

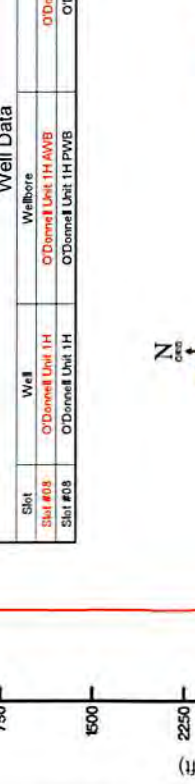
# ANTERO RESOURCES CORPORATION

Location: Doddridge Co., WV  
 Field: Doddridge  
 Facility: Alvadore Pad  
 Slot: Slot #08  
 Well: O'Donnell Unit 1H  
 Wellbore: O'Donnell Unit 1H PWB

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Alvadore Pad	1673583.260	14261468.180	80°52'56.095"W
Slot	Local N (ft)	Grid East (US ft)	Longitude
Slot #08	-23.98	1673551.000	80°52'56.510"W
Comment	O'Donnell Unit 1H	Latitude	Longitude
Patterson 342 (RKB) to Mud line (At Slot: Slot #08)	25R	39°16'23.660"N	80°52'56.510"W
Mean Sea Level to Mud line (At Slot: Slot #08)	-1057R		
Patterson 342 (RKB) to Mean Sea Level	1082R		

Well Data

Slot	Well	Wellbore	Wellpath
Slot #08	O'Donnell Unit 1H	O'Donnell Unit 1H AWB	O'Donnell Unit 1H AWB Proj. 15932*
Slot #08	O'Donnell Unit 1H	O'Donnell Unit 1H PWB	O'Donnell Unit 1H PWB Rev-A-0



API #: 47-017-06772-0000  
 BHI Job #: 8070205  
 Rig: Patterson 342  
 Duration: 07.27.2016-07.29.2016

Gyrodata MS Gyro <8-3/4">(100-5592) : 0.68° Inc, 100.00ft MD, 100.00ft TVD, 0.31ft VS  
 BHI AT Curve <8-1/2">(5592)(5688-15905) : 18.48° Inc, 5688.00ft MD, 5616.82ft TVD, -292.45ft VS  
 Marcellus: 6730' MD : 72.73° Inc, 6730.00ft MD, 6443.09ft TVD, 94.55ft VS

Vertical Section (ft)  
 Azimuth 342.00° with reference 0.00 N, 0.00 E

01/05/2018

Scale 1 inch = 1000  
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**Actual Wellpath Report**  
 O'Donnell Unit 1H AWP Proj: 15932  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	O'Donnell Unit 1H
Field	Doddridge	Wellbore	O'Donnell Unit 1H AWP
Facility	Alvadore Pad		

