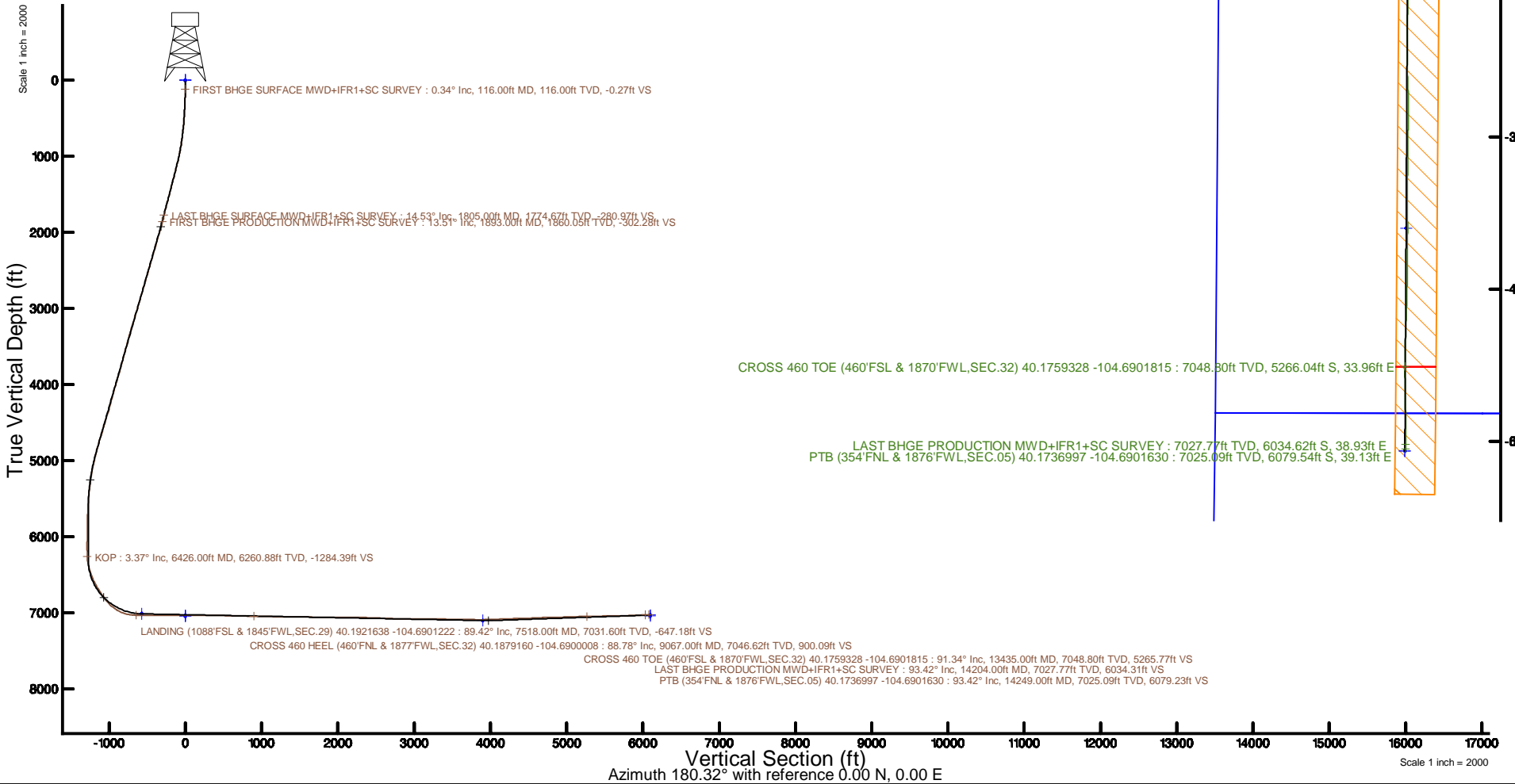


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: RW 14N-32HZ
 Facility: SEC.29-T3N-R65W Wellbore: RW 14N-32HZ PWB

Plot reference wellpath is RW 14N-32HZ PWB 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#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-09-08
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)
Area	COLORADO	Well	RW 14N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 14N-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	9/8/2017 at 9:26 AM
Convergence at slot	0.20° East	Database/Source file	WA_DEN_Anadarko_Defn/RW_14N-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	-79.42	973.89	1726906.31	14596213.45	40°11'25.397"N	104°41'25.091"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#45 RW 14N-32HZ(441'FSL & 1794'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	180.32°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)
Area	COLORADO	Well	RW 14N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 14N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (168 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	23.070	0.00	0.00	0.00	0.00	1726906.31	14596213.45	40°11'25.397"N	104°41'25.091"W	0.00	
17.00	0.000	23.070	17.00	0.00	0.00	0.00	1726906.31	14596213.45	40°11'25.397"N	104°41'25.091"W	0.00	
116.00	0.340	23.070	116.00	-0.27	0.27	0.12	1726906.42	14596213.72	40°11'25.400"N	104°41'25.090"W	0.34	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
211.00	1.460	10.380	210.99	-1.72	1.72	0.44	1726906.74	14596215.17	40°11'25.414"N	104°41'25.085"W	1.19	
301.00	2.250	17.800	300.94	-4.54	4.53	1.19	1726907.48	14596217.98	40°11'25.442"N	104°41'25.076"W	0.92	
392.00	3.460	12.440	391.82	-8.93	8.91	2.33	1726908.60	14596222.36	40°11'25.485"N	104°41'25.061"W	1.36	
483.00	3.850	9.210	482.64	-14.63	14.61	3.41	1726909.66	14596228.06	40°11'25.541"N	104°41'25.047"W	0.48	
574.00	4.740	7.550	573.38	-21.38	21.35	4.39	1726910.62	14596234.81	40°11'25.608"N	104°41'25.034"W	0.99	
665.00	6.070	6.810	663.98	-29.89	29.86	5.46	1726911.66	14596243.31	40°11'25.692"N	104°41'25.021"W	1.46	
752.00	7.340	1.580	750.38	-40.01	39.98	6.15	1726912.32	14596253.43	40°11'25.792"N	104°41'25.012"W	1.62	
839.00	9.110	357.900	836.48	-52.45	52.42	6.06	1726912.18	14596265.87	40°11'25.915"N	104°41'25.013"W	2.12	
927.00	11.170	359.770	923.10	-67.94	67.91	5.77	1726911.83	14596281.35	40°11'26.068"N	104°41'25.017"W	2.37	
1015.00	12.320	359.730	1009.26	-85.85	85.82	5.69	1726911.69	14596299.25	40°11'26.245"N	104°41'25.018"W	1.31	
1102.00	13.750	359.800	1094.02	-105.47	105.44	5.61	1726911.54	14596318.87	40°11'26.439"N	104°41'25.019"W	1.64	
1189.00	13.850	1.580	1178.50	-126.22	126.19	5.86	1726911.72	14596339.61	40°11'26.644"N	104°41'25.016"W	0.50	
1277.00	14.470	4.690	1263.83	-147.71	147.68	7.05	1726912.84	14596361.09	40°11'26.856"N	104°41'25.000"W	1.12	
1364.00	14.370	4.610	1348.09	-169.32	169.27	8.80	1726914.52	14596382.68	40°11'27.070"N	104°41'24.978"W	0.12	
