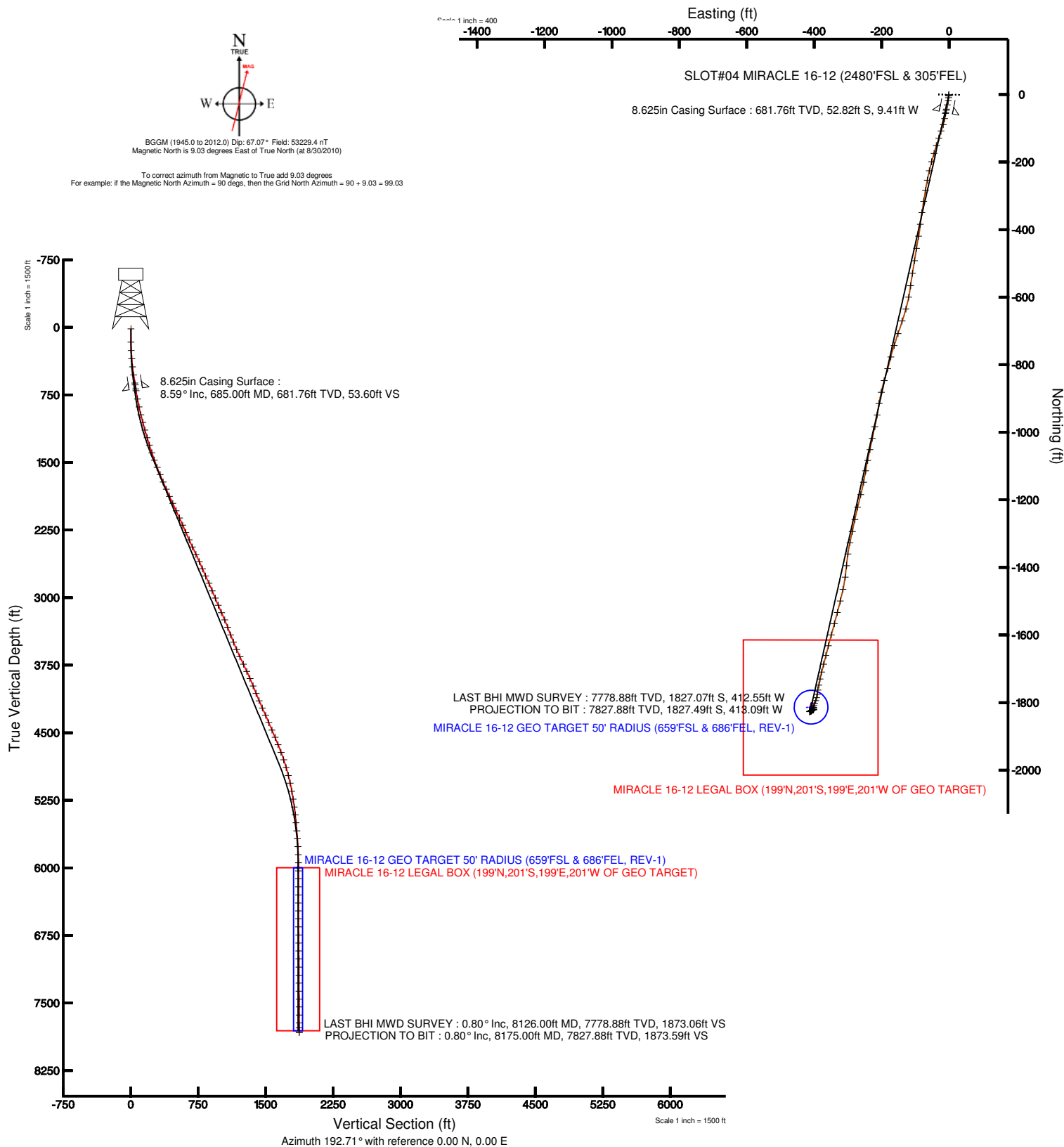


KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#04 MIRACLE 16-12 (2480'FSL & 305'FEL)
 Field: LARIMER COUNTY Well: MIRACLE 16-12
 Facility: SEC.12-T5N-R68W Wellbore: MIRACLE 16-12 PWB



