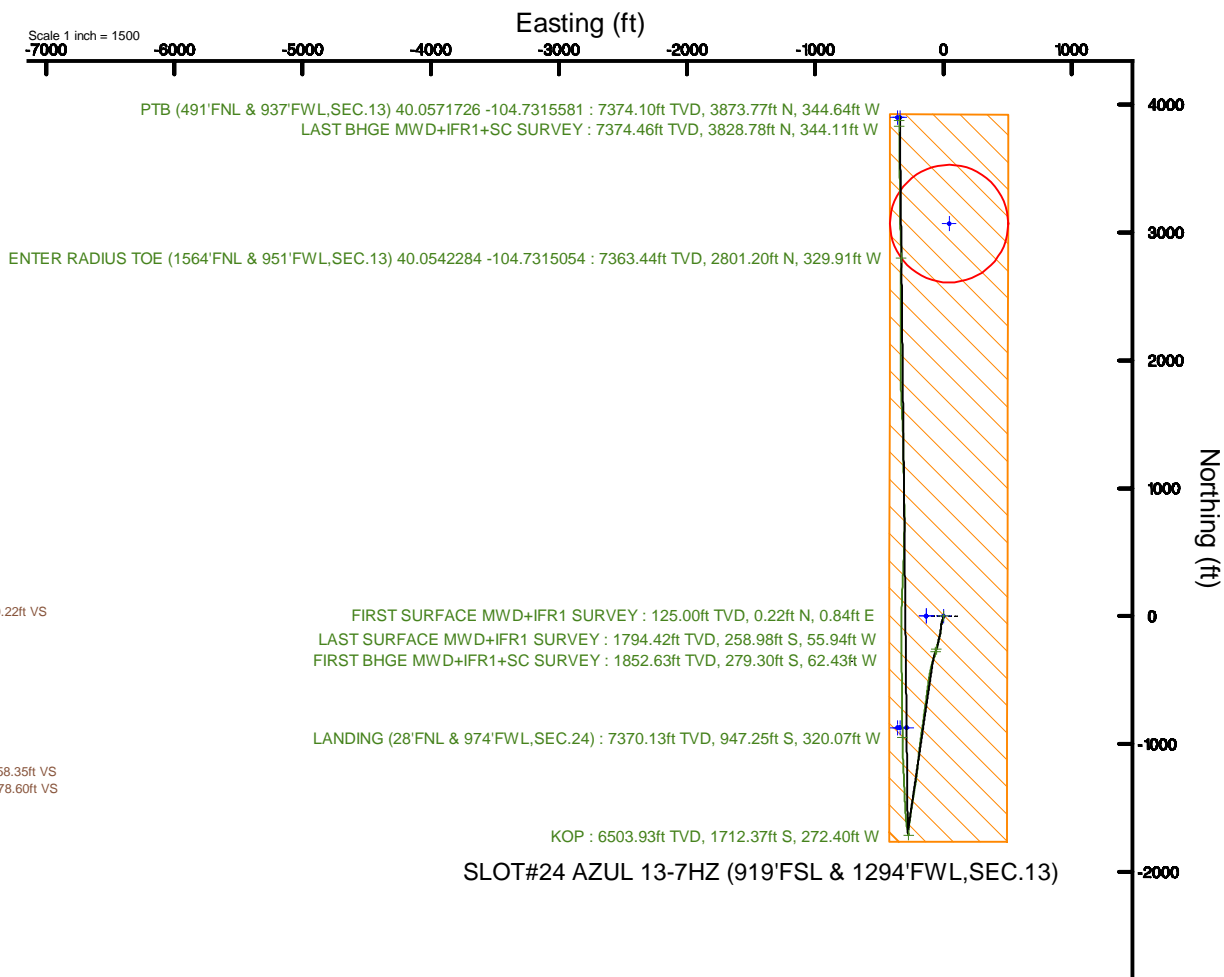


Location: COLORADO	Slot: SLOT#24 AZUL 13-7HZ (919FSL & 1294FWL,SEC.13)
Field: WELD COUNTY (UTM/TRUE NORTH)	Well: AZUL 13-7HZ
Facility: SEC.13-T1N-R66W	Wellbore: AZUL 13-7HZ PWB
Plot reference wellpath is AZUL 13-7HZ PWP Rev-C.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Xtrme 22 (17) (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Xtrme 22 (17) (RT)	North Reference: True north
Xtrme 22 (17) (RT) to Mean Sea Level: 5088 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#24 AZUL 13-7HZ (919FSL & 1294FWL,SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: paimser on 2018-04-05
	Database: WA_DEN Anadarko_Dein



Actual Wellpath Report

AZUL 13-7HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#24 AZUL 13-7HZ (919'FSL & 1294'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-7HZ AWB
Facility	SEC.13-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	0.999607	Report Generated	4/5/2018 at 9:15 AM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-7HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4158.32	-1596.08	1715887.61	14543794.51	40°02'47.540"N	104°43'49.177"W
Facility Reference Pt			1717470.20	14547956.10	40°03'28.634"N	104°43'28.654"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	5088.00ft
Horizontal Reference Pt	Slot	Xtreme 22 (17') (RT) to Mean Sea Level	5088.00ft
Vertical Reference Pt	Xtreme 22 (17') (RT)	Xtreme 22 (17') (RT) to Mud Line at Slot (SLOT#24 AZUL 13-7HZ (919'FSL & 1294'FWL,SEC.13))	5088.00ft
MD Reference Pt	Xtreme 22 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.37°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#24 AZUL 13-7HZ (919'FSL & 1294'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-7HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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	74.980	0.00	0.00	0.00	0.00	1715887.61	14543794.51	40°02'47.540"N	104°43'49.177"W	0.00	
17.00	0.000	74.980	17.00	0.00	0.00	0.00	1715887.61	14543794.51	40°02'47.540"N	104°43'49.177"W	0.00	
125.00	0.920	74.980	125.00	0.22	0.22	0.84	1715888.45	14543794.74	40°02'47.542"N	104°43'49.166"W	0.85	FIRST SURFACE MWD+IFR1 SURVEY
157.00	1.100	71.820	156.99	0.37	0.39	1.38	1715888.99	14543794.90	40°02'47.544"N	104°43'49.159"W	0.59	
188.00	0.830	56.790	187.99	0.58	0.60	1.85	1715889.46	14543795.12	40°02'47.546"N	104°43'49.153"W	1.19	
251.00	0.260	13.810	250.98	0.97	0.99	2.26	1715889.87	14543795.51	40°02'47.550"N	104°43'49.148"W	1.05	
283.00	0.480	337.340	282.98	1.16	1.19	2.23	1715889.84	14543795.70	40°02'47.552"N	104°43'49.148"W	0.97	
314.00	0.260	339.540	313.98	1.35	1.37	2.15	1715889.76	14543795.89	40°02'47.554"N	104°43'49.149"W	0.71	
346.00	0.700	330.920	345.98	1.59	1.61	2.03	1715889.64	14543796.12	40°02'47.556"N	104°43'49.151"W	1.39	
377.00	0.440	359.660	376.98	1.87	1.89	1.94	1715889.55	14543796.41	40°02'47.559"N	104°43'49.152"W	1.22	
409.00	0.530	337.160	408.98	2.13	2.15	1.88	1715889.49	14543796.67	40°02'47.561"N	104°43'49.153"W	0.65	
441.00	0.440	312.990	440.98	2.36	2.37	1.74	1715889.34	14543796.89	40°02'47.563"N	104°43'49.155"W	0.69	
472.00	0.570	176.230	471.98	2.28	2.30	1.66	1715889.27	14543796.81	40°02'47.563"N	104°43'49.156"W	3.03	
504.00	1.010	188.630	503.97	1.85	1.86	1.63	1715889.24	14543796.38	40°02'47.558"N	104°43'49.156"W	1.47	
