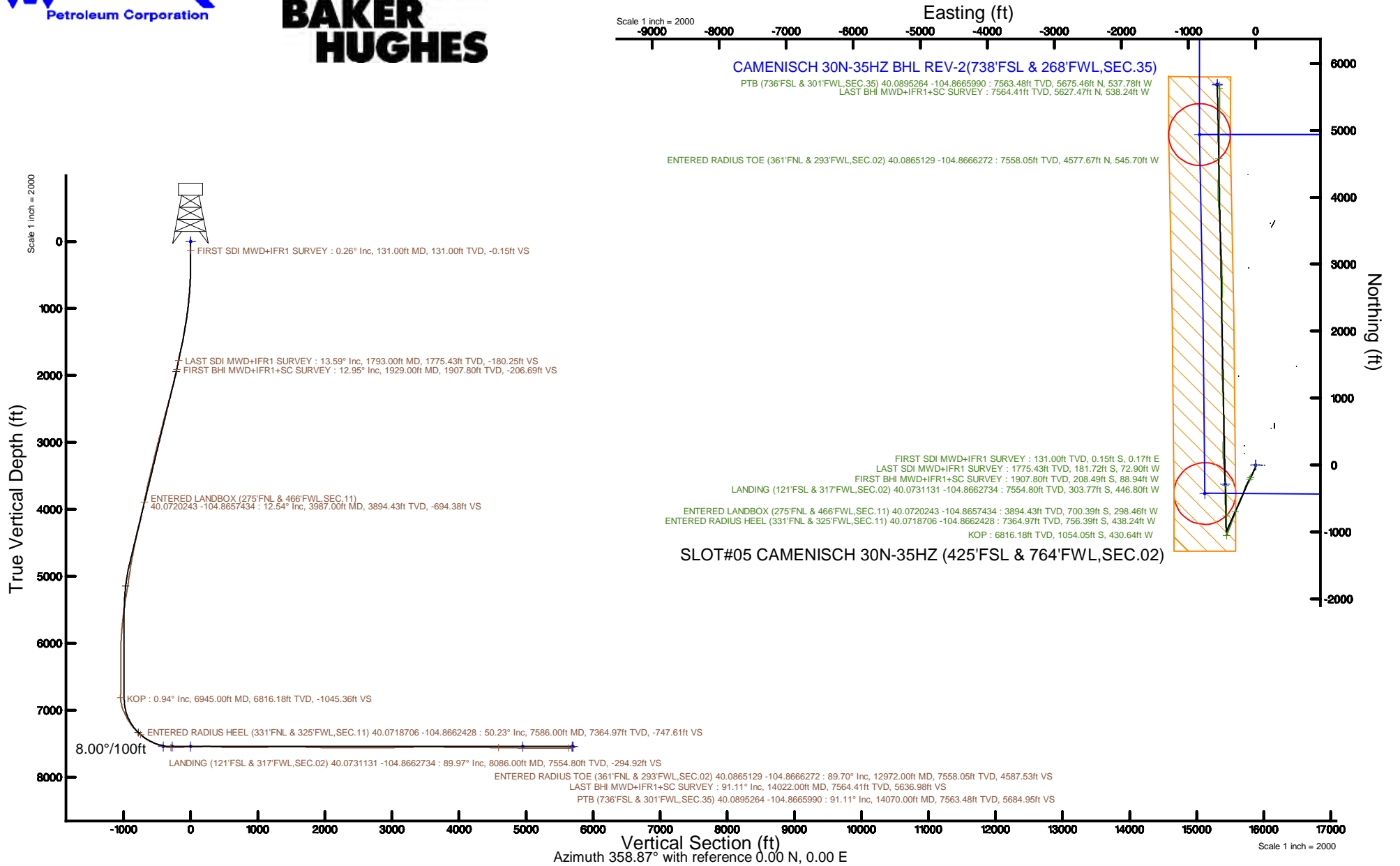


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)
Field: WELD COUNTY (UTM/TRUE NORTH) Well: CAMENISCH 30N-35HZ
Facility: SEC.02-T1N-R67W Wellbore: CAMENISCH 30N-35HZ PWB

Plot reference wellpath is CAMENISCH 30N-35HZ PWP Rev-B.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to NABORS X22 (32') (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to NABORS X22 (32') (RT)	North Reference: True north
NABORS X22 (32') (RT) to Mean Sea Level: 5068 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-04-18
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 30N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 30N-35HZ AWP
Facility	SEC.02-T1N-R67W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999602	Report Generated	4/18/2017 at 4:11 PM
Convergence at slot	0.09° East	Database/Source file	WA_DEN_Anadarko_Defn/CAMENISCH_30N-35HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3595.26	-257.47	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W
Facility Reference Pt			1678524.98	14557283.70	40°05'01.738"N	104°51'49.525"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	NABORS X22 (32') (RT) to Facility Vertical Datum	5068.00ft
Horizontal Reference Pt	Slot	NABORS X22 (32') (RT) to Mean Sea Level	5068.00ft
Vertical Reference Pt	NABORS X22 (32') (RT)	NABORS X22 (32') (RT) to Mud Line at Slot (SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02))	5068.00ft
MD Reference Pt	NABORS X22 (32') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	358.87°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 30N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 30N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (159 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	130.540	0.00	0.00	0.00	0.00	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	0.00	
32.00	0.000	130.540	32.00	0.00	0.00	0.00	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	0.00	
131.00	0.260	130.540	131.00	-0.15	-0.15	0.17	1678273.28	14553689.35	40°04'26.208"N	104°51'52.835"W	0.26	FIRST SDI MWD+IFR1 SURVEY
205.00	0.670	150.540	205.00	-0.64	-0.63	0.51	1678273.62	14553688.87	40°04'26.203"N	104°51'52.830"W	0.59	
292.00	0.330	126.100	291.99	-1.24	-1.22	0.96	1678274.08	14553688.28	40°04'26.197"N	104°51'52.825"W	0.45	
382.00	0.570	103.310	381.99	-1.51	-1.48	1.61	1678274.72	14553688.02	40°04'26.194"N	104°51'52.816"W	0.33	
471.00	1.810	166.060	470.97	-2.99	-2.94	2.38	1678275.49	14553686.56	40°04'26.180"N	104°51'52.806"W	1.83	
560.00	2.510	166.840	559.91	-6.27	-6.21	3.16	1678276.28	14553683.30	40°04'26.148"N	104°51'52.796"W	0.79	
646.00	3.540	178.820	645.79	-10.76	-10.69	3.64	1678276.77	14553678.81	40°04'26.103"N	104°51'52.790"W	1.40	
735.00	4.230	184.150	734.58	-16.78	-16.72	3.46	1678276.60	14553672.79	40°04'26.044"N	104°51'52.792"W	0.87	
824.00	5.390	199.690	823.27	-23.96	-23.93	1.82	1678274.96	14553665.58	40°04'25.973"N	104°51'52.814"W	1.95	