1452.00	14.290	4.790	1433.35	-191.03	190.98	10.59	1726916.22	14596404.39	40°11'27.284"N	104°41'24.955"W	0.10	
1539.00	15.260	3.510	1517.48	-213.17	213.11	12.19	1726917.74	14596426.51	40°11'27.503"N	104°41'24.934"W	1.18	
1627.00	14.940	3.340	1602.44	-236.06	235.99	13.56	1726919.03	14596449.39	40°11'27.729"N	104°41'24.916"W	0.37	
1714.00	14.520	1.320	1686.58	-258.17	258.09	14.46	1726919.86	14596471.48	40°11'27.947"N	104°41'24.905"W	0.76	
1805.00	14.530	2.960	1774.67	-280.97	280.89	15.31	1726920.63	14596494.28	40°11'28.173"N	104°41'24.894"W	0.45	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1893.00	13.510	359.900	1860.05	-302.28	302.20	15.87	1726921.11	14596515.58	40°11'28.383"N	104°41'24.887"W	1.43	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
1980.00	14.870	3.170	1944.39	-323.59	323.51	16.47	1726921.64	14596536.88	40°11'28.594"N	104°41'24.879"W	1.81	
2068.00	16.300	4.900	2029.16	-347.18	347.09	18.14	1726923.23	14596560.46	40°11'28.827"N	104°41'24.857"W	1.71	
2155.00	15.610	4.250	2112.80	-371.03	370.93	20.06	1726925.06	14596584.29	40°11'29.062"N	104°41'24.833"W	0.82	
2243.00	16.390	3.630	2197.39	-395.24	395.12	21.72	1726926.64	14596608.49	40°11'29.302"N	104°41'24.811"W	0.91	
2331.00	15.590	2.770	2281.99	-419.45	419.33	23.08	1726927.91	14596632.69	40°11'29.541"N	104°41'24.794"W	0.95	
2418.00	16.660	4.260	2365.57	-443.57	443.44	24.57	1726929.32	14596656.80	40°11'29.779"N	104°41'24.774"W	1.32	
2506.00	15.400	3.020	2450.14	-467.83	467.69	26.12	1726930.78	14596681.04	40°11'30.019"N	104°41'24.754"W	1.48	
2593.00	16.650	6.080	2533.76	-491.77	491.62	28.05	1726932.63	14596704.97	40°11'30.255"N	104°41'24.730"W	1.73	
2681.00	15.730	5.560	2618.27	-516.19	516.03	30.54	1726935.03	14596729.38	40°11'30.496"N	104°41'24.697"W	1.06	
2768.00	16.760	6.180	2701.80	-540.41	540.24	33.03	1726937.44	14596753.59	40°11'30.736"N	104°41'24.665"W	1.20	
2855.00	16.660	5.090	2785.12	-565.32	565.13	35.49	1726939.81	14596778.48	40°11'30.982"N	104°41'24.634"W	0.38	
2943.00	16.280	4.220	2869.51	-590.20	590.00	37.52	1726941.75	14596803.34	40°11'31.227"N	104°41'24.608"W	0.51	
3030.00	15.800	4.210	2953.12	-614.18	613.97	39.28	1726943.43	14596827.31	40°11'31.464"N	104°41'24.585"W	0.55	
3118.00	17.480	4.640	3037.44	-639.31	639.09	41.23	1726945.29	14596852.43	40°11'31.713"N	104°41'24.560"W	1.91	
3230.00	15.850	4.420	3144.73	-671.34	671.11	43.77	1726947.72	14596884.44	40°11'32.029"N	104°41'24.527"W	1.46	
3317.00	17.450	3.290	3228.08	-696.22	695.98	45.44	1726949.30	14596909.31	40°11'32.275"N	104°41'24.506"W	1.88	
3405.00	15.700	0.380	3312.42	-721.31	721.06	46.27	1726950.05	14596934.38	40°11'32.523"N	104°41'24.495"W	2.20	
3492.00	15.160	357.500	3396.29	-744.44	744.20	45.85	1726949.55	14596957.51	40°11'32.751"N	104°41'24.500"W	1.08	
3580.00	15.060	359.710	3481.24	-767.37	767.13	45.29	1726948.91	14596980.43	40°11'32.978"N	104°41'24.507"W	0.66	
3668.00	16.350	4.500	3565.96	-791.15	790.91	46.21	1726949.74	14597004.20	40°11'33.213"N	104°41'24.496"W	2.08	
