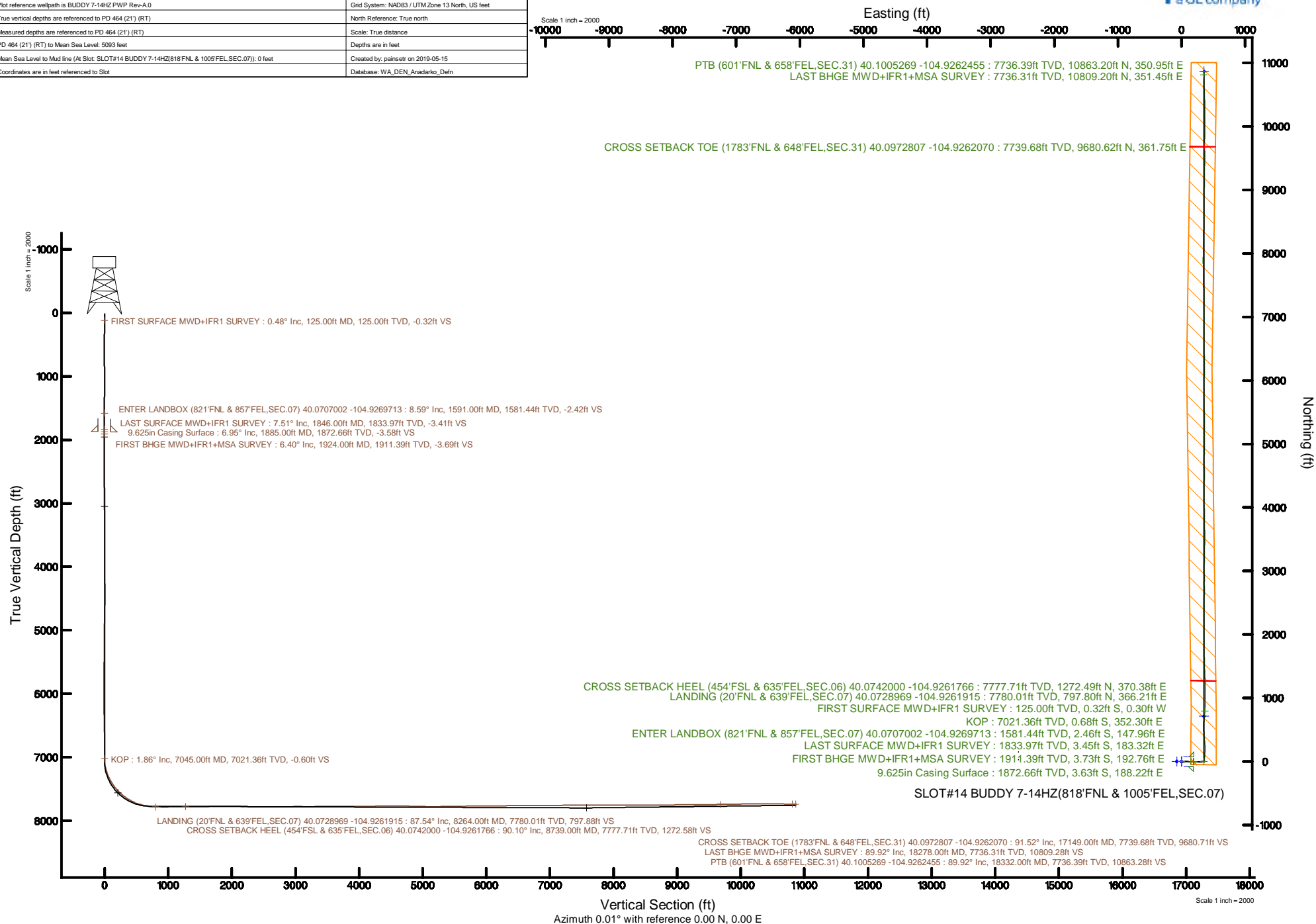


Location:	COLORADO	Slot:	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	BUDDY 7-14HZ
Facility:	SEC.07-T1N-R67W	Wellbore:	BUDDY 7-14HZ PWB

Plot reference wellpath is BUDDY 7-14HZ PWPP Rev-A.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 464 (21) (RT)	North Reference: True north
Measured depths are referenced to PD 464 (21) (RT)	Scale: True distance
PD 464 (21) (RT) to Mean Sea Level: 5093 feet	Depths are in feet
Mean Sea Level to Mud line (A Slot: SLOT#14 BUDDY 7-14HZ(818FNL & 1005FEL SEC.07)): 0 feet	Created by: painser on 2019-05-15
Coordinates are in feet referenced to Sict	Database: WA_DEN_Anadarko_Defn



Actual Wellpath Report

BUDDY 7-14HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Area	COLORADO	Well	BUDDY 7-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUDDY 7-14HZ AWP
Facility	SEC.07-T1N-R67W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Painsetr
Scale	0.999600	Report Generated	5/15/2019 at 3:28:20 PM
Convergence at slot	0.05° East	Database/Source file	WA_DEN_Anadarko_Defn/BUDDY_7-14HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-120.62	74.32	1660699.40	14552489.15	40°04'14.545"N	104°55'39.000"W
Facility Reference Pt			1660625.01	14552609.66	40°04'15.737"N	104°55'39.956"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 464 (21') (RT) to Facility Vertical Datum	5093.00ft
Horizontal Reference Pt	Slot	PD 464 (21') (RT) to Mean Sea Level	5093.00ft
Vertical Reference Pt	PD 464 (21') (RT)	PD 464 (21') (RT) to Mud Line at Slot (SLOT#14 BUDDY 7-14HZ (818'FNL & 1005'FEL,SEC.07))	5093.00ft
MD Reference Pt	PD 464 (21') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.01°

Actual Wellpath Report

BUDDY 7-14HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Area	COLORADO	Well	BUDDY 7-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUDDY 7-14HZ AWB
Facility	SEC.07-T1N-R67W		

