

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#08 KING 37N3-8HZ (415'FNL & 405'FEL,SEC.08)
Area	COLORADO	Well	KING 37N3-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N3-8HZ AWB
Facility	SEC.08-T1N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999604	Report Generated	7/27/2017 at 2:40 PM
Convergence at slot	0.14° East	Database/Source file	WA_DEN_Anadarko_Defn/KING_37N3-8HZ_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	13259062.99	-1435673.14	1698289.02	14552945.77	40°04'18.476"N	104°47'35.282"W
Facility Reference Pt			3197771.84	1268891.29	3°29'21.596"N	100°43'48.828"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	PD 564 (26') (RT) to Installation Vertical Datum	4985.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	4985.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#08 KING 37N3-8HZ (415'FNL & 405'FEL,SEC.08))	4985.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.98°

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WELLPATH DATA (149 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	247.280	0.00	0.00	0.00	0.00	1698289.02	14552945.77	40°04'18.476"N	104°47'35.282"W	0.00	
26.00	0.000	247.280	26.00	0.00	0.00	0.00	1698289.02	14552945.77	40°04'18.476"N	104°47'35.282"W	0.00	
131.00	0.140	247.280	131.00	0.05	-0.05	-0.12	1698288.90	14552945.72	40°04'18.476"N	104°47'35.284"W	0.13	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
226.00	0.240	214.000	226.00	0.26	-0.26	-0.34	1698288.68	14552945.51	40°04'18.473"N	104°47'35.286"W	0.15	
321.00	0.770	50.950	321.00	0.02	-0.02	0.05	1698289.06	14552945.75	40°04'18.476"N	104°47'35.281"W	1.05	
416.00	1.630	29.700	415.98	-1.55	1.55	1.21	1698290.23	14552947.32	40°04'18.491"N	104°47'35.266"W	1.00	
511.00	4.130	24.210	510.85	-5.85	5.85	3.29	1698292.29	14552951.62	40°04'18.534"N	104°47'35.240"W	2.64	
606.00	6.070	25.050	605.47	-13.52	13.52	6.82	1698295.80	14552959.30	40°04'18.610"N	104°47'35.194"W	2.04	
701.00	6.900	20.390	699.86	-23.42	23.42	10.93	1698299.89	14552969.20	40°04'18.707"N	104°47'35.141"W	1.03	
796.00	7.090	19.980	794.15	-34.27	34.28	14.92	1698303.85	14552980.07	40°04'18.815"N	104°47'35.090"W	0.21	
892.00	8.790	18.790	889.23	-46.78	46.79	19.31	1698308.21	14552992.59	40°04'18.938"N	104°47'35.034"W	1.78	
986.00	10.100	17.540	981.95	-61.44	61.45	24.11	1698312.97	14553007.25	40°04'19.083"N	104°47'34.972"W	1.41	
1081.00	12.610	7.700	1075.09	-79.66	79.67	28.01	1698316.83	14553025.48	40°04'19.263"N	104°47'34.922"W	3.33	
1176.00	12.490	1.160	1167.83	-100.21	100.22	29.61	1698318.38	14553046.02	40°04'19.466"N	104°47'34.901"W	1.50	
1271.00	12.950	359.130	1260.50	-121.13	121.14	29.65	1698318.37	14553066.93	40°04'19.673"N	104°47'34.901"W	0.68	
