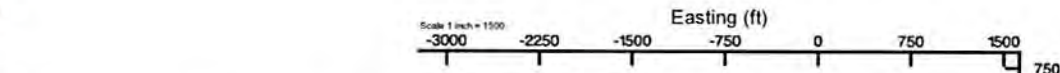




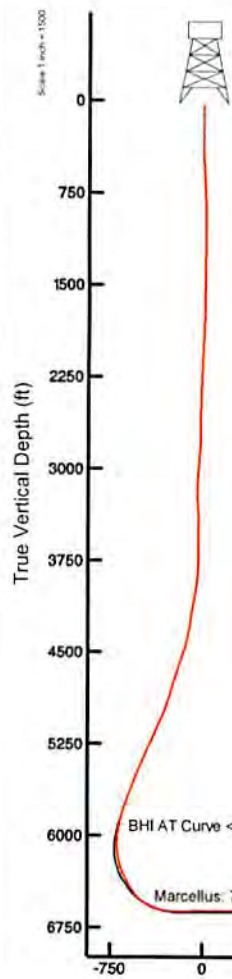
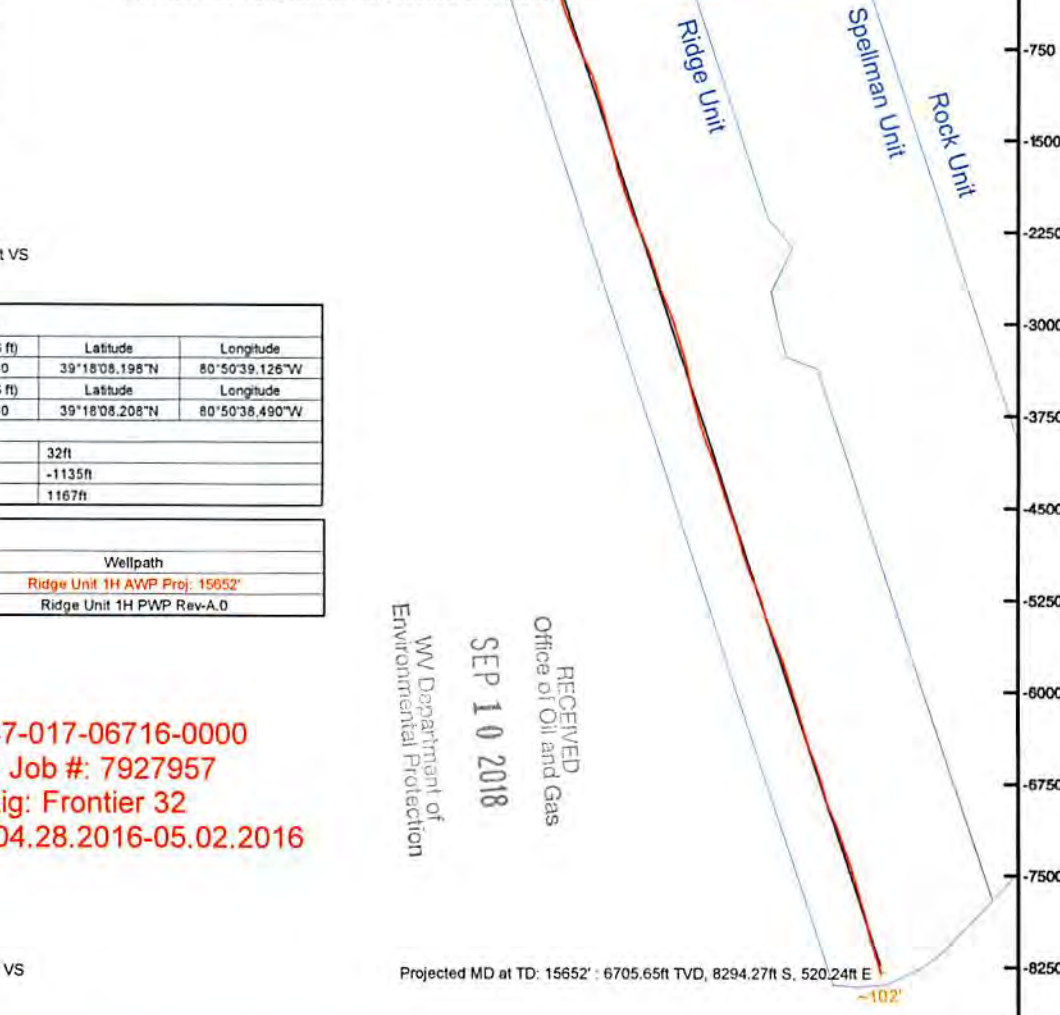
# ANTERO RESOURCES CORPORATION

Location: Doddridge Co., WV Slot: Slot #01  
 Field: Doddridge Well: Ridge Unit 1H  
 Facility: Balli Pad Wellbore: Ridge Unit 1H PWB

Plot reference wellbore is Ridge Unit 1H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to Frontier 32 (RKB)	* * Wellpath was transformed from a different geoidic datum
Measured depths are referenced to Frontier 32 (RKB)	North Reference: Grid north
Frontier 32 (RKB) to Mean Sea Level 1167 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot Slot #01) -1135 feet	Depth are in feet
Coordinates are in feet referenced to Slot	Created by: hankuk on 2016-05-10
	Database: WA_MPL_EASTERNUS_Defn



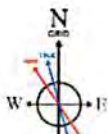
SDI Std. Keeper Gyro (119° - 6212') : 119.00ft TVD, 0.07ft S, 0.02ft E  
 BHI AT Curve <8-1/2">(6212'')(6329'-15627') : 5909.13ft TVD, 112.73ft N, 1842.86ft W  
 Marcellus: 7195' MD : 6585.96ft TVD, 265.89ft S, 2081.04ft W



SDI Std. Keeper Gyro (119° - 6212') : 0.10° Inc, 119.00ft MD, 119.00ft TVD, 0.08ft VS

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Balli Pad	1684490.110	14272033.240	39°18'08.198"N	80°50'39.126"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #01	1.14	49.99	1684540.080	14272034.380
Comment	Ridge Unit 1H			
Frontier 32 (RKB) to Mud line (At Slot Slot #01)	32ft			
Mean Sea Level to Mud line (At Slot Slot #01)	-1135ft			
Frontier 32 (RKB) to Mean Sea Level	1167ft			

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #01	Ridge Unit 1H	Ridge Unit 1H AWB	Ridge Unit 1H AWP Proj: 15652'
Slot #01	Ridge Unit 1H	Ridge Unit 1H PWB	Ridge Unit 1H PWP Rev-A.0



ROGM (1945.0 to 2017.0) Dip: 66.70° Flikt: 52069.6 nT  
 Magnetic North is 3.51 degrees West of True North (at 4/11/2016)  
 Grid North is 0.10 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.10 degrees  
 To correct azimuth from Magnetic to Grid subtract 6.61 degrees

**API: 47-017-06716-0000**  
**BHI Job #: 7927957**  
**Rig: Frontier 32**  
**Duration: 04.28.2016-05.02.2016**

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BHI AT Curve <8-1/2">(6212'')(6329'-15627') : 29.64° Inc, 6329.00ft MD, 5909.13ft TVD, -675.46ft VS

Marcellus: 7195' MD : 69.24° Inc, 7195.00ft MD, 6585.96ft TVD, -388.76ft VS

Projected MD at TD: 15652' : 89.54° Inc, 15652.00ft MD, 6705.65ft TVD, 8050.53ft VS

**Azimuth 162.04° with reference 0.00 N, 0.00 E**

Scale 1 inch = 1500



# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddrige Co., WV	Well	Ridge Unit 1H
Field	Doddrige	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect@ 5.0
North Reference	Grid	User	Hareluk
Scale	0.99602	Report Generated	5/10/2016 at 4:28:02 PM
Convergence at slot	0.10° East	Database/Source file	WA_MPL_EASTERNNUS_Defn/Ridge Unit 1H AWP_Proj_15652.xml

WELLPATH LOCATION					
Local coordinates		Grid coordinates		Geographic coordinates	
North [ft]	East [ft]	Easting [US ft]	Northing [US ft]	Latitude	Longitude
1.14	49.99	1684540.08	14272034.38	39°18'08.208"N	80°50'38.490"W
Facility Reference Pt		Field Reference Pt		Field Reference Pt	
		1684490.11	14272033.24	39°18'08.198"N	80°50'39.126"W
0.00					

WELLPATH DATUM			
Calculation method	Minimum curvature	Frontier 32 (RKB) to Facility Vertical Datum	32.00ft
Horizontal Reference Pt	Slot	Frontier 32 (RKB) to Mean Sea Level	1167.00ft
Vertical Reference Pt	Frontier 32 (RKB)	Frontier 32 (RKB) to Mud Line at Slot (Slot #01)	32.00ft
MD Reference Pt	Frontier 32 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	162.04°

