

REFERENCE WELLPATH IDENTIFICATION

Operator	SWN PRODUCTION COMPANY, LLC	Well	BW Edge MSH 1H
Field	Marshall	API	47051024710000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 1H AWB
Slot	1H		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999612	Report Generated	4/12/2023 at 10:02:24 AM
Convergence at slot	0.24° East	Database	WA_MPL_EASTERLUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-10.14	-9.85	1744722.63	14529336.66	40°00'23.5809"N	80°37'39.0408"W
Facility Reference Pt			1744732.48	14529346.80	40°00'23.6808"N	80°37'38.9136"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 40 (KB) to Facility Vertical Datum	1279.60ft
Horizontal Reference Pt	Slot	SDC 40 (KB) to Mean Sea Level	1279.60ft
Vertical Reference Pt	SDC 40 (KB)	SDC 40 (KB) to Ground Level at Slot (1H)	26.00ft
MD Reference Pt	SDC 40 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	335.83°

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WELLPATH DATA (168 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]	Comments
2609.00	15.810	218.430	2561.37	-150.85	-268.37	-229.57	1744493.15	14529068.39	40°00'20.9383"N	80°37'42.0054"W	353.17	220.544	0.17	
2701.00	15.640	218.210	2649.92	-162.37	-287.94	-245.03	1744477.69	14529048.84	40°00'20.7456"N	80°37'42.2051"W	378.08	220.398	0.20	
2791.00	15.410	217.980	2736.64	-173.58	-306.89	-259.90	1744462.84	14529029.89	40°00'20.5588"N	80°37'42.3971"W	402.16	220.260	0.26	
2882.00	16.760	218.440	2824.07	-185.26	-326.70	-275.49	1744447.24	14529010.09	40°00'20.3637"N	80°37'42.5986"W	427.35	220.140	1.49	
2973.00	16.990	218.140	2911.16	-197.48	-347.43	-291.86	1744430.88	14528989.36	40°00'20.1595"N	80°37'42.8101"W	453.76	220.032	0.27	
3063.00	16.470	218.450	2997.35	-209.45	-367.77	-307.92	1744414.83	14528969.03	40°00'19.9592"N	80°37'43.0175"W	479.65	219.938	0.59	
3155.00	15.840	218.890	3085.71	-221.14	-387.76	-323.91	1744398.85	14528949.06	40°00'19.7624"N	80°37'43.2240"W	505.24	219.873	0.70	
3248.00	17.750	216.620	3174.74	-233.81	-409.01	-340.33	1744382.43	14528927.80	40°00'19.5530"N	80°37'43.4363"W	532.09	219.763	2.17	
3339.00	18.010	216.310	3261.35	-247.51	-431.48	-356.94	1744365.83	14528905.34	40°00'19.3316"N	80°37'43.6509"W	559.99	219.599	0.30	
3430.00	17.700	215.930	3347.96	-261.34	-454.02	-373.39	1744349.39	14528882.82	40°00'19.1096"N	80°37'43.8634"W	587.84	219.434	0.36	
3521.00	17.480	214.640	3434.71	-275.31	-476.47	-389.27	1744333.51	14528860.38	40°00'18.8884"N	80°37'44.0688"W	615.27	219.249	0.49	
3612.00	17.170	213.090	3521.58	-289.65	-498.97	-404.38	1744318.41	14528837.89	40°00'18.6667"N	80°37'44.2640"W	642.25	219.022	0.61	
3703.00	16.330	216.920	3608.72	-303.10	-520.45	-419.39	1744303.40	14528816.41	40°00'18.4550"N	80°37'44.4582"W	668.40	218.863	1.52	
