

KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#38 JDB 15-6HZ(553'FSL & 1079'FEL,SEC.15)
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: JDB 15-6HZ
 Facility: SEC.15-T1N-R66W Wellbore: JDB 15-6HZ PWB

Plot reference wellpath is JDB 15-6HZ 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: 5170 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#38 JDB 15-6HZ(553'FSL & 1079'FEL,SEC.15): 0 feet	Created by: painsetr on 2019-06-28
Coordinates are in feet referenced to Slot	Database: WA, DEN, Anadarko, Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#38 JDB 15-6HZ(553'FSL & 1079'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-6HZ AWB
Facility	SEC.15-T1N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Painsetr
Scale	0.999605	Report Generated	6/28/2019 at 12:46:07 PM
Convergence at slot	0.16° East	Database/Source file	WA_DEN_Anadarko_Defn/JDB_15-6HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-716.28	2770.19	1708212.85	14543403.25	40°02'43.890"N	104°45'27.914"W
Facility Reference Pt			1705441.90	14544112.02	40°02'50.970"N	104°46'03.534"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	5170.00ft
Horizontal Reference Pt	Slot	Akita 522 (17') (RT) to Mean Sea Level	5170.00ft
Vertical Reference Pt	Akita 522 (17') (RT)	Akita 522 (17') (RT) to Mud Line at Slot (SLOT#38 JDB 15-6HZ (553'FSL & 1079'FEL, SEC.15))	5170.00ft
MD Reference Pt	Akita 522 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.15°

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Area	COLORADO	Well	JDB 15-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-6HZ AWP
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (169 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	110.300	0.00	0.00	0.00	0.00	1708212.85	14543403.24	40°02'43.890"N	104°45'27.914"W	0.00	
17.00	0.000	110.300	17.00	0.00	0.00	0.00	1708212.85	14543403.24	40°02'43.890"N	104°45'27.914"W	0.00	
129.00	0.180	110.300	129.00	0.06	-0.06	0.17	1708213.01	14543403.18	40°02'43.889"N	104°45'27.912"W	0.16	FIRST SURFACE MWD+IFR1 SURVEY
224.00	0.130	185.190	224.00	0.22	-0.22	0.30	1708213.15	14543403.03	40°02'43.888"N	104°45'27.911"W	0.20	
320.00	1.800	105.560	319.98	0.73	-0.73	1.74	1708214.59	14543402.52	40°02'43.883"N	104°45'27.892"W	1.86	
415.00	3.560	101.870	414.88	1.72	-1.74	6.06	1708218.91	14543401.52	40°02'43.873"N	104°45'27.836"W	1.86	
511.00	4.440	83.410	510.65	1.89	-1.93	12.67	1708225.52	14543401.35	40°02'43.871"N	104°45'27.751"W	1.61	
606.00	6.460	78.220	605.21	0.36	-0.41	21.56	1708234.40	14543402.89	40°02'43.886"N	104°45'27.637"W	2.19	
701.00	8.610	80.420	699.39	-1.95	1.86	33.80	1708246.63	14543405.20	40°02'43.908"N	104°45'27.480"W	2.28	
795.00	9.230	82.710	792.25	-4.12	3.99	48.22	1708261.04	14543407.36	40°02'43.929"N	104°45'27.294"W	0.76	
890.00	9.490	82.620	885.98	-6.13	5.96	63.54	1708276.35	14543409.38	40°02'43.949"N	104°45'27.097"W	0.27	
986.00	10.990	84.200	980.45	-8.12	7.90	80.49	1708293.29	14543411.36	40°02'43.968"N	104°45'26.879"W	1.59	
1081.00	12.570	79.100	1073.45	-11.04	10.77	99.66	1708312.44	14543414.28	40°02'43.996"N	104°45'26.633"W	1.99	
