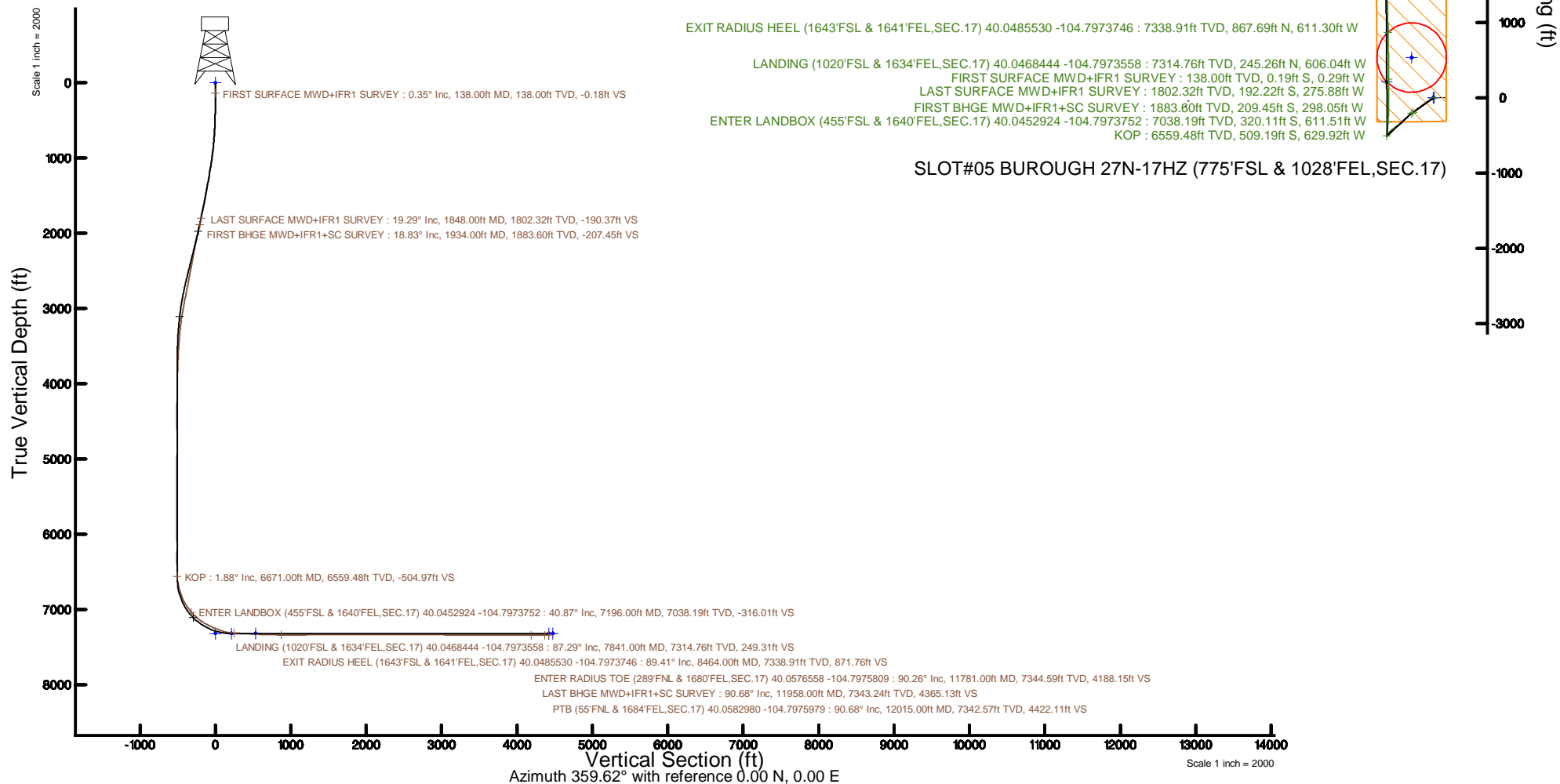


Location:	COLORADO	Slot:	SLOT#05 BURGHOUGH 27N-17HZ (775FSL & 1028FEL,SEC.17)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	BURGHOUGH 27N-17HZ
Facility:	SEC.17-11N-R66W	Wellbore:	BURGHOUGH 27N-17HZ PWB
Plot reference wellpath is BURGHOUGH 27N-17HZ PWP Rev-A.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to PD 564 (26) (RT)		" = Wellpath was transformed from a different geodetic 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#05 BURGHOUGH 27N-17HZ (775FSL & 1028FEL,SEC.17)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: painstre on 2017-12-06	
		Database: WA_DEN_Anadarko_Defn	



### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 BURROUGH 27N-17HZ (775'FSL & 1028'FEL,SEC.17)
Area	COLORADO	Well	BURROUGH 27N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BURROUGH 27N-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	12/6/2017 at 10:03 AM
Convergence at slot	0.14° East	Database/Source file	WA_DEN_Anadarko_Defn/BURROUGH_27N-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	-520.14	1697734.96	14543612.22	40°02'46.216"N	104°47'42.688"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#05 BURROUGH 27N-17HZ (775'FSL & 1028'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	359.62°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 BUROUGH 27N-17HZ (775'FSL & 1028'FEL, SEC.17)
Area	COLORADO	Well	BUROUGH 27N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27N-17HZ AWP
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (175 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	237.200	0.00	0.00	0.00	0.00	1697734.96	14543612.22	40°02'46.216"N	104°47'42.688"W	0.00	
26.00	0.000	237.200	26.00	0.00	0.00	0.00	1697734.96	14543612.22	40°02'46.216"N	104°47'42.688"W	0.00	
138.00	0.350	237.200	138.00	-0.18	-0.19	-0.29	1697734.67	14543612.04	40°02'46.214"N	104°47'42.692"W	0.31	FIRST SURFACE MWD+IFR1 SURVEY
170.00	0.530	272.360	170.00	-0.23	-0.23	-0.52	1697734.45	14543611.99	40°02'46.214"N	104°47'42.695"W	0.99	
202.00	0.830	275.440	202.00	-0.20	-0.20	-0.90	1697734.07	14543612.02	40°02'46.214"N	104°47'42.700"W	0.94	
233.00	0.660	240.980	232.99	-0.26	-0.27	-1.28	1697733.69	14543611.95	40°02'46.213"N	104°47'42.704"W	1.52	
265.00	0.530	235.270	264.99	-0.43	-0.44	-1.56	1697733.40	14543611.78	40°02'46.212"N	104°47'42.708"W	0.45	
296.00	0.400	221.120	295.99	-0.59	-0.61	-1.75	1697733.22	14543611.61	40°02'46.210"N	104°47'42.710"W	0.56	
327.00	0.530	197.560	326.99	-0.81	-0.82	-1.86	1697733.10	14543611.39	40°02'46.208"N	104°47'42.712"W	0.74	
359.00	0.660	212.770	358.99	-1.11	-1.12	-2.01	1697732.96	14543611.10	40°02'46.205"N	104°47'42.714"W	0.64	
390.00	1.450	237.820	389.98	-1.46	-1.48	-2.44	1697732.53	14543610.74	40°02'46.201"N	104°47'42.719"W	2.89	
422.00	1.800	234.040	421.97	-1.97	-1.99	-3.18	1697731.78	14543610.23	40°02'46.196"N	104°47'42.729"W	1.14	
454.00	2.550	237.380	453.95	-2.64	-2.67	-4.19	1697730.78	14543609.54	40°02'46.190"N	104°47'42.742"W	2.38	
485.00	3.250	238.700	484.91	-3.46	-3.50	-5.52	1697729.45	14543608.71	40°02'46.181"N	104°47'42.759"W	2.27	
517.00	4.220	236.850	516.84	-4.56	-4.61	-7.28	1697727.69	14543607.60	40°02'46.170"N	104°47'42.782"W	3.05	
