

REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot 201H
Area	Marshall County, WV	Well	Arthur Waryck MSH 201H
Field	Marshall	Wellbore	Arthur Waryck MSH 201H AWB
Facility	Arthur Waryck MSH Pad		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Atenjen
Scale	0.999610	Report Generated	9/5/2019 at 8:46:49 AM
Convergence at slot	0.21° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Arthur_Waryck_MSH_201H_AWP_Proj_17512_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	51.17	-27.40	1732624.33	14426462.42	39°43'27.000"N	80°40'19.426"W
Facility Reference Pt			1732651.72	14426411.27	39°43'26.493"N	80°40'19.078"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.478"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 46 (KB) to Facility Vertical Datum	1351.80ft
Horizontal Reference Pt	Slot	SDC 46 (KB) to Mean Sea Level	1351.80ft
Vertical Reference Pt	SDC 46 (KB)	SDC 46 (KB) to Mud Line at Slot (Slot 201H)	26.00ft
MD Reference Pt	SDC 46 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	303.94°

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Field		
Facility		

WELLPATH DATA (196 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]
0.00	0.000	234.540	0.00	0.00	0.00	0.00	1732624.33	14426462.42	39°43'27.000"N	80°40'19.426"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	234.540	26.00	0.00	0.00	0.00	1732624.33	14426462.42	39°43'27.000"N	80°40'19.426"W	0.00	0.000	0.00	0.00	0.00
200.00	0.310	234.540	200.00	0.17	-0.27	-0.38	1732623.95	14426462.15	39°43'26.997"N	80°40'19.431"W	0.47	234.540	0.18	0.18	-72.10
299.00	0.300	206.610	299.00	0.23	-0.66	-0.72	1732623.61	14426461.76	39°43'26.993"N	80°40'19.435"W	0.98	227.388	0.15	-0.01	-28.21
389.00	0.170	127.840	389.00	0.06	-0.95	-0.72	1732623.61	14426461.47	39°43'26.990"N	80°40'19.435"W	1.19	216.992	0.35	-0.14	-87.52
480.00	0.030	339.990	480.00	-0.05	-1.01	-0.62	1732623.71	14426461.41	39°43'26.990"N	80°40'19.434"W	1.19	211.434	0.22	-0.15	-162.47
571.00	0.210	176.140	571.00	-0.13	-1.16	-0.62	1732623.71	14426461.26	39°43'26.988"N	80°40'19.434"W	1.31	208.035	0.26	0.20	-180.05
612.00	0.080	145.630	612.00	-0.27	-1.31	-0.55	1732623.78	14426461.11	39°43'26.987"N	80°40'19.433"W	1.43	202.870	0.35	0.17	-74.41
692.00	0.080	184.030	692.00	-0.48	-1.53	-0.45	1732623.88	14426460.89	39°43'26.985"N	80°40'19.432"W	1.60	196.307	0.28	-0.25	48.00
782.00	0.280	130.790	782.00	-0.73	-1.74	-0.29	1732624.04	14426460.68	39°43'26.983"N	80°40'19.430"W	1.76	189.346	0.27	0.22	-59.16
873.00	0.460	141.000	872.99	-1.30	-2.17	0.11	1732624.44	14426460.25	39°43'26.978"N	80°40'19.425"W	2.17	177.038	0.21	0.20	11.22
