

**Company : NOBLE ENERGY INC**  
**Well : WELLS RANCH AE19-615**  
**Field : WATTENBERG**

**Date : 09-Dec-2014**  
**Time : 13:38**



A Schlumberger Company

GAMMA-RAY

2" = 100'  
FEET MD

COMPANY : NOBLE ENERGY INC  
WELL : WELLS RANCH AE19-615  
FIELD : WATTENBERG  
COUNTY : WELD  
STATE : CO  
COUNTRY : USA  
API No. : 05-123-39633

COMPANY : NOBLE ENERGY INC  
WELL : WELLS RANCH AE19-615  
FIELD : WATTENBERG  
COUNTY : WELD  
STATE : CO  
COUNTRY : USA  
API WELL No. : 05-123-39633

WELL LOCATION

LAT:47°28'9"N LON:104°21'21"  
X:3318318' Y:1415812'  
SEC:24 TWP:6N 63W RANGE:

OTHER SERVICES

DIRECTIONAL  
ROP

DEPTH REF. : ROTARY TABLE  
ELEVATION : 4816.00 ft (ROTARY TABLE - GROUND LEVEL)  
ALTITUDE : 4786.00 ft (GROUND LEVEL - MEAN SEA LEVEL)

BOREHOLE RECORD

DEVIATION RECORD

HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft
13 1/2	0	733	00 +/-2	0	1665
8 3/4	733	7105	13 +/-2	1665	6178
6 1/8	7105	12022	13-90	6178	7105
			90 +/-5	7105	12022

CASING RECORD

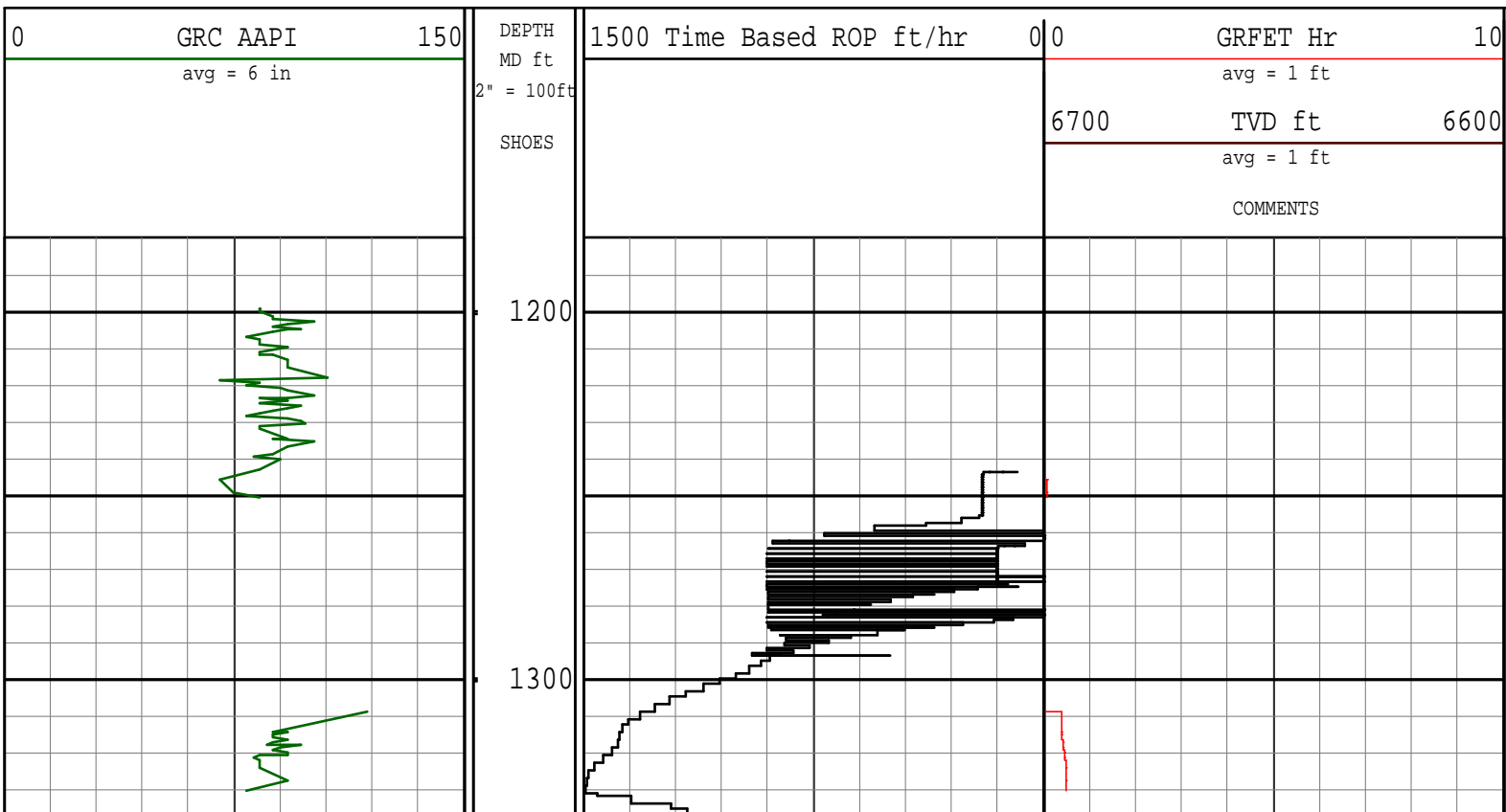
CASING SIZE in	FROM ft	TO ft
9 5/8	0	723
7	723	7100

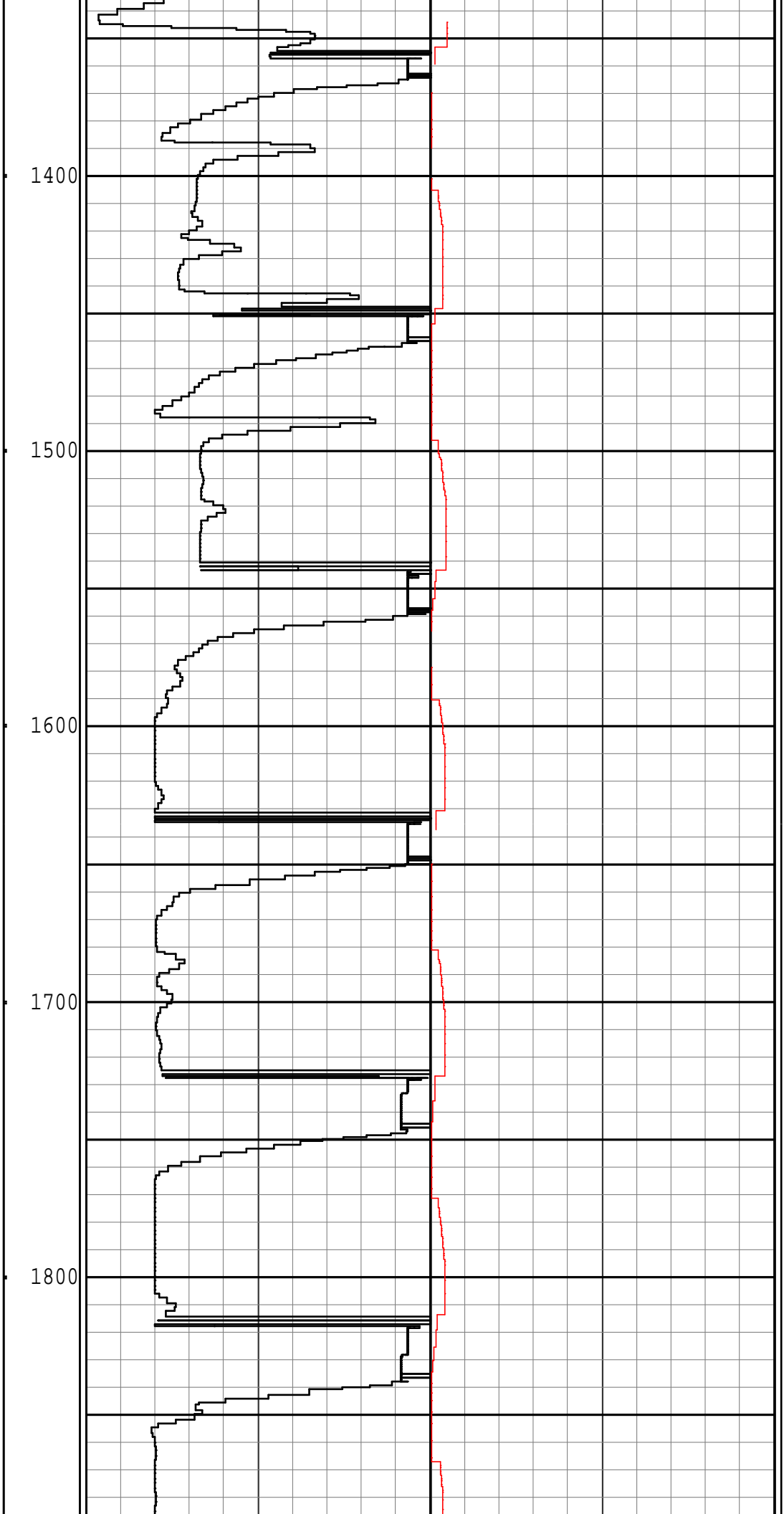
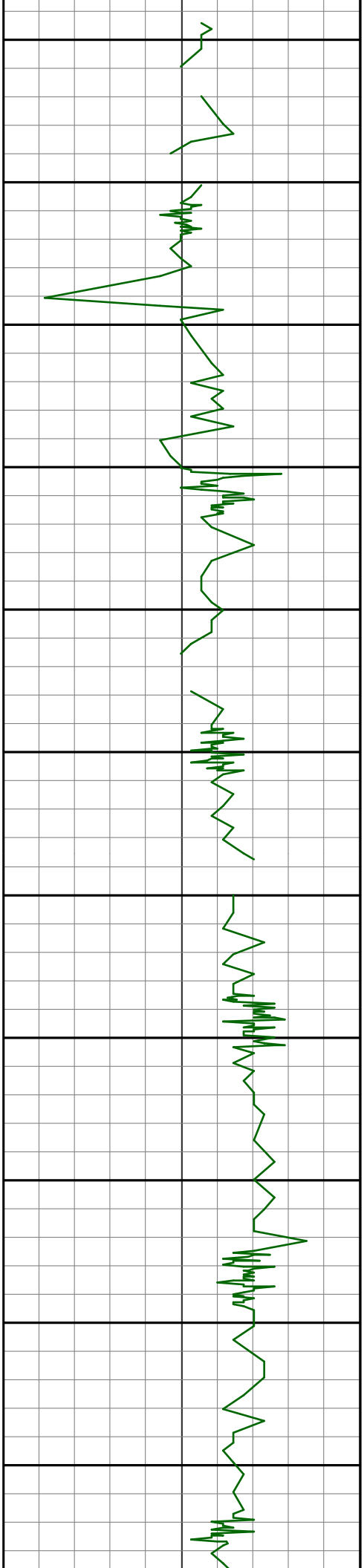
DRILLING Co. : H&P  
RIG : 330  
LMD UNIT No. : N/A  
SPUD DATE : 1-DEC-14  
DISTRICT : CCO  
LMD START DATE : 3-DEC-14  
DEPTH : 1200 ft  
LMD END DATE : 9-DEC-14  
DEPTH : 12022 ft  
TOTAL DEPTH : 12022 ft

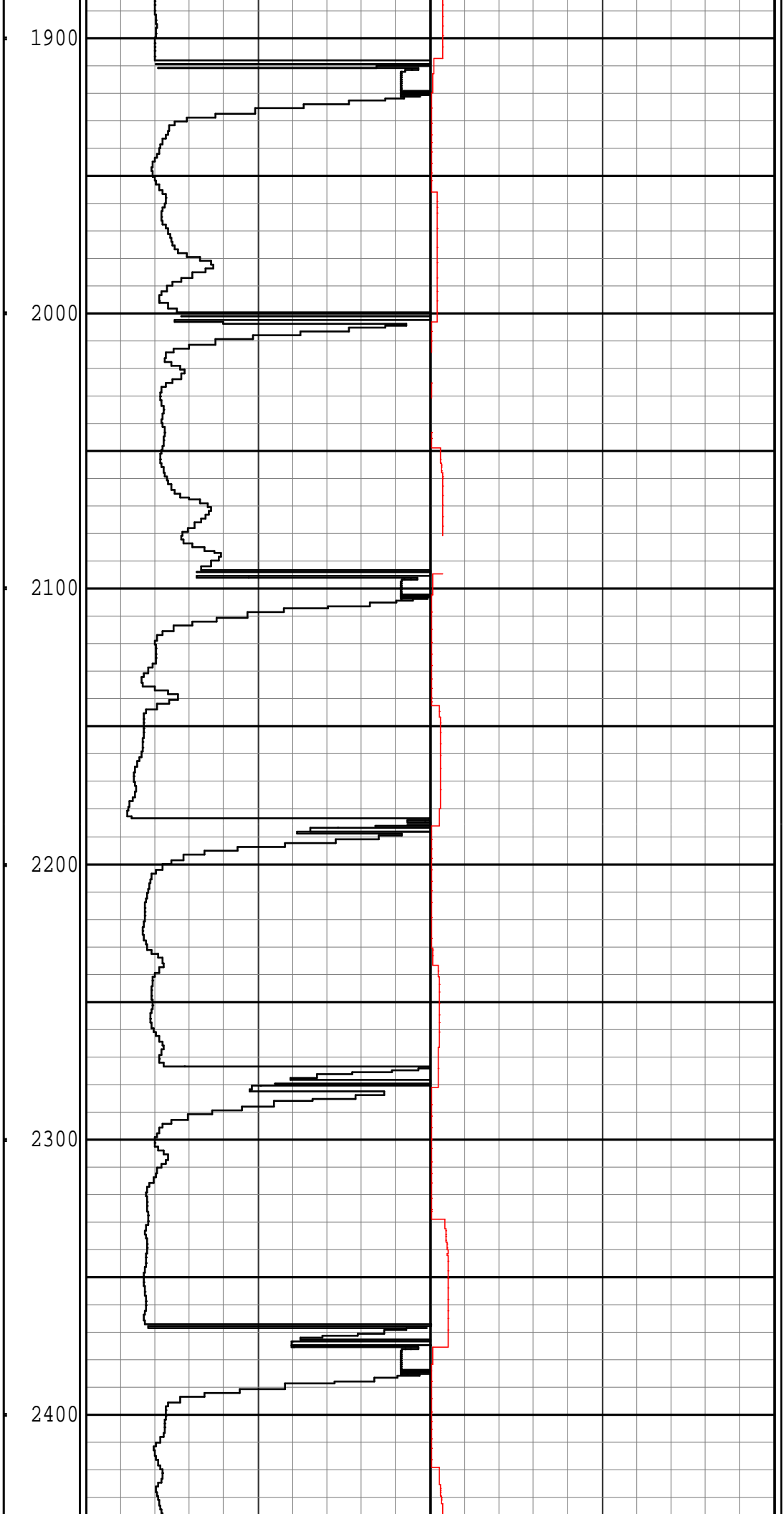
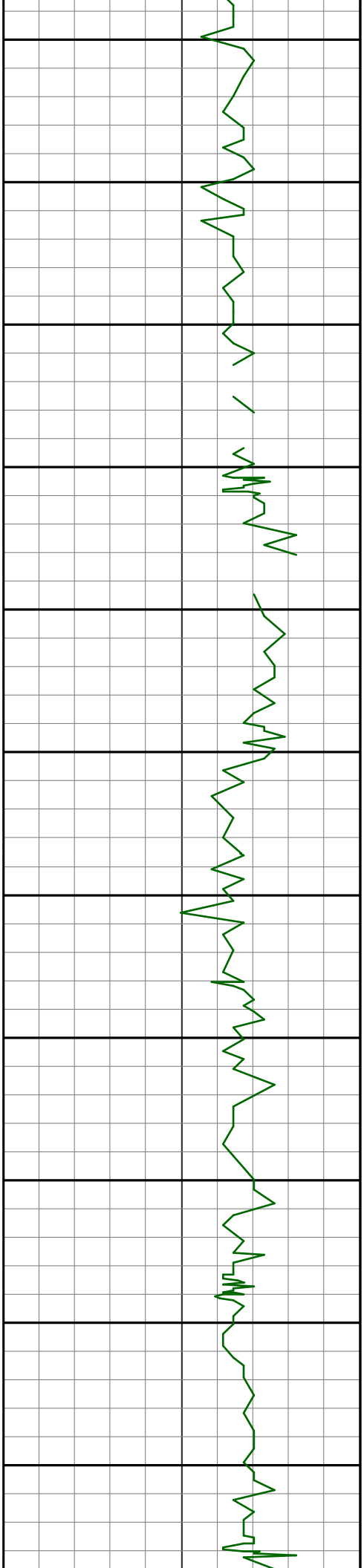
RUN DATA

