Horsetail 30G-3144

MD
1":100'

Precision Directional Services

Company: Whiting Oil and Gas Corp
Well Name: Horsetail 30G-3144
API: 05-123-43028-00
County/Parish: Weld
State: Colorado
Country: USA
Job number: GC-160103
Field: DJ basin
Rig Id: Unit 406
Survey Company: Precision Directional Services, Inc.

Log measurements: GR, ROP
Depth measured from:
Maximum temperature: 219

	Depth	Date
Start:	0 ft	12/13/2016
End:	13790 ft	12/16/2016

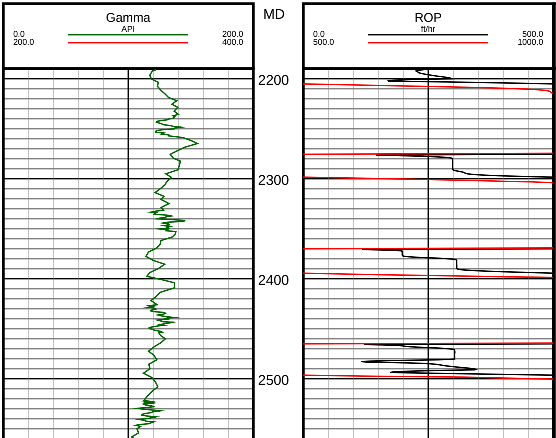
Casing	Depth	Size
Surface:	2078 ft	9 5/8"
Intermediate:		

Mud Type: WBM
Density: 10.6
Viscosity: 45
Rm:
Rmf:
Rmc:

Elevations
KB: 4759 ft
GL: 4738 ft
DF: 21 ft

Run	**Bit Size**	**Offsets**		**Depths**		**Dates**	
		Gamma	**Survey**	**Start**	**End**	**Start**	**End**
1	13 1/2"		57.00 ft	0 ft	2090 ft	12/12/2016	12/13/2016
2	8 1/2"	43.00 ft	56.00 ft	2090 ft	13790 ft	12/13/2016	12/16/2016
3							
4							
5							
6							
7							
8							
9							
10							

Precision Directional Services, Inc. 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.

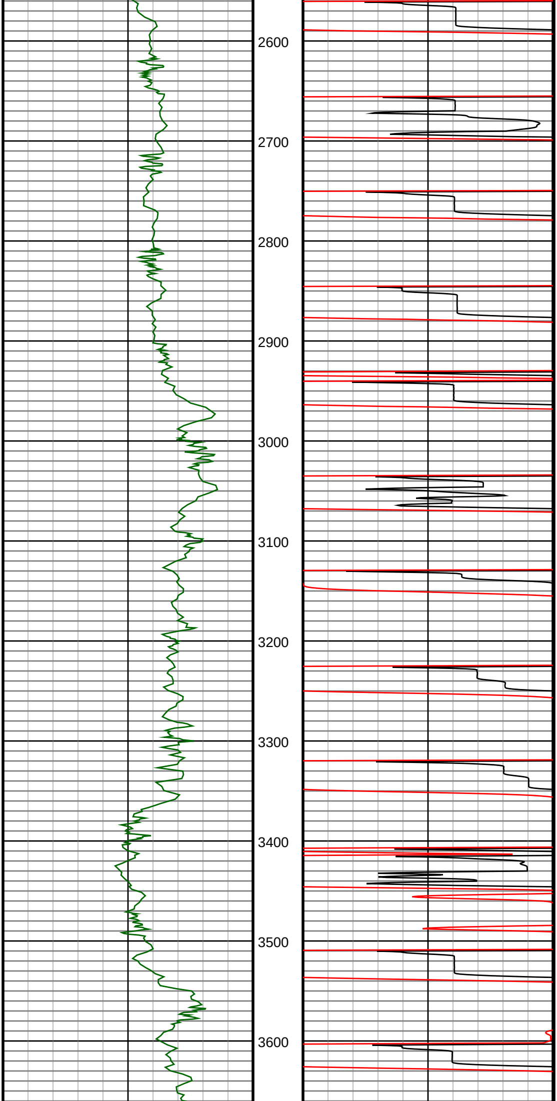


#22 MD(2215.00) Inc(8.2) Azm(51.8) TVD(2201.57) VS(-68.55) N/-S(81.06) E/-W(195.59)

#23 MD(2309.00) Inc(8.1) Azm(50.5) TVD(2294.62) VS(-76.26) N/-S(89.44) E/-W(206.00)

#24 MD(2404.00) Inc(7.5) Azm(51.0) TVD(2388.74) VS(-83.78) N/-S(97.61) E/-W(215.98)

#25 MD(2498.00) Inc(9.0) Azm(47.9) TVD(2481.76) VS(-91.91) N/-S(106.41) E/-W(226.20)



#26 MD(2593.00) Inc(9.1) Azm(46.0) TVD(2575.58)
VS(-101.39) N/-S(116.59) E/-W(237.10)

#27 MD(2687.00) Inc(7.9) Azm(63.4) TVD(2668.57)
VS(-108.69) N/-S(124.61) E/-W(248.17)

#28 MD(2782.00) Inc(7.5) Azm(67.0) TVD(2762.72)
VS(-113.29) N/-S(129.95) E/-W(259.73)

