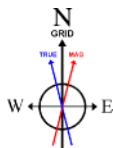


MARATHON OIL COMPANY

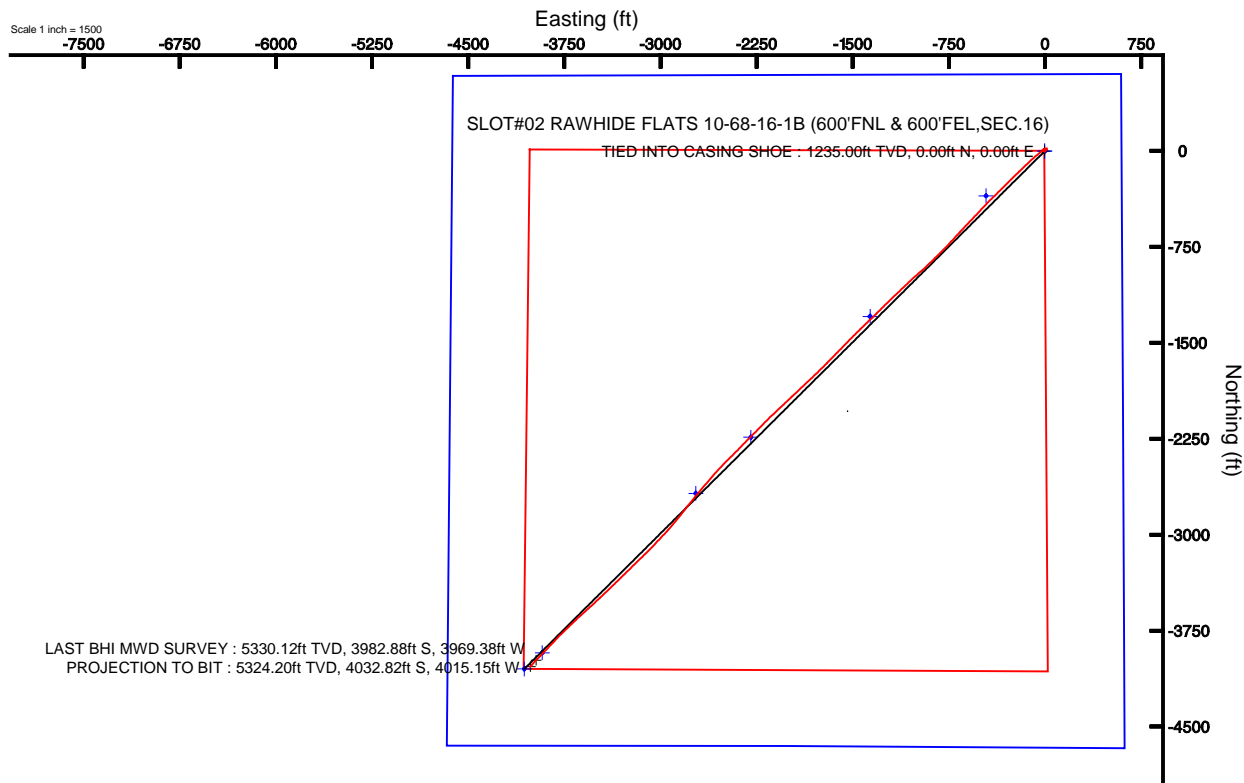
Location: COLORADO Slot: SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16)
Field: LARIMER COUNTY (NAD 83, GRID NORTH) Well: RAWHIDE FLATS 10-68-16-1B
Facility: SEC.16-T10N-R68W Wellbore: RAWHIDE FLATS 10-68-16-1B PWB



