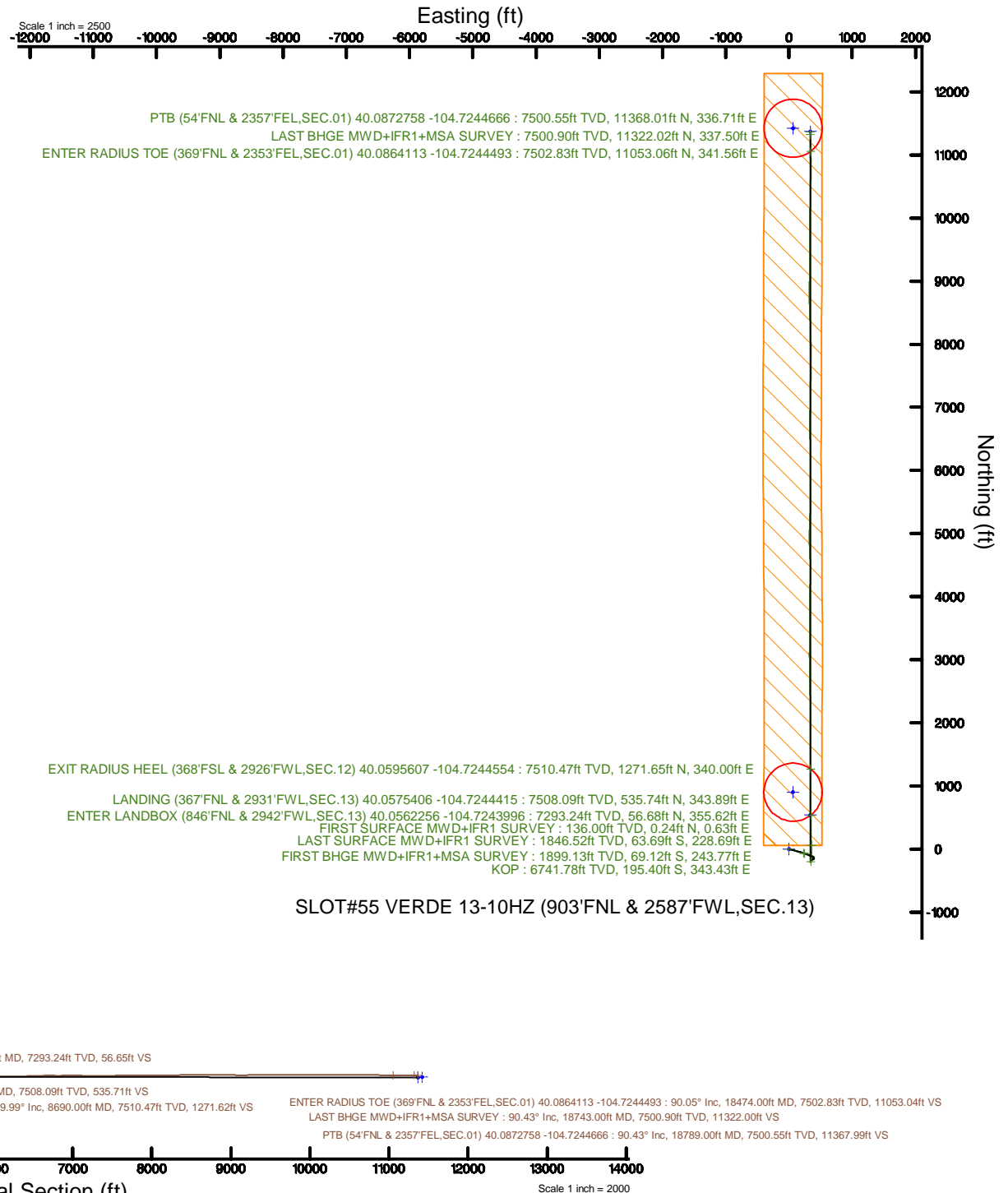
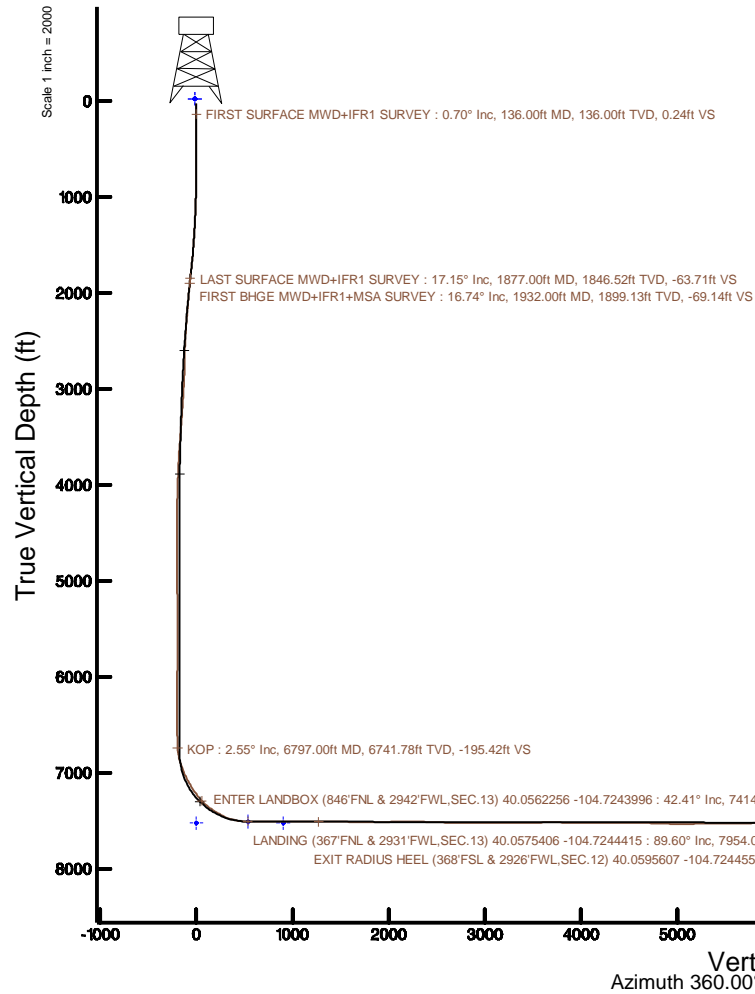


Location:	COLORADO	Slot:	SLOT#55 VERDE 13-10HZ (903FNL & 2587FWL,SEC.13)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	VERDE 13-10HZ
Facility:	SEC.13-T1N-R66W	Wellbore:	VERDE 13-10HZ PWB
Plot reference wellpath is VERDE 13-10HZ PWP Rev-A.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to PD 564 (26) (RT)		* = Wellpath was transformed from a different geocoid datum	
Measured depths are referenced to PD 564 (26) (RT)		North Reference: True north	
PD 564 (26) (RT) to Mean Sea Level: 5098 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#55 VERDE 13-10HZ (903FNL & 2587FWL,SEC.13)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: painsest on 2018-05-16	
		Database: WA_DEN_Anadarko_Defn	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903'FNL & 2587'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ 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	0.999607	Report Generated	5/16/2018 at 1:18 PM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/VERDE_13-10HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-686.28	-292.22	1717180.22	14547269.19	40°03'21.852"N	104°43'32.412"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	5098.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	5098.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#55 VERDE 13-10HZ (903'FNL & 2587'FWL,SEC.13))	5098.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	360.00°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903°FNL & 2587°FNL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ AWP
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (250 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	0.00	68.910	0.00	0.00	0.00	0.00	1717180.22	14547269.19	40°03'21.852"N	104°43'32.412"W	0.00	
26.00	0.000	68.910	26.00	0.00	0.00	0.00	1717180.22	14547269.19	40°03'21.852"N	104°43'32.412"W	0.00	
136.00	0.700	68.910	136.00	0.24	0.24	0.63	1717180.85	14547269.43	40°03'21.854"N	104°43'32.404"W	0.64	FIRST SURFACE MWD+IFR1 SURVEY
167.00	0.790	75.150	166.99	0.36	0.36	1.01	1717181.23	14547269.56	40°03'21.856"N	104°43'32.399"W	0.39	
199.00	0.830	79.190	198.99	0.46	0.46	1.45	1717181.67	14547269.66	40°03'21.857"N	104°43'32.393"W	0.22	
231.00	0.790	86.140	230.99	0.52	0.52	1.90	1717182.12	14547269.72	40°03'21.857"N	104°43'32.388"W	0.33	
262.00	0.180	98.090	261.99	0.53	0.53	2.16	1717182.38	14547269.73	40°03'21.857"N	104°43'32.384"W	1.98	
294.00	0.260	153.990	293.99	0.46	0.46	2.24	1717182.46	14547269.66	40°03'21.857"N	104°43'32.383"W	0.68	
325.00	0.180	98.090	324.99	0.39	0.39	2.32	1717182.54	14547269.59	40°03'21.856"N	104°43'32.382"W	0.70	
357.00	0.130	175.700	356.99	0.34	0.34	2.37	1717182.59	14547269.54	40°03'21.855"N	104°43'32.381"W	0.62	
388.00	0.090	217.620	387.99	0.29	0.29	2.36	1717182.58	14547269.49	40°03'21.855"N	104°43'32.382"W	0.28	
420.00	0.090	198.460	419.99	0.25	0.25	2.34	1717182.56	14547269.44	40°03'21.854"N	104°43'32.382"W	0.09	
451.00	0.040	51.770	450.99	0.23	0.23	2.34	1717182.56	14547269.43	40°03'21.854"N	104°43'32.382"W	0.40	
483.00	0.130	122.960	482.99	0.22	0.22	2.38	1717182.60	14547269.41	40°03'21.854"N	104°43'32.381"W	0.38	
514.00	0.130	98.090	513.99	0.19	0.19	2.44	1717182.66	14547269.39	40°03'21.854"N	104°43'32.381"W	0.18	
578.00	0.350	90.360	577.99	0.18	0.18	2.71	1717182.93	14547269.38	40°03'21.854"N	104°43'32.377"W	0.35	
610.00	0.310	105.030	609.99	0.16	0.16	2.89	1717183.11	14547269.36	40°03'21.854"N	104°43'32.375"W	0.29	
642.00	0.220	98.090	641.98	0.13	0.13	3.04	1717183.25	14547269.33	40°03'21.853"N	104°43'32.373"W	0.30	
673.00	0.090	118.130	672.98	0.11	0.11	3.12	1717183.33	14547269.31	40°03'21.853"N	104°43'32.372"W	0.45	
705.00	0.400	128.760	704.98	0.03	0.03	3.23	1717183.44	14547269.23	40°03'21.852"N	104°43'32.371"W	0.97	
737.00	1.140	116.630	736.98	-0.19	-0.19	3.60	1717183.82	14547269.01	40°03'21.850"N	104°43'32.366"W	2.36	
769.00	1.710	115.580	768.97	-0.54	-0.54	4.31	1717184.53	14547268.67	40°03'21.847"N	104°43'32.357"W	1.78	
800.00	1.980	117.250	799.96	-0.98	-0.98	5.21	1717185.43	14547268.23	40°03'21.842"N	104°43'32.345"W	0.89	
832.00	2.810	112.420	831.93	-1.53	-1.53	6.42	1717186.64	14547267.68	40°03'21.837"N	104°43'32.329"W	2.67	