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (362 stations) † = interpolated/extrapolated station												
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir
(m)	(°)	(°)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(°)
0.00†	0.000	166.930	32.00	0.00	0.00	0.00	1684540.08	14272034.38	39°18'08.208"N	80°50'38.490"W	0.00	0.00
32.00	0.000	166.930	32.00	0.00	0.00	0.00	1684540.08	14272034.38	39°18'08.208"N	80°50'38.490"W	0.00	0.00
119.00	0.100	166.930	119.00	0.08	-0.07	0.02	1684540.10	14272034.31	39°18'08.207"N	80°50'38.490"W	0.08	166.930
144.00	0.120	152.860	144.00	0.12	-0.12	0.03	1684540.11	14272034.26	39°18'08.207"N	80°50'38.490"W	0.12	163.971
169.00	0.040	175.300	169.00	0.16	-0.15	0.05	1684540.13	14272034.23	39°18'08.207"N	80°50'38.489"W	0.16	162.760
194.00	0.080	173.060	194.00	0.18	-0.18	0.05	1684540.13	14272034.20	39°18'08.206"N	80°50'38.489"W	0.18	164.328
219.00	0.010	267.950	219.00	0.20	-0.19	0.05	1684540.13	14272034.19	39°18'08.206"N	80°50'38.489"W	0.20	165.693
244.00	0.050	166.960	244.00	0.21	-0.20	0.05	1684540.13	14272034.18	39°18'08.206"N	80°50'38.489"W	0.21	166.339
269.00	0.040	166.440	269.00	0.23	-0.22	0.05	1684540.13	14272034.16	39°18'08.206"N	80°50'38.489"W	0.23	167.117
294.00	0.010	50.060	294.00	0.24	-0.23	0.05	1684540.13	14272034.15	39°18'08.206"N	80°50'38.489"W	0.24	167.345
319.00	0.070	118.370	319.00	0.25	-0.24	0.07	1684540.15	14272034.14	39°18'08.206"N	80°50'38.489"W	0.25	164.213
344.00	0.040	154.350	344.00	0.27	-0.25	0.08	1684540.16	14272034.13	39°18'08.206"N	80°50'38.489"W	0.27	161.529
369.00	0.040	21.250	369.00	0.27	-0.25	0.09	1684540.17	14272034.13	39°18'08.206"N	80°50'38.489"W	0.27	160.103
394.00	0.060	145.500	394.00	0.27	-0.25	0.10	1684540.18	14272034.13	39°18'08.206"N	80°50'38.489"W	0.27	158.212
419.00	0.150	194.000	419.00	0.31	-0.30	0.10	1684540.18	14272034.08	39°18'08.205"N	80°50'38.489"W	0.31	162.033
444.00	0.430	193.720	444.00	0.41	-0.42	0.06	1684540.14	14272033.96	39°18'08.204"N	80°50'38.489"W	0.42	171.792
469.00	1.090	190.890	469.00	0.70	-0.74	-0.01	1684540.07	14272033.64	39°18'08.201"N	80°50'38.490"W	0.74	180.563
494.00	1.620	192.540	493.99	1.22	-1.32	-0.13	1684539.95	14272033.06	39°18'08.195"N	80°50'38.492"W	1.33	185.576
519.00	2.180	192.860	518.98	1.93	-2.13	-0.31	1684539.77	14272032.25	39°18'08.187"N	80°50'38.494"W	2.15	188.325
544.00	2.720	192.470	543.95	2.85	-3.17	-0.55	1684539.53	14272031.21	39°18'08.177"N	80°50'38.497"W	3.22	189.758
569.00	3.230	193.620	568.92	3.96	-4.43	-0.84	1684539.24	14272029.95	39°18'08.164"N	80°50'38.501"W	4.51	190.717
594.00	4.240	201.410	618.81	6.60	-7.52	-1.80	1684538.28	14272026.87	39°18'08.134"N	80°50'38.513"W	7.73	193.471
619.00	4.680	206.080	643.74	8.04	-9.29	-2.59	1684537.49	14272025.09	39°18'08.116"N	80°50'38.523"W	9.65	195.552
644.00	5.050	209.010	668.65	9.53	-11.17	-3.57	1684536.51	14272023.21	39°18'08.098"N	80°50'38.536"W	11.73	197.714
669.00	5.200	210.080	693.55	11.04	-13.11	-4.67	1684535.41	14272021.27	39°18'08.079"N	80°50'38.550"W	13.92	199.600
719.00	5.170	212.260	718.45	12.51	-15.05	-5.84	1684534.24	14272019.34	39°18'08.060"N	80°50'38.565"W	16.14	201.208
744.00	5.220	218.930	743.34	13.86	-16.88	-7.15	1684532.93	14272017.50	39°18'08.041"N	80°50'38.581"W	18.34	202.964
769.00	5.180	224.050	768.24	15.01	-18.58	-8.65	1684531.43	14272015.81	39°18'08.025"N	80°50'38.600"W	20.50	204.974
794.00	5.370	229.330	793.14	15.99	-20.15	-10.33	1684529.76	14272014.23	39°18'08.009"N	80°50'38.622"W	22.65	207.129

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (362 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Comments
819.00	5.770	233.650	818.02	16.84	-21.66	-12.23	1684527.86	14272012.73	39°18'07.994"N	80°50'38.646"W	24.87	209.440	2.32	
844.00	6.200	235.730	842.88	17.61	-23.17	-14.35	1684525.73	14272011.22	39°18'07.979"N	80°50'38.673"W	27.25	211.781	1.93	
869.00	6.620	238.680	867.72	18.32	-24.68	-16.70	1684523.39	14272009.71	39°18'07.965"N	80°50'38.703"W	29.80	214.089	2.13	
894.00	7.150	241.050	892.54	18.95	-26.18	-19.29	1684520.80	14272008.21	39°18'07.950"N	80°50'38.736"W	32.52	216.390	2.40	
919.00	7.550	242.580	917.34	19.52	-27.69	-22.11	1684517.98	14272006.70	39°18'07.935"N	80°50'38.772"W	35.43	218.612	1.78	
944.00	7.850	244.760	942.11	20.01	-29.17	-25.11	1684514.98	14272005.22	39°18'07.920"N	80°50'38.810"W	38.49	220.725	1.67	
969.00	8.320	247.520	966.87	20.36	-30.59	-28.33	1684511.76	14272003.80	39°18'07.906"N	80°50'38.851"W	41.69	222.802	2.44	
994.00	8.600	250.110	991.59	20.57	-31.92	-31.76	1684508.33	14272002.47	39°18'07.893"N	80°50'38.895"W	45.03	224.856	1.89	
1019.00	8.900	253.270	1016.30	20.59	-33.11	-35.37	1684504.73	14272001.28	39°18'07.882"N	80°50'38.941"W	48.45	226.888	2.27	
1044.00	9.240	257.140	1040.99	20.37	-34.11	-39.18	1684500.92	14272000.28	39°18'07.872"N	80°50'38.989"W	51.95	228.951	2.79	
1069.00	9.250	258.490	1065.67	19.97	-34.96	-43.10	1684496.99	14271999.43	39°18'07.863"N	80°50'39.039"W	55.50	230.953	0.87	
1094.00	9.390	258.130	1090.34	19.53	-35.78	-47.07	1684493.03	14271998.61	39°18'07.855"N	80°50'39.090"W	59.12	232.756	0.61	
1119.00	9.550	257.770	1114.99	19.10	-36.64	-51.09	1684489.01	14271997.75	39°18'07.847"N	80°50'39.141"W	62.87	234.352	0.68	
1144.00	9.680	258.170	1139.64	18.67	-37.51	-55.17	1684484.93	14271996.88	39°18'07.838"N	80°50'39.193"W	66.72	235.789	0.58	
1169.00	9.740	258.200	1164.29	18.22	-38.37	-59.30	1684480.80	14271996.02	39°18'07.830"N	80°50'39.245"W	70.63	237.092	0.24	
1194.00	9.820	258.260	1188.92	17.76	-39.24	-63.46	1684476.65	14271995.15	39°18'07.821"N	80°50'39.298"W	74.61	238.268	0.32	
1219.00	9.860	257.650	1213.55	17.32	-40.13	-67.64	1684472.47	14271994.26	39°18'07.813"N	80°50'39.351"W	78.65	239.317	0.45	
1244.00	9.930	257.460	1238.18	16.91	-41.06	-71.83	1684468.28	14271993.34	39°18'07.804"N	80°50'39.405"W	82.74	240.248	0.31	
1269.00	9.880	256.400	1262.81	16.54	-42.03	-76.02	1684464.09	14271992.37	39°18'07.794"N	80°50'39.458"W	86.87	241.062	0.76	
1294.00	10.010	256.710	1287.43	16.20	-43.03	-80.22	1684459.89	14271991.36	39°18'07.784"N	80°50'39.511"W	91.03	241.788	0.56	
1319.00	10.190	256.570	1312.05	15.85	-44.05	-84.49	1684455.63	14271990.35	39°18'07.774"N	80°50'39.566"W	95.28	242.464	0.73	
1344.00	10.240	256.530	1336.65	15.50	-45.08	-88.80	1684451.32	14271989.32	39°18'07.764"N	80°50'39.621"W	99.58	243.085	0.20	
1369.00	10.340	257.220	1361.25	15.13	-46.09	-93.15	1684446.97	14271988.31	39°18'07.754"N	80°50'39.676"W	103.93	243.672	0.63	
1394.00	10.330	257.170	1385.84	14.72	-47.09	-97.52	1684442.60	14271987.31	39°18'07.744"N	80°50'39.732"W	108.29	244.227	0.05	
1419.00	9.900	258.470	1410.45	14.28	-48.01	-101.81	1684438.31	14271986.38	39°18'07.735"N	80°50'39.786"W	112.57	244.751	1.95	
1444.00	9.980	259.350	1435.08	13.76	-48.84	-106.05	1684434.08	14271985.56	39°18'07.727"N	80°50'39.840"W	116.75	245.269	0.69	
1469.00	10.100	259.000	1459.70	13.22	-49.66	-110.33	1684429.80	14271984.74	39°18'07.719"N	80°50'39.895"W	120.99	245.765	0.54	
1494.00	10.070	259.370	1484.31	12.68	-50.48	-114.63	1684425.50	14271983.92	39°18'07.711"N	80°50'39.949"W	125.25	246.230	0.29	
1519.00	10.260	258.220	1508.92	12.16	-51.34	-118.95	1684421.17	14271983.06	39°18'07.703"N	80°50'40.004"W	129.56	246.654	1.11	
1544.00	10.290	258.940	1533.52	11.65	-52.22	-123.33	1684416.80	14271982.18	39°18'07.694"N	80°50'40.060"W	133.93	247.049	0.53	

