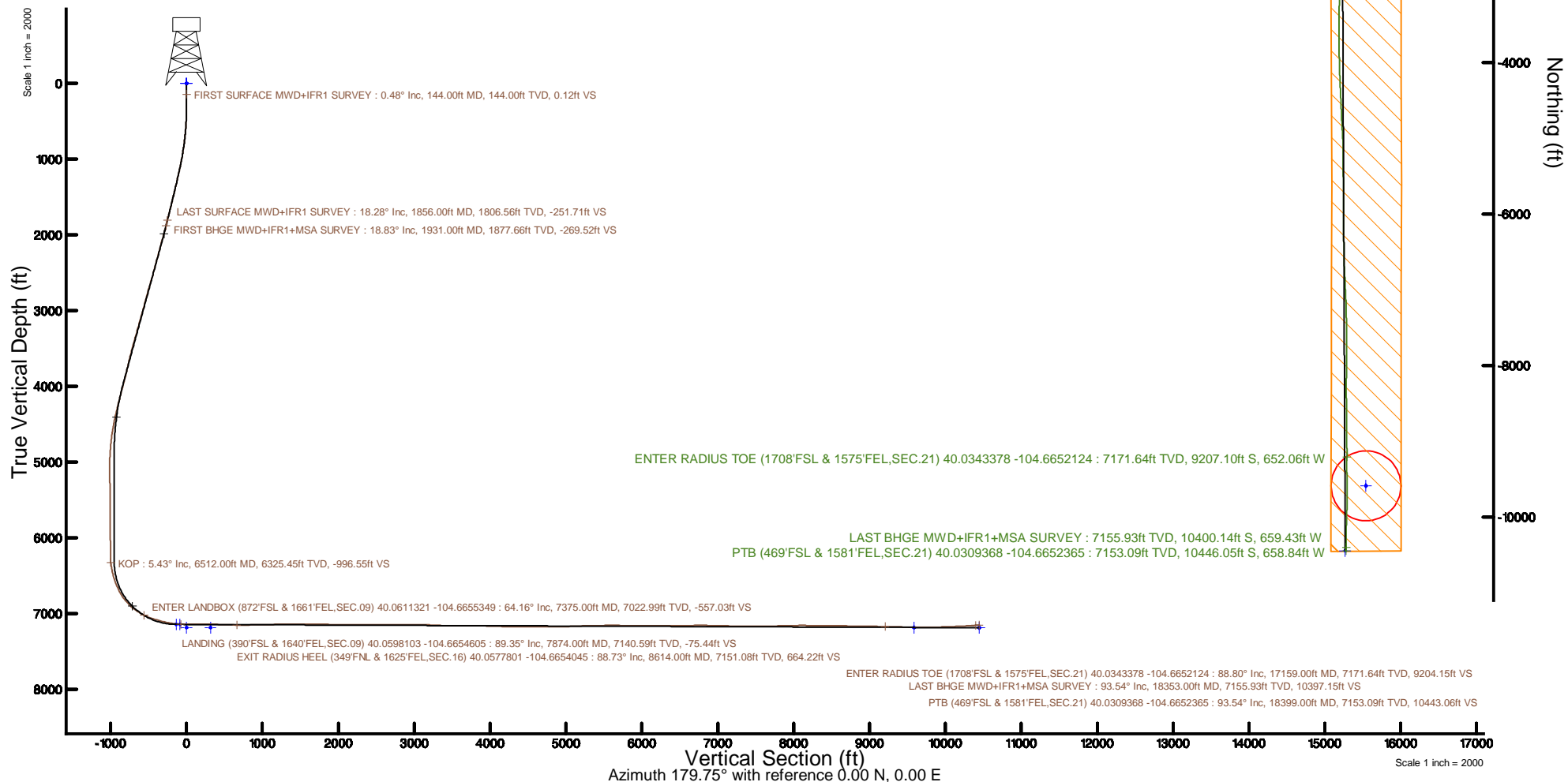


Location:	COLORADO	Slot:	SLOT#27 ROBIN 9-13HZ(318FSL & 919FEL,SEC.09)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	ROBIN 9-13HZ
Facility:	SEC.09-T1N-R65W	Wellbore:	ROBIN 9-13HZ PWB
Plot reference wellpath is ROBIN 9-13HZ PWP Rev-A-2		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to NABORS X22 (32') (RT)		* = Wellpath was transformed from a different geoidic datum	
Measured depths are referenced to NABORS X22 (32') (RT)		North Reference: True north	
NABORS X22 (32') (RT) to Mean Sea Level: 5006 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#27 ROBIN 9-13HZ(318FSL & 919FEL,SEC.09)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: painseer on 2017-12-06	
		Database: WA_DEN_ANDROID_Defn	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999610	Report Generated	12/6/2017 at 9:30 AM
Convergence at slot	0.22° East	Database/Source file	WA_DEN_Anadarko_Defn/ROBIN_9-13HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4439.73	3691.05	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W
Facility Reference Pt			1731038.57	14553043.83	40°04'18.480"N	104°40'33.852"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	5006.00ft
Horizontal Reference Pt	Slot	NABORS X22 (32') (RT) to Mean Sea Level	5006.00ft
Vertical Reference Pt	NABORS X22 (32') (RT)	NABORS X22 (32') (RT) to Mud Line at Slot (SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09))	5006.00ft
MD Reference Pt	NABORS X22 (32') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.75°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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	104.960	0.00	0.00	0.00	0.00	1734744.30	14548619.30	40°03'34.603°N	104°39'46.382°W	0.00	
32.00	0.000	104.960	32.00	0.00	0.00	0.00	1734744.30	14548619.30	40°03'34.603°N	104°39'46.382°W	0.00	
144.00	0.480	104.960	144.00	0.12	-0.12	0.45	1734744.75	14548619.18	40°03'34.602°N	104°39'46.376°W	0.43	FIRST SURFACE MWD+IFR1 SURVEY
176.00	0.260	98.100	176.00	0.17	-0.17	0.65	1734744.95	14548619.14	40°03'34.601°N	104°39'46.374°W	0.70	
207.00	0.620	264.480	207.00	0.19	-0.19	0.56	1734744.86	14548619.11	40°03'34.601°N	104°39'46.375°W	2.82	
239.00	1.270	274.410	238.99	0.18	-0.18	0.03	1734744.33	14548619.12	40°03'34.601°N	104°39'46.382°W	2.09	
270.00	1.230	273.350	269.99	0.13	-0.14	-0.64	1734743.66	14548619.16	40°03'34.602°N	104°39'46.390°W	0.15	
302.00	1.580	285.130	301.98	-0.01	0.00	-1.41	1734742.89	14548619.30	40°03'34.603°N	104°39'46.400°W	1.41	
333.00	1.980	295.770	332.96	-0.35	0.34	-2.31	1734741.99	14548619.64	40°03'34.606°N	104°39'46.412°W	1.67	
365.00	2.110	295.680	364.94	-0.85	0.84	-3.34	1734740.96	14548620.13	40°03'34.611°N	104°39'46.425°W	0.41	
396.00	2.370	299.550	395.92	-1.42	1.40	-4.41	1734739.89	14548620.69	40°03'34.617°N	104°39'46.439°W	0.97	
428.00	2.860	295.850	427.88	-2.10	2.08	-5.70	1734738.59	14548621.36	40°03'34.624°N	104°39'46.455°W	1.62	
459.00	3.650	299.020	458.83	-2.93	2.89	-7.26	1734737.03	14548622.17	40°03'34.632°N	104°39'46.475°W	2.61	
491.00	4.350	305.790	490.76	-4.14	4.10	-9.14	1734735.15	14548623.36	40°03'34.643°N	104°39'46.499°W	2.64	
554.00	5.890	312.820	553.50	-7.75	7.69	-13.44	1734730.83	14548626.94	40°03'34.679°N	104°39'46.555°W	2.64	
586.00	6.370	315.280	585.32	-10.14	10.07	-15.90	1734728.37	14548629.31	40°03'34.703°N	104°39'46.586°W	1.71	
618.00	7.160	312.990	617.10	-12.77	12.69	-18.61	1734725.65	14548631.92	40°03'34.728°N	104°39'46.621°W	2.61	
650.00	7.560	310.970	648.83	-15.53	15.43	-21.65	1734722.60	14548634.64	40°03'34.755°N	104°39'46.660°W	1.49	
681.00	8.310	309.650	679.54	-18.31	18.20	-24.92	1734719.32	14548637.40	40°03'34.783°N	104°39'46.702°W	2.49	
713.00	9.010	310.880	711.17	-21.44	21.31	-28.59	1734715.64	14548640.50	40°03'34.814°N	104°39'46.750°W	2.26	
745.00	9.930	311.320	742.73	-24.92	24.77	-32.56	1734711.66	14548643.94	40°03'34.848°N	104°39'46.801°W	2.88	
777.00	10.990	311.320	774.20	-28.77	28.61	-36.92	1734707.28	14548647.76	40°03'34.886°N	104°39'46.857°W	3.31	
808.00	11.690	311.760	804.60	-32.83	32.65	-41.49	1734702.71	14548651.78	40°03'34.926°N	104°39'46.916°W	2.28	
