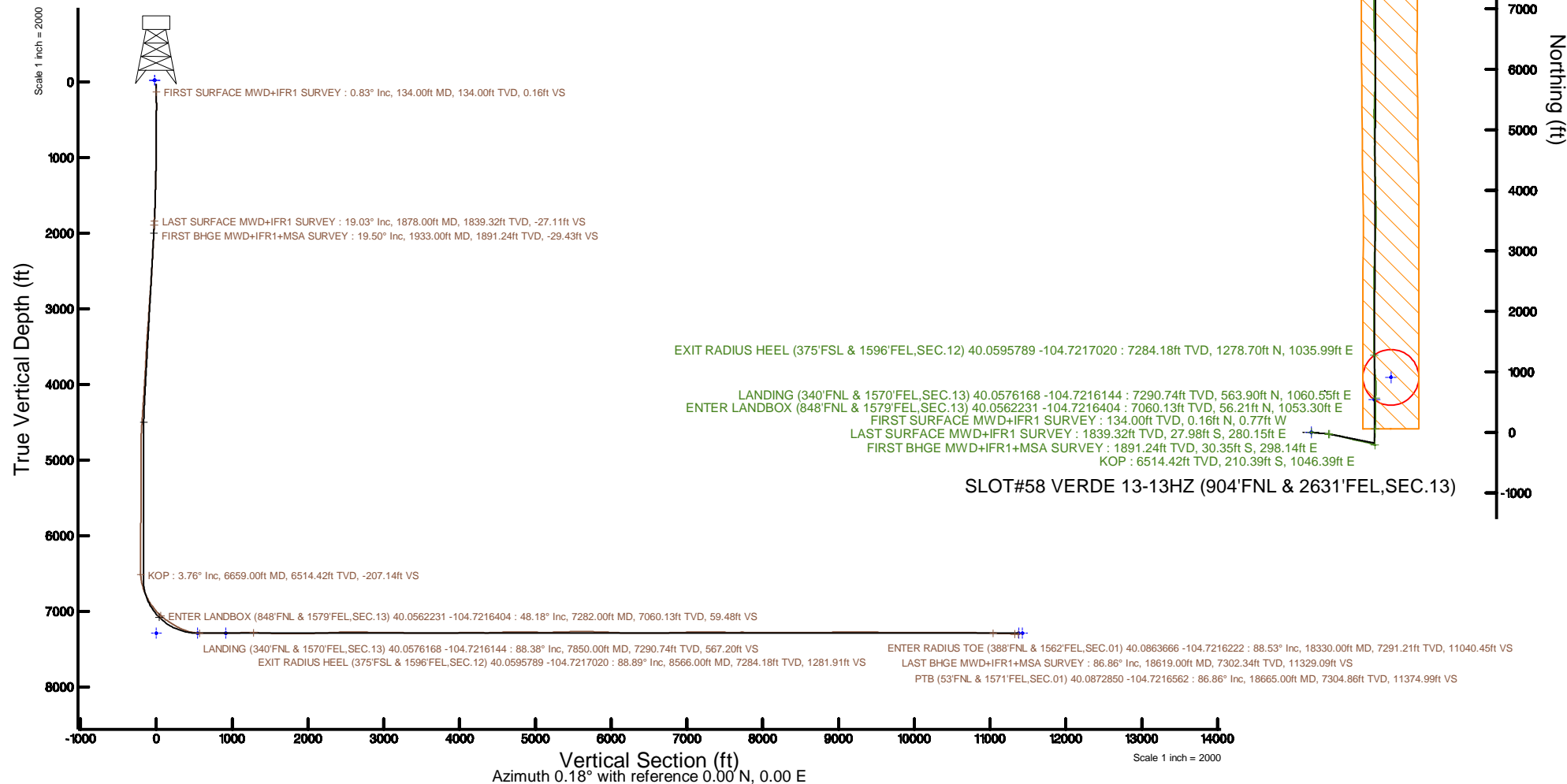


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Field: WELD COUNTY (UTM/TRUE NORTH) Well: VERDE 13-13HZ
Facility: SEC.13-T1N-R66W Wellbore: VERDE 13-13HZ PWB

Plot reference wellpath is VERDE 13-13HZ PWP Rev-B.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: 5096 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2018-05-03
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ 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	5/3/2018 at 9:30 AM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/VERDE_13-13HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-686.69	-217.49	1717254.92	14547269.02	40°03'21.848"N	104°43'31.451"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#58 VERDE 13-13HZ (904'FNL & 2631'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	0.18°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (241 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	281.960	0.00	0.00	0.00	0.00	1717254.92	14547269.02	40°03'21.848"N	104°43'31.451"W	0.00	
26.00	0.000	281.960	26.00	0.00	0.00	0.00	1717254.92	14547269.02	40°03'21.848"N	104°43'31.451"W	0.00	
134.00	0.830	281.960	134.00	0.16	0.16	-0.77	1717254.15	14547269.18	40°03'21.850"N	104°43'31.461"W	0.77	FIRST SURFACE MWD+IFR1 SURVEY
166.00	0.880	274.490	165.99	0.23	0.23	-1.24	1717253.68	14547269.24	40°03'21.850"N	104°43'31.467"W	0.38	
198.00	0.920	262.360	197.99	0.21	0.21	-1.74	1717253.18	14547269.22	40°03'21.850"N	104°43'31.473"W	0.61	
230.00	0.790	280.990	229.99	0.22	0.22	-2.21	1717252.71	14547269.23	40°03'21.850"N	104°43'31.479"W	0.95	
261.00	0.830	324.320	260.98	0.44	0.45	-2.55	1717252.37	14547269.45	40°03'21.852"N	104°43'31.484"W	1.93	
292.00	0.620	311.660	291.98	0.73	0.74	-2.80	1717252.11	14547269.75	40°03'21.855"N	104°43'31.487"W	0.85	
324.00	0.040	278.090	323.98	0.85	0.86	-2.95	1717251.97	14547269.86	40°03'21.856"N	104°43'31.489"W	1.83	
356.00	0.350	200.390	355.98	0.76	0.77	-2.99	1717251.93	14547269.77	40°03'21.856"N	104°43'31.489"W	1.07	
419.00	0.310	248.820	418.98	0.51	0.52	-3.22	1717251.70	14547269.53	40°03'21.853"N	104°43'31.492"W	0.43	
450.00	0.400	226.500	449.98	0.41	0.42	-3.37	1717251.55	14547269.42	40°03'21.852"N	104°43'31.494"W	0.53	
482.00	0.220	218.500	481.98	0.28	0.29	-3.49	1717251.43	14547269.30	40°03'21.851"N	104°43'31.496"W	0.58	
513.00	0.570	125.690	512.98	0.15	0.16	-3.40	1717251.51	14547269.16	40°03'21.850"N	104°43'31.495"W	2.00	
545.00	1.010	119.970	544.97	-0.09	-0.08	-3.03	1717251.89	14547268.93	40°03'21.847"N	104°43'31.490"W	1.40	
577.00	0.970	116.720	576.97	-0.35	-0.34	-2.54	1717252.38	14547268.67	40°03'21.845"N	104°43'31.484"W	0.22	
609.00	1.050	101.520	608.96	-0.53	-0.52	-2.01	1717252.91	14547268.49	40°03'21.843"N	104°43'31.477"W	0.87	
641.00	2.110	90.880	640.95	-0.59	-0.59	-1.14	1717253.78	14547268.43	40°03'21.842"N	104°43'31.466"W	3.42	
672.00	2.720	83.680	671.92	-0.51	-0.51	0.16	1717255.08	14547268.50	40°03'21.843"N	104°43'31.449"W	2.19	
704.00	3.250	87.980	703.88	-0.39	-0.40	1.82	1717256.74	14547268.62	40°03'21.844"N	104°43'31.428"W	1.80	
768.00	4.260	86.750	767.74	-0.18	-0.20	6.01	1717260.93	14547268.83	40°03'21.846"N	104°43'31.374"W	1.58	
799.00	5.100	89.920	798.64	-0.11	-0.13	8.54	1717263.45	14547268.91	40°03'21.847"N	104°43'31.341"W	2.83	
831.00	6.150	89.480	830.48	-0.08	-0.12	11.67	1717266.59	14547268.94	40°03'21.847"N	104°43'31.301"W	3.28	
863.00	6.810	88.600	862.28	-0.01	-0.05	15.29	1717270.20	14547269.01	40°03'21.847"N	104°43'31.254"W	2.09	
895.00	7.470	93.170	894.03	-0.06	-0.12	19.26	1717274.17	14547268.95	40°03'21.847"N	104°43'31.203"W	2.72	
926.00	8.310	95.450	924.74	-0.37	-0.45	23.50	1717278.41	14547268.64	40°03'21.844"N	104°43'31.149"W	2.89	
958.00	8.790	97.390	956.38	-0.89	-0.98	28.23	1717283.14	14547268.12	40°03'21.838"N	104°43'31.088"W	1.75	
1022.00	9.930	96.160	1019.53	-2.08	-2.20	38.56	1717293.47	14547266.93	40°03'21.826"N	104°43'30.955"W	1.81	
