

REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #206H
Area	Brooke County, WV	Well	Barry Greathouse A BRK 206H
Field	Brooke	Wellbore	Barry Greathouse A BRK 206H AWB
Facility	Barry Greathouse A BRK Pad		

REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Hilpthop
Scale	0.999612	Report Generated	14/May/2019 at 14:17
Convergence at slot	0.24° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Barry_Greathouse_A_BRK_206H_AWP_Proj_17372_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	18.19	-16.26	1742167.62	14596674.02	40°11'29.377"N	80°38'08.342"W
Facility Reference Pt			1742183.88	14596655.84	40°11'29.197"N	80°38'08.133"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.478"W

WELLPATH DATUM

Calculation method	Minimum curvature	SDC 40 (RKB) to Facility Vertical Datum	1163.30ft
Horizontal Reference Pt	Slot	SDC 40 (RKB) to Mean Sea Level	1163.30ft
Vertical Reference Pt	SDC 40 (RKB)	SDC 40 (RKB) to Ground Level at Slot (Slot #206H)	26.00ft
MD Reference Pt	SDC 40 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	163.52°

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Southwestern Energy
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Area	Brooke County, WV	Well	Barry Greathouse A BRK 206H
Field	Brooke	Wellbore	Barry Greathouse A BRK 206H AWB
Facility	Barry Greathouse A BRK Pad		

WELLPATH DATA (202 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	270.500	0.00	0.00	0.00	0.00	1742167.62	14596674.02	40°11'29.377"N	80°38'08.342"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	270.500	26.00	0.00	0.00	0.00	1742167.62	14596674.02	40°11'29.377"N	80°38'08.342"W	0.00	0.000	0.00	0.00	0.00
151.00	1.060	270.500	150.99	-0.34	0.01	-1.16	1742166.47	14596674.03	40°11'29.378"N	80°38'08.356"W	1.16	270.500	0.85	0.85	-71.60
212.00	0.970	265.000	211.98	-0.61	-0.03	-2.23	1742165.39	14596673.99	40°11'29.377"N	80°38'08.370"W	2.23	269.231	0.22	-0.15	-9.02
302.00	0.930	270.470	301.97	-0.97	-0.09	-3.72	1742163.90	14596673.93	40°11'29.377"N	80°38'08.390"W	3.73	268.610	0.11	-0.04	6.08
332.00	0.720	287.370	331.97	-1.15	-0.03	-4.15	1742163.48	14596673.99	40°11'29.377"N	80°38'08.395"W	4.15	269.556	1.06	-0.70	56.33
423.00	0.850	283.570	422.96	-1.80	0.30	-5.35	1742162.27	14596674.31	40°11'29.381"N	80°38'08.411"W	5.36	273.177	0.15	0.14	-4.18
514.00	0.910	290.160	513.95	-2.57	0.70	-6.68	1742160.94	14596674.72	40°11'29.385"N	80°38'08.428"W	6.72	276.016	0.13	0.07	7.24
604.00	1.750	293.480	603.92	-3.88	1.50	-8.62	1742159.01	14596675.52	40°11'29.393"N	80°38'08.453"W	8.74	279.865	0.94	0.93	3.69
697.00	3.100	292.750	696.84	-6.38	3.04	-12.24	1742155.39	14596677.05	40°11'29.408"N	80°38'08.499"W	12.61	283.936	1.45	1.45	-0.78
790.00	4.780	294.860	789.62	-10.53	5.64	-18.07	1742149.56	14596679.65	40°11'29.434"N	80°38'08.574"W	18.93	287.327	1.81	1.81	2.27
883.00	6.040	289.750	882.20	-15.98	8.92	-26.19	1742141.44	14596682.94	40°11'29.467"N	80°38'08.679"W	27.67	288.807	1.45	1.35	-5.49
976.00	6.990	290.760	974.60	-22.30	12.58	-36.09	1742131.55	14596686.59	40°11'29.503"N	80°38'08.806"W	38.22	289.217	1.03	1.02	1.09
1068.00	8.150	284.300	1065.80	-29.03	16.18	-47.64	1742120.00	14596690.19	40°11'29.539"N	80°38'08.955"W	50.32	288.752	1.56	1.26	-7.02
1161.00	9.230	284.380	1157.73	-36.23	19.66	-61.26	1742106.39	14596693.67	40°11'29.574"N	80°38'09.130"W	64.33	287.790	1.16	1.16	0.09
1254.00	9.880	284.490	1249.44	-44.16	23.50	-76.21	1742091.44	14596697.51	40°11'29.613"N	80°38'09.322"W	79.75	287.141	0.70	0.70	0.12
1347.00	9.860	282.680	1341.06	-52.14	27.25	-91.70	1742075.96	14596701.26	40°11'29.650"N	80°38'09.522"W	95.66	286.549	0.33	-0.02	-1.95
1439.00	9.430	281.230	1431.76	-59.49	30.45	-106.78	1742060.89	14596704.45	40°11'29.683"N	80°38'09.716"W	111.03	285.914	0.54	-0.47	-1.58
1532.00	8.940	283.030	1523.57	-66.59	33.56	-121.29	1742046.38	14596707.56	40°11'29.714"N	80°38'09.903"W	125.85	285.466	0.61	-0.53	1.94
1575.00	8.720	282.950	1566.06	-69.84	35.04	-127.72	1742039.95	14596709.05	40°11'29.729"N	80°38'09.986"W	132.44	285.342	0.51	-0.51	-0.19
1728.00	8.650	283.150	1717.30	-81.22	40.26	-150.23	1742017.45	14596714.26	40°11'29.781"N	80°38'10.275"W	155.53	285.002	0.05	-0.05	0.13
1820.00	11.720	286.360	1807.84	-89.71	44.47	-165.94	1742001.75	14596718.47	40°11'29.824"N	80°38'10.477"W	171.79	285.001	3.39	3.34	3.49
1912.00	12.500	265.270	1897.84	-96.81	46.28	-184.83	1741982.86	14596720.28	40°11'29.842"N	80°38'10.721"W	190.54	284.056	4.86	0.85	-22.92
2005.00	12.400	259.330	1988.66	-99.87	43.60	-204.68	1741963.02	14596717.60	40°11'29.817"N	80°38'10.977"W	209.27	282.025	1.38	-0.11	-6.39
2098.00	12.420	254.030	2079.49	-100.97	39.00	-224.11	1741943.60	14596713.00	40°11'29.772"N	80°38'11.227"W	227.47	279.872	1.22	0.02	-5.70
2191.00	12.060	264.800	2170.38	-102.96	35.37	-243.40	1741924.32	14596709.37	40°11'29.737"N	80°38'11.476"W	245.95	278.267	2.48	-0.39	11.58
2283.00	12.330	263.090	2260.31	-106.47	33.31	-262.72	1741905.00	14596707.32	40°11'29.717"N	80°38'11.725"W	264.83	277.226	0.49	0.29	-1.86
2373.00	12.370	259.430	2348.23	-109.06	30.39	-281.74	1741885.99	14596704.39	40°11'29.689"N	80°38'11.970"W	283.37	276.156	0.87	0.04	-4.07
2466.00	12.610	255.530	2439.03	-110.45	26.02	-301.36	1741866.38	14596700.03	40°11'29.647"N	80°38'12.223"W	302.48	274.936	0.94	0.26	-4.19
2558.00	11.580	263.630	2528.99	-112.42	22.49	-320.26	1741847.48	14596696.50	40°11'29.613"N	80°38'12.467"W	321.05	274.017	2.16	-1.12	8.80