548.00	4.440	239.140	547.75	-5.79	-5.85	-9.27	1697725.71	14543606.35	40°02'46.158"N	104°47'42.807"W	0.90	
580.00	5.050	240.100	579.64	-7.11	-7.19	-11.55	1697723.43	14543605.01	40°02'46.145"N	104°47'42.837"W	1.92	
613.00	5.760	237.290	612.49	-8.71	-8.81	-14.21	1697720.78	14543603.39	40°02'46.129"N	104°47'42.871"W	2.30	
644.00	6.550	237.910	643.31	-10.47	-10.59	-17.01	1697717.98	14543601.60	40°02'46.111"N	104°47'42.907"W	2.56	
676.00	7.120	238.260	675.09	-12.47	-12.60	-20.24	1697714.75	14543599.58	40°02'46.091"N	104°47'42.948"W	1.79	
708.00	8.000	239.310	706.81	-14.62	-14.78	-23.85	1697711.16	14543597.39	40°02'46.070"N	104°47'42.995"W	2.78	
740.00	8.790	239.140	738.47	-16.98	-17.17	-27.86	1697707.15	14543594.99	40°02'46.046"N	104°47'43.046"W	2.47	
771.00	8.920	236.940	769.10	-19.48	-19.70	-31.91	1697703.11	14543592.46	40°02'46.021"N	104°47'43.098"W	1.17	
803.00	9.540	237.640	800.68	-22.23	-22.47	-36.23	1697698.80	14543589.68	40°02'45.994"N	104°47'43.154"W	1.97	
835.00	10.060	237.730	832.21	-25.11	-25.38	-40.83	1697694.21	14543586.76	40°02'45.965"N	104°47'43.213"W	1.63	
867.00	10.810	236.680	863.68	-28.22	-28.52	-45.70	1697689.34	14543583.61	40°02'45.934"N	104°47'43.276"W	2.42	
898.00	11.650	237.910	894.09	-31.44	-31.78	-50.78	1697684.27	14543580.34	40°02'45.902"N	104°47'43.341"W	2.82	
930.00	12.570	235.800	925.38	-35.08	-35.46	-56.40	1697678.67	14543576.65	40°02'45.866"N	104°47'43.413"W	3.19	
962.00	13.490	235.180	956.55	-39.13	-39.54	-62.34	1697672.73	14543572.55	40°02'45.825"N	104°47'43.490"W	2.91	
994.00	13.580	235.620	987.67	-43.34	-43.80	-68.51	1697666.58	14543568.29	40°02'45.783"N	104°47'43.569"W	0.43	
1025.00	14.020	234.830	1017.77	-47.52	-48.02	-74.58	1697660.52	14543564.06	40°02'45.741"N	104°47'43.647"W	1.54	
1057.00	14.590	234.570	1048.78	-52.04	-52.58	-81.03	1697654.08	14543559.47	40°02'45.696"N	104°47'43.730"W	1.79	
1089.00	15.210	235.450	1079.70	-56.71	-57.30	-87.78	1697647.35	14543554.74	40°02'45.650"N	104°47'43.817"W	2.06	
1120.00	15.560	235.270	1109.59	-61.34	-61.98	-94.54	1697640.60	14543550.05	40°02'45.604"N	104°47'43.904"W	1.14	
1152.00	15.600	233.780	1140.42	-66.28	-66.96	-101.54	1697633.62	14543545.05	40°02'45.554"N	104°47'43.994"W	1.26	
1184.00	16.260	233.690	1171.19	-71.43	-72.16	-108.62	1697626.55	14543539.84	40°02'45.503"N	104°47'44.085"W	2.06	
1216.00	16.480	236.410	1201.89	-76.55	-77.32	-116.01	1697619.17	14543534.66	40°02'45.452"N	104°47'44.180"W	2.49	
1247.00	16.830	236.940	1231.59	-81.38	-82.20	-123.44	1697611.76	14543529.77	40°02'45.404"N	104°47'44.275"W	1.23	
1279.00	17.230	235.970	1262.19	-86.50	-87.38	-131.25	1697603.97	14543524.57	40°02'45.352"N	104°47'44.376"W	1.53	
1311.00	17.710	234.920	1292.71	-91.90	-92.83	-139.16	1697596.07	14543519.11	40°02'45.299"N	104°47'44.477"W	1.79	
1343.00	17.930	233.510	1323.18	-97.57	-98.56	-147.10	1697588.15	14543513.36	40°02'45.242"N	104°47'44.579"W	1.51	
1374.00	17.310	233.250	1352.72	-103.12	-104.16	-154.63	1697580.63	14543507.75	40°02'45.187"N	104°47'44.676"W	2.02	
1406.00	17.270	232.190	1383.27	-108.83	-109.92	-162.20	1697573.08	14543501.98	40°02'45.130"N	104°47'44.774"W	0.99	