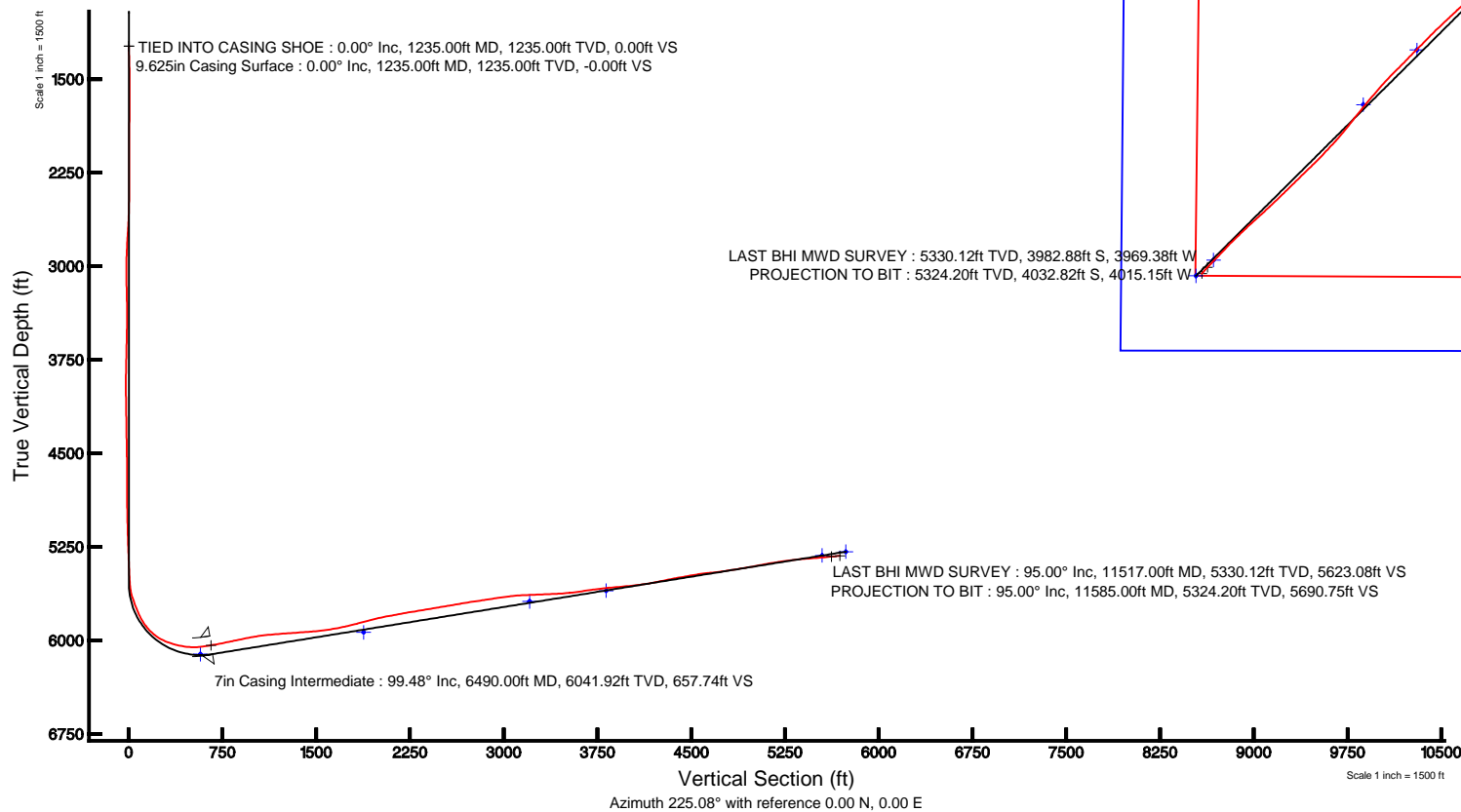
Plot reference wellpath is RAWHIDE FLATS 10-68-16-1B (REV-C.1) PWB	
True vertical depths are referenced to H&P 449 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to H&P 449 (RKB)	North Reference: Grid north
H&P 449 (RKB) to Mean Sea Level: 5603 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdann on 11/29/2011



BGGM (1945.0 to 2012.0) Dip: 67.36° Field: 53320.5 nT
Magnetic North is 8.95 degrees East of True North (at 9/27/2011)
Grid North is 0.32 degrees East of True North
To correct azimuth from True to Grid subtract 0.32 degrees
To correct azimuth from Magnetic to Grid add 8.63 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 8.63 = 98.63



LAST BHI MWD SURVEY : 5330.12ft TVD, 3982.88ft S, 3969.38ft W
PROJECTION TO BIT : 5324.20ft TVD, 4032.82ft S, 4015.15ft W





Actual Wellpath Report

RAWHIDE FLATS 10-68-16-1B AWP

Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16)
Area	COLORADO	Well	RAWHIDE FLATS 10-68-16-1B
Field	LARIMER COUNTY (NAD 83, GRID NORTH)	Wellbore	RAWHIDE FLATS 10-68-16-1B AWB
Facility	SEC.16-T10N-R68W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.1
North Reference	Grid	User	Cookdanm
Scale	1.00001	Report Generated	11/29/2011 at 6:06:53 PM
Convergence at slot	0.32° East	Database/Source file	WA_Denver/RAWHIDE_FLATS_10-68-16-1B_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	2034.76	1539.96	3137682.74	1549123.14	40°50'22.780"N	105°00'08.698"W
Facility Reference Pt			3136142.77	1547088.37	40°50'02.760"N	105°00'28.880"W
Field Reference Pt			3136142.77	1547088.37	40°50'02.760"N	105°00'28.880"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 449 (RKB) to Facility Vertical Datum	5603.00ft
Horizontal Reference Pt	Slot	H&P 449 (RKB) to Mean Sea Level	5603.00ft
Vertical Reference Pt	H&P 449 (RKB)	H&P 449 (RKB) to Mud Line at Slot (SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16))	5603.00ft
MD Reference Pt	H&P 449 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	224.87°



