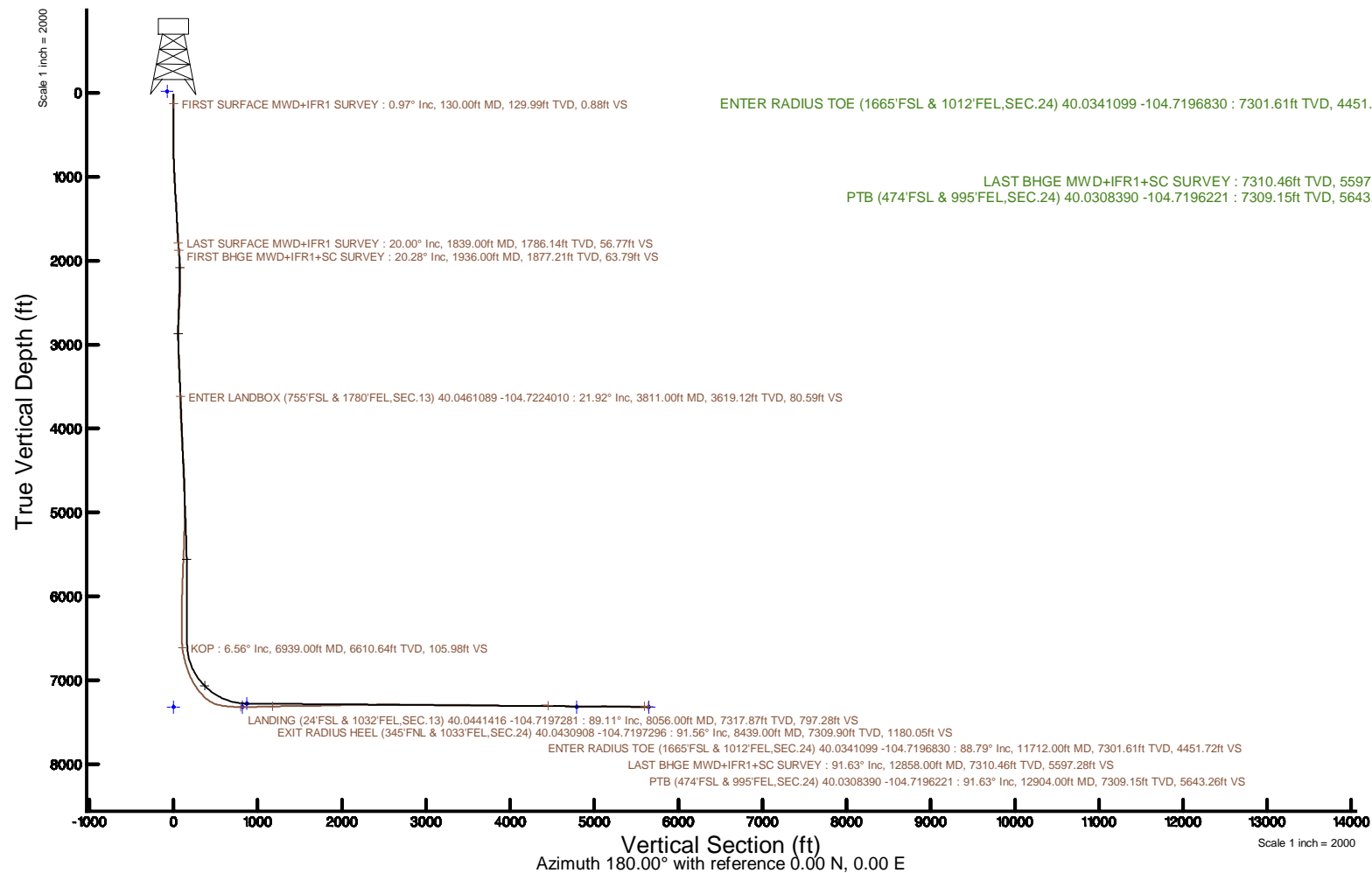


Location:	COLORADO	Slot:	SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL, SEC.13)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	AZUL 13-27HZ
Facility:	SEC.13-T1N-R66W	Wellbore:	AZUL 13-27HZ PWB
Point reference wellbore is AZUL 13-27HZ PWP Rev-A.0		Grid System:	NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 464 (21) (RT)		* = Wellpath was transformed from a different geoidetic datum	
Measured depths are referenced to PD 464 (21) (RT)		North Reference:	True north
PD 464 (21) to Mean Sea Level: 5071 feet		Scale:	True distance
Mean Sea Level to Mud line (At Slot: SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL, SEC.13)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by:	paimestr on 2018-04-05
		Database:	WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-27HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-27HZ 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 9:37 AM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-27HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4234.46	-443.99	1717039.48	14543721.96	40°02'46.788"N	104°43'34.363"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#44 AZUL 13-27HZ (835'FSL & 2447'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	180.00°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-27HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-27HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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	197.150	0.00	0.00	0.00	0.00	1717039.48	14543721.96	40°02'46.788"N	104°43'34.363"W	0.00	
21.00	0.000	197.150	21.00	0.00	0.00	0.00	1717039.48	14543721.96	40°02'46.788"N	104°43'34.363"W	0.00	
130.00	0.970	197.150	129.99	0.88	-0.88	-0.27	1717039.21	14543721.08	40°02'46.779"N	104°43'34.366"W	0.89	FIRST SURFACE MWD+IFR1 SURVEY
162.00	0.570	192.930	161.99	1.30	-1.30	-0.39	1717039.09	14543720.66	40°02'46.775"N	104°43'34.368"W	1.26	
194.00	0.570	287.770	193.99	1.40	-1.40	-0.57	1717038.91	14543720.55	40°02'46.774"N	104°43'34.370"W	2.62	
226.00	0.660	306.750	225.99	1.24	-1.24	-0.87	1717038.61	14543720.71	40°02'46.776"N	104°43'34.374"W	0.69	
257.00	0.830	321.870	256.99	0.96	-0.96	-1.16	1717038.33	14543720.99	40°02'46.779"N	104°43'34.378"W	0.83	
289.00	0.970	333.300	288.98	0.54	-0.54	-1.42	1717038.06	14543721.42	40°02'46.783"N	104°43'34.381"W	0.71	
320.00	0.700	340.330	319.98	0.12	-0.12	-1.60	1717037.88	14543721.83	40°02'46.787"N	104°43'34.384"W	0.93	
352.00	0.660	34.730	351.98	-0.21	0.21	-1.56	1717037.91	14543722.17	40°02'46.790"N	104°43'34.383"W	1.95	
383.00	1.050	67.950	382.97	-0.47	0.47	-1.20	1717038.28	14543722.42	40°02'46.793"N	104°43'34.378"W	1.98	
415.00	1.540	74.550	414.97	-0.69	0.69	-0.51	1717038.96	14543722.65	40°02'46.795"N	104°43'34.370"W	1.60	
446.00	1.670	69.010	445.95	-0.96	0.96	0.31	1717039.79	14543722.92	40°02'46.798"N	104°43'34.359"W	0.65	
478.00	2.020	76.570	477.94	-1.26	1.26	1.30	1717040.77	14543723.22	40°02'46.800"N	104°43'34.346"W	1.33	
509.00	2.680	90.630	508.91	-1.38	1.38	2.55	1717042.02	14543723.35	40°02'46.802"N	104°43'34.330"W	2.81	
541.00	3.080	95.640	540.87	-1.29	1.29	4.16	1717043.63	14543723.26	40°02'46.801"N	104°43'34.310"W	1.48	