840.00	12.080	311.410	835.91	-37.23	37.03	-46.42	1734697.76	14548656.14	40°03'34.969°N	104°39'46.979°W	1.24	
872.00	12.440	310.800	867.18	-41.72	41.49	-51.54	1734692.63	14548660.58	40°03'35.013°N	104°39'47.045°W	1.20	
904.00	12.390	316.240	898.43	-46.47	46.23	-56.52	1734687.63	14548665.29	40°03'35.060°N	104°39'47.109°W	3.66	
935.00	12.700	317.480	928.69	-51.41	51.14	-61.12	1734683.01	14548670.19	40°03'35.108°N	104°39'47.168°W	1.32	
967.00	13.100	317.650	959.89	-56.70	56.41	-65.94	1734678.17	14548675.44	40°03'35.160°N	104°39'47.230°W	1.26	
999.00	13.970	317.650	991.00	-62.26	61.95	-70.99	1734673.10	14548680.95	40°03'35.215°N	104°39'47.295°W	2.72	
1031.00	14.810	317.390	1021.99	-68.15	67.81	-76.36	1734667.71	14548686.80	40°03'35.273°N	104°39'47.364°W	2.63	
1062.00	14.990	317.480	1051.95	-74.04	73.68	-81.75	1734662.30	14548692.64	40°03'35.331°N	104°39'47.433°W	0.59	
1094.00	15.210	316.070	1082.85	-80.14	79.76	-87.46	1734656.57	14548698.69	40°03'35.391°N	104°39'47.507°W	1.34	
1126.00	19.950	317.390	1113.34	-87.21	86.80	-94.07	1734649.94	14548705.71	40°03'35.461°N	104°39'47.592°W	14.86	
1157.00	16.350	317.480	1142.80	-94.35	93.91	-100.60	1734643.38	14548712.79	40°03'35.531°N	104°39'47.676°W	11.61	
1189.00	17.090	315.010	1173.44	-101.02	100.56	-106.97	1734636.99	14548719.41	40°03'35.597°N	104°39'47.758°W	3.21	
1221.00	16.880	312.730	1204.05	-107.53	107.03	-113.71	1734630.23	14548725.86	40°03'35.661°N	104°39'47.844°W	2.18	
1253.00	17.180	312.990	1234.64	-113.94	113.41	-120.58	1734623.34	14548732.21	40°03'35.724°N	104°39'47.933°W	0.97	
1285.00	17.580	314.220	1265.18	-120.56	120.00	-127.50	1734616.40	14548738.77	40°03'35.789°N	104°39'48.022°W	1.70	
1317.00	18.150	314.400	1295.64	-127.45	126.86	-134.52	1734609.35	14548745.60	40°03'35.857°N	104°39'48.112°W	1.79	
1348.00	18.370	316.770	1325.08	-134.42	133.80	-141.32	1734602.53	14548752.51	40°03'35.925°N	104°39'48.199°W	2.50	
1380.00	18.540	315.720	1355.43	-141.76	141.11	-148.33	1734595.50	14548759.80	40°03'35.998°N	104°39'48.290°W	1.17	
1412.00	17.970	314.750	1385.82	-148.91	148.23	-155.38	1734588.42	14548766.89	40°03'36.068°N	104°39'48.380°W	2.02	
1443.00	18.370	314.140	1415.28	-155.71	155.00	-162.28	1734581.49	14548773.63	40°03'36.135°N	104°39'48.469°W	1.43	
1475.00	18.680	315.810	1445.62	-162.93	162.19	-169.48	1734574.28	14548780.78	40°03'36.206°N	104°39'48.562°W	1.92	
1507.00	18.810	316.680	1475.92	-170.39	169.61	-176.59	1734567.14	14548788.18	40°03'36.279°N	104°39'48.653°W	0.96	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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
1538.00	18.850	316.070	1505.26	-177.66	176.86	-183.49	1734560.21	14548795.39	40°03'36.351"N	104°39'48.742"W	0.65	
1570.00	18.680	316.070	1535.56	-185.10	184.27	-190.63	1734553.05	14548802.78	40°03'36.424"N	104°39'48.834"W	0.53	
1601.00	18.810	314.220	1564.92	-192.19	191.33	-197.66	1734546.00	14548809.81	40°03'36.494"N	104°39'48.924"W	1.96	
1633.00	19.070	314.840	1595.19	-199.51	198.61	-205.06	1734538.57	14548817.06	40°03'36.566"N	104°39'49.019"W	1.03	
1665.00	19.290	316.330	1625.41	-207.05	206.12	-212.42	1734531.19	14548824.54	40°03'36.640"N	104°39'49.114"W	1.68	
1697.00	19.470	315.190	1655.60	-214.69	213.73	-219.83	1734523.75	14548832.12	40°03'36.715"N	104°39'49.209"W	1.31	
1729.00	18.540	318.350	1685.85	-222.31	221.32	-226.97	1734516.59	14548839.67	40°03'36.790"N	104°39'49.301"W	4.33	
1760.00	17.800	317.120	1715.31	-229.49	228.47	-233.47	1734510.06	14548846.80	40°03'36.861"N	104°39'49.385"W	2.69	
1792.00	18.060	318.180	1745.75	-236.80	235.75	-240.10	1734503.40	14548854.05	40°03'36.933"N	104°39'49.470"W	1.30	
1824.00	18.190	318.090	1776.16	-244.24	243.17	-246.75	1734496.73	14548861.44	40°03'37.006"N	104°39'49.555"W	0.42	
1856.00	18.280	317.910	1806.56	-251.71	250.61	-253.45	1734490.01	14548868.85	40°03'37.080"N	104°39'49.642"W	0.33	LAST SURFACE MWD+IFR1 SURVEY
1931.00	18.830	318.070	1877.66	-269.52	268.34	-269.42	1734473.97	14548886.51	40°03'37.255"N	104°39'49.847"W	0.74	FIRST BHGE MWD+IFR1+MSA SURVEY