3794.00	15.350	216.250	3696.27	-315.23	-540.39	-434.20	1744288.60	14528796.48	40°00'18.2586"N	80°37'44.6495"W	693.22	218.782	1.10	
3885.00	14.330	213.140	3784.23	-327.26	-559.53	-447.48	1744275.32	14528777.34	40°00'18.0699"N	80°37'44.8212"W	716.46	218.651	1.42	
3976.00	14.980	213.580	3872.27	-339.62	-578.76	-460.14	1744262.67	14528758.12	40°00'17.8804"N	80°37'44.9849"W	739.39	218.486	0.72	
4066.00	16.710	215.400	3958.85	-352.38	-599.00	-474.07	1744248.74	14528737.89	40°00'17.6810"N	80°37'45.1650"W	763.90	218.359	2.00	
4157.00	17.990	216.890	4045.71	-365.81	-620.90	-490.09	1744232.73	14528716.00	40°00'17.4652"N	80°37'45.3720"W	791.02	218.284	1.49	
4248.00	17.340	215.930	4132.41	-379.37	-643.12	-506.48	1744216.35	14528693.79	40°00'17.2463"N	80°37'45.5838"W	818.62	218.222	0.78	
4339.00	15.990	211.740	4219.59	-393.16	-664.77	-521.03	1744201.80	14528672.15	40°00'17.0330"N	80°37'45.7720"W	844.62	218.089	1.99	
4429.00	15.400	217.340	4306.24	-405.80	-684.81	-534.80	1744188.04	14528652.12	40°00'16.8355"N	80°37'45.9500"W	868.90	217.988	1.81	
4522.00	15.810	218.980	4395.82	-417.42	-704.48	-550.26	1744172.58	14528632.46	40°00'16.6418"N	80°37'46.1497"W	893.91	217.993	0.65	
4615.00	16.360	220.670	4485.17	-428.71	-724.26	-566.77	1744156.08	14528612.68	40°00'16.4470"N	80°37'46.3629"W	919.66	218.045	0.78	
4706.00	17.800	213.280	4572.17	-441.64	-745.61	-582.75	1744140.10	14528591.34	40°00'16.2366"N	80°37'46.5695"W	946.33	218.010	2.86	
4798.00	16.480	213.290	4660.08	-456.23	-768.28	-597.63	1744125.24	14528568.68	40°00'16.0132"N	80°37'46.7618"W	973.35	217.878	1.43	
4889.00	16.170	219.020	4747.42	-468.90	-788.92	-612.68	1744110.19	14528548.04	40°00'15.8098"N	80°37'46.9564"W	998.89	217.833	1.81	
4980.00	17.340	218.290	4834.55	-480.89	-809.41	-629.06	1744093.81	14528527.56	40°00'15.6080"N	80°37'47.1680"W	1025.12	217.854	1.31	
5072.00	17.640	220.690	4922.30	-493.15	-830.74	-646.65	1744076.23	14528506.24	40°00'15.3980"N	80°37'47.3951"W	1052.75	217.897	0.85	
5164.00	18.870	220.880	5009.67	-505.35	-852.56	-665.47	1744057.42	14528484.43	40°00'15.1831"N	80°37'47.6381"W	1081.53	217.974	1.34	
5255.00	18.280	219.510	5095.93	-517.89	-874.71	-684.18	1744038.72	14528462.30	40°00'14.9650"N	80°37'47.8797"W	1110.50	218.032	0.80	

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5347.00	17.260	217.000	5183.54	-530.87	-896.74	-701.57	1744021.33	14528440.27	40°00'14.7480"N	80°37'48.1044"W	1138.57	218.038	1.39	
5438.00	17.410	214.500	5270.41	-544.46	-918.74	-717.41	1744005.50	14528418.28	40°00'14.5312"N	80°37'48.3090"W	1165.66	217.985	0.83	