535.00	1.010	189.150	534.97	1.31	1.32	1.54	1715889.15	14543795.84	40°02'47.553"N	104°43'49.157"W	0.03	
567.00	1.190	195.570	566.96	0.71	0.73	1.41	1715889.02	14543795.24	40°02'47.547"N	104°43'49.159"W	0.68	
599.00	1.800	193.200	598.95	-0.10	-0.08	1.21	1715888.82	14543794.43	40°02'47.539"N	104°43'49.162"W	1.92	
631.00	2.590	191.700	630.93	-1.29	-1.28	0.94	1715888.56	14543793.23	40°02'47.527"N	104°43'49.165"W	2.48	
663.00	3.210	193.200	662.89	-2.87	-2.86	0.59	1715888.22	14543791.65	40°02'47.512"N	104°43'49.169"W	1.95	
695.00	3.080	195.040	694.84	-4.57	-4.56	0.16	1715887.79	14543789.95	40°02'47.495"N	104°43'49.175"W	0.51	
726.00	3.690	192.850	725.78	-6.34	-6.34	-0.27	1715887.36	14543788.17	40°02'47.477"N	104°43'49.181"W	2.01	
758.00	4.440	190.470	757.70	-8.55	-8.56	-0.73	1715886.91	14543785.95	40°02'47.455"N	104°43'49.186"W	2.40	
790.00	4.610	187.920	789.60	-11.04	-11.05	-1.13	1715886.52	14543783.46	40°02'47.431"N	104°43'49.192"W	0.82	
822.00	5.410	198.560	821.48	-13.74	-13.76	-1.79	1715885.87	14543780.75	40°02'47.404"N	104°43'49.200"W	3.82	
854.00	5.890	201.280	853.33	-16.69	-16.72	-2.86	1715884.80	14543777.79	40°02'47.375"N	104°43'49.214"W	1.72	
885.00	6.280	198.210	884.15	-19.77	-19.81	-3.97	1715883.71	14543774.69	40°02'47.344"N	104°43'49.228"W	1.64	
917.00	7.120	199.260	915.93	-23.29	-23.35	-5.17	1715882.52	14543771.16	40°02'47.309"N	104°43'49.243"W	2.65	
949.00	8.530	196.710	947.63	-27.42	-27.49	-6.51	1715881.19	14543767.01	40°02'47.268"N	104°43'49.261"W	4.54	
980.00	8.830	196.890	978.28	-31.88	-31.97	-7.86	1715879.85	14543762.53	40°02'47.224"N	104°43'49.278"W	0.97	
1012.00	9.540	195.920	1009.87	-36.77	-36.87	-9.30	1715878.43	14543757.63	40°02'47.176"N	104°43'49.297"W	2.27	
1076.00	11.430	196.010	1072.80	-47.93	-48.07	-12.51	1715875.26	14543746.42	40°02'47.065"N	104°43'49.338"W	2.95	
1107.00	11.950	195.310	1103.15	-53.96	-54.11	-14.20	1715873.58	14543740.37	40°02'47.005"N	104°43'49.360"W	1.74	
1139.00	12.660	191.180	1134.42	-60.57	-60.75	-15.75	1715872.05	14543733.73	40°02'46.940"N	104°43'49.380"W	3.53	
1171.00	13.360	188.450	1165.60	-67.66	-67.85	-16.98	1715870.85	14543726.64	40°02'46.870"N	104°43'49.395"W	2.91	
1202.00	13.710	187.840	1195.74	-74.83	-75.03	-18.01	1715869.84	14543719.45	40°02'46.799"N	104°43'49.409"W	1.22	
1234.00	13.890	186.780	1226.81	-82.39	-82.60	-18.98	1715868.90	14543711.88	40°02'46.724"N	104°43'49.421"W	0.97	
1266.00	13.840	185.990	1257.88	-90.00	-90.22	-19.83	1715868.07	14543704.26	40°02'46.648"N	104°43'49.432"W	0.61	
1298.00	14.590	185.640	1288.90	-97.81	-98.04	-20.62	1715867.30	14543696.45	40°02'46.571"N	104°43'49.442"W	2.36	
1330.00	15.120	186.960	1319.83	-105.95	-106.19	-21.53	1715866.42	14543688.29	40°02'46.491"N	104°43'49.454"W	1.96	
1361.00	15.470	185.730	1349.73	-114.07	-114.32	-22.43	1715865.54	14543680.17	40°02'46.410"N	104°43'49.465"W	1.54	
1393.00	16.130	187.480	1380.52	-122.71	-122.97	-23.43	1715864.56	14543671.51	40°02'46.325"N	104°43'49.478"W	2.54	
1425.00	16.440	188.980	1411.24	-131.57	-131.85	-24.72	1715863.30	14543662.63	40°02'46.237"N	104°43'49.495"W	1.63	
1456.00	17.270	192.670	1440.91	-140.38	-140.68	-26.41	1715861.64	14543653.81	40°02'46.150"N	104°43'49.517"W	4.37	
1488.00	17.450	193.990	1471.45	-149.64	-149.97	-28.61	1715859.47	14543644.52	40°02'46.058"N	104°43'49.545"W	1.35	
