



CROW CREEK STATE AC36-72-1HN MD 5":100'

Company: NOBLE ENERGY
Well Name: CROW CREEK STATE AC36-72-1HN
UWI or LSD: 05-123-37424
Rig Id: H&P 277
State: CO
County/Parish: WELD COUNTY
Country: USA
Survey Company: DRILTECH, LLC
Job number: 2013-337-IDDT-CO
MARK LARUE MWD OPERATOR
JEREMY HOWE MWD OPERATOR

Log measurements: Gamma, ROP, Temp
Depth measured from: 608
Maximum temperature: 220.3

Depth Start: 608 ft
End: 11214 ft
Date 11/17/2013
11/23/2013

Casing Depth Size
Surface: 608 9.625
Intermediate: 7178 7.0

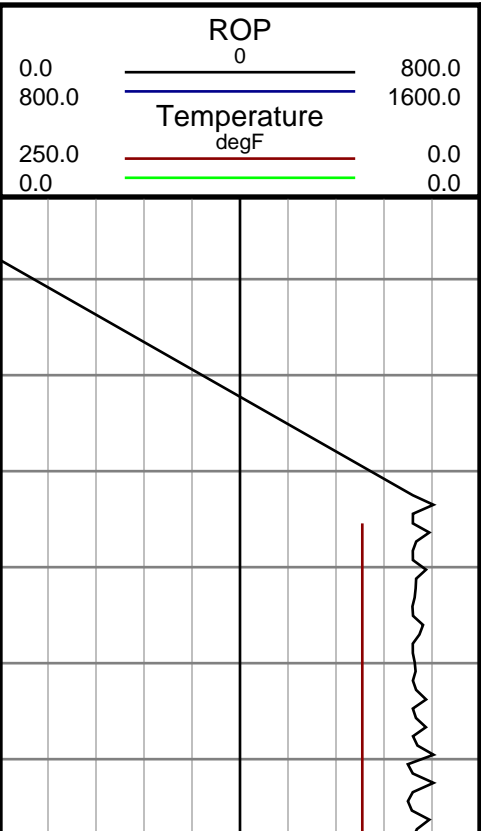
Mud Type: WATER BASE
Density: 9.4
Viscosity: 42
Rm: Rmf: Rmc:

Elevations
KB:
GL:
DF:

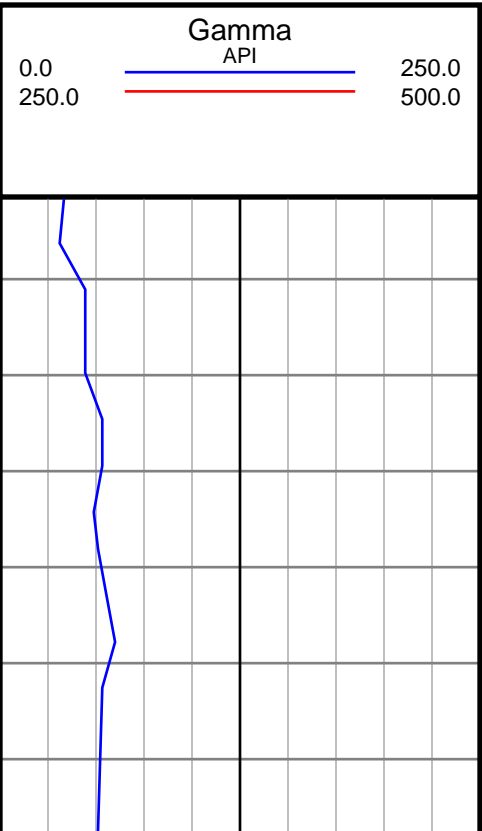
Run	Bit Size	Gamma	Offsets	Survey	Start	End	Dates	Start	End
1	8 3/4	43.00	52.00	608	1082	6040	11/17/2013	11/18/2013	11/19/2013
2	8 3/4	43.00	52.00	1082	6040	7195	11/18/2013	11/19/2013	11/20/2013
3	8 3/4	47.00	65.00	6040	7195	11214	11/19/13	11/20/2013	11/23/2013
4	6 1/8	43.00	55.00	7195	11214		11/21/2013		
5									
6									
7									
8									
9									
10									

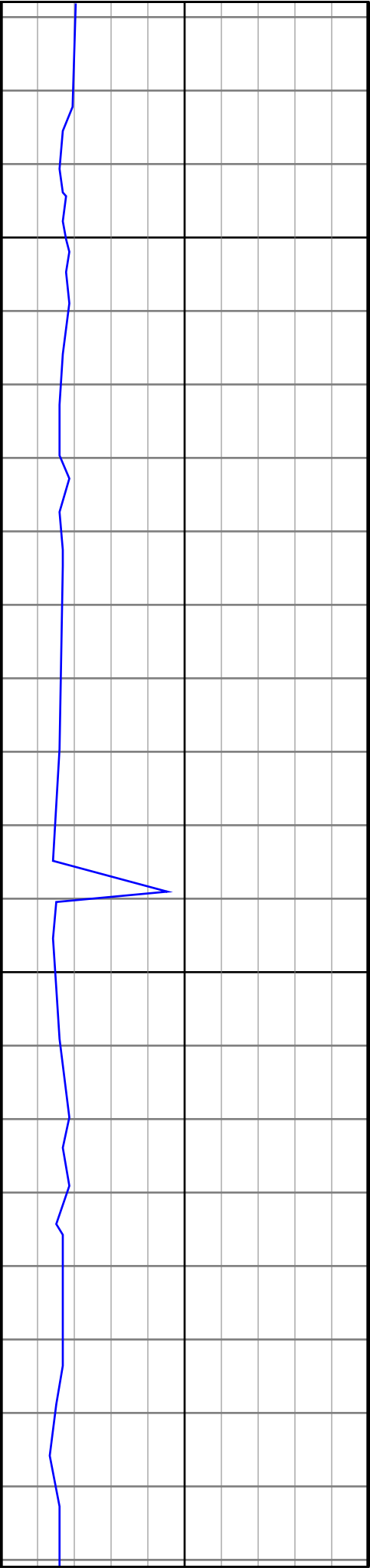
DRILTECH, LLC uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.

MD



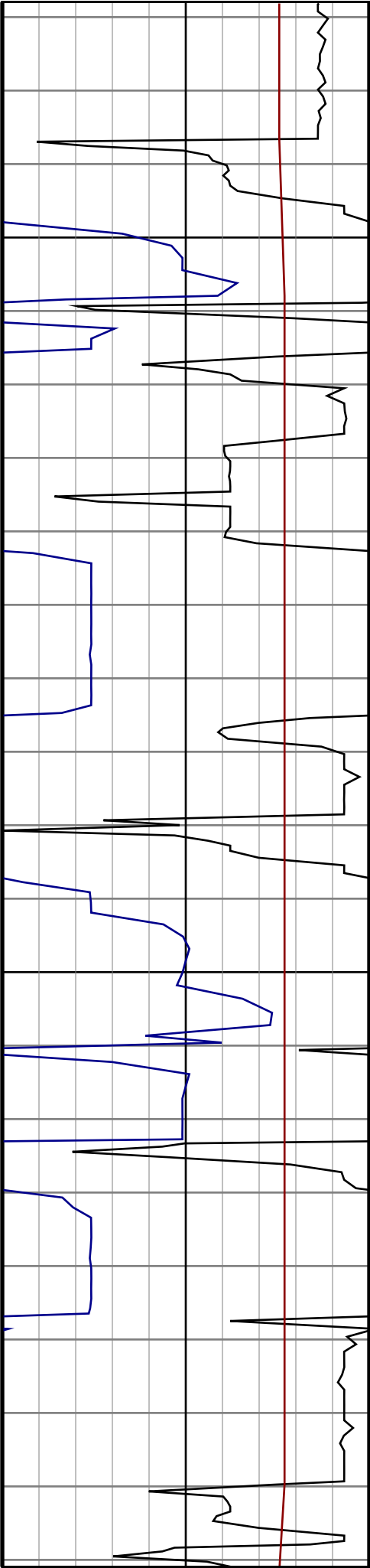
#3 MD(636.00) Inc(0.2) Azm(160.9) TVD(636.00)
VS(1.81) NS(1.68) EW(0.84)





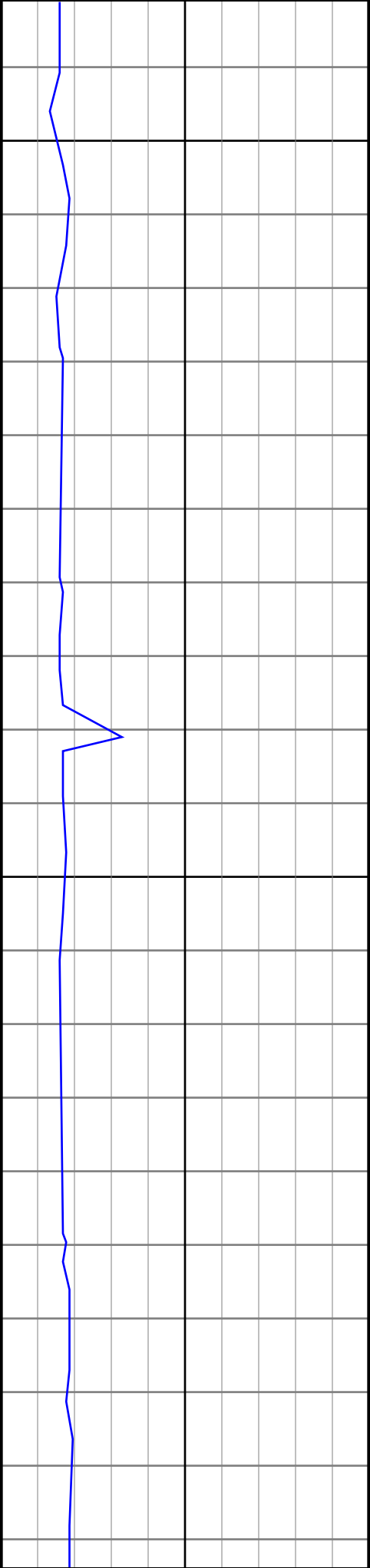
700

800



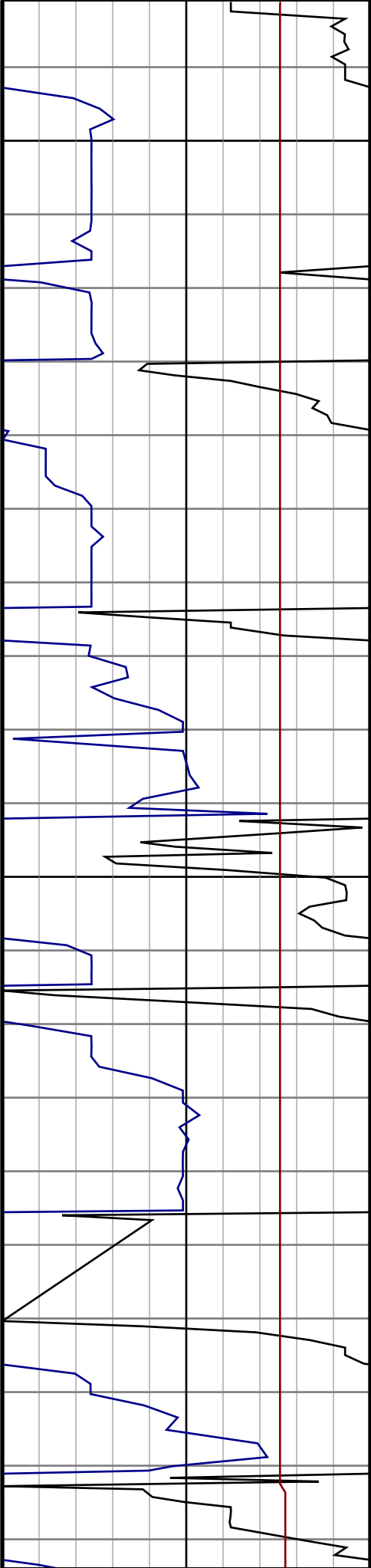
#4 MD(728.00) Inc(0.2) Azm(148.1) TVD(728.00)
VS(1.56) NS(1.39) EW(0.98)

#5 MD(821.00) Inc(0.2) Azm(269.2) TVD(820.99)
VS(1.41) NS(1.25) EW(0.90)



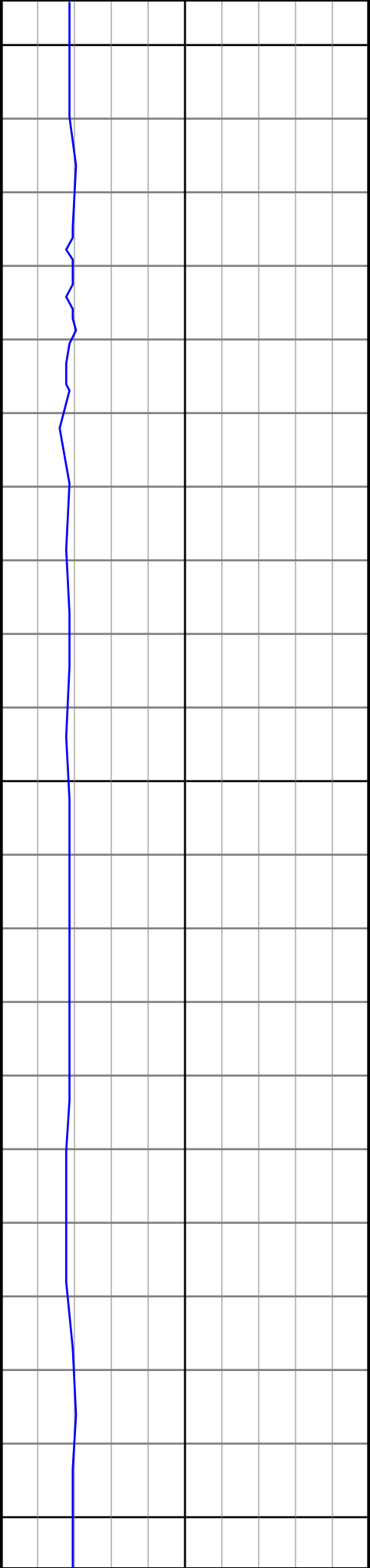
900

1000



#6 MD(914.00) Inc(0.5) Azm(226.8) TVD(913.99)
VS(1.04) NS(0.97) EW(0.45)

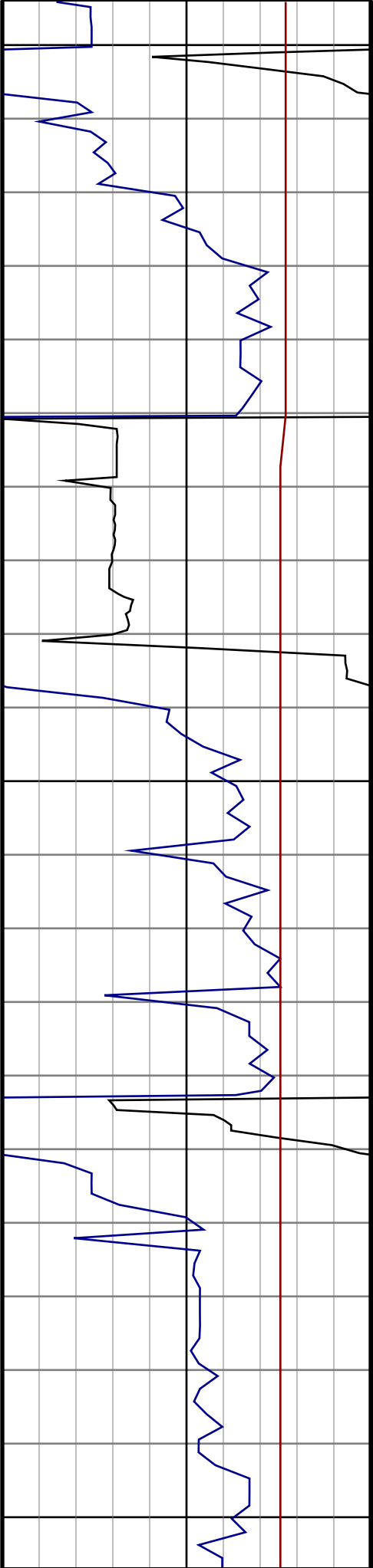
#7 MD(1008.00) Inc(0.5) Azm(177.5) TVD(1007.99)
VS(0.31) NS(0.28) EW(0.16)



1100

1200

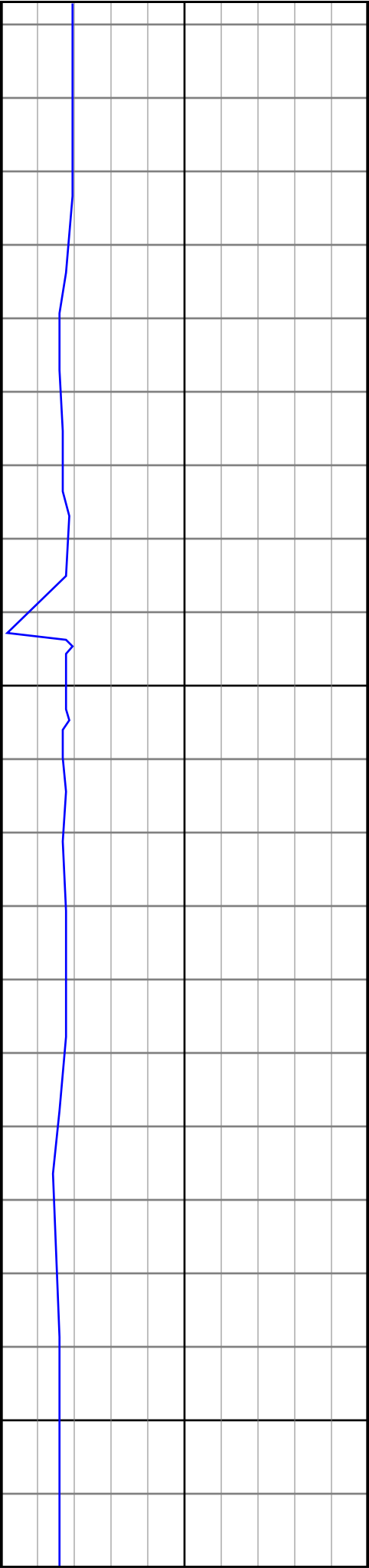
1300



#8 MD(1100.00) Inc(0.2) Azm(281.5) TVD(1099.99)
VS(-0.08) NS(-0.09) EW(0.02)

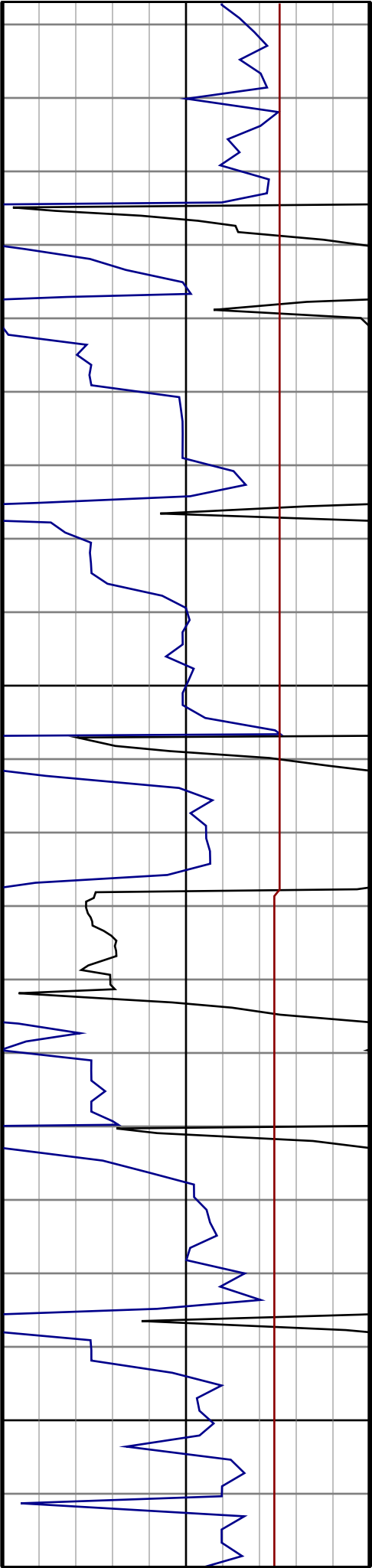
#9 MD(1193.00) Inc(1.9) Azm(27.7) TVD(1192.97)
VS(1.40) NS(1.31) EW(0.58)

#10 MD(1287.00) Inc(2.1) Azm(36.3) TVD(1286.92)
VS(4.47) NS(4.07) EW(2.33)



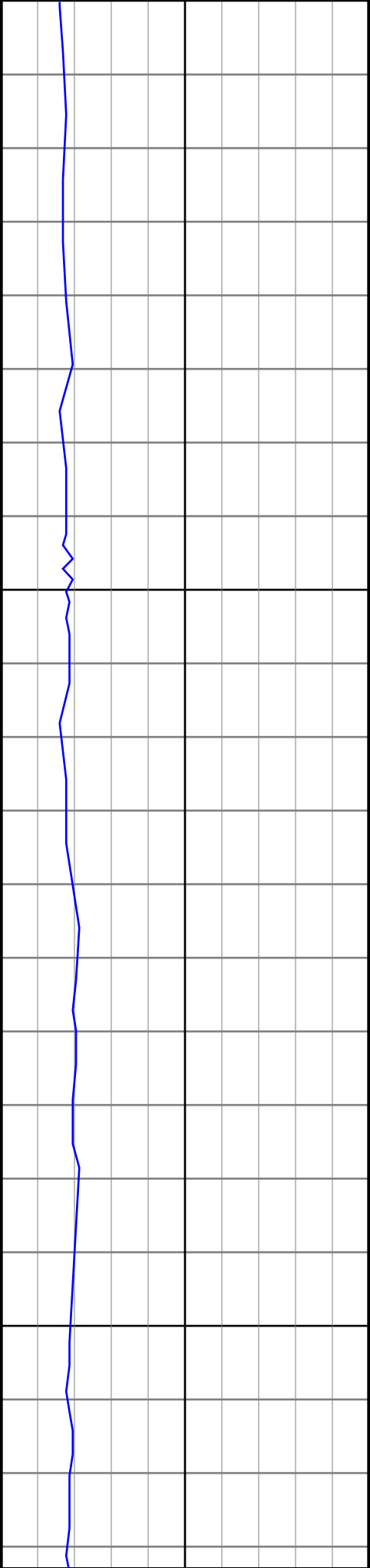
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1500



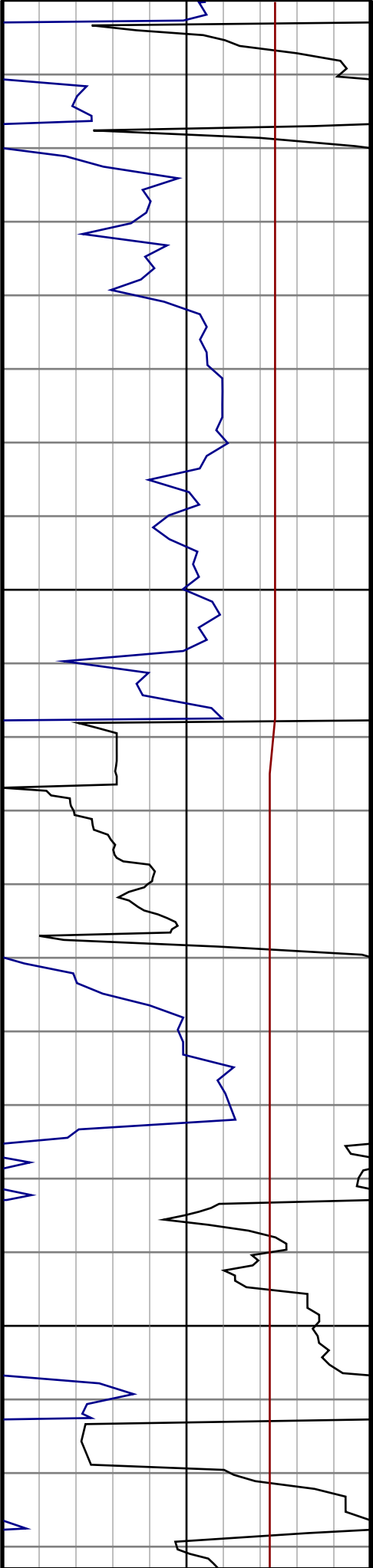
#11 MD(1380.00) Inc(1.8) Azm(31.6) TVD(1379.86)
VS(7.39) NS(6.69) EW(4.10)

#12 MD(1475.00) Inc(2.5) Azm(64.1) TVD(1474.80)
VS(10.07) NS(8.87) EW(6.75)



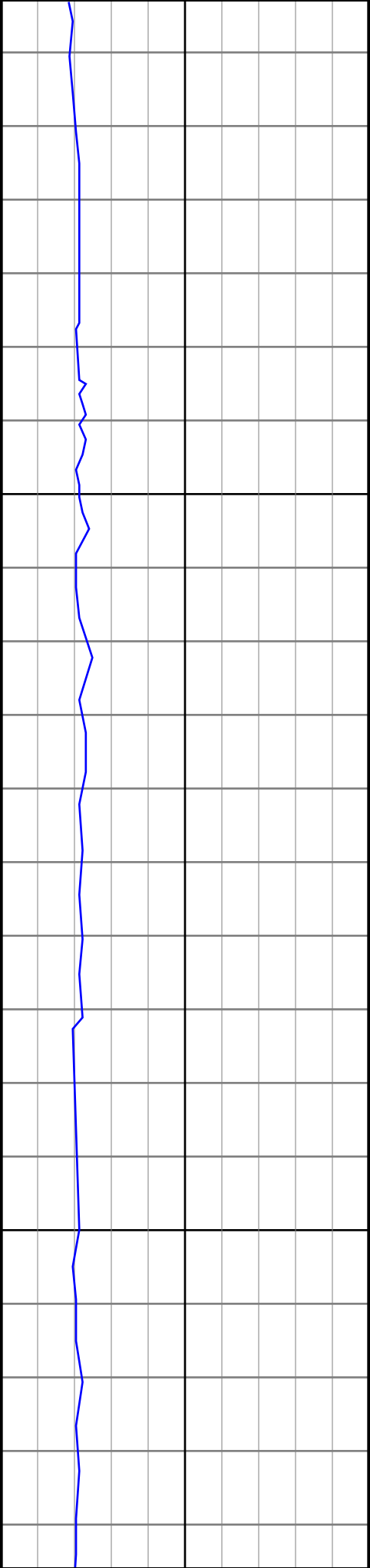
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1700



