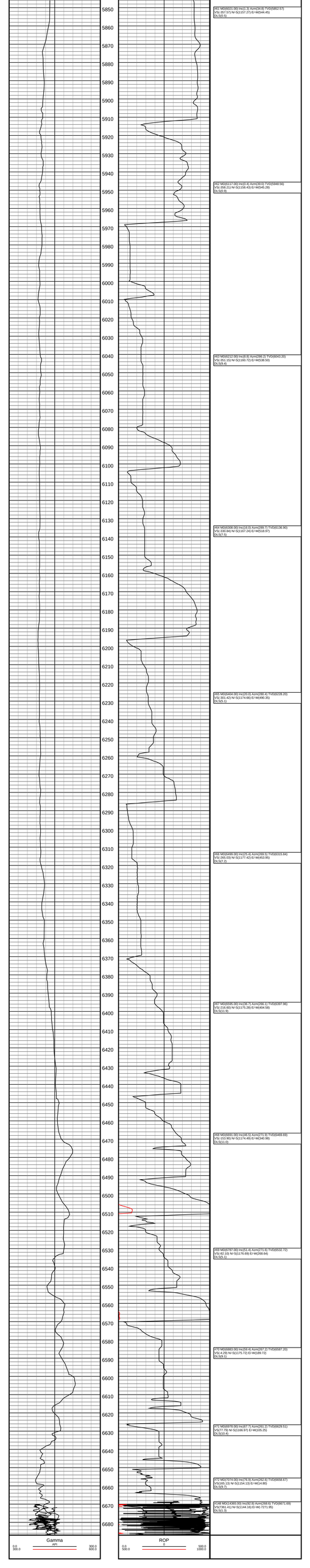

ENSIGN Directional Services

McGlothlin Farms 4W-234

TVD
5":100'

Company: Petroleum Development Corp.
Well Name: McGlothlin Farms 4W-234
API: 05123440300
County/Parish: Weld
State: Colorado
Country: United States
Job number: 161-93
Field: Wattenburg
Rig Id: Ensign 161
Survey Company: Ensign Directional Services
Operator: Petroleum Development Corp.
Company Man: Brady Sharp / John Falton

Daylight DD: Zach Gentry
Swing Shift DD: Chris Saykally
Night DD: Tony Callow
Daylight MWD: Justin Klatt
Night MWD: Terry Ash

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

	Depth	Date
Start:	0 ft	9-27-2017
End:	14365 ft	10-03-2017

Casing	**Depth**	**Size**
Surface:		9 5/8"
Intermediate:		

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

Elevations
KB: 4639 ft
GL: 4616 ft
DF: 4639 ft

Run	**Bit Size**	**Offsets**		**Depths**		**Dates**	
		Gamma	**Survey**	**Start**	**End**	**Start**	**End**
1	12.25"		57.85 ft	0 ft	1680 ft	9/27/2017	9/28/2017
2	8.5"	62.19 ft	57.19 ft	1680 ft	14365 ft	9/28/2017	10/3/2017
3							
4							
5							
6							
7							
8							
9							
10							

Ensign Directional Services 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.

#23 MD(2352.00) Inc(15.8) Azm(27.4) TVD(2295.77)
VS(-110.69) N/-S(391.81) E/-W(173.83)
DLS(0.9)

#24 MD(2447.00) Inc(17.1) Azm(29.7) TVD(2386.88)
VS(-119.73) N/-S(415.43) E/-W(186.71)
DLS(1.5)

#25 MD(2543.00) Inc(16.6) Azm(29.3) TVD(2478.76)
VS(-129.49) N/-S(439.65) E/-W(200.41)
DLS(0.5)

#26 MD(2638.00) Inc(16.3) Azm(28.6) TVD(2569.87)
VS(-138.69) N/-S(463.19) E/-W(213.43)
DLS(0.4)

#27 MD(2733.00) Inc(16.1) Azm(27.6) TVD(2661.10)
VS(-147.38) N/-S(486.57) E/-W(225.92)
DLS(0.4)

#28 MD(2829.00) Inc(16.1) Azm(27.1) TVD(2753.33)
VS(-155.78) N/-S(510.21) E/-W(238.15)
DLS(0.1)

