



REFERENCE WELLPATH IDENTIFICATION

| | | | |
|----------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#30 CREAM 15C-28HZ (422'FNL & 1390' FEL, SEC.28) |
| Area | COLORADO | Well | CREAM 15C-28HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | CREAM 15C-28HZ AWB <12800> |
| Facility | SEC.28-T3N-R65W | | |

REPORT SETUP INFORMATION

| | | | |
|---------------------|------------------------------------|----------------------|---|
| Projection System | NAD83 / UTM Zone 13 North, US feet | Software System | WellArchitect® 4.1.1 |
| North Reference | True | User | Precain |
| Scale | 0.99961 | Report Generated | 5/20/2015 at 10:10:45 AM |
| Convergence at slot | 0.22° East | Database/Source file | WellArchitectAPC/CREAM_15C-28HZ_AWB__12800_.xml |

WELLPATH LOCATION

| | Local coordinates | | Grid coordinates | | Geographic coordinates | |
|-----------------------|-------------------|----------|------------------|-----------------|------------------------|-----------------|
| | North[ft] | East[ft] | Easting[US ft] | Northing[US ft] | Latitude | Longitude |
| Slot Location | 2844.13 | 1816.76 | 1734169.36 | 14600660.33 | 40°12'09.097"N | 104°39'51.250"W |
| Facility Reference Pt | | | 1732363.88 | 14597810.60 | 40°11'40.992"N | 104°40'14.664"W |
| Field Reference Pt | | | 1698235.31 | 14552047.82 | 40°04'09.600"N | 104°47'36.000"W |

WELLPATH DATUM

| | | | |
|--------------------------|-----------------------------|--|-------------------|
| Calculation method | Minimum curvature | PRECISION 462 (20'KB) (RKB) to Facility Vertical Datum | 4844.00ft |
| Horizontal Reference Pt | Slot | PRECISION 462 (20'KB) (RKB) to Mean Sea Level | 4844.00ft |
| Vertical Reference Pt | PRECISION 462 (20'KB) (RKB) | PRECISION 462 (20'KB) (RKB) to Mud Line at Slot (SLOT#30 CREAM 15C-28HZ (422'FNL & 1390' FEL, SEC.28)) | 4844.00ft |
| MD Reference Pt | PRECISION 462 (20'KB) (RKB) | Section Origin | N 0.00, E 0.00 ft |
| Field Vertical Reference | Mean Sea Level | Section Azimuth | 180.05° |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#30 CREAM 15C-28HZ (422'FNL & 1390' FEL, SEC.28) |
| Area | COLORADO | Well | CREAM 15C-28HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | CREAM 15C-28HZ AWB <12800> |
| Facility | SEC.28-T3N-R65W | | |