1519.00	18.410	193.990	1500.95	-158.88	-159.23	-30.92	1715857.19	14543635.25	40°02'45.966"N	104°43'49.575"W	3.10	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#24 AZUL 13-7HZ (919'FSL & 1294'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-7HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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
1551.00	19.160	193.200	1531.24	-168.87	-169.24	-33.34	1715854.80	14543625.23	40°02'45.868"N	104°43'49.606"W	2.47	
1583.00	18.980	193.460	1561.49	-179.01	-179.42	-35.75	1715852.42	14543615.06	40°02'45.767"N	104°43'49.637"W	0.62	
1615.00	18.900	193.640	1591.75	-189.08	-189.51	-38.19	1715850.02	14543604.96	40°02'45.667"N	104°43'49.668"W	0.31	
1646.00	18.630	193.810	1621.11	-198.74	-199.20	-40.55	1715847.68	14543595.27	40°02'45.571"N	104°43'49.698"W	0.89	
1678.00	18.850	191.530	1651.41	-208.75	-209.23	-42.81	1715845.46	14543585.23	40°02'45.472"N	104°43'49.727"W	2.39	
1710.00	19.200	192.060	1681.66	-218.94	-219.44	-44.94	1715843.36	14543575.02	40°02'45.371"N	104°43'49.755"W	1.22	
1742.00	19.820	193.990	1711.82	-229.32	-229.85	-47.35	1715840.98	14543564.61	40°02'45.269"N	104°43'49.786"W	2.79	
1773.00	20.570	196.630	1740.92	-239.61	-240.17	-50.18	1715838.18	14543554.28	40°02'45.167"N	104°43'49.822"W	3.81	
1805.00	20.080	196.630	1770.93	-250.22	-250.82	-53.36	1715835.04	14543543.63	40°02'45.061"N	104°43'49.863"W	1.53	
1830.00	19.950	198.470	1794.42	-258.35	-258.98	-55.94	1715832.48	14543535.47	40°02'44.981"N	104°43'49.896"W	2.57	LAST SURFACE MWD+IFR1 SURVEY
1892.00	20.310	196.980	1852.63	-278.60	-279.30	-62.43	1715826.05	14543515.13	40°02'44.780"N	104°43'49.980"W	1.01	FIRST BHGE MWD+IFR1+SC SURVEY
1979.00	19.790	197.230	1934.36	-307.01	-307.81	-71.20	1715817.37	14543486.61	40°02'44.498"N	104°43'50.093"W	0.61	
2067.00	20.870	195.470	2016.87	-336.25	-337.14	-79.82	1715808.85	14543457.26	40°02'44.208"N	104°43'50.203"W	1.40	
2155.00	20.290	195.470	2099.26	-365.96	-366.95	-88.09	1715800.67	14543427.44	40°02'43.914"N	104°43'50.310"W	0.66	
2243.00	18.540	194.310	2182.25	-394.14	-395.21	-95.61	1715793.23	14543399.17	40°02'43.634"N	104°43'50.406"W	2.04	
2331.00	18.560	192.510	2265.68	-421.30	-422.44	-102.11	1715786.83	14543371.93	40°02'43.365"N	104°43'50.490"W	0.65	
2419.00	18.790	188.520	2349.05	-448.93	-450.13	-107.24	1715781.78	14543344.23	40°02'43.092"N	104°43'50.556"W	1.47	
2506.00	19.220	188.610	2431.31	-476.90	-478.15	-111.46	1715777.65	14543316.22	40°02'42.815"N	104°43'50.610"W	0.50	
2593.00	19.980	189.620	2513.27	-505.66	-506.96	-116.09	1715773.11	14543287.40	40°02'42.530"N	104°43'50.670"W	0.96	
2681.00	19.980	187.120	2595.97	-535.35	-536.70	-120.46	1715768.82	14543257.66	40°02'42.236"N	104°43'50.726"W	0.97	
2769.00	20.910	188.170	2678.43	-565.77	-567.16	-124.56	1715764.82	14543227.19	40°02'41.935"N	104°43'50.779"W	1.14	
2856.00	20.190	186.430	2759.89	-596.01	-597.45	-128.45	1715761.03	14543196.91	40°02'41.636"N	104°43'50.829"W	1.09	
2944.00	19.900	186.130	2842.56	-625.95	-627.43	-131.75	1715757.82	14543166.93	40°02'41.340"N	104°43'50.871"W	0.35	
3031.00	19.810	188.090	2924.39	-655.23	-656.75	-135.40	1715754.25	14543137.61	40°02'41.050"N	104°43'50.918"W	0.77	
3119.00	19.620	187.740	3007.23	-684.59	-686.15	-139.49	1715750.26	14543108.21	40°02'40.759"N	104°43'50.971"W	0.25	