913.00	6.600	203.060	911.78	-32.53	-32.57	-1.60	1678271.57	14553656.94	40°04'25.887"N	104°51'52.858"W	1.42	
999.00	7.450	204.700	997.14	-42.06	-42.18	-5.86	1678267.32	14553647.33	40°04'25.792"N	104°51'52.912"W	1.02	
1086.00	8.950	207.860	1083.25	-53.05	-53.29	-11.38	1678261.82	14553636.21	40°04'25.682"N	104°51'52.983"W	1.80	
1173.00	9.470	206.120	1169.13	-65.34	-65.70	-17.69	1678255.52	14553623.80	40°04'25.560"N	104°51'53.065"W	0.68	
1259.00	10.010	203.830	1253.89	-78.40	-78.89	-23.83	1678249.41	14553610.61	40°04'25.429"N	104°51'53.144"W	0.77	
1346.00	10.560	205.180	1339.49	-92.40	-93.02	-30.28	1678242.99	14553596.47	40°04'25.290"N	104°51'53.226"W	0.69	
1435.00	11.640	202.550	1426.82	-107.94	-108.69	-37.19	1678236.10	14553580.79	40°04'25.135"N	104°51'53.315"W	1.34	
1524.00	12.680	203.870	1513.82	-125.01	-125.92	-44.58	1678228.74	14553563.56	40°04'24.965"N	104°51'53.411"W	1.21	
1612.00	13.480	206.050	1599.54	-142.89	-143.96	-53.00	1678220.35	14553545.51	40°04'24.786"N	104°51'53.519"W	1.07	
1699.00	13.690	207.690	1684.11	-160.93	-162.19	-62.23	1678211.15	14553527.28	40°04'24.606"N	104°51'53.638"W	0.50	
1784.00	13.710	209.460	1766.69	-178.42	-179.87	-71.86	1678201.55	14553509.59	40°04'24.432"N	104°51'53.761"W	0.49	
1793.00	13.590	209.320	1775.43	-180.25	-181.72	-72.90	1678200.51	14553507.74	40°04'24.413"N	104°51'53.775"W	1.38	LAST SDI MWD+IFR1 SURVEY
1929.00	12.950	212.610	1907.80	-206.69	-208.49	-88.94	1678184.52	14553480.96	40°04'24.149"N	104°51'53.981"W	0.73	FIRST BHI MWD+IFR1+SC SURVEY
2022.00	14.290	211.710	1998.19	-225.00	-227.03	-100.59	1678172.91	14553462.41	40°04'23.965"N	104°51'54.131"W	1.46	
2117.00	16.440	206.730	2089.79	-246.74	-249.01	-112.80	1678160.73	14553440.41	40°04'23.748"N	104°51'54.288"W	2.65	
2211.00	16.370	206.330	2179.96	-270.26	-272.76	-124.66	1678148.92	14553416.65	40°04'23.513"N	104°51'54.441"W	0.14	
2304.00	16.040	206.400	2269.27	-293.28	-296.02	-136.19	1678137.43	14553393.39	40°04'23.284"N	104°51'54.589"W	0.36	
2397.00	17.020	201.800	2358.43	-317.21	-320.17	-146.95	1678126.70	14553369.24	40°04'23.045"N	104°51'54.727"W	1.76	
2492.00	16.640	199.840	2449.36	-342.72	-345.87	-156.73	1678116.97	14553343.53	40°04'22.791"N	104°51'54.853"W	0.72	
2585.00	16.080	199.670	2538.59	-367.19	-370.52	-165.59	1678108.15	14553318.87	40°04'22.547"N	104°51'54.967"W	0.60	
2677.00	15.480	198.360	2627.13	-390.68	-394.17	-173.74	1678100.04	14553295.22	40°04'22.314"N	104°51'55.072"W	0.76	
2771.00	14.780	196.970	2717.87	-413.90	-417.55	-181.20	1678092.62	14553271.84	40°04'22.083"N	104°51'55.168"W	0.84	
2865.00	14.520	201.020	2808.81	-436.21	-440.02	-188.92	1678084.93	14553249.37	40°04'21.861"N	104°51'55.267"W	1.12	
2959.00	16.000	200.910	2899.50	-459.14	-463.12	-197.77	1678076.12	14553226.26	40°04'21.632"N	104°51'55.381"W	1.57	
3053.00	15.340	199.650	2990.00	-482.77	-486.93	-206.58	1678067.36	14553202.45	40°04'21.397"N	104°51'55.494"W	0.79	
3148.00	15.550	205.320	3081.58	-505.92	-510.28	-216.25	1678057.72	14553179.10	40°04'21.166"N	104°51'55.619"W	1.60	
