



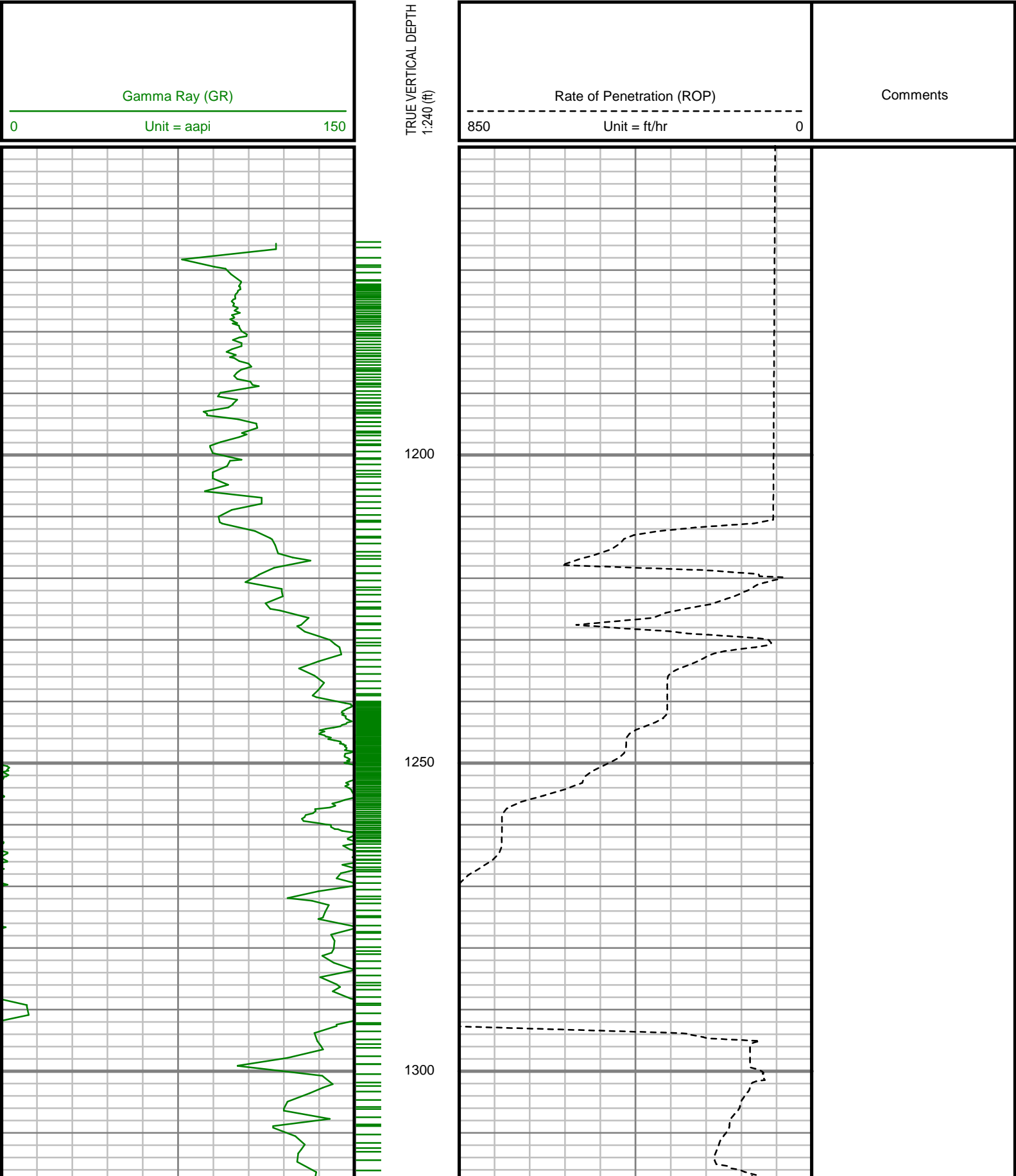
GAMMA RAY

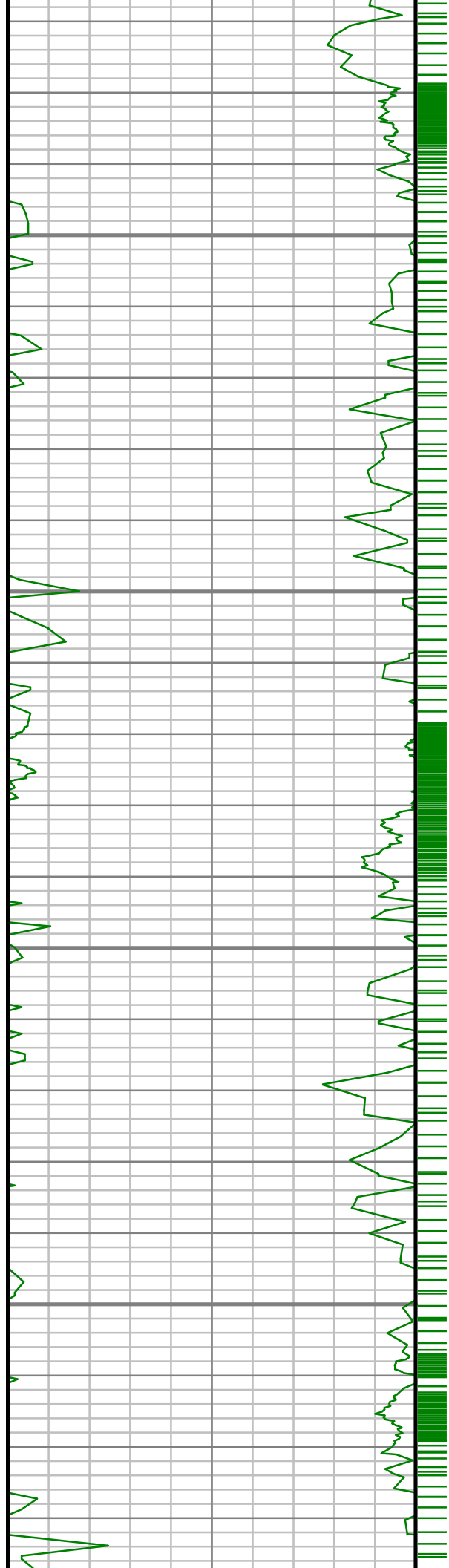
5" = 100' FEET TVD

COMPANY : ENCANA OIL AND GAS (U.S.A.) INC										COMPANY : ENCANA OIL AND GAS (U.S.A.) INC									
WELL : RUHL 1F-32H-B264										WELL : RUHL 1F-32H-B264									
FIELD : WATTENBERG										FIELD : WATTENBERG									
COUNTY : WELD										COUNTY : WELD									
STATE : COLORADO										STATE : COLORADO									
COUNTRY : U.S.A.										COUNTRY : U.S.A.									
UWI : 05-123-40283										UWI : 05-123-40283									
DEPT. REF. : RKB										WELL LOCATION									
REF. HEIGHT : 25.000 ft										LAT:40°6'5.176"N LONG:104°34'24.823"W N:1281151.98 ft E:3259154.17 ft									
GROUND LEVEL : 4979.000 ft										SEC:32 TWP:2N RANGE:64W									
G.L. to MEAN SEA LEVEL										DIRECTIONAL ROP									
BOREHOLE RECORD						DEVATION RECORD													
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft														
12.25	0	1225	0 - 11	0	4928														
8.75	1225	7512	11 - 0	4928	6634														
6.125	7512	11835	0 - 85	6634	7512														
			85 - 92	7512	11835														
CASING RECORD																			
CASING SIZE in	FROM ft	TO ft																	
16	0	140																	
9.625	0	1212																	
7	0	7494																	
DRILLING CO. : H&P						LMD UNIT NO. : MWD-00046-DISTRICT: CASPER													
RLG: 278						SPUD DATE: 12/13/2014													
						LMD START DATE: 12/16/2014						DEPTH: 5000 ft							
						LMD END DATE: 12/25/2014						DEPTH: 11835 ft							
						TOTAL DEPTH: 11835 ft													

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
RUHL 1F-32H-B264
WATTENBERG FIELD
WELD COUNTY, COLORADO
05-123-40283



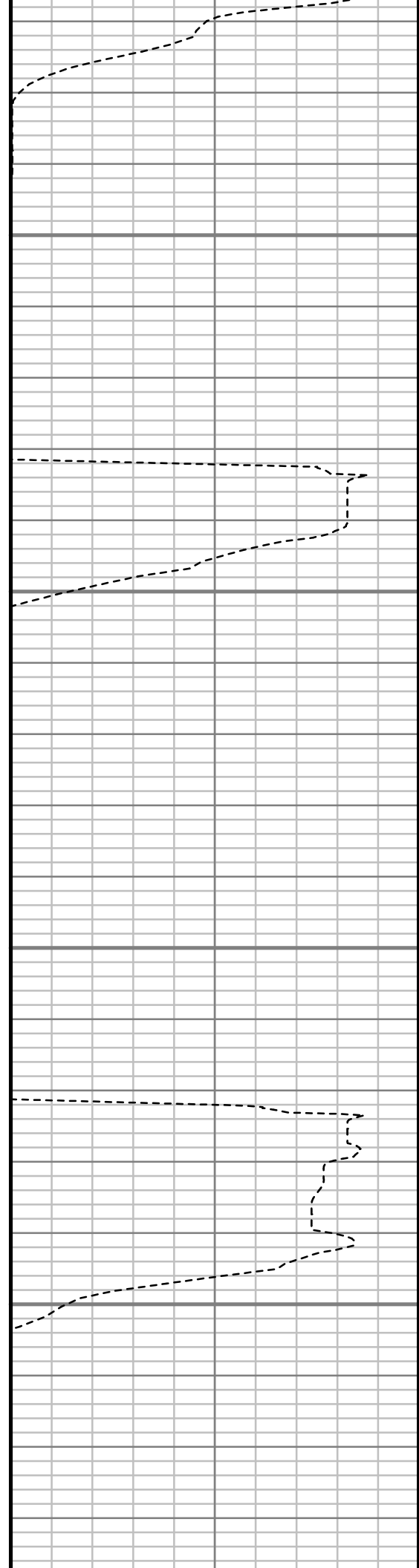


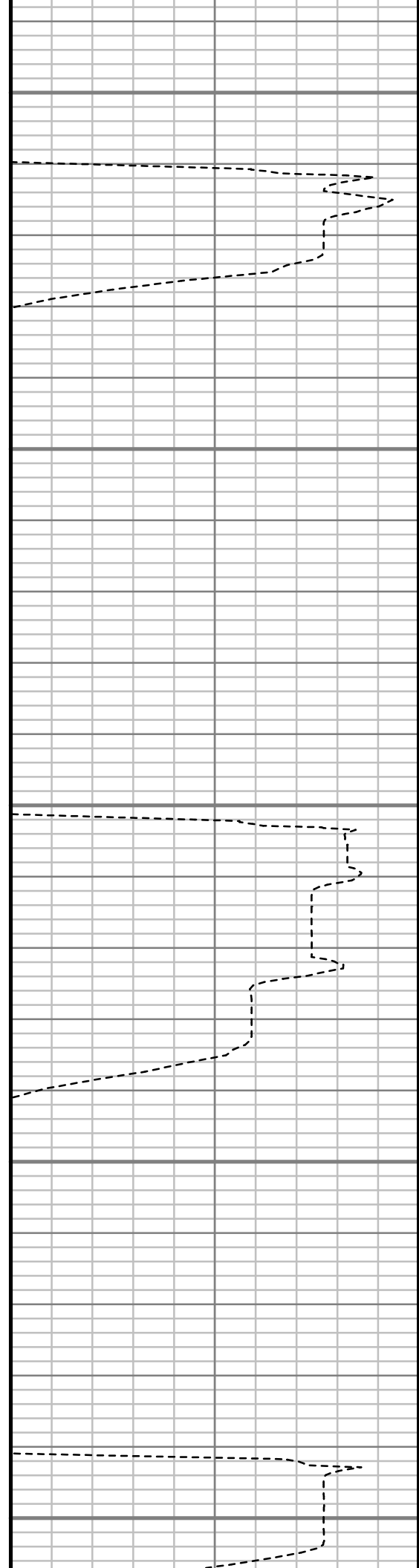
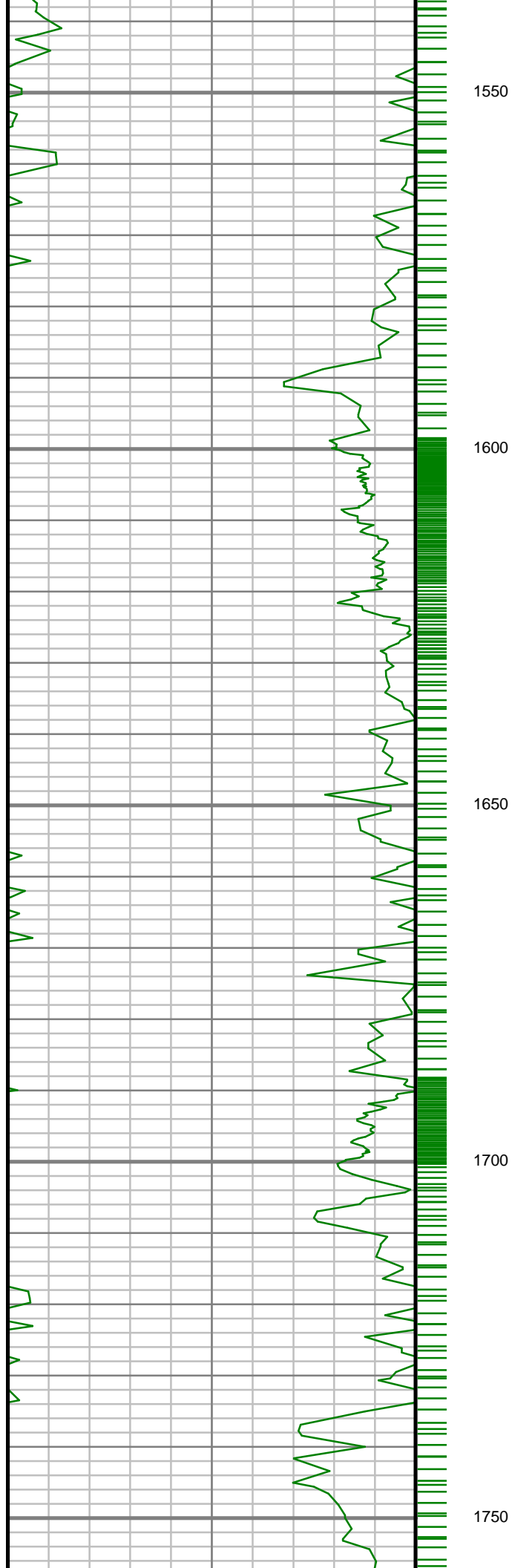
1350

