



ANTERO RESOURCES CORPORATION



Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Middle Pad

Slot: Slot #08
 Well: Jay Unit 2H
 Wellbore: Jay Unit 2H PWB

Plot reference wellbore is Jay Unit 2H PWB Rev-A.0
 True vertical depths are referenced to Frontier 32 (RKB)
 Measured depths are referenced to Frontier 32 (RKB)
 Scales: True distance
 Depths are in feet
 Frontier 32 (RKB) to Mean Sea Level: 875 feet
 Mean Sea Level to Ground level (At Slot, Slot #08): -843 feet
 Coordinates are in feet referenced to Slot
 Database: WA, MPL, EASTERNUS, Dash

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Middle Pad	14279417.689	39°19'21.010"N	80°48'24.020"W	
Slot	Local E (ft)	Grid East (US ft)	Latitude	Longitude
Slot #08	-25.15	14279392.544	39°19'20.760"N	80°48'23.190"W
Comment	Jay Unit 2H			
Frontier 32 (RKB) to Ground level (At Slot, Slot #08)	32ft			
Mean Sea Level to Ground level (At Slot, Slot #08)	-843ft			
Frontier 32 (RKB) to Mean Sea Level	875ft			

Gyrodata MS Gyro <17-1/2"> (100-498) : 0.30° Inc, 117.00ft TD, 0.16ft VS
 Gyrodata MS Gyro <12-1/4"> (498)(616-709) : 1.38° Inc, 635.00ft TD, 634.97ft TD, 1.91ft VS
 Directional ONE MWD <12-1/4"> (709)(769-2580) : 3.58° Inc, 786.00ft TD, 785.81ft TD, -4.64ft VS

API: 47-017-06823-0000
 BH Job #: 9023322
 Rig: Frontier 32
 Duration: 02/19/18 - 02/22/18

Directional ONE MWD <8-3/4"> (2580)(2694-5640) : 16.74° Inc, 2711.00ft TD, 2655.11ft TD, -147.80ft VS

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (ft/100ft)	VS (ft)
Tile On	6657.00	48.940	343.650	6283.83	396.78	1722.55	11.95	-324.81
Prof. to Bottom	6799.00	56.630	342.450	6313.49	459.19	1703.49	9.45	-259.99
End of 3D Arc	6879.18	62.040	337.077	6385.00	572.17	1661.88	5.07	-139.72
POE	6938.32	67.925	336.436	6410.00	621.38	1640.53	10.00	-86.15
Landing PL	7148.55	90.000	336.436	6450.00	809.35	1558.55	10.50	116.92
BH	17712.55	90.000	336.436	10492.45	-2654.67		0.00	10662.92

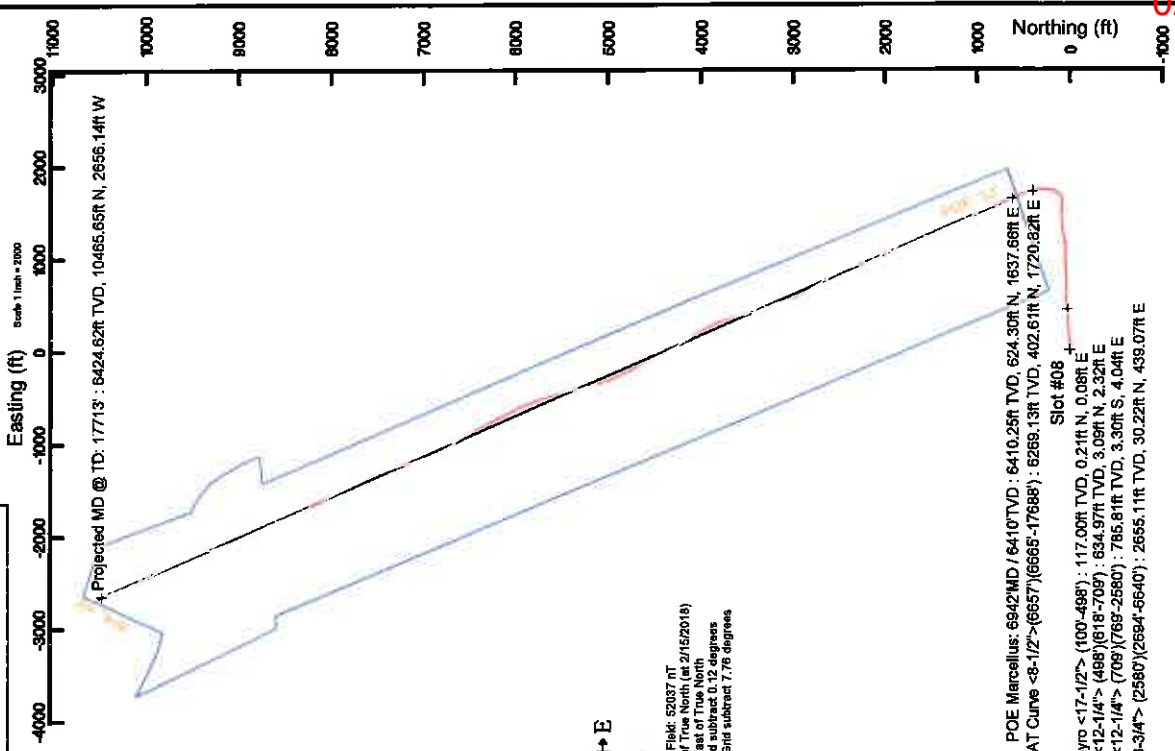
Well Data

Slot	Well	Wellbore	Wellpath
Slot #08	Jay Unit 2H	Jay Unit 2H PWB	Jay Unit 2H AWP Proj: 1713
Slot #08	Jay Unit 2H	Jay Unit 2H PWB	Jay Unit 2H PWB Rev-A.0

BH AT Curve <8-1/2">(6657)(6665-17688) : 50.05° Inc, 6665.00ft TD, 6269.13ft TD, -318.78ft VS
 POE Marcellus: 6942/MD / 6410/TVD : 68.81° Inc, 6942.00ft TD, 6410.25ft TD, -52.33ft VS

Projected MD @ TD: 17713 : 90.15° Inc, 17713.00ft TD, 6424.62ft TD, 10664.94ft VS

POE Marcellus: 6942/MD / 6410/TVD : 6410.25ft TD, 624.30ft N, 1637.66ft E
 BH AT Curve <8-1/2">(6657)(6665-17688) : 6269.13ft TD, 402.61ft N, 1720.82ft E
 Gyrodala MS Gyro <17-1/2"> (100-498) : 117.00ft TD, 0.21ft N, 0.08ft E
 Gyrodala MS Gyro <12-1/4"> (498)(616-709) : 634.97ft TD, 3.09ft N, 2.32ft E
 Directional ONE MWD <12-1/4"> (709)(769-2580) : 785.81ft TD, 3.30ft S, 4.04ft E
 Directional ONE MWD <8-3/4"> (2580)(2694-5640) : 2655.11ft TD, 30.22ft N, 439.07ft E



Scale 1 inch = 1000

Vertical Section (ft)
 Azimuth 336.44° with reference 0.00 N, 0.00 E

Scale 1 inch = 100

02/08/2019



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'

