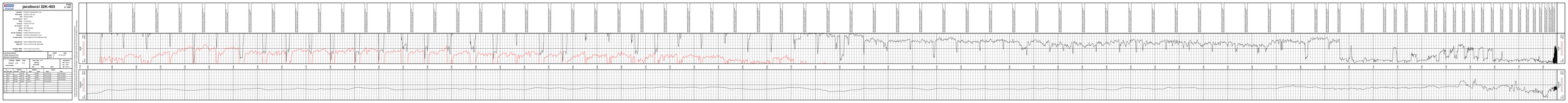

# jacobucci 32K-403

TVD
2":100'

**Company:** Petroleum Development Corp.
**Well Name:** Jacobucci 32K-403
**API:** 05123416900
**County/Parish:** WELD
**State:** COLORADO
**Country:** UNITED STATES
**Job number:** 121-265
**Field:** WATTENBERG
**Rig Id:** Ensign 121
**Survey Company:** Ensign Directional Services
**Operator:** Petroleum Development Corp.
**Company Man:** Dean Haight/Carl Gerrard/Brady Sharp
**Daylight DD:** Breven Williams/Pete Moriarty
**Night DD:** Dave Van Dorin/Tyler Batchelder
**Daylight MWD:** Drew Gross/Louie Ascione
**Night MWD:** Lucas Henkenius/Kim Surprise

**Log measurements:**
**Depth measured from:**
**Maximum temperature:**

**Depth**
**Start:** 0 ft
**End:** ft

**Date**
04-19-2016

**Casing** **Depth** **Size**
**Surface:** 1833 9 5/8
**Intermediate:**

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

**Elevations**
**KB:** 5061.5
**GL:** 5048
**DF:** 5061.5

| Run | Bit Size | Offsets Gamma | Offsets Survey | Depths Start | Depths End | Dates Start | Dates End |
|---|---|---|---|---|---|---|---|
| 1 | 12.25 |  | 52.98 | 0 | 1850 | 04-19-2016 | 04-20-2016 |
| 2 | 8.5 | 53.75 | 48.75 | 1850 | 7445 | 04-21-2016 | 04-22-2016 |
| 3 | 8.5 | 52.50 | 47.50 | 7445 | 8267 | 04-23-2016 | 04-24-2016 |
| 4 | 8.5 | 58.05 | 53.05 | 8267 | 13772 | 04-24-2016 | 04-28-2016 |
| 5 | 8.5 | 51.83 | 46.83 | 13772 |  | 04-29-2016 |  |
| 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.

#19 MD(1895.00) Inc(1.2) Azm(290.8) TVD(1894.64)
VS(-6.75) NS(6.59) EW(-12.96) TEMP(0.0)

#20 MD(1990.00) Inc(1.1) Azm(283.7) TVD(1989.62)
VS(-7.34) NS(7.16) EW(-14.77) TEMP(0.0)

#21 MD(2086.00) Inc(0.5) Azm(252.8) TVD(2085.61)
VS(-7.46) NS(7.26) EW(-16.07) TEMP(0.0)

#22 MD(2182.00) Inc(0.3) Azm(324.7) TVD(2181.61)
VS(-7.54) NS(7.34) EW(-16.61) TEMP(0.0)

#23 MD(2278.00) Inc(0.4) Azm(326.4) TVD(2277.61)
VS(-8.03) NS(7.82) EW(-16.94) TEMP(0.0)

#24 MD(2374.00) Inc(0.6) Azm(9.0) TVD(2373.61)
VS(-8.81) NS(8.60) EW(-17.05) TEMP(0.0)

#25 MD(2470.00) Inc(1.1) Azm(7.0) TVD(2469.60)
VS(-10.22) NS(10.01) EW(-16.86) TEMP(0.0)

#26 MD(2566.00) Inc(2.6) Azm(42.4) TVD(2565.55)
VS(-12.72) NS(12.53) EW(-15.28) TEMP(0.0)