WELLPATH DATA (211 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	222.830	0.00	0.00	0.00	0.00	1660699.40	14552489.15	40°04'14.545"N	104°55'39.000"W	0.00	
21.00	0.000	222.830	21.00	0.00	0.00	0.00	1660699.40	14552489.15	40°04'14.545"N	104°55'39.000"W	0.00	
125.00	0.480	222.830	125.00	-0.32	-0.32	-0.30	1660699.11	14552488.83	40°04'14.542"N	104°55'39.004"W	0.46	FIRST SURFACE MWD+IFR1 SURVEY
220.00	0.660	146.360	220.00	-1.07	-1.07	-0.26	1660699.14	14552488.08	40°04'14.534"N	104°55'39.003"W	0.76	
315.00	1.580	101.010	314.98	-1.77	-1.77	1.33	1660700.73	14552487.38	40°04'14.527"N	104°55'38.983"W	1.27	
410.00	1.630	112.080	409.94	-2.53	-2.53	3.86	1660703.27	14552486.62	40°04'14.520"N	104°55'38.950"W	0.33	
505.00	2.770	95.120	504.87	-3.24	-3.24	7.40	1660706.81	14552485.91	40°04'14.513"N	104°55'38.905"W	1.37	
600.00	5.010	89.150	599.65	-3.38	-3.39	13.84	1660713.24	14552485.77	40°04'14.512"N	104°55'38.822"W	2.39	
695.00	7.210	87.830	694.10	-3.09	-3.10	23.94	1660723.34	14552486.07	40°04'14.514"N	104°55'38.692"W	2.32	
790.00	8.090	85.810	788.25	-2.38	-2.39	36.57	1660735.96	14552486.79	40°04'14.521"N	104°55'38.530"W	0.97	
885.00	7.780	88.180	882.34	-1.68	-1.69	49.66	1660749.05	14552487.50	40°04'14.528"N	104°55'38.361"W	0.47	
980.00	7.470	86.420	976.50	-1.09	-1.10	62.25	1660761.63	14552488.10	40°04'14.534"N	104°55'38.199"W	0.41	
1075.00	7.560	88.790	1070.69	-0.57	-0.59	74.66	1660774.04	14552488.62	40°04'14.539"N	104°55'38.040"W	0.34	
1171.00	8.130	91.430	1165.79	-0.60	-0.62	87.76	1660787.13	14552488.60	40°04'14.539"N	104°55'37.871"W	0.70	
1266.00	8.090	94.240	1259.84	-1.26	-1.28	101.14	1660800.51	14552487.95	40°04'14.532"N	104°55'37.699"W	0.42	
1361.00	7.780	95.030	1353.93	-2.32	-2.34	114.22	1660813.57	14552486.90	40°04'14.522"N	104°55'37.531"W	0.35	
1457.00	8.440	88.790	1448.97	-2.73	-2.76	127.73	1660827.09	14552486.49	40°04'14.518"N	104°55'37.357"W	1.15	
1551.00	8.880	88.880	1541.90	-2.44	-2.47	141.88	1660841.23	14552486.79	40°04'14.521"N	104°55'37.175"W	0.47	
1591.00†	8.595	90.828	1581.44	-2.42	-2.46	147.96	1660847.30	14552486.81	40°04'14.521"N	104°55'37.097"W	1.03	ENTER LANDBOX (821'FNL & 857'FEL,SEC.07) 40.0707002 -104.9269713
1646.00	8.220	93.720	1635.84	-2.74	-2.77	155.99	1660855.33	14552486.50	40°04'14.518"N	104°55'36.994"W	1.03	
1741.00	7.870	89.850	1729.91	-3.16	-3.20	169.27	1660868.61	14552486.09	40°04'14.513"N	104°55'36.823"W	0.68	
1846.00	7.510	92.310	1833.97	-3.41	-3.45	183.32	1660882.65	14552485.85	40°04'14.511"N	104°55'36.642"W	0.46	LAST SURFACE MWD+IFR1 SURVEY
1924.00	6.400	90.970	1911.39	-3.69	-3.73	192.76	1660892.09	14552485.57	40°04'14.508"N	104°55'36.521"W	1.44	FIRST BHGE MWD+IFR1+MSA SURVEY
2014.00	6.930	89.890	2000.78	-3.76	-3.81	203.20	1660902.53	14552485.51	40°04'14.507"N	104°55'36.386"W	0.61	
2104.00	9.010	92.230	2089.91	-4.02	-4.07	215.67	1660915.00	14552485.26	40°04'14.505"N	104°55'36.226"W	2.34	
2194.00	8.770	91.760	2178.83	-4.50	-4.56	229.57	1660928.89	14552484.78	40°04'14.500"N	104°55'36.047"W	0.28	
2283.00	8.360	89.990	2266.83	-4.71	-4.76	242.83	1660942.14	14552484.59	40°04'14.498"N	104°55'35.877"W	0.55	
2373.00	7.940	89.120	2355.93	-4.61	-4.67	255.58	1660954.89	14552484.69	40°04'14.499"N	104°55'35.712"W	0.49	
2462.00	7.600	88.300	2444.11	-4.34	-4.40	267.61	1660966.91	14552484.97	40°04'14.502"N	104°55'35.558"W	0.40	
2552.00	7.310	87.030	2533.35	-3.86	-3.92	279.28	1660978.58	14552485.45	40°04'14.506"N	104°55'35.408"W	0.37	
2642.00	7.610	87.660	2622.59	-3.32	-3.38	290.95	1660990.24	14552486.00	40°04'14.512"N	104°55'35.258"W	0.35	
2731.00	7.160	86.800	2710.85	-2.77	-2.83	302.38	1661001.66	14552486.56	40°04'14.517"N	104°55'35.111"W	0.52	
2821.00	7.860	91.920	2800.08	-2.66	-2.73	314.13	1661013.41	14552486.68	40°04'14.518"N	104°55'34.959"W	1.08	
2911.00	7.390	91.350	2889.28	-3.00	-3.07	326.07	1661025.34	14552486.35	40°04'14.515"N	104°55'34.806"W	0.53	
3000.00	6.640	88.640	2977.61	-3.01	-3.08	336.93	1661036.20	14552486.34	40°04'14.515"N	104°55'34.666"W	0.92	
3090.00	4.710	81.920	3067.17	-2.36	-2.44	345.79	1661045.06	14552486.99	40°04'14.521"N	104°55'34.552"W	2.26	
3180.00	3.050	81.730	3156.96	-1.50	-1.58	351.82	1661051.09	14552487.86	40°04'14.529"N	104°55'34.475"W	1.84	
3269.00	1.750	103.640	3245.88	-1.47	-1.56	355.49	1661054.75	14552487.88	40°04'14.530"N	104°55'34.427"W	1.76	
3359.00	0.280	51.020	3335.87	-1.66	-1.74	356.99	1661056.25	14552487.70	40°04'14.528"N	104°55'34.408"W	1.77	
3466.00	0.450	40.210	3442.86	-1.17	-1.26	357.47	1661056.73	14552488.18	40°04'14.533"N	104°55'34.402"W	0.17	
3556.00	0.390	17.980	3532.86	-0.61	-0.69	357.79	1661057.05	14552488.75	40°04'14.538"N	104°55'34.398"W	0.19	
3646.00	0.350	42.830	3622.86	-0.12	-0.20	358.07	1661057.33	14552489.24	40°04'14.543"N	104°55'34.394"W	0.18	
3735.00	0.470	74.910	3711.86	0.17	0.09	358.61	1661057.87	14552489.53	40°04'14.546"N	104°55'34.387"W	0.29	
3825.00	1.260	265.960	3801.85	0.20	0.12	357.98	1661057.24	14552489.56	40°04'14.546"N	104°55'34.395"W	1.92	
3914.00	1.010	294.270	3890.83	0.45	0.37	356.29	1661055.55	14552489.81	40°04'14.549"N	104°55'34.417"W	0.68	