2025.00	18.430	325.080	1966.74	-293.07	291.81	-288.06	1734455.25	14548909.91	40°03'37.487"N	104°39'50.087"W	2.42	
2119.00	18.450	323.910	2055.92	-317.35	316.02	-305.33	1734437.89	14548934.04	40°03'37.726"N	104°39'50.309"W	0.39	
2213.00	18.260	322.550	2145.14	-341.14	339.73	-323.05	1734420.10	14548957.67	40°03'37.960"N	104°39'50.537"W	0.50	
2306.00	18.170	326.760	2233.48	-364.91	363.42	-339.86	1734403.20	14548981.29	40°03'38.194"N	104°39'50.753"W	1.42	
2399.00	18.130	326.440	2321.85	-389.16	387.61	-355.80	1734387.17	14549005.41	40°03'38.433"N	104°39'50.958"W	0.12	
2493.00	17.610	325.950	2411.32	-413.20	411.58	-371.85	1734371.04	14549029.31	40°03'38.670"N	104°39'51.164"W	0.58	
2587.00	17.570	328.850	2500.92	-437.19	435.50	-387.15	1734355.66	14549053.16	40°03'38.907"N	104°39'51.361"W	0.93	
2681.00	18.670	330.660	2590.26	-462.52	460.76	-401.86	1734340.85	14549078.36	40°03'39.156"N	104°39'51.550"W	1.31	
2775.00	18.360	329.770	2679.40	-488.49	486.67	-416.69	1734325.94	14549104.20	40°03'39.412"N	104°39'51.741"W	0.45	
2869.00	17.460	329.380	2768.84	-513.48	511.59	-431.32	1734311.21	14549129.06	40°03'39.659"N	104°39'51.929"W	0.97	
2963.00	17.960	327.920	2858.39	-537.96	536.01	-446.20	1734296.24	14549153.41	40°03'39.900"N	104°39'52.121"W	0.71	
3057.00	17.270	327.180	2947.98	-562.03	560.02	-461.46	1734280.90	14549177.35	40°03'40.137"N	104°39'52.317"W	0.77	
3151.00	18.080	330.980	3037.54	-586.58	584.50	-476.10	1734266.17	14549201.76	40°03'40.379"N	104°39'52.505"W	1.50	
3245.00	17.720	330.650	3126.99	-611.86	609.72	-490.19	1734252.00	14549226.92	40°03'40.628"N	104°39'52.686"W	0.40	
3339.00	18.800	327.290	3216.26	-637.14	634.94	-505.39	1734236.71	14549252.07	40°03'40.878"N	104°39'52.882"W	1.60	
3433.00	17.900	326.960	3305.48	-662.07	659.79	-521.45	1734220.56	14549276.86	40°03'41.123"N	104°39'53.088"W	0.96	
3526.00	18.800	327.440	3393.75	-686.75	684.40	-537.31	1734204.62	14549301.40	40°03'41.366"N	104°39'53.292"W	0.98	
3620.00	17.640	326.390	3483.04	-711.45	709.03	-553.34	1734188.49	14549325.96	40°03'41.610"N	104°39'53.499"W	1.28	
3714.00	18.190	324.100	3572.48	-735.27	732.78	-569.83	1734171.92	14549349.63	40°03'41.844"N	104°39'53.711"W	0.95	
3808.00	16.530	321.820	3662.19	-757.74	755.18	-586.70	1734154.97	14549371.96	40°03'42.066"N	104°39'53.928"W	1.91	
3902.00	15.920	320.800	3752.45	-778.31	775.68	-603.12	1734138.49	14549392.39	40°03'42.268"N	104°39'54.139"W	0.72	
3996.00	16.910	322.830	3842.62	-799.27	796.56	-619.52	1734122.01	14549413.20	40°03'42.475"N	104°39'54.350"W	1.22	
4090.00	16.540	327.080	3932.65	-821.46	818.69	-635.06	1734106.40	14549435.26	40°03'42.693"N	104°39'54.550"W	1.36	
4185.00	18.020	327.070	4023.36	-845.22	842.38	-650.39	1734090.98	14549458.88	40°03'42.927"N	104°39'54.747"W	1.56	
4279.00	17.520	325.360	4112.87	-869.13	866.22	-666.34	1734074.95	14549482.65	40°03'43.163"N	104°39'54.952"W	0.77	
4373.00	17.190	323.990	4202.59	-892.08	889.10	-682.55	1734058.66	14549505.46	40°03'43.389"N	104°39'55.160"W	0.56	
4493.00	15.920	328.160	4317.62	-920.49	917.42	-701.66	1734039.45	14549533.70	40°03'43.669"N	104°39'55.406"W	1.45	
4587.00	14.580	324.510	4408.31	-941.14	938.01	-715.33	1734025.70	14549554.23	40°03'43.873"N	104°39'55.582"W	1.75	
4681.00	12.840	324.770	4499.63	-959.36	956.18	-728.22	1734012.75	14549572.34	40°03'44.052"N	104°39'55.748"W	1.85	
4776.00	10.960	326.770	4592.58	-975.59	972.36	-739.26	1734001.65	14549588.47	40°03'44.212"N	104°39'55.890"W	2.03	
4870.00	8.330	316.920	4685.25	-988.08	984.81	-748.81	1733992.06	14549600.88	40°03'44.335"N	104°39'56.013"W	3.29	
4964.00	6.950	324.810	4778.42	-997.73	994.43	-756.74	1733984.09	14549610.47	40°03'44.430"N	104°39'56.115"W	1.84	
5058.00	4.750	333.010	4871.92	-1005.87	1002.55	-761.79	1733979.02	14549618.56	40°03'44.510"N	104°39'56.180"W	2.50	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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
5152.00	1.690	340.650	4965.76	-1010.66	1007.32	-764.01	1733976.78	14549623.33	40°03'44.557"N	104°39'56.208"W	3.28	
5247.00	0.940	120.550	5060.75	-1011.59	1008.25	-763.81	1733976.98	14549624.26	40°03'44.567"N	104°39'56.206"W	2.61	
