

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 401H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad 1	Wellbore	Shawn Couch OHI 401H AWB
Slot	Slot #401		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Atenjen
Scale	0.999615	Report Generated	3/16/2020 at 12:36:58 PM
Convergence at slot	0.27° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-18.01	-38.14	1755329.11	14580826.95	40°08'52.1487"N	80°35'19.6282"W
Facility Reference Pt			1755367.23	14580844.96	40°08'52.3250"N	80°35'19.1360"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 42 (KB) to Facility Vertical Datum	1272.80ft
Horizontal Reference Pt	Slot	SDC 42 (KB) to Mean Sea Level	1272.80ft
Vertical Reference Pt	SDC 42 (KB)	SDC 42 (KB) to Ground Level at Slot (Slot #401)	26.00ft
MD Reference Pt	SDC 42 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	338.87°

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WELLPATH DATA (211 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	342.740	0.00	0.00	0.00	0.00	1755329.11	14580826.95	40°08'52.1487"N	80°35'19.6282"W	0.00	0.000	0.00	0.00	0.00	
26.00	0.000	342.740	26.00	0.00	0.00	0.00	1755329.11	14580826.95	40°08'52.1487"N	80°35'19.6282"W	0.00	0.000	0.00	0.00	0.00	
151.00	0.170	342.740	151.00	0.19	0.18	-0.06	1755329.05	14580827.13	40°08'52.1505"N	80°35'19.6289"W	0.19	342.740	0.14	0.14	0.00	
181.00	0.170	335.340	181.00	0.27	0.26	-0.09	1755329.02	14580827.21	40°08'52.1513"N	80°35'19.6293"W	0.27	341.542	0.07	0.00	-24.67	
212.00	0.130	329.110	212.00	0.35	0.33	-0.12	1755328.99	14580827.28	40°08'52.1520"N	80°35'19.6298"W	0.35	339.514	0.14	-0.13	-20.10	
302.00	0.130	347.440	302.00	0.56	0.52	-0.20	1755328.91	14580827.47	40°08'52.1539"N	80°35'19.6307"W	0.56	339.065	0.05	0.00	20.37	
358.00	0.070	287.760	358.00	0.64	0.59	-0.25	1755328.87	14580827.54	40°08'52.1546"N	80°35'19.6313"W	0.64	337.504	0.20	-0.11	-106.57	
442.00	0.130	320.510	442.00	0.76	0.68	-0.35	1755328.76	14580827.63	40°08'52.1555"N	80°35'19.6327"W	0.77	332.496	0.10	0.07	38.99	
503.00	0.160	299.160	503.00	0.89	0.78	-0.47	1755328.64	14580827.73	40°08'52.1564"N	80°35'19.6342"W	0.91	328.636	0.10	0.05	-35.00	
591.00	1.430	281.700	590.99	1.58	1.06	-1.66	1755327.46	14580828.01	40°08'52.1593"N	80°35'19.6494"W	1.96	302.592	1.45	1.44	-19.84	
678.00	2.660	281.250	677.93	3.25	1.67	-4.70	1755324.41	14580828.62	40°08'52.1655"N	80°35'19.6886"W	4.99	289.592	1.41	1.41	-0.52	
765.00	4.030	282.640	764.78	6.03	2.74	-9.66	1755319.45	14580829.68	40°08'52.1762"N	80°35'19.7524"W	10.04	285.807	1.58	1.57	1.60	
852.00	5.810	281.600	851.46	10.11	4.29	-16.96	1755312.16	14580831.24	40°08'52.1919"N	80°35'19.8463"W	17.49	284.195	2.05	2.05	-1.20	
939.00	7.950	277.040	937.83	15.34	5.91	-27.24	1755301.88	14580832.86	40°08'52.2084"N	80°35'19.9787"W	27.88	282.245	2.54	2.46	-5.24	
1025.00	9.450	270.230	1022.84	20.72	6.67	-40.21	1755288.92	14580833.62	40°08'52.2165"N	80°35'20.1456"W	40.76	279.419	2.11	1.74	-7.92	
1112.00	10.270	261.020	1108.56	24.95	5.49	-55.01	1755274.12	14580832.44	40°08'52.2055"N	80°35'20.3363"W	55.29	275.697	2.04	0.94	-10.59	
1199.00	11.760	255.810	1193.95	27.65	2.10	-71.27	1755257.87	14580829.05	40°08'52.1728"N	80°35'20.5458"W	71.30	271.691	2.06	1.71	-5.99	
1286.00	12.560	250.470	1279.00	28.99	-3.23	-88.78	1755240.36	14580823.72	40°08'52.1209"N	80°35'20.7716"W	88.84	267.915	1.59	0.92	-6.14	
1372.00	12.710	243.250	1362.93	28.32	-10.62	-106.04	1755223.11	14580816.34	40°08'52.0487"N	80°35'20.9944"W	106.57	264.283	1.84	0.17	-8.40	
1459.00	13.510	240.560	1447.66	25.92	-19.92	-123.44	1755205.72	14580807.04	40°08'51.9575"N	80°35'21.2189"W	125.04	260.833	1.16	0.92	-3.09	
1545.00	12.580	237.810	1531.44	22.67	-29.85	-140.11	1755189.05	14580797.11	40°08'51.8602"N	80°35'21.4343"W	143.26	257.975	1.30	-1.08	-3.20	
1632.00	11.620	238.850	1616.51	19.33	-39.43	-155.63	1755173.54	14580787.54	40°08'51.7662"N	80°35'21.6347"W	160.55	255.784	1.13	-1.10	1.20	
1719.00	9.780	249.990	1702.00	17.95	-46.49	-170.08	1755159.10	14580780.48	40°08'51.6971"N	80°35'21.8211"W	176.32	254.712	3.17	-2.11	12.80	
1808.00	10.540	264.380	1789.62	20.27	-49.87	-185.28	1755143.90	14580777.10	40°08'51.6644"N	80°35'22.0171"W	191.88	254.935	2.97	0.85	16.17	
1933.00	12.970	267.800	1911.99	27.88	-51.53	-210.68	1755118.51	14580775.44	40°08'51.6491"N	80°35'22.3443"W	216.89	256.256	2.02	1.94	2.74	
2026.00	15.190	271.830	2002.19	36.02	-51.54	-233.29	1755095.91	14580775.43	40°08'51.6501"N	80°35'22.6354"W	238.92	257.541	2.61	2.39	4.33	
2115.00	17.160	269.980	2087.66	45.30	-51.17	-258.08	1755071.13	14580775.79	40°08'51.6548"N	80°35'22.9546"W	263.10	258.784	2.29	2.21	-2.08	
2202.00	19.260	265.120	2170.31	53.94	-52.40	-285.21	1755044.01	14580774.57	40°08'51.6440"N	80°35'23.3041"W	289.99	259.590	2.98	2.41	-5.59	
2288.00	19.560	256.960	2251.43	59.93	-56.86	-313.38	1755015.86	14580770.12	40°08'51.6012"N	80°35'23.6670"W	318.49	259.717	3.17	0.35	-9.49	
2375.00	20.720	255.280	2333.11	63.70	-64.05	-342.45	1754986.79	14580762.92	40°08'51.5314"N	80°35'24.0418"W	348.39	259.406	1.49	1.33	-1.93	

