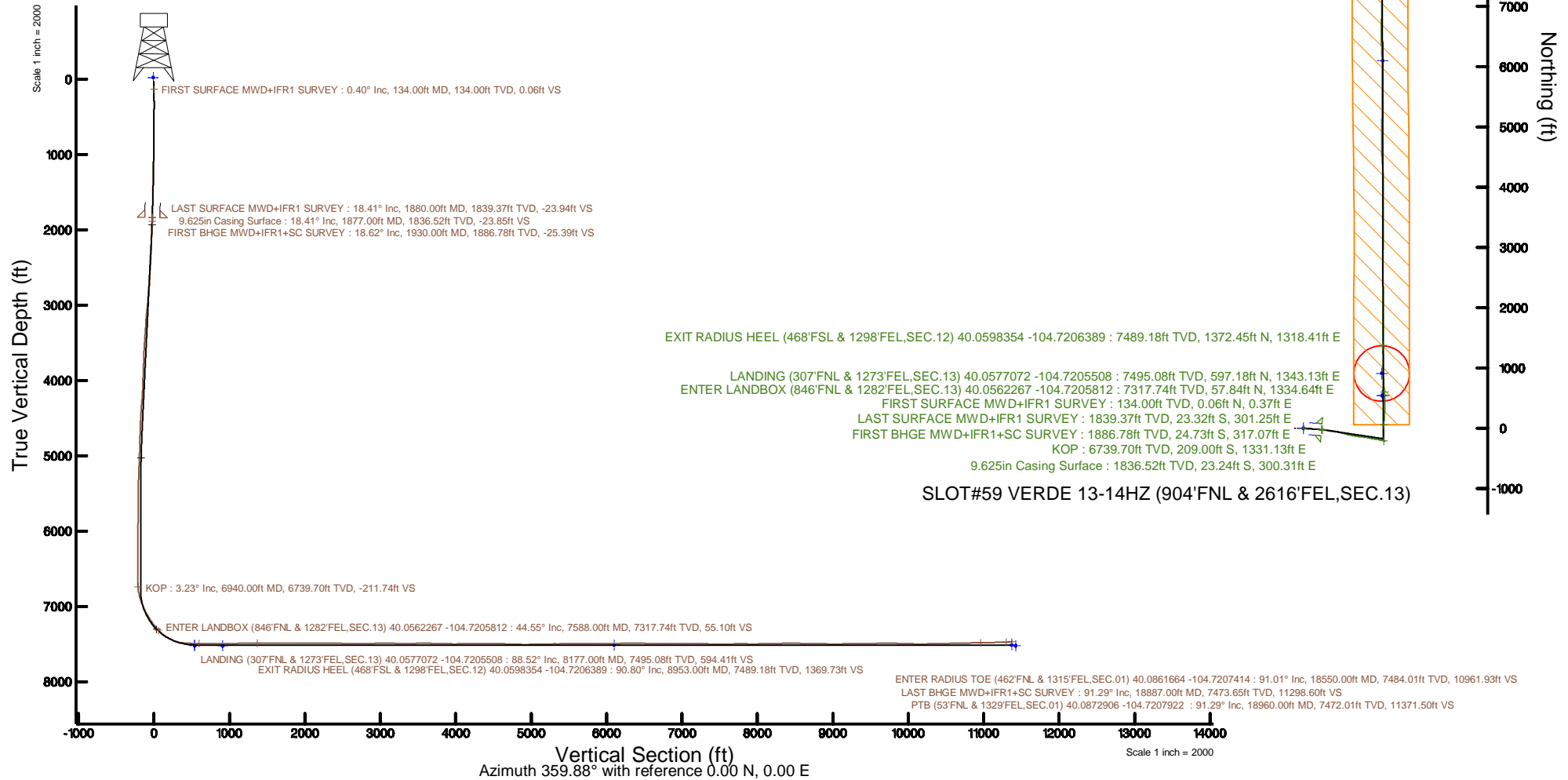


Location:	COLORADO	Slot:	SLOT#59 VERDE 13-14HZ (904°FNL & 2616°FEL,SEC.13)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	VERDE 13-14HZ
Facility:	SEC.13-T1N-R6GW	Wellbore:	VERDE 13-14HZ PWB
Plot reference wellpath is VERDE 13-14HZ PWP Rev-A.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to PD 564 (26) (RT)		* = Wellpath was transformed from a different geoidetic datum	
Measured depths are referenced to PD 564 (26) (RT)		North Reference: True north	
PD 564 (26) to Mean Sea Level: 5098 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#59 VERDE 13-14HZ (904°FNL & 2616°FEL,SEC.13)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: painsear on 2018-04-20	
		Database: WA_DEN_Anadarko_Defn	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ 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	4/20/2018 at 9:12 AM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/VERDE_13-14HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-686.99	-202.33	1717270.08	14547268.76	40°03'21.845"N	104°43'31.256"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#59 VERDE 13-14HZ (904'FNL & 2616'FEL,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	359.88°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (249 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	80.860	0.00	0.00	0.00	0.00	1717270.08	14547268.76	40°03'21.845"N	104°43'31.256"W	0.00	
26.00	0.000	80.860	26.00	0.00	0.00	0.00	1717270.08	14547268.76	40°03'21.845"N	104°43'31.256"W	0.00	
134.00	0.400	80.860	134.00	0.06	0.06	0.37	1717270.45	14547268.82	40°03'21.846"N	104°43'31.251"W	0.37	FIRST SURFACE MWD+IFR1 SURVEY
198.00	0.620	82.880	198.00	0.14	0.14	0.94	1717271.01	14547268.90	40°03'21.846"N	104°43'31.244"W	0.34	
230.00	0.830	70.760	229.99	0.23	0.24	1.33	1717271.40	14547269.00	40°03'21.847"N	104°43'31.239"W	0.81	
261.00	0.880	68.820	260.99	0.39	0.40	1.76	1717271.84	14547269.16	40°03'21.849"N	104°43'31.233"W	0.19	
293.00	1.010	50.280	292.99	0.66	0.67	2.21	1717272.28	14547269.43	40°03'21.852"N	104°43'31.228"W	1.03	
324.00	0.830	74.270	323.98	0.90	0.90	2.63	1717272.71	14547269.67	40°03'21.854"N	104°43'31.222"W	1.36	
356.00	0.790	95.450	355.98	0.94	0.94	3.08	1717273.15	14547269.71	40°03'21.854"N	104°43'31.216"W	0.94	
387.00	0.880	124.900	386.98	0.78	0.79	3.48	1717273.56	14547269.56	40°03'21.853"N	104°43'31.211"W	1.40	
419.00	0.660	136.760	418.97	0.50	0.51	3.81	1717273.88	14547269.28	40°03'21.850"N	104°43'31.207"W	0.85	
450.00	0.790	127.880	449.97	0.24	0.25	4.10	1717274.18	14547269.02	40°03'21.847"N	104°43'31.203"W	0.55	
482.00	0.750	122.350	481.97	-0.01	0.00	4.45	1717274.53	14547268.78	40°03'21.845"N	104°43'31.199"W	0.26	
513.00	0.620	126.390	512.97	-0.22	-0.21	4.76	1717274.83	14547268.57	40°03'21.843"N	104°43'31.195"W	0.45	
545.00	0.750	116.110	544.96	-0.41	-0.40	5.09	1717275.16	14547268.37	40°03'21.841"N	104°43'31.191"W	0.56	
577.00	1.630	101.610	576.96	-0.60	-0.58	5.72	1717275.80	14547268.19	40°03'21.839"N	104°43'31.182"W	2.88	
641.00	2.640	93.780	640.91	-0.88	-0.86	8.08	1717278.16	14547267.92	40°03'21.836"N	104°43'31.152"W	1.64	
672.00	2.990	91.670	671.87	-0.96	-0.94	9.60	1717279.68	14547267.85	40°03'21.836"N	104°43'31.132"W	1.18	
704.00	4.310	91.500	703.81	-1.02	-0.99	11.64	1717281.72	14547267.80	40°03'21.835"N	104°43'31.106"W	4.13	
736.00	4.570	94.310	735.71	-1.15	-1.12	14.11	1717284.19	14547267.68	40°03'21.834"N	104°43'31.074"W	1.06	
768.00	4.920	94.930	767.60	-1.37	-1.33	16.75	1717286.83	14547267.48	40°03'21.832"N	104°43'31.041"W	1.11	
799.00	5.630	93.780	798.47	-1.59	-1.55	19.59	1717289.67	14547267.27	40°03'21.830"N	104°43'31.004"W	2.32	
863.00	7.600	92.470	862.04	-1.99	-1.94	26.96	1717297.03	14547266.91	40°03'21.826"N	104°43'30.909"W	3.09	
895.00	8.660	92.990	893.72	-2.22	-2.15	31.48	1717301.55	14547266.70	40°03'21.824"N	104°43'30.851"W	3.32	
926.00	9.450	93.080	924.33	-2.49	-2.41	36.35	1717306.42	14547266.46	40°03'21.821"N	104°43'30.789"W	2.55	
958.00	9.710	93.520	955.89	-2.80	-2.72	41.66	1717311.73	14547266.17	40°03'21.818"N	104°43'30.720"W	0.84	
990.00	10.500	93.960	987.39	-3.18	-3.09	47.27	1717317.33	14547265.82	40°03'21.815"N	104°43'30.648"W	2.48	
