

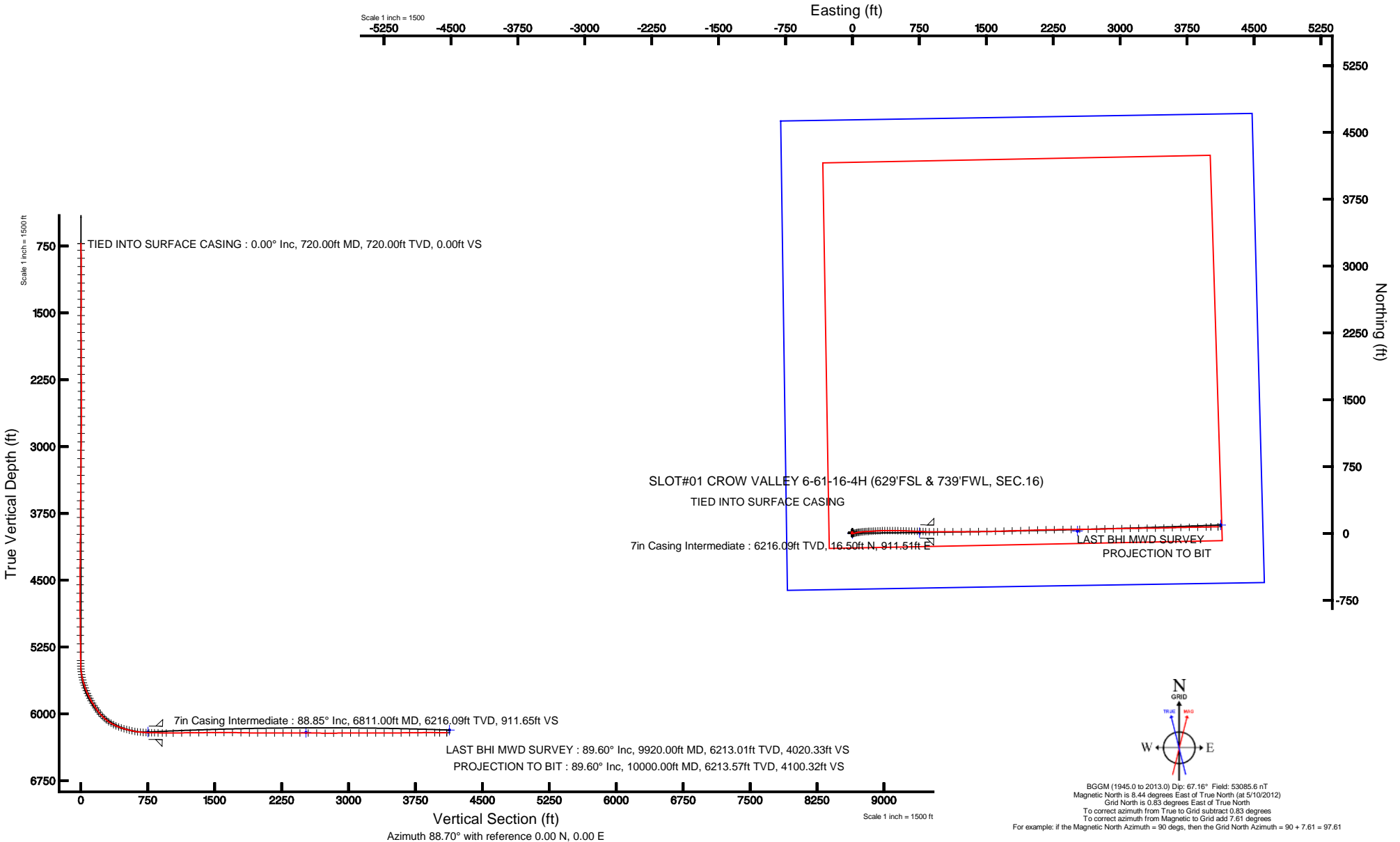
MARATHON OIL COMPANY

Location: COLORADO Slot: SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16)
Field: WELD COUNTY (NAD 83, GRID NORTH) Well: CROW VALLEY 6-61-16-4H
Facility: SEC.16-T6N-R61W Wellbore: CROW VALLEY 6-61-16-4H PWB