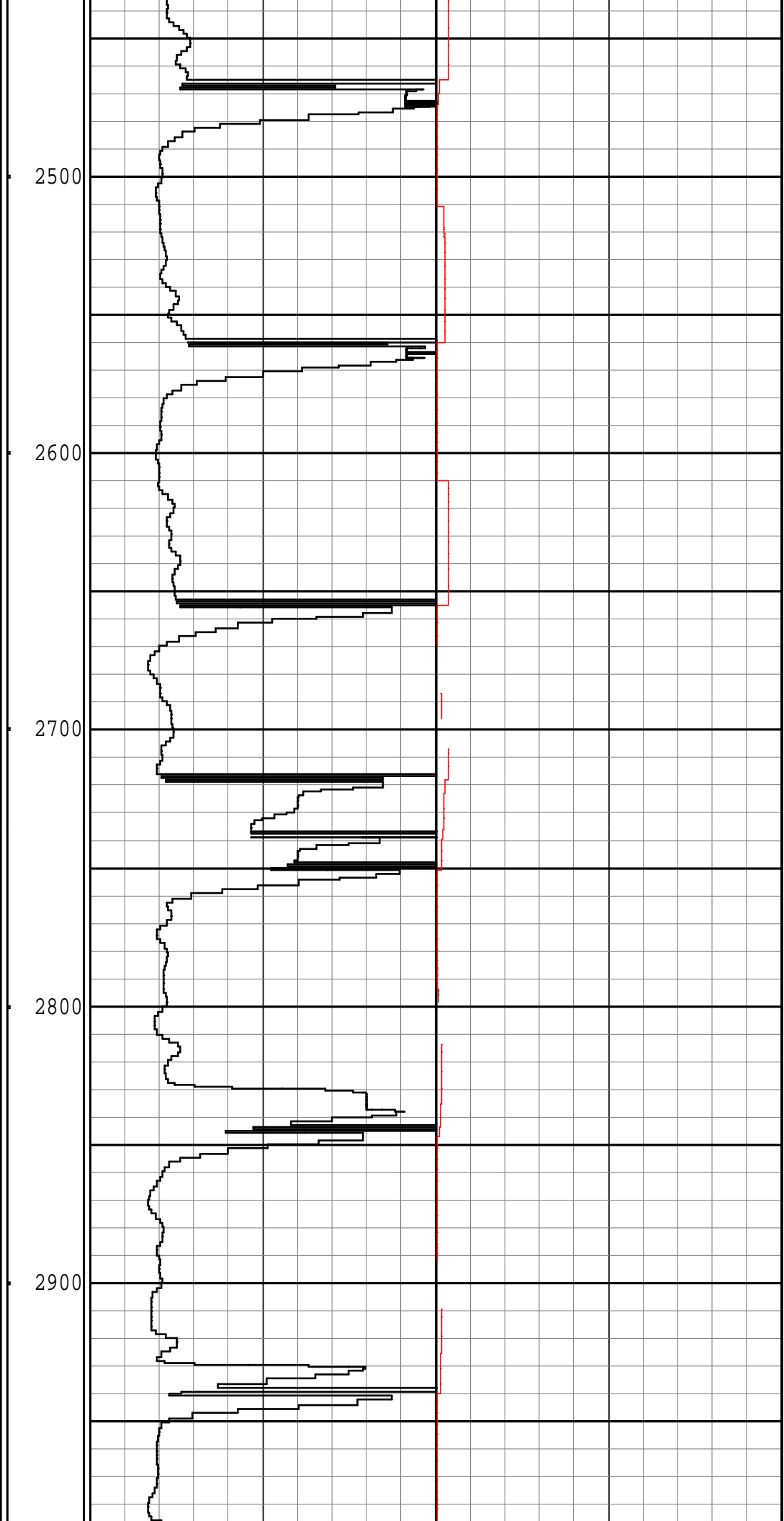
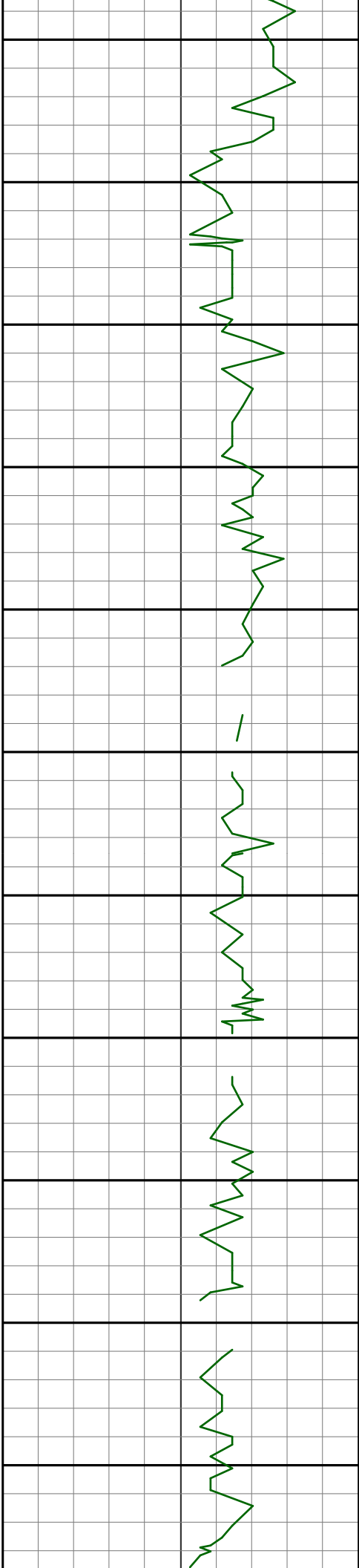
RUN NUMBER	#1	#2	#3			
START DATE	2-DEC-14	04-DEC-14	06-DEC-14			
START TIME	21:30	18:30	14:00			
END DATE	4-DEC-14	05-DEC-14	9-DEC			
END TIME	18:15	18:15	00:00			
DEPTH IN ft	1200	6532	7105			
DEPTH OUT ft	6532	7105	12022			
LOG TOP ft	1200	6490	7062			
LOG BOTTOM ft	6490	7062	11982			
HOLE SIZE in	8 3/4	8 3/4	4 3/4			
MUD DATA @ ft	2920	6532	9253			
MUD TYPE	WATER BASED	WATER BASED	WATER BASED			
DENSITY lb/gal	8.40	10.50	9.20			
VISCOSITY s/qt	26	36	37			
pH	8.1	9.5	8.8			
FLUID LOSS cm3/30						
SALINITY ppm	1900	1800	1500			
Rm ohmm @ deg F	@	@	@			
Rmf ohmm @ deg F	@	@	@			

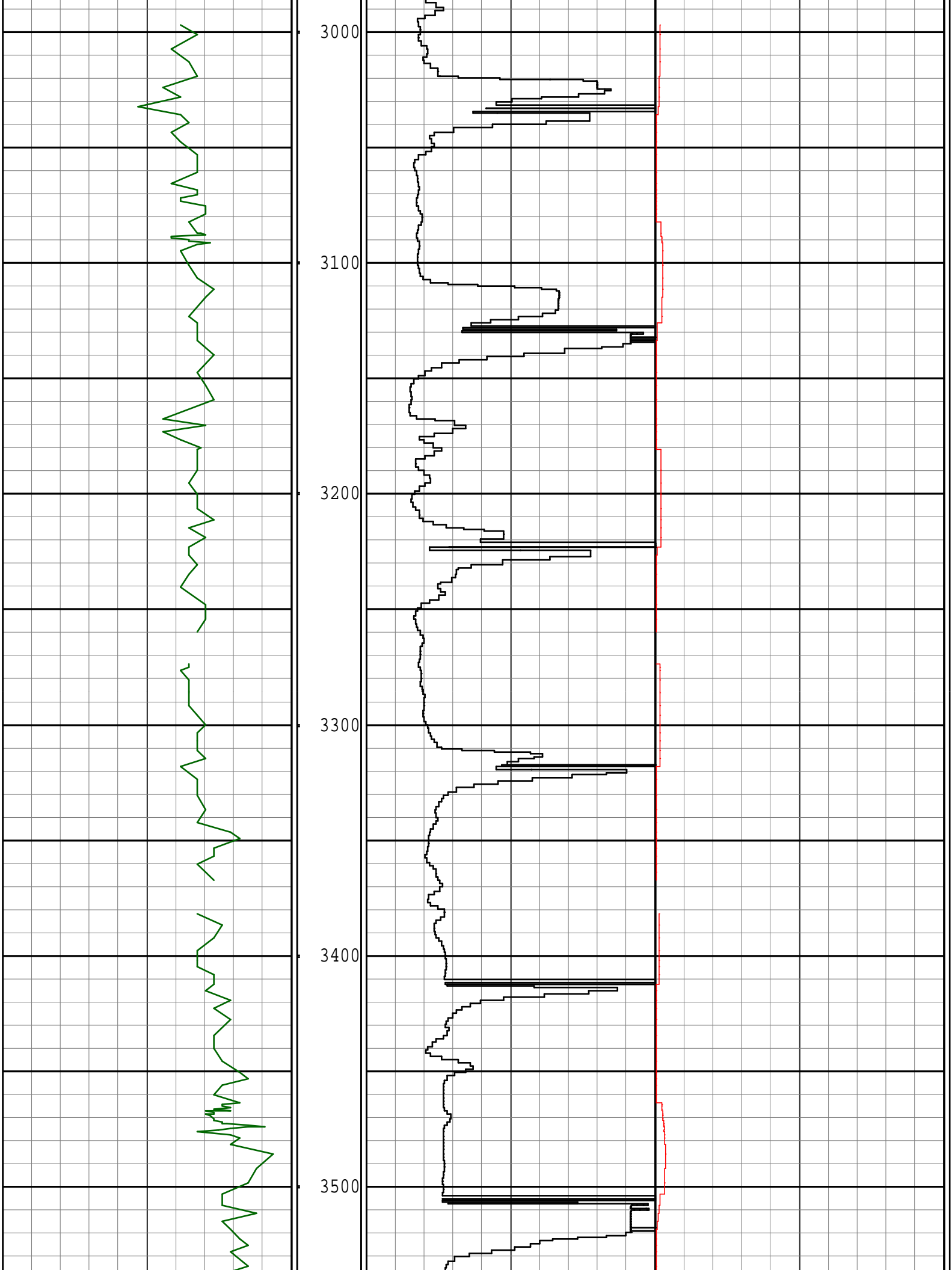
REMARKS
PATHFINDER JOB #: 14CC00716
ALL LOGGING DATA IS TRANSMITTED ONLY UNLESS STATED OTHERWISE.
ALL REFERENCES TO LOG TOP, LOG BOTTOM, OR LOGGING TOOL DEPTH REFER TO THE GAMMA-RAY SENSOR UNLESS STATED OTHERWISE.
ALL ANNOTATIONS IN THE DEPTH TRACK ARE REFERENCED TO BIT DEPTH.
THIRD PARTY DEPTH TRACKING SERVICES ARE PROVIDED BY PASON.
RUN #1: 6 3/4" HDS1-R/GAMMA LOGGING RUN.
RUN #2: 6 3/4" HDS1-R/GAMMA LOGGING RUN.
RUN #3: 4 3/4" HDS1-R/GAMMA LOGGING RUN.
<p>NOTICE - All interpretations are opinions based on inferences from electrical or other measurements and we do not guarantee the accuracy or correctness of any interpretations. We shall not, except in the case of gross or willful negligence on our part, be liable or responsible for loss, costs, damages or expenses incurred or sustained by anyone as a result of any interpretations made by one 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.</p> <p style="text-align: right;">PATHFINDER - A Schlumberger Company</p>
<p>Version No : RX5 V6.05B Release 20Jun2014</p> <p>Plot Time : 09-Dec-2014 13:33</p>

