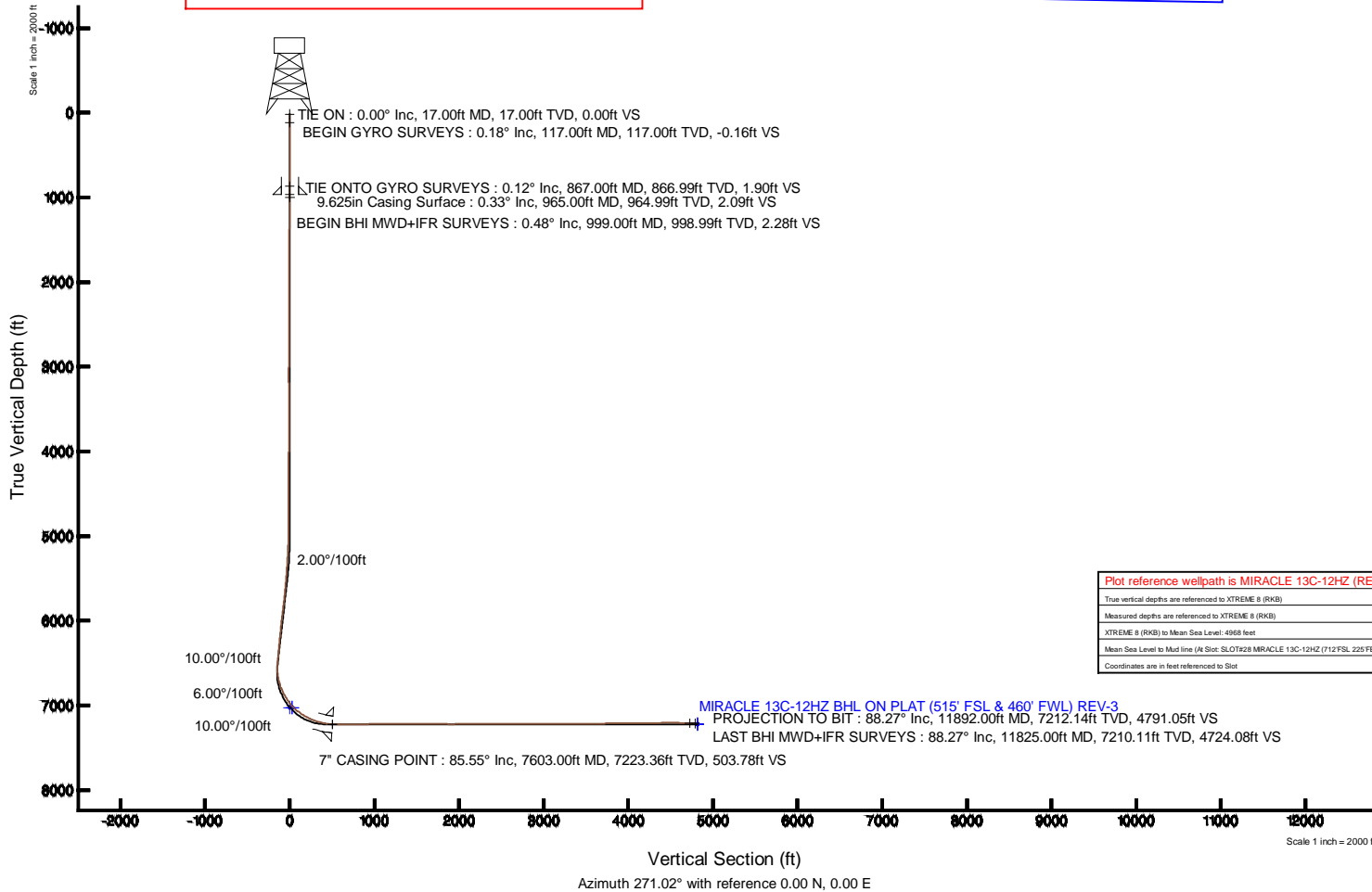
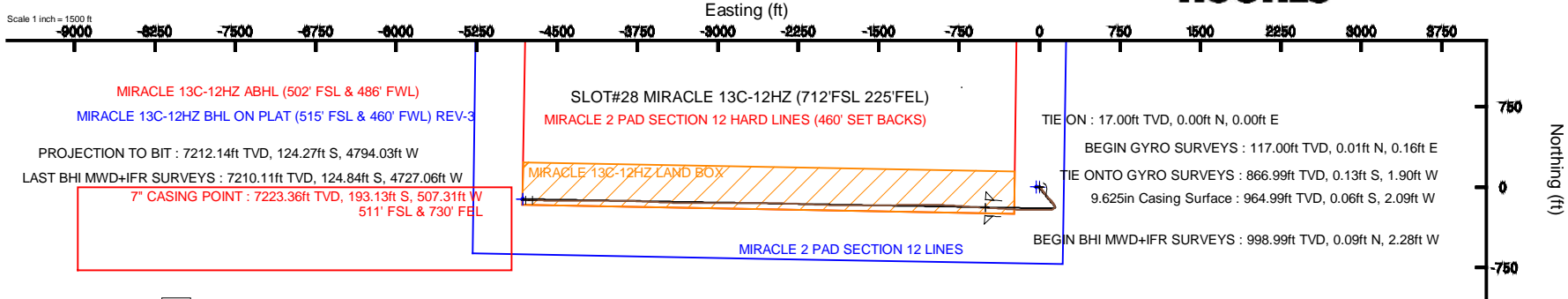




KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL)
 Field: LARIMER COUNTY Well: MIRACLE 13C-12HZ
 Facility: SEC.12-T5N-R68W Wellbore: MIRACLE 13C-12HZ PWB



Plot reference wellpath is MIRACLE 13C-12HZ (REV-C.0) PWB	
True vertical depths are referenced to XTREME 8 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 8 (RKB)	North Reference: True north
XTREME 8 (RKB) to Mean Sea Level: 4968 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precin on 04/Oct/2013



Actual Wellpath Report

MIRACLE 13C-12HZ AWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL)
Area	COLORADO	Well	MIRACLE 13C-12HZ
Field	LARIMER COUNTY	Wellbore	MIRACLE 13C-12HZ AWB
Facility	SEC.12-T5N-R68W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Robiale01
Scale	0.999961	Report Generated	24/Sep/2013 at 14:02
Convergence at slot	n/a	Database/Source file	WA_ANADARKO/MIRACLE_13C-12HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-1768.03	22.82	3154454.42	1392295.90	40°24'32.141"N	104°56'43.260"W
Facility Reference Pt			3154420.54	1394063.69	40°24'49.612"N	104°56'43.555"W
Field Reference Pt			3154420.53	1394063.64	40°24'49.612"N	104°56'43.555"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 8 (RKB) to Facility Vertical Datum	4968.00ft
Horizontal Reference Pt	Slot	XTREME 8 (RKB) to Mean Sea Level	4968.00ft
Vertical Reference Pt	XTREME 8 (RKB)	XTREME 8 (RKB) to Mud Line at Slot (SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL))	4968.00ft
MD Reference Pt	XTREME 8 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	270.83°