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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Doddriggs Co., WV
Field	Doddriggs
Facility	Middle Pad
Slot	Slot #08
Well	Jay Unit 2H
Wellbore	Jay Unit 2H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999603
Convergence at slot	0.12" East
Software System	WellArchitect® 5.1
User	Mccrerib
Report Generated	5/14/2018 at 2:45:26 PM
Database/Source file	WA_MPL_EASTERNUS_Defn/Jay_Unit_2H_AWP_Proj_17713_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North(ft)	East(ft)	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-25.15	65.28	1695156.25	14279392.54	39°19'20.760"N	80°48'23.190"W
Facility Reference Pt			1695090.99	14279417.69	39°19'21.010"N	80°48'24.020"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	Frontier 32 (RKB)
MD Reference Pt	Frontier 32 (RKB)
Field Vertical Reference	Mean Sea Level
	Frontier 32 (RKB) to Facility Vertical Datum
	Frontier 32 (RKB) to Mean Sea Level
	Frontier 32 (RKB) to Ground Level at Slot (Slot #08)
	Section Origin
	Section Azimuth
	875.00ft
	875.00ft
	32.00ft
	N 0.00, E 0.00 ft
	336.44°

02/08/2019



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Jay Unit 2H
Field	Doddridge	Wellbore	Jay Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (215 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	Build Rate ft/100ft	Turn Rate °/100ft	Comments
0.00	0.00	22.160	0.00	0.00	0.00	0.00	1695156.25	14279392.54	39°19'20.760"N	80°48'23.190"W	0.00	0.000	0.00	0.00	0.00	
32.00	0.00	22.160	32.00	0.00	0.00	0.00	1695156.25	14279392.54	39°19'20.760"N	80°48'23.190"W	0.00	0.000	0.00	0.00	0.00	
117.00	0.300	22.160	117.00	0.16	0.21	0.08	1695156.33	14279392.75	39°19'20.762"N	80°48'23.189"W	0.22	22.160	0.35	0.35	26.07	Gyrodata MS Gyro <17-1/2"> (100-498')
217.00	0.460	14.290	217.00	0.66	0.84	0.28	1695156.53	14279393.38	39°19'20.778"N	80°48'23.186"W	0.88	18.594	0.17	0.18	-7.87	
317.00	0.740	357.960	316.99	1.57	1.87	0.36	1695156.60	14279394.42	39°19'20.778"N	80°48'23.185"W	1.91	10.823	0.33	0.28	-16.33	
417.00	0.520	26.280	416.99	2.47	2.92	0.54	1695156.78	14279395.47	39°19'20.789"N	80°48'23.183"W	2.97	10.383	0.37	-0.22	28.32	
515.00	0.770	41.830	514.98	3.03	3.81	1.17	1695157.42	14279396.36	39°19'20.798"N	80°48'23.175"W	3.98	17.082	0.31	0.28	15.87	
635.00	1.380	155.080	634.97	1.91	3.09	2.32	1695158.57	14279395.84	39°19'20.791"N	80°48'23.160"W	3.87	36.896	1.53	0.52	94.39	Gyrodata MS Gyro <12-1/4"> (498')(618'-709')
726.00	2.790	167.210	725.90	-1.37	-0.07	3.28	1695159.52	14279392.48	39°19'20.759"N	80°48'23.148"W	3.28	91.164	1.60	1.54	13.33	
786.00	3.560	160.380	785.81	-4.64	-3.30	4.04	1695160.29	14279389.24	39°19'20.727"N	80°48'23.139"W	5.22	129.250	1.29	1.28	-1.38	Directional ONE MWD <12-1/4"> (709')(769'-2580')
848.00	4.100	144.300	847.68	-8.70	-6.97	5.79	1695162.03	14279385.58	39°19'20.691"N	80°48'23.117"W	9.06	140.306	2.51	0.87	-35.61	
936.00	5.480	116.220	935.38	-14.99	-11.38	11.39	1695167.64	14279381.16	39°19'20.647"N	80°48'23.045"W	16.11	134.976	3.05	1.57	-31.91	
1024.00	7.450	95.370	1022.83	-20.96	-13.78	20.85	1695177.08	14279378.77	39°19'20.623"N	80°48'22.925"W	24.99	123.458	3.45	2.24	-23.69	
1112.00	9.500	83.730	1109.87	-25.88	-13.52	33.75	1695189.98	14279379.03	39°19'20.626"N	80°48'22.761"W	36.35	111.827	3.03	2.33	-13.23	
1200.00	11.150	77.810	1198.44	-29.71	-10.93	49.28	1696205.51	14279381.62	39°19'20.651"N	80°48'22.583"W	50.48	102.500	2.23	1.86	-67.3	
1288.00	13.020	79.040	1282.49	-33.55	-7.24	67.33	1695223.55	14279385.30	39°19'20.687"N	80°48'22.333"W	67.72	96.141	2.14	2.13	1.40	
1376.00	15.090	78.200	1367.85	-36.05	-3.02	86.28	1695244.49	14279389.53	39°19'20.728"N	80°48'22.067"W	88.33	91.957	2.36	2.35	-0.95	
1464.00	15.310	82.620	1452.77	-43.62	0.82	111.02	1695267.22	14279393.36	39°19'20.766"N	80°48'21.777"W	111.02	89.578	1.34	0.25	5.02	
1552.00	15.660	82.870	1537.58	-50.16	3.85	134.31	1695290.51	14279396.39	39°19'20.795"N	80°48'21.481"W	134.37	88.360	0.40	0.40	-0.06	
1640.00	15.390	81.610	1622.37	-58.52	7.09	157.64	1695313.63	14279399.63	39°19'20.827"N	80°48'21.184"W	157.80	87.426	0.42	-0.31	-1.09	
1729.00	15.580	84.460	1708.14	-63.30	9.96	181.22	1695337.40	14279402.50	39°19'20.855"N	80°48'20.884"W	181.50	86.853	0.88	0.21	3.20	
1817.00	16.390	84.980	1792.74	-70.89	12.21	205.35	1695361.52	14279404.75	39°19'20.876"N	80°48'20.577"W	205.72	86.597	0.93	0.92	0.48	
1905.00	16.970	85.230	1877.03	-78.95	14.39	230.52	1695386.67	14279406.93	39°19'20.897"N	80°48'20.256"W	230.97	86.428	0.67	0.66	0.40	
1993.00	16.130	87.270	1961.39	-87.43	16.04	255.53	1695411.67	14279408.58	39°19'20.913"N	80°48'19.938"W	255.03	86.408	1.16	-0.95	2.32	
2081.00	15.990	86.340	2045.95	-95.91	17.39	279.83	1695435.97	14279409.83	39°19'20.926"N	80°48'19.629"W	280.37	85.443	0.33	-0.16	-1.06	
2170.00	16.150	88.940	2131.48	-104.82	18.41	304.44	1695460.57	14279410.94	39°19'20.935"N	80°48'19.316"W	305.00	86.540	0.83	0.18	2.92	
2258.00	16.140	91.630	2216.01	-114.71	18.28	328.90	1695485.02	14279411.82	39°19'20.934"N	80°48'19.004"W	328.41	86.818	0.85	-0.01	3.06	
2346.00	14.960	84.610	2300.79	-123.45	19.00	352.43	1695508.54	14279411.54	39°19'20.940"N	80°48'18.705"W	352.95	86.914	2.53	-1.35	-7.98	
2434.00	14.190	80.910	2385.96	-129.69	21.77	374.39	1695530.48	14279414.31	39°19'20.967"N	80°48'18.426"W	375.02	86.672	1.37	-0.86	-4.20	
2523.00	12.630	82.940	2472.54	-135.18	24.69	394.92	1695550.91	14279417.23	39°19'20.998"N	80°48'18.166"W	395.59	86.421	1.83	-1.75	2.28	