573.00	3.300	96.690	572.82	-1.10	1.10	5.93	1717045.40	14543723.07	40°02'46.799"N	104°43'34.287"W	0.71	
605.00	4.130	97.400	604.75	-0.84	0.84	7.98	1717047.45	14543722.82	40°02'46.796"N	104°43'34.260"W	2.60	
637.00	5.010	95.020	636.65	-0.57	0.57	10.52	1717049.99	14543722.56	40°02'46.794"N	104°43'34.228"W	2.81	
668.00	6.020	95.200	667.51	-0.30	0.30	13.48	1717052.96	14543722.30	40°02'46.791"N	104°43'34.190"W	3.26	
700.00	7.080	97.310	699.30	0.10	-0.10	17.11	1717056.58	14543721.91	40°02'46.787"N	104°43'34.143"W	3.40	
732.00	8.170	98.630	731.01	0.69	-0.69	21.32	1717060.79	14543721.33	40°02'46.781"N	104°43'34.089"W	3.45	
764.00	8.790	100.120	762.66	1.46	-1.46	25.97	1717065.44	14543720.58	40°02'46.774"N	104°43'34.029"W	2.06	
795.00	9.980	100.300	793.25	2.36	-2.36	30.95	1717070.42	14543719.69	40°02'46.765"N	104°43'33.965"W	3.84	
827.00	10.940	101.090	824.72	3.44	-3.44	36.65	1717076.13	14543718.63	40°02'46.754"N	104°43'33.892"W	3.03	
859.00	12.130	100.120	856.07	4.62	-4.61	42.94	1717082.42	14543717.48	40°02'46.742"N	104°43'33.811"W	3.77	
891.00	12.480	101.700	887.34	5.91	-5.91	49.64	1717089.12	14543716.21	40°02'46.730"N	104°43'33.725"W	1.52	
954.00	14.240	101.440	948.63	8.83	-8.82	63.90	1717103.38	14543713.33	40°02'46.701"N	104°43'33.541"W	2.80	
986.00	14.810	100.650	979.61	10.36	-10.36	71.78	1717111.26	14543711.82	40°02'46.686"N	104°43'33.440"W	1.89	
1018.00	15.510	99.590	1010.49	11.83	-11.83	80.02	1717119.50	14543710.38	40°02'46.671"N	104°43'33.334"W	2.35	
1049.00	16.300	99.510	1040.30	13.24	-13.24	88.39	1717127.88	14543709.00	40°02'46.657"N	104°43'33.226"W	2.55	
1081.00	17.360	99.680	1070.93	14.79	-14.78	97.53	1717137.01	14543707.48	40°02'46.642"N	104°43'33.109"W	3.32	
1113.00	18.150	98.890	1101.41	16.36	-16.35	107.16	1717146.64	14543705.94	40°02'46.626"N	104°43'32.985"W	2.58	
1144.00	18.460	98.800	1130.84	17.86	-17.85	116.78	1717156.27	14543704.47	40°02'46.612"N	104°43'32.861"W	1.00	
1176.00	17.840	100.300	1161.25	19.51	-19.50	126.61	1717166.10	14543702.85	40°02'46.595"N	104°43'32.735"W	2.43	
1208.00	17.970	101.180	1191.70	21.35	-21.34	136.28	1717175.76	14543701.05	40°02'46.577"N	104°43'32.611"W	0.94	
1240.00	18.370	101.530	1222.10	23.31	-23.30	146.06	1717185.55	14543699.11	40°02'46.558"N	104°43'32.485"W	1.30	
1272.00	18.720	101.620	1252.44	25.36	-25.34	156.03	1717195.52	14543697.10	40°02'46.538"N	104°43'32.357"W	1.10	
1303.00	19.120	100.560	1281.77	27.29	-27.28	165.89	1717205.39	14543695.20	40°02'46.518"N	104°43'32.230"W	1.70	
1335.00	19.600	99.590	1311.96	29.14	-29.13	176.34	1717215.83	14543693.38	40°02'46.500"N	104°43'32.096"W	1.81	
1367.00	19.860	99.510	1342.08	30.94	-30.92	186.99	1717226.49	14543691.62	40°02'46.482"N	104°43'31.959"W	0.82	
1399.00	18.810	99.950	1372.27	32.73	-32.71	197.43	1717236.93	14543689.86	40°02'46.465"N	104°43'31.824"W	3.31	
1430.00	18.500	100.470	1401.64	34.48	-34.47	207.19	1717246.69	14543688.14	40°02'46.447"N	104°43'31.699"W	1.13	
1462.00	18.720	99.420	1431.97	36.25	-36.23	217.25	1717256.75	14543686.41	40°02'46.430"N	104°43'31.570"W	1.25	