1176.00	13.270	77.700	1166.05	-15.37	15.05	120.46	1708333.22	14543418.62	40°02'44.039"N	104°45'26.365"W	0.81	
1270.00	16.080	78.930	1256.97	-20.23	19.85	143.78	1708356.52	14543423.48	40°02'44.086"N	104°45'26.066"W	3.01	
1366.00	17.670	80.250	1348.83	-25.32	24.87	171.19	1708383.90	14543428.57	40°02'44.136"N	104°45'25.713"W	1.70	
1461.00	18.680	81.560	1439.09	-30.07	29.54	200.45	1708413.14	14543433.32	40°02'44.182"N	104°45'25.337"W	1.15	
1556.00	20.650	82.180	1528.55	-34.67	34.06	232.10	1708444.76	14543437.92	40°02'44.227"N	104°45'24.930"W	2.09	
1650.00	22.890	82.790	1615.81	-39.32	38.62	266.73	1708479.36	14543442.57	40°02'44.272"N	104°45'24.485"W	2.49	
1745.00	24.040	82.620	1702.92	-44.23	43.43	304.32	1708516.93	14543447.48	40°02'44.319"N	104°45'24.001"W	1.12	
1840.00	24.430	82.620	1789.55	-49.34	48.44	342.99	1708555.57	14543452.60	40°02'44.369"N	104°45'23.504"W	0.41	
1888.00	24.790	81.830	1833.19	-52.10	51.14	362.79	1708575.36	14543455.35	40°02'44.395"N	104°45'23.250"W	1.02	LAST SURFACE MWD+IFR1 SURVEY
1965.00	25.030	81.950	1903.03	-56.76	55.72	394.90	1708607.44	14543460.01	40°02'44.441"N	104°45'22.837"W	0.32	FIRST BHGE MWD+IFR1+SC SURVEY
2052.00	28.320	81.800	1980.76	-62.38	61.24	433.56	1708646.07	14543465.64	40°02'44.495"N	104°45'22.340"W	3.78	
2139.00	30.170	81.960	2056.66	-68.50	67.24	475.64	1708688.11	14543471.75	40°02'44.554"N	104°45'21.799"W	2.13	
2226.00	29.940	80.820	2131.97	-75.13	73.76	518.71	1708731.16	14543478.39	40°02'44.619"N	104°45'21.245"W	0.71	
2313.00	29.420	81.120	2207.55	-82.00	80.53	561.26	1708773.66	14543485.26	40°02'44.686"N	104°45'20.698"W	0.62	
2401.00	30.660	82.940	2283.73	-88.21	86.62	604.88	1708817.25	14543491.47	40°02'44.746"N	104°45'20.137"W	1.75	
2488.00	30.290	83.150	2358.71	-93.67	91.96	648.68	1708861.02	14543496.93	40°02'44.799"N	104°45'19.574"W	0.44	
2576.00	29.260	82.450	2435.10	-99.26	97.44	692.04	1708904.34	14543502.52	40°02'44.853"N	104°45'19.016"W	1.24	
2664.00	31.550	86.180	2510.99	-103.74	101.80	736.34	1708948.62	14543507.00	40°02'44.896"N	104°45'18.446"W	3.37	
2751.00	30.700	86.220	2585.47	-106.84	104.78	781.21	1708993.46	14543510.10	40°02'44.925"N	104°45'17.869"W	0.98	
2838.00	31.380	85.560	2660.01	-110.17	107.99	825.95	1709038.18	14543513.44	40°02'44.957"N	104°45'17.294"W	0.87	
2926.00	29.920	84.400	2735.72	-114.20	111.91	870.64	1709082.84	14543517.48	40°02'44.996"N	104°45'16.720"W	1.79	
3013.00	32.090	81.430	2810.29	-119.88	117.47	915.09	1709127.26	14543523.16	40°02'45.051"N	104°45'16.148"W	3.05	
3101.00	30.690	80.590	2885.41	-127.16	124.63	960.37	1709172.49	14543530.43	40°02'45.121"N	104°45'15.566"W	1.67	
3188.00	28.720	80.250	2960.97	-134.44	131.80	1002.87	1709214.96	14543537.72	40°02'45.192"N	104°45'15.019"W	2.27	
3275.00	29.740	79.480	3036.89	-142.03	139.28	1044.69	1709256.74	14543545.31	40°02'45.266"N	104°45'14.481"W	1.25	
3363.00	30.360	78.720	3113.06	-150.48	147.61	1087.96	1709299.97	14543553.76	40°02'45.349"N	104°45'13.925"W	0.83	
3450.00	31.860	79.190	3187.55	-159.20	156.22	1132.08	1709344.05	14543562.48	40°02'45.434"N	104°45'13.358"W	1.75	