1053.00	11.120	97.040	1050.01	-2.72	-2.85	44.19	1717299.10	14547266.30	40°03'21.820"N	104°43'30.883"W	3.87	
1085.00	11.870	97.650	1081.36	-3.51	-3.67	50.51	1717305.42	14547265.50	40°03'21.812"N	104°43'30.801"W	2.37	
1117.00	12.350	97.040	1112.65	-4.35	-4.53	57.17	1717312.08	14547264.67	40°03'21.803"N	104°43'30.716"W	1.55	
1180.00	13.620	96.510	1174.04	-5.97	-6.20	71.23	1717326.14	14547263.04	40°03'21.787"N	104°43'30.535"W	2.02	
1212.00	14.280	96.680	1205.10	-6.84	-7.08	78.89	1717333.80	14547262.18	40°03'21.778"N	104°43'30.436"W	2.07	
1244.00	14.330	94.490	1236.10	-7.58	-7.85	86.76	1717341.67	14547261.44	40°03'21.770"N	104°43'30.335"W	1.70	
1276.00	14.370	93.340	1267.11	-8.10	-8.39	94.67	1717349.58	14547260.92	40°03'21.765"N	104°43'30.234"W	0.90	
1307.00	15.730	95.890	1297.04	-8.73	-9.05	102.69	1717357.60	14547260.29	40°03'21.759"N	104°43'30.130"W	4.88	
1339.00	16.080	95.190	1327.82	-9.55	-9.89	111.42	1717366.32	14547259.47	40°03'21.750"N	104°43'30.018"W	1.25	
1371.00	16.220	95.450	1358.55	-10.35	-10.72	120.28	1717375.19	14547258.67	40°03'21.742"N	104°43'29.904"W	0.49	
1403.00	17.310	97.040	1389.19	-11.32	-11.73	129.46	1717384.36	14547257.69	40°03'21.732"N	104°43'29.786"W	3.70	
1434.00	17.890	97.830	1418.74	-12.51	-12.94	138.75	1717393.65	14547256.51	40°03'21.720"N	104°43'29.667"W	2.02	
1466.00	17.930	96.240	1449.19	-13.68	-14.15	148.52	1717403.42	14547255.33	40°03'21.708"N	104°43'29.541"W	1.53	
1498.00	18.110	95.540	1479.62	-14.67	-15.16	158.36	1717413.27	14547254.35	40°03'21.698"N	104°43'29.414"W	0.88	
1529.00	18.190	93.780	1509.08	-15.42	-15.95	167.99	1717422.89	14547253.59	40°03'21.690"N	104°43'29.291"W	1.79	
1561.00	18.150	93.610	1539.48	-16.04	-16.59	177.95	1717432.84	14547252.98	40°03'21.684"N	104°43'29.163"W	0.21	
1592.00	18.330	92.990	1568.93	-16.56	-17.15	187.63	1717442.53	14547252.45	40°03'21.679"N	104°43'29.038"W	0.85	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (241 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
1624.00	18.410	94.130	1599.30	-17.16	-17.77	197.70	1717452.59	14547251.86	40°03'21.672"N	104°43'28.909"W	1.15	
1656.00	19.070	96.240	1629.60	-18.06	-18.71	207.93	1717462.83	14547250.96	40°03'21.663"N	104°43'28.777"W	2.96	
1688.00	19.160	97.040	1659.84	-19.24	-19.92	218.34	1717473.23	14547249.78	40°03'21.651"N	104°43'28.643"W	0.87	
1719.00	19.290	97.040	1689.11	-20.46	-21.17	228.47	1717483.36	14547248.56	40°03'21.639"N	104°43'28.513"W	0.42	
1751.00	19.470	96.860	1719.29	-21.71	-22.45	239.01	1717493.91	14547247.31	40°03'21.626"N	104°43'28.377"W	0.59	
1783.00	19.030	97.560	1749.50	-23.00	-23.78	249.48	1717504.37	14547246.02	40°03'21.613"N	104°43'28.243"W	1.55	
1815.00	18.980	97.910	1779.76	-24.37	-25.18	259.81	1717514.70	14547244.65	40°03'21.599"N	104°43'28.110"W	0.39	
1840.00	19.030	97.830	1803.40	-25.46	-26.29	267.87	1717522.76	14547243.56	40°03'21.588"N	104°43'28.006"W	0.23	
1878.00	19.030	97.830	1839.32	-27.11	-27.98	280.15	1717535.04	14547241.91	40°03'21.571"N	104°43'27.848"W	0.00	LAST SURFACE MWD+IFR1 SURVEY
1933.00	19.500	97.190	1891.24	-29.43	-30.35	298.14	1717553.03	14547239.59	40°03'21.548"N	104°43'27.617"W	0.94	FIRST BHGE MWD+IFR1+MSA SURVEY
2022.00	16.900	98.900	1975.78	-33.20	-34.21	325.66	1717580.55	14547235.82	40°03'21.510"N	104°43'27.263"W	2.98	
2111.00	16.820	98.060	2060.96	-36.93	-38.02	351.19	1717606.08	14547232.09	40°03'21.472"N	104°43'26.935"W	0.29	
2201.00	16.860	102.610	2147.10	-41.52	-42.70	376.82	1717631.72	14547227.50	40°03'21.426"N	104°43'26.605"W	1.46	
2290.00	16.480	100.580	2232.36	-46.58	-47.83	401.82	1717656.73	14547222.44	40°03'21.375"N	104°43'26.283"W	0.78	
2379.00	16.090	99.690	2317.79	-50.90	-52.23	426.39	1717681.30	14547218.13	40°03'21.332"N	104°43'25.968"W	0.52	
2469.00	16.060	101.950	2404.27	-55.50	-56.90	450.86	1717705.78	14547213.53	40°03'21.286"N	104°43'25.653"W	0.70	
2558.00	15.270	100.350	2489.97	-60.08	-61.56	474.44	1717729.36	14547208.95	40°03'21.240"N	104°43'25.350"W	1.01	
2648.00	14.590	104.600	2576.93	-65.00	-66.54	497.07	1717751.99	14547204.03	40°03'21.190"N	104°43'25.059"W	1.43	
