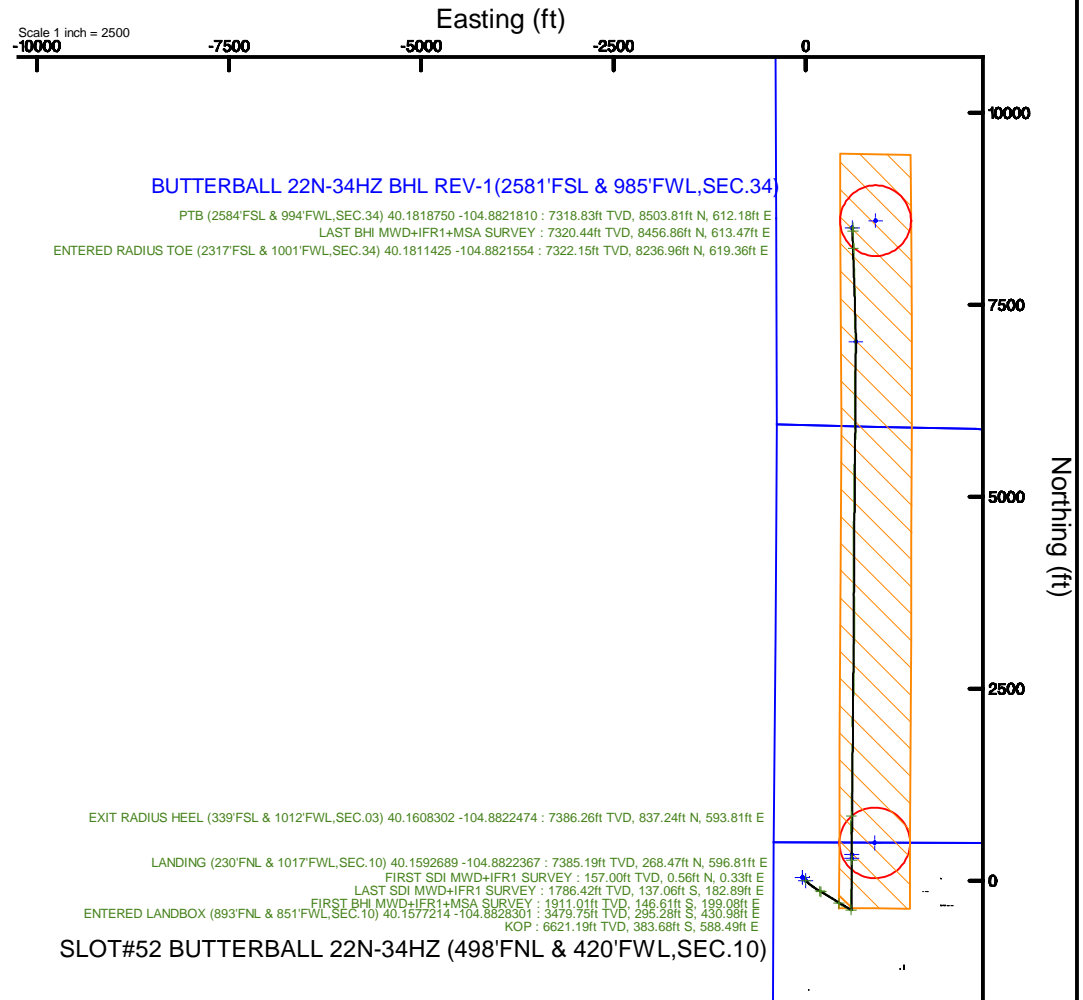
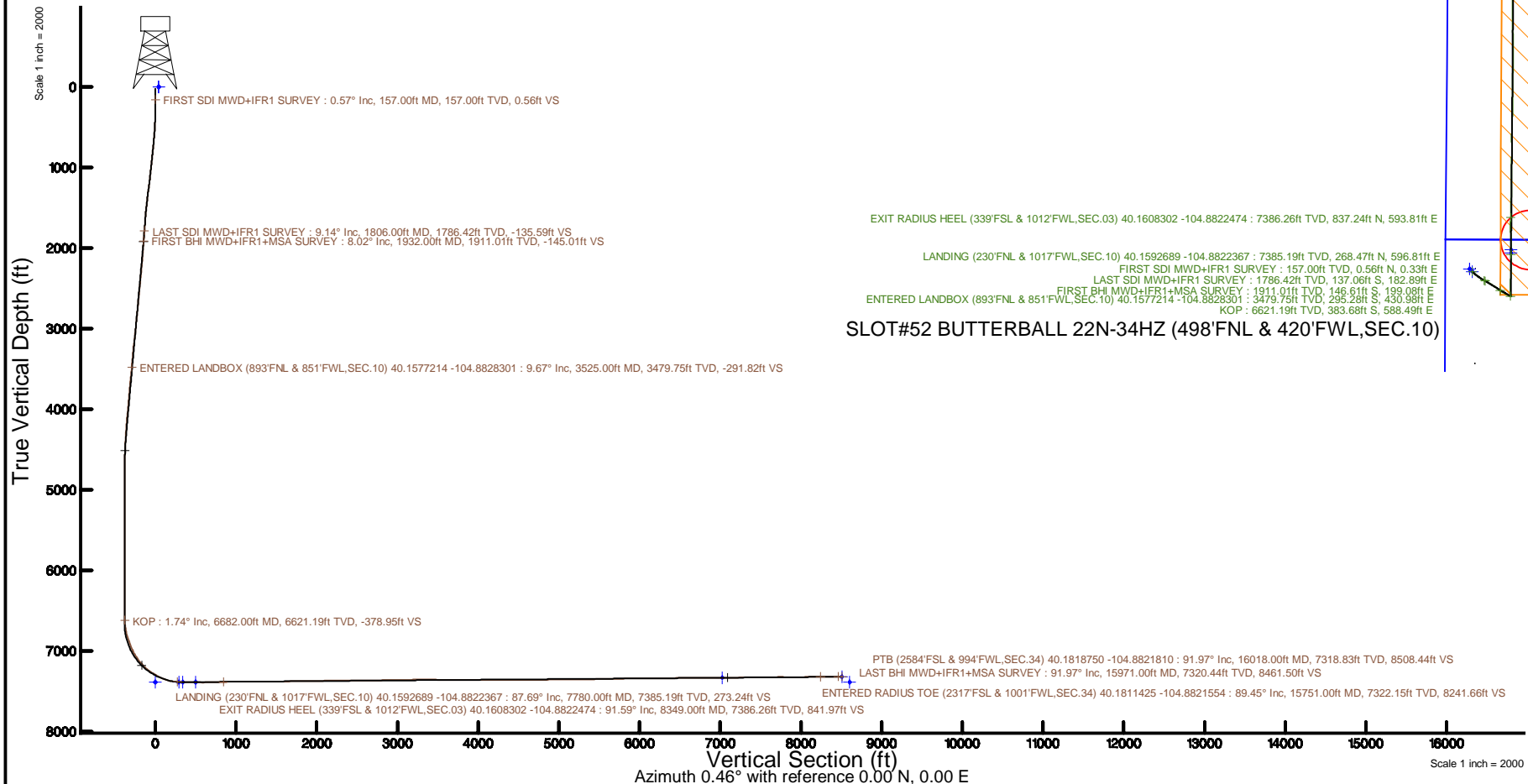


