



# Actual Wellpath Report

Curry 9H AWP Proj: 15918'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHEVRON APPALACHIA, LLC	Slot	Slot #09
Area	Marshall County, WV	Well	Curry 9H
Field	Marshall County	Wellbore	Curry 9H AWB
Facility	Curry Pad		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect@ 4.0.1
North Reference	True	User	Edsaryar
Scale	0.999953	Report Generated	01/Dec/2015 at 17:46
Convergence at slot	n/a	Database/Source file	WA_MPL_EASTERNUS Defm/Curry_9H_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North [ft]	East [ft]	Easting [US ft]	Northing [US ft]	Latitude	Longitude
Slot Location	9.15	17.78	1641368.56	515656.67	39°54'35.646"N	80°39'58.331"W
Facility Reference Pt			1641350.66	515647.75	39°54'35.555"N	80°39'58.560"W
Field Reference Pt			1644569.15	516963.83	39°54'48.972"N	80°39'17.476"W

## WELLPATH DATUM

Calculation method	Minimum curvature	Nabors X07 (RKB) to Facility Vertical Datum	32.00ft
Horizontal Reference Pt	Slot	Nabors X07 (RKB) to Mean Sea Level	1352.00ft
Vertical Reference Pt	Nabors X07 (RKB)	Nabors X07 (RKB) to Mud Line at Slot (Slot #09)	32.00ft
MD Reference Pt	Nabors X07 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	141.66°



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## WELLPATH DATA (171 stations) | = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.000	0.000	262.760	0.00	0.00	0.00	0.00	1641368.56	515656.67	39°54'35.646"N	80°39'58.331"W	0.00	0.000	0.00	0.00	0.00
32.00	0.000	262.760	32.00	0.00	0.00	0.00	1641368.56	515656.67	39°54'35.646"N	80°39'58.331"W	0.00	0.000	0.00	0.00	0.00
132.00	0.850	262.760	132.00	-0.38	-0.09	-0.74	1641367.82	515656.59	39°54'35.645"N	80°39'58.341"W	0.74	262.760	0.85	0.85	0.00
232.00	0.990	280.790	231.98	-1.42	-0.03	-2.32	1641366.24	515656.07	39°54'35.646"N	80°39'58.361"W	2.32	269.377	0.32	0.14	18.03
332.00	0.650	287.710	331.97	-2.54	0.31	-3.71	1641364.86	515657.03	39°54'35.649"N	80°39'58.379"W	3.72	274.763	0.35	-0.34	6.92
432.00	0.540	296.180	431.97	-3.44	0.69	-4.67	1641363.90	515657.42	39°54'35.653"N	80°39'58.391"W	4.72	278.394	0.14	-0.11	8.47
532.00	0.300	301.830	531.97	-4.11	1.04	-5.32	1641363.26	515657.77	39°54'35.656"N	80°39'58.400"W	5.42	281.019	0.24	-0.24	5.65
632.00	0.390	277.890	631.96	-4.60	1.22	-5.88	1641362.70	515657.97	39°54'35.658"N	80°39'58.407"W	6.00	281.729	0.17	0.09	-23.94
732.00	0.330	262.370	731.96	-5.00	1.23	-6.50	1641362.08	515657.98	39°54'35.658"N	80°39'58.415"W	6.62	280.705	0.11	-0.06	-15.52
832.00	0.360	327.590	831.96	-5.46	1.46	-6.95	1641361.63	515658.22	39°54'35.660"N	80°39'58.421"W	7.10	281.824	0.37	0.03	65.22