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Jay Unit 2H
Field	Doddridge	Wellbore	Jay Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (215 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)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments	
2597.00	12.340	81.730	2544.79	-139.56	26.82	410.67	1695566.75	14279422.36	39°19'21.016"N	80°48'17.964"W	411.55	86.263	0.53	-0.39	-1.64	
2711.00	16.740	84.250	2655.11	-147.80	80.22	439.07	1695595.15	14279422.76	39°19'21.049"N	80°48'17.602"W	440.11	86.062	3.90	3.86	2.21	Directional ONE MVWD <-8-3/4"> (2580)(2694-6640)
2799.00	16.960	82.100	2739.33	-155.14	33.26	464.41	1695620.47	14279425.79	39°19'21.079"N	80°48'17.280"W	465.60	85.904	0.76	0.27	-2.44	
2886.00	19.110	82.440	2823.94	-162.67	36.96	491.73	1695647.78	14279429.49	39°19'21.115"N	80°48'16.892"W	493.12	85.701	2.40	2.39	0.38	
2976.00	20.030	85.390	2908.86	-171.53	40.07	521.03	1695677.07	14279432.60	39°19'21.145"N	80°48'16.569"W	522.57	85.602	1.53	1.05	3.35	
3064.00	19.030	92.780	2988.81	-182.79	40.58	550.39	1695706.42	14279433.11	39°19'21.149"N	80°48'16.186"W	551.88	85.783	3.03	-1.14	8.40	
3153.00	20.520	96.420	3073.56	-187.03	38.14	580.39	1695736.44	14279430.67	39°19'21.125"N	80°48'15.804"W	581.84	86.241	2.17	1.67	4.08	
3241.00	22.830	93.300	3155.34	-212.45	35.43	612.76	1695768.76	14279427.86	39°19'21.087"N	80°48'15.392"W	613.78	86.691	2.93	2.62	-3.55	
3329.00	22.150	87.360	3236.66	-226.09	35.21	646.38	1695802.37	14279427.74	39°19'21.094"N	80°48'14.964"W	647.34	86.882	2.69	-0.77	-6.75	
3418.00	22.220	84.840	3319.07	-237.39	37.50	679.90	1695835.88	14279430.03	39°19'21.116"N	80°48'14.538"W	680.94	86.843	1.07	0.08	-2.83	
3506.00	23.600	92.990	3400.15	-250.52	38.07	714.08	1695870.04	14279430.60	39°19'21.121"N	80°48'14.103"W	715.09	86.948	3.93	1.57	9.26	
3594.00	23.040	81.770	3480.96	-265.76	36.62	748.88	1695904.83	14279429.15	39°19'21.106"N	80°48'13.660"W	748.78	87.200	0.84	-0.64	-1.39	
3682.00	22.050	86.760	3562.24	-278.87	37.02	782.59	1695938.52	14279429.55	39°19'21.109"N	80°48'13.231"W	783.48	87.281	2.45	-1.12	-5.69	
3771.00	20.790	81.970	3645.10	-288.90	40.18	814.91	1695970.83	14279432.70	39°19'21.140"N	80°48'12.820"W	815.90	87.178	2.42	-1.42	-5.38	
3859.00	21.580	88.220	3727.16	-299.09	42.86	846.56	1696002.46	14279435.39	39°19'21.166"N	80°48'12.417"W	847.64	87.102	2.72	0.90	7.10	
3947.00	21.130	85.570	3808.12	-310.29	44.59	878.55	1696034.44	14279437.12	39°19'21.182"N	80°48'12.010"W	879.68	87.065	1.21	-0.51	-3.01	
4035.00	20.560	91.050	3891.37	-321.93	45.53	909.81	1696065.70	14279438.06	39°19'21.191"N	80°48'11.612"W	910.95	87.135	2.31	-0.65	6.23	
4124.00	20.430	90.010	3974.73	-334.64	45.24	940.97	1696096.84	14279437.77	39°19'21.187"N	80°48'11.215"W	942.06	87.247	0.43	-0.15	-1.17	
4212.00	22.070	90.460	4056.75	-347.52	45.11	972.86	1696128.72	14279437.63	39°19'21.185"N	80°48'10.810"W	973.91	87.345	1.87	1.86	0.51	
4300.00	21.160	87.450	4139.56	-359.94	45.68	1005.27	1696161.11	14279438.21	39°19'21.190"N	80°48'10.397"W	1006.30	87.398	1.63	-1.03	-3.42	
4388.00	22.320	91.650	4220.31	-372.75	45.91	1037.84	1696193.67	14279438.43	39°19'21.192"N	80°48'09.983"W	1038.85	87.467	2.20	1.32	4.77	
4477.00	23.350	93.240	4302.33	-387.91	44.42	1072.34	1696228.16	14279436.95	39°19'21.176"N	80°48'09.544"W	1073.26	87.628	1.35	1.16	1.79	
4565.00	22.620	85.850	4383.36	-401.40	44.66	1106.64	1696262.45	14279437.19	39°19'21.178"N	80°48'09.107"W	1107.54	87.689	3.38	-0.83	-8.40	
4653.00	22.410	81.130	4464.86	-411.27	48.47	1140.70	1696295.89	14279441.00	39°19'21.215"N	80°48'08.682"W	1141.73	87.565	2.07	-0.24	-5.36	
4741.00	20.910	77.660	4546.45	-418.58	54.42	1172.01	1696327.79	14279446.84	39°19'21.273"N	80°48'08.275"W	1173.28	87.342	2.24	-1.70	-3.94	
4830.00	22.310	78.340	4628.19	-425.16	61.22	1204.07	1696359.84	14279450.74	39°19'21.339"N	80°48'07.867"W	1205.63	87.069	1.60	1.57	0.78	
4918.00	22.620	78.690	4710.51	-432.19	67.92	1237.03	1696392.78	14279453.44	39°19'21.405"N	80°48'07.448"W	1238.89	86.857	0.38	0.35	0.40	
5006.00	24.430	81.720	4791.20	-440.58	73.86	1271.83	1696427.37	14279466.37	39°19'21.463"N	80°48'07.007"W	1273.78	86.676	2.47	2.06	3.44	
5094.00	24.190	83.950	4871.40	-450.80	78.38	1307.57	1696463.30	14279470.89	39°19'21.507"N	80°48'06.550"W	1309.92	86.570	1.08	-0.27	2.53	
5183.00	22.830	84.470	4953.01	-461.63	81.87	1342.89	1696498.60	14279474.48	39°19'21.541"N	80°48'06.100"W	1345.39	86.507	1.55	-1.53	0.58	



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #08
Operator	ANTERO RESOURCES CORPORATION	Well	Jay Unit 2H
Area	Doddridge Co., WV	Wellbore	Jay Unit 2H AWB
Field	Doddridge		
Facility	Middle Pad		