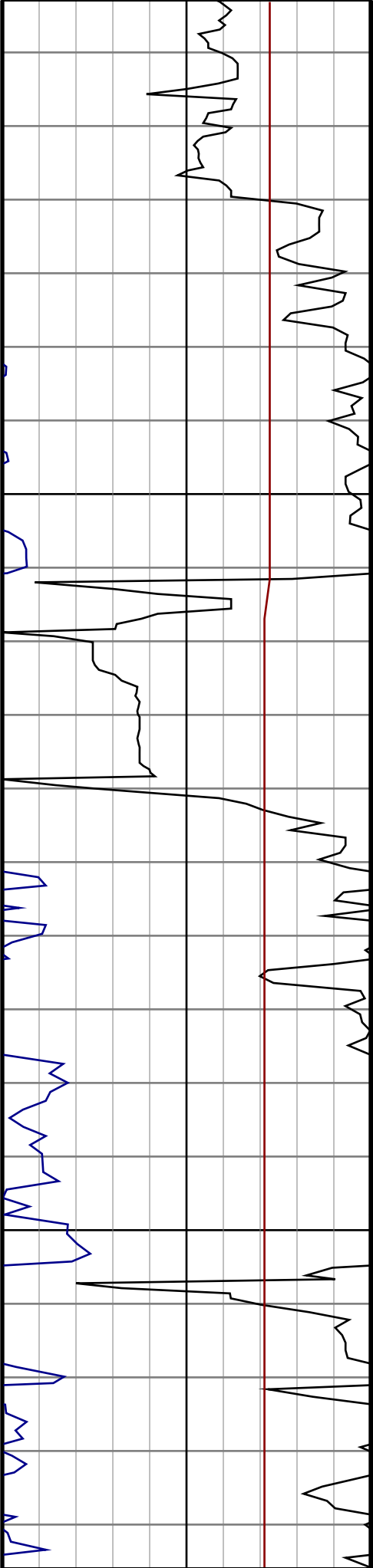
#13 MD(1570.00) Inc(2.5) Azm(62.5) TVD(1569.71)
VS(12.65) NS(10.73) EW(10.45)

#14 MD(1665.00) Inc(4.8) Azm(54.8) TVD(1664.51)
VS(16.88) NS(13.98) EW(15.53)



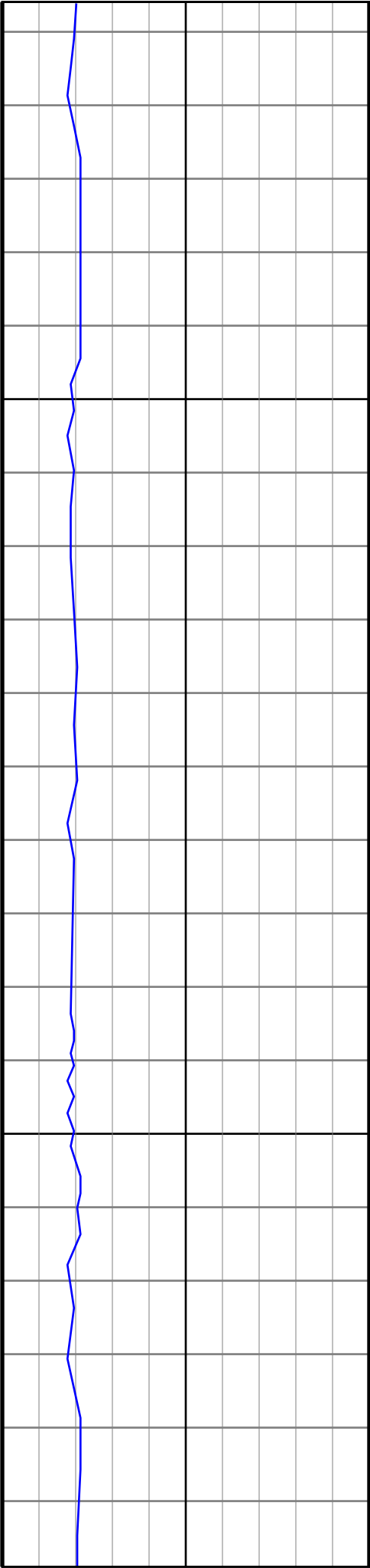
1800

1900



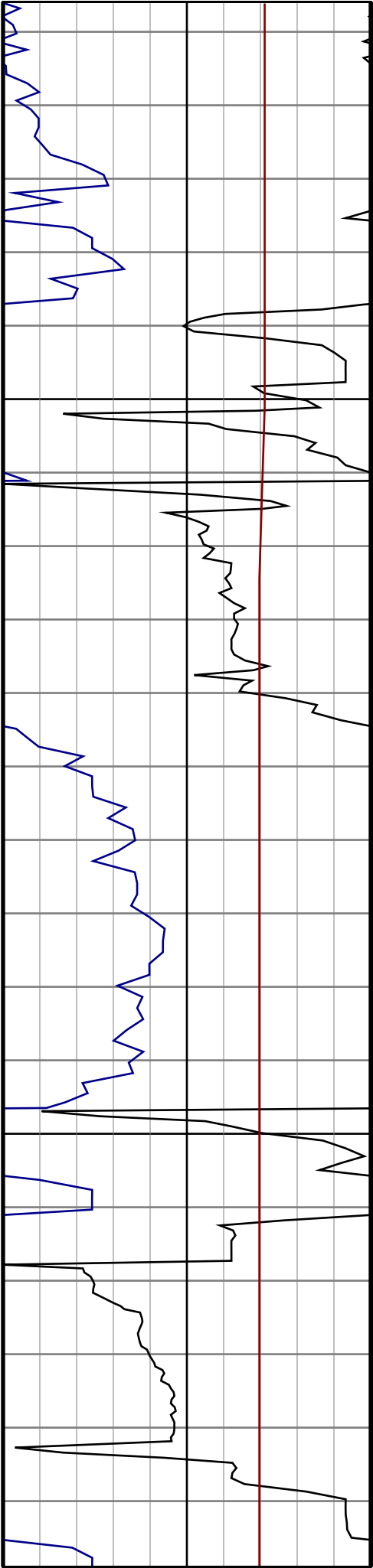
#15 MD(1761.00) Inc(4.6) Azm(50.9) TVD(1760.19)
VS(22.81) NS(18.72) EW(21.80)

#16 MD(1856.00) Inc(6.5) Azm(38.2) TVD(1854.74)
VS(30.59) NS(25.35) EW(28.09)



2000

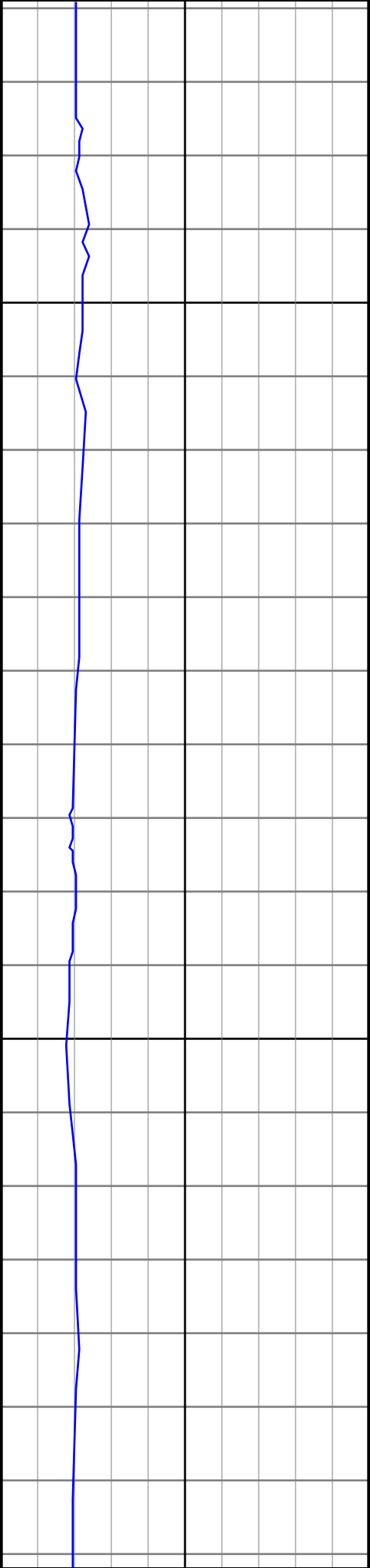
2100



#17 MD(1951.00) Inc(6.3) Azm(36.3) TVD(1949.15)
VS(40.15) NS(33.78) EW(34.50)

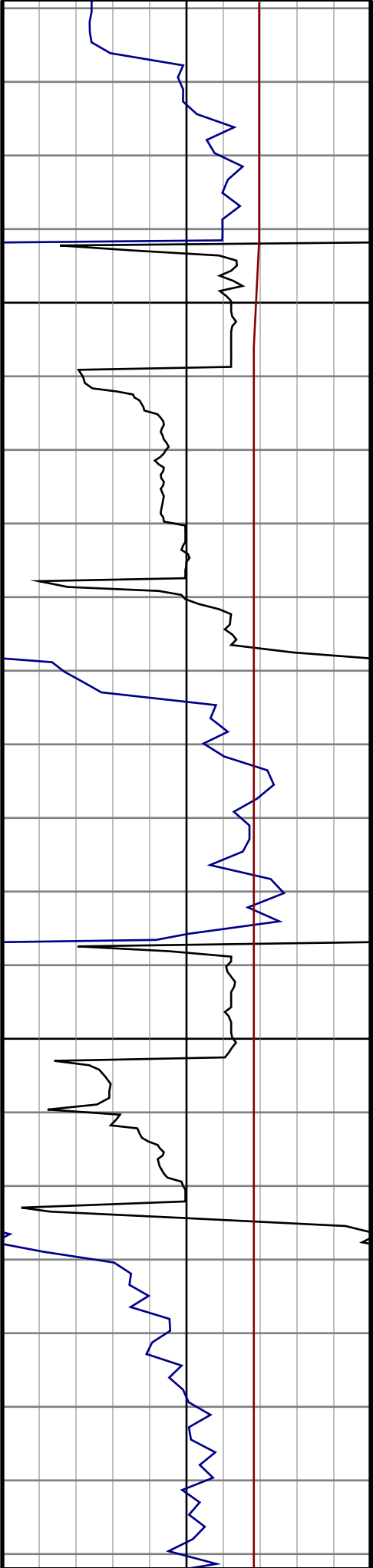
#18 MD(2046.00) Inc(6.3) Azm(34.9) TVD(2043.57)
VS(49.70) NS(42.25) EW(40.57)

#19 MD(2141.00) Inc(3.7) Azm(29.4) TVD(2138.20)
VS(57.42) NS(49.20) EW(45.05)



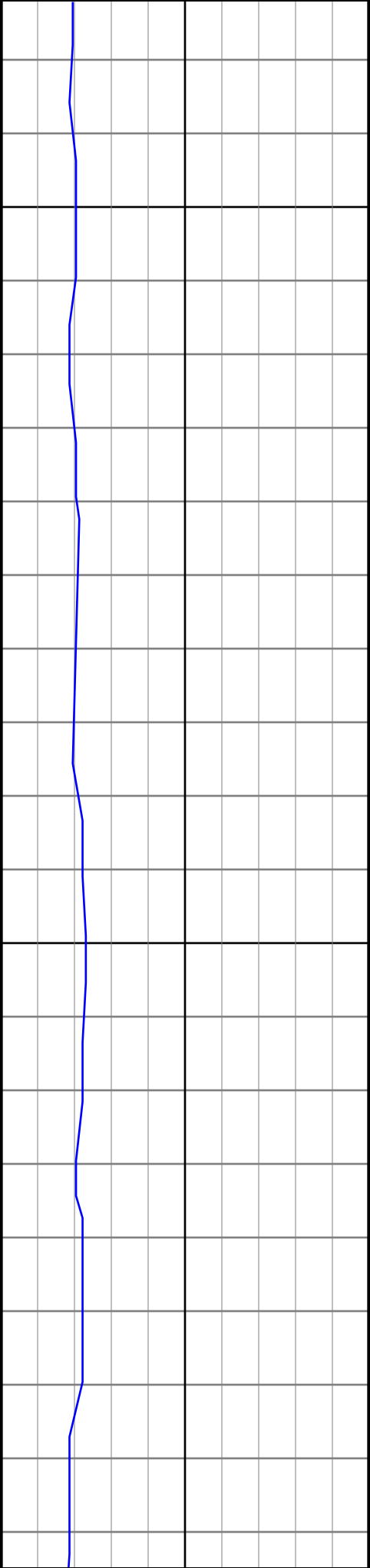
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2300



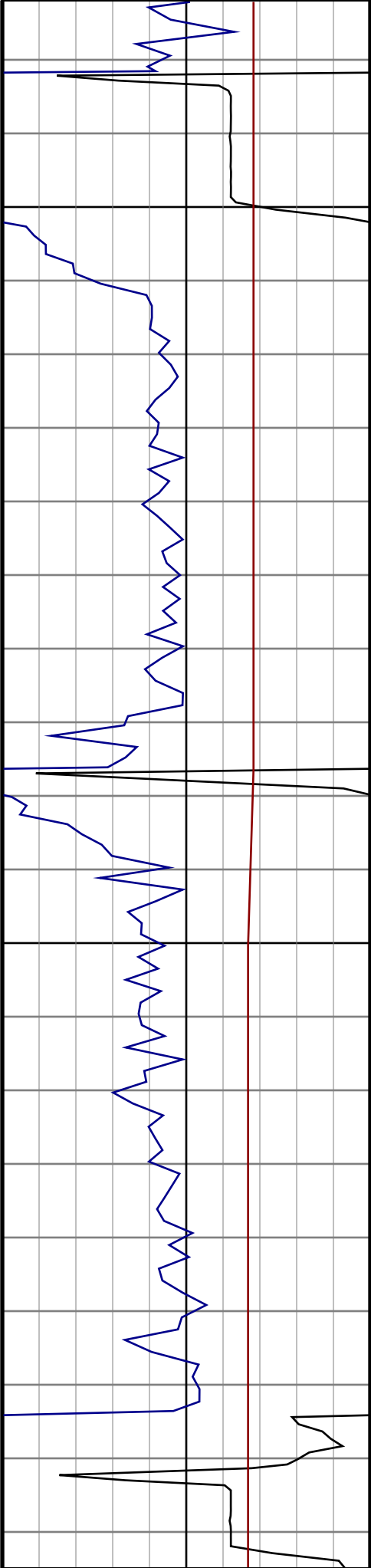
#20 MD(2236.00) Inc(1.2) Azm(343.7) TVD(2233.12)
VS(61.22) NS(52.82) EW(46.28)

#21 MD(2332.00) Inc(1.2) Azm(212.3) TVD(2329.11)
VS(61.16) NS(52.94) EW(45.46)



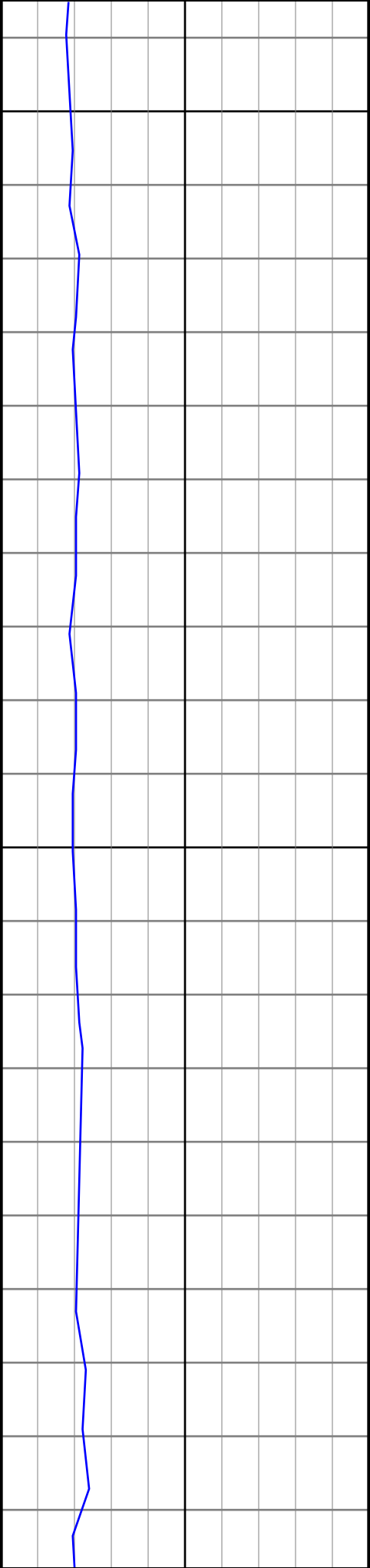
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2500



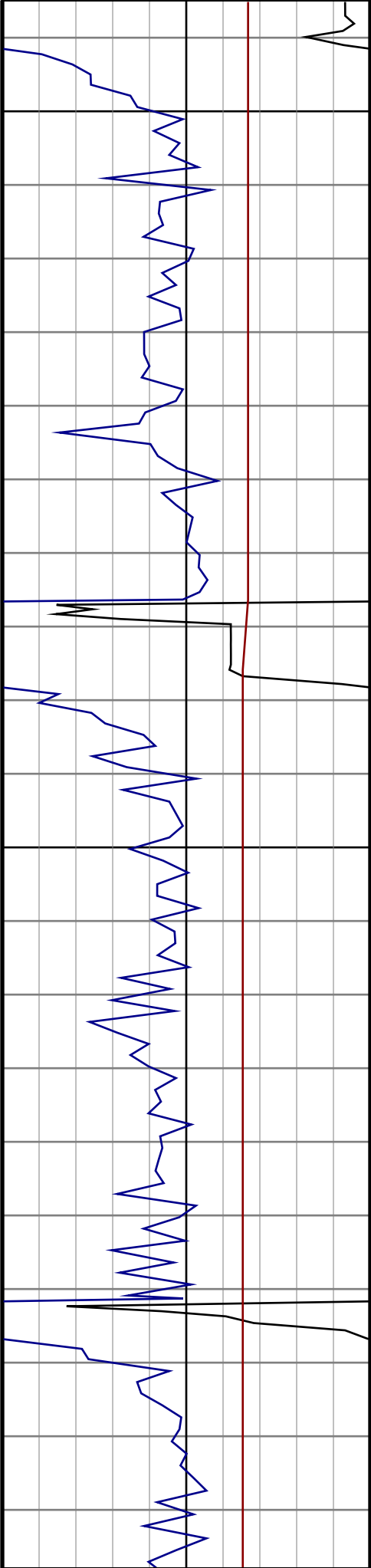
#22 MD(2426.00) Inc(1.1) Azm(223.7) TVD(2423.09)
VS(59.47) NS(51.46) EW(44.31)

#23 MD(2521.00) Inc(1.1) Azm(237.4) TVD(2518.07)
VS(58.06) NS(50.30) EW(42.91)



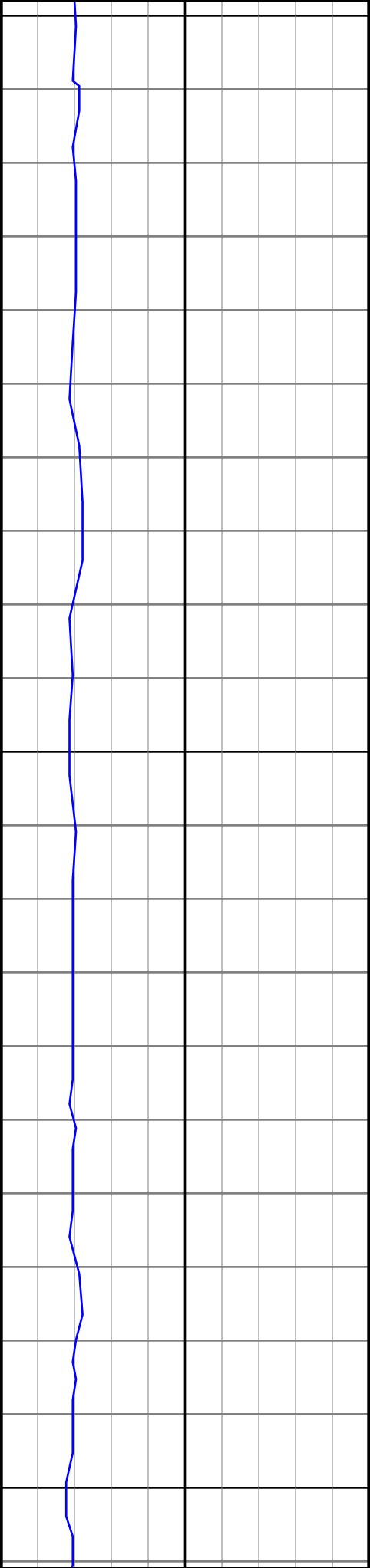
2600

2700



#24 MD(2616.00) Inc(1.2) Azm(242.3) TVD(2613.05)
VS(56.79) NS(49.35) EW(41.26)

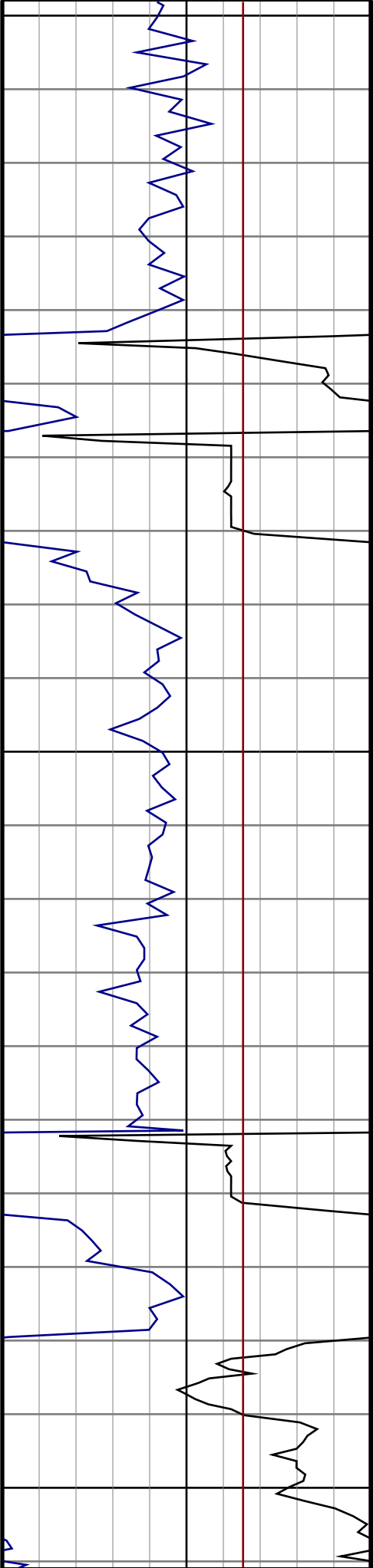
#25 MD(2712.00) Inc(1.1) Azm(248.3) TVD(2709.03)
VS(55.64) NS(48.54) EW(39.52)



2800

2900

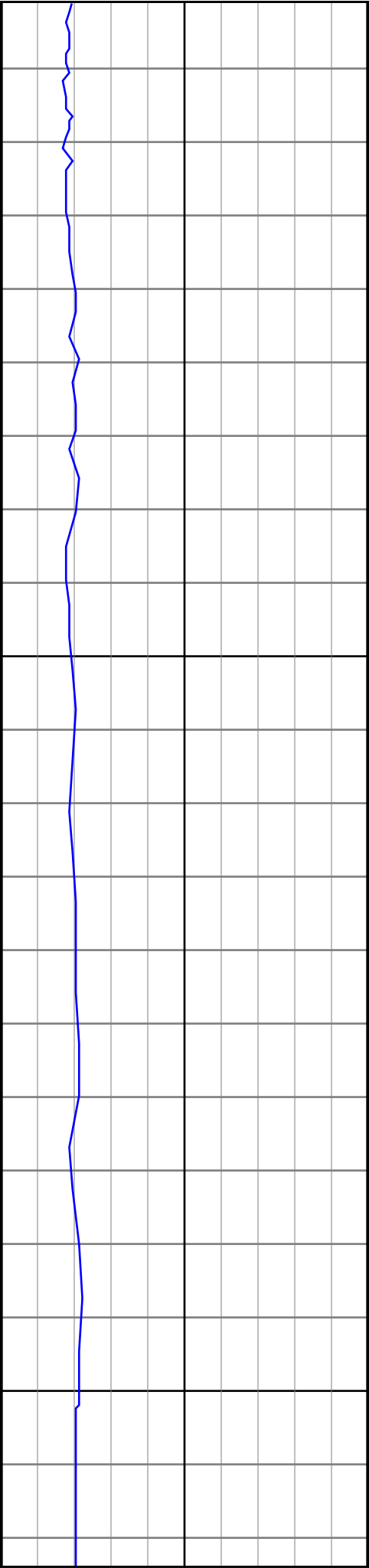
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#26 MD(2807.00) Inc(1.2) Azm(253.7) TVD(2804.01)
VS(54.66) NS(47.93) EW(37.71)

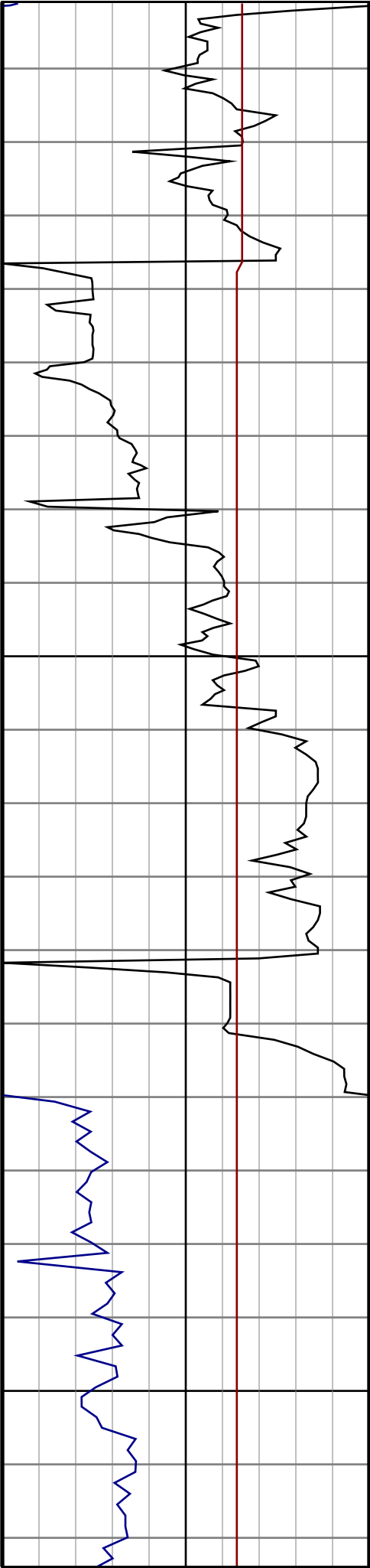
#27 MD(2902.00) Inc(1.2) Azm(250.6) TVD(2898.99)
VS(53.68) NS(47.32) EW(35.82)

