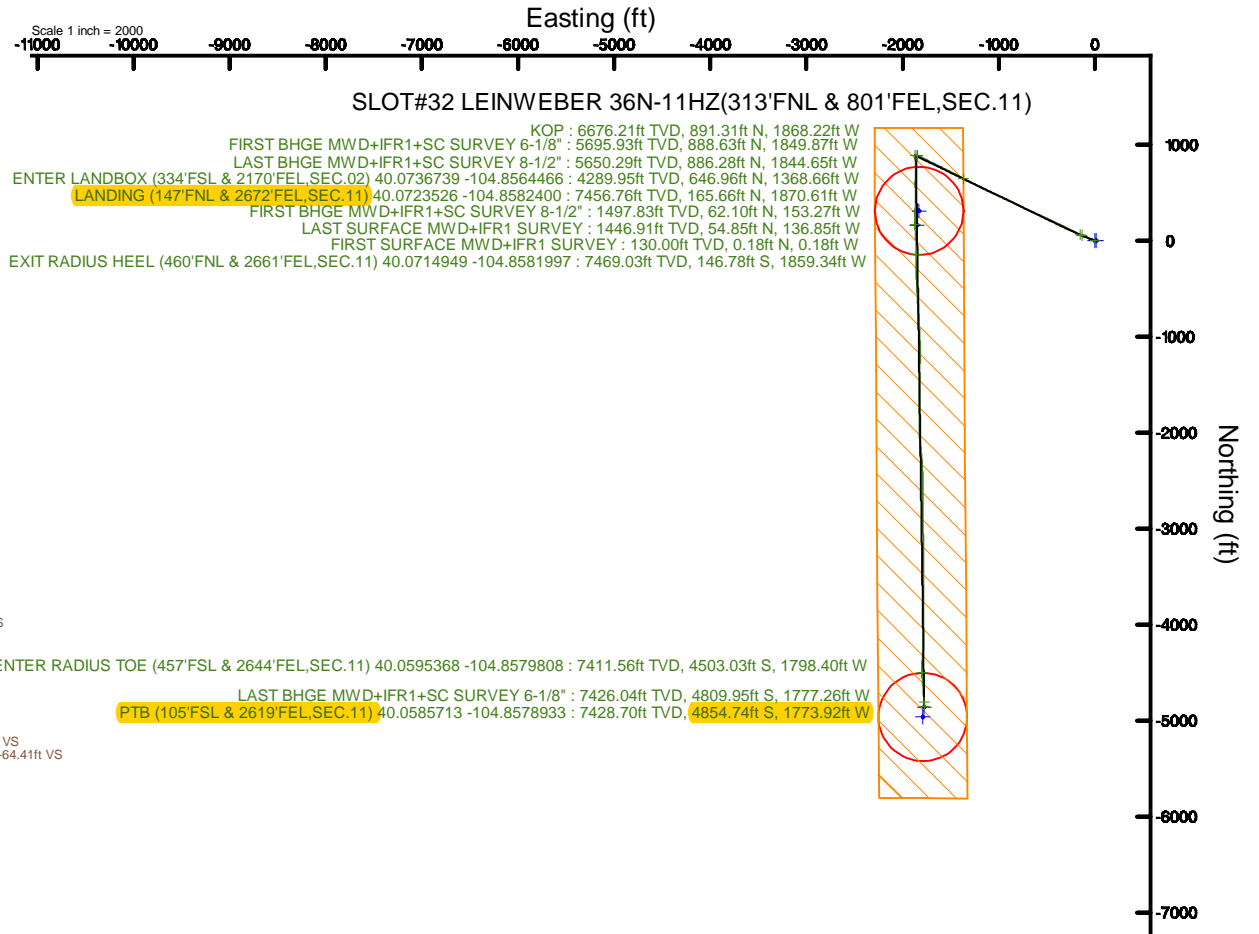
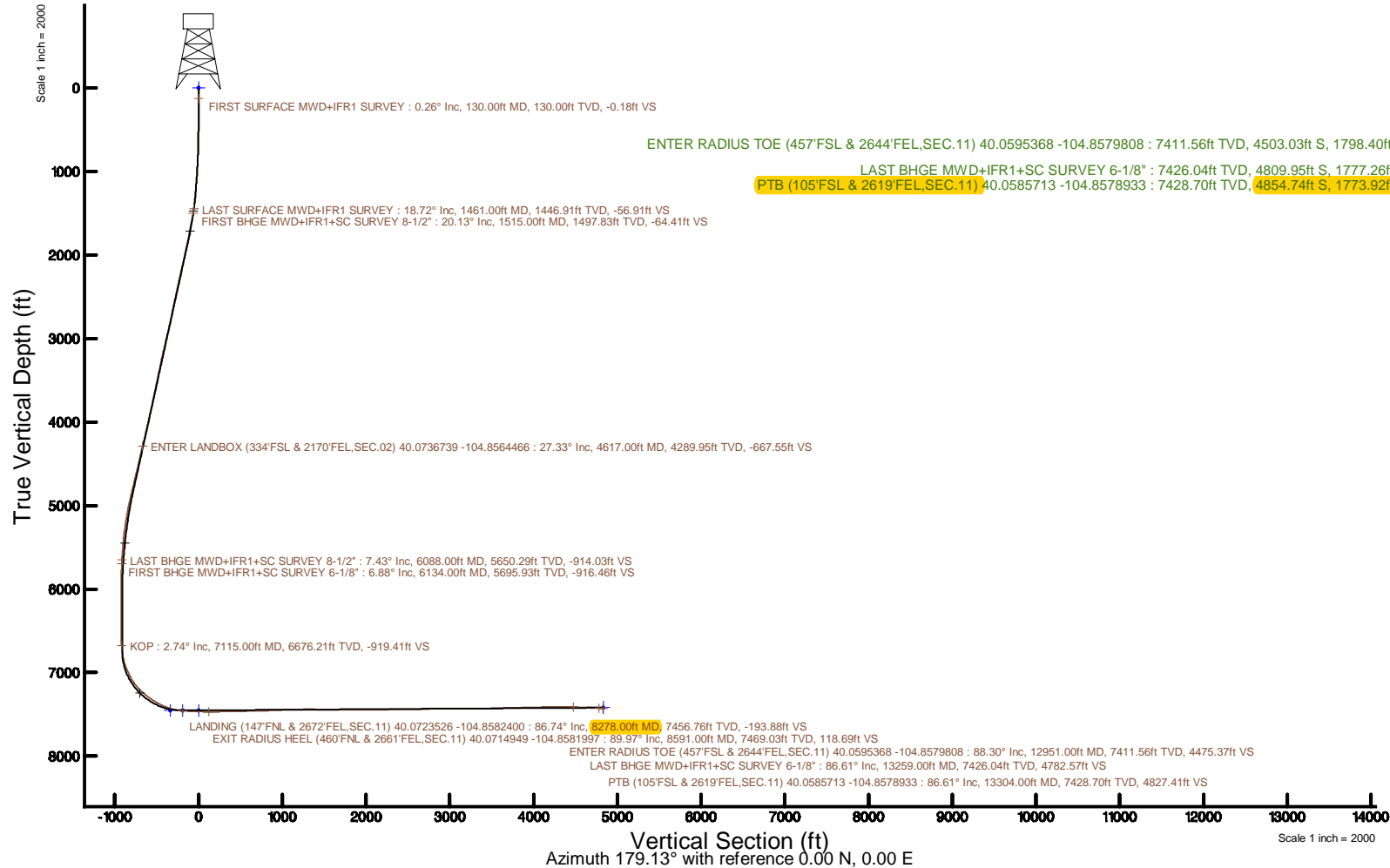


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11)
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: LEINWEBER 36N-11HZ
 Facility: SEC.11-T1N-R67W Wellbore: LEINWEBER 36N-11HZ PWB

| | |
|--|--|
| Plot reference wellpath is LEINWEBER 36N-11HZ PWP Rev-C.0 | Grid System: NAD83 / UTM Zone 13 North, US feet |
| True vertical depths are referenced to Xtrame 22 (17) (RT) | * = Wellpath was transformed from a different geodetic datum |
| Measured depths are referenced to Xtrame 22 (17) (RT) | North Reference: True north |
| Xtrame 22 (17) (RT) to Mean Sea Level: 4992 feet | Scale: True distance |
| Mean Sea Level to Mud line (At Slot: SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11)): 0 feet | Depths are in feet |
| Coordinates are in feet referenced to Slot | Created by: pairsr on 2018-03-09 |
| | Database: WA_DEN, Anadarko, Dfn |



| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11) |
| Area | COLORADO | Well | LEINWEBER 36N-11HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | LEINWEBER 36N-11HZ AWB |
| Facility | SEC.11-T1N-R67W | | |

| REPORT SETUP INFORMATION | | | |
|--------------------------|------------------------------------|----------------------|---|
| Projection System | NAD83 / UTM Zone 13 North, US feet | Software System | WellArchitect® 5.0 |
| North Reference | True | User | Painsetr |
| Scale | 0.999602 | Report Generated | 3/9/2018 at 9:44 AM |
| Convergence at slot | 0.10° East | Database/Source file | WA_DEN_Anadarko_Defn/LEINWEBER_36N-11HZ_AWP.xml |

| WELLPATH LOCATION | | | | | | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|-----------------|
| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | 402.36 | 988.79 | 1681944.89 | 14552949.26 | 40°04'18.833"N | 104°51'05.602"W |
| Facility Reference Pt | | | 1680957.15 | 14552545.45 | 40°04'14.857"N | 104°51'18.321"W |
| Field Reference Pt | | | 1698235.31 | 14552047.82 | 40°04'09.600"N | 104°47'36.000"W |

| WELLPATH DATUM | | | |
|--------------------------|----------------------|---|-------------------|
| Calculation method | Minimum curvature | Xtreme 22 (17') (RT) to Facility Vertical Datum | 4982.00ft |
| Horizontal Reference Pt | Slot | Xtreme 22 (17') (RT) to Mean Sea Level | 4982.00ft |
| Vertical Reference Pt | Xtreme 22 (17') (RT) | Xtreme 22 (17') (RT) to Mud Line at Slot (SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11)) | 4982.00ft |
| MD Reference Pt | Xtreme 22 (17') (RT) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 179.13° |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11) |
| Area | COLORADO | Well | LEINWEBER 36N-11HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | LEINWEBER 36N-11HZ AWB |
| Facility | SEC.11-T1N-R67W | | |

| WELLPATH DATA (189 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 | 314.230 | 0.00 | 0.00 | 0.00 | 0.00 | 1681944.89 | 14552949.26 | 40°04'18.833"N | 104°51'05.602"W | 0.00 | |
| 17.00 | 0.000 | 314.230 | 17.00 | 0.00 | 0.00 | 0.00 | 1681944.89 | 14552949.26 | 40°04'18.833"N | 104°51'05.602"W | 0.00 | |
| 130.00 | 0.260 | 314.230 | 130.00 | -0.18 | 0.18 | -0.18 | 1681944.71 | 14552949.43 | 40°04'18.835"N | 104°51'05.604"W | 0.23 | FIRST SURFACE MWD+IFR1 SURVEY |
| 161.00 | 0.040 | 278.190 | 161.00 | -0.23 | 0.23 | -0.24 | 1681944.65 | 14552949.49 | 40°04'18.835"N | 104°51'05.605"W | 0.74 | |
| 193.00 | 0.090 | 259.210 | 193.00 | -0.23 | 0.23 | -0.28 | 1681944.61 | 14552949.48 | 40°04'18.835"N | 104°51'05.606"W | 0.17 | |
| 225.00 | 0.040 | 278.190 | 225.00 | -0.23 | 0.22 | -0.32 | 1681944.58 | 14552949.48 | 40°04'18.835"N | 104°51'05.606"W | 0.17 | |
| 256.00 | 0.530 | 320.200 | 256.00 | -0.34 | 0.33 | -0.42 | 1681944.47 | 14552949.59 | 40°04'18.836"N | 104°51'05.607"W | 1.62 | |
| 287.00 | 0.220 | 260.350 | 287.00 | -0.44 | 0.44 | -0.57 | 1681944.32 | 14552949.69 | 40°04'18.837"N | 104°51'05.609"W | 1.49 | |
| 319.00 | 0.570 | 267.390 | 319.00 | -0.43 | 0.42 | -0.79 | 1681944.10 | 14552949.67 | 40°04'18.837"N | 104°51'05.612"W | 1.10 | |
| 350.00 | 0.480 | 319.150 | 350.00 | -0.52 | 0.51 | -1.03 | 1681943.86 | 14552949.76 | 40°04'18.838"N | 104°51'05.615"W | 1.50 | |
| 382.00 | 0.750 | 269.580 | 381.99 | -0.63 | 0.61 | -1.32 | 1681943.57 | 14552949.86 | 40°04'18.839"N | 104°51'05.619"W | 1.78 | |