1494.00	19.160	98.720	1462.24	37.89	-37.87	227.51	1717267.01	14543684.80	40°02'46.414"N	104°43'31.438"W	1.55	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-27HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-27HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
1525.00	19.250	98.800	1491.51	39.44	-39.42	237.58	1717277.09	14543683.28	40°02'46.398"N	104°43'31.308"W	0.30	
1557.00	19.470	98.360	1521.70	41.02	-41.01	248.07	1717287.58	14543681.73	40°02'46.383"N	104°43'31.173"W	0.82	
1588.00	19.950	97.130	1550.89	42.43	-42.41	258.43	1717297.94	14543680.36	40°02'46.369"N	104°43'31.040"W	2.05	
1620.00	20.700	97.130	1580.89	43.81	-43.79	269.46	1717308.97	14543679.01	40°02'46.355"N	104°43'30.898"W	2.34	
1652.00	20.570	97.480	1610.84	45.25	-45.23	280.65	1717320.15	14543677.61	40°02'46.341"N	104°43'30.754"W	0.56	
1715.00	19.950	99.860	1669.94	48.53	-48.51	302.21	1717341.72	14543674.40	40°02'46.309"N	104°43'30.477"W	1.64	
1747.00	20.430	100.560	1699.98	50.49	-50.47	313.08	1717352.59	14543672.47	40°02'46.289"N	104°43'30.337"W	1.68	
1779.00	20.960	101.000	1729.91	52.60	-52.58	324.19	1717363.70	14543670.39	40°02'46.268"N	104°43'30.194"W	1.73	
1811.00	20.350	101.350	1759.86	54.79	-54.77	335.26	1717374.77	14543668.24	40°02'46.247"N	104°43'30.052"W	1.94	
1839.00	20.000	102.230	1786.14	56.77	-56.74	344.72	1717384.23	14543666.30	40°02'46.227"N	104°43'29.931"W	1.65	LAST SURFACE MWD+IFR1 SURVEY
1936.00	20.280	102.030	1877.21	63.79	-63.76	377.37	1717416.89	14543659.38	40°02'46.158"N	104°43'29.511"W	0.30	FIRST BHGE MWD+IFR1+SC SURVEY
2026.00	21.110	100.530	1961.40	70.00	-69.97	408.56	1717448.09	14543653.27	40°02'46.096"N	104°43'29.110"W	1.09	
2116.00	21.840	98.830	2045.15	75.53	-75.50	441.04	1717480.57	14543647.84	40°02'46.042"N	104°43'28.692"W	1.07	
2205.00	22.820	93.710	2127.48	79.20	-79.16	474.62	1717514.15	14543644.29	40°02'46.006"N	104°43'28.260"W	2.45	
2295.00	22.340	90.250	2210.59	80.40	-80.37	509.14	1717548.66	14543643.19	40°02'45.994"N	104°43'27.816"W	1.57	
2385.00	22.530	86.870	2293.78	79.54	-79.50	543.47	1717582.97	14543644.16	40°02'46.002"N	104°43'27.375"W	1.45	
2475.00	21.700	85.780	2377.16	77.37	-77.33	577.28	1717616.76	14543646.43	40°02'46.024"N	104°43'26.940"W	1.03	
2564.00	22.130	82.120	2459.73	73.87	-73.82	610.29	1717649.75	14543650.04	40°02'46.058"N	104°43'26.516"W	1.61	
2654.00	21.210	81.270	2543.37	69.07	-69.03	643.18	1717682.61	14543654.93	40°02'46.106"N	104°43'26.093"W	1.08	
2743.00	20.570	83.430	2626.52	64.84	-64.80	674.62	1717714.03	14543659.26	40°02'46.148"N	104°43'25.688"W	1.13	
2833.00	20.870	85.690	2710.70	61.83	-61.78	706.32	1717745.70	14543662.37	40°02'46.177"N	104°43'25.281"W	0.95	
2923.00	20.660	85.930	2794.86	59.50	-59.45	738.14	1717777.50	14543664.80	40°02'46.200"N	104°43'24.872"W	0.25	
3013.00	21.210	85.910	2878.91	57.22	-57.16	770.22	1717809.56	14543667.18	40°02'46.223"N	104°43'24.459"W	0.61	
3102.00	21.770	89.490	2961.73	55.92	-55.87	802.78	1717842.11	14543668.58	40°02'46.236"N	104°43'24.041"W	1.60	
3192.00	22.380	93.060	3045.14	56.69	-56.63	836.58	1717875.90	14543667.92	40°02'46.228"N	104°43'23.606"W	1.64	
3282.00	22.110	97.290	3128.44	59.76	-59.70	870.49	1717909.80	14543664.96	40°02'46.198"N	104°43'23.170"W	1.80	
3371.00	22.380	98.290	3210.82	64.33	-64.27	903.87	1717943.19	14543660.49	40°02'46.153"N	104°43'22.741"W	0.52	