964.00	0.990	163.150	963.99	-2.26	-3.20	0.57	1732624.90	14426459.22	39°43'26.968"N	80°40'19.419"W	3.25	169.913	0.65	0.58	24.34
1054.00	1.200	164.350	1053.97	-3.58	-4.86	1.05	1732625.38	14426457.57	39°43'26.952"N	80°40'19.413"W	4.97	167.803	0.23	0.23	1.33
1144.00	1.660	191.070	1143.94	-4.81	-7.04	1.05	1732625.38	14426455.38	39°43'26.930"N	80°40'19.413"W	7.12	171.492	0.89	0.51	29.69
1234.00	2.730	216.750	1233.88	-5.21	-10.04	-0.48	1732623.85	14426452.39	39°43'26.900"N	80°40'19.433"W	10.05	182.734	1.59	1.19	28.53
1324.00	3.850	230.290	1323.73	-4.25	-13.69	-4.09	1732620.25	14426448.74	39°43'26.865"N	80°40'19.479"W	14.28	196.623	1.51	1.24	15.04
1415.00	4.930	236.140	1414.46	-1.91	-17.82	-9.68	1732614.65	14426444.61	39°43'26.824"N	80°40'19.551"W	20.28	208.524	1.28	1.19	6.43
1505.00	5.500	248.390	1504.09	1.99	-21.56	-16.91	1732607.43	14426440.87	39°43'26.787"N	80°40'19.644"W	27.40	218.099	1.39	0.63	13.61
1596.00	7.190	254.750	1594.53	8.18	-24.67	-26.45	1732597.89	14426437.76	39°43'26.757"N	80°40'19.766"W	36.17	227.005	2.01	1.86	6.99
1686.00	7.650	249.930	1683.78	15.38	-28.20	-37.52	1732586.83	14426434.23	39°43'26.722"N	80°40'19.908"W	46.93	233.066	0.86	0.51	-5.36
1776.00	7.410	245.030	1773.00	21.89	-32.71	-48.40	1732575.95	14426429.72	39°43'26.678"N	80°40'20.047"W	58.42	235.952	0.76	-0.27	-5.44
1867.00	6.470	236.510	1863.34	26.89	-38.01	-58.00	1732566.35	14426424.42	39°43'26.626"N	80°40'20.170"W	69.35	236.758	1.53	-1.03	-9.36
1957.00	5.790	239.080	1952.82	30.77	-43.15	-66.12	1732558.23	14426419.29	39°43'26.576"N	80°40'20.275"W	78.95	236.876	0.81	-0.76	2.86
2047.00	5.770	243.130	2042.37	34.90	-47.52	-74.05	1732550.31	14426414.92	39°43'26.533"N	80°40'20.376"W	87.99	237.310	0.45	-0.02	4.50
2137.00	5.650	244.200	2131.92	39.34	-51.50	-82.08	1732542.28	14426410.94	39°43'26.494"N	80°40'20.479"W	96.89	237.896	0.18	-0.13	1.19
2228.00	5.650	241.440	2222.48	43.67	-55.59	-90.05	1732534.32	14426406.85	39°43'26.454"N	80°40'20.581"W	105.82	238.312	0.30	0.00	-3.03
2318.00	5.340	241.350	2312.06	47.64	-59.71	-97.61	1732526.76	14426402.73	39°43'26.413"N	80°40'20.678"W	114.43	238.544	0.34	-0.34	-0.10
2409.00	5.420	233.760	2402.66	51.05	-64.28	-104.79	1732519.58	14426398.16	39°43'26.368"N	80°40'20.770"W	122.94	238.474	0.79	0.09	-8.34
2499.00	4.610	231.380	2492.32	53.57	-69.05	-111.05	1732513.33	14426393.39	39°43'26.321"N	80°40'20.851"W	130.77	238.125	0.93	-0.90	-2.64
2589.00	4.080	226.170	2582.06	55.34	-73.53	-116.18	1732508.19	14426388.92	39°43'26.277"N	80°40'20.917"W	137.50	237.672	0.73	-0.59	-5.79

