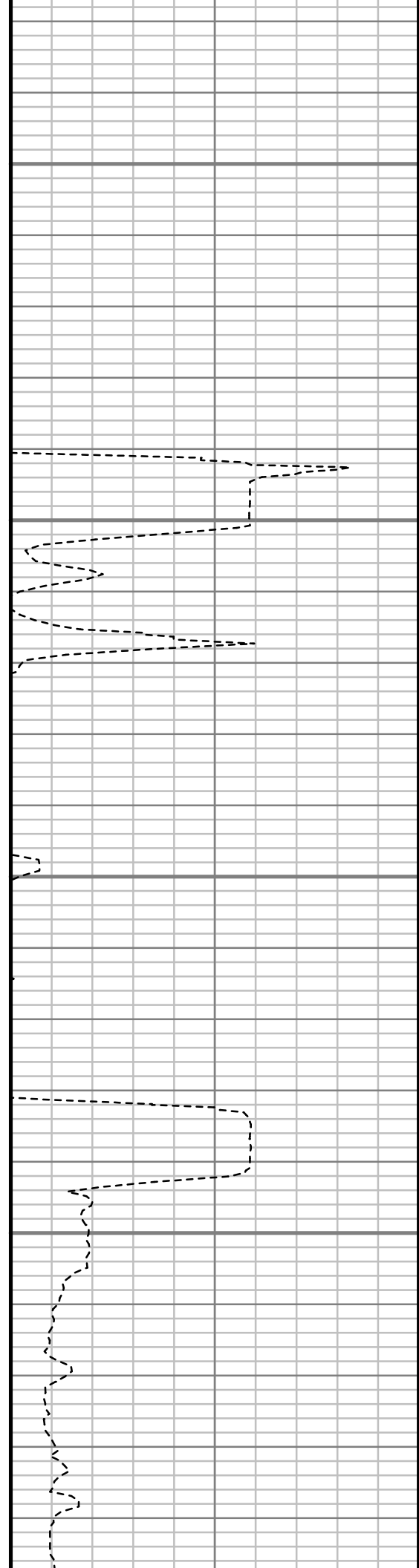
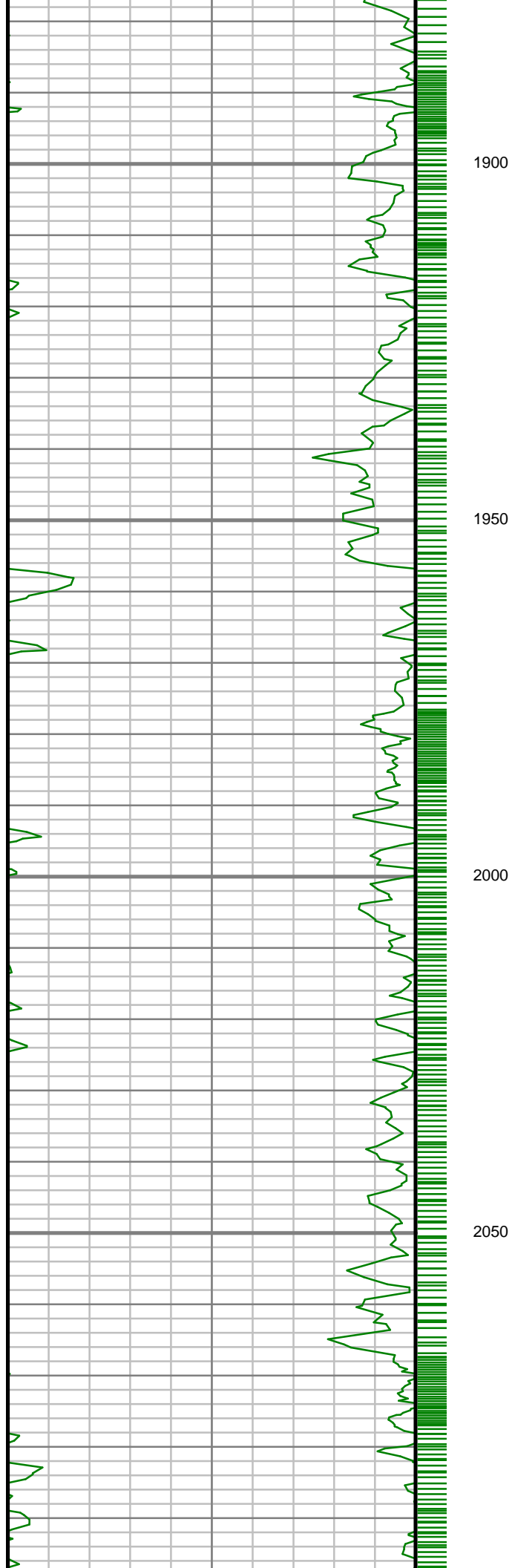
ENCANA OIL AND GAS (U.S.A.) INC
DALE 4G-20H-O264
WATTENBERG FIELD
WELD COUNTY, COLORADO
05-123-39726