3756.00	13.960	4.610	3650.89	-814.10	813.84	48.03	1726951.48	14597027.13	40°11'33.439"N	104°41'24.472"W	2.72	
3844.00	14.540	6.110	3736.19	-835.67	835.41	50.06	1726953.44	14597048.69	40°11'33.652"N	104°41'24.446"W	0.78	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)
Area	COLORADO	Well	RW 14N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 14N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (168 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
3931.00	15.520	6.130	3820.21	-858.12	857.84	52.47	1726955.76	14597071.13	40°11'33.874"N	104°41'24.415"W	1.13	
4019.00	17.200	9.430	3904.64	-882.68	882.38	55.86	1726959.06	14597095.67	40°11'34.117"N	104°41'24.371"W	2.18	
4105.00	17.060	8.690	3986.83	-907.72	907.40	59.85	1726962.97	14597120.69	40°11'34.364"N	104°41'24.320"W	0.30	
4193.00	16.470	7.590	4071.09	-932.86	932.52	63.44	1726966.47	14597145.82	40°11'34.612"N	104°41'24.273"W	0.76	
4280.00	14.610	6.950	4154.90	-956.00	955.64	66.40	1726969.35	14597168.94	40°11'34.841"N	104°41'24.235"W	2.15	
4368.00	14.000	0.920	4240.18	-977.66	977.30	67.92	1726970.79	14597190.60	40°11'35.055"N	104°41'24.216"W	1.83	
4455.00	15.720	6.770	4324.27	-999.90	999.53	69.47	1726972.27	14597212.82	40°11'35.274"N	104°41'24.196"W	2.62	
4543.00	17.930	7.550	4408.50	-1025.19	1024.80	72.66	1726975.36	14597238.09	40°11'35.524"N	104°41'24.155"W	2.52	
4630.00	16.970	6.700	4491.50	-1051.09	1050.69	75.90	1726978.51	14597263.98	40°11'35.780"N	104°41'24.113"W	1.14	
4718.00	16.030	5.730	4575.87	-1075.95	1075.53	78.61	1726981.14	14597288.82	40°11'36.025"N	104°41'24.078"W	1.11	
4805.00	17.820	2.880	4659.10	-1101.21	1100.78	80.48	1726982.92	14597314.07	40°11'36.275"N	104°41'24.054"W	2.27	
4893.00	16.700	353.470	4743.15	-1127.22	1126.80	79.72	1726982.06	14597340.07	40°11'36.532"N	104°41'24.064"W	3.41	
4980.00	15.080	350.390	4826.83	-1150.78	1150.38	76.41	1726978.67	14597363.63	40°11'36.765"N	104°41'24.106"W	2.10	
5068.00	14.100	351.750	4911.99	-1172.66	1172.27	72.96	1726975.15	14597385.51	40°11'36.981"N	104°41'24.151"W	1.18	
5155.00	12.670	359.750	4996.63	-1192.68	1192.30	71.40	1726973.52	14597405.52	40°11'37.179"N	104°41'24.171"W	2.69	
5243.00	11.320	358.700	5082.71	-1210.97	1210.59	71.16	1726973.21	14597423.80	40°11'37.360"N	104°41'24.174"W	1.55	
5330.00	10.210	358.240	5168.18	-1227.21	1226.83	70.73	1726972.73	14597440.04	40°11'37.521"N	104°41'24.180"W	1.28	
5418.00	8.540	356.450	5255.00	-1241.52	1241.15	70.08	1726972.03	14597454.35	40°11'37.662"N	104°41'24.188"W	1.93	
5505.00	7.240	354.280	5341.17	-1253.42	1253.05	69.14	1726971.05	14597466.24	40°11'37.780"N	104°41'24.200"W	1.53	
5592.00	5.210	359.440	5427.65	-1262.82	1262.46	68.55	1726970.43	14597475.64	40°11'37.873"N	104°41'24.208"W	2.42	
5680.00	4.290	356.280	5515.35	-1270.10	1269.74	68.30	1726970.15	14597482.92	40°11'37.945"N	104°41'24.211"W	1.09	
5768.00	3.240	354.540	5603.16	-1275.86	1275.50	67.85	1726969.68	14597488.67	40°11'38.001"N	104°41'24.217"W	1.20	
5854.00	2.360	354.780	5689.06	-1280.04	1279.68	67.46	1726969.27	14597492.85	40°11'38.043"N	104°41'24.222"W	1.02	