864.00	3.520	108.810	863.88	-2.15	-2.15	8.08	1717188.30	14547267.07	40°03'21.831"N	104°43'32.308"W	2.30	
896.00	4.260	106.700	895.80	-2.81	-2.81	10.15	1717190.37	14547266.42	40°03'21.824"N	104°43'32.282"W	2.35	
927.00	4.700	107.670	926.71	-3.52	-3.52	12.46	1717192.68	14547265.71	40°03'21.817"N	104°43'32.252"W	1.44	
959.00	5.540	107.410	958.58	-4.38	-4.38	15.18	1717195.41	14547264.86	40°03'21.809"N	104°43'32.217"W	2.63	
991.00	6.240	103.890	990.41	-5.26	-5.26	18.34	1717198.57	14547263.99	40°03'21.800"N	104°43'32.176"W	2.46	
1023.00	7.210	105.560	1022.19	-6.22	-6.22	21.97	1717202.20	14547263.04	40°03'21.791"N	104°43'32.130"W	3.09	
1054.00	7.820	104.420	1052.93	-7.27	-7.27	25.88	1717206.11	14547262.01	40°03'21.780"N	104°43'32.079"W	2.03	
1086.00	8.170	105.120	1084.61	-8.40	-8.40	30.19	1717210.42	14547260.89	40°03'21.769"N	104°43'32.024"W	1.14	
1118.00	8.790	104.510	1116.26	-9.61	-9.61	34.75	1717214.98	14547259.69	40°03'21.757"N	104°43'31.965"W	1.96	
1149.00	9.800	105.120	1146.86	-10.89	-10.89	39.59	1717219.83	14547258.43	40°03'21.744"N	104°43'31.903"W	3.27	
1181.00	10.460	104.150	1178.36	-12.31	-12.31	45.03	1717225.27	14547257.02	40°03'21.730"N	104°43'31.833"W	2.13	
1213.00	10.940	104.510	1209.80	-13.78	-13.78	50.79	1717231.03	14547255.57	40°03'21.716"N	104°43'31.759"W	1.51	
1245.00	11.070	103.360	1241.21	-15.25	-15.25	56.72	1717236.96	14547254.12	40°03'21.701"N	104°43'31.683"W	0.80	
1277.00	11.070	102.660	1272.62	-16.64	-16.63	62.71	1717242.95	14547252.76	40°03'21.688"N	104°43'31.606"W	0.42	
1309.00	12.390	103.800	1303.95	-18.13	-18.13	69.04	1717249.29	14547251.28	40°03'21.673"N	104°43'31.524"W	4.19	
1340.00	13.100	105.210	1334.18	-19.85	-19.84	75.66	1717255.91	14547249.59	40°03'21.656"N	104°43'31.439"W	2.50	
1404.00	13.710	105.470	1396.44	-23.77	-23.77	89.97	1717270.22	14547245.71	40°03'21.617"N	104°43'31.255"W	0.96	
1435.00	14.590	105.120	1426.50	-25.77	-25.77	97.28	1717277.54	14547243.73	40°03'21.597"N	104°43'31.161"W	2.85	
1467.00	14.850	105.030	1457.45	-27.89	-27.88	105.13	1717285.39	14547241.65	40°03'21.576"N	104°43'31.060"W	0.82	
1499.00	15.070	104.860	1488.37	-30.02	-30.01	113.11	1717293.38	14547239.54	40°03'21.555"N	104°43'30.957"W	0.70	
1530.00	16.170	103.540	1518.22	-32.06	-32.05	121.20	1717301.47	14547237.52	40°03'21.535"N	104°43'30.853"W	3.73	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903°FNL & 2587°FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (250 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
1562.00	17.230	104.150	1548.87	-34.27	-34.26	130.13	1717310.40	14547235.35	40°03'21.513"N	104°43'30.739"W	3.36	
1594.00	17.620	104.150	1579.40	-36.61	-36.60	139.42	1717319.70	14547233.04	40°03'21.490"N	104°43'30.619"W	1.22	
1625.00	18.150	103.450	1608.90	-38.88	-38.87	148.67	1717328.95	14547230.79	40°03'21.468"N	104°43'30.500"W	1.84	
1657.00	19.120	105.560	1639.23	-41.45	-41.43	158.56	1717338.85	14547228.26	40°03'21.443"N	104°43'30.373"W	3.69	
1689.00	20.000	107.080	1669.38	-44.46	-44.45	168.84	1717349.13	14547225.28	40°03'21.413"N	104°43'30.241"W	3.18	
1721.00	20.430	106.180	1699.41	-47.62	-47.61	179.44	1717359.73	14547222.15	40°03'21.381"N	104°43'30.104"W	1.66	
1752.00	20.390	107.320	1728.46	-50.74	-50.73	189.79	1717370.09	14547219.07	40°03'21.351"N	104°43'29.971"W	1.29	
1784.00	20.130	107.410	1758.48	-54.05	-54.03	200.36	1717380.67	14547215.80	40°03'21.318"N	104°43'29.835"W	0.82	
1816.00	19.510	108.640	1788.59	-57.40	-57.39	210.68	1717390.99	14547212.47	40°03'21.285"N	104°43'29.703"W	2.33	
1837.00	18.500	109.430	1808.44	-59.63	-59.62	217.15	1717397.46	14547210.26	40°03'21.263"N	104°43'29.619"W	4.96	
1877.00	17.150	109.430	1846.52	-63.71	-63.69	228.69	1717409.02	14547206.23	40°03'21.223"N	104°43'29.471"W	3.37	LAST SURFACE MWD+IFR1 SURVEY
1932.00	16.740	110.190	1899.13	-69.14	-69.12	243.77	1717424.11	14547200.85	40°03'21.169"N	104°43'29.277"W	0.85	FIRST BHGE MWD+IFR1+MSA SURVEY
2022.00	16.420	108.300	1985.39	-77.61	-77.59	268.02	1717448.37	14547192.46	40°03'21.085"N	104°43'28.965"W	0.70	
2111.00	16.130	105.930	2070.83	-84.95	-84.93	291.85	1717472.21	14547185.19	40°03'21.013"N	104°43'28.659"W	0.81	
2201.00	14.590	109.780	2157.61	-92.22	-92.20	314.54	1717494.92	14547177.99	40°03'20.941"N	104°43'28.367"W	2.05	