2737.00	16.040	106.090	2662.77	-71.16	-72.78	519.73	1717774.66	14547197.87	40°03'21.129"N	104°43'24.767"W	1.69	
2826.00	16.900	105.770	2748.11	-78.01	-79.70	543.99	1717798.94	14547191.02	40°03'21.060"N	104°43'24.455"W	0.97	
2916.00	15.560	104.720	2834.53	-84.56	-86.32	568.26	1717823.22	14547184.48	40°03'20.995"N	104°43'24.143"W	1.52	
3006.00	16.220	103.300	2921.09	-90.44	-92.28	592.17	1717847.13	14547178.60	40°03'20.936"N	104°43'23.836"W	0.85	
3095.00	15.790	104.400	3006.64	-96.24	-98.15	615.99	1717870.97	14547172.80	40°03'20.878"N	104°43'23.529"W	0.59	
3185.00	16.300	102.400	3093.13	-101.92	-103.91	640.19	1717895.17	14547167.12	40°03'20.821"N	104°43'23.218"W	0.84	
3274.00	16.530	105.550	3178.51	-107.92	-109.99	664.58	1717919.58	14547161.12	40°03'20.761"N	104°43'22.904"W	1.03	
3363.00	15.220	104.310	3264.11	-114.13	-116.27	688.10	1717943.10	14547154.91	40°03'20.699"N	104°43'22.602"W	1.52	
3453.00	15.840	104.430	3350.82	-120.04	-122.25	711.45	1717966.46	14547149.01	40°03'20.640"N	104°43'22.302"W	0.69	
3542.00	16.410	102.250	3436.32	-125.66	-127.94	735.50	1717990.51	14547143.39	40°03'20.584"N	104°43'21.992"W	0.93	
3631.00	15.020	100.610	3521.99	-130.38	-132.74	759.12	1718014.14	14547138.67	40°03'20.536"N	104°43'21.689"W	1.64	
3721.00	15.050	101.580	3608.91	-134.80	-137.23	782.03	1718037.06	14547134.25	40°03'20.492"N	104°43'21.394"W	0.28	
3810.00	15.010	103.050	3694.87	-139.65	-142.15	804.57	1718059.61	14547129.40	40°03'20.443"N	104°43'21.104"W	0.43	
3900.00	15.760	99.780	3781.64	-144.28	-146.86	827.97	1718083.01	14547124.77	40°03'20.397"N	104°43'20.803"W	1.27	
3990.00	16.530	102.100	3868.10	-148.97	-151.62	852.54	1718107.58	14547120.09	40°03'20.350"N	104°43'20.487"W	1.12	
4079.00	16.780	103.240	3953.36	-154.49	-157.21	877.42	1718132.47	14547114.57	40°03'20.294"N	104°43'20.167"W	0.46	
4169.00	15.520	100.100	4039.81	-159.50	-162.30	901.92	1718156.98	14547109.56	40°03'20.244"N	104°43'19.852"W	1.70	
4258.00	15.270	102.730	4125.62	-164.10	-166.97	925.08	1718180.14	14547104.96	40°03'20.198"N	104°43'19.554"W	0.83	
4347.00	13.410	109.710	4211.85	-170.10	-173.04	946.23	1718201.30	14547098.97	40°03'20.138"N	104°43'19.282"W	2.85	
4437.00	12.390	107.810	4299.58	-176.51	-179.51	965.25	1718220.33	14547092.55	40°03'20.074"N	104°43'19.038"W	1.23	
4526.00	11.970	107.130	4386.57	-182.09	-185.15	983.16	1718238.25	14547086.97	40°03'20.018"N	104°43'18.808"W	0.50	
4616.00	10.700	114.370	4474.82	-188.24	-191.35	999.69	1718254.80	14547080.83	40°03'19.957"N	104°43'18.595"W	2.12	
4705.00	8.580	115.970	4562.56	-194.51	-197.66	1013.19	1718268.31	14547074.56	40°03'19.894"N	104°43'18.421"W	2.40	
4795.00	6.690	108.390	4651.76	-199.07	-202.26	1024.20	1718279.33	14547070.00	40°03'19.849"N	104°43'18.280"W	2.38	
4821.00	6.600	105.390	4677.58	-199.94	-203.13	1027.08	1718282.21	14547069.13	40°03'19.840"N	104°43'18.243"W	1.38	
4910.00	5.080	99.650	4766.12	-201.93	-205.15	1035.89	1718291.03	14547067.14	40°03'19.820"N	104°43'18.129"W	1.83	
5000.00	4.000	83.210	4855.84	-202.21	-205.45	1042.94	1718298.07	14547066.87	40°03'19.818"N	104°43'18.039"W	1.87	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (241 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
5090.00	2.900	61.310	4945.68	-200.73	-203.98	1048.05	1718303.18	14547068.35	40°03'19.832"N	104°43'17.973"W	1.89	
5179.00	2.110	83.150	5034.59	-199.44	-202.71	1051.65	1718306.78	14547069.63	40°03'19.845"N	104°43'17.927"W	1.38	
5269.00	0.430	165.970	5124.57	-199.56	-202.84	1053.38	1718308.50	14547069.51	40°03'19.843"N	104°43'17.904"W	2.33	
5359.00	0.250	131.320	5214.57	-200.02	-203.29	1053.61	1718308.73	14547069.05	40°03'19.839"N	104°43'17.902"W	0.30	
5448.00	0.410	163.810	5303.57	-200.45	-203.73	1053.84	1718308.97	14547068.62	40°03'19.835"N	104°43'17.899"W	0.27	
5538.00	0.470	157.430	5393.57	-201.10	-204.38	1054.08	1718309.20	14547067.97	40°03'19.828"N	104°43'17.896"W	0.09	