3461.00	22.760	96.430	3293.93	68.75	-68.69	938.13	1717977.44	14543656.18	40°02'46.109"N	104°43'22.300"W	0.90	
3550.00	21.250	95.610	3376.44	72.26	-72.19	971.29	1718010.60	14543652.78	40°02'46.074"N	104°43'21.874"W	1.73	
3640.00	21.550	95.640	3460.24	75.48	-75.41	1003.97	1718043.28	14543649.66	40°02'46.043"N	104°43'21.454"W	0.33	
3730.00	21.670	94.110	3543.91	78.30	-78.23	1036.99	1718076.29	14543646.95	40°02'46.015"N	104°43'21.029"W	0.64	
3811.00†	21.925	94.629	3619.12	80.59	-80.52	1066.98	1718106.28	14543644.75	40°02'45.992"N	104°43'20.643"W	0.39	ENTER LANDBOX (755'FSL & 1780'FEL,SEC.13) 04.0461089 -104.7224010
3819.00	21.950	94.680	3626.54	80.83	-80.76	1069.96	1718109.26	14543644.52	40°02'45.990"N	104°43'20.605"W	0.39	
3909.00	21.490	94.190	3710.15	83.41	-83.34	1103.17	1718142.46	14543642.04	40°02'45.964"N	104°43'20.178"W	0.55	
3999.00	21.310	93.370	3793.95	85.58	-85.50	1135.93	1718175.22	14543639.98	40°02'45.943"N	104°43'19.757"W	0.39	
4088.00	22.190	96.860	3876.61	88.54	-88.46	1168.77	1718208.05	14543637.12	40°02'45.914"N	104°43'19.335"W	1.76	
4178.00	22.430	95.640	3959.88	92.26	-92.18	1202.73	1718242.01	14543633.51	40°02'45.877"N	104°43'18.898"W	0.58	
4268.00	21.850	96.250	4043.24	95.78	-95.69	1236.46	1718275.74	14543630.11	40°02'45.842"N	104°43'18.464"W	0.69	
4357.00	21.740	98.460	4125.88	100.01	-99.92	1269.23	1718308.51	14543625.98	40°02'45.800"N	104°43'18.043"W	0.93	
4447.00	22.730	99.360	4209.19	105.29	-105.20	1302.87	1718342.15	14543620.81	40°02'45.748"N	104°43'17.610"W	1.16	
4559.00	23.240	99.010	4312.29	112.27	-112.18	1346.05	1718385.33	14543613.96	40°02'45.679"N	104°43'17.055"W	0.47	
4649.00	22.780	98.900	4395.13	117.75	-117.65	1380.80	1718420.08	14543608.59	40°02'45.625"N	104°43'16.608"W	0.51	
4739.00	21.360	98.800	4478.54	122.96	-122.86	1414.21	1718453.50	14543603.50	40°02'45.574"N	104°43'16.179"W	1.58	
4829.00	21.140	96.490	4562.42	127.30	-127.20	1446.53	1718485.82	14543599.26	40°02'45.531"N	104°43'15.763"W	0.96	
4918.00	21.770	93.310	4645.25	130.07	-129.97	1478.96	1718518.24	14543596.59	40°02'45.503"N	104°43'15.346"W	1.49	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-27HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-27HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
5008.00	21.880	91.790	4728.80	131.56	-131.45	1512.38	1718551.66	14543595.20	40°02'45.488"N	104°43'14.916"W	0.64	
5098.00	22.410	90.890	4812.16	132.35	-132.24	1546.30	1718585.56	14543594.52	40°02'45.481"N	104°43'14.480"W	0.70	
5188.00	22.610	89.710	4895.31	132.53	-132.42	1580.75	1718620.00	14543594.45	40°02'45.479"N	104°43'14.037"W	0.55	
5277.00	21.960	89.050	4977.66	132.17	-132.06	1614.50	1718653.74	14543594.91	40°02'45.482"N	104°43'13.603"W	0.78	
5367.00	19.700	88.280	5061.77	131.44	-131.33	1646.49	1718685.71	14543595.74	40°02'45.490"N	104°43'13.192"W	2.53	
5456.00	18.360	87.270	5145.91	130.32	-130.21	1675.49	1718714.69	14543596.95	40°02'45.501"N	104°43'12.819"W	1.55	
5546.00	16.180	85.480	5231.84	128.66	-128.54	1702.15	1718741.34	14543598.70	40°02'45.517"N	104°43'12.476"W	2.49	
5636.00	15.080	84.190	5318.51	126.49	-126.37	1726.30	1718765.47	14543600.94	40°02'45.539"N	104°43'12.166"W	1.28	