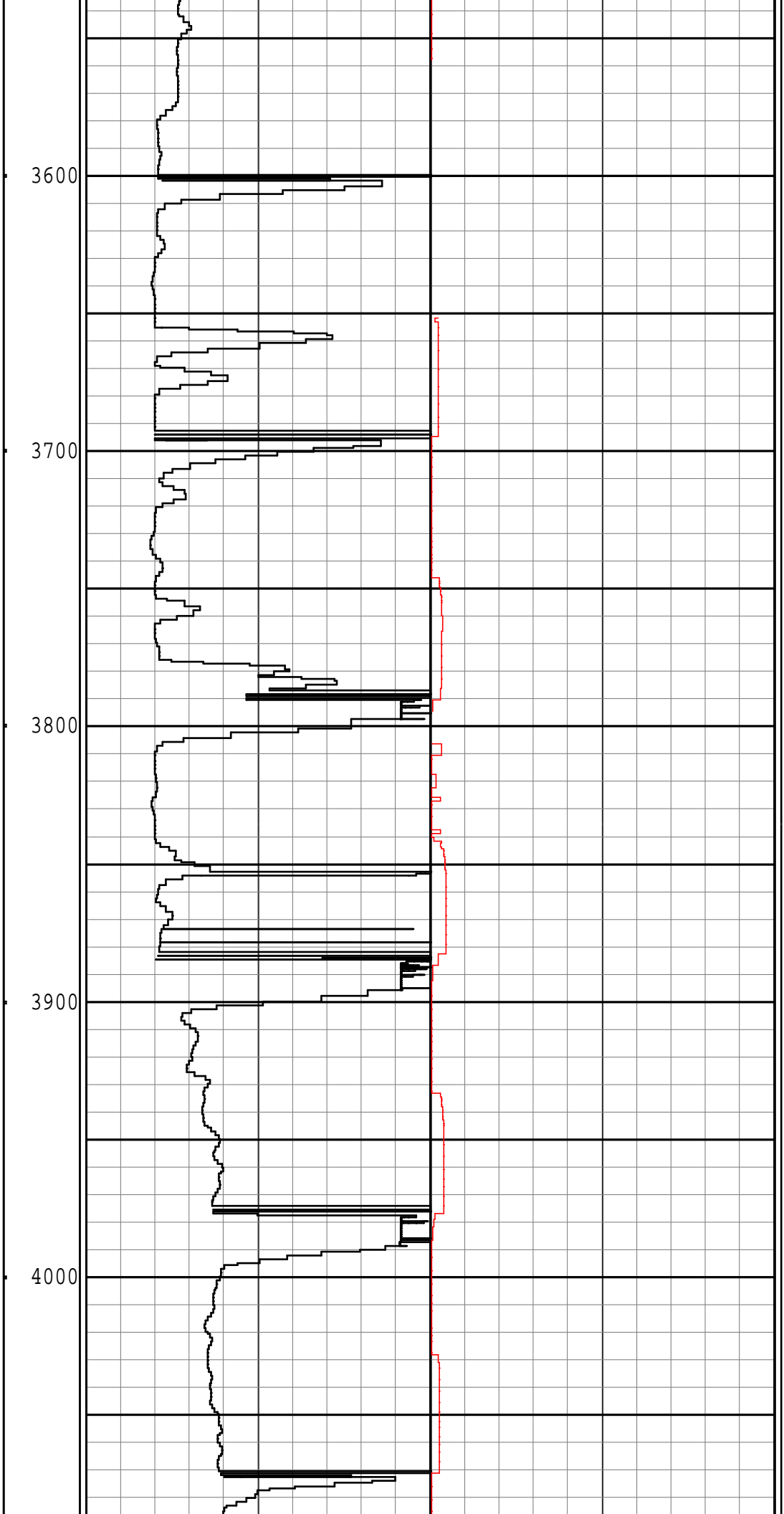
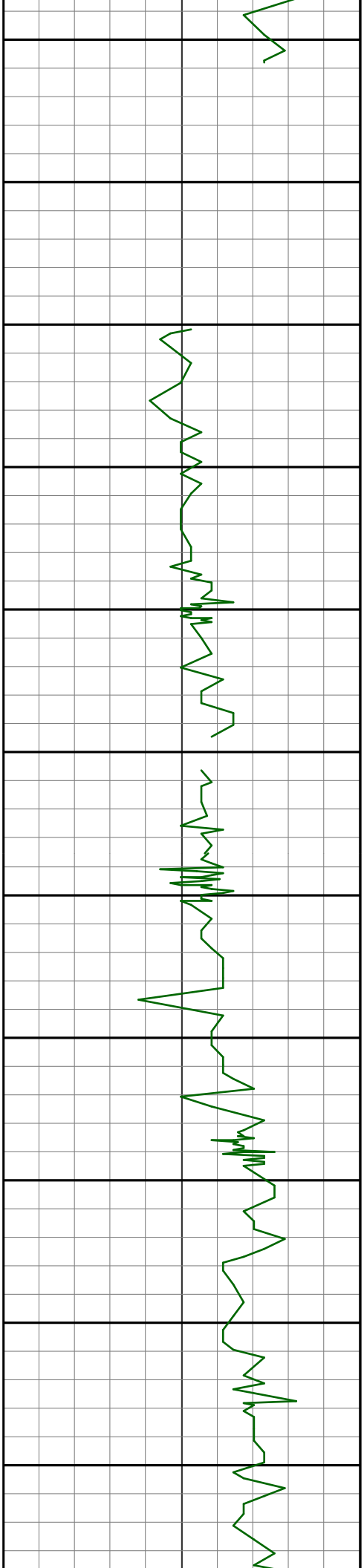




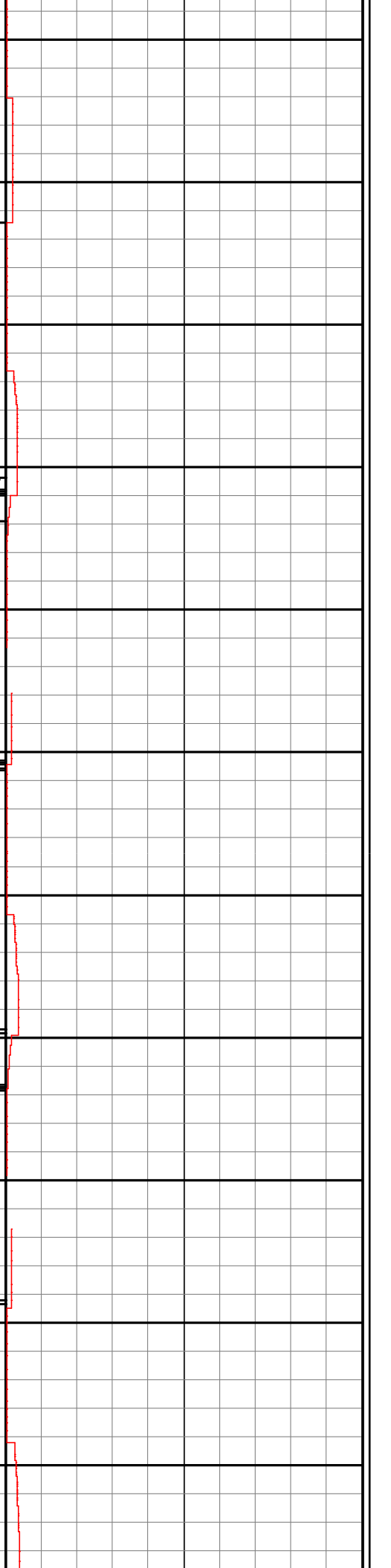
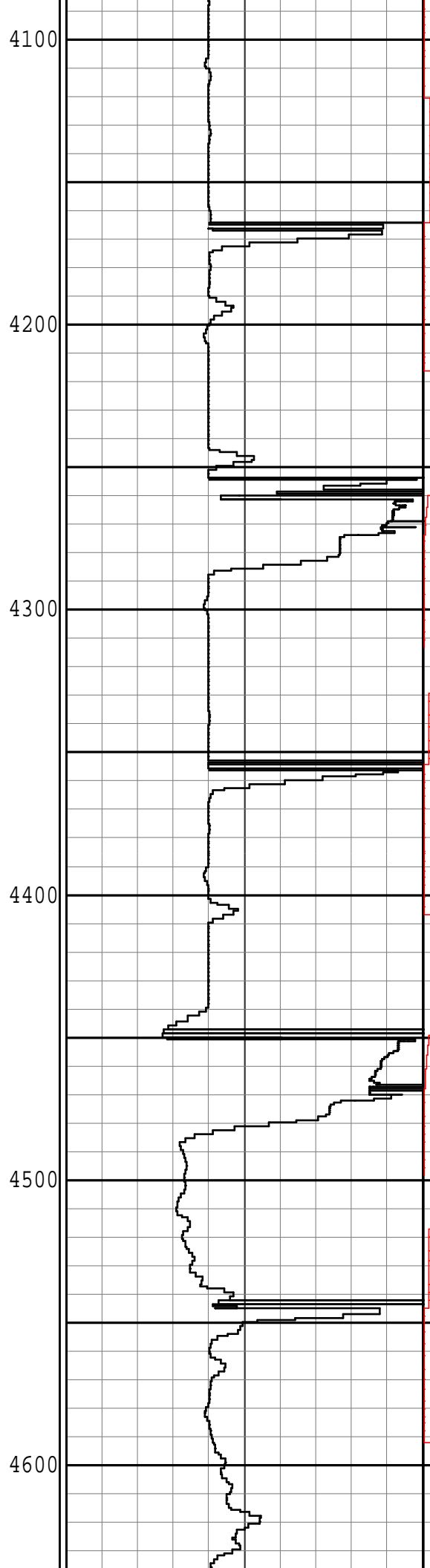
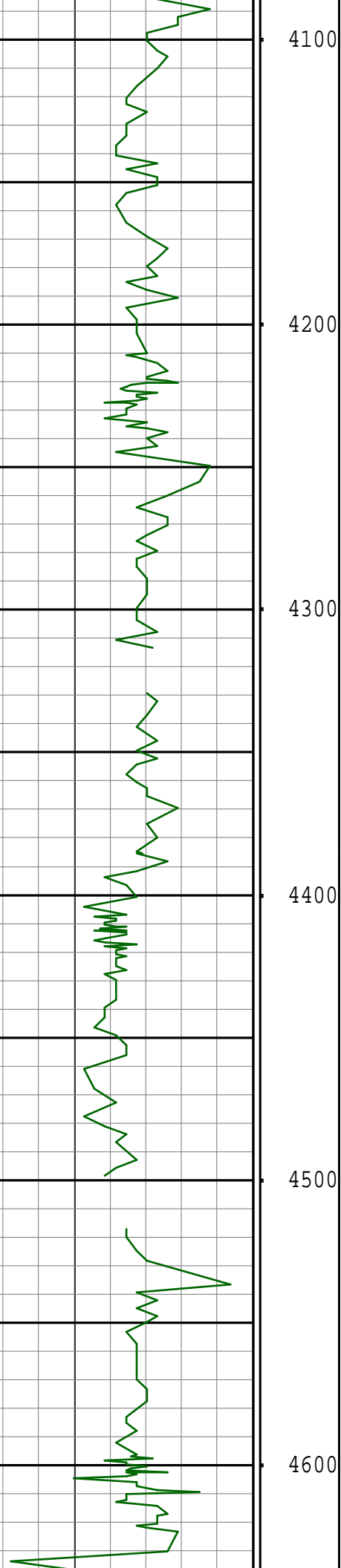


