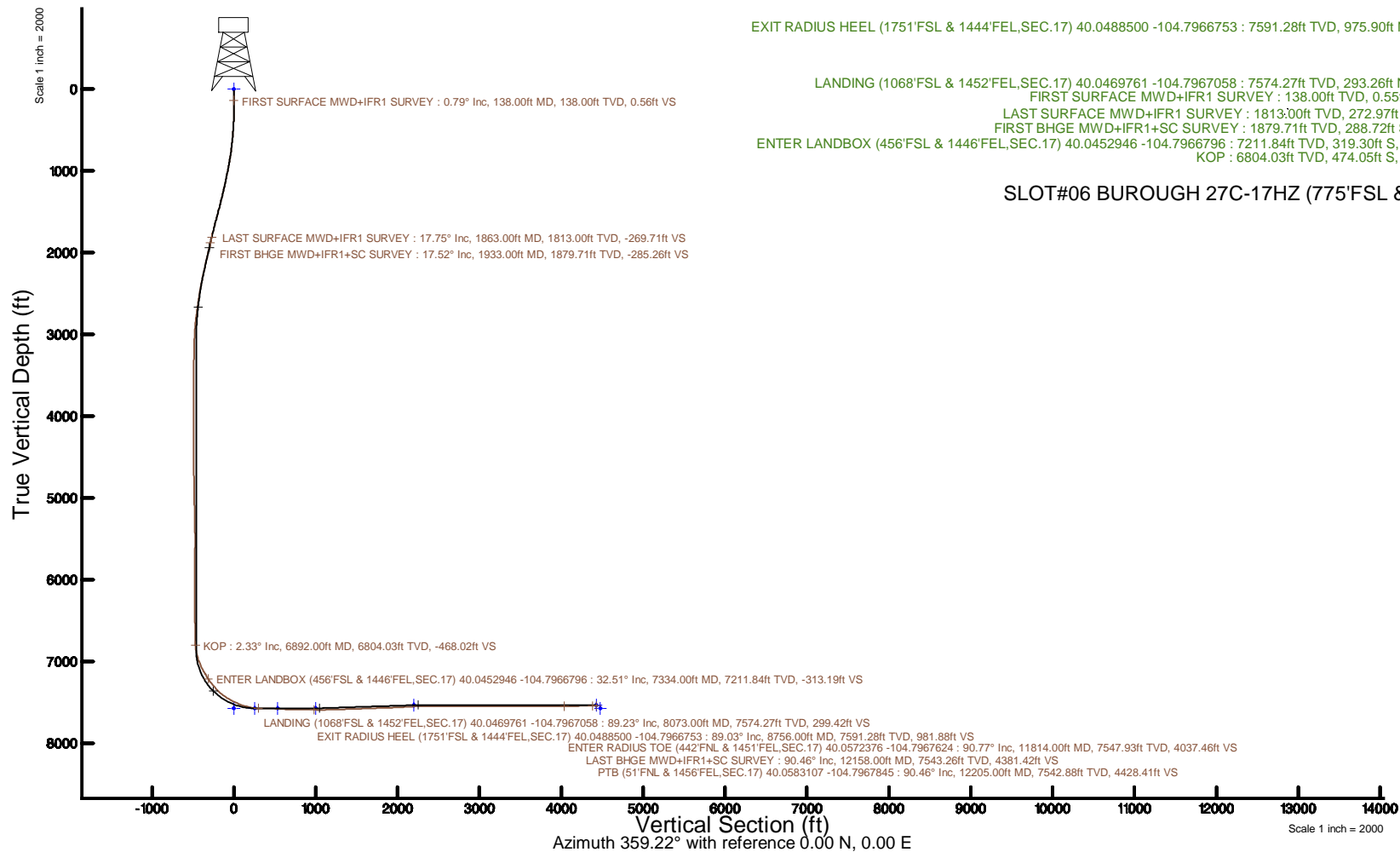


Location:	COLORADO	Slot:	SLOT#06 BURGHOUGH 27C-17HZ (775FSL & 998FEL, SEC.17)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	BURGHOUGH 27C-17HZ
Facility:	SEC.17-T1N-R66W	Wellbore:	BURGHOUGH 27C-17HZ PWB
Plot reference wellpath is BURGHOUGH 27C-17HZ PWP Rev-A.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to PD 564 (26) (RT)		* = Wellpath was transformed from a different geoidic datum	
Measured depths are referenced to PD 564 (26) (RT)		North Reference: True north	
PD 564 (26) (RT) to Mean Sea Level: 5005 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#06 BURGHOUGH 27C-17HZ (775FSL & 998FEL, SEC.17)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: painser on 2017-12-10	
		Database: WA_DEN_Ansardko_Defn	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 BURROUGH 27C-17HZ (775'FSL & 998'FEL,SEC.17)
Area	COLORADO	Well	BURROUGH 27C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BURROUGH 27C-17HZ AWB
Facility	SEC.17-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	12/1/2017 at 12:48 PM
Convergence at slot	0.14° East	Database/Source file	WA_DEN_Anadarko_Defn/BURROUGH_27C-17HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-8437.77	-489.88	1697765.20	14543612.29	40°02'46.216"N	104°47'42.299"W
Facility Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"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 Facility Vertical Datum	5005.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	5005.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#06 BURROUGH 27C-17HZ (775'FSL & 998'FEL,SEC.17))	5005.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.22°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 BUROUGH 27C-17HZ (775'FSL & 998'FEL, SEC.17)
Area	COLORADO	Well	BUROUGH 27C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27C-17HZ AWP
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (176 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	315.870	0.00	0.00	0.00	0.00	1697765.20	14543612.29	40°02'46.216"N	104°47'42.299"W	0.00	
26.00	0.000	315.870	26.00	0.00	0.00	0.00	1697765.20	14543612.29	40°02'46.216"N	104°47'42.299"W	0.00	
138.00	0.790	315.870	138.00	0.56	0.55	-0.54	1697764.66	14543612.85	40°02'46.221"N	104°47'42.306"W	0.71	FIRST SURFACE MWD+IFR1 SURVEY
170.00	0.530	325.800	169.99	0.85	0.83	-0.77	1697764.43	14543613.13	40°02'46.224"N	104°47'42.309"W	0.88	
202.00	0.440	303.820	201.99	1.04	1.03	-0.96	1697764.24	14543613.32	40°02'46.226"N	104°47'42.311"W	0.64	
233.00	1.010	290.380	232.99	1.20	1.19	-1.31	1697763.89	14543613.48	40°02'46.228"N	104°47'42.316"W	1.91	
265.00	1.050	255.750	264.99	1.24	1.21	-1.86	1697763.34	14543613.50	40°02'46.228"N	104°47'42.323"W	1.92	
296.00	1.450	245.030	295.98	1.01	0.98	-2.49	1697762.71	14543613.26	40°02'46.226"N	104°47'42.331"W	1.49	
327.00	1.980	233.070	326.96	0.53	0.49	-3.28	1697761.92	14543612.77	40°02'46.221"N	104°47'42.341"W	2.05	
359.00	3.080	224.720	358.93	-0.39	-0.45	-4.32	1697760.88	14543611.83	40°02'46.212"N	104°47'42.355"W	3.62	
390.00	3.380	220.150	389.88	-1.67	-1.74	-5.50	1697759.71	14543610.54	40°02'46.199"N	104°47'42.370"W	1.27	
422.00	3.820	218.660	421.82	-3.20	-3.30	-6.77	1697758.44	14543608.98	40°02'46.183"N	104°47'42.386"W	1.41	
