ENSIGN

Harold 6Y-202

MD
2":100'

Company: Petroleum Development Corp.
Well Name: Harold 6Y-202
API: 051234575700
County/Parish: Weld
State: Colorado
Country: United States
Job number: 161-157
Field: Wattenburg
Rig Id: Ensign 161
Survey Company: Ensign
Operator: Petroleum Development Corp.
Company Man: Brady Sharp / John Falton
Daylight DD: Zach Gentry
Swing Shift DD: Tony Callow
Night DD: Eric Mays
Daylight MWD: Ryan Prue
Night MWD: Paul Wilson

Log measurements: Gamma, ROP
Depth measured from: 1651 ft
Maximum temperature:

	Depth	Date
Start:	0 ft	1-1-2019
End:	17607 ft	1-6-2019

Casing	Depth	Size
Surface:	1651 ft	9 5/8"
Intermediate:		

Mud Type: H2O
Density:
Viscosity:
Rm:
Rmf:
Rmc:

Elevations
KB: 23 ft
GL: 4788 ft
DF: 4811 ft

Run	Bit Size	Offsets		Depths		Dates	
		Gamma	Survey	Start	End	Start	End
1	12.25"		61.65 ft	0 ft	1678 ft	1-1-2019	1-1-2019
2	8.5"	62.89 ft	58.06 ft	1678 ft	17607 ft	1-2-2019	1-6-2019
3							
4							
5							
6							
7							
8							
9							
10							

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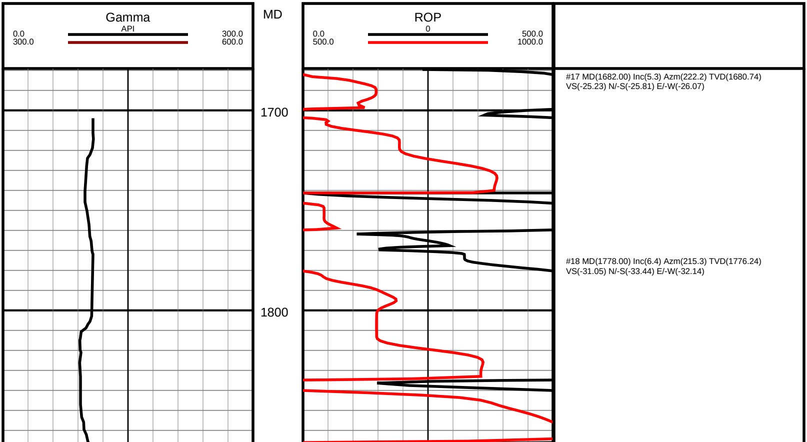
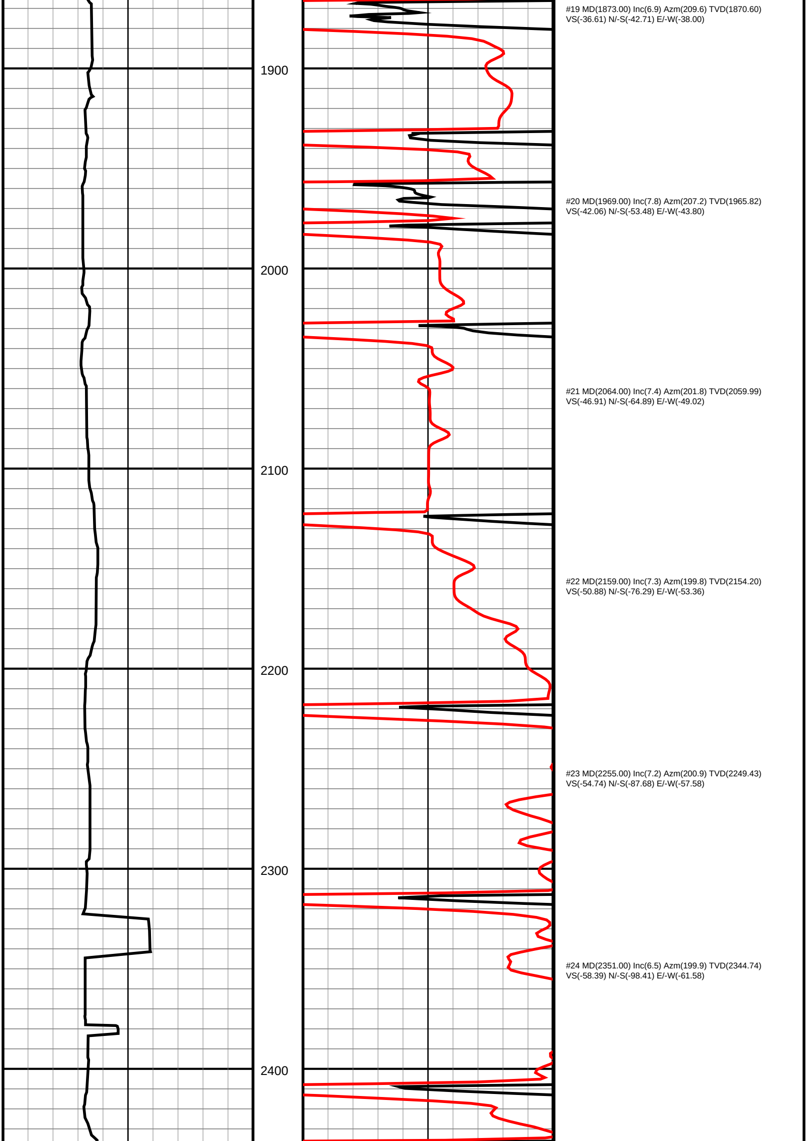


#17 MD(1682.00) Inc(5.3) Azm(222.2) TVD(1680.74)
VS(-25.23) N/-S(-25.81) E/-W(-26.07)

#18 MD(1778.00) Inc(6.4) Azm(215.3) TVD(1776.24)
VS(-31.05) N/-S(-33.44) E/-W(-32.14)



#19 MD(1873.00) Inc(6.9) Azm(209.6) TVD(1870.60)
VS(-36.61) N/-S(-42.71) E/-W(-38.00)

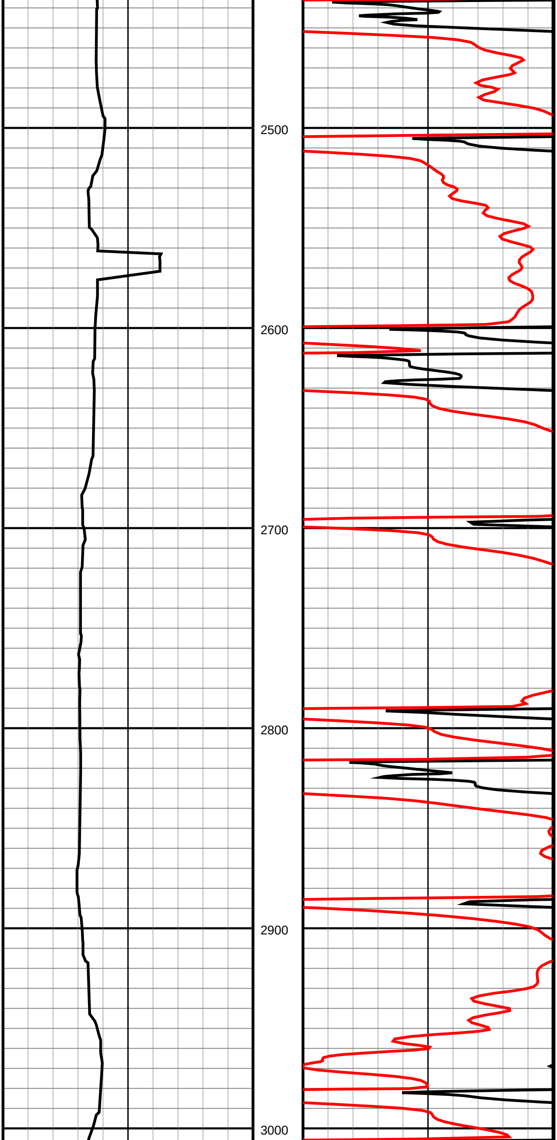
#20 MD(1969.00) Inc(7.8) Azm(207.2) TVD(1965.82)
VS(-42.06) N/-S(-53.48) E/-W(-43.80)

#21 MD(2064.00) Inc(7.4) Azm(201.8) TVD(2059.99)
VS(-46.91) N/-S(-64.89) E/-W(-49.02)