| 413.00 | 1.010 | 288.740 | 412.99 | -0.72 | 0.69 | -1.79 | 1681943.11 | 14552949.95 | 40°04'18.840"N | 104°51'05.625"W | 1.26 | |
| 445.00 | 0.570 | 281.880 | 444.99 | -0.85 | 0.82 | -2.21 | 1681942.68 | 14552950.07 | 40°04'18.841"N | 104°51'05.630"W | 1.40 | |
| 476.00 | 0.830 | 297.970 | 475.99 | -0.99 | 0.96 | -2.56 | 1681942.33 | 14552950.21 | 40°04'18.842"N | 104°51'05.635"W | 1.04 | |
| 508.00 | 1.270 | 295.060 | 507.98 | -1.26 | 1.21 | -3.08 | 1681941.81 | 14552950.47 | 40°04'18.845"N | 104°51'05.642"W | 1.38 | |
| 540.00 | 1.630 | 285.840 | 539.97 | -1.55 | 1.49 | -3.84 | 1681941.05 | 14552950.74 | 40°04'18.848"N | 104°51'05.651"W | 1.34 | |
| 572.00 | 2.240 | 298.230 | 571.95 | -1.98 | 1.91 | -4.83 | 1681940.06 | 14552951.16 | 40°04'18.852"N | 104°51'05.664"W | 2.30 | |
| 604.00 | 2.860 | 295.770 | 603.92 | -2.64 | 2.55 | -6.10 | 1681938.79 | 14552951.80 | 40°04'18.858"N | 104°51'05.680"W | 1.97 | |
| 636.00 | 3.080 | 288.120 | 635.88 | -3.28 | 3.17 | -7.64 | 1681937.25 | 14552952.41 | 40°04'18.864"N | 104°51'05.700"W | 1.42 | |
| 667.00 | 4.130 | 293.220 | 666.82 | -4.01 | 3.87 | -9.46 | 1681935.43 | 14552953.10 | 40°04'18.871"N | 104°51'05.724"W | 3.54 | |
| 699.00 | 4.700 | 294.190 | 698.72 | -5.03 | 4.86 | -11.71 | 1681933.18 | 14552954.09 | 40°04'18.881"N | 104°51'05.753"W | 1.80 | |
| 731.00 | 4.920 | 288.030 | 730.61 | -6.03 | 5.82 | -14.21 | 1681930.68 | 14552955.05 | 40°04'18.891"N | 104°51'05.785"W | 1.75 | |
| 763.00 | 5.100 | 288.030 | 762.49 | -6.94 | 6.68 | -16.87 | 1681928.02 | 14552955.91 | 40°04'18.899"N | 104°51'05.819"W | 0.56 | |
| 794.00 | 5.360 | 285.660 | 793.36 | -7.80 | 7.50 | -19.57 | 1681925.32 | 14552956.72 | 40°04'18.907"N | 104°51'05.854"W | 1.09 | |
| 826.00 | 5.670 | 291.020 | 825.21 | -8.81 | 8.47 | -22.49 | 1681922.40 | 14552957.69 | 40°04'18.917"N | 104°51'05.891"W | 1.88 | |
| 858.00 | 5.980 | 291.810 | 857.04 | -10.04 | 9.66 | -25.51 | 1681919.38 | 14552958.87 | 40°04'18.928"N | 104°51'05.930"W | 1.00 | |
| 890.00 | 6.810 | 293.830 | 888.84 | -11.48 | 11.04 | -28.79 | 1681916.09 | 14552960.25 | 40°04'18.942"N | 104°51'05.972"W | 2.69 | |
| 921.00 | 7.950 | 294.450 | 919.59 | -13.16 | 12.67 | -32.43 | 1681912.46 | 14552961.87 | 40°04'18.958"N | 104°51'06.019"W | 3.69 | |
| 953.00 | 8.610 | 291.550 | 951.25 | -15.02 | 14.47 | -36.67 | 1681908.21 | 14552963.66 | 40°04'18.976"N | 104°51'06.074"W | 2.44 | |
| 985.00 | 8.660 | 290.760 | 982.89 | -16.82 | 16.20 | -41.15 | 1681903.73 | 14552965.38 | 40°04'18.993"N | 104°51'06.131"W | 0.40 | |
| 1017.00 | 8.570 | 291.020 | 1014.53 | -18.60 | 17.91 | -45.63 | 1681899.25 | 14552967.09 | 40°04'19.010"N | 104°51'06.189"W | 0.31 | |
| 1048.00 | 8.790 | 291.020 | 1045.17 | -20.34 | 19.59 | -50.00 | 1681894.88 | 14552968.76 | 40°04'19.027"N | 104°51'06.245"W | 0.71 | |
| 1080.00 | 9.760 | 290.580 | 1076.76 | -22.25 | 21.42 | -54.82 | 1681890.06 | 14552970.58 | 40°04'19.045"N | 104°51'06.307"W | 3.04 | |
| 1112.00 | 10.680 | 294.450 | 1108.25 | -24.51 | 23.60 | -60.06 | 1681884.82 | 14552972.75 | 40°04'19.066"N | 104°51'06.375"W | 3.59 | |
| 1143.00 | 11.070 | 294.800 | 1138.69 | -27.02 | 26.04 | -65.37 | 1681879.50 | 14552975.18 | 40°04'19.090"N | 104°51'06.443"W | 1.28 | |
| 1175.00 | 11.160 | 291.900 | 1170.09 | -29.55 | 28.48 | -71.03 | 1681873.84 | 14552977.61 | 40°04'19.114"N | 104°51'06.516"W | 1.77 | |
| 1207.00 | 11.560 | 292.960 | 1201.46 | -32.05 | 30.89 | -76.86 | 1681868.01 | 14552980.00 | 40°04'19.138"N | 104°51'06.591"W | 1.41 | |
| 1239.00 | 11.910 | 292.520 | 1232.80 | -34.65 | 33.40 | -82.86 | 1681862.01 | 14552982.51 | 40°04'19.163"N | 104°51'06.668"W | 1.13 | |
| 1271.00 | 12.610 | 290.930 | 1264.07 | -37.26 | 35.92 | -89.18 | 1681855.69 | 14552985.01 | 40°04'19.188"N | 104°51'06.749"W | 2.43 | |
| 1302.00 | 13.230 | 289.700 | 1294.28 | -39.76 | 38.32 | -95.68 | 1681849.19 | 14552987.40 | 40°04'19.212"N | 104°51'06.833"W | 2.19 | |
| 1334.00 | 14.810 | 290.140 | 1325.33 | -42.51 | 40.96 | -102.96 | 1681841.90 | 14552990.03 | 40°04'19.238"N | 104°51'06.926"W | 4.95 | |
| 1366.00 | 15.860 | 292.870 | 1356.19 | -45.74 | 44.07 | -110.83 | 1681834.03 | 14552993.13 | 40°04'19.269"N | 104°51'07.028"W | 3.98 | |
| 1397.00 | 16.520 | 291.900 | 1385.96 | -49.15 | 47.36 | -118.83 | 1681826.04 | 14552996.40 | 40°04'19.301"N | 104°51'07.130"W | 2.30 | |
