



# SWN PRODUCTION COMPANY, LLC



Location: Marshall County, WV  
 Field: Marshall  
 Facility: Charles Jamison MSH Pad

Slot: 606H  
 Well: Charles Jamison MSH 606H  
 Wellbore: Charles Jamison MSH 606H AWB

Plot reference wellpath is Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to SDC 41 (KB)	North Reference: Grid north
Reference wellpath measured depths are referenced to SDC 41 (KB)	Scale: True distance
SDC 41 (KB) to Mean Sea Level: 1363.5 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: 606H): -1337.5 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: tranlam on 2022-07-22; Database: WA_MPL_EASTERNUS_Defn

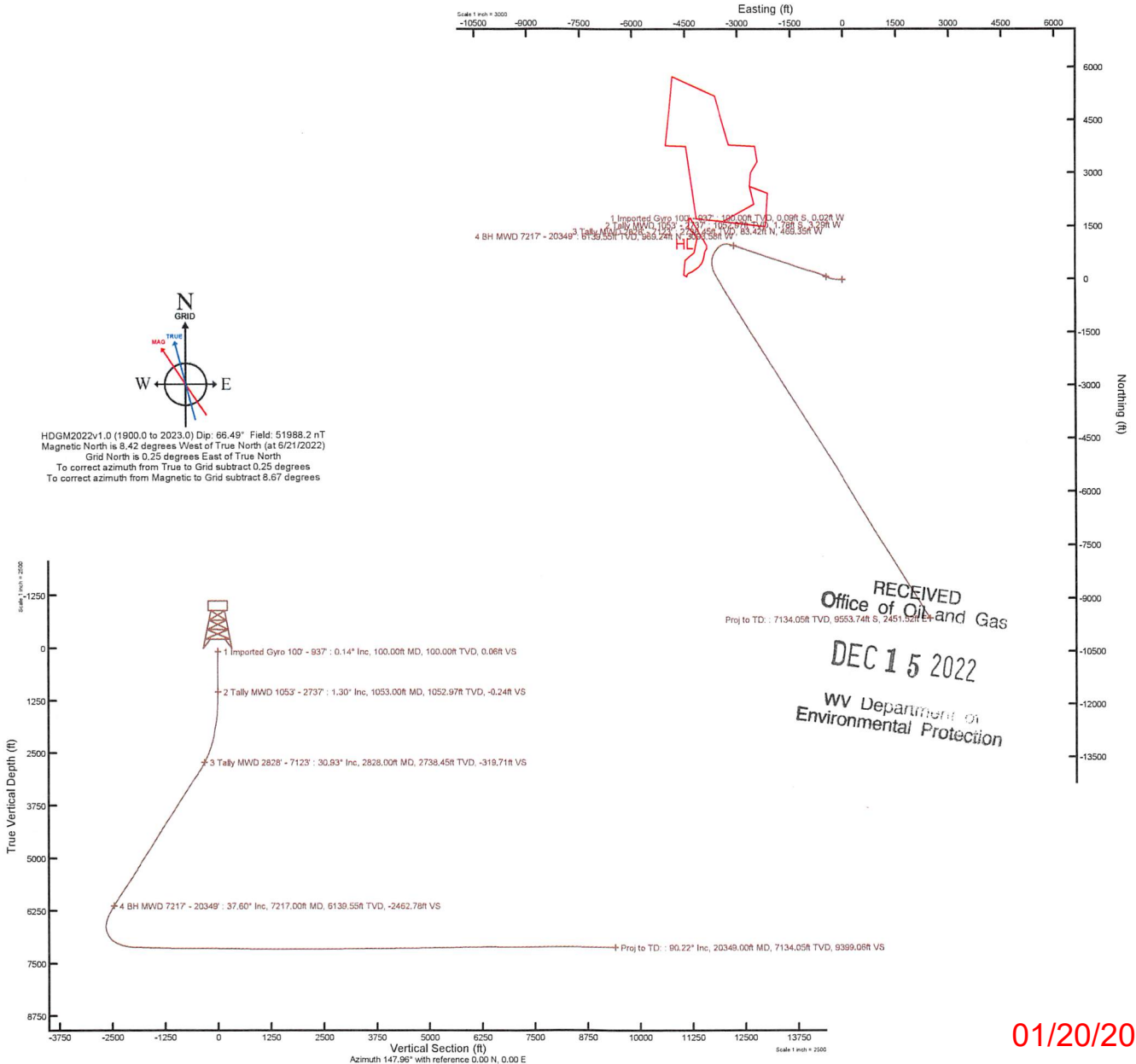
### Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Charles Jamison MSH Pad			1750638.500	14451211.924	39°47'30.9700"N	80°36'27.4000"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
606H	-8.96	-42.99	1750595.527	14451202.966	39°47'30.8833"N	80°36'27.9512"W
SDC 41 (KB) to Ground level (At Slot: 606H)					26ft	
Mean Sea Level to Ground level (At Slot: 606H)					-1337.5ft	
SDC 41 (KB) to Mean Sea Level					1363.5ft	

### Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
20349.00	90.220	148.500	7134.05	-9553.74	2451.52	1753046.10	14441652.93	39°45'56.3602"N	80°35'57.0933"W

**API: 47051024360000**  
**BH JOB: 111260169**  
**DURATION: 07.06.2022 to 07.11.2022**  
**RIG: SDC 41**





# Actual Wellpath Report

Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Charles Jamison MSH 606H
Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Tranlam
Scale	0.999614	Report Generated	7/22/2022 at 11:17:20 AM
Convergence at slot	0.25° 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	-8.96	-42.99	1750595.53	14451202.97	39°47'30.8833"N	80°36'27.9512"W
Facility Reference Pt			1750638.50	14451211.92	39°47'30.9700"N	80°36'27.4000"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.4780"W

WELLPATH DATUM			
Calculation method	Minimum curvature	SDC 41 (KB) to Facility Vertical Datum	1363.50ft
Horizontal Reference Pt	Slot	SDC 41 (KB) to Mean Sea Level	1363.50ft
Vertical Reference Pt	SDC 41 (KB)	SDC 41 (KB) to Ground Level at Slot (606H)	26.00ft
MD Reference Pt	SDC 41 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	147.96°

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Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'



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Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

