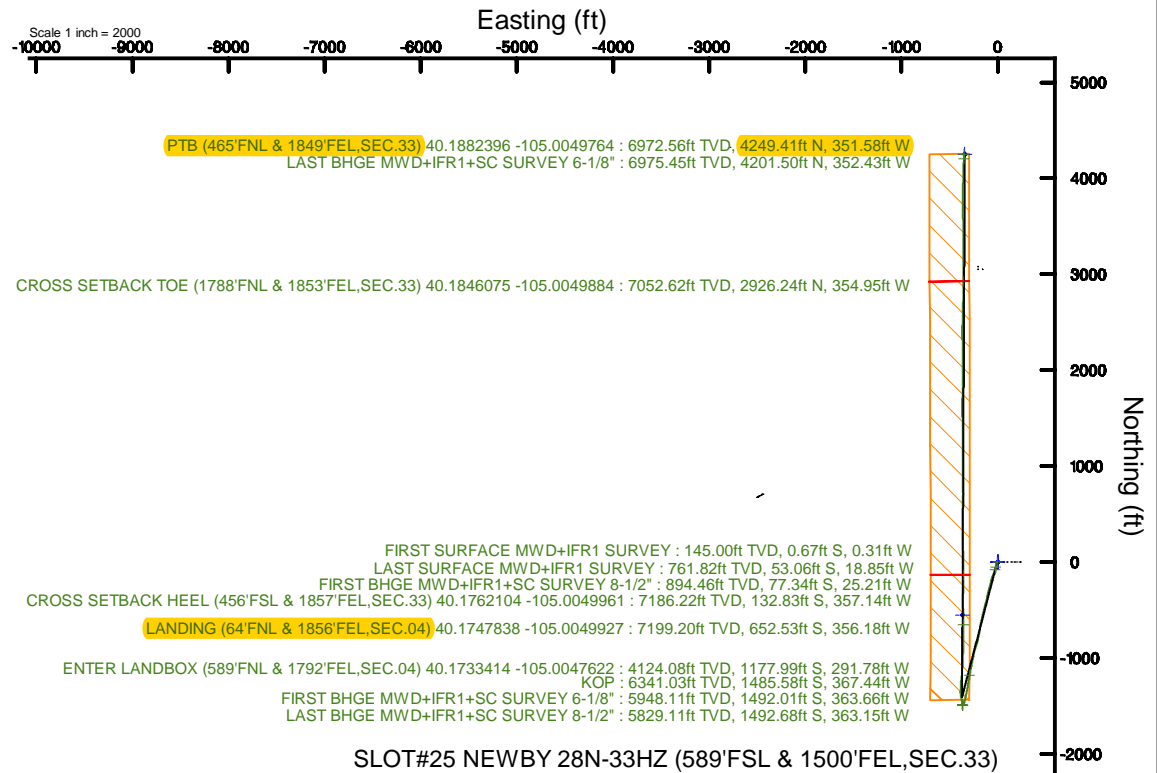
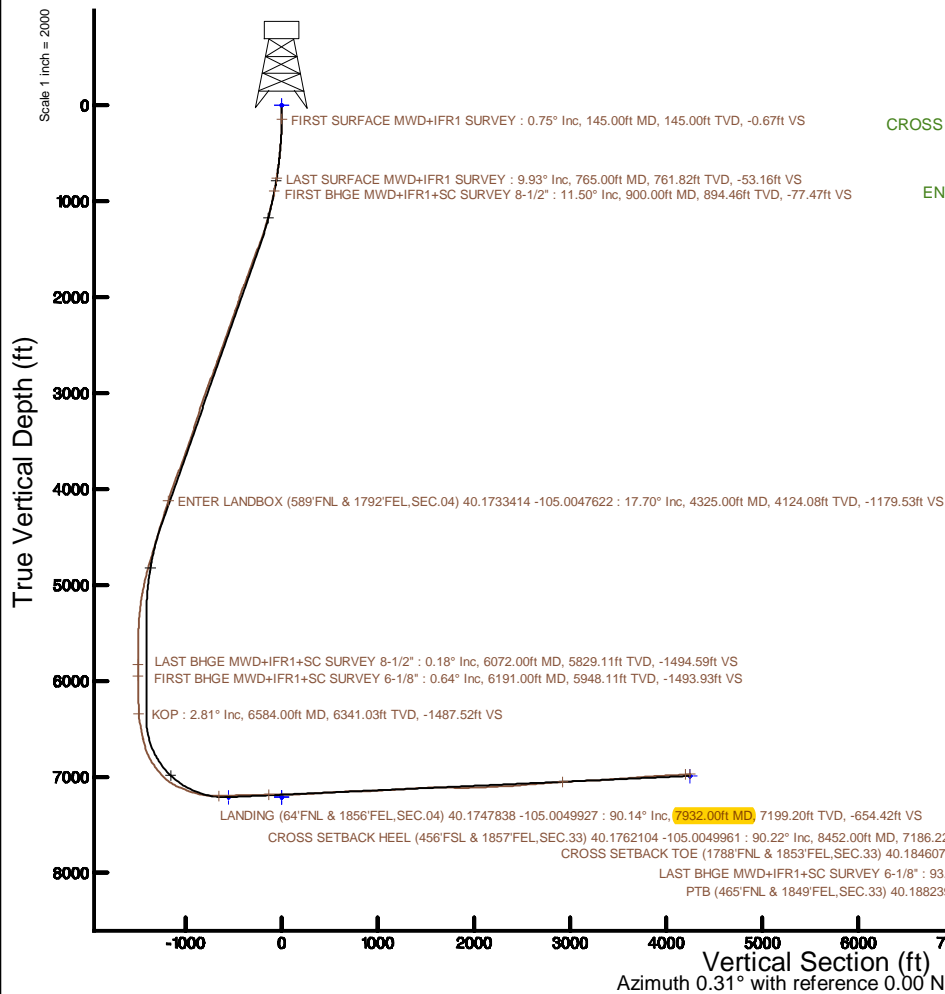


Location:	COLORADO	Slot:	SLOT#25 NEWBY 28N-33HZ (589FSL & 1500FEL, SEC.33)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	NEWBY 28N-33HZ
Facility:	SEC.33-T3N-R68W	Wellbore:	NEWBY 28N-33HZ PWB
Plot reference wellpath is NEWBY 28N-33HZ PWP Rev-A.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to NABORS X22 (32') (RT)		* = Wellpath was transformed from a different geoidic datum	
Measured depths are referenced to NABORS X22 (32') (RT)		North Reference: True north	
NABORS X22 (32') (RT) to Mean Sea Level: 4927 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#25 NEWBY 28N-33HZ (589FSL & 1500FEL, SEC.33)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: pairsnet on 2017-12-18	
		Database: WA_DEN, Anadarko_Defn	



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 NEWBY 28N-33HZ (589'FSL & 1500'FEL,SEC.33)
Area	COLORADO	Well	NEWBY 28N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 28N-33HZ 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	12/18/2017 at 4:25 PM
Convergence at slot	0.00°	Database/Source file	WA_DEN_Anadarko_Defn/NEWBY_28N-33HZ_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-675.65	2504.33	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"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#25 NEWBY 28N-33HZ (589'FSL & 1500'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	0.31°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 NEWBY 28N-33HZ (589'FSL & 1500'FEL, SEC.33)
Area	COLORADO	Well	NEWBY 28N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 28N-33HZ AWP
Facility	SEC.33-T3N-R68W		

WELLPATH DATA (156 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	204.890	0.00	0.00	0.00	0.00	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"W	0.00	
32.00	0.000	204.890	32.00	0.00	0.00	0.00	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"W	0.00	
145.00	0.750	204.890	145.00	-0.67	-0.67	-0.31	1639377.80	14591031.90	40°10'35.663"N	105°00'13.389"W	0.66	FIRST SURFACE MWD+IFR1 SURVEY
177.00	0.790	190.480	176.99	-1.08	-1.08	-0.44	1639377.67	14591031.49	40°10'35.659"N	105°00'13.391"W	0.62	
209.00	1.270	210.430	208.99	-1.60	-1.60	-0.66	1639377.45	14591030.97	40°10'35.654"N	105°00'13.393"W	1.85	
240.00	1.710	208.760	239.98	-2.31	-2.30	-1.06	1639377.05	14591030.27	40°10'35.647"N	105°00'13.399"W	1.43	
271.00	2.330	202.870	270.96	-3.30	-3.29	-1.52	1639376.59	14591029.29	40°10'35.638"N	105°00'13.405"W	2.11	
303.00	2.770	205.870	302.93	-4.59	-4.58	-2.11	1639376.00	14591027.99	40°10'35.625"N	105°00'13.412"W	1.44	
334.00	3.340	205.420	333.88	-6.09	-6.07	-2.83	1639375.28	14591026.50	40°10'35.610"N	105°00'13.421"W	1.84	
366.00	4.260	201.110	365.81	-8.04	-8.02	-3.66	1639374.45	14591024.55	40°10'35.591"N	105°00'13.432"W	3.01	
397.00	4.790	195.400	396.72	-10.37	-10.35	-4.41	1639373.70	14591022.23	40°10'35.568"N	105°00'13.442"W	2.24	
