

Location: Wetzel County, WV  
 Field: Wetzel  
 Facility: Big 177 Pad

API: 47-103-03189  
 Slot: Slot 512917  
 Well: Big 177 H5  
 Wellbore: Big 177 H5 PWB

True Vertical Depth (ft)	0	750	1500	2250	3000	3750	4500	5250	6000	6750
Easting (ft)	-8000	-7000	-6000	-5000	-4000	-3000	-2000	-1000	0	1000
Northing (ft)	-2000	0	1000	2000	3000	4000	5000	6000	7000	8000
9000										

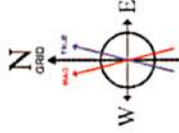
Location Information			
Facility Name	Grid East (US ft)	Latitude	Longitude
Big 177 Pad	1694484.910	39°34'57.170"N	80°35'02.331"W
Slot	Local N (ft)	Grid East (US ft)	Longitude
Slot 512917	-22.66	1694445.970	80°35'02.826"W
Pioneer 72 (RKB) to Mud line (At Slot: Slot 512917)	23ft		
Mean Sea Level to Mud line (At Slot: Slot 512917)	-811ft		
Pioneer 72 (RKB) to Mean Sea Level	834ft		

Scale 1 inch = 1500

Gyrodata MS Gyro <17-1/2"> (100-736) : 0.47° Inc. 100.00ft MD. 100.00ft TVD. 0.16ft VS

SDI MWD <12-1/4"> (736)(821-2703) : 0.79° Inc. 821.00ft MD. 820.85ft TVD. 4.35ft VS

SDI MWD <8-3/4"> (2703)(2776-5399) : 0.50° Inc. 2776.00ft MD. 2773.74ft TVD. 70.90ft VS



User specified (HOGM) Dip: 66.88° Field: 52368 nT  
 Magnetic North is 8.32 degrees West of True North (at 31/Dec/2017)  
 Grid North is 0.69 degrees West of True North  
 To correct azimuth from True to Grid add 0.69 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.63 degrees

API: 47-103-03189-0000  
 BH Job #: 8929565  
 Rig: Pioneer 72  
 Duration: 1/1/2018-1/5/2018

BH AT Curve <8-1/2"> (5399)(5494-16114) : 4985.52r TVD. 509.48ft N. 1502.80ft W

SDI MWD <8-3/4"> (2703)(2776-5399) : 2773.74r TVD. 34.51ft N. 69.47ft W  
 SDI MWD <12-1/4"> (736)(821-2703) : 820.85r TVD. 12.07ft N. 7.75ft E  
 Gyrodata MS Gyro <17-1/2"> (100-736) : 100.00r TVD. 0.30ft N. 0.11ft E

BH AT Curve <8-1/2"> (5399)(5494-16114) : 37.72° Inc. 5494.00ft MD. 4985.52ft TVD. 1351.21ft VS

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	5399.00	39.360	289.140	4911.21	489.54	-1447.07	1.82	1300.30
Prop. To Bottom	5472.00	39.300	289.140	4967.66	504.72	-1490.81	0.00	1339.89
End of 3D Arc	5511.39	38.313	288.265	4998.34	512.64	-1514.20	3.00	1360.92
Curve KCP	7515.52	38.313	288.265	6570.84	902.06	-2094.09	0.00	2413.63
Landing Pt.	8147.89	90.100	331.500	6687.00	1260.59	-3070.06	0.00	2945.00
Start Drop	11052.51	89.500	331.500	6641.88	3859.58	-4470.34	0.00	5624.22
Hold 89.5°	11102.51	89.500	331.500	6641.95	3877.16	-4479.89	3.00	5643.84
BHL	16144.03	89.500	331.500	6685.94	8307.57	-6885.40	0.00	10790.01

Projected MD at TD: 16141° : 89.57° Inc, 16141.00ft MD, 6876.65ft TVD, 10791.15ft VS

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Vertical Section (ft)  
 Azimuth 320.35° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500



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# Actual Wellpath Report

Big 177 H5 AWP Proj: 16141'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		API: 47-103-03189

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Edsaryar
Scale	0.999941	Report Generated	10/Jan/2018 at 21:07
Convergence at slot	0.69° West	Database/Source file	WA_MPL_EASTERNUS_Defn/Big_177_H5_AWP_Proj_16141_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-22.66	-39.04	1694445.87	396107.38	39°34'56.941"N	80°35'02.826"W
Facility Reference Pt			1694484.91	396130.04	39°34'57.170"N	80°35'02.331"W
Field Reference Pt			1688243.35	385255.46	39°33'08.944"N	80°36'20.337"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Pioneer 72 (RKB) to Facility Vertical Datum	834.00ft
Horizontal Reference Pt	Slot	Pioneer 72 (RKB) to Mean Sea Level	834.00ft
Vertical Reference Pt	Pioneer 72 (RKB)	Pioneer 72 (RKB) to Mud Line at Slot (Slot 512917)	23.00ft
MD Reference Pt	Pioneer 72 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	320.35°

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Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