#28 MD(2997.00) Inc(1.1) Azm(266.4) TVD(2993.97)
VS(52.92) NS(46.93) EW(33.97)



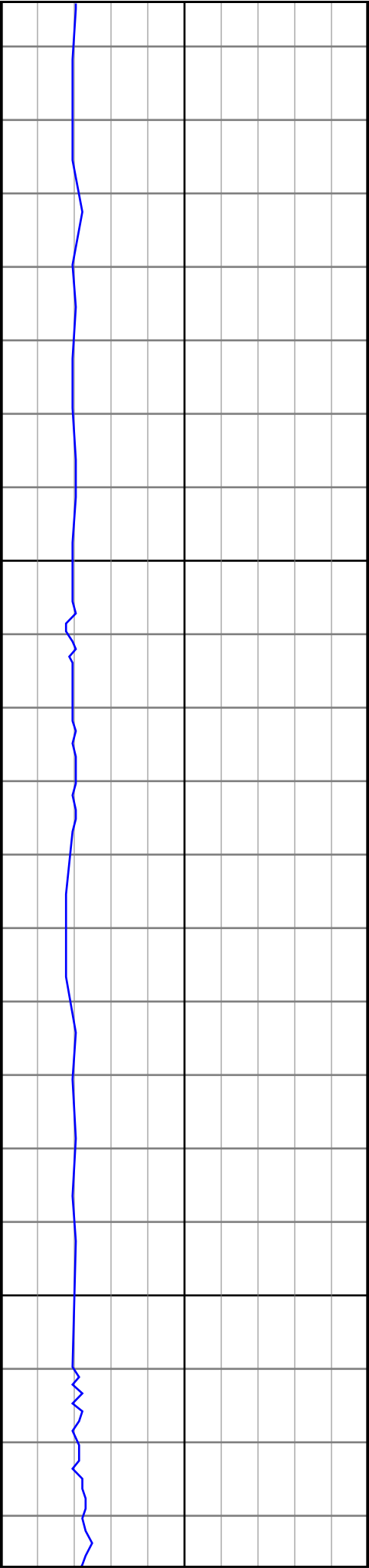
3100

3200



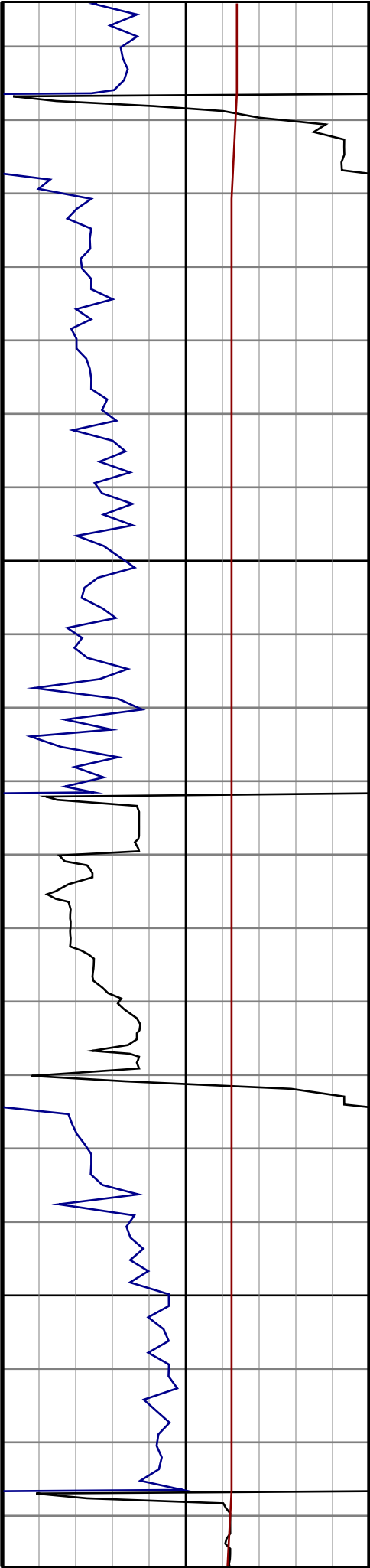
#29 MD(3092.00) Inc(1.6) Azm(148.8) TVD(3088.96)
VS(51.71) NS(45.74) EW(33.75)

#30 MD(3188.00) Inc(1.6) Azm(144.2) TVD(3184.92)
VS(49.82) NS(43.50) EW(35.23)



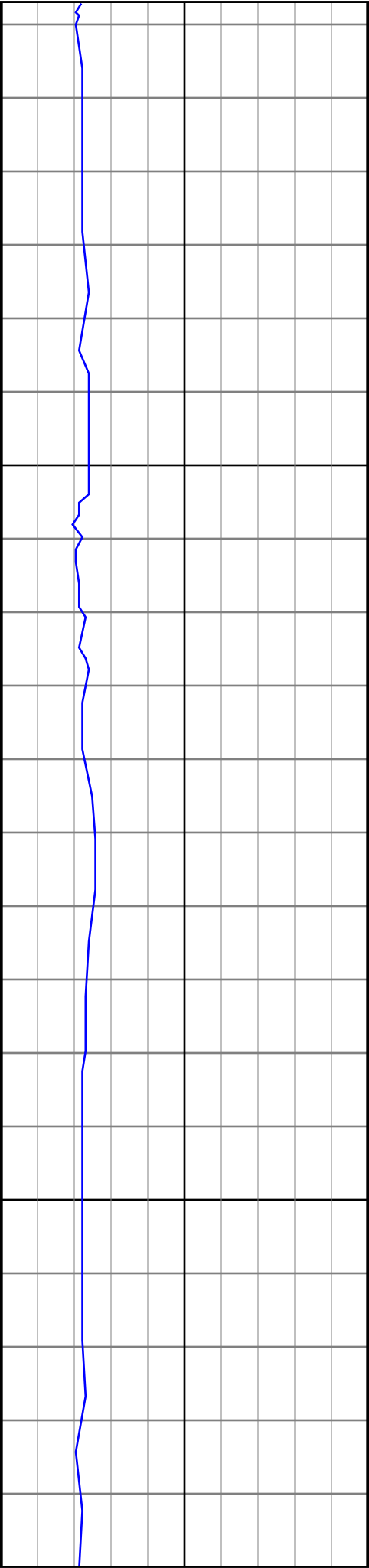
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3400



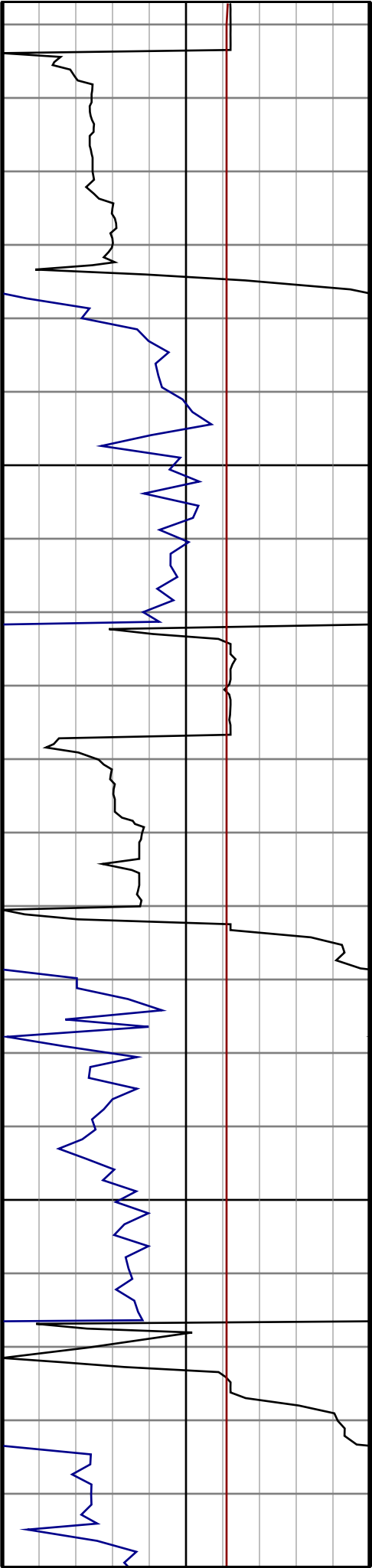
#31 MD(3283.00) Inc(1.4) Azm(149.0) TVD(3279.89)
VS(48.08) NS(41.43) EW(36.60)

#32 MD(3378.00) Inc(3.2) Azm(95.0) TVD(3374.82)
VS(47.55) NS(40.21) EW(39.84)



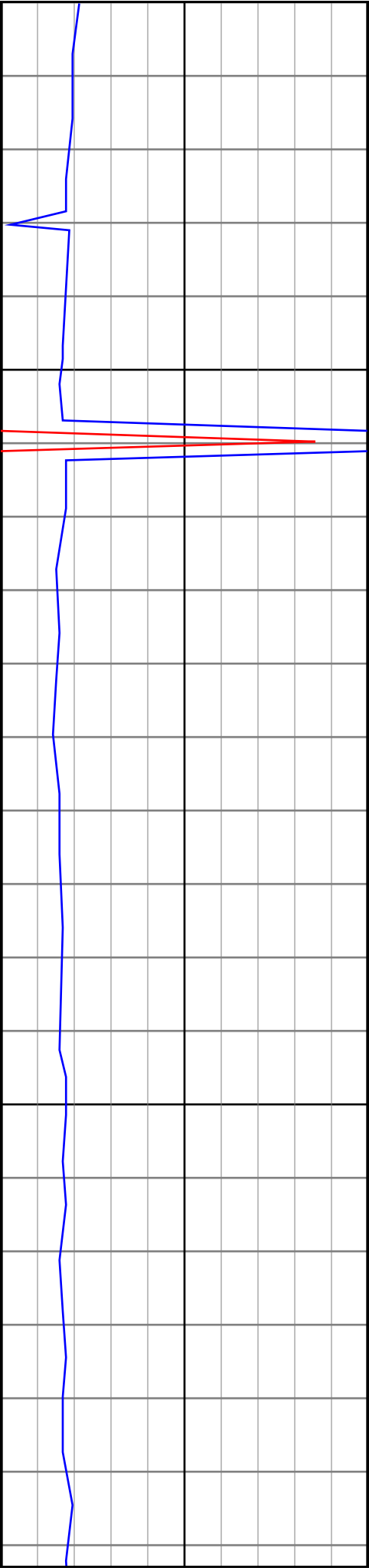
3500

3600



#33 MD(3473.00) Inc(5.5) Azm(86.8) TVD(3469.54)
VS(49.05) NS(40.23) EW(47.03)

#34 MD(3568.00) Inc(7.7) Azm(91.0) TVD(3563.90)
VS(51.44) NS(40.37) EW(57.94)



3700

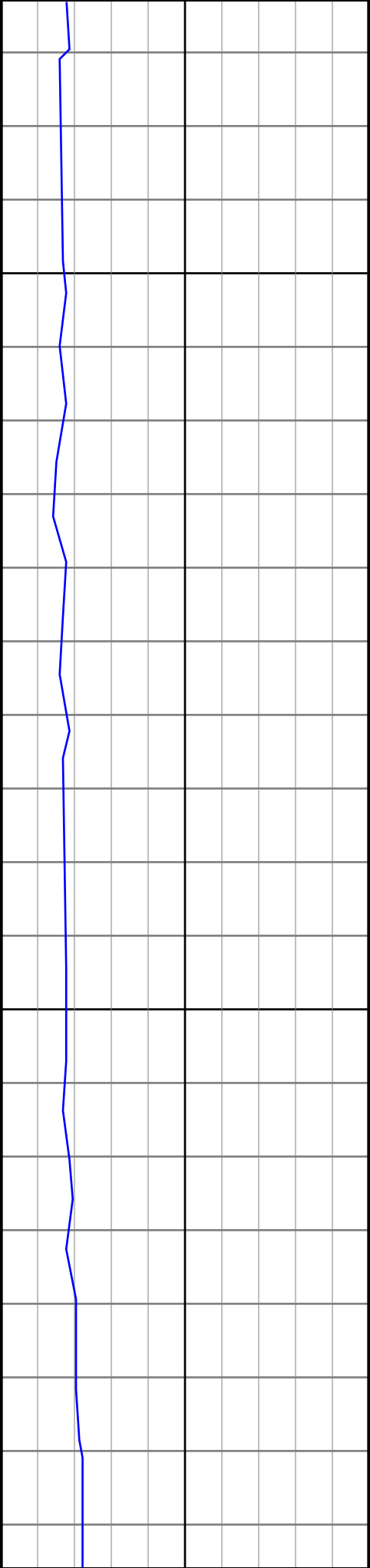
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#35 MD(3664.00) Inc(7.7) Azm(90.3) TVD(3659.04)
VS(53.94) NS(40.23) EW(70.80)

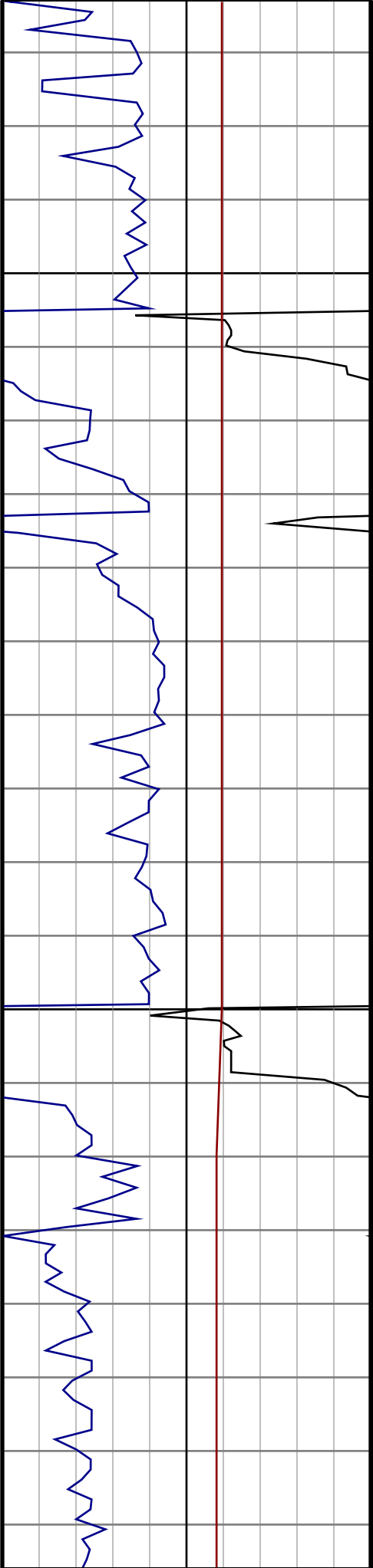
#36 MD(3759.00) Inc(7.7) Azm(90.4) TVD(3753.18)
VS(56.49) NS(40.15) EW(83.53)

#37 MD(3854.00) Inc(7.9) Azm(91.0) TVD(3847.30)
VS(58.98) NS(39.99) EW(96.42)



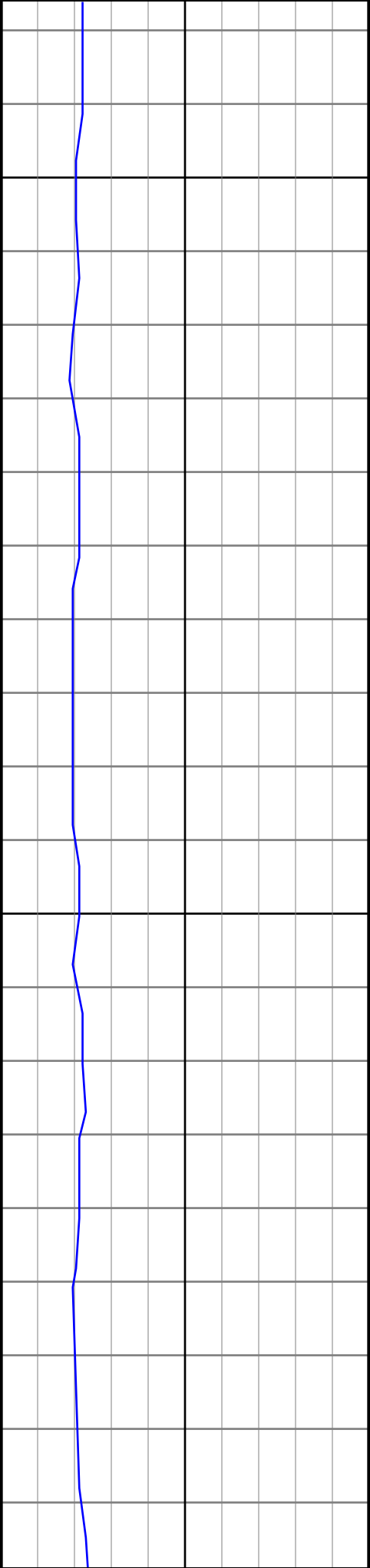
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4000



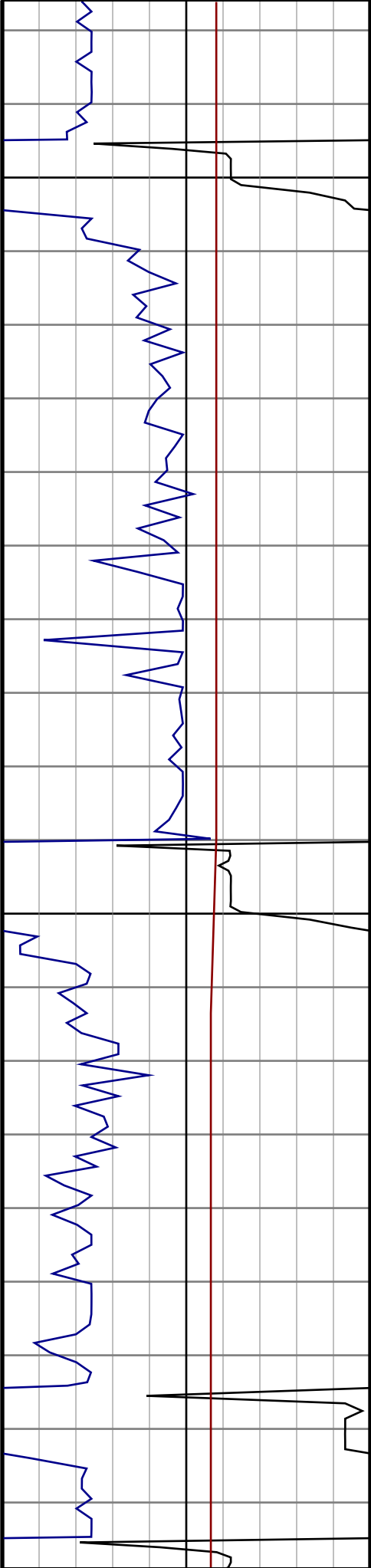
#38 MD(3949.00) Inc(8.1) Azm(90.1) TVD(3941.38)
VS(61.58) NS(39.87) EW(109.64)

#39 MD(4044.00) Inc(8.1) Azm(91.7) TVD(4035.43)
VS(64.13) NS(39.66) EW(123.03)



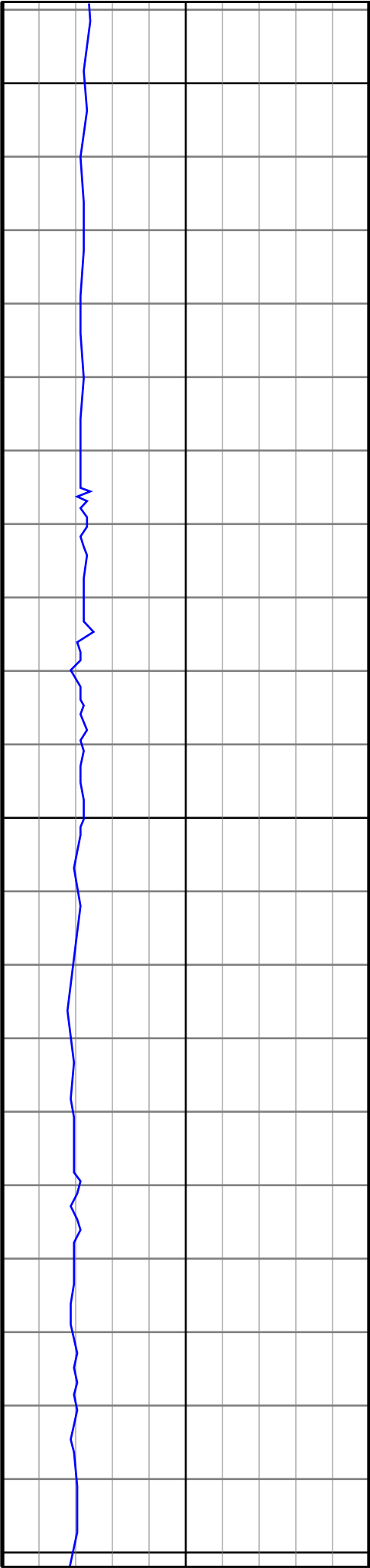
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4200



#40 MD(4140.00) Inc(7.9) Azm(89.0) TVD(4130.50)
VS(66.80) NS(39.57) EW(136.38)

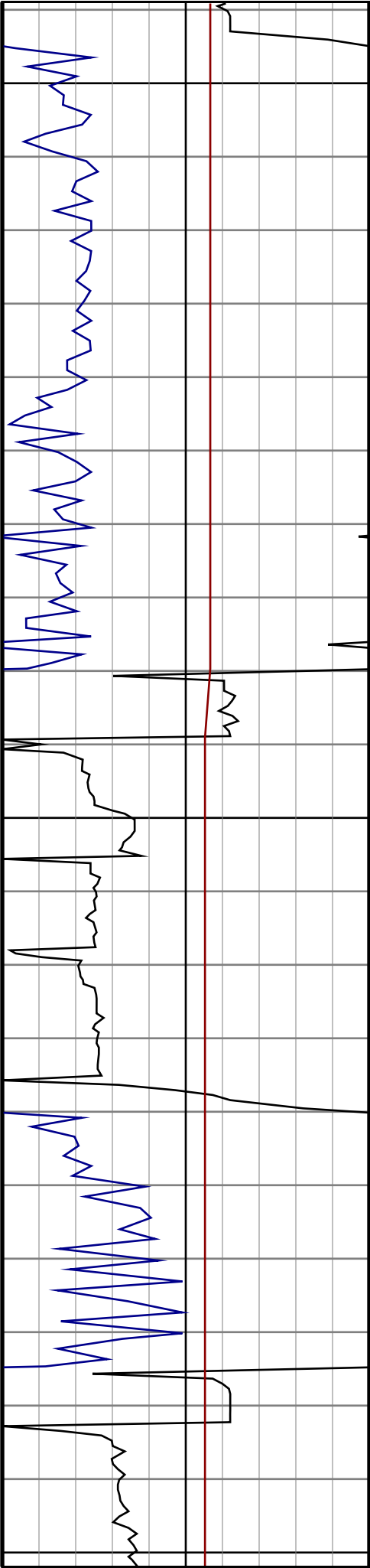
#41 MD(4235.00) Inc(7.2) Azm(89.4) TVD(4224.67)
VS(69.54) NS(39.75) EW(148.86)



4300

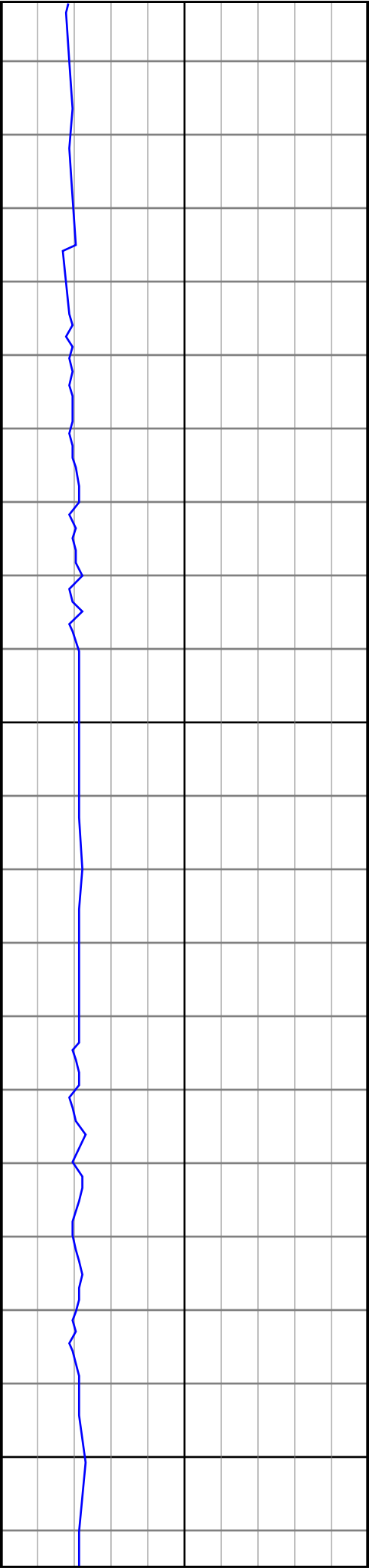
4400

4500



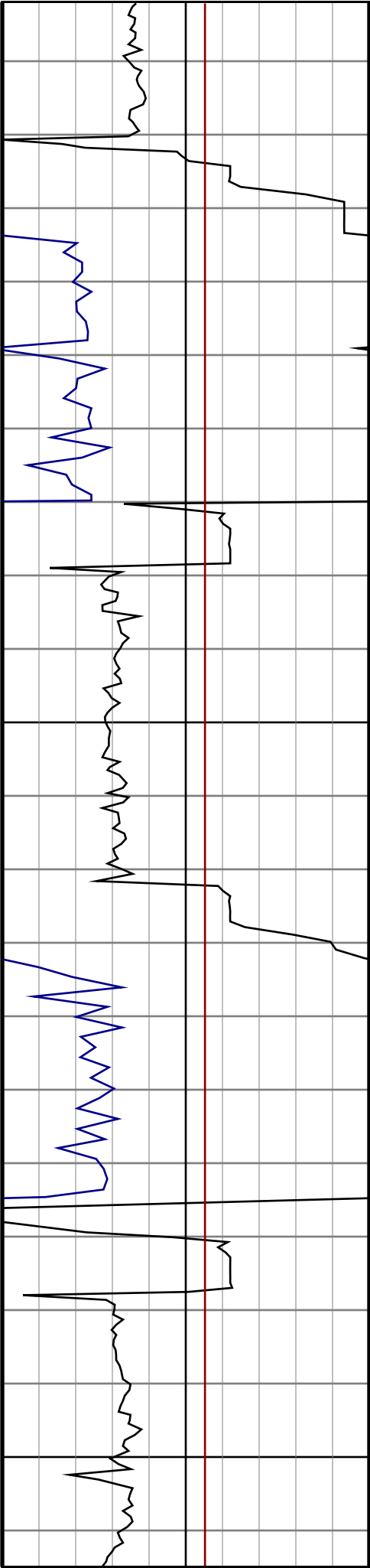
#42 MD(4330.00) Inc(6.2) Azm(89.0) TVD(4319.02)
VS(71.97) NS(39.90) EW(159.95)