3242.00	14.850	204.440	3172.29	-528.07	-532.63	-226.62	1678047.39	14553156.73	40°04'20.945"N	104°51'55.752"W	0.78	
3337.00	14.220	203.390	3264.25	-549.67	-554.43	-236.29	1678037.76	14553134.94	40°04'20.730"N	104°51'55.876"W	0.72	
3430.00	14.940	205.160	3354.25	-570.81	-575.76	-245.92	1678028.16	14553113.59	40°04'20.519"N	104°51'56.000"W	0.91	
3524.00	16.240	205.420	3444.79	-593.43	-598.60	-256.72	1678017.41	14553090.75	40°04'20.293"N	104°51'56.139"W	1.38	
3618.00	14.990	202.860	3535.32	-616.30	-621.68	-267.08	1678007.08	14553067.67	40°04'20.065"N	104°51'56.273"W	1.52	
3711.00	13.460	202.250	3625.47	-637.22	-642.78	-275.85	1677998.35	14553046.56	40°04'19.857"N	104°51'56.385"W	1.65	
3804.00	12.240	201.260	3716.14	-656.27	-661.98	-283.53	1677990.70	14553027.35	40°04'19.667"N	104°51'56.484"W	1.33	
3898.00	13.640	201.610	3807.75	-675.71	-681.57	-291.22	1677983.04	14553007.75	40°04'19.474"N	104°51'56.583"W	1.49	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 30N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 30N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (159 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
3987.00†	12.542	200.432	3894.43	-694.38	-700.39	-298.46	1677975.84	14552988.94	40°04'19.288"N	104°51'56.676"W	1.27	ENTERED LANDBOX (275'FNL & 466'FWL,SEC.11) 40.0720243 -104.8657434
3992.00	12.480	200.360	3899.32	-695.38	-701.40	-298.84	1677975.46	14552987.92	40°04'19.278"N	104°51'56.681"W	1.27	
4086.00	13.100	202.630	3990.98	-714.58	-720.76	-306.47	1677967.86	14552968.56	40°04'19.086"N	104°51'56.779"W	0.85	
4179.00	14.120	203.430	4081.37	-734.55	-740.89	-315.04	1677959.33	14552948.42	40°04'18.887"N	104°51'56.889"W	1.12	
4273.00	12.830	202.690	4172.78	-754.53	-761.04	-323.62	1677950.78	14552928.27	40°04'18.688"N	104°51'57.000"W	1.38	
4367.00	14.490	200.020	4264.12	-775.04	-781.72	-331.68	1677942.76	14552907.58	40°04'18.484"N	104°51'57.103"W	1.89	
4461.00	13.900	200.440	4355.25	-796.51	-803.35	-339.64	1677934.82	14552885.95	40°04'18.270"N	104°51'57.206"W	0.64	
4555.00	13.540	199.990	4446.57	-817.28	-824.27	-347.35	1677927.15	14552865.03	40°04'18.063"N	104°51'57.305"W	0.40	
4648.00	12.520	199.720	4537.17	-836.85	-843.99	-354.47	1677920.06	14552845.30	40°04'17.868"N	104°51'57.397"W	1.10	
4742.00	11.670	199.420	4629.08	-855.28	-862.55	-361.07	1677913.50	14552826.74	40°04'17.685"N	104°51'57.481"W	0.91	
4836.00	10.950	200.180	4721.26	-872.50	-879.90	-367.31	1677907.28	14552809.40	40°04'17.514"N	104°51'57.562"W	0.78	
4930.00	10.030	200.590	4813.69	-888.42	-895.94	-373.27	1677901.35	14552793.35	40°04'17.355"N	104°51'57.638"W	0.98	
5023.00	9.730	200.080	4905.31	-903.27	-910.90	-378.82	1677895.83	14552778.38	40°04'17.207"N	104°51'57.710"W	0.34	
5141.00	9.020	200.490	5021.73	-921.16	-928.93	-385.48	1677889.20	14552760.35	40°04'17.029"N	104°51'57.795"W	0.60	
5235.00	8.760	206.180	5114.60	-934.38	-942.26	-391.22	1677883.48	14552747.02	40°04'16.897"N	104°51'57.869"W	0.98	