5529.00	17.010	216.030	5357.33	-558.15	-940.72	-732.95	1743989.97	14528396.30	40°00'14.3146"N	80°37'48.5099"W	1192.55	217.923	0.66	
5620.00	15.400	216.110	5444.71	-570.76	-961.25	-747.90	1743975.02	14528375.78	40°00'14.1124"N	80°37'48.7031"W	1217.93	217.885	1.77	
5724.00	14.570	217.470	5545.18	-583.82	-982.79	-763.99	1743958.93	14528354.25	40°00'13.9002"N	80°37'48.9111"W	1244.81	217.861	0.87	
5814.00	16.900	219.050	5631.80	-595.09	-1001.94	-779.12	1743943.81	14528335.11	40°00'13.7116"N	80°37'49.1066"W	1269.22	217.869	2.63	
5905.00	14.820	243.310	5719.43	-601.57	-1017.45	-797.88	1743925.06	14528319.60	40°00'13.5590"N	80°37'49.3484"W	1292.99	218.103	7.57	
5995.00	14.950	274.780	5806.55	-596.45	-1021.66	-819.77	1743903.18	14528315.39	40°00'13.5183"N	80°37'49.6299"W	1309.89	218.743	8.88	
6086.00	19.000	297.930	5893.66	-579.05	-1013.74	-844.59	1743878.37	14528323.32	40°00'13.5977"N	80°37'49.9484"W	1319.47	219.799	8.58	
6187.00	25.660	313.540	5987.12	-545.78	-990.92	-875.03	1743847.94	14528346.12	40°00'13.8244"N	80°37'50.3384"W	1321.97	221.446	8.78	
6283.00	33.640	319.470	6070.50	-500.95	-956.33	-907.43	1743815.55	14528380.70	40°00'14.1675"N	80°37'50.7530"W	1318.34	223.497	8.85	
6380.00	41.470	329.920	6147.42	-443.07	-907.99	-941.08	1743781.92	14528429.02	40°00'14.6466"N	80°37'51.1827"W	1307.70	226.025	10.38	
6477.00	50.160	330.680	6214.96	-373.90	-847.62	-975.48	1743747.53	14528489.37	40°00'15.2447"N	80°37'51.6216"W	1292.29	229.012	8.98	
6573.00	58.500	329.950	6270.89	-296.35	-779.93	-1014.09	1743708.94	14528557.03	40°00'15.9151"N	80°37'52.1141"W	1279.33	232.436	8.71	
6670.00	67.290	332.060	6315.04	-210.39	-704.46	-1055.85	1743667.20	14528632.47	40°00'16.6627"N	80°37'52.6467"W	1269.28	236.289	9.27	
6766.00	75.790	336.270	6345.43	-119.48	-622.56	-1095.41	1743627.65	14528714.34	40°00'17.4736"N	80°37'53.1507"W	1259.96	240.389	9.78	
6863.00	84.580	340.020	6361.95	-24.09	-533.94	-1130.91	1743592.16	14528802.93	40°00'18.3509"N	80°37'53.6022"W	1250.62	244.726	9.83	
6960.00	90.770	342.020	6365.89	72.38	-442.34	-1162.41	1743560.67	14528894.50	40°00'19.2574"N	80°37'54.0021"W	1243.73	249.166	6.71	
7056.00	90.740	339.570	6364.62	168.01	-351.69	-1193.98	1743529.11	14528985.10	40°00'20.1544"N	80°37'54.4031"W	1244.70	253.587	2.55	
7153.00	90.620	337.720	6363.47	264.88	-261.36	-1229.30	1743493.81	14529075.40	40°00'21.0485"N	80°37'54.8521"W	1256.78	257.997	1.91	
7249.00	90.520	335.910	6362.51	360.86	-173.13	-1267.09	1743456.03	14529163.60	40°00'21.9221"N	80°37'55.3331"W	1278.87	262.220	1.89	
7345.00	90.650	336.500	6361.53	456.85	-85.29	-1305.82	1743417.32	14529251.40	40°00'22.7916"N	80°37'55.8262"W	1308.61	266.263	0.63	
7442.00	90.490	336.700	6360.57	553.84	3.73	-1344.34	1743378.81	14529340.38	40°00'23.6729"N	80°37'56.3165"W	1344.35	270.159	0.26	