Actual Wellpath Report

BUDDY 7-14HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Area	COLORADO	Well	BUDDY 7-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUDDY 7-14HZ AWB
Facility	SEC.07-T1N-R67W		

WELLPATH DATA (211 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
4004.00	0.870	327.680	3980.82	1.36	1.28	355.20	1661054.46	14552490.71	40°04'14.558"N	104°55'34.431"W	0.62	
4094.00	0.870	317.350	4070.81	2.44	2.36	354.37	1661053.63	14552491.79	40°04'14.568"N	104°55'34.442"W	0.17	
4184.00	1.030	308.590	4160.80	3.44	3.36	353.28	1661052.53	14552492.80	40°04'14.578"N	104°55'34.456"W	0.24	
4273.00	1.310	302.420	4249.78	4.49	4.41	351.79	1661051.05	14552493.84	40°04'14.589"N	104°55'34.475"W	0.34	
4363.00	0.300	267.690	4339.77	5.03	4.95	350.69	1661049.95	14552494.38	40°04'14.594"N	104°55'34.489"W	1.20	
4453.00	0.530	289.620	4429.77	5.16	5.08	350.06	1661049.32	14552494.51	40°04'14.595"N	104°55'34.497"W	0.31	
4542.00	0.720	292.780	4518.76	5.51	5.43	349.16	1661048.42	14552494.87	40°04'14.599"N	104°55'34.509"W	0.22	
4632.00	1.530	179.880	4608.75	4.53	4.45	348.64	1661047.90	14552493.88	40°04'14.589"N	104°55'34.516"W	2.14	
4721.00	1.550	174.260	4697.72	2.15	2.07	348.76	1661048.02	14552491.50	40°04'14.565"N	104°55'34.514"W	0.17	
4811.00	1.240	163.460	4787.69	0.00	-0.08	349.16	1661048.42	14552489.35	40°04'14.544"N	104°55'34.509"W	0.45	
4900.00	1.200	171.990	4876.67	-1.85	-1.92	349.56	1661048.83	14552487.51	40°04'14.526"N	104°55'34.504"W	0.21	
4990.00	1.040	155.240	4966.66	-3.52	-3.60	350.04	1661049.30	14552485.84	40°04'14.509"N	104°55'34.498"W	0.40	
5080.00	1.020	145.730	5056.64	-4.92	-5.00	350.83	1661050.10	14552484.43	40°04'14.496"N	104°55'34.487"W	0.19	
5169.00	0.920	133.830	5145.63	-6.07	-6.15	351.79	1661051.06	14552483.29	40°04'14.484"N	104°55'34.475"W	0.25	
5259.00	0.670	138.050	5235.62	-6.96	-7.04	352.66	1661051.93	14552482.39	40°04'14.475"N	104°55'34.464"W	0.29	
5348.00	0.490	159.680	5324.62	-7.71	-7.79	353.14	1661052.41	14552481.65	40°04'14.468"N	104°55'34.458"W	0.32	
5438.00	0.280	132.150	5414.61	-8.22	-8.30	353.44	1661052.71	14552481.14	40°04'14.463"N	104°55'34.454"W	0.30	
5528.00	0.470	125.770	5504.61	-8.58	-8.66	353.90	1661053.17	14552480.78	40°04'14.459"N	104°55'34.448"W	0.22	
5617.00	0.600	115.330	5593.61	-8.99	-9.07	354.62	1661053.89	14552480.37	40°04'14.455"N	104°55'34.439"W	0.18	
5707.00	0.590	115.340	5683.60	-9.39	-9.47	355.47	1661054.73	14552479.97	40°04'14.451"N	104°55'34.428"W	0.01	
5796.00	0.600	115.080	5772.60	-9.79	-9.87	356.30	1661055.57	14552479.58	40°04'14.447"N	104°55'34.417"W	0.01	
5886.00	0.740	83.690	5862.59	-9.92	-10.00	357.31	1661056.57	14552479.44	40°04'14.446"N	104°55'34.404"W	0.43	
