





# Actual Wellpath Report

WINDSOR LV F-14H AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#06 WINDSOR LV F-14H (1353'FNL & 265'FEL, SEC.14)
Area	COLORADO	Well	WINDSOR LV F-14H
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDSOR LV F-14H AWB
Facility	SEC.14-T06N-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	Ingmjmr
Scale	0.999966	Report Generated	1/13/2015 at 2:54:21 PM
Convergence at slot	n/a	Database/Source file	Denver/WINDSOR_LV_F-14H_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-140.30	-2.78	3180159.69	1422211.25	40°29'26.034"N	104°51'08.136"W
Facility Reference Pt			3180161.45	1422351.56	40°29'27.420"N	104°51'08.100"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

## WELLPATH DATUM

Calculation method	Minimum curvature	H&P 319 (24'KB) (RKB) to Facility Vertical Datum	4869.00ft
Horizontal Reference Pt	Slot	H&P 319 (24'KB) (RKB) to Mean Sea Level	4869.00ft
Vertical Reference Pt	H&P 319 (24'KB) (RKB)	H&P 319 (24'KB) (RKB) to Mud Line at Slot (SLOT#06 WINDSOR LV F-14H (1353'FNL & 265'FEL, SEC.14))	4869.00ft
MD Reference Pt	H&P 319 (24'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	259.42°



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Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDSOR LV F-14H AWP
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## WELLPATH DATA (112 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	10.060	0.00	0.00	0.00	0.00	0.00	
24.00	0.000	10.060	24.00	0.00	0.00	0.00	0.00	
296.00	1.100	10.060	295.98	-0.92	2.57	0.46	0.40	FIRST BHI MWD SURVEY
656.00	2.000	358.910	655.85	-3.17	12.25	0.94	0.26	
746.00	2.040	2.610	745.79	-3.80	15.42	0.98	0.15	
835.00	0.500	39.570	834.77	-4.46	17.31	1.30	1.87	
925.00	1.950	170.080	924.75	-4.74	16.10	1.82	2.56	
1014.00	3.970	173.470	1013.63	-4.51	11.55	2.43	2.28	
1104.00	5.690	170.880	1103.31	-4.17	4.05	3.49	1.93	
1194.00	7.370	164.870	1192.72	-4.52	-5.93	5.70	2.01	
1283.00	9.130	164.550	1280.80	-5.57	-18.25	9.07	1.98	
1373.00	10.460	163.420	1369.48	-7.03	-32.96	13.31	1.49	
1559.00	8.800	157.270	1552.86	-11.79	-62.27	23.62	1.05	
1743.00	9.280	162.520	1734.58	-16.54	-89.40	33.52	0.52	
1926.00	7.500	157.630	1915.61	-20.76	-114.52	42.50	1.05	
2109.00	8.050	163.000	2096.93	-24.63	-137.82	50.79	0.50	
2292.00	7.970	167.340	2278.15	-26.52	-162.45	57.32	0.33	
2476.00	8.470	180.920	2460.28	-24.29	-188.45	59.90	1.09	
2660.00	10.940	177.020	2641.63	-19.28	-219.44	60.59	1.39	
2844.00	8.790	174.810	2822.90	-15.65	-250.88	62.77	1.19	
3027.00	7.290	178.190	3004.10	-12.57	-276.41	64.40	0.86	
3211.00	6.540	156.290	3186.79	-13.17	-297.68	68.98	1.48	
3394.00	4.390	165.610	3368.95	-16.00	-314.01	74.91	1.27	
3486.00	6.670	167.060	3460.52	-16.46	-322.63	76.98	2.48	
3578.00	7.150	174.800	3551.85	-16.14	-333.54	78.70	1.14	
3670.00	9.140	165.180	3642.92	-16.15	-346.31	81.09	2.61	
3764.00	10.660	146.290	3735.54	-20.12	-360.76	87.82	3.79	
3953.00	11.730	144.890	3920.94	-34.96	-391.02	108.58	0.58	
4140.00	7.740	151.160	4105.22	-46.81	-417.61	125.59	2.20	
4235.00	8.150	151.180	4199.31	-50.92	-429.11	131.92	0.43	