5627.00	1.310	225.620	5482.56	-202.15	-205.43	1053.49	1718308.62	14547066.92	40°03'19.818"N	104°43'17.903"W	1.37	
5717.00	0.920	223.860	5572.54	-203.40	-206.67	1052.25	1718307.39	14547065.68	40°03'19.805"N	104°43'17.919"W	0.43	
5806.00	0.730	214.290	5661.53	-204.38	-207.65	1051.44	1718306.58	14547064.69	40°03'19.796"N	104°43'17.929"W	0.26	
5896.00	0.560	217.440	5751.53	-205.21	-208.47	1050.85	1718305.99	14547063.87	40°03'19.788"N	104°43'17.937"W	0.19	
5985.00	0.420	209.130	5840.52	-205.84	-209.10	1050.43	1718305.57	14547063.23	40°03'19.781"N	104°43'17.942"W	0.18	
6075.00	0.380	226.730	5930.52	-206.33	-209.60	1050.05	1718305.19	14547062.74	40°03'19.777"N	104°43'17.947"W	0.14	
6164.00	0.200	190.620	6019.52	-206.69	-209.95	1049.80	1718304.95	14547062.39	40°03'19.773"N	104°43'17.950"W	0.28	
6253.00	0.370	162.770	6108.52	-207.12	-210.38	1049.86	1718305.01	14547061.96	40°03'19.769"N	104°43'17.950"W	0.24	
6343.00	0.290	130.420	6198.52	-207.54	-210.80	1050.12	1718305.27	14547061.53	40°03'19.765"N	104°43'17.946"W	0.22	
6433.00	1.320	218.670	6288.51	-208.50	-211.76	1049.65	1718304.80	14547060.58	40°03'19.755"N	104°43'17.953"W	1.49	
6522.00	0.980	225.220	6377.49	-209.84	-213.10	1048.46	1718303.62	14547059.24	40°03'19.742"N	104°43'17.968"W	0.41	
6612.00	1.710	335.350	6467.47	-209.16	-212.42	1047.36	1718302.51	14547059.91	40°03'19.749"N	104°43'17.982"W	2.49	
6659.00†	3.762	334.145	6514.42	-207.14	-210.39	1046.39	1718301.54	14547061.93	40°03'19.769"N	104°43'17.994"W	4.37	KOP
6702.00	5.640	333.810	6557.27	-203.98	-207.23	1044.85	1718299.98	14547065.09	40°03'19.800"N	104°43'18.014"W	4.37	
6791.00	15.100	353.890	6644.74	-188.50	-191.74	1041.67	1718296.77	14547080.57	40°03'19.953"N	104°43'18.055"W	11.22	
6881.00	20.170	358.930	6730.49	-161.32	-164.55	1040.13	1718295.14	14547107.74	40°03'20.222"N	104°43'18.075"W	5.88	
6970.00	26.380	4.590	6812.22	-126.22	-129.46	1041.43	1718296.33	14547142.82	40°03'20.568"N	104°43'18.058"W	7.41	
7060.00	31.320	5.690	6891.02	-82.98	-86.23	1045.35	1718300.12	14547186.05	40°03'20.996"N	104°43'18.008"W	5.52	
7150.00	39.260	2.460	6964.43	-31.15	-34.41	1048.90	1718303.51	14547237.85	40°03'21.508"N	104°43'17.962"W	9.06	
7239.00	44.780	2.970	7030.53	28.34	25.08	1051.74	1718306.16	14547297.32	40°03'22.096"N	104°43'17.925"W	6.21	
7282.00†	48.181	2.791	7060.13	59.48	56.21	1053.30	1718307.62	14547328.45	40°03'22.403"N	104°43'17.905"W	7.92	ENTER LANDBOX (848'FNL & 1579'FEL,SEC.13) 40.0562231 -104.7216404
7328.00	51.820	2.620	7089.69	94.68	91.41	1054.96	1718309.18	14547363.64	40°03'22.751"N	104°43'17.884"W	7.92	
7418.00	56.610	1.960	7142.31	167.62	164.34	1057.87	1718311.86	14547436.55	40°03'23.472"N	104°43'17.847"W	5.36	
7508.00	59.760	0.210	7189.75	244.08	240.79	1059.29	1718313.05	14547512.97	40°03'24.227"N	104°43'17.828"W	3.87	
7597.00	66.020	359.520	7230.29	323.26	319.97	1059.09	1718312.60	14547592.12	40°03'25.010"N	104°43'17.831"W	7.07	
7686.00	71.940	359.430	7262.20	406.29	403.00	1058.33	1718311.58	14547675.12	40°03'25.830"N	104°43'17.840"W	6.65	
7776.00	80.530	0.970	7283.59	493.62	490.33	1058.66	1718311.64	14547762.42	40°03'26.693"N	104°43'17.836"W	9.69	
7850.00†	88.379	1.970	7290.74	567.20	563.90	1060.55	1718313.31	14547835.96	40°03'27.420"N	104°43'17.812"W	10.69	LANDING (340'FNL & 1570'FEL,SEC.13) 40.0576168 -104.7216144
7865.00	89.970	2.170	7290.95	582.19	578.89	1061.09	1718313.80	14547850.95	40°03'27.569"N	104°43'17.805"W	10.69	
7955.00	90.710	2.340	7290.42	672.13	668.82	1064.63	1718317.06	14547940.85	40°03'28.457"N	104°43'17.759"W	0.84	
8044.00	90.150	359.190	7289.75	761.11	757.80	1065.82	1718317.98	14548029.80	40°03'29.337"N	104°43'17.744"W	3.59	
8134.00	90.090	356.390	7289.56	851.02	847.72	1062.35	1718314.23	14548119.67	40°03'30.225"N	104°43'17.789"W	3.11	
8223.00	89.880	354.370	7289.59	939.70	936.43	1055.18	1718306.79	14548208.32	40°03'31.102"N	104°43'17.881"W	2.28	
8312.00	91.570	355.180	7288.46	1028.30	1025.05	1047.08	1718298.42	14548296.88	40°03'31.978"N	104°43'17.985"W	2.11	