| | | | |
|-----------|------------------------------|-----------|--|
| Location: | COLORADO | Slot: | SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10) |
| Field: | WELD COUNTY (UTM/TRUE NORTH) | Well: | BUTTERBALL 22N-34HZ |
| Facility: | SEC.10-T2N-R67W | Wellbore: | BUTTERBALL 22N-34HZ PWB |

| | |
|---|---|
| Plot reference wellpath is BUTTERBALL_22N-34H PWP Rev-A.0 | Grid System: NAD83 / UTM Zone 13 North, US feet |
| True vertical depths are referenced to PD564 (26) (RT) | * = Wellpath was transformed from a different geoidic datum |
| Measured depths are referenced to PD564 (26) (RT) | North Reference: True north |
| PD564 (26) (RT) to Mean Sea Level: 4972 feet | Scale: True distance |
| Mean Sea Level to Mud line (At Slot: SLOT#52 BUTTERBALL_22N-34H (498FNL & 420FWL,SEC.10)): 0 feet | Depths are in feet |
| Coordinates are in feet referenced to Slot | Created by: painset on 2017-06-06 |
| | Database: WA_DEN_Anadarko_Defn |



| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10) |
| Area | COLORADO | Well | BUTTERBALL 22N-34HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | BUTTERBALL 22N-34HZ AWP |
| Facility | SEC.10-T2N-R67W | | |

| REPORT SETUP INFORMATION | | | |
|--------------------------|------------------------------------|----------------------|--|
| Projection System | NAD83 / UTM Zone 13 North, US feet | Software System | WellArchitect® 5.0 |
| North Reference | True | User | Painsetr |
| Scale | 0.999601 | Report Generated | 6/6/2017 at 10:23 AM |
| Convergence at slot | 0.08° East | Database/Source file | WA_DEN_Anadarko_Defn/BUTTERBALL_22N-34HZ_AWP.xml |

| WELLPATH LOCATION | | | | | | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|-----------------|
| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | 144.05 | -1523.20 | 1672723.41 | 14584483.18 | 40°09'30.715"N | 104°53'03.739"W |
| Facility Reference Pt | | | 1674246.19 | 14584341.27 | 40°09'29.292"N | 104°52'44.121"W |
| Field Reference Pt | | | 1698235.31 | 14552047.82 | 40°04'09.600"N | 104°47'36.000"W |

| WELLPATH DATUM | | | |
|--------------------------|-------------------|---|-------------------|
| Calculation method | Minimum curvature | PD564 (26') (RT) to Facility Vertical Datum | 4972.00ft |
| Horizontal Reference Pt | Slot | PD564 (26') (RT) to Mean Sea Level | 4972.00ft |
| Vertical Reference Pt | PD564 (26') (RT) | PD564 (26') (RT) to Mud Line at Slot (SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10)) | 4972.00ft |
| MD Reference Pt | PD564 (26') (RT) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 0.46° |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10) |
| Area | COLORADO | Well | BUTTERBALL 22N-34HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | BUTTERBALL 22N-34HZ AWB |
| Facility | SEC.10-T2N-R67W | | |