5942.00	1.740	347.510	5777.00	-1283.14	1282.79	67.00	1726968.81	14597495.96	40°11'38.074"N	104°41'24.228"W	0.76	
6030.00	1.600	333.770	5864.96	-1285.55	1285.20	66.17	1726967.97	14597498.36	40°11'38.097"N	104°41'24.238"W	0.48	
6117.00	0.580	263.920	5951.95	-1286.58	1286.24	65.20	1726966.99	14597499.40	40°11'38.108"N	104°41'24.251"W	1.73	
6205.00	0.630	302.540	6039.94	-1286.79	1286.45	64.35	1726966.14	14597499.61	40°11'38.110"N	104°41'24.262"W	0.46	
6292.00	0.410	310.010	6126.94	-1287.25	1286.91	63.70	1726965.50	14597500.07	40°11'38.114"N	104°41'24.270"W	0.26	
6380.00	1.790	215.550	6214.93	-1286.32	1285.99	62.66	1726964.46	14597499.15	40°11'38.105"N	104°41'24.284"W	2.12	
6426.00†	3.369	177.697	6260.88	-1284.39	1284.06	62.30	1726964.10	14597497.21	40°11'38.086"N	104°41'24.288"W	4.87	KOP
6468.00	5.250	166.670	6302.76	-1281.29	1280.96	62.79	1726964.61	14597494.11	40°11'38.055"N	104°41'24.282"W	4.87	
6555.00	13.690	171.680	6388.50	-1267.21	1266.87	65.20	1726967.07	14597480.04	40°11'37.916"N	104°41'24.251"W	9.74	
6643.00	19.160	164.590	6472.88	-1243.00	1242.62	70.55	1726972.50	14597455.82	40°11'37.677"N	104°41'24.182"W	6.61	
6730.00	24.170	167.120	6553.71	-1211.89	1211.48	78.32	1726980.37	14597424.71	40°11'37.369"N	104°41'24.082"W	5.86	
6817.00	28.850	181.860	6631.63	-1173.51	1173.07	81.62	1726983.80	14597386.34	40°11'36.989"N	104°41'24.039"W	9.24	
6905.00	32.260	189.020	6707.42	-1129.04	1128.63	77.24	1726979.58	14597341.90	40°11'36.550"N	104°41'24.096"W	5.66	
6992.00	34.580	185.250	6780.04	-1081.48	1081.10	71.34	1726973.85	14597294.37	40°11'36.080"N	104°41'24.172"W	3.58	
7080.00	40.260	188.930	6849.91	-1028.44	1028.09	64.64	1726967.33	14597241.36	40°11'35.557"N	104°41'24.258"W	6.93	
7167.00	48.620	186.370	6911.98	-968.07	967.77	56.64	1726959.55	14597181.03	40°11'34.961"N	104°41'24.361"W	9.83	
7255.00	58.470	184.800	6964.21	-897.68	897.41	49.82	1726952.98	14597110.67	40°11'34.265"N	104°41'24.449"W	11.28	
7342.00	69.590	181.250	7002.25	-819.68	819.44	45.81	1726949.24	14597032.72	40°11'33.495"N	104°41'24.501"W	13.29	
7430.00	81.200	177.750	7024.41	-734.70	734.45	46.62	1726950.35	14596947.76	40°11'32.655"N	104°41'24.490"W	13.74	
7518.00	89.420	177.160	7031.60	-647.18	646.90	50.52	1726954.55	14596860.27	40°11'31.790"N	104°41'24.440"W	9.36	LANDING (1088'FSL & 1845'FWL,SEC.29) 40.1921638 -104.6901222
7606.00	89.750	176.920	7032.24	-559.32	559.02	55.06	1726959.40	14596772.44	40°11'30.921"N	104°41'24.381"W	0.46	
7693.00	88.860	175.310	7033.29	-472.57	472.23	60.96	1726965.59	14596685.71	40°11'30.064"N	104°41'24.306"W	2.11	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)
Area	COLORADO	Well	RW 14N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 14N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (168 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	89.170	174.000	7034.81	-385.01	384.63	89.15	1726974.09	14596598.17	40°11'29.198"N	104°41'24.200"W	1.53	
