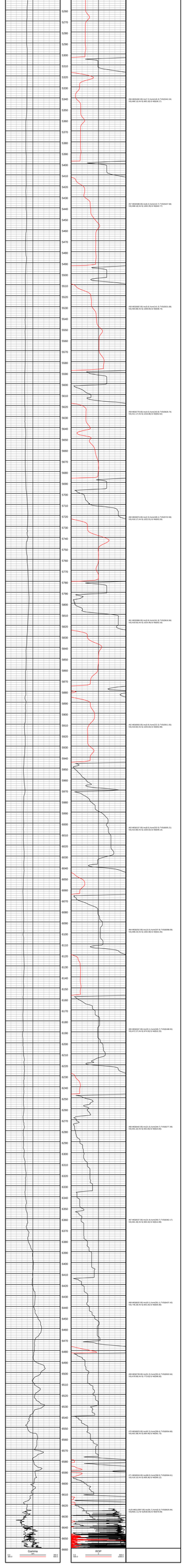

Popham 12N

TVD
5":100'

Company: Petroleum Development Corp.
Well Name: Popham 12N
API: 05123781400
County/Parish: Weld
State: Colorado
Country: United States
Job number: 161-165
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: Chad Anderson
Night MWD: Bobby Blevins

Log measurements: Gamma, ROP
Depth measured from: 1655 ft
Maximum temperature: 189

Depth	Date
Start: 0 ft	2-18-2019
End: 12127 ft	2-22-2019

Casing	Depth	Size
Surface:	1632 ft	9 5/8"
Intermediate:		

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

Elevations
KB: 23 ft
GL: 4662 ft
DF: 4685 ft

Run	Bit Size	Offsets Gamma	Offsets Survey	Depths Start	Depths End	Dates Start	Dates End
1	12.25"		60.00 ft	0 ft	1655 ft	2-18-2019	2-18-2019
2	8.5"	62.58 ft	57.75 ft	1655 ft	7262 ft	2-19-2019	2-21-2019
3	8.5"	62.72 ft	57.89 ft	7262 ft	12127 ft	2-21-2019	2-22-2019
4							
5							
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9							
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Ensign 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.

Gamma
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TVD
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#16 MD(1676.00) Inc(13.2) Azm(144.6) TVD(1654.04) VS(-164.46) N/-S(-182.84) E/-W(113.00)
#17 MD(1772.00) Inc(15.0) Azm(142.6) TVD(1747.15) VS(-181.04) N/-S(-201.63) E/-W(126.88)
#18 MD(1868.00) Inc(16.8) Azm(142.6) TVD(1839.49) VS(-199.35) N/-S(-222.48) E/-W(142.81)
#19 MD(1963.00) Inc(15.8) Azm(140.6) TVD(1930.68) VS(-217.61) N/-S(-243.36) E/-W(159.32)
#20 MD(2058.00) Inc(18.8) Azm(143.6) TVD(2021.37) VS(-237.20) N/-S(-265.71) E/-W(176.63)
#21 MD(2153.00) Inc(19.3) Azm(144.7) TVD(2111.16) VS(-259.43) N/-S(-290.84) E/-W(194.80)
#22 MD(2248.00) Inc(18.1) Azm(147.1) TVD(2201.17) VS(-281.83) N/-S(-315.99) E/-W(211.86)
#23 MD(2343.00) Inc(17.8) Azm(155.2) TVD(2291.57) VS(-305.04) N/-S(-341.52) E/-W(225.96)
#24 MD(2438.00) Inc(16.7) Azm(155.0) TVD(2382.31) VS(-328.58) N/-S(-367.05) E/-W(237.80)
#25 MD(2533.00) Inc(15.5) Azm(155.0) TVD(2473.57) VS(-350.60) N/-S(-390.95) E/-W(248.95)
#26 MD(2628.00) Inc(15.4) Azm(154.1) TVD(2565.13) VS(-371.64) N/-S(-413.81) E/-W(259.83)
#27 MD(2724.00) Inc(15.0) Azm(153.2) TVD(2657.77) VS(-392.33) N/-S(-436.37) E/-W(271.01)
#28 MD(2819.00) Inc(14.9) Azm(153.6) TVD(2749.56) VS(-412.40) N/-S(-458.26) E/-W(281.98)
#29 MD(2914.00) Inc(14.3) Azm(151.5) TVD(2841.51) VS(-431.78) N/-S(-479.47) E/-W(292.99)
#30 MD(3010.00) Inc(14.0) Azm(148.0) TVD(2934.60) VS(-450.09) N/-S(-499.72) E/-W(304.79)
#31 MD(3105.00) Inc(13.5) Azm(145.2) TVD(3026.88) VS(-466.93) N/-S(-518.56) E/-W(317.22)
#32 MD(3200.00) Inc(13.9) Azm(140.9) TVD(3119.19) VS(-482.72) N/-S(-536.51) E/-W(330.72)
#33 MD(3295.00) Inc(15.1) Azm(137.0) TVD(3211.16) VS(-498.18) N/-S(-554.43) E/-W(346.36)
#34 MD(3390.00) Inc(15.7) Azm(142.4) TVD(3302.75) VS(-514.86) N/-S(-573.68) E/-W(362.63)
#35 MD(3486.00) Inc(13.7) Azm(140.9) TVD(3395.62) VS(-531.53) N/-S(-592.74) E/-W(377.68)
#36 MD(3581.00) Inc(13.7) Azm(146.5) TVD(3487.93) VS(-547.50) N/-S(-610.84) E/-W(390.97)
#37 MD(3677.00) Inc(15.6) Azm(145.0) TVD(3580.79) VS(-565.40) N/-S(-630.94) E/-W(404.68)
#38 MD(3773.00) Inc(15.6) Azm(144.8) TVD(3673.24) VS(-584.19) N/-S(-652.12) E/-W(419.54)
#39 MD(3868.00) Inc(15.7) Azm(144.6) TVD(3764.70) VS(-602.77) N/-S(-673.07) E/-W(434.37)
#40 MD(3964.00) Inc(16.8) Azm(149.5) TVD(3856.87) VS(-622.95) N/-S(-695.62) E/-W(448.95)
#41 MD(4060.00) Inc(16.7) Azm(153.2) TVD(3948.80) VS(-645.05) N/-S(-719.90) E/-W(462.20)
#42 MD(4156.00) Inc(15.4) Azm(153.9) TVD(4041.04) VS(-666.87) N/-S(-743.70) E/-W(474.04)
#43 MD(4251.00) Inc(14.8) Azm(154.1) TVD(4132.77) VS(-687.29) N/-S(-765.92) E/-W(484.87)
#44 MD(4346.00) Inc(14.0) Azm(154.2) TVD(4224.79) VS(-706.81) N/-S(-787.17) E/-W(495.16)
#45 MD(4442.00) Inc(12.7) Azm(153.3) TVD(4318.18) VS(-725.11) N/-S(-807.11) E/-W(504.98)
#46 MD(4538.00) Inc(13.8) Azm(144.2) TVD(4411.62) VS(-742.01) N/-S(-825.87) E/-W(516.45)
#47 MD(4633.00) Inc(13.2) Azm(142.5) TVD(4503.99) VS(-757.67) N/-S(-843.65) E/-W(529.68)
#48 MD(4729.00) Inc(12.0) Azm(138.1) TVD(4597.70) VS(-771.65) N/-S(-859.73) E/-W(542.98)
#49 MD(4825.00) Inc(13.9) Azm(135.4) TVD(4691.25) VS(-784.97) N/-S(-875.37) E/-W(557.74)
#50 MD(4920.00) Inc(14.8) Azm(144.6) TVD(4783.29) VS(-800.64) N/-S(-893.41) E/-W(572.81)
#51 MD(5016.00) Inc(14.4) Azm(142.2) TVD(4876.19) VS(-817.77) N/-S(-912.85) E/-W(587.23)
#52 MD(5110.00) Inc(14.5) Azm(142.1) TVD(4967.21) VS(-834.02) N/-S(-931.39) E/-W(601.63)
#53 MD(5206.00) Inc(13.2) Azm(154.4) TVD(5060.42) VS(-851.47) N/-S(-950.81) E/-W(613.79)
#54 MD(5302.00) Inc(10.2) Azm(154.8) TVD(5154.41) VS(-867.67) N/-S(-968.42) E/-W(622.16)
#55 MD(5397.00) Inc(8.5) Azm(150.1) TVD(5248.14) VS(-880.21) N/-S(-982.14) E/-W(629.25)