5726.00	13.760	81.480	5405.68	123.72	-123.60	1748.53	1718787.69	14543603.78	40°02'45.566"N	104°43'11.880"W	1.65	
5815.00	12.450	80.140	5492.36	120.51	-120.39	1768.45	1718807.59	14543607.05	40°02'45.598"N	104°43'11.624"W	1.51	
5905.00	9.880	74.560	5580.65	116.80	-116.67	1785.46	1718824.58	14543610.82	40°02'45.634"N	104°43'11.405"W	3.09	
5995.00	9.440	77.300	5669.37	113.12	-112.99	1800.10	1718839.20	14543614.54	40°02'45.671"N	104°43'11.217"W	0.71	
6085.00	7.690	71.600	5758.37	109.60	-109.47	1813.02	1718852.10	14543618.10	40°02'45.706"N	104°43'11.051"W	2.16	
6174.00	5.680	67.810	5846.76	106.05	-105.93	1822.74	1718861.82	14543621.68	40°02'45.741"N	104°43'10.926"W	2.31	
6264.00	4.780	70.230	5936.38	103.10	-102.98	1830.40	1718869.46	14543624.65	40°02'45.770"N	104°43'10.827"W	1.03	
6354.00	3.560	73.310	6026.14	101.03	-100.90	1836.60	1718875.66	14543626.74	40°02'45.790"N	104°43'10.747"W	1.38	
6443.00	2.520	68.700	6115.02	99.53	-99.40	1841.07	1718880.12	14543628.26	40°02'45.805"N	104°43'10.690"W	1.20	
6533.00	1.170	83.110	6204.97	98.70	-98.57	1843.83	1718882.87	14543629.09	40°02'45.813"N	104°43'10.655"W	1.57	
6622.00	1.090	84.020	6293.95	98.50	-98.37	1845.57	1718884.61	14543629.30	40°02'45.815"N	104°43'10.632"W	0.09	
6712.00	1.220	82.540	6383.93	98.29	-98.16	1847.37	1718886.41	14543629.51	40°02'45.817"N	104°43'10.609"W	0.15	
6801.00	0.900	111.290	6472.92	98.42	-98.29	1848.96	1718888.00	14543629.39	40°02'45.816"N	104°43'10.588"W	0.69	
6891.00	3.810	178.220	6562.84	101.67	-101.54	1849.72	1718888.77	14543626.15	40°02'45.784"N	104°43'10.579"W	3.95	
6939.00†	6.557	186.476	6610.64	105.98	-105.86	1849.46	1718888.52	14543621.83	40°02'45.741"N	104°43'10.582"W	5.92	KOP
6980.00	8.950	189.480	6651.27	111.46	-111.33	1848.67	1718887.75	14543616.36	40°02'45.687"N	104°43'10.592"W	5.92	
7070.00	13.490	193.080	6739.52	128.60	-128.47	1845.14	1718884.27	14543599.21	40°02'45.518"N	104°43'10.638"W	5.10	
7160.00	17.970	194.390	6826.13	152.28	-152.15	1839.31	1718878.52	14543575.52	40°02'45.284"N	104°43'10.713"W	4.99	
7249.00	20.740	191.790	6910.09	181.01	-180.88	1832.67	1718871.97	14543546.78	40°02'45.000"N	104°43'10.798"W	3.26	
7316.00	25.350	188.440	6971.73	206.83	-206.70	1828.14	1718867.52	14543520.96	40°02'44.745"N	104°43'10.856"W	7.15	
7405.00	31.840	184.650	7049.84	249.12	-248.99	1823.44	1718862.95	14543478.67	40°02'44.327"N	104°43'10.917"W	7.57	
7494.00	37.570	175.780	7123.03	299.65	-299.52	1823.53	1718863.20	14543428.16	40°02'43.827"N	104°43'10.916"W	8.57	
7584.00	45.040	169.840	7190.61	358.47	-358.34	1831.18	1718871.03	14543369.39	40°02'43.246"N	104°43'10.817"W	9.37	
7674.00	56.700	176.960	7247.36	427.66	-427.53	1838.82	1718878.88	14543300.25	40°02'42.562"N	104°43'10.719"W	14.32	
7764.00	73.150	184.420	7285.41	508.81	-508.68	1837.49	1718877.80	14543219.13	40°02'41.760"N	104°43'10.736"W	19.74	
7876.00	84.600	185.310	7306.99	618.12	-617.99	1828.17	1718868.81	14543109.83	40°02'40.680"N	104°43'10.856"W	10.25	
7966.00	86.210	183.740	7314.20	707.55	-707.42	1821.09	1718862.02	14543020.42	40°02'39.796"N	104°43'10.947"W	2.49	
8056.00	89.110	183.550	7317.87	797.28	-797.15	1815.38	1718856.58	14542930.70	40°02'38.910"N	104°43'11.021"W	3.23	LANDING (24'FSL & 1032'FEL,SEC.13) 40.0441416 -104.7197281
