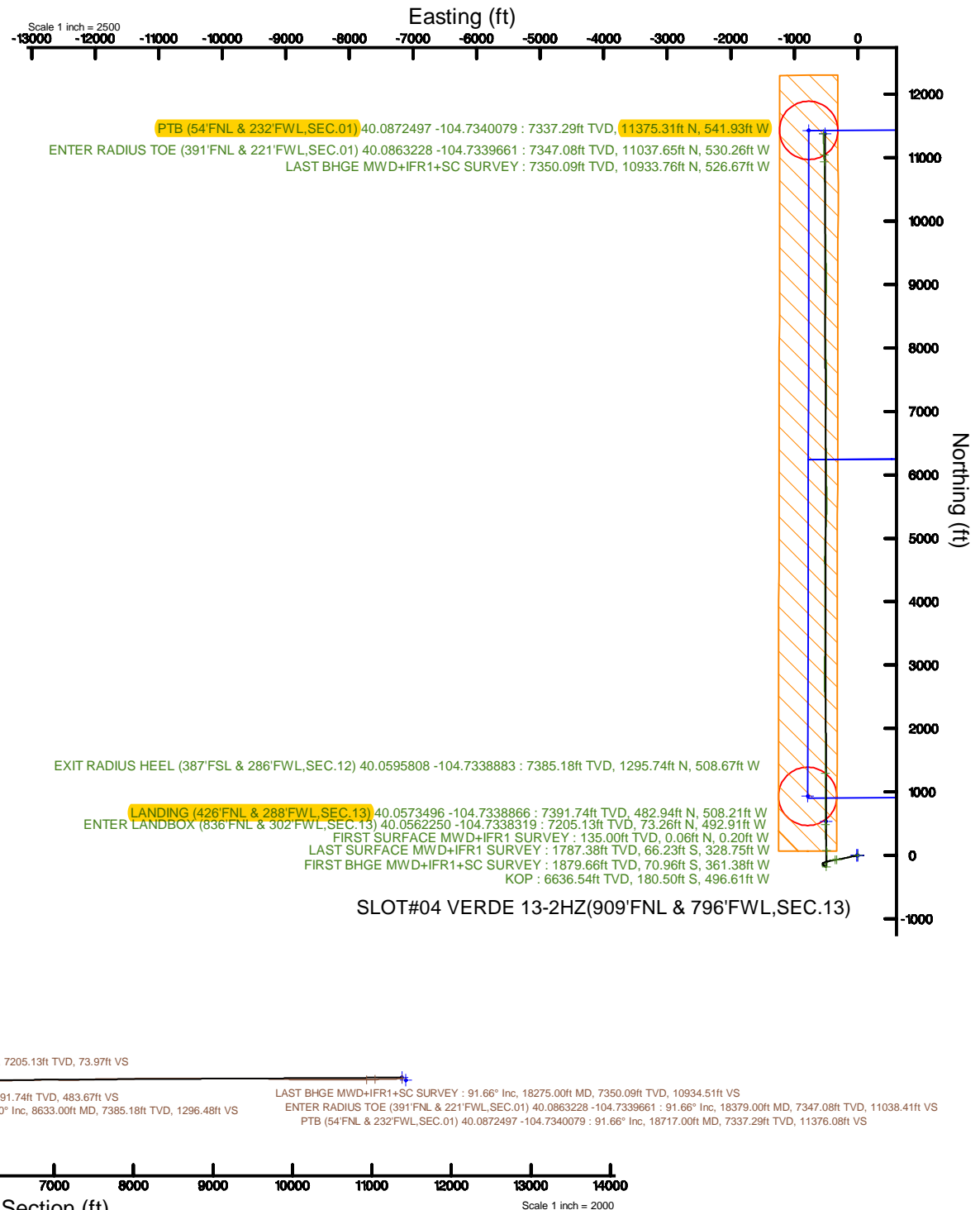
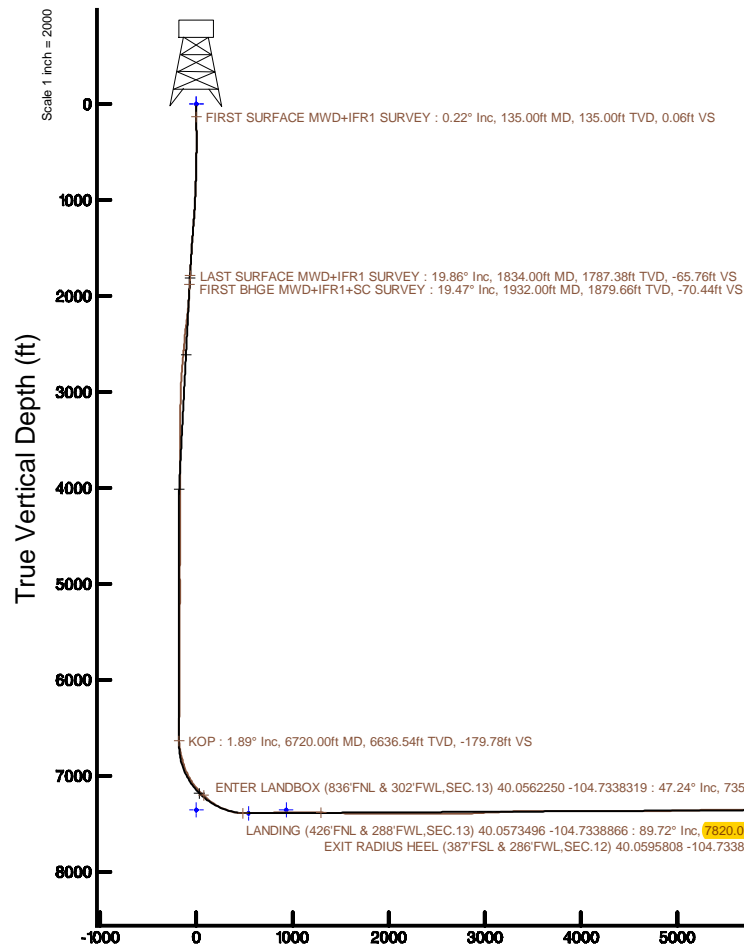


Location: COLORADO	Slot: SLOT#04 VERDE 13-2HZ(909FNL & 796FWL,SEC.13)
Field: WELD COUNTY (UTM/TRUE NORTH) Well:	VERDE 13-2HZ
Facility: SEC.13-T1N-R66W	Wellbore: VERDE 13-2HZ PWB
Plot reference wellpath is VERDE 13-2HZ PWP Rev-A-0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 564 (26) (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to PD 564 (26) (RT)	North Reference: True north
PD 564 (26) (RT) to Mean Sea Level: 5122 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#04 VERDE 13-2HZ(909FNL & 796FWL,SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painstner on 2018-02-23
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999606	Report Generated	2/23/2018 at 1:35 PM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/VERDE_13-2HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-702.99	-2084.11	1715389.10	14547246.94	40°03'21.686"N	104°43'55.456"W
Facility Reference Pt			1717470.20	14547956.10	40°03'28.634"N	104°43'28.654"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	PD 564 (26') (RT) to Facility Vertical Datum	5122.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	5122.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#04 VERDE 13-2HZ (909'FNL & 796'FWL,SEC.13))	5122.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.92°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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	287.160	0.00	0.00	0.00	0.00	1715389.10	14547246.94	40°03'21.686°N	104°43'55.456°W	0.00	
26.00	0.000	287.160	26.00	0.00	0.00	0.00	1715389.10	14547246.94	40°03'21.686°N	104°43'55.456°W	0.00	
135.00	0.220	287.160	135.00	0.06	0.06	-0.20	1715388.90	14547247.01	40°03'21.687°N	104°43'55.459°W	0.20	FIRST SURFACE MWD+IFR1 SURVEY
167.00	0.350	303.330	167.00	0.13	0.13	-0.34	1715388.76	14547247.08	40°03'21.687°N	104°43'55.460°W	0.47	
198.00	0.310	278.110	198.00	0.20	0.20	-0.50	1715388.59	14547247.14	40°03'21.688°N	104°43'55.462°W	0.48	
230.00	0.440	323.990	230.00	0.31	0.31	-0.66	1715388.44	14547247.25	40°03'21.689°N	104°43'55.464°W	0.99	
261.00	0.440	313.180	261.00	0.49	0.49	-0.82	1715388.28	14547247.43	40°03'21.691°N	104°43'55.467°W	0.27	
293.00	0.700	296.830	293.00	0.66	0.66	-1.08	1715388.01	14547247.60	40°03'21.693°N	104°43'55.470°W	0.95	
324.00	0.970	278.110	323.99	0.78	0.78	-1.51	1715387.58	14547247.72	40°03'21.694°N	104°43'55.475°W	1.23	
356.00	1.580	267.210	355.98	0.80	0.80	-2.22	1715386.88	14547247.74	40°03'21.694°N	104°43'55.485°W	2.04	
387.00	1.760	267.830	386.97	0.76	0.76	-3.12	1715385.97	14547247.69	40°03'21.694°N	104°43'55.496°W	0.58	
419.00	2.110	269.670	418.95	0.74	0.74	-4.20	1715384.89	14547247.67	40°03'21.693°N	104°43'55.510°W	1.11	
451.00	2.460	265.450	450.93	0.69	0.68	-5.48	1715383.62	14547247.61	40°03'21.693°N	104°43'55.526°W	1.21	
482.00	2.370	270.990	481.90	0.65	0.64	-6.78	1715382.32	14547247.56	40°03'21.692°N	104°43'55.543°W	0.81	
514.00	2.990	266.240	513.86	0.61	0.59	-8.27	1715380.82	14547247.51	40°03'21.692°N	104°43'55.562°W	2.06	
545.00	3.780	258.070	544.81	0.34	0.33	-10.08	1715379.02	14547247.24	40°03'21.689°N	104°43'55.586°W	2.98	
577.00	4.530	254.290	576.73	-0.21	-0.23	-12.33	1715376.77	14547246.68	40°03'21.684°N	104°43'55.615°W	2.49	
609.00	5.140	257.720	608.61	-0.86	-0.88	-14.95	1715374.16	14547246.02	40°03'21.677°N	104°43'55.648°W	2.11	
641.00	5.800	257.980	640.47	-1.49	-1.52	-17.93	1715371.18	14547245.37	40°03'21.671°N	104°43'55.687°W	2.06	
673.00	6.460	258.160	672.28	-2.19	-2.22	-21.27	1715367.84	14547244.66	40°03'21.664°N	104°43'55.730°W	2.06	
704.00	7.380	259.210	703.06	-2.92	-2.96	-24.93	1715364.18	14547243.92	40°03'21.657°N	104°43'55.777°W	3.00	
736.00	8.440	258.420	734.75	-3.77	-3.81	-29.25	1715359.87	14547243.05	40°03'21.648°N	104°43'55.832°W	3.33	
768.00	9.180	258.070	766.37	-4.76	-4.81	-34.05	1715355.07	14547242.03	40°03'21.638°N	104°43'55.894°W	2.32	
800.00	9.710	257.810	797.94	-5.85	-5.91	-39.19	1715349.94	14547240.92	40°03'21.628°N	104°43'55.960°W	1.66	