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#56 MD(5492.00) Inc(7.2) Azm(145.3) TVD(5342.24)
VS(-890.13) N/-S(-993.18) E/-W(636.17)
#57 MD(5588.00) Inc(6.2) Azm(142.7) TVD(5437.58)
VS(-898.18) N/-S(-1002.29) E/-W(642.77)
#58 MD(5682.00) Inc(5.6) Azm(141.3) TVD(5531.08)
VS(-904.89) N/-S(-1009.94) E/-W(648.74)
#59 MD(5778.00) Inc(4.0) Azm(163.9) TVD(5626.74)
VS(-911.17) N/-S(-1016.86) E/-W(652.62)
#60 MD(5874.00) Inc(2.3) Azm(189.1) TVD(5722.59)
VS(-916.17) N/-S(-1022.01) E/-W(653.26)
#61 MD(5968.00) Inc(0.8) Azm(161.9) TVD(5816.56)
VS(-918.63) N/-S(-1024.49) E/-W(653.16)
#62 MD(6063.00) Inc(0.9) Azm(222.3) TVD(5911.55)
VS(-919.82) N/-S(-1025.64) E/-W(652.89)
#63 MD(6157.00) Inc(8.5) Azm(332.0) TVD(6005.21)
VS(-914.80) N/-S(-1020.02) E/-W(649.14)
#64 MD(6252.00) Inc(15.5) Azm(337.8) TVD(6098.09)
VS(-898.23) N/-S(-1002.08) E/-W(641.05)
#65 MD(6347.00) Inc(20.1) Azm(345.7) TVD(6188.55)
VS(-872.27) N/-S(-974.55) E/-W(632.25)
#66 MD(6442.00) Inc(21.5) Azm(344.7) TVD(6277.39)
VS(-841.32) N/-S(-942.00) E/-W(623.65)
#67 MD(6537.00) Inc(31.9) Azm(350.7) TVD(6362.17)
VS(-801.36) N/-S(-900.34) E/-W(614.99)
#68 MD(6632.00) Inc(43.1) Azm(351.1) TVD(6437.43)
VS(-746.28) N/-S(-843.34) E/-W(605.90)
#69 MD(6728.00) Inc(51.3) Azm(353.4) TVD(6502.64)
VS(-678.69) N/-S(-773.63) E/-W(596.50)
#70 MD(6823.00) Inc(62.3) Azm(359.4) TVD(6554.66)
VS(-601.08) N/-S(-694.49) E/-W(591.73)
#71 MD(6918.00) Inc(68.0) Azm(358.5) TVD(6594.61)
VS(-516.10) N/-S(-608.36) E/-W(590.12)
#125 MD(12067.00) Inc(91.7) Azm(0.3) TVD(6625.94)
VS(4581.11) N/-S(4530.66) E/-W(678.09)
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