| WELLPATH DATA (158 stations) † = interpolated/extrapolated station | | | | | | | | | | |
|--|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|--------------------------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 0.00† | 0.000 | 330.900 | 0.00 | 0.00 | 0.00 | 0.00 | 40°12'09.097"N | 104°39'51.250"W | 0.00 | |
| 20.00 | 0.000 | 330.900 | 20.00 | 0.00 | 0.00 | 0.00 | 40°12'09.097"N | 104°39'51.250"W | 0.00 | Tie-On |
| 99.00 | 0.400 | 330.900 | 99.00 | -0.24 | 0.24 | -0.13 | 40°12'09.099"N | 104°39'51.252"W | 0.51 | Begin CATHEDRAL MWD Surveys |
| 163.00 | 0.100 | 310.700 | 163.00 | -0.47 | 0.47 | -0.29 | 40°12'09.102"N | 104°39'51.254"W | 0.48 | |
| 221.00 | 0.200 | 320.900 | 221.00 | -0.58 | 0.58 | -0.39 | 40°12'09.103"N | 104°39'51.255"W | 0.18 | |
| 278.00 | 0.200 | 306.200 | 278.00 | -0.72 | 0.72 | -0.53 | 40°12'09.104"N | 104°39'51.257"W | 0.09 | |
| 335.00 | 1.100 | 357.300 | 334.99 | -1.32 | 1.33 | -0.64 | 40°12'09.110"N | 104°39'51.258"W | 1.73 | |
| 399.00 | 1.300 | 348.900 | 398.98 | -2.65 | 2.65 | -0.81 | 40°12'09.123"N | 104°39'51.260"W | 0.42 | |
| 463.00 | 2.100 | 350.900 | 462.95 | -4.52 | 4.52 | -1.13 | 40°12'09.142"N | 104°39'51.265"W | 1.25 | |
| 527.00 | 3.200 | 355.500 | 526.88 | -7.46 | 7.46 | -1.46 | 40°12'09.171"N | 104°39'51.269"W | 1.75 | |
| 591.00 | 4.700 | 354.600 | 590.73 | -11.85 | 11.85 | -1.84 | 40°12'09.214"N | 104°39'51.274"W | 2.35 | |
| 655.00 | 5.100 | 359.100 | 654.49 | -17.30 | 17.31 | -2.13 | 40°12'09.268"N | 104°39'51.278"W | 0.87 | |
| 719.00 | 5.400 | 355.200 | 718.23 | -23.15 | 23.15 | -2.43 | 40°12'09.326"N | 104°39'51.281"W | 0.73 | |
| 783.00 | 6.600 | 351.300 | 781.87 | -29.79 | 29.79 | -3.24 | 40°12'09.391"N | 104°39'51.292"W | 1.98 | |
| 846.00 | 8.000 | 348.000 | 844.36 | -37.65 | 37.66 | -4.70 | 40°12'09.469"N | 104°39'51.311"W | 2.32 | |
| 910.00 | 9.200 | 351.300 | 907.64 | -47.06 | 47.07 | -6.40 | 40°12'09.562"N | 104°39'51.332"W | 2.03 | |
| 974.00 | 9.900 | 352.900 | 970.76 | -57.58 | 57.59 | -7.85 | 40°12'09.666"N | 104°39'51.351"W | 1.17 | |
| 1036.00 | 11.500 | 354.600 | 1031.68 | -69.02 | 69.03 | -9.09 | 40°12'09.779"N | 104°39'51.367"W | 2.63 | |
| 1101.00 | 11.900 | 354.500 | 1095.32 | -82.14 | 82.15 | -10.34 | 40°12'09.909"N | 104°39'51.383"W | 0.62 | |
| 1167.00 | 12.700 | 353.900 | 1159.81 | -96.13 | 96.14 | -11.77 | 40°12'10.047"N | 104°39'51.402"W | 1.23 | Tie-Into CATHEDRAL MWD Surveys |
| 1268.00 | 12.630 | 354.330 | 1258.35 | -118.15 | 118.17 | -14.04 | 40°12'10.265"N | 104°39'51.431"W | 0.12 | Begin BHI MWD+IFR Surveys |
| 1362.00 | 14.820 | 358.660 | 1349.66 | -140.40 | 140.41 | -15.34 | 40°12'10.485"N | 104°39'51.448"W | 2.57 | |
| 1455.00 | 14.710 | 358.980 | 1439.59 | -164.10 | 164.11 | -15.82 | 40°12'10.719"N | 104°39'51.454"W | 0.15 | |
| 1548.00 | 15.190 | 350.470 | 1529.46 | -187.92 | 187.94 | -18.05 | 40°12'10.954"N | 104°39'51.483"W | 2.41 | |
| 1641.00 | 14.900 | 350.390 | 1619.27 | -211.72 | 211.74 | -22.06 | 40°12'11.189"N | 104°39'51.534"W | 0.31 | |
| 1734.00 | 14.470 | 345.510 | 1709.23 | -234.76 | 234.78 | -26.97 | 40°12'11.417"N | 104°39'51.598"W | 1.41 | |
| 1827.00 | 14.470 | 341.900 | 1799.29 | -257.05 | 257.07 | -33.49 | 40°12'11.637"N | 104°39'51.682"W | 0.97 | |
| 1920.00 | 12.550 | 343.500 | 1889.71 | -277.77 | 277.81 | -39.97 | 40°12'11.842"N | 104°39'51.765"W | 2.10 | |
| 2010.00 | 11.630 | 347.150 | 1977.71 | -295.99 | 296.03 | -44.76 | 40°12'12.022"N | 104°39'51.827"W | 1.33 | |
| 2100.00 | 11.680 | 350.860 | 2065.86 | -313.83 | 313.87 | -48.23 | 40°12'12.199"N | 104°39'51.872"W | 0.83 | |
| 2189.00 | 12.530 | 357.810 | 2152.88 | -332.37 | 332.41 | -50.03 | 40°12'12.382"N | 104°39'51.895"W | 1.89 | |
| 2279.00 | 12.380 | 354.950 | 2240.77 | -351.73 | 351.78 | -51.25 | 40°12'12.573"N | 104°39'51.910"W | 0.71 | |
| 2369.00 | 12.170 | 353.200 | 2328.71 | -370.76 | 370.81 | -53.22 | 40°12'12.761"N | 104°39'51.936"W | 0.47 | |
| 2459.00 | 11.830 | 351.610 | 2416.74 | -389.31 | 389.35 | -55.69 | 40°12'12.945"N | 104°39'51.968"W | 0.53 | |
| 2547.00 | 11.640 | 349.170 | 2502.90 | -406.95 | 407.00 | -58.67 | 40°12'13.119"N | 104°39'52.006"W | 0.60 | |
| 2637.00 | 13.130 | 0.200 | 2590.82 | -426.09 | 426.14 | -60.34 | 40°12'13.308"N | 104°39'52.028"W | 3.10 | |
| 2727.00 | 12.900 | 356.900 | 2678.51 | -446.34 | 446.39 | -60.85 | 40°12'13.508"N | 104°39'52.034"W | 0.86 | |
| 2816.00 | 13.030 | 355.420 | 2765.24 | -466.26 | 466.32 | -62.19 | 40°12'13.705"N | 104°39'52.052"W | 0.40 | |
| 2906.00 | 13.060 | 354.740 | 2852.92 | -486.50 | 486.55 | -63.93 | 40°12'13.905"N | 104°39'52.074"W | 0.17 | |
| 2996.00 | 13.130 | 354.270 | 2940.58 | -506.80 | 506.85 | -65.89 | 40°12'14.106"N | 104°39'52.099"W | 0.14 | |
| 3086.00 | 13.090 | 353.020 | 3028.23 | -527.08 | 527.14 | -68.14 | 40°12'14.306"N | 104°39'52.128"W | 0.32 | |
| 3176.00 | 12.640 | 352.050 | 3115.97 | -546.95 | 547.01 | -70.74 | 40°12'14.503"N | 104°39'52.162"W | 0.55 | |
| 3266.00 | 12.410 | 350.870 | 3203.83 | -566.25 | 566.31 | -73.64 | 40°12'14.693"N | 104°39'52.199"W | 0.38 | |
| 3356.00 | 12.040 | 350.120 | 3291.79 | -585.04 | 585.10 | -76.79 | 40°12'14.879"N | 104°39'52.240"W | 0.45 | |
| 3446.00 | 11.550 | 348.410 | 3379.89 | -603.11 | 603.18 | -80.21 | 40°12'15.058"N | 104°39'52.284"W | 0.67 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#30 CREAM 15C-28HZ (422'FNL & 1390' FEL, SEC.28) |
| Area | COLORADO | Well | CREAM 15C-28HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | CREAM 15C-28HZ AWB <12800> |
| Facility | SEC.28-T3N-R65W | | |