#43 MD(4425.00) Inc(5.5) Azm(99.4) TVD(4413.53)
VS(73.31) NS(39.24) EW(169.57)



4600

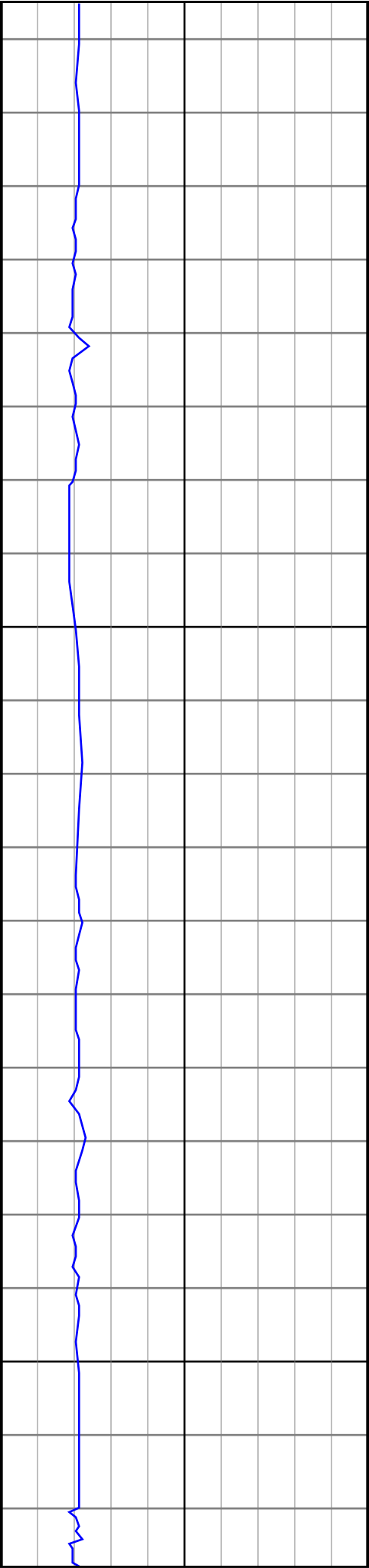
4700



#44 MD(4520.00) Inc(7.0) Azm(110.7) TVD(4507.97)
VS(72.62) NS(36.45) EW(179.47)

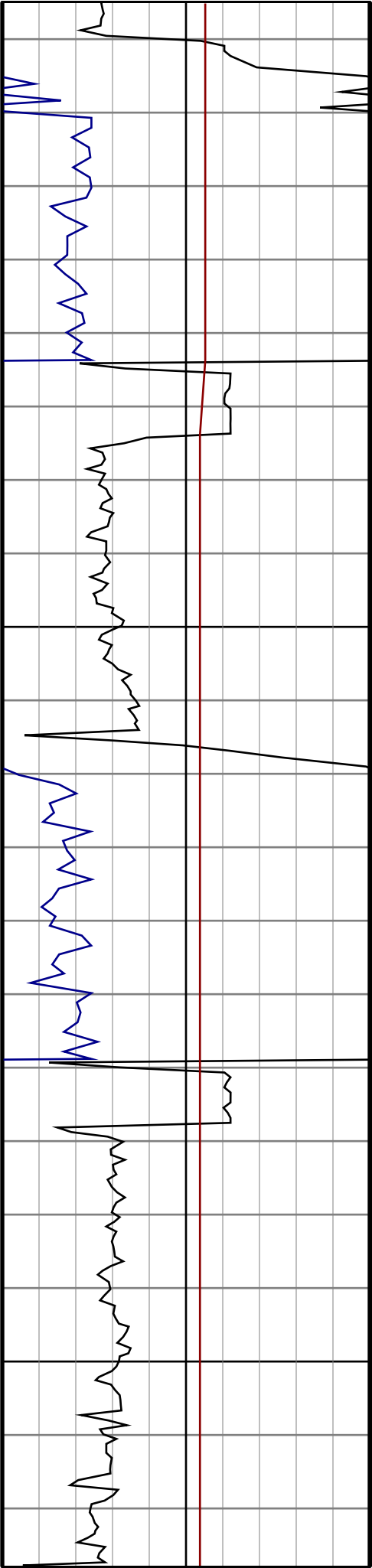
#45 MD(4615.00) Inc(8.8) Azm(106.6) TVD(4602.06)
VS(71.13) NS(32.33) EW(191.85)

#46 MD(4711.00) Inc(9.7) Azm(104.2) TVD(4696.81)
VS(70.20) NS(28.25) EW(206.73)



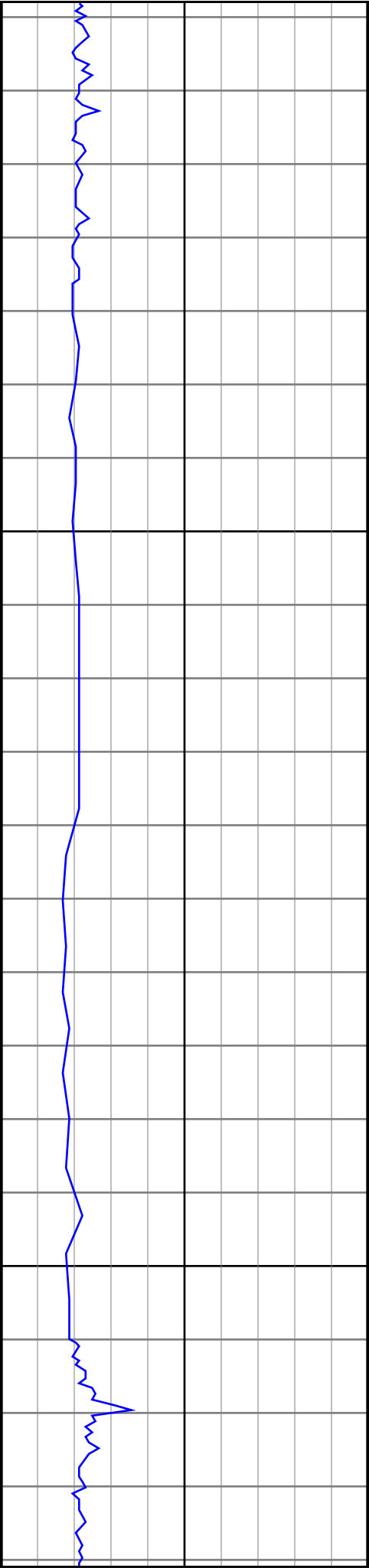
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4900

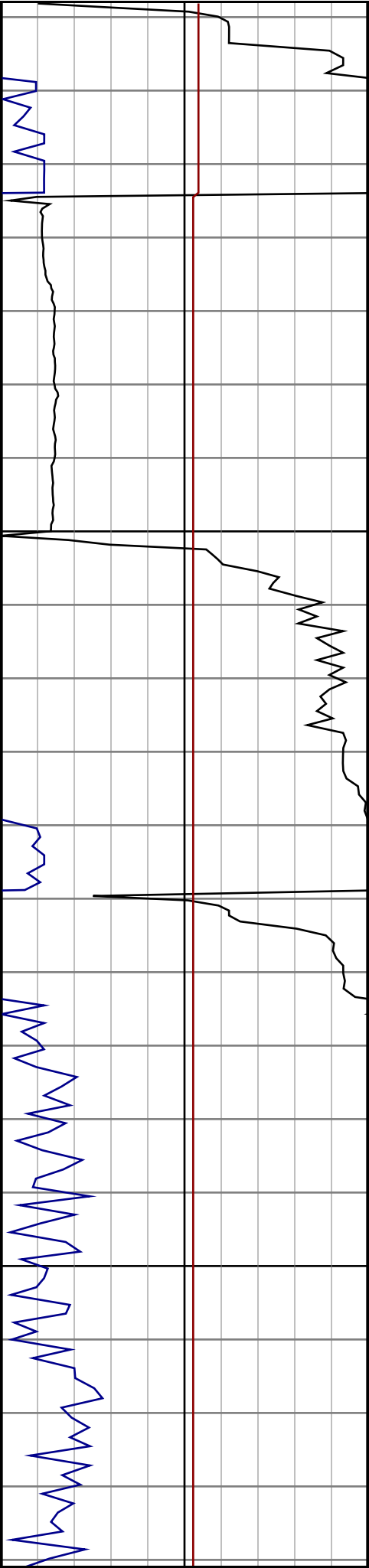


#47 MD(4806.00) Inc(8.8) Azm(101.0) TVD(4790.58)
VS(69.99) NS(24.90) EW(221.62)

#48 MD(4901.00) Inc(9.7) Azm(93.4) TVD(4884.34)
VS(71.28) NS(23.04) EW(236.75)



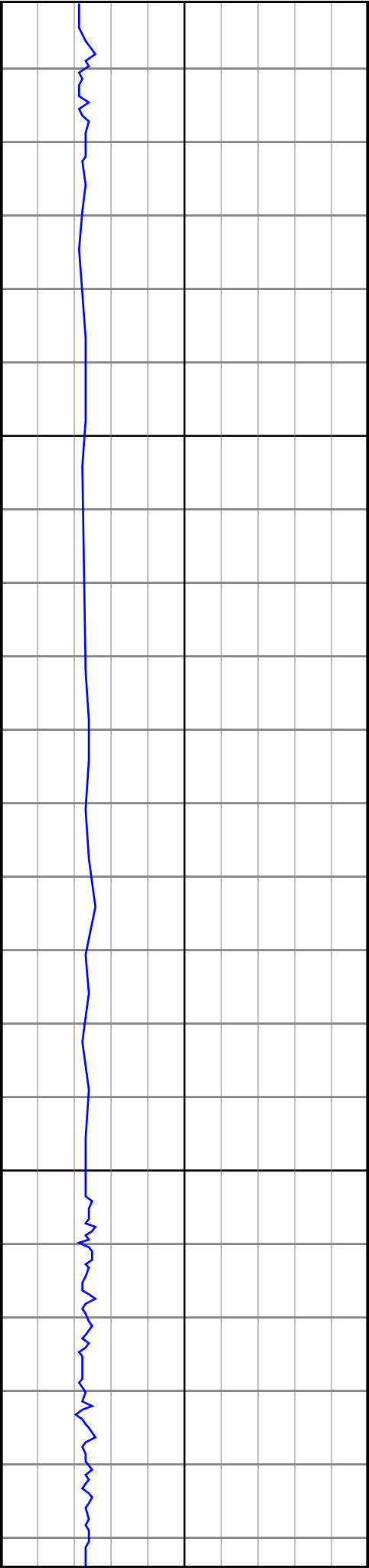
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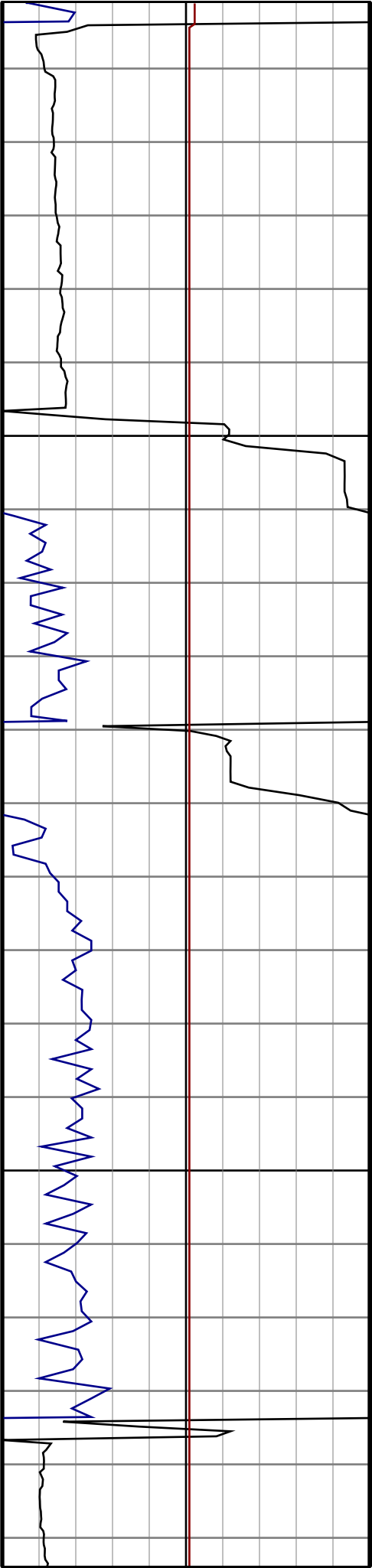
#49 MD(4996.00) Inc(13.0) Azm(89.9) TVD(4977.47)
VS(74.68) NS(22.58) EW(255.43)

5100

#50 MD(5091.00) Inc(12.5) Azm(89.0) TVD(5070.13)
VS(79.19) NS(22.78) EW(276.39)



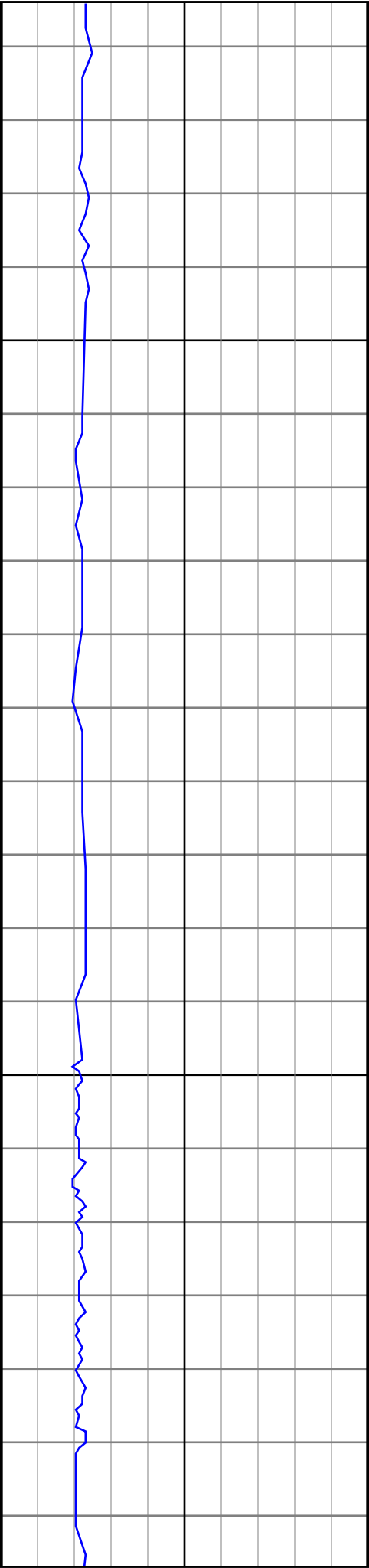
5200



#51 MD(5186.00) Inc(14.1) Azm(98.0) TVD(5162.59)
VS(82.27) NS(21.35) EW(298.13)

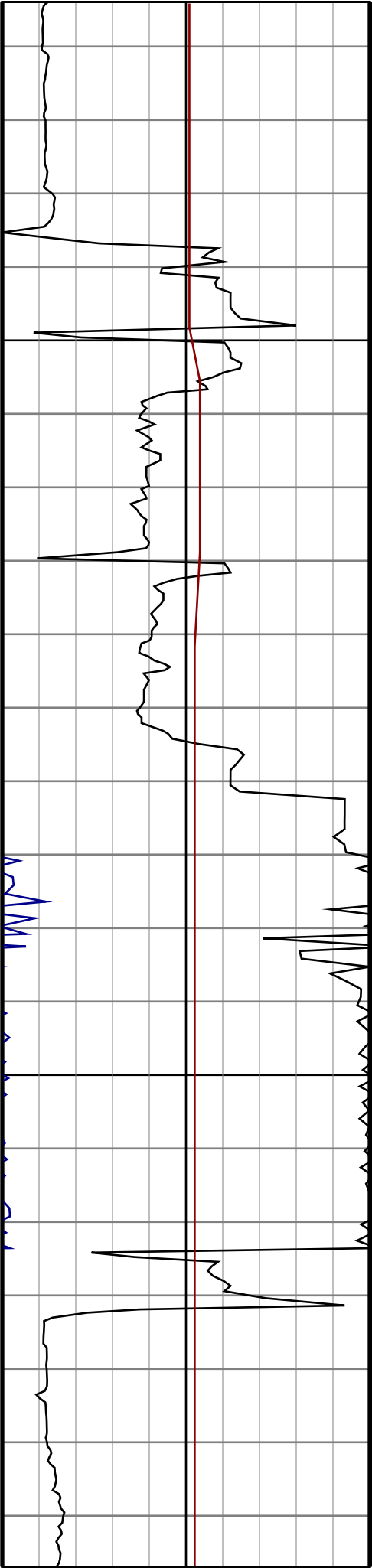
#52 MD(5281.00) Inc(12.5) Azm(96.9) TVD(5255.04)
VS(83.94) NS(18.50) EW(319.80)

5300



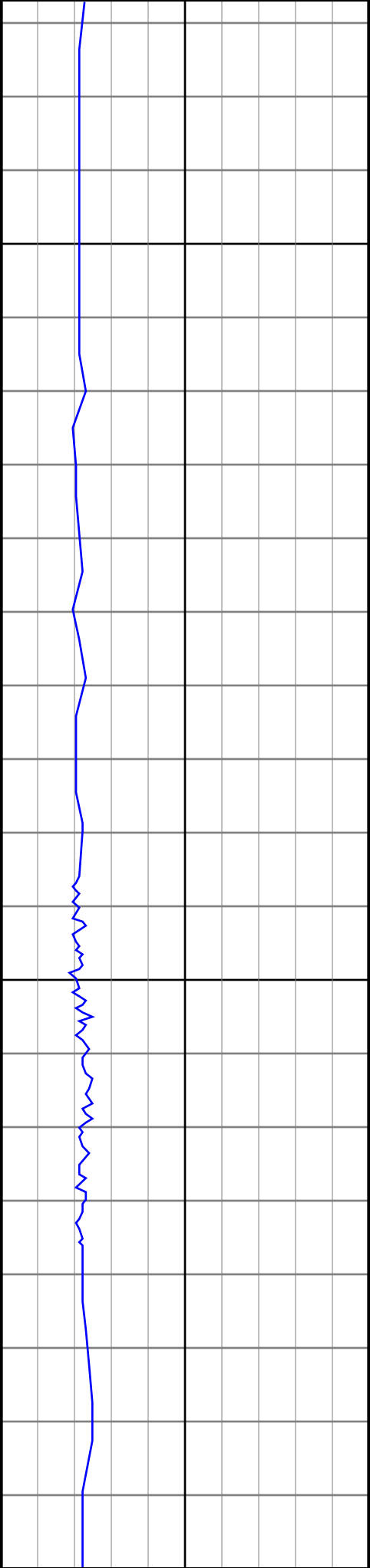
5400

5500



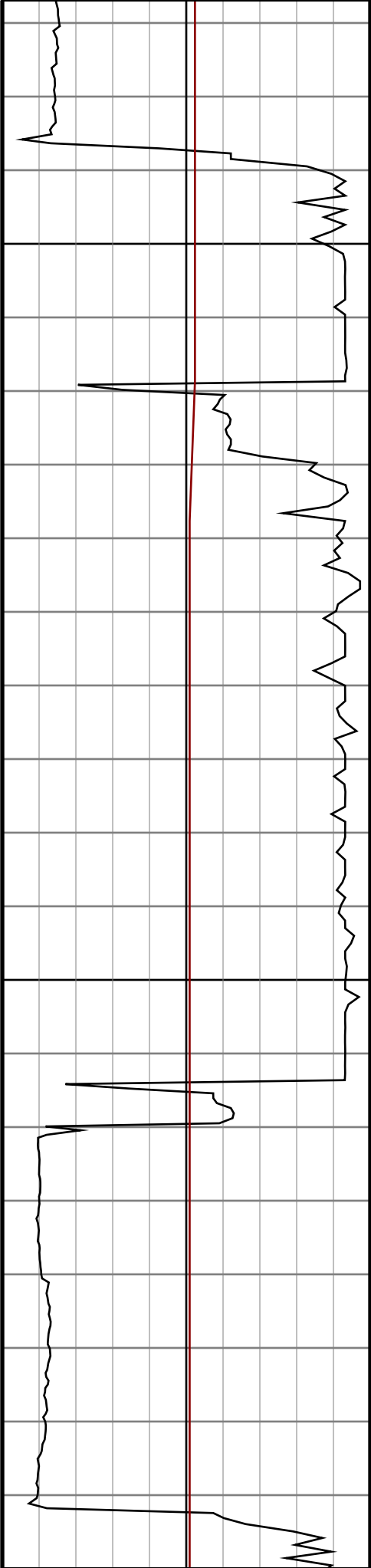
#53 MD(5377.00) Inc(13.5) Azm(102.2) TVD(5348.58)
VS(84.78) NS(14.89) EW(341.07)

#54 MD(5472.00) Inc(12.1) Azm(104.3) TVD(5441.22)
VS(84.30) NS(10.08) EW(361.56)



5600

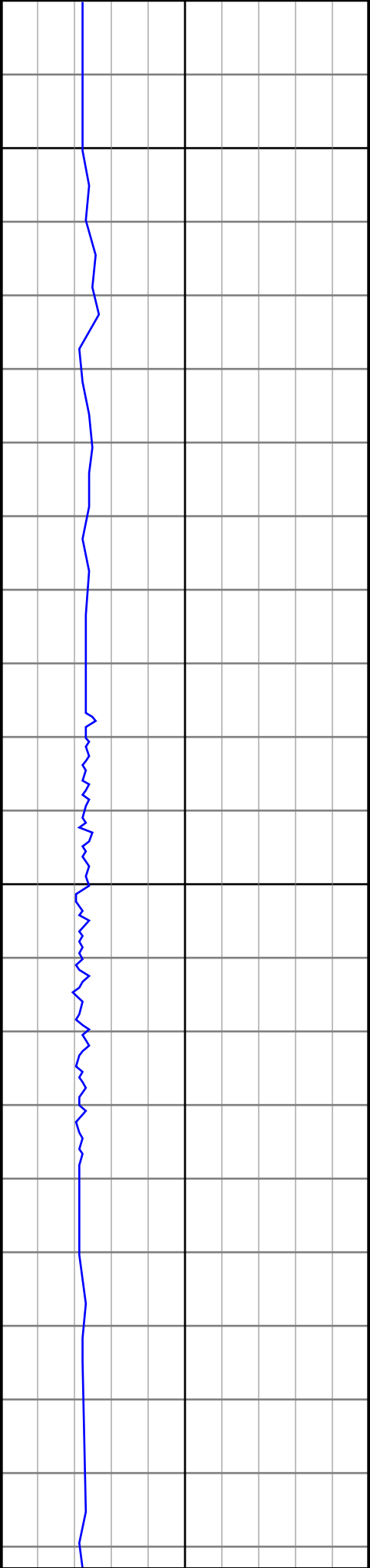
5700



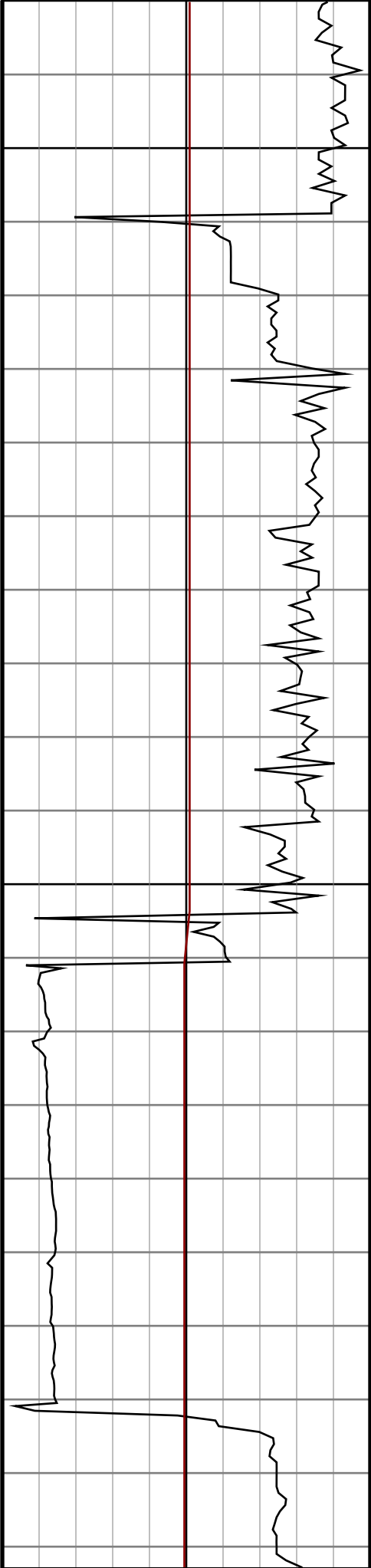
#55 MD(5567.00) Inc(13.5) Azm(101.3) TVD(5533.86)
VS(83.99) NS(5.45) EW(382.08)

#56 MD(5662.00) Inc(12.5) Azm(102.0) TVD(5626.42)
VS(84.08) NS(1.14) EW(403.01)

#57 MD(5757.00) Inc(13.7) Azm(98.9) TVD(5718.95)
VS(84.65) NS(-2.74) EW(424.18)