Plot reference wellpath is MIRACLE 16-12 (REV-B.0) PWP	
True vertical depths are referenced to XTREME 6 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RT)	North Reference: True north
XTREME 6 (RT) to Mean Sea Level: 4964 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.12-T5N-R68W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: bensjacj on 9/2/2010





Actual Wellpath Report

MIRACLE 16-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 MIRACLE 16-12 (2480'FSL & 305'FEL)
Area	COLORADO	Well	MIRACLE 16-12
Field	LARIMER COUNTY	Wellbore	MIRACLE 16-12 AWB
Facility	SEC.12-T5N-R68W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Bensjacj
Scale	0.999961	Report Generated	9/2/2010 at 10:57:34 AM
Convergence at slot	0.36° East	Database/Source file	WA_Denver/MIRACLE_16-12_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.73	-30.07	3154390.45	1394064.18	40°24'49.619"N	104°56'43.944"W
Facility Reference Pt			3154420.53	1394063.64	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 6 (RT) to Facility Vertical Datum	4964.00ft
Horizontal Reference Pt	Slot	XTREME 6 (RT) to Mean Sea Level	4964.00ft
Vertical Reference Pt	XTREME 6 (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 6 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	192.71°



Actual Wellpath Report

MIRACLE 16-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 MIRACLE 16-12 (2480'FSL & 305'FEL)
Area	COLORADO	Well	MIRACLE 16-12
Field	LARIMER COUNTY	Wellbore	MIRACLE 16-12 AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (95 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	210.900	0.00	0.00	0.00	0.00	0.00	
16.00	0.000	210.900	16.00	0.00	0.00	0.00	0.00	
163.00	0.700	210.900	163.00	0.85	-0.77	-0.46	0.48	
256.00	2.600	181.000	255.95	3.46	-3.37	-0.79	2.18	
347.00	4.800	184.000	346.76	9.24	-9.23	-1.09	2.43	
438.00	6.900	189.400	437.28	18.47	-18.42	-2.25	2.38	
529.00	8.300	192.200	527.48	30.49	-30.24	-4.53	1.59	
619.00	8.500	192.200	616.51	43.64	-43.09	-7.31	0.22	
640.00	8.800	192.600	637.28	46.80	-46.17	-7.99	1.46	
706.00	8.500	191.000	702.52	56.72	-55.89	-10.02	0.58	
798.00	11.000	189.800	793.19	72.29	-71.21	-12.81	2.73	
888.00	12.000	197.500	881.39	90.19	-88.60	-17.09	2.03	
979.00	13.700	198.200	970.10	110.34	-107.86	-23.30	1.88	
1067.00	15.100	197.500	1055.34	132.14	-128.69	-30.00	1.60	
1155.00	15.900	197.800	1140.14	155.57	-151.10	-37.13	0.91	
1242.00	16.700	196.400	1223.64	179.91	-174.44	-44.30	1.02	
1329.00	17.200	195.400	1306.86	205.23	-198.83	-51.25	0.67	
1418.00	18.900	193.300	1391.48	232.79	-225.55	-58.06	2.04	
1504.00	19.600	191.500	1472.67	261.14	-253.24	-64.14	1.07	
1591.00	21.500	189.100	1554.13	291.65	-283.28	-69.57	2.39	
1678.00	22.900	189.000	1634.68	324.45	-315.74	-74.74	1.61	
1766.00	22.900	189.000	1715.74	358.62	-349.57	-80.10	0.00	
1853.00	23.800	186.600	1795.62	392.97	-383.72	-84.76	1.51	
1940.00	24.900	189.900	1874.88	428.72	-419.21	-89.93	2.01	
2027.00	24.900	190.100	1953.80	465.31	-455.28	-96.29	0.10	
2116.00	24.700	189.000	2034.59	502.58	-492.09	-102.49	0.57	
2205.00	25.100	189.000	2115.31	539.98	-529.10	-108.35	0.45	
2294.00	24.000	188.000	2196.27	576.85	-565.67	-113.82	1.32	
2381.00	22.900	190.500	2276.08	611.40	-599.84	-119.37	1.70	
2471.00	24.600	196.100	2358.47	647.61	-635.06	-127.76	3.14	
2558.00	25.800	198.200	2437.19	684.53	-670.45	-138.69	1.72	
2649.00	25.200	198.500	2519.32	723.52	-707.63	-151.02	0.67	
2738.00	24.000	197.800	2600.24	760.40	-742.83	-162.57	1.39	
2826.00	23.800	194.300	2680.70	795.98	-777.08	-172.43	1.63	
2913.00	24.800	196.100	2760.00	831.74	-811.62	-181.82	1.43	
3002.00	24.100	196.000	2841.01	868.51	-847.02	-192.01	0.79	
3092.00	22.200	192.200	2923.77	903.87	-881.31	-200.67	2.68	
3180.00	23.300	190.500	3004.92	937.88	-914.67	-207.35	1.46	
3267.00	23.300	189.100	3084.83	972.25	-948.58	-213.21	0.64	
3356.00	23.600	192.900	3166.48	1007.63	-983.33	-219.97	1.73	
3445.00	23.300	191.200	3248.13	1043.04	-1017.96	-227.37	0.83	
3534.00	21.500	192.900	3330.41	1076.95	-1051.13	-234.43	2.15	
3624.00	21.200	191.200	3414.24	1109.71	-1083.17	-241.27	0.76	
3711.00	21.500	189.800	3495.27	1141.36	-1114.31	-247.04	0.68	
3799.00	24.400	191.200	3576.29	1175.64	-1148.04	-253.32	3.35	