5329.00	10.750	201.830	5207.24	-948.81	-956.82	-397.63	1677877.09	14552732.45	40°04'16.753"N	104°51'57.952"W	2.26	
5423.00	10.270	202.640	5299.66	-964.55	-972.69	-404.12	1677870.63	14552716.58	40°04'16.597"N	104°51'58.035"W	0.53	
5518.00	9.460	203.340	5393.26	-979.41	-987.68	-410.47	1677864.30	14552701.59	40°04'16.449"N	104°51'58.117"W	0.86	
5611.00	8.670	205.760	5485.10	-992.62	-1001.01	-416.55	1677858.25	14552688.26	40°04'16.317"N	104°51'58.195"W	0.94	
5706.00	7.690	205.070	5579.13	-1004.71	-1013.22	-422.35	1677852.47	14552676.05	40°04'16.196"N	104°51'58.270"W	1.04	
5800.00	6.680	205.150	5672.39	-1015.25	-1023.86	-427.34	1677847.50	14552665.40	40°04'16.091"N	104°51'58.334"W	1.07	
5893.00	5.550	201.380	5764.86	-1024.26	-1032.95	-431.28	1677843.57	14552656.31	40°04'16.001"N	104°51'58.385"W	1.29	
5987.00	4.570	200.750	5858.49	-1031.93	-1040.68	-434.26	1677840.60	14552648.57	40°04'15.925"N	104°51'58.423"W	1.04	
6081.00	2.920	198.620	5952.29	-1037.66	-1046.45	-436.36	1677838.52	14552642.80	40°04'15.868"N	104°51'58.450"W	1.76	
6175.00	0.750	114.300	6046.24	-1040.18	-1048.98	-436.56	1677838.32	14552640.28	40°04'15.843"N	104°51'58.452"W	3.13	
6270.00	0.490	102.230	6141.24	-1040.54	-1049.32	-435.60	1677839.29	14552639.94	40°04'15.839"N	104°51'58.440"W	0.30	
6363.00	0.580	97.880	6234.23	-1040.70	-1049.47	-434.74	1677840.14	14552639.79	40°04'15.838"N	104°51'58.429"W	0.11	
6457.00	0.530	90.060	6328.23	-1040.79	-1049.53	-433.83	1677841.05	14552639.73	40°04'15.837"N	104°51'58.417"W	0.10	
6552.00	0.500	99.830	6423.22	-1040.88	-1049.60	-432.99	1677841.89	14552639.66	40°04'15.837"N	104°51'58.406"W	0.10	
6646.00	0.570	132.330	6517.22	-1041.28	-1049.99	-432.24	1677842.64	14552639.27	40°04'15.833"N	104°51'58.397"W	0.33	
6740.00	0.750	164.680	6611.21	-1042.19	-1050.90	-431.73	1677843.15	14552638.37	40°04'15.824"N	104°51'58.390"W	0.43	
6834.00	1.040	161.330	6705.20	-1043.60	-1052.30	-431.29	1677843.59	14552636.97	40°04'15.810"N	104°51'58.385"W	0.31	
6929.00	1.150	161.850	6800.19	-1045.34	-1054.02	-430.72	1677844.17	14552635.25	40°04'15.793"N	104°51'58.377"W	0.12	
6945.00†	0.940	15.263	6816.18	-1045.36	-1054.05	-430.64	1677844.25	14552635.22	40°04'15.793"N	104°51'58.376"W	12.52	KOP
7023.00	10.660	358.410	6893.69	-1037.52	-1046.20	-430.67	1677844.21	14552643.07	40°04'15.870"N	104°51'58.377"W	12.52	
7116.00	21.110	358.870	6983.02	-1012.10	-1020.79	-431.24	1677843.60	14552668.47	40°04'16.121"N	104°51'58.384"W	11.24	
7207.00	25.850	356.870	7066.46	-975.86	-984.57	-432.64	1677842.14	14552704.66	40°04'16.479"N	104°51'58.402"W	5.28	
7300.00	30.930	357.130	7148.25	-931.68	-940.43	-434.95	1677839.77	14552748.79	40°04'16.915"N	104°51'58.432"W	5.46	
7392.00	35.460	357.560	7225.22	-881.34	-890.12	-437.27	1677837.37	14552799.07	40°04'17.413"N	104°51'58.462"W	4.93	
7485.00	44.330	359.120	7296.50	-821.76	-830.56	-438.92	1677835.63	14552858.60	40°04'18.001"N	104°51'58.483"W	9.60	