3538.00	30.490	78.880	3262.84	-167.98	164.88	1176.80	1709388.73	14543571.26	40°02'45.519"N	104°45'12.783"W	1.57	
3625.00	31.790	79.480	3337.30	-176.54	173.32	1220.99	1709432.88	14543579.82	40°02'45.603"N	104°45'12.215"W	1.54	
3713.00	30.080	78.260	3412.78	-185.38	182.04	1265.38	1709477.22	14543588.66	40°02'45.689"N	104°45'11.644"W	2.07	
3801.00	30.720	81.240	3488.69	-193.40	189.96	1309.19	1709521.00	14543596.68	40°02'45.767"N	104°45'11.081"W	1.86	
3888.00	32.040	82.930	3562.96	-199.75	196.18	1354.05	1709565.83	14543603.03	40°02'45.828"N	104°45'10.504"W	1.82	

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WELLPATH DATA (169 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
3975.00	29.960	82.480	3637.53	-205.55	201.86	1398.50	1709610.24	14543608.83	40°02'45.884"N	104°45'09.932"W	2.41	
4062.00	30.590	81.490	3712.66	-211.78	207.98	1441.93	1709653.63	14543615.07	40°02'45.945"N	104°45'09.374"W	0.92	
4150.00	31.220	82.570	3788.17	-218.16	214.25	1486.69	1709698.36	14543621.45	40°02'46.007"N	104°45'08.798"W	0.95	
4237.00	28.810	82.370	3863.50	-223.98	219.95	1529.83	1709741.47	14543627.26	40°02'46.063"N	104°45'08.243"W	2.77	
4325.00	29.510	81.070	3940.34	-230.27	226.13	1572.26	1709783.86	14543633.56	40°02'46.124"N	104°45'07.698"W	1.07	
4413.00	30.030	80.520	4016.73	-237.37	233.12	1615.39	1709826.96	14543640.66	40°02'46.193"N	104°45'07.143"W	0.67	
4500.00	32.490	80.320	4091.09	-245.01	240.63	1659.90	1709871.43	14543648.29	40°02'46.267"N	104°45'06.571"W	2.83	
4587.00	29.860	79.130	4165.52	-253.14	248.65	1704.21	1709915.70	14543656.43	40°02'46.347"N	104°45'06.001"W	3.10	
4675.00	31.310	79.620	4241.28	-261.51	256.90	1748.22	1709959.67	14543664.79	40°02'46.428"N	104°45'05.435"W	1.67	
4762.00	28.860	78.880	4316.55	-269.74	265.02	1791.06	1710002.47	14543673.03	40°02'46.508"N	104°45'04.884"W	2.85	
4850.00	30.470	81.900	4393.02	-277.10	272.26	1834.00	1710045.37	14543680.39	40°02'46.580"N	104°45'04.332"W	2.50	
4937.00	31.610	81.670	4467.56	-283.62	278.67	1878.40	1710089.73	14543686.92	40°02'46.643"N	104°45'03.761"W	1.32	
5050.00	32.350	82.040	4563.41	-292.26	287.15	1937.64	1710148.93	14543695.55	40°02'46.727"N	104°45'03.000"W	0.68	
5137.00	33.690	81.940	4636.36	-298.99	293.76	1984.58	1710195.84	14543702.28	40°02'46.792"N	104°45'02.396"W	1.54	
5224.00	31.520	81.940	4709.64	-305.68	300.33	2031.00	1710242.22	14543708.98	40°02'46.857"N	104°45'01.799"W	2.49	
5312.00	28.810	81.450	4785.72	-312.18	306.71	2074.75	1710285.93	14543715.47	40°02'46.920"N	104°45'01.237"W	3.09	
5399.00	30.450	80.890	4861.34	-318.90	313.32	2117.25	1710328.40	14543722.19	40°02'46.985"N	104°45'00.690"W	1.91	
5487.00	29.910	79.420	4937.41	-326.57	320.88	2160.84	1710371.95	14543729.87	40°02'47.060"N	104°45'00.130"W	1.04	
5574.00	30.430	78.620	5012.63	-335.01	329.21	2203.76	1710414.83	14543738.31	40°02'47.142"N	104°44'59.578"W	0.76	
5662.00	30.080	79.160	5088.64	-343.67	337.75	2247.26	1710458.29	14543746.97	40°02'47.227"N	104°44'59.018"W	0.50	
5749.00	30.720	81.060	5163.68	-351.34	345.30	2290.63	1710501.62	14543754.64	40°02'47.301"N	104°44'58.461"W	1.33	