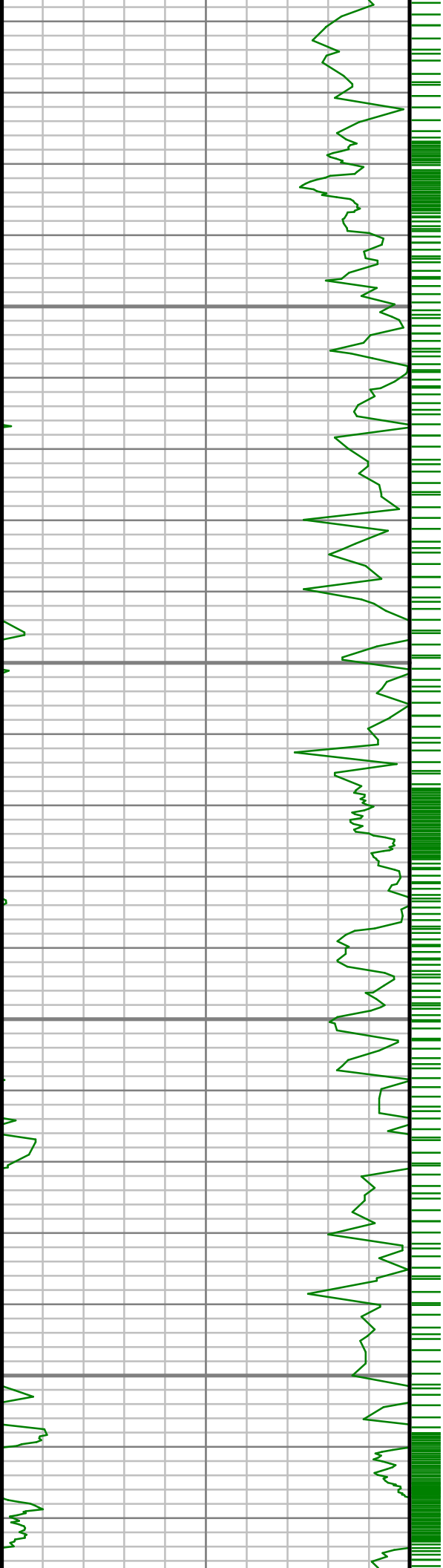
1400

1450

1500





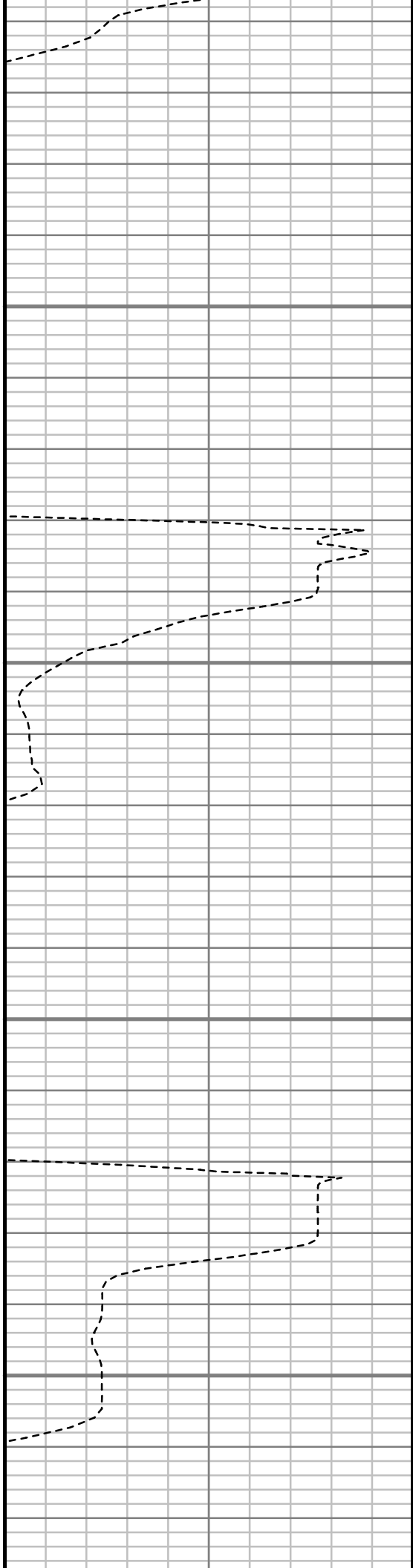


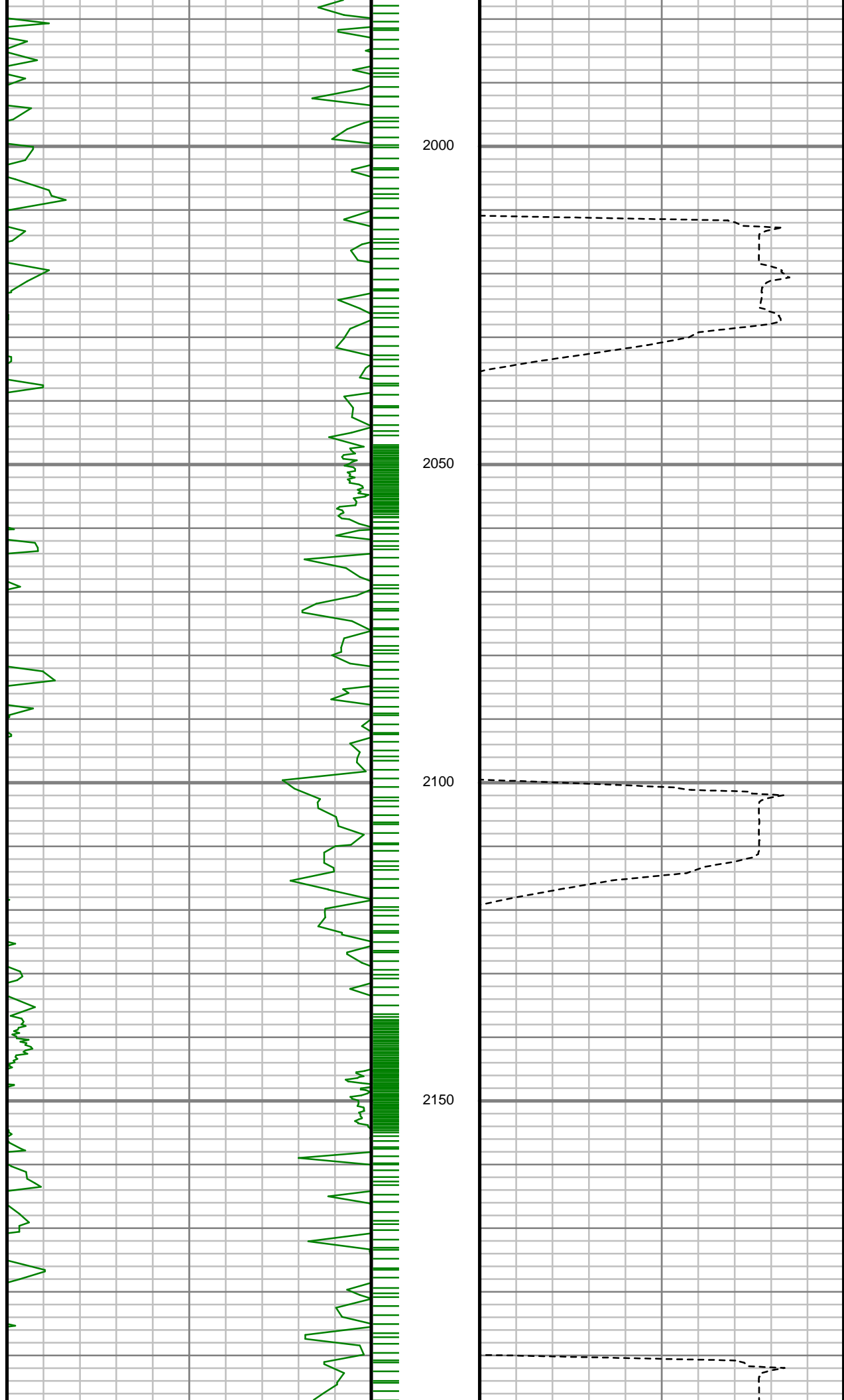
1800

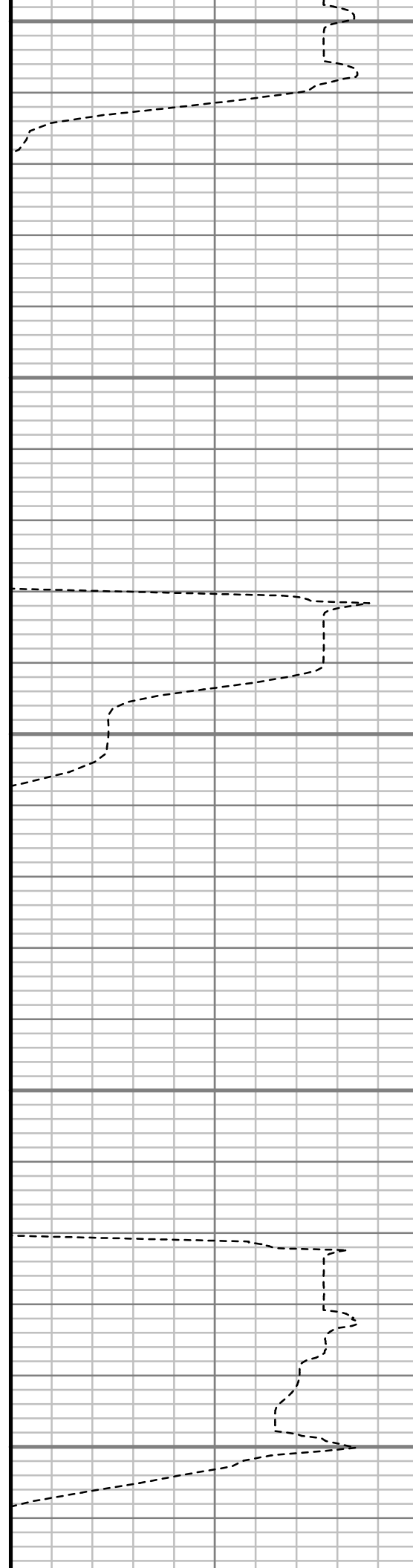
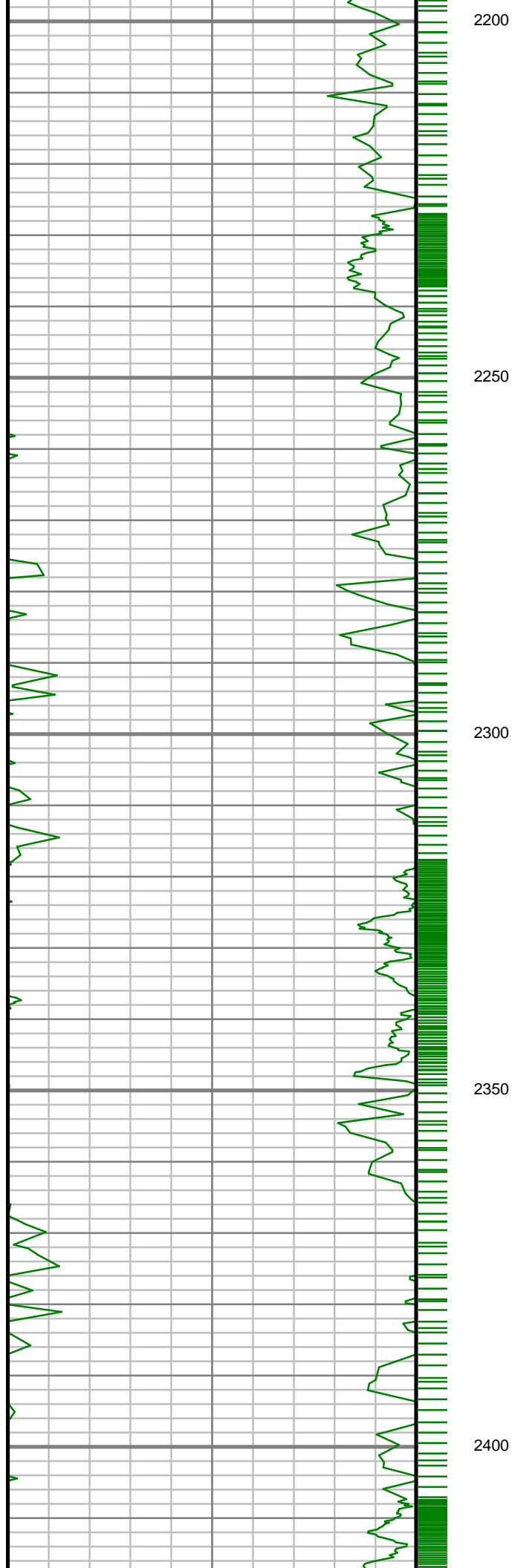
1850

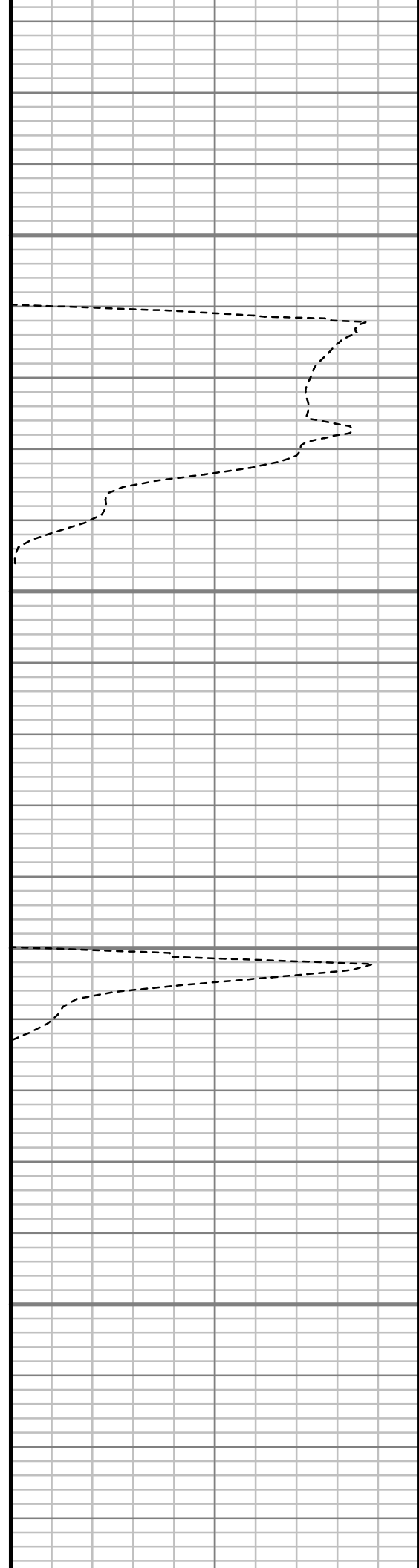
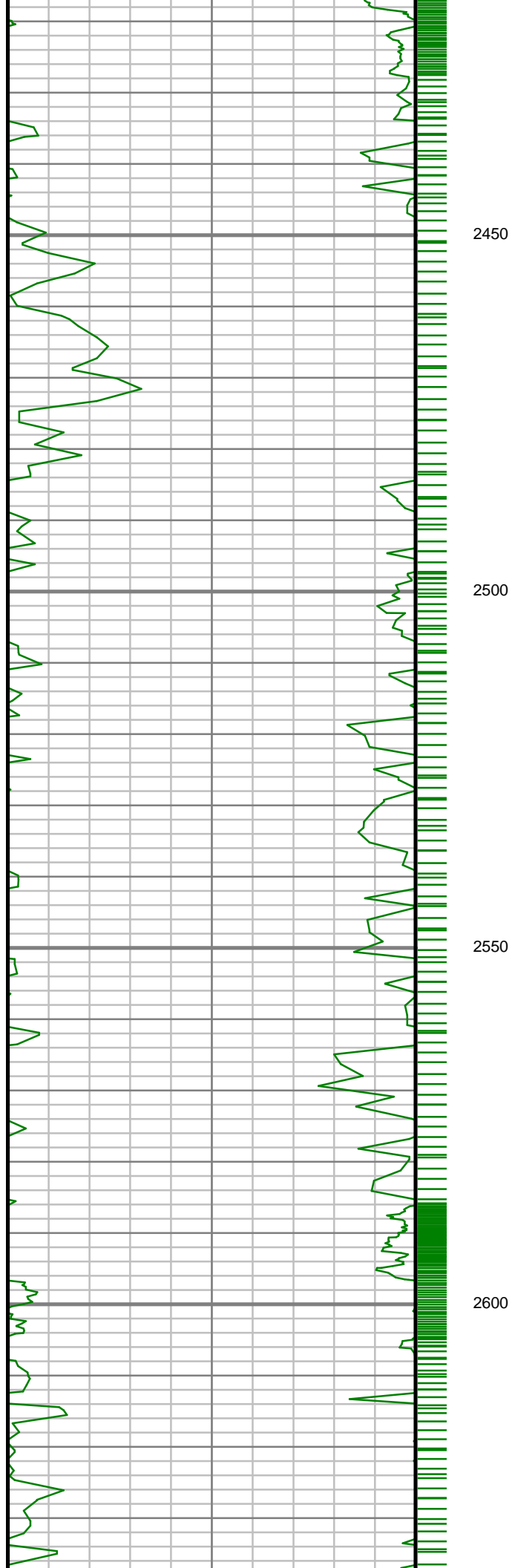
1900