5340.00	0.660	82.170	5153.74	-1011.27	1007.93	-762.62	1733978.17	14549623.95	40°03'44.564"N	104°39'56.190"W	0.63	
5434.00	1.440	145.510	5247.73	-1010.36	1007.03	-761.41	1733979.38	14549623.05	40°03'44.555"N	104°39'56.175"W	1.37	
5528.00	0.890	141.360	5341.71	-1008.81	1005.49	-760.29	1733980.51	14549621.51	40°03'44.539"N	104°39'56.160"W	0.59	
5622.00	0.540	103.320	5435.70	-1008.14	1004.82	-759.40	1733981.40	14549620.84	40°03'44.533"N	104°39'56.149"W	0.61	
5716.00	0.290	102.690	5529.70	-1007.98	1004.66	-758.74	1733982.06	14549620.69	40°03'44.531"N	104°39'56.140"W	0.27	
5809.00	0.800	193.770	5622.70	-1007.30	1003.98	-758.66	1733982.14	14549620.01	40°03'44.524"N	104°39'56.139"W	0.92	
5903.00	0.510	225.770	5716.69	-1006.37	1003.05	-759.12	1733981.69	14549619.08	40°03'44.515"N	104°39'56.145"W	0.49	
5996.00	0.280	220.790	5809.69	-1005.91	1002.59	-759.56	1733981.24	14549618.62	40°03'44.511"N	104°39'56.151"W	0.25	
6090.00	1.440	131.820	5903.68	-1004.94	1001.63	-758.83	1733981.98	14549617.66	40°03'44.501"N	104°39'56.142"W	1.56	
6184.00	1.000	136.910	5997.66	-1003.55	1000.24	-757.39	1733983.42	14549616.28	40°03'44.488"N	104°39'56.123"W	0.48	
6278.00	0.940	106.870	6091.64	-1002.72	999.42	-756.10	1733984.72	14549615.46	40°03'44.479"N	104°39'56.106"W	0.54	
6371.00	1.080	117.400	6184.63	-1002.09	998.80	-754.59	1733986.23	14549614.84	40°03'44.473"N	104°39'56.087"W	0.25	
6465.00	2.810	151.150	6278.57	-999.66	996.37	-752.69	1733988.14	14549612.42	40°03'44.449"N	104°39'56.063"W	2.13	
6512.00†	5.432	160.355	6325.45	-996.55	993.27	-751.38	1733989.45	14549609.33	40°03'44.419"N	104°39'56.046"W	5.74	KOP
6560.00	8.160	163.590	6373.11	-991.13	987.86	-749.66	1733991.20	14549603.93	40°03'44.365"N	104°39'56.024"W	5.74	
6654.00	14.130	174.480	6465.30	-973.28	970.02	-746.67	1733994.26	14549586.11	40°03'44.189"N	104°39'55.985"W	6.71	
6748.00	19.260	176.810	6555.31	-946.35	943.10	-744.70	1733996.33	14549559.21	40°03'43.923"N	104°39'55.960"W	5.50	
6843.00	22.610	178.750	6644.03	-912.44	909.19	-743.43	1733997.73	14549525.31	40°03'43.588"N	104°39'55.943"W	3.60	
6936.00	28.050	182.090	6728.06	-872.68	869.43	-743.84	1733997.47	14549485.57	40°03'43.195"N	104°39'55.949"W	6.05	
7029.00	36.840	183.390	6806.47	-822.91	819.65	-746.29	1733995.21	14549435.80	40°03'42.703"N	104°39'55.980"W	9.48	
7123.00	45.700	179.680	6877.06	-761.02	757.75	-747.77	1733993.96	14549373.92	40°03'42.091"N	104°39'55.999"W	9.77	
7217.00	51.610	176.540	6939.14	-690.53	687.27	-745.36	1733996.64	14549303.48	40°03'41.395"N	104°39'55.968"W	6.77	
7311.00	59.060	179.780	6992.57	-613.31	610.06	-742.97	1733999.31	14549226.31	40°03'40.632"N	104°39'55.937"W	8.42	
7375.00†	64.163	178.376	7022.99	-557.03	553.79	-742.05	1734000.45	14549170.06	40°03'40.076"N	104°39'55.926"W	8.20	ENTER LANDBOX (872'FSL & 1661'FEL,SEC.09) 40.0611321 -104.6655349
7405.00	66.560	177.760	7035.50	-529.78	526.54	-741.13	1734001.47	14549142.82	40°03'39.806"N	104°39'55.914"W	8.20	
7499.00	73.030	177.860	7067.95	-441.66	438.43	-737.76	1734005.17	14549054.77	40°03'38.936"N	104°39'55.870"W	6.88	
7592.00	74.510	177.200	7093.94	-352.44	349.22	-733.91	1734009.36	14548965.61	40°03'38.054"N	104°39'55.821"W	1.73	
7686.00	76.890	177.370	7117.16	-261.44	258.25	-729.60	1734014.01	14548874.68	40°03'37.155"N	104°39'55.765"W	2.54	
7780.00	82.530	176.710	7133.94	-169.09	165.92	-724.82	1734019.14	14548782.41	40°03'36.243"N	104°39'55.704"W	6.04	
7874.00	89.350	178.890	7140.59	-75.44	72.28	-721.23	1734023.08	14548688.83	40°03'35.317"N	104°39'55.658"W	7.61	LANDING (390'FSL & 1640'FEL,SEC.09) 40.0598103 -104.6654605
7968.00	89.940	178.070	7141.18	18.53	-21.68	-718.74	1734025.93	14548594.91	40°03'34.389"N	104°39'55.626"W	1.07	
8062.00	88.860	179.210	7142.16	112.50	-115.64	-716.51	1734028.52	14548500.99	40°03'33.460"N	104°39'55.597"W	1.67	
8155.00	89.780	178.620	7143.26	205.49	-208.62	-714.75	1734030.63	14548408.06	40°03'32.541"N	104°39'55.574"W	1.18	
8249.00	90.860	177.030	7142.74	299.43	-302.55	-711.18	1734034.55	14548314.18	40°03'31.613"N	104°39'55.528"W	2.04	