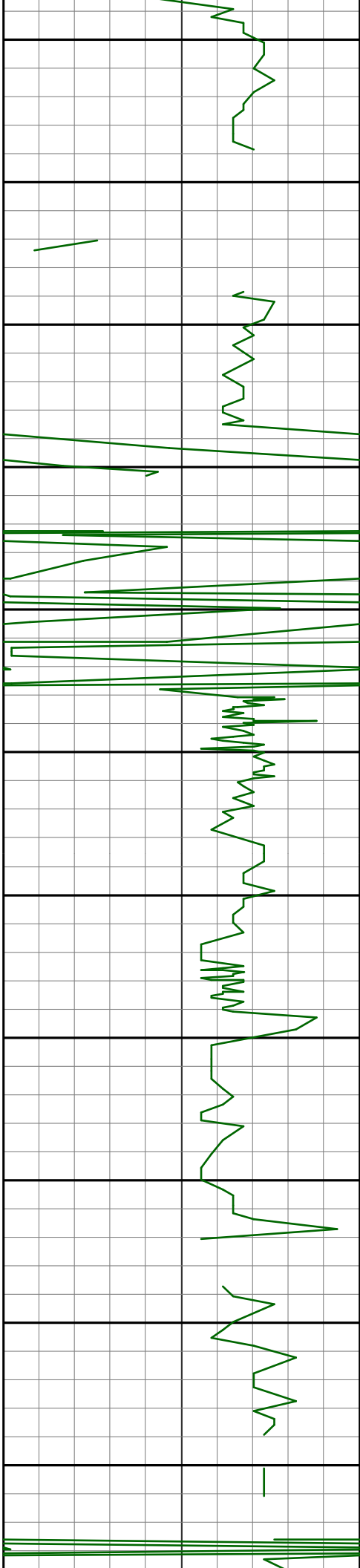












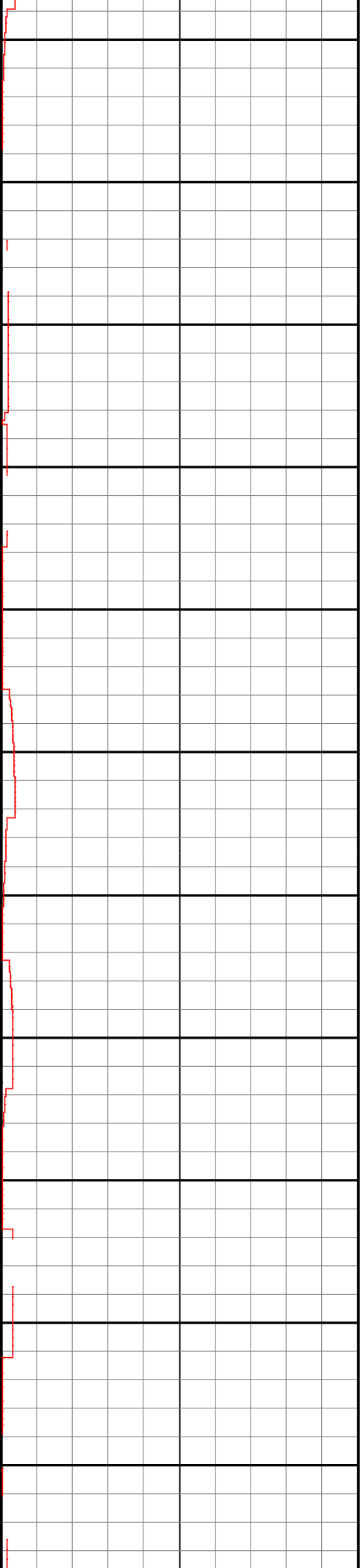
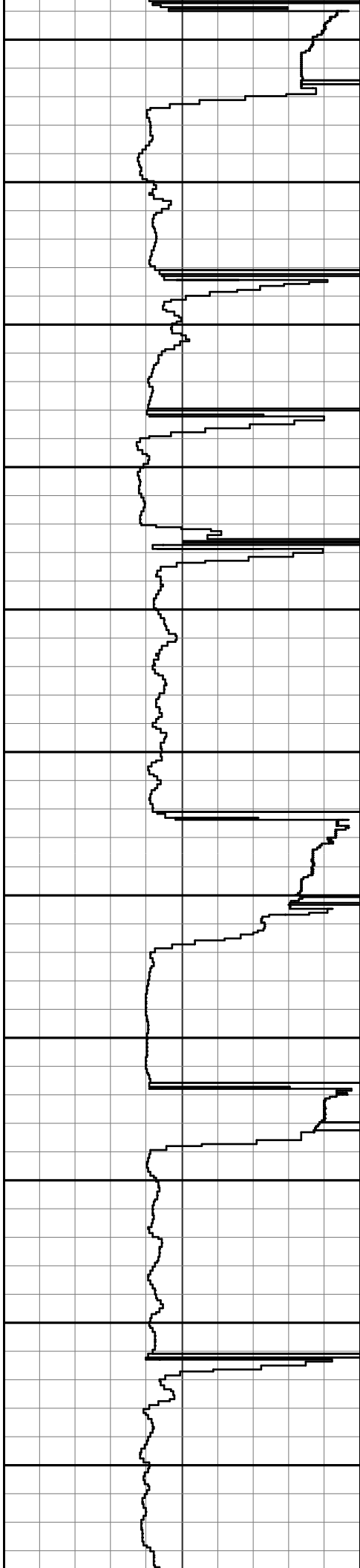
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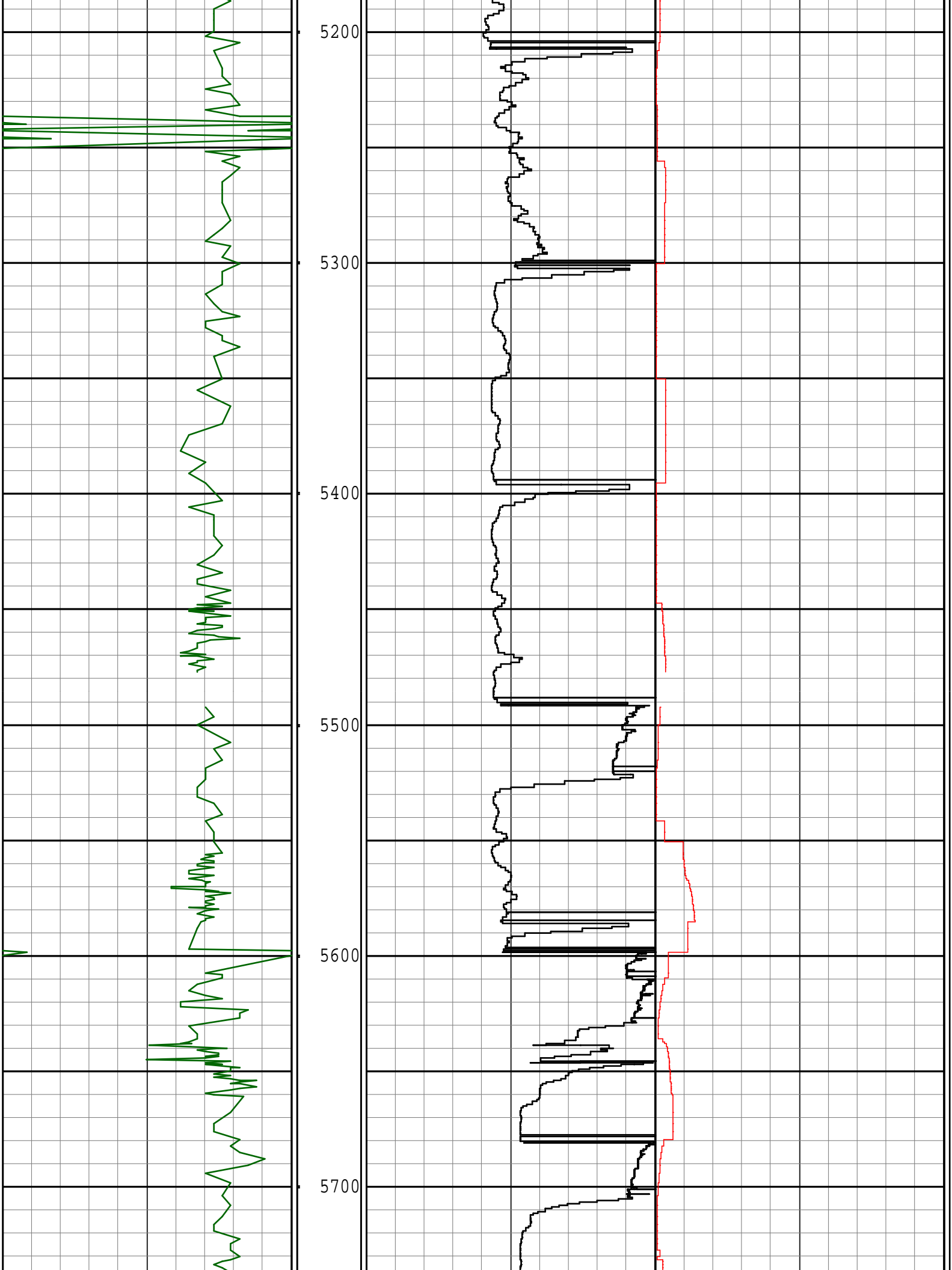
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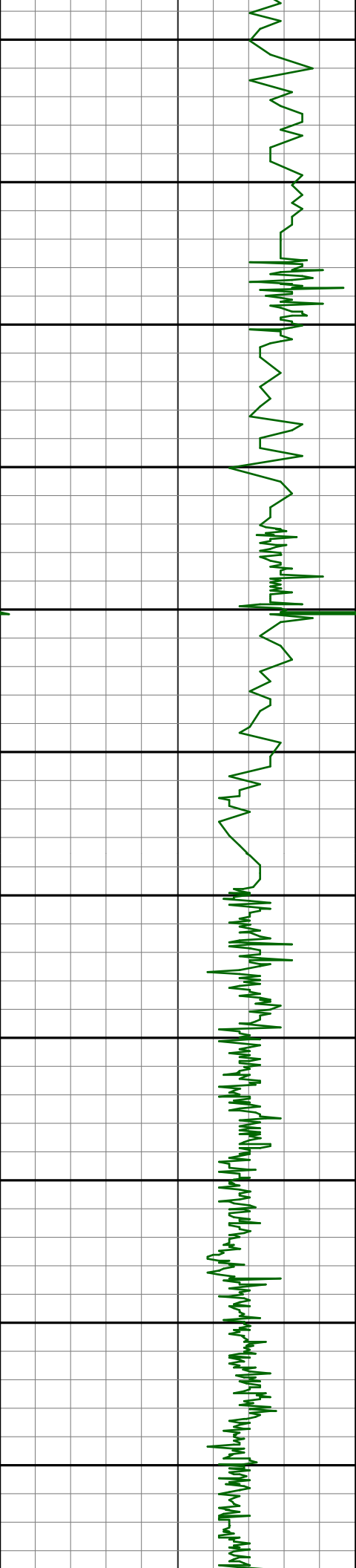
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5000