## WELLPATH DATA (222 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]
0.00†	0.000	193.600	0.00	0.00	0.00	0.00	1750595.53	14451202.97	39°47'30.8833"N	80°36'27.9512"W	0.00	0.000	0.00
26.00	0.000	193.600	26.00	0.00	0.00	0.00	1750595.53	14451202.97	39°47'30.8833"N	80°36'27.9512"W	0.00	0.000	0.00
100.00	0.140	193.600	100.00	0.06	-0.09	-0.02	1750595.51	14451202.88	39°47'30.8824"N	80°36'27.9515"W	0.09	193.600	0.19
200.00	0.190	142.740	200.00	0.31	-0.34	0.05	1750595.58	14451202.63	39°47'30.8800"N	80°36'27.9506"W	0.34	171.534	0.15
300.00	0.240	154.170	300.00	0.69	-0.66	0.24	1750595.77	14451202.31	39°47'30.8768"N	80°36'27.9482"W	0.70	159.835	0.07
400.00	0.330	148.330	400.00	1.18	-1.09	0.48	1750596.01	14451201.87	39°47'30.8725"N	80°36'27.9451"W	1.20	156.088	0.09
500.00	0.300	162.940	500.00	1.72	-1.59	0.71	1750596.24	14451201.38	39°47'30.8676"N	80°36'27.9422"W	1.74	155.836	0.09
600.00	0.350	168.760	599.99	2.26	-2.14	0.85	1750596.38	14451200.83	39°47'30.8621"N	80°36'27.9405"W	2.30	158.345	0.06
700.00	0.410	291.680	699.99	2.26	-2.31	0.58	1750596.10	14451200.66	39°47'30.8605"N	80°36'27.9440"W	2.38	165.974	0.67
800.00	0.610	281.500	799.99	1.60	-2.07	-0.28	1750595.25	14451200.90	39°47'30.8629"N	80°36'27.9549"W	2.09	187.666	0.22
900.00	0.470	284.610	899.98	0.94	-1.86	-1.20	1750594.33	14451201.11	39°47'30.8650"N	80°36'27.9667"W	2.21	212.794	0.14
937.00	0.480	279.220	936.98	0.73	-1.79	-1.50	1750594.03	14451201.17	39°47'30.8656"N	80°36'27.9705"W	2.34	219.831	0.12
1053.00	1.300	267.430	1052.97	-0.24	-1.78	-3.29	1750592.24	14451201.19	39°47'30.8659"N	80°36'27.9935"W	3.74	241.652	0.72
1146.00	3.060	258.020	1145.90	-1.61	-2.34	-6.77	1750588.76	14451200.63	39°47'30.8605"N	80°36'28.0381"W	7.17	250.956	1.92
1239.00	4.460	255.190	1238.70	-3.53	-3.78	-12.70	1750582.83	14451199.19	39°47'30.8465"N	80°36'28.1141"W	13.25	253.432	1.52
1331.00	5.340	253.480	1330.36	-5.74	-5.91	-20.26	1750575.27	14451197.06	39°47'30.8258"N	80°36'28.2111"W	21.10	253.739	0.97
1424.00	6.820	250.890	1422.83	-8.13	-8.95	-29.63	1750565.91	14451194.02	39°47'30.7962"N	80°36'28.3313"W	30.95	253.195	1.62
1517.00	8.290	259.080	1515.03	-11.78	-12.03	-41.43	1750554.11	14451190.94	39°47'30.7662"N	80°36'28.4826"W	43.14	253.813	1.96
1610.00	8.900	269.670	1606.99	-17.98	-13.34	-55.21	1750540.34	14451189.63	39°47'30.7539"N	80°36'28.6592"W	56.80	256.418	1.82
1701.00	10.830	280.810	1696.65	-27.50	-11.77	-70.65	1750524.91	14451191.20	39°47'30.7700"N	80°36'28.8569"W	71.62	260.538	2.97
1792.00	14.420	282.370	1785.43	-41.25	-7.74	-90.12	1750505.44	14451195.23	39°47'30.8107"N	80°36'29.1061"W	90.45	265.090	3.96
1884.00	16.070	277.780	1874.19	-57.42	-3.56	-113.93	1750481.64	14451199.40	39°47'30.8530"N	80°36'29.4109"W	113.98	268.208	2.22
1977.00	15.440	271.940	1963.70	-72.58	-1.40	-139.05	1750456.53	14451201.56	39°47'30.8755"N	80°36'29.7327"W	139.06	269.422	1.83
2069.00	16.100	270.280	2052.24	-86.25	-0.93	-164.05	1750431.54	14451202.04	39°47'30.8813"N	80°36'30.0529"W	164.05	269.677	0.87
2161.00	19.260	271.550	2139.89	-101.46	-0.45	-191.98	1750403.62	14451202.51	39°47'30.8871"N	80°36'30.4107"W	191.98	269.865	3.46
2251.00	22.480	276.310	2223.98	-120.36	1.84	-223.93	1750371.68	14451204.81	39°47'30.9112"N	80°36'30.8199"W	223.94	270.471	4.04
2344.00	24.320	280.980	2309.33	-144.46	7.44	-260.41	1750335.22	14451210.41	39°47'30.9681"N	80°36'31.2869"W	260.52	271.637	2.81
2436.00	24.630	284.700	2393.07	-171.35	15.92	-297.55	1750298.09	14451218.88	39°47'31.0535"N	80°36'31.7622"W	297.98	273.062	1.71
2529.00	26.250	288.330	2477.05	-201.30	27.30	-335.83	1750259.83	14451230.26	39°47'31.1677"N	80°36'32.2519"W	336.93	274.648	2.42
2621.00	27.770	291.520	2559.02	-234.22	41.57	-375.08	1750220.59	14451244.52	39°47'31.3103"N	80°36'32.7540"W	377.38	276.324	2.28



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# Actual Wellpath Report

Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'

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Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