5837.00	30.450	82.830	5239.44	-357.73	351.58	2334.96	1710545.92	14543761.03	40°02'47.363"N	104°44'57.891"W	1.07	
5924.00	30.020	79.870	5314.61	-364.43	358.16	2378.26	1710589.18	14543767.73	40°02'47.428"N	104°44'57.334"W	1.78	
6011.00	28.750	80.370	5390.42	-371.87	365.49	2420.31	1710631.20	14543775.17	40°02'47.501"N	104°44'56.793"W	1.49	
6099.00	29.630	82.150	5467.24	-378.49	372.00	2462.73	1710673.58	14543781.79	40°02'47.565"N	104°44'56.248"W	1.40	
6187.00	30.530	82.320	5543.39	-384.56	377.96	2506.43	1710717.25	14543787.87	40°02'47.624"N	104°44'55.686"W	1.03	
6274.00	31.650	79.910	5617.89	-391.63	384.91	2550.81	1710761.59	14543794.94	40°02'47.692"N	104°44'55.115"W	1.92	
6362.00	30.600	81.350	5693.23	-399.16	392.33	2595.68	1710806.43	14543802.47	40°02'47.766"N	104°44'54.538"W	1.46	
6450.00	30.510	81.550	5769.01	-405.93	398.98	2639.92	1710850.63	14543809.24	40°02'47.831"N	104°44'53.969"W	0.15	
6537.00	30.970	84.510	5843.79	-411.44	404.36	2684.05	1710894.73	14543814.74	40°02'47.885"N	104°44'53.402"W	1.82	
6624.00	32.130	82.050	5917.93	-416.90	409.71	2729.25	1710939.89	14543820.21	40°02'47.937"N	104°44'52.821"W	1.99	
6712.00	31.130	82.330	5992.85	-423.29	415.98	2774.97	1710985.58	14543826.60	40°02'47.999"N	104°44'52.233"W	1.15	
6799.00	30.930	83.680	6067.41	-428.87	421.44	2819.48	1711030.05	14543832.18	40°02'48.053"N	104°44'51.660"W	0.83	
6887.00	31.730	84.160	6142.57	-433.83	426.29	2864.98	1711075.52	14543837.15	40°02'48.101"N	104°44'51.075"W	0.95	
6975.00	31.880	83.430	6217.36	-438.97	431.30	2911.09	1711121.60	14543842.29	40°02'48.151"N	104°44'50.482"W	0.47	
7062.00	31.690	83.380	6291.31	-444.35	436.56	2956.61	1711167.09	14543847.67	40°02'48.202"N	104°44'49.897"W	0.22	
7150.00	32.340	83.080	6365.93	-449.97	442.06	3002.93	1711213.38	14543853.30	40°02'48.257"N	104°44'49.301"W	0.76	
7238.00	30.700	81.720	6440.94	-456.17	448.13	3048.53	1711258.94	14543859.49	40°02'48.317"N	104°44'48.715"W	2.03	
7325.00	30.730	84.930	6515.74	-461.45	453.30	3092.66	1711303.03	14543864.77	40°02'48.368"N	104°44'48.148"W	1.88	
7413.00	31.430	85.550	6591.11	-465.33	457.06	3137.93	1711348.28	14543868.66	40°02'48.405"N	104°44'47.566"W	0.87	
7500.00	30.840	83.520	6665.58	-469.73	461.34	3182.70	1711393.02	14543873.05	40°02'48.447"N	104°44'46.990"W	1.38	
7588.00	30.800	81.810	6741.15	-475.60	467.10	3227.41	1711437.70	14543878.93	40°02'48.504"N	104°44'46.415"W	1.00	
7675.00	29.380	82.880	6816.43	-481.53	472.91	3270.64	1711480.89	14543884.86	40°02'48.561"N	104°44'45.859"W	1.74	
7704.00†	29.604	90.009	6841.68	-482.45	473.80	3284.87	1711495.11	14543885.78	40°02'48.570"N	104°44'45.676"W	12.12	KOP
7763.00	31.190	103.820	6892.63	-478.87	470.14	3314.31	1711524.56	14543882.21	40°02'48.534"N	104°44'45.298"W	12.12	

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Area	COLORADO	Well	JDB 15-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-6HZ AWP
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7850.00	33.340	117.000	6966.28	-462.73	453.88	3357.55	1711567.82	14543866.07	40°02'48.373"N	104°44'44.742"W	8.44	