454.00	4.310	222.260	453.74	-4.91	-5.02	-8.25	1697756.97	14543607.26	40°02'46.166"N	104°47'42.405"W	1.73	
485.00	5.100	222.960	484.64	-6.75	-6.89	-9.97	1697755.25	14543605.38	40°02'46.148"N	104°47'42.427"W	2.56	
517.00	5.230	224.630	516.51	-8.80	-8.97	-11.96	1697753.26	14543603.30	40°02'46.127"N	104°47'42.453"W	0.62	
548.00	5.670	223.230	547.37	-10.90	-11.09	-14.01	1697751.23	14543601.18	40°02'46.106"N	104°47'42.479"W	1.48	
580.00	6.150	221.210	579.19	-13.31	-13.53	-16.22	1697749.02	14543598.73	40°02'46.082"N	104°47'42.508"W	1.63	
613.00	7.080	217.870	611.97	-16.21	-16.47	-18.63	1697746.62	14543595.79	40°02'46.053"N	104°47'42.539"W	3.05	
644.00	7.870	217.690	642.71	-19.36	-19.65	-21.10	1697744.15	14543592.60	40°02'46.022"N	104°47'42.570"W	2.55	
676.00	8.000	217.520	674.40	-22.83	-23.15	-23.80	1697741.47	14543589.09	40°02'45.987"N	104°47'42.605"W	0.41	
708.00	8.480	216.280	706.07	-26.46	-26.82	-26.55	1697738.73	14543585.42	40°02'45.951"N	104°47'42.640"W	1.60	
740.00	9.400	218.130	737.69	-30.37	-30.78	-29.56	1697735.73	14543581.46	40°02'45.912"N	104°47'42.679"W	3.01	
771.00	9.840	217.870	768.25	-34.41	-34.86	-32.75	1697732.55	14543577.37	40°02'45.871"N	104°47'42.720"W	1.43	
803.00	10.680	216.460	799.74	-38.91	-39.41	-36.19	1697729.12	14543572.82	40°02'45.827"N	104°47'42.764"W	2.74	
835.00	11.510	218.480	831.14	-43.74	-44.29	-39.94	1697725.38	14543567.93	40°02'45.778"N	104°47'42.813"W	2.86	
867.00	12.440	220.420	862.44	-48.81	-49.41	-44.16	1697721.17	14543562.80	40°02'45.728"N	104°47'42.867"W	3.17	
898.00	13.230	221.380	892.67	-53.95	-54.62	-48.67	1697716.68	14543557.59	40°02'45.676"N	104°47'42.925"W	2.64	
930.00	13.580	221.120	923.80	-59.46	-60.19	-53.56	1697711.80	14543552.00	40°02'45.621"N	104°47'42.988"W	1.11	
962.00	14.410	220.150	954.85	-65.26	-66.07	-58.60	1697706.78	14543546.12	40°02'45.563"N	104°47'43.052"W	2.70	
994.00	15.120	220.350	985.79	-71.42	-72.29	-63.87	1697701.53	14543539.88	40°02'45.502"N	104°47'43.120"W	2.22	
1025.00	15.420	220.940	1015.69	-77.54	-78.49	-69.19	1697696.22	14543533.68	40°02'45.440"N	104°47'43.189"W	1.09	
1057.00	15.290	221.290	1046.55	-83.85	-84.87	-74.76	1697690.67	14543527.28	40°02'45.377"N	104°47'43.260"W	0.50	
1089.00	15.560	222.170	1077.40	-90.12	-91.22	-80.42	1697685.02	14543520.92	40°02'45.315"N	104°47'43.333"W	1.12	
1120.00	15.510	221.210	1107.27	-96.24	-97.42	-85.95	1697679.51	14543514.71	40°02'45.253"N	104°47'43.404"W	0.84	
1152.00	15.910	221.910	1138.07	-102.65	-103.90	-91.69	1697673.78	14543508.22	40°02'45.189"N	104°47'43.478"W	1.38	
1184.00	16.440	221.730	1168.80	-109.21	-110.55	-97.64	1697667.86	14543501.56	40°02'45.124"N	104°47'43.554"W	1.66	
1216.00	17.050	222.170	1199.45	-115.98	-117.40	-103.80	1697661.71	14543494.70	40°02'45.056"N	104°47'43.634"W	1.95	
1279.00	17.400	221.470	1259.62	-129.71	-131.31	-116.24	1697649.31	14543480.77	40°02'44.918"N	104°47'43.794"W	0.65	
1311.00	18.460	220.860	1290.07	-137.04	-138.72	-122.72	1697642.85	14543473.34	40°02'44.845"N	104°47'43.877"W	3.36	
1343.00	18.760	221.730	1320.39	-144.62	-146.40	-129.46	1697636.13	14543465.66	40°02'44.769"N	104°47'43.964"W	1.28	
1374.00	18.720	219.710	1349.75	-152.08	-153.94	-135.96	1697629.65	14543458.10	40°02'44.695"N	104°47'44.047"W	2.10	