#22 MD(2159.00) Inc(7.3) Azm(199.8) TVD(2154.20)
VS(-50.88) N/-S(-76.29) E/-W(-53.36)

#23 MD(2255.00) Inc(7.2) Azm(200.9) TVD(2249.43)
VS(-54.74) N/-S(-87.68) E/-W(-57.58)

#24 MD(2351.00) Inc(6.5) Azm(199.9) TVD(2344.74)
VS(-58.39) N/-S(-98.41) E/-W(-61.58)



#25 MD(2446.00) Inc(7.6) Azm(193.3) TVD(2439.03)
VS(-61.30) N/-S(-109.55) E/-W(-64.85)

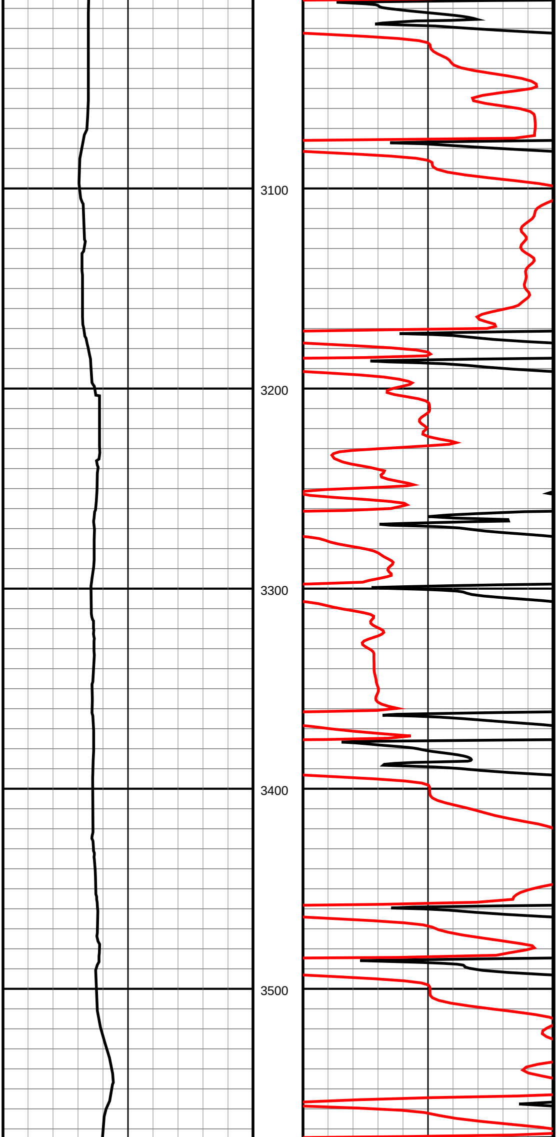
#26 MD(2542.00) Inc(7.0) Azm(190.2) TVD(2534.25)
VS(-63.41) N/-S(-121.51) E/-W(-67.35)

#27 MD(2637.00) Inc(8.3) Azm(189.4) TVD(2628.40)
VS(-65.15) N/-S(-133.99) E/-W(-69.49)

#28 MD(2733.00) Inc(8.1) Azm(189.1) TVD(2723.42)
VS(-66.92) N/-S(-147.49) E/-W(-71.69)

#29 MD(2828.00) Inc(8.1) Azm(194.7) TVD(2817.47)
VS(-69.25) N/-S(-160.55) E/-W(-74.44)

#30 MD(2924.00) Inc(7.6) Azm(195.0) TVD(2912.57)
VS(-72.20) N/-S(-173.23) E/-W(-77.80)



#31 MD(3019.00) Inc(8.2) Azm(199.8) TVD(3006.66)
VS(-75.74) N/-S(-185.74) E/-W(-81.75)

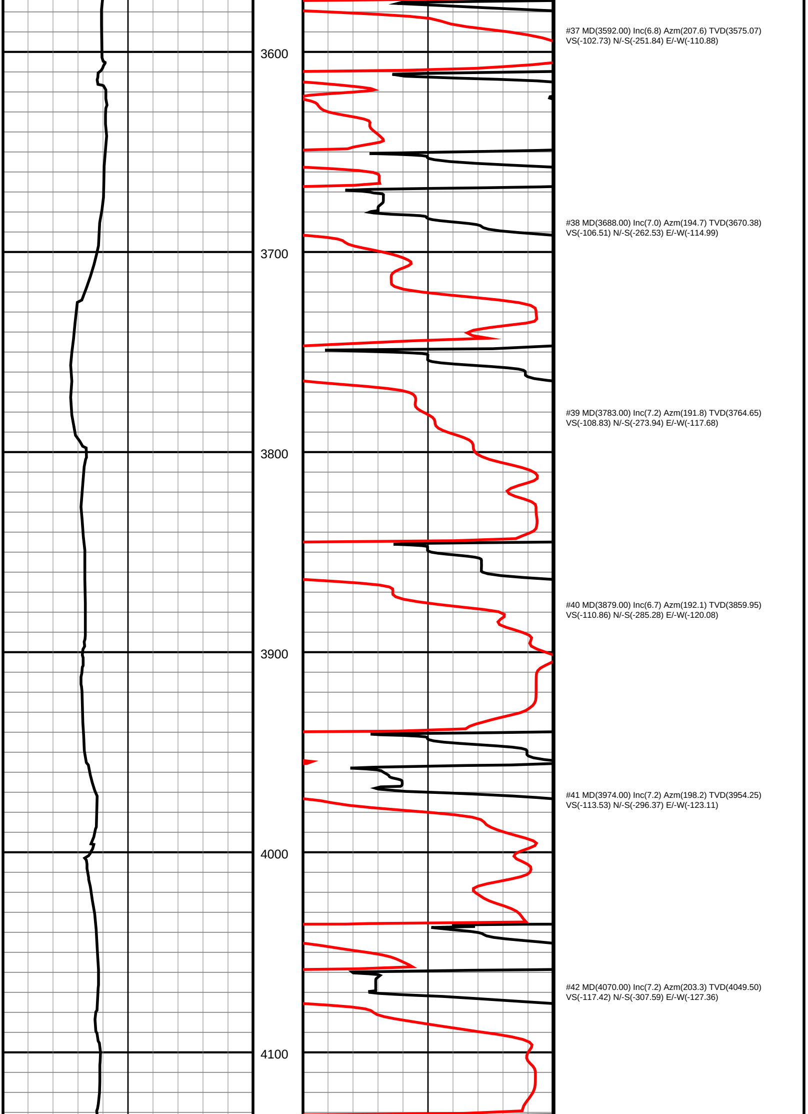
#32 MD(3115.00) Inc(7.3) Azm(197.1) TVD(3101.78)
VS(-79.46) N/-S(-198.01) E/-W(-85.86)

#33 MD(3210.00) Inc(7.2) Azm(205.5) TVD(3196.03)
VS(-83.43) N/-S(-209.15) E/-W(-90.20)

#34 MD(3306.00) Inc(7.0) Azm(202.7) TVD(3291.29)
VS(-87.93) N/-S(-219.99) E/-W(-95.05)

#35 MD(3401.00) Inc(7.4) Azm(209.1) TVD(3385.54)
VS(-92.80) N/-S(-230.67) E/-W(-100.26)

#36 MD(3497.00) Inc(7.1) Azm(204.9) TVD(3480.77)
VS(-97.98) N/-S(-241.51) E/-W(-105.79)



#37 MD(3592.00) Inc(6.8) Azm(207.6) TVD(3575.07)
VS(-102.73) N/-S(-251.84) E/-W(-110.88)