7937.00	36.220	124.440	7037.77	-437.43	428.47	3400.08	1711610.40	14543840.79	40°02'48.122"N	104°44'44.195"W	5.89	
8025.00	38.220	131.440	7107.87	-404.81	395.74	3441.95	1711652.35	14543808.18	40°02'47.798"N	104°44'43.656"W	5.32	
8112.00	40.580	139.200	7175.14	-365.65	356.47	3480.65	1711691.13	14543769.04	40°02'47.410"N	104°44'43.159"W	6.27	
8199.00	44.950	143.160	7239.00	-319.70	310.43	3517.59	1711728.18	14543723.11	40°02'46.955"N	104°44'42.684"W	5.90	
8203.00†	45.261	143.426	7241.83	-317.43	308.15	3519.28	1711729.88	14543720.85	40°02'46.933"N	104°44'42.662"W	9.10	ENTER LANDBOX (861'FSL & 2440'FWL,SEC.14) 40.0463702 -104.7451840
8287.00	51.920	148.440	7297.37	-265.31	255.95	3554.41	1711765.14	14543668.76	40°02'46.417"N	104°44'42.211"W	9.10	
8375.00	60.060	153.330	7346.58	-201.69	192.23	3589.73	1711800.62	14543605.16	40°02'45.787"N	104°44'41.757"W	10.33	
8462.00	65.430	159.730	7386.44	-130.87	121.33	3620.40	1711831.47	14543534.37	40°02'45.086"N	104°44'41.362"W	8.99	
8550.00	69.310	162.610	7420.30	-54.07	44.46	3646.58	1711857.85	14543457.61	40°02'44.327"N	104°44'41.026"W	5.34	
8637.00	73.580	165.980	7447.98	25.24	-34.91	3668.87	1711880.34	14543378.32	40°02'43.542"N	104°44'40.740"W	6.13	
8725.00	82.070	175.730	7466.57	109.96	-119.67	3682.39	1711894.09	14543293.64	40°02'42.705"N	104°44'40.566"W	14.50	
8813.00	88.300	182.320	7473.96	197.54	-207.25	3683.86	1711895.80	14543206.09	40°02'41.839"N	104°44'40.547"W	10.28	LANDING (346'FSL & 2605'FWL,SEC.14) 40.0449553 -104.7445964
8900.00	89.980	181.420	7475.26	284.49	-294.19	3681.02	1711893.20	14543119.18	40°02'40.980"N	104°44'40.584"W	2.19	
8988.00	89.480	181.020	7475.68	372.47	-382.17	3679.15	1711891.56	14543031.23	40°02'40.111"N	104°44'40.608"W	0.73	
9075.00	89.850	180.350	7476.19	459.47	-469.16	3678.11	1711890.76	14542944.27	40°02'39.251"N	104°44'40.622"W	0.88	
9163.00	91.560	180.470	7475.10	547.46	-557.15	3677.48	1711890.37	14542856.32	40°02'38.381"N	104°44'40.630"W	1.95	
9250.00	88.790	182.270	7474.84	634.43	-644.11	3675.40	1711888.53	14542769.38	40°02'37.522"N	104°44'40.657"W	3.80	
9337.00	90.300	182.500	7475.53	721.35	-731.03	3671.78	1711885.15	14542682.49	40°02'36.663"N	104°44'40.703"W	1.76	
9425.00	89.160	183.920	7475.94	809.22	-818.89	3666.85	1711880.46	14542594.65	40°02'35.795"N	104°44'40.767"W	2.07	
9512.00	86.800	183.220	7479.01	896.01	-905.66	3661.44	1711875.28	14542507.90	40°02'34.937"N	104°44'40.837"W	2.83	
9600.00	87.220	182.930	7483.60	983.77	-993.41	3656.72	1711870.81	14542420.17	40°02'34.070"N	104°44'40.897"W	0.58	
9617.00†	87.322	182.905	7484.41	1000.73	-1010.37	3655.86	1711869.99	14542403.22	40°02'33.903"N	104°44'40.909"W	0.62	EXIT RADIUS HEEL (457'FNL & 2577'FWL,SEC.23) 40.0427507 -104.7446968
9687.00	87.740	182.800	7487.43	1070.59	-1080.22	3652.38	1711866.70	14542333.39	40°02'33.212"N	104°44'40.954"W	0.62	
9774.00	89.900	183.590	7489.22	1157.44	-1167.06	3647.53	1711862.09	14542246.57	40°02'32.354"N	104°44'41.016"W	2.64	
9862.00	89.010	180.830	7490.05	1245.37	-1254.98	3644.14	1711858.94	14542158.67	40°02'31.485"N	104°44'41.060"W	3.30	