#29 MD(2877.00) Inc(7.4) Azm(64.7) TVD(2856.91)
VS(-117.61) N/-S(134.99) E/-W(270.98)

#30 MD(2972.00) Inc(6.4) Azm(64.5) TVD(2951.23)
VS(-121.83) N/-S(139.87) E/-W(281.26)

#31 MD(3066.00) Inc(8.2) Azm(60.8) TVD(3044.46)
VS(-126.68) N/-S(145.40) E/-W(291.85)

#32 MD(3161.00) Inc(7.4) Azm(59.0) TVD(3138.58)
VS(-132.44) N/-S(151.87) E/-W(303.03)

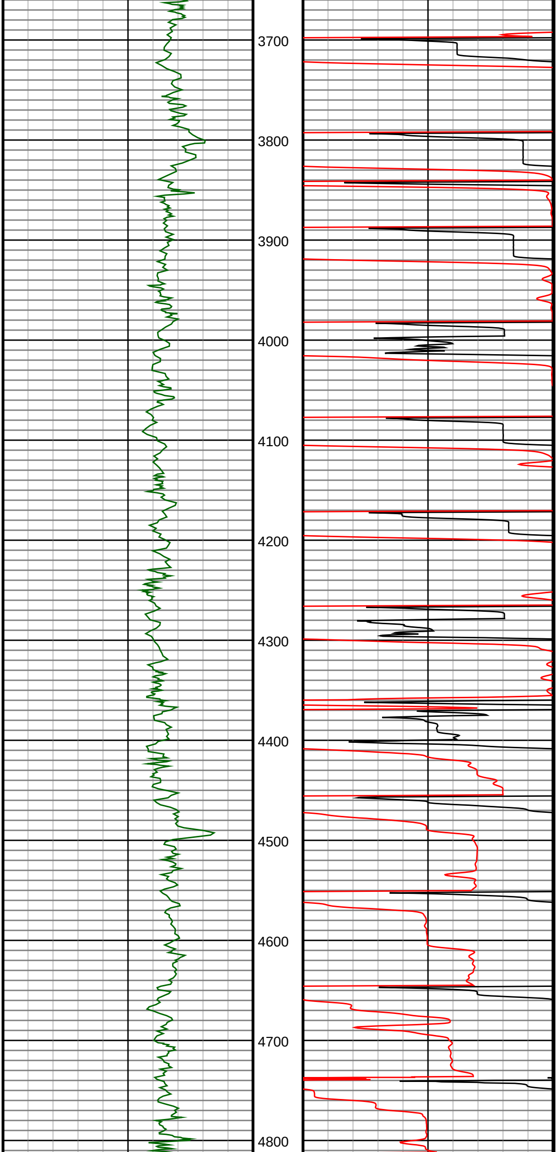
#33 MD(3256.00) Inc(7.3) Azm(57.9) TVD(3232.79)
VS(-138.14) N/-S(158.25) E/-W(313.41)

#34 MD(3351.00) Inc(7.3) Azm(55.9) TVD(3327.02)
VS(-144.09) N/-S(164.84) E/-W(323.52)

#35 MD(3446.00) Inc(8.7) Azm(58.8) TVD(3421.10)
VS(-150.47) N/-S(171.94) E/-W(334.66)

#36 MD(3540.00) Inc(8.7) Azm(60.7) TVD(3514.02)
VS(-156.85) N/-S(179.11) E/-W(346.94)

#37 MD(3635.00) Inc(8.2) Azm(64.8) TVD(3607.98)
VS(-162.48) N/-S(185.54) E/-W(359.36)



#38 MD(3730.00) Inc(7.6) Azm(62.3) TVD(3702.08)
VS(-167.53) N/-S(191.34) E/-W(371.03)

#39 MD(3824.00) Inc(7.0) Azm(56.8) TVD(3795.33)
VS(-172.87) N/-S(197.34) E/-W(381.28)

#40 MD(3919.00) Inc(6.9) Azm(54.1) TVD(3889.63)
VS(-178.76) N/-S(203.84) E/-W(390.73)

#41 MD(4014.00) Inc(7.7) Azm(62.1) TVD(3983.87)
VS(-184.41) N/-S(210.15) E/-W(400.96)

#42 MD(4109.00) Inc(7.4) Azm(58.8) TVD(4078.05)
VS(-189.85) N/-S(216.28) E/-W(411.79)

#43 MD(4203.00) Inc(6.7) Azm(57.4) TVD(4171.34)
VS(-195.31) N/-S(222.37) E/-W(421.58)

#44 MD(4298.00) Inc(5.7) Azm(75.8) TVD(4265.79)
VS(-198.86) N/-S(226.52) E/-W(430.84)