5975.00	0.790	86.260	5951.59	-9.82	-9.90	358.49	1661057.76	14552479.55	40°04'14.447"N	104°55'34.389"W	0.07	
6065.00	0.380	141.230	6041.58	-10.01	-10.09	359.30	1661058.56	14552479.35	40°04'14.445"N	104°55'34.378"W	0.72	
6154.00	0.420	137.060	6130.58	-10.48	-10.56	359.70	1661058.97	14552478.89	40°04'14.441"N	104°55'34.373"W	0.06	
6244.00	0.790	347.060	6220.58	-10.12	-10.20	359.79	1661059.06	14552479.25	40°04'14.444"N	104°55'34.372"W	1.30	
6334.00	0.860	10.930	6310.57	-8.85	-8.93	359.78	1661059.04	14552480.52	40°04'14.457"N	104°55'34.372"W	0.39	
6423.00	1.050	19.740	6399.56	-7.42	-7.51	360.18	1661059.45	14552481.94	40°04'14.471"N	104°55'34.367"W	0.27	
6530.00	1.840	334.680	6506.52	-4.95	-5.03	359.78	1661059.04	14552484.41	40°04'14.495"N	104°55'34.372"W	1.24	
6620.00	2.130	317.490	6596.47	-2.41	-2.49	358.03	1661057.29	14552486.95	40°04'14.520"N	104°55'34.395"W	0.73	
6710.00	1.850	268.740	6686.42	-1.21	-1.29	355.45	1661054.71	14552488.15	40°04'14.532"N	104°55'34.428"W	1.85	
6800.00	1.540	279.300	6776.38	-1.05	-1.13	352.80	1661052.06	14552488.31	40°04'14.534"N	104°55'34.462"W	0.49	
6890.00	0.230	223.460	6866.37	-0.98	-1.06	351.48	1661050.75	14552488.37	40°04'14.534"N	104°55'34.479"W	1.58	
6979.00	0.100	147.810	6955.37	-1.18	-1.26	351.40	1661050.66	14552488.18	40°04'14.533"N	104°55'34.480"W	0.25	
7045.00†	1.861	54.489	7021.36	-0.60	-0.68	352.30	1661051.57	14552488.75	40°04'14.538"N	104°55'34.468"W	2.83	KOP
7069.00	2.540	53.670	7045.34	-0.06	-0.14	353.05	1661052.31	14552489.29	40°04'14.544"N	104°55'34.459"W	2.83	
7159.00	10.880	10.890	7134.68	9.48	9.40	356.27	1661055.52	14552498.84	40°04'14.638"N	104°55'34.417"W	10.20	
7248.00	17.990	5.340	7220.82	31.44	31.36	359.14	1661058.37	14552520.79	40°04'14.855"N	104°55'34.380"W	8.13	
7338.00	23.690	5.710	7304.90	63.30	63.22	362.23	1661061.44	14552552.64	40°04'15.170"N	104°55'34.341"W	6.33	
7428.00	31.100	4.420	7384.75	104.52	104.44	365.83	1661065.00	14552593.85	40°04'15.577"N	104°55'34.294"W	8.26	
7517.00	36.210	4.550	7458.81	153.68	153.60	369.69	1661068.82	14552642.98	40°04'16.063"N	104°55'34.245"W	5.74	
7607.00	44.260	359.680	7527.47	211.70	211.61	371.62	1661070.71	14552700.98	40°04'16.636"N	104°55'34.220"W	9.60	
7696.00	50.140	354.380	7587.94	276.83	276.74	368.10	1661067.13	14552766.08	40°04'17.280"N	104°55'34.265"W	7.92	
7786.00	55.400	352.700	7642.37	348.00	347.92	360.01	1661058.98	14552837.22	40°04'17.983"N	104°55'34.369"W	6.03	
7876.00	63.020	356.060	7688.42	424.87	424.79	352.53	1661051.45	14552914.06	40°04'18.743"N	104°55'34.465"W	9.05	

Actual Wellpath Report

BUDDY 7-14HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Area	COLORADO	Well	BUDDY 7-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUDDY 7-14HZ AWB
Facility	SEC.07-T1N-R67W		