1438.00	17.360	232.540	1413.82	-114.60	-115.73	-169.74	1697565.55	14543496.15	40°02'45.072"N	104°47'44.871"W	0.43	
1469.00	17.400	232.980	1443.41	-120.15	-121.34	-177.11	1697558.20	14543490.53	40°02'45.017"N	104°47'44.965"W	0.44	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 BUROUGH 27N-17HZ (775'FSL & 1028'FEL, SEC.17)
Area	COLORADO	Well	BUROUGH 27N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27N-17HZ AWP
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (175 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
1501.00	17.490	235.710	1473.94	-125.69	-126.93	-184.91	1697550.42	14543484.92	40°02'44.962"N	104°47'45.066"W	2.57	
1533.00	17.310	235.000	1504.47	-131.07	-132.37	-192.78	1697542.56	14543479.47	40°02'44.908"N	104°47'45.167"W	0.87	
1564.00	17.360	234.210	1534.07	-136.37	-137.72	-200.31	1697535.05	14543474.10	40°02'44.855"N	104°47'45.264"W	0.78	
1596.00	17.890	233.070	1564.56	-142.07	-143.46	-208.11	1697527.26	14543468.34	40°02'44.798"N	104°47'45.364"W	1.98	
1628.00	18.900	234.830	1594.93	-147.95	-149.40	-216.28	1697519.11	14543462.39	40°02'44.740"N	104°47'45.469"W	3.60	
1659.00	19.380	234.920	1624.21	-153.74	-155.25	-224.59	1697510.82	14543456.52	40°02'44.682"N	104°47'45.576"W	1.55	
1691.00	19.470	232.190	1654.39	-160.01	-161.57	-233.15	1697502.28	14543450.18	40°02'44.619"N	104°47'45.686"W	2.85	
1723.00	20.040	232.280	1684.51	-166.57	-168.19	-241.70	1697493.75	14543443.54	40°02'44.554"N	104°47'45.796"W	1.78	
1755.00	19.560	235.090	1714.62	-172.93	-174.61	-250.43	1697485.03	14543437.10	40°02'44.490"N	104°47'45.908"W	3.33	
1787.00	19.420	236.240	1744.79	-178.90	-180.63	-259.24	1697476.24	14543431.06	40°02'44.431"N	104°47'46.021"W	1.28	
1818.00	19.470	235.360	1774.02	-184.64	-186.44	-267.78	1697467.72	14543425.25	40°02'44.374"N	104°47'46.131"W	0.96	
1848.00	19.290	233.600	1802.32	-190.37	-192.22	-275.88	1697459.63	14543419.45	40°02'44.316"N	104°47'46.235"W	2.04	LAST SURFACE MWD+IFR1 SURVEY
1934.00	18.830	230.660	1883.60	-207.45	-209.45	-298.05	1697437.51	14543402.18	40°02'44.146"N	104°47'46.520"W	1.24	FIRST BHGE MWD+IFR1+SC SURVEY
2024.00	18.470	229.220	1968.88	-225.82	-227.97	-320.08	1697415.54	14543383.61	40°02'43.963"N	104°47'46.804"W	0.65	
2113.00	17.550	227.820	2053.52	-243.90	-246.18	-340.70	1697394.97	14543365.35	40°02'43.783"N	104°47'47.069"W	1.14	
2203.00	16.890	226.480	2139.48	-261.88	-264.30	-360.23	1697375.48	14543347.20	40°02'43.604"N	104°47'47.320"W	0.86	
2292.00	15.960	225.470	2224.85	-279.25	-281.78	-378.33	1697357.43	14543329.68	40°02'43.431"N	104°47'47.553"W	1.09	
2382.00	14.690	224.650	2311.65	-295.93	-298.58	-395.17	1697340.63	14543312.86	40°02'43.265"N	104°47'47.769"W	1.43	
2471.00	13.760	223.530	2397.92	-311.53	-314.28	-410.39	1697325.45	14543297.12	40°02'43.110"N	104°47'47.965"W	1.09	
2560.00	15.590	226.840	2484.01	-327.28	-330.14	-426.41	1697309.48	14543281.24	40°02'42.953"N	104°47'48.171"W	2.26	
2650.00	18.080	233.430	2570.16	-343.74	-346.73	-446.45	1697289.49	14543264.60	40°02'42.789"N	104°47'48.429"W	3.48	
2740.00	17.790	235.270	2655.78	-359.75	-362.89	-468.97	1697267.02	14543248.40	40°02'42.630"N	104°47'48.718"W	0.71	