9949.00	89.870	180.840	7490.90	1332.36	-1341.97	3642.87	1711857.91	14542071.72	40°02'30.626"N	104°44'41.076"W	0.99	
10037.00	87.940	180.350	7492.59	1420.34	-1429.94	3641.96	1711857.24	14541983.78	40°02'29.756"N	104°44'41.088"W	2.26	
10124.00	88.360	179.990	7495.39	1507.29	-1516.90	3641.70	1711857.21	14541896.86	40°02'28.897"N	104°44'41.092"W	0.64	
10211.00	90.580	180.630	7496.20	1594.28	-1603.89	3641.23	1711856.98	14541809.90	40°02'28.037"N	104°44'41.098"W	2.66	
10299.00	88.360	178.890	7497.01	1682.27	-1691.87	3641.60	1711857.59	14541721.95	40°02'27.168"N	104°44'41.093"W	3.21	
10387.00	88.930	178.470	7499.09	1770.22	-1779.82	3643.62	1711859.85	14541634.04	40°02'26.299"N	104°44'41.067"W	0.80	
10474.00	89.680	178.180	7500.15	1857.16	-1866.78	3646.17	1711862.63	14541547.13	40°02'25.439"N	104°44'41.035"W	0.92	
10562.00	90.650	177.080	7499.90	1945.08	-1954.70	3649.80	1711866.51	14541459.25	40°02'24.571"N	104°44'40.988"W	1.67	
10649.00	89.360	177.130	7499.89	2031.95	-2041.59	3654.20	1711871.14	14541372.41	40°02'23.712"N	104°44'40.932"W	1.48	
10736.00	89.730	178.810	7500.58	2118.88	-2128.53	3657.28	1711874.45	14541285.51	40°02'22.853"N	104°44'40.892"W	1.98	
10824.00	90.450	177.980	7500.44	2206.84	-2216.49	3659.74	1711877.16	14541197.59	40°02'21.983"N	104°44'40.861"W	1.25	
10911.00	89.050	180.770	7500.82	2293.82	-2303.48	3660.69	1711878.34	14541110.65	40°02'21.124"N	104°44'40.849"W	3.59	
10999.00	88.070	181.760	7503.03	2381.77	-2391.42	3658.75	1711876.64	14541022.73	40°02'20.255"N	104°44'40.874"W	1.58	
11086.00	89.960	181.780	7504.53	2468.72	-2478.37	3656.07	1711874.19	14540935.81	40°02'19.396"N	104°44'40.909"W	2.17	
11174.00	87.530	181.100	7506.46	2556.67	-2566.31	3653.85	1711872.22	14540847.90	40°02'18.526"N	104°44'40.937"W	2.87	
11260.00	86.560	180.360	7510.89	2642.55	-2652.19	3652.76	1711871.36	14540762.05	40°02'17.678"N	104°44'40.952"W	1.42	
11348.00	87.190	180.150	7515.69	2730.42	-2740.06	3652.37	1711871.21	14540674.22	40°02'16.809"N	104°44'40.957"W	0.75	
11435.00	87.990	179.680	7519.34	2817.34	-2826.98	3652.50	1711871.57	14540587.33	40°02'15.950"N	104°44'40.955"W	1.07	
11523.00	89.450	179.220	7521.31	2905.31	-2914.95	3653.34	1711872.66	14540499.40	40°02'15.081"N	104°44'40.945"W	1.74	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#38 JDB 15-6HZ(553'FSL & 1079'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-6HZ AWP
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (169 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
11610.00	91.150	179.240	7520.85	2992.29	-3001.94	3654.51	1711874.06	14540412.45	40°02'14.221"N	104°44'40.930"W	1.95	
11698.00	92.840	179.320	7517.79	3080.23	-3089.87	3655.62	1711875.40	14540324.55	40°02'13.352"N	104°44'40.916"W	1.92	
11785.00	91.490	179.260	7514.50	3167.15	-3176.80	3656.69	1711876.72	14540237.66	40°02'12.493"N	104°44'40.902"W	1.55	
11873.00	89.840	180.580	7513.48	3255.14	-3264.79	3656.82	1711877.08	14540149.70	40°02'11.624"N	104°44'40.901"W	2.40	
11960.00	90.380	181.030	7513.32	3342.14	-3351.78	3655.59	1711876.09	14540062.75	40°02'10.764"N	104°44'40.916"W	0.81	