1022.00	11.560	97.120	1018.80	-3.79	-3.68	53.36	1717323.42	14547265.24	40°03'21.809"N	104°43'30.570"W	3.81	
1053.00	12.660	97.210	1049.11	-4.62	-4.50	59.81	1717329.88	14547264.45	40°03'21.801"N	104°43'30.487"W	3.55	
1085.00	13.050	97.650	1080.31	-5.55	-5.42	66.87	1717336.94	14547263.55	40°03'21.791"N	104°43'30.396"W	1.26	
1117.00	13.710	95.190	1111.44	-6.39	-6.24	74.23	1717344.29	14547262.75	40°03'21.783"N	104°43'30.301"W	2.72	
1148.00	14.190	94.220	1141.52	-7.02	-6.85	81.68	1717351.74	14547262.16	40°03'21.777"N	104°43'30.206"W	1.72	
1180.00	14.630	93.780	1172.52	-7.59	-7.41	89.62	1717359.68	14547261.63	40°03'21.772"N	104°43'30.103"W	1.42	
1212.00	14.630	92.470	1203.48	-8.05	-7.85	97.69	1717367.75	14547261.22	40°03'21.767"N	104°43'30.000"W	1.03	
1244.00	15.030	92.820	1234.41	-8.44	-8.23	105.87	1717375.93	14547260.86	40°03'21.764"N	104°43'29.894"W	1.28	
1276.00	16.000	94.660	1265.25	-9.02	-8.79	114.41	1717384.47	14547260.33	40°03'21.758"N	104°43'29.785"W	3.40	
1307.00	16.350	95.800	1295.02	-9.83	-9.58	123.01	1717393.07	14547259.57	40°03'21.750"N	104°43'29.674"W	1.52	
1339.00	16.520	94.750	1325.71	-10.68	-10.41	132.03	1717402.08	14547258.76	40°03'21.742"N	104°43'29.558"W	1.07	
1371.00	16.790	94.310	1356.37	-11.42	-11.13	141.17	1717411.22	14547258.07	40°03'21.735"N	104°43'29.441"W	0.93	
1403.00	17.750	94.310	1386.93	-12.16	-11.85	150.64	1717420.69	14547257.38	40°03'21.728"N	104°43'29.319"W	3.00	
1434.00	18.110	94.050	1416.42	-12.87	-12.54	160.16	1717430.21	14547256.72	40°03'21.721"N	104°43'29.196"W	1.19	
1466.00	18.060	93.340	1446.84	-13.53	-13.18	170.07	1717440.12	14547256.11	40°03'21.715"N	104°43'29.069"W	0.71	
1498.00	18.410	92.380	1477.23	-14.05	-13.68	180.07	1717450.12	14547255.64	40°03'21.710"N	104°43'28.940"W	1.44	
1529.00	18.630	92.030	1506.63	-14.45	-14.06	189.91	1717459.96	14547255.29	40°03'21.706"N	104°43'28.814"W	0.80	
1561.00	18.500	93.340	1536.96	-14.95	-14.54	200.09	1717470.13	14547254.85	40°03'21.701"N	104°43'28.683"W	1.37	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (249 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
1592.00	18.280	95.630	1566.38	-15.73	-15.30	209.84	1717479.88	14547254.11	40°03'21.694"N	104°43'28.557"W	2.44	
1624.00	18.760	95.450	1596.72	-16.73	-16.28	219.95	1717489.99	14547253.16	40°03'21.684"N	104°43'28.427"W	1.51	
1656.00	18.680	96.070	1627.03	-17.79	-17.31	230.17	1717500.21	14547252.16	40°03'21.674"N	104°43'28.296"W	0.67	
1688.00	18.590	95.370	1657.35	-18.83	-18.33	240.35	1717510.38	14547251.18	40°03'21.664"N	104°43'28.165"W	0.75	
1719.00	18.720	94.310	1686.72	-19.68	-19.17	250.23	1717520.26	14547250.37	40°03'21.656"N	104°43'28.038"W	1.17	
1751.00	18.980	93.960	1717.01	-20.45	-19.91	260.54	1717530.57	14547249.66	40°03'21.648"N	104°43'27.905"W	0.89	
1783.00	18.590	94.310	1747.30	-21.21	-20.66	270.82	1717540.85	14547248.95	40°03'21.641"N	104°43'27.773"W	1.27	
1815.00	18.150	95.370	1777.67	-22.08	-21.51	280.86	1717550.89	14547248.13	40°03'21.632"N	104°43'27.644"W	1.73	
1842.00	18.410	95.010	1803.31	-22.87	-22.27	289.30	1717559.33	14547247.39	40°03'21.625"N	104°43'27.536"W	1.05	
1880.00	18.410	95.010	1839.37	-23.94	-23.32	301.25	1717571.28	14547246.38	40°03'21.615"N	104°43'27.382"W	0.00	LAST SURFACE MWD+IFR1 SURVEY
1930.00	18.620	95.210	1886.78	-25.39	-24.73	317.07	1717587.09	14547245.01	40°03'21.601"N	104°43'27.178"W	0.44	FIRST BHGE MWD+IFR1+SC SURVEY
2019.00	17.920	92.740	1971.29	-27.39	-26.68	344.89	1717614.91	14547243.15	40°03'21.581"N	104°43'26.821"W	1.17	
2108.00	18.550	98.340	2055.83	-30.15	-29.39	372.58	1717642.60	14547240.53	40°03'21.555"N	104°43'26.465"W	2.09	
2198.00	18.170	97.260	2141.25	-34.06	-33.24	400.67	1717670.68	14547236.77	40°03'21.517"N	104°43'26.103"W	0.57	
2287.00	17.520	96.700	2225.96	-37.43	-36.55	427.74	1717697.75	14547233.54	40°03'21.484"N	104°43'25.755"W	0.76	
2377.00	18.440	99.310	2311.57	-41.37	-40.44	455.24	1717725.26	14547229.74	40°03'21.445"N	104°43'25.402"W	1.36	
2466.00	18.000	98.040	2396.11	-45.63	-44.64	482.74	1717752.77	14547225.63	40°03'21.404"N	104°43'25.048"W	0.67	
2555.00	18.200	99.790	2480.70	-49.97	-48.92	510.06	1717780.08	14547221.43	40°03'21.361"N	104°43'24.697"W	0.65	