| WELLPATH DATA (184 stations) † = interpolated/extrapolated station | | | | | | | | | | | | |
|--|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|------------------|--|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 0.00† | 0.000 | 30.410 | 0.00 | 0.00 | 0.00 | 0.00 | 1672723.41 | 14584483.18 | 40°09'30.715"N | 104°53'03.739"W | 0.00 | |
| 26.00 | 0.000 | 30.410 | 26.00 | 0.00 | 0.00 | 0.00 | 1672723.41 | 14584483.18 | 40°09'30.715"N | 104°53'03.739"W | 0.00 | |
| 157.00 | 0.570 | 30.410 | 157.00 | 0.56 | 0.56 | 0.33 | 1672723.74 | 14584483.74 | 40°09'30.721"N | 104°53'03.735"W | 0.44 | FIRST SDI MWD+IFR1 SURVEY |
| 243.00 | 0.810 | 97.400 | 242.99 | 0.86 | 0.85 | 1.15 | 1672724.56 | 14584484.03 | 40°09'30.723"N | 104°53'03.724"W | 0.92 | |
| 330.00 | 1.710 | 123.640 | 329.97 | 0.08 | 0.05 | 2.84 | 1672726.25 | 14584483.24 | 40°09'30.716"N | 104°53'03.702"W | 1.20 | |
| 417.00 | 3.590 | 133.090 | 416.87 | -2.48 | -2.53 | 5.91 | 1672729.32 | 14584480.66 | 40°09'30.690"N | 104°53'03.663"W | 2.21 | |
| 503.00 | 5.040 | 135.870 | 502.63 | -6.99 | -7.08 | 10.51 | 1672733.92 | 14584476.12 | 40°09'30.645"N | 104°53'03.604"W | 1.70 | |
| 590.00 | 6.240 | 139.360 | 589.21 | -13.28 | -13.41 | 16.25 | 1672739.67 | 14584469.80 | 40°09'30.583"N | 104°53'03.530"W | 1.43 | |
| 679.00 | 6.800 | 141.010 | 677.63 | -20.99 | -21.17 | 22.71 | 1672746.14 | 14584462.04 | 40°09'30.506"N | 104°53'03.446"W | 0.66 | |
| 767.00 | 7.360 | 136.760 | 764.96 | -29.09 | -29.33 | 29.85 | 1672753.29 | 14584453.90 | 40°09'30.425"N | 104°53'03.355"W | 0.87 | |
| 852.00 | 8.400 | 136.290 | 849.16 | -37.48 | -37.78 | 37.87 | 1672761.31 | 14584445.46 | 40°09'30.342"N | 104°53'03.251"W | 1.23 | |
| 983.00 | 9.800 | 125.540 | 978.51 | -50.75 | -51.18 | 53.56 | 1672777.01 | 14584432.09 | 40°09'30.209"N | 104°53'03.049"W | 1.68 | |
| 1071.00 | 11.070 | 124.420 | 1065.06 | -59.78 | -60.31 | 66.62 | 1672790.08 | 14584422.98 | 40°09'30.119"N | 104°53'02.881"W | 1.46 | |
| 1160.00 | 11.140 | 127.840 | 1152.39 | -69.77 | -70.42 | 80.46 | 1672803.93 | 14584412.90 | 40°09'30.019"N | 104°53'02.703"W | 0.74 | |
| 1294.00 | 12.720 | 125.840 | 1283.49 | -86.17 | -87.00 | 102.64 | 1672826.12 | 14584396.35 | 40°09'29.855"N | 104°53'02.417"W | 1.22 | |
| 1382.00 | 13.200 | 125.070 | 1369.25 | -97.49 | -98.44 | 118.72 | 1672842.21 | 14584384.93 | 40°09'29.742"N | 104°53'02.210"W | 0.58 | |
| 1471.00 | 11.690 | 122.370 | 1456.16 | -108.03 | -109.11 | 134.65 | 1672858.15 | 14584374.29 | 40°09'29.637"N | 104°53'02.005"W | 1.82 | |
| 1558.00 | 10.610 | 118.690 | 1541.52 | -116.47 | -117.67 | 149.12 | 1672872.63 | 14584365.75 | 40°09'29.552"N | 104°53'01.818"W | 1.49 | |
| 1691.00 | 8.170 | 120.280 | 1672.72 | -126.97 | -128.32 | 168.03 | 1672891.54 | 14584355.13 | 40°09'29.447"N | 104°53'01.575"W | 1.84 | |
| 1777.00 | 8.830 | 120.590 | 1757.78 | -133.32 | -134.76 | 178.99 | 1672902.50 | 14584348.71 | 40°09'29.383"N | 104°53'01.434"W | 0.77 | |
| 1806.00 | 9.140 | 120.500 | 1786.42 | -135.59 | -137.06 | 182.89 | 1672906.40 | 14584346.41 | 40°09'29.361"N | 104°53'01.383"W | 1.07 | LAST SDI MWD+IFR1 SURVEY |
| 1932.00 | 8.020 | 120.550 | 1911.01 | -145.01 | -146.61 | 199.08 | 1672922.60 | 14584336.89 | 40°09'29.266"N | 104°53'01.175"W | 0.89 | FIRST BHI MWD+IFR1+MSA SURVEY |
| 2022.00 | 8.770 | 116.130 | 2000.05 | -151.13 | -152.82 | 210.65 | 1672934.17 | 14584330.69 | 40°09'29.205"N | 104°53'01.026"W | 1.10 | |
| 2111.00 | 9.370 | 116.780 | 2087.93 | -157.28 | -159.07 | 223.21 | 1672946.73 | 14584324.46 | 40°09'29.143"N | 104°53'00.864"W | 0.68 | |
| 2201.00 | 10.150 | 119.900 | 2176.63 | -164.42 | -166.33 | 236.62 | 1672960.15 | 14584317.23 | 40°09'29.071"N | 104°53'00.691"W | 1.05 | |
| 2290.00 | 10.980 | 122.650 | 2264.12 | -172.80 | -174.81 | 250.56 | 1672974.09 | 14584308.77 | 40°09'28.988"N | 104°53'00.512"W | 1.09 | |
| 2380.00 | 9.880 | 123.070 | 2352.63 | -181.52 | -183.65 | 264.25 | 1672987.79 | 14584299.95 | 40°09'28.900"N | 104°53'00.336"W | 1.23 | |
| 2470.00 | 10.080 | 121.340 | 2441.27 | -189.73 | -191.96 | 277.44 | 1673000.99 | 14584291.66 | 40°09'28.818"N | 104°53'00.166"W | 0.40 | |
| 2559.00 | 10.280 | 125.070 | 2528.87 | -198.23 | -200.57 | 290.60 | 1673014.15 | 14584283.07 | 40°09'28.733"N | 104°52'59.996"W | 0.77 | |
| 2649.00 | 10.400 | 122.460 | 2617.41 | -207.10 | -209.54 | 304.02 | 1673027.58 | 14584274.11 | 40°09'28.644"N | 104°52'59.823"W | 0.54 | |
| 2738.00 | 11.260 | 119.860 | 2704.83 | -215.62 | -218.18 | 318.34 | 1673041.90 | 14584265.50 | 40°09'28.559"N | 104°52'59.639"W | 1.11 | |
| 2828.00 | 10.340 | 119.880 | 2793.23 | -223.91 | -226.58 | 332.96 | 1673056.53 | 14584257.12 | 40°09'28.476"N | 104°52'59.451"W | 1.02 | |
| 2917.00 | 11.040 | 122.160 | 2880.69 | -232.31 | -235.10 | 347.10 | 1673070.68 | 14584248.63 | 40°09'28.392"N | 104°52'59.269"W | 0.92 | |
| 3007.00 | 9.780 | 121.980 | 2969.20 | -240.83 | -243.73 | 360.88 | 1673084.46 | 14584240.01 | 40°09'28.306"N | 104°52'59.091"W | 1.40 | |
| 3096.00 | 10.390 | 131.050 | 3056.83 | -250.01 | -253.01 | 373.35 | 1673096.93 | 14584230.76 | 40°09'28.215"N | 104°52'58.931"W | 1.91 | |
| 3186.00 | 11.080 | 130.110 | 3145.26 | -260.81 | -263.91 | 386.08 | 1673109.68 | 14584219.88 | 40°09'28.107"N | 104°52'58.767"W | 0.79 | |
| 3275.00 | 9.190 | 131.620 | 3232.86 | -270.94 | -274.14 | 397.93 | 1673121.54 | 14584209.67 | 40°09'28.006"N | 104°52'58.614"W | 2.14 | |
| 3365.00 | 8.290 | 120.000 | 3321.83 | -278.87 | -282.16 | 408.93 | 1673132.54 | 14584201.67 | 40°09'27.927"N | 104°52'58.472"W | 2.20 | |
| 3454.00 | 9.580 | 118.820 | 3409.74 | -285.55 | -288.93 | 420.97 | 1673144.59 | 14584194.91 | 40°09'27.860"N | 104°52'58.317"W | 1.46 | |
| 3525.00† | 9.671 | 125.897 | 3479.75 | -291.82 | -295.28 | 430.98 | 1673154.60 | 14584188.58 | 40°09'27.797"N | 104°52'58.188"W | 1.67 | ENTERED LANDBOX (893'FNL & 851'FWL,SEC.10) 40.1577214 -104.8828301 |
| 3544.00 | 9.720 | 127.760 | 3498.47 | -293.72 | -297.20 | 433.54 | 1673157.16 | 14584186.66 | 40°09'27.778"N | 104°52'58.155"W | 1.67 | |
| 3633.00 | 10.930 | 125.160 | 3586.03 | -303.07 | -306.66 | 446.38 | 1673170.01 | 14584177.22 | 40°09'27.685"N | 104°52'57.990"W | 1.46 | |
| 3723.00 | 10.830 | 116.640 | 3674.42 | -311.66 | -315.36 | 460.91 | 1673184.55 | 14584168.54 | 40°09'27.599"N | 104°52'57.803"W | 1.79 | |
| 3812.00 | 11.390 | 118.290 | 3761.75 | -319.45 | -323.28 | 476.13 | 1673199.76 | 14584160.65 | 40°09'27.520"N | 104°52'57.607"W | 0.72 | |
| 3902.00 | 9.410 | 116.640 | 3850.27 | -326.85 | -330.79 | 490.53 | 1673214.17 | 14584153.16 | 40°09'27.446"N | 104°52'57.421"W | 2.22 | |

REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10) |
| Area | COLORADO | Well | BUTTERBALL 22N-34HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | BUTTERBALL 22N-34HZ AWB |
| Facility | SEC.10-T2N-R67W | | |

