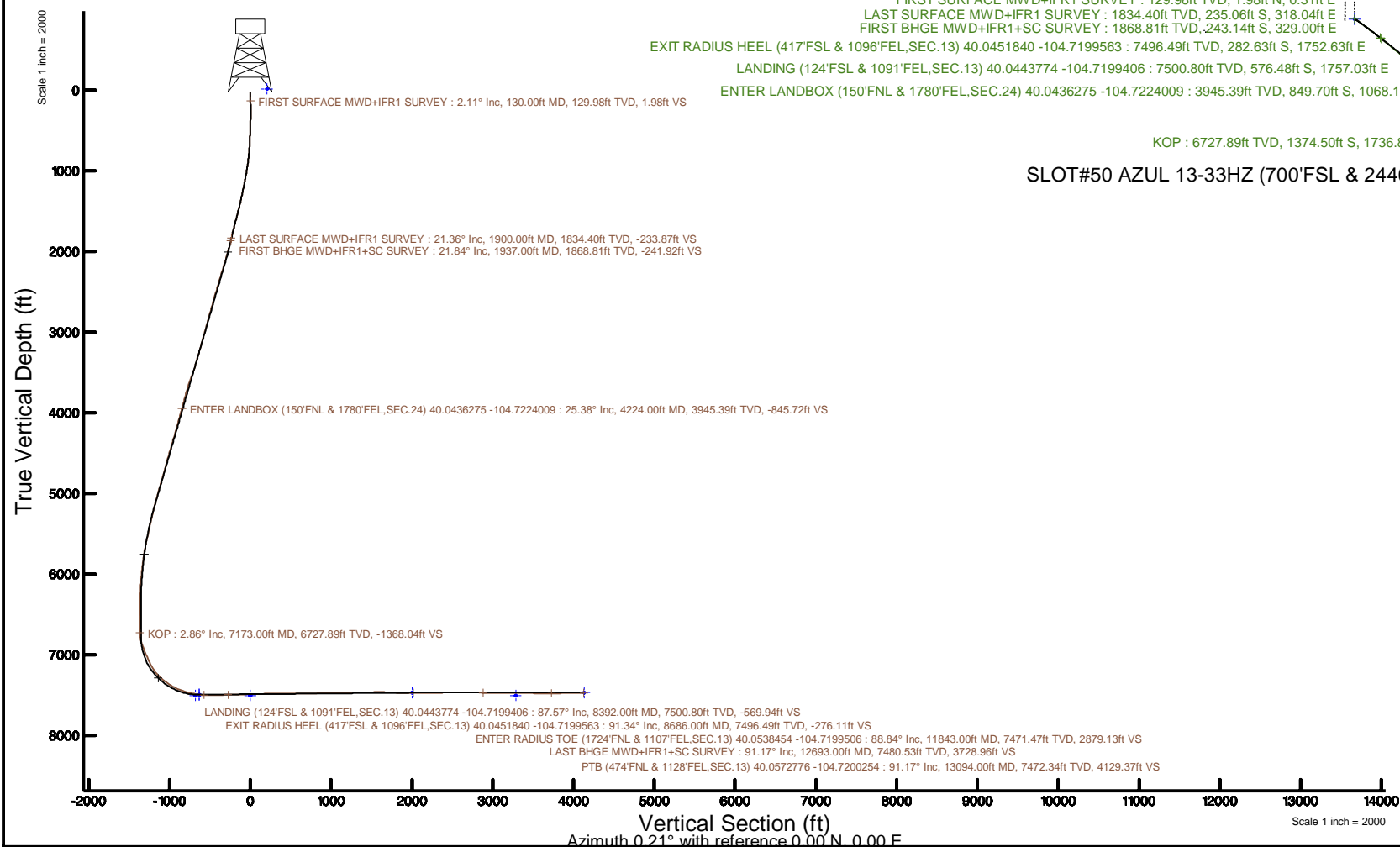


Location:	COLORADO	Slot:	SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL, SEC.13)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	AZUL 13-33HZ
Facility:	SEC.13-T1N-R66W	Wellbore:	AZUL 13-33HZ PWB
Plot reference wellpath is AZUL 13-33HZ PWP Rev-A.0		Grid System:	NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 464 (21) (RT)			" = Wellpath was transformed from a different geoidic datum
Measured depths are referenced to PD 464 (21) (RT)		North Reference:	True north
PD 464 (21) RT to Mean Sea Level: 5071 feet		Scale:	True distance
Mean Sea Level to Mud line (At Slot: SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL, SEC.13):	0 feet	Depths are in feet	
Coordinates are in feet referenced to Slot		Created by:	pairster on 2018-04-19
		Database:	WA_DEN Anadarko_Defn



Actual Wellpath Report

AZUL 13-33HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-33HZ 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	4/19/2018 at 12:46 PM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-33HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4369.25	-445.16	1717038.73	14543587.22	40°02'45.456"N	104°43'34.378"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	PD 464 (21') (RT) to Facility Vertical Datum	5071.00ft
Horizontal Reference Pt	Slot	PD 464 (21') (RT) to Mean Sea Level	5071.00ft
Vertical Reference Pt	PD 464 (21') (RT)	PD 464 (21') (RT) to Mud Line at Slot (SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL,SEC.13))	5071.00ft
MD Reference Pt	PD 464 (21') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.21°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-33HZ 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	8.800	0.00	0.00	0.00	0.00	1717038.73	14543587.22	40°02'45.456"N	104°43'34.378"W	0.00	
21.00	0.000	8.800	21.00	0.00	0.00	0.00	1717038.73	14543587.22	40°02'45.456"N	104°43'34.378"W	0.00	
130.00	2.110	8.800	129.98	1.98	1.98	0.31	1717039.03	14543589.20	40°02'45.476"N	104°43'34.374"W	1.94	FIRST SURFACE MWD+IFR1 SURVEY
162.00	1.580	7.400	161.96	3.00	3.00	0.45	1717039.17	14543590.22	40°02'45.486"N	104°43'34.372"W	1.66	
194.00	1.190	13.200	193.95	3.77	3.76	0.59	1717039.30	14543590.98	40°02'45.493"N	104°43'34.370"W	1.29	
226.00	0.920	15.040	225.94	4.34	4.34	0.73	1717039.44	14543591.56	40°02'45.499"N	104°43'34.369"W	0.85	
257.00	0.310	11.180	256.94	4.66	4.66	0.81	1717039.52	14543591.88	40°02'45.502"N	104°43'34.368"W	1.97	
289.00	0.310	193.290	288.94	4.66	4.66	0.81	1717039.52	14543591.88	40°02'45.502"N	104°43'34.368"W	1.94	
320.00	0.970	183.270	319.94	4.32	4.32	0.77	1717039.48	14543591.54	40°02'45.499"N	104°43'34.368"W	2.15	
352.00	1.630	170.700	351.93	3.60	3.60	0.83	1717039.54	14543590.82	40°02'45.492"N	104°43'34.367"W	2.23	
383.00	2.110	162.350	382.91	2.62	2.62	1.08	1717039.79	14543589.84	40°02'45.482"N	104°43'34.364"W	1.78	
415.00	2.550	162.960	414.89	1.38	1.37	1.46	1717040.18	14543588.60	40°02'45.470"N	104°43'34.359"W	1.38	
446.00	2.070	172.100	445.86	0.17	0.16	1.74	1717040.47	14543587.39	40°02'45.458"N	104°43'34.356"W	1.95	
478.00	1.760	167.890	477.85	-0.88	-0.89	1.92	1717040.65	14543586.33	40°02'45.447"N	104°43'34.353"W	1.06	
509.00	2.110	149.870	508.83	-1.84	-1.85	2.31	1717041.04	14543585.38	40°02'45.438"N	104°43'34.348"W	2.25	