2645.00	17.270	98.050	2566.43	-54.29	-53.18	537.14	1717807.16	14547217.25	40°03'21.319"N	104°43'24.348"W	1.19	
2734.00	17.430	101.790	2651.38	-58.92	-57.76	563.27	1717833.30	14547212.76	40°03'21.274"N	104°43'24.012"W	1.27	
2824.00	19.200	106.530	2736.82	-65.94	-64.72	590.65	1717860.69	14547205.88	40°03'21.205"N	104°43'23.660"W	2.57	
2913.00	17.880	104.730	2821.20	-73.63	-72.36	617.90	1717887.95	14547198.33	40°03'21.130"N	104°43'23.310"W	1.62	
3003.00	18.060	104.240	2906.81	-80.63	-79.31	644.78	1717914.84	14547191.47	40°03'21.061"N	104°43'22.964"W	0.26	
3092.00	18.790	104.640	2991.25	-87.71	-86.32	672.02	1717942.09	14547184.54	40°03'20.992"N	104°43'22.614"W	0.83	
3182.00	18.630	106.120	3076.49	-95.42	-93.98	699.86	1717969.94	14547176.98	40°03'20.916"N	104°43'22.256"W	0.56	
3271.00	17.610	106.000	3161.08	-103.13	-101.64	726.45	1717996.55	14547169.40	40°03'20.841"N	104°43'21.914"W	1.15	
3361.00	17.690	101.490	3246.85	-109.66	-108.11	752.94	1718023.05	14547163.01	40°03'20.776"N	104°43'21.573"W	1.52	
3450.00	17.730	100.920	3331.63	-114.98	-113.37	779.50	1718049.61	14547157.83	40°03'20.725"N	104°43'21.232"W	0.20	
3539.00	18.540	101.710	3416.21	-120.47	-118.81	806.66	1718076.78	14547152.48	40°03'20.671"N	104°43'20.882"W	0.95	
3629.00	18.610	102.890	3501.52	-126.64	-124.92	834.67	1718104.80	14547146.46	40°03'20.610"N	104°43'20.522"W	0.42	
3718.00	17.970	97.300	3586.03	-131.61	-129.83	862.13	1718132.27	14547141.64	40°03'20.562"N	104°43'20.169"W	2.10	
3808.00	17.610	98.130	3671.72	-135.35	-133.52	889.38	1718159.52	14547138.03	40°03'20.525"N	104°43'19.818"W	0.49	
3897.00	17.590	96.100	3756.56	-138.74	-136.86	916.08	1718186.21	14547134.78	40°03'20.492"N	104°43'19.475"W	0.69	
3987.00	17.810	95.820	3842.30	-141.64	-139.70	943.30	1718213.43	14547132.03	40°03'20.464"N	104°43'19.125"W	0.26	
4076.00	18.380	96.670	3926.90	-144.70	-142.71	970.78	1718240.90	14547129.10	40°03'20.435"N	104°43'18.772"W	0.71	
4166.00	18.510	95.440	4012.27	-147.77	-145.71	999.09	1718269.22	14547126.19	40°03'20.405"N	104°43'18.408"W	0.46	
4255.00	17.300	96.020	4096.96	-150.55	-148.44	1026.32	1718296.44	14547123.55	40°03'20.378"N	104°43'18.057"W	1.37	
4345.00	17.720	101.920	4182.80	-154.84	-152.67	1053.03	1718323.15	14547119.40	40°03'20.336"N	104°43'17.714"W	2.03	
4434.00	17.950	103.750	4267.52	-160.95	-158.73	1079.60	1718349.73	14547113.43	40°03'20.276"N	104°43'17.372"W	0.68	
4524.00	19.500	101.440	4352.76	-167.28	-165.00	1107.80	1718377.94	14547107.24	40°03'20.214"N	104°43'17.010"W	1.91	
4613.00	18.990	100.800	4436.78	-173.00	-170.66	1136.58	1718406.73	14547101.67	40°03'20.158"N	104°43'16.639"W	0.62	
4703.00	17.790	99.560	4522.19	-178.09	-175.69	1164.52	1718434.68	14547096.73	40°03'20.109"N	104°43'16.280"W	1.40	
4793.00	16.340	98.050	4608.22	-182.20	-179.75	1190.62	1718460.77	14547092.76	40°03'20.068"N	104°43'15.945"W	1.68	
4818.00	15.950	96.810	4632.24	-183.11	-180.65	1197.51	1718467.66	14547091.88	40°03'20.060"N	104°43'15.856"W	2.08	
4907.00	14.680	94.130	4718.07	-185.42	-182.91	1220.90	1718491.05	14547089.69	40°03'20.037"N	104°43'15.555"W	1.63	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (249 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
4997.00	13.480	99.740	4805.37	-188.06	-185.50	1242.62	1718512.77	14547087.16	40°03'20.012"N	104°43'15.276"W	2.02	
5087.00	11.130	95.250	4893.30	-190.67	-188.07	1261.61	1718531.76	14547084.65	40°03'19.986"N	104°43'15.032"W	2.82	
5176.00	11.120	98.370	4980.63	-192.74	-190.11	1278.65	1718548.80	14547082.67	40°03'19.966"N	104°43'14.812"W	0.68	
5266.00	9.460	103.570	5069.18	-195.77	-193.11	1294.43	1718564.59	14547079.72	40°03'19.936"N	104°43'14.610"W	2.11	
5356.00	9.000	106.410	5158.02	-199.53	-196.83	1308.37	1718578.53	14547076.04	40°03'19.900"N	104°43'14.430"W	0.72	
5445.00	6.380	108.010	5246.21	-203.05	-200.33	1319.76	1718589.92	14547072.58	40°03'19.865"N	104°43'14.284"W	2.95	
5534.00	5.600	108.770	5334.72	-205.99	-203.25	1328.57	1718598.74	14547069.68	40°03'19.836"N	104°43'14.171"W	0.88	
5624.00	5.620	92.570	5424.30	-207.62	-204.87	1337.13	1718607.30	14547068.10	40°03'19.820"N	104°43'14.060"W	1.75	