Actual Wellpath Report

RAWHIDE FLATS 10-68-16-1B AWP

Page 2 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16)
Area	COLORADO	Well	RAWHIDE FLATS 10-68-16-1B
Field	LARIMER COUNTY (NAD 83, GRID NORTH)	Wellbore	RAWHIDE FLATS 10-68-16-1B AWP
Facility	SEC.16-T10N-R68W		

WELLPATH DATA (133 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
1235.00	0.000	255.600	1235.00	0.00	0.00	0.00	3137682.74	1549123.14	40°50'22.780"N	105°00'08.698"W	0.00	TIED INTO CASING SHOE
1299.00	1.900	255.600	1298.99	0.91	-0.26	-1.03	3137681.71	1549122.88	40°50'22.777"N	105°00'08.711"W	2.97	
1360.00	2.000	251.000	1359.95	2.74	-0.86	-3.01	3137679.73	1549122.28	40°50'22.772"N	105°00'08.737"W	0.30	
1452.00	0.800	254.600	1451.92	4.74	-1.56	-5.15	3137677.59	1549121.58	40°50'22.765"N	105°00'08.765"W	1.31	
1544.00	0.300	225.300	1543.92	5.53	-1.90	-5.94	3137676.80	1549121.24	40°50'22.762"N	105°00'08.775"W	0.61	
1636.00	0.500	78.600	1635.92	5.44	-1.99	-5.72	3137677.02	1549121.15	40°50'22.761"N	105°00'08.773"W	0.84	
1728.00	0.300	68.600	1727.92	4.89	-1.82	-5.10	3137677.64	1549121.32	40°50'22.762"N	105°00'08.764"W	0.23	
1820.00	0.600	38.200	1819.91	4.19	-1.35	-4.58	3137678.16	1549121.79	40°50'22.767"N	105°00'08.758"W	0.41	
1912.00	1.100	67.500	1911.90	2.89	-0.64	-3.47	3137679.28	1549122.50	40°50'22.774"N	105°00'08.743"W	0.70	
2004.00	0.700	319.300	2003.90	2.04	0.13	-3.02	3137679.72	1549123.27	40°50'22.781"N	105°00'08.737"W	1.61	
2096.00	1.000	307.900	2095.89	2.09	1.05	-4.02	3137678.72	1549124.19	40°50'22.791"N	105°00'08.764"W	0.37	
2188.00	0.900	338.600	2187.87	1.90	2.21	-4.91	3137677.83	1549125.35	40°50'22.802"N	105°00'08.762"W	0.56	
2280.00	0.100	219.200	2279.87	1.69	2.82	-5.23	3137677.51	1549125.96	40°50'22.808"N	105°00'08.766"W	1.04	
2372.00	0.600	162.400	2371.87	1.99	2.30	-5.13	3137677.61	1549125.44	40°50'22.803"N	105°00'08.765"W	0.60	
2464.00	1.000	89.700	2463.86	1.64	1.85	-4.18	3137678.56	1549124.99	40°50'22.798"N	105°00'08.752"W	1.09	
2556.00	1.800	61.300	2555.83	-0.31	2.55	-2.11	3137680.63	1549125.69	40°50'22.805"N	105°00'08.725"W	1.13	
2648.00	3.200	52.400	2647.74	-4.24	4.81	1.19	3137683.93	1549127.95	40°50'22.827"N	105°00'08.682"W	1.57	
2741.00	3.500	46.500	2740.59	-9.66	8.34	5.30	3137688.04	1549131.48	40°50'22.862"N	105°00'08.628"W	0.49	
2835.00	2.900	36.900	2834.44	-14.88	12.22	8.81	3137691.55	1549135.36	40°50'22.900"N	105°00'08.582"W	0.85	
2930.00	2.200	49.400	2929.35	-19.08	15.33	11.64	3137694.38	1549138.47	40°50'22.931"N	105°00'08.545"W	0.94	
3025.00	0.600	137.000	3024.32	-20.88	16.15	13.36	3137696.11	1549139.29	40°50'22.939"N	105°00'08.523"W	2.37	
3119.00	1.500	228.700	3118.31	-19.63	14.98	12.78	3137695.52	1549138.12	40°50'22.927"N	105°00'08.531"W	1.74	