| 1429.00 | 17.890 | 292.430 | 1416.52 | -52.85 | 50.93 | -127.59 | 1681817.27 | 14552999.96 | 40°04'19.336"N | 104°51'07.243"W | 4.31 | |
| 1461.00 | 18.720 | 293.390 | 1446.91 | -56.91 | 54.85 | -136.85 | 1681808.01 | 14553003.85 | 40°04'19.375"N | 104°51'07.362"W | 2.76 | LAST SURFACE MWD+IFR1 SURVEY |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11) |
| Area | COLORADO | Well | LEINWEBER 36N-11HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | LEINWEBER 36N-11HZ AWB |
| Facility | SEC.11-T1N-R67W | | |

| WELLPATH DATA (189 stations) † = interpolated/extrapolated station | | | | | | | | | | | | Comments |
|--|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|------------------|--|
| 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] | |
| 1515.00 | 20.130 | 294.220 | 1497.83 | -64.41 | 62.10 | -153.27 | 1681791.58 | 14553011.08 | 40°04'19.447"N | 104°51'07.574"W | 2.66 | FIRST BHGE MWD+IFR1+SC SURVEY 8-1/2" |
| 1600.00 | 21.200 | 298.090 | 1577.36 | -78.05 | 75.34 | -180.17 | 1681764.66 | 14553024.26 | 40°04'19.578"N | 104°51'07.920"W | 2.04 | |
| 1684.00 | 22.590 | 297.460 | 1655.30 | -93.06 | 89.93 | -207.89 | 1681736.94 | 14553038.80 | 40°04'19.722"N | 104°51'08.276"W | 1.68 | |
| 1770.00 | 23.170 | 296.080 | 1734.54 | -108.56 | 104.99 | -237.74 | 1681707.07 | 14553053.80 | 40°04'19.870"N | 104°51'08.660"W | 0.92 | |
| 1855.00 | 24.670 | 296.870 | 1812.23 | -124.40 | 120.36 | -268.59 | 1681676.21 | 14553069.12 | 40°04'20.022"N | 104°51'09.057"W | 1.80 | |
| 1939.00 | 25.150 | 296.480 | 1888.42 | -140.75 | 136.24 | -300.20 | 1681644.58 | 14553084.94 | 40°04'20.179"N | 104°51'09.464"W | 0.60 | |
| 2024.00 | 25.720 | 295.370 | 1965.18 | -157.20 | 152.19 | -333.04 | 1681611.74 | 14553100.83 | 40°04'20.337"N | 104°51'09.886"W | 0.87 | |
| 2111.00 | 26.860 | 294.970 | 2043.18 | -174.11 | 168.58 | -367.91 | 1681576.85 | 14553117.16 | 40°04'20.499"N | 104°51'10.335"W | 1.33 | |
| 2198.00 | 27.970 | 295.570 | 2120.41 | -191.76 | 185.68 | -404.13 | 1681540.61 | 14553134.19 | 40°04'20.668"N | 104°51'10.800"W | 1.31 | |
| 2285.00 | 26.500 | 294.940 | 2197.76 | -209.30 | 202.67 | -440.14 | 1681504.59 | 14553151.12 | 40°04'20.836"N | 104°51'11.264"W | 1.72 | |
| 2371.00 | 26.900 | 294.780 | 2274.59 | -226.07 | 218.92 | -475.20 | 1681469.52 | 14553167.29 | 40°04'20.996"N | 104°51'11.715"W | 0.47 | |
| 2456.00 | 26.930 | 294.750 | 2350.38 | -242.71 | 235.04 | -510.14 | 1681434.57 | 14553183.35 | 40°04'21.156"N | 104°51'12.164"W | 0.04 | |
| 2545.00 | 27.410 | 294.570 | 2429.56 | -260.22 | 251.99 | -547.07 | 1681397.62 | 14553200.24 | 40°04'21.323"N | 104°51'12.639"W | 0.55 | |
| 2630.00 | 26.220 | 294.290 | 2505.42 | -276.61 | 267.85 | -581.98 | 1681362.70 | 14553216.03 | 40°04'21.480"N | 104°51'13.088"W | 1.41 | |
| 2717.00 | 25.600 | 294.450 | 2583.68 | -292.81 | 283.54 | -616.61 | 1681328.06 | 14553231.65 | 40°04'21.635"N | 104°51'13.534"W | 0.72 | |
| 2804.00 | 25.130 | 294.390 | 2662.29 | -308.73 | 298.95 | -650.55 | 1681294.11 | 14553247.00 | 40°04'21.787"N | 104°51'13.970"W | 0.54 | |
| 2889.00 | 25.400 | 294.610 | 2739.16 | -324.27 | 313.99 | -683.56 | 1681261.09 | 14553261.98 | 40°04'21.936"N | 104°51'14.395"W | 0.34 | |
| 2974.00 | 25.360 | 295.900 | 2815.96 | -340.31 | 329.53 | -716.51 | 1681228.12 | 14553277.46 | 40°04'22.089"N | 104°51'14.819"W | 0.65 | |
| 3061.00 | 26.420 | 297.410 | 2894.22 | -357.87 | 346.58 | -750.45 | 1681194.17 | 14553294.45 | 40°04'22.258"N | 104°51'15.255"W | 1.43 | |
| 3146.00 | 27.970 | 297.690 | 2969.82 | -376.36 | 364.55 | -784.89 | 1681159.71 | 14553312.35 | 40°04'22.435"N | 104°51'15.698"W | 1.83 | |
| 3231.00 | 26.680 | 297.820 | 3045.34 | -395.05 | 382.72 | -819.42 | 1681125.17 | 14553330.46 | 40°04'22.615"N | 104°51'16.142"W | 1.52 | |
| 3316.00 | 26.840 | 296.650 | 3121.24 | -413.07 | 400.23 | -853.45 | 1681091.12 | 14553347.91 | 40°04'22.788"N | 104°51'16.580"W | 0.65 | |
| 3401.00 | 26.590 | 294.620 | 3197.16 | -430.12 | 416.77 | -887.89 | 1681056.66 | 14553364.37 | 40°04'22.951"N | 104°51'17.023"W | 1.11 | |
| 3489.00 | 26.150 | 294.350 | 3276.01 | -446.86 | 432.97 | -923.46 | 1681021.08 | 14553380.51 | 40°04'23.111"N | 104°51'17.481"W | 0.52 | |
| 3576.00 | 26.120 | 294.450 | 3354.11 | -463.21 | 448.80 | -958.36 | 1680986.17 | 14553396.28 | 40°04'23.268"N | 104°51'17.930"W | 0.06 | |