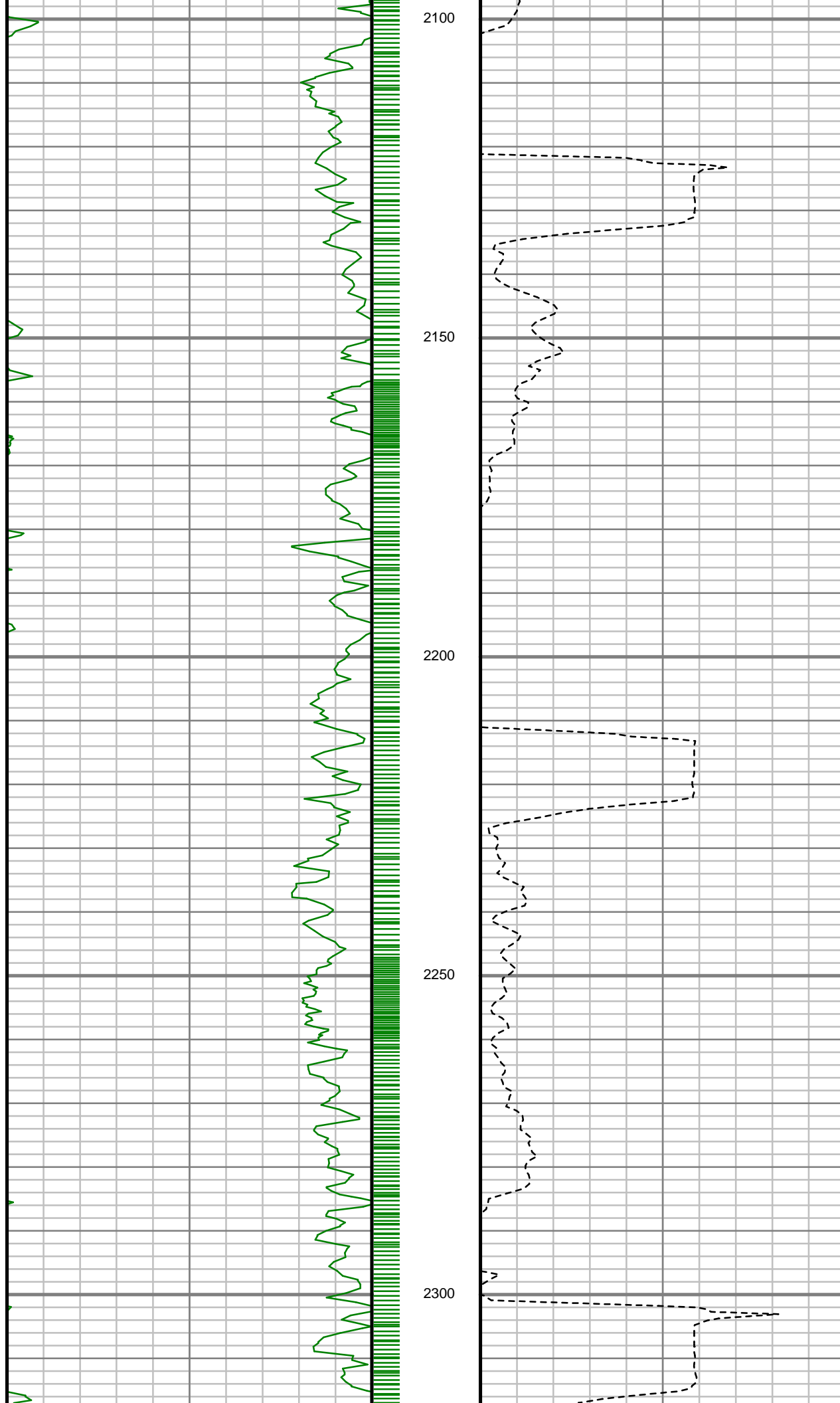


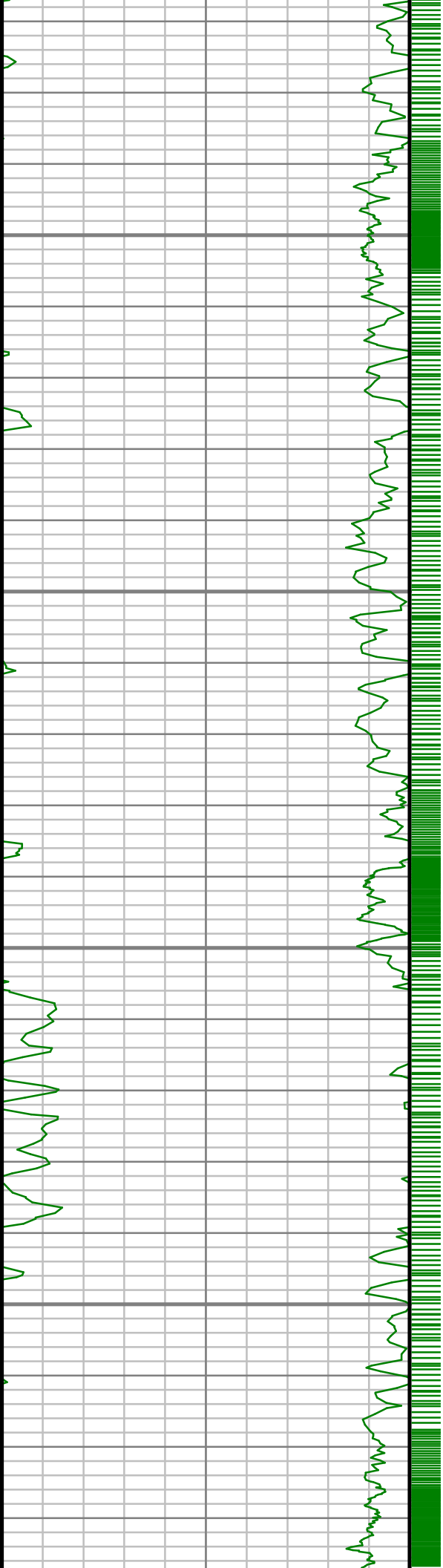










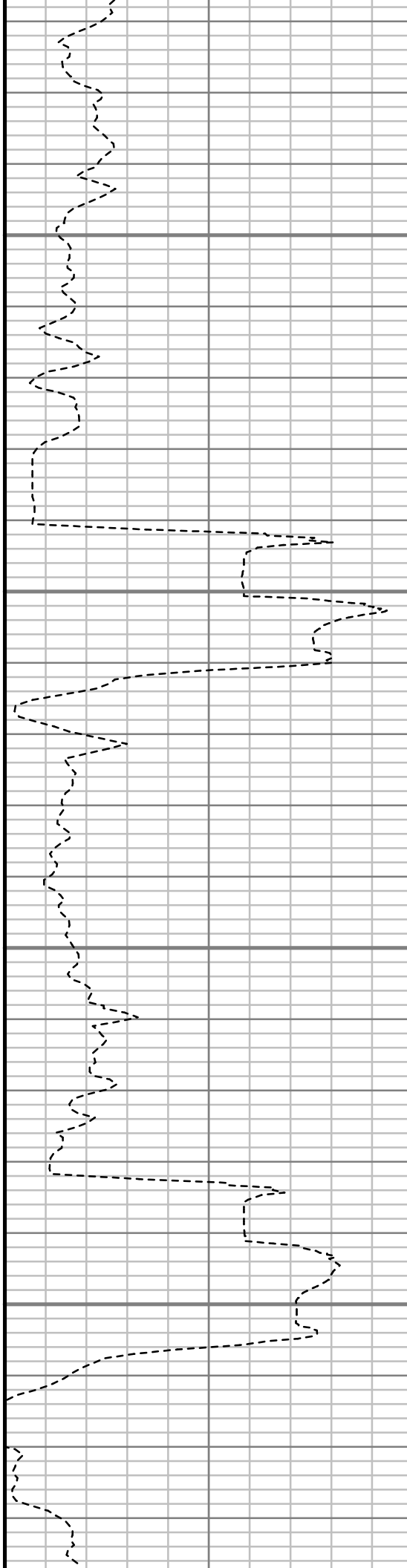


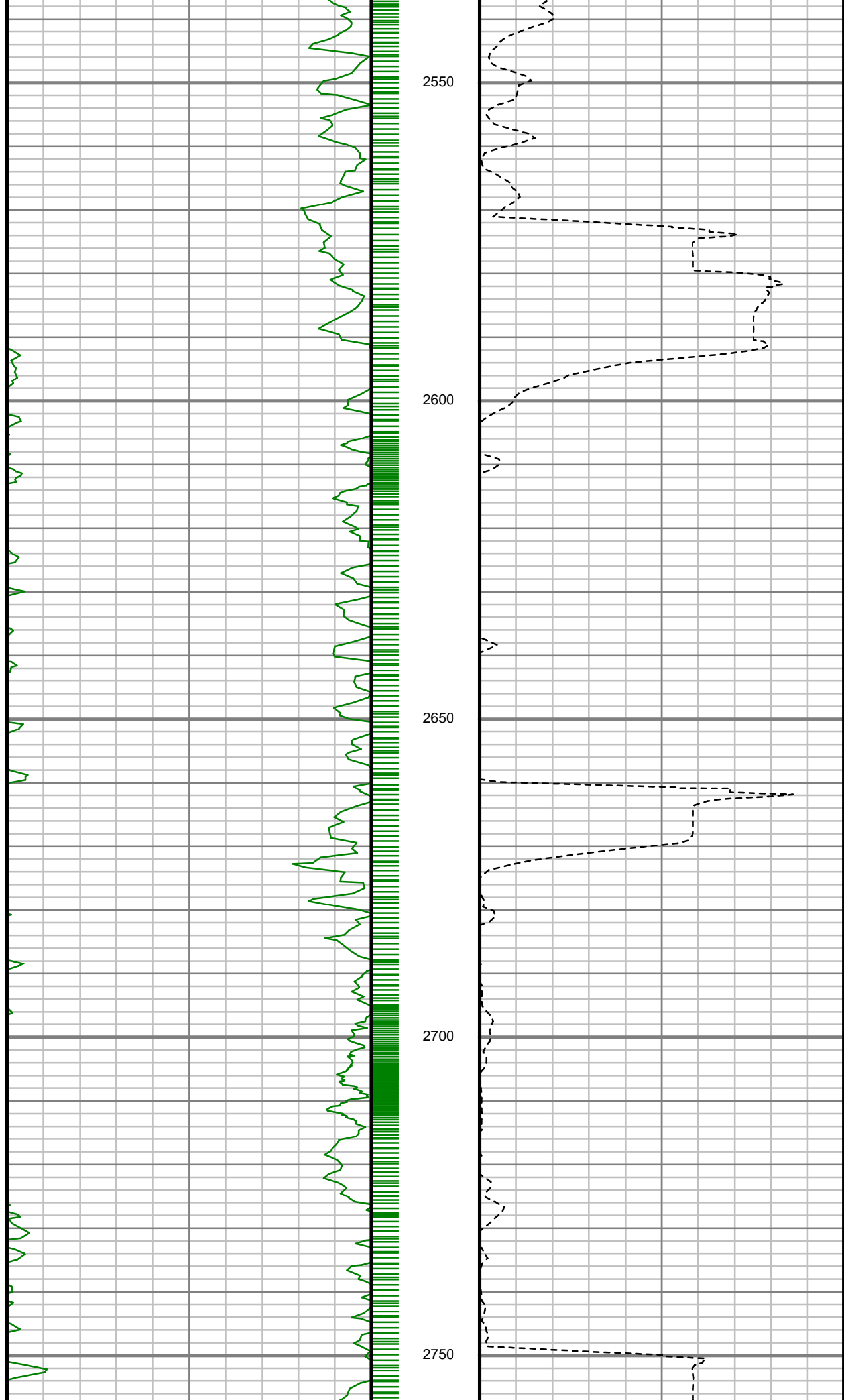
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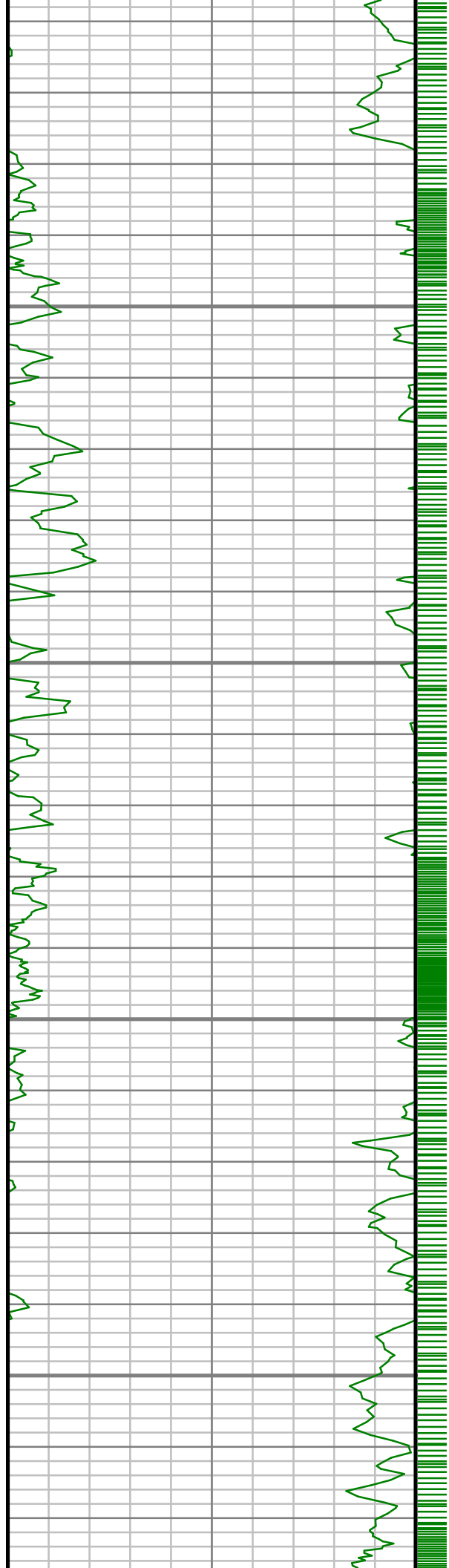
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2450