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (362 stations)														
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grnd East	Grnd North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
1569.00	10.400	258.070	1558.11	11.15	-53.12	-127.72	1684412.41	14271981.28	39°18'07.685"N	80°50'40.116"W	138.33	247.418	0.76	
1594.00	10.500	258.650	1582.70	10.65	-54.03	-132.17	1684407.97	14271980.37	39°18'07.676"N	80°50'40.172"W	142.78	247.763	0.58	
1619.00	10.740	258.510	1607.27	10.12	-54.95	-136.68	1684403.45	14271979.46	39°18'07.667"N	80°50'40.230"W	147.31	248.100	0.97	
1644.00	10.780	258.700	1631.83	9.59	-55.87	-141.26	1684398.88	14271978.53	39°18'07.658"N	80°50'40.288"W	151.90	248.421	0.21	
1669.00	10.830	257.980	1656.38	9.08	-56.82	-145.85	1684394.29	14271977.59	39°18'07.649"N	80°50'40.347"W	156.52	248.716	0.58	
1694.00	10.840	257.670	1680.94	8.60	-57.81	-150.44	1684389.70	14271976.60	39°18'07.639"N	80°50'40.405"W	161.17	248.981	0.24	
1719.00	10.970	257.650	1705.49	8.14	-58.82	-155.06	1684385.08	14271975.59	39°18'07.629"N	80°50'40.464"W	165.84	249.227	0.52	
1744.00	11.080	257.140	1730.03	7.69	-59.86	-159.73	1684380.42	14271974.54	39°18'07.619"N	80°50'40.523"W	170.58	249.455	0.59	
1769.00	11.190	257.060	1754.56	7.27	-60.94	-164.43	1684375.71	14271973.46	39°18'07.609"N	80°50'40.583"W	175.36	249.665	0.44	
1794.00	11.250	256.930	1779.08	6.85	-62.03	-169.17	1684370.97	14271972.37	39°18'07.598"N	80°50'40.643"W	180.19	249.862	0.26	
1819.00	11.330	258.860	1803.60	6.35	-63.05	-173.92	1684366.23	14271971.35	39°18'07.588"N	80°50'40.704"W	184.99	250.072	1.57	
1844.00	10.950	260.100	1828.14	5.73	-63.93	-178.62	1684361.53	14271970.48	39°18'07.579"N	80°50'40.764"W	189.72	250.308	1.19	
1869.00	11.060	260.570	1852.68	5.04	-64.73	-183.33	1684356.83	14271969.68	39°18'07.572"N	80°50'40.823"W	194.42	250.553	0.57	
1894.00	10.980	260.590	1877.22	4.33	-65.51	-188.04	1684352.11	14271968.90	39°18'07.564"N	80°50'40.883"W	199.13	250.793	0.32	
1919.00	10.880	261.070	1901.76	3.61	-66.27	-192.74	1684347.42	14271968.14	39°18'07.556"N	80°50'40.943"W	203.82	251.026	0.37	
1944.00	10.940	261.390	1926.30	2.85	-66.99	-197.44	1684342.72	14271967.41	39°18'07.549"N	80°50'41.003"W	208.50	251.257	0.29	
1969.00	11.000	261.880	1950.85	2.05	-67.69	-202.15	1684338.01	14271966.72	39°18'07.543"N	80°50'41.063"W	213.18	251.488	0.44	
1994.00	10.580	263.430	1975.41	1.19	-68.28	-206.79	1684333.38	14271966.12	39°18'07.537"N	80°50'41.122"W	217.77	251.726	2.04	
2019.00	9.700	266.820	2073.94	-3.02	-69.37	-223.82	1684316.35	14271965.03	39°18'07.526"N	80°50'41.339"W	234.33	252.779	0.26	
2044.00	9.650	266.960	2074.65	-0.86	-68.93	-215.44	1684324.73	14271965.48	39°18'07.531"N	80°50'41.232"W	226.20	252.258	1.01	
2069.00	9.650	267.060	2049.29	-1.94	-69.15	-219.63	1684320.54	14271965.26	39°18'07.528"N	80°50'41.285"W	230.25	252.523	0.07	
2094.00	9.700	266.810	2098.58	-4.10	-69.61	-228.03	1684312.14	14271964.80	39°18'07.524"N	80°50'41.392"W	238.41	253.024	0.01	
2144.00	9.750	266.880	2123.22	-5.18	-69.84	-232.24	1684307.93	14271964.57	39°18'07.522"N	80°50'41.446"W	242.52	253.263	0.21	
2169.00	9.880	266.800	2147.85	-6.26	-70.08	-236.50	1684303.68	14271964.33	39°18'07.520"N	80°50'41.500"W	246.66	253.495	0.52	
2194.00	9.880	266.840	2172.48	-7.36	-70.31	-240.78	1684299.99	14271964.09	39°18'07.517"N	80°50'41.554"W	250.84	253.721	0.03	
2219.00	9.870	266.650	2197.11	-8.45	-70.56	-245.06	1684295.12	14271963.85	39°18'07.515"N	80°50'41.609"W	255.02	253.938	0.14	
2244.00	9.950	266.310	2221.74	-9.52	-70.82	-249.36	1684290.82	14271963.59	39°18'07.512"N	80°50'41.664"W	259.22	254.145	0.40	
2269.00	9.900	265.650	2246.37	-10.56	-71.12	-253.66	1684286.53	14271963.29	39°18'07.510"N	80°50'41.718"W	263.44	254.337	0.50	
2294.00	9.740	265.040	2271.00	-11.54	-71.47	-257.90	1684282.28	14271962.94	39°18'07.506"N	80°50'41.772"W	267.62	254.511	0.76	

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (362 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 (ft/100ft)	Comments
2319.00	9.700	264.400	2295.64	-12.47	-71.86	-262.11	1684278.08	14271962.55	39°18'07.502"N	80°50'41.826"W	271.78	254.669	0.46	
2344.00	9.570	263.710	2320.29	-13.34	-72.29	-266.27	1684273.92	14271952.12	39°18'07.498"N	80°50'41.879"W	275.91	254.811	0.70	
2369.00	9.430	262.980	2344.95	-14.15	-72.77	-270.37	1684269.82	14271961.64	39°18'07.494"N	80°50'41.931"W	279.99	254.936	0.74	
2394.00	9.330	261.800	2369.61	-14.88	-73.31	-274.41	1684265.78	14271961.10	39°18'07.488"N	80°50'41.982"W	284.03	255.043	0.87	
2419.00	9.300	261.770	2394.28	-15.56	-73.89	-278.41	1684261.78	14271960.52	39°18'07.483"N	80°50'42.033"W	288.05	255.137	0.12	
2444.00	9.340	261.780	2418.95	-16.25	-74.47	-282.42	1684257.77	14271959.94	39°18'07.477"N	80°50'42.084"W	292.07	255.229	0.16	
2469.00	9.370	261.620	2443.62	-16.93	-75.05	-286.44	1684253.75	14271959.36	39°18'07.471"N	80°50'42.135"W	296.11	255.318	0.16	
2494.00	9.380	260.750	2468.29	-17.58	-75.68	-290.46	1684249.73	14271958.73	39°18'07.465"N	80°50'42.187"W	300.16	255.397	0.57	
2519.00	9.350	260.740	2492.95	-18.19	-76.33	-294.48	1684245.72	14271958.08	39°18'07.459"N	80°50'42.238"W	304.21	255.468	0.12	
2544.00	9.150	259.150	2517.63	-18.75	-77.03	-298.44	1684241.76	14271957.38	39°18'07.452"N	80°50'42.288"W	308.22	255.527	1.30	
2569.00	8.920	257.890	2542.32	-19.19	-77.81	-302.28	1684237.92	14271956.60	39°18'07.444"N	80°50'42.337"W	312.14	255.565	1.21	
2594.00	8.680	256.000	2567.02	-19.52	-78.68	-306.01	1684234.19	14271955.74	39°18'07.436"N	80°50'42.384"W	315.96	255.581	1.50	
2619.00	8.370	254.710	2591.75	-19.73	-79.61	-309.59	1684230.61	14271954.80	39°18'07.427"N	80°50'42.430"W	319.67	255.579	1.46	
2644.00	8.160	253.020	2616.49	-19.85	-80.61	-313.05	1684227.16	14271953.80	39°18'07.417"N	80°50'42.474"W	323.26	255.560	1.28	
2669.00	7.930	251.860	2641.24	-19.87	-81.68	-316.38	1684223.82	14271952.75	39°18'07.406"N	80°50'42.516"W	326.75	255.527	1.13	
2694.00	7.910	251.150	2666.00	-19.84	-82.76	-319.65	1684220.56	14271951.66	39°18'07.396"N	80°50'42.558"W	330.19	255.485	0.40	
2719.00	8.190	253.270	2690.76	-19.85	-83.83	-322.98	1684217.23	14271950.59	39°18'07.385"N	80°50'42.600"W	333.68	255.451	1.63	
2744.00	8.660	257.090	2715.49	-20.06	-84.76	-326.52	1684213.69	14271949.66	39°18'07.376"N	80°50'42.645"W	337.34	255.448	2.92	
2769.00	9.630	262.250	2740.17	-20.59	-85.46	-330.43	1684209.78	14271948.95	39°18'07.369"N	80°50'42.695"W	341.30	255.499	5.08	
2794.00	10.810	265.430	2764.77	-21.51	-85.93	-334.84	1684205.38	14271948.48	39°18'07.365"N	80°50'42.751"W	345.69	255.607	5.23	
2819.00	11.810	267.170	2789.29	-22.72	-86.24	-339.73	1684200.49	14271948.17	39°18'07.362"N	80°50'42.813"W	350.51	255.756	4.23	
2844.00	12.520	268.180	2813.72	-24.14	-86.46	-344.99	1684195.22	14271947.96	39°18'07.360"N	80°50'42.880"W	355.66	255.931	2.96	
2869.00	13.480	269.170	2838.08	-25.75	-86.58	-350.62	1684189.60	14271947.83	39°18'07.358"N	80°50'42.952"W	361.15	256.128	3.94	
2894.00	14.820	269.430	2862.32	-27.56	-86.66	-356.73	1684183.50	14271947.76	39°18'07.358"N	80°50'43.030"W	367.10	256.346	5.37	
2919.00	15.610	267.930	2886.45	-29.44	-86.81	-363.28	1684176.94	14271947.60	39°18'07.356"N	80°50'43.113"W	373.51	256.561	3.53	
2944.00	16.310	265.680	2910.48	-31.19	-87.20	-370.15	1684170.08	14271947.22	39°18'07.353"N	80°50'43.200"W	380.28	256.744	3.74	
2969.00	17.300	263.070	2934.42	-32.73	-87.91	-377.34	1684162.89	14271946.51	39°18'07.346"N	80°50'43.292"W	387.44	256.886	4.98	
2994.00	18.100	261.640	2958.23	-34.09	-88.92	-384.87	1684155.36	14271945.49	39°18'07.336"N	80°50'43.388"W	395.01	256.990	3.64	
3019.00	18.970	261.990	2981.94	-35.44	-90.05	-392.74	1684147.50	14271944.36	39°18'07.325"N	80°50'43.488"W	402.93	257.085	3.51	
3044.00	19.400	263.360	3005.55	-36.95	-91.10	-400.88	1684139.36	14271943.32	39°18'07.315"N	80°50'43.592"W	411.11	257.197	2.49	