| WELLPATH DATA (158 stations) | | | | | | | | | | |
|------------------------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|----------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 3535.00 | 11.970 | 358.480 | 3467.03 | -621.07 | 621.13 | -82.24 | 40°12'15.235"N | 104°39'52.310"W | 2.35 | |
| 3625.00 | 12.540 | 359.830 | 3554.98 | -640.17 | 640.24 | -82.52 | 40°12'15.424"N | 104°39'52.314"W | 0.71 | |
| 3715.00 | 11.750 | 358.070 | 3642.96 | -659.10 | 659.16 | -82.86 | 40°12'15.611"N | 104°39'52.318"W | 0.97 | |
| 3804.00 | 10.850 | 356.760 | 3730.24 | -676.52 | 676.59 | -83.64 | 40°12'15.783"N | 104°39'52.328"W | 1.05 | |
| 3894.00 | 13.340 | 358.820 | 3818.23 | -695.36 | 695.43 | -84.33 | 40°12'15.969"N | 104°39'52.337"W | 2.81 | |
| 3984.00 | 13.190 | 356.040 | 3905.83 | -715.98 | 716.05 | -85.25 | 40°12'16.173"N | 104°39'52.349"W | 0.73 | |
| 4074.00 | 13.150 | 355.120 | 3993.47 | -736.42 | 736.49 | -86.83 | 40°12'16.375"N | 104°39'52.369"W | 0.24 | |
| 4164.00 | 12.900 | 353.830 | 4081.15 | -756.61 | 756.68 | -88.78 | 40°12'16.575"N | 104°39'52.394"W | 0.43 | |
| 4254.00 | 12.470 | 351.910 | 4168.95 | -776.22 | 776.29 | -91.23 | 40°12'16.768"N | 104°39'52.426"W | 0.67 | |
| 4343.00 | 12.120 | 351.230 | 4255.91 | -794.96 | 795.04 | -94.01 | 40°12'16.954"N | 104°39'52.462"W | 0.43 | |
| 4433.00 | 11.840 | 349.460 | 4343.95 | -813.37 | 813.45 | -97.14 | 40°12'17.136"N | 104°39'52.502"W | 0.51 | |
| 4523.00 | 11.560 | 349.380 | 4432.08 | -831.31 | 831.39 | -100.49 | 40°12'17.313"N | 104°39'52.545"W | 0.31 | |
| 4613.00 | 11.280 | 348.030 | 4520.30 | -848.78 | 848.87 | -103.97 | 40°12'17.485"N | 104°39'52.590"W | 0.43 | |
| 4703.00 | 11.330 | 347.030 | 4608.55 | -866.01 | 866.09 | -107.78 | 40°12'17.656"N | 104°39'52.639"W | 0.22 | |
| 4792.00 | 10.960 | 346.980 | 4695.88 | -882.76 | 882.86 | -111.65 | 40°12'17.821"N | 104°39'52.689"W | 0.42 | |
| 4882.00 | 12.520 | 350.640 | 4783.99 | -900.72 | 900.82 | -115.17 | 40°12'17.999"N | 104°39'52.734"W | 1.92 | |
| 4972.00 | 11.790 | 348.650 | 4871.97 | -919.36 | 919.46 | -118.56 | 40°12'18.183"N | 104°39'52.778"W | 0.94 | |
| 5062.00 | 10.860 | 347.400 | 4960.22 | -936.65 | 936.75 | -122.22 | 40°12'18.354"N | 104°39'52.825"W | 1.07 | |
| 5152.00 | 13.080 | 353.010 | 5048.26 | -955.03 | 955.13 | -125.31 | 40°12'18.536"N | 104°39'52.865"W | 2.78 | |
| 5241.00 | 12.620 | 352.220 | 5135.03 | -974.66 | 974.76 | -127.85 | 40°12'18.730"N | 104°39'52.898"W | 0.55 | |
| 5331.00 | 10.010 | 355.180 | 5223.28 | -992.20 | 992.30 | -129.84 | 40°12'18.903"N | 104°39'52.923"W | 2.97 | |
| 5421.00 | 9.360 | 353.280 | 5311.99 | -1007.26 | 1007.37 | -131.35 | 40°12'19.052"N | 104°39'52.943"W | 0.80 | |
| 5511.00 | 7.830 | 339.360 | 5400.99 | -1020.26 | 1020.37 | -134.37 | 40°12'19.180"N | 104°39'52.982"W | 2.86 | |
| 5600.00 | 6.180 | 342.860 | 5489.32 | -1030.51 | 1030.62 | -137.92 | 40°12'19.282"N | 104°39'53.028"W | 1.91 | |
| 5690.00 | 4.560 | 328.660 | 5578.93 | -1038.19 | 1038.31 | -141.21 | 40°12'19.358"N | 104°39'53.070"W | 2.32 | |
| 5780.00 | 2.560 | 333.390 | 5668.75 | -1043.04 | 1043.16 | -143.97 | 40°12'19.406"N | 104°39'53.106"W | 2.24 | |
| 5870.00 | 1.720 | 277.210 | 5758.70 | -1045.01 | 1045.13 | -146.21 | 40°12'19.425"N | 104°39'53.134"W | 2.39 | |
| 5960.00 | 0.350 | 263.830 | 5848.68 | -1045.15 | 1045.27 | -147.83 | 40°12'19.426"N | 104°39'53.155"W | 1.54 | |
| 6139.00 | 1.790 | 278.430 | 6027.64 | -1045.50 | 1045.62 | -151.13 | 40°12'19.430"N | 104°39'53.198"W | 0.81 | |
| 6229.00 | 0.800 | 327.610 | 6117.62 | -1046.23 | 1046.36 | -152.86 | 40°12'19.437"N | 104°39'53.220"W | 1.56 | |
| 6319.00 | 1.050 | 285.850 | 6207.61 | -1046.99 | 1047.11 | -153.99 | 40°12'19.445"N | 104°39'53.235"W | 0.78 | |
| 6408.00 | 0.760 | 96.320 | 6296.61 | -1047.14 | 1047.27 | -154.19 | 40°12'19.446"N | 104°39'53.237"W | 2.03 | |
| 6498.00 | 0.900 | 61.210 | 6386.60 | -1047.42 | 1047.55 | -152.98 | 40°12'19.449"N | 104°39'53.222"W | 0.58 | |
| 6588.00 | 4.960 | 156.200 | 6476.48 | -1044.20 | 1044.32 | -150.79 | 40°12'19.417"N | 104°39'53.193"W | 5.69 | |
| 6633.00 | 9.120 | 165.440 | 6521.13 | -1038.97 | 1039.09 | -149.10 | 40°12'19.365"N | 104°39'53.172"W | 9.55 | |
| 6678.00 | 13.750 | 176.390 | 6565.23 | -1030.17 | 1030.30 | -147.87 | 40°12'19.278"N | 104°39'53.156"W | 11.32 | |
| 6723.00 | 16.510 | 180.960 | 6608.67 | -1018.44 | 1018.56 | -147.64 | 40°12'19.162"N | 104°39'53.153"W | 6.68 | |
| 6768.00 | 19.180 | 182.750 | 6651.50 | -1004.66 | 1004.78 | -148.10 | 40°12'19.026"N | 104°39'53.159"W | 6.06 | |
| 6813.00 | 23.810 | 182.110 | 6693.36 | -988.19 | 988.31 | -148.79 | 40°12'18.863"N | 104°39'53.168"W | 10.30 | |
| 6857.00 | 28.900 | 180.480 | 6732.78 | -968.67 | 968.79 | -149.21 | 40°12'18.671"N | 104°39'53.173"W | 11.68 | |
| 6902.00 | 31.880 | 179.130 | 6771.59 | -945.91 | 946.03 | -149.12 | 40°12'18.446"N | 104°39'53.172"W | 6.79 | |
| 6947.00 | 31.470 | 178.460 | 6809.89 | -922.29 | 922.41 | -148.62 | 40°12'18.212"N | 104°39'53.165"W | 1.20 | |
| 6992.00 | 35.140 | 179.930 | 6847.49 | -897.58 | 897.71 | -148.29 | 40°12'17.968"N | 104°39'53.161"W | 8.35 | |
| 7037.00 | 38.860 | 182.000 | 6883.42 | -870.52 | 870.64 | -148.77 | 40°12'17.701"N | 104°39'53.167"W | 8.72 | |
| 7082.00 | 43.360 | 182.660 | 6917.32 | -840.96 | 841.08 | -149.98 | 40°12'17.409"N | 104°39'53.183"W | 10.05 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#30 CREAM 15C-28HZ (422'FNL & 1390' FEL, SEC.28) |
| Area | COLORADO | Well | CREAM 15C-28HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | CREAM 15C-28HZ AWB <12800> |
| Facility | SEC.28-T3N-R65W | | |

