



ANTERO RESOURCES CORPORATION



Location: Doddridge Co., WV
Field: Doddridge
Facility: Peggy June Pad

Slot: Slot #04
Well: Russell Unit 2H
Wellbore: Russell Unit 2H PWB

Plot reference wellpath is Russell Unit 2H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 1305 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot #04): -1275 feet	Depths are in feet
Offset wellpath MDs are referenced to each plot's default MD datum	Created by: edjaryar on 2021-02-04; Database: WA MPL EASTERNUS Deln



Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Peggy June Pad	1712149.550	14272437.390	39°18'11.5750"N	80°44'47.1230"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #04	1.29	-9.91	1712139.840	14272438.680
Comment	Russell Unit 2H			
H&P 519 (RKB) to Ground level (At Slot: Slot #04)	30ft			
Mean Sea Level to Ground level (At Slot: Slot #04)	-1275ft			
H&P 519 (RKB) to Mean Sea Level	1305ft			

Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	6163.00	13.560	31.070	6101.23	499.32	378.47	-353.16
Pro. to Bottom	6230.00	13.560	31.070	6166.37	512.78	386.58	-363.34
End of 3D Arc	6979.60	50.512	166.007	6832.42	285.79	513.99	-107.62
POE	7223.01	69.812	161.474	6853.00	84.35	573.59	102.31
Landing Pt.	7475.36	90.000	161.474	6997.00	-150.00	652.12	349.47
BHL	18515.38	90.000	161.474	6997.00	-10617.89	4160.01	11369.48

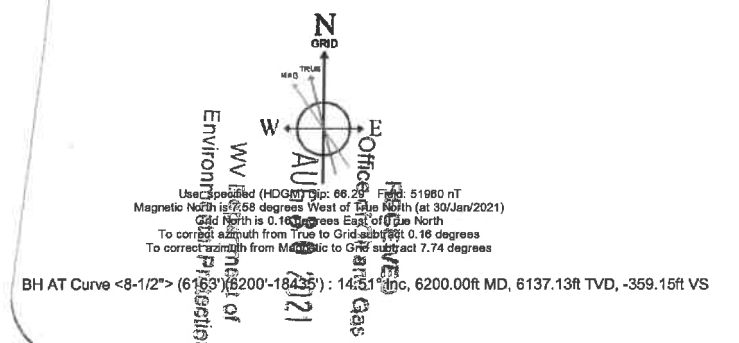


Gyrodatta MS Gyro <12-1/4"> (100°-2588') : 0.14° Inc, 115.00ft MD, 115.00ft TVD, -0.05ft VS

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #04	Russell Unit 2H	Russell Unit 2H PWB	Russell Unit 2H PWP Rev-A.0

Premier MWD <8-3/4"> (2588')(2673'-6148') : 0.58° Inc, 2688.00ft MD, 2687.73ft TVD, 30.49ft VS

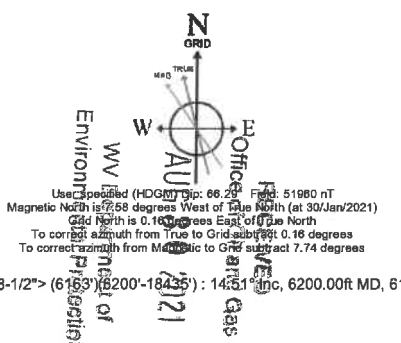
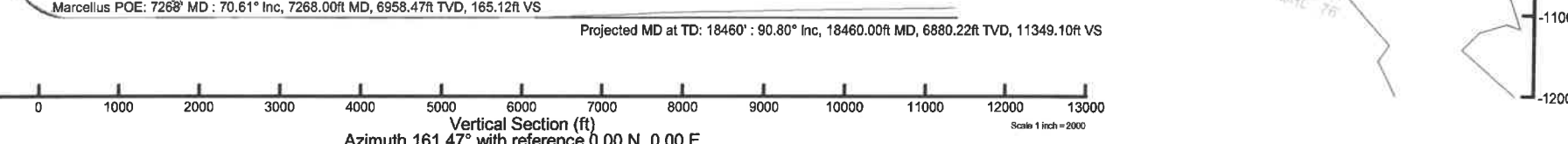
API: 47-017-06901-0000
BH Job #: 110695212
Rig: H&P 519
Duration: 1/30/2021-2/3/2021



BH AT Curve <8-1/2"> (6163')(6200'-18435') : 14.61° Inc, 6200.00ft MD, 6137.13ft TVD, -359.15ft VS

Marcellus POE: 7268° MD : 70.61° Inc, 7268.00ft MD, 6958.47ft TVD, 165.12ft VS

Projected MD at TD: 18460' : 90.80° Inc, 18460.00ft MD, 6880.22ft TVD, 11349.10ft VS



BH AT Curve <8-1/2"> (6163')(6200'-18435') : 6137.13ft TVD, 507.13ft N, 382.89ft E
 P = 11.1'
 Marcellus POE: 7268° MD : 6958.47ft TVD, 24.58ft N, 592.88ft E

Russell Unit 2H 50' LRI Hand Line Rev-2

BHL 76'

Northing (ft) scale from 1000 to -12000

Scale 1 inch = 2000



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Russell Unit 2H AWP Proj: 18460'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

REPORT SETUP INFORMATION			
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999606	Report Generated	04/Feb/2021 at 21:43
Convergence at slot	0.16° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1.29	-9.91	1712139.64	14272438.68	39°18'11.5880"N	80°44'47.2490"W
Facility Reference Pt			1712149.55	14272437.39	39°18'11.5750"N	80°44'47.1230"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 519 (RKB) to Facility Vertical Datum	1305.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1305.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #04)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	161.47°