2500





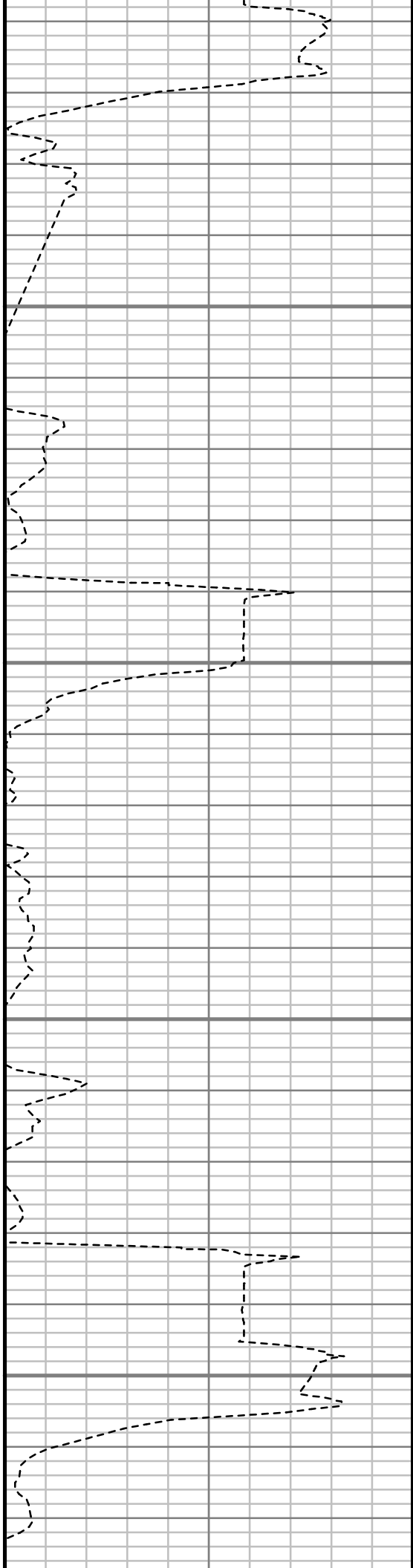


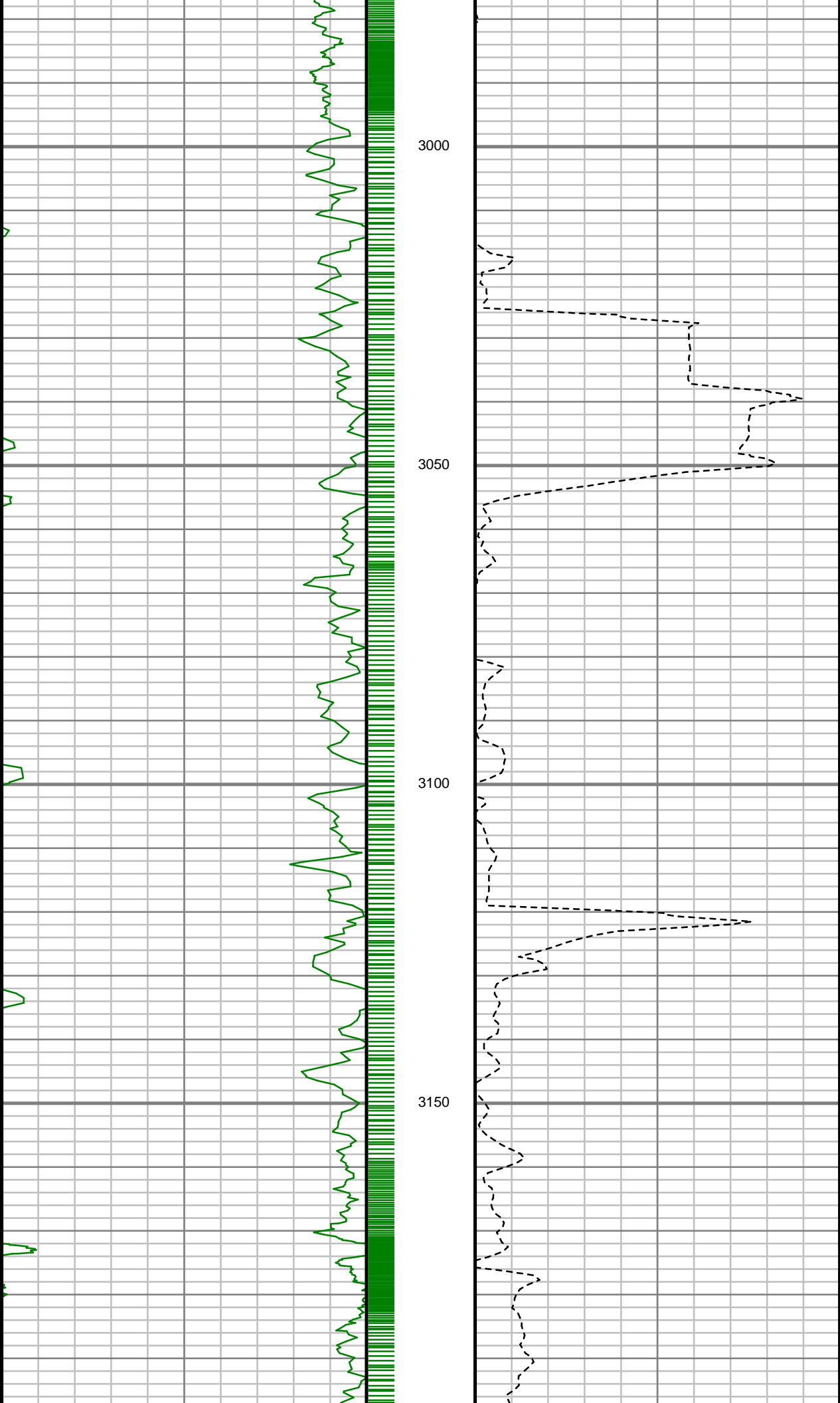
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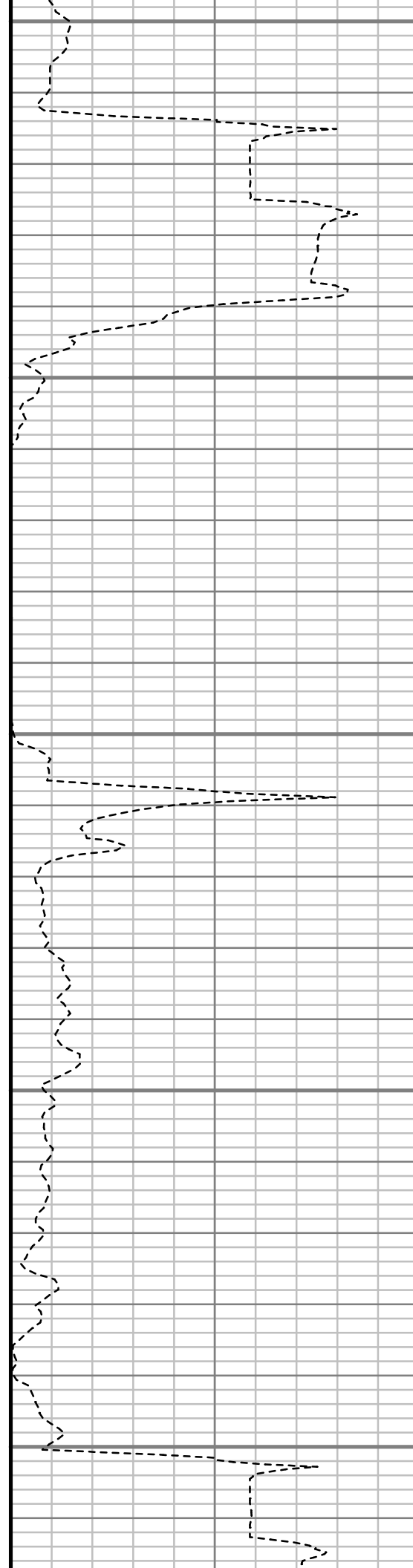
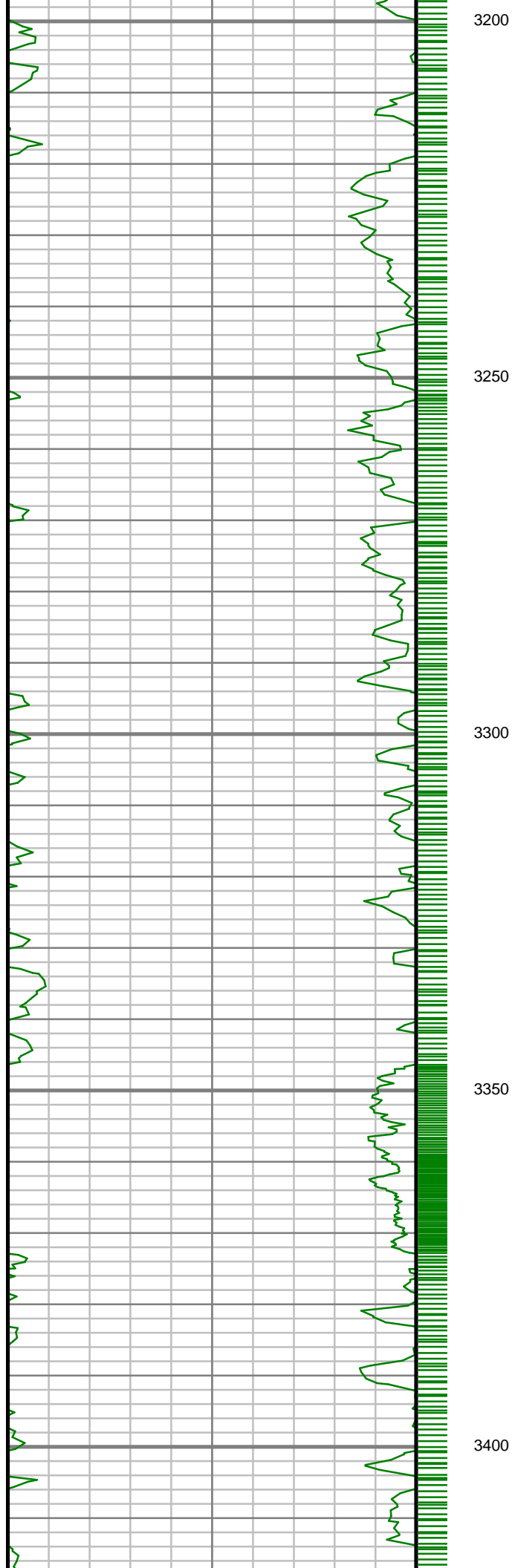
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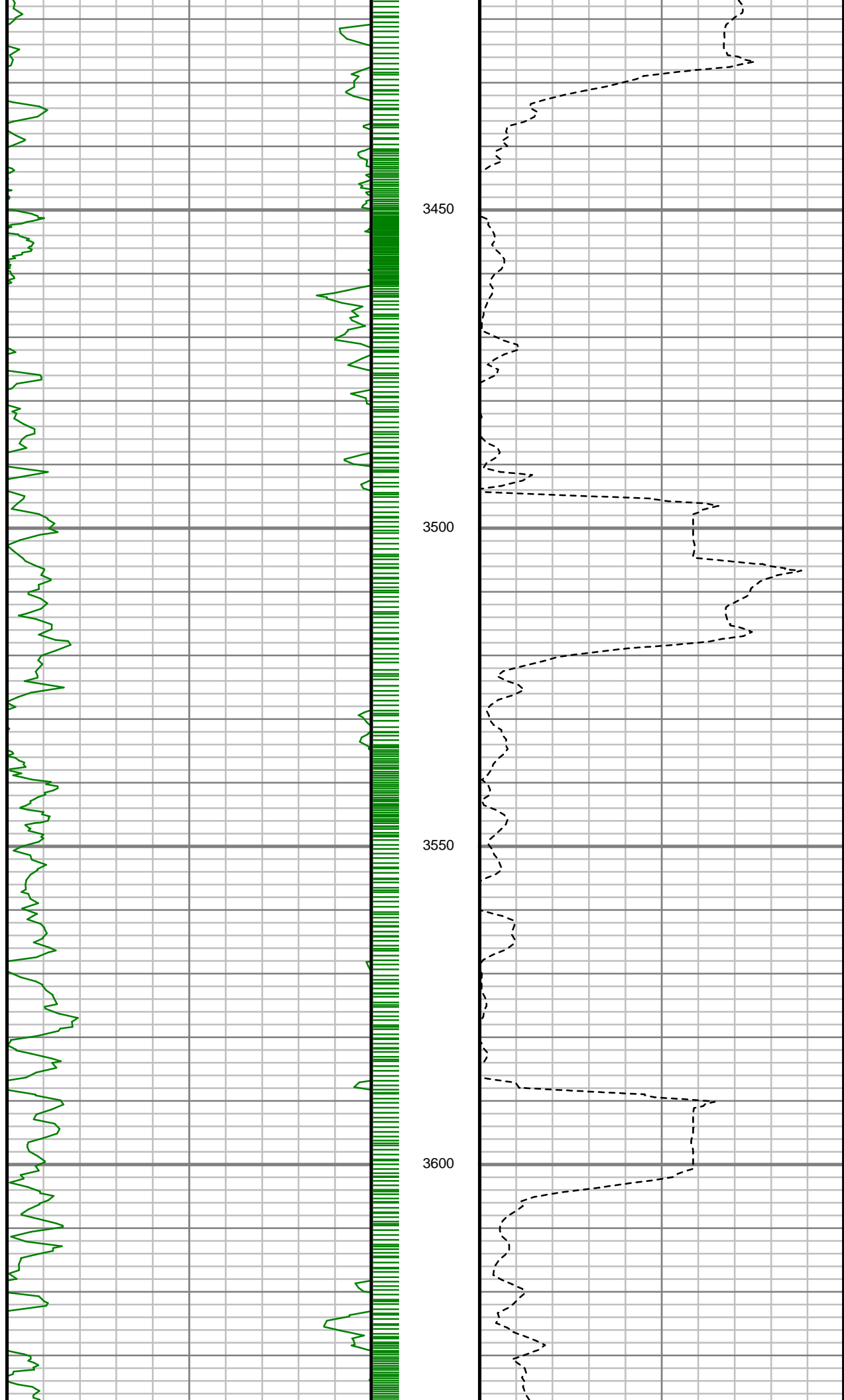
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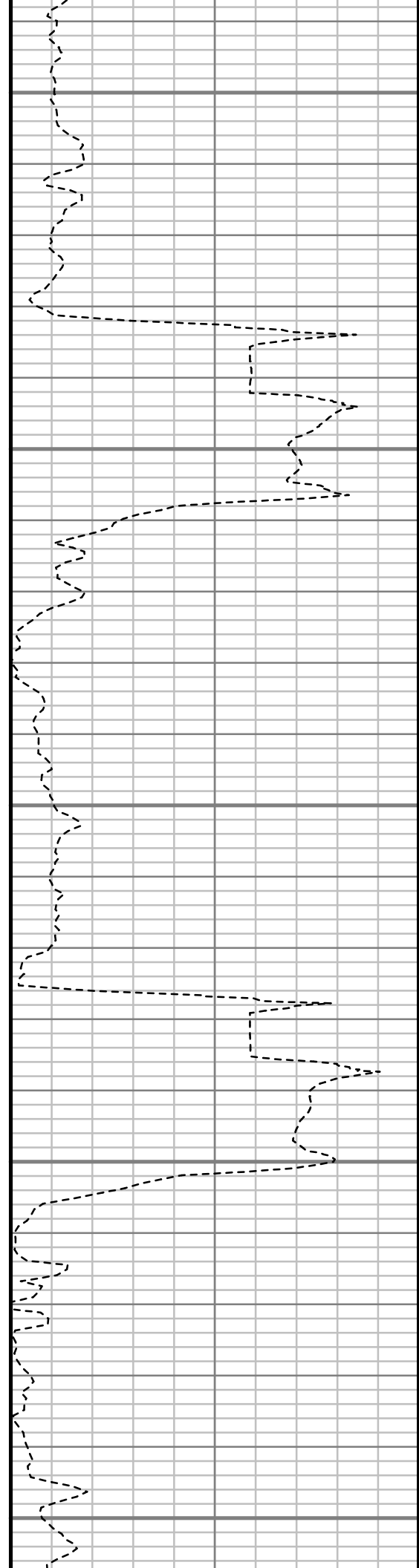
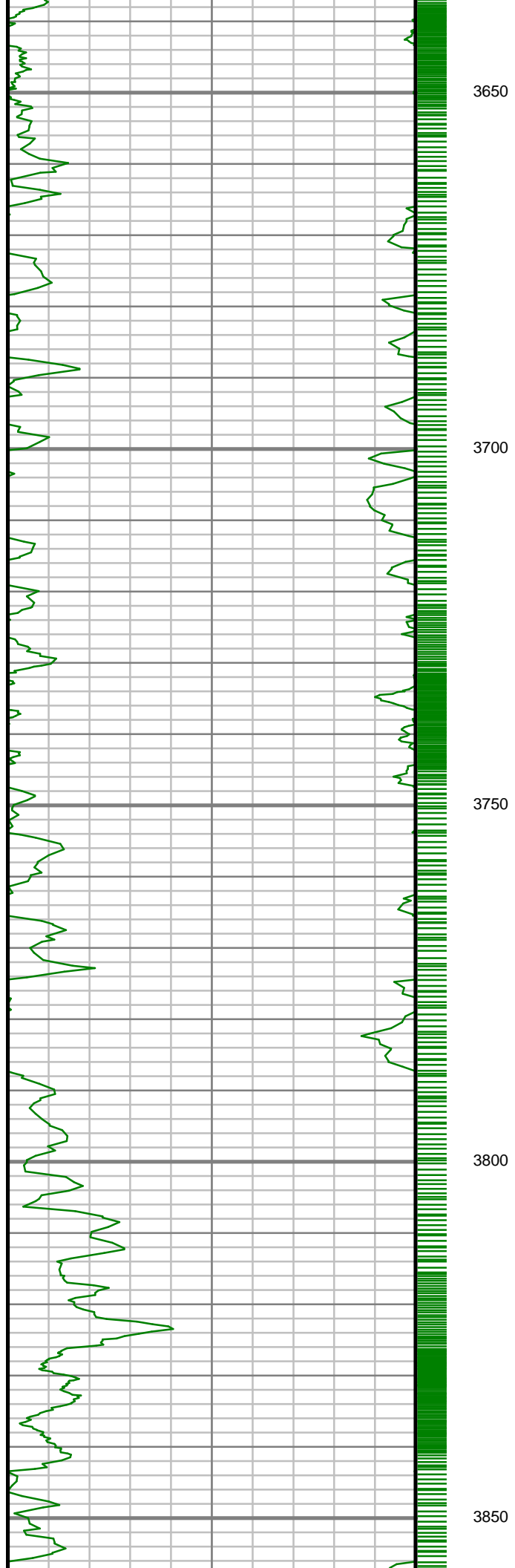
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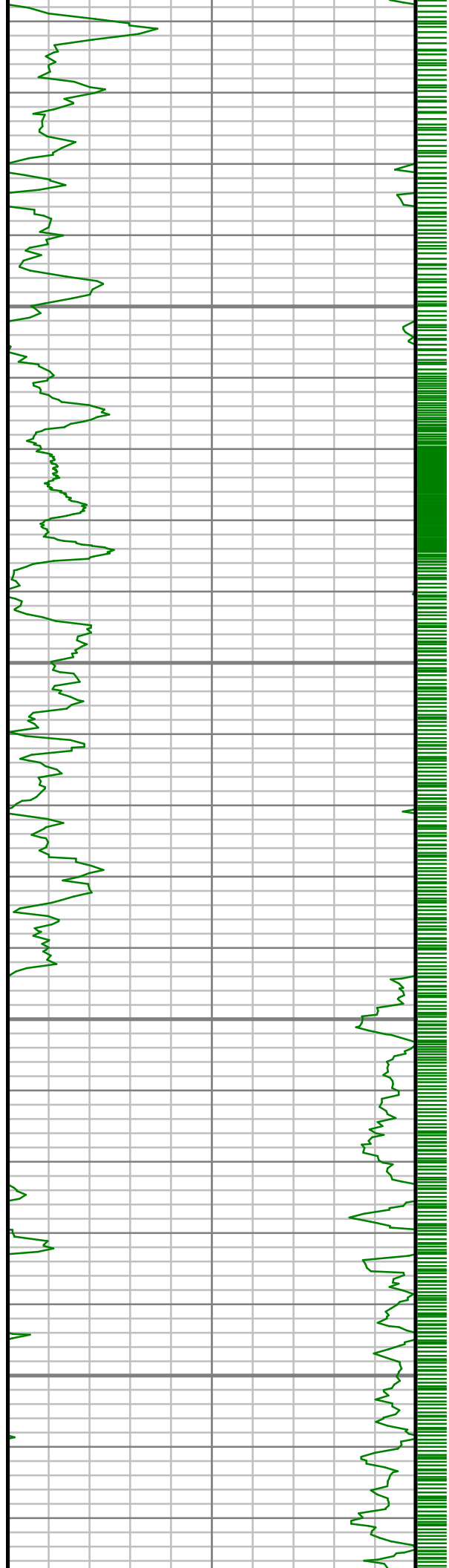










