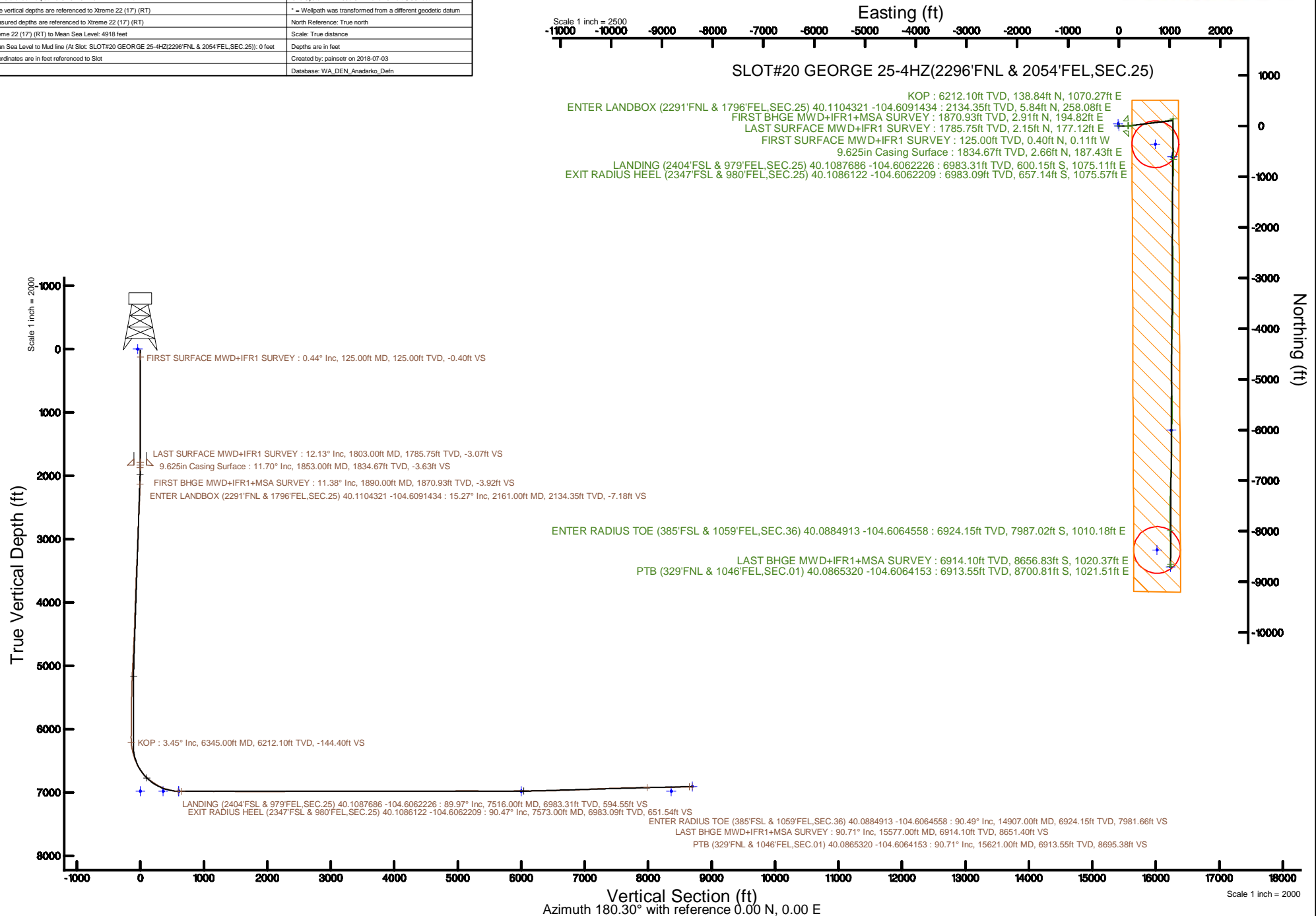


Location:	COLORADO	Slot:	SLOT#20 GEORGE 25-4HZ(2296FNL & 2054FEL,SEC.25)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	GEORGE 25-4HZ
Facility:	SEC.25-T2N-R6SW	Wellbore:	GEORGE 25-4HZ PWB
Plot reference wellpath is GEORGE 25-4HZ PWP Rev-A.1		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to Xreme 22 (17) (RT)		* = Wellpath was transformed from a different geoidetic datum	
Measured depths are referenced to Xreme 22 (17) (RT)		North Reference: True north	
Xreme 22 (17) (RT) to Mean Sea Level: 4918 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#20 GEORGE 25-4HZ(2296FNL & 2054FEL,SEC.25)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: painsest on 2018-07-03	
		Database: WA_DEN_Anadarko_Defn	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25)
Area	COLORADO	Well	GEORGE 25-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	GEORGE 25-4HZ AWB
Facility	SEC.25-T2N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999614	Report Generated	7/3/2018 at 10:09 AM
Convergence at slot	0.26° East	Database/Source file	WA_DEN_Anadarko_Defn/GEORGE_25-4HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1851.98	-1573.69	1749442.08	14567179.85	40°06'37.498"N	104°36'36.238"W
Facility Reference Pt			1751006.90	14569038.09	40°06'55.800"N	104°36'15.984"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Xtreme 22 (17') (RT) to Facility Vertical Datum	4918.00ft
Horizontal Reference Pt	Slot	Xtreme 22 (17') (RT) to Mean Sea Level	4918.00ft
Vertical Reference Pt	Xtreme 22 (17') (RT)	Xtreme 22 (17') (RT) to Mud Line at Slot (SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25))	4918.00ft
MD Reference Pt	Xtreme 22 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.30°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25)
Area	COLORADO	Well	GEORGE 25-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	GEORGE 25-4HZ AWB
Facility	SEC.25-T2N-R65W		

WELLPATH DATA (217 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	344.210	0.00	0.00	0.00	0.00	1749442.07	14567179.85	40°06'37.498"N	104°36'36.238"W	0.00	
17.00	0.000	344.210	17.00	0.00	0.00	0.00	1749442.07	14567179.85	40°06'37.498"N	104°36'36.238"W	0.00	
125.00	0.440	344.210	125.00	-0.40	0.40	-0.11	1749441.96	14567180.24	40°06'37.502"N	104°36'36.239"W	0.41	FIRST SURFACE MWD+IFR1 SURVEY
157.00	0.790	2.320	157.00	-0.74	0.74	-0.14	1749441.93	14567180.58	40°06'37.505"N	104°36'36.240"W	1.24	
221.00	0.880	30.970	220.99	-1.60	1.60	0.13	1749442.20	14567181.45	40°06'37.514"N	104°36'36.236"W	0.66	
252.00	0.920	43.360	251.99	-1.99	1.99	0.43	1749442.49	14567181.83	40°06'37.518"N	104°36'36.233"W	0.64	
284.00	1.360	54.700	283.98	-2.40	2.39	0.91	1749442.98	14567182.24	40°06'37.522"N	104°36'36.226"W	1.54	
315.00	1.140	44.940	314.97	-2.83	2.82	1.43	1749443.49	14567182.67	40°06'37.526"N	104°36'36.220"W	0.99	
347.00	0.620	15.940	346.97	-3.22	3.21	1.70	1749443.76	14567183.07	40°06'37.530"N	104°36'36.216"W	2.09	
379.00	0.480	349.660	378.97	-3.52	3.51	1.73	1749443.79	14567183.36	40°06'37.533"N	104°36'36.216"W	0.89	
411.00	0.350	298.250	410.97	-3.70	3.69	1.62	1749443.67	14567183.54	40°06'37.534"N	104°36'36.217"W	1.18	
442.00	0.480	333.490	441.97	-3.86	3.85	1.48	1749443.53	14567183.70	40°06'37.536"N	104°36'36.219"W	0.90	
474.00	0.750	300.530	473.96	-4.08	4.08	1.24	1749443.29	14567183.93	40°06'37.538"N	104°36'36.222"W	1.36	
505.00	0.570	288.580	504.96	-4.23	4.23	0.91	1749442.97	14567184.08	40°06'37.540"N	104°36'36.226"W	0.73	
537.00	0.130	314.070	536.96	-4.31	4.31	0.74	1749442.79	14567184.15	40°06'37.541"N	104°36'36.229"W	1.43	
569.00	0.260	278.030	568.96	-4.34	4.34	0.64	1749442.69	14567184.19	40°06'37.541"N	104°36'36.230"W	0.54	
600.00	0.130	278.030	599.96	-4.36	4.36	0.53	1749442.59	14567184.20	40°06'37.541"N	104°36'36.231"W	0.42	
632.00	0.440	133.190	631.96	-4.28	4.28	0.59	1749442.64	14567184.12	40°06'37.540"N	104°36'36.230"W	1.72	
