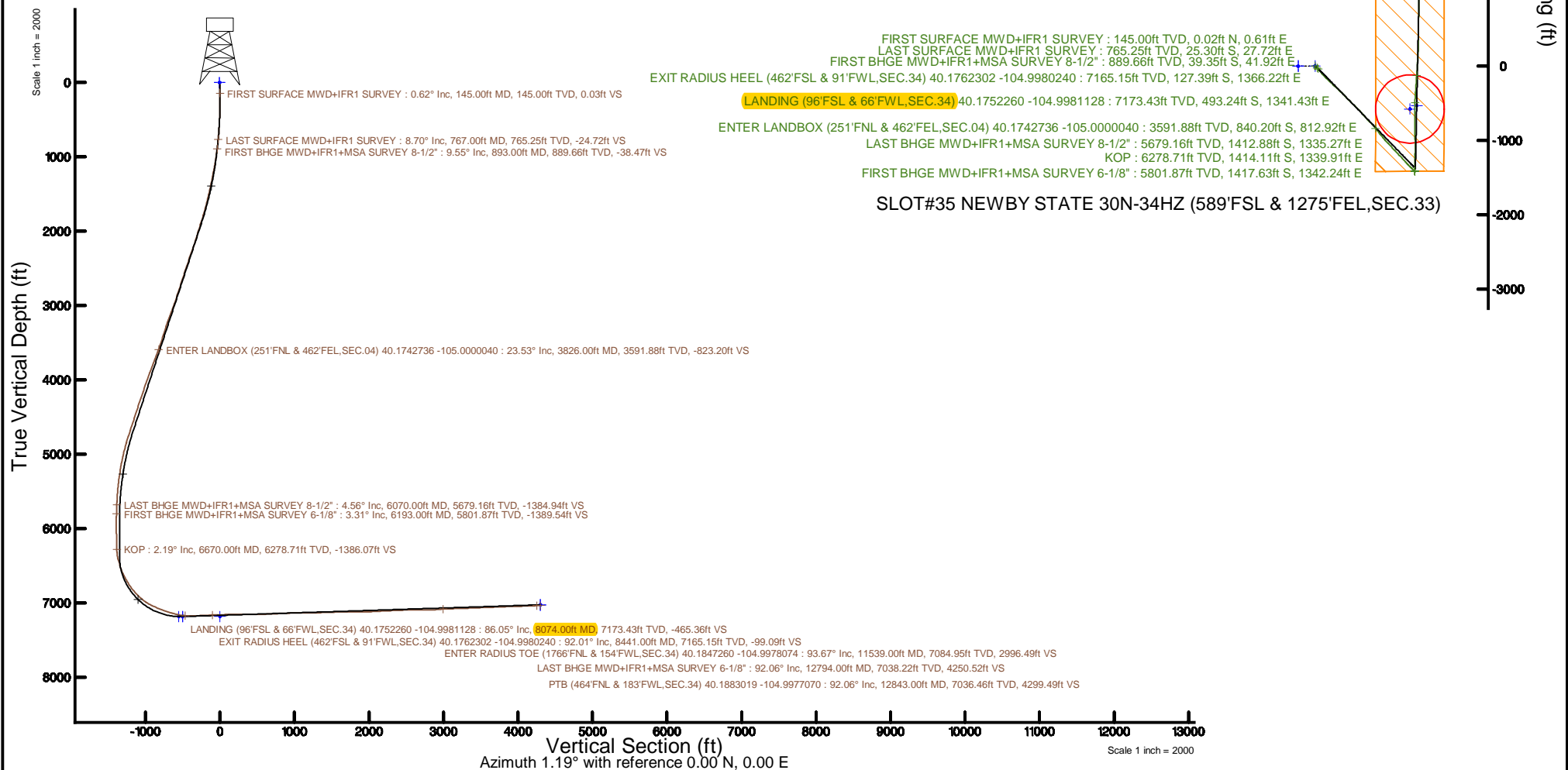


Location:	COLORADO	Slot:	SLOT#35 NEWBY STATE 30N-34HZ (589FSL & 1275FEL,SEC.33)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	NEWBY STATE 30N-34HZ
Facility:	SEC.33-TN-R68W	Wellbore:	NEWBY STATE 30N-34HZ PWB
Plot reference wellpath is NEWBY STATE 30N-34HZ PPWP Rev.0 True vertical depths are referenced to NABORS X22 (32) (RT) Measured depths are referenced to NABORS X22 (32) (RT) NABORS X22 (32) (RT) to Mean Sea Level: 4927 feet Mean Sea Level to Mud line (At Slot: SLOT#35 NEWBY STATE 30N-34HZ (589FSL & 1275FEL,SEC.33): 0 feet Coordinates are in feet referenced to Slot			
		Grid System: NAD83 / UTM Zone 13 North, US feet * = Wellpath was transformed from a different geoidic datum North Reference: True north Scale: True distance Depths are in feet Created by: painstmr on 2018-01-23 Database: WA_DEN_Anadarko_Defn	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 NEWBY STATE 30N-34HZ (589'FSL & 1275'FEL,SEC.33)
Area	COLORADO	Well	NEWBY STATE 30N-34HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY STATE 30N-34HZ AWB
Facility	SEC.33-T3N-R68W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999600	Report Generated	1/23/2018 at 9:14 AM
Convergence at slot	0.00°	Database/Source file	WA_DEN_Anadarko_Defn/NEWBY_STATE_30N-34HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-673.80	2729.28	1639602.97	14591034.39	40°10'35.688"N	105°00'10.487"W
Facility Reference Pt			1636874.88	14591708.30	40°10'42.348"N	105°00'45.648"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	4927.00ft
Horizontal Reference Pt	Slot	NABORS X22 (32') (RT) to Mean Sea Level	4927.00ft
Vertical Reference Pt	NABORS X22 (32') (RT)	NABORS X22 (32') (RT) to Mud Line at Slot (SLOT#35 NEWBY STATE 30N-34HZ (589'FSL & 1275'FEL,SEC.33))	4927.00ft
MD Reference Pt	NABORS X22 (32') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	1.19°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 NEWBY STATE 30N-34HZ (589'FSL & 1275'FEL,SEC.33)
Area	COLORADO	Well	NEWBY STATE 30N-34HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY STATE 30N-34HZ AWP
Facility	SEC.33-T3N-R68W		

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	88.440	0.00	0.00	0.00	0.00	1639602.97	14591034.38	40°10'35.688°N	105°00'10.487°W	0.00	
32.00	0.000	88.440	32.00	0.00	0.00	0.00	1639602.97	14591034.38	40°10'35.688°N	105°00'10.487°W	0.00	
145.00	0.620	88.440	145.00	0.03	0.02	0.61	1639603.58	14591034.40	40°10'35.688°N	105°00'10.479°W	0.55	FIRST SURFACE MWD+IFR1 SURVEY
177.00	1.010	74.020	176.99	0.12	0.10	1.06	1639604.02	14591034.48	40°10'35.689°N	105°00'10.473°W	1.37	
209.00	1.050	102.940	208.99	0.14	0.11	1.61	1639604.58	14591034.50	40°10'35.689°N	105°00'10.466°W	1.61	
240.00	0.880	131.770	239.99	-0.07	-0.11	2.07	1639605.03	14591034.27	40°10'35.687°N	105°00'10.460°W	1.64	
271.00	0.920	114.360	270.98	-0.32	-0.37	2.47	1639605.44	14591034.01	40°10'35.684°N	105°00'10.455°W	0.89	
303.00	0.920	112.430	302.98	-0.52	-0.58	2.94	1639605.91	14591033.81	40°10'35.682°N	105°00'10.449°W	0.10	