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Area	COLORADO	Well	WINDSOR LV F-14H
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDSOR LV F-14H AWP
Facility	SEC.14-T06N-R67W		

## WELLPATH DATA (112 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4423.00	8.850	158.620	4385.25	-57.80	-454.26	143.62	0.69	
4611.00	6.310	157.500	4571.59	-62.65	-477.27	152.85	1.35	
4705.00	6.490	154.740	4665.00	-65.06	-486.85	157.09	0.38	
4799.00	7.440	161.960	4758.31	-67.20	-497.44	161.24	1.37	
4987.00	9.420	164.830	4944.27	-70.01	-523.87	169.04	1.08	
5175.00	5.010	162.570	5130.74	-72.22	-546.56	175.53	2.35	
5363.00	5.030	163.450	5318.02	-74.06	-562.29	180.33	0.04	
5457.00	5.240	159.940	5411.64	-75.20	-570.27	182.98	0.40	
5551.00	7.190	166.670	5505.08	-76.19	-580.03	185.81	2.21	
5645.00	8.960	163.250	5598.15	-77.26	-592.76	189.27	1.95	
5838.00	4.480	156.750	5789.78	-80.53	-614.09	196.58	2.35	
5928.00	5.930	165.790	5879.40	-81.59	-621.83	199.11	1.85	
6022.00	7.380	161.150	5972.77	-82.77	-632.25	202.26	1.64	
6116.00	7.700	168.970	6065.96	-83.69	-644.15	205.41	1.14	
6210.00	9.040	172.170	6158.95	-83.39	-657.64	207.62	1.51	
6305.00	9.400	162.290	6252.73	-83.99	-672.43	211.00	1.71	
6399.00	9.580	153.540	6345.45	-87.09	-686.74	216.82	1.55	
6493.00	6.920	148.670	6438.47	-91.23	-698.59	223.25	2.92	
6588.00	4.740	148.270	6532.97	-94.68	-706.81	228.29	2.30	
6682.00	6.700	191.380	6626.54	-94.03	-715.50	229.25	4.87	
6776.00	9.070	210.020	6719.66	-87.16	-727.29	224.46	3.68	
6871.00	11.480	227.540	6813.15	-74.25	-740.16	213.74	4.13	
6965.00	17.840	238.230	6904.06	-52.86	-754.08	194.57	7.33	
7059.00	23.770	243.880	6991.90	-21.15	-770.01	165.29	6.65	
7153.00	33.470	250.520	7074.34	22.83	-787.04	123.74	10.85	
7185.00	38.890	253.060	7100.16	41.54	-792.92	105.79	17.57	
7216.00	43.990	253.900	7123.39	61.94	-798.74	86.13	16.55	
7247.00	49.260	254.720	7144.68	84.38	-804.82	64.44	17.11	
7279.00	54.590	258.370	7164.41	109.52	-810.65	39.95	18.92	
7310.00	58.790	261.220	7181.43	135.42	-815.23	14.46	15.57	



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Area	COLORADO	Well	WINDSOR LV F-14H
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDSOR LV F-14H AWP
Facility	SEC.14-T06N-R67W		