2829.00	19.110	236.290	2740.21	-375.42	-378.72	-492.26	1697243.77	14543232.52	40°02'42.473"N	104°47'49.018"W	1.53	
2918.00	19.920	232.750	2824.10	-392.52	-395.98	-516.45	1697219.63	14543215.21	40°02'42.303"N	104°47'49.329"W	1.61	
3008.00	17.840	231.780	2909.25	-410.18	-413.80	-539.49	1697196.64	14543197.35	40°02'42.127"N	104°47'49.625"W	2.34	
3097.00	14.760	229.570	2994.66	-425.84	-429.59	-558.83	1697177.34	14543181.52	40°02'41.971"N	104°47'49.874"W	3.53	
3187.00	13.550	228.880	3081.93	-440.10	-443.96	-575.50	1697160.71	14543167.12	40°02'41.829"N	104°47'50.088"W	1.36	
3276.00	11.870	229.780	3168.75	-452.77	-456.72	-590.35	1697145.90	14543154.33	40°02'41.702"N	104°47'50.279"W	1.90	
3366.00	8.880	224.010	3257.27	-463.66	-467.70	-602.25	1697134.03	14543143.33	40°02'41.594"N	104°47'50.432"W	3.51	
3455.00	7.630	224.860	3345.34	-472.73	-476.83	-611.19	1697125.12	14543134.18	40°02'41.504"N	104°47'50.547"W	1.41	
3545.00	6.460	227.370	3434.66	-480.34	-484.49	-619.13	1697117.20	14543126.50	40°02'41.428"N	104°47'50.649"W	1.34	
3634.00	4.540	215.330	3523.25	-486.57	-490.76	-624.85	1697111.49	14543120.23	40°02'41.366"N	104°47'50.722"W	2.51	
3724.00	2.870	205.010	3613.06	-491.50	-495.71	-627.86	1697108.49	14543115.27	40°02'41.317"N	104°47'50.761"W	1.99	
3814.00	2.590	163.390	3702.97	-495.49	-499.70	-628.23	1697108.13	14543111.28	40°02'41.278"N	104°47'50.766"W	2.17	
3903.00	2.200	157.610	3791.89	-499.00	-503.20	-627.01	1697109.36	14543107.78	40°02'41.243"N	104°47'50.750"W	0.51	
3993.00	1.680	154.720	3881.84	-501.80	-505.99	-625.79	1697110.59	14543104.99	40°02'41.216"N	104°47'50.734"W	0.59	
4082.00	1.350	147.190	3970.81	-503.87	-508.05	-624.66	1697111.72	14543102.94	40°02'41.195"N	104°47'50.720"W	0.43	
4172.00	0.990	149.290	4060.79	-505.43	-509.61	-623.69	1697112.70	14543101.38	40°02'41.180"N	104°47'50.707"W	0.40	
4261.00	0.850	145.170	4149.78	-506.64	-510.82	-622.92	1697113.47	14543100.18	40°02'41.168"N	104°47'50.698"W	0.17	
4351.00	0.460	157.060	4239.77	-507.53	-511.70	-622.40	1697113.99	14543099.30	40°02'41.159"N	104°47'50.691"W	0.46	
4440.00	0.570	146.200	4328.77	-508.23	-512.39	-622.01	1697114.38	14543098.60	40°02'41.152"N	104°47'50.686"W	0.16	
4530.00	0.390	129.340	4418.76	-508.79	-512.96	-621.53	1697114.87	14543098.04	40°02'41.147"N	104°47'50.680"W	0.25	
4619.00	0.600	48.550	4507.76	-508.68	-512.84	-620.94	1697115.45	14543098.16	40°02'41.148"N	104°47'50.672"W	0.74	
4709.00	0.890	39.960	4597.75	-507.84	-512.00	-620.14	1697116.25	14543099.01	40°02'41.156"N	104°47'50.662"W	0.34	
4798.00	0.640	50.880	4686.75	-507.00	-511.15	-619.31	1697117.08	14543099.85	40°02'41.165"N	104°47'50.651"W	0.32	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#05 BUROUGH 27N-17HZ (775'FSL & 1028'FEL, SEC.17)
Area	COLORADO		Well	BUROUGH 27N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	BUROUGH 27N-17HZ AWB
Facility	SEC.17-T1N-R66W			

WELLPATH DATA (175 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
4888.00	0.560	47.570	4776.74	-506.39	-510.54	-618.60	1697117.79	14543100.47	40°02'41.171"N	104°47'50.642"W	0.10	
4978.00	1.690	244.170	4866.73	-506.67	-510.82	-619.47	1697116.92	14543100.18	40°02'41.168"N	104°47'50.653"W	2.48	