7539.00	90.680	336.570	6359.58	650.82	92.77	-1382.81	1743340.36	14529429.39	40°00'24.5544"N	80°37'56.8061"W	1385.92	273.838	0.24	
7635.00	89.230	335.910	6359.65	746.82	180.63	-1421.49	1743301.69	14529517.22	40°00'25.4242"N	80°37'57.2985"W	1432.92	277.242	1.66	
7732.00	89.910	334.850	6360.38	843.81	268.81	-1461.90	1743261.30	14529605.36	40°00'26.2973"N	80°37'57.8131"W	1486.41	280.419	1.30	
7829.00	90.740	337.520	6359.83	940.79	357.54	-1501.06	1743222.15	14529694.06	40°00'27.1757"N	80°37'58.3117"W	1543.05	283.398	2.88	
7925.00	89.230	335.820	6359.86	1036.78	445.68	-1539.08	1743184.15	14529782.17	40°00'28.0483"N	80°37'58.7955"W	1602.31	286.150	2.37	
8021.00	89.660	335.930	6360.79	1132.77	533.29	-1578.31	1743144.93	14529869.74	40°00'28.9157"N	80°37'59.2951"W	1665.97	288.669	0.46	
8118.00	89.820	335.440	6361.23	1229.77	621.69	-1618.25	1743105.01	14529958.10	40°00'29.7909"N	80°37'59.8037"W	1733.56	291.015	0.53	

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8215.00	90.830	335.790	6360.68	1326.77	710.03	-1658.30	1743064.98	14530046.41	40°00'30.6655"N	80°38'0.3137"W	1803.91	293.179	1.10	
8311.00	90.680	336.440	6359.41	1422.76	797.80	-1697.17	1743026.13	14530134.15	40°00'31.5345"N	80°38'0.8085"W	1875.33	295.177	0.69	
8408.00	90.340	336.620	6358.55	1519.75	886.77	-1735.80	1742987.51	14530223.09	40°00'32.4153"N	80°38'1.3003"W	1949.19	297.061	0.40	
8504.00	90.770	335.960	6357.62	1615.74	974.66	-1774.40	1742948.92	14530310.94	40°00'33.2854"N	80°38'1.7917"W	2024.46	298.780	0.82	
8602.00	89.750	335.330	6357.17	1713.73	1063.94	-1814.81	1742908.53	14530400.19	40°00'34.1693"N	80°38'2.3063"W	2103.69	300.381	1.22	
8698.00	92.060	337.020	6355.66	1809.71	1151.74	-1853.58	1742869.77	14530487.95	40°00'35.0385"N	80°38'2.8000"W	2182.26	301.855	2.98	
8795.00	90.310	336.620	6353.65	1906.67	1240.89	-1891.75	1742831.62	14530577.06	40°00'35.9211"N	80°38'3.2858"W	2262.41	303.263	1.85	
8891.00	91.140	334.640	6352.44	2002.66	1328.32	-1931.36	1742792.02	14530664.46	40°00'36.7867"N	80°38'3.7902"W	2344.05	304.519	2.24	
8987.00	90.580	336.820	6351.00	2098.64	1415.82	-1970.81	1742752.59	14530751.93	40°00'37.6530"N	80°38'4.2926"W	2426.65	305.693	2.34	
9084.00	90.030	335.390	6350.48	2195.64	1504.50	-2010.10	1742713.31	14530840.58	40°00'38.5310"N	80°38'4.7929"W	2510.78	306.814	1.58	
9181.00	91.450	335.650	6349.23	2292.62	1592.77	-2050.29	1742673.14	14530928.81	40°00'39.4049"N	80°38'5.3047"W	2596.27	307.842	1.49	
9277.00	90.580	336.400	6347.53	2388.61	1680.48	-2089.29	1742634.15	14531016.48	40°00'40.2732"N	80°38'5.8013"W	2681.26	308.811	1.20	
9374.00	90.950	337.240	6346.23	2485.58	1769.64	-2127.47	1742595.99	14531105.61	40°00'41.1558"N	80°38'6.2873"W	2767.26	309.754	0.95	
