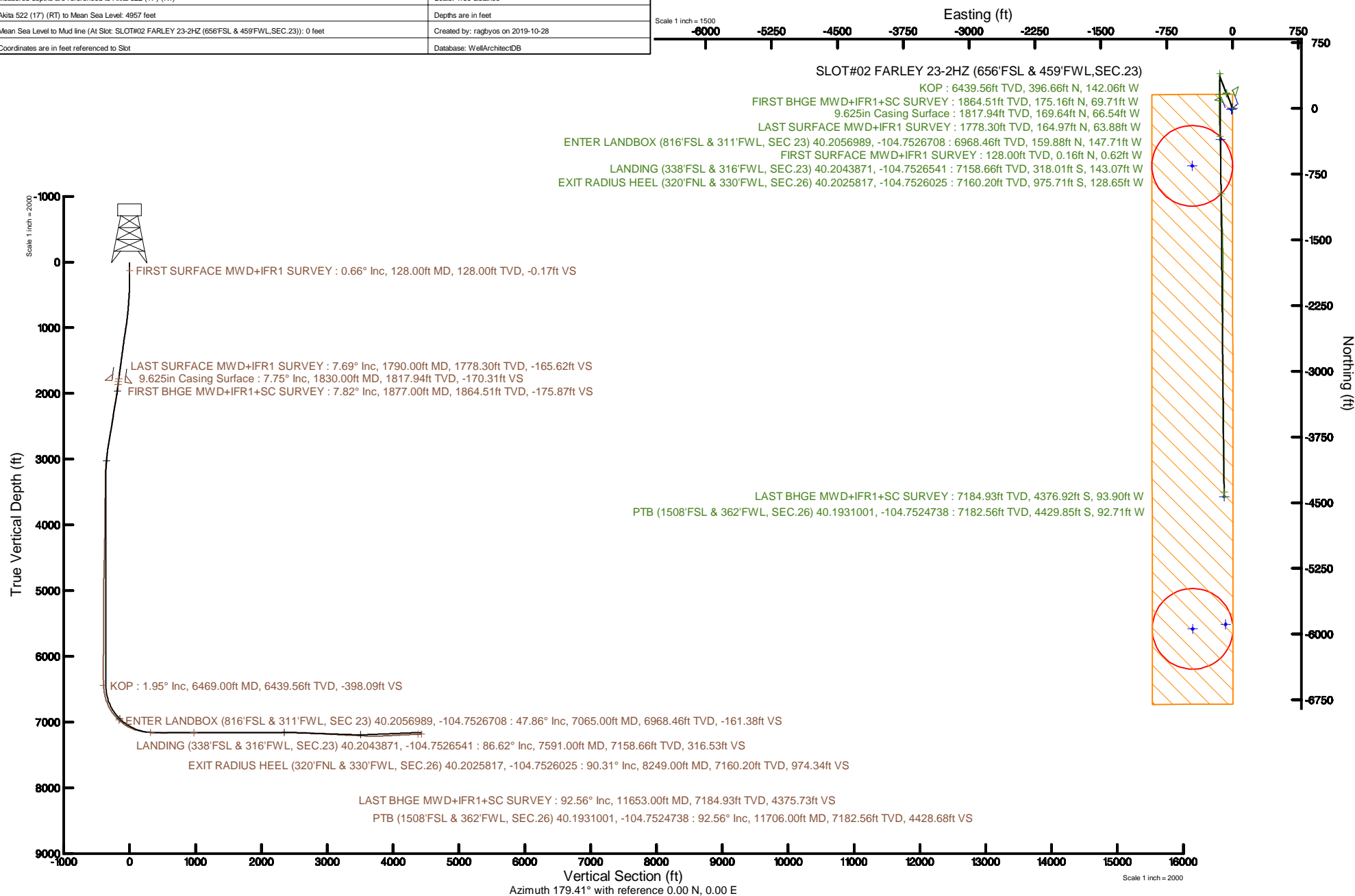


Location:	COLORADO	Slot:	SLOT#02 FARLEY 23-2HZ (656'FSL & 459'FWL,SEC.23)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	FARLEY 23-2HZ
Facility:	SEC.23-T3N-R66W	Wellbore:	FARLEY 23-2HZ PWB
Plot reference wellpath is FARLEY 23-2HZ PWP Rev-A.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to Akita 522 (17) (RT)		North Reference: True north	
Measured depths are referenced to Akita 522 (17) (RT)		Scale: True distance	
Akita 522 (17) (RT) to Mean Sea Level: 4957 feet		Depths are in feet	
Mean Sea Level to Mud line (At Slot: SLOT#02 FARLEY 23-2HZ (656'FSL & 459'FWL,SEC.23)): 0 feet		Created by: ragbyos on 2019-10-28	
Coordinates are in feet referenced to Slot		Database: WellArchitectIDB	



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 FARLEY 23-2HZ (656'FSL & 459'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-2HZ AWP
Facility	SEC.23-T3N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Ragbyos
Scale	0.999605	Report Generated	10/29/2019 at 3:10:24 PM
Convergence at slot	0.16° East	Database/Source file	WellArchitectDB/FARLEY_23-2HZ_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	9.82	10.94	1709621.30	14601574.89	40°12'18.936"N	104°45'07.711"W
Facility Reference Pt			1709610.40	14601565.05	40°12'18.839"N	104°45'07.852"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	Akita 522 (17') (RT) to Facility Vertical Datum	4957.00ft
Horizontal Reference Pt	Slot	Akita 522 (17') (RT) to Mean Sea Level	4957.00ft
Vertical Reference Pt	Akita 522 (17') (RT)	Akita 522 (17') (RT) to Mud Line at Slot (SLOT#02 FARLEY 23-2HZ (656'FSL & 459'FWL, SEC.23))	4957.00ft
MD Reference Pt	Akita 522 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.41°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 FARLEY 23-2HZ (656°FSL & 459°FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-2HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (137 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	284.830	0.00	0.00	0.00	0.00	1709621.30	14601574.89	40°12'18.936"N	104°45'07.711"W	0.00	
17.00	0.000	284.830	17.00	0.00	0.00	0.00	1709621.30	14601574.89	40°12'18.936"N	104°45'07.711"W	0.00	
128.00	0.660	284.830	128.00	-0.17	0.16	-0.62	1709620.69	14601575.05	40°12'18.938"N	104°45'07.719"W	0.59	FIRST SURFACE MWD+IFR1 SURVEY
223.00	0.660	277.970	222.99	-0.40	0.38	-1.69	1709619.61	14601575.27	40°12'18.940"N	104°45'07.733"W	0.08	
318.00	1.140	310.140	317.98	-1.09	1.06	-2.95	1709618.35	14601575.95	40°12'18.947"N	104°45'07.749"W	0.72	
414.00	2.460	351.360	413.93	-3.76	3.72	-3.99	1709617.30	14601578.60	40°12'18.973"N	104°45'07.762"W	1.84	
