

KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: RW 34N-32HZ
 Facility: SEC.29-T3N-R65W Wellbore: RW 34N-32HZ PWB

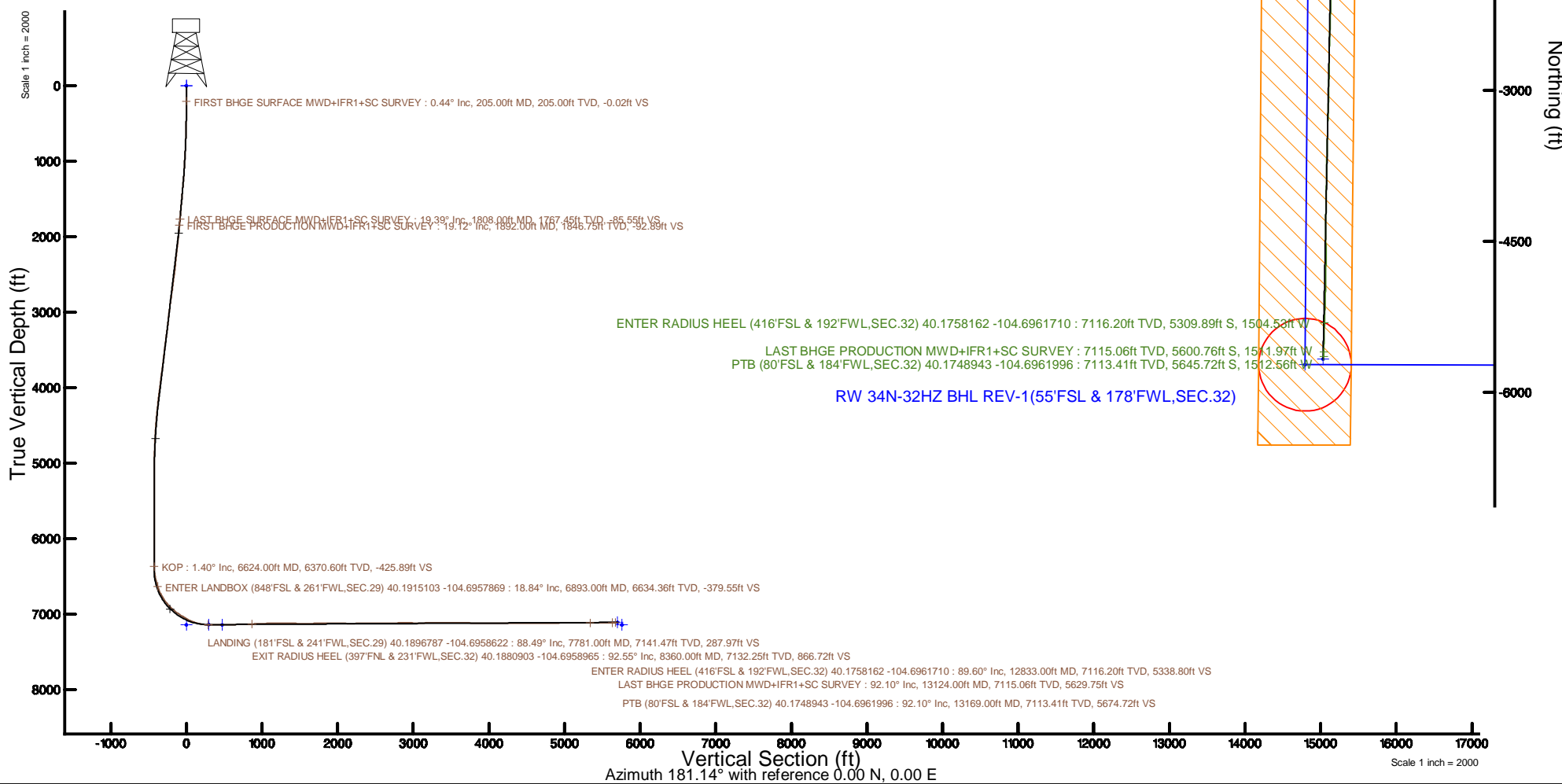
Plot reference wellpath is RW 34N-32HZ PWP Rev-B.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Xtreme 22 (17) (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Xtreme 22 (17) (RT)	North Reference: True north
Xtreme 22 (17) (RT) to Mean Sea Level: 4903 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-08-11
	Database: WA_DEN_Anadarko_Defn



Scale 1 inch = 1500
 Easting (ft)
 -7500 -6000 -4500 -3000 -1500 0

SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)

KOP : 6370.60ft TVD, 453.82ft N, 1398.29ft W
 ENTER LANDBOX (848'FSL & 261'FWL,SEC.29) 40.1915103 -104.6957869 : 88.84° Inc, 6893.00ft MD, 6634.36ft TVD, -379.55ft VS
 FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY : 1846.75ft TVD, 99.33ft N, 322.33ft W
 LAST BHGE SURFACE MWD+IFR1+SC SURVEY : 1767.45ft TVD, 91.45ft N, 295.77ft W
 FIRST BHGE SURFACE MWD+IFR1+SC SURVEY : 209.00ft TVD, 0.01ft N, 0.72ft E
 LANDING (181'FSL & 241'FWL,SEC.29) 40.1896787 -104.6958622 : 7141.47ft TVD, 259.78ft S, 1417.95ft W
 EXIT RADIUS HEEL (397'FNL & 231'FWL,SEC.32) 40.1880903 -104.6958965 : 7132.25ft TVD, 838.46ft S, 1427.58ft W



Northing (ft)

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)
Area	COLORADO	Well	RW 34N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 34N-32HZ AWB
Facility	SEC.29-T3N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999609	Report Generated	8/11/2017 at 9:30 AM
Convergence at slot	0.20° East	Database/Source file	WA_DEN_Anadarko_Defn/RW_34N-32HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-78.01	838.70	1726771.16	14596214.39	40°11'25.411"N	104°41'26.833"W
Facility Reference Pt			1725932.54	14596289.48	40°11'26.182"N	104°41'37.640"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Xtreme 22 (17') (RT) to Facility Vertical Datum	4903.00ft
Horizontal Reference Pt	Slot	Xtreme 22 (17') (RT) to Mean Sea Level	4903.00ft
Vertical Reference Pt	Xtreme 22 (17') (RT)	Xtreme 22 (17') (RT) to Mud Line at Slot (SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29))	4903.00ft
MD Reference Pt	Xtreme 22 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	181.14°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)
Area	COLORADO	Well	RW 34N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 34N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (155 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	89.560	0.00	0.00	0.00	0.00	1726771.16	14596214.39	40°11'25.411"N	104°41'26.833"W	0.00	
17.00	0.000	89.560	17.00	0.00	0.00	0.00	1726771.16	14596214.39	40°11'25.411"N	104°41'26.833"W	0.00	
205.00	0.440	89.560	205.00	-0.02	0.01	0.72	1726771.89	14596214.40	40°11'25.411"N	104°41'26.824"W	0.23	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
295.00	0.610	309.040	295.00	-0.32	0.31	0.70	1726771.86	14596214.70	40°11'25.414"N	104°41'26.824"W	1.10	