7577.00	49.740	1.610	7359.18	-754.50	-763.28	-438.43	1677836.02	14552925.86	40°04'18.666"N	104°51'58.477"W	6.20	
7586.00†	50.235	1.597	7364.97	-747.61	-756.39	-438.24	1677836.20	14552932.75	40°04'18.734"N	104°51'58.474"W	5.50	ENTERED RADIUS HEEL (331'FNL & 325'FWL,SEC.11) 40.0718706 -104.8662428
7667.00	54.690	1.490	7414.31	-683.47	-692.20	-436.51	1677837.83	14552996.92	40°04'19.369"N	104°51'58.452"W	5.50	
7760.00	61.480	359.540	7463.45	-604.61	-613.31	-435.85	1677838.37	14553075.77	40°04'20.148"N	104°51'58.443"W	7.51	
7851.00	67.650	358.470	7502.51	-522.47	-531.18	-437.29	1677836.80	14553157.86	40°04'20.960"N	104°51'58.462"W	6.86	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 30N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 30N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (159 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
7944.00	73.840	358.640	7533.17	-434.72	-443.46	-439.51	1677834.46	14553245.55	40°04'21.827"N	104°51'58.490"W	6.66	
8038.00	83.130	356.400	7551.91	-342.74	-351.54	-443.52	1677830.31	14553337.42	40°04'22.735"N	104°51'58.542"W	10.15	
8086.00	89.970	355.740	7554.80	-294.92	-303.77	-446.80	1677826.95	14553385.17	40°04'23.207"N	104°51'58.584"W	14.32	LANDING (121'FSL & 317'FWL,SEC.02) 40.0731131 -104.8662734
8132.00	91.420	355.380	7554.24	-249.00	-257.91	-450.36	1677823.32	14553431.00	40°04'23.660"N	104°51'58.630"W	3.25	
8227.00	91.600	353.580	7551.74	-154.31	-163.39	-459.49	1677814.05	14553525.47	40°04'24.594"N	104°51'58.748"W	1.90	
8321.00	90.920	355.930	7549.67	-60.59	-69.82	-468.08	1677805.32	14553619.00	40°04'25.519"N	104°51'58.858"W	2.60	
8415.00	90.620	355.110	7548.41	33.24	23.89	-475.43	1677797.84	14553712.65	40°04'26.445"N	104°51'58.953"W	0.93	
8509.00	92.990	357.120	7545.45	127.08	117.61	-481.79	1677791.33	14553806.33	40°04'27.371"N	104°51'59.035"W	3.31	
8602.00	90.310	0.820	7542.77	220.01	210.54	-483.46	1677789.52	14553899.21	40°04'28.290"N	104°51'59.056"W	4.91	
8696.00	87.690	1.370	7544.41	313.92	304.50	-481.66	1677791.18	14553993.14	40°04'29.218"N	104°51'59.033"W	2.85	
8790.00	87.720	1.200	7548.17	407.76	398.40	-479.56	1677793.14	14554087.01	40°04'30.146"N	104°51'59.006"W	0.18	
8883.00	88.400	0.620	7551.32	500.65	491.33	-478.08	1677794.47	14554179.90	40°04'31.064"N	104°51'58.987"W	0.96	
8977.00	89.170	0.010	7553.32	594.60	585.31	-477.57	1677794.85	14554273.84	40°04'31.993"N	104°51'58.980"W	1.04	
9070.00	90.740	359.720	7553.39	687.58	678.30	-477.78	1677794.49	14554366.80	40°04'32.912"N	104°51'58.983"W	1.72	
9164.00	91.080	359.150	7551.90	781.56	772.29	-478.71	1677793.42	14554460.75	40°04'33.841"N	104°51'58.995"W	0.71	
9258.00	89.050	358.580	7551.79	875.56	866.26	-480.57	1677791.41	14554554.68	40°04'34.770"N	104°51'59.019"W	2.24	
9351.00	90.000	357.970	7552.56	968.55	959.22	-483.37	1677788.47	14554647.59	40°04'35.688"N	104°51'59.055"W	1.21	
9446.00	90.800	358.190	7551.90	1063.53	1054.16	-486.56	1677785.15	14554742.49	40°04'36.626"N	104°51'59.096"W	0.87	