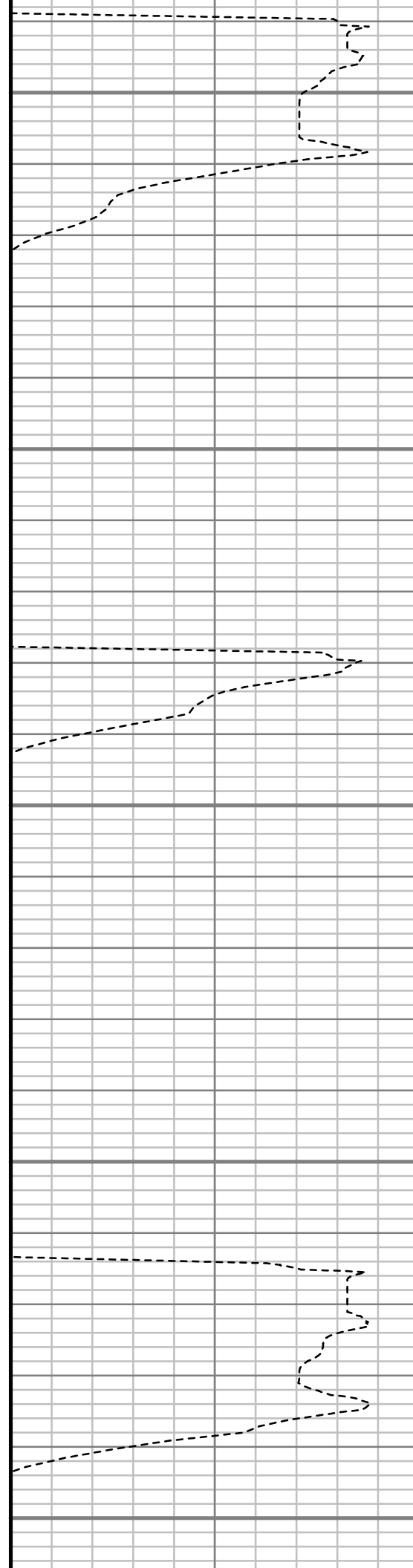
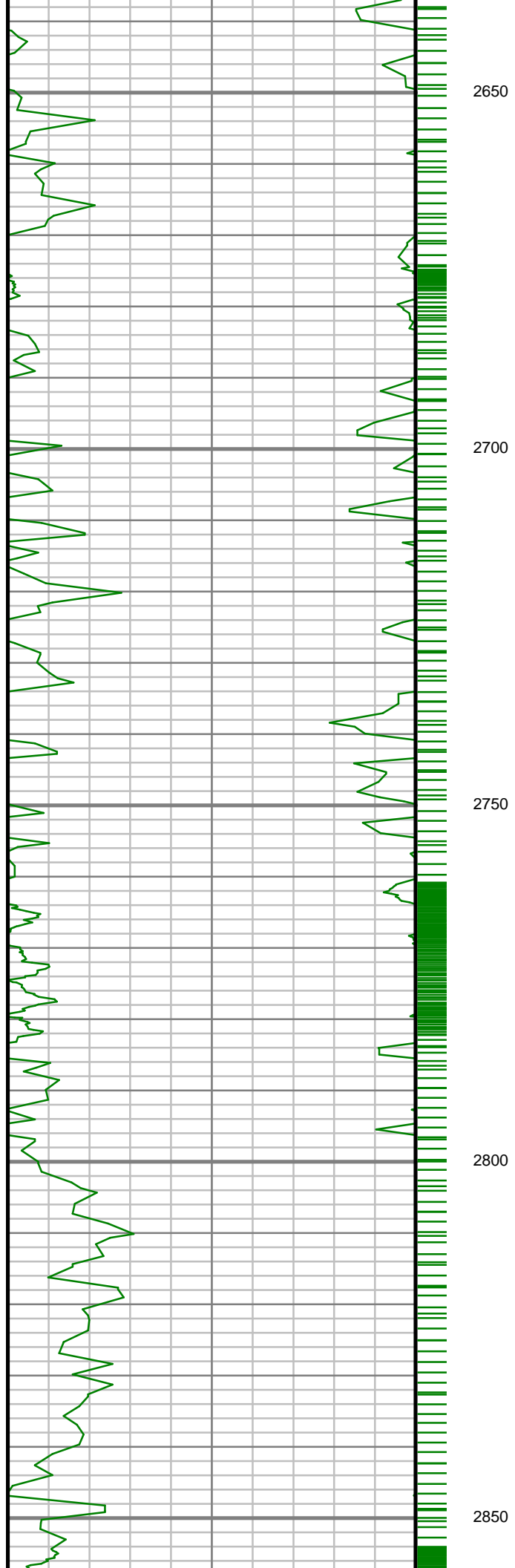
1950

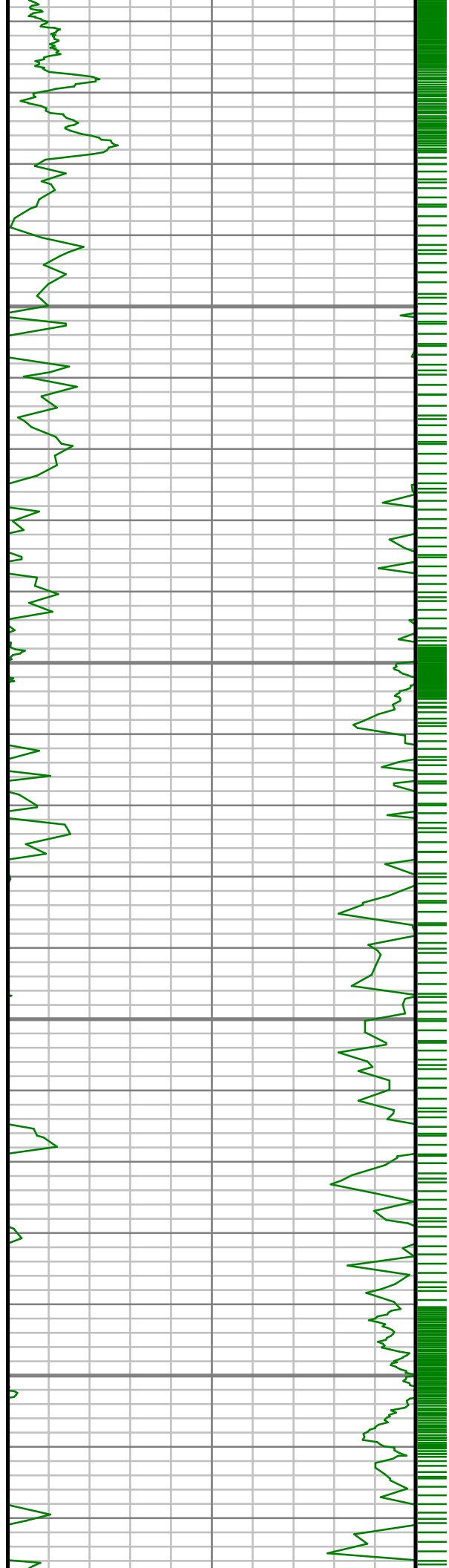










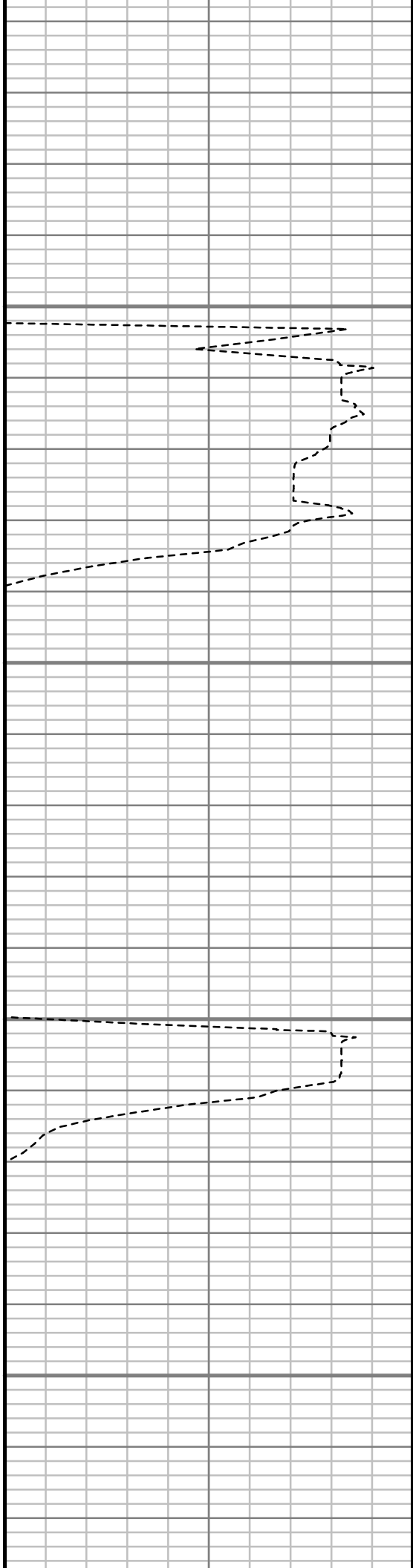


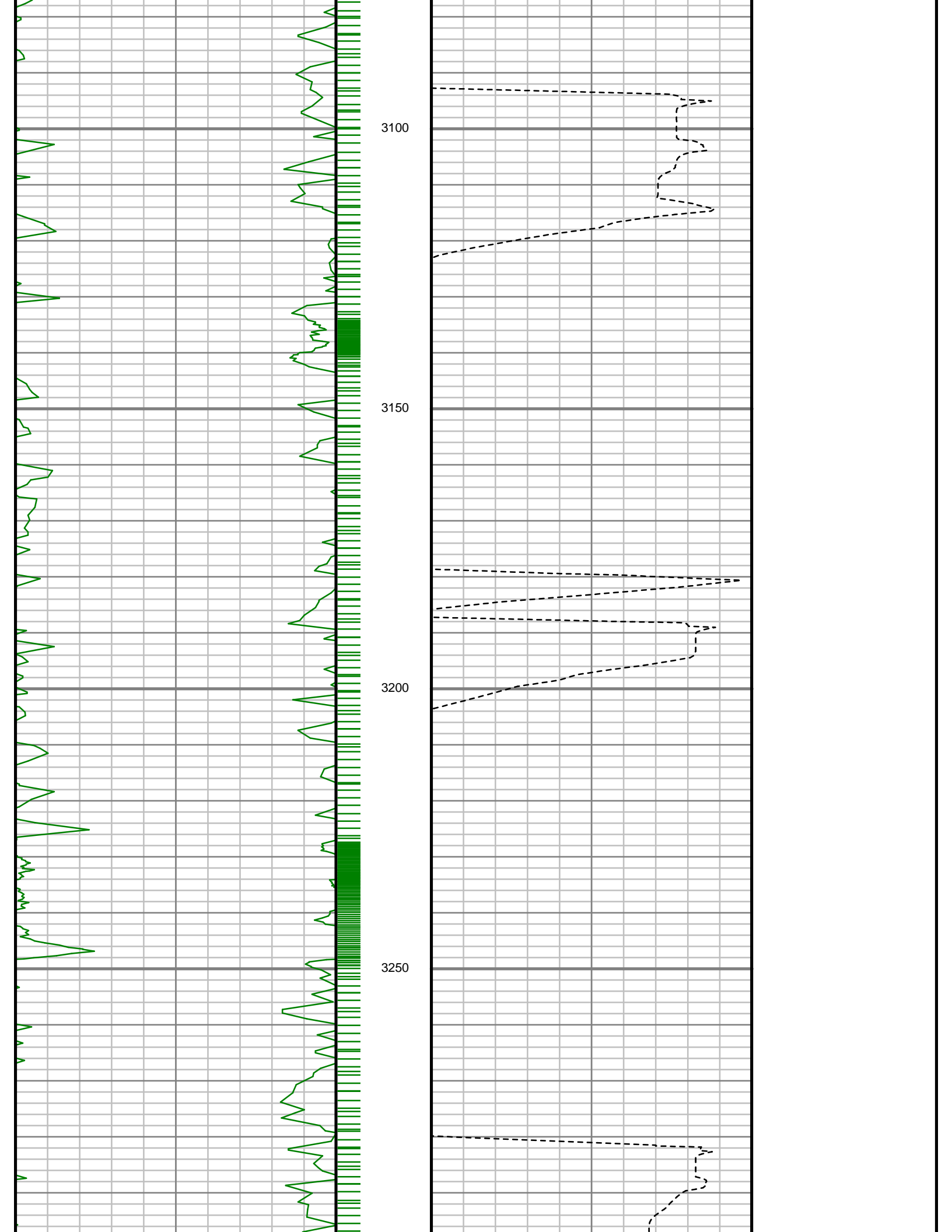
2900

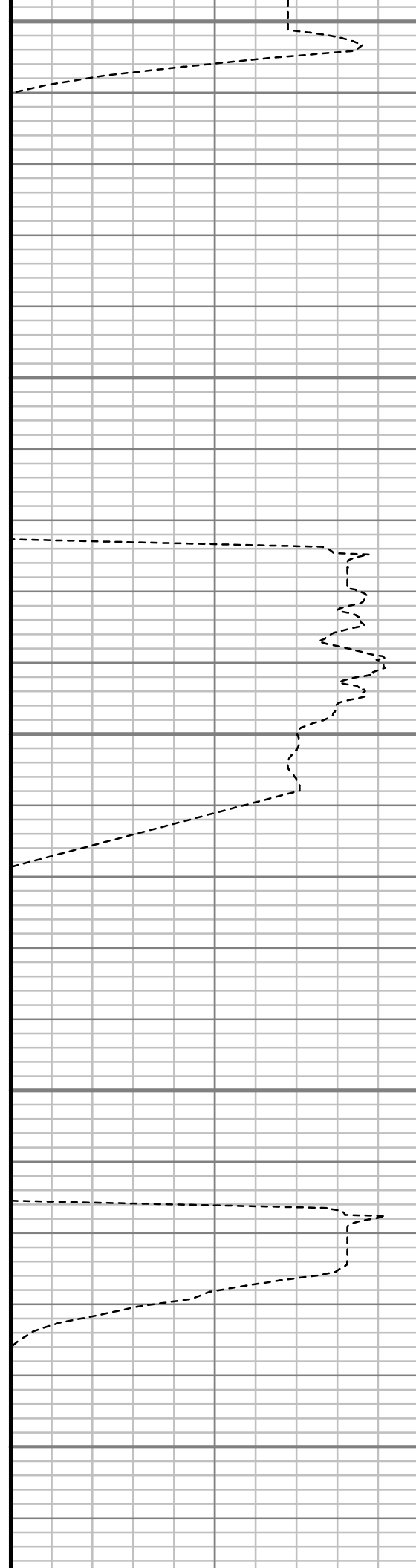
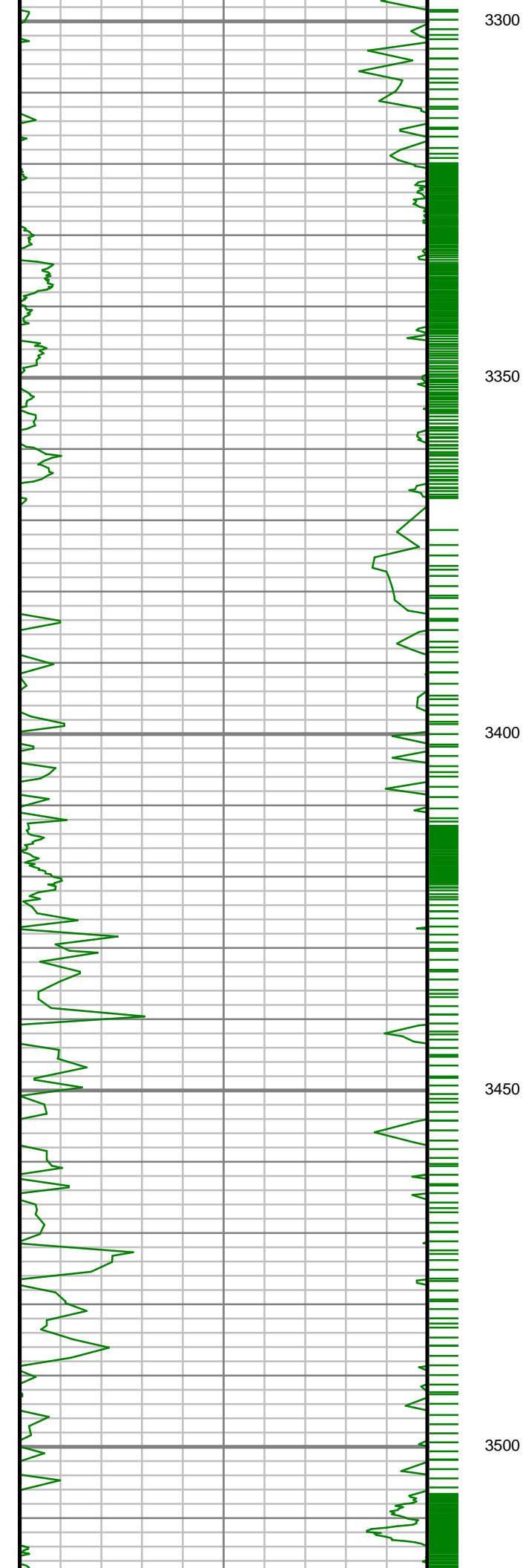
2950