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Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (205 stations) † = interpolated, ‡ = extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
0.00	0.00	280.550	0.00	0.00	0.00	0.00	1712139.64	14272438.68	39°18'11.5880"N	80°44'47.2490"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	280.550	30.00	0.00	0.00	0.00	1712139.64	14272438.68	39°18'11.5880"N	80°44'47.2490"W	0.00	0.000	0.00	0.00	0.00	
115.00	0.140	280.550	115.00	-0.05	0.02	-0.10	1712139.54	14272438.70	39°18'11.5882"N	80°44'47.2503"W	0.10	280.550	0.16	0.16	0.00	Gyrodata MS Gyro <12-1/4"> (100'-2588')
215.00	0.180	312.090	215.00	-0.25	0.15	-0.34	1712139.30	14272438.83	39°18'11.5895"N	80°44'47.2533"W	0.37	293.411	0.10	0.04	31.54	
315.00	0.050	272.660	315.00	-0.40	0.25	-0.50	1712139.14	14272438.93	39°18'11.5905"N	80°44'47.2554"W	0.56	296.972	0.14	-0.13	-39.53	
415.00	0.160	222.910	415.00	-0.35	0.15	-0.64	1712139.00	14272438.83	39°18'11.5895"N	80°44'47.2571"W	0.66	283.545	0.13	0.11	-49.65	
515.00	0.370	155.900	515.00	0.04	-0.24	-0.60	1712139.04	14272438.44	39°18'11.5856"N	80°44'47.2567"W	0.65	247.945	0.34	0.21	-67.01	
615.00	0.510	152.940	615.00	0.80	-0.93	-0.27	1712139.37	14272437.75	39°18'11.5786"N	80°44'47.2524"W	0.97	195.917	0.14	0.14	-2.96	
715.00	0.440	156.500	714.99	1.62	-1.68	0.09	1712139.73	14272437.00	39°18'11.5714"N	80°44'47.2480"W	1.69	176.970	0.08	-0.07	3.56	
815.00	0.460	155.250	814.99	2.41	-2.40	0.41	1712140.05	14272436.28	39°18'11.5643"N	80°44'47.2439"W	2.43	170.298	0.02	0.02	-1.25	
915.00	0.510	158.290	914.99	3.25	-3.18	0.74	1712140.38	14272435.50	39°18'11.5566"N	80°44'47.2397"W	3.26	166.841	0.06	0.05	3.04	
1015.00	0.600	150.830	1014.98	4.21	-4.05	1.16	1712140.80	14272434.63	39°18'11.5479"N	80°44'47.2344"W	4.21	163.975	0.12	0.09	-7.46	
1115.00	0.830	144.190	1114.97	5.41	-5.09	1.84	1712141.48	14272433.59	39°18'11.5376"N	80°44'47.2258"W	5.42	160.118	0.24	0.23	-6.64	
1215.00	0.910	142.630	1214.96	6.86	-6.31	2.75	1712142.39	14272432.37	39°18'11.5255"N	80°44'47.2143"W	6.88	156.475	0.08	0.08	-1.56	
1315.00	0.980	148.710	1314.95	8.44	-7.67	3.67	1712143.31	14272431.01	39°18'11.5121"N	80°44'47.2026"W	8.51	154.417	0.12	0.07	6.08	
1415.00	0.930	145.490	1414.93	10.06	-9.07	4.58	1712144.22	14272429.61	39°18'11.4982"N	80°44'47.1911"W	10.16	153.227	0.07	-0.05	-3.22	
1515.00	0.930	142.450	1514.92	11.60	-10.38	5.53	1712145.17	14272428.30	39°18'11.4852"N	80°44'47.1790"W	11.77	151.956	0.05	0.00	-3.04	
1615.00	0.990	141.350	1614.91	13.18	-11.70	6.57	1712146.20	14272426.98	39°18'11.4721"N	80°44'47.1659"W	13.42	150.705	0.06	0.06	-1.10	
1715.00	1.000	140.840	1714.89	14.81	-13.05	7.66	1712147.29	14272425.63	39°18'11.4588"N	80°44'47.1521"W	15.13	149.607	0.01	0.01	-0.51	
1815.00	0.990	143.680	1814.88	16.45	-14.43	8.72	1712148.36	14272424.26	39°18'11.4452"N	80°44'47.1386"W	16.86	148.852	0.05	-0.01	2.84	
1915.00	1.140	137.390	1914.86	18.18	-15.86	9.90	1712149.54	14272422.83	39°18'11.4310"N	80°44'47.1236"W	18.69	148.007	0.19	0.15	-6.29	
2015.00	1.380	134.910	2014.83	20.17	-17.44	11.43	1712151.07	14272421.25	39°18'11.4153"N	80°44'47.1042"W	20.85	146.754	0.25	0.24	-2.48	
2115.00	1.260	133.220	2114.81	22.21	-19.04	13.08	1712152.72	14272419.65	39°18'11.3994"N	80°44'47.0833"W	23.10	145.503	0.13	-0.12	-1.69	
2215.00	0.990	133.650	2214.79	23.94	-20.39	14.51	1712154.15	14272418.30	39°18'11.3861"N	80°44'47.0652"W	25.03	144.561	0.27	-0.27	0.43	
2315.00	0.810	136.660	2314.78	25.35	-21.50	15.62	1712155.26	14272417.19	39°18'11.3751"N	80°44'47.0511"W	26.58	143.999	0.19	-0.18	3.01	
2415.00	0.830	135.810	2414.77	26.64	-22.53	16.61	1712156.24	14272416.16	39°18'11.3648"N	80°44'47.0385"W	27.99	143.603	0.02	0.02	-0.85	
2515.00	0.940	138.430	2514.75	28.05	-23.67	17.66	1712157.29	14272415.02	39°18'11.3536"N	80°44'47.0252"W	29.53	143.269	0.12	0.11	2.62	
2603.00	1.000	137.010	2602.74	29.42	-24.77	18.66	1712158.30	14272413.92	39°18'11.3427"N	80°44'47.0125"W	31.01	143.002	0.07	0.07	-1.61	
2688.00	0.580	140.960	2687.73	30.49	-25.64	19.44	1712159.07	14272413.05	39°18'11.3340"N	80°44'47.0026"W	32.18	142.837	0.50	-0.49	4.65	Premier MWD <8-3/4"> (2588')(2673'-6148')
2782.00	2.510	31.550	2781.70	29.62	-24.26	20.82	1712160.45	14272414.43	39°18'11.3476"N	80°44'46.9851"W	31.97	139.368	2.93	2.05	-116.39	