8343.00	88.950	178.270	7142.89	393.36	-396.46	-707.32	1734038.76	14548220.32	40°03'30.685"N	104°39'55.479"W	2.42	
8437.00	87.810	180.140	7145.55	487.31	-490.41	-706.02	1734040.42	14548126.42	40°03'29.757"N	104°39'55.462"W	2.33	
8531.00	88.180	179.880	7148.84	581.25	-584.35	-706.04	1734040.76	14548032.51	40°03'28.828"N	104°39'55.462"W	0.48	
8614.00†	88.727	179.500	7151.08	664.22	-667.32	-705.59	1734041.52	14547949.58	40°03'28.008"N	104°39'55.456"W	0.80	EXIT RADIUS HEEL (349'FNL & 1625'FEL,SEC.16) 40.0577801 -104.6654045
8625.00	88.800	179.450	7151.32	675.22	-678.32	-705.49	1734041.66	14547938.59	40°03'27.900"N	104°39'55.455"W	0.80	
8719.00	90.920	180.900	7151.55	769.21	-772.31	-705.77	1734041.73	14547844.63	40°03'26.971"N	104°39'55.459"W	2.73	
8812.00	91.720	180.820	7149.40	862.17	-865.27	-707.17	1734040.69	14547751.70	40°03'26.052"N	104°39'55.476"W	0.86	
8906.00	90.590	180.820	7147.51	956.13	-959.24	-708.51	1734039.70	14547657.76	40°03'25.123"N	104°39'55.494"W	1.20	
9001.00	91.260	180.080	7145.98	1051.11	-1054.22	-709.26	1734039.31	14547562.81	40°03'24.185"N	104°39'55.503"W	1.05	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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
9095.00	91.880	179.340	7143.40	1145.07	-1148.19	-708.79	1734040.14	14547468.89	40°03'23.256"N	104°39'55.497"W	1.03	
9189.00	90.550	180.220	7141.41	1239.05	-1242.16	-708.42	1734040.86	14547374.95	40°03'22.328"N	104°39'55.492"W	1.70	
9283.00	90.990	179.910	7140.14	1333.04	-1336.15	-708.53	1734041.11	14547281.00	40°03'21.399"N	104°39'55.494"W	0.57	
9378.00	89.170	179.750	7140.01	1428.03	-1431.15	-708.25	1734041.75	14547186.04	40°03'20.460"N	104°39'55.490"W	1.92	
9472.00	89.660	179.400	7140.97	1522.03	-1525.14	-707.55	1734042.80	14547092.09	40°03'19.531"N	104°39'55.481"W	0.64	
9566.00	89.480	178.700	7141.68	1616.02	-1619.12	-705.99	1734044.72	14546998.15	40°03'18.602"N	104°39'55.461"W	0.77	
9660.00	90.770	178.600	7141.47	1710.00	-1713.10	-703.78	1734047.29	14546904.22	40°03'17.674"N	104°39'55.433"W	1.38	
9752.00	88.920	179.610	7141.72	1801.99	-1805.08	-702.34	1734049.07	14546812.28	40°03'16.765"N	104°39'55.414"W	2.29	
9846.00	88.340	178.520	7143.97	1895.95	-1899.04	-700.81	1734050.96	14546718.37	40°03'15.836"N	104°39'55.394"W	1.31	
9940.00	88.670	177.520	7146.42	1989.87	-1992.95	-697.56	1734054.56	14546624.51	40°03'14.908"N	104°39'55.353"W	1.12	
10034.00	89.780	180.720	7147.69	2083.85	-2086.92	-696.12	1734056.36	14546530.58	40°03'13.980"N	104°39'55.334"W	3.60	
10128.00	89.660	182.600	7148.15	2177.79	-2180.87	-698.84	1734053.99	14546436.66	40°03'13.051"N	104°39'55.369"W	2.00	
10222.00	90.310	182.920	7148.18	2271.66	-2274.76	-703.37	1734049.82	14546342.79	40°03'12.123"N	104°39'55.427"W	0.77	
10316.00	91.320	182.760	7146.84	2365.51	-2368.63	-708.03	1734045.52	14546248.93	40°03'11.196"N	104°39'55.487"W	1.09	
10410.00	90.400	183.570	7145.43	2459.33	-2462.48	-713.21	1734040.69	14546155.11	40°03'10.268"N	104°39'55.554"W	1.30	
10504.00	88.890	183.610	7146.01	2553.12	-2556.29	-719.10	1734035.16	14546061.31	40°03'09.341"N	104°39'55.629"W	1.61	
10598.00	89.080	183.620	7147.68	2646.89	-2650.09	-725.03	1734029.59	14545967.53	40°03'08.414"N	104°39'55.705"W	0.20	
10691.00	90.430	183.740	7148.07	2739.66	-2742.89	-731.00	1734023.98	14545874.74	40°03'07.497"N	104°39'55.782"W	1.46	
10784.00	90.920	183.230	7146.98	2832.46	-2835.71	-736.65	1734018.68	14545781.93	40°03'06.580"N	104°39'55.855"W	0.76	
10877.00	91.700	183.100	7144.85	2925.27	-2928.55	-741.78	1734013.90	14545689.11	40°03'05.662"N	104°39'55.921"W	0.85	
10971.00	89.850	181.740	7143.58	3019.15	-3022.45	-745.75	1734010.29	14545595.24	40°03'04.734"N	104°39'55.972"W	2.44	
11064.00	87.380	181.800	7145.83	3112.06	-3115.37	-748.62	1734007.77	14545502.34	40°03'03.816"N	104°39'56.009"W	2.66	
11158.00	87.320	181.210	7150.17	3205.92	-3209.24	-751.09	1734005.66	14545408.50	40°03'02.888"N	104°39'56.040"W	0.63	
11252.00	87.350	180.910	7154.55	3299.79	-3303.12	-752.82	1734004.28	14545314.65	40°03'01.961"N	104°39'56.063"W	0.32	