WELLPATH DATA (184 stations) † = interpolated/extrapolated station

| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
|------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|------------------|--|
| 3992.00 | 9.870 | 122.200 | 3939.00 | -334.15 | -338.20 | 503.63 | 1673227.28 | 14584145.77 | 40°09'27.373"N | 104°52'57.253"W | 1.15 | |
| 4081.00 | 9.810 | 124.120 | 4026.69 | -342.37 | -346.52 | 516.37 | 1673240.02 | 14584137.47 | 40°09'27.291"N | 104°52'57.089"W | 0.37 | |
| 4171.00 | 11.030 | 118.190 | 4115.21 | -350.62 | -354.88 | 530.30 | 1673253.96 | 14584129.13 | 40°09'27.208"N | 104°52'56.909"W | 1.80 | |
| 4260.00 | 9.870 | 116.530 | 4202.73 | -357.94 | -362.31 | 544.63 | 1673268.29 | 14584121.72 | 40°09'27.135"N | 104°52'56.725"W | 1.35 | |
| 4350.00 | 8.340 | 115.730 | 4291.59 | -364.12 | -368.59 | 557.41 | 1673281.08 | 14584115.46 | 40°09'27.072"N | 104°52'56.560"W | 1.71 | |
| 4439.00 | 6.840 | 115.860 | 4379.81 | -369.14 | -373.71 | 568.00 | 1673291.66 | 14584110.36 | 40°09'27.022"N | 104°52'56.424"W | 1.69 | |
| 4529.00 | 5.850 | 114.310 | 4469.26 | -373.30 | -377.93 | 577.00 | 1673300.67 | 14584106.15 | 40°09'26.980"N | 104°52'56.308"W | 1.12 | |
| 4618.00 | 4.940 | 114.600 | 4557.86 | -376.70 | -381.40 | 584.62 | 1673308.29 | 14584102.70 | 40°09'26.946"N | 104°52'56.210"W | 1.02 | |
| 4708.00 | 3.990 | 103.770 | 4647.59 | -379.01 | -383.75 | 591.18 | 1673314.85 | 14584100.35 | 40°09'26.923"N | 104°52'56.125"W | 1.41 | |
| 4798.00 | 1.270 | 95.860 | 4737.49 | -379.82 | -384.60 | 595.22 | 1673318.89 | 14584099.50 | 40°09'26.914"N | 104°52'56.073"W | 3.04 | |
| 4887.00 | 1.450 | 93.600 | 4826.46 | -379.98 | -384.77 | 597.32 | 1673320.99 | 14584099.34 | 40°09'26.913"N | 104°52'56.046"W | 0.21 | |
| 5002.00 | 1.280 | 107.660 | 4941.43 | -380.43 | -385.25 | 600.00 | 1673323.67 | 14584098.86 | 40°09'26.908"N | 104°52'56.011"W | 0.33 | |
| 5092.00 | 1.060 | 105.240 | 5031.41 | -380.94 | -385.78 | 601.76 | 1673325.43 | 14584098.34 | 40°09'26.903"N | 104°52'55.989"W | 0.25 | |
| 5182.00 | 1.030 | 103.480 | 5121.40 | -381.34 | -386.18 | 603.35 | 1673327.02 | 14584097.93 | 40°09'26.899"N | 104°52'55.968"W | 0.05 | |
| 5271.00 | 1.730 | 293.420 | 5210.39 | -381.00 | -385.84 | 602.89 | 1673326.56 | 14584098.28 | 40°09'26.902"N | 104°52'55.974"W | 3.09 | |
| 5361.00 | 1.860 | 292.940 | 5300.34 | -379.91 | -384.73 | 600.30 | 1673323.97 | 14584099.38 | 40°09'26.913"N | 104°52'56.008"W | 0.15 | |
| 5450.00 | 1.620 | 290.360 | 5389.30 | -378.93 | -383.73 | 597.79 | 1673321.46 | 14584100.38 | 40°09'26.923"N | 104°52'56.040"W | 0.28 | |
| 5540.00 | 1.490 | 283.370 | 5479.27 | -378.23 | -383.01 | 595.46 | 1673319.13 | 14584101.09 | 40°09'26.930"N | 104°52'56.070"W | 0.26 | |
| 5630.00 | 1.310 | 276.070 | 5569.24 | -377.87 | -382.63 | 593.30 | 1673316.97 | 14584101.47 | 40°09'26.934"N | 104°52'56.098"W | 0.28 | |
| 5719.00 | 0.950 | 264.670 | 5658.22 | -377.84 | -382.60 | 591.55 | 1673315.22 | 14584101.50 | 40°09'26.934"N | 104°52'56.120"W | 0.47 | |
| 5809.00 | 0.760 | 251.390 | 5748.21 | -378.11 | -382.86 | 590.25 | 1673313.91 | 14584101.24 | 40°09'26.932"N | 104°52'56.137"W | 0.30 | |
| 5898.00 | 0.580 | 237.360 | 5837.21 | -378.55 | -383.29 | 589.31 | 1673312.98 | 14584100.81 | 40°09'26.927"N | 104°52'56.149"W | 0.27 | |
| 5988.00 | 0.390 | 187.510 | 5927.21 | -379.11 | -383.84 | 588.88 | 1673312.55 | 14584100.26 | 40°09'26.922"N | 104°52'56.155"W | 0.49 | |
| 6077.00 | 0.520 | 132.300 | 6016.20 | -379.68 | -384.41 | 589.14 | 1673312.81 | 14584099.69 | 40°09'26.916"N | 104°52'56.151"W | 0.49 | |
| 6167.00 | 0.360 | 137.920 | 6106.20 | -380.16 | -384.89 | 589.63 | 1673313.31 | 14584099.21 | 40°09'26.911"N | 104°52'56.145"W | 0.18 | |
| 6257.00 | 0.150 | 140.640 | 6196.20 | -380.46 | -385.19 | 589.90 | 1673313.57 | 14584098.91 | 40°09'26.908"N | 104°52'56.142"W | 0.23 | |
| 6346.00 | 0.170 | 299.310 | 6285.20 | -380.48 | -385.22 | 589.86 | 1673313.53 | 14584098.88 | 40°09'26.908"N | 104°52'56.142"W | 0.35 | |
| 6436.00 | 0.090 | 272.700 | 6375.20 | -380.41 | -385.15 | 589.67 | 1673313.34 | 14584098.95 | 40°09'26.909"N | 104°52'56.144"W | 0.11 | |
| 6526.00 | 0.320 | 301.440 | 6465.20 | -380.28 | -385.02 | 589.39 | 1673313.06 | 14584099.08 | 40°09'26.910"N | 104°52'56.148"W | 0.27 | |
| 6615.00 | 0.280 | 320.910 | 6554.20 | -379.99 | -384.72 | 589.04 | 1673312.71 | 14584099.38 | 40°09'26.913"N | 104°52'56.153"W | 0.12 | |
| 6682.00† | 1.737 | 333.868 | 6621.19 | -378.95 | -383.68 | 588.49 | 1673312.16 | 14584100.42 | 40°09'26.923"N | 104°52'56.160"W | 2.19 | KOP |
| 6705.00 | 2.240 | 334.420 | 6644.17 | -378.24 | -382.96 | 588.14 | 1673311.81 | 14584101.14 | 40°09'26.930"N | 104°52'56.164"W | 2.19 | |
| 6794.00 | 10.810 | 358.780 | 6732.52 | -368.31 | -373.03 | 587.21 | 1673310.86 | 14584111.06 | 40°09'27.029"N | 104°52'56.176"W | 9.91 | |
| 6884.00 | 18.030 | 358.620 | 6819.63 | -345.93 | -350.64 | 586.69 | 1673310.32 | 14584133.45 | 40°09'27.250"N | 104°52'56.183"W | 8.02 | |
| 6973.00 | 19.120 | 359.450 | 6903.99 | -317.58 | -322.29 | 586.22 | 1673309.81 | 14584161.78 | 40°09'27.530"N | 104°52'56.189"W | 1.26 | |
| 7063.00 | 25.680 | 1.200 | 6987.16 | -283.31 | -288.02 | 586.49 | 1673310.03 | 14584196.04 | 40°09'27.869"N | 104°52'56.185"W | 7.33 | |
| 7153.00 | 31.790 | 4.070 | 7066.04 | -240.11 | -244.83 | 588.58 | 1673312.07 | 14584239.21 | 40°09'28.295"N | 104°52'56.158"W | 6.96 | |
| 7242.00 | 38.850 | 2.210 | 7138.61 | -188.75 | -193.49 | 591.32 | 1673314.75 | 14584290.54 | 40°09'28.803"N | 104°52'56.123"W | 8.02 | |
| 7332.00 | 46.930 | 0.310 | 7204.50 | -127.55 | -132.30 | 592.59 | 1673315.93 | 14584351.70 | 40°09'29.407"N | 104°52'56.107"W | 9.09 | |
| 7421.00 | 55.710 | 1.640 | 7260.07 | -58.15 | -62.91 | 593.82 | 1673317.07 | 14584421.07 | 40°09'30.093"N | 104°52'56.091"W | 9.93 | |
| 7511.00 | 61.260 | 359.820 | 7307.10 | 18.54 | 13.78 | 594.76 | 1673317.91 | 14584497.72 | 40°09'30.851"N | 104°52'56.079"W | 6.40 | |
| 7601.00 | 67.060 | 0.800 | 7346.31 | 99.51 | 94.74 | 595.22 | 1673318.26 | 14584578.65 | 40°09'31.651"N | 104°52'56.073"W | 6.52 | |
| 7690.00 | 77.340 | 0.730 | 7373.48 | 184.13 | 179.36 | 596.35 | 1673319.28 | 14584663.24 | 40°09'32.487"N | 104°52'56.058"W | 11.55 | |
| 7780.00 | 87.690 | 359.880 | 7385.19 | 273.24 | 268.47 | 596.81 | 1673319.63 | 14584752.31 | 40°09'33.368"N | 104°52'56.052"W | 11.54 | LANDING (230'FNL & 1017'FWL, SEC.10) 40.1592689 -104.8822367 |
| 7869.00 | 88.370 | 359.400 | 7388.25 | 362.18 | 357.41 | 596.26 | 1673318.96 | 14584841.22 | 40°09'34.247"N | 104°52'56.059"W | 0.94 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10) |
| Area | COLORADO | Well | BUTTERBALL 22N-34HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | BUTTERBALL 22N-34HZ AWB |
| Facility | SEC.10-T2N-R67W | | |