508.00	3.430	353.730	507.81	-8.55	8.51	-4.60	1709616.68	14601583.38	40°12'19.020"N	104°45'07.770"W	1.04	
604.00	4.310	334.660	603.59	-14.69	14.62	-6.46	1709614.80	14601589.49	40°12'19.080"N	104°45'07.794"W	1.61	
698.00	4.880	333.250	697.29	-21.48	21.39	-9.77	1709611.48	14601596.24	40°12'19.147"N	104°45'07.837"W	0.62	
793.00	6.640	346.440	791.81	-30.46	30.33	-12.88	1709608.34	14601605.18	40°12'19.236"N	104°45'07.877"W	2.31	
888.00	7.950	342.570	886.04	-42.10	41.94	-16.13	1709605.06	14601616.77	40°12'19.350"N	104°45'07.919"W	1.47	
984.00	8.750	342.220	981.02	-55.43	55.23	-20.35	1709600.80	14601630.04	40°12'19.482"N	104°45'07.973"W	0.84	
1079.00	8.660	340.640	1074.93	-69.11	68.86	-24.93	1709596.19	14601643.65	40°12'19.616"N	104°45'08.032"W	0.27	
1174.00	8.880	339.930	1168.82	-82.79	82.49	-29.82	1709591.27	14601657.27	40°12'19.751"N	104°45'08.095"W	0.26	
1268.00	8.000	337.030	1261.80	-95.68	95.33	-34.86	1709586.19	14601670.09	40°12'19.878"N	104°45'08.160"W	1.04	
1363.00	9.100	336.510	1355.74	-108.71	108.31	-40.43	1709580.58	14601683.04	40°12'20.006"N	104°45'08.232"W	1.16	
1458.00	8.260	337.030	1449.65	-121.94	121.48	-46.09	1709574.89	14601696.19	40°12'20.136"N	104°45'08.305"W	0.89	
1553.00	8.170	340.460	1543.68	-134.64	134.12	-51.01	1709569.94	14601708.82	40°12'20.261"N	104°45'08.368"W	0.52	
1648.00	8.170	339.760	1637.71	-147.38	146.82	-55.61	1709565.31	14601721.50	40°12'20.387"N	104°45'08.428"W	0.10	
1743.00	8.170	334.220	1731.75	-159.84	159.23	-60.88	1709560.01	14601733.89	40°12'20.510"N	104°45'08.496"W	0.83	
1790.00	7.690	330.440	1778.30	-165.62	164.97	-63.88	1709556.99	14601739.62	40°12'20.566"N	104°45'08.534"W	1.51	LAST SURFACE MWD+IFR1 SURVEY
1877.00	7.820	330.030	1864.51	-175.87	175.16	-69.71	1709551.13	14601749.79	40°12'20.667"N	104°45'08.609"W	0.16	FIRST BH MWD+IFR1+SC SURVEY
1964.00	8.370	338.000	1950.64	-186.92	186.16	-75.04	1709545.78	14601760.77	40°12'20.776"N	104°45'08.678"W	1.43	
2052.00	9.540	337.250	2037.57	-199.64	198.83	-80.26	1709540.52	14601773.41	40°12'20.901"N	104°45'08.745"W	1.34	
2139.00	10.380	340.380	2123.26	-213.72	212.86	-85.68	1709535.07	14601787.43	40°12'21.039"N	104°45'08.815"W	1.15	
2227.00	9.650	337.340	2209.92	-228.05	227.13	-91.18	1709529.52	14601801.68	40°12'21.181"N	104°45'08.886"W	1.02	
2314.00	10.620	341.760	2295.56	-242.45	241.48	-96.50	1709524.17	14601816.00	40°12'21.322"N	104°45'08.955"W	1.43	
2402.00	10.060	341.860	2382.13	-257.50	256.48	-101.43	1709519.20	14601830.99	40°12'21.471"N	104°45'09.018"W	0.64	
2489.00	9.160	339.840	2467.91	-271.27	270.20	-106.18	1709514.41	14601844.69	40°12'21.606"N	104°45'09.080"W	1.10	
2577.00	10.150	337.050	2554.66	-285.04	283.92	-111.62	1709508.93	14601858.39	40°12'21.742"N	104°45'09.150"W	1.24	