429.00	5.490	201.380	428.59	-13.09	-13.06	-5.33	1639372.78	14591019.52	40°10'35.541"N	105°00'13.454"W	2.75	
461.00	5.540	202.690	460.44	-15.94	-15.91	-6.48	1639371.63	14591016.67	40°10'35.513"N	105°00'13.468"W	0.42	
492.00	5.490	204.540	491.30	-18.68	-18.64	-7.67	1639370.44	14591013.94	40°10'35.486"N	105°00'13.484"W	0.60	
524.00	6.200	201.730	523.13	-21.68	-21.64	-8.95	1639369.16	14591010.94	40°10'35.456"N	105°00'13.500"W	2.39	
555.00	6.460	198.390	553.94	-24.90	-24.85	-10.12	1639367.99	14591007.74	40°10'35.424"N	105°00'13.515"W	1.45	
587.00	7.080	196.450	585.72	-28.51	-28.45	-11.25	1639366.87	14591004.14	40°10'35.389"N	105°00'13.530"W	2.06	
619.00	7.340	199.790	617.46	-32.33	-32.26	-12.50	1639365.62	14591000.32	40°10'35.351"N	105°00'13.546"W	1.54	
651.00	7.950	199.530	649.18	-36.34	-36.27	-13.93	1639364.18	14590996.32	40°10'35.312"N	105°00'13.564"W	1.91	
683.00	8.040	199.440	680.87	-40.55	-40.47	-15.41	1639362.70	14590992.12	40°10'35.270"N	105°00'13.584"W	0.28	
714.00	9.050	194.960	711.52	-44.95	-44.87	-16.76	1639361.35	14590987.72	40°10'35.227"N	105°00'13.601"W	3.90	
746.00	9.710	194.170	743.10	-50.01	-49.91	-18.07	1639360.04	14590982.68	40°10'35.177"N	105°00'13.618"W	2.10	
765.00	9.930	193.640	761.82	-53.16	-53.06	-18.85	1639359.26	14590979.53	40°10'35.146"N	105°00'13.628"W	1.25	LAST SURFACE MWD+IFR1 SURVEY
900.00	11.500	195.550	894.46	-77.47	-77.34	-25.21	1639352.91	14590955.27	40°10'34.906"N	105°00'13.710"W	1.19	FIRST BHGE MWD+IFR1+SC SURVEY 8-1/2"
994.00	12.920	200.380	986.33	-96.38	-96.22	-31.38	1639346.74	14590936.39	40°10'34.719"N	105°00'13.789"W	1.86	
1088.00	14.620	203.170	1077.63	-117.19	-116.98	-39.71	1639338.41	14590915.64	40°10'34.514"N	105°00'13.897"W	1.94	
1182.00	16.540	201.460	1168.17	-140.60	-140.34	-49.27	1639328.85	14590892.29	40°10'34.283"N	105°00'14.020"W	2.10	
1276.00	17.720	199.090	1258.00	-166.62	-166.31	-58.84	1639319.28	14590866.33	40°10'34.027"N	105°00'14.143"W	1.46	
1370.00	19.820	194.780	1347.00	-195.60	-195.24	-67.59	1639310.54	14590837.41	40°10'33.741"N	105°00'14.256"W	2.68	
1464.00	21.000	193.780	1435.10	-227.41	-227.01	-75.67	1639302.46	14590805.66	40°10'33.427"N	105°00'14.360"W	1.31	
1558.00	21.690	193.420	1522.65	-260.71	-260.27	-83.71	1639294.42	14590772.41	40°10'33.098"N	105°00'14.463"W	0.75	
1652.00	21.310	194.060	1610.11	-294.22	-293.73	-91.89	1639286.24	14590738.96	40°10'32.767"N	105°00'14.569"W	0.48	
1746.00	20.280	193.070	1697.99	-326.70	-326.17	-99.73	1639278.41	14590706.54	40°10'32.447"N	105°00'14.670"W	1.16	
1840.00	20.640	193.440	1786.06	-358.72	-358.15	-107.26	1639270.88	14590674.57	40°10'32.131"N	105°00'14.767"W	0.41	
1934.00	21.010	192.700	1873.92	-391.31	-390.70	-114.82	1639263.32	14590642.03	40°10'31.809"N	105°00'14.864"W	0.48	
2028.00	19.960	195.680	1961.97	-423.24	-422.59	-122.86	1639255.28	14590610.16	40°10'31.494"N	105°00'14.968"W	1.57	
2122.00	19.440	194.020	2050.47	-453.91	-453.22	-130.98	1639247.16	14590579.54	40°10'31.191"N	105°00'15.072"W	0.81	