Actual Wellpath Report

MIRACLE 13C-12HZ AWP

Page 2 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL)
Area	COLORADO	Well	MIRACLE 13C-12HZ
Field	LARIMER COUNTY	Wellbore	MIRACLE 13C-12HZ AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (135 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	84.600	0.00	0.00	0.00	0.00	40°24'32.141"N	104°56'43.260"W	0.00	
17.00	0.000	84.600	17.00	0.00	0.00	0.00	40°24'32.141"N	104°56'43.260"W	0.00	TIE ON
117.00	0.180	84.600	117.00	-0.16	0.01	0.16	40°24'32.141"N	104°56'43.258"W	0.18	BEGIN GYRO SURVEYS
217.00	0.310	280.930	217.00	-0.05	0.08	0.05	40°24'32.142"N	104°56'43.259"W	0.49	
317.00	0.340	236.720	317.00	0.47	-0.03	-0.47	40°24'32.141"N	104°56'43.266"W	0.25	
417.00	0.480	247.620	417.00	1.10	-0.35	-1.10	40°24'32.138"N	104°56'43.274"W	0.16	
517.00	0.210	340.920	516.99	1.54	-0.34	-1.55	40°24'32.138"N	104°56'43.280"W	0.53	
617.00	0.390	305.980	616.99	1.88	0.03	-1.88	40°24'32.141"N	104°56'43.284"W	0.25	
717.00	0.170	93.730	716.99	2.01	0.22	-2.01	40°24'32.143"N	104°56'43.286"W	0.54	
817.00	0.230	189.690	816.99	1.90	0.02	-1.90	40°24'32.141"N	104°56'43.285"W	0.30	
867.00	0.120	163.010	866.99	1.90	-0.13	-1.90	40°24'32.140"N	104°56'43.285"W	0.27	TIE ONTO GYRO SURVEYS
999.00	0.480	310.490	998.99	2.28	0.09	-2.28	40°24'32.142"N	104°56'43.289"W	0.44	BEGIN BHI MWD+IFR SURVEYS
1089.00	0.390	323.050	1088.99	2.76	0.58	-2.75	40°24'32.147"N	104°56'43.296"W	0.15	
1181.00	1.550	87.290	1180.98	1.71	0.89	-1.70	40°24'32.150"N	104°56'43.282"W	1.95	
1272.00	1.580	86.370	1271.94	-0.77	1.03	0.79	40°24'32.151"N	104°56'43.250"W	0.04	
1362.00	1.830	81.070	1361.90	-3.42	1.33	3.44	40°24'32.154"N	104°56'43.215"W	0.33	
1454.00	1.770	136.370	1453.86	-5.87	0.53	5.88	40°24'32.146"N	104°56'43.184"W	1.82	
1545.00	1.670	150.100	1544.82	-7.53	-1.63	7.51	40°24'32.125"N	104°56'43.163"W	0.46	
1636.00	1.720	153.090	1635.78	-8.84	-4.00	8.79	40°24'32.101"N	104°56'43.146"W	0.11	
1727.00	1.540	156.190	1726.75	-9.99	-6.34	9.90	40°24'32.078"N	104°56'43.132"W	0.22	
1817.00	0.210	300.930	1816.74	-10.35	-7.36	10.24	40°24'32.068"N	104°56'43.128"W	1.91	