2664.00	10.680	338.010	2640.23	-299.64	298.45	-117.63	1709502.89	14601872.90	40°12'21.885"N	104°45'09.227"W	0.64	
2752.00	9.640	336.980	2726.85	-314.04	312.80	-123.56	1709496.92	14601887.22	40°12'22.027"N	104°45'09.304"W	1.20	
2839.00	9.440	336.840	2812.64	-327.36	326.06	-129.22	1709491.23	14601900.46	40°12'22.158"N	104°45'09.376"W	0.23	
2927.00	8.900	336.470	2899.52	-340.30	338.94	-134.77	1709485.64	14601913.32	40°12'22.285"N	104°45'09.448"W	0.62	
3014.00	6.910	340.390	2985.69	-351.44	350.04	-139.22	1709481.16	14601924.40	40°12'22.395"N	104°45'09.505"W	2.37	
3101.00	4.870	342.870	3072.22	-359.93	358.50	-142.06	1709478.30	14601932.85	40°12'22.479"N	104°45'09.542"W	2.36	
3189.00	2.920	349.000	3160.02	-365.72	364.27	-143.59	1709476.75	14601938.61	40°12'22.536"N	104°45'09.562"W	2.26	
3277.00	1.090	321.470	3247.96	-368.58	367.12	-144.54	1709475.80	14601941.47	40°12'22.564"N	104°45'09.574"W	2.29	
3364.00	0.950	317.910	3334.95	-369.77	368.31	-145.54	1709474.79	14601942.64	40°12'22.576"N	104°45'09.587"W	0.18	
3451.00	0.570	323.160	3421.94	-370.66	369.19	-146.28	1709474.05	14601943.52	40°12'22.584"N	104°45'09.596"W	0.44	
3539.00	0.590	354.600	3509.93	-371.47	369.99	-146.59	1709473.74	14601944.32	40°12'22.592"N	104°45'09.600"W	0.36	
3626.00	0.850	27.160	3596.93	-372.48	371.01	-146.33	1709473.99	14601945.34	40°12'22.602"N	104°45'09.597"W	0.55	
3714.00	1.190	31.530	3684.91	-373.84	372.37	-145.56	1709474.76	14601946.71	40°12'22.616"N	104°45'09.587"W	0.40	
3802.00	1.420	33.890	3772.89	-375.51	374.05	-144.47	1709475.84	14601948.39	40°12'22.632"N	104°45'09.573"W	0.27	
3889.00	0.850	80.020	3859.87	-376.50	375.06	-143.24	1709477.08	14601949.40	40°12'22.642"N	104°45'09.557"W	1.19	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 FARLEY 23-2HZ (656'FSL & 459'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-2HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (137 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
3977.00	0.900	83.160	3947.86	-376.69	375.26	-141.91	1709478.41	14601949.60	40°12'22.644"N	104°45'09.540"W	0.08	
4064.00	0.930	75.160	4034.85	-376.93	375.52	-140.55	1709479.77	14601949.87	40°12'22.647"N	104°45'09.522"W	0.15	
4151.00	1.220	314.500	4121.85	-377.76	376.35	-140.52	1709479.78	14601950.70	40°12'22.655"N	104°45'09.522"W	2.15	
4239.00	1.140	316.780	4209.83	-379.07	377.64	-141.79	1709478.51	14601951.99	40°12'22.668"N	104°45'09.538"W	0.11	
4326.00	1.030	322.130	4296.81	-380.33	378.89	-142.86	1709477.44	14601953.23	40°12'22.680"N	104°45'09.552"W	0.17	
4414.00	1.030	354.840	4384.80	-381.75	380.30	-143.42	1709476.88	14601954.64	40°12'22.694"N	104°45'09.559"W	0.66	