8402.00	92.160	357.810	7285.53	1118.05	1114.82	1041.58	1718292.64	14548386.61	40°03'32.865"N	104°43'18.056"W	2.99	
8491.00	90.280	358.100	7283.64	1206.96	1203.74	1038.41	1718289.20	14548475.48	40°03'33.743"N	104°43'18.096"W	2.14	
8566.00†	88.888	358.217	7284.18	1281.91	1278.70	1035.99	1718286.56	14548550.40	40°03'34.484"N	104°43'18.127"W	1.86	EXIT RADIUS HEEL (375'FSL & 1596'FEL,SEC.12) 40.0595789 -104.7217020
8581.00	88.610	358.240	7284.51	1296.90	1293.69	1035.53	1718286.05	14548565.38	40°03'34.632"N	104°43'18.133"W	1.86	
8670.00	88.240	358.040	7286.95	1385.81	1382.61	1032.64	1718282.89	14548654.26	40°03'35.511"N	104°43'18.170"W	0.47	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (241 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	87.440	0.480	7290.35	1475.73	1472.53	1031.48	1718281.45	14548744.14	40°03'36.400"N	104°43'18.185"W	2.85	
8850.00	86.640	0.240	7294.99	1565.61	1562.41	1032.05	1718281.73	14548833.98	40°03'37.288"N	104°43'18.178"W	0.93	
8939.00	89.450	359.180	7298.03	1654.54	1651.34	1031.60	1718281.01	14548922.88	40°03'38.167"N	104°43'18.184"W	3.37	
9029.00	90.490	0.160	7298.08	1744.54	1741.34	1031.08	1718280.21	14549012.84	40°03'39.056"N	104°43'18.190"W	1.59	
9118.00	89.850	359.930	7297.81	1833.53	1830.34	1031.15	1718280.01	14549101.80	40°03'39.936"N	104°43'18.189"W	0.76	
9208.00	89.820	0.410	7298.07	1923.53	1920.34	1031.41	1718280.00	14549191.77	40°03'40.825"N	104°43'18.186"W	0.53	
9297.00	92.680	359.970	7296.13	2012.50	2009.31	1031.71	1718280.02	14549280.70	40°03'41.704"N	104°43'18.182"W	3.25	
9387.00	92.370	0.090	7292.17	2102.42	2099.22	1031.76	1718279.79	14549370.58	40°03'42.593"N	104°43'18.181"W	0.37	
9476.00	92.030	359.490	7288.75	2191.35	2188.15	1031.43	1718279.19	14549459.47	40°03'43.472"N	104°43'18.185"W	0.77	
9565.00	92.190	359.400	7285.47	2280.28	2277.09	1030.57	1718278.05	14549548.37	40°03'44.350"N	104°43'18.197"W	0.21	
9655.00	92.960	359.190	7281.43	2370.18	2366.99	1029.46	1718276.67	14549638.23	40°03'45.239"N	104°43'18.211"W	0.89	
9744.00	91.970	0.630	7277.60	2459.09	2455.90	1029.32	1718276.26	14549727.11	40°03'46.118"N	104°43'18.212"W	1.96	
9834.00	90.430	1.180	7275.72	2549.06	2545.87	1030.74	1718277.40	14549817.05	40°03'47.007"N	104°43'18.194"W	1.82	
9923.00	88.800	2.070	7276.31	2638.03	2634.83	1033.27	1718279.65	14549905.98	40°03'47.886"N	104°43'18.162"W	2.09	
10013.00	88.800	2.010	7277.98	2727.96	2724.76	1036.47	1718282.57	14549995.88	40°03'48.774"N	104°43'18.120"W	0.32	
10102.00	89.170	1.680	7279.34	2816.91	2813.70	1039.34	1718285.16	14550084.79	40°03'49.653"N	104°43'18.083"W	0.38	
10281.00	89.570	2.740	7281.31	2995.79	2992.55	1046.24	1718291.51	14550263.60	40°03'51.421"N	104°43'17.995"W	0.63	
10371.00	89.170	2.610	7282.30	3085.70	3082.45	1050.44	1718295.43	14550353.47	40°03'52.309"N	104°43'17.941"W	0.47	
10460.00	88.800	2.300	7283.87	3174.61	3171.35	1054.25	1718298.97	14550442.35	40°03'53.188"N	104°43'17.891"W	0.54	
10550.00	88.680	2.400	7285.85	3264.53	3261.26	1057.94	1718302.38	14550532.23	40°03'54.076"N	104°43'17.844"W	0.17	
10639.00	89.380	1.730	7287.36	3353.46	3350.18	1061.15	1718305.31	14550621.13	40°03'54.955"N	104°43'17.803"W	1.09	
10729.00	89.540	1.560	7288.21	3443.43	3440.14	1063.73	1718307.62	14550711.06	40°03'55.844"N	104°43'17.769"W	0.26	
10818.00	89.230	1.720	7289.16	3532.40	3529.10	1066.28	1718309.89	14550799.99	40°03'56.723"N	104°43'17.737"W	0.39	
10908.00	90.680	358.890	7289.23	3622.38	3619.09	1066.76	1718310.09	14550889.95	40°03'57.612"N	104°43'17.730"W	3.53	
10997.00	90.550	358.600	7288.28	3711.35	3708.06	1064.81	1718307.87	14550978.88	40°03'58.492"N	104°43'17.755"W	0.36	
11087.00	90.430	358.690	7287.51	3801.32	3798.03	1062.68	1718305.46	14551068.81	40°03'59.381"N	104°43'17.783"W	0.17	
11176.00	90.590	358.890	7286.72	3890.29	3887.01	1060.80	1718303.31	14551157.74	40°04'00.260"N	104°43'17.807"W	0.29	
11266.00	90.620	358.890	7285.76	3980.26	3976.99	1059.06	1718301.29	14551247.68	40°04'01.149"N	104°43'17.829"W	0.03	