| WELLPATH DATA (158 stations) † = interpolated/extrapolated station | | | | | | | | | | |
|--|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|-----------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 7127.00 | 47.670 | 181.800 | 6948.85 | -808.89 | 809.01 | -151.22 | 40°12'17.092"N | 104°39'53.199"W | 9.67 | |
| 7172.00 | 50.950 | 180.590 | 6978.18 | -774.78 | 774.90 | -151.92 | 40°12'16.755"N | 104°39'53.208"W | 7.57 | |
| 7217.00 | 54.580 | 179.020 | 7005.41 | -738.96 | 739.08 | -151.79 | 40°12'16.401"N | 104°39'53.206"W | 8.53 | |
| 7262.00 | 58.290 | 178.320 | 7030.28 | -701.48 | 701.60 | -150.91 | 40°12'16.030"N | 104°39'53.195"W | 8.35 | |
| 7307.00 | 60.860 | 178.230 | 7053.07 | -662.70 | 662.82 | -149.74 | 40°12'15.647"N | 104°39'53.180"W | 5.71 | |
| 7397.00 | 70.890 | 179.020 | 7089.81 | -580.69 | 580.81 | -147.80 | 40°12'14.837"N | 104°39'53.155"W | 11.17 | |
| 7486.00 | 79.160 | 179.750 | 7112.79 | -494.79 | 494.91 | -146.89 | 40°12'13.988"N | 104°39'53.143"W | 9.33 | |
| 7576.00 | 81.650 | 180.220 | 7127.79 | -406.06 | 406.18 | -146.86 | 40°12'13.111"N | 104°39'53.143"W | 2.81 | |
| 7628.00 | 83.380 | 178.750 | 7134.56 | -354.51 | 354.63 | -146.40 | 40°12'12.601"N | 104°39'53.137"W | 4.35 | |
| 7665.00† | 86.444 | 179.074 | 7137.84 | -317.67 | 317.79 | -145.70 | 40°12'12.237"N | 104°39'53.128"W | 8.33 | 7" Casing Point |
| 7706.00 | 89.840 | 179.430 | 7139.17 | -276.70 | 276.82 | -145.16 | 40°12'11.832"N | 104°39'53.121"W | 8.33 | |
| 7796.00 | 89.660 | 179.340 | 7139.56 | -186.70 | 186.82 | -144.20 | 40°12'10.943"N | 104°39'53.108"W | 0.22 | |
| 7885.00 | 89.780 | 179.440 | 7140.00 | -97.71 | 97.83 | -143.25 | 40°12'10.064"N | 104°39'53.096"W | 0.18 | |
| 7974.00 | 90.330 | 179.950 | 7139.91 | -8.71 | 8.83 | -142.78 | 40°12'09.184"N | 104°39'53.090"W | 0.84 | |
| 8063.00 | 90.150 | 179.340 | 7139.54 | 80.28 | -80.17 | -142.23 | 40°12'08.305"N | 104°39'53.083"W | 0.71 | |
| 8153.00 | 89.560 | 178.850 | 7139.77 | 170.27 | -170.15 | -140.80 | 40°12'07.416"N | 104°39'53.065"W | 0.85 | |
| 8243.00 | 89.130 | 179.770 | 7140.80 | 260.26 | -260.14 | -139.72 | 40°12'06.526"N | 104°39'53.051"W | 1.13 | |
| 8333.00 | 89.440 | 180.230 | 7141.92 | 350.25 | -350.13 | -139.72 | 40°12'05.637"N | 104°39'53.051"W | 0.62 | |
| 8423.00 | 89.500 | 178.750 | 7142.75 | 440.24 | -440.12 | -138.92 | 40°12'04.748"N | 104°39'53.040"W | 1.65 | |
| 8513.00 | 89.160 | 178.990 | 7143.80 | 530.21 | -530.10 | -137.14 | 40°12'03.859"N | 104°39'53.017"W | 0.46 | |
| 8602.00 | 88.760 | 180.220 | 7145.42 | 619.19 | -619.08 | -136.53 | 40°12'02.979"N | 104°39'53.010"W | 1.45 | |
| 8692.00 | 89.200 | 180.000 | 7147.02 | 709.18 | -709.07 | -136.70 | 40°12'02.090"N | 104°39'53.012"W | 0.55 | |
| 8782.00 | 89.840 | 180.460 | 7147.78 | 799.17 | -799.06 | -137.06 | 40°12'01.201"N | 104°39'53.016"W | 0.88 | |