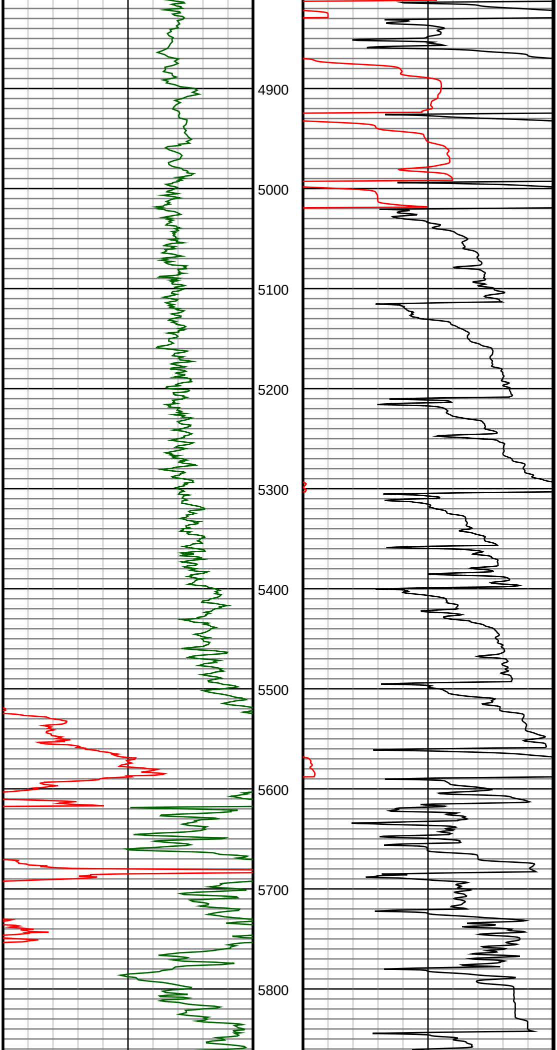
#45 MD(4393.00) Inc(8.2) Azm(82.6) TVD(4360.09)
VS(-200.18) N/-S(228.55) E/-W(442.14)

#46 MD(4487.00) Inc(7.9) Azm(79.3) TVD(4453.16)
VS(-201.41) N/-S(230.61) E/-W(455.12)

#47 MD(4582.00) Inc(6.4) Azm(81.5) TVD(4547.42)
VS(-202.67) N/-S(232.61) E/-W(466.77)

#48 MD(4676.00) Inc(5.5) Azm(86.7) TVD(4640.91)
VS(-203.09) N/-S(233.64) E/-W(476.46)

#49 MD(4771.00) Inc(4.4) Azm(85.0) TVD(4735.55)
VS(-203.15) N/-S(234.22) E/-W(484.65)



#50 MD(4866.00) Inc(1.4) Azm(9.6) TVD(4830.44) VS(-204.40)
N/-S(235.71) E/-W(488.47)

#51 MD(4960.00) Inc(1.2) Azm(9.9) TVD(4924.42) VS(-206.47)
N/-S(237.81) E/-W(488.83)

#52 MD(5055.00) Inc(4.5) Azm(156.7) TVD(5019.34)
VS(-203.90) N/-S(235.34) E/-W(490.47)

#53 MD(5150.00) Inc(14.2) Azm(171.6) TVD(5112.98)
VS(-188.78) N/-S(220.39) E/-W(493.66)

#54 MD(5244.00) Inc(21.4) Azm(169.6) TVD(5202.42)
VS(-160.21) N/-S(192.07) E/-W(498.47)

#55 MD(5339.00) Inc(27.9) Azm(176.2) TVD(5288.72)
VS(-120.69) N/-S(152.76) E/-W(503.09)

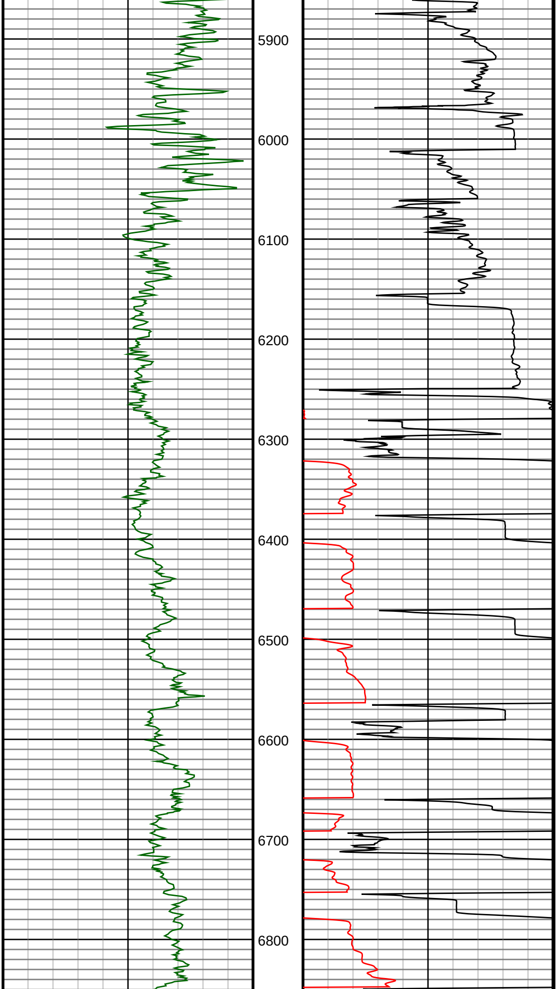
#56 MD(5434.00) Inc(36.9) Azm(180.9) TVD(5368.84)
VS(-69.90) N/-S(101.94) E/-W(504.11)

#57 MD(5528.00) Inc(46.4) Azm(186.4) TVD(5439.00)
VS(-8.07) N/-S(39.71) E/-W(499.86)