3214.00	1.300	249.000	3213.28	-17.41	13.77	10.84	3137693.58	1549136.91	40°50'22.915"N	105°00'08.556"W	0.56	
3308.00	0.900	182.200	3307.27	-15.89	12.65	9.81	3137692.55	1549135.79	40°50'22.904"N	105°00'08.569"W	1.34	
3403.00	0.000	287.900	3402.26	-15.34	11.91	9.78	3137692.52	1549135.05	40°50'22.897"N	105°00'08.570"W	0.95	
3497.00	0.800	69.400	3496.26	-15.94	12.14	10.40	3137693.14	1549135.28	40°50'22.899"N	105°00'08.562"W	0.85	
3592.00	1.500	45.300	3591.24	-17.79	13.25	11.90	3137694.64	1549136.39	40°50'22.910"N	105°00'08.542"W	0.88	
3686.00	1.100	32.200	3685.22	-19.90	14.88	13.26	3137696.00	1549138.02	40°50'22.926"N	105°00'08.524"W	0.53	
3781.00	1.400	38.400	3780.19	-21.94	16.56	14.46	3137697.20	1549139.70	40°50'22.943"N	105°00'08.509"W	0.35	
3876.00	1.000	25.700	3875.17	-23.88	18.21	15.54	3137698.29	1549141.35	40°50'22.959"N	105°00'08.494"W	0.50	
3970.00	0.900	288.800	3969.16	-24.33	19.19	15.20	3137697.94	1549142.33	40°50'22.969"N	105°00'08.499"W	1.51	
4065.00	1.300	268.200	4064.15	-23.21	19.40	13.42	3137696.16	1549142.54	40°50'22.971"N	105°00'08.522"W	0.59	
4159.00	1.000	256.400	4158.13	-21.74	19.17	11.55	3137694.30	1549142.31	40°50'22.969"N	105°00'08.546"W	0.41	
4252.00	1.100	261.300	4251.11	-20.33	18.85	9.88	3137692.62	1549141.98	40°50'22.966"N	105°00'08.568"W	0.14	
4345.00	1.200	289.600	4344.09	-19.19	19.04	8.08	3137690.82	1549142.18	40°50'22.968"N	105°00'08.591"W	0.61	
4437.00	1.000	235.900	4436.08	-18.00	18.91	6.51	3137689.25	1549142.05	40°50'22.966"N	105°00'08.612"W	1.10	
4530.00	1.200	231.100	4529.06	-16.23	17.84	5.08	3137687.82	1549140.98	40°50'22.956"N	105°00'08.631"W	0.24	
4624.00	0.400	293.100	4623.05	-15.13	17.35	4.01	3137686.75	1549140.49	40°50'22.951"N	105°00'08.645"W	1.14	
4719.00	0.800	305.900	4718.05	-14.90	17.87	3.17	3137685.91	1549141.01	40°50'22.956"N	105°00'08.655"W	0.44	
4813.00	0.700	296.600	4812.04	-14.62	18.52	2.13	3137684.87	1549141.65	40°50'22.963"N	105°00'08.669"W	0.17	
4908.00	0.500	224.200	4907.04	-14.02	18.48	1.32	3137684.06	1549141.62	40°50'22.963"N	105°00'08.679"W	0.77	
5002.00	1.200	233.700	5001.03	-12.64	17.60	0.24	3137682.98	1549140.74	40°50'22.954"N	105°00'08.694"W	0.76	
5097.00	1.300	241.800	5096.00	-10.63	16.50	-1.51	3137681.23	1549139.64	40°50'22.943"N	105°00'08.716"W	0.21	
5191.00	2.000	237.100	5189.96	-8.00	15.11	-3.83	3137678.91	1549138.25	40°50'22.929"N	105°00'08.747"W	0.76	
5286.00	2.600	226.700	5284.89	-4.23	12.73	-6.79	3137675.95	1549135.87	40°50'22.906"N	105°00'08.785"W	0.77	



Actual Wellpath Report

RAWHIDE FLATS 10-68-16-1B AWP

Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16)
Area	COLORADO	Well	RAWHIDE FLATS 10-68-16-1B
Field	LARIMER COUNTY (NAD 83, GRID NORTH)	Wellbore	RAWHIDE FLATS 10-68-16-1B AWP
Facility	SEC.16-T10N-R68W		