1367.00	13.300	345.300	1354.01	-142.57	142.58	26.69	1698315.36	14553088.35	40°04'19.885"N	104°47'34.939"W	3.28	
1462.00	11.270	334.020	1446.85	-161.49	161.50	19.84	1698308.48	14553107.25	40°04'20.072"N	104°47'35.027"W	3.30	
1556.00	12.710	329.900	1538.80	-178.70	178.70	10.63	1698299.23	14553124.42	40°04'20.242"N	104°47'35.145"W	1.78	
1652.00	14.450	329.760	1632.11	-198.19	198.19	-0.70	1698287.86	14553143.88	40°04'20.435"N	104°47'35.291"W	1.81	
1746.00	16.150	330.790	1722.77	-219.74	219.73	-12.98	1698275.53	14553165.38	40°04'20.647"N	104°47'35.449"W	1.83	
1828.00	17.600	331.210	1801.24	-240.56	240.55	-24.52	1698263.95	14553186.17	40°04'20.853"N	104°47'35.597"W	1.77	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1933.00	17.970	329.080	1901.22	-268.37	268.36	-40.49	1698247.92	14553213.93	40°04'21.128"N	104°47'35.803"W	0.71	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
2022.00	18.740	329.880	1985.69	-292.52	292.51	-54.72	1698233.64	14553238.03	40°04'21.367"N	104°47'35.986"W	0.91	
2036.00†	18.625	330.649	1998.96	-296.42	296.40	-56.94	1698231.41	14553241.92	40°04'21.405"N	104°47'36.014"W	1.94	ENTER LANDBOX (119'FNL & 463'FEL, SEC.08) 40.0726125 -104.7933373
2112.00	18.060	334.980	2071.10	-317.68	317.65	-67.87	1698220.43	14553263.14	40°04'21.615"N	104°47'36.155"W	1.94	
2202.00	17.990	339.360	2156.69	-343.33	343.30	-78.67	1698209.58	14553288.75	40°04'21.869"N	104°47'36.294"W	1.51	
2291.00	18.060	340.650	2241.32	-369.21	369.18	-88.09	1698200.11	14553314.60	40°04'22.124"N	104°47'36.415"W	0.46	
2381.00	18.850	337.610	2326.69	-395.82	395.79	-98.25	1698189.89	14553341.17	40°04'22.387"N	104°47'36.546"W	1.38	
2470.00	17.640	336.900	2411.21	-421.52	421.49	-109.02	1698179.06	14553366.83	40°04'22.641"N	104°47'36.684"W	1.38	
2560.00	18.430	338.810	2496.79	-447.33	447.29	-119.51	1698168.52	14553392.61	40°04'22.896"N	104°47'36.819"W	1.10	
2649.00	19.040	340.040	2581.08	-474.10	474.06	-129.55	1698158.42	14553419.34	40°04'23.161"N	104°47'36.948"W	0.82	
2739.00	17.730	338.940	2666.48	-500.69	500.65	-139.49	1698148.42	14553445.89	40°04'23.423"N	104°47'37.076"W	1.51	
2829.00	18.080	336.990	2752.12	-526.34	526.29	-149.87	1698137.98	14553471.50	40°04'23.677"N	104°47'37.210"W	0.77	
2918.00	17.550	336.330	2836.86	-551.34	551.29	-160.66	1698127.14	14553496.46	40°04'23.924"N	104°47'37.349"W	0.64	
3008.00	17.390	336.530	2922.70	-576.11	576.05	-171.46	1698116.29	14553521.19	40°04'24.169"N	104°47'37.488"W	0.19	
3097.00	19.010	338.730	3007.25	-601.82	601.76	-182.02	1698105.68	14553546.87	40°04'24.423"N	104°47'37.623"W	1.98	
3187.00	17.380	338.580	3092.75	-628.00	627.94	-192.24	1698095.39	14553573.01	40°04'24.681"N	104°47'37.755"W	1.81	
3277.00	17.890	339.920	3178.52	-653.50	653.44	-201.90	1698085.68	14553598.47	40°04'24.933"N	104°47'37.879"W	0.72	