Plot reference wellpath is CROW VALLEY 6-61-16-4H (REV-B.0) PWP

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: 4702 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdamm on 6/18/2012





Actual Wellpath Report

CROW VALLEY 6-61-16-4H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16)
Area	COLORADO	Well	CROW VALLEY 6-61-16-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 6-61-16-4H AWB
Facility	SEC.16-T6N-R61W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	Grid	User	Cookdanm
Scale	0.999965	Report Generated	6/18/2012 at 4:05:26 PM
Convergence at slot	0.83° East	Database/Source file	WA_Denver/CROW_VALLEY_6-61-16-4H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.20	-0.47	3355762.54	1421215.44	40°28'57.342"N	104°13'15.676"W
Facility Reference Pt			3355763.01	1421215.25	40°28'57.340"N	104°13'15.670"W
Field Reference Pt			3476081.76	1512960.14	40°43'43.704"N	103°46'55.829"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 449 (RKB) to Facility Vertical Datum	4702.00ft
Horizontal Reference Pt	Slot	H&P 449 (RKB) to Mean Sea Level	4702.00ft
Vertical Reference Pt	H&P 449 (RKB)	H&P 449 (RKB) to Mud Line at Slot (SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16))	4702.00ft
MD Reference Pt	H&P 449 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	88.70°



Actual Wellpath Report

CROW VALLEY 6-61-16-4H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16)
Area	COLORADO	Well	CROW VALLEY 6-61-16-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 6-61-16-4H AWB
Facility	SEC.16-T6N-R61W		