8145.00	91.140	180.860	7317.68	886.20	-886.07	1811.95	1718853.43	14542841.81	40°02'38.031"N	104°43'11.065"W	3.79	
8235.00	91.780	180.010	7315.38	976.17	-976.04	1811.27	1718853.02	14542751.87	40°02'37.142"N	104°43'11.074"W	1.18	
8324.00	91.140	178.670	7313.12	1065.13	-1065.00	1812.29	1718854.32	14542662.95	40°02'36.263"N	104°43'11.061"W	1.67	
8414.00	91.970	178.640	7310.67	1155.07	-1154.95	1814.41	1718856.71	14542573.05	40°02'35.374"N	104°43'11.034"W	0.92	
8439.00†	91.559	178.696	7309.90	1180.05	-1179.93	1814.99	1718857.36	14542548.08	40°02'35.127"N	104°43'11.026"W	1.66	EXIT RADIUS HEEL (345'FNL & 1033'FEL,SEC.24) 40.0430908 -104.7197296
8504.00	90.490	178.840	7308.74	1245.03	-1244.90	1816.38	1718858.96	14542483.14	40°02'34.485"N	104°43'11.008"W	1.66	
8593.00	90.460	178.450	7308.00	1334.00	-1333.87	1818.49	1718861.34	14542394.21	40°02'33.606"N	104°43'10.982"W	0.44	
8683.00	90.370	177.460	7307.35	1423.94	-1423.81	1821.70	1718864.83	14542304.31	40°02'32.717"N	104°43'10.940"W	1.10	
8773.00	89.970	176.320	7307.08	1513.80	-1513.68	1826.58	1718869.98	14542214.50	40°02'31.829"N	104°43'10.878"W	1.34	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-27HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-27HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
8862.00	91.760	178.180	7305.74	1602.68	-1602.56	1830.85	1718874.52	14542125.67	40°02'30.950"N	104°43'10.823"W	2.90	
8952.00	91.140	179.260	7303.46	1692.63	-1692.50	1832.86	1718876.81	14542035.76	40°02'30.062"N	104°43'10.797"W	1.38	
9042.00	91.850	178.350	7301.12	1782.58	-1782.45	1834.74	1718878.96	14541945.86	40°02'29.173"N	104°43'10.773"W	1.28	
9131.00	91.450	178.640	7298.55	1871.51	-1871.38	1837.08	1718881.57	14541856.97	40°02'28.294"N	104°43'10.743"W	0.56	
9221.00	91.510	177.840	7296.23	1961.44	-1961.31	1839.84	1718884.61	14541767.09	40°02'27.405"N	104°43'10.708"W	0.89	
9311.00	91.940	178.170	7293.52	2051.34	-2051.22	1842.97	1718888.01	14541677.23	40°02'26.517"N	104°43'10.667"W	0.60	
9400.00	91.020	178.880	7291.22	2140.28	-2140.15	1845.26	1718890.58	14541588.33	40°02'25.638"N	104°43'10.638"W	1.31	
9490.00	90.950	180.080	7289.67	2230.27	-2230.14	1846.08	1718891.67	14541498.39	40°02'24.749"N	104°43'10.628"W	1.34	
9579.00	89.780	180.450	7289.11	2319.26	-2319.13	1845.67	1718891.53	14541409.43	40°02'23.869"N	104°43'10.633"W	1.38	
9669.00	90.960	180.320	7288.52	2409.25	-2409.13	1845.06	1718891.20	14541319.47	40°02'22.980"N	104°43'10.641"W	1.32	
9759.00	90.400	180.840	7287.46	2499.24	-2499.11	1844.15	1718890.57	14541229.51	40°02'22.090"N	104°43'10.653"W	0.85	
9848.00	89.660	182.160	7287.41	2588.21	-2588.08	1841.82	1718888.51	14541140.57	40°02'21.211"N	104°43'10.683"W	1.70	
9938.00	89.040	181.750	7288.43	2678.15	-2678.02	1838.75	1718885.72	14541050.66	40°02'20.322"N	104°43'10.722"W	0.83	
10027.00	88.490	180.860	7290.35	2767.11	-2766.98	1836.72	1718883.97	14540961.73	40°02'19.443"N	104°43'10.748"W	1.18	
10117.00	90.180	180.830	7291.39	2857.09	-2856.96	1835.40	1718882.92	14540871.78	40°02'18.554"N	104°43'10.766"W	1.88	
10207.00	90.860	180.320	7290.58	2947.08	-2946.95	1834.49	1718882.29	14540781.82	40°02'17.665"N	104°43'10.777"W	0.94	