3366.00	18.120	338.830	3263.16	-679.25	679.18	-211.59	1698075.93	14553624.19	40°04'25.188"N	104°47'38.004"W	0.46	
3456.00	17.870	340.100	3348.76	-705.29	705.22	-221.34	1698066.12	14553650.19	40°04'25.445"N	104°47'38.129"W	0.52	
3545.00	17.500	335.480	3433.56	-730.30	730.23	-231.55	1698055.87	14553675.17	40°04'25.692"N	104°47'38.260"W	1.63	
3635.00	16.880	337.520	3519.54	-754.69	754.62	-242.16	1698045.20	14553699.52	40°04'25.933"N	104°47'38.397"W	0.96	
3725.00	16.240	336.440	3605.80	-778.31	778.23	-252.18	1698035.12	14553723.10	40°04'26.167"N	104°47'38.526"W	0.79	
3814.00	16.810	334.240	3691.13	-801.31	801.23	-262.75	1698024.51	14553746.06	40°04'26.394"N	104°47'38.662"W	0.95	
3903.00	14.400	332.180	3776.84	-822.69	822.61	-273.51	1698013.70	14553767.41	40°04'26.605"N	104°47'38.800"W	2.78	

Actual Wellpath Report

KING 37N3-8HZ AWP

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Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N3-8HZ AWB
Facility	SEC.08-T1N-R66W		

WELLPATH DATA (149 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
3993.00	12.070	330.320	3864.44	-840.77	840.68	-283.40	1698003.78	14553785.46	40°04'26.784"N	104°47'38.927"W	2.63	
4082.00	13.370	330.240	3951.26	-857.79	857.70	-293.11	1697994.03	14553802.44	40°04'26.952"N	104°47'39.052"W	1.46	
4172.00	11.730	326.050	4039.11	-874.42	874.32	-303.39	1697983.72	14553819.04	40°04'27.116"N	104°47'39.185"W	2.08	
4262.00	9.950	322.670	4127.50	-888.19	888.10	-313.21	1697973.87	14553832.78	40°04'27.252"N	104°47'39.311"W	2.10	
4351.00	9.190	319.240	4215.26	-899.70	899.59	-322.51	1697964.54	14553844.25	40°04'27.366"N	104°47'39.431"W	1.07	
4441.00	8.660	318.450	4304.17	-910.21	910.11	-331.70	1697955.33	14553854.74	40°04'27.470"N	104°47'39.549"W	0.60	
4531.00	7.700	344.070	4393.28	-921.09	920.98	-337.85	1697949.16	14553865.60	40°04'27.577"N	104°47'39.628"W	4.15	
4620.00	6.570	342.920	4481.59	-931.69	931.58	-340.98	1697946.01	14553876.19	40°04'27.682"N	104°47'39.668"W	1.28	
4709.00	5.860	343.660	4570.07	-940.92	940.81	-343.76	1697943.21	14553885.40	40°04'27.773"N	104°47'39.704"W	0.80	
4823.00	5.170	343.610	4683.54	-951.43	951.32	-346.84	1697940.10	14553895.90	40°04'27.877"N	104°47'39.744"W	0.61	
4913.00	4.860	346.610	4773.20	-959.03	958.92	-348.87	1697938.06	14553903.49	40°04'27.952"N	104°47'39.770"W	0.45	
5002.00	4.530	348.130	4861.90	-966.14	966.03	-350.47	1697936.45	14553910.59	40°04'28.022"N	104°47'39.790"W	0.40	
5092.00	3.960	353.140	4951.65	-972.70	972.59	-351.57	1697935.33	14553917.15	40°04'28.087"N	104°47'39.804"W	0.76	
5181.00	3.510	355.950	5040.46	-978.47	978.36	-352.13	1697934.76	14553922.92	40°04'28.144"N	104°47'39.812"W	0.55	