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Field		
Facility		

WELLPATH DATA (202 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]
2651.00	11.370	263.490	2620.13	-115.64	20.42	-338.65	1741829.11	14596694.43	40°11'29.593"N	80°38'12.704"W	339.26	273.450	0.23	-0.23	-0.15
2744.00	11.550	261.520	2711.28	-118.53	18.00	-356.96	1741810.80	14596692.01	40°11'29.570"N	80°38'12.940"W	357.42	272.887	0.46	0.19	-2.12
2837.00	11.630	258.230	2802.38	-120.59	14.72	-375.35	1741792.42	14596688.73	40°11'29.538"N	80°38'13.177"W	375.64	272.245	0.72	0.09	-3.54
2929.00	11.560	265.120	2892.51	-123.21	12.04	-393.61	1741774.16	14596686.06	40°11'29.512"N	80°38'13.413"W	393.80	271.752	1.51	-0.08	7.49
3022.00	11.290	263.610	2983.67	-126.68	10.24	-411.95	1741755.84	14596684.25	40°11'29.495"N	80°38'13.649"W	412.07	271.423	0.43	-0.29	-1.62
3115.00	11.040	258.700	3074.91	-129.08	7.48	-429.72	1741738.06	14596681.49	40°11'29.469"N	80°38'13.878"W	429.79	270.997	1.06	-0.27	-5.28
3207.00	11.300	266.860	3165.17	-131.95	5.26	-447.36	1741720.43	14596679.27	40°11'29.447"N	80°38'14.106"W	447.39	270.673	1.74	0.28	8.87
3300.00	10.010	264.240	3256.57	-135.56	3.95	-464.50	1741703.30	14596677.96	40°11'29.435"N	80°38'14.327"W	464.52	270.487	1.48	-1.39	-2.82
3393.00	9.410	259.670	3348.24	-137.87	1.77	-480.03	1741687.78	14596675.79	40°11'29.414"N	80°38'14.527"W	480.03	270.212	1.05	-0.65	-4.91
3486.00	10.600	264.020	3439.82	-140.25	-0.48	-496.01	1741671.80	14596673.54	40°11'29.393"N	80°38'14.733"W	496.01	269.944	1.51	1.28	4.68
3578.00	10.280	259.070	3530.30	-142.58	-2.92	-512.49	1741655.33	14596671.10	40°11'29.369"N	80°38'14.945"W	512.50	269.674	1.03	-0.35	-5.38
3671.00	10.230	264.480	3621.82	-144.96	-5.29	-528.86	1741638.97	14596668.73	40°11'29.347"N	80°38'15.157"W	528.88	269.427	1.04	-0.05	5.82
3764.00	9.710	261.180	3713.41	-147.57	-7.28	-544.83	1741623.01	14596666.74	40°11'29.327"N	80°38'15.362"W	544.88	269.234	0.83	-0.56	-3.55
3857.00	8.810	254.450	3805.20	-148.73	-10.40	-559.44	1741608.40	14596663.63	40°11'29.297"N	80°38'15.551"W	559.54	268.935	1.51	-0.97	-7.24
3949.00	10.270	253.660	3895.93	-148.87	-14.59	-574.10	1741593.75	14596659.43	40°11'29.256"N	80°38'15.740"W	574.28	268.544	1.59	1.59	-0.86
4042.00	11.660	262.040	3987.23	-150.28	-18.23	-591.36	1741576.49	14596655.80	40°11'29.221"N	80°38'15.963"W	591.64	268.235	2.27	1.49	9.01
4135.00	11.390	257.360	4078.36	-152.29	-21.54	-609.63	1741558.23	14596652.49	40°11'29.189"N	80°38'16.198"W	610.01	267.977	1.05	-0.29	-5.03
4227.00	11.090	266.810	4168.60	-154.93	-24.02	-627.33	1741540.53	14596650.01	40°11'29.165"N	80°38'16.426"W	627.79	267.807	2.03	-0.33	10.27
4320.00	10.340	265.010	4259.98	-158.65	-25.24	-644.58	1741523.30	14596648.79	40°11'29.154"N	80°38'16.649"W	645.07	267.757	0.88	-0.81	-1.94
4410.00	9.190	258.110	4348.68	-160.83	-27.43	-659.66	1741508.22	14596646.60	40°11'29.133"N	80°38'16.843"W	660.23	267.619	1.82	-1.28	-7.67
4502.00	10.450	261.940	4439.33	-162.64	-30.11	-675.11	1741492.78	14596643.92	40°11'29.107"N	80°38'17.042"W	675.78	267.446	1.54	1.37	4.16
4595.00	11.850	269.600	4530.58	-166.52	-31.36	-693.01	1741474.88	14596642.67	40°11'29.096"N	80°38'17.273"W	693.72	267.409	2.19	1.51	8.24
4688.00	11.210	264.810	4621.70	-170.94	-32.24	-711.56	1741456.34	14596641.79	40°11'29.088"N	80°38'17.512"W	712.29	267.406	1.24	-0.69	-5.15
4781.00	12.010	265.410	4712.80	-174.70	-33.83	-730.21	1741437.70	14596640.20	40°11'29.073"N	80°38'17.753"W	730.99	267.347	0.87	0.86	0.65
4873.00	11.500	259.750	4802.87	-177.67	-36.23	-748.78	1741419.14	14596637.80	40°11'29.050"N	80°38'17.992"W	749.65	267.230	1.37	-0.55	-6.15
4966.00	10.780	267.420	4894.12	-180.76	-38.27	-766.59	1741401.33	14596635.76	40°11'29.030"N	80°38'18.222"W	767.54	267.142	1.77	-0.77	8.25
5059.00	9.680	265.100	4985.64	-184.42	-39.33	-783.07	1741384.86	14596634.70	40°11'29.020"N	80°38'18.434"W	784.05	267.124	1.26	-1.18	-2.49
5152.00	8.980	248.960	5077.43	-185.42	-42.61	-797.63	1741370.30	14596631.43	40°11'28.989"N	80°38'18.622"W	798.77	266.942	2.90	-0.75	-17.35
5196.00	11.340	229.340	5120.75	-183.37	-46.66	-804.12	1741363.81	14596627.38	40°11'28.949"N	80°38'18.706"W	805.48	266.679	9.45	5.36	-44.59
5243.00	14.360	216.720	5166.58	-177.98	-54.35	-811.12	1741356.82	14596619.69	40°11'28.873"N	80°38'18.796"W	812.94	266.167	8.74	6.43	-26.85

