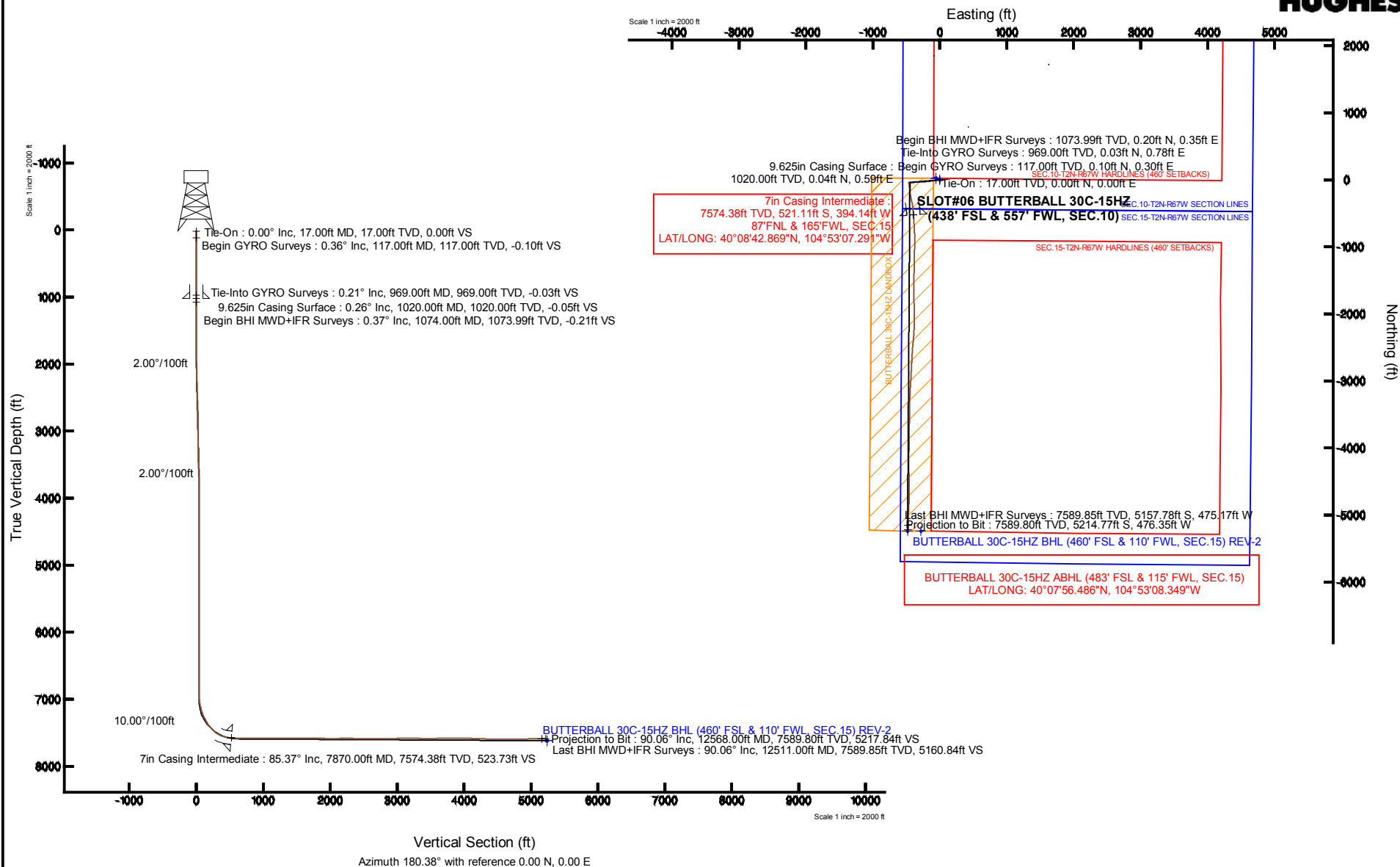


Location:	COLORADO	Slot:	SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10)
Field:	WELD COUNTY (KERR MCGEE)	Well:	BUTTERBALL 30C-15HZ
Facility:	SEC.10-T2N-R67W	Wellbore:	BUTTERBALL 30C-15HZ PWB