| WELLPATH DATA (184 stations) † = interpolated/extrapolated station | | | | | | | | | | | | |
|--|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|------------------|--|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 7959.00 | 89.200 | 359.790 | 7390.16 | 452.15 | 447.39 | 595.62 | 1673318.21 | 14584931.16 | 40°09'35.136"N | 104°52'56.068"W | 1.02 | |
| 8048.00 | 88.920 | 358.640 | 7391.62 | 541.11 | 536.37 | 594.40 | 1673316.87 | 14585020.10 | 40°09'36.015"N | 104°52'56.083"W | 1.33 | |
| 8138.00 | 90.800 | 358.900 | 7391.84 | 631.07 | 626.34 | 592.47 | 1673314.82 | 14585110.04 | 40°09'36.904"N | 104°52'56.108"W | 2.11 | |
| 8227.00 | 91.480 | 0.380 | 7390.07 | 720.04 | 715.32 | 591.91 | 1673314.15 | 14585198.98 | 40°09'37.784"N | 104°52'56.115"W | 1.83 | |
| 8317.00 | 92.070 | 1.130 | 7387.28 | 809.99 | 805.27 | 593.09 | 1673315.22 | 14585288.89 | 40°09'38.673"N | 104°52'56.100"W | 1.06 | |
| 8349.00† | 91.586 | 1.425 | 7386.26 | 841.97 | 837.24 | 593.81 | 1673315.89 | 14585320.86 | 40°09'38.989"N | 104°52'56.091"W | 1.77 | EXIT RADIUS HEEL (339'FSL & 1012'FWL,SEC.03) 40.1608302 -104.8822474 |
| 8407.00 | 90.710 | 1.960 | 7385.10 | 899.95 | 895.21 | 595.52 | 1673317.52 | 14585378.80 | 40°09'39.561"N | 104°52'56.069"W | 1.77 | |
| 8496.00 | 91.670 | 1.540 | 7383.25 | 988.91 | 984.14 | 598.24 | 1673320.12 | 14585467.70 | 40°09'40.440"N | 104°52'56.034"W | 1.18 | |
| 8586.00 | 89.880 | 0.790 | 7382.03 | 1078.89 | 1074.11 | 600.07 | 1673321.84 | 14585557.64 | 40°09'41.329"N | 104°52'56.010"W | 2.16 | |
| 8675.00 | 90.620 | 1.130 | 7381.64 | 1167.88 | 1163.10 | 601.56 | 1673323.21 | 14585646.59 | 40°09'42.209"N | 104°52'55.991"W | 0.92 | |
| 8765.00 | 90.370 | 1.900 | 7380.87 | 1257.86 | 1253.06 | 603.94 | 1673325.47 | 14585736.52 | 40°09'43.098"N | 104°52'55.960"W | 0.90 | |
| 8854.00 | 89.780 | 0.960 | 7380.75 | 1346.85 | 1342.03 | 606.16 | 1673327.58 | 14585825.46 | 40°09'43.977"N | 104°52'55.932"W | 1.25 | |
| 8944.00 | 89.720 | 0.660 | 7381.14 | 1436.84 | 1432.02 | 607.43 | 1673328.73 | 14585915.42 | 40°09'44.866"N | 104°52'55.915"W | 0.34 | |
| 9034.00 | 90.860 | 0.750 | 7380.69 | 1526.84 | 1522.01 | 608.54 | 1673329.72 | 14586005.37 | 40°09'45.756"N | 104°52'55.901"W | 1.27 | |
| 9123.00 | 90.590 | 359.970 | 7379.56 | 1615.83 | 1611.01 | 609.10 | 1673330.16 | 14586094.33 | 40°09'46.635"N | 104°52'55.894"W | 0.93 | |
| 9213.00 | 91.260 | 0.030 | 7378.11 | 1705.82 | 1700.99 | 609.10 | 1673330.05 | 14586184.28 | 40°09'47.524"N | 104°52'55.894"W | 0.75 | |
| 9302.00 | 89.940 | 0.370 | 7377.17 | 1794.81 | 1789.99 | 609.41 | 1673330.24 | 14586273.24 | 40°09'48.404"N | 104°52'55.890"W | 1.53 | |
| 9392.00 | 90.680 | 0.140 | 7376.69 | 1884.81 | 1879.98 | 609.81 | 1673330.53 | 14586363.20 | 40°09'49.293"N | 104°52'55.884"W | 0.86 | |
| 9482.00 | 91.880 | 359.580 | 7374.68 | 1974.78 | 1969.96 | 609.59 | 1673330.19 | 14586453.14 | 40°09'50.182"N | 104°52'55.887"W | 1.47 | |
| 9571.00 | 90.990 | 359.700 | 7372.45 | 2063.74 | 2058.93 | 609.03 | 1673329.51 | 14586542.07 | 40°09'51.061"N | 104°52'55.894"W | 1.01 | |
| 9661.00 | 91.140 | 0.880 | 7370.78 | 2153.72 | 2148.91 | 609.49 | 1673329.85 | 14586632.02 | 40°09'51.951"N | 104°52'55.888"W | 1.32 | |
| 9751.00 | 90.860 | 2.250 | 7369.20 | 2243.69 | 2238.86 | 611.94 | 1673332.19 | 14586721.93 | 40°09'52.839"N | 104°52'55.857"W | 1.55 | |
| 9840.00 | 89.480 | 2.120 | 7368.94 | 2332.65 | 2327.79 | 615.34 | 1673335.47 | 14586810.84 | 40°09'53.718"N | 104°52'55.813"W | 1.56 | |
| 9930.00 | 89.410 | 1.820 | 7369.81 | 2422.61 | 2417.73 | 618.43 | 1673338.44 | 14586900.75 | 40°09'54.607"N | 104°52'55.773"W | 0.34 | |
| 10019.00 | 91.510 | 1.660 | 7369.10 | 2511.58 | 2506.69 | 621.13 | 1673341.03 | 14586989.66 | 40°09'55.486"N | 104°52'55.738"W | 2.37 | |
| 10109.00 | 90.650 | 1.600 | 7367.40 | 2601.55 | 2596.63 | 623.69 | 1673343.47 | 14587079.58 | 40°09'56.375"N | 104°52'55.705"W | 0.96 | |
| 10198.00 | 90.180 | 0.530 | 7366.76 | 2690.54 | 2685.61 | 625.35 | 1673345.01 | 14587168.53 | 40°09'57.254"N | 104°52'55.684"W | 1.31 | |
| 10287.00 | 90.890 | 359.760 | 7365.93 | 2779.53 | 2774.61 | 625.57 | 1673345.12 | 14587257.48 | 40°09'58.134"N | 104°52'55.681"W | 1.18 | |
| 10377.00 | 91.850 | 359.360 | 7363.77 | 2869.49 | 2864.58 | 624.88 | 1673344.31 | 14587347.42 | 40°09'59.023"N | 104°52'55.690"W | 1.16 | |
| 10467.00 | 91.450 | 0.490 | 7361.18 | 2959.45 | 2954.54 | 624.76 | 1673344.08 | 14587437.34 | 40°09'59.912"N | 104°52'55.691"W | 1.33 | |
| 10556.00 | 90.430 | 0.500 | 7359.72 | 3048.44 | 3043.52 | 625.53 | 1673344.73 | 14587526.29 | 40°10'00.791"N | 104°52'55.682"W | 1.15 | |
| 10646.00 | 90.030 | 1.070 | 7359.36 | 3138.43 | 3133.51 | 626.76 | 1673345.84 | 14587616.25 | 40°10'01.680"N | 104°52'55.666"W | 0.77 | |
| 10735.00 | 92.070 | 1.830 | 7357.73 | 3227.40 | 3222.46 | 629.02 | 1673347.98 | 14587705.17 | 40°10'02.559"N | 104°52'55.637"W | 2.45 | |
| 10825.00 | 90.120 | 0.880 | 7356.01 | 3317.37 | 3312.42 | 631.14 | 1673349.99 | 14587795.09 | 40°10'03.448"N | 104°52'55.609"W | 2.41 | |
| 10914.00 | 88.240 | 359.630 | 7357.28 | 3406.35 | 3401.40 | 631.54 | 1673350.27 | 14587884.03 | 40°10'04.328"N | 104°52'55.604"W | 2.54 | |
| 11003.00 | 89.910 | 359.800 | 7358.72 | 3495.33 | 3490.39 | 631.10 | 1673349.71 | 14587972.98 | 40°10'05.207"N | 104°52'55.610"W | 1.89 | |
| 11093.00 | 88.330 | 358.530 | 7360.10 | 3585.29 | 3580.36 | 629.79 | 1673348.28 | 14588062.92 | 40°10'06.096"N | 104°52'55.627"W | 2.25 | |
| 11182.00 | 88.920 | 357.950 | 7362.24 | 3674.20 | 3669.29 | 627.05 | 1673345.43 | 14588151.81 | 40°10'06.975"N | 104°52'55.662"W | 0.93 | |
| 11272.00 | 89.690 | 357.760 | 7363.33 | 3764.10 | 3759.22 | 623.68 | 1673341.95 | 14588241.70 | 40°10'07.864"N | 104°52'55.705"W | 0.88 | |
| 11361.00 | 90.120 | 359.370 | 7363.48 | 3853.05 | 3848.19 | 621.46 | 1673339.61 | 14588330.63 | 40°10'08.743"N | 104°52'55.734"W | 1.87 | |
| 11451.00 | 91.330 | 358.790 | 7362.34 | 3943.01 | 3938.17 | 620.01 | 1673338.05 | 14588420.57 | 40°10'09.632"N | 104°52'55.752"W | 1.49 | |
| 11540.00 | 90.060 | 0.400 | 7361.26 | 4031.99 | 4027.16 | 619.38 | 1673337.30 | 14588509.52 | 40°10'10.511"N | 104°52'55.760"W | 2.30 | |
| 11630.00 | 91.050 | 0.410 | 7360.39 | 4121.98 | 4117.15 | 620.02 | 1673337.82 | 14588599.48 | 40°10'11.401"N | 104°52'55.752"W | 1.10 | |
| 11719.00 | 88.550 | 0.480 | 7360.70 | 4210.98 | 4206.14 | 620.71 | 1673338.40 | 14588688.43 | 40°10'12.280"N | 104°52'55.743"W | 2.81 | |
| 11809.00 | 89.260 | 0.340 | 7362.42 | 4300.96 | 4296.12 | 621.35 | 1673338.92 | 14588778.38 | 40°10'13.169"N | 104°52'55.735"W | 0.80 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10) |
| Area | COLORADO | Well | BUTTERBALL 22N-34HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | BUTTERBALL 22N-34HZ AWB |
| Facility | SEC.10-T2N-R67W | | |