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Area	Wellbore	Barry Greathouse A BRK 206H AWP
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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5289.00	16.370	203.770	5210.94	-169.62	-64.86	-817.14	1741350.80	14596609.19	40°11'28.770"N	80°38'18.874"W	819.71	265.462	8.62	4.37	-28.15
5336.00	17.600	191.860	5255.91	-158.30	-77.88	-821.27	1741346.67	14596596.17	40°11'28.641"N	80°38'18.928"W	824.96	264.583	7.84	2.62	-25.34
5382.00	19.670	180.200	5299.51	-144.76	-92.43	-822.73	1741345.21	14596581.62	40°11'28.497"N	80°38'18.948"W	827.91	263.590	9.24	4.50	-25.35
5428.00	22.160	175.070	5342.48	-128.84	-108.82	-822.01	1741345.93	14596565.24	40°11'28.335"N	80°38'18.939"W	829.18	262.459	6.71	5.41	-11.15
5474.00	25.170	171.670	5384.60	-110.65	-127.15	-819.85	1741348.09	14596546.92	40°11'28.154"N	80°38'18.913"W	829.65	261.184	7.18	6.54	-7.39
5521.00	28.930	167.540	5426.46	-89.41	-148.15	-815.95	1741351.99	14596525.93	40°11'27.946"N	80°38'18.863"W	829.29	259.709	8.94	8.00	-8.79
5614.00	35.650	164.410	5505.04	-39.81	-196.27	-803.79	1741364.14	14596477.82	40°11'27.470"N	80°38'18.709"W	827.41	256.278	7.44	7.23	-3.37
5703.00	42.980	162.760	5573.85	16.54	-250.30	-787.81	1741380.12	14596423.81	40°11'26.936"N	80°38'18.506"W	826.62	252.374	8.32	8.24	-1.85
5793.00	49.500	166.040	5636.07	81.48	-312.89	-770.44	1741397.48	14596361.25	40°11'26.317"N	80°38'18.286"W	831.55	247.897	7.71	7.24	3.64
5886.00	58.680	164.210	5690.56	156.69	-385.59	-751.06	1741416.85	14596288.58	40°11'25.597"N	80°38'18.040"W	844.26	242.824	10.00	9.87	-1.97
5932.00	63.550	164.230	5712.78	196.95	-424.34	-740.11	1741427.80	14596249.85	40°11'25.214"N	80°38'17.901"W	853.13	240.173	10.59	10.59	0.04
5975.00	66.400	164.440	5730.97	235.90	-461.85	-729.59	1741438.31	14596212.35	40°11'24.843"N	80°38'17.767"W	863.49	237.665	6.64	6.63	0.49
6022.00	67.730	163.990	5749.28	279.18	-503.50	-717.82	1741450.09	14596170.72	40°11'24.431"N	80°38'17.618"W	876.80	234.953	2.96	2.83	-0.96
6068.00	70.420	163.490	5765.71	322.15	-544.74	-705.79	1741462.11	14596129.49	40°11'24.023"N	80°38'17.465"W	891.56	232.338	5.94	5.85	-1.09
6114.00	74.560	163.170	5779.54	366.00	-586.76	-693.20	1741474.69	14596087.49	40°11'23.607"N	80°38'17.305"W	908.19	229.754	9.02	9.00	-0.70
6161.00	77.760	162.830	5790.79	411.63	-630.39	-679.86	1741488.03	14596043.87	40°11'23.175"N	80°38'17.135"W	927.15	227.162	6.84	6.81	-0.72
6208.00	78.250	162.940	5800.55	457.60	-674.33	-666.33	1741501.55	14595999.95	40°11'22.741"N	80°38'16.963"W	948.01	224.658	1.07	1.04	0.23
6236.00	79.950	163.580	5805.85	485.10	-700.66	-658.41	1741509.47	14595973.63	40°11'22.480"N	80°38'16.862"W	961.47	223.220	6.47	6.07	2.29
6286.00	81.630	165.090	5813.85	534.44	-748.18	-645.09	1741522.78	14595926.13	40°11'22.010"N	80°38'16.693"W	987.88	220.768	4.49	3.36	3.02
6329.00	82.930	166.890	5819.63	577.01	-789.52	-634.78	1741533.09	14595884.81	40°11'21.601"N	80°38'16.563"W	1013.05	218.799	5.13	3.02	4.19
6375.00	85.440	166.780	5824.29	622.69	-834.08	-624.35	1741543.51	14595840.27	40°11'21.160"N	80°38'16.431"W	1041.87	216.817	5.46	5.46	-0.24
6422.00	88.430	167.140	5826.80	669.54	-879.79	-613.76	1741554.10	14595794.57	40°11'20.708"N	80°38'16.297"W	1072.73	214.901	6.41	6.36	0.77
6515.00	88.770	167.190	5829.07	762.32	-970.44	-593.11	1741574.74	14595703.95	40°11'19.812"N	80°38'16.035"W	1137.34	211.432	0.37	0.37	0.05
6607.00	89.230	165.130	5830.68	854.20	-1059.75	-571.11	1741596.74	14595614.68	40°11'18.928"N	80°38'15.756"W	1203.84	208.321	2.29	0.50	-2.24
6700.00	89.320	161.530	5831.86	947.18	-1148.82	-544.44	1741623.40	14595525.64	40°11'18.047"N	80°38'15.417"W	1271.30	205.357	3.87	0.10	-3.87
6793.00	89.480	157.940	5832.83	1039.96	-1236.05	-512.23	1741655.59	14595438.45	40°11'17.184"N	80°38'15.007"W	1337.98	202.510	3.86	0.17	-3.86
6886.00	89.720	157.180	5833.48	1132.45	-1322.00	-476.73	1741691.07	14595352.53	40°11'16.333"N	80°38'14.554"W	1405.33	199.830	0.86	0.26	-0.82
6978.00	89.660	157.050	5833.98	1223.88	-1406.76	-440.96	1741726.84	14595267.81	40°11'15.494"N	80°38'14.098"W	1474.25	197.404	0.16	-0.07	-0.14
7071.00	89.540	154.460	5834.63	1316.01	-1491.55	-402.77	1741765.01	14595183.05	40°11'14.654"N	80°38'13.610"W	1544.97	195.112	2.79	-0.13	-2.78
7164.00	89.630	151.810	5835.30	1407.48	-1574.50	-360.75	1741807.01	14595100.13	40°11'13.833"N	80°38'13.073"W	1615.30	192.905	2.85	0.10	-2.85