832.00	9.890	258.770	829.47	-6.95	-7.01	-44.52	1715344.62	14547239.80	40°03'21.617°N	104°43'56.029°W	0.76	
863.00	10.370	257.720	859.99	-8.05	-8.12	-49.86	1715339.28	14547238.67	40°03'21.606°N	104°43'56.097°W	1.66	
895.00	11.160	259.040	891.43	-9.25	-9.33	-55.71	1715333.43	14547237.45	40°03'21.594°N	104°43'56.172°W	2.59	
927.00	12.390	259.040	922.75	-10.48	-10.57	-62.12	1715327.03	14547236.19	40°03'21.582°N	104°43'56.255°W	3.84	
958.00	13.320	259.390	952.98	-11.76	-11.86	-68.90	1715320.26	14547234.88	40°03'21.569°N	104°43'56.342°W	3.01	
990.00	13.710	259.130	984.09	-13.14	-13.25	-76.25	1715312.92	14547233.47	40°03'21.555°N	104°43'56.437°W	1.23	
1022.00	14.280	258.330	1015.14	-14.64	-14.76	-83.83	1715305.34	14547231.93	40°03'21.540°N	104°43'56.534°W	1.88	
1054.00	14.850	257.900	1046.11	-16.29	-16.42	-91.71	1715297.47	14547230.25	40°03'21.524°N	104°43'56.635°W	1.81	
1085.00	15.600	257.630	1076.02	-18.00	-18.15	-99.67	1715289.53	14547228.50	40°03'21.507°N	104°43'56.738°W	2.43	
1117.00	16.170	257.010	1106.80	-19.91	-20.07	-108.21	1715280.99	14547226.56	40°03'21.488°N	104°43'56.848°W	1.86	
1149.00	17.050	257.020	1137.47	-21.96	-22.13	-117.12	1715272.09	14547224.47	40°03'21.467°N	104°43'56.962°W	2.75	
1180.00	17.230	257.630	1167.09	-23.95	-24.13	-126.04	1715263.18	14547222.44	40°03'21.448°N	104°43'57.077°W	0.82	
1212.00	17.620	256.930	1197.62	-26.05	-26.24	-135.38	1715253.85	14547220.31	40°03'21.427°N	104°43'57.197°W	1.38	
1244.00	17.750	255.700	1228.11	-28.33	-28.54	-144.83	1715244.41	14547217.98	40°03'21.404°N	104°43'57.319°W	1.24	
1276.00	17.710	254.820	1258.59	-30.80	-31.02	-154.25	1715235.00	14547215.47	40°03'21.379°N	104°43'57.440°W	0.85	
1308.00	17.890	254.030	1289.06	-33.41	-33.65	-163.68	1715225.59	14547212.82	40°03'21.353°N	104°43'57.561°W	0.94	
1339.00	18.680	257.190	1318.49	-35.81	-36.06	-173.09	1715216.18	14547210.38	40°03'21.330°N	104°43'57.682°W	4.09	
1371.00	18.630	258.160	1348.81	-37.98	-38.24	-183.09	1715206.19	14547208.17	40°03'21.308°N	104°43'57.811°W	0.98	
1403.00	18.900	258.160	1379.11	-40.08	-40.36	-193.17	1715196.13	14547206.02	40°03'21.287°N	104°43'57.940°W	0.84	
1435.00	18.810	257.190	1409.39	-42.27	-42.56	-203.27	1715186.03	14547203.79	40°03'21.265°N	104°43'58.070°W	1.02	
1466.00	18.980	255.960	1438.72	-44.59	-44.89	-213.04	1715176.28	14547201.43	40°03'21.242°N	104°43'58.196°W	1.40	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
1498.00	18.370	257.900	1469.04	-46.89	-47.21	-223.01	1715166.31	14547199.08	40°03'21.219"N	104°43'58.324"W	2.72	
1529.00	18.590	259.740	1498.44	-48.78	-49.12	-232.65	1715156.68	14547197.15	40°03'21.201"N	104°43'58.448"W	2.01	
1561.00	19.030	259.390	1528.73	-50.64	-50.99	-242.80	1715146.55	14547195.25	40°03'21.182"N	104°43'58.578"W	1.42	
1593.00	18.900	259.130	1558.99	-52.56	-52.92	-253.02	1715136.34	14547193.28	40°03'21.163"N	104°43'58.710"W	0.48	
1625.00	18.110	260.270	1589.34	-54.36	-54.74	-263.01	1715126.36	14547191.43	40°03'21.145"N	104°43'58.838"W	2.72	
1656.00	17.620	259.650	1618.84	-56.01	-56.40	-272.37	1715117.00	14547189.75	40°03'21.129"N	104°43'58.959"W	1.70	
1688.00	18.060	260.000	1649.30	-57.72	-58.13	-282.02	1715107.36	14547187.99	40°03'21.112"N	104°43'59.083"W	1.42	
1720.00	18.240	260.090	1679.71	-59.43	-59.85	-291.84	1715097.55	14547186.24	40°03'21.094"N	104°43'59.209"W	0.57	
1752.00	18.500	259.300	1710.08	-61.22	-61.66	-301.76	1715087.64	14547184.40	40°03'21.077"N	104°43'59.337"W	1.12	
1783.00	19.340	260.000	1739.41	-63.01	-63.46	-311.65	1715077.76	14547182.57	40°03'21.059"N	104°43'59.464"W	2.81	
1815.00	20.170	261.060	1769.52	-64.77	-65.24	-322.32	1715067.10	14547180.76	40°03'21.041"N	104°43'59.601"W	2.82	
1834.00	19.860	261.410	1787.38	-65.76	-66.23	-328.75	1715060.68	14547179.75	40°03'21.031"N	104°43'59.684"W	1.75	LAST SURFACE MWD+IFR1 SURVEY
1932.00	19.470	262.100	1879.66	-70.44	-70.96	-361.38	1715028.07	14547174.92	40°03'20.985"N	104°44'00.103"W	0.46	FIRST BHGE MWD+IFR1+SC SURVEY
2022.00	19.400	261.540	1964.53	-74.66	-75.22	-391.03	1714998.45	14547170.57	40°03'20.943"N	104°44'00.485"W	0.22	