2216.00	19.460	193.490	2139.11	-484.35	-483.62	-138.42	1639239.72	14590549.15	40°10'30.891"N	105°00'15.168"W	0.19	
2310.00	19.560	194.320	2227.71	-514.86	-514.09	-145.97	1639232.18	14590518.69	40°10'30.590"N	105°00'15.265"W	0.31	
2404.00	19.870	194.320	2316.20	-545.63	-544.81	-153.81	1639224.34	14590487.98	40°10'30.286"N	105°00'15.367"W	0.33	
2499.00	20.180	191.870	2405.46	-577.34	-576.49	-161.18	1639216.97	14590456.32	40°10'29.973"N	105°00'15.461"W	0.94	
2593.00	20.240	191.980	2493.67	-609.15	-608.27	-167.89	1639210.26	14590424.56	40°10'29.659"N	105°00'15.548"W	0.08	
2687.00	20.110	190.990	2581.90	-640.96	-640.04	-174.34	1639203.81	14590392.80	40°10'29.345"N	105°00'15.631"W	0.39	
2781.00	19.990	189.040	2670.21	-672.72	-671.77	-179.95	1639198.21	14590361.08	40°10'29.032"N	105°00'15.703"W	0.72	
2875.00	19.920	190.110	2758.56	-704.38	-703.40	-185.28	1639192.87	14590329.46	40°10'28.719"N	105°00'15.772"W	0.40	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 NEWBY 28N-33HZ (589'FSL & 1500'FEL, SEC.33)
Area	COLORADO	Well	NEWBY 28N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 28N-33HZ AWP
Facility	SEC.33-T3N-R68W		

WELLPATH DATA (156 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
2969.00	20.530	189.070	2846.77	-736.45	-735.44	-190.69	1639187.46	14590297.43	40°10'28.402"N	105°00'15.842"W	0.75	
3063.00	20.150	191.730	2934.91	-768.61	-767.57	-196.58	1639181.57	14590265.32	40°10'28.085"N	105°00'15.917"W	1.06	
3157.00	20.120	191.460	3023.16	-800.34	-799.27	-203.09	1639175.07	14590233.63	40°10'27.772"N	105°00'16.001"W	0.10	
3251.00	19.350	194.680	3111.64	-831.29	-830.18	-210.24	1639167.91	14590202.73	40°10'27.466"N	105°00'16.093"W	1.42	
3345.00	18.700	197.670	3200.51	-860.76	-859.60	-218.77	1639159.39	14590173.32	40°10'27.175"N	105°00'16.203"W	1.25	
3439.00	18.230	200.450	3289.67	-888.94	-887.74	-228.48	1639149.69	14590145.20	40°10'26.897"N	105°00'16.328"W	1.06	
3533.00	18.060	195.770	3379.00	-916.79	-915.54	-237.57	1639140.59	14590117.41	40°10'26.623"N	105°00'16.446"W	1.56	
3627.00	18.880	192.430	3468.16	-945.70	-944.41	-244.81	1639133.36	14590088.55	40°10'26.337"N	105°00'16.539"W	1.42	
3721.00	19.570	189.910	3556.92	-976.10	-974.78	-250.79	1639127.38	14590058.20	40°10'26.037"N	105°00'16.616"W	1.15	
3815.00	20.840	192.320	3645.14	-1007.98	-1006.62	-257.07	1639121.10	14590026.37	40°10'25.723"N	105°00'16.697"W	1.62	
3909.00	20.900	191.460	3732.97	-1040.78	-1039.39	-263.97	1639114.20	14589993.61	40°10'25.399"N	105°00'16.786"W	0.33	
4003.00	21.620	191.620	3820.57	-1074.21	-1072.78	-270.79	1639107.39	14589960.23	40°10'25.069"N	105°00'16.873"W	0.77	
4097.00	20.690	191.320	3908.24	-1107.49	-1106.03	-277.54	1639100.64	14589927.00	40°10'24.740"N	105°00'16.960"W	1.00	
4191.00	18.720	190.950	3996.73	-1138.62	-1137.13	-283.66	1639094.51	14589895.92	40°10'24.433"N	105°00'17.039"W	2.10	
4285.00	17.820	191.590	4085.99	-1167.55	-1166.03	-289.42	1639088.76	14589867.03	40°10'24.147"N	105°00'17.113"W	0.98	