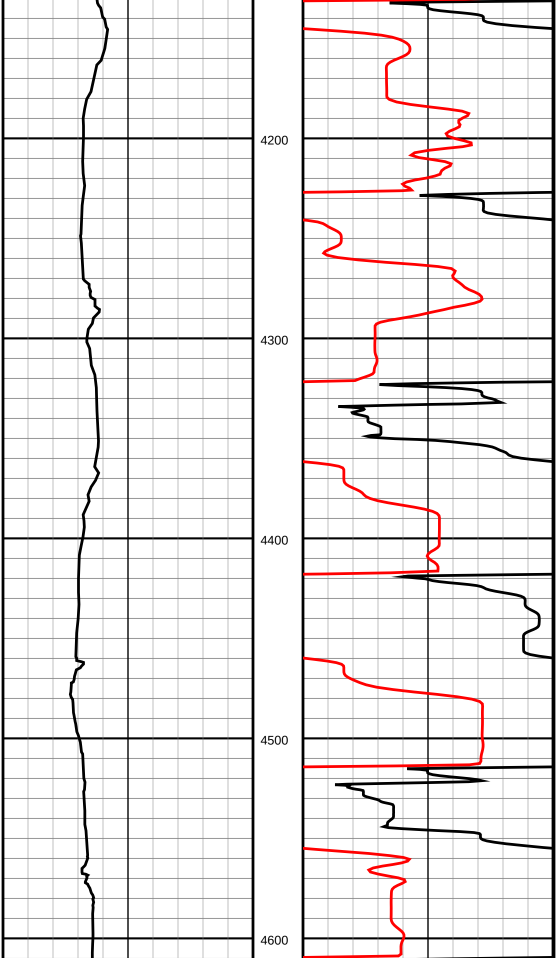
#38 MD(3688.00) Inc(7.0) Azm(194.7) TVD(3670.38)
VS(-106.51) N/-S(-262.53) E/-W(-114.99)

#39 MD(3783.00) Inc(7.2) Azm(191.8) TVD(3764.65)
VS(-108.83) N/-S(-273.94) E/-W(-117.68)

#40 MD(3879.00) Inc(6.7) Azm(192.1) TVD(3859.95)
VS(-110.86) N/-S(-285.28) E/-W(-120.08)

#41 MD(3974.00) Inc(7.2) Azm(198.2) TVD(3954.25)
VS(-113.53) N/-S(-296.37) E/-W(-123.11)

#42 MD(4070.00) Inc(7.2) Azm(203.3) TVD(4049.50)
VS(-117.42) N/-S(-307.59) E/-W(-127.36)



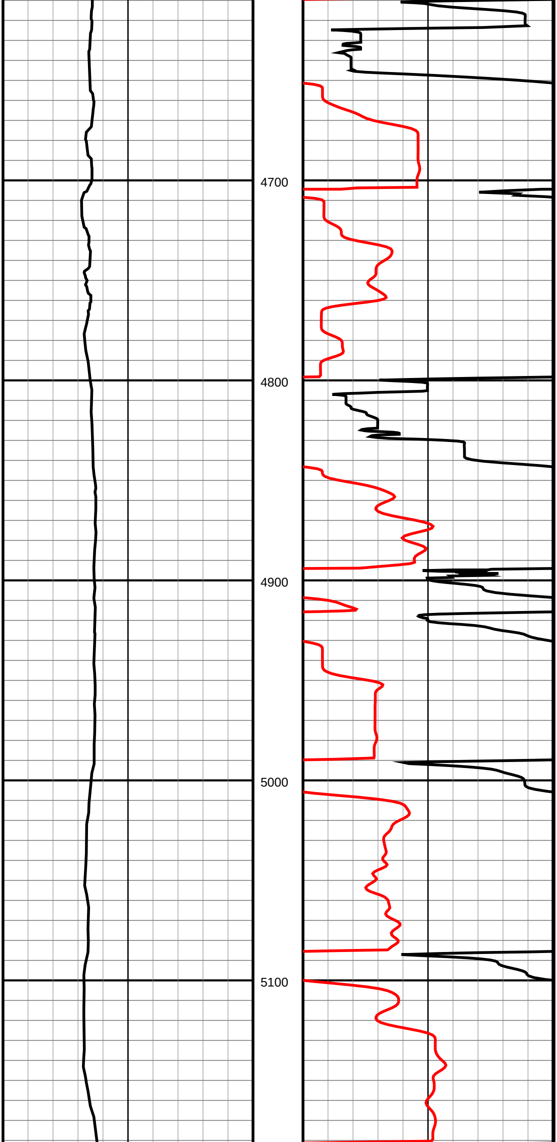
#43 MD(4165.00) Inc(7.4) Azm(205.4) TVD(4143.73)
VS(-122.03) N/-S(-318.55) E/-W(-132.33)

#44 MD(4261.00) Inc(7.0) Azm(206.1) TVD(4238.97)
VS(-126.91) N/-S(-329.40) E/-W(-137.56)

#45 MD(4356.00) Inc(4.0) Azm(198.2) TVD(4333.53)
VS(-130.22) N/-S(-337.73) E/-W(-141.13)

#46 MD(4452.00) Inc(3.8) Azm(196.1) TVD(4429.30)
VS(-131.94) N/-S(-343.97) E/-W(-143.06)

#47 MD(4548.00) Inc(2.3) Azm(146.7) TVD(4525.18)
VS(-131.62) N/-S(-348.67) E/-W(-142.89)



#48 MD(4643.00) Inc(2.0) Azm(214.6) TVD(4620.13)
VS(-131.43) N/-S(-351.64) E/-W(-142.79)

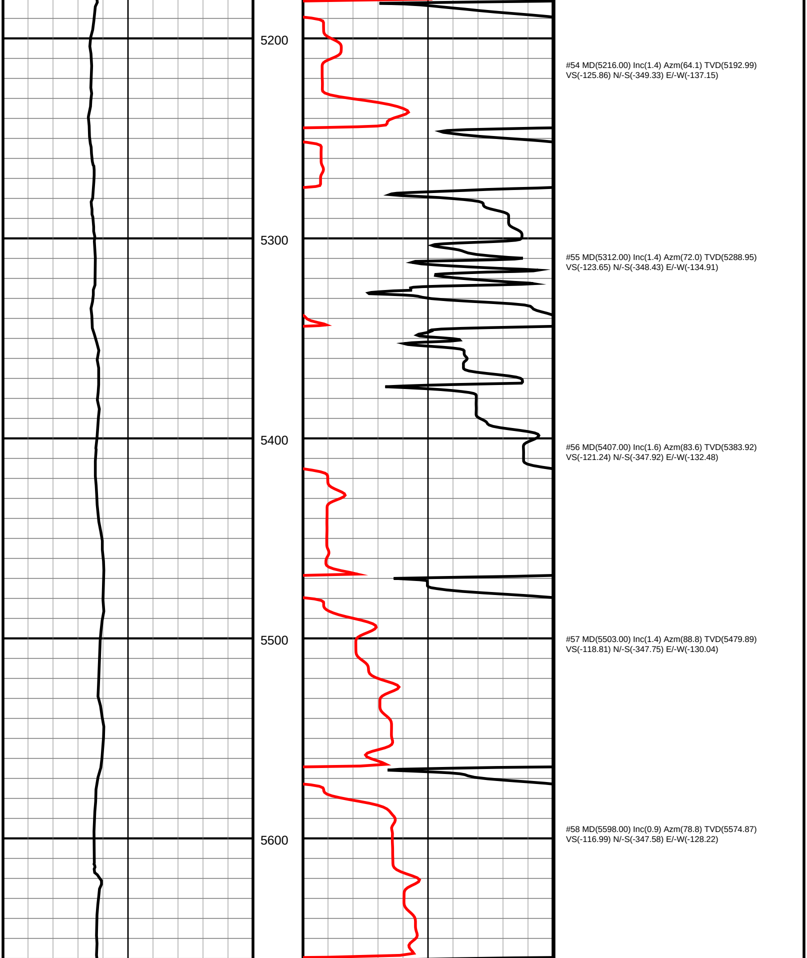
#49 MD(4738.00) Inc(1.3) Azm(194.0) TVD(4715.09)
VS(-132.55) N/-S(-354.04) E/-W(-143.99)

#50 MD(4833.00) Inc(1.1) Azm(28.9) TVD(4810.08)
VS(-132.36) N/-S(-354.26) E/-W(-143.81)

#51 MD(4929.00) Inc(1.2) Azm(43.1) TVD(4906.06)
VS(-131.29) N/-S(-352.74) E/-W(-142.69)

#52 MD(5025.00) Inc(1.2) Azm(58.3) TVD(5002.04)
VS(-129.84) N/-S(-351.51) E/-W(-141.19)

#53 MD(5121.00) Inc(1.4) Azm(61.9) TVD(5098.02)
VS(-127.97) N/-S(-350.43) E/-W(-139.29)