334.00	1.410	137.040	333.97	-0.88	-0.95	3.43	1639606.40	14591033.43	40°10'35.679°N	105°00'10.443°W	2.22	
366.00	1.540	142.660	365.96	-1.50	-1.58	3.96	1639606.93	14591032.80	40°10'35.672°N	105°00'10.436°W	0.61	
397.00	1.800	141.960	396.95	-2.20	-2.30	4.51	1639607.48	14591032.09	40°10'35.665°N	105°00'10.429°W	0.84	
429.00	2.200	141.700	428.93	-3.06	-3.17	5.20	1639608.17	14591031.21	40°10'35.657°N	105°00'10.420°W	1.25	
461.00	2.550	144.690	460.90	-4.11	-4.24	6.00	1639608.96	14591030.15	40°10'35.646°N	105°00'10.410°W	1.16	
492.00	3.380	145.040	491.86	-5.40	-5.55	6.92	1639609.88	14591028.84	40°10'35.633°N	105°00'10.398°W	2.68	
524.00	3.690	140.990	523.80	-6.95	-7.12	8.11	1639611.07	14591027.27	40°10'35.618°N	105°00'10.383°W	1.24	
555.00	4.750	134.050	554.71	-8.59	-8.79	9.66	1639612.62	14591025.60	40°10'35.601°N	105°00'10.363°W	3.79	
587.00	5.270	131.850	586.59	-10.45	-10.69	11.71	1639614.67	14591023.70	40°10'35.582°N	105°00'10.336°W	1.73	
619.00	5.840	132.470	618.44	-12.48	-12.77	14.00	1639616.96	14591021.62	40°10'35.562°N	105°00'10.307°W	1.79	
650.00	6.500	133.170	649.26	-14.69	-15.04	16.44	1639619.40	14591019.35	40°10'35.539°N	105°00'10.275°W	2.14	
683.00	6.810	132.730	682.04	-17.24	-17.64	19.24	1639622.20	14591016.75	40°10'35.514°N	105°00'10.239°W	0.95	
714.00	7.650	131.770	712.79	-19.80	-20.26	22.13	1639625.09	14591014.13	40°10'35.488°N	105°00'10.202°W	2.74	
746.00	8.260	131.940	744.48	-22.69	-23.22	25.43	1639628.39	14591011.18	40°10'35.459°N	105°00'10.159°W	1.91	
767.00	8.700	132.650	765.25	-24.72	-25.30	27.72	1639630.68	14591009.09	40°10'35.438°N	105°00'10.130°W	2.15	LAST SURFACE MWD+IFR1 SURVEY
893.00	9.550	136.550	889.66	-38.47	-39.35	41.92	1639644.87	14590995.05	40°10'35.299°N	105°00'09.947°W	0.83	FIRST BHGE MWD+IFR1+MSA SURVEY 8-1/2"
986.00	10.630	139.840	981.22	-50.40	-51.50	52.76	1639655.70	14590982.90	40°10'35.179°N	105°00'09.807°W	1.32	
1080.00	12.210	143.440	1073.36	-64.77	-66.11	64.27	1639667.21	14590968.29	40°10'35.035°N	105°00'09.659°W	1.84	
1173.00	13.580	141.860	1164.01	-80.99	-82.60	76.87	1639679.81	14590951.81	40°10'34.872°N	105°00'09.497°W	1.52	
1266.00	14.870	139.640	1254.16	-98.37	-100.28	91.34	1639694.27	14590934.14	40°10'34.697°N	105°00'09.310°W	1.51	
1360.00	15.710	136.490	1344.83	-116.45	-118.70	107.92	1639710.84	14590915.72	40°10'34.515°N	105°00'09.097°W	1.26	
1453.00	17.370	136.450	1433.98	-135.26	-137.90	126.15	1639729.06	14590896.54	40°10'34.325°N	105°00'08.862°W	1.78	
1547.00	18.460	135.840	1523.42	-155.69	-158.75	146.19	1639749.09	14590875.70	40°10'34.119°N	105°00'08.604°W	1.18	
1641.00	20.070	134.200	1612.15	-177.15	-180.67	168.12	1639771.01	14590853.78	40°10'33.903°N	105°00'08.321°W	1.81	
1735.00	21.880	132.240	1699.92	-199.66	-203.69	192.65	1639795.54	14590830.77	40°10'33.675°N	105°00'08.005°W	2.06	
1829.00	24.120	134.190	1786.45	-224.26	-228.85	219.39	1639822.27	14590805.61	40°10'33.426°N	105°00'07.661°W	2.52	
1923.00	25.460	134.170	1871.78	-251.14	-256.32	247.66	1639850.52	14590778.16	40°10'33.155°N	105°00'07.296°W	1.43	