386.00	1.840	284.490	385.97	-0.96	0.98	-1.10	1726770.07	14596215.37	40°11'25.421"N	104°41'26.847"W	1.44	
476.00	3.290	290.860	475.88	-2.16	2.26	-4.91	1726766.25	14596216.64	40°11'25.433"N	104°41'26.896"W	1.64	
568.00	4.810	288.870	567.65	-4.23	4.45	-11.03	1726760.13	14596218.80	40°11'25.455"N	104°41'26.975"W	1.66	
658.00	6.500	288.390	657.21	-6.89	7.28	-19.43	1726751.72	14596221.60	40°11'25.483"N	104°41'27.083"W	1.88	
746.00	7.970	287.470	744.51	-10.08	10.68	-29.98	1726741.16	14596224.96	40°11'25.517"N	104°41'27.219"W	1.68	
834.00	9.330	288.740	831.50	-13.95	14.80	-42.55	1726728.58	14596229.04	40°11'25.557"N	104°41'27.381"W	1.56	
921.00	10.900	286.940	917.15	-18.33	19.47	-57.10	1726714.02	14596233.65	40°11'25.603"N	104°41'27.569"W	1.84	
1009.00	12.230	286.500	1003.36	-23.06	24.54	-74.00	1726697.11	14596238.66	40°11'25.653"N	104°41'27.786"W	1.51	
1096.00	13.490	286.510	1088.18	-28.19	30.04	-92.56	1726678.53	14596244.10	40°11'25.708"N	104°41'28.026"W	1.45	
1183.00	14.730	286.900	1172.55	-33.88	36.14	-112.87	1726658.21	14596250.12	40°11'25.768"N	104°41'28.287"W	1.43	
1271.00	15.790	286.370	1257.44	-40.07	42.77	-135.07	1726636.00	14596256.67	40°11'25.834"N	104°41'28.573"W	1.21	
1358.00	17.340	288.060	1340.83	-46.95	50.12	-158.75	1726612.30	14596263.94	40°11'25.906"N	104°41'28.879"W	1.87	
1446.00	18.250	286.430	1424.62	-54.40	58.08	-184.44	1726586.60	14596271.81	40°11'25.985"N	104°41'29.210"W	1.18	
1533.00	18.540	287.360	1507.18	-61.86	66.06	-210.71	1726560.31	14596279.70	40°11'26.064"N	104°41'29.548"W	0.47	
1621.00	18.660	285.970	1590.58	-69.37	74.11	-237.59	1726533.41	14596287.65	40°11'26.143"N	104°41'29.895"W	0.52	
1708.00	18.840	286.810	1672.96	-76.72	82.00	-264.42	1726506.56	14596295.44	40°11'26.221"N	104°41'30.240"W	0.37	
1808.00	19.390	286.740	1767.45	-85.55	91.45	-295.77	1726475.19	14596304.78	40°11'26.315"N	104°41'30.644"W	0.55	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1892.00	19.120	286.270	1846.75	-92.89	99.33	-322.33	1726448.61	14596312.56	40°11'26.393"N	104°41'30.986"W	0.37	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
1980.00	20.340	285.060	1929.58	-100.33	107.34	-350.94	1726419.99	14596320.47	40°11'26.472"N	104°41'31.355"W	1.46	
2067.00	21.790	285.640	2010.77	-108.01	115.62	-381.09	1726389.82	14596328.64	40°11'26.554"N	104°41'31.744"W	1.68	
2155.00	23.190	287.710	2092.07	-117.04	125.29	-413.33	1726357.57	14596338.20	40°11'26.649"N	104°41'32.159"W	1.83	
2242.00	22.610	286.470	2172.22	-126.34	135.25	-445.68	1726325.19	14596348.03	40°11'26.747"N	104°41'32.576"W	0.87	
2330.00	22.200	284.850	2253.57	-134.76	144.30	-477.97	1726292.88	14596356.97	40°11'26.837"N	104°41'32.992"W	0.84	
2417.00	22.470	284.360	2334.05	-142.45	152.64	-509.97	1726260.87	14596365.20	40°11'26.919"N	104°41'33.404"W	0.38	
2505.00	23.020	286.690	2415.21	-150.91	161.75	-542.74	1726228.08	14596374.19	40°11'27.009"N	104°41'33.827"W	1.20	
2593.00	22.730	289.920	2496.29	-161.00	172.49	-575.21	1726195.59	14596384.81	40°11'27.115"N	104°41'34.245"W	1.46	
2680.00	22.080	290.460	2576.72	-171.82	183.93	-606.33	1726164.44	14596396.14	40°11'27.229"N	104°41'34.646"W	0.78	