**WELLPATH DATA (186 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	20.500	0.00	0.00	0.00	0.00	1694445.87	396107.38	39°34'56.941"N	80°35'02.826"W	0.00	0.000	0.00	0.00	0.00
23.00	0.000	20.500	23.00	0.00	0.00	0.00	1694445.87	396107.38	39°34'56.941"N	80°35'02.826"W	0.00	0.000	0.00	0.00	0.00
100.00	0.470	20.500	100.00	0.16	0.30	0.11	1694445.98	396107.68	39°34'56.944"N	80°35'02.825"W	0.32	20.500	0.61	0.61	26.62
200.00	0.580	18.720	199.99	0.63	1.16	0.42	1694446.29	396108.54	39°34'56.953"N	80°35'02.821"W	1.23	19.769	0.11	0.11	-1.78
300.00	1.060	24.480	299.98	1.30	2.48	0.96	1694446.83	396109.86	39°34'56.966"N	80°35'02.814"W	2.66	21.205	0.49	0.48	5.76
400.00	1.330	31.240	399.96	2.08	4.31	1.95	1694447.82	396111.69	39°34'56.984"N	80°35'02.802"W	4.73	24.294	0.30	0.27	6.76
500.00	1.380	35.700	499.93	2.76	6.28	3.25	1694449.12	396113.66	39°34'57.004"N	80°35'02.786"W	7.08	27.360	0.12	0.05	4.46
600.00	1.460	39.620	599.90	3.31	8.24	4.77	1694450.64	396115.62	39°34'57.023"N	80°35'02.767"W	9.52	30.039	0.13	0.08	3.92
700.00	1.370	46.240	699.87	3.63	10.05	6.44	1694452.31	396117.43	39°34'57.042"N	80°35'02.746"W	11.94	32.658	0.19	-0.09	6.62
736.00	1.500	43.740	735.86	3.71	10.69	7.08	1694452.95	396118.07	39°34'57.048"N	80°35'02.738"W	12.82	33.515	0.40	0.36	-6.94
821.00	0.790	349.870	820.85	4.35	12.07	7.75	1694453.62	396119.45	39°34'57.062"N	80°35'02.729"W	14.34	32.688	1.43	-0.84	-63.38
853.00	0.780	316.310	852.84	4.76	12.45	7.56	1694453.43	396119.82	39°34'57.065"N	80°35'02.732"W	14.56	31.265	1.42	-0.03	-104.87
885.00	1.190	298.290	884.84	5.29	12.76	7.11	1694452.98	396120.14	39°34'57.068"N	80°35'02.737"W	14.61	29.138	1.59	1.28	-56.31
916.00	1.760	292.140	915.83	6.00	13.09	6.39	1694452.26	396120.47	39°34'57.072"N	80°35'02.747"W	14.57	26.012	1.91	1.84	-19.84
948.00	2.200	289.330	947.81	6.96	13.48	5.35	1694451.22	396120.86	39°34'57.075"N	80°35'02.760"W	14.51	21.662	1.41	1.38	-8.78
980.00	2.430	288.680	979.78	8.07	13.90	4.13	1694450.00	396121.28	39°34'57.079"N	80°35'02.776"W	14.50	16.554	0.72	0.72	-2.03
1011.00	2.660	288.560	1010.75	9.24	14.34	2.83	1694448.70	396121.72	39°34'57.084"N	80°35'02.792"W	14.62	11.154	0.74	0.74	-0.39
1043.00	2.680	282.860	1042.72	10.46	14.74	1.39	1694447.26	396122.12	39°34'57.087"N	80°35'02.811"W	14.81	5.402	0.83	0.06	-17.81
1138.00	2.560	282.710	1137.62	13.90	15.70	-2.84	1694443.03	396123.08	39°34'57.096"N	80°35'02.865"W	15.96	349.747	0.13	-0.13	-0.16
1233.00	2.770	281.630	1232.52	17.38	16.63	-7.16	1694438.71	396124.01	39°34'57.105"N	80°35'02.920"W	18.11	336.715	0.23	0.22	-1.14
1328.00	2.750	279.220	1327.41	20.88	17.46	-11.66	1694434.21	396124.84	39°34'57.113"N	80°35'02.978"W	21.00	326.276	0.12	-0.02	-2.54
1423.00	2.430	283.550	1422.31	24.21	18.30	-15.86	1694430.01	396125.68	39°34'57.120"N	80°35'03.032"W	24.22	319.078	0.39	-0.34	4.56
1518.00	2.510	286.220	1517.22	27.55	19.35	-19.82	1694426.05	396126.73	39°34'57.130"N	80°35'03.082"W	27.70	314.317	0.15	0.08	2.81
1613.00	2.190	281.680	1612.14	30.69	20.30	-23.59	1694422.28	396127.68	39°34'57.139"N	80°35'03.131"W	31.13	310.709	0.39	-0.34	-4.78
1708.00	2.530	295.800	1707.06	34.01	21.58	-27.26	1694418.61	396128.96	39°34'57.151"N	80°35'03.178"W	34.77	308.368	0.71	0.36	14.86
1803.00	3.390	302.890	1801.93	38.60	24.02	-31.51	1694414.37	396131.40	39°34'57.175"N	80°35'03.232"W	39.62	307.320	0.98	0.91	7.46
1898.00	3.620	297.900	1896.76	44.05	26.95	-36.52	1694409.36	396134.33	39°34'57.203"N	80°35'03.297"W	45.38	306.427	0.40	0.24	-5.25
1993.00	3.950	296.080	1991.55	49.80	29.79	-42.10	1694403.77	396137.17	39°34'57.231"N	80°35'03.369"W	51.58	305.280	0.37	0.35	-1.92
2088.00	4.120	292.720	2086.31	55.81	32.55	-48.19	1694397.68	396139.92	39°34'57.257"N	80°35'03.447"W	58.15	304.033	0.31	0.18	-3.54
2183.00	3.460	288.470	2181.11	61.27	34.77	-54.06	1694391.81	396142.15	39°34'57.279"N	80°35'03.522"W	64.28	302.750	0.75	-0.69	-4.47