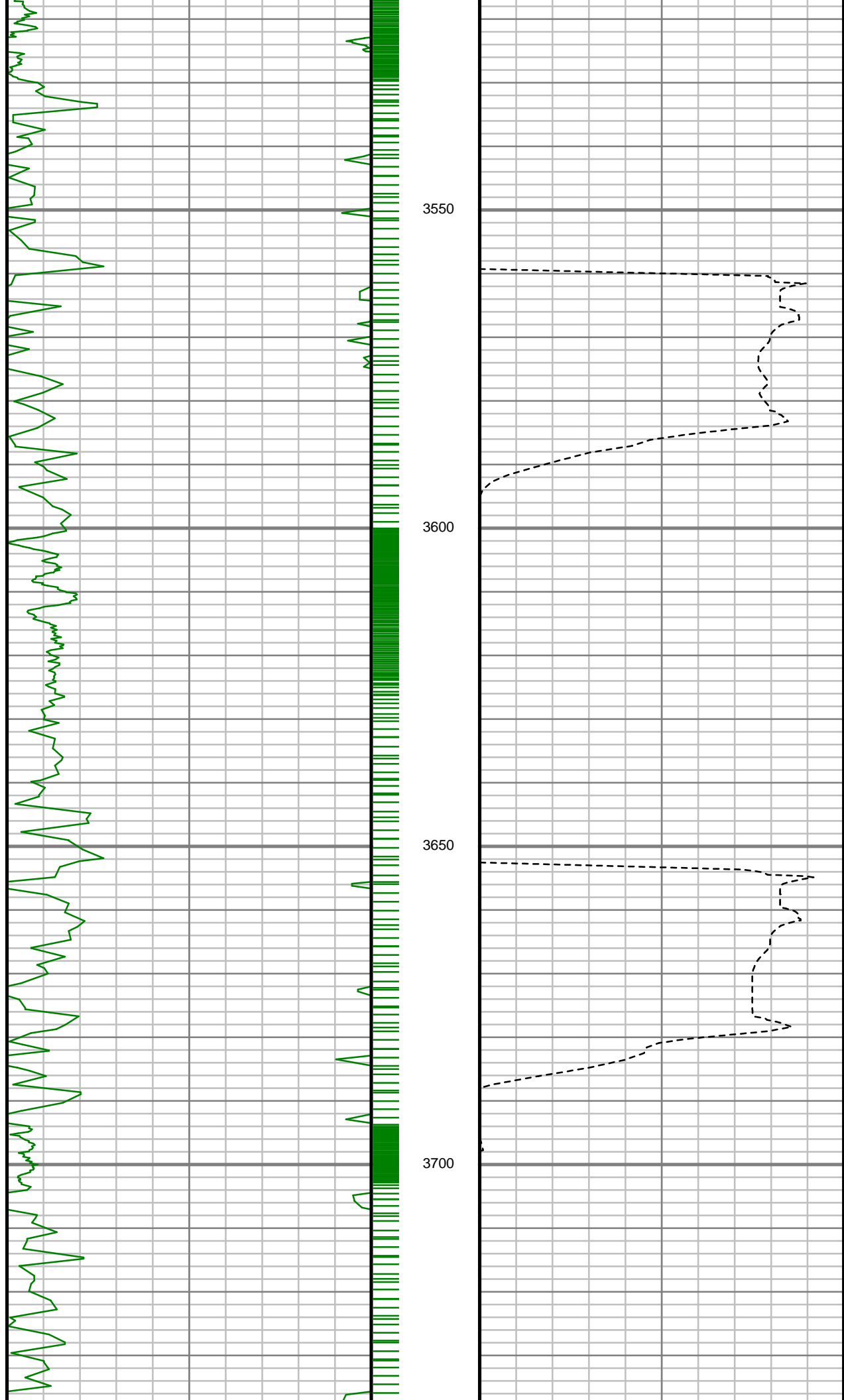
3000

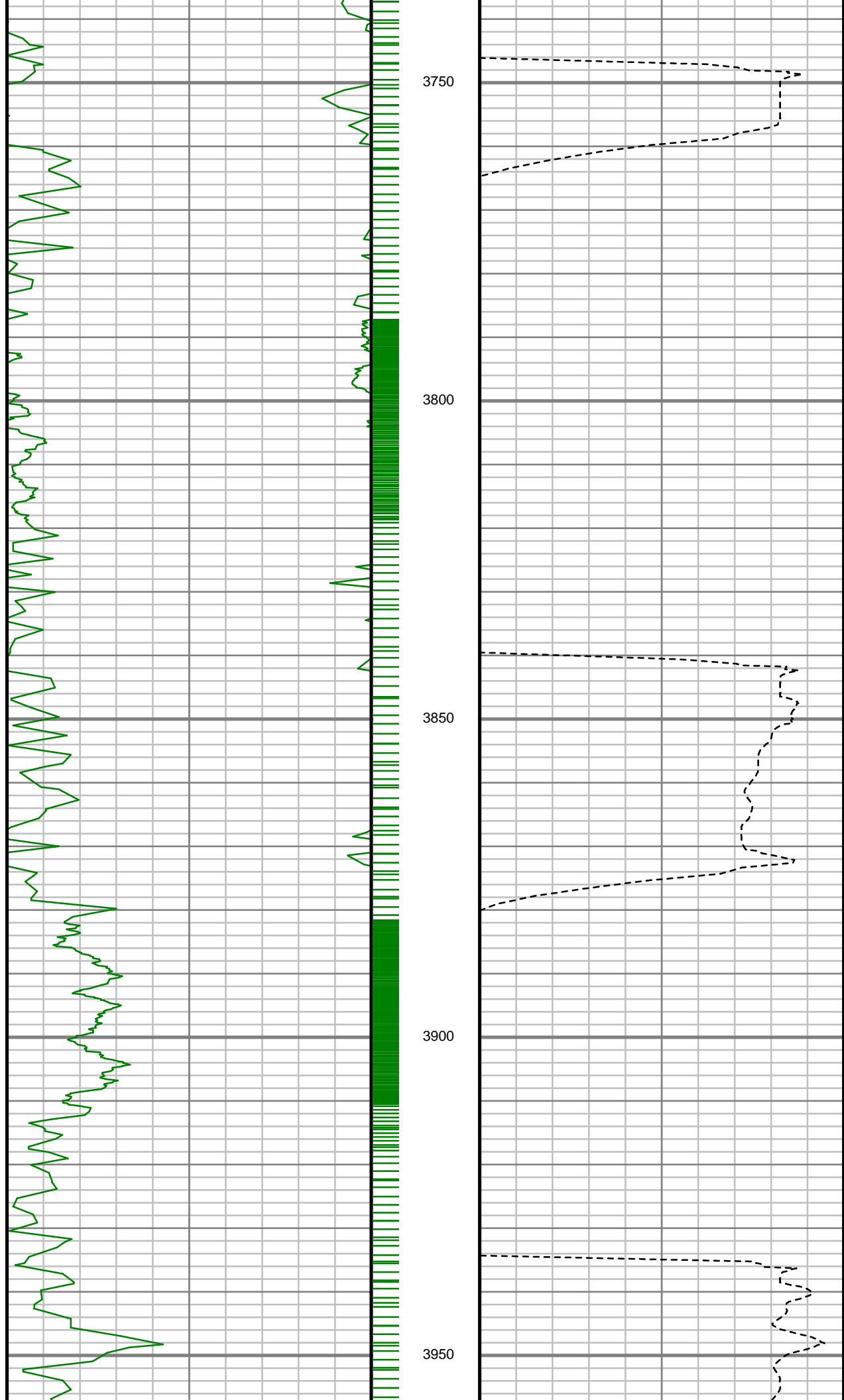
3050

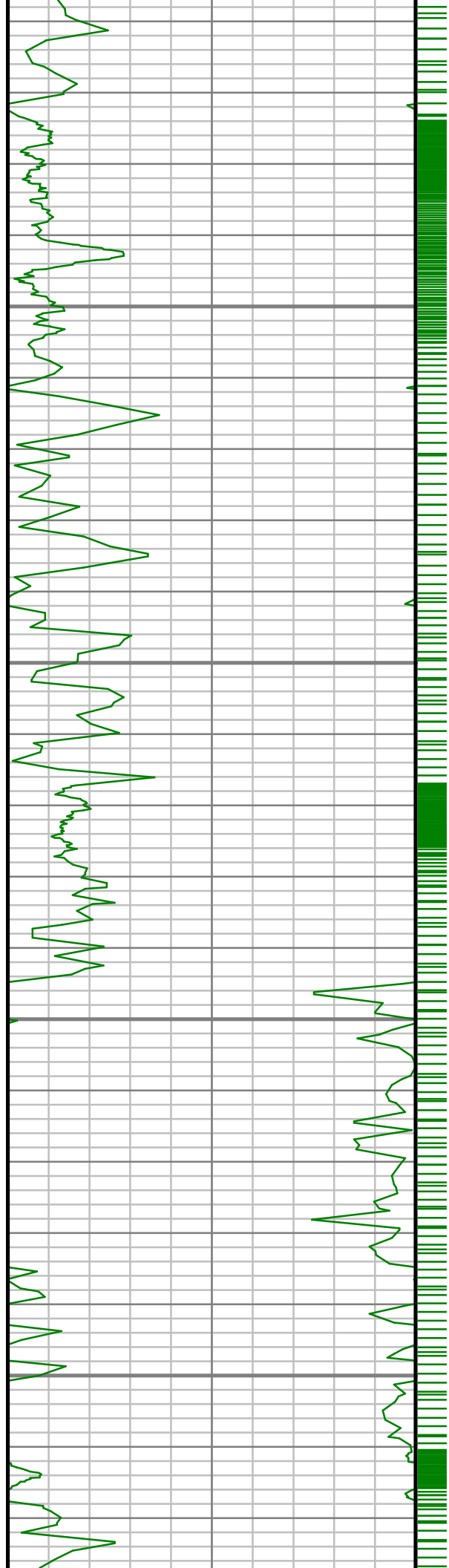










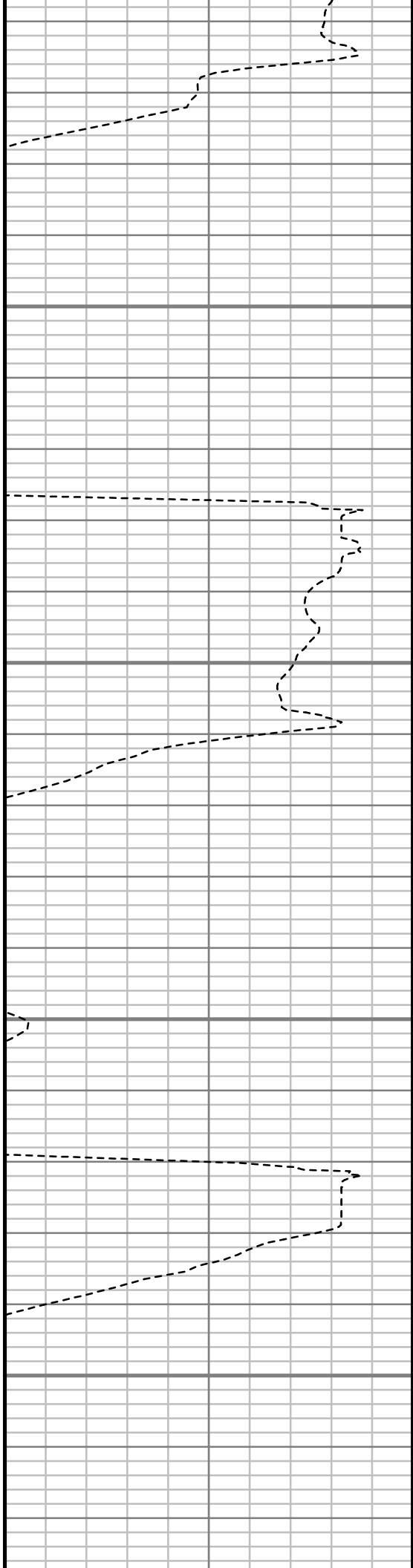


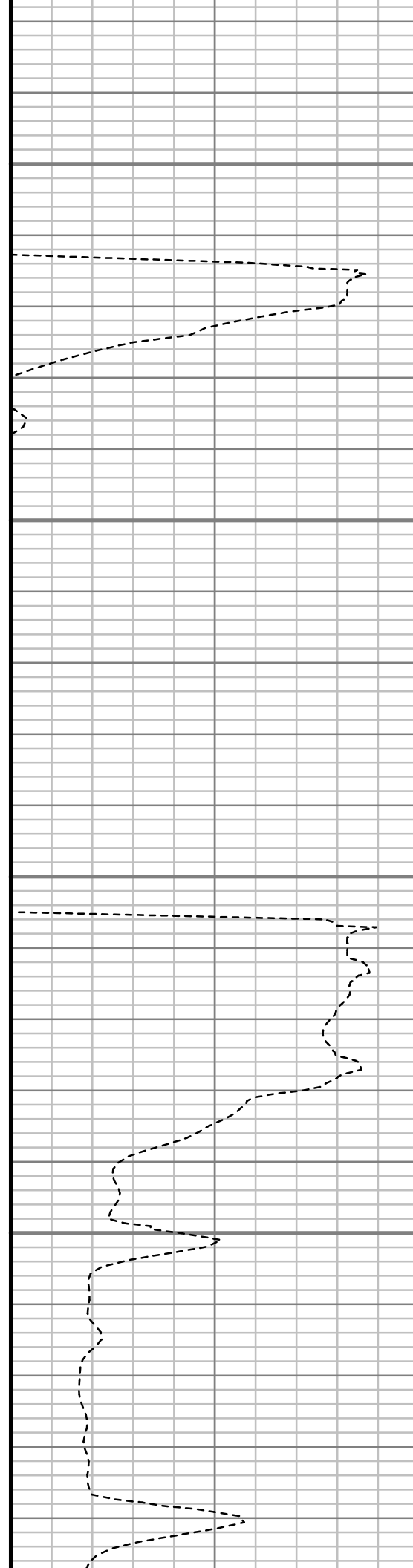
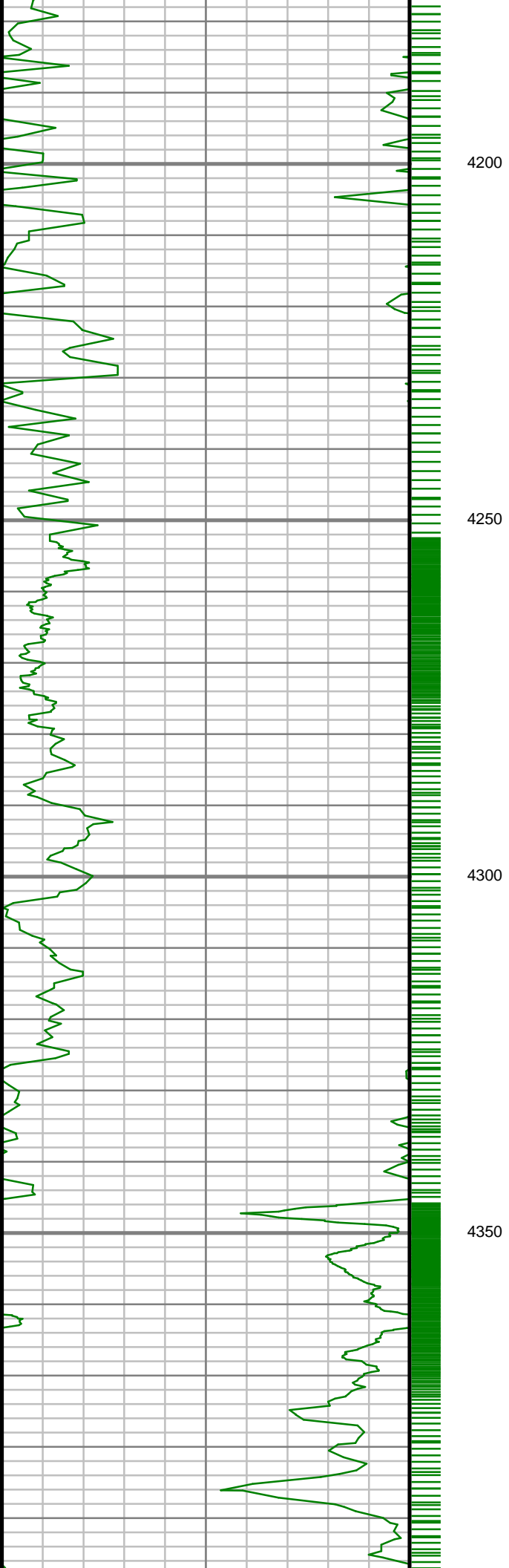
4000