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Russell Unit 2H AWP Proj: 18460'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (205 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
2877.00	5.460	27.870	2876.46	25.17	-18.49	24.02	1712163.65	14272420.20	39°18'11.4046"N	80°44'46.9441"W	30.31	127.591	3.12	3.11	-3.87	
2972.00	8.230	33.870	2970.78	17.90	-8.85	29.92	1712169.55	14272429.84	39°18'11.4997"N	80°44'46.8687"W	31.20	106.472	3.01	2.92	6.32	
3067.00	10.800	36.680	3064.46	8.67	3.94	39.03	1712178.65	14272442.62	39°18'11.6258"N	80°44'46.7524"W	39.23	84.238	2.75	2.71	2.96	
3162.00	11.470	35.870	3157.68	-1.91	18.73	49.88	1712189.50	14272457.40	39°18'11.7717"N	80°44'46.6138"W	53.28	69.418	0.72	0.71	-0.85	
3256.00	11.980	41.810	3249.72	-12.18	33.58	61.86	1712201.48	14272472.24	39°18'11.9181"N	80°44'46.4609"W	70.39	61.508	1.39	0.54	6.32	
3351.00	10.460	42.080	3342.90	-21.29	47.33	74.22	1712213.83	14272485.99	39°18'12.0537"N	80°44'46.3033"W	88.02	57.474	1.60	-1.60	0.28	
3446.00	9.970	42.030	3436.39	-29.56	59.84	85.50	1712225.11	14272498.49	39°18'12.1770"N	80°44'46.1592"W	104.36	55.014	0.52	-0.52	-0.05	
3541.00	10.120	36.230	3529.94	-38.42	72.68	95.94	1712235.54	14272511.33	39°18'12.3037"N	80°44'46.0260"W	120.36	52.855	1.08	0.16	-6.11	
3638.00	10.210	33.350	3625.42	-48.64	86.73	105.70	1712245.30	14272525.38	39°18'12.4423"N	80°44'45.9013"W	136.73	50.630	0.53	0.09	-2.97	
3733.00	10.230	32.790	3718.91	-59.11	100.86	114.90	1712254.49	14272539.50	39°18'12.5817"N	80°44'45.7838"W	152.89	48.724	0.11	0.02	-0.59	
3827.00	10.270	30.870	3811.41	-69.78	115.07	123.72	1712263.31	14272553.70	39°18'12.7219"N	80°44'45.6711"W	168.96	47.075	0.37	0.04	-2.04	
3922.00	11.490	32.400	3904.70	-81.26	130.33	133.14	1712272.72	14272568.95	39°18'12.8724"N	80°44'45.5508"W	186.31	45.611	1.32	1.28	1.61	
4017.00	12.240	33.430	3997.67	-93.43	146.72	143.75	1712283.34	14272585.34	39°18'13.0341"N	80°44'45.4151"W	205.41	44.415	0.82	0.79	1.08	
4112.00	12.090	36.200	4090.54	-105.38	163.15	155.18	1712294.76	14272601.77	39°18'13.1962"N	80°44'45.2692"W	225.16	43.565	0.63	-0.16	2.92	
4206.00	12.080	34.110	4182.46	-117.03	179.24	166.51	1712306.08	14272617.85	39°18'13.3549"N	80°44'45.1245"W	244.65	42.891	0.47	-0.01	-2.22	
4301.00	11.390	38.450	4275.47	-128.18	194.82	177.92	1712317.48	14272633.42	39°18'13.5086"N	80°44'44.9788"W	263.83	42.404	1.18	-0.73	4.57	
4396.00	11.300	37.870	4368.61	-138.44	209.51	189.46	1712329.03	14272648.11	39°18'13.6535"N	80°44'44.8314"W	282.47	42.123	0.15	-0.09	-0.61	
4491.00	11.230	36.980	4461.78	-148.83	224.25	200.74	1712340.30	14272662.84	39°18'13.7988"N	80°44'44.6874"W	300.97	41.834	0.20	-0.07	-0.94	
4585.00	11.390	35.140	4553.96	-159.51	239.15	211.59	1712351.14	14272677.74	39°18'13.9458"N	80°44'44.5489"W	319.32	41.501	0.42	0.17	-1.96	
4680.00	11.140	34.320	4647.13	-170.61	254.40	222.16	1712361.71	14272692.98	39°18'14.0962"N	80°44'44.4138"W	337.75	41.130	0.31	-0.26	-0.86	
4775.00	11.460	32.800	4740.29	-182.05	269.91	232.45	1712372.00	14272708.49	39°18'14.2493"N	80°44'44.2824"W	356.21	40.735	0.46	0.34	-1.60	
4869.00	11.450	32.760	4832.42	-193.72	285.61	242.56	1712382.10	14272724.18	39°18'14.4041"N	80°44'44.1533"W	374.71	40.340	0.01	-0.01	-0.04	
4964.00	11.670	31.170	4925.49	-205.83	301.76	252.63	1712392.17	14272740.32	39°18'14.5635"N	80°44'44.0245"W	393.55	39.936	0.41	0.23	-1.67	
5059.00	11.540	29.790	5018.55	-218.36	318.23	262.33	1712401.86	14272756.78	39°18'14.7260"N	80°44'43.9006"W	412.41	39.500	0.32	-0.14	-1.45	
5153.00	11.390	32.410	5110.67	-230.46	334.22	271.97	1712411.50	14272772.77	39°18'14.8838"N	80°44'43.7773"W	430.90	39.137	0.58	-0.16	2.79	
5248.00	11.420	36.530	5203.80	-241.76	349.70	282.60	1712422.13	14272788.24	39°18'15.0365"N	80°44'43.6416"W	449.61	38.942	0.86	0.03	4.34	
5342.00	10.220	31.790	5296.13	-252.42	364.27	292.53	1712432.05	14272802.80	39°18'15.1802"N	80°44'43.5147"W	467.19	38.767	1.59	-1.28	-5.04	
5437.00	10.300	29.720	5389.61	-263.45	378.81	301.18	1712440.70	14272817.34	39°18'15.3236"N	80°44'43.4042"W	483.95	38.487	0.40	0.08	-2.18	
5532.00	10.280	29.940	5483.08	-274.73	393.53	309.62	1712449.14	14272832.05	39°18'15.4689"N	80°44'43.2963"W	500.73	38.195	0.05	-0.02	0.23	
5626.00	10.250	34.750	5575.58	-285.29	407.67	318.58	1712458.09	14272846.19	39°18'15.6084"N	80°44'43.1819"W	517.38	38.006	0.91	-0.03	5.12	

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Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