5067.00	1.740	247.490	4955.69	-507.74	-511.91	-621.89	1697114.49	14543099.09	40°02'41.157"N	104°47'50.684"W	0.12	
5156.00	1.590	252.490	5044.65	-508.61	-512.80	-624.32	1697112.07	14543098.19	40°02'41.148"N	104°47'50.716"W	0.23	
5246.00	1.480	258.090	5134.62	-509.21	-513.41	-626.65	1697109.74	14543097.57	40°02'41.142"N	104°47'50.745"W	0.21	
5335.00	1.400	261.670	5223.59	-509.59	-513.81	-628.85	1697107.55	14543097.17	40°02'41.138"N	104°47'50.774"W	0.14	
5425.00	1.420	268.130	5313.57	-509.77	-514.00	-631.05	1697105.35	14543096.97	40°02'41.136"N	104°47'50.802"W	0.18	
5514.00	0.720	159.140	5402.56	-510.33	-514.56	-631.95	1697104.44	14543096.41	40°02'41.131"N	104°47'50.814"W	2.01	
5603.00	0.420	174.540	5491.55	-511.18	-515.41	-631.72	1697104.68	14543095.57	40°02'41.123"N	104°47'50.811"W	0.38	
5693.00	0.390	240.810	5581.55	-511.65	-515.89	-631.96	1697104.44	14543095.09	40°02'41.118"N	104°47'50.814"W	0.49	
5782.00	0.460	276.750	5670.55	-511.75	-515.99	-632.58	1697103.82	14543094.98	40°02'41.117"N	104°47'50.822"W	0.30	
5872.00	0.550	70.920	5760.55	-511.57	-515.81	-632.53	1697103.87	14543095.16	40°02'41.119"N	104°47'50.821"W	1.09	
5961.00	0.760	35.000	5849.54	-510.95	-515.19	-631.79	1697104.61	14543095.79	40°02'41.125"N	104°47'50.812"W	0.51	
6051.00	0.980	18.590	5939.53	-509.74	-513.97	-631.20	1697105.20	14543097.01	40°02'41.137"N	104°47'50.804"W	0.37	
6140.00	0.820	29.010	6028.52	-508.46	-512.69	-630.65	1697105.74	14543098.29	40°02'41.149"N	104°47'50.797"W	0.26	
6230.00	0.680	16.370	6118.51	-507.39	-511.61	-630.19	1697106.20	14543099.36	40°02'41.160"N	104°47'50.791"W	0.24	
6320.00	0.650	175.420	6208.51	-507.39	-511.61	-629.99	1697106.40	14543099.37	40°02'41.160"N	104°47'50.788"W	1.45	
6409.00	0.160	133.920	6297.51	-507.98	-512.20	-629.86	1697106.53	14543098.78	40°02'41.154"N	104°47'50.787"W	0.61	
6499.00	0.390	355.050	6387.51	-507.76	-511.98	-629.80	1697106.59	14543099.00	40°02'41.156"N	104°47'50.786"W	0.58	
6588.00	0.760	1.730	6476.50	-506.87	-511.09	-629.81	1697106.58	14543099.89	40°02'41.165"N	104°47'50.786"W	0.42	
6671.00†	1.875	354.398	6559.48	-504.97	-509.19	-629.92	1697106.46	14543101.79	40°02'41.184"N	104°47'50.788"W	1.36	KOP
6678.00	1.970	354.160	6566.47	-504.73	-508.96	-629.95	1697106.44	14543102.02	40°02'41.186"N	104°47'50.788"W	1.36	
6768.00	10.430	3.910	6655.87	-495.05	-499.27	-629.55	1697106.81	14543111.70	40°02'41.282"N	104°47'50.783"W	9.44	
6857.00	15.620	3.770	6742.55	-475.05	-479.26	-628.21	1697108.10	14543131.71	40°02'41.480"N	104°47'50.766"W	5.83	
6947.00	22.930	6.400	6827.45	-445.52	-449.71	-625.46	1697110.79	14543161.25	40°02'41.772"N	104°47'50.730"W	8.18	
7036.00	28.370	9.840	6907.65	-407.46	-411.62	-619.91	1697116.25	14543199.35	40°02'42.148"N	104°47'50.659"W	6.33	
7126.00	36.500	4.000	6983.57	-359.64	-363.75	-614.37	1697121.67	14543247.20	40°02'42.621"N	104°47'50.588"W	9.67	
7196.00†	40.873	3.541	7038.19	-316.01	-320.11	-611.51	1697124.44	14543290.84	40°02'43.053"N	104°47'50.551"W	6.26	ENTER LANDBOX (455'FSL & 1640'FEL, SEC.17) 40.0452924 -104.7973752
7215.00	42.060	3.430	7052.43	-303.46	-307.55	-610.74	1697125.17	14543303.39	40°02'43.177"N	104°47'50.541"W	6.26	