5800

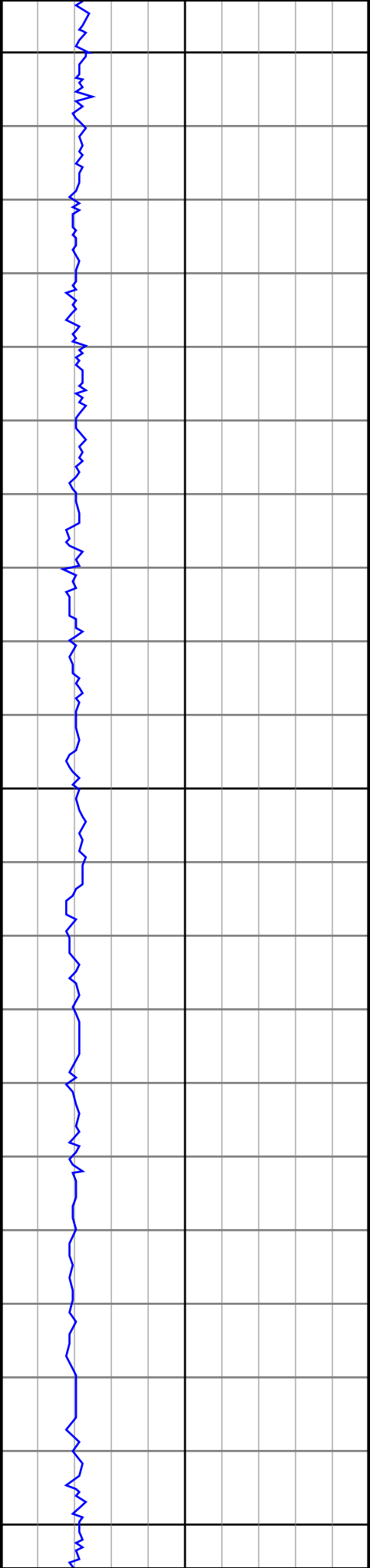


#58 MD(5853.00) Inc(12.3) Azm(98.0) TVD(5812.49)
VS(85.93) NS(-5.92) EW(445.54)

5900

#59 MD(5948.00) Inc(13.4) Azm(99.4) TVD(5905.10)
VS(87.09) NS(-9.13) EW(466.42)

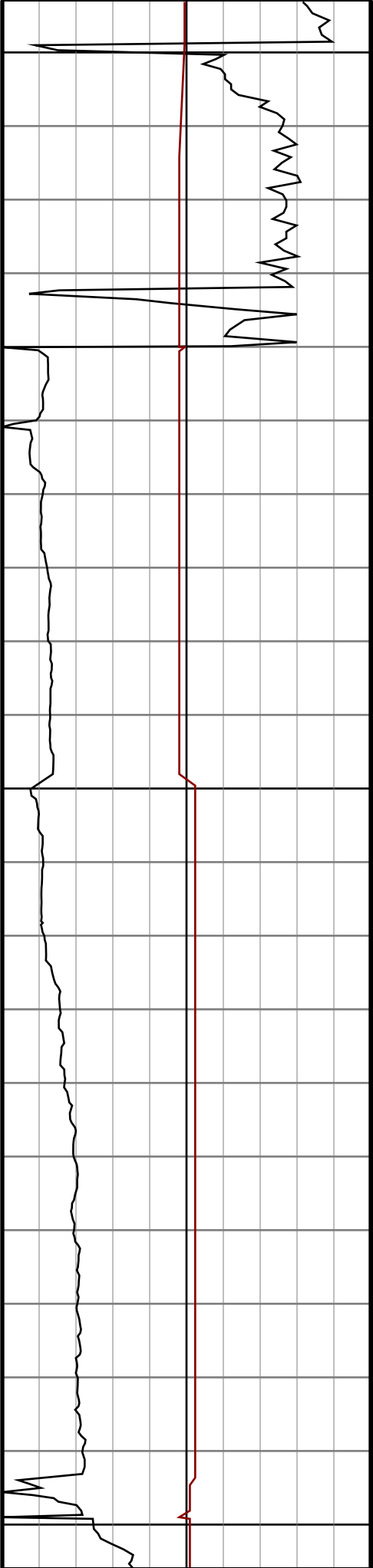
#60 MD(5988.00) Inc(14.6) Azm(98.5) TVD(5943.92)
VS(87.59) NS(-10.63) EW(475.98)



6000

6100

6200

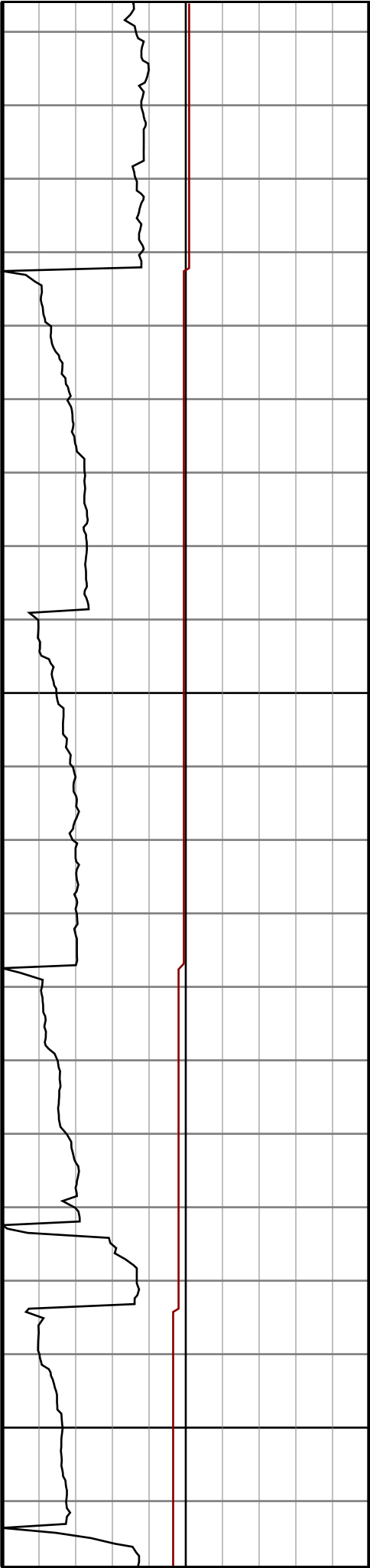
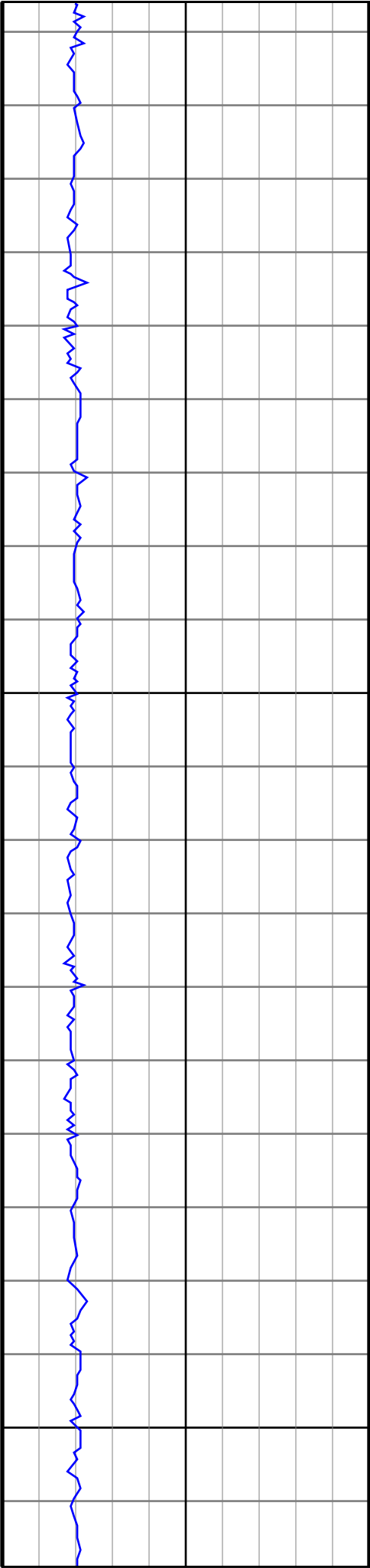


#61 MD(6034.00) Inc(13.5) Azm(96.7) TVD(5988.54)
VS(88.41) NS(-12.11) EW(487.05)

#62 MD(6082.00) Inc(16.2) Azm(86.7) TVD(6034.94)
VS(90.67) NS(-12.38) EW(499.30)

#63 MD(6130.00) Inc(20.1) Azm(77.4) TVD(6080.55)
VS(95.85) NS(-10.19) EW(514.04)

#64 MD(6177.00) Inc(24.7) Azm(67.2) TVD(6124.01)
VS(104.79) NS(-4.62) EW(530.99)



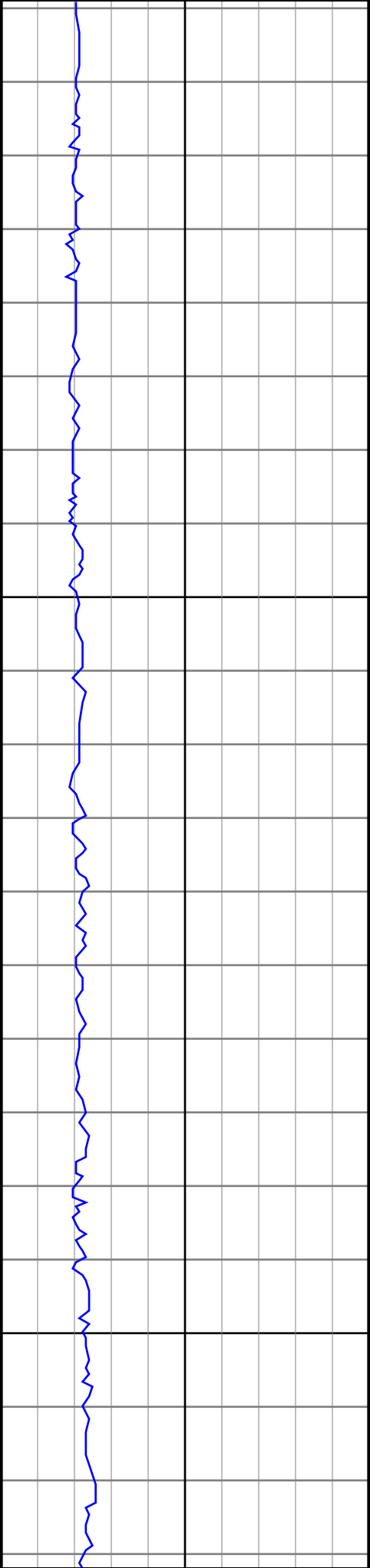
#65 MD(6225.00) Inc(24.4) Azm(65.0) TVD(6167.67)
VS(116.45) NS(3.46) EW(549.22)

#66 MD(6272.00) Inc(27.5) Azm(63.7) TVD(6209.93)
VS(128.98) NS(12.37) EW(567.76)

#67 MD(6320.00) Inc(33.3) Azm(64.0) TVD(6251.31)
VS(143.94) NS(23.06) EW(589.55)

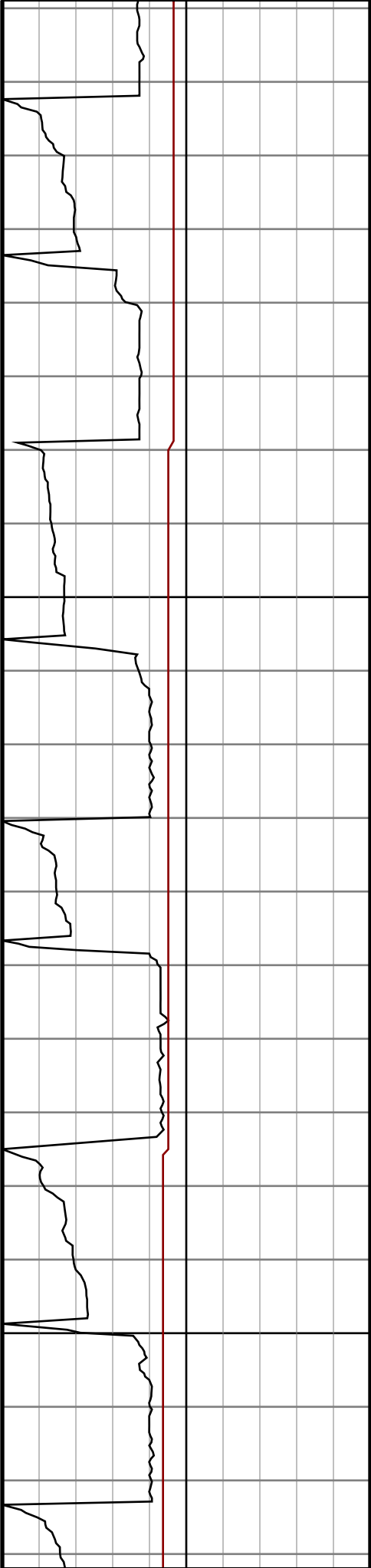
#68 MD(6367.00) Inc(39.1) Azm(64.8) TVD(6289.22)
VS(160.81) NS(35.04) EW(614.58)

#69 MD(6415.00) Inc(42.4) Azm(64.8) TVD(6325.58)
VS(179.70) NS(48.38) EW(642.93)



6500

6600

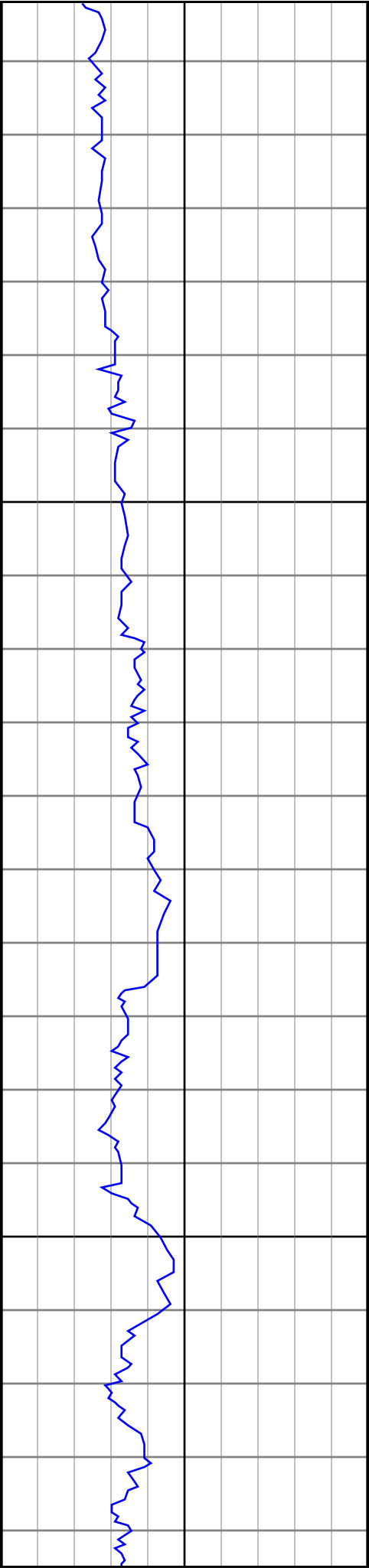


#70 MD(6463.00) Inc(45.0) Azm(65.4) TVD(6360.28)
VS(199.55) NS(62.34) EW(673.01)

#71 MD(6510.00) Inc(47.6) Azm(66.4) TVD(6392.75)
VS(219.50) NS(76.20) EW(704.02)

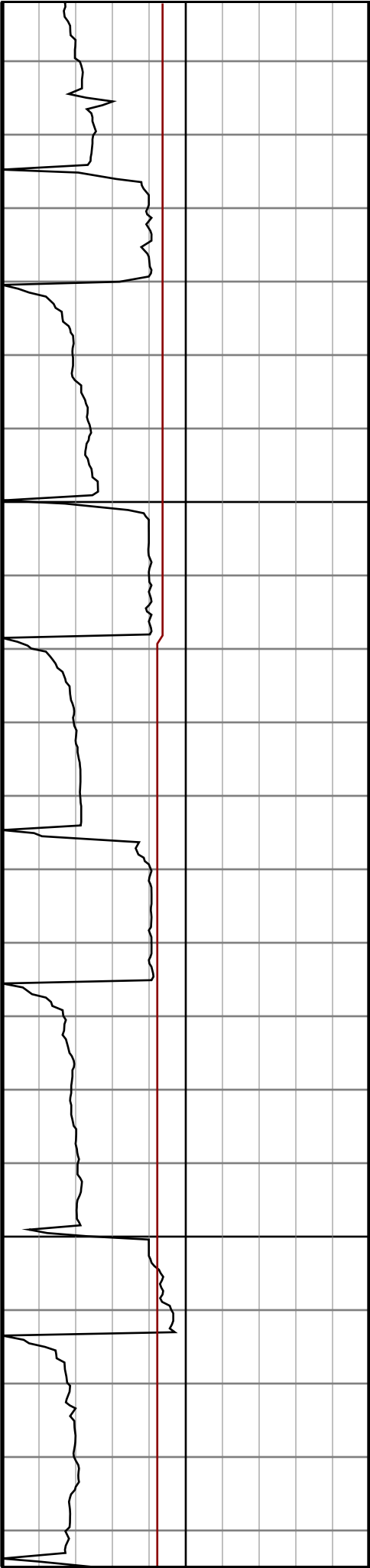
#72 MD(6558.00) Inc(50.2) Azm(66.3) TVD(6424.30)
VS(240.52) NS(90.71) EW(737.15)

#73 MD(6605.00) Inc(53.4) Azm(64.6) TVD(6453.36)
VS(262.46) NS(106.07) EW(770.74)



6700

6800



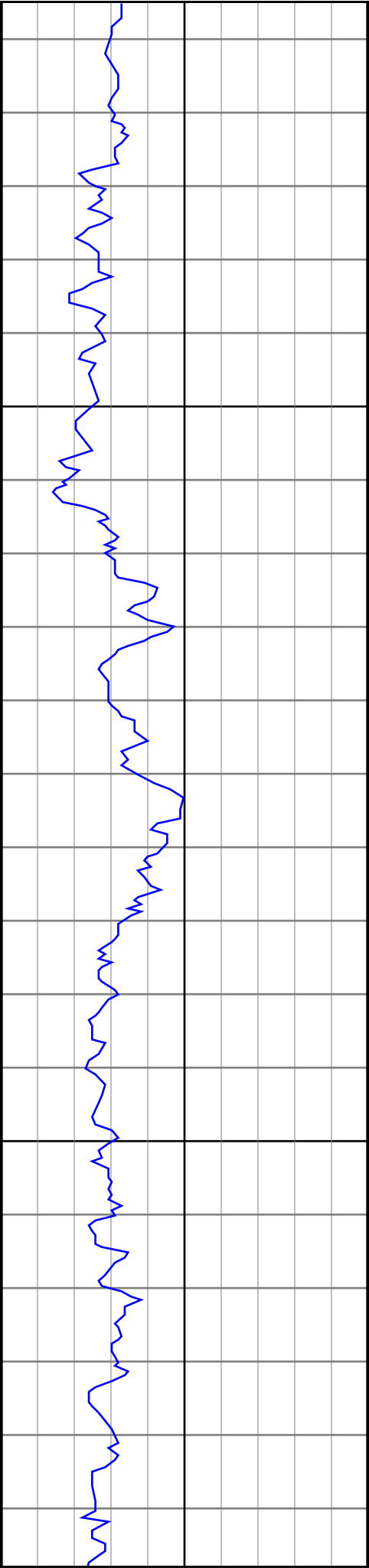
#74 MD(6653.00) Inc(55.8) Azm(59.2) TVD(6481.18)
VS(287.60) NS(124.51) EW(805.21)

#75 MD(6701.00) Inc(58.1) Azm(53.8) TVD(6507.37)
VS(316.24) NS(146.72) EW(838.73)

#76 MD(6748.00) Inc(59.2) Azm(48.6) TVD(6531.83)
VS(347.28) NS(171.87) EW(869.99)

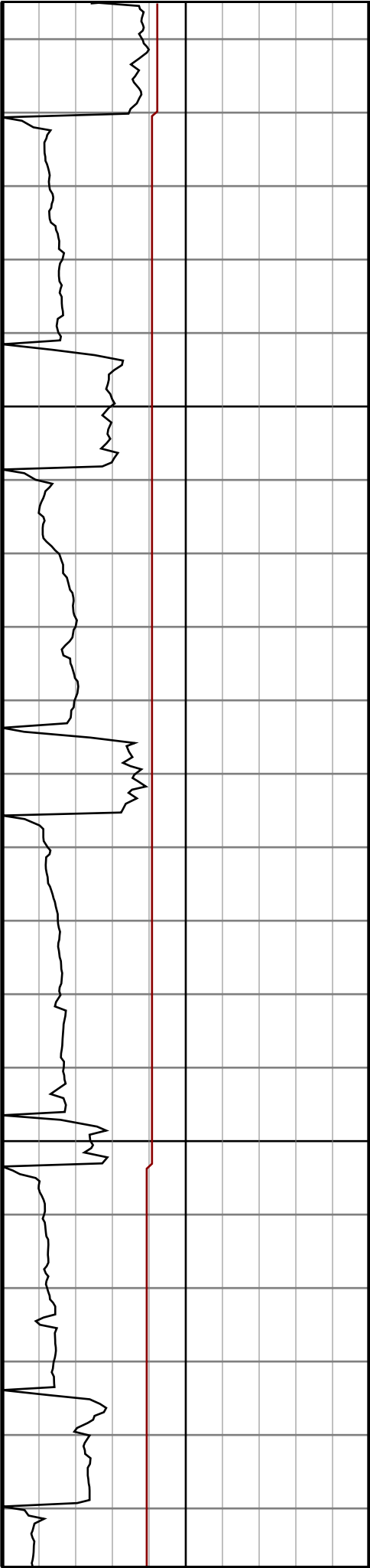
#77 MD(6796.00) Inc(58.7) Azm(42.4) TVD(6556.61)
VS(381.50) NS(200.66) EW(899.30)

#78 MD(6843.00) Inc(57.7) Azm(36.2) TVD(6581.39)
VS(416.92) NS(231.54) EW(924.59)



6900

7000

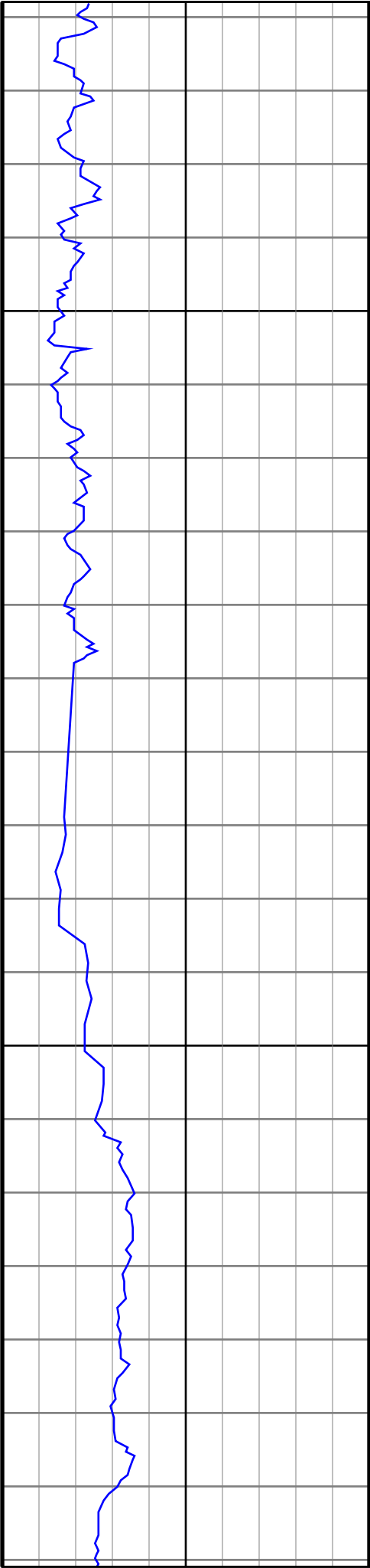


#79 MD(6891.00) Inc(56.9) Azm(30.1) TVD(6607.34)
VS(454.53) NS(265.33) EW(946.67)

#80 MD(6938.00) Inc(58.2) Azm(23.2) TVD(6632.58)
VS(492.85) NS(300.75) EW(964.42)

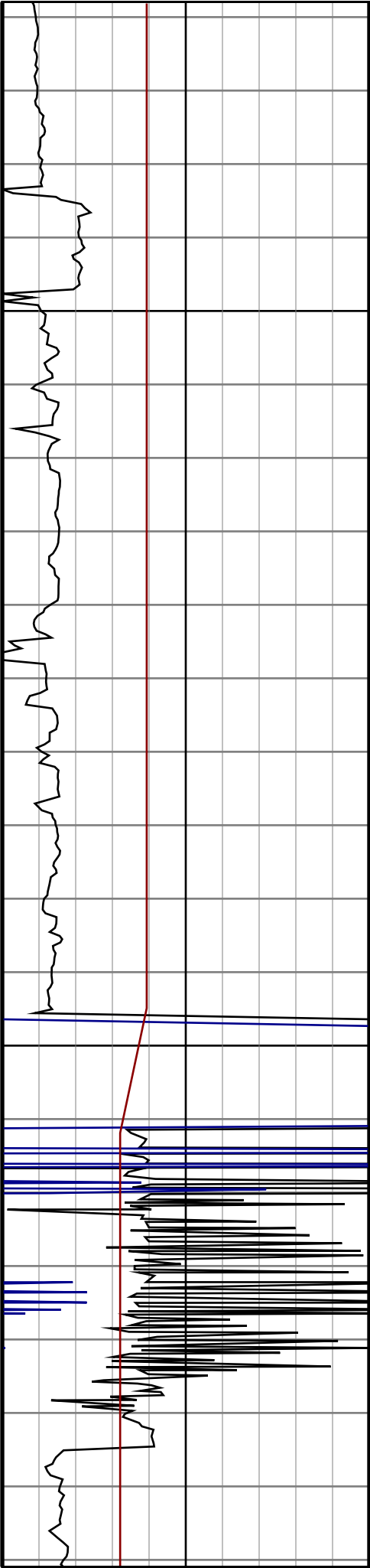
#81 MD(6986.00) Inc(62.3) Azm(17.5) TVD(6656.41)
VS(534.04) NS(339.81) EW(978.87)

#82 MD(7034.00) Inc(66.0) Azm(12.6) TVD(6677.35)
VS(577.15) NS(381.50) EW(990.05)