WELLPATH DATA (133 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
5380.00	2.300	216.800	5378.80	-0.23	9.76	-9.47	3137673.27	1549132.90	40°50'22.877"N	105°00'08.821"W	0.55	
5475.00	2.300	234.300	5473.73	3.54	7.12	-12.16	3137670.58	1549130.26	40°50'22.851"N	105°00'08.856"W	0.74	
5540.00	3.400	246.300	5538.64	6.62	5.58	-14.98	3137667.76	1549128.72	40°50'22.836"N	105°00'08.893"W	1.92	
5571.00	6.300	231.900	5569.53	9.16	4.16	-17.17	3137665.57	1549127.30	40°50'22.822"N	105°00'08.921"W	10.07	
5603.00	10.600	232.700	5601.18	13.82	1.30	-20.89	3137661.85	1549124.43	40°50'22.794"N	105°00'08.970"W	13.44	
5634.00	14.600	231.800	5631.42	20.53	-2.85	-26.23	3137656.51	1549120.29	40°50'22.753"N	105°00'09.039"W	12.92	
5666.00	18.100	228.600	5662.13	29.49	-8.63	-33.13	3137649.61	1549114.51	40°50'22.697"N	105°00'09.130"W	11.29	
5697.00	20.600	229.300	5691.37	39.74	-15.38	-40.88	3137641.86	1549107.76	40°50'22.630"N	105°00'09.231"W	8.10	
5729.00	20.100	230.200	5721.38	50.83	-22.57	-49.37	3137633.37	1549100.57	40°50'22.560"N	105°00'09.342"W	1.84	
5760.00	21.600	230.830	5750.34	61.81	-29.58	-57.89	3137624.85	1549093.56	40°50'22.491"N	105°00'09.453"W	4.89	
5792.00	23.600	232.100	5779.89	74.02	-37.24	-67.51	3137615.23	1549085.90	40°50'22.416"N	105°00'09.579"W	6.43	
5823.00	26.600	230.800	5807.96	87.08	-45.44	-77.79	3137604.95	1549077.70	40°50'22.335"N	105°00'09.713"W	9.84	
5855.00	29.700	228.000	5836.17	102.13	-55.27	-89.23	3137593.51	1549067.87	40°50'22.239"N	105°00'09.863"W	10.53	
5886.00	33.900	227.000	5862.51	118.44	-66.31	-101.27	3137581.47	1549056.83	40°50'22.130"N	105°00'10.020"W	13.65	
5918.00	37.600	225.500	5888.48	137.13	-79.24	-114.76	3137567.98	1549043.89	40°50'22.003"N	105°00'10.197"W	11.88	
5949.00	41.500	226.400	5912.37	156.86	-92.96	-128.95	3137553.79	1549030.18	40°50'21.869"N	105°00'10.382"W	12.72	
5981.00	46.500	226.200	5935.39	179.08	-108.32	-145.02	3137537.72	1549014.82	40°50'21.718"N	105°00'10.593"W	15.63	
6013.00	50.900	226.200	5956.50	203.10	-124.95	-162.36	3137520.38	1548998.19	40°50'21.554"N	105°00'10.819"W	13.75	
6044.00	55.300	226.200	5975.11	227.88	-142.11	-180.25	3137502.49	1548981.03	40°50'21.386"N	105°00'11.053"W	14.19	
6076.00	60.900	225.800	5992.01	255.03	-160.97	-199.78	3137482.95	1548962.17	40°50'21.201"N	105°00'11.309"W	17.53	
6107.00	66.100	226.300	6005.84	282.76	-180.22	-219.75	3137462.99	1548942.92	40°50'21.011"N	105°00'11.570"W	16.84	
6139.00	69.700	225.900	6017.88	312.40	-200.77	-241.11	3137441.63	1548922.36	40°50'20.810"N	105°00'11.850"W	11.31	
6170.00	72.800	224.100	6027.84	341.75	-221.53	-261.86	3137420.88	1548901.61	40°50'20.606"N	105°00'12.121"W	11.41	
6202.00	75.500	224.500	6036.58	372.53	-243.56	-283.36	3137399.38	1548879.58	40°50'20.389"N	105°00'12.402"W	8.52	
6233.00	77.400	225.400	6043.84	402.66	-264.89	-304.65	3137378.09	1548858.25	40°50'20.180"N	105°00'12.681"W	6.75	
6265.00	80.100	226.400	6050.09	434.04	-286.72	-327.19	3137355.55	1548836.41	40°50'19.965"N	105°00'12.976"W	8.98	
6296.00	83.800	225.600	6054.43	464.72	-308.04	-349.26	3137333.47	1548815.09	40°50'19.756"N	105°00'13.264"W	12.21	
6328.00	87.900	225.300	6056.74	496.63	-330.43	-372.00	3137310.73	1548792.71	40°50'19.536"N	105°00'13.562"W	12.85	
6359.00	91.500	226.100	6056.90	527.62	-352.08	-394.19	3137288.55	1548771.06	40°50'19.323"N	105°00'13.852"W	11.90	
6391.00	95.100	224.400	6055.06	559.56	-374.56	-416.87	3137265.87	1548748.58	40°50'19.102"N	105°00'14.149"W	12.44	
6422.00	97.100	223.900	6051.77	590.38	-396.68	-438.34	3137244.40	1548726.46	40°50'18.885"N	105°00'14.430"W	6.65	
6454.00	98.300	223.600	6047.48	622.08	-419.58	-460.27	3137222.47	1548703.55	40°50'18.660"N	105°00'14.717"W	3.86	
6509.00	100.100	223.000	6038.69	676.35	-459.09	-497.50	3137185.24	1548664.04	40°50'18.271"N	105°00'15.204"W	3.45	
6571.00	101.200	223.700	6027.23	737.26	-503.40	-539.33	3137143.41	1548619.73	40°50'17.836"N	105°00'15.751"W	2.09	
6662.00	102.100	223.300	6008.85	826.36	-568.05	-600.68	3137082.06	1548555.09	40°50'17.200"N	105°00'16.554"W	1.08	
6754.00	101.700	222.700	5989.88	916.34	-633.89	-662.07	3137020.66	1548489.25	40°50'16.553"N	105°00'17.358"W	0.77	
6846.00	99.700	222.500	5972.80	1006.66	-700.43	-723.26	3136959.48	1548422.71	40°50'15.899"N	105°00'18.159"W	2.18	
6938.00	96.100	224.500	5960.16	1097.74	-766.51	-785.98	3136896.76	1548356.62	40°50'15.250"N	105°00'18.979"W	4.47	
7030.00	94.400	225.700	5951.74	1189.35	-831.17	-850.87	3136831.87	1548291.96	40°50'14.614"N	105°00'19.828"W	2.26	
7122.00	94.200	226.100	5944.84	1281.08	-895.02	-916.75	3136765.98	1548228.12	40°50'13.987"N	105°00'20.690"W	0.49	
7214.00	93.700	229.300	5938.50	1372.73	-956.78	-984.63	3136698.11	1548166.35	40°50'13.381"N	105°00'21.578"W	3.51	
7306.00	95.000	226.400	5931.52	1464.33	-1018.33	-1052.63	3136630.10	1548104.80	40°50'12.776"N	105°00'22.467"W	3.45	
7398.00	96.900	226.500	5921.99	1555.80	-1081.37	-1118.95	3136563.79	1548041.76	40°50'12.157"N	105°00'23.334"W	2.07	
7491.00	100.200	225.900	5908.16	1647.73	-1145.02	-1185.32	3136497.42	1547978.11	40°50'11.532"N	105°00'24.202"W	3.61	
7582.00	102.400	225.200	5890.33	1736.95	-1207.50	-1249.01	3136433.72	1547915.63	40°50'10.918"N	105°00'25.035"W	2.53	