2768.00	21.000	288.770	2658.57	-182.07	194.78	-636.76	1726133.98	14596406.88	40°11'27.336"N	104°41'35.038"W	1.42	
2855.00	21.530	291.560	2739.65	-192.36	205.67	-666.37	1726104.35	14596417.66	40°11'27.443"N	104°41'35.420"W	1.31	
2942.00	22.670	291.550	2820.26	-203.77	217.69	-696.81	1726073.88	14596429.57	40°11'27.562"N	104°41'35.812"W	1.31	
3029.00	22.390	291.060	2900.62	-215.27	229.80	-727.86	1726042.79	14596441.57	40°11'27.682"N	104°41'36.212"W	0.39	
3117.00	21.690	289.640	2982.19	-226.14	241.29	-758.82	1726011.81	14596452.95	40°11'27.795"N	104°41'36.611"W	1.00	
3200.00	20.190	288.240	3087.72	-238.49	254.42	-797.01	1725973.59	14596465.93	40°11'27.925"N	104°41'37.103"W	1.40	
3318.00	19.990	287.520	3170.37	-247.20	263.70	-825.78	1725944.80	14596475.11	40°11'28.017"N	104°41'37.474"W	0.36	
3405.00	21.570	291.060	3251.71	-256.84	273.92	-854.89	1725915.67	14596485.23	40°11'28.118"N	104°41'37.849"W	2.32	
3493.00	23.100	291.330	3333.11	-268.31	286.01	-886.06	1725884.46	14596497.21	40°11'28.237"N	104°41'38.250"W	1.74	
3581.00	21.600	289.080	3414.49	-279.26	297.59	-917.45	1725853.04	14596508.67	40°11'28.352"N	104°41'38.655"W	1.96	
3668.00	20.540	288.730	3495.68	-288.81	307.73	-947.04	1725823.43	14596518.70	40°11'28.452"N	104°41'39.036"W	1.23	
3757.00	21.170	289.090	3578.84	-298.48	317.99	-977.02	1725793.43	14596528.86	40°11'28.553"N	104°41'39.422"W	0.72	
3844.00	21.750	288.000	3659.81	-307.99	328.11	-1007.19	1725763.23	14596538.87	40°11'28.653"N	104°41'39.811"W	0.81	
3932.00	22.520	288.840	3741.33	-317.84	338.59	-1038.65	1725731.75	14596549.24	40°11'28.757"N	104°41'40.217"W	0.95	

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)
Area	COLORADO	Well	RW 34N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 34N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (155 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
4020.00	23.570	290.090	3822.30	-328.68	350.08	-1071.12	1725699.25	14596560.60	40°11'28.870"N	104°41'40.635"W	1.32	
4106.00	21.990	288.360	3901.59	-339.03	361.06	-1102.55	1725667.79	14596571.47	40°11'28.979"N	104°41'41.040"W	2.00	
4193.00	23.340	289.300	3981.87	-349.23	371.89	-1134.28	1725636.04	14596582.18	40°11'29.086"N	104°41'41.449"W	1.61	
4281.00	23.580	289.160	4062.60	-360.10	383.42	-1167.36	1725602.94	14596593.60	40°11'29.200"N	104°41'41.875"W	0.28	
4368.00	22.490	287.640	4142.66	-370.21	394.18	-1199.66	1725570.62	14596604.24	40°11'29.306"N	104°41'42.291"W	1.43	
4456.00	20.930	286.120	4224.42	-379.06	403.64	-1230.80	1725539.45	14596613.59	40°11'29.400"N	104°41'42.693"W	1.88	
4543.00	18.640	286.950	4306.28	-386.86	412.01	-1259.03	1725511.20	14596621.86	40°11'29.482"N	104°41'43.056"W	2.65	
4631.00	17.860	288.780	4389.85	-394.78	420.46	-1285.26	1725484.96	14596630.21	40°11'29.566"N	104°41'43.394"W	1.10	
4718.00	16.110	288.740	4473.05	-402.47	428.63	-1309.32	1725460.87	14596638.29	40°11'29.646"N	104°41'43.705"W	2.01	
4806.00	13.710	284.240	4558.09	-408.53	435.12	-1331.00	1725439.19	14596644.71	40°11'29.711"N	104°41'43.984"W	3.03	