2290.00	14.100	108.110	2243.84	-99.39	-99.36	335.39	1717515.78	14547170.90	40°03'20.870"N	104°43'28.099"W	0.72	
2379.00	12.180	110.080	2330.50	-105.98	-105.96	354.51	1717534.92	14547164.37	40°03'20.805"N	104°43'27.853"W	2.21	
2469.00	8.410	112.310	2419.04	-111.74	-111.72	369.53	1717549.94	14547158.65	40°03'20.748"N	104°43'27.660"W	4.21	
2558.00	6.290	118.330	2507.30	-116.53	-116.50	379.84	1717560.27	14547153.90	40°03'20.701"N	104°43'27.527"W	2.53	
2648.00	4.480	105.310	2596.90	-119.80	-119.77	387.57	1717568.00	14547150.66	40°03'20.668"N	104°43'27.428"W	2.41	
2737.00	2.500	102.830	2685.73	-121.15	-121.12	392.82	1717573.25	14547149.33	40°03'20.655"N	104°43'27.360"W	2.23	
2826.00	2.060	142.810	2774.67	-122.85	-122.83	395.68	1717576.12	14547147.63	40°03'20.638"N	104°43'27.324"W	1.81	
2916.00	2.660	183.440	2864.60	-126.23	-126.20	396.53	1717576.98	14547144.26	40°03'20.605"N	104°43'27.313"W	1.92	
3006.00	3.330	210.620	2954.48	-130.56	-130.53	395.07	1717575.54	14547139.93	40°03'20.562"N	104°43'27.331"W	1.72	
3095.00	4.170	227.410	3043.29	-134.98	-134.95	391.37	1717571.85	14547135.50	40°03'20.518"N	104°43'27.379"W	1.54	
3184.00	5.840	219.370	3131.95	-140.67	-140.64	386.12	1717566.62	14547129.80	40°03'20.462"N	104°43'27.446"W	2.03	
3274.00	5.370	221.750	3221.52	-147.35	-147.32	380.41	1717560.93	14547123.10	40°03'20.396"N	104°43'27.520"W	0.58	
3363.00	4.920	221.020	3310.16	-153.33	-153.31	375.13	1717555.67	14547117.10	40°03'20.337"N	104°43'27.588"W	0.51	
3453.00	5.860	212.290	3399.76	-160.13	-160.10	370.14	1717550.71	14547110.29	40°03'20.270"N	104°43'27.652"W	1.38	
3542.00	5.340	212.980	3488.34	-167.44	-167.42	365.46	1717546.05	14547102.96	40°03'20.198"N	104°43'27.712"W	0.59	
3631.00	4.990	212.220	3576.98	-174.19	-174.17	361.14	1717541.76	14547096.21	40°03'20.131"N	104°43'27.768"W	0.40	
3721.00	4.280	215.500	3666.68	-180.24	-180.21	357.11	1717537.74	14547090.15	40°03'20.071"N	104°43'27.820"W	0.84	
3810.00	3.710	213.830	3755.47	-185.33	-185.31	353.58	1717534.22	14547085.05	40°03'20.021"N	104°43'27.865"W	0.65	
3900.00	2.850	213.260	3845.32	-189.62	-189.60	350.73	1717531.39	14547080.75	40°03'19.978"N	104°43'27.902"W	0.96	
3990.00	2.490	213.730	3935.22	-193.12	-193.10	348.41	1717529.09	14547077.25	40°03'19.944"N	104°43'27.931"W	0.40	
4079.00	2.010	208.980	4024.15	-196.09	-196.07	346.58	1717527.27	14547074.27	40°03'19.914"N	104°43'27.955"W	0.58	
4169.00	1.600	215.020	4114.11	-198.50	-198.48	345.10	1717525.79	14547071.85	40°03'19.891"N	104°43'27.974"W	0.50	
4258.00	1.290	217.500	4203.08	-200.31	-200.29	343.78	1717524.48	14547070.04	40°03'19.873"N	104°43'27.991"W	0.36	
4347.00	1.000	235.850	4292.06	-201.55	-201.52	342.52	1717523.23	14547068.80	40°03'19.860"N	104°43'28.007"W	0.52	
4436.00	0.940	242.140	4381.05	-202.32	-202.30	341.24	1717521.94	14547068.02	40°03'19.853"N	104°43'28.024"W	0.14	
4526.00	0.840	249.130	4471.04	-202.90	-202.88	339.97	1717520.67	14547067.44	40°03'19.847"N	104°43'28.040"W	0.16	
4616.00	0.700	238.540	4561.03	-203.42	-203.40	338.88	1717519.59	14547066.92	40°03'19.842"N	104°43'28.054"W	0.22	
4705.00	0.760	246.450	4650.02	-203.94	-203.92	337.88	1717518.59	14547066.39	40°03'19.837"N	104°43'28.067"W	0.13	
4820.00	0.490	284.610	4765.01	-204.12	-204.10	336.70	1717517.41	14547066.21	40°03'19.835"N	104°43'28.082"W	0.42	
4910.00	0.650	352.260	4855.01	-203.52	-203.50	336.26	1717516.97	14547066.81	40°03'19.841"N	104°43'28.088"W	0.72	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903°FNL & 2587°FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (250 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
5000.00	0.920	347.300	4945.00	-202.31	-202.29	336.03	1717516.74	14547068.02	40°03'19.853"N	104°43'28.091"W	0.31	
5089.00	1.030	349.440	5033.99	-200.83	-200.80	335.73	1717516.43	14547069.50	40°03'19.868"N	104°43'28.095"W	0.13	
5179.00	1.050	357.860	5123.97	-199.21	-199.18	335.55	1717516.25	14547071.12	40°03'19.884"N	104°43'28.097"W	0.17	
5269.00	1.030	7.570	5213.96	-197.58	-197.56	335.63	1717516.32	14547072.74	40°03'19.900"N	104°43'28.096"W	0.20	
5358.00	0.960	1.240	5302.95	-196.04	-196.02	335.75	1717516.44	14547074.28	40°03'19.915"N	104°43'28.094"W	0.15	