2111.00	18.940	260.070	2048.60	-79.28	-79.89	-419.87	1714969.63	14547165.82	40°03'20.896"N	104°44'00.856"W	0.75	
2201.00	18.180	251.640	2133.93	-86.18	-86.83	-447.59	1714941.95	14547158.80	40°03'20.828"N	104°44'01.212"W	3.10	
2290.00	16.160	243.420	2218.97	-96.07	-96.75	-471.85	1714917.73	14547148.81	40°03'20.730"N	104°44'01.524"W	3.54	
2380.00	16.070	242.390	2305.44	-107.41	-108.13	-494.09	1714895.53	14547137.37	40°03'20.617"N	104°44'01.810"W	0.33	
2470.00	13.290	244.200	2392.49	-117.66	-118.40	-514.45	1714875.21	14547127.04	40°03'20.516"N	104°44'02.072"W	3.13	
2559.00	10.800	247.180	2479.52	-125.32	-126.09	-531.34	1714858.34	14547119.30	40°03'20.440"N	104°44'02.289"W	2.88	
2649.00	8.290	232.310	2568.29	-132.54	-133.33	-544.25	1714845.46	14547112.03	40°03'20.368"N	104°44'02.455"W	3.89	
2738.00	5.730	210.210	2656.63	-140.30	-141.10	-551.57	1714838.17	14547104.25	40°03'20.292"N	104°44'02.549"W	4.13	
2828.00	5.270	190.720	2746.22	-148.24	-149.04	-554.60	1714835.17	14547096.30	40°03'20.213"N	104°44'02.588"W	2.13	
2917.00	4.270	175.690	2834.92	-155.56	-156.36	-555.11	1714834.68	14547088.98	40°03'20.141"N	104°44'02.595"W	1.79	
3007.00	4.000	143.200	2924.69	-161.41	-162.22	-552.98	1714836.83	14547083.13	40°03'20.083"N	104°44'02.567"W	2.58	
3096.00	3.100	103.880	3013.53	-164.48	-165.28	-548.78	1714841.03	14547080.08	40°03'20.053"N	104°44'02.513"W	2.85	
3186.00	3.220	101.300	3103.40	-165.57	-166.36	-543.94	1714845.87	14547079.02	40°03'20.042"N	104°44'02.451"W	0.21	
3276.00	2.980	94.850	3193.27	-166.27	-167.05	-539.13	1714850.68	14547078.34	40°03'20.035"N	104°44'02.389"W	0.47	
3365.00	2.470	95.720	3282.16	-166.66	-167.44	-534.92	1714854.90	14547077.96	40°03'20.031"N	104°44'02.335"W	0.57	
3454.00	2.390	94.290	3371.08	-167.00	-167.77	-531.16	1714858.65	14547077.65	40°03'20.028"N	104°44'02.287"W	0.11	
3544.00	1.950	89.960	3461.02	-167.14	-167.91	-527.76	1714862.06	14547077.52	40°03'20.027"N	104°44'02.243"W	0.52	
3633.00	1.800	84.130	3549.97	-167.00	-167.76	-524.85	1714864.96	14547077.67	40°03'20.028"N	104°44'02.206"W	0.27	
3723.00	1.640	73.920	3639.93	-166.51	-167.26	-522.21	1714867.60	14547078.18	40°03'20.033"N	104°44'02.172"W	0.38	
3812.00	2.180	137.840	3728.89	-167.41	-168.16	-519.85	1714869.96	14547077.28	40°03'20.024"N	104°44'02.141"W	2.33	
3902.00	1.800	129.770	3818.84	-169.59	-170.34	-517.61	1714872.20	14547075.12	40°03'20.003"N	104°44'02.113"W	0.52	
3991.00	1.520	119.360	3907.80	-171.06	-171.81	-515.51	1714874.31	14547073.65	40°03'19.988"N	104°44'02.085"W	0.46	
4081.00	1.390	96.860	3997.77	-171.78	-172.53	-513.39	1714876.44	14547072.94	40°03'19.981"N	104°44'02.058"W	0.65	
4170.00	1.140	82.690	4086.75	-171.80	-172.54	-511.44	1714878.38	14547072.93	40°03'19.981"N	104°44'02.033"W	0.45	
4260.00	1.140	57.130	4176.73	-171.20	-171.94	-509.80	1714880.02	14547073.54	40°03'19.987"N	104°44'02.012"W	0.56	
4350.00	1.160	42.100	4266.72	-170.04	-170.78	-508.43	1714881.38	14547074.70	40°03'19.998"N	104°44'01.994"W	0.33	
4439.00	1.040	33.370	4355.70	-168.70	-169.44	-507.38	1714882.42	14547076.05	40°03'20.012"N	104°44'01.981"W	0.23	
4529.00	0.430	177.270	4445.69	-168.36	-169.09	-506.92	1714882.89	14547076.39	40°03'20.015"N	104°44'01.975"W	1.57	
4618.00	0.540	156.090	4534.69	-169.08	-169.81	-506.73	1714883.08	14547075.68	40°03'20.008"N	104°44'01.973"W	0.23	
4708.00	0.740	169.450	4624.69	-170.04	-170.77	-506.45	1714883.36	14547074.72	40°03'19.998"N	104°44'01.969"W	0.28	
4823.00	0.860	189.450	4739.67	-171.62	-172.35	-506.46	1714883.36	14547073.14	40°03'19.983"N	104°44'01.969"W	0.26	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
4912.00	0.410	202.920	4828.67	-172.57	-173.30	-506.69	1714883.13	14547072.19	40°03'19.973"N	104°44'01.972"W	0.53	
5001.00	0.310	339.600	4917.67	-172.64	-173.37	-506.90	1714882.92	14547072.12	40°03'19.973"N	104°44'01.975"W	0.75	
5091.00	0.350	330.590	5007.67	-172.17	-172.90	-507.12	1714882.70	14547072.59	40°03'19.977"N	104°44'01.978"W	0.07	