#58 MD(5623.00) Inc(52.9) Azm(181.4) TVD(5500.53)
VS(63.63) N/-S(-32.43) E/-W(495.08)

#59 MD(5718.00) Inc(58.2) Azm(178.6) TVD(5554.28)
VS(141.75) N/-S(-110.71) E/-W(495.10)

#60 MD(5812.00) Inc(57.0) Azm(176.9) TVD(5604.64)
VS(221.09) N/-S(-190.02) E/-W(498.21)



#61 MD(5907.00) Inc(64.3) Azm(180.8) TVD(5651.21)
VS(303.73) N/-S(-272.72) E/-W(499.81)

#62 MD(6001.00) Inc(71.1) Azm(183.3) TVD(5686.91)
VS(390.19) N/-S(-359.55) E/-W(496.64)

#63 MD(6096.00) Inc(82.7) Azm(182.3) TVD(5708.41)
VS(481.97) N/-S(-451.80) E/-W(492.08)

#64 MD(6190.00) Inc(90.5) Azm(181.5) TVD(5714.01)
VS(575.30) N/-S(-545.51) E/-W(488.98)

#65 MD(6316.00) Inc(89.5) Azm(182.8) TVD(5714.04)
VS(700.65) N/-S(-671.42) E/-W(484.25)

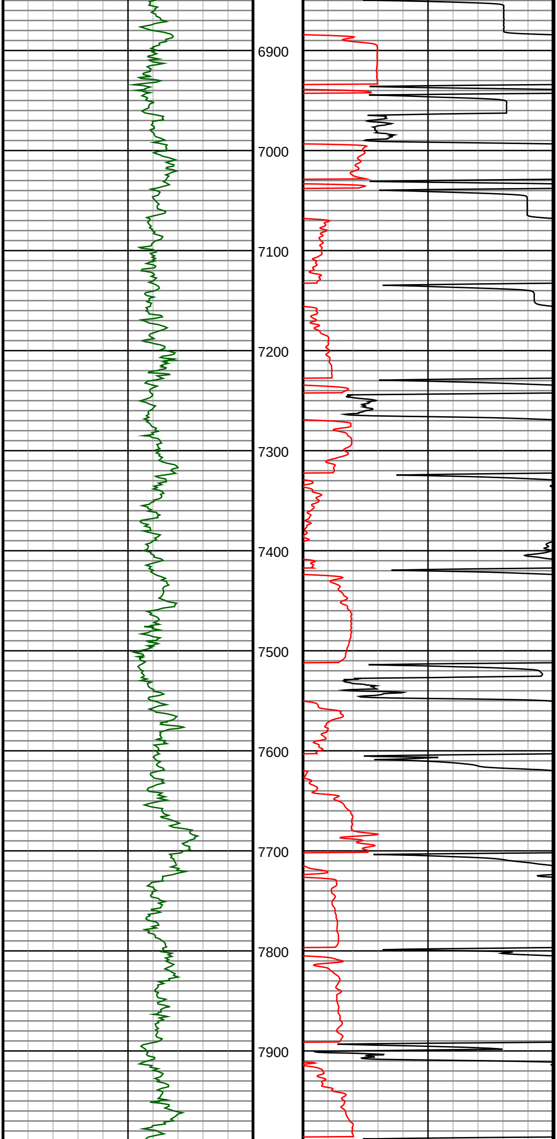
#66 MD(6411.00) Inc(89.2) Azm(182.8) TVD(5715.09)
VS(795.04) N/-S(-766.30) E/-W(479.54)

#67 MD(6505.00) Inc(89.3) Azm(182.1) TVD(5716.33)
VS(888.50) N/-S(-860.20) E/-W(475.46)

#68 MD(6600.00) Inc(91.0) Azm(181.9) TVD(5716.08)
VS(983.04) N/-S(-955.14) E/-W(472.13)

#69 MD(6694.00) Inc(90.2) Azm(179.9) TVD(5715.10)
VS(1076.74) N/-S(-1049.11) E/-W(470.63)

#70 MD(6789.00) Inc(89.2) Azm(177.9) TVD(5715.66)
VS(1171.63) N/-S(-1144.09) E/-W(472.42)



#71 MD(6883.00) Inc(88.6) Azm(177.0) TVD(5717.46)
VS(1265.60) N/-S(-1237.98) E/-W(476.59)

#72 MD(6978.00) Inc(89.4) Azm(181.1) TVD(5719.06)
VS(1360.46) N/-S(-1332.93) E/-W(478.14)

#73 MD(7073.00) Inc(89.1) Azm(180.2) TVD(5720.26)
VS(1455.19) N/-S(-1427.92) E/-W(477.05)

#74 MD(7168.00) Inc(88.6) Azm(179.8) TVD(5722.13)
VS(1549.98) N/-S(-1522.90) E/-W(477.04)

#75 MD(7263.00) Inc(90.4) Azm(180.9) TVD(5722.96)
VS(1644.74) N/-S(-1617.89) E/-W(476.50)

#76 MD(7357.00) Inc(90.2) Azm(180.0) TVD(5722.47)
VS(1738.51) N/-S(-1711.88) E/-W(475.80)