5448.00	0.800	8.980	5392.94	-194.67	-194.65	335.86	1717516.55	14547075.66	40°03'19.928"N	104°43'28.093"W	0.22	
5537.00	0.810	16.030	5481.93	-193.45	-193.43	336.13	1717516.81	14547076.88	40°03'19.940"N	104°43'28.089"W	0.11	
5626.00	0.800	164.800	5570.92	-193.45	-193.42	336.47	1717517.15	14547076.88	40°03'19.941"N	104°43'28.085"W	1.74	
5716.00	0.870	163.610	5660.91	-194.71	-194.68	336.83	1717517.51	14547075.62	40°03'19.928"N	104°43'28.080"W	0.08	
5806.00	0.980	157.630	5750.90	-196.07	-196.05	337.31	1717518.00	14547074.26	40°03'19.915"N	104°43'28.074"W	0.16	
5896.00	1.010	156.630	5840.89	-197.51	-197.49	337.92	1717518.61	14547072.82	40°03'19.900"N	104°43'28.066"W	0.04	
5985.00	0.780	167.960	5929.88	-198.83	-198.80	338.36	1717519.05	14547071.51	40°03'19.887"N	104°43'28.061"W	0.32	
6074.00	0.630	147.410	6018.87	-199.83	-199.81	338.75	1717519.45	14547070.51	40°03'19.877"N	104°43'28.056"W	0.33	
6164.00	0.250	122.640	6108.87	-200.35	-200.33	339.18	1717519.88	14547069.98	40°03'19.872"N	104°43'28.050"W	0.46	
6253.00	0.190	342.600	6197.87	-200.32	-200.30	339.30	1717520.00	14547070.02	40°03'19.873"N	104°43'28.049"W	0.47	
6343.00	0.410	41.790	6287.87	-199.94	-199.91	339.47	1717520.17	14547070.40	40°03'19.876"N	104°43'28.046"W	0.39	
6432.00	0.330	96.050	6376.87	-199.73	-199.70	339.94	1717520.63	14547070.61	40°03'19.878"N	104°43'28.040"W	0.39	
6522.00	0.380	97.720	6466.86	-199.79	-199.77	340.49	1717521.19	14547070.55	40°03'19.878"N	104°43'28.033"W	0.06	
6612.00	0.430	95.620	6556.86	-199.87	-199.84	341.12	1717521.82	14547070.48	40°03'19.877"N	104°43'28.025"W	0.06	
6701.00	2.050	28.410	6645.84	-198.50	-198.48	342.21	1717522.90	14547071.85	40°03'19.891"N	104°43'28.011"W	2.16	
6791.00	1.900	15.470	6735.79	-195.65	-195.62	343.37	1717524.06	14547074.70	40°03'19.919"N	104°43'27.996"W	0.52	
6797.00†	2.546	14.461	6741.78	-195.42	-195.40	343.43	1717524.12	14547074.93	40°03'19.921"N	104°43'27.995"W	10.79	KOP
6880.00	11.500	12.150	6824.08	-185.53	-185.50	345.64	1717526.29	14547084.83	40°03'20.019"N	104°43'27.967"W	10.79	
6970.00	17.970	6.330	6911.07	-162.93	-162.91	349.06	1717529.64	14547107.42	40°03'20.242"N	104°43'27.923"W	7.37	
7060.00	23.280	5.640	6995.28	-131.41	-131.39	352.34	1717532.83	14547138.94	40°03'20.554"N	104°43'27.881"W	5.91	
7149.00	27.860	3.730	7075.54	-93.14	-93.11	355.43	1717535.79	14547177.21	40°03'20.932"N	104°43'27.841"W	5.23	
7239.00	32.020	0.820	7153.52	-48.27	-48.25	357.14	1717537.36	14547222.06	40°03'21.375"N	104°43'27.819"W	4.89	
7328.00	36.710	359.860	7226.96	1.95	1.97	357.41	1717537.48	14547272.26	40°03'21.871"N	104°43'27.816"W	5.30	
7414.00†	42.413	356.585	7293.24	56.65	56.68	355.62	1717535.52	14547326.94	40°03'22.412"N	104°43'27.839"W	7.06	ENTER LANDBOX (846°FNL & 2942°FWL,SEC.13) 40.0562256 -104.7243996
7418.00	42.680	356.450	7296.19	59.35	59.38	355.45	1717535.35	14547329.64	40°03'22.439"N	104°43'27.841"W	7.06	
7507.00	52.720	356.900	7356.01	124.99	125.01	351.66	1717531.36	14547395.23	40°03'23.087"N	104°43'27.890"W	11.29	
7597.00	58.070	0.820	7407.12	199.00	199.02	350.27	1717529.74	14547469.21	40°03'23.819"N	104°43'27.907"W	6.94	
7686.00	63.320	359.510	7450.67	276.58	276.61	350.47	1717529.70	14547546.76	40°03'24.585"N	104°43'27.905"W	6.04	
7776.00	73.170	358.890	7483.98	360.06	360.08	349.29	1717528.26	14547630.21	40°03'25.410"N	104°43'27.920"W	10.96	
7865.00	82.990	357.630	7502.34	446.99	447.02	346.63	1717525.34	14547717.09	40°03'26.269"N	104°43'27.954"W	11.12	
7954.00	89.600	358.830	7508.09	535.71	535.74	343.89	1717522.33	14547805.77	40°03'27.146"N	104°43'27.989"W	7.55	LANDING (367°FNL & 2931°FWL,SEC.13) 40.0575406 -104.7244415
8044.00	89.690	358.230	7508.65	625.68	625.70	341.58	1717519.74	14547895.70	40°03'28.035"N	104°43'28.019"W	0.67	
8134.00	89.660	359.300	7509.16	715.66	715.68	339.64	1717517.52	14547985.63	40°03'28.924"N	104°43'28.044"W	1.19	
8223.00	89.350	1.050	7509.93	804.65	804.67	339.92	1717517.52	14548074.59	40°03'29.804"N	104°43'28.040"W	2.00	
8313.00	89.630	0.250	7510.73	894.64	894.66	340.94	1717518.26	14548164.55	40°03'30.693"N	104°43'28.027"W	0.94	
8402.00	90.150	0.480	7510.90	983.64	983.66	341.50	1717518.56	14548253.51	40°03'31.573"N	104°43'28.020"W	0.64	