5180.00	0.780	350.950	5096.66	-171.33	-172.07	-507.35	1714882.47	14547073.42	40°03'19.986"N	104°44'01.981"W	0.53	
5270.00	1.250	186.790	5186.66	-171.70	-172.44	-507.56	1714882.26	14547073.05	40°03'19.982"N	104°44'01.983"W	2.24	
5359.00	1.060	184.730	5275.64	-173.49	-174.22	-507.75	1714882.08	14547071.26	40°03'19.964"N	104°44'01.986"W	0.22	
5449.00	0.750	162.280	5365.63	-174.88	-175.61	-507.64	1714882.19	14547069.88	40°03'19.951"N	104°44'01.984"W	0.52	
5538.00	0.560	179.980	5454.62	-175.87	-176.60	-507.46	1714882.37	14547068.89	40°03'19.941"N	104°44'01.982"W	0.31	
5628.00	0.200	117.220	5544.62	-176.38	-177.11	-507.32	1714882.51	14547068.38	40°03'19.936"N	104°44'01.980"W	0.56	
5717.00	0.360	105.870	5633.62	-176.53	-177.26	-506.91	1714882.92	14547068.23	40°03'19.934"N	104°44'01.975"W	0.19	
5807.00	0.600	74.950	5723.62	-176.48	-177.22	-506.18	1714883.65	14547068.28	40°03'19.935"N	104°44'01.966"W	0.38	
5896.00	0.620	57.550	5812.61	-176.10	-176.84	-505.33	1714884.50	14547068.66	40°03'19.938"N	104°44'01.955"W	0.21	
5986.00	0.410	70.790	5902.61	-175.74	-176.47	-504.61	1714885.22	14547069.03	40°03'19.942"N	104°44'01.945"W	0.27	
6075.00	0.890	154.390	5991.60	-176.26	-176.99	-504.01	1714885.82	14547068.51	40°03'19.937"N	104°44'01.938"W	1.05	
6165.00	0.750	132.940	6081.59	-177.29	-178.02	-503.28	1714886.55	14547067.48	40°03'19.927"N	104°44'01.928"W	0.37	
6254.00	0.560	128.330	6170.59	-177.96	-178.69	-502.51	1714887.32	14547066.82	40°03'19.920"N	104°44'01.918"W	0.22	
6344.00	0.560	108.390	6260.58	-178.37	-179.10	-501.75	1714888.09	14547066.41	40°03'19.916"N	104°44'01.909"W	0.22	
6433.00	0.920	113.210	6349.58	-178.79	-179.52	-500.68	1714889.16	14547065.99	40°03'19.912"N	104°44'01.895"W	0.41	
6523.00	0.970	114.670	6439.56	-179.40	-180.12	-499.32	1714890.51	14547065.39	40°03'19.906"N	104°44'01.877"W	0.06	
6613.00	0.750	99.850	6529.55	-179.82	-180.54	-498.05	1714891.79	14547064.98	40°03'19.902"N	104°44'01.861"W	0.35	
6702.00	0.760	98.700	6618.55	-180.01	-180.73	-496.89	1714892.95	14547064.79	40°03'19.900"N	104°44'01.846"W	0.02	
6720.00†	1.890	34.023	6636.54	-179.78	-180.50	-496.61	1714893.23	14547065.02	40°03'19.902"N	104°44'01.842"W	9.49	KOP
6792.00	8.600	15.360	6708.20	-173.60	-174.32	-494.52	1714895.30	14547071.21	40°03'19.963"N	104°44'01.816"W	9.49	
6881.00	14.150	10.470	6795.42	-156.48	-157.19	-490.77	1714898.99	14547088.34	40°03'20.133"N	104°44'01.767"W	6.32	
6971.00	17.790	0.930	6881.95	-131.90	-132.61	-488.55	1714901.14	14547112.92	40°03'20.375"N	104°44'01.739"W	4.97	
7060.00	23.500	0.010	6965.20	-100.54	-101.25	-488.33	1714901.27	14547144.27	40°03'20.685"N	104°44'01.736"W	6.43	
7149.00	31.050	359.870	7044.25	-59.78	-60.49	-488.38	1714901.10	14547185.01	40°03'21.088"N	104°44'01.737"W	8.48	
7239.00	38.990	358.600	7117.89	-8.18	-8.89	-489.12	1714900.20	14547236.58	40°03'21.598"N	104°44'01.746"W	8.86	
7328.00	45.510	356.680	7183.74	51.57	50.86	-491.65	1714897.49	14547296.30	40°03'22.189"N	104°44'01.779"W	7.47	
7359.00†	47.235	356.869	7205.13	73.97	73.26	-492.91	1714896.16	14547318.69	40°03'22.410"N	104°44'01.795"W	5.58	ENTER LANDBOX (836'FNL & 302'FWL, SEC.13) 40.0562250 -104.7338319
7418.00	50.520	357.200	7243.93	118.36	117.64	-495.21	1714893.74	14547363.05	40°03'22.848"N	104°44'01.824"W	5.58	
7507.00	57.310	356.300	7296.32	190.13	189.40	-499.31	1714889.42	14547434.77	40°03'23.558"N	104°44'01.877"W	7.67	
7597.00	64.930	356.700	7339.75	268.74	268.01	-504.10	1714884.39	14547513.33	40°03'24.334"N	104°44'01.939"W	8.48	
7686.00	73.030	358.510	7371.65	351.67	350.94	-507.54	1714880.71	14547596.22	40°03'25.154"N	104°44'01.983"W	9.30	
7775.00	84.060	0.270	7389.30	438.76	438.02	-508.44	1714879.55	14547683.26	40°03'26.015"N	104°44'01.995"W	12.54	
7820.00	89.720	0.300	7391.74	483.67	482.94	-508.21	1714879.63	14547728.16	40°03'26.458"N	104°44'01.992"W	12.58	LANDING (426'FNL & 288'FWL, SEC.13) 40.0573496 -104.7338866
7864.00	90.180	0.190	7391.78	527.67	526.94	-508.02	1714879.69	14547772.14	40°03'26.893"N	104°44'01.989"W	1.07	
7954.00	91.140	359.970	7390.74	617.66	616.93	-507.90	1714879.54	14547862.10	40°03'27.783"N	104°44'01.988"W	1.09	