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# Actual Wellpath Report

Big 177 H5 AWP Proj: 16141'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

## WELLPATH DATA (186 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]
4927.00	38.190	285.000	4536.94	1055.75	397.08	-1175.39	1693270.55	396504.43	39°35'00.725"N	80°35'17.899"W	1240.65	288.666	2.62	-1.29	-3.63
5022.00	35.380	286.130	4613.02	1102.45	412.32	-1230.19	1693215.75	396519.68	39°35'00.869"N	80°35'18.601"W	1297.45	288.530	3.04	-2.96	1.19
5117.00	35.370	290.210	4690.49	1148.98	429.46	-1282.42	1693163.53	396536.82	39°35'01.032"N	80°35'19.270"W	1352.42	288.515	2.49	-0.01	4.29
5212.00	37.040	290.960	4767.14	1197.69	449.20	-1334.95	1693111.00	396556.55	39°35'01.221"N	80°35'19.944"W	1408.50	288.598	1.82	1.76	0.79
5307.00	41.010	289.550	4840.93	1249.41	469.87	-1391.06	1693054.89	396577.22	39°35'01.419"N	80°35'20.664"W	1468.28	288.664	4.28	4.18	-1.48
5399.00	39.360	289.140	4911.21	1300.30	489.54	-1447.07	1692998.89	396596.89	39°35'01.606"N	80°35'21.383"W	1527.63	288.691	1.82	-1.79	-0.45
5494.00	37.720	290.250	4985.52	1351.21	509.48	-1502.80	1692943.16	396616.83	39°35'01.797"N	80°35'22.097"W	1586.81	288.728	1.87	-1.73	1.17
5589.00	38.260	288.570	5060.39	1401.35	528.90	-1557.95	1692888.02	396636.25	39°35'01.982"N	80°35'22.805"W	1645.28	288.752	1.23	0.57	-1.77
5684.00	38.430	287.330	5134.90	1451.11	547.07	-1614.01	1692831.95	396654.41	39°35'02.155"N	80°35'23.523"W	1704.21	288.724	0.83	0.18	-1.31
5779.00	38.540	287.950	5209.26	1500.86	564.98	-1670.35	1692775.62	396672.33	39°35'02.325"N	80°35'24.246"W	1763.32	288.688	0.42	0.12	0.65
5874.00	38.500	288.640	5283.59	1551.00	583.55	-1726.53	1692719.45	396690.90	39°35'02.502"N	80°35'24.966"W	1822.48	288.675	0.45	-0.04	0.73
5969.00	38.420	288.150	5357.98	1601.13	602.20	-1782.59	1692663.39	396709.54	39°35'02.679"N	80°35'25.685"W	1881.56	288.666	0.33	-0.08	-0.52
6064.00	38.540	288.570	5432.35	1651.27	620.82	-1838.70	1692607.28	396728.16	39°35'02.857"N	80°35'26.404"W	1940.68	288.657	0.30	0.13	0.44
6159.00	38.410	289.170	5506.72	1701.68	639.93	-1894.63	1692551.36	396747.28	39°35'03.039"N	80°35'27.122"W	1999.78	288.663	0.42	-0.14	0.63
6253.00	38.440	290.130	5580.36	1751.91	659.58	-1949.64	1692496.35	396766.92	39°35'03.226"N	80°35'27.827"W	2058.19	288.691	0.64	0.03	1.02
6348.00	38.380	290.600	5654.81	1803.03	680.12	-2004.98	1692441.02	396787.46	39°35'03.423"N	80°35'28.537"W	2117.19	288.738	0.31	-0.06	0.49
6443.00	38.530	290.240	5729.20	1854.23	700.73	-2060.34	1692385.65	396808.07	39°35'03.620"N	80°35'29.247"W	2176.24	288.783	0.28	0.16	-0.38
6538.00	38.290	290.110	5803.64	1905.25	721.09	-2115.74	1692330.26	396828.42	39°35'03.814"N	80°35'29.958"W	2235.25	288.820	0.27	-0.25	-0.14
6633.00	38.410	288.870	5878.14	1955.85	740.75	-2171.31	1692274.69	396848.09	39°35'04.002"N	80°35'30.671"W	2294.19	288.837	0.82	0.13	-1.31
6728.00	38.450	287.020	5952.57	2005.70	758.94	-2227.48	1692218.53	396866.28	39°35'04.175"N	80°35'31.391"W	2353.22	288.815	1.21	0.04	-1.95
6823.00	38.270	286.270	6027.06	2054.74	775.83	-2283.96	1692162.05	396883.16	39°35'04.335"N	80°35'32.115"W	2412.14	288.762	0.53	-0.19	-0.79
6918.00	38.140	287.100	6101.71	2103.65	792.70	-2340.24	1692105.77	396900.03	39°35'04.495"N	80°35'32.836"W	2470.85	288.713	0.56	-0.14	0.87
7013.00	38.490	288.430	6176.25	2153.27	810.67	-2396.33	1692049.69	396918.00	39°35'04.666"N	80°35'33.556"W	2529.74	288.691	0.94	0.37	1.40
7108.00	38.380	289.570	6250.67	2203.70	829.90	-2452.17	1691993.85	396937.23	39°35'04.849"N	80°35'34.272"W	2588.79	288.698	0.75	-0.12	1.20
7203.00	38.390	290.010	6325.13	2254.50	849.87	-2507.67	1691938.35	396957.20	39°35'05.040"N	80°35'34.984"W	2647.77	288.722	0.29	0.01	0.46
7298.00	38.330	290.720	6399.62	2305.56	870.39	-2562.94	1691883.08	396977.71	39°35'05.236"N	80°35'35.693"W	2706.70	288.758	0.47	-0.06	0.75
7393.00	38.380	291.490	6474.12	2357.00	891.61	-2617.94	1691828.09	396998.94	39°35'05.439"N	80°35'36.398"W	2765.60	288.808	0.51	0.05	0.81
7488.00	38.380	291.770	6548.59	2408.73	913.35	-2672.77	1691773.27	397020.68	39°35'05.647"N	80°35'37.102"W	2824.52	288.867	0.18	0.00	0.29
7533.00	39.790	293.630	6583.52	2433.86	924.31	-2698.94	1691747.10	397031.63	39°35'05.753"N	80°35'37.438"W	2852.82	288.905	4.08	3.13	4.13
7583.00	43.270	298.210	6620.96	2464.04	938.83	-2728.71	1691717.33	397046.15	39°35'05.893"N	80°35'37.820"W	2885.70	288.986	9.23	6.96	9.16