5270.00	2.950	355.060	5129.32	-983.47	983.36	-352.52	1697934.35	14553927.91	40°04'28.194"N	104°47'39.817"W	0.63	
5360.00	2.300	348.590	5219.22	-987.55	987.44	-353.08	1697933.79	14553931.99	40°04'28.234"N	104°47'39.824"W	0.79	
5450.00	1.950	347.000	5309.16	-990.81	990.70	-353.78	1697933.08	14553935.25	40°04'28.266"N	104°47'39.833"W	0.39	
5539.00	1.770	345.050	5398.11	-993.61	993.50	-354.47	1697932.38	14553938.05	40°04'28.294"N	104°47'39.842"W	0.21	
5629.00	1.590	340.440	5488.08	-996.13	996.02	-355.25	1697931.60	14553940.57	40°04'28.319"N	104°47'39.852"W	0.25	
5718.00	1.230	341.720	5577.05	-998.20	998.09	-355.96	1697930.88	14553942.63	40°04'28.339"N	104°47'39.861"W	0.41	
5808.00	1.180	347.970	5667.03	-1000.03	999.92	-356.46	1697930.38	14553944.46	40°04'28.357"N	104°47'39.867"W	0.16	
5898.00	1.160	357.960	5757.01	-1001.84	1001.73	-356.68	1697930.15	14553946.27	40°04'28.375"N	104°47'39.870"W	0.23	
5987.00	1.130	3320	5845.99	-1003.62	1003.51	-356.66	1697930.16	14553948.05	40°04'28.393"N	104°47'39.870"W	0.12	
6077.00	0.870	7.500	5935.98	-1005.18	1005.07	-356.52	1697930.30	14553949.61	40°04'28.408"N	104°47'39.868"W	0.30	
6166.00	0.430	353.380	6024.97	-1006.19	1006.07	-356.47	1697930.35	14553950.61	40°04'28.418"N	104°47'39.868"W	0.52	
6256.00	0.330	36.640	6114.97	-1006.73	1006.62	-356.36	1697930.46	14553951.16	40°04'28.424"N	104°47'39.866"W	0.33	
6345.00	0.340	81.880	6203.97	-1006.97	1006.86	-355.94	1697930.88	14553951.40	40°04'28.426"N	104°47'39.861"W	0.29	
6435.00	0.110	44.090	6293.97	-1007.07	1006.96	-355.62	1697931.20	14553951.50	40°04'28.427"N	104°47'39.857"W	0.29	
6524.00	0.280	13.990	6382.97	-1007.34	1007.23	-355.51	1697931.31	14553951.77	40°04'28.430"N	104°47'39.855"W	0.22	
6614.00	0.310	31.490	6472.97	-1007.77	1007.65	-355.33	1697931.49	14553952.19	40°04'28.434"N	104°47'39.853"W	0.11	
6693.00†	0.855	158.166	6551.96	-1007.40	1007.29	-355.00	1697931.82	14553951.83	40°04'28.430"N	104°47'39.849"W	1.35	KOP
6704.00	1.000	160.150	6562.96	-1007.23	1007.12	-354.93	1697931.89	14553951.66	40°04'28.429"N	104°47'39.848"W	1.35	
6793.00	9.830	185.510	6651.48	-998.92	998.81	-355.40	1697931.44	14553943.36	40°04'28.346"N	104°47'39.854"W	10.04	
6883.00	16.840	178.260	6739.01	-978.22	978.11	-355.74	1697931.14	14553922.66	40°04'28.142"N	104°47'39.858"W	7.99	
6972.00	23.500	176.400	6822.50	-947.59	947.48	-354.24	1697932.72	14553892.04	40°04'27.839"N	104°47'39.839"W	7.52	
7062.00	30.280	180.960	6902.73	-906.94	906.83	-353.49	1697933.56	14553851.42	40°04'27.437"N	104°47'39.829"W	7.87	
7152.00	37.140	180.380	6977.56	-857.03	856.92	-354.05	1697933.12	14553801.52	40°04'26.944"N	104°47'39.836"W	7.63	
7241.00	45.770	180.510	7044.20	-798.16	798.05	-354.51	1697932.79	14553742.68	40°04'26.362"N	104°47'39.842"W	9.70	