7305.00	49.720	4.100	7115.03	-239.06	-243.12	-606.48	1697129.29	14543367.81	40°02'43.813"N	104°47'50.486"W	8.53	
7394.00	56.810	1.500	7168.23	-167.89	-171.93	-603.07	1697132.53	14543438.98	40°02'44.517"N	104°47'50.442"W	8.30	
7483.00	63.290	0.360	7212.64	-90.84	-94.87	-601.84	1697133.58	14543516.01	40°02'45.278"N	104°47'50.427"W	7.36	
7573.00	67.400	358.320	7250.18	-9.07	-13.10	-602.81	1697132.42	14543597.74	40°02'46.086"N	104°47'50.439"W	5.01	
7662.00	70.510	358.610	7282.14	73.97	69.92	-605.03	1697130.01	14543680.73	40°02'46.907"N	104°47'50.468"W	3.51	
7752.00	80.070	0.070	7304.97	160.91	156.86	-606.01	1697128.83	14543767.63	40°02'47.766"N	104°47'50.480"W	10.74	
7841.00	87.290	359.890	7314.76	249.31	245.26	-606.04	1697128.60	14543856.00	40°02'48.640"N	104°47'50.481"W	8.11	LANDING (1020'FSL & 1634'FEL, SEC.17) 40.0468444 -104.7973558
7930.00	87.410	359.910	7318.87	338.21	334.17	-606.20	1697128.24	14543944.86	40°02'49.518"N	104°47'50.483"W	0.14	
8020.00	87.350	359.910	7322.99	428.12	424.08	-606.34	1697127.89	14544034.73	40°02'50.407"N	104°47'50.485"W	0.07	
8109.00	86.980	359.640	7327.39	517.01	512.97	-606.69	1697127.34	14544123.59	40°02'51.285"N	104°47'50.489"W	0.51	
8199.00	86.670	359.490	7332.37	606.87	602.82	-607.37	1697126.45	14544213.41	40°02'52.173"N	104°47'50.498"W	0.38	
8289.00	88.740	359.330	7335.98	696.79	692.74	-608.30	1697125.32	14544303.29	40°02'53.062"N	104°47'50.510"W	2.31	
8378.00	89.010	358.920	7337.72	785.77	781.71	-609.65	1697123.76	14544392.22	40°02'53.941"N	104°47'50.527"W	0.55	
8464.00†	89.406	358.881	7338.91	871.76	867.69	-611.30	1697121.91	14544478.16	40°02'54.791"N	104°47'50.549"W	0.46	EXIT RADIUS HEEL (1643'FSL & 1641'FEL, SEC.17) 40.0485530 -104.7973746
8467.00	89.420	358.880	7338.94	874.76	870.69	-611.36	1697121.84	14544481.16	40°02'54.820"N	104°47'50.549"W	0.46	
8557.00	90.030	358.770	7339.37	964.75	960.67	-613.21	1697119.79	14544571.10	40°02'55.709"N	104°47'50.573"W	0.69	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 BUROUGH 27N-17HZ (775'FSL & 1028'FEL, SEC.17)
Area	COLORADO	Well	BUROUGH 27N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27N-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (175 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
8647.00	89.750	358.310	7339.55	1054.73	1050.64	-615.50	1697117.29	14544661.03	40°02'56.599"N	104°47'50.603"W	0.60	
8736.00	90.680	358.890	7339.21	1143.71	1139.61	-617.68	1697114.91	14544749.96	40°02'57.478"N	104°47'50.631"W	1.23	
8825.00	91.080	358.380	7337.85	1232.69	1228.57	-619.80	1697112.59	14544838.88	40°02'58.357"N	104°47'50.658"W	0.73	
8915.00	91.880	357.930	7335.52	1322.63	1318.50	-622.69	1697109.49	14544928.76	40°02'59.246"N	104°47'50.695"W	1.02	
9004.00	90.090	358.940	7333.99	1411.59	1407.45	-625.12	1697106.85	14545017.67	40°03'00.125"N	104°47'50.726"W	2.31	
9093.00	90.590	359.230	7333.46	1500.59	1496.43	-626.54	1697105.23	14545106.62	40°03'01.004"N	104°47'50.745"W	0.65	
9183.00	89.260	359.220	7333.58	1590.58	1586.42	-627.76	1697103.81	14545196.57	40°03'01.893"N	104°47'50.760"W	1.48	
9272.00	89.450	359.490	7334.58	1679.58	1675.41	-628.76	1697102.60	14545285.52	40°03'02.773"N	104°47'50.773"W	0.37	
