

# SOUTHWESTERN ENERGY

Location: Ohio County, WV  
 Field: Ohio  
 Facility: Brian Dyko OHI Pad

Slot: Slot 5H  
 Well: Brian Dyko OHI 5H ST01  
 Wellbore: Brian Dyko OHI 5H ST01 PWP

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Brian Dyko OHI Pad	1750181.170	14537893.350	40°01'47.941"N	80°36'28.383"W
Slot	Local E (ft)	Local N (ft)	Local E (ft)	Local N (ft)
Slot 5H	24.93	7.23	1750188.400	14537918.270
SDC 42 (KB) to Ground level (At Slot Slot 5H)	26ft			
Mean Sea Level to Ground level (At Slot Slot 5H)	-1222.4ft			
SDC 42 (KB) to Mean Sea Level	1248.4ft			

API: 47-069-00265-0100  
 BH Job#: 9179947  
 Rig: SDC 42  
 Duration: 05/30/2018 - 06/04/2018

Fig reference wellbore is Brian Dyko OHI 5H ST01 PWP Rev: A0  
 True vertical depths are referenced to SDC 42 (KB)  
 Measured depths are referenced to SDC 42 (KB)  
 SDC 42 (KB) to Mean Sea Level: 1248.4 feet  
 Mean Sea Level to Ground level (At Slot Slot 5H): -1222.4 feet  
 Coordinates are in feet referenced to BSL

Grid System: NAD83 / UTM Zone 17 North, US feet  
 Wellbore was transformed from a different geoid datum  
 North Reference: Grid north  
 Scale: True distance  
 Depths are in feet  
 Created By: Eromuzic on 2018-05-25  
 Database: WA\_Persephona

Comments



Location Information



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 Office of Oil and Gas  
 MAY 10 2019  
 WV Department of Environmental Protection

05/31/2019



### REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot 5H
Area	Ohio County, WV	Well	Brian Dytko OHI 5H ST01
Field	Ohio	Wellbore	Brian Dytko OHI 5H ST01 AWB
Facility	Brian Dytko OHI Pad	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD

### REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Thomsuzc
Scale	0.999614	Report Generated	6/25/2018 at 8:42:58 AM
Convergence at slot	0.26° East	Database/Source file	WA_Pennsylvania/Brian_Dytko_OHI_5H_ST01_AWP_Proj_15405_MD.xml

### WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	24.93	7.23	1750188.40	14537918.27	40°01'48.187"N	80°36'28.289"W
Facility Reference Pt			1750181.17	14537893.35	40°01'47.941"N	80°36'28.383"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.478"W

### WELLPATH DATUM

Calculation method	Minimum curvature	SDC 42 (KB) to Facility Vertical Datum	1248.40ft
Horizontal Reference Pt	Slot	SDC 42 (KB) to Mean Sea Level	1248.40ft
Vertical Reference Pt	SDC 42 (KB)	SDC 42 (KB) to Ground Level at Slot (Slot 5H)	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	328.06°

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 5H
SOUTHWESTERN ENERGY	Well	Brian Dytko OHI 5H ST01
Ohio County, WV	Wellbore	Brian Dytko OHI 5H ST01 AWP
Ohio	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD

## WELLPATH DATA (191 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	100.530	0.00	0.00	0.00	0.00	1750188.40	14537918.27	40°01'48.187"N	80°36'28.289"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	100.530	26.00	0.00	0.00	0.00	1750188.40	14537918.27	40°01'48.187"N	80°36'28.289"W	0.00	0.000	0.00	0.00	0.00
100.00	0.290	100.530	100.00	-0.13	-0.03	0.18	1750188.58	14537918.24	40°01'48.187"N	80°36'28.286"W	0.19	100.530	0.39	0.39	135.85
200.00	0.110	33.410	200.00	-0.26	0.00	0.49	1750188.89	14537918.27	40°01'48.187"N	80°36'28.283"W	0.49	90.040	0.27	-0.18	-67.12
300.00	0.240	205.270	300.00	-0.33	-0.11	0.45	1750188.85	14537918.16	40°01'48.186"N	80°36'28.283"W	0.45	103.712	0.35	0.13	171.86
400.00	0.120	325.140	400.00	-0.34	-0.21	0.30	1750188.70	14537918.06	40°01'48.185"N	80°36'28.285"W	0.37	125.387	0.32	-0.12	119.87
500.00	0.140	327.510	500.00	-0.11	-0.02	0.17	1750188.57	14537918.25	40°01'48.187"N	80°36'28.287"W	0.18	97.864	0.02	0.02	2.37
600.00	0.400	251.410	600.00	0.09	-0.03	-0.22	1750188.18	14537918.24	40°01'48.187"N	80°36'28.292"W	0.22	261.714	0.39	0.26	-76.10
680.00	0.280	315.230	680.00	0.35	0.02	-0.62	1750187.78	14537918.29	40°01'48.187"N	80°36'28.291"W	0.62	271.599	0.47	-0.15	79.78
724.00	1.470	107.050	723.99	0.02	-0.07	-0.16	1750188.24	14537918.20	40°01'48.187"N	80°36'28.291"W	0.18	245.910	3.91	2.70	345.05
765.00	2.610	111.430	764.97	-1.12	-0.57	1.21	1750189.61	14537917.70	40°01'48.182"N	80°36'28.273"W	1.34	115.083	2.80	2.78	10.68
805.00	4.380	112.550	804.89	-3.10	-1.49	3.47	1750191.87	14537916.78	40°01'48.172"N	80°36'28.244"W	3.77	113.177	4.43	4.42	2.80
835.00	4.860	111.390	834.79	-5.05	-2.39	5.71	1750194.11	14537915.88	40°01'48.163"N	80°36'28.215"W	6.19	112.694	1.63	1.60	-3.87
877.00	4.990	115.600	876.64	-8.02	-3.83	9.02	1750197.41	14537914.44	40°01'48.149"N	80°36'28.173"W	9.79	112.999	0.91	0.31	10.02
919.00	4.610	120.180	918.49	-11.05	-5.46	12.12	1750200.52	14537912.81	40°01'48.133"N	80°36'28.133"W	13.30	114.266	1.28	-0.90	10.90
961.00	4.440	119.340	960.36	-13.97	-7.11	15.00	1750203.39	14537911.16	40°01'48.116"N	80°36'28.096"W	16.60	115.362	0.43	-0.40	-2.00
1002.00	4.280	119.900	1001.24	-16.71	-8.65	17.71	1750206.10	14537909.62	40°01'48.101"N	80°36'28.062"W	19.71	116.034	0.40	-0.39	1.37
1044.00	3.970	122.930	1043.13	-19.41	-10.22	20.29	1750208.68	14537908.05	40°01'48.085"N	80°36'28.029"W	22.72	116.741	0.90	-0.74	7.21
1086.00	3.640	120.910	1085.04	-21.91	-11.70	22.65	1750211.04	14537906.58	40°01'48.071"N	80°36'27.998"W	25.49	117.311	0.85	-0.79	-4.81
1128.00	3.430	121.110	1126.96	-24.21	-13.03	24.87	1750213.26	14537905.24	40°01'48.057"N	80°36'27.970"W	28.08	117.652	0.50	-0.50	0.48
1211.00	2.790	116.970	1209.84	-28.16	-15.23	28.80	1750217.19	14537903.05	40°01'48.035"N	80°36'27.919"W	32.58	117.873	0.82	-0.77	-4.99
1295.00	2.310	121.580	1293.75	-31.42	-17.04	32.06	1750220.45	14537901.23	40°01'48.017"N	80°36'27.878"W	36.31	117.995	0.62	-0.57	5.49
1378.00	1.780	120.350	1376.70	-34.06	-18.57	34.60	1750222.98	14537899.71	40°01'48.002"N	80°36'27.845"W	39.27	118.225	0.64	-0.64	-1.48
1460.00	1.410	125.600	1458.67	-36.12	-19.80	36.52	1750224.90	14537898.48	40°01'47.990"N	80°36'27.820"W	41.54	118.469	0.48	-0.45	6.40
1544.00	1.030	126.650	1542.65	-37.78	-20.85	37.96	1750226.35	14537897.42	40°01'47.980"N	80°36'27.802"W	43.31	118.780	0.45	-0.45	1.25
1628.00	0.730	124.690	1626.64	-38.97	-21.61	39.01	1750227.39	14537896.67	40°01'47.972"N	80°36'27.789"W	44.59	118.984	0.36	-0.36	-2.33
1710.00	0.640	123.830	1708.63	-39.87	-22.16	39.82	1750228.20	14537896.12	40°01'47.967"N	80°36'27.778"W	45.57	119.098	0.11	-0.11	-0.55
1795.00	0.530	127.070	1793.63	-40.67	-22.66	40.53	1750228.91	14537895.62	40°01'47.962"N	80°36'27.769"W	46.43	119.214	0.14	-0.13	3.81
1876.00	0.490	130.290	1874.63	-41.35	-23.11	41.09	1750229.47	14537895.17	40°01'47.957"N	80°36'27.762"W	47.14	119.357	0.06	-0.05	3.28
1961.00	0.520	123.200	1959.62	-42.05	-23.56	41.69	1750230.07	14537894.72	40°01'47.953"N	80°36'27.754"W	47.89	119.470	0.08	0.04	-6.34



## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 5H
SOUTHWESTERN ENERGY	Well	Brian Dytko OHI 5H ST01
Ohio County, WV	Wellbore	Brian Dytko OHI 5H ST01 AWB
Ohio	Side-track from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD

## WELLPATH DATA (191 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]
1979.00	0.540	124.300	1977.62	-42.20	-23.65	41.83	1750230.21	14537894.63	40°01'47.952"N	80°36'27.752"W	48.05	119.485	0.12	0.11	6.11
2033.00	0.470	116.870	2031.62	-42.62	-23.89	42.24	1750230.62	14537894.38	40°01'47.949"N	80°36'27.747"W	48.53	119.498	0.18	-0.13	-13.76
2117.00	0.810	310.380	2115.62	-42.35	-23.67	42.09	1750230.48	14537894.61	40°01'47.952"N	80°36'27.749"W	48.29	119.346	1.51	0.40	-198.20
2200.00	2.530	299.970	2198.58	-40.17	-22.37	40.06	1750228.44	14537895.91	40°01'47.964"N	80°36'27.775"W	45.88	119.181	2.10	2.07	-12.54
2284.00	2.360	296.990	2282.50	-37.06	-20.66	36.91	1750225.30	14537897.62	40°01'47.981"N	80°36'27.815"W	42.30	119.236	0.25	-0.20	-3.55
2366.00	2.250	295.610	2364.44	-34.25	-19.20	33.95	1750222.34	14537899.08	40°01'47.995"N	80°36'27.853"W	39.01	119.483	0.15	-0.13	-1.68
2450.00	1.810	283.500	2448.38	-31.92	-18.17	31.18	1750219.57	14537900.10	40°01'48.006"N	80°36'27.889"W	36.09	120.240	0.73	-0.52	-14.42
2533.00	1.110	274.610	2531.36	-30.50	-17.80	29.10	1750217.49	14537900.47	40°01'48.010"N	80°36'27.916"W	34.12	121.458	0.88	-0.84	-10.71
2617.00	1.070	263.380	2615.34	-29.68	-17.83	27.51	1750215.90	14537900.45	40°01'48.010"N	80°36'27.936"W	32.78	122.946	0.26	-0.05	-13.37
2699.00	0.550	266.470	2697.33	-29.17	-17.94	26.36	1750214.75	14537900.34	40°01'48.009"N	80°36'27.951"W	31.89	124.243	0.64	-0.63	3.77
2780.00	0.350	278.430	2778.33	-28.82	-17.93	25.73	1750214.12	14537900.35	40°01'48.009"N	80°36'27.959"W	31.36	124.875	0.27	-0.25	14.77
2864.00	0.890	356.970	2862.33	-28.09	-17.24	25.44	1750213.83	14537901.04	40°01'48.016"N	80°36'27.963"W	30.73	124.128	1.06	0.64	93.50
2946.00	0.910	354.630	2944.32	-26.95	-15.96	25.34	1750213.73	14537902.32	40°01'48.028"N	80°36'27.964"W	29.95	122.195	0.05	0.02	-2.85
3029.00	0.980	351.710	3027.30	-25.71	-14.60	25.18	1750213.57	14537903.68	40°01'48.042"N	80°36'27.966"W	29.10	120.103	0.10	0.08	-3.52
3112.00	1.150	349.420	3110.29	-24.28	-13.08	24.92	1750213.31	14537905.20	40°01'48.057"N	80°36'27.969"W	28.15	117.685	0.21	0.20	-2.76
3195.00	0.890	326.910	3193.28	-22.86	-11.72	24.42	1750212.81	14537906.56	40°01'48.070"N	80°36'27.976"W	27.08	115.635	0.57	-0.31	-27.12
3277.00	0.820	312.640	3275.27	-21.66	-10.79	23.64	1750212.03	14537907.49	40°01'48.080"N	80°36'27.985"W	25.98	114.527	0.27	-0.09	-17.40
3362.00	0.350	333.590	3360.26	-20.81	-10.14	23.08	1750211.47	14537908.13	40°01'48.086"N	80°36'27.993"W	25.21	113.726	0.60	-0.55	24.65
3445.00	0.600	94.940	3443.26	-20.82	-9.95	23.40	1750211.79	14537908.32	40°01'48.088"N	80°36'27.989"W	25.43	113.044	1.01	0.30	146.20
3529.00	0.330	97.490	3527.26	-21.24	-10.02	24.07	1750212.46	14537908.25	40°01'48.087"N	80°36'27.980"W	26.08	112.601	0.32	-0.32	3.04
3611.00	0.640	99.710	3609.26	-21.69	-10.13	24.76	1750213.15	14537908.14	40°01'48.086"N	80°36'27.971"W	26.75	112.251	0.38	0.38	2.71
3694.00	0.460	82.700	3692.25	-22.14	-10.17	25.55	1750213.94	14537908.11	40°01'48.086"N	80°36'27.961"W	27.50	111.698	0.29	-0.22	-20.49
3779.00	0.650	91.460	3777.25	-22.55	-10.13	26.37	1750214.76	14537908.14	40°01'48.086"N	80°36'27.950"W	28.25	111.025	0.24	0.22	10.31
3861.00	0.520	43.000	3859.24	-22.71	-9.87	27.09	1750215.48	14537908.40	40°01'48.088"N	80°36'27.941"W	28.83	110.029	0.60	-0.16	-59.10
3945.00	0.740	356.990	3943.24	-22.13	-9.05	27.32	1750215.71	14537909.22	40°01'48.087"N	80°36'27.936"W	28.78	108.336	0.63	0.26	-54.77
4027.00	0.690	14.780	4025.23	-21.33	-8.05	27.42	1750215.81	14537910.23	40°01'48.107"N	80°36'27.937"W	28.57	106.359	0.28	-0.06	0.00
4111.00	0.170	310.450	4109.23	-20.87	-7.48	27.45	1750215.84	14537910.80	40°01'48.112"N	80°36'27.936"W	28.45	105.238	0.76	-0.62	-76.38
4194.00	0.500	234.040	4192.23	-20.77	-7.61	27.06	1750215.45	14537910.66	40°01'48.111"N	80°36'27.941"W	28.11	105.707	0.59	0.40	-91.96
4277.00	0.610	252.220	4275.23	-20.69	-7.96	26.35	1750214.74	14537910.32	40°01'48.107"N	80°36'27.950"W	27.53	106.805	0.25	0.13	21.90
4360.00	0.680	235.940	4358.22	-20.60	-8.37	25.52	1750213.91	14537909.90	40°01'48.103"N	80°36'27.961"W	26.86	108.165	0.24	0.08	-19.81



## REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot 5H
Area	Ohio County, WV	Well	Brian Dytko OHI 5H ST01
Field	Ohio	Wellbore	Brian Dytko OHI 5H ST01 AWB
Facility	Brian Dytko OHI Pad	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD

## WELLPATH DATA (191 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]
4443.00	1.000	227.060	4441.21	-20.76	-9.14	24.58	1750212.97	14537909.14	40°01'48.096"N	80°36'27.973"W	26.23	110.392	0.42	0.39	-10.70
4525.00	0.890	213.110	4523.20	-21.16	-10.16	23.71	1750212.10	14537908.11	40°01'48.086"N	80°36'27.985"W	25.80	113.193	0.31	-0.13	-17.01
4609.00	1.030	202.810	4607.19	-21.87	-11.40	23.06	1750211.45	14537906.87	40°01'48.074"N	80°36'27.993"W	25.73	116.307	0.26	0.17	-12.26
4693.00	1.090	188.220	4691.17	-22.92	-12.89	22.65	1750211.05	14537905.39	40°01'48.059"N	80°36'27.998"W	26.06	119.635	0.33	0.07	-17.37
4778.00	0.890	210.820	4776.16	-23.84	-14.26	22.20	1750210.59	14537904.02	40°01'48.045"N	80°36'28.004"W	26.38	122.704	0.51	-0.24	26.59
4862.00	0.980	206.400	4860.15	-24.52	-15.46	21.55	1750209.94	14537902.82	40°01'48.034"N	80°36'28.013"W	26.52	125.657	0.14	0.11	-5.26
4946.00	0.310	267.200	4944.15	-24.78	-16.11	21.00	1750209.39	14537902.16	40°01'48.027"N	80°36'28.020"W	26.47	127.498	1.04	-0.80	72.38
5030.00	0.490	323.120	5028.14	-24.31	-15.84	20.56	1750208.95	14537902.44	40°01'48.030"N	80°36'28.025"W	25.95	127.609	0.48	0.21	66.57
5114.00	0.500	316.930	5112.14	-23.60	-15.28	20.09	1750208.48	14537902.99	40°01'48.035"N	80°36'28.031"W	25.24	127.256	0.06	0.01	-7.37
5197.00	0.450	327.030	5195.14	-22.92	-14.74	19.67	1750208.06	14537903.53	40°01'48.041"N	80°36'28.037"W	24.58	126.857	0.12	-0.06	12.17
5281.00	0.360	309.760	5279.14	-22.34	-14.30	19.29	1750207.68	14537903.98	40°01'48.045"N	80°36'28.042"W	24.01	126.554	0.18	-0.11	-20.56
5379.00	5.000	3.610	5377.01	-18.57	-9.84	19.32	1750207.71	14537908.44	40°01'48.089"N	80°36'28.041"W	21.68	116.986	4.89	4.73	54.95
5469.00	4.800	7.030	5466.68	-12.45	-2.19	20.03	1750208.42	14537916.09	40°01'48.165"N	80°36'28.031"W	20.14	96.228	0.39	-0.22	3.80
5558.00	4.630	17.460	5555.38	-7.21	4.94	21.56	1750209.95	14537923.20	40°01'48.235"N	80°36'28.011"W	22.12	77.102	0.98	-0.19	11.72
5646.00	4.350	17.160	5643.11	-2.72	11.51	23.61	1750212.00	14537929.78	40°01'48.300"N	80°36'27.985"W	26.27	64.003	0.32	-0.32	-0.34
5733.00	4.840	12.930	5729.83	2.04	18.24	25.40	1750213.79	14537936.51	40°01'48.366"N	80°36'27.961"W	31.28	54.317	0.68	0.56	-4.86
5820.00	6.400	28.140	5816.41	7.06	26.10	28.51	1750216.90	14537944.36	40°01'48.444"N	80°36'27.921"W	38.65	47.532	2.46	1.79	17.48
5907.00	15.340	30.670	5901.76	14.79	40.30	36.69	1750225.07	14537958.55	40°01'48.584"N	80°36'27.815"W	54.50	42.312	10.29	10.28	2.91
5993.00	22.070	15.020	5983.23	31.09	65.73	46.69	1750235.08	14537983.98	40°01'48.835"N	80°36'27.685"W	80.63	35.388	9.70	7.83	-18.20
6079.00	28.130	6.620	6061.09	58.00	101.52	53.23	1750241.61	14538019.75	40°01'49.188"N	80°36'27.599"W	114.63	27.667	8.16	7.05	-9.77
6167.00	36.940	0.340	6135.23	96.67	148.68	55.78	1750244.16	14538066.89	40°01'49.654"N	80°36'27.563"W	158.80	20.565	10.71	10.01	-7.14
6253.00	44.810	358.110	6200.21	144.83	204.90	54.93	1750243.31	14538123.09	40°01'50.210"N	80°36'27.571"W	212.13	15.008	9.31	9.15	-2.59
6333.00	52.210	358.040	6253.17	196.68	264.75	52.92	1750241.30	14538182.92	40°01'50.801"N	80°36'27.593"W	269.99	11.304	9.25	9.25	-0.09
6416.00	60.140	359.470	6299.34	255.91	333.63	51.46	1750239.84	14538251.77	40°01'51.482"N	80°36'27.608"W	337.57	8.769	9.66	9.55	1.72
6503.00	69.340	3.990	6336.44	321.23	412.16	53.95	1750242.33	14538330.22	40°01'52.258"N	80°36'27.572"W	415.67	7.458	11.57	10.57	5.20
6587.00	77.220	7.370	6360.60	384.87	492.13	61.96	1750250.33	14538410.21	40°01'53.046"N	80°36'27.464"W	496.01	7.175	10.14	9.38	6.02
6670.00	85.160	11.360	6373.30	446.40	572.97	75.32	1750263.69	14538491.02	40°01'53.846"N	80°36'27.288"W	577.90	7.489	10.68	9.57	4.81
6754.00	90.280	9.080	6376.64	508.60	655.54	90.20	1750278.57	14538573.55	40°01'54.661"N	80°36'27.092"W	661.72	7.835	6.67	6.10	-2.11
6838.00	90.400	3.660	6376.14	574.49	738.99	99.52	1750287.88	14538656.97	40°01'55.486"N	80°36'26.968"W	745.66	7.670	6.45	6.14	-6.45
6923.00	90.250	356.550	6375.66	646.50	823.93	99.67	1750288.03	14538741.88	40°01'56.325"N	80°36'26.961"W	829.94	6.898	8.37	-0.18	-8.66



## REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot 5H
Area	Ohio County, WV	Well	Brian Dytko OHI 5H ST01
Field	Ohio	Wellbore	Brian Dytko OHI 5H ST01 AWB
Facility	Brian Dytko OHI Pad	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD

## WELLPATH DATA (191 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]
7005.00	90.220	355.220	6375.33	719.02	905.72	93.79	1750282.15	14538823.64	40°01'57.134"N	80°36'27.032"W	910.56	5.912	1.62	-0.04	-1.62
7087.00	90.150	351.640	6375.06	793.10	987.17	84.41	1750272.78	14538905.05	40°01'57.939"N	80°36'27.148"W	990.77	4.887	4.37	-0.09	-4.37
7173.00	90.340	346.070	6374.69	873.47	1071.51	67.79	1750256.17	14538989.36	40°01'58.773"N	80°36'27.357"W	1073.65	3.620	6.48	0.22	-6.48
7257.00	90.250	342.260	6374.26	954.16	1152.31	44.88	1750233.26	14539070.13	40°01'59.573"N	80°36'27.647"W	1153.18	2.230	4.54	-0.11	-4.54
7342.00	90.310	338.500	6373.84	1037.18	1232.36	16.34	1750204.73	14539150.15	40°02'00.365"N	80°36'28.009"W	1232.46	0.760	4.42	0.07	-4.42
7426.00	90.280	335.230	6373.41	1120.18	1309.59	-16.66	1750171.75	14539227.35	40°02'01.130"N	80°36'28.429"W	1309.69	359.271	3.89	-0.04	-3.89
7511.00	90.220	329.260	6373.04	1204.92	1384.77	-56.22	1750132.20	14539302.51	40°02'01.874"N	80°36'28.933"W	1385.92	357.675	7.02	-0.07	-7.02
7595.00	90.250	324.360	6372.70	1288.87	1455.05	-102.19	1750086.25	14539372.75	40°02'02.571"N	80°36'29.520"W	1458.63	355.983	5.83	0.04	-5.83
7679.00	90.280	322.100	6372.31	1372.57	1522.33	-152.47	1750035.99	14539440.01	40°02'03.238"N	80°36'30.163"W	1529.95	354.281	2.69	0.04	-2.69
7762.00	90.180	321.570	6371.97	1455.07	1587.59	-203.76	1749984.72	14539505.24	40°02'03.885"N	80°36'30.818"W	1600.61	352.686	0.65	-0.12	-0.64
7847.00	90.220	318.570	6371.68	1539.24	1652.76	-258.31	1749930.19	14539570.39	40°02'04.531"N	80°36'31.516"W	1672.82	351.117	3.53	0.05	-3.53
7929.00	90.220	318.410	6371.36	1620.10	1714.17	-312.65	1749875.87	14539631.77	40°02'05.140"N	80°36'32.211"W	1742.45	349.663	0.20	0.00	-0.20
8013.00	90.150	318.450	6371.09	1702.91	1777.01	-368.39	1749820.15	14539694.59	40°02'05.764"N	80°36'32.924"W	1814.79	348.288	0.10	-0.08	0.05
8096.00	90.220	320.170	6370.82	1784.94	1839.94	-422.50	1749766.06	14539757.50	40°02'06.388"N	80°36'33.616"W	1887.83	347.067	2.07	0.08	2.07
8181.00	90.180	323.640	6370.53	1869.44	1906.82	-474.94	1749713.65	14539824.35	40°02'07.051"N	80°36'34.287"W	1965.08	346.014	4.08	-0.05	4.08
8264.00	90.220	325.220	6370.24	1952.27	1974.33	-523.22	1749665.39	14539891.84	40°02'07.721"N	80°36'34.904"W	2042.49	345.157	1.90	0.05	1.90
8346.00	91.020	325.960	6369.35	2034.18	2041.98	-569.55	1749619.07	14539959.46	40°02'08.391"N	80°36'35.495"W	2119.92	344.415	1.33	0.98	0.90
8429.00	90.980	325.050	6367.90	2117.09	2110.38	-616.55	1749572.09	14540027.83	40°02'09.069"N	80°36'36.096"W	2198.59	343.714	1.10	-0.05	-1.10
8515.00	90.980	324.030	6366.43	2202.91	2180.41	-666.43	1749522.23	14540097.84	40°02'09.763"N	80°36'36.733"W	2279.99	343.004	1.19	0.00	-1.19
8603.00	91.050	322.890	6364.87	2290.61	2251.10	-718.82	1749469.86	14540168.50	40°02'10.464"N	80°36'37.403"W	2363.08	342.291	1.30	0.08	-1.30
8689.00	90.860	321.720	6363.44	2376.16	2319.14	-771.39	1749417.31	14540236.51	40°02'11.139"N	80°36'38.075"W	2444.07	341.602	1.38	-0.22	-1.36
8772.00	90.980	320.970	6362.10	2458.58	2383.95	-823.23	1749365.49	14540301.30	40°02'11.782"N	80°36'38.738"W	2522.09	340.949	0.91	0.14	-0.90
8855.00	90.920	319.710	6360.73	2540.82	2447.84	-876.20	1749312.54	14540365.16	40°02'12.415"N	80°36'39.415"W	2599.93	340.305	1.52	-0.07	-1.52
8944.00	90.950	321.360	6359.28	2629.03	2516.54	-932.76	1749256.01	14540433.83	40°02'13.096"N	80°36'40.138"W	2683.84	339.663	1.85	0.03	1.85
9031.00	91.050	322.920	6357.76	2715.55	2585.21	-986.14	1749202.64	14540503.47	40°02'13.777"N	80°36'40.821"W	2766.91	339.120	1.80	0.11	1.79
9120.00	91.080	323.480	6356.10	2804.22	2656.46	-1039.44	1749149.36	14540573.70	40°02'14.484"N	80°36'41.502"W	2852.59	338.630	0.63	0.03	0.63
9205.00	90.950	325.700	6354.60	2889.04	2725.73	-1088.68	1749100.14	14540642.94	40°02'15.170"N	80°36'42.131"W	2935.10	338.228	2.62	-0.15	-2.61
9290.00	90.890	326.770	6353.23	2973.99	2796.38	-1135.92	1749052.92	14540713.56	40°02'15.871"N	80°36'42.735"W	3018.28	337.892	1.26	-0.07	-0.76
9376.00	90.980	325.660	6351.83	3059.93	2867.84	-1183.74	1749005.12	14540785.00	40°02'16.579"N	80°36'43.345"W	3102.54	337.571	1.29	0.10	-1.29
9464.00	91.350	326.770	6350.04	3147.86	2940.97	-1232.66	1748956.22	14540858.10	40°02'17.304"N	80°36'43.970"W	3188.85	337.260	1.33	0.42	0.66



## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 5H
SOUTHWESTERN ENERGY	Well	Brian Dytko OHI 5H ST01
Area	Wellbore	Brian Dytko OHI 5H ST01 AWB
Field	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD
Facility		