9471.00	90.980	335.890	6344.60	2582.56	1858.62	-2166.04	1742557.43	14531194.56	40°00'42.0368"N	80°38'6.7783"W	2854.15	310.632	1.39	
9568.00	91.080	336.890	6342.85	2679.54	1947.48	-2204.88	1742518.61	14531283.39	40°00'42.9165"N	80°38'7.2728"W	2941.80	311.453	1.04	
9665.00	90.740	336.850	6341.31	2776.51	2036.68	-2242.98	1742480.52	14531372.54	40°00'43.7995"N	80°38'7.7578"W	3029.69	312.240	0.35	
9761.00	90.890	335.490	6339.95	2872.49	2124.48	-2281.76	1742441.76	14531460.31	40°00'44.6687"N	80°38'8.2516"W	3117.67	312.956	1.43	
9858.00	91.880	337.010	6337.60	2969.46	2213.24	-2320.82	1742402.72	14531549.03	40°00'45.5474"N	80°38'8.7488"W	3206.96	313.641	1.87	
9955.00	90.400	338.090	6335.67	3066.39	2302.86	-2357.85	1742365.70	14531638.63	40°00'46.4346"N	80°38'9.2201"W	3295.85	314.324	1.89	
10051.00	91.690	338.390	6333.92	3162.29	2392.01	-2393.43	1742330.13	14531727.73	40°00'47.3170"N	80°38'9.6727"W	3383.82	314.983	1.38	
10148.00	91.200	336.790	6331.48	3259.21	2481.65	-2430.40	1742293.18	14531817.34	40°00'48.2044"N	80°38'10.1431"W	3473.53	315.598	1.72	
10244.00	91.080	335.380	6329.57	3355.19	2569.39	-2469.31	1742254.29	14531905.05	40°00'49.0730"N	80°38'10.6385"W	3563.60	316.138	1.47	
10341.00	91.510	338.240	6327.37	3452.14	2658.52	-2507.49	1742216.12	14531994.14	40°00'49.9553"N	80°38'11.1246"W	3654.48	316.675	2.98	
10437.00	90.950	334.900	6325.31	3548.09	2746.57	-2545.65	1742177.97	14532082.16	40°00'50.8270"N	80°38'11.6104"W	3744.86	317.174	3.53	
10534.00	89.600	332.870	6324.85	3645.03	2833.66	-2588.34	1742135.30	14532169.22	40°00'51.6894"N	80°38'12.1545"W	3837.85	317.591	2.51	
10631.00	91.690	335.550	6323.75	3741.97	2920.98	-2630.53	1742093.12	14532256.50	40°00'52.5540"N	80°38'12.6922"W	3930.88	317.995	3.50	
10727.00	90.150	334.210	6322.21	3837.94	3007.88	-2671.28	1742052.39	14532343.37	40°00'53.4144"N	80°38'13.2114"W	4022.82	318.392	2.13	
10824.00	90.890	334.760	6321.33	3934.91	3095.42	-2713.06	1742010.63	14532430.87	40°00'54.2811"N	80°38'13.7438"W	4116.10	318.766	0.95	
10920.00	89.050	333.510	6321.38	4030.86	3181.83	-2754.86	1741968.84	14532517.25	40°00'55.1368"N	80°38'14.2765"W	4208.72	319.114	2.26	
11017.00	91.290	334.680	6321.09	4127.81	3269.12	-2797.16	1741926.56	14532604.50	40°00'56.0010"N	80°38'14.8156"W	4302.47	319.449	2.56	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	BW Edge MSH 1H
Field	Marshall	API	47051024710000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 1H AWB
Slot	1H		

WELLPATH DATA (168 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]	Comments
11113.00	90.830	334.570	6319.32	4223.77	3355.84	-2838.29	1741885.44	14532691.19	40°00'56.8597"N	80°38'15.3397"W	4395.18	319.776	0.49	