WELLPATH DATA (215 stations)																
MD (ft)	Inclination (M)	Azimuth (M)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (M)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
5271.00	23.130	84.560	5034.02	-472.29	85.25	1377.09	1696532.79	14279477.76	39°19'21.573"N	80°48'05.665"W	1379.73	86.458	0.34	0.34	0.10	
5359.00	24.230	92.070	5114.63	-485.47	86.26	1412.35	1696598.04	14279478.77	39°19'21.562"N	80°48'05.216"W	1414.98	86.505	3.62	1.25	8.47	
5447.00	23.620	89.940	5195.07	-500.29	85.64	1448.03	1696603.70	14279478.15	39°19'21.575"N	80°48'04.762"W	1450.56	86.615	1.18	-0.69	-2.35	
5536.00	22.500	86.840	5276.98	-513.28	86.66	1482.86	1696638.52	14279479.17	39°19'21.585"N	80°48'04.319"W	1485.39	86.655	1.92	-1.26	-3.71	
5624.00	22.740	92.590	5358.20	-526.53	86.88	1516.67	1696672.31	14279479.39	39°19'21.586"N	80°48'03.889"W	1519.15	86.722	2.61	0.27	6.75	
5712.00	21.550	91.140	5439.71	-540.84	85.79	1549.82	1696705.45	14279478.30	39°19'21.575"N	80°48'03.467"W	1552.19	86.832	1.49	-1.35	-1.64	
5801.00	23.420	93.400	5521.94	-555.69	84.42	1583.82	1696739.44	14279476.93	39°19'21.560"N	80°48'03.034"W	1586.07	86.949	2.31	2.10	2.54	
5845.00	23.190	94.010	5582.35	-563.66	83.29	1601.19	1696766.80	14279475.80	39°19'21.549"N	80°48'02.813"W	1603.36	87.022	0.76	-0.52	1.39	
5889.00	22.780	89.590	5602.86	-571.02	82.75	1616.35	1696773.95	14279475.26	39°19'21.543"N	80°48'02.595"W	1620.47	87.073	4.03	-0.93	-10.05	
5933.00	22.480	80.960	5643.49	-578.48	84.13	1635.18	1696790.78	14279478.64	39°19'21.556"N	80°48'02.381"W	1637.35	87.055	7.57	-0.68	-19.61	
5977.00	22.830	70.930	5694.11	-579.26	86.24	1651.56	1696807.15	14279480.75	39°19'21.597"N	80°48'02.172"W	1653.92	86.942	8.81	0.80	-22.80	
6021.00	23.770	60.030	5724.54	-578.95	95.46	1667.33	1696822.91	14279487.98	39°19'21.668"N	80°48'01.972"W	1670.06	86.723	9.96	2.14	-24.64	
6065.00	24.120	49.200	5784.77	-575.30	105.78	1681.82	1696837.40	14279498.28	39°19'21.769"N	80°48'01.787"W	1685.15	86.402	10.06	0.80	-24.75	
6109.00	23.300	39.610	5805.07	-568.70	118.34	1694.18	1696849.75	14279510.84	39°19'21.893"N	80°48'01.629"W	1698.31	86.004	8.95	-1.86	-21.80	
6153.00	21.170	30.180	5845.81	-580.07	131.92	1703.73	1696859.30	14279524.41	39°19'22.027"N	80°48'01.507"W	1708.83	85.572	9.43	-4.84	-21.43	
6198.00	21.390	26.030	5887.74	-549.95	146.32	1711.42	1696866.98	14279538.80	39°19'22.169"N	80°48'01.409"W	1717.66	85.113	3.38	0.49	-8.22	
6242.00	24.390	21.660	5928.28	-538.34	161.98	1718.29	1696873.85	14279554.46	39°19'22.324"N	80°48'01.321"W	1725.91	84.615	7.83	6.82	-9.93	
6286.00	27.850	16.610	5967.78	-524.08	180.28	1724.59	1696880.15	14279572.75	39°19'22.505"N	80°48'01.241"W	1733.98	84.032	9.34	7.86	-11.48	
6330.00	30.660	12.770	6006.17	-507.19	201.07	1730.01	1696885.56	14279593.54	39°19'22.710"N	80°48'01.171"W	1741.65	83.370	7.68	6.39	-8.73	
6374.00	31.220	11.570	6043.91	-488.82	223.19	1734.77	1696890.33	14279615.64	39°19'22.929"N	80°48'01.110"W	1749.07	82.669	1.89	1.27	-2.73	
6418.00	32.350	8.370	6081.31	-469.50	245.01	1738.77	1696894.33	14279638.45	39°19'23.154"N	80°48'01.058"W	1756.09	81.947	4.61	2.57	-7.27	
6462.00	34.750	2.570	6117.99	-448.25	270.19	1741.05	1696896.60	14279662.63	39°19'23.383"N	80°48'01.028"W	1761.89	81.179	9.10	5.45	-13.18	
6507.00	37.940	358.200	6154.24	-423.87	296.84	1741.19	1696896.74	14279689.27	39°19'23.656"N	80°48'01.026"W	1766.31	80.325	9.13	7.09	-9.71	
6551.00	40.660	353.170	6188.29	-397.57	324.60	1739.06	1696894.61	14279717.02	39°19'23.931"N	80°48'01.052"W	1769.10	79.427	9.52	6.18	-11.43	
6595.00	43.750	347.540	6220.89	-368.90	353.71	1734.07	1696889.63	14279746.11	39°19'24.219"N	80°48'01.115"W	1769.78	78.471	11.09	7.02	-12.80	
6639.00	46.790	343.750	6251.86	-338.05	383.97	1728.30	1696881.86	14279776.36	39°19'24.518"N	80°48'01.213"W	1768.48	77.460	9.23	6.91	-8.61	
6657.00	48.940	343.650	6283.93	-324.81	396.78	1722.55	1696878.11	14279788.17	39°19'24.645"N	80°48'01.260"W	1767.66	77.028	11.85	11.94	-0.56	
6665.00	50.050	343.330	6289.13	-318.78	402.61	1720.82	1696876.38	14279795.00	39°19'24.702"N	80°48'01.282"W	1767.29	76.832	14.20	13.88	-4.00	BH AT Curve <8-1/2">(6657)(6665-17688)
6709.00	52.930	341.970	6296.52	-284.55	435.47	1710.55	1696866.11	14279827.84	39°19'25.027"N	80°48'01.412"W	1765.11	75.717	6.98	6.56	-3.09	
6740.00	55.640	342.400	6314.62	-259.51	459.43	1702.85	1696855.42	14279851.79	39°19'25.264"N	80°48'01.509"W	1763.74	74.901	8.81	8.74	1.39	



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #08
Operator	ANTERO RESOURCES CORPORATION	Well	Jay Unit 2H
Area	Doddridge Co., WV	Wellbore	Jay_Unit 2H AWB
Field	Doddridge		
Facility	Middle Pad		