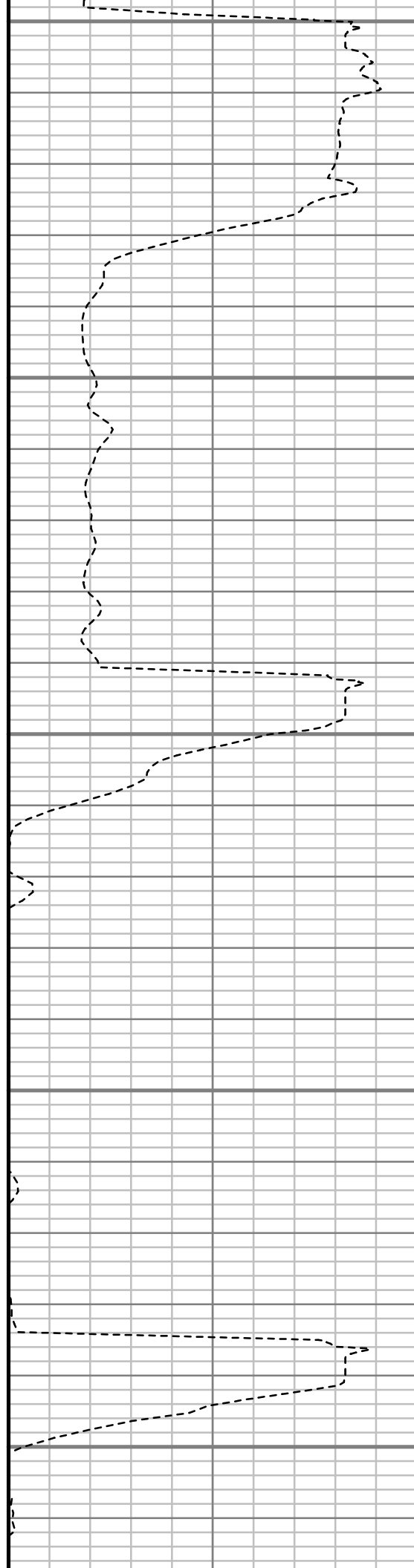
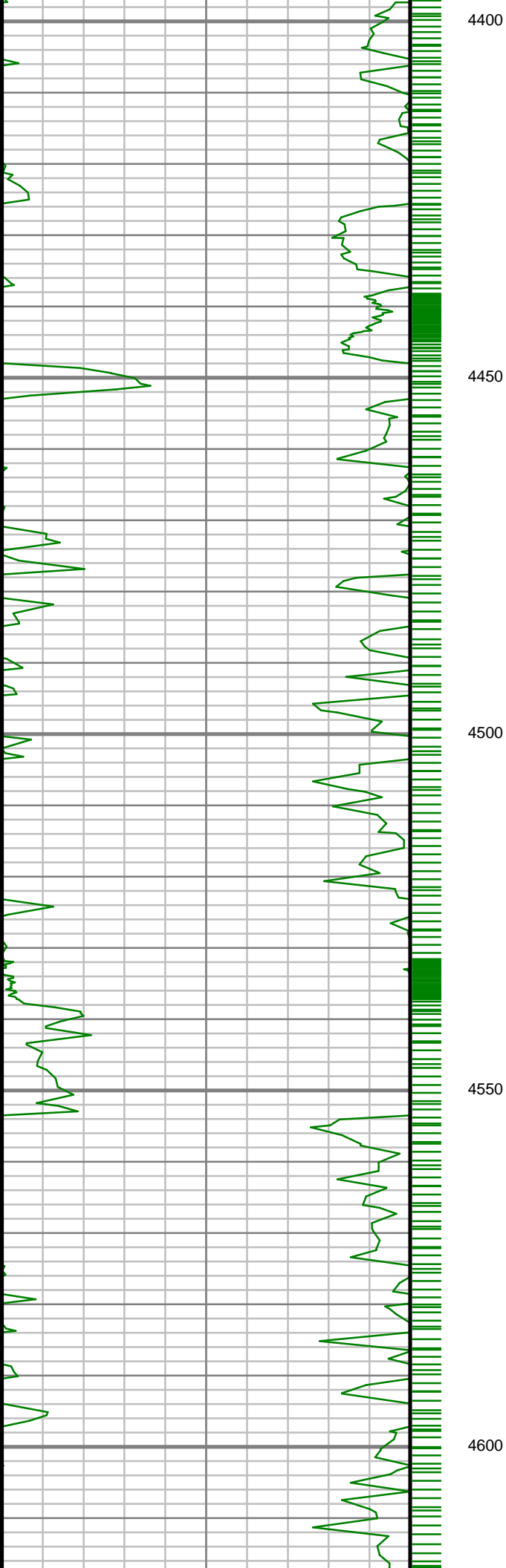
4050

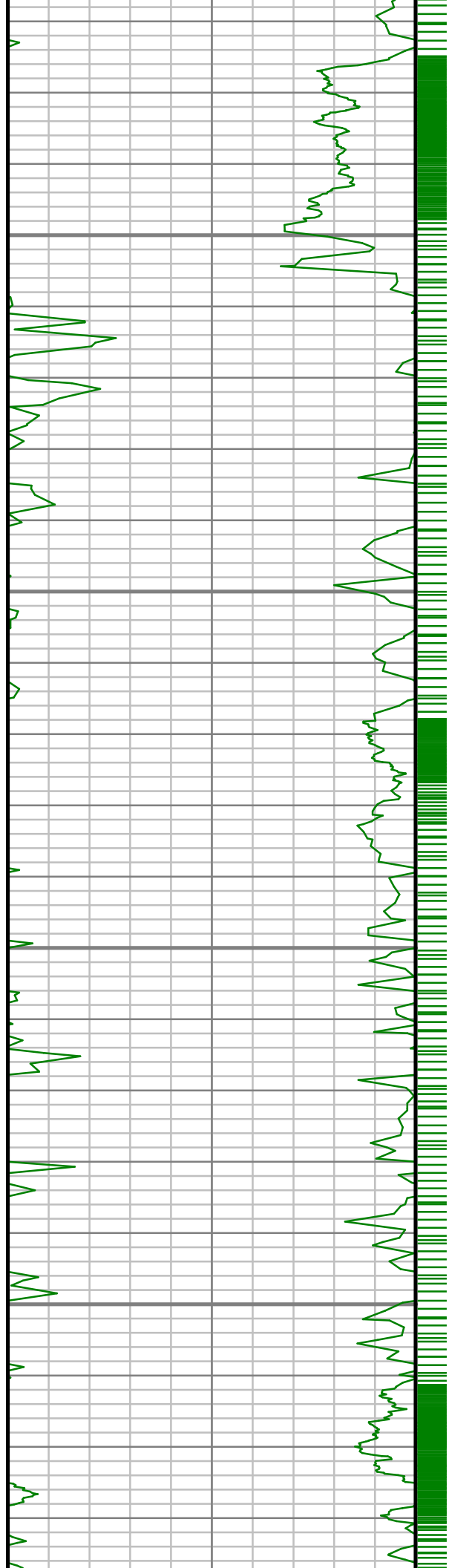
4100

4150







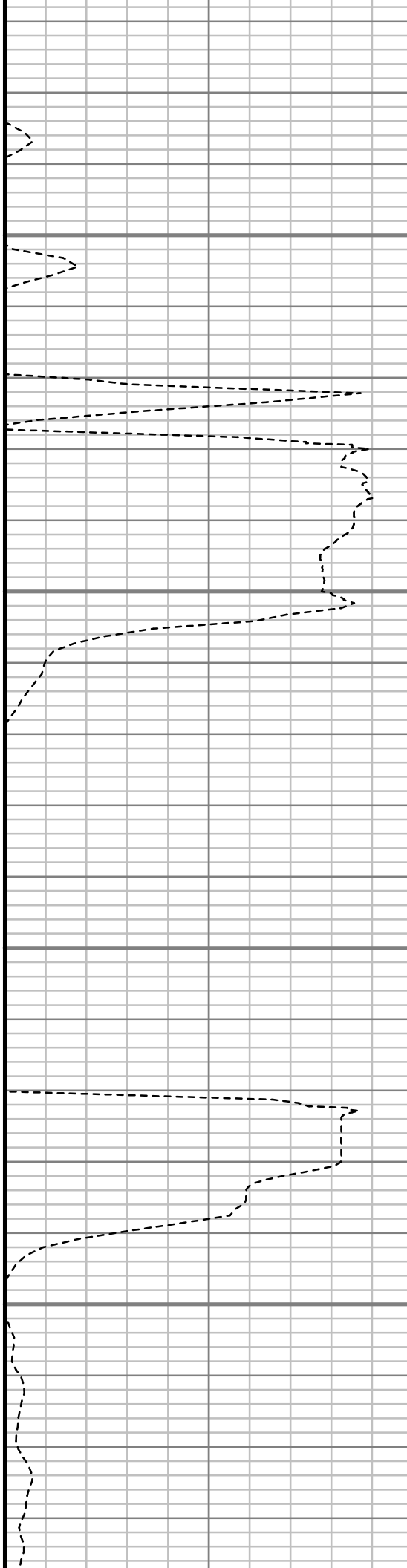


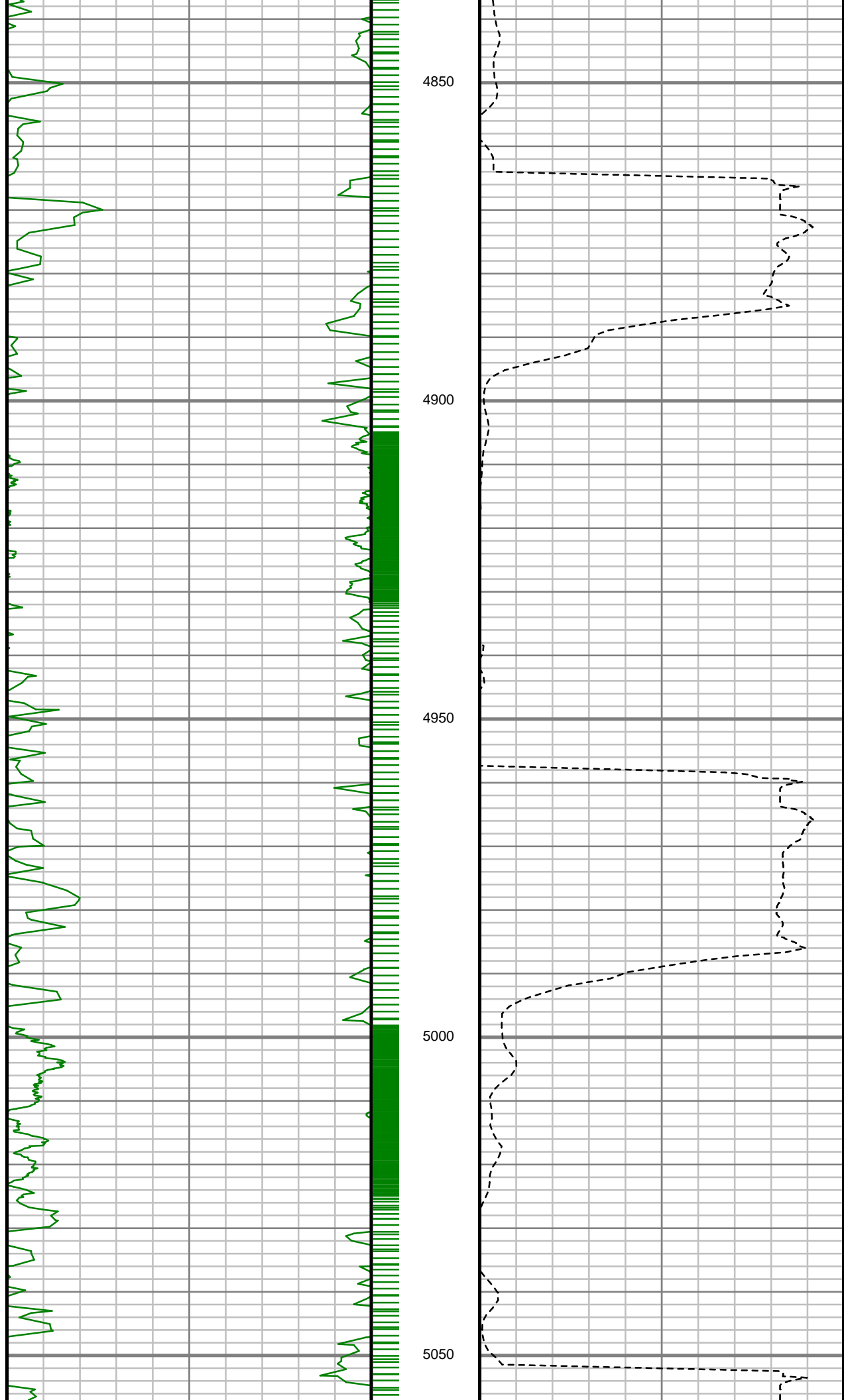
4650

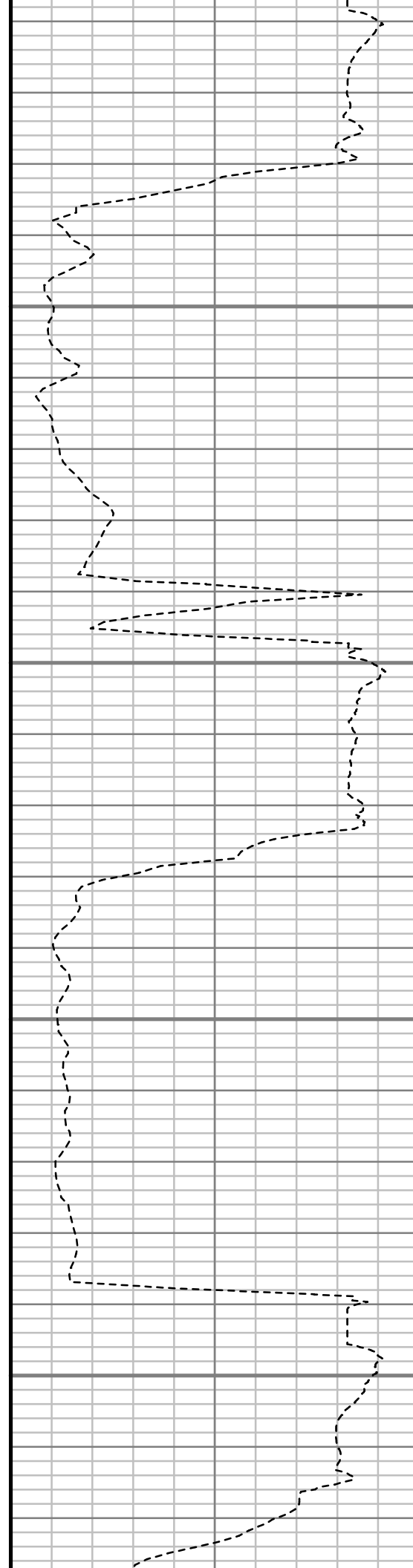
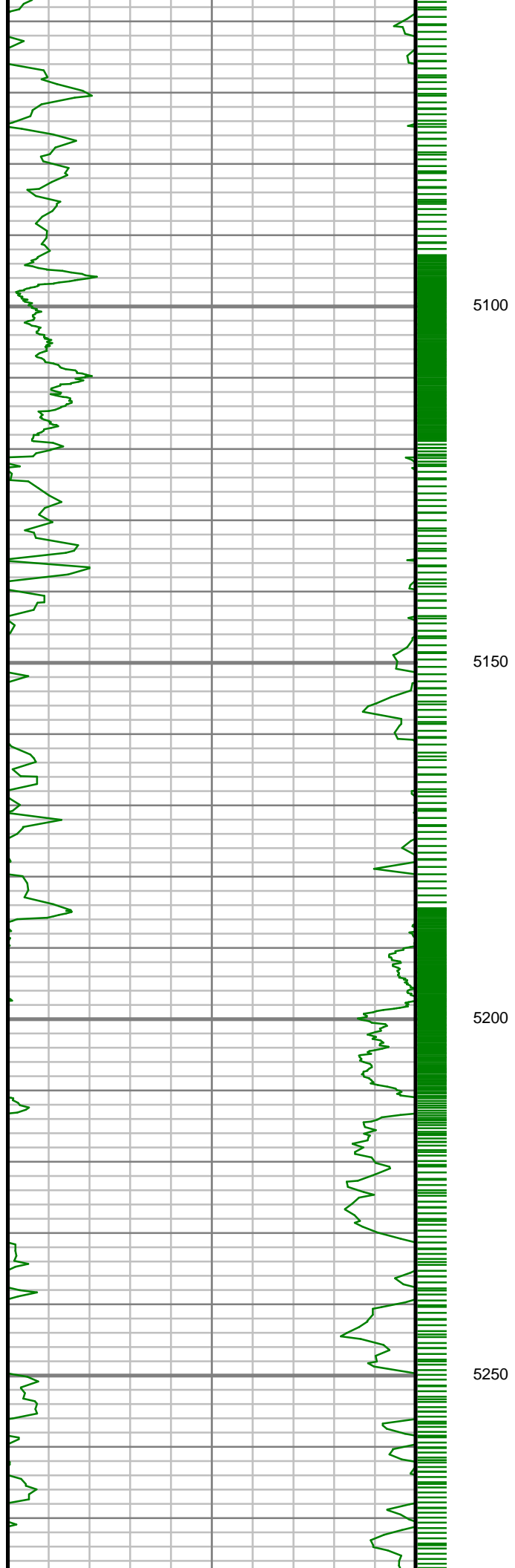
4700