4325.00†	17.698	190.763	4124.08	-1179.53	-1177.99	-291.78	1639086.40	14589855.06	40°10'24.029"N	105°00'17.144"W	0.70	ENTER LANDBOX (589'FNL & 1792'FEL, SEC.04) 40.1733414 -105.0047622
4379.00	17.540	189.630	4175.55	-1195.63	-1194.08	-294.67	1639083.50	14589838.98	40°10'23.870"N	105°00'17.181"W	0.70	
4473.00	17.270	189.740	4265.25	-1223.37	-1221.80	-299.40	1639078.77	14589811.28	40°10'23.596"N	105°00'17.242"W	0.29	
4567.00	17.480	188.630	4354.96	-1251.11	-1249.51	-303.88	1639074.29	14589783.58	40°10'23.322"N	105°00'17.300"W	0.42	
4661.00	16.480	187.940	4444.86	-1278.29	-1276.67	-307.84	1639070.33	14589756.43	40°10'23.054"N	105°00'17.351"W	1.09	
4755.00	16.850	189.700	4534.91	-1304.95	-1303.31	-311.98	1639066.20	14589729.80	40°10'22.791"N	105°00'17.404"W	0.67	
4849.00	16.440	190.500	4624.97	-1331.48	-1329.81	-316.70	1639061.48	14589703.31	40°10'22.529"N	105°00'17.465"W	0.50	
4944.00	17.220	191.950	4715.90	-1358.48	-1356.79	-322.06	1639056.12	14589676.34	40°10'22.262"N	105°00'17.534"W	0.93	
5038.00	16.280	192.680	4805.91	-1384.98	-1383.26	-327.84	1639050.35	14589649.89	40°10'22.001"N	105°00'17.608"W	1.02	
5132.00	14.160	191.550	4896.61	-1409.13	-1407.38	-333.03	1639045.15	14589625.77	40°10'21.762"N	105°00'17.675"W	2.28	
5226.00	12.830	194.220	4988.01	-1430.54	-1428.76	-337.90	1639040.29	14589604.40	40°10'21.551"N	105°00'17.738"W	1.56	
5320.00	10.340	194.260	5080.09	-1448.86	-1447.06	-342.54	1639035.65	14589586.11	40°10'21.370"N	105°00'17.798"W	2.65	
5414.00	8.720	200.270	5172.79	-1463.75	-1461.92	-347.09	1639031.10	14589571.26	40°10'21.223"N	105°00'17.856"W	2.02	
5508.00	6.690	203.100	5265.94	-1475.49	-1473.64	-351.70	1639026.49	14589559.54	40°10'21.107"N	105°00'17.916"W	2.20	
5602.00	4.620	208.450	5359.48	-1483.88	-1482.01	-355.66	1639022.53	14589551.18	40°10'21.025"N	105°00'17.967"W	2.27	
5696.00	3.620	216.390	5453.24	-1489.62	-1487.72	-359.22	1639018.97	14589545.46	40°10'20.968"N	105°00'18.013"W	1.22	
5790.00	1.790	226.370	5547.13	-1493.03	-1491.13	-362.04	1639016.15	14589542.06	40°10'20.935"N	105°00'18.049"W	2.00	
5884.00	0.310	171.950	5641.11	-1494.30	-1492.39	-363.07	1639015.12	14589540.80	40°10'20.922"N	105°00'18.062"W	1.73	
5978.00	0.070	174.490	5735.11	-1494.61	-1492.70	-363.03	1639015.16	14589540.49	40°10'20.919"N	105°00'18.062"W	0.26	
6072.00	0.180	302.830	5829.11	-1494.59	-1492.68	-363.15	1639015.04	14589540.51	40°10'20.919"N	105°00'18.063"W	0.24	LAST BHGE MWD+IFR1+SC SURVEY 8-1/2"
6191.00	0.640	327.640	5948.11	-1493.93	-1492.01	-363.66	1639014.53	14589541.17	40°10'20.926"N	105°00'18.070"W	0.41	FIRST BHGE MWD+IFR1+SC SURVEY 6-1/8"
6285.00	1.120	333.720	6042.09	-1492.67	-1490.75	-364.35	1639013.84	14589542.44	40°10'20.938"N	105°00'18.079"W	0.52	
6379.00	1.150	324.710	6136.08	-1491.08	-1489.15	-365.30	1639012.89	14589544.03	40°10'20.954"N	105°00'18.091"W	0.19	
6473.00	1.050	328.590	6230.06	-1489.58	-1487.65	-366.29	1639011.90	14589545.54	40°10'20.969"N	105°00'18.104"W	0.13	
6567.00	1.140	326.760	6324.04	-1488.07	-1486.13	-367.26	1639010.94	14589547.05	40°10'20.984"N	105°00'18.116"W	0.10	