WELLPATH DATA (129 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
720.00	0.000	82.400	720.00	0.00	0.00	0.00	3355762.54	1421215.44	40°28'57.342"N	104°13'15.676"W	0.00	TIED INTO SURFACE CASING
794.00	0.200	82.400	794.00	0.13	0.02	0.13	3355762.67	1421215.46	40°28'57.342"N	104°13'15.674"W	0.27	
886.00	0.300	63.600	886.00	0.51	0.15	0.50	3355763.05	1421215.59	40°28'57.343"N	104°13'15.669"W	0.14	
978.00	0.200	81.000	978.00	0.88	0.28	0.88	3355763.42	1421215.72	40°28'57.345"N	104°13'15.665"W	0.14	
1070.00	0.200	88.800	1070.00	1.20	0.31	1.20	3355763.74	1421215.75	40°28'57.345"N	104°13'15.660"W	0.03	
1162.00	0.100	315.400	1162.00	1.31	0.37	1.30	3355763.84	1421215.81	40°28'57.345"N	104°13'15.659"W	0.30	
1253.00	0.200	271.700	1253.00	1.10	0.43	1.09	3355763.63	1421215.87	40°28'57.346"N	104°13'15.662"W	0.16	
1345.00	0.200	280.900	1345.00	0.78	0.46	0.77	3355763.31	1421215.91	40°28'57.346"N	104°13'15.666"W	0.03	
1437.00	0.300	311.200	1437.00	0.44	0.65	0.43	3355762.97	1421216.10	40°28'57.348"N	104°13'15.670"W	0.18	
1529.00	0.400	330.700	1528.99	0.12	1.09	0.09	3355762.63	1421216.53	40°28'57.353"N	104°13'15.675"W	0.17	
1623.00	0.400	6.400	1622.99	0.01	1.70	-0.03	3355762.51	1421217.15	40°28'57.359"N	104°13'15.676"W	0.26	
1718.00	0.400	5.600	1717.99	0.09	2.36	0.04	3355762.58	1421217.81	40°28'57.365"N	104°13'15.675"W	0.01	
1812.00	0.500	32.500	1811.99	0.36	3.03	0.29	3355762.83	1421218.48	40°28'57.372"N	104°13'15.672"W	0.25	
1907.00	0.700	29.200	1906.98	0.88	3.89	0.79	3355763.34	1421219.33	40°28'57.380"N	104°13'15.665"W	0.21	
2001.00	0.900	14.500	2000.97	1.37	5.11	1.26	3355763.80	1421220.55	40°28'57.392"N	104°13'15.659"W	0.30	
2096.00	0.800	13.600	2095.96	1.75	6.47	1.60	3355764.15	1421221.92	40°28'57.406"N	104°13'15.654"W	0.11	
2190.00	1.300	21.500	2189.95	2.33	8.10	2.15	3355764.69	1421223.55	40°28'57.422"N	104°13'15.647"W	0.55	
2285.00	1.600	15.700	2284.92	3.13	10.38	2.90	3355765.44	1421225.83	40°28'57.444"N	104°13'15.637"W	0.35	
2379.00	0.600	3.700	2378.90	3.56	12.14	3.29	3355765.83	1421227.58	40°28'57.461"N	104°13'15.631"W	1.09	
2474.00	0.500	8.200	2473.89	3.67	13.04	3.38	3355765.92	1421228.49	40°28'57.470"N	104°13'15.630"W	0.11	
2568.00	0.100	353.400	2567.89	3.73	13.53	3.43	3355765.97	1421228.98	40°28'57.475"N	104°13'15.629"W	0.43	
2663.00	0.400	315.300	2662.89	3.50	13.85	3.19	3355765.73	1421229.29	40°28'57.478"N	104°13'15.632"W	0.34	