541.00	2.460	133.960	540.80	-2.83	-2.84	3.10	1717041.83	14543584.39	40°02'45.428"N	104°43'34.338"W	2.25	
573.00	3.080	128.690	572.77	-3.84	-3.85	4.27	1717043.00	14543583.38	40°02'45.418"N	104°43'34.323"W	2.09	
605.00	4.170	123.320	604.70	-5.01	-5.03	5.91	1717044.65	14543582.21	40°02'45.406"N	104°43'34.302"W	3.56	
637.00	5.360	120.160	636.59	-6.39	-6.42	8.17	1717046.92	14543580.83	40°02'45.393"N	104°43'34.273"W	3.81	
668.00	6.590	118.930	667.42	-7.97	-8.01	10.98	1717049.73	14543579.25	40°02'45.377"N	104°43'34.237"W	3.99	
700.00	7.690	119.370	699.17	-9.89	-9.94	14.46	1717053.21	14543577.32	40°02'45.358"N	104°43'34.192"W	3.44	
732.00	8.920	119.550	730.84	-12.15	-12.22	18.48	1717057.24	14543575.06	40°02'45.335"N	104°43'34.140"W	3.84	
764.00	9.930	122.710	762.40	-14.85	-14.93	22.96	1717061.72	14543572.36	40°02'45.308"N	104°43'34.083"W	3.55	
795.00	10.460	123.850	792.91	-17.84	-17.94	27.55	1717066.32	14543569.37	40°02'45.279"N	104°43'34.024"W	1.83	
827.00	11.070	122.890	824.35	-21.11	-21.23	32.54	1717071.32	14543566.10	40°02'45.246"N	104°43'33.960"W	1.99	
859.00	11.870	122.800	855.71	-24.54	-24.68	37.88	1717076.67	14543562.66	40°02'45.212"N	104°43'33.891"W	2.50	
891.00	12.350	122.890	887.00	-28.16	-28.32	43.52	1717082.32	14543559.04	40°02'45.176"N	104°43'33.818"W	1.50	
922.00	13.450	123.850	917.22	-31.95	-32.13	49.30	1717088.11	14543555.25	40°02'45.138"N	104°43'33.744"W	3.61	
954.00	14.590	125.520	948.26	-36.34	-36.55	55.67	1717094.49	14543550.86	40°02'45.095"N	104°43'33.662"W	3.78	
986.00	15.340	127.100	979.18	-41.21	-41.44	62.33	1717101.16	14543545.99	40°02'45.046"N	104°43'33.577"W	2.67	
1018.00	15.690	127.280	1010.01	-46.36	-46.62	69.15	1717107.99	14543540.84	40°02'44.995"N	104°43'33.489"W	1.10	
1049.00	16.520	126.490	1039.79	-51.49	-51.78	76.03	1717114.88	14543535.70	40°02'44.944"N	104°43'33.400"W	2.77	
1081.00	17.530	126.750	1070.39	-57.05	-57.36	83.55	1717122.42	14543530.14	40°02'44.889"N	104°43'33.304"W	3.17	
1113.00	18.150	126.490	1100.85	-62.87	-63.21	91.42	1717130.30	14543524.31	40°02'44.831"N	104°43'33.203"W	1.95	
1144.00	18.760	126.220	1130.26	-68.66	-69.03	99.32	1717138.22	14543518.52	40°02'44.774"N	104°43'33.101"W	1.99	
1176.00	18.900	125.700	1160.55	-74.69	-75.09	107.68	1717146.59	14543512.49	40°02'44.714"N	104°43'32.993"W	0.68	
1208.00	19.120	124.290	1190.80	-80.64	-81.07	116.22	1717155.15	14543506.54	40°02'44.655"N	104°43'32.884"W	1.59	
1240.00	19.560	124.290	1220.99	-86.58	-87.04	124.97	1717163.92	14543500.60	40°02'44.596"N	104°43'32.771"W	1.37	
1272.00	20.080	126.750	1251.10	-92.85	-93.35	133.80	1717172.76	14543494.32	40°02'44.534"N	104°43'32.658"W	3.07	
1303.00	20.480	127.190	1280.18	-99.28	-99.81	142.39	1717181.36	14543487.89	40°02'44.470"N	104°43'32.547"W	1.38	
1335.00	20.390	126.220	1310.16	-105.92	-106.49	151.34	1717190.33	14543481.24	40°02'44.404"N	104°43'32.432"W	1.10	
1367.00	20.520	124.990	1340.15	-112.40	-113.00	160.43	1717199.44	14543474.76	40°02'44.339"N	104°43'32.315"W	1.40	
1399.00	20.350	125.350	1370.13	-118.80	-119.43	169.57	1717208.59	14543468.36	40°02'44.276"N	104°43'32.198"W	0.66	
1430.00	21.360	127.190	1399.10	-125.30	-125.96	178.46	1717217.50	14543461.86	40°02'44.211"N	104°43'32.083"W	3.88	
