

BAYSWATER E & P, LLC

| | | | |
|--------------|-----------------|----------|-----------------------------|
| Location | Weld County, CO | Slot | KTC Farms D-35-36HN |
| Field | WATTENBERG | Well | W KTC Farms D-35-36HN |
| Installation | KTC Farms Pad | Wellbore | W KTC Farms D-35-36HN (PWB) |

East (Feet) ->

N
GRID

-3200 -1600 0 1600 3200 4800 6400 8000 9600 11200
Scale 1 cm = 800 ft

Surface 0.00 N 0.00 E

KTC Farms D-35-36HN - BH

KTC Farms D-35-36HN - EP

1600
Scale 1 cm = 800 ft
0
-1600
-3200
North (Feet)

Nov-21-2017

EMM-2015 [2000.0-2020.0] Dip: 66.99 deg Field: 52425.0 nT
Lat: N40 32 17.1492 Long: W104 45 9.2160 Elev: 4861.00 ft

Magnetic North is 8.14 deg East of True North

GRID North is 0.48 deg East of True North

To correct azimuth from True to GRID subtract 0.48 deg

To correct azimuth from Magnetic to GRID add 7.66 deg

Created by admin

Date plotted 22-Nov-2017

Plot reference is W KTC Farms D-35-36HN (PWB).

Ref wellpath is W KTC Farms D-35-36HN (PWP#1).

Coordinates are in Feet reference KTC Farms D-35-36HN.

True Vertical Depths are reference Rig Datum.

Measured Depths are reference Rig Datum.

Rig Datum: Planned Datum #1

Rig Datum to Mean Sea Level: 4886.00 ft.

Plot North is aligned to GRID North.

Tie on - 0.00 Inc, 25.00 MD, 25.00 TVD, 0.00 VS

3DS Kick off Point - 0.00 Inc, 1025.00 MD, 1025.00 TVD, 0.00 VS

End of Build - 8.23 Inc, 1436.56 MD, 1435.15 TVD, -22.81 VS

WELL PROFILE DATA

| Point | MD | Inc | Azi | TVD | North | East | deg/100ft | V. Sect |
|-------------------------|----------|-------|--------|---------|----------|-----------|-----------|---------|
| Tie on | 25.00 | 0.00 | 0.00 | 25.00 | S 0.00 | W 0.00 | | 0.00 |
| KOP | 1025.00 | 0.00 | 232.34 | 1025.00 | S 0.00 | W 0.00 | 0.00 | 0.00 |
| End of Build | 1436.56 | 8.23 | 232.34 | 1435.15 | S 18.03 | W 23.36 | 2.00 | -22.81 |
| End of Hold | 6624.20 | 8.23 | 232.34 | 6569.35 | S 471.81 | W 611.32 | 0.00 | -596.90 |
| Target KTC Fa...N - EP | 7592.74 | 90.23 | 88.70 | 7206.00 | S 513.67 | W 38.76 | 10.00 | -23.34 |
| T.D. & Target KTC... BH | 17369.01 | 90.23 | 88.70 | 7166.00 | S 292.01 | E 9734.92 | 0.00 | 9739.29 |