True vertical depths are referenced to XTREME 8 (17KG) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 8 (17KG) (RKB)	North Reference: True north
XTREME 8 (17KG) (RKB) to Mean Sea Level: 5013 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOTR06 BUTTERBALL 30C/15HZ (438' FSL & 557' FWL, SEC.10)) 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 20-Jan-2014



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10)
Area	COLORADO	Well	BUTTERBALL 30C-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BUTTERBALL 30C-15HZ AWB
Facility	SEC.10-T2N-R67W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.999958	Report Generated	20/Jan/2014 at 13:44
Convergence at slot	n/a	Database/Source file	WellArchitectDB/_BUTTERBALL_30C-15HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4176.52	-1405.19	3172216.36	1296874.25	40°08'48.019"N	104°53'02.216"W
Facility Reference Pt			3173592.20	1301060.32	40°09'29.292"N	104°52'44.121"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 8 (17'KB) (RKB) to Facility Vertical Datum	5013.00ft
Horizontal Reference Pt	Slot	XTREME 8 (17'KB) (RKB) to Mean Sea Level	5013.00ft
Vertical Reference Pt	XTREME 8 (17'KB) (RKB)	XTREME 8 (17'KB) (RKB) to Mud Line at Slot (SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10))	5013.00ft
MD Reference Pt	XTREME 8 (17'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.38°

Actual Wellpath Report

BUTTERBALL 30C-15HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10)
Area	COLORADO	Well	BUTTERBALL 30C-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BUTTERBALL 30C-15HZ AWP
Facility	SEC.10-T2N-R67W		