10296.00	89.200	179.890	7290.53	3036.07	-3035.95	1834.33	1718882.40	14540692.86	40°02'16.785"N	104°43'10.779"W	1.93	
10386.00	89.660	179.320	7291.43	3126.07	-3125.94	1834.95	1718883.30	14540602.91	40°02'15.896"N	104°43'10.772"W	0.81	
10475.00	90.460	179.810	7291.33	3215.06	-3214.94	1835.63	1718884.25	14540513.95	40°02'15.017"N	104°43'10.763"W	1.05	
10565.00	90.000	179.000	7290.97	3305.06	-3304.93	1836.56	1718885.46	14540423.99	40°02'14.127"N	104°43'10.751"W	1.03	
10655.00	88.580	179.420	7292.09	3395.04	-3394.91	1837.80	1718886.98	14540334.05	40°02'13.238"N	104°43'10.735"W	1.65	
10745.00	88.640	179.750	7294.27	3485.01	-3484.88	1838.45	1718887.91	14540244.12	40°02'12.349"N	104°43'10.727"W	0.37	
10834.00	89.230	179.610	7295.92	3573.99	-3573.86	1838.95	1718888.68	14540155.17	40°02'11.470"N	104°43'10.721"W	0.68	
10924.00	88.950	180.710	7297.35	3663.98	-3663.85	1838.70	1718888.70	14540065.22	40°02'10.580"N	104°43'10.724"W	1.26	
11013.00	88.310	182.030	7299.48	3752.93	-3752.80	1836.57	1718886.85	14539976.30	40°02'09.701"N	104°43'10.751"W	1.65	
11103.00	88.860	181.890	7301.70	3842.85	-3842.72	1833.49	1718884.05	14539886.41	40°02'08.813"N	104°43'10.791"W	0.63	
11192.00	89.820	181.720	7302.73	3931.79	-3931.67	1830.69	1718881.52	14539797.49	40°02'07.934"N	104°43'10.827"W	1.10	
11282.00	90.890	181.220	7302.17	4021.76	-4021.63	1828.38	1718879.49	14539707.55	40°02'07.045"N	104°43'10.857"W	1.31	
11371.00	89.110	180.490	7302.17	4110.75	-4110.62	1827.05	1718878.43	14539618.60	40°02'06.165"N	104°43'10.874"W	2.16	
11461.00	90.000	179.970	7302.87	4200.74	-4200.61	1826.69	1718878.35	14539528.64	40°02'05.276"N	104°43'10.879"W	1.15	
11551.00	90.400	179.950	7302.56	4290.74	-4290.61	1826.76	1718878.69	14539438.67	40°02'04.386"N	104°43'10.878"W	0.44	
11640.00	90.990	179.460	7301.48	4379.73	-4379.61	1827.21	1718879.42	14539349.72	40°02'03.507"N	104°43'10.872"W	0.86	
11712.00†	88.790	178.876	7301.61	4451.72	-4451.59	1828.26	1718880.69	14539277.76	40°02'02.796"N	104°43'10.859"W	3.16	ENTER RADIUS TOE (1665'FSL & 1012'FEL,SEC.24) 40.0341099 -104.7196830
11730.00	88.240	178.730	7302.08	4469.71	-4469.58	1828.64	1718881.12	14539259.78	40°02'02.618"N	104°43'10.854"W	3.16	
11819.00	88.270	178.320	7304.79	4558.64	-4558.51	1830.93	1718883.68	14539170.90	40°02'01.739"N	104°43'10.825"W	0.46	
11909.00	88.770	178.270	7307.12	4648.57	-4648.44	1833.60	1718886.63	14539081.01	40°02'00.850"N	104°43'10.790"W	0.56	
11998.00	88.490	178.070	7309.24	4737.50	-4737.37	1836.44	1718889.75	14538992.13	40°01'59.971"N	104°43'10.754"W	0.39	
12088.00	89.910	178.360	7310.50	4827.44	-4827.32	1839.25	1718892.82	14538902.22	40°01'59.083"N	104°43'10.718"W	1.61	
12177.00	91.080	177.980	7309.73	4916.39	-4916.27	1842.09	1718895.94	14538813.32	40°01'58.204"N	104°43'10.681"W	1.38	
12267.00	90.150	179.840	7308.77	5006.37	-5006.24	1843.80	1718897.93	14538723.39	40°01'57.314"N	104°43'10.660"W	2.31	
12357.00	90.370	179.450	7308.36	5096.37	-5096.24	1844.36	1718898.76	14538633.43	40°01'56.425"N	104°43'10.652"W	0.50	
12447.00	88.740	180.590	7309.06	5186.36	-5186.23	1844.33	1718899.01	14538543.47	40°01'55.536"N	104°43'10.653"W	2.21	
