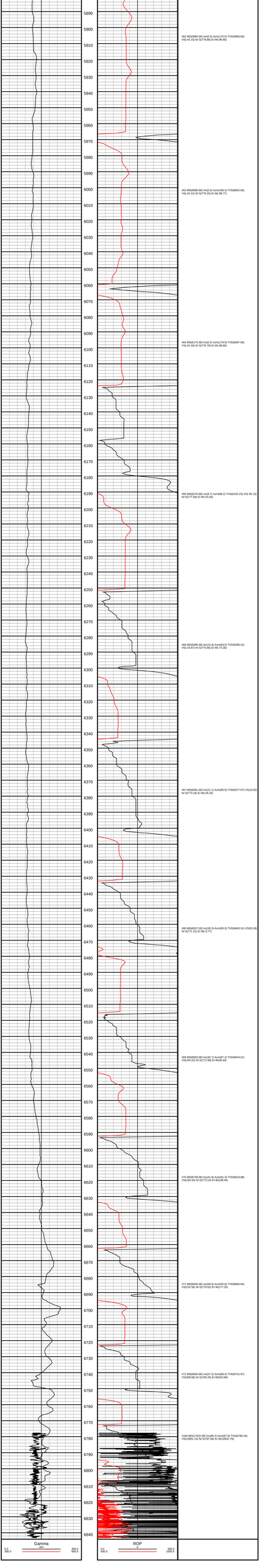

# Harold 6X-202

TVD
5":100'

**Company:** Petroleum Development Corp.
**Well Name:** Harold 6X-202
**API:** 051234574700
**County/Parish:** Weld
**State:** Colorado
**Country:** United States
**Job number:** 161-153
**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:** Chad Anderson

**Log measurements:** Gamma, ROP
**Depth measured from:** 1655 ft
**Maximum temperature:** 245.5

| | Depth | Date |
|---|---|---|
| **Start:** | 0 ft | 11-30-2018 |
| **End:** | 17632 ft | 12-6-2018 |

| Casing | Depth | Size |
|---|---|---|
| Surface: | 1664 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" | | 70.00 ft | 0 ft | 1655 ft | 11-30-2018 | 12-1-2018 |
| 2 | 8.5" | 62.95 ft | 58.12 ft | 1655 ft | 7575 ft | 12-2-2018 | 12-3-2018 |
| 3 | 8.5" | 62.81 ft | 57.98 ft | 7575 ft | 17632 ft | 12-4-2018 | 12-6-2018 |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |

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#24 MD(2351.00) Inc(12.8) Azm(0.7) TVD(2331.88) VS(3.42)
N/-S(204.16) E/-W(-11.38)

#25 MD(2446.00) Inc(13.9) Azm(358.8) TVD(2424.32) VS(4.90)
N/-S(226.08) E/-W(-11.49)

#26 MD(2541.00) Inc(14.0) Azm(356.2) TVD(2516.53) VS(5.55)
N/-S(248.91) E/-W(-12.49)

#27 MD(2636.00) Inc(13.7) Azm(349.4) TVD(2608.77) VS(4.34)
N/-S(271.44) E/-W(-15.34)

#28 MD(2731.00) Inc(13.4) Azm(349.4) TVD(2701.11) VS(1.82)
N/-S(293.38) E/-W(-19.46)

#29 MD(2826.00) Inc(12.1) Azm(347.3) TVD(2793.76)
VS(-0.90) N/-S(313.94) E/-W(-23.69)

#30 MD(2922.00) Inc(12.1) Azm(346.6) TVD(2887.64)
VS(-4.00) N/-S(333.50) E/-W(-28.20)

#31 MD(3017.00) Inc(11.2) Azm(346.0) TVD(2980.68)
VS(-7.17) N/-S(352.13) E/-W(-32.74)

#32 MD(3113.00) Inc(10.6) Azm(345.7) TVD(3074.94)
VS(-10.34) N/-S(369.76) E/-W(-37.20)

#33 MD(3208.00) Inc(10.4) Azm(345.2) TVD(3168.35)
VS(-13.47) N/-S(386.54) E/-W(-41.56)

#34 MD(3304.00) Inc(10.3) Azm(347.9) TVD(3262.78)
VS(-16.27) N/-S(403.34) E/-W(-45.58)

#35 MD(3400.00) Inc(10.1) Azm(354.8) TVD(3357.26)
VS(-17.61) N/-S(420.16) E/-W(-48.15)

#36 MD(3495.00) Inc(9.4) Azm(353.4) TVD(3450.87)
VS(-18.10) N/-S(436.23) E/-W(-49.80)

#37 MD(3591.00) Inc(10.5) Azm(350.2) TVD(3545.43)
VS(-19.29) N/-S(452.67) E/-W(-52.19)

#38 MD(3686.00) Inc(9.8) Azm(347.9) TVD(3638.94)
VS(-21.25) N/-S(469.10) E/-W(-55.35)

#39 MD(3782.00) Inc(10.7) Azm(354.4) TVD(3733.41)
VS(-22.62) N/-S(485.98) E/-W(-57.94)

#40 MD(3878.00) Inc(10.9) Azm(353.4) TVD(3827.70)
VS(-23.24) N/-S(503.91) E/-W(-59.86)