| 3661.00 | 25.520 | 294.620 | 3430.63 | -479.09 | 464.17 | -992.04 | 1680952.48 | 14553411.59 | 40°04'23.420"N | 104°51'18.363"W | 0.71 | |
| 3746.00 | 26.120 | 295.110 | 3507.14 | -495.17 | 479.74 | -1025.63 | 1680918.88 | 14553427.09 | 40°04'23.574"N | 104°51'18.795"W | 0.75 | |
| 3831.00 | 26.170 | 294.610 | 3583.44 | -511.42 | 495.48 | -1059.61 | 1680884.88 | 14553442.77 | 40°04'23.729"N | 104°51'19.232"W | 0.27 | |
| 3916.00 | 25.590 | 292.700 | 3659.92 | -526.83 | 510.37 | -1093.59 | 1680850.89 | 14553457.60 | 40°04'23.876"N | 104°51'19.669"W | 1.19 | |
| 4001.00 | 25.040 | 295.550 | 3736.76 | -542.17 | 525.22 | -1126.76 | 1680817.71 | 14553472.38 | 40°04'24.023"N | 104°51'20.096"W | 1.57 | |
| 4086.00 | 24.790 | 295.680 | 3813.85 | -558.13 | 540.70 | -1159.04 | 1680785.41 | 14553487.80 | 40°04'24.176"N | 104°51'20.511"W | 0.30 | |
| 4170.00 | 25.900 | 297.890 | 3889.76 | -574.83 | 556.91 | -1191.13 | 1680753.31 | 14553503.96 | 40°04'24.336"N | 104°51'20.924"W | 1.74 | |
| 4255.00 | 25.630 | 298.560 | 3966.31 | -592.79 | 574.38 | -1223.69 | 1680720.74 | 14553521.37 | 40°04'24.509"N | 104°51'21.343"W | 0.47 | |
| 4340.00 | 26.250 | 296.070 | 4042.75 | -610.34 | 591.43 | -1256.72 | 1680687.69 | 14553538.36 | 40°04'24.677"N | 104°51'21.768"W | 1.47 | |
| 4425.00 | 26.770 | 294.660 | 4118.82 | -627.10 | 607.68 | -1291.00 | 1680653.40 | 14553554.54 | 40°04'24.838"N | 104°51'22.209"W | 0.96 | |
| 4511.00 | 26.600 | 296.910 | 4195.66 | -644.42 | 624.48 | -1325.77 | 1680618.61 | 14553571.27 | 40°04'25.004"N | 104°51'22.656"W | 1.19 | |
| 4595.00 | 27.620 | 298.120 | 4270.43 | -662.62 | 642.17 | -1359.72 | 1680584.65 | 14553588.90 | 40°04'25.179"N | 104°51'23.093"W | 1.38 | |
| 4617.00 | 27.330 | 298.266 | 4289.95 | -667.55 | 646.96 | -1368.66 | 1680575.70 | 14553593.68 | 40°04'25.226"N | 104°51'23.208"W | 1.35 | ENTER LANDBOX (334'FSL & 2170'FEL, SEC.02) 40.0736739 -104.8564466 |
| 4680.00 | 26.500 | 298.700 | 4346.12 | -681.53 | 660.56 | -1393.73 | 1680550.62 | 14553607.23 | 40°04'25.360"N | 104°51'23.530"W | 1.35 | |
| 4765.00 | 25.850 | 297.080 | 4422.41 | -699.57 | 678.10 | -1426.86 | 1680517.47 | 14553624.71 | 40°04'25.534"N | 104°51'23.956"W | 1.14 | |
| 4850.00 | 26.090 | 296.610 | 4498.82 | -716.87 | 694.91 | -1460.07 | 1680484.25 | 14553641.45 | 40°04'25.700"N | 104°51'24.384"W | 0.37 | |
| 4935.00 | 27.390 | 297.070 | 4574.73 | -734.66 | 712.18 | -1494.19 | 1680450.11 | 14553658.66 | 40°04'25.870"N | 104°51'24.823"W | 1.55 | |
| 5020.00 | 26.680 | 297.210 | 4650.44 | -752.80 | 729.81 | -1528.58 | 1680415.71 | 14553676.22 | 40°04'26.045"N | 104°51'25.265"W | 0.84 | |
| 5105.00 | 27.340 | 295.830 | 4726.17 | -770.55 | 747.04 | -1563.12 | 1680381.16 | 14553693.39 | 40°04'26.215"N | 104°51'25.709"W | 1.07 | |
| 5190.00 | 27.690 | 296.540 | 4801.56 | -788.41 | 764.36 | -1598.35 | 1680345.91 | 14553710.65 | 40°04'26.386"N | 104°51'26.162"W | 0.56 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11) |
| Area | COLORADO | Well | LEINWEBER 36N-11HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | LEINWEBER 36N-11HZ AWP |
| Facility | SEC.11-T1N-R67W | | |

| WELLPATH DATA (189 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 |
| 5275.00 | 26.960 | 297.290 | 4877.07 | -806.59 | 782.02 | -1633.15 | 1680311.10 | 14553728.24 | 40°04'26.561"N | 104°51'26.610"W | 0.95 | |
| 5360.00 | 25.620 | 296.500 | 4953.28 | -824.13 | 799.06 | -1666.72 | 1680277.51 | 14553745.22 | 40°04'26.729"N | 104°51'27.042"W | 1.63 | |
| 5445.00 | 23.490 | 296.880 | 5030.59 | -840.46 | 814.92 | -1698.28 | 1680245.94 | 14553761.02 | 40°04'26.886"N | 104°51'27.448"W | 2.51 | |
| 5529.00 | 20.890 | 296.960 | 5108.36 | -855.25 | 829.28 | -1726.56 | 1680217.64 | 14553775.33 | 40°04'27.028"N | 104°51'27.812"W | 3.10 | |
| 5614.00 | 18.860 | 294.770 | 5188.29 | -868.27 | 841.91 | -1752.55 | 1680191.65 | 14553787.90 | 40°04'27.152"N | 104°51'28.146"W | 2.54 | |
| 5699.00 | 16.240 | 297.550 | 5269.33 | -879.87 | 853.16 | -1775.56 | 1680168.62 | 14553799.12 | 40°04'27.264"N | 104°51'28.442"W | 3.24 | |
| 5784.00 | 13.880 | 298.230 | 5351.41 | -890.49 | 863.49 | -1795.09 | 1680149.09 | 14553809.40 | 40°04'27.365"N | 104°51'28.693"W | 2.78 | |
| 5869.00 | 11.980 | 293.460 | 5434.25 | -899.08 | 871.82 | -1812.16 | 1680132.00 | 14553817.71 | 40°04'27.448"N | 104°51'28.913"W | 2.56 | |