6584.00†	2.810	347.843	6341.03	-1487.52	-1485.58	-367.44	1639010.76	14589547.60	40°10'20.989"N	105°00'18.118"W	10.55	KOP
6661.00	10.880	357.700	6417.42	-1478.40	-1476.46	-368.13	1639010.07	14589556.72	40°10'21.080"N	105°00'18.127"W	10.55	
6756.00	9.420	352.120	6510.93	-1461.75	-1459.80	-369.55	1639008.64	14589573.37	40°10'21.244"N	105°00'18.146"W	1.85	
6850.00	13.500	350.670	6603.04	-1443.31	-1441.35	-372.39	1639005.81	14589591.82	40°10'21.427"N	105°00'18.182"W	4.35	
6944.00	16.920	344.880	6693.74	-1419.30	-1417.31	-377.73	1639000.47	14589615.85	40°10'21.664"N	105°00'18.251"W	3.98	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 NEWBY 28N-33HZ (589'FSL & 1500'FEL,SEC.33)
Area	COLORADO	Well	NEWBY 28N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 28N-33HZ AWP
Facility	SEC.33-T3N-R68W		

WELLPATH DATA (156 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
7038.00	24.360	351.500	6781.66	-1386.90	-1384.88	-384.18	1638994.03	14589648.27	40°10'21.985"N	105°00'18.334"W	8.28	
7132.00	34.830	1.940	6863.33	-1340.75	-1338.72	-386.14	1638992.07	14589694.41	40°10'22.441"N	105°00'18.359"W	12.38	
7226.00	39.110	1.190	6938.42	-1284.25	-1282.22	-384.62	1638993.59	14589750.88	40°10'22.999"N	105°00'18.340"W	4.58	
7320.00	45.800	9.620	7007.79	-1221.23	-1219.23	-378.36	1638999.85	14589813.84	40°10'23.621"N	105°00'18.259"W	9.33	
7414.00	58.220	4.820	7065.55	-1147.84	-1145.89	-369.33	1639008.88	14589887.16	40°10'24.346"N	105°00'18.143"W	13.81	
7508.00	66.850	3.490	7108.87	-1064.70	-1062.78	-363.33	1639014.88	14589970.24	40°10'25.168"N	105°00'18.066"W	9.27	
7602.00	69.430	1.050	7143.87	-977.52	-975.62	-359.89	1639018.32	14590057.36	40°10'26.029"N	105°00'18.021"W	3.65	
7696.00	75.000	0.560	7172.57	-888.06	-886.16	-358.64	1639019.57	14590146.78	40°10'26.913"N	105°00'18.005"W	5.95	
7790.00	81.720	1.320	7191.53	-796.05	-794.16	-357.13	1639021.09	14590238.75	40°10'27.822"N	105°00'17.986"W	7.19	
7884.00	89.230	0.070	7198.94	-702.41	-700.53	-356.00	1639022.23	14590332.34	40°10'28.747"N	105°00'17.971"W	8.10	
7932.00†	90.144	359.478	7199.20	-654.42	-652.53	-356.18	1639022.04	14590380.32	40°10'29.222"N	105°00'17.974"W	2.27	LANDING (64'FNL & 1856'FEL,SEC.04) 40.1747838 -105.0049927
7978.00	91.020	358.910	7198.73	-608.43	-606.54	-356.83	1639021.40	14590426.30	40°10'29.676"N	105°00'17.982"W	2.27	
8072.00	93.980	358.660	7194.63	-514.56	-512.66	-358.82	1639019.41	14590520.14	40°10'30.604"N	105°00'18.008"W	3.16	
8166.00	91.110	359.650	7190.46	-420.68	-418.77	-360.21	1639018.03	14590613.98	40°10'31.532"N	105°00'18.025"W	3.23	
8260.00	90.980	1.280	7188.74	-326.70	-324.79	-359.44	1639018.80	14590707.93	40°10'32.460"N	105°00'18.016"W	1.74	
8354.00	90.950	1.000	7187.16	-232.72	-230.82	-357.57	1639020.67	14590801.86	40°10'33.389"N	105°00'17.992"W	0.30	
8448.00	90.180	359.570	7186.23	-138.73	-136.83	-357.11	1639021.14	14590895.81	40°10'34.318"N	105°00'17.986"W	1.73	