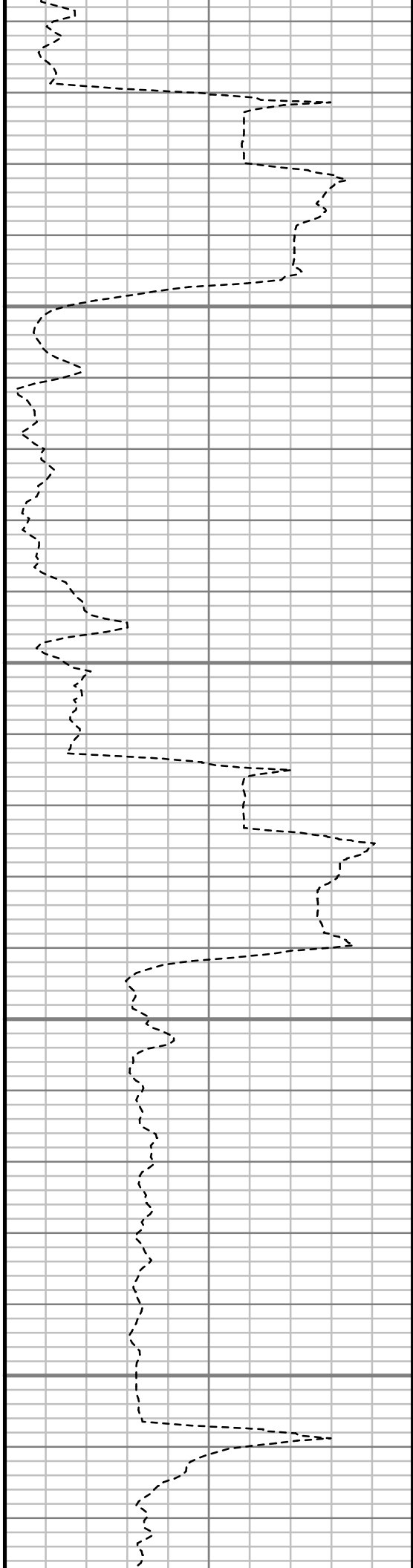


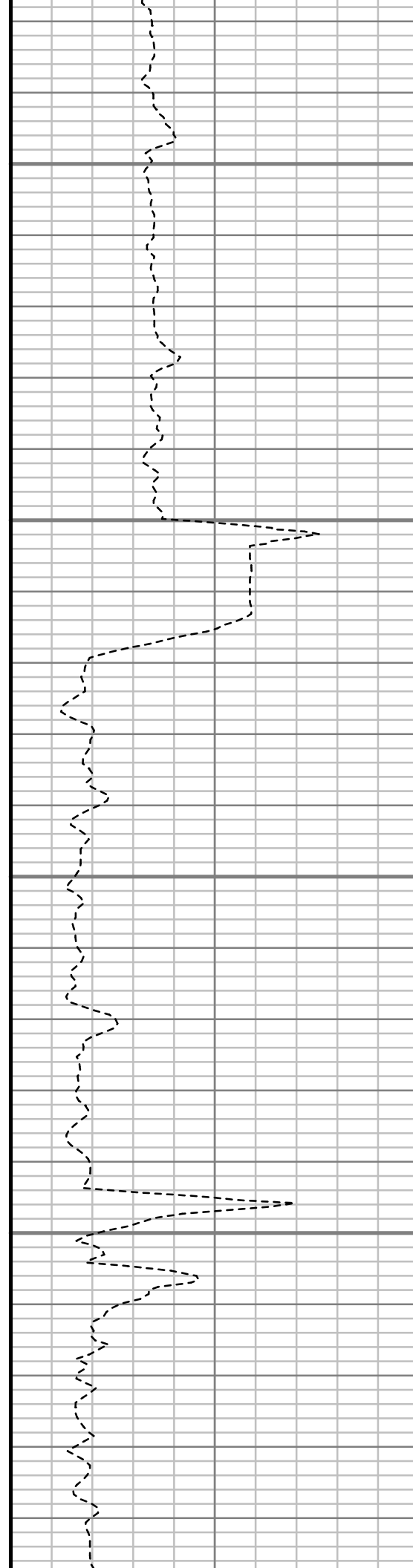
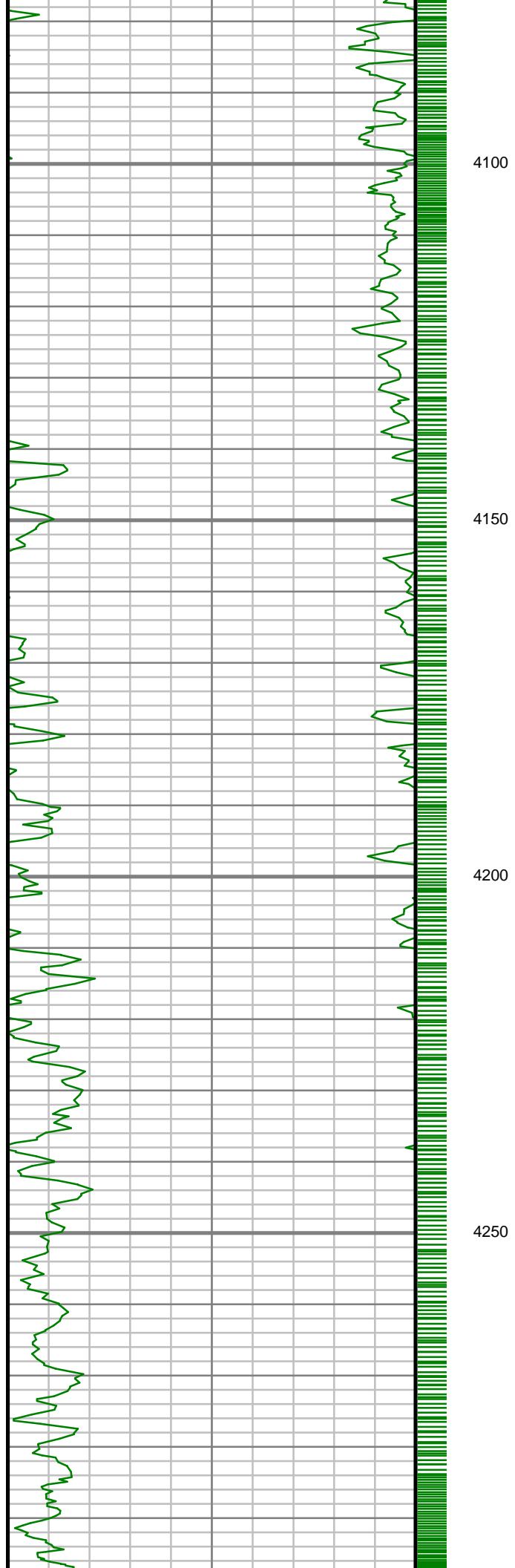
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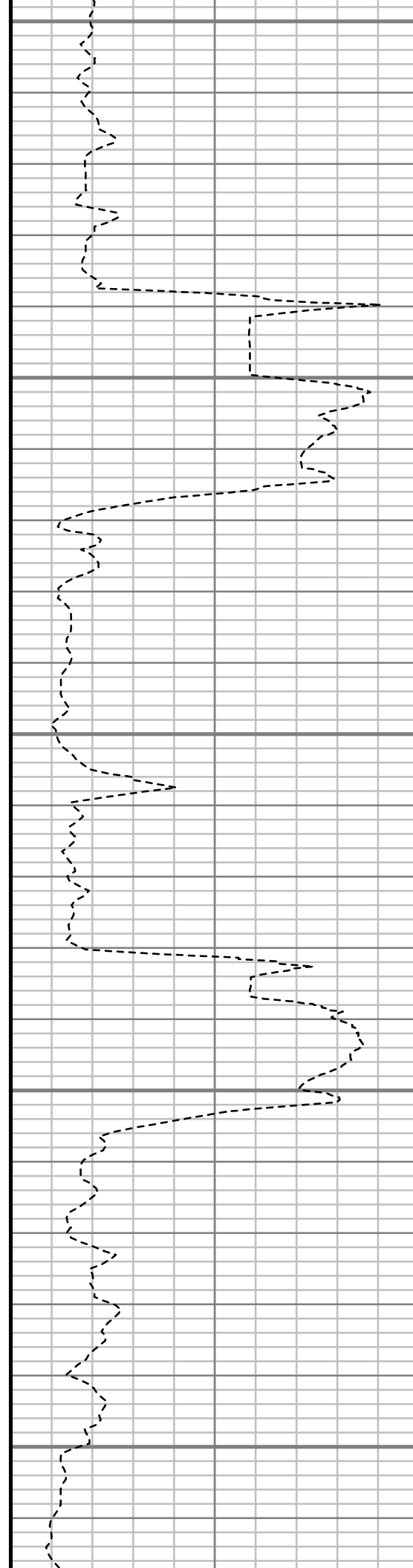
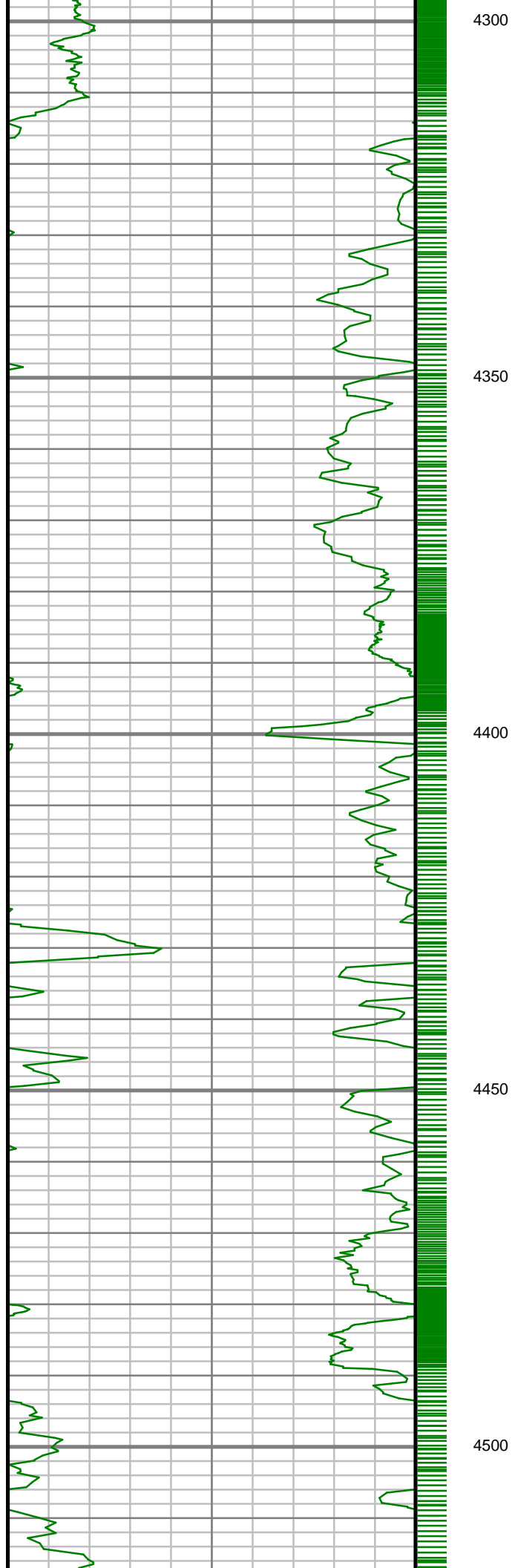
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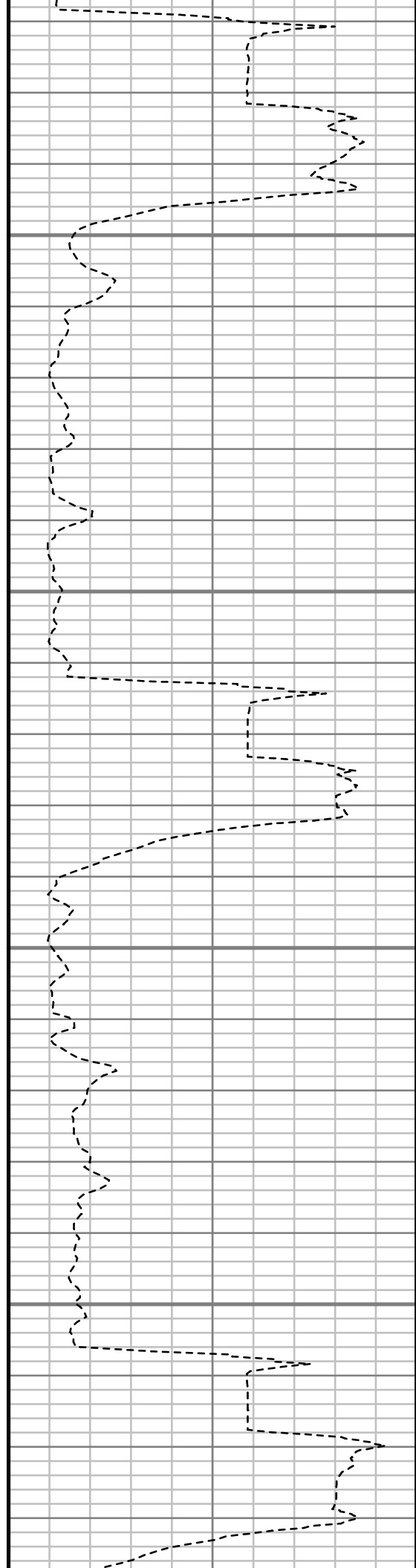
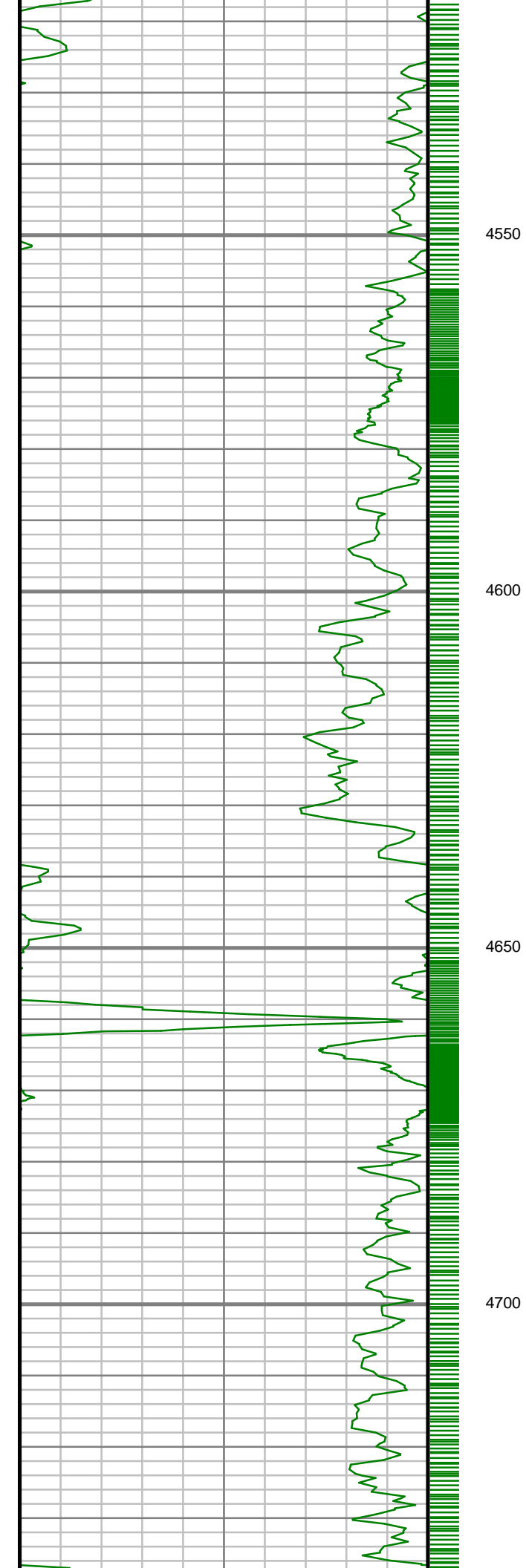
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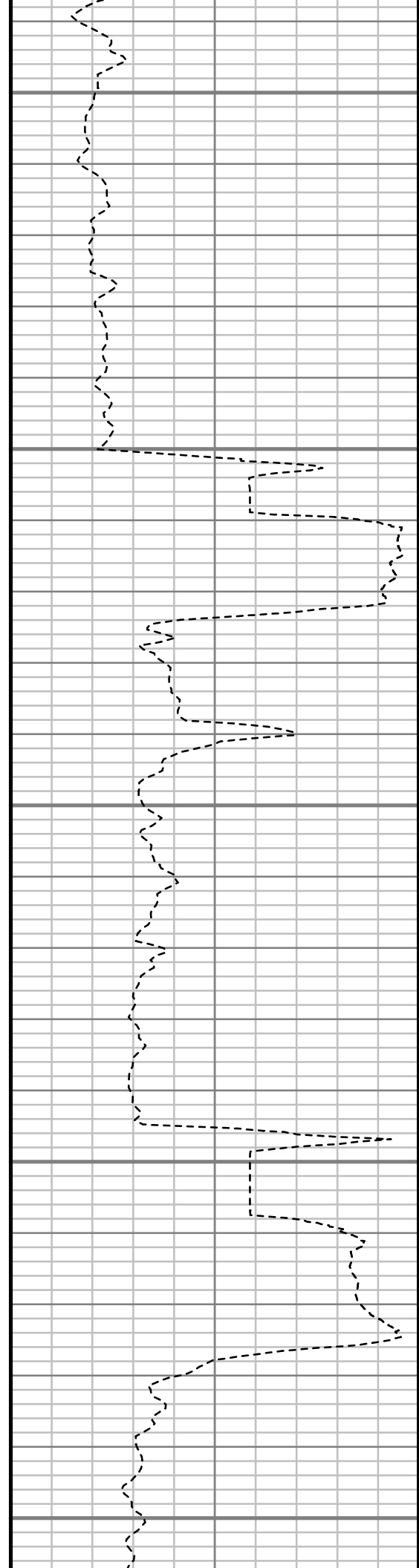
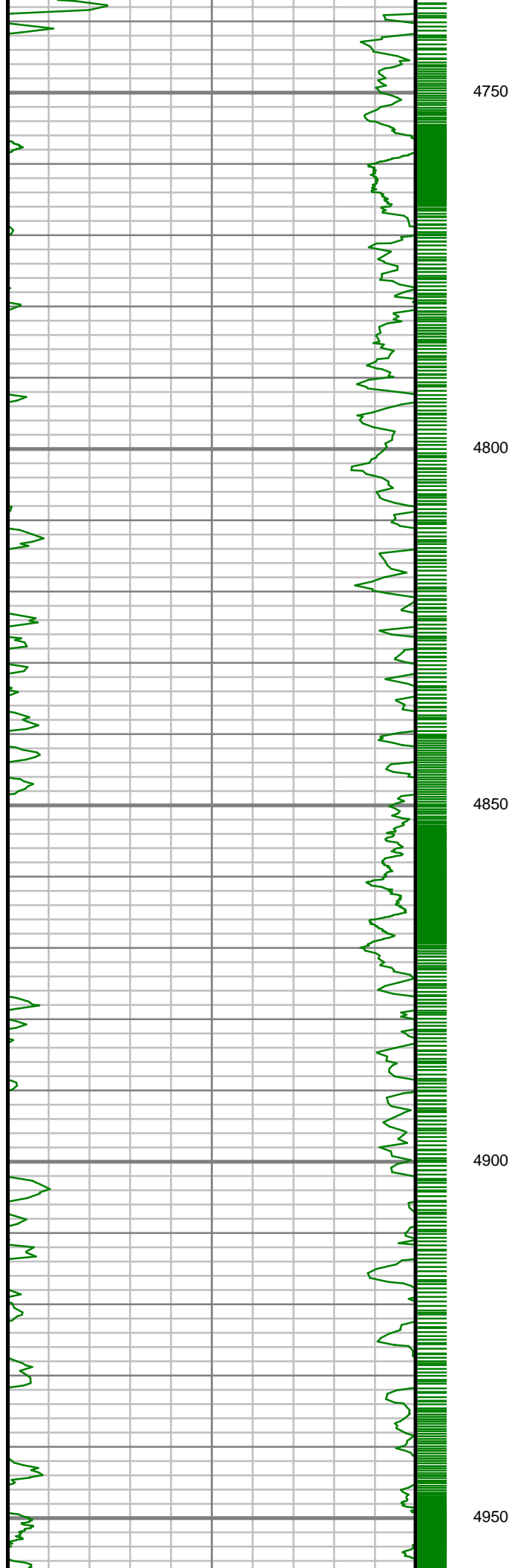
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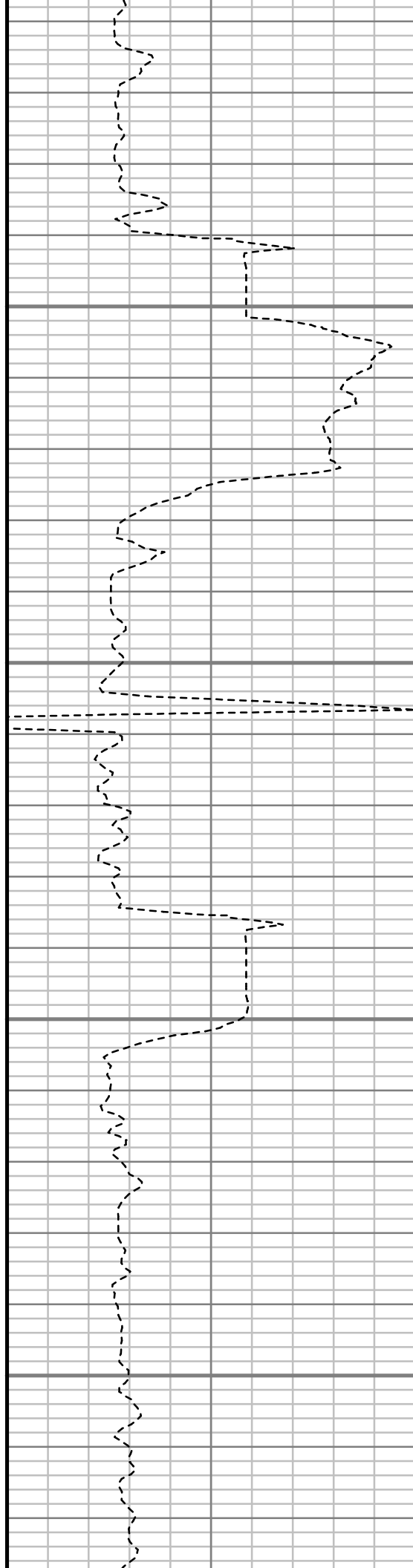
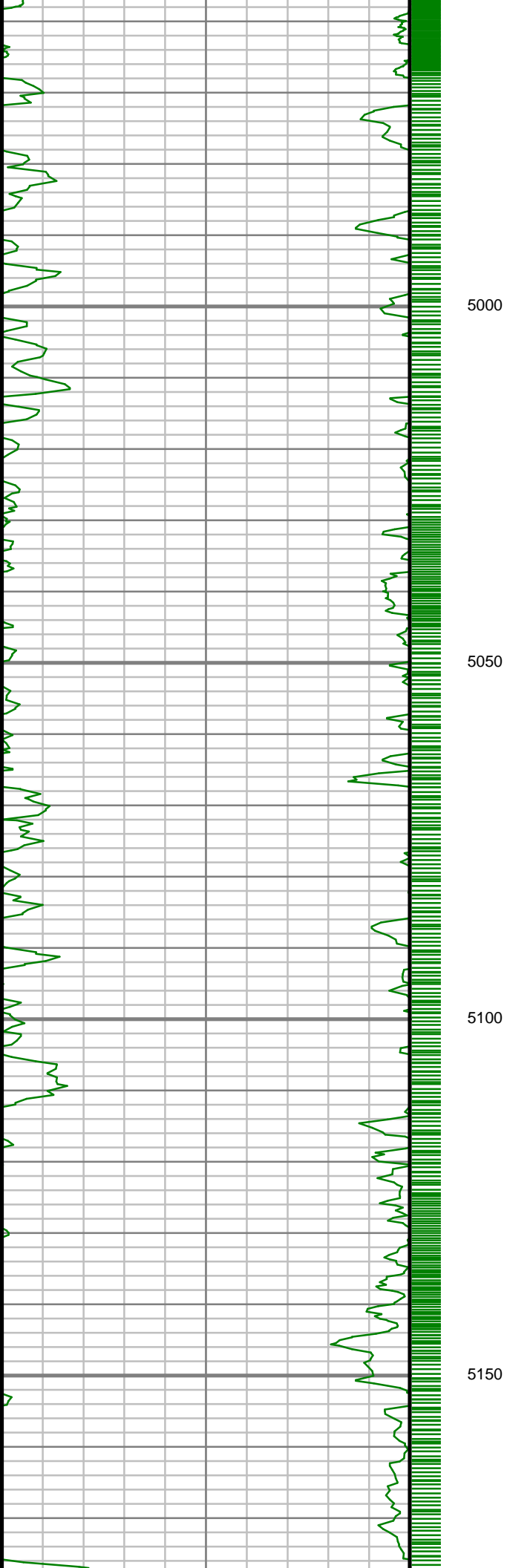