3206.00	20.540	188.530	3088.94	-714.11	-715.72	-143.72	1715746.12	14543078.64	40°02'40.467"N	104°43'51.025"W	1.10	
3294.00	21.510	188.390	3171.08	-745.28	-746.95	-148.37	1715741.57	14543047.41	40°02'40.158"N	104°43'51.085"W	1.10	
3381.00	20.790	187.110	3252.22	-776.33	-778.05	-152.60	1715737.43	14543016.31	40°02'39.851"N	104°43'51.139"W	0.98	
3469.00	19.780	186.150	3334.76	-806.60	-808.35	-156.13	1715733.99	14542986.01	40°02'39.552"N	104°43'51.185"W	1.21	
3556.00	19.430	189.180	3416.72	-835.47	-837.28	-160.02	1715730.19	14542957.08	40°02'39.266"N	104°43'51.235"W	1.24	
3644.00	19.770	189.470	3499.62	-864.55	-866.41	-164.80	1715725.50	14542927.95	40°02'38.978"N	104°43'51.296"W	0.40	
3731.00	20.590	188.440	3581.28	-894.14	-896.05	-169.47	1715720.93	14542898.30	40°02'38.685"N	104°43'51.356"W	1.03	
3818.00	20.810	186.680	3662.67	-924.58	-926.53	-173.51	1715716.98	14542867.82	40°02'38.384"N	104°43'51.408"W	0.76	
3905.00	20.330	187.710	3744.12	-954.86	-956.86	-177.34	1715713.25	14542837.50	40°02'38.084"N	104°43'51.457"W	0.69	
3993.00	19.540	188.610	3826.85	-984.51	-986.56	-181.59	1715709.08	14542807.79	40°02'37.791"N	104°43'51.512"W	0.96	
4080.00	19.640	186.210	3908.81	-1013.39	-1015.48	-185.35	1715705.41	14542778.87	40°02'37.505"N	104°43'51.560"W	0.93	
4168.00	19.660	187.090	3991.69	-1042.74	-1044.87	-188.78	1715702.08	14542749.48	40°02'37.214"N	104°43'51.604"W	0.34	
4255.00	19.720	185.820	4073.60	-1071.83	-1074.00	-192.07	1715698.87	14542720.36	40°02'36.926"N	104°43'51.647"W	0.50	
4343.00	20.130	185.400	4156.33	-1101.64	-1103.84	-195.00	1715696.03	14542690.52	40°02'36.632"N	104°43'51.684"W	0.49	
4430.00	20.810	186.340	4237.84	-1131.87	-1134.11	-198.12	1715693.01	14542660.26	40°02'36.332"N	104°43'51.724"W	0.87	
4518.00	21.030	186.330	4320.04	-1163.06	-1165.34	-201.59	1715689.64	14542629.03	40°02'36.024"N	104°43'51.769"W	0.25	
4605.00	21.870	185.940	4401.01	-1194.66	-1196.97	-204.98	1715686.34	14542597.40	40°02'35.711"N	104°43'51.813"W	0.98	
4693.00	21.700	185.790	4482.73	-1227.10	-1229.46	-208.32	1715683.10	14542564.91	40°02'35.390"N	104°43'51.856"W	0.20	
4780.00	19.920	185.870	4564.05	-1257.82	-1260.21	-211.46	1715680.05	14542534.17	40°02'35.086"N	104°43'51.896"W	2.05	
4867.00	18.650	189.800	4646.17	-1286.22	-1288.66	-215.34	1715676.26	14542505.71	40°02'34.805"N	104°43'51.946"W	2.09	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#24 AZUL 13-7HZ (919'FSL & 1294'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-7HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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
4955.00	19.370	191.380	4729.37	-1314.34	-1316.83	-220.62	1715671.07	14542477.54	40°02'34.527"N	104°43'52.014"W	1.01	
5042.00	19.790	189.160	4811.34	-1342.96	-1345.52	-225.81	1715665.97	14542448.85	40°02'34.243"N	104°43'52.080"W	0.98	
5130.00	19.950	188.350	4894.10	-1372.47	-1375.08	-230.36	1715661.51	14542419.29	40°02'33.951"N	104°43'52.139"W	0.36	
5218.00	20.980	188.700	4976.54	-1402.85	-1405.50	-234.92	1715657.04	14542388.86	40°02'33.650"N	104°43'52.198"W	1.18	
5305.00	21.000	189.140	5057.77	-1433.58	-1436.29	-239.76	1715652.30	14542358.07	40°02'33.346"N	104°43'52.260"W	0.18	
5392.00	19.610	189.130	5139.36	-1463.33	-1466.10	-244.55	1715647.60	14542328.26	40°02'33.052"N	104°43'52.321"W	1.60	