5100







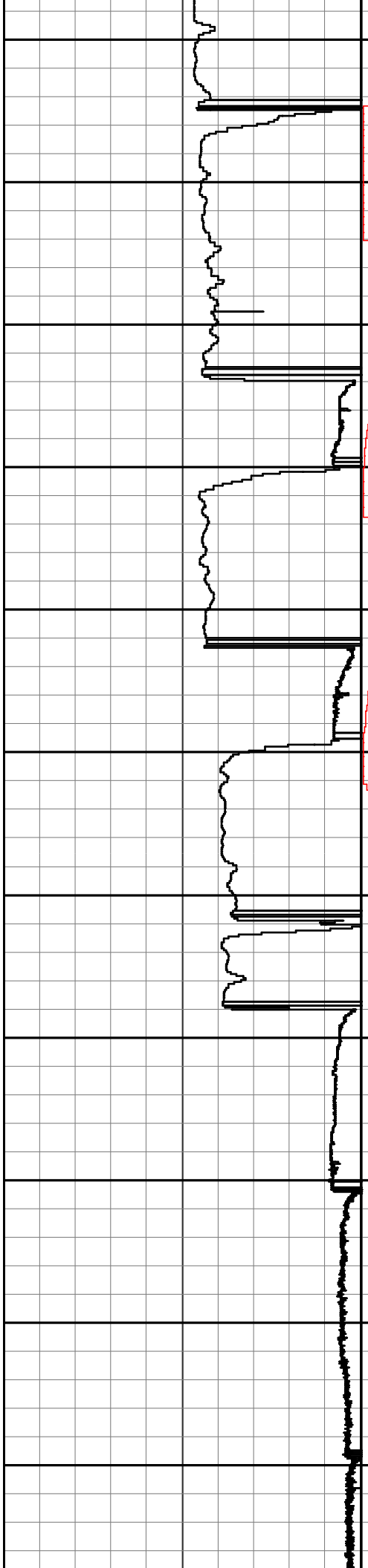
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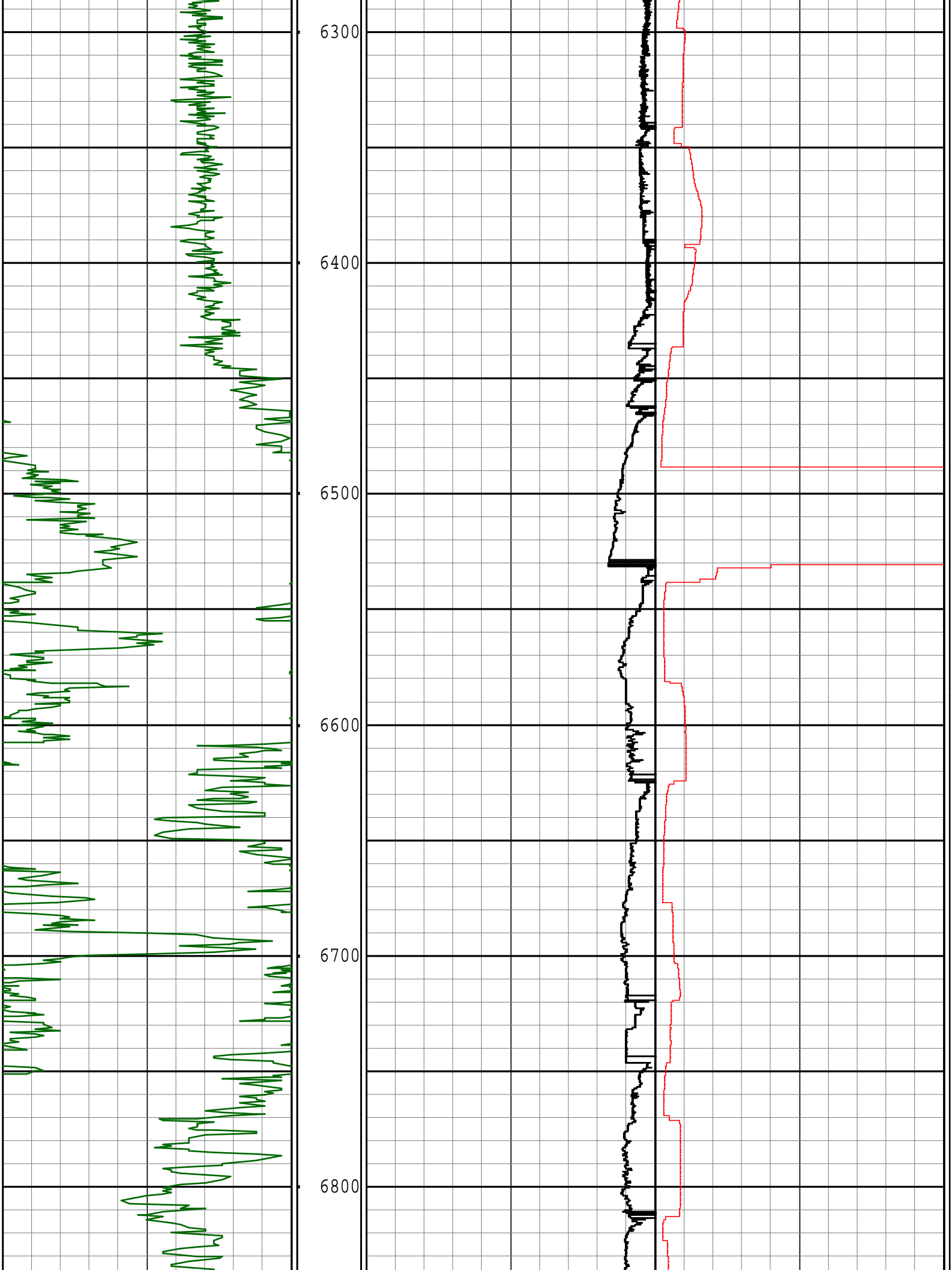
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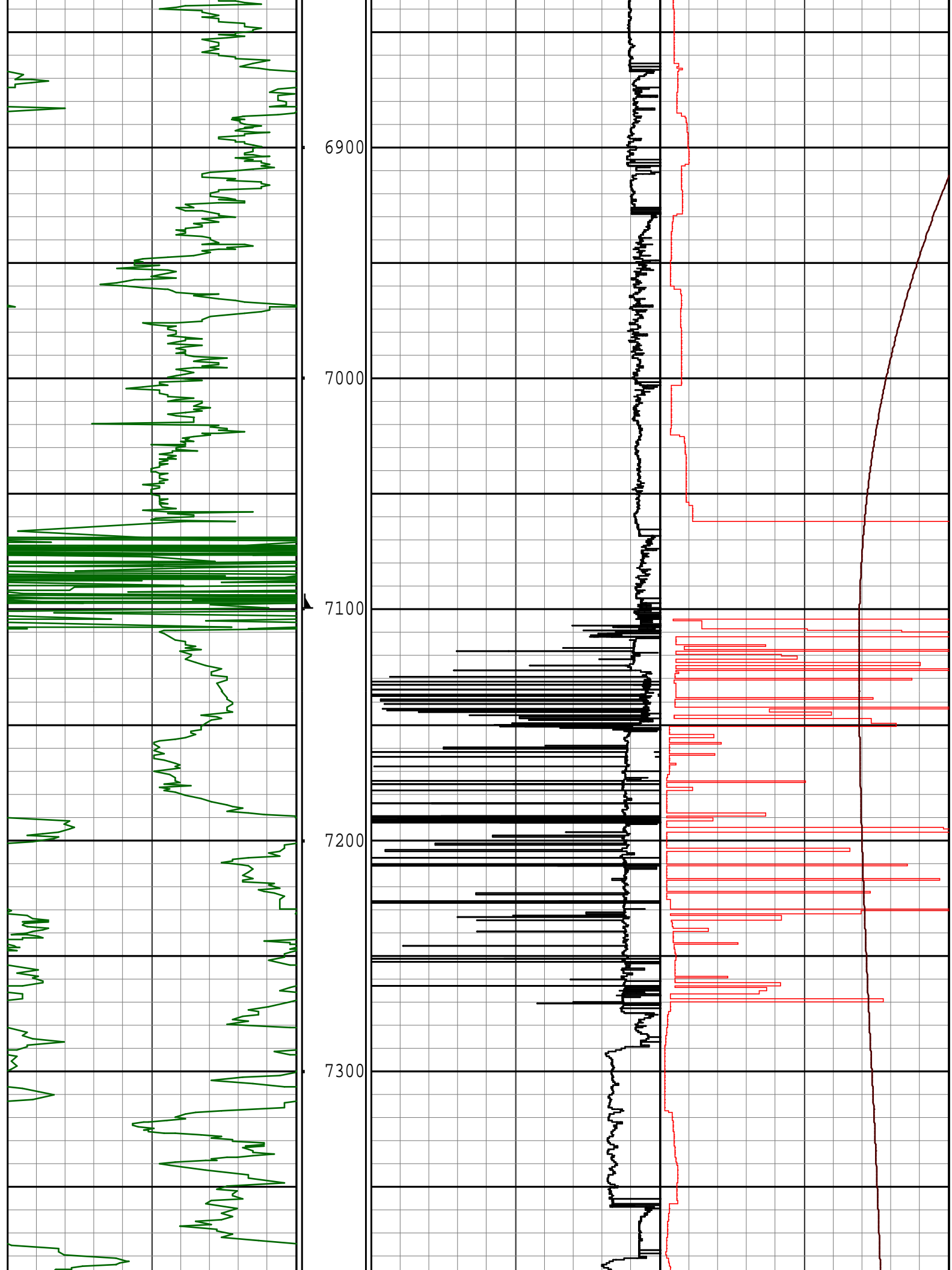
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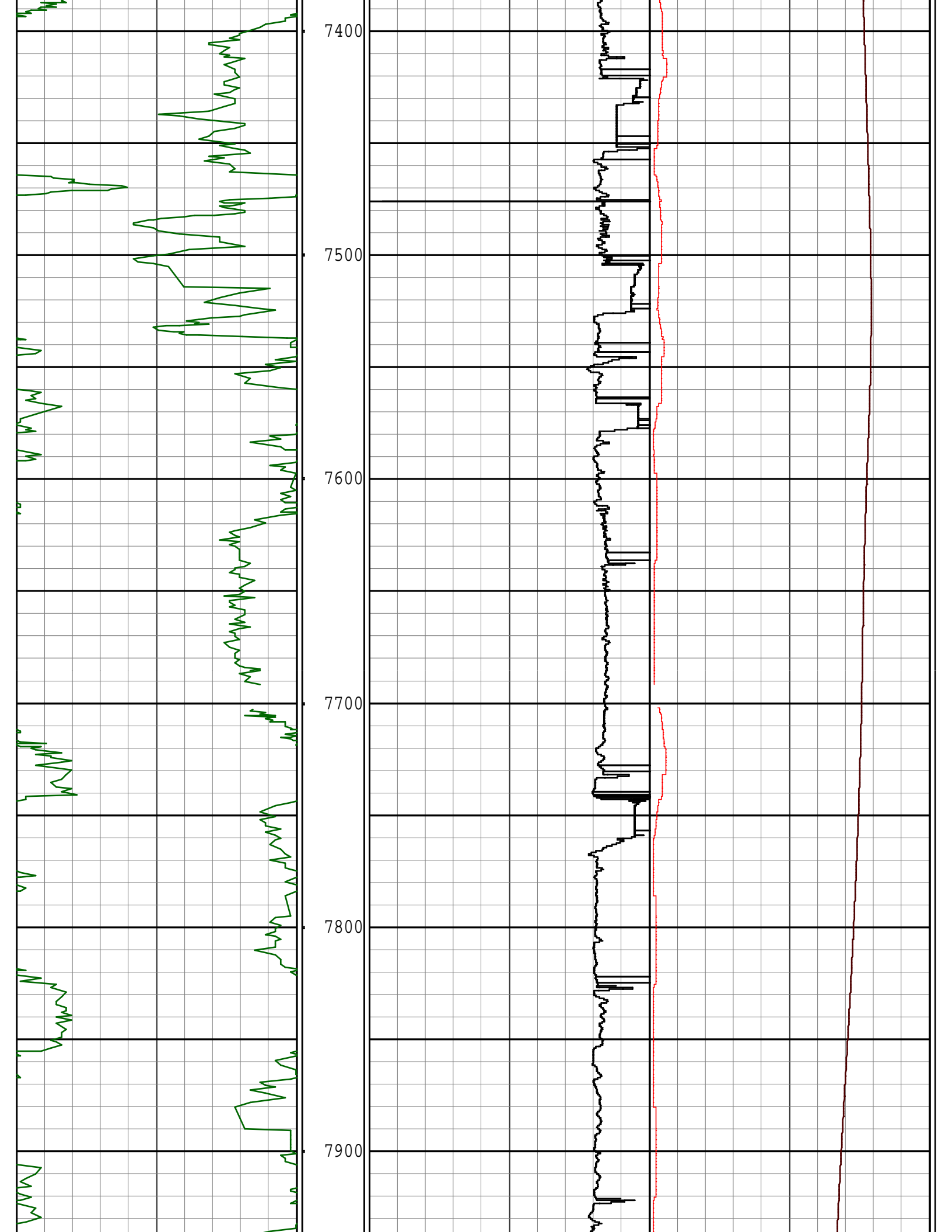
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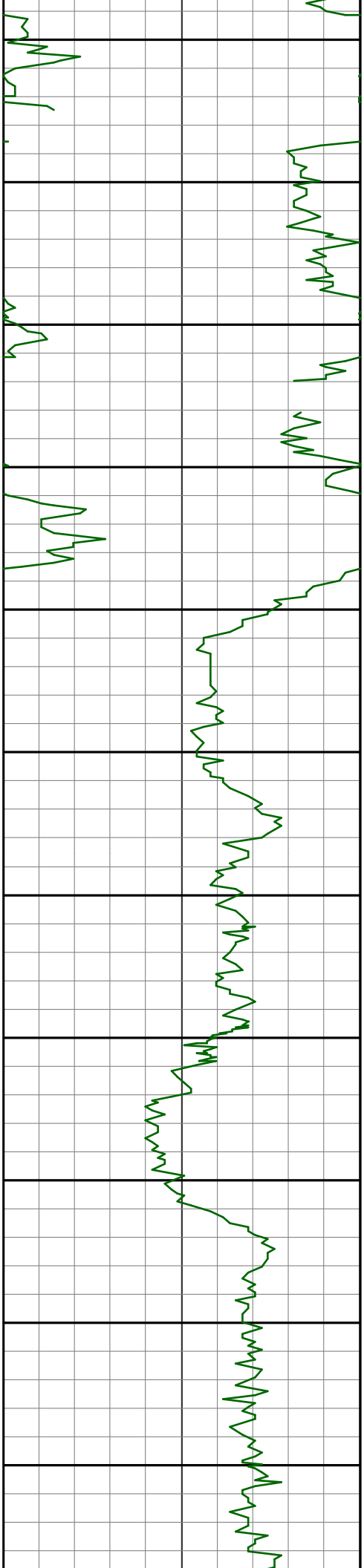
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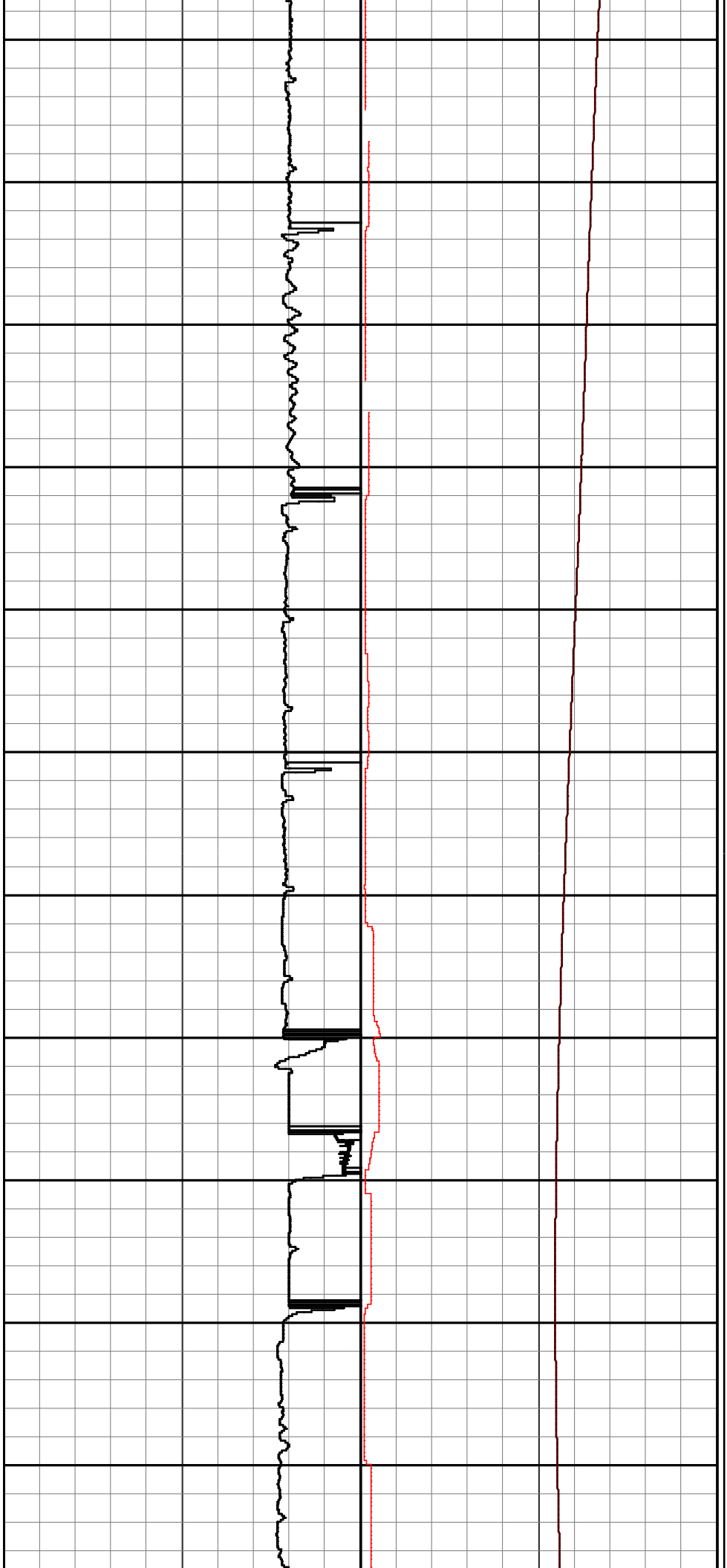




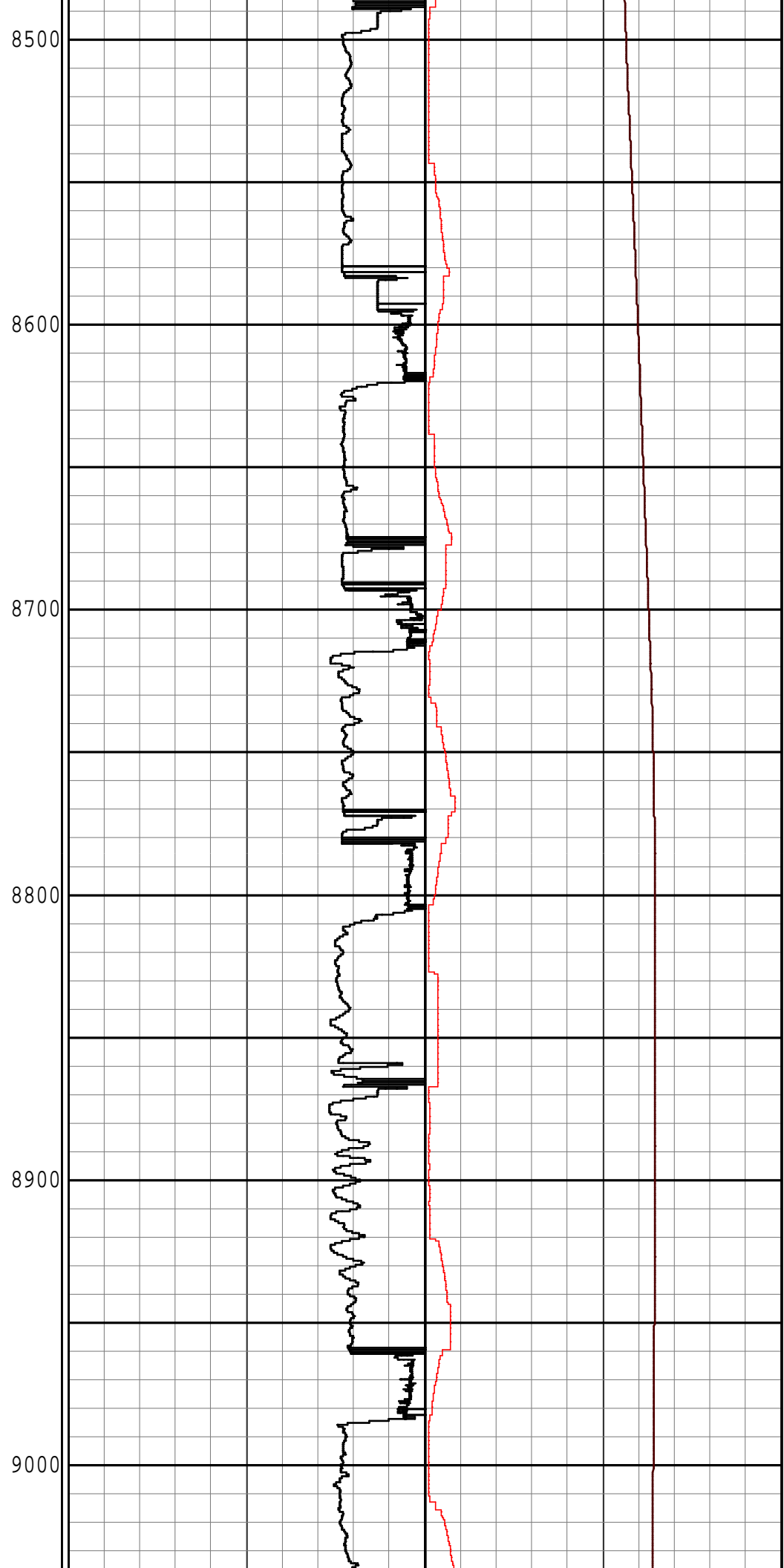
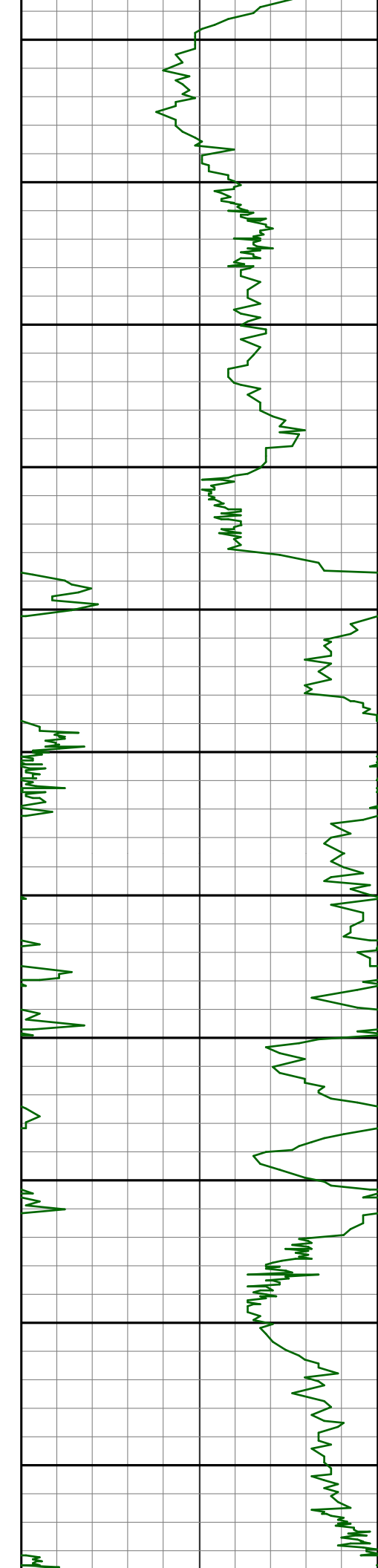