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Marshall		
Arthur Waryck MSH Pad		

WELLPATH DATA (196 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]
2680.00	3.750	220.020	2672.85	56.34	-78.05	-120.43	1732503.94	14426384.40	39°43'26.233"N	80°40'20.971"W	143.51	237.054	0.59	-0.36	-6.76
2789.00	3.050	220.090	2781.66	57.02	-83.00	-124.59	1732499.79	14426379.45	39°43'26.184"N	80°40'21.025"W	149.71	236.330	0.64	-0.64	0.06
2879.00	4.790	234.390	2871.44	58.59	-87.02	-129.19	1732495.19	14426375.44	39°43'26.144"N	80°40'21.084"W	155.76	236.037	2.20	1.93	15.89
2970.00	7.090	240.080	2961.95	62.40	-92.03	-137.15	1732487.24	14426370.42	39°43'26.095"N	80°40'21.186"W	165.16	236.137	2.61	2.53	6.25
3060.00	9.070	243.070	3051.05	68.30	-98.02	-148.29	1732476.10	14426364.44	39°43'26.036"N	80°40'21.329"W	177.75	236.536	2.25	2.20	3.32
3150.00	11.090	243.190	3139.66	75.98	-105.13	-162.34	1732462.06	14426357.33	39°43'25.967"N	80°40'21.509"W	193.41	237.072	2.24	2.24	0.13
3241.00	12.820	237.380	3228.68	84.27	-114.52	-178.65	1732445.75	14426347.94	39°43'25.874"N	80°40'21.718"W	212.21	237.339	2.31	1.90	-6.38
3332.00	14.130	231.800	3317.18	91.70	-126.84	-195.89	1732428.52	14426335.63	39°43'25.753"N	80°40'21.939"W	233.37	237.077	2.03	1.44	-6.13
3422.00	15.600	229.550	3404.17	98.32	-141.48	-213.73	1732410.68	14426320.99	39°43'25.609"N	80°40'22.168"W	256.32	236.497	1.75	1.63	-2.50
3512.00	16.950	229.390	3490.56	105.08	-157.87	-232.90	1732391.52	14426304.61	39°43'25.448"N	80°40'22.414"W	281.37	235.868	1.50	1.50	-0.18
3603.00	18.140	232.180	3577.33	113.04	-175.20	-254.16	1732370.27	14426287.29	39°43'25.277"N	80°40'22.687"W	308.69	235.421	1.60	1.31	3.07
3693.00	20.050	233.360	3662.37	122.56	-193.00	-277.61	1732346.83	14426269.50	39°43'25.102"N	80°40'22.988"W	338.11	235.193	2.17	2.12	1.31
3783.00	21.880	231.940	3746.41	132.87	-212.54	-303.20	1732321.25	14426249.96	39°43'24.910"N	80°40'23.317"W	370.27	234.969	2.11	2.03	-1.58
3874.00	23.980	231.420	3830.21	143.67	-234.53	-331.01	1732293.45	14426227.98	39°43'24.694"N	80°40'23.674"W	405.67	234.681	2.32	2.31	-0.57
3964.00	24.260	232.680	3912.36	155.10	-257.14	-360.01	1732264.46	14426205.38	39°43'24.471"N	80°40'24.046"W	442.41	234.463	0.65	0.31	1.40
4055.00	23.850	234.030	3995.45	167.43	-279.29	-389.77	1732234.72	14426183.24	39°43'24.254"N	80°40'24.428"W	479.50	234.377	0.75	-0.45	1.48
4144.00	23.440	235.670	4076.98	180.16	-299.84	-418.95	1732205.55	14426162.70	39°43'24.052"N	80°40'24.802"W	515.19	234.409	0.87	-0.46	1.84
4235.00	23.190	232.010	4160.56	192.42	-321.07	-448.02	1732176.49	14426141.47	39°43'23.843"N	80°40'25.175"W	551.19	234.372	1.62	-0.27	-4.02
4325.00	21.810	234.070	4243.70	203.67	-341.79	-475.52	1732149.00	14426120.76	39°43'23.639"N	80°40'25.528"W	585.61	234.292	1.77	-1.53	2.29
4416.00	20.960	230.690	4328.44	214.18	-362.02	-501.80	1732122.72	14426100.54	39°43'23.440"N	80°40'25.865"W	618.76	234.192	1.64	-0.93	-3.71
4506.00	20.500	234.690	4412.62	224.40	-381.33	-527.12	1732097.42	14426081.24	39°43'23.250"N	80°40'26.190"W	650.59	234.117	1.65	-0.51	4.44
4596.00	20.150	237.760	4497.02	236.25	-398.71	-553.09	1732071.45	14426063.86	39°43'23.079"N	80°40'26.523"W	681.82	234.213	1.25	-0.39	3.41
4686.00	21.240	235.130	4581.21	248.40	-416.30	-579.58	1732044.98	14426046.28	39°43'22.906"N	80°40'26.863"W	713.60	234.311	1.59	1.21	-2.92
4776.00	20.380	230.710	4665.34	258.82	-435.55	-605.09	1732019.48	14426027.04	39°43'22.717"N	80°40'27.191"W	745.54	234.253	1.99	-0.96	-4.91
4867.00	20.500	230.890	4750.62	268.03	-455.63	-629.71	1731994.86	14426006.97	39°43'22.519"N	80°40'27.507"W	777.27	234.112	0.15	0.13	0.20
4957.00	20.540	230.710	4834.90	277.18	-475.57	-654.16	1731970.42	14425987.03	39°43'22.323"N	80°40'27.820"W	808.76	233.983	0.08	0.04	-0.20
5048.00	21.750	233.610	4919.78	287.47	-495.69	-680.09	1731944.50	14425966.93	39°43'22.125"N	80°40'28.153"W	841.56	233.913	1.76	1.33	3.19
5138.00	22.180	235.110	5003.25	299.21	-515.30	-707.45	1731917.16	14425947.33	39°43'21.933"N	80°40'28.504"W	875.22	233.931	0.79	0.48	1.67
5228.00	22.430	235.700	5086.51	311.71	-534.69	-735.57	1731889.05	14425927.94	39°43'21.742"N	80°40'28.865"W	909.37	233.986	0.37	0.28	0.66
5319.00	21.570	232.820	5170.89	323.56	-554.58	-763.24	1731861.39	14425908.05	39°43'21.546"N	80°40'29.220"W	943.45	233.997	1.52	-0.95	-3.16