5713.00	2.920	109.910	5513.04	-208.60	-205.83	1343.62	1718613.79	14547067.15	40°03'19.811"N	104°43'13.977"W	3.33	
5803.00	1.760	84.540	5602.97	-209.26	-206.48	1347.15	1718617.32	14547066.51	40°03'19.804"N	104°43'13.932"W	1.70	
5893.00	1.090	220.780	5692.96	-209.77	-207.00	1347.97	1718618.14	14547066.00	40°03'19.799"N	104°43'13.921"W	2.95	
5982.00	0.940	212.620	5781.94	-211.03	-208.25	1347.02	1718617.20	14547064.74	40°03'19.787"N	104°43'13.933"W	0.23	
6072.00	0.680	199.870	5871.93	-212.15	-209.38	1346.44	1718616.62	14547063.62	40°03'19.776"N	104°43'13.941"W	0.35	
6161.00	0.620	196.750	5960.93	-213.11	-210.34	1346.12	1718616.31	14547062.66	40°03'19.766"N	104°43'13.945"W	0.08	
6250.00	0.720	174.150	6049.92	-214.13	-211.35	1346.04	1718616.23	14547061.64	40°03'19.756"N	104°43'13.946"W	0.31	
6340.00	1.780	259.950	6139.90	-214.93	-212.16	1344.72	1718614.91	14547060.83	40°03'19.748"N	104°43'13.963"W	2.08	
6429.00	1.580	258.770	6228.87	-215.40	-212.64	1342.16	1718612.35	14547060.34	40°03'19.743"N	104°43'13.996"W	0.23	
6519.00	1.380	263.200	6318.84	-215.77	-213.01	1339.86	1718610.06	14547059.97	40°03'19.740"N	104°43'14.025"W	0.26	
6609.00	1.440	277.110	6408.81	-215.75	-213.00	1337.67	1718607.86	14547059.97	40°03'19.740"N	104°43'14.054"W	0.39	
6699.00	1.200	283.180	6498.79	-215.39	-212.64	1335.63	1718605.82	14547060.32	40°03'19.743"N	104°43'14.080"W	0.31	
6788.00	1.220	293.450	6587.77	-214.80	-212.05	1333.85	1718604.05	14547060.90	40°03'19.749"N	104°43'14.103"W	0.24	
6877.00	1.200	309.420	6676.75	-213.83	-211.09	1332.26	1718602.45	14547061.87	40°03'19.759"N	104°43'14.123"W	0.38	
6940.00†	3.232	339.609	6739.70	-211.74	-209.00	1331.13	1718601.32	14547063.95	40°03'19.779"N	104°43'14.138"W	3.61	KOP
6967.00	4.180	343.160	6766.64	-210.09	-207.35	1330.58	1718600.76	14547065.60	40°03'19.796"N	104°43'14.145"W	3.61	
7057.00	14.160	1.250	6855.39	-195.90	-193.16	1329.87	1718600.01	14547079.77	40°03'19.936"N	104°43'14.154"W	11.41	
7146.00	18.840	358.920	6940.70	-170.64	-167.90	1329.84	1718599.90	14547105.03	40°03'20.185"N	104°43'14.154"W	5.31	
7236.00	26.160	5.970	7023.81	-136.33	-133.58	1331.63	1718601.58	14547139.33	40°03'20.525"N	104°43'14.131"W	8.65	
7325.00	30.420	4.270	7102.16	-94.33	-91.58	1335.35	1718605.17	14547181.33	40°03'20.940"N	104°43'14.083"W	4.87	
7415.00	31.680	359.150	7179.28	-47.97	-45.22	1336.69	1718606.37	14547227.68	40°03'21.398"N	104°43'14.066"W	3.25	
7504.00	35.430	357.570	7253.44	1.19	3.94	1335.25	1718604.78	14547276.81	40°03'21.884"N	104°43'14.084"W	4.33	
7588.00†	44.546	0.810	7317.74	55.10	57.84	1334.64	1718604.00	14547330.70	40°03'22.416"N	104°43'14.092"W	11.13	ENTER LANDBOX (846'FNL & 1282'FEL,SEC.13) 40.0562267 -104.7205812
7594.00	45.200	1.000	7321.99	59.33	62.08	1334.70	1718604.05	14547334.93	40°03'22.458"N	104°43'14.091"W	11.13	
7683.00	51.130	2.550	7381.33	125.57	128.32	1336.80	1718605.94	14547401.15	40°03'23.113"N	104°43'14.064"W	6.79	
7773.00	61.740	3.750	7431.01	200.33	203.09	1340.96	1718609.87	14547475.90	40°03'23.852"N	104°43'14.011"W	11.84	
7862.00	73.670	4.850	7464.72	282.28	285.05	1347.16	1718615.82	14547557.85	40°03'24.662"N	104°43'13.931"W	13.45	
7952.00	82.030	0.980	7483.65	370.04	372.83	1351.58	1718619.97	14547645.61	40°03'25.529"N	104°43'13.874"W	10.19	
8041.00	88.120	357.740	7491.29	458.66	461.44	1350.58	1718618.69	14547734.18	40°03'26.405"N	104°43'13.887"W	7.74	
8131.00	88.550	356.660	7493.91	548.52	551.29	1346.18	1718614.02	14547823.98	40°03'27.293"N	104°43'13.943"W	1.29	
8177.00†	88.524	355.714	7495.08	594.41	597.18	1343.13	1718610.82	14547869.84	40°03'27.746"N	104°43'13.983"W	2.06	LANDING (307'FNL & 1273'FEL,SEC.13) 40.0577072 -104.7205508
8220.00	88.500	354.830	7496.20	637.26	640.02	1339.58	1718607.15	14547912.65	40°03'28.169"N	104°43'14.028"W	2.06	
8310.00	88.950	357.120	7498.20	727.02	729.77	1333.27	1718600.56	14548002.34	40°03'29.056"N	104°43'14.109"W	2.59	
8399.00	91.080	357.690	7498.18	815.93	818.67	1329.24	1718596.26	14548091.20	40°03'29.935"N	104°43'14.161"W	2.48	
8489.00	91.390	357.660	7496.24	905.84	908.57	1325.59	1718592.33	14548181.06	40°03'30.823"N	104°43'14.208"W	0.35	
