



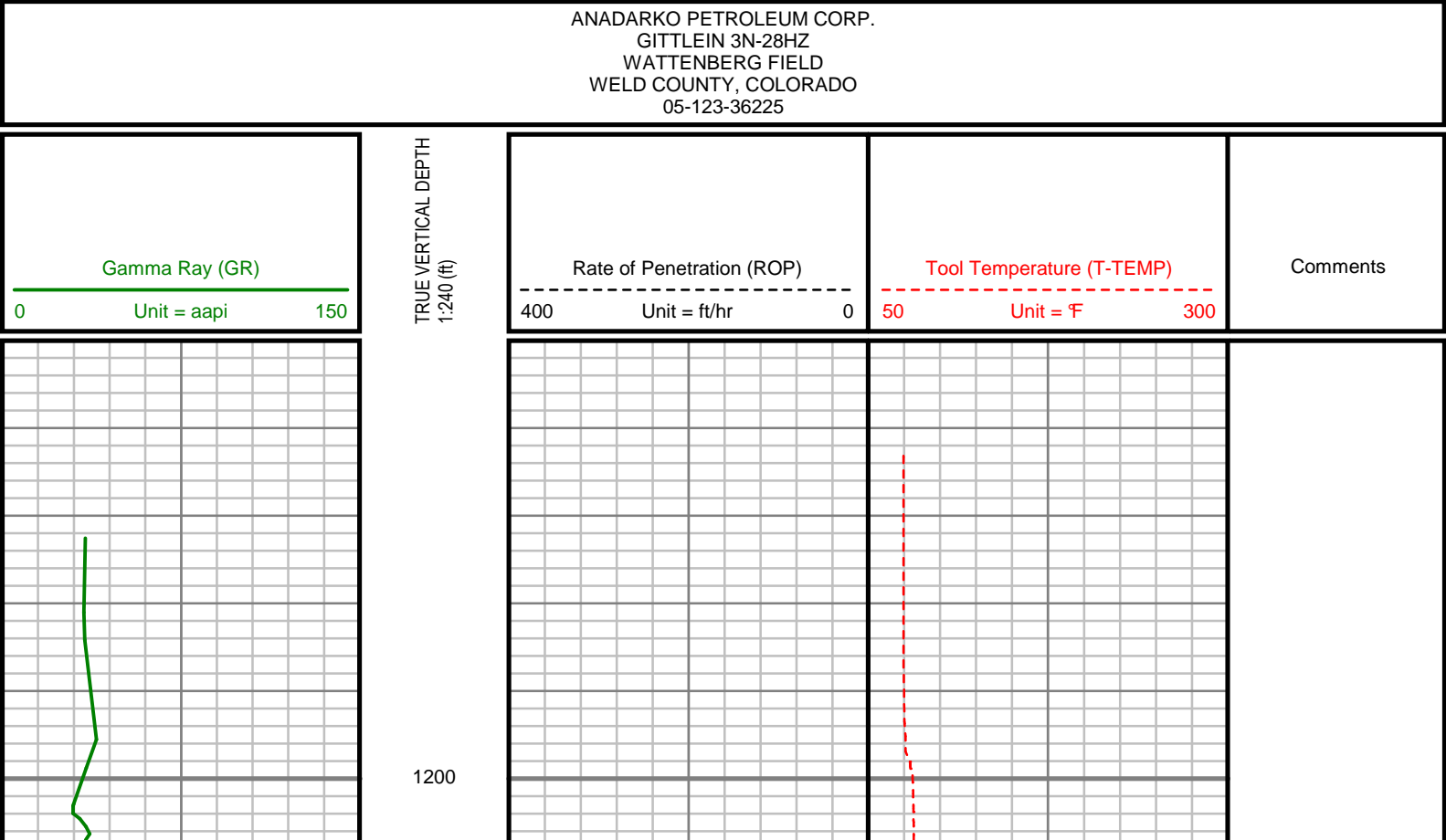
GAMMA RAY

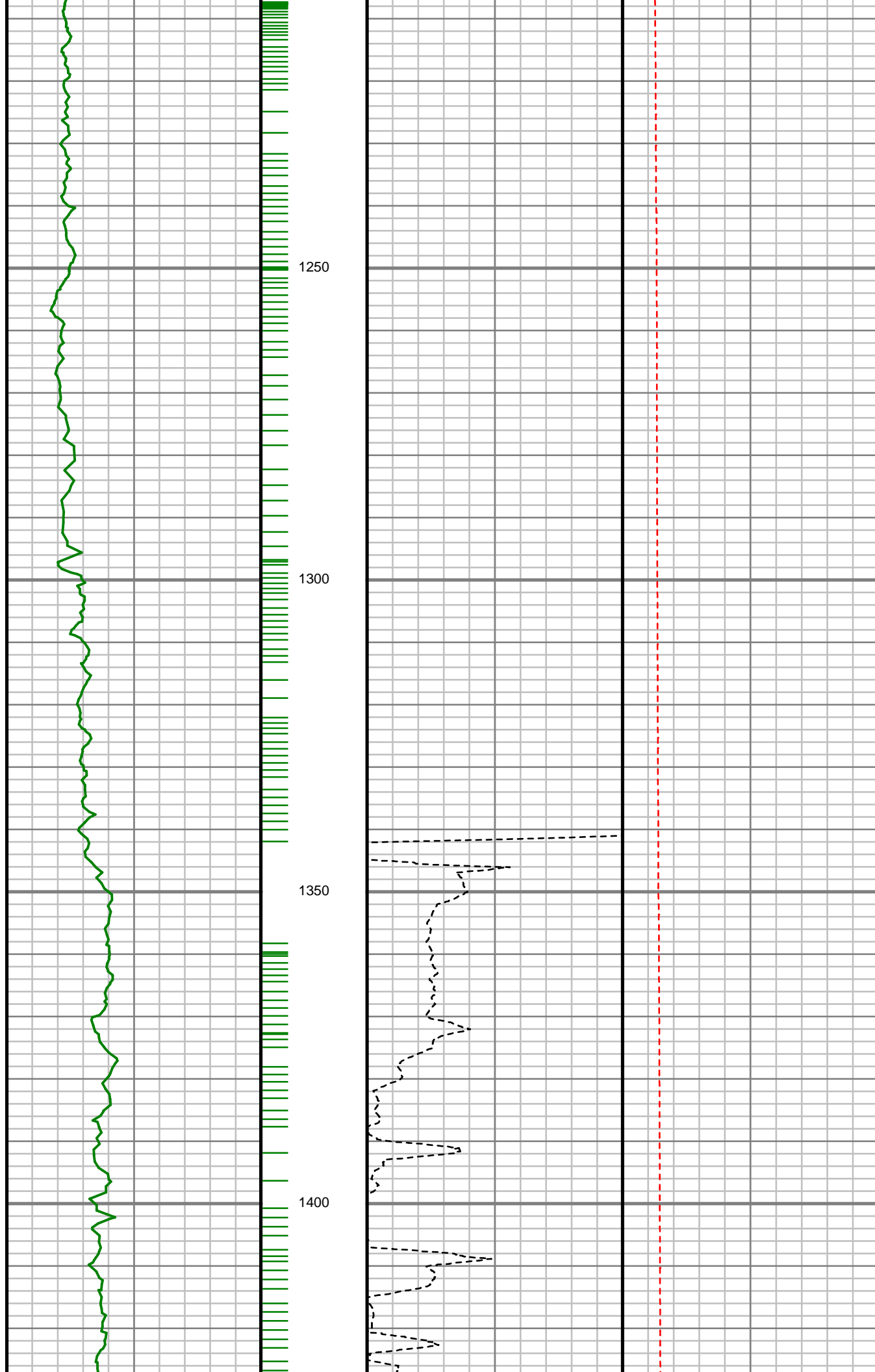
5" = 100' FEET TVD

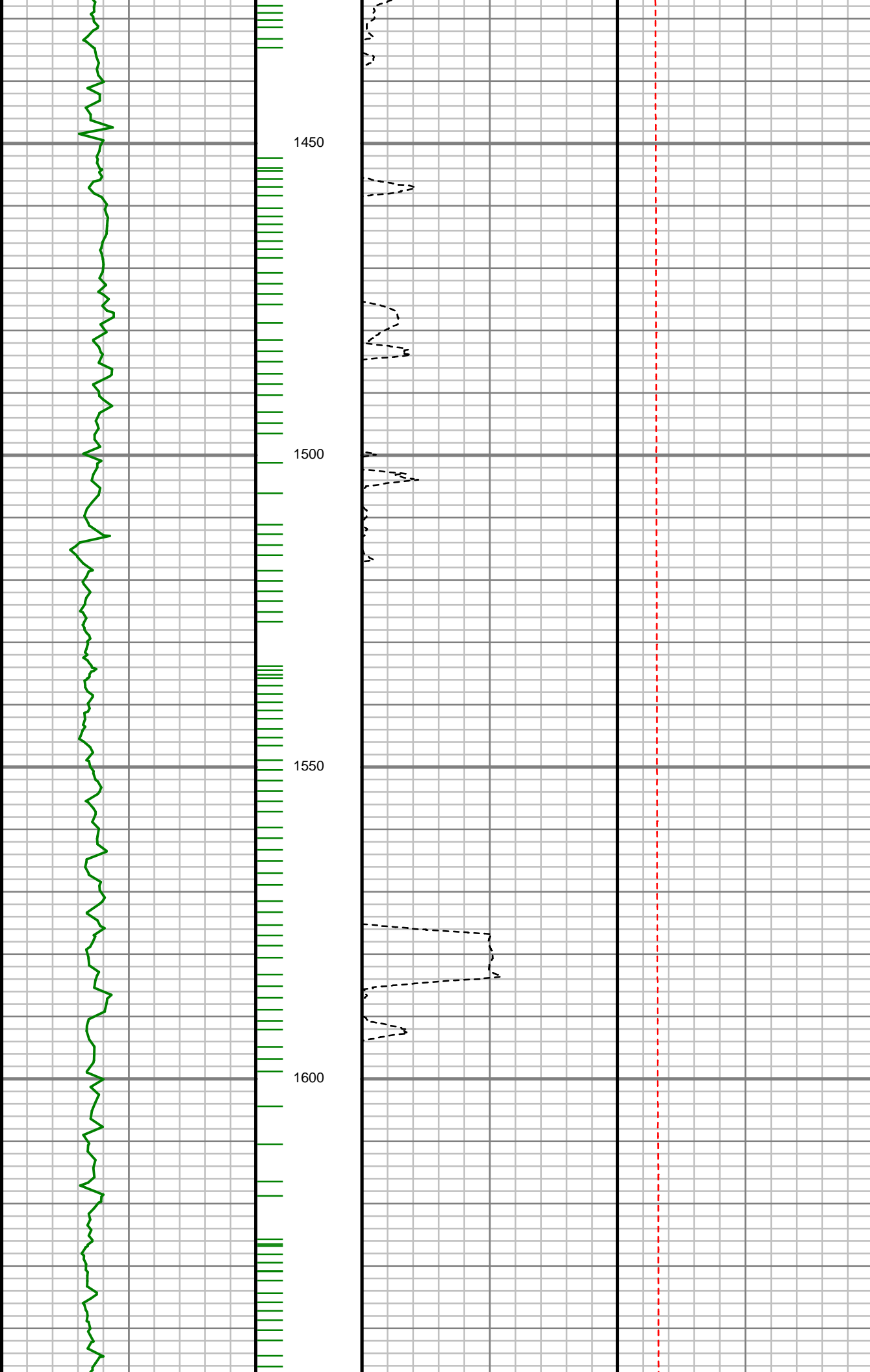
COMPANY : ANADARKO PETROLEUM CORP.							
WELL : GITTLEIN 3N-28HZ							
FIELD : WATTENBERG							
COUNTY : WELD							
STATE : COLORADO							
COUNTRY : U.S.A.							
UWI : 05-123-36225							
DEPTH REF. : RKB REF. HEIGHT : 25.000 ft GROUND LEVEL : 4911.000 ft				RKB to Ground Level G.L. to MEAN SEA LEVEL			
				DIRECTIONAL ROP			
SEC:33 TWP:2N RANGE:65W				OTHER SERVICES			
WELL LOCATION LAT:40°5'18.380"N LONG:104°40'14.614"W N:1276147.90 ft E:3223019.43 ft							
BOREHOLE RECORD							
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft		
12.25	0	1341	0 - 10	0	6455		
8.75	1341	7250	10 - 90	6455	7250		
6.125	7250	14210	90 - 91	7250	14210		
CASING RECORD							
CASING SIZE in	FROM ft	TO ft					
9.625	0	1282					
7	0	7191					
DRILLING CO.: H & P RTG: 311 LMD UNIT NO.: C-46 DISTRICT: CASPER SPUD DATE: 09/01/2013 LMD START DATE: 10/12/2013 DEPTH: 1341 ft LMD END DATE: 10/19/2013 DEPTH: 14210 ft TOTAL DEPTH: 14210 ft							

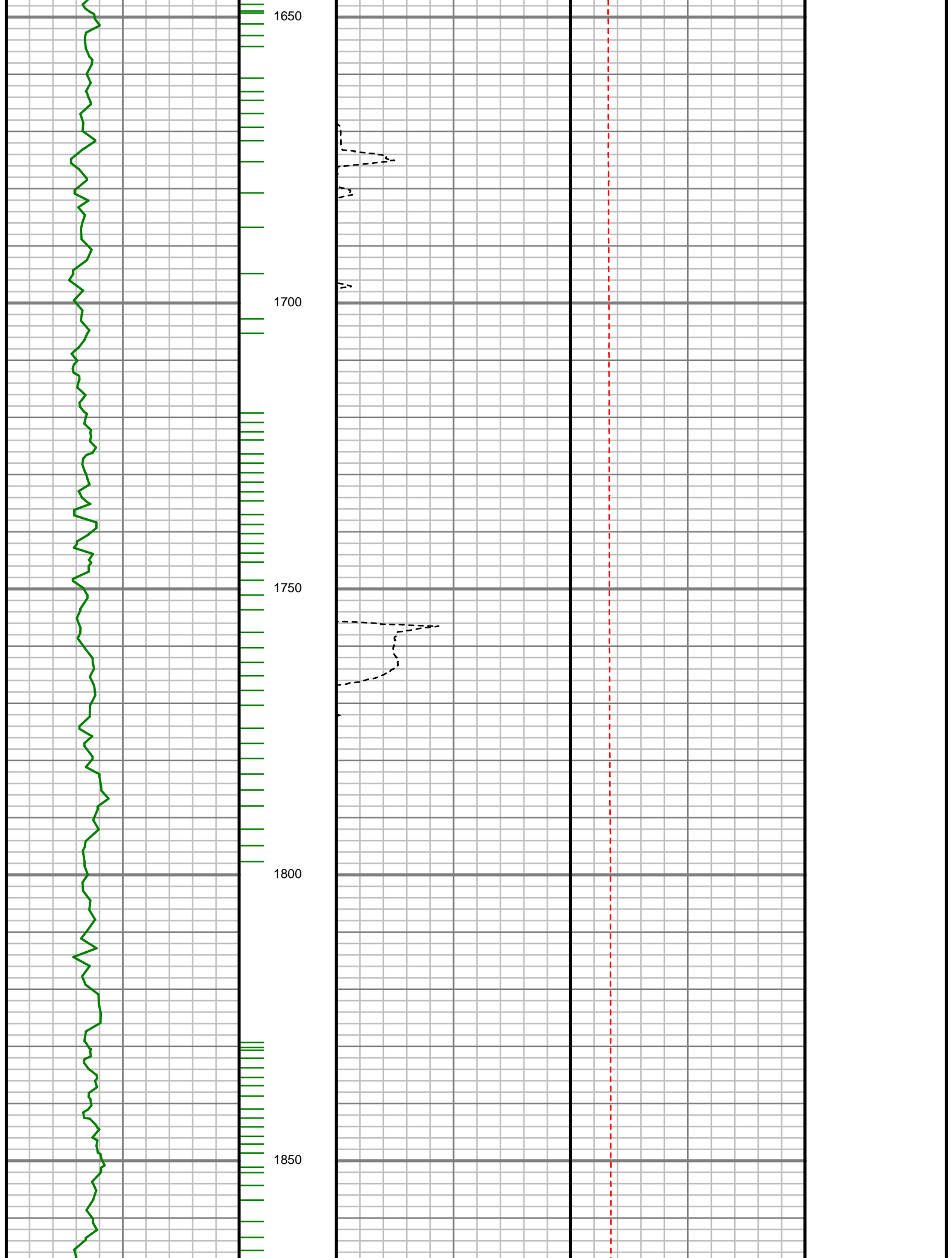
Remarks
ANADARKO PETROLEUM CORP. PRODUCTION AFE# 2075258
SCIENTIFIC DRILLING INTERNATIONAL JOB# 68619
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO TOOL TEMPERATURE CURVE
RUN #1: MWD / GAMMA RAY LOGGIN RUN
SENSORS S/N: PULSER = 128-185 / CONT = 397 / MWD EYE = 0259 / GAMMA RAY = 180
BIT TO SENSOR OFFSETS: SURVEY = 56.83 FT. / GAMMA RAY = 47.43 FT.
RUN #2: MWD / GAMMA RAY LOGGIN RUN
SENSORS S/N: PULSER = 78-077 / CONT = 807 / MWD EYE = 0206 / GAMMA RAY = 232
BIT TO SENSOR OFFSETS: SURVEY = 68.15 FT. / GAMMA RAY = 58.90 FT.
SURVEY WELL NOTES:
SURVEYS FROM 0.0 FT. TO 1341 FT. WERE ACQUIRED BY MS GYRO MWD
SURVEYS FROM 1341 FT. TO 14140 FT. WERE ACQUIRED BY SCIENTIFIC DRILLING INTERNATIONAL MWD
MNEMONICS LIST:
GR = GAMMA RAY
ROP = RATE OF PENETRATION
T-TEMP = TOOL TEMPERATURE