664.00	0.920	102.340	663.96	-4.14	4.14	0.93	1749442.99	14567183.99	40°06'37.539"N	104°36'36.226"W	1.84	
696.00	1.140	107.610	695.95	-3.99	3.99	1.48	1749443.54	14567183.84	40°06'37.537"N	104°36'36.219"W	0.75	
728.00	1.450	117.980	727.95	-3.71	3.70	2.14	1749444.20	14567183.55	40°06'37.535"N	104°36'36.210"W	1.21	
759.00	1.850	112.800	758.93	-3.34	3.32	2.95	1749445.01	14567183.18	40°06'37.531"N	104°36'36.200"W	1.38	
791.00	2.240	107.870	790.91	-2.95	2.93	4.02	1749446.08	14567182.79	40°06'37.527"N	104°36'36.186"W	1.34	
823.00	2.770	104.970	822.88	-2.57	2.54	5.37	1749447.43	14567182.41	40°06'37.523"N	104°36'36.169"W	1.70	
854.00	3.030	97.410	853.84	-2.28	2.24	6.90	1749448.96	14567182.12	40°06'37.520"N	104°36'36.149"W	1.49	
886.00	3.470	94.430	885.79	-2.10	2.06	8.71	1749450.77	14567181.94	40°06'37.518"N	104°36'36.126"W	1.47	
918.00	4.310	93.810	917.72	-1.96	1.90	10.87	1749452.93	14567181.79	40°06'37.517"N	104°36'36.098"W	2.63	
949.00	4.790	90.030	948.62	-1.89	1.82	13.33	1749455.39	14567181.73	40°06'37.516"N	104°36'36.066"W	1.82	
980.00	5.010	88.890	979.51	-1.93	1.85	15.98	1749458.04	14567181.76	40°06'37.516"N	104°36'36.032"W	0.78	
1012.00	5.450	90.120	1011.37	-1.97	1.87	18.89	1749460.95	14567181.80	40°06'37.517"N	104°36'35.995"W	1.42	
1044.00	6.330	90.300	1043.20	-1.98	1.86	22.18	1749464.23	14567181.80	40°06'37.516"N	104°36'35.953"W	2.75	
1076.00	7.120	89.420	1074.98	-2.01	1.87	25.92	1749467.98	14567181.83	40°06'37.516"N	104°36'35.904"W	2.49	
1108.00	8.480	88.270	1106.69	-2.12	1.96	30.26	1749472.32	14567181.94	40°06'37.517"N	104°36'35.848"W	4.28	
1139.00	8.830	87.480	1137.33	-2.32	2.14	34.93	1749476.98	14567182.13	40°06'37.519"N	104°36'35.788"W	1.19	
1171.00	9.320	87.310	1168.93	-2.57	2.37	39.97	1749482.02	14567182.39	40°06'37.521"N	104°36'35.724"W	1.53	
1203.00	10.110	89.150	1200.47	-2.76	2.53	45.37	1749487.41	14567182.57	40°06'37.523"N	104°36'35.654"W	2.65	
1234.00	10.940	91.970	1230.95	-2.73	2.47	51.03	1749493.07	14567182.54	40°06'37.522"N	104°36'35.581"W	3.15	
1266.00	11.380	91.440	1262.35	-2.58	2.28	57.22	1749499.26	14567182.38	40°06'37.521"N	104°36'35.502"W	1.41	
1298.00	11.560	91.880	1293.71	-2.43	2.10	63.58	1749505.62	14567182.22	40°06'37.519"N	104°36'35.420"W	0.63	
1329.00	12.090	92.490	1324.05	-2.22	1.86	69.93	1749511.96	14567182.01	40°06'37.516"N	104°36'35.338"W	1.76	
1361.00	12.520	91.000	1355.31	-2.05	1.65	76.74	1749518.78	14567181.83	40°06'37.514"N	104°36'35.250"W	1.67	
1392.00	12.740	91.440	1385.56	-1.94	1.51	83.52	1749525.55	14567181.72	40°06'37.513"N	104°36'35.163"W	0.77	
1424.00	13.360	92.490	1416.74	-1.73	1.26	90.74	1749532.77	14567181.50	40°06'37.510"N	104°36'35.070"W	2.07	
1455.00	13.670	91.530	1446.88	-1.51	1.00	97.98	1749540.01	14567181.28	40°06'37.508"N	104°36'34.977"W	1.23	
1487.00	13.140	90.380	1478.01	-1.43	0.88	105.40	1749547.42	14567181.19	40°06'37.507"N	104°36'34.882"W	1.85	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25)
Area	COLORADO	Well	GEORGE 25-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	GEORGE 25-4HZ AWB
Facility	SEC.25-T2N-R65W		

WELLPATH DATA (217 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
1519.00	13.100	88.190	1509.17	-1.55	0.97	112.66	1749554.68	14567181.31	40°06'37.508"N	104°36'34.788"W	1.56	
1550.00	13.320	90.380	1539.35	-1.68	1.06	119.74	1749561.76	14567181.43	40°06'37.508"N	104°36'34.697"W	1.76	
1582.00	12.790	88.710	1570.52	-1.77	1.11	126.97	1749568.99	14567181.51	40°06'37.509"N	104°36'34.604"W	2.03	
1614.00	12.660	88.630	1601.74	-1.97	1.27	134.01	1749576.03	14567181.71	40°06'37.511"N	104°36'34.513"W	0.41	
1646.00	13.320	88.270	1632.92	-2.20	1.47	141.20	1749583.22	14567181.93	40°06'37.513"N	104°36'34.421"W	2.08	
1677.00	13.930	89.500	1663.05	-2.38	1.61	148.51	1749590.51	14567182.11	40°06'37.514"N	104°36'34.327"W	2.18	