844.00	0.410	328.800	843.96	-5.54	1.52	-7.00	1641361.58	515658.28	39°54'35.661"N	80°39'58.421"W	7.16	282.291	0.42	0.42	10.08
957.00	0.550	205.080	956.96	-5.69	1.38	-7.44	1641361.14	515658.15	39°54'35.660"N	80°39'58.427"W	7.56	280.506	0.75	0.12	-109.49
1051.00	2.110	163.700	1050.93	-3.89	-0.69	-7.14	1641361.41	515656.07	39°54'35.639"N	80°39'58.423"W	7.17	264.475	1.85	1.66	-44.02
1146.00	3.610	156.770	1145.81	0.62	-5.12	-5.47	1641363.02	515651.62	39°54'35.595"N	80°39'58.402"W	7.49	226.906	1.62	1.58	-7.29
1240.00	5.080	153.960	1239.54	7.54	-11.58	-2.48	1641365.93	515645.13	39°54'35.531"N	80°39'58.363"W	11.84	192.072	1.58	1.56	-2.99
1335.00	5.400	148.810	1334.14	16.09	-19.18	1.69	1641370.00	515637.47	39°54'35.456"N	80°39'58.310"W	19.25	174.978	0.60	0.34	-5.42
1430.00	5.390	145.310	1428.72	24.98	-26.67	6.54	1641374.75	515629.92	39°54'35.382"N	80°39'58.248"W	27.46	166.224	0.35	-0.01	-3.68
1525.00	5.630	147.710	1523.28	34.06	-34.28	11.57	1641379.68	515622.24	39°54'35.307"N	80°39'58.183"W	36.18	161.352	0.35	0.25	2.53
1619.00	4.070	149.060	1616.94	41.96	-41.04	15.75	1641383.77	515615.43	39°54'35.240"N	80°39'58.129"W	43.96	159.008	1.66	-1.66	1.44
1714.00	2.550	147.730	1711.78	47.40	-45.72	18.61	1641386.57	515610.72	39°54'35.194"N	80°39'58.093"W	49.36	157.852	1.60	-1.60	-1.40
1809.00	0.800	130.440	1806.74	50.16	-47.94	20.24	1641388.18	515608.48	39°54'35.172"N	80°39'58.072"W	52.04	157.107	1.90	-1.84	-18.20
1903.00	0.380	102.930	1900.73	51.04	-48.43	21.05	1641388.97	515607.97	39°54'35.167"N	80°39'58.061"W	52.81	156.513	0.53	-0.45	-29.27
1998.00	0.530	33.940	1995.73	51.15	-48.14	21.60	1641389.53	515608.26	39°54'35.170"N	80°39'58.054"W	52.76	155.836	0.56	0.16	-72.62
2092.00	0.950	42.340	2089.72	50.90	-47.20	22.37	1641390.31	515609.18	39°54'35.179"N	80°39'58.044"W	52.23	154.647	0.46	0.45	8.94
2199.00	0.860	68.890	2156.71	50.95	-46.61	23.21	1641391.16	515609.77	39°54'35.185"N	80°39'58.034"W	52.07	153.530	0.63	-0.13	39.63
2227.00	0.940	90.360	2224.71	51.45	-46.43	24.24	1641392.20	515609.93	39°54'35.187"N	80°39'58.020"W	52.38	152.429	0.51	0.12	31.57
2299.00	0.690	114.350	2296.70	52.21	-46.61	25.23	1641393.18	515609.74	39°54'35.185"N	80°39'58.008"W	53.00	151.576	0.58	-0.35	33.32
2394.00	0.350	112.820	2391.69	52.97	-46.96	26.02	1641393.96	515609.38	39°54'35.182"N	80°39'57.998"W	53.69	151.013	0.36	-0.36	-1.61
2489.00	0.170	180.990	2486.69	53.33	-47.21	26.28	1641394.23	515609.12	39°54'35.179"N	80°39'57.994"W	54.04	150.897	0.34	-0.19	71.76
2583.00	0.220	78.510	2580.69	53.37	-47.19	26.37	1641394.31	515609.14	39°54'35.179"N	80°39'57.993"W	54.06	150.810	0.40	0.05	-162.21