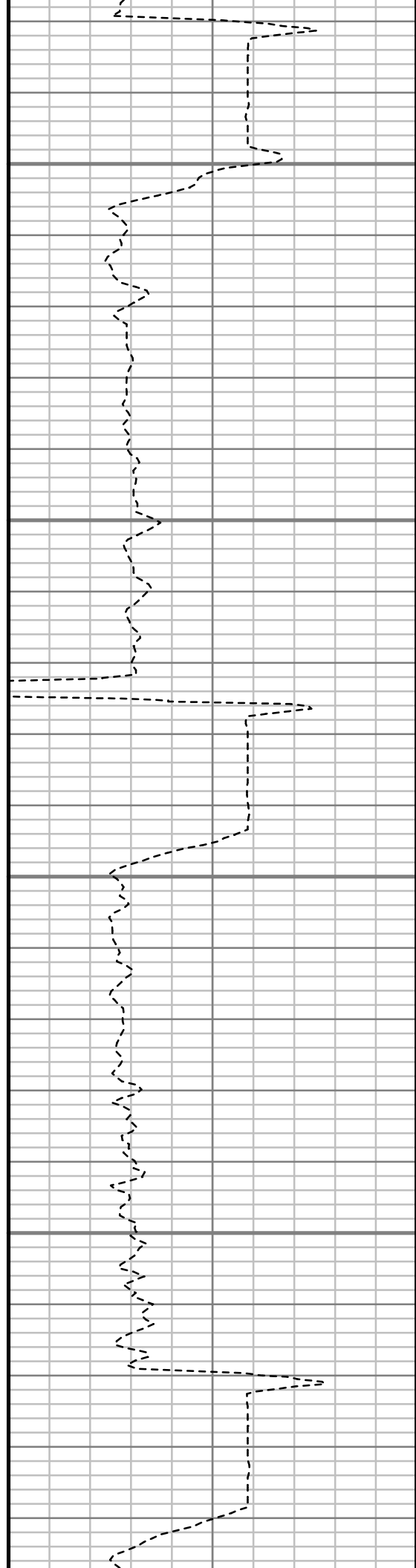
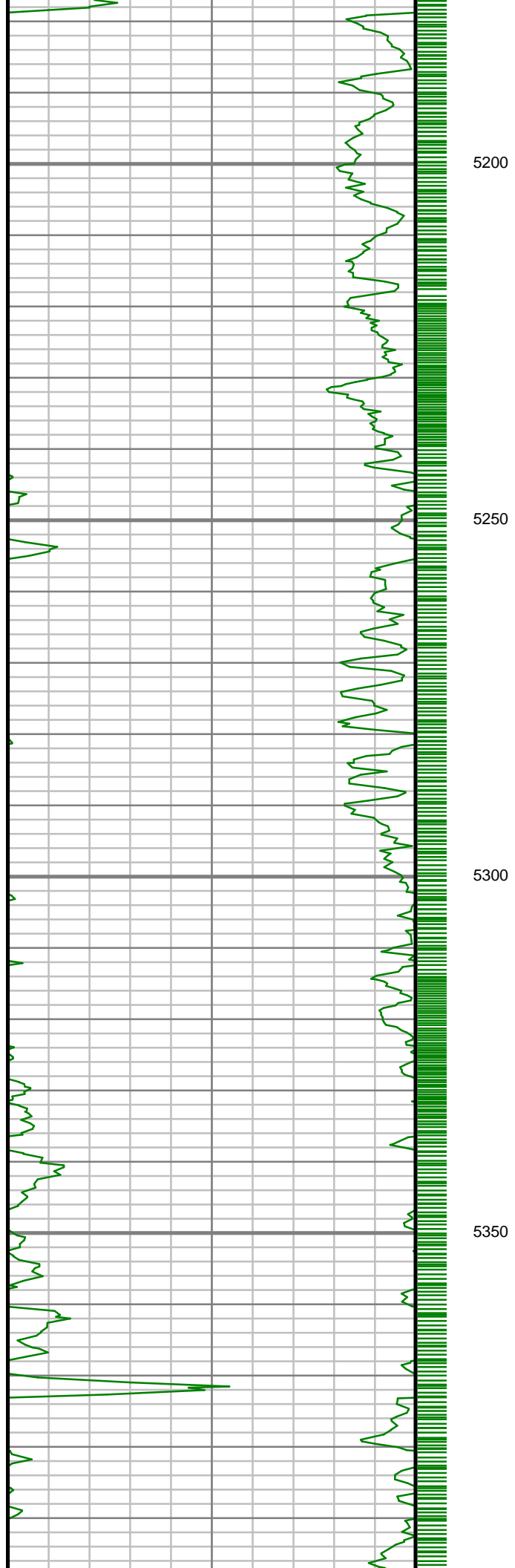