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Slot	Slot #401		

WELLPATH DATA (211 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]
2462.00	22.340	254.770	2414.04	67.12	-72.31	-373.29	1754955.96	14580754.67	40°08'51.4512"N	80°35'24.4395"W	380.23	259.037	1.87	1.86	-0.59
2549.00	24.160	254.440	2493.97	70.55	-81.43	-406.40	1754922.87	14580745.55	40°08'51.3626"N	80°35'24.8663"W	414.48	258.670	2.10	2.09	-0.38
2635.00	25.870	252.810	2571.90	73.55	-91.69	-441.28	1754888.00	14580735.29	40°08'51.2628"N	80°35'25.3161"W	450.71	258.261	2.14	1.99	-1.90
2721.00	26.080	251.970	2649.22	75.86	-103.09	-477.18	1754852.11	14580723.90	40°08'51.1518"N	80°35'25.7791"W	488.19	257.809	0.49	0.24	-0.98
2808.00	25.900	250.660	2727.42	77.48	-115.30	-513.29	1754816.02	14580711.69	40°08'51.0328"N	80°35'26.2449"W	526.08	257.340	0.69	-0.21	-1.51
2894.00	25.830	253.580	2804.81	79.61	-126.82	-548.99	1754780.33	14580700.18	40°08'50.9206"N	80°35'26.7052"W	563.45	256.993	1.48	-0.08	3.40
2981.00	26.600	255.050	2882.86	83.26	-137.20	-585.99	1754743.35	14580689.80	40°08'50.8197"N	80°35'27.1823"W	601.84	256.822	1.16	0.89	1.69
3068.00	28.400	255.170	2960.02	87.63	-147.52	-624.81	1754704.54	14580679.48	40°08'50.7194"N	80°35'27.6828"W	641.99	256.715	2.07	2.07	0.14
3154.00	27.760	254.060	3035.90	91.69	-158.26	-663.84	1754665.53	14580668.75	40°08'50.6151"N	80°35'28.1860"W	682.44	256.591	0.96	-0.74	-1.29
3247.00	28.390	255.250	3117.96	96.10	-169.84	-706.05	1754623.34	14580657.18	40°08'50.5026"N	80°35'28.7302"W	726.19	256.475	0.91	0.68	1.28
3340.00	27.540	254.720	3200.10	100.75	-181.13	-748.17	1754581.23	14580645.89	40°08'50.3929"N	80°35'29.2733"W	769.78	256.391	0.95	-0.91	-0.57
3428.00	28.300	256.430	3277.86	105.57	-191.39	-788.07	1754541.34	14580635.64	40°08'50.2934"N	80°35'29.7878"W	810.98	256.350	1.25	0.86	1.94
3516.00	27.230	254.310	3355.73	110.22	-201.73	-827.73	1754501.70	14580625.30	40°08'50.1930"N	80°35'30.2991"W	851.96	256.303	1.65	-1.22	-2.41
3606.00	27.460	255.480	3435.67	114.56	-212.50	-867.65	1754461.80	14580614.53	40°08'50.0884"N	80°35'30.8137"W	893.29	256.238	0.65	0.26	1.30
3699.00	27.940	257.620	3518.01	120.35	-222.54	-909.69	1754419.78	14580604.49	40°08'49.9910"N	80°35'31.3556"W	936.51	256.253	1.19	0.52	2.30
3785.00	26.640	254.580	3594.44	125.33	-231.99	-947.95	1754381.52	14580595.05	40°08'49.8994"N	80°35'31.8490"W	975.93	256.248	2.22	-1.51	-3.53
3878.00	27.940	255.730	3677.09	130.01	-242.91	-989.17	1754340.32	14580584.14	40°08'49.7934"N	80°35'32.3804"W	1018.56	256.203	1.51	1.40	1.24
3970.00	28.450	256.100	3758.17	135.34	-253.48	-1031.33	1754298.18	14580573.56	40°08'49.6908"N	80°35'32.9239"W	1062.03	256.191	0.59	0.55	0.40
4062.00	26.410	251.930	3839.83	139.19	-265.10	-1072.06	1754257.46	14580561.96	40°08'49.5779"N	80°35'33.4491"W	1104.35	256.111	3.04	-2.22	-4.53
4152.00	27.690	252.460	3919.99	141.57	-277.61	-1111.03	1754218.51	14580549.45	40°08'49.4560"N	80°35'33.9517"W	1145.19	255.971	1.45	1.42	0.59
4239.00	28.030	255.570	3996.91	145.22	-288.79	-1150.11	1754179.45	14580538.27	40°08'49.3472"N	80°35'34.4555"W	1185.81	255.904	1.72	0.39	3.57
4328.00	27.690	262.120	4075.61	152.40	-296.84	-1190.85	1754138.72	14580530.22	40°08'49.2695"N	80°35'34.9807"W	1227.29	256.003	3.46	-0.38	7.36
4421.00	28.000	263.370	4157.84	162.82	-302.33	-1233.94	1754095.65	14580524.74	40°08'49.2173"N	80°35'35.5358"W	1270.44	256.233	0.71	0.33	1.34
4514.00	28.270	262.830	4239.85	173.60	-307.59	-1277.48	1754052.13	14580519.47	40°08'49.1672"N	80°35'36.0968"W	1313.99	256.462	0.40	0.29	-0.58
4605.00	26.900	260.410	4320.51	182.92	-313.71	-1319.16	1754010.46	14580513.36	40°08'49.1086"N	80°35'36.6339"W	1355.95	256.623	1.94	-1.51	-2.66
4698.00	27.720	259.500	4403.14	191.11	-321.16	-1361.17	1753968.47	14580505.91	40°08'49.0369"N	80°35'37.1753"W	1398.55	256.724	0.99	0.88	-0.98
4791.00	28.540	254.420	4485.17	197.25	-331.07	-1403.85	1753925.81	14580496.01	40°08'48.9409"N	80°35'37.7254"W	1442.36	256.730	2.72	0.88	-5.46
4881.00	26.750	250.630	4564.90	199.96	-343.57	-1443.67	1753886.00	14580483.52	40°08'48.8192"N	80°35'38.2390"W	1483.99	256.614	2.79	-1.99	-4.21
4973.00	26.170	252.190	4647.26	201.77	-356.64	-1482.52	1753847.17	14580470.45	40°08'48.6918"N	80°35'38.7400"W	1524.81	256.474	0.98	-0.63	1.70
5066.00	27.040	255.930	4730.42	205.55	-368.05	-1522.55	1753807.15	14580459.04	40°08'48.5808"N	80°35'39.2562"W	1566.41	256.410	2.03	0.94	4.02