1999.00	0.540	7.320	1998.73	-10.16	-6.34	10.07	40°24'32.078"N	104°56'43.130"W	0.27	
2090.00	0.580	195.670	2089.73	-10.09	-6.36	10.00	40°24'32.078"N	104°56'43.131"W	1.23	
2260.00	0.820	219.130	2259.72	-9.11	-8.13	9.00	40°24'32.061"N	104°56'43.144"W	0.22	
2345.00	0.090	277.960	2344.72	-8.67	-8.59	8.55	40°24'32.056"N	104°56'43.150"W	0.91	
2601.00	0.630	319.820	2600.71	-7.55	-7.49	7.44	40°24'32.067"N	104°56'43.164"W	0.22	
2686.00	0.570	102.380	2685.71	-7.66	-7.22	7.55	40°24'32.070"N	104°56'43.162"W	1.34	
2942.00	0.560	111.140	2941.70	-10.08	-7.95	9.96	40°24'32.062"N	104°56'43.131"W	0.03	
3197.00	0.360	280.880	3196.69	-10.46	-8.24	10.34	40°24'32.060"N	104°56'43.126"W	0.36	
3453.00	0.280	274.830	3452.69	-9.04	-8.04	8.92	40°24'32.062"N	104°56'43.145"W	0.03	
3709.00	0.770	294.140	3708.68	-6.84	-7.28	6.73	40°24'32.069"N	104°56'43.173"W	0.20	
3794.00	0.160	2.500	3793.68	-6.32	-6.93	6.22	40°24'32.073"N	104°56'43.180"W	0.85	
3879.00	1.370	85.950	3878.67	-7.33	-6.74	7.23	40°24'32.074"N	104°56'43.166"W	1.60	
3965.00	1.630	75.870	3964.64	-9.54	-6.37	9.45	40°24'32.078"N	104°56'43.138"W	0.43	
4050.00	0.890	109.090	4049.62	-11.33	-6.29	11.24	40°24'32.079"N	104°56'43.115"W	1.19	
4135.00	0.600	132.810	4134.61	-12.29	-6.81	12.19	40°24'32.074"N	104°56'43.102"W	0.49	
4220.00	0.650	127.800	4219.61	-13.01	-7.41	12.90	40°24'32.068"N	104°56'43.093"W	0.09	
4391.00	0.540	145.160	4390.60	-14.25	-8.66	14.13	40°24'32.055"N	104°56'43.077"W	0.12	
4647.00	0.290	168.480	4646.59	-15.09	-10.29	14.95	40°24'32.039"N	104°56'43.067"W	0.12	
4902.00	0.240	226.620	4901.59	-14.85	-11.29	14.69	40°24'32.029"N	104°56'43.070"W	0.10	
4987.00	1.180	155.600	4986.58	-15.09	-12.21	14.92	40°24'32.020"N	104°56'43.067"W	1.32	
5072.00	2.950	153.240	5071.52	-16.48	-14.96	16.26	40°24'31.993"N	104°56'43.050"W	2.08	
5158.00	4.290	144.760	5157.35	-19.40	-19.56	19.12	40°24'31.948"N	104°56'43.013"W	1.67	
5243.00	5.960	144.880	5242.01	-23.86	-25.77	23.49	40°24'31.886"N	104°56'42.956"W	1.96	
5328.00	6.650	148.750	5326.49	-29.07	-33.58	28.58	40°24'31.809"N	104°56'42.891"W	0.95	