8452.00†	90.219	359.576	7186.22	-134.73	-132.83	-357.14	1639021.11	14590899.81	40°10'34.357"N	105°00'17.986"W	0.99	CROSS SETBACK HEEL (456'FSL & 1857'FEL,SEC.33) 40.1762104 -105.0049961
8543.00	91.110	359.710	7185.16	-43.75	-41.84	-357.70	1639020.55	14590990.76	40°10'35.256"N	105°00'17.993"W	0.99	
8637.00	90.150	359.170	7184.13	50.24	52.15	-358.62	1639019.63	14591084.71	40°10'36.185"N	105°00'18.005"W	1.17	
8731.00	92.560	359.410	7181.91	144.19	146.11	-359.79	1639018.47	14591178.63	40°10'37.114"N	105°00'18.020"W	2.58	
8825.00	91.810	358.400	7178.32	238.09	240.02	-361.58	1639016.68	14591272.51	40°10'38.042"N	105°00'18.043"W	1.34	
8919.00	93.940	0.130	7173.61	331.95	333.88	-362.79	1639015.48	14591366.34	40°10'38.969"N	105°00'18.059"W	2.92	
9013.00	93.630	359.390	7167.40	425.74	427.68	-363.18	1639015.09	14591460.09	40°10'39.896"N	105°00'18.064"W	0.85	
9107.00	94.150	1.330	7161.03	519.52	521.45	-362.59	1639015.68	14591553.83	40°10'40.823"N	105°00'18.056"W	2.13	
9201.00	93.300	1.170	7154.92	613.30	615.23	-360.55	1639017.73	14591647.57	40°10'41.750"N	105°00'18.030"W	0.92	
9295.00	92.000	0.020	7150.57	707.20	709.12	-359.57	1639018.71	14591741.42	40°10'42.678"N	105°00'18.017"W	1.85	
9389.00	90.400	358.950	7148.61	801.16	803.09	-360.42	1639017.87	14591835.36	40°10'43.606"N	105°00'18.028"W	2.05	
9483.00	91.050	359.600	7147.42	895.14	897.08	-361.60	1639016.69	14591929.30	40°10'44.535"N	105°00'18.044"W	0.98	
9577.00	93.790	1.250	7143.45	989.04	990.98	-360.91	1639017.39	14592023.17	40°10'45.463"N	105°00'18.035"W	3.40	
9671.00	93.080	0.000	7137.81	1082.87	1084.80	-359.89	1639018.41	14592116.95	40°10'46.390"N	105°00'18.022"W	1.53	
9765.00	92.400	359.300	7133.32	1176.76	1178.69	-360.46	1639017.84	14592210.80	40°10'47.318"N	105°00'18.029"W	1.04	
9859.00	94.470	0.130	7127.69	1270.58	1272.52	-360.93	1639017.38	14592304.59	40°10'48.245"N	105°00'18.035"W	2.37	
9953.00	93.420	359.140	7121.22	1364.34	1366.29	-361.53	1639016.79	14592398.33	40°10'49.172"N	105°00'18.043"W	1.53	
10047.00	93.200	357.780	7115.79	1458.14	1460.10	-364.05	1639014.27	14592492.10	40°10'50.099"N	105°00'18.075"W	1.46	
10142.00	92.710	357.620	7110.90	1552.91	1554.89	-367.86	1639010.47	14592586.85	40°10'51.035"N	105°00'18.124"W	0.54	
10236.00	90.800	2.190	7108.02	1646.84	1648.82	-368.01	1639010.32	14592680.74	40°10'51.964"N	105°00'18.126"W	5.27	
10330.00	86.390	0.270	7110.32	1740.77	1742.74	-365.99	1639012.34	14592774.63	40°10'52.892"N	105°00'18.100"W	5.12	
10424.00	87.960	0.270	7114.95	1834.65	1836.62	-365.55	1639012.78	14592868.47	40°10'53.820"N	105°00'18.095"W	1.67	
10518.00	92.710	0.550	7114.40	1928.62	1930.59	-364.88	1639013.46	14592962.40	40°10'54.748"N	105°00'18.086"W	5.06	
10612.00	90.920	359.320	7111.43	2022.57	2024.54	-364.98	1639013.36	14593056.31	40°10'55.676"N	105°00'18.087"W	2.31	
10706.00	93.760	0.770	7107.59	2116.48	2118.45	-364.91	1639013.43	14593150.18	40°10'56.605"N	105°00'18.087"W	3.39	
10800.00	92.990	359.390	7102.06	2210.31	2212.28	-364.78	1639013.57	14593243.98	40°10'57.532"N	105°00'18.085"W	1.68	