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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]
5159.00	27.680	257.770	4813.02	211.49	-377.77	-1564.17	1753765.55	14580449.33	40°08'48.4867"N	80°35'39.7927"W	1609.14	256.422	1.14	0.69	1.98
5248.00	28.520	259.780	4891.53	218.71	-385.92	-1605.28	1753724.45	14580441.18	40°08'48.4080"N	80°35'40.3226"W	1651.02	256.482	1.42	0.94	2.26
5340.00	27.450	257.740	4972.77	226.14	-394.32	-1647.62	1753682.13	14580432.79	40°08'48.3269"N	80°35'40.8683"W	1694.15	256.541	1.56	-1.16	-2.22
5432.00	26.470	255.380	5054.77	231.73	-403.99	-1688.19	1753641.58	14580423.11	40°08'48.2331"N	80°35'41.3912"W	1735.85	256.542	1.58	-1.07	-2.57
5519.00	26.410	255.330	5132.67	236.11	-413.79	-1725.66	1753604.11	14580413.32	40°08'48.1380"N	80°35'41.8744"W	1774.58	256.516	0.07	-0.07	-0.06
5609.00	28.090	255.480	5212.68	240.80	-424.17	-1765.54	1753564.25	14580402.94	40°08'48.0372"N	80°35'42.3885"W	1815.78	256.491	1.87	1.87	0.17
5699.00	29.070	253.980	5291.72	245.19	-435.52	-1807.07	1753522.74	14580391.60	40°08'47.9270"N	80°35'42.9240"W	1858.81	256.450	1.35	1.09	-1.67
5791.00	29.650	257.240	5371.90	250.49	-446.71	-1850.75	1753479.07	14580380.41	40°08'47.8183"N	80°35'43.4871"W	1903.90	256.430	1.85	0.63	3.54
5884.00	27.340	254.800	5453.63	256.05	-457.39	-1893.80	1753436.04	14580369.73	40°08'47.7147"N	80°35'44.0421"W	1948.26	256.422	2.78	-2.48	-2.62
5977.00	25.600	256.050	5536.88	260.76	-467.84	-1933.91	1753395.94	14580359.29	40°08'47.6133"N	80°35'44.5592"W	1989.70	256.401	1.96	-1.87	1.34
6070.00	29.950	262.020	5619.16	268.56	-475.91	-1976.43	1753353.44	14580351.22	40°08'47.5354"N	80°35'45.1072"W	2032.92	256.461	5.55	4.68	6.42
6161.00	39.840	265.010	5693.72	281.87	-481.61	-2028.10	1753301.80	14580345.52	40°08'47.4814"N	80°35'45.7729"W	2084.50	256.641	11.03	10.87	3.29
6254.00	44.970	270.460	5762.39	302.26	-483.94	-2090.70	1753239.22	14580343.19	40°08'47.4612"N	80°35'46.5791"W	2145.98	256.967	6.78	5.52	5.86
6327.00	46.240	282.830	5813.56	326.53	-477.87	-2142.30	1753187.63	14580349.26	40°08'47.5235"N	80°35'47.2433"W	2194.96	257.425	12.22	1.74	16.95
6419.00	50.380	290.810	5874.79	368.83	-457.88	-2207.91	1753122.06	14580369.25	40°08'47.7240"N	80°35'48.0869"W	2254.89	258.284	7.88	4.50	8.67
6512.00	58.370	295.440	5928.93	421.62	-428.09	-2277.28	1753052.71	14580399.03	40°08'48.0215"N	80°35'48.9785"W	2317.17	259.354	9.49	8.59	4.98
6603.00	58.720	294.660	5976.42	477.63	-395.22	-2347.61	1752982.41	14580431.88	40°08'48.3495"N	80°35'49.8821"W	2380.64	260.444	0.83	0.38	-0.86
6694.00	62.810	298.940	6020.87	536.59	-359.38	-2418.42	1752911.63	14580467.71	40°08'48.7068"N	80°35'50.7919"W	2444.98	261.548	6.09	4.49	4.70
6787.00	67.160	308.840	6060.27	605.58	-312.37	-2488.17	1752841.90	14580514.70	40°08'49.1744"N	80°35'51.6874"W	2507.70	262.844	10.72	4.68	10.65
6877.00	70.060	320.390	6093.19	681.84	-253.59	-2547.63	1752782.47	14580573.46	40°08'49.7580"N	80°35'52.4496"W	2560.22	264.316	12.37	3.22	12.83
6966.00	75.610	326.490	6119.46	763.76	-185.31	-2598.18	1752731.93	14580641.71	40°08'50.4350"N	80°35'53.0966"W	2604.78	265.920	9.04	6.24	6.85
7059.00	81.730	330.400	6137.73	853.38	-107.64	-2645.84	1752684.29	14580719.35	40°08'51.2046"N	80°35'53.7058"W	2648.03	267.670	7.76	6.58	4.20
7151.00	87.510	333.330	6146.36	944.25	-26.91	-2689.00	1752641.15	14580800.05	40°08'52.0044"N	80°35'54.2568"W	2689.13	269.427	7.04	6.28	3.18
7240.00	90.990	336.300	6147.52	1032.99	53.60	-2726.86	1752603.31	14580880.53	40°08'52.8017"N	80°35'54.7397"W	2727.38	271.126	5.14	3.91	3.34
7329.00	90.770	336.480	6146.16	1121.90	135.14	-2762.50	1752567.68	14580962.04	40°08'53.6091"N	80°35'55.1939"W	2765.80	272.801	0.32	-0.25	0.20
7421.00	90.740	338.480	6144.94	1213.86	220.12	-2797.73	1752532.46	14581046.98	40°08'54.4503"N	80°35'55.6427"W	2806.38	274.499	2.17	-0.03	2.17
7513.00	90.620	338.340	6143.85	1305.85	305.66	-2831.58	1752498.63	14581132.49	40°08'55.2971"N	80°35'56.0736"W	2848.03	276.161	0.20	-0.13	-0.15
7605.00	90.650	338.670	6142.83	1397.84	391.25	-2865.29	1752464.93	14581218.05	40°08'56.1445"N	80°35'56.5027"W	2891.88	277.776	0.36	0.03	0.36
7695.00	90.740	337.550	6141.74	1487.83	474.76	-2898.84	1752431.39	14581301.52	40°08'56.9712"N	80°35'56.9299"W	2937.46	279.301	1.25	0.10	-1.24
7787.00	90.680	337.370	6140.60	1579.79	559.72	-2934.10	1752396.14	14581386.46	40°08'57.8124"N	80°35'57.3791"W	2987.01	280.800	0.21	-0.07	-0.20