Actual Wellpath Report

MIRACLE 13C-12HZ AWP

Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL)
Area	COLORADO	Well	MIRACLE 13C-12HZ
Field	LARIMER COUNTY	Wellbore	MIRACLE 13C-12HZ AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (135 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5413.00	6.880	140.820	5410.90	-34.95	-41.74	34.35	40°24'31.729"N	104°56'42.816"W	1.13	
5498.00	7.540	144.000	5495.23	-41.57	-50.20	40.85	40°24'31.645"N	104°56'42.732"W	0.91	
5584.00	8.710	147.480	5580.37	-48.53	-60.25	47.66	40°24'31.546"N	104°56'42.644"W	1.48	
5669.00	9.550	144.780	5664.29	-56.22	-71.44	55.19	40°24'31.435"N	104°56'42.547"W	1.11	
5754.00	10.310	136.980	5748.02	-65.64	-82.76	64.45	40°24'31.323"N	104°56'42.427"W	1.82	
5839.00	9.000	134.710	5831.81	-75.70	-93.00	74.36	40°24'31.222"N	104°56'42.299"W	1.60	
5924.00	10.060	136.440	5915.64	-85.69	-103.06	84.20	40°24'31.123"N	104°56'42.171"W	1.29	
6009.00	8.130	135.690	5999.57	-95.14	-112.74	93.52	40°24'31.027"N	104°56'42.051"W	2.27	
6094.00	8.150	138.700	6083.71	-103.44	-121.57	101.69	40°24'30.940"N	104°56'41.945"W	0.50	
6180.00	8.580	138.060	6168.79	-111.89	-130.92	110.00	40°24'30.847"N	104°56'41.838"W	0.51	
6265.00	8.340	146.500	6252.87	-119.67	-140.78	117.65	40°24'30.750"N	104°56'41.739"W	1.49	
6350.00	8.970	144.610	6336.90	-127.06	-151.32	124.89	40°24'30.646"N	104°56'41.646"W	0.81	
6435.00	10.280	146.930	6420.71	-135.21	-163.08	132.86	40°24'30.530"N	104°56'41.542"W	1.61	
6521.00	8.830	146.990	6505.51	-143.17	-175.04	140.65	40°24'30.411"N	104°56'41.442"W	1.69	
6563.00	8.450	169.570	6547.05	-145.56	-180.78	142.96	40°24'30.355"N	104°56'41.412"W	8.07	
6606.00	10.220	198.080	6589.50	-145.05	-187.52	142.35	40°24'30.288"N	104°56'41.420"W	11.37	
6648.00	12.130	213.350	6630.71	-141.57	-194.75	138.77	40°24'30.217"N	104°56'41.466"W	8.35	
6691.00	13.630	227.790	6672.64	-135.44	-201.93	132.53	40°24'30.146"N	104°56'41.547"W	8.23	
6733.00	15.970	243.610	6713.26	-126.68	-207.83	123.68	40°24'30.087"N	104°56'41.661"W	11.07	
6776.00	18.180	257.820	6754.38	-114.88	-211.87	111.82	40°24'30.047"N	104°56'41.815"W	10.94	
6818.00	21.520	265.790	6793.88	-100.81	-213.82	97.72	40°24'30.028"N	104°56'41.997"W	10.22	
6861.00	25.450	268.030	6833.31	-83.72	-214.72	80.62	40°24'30.019"N	104°56'42.218"W	9.37	
6904.00	28.340	269.180	6871.66	-64.29	-215.18	61.18	40°24'30.015"N	104°56'42.469"W	6.83	
6946.00	31.410	271.220	6908.08	-43.37	-215.09	40.26	40°24'30.016"N	104°56'42.740"W	7.70	
6989.00	35.040	271.370	6944.04	-19.82	-214.56	16.71	40°24'30.021"N	104°56'43.044"W	8.44	
7031.00	38.650	269.880	6977.65	5.36	-214.30	-8.47	40°24'30.023"N	104°56'43.369"W	8.85	
7074.00	42.880	269.770	7010.21	33.43	-214.38	-36.54	40°24'30.023"N	104°56'43.732"W	9.84	
7117.00	47.180	270.270	7040.59	63.84	-214.37	-66.95	40°24'30.023"N	104°56'44.126"W	10.03	
7159.00	51.600	271.770	7067.92	95.72	-213.79	-98.82	40°24'30.028"N	104°56'44.537"W	10.87	
7202.00	55.440	271.540	7093.48	130.28	-212.79	-133.38	40°24'30.038"N	104°56'44.984"W	8.94	
7244.00	59.230	271.660	7116.15	165.63	-211.80	-168.71	40°24'30.048"N	104°56'45.441"W	9.03	
7287.00	62.180	271.730	7137.18	203.12	-210.69	-206.19	40°24'30.059"N	104°56'45.925"W	6.86	
7330.00	65.020	272.600	7156.30	241.62	-209.24	-244.68	40°24'30.073"N	104°56'46.423"W	6.85	
7372.00	68.750	273.950	7172.79	280.21	-207.02	-283.23	40°24'30.095"N	104°56'46.921"W	9.36	
7415.00	72.220	274.000	7187.15	320.67	-204.21	-323.66	40°24'30.123"N	104°56'47.444"W	8.07	
7457.00	74.540	273.380	7199.16	360.86	-201.63	-363.82	40°24'30.149"N	104°56'47.963"W	5.70	
7500.00	78.160	273.020	7209.31	402.60	-199.29	-405.53	40°24'30.172"N	104°56'48.502"W	8.46	
7550.00	82.340	273.570	7217.77	451.82	-196.46	-454.72	40°24'30.200"N	104°56'49.138"W	8.43	
7603.00†	85.548	273.676	7223.36	504.46	-193.13	-507.31	40°24'30.233"N	104°56'49.818"W	6.06	7" CASING POINT
7645.00	88.090	273.760	7225.69	546.34	-190.41	-549.15	40°24'30.259"N	104°56'50.359"W	6.06	
7698.00	89.690	273.820	7226.72	599.26	-186.91	-602.03	40°24'30.294"N	104°56'51.042"W	3.02	
7809.00	91.840	274.420	7225.24	710.06	-178.94	-712.72	40°24'30.373"N	104°56'52.473"W	2.01	
7894.00	91.440	273.860	7222.81	794.88	-172.80	-797.47	40°24'30.433"N	104°56'53.569"W	0.81	
8064.00	90.520	269.740	7219.90	964.79	-167.46	-967.32	40°24'30.486"N	104°56'55.765"W	2.48	
8149.00	90.580	270.210	7219.08	1049.78	-167.50	-1052.31	40°24'30.486"N	104°56'56.863"W	0.56	