8043.00	91.910	359.190	7388.37	706.63	705.89	-508.55	1714878.63	14547951.03	40°03'28.662"N	104°44'01.996"W	1.23	
8133.00	91.330	359.520	7385.83	796.59	795.85	-509.56	1714877.34	14548040.95	40°03'29.551"N	104°44'02.009"W	0.74	
8222.00	90.950	359.710	7384.06	885.57	884.83	-510.16	1714876.48	14548129.89	40°03'30.430"N	104°44'02.017"W	0.48	
8312.00	91.540	359.670	7382.10	975.55	974.81	-510.65	1714875.72	14548219.83	40°03'31.319"N	104°44'02.023"W	0.66	
8401.00	89.570	0.670	7381.24	1064.54	1063.80	-510.38	1714875.72	14548308.78	40°03'32.199"N	104°44'02.020"W	2.48	
8491.00	89.720	0.130	7381.80	1154.53	1153.80	-509.76	1714876.07	14548398.74	40°03'33.088"N	104°44'02.012"W	0.62	
8580.00	88.120	0.670	7383.48	1243.51	1242.77	-509.14	1714876.43	14548487.69	40°03'33.967"N	104°44'02.004"W	1.90	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
8633.00†	88.197	0.340	7385.18	1296.48	1295.74	-508.67	1714876.73	14548540.64	40°03'34.491°N	104°44'01.998°W	0.64	EXIT RADIUS HEEL (387°FSL & 286°FWL,SEC.12) 40.0595808 -104.7338883
8670.00	88.250	0.110	7386.33	1333.46	1332.73	-508.52	1714876.77	14548577.61	40°03'34.856°N	104°44'01.996°W	0.64	
8759.00	88.460	359.310	7388.88	1422.42	1421.69	-508.97	1714876.05	14548666.53	40°03'35.735°N	104°44'02.002°W	0.93	
8849.00	87.940	358.910	7391.71	1512.37	1511.63	-510.37	1714874.38	14548756.44	40°03'36.624°N	104°44'02.020°W	0.73	
8938.00	89.600	0.500	7393.62	1601.34	1600.60	-510.83	1714873.66	14548845.37	40°03'37.503°N	104°44'02.026°W	2.58	
9028.00	89.630	0.040	7394.22	1691.34	1690.60	-510.40	1714873.81	14548935.33	40°03'38.393°N	104°44'02.020°W	0.51	
9206.00	89.450	1.160	7395.65	1869.32	1868.58	-508.54	1714875.14	14549113.25	40°03'40.152°N	104°44'01.996°W	0.64	
9295.00	89.320	1.020	7396.61	1958.29	1957.56	-506.85	1714876.56	14549202.20	40°03'41.031°N	104°44'01.975°W	0.21	
9384.00	89.200	0.610	7397.76	2047.27	2046.54	-505.58	1714877.56	14549291.15	40°03'41.910°N	104°44'01.958°W	0.48	
9473.00	89.750	0.620	7398.57	2136.26	2135.54	-504.63	1714878.25	14549380.11	40°03'42.790°N	104°44'01.946°W	0.62	
9563.00	90.220	0.210	7398.60	2226.26	2225.53	-503.97	1714878.63	14549470.07	40°03'43.679°N	104°44'01.938°W	0.69	
9652.00	90.370	359.090	7398.14	2315.26	2314.53	-504.52	1714877.82	14549559.03	40°03'44.559°N	104°44'01.945°W	1.27	
9742.00	90.250	357.140	7397.65	2405.21	2404.47	-507.48	1714874.59	14549648.93	40°03'45.447°N	104°44'01.983°W	2.17	
9832.00	90.800	355.480	7396.83	2495.02	2494.28	-513.27	1714868.53	14549738.68	40°03'46.335°N	104°44'02.057°W	1.94	
9921.00	90.800	355.900	7395.58	2583.77	2583.02	-519.96	1714861.58	14549827.37	40°03'47.212°N	104°44'02.143°W	0.47	
10010.00	90.030	0.050	7394.94	2672.70	2671.94	-523.10	1714858.17	14549916.24	40°03'48.091°N	104°44'02.184°W	4.74	
10100.00	89.810	359.350	7395.07	2762.70	2761.94	-523.57	1714857.42	14550006.20	40°03'48.980°N	104°44'02.190°W	0.82	
10189.00	92.370	0.470	7393.37	2851.67	2850.91	-523.71	1714857.02	14550095.14	40°03'49.859°N	104°44'02.192°W	3.14	
10279.00	93.140	0.930	7389.05	2941.56	2940.80	-522.61	1714857.84	14550185.00	40°03'50.748°N	104°44'02.178°W	1.00	
10369.00	92.590	0.960	7384.55	3031.43	3030.68	-521.13	1714859.06	14550274.84	40°03'51.636°N	104°44'02.159°W	0.61	
10458.00	92.460	0.450	7380.63	3120.33	3119.58	-520.04	1714859.88	14550363.72	40°03'52.514°N	104°44'02.145°W	0.59	
10548.00	93.230	0.390	7376.16	3210.22	3209.47	-519.38	1714860.27	14550453.57	40°03'53.403°N	104°44'02.136°W	0.86	
10637.00	91.690	0.540	7372.34	3299.13	3298.38	-518.66	1714860.72	14550542.45	40°03'54.281°N	104°44'02.127°W	1.74	
10727.00	90.030	1.520	7370.99	3389.10	3388.35	-517.04	1714862.07	14550632.39	40°03'55.170°N	104°44'02.106°W	2.14	
10816.00	90.000	0.400	7370.97	3478.08	3477.34	-515.55	1714863.29	14550721.34	40°03'56.050°N	104°44'02.087°W	1.26	
10906.00	90.150	359.400	7370.85	3568.08	3567.34	-515.71	1714862.87	14550811.30	40°03'56.939°N	104°44'02.089°W	1.12	
10995.00	90.430	1.600	7370.40	3657.07	3656.33	-514.93	1714863.37	14550900.26	40°03'57.819°N	104°44'02.079°W	2.49	