2017.00	24.820	132.510	1956.88	-277.94	-283.73	276.70	1639879.54	14590750.76	40°10'32.884°N	105°00'06.922°W	1.01	
2111.00	24.280	132.270	2042.38	-303.67	-310.06	305.54	1639908.38	14590724.44	40°10'32.624°N	105°00'06.551°W	0.58	
2206.00	25.200	133.670	2128.66	-330.17	-337.17	334.62	1639937.45	14590697.34	40°10'32.356°N	105°00'06.176°W	1.15	
2300.00	26.320	136.110	2213.32	-358.40	-366.00	363.55	1639966.36	14590668.52	40°10'32.071°N	105°00'05.804°W	1.64	
2394.00	26.370	135.810	2297.56	-387.78	-395.99	392.55	1639995.34	14590638.54	40°10'31.775°N	105°00'05.430°W	0.15	
2488.00	26.350	135.090	2381.78	-416.91	-425.73	421.83	1640024.61	14590608.81	40°10'31.481°N	105°00'05.053°W	0.34	
2582.00	26.240	135.400	2466.06	-445.87	-455.30	451.14	1640053.92	14590579.25	40°10'31.189°N	105°00'04.675°W	0.19	
2676.00	24.990	134.760	2550.82	-474.05	-484.08	479.83	1640082.59	14590550.48	40°10'30.904°N	105°00'04.305°W	1.36	
2770.00	24.840	134.530	2636.07	-501.29	-511.91	508.01	1640110.76	14590522.66	40°10'30.629°N	105°00'03.943°W	0.19	
2864.00	25.320	134.610	2721.21	-528.65	-539.87	536.39	1640139.13	14590494.71	40°10'30.353°N	105°00'03.577°W	0.51	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 NEWBY STATE 30N-34HZ (589'FSL & 1275'FEL,SEC.33)
Area	COLORADO	Well	NEWBY STATE 30N-34HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY STATE 30N-34HZ AWB
Facility	SEC.33-T3N-R68W		

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
2958.00	25.340	134.260	2806.17	-556.21	-568.03	565.11	1640167.83	14590466.57	40°10'30.075"N	105°00'03.207"W	0.16	
3052.00	25.260	135.030	2891.15	-583.84	-596.26	593.69	1640196.40	14590438.35	40°10'29.796"N	105°00'02.839"W	0.36	
3146.00	25.000	139.540	2976.26	-612.58	-625.56	620.76	1640223.45	14590409.05	40°10'29.506"N	105°00'02.490"W	2.06	
3240.00	26.310	138.780	3061.00	-642.80	-656.34	647.37	1640250.06	14590378.28	40°10'29.202"N	105°00'02.147"W	1.44	
3334.00	27.160	138.690	3144.95	-674.01	-688.13	675.27	1640277.94	14590346.51	40°10'28.888"N	105°00'01.788"W	0.91	
3429.00	26.120	137.300	3229.86	-705.07	-719.79	703.76	1640306.42	14590314.86	40°10'28.575"N	105°00'01.421"W	1.28	
3523.00	25.400	135.050	3314.52	-733.95	-749.26	732.04	1640334.69	14590285.40	40°10'28.284"N	105°00'01.057"W	1.29	
3617.00	24.390	135.580	3399.79	-761.50	-777.39	759.87	1640362.50	14590257.28	40°10'28.006"N	105°00'00.698"W	1.10	
3711.00	22.720	138.880	3485.95	-788.50	-804.93	785.39	1640388.02	14590229.75	40°10'27.734"N	105°00'00.369"W	2.26	
3805.00	22.970	144.260	3572.59	-816.60	-833.50	808.04	1640410.66	14590201.19	40°10'27.451"N	105°00'00.077"W	2.24	
3826.00†	23.529	143.658	3591.88	-823.20	-840.20	812.92	1640415.54	14590194.49	40°10'27.385"N	105°00'00.015"W	2.89	ENTER LANDBOX (251'FNL & 462'FEL,SEC.04) 40.1742736 -105.0000040
3899.00	25.490	141.760	3658.30	-846.89	-864.28	831.28	1640433.89	14590170.43	40°10'27.147"N	104°59'59.778"W	2.89	
3993.00	27.910	139.710	3742.28	-879.00	-896.95	858.03	1640460.63	14590137.77	40°10'26.824"N	104°59'59.433"W	2.75	
4087.00	28.370	140.920	3825.17	-912.52	-931.07	886.34	1640488.92	14590103.66	40°10'26.487"N	104°59'59.069"W	0.78	