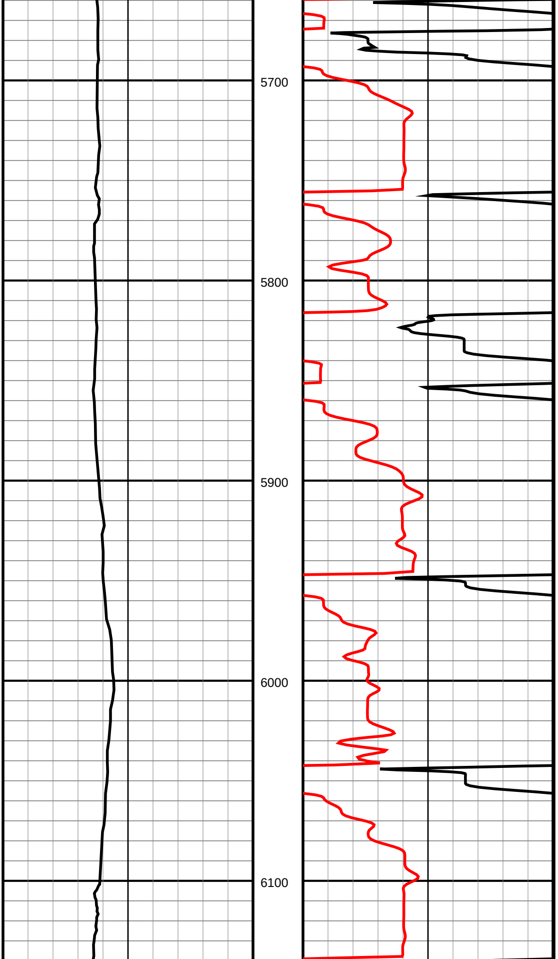
#54 MD(5216.00) Inc(1.4) Azm(64.1) TVD(5192.99)
VS(-125.86) N/-S(-349.33) E/-W(-137.15)

#55 MD(5312.00) Inc(1.4) Azm(72.0) TVD(5288.95)
VS(-123.65) N/-S(-348.43) E/-W(-134.91)

#56 MD(5407.00) Inc(1.6) Azm(83.6) TVD(5383.92)
VS(-121.24) N/-S(-347.92) E/-W(-132.48)

#57 MD(5503.00) Inc(1.4) Azm(88.8) TVD(5479.89)
VS(-118.81) N/-S(-347.75) E/-W(-130.04)

#58 MD(5598.00) Inc(0.9) Azm(78.8) TVD(5574.87)
VS(-116.99) N/-S(-347.58) E/-W(-128.22)



#59 MD(5694.00) Inc(0.8) Azm(275.5) TVD(5670.87)
VS(-116.92) N/-S(-347.38) E/-W(-128.14)

#60 MD(5789.00) Inc(0.6) Azm(310.8) TVD(5765.86)
VS(-117.97) N/-S(-346.97) E/-W(-129.18)

#61 MD(5885.00) Inc(0.5) Azm(293.8) TVD(5861.86)
VS(-118.81) N/-S(-346.44) E/-W(-130.00)

#62 MD(5981.00) Inc(0.4) Azm(309.1) TVD(5957.85)
VS(-119.48) N/-S(-346.06) E/-W(-130.66)

#63 MD(6076.00) Inc(1.1) Azm(304.5) TVD(6052.85)
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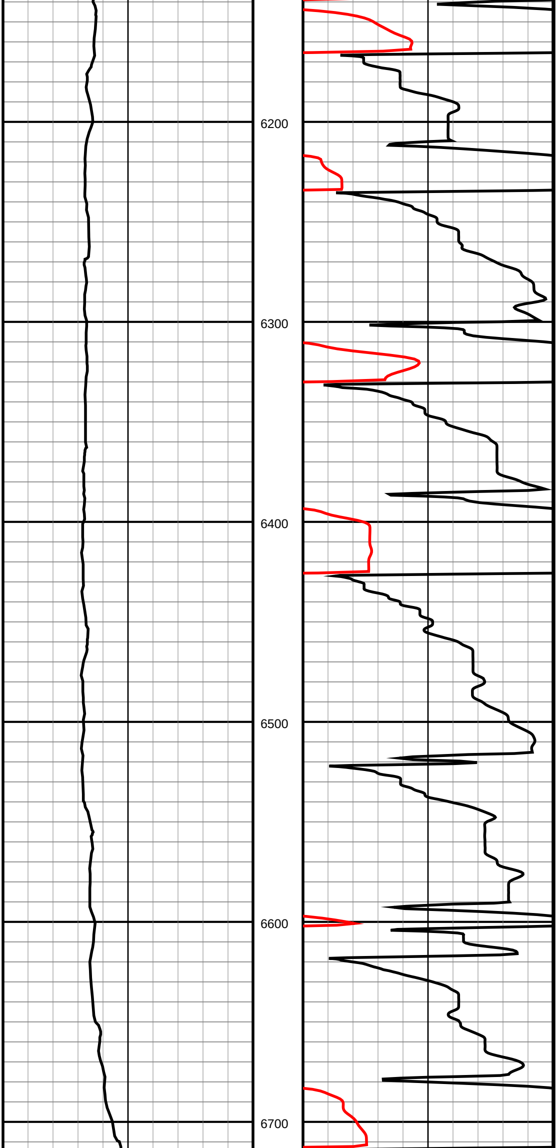


#64 MD(6172.00) Inc(1.2) Azm(62.7) TVD(6148.84)
VS(-120.35) N/-S(-344.35) E/-W(-131.47)

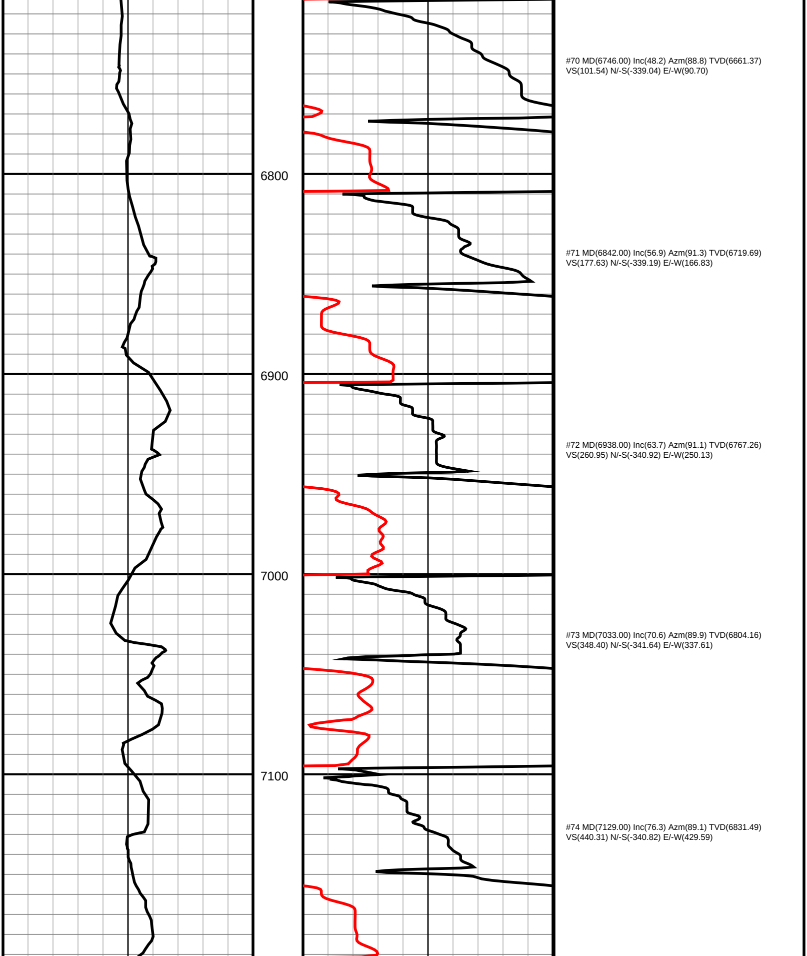
#65 MD(6267.00) Inc(10.5) Azm(77.3) TVD(6243.24)
VS(-111.06) N/-S(-341.97) E/-W(-122.10)

#66 MD(6363.00) Inc(15.4) Azm(78.6) TVD(6336.78)
VS(-90.21) N/-S(-337.53) E/-W(-101.10)

#67 MD(6459.00) Inc(20.8) Azm(87.0) TVD(6428.01)
VS(-60.79) N/-S(-334.11) E/-W(-71.55)

#68 MD(6554.00) Inc(30.7) Azm(95.8) TVD(6513.51)
VS(-19.68) N/-S(-335.67) E/-W(-30.48)

#69 MD(6650.00) Inc(39.3) Azm(91.6) TVD(6592.10) VS(35.25)
N/-S(-338.98) E/-W(24.38)