10894.00	92.120	359.110	7097.86	2304.20	2306.18	-366.01	1639012.34	14593337.84	40°10'58.460"N	105°00'18.101"W	0.97	
10988.00	93.260	359.610	7093.45	2398.08	2400.07	-367.06	1639011.30	14593431.69	40°10'59.387"N	105°00'18.114"W	1.32	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 NEWBY 28N-33HZ (589'FSL & 1500'FEL,SEC.33)
Area	COLORADO	Well	NEWBY 28N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 28N-33HZ AWP
Facility	SEC.33-T3N-R68W		

WELLPATH DATA (156 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
11082.00	95.980	2.800	7085.88	2491.74	2493.72	-365.09	1639013.27	14593525.31	40°11'00.313"N	105°00'18.089"W	4.45	
11176.00	94.250	359.630	7077.50	2585.34	2587.31	-363.11	1639015.25	14593618.86	40°11'01.238"N	105°00'18.063"W	3.83	
11270.00	94.580	2.590	7070.26	2679.04	2681.00	-361.30	1639017.07	14593712.51	40°11'02.164"N	105°00'18.040"W	3.16	
11365.00	94.660	2.470	7062.61	2773.66	2775.60	-357.12	1639021.25	14593807.07	40°11'03.099"N	105°00'17.986"W	0.15	
11459.00	93.420	0.040	7055.99	2867.41	2869.34	-355.07	1639023.31	14593900.77	40°11'04.025"N	105°00'17.960"W	2.90	
11516.00†	93.347	0.192	7052.62	2924.31	2926.24	-354.95	1639023.42	14593957.65	40°11'04.587"N	105°00'17.958"W	0.29	CROSS SETBACK TOE (1788'FNL & 1853'FEL,SEC.33) 40.1846075 -105.0049884
11553.00	93.300	0.290	7050.48	2961.24	2963.18	-354.79	1639023.58	14593994.57	40°11'04.952"N	105°00'17.956"W	0.29	
11647.00	93.550	0.640	7044.86	3055.08	3057.00	-354.03	1639024.35	14594088.36	40°11'05.879"N	105°00'17.947"W	0.46	
11741.00	92.000	358.840	7040.31	3148.95	3150.89	-354.46	1639023.92	14594182.21	40°11'06.807"N	105°00'17.952"W	2.53	
11835.00	91.450	358.610	7037.48	3242.88	3244.82	-356.55	1639021.84	14594276.10	40°11'07.735"N	105°00'17.979"W	0.63	
11929.00	94.440	0.050	7032.65	3336.72	3338.68	-357.65	1639020.74	14594369.92	40°11'08.663"N	105°00'17.993"W	3.53	
12023.00	94.310	359.850	7025.48	3430.45	3432.40	-357.73	1639020.66	14594463.61	40°11'09.589"N	105°00'17.994"W	0.25	
12117.00	93.910	359.090	7018.74	3524.20	3526.16	-358.60	1639019.80	14594557.33	40°11'10.515"N	105°00'18.005"W	0.91	
12211.00	94.440	357.850	7011.90	3617.90	3619.87	-361.10	1639017.30	14594651.00	40°11'11.442"N	105°00'18.038"W	1.43	
12305.00	94.290	0.360	7004.74	3711.60	3713.58	-362.57	1639015.84	14594744.67	40°11'12.368"N	105°00'18.057"W	2.67	
12399.00	94.800	359.390	6997.29	3805.30	3807.28	-362.77	1639015.64	14594838.34	40°11'13.294"N	105°00'18.059"W	1.16	
12493.00	92.900	2.290	6990.98	3899.07	3901.04	-361.39	1639017.02	14594932.06	40°11'14.220"N	105°00'18.042"W	3.68	
12587.00	92.830	2.150	6986.28	3992.90	3994.86	-357.76	1639020.66	14595025.84	40°11'15.147"N	105°00'17.995"W	0.17	
12681.00	92.830	1.420	6981.64	4086.75	4088.70	-354.83	1639023.59	14595119.64	40°11'16.075"N	105°00'17.957"W	0.78	
12794.00	93.450	1.020	6975.45	4199.56	4201.50	-352.43	1639026.00	14595232.40	40°11'17.189"N	105°00'17.926"W	0.65	LAST BHGE MWD+IFR1+SC SURVEY 6-1/8"