End of Hold - 8.23 Inc, 6624.20 MD, 6569.35 TVD, -596.90 VS

KTC Farms D-35-36HN - EP

S/C Kick off Point - 90.23 Inc, 7592.74 MD, 7206.00 TVD, -23.34 VS

KTC Farms D-35-36HN - BH

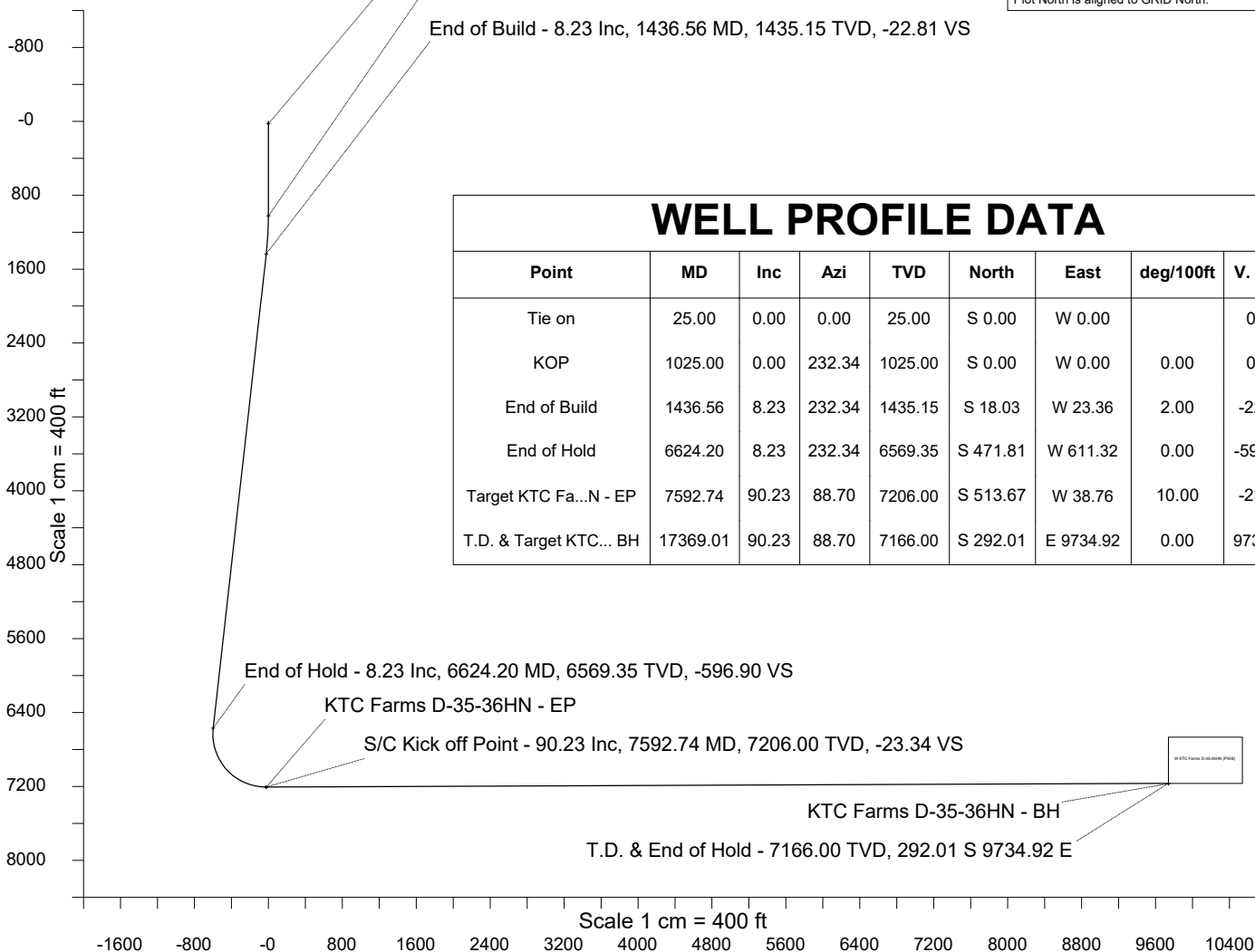
T.D. & End of Hold - 7166.00 TVD, 292.01 S 9734.92 E

Scale 1 cm = 400 ft

Vertical Section (Feet) ->

Azimuth 91.72 with reference 0.00 N, 0.00 E from KTC Farms D-35-36HN

<- True Vertical Depth (Feet)





SYS DRILL
Well Design Combined Report
Wellbore: W KTC Farms D-35-36HN (PWB)



Wellhead Details

| Name | Latitude | Longitude | Northing | Easting | North | East | Slot Elevation Above Ground |
|---------------------|-------------|---------------|--------------|--------------|--------|-------|-----------------------------|
| KTC Farms D-35-36HN | 40.53793200 | -104.75255700 | 1439684.9434 | 3207744.6058 | 60.10S | 1.34E | 0.00 |

Declination

| Date | Source | Time |
|-------------|--------------------------|-------|
| Nov-21-2017 | EMM-2015 [2000.0-2020.0] | 10:51 |

Installation Details

| Name | Installation Position (Latitude) | Installation Position (Longitude) | Northing | Easting | Coord System Name | North Alignment |
|---------------|----------------------------------|-----------------------------------|--------------|--------------|--|-----------------|
| KTC Farms Pad | 40.53809700 | -104.75256000 | 1439745.0452 | 3207743.2653 | CO83-NF on NORTH AMERICAN DATUM 1983 datum | Grid |

Summary Wellpath

| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | Northing | Easting |
|----------|----------|----------|---------|-----------|----------|--------------------|----------------------|------------|------------|
| 25.00 | 0.00 | 0.000 | 25.00 | 0.00N | 0.00E | | 0.00 | 1439684.94 | 3207744.61 |
| 1025.00 | 0.00 | 232.340 | 1025.00 | 0.00N | 0.00E | ==> | 0.00 | 1439684.94 | 3207744.61 |
| 1436.56 | 8.23 | 232.340 | 1435.15 | 18.03S | 23.36W | 2.00 | -22.81 | 1439666.91 | 3207721.24 |
| 6624.20 | 8.23 | 232.340 | 6569.35 | 471.81S | 611.32W | ==> | -596.90 | 1439213.14 | 3207133.30 |
| 7592.74 | 90.23 | 88.700 | 7206.00 | 513.67S | 38.76W | 10.00 | -23.34 | 1439171.29 | 3207705.85 |
| 17369.01 | 90.23 | 88.700 | 7166.00 | 292.01S | 9734.92E | ==> | 9739.29 | 1439392.94 | 3217479.20 |