WELLPATH DATA (138 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	71.180	0.00	0.00	0.00	0.00	40°08'48.019"N	104°53'02.216"W	0.00	
17.00	0.000	71.180	17.00	0.00	0.00	0.00	40°08'48.019"N	104°53'02.216"W	0.00	Tie-On
117.00	0.360	71.180	117.00	-0.10	0.10	0.30	40°08'48.020"N	104°53'02.212"W	0.36	Begin GYRO Surveys
217.00	0.330	127.700	217.00	-0.03	0.03	0.82	40°08'48.019"N	104°53'02.205"W	0.33	
317.00	0.030	4.770	317.00	0.12	-0.12	1.05	40°08'48.018"N	104°53'02.202"W	0.35	
417.00	0.040	246.100	417.00	0.10	-0.11	1.02	40°08'48.018"N	104°53'02.203"W	0.06	
517.00	0.170	114.010	517.00	0.18	-0.19	1.13	40°08'48.017"N	104°53'02.201"W	0.20	
617.00	0.140	319.610	617.00	0.15	-0.15	1.18	40°08'48.017"N	104°53'02.201"W	0.30	
717.00	0.190	53.840	717.00	-0.05	0.04	1.24	40°08'48.019"N	104°53'02.200"W	0.24	
817.00	0.160	255.170	817.00	-0.11	0.10	1.24	40°08'48.020"N	104°53'02.200"W	0.34	
917.00	0.170	266.630	917.00	-0.06	0.06	0.95	40°08'48.020"N	104°53'02.204"W	0.03	
969.00	0.210	255.310	969.00	-0.03	0.03	0.78	40°08'48.019"N	104°53'02.206"W	0.11	Tie-Into GYRO Surveys
1074.00	0.370	311.770	1073.99	-0.21	0.20	0.35	40°08'48.021"N	104°53'02.212"W	0.29	Begin BHI MWD+IFR Surveys
1258.00	0.730	293.870	1257.99	-1.07	1.07	-1.17	40°08'48.030"N	104°53'02.231"W	0.21	
1440.00	1.020	288.320	1439.96	-2.03	2.05	-3.77	40°08'48.039"N	104°53'02.265"W	0.17	
1624.00	1.090	269.910	1623.93	-2.52	2.56	-7.07	40°08'48.044"N	104°53'02.307"W	0.19	
1715.00	2.770	261.290	1714.88	-2.16	2.23	-10.11	40°08'48.041"N	104°53'02.346"W	1.87	
1807.00	4.010	260.200	1806.72	-1.24	1.35	-15.48	40°08'48.032"N	104°53'02.415"W	1.35	
1898.00	5.250	247.270	1897.42	0.96	-0.80	-22.46	40°08'48.011"N	104°53'02.505"W	1.77	
1990.00	6.030	249.000	1988.97	4.37	-4.16	-30.85	40°08'47.978"N	104°53'02.613"W	0.87	
2081.00	7.480	262.590	2079.35	6.92	-6.64	-41.19	40°08'47.953"N	104°53'02.746"W	2.36	
2173.00	7.640	260.680	2170.55	8.76	-8.40	-53.16	40°08'47.936"N	104°53'02.901"W	0.32	
2265.00	9.140	263.200	2261.56	10.70	-10.26	-66.45	40°08'47.918"N	104°53'03.072"W	1.68	
2357.00	11.400	266.250	2352.08	12.27	-11.72	-82.78	40°08'47.903"N	104°53'03.282"W	2.53	
2448.00	12.910	262.040	2441.04	14.40	-13.71	-101.82	40°08'47.883"N	104°53'03.527"W	1.92	
2539.00	14.110	262.140	2529.52	17.46	-16.64	-122.88	40°08'47.855"N	104°53'03.798"W	1.32	
2630.00	14.940	262.220	2617.61	20.72	-19.74	-145.49	40°08'47.824"N	104°53'04.090"W	0.91	
2722.00	15.520	260.970	2706.38	24.41	-23.28	-169.40	40°08'47.789"N	104°53'04.397"W	0.72	
2813.00	15.280	263.400	2794.11	27.86	-26.57	-193.33	40°08'47.756"N	104°53'04.706"W	0.76	
2899.00	15.770	268.870	2876.98	29.55	-28.10	-216.28	40°08'47.741"N	104°53'05.001"W	1.79	
2984.00	14.740	268.380	2958.98	30.23	-28.64	-238.63	40°08'47.736"N	104°53'05.289"W	1.22	
3069.00	15.440	271.140	3041.05	30.46	-28.72	-260.76	40°08'47.735"N	104°53'05.574"W	1.18	
3154.00	13.620	271.110	3123.33	30.18	-28.30	-282.08	40°08'47.739"N	104°53'05.848"W	2.14	
3239.00	14.850	268.790	3205.72	30.36	-28.33	-302.97	40°08'47.739"N	104°53'06.117"W	1.59	
3324.00	15.610	270.690	3287.73	30.60	-28.43	-325.30	40°08'47.738"N	104°53'06.405"W	1.07	
3409.00	13.630	270.990	3369.98	30.43	-28.12	-346.75	40°08'47.741"N	104°53'06.681"W	2.33	
3495.00	11.580	261.760	3453.91	31.62	-29.18	-365.43	40°08'47.731"N	104°53'06.922"W	3.33	
3580.00	11.120	258.810	3537.25	34.54	-31.99	-381.91	40°08'47.703"N	104°53'07.134"W	0.87	
3665.00	10.340	262.290	3620.76	37.26	-34.61	-397.51	40°08'47.677"N	104°53'07.335"W	1.19	
3751.00	8.460	261.940	3705.60	39.28	-36.53	-411.43	40°08'47.658"N	104°53'07.514"W	2.19	
3836.00	6.830	259.700	3789.84	41.13	-38.31	-422.59	40°08'47.640"N	104°53'07.658"W	1.95	
3921.00	5.310	260.290	3874.37	42.76	-39.88	-431.44	40°08'47.625"N	104°53'07.772"W	1.79	
4006.00	4.140	265.050	3959.08	43.73	-40.80	-438.37	40°08'47.616"N	104°53'07.861"W	1.45	
4092.00	3.140	271.290	4044.90	43.99	-41.02	-443.82	40°08'47.614"N	104°53'07.931"W	1.25	
4177.00	1.950	272.240	4129.82	43.90	-40.91	-447.59	40°08'47.615"N	104°53'07.980"W	1.40	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10)
Area	COLORADO	Well	BUTTERBALL 30C-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BUTTERBALL 30C-15HZ AWB
Facility	SEC.10-T2N-R67W		