4501.00	1.720	17.090	4471.77	-383.77	382.33	-143.11	1709477.19	14601956.67	40°12'22.714"N	104°45'09.555"W	0.99	
4588.00	1.920	24.340	4558.73	-386.34	384.91	-142.12	1709478.16	14601959.25	40°12'22.740"N	104°45'09.543"W	0.35	
4676.00	2.040	32.030	4646.68	-388.99	387.58	-140.69	1709479.59	14601961.92	40°12'22.766"N	104°45'09.524"W	0.33	
4763.00	0.810	4.300	4733.65	-390.91	389.50	-139.82	1709480.45	14601963.85	40°12'22.785"N	104°45'09.513"W	1.58	
4851.00	1.210	25.080	4821.64	-392.37	390.96	-139.38	1709480.89	14601965.31	40°12'22.799"N	104°45'09.507"W	0.61	
4965.00	0.370	134.660	4935.63	-393.19	391.80	-138.61	1709481.66	14601966.14	40°12'22.808"N	104°45'09.497"W	1.21	
5053.00	0.660	127.690	5023.62	-392.67	391.29	-138.00	1709482.26	14601965.64	40°12'22.803"N	104°45'09.490"W	0.34	
5140.00	0.680	293.820	5110.62	-392.58	391.19	-138.08	1709482.19	14601965.54	40°12'22.802"N	104°45'09.491"W	1.53	
5228.00	0.550	289.560	5198.62	-392.94	391.54	-138.95	1709481.31	14601965.89	40°12'22.805"N	104°45'09.502"W	0.16	
5315.00	0.410	303.650	5285.61	-393.26	391.85	-139.61	1709480.66	14601966.20	40°12'22.808"N	104°45'09.510"W	0.21	
5403.00	0.570	350.080	5373.61	-393.87	392.46	-139.94	1709480.32	14601966.80	40°12'22.814"N	104°45'09.515"W	0.47	
5490.00	0.480	357.970	5460.61	-394.66	393.25	-140.03	1709480.23	14601967.59	40°12'22.822"N	104°45'09.516"W	0.13	
5578.00	0.510	327.470	5548.60	-395.36	393.95	-140.25	1709480.01	14601968.29	40°12'22.829"N	104°45'09.519"W	0.30	
5665.00	0.640	320.080	5635.60	-396.06	394.65	-140.77	1709479.48	14601968.99	40°12'22.836"N	104°45'09.525"W	0.17	
5752.00	0.600	327.020	5722.59	-396.82	395.40	-141.33	1709478.92	14601969.74	40°12'22.843"N	104°45'09.533"W	0.10	
5840.00	0.500	330.960	5810.59	-397.55	396.12	-141.77	1709478.48	14601970.46	40°12'22.850"N	104°45'09.538"W	0.12	
5928.00	0.550	332.870	5898.59	-398.27	396.84	-142.15	1709478.10	14601971.17	40°12'22.858"N	104°45'09.543"W	0.06	
6015.00	0.510	358.520	5985.58	-399.03	397.59	-142.35	1709477.90	14601971.93	40°12'22.865"N	104°45'09.546"W	0.27	
6102.00	0.520	10.890	6072.58	-399.80	398.37	-142.29	1709477.96	14601972.70	40°12'22.873"N	104°45'09.545"W	0.13	
6190.00	0.510	29.100	6160.58	-400.53	399.10	-142.02	1709478.23	14601973.44	40°12'22.880"N	104°45'09.541"W	0.19	
6278.00	0.800	197.040	6248.57	-400.29	398.86	-142.01	1709478.24	14601973.19	40°12'22.877"N	104°45'09.541"W	1.48	
6365.00	0.580	188.200	6335.57	-399.27	397.84	-142.25	1709478.00	14601972.18	40°12'22.867"N	104°45'09.544"W	0.28	
6453.00	0.580	154.390	6423.56	-398.43	397.00	-142.12	1709478.13	14601971.33	40°12'22.859"N	104°45'09.543"W	0.38	