1462.00	21.580	128.140	1428.88	-132.42	-133.12	187.73	1717226.79	14543454.73	40°02'44.140"N	104°43'31.964"W	1.29	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-33HZ 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
1494.00	21.750	128.690	1458.62	-139.73	-140.46	196.99	1717236.07	14543447.42	40°02'44.068"N	104°43'31.845"W	0.83	
1525.00	22.060	127.980	1487.38	-146.87	-147.63	206.06	1717245.16	14543440.28	40°02'43.997"N	104°43'31.728"W	1.32	
1557.00	22.280	127.370	1517.02	-154.21	-155.01	215.62	1717254.73	14543432.93	40°02'43.924"N	104°43'31.606"W	1.00	
1588.00	22.500	127.810	1545.68	-161.38	-162.22	224.97	1717264.11	14543425.76	40°02'43.853"N	104°43'31.485"W	0.89	
1620.00	22.900	127.370	1575.20	-168.88	-169.75	234.76	1717273.91	14543418.26	40°02'43.778"N	104°43'31.359"W	1.36	
1652.00	23.330	127.460	1604.63	-176.47	-177.38	244.74	1717283.91	14543410.66	40°02'43.703"N	104°43'31.231"W	1.35	
1684.00	22.500	129.040	1634.11	-184.15	-185.09	254.52	1717293.72	14543402.98	40°02'43.627"N	104°43'31.105"W	3.23	
1715.00	22.280	129.560	1662.77	-191.59	-192.57	263.66	1717302.87	14543395.54	40°02'43.553"N	104°43'30.988"W	0.95	
1747.00	22.630	129.740	1692.34	-199.35	-200.37	273.07	1717312.30	14543387.77	40°02'43.476"N	104°43'30.867"W	1.11	
1779.00	22.060	128.420	1721.94	-206.99	-208.04	282.51	1717321.77	14543380.13	40°02'43.400"N	104°43'30.745"W	2.37	
1811.00	22.100	127.890	1751.59	-214.39	-215.47	291.97	1717331.24	14543372.73	40°02'43.327"N	104°43'30.624"W	0.64	
1843.00	21.360	126.930	1781.32	-221.55	-222.67	301.38	1717340.67	14543365.57	40°02'43.255"N	104°43'30.503"W	2.57	
1860.00	21.360	126.580	1797.15	-225.24	-226.38	306.34	1717345.64	14543361.88	40°02'43.219"N	104°43'30.439"W	0.75	
1900.00	21.360	126.580	1834.40	-233.87	-235.06	318.04	1717357.36	14543353.23	40°02'43.133"N	104°43'30.289"W	0.00	LAST SURFACE MWD+IFR1 SURVEY
1937.00	21.840	126.260	1868.81	-241.92	-243.14	329.00	1717368.34	14543345.18	40°02'43.053"N	104°43'30.148"W	1.34	FIRST BHGE MWD+IFR1+SC SURVEY
2027.00	23.810	129.070	1951.76	-263.17	-264.50	356.61	1717396.01	14543323.92	40°02'42.842"N	104°43'29.793"W	2.50	
2117.00	23.630	127.990	2034.15	-285.62	-287.05	384.93	1717424.38	14543301.47	40°02'42.619"N	104°43'29.429"W	0.52	
2206.00	24.970	132.000	2115.27	-309.06	-310.60	412.95	1717452.47	14543278.01	40°02'42.387"N	104°43'29.068"W	2.39	
2296.00	24.500	131.090	2197.02	-333.94	-335.58	441.13	1717480.71	14543253.13	40°02'42.140"N	104°43'28.706"W	0.67	
2386.00	26.220	129.760	2278.34	-358.81	-360.56	470.48	1717510.13	14543228.25	40°02'41.893"N	104°43'28.328"W	2.01	
2476.00	25.590	128.760	2359.30	-383.58	-385.45	500.92	1717540.63	14543203.47	40°02'41.647"N	104°43'27.937"W	0.85	
2565.00	24.420	127.540	2439.95	-406.72	-408.69	530.50	1717570.27	14543180.32	40°02'41.417"N	104°43'27.557"W	1.44	
2655.00	25.290	130.650	2521.62	-430.47	-432.55	559.84	1717599.67	14543156.56	40°02'41.181"N	104°43'27.180"W	1.74	
2744.00	24.410	129.430	2602.38	-454.43	-456.62	588.47	1717628.36	14543132.60	40°02'40.944"N	104°43'26.811"W	1.14	
2834.00	25.410	126.270	2684.01	-477.55	-479.85	618.40	1717658.35	14543109.46	40°02'40.714"N	104°43'26.427"W	1.85	
2924.00	24.450	125.610	2765.62	-499.70	-502.12	649.11	1717689.12	14543087.30	40°02'40.494"N	104°43'26.032"W	1.11	