Interpolated Wellpath

| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | All Station Comments |
|---------|----------|----------|---------|-----------|----------|--------------------|----------------------|----------------------|
| 0.00 | 0.00 | 0.000 | 0.00 | 0.00N | 0.00E | | 0.00 | Rig Datum |
| 25.00 | 0.00 | 0.000 | 25.00 | 0.00N | 0.00E | ==> | 0.00 | Slot Datum |
| 100.00 | 0.00 | 0.000 | 100.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 200.00 | 0.00 | 0.000 | 200.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 300.00 | 0.00 | 0.000 | 300.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 400.00 | 0.00 | 0.000 | 400.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 500.00 | 0.00 | 0.000 | 500.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 600.00 | 0.00 | 0.000 | 600.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 700.00 | 0.00 | 0.000 | 700.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 800.00 | 0.00 | 0.000 | 800.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 900.00 | 0.00 | 0.000 | 900.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 1000.00 | 0.00 | 0.000 | 1000.00 | 0.00N | 0.00E | ==> | 0.00 | |
| 1100.00 | 1.50 | 232.340 | 1099.99 | 0.60S | 0.78W | 2.00 | -0.76 | |
| 1200.00 | 3.50 | 232.340 | 1199.89 | 3.26S | 4.23W | 2.00 | -4.13 | |
| 1300.00 | 5.50 | 232.340 | 1299.58 | 8.06S | 10.44W | 2.00 | -10.19 | |
| 1400.00 | 7.50 | 232.340 | 1398.93 | 14.97S | 19.40W | 2.00 | -18.94 | |
| 1500.00 | 8.23 | 232.340 | 1497.93 | 23.58S | 30.55W | ==> | -29.83 | |
| 1600.00 | 8.23 | 232.340 | 1596.90 | 32.33S | 41.89W | ==> | -40.90 | |
| 1700.00 | 8.23 | 232.340 | 1695.87 | 41.08S | 53.22W | ==> | -51.97 | |
| 1800.00 | 8.23 | 232.340 | 1794.84 | 49.82S | 64.55W | ==> | -63.03 | |
| 1900.00 | 8.23 | 232.340 | 1893.81 | 58.57S | 75.89W | ==> | -74.10 | |
| 2000.00 | 8.23 | 232.340 | 1992.78 | 67.32S | 87.22W | ==> | -85.16 | |
| 2100.00 | 8.23 | 232.340 | 2091.75 | 76.06S | 98.56W | ==> | -96.23 | |
| 2200.00 | 8.23 | 232.340 | 2190.72 | 84.81S | 109.89W | ==> | -107.30 | |
| 2300.00 | 8.23 | 232.340 | 2289.69 | 93.56S | 121.22W | ==> | -118.36 | |
| 2400.00 | 8.23 | 232.340 | 2388.66 | 102.31S | 132.56W | ==> | -129.43 | |
| 2500.00 | 8.23 | 232.340 | 2487.63 | 111.05S | 143.89W | ==> | -140.50 | |
| 2600.00 | 8.23 | 232.340 | 2586.60 | 119.80S | 155.23W | ==> | -151.56 | |
| 2700.00 | 8.23 | 232.340 | 2685.57 | 128.55S | 166.56W | ==> | -162.63 | |
| 2800.00 | 8.23 | 232.340 | 2784.54 | 137.30S | 177.89W | ==> | -173.70 | |
| 2900.00 | 8.23 | 232.340 | 2883.51 | 146.04S | 189.23W | ==> | -184.76 | |
| 3000.00 | 8.23 | 232.340 | 2982.48 | 154.79S | 200.56W | ==> | -195.83 | |

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4886.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 91.720 degrees
Bottom hole distance is 9739.29 Feet on azimuth 91.72 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Microsoft
Date Printed: 22-Nov-2017



SYSDRILL
Well Design Combined Report
Wellbore: W KTC Farms D-35-36HN (PWB)