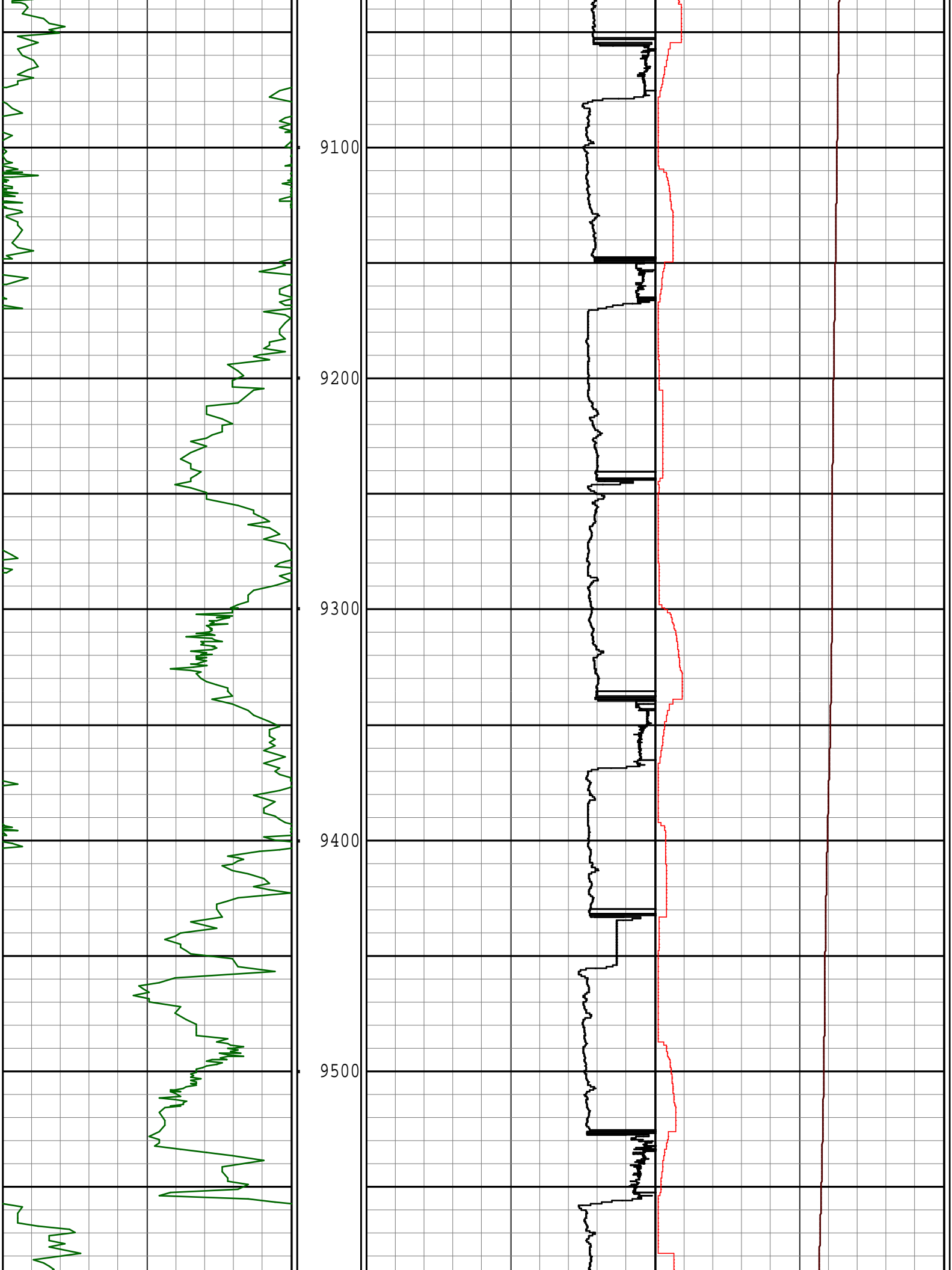


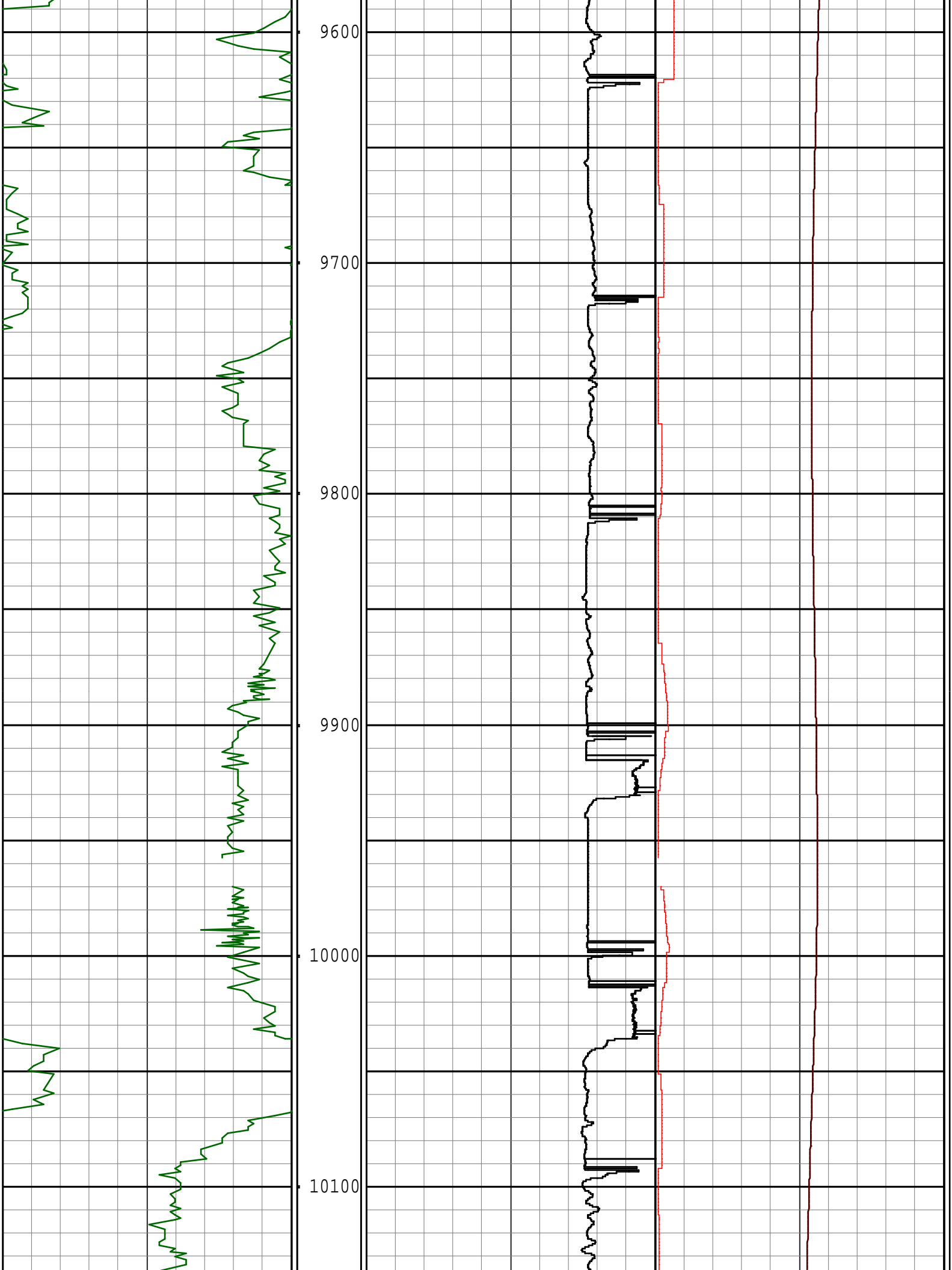
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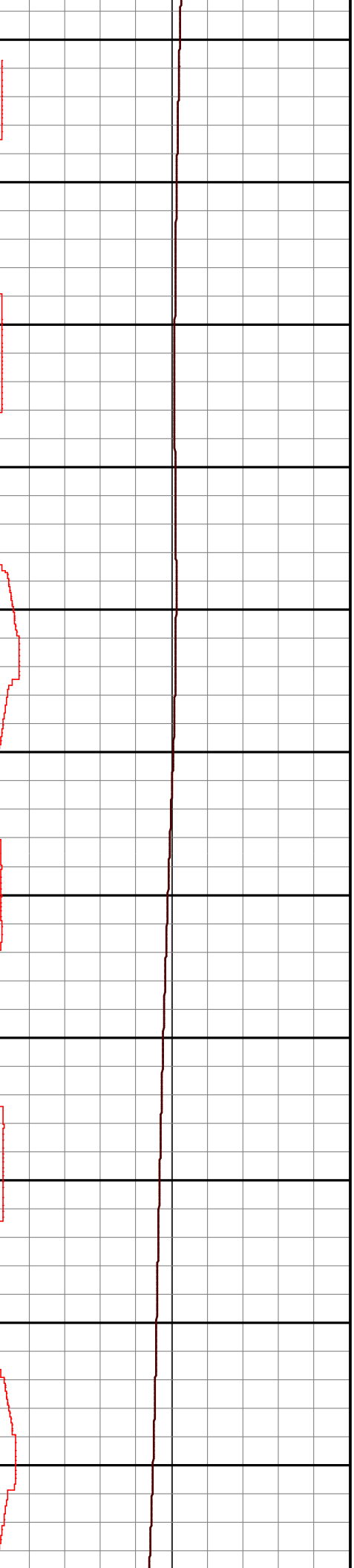
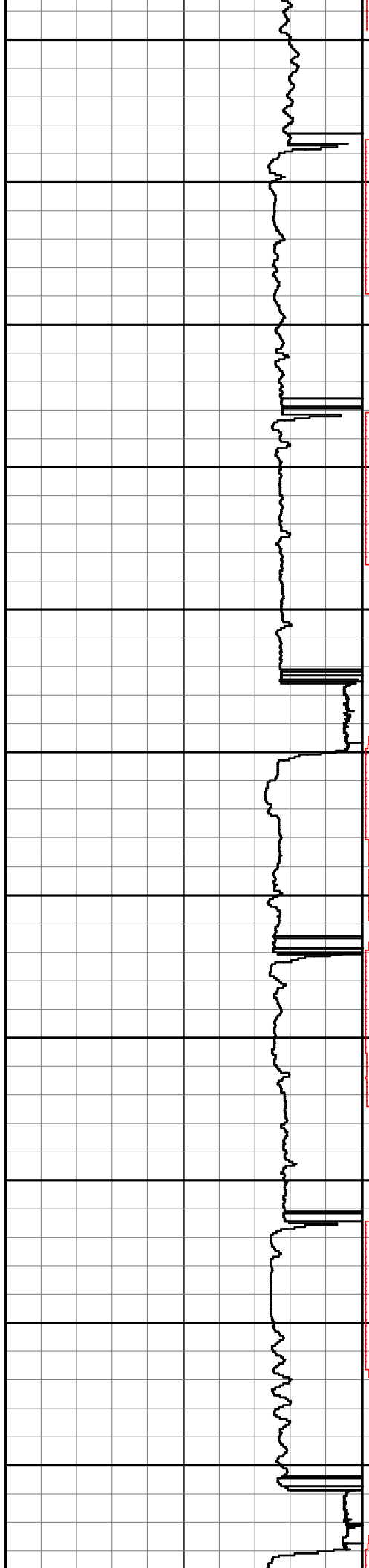
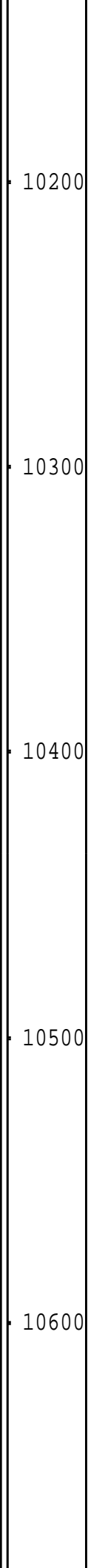
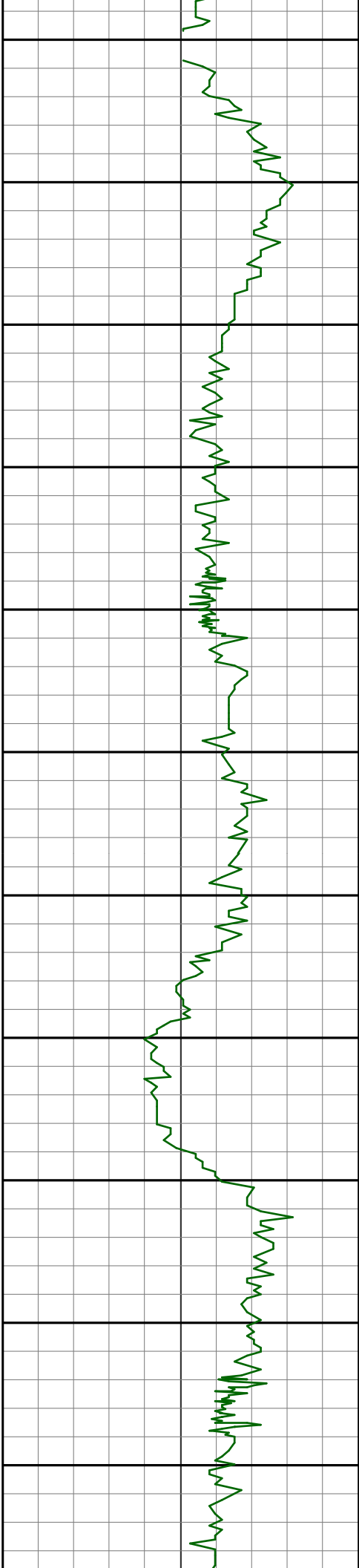