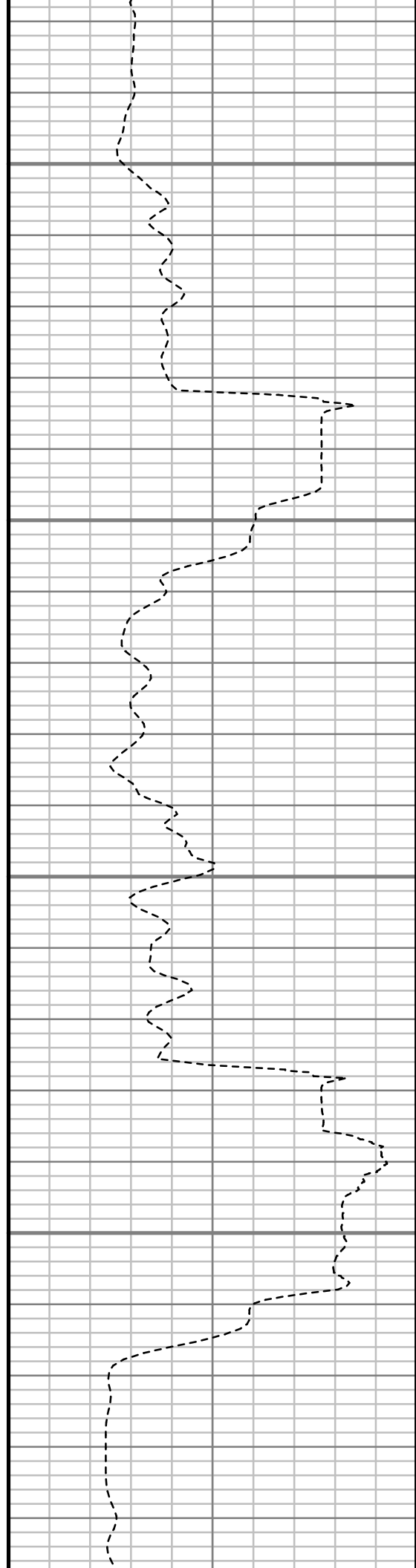
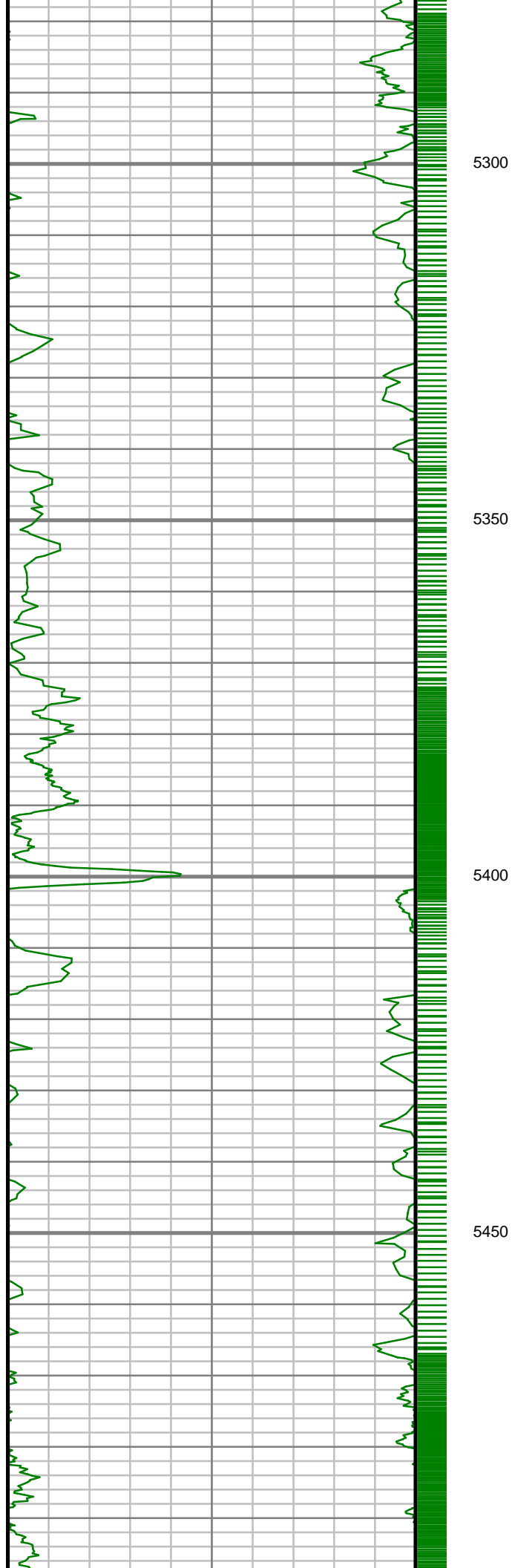
4750

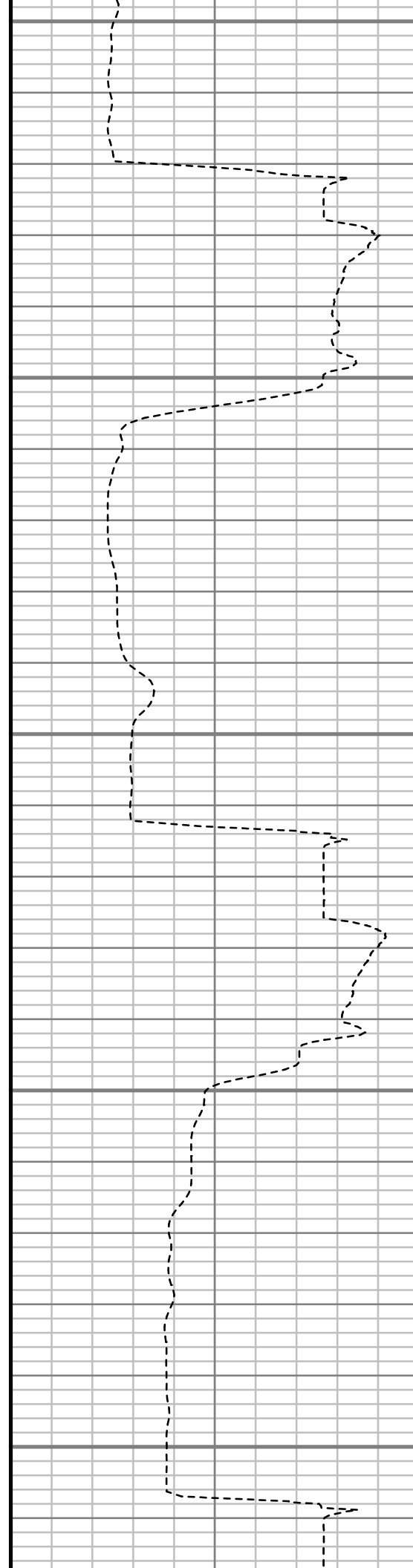
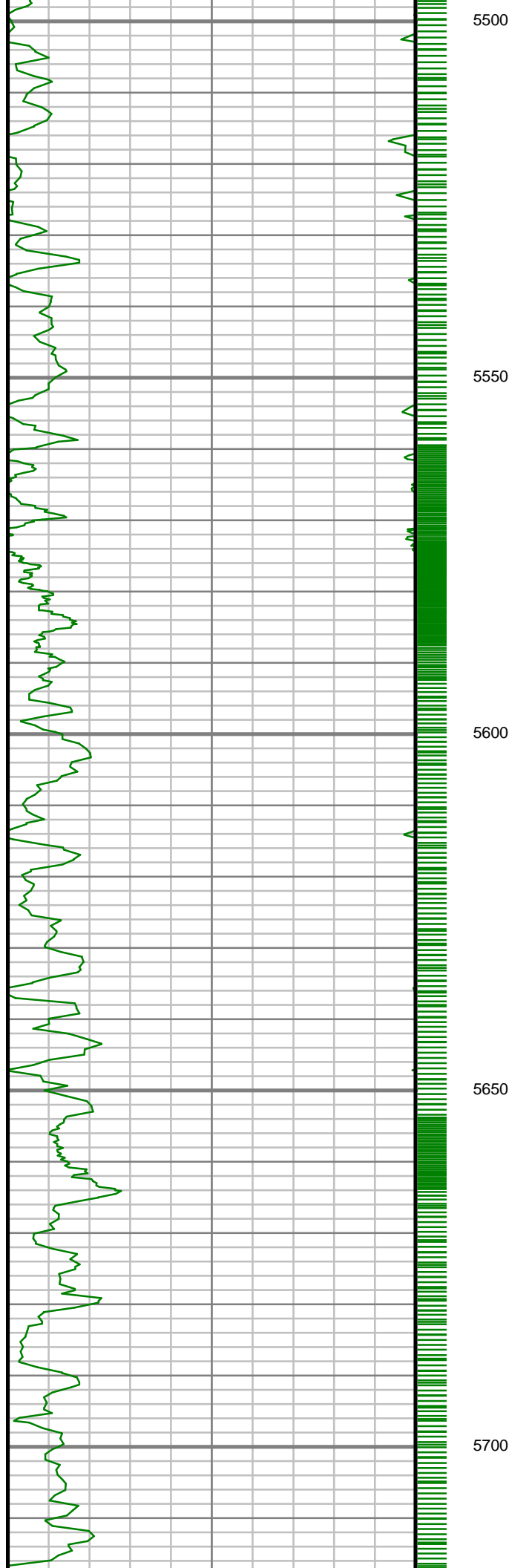
4800

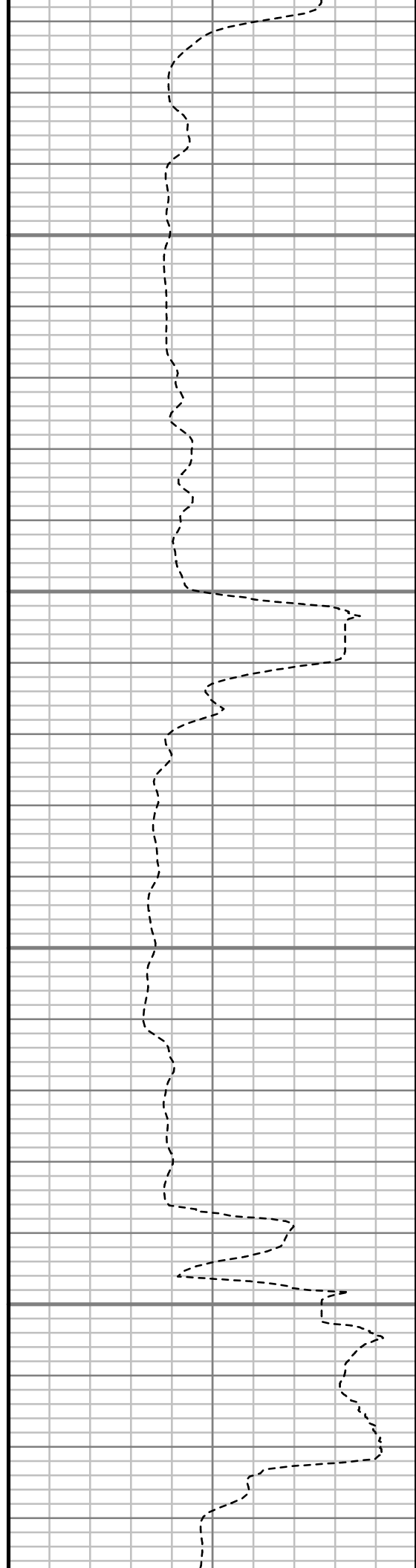
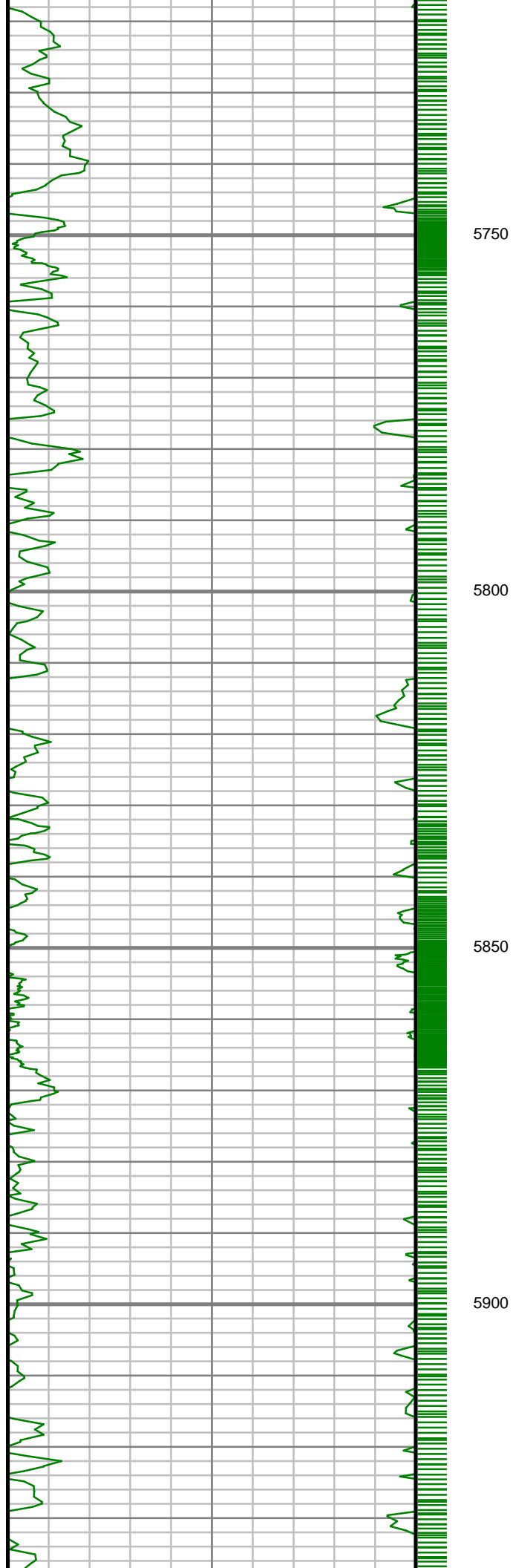


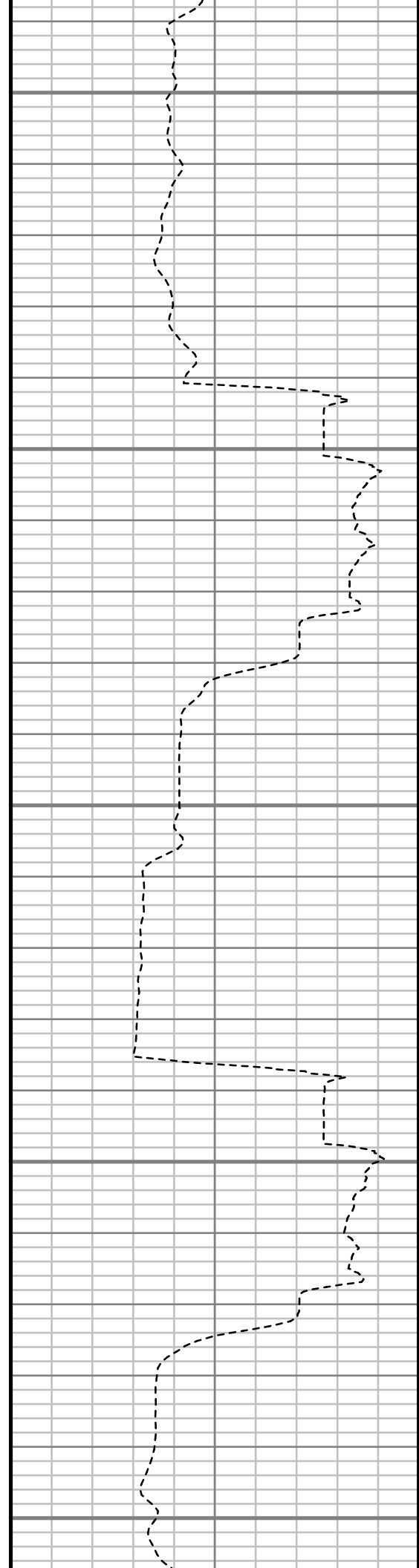
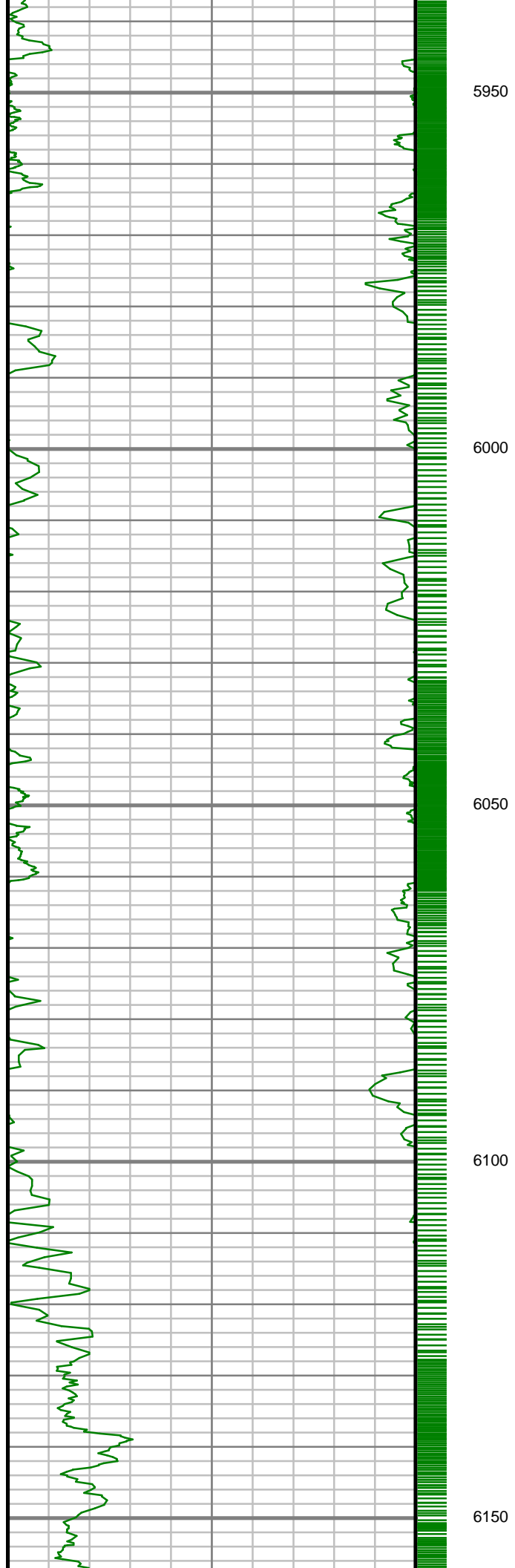