#29 MD(2925.00) Inc(15.7) Azm(26.7) TVD(2845.66)
VS(-163.88) N/-S(533.67) E/-W(250.05)
DLS(0.4)

#30 MD(3020.00) Inc(15.7) Azm(25.5) TVD(2937.12)
VS(-171.46) N/-S(556.75) E/-W(261.36)
DLS(0.3)

#31 MD(3116.00) Inc(15.2) Azm(24.6) TVD(3029.65)
VS(-178.55) N/-S(579.92) E/-W(272.19)
DLS(0.6)

#32 MD(3212.00) Inc(15.9) Azm(30.4) TVD(3122.14)
VS(-186.75) N/-S(602.70) E/-W(284.08)
DLS(1.8)

#33 MD(3308.00) Inc(15.7) Azm(28.8) TVD(3214.51)
VS(-195.96) N/-S(625.43) E/-W(297.00)
DLS(0.5)

#34 MD(3404.00) Inc(14.9) Azm(28.3) TVD(3307.11)
VS(-204.46) N/-S(647.68) E/-W(309.10)
DLS(0.8)

#35 MD(3499.00) Inc(15.9) Azm(28.8) TVD(3398.70)
VS(-212.92) N/-S(669.84) E/-W(321.16)
DLS(1.1)

#36 MD(3595.00) Inc(15.7) Azm(27.9) TVD(3491.07)
VS(-221.60) N/-S(692.84) E/-W(333.58)
DLS(0.3)

#37 MD(3691.00) Inc(15.8) Azm(28.1) TVD(3583.47)
VS(-230.10) N/-S(715.85) E/-W(345.81)
DLS(0.1)

#38 MD(3786.00) Inc(15.7) Azm(27.4) TVD(3674.90)
VS(-238.41) N/-S(738.67) E/-W(357.82)
DLS(0.2)

#39 MD(3883.00) Inc(15.8) Azm(27.8) TVD(3768.26)
VS(-246.82) N/-S(762.00) E/-W(370.02)
DLS(0.2)

#40 MD(3978.00) Inc(16.3) Azm(25.0) TVD(3859.56)
VS(-254.68) N/-S(785.52) E/-W(381.68)
DLS(1.0)

#41 MD(4074.00) Inc(16.1) Azm(24.1) TVD(3951.74)
VS(-261.88) N/-S(809.88) E/-W(392.81)
DLS(0.3)

#42 MD(4170.00) Inc(15.9) Azm(23.5) TVD(4044.03)
VS(-268.66) N/-S(834.09) E/-W(403.49)
DLS(0.3)

#43 MD(4265.00) Inc(15.7) Azm(24.1) TVD(4135.44)
VS(-275.28) N/-S(857.76) E/-W(413.93)
DLS(0.3)

#44 MD(4361.00) Inc(15.1) Azm(23.5) TVD(4227.99)
VS(-281.82) N/-S(881.09) E/-W(424.22)
DLS(0.6)

#45 MD(4457.00) Inc(16.5) Azm(25.0) TVD(4320.36)
VS(-288.72) N/-S(904.91) E/-W(434.97)
DLS(1.5)

#46 MD(4553.00) Inc(16.3) Azm(24.4) TVD(4412.45)
VS(-296.08) N/-S(929.53) E/-W(446.29)
DLS(0.3)

#47 MD(4648.00) Inc(15.7) Azm(23.4) TVD(4503.77)
VS(-302.83) N/-S(953.47) E/-W(456.90)
DLS(0.7)

#48 MD(4744.00) Inc(15.2) Azm(24.6) TVD(4596.30)
VS(-309.46) N/-S(976.83) E/-W(467.30)
DLS(0.6)

#49 MD(4840.00) Inc(14.9) Azm(23.5) TVD(4689.01)
VS(-315.95) N/-S(999.60) E/-W(477.46)
DLS(0.4)

#50 MD(4936.00) Inc(14.6) Azm(22.5) TVD(4781.85)
VS(-321.89) N/-S(1022.09) E/-W(487.01)
DLS(0.4)

#51 MD(5032.00) Inc(14.3) Azm(22.7) TVD(4874.81)
VS(-327.53) N/-S(1044.21) E/-W(496.22)
DLS(0.3)