WELLPATH DATA (222 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]
2714.00	30.050	294.080	2640.43	-270.99	59.02	-416.50	1750179.19	14451261.96	39°47'31.4845"N	80°36'33.2836"W	420.66	278.065	2.79
2737.00	30.660	294.590	2660.28	-280.67	63.81	-427.09	1750168.60	14451266.75	39°47'31.5323"N	80°36'33.4190"W	431.83	278.497	2.88
2828.00	30.930	295.190	2738.45	-319.71	83.42	-469.35	1750126.36	14451286.35	39°47'31.7279"N	80°36'33.9593"W	476.71	280.078	0.45
2920.00	33.190	291.850	2816.42	-359.94	102.85	-514.13	1750081.60	14451305.78	39°47'31.9220"N	80°36'34.5319"W	524.32	281.313	3.12
3010.00	34.890	291.590	2890.99	-400.57	121.50	-560.93	1750034.81	14451324.41	39°47'32.1082"N	80°36'35.1304"W	573.94	282.221	1.90
3101.00	36.710	292.800	2964.80	-443.77	141.61	-610.21	1749985.55	14451344.53	39°47'32.3092"N	80°36'35.7606"W	626.43	283.066	2.15
3193.00	38.960	291.980	3037.45	-489.66	163.10	-662.39	1749933.40	14451366.00	39°47'32.5237"N	80°36'36.4278"W	682.17	283.833	2.51
3285.00	40.840	290.750	3108.03	-537.03	184.58	-717.35	1749878.46	14451387.48	39°47'32.7384"N	80°36'37.1306"W	740.71	284.430	2.22
3378.00	42.290	289.080	3177.61	-585.61	205.59	-775.36	1749820.47	14451408.47	39°47'32.9485"N	80°36'37.8726"W	802.15	284.850	1.96
3468.00	41.860	284.220	3244.43	-630.89	222.87	-833.10	1749762.75	14451425.75	39°47'33.1217"N	80°36'38.6114"W	862.39	284.977	3.65
3561.00	41.010	284.650	3314.16	-675.51	238.21	-892.70	1749703.17	14451441.08	39°47'33.2759"N	80°36'39.3741"W	923.93	284.941	0.96
3652.00	39.920	285.010	3383.39	-718.61	253.32	-949.79	1749646.11	14451456.19	39°47'33.4277"N	80°36'40.1046"W	982.99	284.934	1.23
3745.00	39.670	286.820	3454.85	-762.81	269.64	-1007.03	1749588.89	14451472.50	39°47'33.5914"N	80°36'40.8370"W	1042.50	284.990	1.27
3839.00	39.840	287.750	3527.11	-808.40	287.50	-1064.42	1749531.52	14451490.35	39°47'33.7704"N	80°36'41.5713"W	1102.57	285.115	0.66
3931.00	40.420	288.240	3597.45	-853.84	305.82	-1120.82	1749475.14	14451508.67	39°47'33.9539"N	80°36'42.2927"W	1161.79	285.262	0.72
4023.00	39.750	287.590	3667.84	-899.20	324.04	-1177.18	1749418.80	14451526.88	39°47'34.1364"N	80°36'43.0138"W	1220.97	285.391	0.86
4113.00	39.040	287.530	3737.39	-942.69	341.28	-1231.64	1749364.36	14451544.11	39°47'34.3090"N	80°36'43.7105"W	1278.05	285.488	0.79
4202.00	38.170	287.810	3806.94	-985.05	358.13	-1284.55	1749311.47	14451560.96	39°47'34.4779"N	80°36'44.3874"W	1333.54	285.578	1.00
4294.00	39.140	289.470	3878.79	-1029.51	376.51	-1339.90	1749257.05	14451579.33	39°47'34.6618"N	80°36'45.0839"W	1390.92	285.705	1.54
4384.00	39.600	290.890	3948.37	-1074.63	396.20	-1392.58	1749203.49	14451599.01	39°47'34.8587"N	80°36'45.7692"W	1447.84	285.882	1.12
4476.00	40.590	290.980	4018.74	-1121.94	417.37	-1447.92	1749148.17	14451620.18	39°47'35.0703"N	80°36'46.4770"W	1506.87	286.080	1.08
4570.00	39.640	289.440	4090.63	-1169.83	438.30	-1504.75	1749091.36	14451641.10	39°47'35.2796"N	80°36'47.2039"W	1567.28	286.240	1.46
4660.00	39.670	287.920	4159.92	-1214.28	456.70	-1559.16	1749036.98	14451659.49	39°47'35.4637"N	80°36'47.8999"W	1624.67	286.326	1.08
4751.00	38.960	287.580	4230.33	-1258.31	474.28	-1614.07	1748982.09	14451677.06	39°47'35.6397"N	80°36'48.6023"W	1682.30	286.375	0.82
4843.00	38.370	288.800	4302.16	-1302.49	492.21	-1668.67	1748927.50	14451694.99	39°47'35.8194"N	80°36'49.3009"W	1739.75	286.435	1.05
4933.00	38.550	289.200	4372.64	-1346.01	510.44	-1721.60	1748874.60	14451713.21	39°47'36.0017"N	80°36'49.9779"W	1795.67	286.515	0.34
5023.00	39.310	288.680	4442.65	-1389.95	528.79	-1775.09	1748821.13	14451731.55	39°47'36.1854"N	80°36'50.6622"W	1852.18	286.589	0.92
5116.00	39.100	286.250	4514.72	-1434.65	546.44	-1831.15	1748765.08	14451749.19	39°47'36.3621"N	80°36'51.3795"W	1910.95	286.616	1.67
5206.00	39.280	287.140	4584.47	-1477.40	562.77	-1885.63	1748710.63	14451765.52	39°47'36.5259"N	80°36'52.0764"W	1967.82	286.618	0.66
5298.00	38.960	287.890	4655.85	-1521.57	580.24	-1940.98	1748655.30	14451782.98	39°47'36.7009"N	80°36'52.7846"W	2025.85	286.644	0.62