Actual Wellpath Report

Barry Greathouse A BRK 206H AWP Proj: 17372'

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REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY	Slot	Slot #206H
Area	Brooke County, WV	Well	Barry Greathouse A BRK 206H
Field	Brooke	Wellbore	Barry Greathouse A BRK 206H AWB
Facility	Barry Greathouse A BRK Pad		

WELLPATH DATA (202 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]
7256.00	89.970	155.930	5835.62	1498.16	-1657.08	-320.24	1741847.50	14595017.59	40°11'13.015"N	80°38'12.555"W	1687.74	190.938	4.49	0.37	4.48
7349.00	89.480	157.950	5836.07	1590.54	-1742.64	-283.82	1741883.91	14594932.06	40°11'12.168"N	80°38'12.091"W	1765.60	189.250	2.24	-0.53	2.17
7442.00	89.660	156.660	5836.77	1682.99	-1828.44	-247.94	1741919.78	14594846.29	40°11'11.319"N	80°38'11.633"W	1845.17	187.722	1.40	0.19	-1.39
7535.00	89.080	155.810	5837.79	1775.23	-1913.54	-210.46	1741957.24	14594761.22	40°11'10.476"N	80°38'11.155"W	1925.08	186.276	1.11	-0.62	-0.91
7627.00	89.110	158.750	5839.24	1866.66	-1998.39	-174.94	1741992.75	14594676.41	40°11'09.637"N	80°38'10.701"W	2006.03	185.003	3.20	0.03	3.20
7720.00	89.420	161.400	5840.43	1959.48	-2085.80	-143.25	1742024.43	14594589.03	40°11'08.771"N	80°38'10.298"W	2090.72	183.929	2.87	0.33	2.85
7813.00	89.720	163.700	5841.13	2052.46	-2174.52	-115.36	1742052.30	14594500.35	40°11'07.894"N	80°38'09.943"W	2177.57	183.037	2.49	0.32	2.47
7902.00	89.510	164.530	5841.73	2141.45	-2260.11	-91.01	1742076.65	14594414.79	40°11'07.047"N	80°38'09.634"W	2261.95	182.306	0.96	-0.24	0.93
7995.00	89.720	163.490	5842.36	2234.44	-2349.51	-65.39	1742102.26	14594325.42	40°11'06.162"N	80°38'09.308"W	2350.42	181.594	1.14	0.23	-1.12
8085.00	89.570	162.800	5842.91	2324.44	-2435.64	-39.29	1742128.34	14594239.32	40°11'05.310"N	80°38'08.977"W	2435.96	180.924	0.78	-0.17	-0.77
8177.00	89.570	157.730	5843.60	2416.26	-2522.21	-8.24	1742159.39	14594152.79	40°11'04.453"N	80°38'08.581"W	2522.22	180.187	5.51	0.00	-5.51
8270.00	89.140	157.240	5844.65	2508.74	-2608.12	27.37	1742194.98	14594066.92	40°11'03.603"N	80°38'08.127"W	2608.26	179.399	0.70	-0.46	-0.53
8363.00	89.260	159.910	5845.95	2601.37	-2694.67	61.34	1742228.93	14593980.40	40°11'02.746"N	80°38'07.694"W	2695.37	178.696	2.87	0.13	2.87
8456.00	89.290	160.110	5847.13	2694.19	-2782.06	93.13	1742260.71	14593893.04	40°11'01.882"N	80°38'07.289"W	2783.62	178.083	0.22	0.03	0.22
8548.00	89.050	158.970	5848.46	2785.96	-2868.25	125.28	1742292.85	14593806.89	40°11'01.029"N	80°38'06.879"W	2870.98	177.499	1.27	-0.26	-1.24
8641.00	88.950	157.870	5850.08	2878.57	-2954.71	159.48	1742327.04	14593720.46	40°11'00.173"N	80°38'06.443"W	2959.02	176.910	1.19	-0.11	-1.18
8731.00	89.260	155.630	5851.49	2967.93	-3037.39	195.00	1742362.55	14593637.81	40°10'59.354"N	80°38'05.990"W	3043.64	176.327	2.51	0.34	-2.49
8823.00	89.380	156.540	5852.58	3059.15	-3121.49	232.29	1742399.82	14593553.75	40°10'58.522"N	80°38'05.514"W	3130.12	175.744	1.00	0.13	0.99
8916.00	89.320	157.080	5853.64	3151.50	-3206.97	268.91	1742436.43	14593468.30	40°10'57.676"N	80°38'05.046"W	3218.22	175.207	0.58	-0.06	0.58
9009.00	89.200	159.350	5854.84	3244.09	-3293.31	303.42	1742470.93	14593381.99	40°10'56.821"N	80°38'04.606"W	3307.26	174.736	2.44	-0.13	2.44
9102.00	89.170	162.120	5856.16	3336.96	-3381.09	334.10	1742501.59	14593294.25	40°10'55.952"N	80°38'04.216"W	3397.55	174.357	2.98	-0.03	2.98
9195.00	89.510	163.620	5857.23	3429.95	-3469.95	361.49	1742528.97	14593205.42	40°10'55.073"N	80°38'03.868"W	3488.73	174.053	1.65	0.37	1.61
9287.00	89.320	164.510	5858.17	3521.94	-3558.41	386.75	1742554.22	14593117.00	40°10'54.198"N	80°38'03.547"W	3579.37	173.797	0.99	-0.21	0.97
9377.00	89.600	163.740	5859.02	3611.93	-3644.97	411.36	1742578.83	14593030.47	40°10'53.341"N	80°38'03.234"W	3668.11	173.561	0.91	0.31	-0.86
9470.00	91.290	159.520	5858.30	3704.85	-3733.21	440.66	1742608.11	14592942.27	40°10'52.468"N	80°38'02.862"W	3759.13	173.268	4.89	1.82	-4.54
9560.00	89.050	153.700	5858.03	3794.15	-3815.77	476.38	1742643.81	14592859.73	40°10'51.651"N	80°38'02.406"W	3845.39	172.884	6.93	-2.49	-6.47
9652.00	89.050	154.930	5859.55	3884.95	-3898.67	516.24	1742683.66	14592776.87	40°10'50.830"N	80°38'01.837"W	3932.70	172.457	1.34	0.00	1.34
9745.00	88.980	159.590	5861.15	3977.36	-3984.40	552.18	1742719.58	14592691.17	40°10'49.981"N	80°38'01.438"W	4022.48	172.110	5.01	-0.08	5.01
9838.00	89.170	161.080	5862.66	4070.20	-4071.96	583.47	1742750.86	14592603.64	40°10'49.115"N	80°38'01.040"W	4113.55	171.846	1.61	0.20	1.60
9930.00	89.570	160.870	5863.67	4162.11	-4158.93	613.46	1742780.84	14592516.71	40°10'48.254"N	80°38'00.658"W	4203.93	171.609	0.49	0.43	-0.23