| WELLPATH DATA (184 stations) † = interpolated/extrapolated station | | | | | | | | | | | | |
|--|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|------------------|---|
| MD (ft) | Inclination [°] | Azimuth [°] | TVD (ft) | Vert Sect (ft) | North (ft) | East (ft) | Grid East (US ft) | Grid North (US ft) | Latitude | Longitude | DLS (°/100ft) | Comments |
| 11899.00 | 90.490 | 0.230 | 7362.62 | 4390.96 | 4386.12 | 621.80 | 1673339.25 | 14588868.34 | 40°10'14.059"N | 104°52'55.729"W | 1.37 | |
| 11988.00 | 90.680 | 359.860 | 7361.71 | 4479.95 | 4475.11 | 621.87 | 1673339.21 | 14588957.30 | 40°10'14.938"N | 104°52'55.728"W | 0.47 | |
| 12078.00 | 91.570 | 1.270 | 7359.94 | 4569.93 | 4565.09 | 622.76 | 1673339.98 | 14589047.24 | 40°10'15.827"N | 104°52'55.717"W | 1.85 | |
| 12167.00 | 89.440 | 1.710 | 7359.15 | 4658.91 | 4654.05 | 625.07 | 1673342.17 | 14589136.17 | 40°10'16.706"N | 104°52'55.687"W | 2.44 | |
| 12257.00 | 90.030 | 1.240 | 7359.57 | 4748.89 | 4744.02 | 627.39 | 1673344.37 | 14589226.10 | 40°10'17.595"N | 104°52'55.657"W | 0.84 | |
| 12346.00 | 90.710 | 1.110 | 7359.00 | 4837.88 | 4832.99 | 629.21 | 1673346.08 | 14589315.05 | 40°10'18.475"N | 104°52'55.633"W | 0.78 | |
| 12436.00 | 90.180 | 1.100 | 7358.30 | 4927.87 | 4922.98 | 630.95 | 1673347.70 | 14589405.00 | 40°10'19.364"N | 104°52'55.611"W | 0.59 | |
| 12526.00 | 90.370 | 0.910 | 7357.87 | 5017.87 | 5012.96 | 632.53 | 1673349.16 | 14589494.95 | 40°10'20.253"N | 104°52'55.591"W | 0.30 | |
| 12615.00 | 91.570 | 0.670 | 7356.36 | 5106.85 | 5101.94 | 633.75 | 1673350.27 | 14589583.89 | 40°10'21.132"N | 104°52'55.575"W | 1.38 | |
| 12705.00 | 90.060 | 0.020 | 7355.08 | 5196.84 | 5191.92 | 634.30 | 1673350.69 | 14589673.84 | 40°10'22.022"N | 104°52'55.568"W | 1.83 | |
| 12794.00 | 90.180 | 359.880 | 7354.89 | 5285.83 | 5280.92 | 634.22 | 1673350.50 | 14589762.80 | 40°10'22.901"N | 104°52'55.569"W | 0.21 | |
| 12884.00 | 91.140 | 359.890 | 7353.86 | 5375.82 | 5370.92 | 634.04 | 1673350.20 | 14589852.76 | 40°10'23.791"N | 104°52'55.571"W | 1.07 | |
| 12973.00 | 91.940 | 1.650 | 7351.46 | 5464.79 | 5459.87 | 635.23 | 1673351.28 | 14589941.68 | 40°10'24.670"N | 104°52'55.556"W | 2.17 | |
| 13062.00 | 90.680 | 1.870 | 7349.43 | 5553.74 | 5548.80 | 637.97 | 1673353.90 | 14590030.58 | 40°10'25.548"N | 104°52'55.520"W | 1.44 | |
| 13152.00 | 91.110 | 1.450 | 7348.02 | 5643.71 | 5638.76 | 640.57 | 1673356.39 | 14590120.50 | 40°10'26.437"N | 104°52'55.487"W | 0.67 | |
| 13241.00 | 90.990 | 0.970 | 7346.39 | 5732.68 | 5727.72 | 642.45 | 1673358.15 | 14590209.43 | 40°10'27.316"N | 104°52'55.463"W | 0.56 | |
| 13331.00 | 90.460 | 359.970 | 7345.25 | 5822.67 | 5817.71 | 643.19 | 1673358.77 | 14590299.39 | 40°10'28.206"N | 104°52'55.453"W | 1.26 | |
| 13421.00 | 90.150 | 358.520 | 7344.77 | 5912.65 | 5907.70 | 642.00 | 1673357.47 | 14590389.34 | 40°10'29.095"N | 104°52'55.468"W | 1.65 | |
| 13510.00 | 90.590 | 358.320 | 7344.20 | 6001.59 | 5996.66 | 639.55 | 1673354.90 | 14590478.26 | 40°10'29.974"N | 104°52'55.500"W | 0.54 | |
| 13600.00 | 90.460 | 358.980 | 7343.37 | 6091.54 | 6086.63 | 637.43 | 1673352.66 | 14590568.19 | 40°10'30.863"N | 104°52'55.527"W | 0.75 | |
| 13689.00 | 90.520 | 359.470 | 7342.61 | 6180.52 | 6175.62 | 636.23 | 1673351.34 | 14590657.14 | 40°10'31.743"N | 104°52'55.543"W | 0.55 | |
| 13778.00 | 90.650 | 1.400 | 7341.70 | 6269.51 | 6264.61 | 636.90 | 1673351.90 | 14590746.10 | 40°10'32.622"N | 104°52'55.534"W | 2.17 | |
| 13868.00 | 90.710 | 0.910 | 7340.64 | 6359.50 | 6354.58 | 638.72 | 1673353.60 | 14590836.04 | 40°10'33.511"N | 104°52'55.511"W | 0.55 | |
| 13958.00 | 91.910 | 0.680 | 7338.58 | 6449.47 | 6444.55 | 639.96 | 1673354.73 | 14590925.97 | 40°10'34.400"N | 104°52'55.494"W | 1.36 | |
| 14047.00 | 89.880 | 0.850 | 7337.19 | 6538.45 | 6533.53 | 641.15 | 1673355.80 | 14591014.91 | 40°10'35.279"N | 104°52'55.479"W | 2.29 | |
| 14137.00 | 90.430 | 0.830 | 7336.95 | 6628.45 | 6623.52 | 642.47 | 1673357.00 | 14591104.87 | 40°10'36.169"N | 104°52'55.462"W | 0.61 | |
| 14227.00 | 91.170 | 0.860 | 7335.69 | 6718.44 | 6713.50 | 643.80 | 1673358.21 | 14591194.82 | 40°10'37.058"N | 104°52'55.445"W | 0.82 | |
| 14316.00 | 91.850 | 0.010 | 7333.34 | 6807.41 | 6802.46 | 644.47 | 1673358.77 | 14591283.75 | 40°10'37.937"N | 104°52'55.436"W | 1.22 | |
| 14406.00 | 89.110 | 359.900 | 7332.59 | 6897.39 | 6892.45 | 644.40 | 1673358.59 | 14591373.70 | 40°10'38.826"N | 104°52'55.437"W | 3.05 | |
| 14495.00 | 89.570 | 359.850 | 7333.62 | 6986.38 | 6981.44 | 644.21 | 1673358.28 | 14591462.66 | 40°10'39.706"N | 104°52'55.440"W | 0.52 | |
| 14585.00 | 90.120 | 359.660 | 7333.86 | 7076.37 | 7071.44 | 643.82 | 1673357.77 | 14591552.62 | 40°10'40.595"N | 104°52'55.444"W | 0.65 | |
| 14674.00 | 90.550 | 359.180 | 7333.34 | 7165.36 | 7160.44 | 642.92 | 1673356.76 | 14591641.57 | 40°10'41.475"N | 104°52'55.456"W | 0.72 | |
| 14764.00 | 91.970 | 359.010 | 7331.36 | 7255.31 | 7250.40 | 641.50 | 1673355.22 | 14591731.50 | 40°10'42.364"N | 104°52'55.474"W | 1.59 | |
| 14853.00 | 90.000 | 359.290 | 7329.83 | 7344.27 | 7339.37 | 640.18 | 1673353.79 | 14591820.44 | 40°10'43.243"N | 104°52'55.491"W | 2.24 | |
| 14943.00 | 90.620 | 359.230 | 7329.34 | 7434.24 | 7429.36 | 639.02 | 1673352.51 | 14591910.39 | 40°10'44.132"N | 104°52'55.506"W | 0.69 | |
| 15032.00 | 91.880 | 359.380 | 7327.40 | 7523.20 | 7518.33 | 637.94 | 1673351.31 | 14591999.32 | 40°10'45.011"N | 104°52'55.520"W | 1.43 | |
| 15122.00 | 89.780 | 358.930 | 7326.10 | 7613.17 | 7608.31 | 636.61 | 1673349.87 | 14592089.26 | 40°10'45.900"N | 104°52'55.537"W | 2.39 | |
| 15212.00 | 91.140 | 358.970 | 7325.37 | 7703.13 | 7698.29 | 634.96 | 1673348.10 | 14592179.20 | 40°10'46.790"N | 104°52'55.558"W | 1.51 | |
| 15301.00 | 88.740 | 358.460 | 7325.47 | 7792.08 | 7787.26 | 632.97 | 1673345.99 | 14592268.13 | 40°10'47.669"N | 104°52'55.584"W | 2.76 | |
| 15390.00 | 89.510 | 358.070 | 7326.83 | 7881.00 | 7876.21 | 630.27 | 1673343.18 | 14592357.04 | 40°10'48.548"N | 104°52'55.619"W | 0.97 | |
| 15480.00 | 90.520 | 357.660 | 7326.80 | 7970.91 | 7966.14 | 626.92 | 1673339.71 | 14592446.94 | 40°10'49.437"N | 104°52'55.662"W | 1.21 | |
| 15569.00 | 91.910 | 357.610 | 7324.92 | 8059.78 | 8055.05 | 623.25 | 1673335.93 | 14592535.80 | 40°10'50.315"N | 104°52'55.709"W | 1.56 | |
| 15659.00 | 91.110 | 359.410 | 7322.54 | 8149.69 | 8144.98 | 620.91 | 1673333.47 | 14592625.69 | 40°10'51.204"N | 104°52'55.739"W | 2.19 | |
| 15748.00 | 89.440 | 358.680 | 7322.12 | 8238.66 | 8233.96 | 619.43 | 1673331.87 | 14592714.64 | 40°10'52.083"N | 104°52'55.758"W | 2.05 | |
| 15751.00† | 89.455 | 358.666 | 7322.15 | 8241.66 | 8236.96 | 619.36 | 1673331.80 | 14592717.64 | 40°10'52.113"N | 104°52'55.759"W | 0.68 | ENTERED RADIUS TOE (2317'FSL & 1001'FWL,SEC.34) 40.1811425 -104.8821554 |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10) |
| Area | COLORADO | Well | BUTTERBALL 22N-34HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | BUTTERBALL 22N-34HZ AWB |
| Facility | SEC.10-T2N-R67W | | |