4894.00	12.010	284.870	4643.88	-413.07	440.04	-1349.95	1725420.22	14596649.55	40°11'29.759"N	104°41'44.228"W	1.94	
4981.00	9.510	285.720	4729.34	-417.02	444.31	-1365.62	1725404.54	14596653.77	40°11'29.801"N	104°41'44.430"W	2.88	
5069.00	6.750	291.040	4816.45	-420.62	448.13	-1377.45	1725392.70	14596657.55	40°11'29.839"N	104°41'44.582"W	3.25	
5156.00	4.460	292.750	4903.03	-423.60	451.28	-1385.34	1725384.80	14596660.67	40°11'29.870"N	104°41'44.684"W	2.64	
5243.00	2.810	276.680	4989.85	-425.05	452.83	-1390.58	1725379.56	14596662.20	40°11'29.886"N	104°41'44.752"W	2.21	
5331.00	1.480	240.770	5077.79	-424.69	452.53	-1393.71	1725376.43	14596661.89	40°11'29.883"N	104°41'44.792"W	2.08	
5418.00	1.010	131.070	5164.78	-423.63	451.48	-1394.12	1725376.03	14596660.84	40°11'29.872"N	104°41'44.797"W	2.36	
5506.00	1.560	79.000	5252.76	-423.38	451.20	-1392.36	1725377.79	14596660.56	40°11'29.869"N	104°41'44.775"W	1.40	
5593.00	1.850	69.290	5339.72	-424.15	451.92	-1389.88	1725380.27	14596661.29	40°11'29.876"N	104°41'44.743"W	0.47	
5681.00	0.730	23.460	5427.70	-425.20	452.94	-1388.33	1725381.81	14596662.31	40°11'29.887"N	104°41'44.723"W	1.64	
5768.00	0.590	4.300	5514.69	-426.16	453.89	-1388.07	1725382.06	14596663.27	40°11'29.896"N	104°41'44.719"W	0.30	
5855.00	0.490	13.610	5601.69	-426.97	454.70	-1387.95	1725382.18	14596664.08	40°11'29.904"N	104°41'44.718"W	0.15	
5943.00	0.470	267.220	5689.69	-427.31	455.05	-1388.23	1725381.91	14596664.42	40°11'29.907"N	104°41'44.721"W	0.87	
6031.00	0.780	264.150	5777.68	-427.22	454.97	-1389.18	1725380.95	14596664.34	40°11'29.907"N	104°41'44.734"W	0.35	
6118.00	1.020	271.220	5864.67	-427.14	454.92	-1390.55	1725379.59	14596664.29	40°11'29.906"N	104°41'44.751"W	0.30	
6206.00	1.100	267.680	5952.66	-427.09	454.91	-1392.17	1725377.96	14596664.27	40°11'29.906"N	104°41'44.772"W	0.12	
6293.00	1.050	266.360	6039.64	-426.98	454.82	-1393.80	1725376.34	14596664.18	40°11'29.905"N	104°41'44.793"W	0.06	
6381.00	0.980	267.560	6127.63	-426.86	454.74	-1395.36	1725374.78	14596664.09	40°11'29.904"N	104°41'44.813"W	0.08	
6468.00	1.030	269.890	6214.61	-426.80	454.71	-1396.88	1725373.26	14596664.05	40°11'29.904"N	104°41'44.833"W	0.07	
6556.00	0.390	263.930	6302.61	-426.75	454.67	-1397.97	1725372.17	14596664.02	40°11'29.904"N	104°41'44.847"W	0.73	
6624.00†	1.399	185.933	6370.60	-425.89	453.82	-1398.29	1725371.85	14596663.17	40°11'29.895"N	104°41'44.851"W	2.02	KOP
6643.00	1.770	182.480	6389.59	-425.36	453.30	-1398.33	1725371.82	14596662.64	40°11'29.890"N	104°41'44.851"W	2.02	
6731.00	8.010	180.050	6477.23	-417.87	445.80	-1398.39	1725371.78	14596655.15	40°11'29.816"N	104°41'44.852"W	7.09	
6818.00	14.440	176.310	6562.52	-400.98	428.90	-1397.70	1725372.53	14596638.25	40°11'29.649"N	104°41'44.843"W	7.43	
6893.00†	18.844	179.021	6634.36	-379.55	407.45	-1396.89	1725373.42	14596616.81	40°11'29.437"N	104°41'44.833"W	5.96	ENTER LANDBOX (848'FSL & 261'FWL,SEC.29) 40.1915103 -104.6957869