5480.00	18.860	188.950	5222.45	-1491.91	-1494.73	-249.11	1715643.13	14542299.63	40°02'32.769"N	104°43'52.380"W	0.85	
5567.00	17.930	189.740	5305.00	-1518.95	-1521.82	-253.56	1715638.76	14542272.53	40°02'32.501"N	104°43'52.437"W	1.11	
5655.00	16.170	188.040	5389.13	-1544.39	-1547.30	-257.56	1715634.84	14542247.05	40°02'32.249"N	104°43'52.489"W	2.08	
5742.00	15.350	185.080	5472.86	-1567.83	-1570.77	-260.28	1715632.19	14542223.58	40°02'32.017"N	104°43'52.524"W	1.32	
5829.00	14.560	188.410	5556.92	-1590.09	-1593.06	-262.90	1715629.64	14542201.29	40°02'31.797"N	104°43'52.557"W	1.34	
5917.00	13.610	188.320	5642.27	-1611.24	-1614.25	-266.01	1715626.59	14542180.10	40°02'31.588"N	104°43'52.597"W	1.08	
6004.00	11.900	188.280	5727.12	-1630.21	-1633.25	-268.79	1715623.88	14542161.10	40°02'31.400"N	104°43'52.633"W	1.97	
6092.00	10.490	189.010	5813.44	-1647.07	-1650.14	-271.35	1715621.37	14542144.21	40°02'31.233"N	104°43'52.666"W	1.61	
6180.00	8.200	186.360	5900.27	-1661.20	-1664.29	-273.30	1715619.46	14542130.05	40°02'31.093"N	104°43'52.691"W	2.65	
6267.00	6.960	183.860	5986.51	-1672.62	-1675.72	-274.34	1715618.46	14542118.63	40°02'30.980"N	104°43'52.704"W	1.47	
6355.00	6.270	179.940	6073.92	-1682.74	-1685.84	-274.69	1715618.13	14542108.51	40°02'30.880"N	104°43'52.709"W	0.94	
6442.00	5.280	179.310	6160.48	-1691.49	-1694.60	-274.64	1715618.21	14542099.76	40°02'30.794"N	104°43'52.708"W	1.14	
6530.00	3.950	173.550	6248.19	-1698.56	-1701.66	-274.25	1715618.62	14542092.70	40°02'30.724"N	104°43'52.703"W	1.60	
6618.00	2.940	167.570	6336.03	-1703.78	-1706.87	-273.43	1715619.47	14542087.49	40°02'30.672"N	104°43'52.693"W	1.22	
6705.00	1.920	167.260	6422.95	-1707.39	-1710.48	-272.62	1715620.28	14542083.89	40°02'30.637"N	104°43'52.682"W	1.17	
6786.00†	0.821	187.406	6503.93	-1709.29	-1712.37	-272.40	1715620.51	14542081.99	40°02'30.618"N	104°43'52.679"W	1.46	KOP
6792.00	0.750	191.150	6509.93	-1709.37	-1712.46	-272.41	1715620.49	14542081.91	40°02'30.617"N	104°43'52.680"W	1.46	
6879.00	6.240	344.920	6596.77	-1705.35	-1708.44	-273.75	1715619.14	14542085.92	40°02'30.657"N	104°43'52.697"W	7.95	
6967.00	12.460	350.190	6683.56	-1691.33	-1694.46	-276.62	1715616.24	14542099.89	40°02'30.795"N	104°43'52.734"W	7.13	
7054.00	18.330	349.550	6767.41	-1668.56	-1671.74	-280.70	1715612.08	14542122.59	40°02'31.019"N	104°43'52.786"W	6.75	
7142.00	22.950	350.280	6849.73	-1637.97	-1641.20	-286.11	1715606.58	14542153.10	40°02'31.321"N	104°43'52.856"W	5.26	
7230.00	27.930	354.260	6929.18	-1600.48	-1603.76	-291.07	1715601.51	14542190.51	40°02'31.691"N	104°43'52.919"W	5.98	
7317.00	32.430	355.700	7004.37	-1556.88	-1560.20	-294.86	1715597.59	14542234.04	40°02'32.122"N	104°43'52.968"W	5.24	
7405.00	37.690	356.960	7076.38	-1506.42	-1509.77	-298.06	1715594.24	14542284.44	40°02'32.620"N	104°43'53.009"W	6.03	
7492.00	43.580	357.230	7142.37	-1449.83	-1453.21	-300.92	1715591.21	14542340.97	40°02'33.179"N	104°43'53.046"W	6.77	
7581.00	50.260	357.720	7203.13	-1384.90	-1388.31	-303.77	1715588.17	14542405.84	40°02'33.820"N	104°43'53.083"W	7.52	
7668.00	58.440	357.370	7253.79	-1314.30	-1317.74	-306.81	1715584.92	14542476.37	40°02'34.518"N	104°43'53.122"W	9.41	
7755.00	64.690	357.560	7295.20	-1237.88	-1241.34	-310.19	1715581.31	14542552.72	40°02'35.273"N	104°43'53.165"W	7.19	