1709.00	13.320	89.240	1694.15	-2.50	1.69	156.04	1749598.05	14567182.22	40°06'37.515"N	104°36'34.230"W	1.92	
1740.00	13.140	89.150	1724.32	-2.64	1.79	163.14	1749605.14	14567182.35	40°06'37.516"N	104°36'34.138"W	0.58	
1772.00	13.010	89.070	1755.49	-2.79	1.90	170.38	1749612.37	14567182.50	40°06'37.517"N	104°36'34.045"W	0.41	
1803.00	12.130	86.690	1785.75	-3.07	2.15	177.12	1749619.11	14567182.77	40°06'37.519"N	104°36'33.958"W	3.29	LAST SURFACE MWD+IFR1 SURVEY
1890.00	11.380	88.440	1870.93	-3.92	2.91	194.82	1749636.81	14567183.61	40°06'37.527"N	104°36'33.731"W	0.95	FIRST BHGE MWD+IFR1+MSA SURVEY
1977.00	12.550	89.100	1956.03	-4.40	3.29	212.85	1749654.83	14567184.07	40°06'37.531"N	104°36'33.498"W	1.35	
2065.00	14.550	86.240	2041.58	-5.38	4.17	233.45	1749675.41	14567185.04	40°06'37.539"N	104°36'33.233"W	2.40	
2152.00	15.190	86.050	2125.67	-7.00	5.67	255.72	1749697.67	14567186.63	40°06'37.554"N	104°36'32.947"W	0.74	
2161.00†	15.267	85.731	2134.35	-7.18	5.84	258.08	1749700.03	14567186.81	40°06'37.556"N	104°36'32.916"W	1.26	ENTER LANDBOX (2291'FNL & 1796'FEL,SEC.25) 40.1104321 -104.6091434
2240.00	15.960	83.060	2210.44	-9.38	7.93	279.23	1749721.16	14567188.99	40°06'37.576"N	104°36'32.644"W	1.26	
2327.00	15.420	81.850	2294.20	-12.58	11.01	302.56	1749744.46	14567192.18	40°06'37.607"N	104°36'32.344"W	0.73	
2415.00	14.770	81.770	2379.16	-15.97	14.28	325.24	1749767.12	14567195.54	40°06'37.639"N	104°36'32.052"W	0.74	
2502.00	16.160	80.840	2463.01	-19.60	17.79	348.17	1749790.03	14567199.16	40°06'37.674"N	104°36'31.757"W	1.62	
2589.00	15.090	81.760	2546.79	-23.27	21.34	371.33	1749813.16	14567202.81	40°06'37.709"N	104°36'31.459"W	1.26	
2677.00	15.360	82.270	2631.70	-26.60	24.55	394.22	1749836.03	14567206.11	40°06'37.741"N	104°36'31.164"W	0.34	
2764.00	15.510	81.270	2715.56	-30.03	27.87	417.13	1749858.92	14567209.53	40°06'37.773"N	104°36'30.869"W	0.35	
2852.00	14.280	82.290	2800.61	-33.39	31.11	439.52	1749881.28	14567212.87	40°06'37.805"N	104°36'30.581"W	1.43	
2939.00	15.140	83.130	2884.75	-36.31	33.91	461.43	1749903.17	14567215.76	40°06'37.833"N	104°36'30.299"W	1.02	
3027.00	15.750	82.510	2969.57	-39.36	36.84	484.68	1749926.40	14567218.79	40°06'37.862"N	104°36'30.000"W	0.72	
3114.00	14.760	82.730	3053.51	-42.42	39.78	507.38	1749949.08	14567221.83	40°06'37.891"N	104°36'29.708"W	1.14	
3202.00	16.060	83.050	3138.34	-45.43	42.67	530.58	1749972.26	14567224.83	40°06'37.920"N	104°36'29.409"W	1.48	
3290.00	15.020	81.490	3223.13	-48.71	45.83	553.95	1749995.60	14567228.09	40°06'37.951"N	104°36'29.108"W	1.27	
3377.00	15.510	78.060	3307.06	-52.90	49.91	576.48	1750018.10	14567232.26	40°06'37.991"N	104°36'28.819"W	1.18	
3465.00	14.400	78.430	3392.08	-57.65	54.54	598.71	1750040.31	14567236.98	40°06'38.037"N	104°36'28.532"W	1.27	
3577.00	14.110	81.530	3500.63	-62.59	59.34	625.86	1750067.42	14567241.91	40°06'38.084"N	104°36'28.183"W	0.73	
3666.00	14.710	83.740	3586.83	-65.54	62.17	647.82	1750089.36	14567244.83	40°06'38.112"N	104°36'27.900"W	0.91	
3753.00	15.240	81.550	3670.87	-68.54	65.05	670.11	1750111.63	14567247.81	40°06'38.141"N	104°36'27.613"W	0.89	
3841.00	15.840	82.650	3755.66	-71.90	68.29	693.46	1750134.96	14567251.15	40°06'38.173"N	104°36'27.313"W	0.76	
3928.00	14.310	80.890	3839.66	-75.23	71.51	715.85	1750157.33	14567254.47	40°06'38.205"N	104°36'27.025"W	1.84	
4016.00	15.390	83.520	3924.72	-78.39	74.55	738.20	1750179.65	14567257.60	40°06'38.235"N	104°36'26.737"W	1.45	
4104.00	15.810	83.510	4009.48	-81.19	77.22	761.71	1750203.14	14567260.38	40°06'38.261"N	104°36'26.434"W	0.48	
4191.00	15.320	83.560	4093.29	-83.93	79.85	784.91	1750226.32	14567263.11	40°06'38.287"N	104°36'26.136"W	0.56	
4279.00	16.660	84.710	4177.88	-86.53	82.32	809.02	1750250.41	14567265.68	40°06'38.311"N	104°36'25.826"W	1.56	
4367.00	15.450	84.790	4262.45	-88.88	84.55	833.25	1750274.63	14567268.01	40°06'38.333"N	104°36'25.514"W	1.38	