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Slot	606H		

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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]
5392.00	38.980	288.100	4728.93	-1566.88	598.50	-1997.21	1748599.10	14451801.24	39°47'36.8838"N	80°36'53.5039"W	2084.96	286.682	0.14
5483.00	39.850	288.000	4799.24	-1611.20	616.41	-2052.14	1748544.18	14451819.13	39°47'37.0630"N	80°36'54.2067"W	2142.72	286.719	0.96
5575.00	40.090	288.420	4869.74	-1656.64	634.88	-2108.28	1748488.06	14451837.60	39°47'37.2479"N	80°36'54.9249"W	2201.80	286.759	0.39
5667.00	39.530	289.700	4940.42	-1702.47	654.11	-2163.95	1748432.41	14451856.82	39°47'37.4403"N	80°36'55.6370"W	2260.65	286.819	1.08
5758.00	39.080	291.200	5010.83	-1748.19	674.24	-2217.96	1748378.43	14451876.95	39°47'37.6416"N	80°36'56.3278"W	2318.18	286.909	1.16
5848.00	37.560	289.760	5081.44	-1792.48	693.78	-2270.23	1748326.18	14451896.47	39°47'37.8369"N	80°36'56.9964"W	2373.87	286.993	1.96
5940.00	39.220	289.480	5153.55	-1837.29	712.96	-2324.04	1748272.38	14451915.65	39°47'38.0287"N	80°36'57.6847"W	2430.94	287.055	1.81
6033.00	39.310	288.250	5225.55	-1882.97	731.99	-2379.74	1748216.71	14451934.67	39°47'38.2192"N	80°36'58.3972"W	2489.77	287.097	0.84
6124.00	38.330	288.230	5296.45	-1926.85	749.84	-2433.92	1748162.55	14451952.52	39°47'38.3979"N	80°36'59.0903"W	2546.81	287.123	1.08
6215.00	38.120	288.200	5367.94	-1970.14	767.44	-2487.40	1748109.09	14451970.11	39°47'38.5741"N	80°36'59.7746"W	2603.10	287.147	0.23
6306.00	38.370	287.860	5439.41	-2013.34	784.88	-2540.97	1748055.54	14451987.54	39°47'38.7487"N	80°37'0.4599"W	2659.43	287.165	0.36
6396.00	40.280	288.820	5509.03	-2057.27	802.83	-2595.10	1748001.43	14452005.49	39°47'38.9284"N	80°37'1.1523"W	2716.45	287.190	2.23
6489.00	40.510	289.340	5579.86	-2104.19	822.53	-2652.06	1747944.50	14452025.18	39°47'39.1255"N	80°37'1.8810"W	2776.68	287.231	0.44
6581.00	41.060	289.500	5649.51	-2151.20	842.52	-2708.73	1747887.84	14452045.15	39°47'39.3254"N	80°37'2.6060"W	2836.74	287.278	0.61
6673.00	40.270	288.930	5719.30	-2197.95	862.25	-2765.34	1747831.26	14452064.88	39°47'39.5228"N	80°37'3.3301"W	2896.65	287.318	0.95
6765.00	40.760	289.930	5789.24	-2244.71	882.13	-2821.70	1747774.92	14452084.76	39°47'39.7217"N	80°37'4.0511"W	2956.38	287.360	0.88
6855.00	39.980	289.070	5857.81	-2290.36	901.59	-2876.65	1747719.99	14452104.21	39°47'39.9163"N	80°37'4.7540"W	3014.63	287.402	1.06
6945.00	39.650	288.190	5926.94	-2334.93	920.00	-2931.26	1747665.40	14452122.61	39°47'40.1006"N	80°37'5.4525"W	3072.25	287.425	0.73
7037.00	38.750	286.960	5998.24	-2379.23	937.57	-2986.69	1747610.00	14452140.17	39°47'40.2765"N	80°37'6.1617"W	3130.39	287.428	1.29
7123.00	38.400	286.960	6065.47	-2419.70	953.21	-3037.98	1747558.73	14452155.81	39°47'40.4332"N	80°37'6.8179"W	3184.01	287.420	0.41
7217.00	37.600	285.180	6139.55	-2462.78	969.24	-3093.58	1747503.14	14452171.82	39°47'40.5939"N	80°37'7.5294"W	3241.86	287.396	1.44
7308.00	38.480	286.960	6211.22	-2504.53	984.76	-3147.46	1747449.29	14452187.35	39°47'40.7497"N	80°37'8.2188"W	3297.92	287.374	1.55
7398.00	38.160	285.830	6281.83	-2546.28	1000.52	-3200.99	1747395.78	14452203.09	39°47'40.9076"N	80°37'8.9037"W	3353.71	287.357	0.86
7489.00	38.440	275.720	6353.31	-2584.49	1011.02	-3256.24	1747340.55	14452213.59	39°47'41.0137"N	80°37'9.6110"W	3409.58	287.249	6.89
7578.00	38.550	264.260	6423.06	-2613.75	1011.00	-3311.43	1747285.38	14452213.57	39°47'41.0158"N	80°37'10.3180"W	3462.33	286.978	8.01
7670.00	38.250	256.230	6495.21	-2635.40	1001.35	-3367.65	1747229.18	14452203.92	39°47'40.9228"N	80°37'11.0388"W	3513.37	286.559	5.43
7762.00	39.740	247.400	6566.76	-2649.16	983.25	-3422.51	1747174.35	14452185.84	39°47'40.7463"N	80°37'11.7425"W	3560.95	286.029	6.25
7853.00	41.520	237.510	6635.89	-2653.70	955.84	-3474.86	1747122.01	14452158.44	39°47'40.4776"N	80°37'12.4148"W	3603.93	285.380	7.34
7944.00	44.130	227.670	6702.71	-2647.79	918.26	-3523.79	1747073.11	14452120.87	39°47'40.1082"N	80°37'13.0436"W	3641.47	284.606	7.88
8035.00	47.810	220.510	6765.99	-2632.01	871.24	-3569.15	1747027.76	14452073.87	39°47'39.6455"N	80°37'13.6273"W	3673.95	283.718	6.95



DEC 15 2022

WV Department of  
Environmental Protection

# Actual Wellpath Report

Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Charles Jamison MSH 606H
Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