#41 MD(3974.00) Inc(10.9) Azm(353.2) TVD(3921.95)
VS(-24.05) N/-S(521.99) E/-W(-61.99)

#42 MD(4070.00) Inc(10.5) Azm(353.1) TVD(4016.27)
VS(-24.89) N/-S(539.75) E/-W(-64.12)

#43 MD(4165.00) Inc(12.2) Azm(352.3) TVD(4109.40)
VS(-25.92) N/-S(558.36) E/-W(-66.50)

#44 MD(4261.00) Inc(11.7) Azm(353.0) TVD(4203.31)
VS(-27.02) N/-S(578.09) E/-W(-69.04)

#45 MD(4357.00) Inc(11.5) Azm(351.8) TVD(4297.36)
VS(-28.19) N/-S(597.21) E/-W(-71.59)

#46 MD(4452.00) Inc(12.7) Azm(353.2) TVD(4390.25)
VS(-29.35) N/-S(616.94) E/-W(-74.19)

#47 MD(4548.00) Inc(12.5) Azm(352.6) TVD(4483.94)
VS(-30.44) N/-S(637.70) E/-W(-76.79)

#48 MD(4643.00) Inc(12.3) Azm(352.6) TVD(4576.72)
VS(-31.60) N/-S(657.96) E/-W(-79.42)

#49 MD(4739.00) Inc(11.7) Azm(352.4) TVD(4670.62)
VS(-32.76) N/-S(677.74) E/-W(-82.02)

#50 MD(4835.00) Inc(11.4) Azm(352.1) TVD(4764.69)
VS(-33.96) N/-S(696.72) E/-W(-84.60)

#51 MD(4930.00) Inc(10.9) Azm(352.4) TVD(4857.90)
VS(-35.10) N/-S(714.90) E/-W(-87.06)

#52 MD(5026.00) Inc(10.4) Azm(351.9) TVD(4952.24)
VS(-36.23) N/-S(732.51) E/-W(-89.48)

#53 MD(5122.00) Inc(8.8) Azm(350.1) TVD(5046.88)
VS(-37.56) N/-S(748.40) E/-W(-91.96)

#54 MD(5217.00) Inc(8.5) Azm(348.4) TVD(5140.79)
VS(-39.20) N/-S(762.50) E/-W(-94.63)

#55 MD(5313.00) Inc(5.8) Azm(344.7) TVD(5236.04)
VS(-41.05) N/-S(774.12) E/-W(-97.33)

#56 MD(5409.00) Inc(3.9) Azm(337.4) TVD(5331.69)
VS(-43.02) N/-S(781.79) E/-W(-99.86)

#57 MD(5505.00) Inc(1.0) Azm(171.3) TVD(5427.63)
VS(-43.99) N/-S(783.99) E/-W(-100.99)

#58 MD(5600.00) Inc(0.8) Azm(145.4) TVD(5522.62)
VS(-43.60) N/-S(782.65) E/-W(-100.50)

#59 MD(5696.00) Inc(0.7) Azm(124.3) TVD(5618.61)
VS(-42.82) N/-S(781.79) E/-W(-99.66)

#60 MD(5792.00) Inc(0.4) Azm(151.1) TVD(5714.61)
VS(-42.21) N/-S(781.14) E/-W(-99.00)

#61 MD(5888.00) Inc(0.4) Azm(182.7) TVD(5810.60)
VS(-42.09) N/-S(780.52) E/-W(-98.84)

#62 MD(5984.00) Inc(0.4) Azm(170.5) TVD(5906.60)
VS(-42.10) N/-S(779.88) E/-W(-98.80)

#63 MD(6080.00) Inc(0.3) Azm(186.3) TVD(6002.60)
VS(-42.12) N/-S(779.25) E/-W(-98.77)

#64 MD(6175.00) Inc(0.2) Azm(178.0) TVD(6097.60)
VS(-42.18) N/-S(778.79) E/-W(-98.80)

#65 MD(6270.00) Inc(8.7) Azm(98.2) TVD(6192.23) VS(-35.13)
N/-S(777.58) E/-W(-91.64)

#66 MD(6366.00) Inc(13.4) Azm(94.5) TVD(6286.41)
VS(-16.97) N/-S(775.66) E/-W(-73.30)

#67 MD(6461.00) Inc(21.1) Azm(95.5) TVD(6377.07) VS(10.82)
N/-S(773.16) E/-W(-45.25)

#68 MD(6557.00) Inc(30.3) Azm(90.5) TVD(6463.51) VS(52.06)
N/-S(771.31) E/-W(-3.77)

#69 MD(6653.00) Inc(35.7) Azm(87.2) TVD(6544.01)
VS(104.22) N/-S(772.48) E/-W(48.44)

#70 MD(6749.00) Inc(41.8) Azm(91.3) TVD(6618.88)
VS(164.10) N/-S(773.14) E/-W(108.44)

#71 MD(6845.00) Inc(50.0) Azm(92.8) TVD(6685.65)
VS(232.56) N/-S(770.62) E/-W(177.25)

#72 MD(6940.00) Inc(57.2) Azm(89.4) TVD(6741.97)
VS(308.66) N/-S(769.26) E/-W(253.66)

#184 MD(17632.00) Inc(90.2) Azm(87.9) TVD(6780.44)
VS(10951.14) N/-S(787.66) E/-W(10922.78)