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 401H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad 1	Wellbore	Shawn Couch OHI 401H AWB
Slot	Slot #401		

WELLPATH DATA (211 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]
7878.00	90.620	336.900	6139.57	1670.74	643.57	-2969.46	1752360.80	14581470.27	40°08'58.6425"N	80°35'57.8295"W	3038.40	282.228	0.52	-0.07	-0.52
7968.00	90.650	336.870	6138.57	1760.68	726.34	-3004.79	1752325.48	14581553.00	40°08'59.4620"N	80°35'58.2797"W	3091.33	283.589	0.05	0.03	-0.03
8061.00	90.740	337.740	6137.44	1853.64	812.13	-3040.67	1752289.62	14581638.76	40°09'0.3114"N	80°35'58.7367"W	3147.26	284.954	0.94	0.10	0.94
8153.00	90.740	338.280	6136.25	1945.62	897.43	-3075.11	1752255.18	14581724.03	40°09'1.1558"N	80°35'59.1754"W	3203.39	286.269	0.59	0.00	0.59
8246.00	90.520	338.530	6135.23	2038.61	983.89	-3109.34	1752220.97	14581810.46	40°09'2.0118"N	80°35'59.6111"W	3261.30	287.559	0.36	-0.24	0.27
8339.00	90.740	338.160	6134.21	2131.60	1070.32	-3143.66	1752186.67	14581896.86	40°09'2.8675"N	80°36'0.0480"W	3320.87	288.802	0.46	0.24	-0.40
8430.00	91.110	341.130	6132.74	2222.57	1155.62	-3175.30	1752155.04	14581982.12	40°09'3.7118"N	80°36'0.4506"W	3379.05	289.999	3.29	0.41	3.26
8523.00	90.310	336.160	6131.59	2315.54	1242.20	-3209.16	1752121.20	14582068.67	40°09'4.5689"N	80°36'0.8815"W	3441.18	291.160	5.41	-0.86	-5.34
8616.00	90.830	331.170	6130.66	2408.12	1325.52	-3250.40	1752079.97	14582151.96	40°09'5.3940"N	80°36'1.4078"W	3510.28	292.186	5.39	0.56	-5.37
8708.00	90.650	331.420	6129.47	2499.31	1406.21	-3294.58	1752035.80	14582232.61	40°09'6.1933"N	80°36'1.9722"W	3582.13	293.114	0.33	-0.20	0.27
8800.00	90.520	333.640	6128.53	2590.73	1487.82	-3337.01	1751993.39	14582314.20	40°09'7.0018"N	80°36'2.5139"W	3653.67	294.030	2.42	-0.14	2.41
8893.00	90.430	338.810	6127.76	2683.60	1572.90	-3374.49	1751955.92	14582399.24	40°09'7.8441"N	80°36'2.9916"W	3723.06	294.991	5.56	-0.10	5.56
8986.00	90.830	340.990	6126.74	2776.57	1660.22	-3406.45	1751923.98	14582486.53	40°09'8.7085"N	80°36'3.3981"W	3789.49	295.984	2.38	0.43	2.34
9077.00	90.650	340.590	6125.56	2867.51	1746.15	-3436.39	1751894.05	14582572.42	40°09'9.5590"N	80°36'3.7787"W	3854.58	296.937	0.48	-0.20	-0.44
9170.00	90.680	340.140	6124.48	2960.48	1833.74	-3467.64	1751862.82	14582659.98	40°09'10.4259"N	80°36'4.1761"W	3922.64	297.871	0.48	0.03	-0.48
9263.00	90.710	341.020	6123.36	3053.43	1921.44	-3498.56	1751831.91	14582747.64	40°09'11.2939"N	80°36'4.5692"W	3991.47	298.776	0.95	0.03	0.95
9354.00	90.060	340.500	6122.74	3144.38	2007.35	-3528.54	1751801.93	14582833.53	40°09'12.1442"N	80°36'4.9504"W	4059.56	299.635	0.91	-0.71	-0.57
9447.00	90.150	341.270	6122.57	3237.32	2095.22	-3558.99	1751771.49	14582921.36	40°09'13.0139"N	80°36'5.3375"W	4129.94	300.486	0.83	0.10	0.83
9534.00	90.060	340.900	6122.41	3324.25	2177.53	-3587.20	1751743.30	14583003.63	40°09'13.8285"N	80°36'5.6960"W	4196.38	301.259	0.44	-0.10	-0.43
9627.00	90.520	343.110	6121.94	3417.11	2265.97	-3615.93	1751714.58	14583092.04	40°09'14.7038"N	80°36'6.0608"W	4267.26	302.074	2.43	0.49	2.38
9719.00	89.750	340.010	6121.73	3508.99	2353.23	-3645.02	1751685.50	14583179.27	40°09'15.5674"N	80°36'6.4305"W	4338.65	302.846	3.47	-0.84	-3.37
9811.00	90.590	344.160	6121.45	3600.83	2440.75	-3673.32	1751657.22	14583266.76	40°09'16.4335"N	80°36'6.7898"W	4410.28	303.602	4.60	0.91	4.51
9904.00	90.680	343.920	6120.42	3693.44	2530.16	-3698.89	1751631.65	14583356.13	40°09'17.3182"N	80°36'7.1140"W	4481.46	304.373	0.28	0.10	-0.26
9997.00	90.520	341.360	6119.45	3786.23	2618.91	-3726.63	1751603.92	14583444.85	40°09'18.1964"N	80°36'7.4662"W	4554.83	305.098	2.76	-0.17	-2.75
10089.00	90.830	337.720	6118.36	3878.20	2705.09	-3758.78	1751571.78	14583530.99	40°09'19.0495"N	80°36'7.8753"W	4630.98	305.742	3.97	0.34	-3.96
10180.00	89.750	337.020	6117.90	3969.16	2789.08	-3793.80	1751536.78	14583614.95	40°09'19.8810"N	80°36'8.3214"W	4708.70	306.322	1.41	-1.19	-0.77
10267.00	90.340	338.690	6117.84	4056.15	2869.66	-3826.59	1751504.00	14583695.50	40°09'20.6787"N	80°36'8.7391"W	4783.07	306.867	2.04	0.68	1.92
10353.00	90.400	338.250	6117.28	4142.14	2949.66	-3858.15	1751472.45	14583775.47	40°09'21.4707"N	80°36'9.1409"W	4856.52	307.399	0.52	0.07	-0.51
10446.00	91.420	338.600	6115.80	4235.13	3036.13	-3892.34	1751438.27	14583861.91	40°09'22.3267"N	80°36'9.5763"W	4936.44	307.955	1.16	1.10	0.38
10539.00	90.800	337.360	6114.00	4328.10	3122.33	-3927.20	1751403.43	14583948.07	40°09'23.1800"N	80°36'10.0203"W	5017.16	308.486	1.49	-0.67	-1.33