| 8872.00 | 88.450 | 180.700 | 7149.12 | 889.16 | -889.04 | -137.98 | 40°12'00.311"N | 104°39'53.028"W | 1.57 | |
| 8962.00 | 89.410 | 180.670 | 7150.80 | 979.14 | -979.02 | -139.05 | 40°11'59.422"N | 104°39'53.042"W | 1.07 | |
| 9051.00 | 89.130 | 180.650 | 7151.93 | 1068.12 | -1068.01 | -140.08 | 40°11'58.543"N | 104°39'53.055"W | 0.32 | |
| 9141.00 | 88.820 | 180.400 | 7153.54 | 1158.11 | -1157.99 | -140.90 | 40°11'57.654"N | 104°39'53.066"W | 0.44 | |
| 9232.00 | 89.070 | 180.800 | 7155.22 | 1249.09 | -1248.97 | -141.85 | 40°11'56.755"N | 104°39'53.078"W | 0.52 | |
| 9321.00 | 89.470 | 180.980 | 7156.35 | 1338.07 | -1337.95 | -143.24 | 40°11'55.875"N | 104°39'53.096"W | 0.49 | |
| 9411.00 | 90.330 | 180.940 | 7156.51 | 1428.06 | -1427.94 | -144.74 | 40°11'54.986"N | 104°39'53.115"W | 0.96 | |
| 9501.00 | 89.810 | 180.360 | 7156.40 | 1518.05 | -1517.93 | -145.77 | 40°11'54.097"N | 104°39'53.128"W | 0.87 | |
| 9590.00 | 88.240 | 180.280 | 7157.91 | 1607.03 | -1606.91 | -146.26 | 40°11'53.218"N | 104°39'53.135"W | 1.77 | |
| 9680.00 | 87.250 | 179.700 | 7161.45 | 1696.96 | -1696.84 | -146.25 | 40°11'52.329"N | 104°39'53.135"W | 1.27 | |
| 9770.00 | 88.390 | 179.550 | 7164.88 | 1786.89 | -1786.77 | -145.66 | 40°11'51.440"N | 104°39'53.127"W | 1.28 | |
| 9860.00 | 89.130 | 179.770 | 7166.83 | 1876.87 | -1876.75 | -145.12 | 40°11'50.551"N | 104°39'53.120"W | 0.86 | |
| 9949.00 | 89.380 | 179.760 | 7167.98 | 1965.86 | -1965.74 | -144.76 | 40°11'49.672"N | 104°39'53.115"W | 0.28 | |
| 10039.00 | 89.750 | 179.880 | 7168.67 | 2055.86 | -2055.74 | -144.48 | 40°11'48.782"N | 104°39'53.112"W | 0.43 | |
| 10129.00 | 89.720 | 179.860 | 7169.08 | 2145.86 | -2145.74 | -144.27 | 40°11'47.893"N | 104°39'53.109"W | 0.04 | |
| 10219.00 | 89.870 | 180.250 | 7169.40 | 2235.85 | -2235.74 | -144.36 | 40°11'47.003"N | 104°39'53.110"W | 0.46 | |
| 10309.00 | 90.150 | 180.380 | 7169.39 | 2325.85 | -2325.74 | -144.85 | 40°11'46.114"N | 104°39'53.117"W | 0.34 | |
| 10398.00 | 90.430 | 180.490 | 7168.94 | 2414.85 | -2414.73 | -145.53 | 40°11'45.235"N | 104°39'53.125"W | 0.34 | |
| 10488.00 | 90.550 | 180.740 | 7168.17 | 2504.84 | -2504.72 | -146.49 | 40°11'44.345"N | 104°39'53.138"W | 0.31 | |
| 10578.00 | 89.780 | 179.680 | 7167.91 | 2594.84 | -2594.72 | -146.82 | 40°11'43.456"N | 104°39'53.142"W | 1.46 | |
| 10668.00 | 89.590 | 179.680 | 7168.40 | 2684.84 | -2684.72 | -146.32 | 40°11'42.567"N | 104°39'53.136"W | 0.21 | |
| 10758.00 | 89.160 | 179.260 | 7169.39 | 2774.83 | -2774.71 | -145.49 | 40°11'41.677"N | 104°39'53.125"W | 0.67 | |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#30 CREAM 15C-28HZ (422'FNL & 1390' FEL, SEC.28) |
| Area | COLORADO | Well | CREAM 15C-28HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | CREAM 15C-28HZ AWB <12800> |
| Facility | SEC.28-T3N-R65W | | |