WELLPATH DATA (211 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
7966.00	70.230	357.650	7724.11	507.31	507.23	348.03	1661046.88	14552996.45	40°04'19.557"N	104°55'34.523"W	8.17	
8055.00	75.660	1.670	7750.21	592.34	592.26	347.57	1661046.35	14553081.45	40°04'20.398"N	104°55'34.529"W	7.47	
8145.00	80.770	6.020	7768.59	680.19	680.11	353.51	1661052.21	14553169.27	40°04'21.266"N	104°55'34.453"W	7.39	
8235.00	86.560	6.560	7778.52	769.07	768.98	363.31	1661061.94	14553258.12	40°04'22.144"N	104°55'34.327"W	6.46	
8264.00†	87.544	4.944	7780.01	797.88	797.80	366.21	1661064.81	14553286.92	40°04'22.429"N	104°55'34.289"W	6.52	LANDING (20'FNL & 639'FEL,SEC.07) 40.0728969 -104.9261915
8325.00	89.620	1.550	7781.52	858.75	858.67	369.66	1661068.22	14553347.77	40°04'23.031"N	104°55'34.245"W	6.52	
8414.00	89.680	1.490	7782.06	947.72	947.64	372.02	1661070.50	14553436.71	40°04'23.910"N	104°55'34.215"W	0.10	
8504.00	91.830	1.240	7780.88	1037.68	1037.60	374.16	1661072.57	14553526.63	40°04'24.799"N	104°55'34.187"W	2.40	
8594.00	90.790	359.300	7778.82	1127.65	1127.57	374.59	1661072.92	14553616.57	40°04'25.688"N	104°55'34.181"W	2.45	
8683.00	90.350	358.100	7777.93	1216.62	1216.54	372.57	1661070.83	14553705.50	40°04'26.567"N	104°55'34.207"W	1.44	
8739.00†	90.101	357.422	7777.71	1272.58	1272.49	370.38	1661068.60	14553761.43	40°04'27.120"N	104°55'34.236"W	1.29	CROSS SETBACK HEEL (454'FSL & 635'FEL,SEC.06) 40.0742000 -104.9261766
8773.00	89.950	357.010	7777.70	1306.54	1306.45	368.73	1661066.92	14553795.38	40°04'27.456"N	104°55'34.257"W	1.29	
8863.00	90.410	357.750	7777.42	1396.44	1396.36	364.62	1661062.74	14553885.24	40°04'28.344"N	104°55'34.310"W	0.97	
8952.00	90.380	357.360	7776.80	1485.36	1485.28	360.82	1661058.87	14553974.12	40°04'29.223"N	104°55'34.359"W	0.44	
9041.00	90.840	358.800	7775.86	1574.30	1574.22	357.84	1661055.82	14554063.03	40°04'30.102"N	104°55'34.397"W	1.70	
9131.00	90.670	358.120	7774.67	1664.26	1664.18	355.42	1661053.32	14554152.95	40°04'30.991"N	104°55'34.428"W	0.78	
9221.00	91.150	359.520	7773.24	1754.22	1754.14	353.57	1661051.40	14554242.88	40°04'31.880"N	104°55'34.452"W	1.64	
9310.00	89.990	0.000	7772.35	1843.22	1843.14	353.19	1661050.95	14554331.83	40°04'32.759"N	104°55'34.457"W	1.41	
9400.00	89.640	358.540	7772.65	1933.21	1933.13	352.05	1661049.73	14554421.79	40°04'33.649"N	104°55'34.471"W	1.67	
9490.00	89.220	359.970	7773.54	2023.19	2023.11	350.88	1661048.49	14554511.73	40°04'34.538"N	104°55'34.486"W	1.66	
9579.00	89.470	359.190	7774.56	2112.18	2112.10	350.22	1661047.77	14554600.69	40°04'35.417"N	104°55'34.495"W	0.92	
9669.00	89.010	0.190	7775.75	2202.17	2202.09	349.74	1661047.21	14554690.64	40°04'36.306"N	104°55'34.501"W	1.22	
9759.00	89.300	2.240	7777.08	2292.14	2292.06	351.64	1661049.04	14554780.57	40°04'37.196"N	104°55'34.476"W	2.30	
9848.00	89.560	1.100	7777.96	2381.09	2381.01	354.24	1661051.56	14554869.49	40°04'38.075"N	104°55'34.443"W	1.31	
9938.00	89.700	0.610	7778.55	2471.08	2471.00	355.58	1661052.83	14554959.45	40°04'38.964"N	104°55'34.426"W	0.57	
10028.00	89.700	359.870	7779.02	2561.08	2561.00	355.96	1661053.13	14555049.41	40°04'39.853"N	104°55'34.421"W	0.82	
10117.00	90.050	0.560	7779.21	2650.08	2650.00	356.29	1661053.39	14555138.37	40°04'40.733"N	104°55'34.417"W	0.87	
10207.00	89.980	359.350	7779.19	2740.08	2740.00	356.22	1661053.25	14555228.33	40°04'41.622"N	104°55'34.417"W	1.35	
10296.00	91.120	0.370	7778.33	2829.07	2828.99	356.00	1661052.96	14555317.29	40°04'42.502"N	104°55'34.420"W	1.72	
10386.00	91.700	359.820	7776.12	2919.04	2918.96	356.15	1661053.04	14555407.23	40°04'43.391"N	104°55'34.418"W	0.89	
10476.00	89.980	359.090	7774.80	3009.02	3008.94	355.30	1661052.11	14555497.17	40°04'44.280"N	104°55'34.429"W	2.08	
10565.00	89.760	1.300	7775.00	3098.02	3097.94	355.60	1661052.34	14555586.13	40°04'45.159"N	104°55'34.425"W	2.50	
10655.00	89.870	0.620	7775.29	3188.00	3187.92	357.11	1661053.77	14555676.08	40°04'46.049"N	104°55'34.406"W	0.77	
10745.00	90.320	2.280	7775.14	3277.97	3277.89	359.38	1661055.98	14555766.01	40°04'46.938"N	104°55'34.377"W	1.91	
10834.00	90.330	1.130	7774.64	3366.93	3366.85	362.03	1661058.55	14555854.94	40°04'47.817"N	104°55'34.343"W	1.29	
10924.00	90.410	0.370	7774.06	3456.92	3456.84	363.21	1661059.65	14555944.89	40°04'48.706"N	104°55'34.327"W	0.85	
11014.00	90.560	359.790	7773.29	3546.92	3546.83	363.34	1661059.71	14556034.85	40°04'49.595"N	104°55'34.326"W	0.67	
11103.00	90.840	359.490	7772.21	3635.91	3635.83	362.78	1661059.08	14556123.81	40°04'50.475"N	104°55'34.333"W	0.46	
11193.00	91.190	359.140	7770.61	3725.89	3725.81	361.70	1661057.93	14556213.75	40°04'51.364"N	104°55'34.347"W	0.55	
11283.00	89.560	359.020	7770.02	3815.87	3815.79	360.26	1661056.41	14556303.70	40°04'52.253"N	104°55'34.365"W	1.82	
11372.00	89.580	358.350	7770.69	3904.84	3904.76	358.21	1661054.29	14556392.63	40°04'53.133"N	104°55'34.392"W	0.75	
11462.00	90.180	358.620	7770.88	3994.81	3994.73	355.83	1661051.84	14556482.56	40°04'54.022"N	104°55'34.422"W	0.73	
11552.00	89.840	357.860	7770.86	4084.77	4084.69	353.07	1661049.01	14556572.48	40°04'54.911"N	104°55'34.458"W	0.93	
11641.00	91.120	359.370	7770.12	4173.73	4173.65	350.92	1661046.78	14556661.41	40°04'55.790"N	104°55'34.485"W	2.22	
11731.00	91.290	1.440	7768.23	4263.71	4263.63	351.56	1661047.35	14556751.35	40°04'56.679"N	104°55'34.477"W	2.31	