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7628.00	47.300	303.620	6652.62	2494.18	955.29	-2756.09	1691689.95	397062.61	39°35'06.052"N	80°35'38.173"W	2916.95	289.117	12.37	8.96	12.02
7678.00	49.460	307.510	6685.84	2530.31	977.04	-2786.47	1691659.57	397084.36	39°35'06.263"N	80°35'38.564"W	2952.80	289.322	7.24	4.32	7.78
7723.00	52.510	310.210	6714.17	2564.57	998.98	-2813.68	1691632.36	397106.30	39°35'06.477"N	80°35'38.915"W	2985.76	289.547	8.23	6.78	6.00
7773.00	57.510	311.980	6742.83	2604.99	1025.91	-2844.52	1691601.52	397133.23	39°35'06.739"N	80°35'39.313"W	3023.87	289.832	10.41	10.00	3.54
7818.00	63.350	313.800	6765.03	2643.78	1052.55	-2873.17	1691572.87	397159.86	39°35'06.999"N	80°35'39.683"W	3059.90	290.120	13.45	12.98	4.04
7868.00	69.350	315.380	6785.08	2689.33	1084.70	-2905.76	1691540.28	397192.01	39°35'07.313"N	80°35'40.104"W	3101.62	290.470	12.34	12.00	3.16
7920.00	72.650	316.660	6802.01	2738.34	1120.07	-2939.90	1691506.15	397227.38	39°35'07.658"N	80°35'40.546"W	3146.04	290.856	6.76	6.35	2.46
7963.00	74.220	317.170	6814.27	2779.48	1150.17	-2968.05	1691478.00	397257.48	39°35'07.952"N	80°35'40.910"W	3183.11	291.182	3.82	3.65	1.19
8009.00	76.930	318.620	6825.72	2823.99	1183.22	-2997.91	1691448.14	397290.53	39°35'08.275"N	80°35'41.297"W	3222.96	291.538	6.64	5.89	3.15
8058.00	82.470	319.840	6834.48	2872.17	1219.72	-3029.38	1691416.68	397327.03	39°35'08.632"N	80°35'41.704"W	3265.71	291.931	11.57	11.31	2.49
8152.00	90.520	321.770	6840.23	2965.91	1292.38	-3088.62	1691357.44	397399.68	39°35'09.343"N	80°35'42.472"W	3348.10	292.706	8.81	8.56	2.05
8247.00	91.510	323.090	6838.54	3060.83	1367.66	-3146.53	1691299.53	397474.96	39°35'10.080"N	80°35'43.223"W	3430.91	293.493	1.74	1.04	1.39
8343.00	90.950	321.320	6836.48	3156.75	1443.50	-3205.34	1691240.72	397550.79	39°35'10.823"N	80°35'43.986"W	3515.38	294.244	1.93	-0.58	-1.84
8437.00	91.820	324.210	6834.21	3250.63	1518.31	-3262.20	1691183.87	397625.60	39°35'11.555"N	80°35'44.724"W	3598.22	294.958	3.21	0.93	3.07
8532.00	91.380	331.190	6831.55	3344.75	1598.53	-3312.91	1691133.16	397705.81	39°35'12.342"N	80°35'45.384"W	3678.41	295.758	7.36	-0.46	7.35
8627.00	90.920	334.990	6829.65	3437.38	1683.21	-3355.89	1691090.18	397790.49	39°35'13.173"N	80°35'45.946"W	3754.36	296.637	4.03	-0.48	4.00
8722.00	90.620	335.420	6828.37	3529.20	1769.44	-3395.73	1691050.35	397876.72	39°35'14.021"N	80°35'46.469"W	3829.09	297.523	0.55	-0.32	0.45
8817.00	90.620	335.810	6827.34	3620.84	1855.96	-3434.95	1691011.13	397963.23	39°35'14.871"N	80°35'46.983"W	3904.29	298.383	0.41	0.00	0.41
8912.00	90.550	335.660	6826.37	3712.43	1942.57	-3473.99	1690972.10	398049.83	39°35'15.722"N	80°35'47.495"W	3980.22	299.213	0.17	-0.07	-0.16
9007.00	90.520	333.500	6825.48	3804.50	2028.36	-3514.76	1690931.32	398135.62	39°35'16.565"N	80°35'48.029"W	4058.05	299.989	2.27	-0.03	-2.27
9102.00	90.520	333.770	6824.62	3896.96	2113.47	-3556.95	1690889.14	398220.73	39°35'17.401"N	80°35'48.581"W	4137.47	300.718	0.28	0.00	0.28
9197.00	90.550	333.670	6823.73	3989.38	2198.65	-3599.01	1690847.08	398305.90	39°35'18.238"N	80°35'49.132"W	4217.45	301.421	0.11	0.03	-0.11
9292.00	90.430	334.870	6822.92	4081.58	2284.23	-3640.25	1690805.84	398391.47	39°35'19.079"N	80°35'49.672"W	4297.57	302.108	1.27	-0.13	1.26
9387.00	90.650	333.220	6822.03	4173.88	2369.64	-3681.82	1690764.27	398476.87	39°35'19.918"N	80°35'50.216"W	4378.47	302.766	1.75	0.23	-1.74
9482.00	90.400	330.360	6821.16	4266.98	2453.34	-3726.72	1690719.37	398560.57	39°35'20.739"N	80°35'50.803"W	4461.77	303.357	3.02	-0.26	-3.01
9577.00	90.250	328.940	6820.62	4360.72	2535.32	-3774.72	1690671.38	398642.55	39°35'21.544"N	80°35'51.429"W	4547.13	303.888	1.50	-0.16	-1.49
9672.00	89.320	329.330	6820.97	4454.61	2616.86	-3823.46	1690622.64	398724.08	39°35'22.344"N	80°35'52.064"W	4633.23	304.389	1.06	-0.98	0.41
9767.00	89.630	330.520	6821.84	4548.28	2699.07	-3871.06	1690575.04	398806.28	39°35'23.150"N	80°35'52.685"W	4719.12	304.886	1.29	0.33	1.25
9862.00	89.540	328.150	6822.53	4642.10	2780.78	-3919.51	1690526.60	398887.99	39°35'23.952"N	80°35'53.316"W	4805.75	305.355	2.50	-0.09	-2.49
9957.00	90.280	330.810	6822.68	4735.89	2862.61	-3967.75	1690478.36	398969.81	39°35'24.755"N	80°35'53.945"W	4892.60	305.809	2.91	0.78	2.80