8492.00	90.150	0.100	7510.67	1073.64	1073.66	341.96	1717518.74	14548343.47	40°03'32.462"N	104°43'28.014"W	0.42	
8581.00	90.030	359.440	7510.53	1162.63	1162.66	341.60	1717518.10	14548432.43	40°03'33.342"N	104°43'28.019"W	0.75	
8671.00	90.030	358.960	7510.48	1252.62	1252.65	340.35	1717516.57	14548522.39	40°03'34.231"N	104°43'28.035"W	0.53	
8690.00†	89.992	358.949	7510.47	1271.62	1271.65	340.00	1717516.17	14548541.37	40°03'34.419"N	104°43'28.039"W	0.21	EXIT RADIUS HEEL (368°FSL & 2926°FWL,SEC.12) 40.0595607 -104.7244554

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903°FNL & 2587°FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (250 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
8760.00	89.850	358.910	7510.57	1341.61	1341.63	338.69	1717514.64	14548611.33	40°03'35.110"N	104°43'28.056"W	0.21	
8850.00	89.600	0.340	7511.00	1431.60	1431.63	338.10	1717513.78	14548701.29	40°03'36.000"N	104°43'28.064"W	1.61	
8939.00	89.380	359.910	7511.80	1520.60	1520.62	338.30	1717513.70	14548790.25	40°03'36.879"N	104°43'28.061"W	0.54	
9029.00	89.290	0.120	7512.84	1610.59	1610.62	338.32	1717513.44	14548880.21	40°03'37.768"N	104°43'28.061"W	0.25	
9119.00	89.200	359.950	7514.03	1700.59	1700.61	338.38	1717513.22	14548970.16	40°03'38.658"N	104°43'28.060"W	0.21	
9208.00	89.110	359.600	7515.34	1789.58	1789.60	338.03	1717512.60	14549059.11	40°03'39.537"N	104°43'28.065"W	0.41	
9297.00	91.230	0.240	7515.07	1878.57	1878.59	337.90	1717512.20	14549148.07	40°03'40.417"N	104°43'28.066"W	2.49	
9387.00	90.950	0.400	7513.36	1968.55	1968.58	338.40	1717512.43	14549238.02	40°03'41.306"N	104°43'28.060"W	0.36	
9476.00	90.740	0.050	7512.05	2057.54	2057.56	338.75	1717512.50	14549326.98	40°03'42.185"N	104°43'28.055"W	0.46	
9566.00	90.620	359.490	7510.98	2147.53	2147.56	338.39	1717511.86	14549416.93	40°03'43.075"N	104°43'28.060"W	0.64	
9655.00	90.030	359.060	7510.48	2236.52	2236.55	337.27	1717510.46	14549505.88	40°03'43.954"N	104°43'28.074"W	0.82	
9745.00	88.650	359.390	7511.51	2326.51	2326.53	336.05	1717508.97	14549595.83	40°03'44.843"N	104°43'28.090"W	1.58	
9834.00	88.610	359.090	7513.64	2415.48	2415.50	334.87	1717507.51	14549684.75	40°03'45.722"N	104°43'28.105"W	0.34	
9924.00	88.250	358.560	7516.11	2505.42	2505.45	333.02	1717505.39	14549774.66	40°03'46.611"N	104°43'28.129"W	0.71	
10013.00	87.320	357.850	7519.55	2594.31	2594.33	330.24	1717502.34	14549863.50	40°03'47.490"N	104°43'28.165"W	1.31	
10103.00	89.510	358.740	7522.04	2684.23	2684.25	327.56	1717499.38	14549953.38	40°03'48.378"N	104°43'28.199"W	2.63	
10192.00	90.220	0.560	7522.25	2773.22	2773.25	327.02	1717498.57	14550042.33	40°03'49.258"N	104°43'28.206"W	2.20	
10282.00	90.030	0.070	7522.05	2863.22	2863.24	327.51	1717498.78	14550132.30	40°03'50.147"N	104°43'28.200"W	0.58	
10371.00	89.510	359.270	7522.41	2952.22	2952.24	327.00	1717498.00	14550221.26	40°03'51.027"N	104°43'28.206"W	1.07	
10461.00	89.750	359.360	7522.99	3042.21	3042.23	325.92	1717496.64	14550311.21	40°03'51.916"N	104°43'28.220"W	0.28	
10550.00	90.310	0.940	7522.94	3131.21	3131.23	326.16	1717496.60	14550400.17	40°03'52.795"N	104°43'28.217"W	1.88	
10639.00	90.490	1.010	7522.32	3220.19	3220.21	327.67	1717497.84	14550489.13	40°03'53.675"N	104°43'28.198"W	0.22	
10729.00	89.480	359.990	7522.34	3310.19	3310.21	328.46	1717498.35	14550579.09	40°03'54.564"N	104°43'28.187"W	1.59	
10818.00	91.110	0.670	7521.89	3399.18	3399.20	328.97	1717498.59	14550668.05	40°03'55.444"N	104°43'28.181"W	1.98	
10908.00	90.860	0.550	7520.34	3489.16	3489.18	329.93	1717499.27	14550757.99	40°03'56.333"N	104°43'28.168"W	0.31	
10997.00	90.430	0.600	7519.34	3578.15	3578.17	330.82	1717499.89	14550846.95	40°03'57.212"N	104°43'28.157"W	0.49	
11087.00	90.120	0.780	7518.91	3668.14	3668.17	331.90	1717500.69	14550936.91	40°03'58.102"N	104°43'28.143"W	0.40	
11177.00	89.780	0.040	7518.98	3758.14	3758.16	332.55	1717501.06	14551026.87	40°03'58.991"N	104°43'28.135"W	0.90	
11266.00	89.570	359.940	7519.49	3847.14	3847.16	332.53	1717500.77	14551115.84	40°03'59.870"N	104°43'28.135"W	0.26	
11355.00	89.880	359.990	7519.92	3936.14	3936.16	332.48	1717500.44	14551204.80	40°04'00.750"N	104°43'28.136"W	0.35	
11445.00	89.450	0.490	7520.44	4026.13	4026.16	332.86	1717500.54	14551294.76	40°04'01.639"N	104°43'28.131"W	0.73	