11355.00	90.520	358.870	7284.88	4069.23	4065.97	1057.32	1718299.28	14551336.62	40°04'02.029"N	104°43'17.852"W	0.11	
11444.00	89.880	358.650	7284.57	4158.20	4154.94	1055.39	1718297.08	14551425.55	40°04'02.908"N	104°43'17.876"W	0.76	
11623.00	89.320	358.740	7285.82	4337.14	4333.89	1051.31	1718292.45	14551604.42	40°04'04.676"N	104°43'17.929"W	0.32	
11713.00	91.910	358.960	7284.85	4427.10	4423.86	1049.51	1718290.37	14551694.34	40°04'05.565"N	104°43'17.952"W	2.89	
11802.00	92.680	357.920	7281.29	4515.99	4512.76	1047.09	1718287.67	14551783.19	40°04'06.444"N	104°43'17.983"W	1.45	
11891.00	92.160	359.590	7277.53	4604.88	4601.65	1045.16	1718285.47	14551872.05	40°04'07.322"N	104°43'18.008"W	1.96	
11980.00	89.750	0.540	7276.05	4693.86	4690.63	1045.26	1718285.30	14551960.99	40°04'08.202"N	104°43'18.006"W	2.91	
12074.00	89.880	359.870	7276.35	4787.86	4784.63	1045.59	1718285.34	14552054.96	40°04'09.131"N	104°43'18.002"W	0.73	
12167.00	90.280	359.020	7276.22	4880.85	4877.62	1044.69	1718284.15	14552147.91	40°04'10.050"N	104°43'18.013"W	1.01	
12260.00	88.280	359.200	7277.39	4973.82	4970.60	1043.25	1718282.42	14552240.85	40°04'10.968"N	104°43'18.032"W	2.16	
12351.00	88.250	358.680	7280.14	5064.76	5061.54	1041.57	1718280.46	14552331.75	40°04'11.867"N	104°43'18.054"W	0.57	
12443.00	90.990	357.350	7280.75	5156.68	5153.48	1038.38	1718276.99	14552423.63	40°04'12.776"N	104°43'18.094"W	3.31	
12535.00	92.340	359.770	7278.08	5248.59	5245.40	1036.07	1718274.40	14552515.51	40°04'13.684"N	104°43'18.124"W	3.01	
12625.00	91.450	1.670	7275.10	5338.53	5335.34	1037.20	1718275.25	14552605.42	40°04'14.573"N	104°43'18.110"W	2.33	
12716.00	91.480	1.240	7272.78	5429.48	5426.28	1039.51	1718277.28	14552696.33	40°04'15.471"N	104°43'18.080"W	0.47	
12809.00	90.220	2.000	7271.40	5522.44	5519.23	1042.14	1718279.62	14552789.25	40°04'16.390"N	104°43'18.046"W	1.58	
12903.00	90.430	1.540	7270.87	5616.40	5613.18	1045.04	1718282.23	14552883.17	40°04'17.318"N	104°43'18.009"W	0.54	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (241 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
13081.00	88.210	0.640	7272.98	5794.35	5791.12	1048.43	1718285.07	14553061.06	40°04'19.077"N	104°43'17.965"W	1.35	
13260.00	87.600	359.930	7279.52	5973.23	5970.00	1049.32	1718285.41	14553239.86	40°04'20.845"N	104°43'17.953"W	0.52	
13349.00	87.170	359.650	7283.58	6062.14	6058.91	1048.99	1718284.81	14553328.73	40°04'21.723"N	104°43'17.957"W	0.58	
13439.00	87.810	359.840	7287.52	6152.05	6148.82	1048.59	1718284.13	14553418.61	40°04'22.612"N	104°43'17.963"W	0.74	
13528.00	88.580	0.100	7290.33	6241.00	6237.77	1048.54	1718283.81	14553507.53	40°04'23.491"N	104°43'17.963"W	0.91	
13706.00	90.120	358.750	7292.35	6418.96	6415.74	1046.76	1718281.48	14553685.42	40°04'25.250"N	104°43'17.986"W	1.15	
13796.00	90.060	358.120	7292.20	6508.92	6505.71	1044.30	1718278.74	14553775.34	40°04'26.139"N	104°43'18.018"W	0.70	
13885.00	89.660	357.510	7292.42	6597.85	6594.64	1040.91	1718275.08	14553864.23	40°04'27.017"N	104°43'18.061"W	0.82	
13974.00	93.260	357.020	7290.16	6686.69	6683.50	1036.66	1718270.56	14553953.04	40°04'27.896"N	104°43'18.116"W	4.08	
14063.00	92.710	359.310	7285.52	6775.51	6772.33	1033.82	1718267.44	14554041.82	40°04'28.773"N	104°43'18.152"W	2.64	
14152.00	91.290	0.160	7282.41	6864.45	6861.27	1033.41	1718266.76	14554130.73	40°04'29.652"N	104°43'18.158"W	1.86	
14242.00	91.790	359.970	7280.00	6954.41	6951.24	1033.51	1718266.58	14554220.66	40°04'30.541"N	104°43'18.156"W	0.59	
14331.00	90.180	0.830	7278.47	7043.39	7040.22	1034.13	1718266.93	14554309.60	40°04'31.421"N	104°43'18.148"W	2.05	
14420.00	90.150	0.560	7278.21	7132.39	7129.21	1035.21	1718267.73	14554398.56	40°04'32.300"N	104°43'18.134"W	0.31	
14509.00	90.370	0.200	7277.80	7221.39	7218.21	1035.80	1718268.05	14554487.53	40°04'33.180"N	104°43'18.127"W	0.47	
14598.00	90.490	359.450	7277.14	7310.38	7307.20	1035.53	1718267.50	14554576.49	40°04'34.059"N	104°43'18.130"W	0.85	