| WELLPATH DATA (184 stations) | | | | | | | | | | | | |
|------------------------------|-----------------|-------------|----------|----------------|------------|-----------|-------------------|--------------------|----------------|-----------------|---------------|---|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | DLS ["/100ft] | Comments |
| 15838.00 | 89.880 | 358.250 | 7322.65 | 8328.60 | 8323.93 | 617.02 | 1673329.35 | 14592804.57 | 40°10'52.972"N | 104°52'55.789"W | 0.68 | |
| 15927.00 | 91.330 | 358.630 | 7321.71 | 8417.54 | 8412.89 | 614.59 | 1673326.81 | 14592893.49 | 40°10'53.851"N | 104°52'55.821"W | 1.68 | |
| 15971.00 | 91.970 | 358.430 | 7320.44 | 8461.50 | 8456.86 | 613.47 | 1673325.63 | 14592937.43 | 40°10'54.286"N | 104°52'55.835"W | 1.52 | LAST BHI MWD+IFR1+MSA SURVEY |
| 16018.00 | 91.970 | 358.430 | 7318.83 | 8508.44 | 8503.81 | 612.18 | 1673324.28 | 14592984.37 | 40°10'54.750"N | 104°52'55.852"W | 0.00 | PTB (2584'FSL & 994'FWL,SEC.34) 40.1818750 -104.8821810 |