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**Actual Wellpath Report**  
Ridge Unit 1H AWP Proj: 15652  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co, WV
Field	Doddridge
Facility	Balli Pad
Slot	Ridge Unit 1H AWP
Slot #01	Ridge Unit 1H

**WELLPATH DATA (362 stations)**

MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
3069.00	20.190	264.590	3029.07	-38.71	-91.99	-409.30	1684130.94	14271942.43	39°18'07.306"N	80°50'43.699"W	419.51	257.334	3.57	
3094.00	20.790	264.860	3052.49	-40.63	-92.79	-418.02	1684122.23	14271941.63	39°18'07.298"N	80°50'43.810"W	428.19	257.484	2.43	
3119.00	21.870	262.820	3075.78	-42.48	-93.77	-427.06	1684113.19	14271940.65	39°18'07.289"N	80°50'43.925"W	437.23	257.616	5.24	
3144.00	22.790	260.350	3098.90	-44.05	-95.16	-436.45	1684103.80	14271939.25	39°18'07.275"N	80°50'44.044"W	446.70	257.700	5.26	
3169.00	23.550	257.910	3121.89	-45.26	-97.02	-446.11	1684094.15	14271937.40	39°18'07.257"N	80°50'44.167"W	456.54	257.730	4.90	
3194.00	24.390	255.500	3144.73	-46.09	-99.36	-455.99	1684084.27	14271935.06	39°18'07.234"N	80°50'44.293"W	466.69	257.707	5.16	
3219.00	25.090	253.240	3167.44	-46.51	-102.18	-466.06	1684074.20	14271932.24	39°18'07.206"N	80°50'44.421"W	477.13	257.634	4.71	
3244.00	25.920	250.710	3190.00	-46.49	-105.52	-476.30	1684063.98	14271928.91	39°18'07.173"N	80°50'44.551"W	487.84	257.509	5.48	
3269.00	26.540	248.770	3212.43	-46.05	-109.34	-486.66	1684053.62	14271925.08	39°18'07.136"N	80°50'44.683"W	498.79	257.337	4.23	
3294.00	26.930	248.220	3234.75	-45.35	-113.47	-497.12	1684043.16	14271920.96	39°18'07.095"N	80°50'44.816"W	509.91	257.143	1.85	
3319.00	26.940	247.990	3257.04	-44.57	-117.69	-507.63	1684032.65	14271916.74	39°18'07.054"N	80°50'44.950"W	521.09	256.947	0.42	
3344.00	26.600	246.420	3279.36	-43.63	-122.05	-518.01	1684022.28	14271912.38	39°18'07.011"N	80°50'45.082"W	532.19	256.742	3.14	
3369.00	26.300	244.020	3301.75	-42.31	-126.72	-528.12	1684012.17	14271907.71	39°18'06.965"N	80°50'45.211"W	543.11	256.508	4.44	
3394.00	26.260	243.180	3324.16	-40.68	-131.64	-538.03	1684002.26	14271902.80	39°18'06.916"N	80°50'45.337"W	553.90	256.252	1.50	
3419.00	25.440	242.030	3346.66	-39.08	-136.48	-547.80	1683992.50	14271897.95	39°18'06.868"N	80°50'45.461"W	564.64	256.010	3.60	
3444.00	24.370	246.040	3369.34	-37.79	-140.93	-557.34	1683982.97	14271893.51	39°18'06.825"N	80°50'45.583"W	574.88	255.809	5.46	
3469.00	23.140	248.410	3392.22	-36.94	-144.83	-566.62	1683973.69	14271889.61	39°18'06.786"N	80°50'45.701"W	584.84	255.662	6.23	
3494.00	23.140	245.21	3415.21	-36.53	-148.25	-575.83	1683964.48	14271886.19	39°18'06.753"N	80°50'45.818"W	594.61	255.562	3.80	
3519.00	23.360	252.990	3438.18	-36.51	-151.32	-585.21	1683955.11	14271883.12	39°18'06.723"N	80°50'45.938"W	604.45	255.503	3.52	
3544.00	23.740	253.680	3461.09	-36.73	-154.18	-594.78	1683945.54	14271880.26	39°18'06.694"N	80°50'46.059"W	614.43	255.467	1.88	
3569.00	24.290	253.030	3483.93	-36.97	-157.10	-604.52	1683935.80	14271877.35	39°18'06.666"N	80°50'46.183"W	624.60	255.433	2.44	
3594.00	24.920	251.990	3506.66	-37.05	-160.22	-614.45	1683925.88	14271874.22	39°18'06.635"N	80°50'46.310"W	635.00	255.385	3.06	
3619.00	25.380	251.760	3529.29	-37.02	-163.53	-624.55	1683915.78	14271870.92	39°18'06.602"N	80°50'46.438"W	645.60	255.327	1.88	
3644.00	25.880	251.060	3551.83	-36.90	-166.98	-634.80	1683905.54	14271867.47	39°18'06.569"N	80°50'46.569"W	656.39	255.263	2.34	
3669.00	26.590	249.940	3574.26	-36.60	-170.67	-645.21	1683895.12	14271863.78	39°18'06.532"N	80°50'46.701"W	667.40	255.184	3.46	
3694.00	27.020	248.970	3596.57	-36.09	-174.62	-655.77	1683884.57	14271859.82	39°18'06.493"N	80°50'46.836"W	678.62	255.089	2.45	
3719.00	27.190	248.080	3618.82	-35.49	-178.70	-666.41	1683873.94	14271855.75	39°18'06.453"N	80°50'46.971"W	689.95	254.989	0.71	
3744.00	26.230	251.510	3641.16	-35.15	-182.49	-676.98	1683863.37	14271851.66	39°18'06.416"N	80°50'47.106"W	701.15	254.913	5.82	
3769.00	25.110	254.190	3663.69	-35.30	-185.69	-687.33	1683853.03	14271848.76	39°18'06.384"N	80°50'47.237"W	711.97	254.882	6.45	
3794.00	24.760	255.420	3686.36	-35.80	-188.45	-697.50	1683842.86	14271846.00	39°18'06.357"N	80°50'47.367"W	722.51	254.880	2.50	

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (362 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 (ft/100ft)	Comments
3819.00	25.030	255.460	3709.04	-36.43	-191.10	-707.68	1683832.68	14271843.36	39°18'06.331"N	80°50'47.496"W	733.03	254.888	1.08	
3844.00	25.220	255.120	3731.67	-37.03	-193.80	-717.95	1683822.42	14271840.66	39°18'06.305"N	80°50'47.627"W	743.64	254.894	0.95	
3869.00	25.540	254.920	3754.26	-37.59	-196.57	-728.30	1683812.07	14271837.89	39°18'06.278"N	80°50'47.759"W	754.36	254.896	1.33	
3894.00	26.000	255.200	3776.77	-38.16	-199.37	-738.80	1683801.57	14271835.09	39°18'06.250"N	80°50'47.892"W	765.23	254.898	1.90	
3919.00	26.250	255.940	3799.22	-38.84	-202.11	-749.46	1683790.92	14271832.35	39°18'06.223"N	80°50'48.028"W	776.24	254.908	1.64	
3944.00	26.100	257.940	3821.65	-39.78	-204.60	-760.20	1683780.18	14271829.86	39°18'06.199"N	80°50'48.165"W	787.26	254.936	3.58	
3969.00	24.800	261.690	3844.23	-41.22	-206.51	-770.77	1683769.62	14271827.95	39°18'06.180"N	80°50'48.299"W	797.96	255.001	8.28	
3994.00	24.380	263.880	3866.96	-43.16	-207.82	-781.09	1683759.30	14271826.65	39°18'06.167"N	80°50'48.431"W	808.26	255.101	4.01	
4019.00	24.620	264.400	3889.71	-45.33	-208.88	-791.40	1683748.99	14271825.59	39°18'06.157"N	80°50'48.562"W	818.50	255.215	1.29	
4044.00	25.110	264.780	3912.39	-47.62	-209.87	-801.87	1683738.53	14271824.60	39°18'06.147"N	80°50'48.695"W	828.88	255.333	2.06	
4069.00	25.610	265.410	3934.98	-50.04	-210.78	-812.54	1683727.87	14271823.68	39°18'06.139"N	80°50'48.831"W	839.43	255.457	2.27	
4094.00	25.730	267.970	3957.52	-52.78	-211.41	-823.34	1683717.06	14271823.06	39°18'06.133"N	80°50'48.968"W	850.05	255.600	4.46	
4119.00	25.920	270.520	3980.02	-56.00	-211.55	-834.23	1683706.18	14271822.92	39°18'06.131"N	80°50'49.107"W	860.64	255.771	4.51	
4144.00	26.080	272.710	4002.49	-59.67	-211.24	-845.19	1683695.23	14271823.23	39°18'06.135"N	80°50'49.246"W	871.18	255.967	3.89	
4169.00	26.520	274.150	4024.90	-63.71	-210.58	-856.24	1683684.18	14271823.89	39°18'06.141"N	80°50'49.387"W	881.75	256.183	3.10	
4194.00	27.120	274.140	4047.22	-67.95	-209.76	-867.49	1683672.94	14271824.70	39°18'06.150"N	80°50'49.530"W	892.49	256.407	2.40	
4219.00	27.450	274.070	4069.43	-72.26	-208.94	-878.92	1683661.51	14271825.52	39°18'06.158"N	80°50'49.675"W	903.42	256.628	1.33	
4244.00	27.650	274.710	4091.60	-76.66	-208.05	-890.45	1683649.98	14271826.41	39°18'06.167"N	80°50'49.822"W	914.43	256.849	1.43	
4269.00	27.600	274.850	4113.75	-81.14	-207.09	-902.00	1683638.44	14271827.37	39°18'06.177"N	80°50'49.969"W	925.47	257.070	0.33	
4294.00	27.390	273.570	4135.93	-85.49	-206.24	-913.51	1683626.93	14271828.22	39°18'06.185"N	80°50'50.115"W	936.51	257.278	2.51	
4319.00	27.000	270.160	4158.16	-89.37	-205.87	-924.93	1683615.52	14271828.60	39°18'06.189"N	80°50'50.260"W	947.56	257.452	6.43	
4344.00	26.460	267.460	4180.49	-92.61	-206.10	-936.17	1683604.29	14271828.36	39°18'06.187"N	80°50'50.403"W	958.59	257.584	5.32	
4369.00	25.870	265.330	4202.93	-95.35	-206.79	-947.17	1683593.29	14271827.67	39°18'06.180"N	80°50'50.543"W	969.48	257.684	4.44	
4394.00	25.330	265.850	4225.48	-97.88	-207.62	-957.94	1683582.52	14271826.84	39°18'06.172"N	80°50'50.680"W	980.18	257.771	2.34	
4419.00	25.050	268.520	4248.10	-100.66	-208.14	-968.56	1683571.90	14271826.32	39°18'06.167"N	80°50'50.815"W	990.68	257.872	4.68	
4444.00	25.590	269.550	4270.70	-103.78	-208.32	-979.25	1683561.22	14271826.14	39°18'06.166"N	80°50'50.951"W	1001.17	257.990	2.79	
4469.00	26.160	270.490	4293.19	-107.15	-208.32	-990.16	1683550.31	14271826.15	39°18'06.166"N	80°50'51.090"W	1011.84	258.119	2.81	
4494.00	26.750	271.600	4315.57	-110.78	-208.11	-1001.30	1683539.18	14271826.35	39°18'06.168"N	80°50'51.232"W	1022.70	258.259	3.08	
4519.00	27.160	273.230	4337.86	-114.73	-207.64	-1012.62	1683527.87	14271826.83	39°18'06.173"N	80°50'51.376"W	1033.69	258.412	3.38	
4544.00	27.520	275.150	4360.07	-119.06	-206.80	-1024.07	1683516.42	14271827.67	39°18'06.182"N	80°50'51.521"W	1044.74	258.584	3.81	