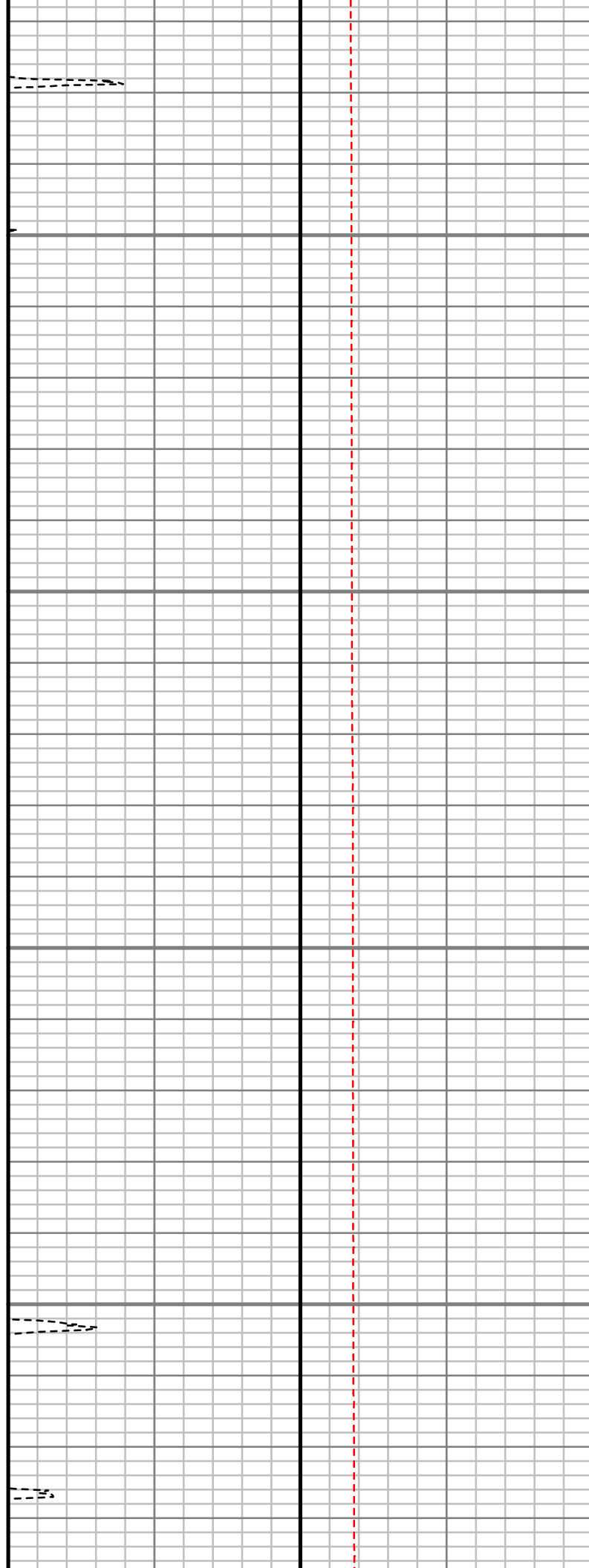
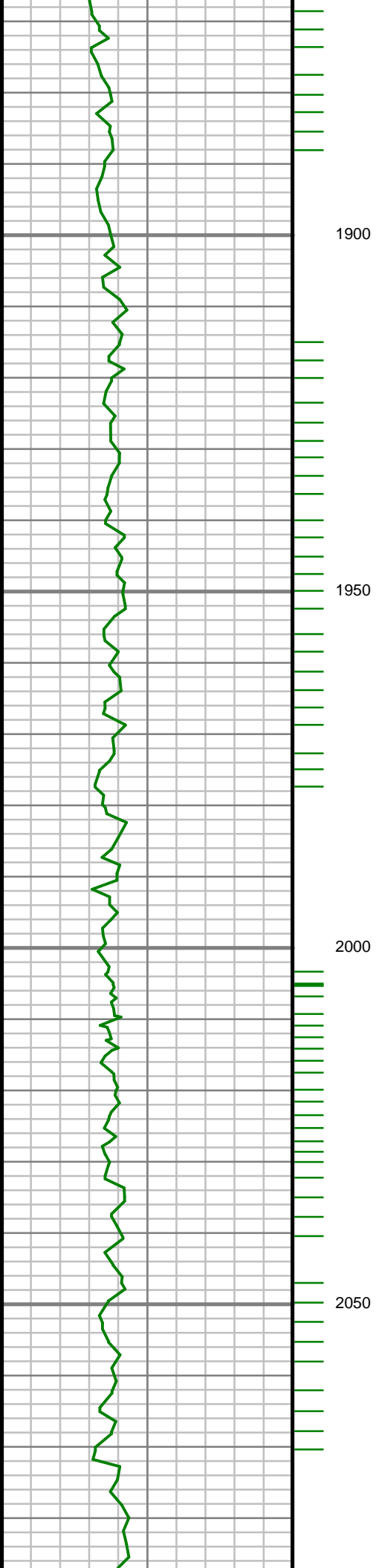
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