4454.00	14.870	82.500	4346.42	-91.51	87.06	855.86	1750297.21	14567270.62	40°06'38.358"N	104°36'25.223"W	0.96	
4541.00	16.050	82.660	4430.27	-94.62	90.05	878.86	1750320.19	14567273.71	40°06'38.388"N	104°36'24.927"W	1.36	
4629.00	15.310	80.410	4515.00	-98.23	93.54	902.38	1750343.69	14567277.30	40°06'38.422"N	104°36'24.624"W	1.09	
4717.00	16.330	80.010	4599.66	-102.44	97.62	926.02	1750367.30	14567281.49	40°06'38.463"N	104°36'24.320"W	1.17	
4804.00	15.650	80.390	4683.30	-106.64	101.70	949.64	1750390.89	14567285.67	40°06'38.503"N	104°36'24.016"W	0.79	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25)
Area	COLORADO	Well	GEORGE 25-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	GEORGE 25-4HZ AWB
Facility	SEC.25-T2N-R65W		

WELLPATH DATA (217 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
4892.00	14.250	79.230	4768.32	-110.76	105.71	971.98	1750413.20	14567289.77	40°06'38.542"N	104°36'23.728"W	1.63	
4980.00	13.150	79.140	4853.81	-114.78	109.62	992.45	1750433.65	14567293.77	40°06'38.581"N	104°36'23.465"W	1.25	
5067.00	11.890	78.250	4938.74	-118.57	113.31	1010.95	1750452.12	14567297.54	40°06'38.618"N	104°36'23.227"W	1.47	
5155.00	9.460	72.080	5025.21	-122.72	117.38	1026.71	1750467.86	14567301.68	40°06'38.658"N	104°36'23.024"W	3.05	
5242.00	8.830	71.540	5111.11	-127.10	121.69	1039.84	1750480.97	14567306.05	40°06'38.700"N	104°36'22.855"W	0.73	
5330.00	7.120	68.160	5198.25	-131.33	125.86	1051.31	1750492.42	14567310.27	40°06'38.742"N	104°36'22.707"W	2.01	
5417.00	5.980	78.670	5284.69	-134.27	128.76	1060.76	1750501.85	14567313.20	40°06'38.770"N	104°36'22.586"W	1.90	
5505.00	3.630	69.480	5372.37	-136.19	130.64	1067.87	1750508.94	14567315.11	40°06'38.789"N	104°36'22.494"W	2.80	
5592.00	2.460	32.920	5459.26	-138.74	133.17	1071.46	1750512.52	14567317.66	40°06'38.814"N	104°36'22.448"W	2.54	
5679.00	0.460	113.220	5546.23	-140.18	134.60	1072.80	1750513.85	14567319.09	40°06'38.828"N	104°36'22.431"W	2.79	
5767.00	0.390	102.780	5634.23	-139.97	134.39	1073.41	1750514.47	14567318.89	40°06'38.826"N	104°36'22.423"W	0.12	
5854.00	0.280	131.310	5721.22	-139.77	134.19	1073.86	1750514.92	14567318.69	40°06'38.824"N	104°36'22.417"W	0.23	
5941.00	1.660	320.560	5808.21	-140.60	135.02	1073.22	1750514.28	14567319.52	40°06'38.832"N	104°36'22.425"W	2.23	
6029.00	1.240	340.360	5896.19	-142.48	136.90	1072.09	1750513.14	14567321.39	40°06'38.851"N	104°36'22.440"W	0.74	
6116.00	1.090	349.250	5983.17	-144.17	138.60	1071.62	1750512.66	14567323.09	40°06'38.867"N	104°36'22.446"W	0.27	
6204.00	1.200	342.960	6071.15	-145.87	140.30	1071.19	1750512.23	14567324.79	40°06'38.884"N	104°36'22.451"W	0.19	
6291.00	0.810	224.330	6158.14	-146.30	140.74	1070.50	1750511.53	14567325.22	40°06'38.889"N	104°36'22.460"W	2.00	
6345.00†	3.451	178.649	6212.10	-144.40	138.84	1070.27	1750511.31	14567323.32	40°06'38.870"N	104°36'22.463"W	5.45	KOP
6379.00	5.280	174.680	6246.00	-141.82	136.26	1070.44	1750511.49	14567320.74	40°06'38.844"N	104°36'22.461"W	5.45	
6466.00	12.320	183.610	6331.93	-128.56	122.99	1070.22	1750511.33	14567307.48	40°06'38.713"N	104°36'22.464"W	8.22	
6554.00	16.700	183.170	6417.10	-106.54	100.99	1068.93	1750510.14	14567285.48	40°06'38.496"N	104°36'22.480"W	4.98	
6641.00	20.750	179.660	6499.48	-78.64	73.08	1068.33	1750509.66	14567257.58	40°06'38.220"N	104°36'22.488"W	4.83	
6729.00	28.780	182.220	6579.33	-41.82	36.26	1067.60	1750509.09	14567220.77	40°06'37.856"N	104°36'22.498"W	9.20	
6816.00	34.810	180.940	6653.24	3.99	-9.54	1066.38	1750508.08	14567174.99	40°06'37.404"N	104°36'22.513"W	6.97	
6904.00	40.340	179.940	6722.96	57.63	-63.17	1066.00	1750507.93	14567121.37	40°06'36.873"N	104°36'22.518"W	6.32	
6991.00	50.230	177.850	6784.09	119.35	-124.90	1067.29	1750509.49	14567059.67	40°06'36.263"N	104°36'22.502"W	11.49	
7079.00	55.730	179.020	6837.06	189.54	-195.11	1069.18	1750511.68	14566989.50	40°06'35.570"N	104°36'22.477"W	6.34	