#77 MD(7452.00) Inc(89.4) Azm(178.2) TVD(5722.80)
VS(1833.40) N/-S(-1806.86) E/-W(477.34)

#78 MD(7547.00) Inc(91.0) Azm(179.8) TVD(5722.49)
VS(1928.29) N/-S(-1901.84) E/-W(479.01)

#79 MD(7641.00) Inc(90.9) Azm(180.0) TVD(5720.96)
VS(2022.10) N/-S(-1995.83) E/-W(479.20)

#80 MD(7736.00) Inc(90.5) Azm(179.8) TVD(5719.86)
VS(2116.92) N/-S(-2090.82) E/-W(479.37)

#81 MD(7831.00) Inc(90.1) Azm(179.4) TVD(5719.41)
VS(2211.76) N/-S(-2185.82) E/-W(480.00)

#82 MD(7925.00) Inc(88.5) Azm(178.8) TVD(5720.54)
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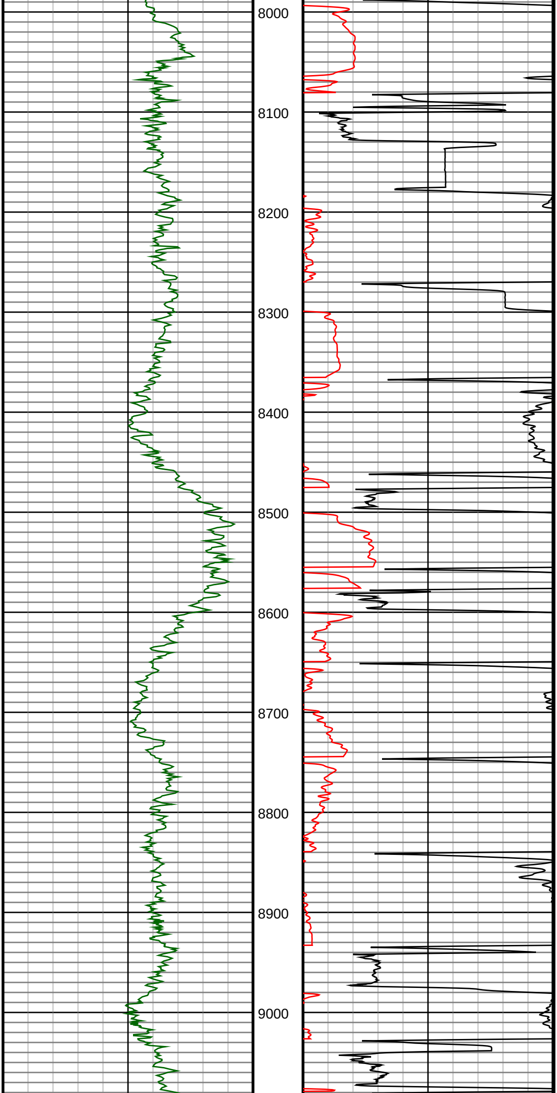

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#84 MD(8114.00) Inc(90.3) Azm(179.4) TVD(5725.21)
VS(2494.42) N/-S(-2468.67) E/-W(485.80)

#85 MD(8209.00) Inc(90.3) Azm(178.6) TVD(5724.74)
VS(2589.32) N/-S(-2563.66) E/-W(487.42)

#86 MD(8304.00) Inc(89.6) Azm(178.0) TVD(5724.86)
VS(2684.26) N/-S(-2658.62) E/-W(490.22)

#87 MD(8399.00) Inc(89.0) Azm(178.3) TVD(5726.09)
VS(2779.21) N/-S(-2753.56) E/-W(493.27)

#88 MD(8493.00) Inc(89.9) Azm(178.5) TVD(5727.04)
VS(2873.14) N/-S(-2847.52) E/-W(495.91)

#89 MD(8588.00) Inc(91.6) Azm(178.5) TVD(5725.85)
VS(2968.07) N/-S(-2942.47) E/-W(498.43)

#90 MD(8683.00) Inc(91.1) Azm(177.5) TVD(5723.66)
VS(3063.01) N/-S(-3037.39) E/-W(501.76)

#91 MD(8778.00) Inc(90.9) Azm(177.2) TVD(5722.04)
VS(3157.98) N/-S(-3132.27) E/-W(506.14)

#92 MD(8871.00) Inc(90.0) Azm(174.9) TVD(5721.36)
VS(3250.97) N/-S(-3225.04) E/-W(512.52)

#93 MD(8963.00) Inc(88.7) Azm(177.7) TVD(5722.45)
VS(3342.95) N/-S(-3316.83) E/-W(518.45)