1406.00	18.240	220.500	1380.10	-159.75	-161.70	-142.49	1697623.14	14543450.33	40°02'44.618"N	104°47'44.131"W	1.69	
1438.00	18.110	219.100	1410.50	-167.33	-169.37	-148.88	1697616.77	14543442.65	40°02'44.542"N	104°47'44.213"W	1.42	
1469.00	17.710	218.220	1440.00	-174.69	-176.81	-154.84	1697610.83	14543435.19	40°02'44.469"N	104°47'44.290"W	1.56	
1501.00	18.150	216.460	1470.45	-182.44	-184.65	-160.81	1697604.88	14543427.35	40°02'44.391"N	104°47'44.367"W	2.18	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 BUROUGH 27C-17HZ (775'FSL & 998'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 27C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27C-17HZ AWP
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (176 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
1533.00	18.810	218.570	1500.80	-190.40	-192.69	-166.99	1697598.72	14543419.30	40°02'44.312"N	104°47'44.446"W	2.94	
1564.00	18.980	217.600	1530.13	-198.21	-200.59	-173.18	1697592.55	14543411.38	40°02'44.234"N	104°47'44.526"W	1.15	
1596.00	19.250	218.310	1560.36	-206.39	-208.85	-179.63	1697586.13	14543403.11	40°02'44.152"N	104°47'44.609"W	1.11	
1628.00	19.120	221.120	1590.59	-214.38	-216.94	-186.34	1697579.43	14543395.01	40°02'44.072"N	104°47'44.695"W	2.91	
1659.00	19.250	220.940	1619.87	-221.98	-224.62	-193.03	1697572.77	14543387.31	40°02'43.996"N	104°47'44.781"W	0.46	
1691.00	19.420	221.030	1650.06	-229.88	-232.62	-199.98	1697565.84	14543379.30	40°02'43.917"N	104°47'44.870"W	0.54	
1723.00	18.810	222.790	1680.30	-237.58	-240.42	-206.98	1697558.86	14543371.49	40°02'43.840"N	104°47'44.960"W	2.62	
1755.00	18.980	223.140	1710.57	-245.07	-248.00	-214.04	1697551.82	14543363.90	40°02'43.765"N	104°47'45.051"W	0.64	
1787.00	19.250	223.050	1740.81	-252.62	-255.66	-221.20	1697544.68	14543356.23	40°02'43.690"N	104°47'45.143"W	0.85	
1850.00	17.400	223.320	1800.61	-266.88	-270.10	-234.75	1697531.17	14543341.76	40°02'43.547"N	104°47'45.317"W	2.94	
1863.00	17.750	222.790	1813.00	-269.71	-272.97	-237.43	1697528.49	14543338.89	40°02'43.518"N	104°47'45.352"W	2.96	LAST SURFACE MWD+IFR1 SURVEY
1933.00	17.520	221.290	1879.71	-285.26	-288.72	-251.63	1697514.34	14543323.11	40°02'43.363"N	104°47'45.535"W	0.73	FIRST BHGE MWD+IFR1+SC SURVEY
2022.00	17.220	219.560	1964.66	-305.25	-308.94	-268.86	1697497.16	14543302.86	40°02'43.163"N	104°47'45.756"W	0.67	
2112.00	16.460	218.720	2050.80	-325.24	-329.16	-285.32	1697480.75	14543282.61	40°02'42.963"N	104°47'45.968"W	0.89	
2201.00	17.050	221.890	2136.02	-344.57	-348.71	-301.92	1697464.20	14543263.03	40°02'42.770"N	104°47'46.181"W	1.22	
2291.00	16.440	221.560	2222.20	-363.68	-368.06	-319.18	1697447.00	14543243.65	40°02'42.579"N	104°47'46.403"W	0.69	
2380.00	15.570	220.600	2307.75	-381.95	-386.55	-335.31	1697430.92	14543225.12	40°02'42.396"N	104°47'46.610"W	1.02	
2470.00	14.810	219.560	2394.61	-399.78	-404.59	-350.50	1697415.78	14543207.06	40°02'42.218"N	104°47'46.806"W	0.90	
2559.00	13.820	227.350	2480.85	-415.55	-420.57	-365.56	1697400.76	14543191.05	40°02'42.060"N	104°47'46.999"W	2.43	
2649.00	12.930	226.410	2568.41	-429.57	-434.79	-380.76	1697385.59	14543176.80	40°02'41.919"N	104°47'47.195"W	1.02	
2738.00	11.600	226.230	2655.38	-442.44	-447.85	-394.43	1697371.96	14543163.72	40°02'41.790"N	104°47'47.371"W	1.49	