**WELLPATH DATA (186 stations) † = interpolated/extrapolated station**

MD	Inclination	Azimuth	TVD	Vert Sec	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
0.00	0.00	27.16	0.00	0.00	0.00	0.00	1673551.00	14261444.21	39°16'23.660"N	80°52'58.510"W	0.00	0.00	0.00	0.00	0.00	
25.00	0.00	27.16	25.00	0.00	0.00	0.00	1673551.00	14261444.21	39°16'23.660"N	80°52'58.510"W	0.00	0.00	0.00	0.00	0.00	
100.00	0.68	27.16	100.00	0.31	0.40	0.20	1673551.20	14261444.61	39°16'23.664"N	80°52'58.507"W	0.45	27.16	0.91	0.91	36.21	Gyrodata MS Gyro <B-3/4> (100-5592)
200.00	0.40	5.72	199.99	1.05	1.27	0.51	1673551.51	14261445.48	39°16'23.673"N	80°52'58.503"W	1.37	21.81	0.34	-0.28	-21.44	
300.00	0.42	4.81	299.99	1.71	1.98	0.57	1673551.57	14261446.19	39°16'23.680"N	80°52'58.503"W	2.07	16.14	0.02	-0.02	-0.91	
400.00	0.39	349.35	399.99	2.38	2.68	0.54	1673551.54	14261446.89	39°16'23.686"N	80°52'58.503"W	2.74	11.42	0.11	-0.03	-15.46	
500.00	0.38	302.54	499.99	2.98	3.20	0.20	1673551.20	14261447.41	39°16'23.692"N	80°52'58.507"W	3.20	3.57	0.31	-0.01	-48.81	
600.00	0.49	298.09	599.99	3.47	3.49	0.49	1673550.51	14261447.70	39°16'23.695"N	80°52'58.516"W	3.53	352.00	0.17	0.11	-16.45	
700.00	0.60	272.00	699.98	3.94	3.69	-1.42	1673549.58	14261447.89	39°16'23.696"N	80°52'58.528"W	3.95	338.93	0.13	0.11	-7.89	
800.00	0.66	272.54	799.97	4.38	3.79	-2.51	1673548.49	14261448.00	39°16'23.697"N	80°52'58.542"W	4.54	326.42	0.09	0.06	-5.66	
900.00	0.70	269.25	899.97	4.76	3.80	-3.70	1673547.30	14261448.01	39°16'23.698"N	80°52'58.557"W	5.31	315.79	0.06	0.04	-3.29	
1000.00	0.48	211.10	999.96	4.67	3.44	-4.53	1673546.48	14261447.65	39°16'23.694"N	80°52'58.567"W	5.68	307.21	0.60	-0.22	-58.15	
1100.00	0.47	193.96	1099.96	4.05	2.68	-4.84	1673546.16	14261446.89	39°16'23.687"N	80°52'58.571"W	5.53	298.97	0.14	-0.01	-17.14	
1200.00	0.37	185.70	1199.96	3.40	1.96	-4.97	1673546.03	14261446.17	39°16'23.679"N	80°52'58.573"W	5.35	291.52	0.12	-0.10	-8.26	
1300.00	0.18	130.30	1299.95	3.04	1.53	-5.12	1673545.89	14261445.74	39°16'23.675"N	80°52'58.575"W	5.34	286.42	0.26	-0.19	-39.43	
1400.00	0.41	313.76	1399.95	3.28	1.67	-5.49	1673545.52	14261445.88	39°16'23.677"N	80°52'58.580"W	5.73	286.89	0.44	0.99	-3.49	
1500.00	1.40	310.27	1499.94	4.63	2.70	-6.68	1673544.33	14261446.91	39°16'23.687"N	80°52'58.595"W	7.20	292.04	0.99	-1.10	-64.96	
1600.00	0.29	235.35	1699.90	7.41	4.57	-9.91	1673541.09	14261448.78	39°16'23.705"N	80°52'58.636"W	10.92	294.76	1.29	-0.01	-9.96	
1700.00	0.82	124.13	1799.90	6.77	4.03	-9.53	1673541.48	14261448.24	39°16'23.700"N	80°52'58.631"W	10.34	292.91	0.96	-0.53	-111.22	
1800.00	1.54	112.74	1899.87	5.33	3.11	-7.70	1673543.31	14261447.32	39°16'23.691"N	80°52'58.608"W	8.30	291.88	0.75	0.72	-11.39	
1900.00	1.96	105.68	1999.83	3.51	2.13	-4.81	1673546.19	14261446.34	39°16'23.681"N	80°52'58.571"W	5.26	293.87	0.47	-0.42	-7.16	
2000.00	1.16	92.54	2099.79	2.21	1.62	-2.15	1673548.85	14261445.83	39°16'23.676"N	80°52'58.537"W	2.69	307.06	0.87	-0.80	-13.04	
2100.00	0.49	6.04	2199.78	2.24	2.00	-1.09	1673549.91	14261446.21	39°16'23.680"N	80°52'58.524"W	2.28	331.37	1.23	-0.67	-86.50	
2200.00	0.94	329.72	2299.77	3.44	3.14	-1.46	1673549.54	14261447.35	39°16'23.691"N	80°52'58.529"W	3.46	335.00	0.62	0.45	-36.32	
2300.00	1.39	308.35	2399.75	5.25	4.50	-2.83	1673548.17	14261448.81	39°16'23.705"N	80°52'58.546"W	5.40	328.45	0.62	0.45	-21.37	
2400.00	1.39	252.46	2499.74	6.26	5.27	-4.05	1673546.96	14261449.48	39°16'23.712"N	80°52'58.561"W	6.64	322.47	1.24	-1.07	-55.89	
2500.00	0.32	115.14	2599.74	6.07	5.06	-4.06	1673546.94	14261449.27	39°16'23.710"N	80°52'58.561"W	6.49	321.29	0.60	0.00	-137.32	
2600.00	0.32	49.35	2699.74	5.99	5.13	-3.59	1673547.41	14261449.34	39°16'23.711"N	80°52'58.556"W	6.26	324.97	0.35	0.00	-65.79	
2700.00	0.38	32.60	2799.74	6.31	6.59	-3.20	1673547.80	14261449.80	39°16'23.715"N	80°52'58.551"W	6.44	330.18	0.12	0.06	-16.75	