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 401H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad 1	Wellbore	Shawn Couch OHI 401H AWB
Slot	Slot #401		

WELLPATH DATA (211 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]
10632.00	90.430	338.190	6113.00	4421.07	3208.41	-3962.38	1751368.26	14584034.12	40°09'24.0323"N	80°36'10.4684"W	5098.47	308.998	0.98	-0.40	0.89
10724.00	90.770	337.680	6112.04	4513.06	3293.67	-3996.94	1751333.72	14584119.34	40°09'24.8763"N	80°36'10.9086"W	5179.17	309.490	0.67	0.37	-0.55
10817.00	90.740	337.980	6110.81	4606.03	3379.79	-4032.03	1751298.64	14584205.43	40°09'25.7288"N	80°36'11.3555"W	5261.20	309.971	0.32	-0.03	0.32
10910.00	90.430	337.530	6109.87	4699.01	3465.86	-4067.23	1751263.45	14584291.47	40°09'26.5810"N	80°36'11.8040"W	5343.65	310.436	0.59	-0.33	-0.48
11002.00	90.250	337.730	6109.32	4790.99	3550.93	-4102.25	1751228.45	14584376.51	40°09'27.4232"N	80°36'12.2500"W	5425.64	310.880	0.29	-0.20	0.22
11095.00	90.000	337.510	6109.12	4883.96	3636.93	-4137.66	1751193.06	14584462.47	40°09'28.2746"N	80°36'12.7011"W	5508.85	311.315	0.36	-0.27	-0.24
11188.00	90.220	335.600	6108.94	4976.88	3722.25	-4174.66	1751156.07	14584547.76	40°09'29.1193"N	80°36'13.1728"W	5593.11	311.721	2.07	0.24	-2.05
11281.00	90.770	339.770	6108.13	5069.84	3808.26	-4209.96	1751120.78	14584633.74	40°09'29.9709"N	80°36'13.6225"W	5676.85	312.132	4.52	0.59	4.48
11372.00	90.310	337.920	6107.28	5160.83	3893.12	-4242.80	1751087.95	14584718.56	40°09'30.8109"N	80°36'14.0406"W	5758.27	312.539	2.09	-0.51	-2.03
11465.00	90.520	338.280	6106.60	5253.82	3979.41	-4277.48	1751053.28	14584804.82	40°09'31.6651"N	80°36'14.4824"W	5842.31	312.932	0.45	0.23	0.39
11558.00	90.430	338.220	6105.83	5346.81	4065.78	-4311.94	1751018.83	14584891.16	40°09'32.5202"N	80°36'14.9212"W	5926.50	313.317	0.12	-0.10	-0.06
11650.00	90.090	338.020	6105.41	5438.80	4151.15	-4346.23	1750984.56	14584976.50	40°09'33.3653"N	80°36'15.3579"W	6010.14	313.685	0.43	-0.37	-0.22
11743.00	90.150	338.670	6105.22	5531.80	4237.59	-4380.55	1750950.26	14585062.90	40°09'34.2210"N	80°36'15.7950"W	6094.78	314.050	0.70	0.06	0.70
11836.00	90.180	339.780	6104.95	5624.79	4324.54	-4413.53	1750917.28	14585149.82	40°09'35.0817"N	80°36'16.2148"W	6179.07	314.416	1.19	0.03	1.19
11929.00	90.370	339.350	6104.51	5717.79	4411.69	-4446.00	1750884.83	14585236.93	40°09'35.9443"N	80°36'16.6280"W	6263.38	314.778	0.51	0.20	-0.46
12021.00	90.180	338.640	6104.06	5809.78	4497.57	-4478.98	1750851.86	14585322.78	40°09'36.7945"N	80°36'17.0478"W	6347.39	315.119	0.80	-0.21	-0.77
12114.00	90.180	337.990	6103.77	5902.78	4583.99	-4513.34	1750817.51	14585409.17	40°09'37.6499"N	80°36'17.4855"W	6432.98	315.445	0.70	0.00	-0.70
12207.00	90.460	339.180	6103.25	5995.77	4670.57	-4547.30	1750783.57	14585495.71	40°09'38.5070"N	80°36'17.9178"W	6518.60	315.766	1.31	0.30	1.28
12298.00	90.580	339.030	6102.43	6086.77	4755.58	-4579.75	1750751.13	14585580.69	40°09'39.3485"N	80°36'18.3310"W	6602.25	316.079	0.21	0.13	-0.16
12391.00	90.490	338.110	6101.56	6179.76	4842.14	-4613.73	1750717.16	14585667.22	40°09'40.2054"N	80°36'18.7636"W	6688.26	316.384	0.99	-0.10	-0.99
12483.00	90.580	338.670	6100.70	6271.76	4927.67	-4647.61	1750683.30	14585752.72	40°09'41.0521"N	80°36'19.1951"W	6773.64	316.675	0.62	0.10	0.61
12574.00	90.550	339.360	6099.80	6362.75	5012.63	-4680.20	1750650.72	14585837.64	40°09'41.8931"N	80°36'19.6100"W	6857.90	316.964	0.76	-0.03	0.76
12667.00	90.650	339.420	6098.83	6455.74	5099.68	-4712.93	1750618.00	14585924.65	40°09'42.7547"N	80°36'20.0266"W	6943.95	317.257	0.13	0.11	0.06
12760.00	90.740	340.230	6097.70	6548.72	5186.96	-4745.01	1750585.94	14586011.91	40°09'43.6187"N	80°36'20.4347"W	7029.91	317.548	0.88	0.10	0.87
12853.00	90.180	338.510	6096.95	6641.71	5273.99	-4777.77	1750553.19	14586098.90	40°09'44.4801"N	80°36'20.8518"W	7116.32	317.826	1.94	-0.60	-1.85
12946.00	91.110	339.280	6095.91	6734.70	5360.75	-4811.25	1750519.72	14586185.62	40°09'45.3389"N	80°36'21.2781"W	7203.18	318.092	1.30	1.00	0.83
13037.00	90.250	338.570	6094.83	6825.69	5445.65	-4843.97	1750487.01	14586270.50	40°09'46.1794"N	80°36'21.6947"W	7288.29	318.347	1.23	-0.95	-0.78
13130.00	90.400	339.090	6094.30	6918.69	5532.37	-4877.56	1750453.44	14586357.18	40°09'47.0378"N	80°36'22.1223"W	7375.48	318.599	0.58	0.16	0.56
13223.00	90.650	338.980	6093.45	7011.69	5619.21	-4910.83	1750420.18	14586443.99	40°09'47.8974"N	80°36'22.5459"W	7462.70	318.849	0.29	0.27	-0.12
13314.00	90.340	338.370	6092.66	7102.68	5703.98	-4943.92	1750387.10	14586528.72	40°09'48.7365"N	80°36'22.9673"W	7548.36	319.083	0.75	-0.34	-0.67