WELLPATH DATA (138 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4262.00	0.170	274.520	4214.80	43.85	-40.84	-449.17	40°08'47.615"N	104°53'08.000"W	2.09	
4432.00	0.400	258.010	4384.80	43.95	-40.95	-450.00	40°08'47.614"N	104°53'08.011"W	0.14	
4688.00	1.140	9.300	4640.78	41.63	-38.62	-450.46	40°08'47.637"N	104°53'08.017"W	0.52	
4773.00	0.610	94.160	4725.77	40.82	-37.82	-449.87	40°08'47.645"N	104°53'08.009"W	1.46	
5029.00	1.680	230.490	4981.74	43.32	-40.30	-451.41	40°08'47.621"N	104°53'08.029"W	0.84	
5114.00	0.760	308.170	5066.72	43.78	-40.75	-452.81	40°08'47.616"N	104°53'08.047"W	1.99	
5199.00	0.580	310.440	5151.72	43.15	-40.12	-453.58	40°08'47.622"N	104°53'08.057"W	0.21	
5454.00	0.570	245.310	5406.71	42.86	-39.81	-455.72	40°08'47.626"N	104°53'08.084"W	0.24	
5710.00	1.130	261.320	5662.68	43.80	-40.73	-459.37	40°08'47.616"N	104°53'08.131"W	0.24	
5795.00	0.300	36.560	5747.67	43.75	-40.67	-460.07	40°08'47.617"N	104°53'08.140"W	1.60	
6051.00	2.000	270.610	6003.63	43.19	-40.09	-464.13	40°08'47.623"N	104°53'08.193"W	0.86	
6135.00	1.650	303.300	6087.58	42.53	-39.41	-466.61	40°08'47.630"N	104°53'08.225"W	1.29	
6221.00	0.800	340.550	6173.57	41.29	-38.16	-467.85	40°08'47.642"N	104°53'08.241"W	1.31	
6306.00	0.400	289.100	6258.56	40.64	-37.51	-468.32	40°08'47.648"N	104°53'08.247"W	0.75	
6391.00	0.860	106.930	6343.56	40.72	-37.60	-467.99	40°08'47.647"N	104°53'08.242"W	1.48	
6561.00	0.660	329.200	6513.55	40.25	-37.13	-467.28	40°08'47.652"N	104°53'08.233"W	0.84	
6646.00	0.960	93.970	6598.55	39.87	-36.75	-466.82	40°08'47.656"N	104°53'08.227"W	1.70	
6731.00	1.380	99.180	6683.53	40.08	-36.97	-465.09	40°08'47.654"N	104°53'08.205"W	0.51	
6817.00	0.400	105.430	6769.52	40.31	-37.21	-463.78	40°08'47.651"N	104°53'08.188"W	1.14	
6902.00	0.600	164.910	6854.52	40.82	-37.72	-463.38	40°08'47.646"N	104°53'08.183"W	0.62	
6971.00	1.660	180.020	6923.50	42.17	-39.07	-463.29	40°08'47.633"N	104°53'08.182"W	1.58	
6987.00	1.990	182.300	6939.49	42.67	-39.58	-463.30	40°08'47.628"N	104°53'08.182"W	2.11	
7030.00	3.550	171.840	6982.44	44.74	-41.64	-463.14	40°08'47.607"N	104°53'08.180"W	3.80	
7073.00	6.530	170.010	7025.27	48.46	-45.37	-462.53	40°08'47.571"N	104°53'08.172"W	6.94	
7115.00	10.180	170.910	7066.82	54.47	-51.39	-461.53	40°08'47.511"N	104°53'08.159"W	8.70	
7157.00	12.990	170.980	7107.96	62.79	-59.72	-460.20	40°08'47.429"N	104°53'08.142"W	6.69	
7200.00	16.050	174.170	7149.58	73.47	-70.41	-458.84	40°08'47.323"N	104°53'08.125"W	7.35	
7243.00	19.160	174.290	7190.56	86.40	-83.34	-457.53	40°08'47.195"N	104°53'08.108"W	7.23	
7285.00	22.150	173.660	7229.86	101.12	-98.08	-455.97	40°08'47.050"N	104°53'08.088"W	7.14	
7328.00	25.640	173.710	7269.17	118.42	-115.38	-454.06	40°08'46.879"N	104°53'08.063"W	8.12	
7370.00	28.540	173.770	7306.55	137.41	-134.39	-451.97	40°08'46.691"N	104°53'08.036"W	6.91	
7413.00	30.910	173.700	7343.89	158.59	-155.59	-449.64	40°08'46.481"N	104°53'08.006"W	5.51	
7459.00	34.690	173.510	7382.55	183.33	-180.35	-446.87	40°08'46.237"N	104°53'07.970"W	8.22	
7501.00	38.920	171.860	7416.17	208.25	-205.29	-443.65	40°08'45.990"N	104°53'07.929"W	10.34	
7543.00	43.620	170.020	7447.73	235.57	-232.64	-439.26	40°08'45.720"N	104°53'07.872"W	11.56	
7585.00	49.550	168.020	7476.59	265.46	-262.57	-433.43	40°08'45.424"N	104°53'07.797"W	14.54	
7627.00	55.440	167.090	7502.15	297.93	-295.08	-426.24	40°08'45.103"N	104°53'07.705"W	14.13	
7669.00	61.570	166.970	7524.08	332.75	-329.97	-418.21	40°08'44.758"N	104°53'07.601"W	14.60	
7711.00	67.670	169.810	7542.08	369.86	-367.12	-410.60	40°08'44.391"N	104°53'07.503"W	15.75	
7753.00	74.190	172.070	7555.79	408.99	-406.30	-404.37	40°08'44.004"N	104°53'07.423"W	16.33	
7797.00	79.700	174.400	7565.73	451.50	-448.84	-399.33	40°08'43.583"N	104°53'07.358"W	13.54	
7835.00	83.960	176.490	7571.13	488.97	-486.33	-396.35	40°08'43.213"N	104°53'07.320"W	12.46	
7870.00†	85.372	176.247	7574.38	523.73	-521.11	-394.14	40°08'42.869"N	104°53'07.291"W	4.09	7" Casing Point
7948.00	88.520	175.710	7578.54	601.38	-598.79	-388.68	40°08'42.102"N	104°53'07.221"W	4.09	
8033.00	89.870	176.470	7579.73	686.13	-683.58	-382.88	40°08'41.264"N	104°53'07.146"W	1.82	