## WELLPATH DATA (222 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]
8126.00	51.540	214.720	6824.89	-2607.82	816.28	-3611.38	1746985.55	14452018.93	39°47'39.1041"N	80°37'14.1713"W	3702.48	282.737	6.35
8218.00	54.700	208.750	6880.13	-2575.26	753.71	-3649.98	1746946.96	14451956.38	39°47'38.4873"N	80°37'14.6693"W	3726.99	281.667	6.22
8309.00	58.310	200.120	6930.41	-2533.32	684.69	-3681.22	1746915.74	14451887.39	39°47'37.8065"N	80°37'15.0731"W	3744.35	280.536	8.84
8399.00	61.200	191.760	6975.80	-2481.29	610.01	-3702.46	1746894.51	14451812.74	39°47'37.0694"N	80°37'15.3493"W	3752.37	279.356	8.64
8489.00	65.910	183.060	7015.93	-2419.08	530.22	-3712.71	1746884.26	14451732.98	39°47'36.2813"N	80°37'15.4850"W	3750.38	278.128	10.11
8579.00	69.600	174.590	7050.05	-2347.63	447.04	-3710.92	1746886.05	14451649.84	39°47'35.4592"N	80°37'15.4666"W	3737.75	276.869	9.62
8672.00	74.130	167.960	7079.02	-2266.52	359.78	-3697.46	1746899.50	14451562.60	39°47'34.5963"N	80°37'15.2989"W	3714.92	275.558	8.34
8763.00	77.870	160.680	7101.05	-2181.86	274.86	-3673.58	1746923.38	14451477.72	39°47'33.7560"N	80°37'14.9975"W	3683.84	274.279	8.78
8853.00	82.340	154.520	7116.53	-2094.52	192.96	-3639.79	1746957.15	14451395.85	39°47'32.9453"N	80°37'14.5691"W	3644.90	273.035	8.37
8946.00	85.900	151.040	7126.06	-2002.36	110.73	-3597.48	1746999.45	14451313.65	39°47'32.1308"N	80°37'14.0315"W	3599.18	271.763	5.34
9039.00	89.290	148.080	7129.96	-1909.50	30.64	-3550.41	1747046.49	14451233.59	39°47'31.3373"N	80°37'13.4329"W	3550.54	270.494	4.84
9131.00	88.920	148.260	7131.40	-1817.52	-47.52	-3501.90	1747094.99	14451155.47	39°47'30.5629"N	80°37'12.8156"W	3502.22	269.223	0.45
9223.00	89.170	148.510	7132.93	-1725.53	-125.85	-3453.67	1747143.19	14451077.16	39°47'29.7868"N	80°37'12.2022"W	3455.97	267.913	0.38
9316.00	88.030	148.070	7135.20	-1632.56	-204.94	-3404.81	1747192.04	14450998.10	39°47'29.0031"N	80°37'11.5804"W	3410.97	266.555	1.31
9409.00	88.060	148.270	7138.38	-1539.62	-283.91	-3355.79	1747241.04	14450919.16	39°47'28.2206"N	80°37'10.9568"W	3367.78	265.164	0.22
9500.00	88.210	148.720	7141.34	-1448.67	-361.46	-3308.26	1747288.55	14450841.65	39°47'27.4523"N	80°37'10.3521"W	3327.95	263.765	0.52
9591.00	87.910	147.890	7144.42	-1357.72	-438.84	-3260.48	1747336.32	14450764.30	39°47'26.6855"N	80°37'9.7442"W	3289.88	262.334	0.97
9684.00	89.290	147.840	7146.69	-1264.75	-517.57	-3211.02	1747385.75	14450685.60	39°47'25.9054"N	80°37'9.1150"W	3252.47	260.844	1.48
9775.00	89.170	148.040	7147.91	-1173.76	-594.68	-3162.72	1747434.03	14450608.52	39°47'25.1413"N	80°37'8.5004"W	3218.15	259.351	0.26
9866.00	89.750	147.680	7148.77	-1082.77	-671.73	-3114.32	1747482.42	14450531.49	39°47'24.3778"N	80°37'7.8845"W	3185.94	257.828	0.75
9956.00	90.030	147.850	7148.95	-992.77	-747.86	-3066.31	1747530.41	14450455.40	39°47'23.6234"N	80°37'7.2737"W	3156.19	256.293	0.36
10049.00	89.940	147.840	7148.97	-899.77	-826.59	-3016.82	1747579.88	14450376.69	39°47'22.8432"N	80°37'6.6439"W	3128.01	254.677	0.10
10142.00	89.630	148.330	7149.32	-806.77	-905.54	-2967.65	1747629.03	14450297.78	39°47'22.0610"N	80°37'6.0184"W	3102.73	253.031	0.62
10234.00	89.540	147.840	7149.98	-714.77	-983.63	-2919.01	1747677.65	14450219.72	39°47'21.2872"N	80°37'5.3997"W	3080.29	251.378	0.54
10324.00	89.600	148.040	7150.66	-624.77	-1059.90	-2871.24	1747725.40	14450143.48	39°47'20.5315"N	80°37'4.7919"W	3060.62	249.739	0.23
10416.00	89.690	148.020	7151.23	-532.78	-1137.94	-2822.53	1747774.09	14450065.47	39°47'19.7581"N	80°37'4.1721"W	3043.29	248.043	0.10
10509.00	89.480	147.810	7151.90	-439.78	-1216.74	-2773.13	1747823.47	14449986.70	39°47'18.9774"N	80°37'3.5437"W	3028.32	246.310	0.32
10602.00	89.540	148.300	7152.70	-346.78	-1295.65	-2723.93	1747872.65	14449907.82	39°47'18.1954"N	80°37'2.9177"W	3016.37	244.562	0.53
10693.00	89.380	147.900	7153.56	-255.79	-1372.90	-2675.84	1747920.72	14449830.60	39°47'17.4299"N	80°37'2.3059"W	3007.49	242.839	0.47
10786.00	89.380	147.470	7154.56	-162.79	-1451.49	-2626.13	1747970.41	14449752.04	39°47'16.6511"N	80°37'1.6734"W	3000.57	241.070	0.46



# Actual Wellpath Report

Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Charles Jamison MSH 606H
Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