2828.00	10.170	224.670	2743.75	-454.18	-459.76	-406.56	1697359.87	14543151.78	40°02'41.673"N	104°47'47.527"W	1.62	
2917.00	8.780	223.100	2831.54	-464.59	-470.31	-416.72	1697349.73	14543141.22	40°02'41.568"N	104°47'47.657"W	1.59	
3006.00	7.220	221.920	2919.67	-473.60	-479.43	-425.10	1697341.38	14543132.08	40°02'41.478"N	104°47'47.765"W	1.76	
3096.00	3.550	233.480	3009.26	-479.38	-485.30	-431.12	1697335.37	14543126.20	40°02'41.420"N	104°47'47.842"W	4.23	
3185.00	3.490	239.160	3098.09	-482.35	-488.33	-435.66	1697330.84	14543123.16	40°02'41.390"N	104°47'47.901"W	0.40	
3275.00	3.140	242.340	3187.94	-484.84	-490.87	-440.19	1697326.31	14543120.60	40°02'41.365"N	104°47'47.959"W	0.44	
3364.00	2.810	242.980	3276.82	-486.90	-493.00	-444.30	1697322.22	14543118.47	40°02'41.344"N	104°47'48.012"W	0.37	
3454.00	2.230	250.300	3366.73	-488.45	-494.59	-447.91	1697318.61	14543116.87	40°02'41.328"N	104°47'48.058"W	0.74	
3543.00	1.850	263.240	3455.68	-489.16	-495.34	-450.97	1697315.56	14543116.11	40°02'41.321"N	104°47'48.098"W	0.67	
3633.00	1.640	278.340	3545.64	-489.10	-495.33	-453.68	1697312.84	14543116.12	40°02'41.321"N	104°47'48.132"W	0.56	
3723.00	1.470	112.770	3635.62	-489.36	-495.59	-453.89	1697312.63	14543115.86	40°02'41.318"N	104°47'48.135"W	3.43	
3812.00	1.100	133.600	3724.60	-490.41	-496.62	-452.22	1697314.30	14543114.83	40°02'41.308"N	104°47'48.114"W	0.66	
3902.00	0.840	132.910	3814.59	-491.47	-497.66	-451.11	1697315.41	14543113.79	40°02'41.298"N	104°47'48.099"W	0.29	
3991.00	0.630	152.570	3903.58	-492.36	-498.54	-450.41	1697316.12	14543112.92	40°02'41.289"N	104°47'48.090"W	0.37	
4081.00	0.220	127.930	3993.58	-492.91	-499.09	-450.05	1697316.48	14543112.37	40°02'41.284"N	104°47'48.086"W	0.49	
4171.00	0.220	76.760	4083.58	-492.98	-499.15	-449.74	1697316.79	14543112.31	40°02'41.283"N	104°47'48.082"W	0.21	
4260.00	0.220	319.940	4172.58	-492.81	-498.98	-449.69	1697316.84	14543112.48	40°02'41.285"N	104°47'48.081"W	0.42	
4350.00	0.500	312.710	4262.58	-492.41	-498.58	-450.09	1697316.44	14543112.87	40°02'41.289"N	104°47'48.086"W	0.31	
4439.00	0.620	336.250	4351.57	-491.70	-497.88	-450.57	1697315.96	14543113.58	40°02'41.296"N	104°47'48.092"W	0.29	
4529.00	2.200	83.770	4441.55	-491.09	-497.25	-449.04	1697317.48	14543114.21	40°02'41.302"N	104°47'48.073"W	2.73	
4618.00	1.860	71.880	4530.50	-490.49	-496.61	-445.97	1697320.55	14543114.85	40°02'41.308"N	104°47'48.033"W	0.61	
4708.00	1.560	56.160	4620.46	-489.39	-495.48	-443.57	1697322.95	14543116.00	40°02'41.320"N	104°47'48.002"W	0.62	
4797.00	1.460	44.100	4709.42	-487.93	-493.99	-441.77	1697324.74	14543117.49	40°02'41.334"N	104°47'47.979"W	0.37	
4887.00	1.350	41.440	4799.40	-486.33	-492.37	-440.27	1697326.24	14543119.11	40°02'41.350"N	104°47'47.960"W	0.14	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 BUROUGH 27C-17HZ (775'FSL & 998'FEL, SEC.17)
Area	COLORADO	Well	BUROUGH 27C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27C-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (176 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
4976.00	1.330	44.030	4888.37	-484.82	-490.84	-438.86	1697327.65	14543120.64	40°02'41.365"N	104°47'47.942"W	0.07	
5066.00	1.320	29.010	4978.35	-483.18	-489.18	-437.63	1697328.87	14543122.30	40°02'41.382"N	104°47'47.926"W	0.38	