12536.00	88.830	180.130	7310.94	5275.34	-5275.21	1843.77	1718898.72	14538454.53	40°01'54.656"N	104°43'10.660"W	0.53	
12626.00	89.050	180.150	7312.61	5365.32	-5365.19	1843.55	1718898.78	14538364.58	40°01'53.767"N	104°43'10.663"W	0.25	
12715.00	90.280	179.930	7313.13	5454.32	-5454.19	1843.49	1718898.99	14538275.62	40°01'52.888"N	104°43'10.664"W	1.40	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-27HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-27HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
12805.00	91.360	179.350	7311.84	5544.30	-5544.18	1844.05	1718899.83	14538185.67	40°01'51.998"N	104°43'10.657"W	1.36	
12858.00	91.630	179.160	7310.46	5597.28	-5597.15	1844.74	1718900.68	14538132.71	40°01'51.475"N	104°43'10.648"W	0.62	LAST BHGE MWD+IFR1+SC SURVEY
12904.00	91.630	179.160	7309.15	5643.26	-5643.13	1845.41	1718901.50	14538086.76	40°01'51.020"N	104°43'10.639"W	0.00	PTB (474'FSL & 995'FEL,SEC.24) 40.0308390 -104.7196221

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.24-T1N-R66W	-17.00	77.24	-1287.33	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-27HZ HEEL REV-1(50'FNL & 1004'FEL,SEC.24)	7276.00	-871.31	1842.56	1718883.98	14542856.66	40°02'38.177"N	104°43'10.672"W	point
AZUL 13-27HZ BHL REV-1(468'FSL & 997'FEL,SEC.24)	7317.00	-5648.97	1842.91	1718899.01	14538080.91	40°01'50.963"N	104°43'10.672"W	point
AZUL 13-27HZ LANDBOX	7317.00	0.00	0.00	1717039.48	14543721.96	40°02'46.788"N	104°43'34.363"W	polygon
AZUL 13-27HZ RADIUS 1	7317.00	-4794.15	1521.90	1718575.50	14538934.40	40°01'59.411"N	104°43'14.798"W	polygon
AZUL 13-27HZ RADIUS 2	7317.00	-819.58	1527.71	1718569.10	14542907.40	40°02'38.688"N	104°43'14.720"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-27HZ AWB					Ref Wellpath: AZUL 13-27HZ AWP		
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment		Wellbore
21.00	1839.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)			Custom APC ISCWSA Rev-2 MWD+IFR1 <130 - 1839>		AZUL 13-27HZ AWB
1839.00	12858.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)			BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1936 - 12858>		AZUL 13-27HZ AWB
12858.00	12904.00	Blind Drilling (std)			Projection to bit		AZUL 13-27HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#44 AZUL 13-27HZ (835'FSL & 2447'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-27HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-27HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
130.00	0.970	197.150	129.99	FIRST SURFACE MWD+IFR1 SURVEY
1839.00	20.000	102.230	1786.14	LAST SURFACE MWD+IFR1 SURVEY
1936.00	20.280	102.030	1877.21	FIRST BHGE MWD+IFR1+SC SURVEY
3811.00	21.925	94.629	3619.12	ENTER LANDBOX (755'FSL & 1780'FEL,SEC.13) 40.0461089 -104.7224010
6939.00	6.557	186.476	6610.64	KOP
8056.00	89.110	183.550	7317.87	LANDING (24'FSL & 1032'FEL,SEC.13) 40.0441416 -104.7197281
8439.00	91.559	178.696	7309.90	EXIT RADIUS HEEL (345'FNL & 1033'FEL,SEC.24) 40.0430908 -104.7197296
11712.00	88.790	178.876	7301.61	ENTER RADIUS TOE (1665'FSL & 1012'FEL,SEC.24) 40.0341099 -104.7196830
12858.00	91.630	179.160	7310.46	LAST BHGE MWD+IFR1+SC SURVEY
12904.00	91.630	179.160	7309.15	PTB (474'FSL & 995'FEL,SEC.24) 40.0308390 -104.7196221