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# Actual Wellpath Report

Big 177 H5 AWP Proj: 16141'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

WELLPATH DATA (186 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]
10052.00	90.120	336.320	6822.35	4828.34	2947.64	-4010.03	1690436.09	399054.84	39°35'25.590"N	80°35'54.498"W	4976.84	306.318	5.80	-0.17	5.80
10147.00	90.340	338.330	6821.97	4919.19	3035.29	-4046.65	1690399.47	399142.49	39°35'26.452"N	80°35'54.980"W	5058.49	306.873	2.13	0.23	2.12
10242.00	90.180	335.680	6821.54	5010.20	3122.73	-4083.75	1690362.36	399229.92	39°35'27.311"N	80°35'55.467"W	5140.87	307.404	2.79	-0.17	-2.79
10336.00	90.340	331.730	6821.11	5101.64	3206.99	-4125.39	1690320.73	399314.17	39°35'28.139"N	80°35'56.012"W	5225.29	307.861	4.21	0.17	-4.20
10432.00	89.910	332.430	6820.90	5195.63	3291.82	-4170.34	1690275.79	399398.99	39°35'28.972"N	80°35'56.600"W	5312.98	308.285	0.86	-0.45	0.73
10526.00	89.940	332.230	6821.02	5287.58	3375.06	-4213.99	1690232.14	399482.24	39°35'29.789"N	80°35'57.170"W	5398.96	308.692	0.22	0.03	-0.21
10621.00	89.970	332.850	6821.10	5380.44	3459.36	-4257.80	1690188.33	399566.53	39°35'30.617"N	80°35'57.743"W	5485.98	309.093	0.65	0.03	0.65
10716.00	89.750	330.370	6821.33	5473.61	3542.93	-4302.96	1690143.17	399650.09	39°35'31.438"N	80°35'58.333"W	5573.85	309.467	2.62	-0.23	-2.61
10811.00	89.570	332.200	6821.89	5566.87	3626.24	-4348.60	1690097.53	399733.40	39°35'32.255"N	80°35'58.929"W	5662.15	309.824	1.94	-0.19	1.93
10906.00	89.880	335.140	6822.35	5659.31	3711.37	-4390.73	1690055.40	399818.53	39°35'33.092"N	80°35'59.480"W	5749.16	310.207	3.11	0.33	3.09
11001.00	90.120	334.150	6822.35	5751.37	3797.22	-4431.41	1690014.73	399904.37	39°35'33.935"N	80°36'00.013"W	5835.78	310.593	1.07	0.25	-1.04
11096.00	89.970	331.230	6822.28	5844.16	3881.62	-4475.00	1689971.15	399988.77	39°35'34.764"N	80°36'00.583"W	5923.90	310.938	3.08	-0.16	-3.07
11191.00	89.970	330.210	6822.33	5937.61	3964.49	-4521.46	1689924.69	400071.62	39°35'35.577"N	80°36'01.190"W	6013.38	311.245	1.07	0.00	-1.07
11286.00	89.750	330.930	6822.56	6031.10	4047.23	-4568.14	1689878.01	400154.36	39°35'36.389"N	80°36'01.799"W	6103.11	311.540	0.79	-0.23	0.76
11381.00	89.720	328.840	6823.00	6124.78	4129.40	-4615.80	1689830.35	400236.53	39°35'37.195"N	80°36'02.420"W	6193.34	311.817	2.20	-0.03	-2.20
11476.00	89.720	327.330	6823.46	6218.91	4210.03	-4666.02	1689780.14	400317.16	39°35'37.986"N	80°36'03.074"W	6284.59	312.059	1.59	0.00	-1.59
11571.00	89.660	330.860	6823.98	6312.79	4291.53	-4714.80	1689731.35	400398.65	39°35'38.786"N	80°36'03.710"W	6375.47	312.309	3.72	-0.06	3.72
11666.00	89.940	332.190	6824.31	6405.99	4375.04	-4760.10	1689686.06	400482.15	39°35'39.605"N	80°36'04.302"W	6465.25	312.586	1.43	0.29	1.40
11760.00	89.660	332.340	6824.64	6497.96	4458.24	-4803.84	1689642.32	400565.34	39°35'40.422"N	80°36'04.874"W	6553.84	312.863	0.34	-0.30	0.16
11855.00	89.660	332.840	6825.20	6590.80	4542.57	-4847.58	1689598.59	400649.67	39°35'41.251"N	80°36'05.446"W	6643.34	313.140	0.53	0.00	0.53
11950.00	89.630	330.730	6825.79	6683.91	4626.27	-4892.49	1689553.68	400733.37	39°35'42.072"N	80°36'06.032"W	6733.41	313.398	2.22	-0.03	-2.22
12045.00	89.660	329.430	6826.38	6777.54	4708.61	-4939.87	1689506.30	400815.70	39°35'42.880"N	80°36'06.650"W	6824.46	313.627	1.37	0.03	-1.37
12140.00	89.690	332.290	6826.92	6870.93	4791.58	-4986.12	1689460.05	400898.66	39°35'43.695"N	80°36'07.254"W	6915.25	313.860	3.01	0.03	3.01
12235.00	89.630	336.240	6827.48	6963.12	4877.13	-5027.36	1689418.81	400984.22	39°35'44.535"N	80°36'07.794"W	7004.34	314.131	4.16	-0.06	4.16
12330.00	89.660	335.710	6828.07	7054.61	4963.90	-5066.04	1689380.14	401070.98	39°35'45.388"N	80°36'08.302"W	7092.61	314.417	0.56	0.03	-0.56
12425.00	89.630	331.080	6828.66	7147.13	5048.82	-5108.57	1689337.61	401155.89	39°35'46.222"N	80°36'08.859"W	7182.49	314.663	4.87	-0.03	-4.87
12520.00	89.380	330.990	6829.48	7240.48	5131.93	-5154.58	1689291.61	401239.00	39°35'47.038"N	80°36'09.459"W	7273.68	314.874	0.28	-0.26	-0.09
12615.00	89.600	329.130	6830.32	7334.11	5214.25	-5201.99	1689244.20	401321.31	39°35'47.845"N	80°36'10.078"W	7365.40	315.067	1.97	0.23	-1.96
12709.00	89.320	325.250	6831.21	7427.42	5293.23	-5252.91	1689193.28	401400.29	39°35'48.620"N	80°36'10.741"W	7457.30	315.219	4.14	-0.30	-4.13
12804.00	89.290	324.290	6832.36	7522.13	5370.83	-5307.71	1689138.49	401477.88	39°35'49.380"N	80°36'11.453"W	7551.00	315.339	1.01	-0.03	-1.01