#27 MD(2662.00) Inc(4.4) Azm(51.3) TVD(2661.36)
VS(-16.58) NS(16.44) EW(-10.94) TEMP(0.0)

#28 MD(2757.00) Inc(5.1) Azm(37.6) TVD(2756.04)
VS(-22.13) NS(22.07) EW(-5.52) TEMP(0.0)

#29 MD(2853.00) Inc(5.6) Azm(24.1) TVD(2851.62)
VS(-29.73) NS(29.72) EW(-1.00) TEMP(0.0)

#30 MD(2949.00) Inc(6.3) Azm(23.0) TVD(2947.11)
VS(-38.81) NS(38.85) EW(2.97) TEMP(0.0)

#31 MD(3044.00) Inc(6.6) Azm(35.5) TVD(3041.51)
VS(-47.99) NS(48.09) EW(8.18) TEMP(0.0)

#32 MD(3140.00) Inc(9.0) Azm(44.0) TVD(3136.62)
VS(-57.78) NS(57.99) EW(16.60) TEMP(0.0)

#33 MD(3236.00) Inc(9.5) Azm(37.6) TVD(3231.37)
VS(-69.33) NS(69.66) EW(26.65) TEMP(0.0)

#34 MD(3332.00) Inc(9.3) Azm(23.2) TVD(3326.10)
VS(-82.64) NS(83.07) EW(34.54) TEMP(0.0)

#35 MD(3428.00) Inc(9.5) Azm(28.1) TVD(3420.81)
VS(-96.67) NS(97.19) EW(41.33) TEMP(0.0)

#36 MD(3524.00) Inc(9.7) Azm(32.2) TVD(3515.47)
VS(-110.40) NS(111.02) EW(49.37) TEMP(0.0)

#37 MD(3619.00) Inc(7.7) Azm(25.7) TVD(3609.37)
VS(-122.82) NS(123.53) EW(56.39) TEMP(0.0)

#38 MD(3715.00) Inc(6.6) Azm(35.2) TVD(3704.62)
VS(-133.05) NS(133.84) EW(62.36) TEMP(0.0)

#39 MD(3811.00) Inc(7.5) Azm(46.9) TVD(3799.90)
VS(-141.75) NS(142.63) EW(70.12) TEMP(0.0)

#40 MD(3907.00) Inc(6.4) Azm(42.2) TVD(3895.20)
VS(-149.89) NS(150.87) EW(78.29) TEMP(0.0)

#41 MD(4003.00) Inc(5.5) Azm(41.7) TVD(3990.68)
VS(-157.20) NS(158.27) EW(84.94) TEMP(0.0)

#42 MD(4098.00) Inc(3.0) Azm(30.9) TVD(4085.41)
VS(-162.68) NS(163.80) EW(89.25) TEMP(0.0)

#43 MD(4194.00) Inc(1.2) Azm(345.8) TVD(4181.35)
VS(-165.80) NS(166.93) EW(90.29) TEMP(0.0)

#44 MD(4290.00) Inc(1.3) Azm(338.0) TVD(4277.33)
VS(-167.79) NS(168.92) EW(89.64) TEMP(0.0)

#45 MD(4386.00) Inc(1.2) Azm(329.1) TVD(4373.30)
VS(-169.68) NS(170.79) EW(88.71) TEMP(0.0)

#46 MD(4482.00) Inc(0.3) Azm(335.6) TVD(4469.29)
VS(-170.78) NS(171.88) EW(88.09) TEMP(0.0)

#47 MD(4578.00) Inc(0.5) Azm(283.7) TVD(4565.29)
VS(-171.11) NS(172.21) EW(87.58) TEMP(0.0)

#48 MD(4673.00) Inc(0.4) Azm(292.9) TVD(4660.29)
VS(-171.35) NS(172.44) EW(86.87) TEMP(0.0)

#49 MD(4769.00) Inc(0.5) Azm(314.7) TVD(4756.29)
VS(-171.78) NS(172.86) EW(86.27) TEMP(0.0)