7843.00	69.820	357.050	7329.21	-1156.80	-1160.30	-314.01	1715577.25	14542633.72	40°02'36.074"N	104°43'53.214"W	5.85	
7930.00	77.350	358.270	7353.78	-1073.44	-1076.98	-317.39	1715573.61	14542717.00	40°02'36.897"N	104°43'53.258"W	8.76	
8018.00	84.460	359.140	7367.68	-986.61	-990.17	-319.35	1715571.39	14542803.77	40°02'37.755"N	104°43'53.283"W	8.14	
8061.00	89.010	358.950	7370.13	-943.69	-947.25	-320.07	1715570.54	14542846.67	40°02'38.179"N	104°43'53.292"W	10.59	LANDING (28'FNL & 974'FWL,SEC.24)
8105.00	90.250	359.530	7370.41	-899.70	-903.26	-320.65	1715569.83	14542890.64	40°02'38.614"N	104°43'53.300"W	3.11	
8193.00	90.650	358.980	7369.72	-811.70	-815.27	-321.79	1715568.42	14542978.59	40°02'39.483"N	104°43'53.315"W	0.77	
8280.00	90.990	359.670	7368.48	-724.71	-728.29	-322.82	1715567.13	14543065.54	40°02'40.343"N	104°43'53.328"W	0.88	
8368.00	91.140	359.060	7366.84	-636.73	-640.31	-323.79	1715565.89	14543153.48	40°02'41.212"N	104°43'53.340"W	0.71	
8455.00	89.820	359.470	7366.11	-549.73	-553.32	-324.91	1715564.51	14543240.43	40°02'42.072"N	104°43'53.355"W	1.59	
8543.00	89.570	359.400	7366.58	-461.73	-465.32	-325.78	1715563.38	14543328.38	40°02'42.942"N	104°43'53.366"W	0.30	
8630.00	88.990	359.260	7367.67	-374.74	-378.34	-326.79	1715562.10	14543415.33	40°02'43.801"N	104°43'53.379"W	0.69	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#24 AZUL 13-7HZ (919'FSL & 1294'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-7HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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
8718.00	89.570	359.480	7368.78	-286.75	-290.35	-327.76	1715560.86	14543503.28	40°02'44.671"N	104°43'53.391"W	0.70	
8805.00	89.110	359.750	7369.78	-199.75	-203.36	-328.35	1715560.02	14543590.24	40°02'45.530"N	104°43'53.399"W	0.61	
8893.00	89.850	359.300	7370.58	-111.76	-115.37	-329.08	1715559.02	14543678.19	40°02'46.400"N	104°43'53.408"W	0.98	
8980.00	91.230	0.770	7369.76	-24.77	-28.37	-329.02	1715558.81	14543765.15	40°02'47.260"N	104°43'53.408"W	2.32	
9067.00	91.420	2.180	7367.75	62.14	58.57	-326.78	1715560.78	14543852.07	40°02'48.119"N	104°43'53.379"W	1.63	
9155.00	90.680	2.170	7366.13	150.02	146.49	-323.44	1715563.86	14543939.96	40°02'48.988"N	104°43'53.336"W	0.84	
9243.00	90.090	2.330	7365.54	237.91	234.42	-319.99	1715567.04	14544027.87	40°02'49.857"N	104°43'53.292"W	0.69	
9330.00	91.140	2.650	7364.61	324.77	321.33	-316.21	1715570.56	14544114.76	40°02'50.715"N	104°43'53.243"W	1.26	
9418.00	89.850	2.590	7363.85	412.63	409.24	-312.19	1715574.31	14544202.64	40°02'51.584"N	104°43'53.191"W	1.47	
9505.00	89.600	2.350	7364.27	499.50	496.15	-308.44	1715577.80	14544289.53	40°02'52.443"N	104°43'53.143"W	0.40	
9592.00	88.830	0.260	7365.46	586.44	583.12	-306.46	1715579.51	14544376.47	40°02'53.302"N	104°43'53.118"W	2.56	
9679.00	89.260	0.510	7366.91	673.41	670.10	-305.87	1715579.84	14544463.42	40°02'54.162"N	104°43'53.110"W	0.57	
9766.00	90.610	0.540	7367.01	760.39	757.10	-305.08	1715580.37	14544550.38	40°02'55.022"N	104°43'53.100"W	1.55	
9854.00	90.550	358.990	7366.12	848.38	845.09	-305.44	1715579.74	14544638.34	40°02'55.891"N	104°43'53.105"W	1.76	
9942.00	91.940	358.600	7364.20	936.35	933.05	-307.29	1715577.63	14544726.25	40°02'56.761"N	104°43'53.128"W	1.64	