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**Actual Wellpath Report**  
 O'Donnell Unit 1H AWP Proj: 15932  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION
Area	Doddridge Co., WV
Field	Doddridge
Facility	Alvadore Pad
Slot	O'Donnell Unit 1H AWP
Slot #08	

**WELLPATH DATA (186 stations)**

MD [m]	Inclination [°]	Azimuth [°]	TVD [m]	Vert Sect [m]	North [m]	East [m]	Grid East [m]	Grid North [m]	Latitude	Longitude	Closure [m]	Closure Dir [°]	DLS [1/100ft]	Build Rate [1/100ft]	Turn Rate [1/100ft]	Comments
2900.00	0.450	9.470	2898.74	6.86	6.26	-2.96	1673548.04	14261450.46	39°16'23.722"N	80°52'58.547"W	6.92	334.678	0.18	0.07	-23.13	
3000.00	0.660	653.080	2999.73	7.32	6.57	-3.47	1673547.53	14261450.78	39°16'23.725"N	80°52'58.554"W	7.43	332.191	0.90	0.21	-106.39	
3100.00	0.430	265.910	3099.73	7.52	6.48	-4.41	1673546.69	14261450.68	39°16'23.724"N	80°52'58.566"W	7.84	325.733	0.23	0.23	-2.83	
3200.00	0.810	137.300	3199.72	6.97	5.93	-4.31	1673546.69	14261450.14	39°16'23.719"N	80°52'58.565"W	7.33	324.008	1.13	0.38	-128.61	
3300.00	0.840	137.450	3299.71	6.66	4.87	-3.33	1673547.67	14261449.08	39°16'23.708"N	80°52'58.552"W	5.90	325.622	0.03	0.03	0.15	
3400.00	0.760	127.650	3399.70	4.45	3.93	-2.31	1673548.69	14261448.14	39°16'23.699"N	80°52'58.539"W	4.56	329.507	0.16	0.16	-9.80	
3500.00	0.680	102.220	3499.70	3.60	3.40	-1.21	1673549.79	14261447.60	39°16'23.694"N	80°52'58.525"W	3.60	340.430	0.33	0.33	-25.43	
3600.00	0.990	170.610	3599.69	2.45	2.42	-0.49	1673550.51	14261446.63	39°16'23.684"N	80°52'58.516"W	2.47	348.628	0.97	0.31	68.39	
3700.00	2.120	208.600	3699.65	0.32	-0.08	-1.23	1673549.77	14261444.15	39°16'23.659"N	80°52'58.526"W	1.23	267.286	1.47	1.13	37.99	
3800.00	3.380	218.890	3799.54	-2.56	-3.98	-3.97	1673547.03	14261440.23	39°16'23.621"N	80°52'58.560"W	5.62	224.929	1.35	1.26	102.29	
3900.00	4.890	215.060	3899.27	-6.73	-9.76	-8.27	1673542.74	14261434.45	39°16'23.664"N	80°52'58.615"W	12.79	220.262	1.53	1.51	-3.83	
4000.00	7.170	213.410	3998.71	-13.18	-16.46	-14.15	1673536.85	14261425.76	39°16'23.478"N	80°52'58.690"W	23.26	217.475	2.29	2.28	-1.65	
4100.00	8.520	217.500	4097.78	-21.27	-29.55	-22.10	1673528.91	14261414.67	39°16'23.368"N	80°52'58.791"W	36.90	216.793	1.46	1.35	4.09	
4200.00	11.670	219.460	4196.22	-30.91	-43.24	-33.04	1673517.98	14261400.99	39°16'23.233"N	80°52'58.931"W	54.41	217.385	3.17	3.16	1.96	