3013.00	24.820	128.730	2846.53	-522.01	-524.53	678.66	1717718.73	14543064.98	40°02'40.272"N	104°43'25.652"W	1.52	
3103.00	23.330	127.430	2928.70	-544.55	-547.18	707.55	1717747.67	14543042.43	40°02'40.048"N	104°43'25.280"W	1.76	
3193.00	24.560	128.300	3010.95	-566.87	-569.61	736.38	1717776.56	14543020.10	40°02'39.827"N	104°43'24.910"W	1.42	
3283.00	25.590	128.200	3092.47	-590.37	-593.22	766.34	1717806.58	14542996.59	40°02'39.594"N	104°43'24.524"W	1.15	
3372.00	24.600	127.450	3173.06	-613.41	-616.37	796.15	1717836.45	14542973.54	40°02'39.365"N	104°43'24.141"W	1.17	
3462.00	24.260	127.160	3255.01	-635.86	-638.93	825.75	1717866.11	14542951.08	40°02'39.142"N	104°43'23.761"W	0.40	
3551.00	24.190	131.790	3336.18	-658.95	-662.13	853.92	1717894.34	14542927.98	40°02'38.913"N	104°43'23.398"W	2.14	
3641.00	22.970	133.810	3418.66	-683.30	-686.58	880.35	1717920.83	14542903.62	40°02'38.671"N	104°43'23.059"W	1.63	
3730.00	25.760	137.890	3499.73	-709.58	-712.95	905.85	1717946.41	14542877.34	40°02'38.410"N	104°43'22.731"W	3.66	
3820.00	26.820	135.480	3580.42	-738.47	-741.94	933.21	1717973.84	14542848.44	40°02'38.124"N	104°43'22.379"W	1.67	
3910.00	26.470	133.140	3660.87	-766.55	-770.13	962.08	1718002.79	14542820.35	40°02'37.845"N	104°43'22.008"W	1.23	
4000.00	25.570	126.550	3741.76	-791.73	-795.42	992.32	1718033.10	14542795.17	40°02'37.595"N	104°43'21.619"W	3.36	
4089.00	23.300	125.070	3822.79	-813.17	-816.98	1022.16	1718062.99	14542773.71	40°02'37.382"N	104°43'21.235"W	2.64	
4179.00	25.470	125.320	3904.75	-834.47	-838.39	1052.53	1718093.41	14542752.40	40°02'37.171"N	104°43'20.845"W	2.41	
4224.00†	25.381	126.293	3945.39	-845.72	-849.70	1068.19	1718109.10	14542741.15	40°02'37.059"N	104°43'20.643"W	0.95	ENTER LANDBOX (150'FNL & 1780'FEL,SEC.24) 40.0436275 -104.7224009
4268.00	25.300	127.250	3985.16	-856.94	-860.97	1083.28	1718124.22	14542729.93	40°02'36.947"N	104°43'20.449"W	0.95	
4358.00	25.270	125.550	4066.54	-879.63	-883.78	1114.22	1718155.21	14542707.22	40°02'36.722"N	104°43'20.052"W	0.81	
4448.00	24.760	125.330	4148.10	-901.58	-905.85	1145.22	1718186.27	14542685.26	40°02'36.504"N	104°43'19.653"W	0.58	
4538.00	25.270	126.880	4229.65	-923.90	-928.27	1175.96	1718217.07	14542662.93	40°02'36.282"N	104°43'19.258"W	0.92	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-33HZ 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
4627.00	25.980	126.310	4309.90	-946.72	-951.22	1206.87	1718248.03	14542640.09	40°02'36.056"N	104°43'18.860"W	0.84	
4717.00	27.300	125.970	4390.34	-970.40	-975.01	1239.46	1718280.68	14542616.41	40°02'35.820"N	104°43'18.441"W	1.48	
4807.00	25.700	125.130	4470.89	-993.63	-998.37	1272.12	1718313.41	14542593.16	40°02'35.590"N	104°43'18.021"W	1.83	
4896.00	25.880	125.970	4551.02	-1016.03	-1020.88	1303.63	1718344.97	14542570.75	40°02'35.367"N	104°43'17.616"W	0.46	
4986.00	24.820	128.450	4632.36	-1039.20	-1044.17	1334.32	1718375.72	14542547.57	40°02'35.137"N	104°43'17.222"W	1.67	
5076.00	25.360	125.070	4713.87	-1061.91	-1066.99	1364.89	1718406.35	14542524.85	40°02'34.911"N	104°43'16.829"W	1.70	
5165.00	24.390	128.760	4794.62	-1084.25	-1089.45	1394.82	1718436.33	14542502.50	40°02'34.689"N	104°43'16.444"W	2.06	
5255.00	24.400	131.020	4876.58	-1107.98	-1113.28	1423.34	1718464.91	14542478.76	40°02'34.454"N	104°43'16.077"W	1.04	