Actual Wellpath Report

BUDDY 7-14HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Area	COLORADO	Well	BUDDY 7-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUDDY 7-14HZ AWB
Facility	SEC.07-T1N-R67W		

WELLPATH DATA (211 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
11820.00	89.900	1.810	7767.30	4352.66	4352.58	354.08	1661049.80	14556840.27	40°04'57.558"N	104°55'34.445"W	1.62	
11910.00	89.760	1.030	7767.57	4442.64	4442.55	356.31	1661051.95	14556930.21	40°04'58.447"N	104°55'34.416"W	0.88	
12000.00	89.920	359.820	7767.82	4532.63	4532.55	356.98	1661052.55	14557020.17	40°04'59.336"N	104°55'34.407"W	1.36	
12089.00	90.360	358.840	7767.60	4621.62	4621.54	355.94	1661051.43	14557109.12	40°05'00.216"N	104°55'34.421"W	1.21	
12179.00	89.870	359.850	7767.42	4711.62	4711.53	354.91	1661050.33	14557199.08	40°05'01.105"N	104°55'34.434"W	1.25	
12268.00	88.580	0.990	7768.63	4800.60	4800.52	355.56	1661050.91	14557288.03	40°05'01.985"N	104°55'34.426"W	1.93	
12358.00	88.330	0.180	7771.05	4890.56	4890.48	356.48	1661051.76	14557377.96	40°05'02.874"N	104°55'34.414"W	0.94	
12448.00	88.250	359.440	7773.74	4980.52	4980.44	356.18	1661051.39	14557467.88	40°05'03.763"N	104°55'34.418"W	0.83	
12537.00	89.750	1.040	7775.29	5069.50	5069.42	356.55	1661051.69	14557556.82	40°05'04.642"N	104°55'34.413"W	2.46	
12627.00	89.180	0.070	7776.13	5159.49	5159.41	357.42	1661052.48	14557646.78	40°05'05.531"N	104°55'34.402"W	1.25	
12716.00	91.190	0.150	7775.84	5248.49	5248.41	357.60	1661052.58	14557735.74	40°05'06.411"N	104°55'34.399"W	2.26	
12806.00	91.320	359.810	7773.87	5338.47	5338.39	357.56	1661052.48	14557825.68	40°05'07.300"N	104°55'34.400"W	0.40	
12895.00	90.520	359.740	7772.44	5427.45	5427.37	357.21	1661052.06	14557914.63	40°05'08.179"N	104°55'34.404"W	0.90	
12985.00	91.040	358.750	7771.22	5517.44	5517.35	356.03	1661050.80	14558004.58	40°05'09.069"N	104°55'34.419"W	1.24	
13074.00	90.750	0.300	7769.83	5606.42	5606.34	355.29	1661049.99	14558093.52	40°05'09.948"N	104°55'34.429"W	1.77	
13164.00	91.440	359.490	7768.11	5696.40	5696.32	355.13	1661049.75	14558183.47	40°05'10.837"N	104°55'34.431"W	1.18	
13254.00	90.750	359.790	7766.39	5786.38	5786.30	354.56	1661049.11	14558273.41	40°05'11.726"N	104°55'34.438"W	0.84	
13343.00	90.450	0.700	7765.46	5875.37	5875.29	354.94	1661049.42	14558362.37	40°05'12.606"N	104°55'34.433"W	1.08	
13433.00	91.470	359.960	7763.95	5965.36	5965.28	355.46	1661049.86	14558452.32	40°05'13.495"N	104°55'34.427"W	1.40	
13522.00	90.700	0.570	7762.26	6054.34	6054.26	355.87	1661050.20	14558541.27	40°05'14.374"N	104°55'34.421"W	1.10	
13612.00	89.760	0.830	7761.90	6144.33	6144.25	356.97	1661051.23	14558631.22	40°05'15.264"N	104°55'34.407"W	1.08	
13701.00	89.980	0.090	7762.10	6233.33	6233.25	357.69	1661051.87	14558720.18	40°05'16.143"N	104°55'34.398"W	0.87	
13791.00	90.580	359.430	7761.67	6323.33	6323.25	357.31	1661051.42	14558810.14	40°05'17.032"N	104°55'34.403"W	0.99	
13881.00	91.360	358.750	7760.14	6413.30	6413.22	355.88	1661049.92	14558900.08	40°05'17.922"N	104°55'34.421"W	1.15	
13970.00	90.250	359.460	7758.89	6502.28	6502.20	354.49	1661048.46	14558989.02	40°05'18.801"N	104°55'34.439"W	1.48	
14060.00	90.780	359.120	7758.08	6592.27	6592.19	353.37	1661047.27	14559078.97	40°05'19.690"N	104°55'34.453"W	0.70	
14149.00	89.930	359.780	7757.53	6681.26	6681.18	352.52	1661046.34	14559167.93	40°05'20.570"N	104°55'34.464"W	1.21	
14239.00	90.440	358.990	7757.24	6771.25	6771.17	351.55	1661045.30	14559257.89	40°05'21.459"N	104°55'34.477"W	1.04	
14328.00	90.120	0.430	7756.81	6860.25	6860.17	351.10	1661044.78	14559346.85	40°05'22.338"N	104°55'34.483"W	1.66	
14417.00	90.190	359.380	7756.56	6949.25	6949.17	350.96	1661044.56	14559435.81	40°05'23.218"N	104°55'34.484"W	1.18	
14507.00	89.810	0.590	7756.56	7039.24	7039.17	350.93	1661044.46	14559525.77	40°05'24.107"N	104°55'34.485"W	1.41	
14597.00	90.610	0.370	7756.23	7129.24	7129.16	351.69	1661045.14	14559615.73	40°05'24.997"N	104°55'34.475"W	0.92	
14687.00	91.240	0.360	7754.78	7219.23	7219.15	352.26	1661045.64	14559705.68	40°05'25.886"N	104°55'34.468"W	0.70	
14776.00	90.190	359.660	7753.67	7308.22	7308.14	352.28	1661045.59	14559794.64	40°05'26.765"N	104°55'34.467"W	1.42	
14866.00	90.330	359.030	7753.26	7398.21	7398.13	351.25	1661044.49	14559884.59	40°05'27.655"N	104°55'34.481"W	0.72	
14956.00	90.300	357.820	7752.77	7488.17	7488.09	348.77	1661041.94	14559974.52	40°05'28.544"N	104°55'34.512"W	1.34	
15046.00	90.240	359.150	7752.34	7578.14	7578.06	346.39	1661039.49	14560064.44	40°05'29.433"N	104°55'34.543"W	1.48	
15135.00	89.560	359.770	7752.50	7667.13	7667.05	345.55	1661038.58	14560153.40	40°05'30.312"N	104°55'34.554"W	1.03	
15225.00	89.840	359.030	7752.97	7757.13	7757.05	344.61	1661037.56	14560243.36	40°05'31.202"N	104°55'34.566"W	0.88	
15314.00	89.160	358.300	7753.75	7846.10	7846.02	342.54	1661035.42	14560332.29	40°05'32.081"N	104°55'34.593"W	1.12	
15404.00	90.300	1.500	7754.17	7936.08	7936.00	342.38	1661035.19	14560422.24	40°05'32.970"N	104°55'34.595"W	3.77	
15494.00	90.920	1.000	7753.21	8026.06	8025.98	344.35	1661037.08	14560512.18	40°05'33.859"N	104°55'34.569"W	0.88	
15583.00	89.680	0.790	7752.75	8115.04	8114.96	345.74	1661038.39	14560601.13	40°05'34.739"N	104°55'34.551"W	1.41	
15672.00	90.150	0.440	7752.88	8204.04	8203.96	346.69	1661039.28	14560690.09	40°05'35.618"N	104°55'34.539"W	0.66	
15762.00	90.100	1.320	7752.68	8294.02	8293.95	348.07	1661040.58	14560780.05	40°05'36.507"N	104°55'34.521"W	0.98	