7100

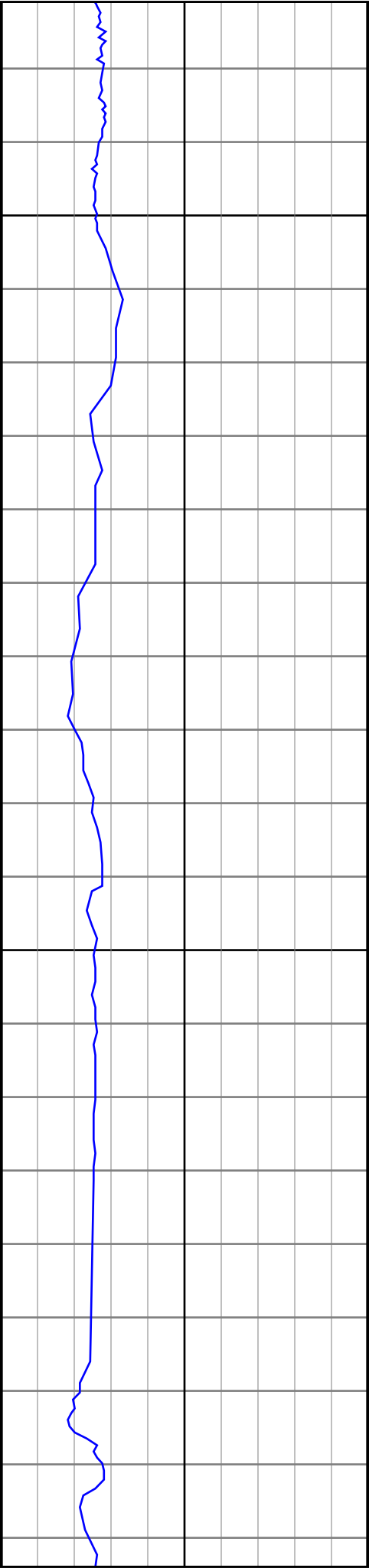
7200



#83 MD(7081.00) Inc(70.0) Azm(9.3) TVD(6694.95)
VS(620.70) NS(424.28) EW(998.30)

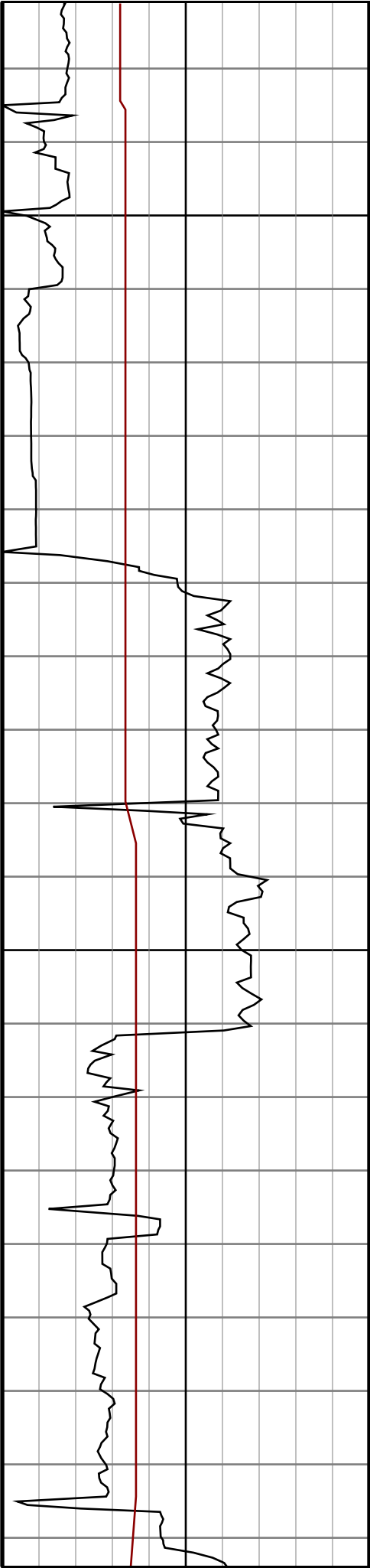
#84 MD(7129.00) Inc(75.1) Azm(4.9) TVD(6709.35)
VS(666.30) NS(469.69) EW(1003.94)

#85 MD(7231.00) Inc(82.2) Azm(0.8) TVD(6729.42)
VS(764.98) NS(569.49) EW(1008.86)



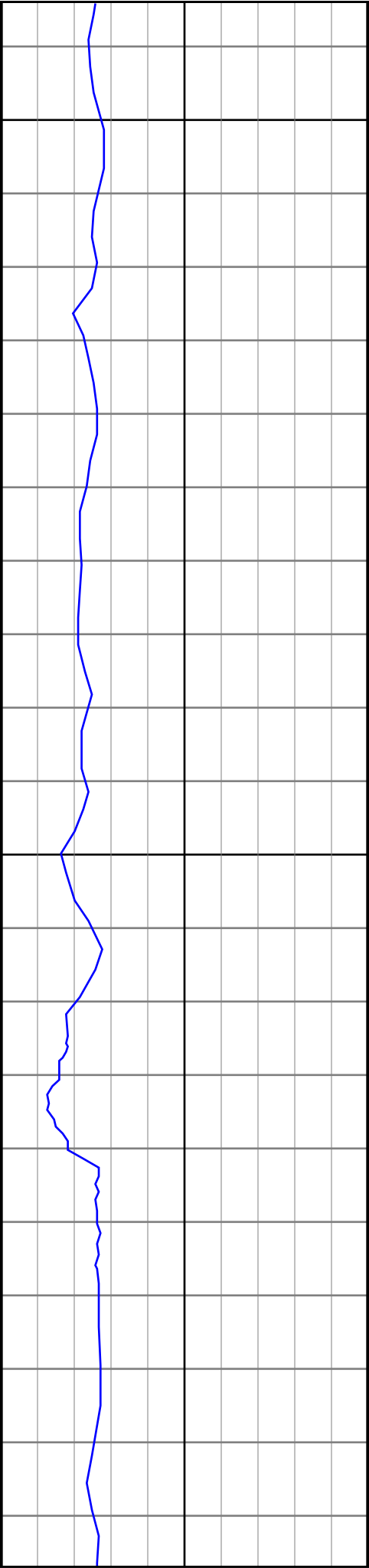
7300

7400



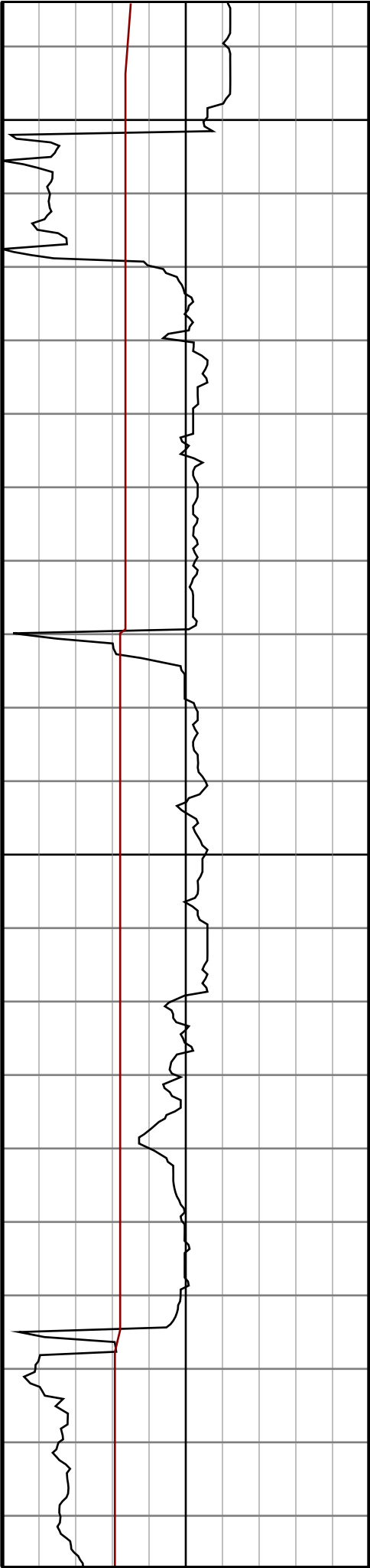
#86 MD(7326.00) Inc(88.5) Azm(0.6) TVD(6737.12)
VS(857.82) NS(664.12) EW(1010.02)

#87 MD(7421.00) Inc(91.3) Azm(359.6) TVD(6737.28)
VS(950.81) NS(759.11) EW(1010.18)



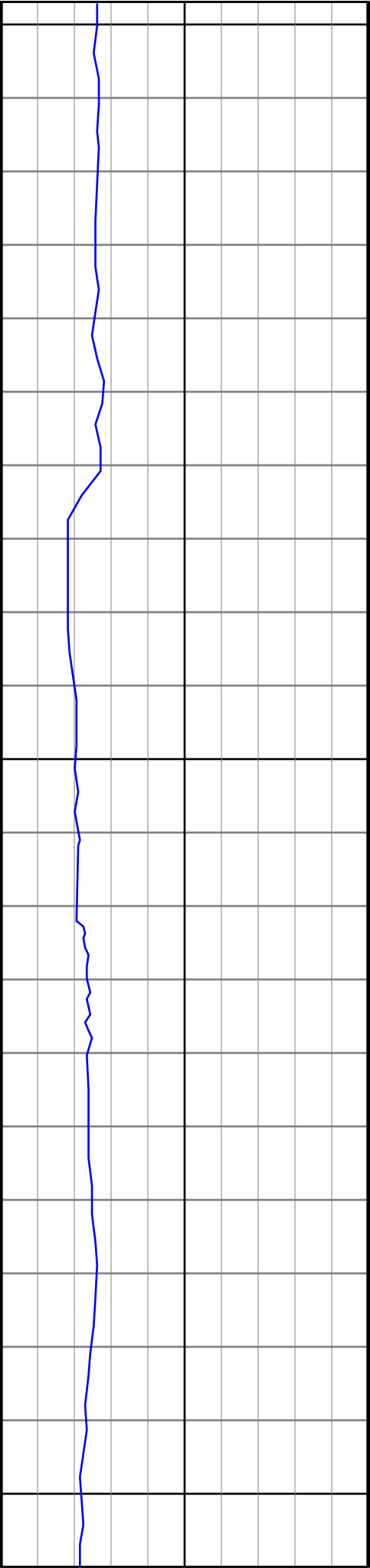
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7600



#88 MD(7516.00) Inc(90.6) Azm(0.4) TVD(6735.71)
VS(1043.76) NS(854.09) EW(1010.18)

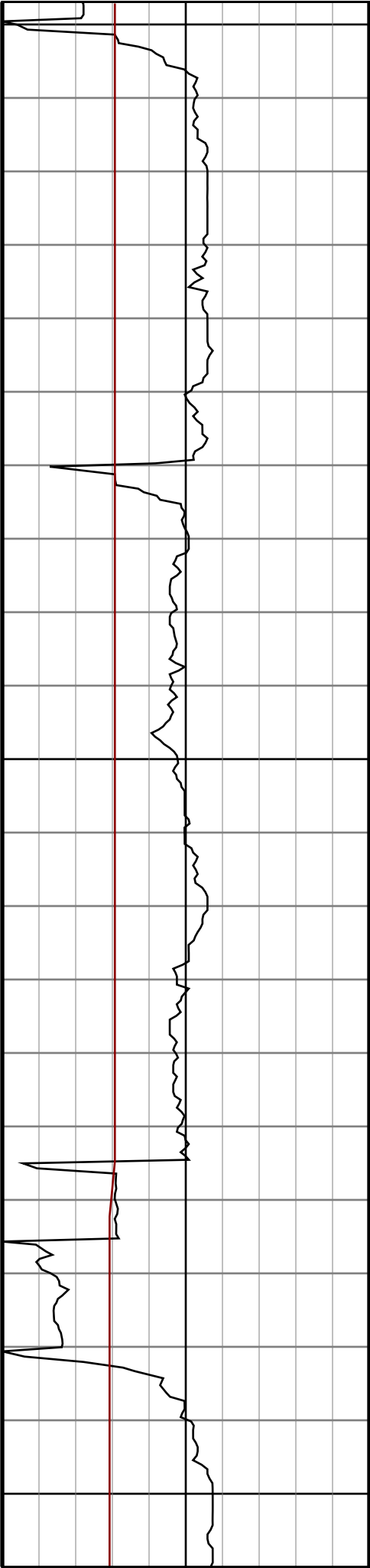
#89 MD(7612.00) Inc(91.1) Azm(359.6) TVD(6734.28)
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7700

7800

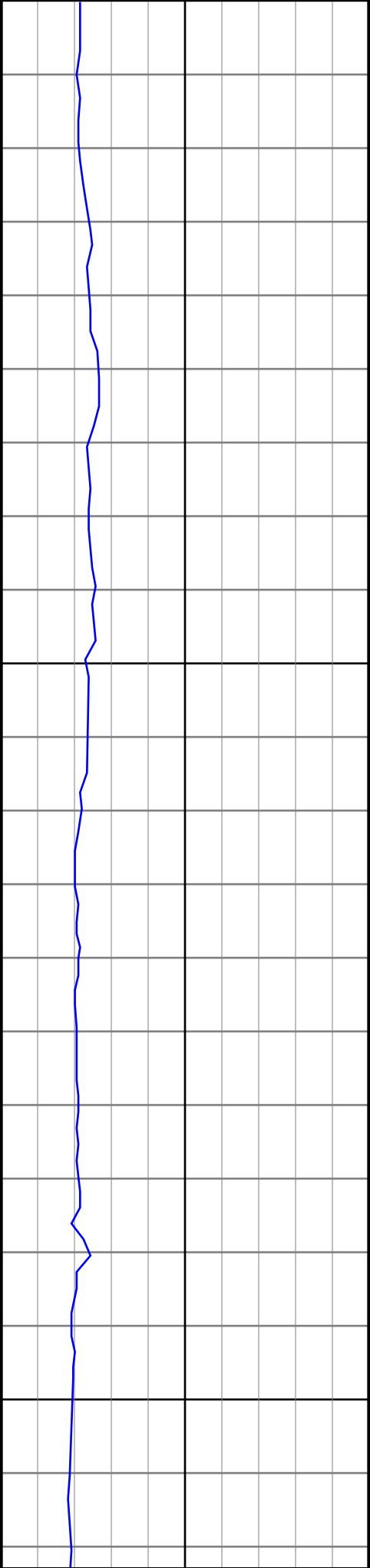
7900



#90 MD(7707.00) Inc(88.0) Azm(358.7) TVD(6735.03)
VS(1230.34) NS(1045.06) EW(1008.77)

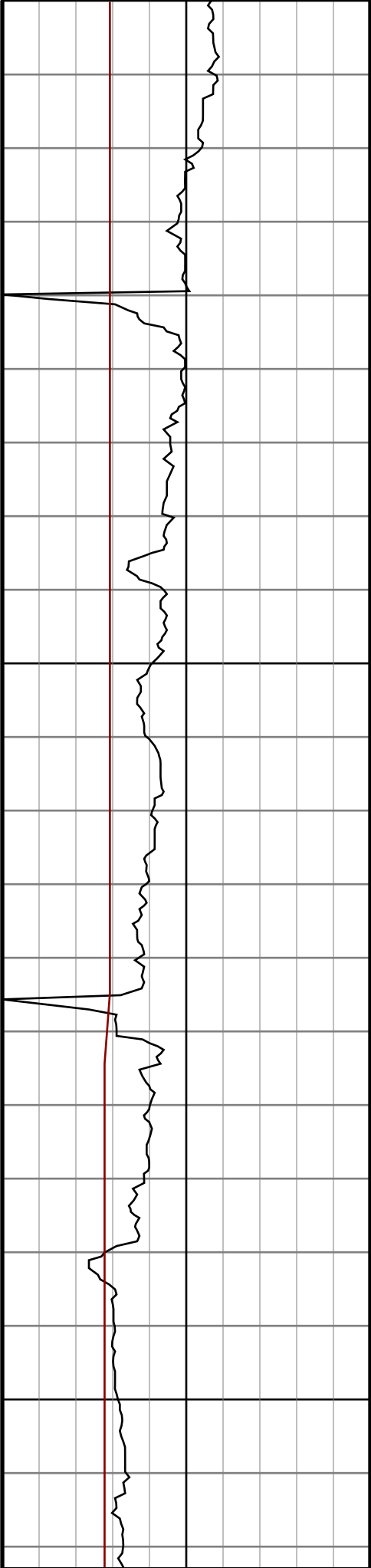
#91 MD(7802.00) Inc(88.7) Azm(359.2) TVD(6737.76)
VS(1322.89) NS(1140.00) EW(1007.03)

#92 MD(7897.00) Inc(86.9) Azm(359.9) TVD(6741.41)
VS(1415.63) NS(1234.92) EW(1006.29)



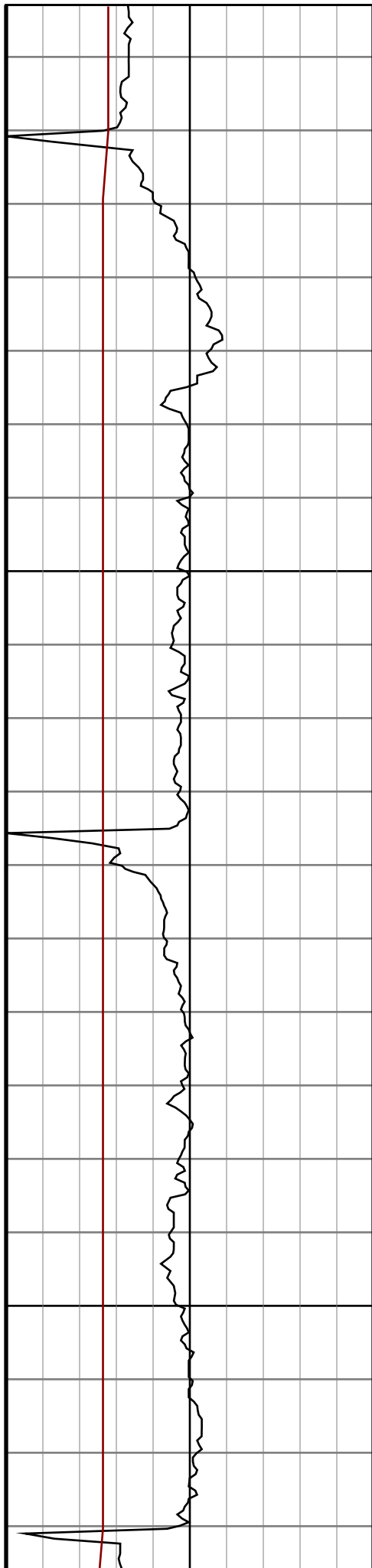
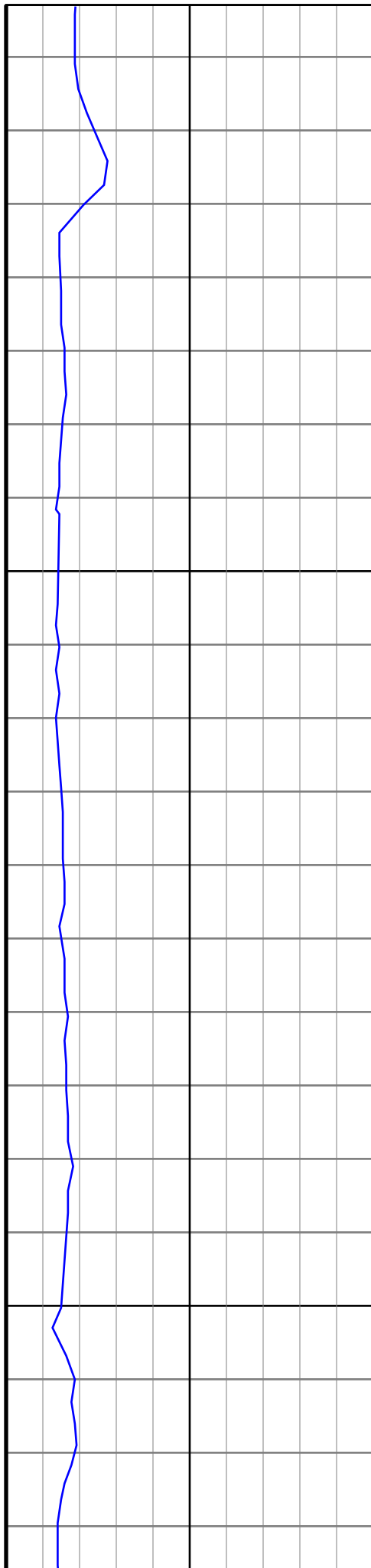
8000

8100



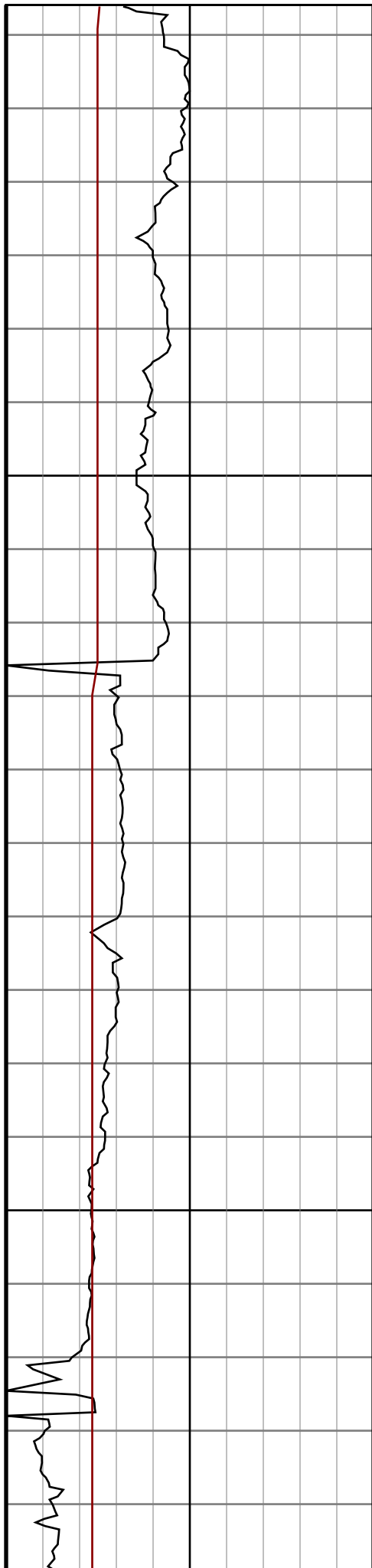
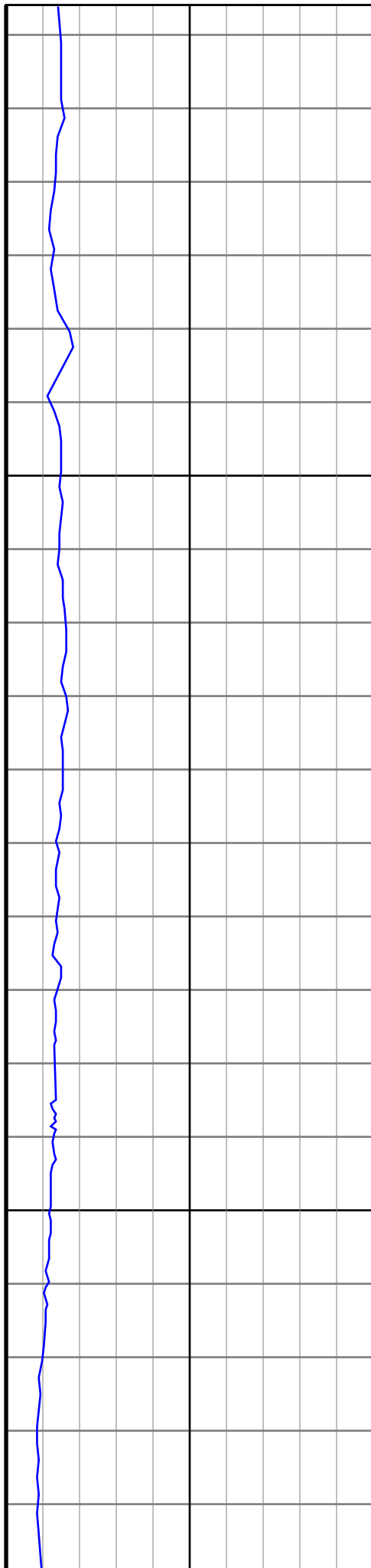
#93 MD(7993.00) Inc(87.8) Azm(359.6) TVD(6745.85)
VS(1509.38) NS(1330.82) EW(1005.87)

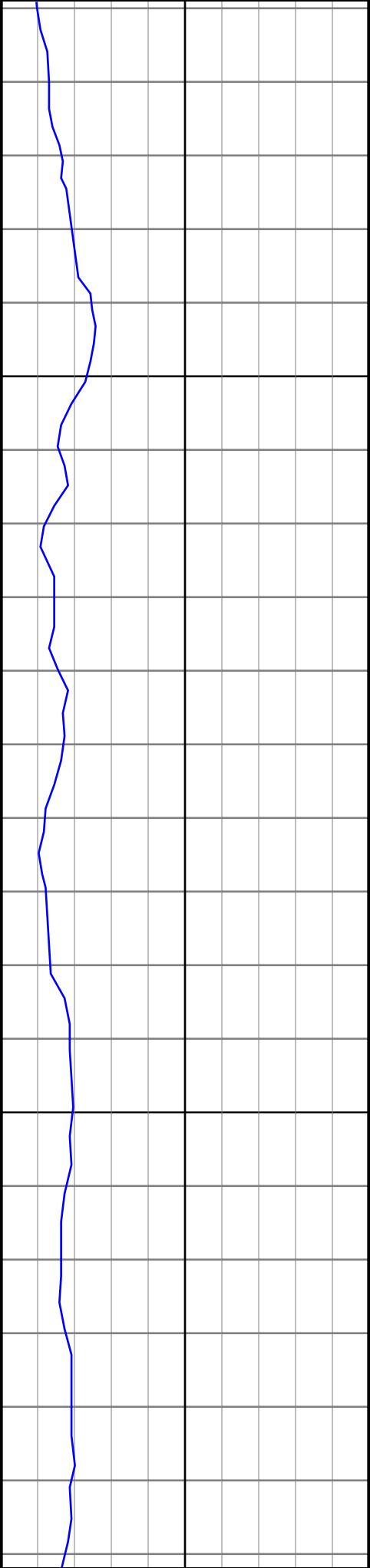
#94 MD(8088.00) Inc(86.9) Azm(359.0) TVD(6750.24)
VS(1602.00) NS(1425.71) EW(1004.71)