8578.00	90.830	359.190	7494.51	994.79	997.52	1323.14	1718589.61	14548269.96	40°03'31.702"N	104°43'14.239"W	1.83	
8668.00	91.080	358.770	7493.01	1084.77	1087.49	1321.54	1718587.74	14548359.89	40°03'32.592"N	104°43'14.260"W	0.54	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (249 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
8757.00	90.680	359.930	7491.65	1173.75	1176.48	1320.53	1718586.45	14548448.84	40°03'33.471"N	104°43'14.273"W	1.38	
8847.00	90.520	359.130	7490.70	1263.75	1266.47	1319.79	1718585.44	14548538.79	40°03'34.360"N	104°43'14.282"W	0.91	
8937.00	91.080	359.320	7489.45	1353.73	1356.45	1318.58	1718583.94	14548628.73	40°03'35.249"N	104°43'14.298"W	0.66	
8953.00†	90.798	359.457	7489.18	1369.73	1372.45	1318.41	1718583.72	14548644.72	40°03'35.407"N	104°43'14.300"W	1.96	EXIT RADIUS HEEL (468'FSL & 1298'FEL,SEC.12) 40.0598354 -104.7206389
9026.00	89.510	0.080	7488.99	1442.73	1445.44	1318.11	1718583.20	14548717.69	40°03'36.129"N	104°43'14.304"W	1.96	
9116.00	89.630	0.210	7489.66	1532.72	1535.44	1318.34	1718583.15	14548807.65	40°03'37.018"N	104°43'14.301"W	0.20	
9205.00	89.630	0.010	7490.24	1621.72	1624.44	1318.51	1718583.05	14548896.61	40°03'37.898"N	104°43'14.299"W	0.22	
9295.00	90.060	359.480	7490.48	1711.72	1714.44	1318.11	1718582.37	14548986.57	40°03'38.787"N	104°43'14.304"W	0.76	
9384.00	90.120	359.110	7490.34	1800.71	1803.43	1317.01	1718581.00	14549075.53	40°03'39.667"N	104°43'14.318"W	0.42	
9473.00	90.550	358.610	7489.82	1889.70	1892.41	1315.24	1718578.96	14549164.47	40°03'40.546"N	104°43'14.340"W	0.74	
9563.00	90.220	0.230	7489.22	1979.69	1982.40	1314.33	1718577.77	14549254.42	40°03'41.435"N	104°43'14.352"W	1.84	
9652.00	90.590	359.790	7488.59	2068.69	2071.40	1314.35	1718577.51	14549343.38	40°03'42.315"N	104°43'14.352"W	0.65	
9742.00	89.410	0.460	7488.59	2158.68	2161.40	1314.54	1718577.43	14549433.34	40°03'43.204"N	104°43'14.349"W	1.51	
9831.00	89.880	0.060	7489.14	2247.68	2250.39	1314.95	1718577.56	14549522.31	40°03'44.084"N	104°43'14.344"W	0.69	
9921.00	89.080	359.910	7489.96	2337.67	2340.39	1314.92	1718577.26	14549612.27	40°03'44.973"N	104°43'14.344"W	0.90	
10010.00	89.010	359.680	7491.44	2426.66	2429.37	1314.61	1718576.66	14549701.22	40°03'45.852"N	104°43'14.348"W	0.27	
10100.00	89.230	0.240	7492.82	2516.65	2519.36	1314.54	1718576.32	14549791.17	40°03'46.742"N	104°43'14.349"W	0.67	
10189.00	89.290	0.090	7493.97	2605.64	2608.36	1314.80	1718576.31	14549880.13	40°03'47.621"N	104°43'14.346"W	0.18	
10279.00	89.110	359.690	7495.23	2695.63	2698.35	1314.63	1718575.86	14549970.08	40°03'48.510"N	104°43'14.348"W	0.49	
10368.00	89.880	1.450	7496.01	2784.62	2787.33	1315.51	1718576.47	14550059.04	40°03'49.390"N	104°43'14.336"W	2.16	
10458.00	91.750	1.650	7494.73	2874.57	2877.29	1317.95	1718578.62	14550148.96	40°03'50.279"N	104°43'14.305"W	2.09	
10547.00	92.090	1.480	7491.75	2963.48	2966.21	1320.37	1718580.78	14550237.85	40°03'51.157"N	104°43'14.274"W	0.43	
10636.00	90.920	0.950	7489.41	3052.42	3055.15	1322.26	1718582.39	14550326.77	40°03'52.036"N	104°43'14.249"W	1.44	
10726.00	87.690	359.880	7490.50	3142.40	3145.13	1322.91	1718582.76	14550416.71	40°03'52.926"N	104°43'14.241"W	3.78	
10816.00	87.910	359.050	7493.96	3232.33	3235.06	1322.07	1718581.64	14550506.60	40°03'53.814"N	104°43'14.252"W	0.95	
10905.00	90.580	1.370	7495.13	3321.31	3324.04	1322.40	1718581.70	14550595.54	40°03'54.694"N	104°43'14.247"W	3.97	
10995.00	90.950	0.690	7493.93	3411.28	3414.01	1324.02	1718583.04	14550685.49	40°03'55.583"N	104°43'14.227"W	0.86	
11084.00	91.630	0.160	7491.93	3500.25	3502.99	1324.68	1718583.42	14550774.43	40°03'56.462"N	104°43'14.218"W	0.97	
11174.00	89.630	0.600	7490.94	3590.24	3592.98	1325.27	1718583.74	14550864.38	40°03'57.351"N	104°43'14.210"W	2.28	
11263.00	88.300	359.970	7492.55	3679.22	3681.96	1325.72	1718583.91	14550953.33	40°03'58.231"N	104°43'14.205"W	1.65	
11353.00	88.370	359.690	7495.16	3769.18	3771.92	1325.45	1718583.37	14551043.26	40°03'59.120"N	104°43'14.208"W	0.32	
11442.00	88.550	359.260	7497.55	3858.15	3860.88	1324.64	1718582.28	14551132.18	40°03'59.999"N	104°43'14.218"W	0.52	
11531.00	89.450	359.390	7499.11	3947.13	3949.86	1323.59	1718580.95	14551221.12	40°04'00.878"N	104°43'14.232"W	1.02	