Actual Wellpath Report

MIRACLE 16-12 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 MIRACLE 16-12 (2480'FSL & 305'FEL)
Area	COLORADO	Well	MIRACLE 16-12
Field	LARIMER COUNTY	Wellbore	MIRACLE 16-12 AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (95 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3888.00	25.000	194.300	3657.15	1212.82	-1184.30	-261.53	1.60	
3979.00	25.100	193.600	3739.59	1251.34	-1221.69	-270.82	0.34	
4067.00	25.600	191.900	3819.12	1289.02	-1258.44	-279.13	1.00	
4155.00	23.200	192.200	3899.26	1325.36	-1293.99	-286.71	2.73	
4243.00	22.200	192.200	3980.44	1359.32	-1327.18	-293.89	1.14	
4332.00	22.200	188.000	4062.85	1392.89	-1360.27	-299.78	1.78	
4422.00	23.300	186.200	4145.84	1427.53	-1394.80	-304.07	1.45	
4509.00	23.700	186.900	4225.63	1462.02	-1429.27	-308.03	0.56	
4598.00	24.400	192.600	4306.91	1498.20	-1464.97	-314.19	2.72	
4687.00	23.300	194.300	4388.31	1534.18	-1499.97	-322.55	1.46	
4776.00	22.900	195.000	4470.18	1569.08	-1533.75	-331.38	0.55	
4865.00	22.800	194.300	4552.19	1603.62	-1567.19	-340.12	0.33	
4954.00	22.400	196.100	4634.36	1637.78	-1600.19	-349.08	0.90	
5044.00	20.700	194.300	4718.07	1670.80	-1632.08	-357.77	2.03	
5133.00	18.600	194.000	4801.88	1700.72	-1661.10	-365.09	2.36	
5223.00	16.000	195.000	4887.80	1727.47	-1687.01	-371.77	2.91	
5315.00	14.500	193.600	4976.56	1751.66	-1710.45	-377.76	1.68	
5402.00	13.000	191.900	5061.06	1772.33	-1730.62	-382.34	1.79	
5493.00	10.300	192.000	5150.18	1790.70	-1748.59	-386.14	2.97	
5582.00	8.900	189.400	5237.93	1805.53	-1763.17	-388.92	1.65	
5671.00	7.600	186.700	5326.01	1818.26	-1775.81	-390.73	1.52	
5758.00	6.200	196.100	5412.38	1828.67	-1786.04	-392.71	2.06	
5846.00	5.600	199.300	5499.91	1837.68	-1794.65	-395.44	0.78	
5936.00	5.100	200.700	5589.52	1846.01	-1802.54	-398.31	0.57	
6025.00	4.300	194.000	5678.22	1853.26	-1809.48	-400.51	1.09	
6112.00	2.700	185.000	5765.06	1858.55	-1814.68	-401.48	1.94	
6202.00	1.900	186.000	5854.98	1862.13	-1818.28	-401.82	0.89	
6293.00	1.200	169.400	5945.95	1864.51	-1820.72	-401.81	0.91	
6382.00	0.000	50.000	6034.94	1865.36	-1821.63	-401.63	1.35	
6469.00	0.100	276.200	6121.94	1865.37	-1821.62	-401.71	0.11	
6559.00	0.100	35.000	6211.94	1865.31	-1821.55	-401.74	0.19	
6648.00	0.300	322.300	6300.94	1865.09	-1821.30	-401.84	0.32	
6739.00	0.100	7.300	6391.94	1864.86	-1821.04	-401.98	0.26	
6826.00	0.400	275.000	6478.94	1864.82	-1820.93	-402.27	0.48	
6913.00	0.600	229.100	6565.94	1865.23	-1821.21	-402.92	0.50	
7003.00	0.600	251.300	6655.93	1865.85	-1821.67	-403.72	0.26	
7094.00	0.500	234.000	6746.93	1866.40	-1822.05	-404.49	0.21	
7183.00	0.900	233.000	6835.92	1867.23	-1822.70	-405.36	0.45	
7272.00	0.800	239.700	6924.91	1868.18	-1823.44	-406.46	0.16	
7359.00	0.400	236.980	7011.91	1868.81	-1823.91	-407.24	0.46	
7450.00	0.400	207.700	7102.91	1869.35	-1824.36	-407.65	0.22	
7540.00	0.400	240.700	7192.90	1869.86	-1824.79	-408.07	0.25	
7628.00	0.500	221.800	7280.90	1870.40	-1825.23	-408.59	0.20	
7717.00	0.400	229.500	7369.90	1870.99	-1825.72	-409.09	0.13	
7806.00	0.400	253.700	7458.90	1871.39	-1826.01	-409.62	0.19	