2758.00	0.400	285.300	2757.89	2.95	14.17	2.63	3355765.18	1421229.62	40°28'57.482"N	104°13'15.639"W	0.22	
2852.00	0.500	280.800	2851.88	2.24	14.34	1.91	3355764.46	1421229.78	40°28'57.483"N	104°13'15.649"W	0.11	
2947.00	0.800	274.300	2946.88	1.17	14.46	0.84	3355763.39	1421229.91	40°28'57.485"N	104°13'15.662"W	0.32	
3041.00	0.800	276.800	3040.87	-0.13	14.59	-0.46	3355762.08	1421230.03	40°28'57.486"N	104°13'15.679"W	0.04	
3135.00	0.400	263.400	3134.86	-1.11	14.63	-1.44	3355761.10	1421230.07	40°28'57.487"N	104°13'15.692"W	0.45	
3230.00	0.500	243.400	3229.86	-1.81	14.41	-2.14	3355760.40	1421229.85	40°28'57.485"N	104°13'15.701"W	0.19	
3324.00	0.500	238.300	3323.86	-2.54	14.01	-2.86	3355759.69	1421229.45	40°28'57.481"N	104°13'15.710"W	0.05	
3419.00	0.500	244.400	3418.85	-3.27	13.61	-3.58	3355758.96	1421229.05	40°28'57.477"N	104°13'15.720"W	0.06	
3513.00	0.600	242.400	3512.85	-4.09	13.21	-4.39	3355758.16	1421228.65	40°28'57.473"N	104°13'15.730"W	0.11	
3608.00	0.300	273.700	3607.85	-4.78	12.99	-5.08	3355757.47	1421228.43	40°28'57.471"N	104°13'15.739"W	0.40	
3702.00	0.200	263.200	3701.85	-5.19	12.99	-5.49	3355757.06	1421228.43	40°28'57.471"N	104°13'15.745"W	0.12	
3797.00	0.500	244.300	3796.84	-5.73	12.79	-6.02	3355756.52	1421228.23	40°28'57.469"N	104°13'15.752"W	0.33	
3891.00	0.400	252.200	3890.84	-6.42	12.51	-6.71	3355755.84	1421227.95	40°28'57.467"N	104°13'15.760"W	0.12	
3986.00	0.400	226.800	3985.84	-6.99	12.18	-7.26	3355755.28	1421227.63	40°28'57.463"N	104°13'15.768"W	0.19	
4080.00	0.600	199.600	4079.84	-7.40	11.49	-7.67	3355754.88	1421226.94	40°28'57.457"N	104°13'15.773"W	0.32	
4175.00	0.900	208.900	4174.83	-7.96	10.37	-8.19	3355754.35	1421225.82	40°28'57.446"N	104°13'15.780"W	0.34	
4269.00	1.300	207.100	4268.81	-8.84	8.78	-9.04	3355753.51	1421224.22	40°28'57.430"N	104°13'15.791"W	0.43	
4364.00	1.300	206.400	4363.79	-9.85	6.85	-10.01	3355752.54	1421222.30	40°28'57.411"N	104°13'15.804"W	0.02	
4459.00	1.400	208.000	4458.76	-10.92	4.86	-11.03	3355751.51	1421220.31	40°28'57.392"N	104°13'15.818"W	0.11	
4553.00	0.900	175.300	4552.74	-11.44	3.11	-11.51	3355751.03	1421218.56	40°28'57.374"N	104°13'15.824"W	0.86	
4648.00	1.000	170.200	4647.73	-11.27	1.55	-11.31	3355751.24	1421217.00	40°28'57.359"N	104°13'15.822"W	0.14	
4742.00	0.500	135.800	4741.72	-10.87	0.45	-10.88	3355751.66	1421215.89	40°28'57.348"N	104°13'15.817"W	0.69	
4837.00	0.600	137.900	4836.72	-10.26	-0.22	-10.26	3355752.29	1421215.23	40°28'57.341"N	104°13'15.809"W	0.11	