11346.00	88.920	180.820	7157.60	3393.72	-3397.06	-754.24	1734003.22	14545220.75	40°03'01.032"N	104°39'56.081"W	1.67	
11440.00	88.980	180.310	7159.33	3487.69	-3491.03	-755.17	1734002.65	14545126.80	40°03'00.104"N	104°39'56.093"W	0.55	
11533.00	90.860	180.270	7159.46	3580.68	-3584.03	-755.64	1734002.53	14545033.84	40°02'59.185"N	104°39'56.099"W	2.02	
11626.00	91.330	179.640	7157.68	3673.67	-3677.01	-755.57	1734002.95	14544940.90	40°02'58.266"N	104°39'56.098"W	0.85	
11720.00	88.830	179.050	7157.55	3767.66	-3771.00	-754.49	1734004.38	14544846.95	40°02'57.337"N	104°39'56.084"W	2.73	
11813.00	88.090	179.230	7160.05	3860.62	-3863.95	-753.10	1734006.13	14544754.04	40°02'56.418"N	104°39'56.066"W	0.82	
11906.00	87.690	178.870	7163.47	3953.55	-3956.88	-751.56	1734008.02	14544661.16	40°02'55.500"N	104°39'56.046"W	0.58	
12000.00	87.470	178.590	7167.44	4047.45	-4050.77	-749.47	1734010.46	14544567.31	40°02'54.572"N	104°39'56.019"W	0.38	
12092.00	89.380	177.950	7169.97	4139.38	-4142.69	-746.70	1734013.58	14544475.44	40°02'53.664"N	104°39'55.984"W	2.19	
12184.00	89.660	177.620	7170.74	4231.32	-4234.62	-743.14	1734017.48	14544383.56	40°02'52.755"N	104°39'55.938"W	0.47	
12277.00	89.080	177.470	7171.76	4324.24	-4327.52	-739.16	1734021.82	14544290.71	40°02'51.837"N	104°39'55.887"W	0.64	
12369.00	89.820	177.370	7172.65	4416.16	-4419.43	-735.02	1734026.30	14544198.86	40°02'50.929"N	104°39'55.833"W	0.81	
12461.00	89.290	176.680	7173.36	4508.06	-4511.30	-730.24	1734031.42	14544107.04	40°02'50.021"N	104°39'55.772"W	0.95	
12555.00	88.980	177.920	7174.78	4601.96	-4605.18	-725.82	1734036.20	14544013.21	40°02'49.093"N	104°39'55.715"W	1.36	
12649.00	90.770	177.730	7174.98	4695.90	-4699.11	-722.25	1734040.13	14543919.33	40°02'48.165"N	104°39'55.669"W	1.91	
12742.00	89.510	176.530	7174.76	4788.80	-4791.99	-717.59	1734045.13	14543826.51	40°02'47.247"N	104°39'55.609"W	1.87	
12837.00	91.390	177.250	7174.01	4883.67	-4886.84	-712.44	1734050.64	14543731.71	40°02'46.310"N	104°39'55.543"W	2.12	
12931.00	90.890	176.460	7172.14	4977.53	-4980.68	-707.28	1734056.15	14543637.93	40°02'45.383"N	104°39'55.476"W	0.99	
13025.00	92.310	179.790	7169.52	5071.44	-5074.58	-704.21	1734059.58	14543544.08	40°02'44.455"N	104°39'55.437"W	3.85	
13119.00	92.530	178.950	7165.55	5165.36	-5168.49	-703.18	1734060.97	14543450.21	40°02'43.527"N	104°39'55.424"W	0.92	
13213.00	92.160	179.000	7161.70	5259.27	-5262.39	-701.49	1734063.00	14543356.35	40°02'42.599"N	104°39'55.402"W	0.40	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO		Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W			

WELLPATH DATA (237 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
13306.00	90.650	179.490	7159.42	5352.24	-5355.35	-700.27	1734064.58	14543263.43	40°02'41.680"N	104°39'55.386"W	1.71	
13400.00	91.050	179.600	7158.03	5446.22	-5449.34	-699.52	1734065.68	14543169.49	40°02'40.751"N	104°39'55.376"W	0.44	
13494.00	91.170	178.620	7156.20	5540.20	-5543.31	-698.06	1734067.50	14543075.56	40°02'39.823"N	104°39'55.358"W	1.05	
13588.00	89.410	179.010	7155.73	5634.18	-5637.29	-696.12	1734069.80	14542981.63	40°02'38.894"N	104°39'55.333"W	1.92	
13682.00	89.040	179.250	7157.00	5728.17	-5731.27	-694.69	1734071.58	14542887.69	40°02'37.965"N	104°39'55.314"W	0.47	
13776.00	89.480	179.970	7158.21	5822.16	-5825.26	-694.05	1734072.57	14542793.74	40°02'37.036"N	104°39'55.306"W	0.90	
13870.00	89.540	180.170	7159.02	5916.15	-5919.25	-694.17	1734072.81	14542699.78	40°02'36.107"N	104°39'55.307"W	0.22	
13965.00	89.050	179.560	7160.19	6011.15	-6014.24	-693.94	1734073.40	14542604.83	40°02'35.169"N	104°39'55.304"W	0.82	
14059.00	88.800	179.570	7161.95	6105.13	-6108.22	-693.23	1734074.47	14542510.89	40°02'34.240"N	104°39'55.295"W	0.27	
14152.00	90.490	180.260	7162.53	6198.12	-6201.22	-693.09	1734074.96	14542417.93	40°02'33.321"N	104°39'55.293"W	1.96	
14246.00	90.460	179.310	7161.75	6292.12	-6295.21	-692.74	1734075.66	14542323.98	40°02'32.392"N	104°39'55.289"W	1.01	
14339.00	90.950	179.670	7160.60	6385.11	-6388.20	-691.91	1734076.84	14542231.03	40°02'31.473"N	104°39'55.278"W	0.65	