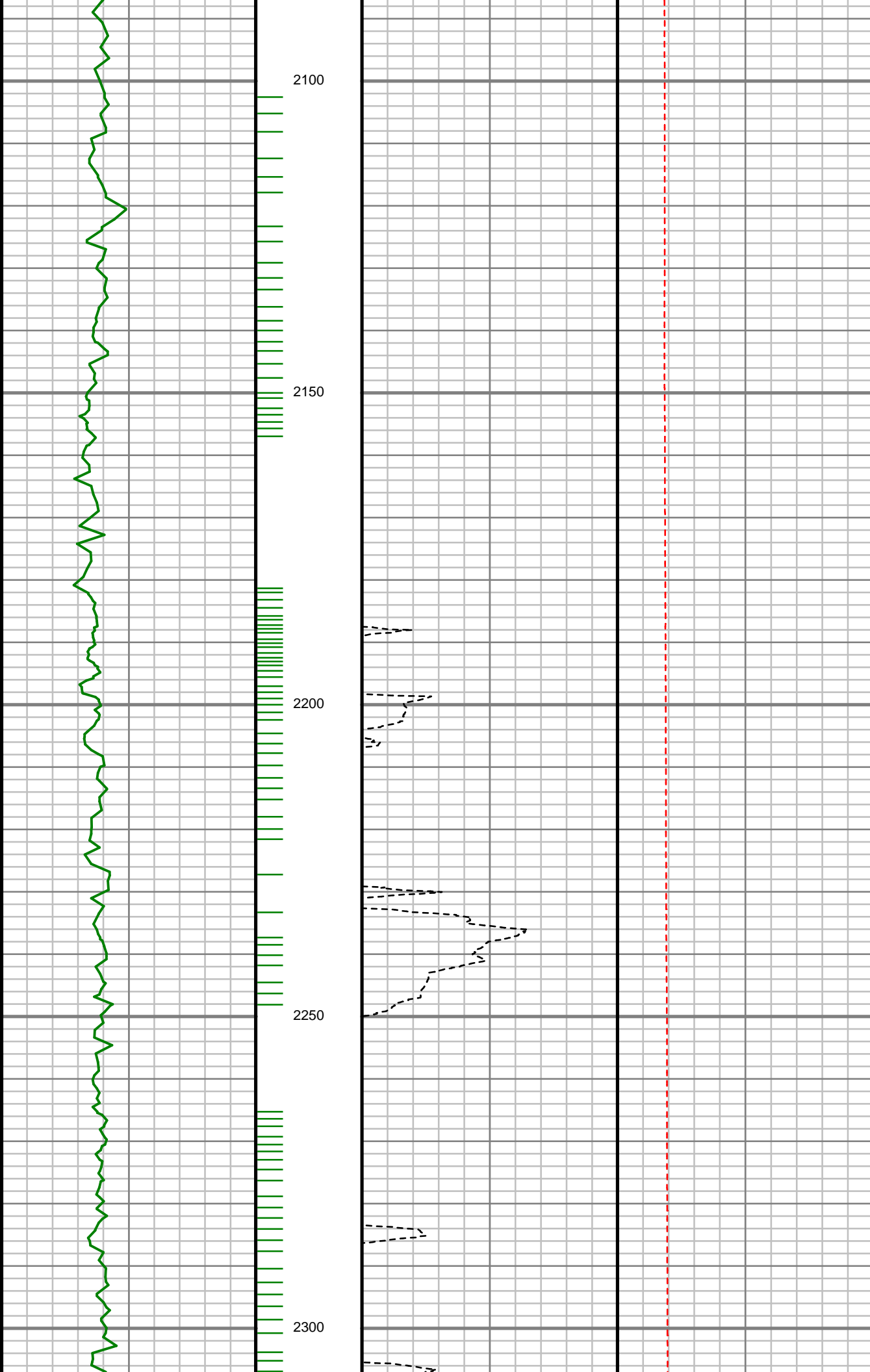


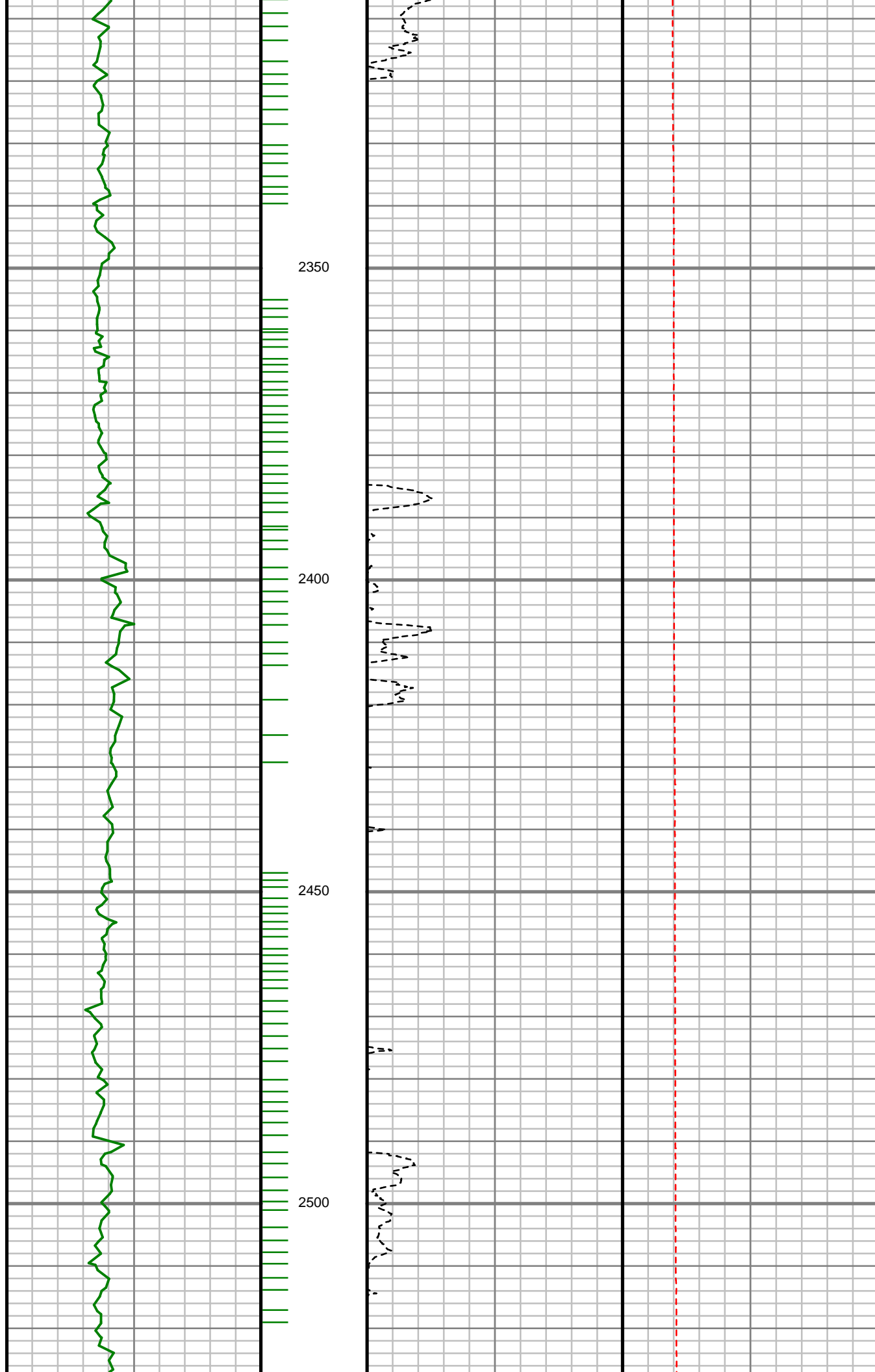


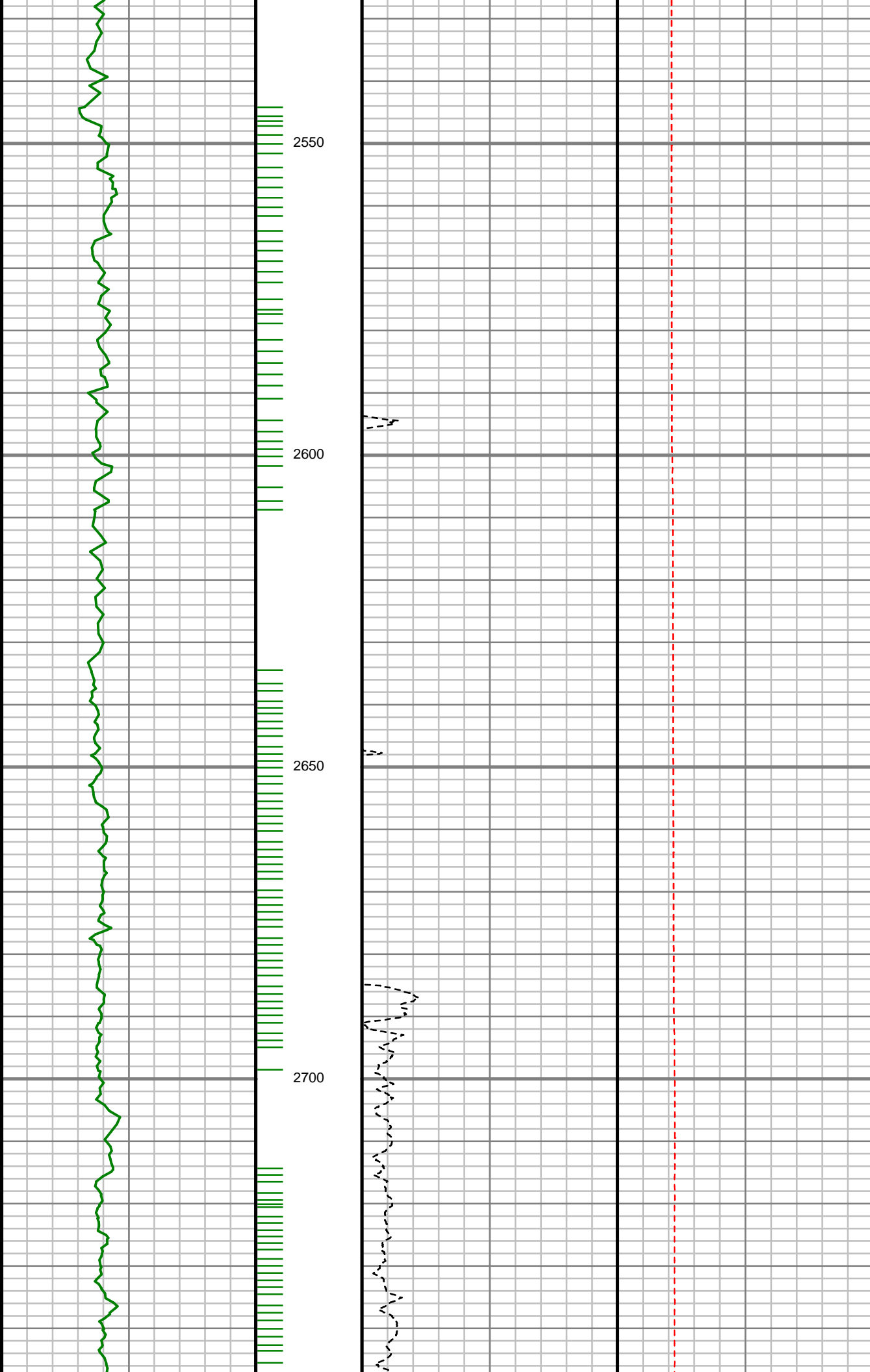


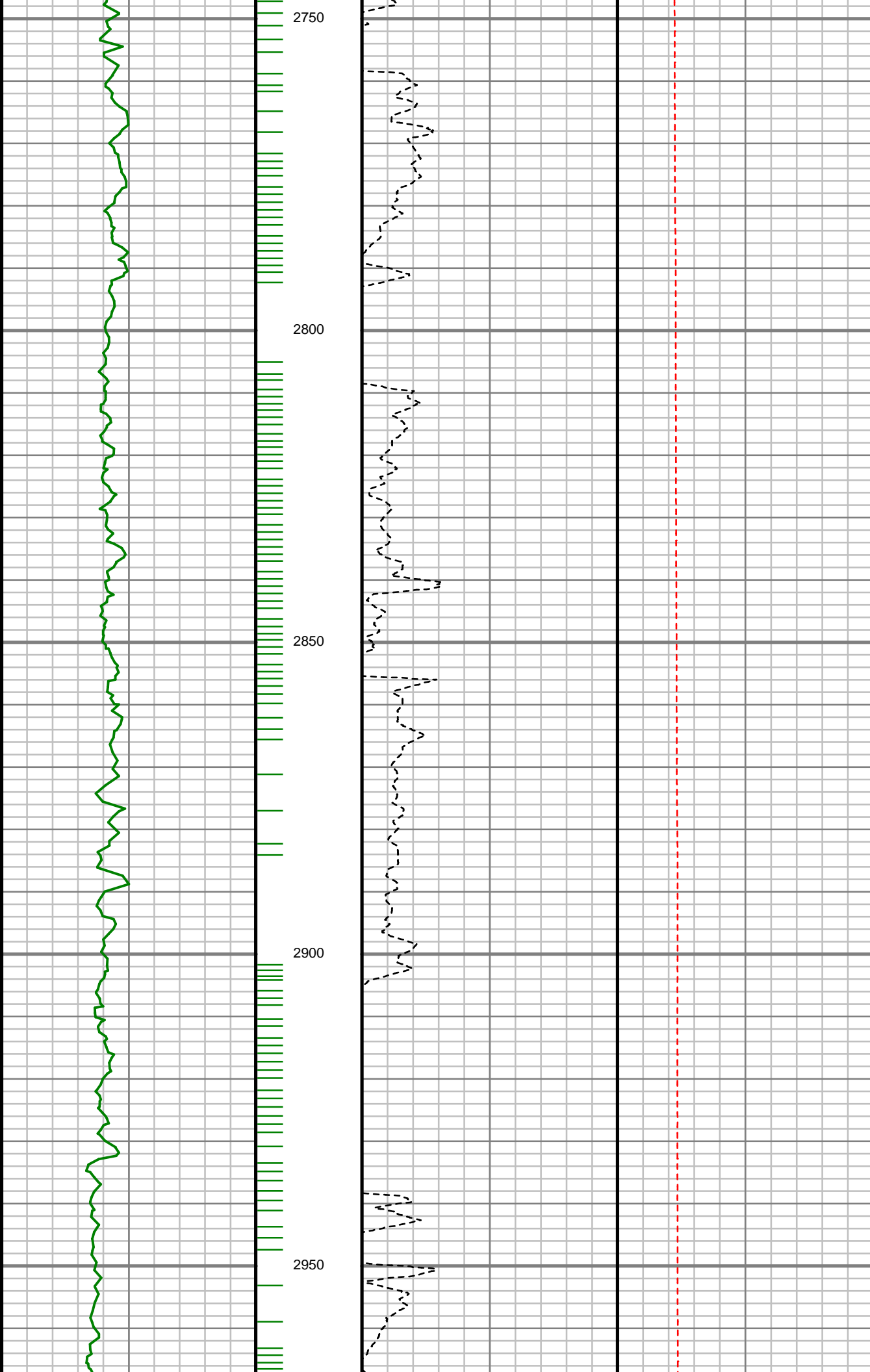


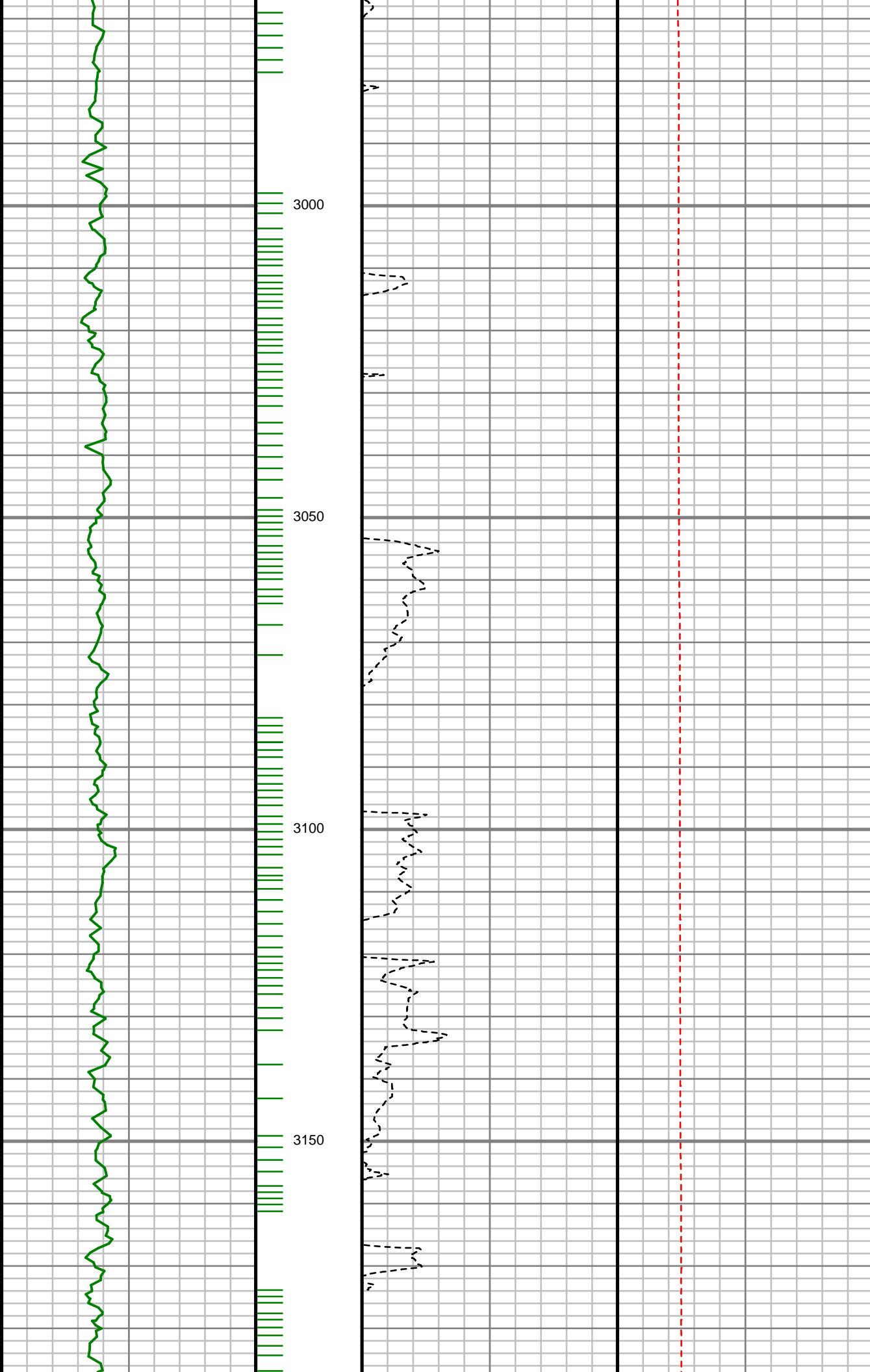