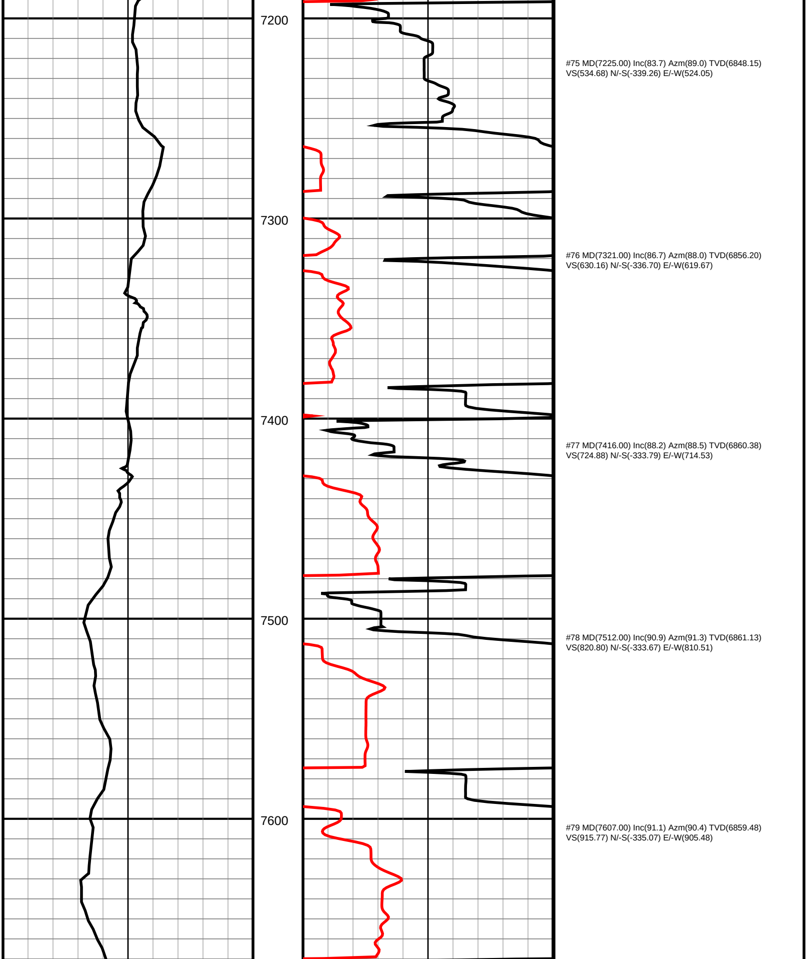
#70 MD(6746.00) Inc(48.2) Azm(88.8) TVD(6661.37)
VS(101.54) N/-S(-339.04) E/-W(90.70)

#71 MD(6842.00) Inc(56.9) Azm(91.3) TVD(6719.69)
VS(177.63) N/-S(-339.19) E/-W(166.83)

#72 MD(6938.00) Inc(63.7) Azm(91.1) TVD(6767.26)
VS(260.95) N/-S(-340.92) E/-W(250.13)

#73 MD(7033.00) Inc(70.6) Azm(89.9) TVD(6804.16)
VS(348.40) N/-S(-341.64) E/-W(337.61)

#74 MD(7129.00) Inc(76.3) Azm(89.1) TVD(6831.49)
VS(440.31) N/-S(-340.82) E/-W(429.59)



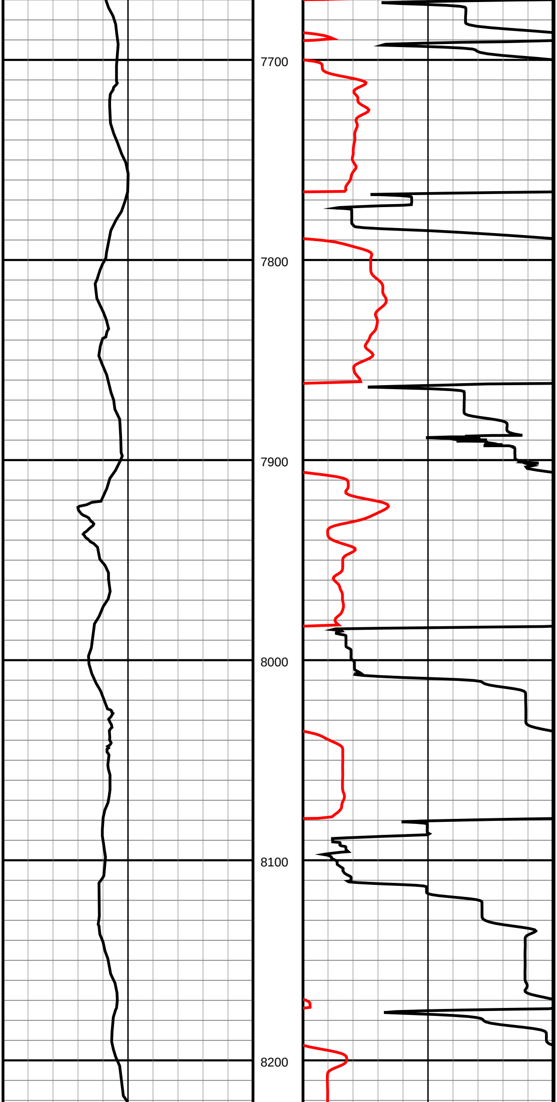
#75 MD(7225.00) Inc(83.7) Azm(89.0) TVD(6848.15)
VS(534.68) N/-S(-339.26) E/-W(524.05)

#76 MD(7321.00) Inc(86.7) Azm(88.0) TVD(6856.20)
VS(630.16) N/-S(-336.70) E/-W(619.67)

#77 MD(7416.00) Inc(88.2) Azm(88.5) TVD(6860.38)
VS(724.88) N/-S(-333.79) E/-W(714.53)

#78 MD(7512.00) Inc(90.9) Azm(91.3) TVD(6861.13)
VS(820.80) N/-S(-333.67) E/-W(810.51)

#79 MD(7607.00) Inc(91.1) Azm(90.4) TVD(6859.48)
VS(915.77) N/-S(-335.07) E/-W(905.48)



#80 MD(7703.00) Inc(91.3) Azm(90.4) TVD(6857.50)
VS(1011.72) N/-S(-335.72) E/-W(1001.46)

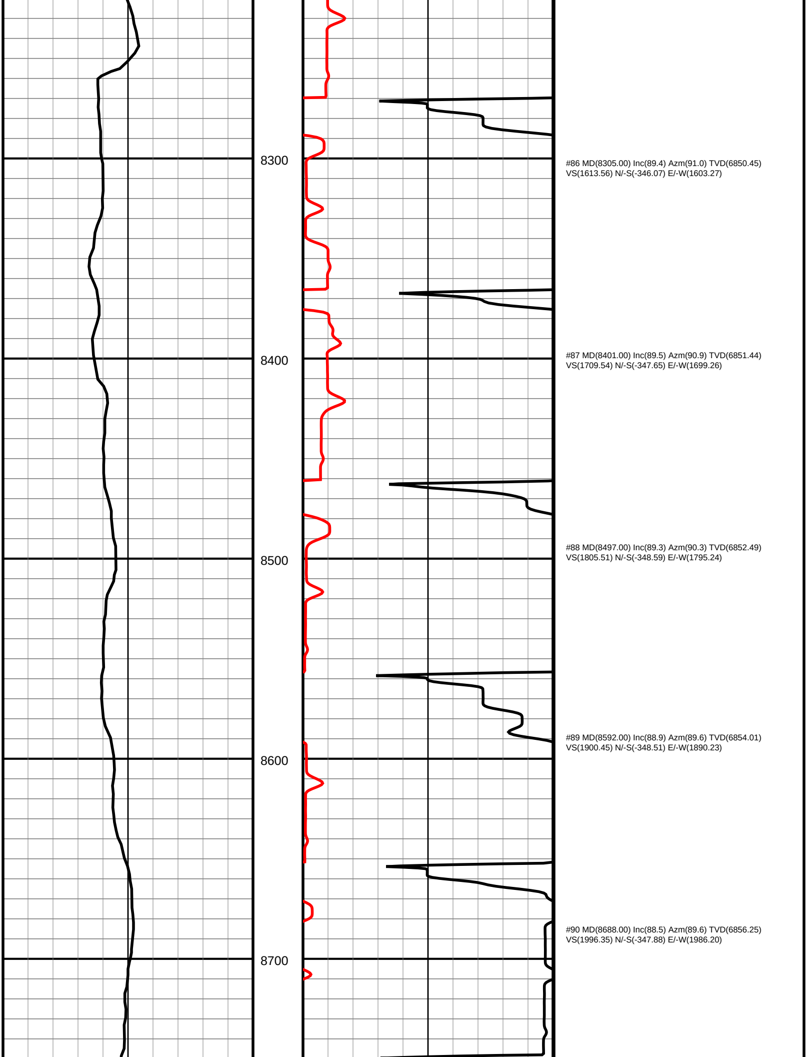
#81 MD(7827.00) Inc(91.0) Azm(90.8) TVD(6855.08)
VS(1135.67) N/-S(-337.00) E/-W(1125.43)