5345.00	25.200	127.560	4958.29	-1131.76	-1137.16	1452.55	1718494.19	14542454.98	40°02'34.218"N	104°43'15.702"W	1.84	
5434.00	25.240	124.720	5038.81	-1154.00	-1159.52	1483.17	1718524.86	14542432.72	40°02'33.997"N	104°43'15.308"W	1.36	
5524.00	24.070	126.620	5120.60	-1175.76	-1181.40	1513.67	1718555.42	14542410.95	40°02'33.781"N	104°43'14.916"W	1.57	
5614.00	22.840	127.340	5203.16	-1197.20	-1202.94	1542.29	1718584.10	14542389.50	40°02'33.568"N	104°43'14.548"W	1.40	
5704.00	21.120	127.130	5286.62	-1217.48	-1223.33	1569.11	1718610.97	14542369.21	40°02'33.366"N	104°43'14.203"W	1.91	
5793.00	19.000	130.900	5370.22	-1236.56	-1242.49	1592.85	1718634.75	14542350.12	40°02'33.177"N	104°43'13.898"W	2.79	
5883.00	17.160	134.740	5455.77	-1255.43	-1261.43	1613.35	1718655.31	14542331.25	40°02'32.990"N	104°43'13.634"W	2.43	
5973.00	17.040	138.980	5541.80	-1274.66	-1280.73	1631.44	1718673.45	14542312.02	40°02'32.799"N	104°43'13.402"W	1.39	
6063.00	14.740	135.040	5628.36	-1292.65	-1298.78	1648.19	1718690.25	14542294.02	40°02'32.621"N	104°43'13.186"W	2.82	
6152.00	14.170	136.120	5714.54	-1308.45	-1314.65	1663.74	1718705.84	14542278.21	40°02'32.464"N	104°43'12.986"W	0.71	
6242.00	12.280	131.810	5802.15	-1322.72	-1328.97	1678.51	1718720.65	14542263.94	40°02'32.322"N	104°43'12.796"W	2.37	
6332.00	10.600	129.710	5890.36	-1334.34	-1340.64	1692.01	1718734.18	14542252.32	40°02'32.207"N	104°43'12.623"W	1.92	
6421.00	9.400	127.990	5978.01	-1344.00	-1350.34	1704.04	1718746.23	14542242.65	40°02'32.111"N	104°43'12.468"W	1.39	
6511.00	6.700	124.330	6067.11	-1351.45	-1357.83	1714.17	1718756.38	14542235.20	40°02'32.037"N	104°43'12.338"W	3.05	
6600.00	5.740	122.500	6155.59	-1356.74	-1363.15	1722.21	1718764.44	14542229.91	40°02'31.984"N	104°43'12.235"W	1.10	
6689.00	4.850	133.660	6244.21	-1361.70	-1368.14	1728.69	1718770.92	14542224.94	40°02'31.935"N	104°43'12.151"W	1.52	
6779.00	3.350	125.320	6333.98	-1365.83	-1372.29	1733.58	1718775.83	14542220.81	40°02'31.894"N	104°43'12.088"W	1.79	
6869.00	0.630	126.410	6423.91	-1367.64	-1374.10	1736.13	1718778.38	14542219.01	40°02'31.876"N	104°43'12.056"W	3.02	
6958.00	0.480	142.750	6512.91	-1368.22	-1374.69	1736.75	1718779.00	14542218.42	40°02'31.870"N	104°43'12.048"W	0.24	
7048.00	0.280	151.110	6602.91	-1368.71	-1375.18	1737.08	1718779.34	14542217.93	40°02'31.866"N	104°43'12.043"W	0.23	
7138.00	0.340	269.720	6692.91	-1368.91	-1375.37	1736.92	1718779.18	14542217.74	40°02'31.864"N	104°43'12.045"W	0.59	
7173.00†	2.860	2.758	6727.89	-1368.04	-1374.50	1736.86	1718779.12	14542218.61	40°02'31.872"N	104°43'12.046"W	8.28	KOP
7227.00	7.320	6.870	6781.66	-1363.27	-1369.74	1737.34	1718779.58	14542223.37	40°02'31.919"N	104°43'12.040"W	8.28	
7317.00	19.440	9.890	6869.06	-1342.73	-1349.21	1740.61	1718782.78	14542243.89	40°02'32.122"N	104°43'11.998"W	13.48	
7406.00	23.810	357.000	6951.82	-1310.16	-1316.65	1742.21	1718784.29	14542276.45	40°02'32.444"N	104°43'11.977"W	7.23	
7496.00	22.580	354.130	7034.55	-1274.84	-1281.32	1739.49	1718781.46	14542311.76	40°02'32.793"N	104°43'12.012"W	1.86	
7585.00	27.290	355.160	7115.23	-1237.51	-1243.97	1736.02	1718777.88	14542349.08	40°02'33.162"N	104°43'12.057"W	5.31	
7675.00	35.170	4.550	7192.17	-1191.01	-1197.47	1736.34	1718778.05	14542395.57	40°02'33.622"N	104°43'12.053"W	10.27	