7868.00	90.120	175.630	7035.35	-298.42	297.99	77.01	1726982.25	14596511.59	40°11'28.342"N	104°41'24.099"W	2.17	
7955.00	89.820	178.410	7035.39	-211.57	211.12	81.54	1726987.07	14596424.77	40°11'27.483"N	104°41'24.040"W	3.21	
8043.00	90.370	180.120	7035.25	-123.59	123.13	82.66	1726988.51	14596336.82	40°11'26.614"N	104°41'24.026"W	2.04	
8131.00	90.490	180.260	7034.58	-35.59	35.13	82.37	1726988.52	14596248.85	40°11'25.744"N	104°41'24.030"W	0.21	
8218.00	90.340	180.270	7033.95	51.41	-51.86	81.97	1726988.42	14596161.89	40°11'24.884"N	104°41'24.035"W	0.17	
8306.00	90.590	179.590	7033.24	139.40	-139.86	82.08	1726988.84	14596073.93	40°11'24.015"N	104°41'24.033"W	0.82	
8393.00	89.660	178.700	7033.05	226.38	-226.85	83.38	1726990.44	14595986.98	40°11'23.155"N	104°41'24.017"W	1.48	
8481.00	90.310	178.490	7033.07	314.34	-314.82	85.53	1726992.90	14595899.05	40°11'22.286"N	104°41'23.989"W	0.78	
8568.00	89.140	179.320	7033.49	401.31	-401.80	87.20	1726994.87	14595812.11	40°11'21.426"N	104°41'23.967"W	1.65	
8656.00	87.380	180.710	7036.16	489.26	-489.76	87.17	1726995.15	14595724.19	40°11'20.557"N	104°41'23.968"W	2.55	
8743.00	87.660	181.070	7039.93	576.18	-576.66	85.82	1726994.11	14595637.31	40°11'19.698"N	104°41'23.985"W	0.52	
8831.00	88.800	180.300	7042.65	664.13	-664.61	84.77	1726993.36	14595549.40	40°11'18.829"N	104°41'23.999"W	1.56	
8918.00	89.440	179.580	7043.98	751.12	-751.60	84.86	1726993.76	14595462.44	40°11'17.970"N	104°41'23.998"W	1.11	
9006.00	88.800	180.620	7045.33	839.10	-839.59	84.71	1726993.91	14595374.49	40°11'17.100"N	104°41'24.000"W	1.39	
9067.00†	88.779	179.856	7046.62	900.09	-900.57	84.46	1726993.87	14595313.53	40°11'16.498"N	104°41'24.003"W	1.25	CROSS 460 HEEL (460'FNL & 1877'FWL,SEC.32) 40.1879160 -104.6900008
9093.00	88.770	179.530	7047.18	926.08	-926.57	84.60	1726994.10	14595287.54	40°11'16.241"N	104°41'24.001"W	1.25	
9181.00	89.010	182.900	7048.88	1014.04	-1014.52	82.73	1726992.54	14595199.62	40°11'15.372"N	104°41'24.025"W	3.84	
9268.00	88.980	182.690	7050.41	1100.95	-1101.40	78.49	1726988.60	14595112.76	40°11'14.513"N	104°41'24.080"W	0.24	
9356.00	88.800	182.160	7052.11	1188.87	-1189.31	74.77	1726985.19	14595024.88	40°11'13.644"N	104°41'24.128"W	0.64	
9443.00	88.460	181.380	7054.19	1275.82	-1276.24	72.08	1726982.81	14594937.97	40°11'12.785"N	104°41'24.162"W	0.98	
9531.00	88.210	180.770	7056.75	1363.77	-1364.19	70.43	1726981.46	14594850.05	40°11'11.916"N	104°41'24.184"W	0.75	
9618.00	90.250	182.890	7057.92	1450.73	-1451.12	67.65	1726978.99	14594763.14	40°11'11.057"N	104°41'24.219"W	3.38	
9706.00	89.850	181.450	7057.84	1538.68	-1539.06	64.32	1726975.97	14594675.23	40°11'10.188"N	104°41'24.262"W	1.70	
9793.00	90.030	181.490	7057.93	1625.66	-1626.03	62.09	1726974.04	14594588.28	40°11'09.329"N	104°41'24.291"W	0.21	
9880.00	89.540	180.990	7058.26	1712.65	-1713.01	60.20	1726972.46	14594501.33	40°11'08.469"N	104°41'24.315"W	0.80	
9968.00	89.970	181.300	7058.64	1800.64	-1800.99	58.45	1726971.01	14594413.38	40°11'07.600"N	104°41'24.338"W	0.60	