## WELLPATH DATA (191 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]
9549.00	91.480	326.100	6347.94	3232.80	3011.77	-1279.64	1748909.26	14540928.87	40°02'18.005"N	80°36'44.570"W	3272.35	336.980	0.80	0.15	-0.79
9635.00	91.380	324.750	6345.79	3318.68	3082.56	-1328.43	1748860.49	14540999.63	40°02'18.707"N	80°36'45.194"W	3356.62	336.686	1.57	-0.12	-1.57
9721.00	91.350	323.850	6343.75	3404.47	3152.38	-1378.60	1748810.34	14541069.42	40°02'19.399"N	80°36'45.835"W	3440.64	336.379	1.05	-0.03	-1.05
9810.00	91.350	322.850	6341.65	3493.15	3223.76	-1431.71	1748757.25	14541140.78	40°02'20.107"N	80°36'46.513"W	3527.38	336.053	1.12	0.00	-1.12
9896.00	91.320	321.820	6339.65	3578.69	3291.82	-1484.24	1748704.73	14541208.81	40°02'20.782"N	80°36'47.185"W	3610.96	335.730	1.20	-0.03	-1.20
9984.00	90.580	318.300	6338.19	3665.81	3359.27	-1540.72	1748648.28	14541276.24	40°02'21.451"N	80°36'47.907"W	3695.74	335.362	4.09	-0.84	-4.00
10071.00	88.980	312.720	6338.52	3750.69	3421.31	-1601.66	1748587.36	14541338.25	40°02'22.066"N	80°36'48.688"W	3777.65	334.914	6.67	-1.84	-6.41
10157.00	90.430	317.950	6338.96	3834.55	3482.45	-1662.09	1748526.95	14541399.37	40°02'22.673"N	80°36'49.461"W	3858.76	334.486	6.31	1.69	6.08
10242.00	90.740	321.800	6338.10	3918.66	3547.43	-1716.86	1748472.21	14541464.32	40°02'23.318"N	80°36'50.162"W	3941.05	334.174	4.54	0.36	4.53
10327.00	90.620	325.030	6337.09	4003.36	3615.67	-1767.51	1748421.58	14541532.53	40°02'23.994"N	80°36'50.809"W	4024.57	333.948	3.80	-0.14	3.80
10411.00	90.520	329.130	6336.25	4087.33	3686.16	-1813.15	1748375.95	14541603.00	40°02'24.693"N	80°36'51.392"W	4107.95	333.808	4.88	-0.12	4.88
10497.00	90.680	330.740	6335.35	4173.27	3760.58	-1856.23	1748322.89	14541677.39	40°02'25.430"N	80°36'51.942"W	4193.75	333.729	1.88	0.19	1.87
10582.00	91.350	329.400	6333.84	4258.21	3834.23	-1898.63	1748290.51	14541751.02	40°02'26.160"N	80°36'52.483"W	4278.57	333.656	1.76	0.79	-1.58
10668.00	91.290	327.760	6331.86	4344.18	3907.60	-1943.45	1748245.70	14541824.35	40°02'26.887"N	80°36'53.055"W	4364.21	333.556	1.91	-0.07	-1.91
10755.00	91.290	323.120	6329.90	4431.04	3979.21	-1992.78	1748196.40	14541895.94	40°02'27.596"N	80°36'53.685"W	4450.31	333.398	5.33	0.00	-5.33
10841.00	91.350	315.690	6327.92	4515.98	4044.45	-2048.68	1748140.51	14541961.15	40°02'28.243"N	80°36'54.400"W	4533.73	333.136	8.64	0.07	-8.64
10926.00	91.170	315.950	6326.05	4599.02	4105.39	-2107.91	1748081.31	14542022.07	40°02'28.848"N	80°36'55.158"W	4614.92	332.822	0.37	-0.21	0.31
11014.00	91.600	316.110	6323.92	4685.06	4168.71	-2168.99	1748020.26	14542085.36	40°02'29.477"N	80°36'55.940"W	4699.22	332.512	0.52	0.49	0.18
11103.00	91.880	318.960	6321.22	4772.52	4234.33	-2229.04	1747960.23	14542150.95	40°02'30.128"N	80°36'56.709"W	4785.20	332.237	3.22	0.31	3.20
11190.00	91.910	325.420	6318.34	4858.97	4302.99	-2282.32	1747906.97	14542219.59	40°02'30.808"N	80°36'57.390"W	4870.80	332.058	7.42	0.03	7.43
11278.00	92.090	330.010	6315.27	4946.89	4377.32	-2329.28	1747860.02	14542293.89	40°02'31.545"N	80°36'57.989"W	4958.47	331.981	5.22	0.20	5.22
11365.00	92.030	329.850	6312.14	5033.78	4452.56	-2372.84	1747816.48	14542369.10	40°02'32.290"N	80°36'58.545"W	5045.36	331.946	0.20	-0.07	-0.18
11454.00	93.170	327.750	6308.10	5122.68	4528.60	-2418.90	1747770.44	14542445.11	40°02'33.044"N	80°36'59.133"W	5134.13	331.892	2.68	1.28	-2.36
11540.00	93.170	323.130	6303.34	5208.43	4599.31	-2467.59	1747721.72	14542515.78	40°02'33.744"N	80°36'59.726"W	5219.44	331.786	5.36	0.00	-5.37
11628.00	93.080	323.380	6298.55	5298.99	4689.71	-2520.16	1747689.22	14542586.17	40°02'34.442"N	80°37'00.428"W	5306.35	331.645	0.30	-0.10	0.28
11713.00	93.300	321.420	6293.82	5380.44	4736.95	-2571.94	1747617.46	14542653.38	40°02'35.109"N	80°37'01.090"W	5390.13	331.500	2.32	0.26	-0.11
11799.00	93.290	320.240	6288.87	5465.62	4803.51	-2626.17	1747563.25	14542719.91	40°02'35.769"N	80°37'01.783"W	5474.53	331.334	1.37	-0.01	-0.17
11884.00	93.200	321.000	6284.06	5549.76	4869.51	-2680.01	1747509.43	14542785.48	40°02'36.420"N	80°37'02.472"W	5557.93	331.171	0.90	-0.11	0.99
11969.00	91.750	322.290	6280.39	5634.15	4935.69	-2732.71	1747456.76	14542852.05	40°02'37.080"N	80°37'03.146"W	5641.70	331.028	2.28	-1.71	-1.52
12056.00	90.400	319.800	6278.76	5720.47	5003.33	-2787.39	1747402.09	14542919.66	40°02'37.751"N	80°37'03.845"W	5727.38	330.878	3.26	-1.55	-2.96



## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 5H
SOUTHWESTERN ENERGY	Well	Brian Dytko OHI 5H ST01
Ohio County, WV	Wellbore	Brian Dytko OHI 5H ST01 AWB
Ohio	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD

## WELLPATH DATA (191 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	VertSect [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]
12141.00	89.170	318.640	6279.08	5804.46	5067.69	-2842.90	1747346.60	14542983.99	40°02'38.389"N	80°37'04.555"W	5870.64	330.708	1.99	-1.45	-1.36
12229.00	89.170	321.520	6280.35	5891.59	5135.17	-2899.36	1747290.16	14543051.44	40°02'39.058"N	80°37'05.278"W	5897.14	330.551	3.27	0.00	3.27
12313.00	87.600	325.560	6282.72	5975.27	5202.68	-2949.25	1747240.29	14543118.93	40°02'39.728"N	80°37'05.915"W	5980.47	330.452	5.16	-1.87	4.81
12399.00	87.510	326.510	6286.39	6061.14	5273.94	-2997.25	1747192.31	14543190.17	40°02'40.434"N	80°37'06.529"W	6066.14	330.390	1.11	-0.10	1.10
12484.00	87.570	324.070	6290.04	6145.95	5343.75	-3045.61	1747143.98	14543259.94	40°02'41.126"N	80°37'07.146"W	6150.72	330.320	2.87	0.07	-2.87
12570.00	87.630	322.450	6293.64	6231.57	5412.60	-3097.00	1747092.60	14543328.77	40°02'41.808"N	80°37'07.803"W	6236.00	330.223	1.88	0.07	-1.88
12655.00	87.450	321.860	6297.29	6316.04	5479.66	-3149.10	1747040.52	14543395.80	40°02'42.473"N	80°37'08.470"W	6320.09	330.114	0.73	-0.21	-0.69
12742.00	89.020	321.960	6299.97	6402.50	5548.10	-3202.75	1746986.90	14543464.22	40°02'43.152"N	80°37'09.156"W	6406.17	330.003	1.81	1.80	0.11
12829.00	89.630	321.250	6300.99	6488.94	5616.28	-3256.78	1746932.89	14543532.37	40°02'43.828"N	80°37'09.847"W	6492.24	329.891	1.08	0.70	-0.82
12918.00	90.030	319.370	6301.26	6577.12	5684.76	-3313.61	1746876.07	14543600.83	40°02'44.507"N	80°37'10.574"W	6580.01	329.762	2.16	0.45	-2.11
13005.00	89.970	321.000	6301.26	6663.30	5751.59	-3369.32	1746820.39	14543667.62	40°02'45.170"N	80°37'11.286"W	6665.81	329.638	1.87	-0.07	1.87
13090.00	89.940	321.960	6301.32	6747.74	5818.09	-3422.25	1746767.47	14543734.10	40°02'45.829"N	80°37'11.963"W	6749.96	329.536	1.13	-0.04	1.13
13176.00	89.970	322.700	6301.39	6833.30	5886.16	-3474.81	1746714.94	14543802.15	40°02'46.504"N	80°37'12.635"W	6835.29	329.445	0.86	0.03	0.86
13261.00	89.880	323.870	6301.50	6918.01	5954.30	-3525.62	1746664.14	14543870.26	40°02'47.180"N	80°37'13.285"W	6919.80	329.370	1.38	-0.11	1.38
13349.00	89.970	326.460	6301.62	7005.89	6026.52	-3575.89	1746613.90	14543942.45	40°02'47.895"N	80°37'13.927"W	7007.56	329.317	2.94	0.10	2.94
13436.00	89.940	330.100	6301.69	7092.87	6100.51	-3621.62	1746568.18	14544016.42	40°02'48.629"N	80°37'14.511"W	7094.53	329.304	4.18	-0.03	4.18
13522.00	89.940	326.810	6301.78	7178.86	6173.80	-3666.61	1746523.22	14544089.67	40°02'49.355"N	80°37'15.086"W	7180.51	329.294	3.83	0.00	-3.83
13603.00	90.030	324.320	6301.80	7259.77	6240.60	-3712.41	1746477.43	14544156.44	40°02'50.017"N	80°37'15.671"W	7261.34	329.252	3.08	0.11	-3.07
13687.00	89.970	324.050	6301.80	7343.58	6308.71	-3761.56	1746428.30	14544224.53	40°02'50.692"N	80°37'16.299"W	7345.01	329.195	0.33	-0.07	-0.32
13771.00	90.000	323.150	6301.82	7427.33	6376.32	-3811.41	1746378.47	14544292.12	40°02'51.362"N	80°37'16.937"W	7428.62	329.131	1.07	0.04	-1.07
13855.00	89.970	321.250	6301.84	7510.88	6442.69	-3862.89	1746327.01	14544358.46	40°02'52.020"N	80°37'17.595"W	7512.00	329.054	2.26	-0.04	-2.26
13939.00	89.940	318.730	6301.91	7594.04	6507.30	-3916.89	1746273.03	14544422.77	40°02'52.658"N	80°37'18.286"W	7594.96	328.954	3.00	-0.04	-3.00
14025.00	89.970	318.000	6301.97	7678.81	6571.30	-3974.03	1746215.92	14544487.02	40°02'53.296"N	80°37'19.017"W	7679.51	328.836	0.85	0.03	-0.85
14108.00	90.370	321.340	6301.73	7760.91	6634.57	-4027.74	1746162.23	14544550.26	40°02'53.923"N	80°37'19.704"W	7761.45	328.739	4.05	0.48	4.02
14192.00	90.550	321.580	6301.05	7844.35	6700.27	-4080.07	1746109.91	14544615.93	40°02'54.575"N	80°37'20.373"W	7844.78	328.661	0.36	0.21	0.29
14276.00	90.400	319.730	6300.36	7927.64	6765.22	-4133.32	1746056.68	14544680.87	40°02'55.219"N	80°37'21.055"W	7927.96	328.576	2.21	-0.18	-2.20
14360.00	90.550	321.360	6299.66	8010.92	6830.08	-4186.70	1746003.33	14544745.69	40°02'55.862"N	80°37'21.738"W	8011.14	328.493	1.95	0.18	0.84
14445.00	90.490	324.010	6298.89	8095.53	6897.67	-4238.22	1745951.83	14544813.26	40°02'56.532"N	80°37'22.396"W	8095.70	328.432	3.12	-0.07	3.02
14528.00	90.620	322.130	6298.09	8178.21	6964.01	-4288.08	1745901.98	14544879.58	40°02'57.190"N	80°37'23.034"W	8178.33	328.377	2.27	0.16	-2.27
14611.00	90.680	320.780	6297.14	8260.65	7028.92	-4339.80	1745850.29	14544944.46	40°02'57.833"N	80°37'23.695"W	8260.72	328.308	1.63	0.07	-0.93





## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot 5H
SOUTHWESTERN ENERGY	Well	Brian Dytko OHI 5H ST01
Area	Wellbore	Brian Dytko OHI 5H ST01 AWP
Field	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD
Facility		