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 401H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad 1	Wellbore	Shawn Couch OHI 401H AWB
Slot	Slot #401		

WELLPATH DATA (211 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]
13402.00	90.680	340.030	6091.88	7190.68	5786.24	-4975.17	1750355.86	14586610.95	40°09'49.5508"N	80°36'23.3651"W	7631.05	319.310	1.93	0.39	1.89
13495.00	90.490	339.680	6090.93	7283.66	5873.54	-5007.20	1750323.85	14586698.22	40°09'50.4149"N	80°36'23.7726"W	7718.20	319.552	0.43	-0.20	-0.38
13588.00	90.770	339.700	6089.90	7376.64	5960.76	-5039.48	1750291.58	14586785.40	40°09'51.2782"N	80°36'24.1834"W	7805.57	319.787	0.30	0.30	0.02
13681.00	90.310	339.580	6089.03	7469.63	6047.94	-5071.83	1750259.24	14586872.55	40°09'52.1412"N	80°36'24.5952"W	7893.10	320.017	0.51	-0.49	-0.13
13774.00	89.290	339.350	6089.35	7562.62	6135.03	-5104.45	1750226.63	14586959.61	40°09'53.0032"N	80°36'25.0104"W	7980.86	320.239	1.12	-1.10	-0.25
13865.00	90.220	339.570	6089.74	7653.62	6220.24	-5136.38	1750194.72	14587044.79	40°09'53.8467"N	80°36'25.4168"W	8066.84	320.452	1.05	1.02	0.24
13958.00	90.250	340.030	6089.36	7746.60	6307.52	-5168.49	1750162.62	14587132.03	40°09'54.7105"N	80°36'25.8255"W	8154.64	320.668	0.50	0.03	0.49
14050.00	89.940	340.030	6089.21	7838.58	6393.99	-5199.91	1750131.21	14587218.47	40°09'55.5664"N	80°36'26.2252"W	8241.49	320.880	0.34	-0.34	0.00
14140.00	89.880	339.450	6089.35	7928.57	6478.42	-5231.08	1750100.05	14587302.87	40°09'56.4021"N	80°36'26.6219"W	8326.71	321.080	0.65	-0.07	-0.64
14232.00	90.430	340.000	6089.10	8020.56	6564.72	-5262.96	1750068.19	14587389.13	40°09'57.2563"N	80°36'27.0276"W	8413.94	321.281	0.85	0.60	0.60
14325.00	90.340	339.890	6088.48	8113.54	6652.08	-5294.85	1750036.31	14587476.46	40°09'58.1210"N	80°36'27.4334"W	8502.09	321.481	0.15	-0.10	-0.12
14415.00	89.750	340.530	6088.40	8203.52	6736.76	-5325.32	1750005.85	14587561.11	40°09'58.9591"N	80°36'27.8211"W	8587.38	321.674	0.97	-0.66	0.71
14507.00	89.850	340.120	6088.73	8295.49	6823.39	-5356.30	1749974.89	14587647.70	40°09'59.8165"N	80°36'28.2151"W	8674.59	321.868	0.46	0.11	-0.45
14600.00	90.460	340.790	6088.47	8388.45	6911.03	-5387.41	1749943.79	14587735.31	40°10'0.6840"N	80°36'28.6109"W	8762.79	322.062	0.97	0.66	0.72
14692.00	89.480	339.000	6088.52	8480.43	6997.42	-5419.03	1749912.18	14587821.66	40°10'1.5390"N	80°36'29.0133"W	8850.41	322.245	2.22	-1.07	-1.95
14785.00	90.120	339.650	6088.85	8573.43	7084.43	-5451.87	1749879.35	14587908.64	40°10'2.4003"N	80°36'29.4313"W	8939.35	322.420	0.98	0.69	0.70
14878.00	90.280	340.210	6088.52	8666.41	7171.78	-5483.78	1749847.45	14587995.96	40°10'3.2649"N	80°36'29.8375"W	9028.08	322.597	0.63	0.17	0.60
14967.00	90.120	339.620	6088.21	8755.39	7255.37	-5514.34	1749816.90	14588079.51	40°10'4.0922"N	80°36'30.2264"W	9113.09	322.764	0.69	-0.18	-0.66
15060.00	90.250	340.620	6087.91	8848.37	7342.82	-5545.97	1749785.29	14588166.93	40°10'4.9578"N	80°36'30.6288"W	9201.89	322.937	1.08	0.14	1.08
15153.00	89.940	338.600	6087.76	8941.36	7429.99	-5578.37	1749752.90	14588254.07	40°10'5.8206"N	80°36'31.0412"W	9291.02	323.101	2.20	-0.33	-2.17
15243.00	89.970	338.570	6087.83	9031.36	7513.78	-5611.23	1749720.05	14588337.82	40°10'6.6500"N	80°36'31.4597"W	9377.78	323.248	0.05	0.03	-0.03
15335.00	90.150	338.820	6087.73	9123.35	7599.49	-5644.66	1749686.64	14588423.50	40°10'7.4985"N	80°36'31.8854"W	9466.49	323.396	0.33	0.20	0.27
15428.00	90.060	339.040	6087.56	9216.35	7686.27	-5678.09	1749653.22	14588510.25	40°10'8.3575"N	80°36'32.3112"W	9556.12	323.546	0.26	-0.10	0.24
15520.00	90.220	338.730	6087.34	9308.35	7772.10	-5711.23	1749620.09	14588596.04	40°10'9.2071"N	80°36'32.7332"W	9644.88	323.690	0.38	0.17	-0.34
15613.00	90.400	338.850	6086.83	9401.35	7858.80	-5744.88	1749586.46	14588682.71	40°10'10.0653"N	80°36'33.1617"W	9734.69	323.833	0.23	0.19	0.13
15706.00	90.340	338.430	6086.23	9494.35	7945.41	-5778.75	1749552.60	14588769.28	40°10'10.9226"N	80°36'33.5931"W	9824.63	323.971	0.46	-0.06	-0.45
15798.00	90.250	338.830	6085.76	9586.35	8031.08	-5812.27	1749519.09	14588854.92	40°10'11.7707"N	80°36'34.0201"W	9913.66	324.106	0.45	-0.10	0.43
15891.00	90.120	338.450	6085.46	9679.35	8117.69	-5846.15	1749485.23	14588941.50	40°10'12.6281"N	80°36'34.4516"W	10003.71	324.240	0.43	-0.14	-0.41
15984.00	90.000	338.190	6085.36	9772.34	8204.11	-5880.50	1749450.88	14589027.89	40°10'13.4836"N	80°36'34.8892"W	10093.95	324.368	0.31	-0.13	-0.28
16076.00	90.150	338.800	6085.24	9864.34	8289.71	-5914.23	1749417.17	14589113.45	40°10'14.3309"N	80°36'35.3188"W	10183.19	324.494	0.68	0.16	0.66