Actual Wellpath Report

RAWHIDE FLATS 10-68-16-1B AWP

Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16)
Area	COLORADO	Well	RAWHIDE FLATS 10-68-16-1B
Field	LARIMER COUNTY (NAD 83, GRID NORTH)	Wellbore	RAWHIDE FLATS 10-68-16-1B AWP
Facility	SEC.16-T10N-R68W		

WELLPATH DATA (133 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
7674.00	104.900	225.400	5868.62	1826.34	-1270.38	-1312.56	3136370.17	1547852.75	40°50'10.300"N	105°00'25.866"W	2.73	
7766.00	105.000	226.600	5844.89	1915.21	-1332.13	-1376.49	3136306.24	1547791.00	40°50'09.694"N	105°00'26.703"W	1.26	
7858.00	102.900	225.700	5822.71	2004.47	-1393.98	-1440.88	3136241.85	1547729.15	40°50'09.086"N	105°00'27.545"W	2.47	
7951.00	99.900	223.900	5804.33	2095.62	-1458.66	-1505.10	3136177.63	1547664.47	40°50'08.450"N	105°00'28.385"W	3.74	
8045.00	101.100	224.500	5787.20	2188.04	-1524.92	-1569.53	3136113.20	1547598.21	40°50'07.799"N	105°00'29.228"W	1.42	
8140.00	98.500	224.600	5771.03	2281.64	-1591.63	-1635.20	3136047.53	1547531.50	40°50'07.144"N	105°00'30.087"W	2.74	
8234.00	100.400	224.100	5755.60	2374.36	-1657.93	-1700.02	3135982.71	1547465.20	40°50'06.492"N	105°00'30.935"W	2.09	
8329.00	99.100	225.400	5739.51	2467.98	-1724.42	-1765.93	3135916.80	1547398.71	40°50'05.839"N	105°00'31.797"W	1.92	
8425.00	99.800	227.600	5723.74	2562.63	-1789.60	-1834.61	3135848.11	1547333.52	40°50'05.198"N	105°00'32.696"W	2.38	
8518.00	99.700	225.700	5707.99	2654.24	-1852.52	-1901.26	3135781.46	1547270.61	40°50'04.580"N	105°00'33.567"W	2.02	
8613.00	98.800	227.200	5692.72	2747.97	-1917.12	-1969.22	3135713.51	1547206.01	40°50'03.946"N	105°00'34.456"W	1.82	
8708.00	98.400	226.200	5678.52	2841.85	-1981.53	-2037.58	3135645.15	1547141.59	40°50'03.313"N	105°00'35.350"W	1.12	
8802.00	99.200	227.100	5664.14	2934.70	-2045.30	-2105.13	3135577.60	1547077.82	40°50'02.687"N	105°00'36.233"W	1.27	
8925.00	96.200	224.400	5647.65	3056.55	-2130.34	-2192.41	3135490.31	1546992.78	40°50'01.851"N	105°00'37.375"W	3.27	
9018.00	93.100	224.300	5640.12	3149.23	-2196.62	-2257.20	3135425.52	1546926.50	40°50'01.200"N	105°00'38.222"W	3.34	
9113.00	91.800	225.000	5636.05	3244.13	-2264.14	-2323.90	3135358.82	1546858.98	40°50'00.536"N	105°00'39.095"W	1.55	
9207.00	92.400	223.900	5632.61	3338.07	-2331.20	-2389.68	3135293.04	1546791.92	40°49'59.877"N	105°00'39.955"W	1.33	
9302.00	93.000	225.700	5628.13	3432.96	-2398.53	-2456.54	3135226.18	1546724.59	40°49'59.216"N	105°00'40.830"W	2.00	
9396.00	96.100	223.300	5620.68	3526.64	-2465.35	-2522.21	3135160.51	1546657.77	40°49'58.559"N	105°00'41.689"W	4.17	
9491.00	98.100	221.200	5608.93	3620.80	-2535.12	-2585.59	3135097.13	1546588.00	40°49'57.873"N	105°00'42.519"W	3.04	