6906.00	19.610	179.370	6646.64	-375.27	403.16	-1396.83	1725373.49	14596612.53	40°11'29.395"N	104°41'44.832"W	5.96	
6993.00	25.970	185.030	6726.81	-341.63	369.55	-1398.34	1725372.10	14596578.93	40°11'29.063"N	104°41'44.852"W	7.72	
7081.00	33.460	182.950	6803.19	-298.10	326.07	-1401.28	1725369.31	14596535.45	40°11'28.633"N	104°41'44.889"W	8.59	
7168.00	41.970	181.400	6871.95	-244.94	272.94	-1403.23	1725367.55	14596482.33	40°11'28.108"N	104°41'44.915"W	9.84	
7255.00	48.030	182.690	6933.44	-183.46	211.49	-1405.46	1725365.53	14596420.90	40°11'27.501"N	104°41'44.943"W	7.04	
7343.00	54.200	182.420	6988.66	-115.01	143.09	-1408.50	1725362.72	14596352.52	40°11'26.825"N	104°41'44.982"W	7.02	
7431.00	59.300	182.590	7036.89	-41.47	69.59	-1411.72	1725359.76	14596279.04	40°11'26.098"N	104°41'45.024"W	5.80	
7519.00	63.680	180.490	7078.89	35.84	-7.68	-1413.77	1725357.98	14596201.79	40°11'25.335"N	104°41'45.050"W	5.40	
7607.00	71.400	179.880	7112.48	117.09	-88.95	-1414.02	1725358.02	14596120.56	40°11'24.532"N	104°41'45.053"W	8.80	
7694.00	80.800	180.860	7133.36	201.44	-173.30	-1414.58	1725357.75	14596036.24	40°11'23.698"N	104°41'45.060"W	10.86	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)
Area	COLORADO	Well	RW 34N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 34N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (155 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
7781.00	88.490	183.590	7141.47	287.97	-259.78	-1417.95	1725354.68	14595949.78	40°11'22.843"N	104°41'45.104"W	9.37	LANDING (181'FSL & 241'FWL,SEC.29) 40.1896787 -104.6958622
7869.00	89.820	181.900	7142.77	375.92	-347.67	-1422.17	1725350.77	14595861.91	40°11'21.975"N	104°41'45.158"W	2.44	
7956.00	90.710	181.840	7142.37	462.91	-434.62	-1425.01	1725348.24	14595774.99	40°11'21.116"N	104°41'45.195"W	1.03	
8044.00	91.660	180.160	7140.55	550.89	-522.58	-1426.54	1725347.01	14595687.05	40°11'20.246"N	104°41'45.214"W	2.19	
8131.00	91.230	179.870	7138.36	637.84	-609.55	-1426.57	1725347.29	14595600.12	40°11'19.387"N	104°41'45.215"W	0.60	
8219.00	91.050	180.110	7136.60	725.81	-697.54	-1426.55	1725347.61	14595512.17	40°11'18.518"N	104°41'45.214"W	0.34	
8306.00	91.910	180.430	7134.36	812.77	-784.51	-1426.96	1725347.51	14595425.23	40°11'17.658"N	104°41'45.219"W	1.05	
8360.00†	92.554	180.896	7132.25	866.72	-838.46	-1427.58	1725347.07	14595371.30	40°11'17.125"N	104°41'45.228"W	1.47	EXIT RADIUS HEEL (397'FNL & 231'FWL,SEC.32) 40.1880903 -104.6958965
8394.00	92.960	181.190	7130.62	900.68	-872.42	-1428.20	1725346.57	14595337.35	40°11'16.789"N	104°41'45.235"W	1.47	
8481.00	91.820	180.460	7126.99	987.60	-959.33	-1429.45	1725345.62	14595250.47	40°11'15.931"N	104°41'45.252"W	1.56	
8569.00	91.730	180.550	7124.26	1075.56	-1047.28	-1430.23	1725345.15	14595162.55	40°11'15.061"N	104°41'45.261"W	0.14	
8657.00	90.550	181.700	7122.51	1163.54	-1135.25	-1431.96	1725343.73	14595074.61	40°11'14.192"N	104°41'45.284"W	1.87	
8744.00	90.520	181.450	7121.70	1250.53	-1222.21	-1434.35	1725341.64	14594987.68	40°11'13.333"N	104°41'45.314"W	0.29	