| Interpolated Wellpath | | | | | | | | |
|-----------------------|----------|----------|---------|-----------|----------|-----------------------|-------------------------|-------------------------|
| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | All Station Comments |
| 3100.00 | 8.23 | 232.340 | 3081.45 | 163.54S | 211.90W | ==> | -206.90 | |
| 3200.00 | 8.23 | 232.340 | 3180.42 | 172.29S | 223.23W | ==> | -217.96 | |
| 3300.00 | 8.23 | 232.340 | 3279.39 | 181.03S | 234.56W | ==> | -229.03 | |
| 3400.00 | 8.23 | 232.340 | 3378.36 | 189.78S | 245.90W | ==> | -240.10 | |
| 3500.00 | 8.23 | 232.340 | 3477.33 | 198.53S | 257.23W | ==> | -251.16 | |
| 3600.00 | 8.23 | 232.340 | 3576.30 | 207.28S | 268.56W | ==> | -262.23 | |
| 3700.00 | 8.23 | 232.340 | 3675.27 | 216.02S | 279.90W | ==> | -273.30 | |
| 3800.00 | 8.23 | 232.340 | 3774.24 | 224.77S | 291.23W | ==> | -284.36 | |
| 3900.00 | 8.23 | 232.340 | 3873.21 | 233.52S | 302.57W | ==> | -295.43 | |
| 4000.00 | 8.23 | 232.340 | 3972.18 | 242.27S | 313.90W | ==> | -306.50 | |
| 4100.00 | 8.23 | 232.340 | 4071.15 | 251.01S | 325.23W | ==> | -317.56 | |
| 4200.00 | 8.23 | 232.340 | 4170.12 | 259.76S | 336.57W | ==> | -328.63 | |
| 4300.00 | 8.23 | 232.340 | 4269.09 | 268.51S | 347.90W | ==> | -339.69 | |
| 4400.00 | 8.23 | 232.340 | 4368.06 | 277.26S | 359.24W | ==> | -350.76 | |
| 4500.00 | 8.23 | 232.340 | 4467.03 | 286.00S | 370.57W | ==> | -361.83 | |
| 4600.00 | 8.23 | 232.340 | 4566.00 | 294.75S | 381.90W | ==> | -372.89 | |
| 4700.00 | 8.23 | 232.340 | 4664.97 | 303.50S | 393.24W | ==> | -383.96 | |
| 4800.00 | 8.23 | 232.340 | 4763.94 | 312.24S | 404.57W | ==> | -395.03 | |
| 4900.00 | 8.23 | 232.340 | 4862.91 | 320.99S | 415.91W | ==> | -406.09 | |
| 5000.00 | 8.23 | 232.340 | 4961.88 | 329.74S | 427.24W | ==> | -417.16 | |
| 5100.00 | 8.23 | 232.340 | 5060.85 | 338.49S | 438.57W | ==> | -428.23 | |
| 5200.00 | 8.23 | 232.340 | 5159.82 | 347.23S | 449.91W | ==> | -439.29 | |
| 5300.00 | 8.23 | 232.340 | 5258.79 | 355.98S | 461.24W | ==> | -450.36 | |
| 5400.00 | 8.23 | 232.340 | 5357.76 | 364.73S | 472.57W | ==> | -461.43 | |
| 5500.00 | 8.23 | 232.340 | 5456.73 | 373.48S | 483.91W | ==> | -472.49 | |
| 5600.00 | 8.23 | 232.340 | 5555.70 | 382.22S | 495.24W | ==> | -483.56 | |
| 5700.00 | 8.23 | 232.340 | 5654.66 | 390.97S | 506.58W | ==> | -494.63 | |
| 5800.00 | 8.23 | 232.340 | 5753.63 | 399.72S | 517.91W | ==> | -505.69 | |
| 5900.00 | 8.23 | 232.340 | 5852.60 | 408.47S | 529.24W | ==> | -516.76 | |
| 6000.00 | 8.23 | 232.340 | 5951.57 | 417.21S | 540.58W | ==> | -527.83 | |
| 6100.00 | 8.23 | 232.340 | 6050.54 | 425.96S | 551.91W | ==> | -538.89 | |
| 6200.00 | 8.23 | 232.340 | 6149.51 | 434.71S | 563.25W | ==> | -549.96 | |
| 6300.00 | 8.23 | 232.340 | 6248.48 | 443.46S | 574.58W | ==> | -561.03 | |
| 6400.00 | 8.23 | 232.340 | 6347.45 | 452.20S | 585.91W | ==> | -572.09 | |
| 6500.00 | 8.23 | 232.340 | 6446.42 | 460.95S | 597.25W | ==> | -583.16 | |
| 6600.00 | 8.23 | 232.340 | 6545.39 | 469.70S | 608.58W | ==> | -594.22 | |
| 6700.00 | 5.00 | 167.620 | 6644.72 | 478.36S | 614.92W | 10.00 | -600.30 | |
| 6800.00 | 12.00 | 112.540 | 6743.69 | 486.62S | 604.36W | 10.00 | -589.50 | |
| 6900.00 | 21.50 | 101.300 | 6839.36 | 494.22S | 576.72W | 10.00 | -561.64 | |
| 7000.00 | 31.31 | 96.830 | 6928.83 | 500.92S | 532.84W | 10.00 | -517.58 | |
| 7100.00 | 41.20 | 94.350 | 7009.37 | 506.52S | 474.05W | 10.00 | -458.65 | |
| 7200.00 | 51.13 | 92.690 | 7078.54 | 510.85S | 402.14W | 10.00 | -386.64 | |
| 7300.00 | 61.08 | 91.440 | 7134.24 | 513.78S | 319.29W | 10.00 | -303.74 | |
| 7400.00 | 71.03 | 90.410 | 7174.78 | 515.22S | 228.03W | 10.00 | -212.48 | |
| 7500.00 | 80.99 | 89.500 | 7198.92 | 515.13S | 131.11W | 10.00 | -115.61 | |
| 7600.00 | 90.23 | 88.700 | 7205.97 | 513.51S | 31.50W | ==> | -16.09 | |
| 7700.00 | 90.23 | 88.700 | 7205.56 | 511.24S | 68.47E | ==> | 83.77 | |
| 7800.00 | 90.23 | 88.700 | 7205.15 | 508.97S | 168.45E | ==> | 183.63 | |
| 7900.00 | 90.23 | 88.700 | 7204.74 | 506.71S | 268.42E | ==> | 283.49 | |
| 8000.00 | 90.23 | 88.700 | 7204.33 | 504.44S | 368.39E | ==> | 383.35 | |
| 8100.00 | 90.23 | 88.700 | 7203.92 | 502.17S | 468.37E | ==> | 483.21 | |
| 8200.00 | 90.23 | 88.700 | 7203.52 | 499.90S | 568.34E | ==> | 583.07 | |
| 8300.00 | 90.23 | 88.700 | 7203.11 | 497.64S | 668.31E | ==> | 682.93 | |
| 8400.00 | 90.23 | 88.700 | 7202.70 | 495.37S | 768.29E | ==> | 782.80 | |
| 8500.00 | 90.23 | 88.700 | 7202.29 | 493.10S | 868.26E | ==> | 882.66 | |
| 8600.00 | 90.23 | 88.700 | 7201.88 | 490.84S | 968.23E | ==> | 982.52 | |
| 8700.00 | 90.23 | 88.700 | 7201.47 | 488.57S | 1068.21E | ==> | 1082.38 | |
| 8800.00 | 90.23 | 88.700 | 7201.06 | 486.30S | 1168.18E | ==> | 1182.24 | |
| 8900.00 | 90.23 | 88.700 | 7200.65 | 484.03S | 1268.16E | ==> | 1282.10 | |