#82 MD(7923.00) Inc(91.6) Azm(90.8) TVD(6852.90)
VS(1231.63) N/-S(-338.31) E/-W(1221.39)

#83 MD(8018.00) Inc(91.0) Azm(90.8) TVD(6850.70)
VS(1326.58) N/-S(-339.63) E/-W(1316.36)

#84 MD(8114.00) Inc(90.2) Azm(91.7) TVD(6849.65)
VS(1422.57) N/-S(-341.73) E/-W(1412.33)

#85 MD(8209.00) Inc(89.7) Azm(91.2) TVD(6849.69)
VS(1517.57) N/-S(-344.16) E/-W(1507.30)



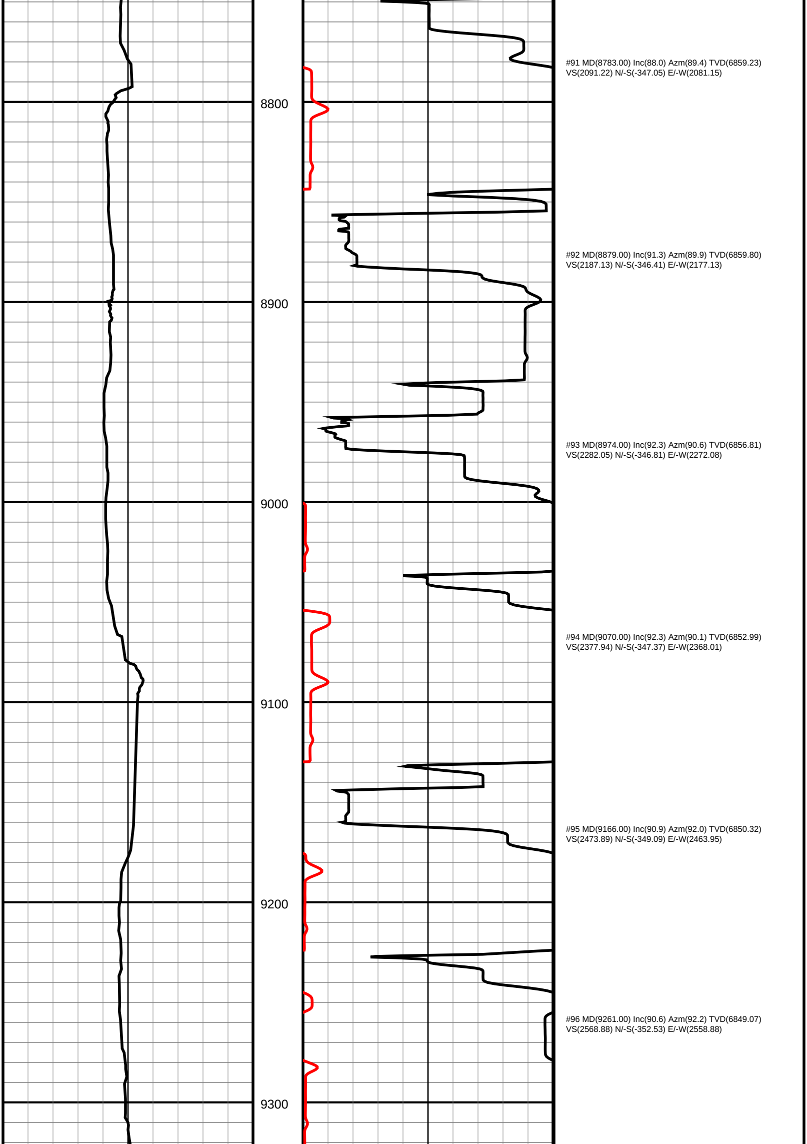
#86 MD(8305.00) Inc(89.4) Azm(91.0) TVD(6850.45)
VS(1613.56) N/-S(-346.07) E/-W(1603.27)

#87 MD(8401.00) Inc(89.5) Azm(90.9) TVD(6851.44)
VS(1709.54) N/-S(-347.65) E/-W(1699.26)

#88 MD(8497.00) Inc(89.3) Azm(90.3) TVD(6852.49)
VS(1805.51) N/-S(-348.59) E/-W(1795.24)

#89 MD(8592.00) Inc(88.9) Azm(89.6) TVD(6854.01)
VS(1900.45) N/-S(-348.51) E/-W(1890.23)

#90 MD(8688.00) Inc(88.5) Azm(89.6) TVD(6856.25)
VS(1996.35) N/-S(-347.88) E/-W(1986.20)



#91 MD(8783.00) Inc(88.0) Azm(89.4) TVD(6859.23)
VS(2091.22) N/-S(-347.05) E/-W(2081.15)

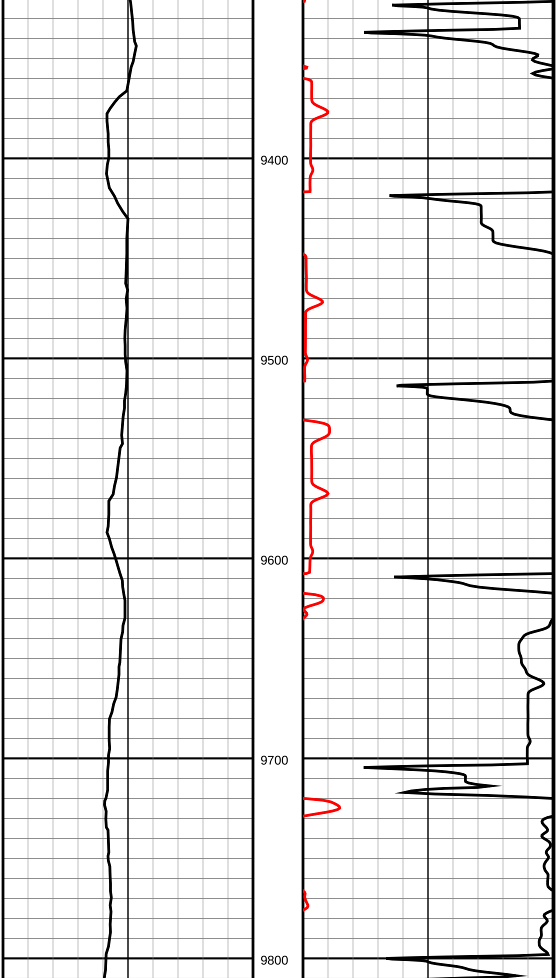
#92 MD(8879.00) Inc(91.3) Azm(89.9) TVD(6859.80)
VS(2187.13) N/-S(-346.41) E/-W(2177.13)

#93 MD(8974.00) Inc(92.3) Azm(90.6) TVD(6856.81)
VS(2282.05) N/-S(-346.81) E/-W(2272.08)

#94 MD(9070.00) Inc(92.3) Azm(90.1) TVD(6852.99)
VS(2377.94) N/-S(-347.37) E/-W(2368.01)

#95 MD(9166.00) Inc(90.9) Azm(92.0) TVD(6850.32)
VS(2473.89) N/-S(-349.09) E/-W(2463.95)

#96 MD(9261.00) Inc(90.6) Azm(92.2) TVD(6849.07)
VS(2568.88) N/-S(-352.53) E/-W(2558.88)