Actual Wellpath Report

BUTTERBALL 30C-15HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10)
Area	COLORADO	Well	BUTTERBALL 30C-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BUTTERBALL 30C-15HZ AWP
Facility	SEC.10-T2N-R67W		

WELLPATH DATA (138 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8118.00	90.430	177.840	7579.51	770.99	-768.48	-378.67	40°08'40.425"N	104°53'07.092"W	1.74	
8288.00	90.670	180.790	7577.88	940.93	-938.44	-376.63	40°08'38.745"N	104°53'07.066"W	1.74	
8459.00	89.350	180.990	7577.85	1111.92	-1109.41	-379.29	40°08'37.056"N	104°53'07.100"W	0.78	
8629.00	89.750	180.760	7579.18	1281.91	-1279.39	-381.88	40°08'35.376"N	104°53'07.133"W	0.27	
8714.00	90.270	182.210	7579.17	1366.89	-1364.36	-384.09	40°08'34.536"N	104°53'07.162"W	1.81	
8884.00	89.870	180.540	7578.96	1536.86	-1534.30	-388.17	40°08'32.857"N	104°53'07.214"W	1.01	
9055.00	89.130	178.820	7580.45	1707.83	-1705.28	-387.21	40°08'31.167"N	104°53'07.202"W	1.09	
9140.00	89.030	179.040	7581.82	1792.80	-1790.26	-385.62	40°08'30.328"N	104°53'07.181"W	0.28	
9225.00	88.950	179.390	7583.32	1877.77	-1875.24	-384.46	40°08'29.488"N	104°53'07.166"W	0.42	
9310.00	88.210	178.140	7585.42	1962.70	-1960.19	-382.63	40°08'28.648"N	104°53'07.143"W	1.71	
9396.00	91.260	179.390	7585.82	2048.66	-2046.16	-380.78	40°08'27.799"N	104°53'07.119"W	3.83	
9481.00	90.980	180.200	7584.16	2133.63	-2131.14	-380.47	40°08'26.959"N	104°53'07.115"W	1.01	
9566.00	90.710	183.640	7582.90	2218.58	-2216.07	-383.32	40°08'26.120"N	104°53'07.152"W	4.06	
9651.00	88.670	185.000	7583.36	2303.37	-2300.82	-389.72	40°08'25.282"N	104°53'07.234"W	2.88	
9779.00	89.470	184.740	7585.44	2430.96	-2428.34	-400.59	40°08'24.022"N	104°53'07.374"W	0.66	
9822.00	89.720	184.720	7585.75	2473.84	-2471.19	-404.13	40°08'23.598"N	104°53'07.420"W	0.58	
9907.00	89.130	184.120	7586.60	2558.62	-2555.93	-410.68	40°08'22.761"N	104°53'07.504"W	0.99	
9992.00	88.270	182.740	7588.53	2643.48	-2640.76	-415.77	40°08'21.923"N	104°53'07.569"W	1.91	
10078.00	89.500	183.010	7590.20	2729.38	-2726.63	-420.08	40°08'21.074"N	104°53'07.625"W	1.46	
10163.00	90.460	182.900	7590.23	2814.29	-2811.52	-424.46	40°08'20.235"N	104°53'07.681"W	1.14	
10248.00	92.610	183.290	7587.95	2899.16	-2896.36	-429.05	40°08'19.397"N	104°53'07.740"W	2.57	
10333.00	91.900	183.120	7584.61	2983.99	-2981.16	-433.80	40°08'18.559"N	104°53'07.801"W	0.86	