11534.00	89.320	0.690	7521.40	4115.12	4115.15	333.77	1717501.18	14551383.72	40°04'02.519"N	104°43'28.119"W	0.27	
11624.00	88.950	0.180	7522.76	4205.11	4205.13	334.46	1717501.59	14551473.67	40°04'03.408"N	104°43'28.110"W	0.70	
11713.00	90.650	0.470	7523.07	4294.11	4294.13	334.96	1717501.82	14551562.63	40°04'04.287"N	104°43'28.104"W	1.94	
11803.00	90.280	0.420	7522.34	4384.10	4384.12	335.66	1717502.24	14551652.59	40°04'05.177"N	104°43'28.095"W	0.41	
11892.00	90.250	359.940	7521.92	4473.10	4473.12	335.94	1717502.25	14551741.56	40°04'06.056"N	104°43'28.091"W	0.54	
11981.00	90.460	359.130	7521.37	4562.09	4562.12	335.22	1717501.25	14551830.51	40°04'06.936"N	104°43'28.100"W	0.94	
12070.00	87.840	358.040	7522.69	4651.05	4651.07	333.02	1717498.78	14551919.43	40°04'07.815"N	104°43'28.128"W	3.19	
12164.00	86.760	356.880	7527.12	4744.85	4744.87	328.86	1717494.33	14552013.18	40°04'08.742"N	104°43'28.182"W	1.69	
12257.00	88.770	359.110	7530.75	4837.71	4837.73	325.61	1717490.80	14552105.99	40°04'09.659"N	104°43'28.224"W	3.23	
12350.00	88.610	359.880	7532.87	4930.68	4930.70	324.79	1717489.69	14552198.92	40°04'10.578"N	104°43'28.234"W	0.85	
12441.00	89.780	0.820	7534.15	5021.67	5021.69	325.35	1717489.97	14552289.87	40°04'11.477"N	104°43'28.227"W	1.65	
12533.00	90.950	1.820	7533.57	5113.64	5113.66	327.47	1717491.80	14552381.81	40°04'12.386"N	104°43'28.200"W	1.67	
12624.00	90.770	2.000	7532.20	5204.58	5204.60	330.50	1717494.56	14552472.73	40°04'13.285"N	104°43'28.161"W	0.28	
12715.00	90.620	1.980	7531.10	5295.52	5295.54	333.66	1717497.43	14552563.64	40°04'14.184"N	104°43'28.120"W	0.17	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903°FNL & 2587°FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (250 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
12806.00	89.200	1.340	7531.24	5386.47	5386.50	336.29	1717499.79	14552654.57	40°04'15.082"N	104°43'28.086"W	1.71	
12899.00	90.520	0.230	7531.47	5479.46	5479.49	337.57	1717500.78	14552747.52	40°04'16.001"N	104°43'28.070"W	1.85	
12993.00	90.250	0.100	7530.84	5573.46	5573.48	337.84	1717500.76	14552841.48	40°04'16.930"N	104°43'28.066"W	0.32	
13082.00	91.660	0.580	7529.35	5662.44	5662.47	338.37	1717501.01	14552930.43	40°04'17.810"N	104°43'28.060"W	1.67	
13171.00	91.790	0.640	7526.67	5751.40	5751.42	339.31	1717501.68	14553019.36	40°04'18.689"N	104°43'28.047"W	0.16	
13261.00	91.350	0.570	7524.21	5841.36	5841.38	340.26	1717502.36	14553109.28	40°04'19.578"N	104°43'28.035"W	0.50	
13350.00	91.200	360.000	7522.23	5930.33	5930.36	340.71	1717502.52	14553198.23	40°04'20.457"N	104°43'28.029"W	0.66	
13439.00	91.020	359.300	7520.50	6019.32	6019.34	340.16	1717501.71	14553287.17	40°04'21.336"N	104°43'28.036"W	0.81	
13528.00	91.380	359.240	7518.64	6108.29	6108.31	339.03	1717500.30	14553376.10	40°04'22.216"N	104°43'28.051"W	0.41	
13618.00	90.830	358.380	7516.90	6198.25	6198.28	337.16	1717498.15	14553466.02	40°04'23.105"N	104°43'28.075"W	1.13	
13707.00	91.050	359.650	7515.44	6287.22	6287.25	335.63	1717496.35	14553554.96	40°04'23.984"N	104°43'28.095"W	1.45	
13796.00	91.390	359.680	7513.55	6376.20	6376.23	335.11	1717495.56	14553643.90	40°04'24.863"N	104°43'28.101"W	0.38	
13886.00	91.630	359.710	7511.18	6466.17	6466.19	334.63	1717494.80	14553733.83	40°04'25.752"N	104°43'28.107"W	0.27	
13975.00	92.190	359.560	7508.21	6555.12	6555.14	334.06	1717493.96	14553822.74	40°04'26.631"N	104°43'28.115"W	0.65	
14064.00	90.860	359.560	7505.84	6644.08	6644.11	333.38	1717493.00	14553911.67	40°04'27.510"N	104°43'28.123"W	1.49	
14153.00	89.510	359.980	7505.55	6733.08	6733.10	333.02	1717492.37	14554000.63	40°04'28.390"N	104°43'28.128"W	1.59	
14242.00	90.030	0.390	7505.91	6822.08	6822.10	333.31	1717492.39	14554089.59	40°04'29.269"N	104°43'28.124"W	0.74	
14332.00	90.180	0.540	7505.75	6912.07	6912.10	334.04	1717492.84	14554179.55	40°04'30.159"N	104°43'28.115"W	0.24	
14421.00	90.680	0.200	7505.08	7001.07	7001.09	334.62	1717493.14	14554268.51	40°04'31.038"N	104°43'28.108"W	0.68	
14510.00	89.050	0.680	7505.29	7090.06	7090.09	335.30	1717493.55	14554357.47	40°04'31.918"N	104°43'28.099"W	1.91	
14599.00	89.200	0.470	7506.65	7179.05	7179.07	336.19	1717494.17	14554446.43	40°04'32.797"N	104°43'28.087"W	0.29	