10056.00	89.410	179.930	7059.11	1888.63	-1888.98	57.50	1726970.37	14594325.42	40°11'06.730"N	104°41'24.350"W	1.68	
10143.00	89.910	180.960	7059.63	1975.63	-1975.98	56.83	1726970.00	14594238.46	40°11'05.870"N	104°41'24.359"W	1.32	
10231.00	89.600	180.120	7060.01	2063.63	-2063.97	56.00	1726969.48	14594150.50	40°11'05.001"N	104°41'24.370"W	1.02	
10318.00	90.280	180.420	7060.10	2150.63	-2150.97	55.59	1726969.37	14594063.53	40°11'04.141"N	104°41'24.375"W	0.85	
10405.00	88.460	179.500	7061.05	2237.61	-2237.96	55.65	1726969.73	14593976.58	40°11'03.281"N	104°41'24.374"W	2.34	
10493.00	88.520	178.790	7063.37	2325.56	-2325.92	56.96	1726971.35	14593888.66	40°11'02.412"N	104°41'24.357"W	0.81	
10581.00	88.090	178.620	7065.98	2413.49	-2413.86	58.95	1726973.65	14593800.76	40°11'01.543"N	104°41'24.331"W	0.53	
10668.00	87.810	177.600	7069.09	2500.37	-2500.75	61.82	1726976.82	14593713.91	40°11'00.685"N	104°41'24.295"W	1.22	
10756.00	87.540	177.320	7072.66	2588.19	-2588.59	65.71	1726981.02	14593626.12	40°10'59.817"N	104°41'24.244"W	0.44	
10844.00	87.930	180.410	7076.14	2676.08	-2676.50	67.45	1726983.06	14593538.26	40°10'58.948"N	104°41'24.222"W	3.54	
10931.00	87.290	179.980	7079.76	2763.02	-2763.42	67.16	1726983.07	14593451.37	40°10'58.089"N	104°41'24.226"W	0.89	
11018.00	90.060	181.490	7081.78	2849.97	-2850.38	66.04	1726982.26	14593364.44	40°10'57.230"N	104°41'24.240"W	3.63	
11106.00	90.740	182.010	7081.16	2937.94	-2938.33	63.35	1726979.88	14593276.51	40°10'56.360"N	104°41'24.275"W	0.97	
11193.00	89.230	180.740	7081.18	3024.92	-3025.30	61.27	1726978.10	14593189.56	40°10'55.501"N	104°41'24.302"W	2.27	
11281.00	89.290	180.030	7082.32	3112.91	-3113.29	60.67	1726977.81	14593101.61	40°10'54.631"N	104°41'24.309"W	0.81	
11368.00	90.770	181.240	7082.28	3199.90	-3200.29	59.71	1726977.15	14593014.65	40°10'53.772"N	104°41'24.322"W	2.20	
11456.00	89.750	180.070	7081.88	3287.90	-3288.28	58.70	1726976.45	14592926.69	40°10'52.902"N	104°41'24.335"W	1.76	
11543.00	88.680	180.100	7083.07	3374.89	-3375.27	58.58	1726976.63	14592839.73	40°10'52.043"N	104°41'24.336"W	1.23	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)
Area	COLORADO	Well	RW 14N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 14N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (168 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	87.450	180.240	7086.04	3462.84	-3463.21	58.31	1726976.67	14592751.82	40°10'51.174"N	104°41'24.340"W	1.41	
11718.00	88.490	180.880	7089.12	3549.78	-3550.15	57.46	1726976.13	14592664.91	40°10'50.314"N	104°41'24.351"W	1.40	
11806.00	89.720	180.120	7090.50	3637.77	-3638.14	56.70	1726975.67	14592576.96	40°10'49.445"N	104°41'24.361"W	1.64	
11894.00	89.850	179.690	7090.83	3725.76	-3726.14	56.84	1726976.12	14592489.00	40°10'48.575"N	104°41'24.359"W	0.51	
11981.00	89.380	178.720	7091.41	3812.74	-3813.12	58.05	1726977.63	14592402.05	40°10'47.716"N	104°41'24.343"W	1.24	
12068.00	90.340	180.090	7091.62	3899.73	-3900.12	58.95	1726978.83	14592315.09	40°10'46.856"N	104°41'24.331"W	1.92	