4300.00	14.650	214.740	4293.58	-44.01	-61.44	-46.68	1673504.34	14261382.79	39°16'23.053"N	80°52'59.104"W	77.16	217.223	3.17	2.98	-4.72	
4400.00	16.820	215.820	4389.83	-60.21	-83.57	-62.35	1673488.67	14261360.68	39°16'22.835"N	80°52'59.304"W	104.26	216.728	2.19	2.17	1.08	
4500.00	19.200	216.530	4484.92	-78.29	-108.51	-80.61	1673470.42	14261335.74	39°16'22.588"N	80°52'59.537"W	135.18	216.606	2.39	2.38	0.71	
4600.00	19.420	216.790	4579.30	-97.42	-135.04	-100.35	1673450.69	14261309.22	39°16'22.322"N	80°52'59.788"W	168.25	216.617	0.24	0.22	0.71	
4700.00	18.770	210.410	4673.80	-117.69	-162.23	-118.45	1673432.59	14261282.04	39°16'22.058"N	80°53'00.019"W	200.88	216.135	2.18	-0.65	-6.38	
4800.00	17.870	213.510	4768.74	-137.92	-188.90	-135.07	1673415.98	14261255.38	39°16'21.795"N	80°53'00.231"W	232.22	215.566	1.33	-0.90	3.10	
4900.00	17.850	219.350	4863.93	-155.74	-213.55	-153.26	1673397.80	14261230.75	39°16'21.551"N	80°53'00.462"W	262.85	215.666	1.79	-0.02	6.84	
5000.00	16.990	221.130	4959.34	-171.50	-236.41	-172.59	1673378.48	14261207.90	39°16'21.326"N	80°53'00.708"W	292.70	216.131	1.01	-0.86	1.78	
5100.00	16.560	213.530	5055.09	-187.87	-259.29	-190.07	1673361.00	14261185.02	39°16'21.100"N	80°53'00.931"W	321.50	216.243	2.23	-0.43	-7.60	
5200.00	17.430	212.630	5150.73	-206.23	-283.79	-206.02	1673345.06	14261160.54	39°16'20.858"N	80°53'01.134"W	350.68	215.979	0.91	0.87	-0.90	
5300.00	17.690	218.080	5246.07	-224.21	-308.96	-223.47	1673327.62	14261135.97	39°16'20.615"N	80°53'01.367"W	380.82	215.931	1.66	0.26	5.45	
5400.00	17.220	215.110	5341.47	-241.58	-332.43	-241.35	1673309.74	14261111.91	39°16'20.377"N	80°53'01.584"W	410.80	215.981	1.01	-0.47	-2.97	
5500.00	16.090	214.300	5437.27	-258.94	-355.89	-257.68	1673293.43	14261088.37	39°16'20.145"N	80°53'01.792"W	439.46	215.898	1.15	-1.13	-0.81	
5592.00	17.160	214.870	5525.43	-274.93	-377.65	-272.62	1673276.49	14261066.71	39°16'19.931"N	80°53'01.983"W	465.77	215.825	1.18	1.16	0.62	
5688.00	18.480	215.850	5616.82	-292.45	-401.61	-289.63	1673261.49	14261042.76	39°16'19.694"N	80°53'02.199"W	495.15	215.798	1.41	1.37	1.02	BH1 AT Curve <8-1/2">(5592)(5688-15905)
5745.00	19.050	213.480	5670.79	-303.57	-416.69	-300.05	1673251.07	14261027.69	39°16'19.545"N	80°53'02.332"W	513.48	215.757	1.67	1.00	-4.16	