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MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	("/100ft)		
5721.00	10.710	33.820	5668.99	-295.74	421.95	328.31	1712467.82	14272860.46	39°18'15.7493"N	80°44'43.0575"W	534.63	37.886	0.52	0.48	-0.98		
5816.00	11.450	31.960	5762.22	-307.13	437.28	338.21	1712477.72	14272875.79	39°18'15.9005"N	80°44'42.9310"W	552.81	37.720	0.86	0.78	-1.96		
5910.00	12.020	34.180	5854.26	-318.99	453.29	348.65	1712488.15	14272891.79	39°18'16.0585"N	80°44'42.7977"W	571.87	37.565	0.77	0.61	2.36		
6005.00	12.400	32.300	5947.11	-331.43	470.10	359.66	1712499.15	14272908.59	39°18'16.2243"N	80°44'42.6570"W	591.90	37.418	0.58	0.40	-1.98		
6099.00	12.550	33.790	6038.89	-344.05	487.12	370.73	1712510.22	14272925.61	39°18'16.3922"N	80°44'42.5156"W	612.15	37.274	0.38	0.16	1.59		
6163.00	13.560	31.070	6101.23	-353.16	499.32	378.47	1712517.96	14272937.81	39°18'16.5126"N	80°44'42.4167"W	626.55	37.161	1.85	1.58	-4.25		
6200.00	14.510	28.110	6137.13	-359.15	507.13	382.89	1712522.38	14272945.61	39°18'16.5896"N	80°44'42.3601"W	635.44	37.054	3.22	2.57	-8.00	BH AT Curve <8-1/2"> (6163')(6200'-18435')	
6272.00	11.630	42.860	6207.28	-368.83	520.41	392.08	1712531.57	14272958.88	39°18'16.7207"N	80°44'42.2427"W	651.58	36.995	6.09	-4.00	20.49		
6367.00	8.610	98.080	6300.99	-370.23	526.44	405.67	1712545.15	14272964.92	39°18'16.7799"N	80°44'42.0697"W	664.61	37.617	10.23	-3.18	58.13		
6461.00	12.280	144.230	6393.57	-357.52	517.34	418.49	1712557.97	14272955.81	39°18'16.6896"N	80°44'41.9068"W	665.42	38.971	9.37	3.88	49.10		
6556.00	19.480	152.250	6484.90	-332.22	495.10	431.78	1712571.25	14272933.59	39°18'16.4694"N	80°44'41.7386"W	656.94	41.092	7.93	7.60	8.44		
6587.00†	21.560	155.443	6513.93	-321.45	485.35	436.56	1712576.03	14272923.84	39°18'16.3729"N	80°44'41.6782"W	652.80	41.971	7.62	6.71	10.30	Sycamore: 6587' MD	
6650.00	25.930	160.390	6571.59	-296.15	461.83	446.00	1712585.46	14272900.33	39°18'16.1402"N	80°44'41.5589"W	642.03	44.001	7.62	6.94	7.85		
6745.00	33.510	161.830	6654.04	-249.09	417.28	461.17	1712600.63	14272855.80	39°18'15.6995"N	80°44'41.3676"W	621.93	47.860	8.01	7.98	1.52		
6838.00†	41.138	162.197	6727.94	-192.75	363.69	478.55	1712618.00	14272802.22	39°18'15.1692"N	80°44'41.1483"W	601.07	52.766	8.21	8.20	0.39	Middlesex: 6838' MD	
6839.00	41.220	162.200	6728.69	-192.09	363.06	478.76	1712618.21	14272801.60	39°18'15.1630"N	80°44'41.1458"W	600.85	52.826	8.21	8.20	0.33		
6885.00	45.520	163.300	6762.12	-160.52	332.90	488.11	1712627.56	14272771.44	39°18'14.8647"N	80°44'41.0279"W	590.82	55.706	9.49	9.35	2.39		
6934.00	49.470	162.500	6795.22	-124.41	298.38	498.74	1712638.18	14272736.94	39°18'14.5232"N	80°44'40.8939"W	581.18	59.109	8.15	8.06	-1.63		
6980.00	53.120	162.070	6823.98	-88.52	264.19	509.66	1712649.10	14272702.77	39°18'14.1850"N	80°44'40.7562"W	574.06	62.599	7.97	7.93	-0.93		
7029.00	57.810	161.300	6851.75	-48.17	225.88	522.35	1712661.78	14272664.47	39°18'13.8060"N	80°44'40.5962"W	569.10	66.614	9.66	9.57	-1.57		
7061.00†	59.106	161.014	6868.49	-20.90	200.07	531.16	1712670.59	14272638.67	39°18'13.5507"N	80°44'40.4850"W	567.59	69.360	4.12	4.05	-0.89	Burkett: 7061' MD	
7121.00†	61.539	160.497	6898.20	31.22	150.86	548.34	1712687.76	14272589.48	39°18'13.0838"N	80°44'40.2682"W	568.71	74.617	4.12	4.05	-0.86	Tully: 7121' MD	
7123.00	61.620	160.480	6899.15	32.98	149.20	548.93	1712688.35	14272587.83	39°18'13.0474"N	80°44'40.2608"W	568.84	74.794	4.12	4.06	-0.84		
7218.00	66.930	160.520	6940.37	118.52	68.56	577.49	1712716.90	14272507.21	39°18'12.2495"N	80°44'39.9004"W	561.54	83.230	5.59	5.59	0.04		
7268.00†	70.811	160.889	6958.47	165.12	24.58	592.88	1712732.29	14272463.25	39°18'11.8144"N	80°44'39.7061"W	593.39	87.626	7.39	7.36	0.74	Marcellus POE: 7268' MD	
7312.00	73.850	161.200	6971.90	207.01	-15.05	606.49	1712745.89	14272423.64	39°18'11.4224"N	80°44'39.5345"W	606.68	91.421	7.39	7.36	0.71		
7407.00	81.350	160.760	6992.28	299.72	-102.70	636.71	1712776.10	14272336.02	39°18'10.5552"N	80°44'39.1532"W	644.94	99.163	7.91	7.89	-0.46		
7502.00	89.200	160.710	7000.10	394.32	-192.01	667.92	1712807.30	14272246.75	39°18'9.6717"N	80°44'38.7593"W	694.97	106.038	8.26	8.26	-0.05		
7597.00	90.180	160.170	7000.62	489.30	-281.52	699.73	1712839.09	14272157.27	39°18'8.7860"N	80°44'38.3580"W	754.24	111.916	1.18	1.03	-0.57		
7691.00	89.570	159.880	7000.82	583.27	-369.87	731.84	1712871.19	14272068.96	39°18'7.9120"N	80°44'37.9527"W	819.99	116.812	0.72	-0.65	-0.31		