7331.00	53.300	177.630	7102.57	-729.76	729.65	-353.31	1697934.16	14553674.31	40°04'25.687"N	104°47'39.827"W	8.71	
7420.00	63.470	176.730	7149.16	-654.17	654.06	-349.55	1697938.09	14553598.75	40°04'24.939"N	104°47'39.778"W	11.46	
7510.00	66.540	177.000	7187.19	-572.73	572.62	-345.09	1697942.73	14553517.35	40°04'24.135"N	104°47'39.721"W	3.42	
7600.00	72.560	177.530	7218.62	-488.53	488.42	-341.08	1697946.94	14553433.20	40°04'23.303"N	104°47'39.669"W	6.71	
7689.00	77.940	178.370	7241.27	-402.55	402.44	-338.01	1697950.21	14553347.27	40°04'22.453"N	104°47'39.630"W	6.11	
7779.00	88.950	181.000	7251.53	-313.28	313.18	-337.54	1697950.89	14553258.04	40°04'21.571"N	104°47'39.624"W	12.57	LANDING (102°FNL & 743°FEL, SEC.08) 40.0726586 -104.7943400
7868.00	90.680	180.100	7251.82	-224.29	224.19	-338.39	1697950.24	14553169.08	40°04'20.691"N	104°47'39.635"W	2.19	

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Area	COLORADO	Well	KING 37N3-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N3-8HZ AWB
Facility	SEC.08-T1N-R66W		

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7958.00	89.140	179.560	7251.96	-134.30	134.19	338.13	1697950.71	14553079.12	40°04'19.802"N	104°47'39.631"W	1.81	
8048.00	90.220	180.270	7252.46	-44.30	44.19	337.99	1697951.06	14552989.16	40°04'18.913"N	104°47'39.630"W	1.44	
8049.00†	90.214	180.285	7252.46	-43.30	43.19	338.00	1697951.05	14552988.16	40°04'18.903"N	104°47'39.630"W	1.59	CROSS 460' SETBACK HEEL (458'FNL & 745'FEL, SEC.08) 40.0719175 -104.7943416
8137.00	89.720	181.590	7252.51	44.68	-44.79	339.44	1697949.82	14552900.21	40°04'18.033"N	104°47'39.648"W	1.59	
8227.00	89.720	181.490	7252.95	134.65	-134.76	341.86	1697947.61	14552810.27	40°04'17.144"N	104°47'39.679"W	0.11	
8316.00	90.550	182.190	7252.74	223.60	-223.71	344.71	1697944.96	14552721.35	40°04'16.265"N	104°47'39.716"W	1.22	
8406.00	88.920	180.740	7253.16	313.57	-313.67	347.01	1697942.87	14552631.41	40°04'15.376"N	104°47'39.746"W	2.42	
8496.00	89.380	180.510	7254.49	403.55	-403.66	348.00	1697942.10	14552541.46	40°04'14.487"N	104°47'39.758"W	0.57	
8585.00	88.640	180.360	7256.03	492.53	-492.64	348.67	1697941.63	14552452.51	40°04'13.608"N	104°47'39.767"W	0.85	
8675.00	88.740	180.620	7258.09	582.51	-582.62	349.44	1697941.07	14552362.58	40°04'12.718"N	104°47'39.777"W	0.31	
8764.00	89.110	180.570	7259.76	671.48	-671.59	350.36	1697940.35	14552273.63	40°04'11.839"N	104°47'39.789"W	0.42	
8854.00	89.260	180.390	7261.04	761.47	-761.58	351.12	1697939.81	14552183.68	40°04'10.950"N	104°47'39.798"W	0.26	
8944.00	89.780	180.590	7261.79	851.47	-851.58	351.89	1697939.25	14552093.72	40°04'10.061"N	104°47'39.808"W	0.62	
9033.00	90.000	180.050	7261.96	940.46	-940.57	352.39	1697938.96	14552004.75	40°04'09.181"N	104°47'39.815"W	0.66	