#94 MD(9056.00) Inc(89.4) Azm(181.0) TVD(5724.06)
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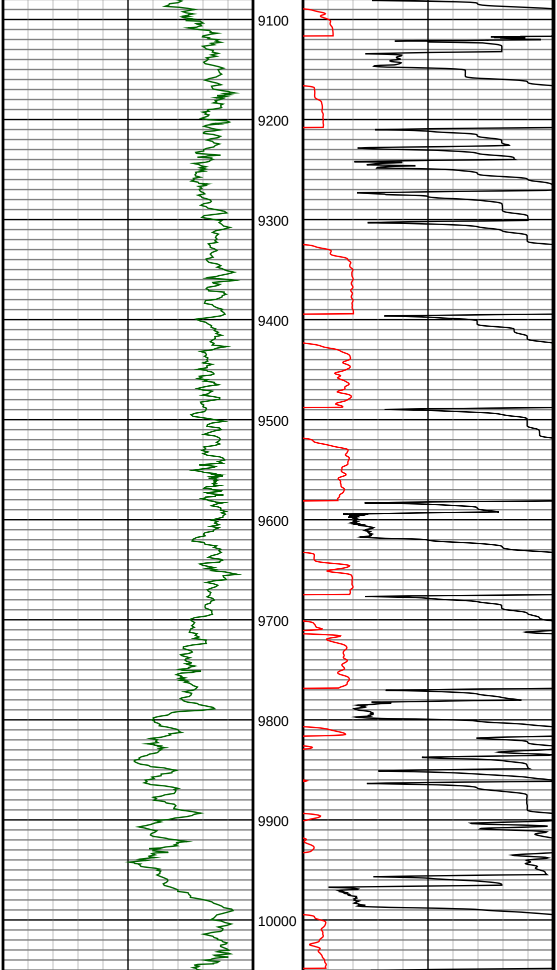

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#96 MD(9243.00) Inc(90.4) Azm(181.7) TVD(5723.97)
VS(3621.97) N/-S(-3596.71) E/-W(513.80)

#97 MD(9336.00) Inc(90.6) Azm(180.5) TVD(5723.21)
VS(3714.65) N/-S(-3689.69) E/-W(512.04)

#98 MD(9429.00) Inc(91.4) Azm(180.5) TVD(5721.59)
VS(3807.40) N/-S(-3782.67) E/-W(511.25)

#99 MD(9523.00) Inc(90.9) Azm(178.9) TVD(5719.65)
VS(3901.22) N/-S(-3876.64) E/-W(511.69)

#100 MD(9615.00) Inc(90.5) Azm(182.3) TVD(5718.47)
VS(3992.94) N/-S(-3968.62) E/-W(510.70)

#101 MD(9708.00) Inc(90.8) Azm(182.0) TVD(5717.39)
VS(4085.47) N/-S(-4061.55) E/-W(507.22)

#102 MD(9801.00) Inc(88.4) Azm(181.4) TVD(5718.07)
VS(4178.06) N/-S(-4154.50) E/-W(504.51)

#103 MD(9895.00) Inc(87.7) Azm(181.1) TVD(5721.30)
VS(4271.66) N/-S(-4248.42) E/-W(502.45)

#104 MD(9988.00) Inc(89.3) Azm(181.8) TVD(5723.76)
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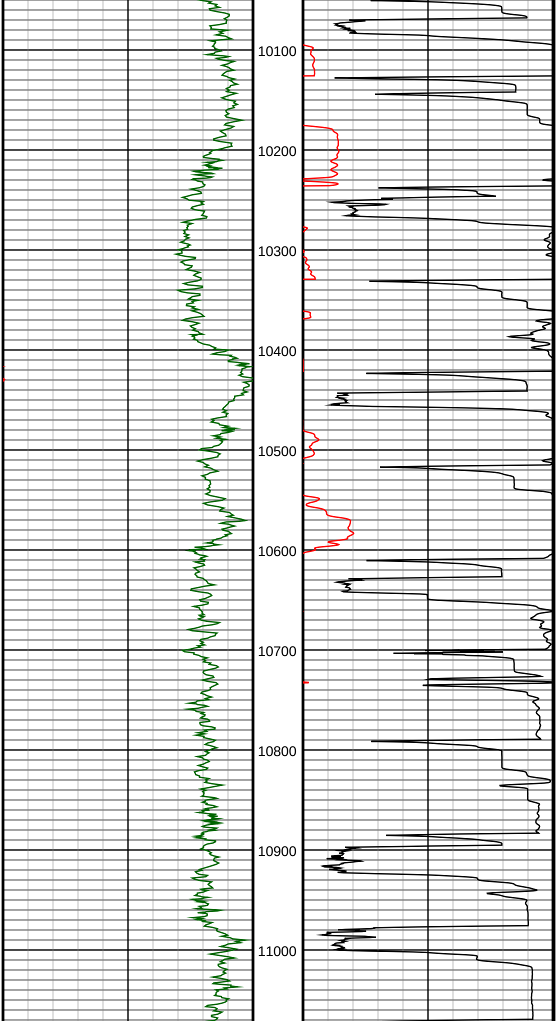

#105 MD(10081.00) Inc(90.2) Azm(182.3) TVD(5724.18)
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#106 MD(10174.00) Inc(90.5) Azm(182.9) TVD(5723.64)
VS(4549.26) N/-S(-4527.19) E/-W(492.52)

#107 MD(10267.00) Inc(89.5) Azm(180.5) TVD(5723.65)
VS(4641.85) N/-S(-4620.14) E/-W(489.76)

#108 MD(10360.00) Inc(88.7) Azm(180.0) TVD(5725.15)
VS(4734.62) N/-S(-4713.13) E/-W(489.36)

#109 MD(10454.00) Inc(89.3) Azm(180.3) TVD(5726.85)
VS(4828.40) N/-S(-4807.11) E/-W(489.14)