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# Actual Wellpath Report

O'Donnell Unit 1H AWP Proj: 15932'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #08
Area	Doddridge Co., WV		Well	O'Donnell Unit 1H
Field	Doddridge		Wellbore	O'Donnell Unit 1H AWB
Facility	Alvadore Pad			

WELLPATH DATA (186 stations) † = interpolated/extrapolated station																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]	Comments
5783.00	17.180	216.170	5706.91	-310.72	-426.39	-306.78	1673244.34	14261017.99	39°16'19.450"N	80°53'02.418"W	525.29	215.735	5.39	-4.92	7.08	
5831.00	17.180	224.200	5752.77	-318.18	-437.20	-315.91	1673235.22	14261007.19	39°16'19.343"N	80°53'02.534"W	539.39	215.851	4.94	0.00	16.73	
5877.00	17.020	237.160	5796.75	-323.07	-445.72	-326.31	1673224.82	14260998.67	39°16'19.259"N	80°53'02.666"W	552.40	216.207	8.28	-0.35	28.17	
5925.00	16.690	248.290	5842.70	-325.32	-452.08	-338.62	1673212.52	14260992.31	39°16'19.196"N	80°53'02.823"W	564.84	216.834	6.75	-0.69	23.19	
5971.00	15.950	257.660	5886.86	-325.12	-455.88	-350.93	1673200.21	14260988.51	39°16'19.159"N	80°53'02.980"W	575.31	217.589	5.94	-1.61	20.37	
6018.00	15.660	262.780	5932.08	-323.30	-458.06	-363.53	1673187.61	14260986.34	39°16'19.137"N	80°53'03.140"W	584.78	218.437	3.03	-0.62	10.89	
6066.00	18.500	281.150	5977.99	-318.37	-457.40	-377.44	1673173.71	14260987.00	39°16'19.144"N	80°53'03.317"W	593.02	219.529	12.63	5.92	38.27	
6115.00	20.830	294.790	6024.16	-308.66	-452.24	-392.99	1673158.17	14260992.15	39°16'19.195"N	80°53'03.514"W	599.13	220.990	10.47	4.76	27.84	
6160.00	23.130	303.460	6065.89	-296.31	-444.01	-407.63	1673143.53	14261000.38	39°16'19.277"N	80°53'03.700"W	602.75	222.554	8.83	5.11	19.27	
6210.00	26.050	308.770	6111.36	-279.44	-431.71	-424.39	1673126.78	14261012.67	39°16'19.398"N	80°53'03.913"W	605.38	224.510	7.32	5.84	10.62	
6256.00	30.310	316.180	6151.91	-260.53	-417.00	-440.32	1673110.86	14261027.38	39°16'19.544"N	80°53'04.116"W	606.44	226.558	11.97	9.26	16.11	
6305.00	32.760	324.210	6193.69	-236.76	-397.31	-456.64	1673094.54	14261047.05	39°16'19.739"N	80°53'04.323"W	605.29	228.974	9.91	5.00	16.39	
6349.00	36.590	330.370	6229.88	-212.56	-376.24	-470.10	1673081.09	14261068.12	39°16'19.947"N	80°53'04.494"W	602.12	231.328	11.79	8.70	14.00	
6395.00	41.220	335.420	6265.68	-184.05	-350.52	-483.19	1673068.00	14261093.83	39°16'20.202"N	80°53'04.660"W	596.94	234.041	12.19	10.07	10.98	