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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]
5409.00	21.570	233.400	5254.58	334.43	-574.44	-789.70	1731834.94	14425888.20	39°43'21.351"N	80°40'29.560"W	976.53	233.967	0.24	0.00	0.64
5499.00	20.790	236.560	5338.51	346.08	-593.11	-816.31	1731808.34	14425869.54	39°43'21.168"N	80°40'29.901"W	1009.03	233.999	1.54	-0.87	3.51
5590.00	20.340	237.120	5423.71	358.52	-610.60	-843.07	1731781.59	14425852.06	39°43'20.996"N	80°40'30.244"W	1040.96	234.086	0.54	-0.49	0.62
5680.00	22.350	234.460	5507.53	370.68	-629.04	-870.14	1731754.54	14425833.63	39°43'20.814"N	80°40'30.592"W	1073.70	234.136	2.48	2.23	-2.96
5770.00	23.140	231.190	5590.54	381.92	-650.07	-897.84	1731726.84	14425812.61	39°43'20.608"N	80°40'30.947"W	1108.47	234.094	1.66	0.88	-3.63
5861.00	23.460	230.840	5674.11	392.49	-672.71	-925.82	1731698.87	14425789.97	39°43'20.385"N	80°40'31.306"W	1144.42	233.997	0.38	0.35	-0.38
5951.00	23.050	232.830	5756.80	403.40	-694.67	-953.75	1731670.95	14425768.02	39°43'20.169"N	80°40'31.665"W	1179.92	233.932	0.98	-0.46	2.21
6042.00	22.450	233.190	5840.72	414.90	-715.85	-981.86	1731642.86	14425746.85	39°43'19.960"N	80°40'32.025"W	1215.11	233.905	0.68	-0.66	0.40
6132.00	21.350	228.620	5924.23	424.72	-736.97	-1007.91	1731616.81	14425725.73	39°43'19.753"N	80°40'32.360"W	1248.61	233.826	2.25	-1.22	-5.08
6223.00	20.470	229.290	6009.24	433.13	-758.30	-1032.40	1731592.33	14425704.41	39°43'19.543"N	80°40'32.674"W	1280.97	233.703	1.00	-0.97	0.74
6313.00	22.010	231.080	6093.12	442.26	-779.16	-1057.46	1731567.29	14425683.56	39°43'19.337"N	80°40'32.996"W	1313.51	233.616	1.86	1.71	1.99
6403.00	21.800	235.670	6176.63	453.42	-799.19	-1084.38	1731540.38	14425663.55	39°43'19.141"N	80°40'33.341"W	1347.06	233.610	1.92	-0.23	5.10
6494.00	21.290	242.180	6261.29	467.50	-816.43	-1112.95	1731511.82	14425646.31	39°43'18.971"N	80°40'33.708"W	1380.29	233.737	2.68	-0.56	7.15
6584.00	20.130	242.400	6345.47	482.61	-831.23	-1141.12	1731483.65	14425631.52	39°43'18.826"N	80°40'34.069"W	1411.77	233.929	1.29	-1.29	0.24
6674.00	21.730	257.060	6429.59	501.39	-842.14	-1171.11	1731453.68	14425620.61	39°43'18.719"N	80°40'34.453"W	1442.46	234.280	6.07	1.78	16.29
6765.00	25.000	267.830	6513.15	528.46	-846.65	-1206.77	1731418.04	14425616.11	39°43'18.676"N	80°40'34.910"W	1474.14	234.947	5.90	3.59	11.84
6855.00	29.120	277.930	6593.33	563.54	-844.34	-1247.50	1731377.32	14425618.41	39°43'18.700"N	80°40'35.431"W	1506.38	235.909	6.84	4.58	11.22
6946.00	31.160	284.810	6672.04	605.70	-835.27	-1292.21	1731332.63	14425627.48	39°43'18.791"N	80°40'36.003"W	1538.66	237.122	4.41	2.24	7.56
7036.00	34.880	293.640	6747.54	653.06	-818.98	-1338.34	1731286.52	14425643.76	39°43'18.954"N	80°40'36.592"W	1569.04	238.536	6.75	4.13	9.81
7126.00	37.720	299.540	6820.08	705.86	-795.08	-1385.89	1731238.98	14425667.66	39°43'19.192"N	80°40'37.200"W	1597.76	240.157	5.00	3.16	6.56
7217.00	42.320	303.550	6889.77	764.28	-764.40	-1435.67	1731189.22	14425698.32	39°43'19.497"N	80°40'37.836"W	1626.49	241.968	5.79	5.05	4.41
7296.00	46.810	307.310	6938.92	812.66	-736.30	-1475.07	1731149.84	14425726.41	39°43'19.776"N	80°40'38.338"W	1648.62	243.473	7.55	6.51	5.45
7376.00	51.780	312.010	6997.62	880.48	-692.71	-1527.48	1731097.95	14425769.98	39°43'20.209"N	80°40'39.007"W	1677.21	245.606	6.79	5.52	5.22
7466.00	61.100	314.440	7047.32	954.39	-641.34	-1582.00	1731042.95	14425821.33	39°43'20.718"N	80°40'39.703"W	1707.06	247.932	10.60	10.36	2.70
7557.00	70.080	315.410	7084.89	1035.64	-582.87	-1640.59	1730984.38	14425879.78	39°43'21.298"N	80°40'40.450"W	1741.06	250.441	9.92	9.87	1.07
7647.00	80.540	315.080	7107.68	1120.90	-521.14	-1701.81	1730923.19	14425941.49	39°43'21.910"N	80°40'41.230"W	1779.81	252.974	11.63	11.62	-0.37
7738.00	89.480	313.270	7115.59	1210.02	-458.04	-1766.77	1730858.26	14426004.56	39°43'22.536"N	80°40'42.059"W	1825.18	255.466	10.02	9.82	-1.99
7828.00	89.660	311.850	7116.27	1298.99	-397.17	-1833.05	1730791.99	14426065.41	39°43'23.140"N	80°40'42.904"W	1875.59	257.775	1.59	0.20	-1.58
7918.00	89.820	312.070	7116.67	1388.11	-336.99	-1899.98	1730725.10	14426125.56	39°43'23.737"N	80°40'43.758"W	1929.63	259.942	0.30	0.18	0.24
8009.00	89.780	312.110	7116.99	1478.19	-276.00	-1967.51	1730657.59	14426186.53	39°43'24.342"N	80°40'44.620"W	1986.77	262.015	0.06	-0.04	0.04

REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 201H
SOUTHWESTERN ENERGY	Well	Arthur Waryck MSH 201H
Area	Wellbore	Arthur Waryck MSH 201H AWB
Field		
Facility		

WELLPATH DATA (196 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]
8099.00	89.570	310.350	7117.50	1567.46	-216.68	-2035.19	1730589.94	14426245.82	39°43'24.931"N	80°40'45.483"W	2046.69	263.923	1.97	-0.23	-1.96
8189.00	89.780	310.490	7118.01	1656.88	-158.33	-2103.71	1730521.45	14426304.15	39°43'25.510"N	80°40'46.357"W	2109.66	265.696	0.28	0.23	0.16
8280.00	90.280	311.520	7117.96	1747.19	-98.62	-2172.38	1730452.80	14426363.84	39°43'26.103"N	80°40'47.233"W	2174.62	267.401	1.26	0.55	1.13
8370.00	90.520	311.910	7117.34	1836.36	-38.74	-2239.56	1730385.65	14426423.70	39°43'26.697"N	80°40'48.090"W	2239.90	269.009	0.51	0.27	0.43
8461.00	90.370	310.630	7116.63	1926.61	21.28	-2307.95	1730317.28	14426483.70	39°43'27.292"N	80°40'48.963"W	2308.05	270.528	1.42	-0.16	-1.41
8551.00	90.310	311.100	7116.10	2015.96	80.17	-2376.01	1730249.25	14426542.56	39°43'27.877"N	80°40'49.831"W	2377.37	271.932	0.53	-0.07	0.52
8642.00	90.650	312.330	7115.33	2106.11	140.72	-2443.94	1730181.35	14426603.08	39°43'28.478"N	80°40'50.698"W	2447.99	273.295	1.40	0.37	1.35
8732.00	90.370	312.400	7114.53	2195.14	201.36	-2510.43	1730114.88	14426663.70	39°43'29.079"N	80°40'51.546"W	2518.50	274.586	0.32	-0.31	0.08
8823.00	90.180	312.240	7114.10	2285.17	262.63	-2577.72	1730047.62	14426724.95	39°43'29.687"N	80°40'52.405"W	2591.06	275.817	0.27	-0.21	-0.18
8913.00	90.120	311.620	7113.86	2374.29	322.77	-2644.67	1729980.69	14426785.06	39°43'30.284"N	80°40'53.259"W	2664.30	276.958	0.69	-0.07	-0.69
9003.00	90.370	312.620	7113.47	2463.37	383.13	-2711.43	1729913.96	14426845.40	39°43'30.883"N	80°40'54.110"W	2738.36	278.043	1.15	0.28	1.11
9093.00	89.940	311.910	7113.23	2552.42	443.66	-2778.03	1729847.39	14426905.91	39°43'31.483"N	80°40'54.960"W	2813.24	279.074	0.92	-0.48	-0.79
9184.00	89.880	310.670	7113.37	2642.68	503.71	-2846.41	1729779.04	14426965.93	39°43'32.079"N	80°40'55.832"W	2890.63	280.035	1.36	-0.07	-1.36
9274.00	89.970	308.120	7113.49	2732.26	560.82	-2915.95	1729709.52	14427023.02	39°43'32.646"N	80°40'56.720"W	2969.39	280.887	2.84	0.10	-2.83
9364.00	89.940	309.490	7113.56	2821.93	617.22	-2986.09	1729639.42	14427079.40	39°43'33.206"N	80°40'57.615"W	3049.21	281.678	1.52	-0.03	1.52
9455.00	89.780	312.900	7113.79	2912.19	677.15	-3054.55	1729570.98	14427139.30	39°43'33.800"N	80°40'58.488"W	3128.71	282.499	3.75	-0.18	3.75
9545.00	89.970	312.490	7113.98	3001.14	738.17	-3120.70	1729504.86	14427200.30	39°43'34.406"N	80°40'59.332"W	3206.81	283.308	0.50	0.21	-0.46
9636.00	89.660	312.980	7114.28	3091.07	799.93	-3187.54	1729438.04	14427262.03	39°43'35.018"N	80°41'00.185"W	3286.38	284.088	0.64	-0.34	0.54
9726.00	89.720	313.060	7114.76	3179.94	861.33	-3253.34	1729372.27	14427323.41	39°43'35.628"N	80°41'01.024"W	3365.42	284.829	0.11	0.07	0.09
9817.00	89.660	311.710	7115.25	3269.95	922.67	-3320.55	1729305.08	14427384.73	39°43'36.236"N	80°41'01.882"W	3446.36	285.529	1.48	-0.07	-1.48
9907.00	89.630	310.760	7115.81	3359.22	981.99	-3388.23	1729237.43	14427444.03	39°43'36.825"N	80°41'02.745"W	3527.66	286.163	1.06	-0.03	-1.06
9998.00	89.600	312.170	7116.42	3449.43	1042.25	-3456.42	1729169.27	14427504.26	39°43'37.423"N	80°41'03.615"W	3610.14	286.780	1.55	-0.03	1.55
10088.00	90.180	312.810	7116.60	3538.43	1103.04	-3522.78	1729102.93	14427565.02	39°43'38.026"N	80°41'04.462"W	3691.43	287.386	0.96	0.64	0.71
10179.00	89.720	312.170	7116.68	3628.42	1164.50	-3589.88	1729035.85	14427626.47	39°43'38.635"N	80°41'05.318"W	3774.03	287.972	0.87	-0.51	-0.70
10270.00	90.800	312.910	7116.26	3718.39	1226.03	-3656.93	1728968.83	14427687.97	39°43'39.246"N	80°41'06.173"W	3856.98	288.534	1.44	1.19	0.81
10360.00	90.280	313.140	7115.41	3807.26	1287.43	-3722.72	1728903.07	14427749.35	39°43'39.855"N	80°41'07.013"W	3939.05	289.077	0.63	-0.58	0.26
10451.00	90.430	312.370	7114.85	3897.18	1349.21	-3789.54	1728836.28	14427811.10	39°43'40.468"N	80°41'07.865"W	4022.56	289.597	0.86	0.16	-0.85
10541.00	90.310	312.740	7114.27	3986.17	1410.07	-3855.83	1728770.01	14427871.94	39°43'41.072"N	80°41'08.711"W	4105.58	290.087	0.43	-0.13	0.41
10632.00	90.250	313.690	7113.83	4075.97	1472.38	-3922.15	1728703.72	14427934.22	39°43'41.690"N	80°41'09.557"W	4189.41	290.576	1.05	-0.07	1.04
10722.00	90.030	311.390	7113.61	4164.96	1533.23	-3988.46	1728637.43	14427995.05	39°43'42.293"N	80°41'10.403"W	4273.01	291.028	2.57	-0.24	-2.56



REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 201H
SOUTHWESTERN ENERGY	Well	Arthur Waryck MSH 201H
Area	Wellbore	Arthur Waryck MSH 201H AWB
Field		
Facility		