9362.00	89.510	359.890	7335.40	1769.57	1765.41	-629.25	1697101.91	14545375.47	40°03'03.662"N	104°47'50.780"W	0.45	
9451.00	89.850	359.460	7335.90	1858.57	1854.40	-629.75	1697101.20	14545464.43	40°03'04.542"N	104°47'50.786"W	0.62	
9540.00	90.150	359.500	7335.90	1947.57	1943.40	-630.56	1697100.19	14545553.39	40°03'05.421"N	104°47'50.797"W	0.34	
9630.00	90.950	0.250	7335.03	2037.56	2033.39	-630.76	1697099.78	14545643.35	40°03'06.310"N	104°47'50.799"W	1.22	
9719.00	89.200	359.380	7334.92	2126.56	2122.39	-631.05	1697099.29	14545732.31	40°03'07.190"N	104°47'50.803"W	2.20	
9809.00	90.580	359.740	7335.09	2216.56	2212.38	-631.74	1697098.39	14545822.27	40°03'08.079"N	104°47'50.812"W	1.58	
9898.00	89.290	359.090	7335.19	2305.55	2301.38	-632.65	1697097.28	14545911.22	40°03'08.959"N	104°47'50.823"W	1.62	
9988.00	89.970	359.590	7335.77	2395.55	2391.37	-633.68	1697096.04	14546001.17	40°03'09.848"N	104°47'50.837"W	0.94	
10077.00	89.850	359.450	7335.91	2484.55	2480.36	-634.43	1697095.09	14546090.13	40°03'10.727"N	104°47'50.846"W	0.21	
10167.00	90.150	359.620	7335.91	2574.55	2570.36	-635.16	1697094.15	14546180.09	40°03'11.617"N	104°47'50.856"W	0.38	
10257.00	90.180	359.260	7335.65	2664.55	2660.36	-636.04	1697093.06	14546270.05	40°03'12.506"N	104°47'50.867"W	0.40	
10346.00	90.310	359.880	7335.27	2753.55	2749.35	-636.71	1697092.19	14546359.01	40°03'13.386"N	104°47'50.876"W	0.71	
10436.00	89.260	358.230	7335.61	2843.54	2839.34	-638.19	1697090.50	14546448.95	40°03'14.275"N	104°47'50.895"W	2.17	
10525.00	89.450	357.920	7336.61	2932.50	2928.28	-641.18	1697087.31	14546537.85	40°03'15.154"N	104°47'50.933"W	0.41	
10615.00	88.890	357.440	7337.92	3022.44	3018.20	-644.82	1697083.46	14546627.73	40°03'16.042"N	104°47'50.980"W	0.82	
10705.00	88.340	356.610	7340.09	3112.32	3108.05	-649.49	1697078.59	14546717.53	40°03'16.930"N	104°47'51.040"W	1.11	
10794.00	90.920	359.000	7340.67	3201.26	3196.97	-652.90	1697074.97	14546806.41	40°03'17.809"N	104°47'51.084"W	3.95	
10884.00	89.600	358.590	7340.26	3291.25	3286.94	-654.79	1697072.88	14546896.34	40°03'18.698"N	104°47'51.109"W	1.54	
10973.00	90.060	358.540	7340.52	3380.23	3375.91	-657.02	1697070.44	14546985.27	40°03'19.577"N	104°47'51.137"W	0.52	
11063.00	89.940	358.570	7340.52	3470.22	3465.89	-659.29	1697067.97	14547075.20	40°03'20.467"N	104°47'51.167"W	0.14	
11152.00	89.780	357.780	7340.74	3559.19	3554.84	-662.12	1697064.93	14547164.11	40°03'21.346"N	104°47'51.203"W	0.91	
11242.00	89.110	359.960	7341.61	3649.17	3644.81	-663.90	1697062.95	14547254.05	40°03'22.235"N	104°47'51.226"W	2.53	
11331.00	89.450	359.350	7342.73	3738.16	3733.80	-664.44	1697062.21	14547343.00	40°03'23.114"N	104°47'51.233"W	0.78	
11420.00	89.690	359.190	7343.40	3827.16	3822.79	-665.57	1697060.87	14547431.95	40°03'23.994"N	104°47'51.247"W	0.32	
11510.00	89.510	359.230	7344.03	3917.15	3912.78	-666.81	1697059.42	14547521.90	40°03'24.883"N	104°47'51.263"W	0.20	
11599.00	89.750	359.570	7344.60	4006.15	4001.77	-667.74	1697058.29	14547610.86	40°03'25.762"N	104°47'51.275"W	0.47	
11689.00	90.000	359.610	7344.80	4096.15	4091.77	-668.39	1697057.44	14547700.82	40°03'26.652"N	104°47'51.284"W	0.28	