5155.00	1.270	12.000	5067.33	-481.33	-487.32	-436.93	1697329.57	14543124.16	40°02'41.400"N	104°47'47.917"W	0.43	
5299.00	1.180	351.280	5211.30	-478.30	-484.29	-436.82	1697329.67	14543127.19	40°02'41.430"N	104°47'47.916"W	0.31	
5389.00	1.140	349.290	5301.28	-476.50	-482.50	-437.13	1697329.36	14543128.98	40°02'41.448"N	104°47'47.920"W	0.06	
5478.00	1.020	344.460	5390.26	-474.87	-480.87	-437.51	1697328.98	14543130.61	40°02'41.464"N	104°47'47.924"W	0.17	
5567.00	0.910	343.120	5479.25	-473.42	-479.43	-437.92	1697328.56	14543132.05	40°02'41.478"N	104°47'47.930"W	0.13	
5657.00	1.330	148.540	5569.24	-473.63	-479.63	-437.59	1697328.90	14543131.84	40°02'41.476"N	104°47'47.926"W	2.47	
5746.00	0.910	134.440	5658.22	-475.02	-481.01	-436.54	1697329.94	14543130.47	40°02'41.463"N	104°47'47.912"W	0.56	
5836.00	0.290	117.080	5748.22	-475.64	-481.61	-435.83	1697330.66	14543129.87	40°02'41.457"N	104°47'47.903"W	0.71	
5925.00	0.210	36.650	5837.22	-475.61	-481.58	-435.53	1697330.95	14543129.90	40°02'41.457"N	104°47'47.899"W	0.37	
6015.00	0.320	329.120	5927.22	-475.26	-481.24	-435.56	1697330.92	14543130.25	40°02'41.460"N	104°47'47.899"W	0.34	
6104.00	1.480	152.220	6016.21	-476.07	-482.04	-435.15	1697331.33	14543129.44	40°02'41.452"N	104°47'47.894"W	2.02	
6194.00	0.970	144.760	6106.19	-477.74	-483.69	-434.17	1697332.32	14543127.80	40°02'41.436"N	104°47'47.882"W	0.59	
6284.00	0.130	352.120	6196.19	-478.26	-484.21	-433.75	1697332.74	14543127.28	40°02'41.431"N	104°47'47.876"W	1.21	
6373.00	0.400	355.420	6285.18	-477.85	-483.80	-433.79	1697332.70	14543127.69	40°02'41.435"N	104°47'47.877"W	0.30	
6463.00	0.900	324.900	6375.18	-476.96	-482.91	-434.22	1697332.27	14543128.58	40°02'41.444"N	104°47'47.882"W	0.66	
6552.00	1.300	328.890	6464.16	-475.51	-481.47	-435.14	1697331.34	14543130.01	40°02'41.458"N	104°47'47.894"W	0.46	
6642.00	1.800	325.340	6554.13	-473.45	-479.44	-436.47	1697330.01	14543132.04	40°02'41.478"N	104°47'47.911"W	0.57	
6731.00	2.220	327.210	6643.07	-470.83	-476.84	-438.20	1697328.27	14543134.64	40°02'41.504"N	104°47'47.933"W	0.48	
6821.00	0.130	242.490	6733.05	-469.40	-475.42	-439.24	1697327.24	14543136.05	40°02'41.518"N	104°47'47.947"W	2.46	
6892.00†	2.330	347.938	6804.03	-468.02	-474.05	-439.61	1697326.86	14543137.43	40°02'41.531"N	104°47'47.952"W	3.34	KOP
6910.00	2.930	348.560	6822.01	-467.21	-473.24	-439.78	1697326.69	14543138.23	40°02'41.539"N	104°47'47.954"W	3.34	
7000.00	14.720	6.470	6910.80	-453.55	-459.57	-438.94	1697327.49	14543151.90	40°02'41.674"N	104°47'47.943"W	13.29	
7090.00	20.150	1.620	6996.64	-426.70	-432.69	-437.21	1697329.16	14543178.77	40°02'41.940"N	104°47'47.921"W	6.24	
7179.00	27.050	352.890	7078.17	-391.22	-397.23	-439.29	1697327.01	14543214.21	40°02'42.290"N	104°47'47.947"W	8.67	
7269.00	31.410	353.680	7156.69	-347.51	-353.60	-444.40	1697321.79	14543257.82	40°02'42.722"N	104°47'48.013"W	4.86	
7334.00†	32.514	357.566	7211.84	-313.19	-319.30	-447.01	1697319.10	14543292.09	40°02'43.061"N	104°47'48.047"W	3.59	ENTER LANDBOX (456'FSL & 1446'FEL, SEC.17) 40.0452946 -104.7966796
7358.00	32.950	358.940	7232.03	-300.22	-306.33	-447.41	1697318.68	14543305.05	40°02'43.189"N	104°47'48.052"W	3.59	
7448.00	41.260	358.380	7303.75	-245.97	-252.10	-448.70	1697317.26	14543359.26	40°02'43.725"N	104°47'48.068"W	9.24	