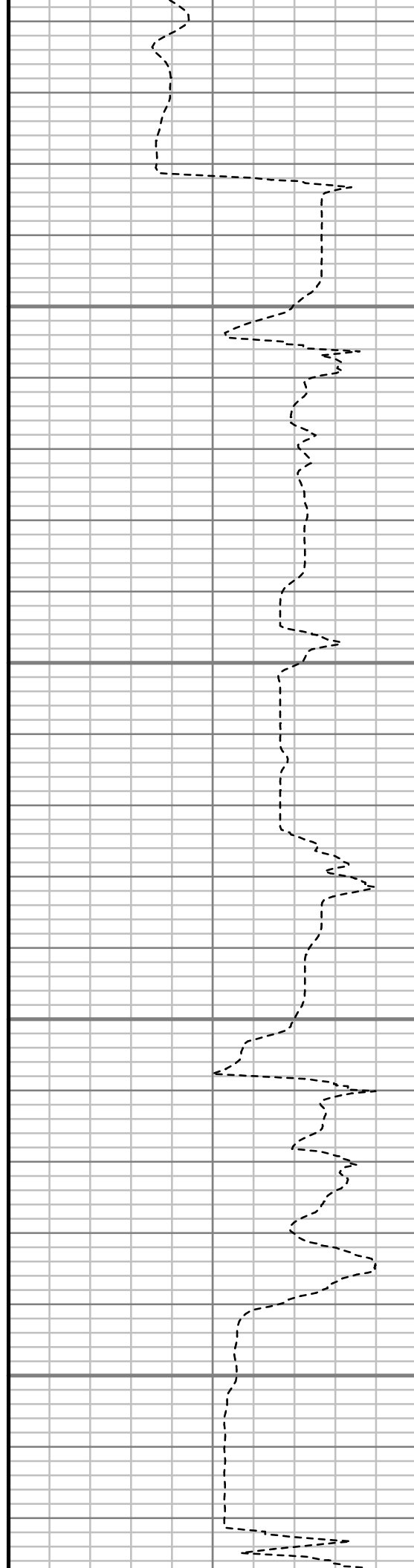
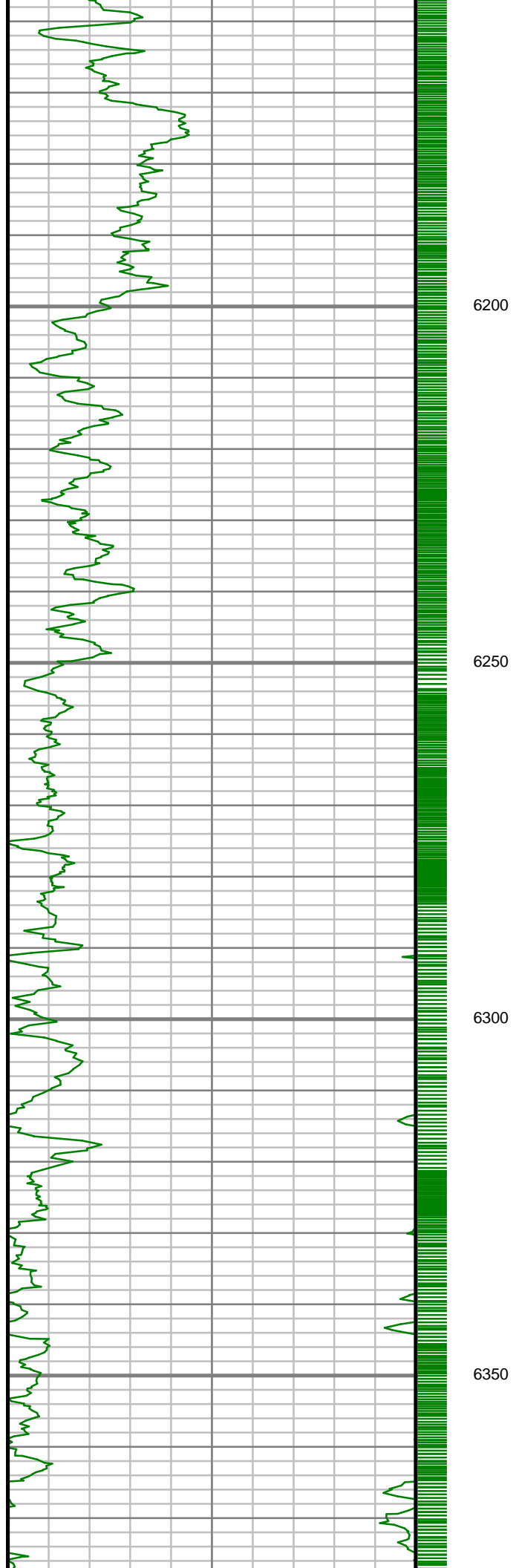