8832.00	88.490	179.770	7122.46	1338.51	-1310.19	-1435.28	1725341.01	14594899.73	40°11'12.463"N	104°41'45.326"W	2.99	
8919.00	89.080	179.530	7124.31	1425.46	-1397.17	-1434.75	1725341.85	14594812.78	40°11'11.604"N	104°41'45.319"W	0.73	
9007.00	89.780	178.850	7125.18	1513.41	-1485.16	-1433.51	1725343.40	14594724.84	40°11'10.734"N	104°41'45.303"W	1.11	
9094.00	90.370	180.940	7125.07	1600.38	-1572.15	-1433.35	1725343.86	14594637.88	40°11'09.875"N	104°41'45.301"W	2.50	
9181.00	90.150	182.150	7124.67	1687.38	-1659.12	-1435.70	1725341.82	14594550.94	40°11'09.015"N	104°41'45.331"W	1.41	
9269.00	90.890	182.270	7123.87	1775.36	-1747.05	-1439.09	1725338.73	14594463.03	40°11'08.146"N	104°41'45.375"W	0.85	
9356.00	89.820	181.100	7123.34	1862.35	-1834.01	-1441.65	1725336.48	14594376.10	40°11'07.287"N	104°41'45.408"W	1.82	
9444.00	90.550	180.380	7123.05	1950.35	-1922.00	-1442.78	1725335.65	14594288.14	40°11'06.417"N	104°41'45.423"W	1.17	
9531.00	88.890	180.910	7123.48	2037.34	-2008.99	-1443.76	1725334.97	14594201.18	40°11'05.558"N	104°41'45.435"W	2.00	
9619.00	89.510	180.520	7124.71	2125.33	-2096.97	-1444.86	1725334.18	14594113.23	40°11'04.688"N	104°41'45.449"W	0.83	
9706.00	90.340	179.870	7124.82	2212.31	-2183.97	-1445.16	1725334.19	14594026.26	40°11'03.829"N	104°41'45.453"W	1.21	
9794.00	91.020	181.330	7123.77	2300.30	-2271.96	-1446.08	1725333.57	14593938.31	40°11'02.959"N	104°41'45.465"W	1.83	
9881.00	90.180	182.670	7122.86	2387.28	-2358.89	-1449.11	1725330.84	14593851.40	40°11'02.100"N	104°41'45.504"W	1.82	
9969.00	91.230	181.840	7121.78	2475.26	-2446.82	-1452.58	1725327.69	14593763.49	40°11'01.231"N	104°41'45.548"W	1.52	
10057.00	89.910	181.520	7120.91	2563.25	-2534.77	-1455.16	1725325.41	14593675.57	40°11'00.362"N	104°41'45.581"W	1.54	
10144.00	90.460	181.220	7120.62	2650.25	-2621.75	-1457.24	1725323.64	14593588.62	40°10'59.502"N	104°41'45.608"W	0.72	
10231.00	91.630	180.360	7119.04	2737.23	-2708.72	-1458.44	1725322.74	14593501.67	40°10'58.643"N	104°41'45.624"W	1.67	
10319.00	89.820	180.900	7117.92	2825.21	-2796.71	-1459.40	1725322.08	14593413.72	40°10'57.774"N	104°41'45.636"W	2.15	
10406.00	90.400	180.660	7117.76	2912.21	-2883.70	-1460.59	1725321.20	14593326.76	40°10'56.914"N	104°41'45.651"W	0.72	
10494.00	89.260	181.670	7118.02	3000.21	-2971.68	-1462.38	1725319.72	14593238.81	40°10'56.044"N	104°41'45.674"W	1.73	
10582.00	90.060	181.170	7118.54	3088.20	-3059.65	-1464.56	1725317.84	14593150.87	40°10'55.175"N	104°41'45.702"W	1.07	
10669.00	91.110	180.730	7117.65	3175.20	-3146.63	-1466.00	1725316.71	14593063.92	40°10'54.316"N	104°41'45.721"W	1.31	
10757.00	89.820	181.960	7116.94	3263.19	-3234.60	-1468.06	1725314.95	14592975.98	40°10'53.446"N	104°41'45.747"W	2.03	
10844.00	90.770	181.950	7116.49	3350.18	-3321.55	-1471.03	1725312.28	14592889.05	40°10'52.587"N	104°41'45.785"W	1.09	
10932.00	89.320	181.570	7116.42	3438.17	-3409.50	-1473.74	1725309.89	14592801.12	40°10'51.718"N	104°41'45.820"W	1.70	
11019.00	89.600	181.480	7117.24	3525.17	-3496.47	-1476.05	1725307.88	14592714.18	40°10'50.858"N	104°41'45.850"W	0.34	