#50 MD(4865.00) Inc(0.4) Azm(266.3) TVD(4852.28)
VS(-172.06) NS(173.13) EW(85.64) TEMP(0.0)

#51 MD(4960.00) Inc(1.7) Azm(221.7) TVD(4947.27)
VS(-171.00) NS(172.06) EW(84.37) TEMP(0.0)

#52 MD(5056.00) Inc(1.6) Azm(220.6) TVD(5043.23)
VS(-168.94) NS(169.98) EW(82.55) TEMP(0.0)

#53 MD(5152.00) Inc(1.4) Azm(241.5) TVD(5139.19)
VS(-167.39) NS(168.40) EW(80.65) TEMP(0.0)

#54 MD(5247.00) Inc(1.0) Azm(250.0) TVD(5234.17)
VS(-166.58) NS(167.56) EW(78.85) TEMP(0.0)

#55 MD(5343.00) Inc(0.4) Azm(146.6) TVD(5330.17)
VS(-166.02) NS(167.00) EW(78.24) TEMP(0.0)

#56 MD(5439.00) Inc(0.6) Azm(164.4) TVD(5426.16)
VS(-165.25) NS(166.23) EW(78.56) TEMP(0.0)

#57 MD(5535.00) Inc(0.8) Azm(179.3) TVD(5522.16)
VS(-164.09) NS(165.08) EW(78.71) TEMP(0.0)

#58 MD(5631.00) Inc(0.8) Azm(165.2) TVD(5618.15)
VS(-162.77) NS(163.76) EW(78.89) TEMP(0.0)

#59 MD(5726.00) Inc(1.0) Azm(170.0) TVD(5713.14)
VS(-161.31) NS(162.30) EW(79.20) TEMP(0.0)

#60 MD(5822.00) Inc(0.8) Azm(174.6) TVD(5809.12)
VS(-159.82) NS(160.81) EW(79.41) TEMP(0.0)

#61 MD(5918.00) Inc(1.1) Azm(165.4) TVD(5905.11)
VS(-158.25) NS(159.25) EW(79.70) TEMP(0.0)

#62 MD(6014.00) Inc(0.7) Azm(150.1) TVD(6001.10)
VS(-156.85) NS(157.85) EW(80.23) TEMP(0.0)

#63 MD(6110.00) Inc(0.3) Azm(129.2) TVD(6097.09)
VS(-156.17) NS(157.19) EW(80.72) TEMP(0.0)

#64 MD(6206.00) Inc(0.1) Azm(99.3) TVD(6193.09)
VS(-156.00) NS(157.01) EW(80.99) TEMP(0.0)

#65 MD(6301.00) Inc(0.4) Azm(234.3) TVD(6288.09)
VS(-155.79) NS(156.81) EW(80.81) TEMP(0.0)

#66 MD(6397.00) Inc(0.2) Azm(350.3) TVD(6384.09)
VS(-155.77) NS(156.78) EW(80.50) TEMP(0.0)

#67 MD(6493.00) Inc(0.6) Azm(330.7) TVD(6480.09)
VS(-156.37) NS(157.38) EW(80.23) TEMP(149.3)

#68 MD(6589.00) Inc(0.9) Azm(358.6) TVD(6576.08)
VS(-157.57) NS(158.57) EW(79.97) TEMP(149.3)

#69 MD(6685.00) Inc(0.7) Azm(349.1) TVD(6672.07)
VS(-158.90) NS(159.90) EW(79.84) TEMP(149.3)

#70 MD(6781.00) Inc(1.1) Azm(9.1) TVD(6768.06)
VS(-160.39) NS(161.39) EW(79.87) TEMP(149.3)

#71 MD(6877.00) Inc(1.1) Azm(83.2) TVD(6864.05)
VS(-161.39) NS(162.41) EW(80.93) TEMP(149.3)