Actual Wellpath Report

CROW VALLEY 6-61-16-4H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16)
Area	COLORADO	Well	CROW VALLEY 6-61-16-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 6-61-16-4H AWB
Facility	SEC.16-T6N-R61W		

WELLPATH DATA (129 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
4931.00	0.900	151.100	4930.71	-9.60	-1.23	-9.57	3355752.97	1421214.22	40°28'57.331"N	104°13'15.800"W	0.37	
5026.00	0.800	141.400	5025.70	-8.85	-2.40	-8.80	3355753.75	1421213.04	40°28'57.320"N	104°13'15.790"W	0.18	
5120.00	1.000	136.700	5119.69	-7.90	-3.51	-7.83	3355754.72	1421211.93	40°28'57.308"N	104°13'15.778"W	0.23	
5215.00	0.900	133.200	5214.67	-6.82	-4.62	-6.71	3355755.83	1421210.82	40°28'57.297"N	104°13'15.764"W	0.12	
5309.00	0.800	107.600	5308.66	-5.67	-5.33	-5.55	3355756.99	1421210.12	40°28'57.290"N	104°13'15.749"W	0.41	
5404.00	0.600	100.200	5403.66	-4.55	-5.62	-4.43	3355758.12	1421209.83	40°28'57.287"N	104°13'15.734"W	0.23	
5435.00	0.700	108.700	5434.65	-4.22	-5.71	-4.09	3355758.45	1421209.74	40°28'57.286"N	104°13'15.730"W	0.45	
5467.00	1.800	85.000	5466.65	-3.53	-5.72	-3.40	3355759.14	1421209.72	40°28'57.286"N	104°13'15.721"W	3.73	
5498.00	4.500	78.000	5497.60	-1.85	-5.43	-1.73	3355760.82	1421210.01	40°28'57.289"N	104°13'15.699"W	8.78	
5530.00	7.700	74.600	5529.41	1.46	-4.60	1.57	3355764.11	1421210.85	40°28'57.296"N	104°13'15.657"W	10.06	
5561.00	9.600	75.200	5560.06	5.99	-3.39	6.07	3355768.61	1421212.06	40°28'57.308"N	104°13'15.593"W	6.14	
5593.00	11.700	75.700	5591.50	11.75	-1.90	11.79	3355774.34	1421213.54	40°28'57.322"N	104°13'15.524"W	6.57	
5624.00	14.400	75.400	5621.70	18.56	-0.16	18.57	3355781.11	1421215.29	40°28'57.338"N	104°13'15.436"W	8.71	
5656.00	16.700	75.300	5652.53	26.91	2.01	26.87	3355789.41	1421217.46	40°28'57.358"N	104°13'15.328"W	7.19	
5687.00	18.800	75.600	5682.05	36.11	4.39	36.02	3355798.56	1421219.83	40°28'57.380"N	104°13'15.209"W	6.78	
5719.00	21.200	77.500	5712.12	46.81	6.92	46.66	3355809.20	1421222.37	40°28'57.404"N	104°13'15.071"W	7.77	
5750.00	22.700	79.800	5740.87	58.22	9.20	58.02	3355820.56	1421224.64	40°28'57.425"N	104°13'14.923"W	5.58	
5782.00	23.900	80.600	5770.26	70.73	11.35	70.49	3355833.04	1421226.79	40°28'57.444"N	104°13'14.762"W	3.88	
5813.00	26.200	82.400	5798.34	83.75	13.28	83.47	3355846.02	1421228.72	40°28'57.461"N	104°13'14.593"W	7.82	
5845.00	27.400	83.600	5826.90	98.11	15.03	97.79	3355860.34	1421230.48	40°28'57.477"N	104°13'14.408"W	4.11	
5876.00	29.400	84.600	5854.17	112.81	16.55	112.46	3355875.00	1421231.99	40°28'57.489"N	104°13'14.218"W	6.63	