| 5954.00 | 9.500 | 294.550 | 5517.75 | -905.72 | 878.25 | -1826.64 | 1680117.52 | 14553824.11 | 40°04'27.511"N | 104°51'29.099"W | 2.93 | |
| 6039.00 | 8.180 | 293.770 | 5601.74 | -911.26 | 883.60 | -1838.56 | 1680105.60 | 14553829.44 | 40°04'27.564"N | 104°51'29.252"W | 1.56 | |
| 6088.00 | 7.430 | 293.740 | 5650.29 | -914.03 | 886.28 | -1844.65 | 1680099.51 | 14553832.11 | 40°04'27.591"N | 104°51'29.331"W | 1.53 | LAST BHGE MWD+IFR1+SC SURVEY 8-1/2" |
| 6134.00 | 6.880 | 294.710 | 5695.93 | -916.46 | 888.63 | -1849.87 | 1680094.28 | 14553834.45 | 40°04'27.614"N | 104°51'29.398"W | 1.22 | FIRST BHGE MWD+IFR1+SC SURVEY 6-1/8" |
| 6219.00 | 4.120 | 299.720 | 5780.53 | -920.21 | 892.27 | -1857.15 | 1680087.00 | 14553838.07 | 40°04'27.650"N | 104°51'29.492"W | 3.29 | |
| 6304.00 | 2.870 | 294.670 | 5865.37 | -922.68 | 894.67 | -1861.74 | 1680082.41 | 14553840.46 | 40°04'27.674"N | 104°51'29.551"W | 1.51 | |
| 6389.00 | 1.290 | 292.770 | 5950.31 | -923.97 | 895.93 | -1864.55 | 1680079.59 | 14553841.71 | 40°04'27.686"N | 104°51'29.587"W | 1.86 | |
| 6481.00 | 1.210 | 285.810 | 6042.29 | -924.67 | 896.59 | -1866.44 | 1680077.70 | 14553842.38 | 40°04'27.693"N | 104°51'29.611"W | 0.19 | |
| 6573.00 | 0.300 | 19.350 | 6134.28 | -925.17 | 897.08 | -1867.30 | 1680076.85 | 14553842.87 | 40°04'27.697"N | 104°51'29.622"W | 1.37 | |
| 6664.00 | 0.700 | 294.110 | 6225.28 | -925.63 | 897.54 | -1867.73 | 1680076.42 | 14553843.32 | 40°04'27.702"N | 104°51'29.628"W | 0.81 | |
| 6756.00 | 0.620 | 151.870 | 6317.28 | -925.42 | 897.33 | -1868.01 | 1680076.14 | 14553843.11 | 40°04'27.700"N | 104°51'29.631"W | 1.36 | |
| 6849.00 | 0.620 | 162.460 | 6410.27 | -924.50 | 896.40 | -1867.62 | 1680076.53 | 14553842.19 | 40°04'27.691"N | 104°51'29.626"W | 0.12 | |
| 6942.00 | 0.730 | 192.050 | 6503.27 | -923.44 | 895.34 | -1867.59 | 1680076.56 | 14553841.13 | 40°04'27.680"N | 104°51'29.626"W | 0.39 | |
| 7035.00 | 1.050 | 184.560 | 6596.26 | -922.01 | 893.91 | -1867.78 | 1680076.37 | 14553839.70 | 40°04'27.666"N | 104°51'29.628"W | 0.37 | |
| 7115.00† | 2.745 | 191.592 | 6676.21 | -919.41 | 891.31 | -1868.22 | 1680075.93 | 14553837.09 | 40°04'27.640"N | 104°51'29.634"W | 2.13 | KOP |
| 7127.00 | 3.000 | 191.960 | 6688.19 | -918.82 | 890.72 | -1868.35 | 1680075.81 | 14553836.50 | 40°04'27.635"N | 104°51'29.636"W | 2.13 | |
| 7219.00 | 10.310 | 178.630 | 6779.52 | -908.23 | 880.12 | -1868.65 | 1680075.53 | 14553825.91 | 40°04'27.530"N | 104°51'29.640"W | 8.07 | |
| 7312.00 | 14.700 | 178.760 | 6870.29 | -888.10 | 859.99 | -1868.19 | 1680076.02 | 14553805.79 | 40°04'27.331"N | 104°51'29.634"W | 4.72 | |
| 7403.00 | 22.460 | 179.350 | 6956.48 | -859.12 | 831.02 | -1867.75 | 1680076.51 | 14553776.83 | 40°04'27.045"N | 104°51'29.628"W | 8.53 | |
| 7496.00 | 26.630 | 179.810 | 7041.06 | -820.50 | 792.40 | -1867.48 | 1680076.85 | 14553738.22 | 40°04'26.663"N | 104°51'29.624"W | 4.49 | |
| 7588.00 | 34.960 | 180.750 | 7120.02 | -773.45 | 745.34 | -1867.75 | 1680076.65 | 14553691.19 | 40°04'26.198"N | 104°51'29.628"W | 9.07 | |
| 7681.00 | 43.630 | 178.950 | 7191.92 | -714.62 | 686.51 | -1867.51 | 1680076.99 | 14553632.37 | 40°04'25.616"N | 104°51'29.625"W | 9.40 | |
| 7766.00 | 49.360 | 181.760 | 7250.42 | -653.02 | 624.89 | -1867.97 | 1680076.63 | 14553570.78 | 40°04'25.008"N | 104°51'29.631"W | 7.15 | |
| 7850.00 | 54.730 | 178.540 | 7302.07 | -586.84 | 558.70 | -1868.07 | 1680076.64 | 14553504.62 | 40°04'24.353"N | 104°51'29.632"W | 7.07 | |
| 7936.00 | 58.690 | 177.620 | 7349.27 | -514.98 | 486.87 | -1865.65 | 1680079.18 | 14553432.82 | 40°04'23.644"N | 104°51'29.601"W | 4.69 | |
| 8021.00 | 64.380 | 181.450 | 7389.77 | -440.31 | 412.20 | -1865.11 | 1680079.84 | 14553358.18 | 40°04'22.906"N | 104°51'29.594"W | 7.78 | |
| 8108.00 | 72.370 | 183.330 | 7421.81 | -359.63 | 331.46 | -1868.52 | 1680076.57 | 14553277.47 | 40°04'22.108"N | 104°51'29.637"W | 9.40 | |
| 8193.00 | 76.660 | 181.250 | 7444.50 | -277.87 | 249.64 | -1871.77 | 1680073.45 | 14553195.67 | 40°04'21.299"N | 104°51'29.679"W | 5.57 | |
| 8278.00 | 86.740 | 177.210 | 7456.76 | -193.88 | 165.66 | -1870.61 | 1680074.76 | 14553111.73 | 40°04'20.469"N | 104°51'29.664"W | 12.76 | LANDING (147'FNL & 2672'FEL,SEC.11) 40.0723526 -104.8582400 |
| 8363.00 | 87.810 | 175.990 | 7460.80 | -109.06 | 80.91 | -1865.57 | 1680079.93 | 14553027.02 | 40°04'19.632"N | 104°51'29.599"W | 1.91 | |