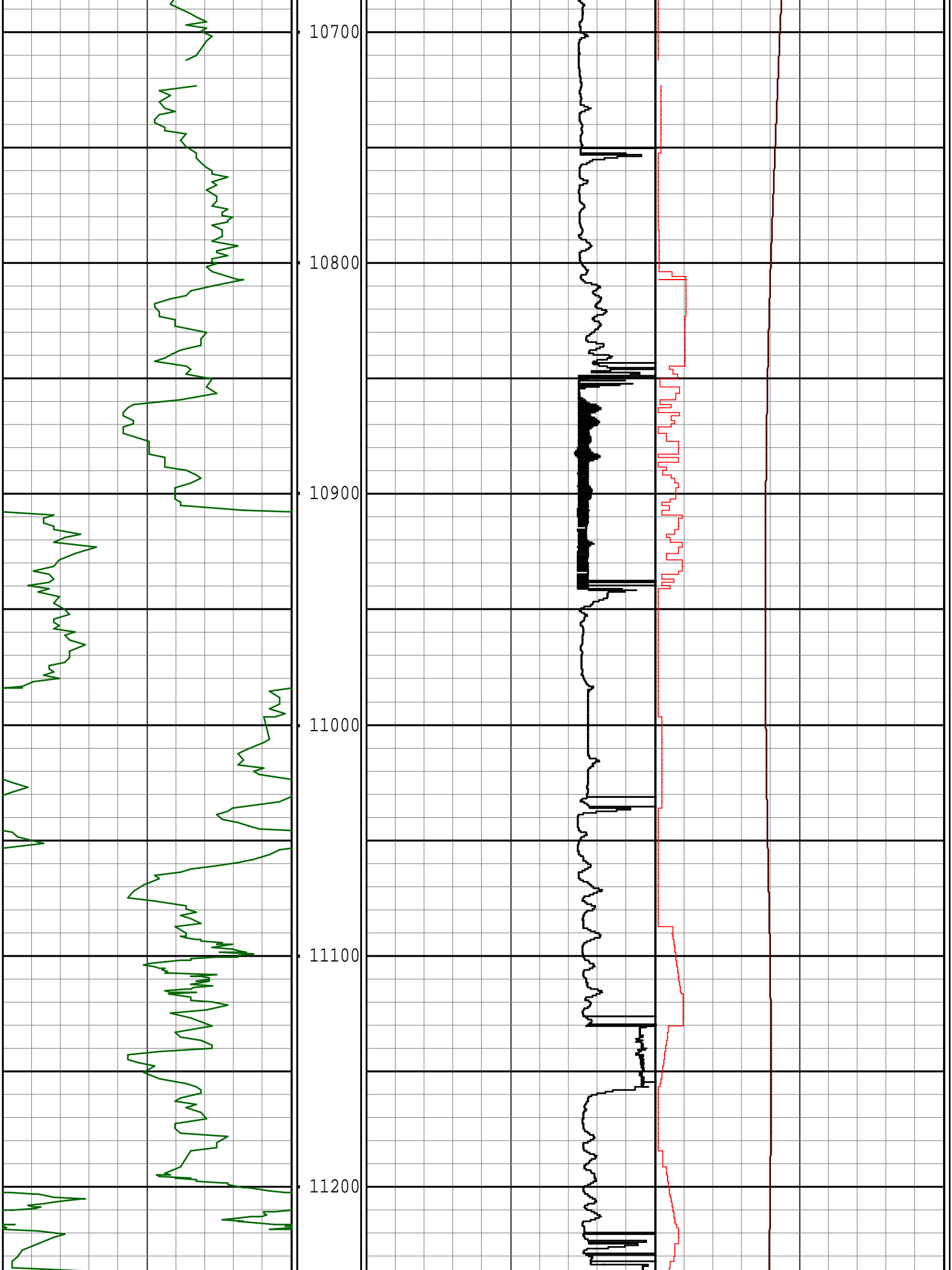


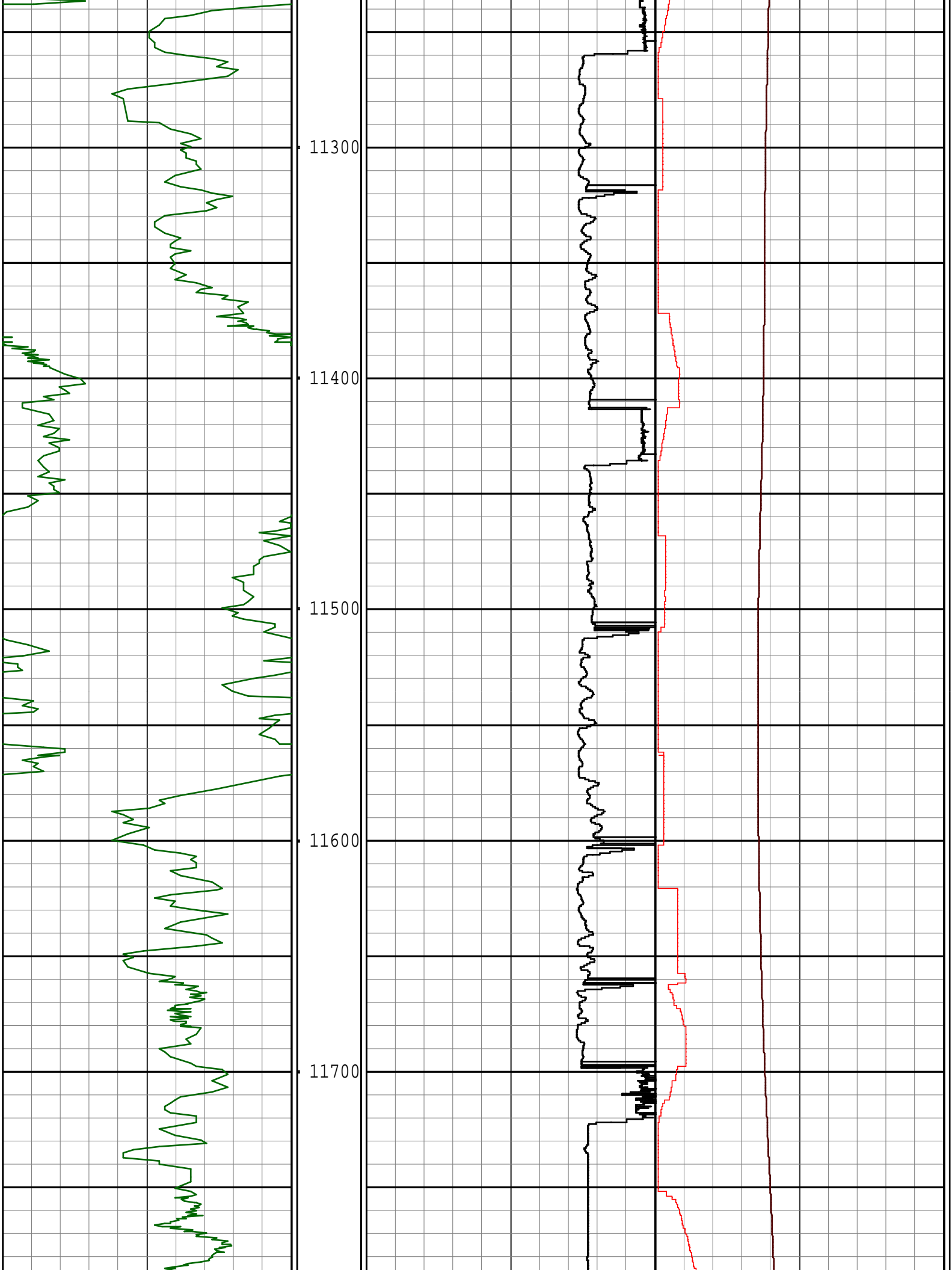


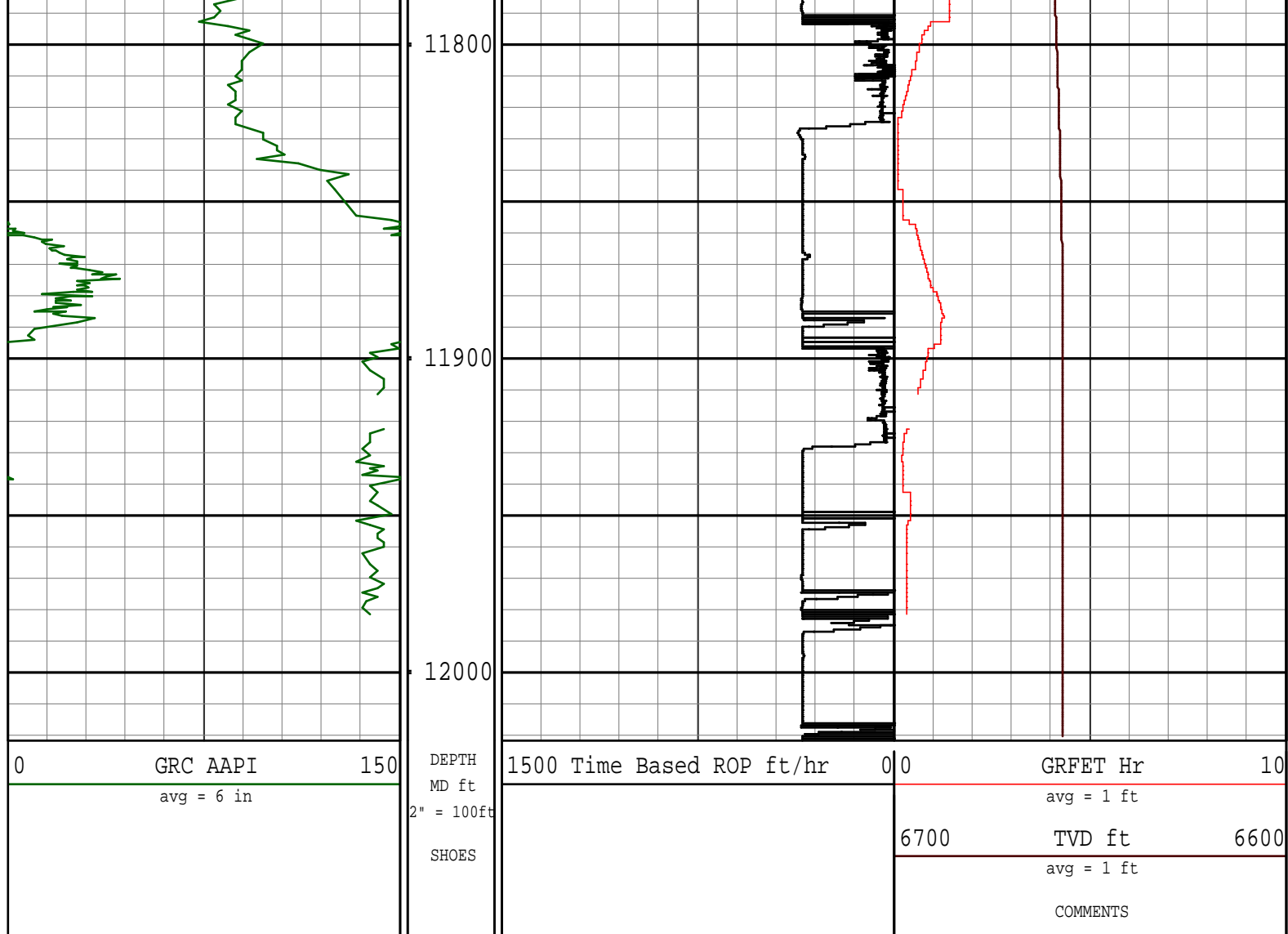












# Survey Report

Vertical Section Plane: 256.52°						Total Correction: 7.39° East to Grid					
Calculation Method: Minimum Curvature						Survey Reference: Wellhead					
North Aligned to: Grid North						Well: WELLS RANCH AE19-615					
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Sub Sea TVD (ft)	Vertical Section (ft)	Rect Co-ord North (ft)	Rect Co-ord East (ft)	Closure Distance (ft)	Closure Direction (deg)	Dog-leg Severity (dg/hft)	Temp (deg F)
TIED-IN TO SURFACE.											
0.00	0.00	190.00	0.00	0.00	-0.00	0.00 N	0.00 E	0.00	0.00		
370.00	0.60	210.20	369.99	369.99	1.34	1.67 S	0.97 W	1.94	210.20	0.16	
THE FOLLOWING ARE PATHFINDER MWD SURVEYS											
811.00	0.88	230.32	810.96	810.96	5.97	5.83 S	4.74 W	7.52	219.12	0.09	75.72
903.00	0.97	230.94	902.94	902.94	7.31	6.77 S	5.89 W	8.98	221.01	0.10	75.72
995.00	0.88	262.93	994.93	994.93	8.71	7.35 S	7.20 W	10.29	224.39	0.56	75.72
1087.00	0.88	250.19	1086.92	1086.92	10.12	7.68 S	8.56 W	11.50	228.12	0.21	79.34
1181.00	1.14	225.93	1180.91	1180.91	11.64	8.57 S	9.91 W	13.11	229.15	0.53	79.34
1294.00	2.46	220.13	1293.85	1293.85	14.56	11.21 S	12.28 W	16.63	227.62	1.18	75.72
1388.00	3.17	203.34	1387.74	1387.74	17.74	15.14 S	14.61 W	21.04	223.99	1.15	75.72
1480.00	4.31	188.05	1479.54	1479.54	20.53	20.90 S	16.11 W	26.38	217.62	1.64	75.72
1571.00	5.89	180.32	1570.18	1570.18	22.90	28.95 S	16.61 W	33.38	209.84	1.89	79.34
1664.00	7.56	182.34	1662.54	1662.54	25.71	39.84 S	16.89 W	43.27	202.97	1.81	79.34
1757.00	10.20	184.36	1754.41	1754.41	29.90	54.16 S	17.76 W	57.00	198.16	2.86	79.34
1851.00	12.22	192.88	1846.62	1846.62	36.87	72.16 S	20.61 W	75.05	195.94	2.77	82.95
1942.00	13.89	190.42	1935.27	1935.27	45.57	92.30 S	24.74 W	95.55	195.00	1.93	82.95
2035.00	14.25	190.95	2025.48	2025.48	54.83	114.51 S	28.93 W	118.11	194.18	0.41	86.57
2128.00	13.37	186.64	2115.79	2115.79	63.26	136.43 S	32.35 W	140.21	193.34	1.45	86.57
2221.00	13.72	186.64	2206.20	2206.20	70.75	158.07 S	34.87 W	161.87	192.44	0.38	86.57
2314.00	13.81	187.96	2296.53	2296.53	78.60	180.01 S	37.68 W	183.92	191.82	0.35	90.18
2407.00	11.87	186.82	2387.20	2387.20	85.98	200.51 S	40.35 W	204.53	191.38	2.10	90.18
2500.00	12.22	191.83	2478.16	2478.16	93.51	219.64 S	43.51 W	223.90	191.20	1.19	90.18
2594.00	13.01	190.07	2569.89	2569.89	101.99	239.79 S	47.40 W	244.43	191.18	0.93	90.18
2689.00	13.10	190.69	2662.43	2662.43	110.67	260.90 S	51.26 W	265.89	191.12	0.17	90.18
2784.00	13.01	190.69	2754.98	2754.98	119.45	281.99 S	55.24 W	287.35	191.08	0.09	93.80
2880.00	13.10	190.69	2847.50	2847.50	128.10	303.00 S	59.10 W	298.00	191.00	0.10	93.80