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Field	Marshall County	Wellbore	Curry 9H AWB
Facility	Curry Pad		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
2677.00	0.280	36.100	2674.69	53.24	-46.85	26.59	1641394.54	515609.48	39°54'35.183"N	80°39'57.990"W	53.87	150.426	0.07	0.06	8.07
2772.00	0.410	307.240	2769.69	52.85	-46.46	26.45	1641394.41	515609.88	39°54'35.187"N	80°39'57.992"W	53.46	150.343	0.52	0.14	-93.54
2867.00	0.780	315.660	2864.69	51.88	-45.79	25.73	1641393.69	515610.55	39°54'35.193"N	80°39'58.001"W	52.52	150.667	0.40	0.39	8.86
2961.00	0.790	329.830	2958.68	50.60	-44.77	24.96	1641392.93	515611.58	39°54'35.203"N	80°39'58.011"W	51.26	150.863	0.21	0.01	15.07
3056.00	0.770	311.370	3053.67	49.32	-43.78	24.15	1641392.14	515612.58	39°54'35.213"N	80°39'58.022"W	50.00	151.120	0.26	-0.02	-19.43
3150.00	0.650	315.750	3147.66	48.17	-42.98	23.30	1641391.30	515613.39	39°54'35.221"N	80°39'58.032"W	48.89	151.536	0.14	-0.13	4.66
3245.00	0.850	312.570	3242.65	46.94	-42.12	22.41	1641390.42	515614.26	39°54'35.230"N	80°39'58.044"W	47.71	151.987	0.21	0.21	-3.35
3340.00	1.000	304.390	3337.64	45.45	-41.18	21.21	1641389.23	515615.22	39°54'35.239"N	80°39'58.059"W	46.32	152.752	0.21	0.16	-8.61
3435.00	0.730	305.550	3432.63	44.08	-40.36	20.03	1641388.06	515616.06	39°54'35.247"N	80°39'58.074"W	45.05	153.605	0.28	-0.28	1.22
3530.00	0.670	299.140	3527.62	42.36	-39.75	19.05	1641387.09	515616.69	39°54'35.253"N	80°39'58.087"W	44.06	154.383	0.10	-0.06	-6.75
3624.00	0.900	310.850	3621.61	41.75	-38.98	18.01	1641386.06	515617.46	39°54'35.261"N	80°39'58.100"W	42.94	155.200	0.30	0.24	12.46
3719.00	0.490	114.670	3716.61	41.38	-38.66	17.82	1641385.87	515617.78	39°54'35.264"N	80°39'58.103"W	42.57	155.259	1.45	-0.43	172.44
3813.00	0.430	65.380	3810.61	41.82	-38.69	18.50	1641386.56	515617.75	39°54'35.264"N	80°39'58.094"W	42.88	154.438	0.41	-0.06	-52.44
3908.00	0.190	35.710	3905.61	41.86	-38.41	18.92	1641386.98	515618.02	39°54'35.266"N	80°39'58.089"W	42.82	153.776	0.30	-0.25	-31.23
4002.00	0.280	318.880	3999.61	41.59	-38.11	18.86	1641386.92	515618.32	39°54'35.269"N	80°39'58.089"W	42.52	153.670	0.32	0.10	-81.73
4096.00	0.410	323.770	4093.60	41.02	-37.66	18.51	1641386.58	515618.77	39°54'35.274"N	80°39'58.094"W	41.97	153.829	0.14	0.14	5.20
4190.00	0.430	312.630	4187.60	40.34	-37.15	18.05	1641386.13	515619.29	39°54'35.279"N	80°39'58.100"W	41.31	154.088	0.09	0.02	-11.85
4285.00	0.510	301.360	4282.60	39.59	-36.69	17.43	1641385.51	515619.76	39°54'35.283"N	80°39'58.108"W	40.62	154.594	0.13	0.08	-11.86
4379.00	0.560	323.890	4376.59	38.74	-36.10	16.80	1641384.89	515620.35	39°54'35.289"N	80°39'58.116"W	39.82	155.047	0.23	0.05	23.97
4474.00	0.880	324.740	4471.59	37.55	-35.13	16.11	1641384.21	515621.33	39°54'35.299"N	80°39'58.125"W	38.65	155.373	0.34	0.34	0.89
4568.00	0.630	293.240	4565.58	36.37	-34.34	15.21	1641383.33	515622.14	39°54'35.307"N	80°39'58.136"W	37.56	156.105	0.51	-0.27	-33.51
4661.00	0.590	271.550	4658.57	35.62	-34.13	14.27	1641382.38	515622.36	39°54'35.309"N	80°39'58.148"W	36.99	157.314	0.25	-0.04	-23.32
4756.00	0.760	296.210	4753.57	34.73	-33.83	13.21	1641381.33	515622.67	39°54'35.312"N	80°39'58.162"W	36.32	158.671	0.35	0.18	25.96
4851.00	0.840	312.330	4848.56	33.48	-33.09	12.13	1641380.26	515623.43	39°54'35.319"N	80°39'58.176"W	35.24	159.865	0.25	0.08	16.97
4945.00	0.880	306.960	4942.55	32.10	-32.19	11.04	1641379.19	515624.34	39°54'35.328"N	80°39'58.190"W	34.03	161.062	0.16	0.04	-5.71
5039.00	0.570	293.700	5036.54	30.99	-31.57	10.04	1641378.19	515624.98	39°54'35.334"N	80°39'58.203"W	33.13	162.357	0.37	-0.33	-14.11
5134.00	0.650	308.130	5131.53	30.05	-31.04	9.18	1641377.34	515625.51	39°54'35.339"N	80°39'58.214"W	32.37	163.521	0.18	0.08	15.19
5229.00	0.790	309.560	5226.53	28.88	-30.29	8.25	1641376.42	515626.27	39°54'35.347"N	80°39'58.226"W	31.40	164.738	0.15	0.15	1.51
5315.00	0.710	289.570	5312.52	27.85	-29.74	7.30	1641375.47	515626.84	39°54'35.352"N	80°39'58.238"W	30.62	166.216	0.32	-0.09	-23.24
5409.00	5.560	235.950	5406.36	27.02	-32.09	2.97	1641371.11	515624.54	39°54'35.329"N	80°39'58.293"W	32.23	174.712	5.50	5.16	-57.04