WELLPATH DATA (196 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]
10812.00	90.180	312.430	7113.44	4254.09	1593.34	-4055.44	1728570.48	14428055.14	39°43'42.890"N	80°41'11.257"W	4357.21	291.449	1.17	0.17	1.16
10903.00	90.280	312.300	7113.07	4344.10	1654.66	-4122.67	1728503.27	14428116.43	39°43'43.498"N	80°41'12.115"W	4442.34	291.868	0.18	0.11	-0.14
10993.00	90.250	313.330	7112.66	4433.02	1715.83	-4188.69	1728437.28	14428177.58	39°43'44.105"N	80°41'12.957"W	4526.50	292.276	1.14	-0.03	1.14
11084.00	91.020	313.060	7111.65	4522.83	1778.11	-4255.03	1728370.97	14428239.83	39°43'44.723"N	80°41'13.804"W	4611.61	292.679	0.90	0.85	-0.30
11174.00	90.860	312.370	7110.17	4611.77	1839.16	-4321.15	1728304.88	14428300.85	39°43'45.328"N	80°41'14.647"W	4696.25	293.055	0.79	-0.18	-0.77
11264.00	90.890	312.400	7108.80	4700.78	1899.82	-4387.61	1728238.44	14428361.49	39°43'45.930"N	80°41'15.495"W	4781.26	293.412	0.05	0.03	0.03
11355.00	90.860	312.610	7107.41	4790.75	1961.30	-4454.69	1728171.38	14428422.95	39°43'46.540"N	80°41'16.351"W	4867.34	293.763	0.23	-0.03	0.23
11445.00	90.920	312.750	7106.01	4879.70	2022.30	-4520.85	1728105.25	14428483.93	39°43'47.145"N	80°41'17.195"W	4952.55	294.100	0.17	0.07	0.16
11535.00	90.740	312.250	7104.71	4968.69	2083.10	-4587.20	1728038.93	14428544.70	39°43'47.748"N	80°41'18.042"W	5038.02	294.423	0.59	-0.20	-0.56
11626.00	91.020	313.130	7103.31	5058.62	2144.79	-4654.08	1727972.08	14428606.37	39°43'48.360"N	80°41'18.895"W	5124.50	294.742	1.01	0.31	0.97
11716.00	90.800	312.420	7101.88	5147.54	2205.90	-4720.13	1727906.05	14428667.46	39°43'48.966"N	80°41'19.738"W	5210.15	295.049	0.83	-0.24	-0.79
11806.00	90.890	312.750	7100.55	5236.50	2266.80	-4786.39	1727839.82	14428728.33	39°43'49.570"N	80°41'20.583"W	5296.02	295.342	0.38	0.10	0.37
11896.00	90.860	312.340	7099.18	5325.48	2327.64	-4852.69	1727773.55	14428789.15	39°43'50.174"N	80°41'21.429"W	5382.05	295.625	0.46	-0.03	-0.46
11987.00	91.510	313.250	7097.30	5415.37	2389.45	-4919.45	1727706.81	14428850.94	39°43'50.787"N	80°41'22.281"W	5469.04	295.907	1.23	0.71	1.00
12077.00	91.320	312.510	7095.07	5504.25	2450.68	-4985.38	1727640.91	14428912.13	39°43'51.394"N	80°41'23.122"W	5555.16	296.177	0.85	-0.21	-0.82
12167.00	90.950	311.970	7093.29	5593.29	2511.17	-5051.99	1727574.32	14428972.60	39°43'51.995"N	80°41'23.972"W	5641.68	296.430	0.73	-0.41	-0.60
12258.00	91.540	311.450	7091.31	5683.44	2571.70	-5119.91	1727506.43	14429033.11	39°43'52.595"N	80°41'24.838"W	5729.49	296.670	0.86	0.65	-0.57
12348.00	91.660	312.260	7088.80	5772.54	2631.73	-5186.92	1727439.45	14429093.11	39°43'53.191"N	80°41'25.693"W	5816.37	296.902	0.91	0.13	0.90
12439.00	91.880	311.800	7085.99	5862.59	2692.62	-5254.48	1727371.91	14429153.99	39°43'53.795"N	80°41'26.555"W	5904.22	297.133	0.56	0.24	-0.51
12529.00	91.260	309.950	7083.53	5951.90	2751.50	-5322.50	1727303.91	14429212.84	39°43'54.379"N	80°41'27.423"W	5991.64	297.337	2.17	-0.69	-2.06
12619.00	91.260	312.900	7081.55	6041.10	2811.02	-5389.96	1727236.48	14429272.34	39°43'54.969"N	80°41'28.284"W	6078.94	297.543	3.28	0.00	3.28
12710.00	91.050	311.450	7079.71	6131.14	2872.11	-5457.39	1727169.08	14429333.40	39°43'55.575"N	80°41'29.145"W	6167.02	297.757	1.61	-0.23	-1.59
12800.00	91.450	311.650	7077.75	6220.33	2931.79	-5524.73	1727101.77	14429393.06	39°43'56.167"N	80°41'30.004"W	6254.44	297.953	0.50	0.44	0.22
12890.00	91.230	310.780	7075.64	6309.58	2991.07	-5592.41	1727034.12	14429452.32	39°43'56.756"N	80°41'30.868"W	6342.04	298.140	1.00	-0.24	-0.97
12981.00	91.260	311.490	7073.67	6399.84	3050.92	-5660.93	1726965.62	14429512.14	39°43'57.349"N	80°41'31.742"W	6430.72	298.322	0.78	0.03	0.78
13071.00	91.380	312.590	7071.59	6488.91	3111.17	-5727.75	1726898.82	14429572.37	39°43'57.947"N	80°41'32.595"W	6518.17	298.510	1.23	0.13	1.22
13161.00	91.380	311.070	7069.42	6578.03	3171.17	-5794.79	1726831.81	14429632.35	39°43'58.542"N	80°41'33.450"W	6605.75	298.689	1.69	0.00	-1.69
13251.00	91.450	311.580	7067.20	6667.26	3230.58	-5862.36	1726764.27	14429691.74	39°43'59.132"N	80°41'34.312"W	6693.57	298.858	0.57	0.08	0.57
13342.00	91.320	310.990	7065.00	6757.49	3290.61	-5930.72	1726695.94	14429751.74	39°43'59.727"N	80°41'35.185"W	6782.44	299.023	0.66	-0.14	-0.65
13432.00	91.480	312.510	7062.80	6846.62	3350.52	-5997.84	1726628.84	14429811.62	39°44'00.322"N	80°41'36.041"W	6870.23	299.189	1.70	0.18	1.69

REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 201H
SOUTHWESTERN ENERGY	Well	Arthur Waryck MSH 201H
Marshall County, WV	Wellbore	Arthur Waryck MSH 201H AWB
Marshall		
Arthur Waryck MSH Pad		