11621.00	90.770	359.570	7498.93	4037.12	4039.86	1322.77	1718579.86	14551311.08	40°04'01.767"N	104°43'14.242"W	1.48	
11710.00	91.390	359.610	7497.25	4126.11	4128.84	1322.13	1718578.95	14551400.02	40°04'02.647"N	104°43'14.250"W	0.70	
11799.00	91.380	358.510	7495.10	4215.07	4217.80	1320.67	1718577.22	14551488.94	40°04'03.526"N	104°43'14.269"W	1.24	
11888.00	90.800	357.120	7493.41	4303.99	4306.72	1317.28	1718573.55	14551577.81	40°04'04.405"N	104°43'14.313"W	1.69	
11978.00	89.050	355.740	7493.53	4393.82	4396.53	1311.68	1718567.67	14551667.58	40°04'05.292"N	104°43'14.385"W	2.48	
12071.00	88.830	355.850	7495.25	4486.57	4489.27	1304.86	1718560.57	14551760.26	40°04'06.209"N	104°43'14.472"W	0.26	
12165.00	88.860	358.110	7497.14	4580.43	4583.11	1299.91	1718555.33	14551854.05	40°04'07.136"N	104°43'14.536"W	2.40	
12257.00	87.960	358.610	7499.70	4672.36	4675.04	1297.28	1718552.42	14551945.93	40°04'08.044"N	104°43'14.570"W	1.12	
12348.00	88.460	359.520	7502.54	4763.30	4765.98	1295.79	1718550.65	14552036.83	40°04'08.943"N	104°43'14.589"W	1.14	
12440.00	87.910	0.000	7505.45	4855.25	4857.93	1295.41	1718549.98	14552128.74	40°04'09.852"N	104°43'14.594"W	0.79	
12532.00	90.890	2.360	7506.42	4947.21	4949.89	1297.30	1718551.60	14552220.67	40°04'10.761"N	104°43'14.569"W	4.13	
12622.00	92.090	1.940	7504.08	5037.11	5039.80	1300.68	1718554.69	14552310.55	40°04'11.649"N	104°43'14.526"W	1.41	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (249 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
12714.00	90.340	1.410	7502.13	5129.04	5131.73	1303.37	1718557.10	14552402.46	40°04'12.558"N	104°43'14.491"W	1.99	
12806.00	91.780	1.570	7500.42	5220.98	5223.68	1305.76	1718559.20	14552494.38	40°04'13.466"N	104°43'14.460"W	1.57	
12900.00	89.780	0.410	7499.14	5314.95	5317.65	1307.38	1718560.54	14552588.32	40°04'14.395"N	104°43'14.439"W	2.46	
12990.00	90.310	359.930	7499.07	5404.95	5407.65	1307.65	1718560.53	14552678.28	40°04'15.284"N	104°43'14.436"W	0.79	
13079.00	90.830	359.830	7498.19	5493.94	5496.65	1307.46	1718560.06	14552767.24	40°04'16.164"N	104°43'14.438"W	0.59	
13168.00	91.080	359.260	7496.70	5582.93	5585.63	1306.75	1718559.08	14552856.19	40°04'17.043"N	104°43'14.447"W	0.70	
13257.00	89.480	0.140	7496.27	5671.92	5674.63	1306.29	1718558.34	14552945.14	40°04'17.923"N	104°43'14.453"W	2.05	
13347.00	89.850	359.640	7496.80	5761.92	5764.62	1306.12	1718557.89	14553035.10	40°04'18.812"N	104°43'14.455"W	0.69	
13436.00	90.340	0.100	7496.65	5850.92	5853.62	1305.91	1718557.42	14553124.07	40°04'19.691"N	104°43'14.458"W	0.76	
13525.00	90.740	359.720	7495.81	5939.92	5942.62	1305.77	1718557.00	14553213.03	40°04'20.571"N	104°43'14.459"W	0.62	
13615.00	90.590	359.770	7494.76	6029.91	6032.61	1305.37	1718556.33	14553302.98	40°04'21.460"N	104°43'14.465"W	0.18	
13704.00	90.740	359.020	7493.73	6118.90	6121.60	1304.43	1718555.11	14553391.93	40°04'22.340"N	104°43'14.477"W	0.86	
13793.00	91.110	358.600	7492.30	6207.87	6210.57	1302.59	1718552.99	14553480.86	40°04'23.219"N	104°43'14.500"W	0.63	
13883.00	90.430	356.450	7491.09	6297.78	6300.47	1298.70	1718548.83	14553570.71	40°04'24.107"N	104°43'14.550"W	2.51	
13972.00	90.030	357.320	7490.73	6386.66	6389.34	1293.86	1718543.72	14553659.53	40°04'24.985"N	104°43'14.612"W	1.08	
14061.00	88.680	359.130	7491.73	6475.61	6478.28	1291.11	1718540.69	14553748.43	40°04'25.864"N	104°43'14.648"W	2.54	
14150.00	89.570	359.350	7493.09	6564.59	6567.26	1289.93	1718539.24	14553837.37	40°04'26.744"N	104°43'14.663"W	1.03	
14240.00	89.380	1.940	7493.91	6654.57	6657.25	1290.94	1718539.97	14553927.32	40°04'27.633"N	104°43'14.650"W	2.89	
14329.00	89.510	1.570	7494.78	6743.52	6746.20	1293.67	1718542.42	14554016.25	40°04'28.512"N	104°43'14.615"W	0.44	
14418.00	89.820	1.450	7495.30	6832.49	6835.17	1296.01	1718544.49	14554105.19	40°04'29.391"N	104°43'14.584"W	0.37	
14507.00	89.970	0.710	7495.46	6921.46	6924.15	1297.69	1718545.89	14554194.14	40°04'30.271"N	104°43'14.563"W	0.85	
14596.00	89.970	359.670	7495.51	7010.46	7013.15	1297.98	1718545.91	14554283.11	40°04'31.150"N	104°43'14.559"W	1.17	
14685.00	88.650	358.440	7496.58	7099.44	7102.13	1296.52	1718544.17	14554372.04	40°04'32.029"N	104°43'14.578"W	2.03	