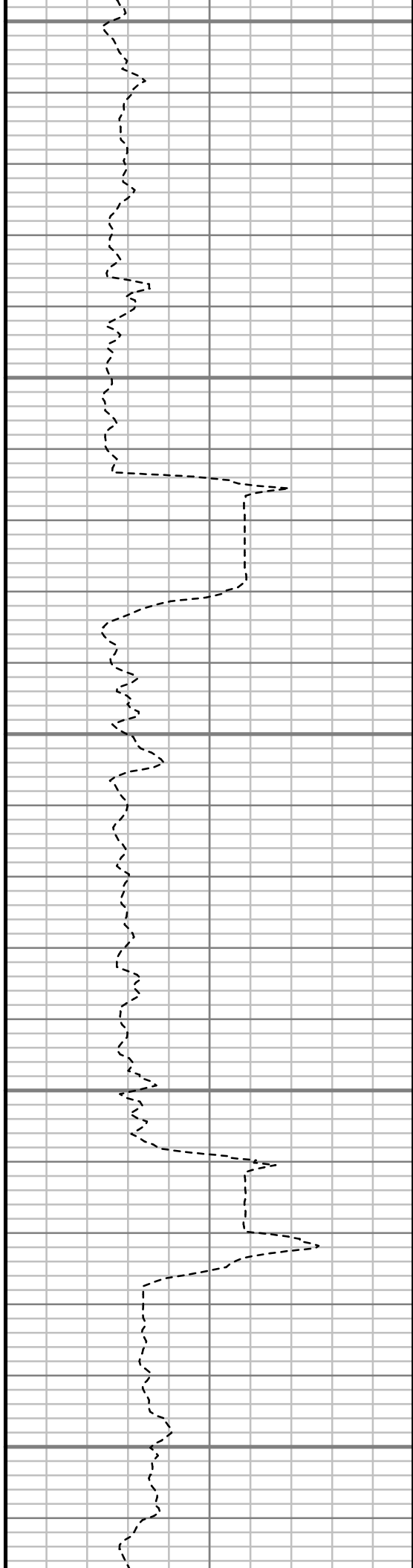
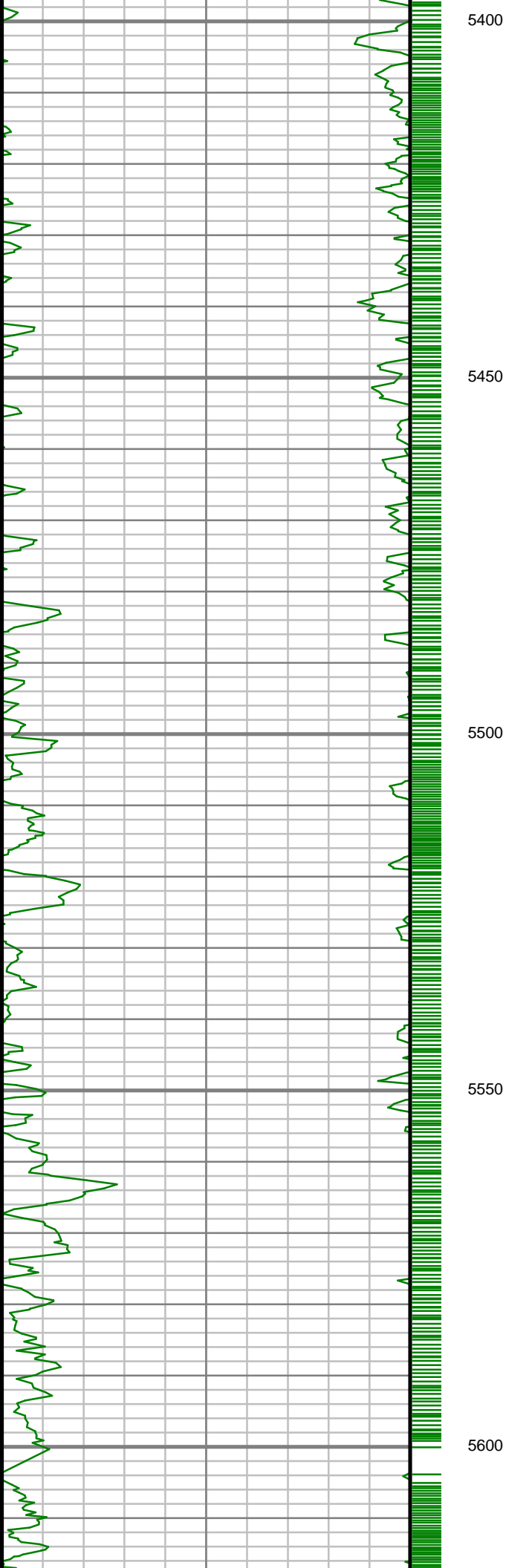


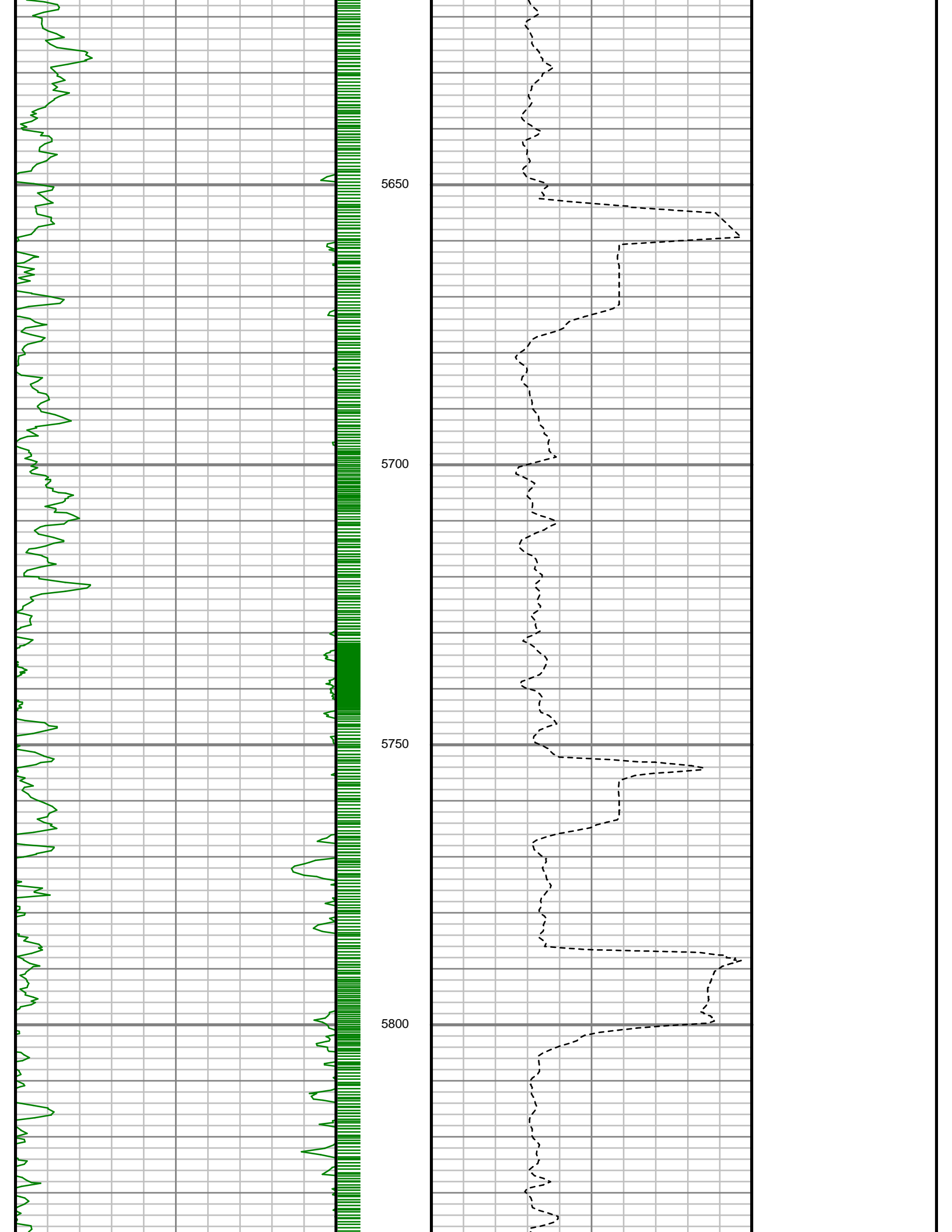


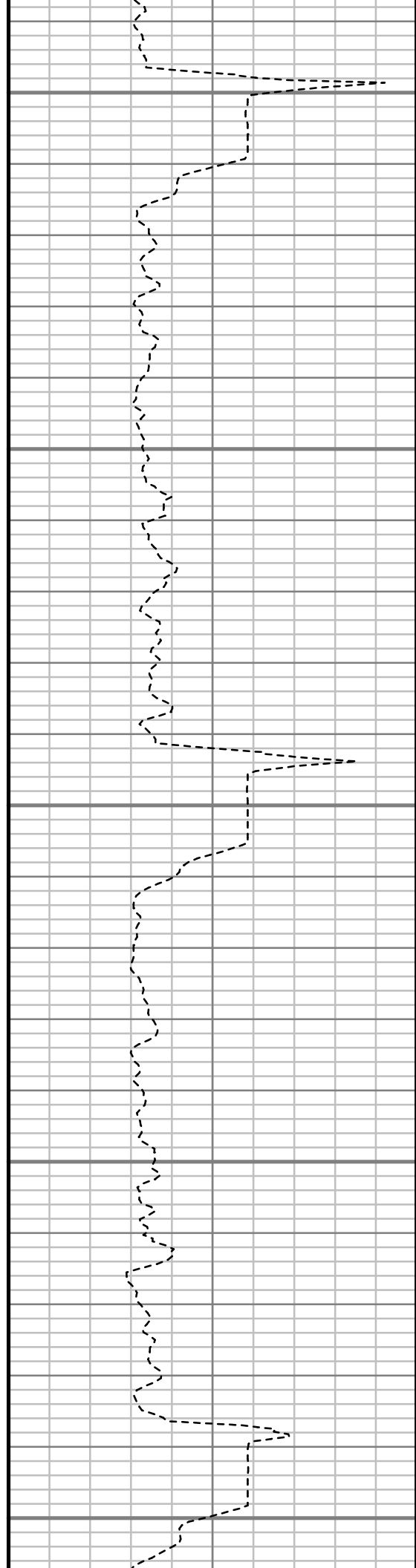
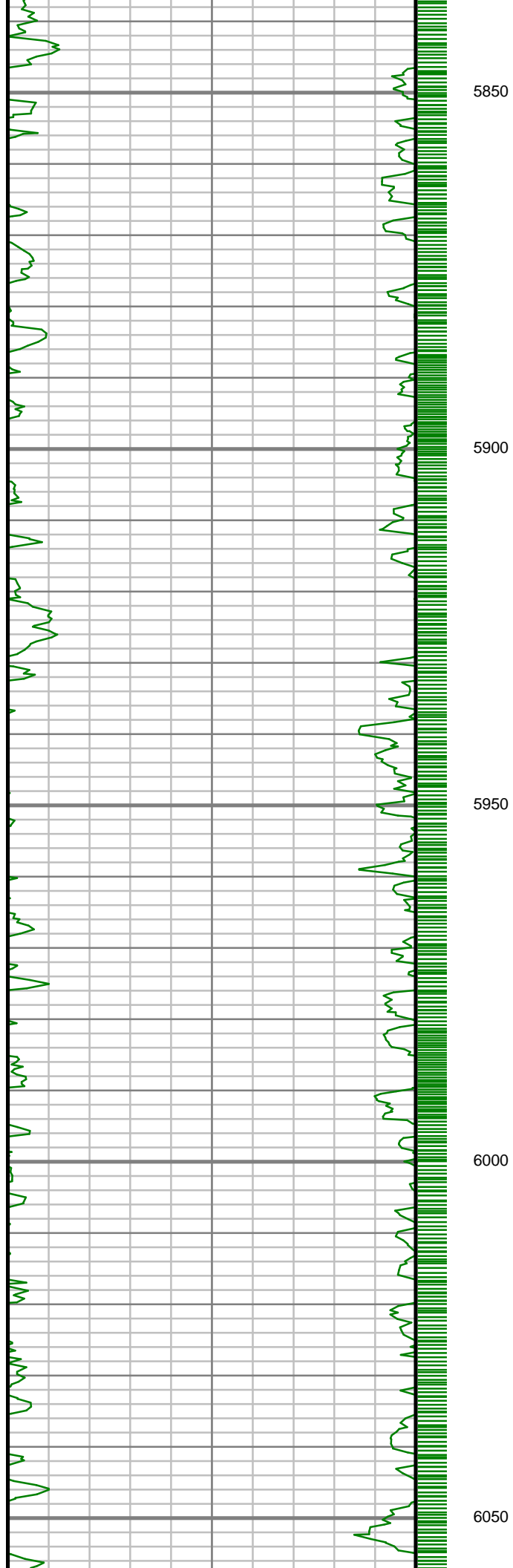