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Actual Wellpath Report

Russell Unit 2H AWP Proj: 18460'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (205 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
7786.00	90.250	160.760	7000.97	678.25	-459.32	763.83	1712903.17	14271979.55	39°18'7.0270"N	80°44'37.5489"W	891.30	121.020	1.17	0.72	0.93	
7881.00	89.750	159.870	7000.97	773.23	-548.76	795.83	1712935.16	14271890.13	39°18'6.1420"N	80°44'37.1451"W	966.69	124.588	1.07	-0.53	-0.94	
7976.00	92.280	161.640	6999.29	868.20	-638.43	827.14	1712966.45	14271800.50	39°18'5.2549"N	80°44'36.7501"W	1044.87	127.663	3.25	2.66	1.86	
8071.00	89.080	159.550	6998.16	963.16	-728.01	858.69	1712997.99	14271710.96	39°18'4.3687"N	80°44'36.3519"W	1125.77	130.292	4.02	-3.37	-2.20	
8166.00	89.140	160.570	6999.64	1058.12	-817.30	891.09	1713030.37	14271621.70	39°18'3.4852"N	80°44'35.9431"W	1209.14	132.527	1.08	0.06	1.07	
8260.00	91.690	159.630	6998.96	1152.08	-905.68	923.08	1713062.35	14271533.36	39°18'2.6109"N	80°44'35.5393"W	1293.18	134.455	2.89	2.71	-1.00	
8355.00	89.820	161.280	6997.70	1247.05	-995.19	954.85	1713094.12	14271443.88	39°18'1.7252"N	80°44'35.1384"W	1379.18	136.185	2.62	-1.97	1.74	
8449.00	89.140	158.640	6998.56	1341.00	-1083.49	987.06	1713126.31	14271355.62	39°18'0.8517"N	80°44'34.7319"W	1465.69	137.666	2.90	-0.72	-2.81	
8544.00	88.340	161.860	7000.65	1435.95	-1172.86	1019.15	1713158.39	14271266.28	39°17'59.9674"N	80°44'34.3269"W	1553.80	139.011	3.49	-0.84	3.39	
8639.00	90.000	162.190	7002.02	1530.93	-1263.21	1048.47	1713187.69	14271175.97	39°17'59.0736"N	80°44'33.9573"W	1641.64	140.307	1.78	1.75	0.35	
8733.00	88.920	162.850	7002.91	1624.91	-1352.87	1076.70	1713215.91	14271086.35	39°17'58.1867"N	80°44'33.6014"W	1729.03	141.485	1.35	-1.15	0.70	
8828.00	89.350	162.010	7004.34	1719.88	-1443.42	1105.37	1713244.57	14270995.83	39°17'57.2908"N	80°44'33.2399"W	1818.05	142.555	0.99	0.45	-0.88	
8923.00	91.450	162.770	7003.68	1814.86	-1533.96	1134.11	1713273.30	14270905.32	39°17'56.3951"N	80°44'32.8777"W	1907.68	143.523	2.35	2.21	0.80	
9017.00	90.550	162.250	7002.04	1908.83	-1623.60	1162.36	1713301.54	14270815.72	39°17'55.5084"N	80°44'32.5216"W	1996.79	144.401	1.11	-0.96	-0.55	
9112.00	90.090	162.480	7001.51	2003.82	-1714.14	1191.14	1713330.31	14270725.22	39°17'54.6128"N	80°44'32.1588"W	2087.36	145.205	0.54	-0.48	0.24	
9206.00	90.060	162.160	7001.39	2097.81	-1803.70	1219.68	1713358.84	14270635.70	39°17'53.7268"N	80°44'31.7989"W	2177.37	145.933	0.34	-0.03	-0.34	
9301.00	90.150	161.630	7001.21	2192.80	-1893.97	1249.29	1713388.43	14270545.46	39°17'52.8337"N	80°44'31.4257"W	2268.88	146.591	0.67	0.09	-0.66	
9395.00	90.250	161.880	7000.88	2286.80	-1983.22	1278.79	1713417.93	14270456.25	39°17'51.9508"N	80°44'31.0536"W	2359.76	147.186	0.39	0.11	0.37	
9490.00	89.380	160.630	7001.19	2381.80	-2073.17	1309.32	1713448.44	14270366.33	39°17'51.0608"N	80°44'30.6685"W	2452.01	147.725	1.60	-0.92	-1.32	
9585.00	90.650	161.750	7001.16	2476.79	-2163.10	1339.95	1713479.06	14270276.44	39°17'50.1712"N	80°44'30.2822"W	2544.49	148.223	1.78	1.34	1.18	
9679.00	90.580	161.950	7000.16	2570.79	-2252.41	1369.23	1713508.33	14270187.16	39°17'49.2876"N	80°44'29.9130"W	2635.94	148.705	0.23	-0.07	0.21	
9774.00	90.120	162.360	6999.58	2665.78	-2342.84	1398.34	1713537.43	14270096.77	39°17'48.3930"N	80°44'29.5460"W	2728.42	149.169	0.65	-0.48	0.43	
9869.00	90.000	162.150	6999.48	2760.77	-2433.32	1427.30	1713566.37	14270006.32	39°17'47.4979"N	80°44'29.1810"W	2821.03	149.606	0.25	-0.13	-0.22	
9963.00	89.910	161.650	6999.55	2854.77	-2522.67	1456.50	1713595.56	14269917.01	39°17'46.6140"N	80°44'28.8128"W	2912.95	149.999	0.54	-0.10	-0.53	
10058.00	89.420	161.710	7000.11	2949.76	-2612.85	1486.36	1713625.41	14269826.86	39°17'45.7218"N	80°44'28.4363"W	3006.04	150.366	0.52	-0.52	0.06	
10152.00	89.320	161.340	7001.14	3043.76	-2702.00	1516.15	1713655.18	14269737.75	39°17'44.8399"N	80°44'28.0607"W	3098.31	150.702	0.41	-0.11	-0.39	
10247.00	89.480	161.670	7002.13	3138.75	-2792.09	1546.28	1713685.31	14269647.89	39°17'43.9486"N	80°44'27.6806"W	3191.67	151.022	0.39	0.17	0.35	
10342.00	89.910	162.160	7002.64	3233.75	-2882.40	1575.77	1713714.79	14269557.43	39°17'43.0552"N	80°44'27.3088"W	3285.00	151.335	0.69	0.45	0.52	
10436.00	88.830	163.760	7003.67	3327.70	-2972.26	1603.31	1713742.32	14269467.60	39°17'42.1663"N	80°44'26.9618"W	3377.12	151.656	2.05	-1.15	1.70	
10531.00	89.510	160.030	7005.05	3422.67	-3062.53	1632.83	1713771.82	14269377.36	39°17'41.2732"N	80°44'26.5897"W	3470.62	151.935	3.99	0.72	-3.93	