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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5504.00	9.410	233.140	5500.53	26.47	-39.33	-7.06	1641360.99	515617.43	39°54'35.257"N	80°39'58.422"W	39.96	190.176	4.07	4.05	-2.96
5599.00	15.740	229.730	5593.21	26.70	-52.33	-23.12	1641344.76	515604.64	39°54'35.129"N	80°39'58.628"W	57.21	203.836	6.71	6.66	-3.59
5693.00	23.810	231.610	5681.59	27.15	-72.39	-47.76	1641319.86	515584.91	39°54'34.930"N	80°39'58.944"W	86.73	213.416	8.61	8.59	2.00
5788.00	32.060	230.090	5765.45	27.86	-100.53	-82.19	1641285.07	515557.22	39°54'34.652"N	80°39'59.386"W	129.85	219.271	8.72	8.68	-1.60
5882.00	36.850	229.160	5842.94	29.77	-134.99	-122.68	1641244.15	515523.30	39°54'34.312"N	80°39'59.906"W	182.40	222.265	5.13	5.10	-0.99
5977.00	36.860	229.170	5918.95	32.25	-172.24	-165.79	1641200.56	515486.60	39°54'33.944"N	80°40'00.459"W	239.07	223.906	0.01	0.01	0.01
6072.00	36.740	229.630	5995.02	34.50	-209.28	-209.00	1641156.87	515450.13	39°54'33.578"N	80°40'01.013"W	295.76	224.962	0.32	-0.13	0.48
6166.00	35.440	228.570	6070.98	36.96	-245.52	-250.85	1641114.55	515414.44	39°54'33.220"N	80°40'01.551"W	351.01	225.615	1.53	-1.38	-1.13
6261.00	35.380	212.440	6148.58	47.53	-287.05	-286.33	1641078.54	515373.37	39°54'32.809"N	80°40'02.006"W	405.44	224.928	9.82	-0.06	-16.98
6355.00	35.190	203.400	6223.41	70.57	-337.33	-312.76	1641051.47	515323.44	39°54'32.312"N	80°40'02.345"W	460.01	222.835	7.09	4.05	-9.62
6450.00	42.690	190.940	6295.29	105.86	-396.62	-330.82	1641032.63	515264.40	39°54'31.726"N	80°40'02.577"W	516.48	219.832	9.34	3.68	-13.12
6545.00	47.690	180.640	6362.31	154.28	-463.49	-337.34	1641025.25	515197.62	39°54'31.065"N	80°40'02.660"W	573.26	216.048	9.31	5.26	-10.84
6639.00	54.070	173.410	6421.63	213.77	-536.19	-333.36	1641028.29	515124.88	39°54'30.347"N	80°40'02.609"W	631.37	211.870	9.03	6.79	-7.69
6734.00	60.820	165.680	6472.78	284.51	-614.76	-318.65	1641041.97	515046.13	39°54'29.571"N	80°40'02.421"W	692.43	207.399	9.87	7.11	-8.14
6828.00	67.990	157.400	6513.42	364.15	-694.96	-291.68	1641067.90	514965.59	39°54'28.778"N	80°40'02.074"W	753.69	202.768	11.01	7.63	-8.81
6922.00	73.920	154.530	6544.08	450.21	-776.05	-255.48	1641103.04	514884.04	39°54'27.977"N	80°40'01.610"W	817.02	198.222	6.94	6.31	-3.05
7017.00	80.450	150.570	6565.15	541.12	-858.17	-212.77	1641144.68	514801.37	39°54'27.165"N	80°40'01.062"W	884.16	193.925	7.98	6.87	-4.17
7112.00	88.180	145.450	6574.56	634.97	-938.25	-162.72	1641193.68	514720.66	39°54'26.374"N	80°40'00.420"W	952.25	189.839	9.74	8.14	-5.39
7206.00	89.420	142.780	6576.53	728.85	-1014.38	-107.64	1641247.77	514643.82	39°54'25.621"N	80°39'59.713"W	1020.08	186.057	3.13	1.32	-2.84
7301.00	89.540	143.270	6577.39	823.82	-1090.27	-50.50	1641303.91	514567.20	39°54'24.871"N	80°39'58.980"W	1091.44	182.652	0.33	0.13	0.52
7396.00	88.920	143.260	6578.67	918.77	-1166.40	6.31	1641359.73	514490.34	39°54'24.119"N	80°39'58.250"W	1166.42	179.690	0.65	-0.65	-0.01
7490.00	88.920	142.970	6580.44	1012.73	-1241.57	62.72	1641415.16	514414.45	39°54'23.376"N	80°39'57.527"W	1243.15	177.108	0.31	0.00	-0.31
7585.00	88.950	143.310	6582.21	1107.68	-1317.57	119.70	1641471.14	514337.72	39°54'22.625"N	80°39'56.795"W	1322.99	174.809	0.36	0.03	0.36
7679.00	88.920	147.180	6583.96	1201.46	-1394.77	173.27	1641523.70	514259.84	39°54'21.862"N	80°39'56.108"W	1405.49	172.919	4.12	-0.03	4.12
7774.00	88.920	145.430	6585.75	1296.13	-1473.79	225.96	1641575.36	514180.14	39°54'21.081"N	80°39'55.432"W	1491.01	171.283	1.84	0.00	-1.84
7869.00	88.860	145.080	6587.59	1390.92	-1551.84	280.09	1641628.47	514101.40	39°54'20.310"N	80°39'54.737"W	1576.91	169.769	0.37	-0.06	-0.37
7964.00	89.260	146.510	6589.14	1485.66	-1630.39	333.49	1641680.84	514022.16	39°54'19.534"N	80°39'54.052"W	1664.15	168.440	1.56	0.42	1.51
8058.00	89.290	143.490	6590.33	1579.48	-1707.38	387.39	1641733.74	513944.49	39°54'18.773"N	80°39'53.360"W	1750.78	167.216	3.21	0.03	-3.21
8153.00	89.170	140.190	6591.61	1674.46	-1782.06	446.08	1641791.44	513869.06	39°54'18.035"N	80°39'52.607"W	1837.04	165.947	3.48	-0.13	-3.47
8247.00	89.260	141.560	6592.90	1768.44	-1854.97	505.38	1641849.80	513795.38	39°54'17.314"N	80°39'51.846"W	1922.59	164.760	1.46	0.10	1.46