#72 MD(6924.00) Inc(1.1) Azm(69.8) TVD(6911.04)
VS(-161.59) NS(162.62) EW(81.80) TEMP(164.1)

#73 MD(6972.00) Inc(1.2) Azm(115.0) TVD(6959.03)
VS(-161.53) NS(162.56) EW(82.69) TEMP(149.3)

#74 MD(7068.00) Inc(8.0) Azm(175.3) TVD(7054.69)
VS(-154.41) NS(155.47) EW(84.15) TEMP(149.3)

#75 MD(7163.00) Inc(19.4) Azm(179.3) TVD(7146.84)
VS(-131.97) NS(133.03) EW(84.89) TEMP(149.3)

#76 MD(7210.00) Inc(22.2) Azm(177.2) TVD(7190.77)
VS(-115.29) NS(116.35) EW(85.42) TEMP(149.3)

#77 MD(7259.00) Inc(26.5) Azm(181.2) TVD(7235.40)
VS(-95.10) NS(96.17) EW(85.64) TEMP(149.3)

#78 MD(7355.00) Inc(34.8) Azm(184.8) TVD(7317.93)
VS(-46.34) NS(47.37) EW(82.90) TEMP(149.3)

#79 MD(7403.00) Inc(35.8) Azm(183.9) TVD(7357.10)
VS(-18.71) NS(19.71) EW(80.79) TEMP(178.9)

#80 MD(7450.00) Inc(36.1) Azm(181.6) TVD(7395.15)
VS(8.83) NS(-7.85) EW(79.47) TEMP(149.3)

#81 MD(7499.00) Inc(36.3) Azm(178.4) TVD(7434.69)
VS(37.76) NS(-36.78) EW(79.48) TEMP(149.3)

#82 MD(7546.00) Inc(36.1) Azm(178.4) TVD(7472.62)
VS(65.52) NS(-64.53) EW(80.25) TEMP(149.3)

#83 MD(7595.00) Inc(35.7) Azm(177.4) TVD(7512.31)
VS(94.24) NS(-93.24) EW(81.30) TEMP(149.3)

#84 MD(7642.00) Inc(35.0) Azm(173.5) TVD(7550.65)
VS(121.36) NS(-120.33) EW(83.45) TEMP(149.3)

#85 MD(7691.00) Inc(34.2) Azm(175.1) TVD(7590.99)
VS(149.07) NS(-148.02) EW(86.22) TEMP(149.3)

#86 MD(7738.00) Inc(35.3) Azm(175.8) TVD(7629.60)
VS(175.80) NS(-174.72) EW(88.34) TEMP(149.3)

#87 MD(7786.00) Inc(40.1) Azm(176.0) TVD(7667.57)
VS(205.10) NS(-203.99) EW(90.44) TEMP(149.3)

#88 MD(7834.00) Inc(44.6) Azm(178.1) TVD(7703.04)
VS(237.40) NS(-236.27) EW(92.07) TEMP(149.3)

#89 MD(7882.00) Inc(50.0) Azm(180.2) TVD(7735.58)
VS(272.66) NS(-271.53) EW(92.57) TEMP(149.3)

#90 MD(7930.00) Inc(55.8) Azm(179.8) TVD(7764.52)
VS(310.92) NS(-309.80) EW(92.57) TEMP(149.3)

#91 MD(7978.00) Inc(59.9) Azm(177.7) TVD(7790.06)
VS(351.55) NS(-350.41) EW(93.48) TEMP(149.3)

#92 MD(8026.00) Inc(66.0) Azm(178.3) TVD(7811.88)
VS(394.26) NS(-393.12) EW(94.96) TEMP(149.3)

#93 MD(8074.00) Inc(71.1) Azm(178.6) TVD(7829.43)
VS(438.92) NS(-437.76) EW(96.17) TEMP(149.3)

#159 MD(13901.00) Inc(92.2) Azm(179.8) TVD(7843.42)
VS(6261.08) NS(-6260.09) EW(118.36) TEMP(193.7)