6469.00†	1.946	173.818	6439.56	-398.09	396.66	-142.06	1709478.20	14601970.99	40°12'22.856"N	104°45'09.542"W	8.83	KOP
6540.00	8.200	179.820	6510.25	-391.82	390.39	-141.91	1709478.36	14601964.73	40°12'22.794"N	104°45'09.540"W	8.83	
6628.00	11.560	181.770	6596.93	-376.73	375.29	-142.16	1709478.15	14601949.64	40°12'22.645"N	104°45'09.543"W	3.84	
6715.00	19.700	185.000	6680.64	-353.38	351.93	-143.71	1709476.66	14601926.28	40°12'22.414"N	104°45'09.563"W	9.41	
6802.00	25.440	183.710	6760.95	-320.13	318.65	-146.20	1709474.27	14601893.01	40°12'22.085"N	104°45'09.595"W	6.62	
6891.00	34.220	181.930	6838.08	-275.98	274.48	-148.29	1709472.31	14601848.84	40°12'21.648"N	104°45'09.622"W	9.91	
6978.00	41.600	179.250	6906.68	-222.58	221.07	-148.73	1709472.01	14601795.46	40°12'21.121"N	104°45'09.628"W	8.69	
7065.00	47.860	178.860	6968.46	-161.38	159.88	-147.71	1709473.20	14601734.30	40°12'20.516"N	104°45'09.615"W	7.20	ENTER LANDBOX (816'FSL & 311'FWL, SEC 23) 40.2056989, -104.7526708
7153.00	52.540	179.260	7024.77	-93.79	92.30	-146.61	1709474.49	14601666.75	40°12'19.848"N	104°45'09.601"W	5.33	
7241.00	61.740	180.390	7072.47	-19.96	18.46	-146.42	1709474.89	14601592.94	40°12'19.118"N	104°45'09.598"W	10.51	
7329.00	70.310	179.970	7108.19	60.37	-61.87	-146.67	1709474.87	14601512.64	40°12'18.325"N	104°45'09.601"W	9.75	
7416.00	76.290	179.810	7133.18	143.66	-145.16	-146.51	1709475.26	14601429.38	40°12'17.502"N	104°45'09.599"W	6.88	
7504.00	81.810	179.030	7149.89	230.02	-231.52	-145.63	1709476.38	14601343.06	40°12'16.648"N	104°45'09.588"W	6.33	
7591.00	86.620	177.590	7158.66	316.53	-318.01	-143.07	1709479.18	14601256.61	40°12'15.793"N	104°45'09.555"W	5.77	LANDING (320'FSL & 330'FWL, SEC.23) 40.2043871, -104.7526541
7679.00	88.710	178.360	7162.24	404.43	-405.88	-139.96	1709482.53	14601168.78	40°12'14.925"N	104°45'09.515"W	2.53	
7766.00	89.670	178.070	7163.47	491.40	-492.83	-137.25	1709485.48	14601081.88	40°12'14.066"N	104°45'09.480"W	1.15	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 FARLEY 23-2HZ (656°FSL & 459°FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-2HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (137 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
7853.00	90.450	178.160	7163.38	578.38	-579.78	-134.39	1709488.58	14600994.97	40°12'13.207"N	104°45'09.443"W	0.90	
7941.00	90.300	179.630	7162.81	666.37	-667.76	-132.69	1709490.53	14600907.03	40°12'12.337"N	104°45'09.421"W	1.68	
8028.00	91.190	179.630	7161.67	753.36	-754.75	-132.13	1709491.33	14600820.08	40°12'11.478"N	104°45'09.414"W	1.02	
8116.00	90.120	179.400	7160.67	841.35	-842.74	-131.39	1709492.32	14600732.12	40°12'10.608"N	104°45'09.404"W	1.24	