4181.00	25.290	140.660	3909.04	-944.84	-963.94	913.15	1640515.72	14590070.80	40°10'26.162"N	104°59'58.723"W	3.28	
4275.00	24.620	140.220	3994.26	-974.88	-994.52	938.41	1640540.97	14590040.23	40°10'25.860"N	104°59'58.398"W	0.74	
4369.00	25.910	136.070	4079.27	-1004.16	-1024.36	965.19	1640567.73	14590010.40	40°10'25.565"N	104°59'58.053"W	2.33	
4463.00	26.150	135.400	4163.74	-1033.10	-1053.90	993.98	1640596.51	14589980.88	40°10'25.273"N	104°59'57.682"W	0.40	
4557.00	25.250	138.120	4248.44	-1062.19	-1083.58	1021.91	1640624.43	14589951.21	40°10'24.980"N	104°59'57.322"W	1.58	
4651.00	24.790	137.230	4333.62	-1091.03	-1112.97	1048.68	1640651.19	14589921.83	40°10'24.689"N	104°59'56.978"W	0.63	
4745.00	23.430	137.760	4419.42	-1118.79	-1141.27	1074.62	1640677.12	14589893.53	40°10'24.410"N	104°59'56.643"W	1.47	
4839.00	25.940	135.520	4504.82	-1146.73	-1169.78	1101.60	1640704.08	14589865.03	40°10'24.128"N	104°59'56.296"W	2.85	
4933.00	25.770	135.010	4589.41	-1175.25	-1198.91	1130.45	1640732.92	14589835.92	40°10'23.840"N	104°59'55.924"W	0.30	
5027.00	24.050	136.510	4674.67	-1203.02	-1227.26	1158.08	1640760.54	14589807.58	40°10'23.560"N	104°59'55.568"W	1.95	
5121.00	24.080	139.020	4760.50	-1230.86	-1255.63	1183.84	1640786.29	14589779.22	40°10'23.280"N	104°59'55.237"W	1.09	
5215.00	20.760	138.260	4847.38	-1257.28	-1282.54	1207.51	1640809.95	14589752.32	40°10'23.014"N	104°59'54.932"W	3.55	
5309.00	19.200	138.740	4935.72	-1280.88	-1306.60	1228.80	1640831.23	14589728.27	40°10'22.776"N	104°59'54.657"W	1.67	
5404.00	18.160	135.690	5025.72	-1302.79	-1328.93	1249.44	1640851.86	14589705.94	40°10'22.555"N	104°59'54.391"W	1.50	
5498.00	15.690	134.400	5115.64	-1321.76	-1348.31	1268.76	1640871.17	14589686.57	40°10'22.364"N	104°59'54.143"W	2.66	
5592.00	12.910	132.600	5206.72	-1337.41	-1364.32	1285.57	1640887.98	14589670.58	40°10'22.205"N	104°59'53.926"W	2.99	
5686.00	10.840	137.750	5298.71	-1350.78	-1377.97	1299.25	1640901.65	14589656.93	40°10'22.071"N	104°59'53.750"W	2.47	
5780.00	9.660	137.600	5391.20	-1362.91	-1390.34	1310.51	1640912.90	14589644.57	40°10'21.948"N	104°59'53.605"W	1.26	
5874.00	7.310	134.790	5484.17	-1372.75	-1400.37	1320.07	1640922.46	14589634.53	40°10'21.849"N	104°59'53.482"W	2.54	
5968.00	5.670	127.420	5577.57	-1379.62	-1407.41	1328.00	1640930.39	14589627.50	40°10'21.780"N	104°59'53.379"W	1.95	
6070.00	4.560	126.390	5679.16	-1384.94	-1412.88	1335.27	1640937.65	14589622.03	40°10'21.726"N	104°59'53.286"W	1.09	LAST BHGE MWD+IFR1+MSA SURVEY 8-1/2"
6193.00	3.310	121.440	5801.87	-1389.54	-1417.63	1342.24	1640944.62	14589617.28	40°10'21.679"N	104°59'53.196"W	1.05	FIRST BHGE MWD+IFR1+MSA SURVEY 6-1/8"
6287.00	1.390	211.330	5895.80	-1391.90	-1420.02	1343.96	1640946.34	14589614.89	40°10'21.655"N	104°59'53.174"W	3.82	
6381.00	1.340	329.330	5989.79	-1391.95	-1420.05	1342.80	1640945.19	14589614.86	40°10'21.655"N	104°59'53.189"W	2.49	
6475.00	1.330	333.980	6083.76	-1390.05	-1418.12	1341.77	1640944.15	14589616.79	40°10'21.674"N	104°59'53.202"W	0.12	