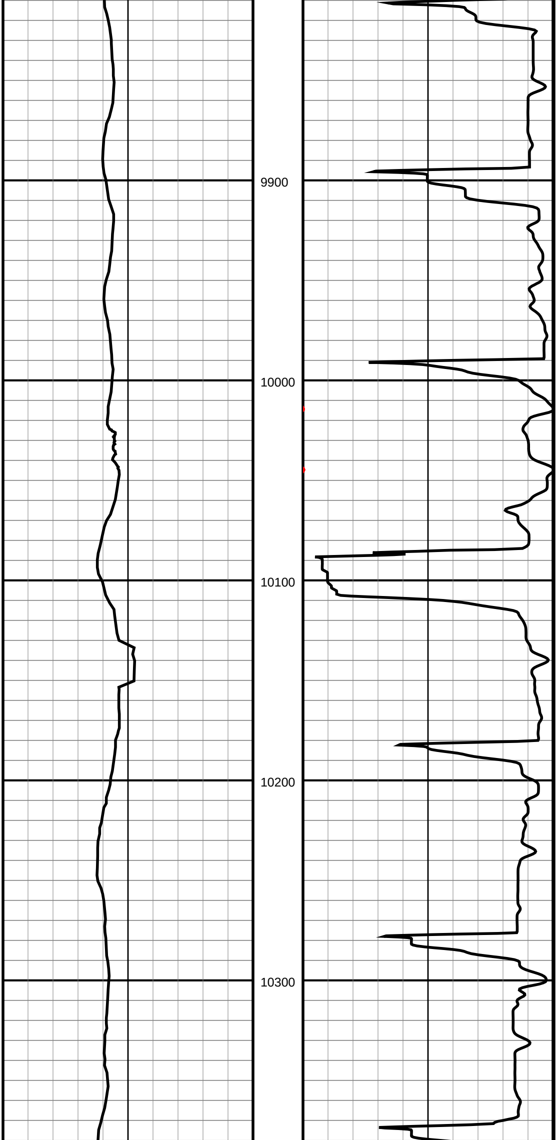
#97 MD(9356.00) Inc(90.4) Azm(91.9) TVD(6848.23)
VS(2663.87) N/-S(-355.89) E/-W(2653.81)

#98 MD(9452.00) Inc(90.2) Azm(91.0) TVD(6847.78)
VS(2759.87) N/-S(-358.31) E/-W(2749.78)

#99 MD(9547.00) Inc(90.0) Azm(90.8) TVD(6847.63)
VS(2854.85) N/-S(-359.76) E/-W(2844.77)

#100 MD(9642.00) Inc(90.0) Azm(90.0) TVD(6847.61)
VS(2949.82) N/-S(-360.36) E/-W(2939.77)

#101 MD(9738.00) Inc(89.9) Azm(89.3) TVD(6847.74)
VS(3045.75) N/-S(-359.71) E/-W(3035.76)



#102 MD(9833.00) Inc(89.8) Azm(89.2) TVD(6848.00)
VS(3140.65) N/-S(-358.41) E/-W(3130.75)

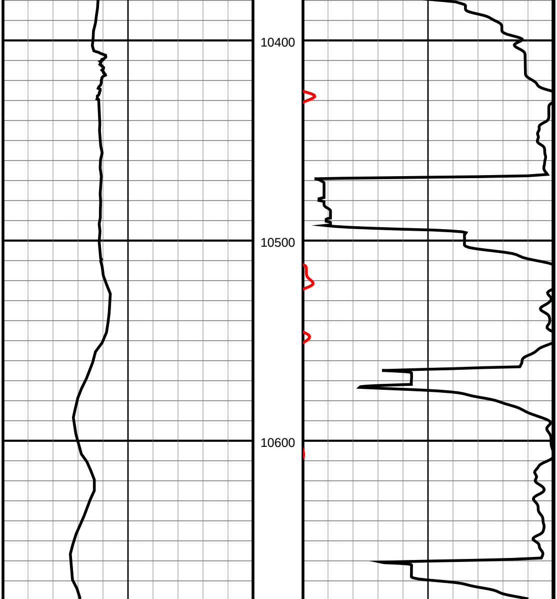
#103 MD(9928.00) Inc(89.7) Azm(88.3) TVD(6848.39)
VS(3235.51) N/-S(-356.32) E/-W(3225.73)

#104 MD(10023.00) Inc(89.4) Azm(87.6) TVD(6849.19)
VS(3330.29) N/-S(-352.97) E/-W(3320.67)

#105 MD(10118.00) Inc(90.9) Azm(89.9) TVD(6849.01)
VS(3425.14) N/-S(-350.91) E/-W(3415.63)

#106 MD(10213.00) Inc(91.2) Azm(90.8) TVD(6847.31)
VS(3520.09) N/-S(-351.51) E/-W(3510.62)

#107 MD(10308.00) Inc(91.0) Azm(89.7) TVD(6845.51)
VS(3615.04) N/-S(-351.95) E/-W(3605.60)



#108 MD(10404.00) Inc(91.2) Azm(89.2) TVD(6843.70)
VS(3710.94) N/-S(-351.03) E/-W(3701.58)

#109 MD(10499.00) Inc(88.8) Azm(91.7) TVD(6843.69)
VS(3805.90) N/-S(-351.76) E/-W(3796.56)

#110 MD(10595.00) Inc(89.4) Azm(91.0) TVD(6845.13)
VS(3901.88) N/-S(-353.96) E/-W(3892.52)

#111 MD(10691.00) Inc(90.1) Azm(90.4) TVD(6845.49)
VS(3997.86) N/-S(-355.11) E/-W(3988.51)

#112 MD(10786.00) Inc(89.7) Azm(89.9) TVD(6845.67)
VS(4092.82) N/-S(-355.37) E/-W(4083.51)

#113 MD(10882.00) Inc(89.3) Azm(89.1) TVD(6846.52)
VS(4188.73) N/-S(-354.51) E/-W(4179.50)

#114 MD(10977.00) Inc(89.1) Azm(89.2) TVD(6847.86)
VS(4283.61) N/-S(-353.06) E/-W(4274.48)

#115 MD(11073.00) Inc(88.8) Azm(88.3) TVD(6849.64)
VS(4379.46) N/-S(-350.93) E/-W(4370.44)

#116 MD(11168.00) Inc(90.0) Azm(90.7) TVD(6850.61)
VS(4474.36) N/-S(-350.05) E/-W(4465.42)

#117 MD(11264.00) Inc(90.5) Azm(90.5) TVD(6850.17)
VS(4570.34) N/-S(-351.02) E/-W(4561.42)

#118 MD(11360.00) Inc(90.8) Azm(90.0) TVD(6849.09)
VS(4666.29) N/-S(-351.44) E/-W(4657.41)

#119 MD(11456.00) Inc(91.3) Azm(89.8) TVD(6847.35)
VS(4762.22) N/-S(-351.28) E/-W(4753.39)

#120 MD(11552.00) Inc(91.9) Azm(88.9) TVD(6844.69)
VS(4858.10) N/-S(-350.24) E/-W(4849.35)

#121 MD(11648.00) Inc(88.9) Azm(90.2) TVD(6844.04)
VS(4954.00) N/-S(-349.47) E/-W(4945.33)

#122 MD(11743.00) Inc(88.5) Azm(90.6) TVD(6846.21)
VS(5048.95) N/-S(-350.12) E/-W(5040.30)

#123 MD(11839.00) Inc(89.3) Azm(92.5) TVD(6848.04)
VS(5144.92) N/-S(-352.73) E/-W(5136.25)

#124 MD(11934.00) Inc(89.5) Azm(91.7) TVD(6849.02)
VS(5239.92) N/-S(-356.22) E/-W(5231.18)

#125 MD(12030.00) Inc(90.1) Azm(91.2) TVD(6849.36)
VS(5335.91) N/-S(-358.71) E/-W(5327.14)

#126 MD(12125.00) Inc(91.0) Azm(91.1) TVD(6848.48)
VS(5430.90) N/-S(-360.68) E/-W(5422.12)

#127 MD(12221.00) Inc(91.7) Azm(90.5) TVD(6846.19)
VS(5526.86) N/-S(-362.06) E/-W(5518.08)

#128 MD(12317.00) Inc(92.5) Azm(90.1) TVD(6842.64)
VS(5622.76) N/-S(-362.53) E/-W(5614.01)

#129 MD(12412.00) Inc(89.3) Azm(90.3) TVD(6841.10)
VS(5717.69) N/-S(-362.87) E/-W(5708.99)

#130 MD(12508.00) Inc(89.1) Azm(90.1) TVD(6842.44)
VS(5813.65) N/-S(-363.27) E/-W(5804.98)

#131 MD(12604.00) Inc(89.7) Azm(89.9) TVD(6843.44)
VS(5909.59) N/-S(-363.27) E/-W(5900.97)