WELLPATH DATA (215 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)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
6785.00†	58.078	341.154	6339.22	-222.00	495.22	1691.05	1696846.64	14279887.56	39°19'25.618"N	80°48'01.658"W	1762.08	73.678	5.89	5.42	-2.77	Burket: 6785'WD / 6339'TVD
6790.00	58.350	341.020	6341.85	-217.76	499.24	1689.69	1696845.28	14279891.58	39°19'25.658"N	80°48'01.678"W	1761.90	73.540	5.89	5.43	-2.68	
6837.00	61.040	337.940	6365.57	-177.25	537.22	1675.45	1696831.03	14279829.55	39°19'26.034"N	80°48'01.856"W	1759.47	72.222	8.05	5.72	-6.55	
6840.00†	61.247	337.822	6367.02	-174.52	539.66	1674.46	1696830.04	14279831.99	39°19'26.058"N	80°48'01.868"W	1759.28	72.137	7.72	6.91	-3.92	Tully: 6840'WD / 6367'TVD
6885.00	64.370	336.116	6387.58	-134.81	576.48	1658.80	1696814.38	14279868.80	39°19'26.422"N	80°48'02.067"W	1758.11	70.836	7.72	6.94	-3.81	
6895.00†	66.661	336.142	6400.01	-107.31	601.45	1647.75	1696803.34	14279893.75	39°19'26.669"N	80°48'02.207"W	1754.08	69.947	7.64	7.64	0.11	Hamilton: 6915'WD / 6400'TVD
6942.00†	67.960	336.160	6406.57	-81.62	615.79	1641.41	1696797.00	14280008.09	39°19'26.889"N	80°48'02.287"W	1753.12	69.436	7.64	7.64	0.10	
6979.00	71.960	336.810	6422.67	-47.48	656.27	1623.79	1696779.39	14280048.56	39°19'27.212"N	80°48'02.510"W	1751.40	67.993	8.61	8.51	1.38	POE Marcellus: 6942'WD / 6410'TVD
7028.00	75.450	338.260	6435.86	-2.38	697.96	1608.56	1696762.17	14280090.22	39°19'27.624"N	80°48'02.728"W	1751.63	66.518	7.99	7.43	3.08	
7074.00	79.890	338.360	6446.11	44.47	741.52	1569.24	1696744.85	14280133.77	39°19'28.055"N	80°48'02.947"W	1753.72	64.987	9.25	9.25	0.21	
7121.00	86.820	338.510	6451.82	91.09	784.90	1572.09	1696727.71	14280177.13	39°19'28.484"N	80°48'03.164"W	1757.14	63.468	14.32	14.32	0.32	
7170.00	90.550	338.050	6452.83	140.04	830.40	1553.97	1696709.60	14280222.61	39°19'28.934"N	80°48'03.393"W	1761.93	61.881	8.08	8.02	-0.94	
7265.00	90.770	335.350	6451.74	235.03	917.64	1516.40	1696672.04	14280309.82	39°19'28.797"N	80°48'03.869"W	1772.43	58.820	2.85	2.85	-2.84	
7360.00	90.770	333.040	6450.46	329.94	1003.15	1475.05	1696630.71	14280395.30	39°19'30.643"N	80°48'04.393"W	1783.84	55.761	2.43	2.43	-2.43	
7455.00	90.180	334.020	6449.67	424.81	1088.19	1432.71	1696588.38	14280480.30	39°19'31.485"N	80°48'04.929"W	1789.11	52.782	1.20	-0.62	1.03	
7551.00	90.830	334.560	6448.83	520.74	1174.68	1391.06	1696546.76	14280566.76	39°19'32.340"N	80°48'05.457"W	1820.89	49.821	0.86	0.86	0.56	
7646.00	90.310	337.090	6447.88	615.72	1261.34	1352.16	1696507.87	14280653.38	39°19'33.198"N	80°48'05.949"W	1849.14	46.990	2.72	-0.55	2.66	
7740.00	90.220	336.390	6447.45	709.72	1347.70	1315.04	1696470.77	14280739.70	39°19'34.052"N	80°48'06.419"W	1882.98	44.297	0.75	-0.10	-0.74	
7834.00	90.490	336.880	6446.87	803.72	1433.98	1277.77	1696433.50	14280825.96	39°19'34.906"N	80°48'06.891"W	1920.68	41.703	0.60	0.29	0.52	
7928.00	90.120	336.770	6446.37	897.71	1520.40	1240.77	1696396.52	14280912.34	39°19'35.761"N	80°48'07.360"W	1962.43	39.217	0.41	-0.39	-0.12	
8024.00	90.550	336.940	6445.80	993.71	1608.67	1203.04	1696358.81	14281000.57	39°19'36.634"N	80°48'07.837"W	2008.76	36.791	0.48	0.48	0.18	
8119.00	89.940	336.680	6445.40	1088.70	1695.93	1165.63	1696321.41	14281087.86	39°19'37.498"N	80°48'08.311"W	2057.93	34.500	0.70	-0.64	-0.27	
8213.00	88.750	336.460	6445.65	1182.70	1782.24	1128.25	1696284.05	14281174.08	39°19'38.351"N	80°48'08.784"W	2109.35	32.336	0.31	-0.20	-0.23	
8309.00	90.880	339.100	6445.29	1278.67	1871.13	1091.65	1696247.77	14281262.90	39°19'39.230"N	80°48'09.244"W	2166.42	30.267	2.92	0.97	2.75	
8403.00	90.340	336.720	6444.46	1372.58	1958.80	1058.13	1696213.96	14281350.57	39°19'40.097"N	80°48'09.672"W	2226.33	28.378	0.54	-0.36	-0.40	
8498.00	90.280	332.150	6443.94	1467.51	2045.15	1018.66	1696174.50	14281436.89	39°19'40.952"N	80°48'10.171"W	2284.90	26.477	6.92	-0.06	-6.92	
8593.00	89.940	335.390	6443.76	1562.39	2130.35	976.68	1696132.53	14281522.05	39°19'41.795"N	80°48'10.703"W	2343.57	24.629	3.43	-0.36	3.41	
8688.00	90.060	340.990	6443.76	1657.31	2218.53	941.40	1696097.27	14281610.19	39°19'42.667"N	80°48'11.150"W	2410.00	22.993	5.90	0.13	5.89	
8782.00	90.120	342.270	6443.61	1750.92	2307.73	911.77	1696067.66	14281699.38	39°19'43.549"N	80°48'11.624"W	2481.32	21.559	1.36	0.06	1.36	



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Jay Unit 2H
Field	Doddridge	Wellbore	Jay Unit 2H AWB
Facility	Middle Pad		