5908.00	31.500	85.100	5881.76	128.99	18.00	128.61	3355891.15	1421233.44	40°28'57.502"N	104°13'14.008"W	6.61	
5939.00	33.000	86.300	5907.97	145.50	19.24	145.11	3355907.64	1421234.68	40°28'57.511"N	104°13'13.795"W	5.26	
5971.00	34.200	87.700	5934.63	163.20	20.16	162.79	3355925.33	1421235.60	40°28'57.518"N	104°13'13.566"W	4.46	
6002.00	36.400	87.100	5959.93	181.11	20.97	180.68	3355943.22	1421236.42	40°28'57.523"N	104°13'13.334"W	7.18	
6028.00	38.000	86.300	5980.64	196.82	21.88	196.38	3355958.91	1421237.32	40°28'57.530"N	104°13'13.131"W	6.43	
6060.00	40.300	86.600	6005.45	217.01	23.13	216.54	3355979.07	1421238.57	40°28'57.540"N	104°13'12.870"W	7.21	
6091.00	43.700	86.600	6028.48	237.73	24.36	237.24	3355999.78	1421239.80	40°28'57.549"N	104°13'12.602"W	10.97	
6123.00	47.400	86.600	6050.89	260.56	25.71	260.04	3356022.58	1421241.16	40°28'57.559"N	104°13'12.306"W	11.56	
6154.00	51.300	86.800	6071.08	284.06	27.07	283.52	3356046.05	1421242.51	40°28'57.569"N	104°13'12.002"W	12.59	
6186.00	55.300	87.100	6090.20	309.70	28.43	309.13	3356071.67	1421243.87	40°28'57.579"N	104°13'11.671"W	12.52	
6217.00	59.200	88.200	6106.97	335.76	29.49	335.18	3356097.71	1421244.94	40°28'57.586"N	104°13'11.333"W	12.93	
6249.00	62.800	89.500	6122.48	363.74	30.05	363.15	3356125.69	1421245.49	40°28'57.587"N	104°13'10.971"W	11.80	
6280.00	66.400	90.200	6135.77	391.73	30.12	391.15	3356153.68	1421245.56	40°28'57.584"N	104°13'10.609"W	11.79	
6312.00	67.800	90.600	6148.23	421.20	29.91	420.63	3356183.16	1421245.36	40°28'57.578"N	104°13'10.228"W	4.52	
6343.00	71.600	90.300	6158.98	450.25	29.69	449.70	3356212.23	1421245.13	40°28'57.571"N	104°13'09.851"W	12.29	
6375.00	73.400	90.600	6168.60	480.76	29.45	480.21	3356242.74	1421244.89	40°28'57.564"N	104°13'09.457"W	5.70	
6406.00	74.600	90.700	6177.15	510.54	29.11	510.01	3356272.54	1421244.55	40°28'57.557"N	104°13'09.071"W	3.88	
6438.00	76.200	91.800	6185.21	541.47	28.43	540.97	3356303.49	1421243.87	40°28'57.546"N	104°13'08.671"W	6.01	
6469.00	78.200	92.100	6192.08	571.65	27.40	571.18	3356333.70	1421242.85	40°28'57.531"N	104°13'08.280"W	6.52	
6501.00	79.600	91.600	6198.24	603.01	26.39	602.56	3356365.09	1421241.83	40°28'57.517"N	104°13'07.874"W	4.64	
6533.00	82.400	91.600	6203.25	634.57	25.51	634.15	3356396.67	1421240.95	40°28'57.504"N	104°13'07.465"W	8.75	
6564.00	84.000	92.100	6206.92	665.30	24.51	664.92	3356427.44	1421239.96	40°28'57.489"N	104°13'07.067"W	5.40	
6596.00	84.900	92.100	6210.01	697.10	23.35	696.75	3356459.27	1421238.79	40°28'57.473"N	104°13'06.656"W	2.81	
6627.00	87.400	92.500	6212.09	727.96	22.10	727.65	3356490.17	1421237.55	40°28'57.457"N	104°13'06.256"W	8.17	