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Russell Unit 2H AWP Proj: 18460'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (205 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
10626.00	90.830	162.660	7004.77	3517.66	-3152.53	1663.21	1713802.19	14269287.40	39°17'40.3828"N	80°44'26.2065"W	3564.37	152.185	3.10	1.39	2.77	
10720.00	88.120	162.220	7005.63	3611.64	-3242.14	1691.57	1713830.54	14269197.83	39°17'39.4964"N	80°44'25.8491"W	3656.89	152.447	2.92	-2.88	-0.47	
10815.00	88.890	159.870	7008.11	3706.59	-3331.89	1722.57	1713861.53	14269108.11	39°17'38.6084"N	80°44'25.4580"W	3750.83	152.661	2.80	0.81	-2.68	
10910.00	91.110	162.930	7008.11	3801.57	-3421.86	1753.02	1713891.97	14269018.18	39°17'37.7183"N	80°44'25.0740"W	3844.76	152.874	4.15	2.34	3.43	
11004.00	89.850	162.500	7007.32	3895.55	-3511.61	1780.95	1713919.88	14268928.46	39°17'36.8305"N	80°44'24.7220"W	3937.41	153.108	1.42	-1.34	-0.46	
11099.00	90.650	162.180	7006.91	3990.53	-3602.13	1809.77	1713948.69	14268837.98	39°17'35.9350"N	80°44'24.3588"W	4031.20	153.324	0.91	0.84	-0.34	
11194.00	88.580	162.340	7007.54	4085.52	-3692.61	1838.71	1713977.62	14268747.54	39°17'35.0399"N	80°44'23.9939"W	4125.07	153.529	2.19	-2.18	0.17	
11288.00	89.570	159.140	7009.06	4179.48	-3781.32	1869.71	1714008.61	14268658.86	39°17'34.1622"N	80°44'23.6029"W	4218.32	153.689	3.56	1.05	-3.40	
11383.00	90.890	162.490	7008.68	4274.46	-3871.03	1900.92	1714039.81	14268569.18	39°17'33.2747"N	80°44'23.2092"W	4312.58	153.846	3.79	1.39	3.53	
11477.00	90.520	162.430	7007.52	4368.44	-3960.65	1929.25	1714068.13	14268479.60	39°17'32.3881"N	80°44'22.8522"W	4405.54	154.029	0.40	-0.39	-0.06	
11572.00	89.910	162.740	7007.17	4463.42	-4051.30	1957.68	1714096.55	14268388.99	39°17'31.4914"N	80°44'22.4939"W	4499.50	154.209	0.72	-0.64	0.33	
11667.00	88.120	162.470	7008.60	4558.38	-4141.93	1986.08	1714124.93	14268298.39	39°17'30.5947"N	80°44'22.1360"W	4593.49	154.382	1.91	-1.88	-0.28	
11762.00	91.020	160.950	7009.51	4653.37	-4232.12	2015.89	1714154.73	14268208.24	39°17'29.7025"N	80°44'21.7602"W	4687.71	154.530	3.45	3.05	-1.60	
11856.00	90.800	162.700	7008.02	4747.35	-4321.41	2045.20	1714184.03	14268118.98	39°17'28.8191"N	80°44'21.3906"W	4780.95	154.673	1.88	-0.23	1.86	
11951.00	90.590	162.110	7006.87	4842.33	-4411.96	2073.92	1714212.74	14268028.46	39°17'27.9233"N	80°44'21.0287"W	4875.10	154.823	0.66	-0.22	-0.62	
12045.00	89.600	161.890	7006.71	4936.32	-4501.36	2102.97	1714241.77	14267939.10	39°17'27.0389"N	80°44'20.6626"W	4968.37	154.959	1.08	-1.05	-0.23	
12140.00	90.400	161.430	7006.71	5031.32	-4591.54	2132.86	1714271.65	14267848.96	39°17'26.1468"N	80°44'20.2857"W	5062.73	155.084	0.97	0.84	-0.48	
12235.00	89.350	161.580	7006.92	5126.32	-4681.63	2162.99	1714301.78	14267758.91	39°17'25.2555"N	80°44'19.9057"W	5157.15	155.202	1.12	-1.11	0.16	
12329.00	91.020	162.240	7006.62	5220.31	-4770.98	2192.18	1714330.95	14267669.59	39°17'24.3716"N	80°44'19.5378"W	5250.51	155.322	1.91	1.78	0.70	
12424.00	90.430	162.310	7005.41	5315.30	-4861.46	2221.10	1714359.86	14267579.15	39°17'23.4765"N	80°44'19.1733"W	5344.82	155.445	0.83	-0.62	0.07	
12519.00	90.620	161.870	7004.54	5410.29	-4951.85	2250.31	1714389.06	14267488.79	39°17'22.5822"N	80°44'18.8051"W	5439.19	155.561	0.50	0.20	-0.46	
12614.00	90.550	162.260	7003.57	5505.28	-5042.23	2279.57	1714418.30	14267398.45	39°17'21.6881"N	80°44'18.4363"W	5533.58	155.673	0.42	-0.07	0.41	
12708.00	90.770	162.330	7002.49	5599.26	-5131.77	2308.15	1714446.88	14267308.94	39°17'20.8023"N	80°44'18.0761"W	5626.96	155.783	0.25	0.23	0.07	
12803.00	90.580	162.520	7001.37	5694.24	-5222.33	2336.83	1714475.55	14267218.42	39°17'19.9064"N	80°44'17.7146"W	5721.32	155.893	0.28	-0.20	0.20	
12898.00	90.400	162.370	7000.56	5789.22	-5312.90	2365.49	1714504.19	14267127.88	39°17'19.0104"N	80°44'17.3535"W	5815.71	156.000	0.25	-0.19	-0.16	
12992.00	90.620	162.220	6999.72	5883.21	-5402.45	2394.07	1714532.77	14267038.37	39°17'18.1246"N	80°44'16.9932"W	5909.15	156.100	0.28	0.23	-0.16	
13087.00	90.740	162.170	6998.60	5978.20	-5492.89	2423.12	1714561.80	14266947.97	39°17'17.2298"N	80°44'16.6272"W	6003.61	156.196	0.14	0.13	-0.05	
13182.00	91.290	162.130	6996.91	6073.17	-5583.30	2452.24	1714590.90	14266857.59	39°17'16.3354"N	80°44'16.2602"W	6098.09	156.288	0.58	0.58	-0.04	
13277.00	92.160	162.030	6994.05	6168.12	-5673.65	2481.45	1714620.11	14266767.27	39°17'15.4416"N	80°44'15.8919"W	6192.57	156.377	0.92	0.92	-0.11	
13371.00	91.750	162.020	6990.85	6262.06	-5763.01	2510.44	1714649.09	14266677.95	39°17'14.5575"N	80°44'15.5265"W	6286.07	156.461	0.44	-0.44	-0.01	