7166.00	58.820	181.170	6884.09	262.72	-268.28	1069.04	1750511.86	14566916.36	40°06'34.847"N	104°36'22.479"W	4.12	
7254.00	67.110	179.640	6924.06	341.03	-346.59	1068.52	1750511.69	14566838.07	40°06'34.073"N	104°36'22.486"W	9.55	
7341.00	73.480	177.500	6953.38	422.85	-428.42	1070.59	1750514.12	14566756.28	40°06'33.264"N	104°36'22.459"W	7.68	
7429.00	78.560	178.570	6974.63	508.15	-513.74	1073.51	1750517.41	14566671.02	40°06'32.421"N	104°36'22.422"W	5.89	
7516.00	89.970	179.310	6983.31	594.55	-600.15	1075.11	1750519.38	14566584.65	40°06'31.567"N	104°36'22.401"W	13.14	LANDING (2404'FSL & 979'FEL,SEC.25) 40.1087686 -104.6062226
7573.00†	90.474	179.749	6983.09	651.54	-657.14	1075.57	1750520.10	14566527.68	40°06'31.004"N	104°36'22.395"W	1.17	EXIT RADIUS HEEL (2347'FSL & 980'FEL,SEC.25) 40.1086122 -104.6062209
7603.00	90.740	179.980	6982.77	681.54	-687.14	1075.64	1750520.30	14566497.69	40°06'30.707"N	104°36'22.394"W	1.17	
7691.00	89.040	180.620	6982.94	769.53	-775.14	1075.18	1750520.23	14566409.73	40°06'29.838"N	104°36'22.400"W	2.06	
7778.00	88.770	180.970	6984.60	856.51	-862.11	1073.98	1750519.40	14566322.78	40°06'28.978"N	104°36'22.416"W	0.51	
7866.00	90.430	181.400	6985.22	944.50	-950.09	1072.16	1750517.97	14566234.84	40°06'28.109"N	104°36'22.439"W	1.95	
7953.00	89.880	182.700	6984.98	1031.45	-1037.03	1069.04	1750515.24	14566147.92	40°06'27.250"N	104°36'22.480"W	1.62	
8040.00	89.480	183.360	6985.47	1118.35	-1123.91	1064.45	1750511.02	14566061.05	40°06'26.391"N	104°36'22.539"W	0.89	
8128.00	90.680	183.240	6985.35	1206.23	-1211.76	1059.38	1750506.34	14565973.21	40°06'25.523"N	104°36'22.604"W	1.37	
8215.00	91.420	184.020	6983.75	1293.07	-1298.57	1053.87	1750501.22	14565886.41	40°06'24.665"N	104°36'22.675"W	1.24	
8303.00	89.260	182.640	6983.23	1380.94	-1386.41	1048.76	1750496.50	14565798.58	40°06'23.797"N	104°36'22.741"W	2.91	
8390.00	88.340	179.560	6985.05	1467.90	-1473.36	1047.09	1750495.21	14565711.66	40°06'22.938"N	104°36'22.762"W	3.69	
8477.00	88.090	180.650	6987.76	1554.85	-1560.32	1046.93	1750495.43	14565624.74	40°06'22.078"N	104°36'22.764"W	1.28	
8565.00	89.170	178.940	6989.87	1642.82	-1648.29	1047.25	1750496.13	14565536.80	40°06'21.209"N	104°36'22.760"W	2.30	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25)
Area	COLORADO	Well	GEORGE 25-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	GEORGE 25-4HZ AWB
Facility	SEC.25-T2N-R65W		

WELLPATH DATA (217 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
8653.00	88.920	178.910	6991.33	1730.78	-1736.26	1048.90	1750498.17	14565448.87	40°06'20.340"N	104°36'22.739"W	0.29	
8740.00	90.460	177.950	6991.80	1817.73	-1823.22	1051.28	1750500.93	14565361.96	40°06'19.480"N	104°36'22.709"W	2.09	
8828.00	90.430	178.440	6991.12	1905.67	-1911.18	1054.05	1750504.09	14565274.05	40°06'18.611"N	104°36'22.673"W	0.56	
8915.00	90.490	177.950	6990.42	1992.61	-1998.13	1056.79	1750507.21	14565187.14	40°06'17.752"N	104°36'22.638"W	0.57	
9002.00	90.180	178.330	6989.91	2079.54	-2085.08	1059.62	1750510.41	14565100.24	40°06'16.893"N	104°36'22.601"W	0.56	
9090.00	91.420	179.610	6988.68	2167.51	-2173.06	1061.20	1750512.38	14565012.30	40°06'16.023"N	104°36'22.581"W	2.03	
9178.00	91.660	179.640	6986.32	2255.47	-2261.02	1061.78	1750513.34	14564924.38	40°06'15.154"N	104°36'22.574"W	0.27	
9265.00	92.620	179.400	6983.07	2342.40	-2347.96	1062.50	1750514.45	14564837.48	40°06'14.295"N	104°36'22.564"W	1.14	
9353.00	90.830	179.710	6980.42	2430.35	-2435.91	1063.19	1750515.51	14564749.56	40°06'13.426"N	104°36'22.556"W	2.06	
9440.00	90.370	179.810	6979.51	2517.34	-2522.91	1063.55	1750516.26	14564662.61	40°06'12.566"N	104°36'22.551"W	0.54	
9531.00	88.770	177.790	6980.19	2608.30	-2613.88	1065.46	1750518.56	14564571.68	40°06'11.667"N	104°36'22.527"W	2.83	
9621.00	89.040	179.720	6981.91	2698.25	-2703.83	1067.41	1750520.91	14564481.77	40°06'10.778"N	104°36'22.501"W	2.16	