WELLPATH DATA (222 stations)													
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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]
10879.00	89.350	148.110	7155.59	-69.80	-1530.17	-2576.56	1748019.96	14449673.39	39°47'15.8715"N	80°37'1.0427"W	2996.68	239.295	0.69
10972.00	88.710	146.300	7157.17	23.17	-1608.34	-2526.20	1748070.31	14449595.25	39°47'15.0969"N	80°37'0.4019"W	2994.74	237.517	2.06
11067.00	88.980	148.160	7159.08	118.14	-1688.20	-2474.79	1748121.69	14449515.42	39°47'14.3055"N	80°36'59.7477"W	2995.77	235.700	1.98
11161.00	89.110	147.890	7160.65	212.13	-1767.92	-2425.02	1748171.44	14449435.73	39°47'13.5155"N	80°36'59.1146"W	3001.05	233.907	0.32
11256.00	88.980	147.560	7162.23	307.11	-1848.24	-2374.30	1748222.15	14449355.45	39°47'12.7196"N	80°36'58.4692"W	3008.87	232.102	0.37
11350.00	89.110	147.600	7163.80	401.10	-1927.57	-2323.91	1748272.52	14449276.14	39°47'11.9334"N	80°36'57.8281"W	3019.29	230.326	0.14
11445.00	89.230	147.570	7165.18	496.09	-2007.76	-2272.99	1748323.41	14449195.98	39°47'11.1388"N	80°36'57.1803"W	3032.76	228.545	0.13
11537.00	89.020	147.850	7166.58	588.08	-2085.53	-2223.85	1748372.54	14449118.25	39°47'10.3682"N	80°36'56.5551"W	3048.76	226.839	0.38
11632.00	89.050	147.560	7168.18	683.06	-2165.82	-2173.10	1748423.27	14449037.99	39°47'9.5725"N	80°36'55.9094"W	3068.09	225.096	0.31
11727.00	88.800	147.160	7169.96	778.04	-2245.80	-2121.87	1748474.48	14448958.04	39°47'8.7799"N	80°36'55.2576"W	3089.66	223.375	0.50
11821.00	89.880	149.060	7171.05	872.03	-2325.60	-2072.22	1748524.11	14448878.26	39°47'7.9892"N	80°36'54.6259"W	3114.89	221.703	2.32
11915.00	88.580	147.140	7172.31	966.01	-2405.39	-2022.56	1748573.76	14448798.50	39°47'7.1985"N	80°36'53.9941"W	3142.72	220.059	2.47
12010.00	89.820	147.730	7173.64	1061.00	-2485.45	-1971.43	1748624.86	14448718.48	39°47'6.4052"N	80°36'53.3436"W	3172.38	218.421	1.45
12104.00	89.660	147.550	7174.06	1154.99	-2564.85	-1921.12	1748675.16	14448639.11	39°47'5.6184"N	80°36'52.7035"W	3204.55	216.834	0.26
12198.00	89.720	147.500	7174.57	1248.99	-2644.15	-1870.65	1748725.61	14448559.84	39°47'4.8325"N	80°36'52.0614"W	3238.96	215.278	0.08
12293.00	89.820	147.730	7174.95	1343.99	-2724.37	-1819.76	1748776.47	14448479.65	39°47'4.0376"N	80°36'51.4141"W	3276.24	213.741	0.26
12387.00	89.600	147.770	7175.43	1437.98	-2803.87	-1769.60	1748826.61	14448400.18	39°47'3.2498"N	80°36'50.7760"W	3315.60	212.257	0.24
12482.00	89.850	148.000	7175.88	1532.98	-2884.33	-1719.10	1748877.09	14448319.75	39°47'2.4524"N	80°36'50.1335"W	3357.78	210.796	0.36
12577.00	89.630	147.750	7176.32	1627.98	-2964.79	-1668.58	1748927.59	14448239.33	39°47'1.6552"N	80°36'49.4908"W	3402.08	209.371	0.35
12671.00	90.120	147.810	7176.52	1721.98	-3044.31	-1618.47	1748977.69	14448159.84	39°47'0.8672"N	80°36'48.8533"W	3447.79	207.997	0.53
12766.00	89.450	147.200	7176.88	1816.98	-3124.44	-1567.43	1749028.70	14448079.74	39°47'0.0731"N	80°36'48.2040"W	3495.56	206.641	0.95
12860.00	90.310	147.020	7177.07	1910.97	-3203.37	-1516.39	1749079.73	14448000.84	39°46'59.2909"N	80°36'47.5545"W	3544.15	205.332	0.93
12955.00	90.740	147.730	7176.20	2005.96	-3283.38	-1465.17	1749130.92	14447920.86	39°46'58.4980"N	80°36'46.9029"W	3595.45	204.048	0.87
13049.00	90.180	147.660	7175.45	2099.95	-3362.82	-1414.94	1749181.14	14447841.45	39°46'57.7108"N	80°36'46.2639"W	3648.37	202.819	0.60
13144.00	90.120	147.680	7175.20	2194.95	-3443.10	-1364.13	1749231.93	14447761.21	39°46'56.9153"N	80°36'45.6176"W	3703.48	201.613	0.07
13238.00	90.280	147.790	7174.87	2288.95	-3522.58	-1313.95	1749282.09	14447681.75	39°46'56.1276"N	80°36'44.9792"W	3759.66	200.456	0.21
13332.00	90.460	147.490	7174.26	2382.94	-3601.98	-1263.64	1749332.38	14447602.38	39°46'55.3408"N	80°36'44.3392"W	3817.20	199.332	0.37
13427.00	90.280	147.230	7173.65	2477.94	-3681.98	-1212.40	1749383.60	14447522.42	39°46'54.5480"N	80°36'43.6873"W	3876.45	198.226	0.33
13521.00	90.520	147.500	7173.00	2571.93	-3761.13	-1161.71	1749434.27	14447443.29	39°46'53.7636"N	80°36'43.0424"W	3936.46	197.164	0.38
13616.00	90.340	147.930	7172.28	2666.93	-3841.44	-1110.97	1749484.99	14447363.01	39°46'52.9677"N	80°36'42.3969"W	3998.87	196.130	0.49

DEC 15 2022



# Actual Wellpath Report

Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Charles Jamison MSH 606H
Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