11209.00	91.200	334.900	6317.62	4319.74	3442.64	-2879.26	1741844.49	14532777.96	40°00'57.7192"N	80°38'15.8617"W	4487.98	320.093	0.52	
11306.00	90.340	334.520	6316.31	4416.71	3530.34	-2920.69	1741803.07	14532865.62	40°00'58.5875"N	80°38'16.3896"W	4581.89	320.399	0.97	
11402.00	90.550	334.190	6315.57	4512.68	3616.88	-2962.24	1741761.54	14532952.13	40°00'59.4443"N	80°38'16.9191"W	4675.11	320.682	0.41	
11499.00	90.430	332.790	6314.74	4609.59	3703.67	-3005.54	1741718.27	14533038.89	40°01'0.3038"N	80°38'17.4710"W	4769.74	320.941	1.45	
11595.00	90.860	333.190	6313.66	4705.47	3789.20	-3049.13	1741674.69	14533124.38	40°01'1.1507"N	80°38'18.0269"W	4863.66	321.177	0.61	
11692.00	90.620	335.320	6312.41	4802.42	3876.56	-3091.26	1741632.58	14533211.70	40°01'2.0157"N	80°38'18.5638"W	4958.18	321.430	2.21	
11788.00	89.940	333.730	6311.94	4898.39	3963.22	-3132.55	1741591.30	14533298.33	40°01'2.8738"N	80°38'19.0899"W	5051.73	321.677	1.80	
11885.00	90.710	336.840	6311.39	4995.37	4051.32	-3173.10	1741550.77	14533386.40	40°01'3.7460"N	80°38'19.6065"W	5146.04	321.931	3.30	
11982.00	90.650	337.280	6310.24	5092.34	4140.64	-3210.90	1741512.98	14533475.69	40°01'4.6302"N	80°38'20.0878"W	5239.73	322.208	0.46	
12078.00	90.800	335.790	6309.02	5188.32	4228.69	-3249.12	1741474.77	14533563.71	40°01'5.5019"N	80°38'20.5744"W	5332.79	322.463	1.56	
12175.00	90.180	336.170	6308.19	5285.32	4317.29	-3288.61	1741435.30	14533652.27	40°01'6.3790"N	80°38'21.0773"W	5427.15	322.702	0.75	
12271.00	90.650	335.700	6307.50	5381.31	4404.94	-3327.75	1741396.17	14533739.89	40°01'7.2468"N	80°38'21.5759"W	5520.64	322.930	0.69	
12368.00	90.920	336.390	6306.17	5478.30	4493.58	-3367.13	1741356.81	14533828.49	40°01'8.1243"N	80°38'22.0774"W	5615.14	323.155	0.76	
12464.00	90.650	336.650	6304.85	5574.29	4581.62	-3405.38	1741318.58	14533916.50	40°01'8.9959"N	80°38'22.5644"W	5708.58	323.378	0.39	
12561.00	90.430	335.630	6303.94	5671.28	4670.33	-3444.61	1741279.36	14534005.17	40°01'9.8741"N	80°38'23.0641"W	5803.21	323.589	1.08	
12657.00	90.490	335.190	6303.17	5767.27	4757.62	-3484.56	1741239.43	14534092.42	40°01'10.7383"N	80°38'23.5730"W	5897.21	323.780	0.46	
12754.00	89.910	334.200	6302.83	5864.25	4845.31	-3526.02	1741197.99	14534180.08	40°01'11.6065"N	80°38'24.1013"W	5992.48	323.956	1.18	
12849.00	90.710	336.580	6302.31	5959.24	4931.67	-3565.58	1741158.44	14534266.41	40°01'12.4615"N	80°38'24.6053"W	6085.61	324.133	2.64	
12946.00	90.490	336.740	6301.30	6056.23	5020.73	-3604.00	1741120.03	14534355.43	40°01'13.3432"N	80°38'25.0946"W	6180.34	324.328	0.28	
13042.00	90.580	335.960	6300.40	6152.22	5108.66	-3642.51	1741081.54	14534443.33	40°01'14.2137"N	80°38'25.5850"W	6274.26	324.511	0.82	