9712.00	89.260	180.620	6983.26	2789.24	-2794.82	1067.14	1750521.04	14564390.81	40°06'09.879"N	104°36'22.505"W	1.02	
9804.00	90.370	180.050	6983.56	2881.23	-2886.82	1066.60	1750520.91	14564298.85	40°06'08.970"N	104°36'22.512"W	1.36	
9895.00	88.800	178.410	6984.22	2972.21	-2977.80	1067.83	1750522.53	14564207.91	40°06'08.071"N	104°36'22.496"W	2.49	
9983.00	90.250	179.250	6984.95	3060.17	-3065.78	1069.62	1750524.71	14564119.98	40°06'07.201"N	104°36'22.473"W	1.90	
10071.00	90.830	180.830	6984.12	3148.17	-3153.77	1069.56	1750525.03	14564032.02	40°06'06.332"N	104°36'22.474"W	1.91	
10158.00	90.150	178.950	6983.38	3235.16	-3240.76	1069.73	1750525.58	14563945.06	40°06'05.472"N	104°36'22.472"W	2.30	
10245.00	91.820	181.540	6981.88	3322.13	-3327.74	1069.36	1750525.59	14563858.12	40°06'04.613"N	104°36'22.477"W	3.54	
10333.00	90.280	180.770	6980.27	3410.10	-3415.70	1067.58	1750524.20	14563770.18	40°06'03.743"N	104°36'22.500"W	1.96	
10420.00	88.920	181.360	6980.87	3497.09	-3502.68	1065.97	1750522.97	14563683.23	40°06'02.884"N	104°36'22.520"W	1.70	
10508.00	89.320	180.800	6982.23	3585.07	-3590.66	1064.31	1750521.70	14563595.28	40°06'02.014"N	104°36'22.542"W	0.78	
10596.00	88.740	180.560	6983.72	3673.06	-3678.64	1063.26	1750521.04	14563507.33	40°06'01.145"N	104°36'22.555"W	0.71	
10683.00	89.540	181.690	6985.02	3760.04	-3765.61	1061.56	1750519.71	14563420.39	40°06'00.286"N	104°36'22.577"W	1.59	
10771.00	90.370	181.470	6985.09	3848.01	-3853.57	1059.13	1750517.67	14563332.45	40°05'59.416"N	104°36'22.609"W	0.98	
10859.00	90.520	182.350	6984.41	3935.98	-3941.52	1056.20	1750515.13	14563244.52	40°05'58.547"N	104°36'22.646"W	1.01	
10946.00	91.290	181.790	6983.03	4022.92	-4028.45	1053.06	1750512.37	14563157.61	40°05'57.688"N	104°36'22.687"W	1.09	
11034.00	91.660	181.920	6980.77	4110.86	-4116.38	1050.21	1750509.91	14563069.71	40°05'56.819"N	104°36'22.724"W	0.45	
11121.00	90.150	182.750	6979.39	4197.79	-4203.29	1046.66	1750506.74	14562982.81	40°05'55.960"N	104°36'22.769"W	1.98	
11209.00	89.080	182.360	6979.99	4285.72	-4291.20	1042.74	1750503.21	14562894.92	40°05'55.092"N	104°36'22.820"W	1.29	
11296.00	88.340	181.230	6981.94	4372.67	-4378.13	1040.02	1750500.87	14562808.01	40°05'54.232"N	104°36'22.855"W	1.55	
11384.00	89.970	180.940	6983.24	4460.64	-4466.11	1038.35	1750499.59	14562720.07	40°05'53.363"N	104°36'22.876"W	1.88	
11471.00	90.180	181.630	6983.13	4547.63	-4553.08	1036.40	1750498.02	14562633.12	40°05'52.504"N	104°36'22.902"W	0.83	
11559.00	89.510	180.360	6983.37	4635.62	-4641.07	1034.87	1750496.88	14562545.16	40°05'51.634"N	104°36'22.921"W	1.63	
11647.00	89.720	179.710	6983.96	4723.62	-4729.06	1034.82	1750497.21	14562457.20	40°05'50.764"N	104°36'22.922"W	0.78	
11734.00	91.140	180.560	6983.30	4810.61	-4816.06	1034.61	1750497.38	14562370.24	40°05'49.905"N	104°36'22.925"W	1.90	
11821.00	92.190	181.240	6980.78	4897.57	-4903.01	1033.25	1750496.40	14562283.32	40°05'49.046"N	104°36'22.942"W	1.44	
11909.00	90.430	178.700	6978.76	4985.53	-4990.98	1033.29	1750496.83	14562195.39	40°05'48.176"N	104°36'22.942"W	3.51	
11996.00	90.680	177.070	6977.92	5072.45	-5077.91	1036.50	1750500.42	14562108.50	40°05'47.317"N	104°36'22.900"W	1.90	
12084.00	89.480	178.520	6977.80	5160.36	-5165.84	1039.89	1750504.19	14562020.62	40°05'46.448"N	104°36'22.857"W	2.14	
12171.00	89.660	177.570	6978.45	5247.29	-5252.79	1042.86	1750507.54	14561933.72	40°05'45.589"N	104°36'22.819"W	1.11	
12259.00	89.600	177.490	6979.02	5335.19	-5340.70	1046.65	1750511.72	14561845.86	40°05'44.720"N	104°36'22.770"W	0.11	
12346.00	90.060	179.650	6979.28	5422.14	-5427.67	1048.82	1750514.27	14561758.93	40°05'43.861"N	104°36'22.742"W	2.54	
12433.00	89.450	179.110	6979.65	5509.13	-5514.66	1049.76	1750515.59	14561671.98	40°05'43.001"N	104°36'22.730"W	0.94	