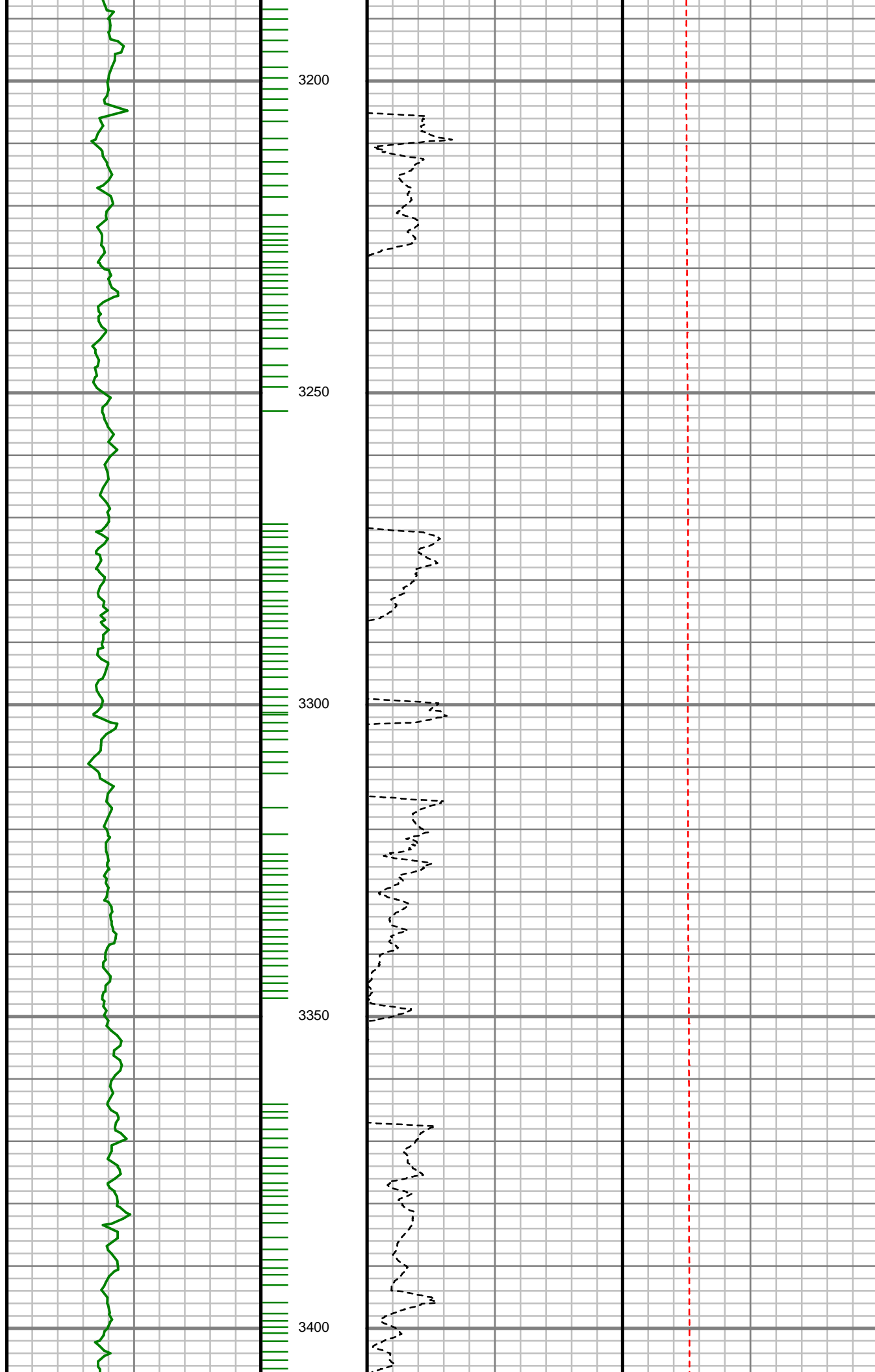


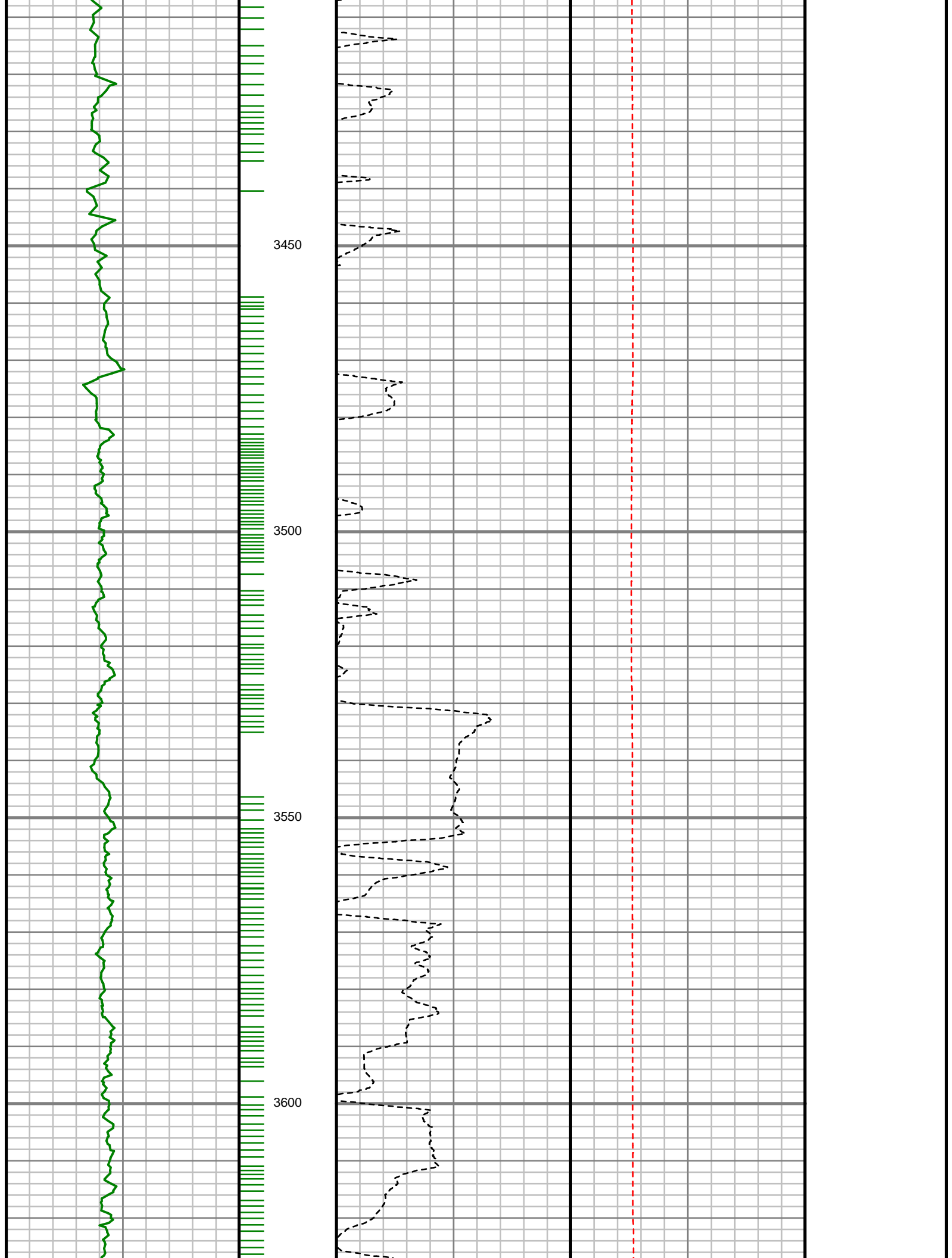


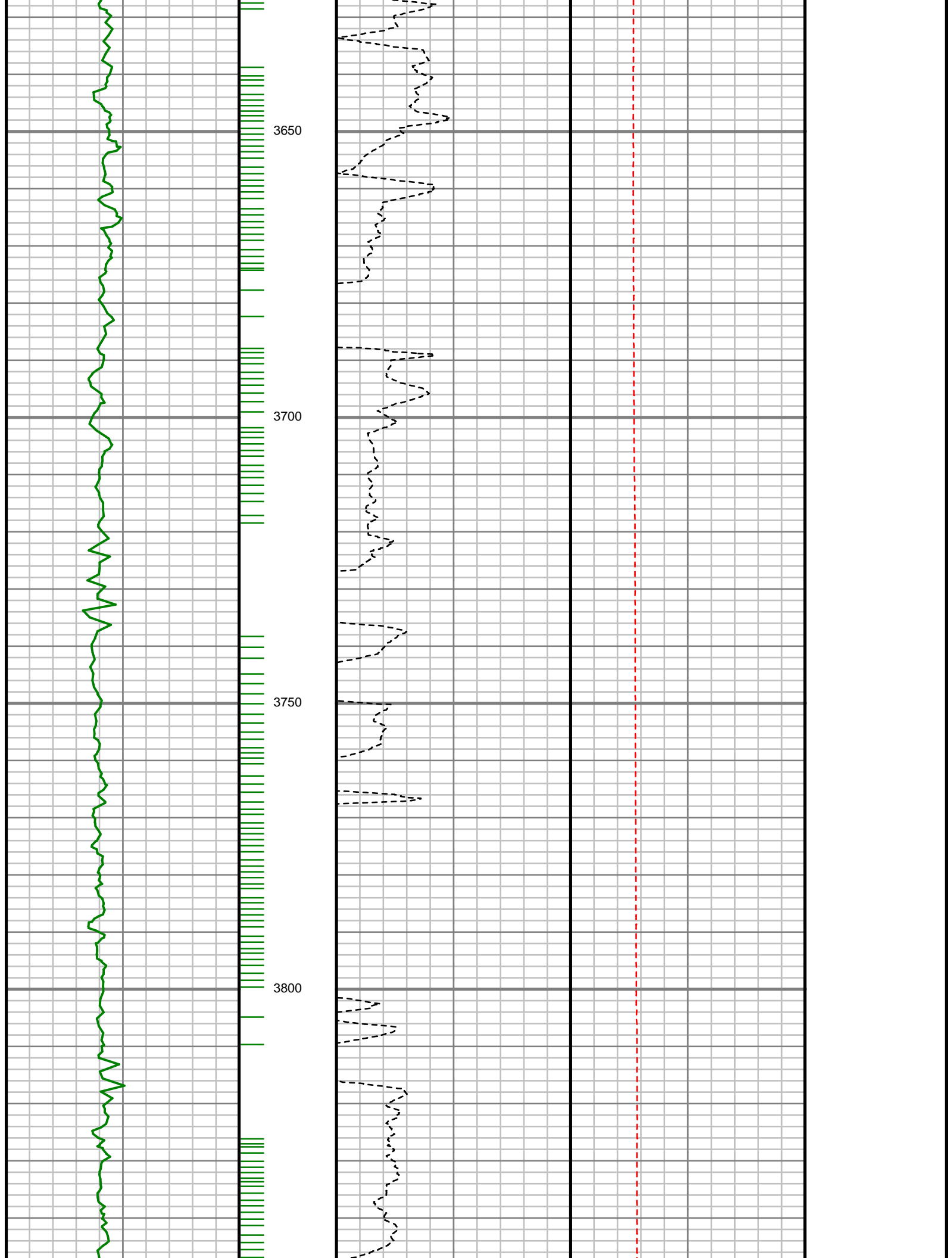


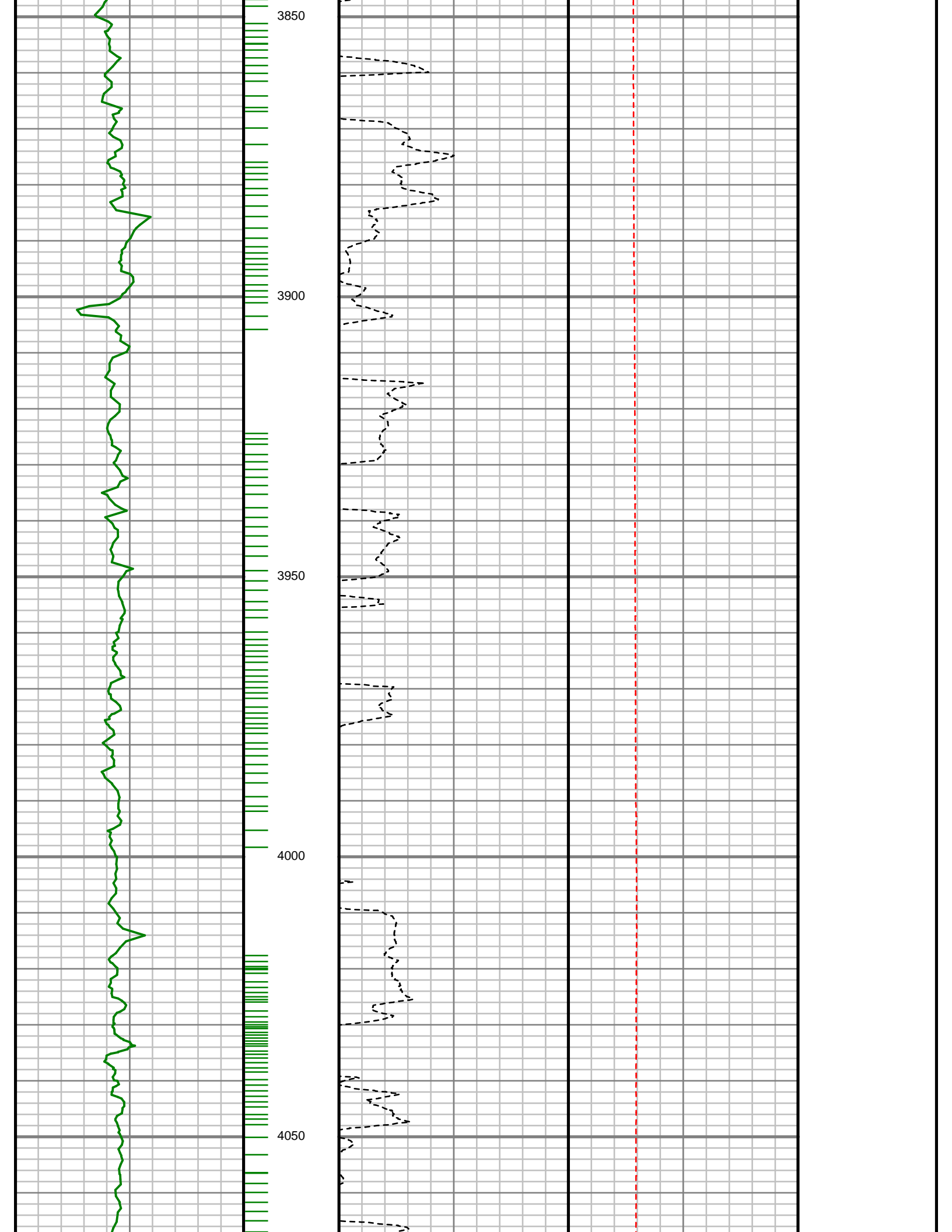


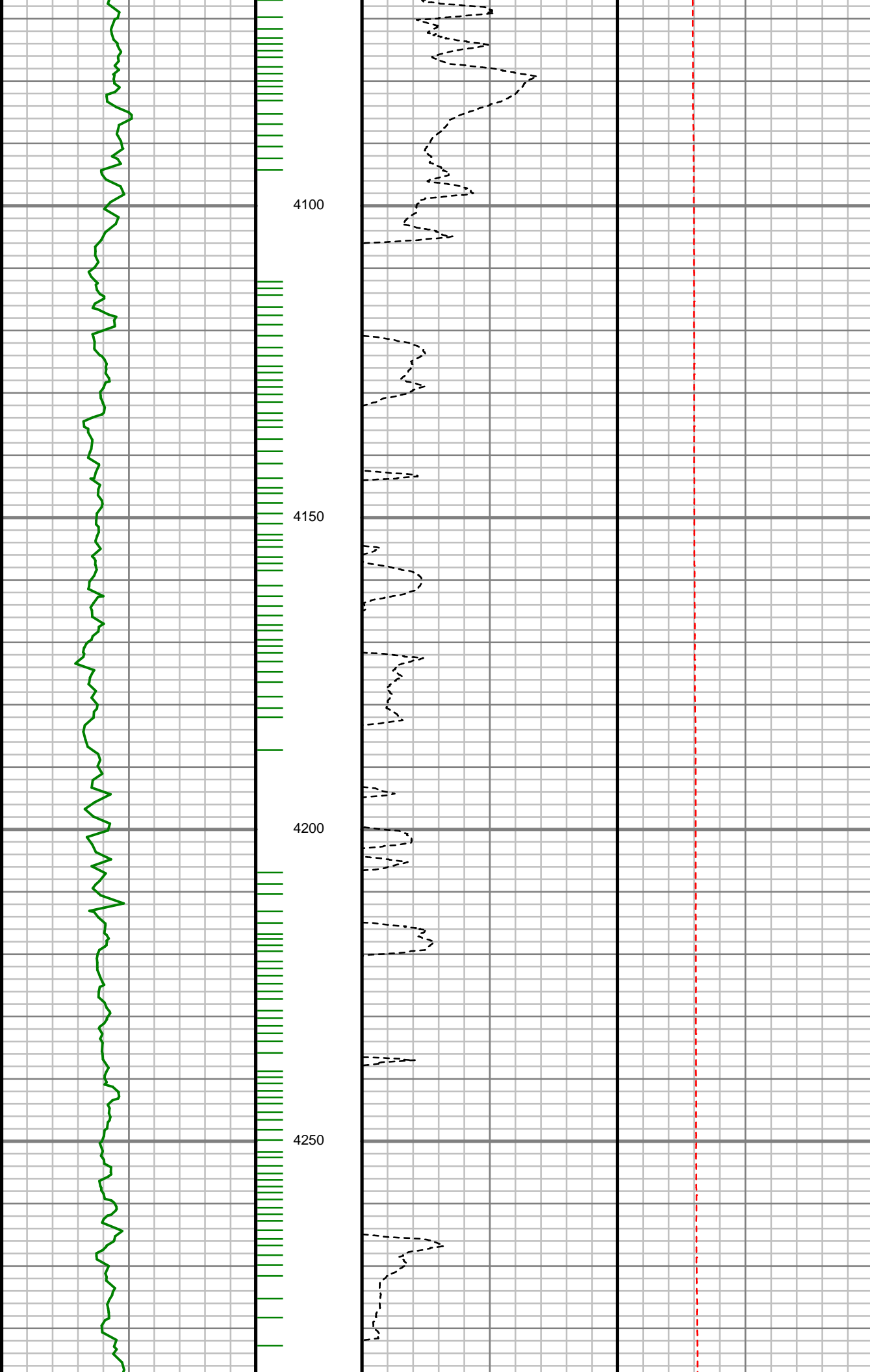


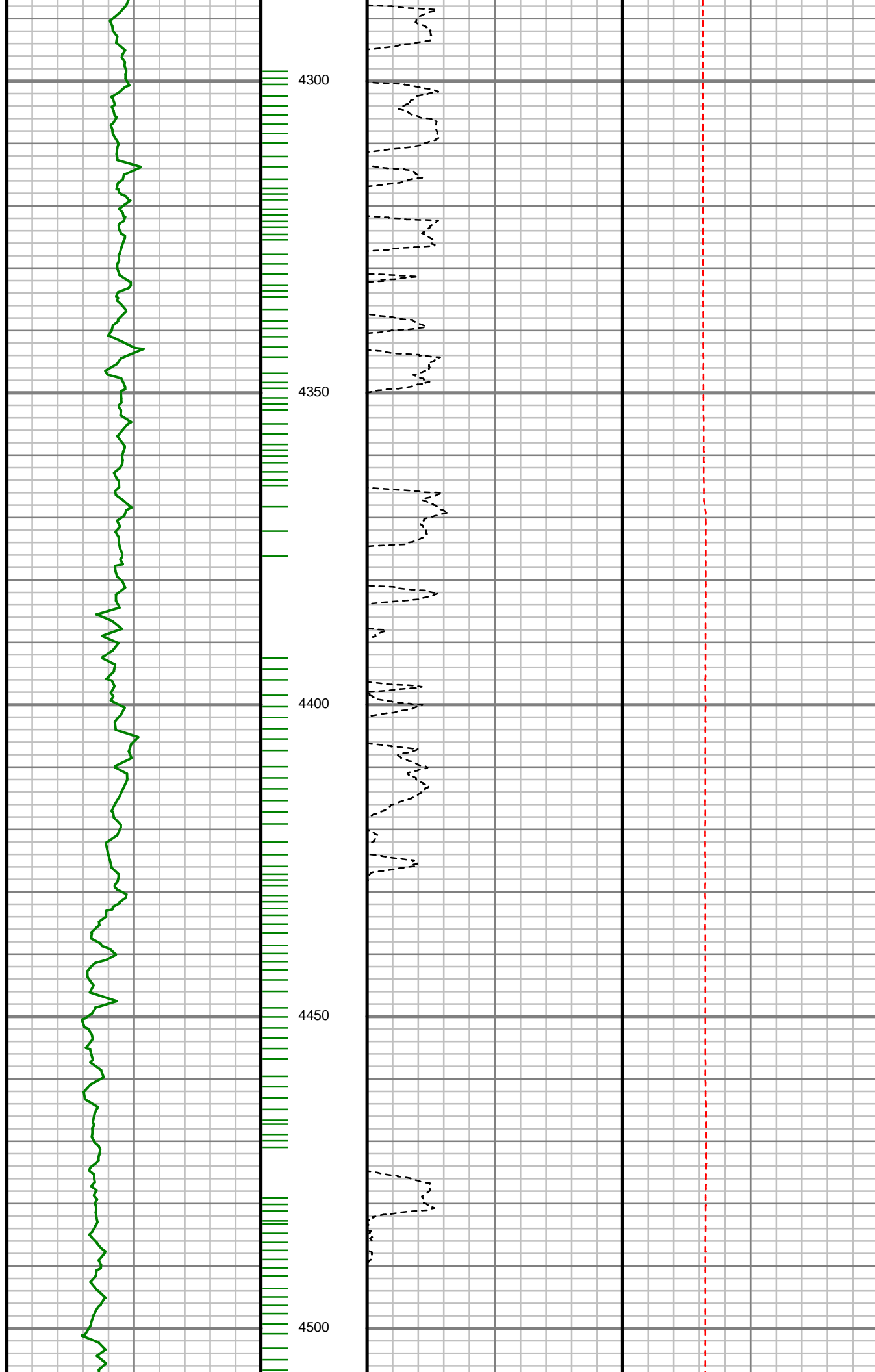