13138.00	90.830	336.210	6299.22	6248.21	5196.41	-3681.43	1741042.64	14534531.05	40°01'15.0824"N	80°38'26.0806"W	6368.33	324.684	0.37	
13235.00	90.650	336.350	6297.97	6345.20	5285.21	-3720.44	1741003.64	14534619.81	40°01'15.9615"N	80°38'26.5775"W	6463.37	324.857	0.24	
13331.00	90.490	337.000	6297.01	6441.18	5373.36	-3758.45	1740965.64	14534707.92	40°01'16.8341"N	80°38'27.0615"W	6557.36	325.029	0.70	
13428.00	90.580	335.730	6296.11	6538.17	5462.22	-3797.34	1740926.77	14534796.75	40°01'17.7138"N	80°38'27.5567"W	6652.49	325.193	1.31	
13525.00	90.710	336.840	6295.01	6635.16	5551.02	-3836.35	1740887.78	14534885.52	40°01'18.5929"N	80°38'28.0535"W	6747.69	325.351	1.15	
13621.00	90.650	336.880	6293.88	6731.14	5639.29	-3874.07	1740850.07	14534973.75	40°01'19.4667"N	80°38'28.5338"W	6841.78	325.512	0.08	
13718.00	90.430	336.530	6292.96	6828.12	5728.38	-3912.43	1740811.73	14535062.81	40°01'20.3486"N	80°38'29.0223"W	6936.96	325.667	0.43	
13814.00	90.580	338.360	6292.11	6924.08	5817.03	-3949.25	1740774.92	14535151.42	40°01'21.2261"N	80°38'29.4910"W	7030.96	325.827	1.91	
13911.00	91.140	340.410	6290.66	7020.87	5907.80	-3983.39	1740740.79	14535242.16	40°01'22.1245"N	80°38'29.9252"W	7125.27	326.010	2.19	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	BW Edge MSH 1H
Field	Marshall	API	47051024710000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 1H AWB
Slot	1H		

WELLPATH DATA (168 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]	Comments
14007.00	90.740	342.580	6289.08	7116.39	5998.82	-4013.86	1740710.34	14535333.14	40°01'23.0252"N	80°38'30.3120"W	7217.82	326.213	2.30	
14104.00	90.950	341.950	6287.65	7212.76	6091.20	-4043.40	1740680.80	14535425.49	40°01'23.9393"N	80°38'30.6870"W	7311.07	326.423	0.68	
14200.00	90.710	341.650	6286.26	7308.23	6182.39	-4073.38	1740650.83	14535516.64	40°01'24.8416"N	80°38'31.0677"W	7403.67	326.620	0.40	
14297.00	91.420	342.180	6284.46	7404.67	6274.58	-4103.49	1740620.74	14535608.79	40°01'25.7539"N	80°38'31.4499"W	7497.26	326.816	0.91	
14393.00	91.110	341.710	6282.34	7500.10	6365.83	-4133.23	1740591.01	14535700.01	40°01'26.6568"N	80°38'31.8276"W	7589.95	327.005	0.59	
14489.00	91.480	342.750	6280.17	7595.47	6457.22	-4162.53	1740561.73	14535791.37	40°01'27.5611"N	80°38'32.1993"W	7682.60	327.193	1.15	
14585.00	91.260	340.090	6277.88	7690.98	6548.18	-4193.10	1740531.16	14535882.29	40°01'28.4613"N	80°38'32.5877"W	7775.66	327.367	2.78	
14682.00	91.050	337.450	6275.92	7787.83	6638.57	-4228.22	1740496.06	14535972.65	40°01'29.3559"N	80°38'33.0344"W	7870.74	327.506	2.73	
14779.00	91.110	335.010	6274.09	7884.80	6727.32	-4267.31	1740456.99	14536061.36	40°01'30.2345"N	80°38'33.5323"W	7966.60	327.612	2.52	