14775.00	89.140	358.180	7498.31	7189.39	7192.07	1293.86	1718541.24	14554461.94	40°04'32.918"N	104°43'14.612"W	0.62	
14864.00	90.340	358.000	7498.72	7278.35	7281.02	1290.90	1718538.00	14554550.85	40°04'33.797"N	104°43'14.650"W	1.36	
14953.00	88.740	356.060	7499.43	7367.23	7369.89	1286.29	1718533.12	14554639.67	40°04'34.675"N	104°43'14.709"W	2.83	
15043.00	90.250	355.760	7500.23	7457.00	7459.65	1279.87	1718526.43	14554729.38	40°04'35.563"N	104°43'14.792"W	1.71	
15132.00	89.380	356.660	7500.51	7545.82	7548.46	1273.98	1718520.27	14554818.13	40°04'36.440"N	104°43'14.867"W	1.41	
15222.00	91.170	358.430	7500.08	7635.74	7638.37	1270.13	1718516.14	14554907.99	40°04'37.329"N	104°43'14.917"W	2.80	
15311.00	90.860	0.740	7498.50	7724.71	7727.34	1269.48	1718515.22	14554996.93	40°04'38.208"N	104°43'14.925"W	2.62	
15401.00	89.230	2.570	7498.43	7814.66	7817.30	1272.08	1718517.55	14555086.86	40°04'39.097"N	104°43'14.892"W	2.72	
15490.00	89.170	2.360	7499.68	7903.56	7906.21	1275.91	1718521.10	14555175.74	40°04'39.975"N	104°43'14.842"W	0.25	
15579.00	91.110	2.240	7499.46	7992.48	7995.13	1279.48	1718524.39	14555264.64	40°04'40.854"N	104°43'14.796"W	2.18	
15669.00	90.950	2.890	7497.84	8082.37	8085.03	1283.51	1718528.14	14555354.51	40°04'41.743"N	104°43'14.744"W	0.74	
15758.00	91.260	2.630	7496.12	8171.24	8173.91	1287.79	1718532.15	14555443.37	40°04'42.621"N	104°43'14.689"W	0.45	
15848.00	91.700	2.570	7493.80	8261.11	8263.78	1291.88	1718535.95	14555533.22	40°04'43.509"N	104°43'14.637"W	0.49	
15938.00	90.090	1.640	7492.39	8351.02	8353.71	1295.18	1718538.98	14555623.12	40°04'44.398"N	104°43'14.594"W	2.07	
16027.00	90.550	1.510	7491.90	8439.98	8442.67	1297.63	1718541.15	14555712.06	40°04'45.277"N	104°43'14.563"W	0.54	
16116.00	89.230	1.200	7492.07	8528.95	8531.65	1299.73	1718542.98	14555801.00	40°04'46.156"N	104°43'14.535"W	1.52	
16206.00	89.260	0.920	7493.25	8618.93	8621.62	1301.40	1718544.37	14555890.95	40°04'47.045"N	104°43'14.514"W	0.31	
16295.00	88.800	0.260	7494.76	8707.90	8710.61	1302.31	1718545.01	14555979.90	40°04'47.925"N	104°43'14.502"W	0.90	
16385.00	88.740	359.920	7496.69	8797.88	8800.58	1302.45	1718544.87	14556069.84	40°04'48.814"N	104°43'14.500"W	0.38	
16474.00	88.920	359.370	7498.51	8886.86	8889.56	1301.90	1718544.05	14556158.78	40°04'49.693"N	104°43'14.507"W	0.65	
16563.00	89.290	0.570	7499.90	8975.85	8978.55	1301.86	1718543.72	14556247.73	40°04'50.573"N	104°43'14.508"W	1.41	
16653.00	90.710	1.200	7499.90	9065.83	9068.54	1303.25	1718544.84	14556337.69	40°04'51.462"N	104°43'14.490"W	1.73	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (249 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
16742.00	90.860	1.720	7498.68	9154.79	9157.50	1305.51	1718546.83	14556426.62	40°04'52.341"N	104°43'14.461"W	0.61	
16921.00	90.650	1.560	7496.32	9333.69	9336.41	1310.64	1718551.40	14556605.48	40°04'54.109"N	104°43'14.395"W	0.15	
17011.00	90.740	1.080	7495.23	9423.66	9426.38	1312.71	1718553.19	14556695.42	40°04'54.998"N	104°43'14.368"W	0.54	
17100.00	91.050	0.730	7493.84	9512.63	9515.36	1314.11	1718554.32	14556784.36	40°04'55.877"N	104°43'14.350"W	0.53	
17278.00	91.230	0.820	7490.30	9690.57	9693.31	1316.52	1718556.18	14556962.25	40°04'57.636"N	104°43'14.319"W	0.11	
17368.00	88.370	358.610	7490.61	9780.56	9783.29	1316.07	1718555.46	14557052.19	40°04'58.525"N	104°43'14.324"W	4.02	
17457.00	88.610	358.410	7492.96	9869.50	9872.23	1313.76	1718552.87	14557141.09	40°04'59.404"N	104°43'14.354"W	0.35	
17546.00	88.430	358.300	7495.26	9958.44	9961.16	1311.21	1718550.04	14557229.98	40°05'00.283"N	104°43'14.387"W	0.24	
17636.00	87.810	0.920	7498.21	10048.38	10051.10	1310.59	1718549.15	14557319.88	40°05'01.172"N	104°43'14.395"W	2.99	
17725.00	89.410	358.580	7500.37	10137.35	10140.07	1310.21	1718548.49	14557408.81	40°05'02.051"N	104°43'14.400"W	3.18	
17815.00	91.260	358.650	7499.84	10227.32	10230.04	1308.03	1718546.04	14557498.74	40°05'02.940"N	104°43'14.427"W	2.06	
17904.00	91.200	358.700	7497.93	10316.28	10318.99	1305.97	1718543.71	14557587.65	40°05'03.819"N	104°43'14.454"W	0.09	
17993.00	91.290	358.410	7496.00	10405.23	10407.94	1303.73	1718541.19	14557676.56	40°05'04.698"N	104°43'14.483"W	0.34	