9540.00	91.360	358.020	7550.13	1157.51	1148.09	-489.66	1677781.90	14554836.38	40°04'37.555"N	104°51'59.136"W	0.62	
9634.00	92.160	357.770	7547.24	1251.45	1241.98	-493.11	1677778.31	14554930.23	40°04'38.482"N	104°51'59.181"W	0.89	
9728.00	88.830	359.510	7546.43	1345.43	1335.94	-495.34	1677775.94	14555024.14	40°04'39.411"N	104°51'59.209"W	4.00	
9822.00	90.220	0.810	7547.21	1439.40	1429.93	-495.08	1677776.05	14555118.10	40°04'40.340"N	104°51'59.206"W	2.02	
9915.00	89.420	359.770	7547.50	1532.37	1522.92	-494.61	1677776.38	14555211.06	40°04'41.259"N	104°51'59.200"W	1.41	
10009.00	89.170	0.310	7548.65	1626.34	1616.92	-494.55	1677776.31	14555305.01	40°04'42.188"N	104°51'59.199"W	0.63	
10103.00	88.800	359.830	7550.32	1720.30	1710.90	-494.43	1677776.28	14555398.96	40°04'43.116"N	104°51'59.198"W	0.64	
10197.00	88.240	358.410	7552.75	1814.27	1804.86	-495.87	1677774.69	14555492.88	40°04'44.045"N	104°51'59.216"W	1.62	
10290.00	87.750	356.950	7556.00	1907.19	1897.72	-499.64	1677770.79	14555585.70	40°04'44.963"N	104°51'59.265"W	1.66	
10384.00	89.510	358.670	7558.25	2001.14	1991.62	-503.23	1677767.06	14555679.55	40°04'45.890"N	104°51'59.311"W	2.62	
10478.00	89.010	358.120	7559.46	2095.13	2085.57	-505.86	1677764.29	14555773.46	40°04'46.819"N	104°51'59.345"W	0.79	
10572.00	91.910	0.640	7558.71	2189.10	2179.55	-506.88	1677763.13	14555867.40	40°04'47.748"N	104°51'59.358"W	4.09	
10666.00	88.950	1.410	7558.00	2283.02	2273.52	-505.19	1677764.66	14555961.33	40°04'48.676"N	104°51'59.336"W	3.25	
10760.00	87.870	0.960	7560.61	2376.91	2367.46	-503.25	1677766.46	14556055.24	40°04'49.605"N	104°51'59.311"W	1.24	
10854.00	90.550	1.280	7561.91	2470.82	2461.42	-501.41	1677768.16	14556149.17	40°04'50.533"N	104°51'59.288"W	2.87	
10948.00	90.430	0.500	7561.10	2564.76	2555.41	-499.95	1677769.47	14556243.12	40°04'51.462"N	104°51'59.269"W	0.84	
11042.00	90.430	0.520	7560.40	2658.71	2649.40	-499.12	1677770.17	14556337.08	40°04'52.391"N	104°51'59.258"W	0.02	
11136.00	88.740	359.300	7561.08	2752.69	2743.39	-499.27	1677769.88	14556431.03	40°04'53.320"N	104°51'59.260"W	2.22	
11231.00	91.230	358.820	7561.10	2847.68	2838.37	-500.82	1677768.17	14556525.97	40°04'54.258"N	104°51'59.280"W	2.67	
11325.00	91.170	358.560	7559.14	2941.66	2932.33	-502.97	1677765.88	14556619.88	40°04'55.187"N	104°51'59.308"W	0.28	
11419.00	91.230	358.120	7557.17	3035.64	3026.27	-505.69	1677763.02	14556713.78	40°04'56.115"N	104°51'59.343"W	0.47	
11513.00	91.320	357.580	7555.07	3129.60	3120.18	-509.22	1677759.35	14556807.65	40°04'57.043"N	104°51'59.388"W	0.58	
11607.00	91.390	357.100	7552.85	3223.54	3214.05	-513.58	1677754.85	14556901.48	40°04'57.971"N	104°51'59.444"W	0.52	
11701.00	91.480	356.530	7550.50	3317.45	3307.88	-518.80	1677749.49	14556995.26	40°04'58.898"N	104°51'59.512"W	0.61	
11795.00	90.150	357.540	7549.16	3411.39	3401.74	-523.66	1677744.49	14557089.07	40°04'59.826"N	104°51'59.574"W	1.78	
11889.00	91.020	357.490	7548.20	3505.35	3495.64	-527.74	1677740.27	14557182.93	40°05'00.754"N	104°51'59.627"W	0.93	