Actual Wellpath Report

MIRACLE 16-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 MIRACLE 16-12 (2480'FSL & 305'FEL)
Area	COLORADO	Well	MIRACLE 16-12
Field	LARIMER COUNTY	Wellbore	MIRACLE 16-12 AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (95 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
7893.00	0.700	257.300	7545.89	1871.77	-1826.21	-410.43	0.35	
7982.00	0.400	247.100	7634.89	1872.18	-1826.45	-411.25	0.35	
8071.00	0.600	250.200	7723.88	1872.61	-1826.73	-411.98	0.23	
8126.00	0.800	231.900	7778.88	1873.06	-1827.07	-412.55	0.54	LAST BHI MWD SURVEY
8175.00	0.800	231.900	7827.88	1873.59	-1827.49	-413.09	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS Ref Wellbore: MIRACLE 16-12 AWB Ref Wellpath: MIRACLE 16-12 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]
12.25in Open Hole	16.00	757.00	741.00	16.00	752.87	0.00	0.00	-63.89	-11.52
8.625in Casing Surface	16.00	685.00	669.00	16.00	681.76	0.00	0.00	-52.82	-9.41
7.875in Open Hole	685.00	8175.00	7490.00	681.76	7827.88	-52.82	-9.41	-1827.49	-413.09

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
MIRACLE 16-12 GEO TARGET 50' RADIUS (659'FSL & 686'FEL, REV-1)		6000.00	-1814.27	-409.10	3153992.72	1392247.47	40°24'31.691"N	104°56'49.232"W	circle
MIRACLE 16-12 LEGAL BOX (199'N,201'S,199'E,201'W OF GEO TARGET)		6000.00	-1815.27	-410.10	3153991.73	1392246.46	40°24'31.681"N	104°56'49.245"W	square

WELLPATH COMPOSITION Ref Wellbore: MIRACLE 16-12 AWB Ref Wellpath: MIRACLE 16-12 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	8126.00	NaviTrak (Standard)	BHI MWD SURVEYS <163-8126>	MIRACLE 16-12 AWB
8126.00	8175.00	Blind Drilling (std)	Projection to bit	MIRACLE 16-12 AWB



Actual Wellpath Report

MIRACLE 16-12 AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 MIRACLE 16-12 (2480'FSL & 305'FEL)
Area	COLORADO	Well	MIRACLE 16-12
Field	LARIMER COUNTY	Wellbore	MIRACLE 16-12 AWB
Facility	SEC.12-T5N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8126.00	0.800	231.900	7778.88	LAST BHI MWD SURVEY
8175.00	0.800	231.900	7827.88	PROJECTION TO BIT