# Actual Wellpath Report

Curry 9H AWP Proj: 15918'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHEVRON APPALACHIA, LLC	Slot	Slot #09
Area	Marshall County, WV	Well	Curry 9H
Field	Marshall County	Wellbore	Curry 9H AWB
Facility	Curry Pad		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
8342.00	89.450	138.640	6593.97	1863.39	-1927.84	566.31	1641909.77	513721.73	39°54'16.594"N	80°39'51.065"W	2009.30	163.630	3.08	0.20	-3.07
8437.00	89.230	134.410	6595.06	1957.98	-1996.76	631.66	1641974.21	513651.98	39°54'15.913"N	80°39'50.226"W	2094.29	162.446	4.46	-0.23	-4.45
8531.00	89.080	131.780	6596.45	2050.91	-2060.97	700.28	1642042.65	513586.88	39°54'15.278"N	80°39'49.346"W	2176.69	161.233	2.80	-0.16	-2.80
8625.00	89.230	134.650	6597.84	2143.87	-2125.32	768.77	1642109.65	513521.65	39°54'14.642"N	80°39'48.467"W	2260.09	160.114	3.06	0.16	3.05
8719.00	89.510	136.350	6598.87	2237.32	-2192.36	834.65	1642174.65	513453.77	39°54'13.980"N	80°39'47.621"W	2345.87	159.158	1.83	0.30	1.81
8814.00	89.380	136.870	6599.79	2331.95	-2261.39	899.91	1642239.00	513383.90	39°54'13.298"N	80°39'46.784"W	2433.87	158.300	0.56	-0.14	0.55
8909.00	89.450	137.320	6600.76	2426.64	-2330.98	964.58	1642302.76	513313.48	39°54'12.610"N	80°39'45.954"W	2522.67	157.520	0.48	0.07	0.47
9003.00	89.450	140.700	6601.66	2520.52	-2401.92	1026.23	1642363.47	513241.75	39°54'11.909"N	80°39'45.163"W	2611.96	156.865	3.60	0.00	3.60
9098.00	89.450	142.540	6602.58	2615.51	-2476.38	1085.21	1642421.48	513166.53	39°54'11.173"N	80°39'44.407"W	2703.73	156.336	1.94	0.00	1.94
9192.00	89.200	142.640	6603.68	2709.50	-2551.04	1142.31	1642477.60	513091.14	39°54'10.435"N	80°39'43.674"W	2795.12	155.878	0.29	-0.27	0.11
9287.00	89.110	142.640	6605.08	2804.47	-2626.54	1199.95	1642534.26	513014.90	39°54'09.689"N	80°39'42.934"W	2887.66	155.446	0.09	-0.09	0.00
9382.00	89.200	141.170	6606.48	2899.46	-2701.30	1258.55	1642591.88	512939.40	39°54'08.950"N	80°39'42.182"W	2980.09	155.019	1.55	0.09	-1.55
9477.00	89.140	140.740	6607.86	2994.44	-2775.07	1318.39	1642650.75	512864.86	39°54'08.221"N	80°39'41.415"W	3072.32	154.588	0.46	-0.06	-0.45
9571.00	89.080	141.190	6609.32	3088.42	-2848.08	1377.58	1642708.99	512791.09	39°54'07.499"N	80°39'40.655"W	3163.74	154.187	0.48	-0.06	0.48
9666.00	89.170	142.430	6610.77	3183.41	-2922.73	1436.31	1642766.74	512715.68	39°54'06.762"N	80°39'39.902"W	3256.59	153.825	1.31	0.09	1.31
9761.00	89.110	142.990	6612.20	3278.38	-2998.30	1493.86	1642823.30	512639.38	39°54'06.015"N	80°39'39.163"W	3349.84	153.516	0.59	-0.06	0.59
9854.00	89.110	143.440	6613.64	3371.34	-3072.78	1549.54	1642878.01	512564.19	39°54'05.279"N	80°39'38.449"W	3441.37	153.239	0.48	0.00	0.48
9948.00	89.140	144.620	6615.08	3465.24	-3148.84	1604.75	1642932.22	512487.42	39°54'04.527"N	80°39'37.741"W	3534.18	152.995	1.26	0.03	1.26
10043.00	89.140	143.510	6616.50	3560.15	-3225.75	1660.49	1642986.96	512409.79	39°54'03.767"N	80°39'37.025"W	3628.05	152.762	1.17	0.00	-1.17
10138.00	89.200	144.910	6617.88	3655.04	-3302.80	1716.04	1643041.50	512332.03	39°54'03.005"N	80°39'36.313"W	3722.00	152.545	1.47	0.06	1.47
10232.00	89.750	146.340	6618.74	3748.81	-3380.38	1769.11	1643093.56	512253.77	39°54'02.239"N	80°39'35.632"W	3815.33	152.375	1.63	0.59	1.52
10327.00	89.780	146.850	6619.13	3843.46	-3459.69	1821.42	1643144.82	512173.80	39°54'01.455"N	80°39'34.961"W	3909.86	152.235	0.54	0.03	0.54
10422.00	90.370	146.670	6619.01	3938.08	-3539.14	1873.49	1643195.86	512093.68	39°54'00.670"N	80°39'34.293"W	4004.43	152.105	0.65	0.62	-0.19
10516.00	90.280	142.860	6618.47	4031.92	-3615.91	1927.71	1643249.08	512016.22	39°53'59.911"N	80°39'33.597"W	4097.66	151.937	4.05	-0.10	-4.05
10611.00	89.880	142.510	6618.34	4126.91	-3691.46	1985.30	1643305.68	511939.93	39°53'59.164"N	80°39'32.858"W	4191.45	151.728	0.56	-0.42	-0.37
10706.00	88.550	140.860	6619.64	4221.89	-3765.99	2044.19	1643363.59	511864.65	39°53'58.428"N	80°39'32.103"W	4285.02	151.507	2.23	-1.40	-1.74
10800.00	88.580	137.370	6622.00	4315.76	-3837.02	2105.69	1643424.16	511792.83	39°53'57.726"N	80°39'31.314"W	4376.83	151.243	3.71	0.03	-3.71
10894.00	87.320	136.990	6625.36	4409.41	-3905.92	2169.53	1643487.11	511723.11	39°53'57.045"N	80°39'30.495"W	4468.01	150.950	1.40	-1.34	-0.40
10989.00	87.480	139.140	6629.67	4504.12	-3976.52	2232.95	1643549.60	511651.70	39°53'56.347"N	80°39'29.681"W	4560.57	150.684	2.27	0.17	2.26
11083.00	88.090	140.080	6633.30	4597.98	-4048.06	2293.82	1643609.53	511579.38	39°53'55.640"N	80°39'28.900"W	4652.78	150.462	1.19	0.65	1.00