14777.00	88.550	359.250	7278.64	7489.35	7486.18	1033.50	1718264.92	14554755.38	40°04'35.828"N	104°43'18.156"W	1.09	
14866.00	89.850	0.070	7279.88	7578.34	7575.16	1032.97	1718264.12	14554844.33	40°04'36.707"N	104°43'18.163"W	1.73	
14955.00	90.770	1.820	7279.40	7667.32	7664.15	1034.44	1718265.31	14554933.28	40°04'37.586"N	104°43'18.144"W	2.22	
15045.00	89.570	1.570	7279.13	7757.29	7754.10	1037.10	1718267.69	14555023.22	40°04'38.475"N	104°43'18.110"W	1.36	
15134.00	88.800	1.250	7280.40	7846.26	7843.07	1039.29	1718269.61	14555112.15	40°04'39.355"N	104°43'18.081"W	0.94	
15224.00	90.370	1.390	7281.05	7936.23	7933.04	1041.36	1718271.40	14555202.09	40°04'40.244"N	104°43'18.055"W	1.75	
15313.00	89.820	0.990	7280.90	8025.22	8022.02	1043.21	1718272.98	14555291.04	40°04'41.123"N	104°43'18.031"W	0.76	
15403.00	89.600	0.580	7281.36	8115.21	8112.01	1044.44	1718273.93	14555381.00	40°04'42.012"N	104°43'18.015"W	0.52	
15492.00	89.570	0.300	7282.00	8204.21	8201.00	1045.13	1718274.34	14555469.96	40°04'42.892"N	104°43'18.006"W	0.32	
15582.00	89.480	359.680	7282.75	8294.21	8291.00	1045.11	1718274.05	14555559.92	40°04'43.781"N	104°43'18.006"W	0.70	
15671.00	89.260	359.410	7283.73	8383.20	8379.99	1044.40	1718273.07	14555648.88	40°04'44.661"N	104°43'18.015"W	0.39	
15761.00	91.140	0.490	7283.41	8473.19	8469.99	1044.32	1718272.71	14555738.83	40°04'45.550"N	104°43'18.016"W	2.41	
15850.00	90.680	0.040	7282.00	8562.18	8558.97	1044.74	1718272.85	14555827.79	40°04'46.429"N	104°43'18.011"W	0.72	
15940.00	90.590	359.610	7281.00	8652.17	8648.97	1044.46	1718272.30	14555917.74	40°04'47.319"N	104°43'18.014"W	0.49	
16029.00	90.060	359.050	7280.50	8741.16	8737.96	1043.42	1718270.98	14556006.70	40°04'48.198"N	104°43'18.028"W	0.87	
16118.00	90.590	0.120	7279.99	8830.15	8826.95	1042.78	1718270.06	14556095.65	40°04'49.078"N	104°43'18.036"W	1.34	
16208.00	90.580	0.920	7279.07	8920.14	8916.94	1043.59	1718270.60	14556185.61	40°04'49.967"N	104°43'18.025"W	0.89	
16297.00	90.550	2.030	7278.19	9009.11	9005.91	1045.88	1718272.62	14556274.55	40°04'50.846"N	104°43'17.996"W	1.25	
16387.00	90.430	3.460	7277.42	9099.02	9095.80	1050.19	1718276.65	14556364.42	40°04'51.734"N	104°43'17.940"W	1.59	
16476.00	90.580	4.250	7276.64	9187.83	9184.59	1056.18	1718282.36	14556453.19	40°04'52.612"N	104°43'17.863"W	0.90	
16565.00	90.490	4.770	7275.81	9276.57	9273.31	1063.17	1718289.08	14556541.90	40°04'53.489"N	104°43'17.773"W	0.59	
16655.00	89.410	3.290	7275.89	9366.37	9363.09	1069.50	1718295.12	14556631.66	40°04'54.376"N	104°43'17.692"W	2.04	
16745.00	88.680	2.530	7277.39	9456.25	9452.96	1074.07	1718299.41	14556721.50	40°04'55.264"N	104°43'17.633"W	1.17	
16923.00	87.840	2.020	7282.79	9634.05	9630.73	1081.13	1718305.92	14556899.23	40°04'57.021"N	104°43'17.542"W	0.55	
17013.00	90.180	0.760	7284.35	9724.00	9720.69	1083.31	1718307.83	14556989.15	40°04'57.910"N	104°43'17.514"W	2.95	
17102.00	90.250	0.060	7284.01	9813.00	9809.68	1083.95	1718308.19	14557078.12	40°04'58.789"N	104°43'17.506"W	0.79	
17191.00	90.060	359.640	7283.77	9902.00	9898.68	1083.72	1718307.68	14557167.08	40°04'59.669"N	104°43'17.509"W	0.52	
17281.00	90.340	359.200	7283.46	9991.99	9988.68	1082.81	1718306.50	14557257.03	40°05'00.558"N	104°43'17.520"W	0.58	
17370.00	90.310	358.850	7282.95	10080.97	10077.66	1081.29	1718304.71	14557345.98	40°05'01.437"N	104°43'17.540"W	0.39	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (241 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
17459.00	90.310	358.260	7282.47	10169.93	10166.63	1079.05	1718302.19	14557434.91	40°05'02.316"N	104°43'17.569"W	0.66	
17549.00	90.150	358.200	7282.11	10259.88	10256.59	1076.27	1718299.13	14557524.82	40°05'03.205"N	104°43'17.604"W	0.19	
17638.00	90.370	358.070	7281.71	10348.82	10345.54	1073.37	1718295.96	14557613.73	40°05'04.084"N	104°43'17.641"W	0.29	
17727.00	90.090	357.810	7281.35	10437.76	10434.48	1070.17	1718292.49	14557702.62	40°05'04.963"N	104°43'17.683"W	0.43	