6569.00	1.070	338.480	6177.74	-1388.27	-1416.33	1340.96	1640943.35	14589618.58	40°10'21.691"N	104°59'53.212"W	0.29	
6663.00	1.640	331.680	6271.72	-1386.29	-1414.33	1340.00	1640942.39	14589620.58	40°10'21.711"N	104°59'53.225"W	0.63	
6670.00†	2.193	340.048	6278.71	-1386.07	-1414.11	1339.91	1640942.29	14589620.80	40°10'21.713"N	104°59'53.226"W	8.83	KOP
6757.00	9.740	357.810	6365.18	-1377.16	-1405.18	1339.06	1640941.44	14589629.73	40°10'21.802"N	104°59'53.237"W	8.83	
6851.00	16.710	357.500	6456.63	-1355.71	-1383.71	1338.17	1640940.55	14589651.19	40°10'22.014"N	104°59'53.249"W	7.42	
6946.00	18.500	2.660	6547.19	-1327.01	-1355.00	1338.27	1640940.66	14589679.88	40°10'22.297"N	104°59'53.247"W	2.50	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)			Slot
Area	COLORADO			Well
Field	WELD COUNTY (UTM/TRUE NORTH)			Wellbore
Facility	SEC.33-T3N-R68W			NEWBY STATE 30N-34HZ (589'FSL & 1275'FEL,SEC.33)
				NEWBY STATE 30N-34HZ
				NEWBY STATE 30N-34HZ AWB

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
7040.00	28.240	3.650	6633.37	-1289.80	-1317.82	1340.38	1640942.77	14589717.05	40°10'22.665"N	104°59'53.220"W	10.37	
7134.00	28.620	359.750	6716.04	-1245.07	-1273.11	1341.70	1640944.09	14589761.74	40°10'23.107"N	104°59'53.203"W	2.02	
7228.00	37.380	1.790	6794.80	-1193.93	-1221.98	1342.50	1640944.88	14589812.85	40°10'23.612"N	104°59'53.193"W	9.39	
7322.00	41.080	1.770	6867.60	-1134.49	-1162.57	1344.34	1640946.73	14589872.24	40°10'24.199"N	104°59'53.169"W	3.94	
7416.00	48.290	1.390	6934.39	-1068.44	-1096.53	1346.15	1640948.54	14589938.25	40°10'24.852"N	104°59'53.145"W	7.68	
7510.00	56.560	357.570	6991.68	-994.06	-1022.13	1345.34	1640947.73	14590012.62	40°10'25.587"N	104°59'53.156"W	9.37	
7604.00	65.120	356.530	7037.44	-912.27	-940.23	1341.08	1640943.48	14590094.49	40°10'26.396"N	104°59'53.211"W	9.16	
7698.00	65.600	359.470	7076.63	-826.97	-854.85	1338.11	1640940.51	14590179.83	40°10'27.240"N	104°59'53.249"W	2.89	
7792.00	70.750	359.670	7111.57	-739.78	-767.62	1337.46	1640939.86	14590267.03	40°10'28.102"N	104°59'53.257"W	5.48	
7886.00	75.620	1.060	7138.76	-649.83	-677.67	1338.04	1640940.45	14590356.94	40°10'28.991"N	104°59'53.250"W	5.37	
7980.00	77.880	359.990	7160.30	-558.35	-586.19	1338.88	1640941.29	14590448.39	40°10'29.895"N	104°59'53.239"W	2.65	
8074.00	86.050	3.120	7173.43	-465.36	-493.24	1341.43	1640943.84	14590541.30	40°10'30.813"N	104°59'53.206"W	9.29	LANDING (96'FSL & 66'FWL,SEC.34) 40.1752260 -104.9981128
8168.00	90.800	3.930	7176.01	-371.51	-399.48	1347.20	1640949.62	14590635.02	40°10'31.740"N	104°59'53.131"W	5.13	
8262.00	93.610	2.960	7172.40	-277.66	-305.73	1352.85	1640955.26	14590728.74	40°10'32.666"N	104°59'53.059"W	3.16	
8356.00	91.790	4.730	7167.97	-183.87	-212.05	1359.14	1640961.56	14590822.38	40°10'33.592"N	104°59'52.977"W	2.70	
8441.00†	92.007	4.820	7165.15	-99.09	-127.39	1366.22	1640968.63	14590907.00	40°10'34.429"N	104°59'52.886"W	0.28	EXIT RADIUS HEEL (462'FSL & 91'FWL,SEC.34) 40.1762302 -104.9980240