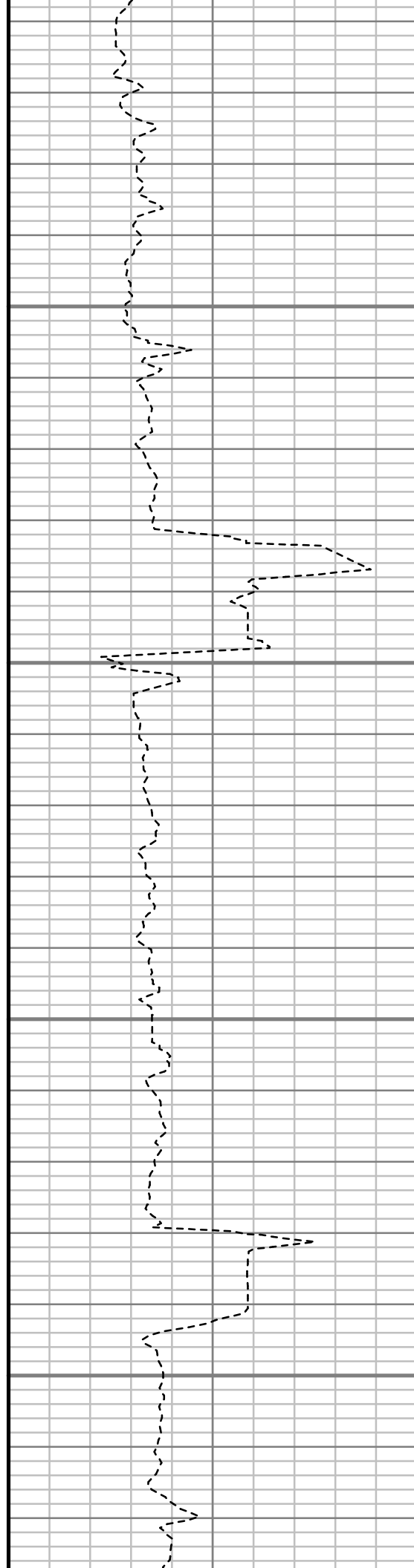
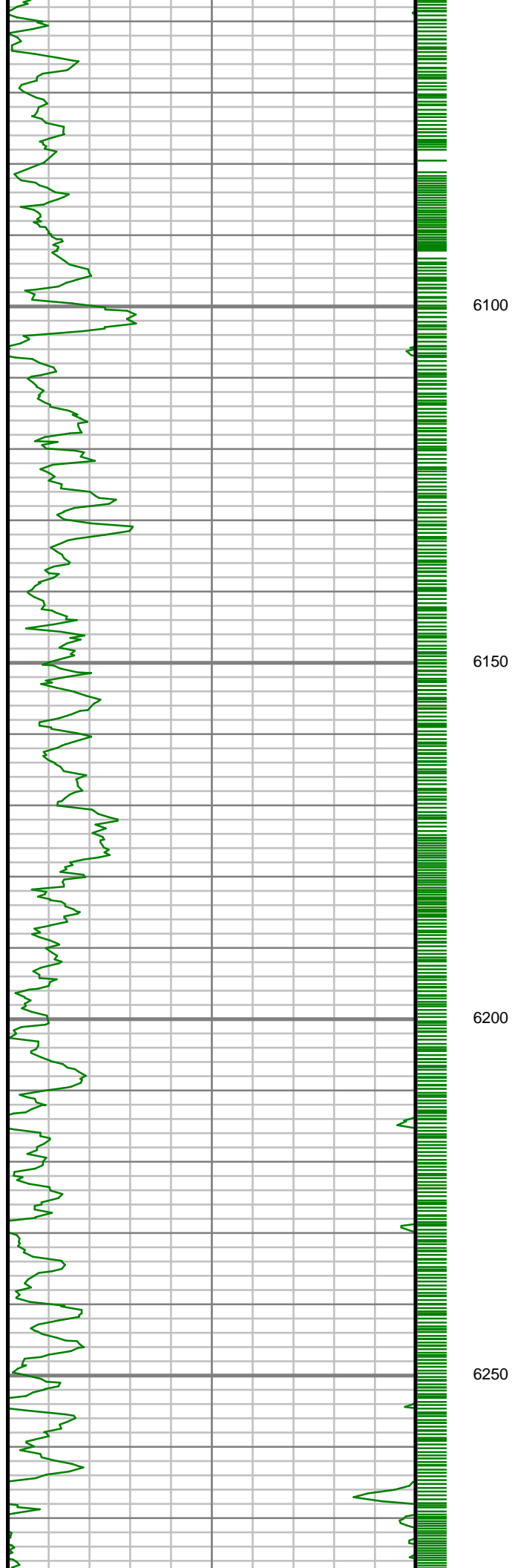


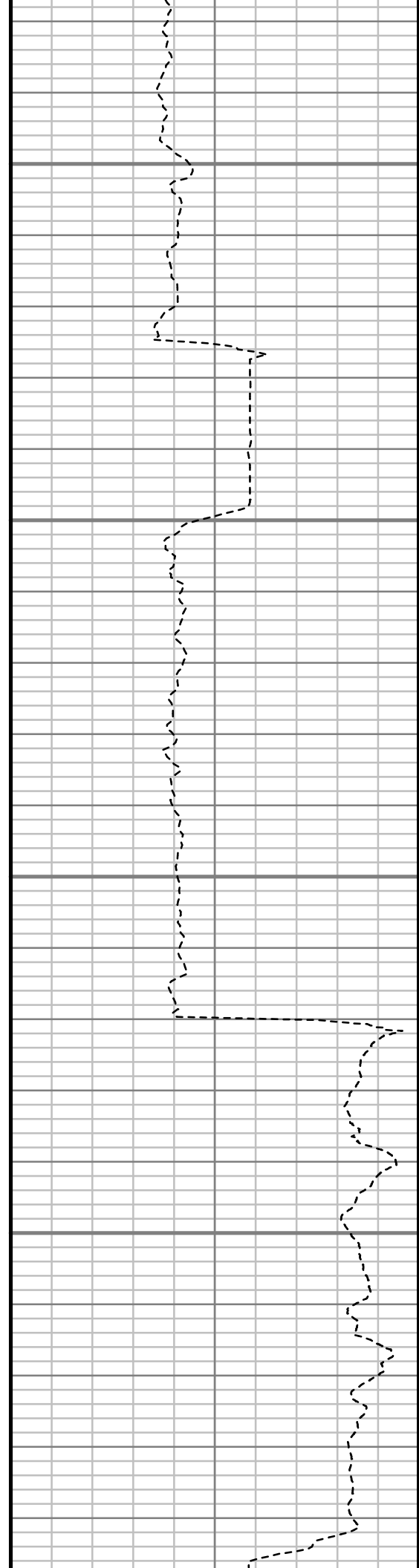
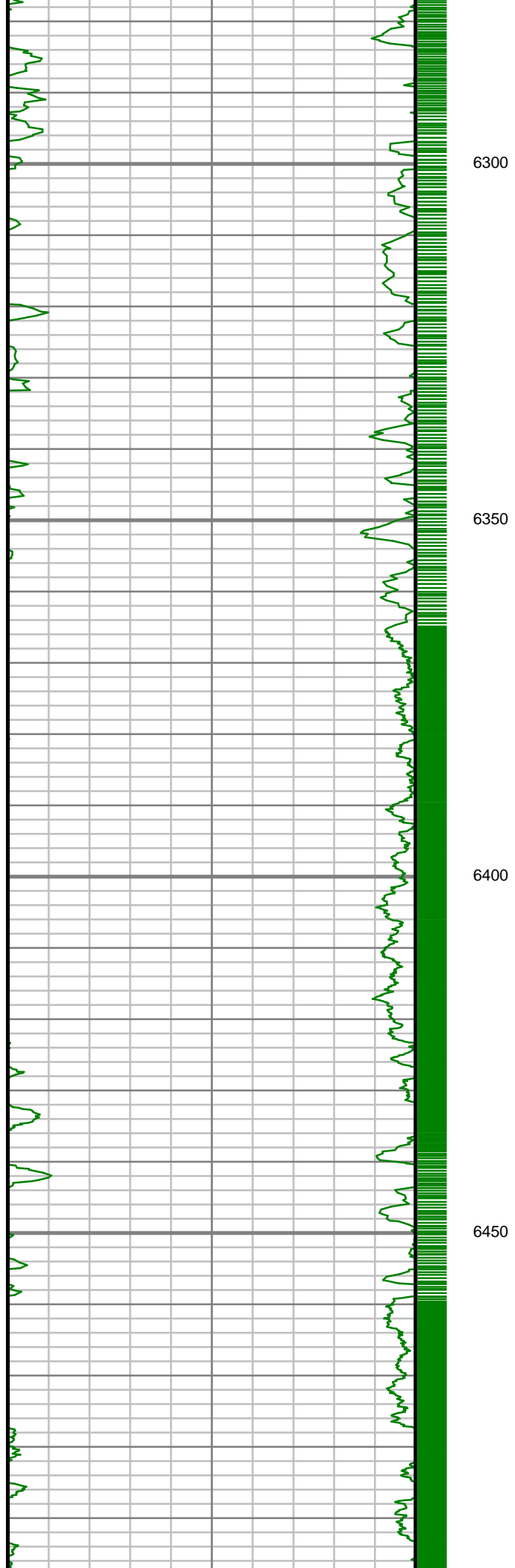


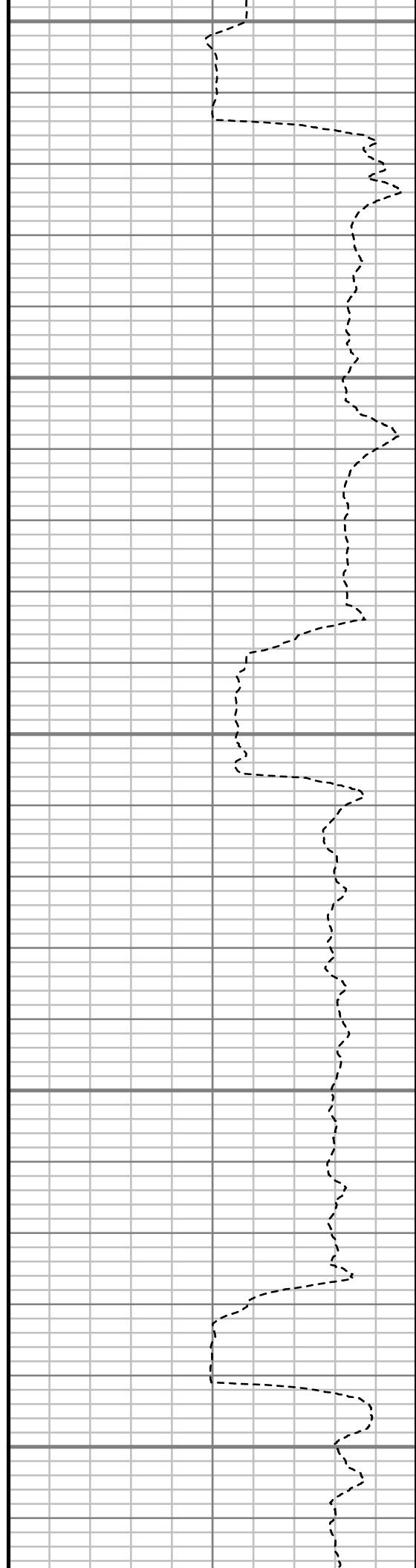
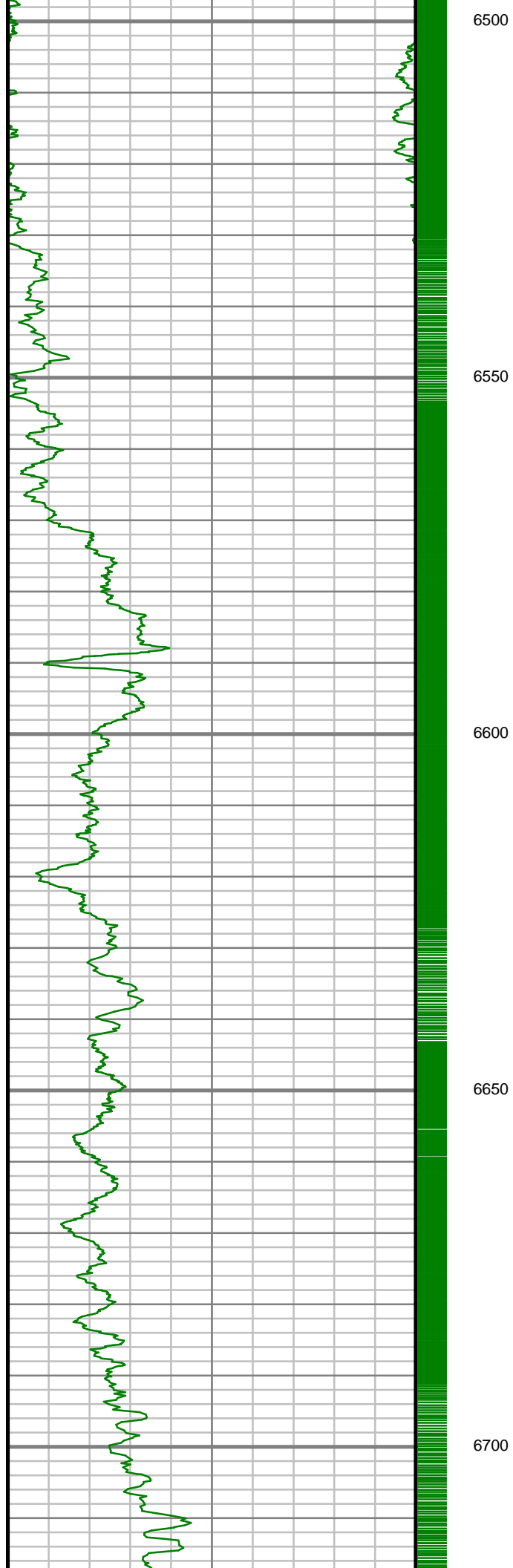