| 8449.00 | 88.000 | 177.810 | 7463.95 | -23.19 | -4.90 | -1860.93 | 1680084.72 | 14552941.25 | 40°04'18.784"N | 104°51'29.539"W | 2.13 | |
| 8534.00 | 87.110 | 180.040 | 7467.58 | 61.72 | -89.80 | -1859.33 | 1680086.46 | 14552856.39 | 40°04'17.945"N | 104°51'29.519"W | 2.82 | |
| 8591.00† | 89.973 | 179.980 | 7469.03 | 118.69 | -146.78 | -1859.34 | 1680086.54 | 14552799.44 | 40°04'17.382"N | 104°51'29.519"W | 5.02 | EXIT RADIUS HEEL (460'FNL & 2661'FEL,SEC.11) 40.0714949 -104.8581997 |
| 8619.00 | 91.380 | 179.950 | 7468.70 | 146.69 | -174.78 | -1859.32 | 1680086.61 | 14552771.45 | 40°04'17.105"N | 104°51'29.519"W | 5.02 | |
| 8704.00 | 90.430 | 179.220 | 7467.35 | 231.67 | -259.76 | -1858.71 | 1680087.36 | 14552686.50 | 40°04'16.265"N | 104°51'29.511"W | 1.41 | |
| 8791.00 | 92.370 | 178.080 | 7465.23 | 318.64 | -346.71 | -1856.66 | 1680089.56 | 14552599.59 | 40°04'15.406"N | 104°51'29.484"W | 2.59 | |
| 8876.00 | 91.510 | 177.630 | 7462.35 | 403.57 | -431.60 | -1853.48 | 1680092.88 | 14552514.74 | 40°04'14.567"N | 104°51'29.443"W | 1.14 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11) |
| Area | COLORADO | Well | LEINWEBER 36N-11HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | LEINWEBER 36N-11HZ AWB |
| Facility | SEC.11-T1N-R67W | | |

| WELLPATH DATA (189 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 |
| 8961.00 | 89.880 | 177.160 | 7461.32 | 488.52 | -516.50 | -1849.62 | 1680096.88 | 14552429.88 | 40°04'13.728"N | 104°51'29.393"W | 2.00 | |
| 9046.00 | 91.540 | 177.080 | 7460.27 | 573.46 | -601.38 | -1845.35 | 1680101.29 | 14552345.04 | 40°04'12.889"N | 104°51'29.338"W | 1.96 | |
| 9131.00 | 90.280 | 174.980 | 7458.92 | 658.32 | -686.16 | -1839.46 | 1680107.31 | 14552260.30 | 40°04'12.052"N | 104°51'29.263"W | 2.88 | |
| 9216.00 | 92.030 | 177.450 | 7457.20 | 743.18 | -770.95 | -1833.85 | 1680113.06 | 14552175.56 | 40°04'11.214"N | 104°51'29.190"W | 3.56 | |
| 9301.00 | 92.340 | 177.800 | 7453.96 | 828.09 | -855.82 | -1830.33 | 1680116.72 | 14552090.73 | 40°04'10.375"N | 104°51'29.145"W | 0.55 | |
| 9388.00 | 92.590 | 177.120 | 7450.22 | 914.97 | -942.65 | -1826.48 | 1680120.72 | 14552003.94 | 40°04'09.517"N | 104°51'29.095"W | 0.83 | |
| 9474.00 | 92.250 | 176.890 | 7446.59 | 1000.83 | -1028.45 | -1821.99 | 1680125.35 | 14551918.18 | 40°04'08.669"N | 104°51'29.038"W | 0.48 | |
| 9559.00 | 92.130 | 179.310 | 7443.34 | 1085.75 | -1113.34 | -1819.18 | 1680128.30 | 14551833.33 | 40°04'07.830"N | 104°51'29.001"W | 2.85 | |
| 9644.00 | 90.550 | 181.150 | 7441.35 | 1170.70 | -1198.31 | -1819.52 | 1680128.10 | 14551748.39 | 40°04'06.990"N | 104°51'29.006"W | 2.85 | |
| 9729.00 | 91.020 | 181.630 | 7440.19 | 1255.63 | -1283.28 | -1821.58 | 1680126.18 | 14551663.46 | 40°04'06.151"N | 104°51'29.032"W | 0.79 | |
| 9816.00 | 89.350 | 180.090 | 7439.91 | 1342.58 | -1370.26 | -1822.88 | 1680125.02 | 14551576.51 | 40°04'05.291"N | 104°51'29.049"W | 2.61 | |
| 9901.00 | 89.660 | 180.730 | 7440.64 | 1427.56 | -1455.25 | -1823.49 | 1680124.56 | 14551491.55 | 40°04'04.451"N | 104°51'29.056"W | 0.84 | |
| 9986.00 | 89.450 | 180.670 | 7441.30 | 1512.53 | -1540.24 | -1824.53 | 1680123.66 | 14551406.59 | 40°04'03.611"N | 104°51'29.070"W | 0.26 | |
| 10071.00 | 89.260 | 180.830 | 7442.26 | 1597.49 | -1625.23 | -1825.64 | 1680122.69 | 14551321.63 | 40°04'02.771"N | 104°51'29.084"W | 0.29 | |
| 10155.00 | 89.450 | 179.390 | 7443.20 | 1681.47 | -1709.22 | -1825.81 | 1680122.67 | 14551237.67 | 40°04'01.941"N | 104°51'29.086"W | 1.73 | |
| 10240.00 | 90.310 | 179.510 | 7443.38 | 1766.46 | -1794.22 | -1824.99 | 1680123.63 | 14551152.71 | 40°04'01.101"N | 104°51'29.075"W | 1.02 | |
| 10325.00 | 90.580 | 180.320 | 7442.72 | 1851.45 | -1879.22 | -1824.86 | 1680123.90 | 14551067.75 | 40°04'00.262"N | 104°51'29.074"W | 1.00 | |
| 10412.00 | 90.090 | 179.070 | 7442.21 | 1938.45 | -1966.21 | -1824.40 | 1680124.50 | 14550980.79 | 40°03'59.402"N | 104°51'29.068"W | 1.54 | |
| 10497.00 | 90.490 | 177.060 | 7441.78 | 2023.42 | -2051.16 | -1821.53 | 1680127.51 | 14550895.89 | 40°03'58.562"N | 104°51'29.031"W | 2.41 | |
| 10582.00 | 90.250 | 174.410 | 7441.23 | 2108.27 | -2135.91 | -1815.21 | 1680133.97 | 14550811.18 | 40°03'57.725"N | 104°51'28.949"W | 3.13 | |
| 10667.00 | 90.280 | 174.960 | 7440.84 | 2193.01 | -2220.55 | -1807.34 | 1680141.98 | 14550726.59 | 40°03'56.888"N | 104°51'28.848"W | 0.65 | |