9585.00	98.300	220.100	5595.53	3713.59	-2605.71	-2646.20	3135036.52	1546517.41	40°49'57.179"N	105°00'43.312"W	1.18	
9680.00	95.900	220.300	5583.79	3807.54	-2677.71	-2707.05	3134975.67	1546445.41	40°49'56.471"N	105°00'44.109"W	2.53	
9774.00	94.900	218.200	5574.94	3900.66	-2750.17	-2766.25	3134916.47	1546372.95	40°49'55.758"N	105°00'44.884"W	2.47	
9869.00	95.000	217.700	5566.74	3994.62	-2824.80	-2824.46	3134858.26	1546298.31	40°49'55.024"N	105°00'45.647"W	0.53	
9963.00	97.400	219.900	5556.59	4087.53	-2897.63	-2883.00	3134799.72	1546225.49	40°49'54.307"N	105°00'46.413"W	3.45	
10058.00	100.200	222.300	5542.05	4181.19	-2968.36	-2944.70	3134738.02	1546154.75	40°49'53.612"N	105°00'47.221"W	3.86	
10152.00	101.900	223.000	5524.04	4273.38	-3036.22	-3007.20	3134675.52	1546086.90	40°49'52.945"N	105°00'48.039"W	1.95	
10247.00	100.600	224.000	5505.51	4366.52	-3103.80	-3071.34	3134611.38	1546019.32	40°49'52.281"N	105°00'48.878"W	1.71	
10341.00	100.100	225.600	5488.62	4458.99	-3169.41	-3136.49	3134546.22	1545953.70	40°49'51.636"N	105°00'49.730"W	1.76	
10436.00	98.900	225.900	5472.94	4552.67	-3234.79	-3203.61	3134479.11	1545888.32	40°49'50.993"N	105°00'50.608"W	1.30	
10530.00	95.800	225.600	5460.91	4645.88	-3299.84	-3270.38	3134412.34	1545823.28	40°49'50.354"N	105°00'51.481"W	3.31	
10625.00	97.700	225.600	5449.75	4740.21	-3365.84	-3337.78	3134344.93	1545757.27	40°49'49.706"N	105°00'52.363"W	2.00	
10720.00	98.800	226.000	5436.12	4834.21	-3431.39	-3405.18	3134277.53	1545691.73	40°49'49.062"N	105°00'53.244"W	1.23	
10814.00	99.500	226.900	5421.17	4926.98	-3495.33	-3472.44	3134210.27	1545627.79	40°49'48.434"N	105°00'54.124"W	1.20	
10909.00	100.900	227.600	5404.34	5020.39	-3558.79	-3541.10	3134141.62	1545564.32	40°49'47.810"N	105°00'55.021"W	1.64	
11003.00	100.000	227.600	5387.30	5112.73	-3621.12	-3609.36	3134073.35	1545501.99	40°49'47.198"N	105°00'55.914"W	0.96	
11098.00	98.200	226.500	5372.27	5206.46	-3685.04	-3678.01	3134004.70	1545438.07	40°49'46.570"N	105°00'56.811"W	2.21	
11192.00	97.800	225.900	5359.19	5299.52	-3749.46	-3745.20	3133937.51	1545373.65	40°49'45.937"N	105°00'57.690"W	0.76	
11287.00	94.400	223.500	5349.09	5393.96	-3816.60	-3811.62	3133871.09	1545306.51	40°49'45.278"N	105°00'58.559"W	4.37	
11381.00	94.500	223.700	5341.80	5487.65	-3884.46	-3876.25	3133806.46	1545238.65	40°49'44.610"N	105°00'59.404"W	0.24	
11476.00	95.200	223.500	5333.77	5582.29	-3953.01	-3941.53	3133741.18	1545170.10	40°49'43.937"N	105°01'00.258"W	0.77	
11517.00	95.000	222.500	5330.12	5623.11	-3982.88	-3969.38	3133713.33	1545140.23	40°49'43.643"N	105°01'00.623"W	2.48	LAST BHI MWD SURVEY
11585.00	95.000	222.500	5324.20	5690.79	-4032.82	-4015.15	3133667.56	1545090.28	40°49'43.152"N	105°01'01.222"W	0.00	PROJECTION TO BIT