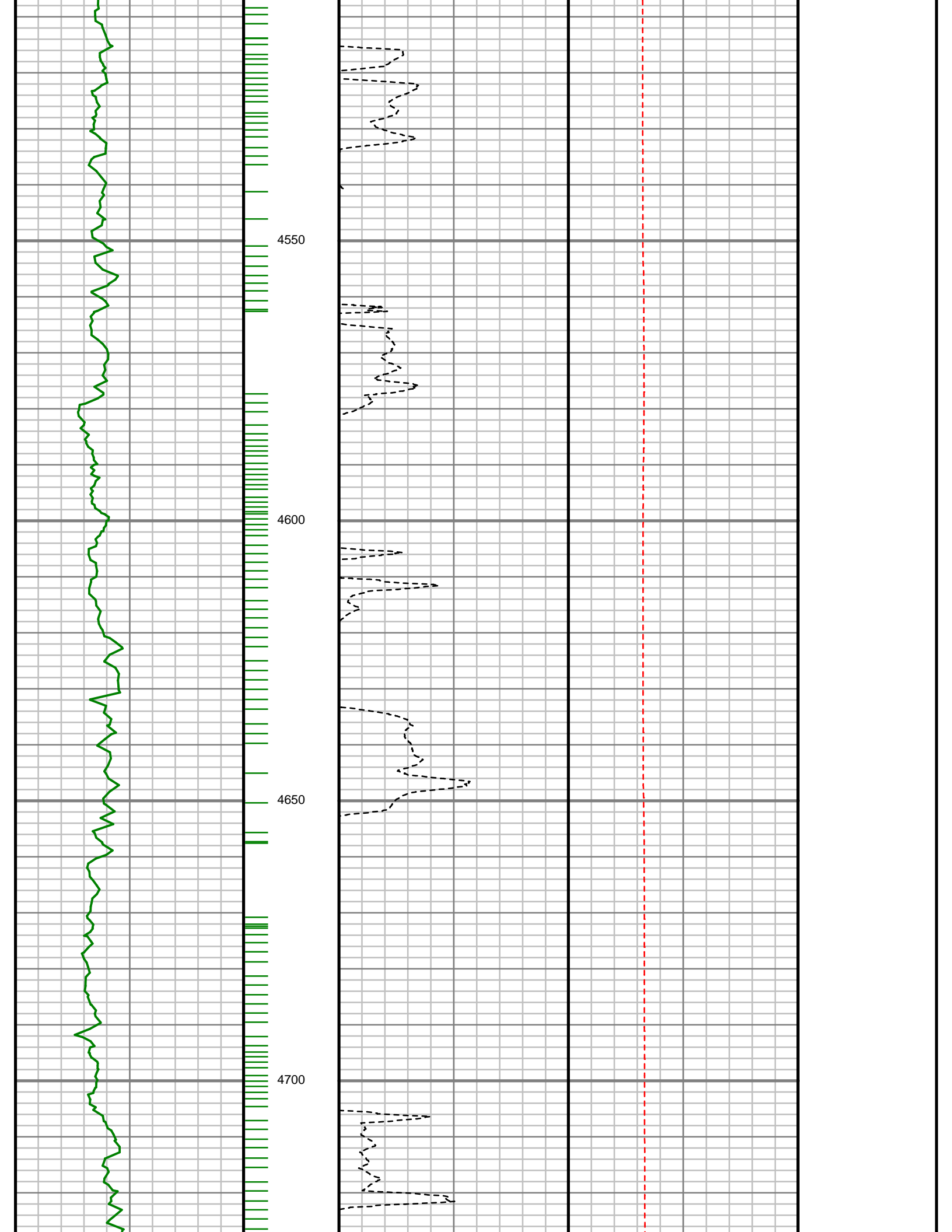


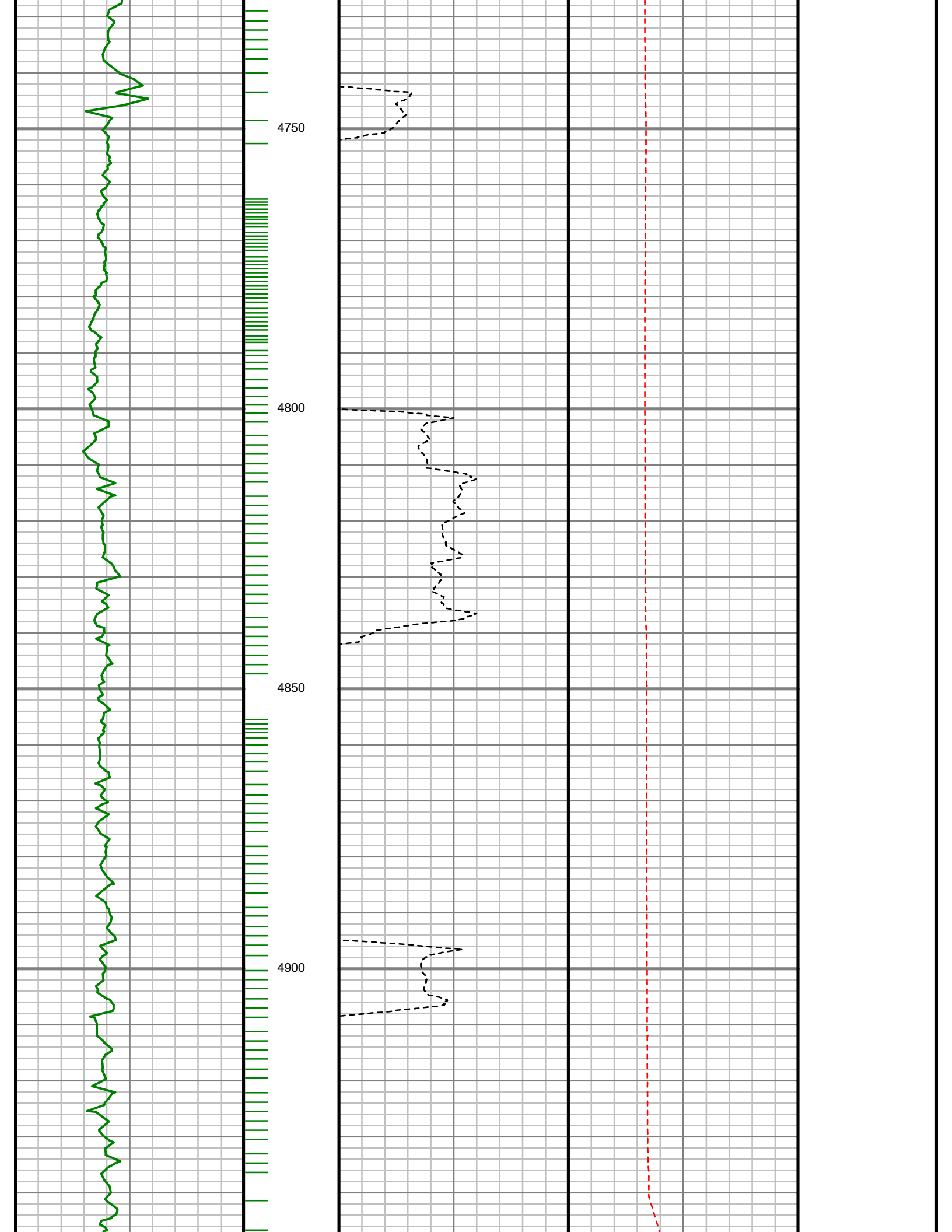


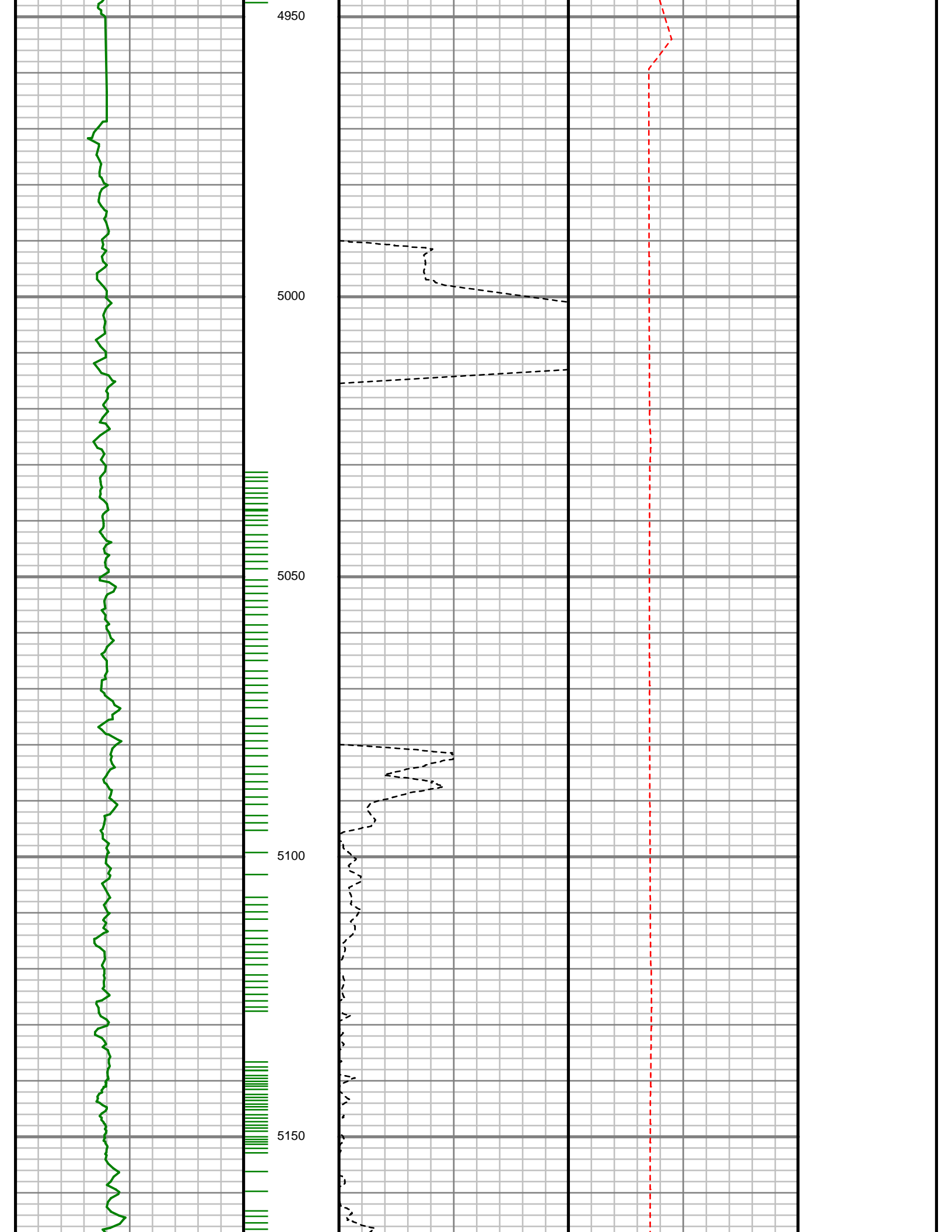


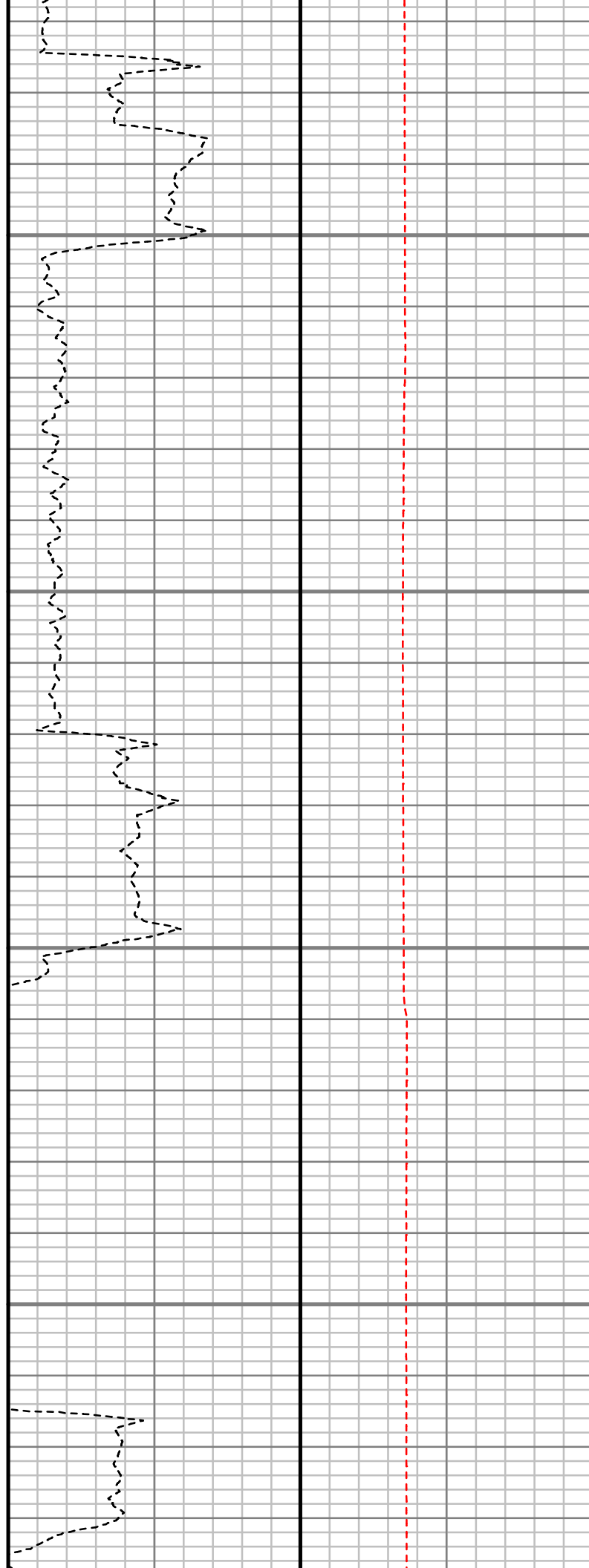
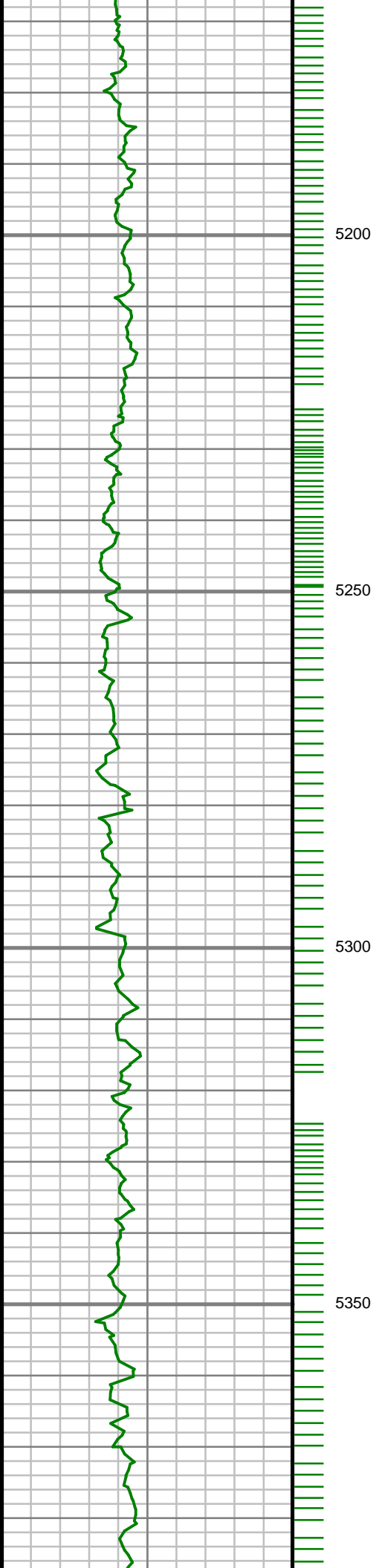