11106.00	90.740	181.350	7116.98	3612.16	-3583.44	-1478.20	1725306.03	14592627.24	40°10'49.999"N	104°41'45.878"W	1.32	
11194.00	89.010	181.960	7117.17	3700.16	-3671.40	-1480.74	1725303.80	14592539.31	40°10'49.130"N	104°41'45.910"W	2.08	
11282.00	88.860	180.820	7118.81	3788.14	-3759.36	-1482.87	1725301.97	14592451.38	40°10'48.261"N	104°41'45.938"W	1.31	
11369.00	88.950	180.710	7120.47	3875.12	-3846.33	-1484.04	1725301.11	14592364.43	40°10'47.401"N	104°41'45.953"W	0.16	
11456.00	89.880	181.170	7121.36	3962.11	-3933.31	-1485.46	1725299.99	14592277.48	40°10'46.542"N	104°41'45.971"W	1.19	
11544.00	91.080	180.520	7120.62	4050.11	-4021.30	-1486.76	1725299.00	14592189.52	40°10'45.672"N	104°41'45.988"W	1.55	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)
Area	COLORADO	Well	RW 34N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 34N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (155 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
11631.00	89.750	181.310	7119.99	4137.10	-4108.28	-1488.15	1725297.91	14592102.57	40°10'44.812"N	104°41'46.005"W	1.78	
11719.00	90.830	181.220	7119.55	4225.10	-4196.26	-1490.09	1725296.28	14592014.62	40°10'43.943"N	104°41'46.030"W	1.23	
11806.00	90.430	180.900	7118.59	4312.09	-4283.24	-1491.70	1725294.97	14591927.67	40°10'43.084"N	104°41'46.051"W	0.59	
11894.00	88.370	179.800	7119.51	4400.07	-4371.23	-1492.24	1725294.74	14591839.72	40°10'42.214"N	104°41'46.058"W	2.65	
11982.00	89.230	179.460	7121.36	4488.02	-4459.20	-1491.67	1725295.61	14591751.78	40°10'41.345"N	104°41'46.050"W	1.05	
12069.00	90.370	178.350	7121.66	4574.95	-4546.19	-1490.01	1725297.58	14591664.84	40°10'40.485"N	104°41'46.029"W	1.83	
12157.00	89.970	180.010	7121.40	4662.90	-4634.17	-1488.75	1725299.14	14591576.89	40°10'39.616"N	104°41'46.013"W	1.94	
12244.00	90.250	181.740	7121.23	4749.89	-4721.16	-1490.08	1725298.12	14591489.93	40°10'38.756"N	104°41'46.030"W	2.01	
12332.00	90.860	181.520	7120.38	4837.89	-4809.12	-1492.58	1725295.92	14591402.00	40°10'37.887"N	104°41'46.062"W	0.74	
12419.00	91.970	180.290	7118.23	4924.86	-4896.08	-1493.96	1725294.85	14591315.07	40°10'37.027"N	104°41'46.080"W	1.90	
12506.00	90.920	181.290	7116.04	5011.83	-4983.04	-1495.15	1725293.95	14591228.14	40°10'36.168"N	104°41'46.095"W	1.67	
12593.00	89.010	181.500	7116.09	5098.82	-5070.01	-1497.27	1725292.14	14591141.20	40°10'35.309"N	104°41'46.122"W	2.21	
12681.00	89.880	181.960	7116.94	5186.81	-5157.97	-1499.93	1725289.79	14591053.27	40°10'34.439"N	104°41'46.156"W	1.12	
12768.00	90.800	181.590	7116.43	5273.80	-5244.92	-1502.62	1725287.40	14590966.34	40°10'33.580"N	104°41'46.191"W	1.14	
12833.00†	89.605	181.777	7116.20	5338.80	-5309.89	-1504.53	1725285.72	14590901.39	40°10'32.938"N	104°41'46.215"W	1.86	ENTER RADIUS HEEL (416'FSL & 192'FWL,SEC.32) 40.1758162 -104.6961710
12855.00	89.200	181.840	7116.43	5360.80	-5331.88	-1505.23	1725285.10	14590879.40	40°10'32.721"N	104°41'46.224"W	1.86	
12943.00	89.660	181.870	7117.30	5448.78	-5419.83	-1508.08	1725282.56	14590791.48	40°10'31.852"N	104°41'46.261"W	0.52	