| WELLPATH DATA (158 stations) | | | | | | | | | | |
|------------------------------|--------------------|----------------|-------------|-------------------|---------------|--------------|----------------|-----------------|------------------|--------------------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Vert Sect [ft] | North [ft] | East [ft] | Latitude | Longitude | DLS [°/100ft] | Comments |
| 10847.00 | 89.870 | 178.810 | 7170.14 | 2863.81 | -2863.69 | -143.99 | 40°11'40.798"N | 104°39'53.105"W | 0.94 | |
| 10937.00 | 89.840 | 178.590 | 7170.37 | 2953.78 | -2953.67 | -141.95 | 40°11'39.909"N | 104°39'53.079"W | 0.25 | |
| 11027.00 | 90.460 | 178.870 | 7170.13 | 3043.76 | -3043.64 | -139.95 | 40°11'39.020"N | 104°39'53.053"W | 0.76 | |
| 11117.00 | 88.980 | 178.500 | 7170.57 | 3133.73 | -3133.62 | -137.89 | 40°11'38.131"N | 104°39'53.027"W | 1.70 | |
| 11206.00 | 88.760 | 178.170 | 7172.33 | 3222.67 | -3222.56 | -135.30 | 40°11'37.252"N | 104°39'52.994"W | 0.45 | |
| 11296.00 | 89.960 | 178.300 | 7173.33 | 3312.62 | -3312.51 | -132.53 | 40°11'36.363"N | 104°39'52.958"W | 1.34 | |
| 11386.00 | 90.330 | 178.140 | 7173.10 | 3402.57 | -3402.47 | -129.74 | 40°11'35.474"N | 104°39'52.922"W | 0.45 | |
| 11476.00 | 91.470 | 178.520 | 7171.69 | 3492.52 | -3492.42 | -127.11 | 40°11'34.585"N | 104°39'52.888"W | 1.34 | |
| 11565.00 | 90.490 | 178.110 | 7170.17 | 3581.47 | -3581.36 | -124.50 | 40°11'33.706"N | 104°39'52.854"W | 1.19 | |
| 11655.00 | 90.580 | 179.210 | 7169.33 | 3671.43 | -3671.33 | -122.39 | 40°11'32.817"N | 104°39'52.827"W | 1.23 | |
| 11745.00 | 90.670 | 180.910 | 7168.35 | 3761.43 | -3761.33 | -122.49 | 40°11'31.928"N | 104°39'52.828"W | 1.89 | |
| 11835.00 | 89.560 | 180.010 | 7168.17 | 3851.42 | -3851.32 | -123.21 | 40°11'31.038"N | 104°39'52.838"W | 1.59 | |
| 11924.00 | 91.070 | 180.630 | 7167.68 | 3940.42 | -3940.32 | -123.71 | 40°11'30.159"N | 104°39'52.844"W | 1.83 | |
| 12014.00 | 91.140 | 180.720 | 7165.94 | 4030.39 | -4030.29 | -124.77 | 40°11'29.270"N | 104°39'52.858"W | 0.13 | |
| 12104.00 | 88.390 | 180.250 | 7166.31 | 4120.38 | -4120.28 | -125.53 | 40°11'28.380"N | 104°39'52.867"W | 3.10 | |
| 12194.00 | 90.000 | 180.140 | 7167.57 | 4210.37 | -4210.27 | -125.83 | 40°11'27.491"N | 104°39'52.871"W | 1.79 | |
| 12284.00 | 90.730 | 180.620 | 7167.00 | 4300.36 | -4300.26 | -126.43 | 40°11'26.602"N | 104°39'52.879"W | 0.97 | |
| 12374.00 | 90.000 | 181.300 | 7166.43 | 4390.35 | -4390.25 | -127.94 | 40°11'25.713"N | 104°39'52.899"W | 1.11 | |
| 12463.00 | 90.730 | 182.570 | 7165.86 | 4479.30 | -4479.19 | -130.94 | 40°11'24.834"N | 104°39'52.937"W | 1.65 | |
| 12554.00 | 90.000 | 181.050 | 7165.28 | 4570.25 | -4570.14 | -133.82 | 40°11'23.935"N | 104°39'52.974"W | 1.85 | |
| 12643.00 | 88.640 | 180.640 | 7166.34 | 4659.23 | -4659.12 | -135.13 | 40°11'23.056"N | 104°39'52.991"W | 1.60 | |
| 12747.00 | 88.730 | 182.450 | 7168.72 | 4763.16 | -4763.05 | -137.93 | 40°11'22.029"N | 104°39'53.027"W | 1.74 | Last BHI MWD+IFR Surveys |
| 12800.00 | 88.730 | 182.450 | 7169.90 | 4816.11 | -4815.99 | -140.20 | 40°11'21.505"N | 104°39'53.056"W | 0.00 | Projection to Bit |