17817.00	89.850	358.990	7281.40	10527.71	10524.44	1067.66	1718289.70	14557792.54	40°05'05.852"N	104°43'17.715"W	1.34	
17906.00	89.540	0.010	7281.87	10616.70	10613.44	1066.88	1718288.65	14557881.50	40°05'06.732"N	104°43'17.725"W	1.20	
17995.00	89.170	358.700	7282.87	10705.68	10702.43	1065.88	1718287.38	14557970.45	40°05'07.611"N	104°43'17.738"W	1.53	
18085.00	88.430	358.410	7284.76	10795.63	10792.38	1063.61	1718284.83	14558060.35	40°05'08.500"N	104°43'17.767"W	0.88	
18174.00	88.210	358.390	7287.37	10884.55	10881.30	1061.13	1718282.07	14558149.24	40°05'09.379"N	104°43'17.799"W	0.25	
18263.00	88.830	359.020	7289.67	10973.49	10970.25	1059.12	1718279.79	14558238.14	40°05'10.258"N	104°43'17.824"W	0.99	
18330.00†	88.532	358.931	7291.21	11040.45	11037.22	1057.92	1718278.39	14558305.08	40°05'10.920"N	104°43'17.840"W	0.46	ENTER RADIUS TOE (388'FNL & 1562'FEL,SEC.01) 40.0863666 -104.7216222
18353.00	88.430	358.900	7291.82	11063.44	11060.21	1057.48	1718277.88	14558328.06	40°05'11.147"N	104°43'17.845"W	0.46	
18442.00	88.000	358.600	7294.59	11152.37	11149.14	1055.54	1718275.67	14558416.95	40°05'12.026"N	104°43'17.870"W	0.59	
18532.00	87.540	358.020	7298.09	11242.25	11239.04	1052.89	1718272.74	14558506.80	40°05'12.914"N	104°43'17.904"W	0.82	
18619.00	86.860	358.080	7302.34	11329.09	11325.88	1049.93	1718269.51	14558593.60	40°05'13.772"N	104°43'17.942"W	0.78	LAST BHGE MWD+IFR1+MSA SURVEY
18665.00	86.860	358.080	7304.86	11374.99	11371.79	1048.40	1718267.83	14558639.49	40°05'14.226"N	104°43'17.962"W	0.00	PTB (53'FNL & 1571'FEL,SEC.01) 40.0872850 -104.7216562

HOLE & CASING SECTIONS - Ref Wellbore: VERDE 13-13HZ AWB Ref Wellpath: VERDE 13-13HZ 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	1878.00	1852.00	26.00	1839.32	0.00	0.00	-27.98	280.15

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	-16.32	-1881.70	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
SEC.12-T1N-R66W	-24.00	-16.32	-1881.70	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
VERDE 13-13HZ LANDBOX	7290.00	0.00	0.00	1717254.92	14547269.02	40°03'21.848"N	104°43'31.451"W	polygon
VERDE 13-13HZ RADIUS 1	7290.00	11424.93	1306.03	1718525.20	14558693.40	40°05'14.751"N	104°43'14.647"W	polygon
VERDE 13-13HZ RADIUS 2	7290.00	911.20	1311.92	1718563.50	14548183.90	40°03'30.852"N	104°43'14.579"W	polygon
VERDE 13-13HZ BHL REV-1(52'FNL & 1545'FEL,SEC.01)	7291.00	11373.20	1073.59	1718293.02	14558640.98	40°05'14.240"N	104°43'17.638"W	point
VERDE 13-13HZ HEEL REV-1(370'FNL & 1593'FEL,SEC.13)	7291.00	540.69	1039.93	1718292.77	14547812.70	40°03'27.191"N	104°43'18.077"W	point

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: VERDE 13-13HZ AWB Ref Wellpath: VERDE 13-13HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1878.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <134 - 1878>	VERDE 13-13HZ AWB
1878.00	18619.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1878 - 18619>	VERDE 13-13HZ AWB
18619.00	18665.00	Blind Drilling (std)	Projection to bit	VERDE 13-13HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#58 VERDE 13-13HZ (904'FNL & 2631'FEL,SEC.13)
Area	COLORADO	Well	VERDE 13-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-13HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
134.00	0.830	281.960	134.00	FIRST SURFACE MWD+IFR1 SURVEY
1878.00	19.030	97.830	1839.32	LAST SURFACE MWD+IFR1 SURVEY
1933.00	19.500	97.190	1891.24	FIRST BHGE MWD+IFR1+MSA SURVEY
6659.00	3.762	334.145	6514.42	KOP
7282.00	48.181	2.791	7060.13	ENTER LANDBOX (848'FNL & 1579'FEL,SEC.13) 40.0562231 -104.7216404
7850.00	88.379	1.970	7290.74	LANDING (340'FNL & 1570'FEL,SEC.13) 40.0576168 -104.7216144
8566.00	88.888	358.217	7284.18	EXIT RADIUS HEEL (375'FSL & 1596'FEL,SEC.12) 40.0595789 -104.7217020
18330.00	88.532	358.931	7291.21	ENTER RADIUS TOE (388'FNL & 1562'FEL,SEC.01) 40.0863666 -104.7216222
18619.00	86.860	358.080	7302.34	LAST BHGE MWD+IFR1+MSA SURVEY
18665.00	86.860	358.080	7304.86	PTB (53'FNL & 1571'FEL,SEC.01) 40.0872850 -104.7216562