11085.00	90.620	0.690	7369.57	3747.05	3746.31	-513.13	1714864.90	14550990.21	40°03'58.708°N	104°44'02.056°W	1.03	
11174.00	91.290	0.610	7368.09	3836.03	3835.29	-512.12	1714865.64	14551079.16	40°03'59.587°N	104°44'02.043°W	0.76	
11264.00	89.780	359.770	7367.25	3926.02	3925.28	-511.82	1714865.67	14551169.11	40°04'00.476°N	104°44'02.039°W	1.92	
11353.00	90.030	359.360	7367.40	4015.01	4014.28	-512.50	1714864.73	14551258.07	40°04'01.356°N	104°44'02.048°W	0.54	
11442.00	90.490	359.260	7366.99	4104.01	4103.27	-513.57	1714863.39	14551347.03	40°04'02.235°N	104°44'02.062°W	0.53	
11532.00	88.740	359.650	7367.60	4194.00	4193.26	-514.43	1714862.26	14551436.98	40°04'03.125°N	104°44'02.073°W	1.99	
11621.00	88.980	359.350	7369.37	4282.98	4282.24	-515.20	1714861.22	14551525.92	40°04'04.004°N	104°44'02.083°W	0.43	
11711.00	89.570	359.580	7370.51	4372.97	4372.23	-516.04	1714860.11	14551615.87	40°04'04.893°N	104°44'02.094°W	0.70	
11800.00	89.970	359.040	7370.86	4461.96	4461.22	-517.12	1714858.77	14551704.82	40°04'05.773°N	104°44'02.107°W	0.76	
11890.00	90.400	358.520	7370.57	4551.94	4551.20	-519.03	1714856.58	14551794.76	40°04'06.662°N	104°44'02.132°W	0.75	
11983.00	90.590	359.850	7369.77	4644.93	4644.18	-520.35	1714854.98	14551887.70	40°04'07.581°N	104°44'02.149°W	1.44	
12075.00	91.200	0.830	7368.33	4736.92	4736.17	-519.81	1714855.25	14551979.65	40°04'08.490°N	104°44'02.142°W	1.25	
12168.00	90.180	1.820	7367.21	4829.88	4829.13	-517.66	1714857.12	14552072.59	40°04'09.408°N	104°44'02.114°W	1.53	
12261.00	91.330	1.200	7365.99	4922.83	4922.09	-515.21	1714859.29	14552165.52	40°04'10.327°N	104°44'02.083°W	1.40	
12353.00	90.890	3.120	7364.21	5014.74	5014.00	-511.74	1714862.48	14552257.40	40°04'11.235°N	104°44'02.038°W	2.14	
12444.00	91.670	3.030	7362.17	5105.58	5104.85	-506.86	1714867.08	14552348.23	40°04'12.133°N	104°44'01.976°W	0.86	
12538.00	91.290	3.350	7359.75	5199.39	5198.67	-501.63	1714872.03	14552442.03	40°04'13.060°N	104°44'01.908°W	0.53	
12630.00	89.720	1.710	7358.93	5291.29	5290.57	-497.57	1714875.81	14552533.90	40°04'13.969°N	104°44'01.856°W	2.47	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
12721.00	90.430	1.570	7358.82	5382.25	5381.54	-494.97	1714878.14	14552624.84	40°04'14.867"N	104°44'01.823"W	0.80	
12813.00	91.230	1.190	7357.48	5474.21	5473.50	-492.75	1714880.08	14552716.77	40°04'15.776"N	104°44'01.794"W	0.96	
12902.00	89.230	0.030	7357.13	5563.19	5562.49	-491.80	1714880.76	14552805.73	40°04'16.656"N	104°44'01.782"W	2.60	
12991.00	89.690	359.400	7357.96	5652.19	5651.48	-492.25	1714880.05	14552894.68	40°04'17.535"N	104°44'01.788"W	0.88	
13081.00	89.780	358.900	7358.38	5742.18	5741.47	-493.58	1714878.44	14552984.63	40°04'18.424"N	104°44'01.805"W	0.56	
13170.00	89.780	358.830	7358.72	5831.16	5830.45	-495.34	1714876.41	14553073.57	40°04'19.304"N	104°44'01.828"W	0.08	
13260.00	89.690	359.430	7359.14	5921.15	5920.44	-496.71	1714874.77	14553163.52	40°04'20.193"N	104°44'01.845"W	0.67	
13349.00	89.380	359.490	7359.86	6010.15	6009.43	-497.55	1714873.67	14553252.48	40°04'21.072"N	104°44'01.856"W	0.35	
13439.00	89.110	359.340	7361.05	6100.14	6099.42	-498.47	1714872.48	14553342.42	40°04'21.962"N	104°44'01.868"W	0.34	
13528.00	88.800	359.320	7362.67	6189.12	6188.40	-499.51	1714871.17	14553431.36	40°04'22.841"N	104°44'01.881"W	0.35	
13618.00	90.340	359.010	7363.35	6279.10	6278.38	-500.82	1714869.59	14553521.31	40°04'23.730"N	104°44'01.898"W	1.75	
13708.00	91.260	359.010	7362.09	6369.08	6368.36	-502.38	1714867.77	14553611.25	40°04'24.619"N	104°44'01.918"W	1.02	
13797.00	92.100	359.010	7359.48	6458.03	6457.31	-503.91	1714865.96	14553700.15	40°04'25.498"N	104°44'01.938"W	0.94	
13887.00	90.680	358.620	7357.30	6547.99	6547.26	-505.77	1714863.83	14553790.06	40°04'26.387"N	104°44'01.962"W	1.64	
13976.00	91.170	358.370	7355.86	6636.95	6636.22	-508.11	1714861.23	14553878.98	40°04'27.266"N	104°44'01.992"W	0.62	
14066.00	91.140	358.950	7354.05	6726.91	6726.17	-510.21	1714858.85	14553968.89	40°04'28.155"N	104°44'02.019"W	0.65	