WELLPATH DATA (215 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 (P/100ft)	Build Rate (P/100ft)	Turn Rate (P/100ft)	Comments
8877.00	90.120	337.470	6443.41	1845.72	2396.91	879.09	1696034.98	14281768.49	39°19'44.43"N	80°48'11.938"W	2553.03	20.141	5.05	0.00	-5.05	
8972.00	89.850	335.240	6443.44	1940.72	2483.92	840.99	1695995.90	14281875.48	39°19'45.292"N	80°48'12.420"W	2622.43	18.705	2.36	-0.28	-2.35	
9067.00	90.030	333.240	6443.54	2035.64	2569.48	799.70	1695955.63	14281961.00	39°19'46.139"N	80°48'12.943"W	2691.05	17.288	2.11	0.19	-2.11	
9165.00	90.150	331.420	6443.38	2133.39	2656.27	754.20	1695910.14	14282047.75	39°19'46.998"N	80°48'13.520"W	2761.26	15.851	1.86	0.12	-1.86	
9260.00	89.970	330.530	6443.28	2227.95	2739.34	708.10	1695864.07	14282130.78	39°19'47.820"N	80°48'14.104"W	2829.38	14.493	0.86	-0.19	-0.94	
9356.00	89.660	330.110	6443.59	2323.41	2822.74	660.57	1695816.55	14282214.16	39°19'48.645"N	80°48'14.707"W	2899.00	13.171	0.54	-0.32	-0.44	
9450.00	89.690	332.580	6444.13	2417.03	2905.22	615.50	1695771.50	14282298.61	39°19'49.461"N	80°48'15.278"W	2969.70	11.982	2.63	0.03	2.63	
9545.00	90.030	340.120	6444.36	2511.96	2992.18	577.42	1695733.43	14282383.53	39°19'50.321"N	80°48'15.760"W	3047.38	10.922	7.94	0.38	7.94	
9640.00	90.690	342.060	6443.77	2606.64	3062.04	546.63	1695702.66	14282475.36	39°19'51.210"N	80°48'16.150"W	3130.14	10.057	2.15	0.68	2.04	
9735.00	89.850	341.440	6443.33	2701.23	3172.26	516.88	1695667.92	14282563.54	39°19'52.103"N	80°48'16.526"W	3214.10	9.254	1.09	-0.87	-0.85	
9830.00	89.850	337.740	6443.58	2796.07	3261.28	483.76	1695639.81	14282652.53	39°19'52.983"N	80°48'16.945"W	3298.97	8.437	3.89	0.00	-3.89	
9925.00	90.060	334.690	6443.65	2891.06	3348.20	445.45	1695601.52	14282739.41	39°19'53.843"N	80°48'17.430"W	3377.71	7.576	3.22	0.22	-3.21	
10021.00	90.370	340.840	6443.29	2986.98	3437.02	408.14	1695565.22	14282828.20	39°19'54.722"N	80°48'17.890"W	3461.29	6.788	6.41	0.32	6.41	
10116.00	90.150	346.180	6442.86	3081.23	3528.08	382.18	1695536.28	14282919.22	39°19'55.622"N	80°48'18.230"W	3548.72	6.183	5.83	-0.23	-5.82	
10210.00	90.490	345.890	6442.34	3173.91	3619.30	359.50	1695515.80	14283010.40	39°19'56.524"N	80°48'18.516"W	3637.11	5.672	0.48	0.38	-0.31	
10305.00	90.520	343.560	6441.50	3267.91	3710.93	334.47	1695490.59	14283102.00	39°19'57.430"N	80°48'18.832"W	3725.98	5.150	2.45	0.03	-2.45	
10400.00	90.090	340.370	6440.99	3362.45	3801.25	305.07	1695461.19	14283192.28	39°19'58.324"N	80°48'19.204"W	3813.48	4.588	3.39	-0.45	-3.36	
10495.00	89.970	333.280	6440.94	3457.39	3888.53	267.70	1695423.94	14283279.53	39°19'59.187"N	80°48'19.677"W	3897.74	3.938	7.46	-0.13	-7.46	
10590.00	89.760	331.320	6441.18	3552.14	3972.64	233.55	1695379.70	14283363.80	39°20'00.019"N	80°48'20.237"W	3978.82	3.221	2.08	-0.23	-2.06	
10686.00	89.850	325.760	6441.51	3647.19	4054.50	179.46	1695329.64	14283445.42	39°20'00.829"N	80°48'20.872"W	4058.21	2.450	5.79	0.10	-5.78	
10780.00	90.650	328.650	6441.10	3739.96	4133.50	122.55	1695278.75	14283524.40	39°20'01.611"N	80°48'21.518"W	4135.32	1.698	3.19	0.65	3.07	
10875.00	90.030	329.410	6440.54	3834.16	4214.98	73.67	1695229.89	14283605.82	39°20'02.418"N	80°48'22.198"W	4215.80	1.001	1.03	-0.65	0.80	
10971.00	90.000	331.720	6440.51	3929.65	4298.56	26.50	1695182.73	14283689.39	39°20'03.245"N	80°48'22.736"W	4298.64	0.353	2.41	-0.03	2.41	
11066.00	90.250	334.720	6440.31	4024.49	4383.36	-16.30	1695139.95	14283774.16	39°20'04.084"N	80°48'23.278"W	4383.39	359.787	3.17	0.26	3.16	
11161.00	90.120	334.580	6440.00	4119.44	4469.21	-56.98	1695099.29	14283859.98	39°20'04.933"N	80°48'23.793"W	4469.58	359.270	0.20	-0.14	-0.15	
11256.00	90.120	332.210	6439.80	4214.30	4554.15	-89.52	1695056.77	14283944.88	39°20'05.774"N	80°48'24.332"W	4555.23	358.748	2.49	0.00	-2.49	
11351.00	90.030	331.210	6439.68	4308.98	4637.80	-144.54	1695011.76	14284028.50	39°20'06.601"N	80°48'24.903"W	4640.05	358.215	1.06	-0.09	-1.05	
11445.00	90.060	330.270	6439.60	4402.51	4719.81	-190.49	1694965.84	14284110.47	39°20'07.413"N	80°48'25.486"W	4723.65	357.689	1.00	0.03	-1.00	
11540.00	90.310	335.770	6439.29	4497.30	4804.43	-233.57	1694922.77	14284195.06	39°20'08.250"N	80°48'26.032"W	4810.11	357.217	5.80	0.26	5.79	
11635.00	90.400	334.010	6438.71	4592.26	4890.45	-273.88	1694882.48	14284281.04	39°20'09.101"N	80°48'26.542"W	4898.11	356.785	1.86	0.08	-1.85	



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Jay Unit 2H
Field	Doddridge	Wellbore	Jay Unit 2H AWB
F-acility	Middle Pad		

WELLPATH DATA (215 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)	Comments
11730.00	90.250	340.608	6438.17	4887.20	4978.04	-310.51	1694845.86	14284368.60	39°20'09.968"N	80°48'27.006"W	4987.72	356.431	6.94	-0.16	6.94	
11825.00	89.970	342.610	6437.98	4781.81	5068.19	-340.49	1694815.89	14284458.71	39°20'10.859"N	80°48'27.385"W	5079.61	356.157	2.14	-0.28	2.12	
11919.00	89.850	345.120	6438.13	4875.01	5158.48	-366.61	1694789.78	14284548.96	39°20'11.752"N	80°48'27.715"W	5171.48	355.935	2.67	-0.13	2.67	
12014.00	89.820	344.070	6438.40	4969.05	5250.06	-391.85	1694764.56	14284640.51	39°20'12.658"N	80°48'28.034"W	5264.66	355.732	1.11	-0.03	-1.11	
12110.00	89.690	344.370	6438.82	5064.17	5342.44	-417.95	1694738.46	14284732.86	39°20'13.572"N	80°48'28.364"W	5358.77	355.527	0.34	-0.14	0.31	
12204.00	89.820	343.830	6439.22	5157.33	5432.84	-443.70	1694712.72	14284823.22	39°20'14.466"N	80°48'28.689"W	5450.93	355.331	0.59	0.14	-0.57	
12299.00	90.250	344.470	6439.16	5251.47	5524.23	-469.65	1694686.78	14284914.57	39°20'15.369"N	80°48'29.017"W	5544.16	355.141	0.81	0.45	0.67	
12394.00	91.320	344.350	6437.86	5345.54	5615.79	-495.18	1694661.27	14285006.03	39°20'16.274"N	80°48'29.339"W	5637.52	354.961	1.13	1.13	-0.13	
12489.00	90.890	339.840	6436.20	5440.04	5706.09	-524.37	1694635.08	14285096.36	39°20'17.168"N	80°48'29.708"W	5730.13	354.749	4.79	-0.67	-4.79	
12584.00	89.480	340.870	6436.07	5534.81	5795.56	-556.31	1694600.16	14285185.79	39°20'18.053"N	80°48'30.112"W	5822.19	354.517	1.66	-1.28	1.08	
12679.00	89.720	339.160	6436.73	5628.62	5884.83	-588.78	1694567.70	14285275.03	39°20'18.936"N	80°48'30.523"W	5914.21	354.287	1.82	0.26	-1.80	
12774.00	89.690	334.430	6437.22	5724.59	5972.12	-626.20	1694530.30	14285362.28	39°20'19.799"N	80°48'30.997"W	6004.86	354.014	4.98	-0.03	-4.98	
12870.00	89.910	331.370	6437.55	5820.40	6057.57	-669.93	1694496.59	14285447.70	39°20'20.645"N	80°48'31.561"W	6094.50	353.689	3.20	0.23	-3.19	
12965.00	92.000	337.160	6435.97	5915.27	6143.09	-711.15	1694445.38	14285533.19	39°20'21.491"N	80°48'32.074"W	6184.12	353.397	6.48	2.20	6.09	
13060.00	89.970	331.680	6434.34	6010.15	6228.73	-752.15	1694404.40	14285618.79	39°20'22.338"N	80°48'32.593"W	6273.98	353.115	8.15	-2.14	-6.77	
13154.00	89.570	329.950	6434.71	6103.70	6310.79	-797.98	1694358.58	14285700.82	39°20'23.150"N	80°48'33.174"W	6361.04	352.793	1.89	-0.43	-1.84	
13249.00	90.650	335.030	6434.53	6198.44	6395.02	-841.85	1694314.73	14285785.02	39°20'23.984"N	80°48'33.730"W	6450.19	352.501	5.47	1.14	5.35	
13344.00	89.780	332.210	6434.17	6293.31	6480.12	-884.05	1694272.55	14285870.08	39°20'24.826"N	80°48'34.265"W	6540.14	352.231	3.11	-0.92	-2.97	
13440.00	89.480	328.370	6434.79	6388.74	6563.48	-931.62	1694225.00	14285953.41	39°20'25.651"N	80°48'34.869"W	6629.27	351.921	4.01	-0.31	-4.00	
13535.00	89.660	326.530	6435.51	6482.57	6643.55	-982.73	1694173.91	14286033.45	39°20'26.443"N	80°48'35.517"W	6715.84	351.586	1.95	0.18	-1.94	
13630.00	89.600	329.950	6435.12	6576.58	6724.31	-1032.73	1694123.93	14286114.18	39°20'27.242"N	80°48'36.151"W	6803.16	351.269	3.60	-0.06	3.60	
13724.00	89.880	334.860	6436.55	6670.32	6807.59	-1076.26	1694080.42	14286197.43	39°20'28.066"N	80°48'36.703"W	6892.15	351.016	5.23	0.30	5.22	
13819.00	89.480	337.220	6437.08	6765.31	6894.40	-1114.83	1694041.86	14286284.20	39°20'28.925"N	80°48'37.192"W	6983.95	350.815	2.52	-0.42	2.48	
13914.00	89.760	337.720	6437.69	6860.29	6982.15	-1151.23	1694005.47	14286371.91	39°20'29.793"N	80°48'37.652"W	7076.42	350.637	0.61	0.32	0.63	
14009.00	89.690	340.610	6438.13	6955.17	7070.93	-1185.02	1693971.70	14286460.65	39°20'30.671"N	80°48'38.080"W	7169.54	350.486	3.04	-0.09	3.04	
14104.00	90.310	341.750	6438.13	7049.84	7160.84	-1215.66	1693941.07	14286550.53	39°20'31.561"N	80°48'38.468"W	7263.30	350.365	1.37	0.65	1.20	
14199.00	90.280	342.630	6437.64	7144.36	7251.29	-1244.72	1693912.02	14286640.94	39°20'32.455"N	80°48'38.835"W	7357.34	350.260	0.93	-0.03	0.93	
14294.00	89.820	341.090	6437.56	7238.93	7341.56	-1274.30	1693882.46	14286731.18	39°20'33.348"N	80°48'39.209"W	7451.34	350.153	1.69	-0.48	-1.62	
14389.00	90.490	339.670	6437.30	7333.71	7431.05	-1306.19	1693850.57	14286820.63	39°20'34.233"N	80°48'39.613"W	7544.97	350.031	1.65	0.71	-1.48	
14484.00	90.250	337.060	6436.69	7428.64	7519.34	-1341.22	1693815.56	14286908.89	39°20'35.106"N	80°48'40.056"W	7638.02	349.887	2.76	-0.25	-2.75	