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**Actual Wellpath Report**  
Ridge Unit 1H AWP Proj: 15652  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

**WELLPATH DATA (362 stations)**

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
4569.00	27.820	277.870	4382.21	-123.87	-205.48	-1035.60	1683504.89	14271828.98	39°18'06.195"N	80°50'51.668"W	1055.79	258.777	5.19	
4594.00	28.160	278.880	4404.28	-129.07	-1047.21	-1047.21	1683493.29	14271830.69	39°18'06.212"N	80°50'51.816"W	1066.85	258.989	2.33	
4619.00	28.570	280.730	4426.28	-134.60	-201.74	-1058.91	1683481.59	14271832.72	39°18'06.232"N	80°50'51.964"W	1077.96	259.213	3.88	
4644.00	28.810	283.140	4448.21	-140.59	-199.26	-1070.65	1683469.86	14271835.20	39°18'06.257"N	80°50'52.114"W	1089.03	259.457	4.73	
4669.00	28.800	285.250	4470.12	-147.00	-186.31	-1082.33	1683458.19	14271838.15	39°18'06.286"N	80°50'52.262"W	1099.99	259.720	4.07	
4694.00	28.980	286.840	4492.01	-153.75	-192.97	-1093.93	1683446.58	14271841.49	39°18'06.319"N	80°50'52.410"W	1110.82	259.996	3.16	
4719.00	29.450	288.750	4513.83	-160.88	-189.24	-1105.55	1683434.97	14271845.22	39°18'06.356"N	80°50'52.557"W	1121.63	260.287	4.18	
4744.00	29.510	289.620	4535.59	-168.31	-185.20	-1117.17	1683423.36	14271849.26	39°18'06.397"N	80°50'52.705"W	1132.42	260.587	1.73	
4769.00	29.660	289.760	4557.33	-175.85	-181.04	-1128.79	1683411.74	14271853.41	39°18'06.438"N	80°50'52.853"W	1143.22	260.888	0.66	
4794.00	29.860	289.190	4579.04	-183.39	-176.90	-1140.49	1683400.05	14271857.55	39°18'06.479"N	80°50'53.002"W	1154.13	261.183	1.39	
4819.00	29.080	288.200	4600.80	-190.73	-172.96	-1152.14	1683388.40	14271861.49	39°18'06.518"N	80°50'53.150"W	1165.05	261.463	3.68	
4844.00	28.130	288.620	4622.75	-197.83	-169.18	-1163.50	1683377.05	14271865.27	39°18'06.556"N	80°50'53.294"W	1175.73	261.727	3.88	
4869.00	28.060	289.390	4644.81	-204.91	-165.35	-1174.63	1683365.92	14271869.10	39°18'06.594"N	80°50'53.436"W	1186.21	261.987	1.48	
4894.00	27.960	289.860	4666.88	-212.07	-161.40	-1185.69	1683354.87	14271873.04	39°18'06.633"N	80°50'53.576"W	1196.62	262.248	0.97	
4919.00	28.050	290.070	4688.95	-219.30	-157.38	-1196.72	1683343.84	14271877.06	39°18'06.673"N	80°50'53.717"W	1207.02	262.508	0.74	
4944.00	28.210	290.070	4710.99	-226.57	-153.32	-1207.78	1683332.78	14271881.12	39°18'06.713"N	80°50'53.857"W	1217.48	262.765	0.64	
4969.00	28.410	289.410	4733.00	-233.82	-149.32	-1218.94	1683321.62	14271885.12	39°18'06.753"N	80°50'53.999"W	1228.06	263.016	1.49	
4994.00	28.460	289.770	4754.99	-240.96	-145.46	-1230.21	1683310.37	14271888.97	39°18'06.791"N	80°50'54.142"W	1238.78	263.266	1.95	
5019.00	27.850	288.870	4777.03	-247.83	-141.89	-1241.45	1683299.13	14271892.55	39°18'06.827"N	80°50'54.285"W	1249.53	263.480	3.77	
5044.00	27.140	285.750	4799.21	-254.33	-138.65	-1252.52	1683288.06	14271895.79	39°18'06.859"N	80°50'54.426"W	1260.17	263.683	3.51	
5069.00	26.340	291.310	4866.36	-274.22	-127.99	-1284.15	1683256.44	14271906.44	39°18'06.965"N	80°50'54.828"W	1290.52	264.308	2.87	
5144.00	26.330	292.750	4888.77	-281.34	-123.83	-1294.43	1683246.16	14271910.60	39°18'07.006"N	80°50'54.959"W	1300.34	264.535	2.56	
5169.00	26.160	295.040	4911.19	-288.72	-119.36	-1304.54	1683236.06	14271915.07	39°18'07.050"N	80°50'55.087"W	1309.99	264.772	4.11	
5194.00	26.150	297.950	4933.63	-296.43	-114.44	-1314.40	1683226.21	14271919.98	39°18'07.099"N	80°50'55.213"W	1319.37	265.024	5.13	
5219.00	26.530	299.700	4956.04	-304.52	-109.09	-1324.12	1683216.49	14271925.33	39°18'07.152"N	80°50'55.336"W	1328.60	265.290	3.46	
5244.00	27.170	300.680	4978.34	-312.93	-103.41	-1333.88	1683206.74	14271931.01	39°18'07.208"N	80°50'55.460"W	1337.88	265.567	3.11	
5269.00	27.720	301.060	5000.53	-321.60	-97.50	-1343.77	1683196.85	14271936.92	39°18'07.267"N	80°50'55.586"W	1347.30	265.850	2.31	
5294.00	28.840	301.460	5022.54	-330.57	-91.35	-1353.89	1683186.73	14271943.06	39°18'07.328"N	80°50'55.714"W	1356.97	266.140	4.54	

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### Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652  
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#### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWP
Facility	Balli Pad		