WELLPATH DATA (222 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]
13711.00	90.740	147.780	7171.39	2761.92	-3921.88	-1060.43	1749535.51	14447282.61	39°46'52.1707"N	80°36'41.7540"W	4062.71	195.130	0.45
13805.00	90.710	147.860	7170.20	2855.91	-4001.43	-1010.37	1749585.55	14447203.09	39°46'51.3823"N	80°36'41.1172"W	4127.02	194.171	0.09
13900.00	90.490	147.740	7169.20	2950.91	-4081.81	-959.75	1749636.15	14447122.74	39°46'50.5857"N	80°36'40.4733"W	4193.13	193.231	0.26
13994.00	90.310	147.750	7168.55	3044.90	-4161.31	-909.58	1749686.30	14447043.27	39°46'49.7980"N	80°36'39.8352"W	4259.56	192.330	0.19
14089.00	90.550	147.540	7167.83	3139.90	-4241.56	-858.74	1749737.12	14446963.06	39°46'49.0028"N	80°36'39.1885"W	4327.61	191.445	0.34
14183.00	90.280	147.170	7167.15	3233.89	-4320.70	-808.04	1749787.80	14446883.94	39°46'48.2184"N	80°36'38.5434"W	4395.61	190.593	0.49
14278.00	90.280	147.560	7166.69	3328.89	-4400.70	-756.81	1749839.01	14446803.97	39°46'47.4256"N	80°36'37.8917"W	4465.31	189.758	0.41
14372.00	90.980	147.980	7165.65	3422.88	-4480.22	-706.68	1749889.12	14446724.49	39°46'46.6376"N	80°36'37.2541"W	4535.61	188.964	0.87
14466.00	90.550	147.490	7164.40	3516.87	-4559.69	-656.50	1749939.28	14446645.04	39°46'45.8500"N	80°36'36.6158"W	4606.71	188.193	0.69
14561.00	90.620	147.390	7163.43	3611.86	-4639.76	-605.38	1749990.39	14446565.01	39°46'45.0566"N	80°36'35.9655"W	4679.08	187.434	0.13
14655.00	90.770	147.230	7162.29	3705.85	-4718.86	-554.61	1750041.13	14446485.94	39°46'44.2726"N	80°36'35.3197"W	4751.34	186.703	0.23
14750.00	90.250	147.230	7161.44	3800.84	-4798.74	-503.19	1750092.53	14446406.09	39°46'43.4810"N	80°36'34.6655"W	4825.05	185.986	0.55
14845.00	90.680	147.190	7160.67	3895.82	-4878.60	-451.75	1750143.96	14446326.26	39°46'42.6896"N	80°36'34.0110"W	4899.47	185.290	0.45
14939.00	90.680	147.350	7159.56	3989.81	-4957.67	-400.93	1750194.76	14446247.22	39°46'41.9060"N	80°36'33.3645"W	4973.85	184.623	0.17
15033.00	91.020	147.940	7158.16	4083.80	-5037.07	-350.63	1750245.04	14446167.85	39°46'41.1192"N	80°36'32.7247"W	5049.26	183.982	0.72
15128.00	90.580	147.240	7156.84	4178.79	-5117.26	-299.71	1750295.93	14446087.69	39°46'40.3244"N	80°36'32.0771"W	5126.03	183.352	0.87
15223.00	90.740	147.320	7155.74	4273.77	-5197.18	-248.37	1750347.26	14446007.80	39°46'39.5324"N	80°36'31.4239"W	5203.11	182.736	0.19
15318.00	90.860	147.570	7154.42	4368.76	-5277.25	-197.25	1750398.35	14445927.77	39°46'38.7389"N	80°36'30.7737"W	5280.93	182.141	0.29
15412.00	90.860	149.050	7153.00	4462.75	-5357.22	-147.88	1750447.71	14445847.83	39°46'37.9465"N	80°36'30.1458"W	5359.26	181.581	1.57
15506.00	90.890	149.150	7151.57	4556.72	-5437.87	-99.61	1750495.95	14445767.21	39°46'37.1474"N	80°36'29.5322"W	5438.78	181.049	0.11
15600.00	90.920	148.940	7150.08	4650.69	-5518.47	-51.27	1750544.28	14445686.64	39°46'36.3487"N	80°36'28.9175"W	5518.71	180.532	0.23
15694.00	90.800	149.030	7148.67	4744.66	-5599.02	-2.84	1750592.69	14445606.12	39°46'35.5506"N	80°36'28.3017"W	5599.02	180.029	0.16
15789.00	90.580	148.570	7147.53	4839.64	-5680.28	46.37	1750641.88	14445524.90	39°46'34.7454"N	80°36'27.6760"W	5680.46	179.532	0.54
15883.00	91.050	149.510	7146.19	4933.62	-5760.87	94.72	1750690.21	14445444.33	39°46'33.9468"N	80°36'27.0613"W	5761.65	179.058	1.12
15978.00	90.920	149.140	7144.56	5028.58	-5842.57	143.18	1750738.65	14445362.67	39°46'33.1374"N	80°36'26.4452"W	5844.32	178.596	0.41
16072.00	90.460	148.400	7143.43	5122.56	-5922.94	191.91	1750787.37	14445282.32	39°46'32.3410"N	80°36'25.8256"W	5926.05	178.144	0.93
16166.00	90.740	148.580	7142.44	5216.55	-6003.98	241.04	1750836.47	14445202.22	39°46'31.5469"N	80°36'25.2009"W	6007.91	177.701	0.35
16261.00	90.950	149.220	7141.04	5311.53	-6084.41	290.11	1750885.52	14445120.92	39°46'30.7409"N	80°36'24.5770"W	6091.32	177.270	0.71
16356.00	91.320	148.800	7139.16	5406.49	-6165.83	339.01	1750934.41	14445039.52	39°46'29.9341"N	80°36'23.9553"W	6175.15	176.853	0.59
16450.00	90.860	148.820	7137.37	5500.45	-6246.23	387.68	1750983.06	14444959.16	39°46'29.1375"N	80°36'23.3364"W	6258.25	176.448	0.49





# Actual Wellpath Report

Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Charles Jamison MSH 606H
Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

WELLPATH DATA (222 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]
16544.00	91.290	148.550	7135.61	5594.44	-6326.52	436.53	1751031.89	14444878.90	39°46'28.3419"N	80°36'22.7153"W	6341.57	176.053	0.54
16638.00	91.380	148.800	7133.42	5688.41	-6406.80	485.38	1751080.72	14444798.65	39°46'27.5464"N	80°36'22.0941"W	6425.16	175.667	0.28
16733.00	90.990	147.630	7131.45	5783.38	-6487.53	535.41	1751130.73	14444717.95	39°46'26.7464"N	80°36'21.4580"W	6509.59	175.282	1.30
16827.00	90.990	148.370	7129.83	5877.37	-6567.24	585.22	1751180.52	14444638.28	39°46'25.9565"N	80°36'20.8246"W	6593.26	174.908	0.79
16922.00	91.050	148.550	7128.14	5972.35	-6648.19	634.90	1751230.18	14444557.35	39°46'25.1543"N	80°36'20.1928"W	6678.44	174.545	0.20
17016.00	91.080	148.590	7126.39	6066.33	-6728.39	683.91	1751279.17	14444477.19	39°46'24.3597"N	80°36'19.5697"W	6763.06	174.196	0.05
17111.00	90.860	148.900	7124.78	6161.30	-6809.59	733.20	1751328.44	14444396.02	39°46'23.5551"N	80°36'18.9431"W	6848.94	173.855	0.40
17205.00	91.110	148.820	7123.17	6255.28	-6890.03	781.80	1751377.02	14444315.61	39°46'22.7579"N	80°36'18.3251"W	6934.24	173.526	0.28
17300.00	90.180	148.970	7122.10	6350.26	-6971.37	830.87	1751426.08	14444234.31	39°46'21.9520"N	80°36'17.7012"W	7020.70	173.203	0.99
17394.00	89.260	148.520	7122.56	6444.25	-7051.72	879.64	1751474.83	14444153.98	39°46'21.1558"N	80°36'17.0812"W	7106.37	172.890	1.09
17488.00	89.940	147.820	7123.21	6538.24	-7131.58	929.22	1751524.38	14444074.15	39°46'20.3644"N	80°36'16.4508"W	7191.86	172.576	1.04
17583.00	89.420	147.800	7123.74	6633.24	-7211.98	979.83	1751574.97	14443993.79	39°46'19.5676"N	80°36'15.8072"W	7278.23	172.263	0.55
17677.00	89.720	147.720	7124.45	6727.24	-7291.48	1029.97	1751625.10	14443914.31	39°46'18.7797"N	80°36'15.1695"W	7363.87	171.960	0.33
17772.00	89.260	147.120	7125.30	6822.23	-7371.53	1081.12	1751676.23	14443834.30	39°46'17.9864"N	80°36'14.5189"W	7450.39	171.656	0.80
17866.00	89.850	147.610	7126.03	6916.22	-7450.69	1131.81	1751726.90	14443755.17	39°46'17.2019"N	80°36'13.8742"W	7536.16	171.362	0.82
17960.00	90.150	147.570	7126.03	7010.22	-7530.04	1182.19	1751777.26	14443675.84	39°46'16.4155"N	80°36'13.2334"W	7622.28	171.078	0.32
18054.00	90.090	147.140	7125.83	7104.21	-7609.19	1232.90	1751827.95	14443596.73	39°46'15.6310"N	80°36'12.5885"W	7708.43	170.796	0.46
18148.00	90.220	147.430	7125.57	7198.21	-7688.28	1283.70	1751878.73	14443517.67	39°46'14.8472"N	80°36'11.9424"W	7794.71	170.521	0.34
18243.00	90.120	147.680	7125.29	7293.20	-7768.45	1334.67	1751929.68	14443437.53	39°46'14.0527"N	80°36'11.2942"W	7882.27	170.251	0.28
18337.00	89.970	147.810	7125.22	7387.20	-7847.95	1384.84	1751979.83	14443358.06	39°46'13.2649"N	80°36'10.6563"W	7969.19	169.993	0.21
18431.00	90.150	147.750	7125.12	7481.20	-7927.47	1434.96	1752029.93	14443278.57	39°46'12.4768"N	80°36'10.0190"W	8056.30	169.740	0.20
18526.00	89.880	147.900	7125.10	7576.20	-8007.88	1485.54	1752080.49	14443198.19	39°46'11.6799"N	80°36'9.3757"W	8144.51	169.491	0.33
18620.00	89.970	148.000	7125.22	7670.20	-8087.55	1535.43	1752130.36	14443118.55	39°46'10.8903"N	80°36'8.7414"W	8232.02	169.250	0.14
18715.00	89.880	147.700	7125.34	7765.20	-8167.99	1585.98	1752180.89	14443038.15	39°46'10.0932"N	80°36'8.0985"W	8320.54	169.012	0.33
18811.00	89.510	147.630	7125.85	7861.20	-8249.10	1637.32	1752232.22	14442957.07	39°46'9.2894"N	80°36'7.4456"W	8410.02	168.774	0.39
18905.00	89.660	147.370	7126.53	7955.19	-8328.38	1687.83	1752282.70	14442877.82	39°46'8.5037"N	80°36'6.8033"W	8497.68	168.544	0.32
19000.00	89.480	147.660	7127.25	8050.19	-8408.51	1738.85	1752333.70	14442797.72	39°46'7.7095"N	80°36'6.1545"W	8586.42	168.316	0.36
19094.00	89.820	147.650	7127.82	8144.18	-8487.92	1789.14	1752383.97	14442718.34	39°46'6.9225"N	80°36'5.5149"W	8674.44	168.097	0.36
19189.00	89.820	147.910	7128.12	8239.18	-8568.29	1839.79	1752434.60	14442638.00	39°46'6.1260"N	80°36'4.8709"W	8763.59	167.881	0.27
19283.00	89.780	147.430	7128.45	8333.18	-8649.72	1890.06	1752484.86	14442558.60	39°46'5.3388"N	80°36'4.2316"W	8851.86	167.671	0.51