12521.00	89.410	180.920	6980.53	5597.12	-5602.66	1049.74	1750515.95	14561584.02	40°05'42.132"N	104°36'22.730"W	2.06	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25)
Area	COLORADO	Well	GEORGE 25-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	GEORGE 25-4HZ AWB
Facility	SEC.25-T2N-R65W		

WELLPATH DATA (217 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
12609.00	88.920	180.440	6981.81	5685.11	-5690.64	1048.69	1750515.29	14561496.07	40°05'41.262"N	104°36'22.744"W	0.78	
12696.00	90.920	180.160	6981.93	5772.10	-5777.63	1048.24	1750515.22	14561409.11	40°05'40.402"N	104°36'22.750"W	2.32	
12784.00	91.880	181.640	6979.78	5860.07	-5865.59	1046.86	1750514.22	14561321.18	40°05'39.533"N	104°36'22.768"W	2.00	
12871.00	90.430	181.320	6978.03	5947.03	-5952.54	1044.61	1750512.36	14561234.25	40°05'38.674"N	104°36'22.797"W	1.71	
12959.00	89.350	180.660	6978.19	6035.02	-6040.53	1043.09	1750511.23	14561146.29	40°05'37.804"N	104°36'22.816"W	1.44	
13047.00	89.690	180.010	6978.93	6123.02	-6128.52	1042.58	1750511.10	14561058.33	40°05'36.935"N	104°36'22.823"W	0.83	
13134.00	90.860	181.370	6978.51	6210.01	-6215.51	1041.53	1750510.43	14560971.37	40°05'36.075"N	104°36'22.836"W	2.06	
13221.00	91.320	180.550	6976.86	6296.99	-6302.48	1040.07	1750509.36	14560884.43	40°05'35.216"N	104°36'22.855"W	1.08	
13309.00	90.620	180.090	6975.37	6384.98	-6390.47	1039.58	1750509.25	14560796.48	40°05'34.346"N	104°36'22.862"W	0.95	
13396.00	90.830	180.700	6974.27	6471.97	-6477.46	1038.98	1750509.03	14560709.52	40°05'33.487"N	104°36'22.869"W	0.74	
13483.00	91.820	182.060	6972.26	6558.93	-6564.41	1036.89	1750507.32	14560622.60	40°05'32.627"N	104°36'22.896"W	1.93	
13571.00	91.320	181.620	6969.85	6646.86	-6652.33	1034.06	1750504.88	14560534.70	40°05'31.758"N	104°36'22.933"W	0.76	
13658.00	92.560	182.230	6966.90	6733.77	-6739.23	1031.14	1750502.34	14560447.82	40°05'30.900"N	104°36'22.970"W	1.59	
13745.00	91.880	181.540	6963.53	6820.67	-6826.11	1028.28	1750499.87	14560360.96	40°05'30.041"N	104°36'23.007"W	1.11	
13833.00	93.020	182.190	6959.77	6908.56	-6913.99	1025.42	1750497.39	14560273.11	40°05'29.173"N	104°36'23.044"W	1.49	
13921.00	92.780	182.250	6955.32	6996.40	-7001.81	1022.02	1750494.37	14560185.31	40°05'28.305"N	104°36'23.088"W	0.28	
14008.00	92.650	181.730	6951.20	7083.26	-7088.66	1019.00	1750491.74	14560098.48	40°05'27.447"N	104°36'23.127"W	0.62	
14095.00	92.650	181.590	6947.17	7170.14	-7175.53	1016.48	1750489.60	14560011.63	40°05'26.588"N	104°36'23.159"W	0.16	
14183.00	91.970	181.600	6943.63	7258.05	-7263.42	1014.03	1750487.54	14559923.76	40°05'25.720"N	104°36'23.191"W	0.77	
14270.00	92.160	181.690	6940.49	7344.97	-7350.33	1011.54	1750485.43	14559836.88	40°05'24.861"N	104°36'23.223"W	0.24	
14357.00	92.560	181.180	6936.91	7431.88	-7437.23	1009.36	1750483.63	14559750.00	40°05'24.002"N	104°36'23.251"W	0.74	
14445.00	91.390	180.680	6933.88	7519.82	-7525.16	1007.93	1750482.59	14559662.10	40°05'23.133"N	104°36'23.269"W	1.45	
14532.00	91.540	180.380	6931.65	7606.79	-7612.13	1007.13	1750482.17	14559575.16	40°05'22.274"N	104°36'23.280"W	0.39	
14620.00	90.930	179.530	6929.76	7694.76	-7700.11	1007.20	1750482.62	14559487.22	40°05'21.404"N	104°36'23.279"W	1.19	
14707.00	90.830	178.820	6928.42	7781.74	-7787.09	1008.45	1750484.25	14559400.28	40°05'20.545"N	104°36'23.263"W	0.82	
14795.00	92.030	180.300	6926.22	7869.70	-7875.05	1009.13	1750485.32	14559312.35	40°05'19.675"N	104°36'23.254"W	2.16	
14882.00	90.430	178.950	6924.36	7956.67	-7962.03	1009.70	1750486.27	14559225.41	40°05'18.816"N	104°36'23.247"W	2.41	
14907.00†	90.493	178.851	6924.15	7981.66	-7987.02	1010.18	1750486.85	14559200.43	40°05'18.569"N	104°36'23.241"W	0.47	ENTER RADIUS TOE (385'FSL & 1059'FEL,SEC.36) 40.0884913 -104.6064558
14970.00	90.650	178.600	6923.53	8044.63	-8050.00	1011.58	1750488.53	14559137.48	40°05'17.946"N	104°36'23.223"W	0.47	
15058.00	90.430	178.820	6922.70	8132.59	-8137.98	1013.56	1750490.90	14559049.55	40°05'17.077"N	104°36'23.197"W	0.35	