Actual Wellpath Report

MIRACLE 13C-12HZ AWP

Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL)
Area	COLORADO	Well	MIRACLE 13C-12HZ
Field	LARIMER COUNTY	Wellbore	MIRACLE 13C-12HZ AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (135 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8234.00	90.460	270.680	7218.31	1134.77	-166.84	-1137.31	40°24'30.492"N	104°56'57.962"W	0.57	
8320.00	90.120	269.030	7217.88	1220.76	-167.06	-1223.30	40°24'30.490"N	104°56'59.074"W	1.96	
8405.00	90.860	269.620	7217.15	1305.72	-168.06	-1308.29	40°24'30.480"N	104°57'00.172"W	1.11	
8490.00	90.330	269.370	7216.27	1390.69	-168.81	-1393.29	40°24'30.473"N	104°57'01.271"W	0.69	
8575.00	89.260	268.780	7216.57	1475.65	-170.18	-1478.27	40°24'30.459"N	104°57'02.370"W	1.44	
8660.00	89.560	269.040	7217.45	1560.60	-171.80	-1563.25	40°24'30.443"N	104°57'03.468"W	0.47	
8746.00	89.780	270.210	7217.94	1646.58	-172.36	-1649.25	40°24'30.437"N	104°57'04.580"W	1.38	
8831.00	89.410	270.420	7218.54	1731.57	-171.89	-1734.24	40°24'30.442"N	104°57'05.679"W	0.50	
8916.00	89.040	270.570	7219.69	1816.56	-171.16	-1819.23	40°24'30.449"N	104°57'06.777"W	0.47	
9001.00	89.720	271.120	7220.61	1901.56	-169.91	-1904.22	40°24'30.461"N	104°57'07.876"W	1.03	
9086.00	91.440	272.150	7219.75	1986.54	-167.48	-1989.17	40°24'30.485"N	104°57'08.974"W	2.36	
9257.00	91.260	272.610	7215.72	2157.43	-160.38	-2159.98	40°24'30.555"N	104°57'11.182"W	0.29	
9342.00	90.370	272.350	7214.51	2242.38	-156.70	-2244.89	40°24'30.591"N	104°57'12.280"W	1.09	
9427.00	89.570	271.490	7214.56	2327.37	-153.86	-2329.84	40°24'30.620"N	104°57'13.378"W	1.38	
9512.00	89.320	271.420	7215.38	2412.36	-151.70	-2414.81	40°24'30.641"N	104°57'14.476"W	0.31	
9598.00	88.620	270.710	7216.93	2498.34	-150.10	-2500.78	40°24'30.657"N	104°57'15.588"W	1.16	
9683.00	89.540	270.070	7218.29	2583.33	-149.52	-2585.76	40°24'30.662"N	104°57'16.686"W	1.32	
9768.00	89.940	269.900	7218.68	2668.32	-149.54	-2670.76	40°24'30.662"N	104°57'17.785"W	0.51	
9853.00	89.690	269.470	7218.95	2753.30	-150.01	-2755.76	40°24'30.657"N	104°57'18.884"W	0.59	
9938.00	89.970	269.710	7219.20	2838.28	-150.62	-2840.76	40°24'30.651"N	104°57'19.982"W	0.43	
10024.00	91.510	270.790	7218.09	2924.26	-150.24	-2926.75	40°24'30.655"N	104°57'21.094"W	2.19	