9123.00	90.520	179.900	7261.55	1030.46	-1030.57	352.35	1697939.21	14551914.79	40°04'08.292"N	104°47'39.814"W	0.60	
9212.00	90.740	179.880	7260.57	1119.46	-1119.57	352.18	1697939.58	14551825.83	40°04'07.412"N	104°47'39.812"W	0.25	
9302.00	88.580	180.260	7261.11	1209.45	-1209.56	352.28	1697939.68	14551735.88	40°04'06.523"N	104°47'39.813"W	2.44	
9391.00	88.860	180.270	7263.10	1298.43	-1298.54	352.70	1697939.48	14551646.93	40°04'05.644"N	104°47'39.819"W	0.31	
9481.00	88.310	179.710	7265.32	1388.40	-1388.51	352.68	1697939.70	14551557.00	40°04'04.754"N	104°47'39.818"W	0.87	
9570.00	88.000	179.310	7268.18	1477.35	-1477.46	351.92	1697940.67	14551468.08	40°04'03.875"N	104°47'39.809"W	0.57	
9660.00	89.780	181.890	7269.93	1567.31	-1567.43	352.86	1697939.94	14551378.15	40°04'02.986"N	104°47'39.821"W	3.48	
9749.00	89.260	181.060	7270.67	1656.28	-1656.39	355.15	1697937.85	14551289.22	40°04'02.107"N	104°47'39.850"W	1.10	
9839.00	91.630	182.250	7269.97	1746.23	-1746.34	357.75	1697935.46	14551199.29	40°04'01.218"N	104°47'39.883"W	2.95	
9928.00	91.320	181.810	7267.68	1835.14	-1835.26	360.90	1697932.52	14551110.41	40°04'00.340"N	104°47'39.924"W	0.60	
10018.00	91.260	181.440	7265.66	1925.08	-1925.20	363.46	1697930.18	14551020.50	40°03'59.451"N	104°47'39.957"W	0.42	
10108.00	91.260	180.790	7263.68	2015.04	-2015.16	365.21	1697928.64	14550930.57	40°03'58.562"N	104°47'39.979"W	0.72	
10197.00	91.290	180.800	7261.70	2104.01	-2104.13	366.44	1697927.61	14550841.63	40°03'57.683"N	104°47'39.995"W	0.04	
10287.00	91.480	180.760	7259.52	2193.98	-2194.09	367.67	1697926.60	14550751.70	40°03'56.793"N	104°47'40.011"W	0.22	
10377.00	91.910	180.060	7256.86	2283.94	-2284.05	368.31	1697926.16	14550661.78	40°03'55.905"N	104°47'40.019"W	0.91	
10466.00	90.090	178.800	7255.31	2372.91	-2373.03	367.42	1697927.25	14550572.84	40°03'55.025"N	104°47'40.008"W	2.49	
10555.00	89.260	178.320	7255.81	2461.88	-2462.00	365.19	1697929.70	14550483.91	40°03'54.146"N	104°47'39.979"W	1.08	
10645.00	90.220	177.990	7256.22	2551.84	-2551.95	362.29	1697932.80	14550394.00	40°03'53.257"N	104°47'39.942"W	1.13	
10735.00	88.740	179.840	7257.04	2641.81	-2641.92	360.59	1697934.71	14550304.07	40°03'52.368"N	104°47'39.920"W	2.63	
10824.00	88.980	179.590	7258.81	2730.79	-2730.90	360.14	1697935.36	14550215.12	40°03'51.489"N	104°47'39.914"W	0.39	
10914.00	88.210	179.510	7261.01	2820.76	-2820.87	359.44	1697936.28	14550125.19	40°03'50.600"N	104°47'39.905"W	0.86	
11003.00	87.780	179.030	7264.13	2909.70	-2909.81	358.30	1697937.62	14550036.29	40°03'49.721"N	104°47'39.890"W	0.72	
11093.00	86.920	178.660	7268.29	2999.58	-2999.70	356.49	1697939.64	14549946.45	40°03'48.832"N	104°47'39.867"W	1.04	
11183.00	88.150	178.790	7272.16	3089.48	-3089.59	354.49	1697941.85	14549856.60	40°03'47.944"N	104°47'39.841"W	1.37	