7765.00	45.310	2.930	7260.79	-1133.05	-1139.53	1740.04	1718781.57	14542453.49	40°02'34.194"N	104°43'12.005"W	11.33	
7854.00	49.770	1.680	7320.85	-1067.46	-1073.94	1742.66	1718783.98	14542519.06	40°02'34.842"N	104°43'11.971"W	5.12	
7944.00	58.470	3.410	7373.55	-994.67	-1001.17	1745.95	1718787.05	14542591.82	40°02'35.562"N	104°43'11.929"W	9.79	
8034.00	64.460	1.680	7416.53	-915.71	-922.22	1749.43	1718790.29	14542670.75	40°02'36.342"N	104°43'11.884"W	6.87	
8123.00	71.750	0.090	7449.70	-833.19	-839.71	1750.67	1718791.28	14542753.23	40°02'37.157"N	104°43'11.868"W	8.36	
8213.00	76.720	1.540	7474.14	-746.61	-753.13	1751.92	1718792.26	14542839.78	40°02'38.013"N	104°43'11.852"W	5.74	
8302.00	80.670	1.850	7491.59	-659.39	-665.91	1754.50	1718794.57	14542926.97	40°02'38.875"N	104°43'11.819"W	4.45	
8392.00	87.570	1.400	7500.80	-569.94	-576.48	1757.03	1718796.83	14543016.37	40°02'39.759"N	104°43'11.786"W	7.68	LANDING (124'FSL & 1091'FEL, SEC.13) 40.0443774 -104.7199406
8482.00	91.450	359.190	7501.57	-479.97	-486.50	1757.50	1718797.01	14543106.31	40°02'40.648"N	104°43'11.780"W	4.96	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-33HZ 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
8571.00	91.450	358.660	7499.32	-391.02	-397.55	1755.83	1718795.07	14543195.23	40°02'41.527"N	104°43'11.801"W	0.60	
8661.00	91.390	358.270	7497.09	-301.09	-307.61	1753.42	1718792.39	14543285.12	40°02'42.416"N	104°43'11.832"W	0.44	
8686.00†	91.337	358.101	7496.49	-276.11	-282.63	1752.63	1718791.52	14543310.09	40°02'42.662"N	104°43'11.843"W	0.71	EXIT RADIUS HEEL (417'FSL & 1096'FEL,SEC.13) 40.0451840 -104.7199563
8751.00	91.200	357.660	7495.06	-211.18	-217.69	1750.22	1718788.92	14543375.00	40°02'43.304"N	104°43'11.873"W	0.71	
8840.00	91.140	357.230	7493.24	-122.30	-128.80	1746.26	1718784.68	14543463.84	40°02'44.183"N	104°43'11.924"W	0.49	
8930.00	91.850	358.000	7490.89	-32.43	-38.91	1742.51	1718780.66	14543553.69	40°02'45.071"N	104°43'11.972"W	1.16	
9020.00	91.760	358.480	7488.06	57.47	51.01	1739.75	1718777.62	14543643.55	40°02'45.959"N	104°43'12.008"W	0.54	
9109.00	91.760	358.440	7485.32	146.39	139.93	1737.36	1718774.96	14543732.44	40°02'46.838"N	104°43'12.038"W	0.04	
9199.00	91.940	358.210	7482.42	236.30	229.85	1734.73	1718772.05	14543822.31	40°02'47.727"N	104°43'12.072"W	0.32	
9289.00	90.370	357.120	7480.60	326.18	319.75	1731.06	1718768.11	14543912.16	40°02'48.615"N	104°43'12.119"W	2.12	
9378.00	89.320	358.270	7480.84	415.09	408.68	1727.48	1718764.26	14544001.04	40°02'49.494"N	104°43'12.165"W	1.75	
9468.00	90.890	1.020	7480.68	505.08	498.66	1726.93	1718763.43	14544090.99	40°02'50.383"N	104°43'12.172"W	3.52	
9557.00	91.230	0.410	7479.03	594.06	587.64	1728.04	1718764.26	14544179.94	40°02'51.263"N	104°43'12.158"W	0.78	
9647.00	90.000	359.220	7478.07	684.05	677.63	1727.74	1718763.70	14544269.89	40°02'52.152"N	104°43'12.162"W	1.90	
9737.00	89.880	1.670	7478.16	774.04	767.62	1728.44	1718764.12	14544359.85	40°02'53.041"N	104°43'12.153"W	2.73	
9826.00	91.170	2.610	7477.34	862.98	856.55	1731.77	1718767.17	14544448.75	40°02'53.920"N	104°43'12.110"W	1.79	
9916.00	91.850	2.040	7474.97	952.89	946.45	1735.42	1718770.54	14544538.62	40°02'54.808"N	104°43'12.063"W	0.99	
10005.00	90.800	2.510	7472.91	1041.81	1035.35	1738.95	1718773.80	14544627.50	40°02'55.687"N	104°43'12.017"W	1.29	