Actual Wellpath Report

BUDDY 7-14HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Area	COLORADO	Well	BUDDY 7-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUDDY 7-14HZ AWB
Facility	SEC.07-T1N-R67W		

WELLPATH DATA (211 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
15852.00	90.720	0.750	7752.04	8384.01	8383.93	349.70	1661042.14	14560869.99	40°05'37.396"N	104°55'34.500"W	0.94	
15941.00	89.680	359.610	7751.73	8473.00	8472.92	349.98	1661042.34	14560958.95	40°05'38.276"N	104°55'34.497"W	1.73	
16031.00	89.930	1.180	7752.03	8563.00	8562.92	350.60	1661042.89	14561048.91	40°05'39.165"N	104°55'34.489"W	1.77	
16121.00	90.820	0.950	7751.45	8652.98	8652.90	352.27	1661044.49	14561138.86	40°05'40.055"N	104°55'34.467"W	1.02	
16210.00	89.620	1.210	7751.10	8741.96	8741.88	353.95	1661046.09	14561227.81	40°05'40.934"N	104°55'34.446"W	1.38	
16300.00	90.530	0.370	7750.99	8831.95	8831.87	355.19	1661047.26	14561317.76	40°05'41.823"N	104°55'34.430"W	1.38	
16390.00	91.500	359.800	7749.39	8921.94	8921.86	355.32	1661047.32	14561407.71	40°05'42.712"N	104°55'34.428"W	1.25	
16479.00	91.020	0.640	7747.43	9010.91	9010.83	355.66	1661047.59	14561496.65	40°05'43.592"N	104°55'34.423"W	1.09	
16568.00	90.320	1.500	7746.39	9099.89	9099.81	357.33	1661049.18	14561585.59	40°05'44.471"N	104°55'34.402"W	1.25	
16658.00	89.040	1.220	7746.90	9189.86	9189.78	359.46	1661051.24	14561675.53	40°05'45.360"N	104°55'34.375"W	1.46	
16748.00	89.900	0.950	7747.73	9279.84	9279.76	361.17	1661052.87	14561765.47	40°05'46.249"N	104°55'34.353"W	1.00	
16837.00	90.680	0.910	7747.28	9368.83	9368.75	362.61	1661054.24	14561854.43	40°05'47.129"N	104°55'34.334"W	0.88	
16927.00	92.010	0.490	7745.17	9458.80	9458.71	363.71	1661055.27	14561944.36	40°05'48.018"N	104°55'34.320"W	1.55	
17016.00	90.680	359.430	7743.08	9547.77	9547.69	363.65	1661055.13	14562033.29	40°05'48.897"N	104°55'34.321"W	1.91	
17106.00	91.980	358.870	7740.99	9637.73	9637.65	362.31	1661053.72	14562123.22	40°05'49.786"N	104°55'34.338"W	1.57	
17149.00†	91.517	359.616	7739.68	9680.71	9680.62	361.75	1661053.12	14562166.18	40°05'50.211"N	104°55'34.345"W	2.04	CROSS SETBACK TOE (1783'FNL & 648'FEL,SEC.31) 40.0972807 -104.9262070
17196.00	91.010	0.430	7738.64	9727.69	9727.61	361.76	1661053.10	14562213.15	40°05'50.675"N	104°55'34.345"W	2.04	
17285.00	90.720	1.350	7737.30	9816.67	9816.59	363.15	1661054.41	14562302.09	40°05'51.554"N	104°55'34.327"W	1.08	
17375.00	90.330	0.830	7736.47	9906.65	9906.57	364.86	1661056.05	14562392.03	40°05'52.443"N	104°55'34.305"W	0.72	
17464.00	91.240	0.150	7735.25	9995.64	9995.56	365.62	1661056.74	14562480.99	40°05'53.323"N	104°55'34.295"W	1.28	
17554.00	90.350	0.540	7734.00	10085.63	10085.55	366.16	1661057.21	14562570.94	40°05'54.212"N	104°55'34.288"W	1.08	
17643.00	90.270	359.900	7733.52	10174.63	10174.54	366.50	1661057.48	14562659.90	40°05'55.092"N	104°55'34.284"W	0.72	
17733.00	90.300	359.600	7733.07	10264.62	10264.54	366.11	1661057.01	14562749.86	40°05'55.981"N	104°55'34.289"W	0.33	
17823.00	91.330	358.840	7731.79	10354.60	10354.52	364.89	1661055.71	14562839.81	40°05'56.870"N	104°55'34.305"W	1.42	
17912.00	89.960	357.750	7730.79	10443.56	10443.47	362.24	1661052.99	14562928.72	40°05'57.749"N	104°55'34.339"W	1.97	
18002.00	88.150	357.090	7732.28	10533.45	10533.37	358.19	1661048.87	14563018.57	40°05'58.638"N	104°55'34.391"W	2.14	
18092.00	89.300	357.590	7734.28	10623.32	10623.24	354.01	1661044.62	14563108.41	40°05'59.526"N	104°55'34.444"W	1.39	
18181.00	89.070	359.790	7735.54	10712.29	10712.21	351.98	1661042.52	14563197.34	40°06'00.405"N	104°55'34.471"W	2.49	
18271.00	89.960	359.610	7736.31	10802.28	10802.20	351.51	1661041.97	14563287.30	40°06'01.294"N	104°55'34.477"W	1.01	
18278.00	89.920	359.470	7736.31	10809.28	10809.20	351.45	1661041.91	14563294.29	40°06'01.363"N	104°55'34.477"W	2.08	LAST BHGE MWD+IFR1+MSA SURVEY
18332.00	89.920	359.470	7736.39	10863.28	10863.20	350.95	1661041.37	14563348.27	40°06'01.897"N	104°55'34.484"W	0.00	PTB (601'FNL & 658'FEL,SEC.31) 40.1005269 -104.9262455