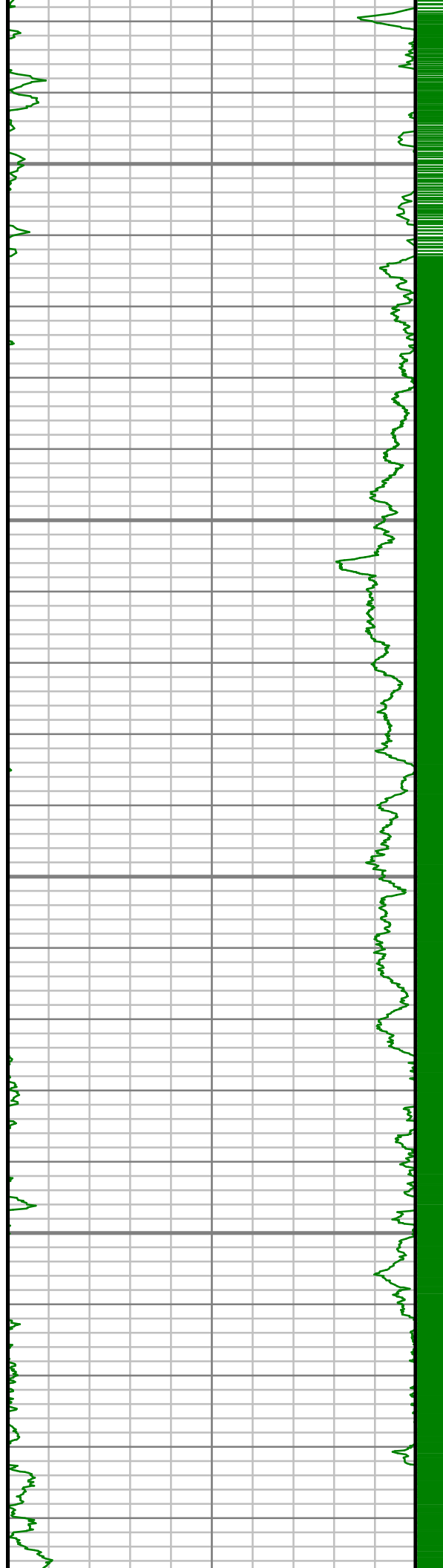










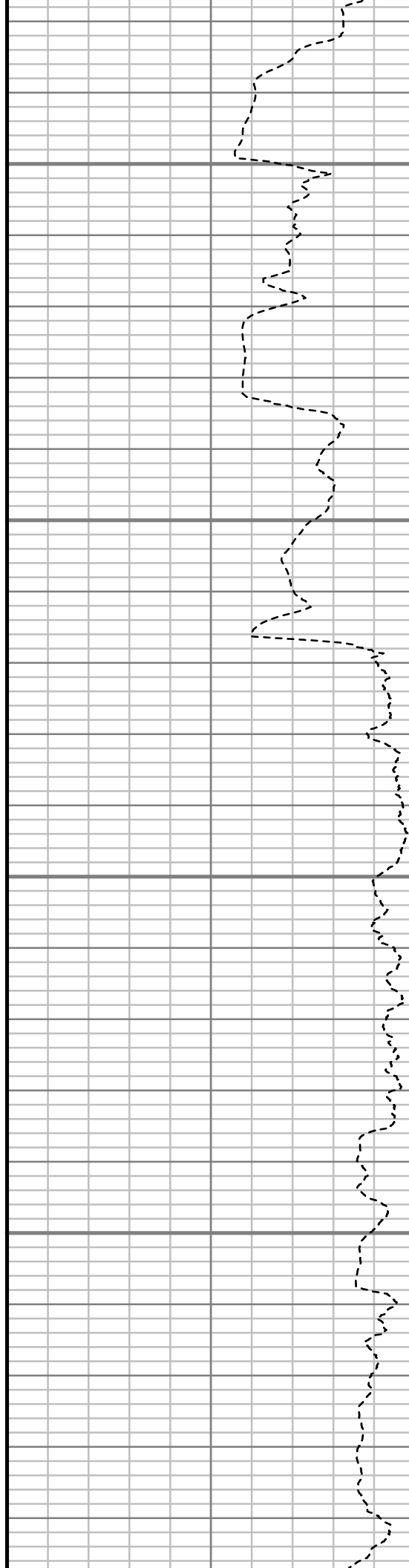


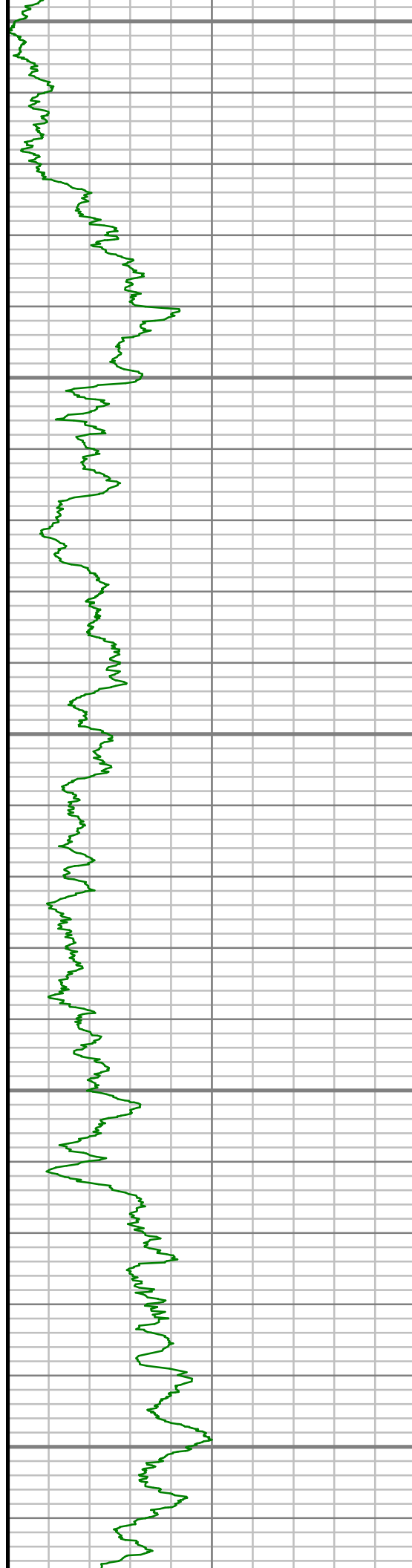
6400

6450

6500

6550





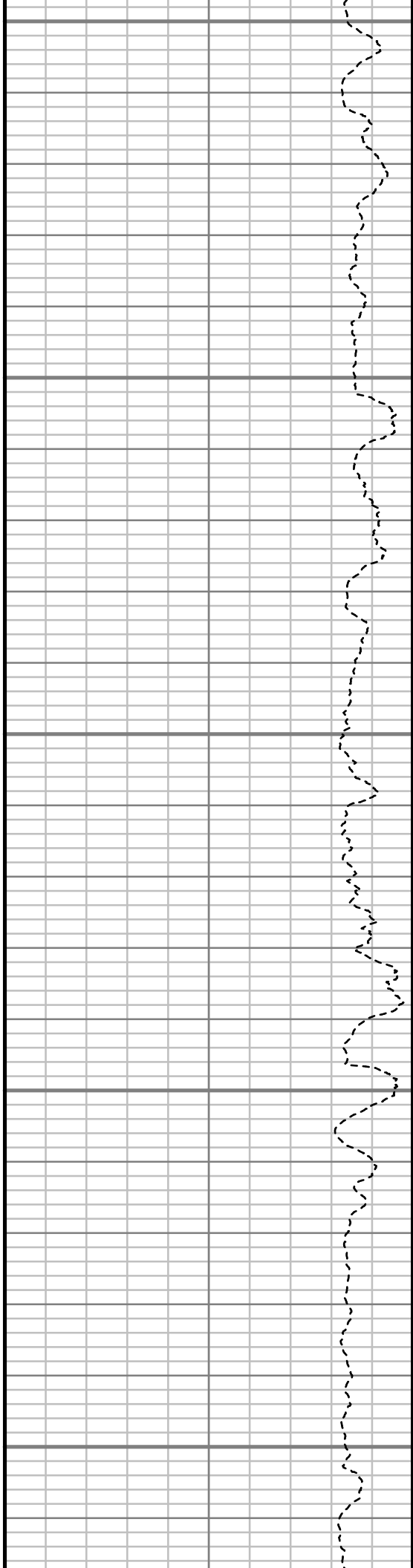
6600

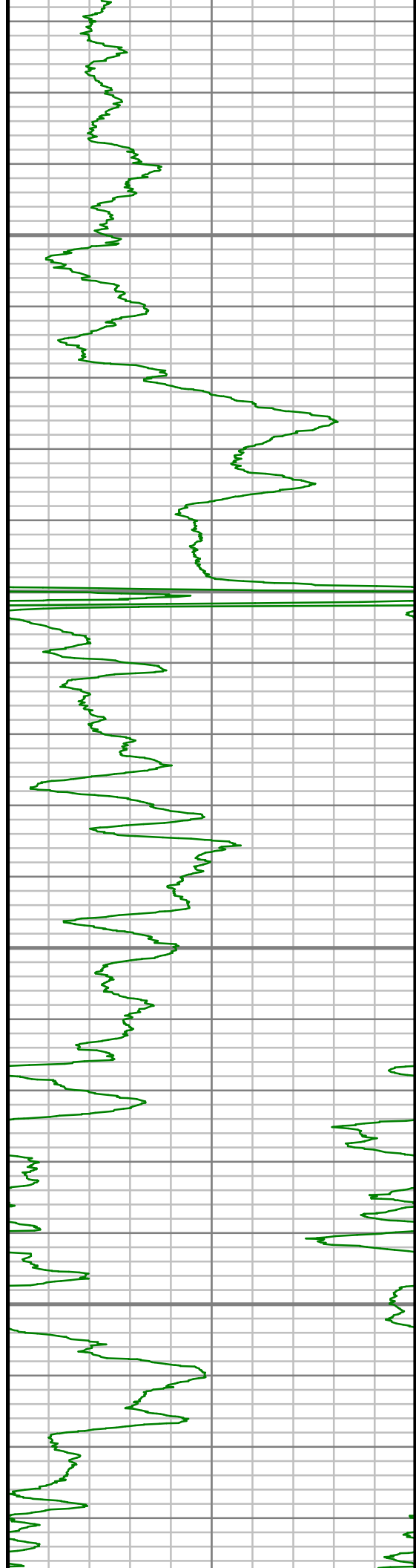
6650

6700

6750

6800



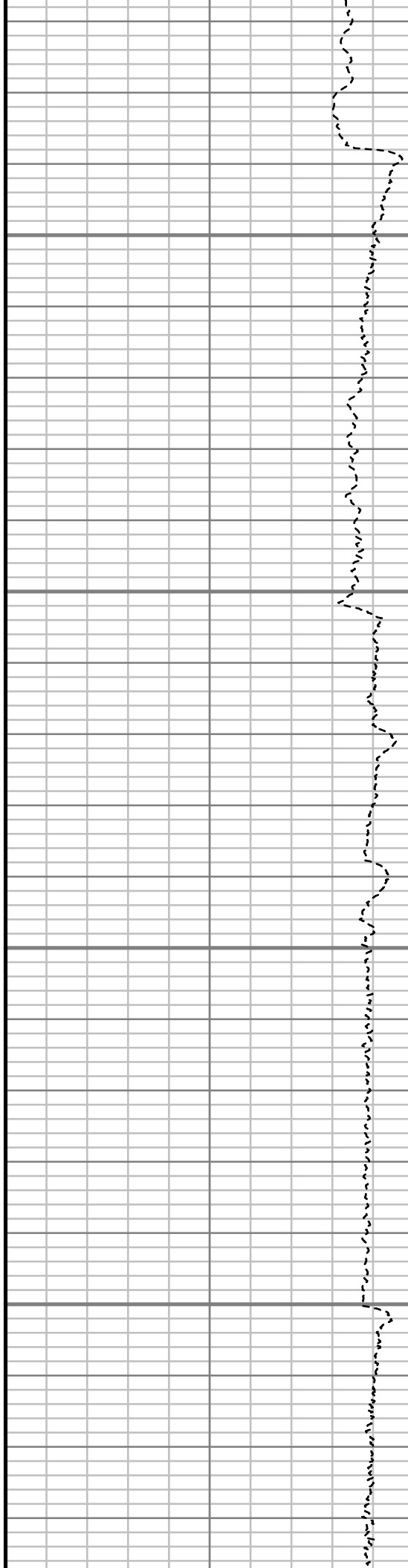


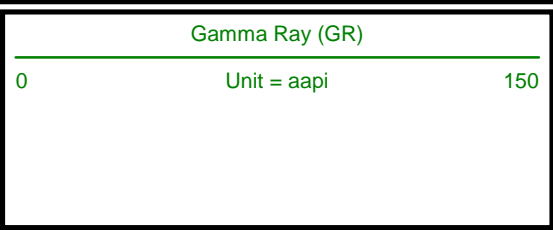
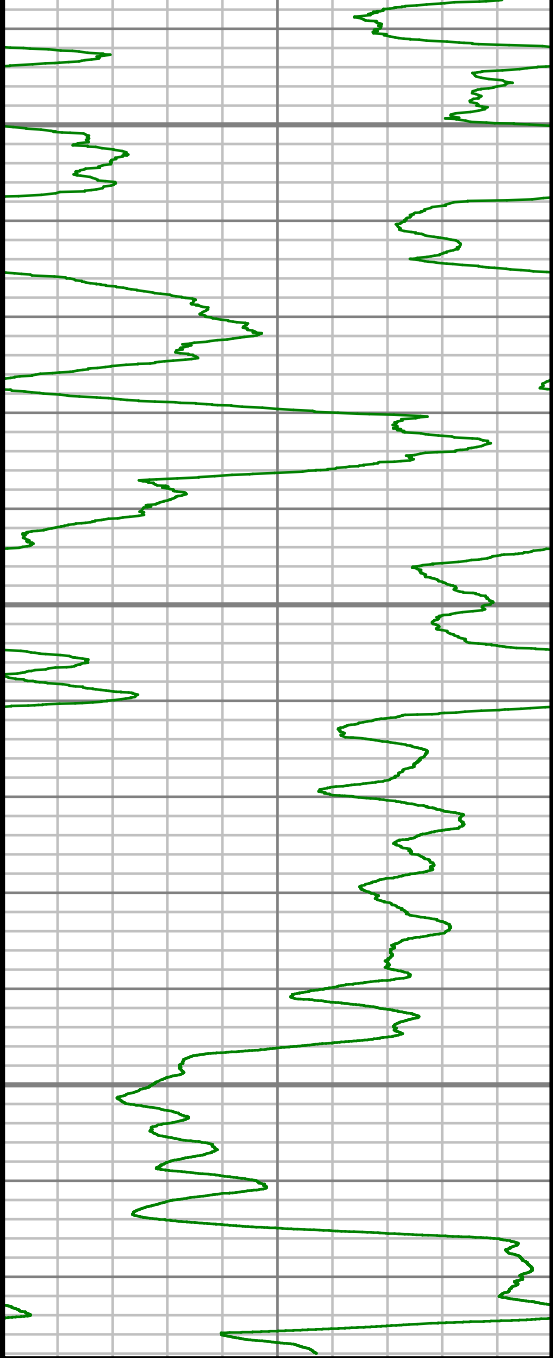
6850

6900

6950

7000



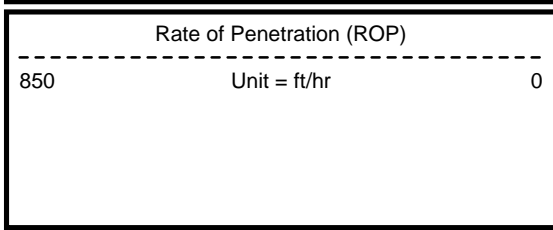
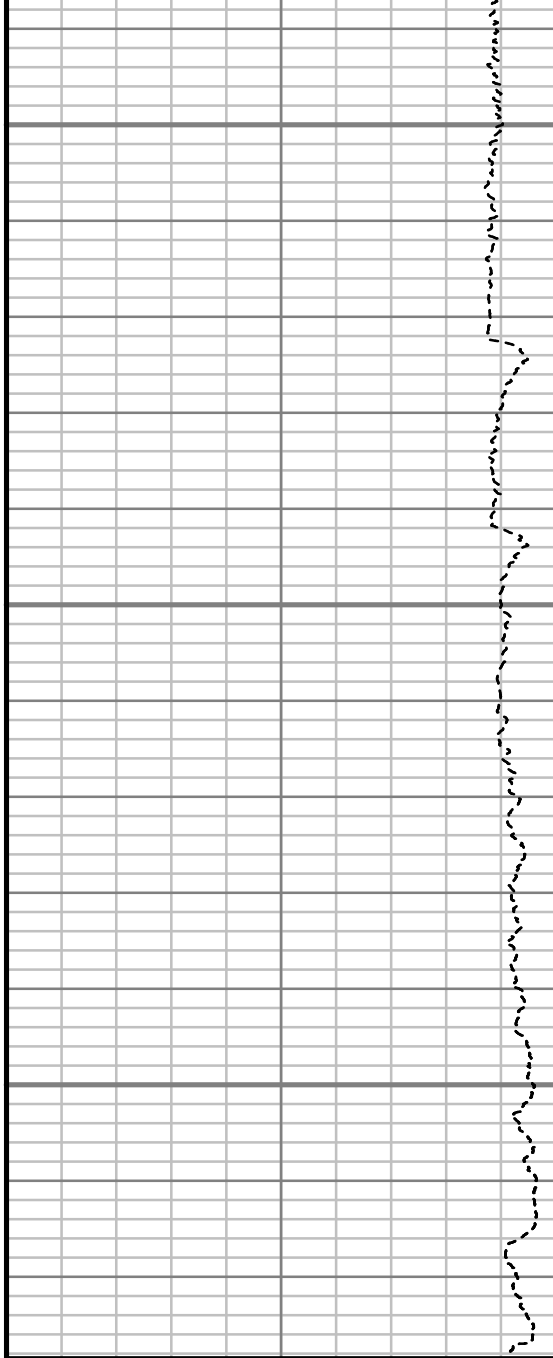


7050

7100

7150

TRUE VERTICAL DEPTH
1:240 (ft)



Comments



MWD Survey Report

Well Location	RUHL
Well Name	RUHL 1F-32H-B264
Survey Date	12/13/2014
Latitude	40°6'5.176"N
Longitude	104°34'24.823"W
Btotal	52511, 52514 nT
Dip	66.71 deg
Magnetic Declination	8.37 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), 180.00Azim (deg)
Operator(s)	C. WILSON, D. PADULA, 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
245.00	2.63	93.85	244.91	0.38	-0.38	5.61	5.62	93.85	1.07
336.00	3.21	83.75	335.80	0.24	-0.24	10.22	10.23	91.35	0.85
427.00	3.84	72.48	426.62	-0.95	0.95	15.66	15.69	86.52	1.03
519.00	5.02	68.79	518.35	-3.34	3.34	22.35	22.60	81.51	1.32
608.00	5.63	70.48	606.96	-6.20	6.20	30.09	30.72	78.35	0.70
698.00	6.16	73.42	696.49	-9.06	9.06	38.88	39.92	76.89	0.68
789.00	7.62	74.95	786.83	-12.02	12.02	49.38	50.82	76.32	1.61
879.00	7.35	77.73	876.06	-14.79	14.79	60.77	62.54	76.32	0.50
970.00	7.49	73.46	966.30	-17.71	17.71	72.14	74.28	76.20	0.63
1060.00	7.50	67.42	1055.53	-21.64	21.64	83.18	85.95	75.42	0.87
1162.00	7.33	64.36	1156.68	-27.01	27.01	95.20	98.95	74.16	0.42
1326.00	8.30	70.13	1319.16	-35.56	35.56	115.75	121.09	72.92	0.76
1510.00	8.99	72.46	1501.07	-44.40	44.40	141.95	148.73	72.63	0.42
1693.00	10.09	73.51	1681.54	-53.26	53.26	170.95	179.06	72.70	0.61
1873.00	10.37	70.07	1858.68	-63.26	63.26	201.29	211.00	72.55	0.37
2055.00	10.36	71.16	2037.71	-74.13	74.13	232.17	243.72	72.29	0.11
2236.00	9.99	70.72	2215.86	-84.57	84.57	262.39	275.68	72.14	0.21
2418.00	9.58	72.12	2395.22	-94.43	94.43	291.71	306.61	72.06	0.26

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
2599.00	10.07	76.21	2573.56	-102.83	102.83	321.42	337.47	72.26	0.47
2780.00	10.06	75.31	2751.77	-110.61	110.61	352.08	369.05	72.56	0.09
2969.00	11.22	71.45	2937.53	-120.64	120.64	385.47	403.91	72.62	0.72
3159.00	10.64	73.32	3124.08	-131.56	131.56	419.79	439.92	72.60	0.36
3348.00	9.70	78.11	3310.11	-139.84	139.84	452.09	473.23	72.81	0.67
3538.00	9.32	64.87	3497.52	-149.68	149.68	481.69	504.41	72.74	1.17
3727.00	10.31	76.40	3683.77	-160.15	160.15	511.98	536.44	72.63	1.16
3917.00	9.36	66.09	3870.99	-170.41	170.41	542.63	568.76	72.57	1.05
4106.00	11.03	72.64	4057.01	-182.04	182.04	573.95	602.13	72.40	1.08
4295.00	9.58	68.82	4242.96	-193.12	193.12	605.88	635.91	72.32	0.85
4484.00	11.40	71.97	4428.79	-204.58	204.58	638.31	670.29	72.23	1.01
4673.00	9.54	70.62	4614.64	-215.56	215.56	670.84	704.63	72.19	0.99
4863.00	10.05	61.93	4801.88	-228.58	228.58	700.32	736.68	71.92	0.82
5052.00	9.41	65.76	4988.16	-242.68	242.68	728.96	768.29	71.59	0.48
5242.00	9.28	74.71	5175.65	-253.10	253.10	757.90	799.05	71.53	0.77
5432.00	8.99	66.50	5363.25	-263.06	263.06	786.29	829.13	71.50	0.70
5621.00	8.64	70.87	5550.02	-273.60	273.60	813.25	858.04	71.41	0.40
5811.00	6.68	71.03	5738.31	-281.87	281.87	837.17	883.35	71.39	1.03

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
6000.00	3.90	72.40	5926.49	-287.38	287.38	853.69	900.76	71.39	1.47
6190.00	0.71	206.48	6116.36	-288.28	288.28	859.32	906.38	71.45	2.33
6379.00	0.76	125.03	6305.35	-286.50	286.50	859.82	906.30	71.57	0.51
6474.00	0.54	43.23	6400.34	-286.47	286.47	860.64	907.07	71.59	0.91
6569.00	0.58	27.05	6495.34	-287.22	287.22	861.17	907.80	71.56	0.17
6663.00	3.39	147.48	6589.29	-285.30	285.30	862.88	908.82	71.70	3.96
6758.00	8.79	159.19	6683.72	-276.13	276.13	866.97	909.89	72.33	5.80
6852.00	13.44	162.88	6775.93	-258.97	258.97	872.74	910.36	73.47	5.00
6947.00	21.41	166.88	6866.50	-231.49	231.49	879.94	909.88	75.26	8.48
7042.00	30.40	169.17	6951.87	-190.91	190.91	888.41	908.69	77.87	9.51
7136.00	39.21	170.57	7028.98	-138.13	138.13	897.77	908.33	81.25	9.41
7230.00	49.70	172.26	7095.98	-73.12	73.12	907.49	910.43	85.39	11.23
7273.00	58.05	172.36	7121.31	-38.73	38.73	912.13	912.96	87.57	19.43
7325.00	66.44	173.19	7145.51	6.88	-6.88	917.90	917.93	90.43	16.19
7372.00	74.62	176.31	7161.16	50.97	-50.97	921.92	923.33	93.16	18.49
7419.00	82.02	180.01	7170.68	96.93	-96.93	923.38	928.45	95.99	17.53
7449.00	85.32	180.89	7173.99	126.74	-126.74	923.14	931.80	97.82	11.41
7541.00	89.80	182.56	7177.90	218.59	-218.59	920.38	945.98	103.36	5.19

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
7635.00	90.40	183.15	7177.74	312.47	-312.47	915.70	967.54	108.84	0.89
7730.00	90.20	182.87	7177.24	407.34	-407.34	910.71	997.66	114.10	0.36
7825.00	89.83	183.07	7177.21	502.21	-502.21	905.79	1035.70	119.01	0.44
7920.00	91.71	183.12	7175.93	597.06	-597.06	900.65	1080.58	123.54	1.98
8014.00	91.17	183.12	7173.56	690.89	-690.89	895.54	1131.07	127.65	0.57
8109.00	92.08	183.41	7170.86	785.70	-785.70	890.13	1187.29	131.43	1.00
8204.00	91.55	183.16	7167.85	880.49	-880.49	884.69	1248.18	134.86	0.62
8299.00	90.74	182.88	7165.96	975.34	-975.34	879.69	1313.45	137.95	0.90
8393.00	90.70	183.00	7164.77	1069.21	-1069.21	874.86	1381.52	140.71	0.14
8488.00	90.30	182.60	7163.94	1164.09	-1164.09	870.22	1453.41	143.22	0.60
8582.00	90.74	181.71	7163.09	1258.02	-1258.02	866.68	1527.66	145.44	1.06
8676.00	90.97	181.19	7161.68	1351.98	-1351.98	864.31	1604.64	147.41	0.61
8771.00	89.60	179.78	7161.21	1446.97	-1446.97	863.50	1685.04	149.17	2.07
8866.00	90.07	179.57	7161.49	1541.97	-1541.97	864.04	1767.55	150.74	0.54
8960.00	89.56	179.65	7161.79	1635.97	-1635.97	864.67	1850.42	152.14	0.54
9055.00	90.64	180.33	7161.62	1730.97	-1730.97	864.69	1934.92	153.46	1.34
9150.00	90.10	180.66	7161.01	1825.96	-1825.96	863.87	2020.00	154.68	0.67
9245.00	91.34	180.94	7159.82	1920.94	-1920.94	862.54	2105.70	155.82	1.34

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	89.60	180.53	7159.05	2014.93	-2014.93	861.33	2191.31	156.85	1.91
9434.00	89.73	180.44	7159.60	2109.92	-2109.92	860.53	2278.66	157.81	0.17
9529.00	88.99	180.48	7160.66	2204.91	-2204.91	859.77	2366.61	158.70	0.78
9624.00	88.09	179.72	7163.08	2299.88	-2299.88	859.60	2455.27	159.51	1.24
9719.00	89.19	179.84	7165.34	2394.85	-2394.85	859.97	2544.57	160.25	1.17
9813.00	90.07	180.16	7165.94	2488.85	-2488.85	859.97	2633.23	160.94	0.99
9908.00	90.91	180.46	7165.14	2583.84	-2583.84	859.45	2723.03	161.60	0.94
10003.00	90.77	180.98	7163.74	2678.82	-2678.82	858.26	2812.95	162.24	0.57
10097.00	92.02	181.39	7161.46	2772.77	-2772.77	856.31	2901.99	162.84	1.40
10192.00	91.04	181.01	7158.92	2867.72	-2867.72	854.32	2992.27	163.41	1.10
10287.00	89.23	180.59	7158.70	2962.70	-2962.70	852.99	3083.05	163.94	1.96
10382.00	88.96	179.80	7160.20	3057.69	-3057.69	852.66	3174.35	164.42	0.88
10476.00	89.97	179.72	7161.08	3151.68	-3151.68	853.06	3265.09	164.85	1.08
10571.00	90.10	179.40	7161.03	3246.68	-3246.68	853.79	3357.07	165.27	0.37
10666.00	88.05	178.98	7162.56	3341.65	-3341.65	855.14	3449.33	165.65	2.20
10761.00	87.48	179.12	7166.26	3436.57	-3436.57	856.72	3541.75	166.00	0.62
10856.00	87.95	179.30	7170.05	3531.48	-3531.48	858.02	3634.22	166.34	0.53
10951.00	88.99	179.44	7172.59	3626.44	-3626.44	859.07	3726.80	166.67	1.11

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Distance	Closure Direction	DLS
ft	deg	deg	ft	ft	ft	ft	ft	deg	°/100ft
11045.00	90.84	178.77	7172.72	3720.43	-3720.43	860.54	3818.65	166.98	2.09
11140.00	92.48	179.18	7169.97	3815.37	-3815.37	862.24	3911.58	167.27	1.79
11235.00	91.31	179.06	7166.83	3910.30	-3910.30	863.70	4004.55	167.54	1.24
11330.00	89.90	178.77	7165.83	4005.28	-4005.28	865.50	4097.72	167.81	1.51
11424.00	91.21	179.26	7164.92	4099.26	-4099.26	867.11	4189.96	168.06	1.49
11519.00	89.87	178.90	7164.03	4194.24	-4194.24	868.63	4283.24	168.30	1.47
11614.00	88.12	178.79	7165.70	4289.20	-4289.20	870.55	4376.65	168.53	1.84
11709.00	88.45	178.18	7168.53	4384.12	-4384.12	873.06	4470.21	168.74	0.74
11770.00	88.49	177.55	7170.16	4445.06	-4445.06	875.33	4530.43	168.86	1.03

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

5" = 100' FEET TVD