12156.00	92.310	181.260	7089.59	3987.70	-3988.08	57.92	1726978.11	14592227.16	40°10'45.987"N	104°41'24.345"W	2.60	
12244.00	92.250	180.360	7086.09	4075.62	-4076.00	56.67	1726977.17	14592139.27	40°10'45.118"N	104°41'24.361"W	1.02	
12331.00	92.090	179.870	7082.79	4162.56	-4162.94	56.50	1726977.30	14592052.37	40°10'44.259"N	104°41'24.363"W	0.59	
12419.00	92.240	179.570	7079.47	4250.49	-4250.88	56.93	1726978.03	14591964.47	40°10'43.390"N	104°41'24.358"W	0.38	
12505.00	90.520	180.480	7077.40	4336.46	-4336.85	56.89	1726978.30	14591878.53	40°10'42.540"N	104°41'24.358"W	2.26	
12592.00	91.670	181.700	7075.74	4423.44	-4423.81	55.24	1726976.95	14591791.60	40°10'41.681"N	104°41'24.379"W	1.93	
12680.00	92.310	181.440	7072.68	4511.36	-4511.72	52.83	1726974.84	14591703.71	40°10'40.812"N	104°41'24.410"W	0.78	
12767.00	92.840	181.100	7068.77	4598.26	-4598.62	50.90	1726973.22	14591616.85	40°10'39.953"N	104°41'24.435"W	0.72	
12855.00	92.470	182.510	7064.69	4686.13	-4686.47	48.13	1726970.76	14591529.01	40°10'39.085"N	104°41'24.471"W	1.65	
12942.00	90.460	181.950	7062.47	4773.05	-4773.38	44.75	1726967.68	14591442.13	40°10'38.226"N	104°41'24.514"W	2.40	
13029.00	91.200	181.520	7061.21	4860.02	-4860.33	42.12	1726965.35	14591355.21	40°10'37.367"N	104°41'24.548"W	0.98	
13117.00	92.250	181.490	7058.56	4947.96	-4948.25	39.80	1726963.35	14591267.31	40°10'36.498"N	104°41'24.578"W	1.19	
13204.00	92.370	180.630	7055.05	5034.88	-5035.17	38.20	1726962.04	14591180.42	40°10'35.639"N	104°41'24.599"W	1.00	
13291.00	91.320	181.700	7052.25	5121.82	-5122.10	36.43	1726960.58	14591093.52	40°10'34.780"N	104°41'24.622"W	1.72	
13379.00	91.420	180.690	7050.15	5209.78	-5210.06	34.59	1726959.05	14591005.59	40°10'33.911"N	104°41'24.645"W	1.15	
13435.00†	91.337	180.614	7048.80	5265.77	-5266.04	33.96	1726958.61	14590949.63	40°10'33.358"N	104°41'24.654"W	0.20	CROSS 460 TOE (460'FSL & 1870'FWL,SEC.32) 40.1759328 -104.6901815
13467.00	91.290	180.570	7048.07	5297.76	-5298.03	33.63	1726958.39	14590917.65	40°10'33.042"N	104°41'24.658"W	0.20	
13554.00	91.110	179.430	7046.25	5384.74	-5385.01	33.63	1726958.70	14590830.71	40°10'32.182"N	104°41'24.658"W	1.33	
13641.00	91.080	179.260	7044.58	5471.71	-5471.98	34.62	1726959.99	14590743.77	40°10'31.323"N	104°41'24.645"W	0.20	
13729.00	91.170	179.290	7042.86	5559.68	-5559.96	35.73	1726961.41	14590655.83	40°10'30.453"N	104°41'24.631"W	0.11	
13816.00	91.110	178.280	7041.12	5646.63	-5646.92	37.58	1726963.56	14590568.91	40°10'29.594"N	104°41'24.607"W	1.16	
13904.00	90.890	179.860	7039.59	5734.59	-5734.89	39.01	1726965.29	14590480.98	40°10'28.725"N	104°41'24.588"W	1.81	
13991.00	91.260	179.840	7037.96	5821.57	-5821.88	39.23	1726965.82	14590394.03	40°10'27.865"N	104°41'24.586"W	0.43	
14079.00	92.870	180.380	7034.79	5909.51	-5909.82	39.07	1726965.96	14590306.13	40°10'26.996"N	104°41'24.588"W	1.93	
14165.00	93.390	179.940	7030.09	5995.38	-5995.69	38.83	1726966.02	14590220.29	40°10'26.148"N	104°41'24.591"W	0.79	