11778.00	90.250	359.670	7344.60	4185.15	4180.77	-668.95	1697056.67	14547789.78	40°03'27.531"N	104°47'51.291"W	0.29	
11781.00†	90.255	359.635	7344.59	4188.15	4183.77	-668.96	1697056.65	14547792.78	40°03'27.561"N	104°47'51.291"W	1.19	ENTER RADIUS TOE (289'FNL & 1680'FEL, SEC.17) 40.0576558 -104.7975809
11868.00	90.400	358.610	7344.09	4275.14	4270.76	-670.30	1697055.12	14547879.73	40°03'28.421"N	104°47'51.308"W	1.19	
11958.00	90.680	358.690	7343.24	4365.13	4360.73	-672.42	1697052.79	14547969.66	40°03'29.310"N	104°47'51.336"W	0.32	LAST BHGE MWD+IFR1+SC SURVEY
12015.00	90.680	358.690	7342.57	4422.11	4417.71	-673.72	1697051.36	14548026.61	40°03'29.873"N	104°47'51.352"W	0.00	PTB (55'FNL & 1684'FEL, SEC.17) 40.0582980 -104.7975979

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 BUROUGH 27N-17HZ (775'FSL & 1028'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 27N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 27N-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	-14.78	1697720.19	14543612.19	40°02'46.216"N	104°47'42.878"W	polygon
BUROUGH 27N-17HZ BHL REV-1(55'FNL & 1666'FEL,SEC.17)	7320.00	4418.08	-656.11	1697068.95	14548027.02	40°03'29.876"N	104°47'51.126"W	point
BUROUGH 27N-17HZ HEEL REV-1(989'FSL & 1655'FEL,SEC.17)	7320.00	209.80	-627.95	1697106.78	14543820.49	40°02'48.289"N	104°47'50.762"W	point
BUROUGH 27N-17HZ LANDBOX	7320.00	0.00	0.00	1697734.96	14543612.22	40°02'46.216"N	104°47'42.688"W	polygon
BUROUGH 27N-17HZ RADIUS 1	7320.00	4472.38	-310.90	1697413.90	14548082.10	40°03'30.413"N	104°47'46.686"W	polygon
BUROUGH 27N-17HZ RADIUS 2	7320.00	532.78	-298.56	1697435.30	14544144.10	40°02'51.481"N	104°47'46.527"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: BUROUGH 27N-17HZ AWB				Ref Wellpath: BUROUGH 27N-17HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore
26.00	1848.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <138 - 1848>		BUROUGH 27N-17HZ AWB
1848.00	11958.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1934 - 11958>		BUROUGH 27N-17HZ AWB
11958.00	12015.00	Blind Drilling (std)	Projection to bit		BUROUGH 27N-17HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 BURGESS 27N-17HZ (775'FSL & 1028'FEL,SEC.17)
Area	COLORADO	Well	BURGESS 27N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BURGESS 27N-17HZ AWP
Facility	SEC.17-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
138.00	0.350	237.200	138.00	FIRST SURFACE MWD+IFR1 SURVEY
1848.00	19.290	233.600	1802.32	LAST SURFACE MWD+IFR1 SURVEY
1934.00	18.830	230.660	1883.60	FIRST BHGE MWD+IFR1+SC SURVEY
6671.00	1.875	354.398	6559.48	KOP
7196.00	40.873	3.541	7038.19	ENTER LANDBOX (455'FSL & 1640'FEL,SEC.17) 40.0452924 -104.7973752
7841.00	87.290	359.890	7314.76	LANDING (1020'FSL & 1634'FEL,SEC.17) 40.0468444 -104.7973558
8464.00	89.406	358.881	7338.91	EXIT RADIUS HEEL (1643'FSL & 1641'FEL,SEC.17) 40.0485530 -104.7973746
11781.00	90.255	359.635	7344.59	ENTER RADIUS TOE (289'FNL & 1680'FEL,SEC.17) 40.0576558 -104.7975809
11958.00	90.680	358.690	7343.24	LAST BHGE MWD+IFR1+SC SURVEY
12015.00	90.680	358.690	7342.57	PTB (55'FNL & 1684'FEL,SEC.17) 40.0582980 -104.7975979