14688.00	90.180	1.590	7507.13	7268.03	7268.05	337.79	1717495.49	14554535.38	40°04'33.676"N	104°43'28.067"W	1.67	
14777.00	90.430	2.270	7506.66	7356.98	7357.00	340.79	1717498.21	14554624.30	40°04'34.555"N	104°43'28.028"W	0.81	
14866.00	90.030	1.730	7506.30	7445.92	7445.95	343.90	1717501.04	14554713.22	40°04'35.434"N	104°43'27.988"W	0.76	
14956.00	90.520	0.390	7505.87	7535.90	7535.93	345.56	1717502.43	14554803.17	40°04'36.324"N	104°43'27.967"W	1.59	
15045.00	90.180	0.060	7505.32	7624.90	7624.92	345.91	1717502.51	14554892.13	40°04'37.203"N	104°43'27.962"W	0.53	
15135.00	90.180	359.860	7505.04	7714.90	7714.92	345.85	1717502.17	14554982.09	40°04'38.092"N	104°43'27.963"W	0.22	
15224.00	90.250	359.760	7504.71	7803.90	7803.92	345.55	1717501.60	14555071.06	40°04'38.972"N	104°43'27.967"W	0.14	
15314.00	90.030	359.430	7504.49	7893.90	7893.92	344.92	1717500.68	14555161.01	40°04'39.861"N	104°43'27.975"W	0.44	
15403.00	89.780	359.010	7504.63	7982.89	7982.91	343.70	1717499.20	14555249.97	40°04'40.741"N	104°43'27.990"W	0.55	
15493.00	89.570	358.360	7505.14	8072.86	8072.89	341.64	1717496.86	14555339.90	40°04'41.630"N	104°43'28.017"W	0.76	
15582.00	91.450	358.870	7504.35	8161.83	8161.85	339.49	1717494.43	14555428.82	40°04'42.509"N	104°43'28.045"W	2.19	
15671.00	91.420	358.490	7502.12	8250.78	8250.80	337.44	1717492.11	14555517.73	40°04'43.388"N	104°43'28.071"W	0.43	
15761.00	91.480	358.530	7499.85	8340.72	8340.74	335.10	1717489.50	14555607.63	40°04'44.277"N	104°43'28.101"W	0.08	
15850.00	91.630	358.200	7497.43	8429.65	8429.67	332.56	1717486.68	14555696.51	40°04'45.156"N	104°43'28.134"W	0.41	
15940.00	92.250	357.980	7494.38	8519.55	8519.57	329.56	1717483.41	14555786.37	40°04'46.044"N	104°43'28.172"W	0.73	
16030.00	88.740	358.480	7493.61	8609.49	8609.51	326.78	1717480.36	14555876.26	40°04'46.933"N	104°43'28.208"W	3.94	
16119.00	89.140	358.660	7495.25	8698.44	8698.47	324.56	1717477.86	14555965.18	40°04'47.812"N	104°43'28.237"W	0.49	
16208.00	88.890	0.030	7496.78	8787.42	8787.44	323.55	1717476.57	14556054.12	40°04'48.691"N	104°43'28.250"W	1.56	
16298.00	89.600	0.660	7497.97	8877.41	8877.43	324.09	1717476.84	14556144.07	40°04'49.581"N	104°43'28.243"W	1.05	
16387.00	89.970	1.310	7498.30	8966.40	8966.42	325.62	1717478.09	14556233.03	40°04'50.460"N	104°43'28.223"W	0.84	
16477.00	89.050	0.330	7499.07	9056.38	9056.41	326.91	1717479.10	14556322.98	40°04'51.349"N	104°43'28.206"W	1.49	
16566.00	90.220	0.460	7499.64	9145.38	9145.40	327.52	1717479.44	14556411.94	40°04'52.229"N	104°43'28.198"W	1.32	
16655.00	90.520	0.380	7499.06	9234.37	9234.40	328.17	1717479.82	14556500.90	40°04'53.108"N	104°43'28.190"W	0.35	
16745.00	91.420	0.470	7497.54	9324.36	9324.38	328.84	1717480.21	14556590.85	40°04'53.997"N	104°43'28.181"W	1.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903'FNL & 2587'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (250 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
16834.00	90.800	0.760	7495.82	9413.33	9413.36	329.79	1717480.89	14556679.80	40°04'54.877"N	104°43'28.169"W	0.77	
16924.00	90.620	0.150	7494.70	9503.32	9503.35	330.51	1717481.33	14556769.75	40°04'55.766"N	104°43'28.160"W	0.71	
17013.00	89.630	0.100	7494.51	9592.32	9592.35	330.70	1717481.25	14556858.72	40°04'56.645"N	104°43'28.157"W	1.11	
17102.00	89.880	359.560	7494.89	9681.32	9681.34	330.44	1717480.71	14556947.68	40°04'57.525"N	104°43'28.161"W	0.67	
17192.00	89.880	359.970	7495.08	9771.32	9771.34	330.07	1717480.06	14557037.64	40°04'58.414"N	104°43'28.165"W	0.46	
17281.00	89.910	0.810	7495.24	9860.32	9860.34	330.68	1717480.39	14557126.60	40°04'59.294"N	104°43'28.158"W	0.94	
17370.00	90.340	0.560	7495.05	9949.31	9949.33	331.74	1717481.18	14557215.56	40°05'00.173"N	104°43'28.144"W	0.56	
17460.00	90.460	0.180	7494.42	10039.31	10039.33	332.32	1717481.49	14557305.53	40°05'01.063"N	104°43'28.136"W	0.44	
17549.00	89.570	1.450	7494.39	10128.29	10128.32	333.59	1717482.48	14557394.48	40°05'01.942"N	104°43'28.120"W	1.74	
17638.00	89.880	1.610	7494.82	10217.26	10217.28	335.96	1717484.58	14557483.42	40°05'02.821"N	104°43'28.090"W	0.39	
17728.00	90.340	1.440	7494.65	10307.23	10307.25	338.36	1717486.70	14557573.36	40°05'03.710"N	104°43'28.059"W	0.54	