12842.00	93.450	1.020	6972.56	4247.47	4249.41	-351.58	1639026.85	14595280.28	40°11'17.663"N	105°00'17.915"W	0.00	PTB (465'FNL & 1849'FEL,SEC.33) 40.1882396 -105.0049764

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	0.00	0.00	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon
SEC.33-T3N-R68W	2.00	0.00	0.00	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon
NEWBY 28N-33HZ BHL REV-1(464'FNL & 1837'FEL,SEC.33)	6992.00	4249.95	-340.01	1639038.42	14595280.83	40°11'17.668"N	105°00'17.766"W	point
NEWBY 28N-33HZ HEEL REV-1(42'FSL & 1866'FEL,SEC.33)	7213.00	-550.09	-365.53	1639012.70	14590482.72	40°10'30.234"N	105°00'18.094"W	point
NEWBY 28N-33HZ LANDBOX	7213.00	0.00	0.02	1639378.12	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon
NEWBY 28N-33HZ SETBACK 1	7213.00	0.00	0.02	1639378.12	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon
NEWBY 28N-33HZ SETBACK 2	7213.00	0.00	0.02	1639378.12	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 NEWBY 28N-33HZ (589'FSL & 1500'FEL,SEC.33)
Area	COLORADO	Well	NEWBY 28N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 28N-33HZ AWB
Facility	SEC.33-T3N-R68W		

WELLPATH COMPOSITION - Ref Wellbore: NEWBY 28N-33HZ AWB					Ref Wellpath: NEWBY 28N-33HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment	Wellbore	
32.00	765.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)		Custom APC ISCWSA Rev-2 MWD+IFR1 <145 - 765>	NEWBY 28N-33HZ AWB	
765.00	6072.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)		BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC 8-1/2" <900 - 6072>	NEWBY 28N-33HZ AWB	
6072.00	12794.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)		BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC 6-1/8" <6191 - 12794>	NEWBY 28N-33HZ AWB	
12794.00	12842.00	Blind Drilling (std)		Projection to bit	NEWBY 28N-33HZ AWB	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 NEWBY 28N-33HZ (589'FSL & 1500'FEL,SEC.33)
Area	COLORADO	Well	NEWBY 28N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 28N-33HZ AWB
Facility	SEC.33-T3N-R68W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
145.00	0.750	204.890	145.00	FIRST SURFACE MWD+IFR1 SURVEY
765.00	9.930	193.640	761.82	LAST SURFACE MWD+IFR1 SURVEY
900.00	11.500	195.550	894.46	FIRST BHGE MWD+IFR1+SC SURVEY 8-1/2"
4325.00	17.698	190.763	4124.08	ENTER LANDBOX (589'FNL & 1792'FEL,SEC.04) 40.1733414 -105.0047622
6072.00	0.180	302.830	5829.11	LAST BHGE MWD+IFR1+SC SURVEY 8-1/2"
6191.00	0.640	327.640	5948.11	FIRST BHGE MWD+IFR1+SC SURVEY 6-1/8"
6584.00	2.810	347.843	6341.03	KOP
7932.00	90.144	359.478	7199.20	LANDING (64'FNL & 1856'FEL,SEC.04) 40.1747838 -105.0049927
8452.00	90.219	359.576	7186.22	CROSS SETBACK HEEL (456'FSL & 1857'FEL,SEC.33) 40.1762104 -105.0049961
11516.00	93.347	0.192	7052.62	CROSS SETBACK TOE (1788'FNL & 1853'FEL,SEC.33) 40.1846075 -105.0049884
12794.00	93.450	1.020	6975.45	LAST BHGE MWD+IFR1+SC SURVEY 6-1/8"
12842.00	93.450	1.020	6972.56	PTB (465'FNL & 1849'FEL,SEC.33) 40.1882396 -105.0049764