14204.00	93.420	179.750	7027.77	6034.31	-6034.62	38.93	1726966.26	14590181.37	40°10'25.763"N	104°41'24.589"W	0.49	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
14249.00	93.420	179.750	7025.09	6079.23	-6079.54	39.13	1726966.62	14590136.47	40°10'25.319"N	104°41'24.587"W	0.00	PTB (354'FNL & 1876'FWL,SEC.05) 40.1736997 -104.6901630

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)
Area	COLORADO	Well	RW 14N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 14N-32HZ AWB
Facility	SEC.29-T3N-R65W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.05-T2N-R65W	1.00	1.82	-180.20	1726726.17	14596214.64	40°11'25.415"N	104°41'27.413"W	polygon
SEC.29-T3N-R65W	1.00	1.82	-180.20	1726726.17	14596214.64	40°11'25.415"N	104°41'27.413"W	polygon
SEC.32-T3N-R65W	1.00	1.82	-180.20	1726726.17	14596214.64	40°11'25.415"N	104°41'27.413"W	polygon
14N-32HZ HEEL REV-1(1011'FSL & 1865'FWL,SEC.29)	7015.00	570.47	69.58	1726973.87	14596783.93	40°11'31.034"N	104°41'24.194"W	point
14N-32HZ BHL REV-2(370'FNL & 1869'FWL,SEC.05)	7031.00	-6096.19	32.43	1726959.98	14590119.81	40°10'25.154"N	104°41'24.673"W	point
14N-32HZ 460' SETBACK 1	7041.00	0.00	0.00	1726906.31	14596213.45	40°11'25.397"N	104°41'25.091"W	polygon
14N-32HZ 460' SETBACK 2	7041.00	0.00	0.00	1726906.31	14596213.45	40°11'25.397"N	104°41'25.091"W	polygon
14N-32HZ BHL REV-1(370'FNL & 1869'FWL,SEC.05)	7041.00	-6096.19	32.43	1726959.98	14590119.81	40°10'25.154"N	104°41'24.673"W	point
14N-32HZ LANDBOX	7041.00	0.00	0.00	1726906.31	14596213.45	40°11'25.397"N	104°41'25.091"W	polygon
14N-32HZ INT. TARGET@3900'VS	7103.00	-3900.31	44.67	1726964.56	14592314.85	40°10'46.854"N	104°41'24.515"W	point

WELLPATH COMPOSITION - Ref Wellbore: RW 14N-32HZ AWB Ref Wellpath: RW 14N-32HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1805.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <116 - 1805>	RW 14N-32HZ AWB
1805.00	14204.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1893 - 14204>	RW 14N-32HZ AWB
14204.00	14249.00	Blind Drilling (std)	Projection to bit	RW 14N-32HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#45 RW 14N-32HZ(441'FSL & 1794'FWL,SEC.29)
Area	COLORADO	Well	RW 14N-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 14N-32HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
116.00	0.340	23.070	116.00	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
1805.00	14.530	2.960	1774.67	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1893.00	13.510	359.900	1860.05	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
6426.00	3.369	177.697	6260.88	KOP
7518.00	89.420	177.160	7031.60	LANDING (1088'FSL & 1845'FWL,SEC.29) 40.1921638 -104.6901222
9067.00	88.779	179.856	7046.62	CROSS 460 HEEL (460'FNL & 1877'FWL,SEC.32) 40.1879160 -104.6900008
13435.00	91.337	180.614	7048.80	CROSS 460 TOE (460'FSL & 1870'FWL,SEC.32) 40.1759328 -104.6901815
14204.00	93.420	179.750	7027.77	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
14249.00	93.420	179.750	7025.09	PTB (354'FNL & 1876'FWL,SEC.05) 40.1736997 -104.6901630