| 10752.00 | 90.490 | 174.990 | 7440.27 | 2277.78 | -2305.22 | -1799.89 | 1680149.57 | 14550641.96 | 40°03'56.052"N | 104°51'28.752"W | 0.25 | |
| 10837.00 | 91.290 | 178.430 | 7438.95 | 2362.68 | -2390.05 | -1795.01 | 1680154.58 | 14550557.17 | 40°03'55.213"N | 104°51'28.689"W | 4.15 | |
| 10922.00 | 90.990 | 180.000 | 7437.26 | 2447.66 | -2475.03 | -1793.85 | 1680155.89 | 14550472.23 | 40°03'54.374"N | 104°51'28.674"W | 1.88 | |
| 11007.00 | 90.650 | 180.420 | 7436.04 | 2532.64 | -2560.02 | -1794.16 | 1680155.72 | 14550387.28 | 40°03'53.534"N | 104°51'28.678"W | 0.64 | |
| 11091.00 | 90.650 | 179.420 | 7435.09 | 2616.62 | -2644.01 | -1794.04 | 1680155.98 | 14550303.32 | 40°03'52.704"N | 104°51'28.677"W | 1.19 | |
| 11176.00 | 90.620 | 179.710 | 7434.15 | 2701.62 | -2729.00 | -1793.40 | 1680156.76 | 14550218.36 | 40°03'51.864"N | 104°51'28.668"W | 0.34 | |
| 11261.00 | 90.430 | 178.580 | 7433.37 | 2786.61 | -2813.99 | -1792.13 | 1680158.17 | 14550133.41 | 40°03'51.024"N | 104°51'28.652"W | 1.35 | |
| 11346.00 | 90.580 | 180.510 | 7432.62 | 2871.60 | -2898.98 | -1791.46 | 1680158.99 | 14550048.46 | 40°03'50.184"N | 104°51'28.643"W | 2.28 | |
| 11433.00 | 90.520 | 178.520 | 7431.78 | 2958.59 | -2985.97 | -1790.72 | 1680159.87 | 14549961.50 | 40°03'49.324"N | 104°51'28.634"W | 2.29 | |
| 11518.00 | 90.090 | 177.020 | 7431.33 | 3043.56 | -3070.90 | -1787.41 | 1680163.32 | 14549876.61 | 40°03'48.485"N | 104°51'28.591"W | 1.84 | |
| 11603.00 | 88.650 | 178.340 | 7432.26 | 3128.53 | -3155.82 | -1783.97 | 1680166.90 | 14549791.73 | 40°03'47.646"N | 104°51'28.547"W | 2.30 | |
| 11690.00 | 91.110 | 180.800 | 7432.45 | 3215.51 | -3242.80 | -1783.32 | 1680167.70 | 14549704.78 | 40°03'46.786"N | 104°51'28.538"W | 4.00 | |
| 11775.00 | 90.560 | 180.160 | 7431.21 | 3300.48 | -3327.79 | -1784.03 | 1680167.13 | 14549619.83 | 40°03'45.946"N | 104°51'28.547"W | 0.99 | |
| 11860.00 | 91.450 | 181.290 | 7429.72 | 3385.43 | -3412.77 | -1785.11 | 1680166.19 | 14549534.88 | 40°03'45.107"N | 104°51'28.561"W | 1.69 | |
| 11945.00 | 91.600 | 181.030 | 7427.45 | 3470.35 | -3497.72 | -1786.83 | 1680164.62 | 14549449.96 | 40°03'44.267"N | 104°51'28.583"W | 0.35 | |
| 12030.00 | 90.060 | 178.900 | 7426.22 | 3555.32 | -3582.70 | -1786.77 | 1680164.81 | 14549365.01 | 40°03'43.427"N | 104°51'28.582"W | 3.09 | |
| 12117.00 | 90.580 | 180.220 | 7425.74 | 3642.32 | -3669.70 | -1786.11 | 1680165.62 | 14549278.05 | 40°03'42.568"N | 104°51'28.574"W | 1.63 | |
| 12202.00 | 90.740 | 180.470 | 7424.76 | 3727.29 | -3754.69 | -1786.62 | 1680165.25 | 14549193.09 | 40°03'41.728"N | 104°51'28.580"W | 0.35 | |
| 12286.00 | 92.840 | 180.030 | 7422.13 | 3811.23 | -3838.64 | -1786.98 | 1680165.03 | 14549109.17 | 40°03'40.898"N | 104°51'28.585"W | 2.55 | |
| 12371.00 | 92.280 | 179.580 | 7418.34 | 3896.14 | -3923.56 | -1786.69 | 1680165.46 | 14549024.29 | 40°03'40.059"N | 104°51'28.581"W | 0.84 | |
| 12457.00 | 90.800 | 178.900 | 7416.03 | 3982.10 | -4009.52 | -1785.55 | 1680166.74 | 14548938.37 | 40°03'39.209"N | 104°51'28.566"W | 1.89 | |
| 12542.00 | 91.450 | 180.640 | 7414.36 | 4067.08 | -4094.50 | -1785.21 | 1680167.22 | 14548853.43 | 40°03'38.370"N | 104°51'28.562"W | 2.18 | |
| 12627.00 | 90.460 | 179.890 | 7412.94 | 4152.05 | -4179.48 | -1785.61 | 1680166.97 | 14548768.48 | 40°03'37.530"N | 104°51'28.567"W | 1.46 | |
| 12711.00 | 90.340 | 182.320 | 7412.35 | 4235.99 | -4263.46 | -1787.23 | 1680165.49 | 14548684.53 | 40°03'36.700"N | 104°51'28.587"W | 2.90 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11) |
| Area | COLORADO | Well | LEINWEBER 36N-11HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | LEINWEBER 36N-11HZ AWB |
| Facility | SEC.11-T1N-R67W | | |

| WELLPATH DATA (189 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 |
| 12798.00 | 90.340 | 185.110 | 7411.84 | 4322.70 | -4350.26 | -1792.86 | 1680160.00 | 14548597.75 | 40°03'35.842"N | 104°51'28.660"W | 3.21 | |
| 12883.00 | 90.770 | 182.590 | 7411.01 | 4407.40 | -4435.06 | -1798.57 | 1680154.44 | 14548512.98 | 40°03'35.004"N | 104°51'28.733"W | 3.01 | |
| 12951.00† | 88.305 | 177.127 | 7411.56 | 4475.37 | -4503.03 | -1798.40 | 1680154.72 | 14548445.04 | 40°03'34.332"N | 104°51'28.731"W | 8.81 | ENTER RADIUS TOE (457'FSL & 2644'FEL,SEC.11) 40.0595368 -104.8579808 |