17817.00	90.650	1.140	7493.88	10396.20	10396.23	340.36	1717488.42	14557662.31	40°05'04.590"N	104°43'28.033"W	0.48	
17906.00	89.080	0.520	7494.09	10485.19	10485.21	341.65	1717489.44	14557751.26	40°05'05.469"N	104°43'28.016"W	1.90	
17996.00	89.910	0.590	7494.88	10575.18	10575.20	342.52	1717490.03	14557841.22	40°05'06.358"N	104°43'28.005"W	0.93	
18085.00	90.520	0.760	7494.55	10664.17	10664.20	343.57	1717490.81	14557930.18	40°05'07.238"N	104°43'27.992"W	0.71	
18174.00	88.310	359.880	7495.46	10753.16	10753.18	344.07	1717491.03	14558019.13	40°05'08.117"N	104°43'27.985"W	2.67	
18264.00	88.370	359.810	7498.06	10843.12	10843.15	343.82	1717490.51	14558109.06	40°05'09.006"N	104°43'27.988"W	0.10	
18353.00	87.810	359.170	7501.03	10932.07	10932.09	343.03	1717489.44	14558197.97	40°05'09.885"N	104°43'27.998"W	0.96	
18443.00	89.910	359.370	7502.82	11022.04	11022.06	341.89	1717488.02	14558287.90	40°05'10.774"N	104°43'28.013"W	2.34	
18474.00†	90.049	359.419	7502.83	11053.04	11053.06	341.56	1717487.60	14558318.88	40°05'11.081"N	104°43'28.017"W	0.48	ENTER RADIUS TOE (369'FNL & 2353'FEL,SEC.01) 40.0864113 -104.724449
18532.00	90.310	359.510	7502.65	11111.03	11111.06	341.02	1717486.88	14558376.85	40°05'11.654"N	104°43'28.024"W	0.48	
18621.00	90.490	358.940	7502.03	11200.02	11200.05	339.81	1717485.40	14558465.80	40°05'12.533"N	104°43'28.040"W	0.67	
18711.00	90.590	358.870	7501.18	11290.00	11290.03	338.09	1717483.40	14558555.74	40°05'13.422"N	104°43'28.062"W	0.14	
18743.00	90.430	359.010	7500.90	11322.00	11322.02	337.50	1717482.71	14558587.72	40°05'13.738"N	104°43'28.070"W	0.66	LAST BHGE MWD+IFR1+MSA SURVEY
18789.00	90.430	359.010	7500.55	11367.99	11368.01	336.71	1717481.78	14558633.69	40°05'14.193"N	104°43'28.080"W	0.00	PTB (54'FNL & 2357'FEL,SEC.01) 40.0872758 -104.7244666

HOLE & CASING SECTIONS - Ref Wellbore: VERDE 13-10HZ AWB Ref Wellpath: VERDE 13-10HZ AWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	26.00	1877.00	1851.00	26.00	1846.52	0.00	0.00	-63.69	228.69

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903'FNL & 2587'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.01-T1N-R66W	-24.00	-16.73	-1806.98	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
SEC.12-T1N-R66W	-24.00	-16.73	-1806.98	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
VERDE 13-10HZ HEEL REV-1(366'FNL & 2370'FEL,SEC.13)	7510.00	539.56	337.62	1717516.05	14547809.57	40°03'27.184"N	104°43'28.070"W	point
VERDE 13-10HZ LANDBOX	7525.00	0.00	0.00	1717180.22	14547269.19	40°03'21.852"N	104°43'32.412"W	polygon
VERDE 13-10HZ RADIUS 1	7525.00	11420.78	64.58	1717209.60	14558685.60	40°05'14.714"N	104°43'31.581"W	polygon
VERDE 13-10HZ RADIUS 2	7525.00	903.68	61.69	1717239.10	14548172.70	40°03'30.782"N	104°43'31.619"W	polygon
VERDE 13-10HZ BHL REV-1(53'FNL & 2357'FEL,SEC.01)	7531.00	11369.13	336.84	1717481.91	14558634.81	40°05'14.204"N	104°43'28.078"W	point

WELLPATH COMPOSITION - Ref Wellbore: VERDE 13-10HZ AWB Ref Wellpath: VERDE 13-10HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1877.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <136 - 1877>	VERDE 13-10HZ AWB
1877.00	18743.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1932 - 18743>	VERDE 13-10HZ AWB
18743.00	18789.00	Blind Drilling (std)	Projection to bit	VERDE 13-10HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#55 VERDE 13-10HZ (903'FNL & 2587'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-10HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
136.00	0.700	68.910	136.00	FIRST SURFACE MWD+IFR1 SURVEY
1877.00	17.150	109.430	1846.52	LAST SURFACE MWD+IFR1 SURVEY
1932.00	16.740	110.190	1899.13	FIRST BHGE MWD+IFR1+MSA SURVEY
6797.00	2.546	14.461	6741.78	KOP
7414.00	42.413	356.585	7293.24	ENTER LANDBOX (846'FNL & 2942'FWL,SEC.13) 40.0562256 -104.7243996
7954.00	89.600	358.830	7508.09	LANDING (367'FNL & 2931'FWL,SEC.13) 40.0575406 -104.7244415
8690.00	89.992	358.949	7510.47	EXIT RADIUS HEEL (368'FSL & 2926'FWL,SEC.12) 40.0595607 -104.7244554
18474.00	90.049	359.419	7502.83	ENTER RADIUS TOE (369'FNL & 2353'FEL,SEC.01) 40.0864113 -104.7244493
18743.00	90.430	359.010	7500.90	LAST BHGE MWD+IFR1+MSA SURVEY
18789.00	90.430	359.010	7500.55	PTB (54'FNL & 2357'FEL,SEC.01) 40.0872758 -104.7244666