HOLE & CASING SECTIONS - Ref Wellbore: BUDDY 7-14HZ AWB Ref Wellpath: BUDDY 7-14HZ AWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	21.00	1885.00	1864.00	21.00	1872.66	0.00	0.00	-3.63	188.22

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Area	COLORADO	Well	BUDDY 7-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUDDY 7-14HZ AWB
Facility	SEC.07-T1N-R67W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.06-T1N-R67W	0.00	120.62	-74.48	1660624.86	14552609.66	40°04'15.737"N	104°55'39.958"W	polygon
SEC.31-T2N-R67W	0.00	0.71	-75.02	1660624.41	14552489.80	40°04'14.552"N	104°55'39.965"W	polygon
BUDDY 7-14HZ BHL REV-1(600'FNL & 653'FEL,SEC.31)	7755.00	10863.95	355.56	1661045.98	14563349.02	40°06'01.904"N	104°55'34.424"W	point
BUDDY 7-14HZ HEEL REV-1(100'FNL & 653'FEL,SEC.07)	7769.00	712.21	353.19	1661051.87	14553201.36	40°04'21.583"N	104°55'34.457"W	point
BUDDY 7-14HZ LANDBOX	7769.00	0.00	0.00	1660699.40	14552489.15	40°04'14.545"N	104°55'39.000"W	polygon
BUDDY 7-14HZ SETBACK 1	7769.00	0.00	0.00	1660699.40	14552489.15	40°04'14.545"N	104°55'39.000"W	polygon
BUDDY 7-14HZ SETBACK 2	7769.00	0.00	0.00	1660699.40	14552489.15	40°04'14.545"N	104°55'39.000"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: BUDDY 7-14HZ AWB Ref Wellpath: BUDDY 7-14HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
21.00	1846.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <125 - 1846>	BUDDY 7-14HZ AWB
1846.00	18278.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1924 - 18278>	BUDDY 7-14HZ AWB
18278.00	18332.00	Blind Drilling (std)	Projection to bit	BUDDY 7-14HZ AWB

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#14 BUDDY 7-14HZ(818'FNL & 1005'FEL,SEC.07)
Area	COLORADO	Well	BUDDY 7-14HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUDDY 7-14HZ AWB
Facility	SEC.07-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
125.00	0.480	222.830	125.00	FIRST SURFACE MWD+IFR1 SURVEY
1591.00	8.595	90.828	1581.44	ENTER LANDBOX (821'FNL & 857'FEL,SEC.07) 40.0707002 -104.9269713
1846.00	7.510	92.310	1833.97	LAST SURFACE MWD+IFR1 SURVEY
1924.00	6.400	90.970	1911.39	FIRST BHGE MWD+IFR1+MSA SURVEY
7045.00	1.861	54.489	7021.36	KOP
8264.00	87.544	4.944	7780.01	LANDING (20'FNL & 639'FEL,SEC.07) 40.0728969 -104.9261915
8739.00	90.101	357.422	7777.71	CROSS SETBACK HEEL (454'FSL & 635'FEL,SEC.06) 40.0742000 -104.9261766
17149.00	91.517	359.616	7739.68	CROSS SETBACK TOE (1783'FNL & 648'FEL,SEC.31) 40.0972807 -104.9262070
18278.00	89.920	359.470	7736.31	LAST BHGE MWD+IFR1+MSA SURVEY
18332.00	89.920	359.470	7736.39	PTB (601'FNL & 658'FEL,SEC.31) 40.1005269 -104.9262455