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Jay Unit 2H
Field	Doddridge	Wellbore	Jay Unit 2H AWP
Facility	Middle Pad		

WELLPATH DATA (215 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (°/100ft)	Comments
14579.00	90.370	332.780	6438.17	7523.59	7605.37	-1381.47	1693775.32	14286994.88	39°20'55.957"N	80°48'40.566"W	7729.82	349.705	4.51	0.13	-4.51	
14674.00	89.910	333.480	6435.94	7616.43	7690.11	-1424.41	1693732.40	14287079.59	39°20'36.796"N	80°48'41.111"W	7820.91	349.506	0.88	-0.48	0.74	
14768.00	88.990	335.290	6436.65	7712.36	7774.86	-1465.05	1693691.78	14287164.31	39°20'37.634"N	80°48'41.626"W	7911.69	349.329	2.16	-0.99	1.83	
14864.00	90.340	335.490	6437.42	7808.34	7862.14	-1505.02	1693651.82	14287251.55	39°20'38.498"N	80°48'42.132"W	8047.89	349.163	1.43	1.42	0.21	
14960.00	90.770	332.910	6436.49	7904.25	7948.56	-1546.80	1693610.06	14287337.93	39°20'39.353"N	80°48'42.662"W	8097.66	348.988	2.72	0.45	-2.69	
15056.00	89.820	335.150	6436.00	7999.16	8033.96	-1588.40	1693568.48	14287423.30	39°20'40.198"N	80°48'43.189"W	8189.47	348.816	2.58	-1.00	2.36	
15150.00	90.150	333.850	6436.03	8094.10	8119.70	-1629.29	1693527.60	14287509.21	39°20'41.046"N	80°48'43.707"W	8281.55	348.654	1.41	0.35	-1.37	
15245.00	89.850	333.770	6436.03	8189.00	8204.95	-1671.22	1693485.69	14287594.22	39°20'41.889"N	80°48'44.236"W	8373.42	348.487	1.33	-0.32	-0.08	
15340.00	90.430	334.790	6435.80	8283.93	8290.53	-1712.46	1693444.47	14287679.77	39°20'42.736"N	80°48'44.761"W	8465.54	348.329	1.23	0.61	1.06	
15435.00	90.150	335.990	6435.31	8378.91	8376.87	-1752.07	1693404.88	14287766.08	39°20'43.590"N	80°48'45.263"W	8558.14	348.187	1.25	-0.29	1.21	
15530.00	90.370	336.130	6434.98	8473.91	8463.68	-1790.66	1693366.30	14287852.85	39°20'44.449"N	80°48'45.752"W	8651.03	348.054	0.31	0.23	0.21	
15625.00	90.000	338.810	6434.58	8568.88	8551.42	-1827.06	1693329.91	14287940.56	39°20'45.317"N	80°48'46.213"W	8744.42	347.940	2.85	-0.39	2.82	
15721.00	90.000	336.740	6434.58	8664.86	8640.28	-1863.37	1693293.62	14288029.38	39°20'46.196"N	80°48'46.673"W	8838.93	347.830	2.16	0.00	-2.16	
15815.00	89.970	334.170	6434.60	8758.83	8725.78	-1902.41	1693254.59	14288114.85	39°20'47.042"N	80°48'47.168"W	8930.76	347.701	2.73	-0.03	-2.73	
15910.00	89.940	334.080	6434.68	8853.75	8811.28	-1943.87	1693213.15	14288200.29	39°20'47.888"N	80°48'47.693"W	9023.13	347.559	0.10	-0.03	-0.09	
16005.00	90.370	335.260	6434.42	8948.70	8897.12	-1984.52	1693172.52	14288286.12	39°20'48.737"N	80°48'48.208"W	9115.76	347.426	1.32	0.45	1.24	
16100.00	90.340	337.360	6433.83	9043.70	8984.11	-2022.68	1693134.37	14288373.07	39°20'49.598"N	80°48'48.692"W	9208.99	347.312	2.21	-0.03	2.21	
16194.00	90.090	336.100	6433.48	9137.68	9070.46	-2059.82	1693097.25	14288459.39	39°20'50.452"N	80°48'49.162"W	9301.40	347.206	1.37	-0.27	-1.34	
16290.00	90.370	338.670	6433.09	9233.67	9159.07	-2096.73	1693060.35	14288547.96	39°20'51.328"N	80°48'49.630"W	9396.00	347.106	2.69	0.29	2.68	
16385.00	90.280	344.000	6432.55	9328.29	9249.04	-2127.12	1693029.97	14288637.90	39°20'52.216"N	80°48'50.014"W	9490.49	347.048	5.61	-0.09	5.61	
16480.00	90.520	342.670	6431.89	9422.60	9340.05	-2154.36	1693002.74	14288728.87	39°20'53.118"N	80°48'50.358"W	9585.29	347.011	1.42	0.25	-1.40	
16575.00	90.340	333.440	6431.18	9517.45	9428.06	-2189.83	1692967.29	14288816.85	39°20'53.989"N	80°48'50.808"W	9679.04	346.924	9.72	-0.19	-9.72	
16671.00	90.310	336.790	6430.63	9613.41	9515.14	-2230.22	1692926.92	14288903.89	39°20'54.850"N	80°48'51.319"W	9773.01	346.809	3.49	-0.03	3.48	
16766.00	90.620	336.820	6429.86	9708.41	9602.46	-2267.63	1692889.52	14288991.17	39°20'55.714"N	80°48'51.793"W	9866.58	346.713	0.33	0.33	0.03	
16861.00	90.490	335.730	6428.94	9803.40	9689.42	-2305.85	1692851.31	14289078.10	39°20'56.574"N	80°48'52.278"W	9960.01	346.614	1.16	-0.14	-1.15	
16956.00	90.280	334.090	6428.30	9898.36	9775.45	-2346.14	1692811.04	14289164.10	39°20'57.425"N	80°48'52.788"W	10053.05	346.504	1.74	-0.22	-1.73	
17051.00	90.250	335.990	6427.86	9989.33	9861.58	-2386.22	1692770.97	14289250.19	39°20'58.276"N	80°48'53.296"W	10146.17	346.397	2.00	-0.03	2.00	
17147.00	90.400	334.700	6427.32	10089.31	9948.82	-2426.27	1692730.95	14289337.40	39°20'59.141"N	80°48'53.804"W	10240.40	346.295	1.35	0.16	-1.34	
17242.00	90.150	334.260	6426.86	10184.25	10034.55	-2467.20	1692690.03	14289423.10	39°20'59.989"N	80°48'54.322"W	10333.40	346.187	0.53	-0.26	-0.46	
17337.00	90.180	333.990	6426.59	10279.17	10120.03	-2508.65	1692648.59	14289508.54	39°21'00.834"N	80°48'54.848"W	10426.33	346.078	0.29	0.03	-0.28	