#### WELLPATH DATA (362 stations)

MD	Inclination	Azimuth	TVD	Vent Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
5319.00	31.810	301.290	5044.34	-339.86	-84.98	-1364.34	1683176.28	14271949.43	39°18'07.391"N	80°50'55.847"W	1366.99	266.436	3.89	
5344.00	30.580	301.060	5065.95	-349.37	-78.47	-1375.10	1683165.53	14271955.94	39°18'07.466"N	80°50'55.984"W	1377.34	266.734	3.11	
5369.00	31.190	300.500	5087.40	-359.02	-71.90	-1386.13	1683154.51	14271962.50	39°18'07.521"N	80°50'56.124"W	1387.99	267.030	2.70	
5394.00	31.500	299.420	5108.75	-368.67	-65.41	-1397.39	1683143.25	14271969.00	39°18'07.585"N	80°50'56.267"W	1398.92	267.320	2.57	
5419.00	31.200	298.250	5130.10	-378.15	-59.14	-1408.79	1683131.86	14271975.27	39°18'07.647"N	80°50'56.412"W	1410.03	267.596	2.71	
5444.00	31.290	297.750	5151.48	-387.47	-53.05	-1420.24	1683120.41	14271981.35	39°18'07.708"N	80°50'56.558"W	1421.23	267.861	1.10	
5469.00	31.270	297.890	5172.84	-396.77	-46.99	-1431.72	1683108.94	14271987.41	39°18'07.768"N	80°50'56.704"W	1432.49	268.120	0.30	
5494.00	31.430	298.250	5194.19	-406.13	-40.87	-1443.19	1683097.46	14271993.52	39°18'07.829"N	80°50'56.849"W	1443.77	268.378	0.99	
5519.00	31.420	298.800	5215.53	-415.59	-34.65	-1454.65	1683086.02	14271999.75	39°18'07.890"N	80°50'56.995"W	1455.06	268.636	1.15	
5544.00	31.770	299.340	5236.82	-425.17	-28.28	-1466.09	1683074.57	14272006.11	39°18'07.953"N	80°50'57.140"W	1466.37	268.895	1.80	
5569.00	32.040	299.490	5258.05	-434.89	-21.79	-1477.60	1683063.07	14272012.59	39°18'08.018"N	80°50'57.287"W	1477.76	269.155	1.13	
5594.00	32.300	299.380	5279.21	-444.69	-15.25	-1489.19	1683051.48	14272019.13	39°18'08.082"N	80°50'57.434"W	1489.27	269.413	1.07	
5619.00	31.770	298.990	5300.40	-454.41	-8.79	-1500.77	1683039.91	14272025.60	39°18'08.146"N	80°50'57.581"W	1500.80	269.665	2.28	
5644.00	31.620	298.120	5321.67	-463.94	-2.51	-1512.31	1683028.39	14272031.87	39°18'08.209"N	80°50'57.728"W	1512.31	269.905	1.92	
5669.00	31.550	298.870	5342.96	-473.34	3.61	-1523.91	1683016.78	14272037.99	39°18'08.269"N	80°50'57.875"W	1523.91	270.136	1.26	
5694.00	31.650	298.870	5364.25	-482.62	9.60	-1535.56	1683005.14	14272043.98	39°18'08.329"N	80°50'58.023"W	1535.59	270.358	1.42	
5719.00	31.630	298.380	5385.55	-491.82	15.47	-1547.26	1682993.43	14272049.84	39°18'08.387"N	80°50'58.172"W	1547.34	270.573	1.08	
5744.00	31.860	298.840	5406.81	-500.97	21.26	-1559.08	1682981.63	14272055.63	39°18'08.444"N	80°50'58.322"W	1559.22	270.781	1.46	
5769.00	31.810	294.710	5428.04	-510.00	26.89	-1571.00	1682969.71	14272061.26	39°18'08.500"N	80°50'58.474"W	1571.23	270.980	2.39	
5794.00	31.620	293.810	5449.31	-518.83	32.29	-1582.98	1682957.73	14272066.65	39°18'08.554"N	80°50'58.626"W	1583.31	271.168	2.04	
5819.00	31.540	292.820	5470.61	-527.47	37.47	-1595.00	1682945.71	14272071.83	39°18'08.605"N	80°50'58.779"W	1595.44	271.346	2.10	
5844.00	31.130	291.710	5491.96	-535.86	42.39	-1607.03	1682933.69	14272076.76	39°18'08.654"N	80°50'58.932"W	1607.59	271.511	2.83	
5869.00	30.880	291.280	5513.39	-544.05	47.11	-1619.02	1682921.71	14272081.47	39°18'08.701"N	80°50'59.084"W	1619.70	271.667	1.34	
5894.00	30.550	290.870	5534.88	-552.09	51.71	-1630.93	1682909.80	14272086.06	39°18'08.746"N	80°50'59.236"W	1631.75	271.816	1.56	
5919.00	30.420	290.240	5556.43	-559.99	56.16	-1642.81	1682897.93	14272090.52	39°18'08.791"N	80°50'59.387"W	1643.77	271.958	1.38	
5944.00	30.700	290.190	5577.96	-567.84	60.55	-1654.73	1682886.01	14272094.91	39°18'08.834"N	80°50'59.538"W	1655.84	272.096	1.12	
5969.00	31.190	290.330	5599.40	-575.80	65.00	-1666.79	1682873.95	14272099.36	39°18'08.879"N	80°50'59.692"W	1668.06	272.233	1.98	
5994.00	31.280	290.930	5620.77	-583.88	69.57	-1678.93	1682861.82	14272103.92	39°18'08.924"N	80°50'59.846"W	1680.37	272.373	1.30	
6019.00	31.190	290.920	5642.15	-592.02	74.20	-1691.04	1682849.72	14272108.55	39°18'08.970"N	80°51'00.000"W	1692.66	272.512	0.36	
6044.00	31.250	291.030	5663.53	-600.16	78.84	-1703.13	1682837.63	14272113.19	39°18'09.016"N	80°51'00.154"W	1704.96	272.650	0.33	

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #01
Area	Doddridge Co., WV		Well	Ridge Unit 1H
Field	Doddridge		Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad			

WELLPATH DATA (362 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 (ft/100ft)	Comments
6069.00	30.970	290.400	5684.93	-608.24	83.41	-1715.22	1682825.55	14272117.75	39°18'09.061"N	80°51'00.307"W	1717.24	272.784	1.72	
6094.00	30.770	290.170	5706.39	-616.18	87.85	-1727.25	1682813.52	14272122.20	39°18'09.105"N	80°51'00.460"W	1729.48	272.912	0.93	
6119.00	30.720	289.940	5727.88	-624.05	92.24	-1739.25	1682801.52	14272126.58	39°18'09.149"N	80°51'00.613"W	1741.70	273.036	0.51	
6144.00	30.820	288.180	5749.36	-631.75	96.41	-1751.34	1682789.44	14272130.75	39°18'09.190"N	80°51'00.766"W	1753.99	273.151	3.62	
6169.00	30.410	285.650	5770.88	-639.03	100.12	-1763.52	1682777.27	14272134.46	39°18'09.227"N	80°51'00.921"W	1766.36	273.249	5.41	
6194.00	30.680	283.740	5792.41	-645.88	103.34	-1775.81	1682764.98	14272137.68	39°18'09.259"N	80°51'01.077"W	1778.81	273.330	4.03	
6212.00	30.670	282.360	5807.89	-650.61	105.41	-1784.75	1682756.04	14272139.75	39°18'09.280"N	80°51'01.191"W	1787.86	273.380	3.91	
6329.00	29.640	271.820	5909.13	-675.48	112.73	-1842.86	1682697.96	14272147.06	39°18'09.353"N	80°51'01.930"W	1846.31	273.500	4.60	BHI AT Curve <8-1/2">(6212')(6329'-15627')
6375.00	29.550	269.920	5949.12	-682.82	113.07	-1865.57	1682675.25	14272147.41	39°18'09.357"N	80°51'02.219"W	1869.00	273.468	2.05	
6425.00	28.230	264.160	5992.91	-689.09	111.85	-1889.67	1682651.16	14272146.19	39°18'09.345"N	80°51'02.526"W	1892.98	273.387	6.16	
6474.00	25.240	256.390	6036.68	-692.31	108.21	-1911.37	1682629.48	14272142.55	39°18'09.310"N	80°51'02.802"W	1914.43	273.240	9.38	
6522.00	23.600	248.070	6080.40	-692.42	102.21	-1930.23	1682610.62	14272136.55	39°18'09.251"N	80°51'03.042"W	1932.94	273.031	7.93	
6568.00	24.310	240.010	6122.45	-689.81	94.04	-1946.98	1682593.88	14272128.38	39°18'09.170"N	80°51'03.255"W	1949.25	272.765	7.27	
6616.00	25.840	231.820	6165.93	-684.14	82.63	-1963.77	1682577.10	14272116.98	39°18'09.058"N	80°51'03.469"W	1965.50	272.409	7.90	
6663.00	27.450	224.550	6207.95	-675.59	68.57	-1979.42	1682561.45	14272102.93	39°18'08.919"N	80°51'03.668"W	1980.61	271.984	7.73	
6711.00	30.120	217.900	6250.03	-663.72	51.18	-1994.59	1682546.29	14272085.54	39°18'08.747"N	80°51'03.862"W	1995.25	271.470	8.68	
6758.00	32.370	211.890	6290.22	-648.99	31.18	-2008.49	1682532.40	14272065.55	39°18'08.550"N	80°51'04.039"W	2008.73	270.889	8.17	
6805.00	35.720	207.190	6329.17	-631.19	8.29	-2021.41	1682519.48	14272042.66	39°18'08.324"N	80°51'04.204"W	2021.42	270.235	9.06	
6854.00	36.260	205.270	6368.81	-610.54	-17.54	-2034.13	1682506.76	14272016.84	39°18'08.069"N	80°51'04.366"W	2034.21	269.506	2.55	
6893.00†	37.080	204.274	6400.09	-593.43	-38.69	-2043.89	1682497.01	14271995.71	39°18'07.860"N	80°51'04.491"W	2044.25	268.916	2.60	Middlesex: 6893' MD
6902.00	37.270	204.050	6407.27	-589.40	-43.65	-2046.11	1682494.79	14271990.75	39°18'07.811"N	80°51'04.519"W	2046.58	268.778	2.60	
6949.00	41.090	201.880	6443.69	-566.96	-70.99	-2057.67	1682483.23	14271963.42	39°18'07.541"N	80°51'04.667"W	2058.90	268.024	8.63	
6996.00	46.800	195.500	6477.54	-540.77	-101.87	-2068.02	1682472.89	14271932.55	39°18'07.236"N	80°51'04.799"W	2070.53	267.180	15.36	
7044.00	51.050	189.930	6509.08	-509.65	-137.15	-2075.92	1682464.99	14271897.29	39°18'06.887"N	80°51'04.900"W	2080.45	266.220	12.44	
7067.00†	53.078	187.550	6523.22	-493.45	-155.08	-2078.67	1682462.24	14271879.37	39°18'06.710"N	80°51'04.936"W	2084.45	265.733	12.01	Burkett: 7067' MD
7089.00	55.060	185.390	6536.13	-477.23	-172.77	-2080.68	1682460.24	14271861.67	39°18'06.535"N	80°51'04.961"W	2087.84	265.253	12.01	
7112.00†	57.864	183.246	6548.84	-459.49	-191.89	-2082.11	1682458.80	14271842.57	39°18'06.346"N	80°51'04.980"W	2090.94	264.734	14.46	Tully: 7112' MD
7137.00	60.950	181.060	6561.56	-439.28	-213.39	-2082.91	1682458.00	14271821.08	39°18'06.134"N	80°51'04.991"W	2093.82	264.151	14.46	
7185.00	67.850	176.050	6582.30	-397.81	-256.62	-2081.77	1682459.14	14271777.87	39°18'05.707"N	80°51'04.977"W	2097.53	262.973	17.18	
7195.00†	69.244	175.015	6585.96	-388.76	-265.89	-2081.04	1682459.87	14271768.59	39°18'05.615"N	80°51'04.968"W	2097.96	262.719	16.94	Marcellus: 7195' MD

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**Actual Wellpath Report**  
Ridge Unit 1H AWP Proj: 15652  
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Operator		ANTERO RESOURCES CORPORATION	
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWP
Facility	Balli Pad		
Operator	Slot #01		

**REFERENCE WELLPATH IDENTIFICATION**

MD	Inclination	Azimuth	TVD	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)