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4886.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 91.720 degrees
Bottom hole distance is 9739.29 Feet on azimuth 91.72 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Microsoft
Date Printed: 22-Nov-2017



SYS DRILL
Well Design Combined Report
Wellbore: W KTC Farms D-35-36HN (PWB)



| Interpolated Wellpath | | | | | | | | |
|-----------------------|----------|----------|---------|-----------|----------|-----------------------|-------------------------|-------------------------|
| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | All Station Comments |
| 9000.00 | 90.23 | 88.700 | 7200.24 | 481.77S | 1368.13E | ==> | 1381.96 | |
| 9100.00 | 90.23 | 88.700 | 7199.83 | 479.50S | 1468.10E | ==> | 1481.82 | |
| 9200.00 | 90.23 | 88.700 | 7199.42 | 477.23S | 1568.08E | ==> | 1581.68 | |
| 9300.00 | 90.23 | 88.700 | 7199.01 | 474.96S | 1668.05E | ==> | 1681.54 | |
| 9400.00 | 90.23 | 88.700 | 7198.61 | 472.70S | 1768.02E | ==> | 1781.40 | |
| 9500.00 | 90.23 | 88.700 | 7198.20 | 470.43S | 1868.00E | ==> | 1881.26 | |
| 9600.00 | 90.23 | 88.700 | 7197.79 | 468.16S | 1967.97E | ==> | 1981.12 | |
| 9700.00 | 90.23 | 88.700 | 7197.38 | 465.89S | 2067.94E | ==> | 2080.98 | |
| 9800.00 | 90.23 | 88.700 | 7196.97 | 463.63S | 2167.92E | ==> | 2180.84 | |
| 9900.00 | 90.23 | 88.700 | 7196.56 | 461.36S | 2267.89E | ==> | 2280.70 | |
| 10000.00 | 90.23 | 88.700 | 7196.15 | 459.09S | 2367.86E | ==> | 2380.56 | |
| 10100.00 | 90.23 | 88.700 | 7195.74 | 456.83S | 2467.84E | ==> | 2480.42 | |
| 10200.00 | 90.23 | 88.700 | 7195.33 | 454.56S | 2567.81E | ==> | 2580.28 | |
| 10300.00 | 90.23 | 88.700 | 7194.92 | 452.29S | 2667.78E | ==> | 2680.15 | |
| 10400.00 | 90.23 | 88.700 | 7194.51 | 450.02S | 2767.76E | ==> | 2780.01 | |
| 10500.00 | 90.23 | 88.700 | 7194.10 | 447.76S | 2867.73E | ==> | 2879.87 | |
| 10600.00 | 90.23 | 88.700 | 7193.70 | 445.49S | 2967.70E | ==> | 2979.73 | |
| 10700.00 | 90.23 | 88.700 | 7193.29 | 443.22S | 3067.68E | ==> | 3079.59 | |
| 10800.00 | 90.23 | 88.700 | 7192.88 | 440.95S | 3167.65E | ==> | 3179.45 | |
| 10900.00 | 90.23 | 88.700 | 7192.47 | 438.69S | 3267.62E | ==> | 3279.31 | |
| 11000.00 | 90.23 | 88.700 | 7192.06 | 436.42S | 3367.60E | ==> | 3379.17 | |
| 11100.00 | 90.23 | 88.700 | 7191.65 | 434.15S | 3467.57E | ==> | 3479.03 | |
| 11200.00 | 90.23 | 88.700 | 7191.24 | 431.88S | 3567.54E | ==> | 3578.89 | |
| 11300.00 | 90.23 | 88.700 | 7190.83 | 429.62S | 3667.52E | ==> | 3678.75 | |
| 11400.00 | 90.23 | 88.700 | 7190.42 | 427.35S | 3767.49E | ==> | 3778.61 | |
| 11500.00 | 90.23 | 88.700 | 7190.01 | 425.08S | 3867.47E | ==> | 3878.47 | |