14155.00	90.680	1.720	7352.63	6815.88	6815.15	-509.69	1714859.11	14554057.84	40°04'29.035"N	104°44'02.012"W	3.15	
14245.00	90.920	1.390	7351.37	6905.84	6905.11	-507.25	1714861.28	14554147.77	40°04'29.924"N	104°44'01.981"W	0.45	
14335.00	88.890	1.810	7351.52	6995.79	6995.07	-504.74	1714863.52	14554237.70	40°04'30.813"N	104°44'01.949"W	2.30	
14424.00	89.230	1.500	7352.98	7084.74	7084.02	-502.17	1714865.82	14554326.62	40°04'31.692"N	104°44'01.916"W	0.52	
14514.00	89.910	0.980	7353.66	7174.71	7174.00	-500.22	1714867.49	14554416.57	40°04'32.581"N	104°44'01.891"W	0.95	
14603.00	90.580	0.590	7353.28	7263.70	7262.99	-499.00	1714868.45	14554505.52	40°04'33.460"N	104°44'01.875"W	0.87	
14693.00	91.420	0.390	7351.71	7353.68	7352.97	-498.23	1714868.94	14554595.47	40°04'34.350"N	104°44'01.865"W	0.96	
14783.00	92.650	0.020	7348.51	7443.62	7442.91	-497.91	1714869.00	14554685.38	40°04'35.238"N	104°44'01.861"W	1.43	
14872.00	91.350	359.650	7345.41	7532.57	7531.85	-498.17	1714868.47	14554774.29	40°04'36.117"N	104°44'01.864"W	1.52	
14962.00	91.910	359.380	7342.85	7622.53	7621.81	-498.93	1714867.44	14554864.21	40°04'37.006"N	104°44'01.874"W	0.69	
15052.00	89.660	358.720	7341.61	7712.50	7711.79	-500.42	1714865.68	14554954.14	40°04'37.895"N	104°44'01.893"W	2.61	
15141.00	90.060	358.350	7341.83	7801.48	7800.76	-502.70	1714863.14	14555043.07	40°04'38.775"N	104°44'01.923"W	0.61	
15231.00	91.260	357.800	7340.79	7891.42	7890.70	-505.72	1714859.84	14555132.96	40°04'39.663"N	104°44'01.962"W	1.47	
15320.00	90.460	358.830	7339.46	7980.38	7979.65	-508.34	1714856.96	14555221.87	40°04'40.542"N	104°44'01.995"W	1.47	
15410.00	90.680	358.700	7338.56	8070.35	8069.62	-510.28	1714854.75	14555311.80	40°04'41.432"N	104°44'02.020"W	0.28	
15499.00	91.390	358.530	7336.96	8159.31	8158.58	-512.43	1714852.33	14555400.72	40°04'42.311"N	104°44'02.048"W	0.82	
15589.00	90.030	359.900	7335.84	8249.30	8248.56	-513.66	1714850.83	14555490.66	40°04'43.200"N	104°44'02.064"W	2.14	
15679.00	89.940	0.700	7335.86	8339.29	8338.56	-513.19	1714851.03	14555580.62	40°04'44.089"N	104°44'02.058"W	0.89	
15768.00	90.550	0.370	7335.48	8428.29	8427.55	-512.36	1714851.59	14555669.59	40°04'44.969"N	104°44'02.047"W	0.78	
15858.00	89.480	0.660	7335.46	8518.28	8517.55	-511.55	1714852.13	14555759.55	40°04'45.858"N	104°44'02.037"W	1.23	
15947.00	90.000	0.480	7335.86	8607.27	8606.54	-510.66	1714852.75	14555848.51	40°04'46.738"N	104°44'02.025"W	0.62	
16037.00	89.570	0.930	7336.20	8697.26	8696.54	-509.56	1714853.59	14555938.47	40°04'47.627"N	104°44'02.011"W	0.69	
16127.00	90.150	2.560	7336.42	8787.21	8786.49	-506.81	1714856.05	14556028.39	40°04'48.516"N	104°44'01.976"W	1.92	
16216.00	91.170	2.750	7335.40	8876.11	8875.39	-502.69	1714859.91	14556117.27	40°04'49.394"N	104°44'01.923"W	1.17	
16306.00	90.710	0.220	7333.92	8966.05	8965.34	-500.36	1714861.97	14556207.19	40°04'50.283"N	104°44'01.893"W	2.86	
16395.00	88.700	359.540	7334.38	9055.05	9054.33	-500.55	1714861.51	14556296.15	40°04'51.163"N	104°44'01.895"W	2.38	
16485.00	88.980	359.470	7336.20	9145.03	9144.31	-501.32	1714860.47	14556386.09	40°04'52.052"N	104°44'01.905"W	0.32	
16575.00	89.570	359.290	7337.34	9235.01	9234.30	-502.30	1714859.22	14556476.03	40°04'52.941"N	104°44'01.918"W	0.69	
16664.00	91.450	359.520	7336.55	9324.00	9323.28	-503.22	1714858.03	14556564.98	40°04'53.821"N	104°44'01.930"W	2.13	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
16754.00	90.190	359.890	7335.26	9413.99	9413.27	-503.69	1714857.30	14556654.93	40°04'54.710"N	104°44'01.936"W	1.46	
16844.00	88.980	358.920	7335.91	9503.98	9503.26	-504.62	1714856.09	14556744.89	40°04'55.599"N	104°44'01.948"W	1.72	
16933.00	89.940	358.800	7336.75	9592.96	9592.24	-506.39	1714854.05	14556833.82	40°04'56.478"N	104°44'01.971"W	1.09	
17023.00	88.000	358.710	7338.37	9682.92	9682.20	-508.35	1714851.83	14556923.74	40°04'57.367"N	104°44'01.996"W	2.16	
17112.00	88.210	358.210	7341.31	9771.85	9771.12	-510.74	1714849.17	14557012.62	40°04'58.246"N	104°44'02.027"W	0.61	