8203.00	90.220	178.540	7160.41	928.35	-929.72	-129.82	1709494.13	14600645.18	40°12'09.749"N	104°45'09.384"W	1.00	
8249.00†	90.309	178.535	7160.20	974.34	-975.71	-128.65	1709495.43	14600599.22	40°12'09.294"N	104°45'09.369"W	0.19	EXIT RADIUS HEEL (320°FNL & 330°FWL, SEC.26) 40.2025817, -104.7526025
8291.00	90.390	178.530	7159.94	1016.34	-1017.69	-127.57	1709496.62	14600557.25	40°12'08.879"N	104°45'09.355"W	0.19	
8378.00	91.100	177.550	7158.81	1103.30	-1104.63	-124.60	1709499.84	14600470.35	40°12'08.020"N	104°45'09.317"W	1.39	
8466.00	90.080	178.360	7157.90	1191.27	-1192.57	-121.46	1709503.22	14600382.46	40°12'07.151"N	104°45'09.276"W	1.48	
8554.00	89.720	178.600	7158.06	1279.26	-1280.54	-119.12	1709505.80	14600294.53	40°12'06.282"N	104°45'09.246"W	0.49	
8641.00	90.080	177.630	7158.21	1366.23	-1367.49	-116.26	1709508.90	14600207.62	40°12'05.422"N	104°45'09.209"W	1.19	
8728.00	89.560	179.430	7158.48	1453.22	-1454.46	-114.03	1709511.38	14600120.70	40°12'04.563"N	104°45'09.181"W	2.15	
8816.00	90.320	178.650	7158.57	1541.21	-1542.44	-112.56	1709513.10	14600032.75	40°12'03.694"N	104°45'09.162"W	1.24	
8903.00	90.420	178.010	7158.01	1628.20	-1629.40	-110.02	1709515.87	14599945.83	40°12'02.834"N	104°45'09.129"W	0.74	
8990.00	88.900	178.920	7158.53	1715.18	-1716.37	-107.69	1709518.45	14599858.91	40°12'01.975"N	104°45'09.099"W	2.04	
9078.00	89.760	179.980	7159.56	1803.17	-1804.36	-106.85	1709519.54	14599770.96	40°12'01.105"N	104°45'09.088"W	1.55	
9165.00	90.330	179.460	7159.49	1890.17	-1891.35	-106.42	1709520.20	14599684.00	40°12'00.246"N	104°45'09.082"W	0.89	
9252.00	89.670	180.680	7159.49	1977.16	-1978.35	-106.53	1709520.34	14599597.03	40°11'59.386"N	104°45'09.084"W	1.59	
9340.00	90.320	180.420	7159.50	2065.14	-2066.35	-107.37	1709519.74	14599509.07	40°11'58.516"N	104°45'09.095"W	0.80	
9427.00	91.270	180.060	7158.29	2152.12	-2153.34	-107.74	1709519.62	14599422.12	40°11'57.657"N	104°45'09.099"W	1.17	
9515.00	90.190	180.530	7157.17	2240.11	-2241.33	-108.19	1709519.41	14599334.16	40°11'56.787"N	104°45'09.105"W	1.34	
9602.00	90.720	180.410	7156.48	2327.09	-2328.32	-108.90	1709518.94	14599247.20	40°11'55.928"N	104°45'09.114"W	0.62	
9689.00	90.250	181.370	7155.74	2414.05	-2415.31	-110.26	1709517.83	14599160.24	40°11'55.068"N	104°45'09.132"W	1.23	
9777.00	89.070	181.910	7156.26	2501.98	-2503.27	-112.77	1709515.56	14599072.31	40°11'54.199"N	104°45'09.164"W	1.47	
9865.00	88.270	180.040	7158.31	2589.92	-2591.23	-114.27	1709514.31	14598984.38	40°11'53.330"N	104°45'09.184"W	2.31	
9952.00	86.620	179.680	7162.19	2676.83	-2678.14	-114.06	1709514.77	14598897.51	40°11'52.471"N	104°45'09.181"W	1.94	