| 11600.00 | 90.23 | 88.700 | 7189.60 | 422.82S | 3967.44E | ==> | 3978.33 | |
| 11700.00 | 90.23 | 88.700 | 7189.19 | 420.55S | 4067.41E | ==> | 4078.19 | |
| 11800.00 | 90.23 | 88.700 | 7188.79 | 418.28S | 4167.39E | ==> | 4178.05 | |
| 11900.00 | 90.23 | 88.700 | 7188.38 | 416.01S | 4267.36E | ==> | 4277.91 | |
| 12000.00 | 90.23 | 88.700 | 7187.97 | 413.75S | 4367.33E | ==> | 4377.77 | |
| 12100.00 | 90.23 | 88.700 | 7187.56 | 411.48S | 4467.31E | ==> | 4477.63 | |
| 12200.00 | 90.23 | 88.700 | 7187.15 | 409.21S | 4567.28E | ==> | 4577.50 | |
| 12300.00 | 90.23 | 88.700 | 7186.74 | 406.94S | 4667.25E | ==> | 4677.36 | |
| 12400.00 | 90.23 | 88.700 | 7186.33 | 404.68S | 4767.23E | ==> | 4777.22 | |
| 12500.00 | 90.23 | 88.700 | 7185.92 | 402.41S | 4867.20E | ==> | 4877.08 | |
| 12600.00 | 90.23 | 88.700 | 7185.51 | 400.14S | 4967.17E | ==> | 4976.94 | |
| 12700.00 | 90.23 | 88.700 | 7185.10 | 397.87S | 5067.15E | ==> | 5076.80 | |
| 12800.00 | 90.23 | 88.700 | 7184.69 | 395.61S | 5167.12E | ==> | 5176.66 | |
| 12900.00 | 90.23 | 88.700 | 7184.29 | 393.34S | 5267.09E | ==> | 5276.52 | |
| 13000.00 | 90.23 | 88.700 | 7183.88 | 391.07S | 5367.07E | ==> | 5376.38 | |
| 13100.00 | 90.23 | 88.700 | 7183.47 | 388.81S | 5467.04E | ==> | 5476.24 | |
| 13200.00 | 90.23 | 88.700 | 7183.06 | 386.54S | 5567.01E | ==> | 5576.10 | |
| 13300.00 | 90.23 | 88.700 | 7182.65 | 384.27S | 5666.99E | ==> | 5675.96 | |
| 13400.00 | 90.23 | 88.700 | 7182.24 | 382.00S | 5766.96E | ==> | 5775.82 | |
| 13500.00 | 90.23 | 88.700 | 7181.83 | 379.74S | 5866.93E | ==> | 5875.68 | |
| 13600.00 | 90.23 | 88.700 | 7181.42 | 377.47S | 5966.91E | ==> | 5975.54 | |
| 13700.00 | 90.23 | 88.700 | 7181.01 | 375.20S | 6066.88E | ==> | 6075.40 | |
| 13800.00 | 90.23 | 88.700 | 7180.60 | 372.93S | 6166.85E | ==> | 6175.26 | |
| 13900.00 | 90.23 | 88.700 | 7180.19 | 370.67S | 6266.83E | ==> | 6275.12 | |
| 14000.00 | 90.23 | 88.700 | 7179.78 | 368.40S | 6366.80E | ==> | 6374.98 | |
| 14100.00 | 90.23 | 88.700 | 7179.38 | 366.13S | 6466.77E | ==> | 6474.85 | |
| 14200.00 | 90.23 | 88.700 | 7178.97 | 363.86S | 6566.75E | ==> | 6574.71 | |
| 14300.00 | 90.23 | 88.700 | 7178.56 | 361.60S | 6666.72E | ==> | 6674.57 | |
| 14400.00 | 90.23 | 88.700 | 7178.15 | 359.33S | 6766.70E | ==> | 6774.43 | |
| 14500.00 | 90.23 | 88.700 | 7177.74 | 357.06S | 6866.67E | ==> | 6874.29 | |
| 14600.00 | 90.23 | 88.700 | 7177.33 | 354.80S | 6966.64E | ==> | 6974.15 | |
| 14700.00 | 90.23 | 88.700 | 7176.92 | 352.53S | 7066.62E | ==> | 7074.01 | |
| 14800.00 | 90.23 | 88.700 | 7176.51 | 350.26S | 7166.59E | ==> | 7173.87 | |