17202.00	89.010	357.690	7343.49	9861.77	9861.03	-513.95	1714845.68	14557102.49	40°04'59.135"N	104°44'02.068"W	1.06	
17291.00	88.150	358.840	7345.70	9950.70	9949.96	-516.65	1714842.72	14557191.37	40°05'00.013"N	104°44'02.103"W	1.61	
17381.00	89.200	359.450	7347.78	10040.67	10039.93	-517.99	1714841.11	14557281.30	40°05'00.903"N	104°44'02.120"W	1.35	
17470.00	90.580	0.000	7347.95	10129.66	10128.92	-518.42	1714840.42	14557370.25	40°05'01.782"N	104°44'02.126"W	1.67	
17560.00	88.860	0.070	7348.39	10219.66	10218.92	-518.36	1714840.20	14557460.21	40°05'02.671"N	104°44'02.125"W	1.91	
17649.00	89.290	0.080	7349.83	10308.65	10307.91	-518.25	1714840.05	14557549.17	40°05'03.551"N	104°44'02.123"W	0.48	
17739.00	90.120	359.710	7350.29	10398.64	10397.90	-518.41	1714839.61	14557639.13	40°05'04.440"N	104°44'02.126"W	1.01	
17828.00	91.110	359.570	7349.34	10487.64	10486.90	-518.97	1714838.79	14557728.08	40°05'05.320"N	104°44'02.133"W	1.12	
17918.00	88.770	359.580	7349.43	10577.63	10576.89	-519.64	1714837.85	14557818.04	40°05'06.209"N	104°44'02.141"W	2.60	
18007.00	88.830	359.260	7351.29	10666.61	10665.86	-520.54	1714836.68	14557906.97	40°05'07.088"N	104°44'02.153"W	0.37	
18096.00	89.750	358.960	7352.40	10755.59	10754.84	-521.92	1714835.03	14557995.92	40°05'07.967"N	104°44'02.171"W	1.09	
18180.00	90.710	358.500	7352.06	10839.57	10838.82	-523.78	1714832.92	14558079.85	40°05'08.797"N	104°44'02.195"W	1.27	
18275.00	91.660	358.020	7350.09	10934.51	10933.76	-526.67	1714829.75	14558174.74	40°05'09.736"N	104°44'02.232"W	1.12	LAST BHGE MWD+IFR1+SC SURVEY
18379.00†	91.660	358.020	7347.08	11038.41	11037.65	-530.26	1714825.85	14558278.58	40°05'10.762"N	104°44'02.278"W	0.00	ENTER RADIUS TOE (391'FNL & 221'FWL,SEC.01) 40.0863228 -104.7339661
18717.00	91.660	358.020	7337.29	11376.08	11375.31	-541.93	1714813.16	14558616.07	40°05'14.099"N	104°44'02.428"W	0.00	PTB (54'FNL & 232'FWL,SEC.01) 40.0872497 -104.7340079

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.01-T1N-R66W	0.00	0.00	-15.09	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
SEC.12-T1N-R66W	0.00	0.00	-15.09	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
VERDE 13-2HZ BHL REV-1(52'FNL & 257'FWL,SEC.01)	7323.00	11376.82	-517.03	1714838.05	14558617.66	40°05'14.114"N	104°44'02.108"W	point
VERDE 13-2HZ LANDBOX	7357.00	0.00	0.00	1715389.10	14547246.94	40°03'21.686"N	104°43'55.456"W	polygon
VERDE 13-2HZ RADIUS 1	7357.00	11427.96	-773.73	1714581.30	14558668.00	40°05'14.619"N	104°44'05.411"W	polygon
VERDE 13-2HZ RADIUS 2	7357.00	932.00	-789.11	1714597.50	14548176.20	40°03'30.896"N	104°44'05.604"W	polygon
VERDE 13-2HZ HEEL REV-1(366'FNL & 293'FWL,SEC.13)	7392.00	539.56	-501.31	1714886.37	14547784.78	40°03'27.018"N	104°44'01.903"W	point



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: VERDE 13-2HZ AWB    Ref Wellpath: VERDE 13-2HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1834.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <135 - 1834>	VERDE 13-2HZ AWB
1834.00	18275.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1932 - 18275>	VERDE 13-2HZ AWB
18275.00	18717.00	Blind Drilling (std)	Projection to bit	VERDE 13-2HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#04 VERDE 13-2HZ(909'FNL & 796'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-2HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
135.00	0.220	287.160	135.00	FIRST SURFACE MWD+IFR1 SURVEY
1834.00	19.860	261.410	1787.38	LAST SURFACE MWD+IFR1 SURVEY
1932.00	19.470	262.100	1879.66	FIRST BHGE MWD+IFR1+SC SURVEY
6720.00	1.890	34.023	6636.54	KOP
7359.00	47.235	356.869	7205.13	ENTER LANDBOX (836'FNL & 302'FWL,SEC.13) 40.0562250 -104.7338319
7820.00	89.720	0.300	7391.74	LANDING (426'FNL & 288'FWL,SEC.13) 40.0573496 -104.7338866
8633.00	88.197	0.340	7385.18	EXIT RADIUS HEEL (387'FSL & 286'FWL,SEC.12) 40.0595808 -104.7338883
18275.00	91.660	358.020	7350.09	LAST BHGE MWD+IFR1+SC SURVEY
18379.00	91.660	358.020	7347.08	ENTER RADIUS TOE (391'FNL & 221'FWL,SEC.01) 40.0863228 -104.7339661
18717.00	91.660	358.020	7337.29	PTB (54'FNL & 232'FWL,SEC.01) 40.0872497 -104.7340079