7537.00	47.350	359.070	7367.41	-183.84	-189.98	-450.06	1697315.76	14543421.35	40°02'44.338"N	104°47'48.086"W	6.86	
7626.00	53.730	0.170	7423.94	-115.16	-121.31	-450.49	1697315.17	14543490.00	40°02'45.017"N	104°47'48.091"W	7.23	
7716.00	60.880	358.560	7472.53	-39.48	-45.63	-451.37	1697314.12	14543565.65	40°02'45.765"N	104°47'48.103"W	8.09	
7805.00	67.890	357.770	7510.98	40.71	34.53	-453.95	1697311.35	14543645.77	40°02'46.557"N	104°47'48.136"W	7.92	
7894.00	71.450	0.460	7541.90	124.14	117.96	-455.22	1697309.89	14543729.16	40°02'47.382"N	104°47'48.152"W	4.90	
7984.00	78.790	359.570	7565.00	211.06	204.88	-455.21	1697309.71	14543816.04	40°02'48.241"N	104°47'48.152"W	8.21	
8073.00	89.230	1.570	7574.27	299.42	293.26	-454.31	1697310.40	14543904.39	40°02'49.114"N	104°47'48.141"W	11.94	LANDING (1068'FSL & 1452'FEL, SEC.17) 40.0469761 -104.7967058
8163.00	89.450	1.130	7575.31	389.35	383.23	-452.19	1697312.31	14543994.33	40°02'50.003"N	104°47'48.114"W	0.55	
8253.00	87.420	1.250	7577.77	479.26	473.17	-450.33	1697313.97	14544084.24	40°02'50.892"N	104°47'48.090"W	2.26	
8342.00	86.580	0.430	7582.43	568.10	562.04	-449.02	1697315.07	14544173.07	40°02'51.770"N	104°47'48.073"W	1.32	
8431.00	89.080	1.180	7585.80	657.00	650.96	-447.77	1697316.11	14544261.96	40°02'52.649"N	104°47'48.057"W	2.93	
8521.00	88.950	0.210	7587.34	746.95	740.94	-446.68	1697317.00	14544351.91	40°02'53.538"N	104°47'48.043"W	1.09	
8611.00	88.980	0.200	7588.97	836.92	830.92	-446.36	1697317.11	14544441.86	40°02'54.427"N	104°47'48.039"W	0.04	
8700.00	89.170	0.190	7590.41	925.90	919.91	-446.06	1697317.21	14544530.81	40°02'55.307"N	104°47'48.035"W	0.21	
8756.00†	89.033	0.402	7591.28	981.88	975.90	-445.77	1697317.37	14544586.78	40°02'55.860"N	104°47'48.031"W	0.45	EXIT RADIUS HEEL (1751'FSL & 1444'FEL, SEC.17) 40.0488500 -104.7966753

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 BUROUGH 27C-17HZ (775'FSL & 998'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 27C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27C-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (176 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
8790.00	88.950	0.530	7591.88	1015.87	1009.90	445.49	1697317.57	14544620.76	40°02'56.196"N	104°47'48.027"W	0.45	
8879.00	91.050	0.410	7591.88	1104.84	1098.89	444.76	1697318.09	14544709.72	40°02'57.075"N	104°47'48.018"W	2.36	
8968.00	90.430	0.330	7590.73	1193.82	1187.88	444.19	1697318.46	14544798.67	40°02'57.955"N	104°47'48.011"W	0.70	
9058.00	92.680	0.040	7588.29	1283.76	1277.84	443.90	1697318.55	14544888.60	40°02'58.844"N	104°47'48.007"W	2.52	
9147.00	92.530	0.270	7584.25	1372.66	1366.75	443.65	1697318.58	14544977.47	40°02'59.722"N	104°47'48.004"W	0.31	
9236.00	92.060	359.880	7580.68	1461.58	1455.68	443.54	1697318.49	14545066.36	40°03'00.601"N	104°47'48.002"W	0.69	
9326.00	90.800	358.200	7578.44	1551.55	1545.63	445.05	1697316.78	14545156.28	40°03'01.490"N	104°47'48.022"W	2.33	
9415.00	92.530	357.170	7575.85	1640.47	1634.52	448.64	1697312.98	14545245.12	40°03'02.369"N	104°47'48.068"W	2.26	
9505.00	92.590	357.180	7571.83	1730.32	1724.32	453.07	1697308.35	14545334.88	40°03'03.256"N	104°47'48.125"W	0.07	
9594.00	91.790	357.130	7568.43	1819.20	1813.14	457.48	1697303.73	14545423.65	40°03'04.134"N	104°47'48.182"W	0.90	