# Actual Wellpath Report

Curry 9H AWP Proj: 15918'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHEVRON APPALACHIA, LLC	Slot	Slot #09
Area	Marshall County, WV	Well	Curry 9H
Field	Marshall County	Wellbore	Curry 9H AWB
Facility	Curry Pad		

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
11178.00	88.280	140.260	6636.31	4692.90	-4120.98	2354.64	1643669.39	511505.68	39°53'54.919"N	80°39'28.120"W	4746.24	150.257	0.28	0.20	0.19
11273.00	88.770	140.640	6638.76	4787.85	-4194.20	2415.11	1643728.90	511431.68	39°53'54.196"N	80°39'27.344"W	4839.84	150.066	0.65	0.52	0.40
11367.00	89.320	141.760	6640.32	4881.83	-4267.45	2474.00	1643786.84	511357.68	39°53'53.472"N	80°39'26.589"W	4932.73	149.898	1.33	0.59	1.19
11462.00	89.260	140.150	6641.50	4976.82	-4341.22	2533.83	1643845.71	511283.13	39°53'52.743"N	80°39'25.821"W	5026.58	149.729	1.70	-0.06	-1.69
11557.00	89.260	140.640	6642.73	5071.78	-4414.41	2594.39	1643905.30	511209.17	39°53'52.019"N	80°39'25.044"W	5120.34	149.557	0.52	0.00	0.52
11652.00	89.080	139.440	6644.10	5166.73	-4487.22	2655.40	1643965.36	511135.58	39°53'51.300"N	80°39'24.261"W	5214.05	149.384	1.28	-0.19	-1.26
11747.00	89.050	140.860	6645.65	5261.69	-4560.14	2716.26	1644025.27	511061.88	39°53'50.579"N	80°39'23.481"W	5307.82	149.220	1.49	-0.03	1.49
11841.00	89.050	140.280	6647.21	5355.66	-4632.74	2775.96	1644084.01	510988.52	39°53'49.861"N	80°39'22.715"W	5400.76	149.070	0.62	0.00	-0.62
11935.00	89.230	139.570	6648.62	5449.60	-4704.66	2836.46	1644143.58	510915.82	39°53'49.151"N	80°39'21.939"W	5493.57	148.914	0.78	0.19	-0.76
12030.00	89.140	139.590	6649.97	5544.53	-4776.97	2898.06	1644204.22	510842.71	39°53'48.436"N	80°39'21.148"W	5587.33	148.756	0.10	-0.09	0.02
12125.00	89.350	140.540	6651.23	5639.48	-4849.81	2959.03	1644264.25	510769.10	39°53'47.716"N	80°39'20.366"W	5681.24	148.611	1.02	0.22	1.00
12219.00	89.480	140.070	6652.19	5733.45	-4922.14	3019.07	1644323.33	510696.00	39°53'47.001"N	80°39'19.596"W	5774.27	148.476	0.52	0.14	-0.50
12314.00	89.170	141.260	6653.31	5828.43	-4995.61	3079.28	1644382.58	510621.76	39°53'46.275"N	80°39'18.824"W	5868.39	148.350	1.29	-0.33	1.25
12409.00	89.290	142.320	6654.58	5923.42	-5070.25	3138.03	1644440.36	510546.37	39°53'45.537"N	80°39'18.070"W	5962.77	148.246	1.12	0.13	1.12
12504.00	89.260	143.620	6655.78	6018.38	-5146.08	3195.24	1644496.58	510469.80	39°53'44.788"N	80°39'17.336"W	6057.36	148.164	1.37	-0.03	1.37
12598.00	89.170	143.260	6657.07	6112.33	-5221.57	3251.23	1644551.58	510393.59	39°53'44.042"N	80°39'16.618"W	6151.04	148.091	0.39	-0.10	-0.38
12693.00	89.080	144.900	6658.52	6207.23	-5298.50	3306.95	1644606.29	510315.95	39°53'43.281"N	80°39'15.903"W	6245.80	148.030	1.73	-0.09	1.73
12788.00	89.480	145.170	6659.72	6302.06	-5376.34	3361.39	1644659.71	510237.41	39°53'42.512"N	80°39'15.205"W	6340.66	147.986	0.51	0.42	0.28
12882.00	89.350	145.750	6660.68	6395.85	-5453.77	3414.68	1644711.99	510159.30	39°53'41.747"N	80°39'14.521"W	6434.57	147.949	0.63	-0.14	0.62
12977.30	89.420	144.850	6661.70	6490.65	-5531.87	3468.76	1644765.05	510080.51	39°53'40.975"N	80°39'13.827"W	6529.46	147.910	0.95	0.07	-0.95
13072.00	89.230	144.460	6662.82	6585.51	-5609.35	3523.71	1644818.99	510002.33	39°53'40.209"N	80°39'13.122"W	6624.30	147.864	0.46	-0.20	-0.41
13166.00	89.170	142.960	6664.13	6679.44	-5685.11	3579.34	1644873.63	509925.86	39°53'39.460"N	80°39'12.409"W	6718.05	147.806	1.60	-0.06	-1.60
13261.00	89.110	141.700	6665.55	6774.42	-5760.30	3637.39	1644930.69	509849.93	39°53'38.717"N	80°39'11.664"W	6812.61	147.729	1.33	-0.06	-1.33
13355.00	89.080	141.260	6667.04	6868.41	-5833.83	3695.92	1644988.27	509775.64	39°53'37.990"N	80°39'10.913"W	6906.04	147.644	0.47	-0.03	-0.47
13450.00	88.610	140.050	6668.95	6963.37	-5907.28	3756.14	1645047.52	509701.42	39°53'37.264"N	80°39'10.141"W	7000.33	147.550	1.37	-0.49	-1.27
13544.00	88.740	139.340	6671.13	7057.29	-5978.95	3816.93	1645107.37	509628.97	39°53'36.556"N	80°39'09.361"W	7093.43	147.446	0.77	0.14	-0.76
13639.00	88.680	139.570	6673.27	7152.20	-6051.12	3878.67	1645168.16	509556.01	39°53'35.843"N	80°39'08.569"W	7187.50	147.341	0.25	-0.06	0.24
13733.00	88.680	140.560	6675.43	7246.13	-6123.18	3938.99	1645227.54	509483.18	39°53'35.131"N	80°39'07.796"W	7280.72	147.247	1.05	0.00	1.05
13827.00	88.680	141.940	6677.60	7340.11	-6196.47	3997.81	1645285.40	509409.14	39°53'34.406"N	80°39'07.041"W	7374.19	147.171	1.47	0.00	1.47
13922.00	88.580	140.870	6679.87	7435.08	-6270.69	4057.05	1645343.68	509334.15	39°53'33.673"N	80°39'06.281"W	7468.69	147.098	1.15	-0.11	-1.13