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# Actual Wellpath Report

Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Charles Jamison MSH 606H
Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

WELLPATH DATA (222 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]
19378.00	89.200	146.740	7129.29	8428.17	-8727.47	1941.68	1752536.46	14442478.89	39°46'4.5485"N	80°36'3.5751"W	8940.85	167.457	0.95
19473.00	88.800	148.230	7130.95	8523.14	-8807.56	1992.74	1752587.49	14442398.82	39°46'3.7547"N	80°36'2.9259"W	9030.18	167.251	1.62
19567.00	89.910	147.870	7132.01	8617.14	-8887.31	2042.48	1752637.21	14442319.10	39°46'2.9643"N	80°36'2.2934"W	9119.00	167.057	1.24
19661.00	90.090	147.710	7132.01	8711.14	-8966.85	2092.58	1752687.30	14442239.60	39°46'2.1761"N	80°36'1.6563"W	9207.78	166.864	0.26
19756.00	89.940	147.110	7131.99	8806.13	-9046.89	2143.75	1752738.44	14442159.59	39°46'1.3828"N	80°36'1.0056"W	9297.41	166.669	0.65
19851.00	89.940	149.110	7132.08	8901.13	-9127.55	2193.93	1752788.61	14442078.96	39°46'0.5835"N	80°36'0.3676"W	9387.52	166.485	2.11
19945.00	89.540	148.940	7132.51	8995.11	-9208.14	2242.31	1752836.97	14441998.40	39°45'59.7849"N	80°35'59.7527"W	9477.23	166.314	0.46
20039.00	89.720	148.920	7133.12	9089.09	-9288.65	2290.82	1752885.46	14441917.92	39°45'58.9871"N	80°35'59.1360"W	9566.97	166.146	0.19
20134.00	89.780	148.970	7133.53	9184.08	-9370.04	2339.83	1752934.45	14441836.57	39°45'58.1806"N	80°35'58.5131"W	9657.76	165.979	0.08
20229.00	89.630	148.720	7134.02	9279.07	-9451.33	2388.98	1752983.58	14441755.30	39°45'57.3750"N	80°35'57.8884"W	9748.59	165.815	0.31
20324.00	90.220	148.500	7134.15	9374.06	-9532.43	2438.46	1753033.04	14441674.24	39°45'56.5714"N	80°35'57.2594"W	9839.37	165.651	0.66
20349.00‡	90.220	148.500	7134.05	9399.06	-9553.74	2451.52	1753046.10	14441652.93	39°45'56.3602"N	80°35'57.0933"W	9863.27	165.608	0.00

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Charles Jamison MSH 606H BHL Rev 5	7104.00	-9553.52	2453.47	1753048.04	14441653.15	39°45'56.3623"N	80°35'57.0684"W	point
Charles Jamison MSH 606H LP Rev 5	7118.00	114.76	-3596.52	1747000.41	14451317.68	39°47'32.1706"N	80°37'14.0190"W	point

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# Actual Wellpath Report

Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SWN PRODUCTION COMPANY, LLC	Well	Charles Jamison MSH 606H
Field	Marshall	API	47051024360000
Facility	Charles Jamison MSH Pad	Wellbore	Charles Jamison MSH 606H AWB
Slot	606H		

WELLPATH COMPOSITION - Ref Wellbore: Charles Jamison MSH 606H AWB    Ref Wellpath: Charles Jamison MSH 606H awp 100' - 20324' Proj: 20349'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	937.00	Gyrodatta 2015 - GC+WIR+DPIPE	1 Imported Gyro 100' - 937'	Charles Jamison MSH 606H AWB	7/2/2022
937.00	2737.00	OWSG MWD rev2 + HRGM	2 Tally MWD 1053' - 2737'	Charles Jamison MSH 606H AWB	7/2/2022
2737.00	7123.00	OWSG MWD rev2 + HRGM	3 Tally MWD 2828' - 7123'	Charles Jamison MSH 606H AWB	7/5/2022
7123.00	20349.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	4 BH MWD 7217' - 20349'	Charles Jamison MSH 606H AWB	7/5/2022

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