10418.00	91.320	183.730	7582.22	3068.84	-3065.97	-438.87	40°08'17.721"N	104°53'07.867"W	0.99	
10504.00	89.530	183.240	7581.58	3154.71	-3151.81	-444.10	40°08'16.873"N	104°53'07.934"W	2.16	
10589.00	89.440	181.690	7582.35	3239.64	-3236.72	-447.76	40°08'16.033"N	104°53'07.981"W	1.83	
10674.00	88.740	182.120	7583.70	3324.60	-3321.66	-450.58	40°08'15.194"N	104°53'08.017"W	0.97	
10759.00	88.820	180.420	7585.51	3409.57	-3406.62	-452.46	40°08'14.354"N	104°53'08.042"W	2.00	
10844.00	90.950	180.470	7585.68	3494.56	-3491.61	-453.12	40°08'13.515"N	104°53'08.050"W	2.51	
10930.00	90.850	180.970	7584.33	3580.55	-3577.60	-454.21	40°08'12.665"N	104°53'08.064"W	0.59	
11015.00	90.210	181.180	7583.54	3665.54	-3662.58	-455.80	40°08'11.825"N	104°53'08.085"W	0.79	
11100.00	91.260	181.210	7582.45	3750.52	-3747.55	-457.57	40°08'10.985"N	104°53'08.107"W	1.24	
11271.00	89.290	180.910	7581.63	3921.50	-3918.51	-460.74	40°08'09.296"N	104°53'08.148"W	1.17	
11357.00	90.270	180.220	7581.96	4007.50	-4004.50	-461.58	40°08'08.446"N	104°53'08.159"W	1.39	
11442.00	88.300	181.170	7583.02	4092.49	-4089.49	-462.61	40°08'07.606"N	104°53'08.172"W	2.57	
11484.00	87.270	180.420	7584.64	4134.45	-4131.45	-463.20	40°08'07.192"N	104°53'08.180"W	3.03	
11527.00	87.590	180.990	7586.57	4177.41	-4174.40	-463.73	40°08'06.767"N	104°53'08.186"W	1.52	
11612.00	88.200	179.310	7589.69	4262.35	-4259.34	-463.95	40°08'05.928"N	104°53'08.189"W	2.10	
11697.00	89.290	178.980	7591.56	4347.31	-4344.31	-462.68	40°08'05.088"N	104°53'08.173"W	1.34	
11782.00	88.580	178.810	7593.14	4432.26	-4429.28	-461.04	40°08'04.248"N	104°53'08.152"W	0.86	
11867.00	88.500	179.050	7595.30	4517.21	-4514.24	-459.45	40°08'03.409"N	104°53'08.131"W	0.30	
11952.00	89.350	179.240	7596.90	4602.17	-4599.21	-458.19	40°08'02.569"N	104°53'08.115"W	1.02	
12038.00	89.840	180.950	7597.50	4688.16	-4685.21	-458.33	40°08'01.719"N	104°53'08.117"W	2.07	
12123.00	92.210	181.530	7595.98	4773.13	-4770.17	-460.17	40°08'00.880"N	104°53'08.141"W	2.87	
12208.00	91.360	182.750	7593.34	4858.05	-4855.06	-463.34	40°08'00.041"N	104°53'08.181"W	1.75	
12293.00	91.350	182.990	7591.33	4942.95	-4939.93	-467.59	40°07'59.202"N	104°53'08.236"W	0.28	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10)
Area	COLORADO	Well	BUTTERBALL 30C-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BUTTERBALL 30C-15HZ AWB
Facility	SEC.10-T2N-R67W		