#52 MD(5128.00) Inc(14.0) Azm(20.7) TVD(4967.90)
VS(-332.71) N/-S(1066.01) E/-W(504.90)
DLS(0.6)

#53 MD(5254.00) Inc(12.9) Azm(20.6) TVD(5090.44)
VS(-338.65) N/-S(1093.43) E/-W(515.24)
DLS(0.9)

#54 MD(5350.00) Inc(10.8) Azm(21.3) TVD(5184.39)
VS(-342.74) N/-S(1111.85) E/-W(522.27)
DLS(2.2)

#55 MD(5446.00) Inc(8.1) Azm(18.4) TVD(5279.08)
VS(-345.77) N/-S(1126.65) E/-W(527.68)
DLS(2.9)

#56 MD(5542.00) Inc(6.1) Azm(25.8) TVD(5374.34)
VS(-348.36) N/-S(1137.66) E/-W(532.03)
DLS(2.3)

#57 MD(5638.00) Inc(4.9) Azm(41.5) TVD(5469.90)
VS(-352.04) N/-S(1145.32) E/-W(536.97)
DLS(2.0)

#58 MD(5733.00) Inc(2.6) Azm(38.5) TVD(5564.69)
VS(-355.29) N/-S(1150.05) E/-W(541.00)
DLS(2.4)

#59 MD(5829.00) Inc(1.4) Azm(18.4) TVD(5660.63)
VS(-356.55) N/-S(1152.86) E/-W(542.73)
DLS(1.4)

#60 MD(5925.00) Inc(1.5) Azm(17.0) TVD(5756.60)
VS(-356.92) N/-S(1155.18) E/-W(543.46)
DLS(0.1)

#61 MD(6021.00) Inc(1.3) Azm(34.8) TVD(5852.57)
VS(-357.57) N/-S(1157.27) E/-W(544.45)
DLS(0.5)

#62 MD(6117.00) Inc(0.4) Azm(39.0) TVD(5948.56)
VS(-358.21) N/-S(1158.43) E/-W(545.28)
DLS(0.9)

#63 MD(6212.00) Inc(8.8) Azm(286.2) TVD(6043.20)
VS(-351.15) N/-S(1160.72) E/-W(538.50)
DLS(9.4)

#64 MD(6308.00) Inc(16.0) Azm(289.7) TVD(6136.90)
VS(-330.84) N/-S(1167.24) E/-W(518.97)
DLS(7.5)

#65 MD(6404.00) Inc(20.0) Azm(280.4) TVD(6228.20)
VS(-301.42) N/-S(1174.66) E/-W(490.35)
DLS(5.1)

#66 MD(6499.00) Inc(25.4) Azm(269.5) TVD(6315.84)
VS(-265.03) N/-S(1177.42) E/-W(453.95)
DLS(7.2)

#67 MD(6595.00) Inc(36.7) Azm(266.1) TVD(6397.96)
VS(-216.60) N/-S(1175.28) E/-W(404.58)
DLS(11.9)

#68 MD(6691.00) Inc(46.5) Azm(271.9) TVD(6469.69)
VS(-153.90) N/-S(1174.49) E/-W(340.98)
DLS(11.0)

#69 MD(6787.00) Inc(51.4) Azm(271.6) TVD(6532.72)
VS(-82.10) N/-S(1176.69) E/-W(268.64)
DLS(5.1)

#70 MD(6883.00) Inc(59.4) Azm(267.2) TVD(6587.20)
VS(-4.29) N/-S(1175.72) E/-W(189.72)
DLS(9.1)

#71 MD(6978.00) Inc(67.7) Azm(261.2) TVD(6629.51)
VS(77.79) N/-S(1166.97) E/-W(105.25)
DLS(10.4)

#72 MD(7074.00) Inc(76.9) Azm(262.6) TVD(6658.67)
VS(165.13) N/-S(1154.13) E/-W(14.80)
DLS(9.7)

#148 MD(14365.00) Inc(92.8) Azm(268.6) TVD(6671.69)
VS(7361.41) N/-S(1144.16) E/-W(-7271.95)
DLS(1.3)