WELLPATH DATA (196 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]
13522.00	91.600	313.240	7060.39	6935.50	3411.73	-6063.77	1726562.93	14429872.81	39°44'00.929"N	80°41'36.883"W	6957.68	299.364	0.82	0.13	0.81
13613.00	91.170	311.690	7058.19	7025.46	3473.15	-6130.88	1726495.85	14429934.21	39°44'01.538"N	80°41'37.739"W	7046.31	299.532	1.77	-0.47	-1.70
13703.00	91.320	311.710	7056.23	7114.62	3533.01	-6198.06	1726428.70	14429994.04	39°44'02.132"N	80°41'38.596"W	7134.29	299.684	0.17	0.17	0.02
13793.00	91.450	312.250	7054.05	7203.71	3593.19	-6264.95	1726361.84	14430054.20	39°44'02.729"N	80°41'39.450"W	7222.23	299.836	0.62	0.14	0.60
13884.00	91.320	311.330	7051.86	7293.83	3653.81	-6332.78	1726294.04	14430114.80	39°44'03.330"N	80°41'40.315"W	7311.25	299.984	1.02	-0.14	-1.01
13974.00	91.380	310.770	7049.73	7383.11	3712.90	-6400.63	1726226.21	14430173.86	39°44'03.917"N	80°41'41.181"W	7399.57	300.117	0.63	0.07	-0.62
14065.00	91.600	311.830	7047.37	7473.33	3772.94	-6468.97	1726157.90	14430233.88	39°44'04.512"N	80°41'42.053"W	7488.83	300.252	1.19	0.24	1.16
14155.00	91.480	311.290	7044.95	7562.50	3832.62	-6536.29	1726090.60	14430293.54	39°44'05.104"N	80°41'42.912"W	7577.07	300.386	0.61	-0.13	-0.60
14246.00	91.540	311.790	7042.55	7652.67	3892.95	-6604.38	1726022.54	14430353.84	39°44'05.703"N	80°41'43.781"W	7666.34	300.517	0.55	0.07	0.55
14336.00	91.660	312.730	7040.04	7741.69	3953.45	-6670.96	1725955.99	14430414.32	39°44'06.303"N	80°41'44.631"W	7754.45	300.652	1.05	0.13	1.04
14427.00	91.510	311.860	7037.52	7831.69	4014.66	-6738.25	1725888.73	14430475.51	39°44'06.910"N	80°41'45.490"W	7843.56	300.787	0.97	-0.16	-0.96
14517.00	91.480	311.300	7035.17	7920.86	4074.37	-6805.55	1725821.45	14430535.19	39°44'07.503"N	80°41'46.348"W	7931.96	300.908	0.62	-0.03	-0.62
14607.00	91.570	312.290	7032.78	8009.98	4134.33	-6872.62	1725754.41	14430595.13	39°44'08.097"N	80°41'47.204"W	8020.32	301.030	1.10	0.10	1.10
14697.00	91.690	311.650	7030.22	8099.06	4194.49	-6939.51	1725687.55	14430655.27	39°44'08.694"N	80°41'48.058"W	8108.67	301.150	0.72	0.13	-0.71
14788.00	91.510	311.990	7027.68	8189.16	4255.15	-7007.30	1725619.78	14430715.90	39°44'09.296"N	80°41'48.923"W	8198.08	301.268	0.42	-0.20	0.37
14878.00	91.750	312.180	7025.12	8278.22	4315.44	-7074.06	1725553.04	14430776.17	39°44'09.894"N	80°41'49.775"W	8286.46	301.385	0.34	0.27	0.21
14968.00	92.400	311.570	7021.86	8367.30	4375.48	-7141.03	1725486.10	14430836.18	39°44'10.490"N	80°41'50.630"W	8374.91	301.497	0.99	0.72	-0.68
15059.00	91.690	311.310	7018.61	8457.46	4435.67	-7209.21	1725417.95	14430896.35	39°44'11.087"N	80°41'51.500"W	8464.50	301.603	0.83	-0.78	-0.29
15148.00	91.720	312.440	7015.96	8545.57	4495.05	-7275.45	1725351.74	14430955.70	39°44'11.676"N	80°41'52.345"W	8552.05	301.709	1.27	0.03	1.27
15239.00	91.570	311.750	7013.35	8635.61	4556.03	-7342.94	1725284.27	14431016.66	39°44'12.281"N	80°41'53.207"W	8641.54	301.818	0.78	-0.16	-0.76
15329.00	91.690	312.590	7010.79	8724.65	4616.42	-7409.62	1725217.62	14431077.03	39°44'12.880"N	80°41'54.057"W	8730.05	301.924	0.94	0.13	0.93
15419.00	91.630	312.120	7008.18	8813.64	4677.03	-7476.10	1725151.16	14431137.62	39°44'13.481"N	80°41'54.906"W	8818.54	302.030	0.53	-0.07	-0.52
15510.00	91.910	311.550	7005.37	8903.74	4737.70	-7543.87	1725083.42	14431198.26	39°44'14.083"N	80°41'55.771"W	8908.18	302.130	0.70	0.31	-0.63
15600.00	91.810	311.760	7002.45	8992.87	4797.48	-7611.08	1725016.24	14431258.02	39°44'14.676"N	80°41'56.628"W	8996.91	302.224	0.26	-0.11	0.23
15691.00	91.630	311.520	6999.72	9083.01	4857.92	-7679.05	1724948.29	14431318.43	39°44'15.275"N	80°41'57.496"W	9086.65	302.318	0.33	-0.20	-0.26
15781.00	91.940	312.810	6996.92	9172.04	4918.30	-7745.73	1724881.64	14431378.79	39°44'15.874"N	80°41'58.347"W	9175.29	302.414	1.47	0.34	1.43
15872.00	91.750	310.740	6993.99	9262.14	4978.89	-7813.56	1724813.84	14431439.36	39°44'16.475"N	80°41'59.213"W	9265.04	302.506	2.28	-0.21	-2.27
15962.00	91.850	307.710	6991.16	9351.70	5035.77	-7883.23	1724744.19	14431496.22	39°44'17.040"N	80°42'00.102"W	9354.38	302.570	3.37	0.11	-3.37
16053.00	92.340	311.030	6987.83	9442.22	5093.45	-7953.53	1724673.92	14431553.87	39°44'17.612"N	80°42'00.999"W	9444.67	302.636	3.69	0.54	3.65
16143.00	92.250	311.480	6984.23	9531.42	5152.75	-8021.13	1724606.35	14431613.15	39°44'18.200"N	80°42'01.862"W	9533.59	302.717	0.51	-0.10	0.50

REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot 201H
Area	Marshall County, WV	Well	Arthur Waryck MSH 201H
Field	Marshall	Wellbore	Arthur Waryck MSH 201H AWB
Facility	Arthur Waryck MSH Pad		