Actual Wellpath Report

RAWHIDE FLATS 10-68-16-1B AWP

Page 5 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16)
Area	COLORADO	Well	RAWHIDE FLATS 10-68-16-1B
Field	LARIMER COUNTY (NAD 83, GRID NORTH)	Wellbore	RAWHIDE FLATS 10-68-16-1B AWB
Facility	SEC.16-T10N-R68W		

HOLE & CASING SECTIONS - Ref Wellbore: RAWHIDE FLATS 10-68-16-1B AWB Ref Wellpath: RAWHIDE FLATS 10-68-16-1B 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	25.00	1235.00	1210.00	25.00	1235.00	0.00	0.00	0.00	0.00
8.75in Open Hole	1235.00	6505.00	5270.00	1235.00	6039.38	0.00	0.00	-456.21	-494.81
7in Casing Intermediate	25.00	6490.00	6465.00	25.00	6041.92	0.00	0.00	-445.42	-484.71
6in Open Hole	6505.00	11585.00	5080.00	6039.38	5324.20	-456.21	-494.81	-4032.82	-4015.15

WELLPATH COMPOSITION - Ref Wellbore: RAWHIDE FLATS 10-68-16-1B AWB Ref Wellpath: RAWHIDE FLATS 10-68-16-1B AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
1235.00	11517.00	NaviTrak (Standard)	BHI MWD SURVEYS <1299-11517>	RAWHIDE FLATS 10-68-16-1B AWB
11517.00	11585.00	Blind Drilling (std)	Projection to bit	RAWHIDE FLATS 10-68-16-1B AWB

**Actual Wellpath Report****RAWHIDE FLATS 10-68-16-1B AWP**

Page 6 of 6

**REFERENCE WELLPATH IDENTIFICATION**

Operator	MARATHON OIL COMPANY	Slot	SLOT#02 RAWHIDE FLATS 10-68-16-1B (600'FNL & 600'FEL,SEC.16)
Area	COLORADO	Well	RAWHIDE FLATS 10-68-16-1B
Field	LARIMER COUNTY (NAD 83, GRID NORTH)	Wellbore	RAWHIDE FLATS 10-68-16-1B AWP
Facility	SEC.16-T10N-R68W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1235.00	0.000	255.600	1235.00	TIED INTO CASING SHOE
11517.00	95.000	222.500	5330.12	LAST BHI MWD SURVEY
11585.00	95.000	222.500	5324.20	PROJECTION TO BIT