6404.00†	42.070	335.883	6272.40	-178.11	-345.08	-485.65	1673065.54	14261099.27	39°16'20.256"N	80°53'04.691"W	595.77	234.605	10.05	9.45	5.14	Middlesex: 6404' MD
6444.00	45.870	337.770	6301.19	-150.46	-319.55	-496.57	1673054.63	14261124.79	39°16'20.508"N	80°53'04.829"W	590.50	237.238	10.05	9.50	4.72	
6490.00	50.800	338.960	6331.76	-116.17	-287.61	-509.22	1673041.99	14261156.72	39°16'20.824"N	80°53'04.990"W	584.83	240.542	10.89	10.72	2.59	
6538.00	55.270	339.860	6360.61	-77.87	-251.71	-522.69	1673028.52	14261192.60	39°16'21.179"N	80°53'05.160"W	580.15	244.286	9.43	9.31	1.88	
6580.00†	59.309	339.420	6383.31	-42.57	-218.59	-534.99	1673016.22	14261225.71	39°16'21.506"N	80°53'05.316"W	577.92	247.776	9.66	9.62	-1.05	Burkett: 6580' MD
6585.00	59.790	339.370	6385.84	-38.26	-214.55	-536.51	1673014.71	14261229.74	39°16'21.546"N	80°53'05.335"W	577.82	248.203	9.66	9.62	-1.00	
6632.00	64.900	339.410	6407.65	3.31	-175.60	-551.16	1673000.07	14261268.68	39°16'21.931"N	80°53'05.521"W	578.45	252.328	10.87	10.87	0.09	
6651.00†	66.424	339.684	6415.48	20.60	-159.38	-557.20	1672994.02	14261284.89	39°16'22.092"N	80°53'05.598"W	579.55	254.037	8.13	8.02	1.44	Tully: 6651' MD
6680.00	68.750	340.090	6426.53	47.39	-134.21	-566.42	1672984.81	14261310.06	39°16'22.341"N	80°53'05.714"W	582.10	256.670	8.13	8.02	1.40	
6709.00†	70.965	340.389	6436.52	74.61	-108.59	-575.63	1672975.60	14261335.67	39°16'22.594"N	80°53'05.831"W	585.78	259.317	7.70	7.64	1.03	Hamilton: 6709' MD
6727.00	72.340	340.570	6442.19	91.68	-92.48	-581.33	1672969.90	14261351.76	39°16'22.753"N	80°53'05.903"W	588.65	260.961	7.70	7.64	1.01	
6730.00†	72.727	340.601	6443.09	94.55	-89.79	-582.29	1672968.95	14261354.46	39°16'22.780"N	80°53'05.915"W	589.17	261.234	12.94	12.90	1.03	Marcellus: 6730' MD
6777.00	78.790	341.070	6454.64	140.07	-46.77	-597.23	1672954.01	14261397.45	39°16'23.205"N	80°53'06.105"W	599.06	265.522	12.94	12.90	1.00	
6821.00	83.430	341.850	6461.44	183.53	-5.57	-611.05	1672940.20	14261438.64	39°16'23.613"N	80°53'06.280"W	611.07	269.478	10.69	10.55	1.77	
6870.00	89.600	342.380	6464.42	232.41	40.95	-626.06	1672925.19	14261485.15	39°16'24.073"N	80°53'06.470"W	627.40	273.743	12.64	12.59	1.08	
6915.00	90.030	342.800	6464.56	277.41	83.89	-639.52	1672911.73	14261528.07	39°16'24.497"N	80°53'06.640"W	645.00	277.473	1.34	0.96	0.93	