14433.00	90.830	179.130	7159.14	6479.10	-6482.19	-690.93	1734078.18	14542137.09	40°02'30.544"N	104°39'55.266"W	0.59	
14527.00	90.550	178.620	7158.01	6573.08	-6576.16	-689.08	1734080.38	14542043.16	40°02'29.616"N	104°39'55.242"W	0.62	
14620.00	90.770	177.880	7156.94	6666.04	-6669.11	-686.24	1734083.57	14541950.26	40°02'28.697"N	104°39'55.205"W	0.83	
14713.00	90.310	177.400	7156.06	6758.97	-6762.03	-682.41	1734087.75	14541857.39	40°02'27.779"N	104°39'55.156"W	0.71	
14808.00	88.950	177.230	7156.68	6853.88	-6856.92	-677.96	1734092.56	14541762.55	40°02'26.841"N	104°39'55.099"W	1.44	
14902.00	88.860	177.600	7158.47	6947.79	-6950.80	-673.72	1734097.15	14541668.72	40°02'25.913"N	104°39'55.044"W	0.41	
14996.00	88.640	176.770	7160.52	7041.67	-7044.67	-669.11	1734102.12	14541574.91	40°02'24.986"N	104°39'54.985"W	0.91	
15090.00	88.180	177.960	7163.13	7135.55	-7138.53	-664.79	1734106.80	14541481.10	40°02'24.058"N	104°39'54.929"W	1.36	
15184.00	89.480	178.390	7165.05	7229.49	-7232.46	-661.80	1734110.14	14541387.22	40°02'23.130"N	104°39'54.891"W	1.46	
15278.00	90.150	178.920	7165.35	7323.47	-7326.43	-659.59	1734112.70	14541293.29	40°02'22.201"N	104°39'54.862"W	0.91	
15372.00	90.250	179.240	7165.03	7417.47	-7420.42	-658.08	1734114.57	14541199.35	40°02'21.273"N	104°39'54.843"W	0.36	
15466.00	90.280	179.580	7164.59	7511.46	-7514.41	-657.11	1734115.89	14541105.40	40°02'20.344"N	104°39'54.830"W	0.36	
15560.00	89.780	179.230	7164.54	7605.46	-7608.41	-656.14	1734117.22	14541011.44	40°02'19.415"N	104°39'54.818"W	0.65	
15654.00	90.370	180.400	7164.42	7699.46	-7702.41	-655.83	1734117.88	14540917.49	40°02'18.486"N	104°39'54.814"W	1.39	
15748.00	90.920	180.090	7163.36	7793.45	-7796.40	-656.24	1734117.84	14540823.53	40°02'17.557"N	104°39'54.819"W	0.67	
15842.00	92.560	180.010	7160.51	7887.40	-7890.35	-656.32	1734118.11	14540729.61	40°02'16.629"N	104°39'54.820"W	1.75	
15936.00	90.800	181.030	7157.75	7981.35	-7984.30	-657.17	1734117.61	14540635.70	40°02'15.700"N	104°39'54.831"W	2.16	
16030.00	90.710	180.060	7156.51	8075.33	-8078.29	-658.06	1734117.08	14540541.74	40°02'14.771"N	104°39'54.842"W	1.04	
16124.00	89.010	180.900	7156.74	8169.32	-8172.28	-658.85	1734116.64	14540447.79	40°02'13.842"N	104°39'54.853"W	2.02	
16218.00	89.260	179.870	7158.16	8263.30	-8266.27	-659.48	1734116.37	14540353.84	40°02'12.914"N	104°39'54.861"W	1.13	
16313.00	89.230	179.790	7159.41	8358.29	-8361.26	-659.20	1734117.01	14540258.88	40°02'11.975"N	104°39'54.857"W	0.09	
16406.00	89.290	179.400	7160.61	8451.28	-8454.25	-658.54	1734118.02	14540165.93	40°02'11.056"N	104°39'54.848"W	0.42	
16500.00	89.510	178.980	7161.60	8545.27	-8548.23	-657.22	1734119.70	14540071.99	40°02'10.127"N	104°39'54.831"W	0.50	
16594.00	89.600	178.480	7162.33	8639.26	-8642.21	-655.13	1734122.14	14539978.06	40°02'09.199"N	104°39'54.805"W	0.54	
16688.00	88.620	180.140	7163.79	8733.24	-8736.19	-654.00	1734123.63	14539884.13	40°02'08.270"N	104°39'54.790"W	2.05	
16782.00	89.230	179.960	7165.55	8827.22	-8830.17	-654.08	1734123.90	14539790.18	40°02'07.341"N	104°39'54.791"W	0.68	
16876.00	89.290	180.250	7166.77	8921.21	-8924.16	-654.25	1734124.09	14539696.23	40°02'06.412"N	104°39'54.793"W	0.32	
16970.00	88.650	178.560	7168.46	9015.19	-9018.14	-653.28	1734125.42	14539602.29	40°02'05.484"N	104°39'54.781"W	1.92	
17063.00	89.350	179.720	7170.08	9108.17	-9111.11	-651.88	1734127.16	14539509.36	40°02'04.565"N	104°39'54.763"W	1.46	
17157.00	88.800	180.470	7171.60	9202.15	-9205.10	-652.04	1734127.36	14539415.41	40°02'03.636"N	104°39'54.765"W	0.99	
17159.00†	88.799	180.464	7171.64	9204.15	-9207.10	-652.06	1734127.36	14539413.41	40°02'03.616"N	104°39'54.765"W	0.32	ENTER RADIUS TOE (1708'FSL & 1575'FEL,SEC.21) 40.0343378 -104.6652124
17250.00	88.740	180.180	7173.59	9295.12	-9298.07	-652.57	1734127.19	14539322.47	40°02'02.717"N	104°39'54.771"W	0.32	
17344.00	88.430	179.510	7175.91	9389.10	-9392.04	-652.31	1734127.80	14539228.54	40°02'01.788"N	104°39'54.768"W	0.79	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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
17438.00	90.340	179.090	7176.92	9483.08	-9486.03	-651.16	1734129.30	14539134.60	40°02'00.860"N	104°39'54.753"W	2.08	