| TARGETS | | | | | | | | |
|---|----------|------------|-----------|-------------------|--------------------|----------------|-----------------|---------|
| Name | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
| SEC.03-T2N-R67W | 0.00 | 42.60 | -42.24 | 1672681.13 | 14584525.71 | 40°09'31.136"N | 104°53'04.283"W | polygon |
| SEC.10-T2N-R67W | 0.00 | 42.60 | -42.24 | 1672681.13 | 14584525.71 | 40°09'31.136"N | 104°53'04.283"W | polygon |
| SEC.34-T3N-R67W | 0.00 | 42.60 | -42.24 | 1672681.13 | 14584525.71 | 40°09'31.136"N | 104°53'04.283"W | polygon |
| BUTTERBALL 22N-34HZ BHL REV-1(2581'FSL & 985'FWL,SEC.34) | 7322.00 | 8500.55 | 602.97 | 1673315.07 | 14592981.10 | 40°10'54.718"N | 104°52'55.970"W | point |
| BUTTERBALL 22N-34HZ LATERAL TARGET | 7334.15 | 7020.35 | 652.20 | 1673366.21 | 14591501.56 | 40°10'40.090"N | 104°52'55.337"W | point |
| BUTTERBALL 22N-34HZ HEEL REV-1(210'FNL & 1018'FWL,SEC.10) | 7389.00 | 287.09 | 598.70 | 1673321.49 | 14584770.93 | 40°09'33.552"N | 104°52'56.028"W | point |
| BUTTERBALL 22N-34HZ HEEL REV-2(160'FNL & 1018'FWL,SEC.10) | 7389.00 | 337.09 | 598.70 | 1673321.43 | 14584820.91 | 40°09'34.046"N | 104°52'56.028"W | point |
| BUTTERBALL 22N-34HZ LANDBOX | 7389.00 | 0.00 | 0.00 | 1672723.41 | 14584483.18 | 40°09'30.715"N | 104°53'03.739"W | polygon |
| BUTTERBALL 22N-34HZ RADIUS 1 | 7389.00 | 491.46 | 894.49 | 1673616.90 | 14584975.60 | 40°09'35.571"N | 104°52'52.218"W | polygon |
| BUTTERBALL 22N-34HZ RADIUS 2 | 7389.00 | 8595.49 | 907.74 | 1673619.60 | 14593076.40 | 40°10'55.656"N | 104°52'52.044"W | polygon |

| WELLPATH COMPOSITION - Ref Wellbore: BUTTERBALL 22N-34HZ AWB | | | | Ref Wellpath: BUTTERBALL 22N-34HZ AWP | | |
|--|-------------|--|--|---|--|-------------------------|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | | Log Name/Comment | | Wellbore |
| 26.00 | 1806.00 | Custom APC ISCWSA REV 2 MWD+IFR1 (approximation) | | SDI Custom APC ISCWSA Rev-2 MWD+IFR1 <157 - 1806> | | BUTTERBALL 22N-34HZ AWB |
| 1806.00 | 15971.00 | Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation) | | SDI Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1932 - 15971> | | BUTTERBALL 22N-34HZ AWB |
| 15971.00 | 16018.00 | Blind Drilling (std) | | Projection to bit | | BUTTERBALL 22N-34HZ AWB |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#52 BUTTERBALL 22N-34HZ (498'FNL & 420'FWL,SEC.10) |
| Area | COLORADO | Well | BUTTERBALL 22N-34HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | BUTTERBALL 22N-34HZ AWB |
| Facility | SEC.10-T2N-R67W | | |

| WELLPATH COMMENTS | | | | |
|-------------------|-----------------|-------------|----------|---|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Comment |
| 157.00 | 0.570 | 30.410 | 157.00 | FIRST SDI MWD+IFR1 SURVEY |
| 1806.00 | 9.140 | 120.500 | 1786.42 | LAST SDI MWD+IFR1 SURVEY |
| 1932.00 | 8.020 | 120.550 | 1911.01 | FIRST BHI MWD+IFR1+MSA SURVEY |
| 3525.00 | 9.671 | 125.897 | 3479.75 | ENTERED LANDBOX (893'FNL & 851'FWL,SEC.10) 40.1577214 -104.8828301 |
| 6682.00 | 1.737 | 333.868 | 6621.19 | KOP |
| 7780.00 | 87.690 | 359.880 | 7385.19 | LANDING (230'FNL & 1017'FWL,SEC.10) 40.1592689 -104.8822367 |
| 8349.00 | 91.586 | 1.425 | 7386.26 | EXIT RADIUS HEEL (339'FSL & 1012'FWL,SEC.03) 40.1608302 -104.8822474 |
| 15751.00 | 89.455 | 358.666 | 7322.15 | ENTERED RADIUS TOE (2317'FSL & 1001'FWL,SEC.34) 40.1811425 -104.8821554 |
| 15971.00 | 91.970 | 358.430 | 7320.44 | LAST BHI MWD+IFR1+MSA SURVEY |
| 16018.00 | 91.970 | 358.430 | 7318.83 | PTB (2584'FSL & 994'FWL,SEC.34) 40.1818750 -104.8821810 |