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Vertical Section is from 0.00N 0.00E on azimuth 91.720 degrees
Bottom hole distance is 9739.29 Feet on azimuth 91.72 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by Microsoft
Date Printed: 22-Nov-2017



SYS DRILL
Well Design Combined Report
Wellbore: W KTC Farms D-35-36HN (PWB)



| Interpolated Wellpath | | | | | | | | |
|-----------------------|----------|----------|---------|-----------|----------|-----------------------|-------------------------|-------------------------|
| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] | All Station Comments |
| 14900.00 | 90.23 | 88.700 | 7176.10 | 347.99S | 7266.56E | ==> | 7273.73 | |
| 15000.00 | 90.23 | 88.700 | 7175.69 | 345.73S | 7366.54E | ==> | 7373.59 | |
| 15100.00 | 90.23 | 88.700 | 7175.28 | 343.46S | 7466.51E | ==> | 7473.45 | |
| 15200.00 | 90.23 | 88.700 | 7174.87 | 341.19S | 7566.48E | ==> | 7573.31 | |
| 15300.00 | 90.23 | 88.700 | 7174.47 | 338.92S | 7666.46E | ==> | 7673.17 | |
| 15400.00 | 90.23 | 88.700 | 7174.06 | 336.66S | 7766.43E | ==> | 7773.03 | |
| 15500.00 | 90.23 | 88.700 | 7173.65 | 334.39S | 7866.40E | ==> | 7872.89 | |
| 15600.00 | 90.23 | 88.700 | 7173.24 | 332.12S | 7966.38E | ==> | 7972.75 | |
| 15700.00 | 90.23 | 88.700 | 7172.83 | 329.85S | 8066.35E | ==> | 8072.61 | |
| 15800.00 | 90.23 | 88.700 | 7172.42 | 327.59S | 8166.32E | ==> | 8172.47 | |
| 15900.00 | 90.23 | 88.700 | 7172.01 | 325.32S | 8266.30E | ==> | 8272.33 | |
| 16000.00 | 90.23 | 88.700 | 7171.60 | 323.05S | 8366.27E | ==> | 8372.20 | |
| 16100.00 | 90.23 | 88.700 | 7171.19 | 320.79S | 8466.24E | ==> | 8472.06 | |
| 16200.00 | 90.23 | 88.700 | 7170.78 | 318.52S | 8566.22E | ==> | 8571.92 | |
| 16300.00 | 90.23 | 88.700 | 7170.37 | 316.25S | 8666.19E | ==> | 8671.78 | |
| 16400.00 | 90.23 | 88.700 | 7169.96 | 313.98S | 8766.16E | ==> | 8771.64 | |
| 16500.00 | 90.23 | 88.700 | 7169.56 | 311.72S | 8866.14E | ==> | 8871.50 | |
| 16600.00 | 90.23 | 88.700 | 7169.15 | 309.45S | 8966.11E | ==> | 8971.36 | |
| 16700.00 | 90.23 | 88.700 | 7168.74 | 307.18S | 9066.08E | ==> | 9071.22 | |
| 16800.00 | 90.23 | 88.700 | 7168.33 | 304.91S | 9166.06E | ==> | 9171.08 | |
| 16900.00 | 90.23 | 88.700 | 7167.92 | 302.65S | 9266.03E | ==> | 9270.94 | |
| 17000.00 | 90.23 | 88.700 | 7167.51 | 300.38S | 9366.01E | ==> | 9370.80 | |
| 17100.00 | 90.23 | 88.700 | 7167.10 | 298.11S | 9465.98E | ==> | 9470.66 | |
| 17200.00 | 90.23 | 88.700 | 7166.69 | 295.85S | 9565.95E | ==> | 9570.52 | |
| 17300.00 | 90.23 | 88.700 | 7166.28 | 293.58S | 9665.93E | ==> | 9670.38 | |
| 17369.01 | 90.23 | 88.700 | 7166.00 | 292.01S | 9734.92E | ==> | 9739.29 | |

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SYSDRILL
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| Targets | | | | | | | |
|-----------------------------|-----------|----------|---------|-------------|---------------|------------|------------|
| Name | North[ft] | East[ft] | TVD[ft] | Latitude | Longitude | Northing | Easting |
| KTC Farms D-35-36HN - EP | 513.67S | 38.76W | 7206.00 | 40.53652300 | -104.75271200 | 1439171.29 | 3207705.85 |
| KTC Farms D-35-36HN - BH | 292.01S | 9734.92E | 7166.00 | 40.53690000 | -104.71754400 | 1439392.94 | 3217479.20 |

| Survey Tool Program | | | | | |
|---------------------|-------------|----------|---------|---------------|-------------------|
| Reference | Survey Name | MD[ft] | TVD[ft] | Survey Tool | Error Model |
| 587265 | Planned | 1500.00 | 1497.93 | WdW Rate Gyro | Standard |
| 587264 | Planned | 17369.01 | 7166.00 | ISCWSA MWD | Rev 4 + SAG + FLT |

| Notes |
|-------|
| |



SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: W KTC Farms D-35-36HN (PWB)



| |
|--|
| Ellipse separations are reported ONLY if BOTH wells have uncertainty data |
| Only Depth and Magnetic Reference Field error terms are correlated across tie points |
| Scan limit is calculated on CENTRE to CENTRE distance |
| Summary data uses Closest Approach clearance calculation for all minima |
| Hole size/Casings ARE included |
| Hole size/Casings are NOT subtracted from Centre-Centre distance |
| Confidence limit of 95.00% / 2.80 SD. |

| Wellbore | | |
|-----------------------------|-------------|--------------|
| Name | Created | Last Revised |
| W KTC Farms D-35-36HN (PWB) | Nov-21-2017 | Nov-22-2017 |

| Well | | |
|-----------------------|---------------|--------------|
| Name | Government ID | Last Revised |
| W KTC Farms D-35-36HN | | Nov-21-2017 |

| Slot | | | | | | |
|---------------------|-------------|---------------|---------------|--------------|--------|-------|
| Name | Latitude | Longitude | Grid Northing | Grid Easting | North | East |
| KTC Farms D-35-36HN | 40.53793200 | -104.75255700 | 1439684.9434 | 3207744.6058 | 60.10S | 1.34E |

| Installation | | | | | | |
|---------------|----------------------------------|-----------------------------------|--------------|--------------|--|-----------------|
| Name | Installation Position (Latitude) | Installation Position (Longitude) | Easting | Northing | Coord System Name | North Alignment |
| KTC Farms Pad | 40.53809700 | -104.75256000 | 3207743.2653 | 1439745.0452 | CO83-NF on NORTH AMERICAN DATUM 1983 datum | Grid |