10095.00	90.370	2.340	7472.00	1131.74	1125.27	1742.76	1718777.33	14544717.39	40°02'56.576"N	104°43'11.968"W	0.51	
10184.00	90.650	2.040	7471.20	1220.68	1214.20	1746.16	1718780.45	14544806.30	40°02'57.454"N	104°43'11.924"W	0.46	
10274.00	91.260	1.460	7469.70	1310.63	1304.14	1748.91	1718782.92	14544896.21	40°02'58.343"N	104°43'11.889"W	0.94	
10363.00	90.890	1.510	7468.03	1399.60	1393.10	1751.21	1718784.96	14544985.14	40°02'59.222"N	104°43'11.859"W	0.42	
10453.00	91.940	0.790	7465.81	1489.55	1483.05	1753.02	1718786.48	14545075.06	40°03'00.111"N	104°43'11.836"W	1.41	
10543.00	90.770	0.160	7463.68	1579.53	1573.02	1753.76	1718786.95	14545165.00	40°03'01.000"N	104°43'11.826"W	1.48	
10633.00	87.840	359.530	7464.77	1669.51	1663.00	1753.52	1718786.43	14545254.94	40°03'01.890"N	104°43'11.829"W	3.33	
10722.00	87.070	358.650	7468.73	1758.40	1751.90	1752.11	1718784.75	14545343.80	40°03'02.768"N	104°43'11.847"W	1.31	
10812.00	88.060	0.090	7472.55	1848.31	1841.81	1751.12	1718783.48	14545433.68	40°03'03.657"N	104°43'11.860"W	1.94	
10902.00	89.200	0.940	7474.70	1938.28	1931.78	1751.93	1718784.02	14545523.61	40°03'04.546"N	104°43'11.849"W	1.58	
10991.00	89.690	1.200	7475.56	2027.26	2020.76	1753.59	1718785.40	14545612.56	40°03'05.425"N	104°43'11.828"W	0.62	
11081.00	90.340	1.020	7475.54	2117.25	2110.74	1755.33	1718786.87	14545702.51	40°03'06.314"N	104°43'11.806"W	0.75	
11170.00	90.620	0.660	7474.80	2206.24	2199.73	1756.64	1718787.90	14545791.47	40°03'07.194"N	104°43'11.789"W	0.51	
11260.00	91.420	0.000	7473.19	2296.23	2289.71	1757.16	1718788.14	14545881.42	40°03'08.083"N	104°43'11.782"W	1.15	
11349.00	91.080	0.370	7471.25	2385.21	2378.69	1757.44	1718788.16	14545970.36	40°03'08.962"N	104°43'11.778"W	0.56	
11439.00	89.600	0.240	7470.72	2475.20	2468.68	1757.92	1718788.36	14546060.32	40°03'09.851"N	104°43'11.772"W	1.65	
11528.00	90.800	359.820	7470.41	2564.20	2557.68	1757.97	1718788.13	14546149.28	40°03'10.731"N	104°43'11.771"W	1.43	
11618.00	90.000	359.480	7469.78	2654.19	2647.68	1757.42	1718787.31	14546239.24	40°03'11.620"N	104°43'11.778"W	0.97	
11708.00	90.310	359.080	7469.54	2744.18	2737.67	1756.29	1718785.90	14546329.19	40°03'12.510"N	104°43'11.793"W	0.56	
11797.00	88.550	358.890	7470.42	2833.15	2826.65	1754.71	1718784.05	14546418.13	40°03'13.389"N	104°43'11.813"W	1.99	
11843.00†	88.836	359.335	7471.47	2879.13	2872.63	1754.00	1718783.20	14546464.09	40°03'13.843"N	104°43'11.822"W	1.15	ENTER RADIUS TOE (1724'FNL & 1107'FEL,SEC.13) 40.0538454 -104.7199506
11887.00	89.110	359.760	7472.26	2923.12	2916.62	1753.65	1718782.71	14546508.06	40°03'14.278"N	104°43'11.826"W	1.15	
11976.00	90.030	359.870	7472.93	3012.11	3005.62	1753.37	1718782.15	14546597.02	40°03'15.158"N	104°43'11.830"W	1.04	
12066.00	89.350	359.860	7473.41	3102.11	3095.61	1753.15	1718781.66	14546686.98	40°03'16.047"N	104°43'11.833"W	0.76	
12155.00	89.750	359.370	7474.11	3191.10	3184.61	1752.56	1718780.79	14546775.94	40°03'16.926"N	104°43'11.840"W	0.71	
12245.00	90.150	359.730	7474.19	3281.10	3274.61	1751.85	1718779.81	14546865.90	40°03'17.816"N	104°43'11.849"W	0.60	
12335.00	88.430	0.630	7475.31	3371.08	3364.59	1752.13	1718779.82	14546955.85	40°03'18.705"N	104°43'11.846"W	2.16	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-33HZ 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