10039.00	86.770	179.450	7167.20	2763.69	-2764.99	-113.40	1709515.67	14598810.69	40°11'51.612"N	104°45'09.172"W	0.32	
10127.00	87.140	179.440	7171.88	2851.56	-2852.86	-112.55	1709516.76	14598722.86	40°11'50.744"N	104°45'09.161"W	0.42	
10214.00	86.310	179.590	7176.85	2938.42	-2939.71	-111.81	1709517.74	14598636.04	40°11'49.886"N	104°45'09.152"W	0.97	
10302.00	86.110	179.640	7182.66	3026.23	-3027.52	-111.22	1709518.58	14598548.27	40°11'49.018"N	104°45'09.144"W	0.23	
10389.00	86.910	179.770	7187.96	3113.06	-3114.36	-110.78	1709519.27	14598461.47	40°11'48.160"N	104°45'09.139"W	0.93	
10477.00	86.910	179.900	7192.70	3200.93	-3202.23	-110.52	1709519.76	14598373.64	40°11'47.292"N	104°45'09.135"W	0.15	
10564.00	87.130	179.830	7197.22	3287.81	-3289.11	-110.32	1709520.21	14598286.79	40°11'46.433"N	104°45'09.133"W	0.27	
10652.00	88.310	179.720	7200.73	3375.74	-3377.04	-109.97	1709520.80	14598198.90	40°11'45.564"N	104°45'09.128"W	1.35	
10739.00	86.670	179.380	7204.54	3462.65	-3463.95	-109.29	1709521.73	14598112.02	40°11'44.705"N	104°45'09.119"W	1.93	
10827.00	86.830	179.180	7209.52	3550.51	-3551.80	-108.19	1709523.08	14598024.21	40°11'43.837"N	104°45'09.105"W	0.29	
10914.00	88.820	179.160	7212.83	3637.44	-3638.72	-106.93	1709524.58	14597937.33	40°11'42.978"N	104°45'09.089"W	2.29	
11002.00	90.420	179.700	7213.41	3725.44	-3726.71	-106.05	1709525.70	14597849.37	40°11'42.109"N	104°45'09.078"W	1.92	
11089.00	92.160	179.220	7211.45	3812.41	-3813.68	-105.23	1709526.76	14597762.44	40°11'41.249"N	104°45'09.067"W	2.07	
11176.00	92.920	178.900	7207.60	3899.32	-3900.59	-103.81	1709528.43	14597675.58	40°11'40.390"N	104°45'09.049"W	0.95	
11263.00	93.000	178.360	7203.10	3986.20	-3987.45	-101.73	1709530.75	14597588.76	40°11'39.532"N	104°45'09.022"W	0.63	
11351.00	93.150	177.880	7198.38	4074.05	-4075.27	-98.85	1709533.87	14597500.98	40°11'38.664"N	104°45'08.985"W	0.57	
11439.00	92.550	179.750	7194.01	4161.93	-4163.14	-97.03	1709535.93	14597413.15	40°11'37.796"N	104°45'08.961"W	2.23	
11526.00	92.330	179.230	7190.30	4248.85	-4250.06	-96.25	1709536.95	14597326.27	40°11'36.937"N	104°45'08.951"W	0.65	
11613.00	92.450	178.800	7186.67	4335.77	-4336.97	-94.76	1709538.69	14597239.40	40°11'36.078"N	104°45'08.932"W	0.51	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 FARLEY 23-2HZ (656°FSL & 459°FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-2HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (137 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]
11653.00	92.560	178.720	7184.93	4375.73	-4376.92	-93.90	1709539.66	14597199.46	40°11'35.683"N	104°45'08.921"W	0.34
11706.00	92.560	178.720	7182.56	4428.68	-4429.85	-92.71	1709540.99	14597146.55	40°11'35.160"N	104°45'08.906"W	0.00