13030.00	90.490	181.180	7117.19	5535.78	-5506.80	-1510.39	1725280.55	14590704.54	40°10'30.992"N	104°41'46.291"W	1.24	
13124.00	92.100	180.750	7115.06	5629.75	-5600.76	-1511.97	1725279.29	14590610.61	40°10'30.064"N	104°41'46.311"W	1.77	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
13169.00	92.100	180.750	7113.41	5674.72	-5645.72	-1512.56	1725278.86	14590565.66	40°10'29.619"N	104°41'46.319"W	0.00	PTB (80'FSL & 184'FWL,SEC.32) 40.1748943 -104.6961996

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.29-T3N-R65W	1.00	0.40	-45.01	1726726.17	14596214.64	40°11'25.415"N	104°41'27.413"W	polygon
SEC.32-T3N-R65W	1.00	0.40	-45.01	1726726.17	14596214.64	40°11'25.415"N	104°41'27.413"W	polygon
RW 34N-32HZ BHL REV-1(55'FSL & 178'FWL,SEC.32)	7110.00	-5671.37	-1519.35	1725272.17	14590540.00	40°10'29.366"N	104°41'46.406"W	point
RW 34N-32HZ HEEL REV-1(173'FSL & 246'FWL,SEC.29)	7140.00	-265.90	-1411.76	1725360.90	14595943.69	40°11'22.783"N	104°41'45.024"W	point
RW 34N-32HZ LANDBOX	7143.00	0.00	0.00	1726771.16	14596214.39	40°11'25.411"N	104°41'26.833"W	polygon
RW 34N-32HZ RADIUS 1	7143.00	-438.40	-1656.95	1725116.40	14595770.40	40°11'21.078"N	104°41'48.183"W	polygon
RW 34N-32HZ RADIUS 2	7143.00	-5726.07	-1697.78	1725094.00	14590484.70	40°10'28.825"N	104°41'48.705"W	polygon

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)
Area	COLORADO	Well	RW 34N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 34N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH COMPOSITION - Ref Wellbore: RW 34N-32HZ AWB Ref Wellpath: RW 34N-32HZ AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment	Wellbore
17.00	1808.00	Custom APC	ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <205 - 1808>	RW 34N-32HZ AWB
1808.00	13124.00	Custom APC	ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1892 - 13124>	RW 34N-32HZ AWB
13124.00	13169.00	Blind Drilling	(std)	Projection to bit	RW 34N-32HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 RW 34N-32HZ(441'FSL & 1659'FWL,SEC.29)
Area	COLORADO	Well	RW 34N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 34N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
205.00	0.440	89.560	205.00	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
1808.00	19.390	286.740	1767.45	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1892.00	19.120	286.270	1846.75	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
6624.00	1.399	185.933	6370.60	KOP
6893.00	18.844	179.021	6634.36	ENTER LANDBOX (848'FSL & 261'FWL,SEC.29) 40.1915103 -104.6957869
7781.00	88.490	183.590	7141.47	LANDING (181'FSL & 241'FWL,SEC.29) 40.1896787 -104.6958622
8360.00	92.554	180.896	7132.25	EXIT RADIUS HEEL (397'FNL & 231'FWL,SEC.32) 40.1880903 -104.6958965
12833.00	89.605	181.777	7116.20	ENTER RADIUS HEEL (416'FSL & 192'FWL,SEC.32) 40.1758162 -104.6961710
13124.00	92.100	180.750	7115.06	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
13169.00	92.100	180.750	7113.41	PTB (80'FSL & 184'FWL,SEC.32) 40.1748943 -104.6961996