Actual Wellpath Report

CROW VALLEY 6-61-16-4H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16)
Area	COLORADO	Well	CROW VALLEY 6-61-16-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 6-61-16-4H AWB
Facility	SEC.16-T6N-R61W		

WELLPATH DATA (129 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
6659.00	89.000	92.500	6213.10	759.88	20.71	759.60	3356522.12	1421236.15	40°28'57.438"N	104°13'05.843"W	5.00	
6690.00	88.900	92.200	6213.67	790.81	19.44	790.57	3356553.09	1421234.88	40°28'57.421"N	104°13'05.442"W	1.02	
6722.00	88.900	91.200	6214.28	822.76	18.49	822.55	3356585.06	1421233.93	40°28'57.407"N	104°13'05.029"W	3.12	
6762.00	88.800	91.700	6215.08	862.70	17.48	862.53	3356625.04	1421232.92	40°28'57.392"N	104°13'04.512"W	1.27	
6854.00	88.900	89.600	6216.93	954.63	16.43	954.50	3356717.01	1421231.88	40°28'57.368"N	104°13'03.322"W	2.28	
6933.00	90.100	89.100	6217.62	1033.62	17.33	1033.49	3356796.00	1421232.77	40°28'57.366"N	104°13'02.300"W	1.65	
7027.00	91.800	89.900	6216.06	1127.59	18.15	1127.47	3356889.97	1421233.59	40°28'57.360"N	104°13'01.083"W	2.00	
7122.00	90.500	90.100	6214.15	1222.55	18.15	1222.45	3356984.95	1421233.59	40°28'57.347"N	104°12'59.854"W	1.38	
7219.00	90.300	90.100	6213.48	1319.51	17.98	1319.45	3357081.94	1421233.42	40°28'57.331"N	104°12'58.599"W	0.21	
7313.00	91.100	89.200	6212.33	1413.49	18.56	1413.44	3357175.93	1421234.00	40°28'57.323"N	104°12'57.383"W	1.28	
7408.00	90.100	89.000	6211.33	1508.48	20.05	1508.42	3357270.91	1421235.49	40°28'57.325"N	104°12'56.154"W	1.07	
7503.00	89.800	88.500	6211.42	1603.48	22.12	1603.39	3357365.88	1421237.56	40°28'57.332"N	104°12'54.924"W	0.61	
7597.00	89.400	88.200	6212.07	1697.48	24.83	1697.35	3357459.83	1421240.27	40°28'57.345"N	104°12'53.708"W	0.53	
7691.00	88.600	88.100	6213.71	1791.46	27.86	1791.29	3357553.77	1421243.30	40°28'57.361"N	104°12'52.492"W	0.86	
7786.00	89.500	88.300	6215.29	1886.44	30.84	1886.23	3357648.70	1421246.29	40°28'57.377"N	104°12'51.263"W	0.97	
7880.00	89.900	88.200	6215.78	1980.44	33.71	1980.18	3357742.65	1421249.16	40°28'57.392"N	104°12'50.046"W	0.44	
7975.00	90.400	88.400	6215.53	2075.44	36.53	2075.14	3357837.61	1421251.98	40°28'57.406"N	104°12'48.817"W	0.57	
8070.00	89.900	89.000	6215.28	2170.43	38.69	2170.11	3357932.58	1421254.13	40°28'57.414"N	104°12'47.588"W	0.82	
8164.00	89.200	88.600	6216.02	2264.43	40.66	2264.09	3358026.55	1421256.10	40°28'57.420"N	104°12'46.371"W	0.86	
8259.00	89.600	89.000	6217.02	2359.42	42.65	2359.06	3358121.52	1421258.09	40°28'57.426"N	104°12'45.142"W	0.60	
8353.00	90.200	89.700	6217.18	2453.42	43.71	2453.06	3358215.51	1421259.15	40°28'57.423"N	104°12'43.926"W	0.98	
8447.00	89.900	89.500	6217.10	2547.41	44.37	2547.05	3358309.50	1421259.81	40°28'57.416"N	104°12'42.709"W	0.38	
8542.00	89.700	89.500	6217.43	2642.40	45.20	2642.05	3358404.50	1421260.64	40°28'57.411"N	104°12'41.480"W	0.21	
8637.00	89.400	88.600	6218.18	2737.39	46.77	2737.03	3358499.48	1421262.21	40°28'57.413"N	104°12'40.250"W	1.00	
8731.00	90.600	88.700	6218.18	2831.39	48.99	2831.00	3358593.44	1421264.43	40°28'57.421"N	104°12'39.034"W	1.28	
8826.00	90.200	88.700	6217.51	2926.39	51.14	2925.98	3358688.41	1421266.58	40°28'57.429"N	104°12'37.805"W	0.42	
8920.00	90.300	88.800	6217.10	3020.38	53.19	3019.95	3358782.39	1421268.63	40°28'57.435"N	104°12'36.588"W	0.15	
9015.00	90.200	89.100	6216.69	3115.38	54.93	3114.94	3358877.37	1421270.38	40°28'57.439"N	104°12'35.359"W	0.33	
9109.00	90.500	89.400	6216.11	3209.38	56.16	3208.93	3358971.35	1421271.61	40°28'57.438"N	104°12'34.142"W	0.45	
9204.00	90.000	89.900	6215.70	3304.36	56.74	3303.92	3359066.35	1421272.19	40°28'57.430"N	104°12'32.913"W	0.74	
9298.00	89.300	88.800	6216.27	3398.35	57.81	3397.91	3359160.33	1421273.25	40°28'57.427"N	104°12'31.697"W	1.39	
9393.00	90.600	88.600	6216.36	3493.35	59.97	3492.89	3359255.30	1421275.41	40°28'57.434"N	104°12'30.467"W	1.38	
9487.00	90.600	88.400	6215.37	3587.34	62.43	3586.85	3359349.26	1421277.87	40°28'57.445"N	104°12'29.251"W	0.21	
9582.00	90.700	88.600	6214.29	3682.34	64.91	3681.81	3359444.22	1421280.35	40°28'57.456"N	104°12'28.022"W	0.24	
9676.00	90.600	89.100	6213.23	3776.33	66.80	3775.79	3359538.19	1421282.24	40°28'57.461"N	104°12'26.805"W	0.54	
9771.00	90.100	89.000	6212.65	3871.33	68.37	3870.77	3359633.17	1421283.82	40°28'57.463"N	104°12'25.576"W	0.54	
9866.00	89.800	88.500	6212.73	3966.33	70.45	3965.75	3359728.15	1421285.89	40°28'57.470"N	104°12'24.347"W	0.61	
9920.00	89.600	88.800	6213.01	4020.33	71.72	4019.73	3359782.13	1421287.16	40°28'57.475"N	104°12'23.648"W	0.67	LAST BHI MWD SURVEY
10000.00	89.600	88.800	6213.57	4100.32	73.39	4099.71	3359862.11	1421288.84	40°28'57.480"N	104°12'22.613"W	0.00	PROJECTION TO BIT