| HOLE & CASING SECTIONS - Ref Wellbore: CREAM 15C-28HZ AWB <12800> Ref Wellpath: CREAM 15C-28HZ AWP | | | | | | | | | |
|--|------------------|----------------|------------------|-------------------|-----------------|-------------------|-------------------|-----------------|-----------------|
| String/Diameter | Start MD [ft] | End MD [ft] | Interval [ft] | Start TVD [ft] | End TVD [ft] | Start N/S [ft] | Start E/W [ft] | End N/S [ft] | End E/W [ft] |
| 13.5in Open Hole | 20.00 | 1212.00 | 1192.00 | 20.00 | 1203.71 | 0.00 | 0.00 | 105.97 | -12.80 |
| 9.625in Casing Surface | 20.00 | 1202.00 | 1182.00 | 20.00 | 1193.95 | 0.00 | 0.00 | 103.78 | -12.58 |
| 8.75in Open Hole | 1212.00 | 7675.00 | 6463.00 | 1203.71 | 7138.39 | 105.97 | -12.80 | 307.80 | -145.55 |
| 7in Casing Intermediate | 20.00 | 7665.00 | 7645.00 | 20.00 | 7137.84 | 0.00 | 0.00 | 317.79 | -145.70 |
| 6.125in Open Hole | 7675.00 | 12800.00 | 5125.00 | 7138.39 | 7169.90 | 307.80 | -145.55 | -4815.99 | -140.20 |

| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#30 CREAM 15C-28HZ (422'FNL & 1390' FEL, SEC.28) |
| Area | COLORADO | Well | CREAM 15C-28HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | CREAM 15C-28HZ AWB <12800> |
| Facility | SEC.28-T3N-R65W | | |

| TARGETS | | | | | | | | |
|---|-------------|---------------|--------------|----------------------|-----------------------|----------------|-----------------|---------|
| Name | TVD [ft] | North [ft] | East [ft] | Grid East [US ft] | Grid North [US ft] | Latitude | Longitude | Shape |
| SEC.21-T3N-R65W LINES | 0.00 | 0.00 | 14.82 | 1734184.18 | 14600660.39 | 40°12'09.097"N | 104°39'51.059"W | polygon |
| SEC.28-T3N-R65W LINES | 0.00 | 0.00 | 14.82 | 1734184.18 | 14600660.39 | 40°12'09.097"N | 104°39'51.059"W | polygon |
| CREAM 15C-28HZ BHL ON PLAT (50'FSL & 1549'FEL, SEC.28) REV-1 | 7154.00 | -4816.74 | -137.71 | 1734049.92 | 14595844.99 | 40°11'21.498"N | 104°39'53.024"W | point |
| CREAM 15C-28HZ LANDBOX | 7154.00 | 0.00 | 0.00 | 1734169.36 | 14600660.33 | 40°12'09.097"N | 104°39'51.250"W | polygon |

| WELLPATH COMPOSITION - Ref Wellbore: CREAM 15C-28HZ AWB <12800> | | | | Ref Wellpath: CREAM 15C-28HZ AWP | |
|---|----------------|---|--|----------------------------------|--|
| Start MD [ft] | End MD [ft] | Positional Uncertainty Model | Log Name/Comment | Wellbore | |
| 20.00 | 1167.00 | Custom_APC_ISCWSA REV 2 MWD | CATHEDRAL ENERGY MWD SURVEYS <99-1167> | CREAM 15C-28HZ AWB <12800> | |
| 1167.00 | 7628.00 | Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation) | BHI MWD+IFR SURVEYS 8 3/4" HOLE <1268-7628> | CREAM 15C-28HZ AWB <12800> | |
| 7628.00 | 12747.00 | Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation) | BHI MWD+IFR SURVEYS 6 1/8" HOLE <7706-12747> | CREAM 15C-28HZ AWB <12800> | |
| 12747.00 | 12800.00 | Blind Drilling (std) | Projection to bit | CREAM 15C-28HZ AWB <12800> | |



Actual Wellpath Report
CREAM 15C-28HZ AWP
Page 7 of 7



| REFERENCE WELLPATH IDENTIFICATION | | | |
|-----------------------------------|--------------------------------------|----------|--|
| Operator | KERR-MCGEE OIL & GAS ONSHORE LP (WA) | Slot | SLOT#30 CREAM 15C-28HZ (422'FNL & 1390' FEL, SEC.28) |
| Area | COLORADO | Well | CREAM 15C-28HZ |
| Field | WELD COUNTY (UTM/TRUE NORTH) | Wellbore | CREAM 15C-28HZ AWB <12800> |
| Facility | SEC.28-T3N-R65W | | |

| WELLPATH COMMENTS | | | | |
|-------------------|--------------------|----------------|-------------|--------------------------------|
| MD [ft] | Inclination [°] | Azimuth [°] | TVD [ft] | Comment |
| 20.00 | 0.000 | 330.900 | 20.00 | Tie-On |
| 99.00 | 0.400 | 330.900 | 99.00 | Begin CATHEDRAL MWD Surveys |
| 1167.00 | 12.700 | 353.900 | 1159.81 | Tie-Into CATHEDRAL MWD Surveys |
| 1268.00 | 12.630 | 354.330 | 1258.35 | Begin BHI MWD+IFR Surveys |
| 7665.00 | 86.444 | 179.074 | 7137.84 | 7" Casing Point |
| 12747.00 | 88.730 | 182.450 | 7168.72 | Last BHI MWD+IFR Surveys |
| 12800.00 | 88.730 | 182.450 | 7169.90 | Projection to Bit |