14876.00	91.050	333.130	6272.26	7981.73	6814.54	-4309.71	1740414.60	14536148.54	40°01'31.0981"N	80°38'34.0729"W	8062.97	327.690	1.94	
14972.00	91.200	329.870	6270.38	8077.43	6898.88	-4355.50	1740368.82	14536232.85	40°01'31.9333"N	80°38'34.6571"W	8158.73	327.734	3.40	
15068.00	90.460	326.620	6268.99	8172.56	6980.49	-4406.01	1740318.33	14536314.43	40°01'32.7418"N	80°38'35.3022"W	8254.71	327.740	3.47	
15165.00	90.770	327.100	6267.94	8268.37	7061.70	-4459.04	1740265.33	14536395.61	40°01'33.5465"N	80°38'35.9797"W	8351.69	327.730	0.59	
15261.00	91.230	327.220	6266.27	8363.26	7142.35	-4511.09	1740213.29	14536476.23	40°01'34.3455"N	80°38'36.6446"W	8447.67	327.724	0.50	
15358.00	90.860	326.990	6264.50	8459.12	7223.78	-4563.76	1740160.64	14536557.63	40°01'35.1523"N	80°38'37.3175"W	8544.65	327.717	0.45	
15454.00	90.800	326.680	6263.11	8553.93	7304.14	-4616.28	1740108.15	14536637.95	40°01'35.9485"N	80°38'37.9884"W	8640.63	327.707	0.33	
15550.00	90.950	326.770	6261.64	8648.71	7384.39	-4668.94	1740055.51	14536718.17	40°01'36.7436"N	80°38'38.6612"W	8736.60	327.696	0.18	
15581.00‡	90.950	326.770	6261.13	8679.32	7410.31	-4685.93	1740038.53	14536744.09	40°01'37.0005"N	80°38'38.8783"W	8767.59	327.693	0.00	

HOLE & CASING SECTIONS - Ref Wellbore: BW Edge MSH 1H AWB Ref Wellpath: BW Edge MSH 1H awp Proj: 15581'									
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]
13.375in Casing	26.00	827.00	801.00	26.00	826.99	0.00	0.00	-1.36	0.19
9.625in Casing	26.00	2089.00	2063.00	26.00	2065.81	0.00	0.00	-143.27	-135.22

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	BW Edge MSH 1H
Field	Marshall	API	47051024710000
Facility	BW Edge MSH Pad	Wellbore	BW Edge MSH 1H AWB
Slot	1H		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BW Edge MSH 1H BHL Rev-3	6284.00	7411.35	-4685.31	1740039.14	14536745.13	40°01'37.0107"N	80°38'38.8703"W	point
BW Edge MSH 1H LP Rev 5	6366.00	-462.63	-1151.15	1743571.93	14528874.21	40°00'19.0564"N	80°37'53.8585"W	point

WELLPATH COMPOSITION - Ref Wellbore: BW Edge MSH 1H AWB Ref Wellpath: BW Edge MSH 1H awp Proj: 15581'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	770.00	OWSG MWD rev2 + HRGM	1 Tally OWSG MWD HRGM 17.5" 175' - 770'	BW Edge MSH 1H AWB	3/31/2023
770.00	2019.00	OWSG MWD rev2 + HRGM	2 Tally OWSG MWD HRGM 12.25" 864' - 2019'	BW Edge MSH 1H AWB	3/31/2023
2019.00	5620.00	OWSG MWD rev2 + HRGM	3 Tally OWSG MWD HRGM 8.75" 2151' - 5620'	BW Edge MSH 1H AWB	3/31/2023
5620.00	15581.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH ATC MWD HRGM Short spacing 8.5" 5724' - 15550'	BW Edge MSH 1H AWB	3/31/2023

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