## WELLPATH DATA (112 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
7341.00	63.070	264.600	7196.49	162.45	-818.55	-12.42	16.77	
7373.00	68.850	266.820	7209.52	191.48	-820.73	-41.55	19.14	
7404.00	74.880	268.140	7219.17	220.64	-822.01	-70.96	19.87	
7436.00	79.620	268.490	7226.23	251.46	-822.93	-102.15	14.85	
7467.00	81.620	269.000	7231.28	281.64	-823.60	-132.73	6.65	
7523.00	82.280	268.680	7239.12	336.34	-824.72	-188.16	1.31	
7544.00†	84.329	268.629	7241.57	356.93	-825.21	-209.01	9.76	CROSSED 460' SETBACK
7585.00	88.330	268.530	7244.20	397.32	-826.23	-249.91	9.76	
7677.00	88.120	268.190	7247.05	488.16	-828.86	-341.83	0.43	
7771.00	88.740	269.290	7249.62	580.88	-830.92	-435.77	1.34	
7865.00	89.220	270.040	7251.29	673.37	-831.47	-529.75	0.95	
7959.00	90.030	271.570	7251.91	765.51	-830.15	-623.74	1.84	
8054.00	89.380	271.350	7252.40	858.42	-827.73	-718.70	0.72	
8148.00	89.940	271.110	7252.96	950.43	-825.72	-812.68	0.65	
8242.00	91.600	272.730	7251.69	1042.19	-822.57	-906.61	2.47	
8336.00	91.630	272.170	7249.04	1133.73	-818.55	-1000.49	0.60	
8431.00	90.300	271.400	7247.44	1226.51	-815.59	-1095.43	1.62	
8525.00	89.160	270.770	7247.89	1318.57	-813.81	-1189.41	1.39	
8619.00	90.830	270.680	7247.90	1410.75	-812.62	-1283.39	1.78	
8714.00	88.920	268.640	7248.10	1504.22	-813.19	-1378.38	2.94	
8808.00	89.870	269.420	7249.10	1596.90	-814.78	-1472.36	1.31	
8903.00	91.010	269.830	7248.37	1690.39	-815.40	-1567.36	1.28	
8997.00	89.560	268.690	7247.90	1783.01	-816.61	-1661.34	1.96	
9186.00	91.010	265.010	7246.96	1970.38	-827.00	-1850.02	2.09	
9281.00	90.360	266.250	7245.82	2064.81	-834.23	-1944.73	1.47	
9375.00	90.030	268.020	7245.50	2157.96	-838.93	-2038.61	1.92	
9470.00	87.410	269.780	7247.62	2251.63	-840.76	-2133.56	3.32	
9564.00	89.410	270.800	7250.23	2343.90	-840.28	-2227.51	2.39	
9659.00	90.090	273.560	7250.65	2436.55	-836.67	-2322.43	2.99	
9753.00	89.960	273.430	7250.61	2527.73	-830.94	-2416.26	0.20	



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Area	COLORADO	Well	WINDSOR LV F-14H
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	WINDSOR LV F-14H AWP
Facility	SEC.14-T06N-R67W		

## WELLPATH DATA (112 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
9848.00	90.090	272.650	7250.56	2620.05	-825.90	-2511.12	0.83	
9942.00	91.660	272.080	7249.13	2711.65	-822.02	-2605.03	1.78	
10036.00	88.890	270.800	7248.68	2803.58	-819.66	-2698.99	3.25	
10131.00	89.810	268.250	7249.76	2897.09	-820.45	-2793.97	2.85	
10226.00	90.460	268.420	7249.53	2990.95	-823.21	-2888.93	0.71	
10321.00	90.390	267.130	7248.83	3084.93	-826.89	-2983.85	1.36	
10415.00	90.700	266.550	7247.93	3178.14	-832.08	-3077.71	0.70	
10510.00	89.290	268.110	7247.94	3272.23	-836.50	-3172.60	2.21	
10604.00	90.340	267.420	7248.24	3365.24	-840.17	-3266.52	1.34	
10698.00	90.060	267.630	7247.92	3458.30	-844.23	-3360.43	0.37	
10792.00	89.360	269.270	7248.39	3551.13	-846.77	-3454.40	1.90	
10887.00	91.320	271.130	7247.83	3644.44	-846.44	-3549.38	2.84	
10981.00	91.340	271.560	7245.65	3736.39	-844.23	-3643.33	0.46	
11076.00	90.960	270.950	7243.74	3829.35	-842.15	-3738.29	0.76	
11170.00	89.850	271.010	7243.08	3921.45	-840.54	-3832.27	1.18	
11264.00	89.080	271.180	7243.95	4013.50	-838.75	-3926.25	0.84	
11358.00	92.030	273.630	7243.04	4105.07	-834.80	-4020.15	4.08	
11453.00	89.970	273.220	7241.39	4197.23	-829.13	-4114.96	2.21	
11547.00	86.770	271.890	7244.06	4288.72	-824.94	-4208.81	3.69	
11642.00	87.070	269.070	7249.16	4381.81	-824.15	-4303.66	2.98	
11750.00	87.960	268.350	7253.85	4488.30	-826.58	-4411.53	1.06	LAST BHI MWD SURVEY
11822.00	87.960	268.350	7256.41	4559.38	-828.65	-4483.45	0.00	PROJECTION TO BIT