9683.00	91.110	354.260	7566.18	1907.99	1901.85	464.16	1697296.85	14545512.31	40°03'05.011"N	104°47'48.268"W	3.31	
9773.00	93.170	356.270	7562.82	1997.71	1991.47	471.59	1697289.22	14545601.88	40°03'05.896"N	104°47'48.363"W	3.20	
9862.00	93.170	359.330	7557.89	2086.53	2080.26	475.00	1697285.61	14545690.63	40°03'06.774"N	104°47'48.407"W	3.43	
9952.00	93.510	359.210	7552.65	2176.38	2170.10	476.14	1697284.26	14545780.43	40°03'07.661"N	104°47'48.422"W	0.40	
10041.00	90.280	359.800	7549.71	2265.32	2259.04	476.91	1697283.29	14545869.33	40°03'08.540"N	104°47'48.432"W	3.69	
10131.00	90.250	359.300	7549.29	2355.32	2349.03	477.62	1697282.37	14545959.28	40°03'09.430"N	104°47'48.441"W	0.56	
10221.00	90.460	359.210	7548.73	2445.31	2439.02	478.79	1697281.00	14546049.24	40°03'10.319"N	104°47'48.456"W	0.25	
10310.00	90.650	359.110	7547.87	2534.31	2528.01	480.09	1697279.49	14546138.18	40°03'11.198"N	104°47'48.473"W	0.24	
10400.00	90.370	358.970	7547.07	2624.31	2617.99	481.60	1697277.77	14546228.13	40°03'12.088"N	104°47'48.492"W	0.35	
10490.00	90.370	358.420	7546.49	2714.30	2707.97	483.65	1697275.52	14546318.06	40°03'12.977"N	104°47'48.519"W	0.61	
10579.00	90.190	358.000	7546.05	2803.28	2796.92	486.43	1697272.53	14546406.97	40°03'13.856"N	104°47'48.554"W	0.51	
10668.00	89.880	358.280	7546.00	2892.27	2885.87	489.32	1697269.44	14546495.88	40°03'14.735"N	104°47'48.592"W	0.47	
10758.00	90.090	0.650	7546.02	2982.26	2975.86	490.16	1697268.39	14546585.84	40°03'15.624"N	104°47'48.602"W	2.64	
10848.00	90.220	0.780	7545.78	3072.23	3065.86	489.04	1697269.31	14546675.80	40°03'16.513"N	104°47'48.588"W	0.20	
10937.00	89.880	1.070	7545.70	3161.19	3154.85	487.60	1697270.54	14546764.75	40°03'17.393"N	104°47'48.569"W	0.50	
11027.00	89.480	0.860	7546.20	3251.15	3244.83	486.08	1697271.85	14546854.70	40°03'18.282"N	104°47'48.550"W	0.50	
11116.00	88.920	0.400	7547.45	3340.11	3333.82	485.10	1697272.62	14546943.66	40°03'19.162"N	104°47'48.537"W	0.81	
11206.00	88.340	0.560	7549.60	3430.06	3423.79	484.35	1697273.17	14547033.59	40°03'20.051"N	104°47'48.528"W	0.67	
11295.00	89.780	2.880	7551.06	3518.96	3512.73	481.68	1697275.64	14547122.50	40°03'20.930"N	104°47'48.493"W	3.07	
11385.00	89.750	2.870	7551.43	3608.77	3602.61	477.17	1697279.94	14547212.36	40°03'21.818"N	104°47'48.435"W	0.04	
11474.00	91.760	2.510	7550.26	3697.60	3691.50	472.99	1697283.91	14547301.23	40°03'22.696"N	104°47'48.382"W	2.29	
11563.00	90.490	0.840	7548.51	3786.49	3780.44	470.39	1697286.31	14547390.14	40°03'23.575"N	104°47'48.348"W	2.36	
11653.00	90.150	0.230	7548.00	3876.47	3870.44	469.55	1697286.94	14547480.10	40°03'24.465"N	104°47'48.338"W	0.78	
11742.00	89.630	359.670	7548.18	3965.46	3959.43	469.63	1697286.66	14547569.06	40°03'25.344"N	104°47'48.339"W	0.86	
11814.00†	90.766	359.590	7547.93	4037.46	4031.43	470.09	1697286.03	14547641.03	40°03'26.056"N	104°47'48.345"W	1.58	ENTER RADIUS TOE (442'FNL & 1451'FEL,SEC.17) 40.0572376 -104.7967624
11832.00	91.050	359.570	7547.64	4055.45	4049.43	470.22	1697285.85	14547659.02	40°03'26.233"N	104°47'48.346"W	1.58	
11921.00	90.920	359.420	7546.11	4144.44	4138.41	471.01	1697284.86	14547747.96	40°03'27.113"N	104°47'48.356"W	0.22	
12011.00	90.960	358.920	7544.64	4234.43	4228.39	472.31	1697283.35	14547837.90	40°03'28.002"N	104°47'48.373"W	0.56	