11983.00	89.480	357.240	7547.79	3599.32	3589.54	-532.06	1677735.81	14557276.79	40°05'01.681"N	104°51'59.682"W	1.66	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 30N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 30N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (159 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
12077.00	89.140	356.720	7548.92	3693.26	3683.40	-537.01	1677730.72	14557370.60	40°05'02.609"N	104°51'59.746"W	0.66	
12171.00	89.080	356.430	7550.38	3787.17	3777.22	-542.63	1677724.96	14557464.38	40°05'03.536"N	104°51'59.818"W	0.32	
12265.00	89.450	355.710	7551.59	3881.05	3870.99	-549.07	1677718.38	14557558.10	40°05'04.463"N	104°51'59.901"W	0.86	
12360.00	89.110	358.150	7552.78	3975.98	3965.84	-554.16	1677713.15	14557652.90	40°05'05.400"N	104°51'59.967"W	2.59	
12454.00	89.260	0.470	7554.12	4069.96	4059.82	-555.29	1677711.88	14557746.84	40°05'06.329"N	104°51'59.981"W	2.47	
12548.00	89.050	0.550	7555.51	4163.91	4153.80	-554.45	1677712.57	14557840.79	40°05'07.258"N	104°51'59.970"W	0.24	
12642.00	90.460	0.040	7555.91	4257.88	4247.80	-553.97	1677712.91	14557934.75	40°05'08.186"N	104°51'59.964"W	1.60	
12736.00	89.260	1.400	7556.14	4351.83	4341.79	-552.79	1677713.95	14558028.70	40°05'09.115"N	104°51'59.949"W	1.93	
12830.00	89.820	1.760	7556.89	4445.72	4435.75	-550.20	1677716.40	14558122.63	40°05'10.044"N	104°51'59.916"W	0.71	
12923.00	89.290	1.900	7557.61	4538.59	4528.70	-547.23	1677719.22	14558215.55	40°05'10.962"N	104°51'59.878"W	0.59	
12972.00†	89.696	1.679	7558.05	4587.53	4577.67	-545.70	1677720.68	14558264.50	40°05'11.446"N	104°51'59.858"W	0.94	ENTERED RADIUS TOE (361'FNL & 293'FWL,SEC.02) 40.0865129 -104.8666272
13016.00	90.060	1.480	7558.14	4631.48	4621.66	-544.48	1677721.82	14558308.47	40°05'11.881"N	104°51'59.842"W	0.94	
13110.00	87.970	0.840	7559.76	4725.38	4715.62	-542.58	1677723.58	14558402.40	40°05'12.810"N	104°51'59.818"W	2.33	
13204.00	88.650	0.190	7562.53	4819.30	4809.57	-541.74	1677724.28	14558496.31	40°05'13.738"N	104°51'59.807"W	1.00	
13298.00	89.380	0.050	7564.15	4913.27	4903.56	-541.54	1677724.34	14558590.26	40°05'14.667"N	104°51'59.804"W	0.79	
13392.00	89.970	359.430	7564.68	5007.25	4997.55	-541.97	1677723.77	14558684.22	40°05'15.596"N	104°51'59.810"W	0.91	
13487.00	89.050	0.850	7565.49	5102.22	5092.55	-541.73	1677723.86	14558779.18	40°05'16.534"N	104°51'59.807"W	1.78	
13580.00	89.350	0.970	7566.79	5195.16	5185.52	-540.26	1677725.19	14558872.12	40°05'17.453"N	104°51'59.788"W	0.35	
13675.00	90.550	0.320	7566.87	5290.11	5280.52	-539.19	1677726.12	14558967.07	40°05'18.392"N	104°51'59.774"W	1.44	
13768.00	91.790	0.340	7564.97	5383.06	5373.49	-538.65	1677726.51	14559060.02	40°05'19.311"N	104°51'59.767"W	1.33	
13863.00	89.450	0.080	7563.95	5478.02	5468.48	-538.30	1677726.71	14559154.96	40°05'20.249"N	104°51'59.763"W	2.48	
13957.00	89.540	359.770	7564.78	5572.00	5562.48	-538.43	1677726.45	14559248.92	40°05'21.178"N	104°51'59.765"W	0.34	