Actual Wellpath Report

Shawn Couch OHI 401H AWP Proj: 18822'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 401H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad 1	Wellbore	Shawn Couch OHI 401H AWB
Slot	Slot #401		

WELLPATH DATA (211 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]
16169.00	90.250	338.140	6084.92	9957.34	8376.22	-5948.36	1749383.05	14589199.93	40°10'15.1872"N	80°36'35.7536"W	10273.46	324.620	0.72	0.11	-0.71
16262.00	90.090	338.460	6084.64	10050.33	8462.62	-5982.74	1749348.68	14589286.30	40°10'16.0426"N	80°36'36.1916"W	10363.84	324.741	0.38	-0.17	0.34
16355.00	90.060	338.510	6084.52	10143.33	8549.14	-6016.85	1749314.59	14589372.79	40°10'16.8991"N	80°36'36.6261"W	10454.20	324.862	0.06	-0.03	0.05
16448.00	90.180	338.840	6084.32	10236.33	8635.78	-6050.67	1749280.78	14589459.39	40°10'17.7566"N	80°36'37.0569"W	10544.54	324.983	0.38	0.13	0.35
16540.00	90.030	339.030	6084.16	10328.33	8721.63	-6083.74	1749247.73	14589545.20	40°10'18.6065"N	80°36'37.4780"W	10633.85	325.102	0.26	-0.16	0.21
16633.00	90.120	338.350	6084.03	10421.33	8808.27	-6117.53	1749213.94	14589631.81	40°10'19.4641"N	80°36'37.9085"W	10724.26	325.219	0.74	0.10	-0.73
16723.00	90.250	338.930	6083.74	10511.32	8892.09	-6150.31	1749181.17	14589715.60	40°10'20.2938"N	80°36'38.3260"W	10811.83	325.330	0.66	0.14	0.64
16816.00	90.060	338.430	6083.49	10604.32	8978.72	-6184.13	1749147.38	14589802.20	40°10'21.1514"N	80°36'38.7567"W	10902.33	325.443	0.58	-0.20	-0.54
16908.00	90.550	339.070	6083.00	10696.32	9064.46	-6217.47	1749114.04	14589887.91	40°10'22.0001"N	80°36'39.1814"W	10991.88	325.553	0.88	0.53	0.70
17001.00	90.090	338.780	6082.48	10789.32	9151.24	-6250.91	1749080.62	14589974.65	40°10'22.8591"N	80°36'39.6073"W	11082.38	325.664	0.58	-0.49	-0.31
17094.00	89.820	338.820	6082.56	10882.32	9237.95	-6284.54	1749047.00	14590061.32	40°10'23.7174"N	80°36'40.0356"W	11172.97	325.773	0.29	-0.29	0.04
17187.00	89.940	341.650	6082.75	10975.28	9325.46	-6315.99	1749015.56	14590148.80	40°10'24.5835"N	80°36'40.4358"W	11263.03	325.891	3.05	0.13	3.04
17279.00	90.120	345.150	6082.70	11066.98	9413.61	-6342.27	1748989.30	14590236.92	40°10'25.4558"N	80°36'40.7693"W	11350.79	326.031	3.81	0.20	3.80
17372.00	90.250	347.140	6082.40	11159.23	9503.90	-6364.54	1748967.04	14590327.17	40°10'26.3490"N	80°36'41.0511"W	11438.16	326.191	2.14	0.14	2.14
17465.00	90.120	346.350	6082.10	11251.35	9594.42	-6385.86	1748945.72	14590417.66	40°10'27.2444"N	80°36'41.3207"W	11525.28	326.353	0.86	-0.14	-0.85
17558.00	90.220	344.840	6081.83	11343.71	9684.50	-6409.00	1748922.59	14590507.70	40°10'28.1355"N	80°36'41.6137"W	11613.13	326.504	1.63	0.11	-1.62
17651.00	90.060	342.820	6081.60	11436.35	9773.81	-6434.89	1748896.71	14590596.98	40°10'29.0193"N	80°36'41.9423"W	11701.93	326.640	2.18	-0.17	-2.17
17737.00	90.090	342.430	6081.49	11522.17	9855.89	-6460.58	1748871.03	14590679.02	40°10'29.8314"N	80°36'42.2685"W	11784.63	326.755	0.45	0.03	-0.45
17824.00	89.970	342.550	6081.44	11608.99	9938.86	-6486.75	1748844.87	14590761.96	40°10'30.6525"N	80°36'42.6010"W	11868.39	326.869	0.20	-0.14	0.14
17911.00	90.000	342.760	6081.46	11695.80	10021.90	-6512.69	1748818.94	14590844.97	40°10'31.4742"N	80°36'42.9305"W	11952.14	326.982	0.24	0.03	0.24
17997.00	89.780	340.360	6081.63	11781.70	10103.48	-6539.89	1748791.75	14590926.52	40°10'32.2815"N	80°36'43.2763"W	12035.38	327.085	2.80	-0.26	-2.79
18084.00	90.120	338.220	6081.70	11868.70	10184.85	-6570.65	1748761.00	14591007.86	40°10'33.0870"N	80°36'43.6681"W	12120.42	327.172	2.49	0.39	-2.46
18174.00	89.940	336.270	6081.66	11958.65	10267.84	-6605.46	1748726.20	14591090.82	40°10'33.9086"N	80°36'44.1118"W	12209.04	327.246	2.18	-0.20	-2.17
18267.00	90.090	333.950	6081.63	12051.45	10352.20	-6644.60	1748687.08	14591175.14	40°10'34.7439"N	80°36'44.6113"W	12301.17	327.305	2.50	0.16	-2.49
18359.00	90.000	331.820	6081.56	12142.94	10434.08	-6686.53	1748645.17	14591257.00	40°10'35.5549"N	80°36'45.1469"W	12392.73	327.347	2.32	-0.10	-2.32
18449.00	89.880	331.680	6081.65	12232.25	10513.36	-6729.13	1748602.58	14591336.24	40°10'36.3402"N	80°36'45.6912"W	12482.47	327.379	0.20	-0.13	-0.16
18536.00	90.030	332.180	6081.72	12318.61	10590.13	-6770.07	1748561.66	14591412.98	40°10'37.1005"N	80°36'46.2143"W	12569.19	327.410	0.60	0.17	0.57
18626.00	90.520	332.010	6081.29	12407.98	10669.66	-6812.19	1748519.56	14591492.48	40°10'37.8883"N	80°36'46.7524"W	12658.89	327.443	0.58	0.54	-0.19
18718.00	90.680	332.380	6080.33	12499.35	10751.04	-6855.10	1748476.66	14591573.83	40°10'38.6943"N	80°36'47.3007"W	12750.57	327.478	0.44	0.17	0.40
18797.00	90.680	332.240	6079.39	12577.83	10820.98	-6891.81	1748439.97	14591643.75	40°10'39.3871"N	80°36'47.7697"W	12829.29	327.507	0.18	0.00	-0.18