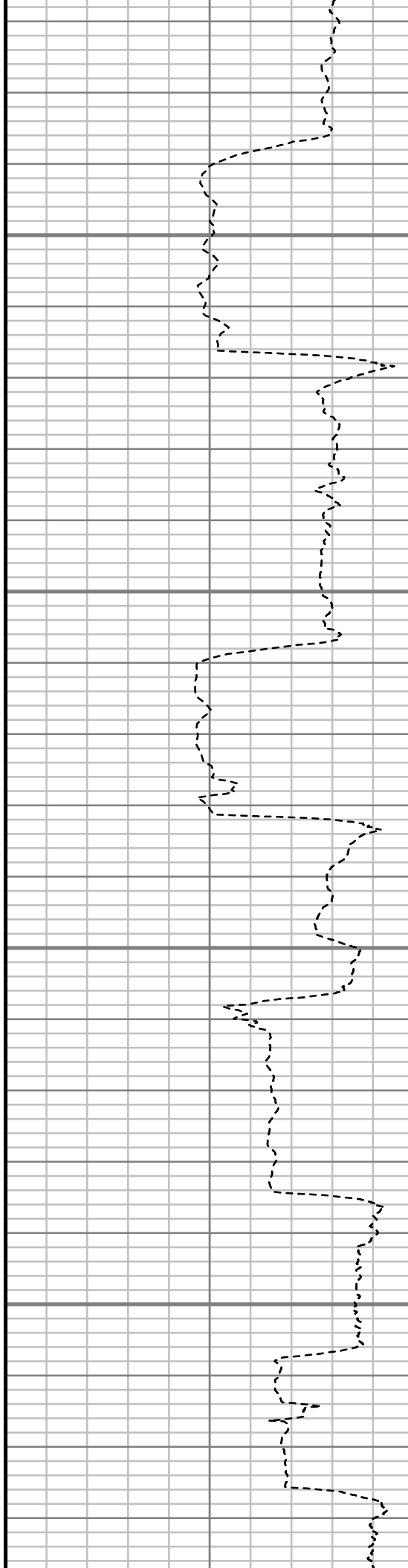


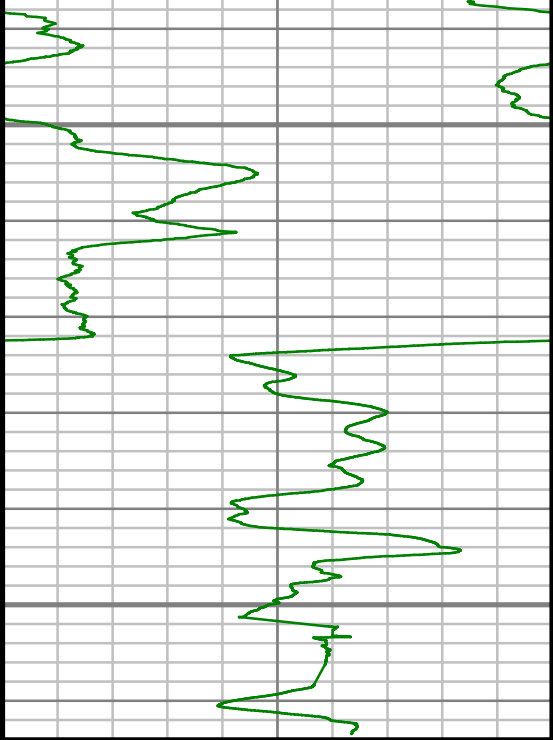
6750

6800

6850

6900





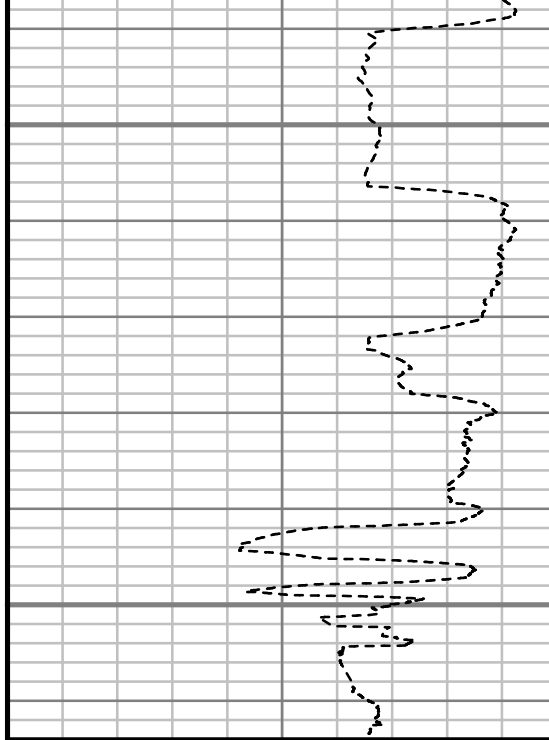
Gamma Ray (GR)

0 Unit = aapi 150

6950

7000

TRUE VERTICAL DEPTH
1:240 (ft)



Rate of Penetration (ROP)

600 Unit = ft/hr 0

Comments



MWD Survey Report

Well Location	DALE PAD
Well Name	DALE 4G-20H-O264
Survey Date	8/19/2014
Latitude	40°7'3.508"N
Longitude	104°34'18.696"W
Btotal	52547 nT
Dip	66.73 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), 7.61Azim (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	0.70	321.50	140.00	0.60	0.67	-0.54	0.86	321.50	0.50
232.00	0.44	105.03	231.99	0.94	1.02	-0.55	1.16	331.93	1.18
323.00	0.79	17.05	322.99	1.52	1.53	-0.02	1.53	359.10	0.98
414.00	1.32	77.96	413.98	2.49	2.35	1.19	2.64	26.72	1.28
506.00	2.55	116.98	505.93	2.17	1.65	4.05	4.37	67.87	1.89
598.00	2.99	124.28	597.82	0.41	-0.64	7.85	7.88	94.62	0.61
689.00	2.99	132.71	688.70	-2.02	-3.58	11.56	12.10	107.22	0.48
781.00	4.31	121.20	780.51	-4.78	-7.00	16.28	17.72	113.27	1.63
873.00	4.75	120.85	872.22	-7.67	-10.75	22.51	24.94	115.52	0.48
964.00	4.66	123.13	962.91	-10.75	-14.70	28.84	32.37	117.01	0.23
1056.00	5.19	116.10	1054.57	-13.68	-18.58	35.71	40.25	117.48	0.87
1177.00	6.33	120.41	1174.96	-18.01	-24.36	46.38	52.39	117.71	1.01
1269.00	9.15	125.68	1266.11	-23.42	-31.20	56.70	64.72	118.82	3.15
1361.00	8.97	123.75	1356.97	-30.02	-39.45	68.61	79.15	119.90	0.38
1452.00	10.82	125.51	1446.61	-37.14	-48.36	81.47	94.74	120.69	2.06
1524.00	10.48	126.30	1517.37	-43.45	-56.16	92.24	108.00	121.33	0.52
1707.00	10.93	122.85	1697.19	-58.83	-75.42	120.23	141.92	122.10	0.43
1890.00	10.95	120.92	1876.86	-73.11	-93.76	149.71	176.64	122.06	0.20

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
2073.00	10.34	117.58	2056.72	-85.59	-110.29	179.17	210.39	121.61	0.47
2255.00	9.89	114.24	2235.89	-95.64	-124.26	207.89	242.20	120.87	0.41
2438.00	8.70	115.92	2416.48	-104.48	-136.77	234.67	271.61	120.23	0.67
2621.00	10.64	121.99	2596.88	-115.81	-151.77	261.44	302.30	120.14	1.20
2805.00	10.02	117.18	2777.90	-128.18	-168.08	290.09	335.26	120.09	0.58
2995.00	9.35	116.61	2965.19	-138.75	-182.55	318.60	367.19	119.81	0.36
3184.00	9.90	116.59	3151.53	-149.03	-196.70	346.85	398.74	119.56	0.29
3374.00	9.16	118.03	3338.91	-159.62	-211.11	374.80	430.17	119.39	0.41
3563.00	10.69	124.12	3525.08	-172.69	-228.01	402.59	462.67	119.53	0.98
3753.00	9.30	120.51	3712.19	-186.53	-245.69	430.40	495.59	119.72	0.80
3943.00	10.92	123.31	3899.24	-200.31	-263.37	458.67	528.91	119.86	0.89
4131.00	11.31	118.13	4083.72	-214.50	-281.84	489.81	565.11	119.92	0.57
4320.00	9.40	115.59	4269.63	-225.76	-297.25	520.08	599.03	119.75	1.04
4510.00	11.66	120.40	4456.43	-237.98	-313.66	550.63	633.70	119.67	1.27
4701.00	9.02	116.77	4644.31	-250.37	-330.17	580.65	667.96	119.62	1.42
4891.00	5.25	116.95	4832.80	-258.14	-340.83	601.70	691.53	119.53	1.99
5081.00	1.55	357.06	5022.55	-258.49	-342.19	609.32	698.83	119.32	3.25
5271.00	0.95	336.56	5212.51	-254.61	-338.18	608.57	696.22	119.06	0.39

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
5462.00	0.69	353.46	5403.49	-252.14	-335.59	607.81	694.30	118.90	0.18
5652.00	0.84	14.85	5593.47	-249.65	-333.10	608.03	693.30	118.72	0.17
5843.00	0.39	46.94	5784.46	-247.75	-331.30	608.87	693.17	118.55	0.29
6033.00	0.15	21.46	5974.46	-247.00	-330.62	609.44	693.35	118.48	0.14
6224.00	0.79	79.37	6165.45	-246.35	-330.15	610.83	694.34	118.39	0.38
6415.00	1.29	59.65	6356.42	-244.62	-328.82	613.97	696.48	118.17	0.32
6510.00	3.55	344.53	6451.35	-241.26	-325.45	614.11	695.02	117.92	3.63
6605.00	12.34	343.38	6545.34	-229.27	-312.86	610.41	685.92	117.14	9.26
6700.00	23.49	350.96	6635.60	-201.78	-284.34	604.51	668.05	115.19	11.96
6796.00	36.54	353.28	6718.55	-155.56	-236.86	598.13	643.32	111.60	13.65
6891.00	45.10	356.73	6790.39	-95.00	-175.06	592.90	618.20	106.45	9.31
6986.00	54.87	357.00	6851.40	-23.60	-102.49	588.93	597.78	99.87	10.29
7081.00	63.17	356.60	6900.25	56.33	-21.25	584.37	584.76	92.08	8.74
7176.00	69.86	357.92	6938.09	141.99	65.73	580.23	583.94	83.54	7.16
7271.00	77.40	359.40	6964.85	231.97	156.79	578.13	599.01	74.83	8.07
7312.00	83.24	1.06	6971.75	272.03	197.19	578.29	610.99	71.17	14.80
7445.00	85.46	1.24	6984.85	403.54	329.50	580.95	667.89	60.44	1.67
7535.00	86.23	1.84	6991.37	492.80	419.23	583.36	718.38	54.30	1.09

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
7625.00	86.77	2.24	6996.86	582.20	509.01	586.57	776.63	49.05	0.75
7720.00	89.02	2.96	7000.34	676.77	603.84	590.87	844.84	44.38	2.48
7816.00	90.37	2.73	7000.85	772.43	699.72	595.64	918.91	40.41	1.42
7911.00	89.43	1.54	7001.02	867.00	794.65	599.18	995.23	37.02	1.60
8006.00	90.50	1.06	7001.07	961.42	889.62	601.34	1073.80	34.06	1.24
8101.00	89.76	359.68	7000.85	1055.66	984.62	601.96	1154.05	31.44	1.64
8196.00	89.80	358.29	7001.21	1149.59	1079.60	600.28	1235.26	29.07	1.46
8291.00	90.10	359.10	7001.30	1243.44	1174.57	598.12	1318.09	26.99	0.91
8386.00	91.31	0.07	7000.13	1337.50	1269.56	597.44	1403.11	25.20	1.63
8482.00	91.08	1.42	6998.13	1432.79	1365.53	598.69	1491.01	23.67	1.42
8577.00	92.05	2.86	6995.54	1527.32	1460.43	602.24	1579.72	22.41	1.82
8672.00	90.47	1.63	6993.45	1621.87	1555.32	605.95	1669.20	21.29	2.11
8768.00	88.89	1.09	6993.98	1717.30	1651.29	608.23	1759.75	20.22	1.74
8863.00	88.72	1.47	6995.96	1811.70	1746.25	610.35	1849.84	19.27	0.43
8958.00	88.66	1.13	6998.13	1906.10	1841.20	612.50	1940.40	18.40	0.36
9053.00	88.35	359.86	7000.61	2000.33	1936.16	613.32	2030.98	17.58	1.38
9149.00	89.77	359.25	7002.19	2095.37	2032.14	612.57	2122.46	16.77	1.60
9244.00	90.03	359.19	7002.35	2189.35	2127.13	611.28	2213.22	16.03	0.29

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
9339.00	90.20	358.77	7002.16	2283.27	2222.12	609.59	2304.22	15.34	0.48
9434.00	89.50	358.41	7002.41	2377.10	2317.09	607.25	2395.34	14.69	0.84
9529.00	90.40	358.72	7002.49	2470.91	2412.06	604.87	2486.74	14.08	1.01
9624.00	89.43	359.03	7002.63	2564.81	2507.04	603.01	2578.54	13.52	1.08
9720.00	89.93	359.09	7003.17	2659.74	2603.02	601.44	2671.60	13.01	0.53
9815.00	88.32	359.50	7004.62	2753.73	2698.00	600.27	2763.97	12.54	1.75
9910.00	89.76	359.87	7006.20	2847.81	2792.98	599.75	2856.65	12.12	1.57
10005.00	90.97	359.57	7005.59	2941.91	2887.98	599.29	2949.50	11.72	1.31
10100.00	89.80	0.08	7004.95	3036.03	2982.97	598.99	3042.52	11.35	1.35
10195.00	91.34	0.24	7004.00	3130.22	3077.97	599.25	3135.76	11.02	1.64
10290.00	90.57	0.22	7002.41	3224.41	3172.95	599.63	3229.11	10.70	0.81
10385.00	89.90	0.19	7002.02	3318.62	3267.95	599.96	3322.57	10.40	0.71
10481.00	89.09	1.34	7002.87	3413.93	3363.93	601.24	3417.24	10.13	1.47
10576.00	89.76	0.92	7003.81	3508.32	3458.91	603.12	3511.10	9.89	0.83
10671.00	90.13	359.98	7003.90	3602.58	3553.91	603.87	3604.85	9.64	1.06
10766.00	90.50	0.16	7003.37	3696.75	3648.90	603.98	3698.55	9.40	0.43
10861.00	89.90	359.54	7003.03	3790.88	3743.90	603.73	3792.27	9.16	0.91
10956.00	87.88	0.26	7004.87	3885.00	3838.88	603.56	3886.04	8.94	2.26

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
11051.00	87.98	359.48	7008.30	3979.07	3933.82	603.34	3979.82	8.72	0.83
11147.00	88.72	358.71	7011.06	4073.97	4029.76	601.82	4074.45	8.49	1.11
11242.00	89.36	358.76	7012.65	4167.82	4124.73	599.73	4168.10	8.27	0.67
11337.00	89.80	358.89	7013.34	4261.70	4219.70	597.78	4261.84	8.06	0.48
11432.00	90.20	358.64	7013.34	4355.57	4314.68	595.74	4355.62	7.86	0.50
11498.00	89.87	358.24	7013.30	4420.73	4380.66	593.94	4420.74	7.72	0.79

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft



GAMMA RAY

5" = 100' FEET TVD