# Actual Wellpath Report

Curry 9H AWP Proj: 15918'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #09
CHEVRON APPALACHIA, LLC	Curry 9H
Area	Well
Marshall County, WV	Curry 9H AWB
Field	Wellbore
Marshall County	
Facility	Curry Pad

## WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [P/100ft]	Build Rate [P/100ft]	Turn Rate [P/100ft]
14016.00	88.770	140.800	6682.04	7529.04	-6343.55	4116.40	1645402.07	509260.53	39°53'32.952"N	80°39'05.520"W	7562.11	147.020	0.22	0.20	-0.07
14111.00	88.920	141.870	6683.96	7624.02	-6417.72	4175.74	1645460.44	509185.61	39°53'32.219"N	80°39'04.759"W	7656.62	146.950	1.14	0.16	1.13
14206.00	89.970	143.030	6684.88	7719.00	-6493.03	4233.64	1645517.35	509109.55	39°53'31.475"N	80°39'04.016"W	7751.33	146.895	1.65	1.11	1.22
14300.00	89.880	143.420	6685.00	7812.97	-6568.32	4289.91	1645572.61	509033.54	39°53'30.731"N	80°39'03.294"W	7845.14	146.850	0.43	-0.10	0.41
14395.00	89.600	142.450	6685.43	7907.94	-6644.12	4347.17	1645628.91	508957.00	39°53'29.982"N	80°39'02.560"W	7939.92	146.804	1.06	-0.29	-1.02
14490.00	89.320	142.980	6686.33	8002.92	-6719.71	4404.72	1645685.46	508880.69	39°53'29.235"N	80°39'01.822"W	8034.67	146.755	0.63	-0.29	0.56
14584.00	89.140	142.810	6687.59	8096.89	-6794.67	4461.42	1645741.19	508805.00	39°53'28.494"N	80°39'01.094"W	8128.45	146.711	0.26	-0.19	-0.18
14679.00	89.200	143.590	6688.97	8191.84	-6870.73	4518.32	1645797.09	508728.21	39°53'27.742"N	80°39'00.365"W	8223.27	146.670	0.82	0.06	0.82
14773.00	89.230	142.830	6690.25	8285.80	-6946.00	4574.61	1645852.40	508652.22	39°53'26.998"N	80°38'59.643"W	8317.09	146.631	0.81	0.03	-0.81
14868.00	89.140	142.220	6691.61	8380.78	-7021.38	4632.40	1645909.20	508576.09	39°53'26.253"N	80°38'58.901"W	8411.84	146.585	0.65	-0.09	-0.64
14962.00	89.260	142.740	6692.92	8474.76	-7095.93	4689.65	1645965.47	508500.81	39°53'25.516"N	80°38'58.167"W	8505.59	146.540	0.57	0.13	0.55
15057.00	89.230	142.540	6694.17	8569.74	-7171.44	4747.29	1646022.13	508424.57	39°53'24.770"N	80°38'57.428"W	8600.36	146.497	0.21	-0.03	-0.21
15151.00	89.140	141.530	6695.51	8663.73	-7245.54	4805.11	1646078.98	508349.73	39°53'24.037"N	80°38'56.686"W	8694.07	146.448	1.08	-0.10	-1.07
15246.00	89.140	140.670	6696.93	8758.71	-7319.46	4864.76	1646137.66	508275.04	39°53'23.307"N	80°38'55.921"W	8788.65	146.391	0.91	0.00	-0.91
15341.00	89.080	140.100	6698.41	8853.67	-7392.63	4925.32	1646197.27	508201.09	39°53'22.583"N	80°38'55.144"W	8883.12	146.327	0.50	-0.06	-0.60
15435.00	89.110	140.790	6699.89	8947.64	-7465.10	4985.18	1646256.17	508127.86	39°53'21.867"N	80°38'54.377"W	8976.62	146.265	0.73	0.03	0.73
15529.00	89.170	141.310	6701.30	9041.62	-7538.19	5044.26	1646314.30	508054.00	39°53'21.145"N	80°38'53.619"W	9070.22	146.211	0.56	0.06	0.55
15716.00	89.230	145.310	6703.92	9228.49	-7688.10	5155.96	1646424.04	507902.67	39°53'19.663"N	80°38'52.186"W	9256.93	146.153	2.14	0.03	2.14
15810.00	89.170	146.740	6705.23	9322.21	-7766.04	5208.48	1646475.54	507824.05	39°53'18.893"N	80°38'51.513"W	9350.92	146.151	1.52	-0.06	1.52
15893.00	89.170	145.890	6706.43	9404.92	-7835.10	5254.51	1646520.67	507754.41	39°53'18.210"N	80°38'50.922"W	9433.91	146.153	1.02	0.00	-1.02
15918.00	89.170	145.890	6706.79	9429.85	-7855.80	5268.53	1646534.42	507733.53	39°53'18.006"N	80°38'50.743"W	9458.91	146.152	0.00	0.00	0.00