12424.00	89.230	1.120	7477.12	3460.06	3453.56	1753.49	1718780.90	14547044.79	40°03'19.584"N	104°43'11.828"W	1.05	
12514.00	88.800	0.280	7478.67	3550.04	3543.54	1754.59	1718781.72	14547134.74	40°03'20.474"N	104°43'11.814"W	1.05	
12604.00	88.830	359.300	7480.53	3640.02	3633.52	1754.26	1718781.12	14547224.68	40°03'21.363"N	104°43'11.818"W	1.09	
12693.00	91.170	357.330	7480.53	3728.96	3722.47	1751.64	1718778.23	14547313.59	40°03'22.242"N	104°43'11.852"W	3.44	LAST BHGE MWD+IFR1+SC SURVEY
13094.00	91.170	357.330	7472.34	4129.37	4122.95	1732.97	1718758.33	14547713.85	40°03'26.199"N	104°43'12.091"W	0.00	PTB (474'FNL & 1128'FEL,SEC.13) 40.0572776 -104.7200254

HOLE & CASING SECTIONS - Ref Wellbore: AZUL 13-33HZ AWB Ref Wellpath: AZUL 13-33HZ 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]
9.625in Casing Surface	21.00	1900.00	1879.00	21.00	1834.40	0.00	0.00	-235.06	318.04

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T1N-R66W	-17.00	212.03	-1286.17	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-33HZ BHL REV-1(472'FNL & 1107'FEL,SEC.13)	7471.00	4124.54	1753.76	1718779.10	14547715.50	40°03'26.215"N	104°43'11.824"W	point
AZUL 13-33HZ INT. TARGET@2000"VS	7471.00	1993.52	1745.84	1718777.74	14545585.31	40°03'05.156"N	104°43'11.928"W	point
AZUL 13-33HZ HEEL REV-1(50'FSL & 1092'FEL,SEC.13)	7496.00	-637.04	1756.11	1718796.10	14542955.83	40°02'39.160"N	104°43'11.798"W	point
AZUL 13-33HZ HEEL REV-2(50'FSL & 1112'FEL,SEC.13)	7496.00	-637.08	1736.08	1718776.07	14542955.73	40°02'39.160"N	104°43'12.056"W	point
AZUL 13-33HZ LANDBOX	7505.00	0.00	0.00	1717038.73	14543587.22	40°02'45.456"N	104°43'34.378"W	polygon
AZUL 13-33HZ RADIUS 1	7505.00	3279.96	1538.47	1718566.50	14546870.60	40°03'17.869"N	104°43'14.593"W	polygon
AZUL 13-33HZ RADIUS 2	7505.00	-684.79	1528.88	1718569.10	14542907.40	40°02'38.688"N	104°43'14.720"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-33HZ AWB Ref Wellpath: AZUL 13-33HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
21.00	1900.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <130 - 1900>	AZUL 13-33HZ AWB
1900.00	12693.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1937 - 12693>	AZUL 13-33HZ AWB
12693.00	13094.00	Blind Drilling (std)	Projection to bit	AZUL 13-33HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#50 AZUL 13-33HZ (700'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-33HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
130.00	2.110	8.800	129.98	FIRST SURFACE MWD+IFR1 SURVEY
1900.00	21.360	126.580	1834.40	LAST SURFACE MWD+IFR1 SURVEY
1937.00	21.840	126.260	1868.81	FIRST BHGE MWD+IFR1+SC SURVEY
4224.00	25.381	126.293	3945.39	ENTER LANDBOX (150'FNL & 1780'FEL,SEC.24) 40.0436275 -104.7224009
7173.00	2.860	2.758	6727.89	KOP
8392.00	87.570	1.400	7500.80	LANDING (124'FSL & 1091'FEL,SEC.13) 40.0443774 -104.7199406
8686.00	91.337	358.101	7496.49	EXIT RADIUS HEEL (417'FSL & 1096'FEL,SEC.13) 40.0451840 -104.7199563
11843.00	88.836	359.335	7471.47	ENTER RADIUS TOE (1724'FNL & 1107'FEL,SEC.13) 40.0538454 -104.7199506
12693.00	91.170	357.330	7480.53	LAST BHGE MWD+IFR1+SC SURVEY
13094.00	91.170	357.330	7472.34	PTB (474'FNL & 1128'FEL,SEC.13) 40.0572776 -104.7200254