2879.00	13.10	190.33	2847.52	2847.52	128.18	303.09 S	59.16 W	308.81	191.04	0.13	93.80
2973.00	13.45	190.16	2939.01	2939.01	136.86	324.33 S	63.00 W	330.39	190.99	0.38	97.41
3068.00	13.63	189.98	3031.37	3031.37	145.75	346.23 S	66.88 W	352.63	190.93	0.19	97.41
3162.00	12.49	189.98	3122.94	3122.94	154.21	367.15 S	70.57 W	373.87	190.88	1.21	101.02
3256.00	12.49	189.46	3214.71	3214.71	162.21	387.18 S	74.00 W	394.19	190.82	0.12	101.02
3350.00	12.05	187.79	3306.57	3306.57	169.73	406.93 S	77.00 W	414.15	190.71	0.60	101.02
3444.00	11.52	185.50	3398.59	3398.59	176.35	426.00 S	79.23 W	433.30	190.54	0.75	104.64
3633.00	13.10	187.61	3583.23	3583.23	190.19	466.01 S	83.87 W	473.50	190.20	0.87	104.64
3727.00	14.25	188.40	3674.57	3674.57	198.34	488.02 S	86.97 W	495.71	190.11	1.24	104.64
3822.00	14.42	190.86	3766.61	3766.61	207.57	511.20 S	90.91 W	519.22	190.08	0.67	104.64
3916.00	13.81	190.69	3857.77	3857.77	216.99	533.72 S	95.20 W	542.15	190.11	0.65	104.64
4011.00	12.57	186.47	3950.27	3950.27	225.16	555.14 S	98.47 W	563.80	190.06	1.65	108.25
4105.00	12.49	186.82	4042.03	4042.03	232.18	575.39 S	100.83 W	584.16	189.94	0.12	111.87
4200.00	11.87	187.87	4134.89	4134.89	239.30	595.27 S	103.38 W	604.18	189.85	0.69	111.87
4295.00	11.87	189.02	4227.86	4227.86	246.59	614.60 S	106.25 W	623.72	189.81	0.25	115.48
4389.00	11.43	188.67	4319.92	4319.92	253.80	633.35 S	109.17 W	642.69	189.78	0.47	115.48
4484.00	12.31	195.17	4412.89	4412.89	262.21	652.44 S	113.24 W	662.19	189.85	1.68	119.09
4579.00	11.78	193.67	4505.80	4505.80	271.49	671.63 S	118.18 W	681.95	189.98	0.65	119.09
4673.00	13.28	197.28	4597.56	4597.56	281.39	691.27 S	123.66 W	702.24	190.14	1.80	122.71
4863.00	12.13	197.37	4782.91	4782.91	302.79	731.16 S	136.10 W	743.72	190.54	0.61	126.32
4957.00	13.98	196.31	4874.47	4874.47	313.50	751.48 S	142.24 W	764.83	190.72	1.98	126.32
5052.00	15.83	192.36	4966.28	4966.28	324.85	775.16 S	148.24 W	789.20	190.83	2.22	126.32
5241.00	12.66	187.61	5149.45	5149.45	343.54	820.88 S	156.50 W	835.66	190.79	1.79	129.94
5431.00	9.32	186.12	5335.94	5335.94	356.20	856.82 S	160.90 W	871.80	190.64	1.76	133.55
5525.00	10.64	186.82	5428.51	5428.51	361.76	873.01 S	162.74 W	888.05	190.56	1.41	133.55
5620.00	10.90	194.02	5521.84	5521.84	368.95	890.43 S	165.96 W	905.77	190.56	1.44	133.55
5714.00	12.75	192.12	5613.84	5613.84	377.54	909.20 S	170.29 W	925.01	190.61	2.01	137.17
5809.00	9.76	191.84	5707.01	5707.01	385.51	927.33 S	174.14 W	943.54	190.64	3.15	140.78
5903.00	10.90	190.45	5799.48	5799.48	392.52	943.87 S	177.39 W	960.40	190.64	1.24	144.39
5998.00	12.13	190.96	5892.57	5892.57	400.30	962.50 S	180.92 W	979.36	190.65	1.30	144.39
6091.00	10.73	194.49	5983.72	5983.72	408.40	980.48 S	184.94 W	997.77	190.68	1.68	148.01
6185.00	14.86	218.21	6075.43	6075.43	421.98	998.44 S	194.60 W	1017.23	191.03	7.02	148.01
6280.00	19.96	226.44	6166.06	6166.06	445.59	1019.21 S	213.90 W	1041.41	191.85	5.95	151.62
6375.00	25.50	230.09	6253.65	6253.65	477.96	1043.52 S	241.35 W	1071.07	193.02	6.01	151.62
6469.00	31.57	232.20	6336.20	6336.20	518.54	1071.61 S	276.35 W	1106.67	194.46	6.55	155.24
6564.00	40.01	241.55	6413.25	6413.25	570.84	1101.48 S	322.97 W	1147.85	196.34	10.56	144.39
6659.00	51.35	247.28	6479.54	6479.54	637.20	1130.46 S	384.27 W	1193.98	198.77	12.68	151.62
6753.00	60.23	255.58	6532.40	6532.40	714.47	1154.87 S	457.87 W	1242.33	201.63	11.93	155.24
6848.00	65.16	263.05	6576.01	6576.01	798.66	1170.38 S	540.74 W	1289.26	204.80	8.70	155.24
6942.00	74.22	268.05	6608.63	6608.63	885.58	1177.10 S	628.51 W	1334.39	208.10	10.85	162.46
7043.00	84.33	269.90	6627.40	6627.40	982.35	1178.85 S	727.60 W	1385.31	211.68	10.17	162.46
7115.00	89.96	271.24	6630.98	6630.98	1052.08	1178.13 S	799.47 W	1423.78	214.16	8.04	166.08
7207.00	91.54	267.16	6629.78	6629.78	1141.80	1179.41 S	891.43 W	1478.40	217.08	4.76	169.69
7300.00	92.42	266.06	6626.57	6626.57	1233.31	1184.91 S	984.21 W	1540.35	219.71	1.51	169.69
7394.00	91.45	266.84	6623.39	6623.39	1325.85	1190.73 S	1077.98 W	1606.20	222.15	1.32	169.69

Survey Report											
Vertical Section Plane: 256.52°						Total Correction: 7.39° East to Grid					
Calculation Method: Minimum Curvature						Survey Reference: Wellhead					
North Aligned to: Grid North						Well: WELLS RANCH AE19-615					
Measured Depth (ft)	Inclination  (deg)	Azimuth  (deg)	TVD  (ft)	Sub Sea TVD (ft)	Vertical Section (ft)	Rect Co-ord North (ft)	Rect Co-ord East (ft)	Closure Distance (ft)	Closure Direction (deg)	Dog-leg Severity (dg/hft)	Temp  (deg F)
7486.00	91.28	266.78	6621.20	6621.20	1416.34	1195.85 S	1169.81 W	1672.87	224.37	0.20	173.31
7579.00	88.11	266.29	6621.70	6621.70	1507.91	1201.47 S	1262.62 W	1742.91	226.42	3.45	162.46
7674.00	89.34	267.34	6623.81	6623.81	1601.35	1206.74 S	1357.45 W	1816.29	228.36	1.70	162.46
7769.00	88.11	267.17	6625.92	6625.92	1694.67	1211.29 S	1452.32 W	1891.15	230.17	1.31	166.08
7864.00	87.23	267.23	6629.79	6629.79	1787.94	1215.93 S	1547.12 W	1967.76	231.84	0.93	169.69
7958.00	88.02	267.28	6633.68	6633.68	1880.22	1220.42 S	1640.93 W	2045.02	233.36	0.84	173.31
8053.00	88.46	267.80	6636.60	6636.60	1973.42	1224.50 S	1735.80 W	2124.24	234.80	0.72	176.92
8148.00	88.02	267.90	6639.52	6639.52	2066.53	1228.06 S	1830.69 W	2204.44	236.15	0.48	180.54
8242.00	88.20	268.36	6642.62	6642.62	2158.55	1231.13 S	1924.59 W	2284.67	237.39	0.53	184.15
8337.00	89.08	268.30	6644.87	6644.87	2251.51	1233.90 S	2019.52 W	2366.64	238.58	0.93	180.54
8431.00	90.75	267.63	6645.01	6645.01	2343.64	1237.23 S	2113.46 W	2448.97	239.65	1.91	184.15
8526.00	92.07	268.75	6642.67	6642.67	2436.65	1240.23 S	2208.38 W	2532.81	240.68	1.82	187.76
8620.00	91.71	265.92	6639.57	6639.57	2528.92	1244.60 S	2302.21 W	2617.10	241.60	3.03	187.76
8715.00	91.71	265.39	6636.74	6636.74	2622.67	1251.80 S	2396.90 W	2704.09	242.42	0.56	187.76
8810.00	89.87	265.66	6635.43	6635.43	2716.49	1259.21 S	2491.60 W	2791.71	243.19	1.96	187.76
8904.00	90.04	265.23	6635.50	6635.50	2809.35	1266.67 S	2585.30 W	2878.93	243.90	0.49	191.38
8998.00	89.52	265.75	6635.86	6635.86	2902.20	1274.06 S	2679.01 W	2966.53	244.57	0.78	191.38
9092.00	89.34	268.85	6636.80	6636.80	2994.52	1278.49 S	2772.89 W	3053.43	245.25	3.30	194.99
9187.00	89.25	269.39	6637.97	6637.97	3087.23	1279.95 S	2867.87 W	3140.53	245.95	0.58	194.99
9281.00	89.96	269.34	6638.61	6638.61	3178.87	1280.99 S	2961.86 W	3227.00	246.61	0.76	198.61
9376.00	88.64	269.31	6639.78	6639.78	3271.50	1282.11 S	3056.84 W	3314.83	247.25	1.39	198.61
9470.00	89.60	269.19	6641.22	6641.22	3363.18	1283.34 S	3150.82 W	3402.15	247.84	1.03	202.22
9564.00	88.64	266.85	6642.66	6642.66	3455.27	1286.59 S	3244.75 W	3490.52	248.37	2.69	
9659.00	88.90	267.25	6644.70	6644.70	3548.65	1291.48 S	3339.60 W	3580.62	248.86	0.50	202.22
9753.00	89.96	267.25	6645.64	6645.64	3641.00	1295.99 S	3433.49 W	3669.93	249.32	1.13	205.83
9847.00	90.92	266.94	6644.92	6644.92	3733.40	1300.75 S	3527.36 W	3759.55	249.76	1.07	209.45
9941.00	90.40	266.07	6643.83	6643.83	3825.97	1306.48 S	3621.18 W	3849.65	250.16	1.08	209.45
10035.00	88.37	267.48	6644.84	6644.84	3918.45	1311.77 S	3715.02 W	3939.81	250.55	2.63	209.45
10129.00	88.72	268.06	6647.23	6647.23	4010.62	1315.42 S	3808.92 W	4029.66	250.95	0.72	213.06
10224.00	88.24	267.75	6648.84	6648.84	4102.72	1318.90 S	3902.84 W	4120.61	251.22	0.72	213.06



10224.00	89.34	267.79	6648.84	6648.84	4195.93	1322.55 S	3997.76 W	4210.85	251.69	1.40	213.06
10318.00	90.66	267.79	6648.84	6648.84	4195.93	1322.55 S	3997.76 W	4210.85	251.69	1.40	216.68
10413.00	88.11	267.20	6649.86	6649.86	4289.18	1326.70 S	4092.66 W	4302.33	252.04	2.76	213.06
10507.00	88.72	267.79	6652.46	6652.46	4381.42	1330.81 S	4186.53 W	4392.96	252.37	0.90	216.68
10601.00	89.16	267.43	6654.19	6654.19	4473.65	1334.73 S	4280.44 W	4483.71	252.68	0.60	216.68
10695.00	88.02	269.10	6656.51	6656.51	4565.65	1337.58 S	4374.36 W	4574.29	253.00	2.15	216.68
10790.00	88.29	268.93	6659.57	6659.57	4658.35	1339.21 S	4469.30 W	4665.63	253.32	0.34	216.68
10884.00	89.43	268.57	6661.44	6661.44	4750.20	1341.26 S	4563.25 W	4756.28	253.62	1.27	216.68
11073.00	91.10	268.88	6660.56	6660.56	4934.92	1345.46 S	4752.20 W	4938.99	254.19	0.90	220.29
11168.00	89.78	267.01	6659.83	6659.83	5028.02	1348.87 S	4847.13 W	5031.31	254.45	2.41	220.29
11262.00	88.81	267.99	6660.99	6660.99	5120.29	1352.97 S	4941.03 W	5122.92	254.69	1.47	223.91
11357.00	89.87	268.07	6662.08	6662.08	5213.38	1356.24 S	5035.96 W	5215.39	254.93	1.12	223.91
11452.00	88.64	268.76	6663.32	6663.32	5306.33	1358.86 S	5130.92 W	5307.81	255.17	1.48	223.91
11546.00	90.04	269.19	6664.40	6664.40	5398.10	1360.54 S	5224.89 W	5399.13	255.40	1.56	223.91
11641.00	91.10	269.66	6663.46	6663.46	5490.70	1361.50 S	5319.88 W	5491.34	255.64	1.22	223.91
11736.00	92.33	270.02	6660.61	6660.61	5583.10	1361.76 S	5414.84 W	5583.45	255.88	1.35	223.91
11831.00	91.28	270.35	6657.62	6657.62	5675.36	1361.46 S	5509.79 W	5675.50	256.12	1.16	223.91
11926.00	89.69	270.77	6656.82	6656.82	5767.52	1360.53 S	5604.78 W	5767.54	256.36	1.73	223.91
11963.00	90.04	270.74	6656.90	6656.90	5803.38	1360.04 S	5641.77 W	5803.39	256.45	0.95	223.91
PROJECTION TO BIT. 12022.00	90.04	270.74	6656.86	6656.86	5860.58	1359.28 S	5700.77 W	5860.58	256.59	0.00	

BOTTOM HOLE ASSEMBLY RECORD

RUN #1		ft	RUN #2		ft	RUN #3		ft		
8.75" PDC BIT		0.70	8.75" PDC BIT		0.65	6.13" PDC BIT		0.55		
1.75° MUD MOTOR		26.27	2.25° MUD MOTOR		26.20	1.50° MUD MOTOR		26.81		
FLOAT SUB		3.22	FLOAT SUB		3.22	MULESHOE SUB		2.97		
MULESHOE SUB		2.58	MULESHOE SUB		2.58	HDS1-R (DIR/GR)		31.11		
HDS1-R (DIR/GR)		29.50	HDS1-R (DIR/GR)		29.50	NMDC		30.97		
NM FLEX COLLAR		31.10	NM FLEX COLLAR		31.10	NMDC		30.74		
NM FLEX COLLAR		31.04	NM FLEX COLLAR		31.04	FLOAT SUB		3.49		
FILTER SUB		2.83	FILTER SUB		2.83	FILTER SUB		3.05		
X/O		3.54	DP		1040.06	X/O		3.07		
HWDP		1395.00	X/O		3.54	HWDP		31.58		
DP		31.00	HWDP		1392.51	REAMER		3.79		
						AGITATOR		11.56		
						SHOCK SUB		11.04		
						HWDP		1392.51		
=====			=====			=====				
TOTAL BHA		1556.78	TOTAL BHA		2563.23	TOTAL BHA		1583.24		
SENSOR OFFSETS:			SENSOR OFFSETS:			SENSOR OFFSETS:				
=====			=====			=====				
GAMMA-RAY		42.98	GAMMA-RAY		59.96	GAMMA-RAY		39.39		
DIRECTIONAL		60.28	DIRECTIONAL		42.56	DIRECTIONAL		56.69		

GAMMA-RAY



A Schlumberger Company

2" = 100'  
FEET MD