17531.00	89.540	178.490	7177.02	9576.07	-9579.00	-649.20	1734131.62	14539041.66	40°01'59.941"N	104°39'54.728"W	1.08	
17626.00	89.020	178.270	7178.21	9671.03	-9673.96	-646.51	1734134.66	14538946.76	40°01'59.002"N	104°39'54.693"W	0.59	
17720.00	89.600	181.340	7179.35	9765.01	-9767.94	-646.19	1734135.34	14538852.81	40°01'58.074"N	104°39'54.689"W	3.32	
17813.00	91.050	182.850	7178.82	9857.93	-9860.87	-649.59	1734132.29	14538759.91	40°01'57.155"N	104°39'54.733"W	2.25	
17906.00	91.600	182.350	7176.67	9950.79	-9953.75	-653.81	1734128.43	14538667.05	40°01'56.238"N	104°39'54.787"W	0.80	
18000.00	92.060	181.860	7173.67	10044.66	-10047.64	-657.26	1734125.33	14538573.18	40°01'55.310"N	104°39'54.831"W	0.71	
18095.00	92.590	181.030	7169.81	10139.54	-10142.53	-659.66	1734123.30	14538478.32	40°01'54.372"N	104°39'54.862"W	1.04	
18188.00	93.080	180.010	7165.21	10232.42	-10235.41	-660.50	1734122.81	14538385.48	40°01'53.454"N	104°39'54.873"W	1.22	
18282.00	93.170	179.570	7160.09	10326.28	-10329.27	-660.16	1734123.51	14538291.66	40°01'52.527"N	104°39'54.868"W	0.48	
18353.00	93.540	179.260	7155.93	10397.15	-10400.14	-659.43	1734124.50	14538220.81	40°01'51.826"N	104°39'54.859"W	0.68	LAST BHGE MWD+IFR1+MSA SURVEY
18399.00	93.540	179.260	7153.09	10443.06	-10446.05	-658.84	1734125.26	14538174.92	40°01'51.372"N	104°39'54.852"W	0.00	PTB (469'FSL & 1581'FEL,SEC.21) 40.0309368 -104.6652365

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.09-T1N-R65W	0.00	0.00	0.00	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
SEC.09-T1N-R65W SESE 1/4	0.00	-0.30	104.97	1734849.23	14548619.40	40°03'34.600"N	104°39'45.032"W	polygon
SEC.09-T1N-R65W SESW 1/4	0.00	-0.30	104.97	1734849.23	14548619.40	40°03'34.600"N	104°39'45.032"W	polygon
SEC.16-T1N-R65W	0.00	0.00	0.00	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
SEC.21-T1N-R65W	0.00	0.00	0.00	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
ROBIN 9-13HZ HEEL REV-1 (400'FSL & 1640'FEL,SEC.09)	7143.00	82.68	-720.56	1734023.72	14548699.23	40°03'35.420"N	104°39'55.649"W	point
ROBIN 9-13HZ HEEL REV-2 (451'FSL & 1640'FEL,SEC.09)	7143.00	133.68	-720.56	1734023.52	14548750.20	40°03'35.924"N	104°39'55.649"W	point
ROBIN 9-13HZ LANDBOX	7185.00	0.00	0.00	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
ROBIN 9-13HZ RADIUS 1	7185.00	-9588.72	-399.15	1734381.60	14539032.90	40°01'59.845"N	104°39'51.513"W	polygon
ROBIN 9-13HZ RADIUS 2	7185.00	-317.39	-405.46	1734340.20	14548300.50	40°03'31.466"N	104°39'51.597"W	polygon
ROBIN 9-13HZ BHL REV-1 (467'FSL & 1596'FEL,SEC.21)	7187.00	-10447.82	-674.12	1734109.99	14538173.10	40°01'51.355"N	104°39'55.048"W	point

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH COMPOSITION - Ref Wellbore: ROBIN 9-13HZ AWB Ref Wellpath: ROBIN 9-13HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	1856.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <144 - 1856>	ROBIN 9-13HZ AWB
1856.00	18353.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1931 - 18353>	ROBIN 9-13HZ AWB
18353.00	18399.00	Blind Drilling (std)	Projection to bit	ROBIN 9-13HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 ROBIN 9-13HZ(318'FSL & 919'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-13HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
144.00	0.480	104.960	144.00	FIRST SURFACE MWD+IFR1 SURVEY
1856.00	18.280	317.910	1806.56	LAST SURFACE MWD+IFR1 SURVEY
1931.00	18.830	318.070	1877.66	FIRST BHGE MWD+IFR1+MSA SURVEY
6512.00	5.432	160.355	6325.45	KOP
7375.00	64.163	178.376	7022.99	ENTER LANDBOX (872'FSL & 1661'FEL,SEC.09) 40.0611321 -104.6655349
7874.00	89.350	178.890	7140.59	LANDING (390'FSL & 1640'FEL,SEC.09) 40.0598103 -104.6654605
8614.00	88.727	179.500	7151.08	EXIT RADIUS HEEL (349'FNL & 1625'FEL,SEC.16) 40.0577801 -104.6654045
17159.00	88.799	180.464	7171.64	ENTER RADIUS TOE (1708'FSL & 1575'FEL,SEC.21) 40.0343378 -104.6652124
18353.00	93.540	179.260	7155.93	LAST BHGE MWD+IFR1+MSA SURVEY
18399.00	93.540	179.260	7153.09	PTB (469'FSL & 1581'FEL,SEC.21) 40.0309368 -104.6652365