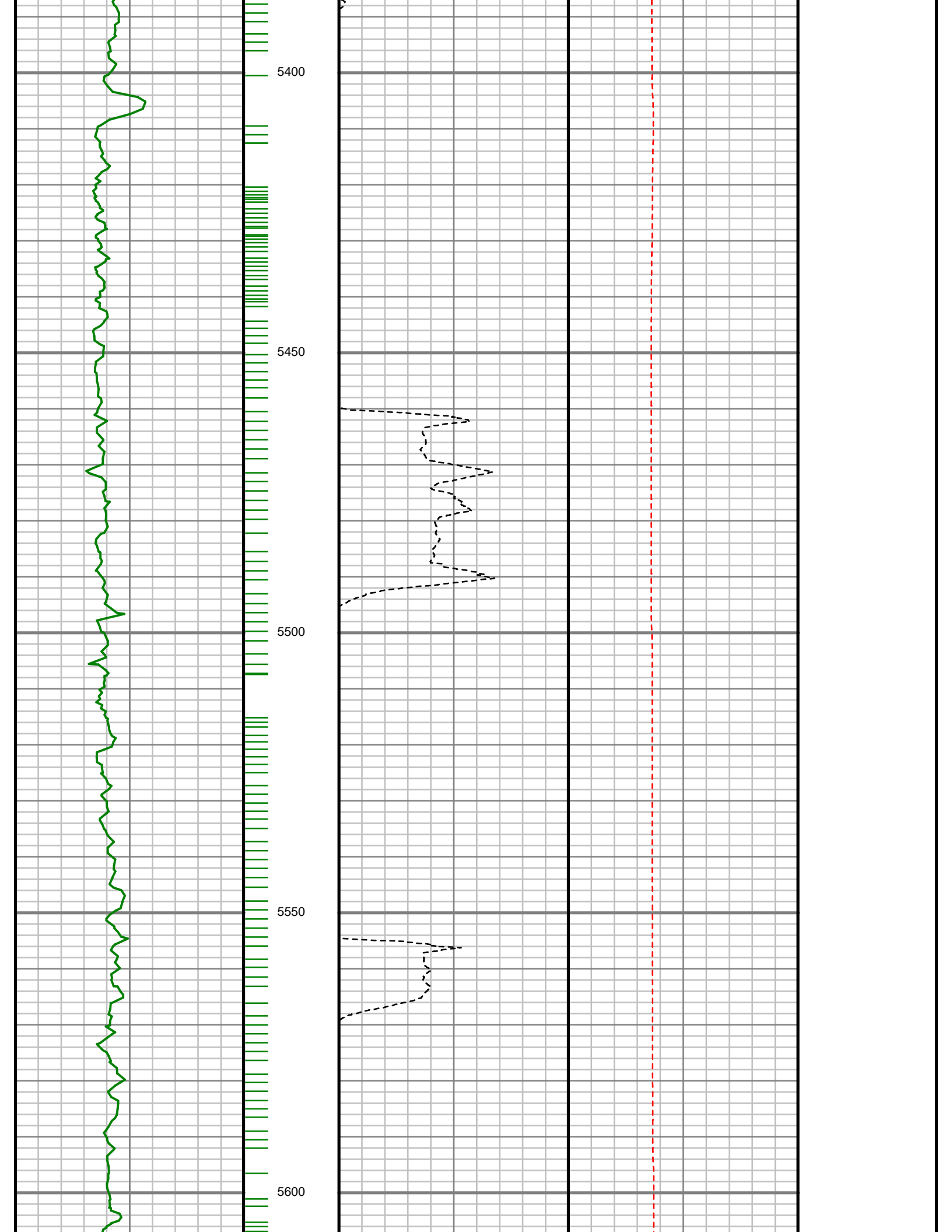


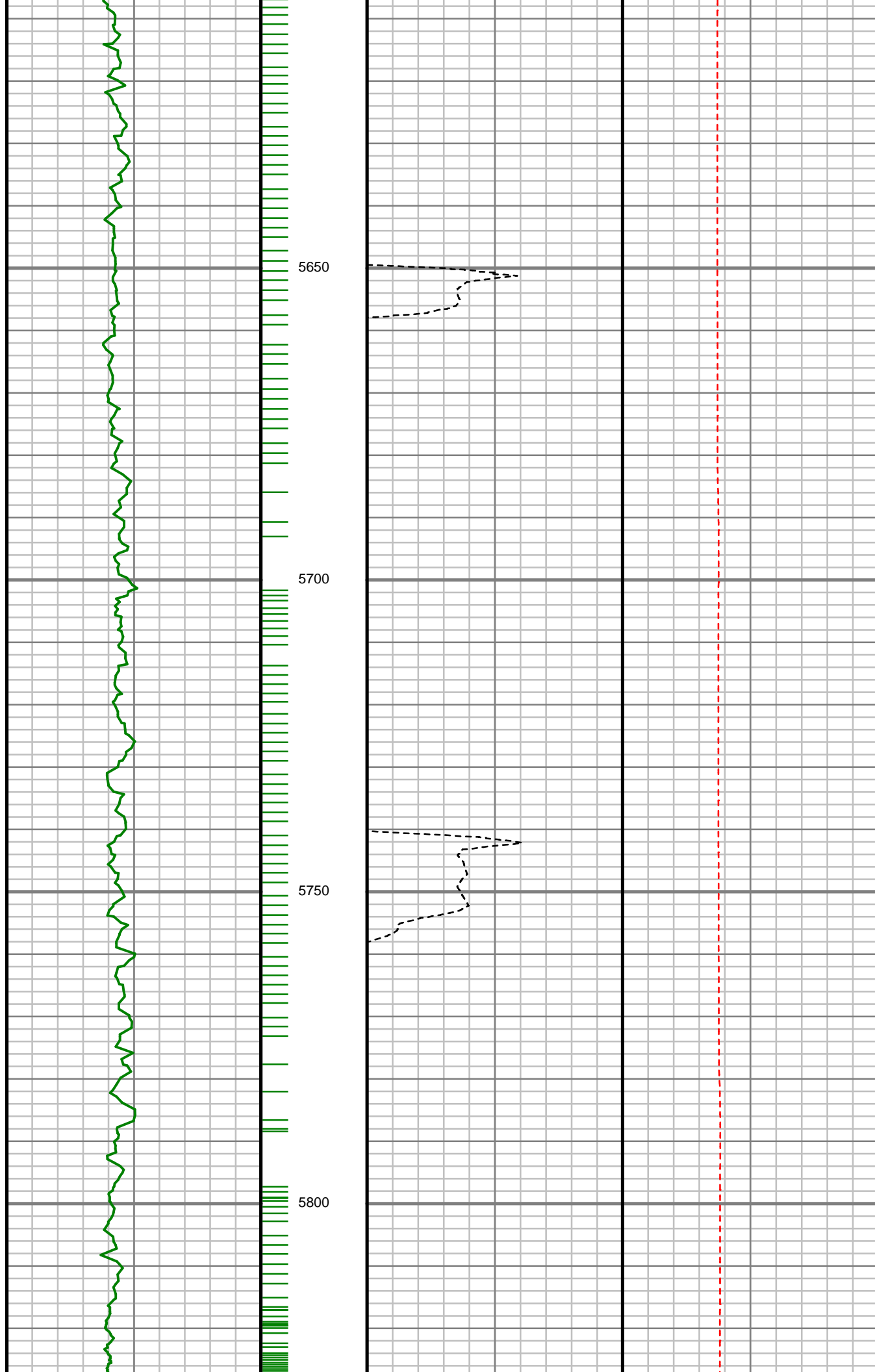


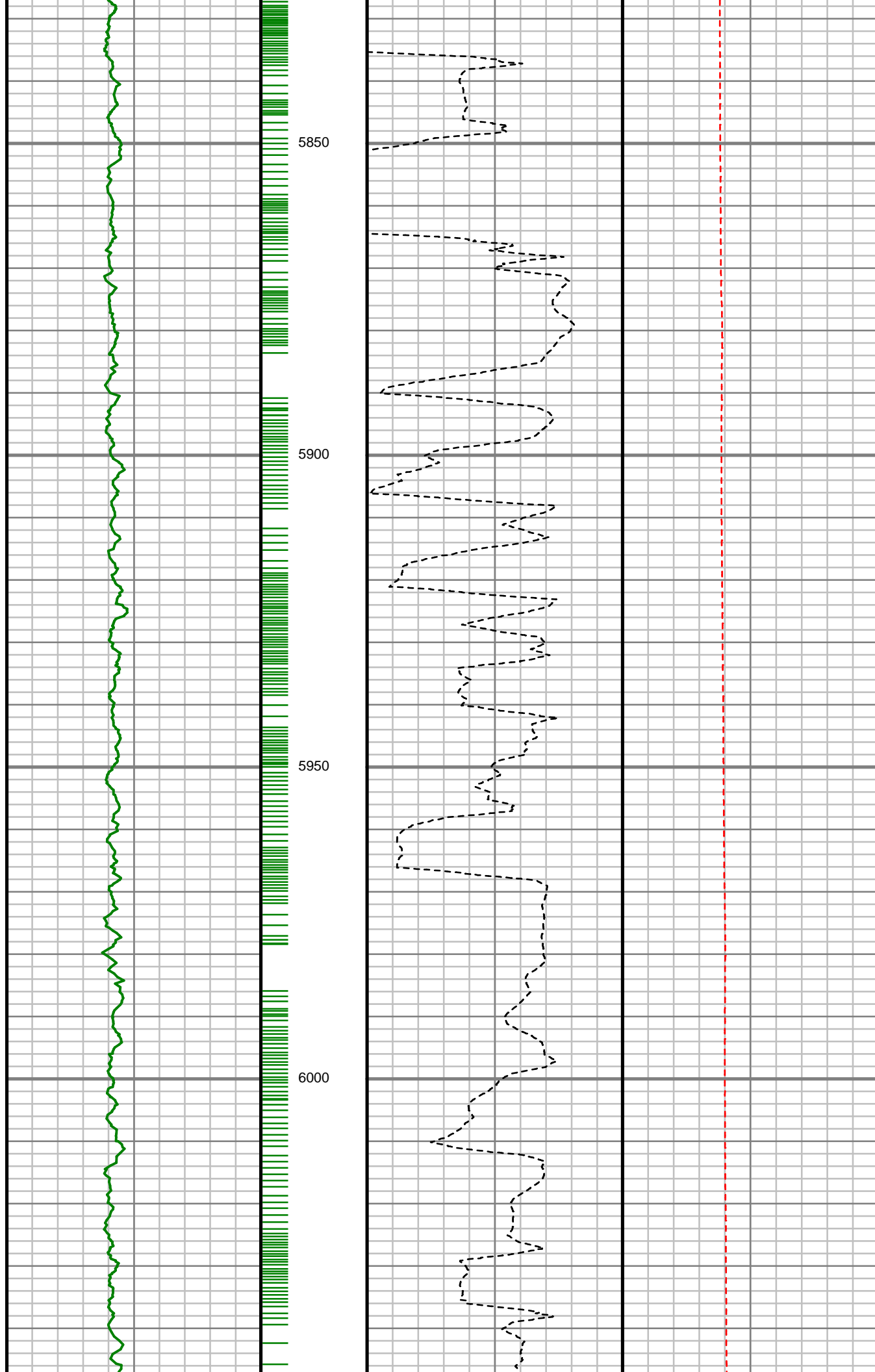


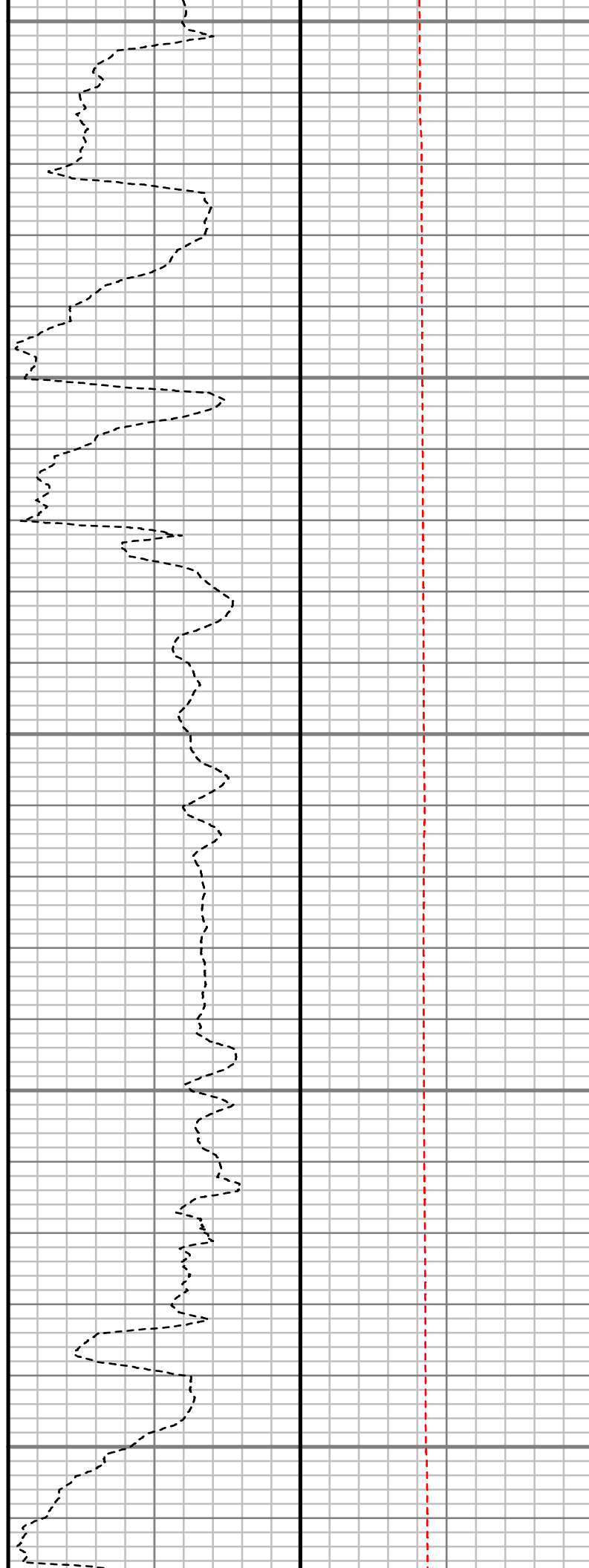
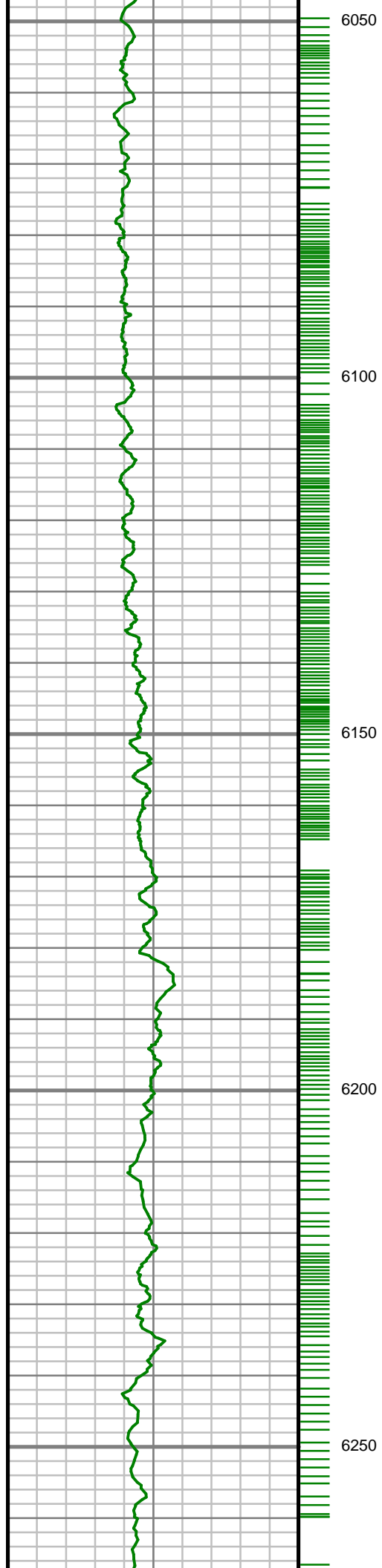