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Actual Wellpath Report

Barry Greathouse A BRK 206H AWP Proj: 17372'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #206H
SOUTHWESTERN ENERGY	Well	Barry Greathouse A BRK 206H
Brooke County, WV	Wellbore	Barry Greathouse A BRK 206H AWB
Brooke		
Barry Greathouse A BRK Pad		

WELLPATH DATA (202 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]
10023.00	89.480	160.520	5884.44	4254.99	-4246.70	644.20	1742811.57	14592428.97	40°10'47.386"N	80°38'00.267"W	4295.28	171.374	0.39	-0.10	-0.38
10116.00	89.570	157.260	5885.21	4347.67	-4333.45	677.69	1742845.05	14592342.26	40°10'46.527"N	80°37'59.840"W	4386.12	171.112	3.51	0.10	-3.51
10208.00	89.320	154.390	5886.10	4438.83	-4417.36	715.36	1742882.70	14592258.38	40°10'45.696"N	80°37'59.359"W	4474.91	170.801	3.13	-0.27	-3.12
10301.00	89.050	156.580	5887.42	4530.90	-4501.97	753.94	1742921.27	14592173.81	40°10'44.859"N	80°37'58.866"W	4564.66	170.493	2.37	-0.29	2.35
10394.00	89.420	159.980	5888.67	4623.49	-4588.34	788.35	1742955.67	14592087.46	40°10'44.004"N	80°37'58.428"W	4655.58	170.251	3.68	0.40	3.66
10487.00	89.480	163.520	5889.56	4716.43	-4676.65	817.47	1742984.77	14591999.19	40°10'43.130"N	80°37'58.057"W	4747.56	170.085	3.81	0.06	3.81
10579.00	90.120	162.750	5889.88	4808.42	-4764.69	844.16	1743011.45	14591911.19	40°10'42.259"N	80°37'57.718"W	4838.89	169.953	1.09	0.70	-0.84
10672.00	90.460	160.170	5889.41	4901.35	-4852.85	873.73	1743041.01	14591823.06	40°10'41.386"N	80°37'57.342"W	4930.88	169.794	2.80	0.37	-2.77
10765.00	89.510	156.020	5889.43	4993.92	-4939.12	908.42	1743075.68	14591736.82	40°10'40.532"N	80°37'56.900"W	5021.96	169.578	4.58	-1.02	-4.46
10858.00	89.570	155.900	5870.18	5086.10	-5024.05	946.30	1743113.55	14591651.93	40°10'39.692"N	80°37'56.416"W	5112.39	169.333	0.14	0.06	-0.13
10951.00	89.540	158.530	5870.90	5178.53	-5109.78	982.31	1743149.55	14591566.23	40°10'38.843"N	80°37'55.957"W	5203.35	169.118	2.83	-0.03	2.83
11043.00	89.540	159.620	5871.64	5270.25	-5195.71	1015.17	1743182.39	14591480.33	40°10'37.992"N	80°37'55.538"W	5293.96	168.944	1.18	0.00	1.18
11136.00	89.600	157.890	5872.34	5362.92	-5282.39	1048.87	1743216.08	14591393.69	40°10'37.135"N	80°37'55.108"W	5385.51	168.769	1.86	0.06	-1.86
11229.00	89.540	157.830	5873.04	5455.47	-5368.53	1083.91	1743251.11	14591307.59	40°10'36.282"N	80°37'54.662"W	5476.85	168.585	0.09	-0.06	-0.06
11321.00	89.450	157.130	5873.85	5546.95	-5453.51	1119.15	1743286.33	14591222.64	40°10'35.441"N	80°37'54.212"W	5567.16	168.403	0.77	-0.10	-0.76
11414.00	89.450	157.460	5874.74	5639.40	-5539.30	1155.04	1743322.22	14591136.88	40°10'34.591"N	80°37'53.754"W	5658.44	168.222	0.35	0.00	0.35
11504.00	89.420	156.930	5875.63	5728.85	-5622.26	1189.93	1743357.08	14591053.96	40°10'33.770"N	80°37'53.309"W	5746.80	168.050	0.59	-0.03	-0.59
11596.00	89.290	157.660	5876.66	5820.30	-5707.12	1225.43	1743392.58	14590969.12	40°10'32.930"N	80°37'52.856"W	5837.20	167.881	0.81	-0.14	0.79
11689.00	89.320	160.520	5877.79	5913.00	-5793.98	1258.62	1743425.75	14590882.30	40°10'32.070"N	80°37'52.434"W	5929.11	167.744	3.08	0.03	3.08
11782.00	89.450	158.490	5878.79	6005.76	-5881.08	1291.18	1743458.30	14590795.23	40°10'31.208"N	80°37'52.019"W	6021.15	167.617	2.19	0.14	-2.18
11874.00	89.230	159.080	5879.85	6097.44	-5966.84	1324.47	1743491.57	14590709.50	40°10'30.359"N	80°37'51.595"W	6112.07	167.485	0.68	-0.24	0.64
11967.00	89.260	159.310	5881.08	6190.17	-6053.77	1357.50	1743524.59	14590622.61	40°10'29.499"N	80°37'51.174"W	6204.11	167.361	0.25	0.03	0.25
12057.00	89.200	161.310	5882.29	6280.02	-6138.50	1387.82	1743554.90	14590537.92	40°10'28.661"N	80°37'50.788"W	6293.42	167.261	2.22	-0.07	2.22
12149.00	89.260	161.510	5883.52	6371.95	-6225.69	1417.14	1743584.21	14590450.76	40°10'27.798"N	80°37'50.415"W	6384.94	167.176	0.23	0.07	0.22
12240.00	89.450	160.350	5884.55	6462.85	-6311.69	1446.87	1743613.93	14590364.79	40°10'26.947"N	80°37'50.036"W	6475.40	167.089	1.29	0.21	-1.27
12332.00	89.820	158.280	5885.13	6554.59	-6397.75	1479.37	1743646.41	14590278.76	40°10'26.095"N	80°37'49.622"W	6566.56	166.980	2.29	0.40	-2.25
12425.00	89.200	156.500	5885.93	6647.05	-6483.60	1515.12	1743682.15	14590192.95	40°10'25.245"N	80°37'49.166"W	6658.27	166.847	2.03	-0.67	-1.91
12518.00	89.600	156.410	5886.90	6739.34	-6568.85	1552.27	1743719.28	14590107.73	40°10'24.401"N	80°37'48.692"W	6749.76	166.704	0.44	0.43	-0.10
12611.00	89.600	154.490	5887.55	6831.41	-6653.43	1590.90	1743757.91	14590023.18	40°10'23.564"N	80°37'48.199"W	6840.99	166.552	2.06	0.00	-2.06
12703.00	89.320	156.660	5888.42	6922.52	-6737.19	1628.94	1743795.93	14589939.45	40°10'22.734"N	80°37'47.714"W	6931.32	166.408	2.38	-0.30	2.36