| Clearance Summary | | | | | | | |
|------------------------|-----------------|---------|--------------------|-------------------------|----------------|------------------|------------------|
| Offset WellName | Separation [ft] | MD[ft] | Diverging From[ft] | Ellipse Separation [ft] | Ellipse MD[ft] | Clearance Factor | Clearance MD[ft] |
| W KTC Farms E-35-36HC | 175.19 | 7078.81 | 7078.81 | 120.68 | 7078.81 | 3.21 | 7078.81 |
| W KTC Farms EA-35-36HN | 216.78 | 7078.81 | 7078.81 | 155.57 | 7078.81 | 3.54 | 7078.81 |
| W KTC Farms C-35-36HN | 320.74 | 7078.81 | 7078.81 | 260.44 | 7078.81 | 5.32 | 7390.49 |
| W KTC Farms F-35-36HN | 321.22 | 7078.81 | 7078.81 | 263.30 | 7078.81 | 5.55 | 7078.81 |
| W KTC Farms BA-35-36HN | 437.91 | 7078.81 | 7078.81 | 379.91 | 7078.81 | 7.44 | 7390.49 |
| W KTC Farms B-35-36HC | 481.67 | 7078.81 | 7078.81 | 421.02 | 7078.81 | 7.94 | 7078.81 |
| W KTC Farms G-35-36HN | 639.21 | 7078.81 | 7078.81 | 579.96 | 7078.81 | 10.45 | 7390.49 |
| W KTC Farms A-35-36HN | 639.63 | 7078.81 | 7078.81 | 580.40 | 7078.81 | 10.60 | 7390.49 |
| W KTC Farms H-35-36HC | 778.46 | 7078.81 | 7078.81 | 720.01 | 7078.81 | 13.32 | 7078.81 |
| W KTC Farms HA-35-36HN | 850.11 | 7078.81 | 7078.81 | 790.67 | 7078.81 | 13.75 | 7390.49 |
| W KTC Farms I-35-36HN | 945.19 | 7078.81 | 7078.81 | 886.35 | 7078.81 | 15.84 | 7390.49 |
| W Wilson 1-35 | 978.23 | 7390.49 | 7390.49 | 908.35 | 7390.49 | 14.00 | 7390.49 |
| W KTC Farms J-35-36HN | 1251.63 | 7078.81 | 7078.81 | 1192.92 | 7078.81 | 20.99 | 7390.49 |
| W Wilson 35-25 | 1325.40 | 7390.49 | 7390.49 | 1253.10 | 7390.49 | 18.33 | 7390.49 |

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SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: W KTC Farms D-35-36HN (PWB)



| Clearance Summary | | | | | | | |
|------------------------|-----------------|---------|--------------------|-------------------------|----------------|------------------|------------------|
| Offset WellName | Separation [ft] | MD[ft] | Diverging From[ft] | Ellipse Separation [ft] | Ellipse MD[ft] | Clearance Factor | Clearance MD[ft] |
| W KTC Farms K-35-36HC | 1349.24 | 7078.81 | 7078.81 | 1290.66 | 7078.81 | 23.03 | 7078.81 |
| W KTC Farms KA-35-36HN | 1443.71 | 7078.81 | 7078.81 | 1385.22 | 7078.81 | 24.56 | 7390.49 |
| W KTC Farms L-35-36HN | 1500.01 | 7078.81 | 7078.81 | 1441.49 | 7078.81 | 25.63 | 7078.81 |
| W Wilson 35-21 | 1528.23 | 7390.49 | 7390.49 | 1456.63 | 7390.49 | 21.34 | 7390.49 |
| W Wilson 35-24 | 2019.24 | 7390.49 | 7390.49 | 1947.04 | 7390.49 | 27.97 | 7390.49 |
| W Noffsinger 35-13 | 3121.66 | 7390.49 | 7390.49 | 3049.21 | 7390.49 | 43.09 | 7390.49 |
| W Noffsinger 35-15 | 3777.90 | 7390.49 | 7390.49 | 3705.72 | 7390.49 | 52.34 | 7390.49 |
| W SRC TK 11-36D | 5627.11 | 7390.49 | 7390.49 | 5555.75 | 7390.49 | 78.86 | 7390.49 |
| W SRC TK 12-36D | 5749.21 | 7390.49 | 7390.49 | 5656.30 | 7390.49 | 61.88 | 7390.49 |
| W SRC TK 36AD | 6355.97 | 7390.49 | 7390.49 | 6277.05 | 7390.49 | 80.53 | 7390.49 |
| W SRC TK 22-36D | 7065.67 | 7390.49 | 7390.49 | 6975.58 | 7390.49 | 78.43 | 7390.49 |
| W SRC TK 21-36D | 7257.48 | 7390.49 | 7390.49 | 7186.03 | 7390.49 | 101.58 | 7390.49 |
| W SRC Haythorn 32-36D | 8309.76 | 7390.49 | 7390.49 | 8223.72 | 7390.49 | 96.58 | 7390.49 |
| W SRC Haythorn 31-36D | 8333.90 | 7390.49 | 7390.49 | 8262.14 | 7390.49 | 116.13 | 7390.49 |
| W SRC Haythorn 36CD | 9064.47 | 7390.49 | 7390.49 | 8991.61 | 7390.49 | 124.41 | 7390.49 |
| W SRC Haythorn 41-36D | 9839.89 | 7390.49 | 7390.49 | 9768.58 | 7390.49 | 137.98 | 7390.49 |
| W SRC Haythorn 42-36D | 9871.53 | 7390.49 | 7390.49 | 9790.46 | 7390.49 | 121.76 | 7390.49 |