| 12968.00 | 87.690 | 175.760 | 7412.16 | 4492.34 | -4519.98 | -1797.35 | 1680155.80 | 14548428.09 | 40°03'34.165"N | 104°51'28.717"W | 8.81 | |
| 13052.00 | 86.950 | 175.380 | 7416.09 | 4576.08 | -4603.64 | -1790.87 | 1680162.42 | 14548344.48 | 40°03'33.338"N | 104°51'28.634"W | 0.99 | |
| 13138.00 | 87.660 | 176.740 | 7420.13 | 4661.86 | -4689.34 | -1784.96 | 1680168.46 | 14548258.82 | 40°03'32.491"N | 104°51'28.558"W | 1.78 | |
| 13225.00 | 87.040 | 176.230 | 7424.15 | 4748.67 | -4776.08 | -1779.64 | 1680173.93 | 14548172.12 | 40°03'31.634"N | 104°51'28.489"W | 0.92 | |
| 13259.00 | 86.610 | 175.740 | 7426.04 | 4782.57 | -4809.95 | -1777.26 | 1680176.37 | 14548138.28 | 40°03'31.299"N | 104°51'28.459"W | 1.92 | LAST BHGE MWD+IFR1+SC SURVEY 6-1/8" |
| 13304.00 | 86.610 | 175.740 | 7428.70 | 4827.41 | -4854.74 | -1773.92 | 1680179.78 | 14548093.50 | 40°03'30.857"N | 104°51'28.416"W | 0.00 | PTB (105'FSL & 2619'FEL,SEC.11) 40.0585713 -104.8578933 |

| TARGETS | | | | | | | | |
|--|----------|------------|-----------|-------------------|--------------------|----------------|-----------------|---------|
| Name | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
| SEC.11-T1N-R67W | 0.00 | 0.00 | 15.16 | 1681960.05 | 14552949.28 | 40°04'18.833"N | 104°51'05.407"W | polygon |
| LEINWEBER 36N-11HZ BHL REV-1(100'FSL & 2621'FEL,SEC.11) | 7419.00 | -4859.98 | -1775.50 | 1680178.21 | 14548088.27 | 40°03'30.805"N | 104°51'28.436"W | point |
| LEINWEBER 36N-11HZ HEEL REV-1(150'FNL & 2580'FWL,SEC.11) | 7453.00 | 163.60 | -1851.32 | 1680094.04 | 14553109.70 | 40°04'20.449"N | 104°51'29.416"W | point |
| LEINWEBER 36N-11HZ LANDBOX | 7453.00 | -0.02 | 0.03 | 1681944.92 | 14552949.24 | 40°04'18.833"N | 104°51'05.602"W | polygon |
| LEINWEBER 36N-11HZ RADIUS 1 | 7453.00 | -4962.36 | -1789.88 | 1680164.00 | 14547985.90 | 40°03'29.793"N | 104°51'28.621"W | polygon |
| LEINWEBER 36N-11HZ RADIUS 2 | 7453.00 | 311.32 | -1828.21 | 1680116.90 | 14553257.40 | 40°04'21.909"N | 104°51'29.119"W | polygon |

| WELLPATH COMPOSITION - Ref Wellbore: LEINWEBER 36N-11HZ AWB | | | | | Ref Wellpath: LEINWEBER 36N-11HZ AWP | | |
|---|-------------|---|--|--|--|--|------------------------|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | | | Log Name/Comment | | Wellbore |
| 17.00 | 1461.00 | Custom APC ISCWSA REV 2 MWD+IFR1 (approximation) | | | Custom APC ISCWSA Rev-2 MWD+IFR1 <130 - 1461> | | LEINWEBER 36N-11HZ AWB |
| 1461.00 | 6088.00 | Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation) | | | BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC 8-1/2" <1515 - 6088> | | LEINWEBER 36N-11HZ AWB |
| 6088.00 | 13259.00 | Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation) | | | BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC 6-1/8" <6134 - 13259> | | LEINWEBER 36N-11HZ AWB |
| 13259.00 | 13304.00 | Blind Drilling (std) | | | Projection to bit | | LEINWEBER 36N-11HZ AWB |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#32 LEINWEBER 36N-11HZ(313'FNL & 801'FEL,SEC.11) |
| Area | COLORADO | Well | LEINWEBER 36N-11HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | LEINWEBER 36N-11HZ AWB |
| Facility | SEC.11-T1N-R67W | | |

| WELLPATH COMMENTS | | | | |
|-------------------|--------------------|----------------|-------------|--|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Comment |
| 130.00 | 0.260 | 314.230 | 130.00 | FIRST SURFACE MWD+IFR1 SURVEY |
| 1461.00 | 18.720 | 293.390 | 1446.91 | LAST SURFACE MWD+IFR1 SURVEY |
| 1515.00 | 20.130 | 294.220 | 1497.83 | FIRST BHGE MWD+IFR1+SC SURVEY 8-1/2" |
| 4617.00 | 27.330 | 298.266 | 4289.95 | ENTER LANDBOX (334'FSL & 2170'FEL,SEC.02) 40.0736739 -104.8564466 |
| 6088.00 | 7.430 | 293.740 | 5650.29 | LAST BHGE MWD+IFR1+SC SURVEY 8-1/2" |
| 6134.00 | 6.880 | 294.710 | 5695.93 | FIRST BHGE MWD+IFR1+SC SURVEY 6-1/8" |
| 7115.00 | 2.745 | 191.592 | 6676.21 | KOP |
| 8278.00 | 86.740 | 177.210 | 7456.76 | LANDING (147'FNL & 2672'FEL,SEC.11) 40.0723526 -104.8582400 |
| 8591.00 | 89.973 | 179.980 | 7469.03 | EXIT RADIUS HEEL (460'FNL & 2661'FEL,SEC.11) 40.0714949 -104.8581997 |
| 12951.00 | 88.305 | 177.127 | 7411.56 | ENTER RADIUS TOE (457'FSL & 2644'FEL,SEC.11) 40.0595368 -104.8579808 |
| 13259.00 | 86.610 | 175.740 | 7426.04 | LAST BHGE MWD+IFR1+SC SURVEY 6-1/8" |
| 13304.00 | 86.610 | 175.740 | 7428.70 | PTB (105'FSL & 2619'FEL,SEC.11) 40.0585713 -104.8578933 |