12048.00	91.160	180.830	7512.13	3430.12	-3439.76	3654.17	1711874.91	14539974.80	40°02'09.895"N	104°44'40.935"W	0.92	
12135.00	92.650	180.340	7509.24	3517.07	-3526.71	3653.28	1711874.25	14539887.88	40°02'09.036"N	104°44'40.947"W	1.80	
12223.00	90.120	180.350	7507.11	3605.03	-3614.67	3652.75	1711873.96	14539799.95	40°02'08.166"N	104°44'40.954"W	2.88	
12310.00	90.590	180.290	7506.58	3692.03	-3701.67	3652.26	1711873.72	14539712.99	40°02'07.307"N	104°44'40.960"W	0.54	
12398.00	87.760	180.420	7507.84	3780.01	-3789.65	3651.72	1711873.41	14539625.04	40°02'06.437"N	104°44'40.967"W	3.22	
12485.00	88.390	180.470	7510.77	3866.96	-3876.60	3651.04	1711872.97	14539538.13	40°02'05.578"N	104°44'40.976"W	0.73	
12572.00	90.560	180.830	7511.56	3953.95	-3963.58	3650.06	1711872.22	14539451.18	40°02'04.718"N	104°44'40.989"W	2.53	
12659.00	87.930	178.800	7512.71	4040.93	-4050.56	3650.34	1711872.74	14539364.23	40°02'03.859"N	104°44'40.985"W	3.82	
12747.00	88.790	178.810	7515.23	4128.87	-4138.51	3652.17	1711874.81	14539276.33	40°02'02.990"N	104°44'40.962"W	0.98	
12834.00	90.610	179.420	7515.68	4215.85	-4225.49	3653.51	1711876.39	14539189.38	40°02'02.130"N	104°44'40.945"W	2.21	
12922.00	87.930	179.020	7516.80	4303.82	-4313.47	3654.71	1711877.83	14539101.44	40°02'01.261"N	104°44'40.930"W	3.08	
13009.00	87.440	178.370	7520.32	4390.72	-4400.37	3656.69	1711880.04	14539014.58	40°02'00.402"N	104°44'40.904"W	0.94	
13097.00	87.700	178.380	7524.05	4478.60	-4488.26	3659.18	1711882.77	14538926.73	40°01'59.533"N	104°44'40.872"W	0.30	
13185.00	87.930	177.740	7527.40	4566.48	-4576.14	3662.16	1711885.99	14538838.89	40°01'58.665"N	104°44'40.834"W	0.77	
13272.00	87.820	177.420	7530.63	4653.33	-4663.01	3665.83	1711889.89	14538752.07	40°01'57.806"N	104°44'40.787"W	0.39	
13359.00	88.150	177.500	7533.69	4740.18	-4749.87	3669.69	1711893.98	14538665.26	40°01'56.948"N	104°44'40.738"W	0.39	
13447.00	88.530	177.090	7536.24	4828.03	-4837.73	3673.84	1711898.37	14538577.44	40°01'56.080"N	104°44'40.685"W	0.64	
13534.00	89.670	178.110	7537.60	4914.93	-4924.64	3677.48	1711902.25	14538490.58	40°01'55.221"N	104°44'40.638"W	1.76	
13622.00	91.930	178.880	7536.38	5002.88	-5012.60	3679.79	1711904.80	14538402.66	40°01'54.352"N	104°44'40.608"W	2.71	
13710.00	88.720	178.110	7535.88	5090.83	-5100.55	3682.10	1711907.35	14538314.75	40°01'53.482"N	104°44'40.579"W	3.75	
13797.00	88.120	177.940	7538.28	5177.74	-5187.47	3685.10	1711910.58	14538227.88	40°01'52.623"N	104°44'40.541"W	0.72	
13885.00	89.070	177.790	7540.43	5265.64	-5275.38	3688.38	1711914.09	14538140.01	40°01'51.755"N	104°44'40.499"W	1.09	
13972.00	90.820	178.600	7540.52	5352.58	-5362.33	3691.12	1711917.07	14538053.10	40°01'50.895"N	104°44'40.464"W	2.22	
13973.00†	90.802	178.614	7540.50	5353.58	-5363.33	3691.14	1711917.10	14538052.10	40°01'50.886"N	104°44'40.463"W	2.28	ENTER RADIUS TOE (457'FSL & 2604'FWL,SEC.23) 40.0308015 -104.7445731
14060.00	89.210	179.790	7540.49	5440.57	-5450.32	3692.35	1711918.54	14537965.15	40°01'50.026"N	104°44'40.448"W	2.28	