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# Actual Wellpath Report

Big 177 H5 AWP Proj: 16141'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

WELLPATH DATA (186 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]	
12899.00	89.510	328.250	6833.36	7616.60	5449.81	-5360.45	1689085.75	401556.86	39°35'50.154"N	80°36'12.139"W	7644.27	315.474	4.17	0.23	4.17	
12994.00	89.600	331.850	6834.10	7710.22	5532.11	-5407.86	1689038.34	401639.16	39°35'50.962"N	80°36'12.757"W	7736.23	315.651	3.79	0.09	3.79	
13089.00	89.510	333.160	6834.83	7803.09	5616.38	-5451.72	1688994.48	401723.42	39°35'51.789"N	80°36'13.331"W	7827.19	315.852	1.38	-0.09	1.38	
13184.00	89.050	333.980	6836.03	7895.56	5701.44	-5494.00	1688952.20	401808.47	39°35'52.625"N	80°36'13.884"W	7917.73	316.062	0.99	-0.48	0.86	
13279.00	89.170	332.880	6837.50	7988.09	5786.40	-5536.49	1688909.72	401893.42	39°35'53.459"N	80°36'14.440"W	8008.44	316.264	1.16	0.13	-1.16	
13373.00	89.080	331.240	6838.94	8080.12	5869.43	-5580.53	1688865.68	401976.45	39°35'54.274"N	80°36'15.016"W	8098.92	316.445	1.75	-0.10	-1.74	
13468.00	88.890	332.160	6840.62	8173.24	5953.06	-5625.56	1688820.66	402060.08	39°35'55.095"N	80°36'15.604"W	8190.59	316.620	0.99	-0.20	0.97	
13563.00	88.860	332.780	6842.49	8266.11	6037.28	-5669.46	1688776.76	402144.30	39°35'55.922"N	80°36'16.178"W	8282.00	316.800	0.65	-0.03	0.65	
13658.00	88.770	334.400	6844.45	8358.56	6122.35	-5711.70	1688734.52	402229.36	39°35'56.758"N	80°36'16.731"W	8372.97	316.987	1.71	-0.09	1.71	
13753.00	88.710	332.380	6846.54	8451.08	6207.26	-5754.24	1688691.98	402314.26	39°35'57.592"N	80°36'17.288"W	8464.12	317.169	2.13	-0.06	-2.13	
13848.00	88.890	331.210	6848.53	8544.17	6290.96	-5799.13	1688647.09	402397.96	39°35'58.413"N	80°36'17.875"W	8556.06	317.330	1.25	0.19	-1.23	
13943.00	88.770	329.380	6850.47	8637.72	6373.46	-5846.19	1688600.03	402480.45	39°35'59.223"N	80°36'18.489"W	8648.64	317.471	1.93	-0.13	-1.93	
14038.00	88.980	329.320	6852.34	8731.53	6455.17	-5894.62	1688551.61	402562.16	39°36'00.025"N	80°36'19.120"W	8741.61	317.599	0.23	0.22	-0.06	
14133.00	89.200	329.270	6853.84	8825.36	6536.84	-5943.12	1688503.11	402643.82	39°36'00.826"N	80°36'19.753"W	8834.64	317.724	0.24	0.23	-0.05	