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Russell Unit 2H AWP Proj: 18460'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (205 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
13466.00	91.540	161.790	6988.12	6357.02	-5853.28	2539.94	1714678.57	14266587.72	39°17'13.6645"N	80°44'15.1547"W	6380.61	156.542	0.33	-0.22	-0.24	
13561.00	91.600	162.470	6985.52	6451.98	-5943.66	2569.08	1714707.70	14266497.38	39°17'12.7704"N	80°44'14.7875"W	6475.13	156.624	0.72	0.06	0.72	
13655.00	91.510	161.060	6982.96	6545.94	-6032.90	2598.48	1714737.09	14266408.17	39°17'11.8875"N	80°44'14.4168"W	6568.72	156.698	1.50	-0.10	-1.50	
13750.00	91.720	161.420	6980.29	6640.90	-6122.82	2629.02	1714767.62	14266318.29	39°17'10.9979"N	80°44'14.0317"W	6663.38	156.762	0.44	0.22	0.38	
13845.00	91.420	160.960	6977.68	6735.67	-6212.71	2659.64	1714798.23	14266228.43	39°17'10.1086"N	80°44'13.6456"W	6758.07	156.824	0.58	-0.32	-0.48	
13939.00	91.820	161.250	6975.03	6829.83	-6301.61	2690.07	1714828.64	14266139.57	39°17'9.2290"N	80°44'13.2619"W	6851.77	156.883	0.53	0.43	0.31	
14034.00	91.350	160.820	6972.40	6924.79	-6391.42	2720.93	1714859.49	14266049.79	39°17'8.3405"N	80°44'12.8728"W	6946.49	156.940	0.67	-0.49	-0.45	
14129.00	91.750	161.010	6969.83	7019.75	-6481.16	2751.98	1714890.53	14265980.08	39°17'7.4526"N	80°44'12.4812"W	7041.23	156.993	0.47	0.42	0.20	
14223.00	91.690	161.120	6967.01	7113.70	-6570.04	2782.47	1714921.01	14265871.24	39°17'6.5733"N	80°44'12.0967"W	7134.95	157.047	0.13	-0.06	0.12	
14318.00	92.340	161.370	6963.67	7208.64	-6659.94	2813.00	1714951.52	14265781.38	39°17'5.6839"N	80°44'11.7119"W	7229.64	157.102	0.73	0.68	0.26	
14413.00	91.170	160.500	6960.76	7303.59	-6749.68	2844.01	1714982.53	14265691.67	39°17'4.7960"N	80°44'11.3207"W	7324.38	157.152	1.53	-1.23	-0.92	
14508.00	92.960	160.010	6957.34	7398.50	-6839.03	2876.08	1715014.58	14265602.35	39°17'3.9120"N	80°44'10.9162"W	7419.18	157.191	1.95	1.88	-0.52	
14602.00	93.300	159.970	6952.20	7492.33	-6927.23	2908.20	1715046.69	14265514.20	39°17'3.0394"N	80°44'10.5110"W	7512.93	157.226	0.36	0.36	-0.04	
14697.00	93.300	161.050	6946.73	7587.16	-7016.63	2939.84	1715078.32	14265424.82	39°17'2.1548"N	80°44'10.1119"W	7607.62	157.267	1.13	0.00	1.14	
14792.00	92.890	160.860	6941.61	7682.02	-7106.30	2970.80	1715109.26	14265335.19	39°17'1.2676"N	80°44'9.7216"W	7702.29	157.313	0.48	-0.43	-0.20	
14887.00	92.430	159.700	6937.20	7776.89	-7195.63	3002.82	1715141.27	14265245.90	39°17'0.3838"N	80°44'9.3177"W	7797.06	157.349	1.31	-0.48	-1.22	
14981.00	89.540	160.280	6935.58	7870.84	-7283.94	3034.98	1715173.41	14265157.63	39°16'59.5101"N	80°44'8.9120"W	7890.93	157.380	3.14	-3.07	0.62	
15076.00	92.370	160.260	6934.00	7965.79	-7373.34	3067.04	1715205.46	14265068.26	39°16'58.6256"N	80°44'8.5076"W	7985.79	157.414	2.98	2.98	-0.02	
15171.00	91.820	160.460	6930.52	8060.71	-7462.75	3098.95	1715237.36	14264978.89	39°16'57.7409"N	80°44'8.1051"W	8080.60	157.449	0.62	-0.58	0.21	
15265.00	91.420	160.100	6927.87	8154.65	-7551.20	3130.65	1715269.05	14264890.47	39°16'56.8658"N	80°44'7.7052"W	8174.45	157.482	0.57	-0.43	-0.38	
15360.00	90.340	160.980	6926.41	8249.63	-7640.76	3162.30	1715300.68	14264800.94	39°16'55.9797"N	80°44'7.3061"W	8269.30	157.517	1.47	-1.14	0.93	
15455.00	90.460	160.900	6925.74	8344.62	-7730.55	3193.32	1715331.69	14264711.19	39°16'55.0913"N	80°44'6.9149"W	8364.13	157.556	0.15	0.13	-0.08	
15549.00	90.710	161.300	6924.78	8438.61	-7819.48	3223.77	1715362.13	14264622.30	39°16'54.2115"N	80°44'6.5310"W	8457.95	157.595	0.50	0.27	0.43	
15644.00	91.200	160.580	6923.20	8533.60	-7909.26	3254.78	1715393.14	14264532.55	39°16'53.3233"N	80°44'6.1399"W	8552.78	157.632	0.92	0.52	-0.76	
15739.00	91.110	160.980	6921.29	8628.57	-7998.94	3286.05	1715424.39	14264442.90	39°16'52.4359"N	80°44'5.7456"W	8647.62	157.667	0.43	-0.09	0.42	
15833.00	90.920	160.910	6919.62	8722.55	-8087.78	3316.74	1715455.06	14264354.10	39°16'51.5570"N	80°44'5.3587"W	8741.45	157.702	0.22	-0.20	-0.07	
15928.00	91.050	160.900	6917.99	8817.53	-8177.54	3347.81	1715486.12	14264264.38	39°16'50.6690"N	80°44'4.9669"W	8836.29	157.736	0.14	0.14	-0.01	
16022.00	91.110	160.700	6916.22	8911.51	-8266.30	3378.72	1715517.02	14264175.66	39°16'49.7908"N	80°44'4.5772"W	8930.14	157.768	0.22	0.06	-0.21	
16117.00	91.170	160.730	6914.33	9006.48	-8355.95	3410.09	1715548.38	14264086.04	39°16'48.9038"N	80°44'4.1816"W	9024.99	157.799	0.07	0.06	0.03	
16212.00	91.110	160.870	6912.44	9101.46	-8445.64	3441.32	1715579.60	14263996.38	39°16'48.0164"N	80°44'3.7877"W	9119.85	157.831	0.16	-0.06	0.15	

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Russell Unit 2H AWP Proj: 18460'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