12100.00	90.310	358.880	7543.65	4323.42	4317.37	474.02	1697281.44	14547926.84	40°03'28.881"N	104°47'48.395"W	0.73	
12158.00	90.460	358.730	7543.26	4381.42	4375.35	475.23	1697280.10	14547984.80	40°03'29.454"N	104°47'48.411"W	0.37	LAST BHGE MWD+IFR1+SC SURVEY
12205.00	90.460	358.730	7542.88	4428.41	4422.34	476.27	1697278.95	14548031.77	40°03'29.919"N	104°47'48.424"W	0.00	PTB (51'FNL & 1456'FEL,SEC.17) 40.0583107 -104.7967845

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 BUROUGH 27C-17HZ (775'FSL & 998'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 27C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27C-17HZ AWB
Facility	SEC.17-T1N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.17-T1N-R66W	0.00	0.00	-45.03	1697720.19	14543612.19	40°02'46.216"N	104°47'42.878"W	polygon
BUROUGH 27C-17HZ BHL REV-1(54'FNL & 1478'FEL,SEC.17)	7535.00	4418.80	-498.25	1697256.99	14548028.18	40°03'29.884"N	104°47'48.707"W	point
BUROUGH 27C-17HZ INT. TARGET@2200"VS	7535.00	2193.83	-467.96	1697292.38	14545804.17	40°03'07.896"N	104°47'48.317"W	point
BUROUGH 27C-17HZ HEEL REV-1(1028'FSL & 1438'FEL,SEC.17)	7573.00	250.23	-441.50	1697323.30	14543861.41	40°02'48.689"N	104°47'47.976"W	point
BUROUGH 27C-17HZ INT. TARGET@1000"VS	7573.00	993.94	-451.63	1697311.47	14544604.80	40°02'56.038"N	104°47'48.106"W	point
BUROUGH 27C-17HZ LANDBOX	7573.00	0.00	0.00	1697765.20	14543612.29	40°02'46.216"N	104°47'42.299"W	polygon
BUROUGH 27C-17HZ RADIUS 1	7573.00	4472.39	-341.15	1697413.90	14548082.10	40°03'30.413"N	104°47'46.686"W	polygon
BUROUGH 27C-17HZ RADIUS 2	7573.00	532.78	-328.81	1697435.30	14544144.10	40°02'51.481"N	104°47'46.527"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: BUROUGH 27C-17HZ AWB					Ref Wellpath: BUROUGH 27C-17HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore
26.00	1863.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)		Custom APC ISCWSA Rev-2 MWD+IFR1 <138 - 1863>		BUROUGH 27C-17HZ AWB
1863.00	12158.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)		BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1933 - 12158>		BUROUGH 27C-17HZ AWB
12158.00	12205.00	Blind Drilling (std)		Projection to bit		BUROUGH 27C-17HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 BROUGH 27C-17HZ (775'FSL & 998'FEL,SEC.17)
Area	COLORADO	Well	BROUGH 27C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BROUGH 27C-17HZ AWP
Facility	SEC.17-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
138.00	0.790	315.870	138.00	FIRST SURFACE MWD+IFR1 SURVEY
1863.00	17.750	222.790	1813.00	LAST SURFACE MWD+IFR1 SURVEY
1933.00	17.520	221.290	1879.71	FIRST BHGE MWD+IFR1+SC SURVEY
6892.00	2.330	347.938	6804.03	KOP
7334.00	32.514	357.566	7211.84	ENTER LANDBOX (456'FSL & 1446'FEL,SEC.17) 40.0452946 -104.7966796
8073.00	89.230	1.570	7574.27	LANDING (1068'FSL & 1452'FEL,SEC.17) 40.0469761 -104.7967058
8756.00	89.033	0.402	7591.28	EXIT RADIUS HEEL (1751'FSL & 1444'FEL,SEC.17) 40.0488500 -104.7966753
11814.00	90.766	359.590	7547.93	ENTER RADIUS TOE (442'FNL & 1451'FEL,SEC.17) 40.0572376 -104.7967624
12158.00	90.460	358.730	7543.26	LAST BHGE MWD+IFR1+SC SURVEY
12205.00	90.460	358.730	7542.88	PTB (51'FNL & 1456'FEL,SEC.17) 40.0583107 -104.7967845