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Facility	SEC.14-T06N-R67W		

## HOLE & CASING SECTIONS - Ref Wellbore: WINDSOR LV F-14H AWB Ref Wellpath: WINDSOR LV F-14H 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	24.00	728.00	704.00	24.00	727.80	0.00	0.00	14.79	0.96
8.75in Open Hole	728.00	7592.00	6864.00	727.80	7244.40	14.79	0.96	-826.41	-256.90
7in Casing Intermediate	24.00	7561.00	7537.00	24.00	7243.01	0.00	0.00	-825.62	-225.95
6.125in Open Hole	7592.00	11822.00	4230.00	7244.40	7256.41	-826.41	-256.90	-828.65	-4483.45

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.14-T6N-R67W		0.00	140.30	2.78	3180161.45	1422351.56	40°29'27.420"N	104°51'08.100"W	polygon
SEC.14-T6N-R67W HARDLINES (460'FEL/FWL)		7205.00	140.30	2.78	3180161.45	1422351.56	40°29'27.420"N	104°51'08.100"W	polygon
WINDSOR LV F-14H BHL ON PLAT REV-1 (2175'FNL & 460'FWL, SEC.14)		7205.00	-846.58	-4533.97	3175632.19	1421331.60	40°29'17.664"N	104°52'06.816"W	point
WINDSOR LV F-14H DRILLING CORRIDOR (60')		7205.00	0.00	0.00	3180159.69	1422211.25	40°29'26.034"N	104°51'08.136"W	polygon
WINDSOR LV F-14H LANDING POINT		7205.00	-821.50	-329.96	3179835.76	1421387.39	40°29'17.916"N	104°51'12.406"W	point
WINDSOR LV F-14H BHL ON PLAT REV-2 (2175'FNL & 460'FWL, SEC.14)		7242.00	-846.58	-4533.97	3175632.19	1421331.60	40°29'17.664"N	104°52'06.816"W	point
WINDSOR LV F-14H LANDING POINT REV-2		7247.00	-821.50	-329.96	3179835.76	1421387.39	40°29'17.916"N	104°51'12.406"W	point
WINDSOR LV F-14H TARGET 2		7247.00	-826.67	-1196.90	3178968.91	1421375.89	40°29'17.865"N	104°51'23.627"W	point
WINDSOR LV F-14H TARGET 4		7247.00	-842.19	-3796.85	3176369.24	1421341.38	40°29'17.709"N	104°51'57.276"W	point



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## WELLPATH COMPOSITION - Ref Wellbore: WINDSOR LV F-14H AWB Ref Wellpath: WINDSOR LV F-14H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.00	746.00	NaviTrak (Standard)	BHI MWD/ NAVITRAK (STD) 13.5" HOLE <296-746>	WINDSOR LV F-14H AWB
746.00	7585.00	NaviTrak (Standard)	BHI MWD/NAVITRAK (STD) 8.75" HOLE <835-7585>	WINDSOR LV F-14H AWB
7585.00	11750.00	OnTrak (Standard)	BHI MWD/ ONTRAK (STD) 6.125" HOLE <7677-11750>	WINDSOR LV F-14H AWB
11750.00	11822.00	Blind Drilling (std)	Projection to bit	WINDSOR LV F-14H AWB





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Facility	SEC.14-T06N-R67W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
296.00	1.100	10.060	295.98	FIRST BHI MWD SURVEY
7544.00	84.329	268.629	7241.57	CROSSED 460' SETBACK
11750.00	87.960	268.350	7253.85	LAST BHI MWD SURVEY
11822.00	87.960	268.350	7256.41	PROJECTION TO BIT