11272.00	89.320	179.440	7274.12	3178.44	-3178.55	353.12	1697943.43	14549767.67	40°03'47.065"N	104°47'39.824"W	1.50	
11362.00	89.200	178.640	7275.29	3268.42	-3268.53	351.61	1697945.14	14549677.73	40°03'46.176"N	104°47'39.804"W	0.90	
11451.00	90.830	180.490	7275.26	3357.41	-3357.52	350.93	1697946.02	14549588.78	40°03'45.296"N	104°47'39.795"W	2.77	
11541.00	91.080	180.090	7273.76	3447.40	-3447.51	351.39	1697945.78	14549498.82	40°03'44.407"N	104°47'39.801"W	0.52	
11630.00	91.110	180.110	7272.06	3536.38	-3536.49	351.54	1697945.83	14549409.88	40°03'43.528"N	104°47'39.803"W	0.04	
11720.00	91.080	179.990	7270.34	3626.37	-3626.48	351.62	1697945.96	14549319.93	40°03'42.638"N	104°47'39.804"W	0.14	
11809.00	90.800	179.460	7268.88	3715.35	-3715.46	351.20	1697946.59	14549230.98	40°03'41.759"N	104°47'39.799"W	0.67	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#08 KING 37N3-8HZ (415'FNL & 405'FEL,SEC.08)
Area	COLORADO	Well	KING 37N3-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N3-8HZ AWB
Facility	SEC.08-T1N-R66W		

WELLPATH DATA (149 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	90.740	179.000	7267.67	3805.34	-3805.45	-349.99	1697948.01	14549141.03	40°03'40.870"N	104°47'39.783"W	0.52	
11988.00	90.250	178.570	7266.90	3894.31	-3894.42	-348.10	1697950.11	14549052.10	40°03'39.990"N	104°47'39.759"W	0.73	
12078.00	90.250	180.000	7266.51	3984.30	-3984.41	-346.98	1697951.44	14548962.15	40°03'39.101"N	104°47'39.744"W	1.59	
12168.00	89.380	178.930	7266.80	4074.30	-4074.41	-346.14	1697952.49	14548872.19	40°03'38.212"N	104°47'39.734"W	1.53	
12257.00	89.480	180.450	7267.69	4163.29	-4163.40	-345.65	1697953.17	14548783.24	40°03'37.332"N	104°47'39.727"W	1.71	
12347.00	88.950	179.640	7268.92	4253.28	-4253.39	-345.72	1697953.31	14548693.28	40°03'36.443"N	104°47'39.728"W	1.08	
12437.00	88.610	179.860	7270.84	4343.26	-4343.37	-345.33	1697953.91	14548603.34	40°03'35.554"N	104°47'39.723"W	0.45	
12500.00†	89.353	180.221	7271.96	4406.25	-4406.36	-345.38	1697954.02	14548540.38	40°03'34.931"N	104°47'39.724"W	1.31	CROSS 460' SETBACK TOE (459'FSL & 780'FEL,SEC.08) 40.0597032 -104.7943677
12526.00	89.660	180.370	7272.18	4432.25	-4432.36	-345.51	1697953.94	14548514.39	40°03'34.675"N	104°47'39.726"W	1.31	
12616.00	89.720	180.370	7272.67	4522.24	-4522.35	-346.09	1697953.57	14548424.43	40°03'33.785"N	104°47'39.733"W	0.07	
12705.00	89.600	179.840	7273.20	4611.24	-4611.35	-346.26	1697953.61	14548335.46	40°03'32.906"N	104°47'39.735"W	0.61	
12795.00	88.860	179.090	7274.41	4701.23	-4701.34	-345.41	1697954.66	14548245.51	40°03'32.016"N	104°47'39.724"W	1.17	
12862.00	88.550	179.280	7275.92	4768.20	-4768.31	-344.46	1697955.77	14548178.57	40°03'31.355"N	104°47'39.712"W	0.54	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