10109.00	90.960	270.640	7216.26	3009.24	-149.18	-3011.72	40°24'30.665"N	104°57'22.193"W	0.67	
10194.00	90.250	270.100	7215.36	3094.24	-148.64	-3096.71	40°24'30.670"N	104°57'23.291"W	1.05	
10279.00	89.910	269.420	7215.24	3179.22	-148.99	-3181.71	40°24'30.667"N	104°57'24.390"W	0.89	
10364.00	89.820	269.850	7215.45	3264.20	-149.53	-3266.71	40°24'30.661"N	104°57'25.489"W	0.52	
10450.00	89.660	271.100	7215.84	3350.20	-148.82	-3352.70	40°24'30.668"N	104°57'26.600"W	1.47	
10536.00	90.150	271.910	7215.98	3436.19	-146.56	-3438.67	40°24'30.690"N	104°57'27.712"W	1.10	
10621.00	90.180	272.790	7215.73	3521.16	-143.08	-3523.60	40°24'30.725"N	104°57'28.810"W	1.04	
10706.00	90.520	273.100	7215.21	3606.10	-138.71	-3608.49	40°24'30.768"N	104°57'29.907"W	0.54	
10791.00	90.980	272.770	7214.10	3691.03	-134.36	-3693.37	40°24'30.811"N	104°57'31.004"W	0.67	
10877.00	91.170	271.430	7212.49	3777.00	-131.21	-3779.29	40°24'30.842"N	104°57'32.115"W	1.57	
10963.00	90.950	271.180	7210.90	3862.98	-129.25	-3865.26	40°24'30.861"N	104°57'33.226"W	0.39	
11048.00	90.330	270.840	7209.95	3947.97	-127.75	-3950.24	40°24'30.876"N	104°57'34.325"W	0.83	
11133.00	89.260	270.050	7210.25	4032.97	-127.09	-4035.23	40°24'30.882"N	104°57'35.423"W	1.56	
11219.00	89.840	270.040	7210.93	4118.96	-127.02	-4121.23	40°24'30.882"N	104°57'36.535"W	0.67	
11304.00	90.510	270.010	7210.67	4203.95	-126.99	-4206.23	40°24'30.883"N	104°57'37.634"W	0.79	
11389.00	91.350	269.600	7209.29	4288.92	-127.27	-4291.21	40°24'30.880"N	104°57'38.733"W	1.10	
11474.00	91.780	269.910	7206.97	4373.87	-127.64	-4376.18	40°24'30.876"N	104°57'39.831"W	0.62	
11559.00	90.980	270.170	7204.92	4458.84	-127.58	-4461.16	40°24'30.876"N	104°57'40.929"W	0.99	
11602.00	90.060	270.290	7204.53	4501.84	-127.41	-4504.15	40°24'30.878"N	104°57'41.485"W	2.16	
11644.00	88.730	270.440	7204.97	4543.83	-127.14	-4546.15	40°24'30.881"N	104°57'42.028"W	3.19	
11687.00	88.520	270.710	7206.00	4586.82	-126.71	-4589.14	40°24'30.885"N	104°57'42.584"W	0.80	
11730.00	88.240	270.990	7207.22	4629.80	-126.07	-4632.11	40°24'30.891"N	104°57'43.139"W	0.92	
11825.00	88.270	270.490	7210.11	4724.76	-124.84	-4727.06	40°24'30.903"N	104°57'44.367"W	0.53	LAST BHI MWD+IFR SURVEYS
11892.00	88.270	270.490	7212.14	4791.72	-124.27	-4794.03	40°24'30.908"N	104°57'45.232"W	0.00	PROJECTION TO BIT