14228.00	89.110	329.470	6855.24	8919.18	6618.58	-5991.51	1688454.72	402725.55	39°36'01.628"N	80°36'20.384"W	8927.70	317.847	0.23	-0.09	0.21	
14323.00	89.170	330.340	6856.67	9012.85	6700.76	-6039.15	1688407.09	402807.73	39°36'02.434"N	80°36'21.005"W	9020.61	317.973	0.92	0.06	0.92	
14417.00	89.050	331.790	6858.13	9105.20	6783.01	-6084.62	1688361.62	402889.98	39°36'03.241"N	80°36'21.599"W	9112.18	318.107	1.55	-0.13	1.54	
14512.00	89.170	336.150	6859.61	9197.49	6868.35	-6126.29	1688319.95	402975.31	39°36'04.080"N	80°36'22.145"W	9203.57	318.268	4.59	0.13	4.59	
14606.00	89.110	336.250	6861.02	9287.91	6954.34	-6164.22	1688282.02	403061.30	39°36'04.925"N	80°36'22.643"W	9293.04	318.447	0.12	-0.06	0.11	
14702.00	89.290	336.150	6862.36	9380.25	7042.17	-6202.96	1688243.29	403149.12	39°36'05.788"N	80°36'23.151"W	9384.50	318.625	0.21	0.19	-0.10	
14797.00	89.420	335.670	6863.43	9471.76	7128.89	-6241.73	1688204.52	403235.84	39°36'06.640"N	80°36'23.660"W	9475.25	318.796	0.52	0.14	-0.51	
14892.00	89.420	335.450	6864.39	9563.43	7215.37	-6281.03	1688165.22	403322.31	39°36'07.490"N	80°36'24.176"W	9566.24	318.960	0.23	0.00	-0.23	
14987.00	89.450	334.470	6865.33	9655.35	7301.44	-6321.24	1688125.01	403408.37	39°36'08.336"N	80°36'24.703"W	9657.59	319.116	1.03	0.03	-1.03	
15082.00	89.540	331.930	6866.16	9747.96	7386.22	-6364.07	1688082.19	403493.15	39°36'09.169"N	80°36'25.264"W	9749.75	319.251	2.68	0.09	-2.67	
15177.00	89.420	329.090	6867.03	9841.46	7468.90	-6410.83	1688035.43	403575.83	39°36'09.980"N	80°36'25.874"W	9842.93	319.359	2.99	-0.13	-2.99	
15271.00	89.510	327.280	6867.90	9934.57	7548.78	-6460.38	1687985.88	403655.69	39°36'10.763"N	80°36'26.519"W	9935.82	319.442	1.93	0.10	-1.93	
15366.00	89.420	325.790	6868.79	10029.01	7628.02	-6512.76	1687933.51	403734.94	39°36'11.540"N	80°36'27.201"W	10030.09	319.509	1.57	-0.09	-1.57	
15461.00	89.540	325.090	6869.65	10123.63	7706.25	-6566.65	1687879.62	403813.16	39°36'12.307"N	80°36'27.902"W	10124.58	319.565	0.75	0.13	-0.74	
15556.00	89.600	324.950	6870.37	10218.32	7784.09	-6621.11	1687825.16	403890.99	39°36'13.069"N	80°36'28.610"W	10219.16	319.616	0.16	0.06	-0.15	
15651.00	89.600	326.740	6871.03	10312.87	7862.70	-6674.44	1687771.83	403969.60	39°36'13.839"N	80°36'29.304"W	10313.59	319.673	1.88	0.00	1.88	