#95 MD(8183.00) Inc(87.3) Azm(357.6) TVD(6755.05) VS(1694.23) NS(1520.54) EW(1001.89)
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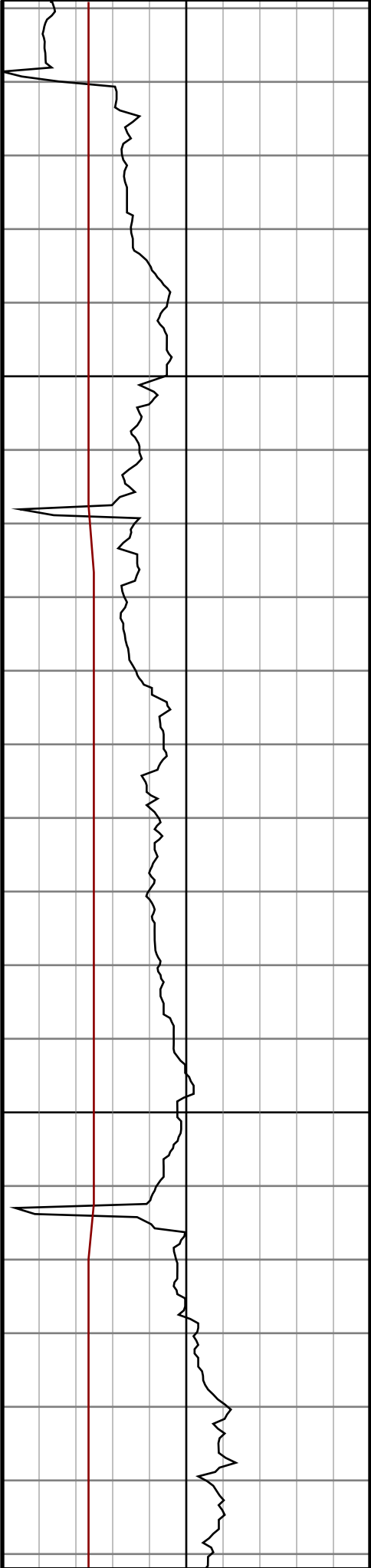
#96 MD(8278.00) Inc(88.0) Azm(358.7) TVD(6758.94)
VS(1786.43) NS(1615.41) EW(998.83)





8600

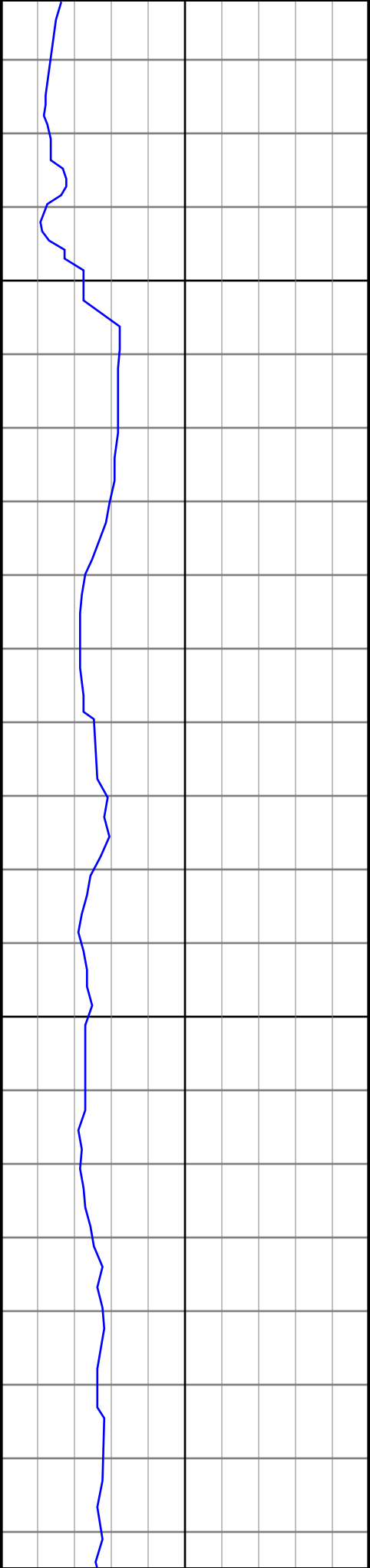
8700



#99 MD(8564.00) Inc(87.8) Azm(1.1) TVD(6764.94)
VS(2064.53) NS(1901.20) EW(991.19)

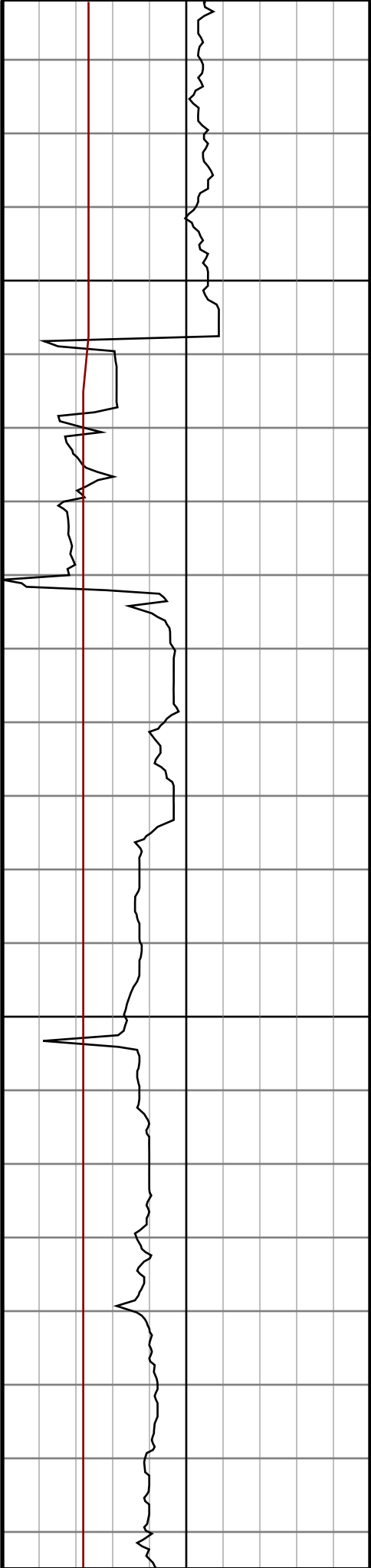
#100 MD(8659.00) Inc(87.4) Azm(359.9) TVD(6768.92)
VS(2157.58) NS(1996.11) EW(992.02)

#101 MD(8754.00) Inc(87.1) Azm(1.8) TVD(6773.48)
VS(2250.71) NS(2090.99) EW(993.43)



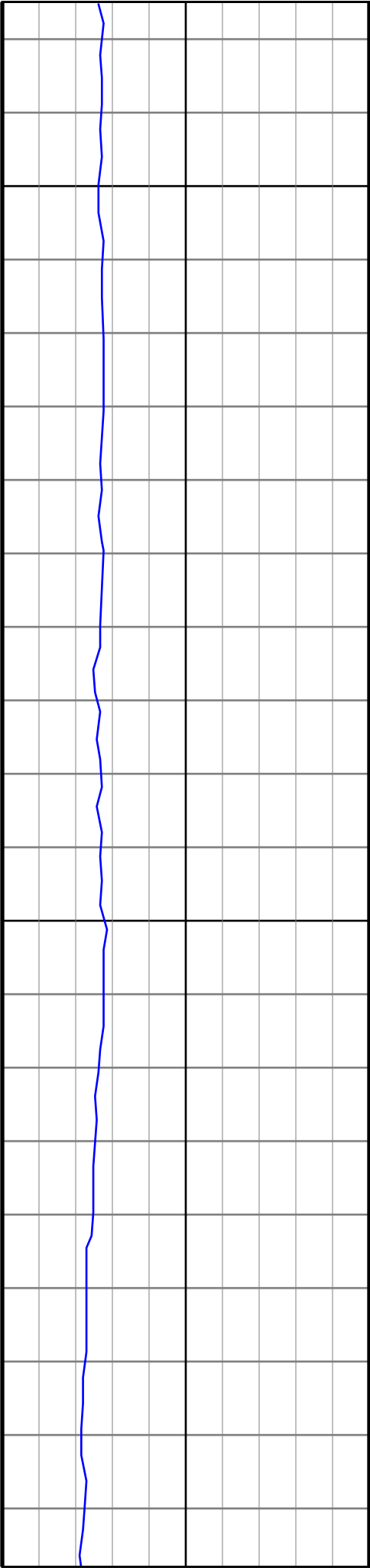
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8900



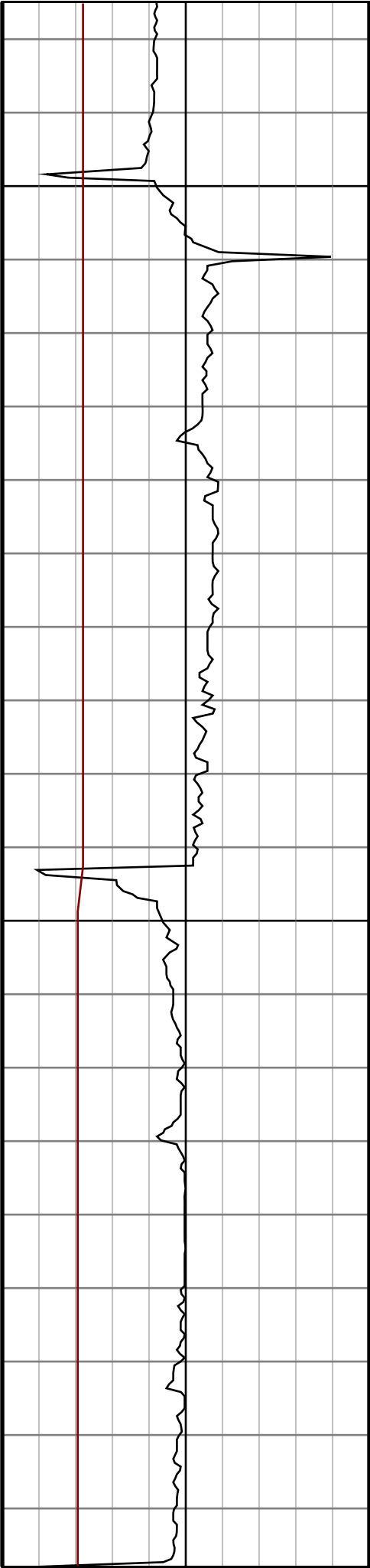
#102 MD(8849.00) Inc(90.1) Azm(0.4) TVD(6775.80)
VS(2343.99) NS(2185.93) EW(995.25)

#103 MD(8944.00) Inc(89.9) Azm(0.4) TVD(6775.80)
VS(2437.09) NS(2280.93) EW(995.91)



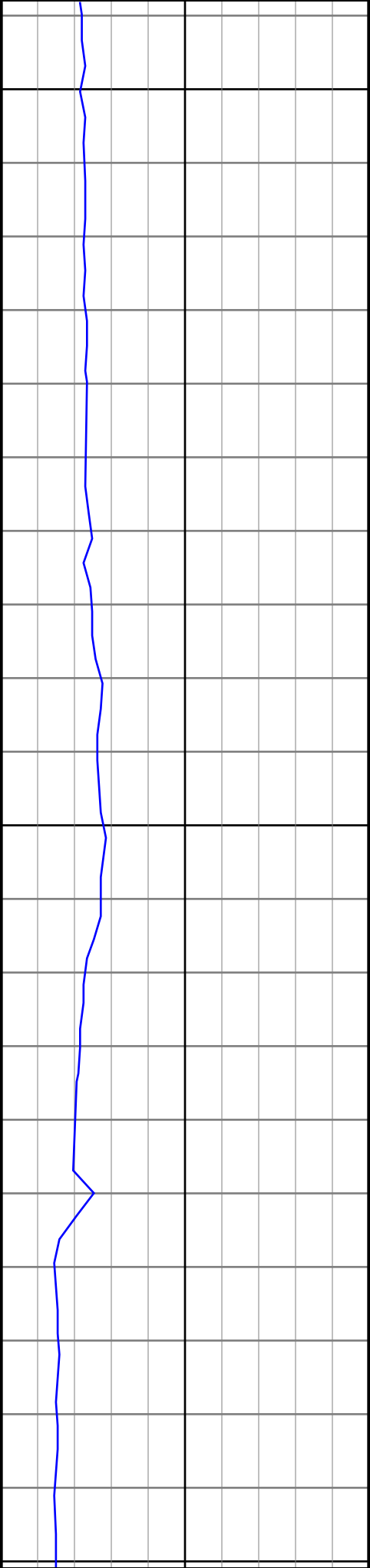
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9100



#104 MD(9040.00) Inc(90.3) Azm(359.4) TVD(6775.63)
VS(2531.00) NS(2376.92) EW(995.74)

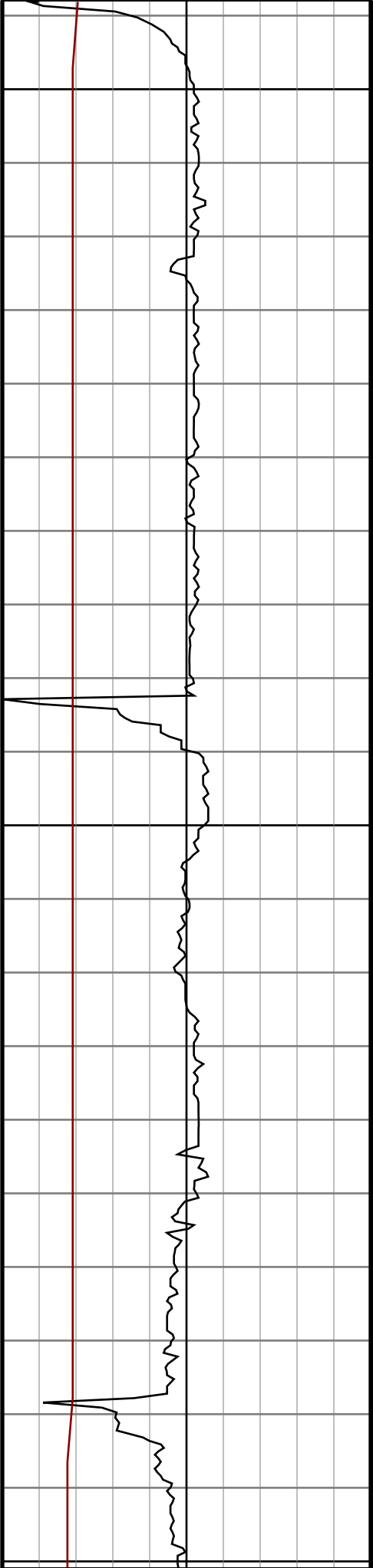
#105 MD(9135.00) Inc(90.3) Azm(359.4) TVD(6775.13)
VS(2623.75) NS(2471.92) EW(994.75)



9200

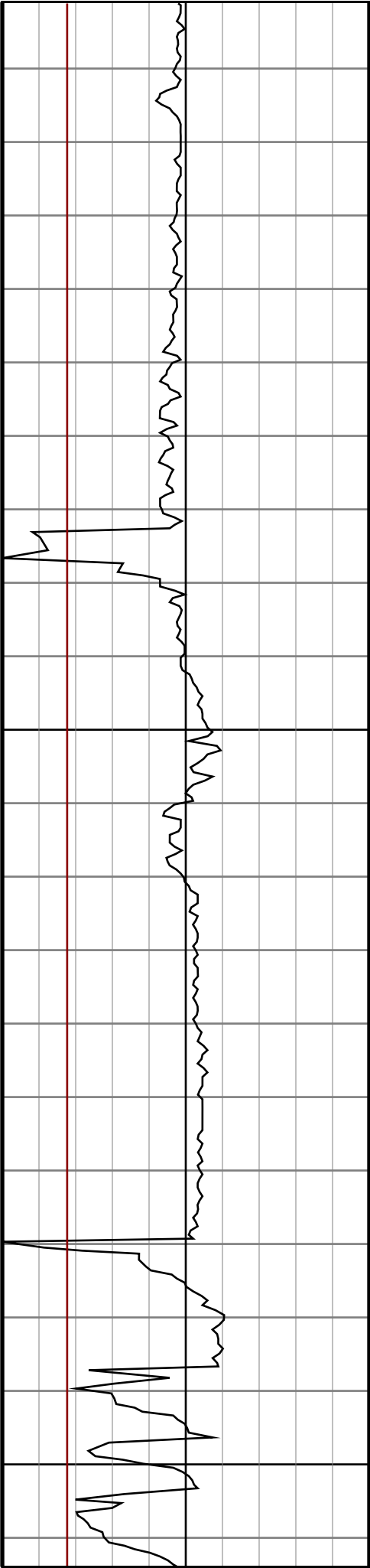
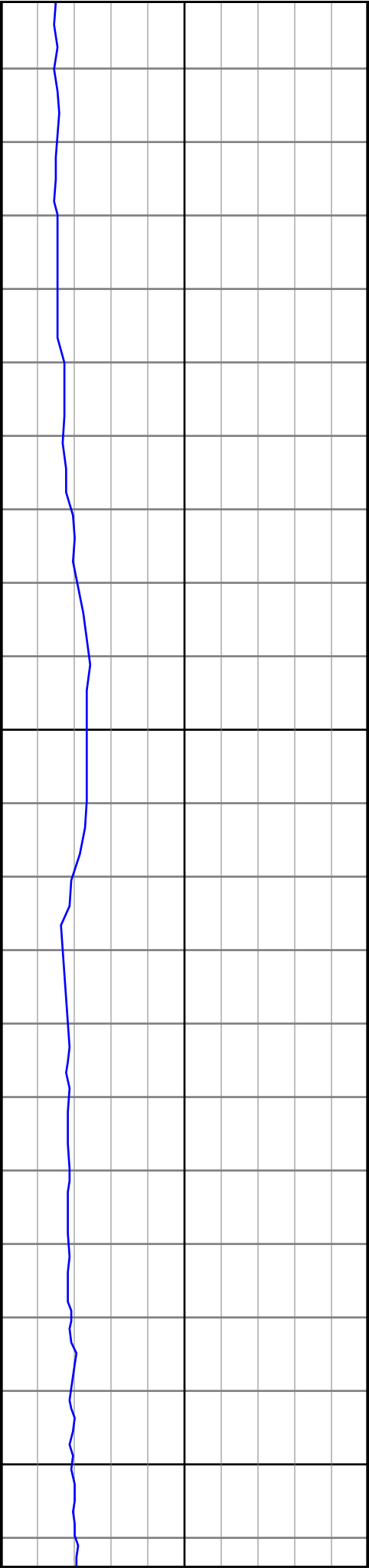
9300

9400



#106 MD(9230.00) Inc(90.3) Azm(0.8) TVD(6774.64)
VS(2716.75) NS(2566.91) EW(994.92)

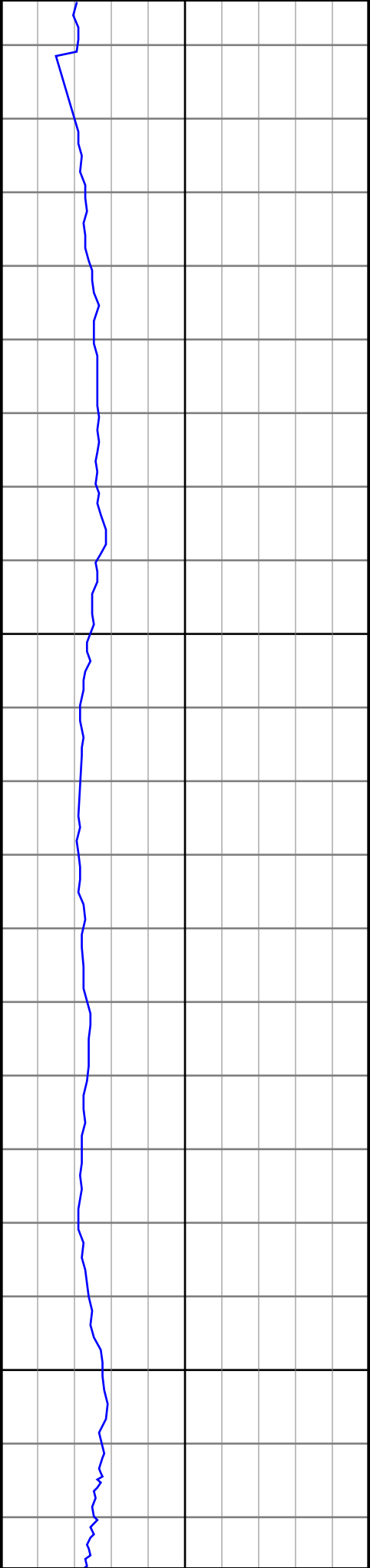
#107 MD(9325.00) Inc(90.3) Azm(358.9) TVD(6774.14)
VS(2809.66) NS(2661.91) EW(994.67)



#108 MD(9420.00) Inc(89.9) Azm(359.4) TVD(6773.97)
VS(2902.32) NS(2756.90) EW(993.26)

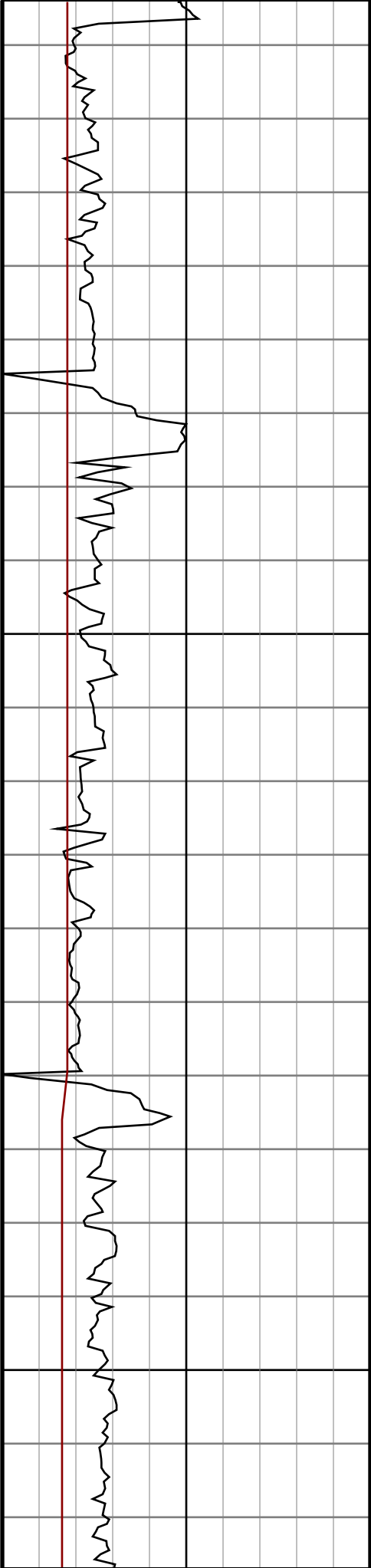
#109 MD(9516.00) Inc(88.9) Azm(359.2) TVD(6774.98)
VS(2996.01) NS(2852.88) EW(992.09)

#110 MD(9611.00) Inc(89.0) Azm(358.3) TVD(6776.72)
VS(3088.51) NS(2947.84) EW(990.01)



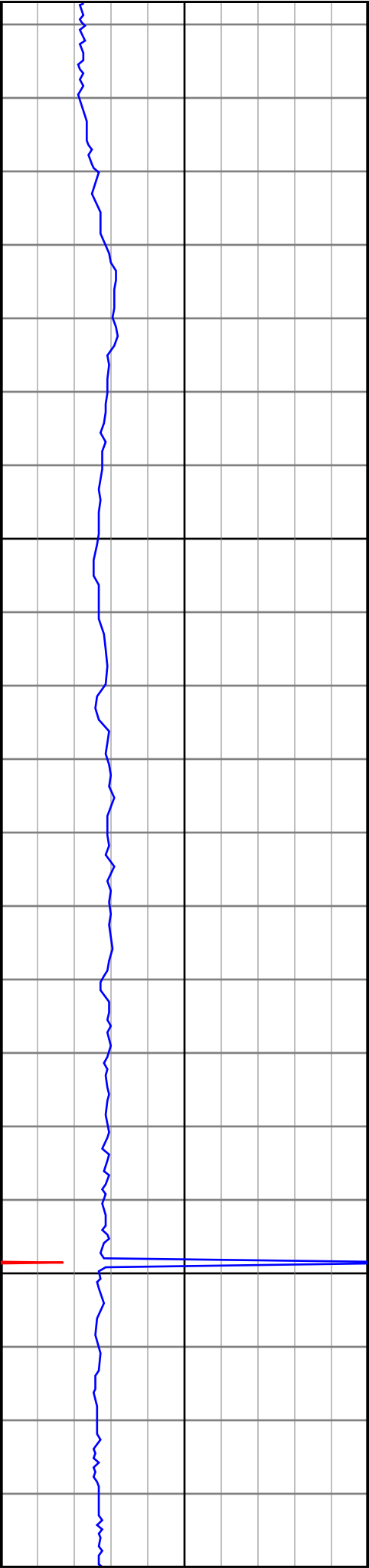
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9800



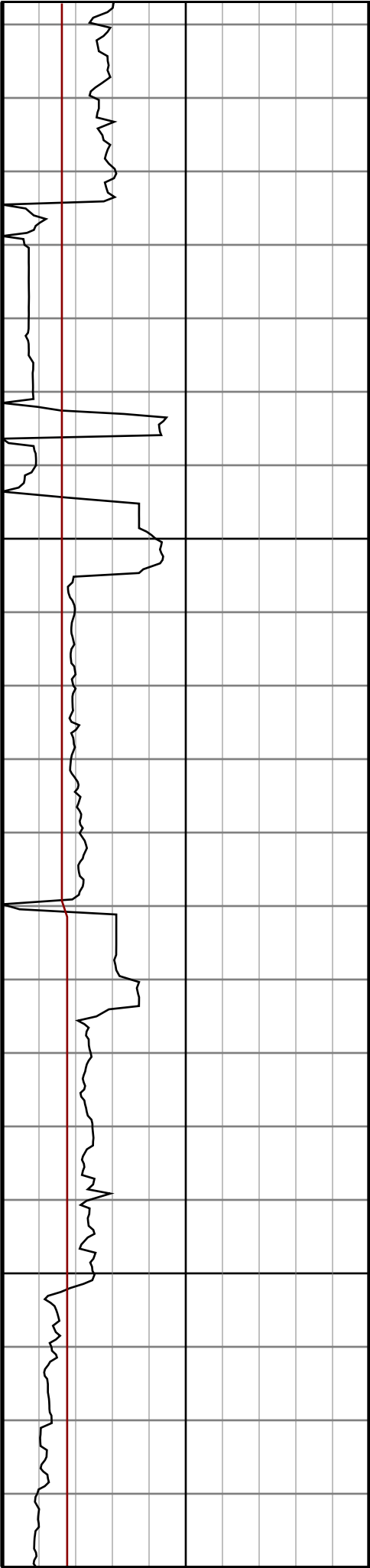
#111 MD(9706.00) Inc(88.3) Azm(358.7) TVD(6778.96)
VS(3180.91) NS(3042.78) EW(987.53)