Actual Wellpath Report

MIRACLE 13C-12HZ AWP

Page 5 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL)
Area	COLORADO	Well	MIRACLE 13C-12HZ
Field	LARIMER COUNTY	Wellbore	MIRACLE 13C-12HZ AWB
Facility	SEC.12-T5N-R68W		

HOLE & CASING SECTIONS - Ref Wellbore: MIRACLE 13C-12HZ AWB Ref Wellpath: MIRACLE 13C-12HZ 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	965.00	948.00	17.00	964.99	0.00	0.00	-0.06	-2.09
9.625in Casing Surface	17.00	965.00	948.00	17.00	964.99	0.00	0.00	-0.06	-2.09
8.75in Open Hole	965.00	7613.00	6648.00	964.99	7224.09	-0.06	-2.09	-192.49	-517.26
7in Casing Intermediate	17.00	7603.00	7586.00	17.00	7223.36	0.00	0.00	-193.13	-507.31
6.125in Open Hole	7613.00	11892.00	4279.00	7224.09	7212.14	-192.49	-517.26	-124.27	-4794.03

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
MIRACLE 13C-12HZ LAND BOX		7026.00	0.00	0.00	3154454.42	1392295.90	40°24'32.141"N	104°56'43.260"W	polygon
MIRACLE 2 PAD SECTION 12 HARD LINES (460' SET BACKS)		7026.00	0.30	-30.09	3154424.33	1392296.02	40°24'32.144"N	104°56'43.649"W	polygon
MIRACLE 2 PAD SECTION 12 LINES		7026.00	0.30	-30.09	3154424.33	1392296.02	40°24'32.144"N	104°56'43.649"W	polygon
MIRACLE 13C-12HZ BHL ON PLAT (515' FSL & 460' FWL) REV-1		7218.00	-111.76	-4820.32	3149635.09	1392154.00	40°24'31.032"N	104°57'45.572"W	point
MIRACLE 13C-12HZ BHL ON PLAT (515' FSL & 460' FWL) REV-2		7222.00	-111.76	-4820.32	3149635.09	1392154.00	40°24'31.032"N	104°57'45.572"W	point

WELLPATH COMPOSITION - Ref Wellbore: MIRACLE 13C-12HZ AWB Ref Wellpath: MIRACLE 13C-12HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	867.00	Generic gyro - continuous (Standard)	MS WIRELINE GYRO SURVEYS <117-867>	MIRACLE 13C-12HZ AWB
867.00	7550.00	NaviTrak (IFR)	BHI NAVITRAK MWD+IFR 8 3/4" HOLE <999-7550>	MIRACLE 13C-12HZ AWB
7550.00	11825.00	OnTrak (IFR)	BHI ONTRAK MWD+IFR 6 1/8" HOLE <7645-11825>	MIRACLE 13C-12HZ AWB
11825.00	11892.00	Blind Drilling (std)	Projection to bit	MIRACLE 13C-12HZ AWB



Actual Wellpath Report

MIRACLE 13C-12HZ AWP

Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 MIRACLE 13C-12HZ (712'FSL 225'FEL)
Area	COLORADO	Well	MIRACLE 13C-12HZ
Field	LARIMER COUNTY	Wellbore	MIRACLE 13C-12HZ AWB
Facility	SEC.12-T5N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	84.600	17.00	TIE ON
117.00	0.180	84.600	117.00	BEGIN GYRO SURVEYS
867.00	0.120	163.010	866.99	TIE ONTO GYRO SURVEYS
999.00	0.480	310.490	998.99	BEGIN BHI MWD+IFR SURVEYS
7603.00	85.548	273.676	7223.36	7" CASING POINT
11825.00	88.270	270.490	7210.11	LAST BHI MWD+IFR SURVEYS
11892.00	88.270	270.490	7212.14	PROJECTION TO BIT