14022.00	91.110	0.550	7564.41	5636.98	5627.47	-538.24	1677726.53	14559313.89	40°05'21.821"N	104°51'59.762"W	2.70	LAST BHI MWD+IFR1+SC SURVEY
14070.00	91.110	0.550	7563.48	5684.95	5675.46	-537.78	1677726.92	14559361.86	40°05'22.295"N	104°51'59.756"W	0.00	PTB (736'FSL & 301'FWL,SEC.35) 40.0895264 -104.8665990

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 30N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 30N-35HZ AWB
Facility	SEC.02-T1N-R67W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.02-T1N-R67W	0.00	0.00	0.00	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
SEC.35-T2N-R67W	0.00	0.00	0.00	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
CAMENISCH 30N-35HZ BHL REV-1(750'FSL & 268'FWL,SEC.35)	7543.00	5689.17	-570.80	1677693.89	14559375.52	40°05'22.430"N	104°52'00.181"W	point
CAMENISCH 30N-35HZ BHL REV-2(738'FSL & 268'FWL,SEC.35)	7543.00	5677.18	-570.80	1677693.91	14559363.53	40°05'22.312"N	104°52'00.181"W	point
CAMENISCH 30N-35HZ HEEL REV-1(138'FSL & 308'FWL,SEC.02)	7543.00	-284.85	-453.40	1677820.33	14553404.07	40°04'23.394"N	104°51'58.669"W	point
CAMENISCH 30N-35HZ LANDBOX	7543.00	0.00	0.00	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
CAMENISCH 30N-35HZ RADIUS HEEL	7543.00	-424.02	-757.26	1677516.80	14553264.50	40°04'22.019"N	104°52'02.578"W	polygon
CAMENISCH 30N-35HZ RADIUS TOE	7543.00	4936.65	-834.94	1677431.00	14558622.90	40°05'14.994"N	104°52'03.579"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: CAMENISCH 30N-35HZ AWB					Ref Wellpath: CAMENISCH 30N-35HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
32.00	1793.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	SDI Custom APC ISCWSA Rev-2 MWD+IFR1 <131 - 1793>		CAMENISCH 30N-35HZ AWB	
1793.00	14022.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1929 - 14022>		CAMENISCH 30N-35HZ AWB	
14022.00	14070.00	Blind Drilling (std)	Projection to bit		CAMENISCH 30N-35HZ AWB	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 CAMENISCH 30N-35HZ (425'FSL & 764'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 30N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 30N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
131.00	0.260	130.540	131.00	FIRST SDI MWD+IFR1 SURVEY
1793.00	13.590	209.320	1775.43	LAST SDI MWD+IFR1 SURVEY
1929.00	12.950	212.610	1907.80	FIRST BHI MWD+IFR1+SC SURVEY
3987.00	12.542	200.432	3894.43	ENTERED LANDBOX (275'FNL & 466'FWL,SEC.11) 40.0720243 -104.8657434
6945.00	0.940	15.263	6816.18	KOP
7586.00	50.235	1.597	7364.97	ENTERED RADIUS HEEL (331'FNL & 325'FWL,SEC.11) 40.0718706 -104.8662428
8086.00	89.970	355.740	7554.80	LANDING (121'FSL & 317'FWL,SEC.02) 40.0731131 -104.8662734
12972.00	89.696	1.679	7558.05	ENTERED RADIUS TOE (361'FNL & 293'FWL,SEC.02) 40.0865129 -104.8666272
14022.00	91.110	0.550	7564.41	LAST BHI MWD+IFR1+SC SURVEY
14070.00	91.110	0.550	7563.48	PTB (736'FSL & 301'FWL,SEC.35) 40.0895264 -104.8665990