WELLPATH DATA (138 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12378.00	90.210	182.090	7590.17	5027.88	-5024.84	-471.36	40°07'58.363"N	104°53'08.285"W	1.71	
12511.00	90.060	181.190	7589.85	5160.84	-5157.78	-475.17	40°07'57.049"N	104°53'08.334"W	0.69	Last BHI MWD+IFR Surveys
12568.00	90.060	181.190	7589.80	5217.84	-5214.77	-476.35	40°07'56.486"N	104°53'08.349"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: BUTTERBALL 30C-15HZ AWB Ref Wellpath: BUTTERBALL 30C-15HZ 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]
13.5in Open Hole	17.00	1020.00	1003.00	17.00	1020.00	0.00	0.00	0.04	0.59
9.625in Casing Surface	17.00	1020.00	1003.00	17.00	1020.00	0.00	0.00	0.04	0.59
8.75in Open Hole	1020.00	7880.00	6860.00	1020.00	7575.15	0.04	0.59	-531.05	-393.48
7in Casing Intermediate	17.00	7870.00	7853.00	17.00	7574.38	0.00	0.00	-521.11	-394.14
6.125in Open Hole	7880.00	12568.00	4688.00	7575.15	7589.80	-531.05	-393.48	-5214.77	-476.35

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.10-T2N-R67W HARDLINES (460' SETBACKS)		0.00	21.86	-55.91	3172160.30	1296895.72	40°08'48.235"N	104°53'02.936"W	polygon
SEC.10-T2N-R67W SECTION LINES		0.00	21.86	-55.91	3172160.30	1296895.72	40°08'48.235"N	104°53'02.936"W	polygon
SEC.15-T2N-R67W HARDLINES (460' SETBACKS)		0.00	21.86	-55.91	3172160.30	1296895.72	40°08'48.235"N	104°53'02.936"W	polygon
SEC.15-T2N-R67W SECTION LINES		0.00	21.86	-55.91	3172160.30	1296895.72	40°08'48.235"N	104°53'02.936"W	polygon
BUTTERBALL 30C-15HZ BHL (460' FSL & 110' FWL, SEC.15) REV-2		7618.00	-5240.01	-481.89	3171770.90	1291631.24	40°07'56.237"N	104°53'08.420"W	point
BUTTERBALL 30C-15HZ BHL ON PLAT (460' FSL & 310' FWL, SEC.15) REV-1		7618.00	-5240.01	-281.89	3171970.89	1291632.63	40°07'56.237"N	104°53'05.845"W	point
BUTTERBALL 30C-15HZ LANDBOX		7618.00	0.00	0.00	3172216.36	1296874.25	40°08'48.019"N	104°53'02.216"W	polygon

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10)
Area	COLORADO	Well	BUTTERBALL 30C-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BUTTERBALL 30C-15HZ AWB
Facility	SEC.10-T2N-R67W		

WELLPATH COMPOSITION - Ref Wellbore: BUTTERBALL 30C-15HZ AWB Ref Wellpath: BUTTERBALL 30C-15HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	969.00	Generic gyro - continuous (Standard)	MS ENERGY SERVICES GYRO SURVEYS <117-969>	BUTTERBALL 30C-15HZ AWB
969.00	7835.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1074-7835>	BUTTERBALL 30C-15HZ AWB
7835.00	12511.00	Unknown Tool (Standard)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7948-12511>	BUTTERBALL 30C-15HZ AWB
12511.00	12568.00	Blind Drilling (std)	Projection to bit	BUTTERBALL 30C-15HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#06 BUTTERBALL 30C-15HZ (438' FSL & 557' FWL, SEC.10)
Area	COLORADO	Well	BUTTERBALL 30C-15HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BUTTERBALL 30C-15HZ AWB
Facility	SEC.10-T2N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	71.180	17.00	Tie-On
117.00	0.360	71.180	117.00	Begin GYRO Surveys
969.00	0.210	255.310	969.00	Tie-Into GYRO Surveys
1074.00	0.370	311.770	1073.99	Begin BHI MWD+IFR Surveys
7870.00	85.372	176.247	7574.38	7" Casing Point
12511.00	90.060	181.190	7589.85	Last BHI MWD+IFR Surveys
12568.00	90.060	181.190	7589.80	Projection to Bit