10029.00	90.400	358.590	7362.43	1023.33	1020.00	-309.42	1715575.23	14544813.17	40°02'57.620"N	104°43'53.156"W	1.77	
10117.00	90.120	359.400	7362.03	1111.32	1107.99	-310.96	1715573.42	14544901.11	40°02'58.489"N	104°43'53.176"W	0.97	
10205.00	88.490	359.670	7363.10	1199.31	1195.97	-311.68	1715572.44	14544989.06	40°02'59.359"N	104°43'53.185"W	1.88	
10293.00	88.060	358.480	7365.75	1287.27	1283.92	-313.10	1715570.76	14545076.97	40°03'00.228"N	104°43'53.203"W	1.44	
10380.00	89.600	359.570	7367.52	1374.25	1370.89	-314.58	1715569.01	14545163.89	40°03'01.087"N	104°43'53.222"W	2.17	
10468.00	88.280	357.110	7369.15	1462.21	1458.82	-317.12	1715566.20	14545251.79	40°03'01.956"N	104°43'53.255"W	3.17	
10555.00	88.800	357.220	7371.37	1549.11	1545.69	-321.43	1715561.64	14545338.61	40°03'02.815"N	104°43'53.310"W	0.61	
10643.00	89.010	357.070	7373.05	1637.03	1633.56	-325.81	1715556.99	14545426.43	40°03'03.683"N	104°43'53.367"W	0.29	
10730.00	89.110	357.750	7374.48	1723.97	1720.46	-329.74	1715552.80	14545513.29	40°03'04.542"N	104°43'53.417"W	0.79	
10818.00	91.230	358.660	7374.21	1811.94	1808.41	-332.50	1715549.78	14545601.19	40°03'05.411"N	104°43'53.453"W	2.62	
10906.00	91.360	358.880	7372.23	1899.92	1896.37	-334.38	1715547.62	14545689.11	40°03'06.280"N	104°43'53.477"W	0.29	
10993.00	91.540	0.090	7370.02	1986.89	1983.34	-335.17	1715546.58	14545776.04	40°03'07.140"N	104°43'53.487"W	1.41	
11081.00	91.140	0.890	7367.97	2074.85	2071.31	-334.41	1715547.06	14545863.98	40°03'08.009"N	104°43'53.477"W	1.02	
11168.00	91.820	359.870	7365.72	2161.80	2158.28	-333.84	1715547.38	14545950.91	40°03'08.869"N	104°43'53.470"W	1.41	
11255.00	90.310	0.060	7364.10	2248.78	2245.26	-333.89	1715547.06	14546037.86	40°03'09.728"N	104°43'53.471"W	1.75	
11344.00	91.540	0.520	7362.67	2337.75	2334.24	-333.44	1715547.24	14546126.81	40°03'10.608"N	104°43'53.465"W	1.48	
11431.00	90.310	0.540	7361.26	2424.72	2421.23	-332.64	1715547.78	14546213.76	40°03'11.467"N	104°43'53.455"W	1.41	
11518.00	89.140	0.620	7361.68	2511.70	2508.22	-331.75	1715548.40	14546300.72	40°03'12.327"N	104°43'53.443"W	1.35	
11606.00	90.030	0.010	7362.32	2599.69	2596.22	-331.27	1715548.62	14546388.68	40°03'13.196"N	104°43'53.437"W	1.23	
11693.00	89.040	0.220	7363.02	2686.67	2683.21	-331.10	1715548.53	14546475.65	40°03'14.056"N	104°43'53.435"W	1.16	
11781.00	90.310	0.920	7363.52	2774.65	2771.20	-330.22	1715549.14	14546563.60	40°03'14.926"N	104°43'53.424"W	1.65	
11811.00†	90.003	0.268	7363.44	2804.64	2801.20	-329.91	1715549.36	14546593.59	40°03'15.222"N	104°43'53.420"W	2.40	ENTER RADIUS TOE (1564'FNL & 951'FWL,SEC.13) 40.0542284 -104.7315054
11868.00	89.420	359.030	7363.73	2861.64	2858.20	-330.26	1715548.84	14546650.56	40°03'15.785"N	104°43'53.424"W	2.40	
11956.00	89.540	357.490	7364.52	2949.62	2946.15	-332.93	1715545.90	14546738.47	40°03'16.655"N	104°43'53.458"W	1.76	
12043.00	89.910	356.650	7364.94	3036.55	3033.04	-337.38	1715541.19	14546825.31	40°03'17.513"N	104°43'53.516"W	1.06	
12131.00	89.080	359.800	7365.72	3124.51	3120.98	-340.10	1715538.20	14546913.21	40°03'18.382"N	104°43'53.551"W	3.70	
12218.00	90.680	0.900	7365.90	3211.50	3207.97	-339.57	1715538.47	14547000.17	40°03'19.242"N	104°43'53.544"W	2.23	
12306.00	89.260	359.450	7365.95	3299.48	3295.97	-339.30	1715538.47	14547088.13	40°03'20.112"N	104°43'53.540"W	2.31	