14147.00	89.760	179.600	7541.28	5527.56	-5537.31	3692.82	1711919.24	14537878.19	40°01'49.166"N	104°44'40.442"W	0.67	
14235.00	91.690	180.090	7540.16	5615.55	-5625.30	3693.05	1711919.72	14537790.24	40°01'48.297"N	104°44'40.439"W	2.26	
14331.00	92.790	180.060	7536.41	5711.47	-5721.23	3692.93	1711919.86	14537694.35	40°01'47.349"N	104°44'40.441"W	1.15	LAST BHGE MWD+IFR1+SC SURVEY
14373.00	92.790	180.060	7534.37	5753.42	-5763.18	3692.88	1711919.93	14537652.42	40°01'46.934"N	104°44'40.442"W	0.00	PTB (57'FSL & 2606'FWL,SEC.23) 40.0297039 -104.7445671

HOLE & CASING SECTIONS - Ref Wellbore: JDB 15-6HZ AWP Ref Wellpath: JDB 15-6HZ 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	1926.00	1909.00	17.00	1867.67	0.00	0.00	53.40	378.60

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#38 JDB 15-6HZ(553'FSL & 1079'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-6HZ AWB
Facility	SEC.15-T1N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.14-T1N-R66W	0.00	72.86	-17.64	1708195.02	14543476.03	40°02'44.610"N	104°45'28.141"W	polygon
SEC.23-T1N-R66W	0.00	72.86	-17.64	1708195.02	14543476.03	40°02'44.610"N	104°45'28.141"W	polygon
JDB 15-6HZ HEEL REV-1(330'FSL & 2596'FWL,SEC.14)	7529.00	-225.59	3673.62	1711885.61	14543187.74	40°02'41.658"N	104°44'40.679"W	point
JDB 15-6HZ BHL REV-1(50'FSL & 2572'FWL,SEC.23)	7584.00	-5770.44	3659.03	1711886.11	14537645.06	40°01'46.862"N	104°44'40.877"W	point
JDB 15-6HZ LANDBOX	7584.00	0.00	0.00	1708212.85	14543403.24	40°02'43.890"N	104°45'27.914"W	polygon
JDB 15-6HZ RADIUS 1	7584.00	-5820.33	3734.92	1711962.10	14537595.40	40°01'46.369"N	104°44'39.901"W	polygon
JDB 15-6HZ RADIUS 2	7584.00	-555.61	3728.53	1711941.40	14542858.00	40°02'38.397"N	104°44'39.973"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: JDB 15-6HZ AWB Ref Wellpath: JDB 15-6HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1888.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <129 - 1888>	JDB 15-6HZ AWB
1888.00	14331.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1965 - 14331>	JDB 15-6HZ AWB
14331.00	14373.00	Blind Drilling (std)	Projection to bit	JDB 15-6HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#38 JDB 15-6HZ(553'FSL & 1079'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-6HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
129.00	0.180	110.300	129.00	FIRST SURFACE MWD+IFR1 SURVEY
1888.00	24.790	81.830	1833.19	LAST SURFACE MWD+IFR1 SURVEY
1965.00	25.030	81.950	1903.03	FIRST BHGE MWD+IFR1+SC SURVEY
7704.00	29.604	90.009	6841.68	KOP
8203.00	45.261	143.426	7241.83	ENTER LANDBOX (861'FSL & 2440'FWL,SEC.14) 40.0463702 -104.7451840
8813.00	88.300	182.320	7473.96	LANDING (346'FSL & 2605'FWL,SEC.14) 40.0449553 -104.7445964
9617.00	87.322	182.905	7484.41	EXIT RADIUS HEEL (457'FNL & 2577'FWL,SEC.23) 40.0427507 -104.7446968
13973.00	90.802	178.614	7540.50	ENTER RADIUS TOE (457'FSL & 2604'FWL,SEC.23) 40.0308015 -104.7445731
14331.00	92.790	180.060	7536.41	LAST BHGE MWD+IFR1+SC SURVEY
14373.00	92.790	180.060	7534.37	PTB (57'FSL & 2606'FWL,SEC.23) 40.0297039 -104.7445671