#110 MD(10547.00) Inc(89.2) Azm(179.6) TVD(5728.08)
VS(4921.22) N/-S(-4900.10) E/-W(489.24)

#111 MD(10640.00) Inc(89.8) Azm(180.7) TVD(5728.91)
VS(5014.01) N/-S(-4993.10) E/-W(489.03)

#112 MD(10733.00) Inc(90.5) Azm(182.1) TVD(5728.69)
VS(5106.65) N/-S(-5086.07) E/-W(486.79)

#113 MD(10826.00) Inc(90.3) Azm(183.1) TVD(5728.06)
VS(5199.10) N/-S(-5178.97) E/-W(482.53)

#114 MD(10919.00) Inc(91.4) Azm(181.6) TVD(5726.71)
VS(5291.58) N/-S(-5271.87) E/-W(478.67)

#115 MD(11013.00) Inc(91.0) Azm(178.6) TVD(5724.75)
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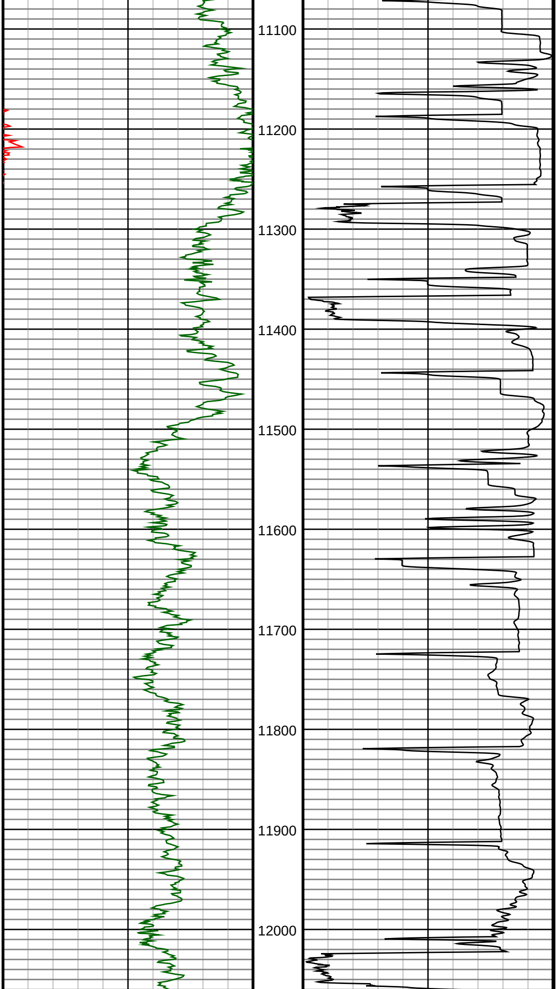

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#117 MD(11199.00) Inc(90.4) Azm(177.2) TVD(5721.99)
VS(5571.26) N/-S(-5551.68) E/-W(485.63)

#118 MD(11292.00) Inc(90.3) Azm(178.7) TVD(5721.39)
VS(5664.22) N/-S(-5644.61) E/-W(488.91)

#119 MD(11385.00) Inc(92.0) Azm(180.5) TVD(5719.46)
VS(5757.05) N/-S(-5737.59) E/-W(489.54)

#120 MD(11478.00) Inc(92.0) Azm(180.6) TVD(5716.14)
VS(5849.74) N/-S(-5830.52) E/-W(488.63)

#121 MD(11570.00) Inc(91.8) Azm(179.6) TVD(5713.06)
VS(5941.49) N/-S(-5922.47) E/-W(488.44)

#122 MD(11665.00) Inc(91.4) Azm(179.6) TVD(5710.43)
VS(6036.30) N/-S(-6017.43) E/-W(489.09)

#123 MD(11760.00) Inc(90.7) Azm(178.7) TVD(5708.73)
VS(6131.17) N/-S(-6112.40) E/-W(490.46)

#124 MD(11854.00) Inc(89.6) Azm(178.1) TVD(5708.47)
VS(6225.11) N/-S(-6206.37) E/-W(493.03)

#125 MD(11949.00) Inc(88.6) Azm(176.8) TVD(5709.95)
VS(6320.08) N/-S(-6301.26) E/-W(497.20)

#126 MD(12044.00) Inc(88.8) Azm(178.2) TVD(5712.18)
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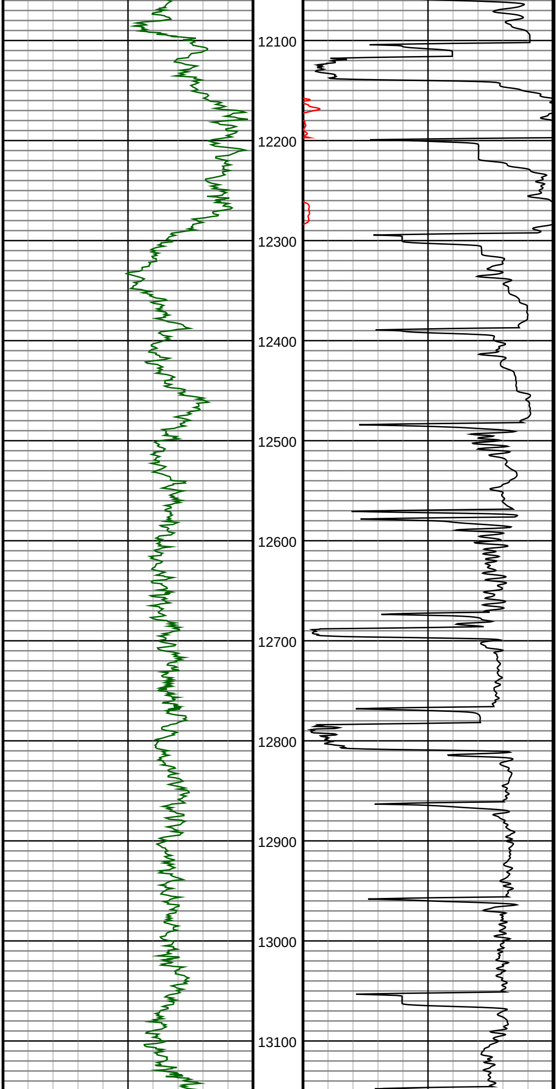