12393.00	90.610	358.980	7366.05	3386.48	3382.96	-340.49	1715537.02	14547175.08	40°03'20.971"N	104°43'53.556"W	1.64	
12481.00	89.940	359.710	7365.62	3474.48	3470.95	-341.50	1715535.74	14547263.04	40°03'21.841"N	104°43'53.569"W	1.13	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#24 AZUL 13-7HZ (919'FSL & 1294'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-7HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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
12568.00	87.290	359.860	7367.73	3561.44	3557.92	-341.83	1715535.15	14547349.97	40°03'22.700"N	104°43'53.573"W	3.05	
12656.00	87.660	359.180	7371.60	3649.36	3645.83	-342.56	1715534.15	14547437.84	40°03'23.569"N	104°43'53.582"W	0.88	
12743.00	89.080	359.780	7374.08	3736.32	3732.79	-343.35	1715533.10	14547524.76	40°03'24.428"N	104°43'53.593"W	1.77	
12839.00	90.460	359.320	7374.46	3832.32	3828.78	-344.11	1715532.06	14547620.71	40°03'25.377"N	104°43'53.602"W	1.52	LAST BHGE MWD+IFR1+SC SURVEY
12884.00	90.460	359.320	7374.10	3877.31	3873.77	-344.64	1715531.39	14547665.69	40°03'25.822"N	104°43'53.609"W	0.00	PTB (491'FNL & 937'FWL,SEC.13) 40.0571726 -104.7315581

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T1N-R66W	0.00	1.11	-135.24	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
SEC.24-T1N-R66W	0.00	1.11	-135.24	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-7HZ BHL REV-1(468'FNL & 922'FWL,SEC.13)	7368.00	3896.85	-360.29	1715515.68	14547688.71	40°03'26.050"N	104°43'53.810"W	point
AZUL 13-7HZ BHL REV-2(468'FNL & 942'FWL,SEC.13)	7368.00	3896.85	-340.29	1715535.67	14547688.77	40°03'26.050"N	104°43'53.553"W	point
AZUL 13-7HZ HEEL REV-1(50'FSL & 939'FWL,SEC.13)	7374.00	-872.07	-358.11	1715532.28	14542921.71	40°02'38.922"N	104°43'53.782"W	point
AZUL 13-7HZ HEEL REV-2(50'FSL & 959'FWL,SEC.13)	7374.00	-872.07	-338.11	1715552.28	14542921.77	40°02'38.922"N	104°43'53.524"W	point
AZUL 13-7HZ HEEL REV-3(50'FSL & 1009'FWL,SEC.13)	7374.00	-872.07	-288.11	1715602.26	14542921.92	40°02'38.922"N	104°43'52.882"W	point
AZUL 13-7HZ LANDBOX	7374.00	0.00	0.00	1715887.61	14543794.51	40°02'47.540"N	104°43'49.177"W	polygon
AZUL 13-7HZ RADIUS 1	7374.00	3068.29	43.69	1715922.00	14546861.70	40°03'17.862"N	104°43'48.615"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-7HZ AWB Ref Wellpath: AZUL 13-7HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1830.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <125 - 1830>	AZUL 13-7HZ AWB
1830.00	12839.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1892 - 12839>	AZUL 13-7HZ AWB
12839.00	12884.00	Blind Drilling (std)	Projection to bit	AZUL 13-7HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#24 AZUL 13-7HZ (919'FSL & 1294'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-7HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
125.00	0.920	74.980	125.00	FIRST SURFACE MWD+IFR1 SURVEY
1830.00	19.950	198.470	1794.42	LAST SURFACE MWD+IFR1 SURVEY
1892.00	20.310	196.980	1852.63	FIRST BHGE MWD+IFR1+SC SURVEY
6786.00	0.821	187.406	6503.93	KOP
8061.00	89.010	358.950	7370.13	LANDING (28'FNL & 974'FWL,SEC.24)
11811.00	90.003	0.268	7363.44	ENTER RADIUS TOE (1564'FNL & 951'FWL,SEC.13) 40.0542284 -104.7315054
12839.00	90.460	359.320	7374.46	LAST BHGE MWD+IFR1+SC SURVEY
12884.00	90.460	359.320	7374.10	PTB (491'FNL & 937'FWL,SEC.13) 40.0571726 -104.7315581