8450.00	92.030	4.830	7164.84	-90.11	-118.43	1366.97	1640969.39	14590915.96	40°10'34.517"N	104°59'52.877"W	0.28	
8544.00	92.190	2.530	7161.37	3.73	-24.69	1373.00	1640975.42	14591009.66	40°10'35.444"N	104°59'52.799"W	2.45	
8638.00	92.370	4.010	7157.63	97.59	69.08	1378.36	1640980.77	14591103.39	40°10'36.370"N	104°59'52.730"W	1.58	
8732.00	90.180	1.760	7155.54	191.52	162.92	1383.09	1640985.50	14591197.20	40°10'37.298"N	104°59'52.669"W	3.34	
8826.00	90.340	1.780	7155.12	285.51	256.88	1385.99	1640988.41	14591291.11	40°10'38.226"N	104°59'52.631"W	0.17	
8920.00	90.060	0.950	7154.79	379.51	350.85	1388.23	1640990.65	14591385.05	40°10'39.155"N	104°59'52.602"W	0.93	
9014.00	89.480	359.300	7155.17	473.49	444.84	1388.43	1640990.86	14591479.01	40°10'40.084"N	104°59'52.600"W	1.86	
9108.00	91.630	0.730	7154.25	567.46	538.83	1388.46	1640990.89	14591572.95	40°10'41.012"N	104°59'52.599"W	2.75	
9202.00	92.680	1.430	7150.72	661.39	632.75	1390.23	1640992.66	14591666.83	40°10'41.940"N	104°59'52.576"W	1.34	
9296.00	92.650	0.760	7146.35	755.28	726.63	1392.02	1640994.46	14591760.67	40°10'42.868"N	104°59'52.553"W	0.71	
9390.00	92.620	0.170	7142.03	849.18	820.53	1392.79	1640995.22	14591854.53	40°10'43.796"N	104°59'52.543"W	0.63	
9484.00	91.360	0.290	7138.76	943.11	914.47	1393.16	1640995.60	14591948.44	40°10'44.724"N	104°59'52.538"W	1.35	
9578.00	90.430	359.950	7137.30	1037.08	1008.45	1393.36	1640995.80	14592042.39	40°10'45.653"N	104°59'52.536"W	1.05	
9672.00	91.450	0.320	7135.75	1131.05	1102.44	1393.58	1640996.02	14592136.33	40°10'46.582"N	104°59'52.533"W	1.15	
9766.00	90.580	359.810	7134.09	1225.01	1196.42	1393.69	1640996.13	14592230.28	40°10'47.511"N	104°59'52.531"W	1.07	
9860.00	90.550	358.100	7133.16	1318.93	1290.40	1391.97	1640994.42	14592324.22	40°10'48.439"N	104°59'52.553"W	1.82	
9954.00	93.450	0.800	7129.88	1412.81	1384.32	1391.07	1640993.52	14592418.10	40°10'49.367"N	104°59'52.565"W	4.21	
10048.00	91.170	1.190	7126.09	1506.73	1478.22	1392.70	1640995.16	14592511.97	40°10'50.295"N	104°59'52.544"W	2.46	
10142.00	90.620	0.510	7124.62	1600.72	1572.20	1394.10	1640996.55	14592605.91	40°10'51.224"N	104°59'52.526"W	0.93	
10236.00	90.340	359.490	7123.84	1694.69	1666.19	1394.10	1640996.56	14592699.86	40°10'52.153"N	104°59'52.526"W	1.13	
10330.00	91.020	1.930	7122.72	1788.68	1760.17	1395.26	1640997.72	14592793.80	40°10'53.082"N	104°59'52.511"W	2.69	
10424.00	89.540	0.390	7122.26	1882.67	1854.15	1397.16	1640999.63	14592887.74	40°10'54.010"N	104°59'52.486"W	2.27	
10518.00	91.260	0.350	7121.61	1976.65	1948.14	1397.77	1641000.24	14592981.69	40°10'54.939"N	104°59'52.478"W	1.83	
10613.00	93.730	3.290	7117.47	2071.54	2042.98	1400.78	1641003.25	14593076.50	40°10'55.876"N	104°59'52.439"W	4.04	
10707.00	93.170	2.260	7111.81	2165.33	2136.70	1405.32	1641007.80	14593170.18	40°10'56.803"N	104°59'52.381"W	1.25	
10801.00	92.680	0.980	7107.02	2259.20	2230.54	1407.98	1641010.45	14593263.98	40°10'57.730"N	104°59'52.347"W	1.46	
10895.00	92.400	0.530	7102.85	2353.11	2324.44	1409.21	1641011.69	14593357.84	40°10'58.658"N	104°59'52.331"W	0.56	