## HOLE & CASING SECTIONS - Ref Wellbore: Curry 9H AWB Ref Wellpath: Curry 9H AWP Proj: 15918'

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]
30in Conductor	32.00	112.00	80.00	32.00	112.00	0.00	0.00	-0.06	-0.47
20in Casing Surface	32.00	442.00	410.00	32.00	441.97	0.00	0.00	0.73	-4.76
13.375in Casing Intermediate	32.00	897.00	865.00	32.00	896.96	0.00	0.00	1.66	-7.20



# Actual Wellpath Report

Curry 9H AWP Proj: 15918'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	CHEVRON APPALACHIA, LLC	Slot	Slot #09
Area	Marshall County, WV	Well	Curry 9H
Field	Marshall County	Wellbore	Curry 9H AWB
Facility	Curry Pad		

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Curry 9H LP Plat		6579.00	-932.94	-165.40	1641191.07	514726.00	39°54'26.426"N	80°40'00.454"W	point
Curry 9H LP Rev-2		6579.00	-951.76	-150.52	1641205.71	514706.99	39°54'26.240"N	80°40'00.263"W	point
Curry 9H BHL Rev-3		6701.56	-7835.37	5294.64	1646560.79	507753.62	39°53'18.207"N	80°38'50.408"W	point
Curry 9H BHL Rev-1		6701.89	-7835.37	5294.64	1646560.79	507753.62	39°53'18.207"N	80°38'50.408"W	point
Curry Pad Revised Buffer		6900.00	-9.15	-17.78	1641350.66	515647.75	39°54'35.555"N	80°39'58.560"W	polygon
Curry Pad Revised LL		7000.00	-9.15	-17.78	1641350.66	515647.75	39°54'35.555"N	80°39'58.560"W	polygon

## WELLPATH COMPOSITION - Ref Wellbore: Curry 9H AWB Ref Wellpath: Curry 9H AWP Proj: 15918'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	844.00	Generic gyro - northseeking (Standard)	01 Gyrodatta MS Gyro <17-1/2"> (100-812)	Curry 9H AWB
844.00	2159.00	Navitrak (MagCorr)	02 BHI MWD <12-1/4"> (844)(957-2159) Proj:2222	Curry 9H AWB
2159.00	5229.00	Navitrak (MagCorr)	03 BHI MWD <8-1/2"> (2159)(2227-5229)	Curry 9H AWB
5229.00	15893.00	Navitrak (MagCorr)	04 BHI A.T. Curve <8-1/2"> (5229)(5315-15839)	Curry 9H AWB
15893.00	15918.00	Blind Drilling (std)	Projection to bit	Curry 9H AWB





# Actual Wellpath Report

Curry 9H AWP Proj: 15918'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #09
CHEVRON APPALACHIA, LLC	Well	Curry 9H
Marshall County, WV	Wellbore	Curry 9H AWB
Marshall County		
Curry Pad		

## COMMENTS

Wellpath general comments  
 API: 47-051-01785-0000  
 BHI Job #: 7596783  
 Rig: Nabors X07  
 Duration: 11/9/2015-11/29/2015  
 Gyrodota MS Gyro <17-1/2"> (100'-812')  
 BHI MWD <12-1/4"> (844')(957'-2159')  
 BHI MWD <8-1/2"> (2159')(2227'-5229')  
 BHI AT Curve <8-1/2"> (5229')(5315'-15839')  
 Projected MD at TD: 15918'