Actual Wellpath Report

Barry Greathouse A BRK 206H AWP Proj: 17372'
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WV Department of
Environmental Protection

REFERENCE WELLPATH IDENTIFICATION

		Slot	Slot #206H
Operator	SOUTHWESTERN ENERGY	Well	Barry Greathouse A BRK 206H
Area	Brooke County, WV	Wellbore	Barry Greathouse A BRK 206H AWB
Field	Brooke		
Facility	Barry Greathouse A BRK Pad		

WELLPATH DATA (202 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]
12796.00	89.290	161.670	5889.55	7015.22	-6824.08	1662.01	1743828.98	14589852.60	40°10'21.874"N	80°37'47.292"W	7023.55	166.312	5.39	-0.03	5.39
12885.00	89.940	164.220	5890.14	7104.20	-6909.15	1688.11	1743855.07	14589767.56	40°10'21.033"N	80°37'46.961"W	7112.39	166.270	2.96	0.73	2.87
12974.00	90.250	162.110	5890.00	7193.19	-6994.33	1713.88	1743880.84	14589682.41	40°10'20.190"N	80°37'46.633"W	7201.26	166.232	2.40	0.35	-2.37
13064.00	89.910	161.320	5889.87	7283.15	-7079.79	1742.12	1743909.06	14589596.99	40°10'19.344"N	80°37'46.274"W	7290.98	166.176	0.96	-0.38	-0.88
13153.00	89.970	158.640	5889.96	7371.97	-7163.40	1772.59	1743939.52	14589513.41	40°10'18.517"N	80°37'45.886"W	7379.46	166.101	3.01	0.07	-3.01
13242.00	89.780	157.020	5890.16	7460.53	-7245.82	1806.17	1743973.09	14589431.02	40°10'17.701"N	80°37'45.458"W	7467.54	166.003	1.83	-0.21	-1.82
13331.00	89.820	157.220	5890.47	7548.97	-7327.82	1840.77	1744007.68	14589349.06	40°10'16.889"N	80°37'45.016"W	7555.48	165.899	0.23	0.04	0.22
13420.00	89.660	157.650	5890.87	7637.47	-7410.00	1874.92	1744041.81	14589266.91	40°10'16.076"N	80°37'44.581"W	7643.53	165.801	0.52	-0.18	0.48
13509.00	89.690	158.270	5891.38	7726.05	-7492.50	1908.32	1744075.20	14589184.44	40°10'15.259"N	80°37'44.155"W	7731.70	165.711	0.70	0.03	0.70
13599.00	89.720	158.110	5891.84	7815.66	-7576.05	1941.76	1744108.62	14589100.92	40°10'14.432"N	80°37'43.729"W	7820.93	165.624	0.18	0.03	-0.18
13687.00	89.690	157.730	5892.29	7903.24	-7657.60	1974.84	1744141.69	14589019.41	40°10'13.625"N	80°37'43.307"W	7908.15	165.539	0.43	-0.03	-0.43
13775.00	89.780	156.440	5892.70	7990.68	-7738.65	2009.10	1744175.94	14588938.39	40°10'12.822"N	80°37'42.870"W	7995.20	165.446	1.47	0.10	-1.47
13864.00	89.660	156.540	5893.14	8079.01	-7820.26	2044.60	1744211.43	14588856.81	40°10'12.014"N	80°37'42.417"W	8083.12	165.348	0.18	-0.13	0.11
13954.00	89.690	157.290	5893.65	8168.41	-7903.05	2079.89	1744246.70	14588774.05	40°10'11.195"N	80°37'41.967"W	8172.16	165.255	0.83	0.03	0.83
14042.00	89.690	158.860	5894.12	8256.01	-7984.69	2112.75	1744279.54	14588692.45	40°10'10.387"N	80°37'41.548"W	8259.47	165.179	1.78	0.00	1.78
14132.00	89.750	158.680	5894.56	8345.70	-8068.58	2145.34	1744312.12	14588608.59	40°10'09.556"N	80°37'41.133"W	8348.92	165.110	0.21	0.07	-0.20
14221.00	89.880	160.080	5894.85	8434.47	-8151.87	2176.68	1744343.45	14588525.33	40°10'08.732"N	80°37'40.734"W	8437.47	165.050	1.58	0.15	1.57
14310.00	89.970	159.610	5894.97	8523.28	-8235.42	2207.34	1744374.10	14588441.81	40°10'07.905"N	80°37'40.343"W	8526.11	164.996	0.54	0.10	-0.53
14399.00	90.150	159.930	5894.87	8612.09	-8318.93	2238.12	1744404.87	14588358.33	40°10'07.079"N	80°37'39.951"W	8614.74	164.942	0.41	0.20	0.36
14489.00	90.000	159.490	5894.76	8701.89	-8403.35	2269.33	1744436.07	14588273.95	40°10'06.243"N	80°37'39.554"W	8704.37	164.888	0.52	-0.17	-0.49
14578.00	89.820	159.230	5894.90	8790.66	-8486.62	2300.70	1744467.43	14588190.69	40°10'05.419"N	80°37'39.154"W	8792.96	164.832	0.36	-0.20	-0.29
14667.00	89.720	161.380	5895.25	8879.51	-8570.43	2330.69	1744497.41	14588106.94	40°10'04.590"N	80°37'38.773"W	8881.68	164.787	2.42	-0.11	2.42
14756.00	89.570	162.310	5895.83	8972.47	-8658.79	2359.67	1744526.37	14588018.61	40°10'03.715"N	80°37'38.404"W	8974.56	164.756	1.01	-0.16	1.00
14845.00	89.880	163.820	5896.27	9064.46	-8746.80	2386.47	1744553.16	14587930.63	40°10'02.844"N	80°37'38.064"W	9066.51	164.739	1.68	0.34	1.64
14945.00	89.970	162.950	5896.39	9157.46	-8835.91	2413.06	1744579.74	14587841.55	40°10'01.963"N	80°37'37.726"W	9159.49	164.725	0.94	0.10	-0.94
15038.00	90.060	160.120	5896.37	9250.40	-8924.12	2442.51	1744609.18	14587753.38	40°10'01.090"N	80°37'37.351"W	9252.33	164.693	3.04	0.10	-3.04
15130.00	89.940	156.960	5896.37	9342.04	-9009.73	2476.17	1744642.82	14587667.81	40°10'00.242"N	80°37'36.922"W	9343.80	164.633	3.44	-0.13	-3.43
15223.00	89.660	156.970	5896.69	9434.43	-9095.31	2512.56	1744679.20	14587582.26	40°09'59.395"N	80°37'36.458"W	9435.97	164.567	0.30	-0.30	0.01
15316.00	89.660	158.280	5897.24	9526.93	-9181.31	2547.96	1744714.58	14587496.29	40°09'58.544"N	80°37'36.007"W	9528.30	164.490	1.41	0.00	1.41
15409.00	89.630	157.980	5897.82	9619.52	-9267.61	2582.60	1744749.21	14587410.02	40°09'57.690"N	80°37'35.565"W	9620.73	164.428	0.32	-0.03	-0.32

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Actual Wellpath Report

Barry Greathouse A BRK 206H AWP Proj: 17372

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot
SOUTHWESTERN ENERGY	Slot #206H
Area	Barry Greathouse A BRK 206H
Field	Brooke County, WV
Facility	Brooke
	Barry Greathouse A BRK Pad
	Wellbore
	Barry Greathouse A BRK 206H AWB