#112 MD(9801.00) Inc(87.8) Azm(357.6) TVD(6782.19)
VS(3273.14) NS(3137.68) EW(984.46)



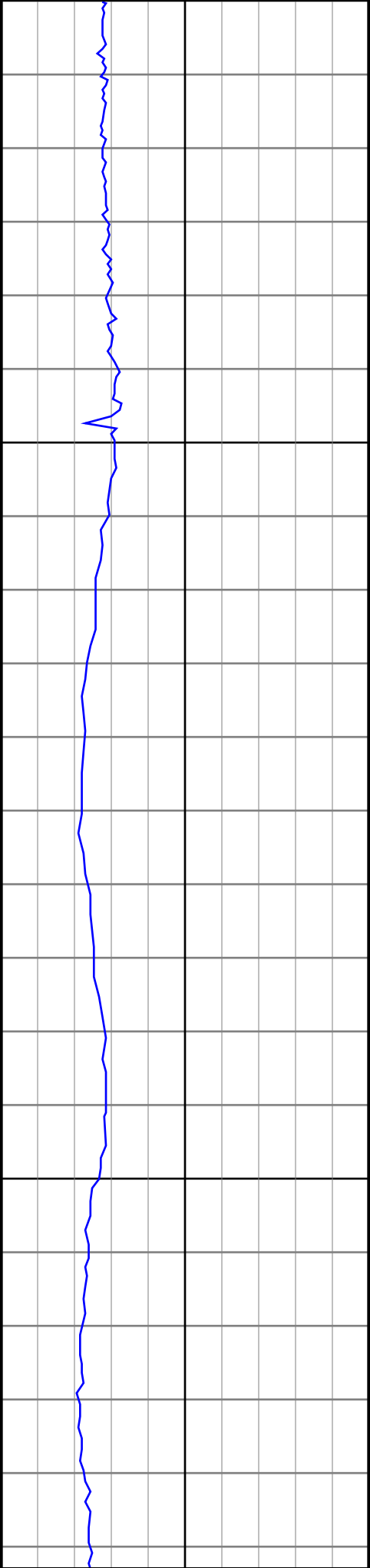
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10000



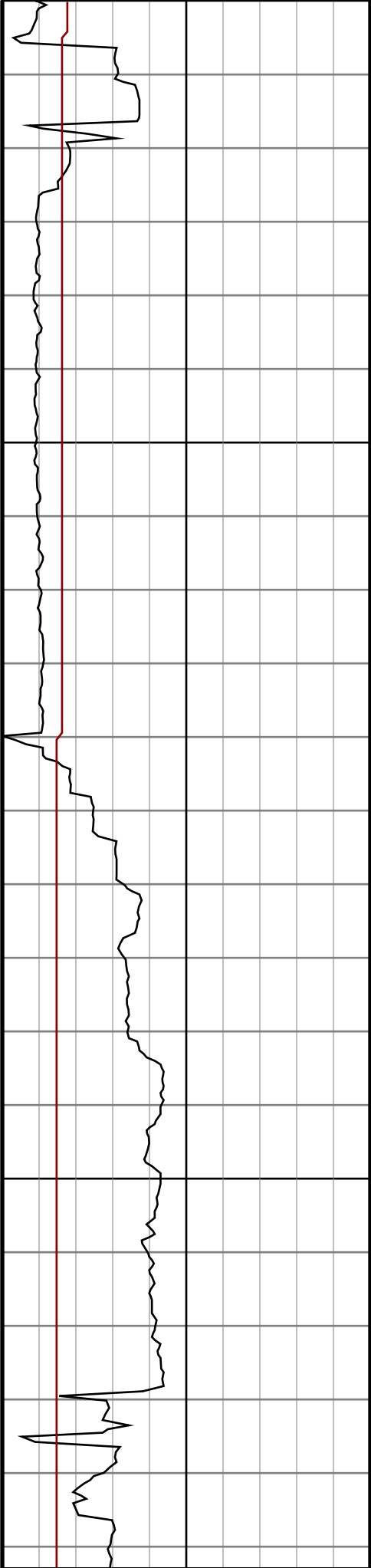
#113 MD(9896.00) Inc(88.7) Azm(359.4) TVD(6785.09)
VS(3365.51) NS(3232.60) EW(981.98)

#114 MD(9992.00) Inc(90.6) Azm(357.8) TVD(6785.68)
VS(3458.93) NS(3328.56) EW(979.63)



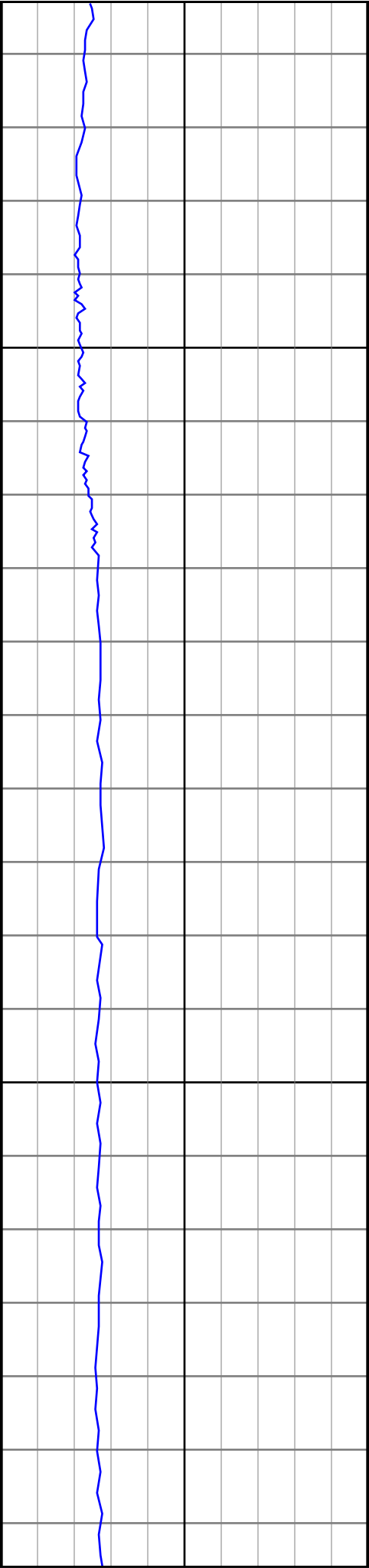
10100

10200



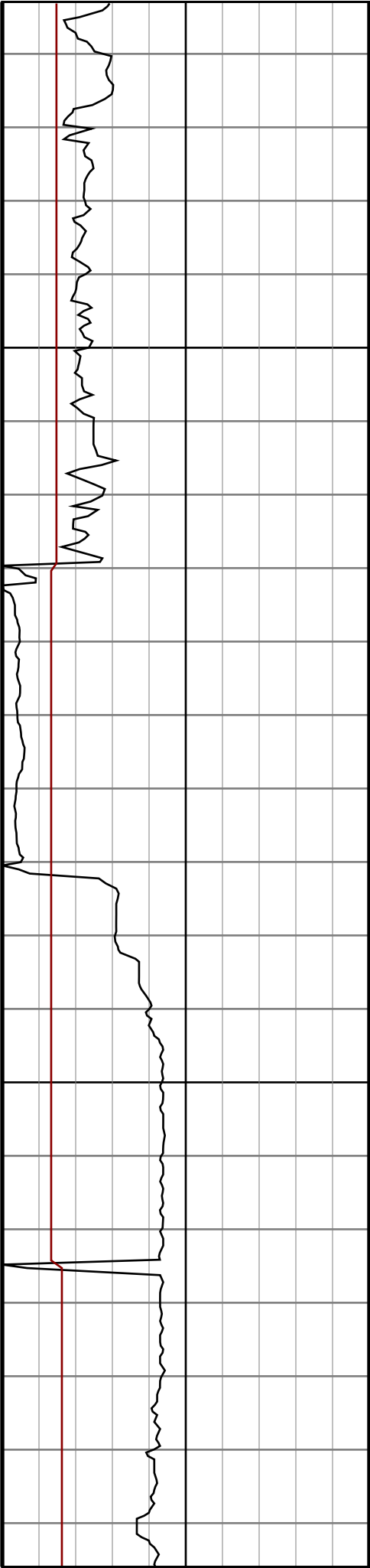
#115 MD(10087.00) Inc(90.6) Azm(357.1) TVD(6784.68)
VS(3550.93) NS(3423.46) EW(975.40)

#116 MD(10182.00) Inc(91.3) Azm(356.8) TVD(6783.11)
VS(3642.71) NS(3518.31) EW(970.35)



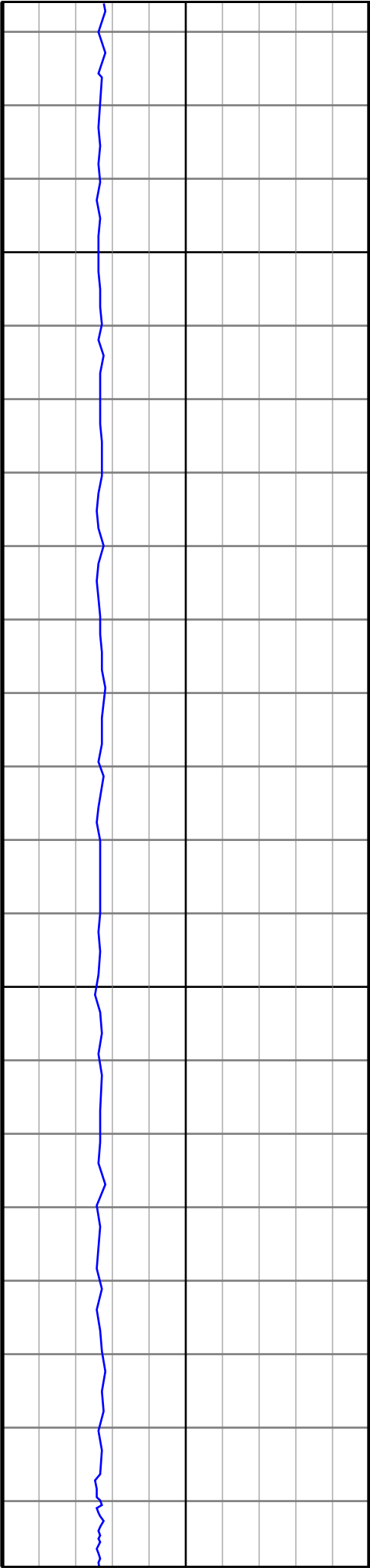
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10400

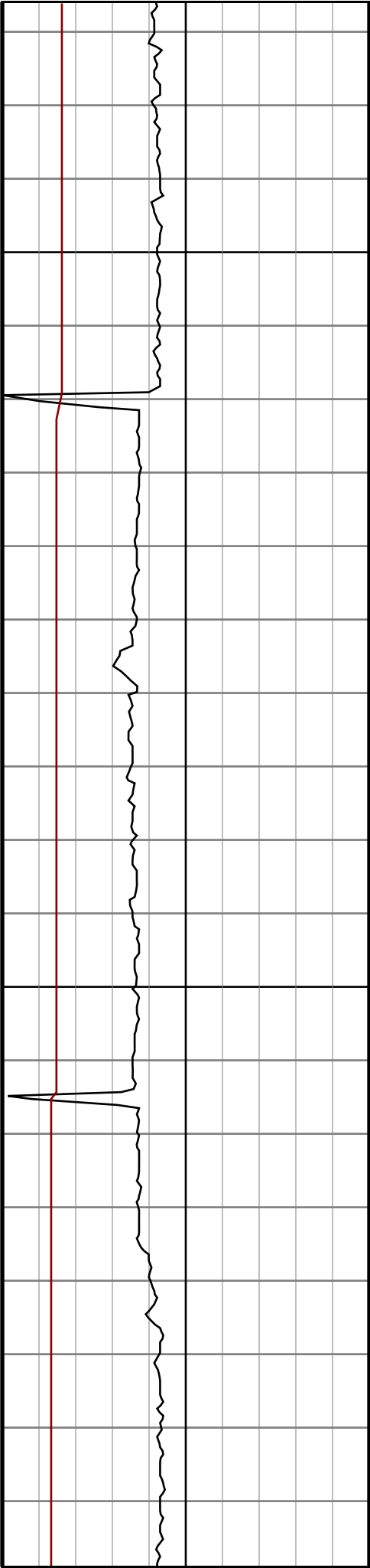


#117 MD(10277.00) Inc(91.0) Azm(355.5) TVD(6781.20)
VS(3734.13) NS(3613.07) EW(963.97)

#118 MD(10372.00) Inc(89.7) Azm(359.6) TVD(6780.62)
VS(3826.15) NS(3707.96) EW(959.91)



10500

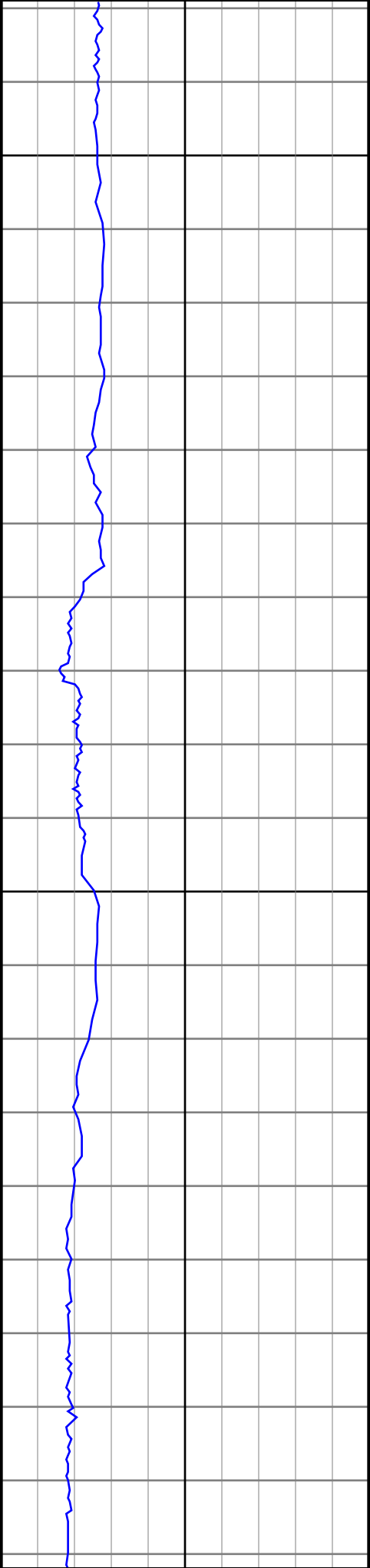


10600

#119 MD(10468.00) Inc(90.1) Azm(0.8) TVD(6780.79)
VS(3920.16) NS(3803.96) EW(960.25)

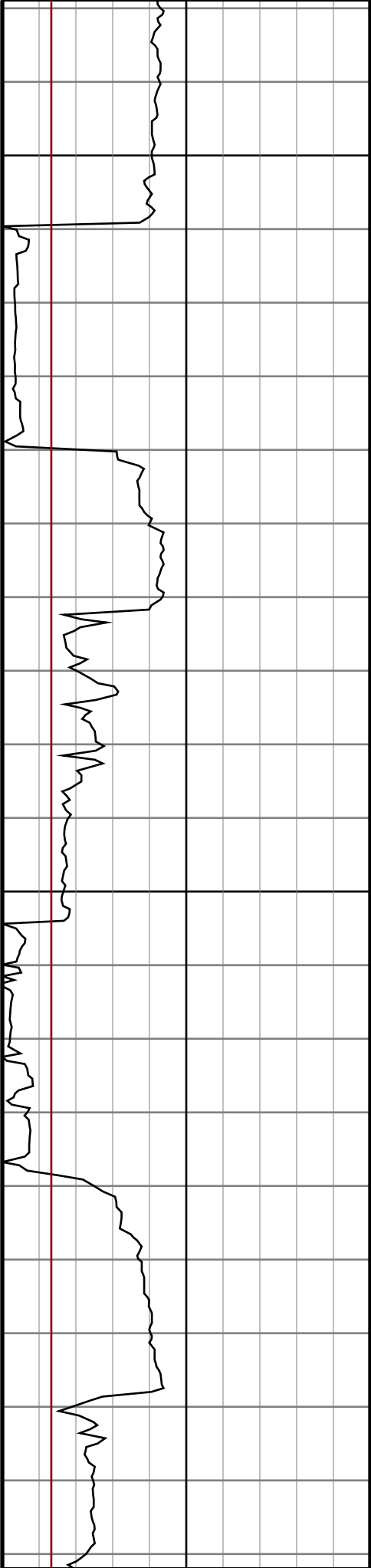
#120 MD(10563.00) Inc(90.4) Azm(2.2) TVD(6780.37)
VS(4013.60) NS(3898.92) EW(962.74)

#121 MD(10658.00) Inc(89.6) Azm(5.5) TVD(6780.37)
VS(4107.66) NS(3993.70) EW(969.11)



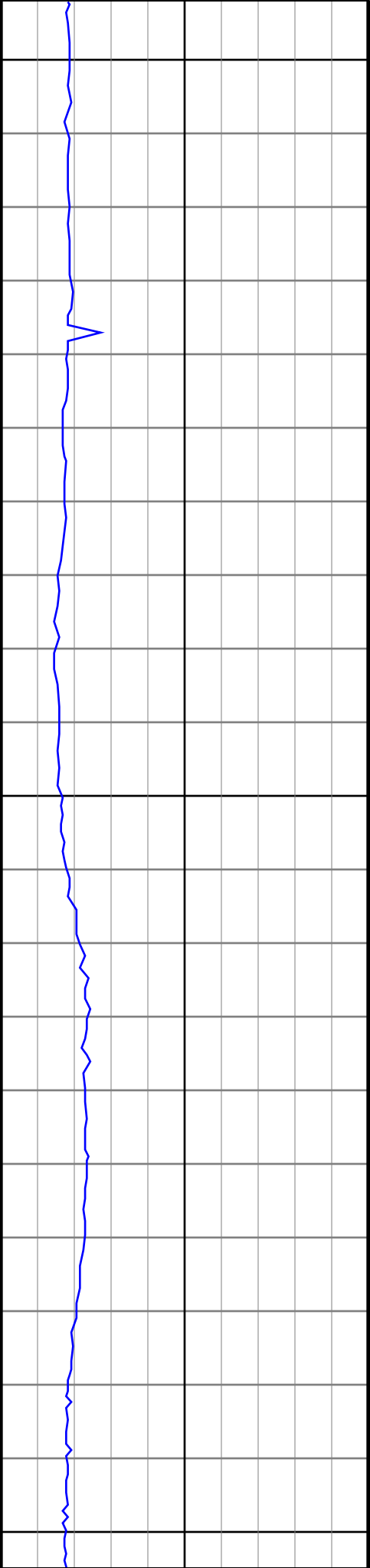
10700

10800



#122 MD(10753.00) Inc(89.0) Azm(5.0) TVD(6781.53)
VS(4202.02) NS(4088.29) EW(977.81)

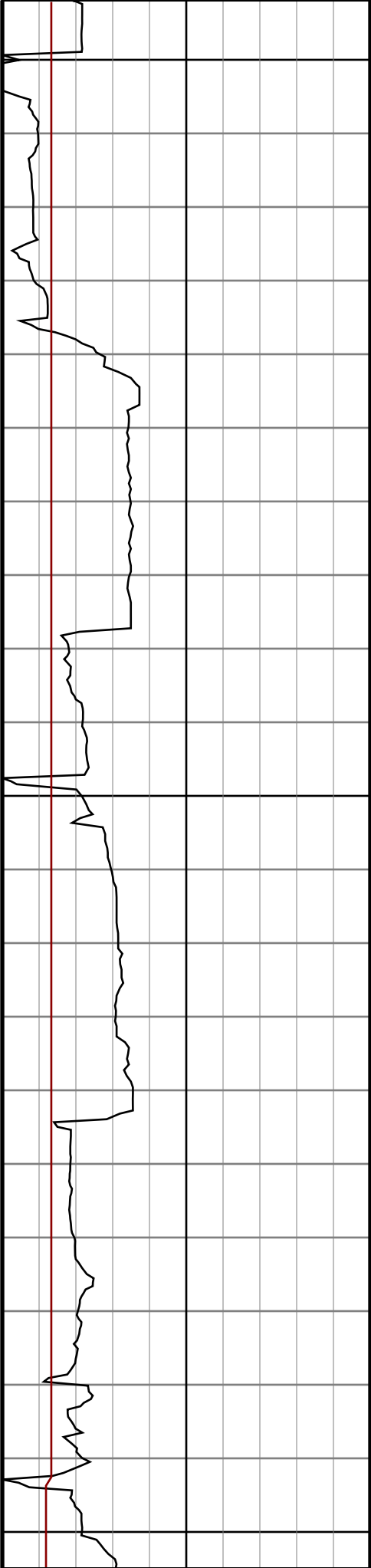
#123 MD(10848.00) Inc(89.7) Azm(3.8) TVD(6782.61)
VS(4296.20) NS(4183.00) EW(985.09)



10900

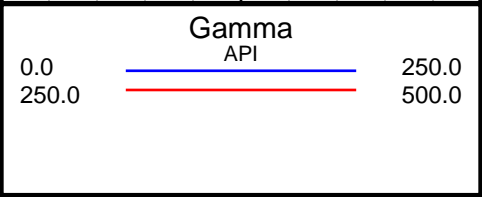
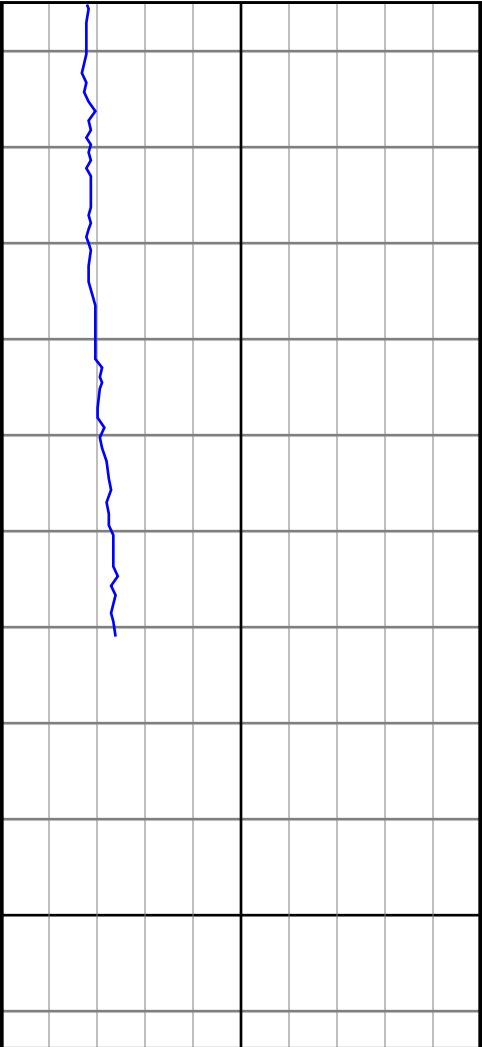
11000

11100

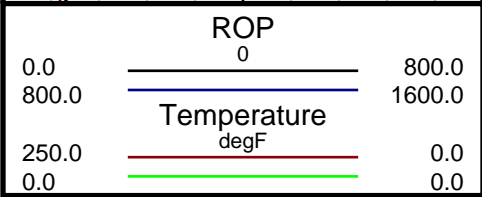
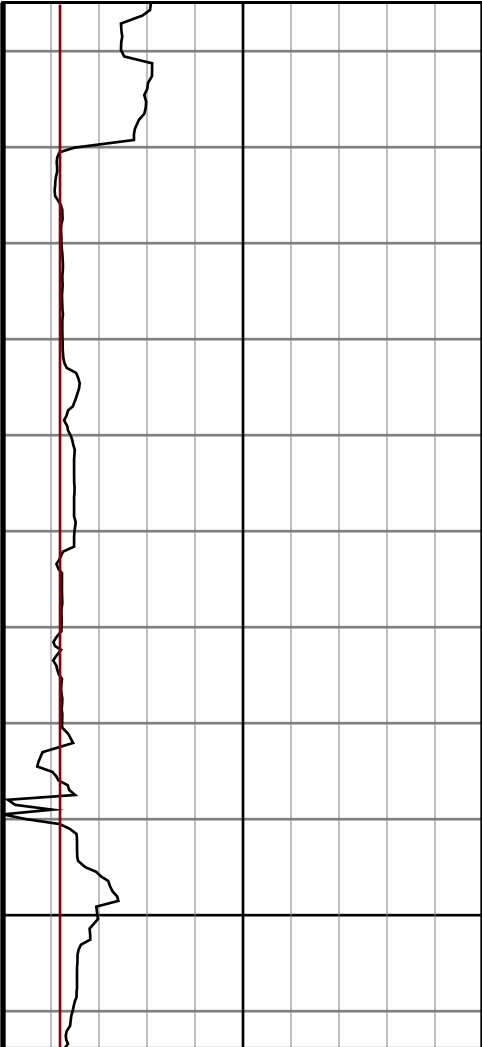


#124 MD(10943.00) Inc(90.4) Azm(1.5) TVD(6782.53)
VS(4389.96) NS(4277.89) EW(989.49)

#125 MD(11039.00) Inc(90.4) Azm(1.1) TVD(6781.86)
VS(4484.33) NS(4373.87) EW(991.66)



11200



#126 MD(11134.00) Inc(89.2) Azm(358.7) TVD(6782.19)
VS(4577.25) NS(4468.86) EW(991.50)

#127 MD(11159.00) Inc(88.9) Azm(358.3) TVD(6782.61)
VS(4601.57) NS(4493.84) EW(990.84)

#128 MD(11214.00) Inc(88.9) Azm(358.3) TVD(6783.66)
VS(4655.02) NS(4546.61) EW(969.21)