**WELLPATH DATA (362 stations)**

7233.00	74.590	171.240	6597.75	-353.33	-301.73	1682464.20	14271732.77	39°18'05.26"N	80°51'04.91"W	2098.51	261.733	16.94	
7282.00	81.660	166.100	6607.84	-305.74	-348.70	1682473.64	14271685.82	39°18'04.79"N	80°51'04.79"W	2096.47	260.426	17.70	
7329.00	87.730	162.360	6612.18	-259.01	-393.71	1682486.35	14271640.83	39°18'04.35"N	80°51'04.634"W	2091.93	259.152	15.15	
7424.00	91.030	160.800	6613.21	-164.03	-483.82	1682516.35	14271550.76	39°18'03.460"N	80°51'04.254"W	2081.55	256.560	3.84	
7519.00	91.080	159.430	6611.46	-69.10	-573.14	1682548.64	14271461.47	39°18'02.577"N	80°51'03.845"W	2073.03	253.950	1.44	
7614.00	90.930	157.640	6609.79	25.70	-661.53	1682583.39	14271373.11	39°18'01.702"N	80°51'03.404"W	2066.24	251.327	1.89	
7709.00	89.390	156.610	6609.53	120.35	-749.05	1682620.30	14271285.63	39°18'00.837"N	80°51'02.937"W	2061.45	248.693	1.95	
7804.00	89.450	154.450	6610.51	214.72	-835.51	1682659.63	14271199.20	39°17'59.982"N	80°51'02.438"W	2058.40	246.052	2.27	
7898.00	89.330	153.290	6611.54	307.76	-919.90	1682701.01	14271114.85	39°17'59.147"N	80°51'01.913"W	2056.96	243.435	1.24	
7992.00	89.580	161.140	6612.44	401.35	-1006.49	1682737.37	14271028.29	39°17'58.290"N	80°51'01.452"W	2065.28	240.834	8.36	
8087.00	89.420	165.280	6613.27	496.31	-1097.42	1682764.79	14270937.40	39°17'57.391"N	80°51'01.105"W	2087.70	238.287	4.36	
8182.00	89.550	164.120	6614.12	591.20	-1189.05	1682789.85	14270845.81	39°17'56.485"N	80°51'00.788"W	2116.50	235.820	1.23	
8277.00	89.450	164.150	6614.95	686.13	-1280.42	1682815.81	14270754.47	39°17'55.582"N	80°51'00.460"W	2148.25	233.414	0.11	
8372.00	89.950	164.350	6615.45	781.06	-1371.85	1682841.58	14270663.07	39°17'54.678"N	80°51'00.134"W	2183.85	231.084	0.57	
8467.00	89.580	165.840	6615.84	875.98	-1463.48	1682866.68	14270571.49	39°17'53.772"N	80°50'59.816"W	2223.57	228.840	0.79	
8562.00	89.300	166.830	6616.76	970.73	-1555.61	1682889.79	14270479.39	39°17'52.861"N	80°50'59.524"W	2268.38	226.703	1.95	
8657.00	90.350	167.710	6617.05	1065.34	-1648.27	1682910.71	14270386.77	39°17'51.944"N	80°50'59.260"W	2318.14	224.661	1.44	
8751.00	90.410	169.690	6618.43	1159.02	-1739.75	1682932.33	14270295.33	39°17'51.040"N	80°50'58.987"W	2369.31	222.753	2.15	
8846.00	90.190	161.950	6618.93	1253.95	-1830.96	1682958.79	14270204.15	39°17'50.138"N	80°50'58.652"W	2419.70	220.827	3.94	
8940.00	90.010	162.780	6619.77	1347.95	-1920.55	1682987.25	14270114.60	39°17'49.252"N	80°50'58.292"W	2470.16	218.968	0.90	
9035.00	90.220	161.610	6619.58	1442.95	-2010.99	1683016.29	14270024.19	39°17'48.358"N	80°50'57.924"W	2523.47	217.163	1.25	
9129.00	90.750	158.170	6619.78	1536.86	-2099.25	1683048.59	14269935.97	39°17'47.485"N	80°50'57.515"W	2575.49	215.404	3.70	
9224.00	89.940	155.660	6619.21	1631.47	-2186.63	1683085.82	14269848.62	39°17'46.621"N	80°50'57.043"W	2626.39	213.637	2.78	
9318.00	89.820	156.840	6619.41	1724.99	-2272.67	1683123.66	14269762.62	39°17'45.770"N	80°50'56.563"W	2678.22	211.943	1.26	
9413.00	89.140	158.980	6619.27	1819.74	-2360.68	1683159.37	14269674.64	39°17'44.899"N	80°50'56.111"W	2735.09	210.332	2.36	
9508.00	89.110	159.300	6619.60	1914.60	-2449.45	1683193.18	14269585.91	39°17'44.021"N	80°50'55.683"W	2795.60	208.815	0.34	
9602.00	89.700	161.730	6617.70	2008.56	-2538.05	1683224.52	14269497.34	39°17'43.145"N	80°50'55.286"W	2858.99	207.409	2.66	
9697.00	89.600	164.060	6618.28	2103.54	-2628.84	1683252.45	14269406.59	39°17'42.247"N	80°50'54.932"W	2927.48	206.105	2.45	
9793.00	89.940	161.930	6618.66	2199.52	-2720.64	1683280.51	14269314.83	39°17'41.339"N	80°50'54.577"W	2998.28	204.851	2.25	
9887.00	89.790	157.380	6618.88	2293.41	-2808.75	1683313.17	14269226.75	39°17'40.468"N	80°50'54.163"W	3065.22	203.605	4.84	

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### Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652  
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#### REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Balli Pad
Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Balli Pad

#### WELLPATH DATA (362 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Comments
9981.00	89.760	157.700	6619.25	2387.12	-2895.62	-1191.49	1683349.06	14269139.92	39°17'39.60"N	80°50'53.70"W	3131.18	202.366	0.34	
10076.00	89.700	161.340	6619.70	2482.01	-2984.60	-1158.26	1683382.28	14269050.97	39°17'38.72"N	80°50'53.28"W	3201.47	201.210	3.83	
10170.00	89.670	164.280	6620.22	2575.99	-3074.39	-1130.48	1683410.05	14268961.22	39°17'37.84"N	80°50'52.93"W	3275.65	200.189	3.13	
10264.00	89.700	162.230	6620.73	2669.97	-3164.40	-1103.40	1683437.12	14268871.25	39°17'36.95"N	80°50'52.59"W	3351.25	199.223	2.18	
10359.00	89.420	162.660	6621.48	2764.96	-3254.97	-1074.75	1683465.76	14268780.71	39°17'36.05"N	80°50'52.23"W	3427.81	198.273	0.54	
10453.00	89.390	168.390	6622.44	2858.74	-3345.94	-1051.26	1683489.24	14268689.77	39°17'35.15"N	80°50'51.93"W	3507.21	197.442	6.10	
10549.00	89.510	171.040	6623.36	2953.87	-3440.39	-1034.13	1683506.37	14268595.37	39°17'34.22"N	80°50'51.71"W	3592.45	196.730	2.76	
10643.00	89.450	167.280	6624.22	3047.12	-3532.69	-1016.45	1683524.04	14268503.04	39°17'33.30"N	80°50'51.49"W	3676.01	196.052	4.00	
10738.00	89.480	164.350	6625.10	3141.90	-3624.78	-993.17	1683547.30	14268411.05	39°17'32.39"N	80°50'51.20"W	3758.38	195.323	3.08	
10831.00	89.450	166.080	6625.97	3234.75	-3714.69	-969.44	1683571.02	14268321.17	39°17'31.51"N	80°50'50.90"W	3839.11	194.627	1.86	
10925.00	89.510	165.470	6626.82	3328.55	-3805.81	-946.35	1683594.11	14268230.09	39°17'30.60"N	80°50'50.61"W	3921.70	193.964	0.65	
11020.00	89.570	162.050	6627.59	3423.49	-3897.00	-919.78	1683620.67	14268138.94	39°17'29.70"N	80°50'50.27"W	4004.07	193.280	3.60	
11115.00	89.450	159.600	6628.40	3518.46	-3986.72	-888.58	1683651.85	14268049.25	39°17'28.82"N	80°50'49.87"W	4084.55	192.565	2.58	
11208.00	89.510	159.540	6629.24	3611.37	-4073.87	-858.12	1683684.30	14267962.14	39°17'27.95"N	80°50'49.46"W	4162.85	191.868	0.09	
11303.00	89.390	159.850	6630.16	3706.28	-4162.96	-828.16	1683717.25	14267873.08	39°17'27.07"N	80°50'49.05"W	4243.56	191.185	0.35	
11397.00	89.900	161.960	6631.56	3800.25	-4251.77	-792.41	1683747.99	14267784.31	39°17'26.19"N	80°50'48.66"W	4324.98	190.557	2.30	
11493.00	89.020	163.440	6633.30	3896.22	-4343.41	-763.87	1683776.52	14267692.71	39°17'25.29"N	80°50'48.30"W	4410.07	189.975	1.55	
11588.00	89.140	159.970	6634.83	3991.20	-4433.58	-734.06	1683806.32	14267602.57	39°17'24.40"N	80°50'47.93"W	4493.94	189.401	3.65	
11682.00	88.860	159.860	6636.47	4085.12	-4521.85	-701.78	1683838.58	14267514.34	39°17'23.52"N	80°50'47.51"W	4575.99	188.822	0.32	
11777.00	88.680	160.160	6638.51	4180.03	-4611.11	-669.31	1683871.04	14267425.12	39°17'22.64"N	80°50'47.10"W	4659.43	188.259	0.37	
11873.00	88.860	163.740	6640.57	4276.00	-4702.35	-639.58	1683900.76	14267333.91	39°17'21.74"N	80°50'46.72"W	4745.64	187.745	3.73	
11968.00	89.080	165.350	6642.28	4370.89	-4793.89	-614.27	1683926.06	14267242.40	39°17'20.83"N	80°50'46.40"W	4833.09	187.302	1.71	
12063.00	89.020	163.000	6643.85	4465.80	-4885.28	-588.37	1683951.95	14267151.06	39°17'19.93"N	80°50'46.08"W	4920.58	186.867	2.47	
12157.00	88.960	159.550	6645.51	4559.75	-4974.27	-558.20	1683982.11	14267062.10	39°17'19.03"N	80°50'45.69"W	5005.49	186.403	3.67	
12252.00	89.140	156.810	6647.08	4654.53	-5062.45	-522.90	1684017.39	14266973.96	39°17'18.18"N	80°50'45.25"W	5089.38	185.897	2.88	
12347.00	88.860	156.380	6648.74	4749.08	-5149.62	-495.16	1684055.11	14266888.82	39°17'17.31"N	80°50'44.77"W	5172.42	185.382	0.54	
12443.00	88.860	162.920	6650.65	4844.93	-5239.56	-451.80	1684088.46	14266798.92	39°17'16.43"N	80°50'44.35"W	5259.00	184.928	6.81	
12537.00	88.930	164.120	6652.47	4938.88	-5329.68	-425.14	1684115.11	14266706.83	39°17'15.53"N	80°50'44.01"W	5346.61	184.561	1.28	
12632.00	88.960	160.830	6654.22	5033.85	-5420.24	-396.55	1684143.69	14266616.31	39°17'14.64"N	80°50'43.65"W	5434.73	184.184	3.46	
12727.00	88.930	158.740	6655.97	5128.75	-5509.37	-363.73	1684176.50	14266527.21	39°17'13.76"N	80°50'43.23"W	5521.36	183.777	2.20	