#132 MD(12699.00) Inc(90.5) Azm(89.3) TVD(6843.28)
VS(6004.52) N/-S(-362.57) E/-W(5995.97)

#133 MD(12795.00) Inc(91.2) Azm(88.7) TVD(6841.88)
VS(6100.38) N/-S(-360.85) E/-W(6091.94)

#134 MD(12891.00) Inc(91.7) Azm(87.9) TVD(6839.41)
VS(6196.17) N/-S(-357.97) E/-W(6187.86)

#135 MD(12987.00) Inc(89.9) Azm(90.0) TVD(6838.01)
VS(6292.03) N/-S(-356.24) E/-W(6283.83)

#136 MD(13082.00) Inc(90.2) Azm(89.6) TVD(6837.88)
VS(6386.97) N/-S(-355.96) E/-W(6378.83)

#137 MD(13178.00) Inc(91.6) Azm(89.3) TVD(6836.36)
VS(6482.87) N/-S(-355.05) E/-W(6474.81)

#138 MD(13274.00) Inc(89.7) Azm(90.5) TVD(6835.30)
VS(6578.80) N/-S(-354.90) E/-W(6570.80)

#139 MD(13370.00) Inc(89.7) Azm(89.8) TVD(6835.82)
VS(6674.76) N/-S(-355.16) E/-W(6666.79)

#140 MD(13466.00) Inc(90.0) Azm(88.4) TVD(6836.02)
VS(6770.65) N/-S(-353.66) E/-W(6762.78)

#141 MD(13562.00) Inc(90.5) Azm(88.0) TVD(6835.61)
VS(6866.45) N/-S(-350.63) E/-W(6858.73)

#142 MD(13657.00) Inc(90.8) Azm(86.9) TVD(6834.57)
VS(6961.16) N/-S(-346.38) E/-W(6953.63)

#143 MD(13752.00) Inc(89.5) Azm(89.3) TVD(6834.27)
VS(7055.95) N/-S(-343.20) E/-W(7048.56)

#144 MD(13848.00) Inc(89.2) Azm(91.2) TVD(6835.27)
VS(7151.90) N/-S(-343.63) E/-W(7144.55)

#145 MD(13943.00) Inc(89.4) Azm(91.0) TVD(6836.36)
VS(7246.89) N/-S(-345.45) E/-W(7239.53)

#146 MD(14039.00) Inc(90.3) Azm(90.0) TVD(6836.59)
VS(7342.86) N/-S(-346.25) E/-W(7335.52)

#147 MD(14135.00) Inc(90.6) Azm(90.1) TVD(6835.83)
VS(7438.81) N/-S(-346.35) E/-W(7431.52)

#148 MD(14231.00) Inc(90.6) Azm(88.6) TVD(6834.81)
VS(7534.71) N/-S(-345.30) E/-W(7527.51)

#149 MD(14327.00) Inc(91.2) Azm(88.3) TVD(6833.29)
VS(7630.54) N/-S(-342.75) E/-W(7623.46)

#150 MD(14422.00) Inc(90.2) Azm(91.0) TVD(6832.13)
VS(7725.45) N/-S(-342.16) E/-W(7718.44)

#151 MD(14518.00) Inc(90.8) Azm(90.3) TVD(6831.35)
VS(7821.42) N/-S(-343.26) E/-W(7814.43)

#152 MD(14614.00) Inc(90.2) Azm(93.4) TVD(6830.59)
VS(7917.41) N/-S(-346.43) E/-W(7910.36)

#153 MD(14710.00) Inc(90.7) Azm(93.4) TVD(6829.88)
VS(8013.37) N/-S(-352.19) E/-W(8006.19)

#154 MD(14805.00) Inc(88.2) Azm(92.5) TVD(6830.84)
VS(8108.34) N/-S(-357.14) E/-W(8101.05)

#155 MD(14901.00) Inc(88.3) Azm(91.9) TVD(6833.77)
VS(8204.29) N/-S(-360.84) E/-W(8196.93)

#156 MD(14997.00) Inc(89.2) Azm(92.0) TVD(6835.85)
VS(8300.26) N/-S(-364.13) E/-W(8292.85)

#157 MD(15092.00) Inc(88.5) Azm(89.0) TVD(6837.82)
VS(8395.21) N/-S(-365.00) E/-W(8387.81)

#158 MD(15188.00) Inc(89.0) Azm(89.3) TVD(6839.99)
VS(8491.08) N/-S(-363.61) E/-W(8483.78)

#159 MD(15282.00) Inc(89.6) Azm(88.6) TVD(6841.20)
VS(8584.95) N/-S(-361.87) E/-W(8577.75)

#160 MD(15378.00) Inc(90.2) Azm(88.0) TVD(6841.43)
VS(8680.76) N/-S(-358.96) E/-W(8673.71)

#161 MD(15473.00) Inc(91.0) Azm(87.7) TVD(6840.45)
VS(8775.52) N/-S(-355.36) E/-W(8768.63)

#162 MD(15569.00) Inc(91.2) Azm(86.9) TVD(6838.54)
VS(8871.20) N/-S(-350.84) E/-W(8864.51)

#163 MD(15664.00) Inc(90.6) Azm(89.4) TVD(6837.00)
VS(8965.99) N/-S(-347.81) E/-W(8959.44)

#164 MD(15759.00) Inc(91.0) Azm(89.4) TVD(6835.66)
VS(9060.89) N/-S(-346.87) E/-W(9054.42)

#165 MD(15855.00) Inc(91.1) Azm(89.1) TVD(6833.91)
VS(9156.78) N/-S(-345.62) E/-W(9150.40)

#166 MD(15950.00) Inc(91.3) Azm(87.9) TVD(6831.94)
VS(9251.59) N/-S(-343.10) E/-W(9245.34)

#167 MD(16045.00) Inc(89.5) Azm(89.5) TVD(6831.31)
VS(9346.44) N/-S(-340.89) E/-W(9340.31)

#168 MD(16141.00) Inc(89.4) Azm(89.2) TVD(6832.25)
VS(9442.34) N/-S(-339.80) E/-W(9436.30)

#169 MD(16237.00) Inc(89.7) Azm(88.7) TVD(6832.99)
VS(9538.22) N/-S(-338.06) E/-W(9532.28)

#170 MD(16332.00) Inc(89.8) Azm(87.4) TVD(6833.39)
VS(9633.01) N/-S(-334.80) E/-W(9627.22)

#171 MD(16428.00) Inc(90.0) Azm(86.9) TVD(6833.51)
VS(9728.68) N/-S(-330.02) E/-W(9723.10)

#172 MD(16523.00) Inc(90.5) Azm(88.8) TVD(6833.05)
VS(9823.45) N/-S(-326.49) E/-W(9818.03)

#173 MD(16619.00) Inc(89.9) Azm(89.5) TVD(6832.66)
VS(9919.35) N/-S(-325.14) E/-W(9914.02)

#174 MD(16714.00) Inc(89.6) Azm(89.5) TVD(6833.05)
VS(10014.27) N/-S(-324.33) E/-W(10009.01)

#175 MD(16809.00) Inc(90.1) Azm(90.2) TVD(6833.28)
VS(10109.21) N/-S(-324.10) E/-W(10104.01)

#176 MD(16904.00) Inc(89.9) Azm(91.6) TVD(6833.23)
VS(10204.19) N/-S(-325.59) E/-W(10199.00)

#177 MD(17000.00) Inc(89.9) Azm(91.8) TVD(6833.35)
VS(10300.19) N/-S(-328.40) E/-W(10294.96)

#178 MD(17095.00) Inc(90.0) Azm(91.6) TVD(6833.37)
VS(10395.19) N/-S(-331.18) E/-W(10389.92)

#179 MD(17191.00) Inc(90.2) Azm(90.6) TVD(6833.15)
VS(10491.18) N/-S(-333.02) E/-W(10485.90)

#180 MD(17286.00) Inc(90.3) Azm(89.9) TVD(6832.72)
VS(10586.15) N/-S(-333.47) E/-W(10580.89)

#181 MD(17381.00) Inc(90.4) Azm(89.8) TVD(6832.12)
VS(10681.09) N/-S(-333.22) E/-W(10675.89)

#182 MD(17475.00) Inc(90.4) Azm(88.3) TVD(6831.41)
VS(10774.97) N/-S(-331.62) E/-W(10769.87)

#183 MD(17547.00) Inc(90.5) Azm(87.5) TVD(6830.86)
VS(10846.79) N/-S(-328.93) E/-W(10841.82)