15145.00	90.280	178.620	6922.16	8219.56	-8224.95	1015.50	1750493.22	14558962.62	40°05'16.218"N	104°36'23.172"W	0.29	
15233.00	90.770	179.740	6921.35	8307.54	-8312.94	1016.76	1750494.87	14558874.67	40°05'15.348"N	104°36'23.156"W	1.39	
15320.00	91.450	179.900	6919.67	8394.52	-8399.92	1017.03	1750495.52	14558787.73	40°05'14.489"N	104°36'23.153"W	0.80	
15408.00	91.690	179.680	6917.25	8482.48	-8487.89	1017.36	1750496.23	14558699.80	40°05'13.619"N	104°36'23.149"W	0.37	
15496.00	90.920	178.830	6915.25	8570.44	-8575.86	1018.50	1750497.76	14558611.87	40°05'12.750"N	104°36'23.134"W	1.30	
15577.00	90.710	178.520	6914.10	8651.40	-8656.83	1020.37	1750499.98	14558530.94	40°05'11.950"N	104°36'23.110"W	0.46	LAST BHGE MWD+IFR1+MSA SURVEY
15621.00	90.710	178.520	6913.55	8695.38	-8700.81	1021.51	1750501.31	14558486.98	40°05'11.515"N	104°36'23.095"W	0.00	PTB (329'FNL & 1046'FEL,SEC.01) 40.0865320 -104.6064153

HOLE & CASING SECTIONS - Ref Wellbore: GEORGE 25-4HZ AWB Ref Wellpath: GEORGE 25-4HZ 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	17.00	1853.00	1836.00	17.00	1834.67	0.00	0.00	2.66	187.43

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25)
Area	COLORADO	Well	GEORGE 25-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	GEORGE 25-4HZ AWB
Facility	SEC.25-T2N-R65W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.36-T2N-R65W	0.00	42.91	-13.67	1749428.22	14567222.67	40°06'37.922"N	104°36'36.414"W	polygon
SEC.25-T2N-R65W	20.00	9960.86	-1339.14	1748059.81	14577130.87	40°08'15.932"N	104°36'53.480"W	polygon
GEORGE 25-4HZ BHL REV-1(332'FNL & 1048'FEL,SEC.01)	6907.00	-8702.62	1020.21	1750500.02	14558485.16	40°05'11.497"N	104°36'23.112"W	point
GEORGE 25-4HZ HEEL REV-1(2394'FNL & 1012'FEL,SEC.25)	6982.00	-610.21	1047.30	1750491.63	14566574.47	40°06'31.468"N	104°36'22.759"W	point
GEORGE 25-4HZ HEEL REV-2(2394'FNL & 997'FEL,SEC.25)	6982.00	-610.21	1062.30	1750506.62	14566574.53	40°06'31.468"N	104°36'22.566"W	point
GEORGE 25-4HZ INT. TARGET@5900'VS	6982.00	-6005.46	1034.24	1750502.22	14561181.31	40°05'38.151"N	104°36'22.930"W	point
GEORGE 25-4HZ LANDBOX	6982.00	0.00	0.00	1749442.07	14567179.85	40°06'37.498"N	104°36'36.238"W	polygon
GEORGE 25-4HZ RADIUS 1	6982.00	-362.15	719.92	1750163.30	14566821.00	40°06'33.919"N	104°36'26.972"W	polygon
GEORGE 25-4HZ RADIUS 2	6982.00	-8368.88	753.65	1750232.10	14558817.60	40°05'14.795"N	104°36'26.541"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: GEORGE 25-4HZ AWB Ref Wellpath: GEORGE 25-4HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1803.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <125 - 1803>	GEORGE 25-4HZ AWB
1803.00	15577.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1890 - 15577>	GEORGE 25-4HZ AWB
15577.00	15621.00	Blind Drilling (std)	Projection to bit	GEORGE 25-4HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 GEORGE 25-4HZ(2296'FNL & 2054'FEL,SEC.25)
Area	COLORADO	Well	GEORGE 25-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	GEORGE 25-4HZ AWB
Facility	SEC.25-T2N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
125.00	0.440	344.210	125.00	FIRST SURFACE MWD+IFR1 SURVEY
1803.00	12.130	86.690	1785.75	LAST SURFACE MWD+IFR1 SURVEY
1890.00	11.380	88.440	1870.93	FIRST BHGE MWD+IFR1+MSA SURVEY
2161.00	15.267	85.731	2134.35	ENTER LANDBOX (2291'FNL & 1796'FEL,SEC.25) 40.1104321 -104.6091434
6345.00	3.451	178.649	6212.10	KOP
7516.00	89.970	179.310	6983.31	LANDING (2404'FSL & 979'FEL,SEC.25) 40.1087686 -104.6062226
7573.00	90.474	179.749	6983.09	EXIT RADIUS HEEL (2347'FSL & 980'FEL,SEC.25) 40.1086122 -104.6062209
14907.00	90.493	178.851	6924.15	ENTER RADIUS TOE (385'FSL & 1059'FEL,SEC.36) 40.0884913 -104.6064558
15577.00	90.710	178.520	6914.10	LAST BHGE MWD+IFR1+MSA SURVEY
15621.00	90.710	178.520	6913.55	PTB (329'FNL & 1046'FEL,SEC.01) 40.0865320 -104.6064153