HOLE & CASING SECTIONS - Ref Wellbore: FARLEY 23-2HZ AWB Ref Wellpath: FARLEY 23-2HZ 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	1830.00	1813.00	17.00	1817.94	0.00	0.00	169.64	-66.54

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.22-T3N-R66W	0.00	-9.82	-10.94	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.23-T3N-R66W	0.00	-9.82	-10.94	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.26-T3N-R66W	0.00	-9.82	-10.94	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.27-T3N-R66W	0.00	-9.82	-10.94	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
FARLEY 23-2HZ BHL REV-1 (50°FSL & 377°FWL, SEC.26)	7157.00	-5888.17	-76.85	1709560.92	14595688.87	40°11'20.749"N	104°45'08.701"W	point
FARLEY 23-2HZ HEEL REV-1 (300°FSL & 322°FWL, SEC.23)	7157.00	-355.60	-136.33	1709486.02	14601219.06	40°12'15.422"N	104°45'09.468"W	point
FARLEY 23-2HZ LANDBOX	7157.00	0.00	0.00	1709621.30	14601574.89	40°12'18.936"N	104°45'07.711"W	polygon
FARLEY 23-2HZ RADIUS 1	7157.00	-5939.50	-453.76	1709184.30	14595636.50	40°11'20.242"N	104°45'13.558"W	polygon
FARLEY 23-2HZ RADIUS 2	7157.00	-655.77	-458.12	1709165.20	14600918.10	40°12'12.456"N	104°45'13.615"W	polygon
FARLEY 23-2HZ BHL REV-2 (1508°FSL & 360°FWL, SEC.26)	7157.00	-4430.24	-94.72	1709538.98	14597146.16	40°11'35.156"N	104°45'08.932"W	point

WELLPATH COMPOSITION - Ref Wellbore: FARLEY 23-2HZ AWB Ref Wellpath: FARLEY 23-2HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1790.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <128 - 1790>	FARLEY 23-2HZ AWB
1790.00	11653.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BH Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1877 - 11653>	FARLEY 23-2HZ AWB
11653.00	11706.00	Blind Drilling (std)	Projection to bit	FARLEY 23-2HZ AWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 FARLEY 23-2HZ (656'FSL & 459'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-2HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
128.00	0.660	284.830	128.00	FIRST SURFACE MWD+IFR1 SURVEY
1790.00	7.690	330.440	1778.30	LAST SURFACE MWD+IFR1 SURVEY
1877.00	7.820	330.030	1864.51	FIRST BH MWD+IFR1+SC SURVEY
6469.00	1.946	173.818	6439.56	KOP
7065.00	47.860	178.860	6968.46	ENTER LANDBOX (816'FSL & 311'FWL, SEC.23) 40.2056989, -104.7526708
7591.00	86.620	177.590	7158.66	LANDING (320'FSL & 330'FWL, SEC.23) 40.2043871, -104.7526541
8249.00	90.309	178.535	7160.20	EXIT RADIUS HEEL (320'FNL & 330'FWL, SEC.26) 40.2025817, -104.7526025
11653.00	92.560	178.720	7184.93	LAST BH MWD+IFR1+SC SURVEY
11706.00	92.560	178.720	7182.56	PTB (1508'FSL & 362'FWL, SEC.26) 40.1931001, -104.7524738