WELLPATH DATA (202 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]
15501.00	89.850	156.670	5898.24	9710.98	-9352.50	2618.06	1744784.66	14587325.17	40°09'56.849"N	80°37'35.113"W	9712.03	164.361	1.44	0.24	-1.42
15594.00	89.660	156.640	5898.64	9803.31	-9437.88	2654.92	1744821.50	14587239.82	40°09'56.004"N	80°37'34.643"W	9804.19	164.288	0.21	-0.20	-0.03
15687.00	89.850	154.760	5899.03	9895.44	-9522.64	2693.18	1744859.76	14587155.09	40°09'55.165"N	80°37'34.155"W	9896.16	164.208	2.03	0.20	-2.02
15779.00	89.600	154.980	5899.48	9986.39	-9605.93	2732.25	1744898.81	14587071.84	40°09'54.340"N	80°37'33.656"W	9986.95	164.122	0.36	-0.27	0.24
15872.00	89.660	157.480	5900.08	10078.63	-9691.03	2769.74	1744936.28	14586986.77	40°09'53.498"N	80°37'33.178"W	10079.06	164.050	2.69	0.06	2.69
15965.00	89.540	160.730	5900.73	10171.34	-9777.90	2802.90	1744989.43	14586889.93	40°09'52.638"N	80°37'32.756"W	10171.71	164.005	3.50	-0.13	3.49
16057.00	89.690	162.910	5901.34	10263.29	-9865.30	2831.60	1744998.12	14586812.56	40°09'51.773"N	80°37'32.391"W	10263.63	163.985	2.38	0.16	2.37
16150.00	89.850	164.180	5901.72	10356.29	-9954.49	2857.94	1745024.45	14586723.41	40°09'50.890"N	80°37'32.056"W	10356.63	163.981	1.38	0.17	1.37
16243.00	89.780	163.130	5902.02	10449.29	-10043.73	2884.12	1745050.61	14586634.21	40°09'50.007"N	80°37'31.724"W	10449.62	163.978	1.13	-0.08	-1.13
16336.00	89.720	159.990	5902.07	10542.22	-10131.94	2913.53	1745080.01	14586546.03	40°09'49.134"N	80°37'31.350"W	10542.53	163.957	3.40	0.40	-3.38
16425.00	89.720	154.770	5902.18	10630.68	-10214.07	2947.75	1745114.22	14586463.93	40°09'48.321"N	80°37'30.914"W	10630.92	163.902	5.89	-0.48	-5.87
16515.00	89.660	155.480	5902.66	10719.72	-10295.72	2985.60	1745152.06	14586382.32	40°09'47.513"N	80°37'30.430"W	10719.87	163.829	0.79	-0.07	0.79
16608.00	89.780	159.650	5903.12	10812.19	-10381.66	3021.09	1745187.53	14586296.41	40°09'46.662"N	80°37'29.978"W	10812.30	163.775	4.49	0.13	4.48
16700.00	89.910	162.240	5903.37	10904.09	-10468.61	3051.12	1745217.55	14586209.49	40°09'45.802"N	80°37'29.596"W	10904.18	163.751	2.82	0.14	2.82
16793.00	89.820	162.240	5903.59	10997.07	-10557.18	3079.49	1745245.91	14586120.96	40°09'44.925"N	80°37'29.235"W	10997.15	163.738	0.10	-0.10	0.00
16886.00	89.690	160.690	5903.98	11090.00	-10645.35	3109.05	1745275.46	14586032.82	40°09'44.053"N	80°37'28.859"W	11090.07	163.719	1.67	-0.14	-1.67
16978.00	89.750	159.070	5904.43	11181.81	-10731.73	3140.70	1745307.09	14585946.47	40°09'43.198"N	80°37'28.456"W	11181.86	163.688	1.76	0.07	-1.76
17071.00	89.600	159.520	5904.96	11274.56	-10818.72	3173.58	1745339.96	14585859.52	40°09'42.337"N	80°37'28.038"W	11274.59	163.651	0.51	-0.16	0.48
17164.00	89.820	160.790	5905.43	11367.40	-10906.20	3205.15	1745371.52	14585772.08	40°09'41.471"N	80°37'27.636"W	11367.41	163.623	1.39	0.24	1.37
17254.00	89.880	162.670	5905.67	11457.35	-10991.66	3233.36	1745399.72	14585686.65	40°09'40.625"N	80°37'27.277"W	11457.36	163.608	2.09	0.07	2.09