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 401H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad 1	Wellbore	Shawn Couch OHI 401H AWB
Slot	Slot #401		

WELLPATH DATA (211 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]
18822.00†	90.680	332.240	6079.09	12602.66	10843.10	-6903.45	1748428.33	14591665.86	40°10'39.6062"N	80°36'47.9184"W	12854.20	327.516	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Shawn Couch OHI 401H AWB Ref Wellpath: Shawn Couch OHI 401H AWP Proj: 18822'									
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 Conductor	26.00	100.00	74.00	26.00	100.00	0.00	0.00	0.06	-0.02
17.5in Open Hole	100.00	360.00	260.00	100.00	360.00	0.06	-0.02	0.59	-0.25
13.375in Casing Surface	26.00	360.00	334.00	26.00	360.00	0.00	0.00	0.59	-0.25
12.25in Open Hole	360.00	1871.00	1511.00	360.00	1851.43	0.59	-0.25	-50.85	-197.42
9.625in Casing Intermediate	26.00	1871.00	1845.00	26.00	1851.43	0.00	0.00	-50.85	-197.42
8.75in Open Hole	1871.00	6319.00	4448.00	1851.43	5808.01	-50.85	-197.42	-479.09	-2136.67
8.5in Open Hole	6319.00	18822.00	12503.00	5808.01	6079.09	-479.09	-2136.67	10843.10	-6903.45
5.5in Casing Production	26.00	18822.00	18796.00	26.00	6079.09	0.00	0.00	10843.10	-6903.45

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Shawn Couch OHI 401H BHL Rev-7	6065.00	10843.60	-6905.64	1748426.14	14591666.36	40°10'39.6112"N	80°36'47.9466"W	point
Shawn Couch OHI 401H LP Rev-6	6149.00	-34.25	-2705.08	1752625.08	14580792.71	40°08'51.9325"N	80°35'54.4644"W	point

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 401H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad 1	Wellbore	Shawn Couch OHI 401H AWB
Slot	Slot #401		

WELLPATH COMPOSITION - Ref Wellbore: Shawn Couch OHI 401H AWB Ref Wellpath: Shawn Couch OHI 401H AWP Proj: 18822'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	358.00	OWSG MWD rev2 + HRGM	01_Premier MWD <17 1/2"> (151'-358')	Shawn Couch OHI 401H AWB	3/5/2020
358.00	1808.00	OWSG MWD rev2 + HRGM	02_Premier MWD <12 1/4"> (442'-1808')	Shawn Couch OHI 401H AWB	3/5/2020
1808.00	6254.00	OWSG MWD rev2 + HRGM	03_Premier MWD <8 3/4"> (1933'-6254')	Shawn Couch OHI 401H AWB	3/5/2020
6254.00	18822.00	BH AutoTrak Curve (2019) (Short spacing)	04_BH AT Curve <8 1/2"> (6327'-18797')	Shawn Couch OHI 401H AWB	3/5/2020

REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Shawn Couch OHI 401H
Field	Ohio	API/Legal	
Facility	Shawn Couch OHI Pad 1	Wellbore	Shawn Couch OHI 401H AWB
Slot	Slot #401		

COMMENTS
<p>Wellpath general comments API: 47-069-00308-0000 BH Job #: 110294012A Rig: SDC 42 Duration: 03/07/2020 - 03/11/2020</p>