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# Actual Wellpath Report

Big 177 H5 AWP Proj: 16141'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 512917
Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

## WELLPATH DATA (186 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]
15746.00	89.200	327.380	6872.02	10407.22	7942.42	-6726.10	1687720.18	404049.32	39°36'14.621"N	80°36'29.976"W	10407.81	319.740	0.79	-0.42	0.67
15841.00	89.510	329.550	6873.09	10501.25	8023.38	-6775.78	1687670.51	404130.27	39°36'15.415"N	80°36'30.623"W	10501.70	319.819	2.31	0.33	2.28
15935.00	88.950	331.500	6874.36	10593.76	8105.20	-6822.02	1687624.26	404212.09	39°36'16.218"N	80°36'31.227"W	10594.07	319.913	2.16	-0.60	2.07
16030.00	89.420	337.450	6875.71	10685.84	8190.88	-6862.94	1687583.35	404297.76	39°36'17.060"N	80°36'31.763"W	10685.99	320.041	6.28	0.49	6.26
16114.00	89.570	339.540	6876.45	10765.65	8269.03	-6893.73	1687552.56	404375.90	39°36'17.828"N	80°36'32.169"W	10765.70	320.183	2.49	0.18	2.49
16141.00	89.570	339.540	6876.65	10791.15	8294.32	-6903.16	1687543.13	404401.20	39°36'18.077"N	80°36'32.293"W	10791.18	320.230	0.00	0.00	0.00

## HOLE & CASING SECTIONS - Ref Wellbore: Big 177 H5 AWB Ref Wellpath: Big 177 H5 AWP Proj: 16141'

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]
17.5in Open Hole	23.00	795.00	772.00	23.00	794.85	0.00	0.00	11.70	7.73
13.375in Casing Surface	23.00	780.00	757.00	23.00	779.85	0.00	0.00	11.46	7.64
12.25in Open Hole	795.00	2783.00	1988.00	794.85	2780.74	11.70	7.73	34.46	-69.43
9.625in Casing Intermediate	23.00	2733.00	2710.00	23.00	2730.74	0.00	0.00	34.84	-69.67
8.75in Open Hole	2783.00	5472.00	2689.00	2780.74	4968.16	34.46	-69.43	504.83	-1490.11
8.5in Open Hole	5472.00	16141.00	10669.00	4968.16	6876.65	504.83	-1490.11	8294.32	-6903.16
5.5in Casing Production	23.00	16141.00	16118.00	23.00	6876.65	0.00	0.00	8294.32	-6903.16

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REFERENCE WELLPATH IDENTIFICATION			
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Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Big 177 H5 LP Rev-2	6847.00	1280.59	-3070.06	1691375.99	397387.89	39°35'09.229"N	80°35'42.233"W	point
Big 177 H5 BHL Rev-2	6885.94	8307.57	-6885.40	1687560.89	404414.44	39°36'18.210"N	80°36'32.069"W	point

WELLPATH COMPOSITION - Ref Wellbore: Big 177 H5 AWB Ref Wellpath: Big 177 H5 AWP Proj: 16141'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
23.00	736.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata Gyro <17-1/2"> (100'-736')	Big 177 H5 AWB	
736.00	2703.00	OWSG MWD rev2 - Standard	02 SDI MWD <12-1/4"> (736')(821'-2703')	Big 177 H5 AWB	
2703.00	5399.00	OWSG MWD rev2 - Standard	03 SDI MWD <8-3/4"> (2703')(2776'-5399')	Big 177 H5 AWB	
5399.00	16114.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2"> (5399')(5494'-16114')	Big 177 H5 AWB	
16114.00	16141.00	Blind Drilling (std)	Projection to bit	Big 177 H5 AWB	

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## REFERENCE WELLPATH IDENTIFICATION

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Area	Wetzel County, WV	Well	Big 177 H5
Field	Wetzel	Wellbore	Big 177 H5 AWB
Facility	Big 177 Pad		

## COMMENTS

### Wellpath general comments

API: 47-103-03189-0000  
 BH Job #: 8929565  
 Rig: Pioneer 72  
 Duration: 1/1/2018-1/5/2018  
 Gyrodatta MS Gyro <17-1/2"> (100'-736')  
 SDI MWD <12-1/4"> (736')(821'-2703')  
 SDI MWD <8-3/4"> (2703')(2776'-5399')  
 BH AT Curve <8-1/2"> (5399')(5494'-16114')  
 Projected MD at TD: 16141'

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