#127 MD(12139.00) Inc(90.7) Azm(180.6) TVD(5712.63)
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#128 MD(12234.00) Inc(90.7) Azm(180.4) TVD(5711.51)
VS(6604.63) N/-S(-6586.11) E/-W(501.47)

#129 MD(12328.00) Inc(90.3) Azm(179.8) TVD(5710.73)
VS(6698.43) N/-S(-6680.11) E/-W(501.27)

#130 MD(12423.00) Inc(90.2) Azm(179.6) TVD(5710.32)
VS(6793.27) N/-S(-6775.11) E/-W(501.73)

#131 MD(12518.00) Inc(90.2) Azm(178.9) TVD(5709.99)
VS(6888.15) N/-S(-6870.10) E/-W(502.97)

#132 MD(12612.00) Inc(89.7) Azm(178.5) TVD(5710.09)
VS(6982.07) N/-S(-6964.07) E/-W(505.14)

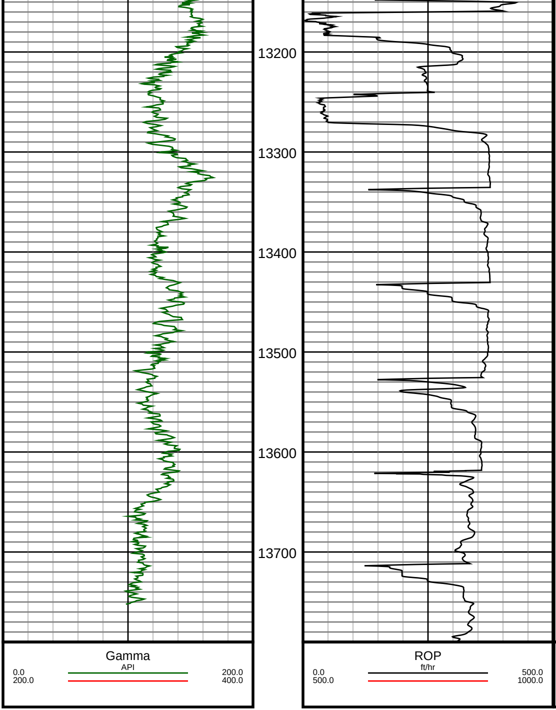
#133 MD(12707.00) Inc(89.4) Azm(178.2) TVD(5710.82)
VS(7077.01) N/-S(-7059.03) E/-W(507.88)

#134 MD(12801.00) Inc(90.3) Azm(179.8) TVD(5711.00)
VS(7170.91) N/-S(-7153.01) E/-W(509.49)

#135 MD(12896.00) Inc(90.5) Azm(178.6) TVD(5710.31)
VS(7265.79) N/-S(-7248.00) E/-W(510.79)

#136 MD(12991.00) Inc(89.9) Azm(178.3) TVD(5709.95)
VS(7360.72) N/-S(-7342.96) E/-W(513.30)

#137 MD(13085.00) Inc(89.4) Azm(177.9) TVD(5710.48)
VS(7454.68) N/-S(-7436.91) E/-W(516.40)



#138 MD(13180.00) Inc(89.5) Azm(178.4) TVD(5711.36)
VS(7549.63) N/-S(-7531.86) E/-W(519.45)

#139 MD(13274.00) Inc(91.5) Azm(182.1) TVD(5710.58)
VS(7643.39) N/-S(-7625.83) E/-W(519.03)

#140 MD(13369.00) Inc(91.5) Azm(181.8) TVD(5708.13)
VS(7737.91) N/-S(-7720.75) E/-W(515.77)

#141 MD(13464.00) Inc(91.6) Azm(181.0) TVD(5705.60)
VS(7832.50) N/-S(-7815.68) E/-W(513.39)

#142 MD(13559.00) Inc(91.5) Azm(180.4) TVD(5703.08)
VS(7927.20) N/-S(-7910.64) E/-W(512.23)

#143 MD(13653.00) Inc(91.4) Azm(179.9) TVD(5700.70)
VS(8020.96) N/-S(-8004.61) E/-W(511.98)

#144 MD(13731.00) Inc(91.5) Azm(179.6) TVD(5698.68)
VS(8098.80) N/-S(-8082.58) E/-W(512.28)