WELLPATH DATA (196 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]
16233.00	91.570	309.980	6981.23	9620.73	5211.44	-8089.29	1724538.21	14431671.81	39°44'18.783"N	80°42'02.732"W	9622.67	302.791	1.83	-0.76	-1.67
16324.00	91.910	312.610	6978.46	9710.94	5271.46	-8157.63	1724469.90	14431731.81	39°44'19.378"N	80°42'03.604"W	9712.63	302.871	2.91	0.37	2.89
16414.00	91.660	311.840	6975.66	9799.95	5331.91	-8224.24	1724403.32	14431792.24	39°44'19.978"N	80°42'04.455"W	9801.40	302.956	0.90	-0.28	-0.86
16504.00	91.660	311.420	6973.05	9889.10	5391.68	-8291.48	1724336.10	14431851.98	39°44'20.570"N	80°42'05.313"W	9890.34	303.035	0.47	0.00	-0.47
16595.00	91.720	312.510	6970.42	9979.17	5452.50	-8359.11	1724268.49	14431912.78	39°44'21.174"N	80°42'06.176"W	9980.21	303.116	1.20	0.00	1.20
16685.00	91.720	312.920	6967.76	10068.08	5513.52	-8425.21	1724202.42	14431973.78	39°44'21.779"N	80°42'07.019"W	10068.92	303.201	0.46	0.07	0.46
16776.00	91.720	312.360	6965.03	10157.99	5575.14	-8492.12	1724135.54	14432035.37	39°44'22.390"N	80°42'07.873"W	10158.66	303.285	0.62	0.00	-0.62
16866.00	92.120	312.400	6962.02	10246.97	5635.77	-8558.57	1724069.12	14432095.98	39°44'22.992"N	80°42'08.721"W	10247.49	303.365	0.45	0.44	0.04
16956.00	92.090	312.210	6958.71	10335.95	5696.30	-8625.08	1724002.63	14432156.49	39°44'23.592"N	80°42'09.570"W	10336.34	303.442	0.21	-0.03	-0.21
17046.00	92.030	312.190	6955.43	10424.96	5756.72	-8691.71	1723936.03	14432216.88	39°44'24.191"N	80°42'10.421"W	10425.24	303.517	0.02	0.00	-0.02
17137.00	92.030	311.500	6952.16	10515.04	5817.39	-8759.46	1723868.31	14432277.53	39°44'24.793"N	80°42'11.285"W	10515.23	303.589	0.76	-0.07	-0.76
17227.00	91.450	311.060	6949.42	10604.26	5876.74	-8827.06	1723800.73	14432336.85	39°44'25.382"N	80°42'12.148"W	10604.39	303.654	0.81	-0.64	-0.49
17318.00	91.380	312.180	6947.18	10694.41	5937.16	-8895.07	1723732.75	14432397.25	39°44'25.981"N	80°42'13.016"W	10694.49	303.722	1.23	-0.08	1.23
17408.00	91.480	312.180	6944.93	10783.45	5997.57	-8961.74	1723666.10	14432457.64	39°44'26.580"N	80°42'13.867"W	10783.49	303.792	0.11	0.11	0.00
17487.00	91.510	312.750	6942.87	10861.55	6050.89	-9020.00	1723607.87	14432510.93	39°44'27.109"N	80°42'14.611"W	10861.57	303.855	0.72	0.04	0.72
17512.00	91.510	312.750	6942.21	10886.25	6067.85	-9038.35	1723589.53	14432527.89	39°44'27.277"N	80°42'14.845"W	10886.26	303.875	0.00	0.00	0.00

REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 201H
SOUTHWESTERN ENERGY	Well	Arthur Waryck MSH 201H
Area	Wellbore	Arthur Waryck MSH 201H AWB
Field		
Facility		

HOLE & CASING SECTIONS - Ref Wellbore: Arthur Waryck MSH 201H AWB Ref Wellpath: Arthur Waryck MSH 201H AWP Proj: 17512'

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]
20in Casing Surface	26.00	126.00	100.00	26.00	126.00	0.00	0.00	-0.09	-0.13
17.5in Open Hole	126.00	683.00	557.00	126.00	683.00	-0.09	-0.13	-1.52	-0.45
13.375in Casing Surface	26.00	683.00	657.00	26.00	683.00	0.00	0.00	-1.52	-0.45
12.25in Open Hole	683.00	2757.00	2074.00	683.00	2749.70	-1.52	-0.45	-81.65	-123.46
9.625in Casing Intermediate	26.00	2757.00	2731.00	26.00	2749.70	0.00	0.00	-81.65	-123.46
8.75in Open Hole	2757.00	7287.00	4530.00	2749.70	6939.61	-81.65	-123.46	-735.85	-1475.65
8.5in Open Hole	7287.00	17512.00	10225.00	6939.61	6942.21	-735.85	-1475.65	6067.85	-9038.35
5.5in Casing Production	26.00	17512.00	17486.00	26.00	6942.21	0.00	0.00	6067.85	-9038.35

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Arthur Waryck MSH 201H LP Rev-5	7120.00	-451.49	-1788.93	1730836.10	14426011.11	39°43'22.602"N	80°40'42.342"W	point
Arthur Waryck MSH 201H BHL Rev-5	7154.00	6077.64	-9032.07	1723595.80	14432537.68	39°44'27.374"N	80°42'14.764"W	point

WELLPATH COMPOSITION - Ref Wellbore: Arthur Waryck MSH 201H AWB Ref Wellpath: Arthur Waryck MSH 201H AWP Proj: 17512'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
26.00	612.00	OWSG MWD rev2 + HRGM	01 Premier MWD <17-1/2"> (200'-612')
612.00	2680.00	OWSG MWD rev2 + HRGM	02 Premier MWD <12-1/4"> (612')(692'-2680')
2680.00	7217.00	OWSG MWD rev2 + HRGM	03 Premier MWD <8-3/4"> (2680')(2789'-7217')
7217.00	17487.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2"> (7217')(7286'-17487')
17487.00	17512.00	Blind Drilling (std)	Projection to bit

REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot 201H
Area	Marshall County, WV	Well	Arthur Waryck MSH 201H
Field	Marshall	Wellbore	Arthur Waryck MSH 201H AWB
Facility	Arthur Waryck MSH Pad		

COMMENTS

Wellpath general comments
 API: 47-05-10217-0000
 BH Job #: 109971173A
 Rig: SDC 46
 Duration: 09/02/2019 - 09/04/2019