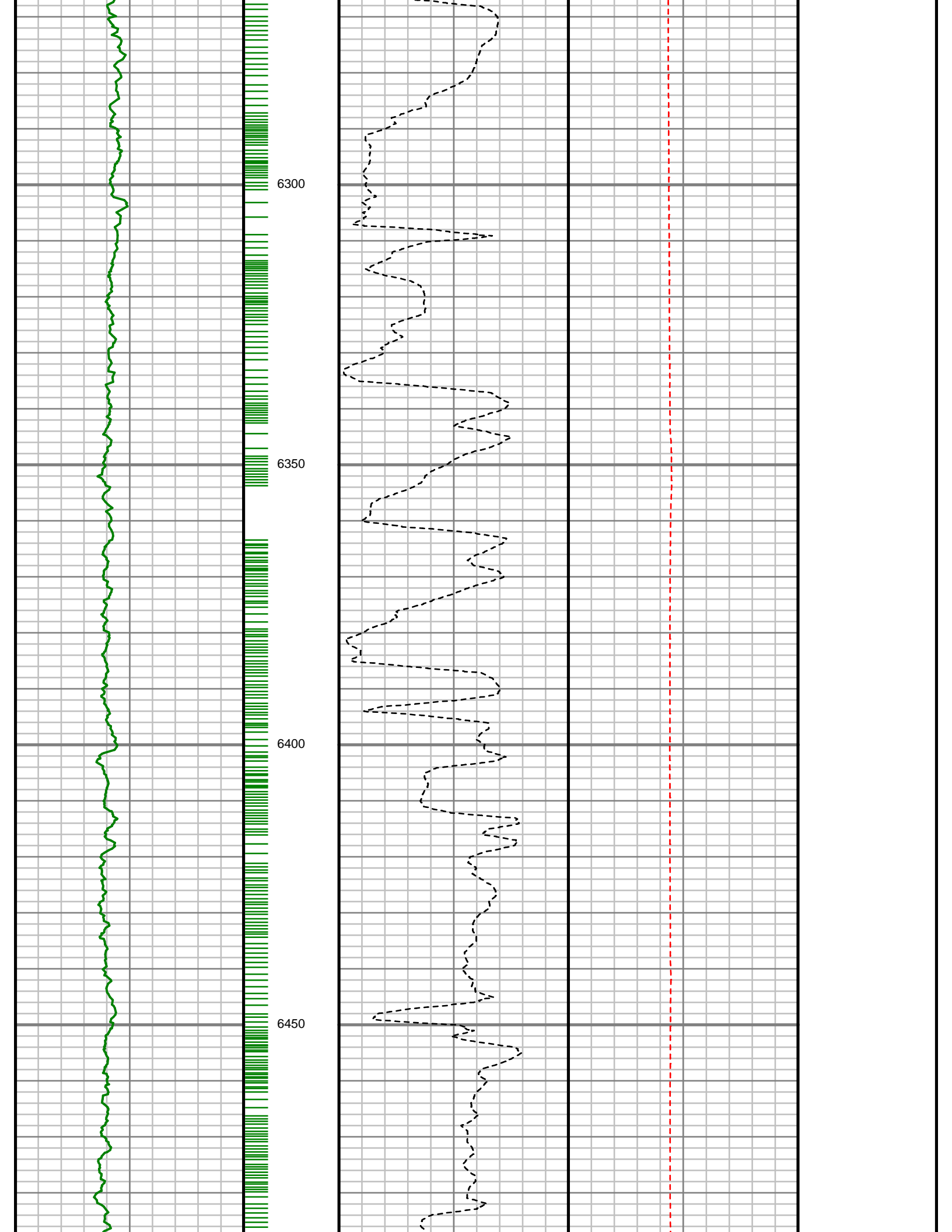


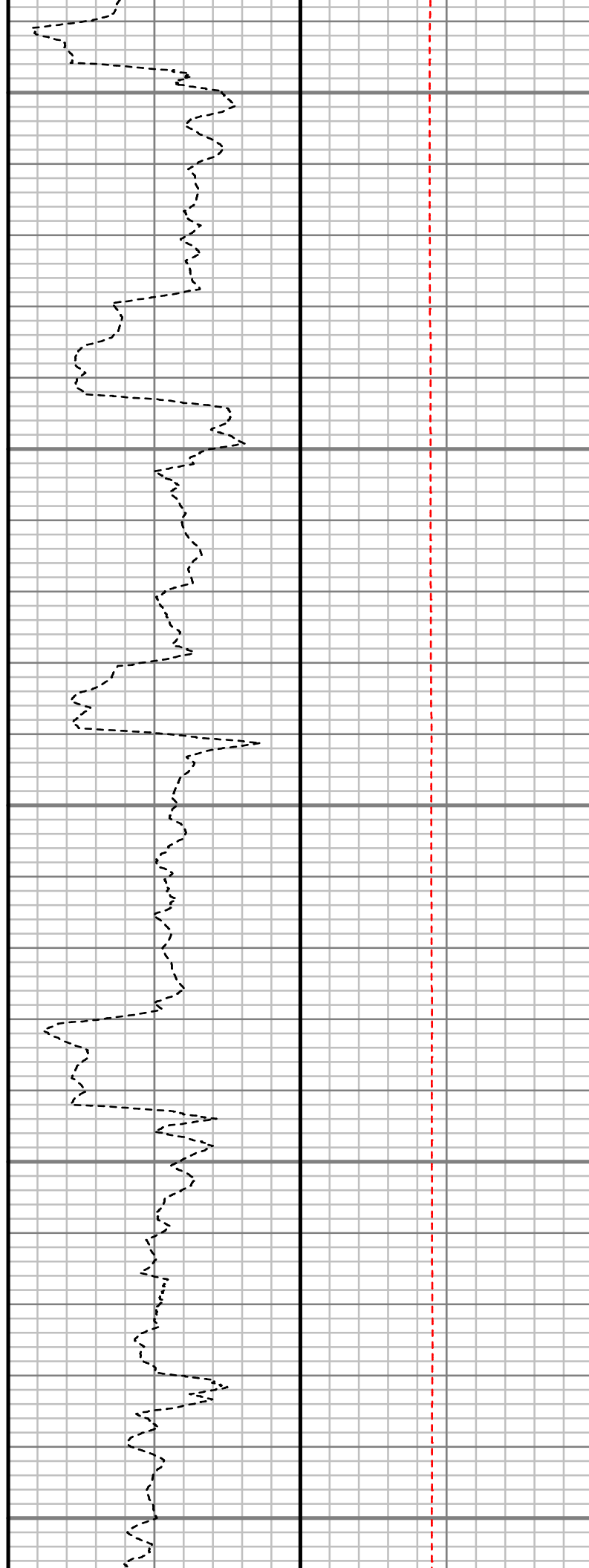
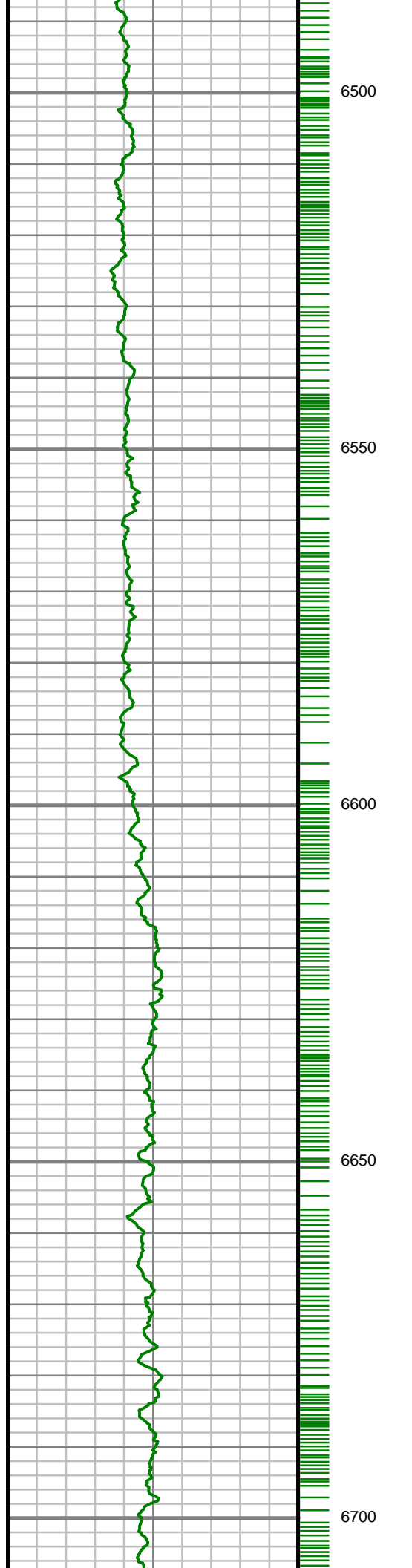


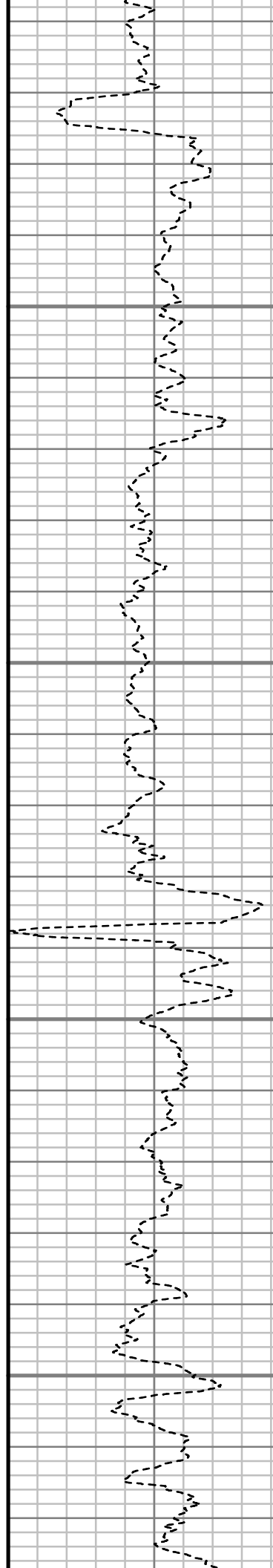
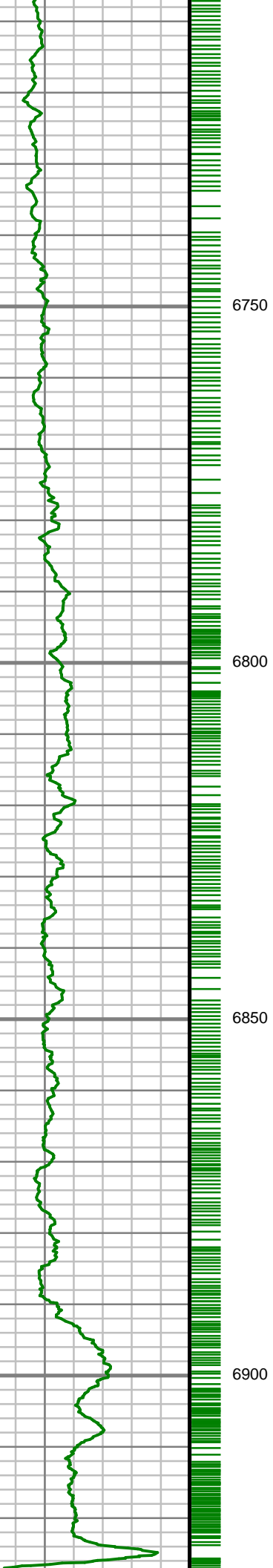


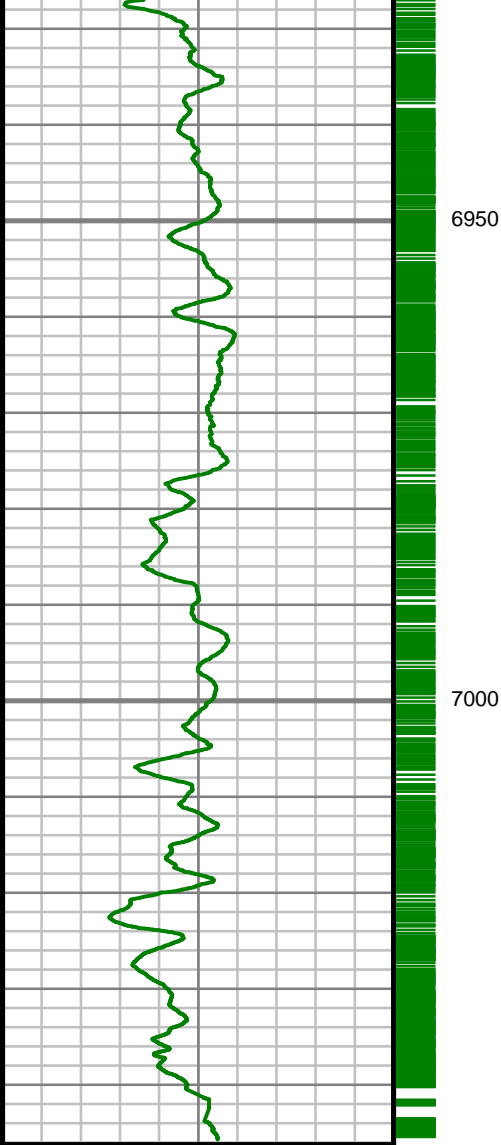






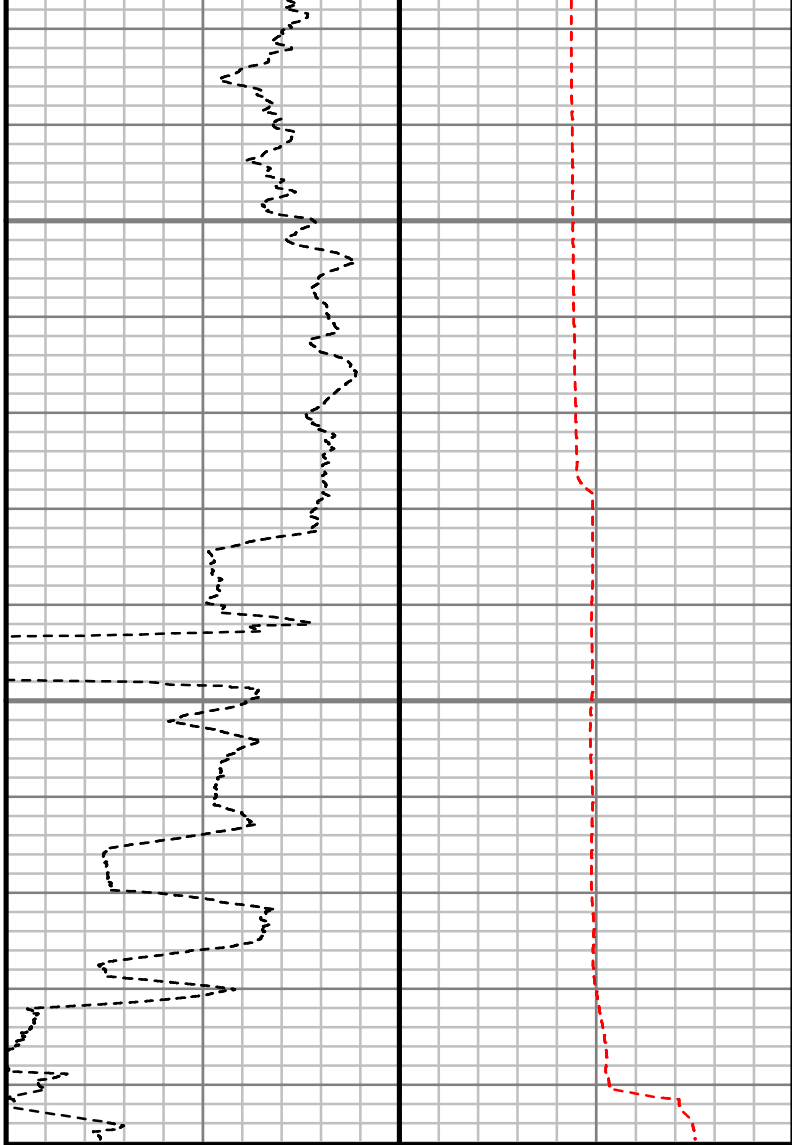






Gamma Ray (GR)		
0	Unit = aapi	150

TRUE VERTICAL DEPTH
1:240 (ft)