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

WELLPATH DATA (362 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 (ft/100ft)	Comments
12821.00	88.960	158.100	6657.70	5222.55	-5596.76	-329.16	1684211.05	14266439.85	39°17'12.897"N	80°50'42.799"W	5606.43	183.366	0.68	
12917.00	88.860	159.400	6659.52	5318.37	-5686.22	-294.37	1684245.82	14266350.43	39°17'12.012"N	80°50'42.358"W	5693.83	182.964	1.36	
13012.00	88.860	161.970	6661.41	5413.32	-5775.85	-262.96	1684277.23	14266260.84	39°17'11.126"N	80°50'41.961"W	5781.83	182.607	2.70	
13107.00	88.890	163.050	6663.28	5508.29	-5866.44	-234.41	1684305.76	14266170.29	39°17'10.230"N	80°50'41.600"W	5871.12	182.288	1.14	
13203.00	88.860	163.270	6665.16	5604.26	-5958.30	-206.61	1684333.55	14266078.46	39°17'09.322"N	80°50'41.248"W	5961.88	181.986	0.23	
13297.00	88.990	163.890	6666.93	5698.21	-6048.45	-180.04	1684360.11	14265988.35	39°17'08.430"N	80°50'40.912"W	6051.13	181.705	0.67	
13393.00	89.020	163.330	6668.59	5794.15	-6140.54	-152.96	1684387.18	14265896.30	39°17'07.520"N	80°50'40.570"W	6142.44	181.427	0.58	
13487.00	88.960	163.930	6670.25	5888.10	-6230.71	-126.47	1684413.66	14265806.16	39°17'06.628"N	80°50'40.235"W	6231.99	181.163	0.64	
13581.00	88.920	164.770	6671.99	5982.01	-6321.21	-101.12	1684439.00	14265715.70	39°17'05.733"N	80°50'39.915"W	6322.02	180.916	0.89	
13676.00	88.960	162.900	6673.75	6076.94	-6412.43	-74.67	1684465.44	14265624.51	39°17'04.831"N	80°50'39.580"W	6412.87	180.667	1.97	
13771.00	88.960	158.370	6675.47	6171.87	-6502.02	-43.19	1684496.91	14265534.96	39°17'03.945"N	80°50'39.182"W	6502.16	180.381	4.77	
13866.00	88.960	158.580	6677.20	6266.67	-6590.38	-8.34	1684531.75	14265446.63	39°17'03.071"N	80°50'38.740"W	6590.39	180.072	0.22	
13961.00	88.920	163.890	6678.96	6361.61	-6680.28	22.21	1684562.28	14265356.77	39°17'02.182"N	80°50'38.354"W	6680.32	179.810	5.59	
14057.00	88.920	166.590	6680.77	6457.44	-6773.09	46.66	1684586.72	14265264.00	39°17'01.264"N	80°50'38.045"W	6773.25	179.605	2.81	
14151.00	89.020	164.010	6682.46	6551.26	-6863.99	70.51	1684610.56	14265173.13	39°17'00.365"N	80°50'37.744"W	6864.35	179.411	2.75	
14246.00	88.950	157.670	6684.14	6646.18	-6953.67	101.67	1684641.71	14265083.49	39°16'59.478"N	80°50'37.350"W	6954.41	179.162	6.67	
14341.00	88.920	156.460	6685.91	6740.80	-7041.14	138.68	1684678.70	14264996.05	39°16'58.613"N	80°50'36.881"W	7042.51	178.872	1.27	
14434.00	88.860	160.370	6687.71	6833.58	-7127.59	172.88	1684712.89	14264909.64	39°16'57.758"N	80°50'36.448"W	7129.68	178.611	4.20	
14529.00	88.950	161.980	6689.52	6928.55	-7217.49	203.53	1684743.53	14264819.78	39°16'56.869"N	80°50'36.060"W	7220.36	178.385	1.70	
14623.00	89.020	160.410	6691.19	7022.52	-7306.45	233.82	1684773.81	14264730.85	39°16'55.989"N	80°50'35.677"W	7310.19	178.167	1.67	
14719.00	89.020	161.360	6692.83	7118.49	-7397.14	265.25	1684805.23	14264640.19	39°16'55.092"N	80°50'35.279"W	7401.90	177.946	0.99	
14813.00	89.140	163.570	6694.34	7212.47	-7486.76	293.57	1684833.53	14264550.61	39°16'54.206"N	80°50'34.921"W	7492.51	177.754	2.35	
14908.00	89.200	164.170	6695.72	7307.41	-7578.01	319.96	1684859.91	14264459.40	39°16'53.304"N	80°50'34.587"W	7584.76	177.582	0.63	
15002.00	89.140	164.640	6697.08	7401.32	-7668.54	345.23	1684885.17	14264368.91	39°16'52.409"N	80°50'34.268"W	7676.31	177.422	0.50	
15097.00	89.200	164.800	6698.45	7496.21	-7760.17	370.26	1684910.19	14264277.31	39°16'51.503"N	80°50'33.952"W	7769.00	177.268	0.18	
15192.00	89.110	165.510	6699.86	7591.05	-7851.99	394.60	1684934.52	14264185.53	39°16'50.595"N	80°50'33.644"W	7861.90	177.123	0.75	
15286.00	89.110	167.130	6701.32	7684.78	-7943.31	416.82	1684956.74	14264094.25	39°16'49.692"N	80°50'33.363"W	7954.24	176.996	1.72	
15380.00	89.200	163.840	6702.70	7778.58	-8034.29	440.38	1684980.28	14264003.31	39°16'48.792"N	80°50'33.066"W	8046.35	176.863	3.50	
15474.00	89.320	163.190	6703.92	7872.54	-8124.41	467.05	1685006.94	14263913.21	39°16'47.901"N	80°50'32.729"W	8137.83	176.710	0.70	
15569.00	89.450	162.250	6704.94	7967.53	-8215.12	495.27	1685035.15	14263822.54	39°16'47.004"N	80°50'32.372"W	8230.04	176.550	1.00	

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #01
Area	Doddridge Co., WV		Well	Ridge Unit 1H
Field	Doddridge		Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad			

WELLPATH DATA (362 stations)														
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
15627.00	89.540	162.620	6705.45	8025.53	-8270.41	512.77	1685052.65	14263767.27	39°16'46.457"N	80°50'32.151"W	8286.29	176.452	0.66	
15652.00	89.540	162.620	6705.65	8050.53	-8294.27	520.24	1685060.11	14263743.42	39°16'46.221"N	80°50'32.056"W	8310.57	176.411	0.00	Projected MD at TD: 15652'

HOLE & CASING SECTIONS - Ref Wellbore: Ridge Unit 1H AWB Ref Wellpath: Ridge Unit 1H AWP Proj: 15652'									
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	32.00	72.00	40.00	32.00	72.00	0.00	0.00	-0.02	0.00
13.375in Casing Surface	32.00	390.00	358.00	32.00	390.00	0.00	0.00	-0.25	0.10
9.625in Casing Intermediate	32.00	2498.00	2466.00	32.00	2472.23	0.00	0.00	-75.78	-291.11

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Ridge Unit 1H POE - Plat	6602.00	-314.90	-2054.39	1682486.51	14271719.61	39°18'05.130"N	80°51'04.630"W	point
Ridge Unit 1H BHL - Plat	6623.00	-8230.66	511.96	1685051.84	14263807.01	39°16'46.850"N	80°50'32.160"W	point

WELLPATH COMPOSITION - Ref Wellbore: Ridge Unit 1H AWB Ref Wellpath: Ridge Unit 1H AWP Proj: 15652'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	6212.00	SDI Keeper v1.04	01 SDI Std. Keeper Gyro (100' - 6193')	Ridge Unit 1H AWB
6212.00	15627.00	BHI AutoTrak Curve w/ Surcon (MagCAD, Short spacing)	02 BHI AT Curve <8-1/2">(6212')(6329'-15627')	Ridge Unit 1H AWB
15627.00	15652.00	Blind Drilling (std)	Projection to bit	Ridge Unit 1H AWB

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# Actual Wellpath Report

Ridge Unit 1H AWP Proj: 15652'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #01
Area	Doddridge Co., WV	Well	Ridge Unit 1H
Field	Doddridge	Wellbore	Ridge Unit 1H AWB
Facility	Balli Pad		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
119.00	0.100	166.930	119.00	SDI Std. Keeper Gyro (119' - 6212')	
6329.00	29.640	271.820	5909.13	BHI AT Curve <8-1/2">(6212')(6329'-15627')	
6893.00	37.080	204.274	6400.09	Middlesex: 6893' MD	
7067.00	53.078	187.550	6523.22	Burkett: 7067' MD	
7112.00	57.864	183.246	6548.84	Tully: 7112' MD	
7195.00	69.244	175.015	6585.96	Marcellus: 7195' MD	
15652.00	89.540	162.620	6705.65	Projected MD at TD: 15652'	

COMMENTS
<p><b>Wellpath general comments</b>                      API: 47-017-06716-0000                      BHI Job #: 7927957                      Rig: Frontier 32                      Duration: 04.28.2016-05.02.2016                      SDI Std. Keeper Gyro (119' - 6212')                      BHI AT Curve &lt;8-1/2"&gt;(6212')(6329'-15627')                      Middlesex: 6893' MD                      Burkett: 7067' MD                      Tully: 7112' MD                      Marcellus: 7195' MD                      Projected MD at TD: 15652'</p>

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