18082.00	91.390	358.450	7493.92	10494.18	10496.88	1301.29	1718538.48	14557765.46	40°05'05.577"N	104°43'14.514"W	0.12	
18172.00	91.660	358.220	7491.52	10584.12	10586.81	1298.68	1718535.59	14557855.34	40°05'06.466"N	104°43'14.548"W	0.39	
18261.00	91.750	357.990	7488.87	10673.03	10675.73	1295.74	1718532.37	14557944.21	40°05'07.344"N	104°43'14.585"W	0.28	
18351.00	90.920	359.100	7486.78	10762.98	10765.67	1293.45	1718529.81	14558034.11	40°05'08.233"N	104°43'14.615"W	1.54	
18440.00	90.620	358.760	7485.58	10851.96	10854.65	1291.79	1718527.88	14558123.05	40°05'09.112"N	104°43'14.636"W	0.51	
18550.00†	91.013	358.551	7484.01	10961.93	10964.60	1289.21	1718524.96	14558232.95	40°05'10.199"N	104°43'14.669"W	0.40	ENTER RADIUS TOE (462'FNL & 1315'FEL,SEC.01) 40.0861664 -104.7207414
18619.00	91.260	358.420	7482.64	11030.89	11033.57	1287.39	1718522.92	14558301.88	40°05'10.881"N	104°43'14.693"W	0.40	
18708.00	92.090	358.510	7480.04	11119.83	11122.50	1285.00	1718520.27	14558390.77	40°05'11.759"N	104°43'14.723"W	0.94	
18798.00	92.400	358.100	7476.52	11209.72	11212.39	1282.34	1718517.33	14558480.62	40°05'12.648"N	104°43'14.757"W	0.57	
18887.00	91.290	357.130	7473.65	11298.60	11301.26	1278.64	1718513.36	14558569.44	40°05'13.526"N	104°43'14.805"W	1.66	LAST BHGE MWD+IFR1+SC SURVEY
18960.00	91.290	357.130	7472.01	11371.50	11374.15	1274.99	1718509.48	14558642.29	40°05'14.246"N	104°43'14.852"W	0.00	PTB (53'FNL & 1329'FEL,SEC.01) 40.0872906 -104.7207922

HOLE & CASING SECTIONS - Ref Wellbore: VERDE 13-14HZ AWB Ref Wellpath: VERDE 13-14HZ 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	1836.52	0.00	0.00	-23.24	300.31

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ 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	-16.02	-1896.87	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
SEC.12-T1N-R66W	-24.00	-16.02	-1896.87	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
VERDE 13-14HZ BHL REV-1(52'FNL & 1302'FEL,SEC.01)	7513.00	11374.63	1301.63	1718536.11	14558642.85	40°05'14.251"N	104°43'14.509"W	point
VERDE 13-14HZ HEEL REV-2(370'FNL & 1294'FEL,SEC.13)	7513.00	542.44	1323.88	1718591.75	14547815.07	40°03'27.205"N	104°43'14.230"W	point
VERDE 13-14HZ INT. TARGET@6100'VS	7515.00	6102.72	1312.45	1718563.18	14553373.09	40°04'22.153"N	104°43'14.374"W	point
VERDE 13-14HZ HEEL REV-1(370'FNL & 1314'FEL,SEC.13)	7523.00	542.44	1303.87	1718571.76	14547815.01	40°03'27.205"N	104°43'14.488"W	point
VERDE 13-14HZ LANDBOX	7523.00	0.00	0.00	1717270.08	14547268.76	40°03'21.845"N	104°43'31.256"W	polygon
VERDE 13-14HZ RADIUS 1	7523.00	11425.23	1290.87	1718525.20	14558693.40	40°05'14.751"N	104°43'14.647"W	polygon
VERDE 13-14HZ RADIUS 2	7523.00	911.51	1296.75	1718563.50	14548183.90	40°03'30.852"N	104°43'14.579"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: VERDE 13-14HZ AWB Ref Wellpath: VERDE 13-14HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1880.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <134 - 1880>	VERDE 13-14HZ AWB
1880.00	18887.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1930 - 18887>	VERDE 13-14HZ AWB
18887.00	18960.00	Blind Drilling (std)	Projection to bit	VERDE 13-14HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#59 VERDE 13-14HZ (904'FNL & 2616'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-14HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
134.00	0.400	80.860	134.00	FIRST SURFACE MWD+IFR1 SURVEY
1880.00	18.410	95.010	1839.37	LAST SURFACE MWD+IFR1 SURVEY
1930.00	18.620	95.210	1886.78	FIRST BHGE MWD+IFR1+SC SURVEY
6940.00	3.232	339.609	6739.70	KOP
7588.00	44.546	0.810	7317.74	ENTER LANDBOX (846'FNL & 1282'FEL,SEC.13) 40.0562267 -104.7205812
8177.00	88.524	355.714	7495.08	LANDING (307'FNL & 1273'FEL,SEC.13) 40.0577072 -104.7205508
8953.00	90.798	359.457	7489.18	EXIT RADIUS HEEL (468'FSL & 1298'FEL,SEC.12) 40.0598354 -104.7206389
18550.00	91.013	358.551	7484.01	ENTER RADIUS TOE (462'FNL & 1315'FEL,SEC.01) 40.0861664 -104.7207414
18887.00	91.290	357.130	7473.65	LAST BHGE MWD+IFR1+SC SURVEY
18960.00	91.290	357.130	7472.01	PTB (53'FNL & 1329'FEL,SEC.01) 40.0872906 -104.7207922