10989.00	92.120	359.550	7099.14	2447.02	2418.36	1409.28	1641011.76	14593451.73	40°10'59.586"N	104°59'52.330"W	1.08	
11083.00	89.450	1.020	7097.85	2540.98	2512.34	1409.75	1641012.23	14593545.67	40°11'00.515"N	104°59'52.324"W	3.24	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 NEWBY STATE 30N-34HZ (589'FSL & 1275'FEL,SEC.33)
Area	COLORADO	Well	NEWBY STATE 30N-34HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY STATE 30N-34HZ AWP
Facility	SEC.33-T3N-R68W		

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
11177.00	91.140	1.470	7097.37	2634.98	2606.32	1411.79	1641014.28	14593639.61	40°11'01.443"N	104°59'52.297"W	1.86	
11271.00	89.910	0.830	7096.51	2728.97	2700.29	1413.68	1641016.16	14593733.54	40°11'02.372"N	104°59'52.273"W	1.48	
11365.00	91.420	2.340	7095.42	2822.96	2794.24	1416.28	1641018.77	14593827.46	40°11'03.300"N	104°59'52.239"W	2.27	
11459.00	94.440	4.040	7090.61	2916.76	2887.96	1421.50	1641023.99	14593921.14	40°11'04.226"N	104°59'52.172"W	3.69	
11539.00†	93.674	3.231	7084.95	2996.49	2967.60	1426.56	1641029.05	14594000.74	40°11'05.013"N	104°59'52.107"W	1.39	ENTER RADIUS TOE (1766'FNL & 154'FWL,SEC.34) 40.1847260 -104.9978074
11553.00	93.540	3.090	7084.07	3010.45	2981.55	1427.33	1641029.82	14594014.69	40°11'05.151"N	104°59'52.097"W	1.39	
11647.00	91.700	1.570	7079.78	3104.33	3075.37	1431.14	1641033.64	14594108.47	40°11'06.078"N	104°59'52.047"W	2.54	
11741.00	92.060	1.360	7076.69	3198.28	3169.29	1433.55	1641036.04	14594202.35	40°11'07.007"N	104°59'52.016"W	0.44	
11835.00	91.820	0.010	7073.51	3292.22	3263.22	1434.67	1641037.17	14594296.25	40°11'07.935"N	104°59'52.002"W	1.46	
11929.00	92.800	1.700	7069.72	3386.14	3357.13	1436.07	1641038.57	14594390.12	40°11'08.863"N	104°59'51.984"W	2.08	
12023.00	91.850	0.880	7065.91	3480.06	3451.03	1438.18	1641040.69	14594483.98	40°11'09.791"N	104°59'51.956"W	1.33	
12117.00	91.730	359.910	7062.97	3574.00	3544.98	1438.83	1641041.34	14594577.89	40°11'10.719"N	104°59'51.948"W	1.04	
12211.00	92.710	2.470	7059.33	3667.92	3638.88	1440.78	1641043.29	14594671.75	40°11'11.647"N	104°59'51.923"W	2.91	
12305.00	92.400	1.640	7055.14	3761.82	3732.72	1444.15	1641046.66	14594765.56	40°11'12.574"N	104°59'51.879"W	0.94	
12399.00	91.790	1.300	7051.70	3855.75	3826.63	1446.56	1641049.07	14594859.43	40°11'13.502"N	104°59'51.848"W	0.74	
12493.00	91.820	1.070	7048.74	3949.70	3920.56	1448.50	1641051.02	14594953.32	40°11'14.431"N	104°59'51.823"W	0.25	
12587.00	91.820	0.890	7045.76	4043.66	4014.50	1450.11	1641052.62	14595047.22	40°11'15.359"N	104°59'51.802"W	0.19	
12681.00	92.220	1.130	7042.44	4137.60	4108.43	1451.76	1641054.28	14595141.11	40°11'16.287"N	104°59'51.781"W	0.50	
12794.00	92.060	0.900	7038.22	4250.52	4221.33	1453.76	1641056.29	14595253.97	40°11'17.403"N	104°59'51.755"W	0.25	LAST BHGE MWD+IFR1+MSA SURVEY 6-1/8"
12843.00	92.060	0.900	7036.46	4299.49	4270.29	1454.53	1641057.06	14595302.91	40°11'17.887"N	104°59'51.745"W	0.00	PTB (464'FNL & 183'FWL,SEC.34) 40.1883019 -104.9977070

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 NEWBY STATE 30N-34HZ (589'FSL & 1275'FEL,SEC.33)