WELLPATH DATA (205 stations) † = interpolated, ‡ = extrapolated station																	
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments	
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]		
16307.00	91.140	160.860	6910.57	9196.43	-8535.38	3472.46	1715610.72	14263906.68	39°16'47.1286"N	80°44'3.3952"W	9214.70	157.862	0.03	0.03	-0.01		
16401.00	90.890	160.860	6908.91	9290.41	-8624.17	3503.27	1715641.52	14263817.93	39°16'46.2501"N	80°44'3.0066"W	9308.55	157.892	0.27	-0.27	0.00		
16496.00	91.140	160.560	6907.22	9385.39	-8713.82	3534.65	1715672.89	14263728.31	39°16'45.3631"N	80°44'2.6109"W	9403.43	157.921	0.41	0.26	-0.32		
16590.00	91.020	160.430	6905.45	9479.36	-8802.41	3566.03	1715704.26	14263639.76	39°16'44.4866"N	80°44'2.2152"W	9497.32	157.946	0.19	-0.13	-0.14		
16685.00	90.740	160.670	6903.99	9574.34	-8891.98	3597.66	1715735.88	14263550.22	39°16'43.6004"N	80°44'1.8163"W	9592.21	157.972	0.39	-0.29	0.25		
16780.00	91.260	160.890	6902.33	9669.31	-8981.67	3628.93	1715767.13	14263460.57	39°16'42.7130"N	80°44'1.4220"W	9687.08	157.999	0.59	0.55	0.23		
16875.00	90.920	160.630	6900.53	9764.29	-9071.35	3660.23	1715798.42	14263370.93	39°16'41.8258"N	80°44'1.0274"W	9781.95	158.026	0.45	-0.36	-0.27		
16970.00	90.340	160.730	6899.48	9859.27	-9160.99	3691.66	1715829.83	14263281.32	39°16'40.9389"N	80°44'0.6311"W	9876.85	158.052	0.62	-0.61	0.11		
17065.00	90.890	161.210	6898.46	9954.26	-9250.79	3722.63	1715860.80	14263191.55	39°16'40.0504"N	80°44'0.2406"W	9971.72	158.080	0.77	0.58	0.51		
17159.00	90.950	160.650	6896.95	10048.25	-9339.62	3753.34	1715891.49	14263102.76	39°16'39.1715"N	80°43'59.8534"W	10065.59	158.106	0.60	0.06	-0.60		
17254.00	90.950	161.150	6895.38	10143.23	-9429.38	3784.42	1715922.56	14263013.04	39°16'38.2835"N	80°43'59.4615"W	10160.46	158.132	0.53	0.00	0.53		
17349.00	90.740	161.410	6893.98	10238.22	-9519.34	3814.91	1715953.03	14262923.11	39°16'37.3934"N	80°43'59.0773"W	10255.31	158.161	0.35	-0.22	0.27		
17444.00	90.860	160.930	6892.65	10333.21	-9609.25	3845.57	1715983.68	14262833.24	39°16'36.5039"N	80°43'58.6908"W	10350.17	158.189	0.52	0.13	-0.51		
17538.00	90.890	161.990	6891.22	10427.19	-9698.36	3875.45	1716013.55	14262744.16	39°16'35.6223"N	80°43'58.3141"W	10444.01	158.218	1.13	0.03	1.13		
17633.00	90.550	161.530	6890.02	10522.19	-9788.58	3905.18	1716043.28	14262653.98	39°16'34.7297"N	80°43'57.9394"W	10538.82	158.250	0.60	-0.36	-0.48		
17728.00	90.520	161.030	6889.13	10617.18	-9878.55	3935.67	1716073.75	14262564.04	39°16'33.8396"N	80°43'57.5551"W	10633.68	158.277	0.53	-0.03	-0.53		
17822.00	90.770	162.030	6888.08	10711.17	-9967.70	3965.45	1716103.52	14262474.93	39°16'32.9576"N	80°43'57.1798"W	10727.53	158.306	1.10	0.27	1.06		
17917.00	90.710	162.020	6886.85	10806.16	-10058.06	3994.76	1716132.82	14262384.61	39°16'32.0637"N	80°43'56.8104"W	10822.32	158.338	0.06	-0.06	-0.01		
18012.00	90.710	161.900	6885.67	10901.15	-10148.38	4024.18	1716162.23	14262294.32	39°16'31.1701"N	80°43'56.4397"W	10917.13	158.370	0.13	0.00	-0.13		
18106.00	90.740	161.860	6884.48	10995.14	-10237.71	4053.41	1716191.45	14262205.02	39°16'30.2863"N	80°43'56.0714"W	11010.94	158.400	0.05	0.03	-0.04		
18201.00	90.680	162.030	6883.31	11090.13	-10328.03	4082.85	1716220.88	14262114.74	39°16'29.3928"N	80°43'55.7004"W	11105.76	158.430	0.19	-0.06	0.18		
18296.00	90.650	162.040	6882.20	11185.12	-10418.39	4112.15	1716250.16	14262024.42	39°16'28.4989"N	80°43'55.3313"W	11200.56	158.461	0.03	-0.03	0.01		
18391.00	90.650	162.250	6881.13	11280.11	-10508.81	4141.28	1716279.28	14261934.04	39°16'27.6043"N	80°43'54.9643"W	11295.36	158.492	0.22	0.00	0.22		
18435.00	90.800	161.370	6880.57	11324.10	-10550.60	4155.01	1716293.01	14261892.25	39°16'27.1908"N	80°43'54.7912"W	11339.29	158.505	2.03	0.34	-2.00		
18460.00	90.800	161.370	6880.22	11349.10	-10574.29	4183.00	1716300.99	14261868.58	39°16'26.9565"N	80°43'54.6906"W	11364.25	158.511	0.00	0.00	0.00	Projected MD at TD: 18460'	

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Russell Unit 2H AWP Proj: 18460'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

HOLE & CASING SECTIONS - Ref Wellbore: Russell Unit 2H AWB Ref Wellpath: Russell Unit 2H AWP Proj: 18460'

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	30.00	110.00	80.00	30.00	110.00	0.00	0.00	0.02	-0.09
17.5in Open Hole	110.00	468.00	358.00	110.00	468.00	0.02	-0.09	-0.01	-0.67
13.375in Casing Surface	30.00	468.00	438.00	30.00	468.00	0.00	0.00	-0.01	-0.67
12.25in Open Hole	468.00	2603.00	2135.00	468.00	2602.74	-0.01	-0.67	-24.77	18.66
9.625in Casing Intermediate	30.00	2603.00	2573.00	30.00	2602.74	0.00	0.00	-24.77	18.66
8.75in Open Hole	2603.00	6230.00	3627.00	2602.74	6166.26	-24.77	18.66	513.30	386.55
8.5in Open Hole	6230.00	18460.00	12230.00	6166.26	6880.22	513.30	386.55	-10574.29	4163.00
5.5in Casing Production	30.00	18460.00	18430.00	30.00	6880.22	0.00	0.00	-10574.29	4163.00

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Russell Unit 2H POE Rev-2	6953.00	84.35	573.59	1712713.00	14272523.00	39°18'12.4058"N	80°44'39.9494"W	point
Russell Unit 2H BHL Rev-2	6997.00	-10617.89	4160.01	1716298.00	14261825.00	39°16'26.5257"N	80°43'54.7303"W	point
Russell Unit 2H LP Rev-2	6997.00	-150.00	652.12	1712791.50	14272288.74	39°18'10.0873"N	80°44'38.9589"W	point
Russell Unit 2H 50' L/R Hard Line Rev-2	7250.00	-5266.77	2366.80	1714505.50	14267174.00	39°17'19.4664"N	80°44'17.3351"W	rectangle
2D Rectangle 11287.2 x 100.								

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

WELLPATH COMPOSITION - Ref Wellbore: Russell Unit 2H AWB Ref Wellpath: Russell Unit 2H AWP Proj: 18460'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	2603.00	Gyrodala 2015 - GC+WIR+DPIPE	02 Gyrodala MS Gyro <12-1/4"> (100'-2588')	Russell Unit 2H AWB	13/Dec/2020
2603.00	6163.00	OWSG MWD rev2 + HRGM	03 Premier MWD <8-3/4"> (2588')(2673'-6148')	Russell Unit 2H AWB	13/Dec/2020
6163.00	18460.00	BH AutoTrak Curve/eXpress (2019) (HRGM, X Short spacing)	04 BH AT Curve <8-1/2"> (6163')(6200'-18435')	Russell Unit 2H AWB	28/Jan/2021

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Operator	ANTERO RESOURCES CORPORATION	Well	Russell Unit 2H
Field	Doddridge	API	47-017-06901-0000
Facility	Peggy June Pad	Wellbore	Russell Unit 2H AWB
Slot	Slot #04		

COMMENTS

Wellpath general comments

API: 47-017-06901-0000

BH Job #: 110695212

Rig: H&P 519

Duration: 1/30/2021-2/3/2021

Gyrodatta MS Gyro <12-1/4"> (100'-2588')

Premier MWD <8-3/4"> (2588')(2673'-6148')

BH AT Curve <8-1/2"> (6163')(6200'-18435')

Sycamore: 6587' MD

Middlesex: 6838' MD

Burkett: 7061' MD

Tully: 7121' MD

Marcellus POE: 7268' MD

Projected MD at TD: 18460'

WV Department of
Environmental Protection

AUG 30 2021

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