Actual Wellpath Report

CROW VALLEY 6-61-16-4H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16)
Area	COLORADO	Well	CROW VALLEY 6-61-16-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 6-61-16-4H AWB
Facility	SEC.16-T6N-R61W		

HOLE & CASING SECTIONS - Ref Wellbore: CROW VALLEY 6-61-16-4H AWB Ref Wellpath: CROW VALLEY 6-61-16-4H 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	715.00	715.00	0.00	715.00	715.00	0.00	0.00	0.00	0.00
8.75in Open Hole	715.00	6784.00	6069.00	715.00	6215.54	0.00	0.00	16.92	884.52
7in Casing Intermediate	720.00	6811.00	6091.00	720.00	6216.09	0.00	0.00	16.50	911.51
6in Open Hole	6784.00	10000.00	3216.00	6215.54	6213.57	16.92	884.52	73.39	4099.71

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
CROW VALLEY 6-61-16-4H SECTION LINES		0.00	0.00	0.00	3355762.54	1421215.44	40°28'57.342"N	104°13'15.676"W	polygon
CROW VALLEY 6-61-16-4H BHL ON PLAT (655'FSL & 470'FEL, REV-1)		6184.00	93.45	4129.26	3359891.65	1421308.89	40°28'57.673"N	104°12'22.226"W	point
CROW VALLEY 6-61-16-4H LANDING (REV-1)		6206.00	8.93	751.53	3356514.05	1421224.37	40°28'57.323"N	104°13'05.950"W	point
CROW VALLEY 6-61-16-4H FAULT#1 (REV-1)		6211.00	25.87	2522.66	3358285.11	1421241.31	40°28'57.237"N	104°12'43.028"W	point
CROW VALLEY 6-61-16-4H HARDLINES (470'SETBACKS)		6211.00	0.00	0.00	3355762.54	1421215.44	40°28'57.342"N	104°13'15.676"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: CROW VALLEY 6-61-16-4H AWB Ref Wellpath: CROW VALLEY 6-61-16-4H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
720.00	6762.00	NaviTrak (Standard)	BHI NAVITRAK BHI MWD SURVEY 8.75"HOLE <794-6762>	CROW VALLEY 6-61-16-4H AWB
6762.00	9920.00	OnTrak (Standard)	BHI ONTRAK MWD 6" HOLE <6854-9920>	CROW VALLEY 6-61-16-4H AWB
9920.00	10000.00	Blind Drilling (std)	Projection to bit	CROW VALLEY 6-61-16-4H AWB

**Actual Wellpath Report****CROW VALLEY 6-61-16-4H AWP**

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**REFERENCE WELLPATH IDENTIFICATION**

Operator	MARATHON OIL COMPANY	Slot	SLOT#01 CROW VALLEY 6-61-16-4H (629'FSL & 739'FWL, SEC.16)
Area	COLORADO	Well	CROW VALLEY 6-61-16-4H
Field	WELD COUNTY (NAD 83, GRID NORTH)	Wellbore	CROW VALLEY 6-61-16-4H AWB
Facility	SEC.16-T6N-R61W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
720.00	0.000	82.400	720.00	TIED INTO SURFACE CASING
9920.00	89.600	88.800	6213.01	LAST BHI MWD SURVEY
10000.00	89.600	88.800	6213.57	PROJECTION TO BIT