Area	COLORADO	Well	NEWBY STATE 30N-34HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY STATE 30N-34HZ AWB
Facility	SEC.33-T3N-R68W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.04-T2N-R68W	2.00	-1.82	-224.95	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon
SEC.33-T3N-R68W	2.00	-1.82	-224.95	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon
NEWBY STATE 30N-34HZ BHL REV-1(463'FNL & 213'FWL,SEC.34)	7027.00	4270.71	1484.99	1641087.50	14595303.33	40°11'17.891"N	104°59'51.353"W	point
NEWBY STATE 30N-34HZ BHL REV-2(463'FNL & 193'FWL,SEC.34)	7027.00	4270.71	1464.99	1641067.51	14595303.33	40°11'17.891"N	104°59'51.610"W	point
NEWBY STATE 30N-34HZ HEEL REV-1(46'FSL & 160'FWL,SEC.34)	7185.00	-532.93	1435.53	1641037.91	14590501.63	40°10'30.421"N	104°59'51.994"W	point
NEWBY STATE 30N-34HZ HEEL REV-2(46'FSL & 90'FWL,SEC.34)	7185.00	-532.93	1365.53	1640967.93	14590501.63	40°10'30.421"N	104°59'52.895"W	point
NEWBY STATE 30N-34HZ LANDBOX	7185.00	0.00	0.00	1639602.97	14591034.38	40°10'35.688"N	105°00'10.487"W	polygon
NEWBY STATE 30N-34HZ RADIUS 1	7185.00	-578.08	1275.36	1640877.80	14590456.50	40°10'29.975"N	104°59'54.057"W	polygon
NEWBY STATE 30N-34HZ RADIUS 2	7185.00	3402.22	1273.43	1640876.00	14594435.20	40°11'09.309"N	104°59'54.079"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: NEWBY STATE 30N-34HZ AWB				Ref Wellpath: NEWBY STATE 30N-34HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore
32.00	767.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <145 - 767>		NEWBY STATE 30N-34HZ AWB
767.00	6070.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA 8-1/2" <893 - 6070>		NEWBY STATE 30N-34HZ AWB
6070.00	12794.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA 6-1/8" <6193 - 12794>		NEWBY STATE 30N-34HZ AWB
12794.00	12843.00	Blind Drilling (std)	Projection to bit		NEWBY STATE 30N-34HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#35 NEWBY STATE 30N-34HZ (589'FSL & 1275'FEL,SEC.33)
Area	COLORADO	Well	NEWBY STATE 30N-34HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY STATE 30N-34HZ AWP
Facility	SEC.33-T3N-R68W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
145.00	0.620	88.440	145.00	FIRST SURFACE MWD+IFR1 SURVEY
767.00	8.700	132.650	765.25	LAST SURFACE MWD+IFR1 SURVEY
893.00	9.550	136.550	889.66	FIRST BHGE MWD+IFR1+MSA SURVEY 8-1/2"
3826.00	23.529	143.658	3591.88	ENTER LANDBOX (251'FNL & 462'FEL,SEC.04) 40.1742736 -105.0000040
6070.00	4.560	126.390	5679.16	LAST BHGE MWD+IFR1+MSA SURVEY 8-1/2"
6193.00	3.310	121.440	5801.87	FIRST BHGE MWD+IFR1+MSA SURVEY 6-1/8"
6670.00	2.193	340.048	6278.71	KOP
8074.00	86.050	3.120	7173.43	LANDING (96'FSL & 66'FWL,SEC.34) 40.1752260 -104.9981128
8441.00	92.007	4.820	7165.15	EXIT RADIUS HEEL (462'FSL & 91'FWL,SEC.34) 40.1762302 -104.9980240
11539.00	93.674	3.231	7084.95	ENTER RADIUS TOE (1766'FNL & 154'FWL,SEC.34) 40.1847260 -104.9978074
12794.00	92.060	0.900	7038.22	LAST BHGE MWD+IFR1+MSA SURVEY 6-1/8"
12843.00	92.060	0.900	7036.46	PTB (464'FNL & 183'FWL,SEC.34) 40.1883019 -104.9977070