12908.00	88.550	179.280	7277.08	4814.19	-4814.29	-343.88	1697956.46	14548132.61	40°03'30.900"N	104°47'39.705"W	0.00	PTB (51'FSL & 778'FEL,SEC.08) 40.0585834 -104.7943624

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.05-T1N-R66W	2.00	-44.73	-0.31	1698288.81	14552901.06	40°04'18.034"N	104°47'35.286"W	polygon
SEC.08-T1N-R66W	2.00	-44.73	-0.31	1698288.81	14552901.06	40°04'18.034"N	104°47'35.286"W	polygon
KING 37N3-8HZ HEEL REV-1(198'FNL & 748'FEL,SEC.08)	7257.00	218.25	-344.83	1697943.82	14553163.13	40°04'20.633"N	104°47'39.718"W	point
KING 37N3-8HZ HEEL REV-2(63'FNL & 748'FEL,SEC.08)	7257.00	353.25	-344.83	1697943.51	14553298.08	40°04'21.967"N	104°47'39.718"W	point
KING 37N3-8HZ 460' SETBACK 1	7267.00	0.00	0.00	1698289.02	14552945.77	40°04'18.476"N	104°47'35.282"W	polygon
KING 37N3-8HZ 460' SETBACK 2	7267.00	0.00	0.00	1698289.02	14552945.77	40°04'18.476"N	104°47'35.282"W	polygon
KING 37N3-8HZ BHL REV-1(50'FSL & 777'FEL,SEC.08)	7267.00	-4814.79	-343.22	1697957.12	14548132.11	40°03'30.895"N	104°47'39.696"W	point
KING 37N3-8HZ LANDBOX	7267.00	0.00	0.00	1698289.02	14552945.77	40°04'18.476"N	104°47'35.282"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: KING 37N3-8HZ AWB Ref Wellpath: KING 37N3-8HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1828.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <131 - 1828>	KING 37N3-8HZ AWB
1828.00	12862.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1933 - 12862>	KING 37N3-8HZ AWB
12862.00	12908.00	Blind Drilling (std)	Projection to bit	KING 37N3-8HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#08 KING 37N3-8HZ (415'FNL & 405'FEL,SEC.08)
Area	COLORADO	Well	KING 37N3-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N3-8HZ AWB
Facility	SEC.08-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
131.00	0.140	247.280	131.00	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
1828.00	17.600	331.210	1801.24	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1933.00	17.970	329.080	1901.22	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
2036.00	18.625	330.649	1998.96	ENTER LANDBOX (119'FNL & 463'FEL,SEC.08) 40.0726125 -104.7933373
6693.00	0.855	158.166	6551.96	KOP
7779.00	88.950	181.000	7251.53	LANDING (102'FNL & 743'FEL,SEC.08) 40.0726586 -104.7943400
8049.00	90.214	180.285	7252.46	CROSS 460' SETBACK HEEL (458'FNL & 745'FEL,SEC.08) 40.0719175 -104.7943416
12500.00	89.353	180.221	7271.96	CROSS 460' SETBACK TOE (459'FSL & 780'FEL,SEC.08) 40.0597032 -104.7943677
12862.00	88.550	179.280	7275.92	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
12908.00	88.550	179.280	7277.08	PTB (51'FSL & 778'FEL,SEC.08) 40.0585834 -104.7943624