## WELLPATH DATA (191 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]
14693.00	90.680	323.150	6296.17	8342.17	7093.50	-4390.31	1745799.79	14545009.01	40°02'58.474"N	80°37'24.341"W	8342.22	328.246	2.89	0.00	2.89
14777.00	90.520	324.820	6295.29	8425.95	7161.44	-4439.70	1745750.42	14545076.93	40°02'59.147"N	80°37'24.973"W	8425.98	328.203	2.00	-0.19	1.99
14860.00	90.430	327.840	6294.60	8508.90	7230.50	-4485.71	1745704.43	14545145.96	40°02'59.831"N	80°37'25.561"W	8508.92	328.185	3.64	-0.11	3.64
14944.00	90.580	327.380	6293.86	8592.90	7301.43	-4530.71	1745659.45	14545216.87	40°03'00.534"N	80°37'26.135"W	8592.91	328.179	0.58	0.18	-0.55
15029.00	91.020	328.680	6292.68	8677.89	7373.53	-4575.71	1745614.47	14545288.94	40°03'01.249"N	80°37'26.710"W	8677.90	328.178	1.61	0.52	1.53
15113.00	91.020	327.220	6291.18	8761.87	7444.71	-4620.27	1745569.92	14545360.09	40°03'01.954"N	80°37'27.279"W	8761.89	328.176	1.74	0.00	-1.74
15197.00	90.980	323.840	6289.71	8845.76	7513.94	-4667.80	1745522.41	14545429.30	40°03'02.640"N	80°37'27.887"W	8845.77	328.151	4.02	-0.05	-4.02
15280.00	90.950	323.970	6288.32	8928.53	7581.00	-4716.69	1745473.54	14545496.33	40°03'03.305"N	80°37'28.512"W	8928.54	328.111	0.16	-0.04	0.16
15363.00	91.050	324.890	6286.87	9011.35	7648.50	-4764.96	1745425.29	14545563.80	40°03'03.974"N	80°37'29.129"W	9011.35	328.077	1.11	0.12	1.11
15380.00	91.020	325.310	6286.56	9028.33	7662.44	-4774.69	1745415.56	14545577.74	40°03'04.112"N	80°37'29.253"W	9028.33	328.072	2.48	-0.18	2.47
15405.00	91.020	325.310	6286.12	9053.29	7683.00	-4788.92	1745401.34	14545598.28	40°03'04.316"N	80°37'29.435"W	9053.29	328.064	0.00	0.00	0.00

## HOLE & CASING SECTIONS - Ref Wellbore: Brian Dytko OHI 5H ST01 AWP Ref Wellpath: Brian Dytko OHI 5H ST01 AWP Proj: 15405'MD

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	End N/S [ft]	Start E/W [ft]	End E/W [ft]
20in Conductor	26.00	126.00	100.00	26.00	126.00	0.00	-0.05	0.00	0.30
17.5in Open Hole	126.00	700.00	574.00	126.00	700.00	-0.05	0.30	0.30	-0.57
13.375in Casing Surface	26.00	685.00	659.00	26.00	685.00	0.00	0.00	0.00	-0.63
12.25in Open Hole	700.00	2025.00	1325.00	700.00	2023.62	0.04	-0.57	-0.57	42.18
9.625in Casing Intermediate	26.00	2005.00	1979.00	26.00	2003.62	0.00	-23.86	0.00	42.03
8.75in Open Hole	2025.00	5525.00	3500.00	2023.62	5522.49	-23.86	2.36	42.18	20.85
8.5in Open Hole	5525.00	5536.00	11.00	5522.49	5533.45	2.36	3.23	20.85	21.06
5.5in Casing Production	26.00	5536.00	5510.00	26.00	5533.45	0.00	3.23	0.00	21.06
8.5in Open Hole	5230.00	15405.00	10175.00	5228.14	6286.12	-14.54	7683.00	19.52	-4788.92

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**REFERENCE WELLPATH IDENTIFICATION**

Operator	SOUTHWESTERN ENERGY	Slot	Slot 5H
Area	Ohio County, WV	Well	Brian Dytko OHI 5H ST01
Field	Ohio	Wellbore	Brian Dytko OHI 5H ST01 AWB
Facility	Brian Dytko OHI Pad	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD

**TARGETS**

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Brian Dytko OHI 5H ST01 BHL Rev-7	6380.00	7680.10	-4793.33	1745396.93	14545595.39	40°03'04.287"N	80°37'29.492"W	point
Brian Dytko OHI 5H ST01 EOT Rev-7	6380.00	1470.35	-108.31	1750080.13	14539388.05	40°02'02.722"N	80°36'29.598"W	point
Brian Dytko OHI 5H ST01 LP Rev-7	6380.00	600.47	108.65	1750297.01	14538518.51	40°01'54.116"N	80°36'26.858"W	point

**WELLPATH COMPOSITION - Ref Wellbore: Brian Dytko OHI 5H ST01 AWB Ref Wellpath: Brian Dytko OHI 5H ST01 AWP Proj: 15405'MD**

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	680.00	BHI Generic gyro - northseeking (Standard)	02_MS Gyro <17-1/2"> (100'-680')	Brian Dytko OHI 5H AWB
680.00	1979.00	BHI NaviTrak (Axial)	03_APS EM <12-1/4"> (680')(724'-1979')	Brian Dytko OHI 5H AWB
1979.00	5281.00	BHI NaviTrak (Axial)	04_APS EM <8-3/4"> (1979')(2033'-5446')	Brian Dytko OHI 5H AWB
5281.00	15380.00	BHI AutoTrak Curve (Short)	01_BH AT Curve <8.5"> (5379'-15380')	Brian Dytko OHI 5H ST01 AWB
15380.00	15405.00	Blind Drilling (std)	Projection to bit	Brian Dytko OHI 5H ST01 AWB

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**REFERENCE WELLPATH IDENTIFICATION**

Operator	SOUTHWESTERN ENERGY	Slot	Slot 5H
Area	Ohio County, WV	Well	Brian Dytko OHI 5H ST01
Field	Ohio	Wellbore	Brian Dytko OHI 5H ST01 AWB
Facility	Brian Dytko OHI Pad	Sidetrack from	Brian Dytko OHI 5H AWP Proj: 15456'MD at 5281.00 MD

**COMMENTS**

Wellpath general comments  
 API: 47-069-00265-0100  
 BH Job #: 9179947  
 Rig: SDC 42  
 Duration: 05/30/2018 - 06/04/2018  
 API: 47-069-00265-0000  
 BH Job#: 9102916  
 Rig: SDC 42  
 Duration: 04/16/2018 - 04/27/2018

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