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'
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REFERENCE WELLPATH IDENTIFICATION

Operator	Area	Field	Facility	Slot	Slot #08
ANTERO RESOURCES CORPORATION	Doddridge Co., WV	Doddridge	Middle Pad	Well	Jay Unit 2H
				Wellbore	Jay Unit 2H AWB

WELLPATH DATA (215 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]	Comments
17432.00	90.090	337.190	6426.36	10374.15	10206.52	-2547.91	1692609.35	1428595.00	39°21'01.680"N	80°48'55.345"W	10519.74	345.983	3.37	-0.09	3.37	
17527.00	90.310	340.190	6426.03	10469.07	10295.02	-2592.43	1692574.85	14289683.46	39°21'02.565"N	80°48'55.782"W	10613.97	345.918	3.17	0.23	3.16	
17623.00	90.710	336.550	6425.16	10564.99	10384.24	-2617.81	1692539.48	14289772.64	39°21'03.448"N	80°48'56.231"W	10709.12	345.851	3.81	0.42	-3.79	
17688.00	90.150	333.790	6424.69	10629.97	10443.22	-2645.10	1692512.20	14289831.80	39°21'04.031"N	80°48'56.576"W	10773.00	345.787	4.33	-0.86	-4.25	
17713.00	90.150	333.790	6424.62	10654.94	10465.65	-2656.14	1692501.16	14289854.02	39°21'04.253"N	80°48'56.716"W	10797.45	345.759	0.00	0.00	0.00	Projected MD @ TD: 17713'

HOLE & CASING SECTIONS - Ref Wellbore: Jay Unit 2H AWB Ref Wellbore: Jay Unit 2H AWP Proj: 17713'

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	112.00	80.00	32.00	112.00	0.00	0.00	0.18	0.07
17.5in Open Hole	112.00	547.80	435.80	112.00	547.78	0.18	0.07	4.00	1.47
13.375in Casing Surface	32.00	547.80	515.80	32.00	547.78	0.00	0.00	4.00	1.47
12.25in Open Hole	547.80	2667.90	2120.10	547.78	2613.66	4.00	1.47	28.96	427.33
9.625in Casing Intermediate	32.00	2667.90	2635.90	32.00	2613.66	0.00	0.00	28.96	427.33
8.75in Open Hole	2667.90	6739.00	4071.10	2613.66	6314.05	28.96	427.33	458.65	1703.10
8.5in Open Hole	6739.00	17713.00	10974.00	6314.05	6424.62	458.65	1703.10	10465.65	-2656.14
5.5in Casing Production	32.00	17713.00	17681.00	32.00	6424.62	0.00	0.00	10465.65	-2656.14



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Jay Unit 2H AWP Proj: 17713'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #08
Area	Doddridge Co., WV		Well	Jay Unit 2H
Field	Doddridge		Wellbore	Jay Unit 2H AWB
Facility	Middle Pad			

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Jay Unit 2H POE Rev-2	6410.00	621.38	1640.53	1696796.12	14280013.68	39°19'26.866"N	80°48'02.298"W	point
Jay Unit 2H BHL Rev-2	6450.00	10492.45	-2664.67	1692482.63	14289880.81	39°21'04.518"N	80°48'56.824"W	point
Jay Unit 2H LP Rev-1	6450.00	809.35	1556.55	1696714.18	14280201.57	39°19'28.728"N	80°48'03.336"W	point

WELLPATH COMPOSITION - Ref Wellbore: Jay Unit 2H AWB Ref Wellpath: Jay Unit 2H AWP Proj: 17713'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	515.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2"> (100'-498')	Jay Unit 2H AWB
515.00	726.00	Gyrodata standard - Drop gyro or Multi-shot	02 Gyrodata MS Gyro <12-1/4"> (498')(618'-709')	Jay Unit 2H AWB
726.00	2597.00	ISCWSA MWD, Rev. 4 (Standard)	03 Directional ONE MWD <12-1/4"> (709')(769'-2580')	Jay Unit 2H AWB
2597.00	6657.00	ISCWSA MWD, Rev. 4 (Standard)	04 Directional ONE MWD <8-3/4"> (2580')(2694'-5640')	Jay Unit 2H AWB
6657.00	17688.00	BHT AutoTrak Curve (Short)	05 BH AT Curve <8-1/2"> (6657')(6665'-17688')	Jay Unit 2H AWB
17688.00	17713.00	Blind Drilling (std)	Projection to bit	Jay Unit 2H AWB

02/08/2019



Actual Wellpath Report

Jay Unit 2H AWP Proj: 17713'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	Jay Unit 2H
Field	Doddridge	Wellbore	Jay Unit 2H AWB
Facility	Middle Pad		

COMMENTS

Wellpath general comments
 API: 47-017-06823-0000
 BH Job #: 9023322
 Rig: Frontier 32
 Duration: 02/19/18 - 02/22/18
 Gyrodatta MS Gyro <17-1/2"> (100'-498')
 Gyrodatta MS Gyro <12-1/4"> (498')(618'-709')
 Directional ONE MWD <12-1/4"> (709')(769'-2580')
 Directional ONE MWD <8-3/4"> (2580')(2694'-6640')
 BH AT Curve <8-1/2"> (6657')(6665'-17688')
 Burket: 6785'MD / 6339'TVD
 Tully: 6840'MD / 6367'TVD
 Hamilton: 6915'MD / 6400'TVD
 POE Marcellus: 6942'MD / 6410'TVD
 Projected MD @ TD: 17713'

02/08/2019