Rate of Penetration (ROP)	Tool Temperature (T-TEMP)	Comments
400 Unit = ft/hr 0	50 Unit = °F 300	

Survey Report

Customer Name:	ANADARKO PETROLEUM CORP.
Site Name:	GITTLEIN 36-33HZ
Well Name:	GITTLEIN 3N-28HZ
Survey:	GITTLEIN 3N-28HZ
Survey Date:	10/12/2013
Magnetic Declination:	8.29 deg
North Reference:	True North
Calculation Method:	Minimum Curvature
Section (VS) Ref:	0.00N (ft), 0.00E (ft), 0.00Azim (deg)

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
100.00	0.10	341.52	100.00	0.08	0.08	-0.03	0.10
200.00	0.06	297.22	200.00	0.19	0.19	-0.10	0.07
300.00	0.07	151.02	300.00	0.16	0.16	-0.12	0.12
400.00	0.14	89.20	400.00	0.11	0.11	0.03	0.12
500.00	0.12	43.90	500.00	0.19	0.19	0.23	0.10
600.00	0.03	207.80	600.00	0.24	0.24	0.29	0.15
700.00	0.12	61.18	700.00	0.27	0.27	0.37	0.15
800.00	0.08	36.89	800.00	0.37	0.37	0.50	0.06

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
900.00	0.35	19.22	900.00	0.72	0.72	0.64	0.27
1000.00	0.53	13.68	1000.00	1.45	1.45	0.85	0.18
1100.00	0.42	350.61	1099.99	2.26	2.26	0.90	0.22
1200.00	0.32	334.27	1199.99	2.88	2.88	0.72	0.14
1215.00	0.51	346.84	1214.99	2.98	2.98	0.69	1.40
1330.00	0.45	333.65	1329.99	3.88	3.88	0.37	0.11
1421.00	1.82	117.15	1420.97	3.55	3.55	1.50	2.41
1513.00	3.63	113.26	1512.86	1.73	1.73	5.47	1.98
1604.00	5.06	121.15	1603.60	-1.49	-1.49	11.56	1.70
1696.00	7.29	124.85	1695.06	-6.92	-6.92	19.83	2.46
1787.00	9.59	110.76	1785.08	-12.91	-12.91	31.66	3.38
1879.00	10.06	107.71	1875.73	-18.07	-18.07	46.48	0.76
1971.00	10.45	102.84	1966.26	-22.37	-22.37	62.27	1.03
2063.00	11.32	109.04	2056.61	-27.17	-27.17	78.95	1.58
2154.00	11.34	107.45	2145.83	-32.77	-32.77	95.92	0.34
2246.00	11.16	115.81	2236.07	-39.36	-39.36	112.57	1.78
2338.00	11.82	114.06	2326.23	-47.07	-47.07	129.18	0.82
2430.00	11.24	101.38	2416.39	-52.68	-52.68	146.58	2.82
2522.00	11.43	93.47	2506.60	-55.00	-55.00	164.46	1.70
2613.00	10.90	97.42	2595.88	-56.66	-56.66	182.00	1.02

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
2705.00	11.91	110.73	2686.08	-61.15	-61.15	199.51	3.05
2800.00	10.69	120.70	2779.24	-69.11	-69.11	216.25	2.42
2894.00	9.61	121.01	2871.77	-77.61	-77.61	230.48	1.14
2989.00	10.97	120.52	2965.24	-86.29	-86.29	245.06	1.43
3083.00	11.32	121.20	3057.47	-95.61	-95.61	260.66	0.40
3177.00	11.64	110.91	3149.60	-103.77	-103.77	277.41	2.20
3272.00	10.54	107.49	3242.82	-109.80	-109.80	294.64	1.34
3366.00	10.94	110.84	3335.18	-115.56	-115.56	311.18	0.79
3460.00	9.99	113.98	3427.61	-122.04	-122.04	326.96	1.18
3649.00	9.18	114.12	3613.97	-134.86	-134.86	355.70	0.43
3743.00	9.40	111.34	3706.74	-140.72	-140.72	369.69	0.53
3838.00	8.75	108.04	3800.55	-145.78	-145.78	383.79	0.88
3932.00	8.10	113.48	3893.54	-150.64	-150.64	396.66	1.09
4027.00	6.77	114.37	3987.74	-155.61	-155.61	407.90	1.41
4121.00	5.92	113.22	4081.16	-159.81	-159.81	417.40	0.91
4215.00	7.85	113.03	4174.48	-164.23	-164.23	427.76	2.05
4310.00	6.76	113.48	4268.71	-168.99	-168.99	438.86	1.14
4404.00	5.33	111.71	4362.18	-172.81	-172.81	447.99	1.53
4498.00	4.03	103.40	4455.87	-175.20	-175.20	455.26	1.56

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
4593.00	2.93	97.30	4550.69	-176.28	-176.28	460.91	1.22
4687.00	1.97	96.07	4644.60	-176.75	-176.75	464.90	1.02
4781.00	1.52	84.64	4738.56	-176.81	-176.81	467.75	0.60
4876.00	1.19	318.32	4833.55	-175.95	-175.95	468.34	2.55
4970.00	1.68	302.48	4927.52	-174.48	-174.48	466.53	0.67
5064.00	1.58	302.15	5021.48	-173.05	-173.05	464.27	0.11
5159.00	1.89	298.36	5116.44	-171.61	-171.61	461.78	0.34
5253.00	1.89	246.89	5210.39	-171.48	-171.48	459.00	1.74
5347.00	2.08	132.13	5304.36	-173.24	-173.24	458.84	3.56
5442.00	2.95	125.60	5399.27	-175.82	-175.82	462.11	0.96
5536.00	0.34	3.78	5493.23	-176.95	-176.95	464.10	3.34
5630.00	1.19	323.57	5587.22	-175.89	-175.89	463.54	1.02
5725.00	1.18	337.00	5682.20	-174.20	-174.20	462.57	0.29
5819.00	1.14	322.15	5776.18	-172.57	-172.57	461.61	0.32
5914.00	2.36	306.16	5871.14	-170.67	-170.67	459.46	1.36
6008.00	1.44	272.85	5965.09	-169.47	-169.47	456.72	1.49
6102.00	0.48	79.82	6059.08	-169.34	-169.34	455.92	2.03
6197.00	0.11	79.14	6154.08	-169.25	-169.25	456.40	0.39
6291.00	0.81	160.68	6248.08	-169.86	-169.86	456.70	0.85
6433.00	0.93	175.03	6390.06	-171.95	-171.95	457.14	0.18

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
6480.00	2.79	53.91	6437.04	-171.66	-171.66	458.09	7.16
6527.00	6.18	38.30	6483.89	-169.00	-169.00	460.59	7.61
6575.00	9.37	28.19	6531.45	-163.52	-163.52	464.04	7.19
6622.00	12.85	30.91	6577.56	-155.67	-155.67	468.53	7.48
6669.00	17.24	31.66	6622.94	-145.25	-145.25	474.87	9.37
6716.00	19.77	31.02	6667.50	-132.51	-132.51	482.62	5.39
6763.00	24.60	29.91	6711.01	-117.21	-117.21	491.60	10.31
6810.00	29.61	25.55	6752.84	-98.24	-98.24	501.50	11.47
6857.00	35.92	24.89	6792.34	-75.23	-75.23	512.32	13.45
6952.00	45.84	21.39	6864.09	-18.08	-18.08	536.54	10.71
7046.00	60.15	13.57	6920.58	53.39	53.39	558.54	16.59
7140.00	69.90	9.05	6960.24	136.84	136.84	575.09	11.25
7187.00	72.27	1.40	6975.49	181.07	181.07	579.12	16.19
7280.00	78.42	358.03	6999.02	270.99	270.99	578.64	7.48
7342.00	80.51	358.00	7010.36	331.90	331.90	576.53	3.37
7433.00	83.12	357.63	7023.31	421.90	421.90	573.09	2.90
7525.00	87.62	356.32	7030.74	513.45	513.45	568.25	5.09
7617.00	88.05	356.46	7034.22	605.20	605.20	562.47	0.49
7709.00	87.84	356.16	7037.52	696.95	696.95	556.55	0.40

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
7800.00	89.09	355.82	7039.95	787.69	787.69	550.18	1.42
7891.00	90.37	356.17	7040.38	878.47	878.47	543.82	1.46
7981.00	91.51	357.48	7038.90	968.31	968.31	538.84	1.93
8072.00	91.89	358.29	7036.20	1059.21	1059.21	535.48	0.99
8164.00	90.71	358.78	7034.12	1151.16	1151.16	533.13	1.39
8256.00	90.10	358.16	7033.47	1243.12	1243.12	530.67	0.94
8344.00	89.60	358.61	7033.70	1331.08	1331.08	528.20	0.77
8438.00	89.73	358.16	7034.25	1425.04	1425.04	525.55	0.50
8530.00	90.54	358.57	7034.04	1517.01	1517.01	522.92	0.98
8621.00	90.44	358.60	7033.26	1607.97	1607.97	520.67	0.12
8713.00	90.57	357.64	7032.45	1699.92	1699.92	517.65	1.06
8805.00	90.67	358.53	7031.45	1791.86	1791.86	514.57	0.98
8896.00	89.87	358.03	7031.03	1882.82	1882.82	511.84	1.04
8988.00	89.29	358.87	7031.70	1974.78	1974.78	509.34	1.10
9079.00	90.10	358.91	7032.18	2065.76	2065.76	507.58	0.89
9171.00	91.04	358.66	7031.27	2157.74	2157.74	505.63	1.06
9263.00	91.11	358.96	7029.54	2249.70	2249.70	503.73	0.33
9355.00	88.83	359.23	7029.59	2341.68	2341.68	502.27	2.50
9446.00	88.45	359.30	7031.75	2432.65	2432.65	501.10	0.42
9538.00	88.69	358.62	7034.05	2524.60	2524.60	499.44	0.78

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
9650.00	90.34	359.16	7035.00	2636.58	2636.58	497.27	1.55
9722.00	90.27	359.33	7034.62	2708.57	2708.57	496.32	0.25
9814.00	90.97	358.96	7033.62	2800.55	2800.55	494.95	0.87
9906.00	90.87	359.75	7032.14	2892.53	2892.53	493.91	0.87
10000.00	90.77	0.10	7030.79	2986.52	2986.52	493.79	0.38
10095.00	90.77	359.92	7029.50	3081.51	3081.51	493.80	0.18
10189.00	89.87	359.52	7028.98	3175.51	3175.51	493.34	1.06
10284.00	89.56	359.91	7029.45	3270.51	3270.51	492.86	0.53
10378.00	90.51	359.40	7029.40	3364.51	3364.51	492.30	1.14
10472.00	89.83	358.71	7029.12	3458.49	3458.49	490.75	1.02
10566.00	89.56	358.49	7029.62	3552.46	3552.46	488.46	0.37
10661.00	90.30	359.15	7029.73	3647.44	3647.44	486.50	1.04
10755.00	89.87	359.42	7029.59	3741.43	3741.43	485.33	0.55
10850.00	88.89	1.02	7030.62	3836.42	3836.42	485.69	1.97
10944.00	89.23	0.28	7032.17	3930.40	3930.40	486.75	0.86
11039.00	88.05	0.47	7034.43	4025.37	4025.37	487.38	1.25
11133.00	88.86	0.98	7036.97	4119.33	4119.33	488.57	1.02
11227.00	89.53	0.50	7038.29	4213.31	4213.31	489.78	0.88
11321.00	88.96	0.22	7039.53	4307.30	4307.30	490.37	0.67

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
11416.00	88.89	0.20	7041.31	4402.28	4402.28	490.72	0.07
11510.00	89.87	0.26	7042.33	4496.28	4496.28	491.10	1.04
11604.00	90.44	359.78	7042.08	4590.27	4590.27	491.14	0.79
11699.00	91.38	359.99	7040.58	4685.26	4685.26	490.95	1.01
11793.00	90.60	0.59	7038.95	4779.24	4779.24	491.43	1.04
11888.00	90.77	0.51	7037.81	4874.23	4874.23	492.34	0.20
11982.00	89.46	0.41	7037.61	4968.23	4968.23	493.09	1.40
12077.00	89.56	0.41	7038.42	5063.22	5063.22	493.78	0.11
12171.00	90.24	0.05	7038.59	5157.22	5157.22	494.15	0.81
12266.00	88.86	358.41	7039.34	5252.20	5252.20	492.88	2.26
12360.00	89.19	358.37	7040.93	5346.15	5346.15	490.23	0.36
12454.00	89.50	358.10	7042.01	5440.10	5440.10	487.33	0.43
12549.00	90.67	358.29	7041.87	5535.05	5535.05	484.34	1.25
12643.00	91.38	357.73	7040.19	5628.98	5628.98	481.07	0.96
12738.00	90.71	358.22	7038.46	5723.90	5723.90	477.72	0.88
12832.00	91.54	359.27	7036.61	5817.86	5817.86	475.66	1.43
12927.00	90.40	359.77	7035.00	5912.84	5912.84	474.87	1.31
13021.00	90.57	359.44	7034.20	6006.84	6006.84	474.22	0.40
13115.00	88.76	359.67	7034.75	6100.83	6100.83	473.48	1.95
13210.00	89.40	0.00	7036.28	6195.81	6195.81	473.21	0.76

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS
ft	deg	deg	ft	ft	ft	ft	7100ft
13304.00	88.52	0.40	7037.99	6289.80	6289.80	473.53	1.03
13398.00	88.62	0.41	7040.33	6383.77	6383.77	474.20	0.11
13492.00	89.26	359.96	7042.07	6477.75	6477.75	474.51	0.83
13587.00	90.07	359.09	7042.62	6572.74	6572.74	473.73	1.25
13681.00	90.81	358.54	7041.91	6666.72	6666.72	471.79	0.98
13775.00	89.16	359.26	7041.94	6760.70	6760.70	469.99	1.91
13869.00	88.66	359.94	7043.73	6854.68	6854.68	469.33	0.90
13964.00	89.36	359.40	7045.37	6949.66	6949.66	468.78	0.93
14058.00	90.44	359.49	7045.53	7043.65	7043.65	467.87	1.15
14140.00	91.21	359.23	7044.35	7125.64	7125.64	466.96	0.99

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft

5" = 100' FEET TVD