17347.00	89.690	161.140	5906.02	11550.31	-11080.05	3262.24	1745428.59	14585598.29	40°09'39.751"N	80°37'26.910"W	11550.32	163.594	1.66	-0.20	-1.65
17372.00	89.690	161.140	5906.15	11575.29	-11103.71	3270.33	1745436.67	14585574.64	40°09'39.517"N	80°37'26.807"W	11575.29	163.589	0.00	0.00	0.00

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Actual Wellpath Report
Barry Greathouse A BRK 206H AWP Proj: 17372'
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REFERENCE WELLPATH IDENTIFICATION

	Slot	Slot #206H
Operator	SOUTHWESTERN ENERGY	
Area	Brooke County, WV	Barry Greathouse A BRK 206H
Field	Brooke	Barry Greathouse A BRK 206H AWB
Facility	Barry Greathouse A BRK Pad	

HOLE & CASING SECTIONS

- Ref Wellbore: Barry Greathouse A BRK 206H AWB Ref Wellpath: Barry Greathouse A BRK 206H AWP Proj: 17372'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	26.00	100.00	74.00	26.00	100.00	0.00	0.00	0.00	-0.41
17.5in Open Hole	100.00	353.00	253.00	100.00	352.97	0.00	-0.41	0.05	-4.41
13.375in Casing Surface	26.00	353.00	327.00	26.00	352.97	0.00	0.00	0.05	-4.41
12.25in Open Hole	353.00	1622.00	1269.00	352.97	1612.52	0.05	-4.41	36.64	-134.66
9.625in Casing Intermediate	26.00	1622.00	1596.00	26.00	1612.52	0.00	0.00	36.64	-134.66
8.75in Open Hole	1622.00	6233.00	4611.00	1612.52	5805.32	36.64	-134.66	-697.83	-659.25
8.5in Open Hole	6233.00	17372.00	11139.00	5805.32	5906.15	-697.83	-659.25	-11103.71	3270.33
5.5in Casing Production	26.00	17372.00	17346.00	26.00	5906.15	0.00	0.00	-11103.71	3270.33

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Barry Greathouse A BRK 206H BHL Rev 4	5907.30	-11100.40	3284.27	1745450.61	14585577.95	40°09'39.549"N	80°37'26.627"W	point

WELLPATH COMPOSITION - Ref Wellbore: Barry Greathouse A BRK 206H AWB Ref Wellpath: Barry Greathouse A BRK 206H AWP Proj: 17372'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	332.00	OWSG MWD rev2 + HRGM	01_Premier MWD <17 1/2"> (151'-332')	Barry Greathouse A BRK 206H AWB
332.00	1575.00	OWSG MWD rev2 + HRGM	02_Premier MWD <12 1/4"> (423'-1575')	Barry Greathouse A BRK 206H AWB
1575.00	6161.00	OWSG MWD rev2 + HRGM	03_Premier MWD <8 3/4"> (1728'-6161')	Barry Greathouse A BRK 206H AWB
6161.00	17347.00	BHI AutoTrak Curve (Short)	04_BH AT Curve <8 1/2"> (6208'-17347')	Barry Greathouse A BRK 206H AWB
17347.00	17372.00	Blind Drilling (std)	Projection to bit	Barry Greathouse A BRK 206H AWB

REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #206H
SOUTHWESTERN ENERGY	Well	Barry Greathouse A BRK 206H
Brooke County, WV	Wellbore	Barry Greathouse A BRK 206H AWB
Brooke		
Barry Greathouse A BRK Pad		

COMMENTS

Wellpath general comments
 API: 47-009-00232-0000
 BH Job #: 109780830
 Rig: SDC 40
 Duration: 4/29/2019 - 5/11/19
 Premier MWD <17 1/2"> (151'-332')
 Premier MWD <12 1/4"> (423'-1575')
 Premier MWD <8 3/4"> (1728'-6161')
 BH AT Curve <8 1/2"> (6208'-17347')
 Projected MD at TD: 17,372'

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