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# Actual Wellpath Report

O'Donnell Unit 1H AWP Proj: 15932'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddridge Co., WV	Well	O'Donnell Unit 1H
Field	Doddridge	Wellbore	O'Donnell Unit 1H AWB
Facility	Alvadore Pad		

WELLPATH DATA (186 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
7009.00	90.030	342.350	6464.51	371.40	173.58	-667.67	1672883.59	14261617.72	39°16'25.384"N	80°53'06.997"W	689.87	284.573	0.48	0.00	-0.48	
7103.00	90.030	340.160	6464.47	465.39	262.59	-697.88	1672853.40	14261706.69	39°16'26.264"N	80°53'07.380"W	745.65	290.619	2.33	0.00	-2.33	
7197.00	89.970	336.060	6464.47	559.15	349.79	-732.92	1672818.38	14261793.86	39°16'27.126"N	80°53'07.824"W	812.11	295.513	4.36	-0.06	-4.36	
7291.00	89.940	337.330	6464.54	652.75	436.12	-770.11	1672781.20	14261880.15	39°16'27.980"N	80°53'08.295"W	885.02	299.523	1.35	-0.03	1.35	
7386.00	89.970	338.720	6464.61	747.52	524.22	-805.65	1672745.67	14261968.22	39°16'28.851"N	80°53'08.746"W	961.19	303.051	1.46	0.03	1.46	
7480.00	89.570	339.840	6464.99	841.41	612.13	-838.91	1672712.43	14262056.10	39°16'29.721"N	80°53'09.167"W	1038.50	306.117	1.27	-0.43	1.19	
7575.00	89.320	337.180	6465.91	936.22	700.52	-873.71	1672677.64	14262144.45	39°16'30.595"N	80°53'09.608"W	1119.86	308.722	2.81	-0.26	-2.80	
7670.00	89.880	338.620	6466.57	1030.97	788.53	-909.45	1672641.92	14262232.43	39°16'31.465"N	80°53'10.061"W	1203.69	310.927	1.63	0.59	1.52	
7763.00	90.060	347.670	6466.62	1123.86	877.44	-936.38	1672614.99	14262321.30	39°16'32.344"N	80°53'10.403"W	1283.25	313.139	9.73	0.19	9.73	
7858.00	90.060	351.160	6466.52	1218.05	970.81	-953.83	1672597.55	14262414.63	39°16'33.267"N	80°53'10.623"W	1360.98	315.505	3.67	0.00	3.67	
7952.00	89.910	351.190	6466.55	1310.85	1063.70	-968.25	1672583.13	14262507.48	39°16'34.186"N	80°53'10.805"W	1438.39	317.689	0.16	-0.16	0.03	
8046.00	90.180	352.070	6466.47	1403.52	1156.70	-981.94	1672569.46	14262600.44	39°16'35.105"N	80°53'10.977"W	1517.28	319.672	0.98	0.29	0.94	
8141.00	90.090	347.970	6466.25	1497.57	1250.24	-998.40	1672553.00	14262693.95	39°16'36.030"N	80°53'11.185"W	1599.97	321.390	4.32	-0.09	-4.32	
8235.00	90.150	346.870	6466.05	1591.15	1341.98	-1018.87	1672532.54	14262785.65	39°16'36.937"N	80°53'11.444"W	1684.94	322.793	1.17	0.06	-1.17	
8330.00	90.000	348.310	6465.93	1685.69	1434.76	-1039.29	1672512.13	14262878.40	39°16'37.854"N	80°53'11.702"W	1771.62	324.082	1.52	-0.16	1.52	
8424.00	90.090	344.370	6465.86	1779.41	1526.08	-1061.48	1672489.94	14262969.68	39°16'38.757"N	80°53'11.983"W	1858.94	325.179	4.19	0.10	-4.19	
8519.00	90.310	338.860	6465.52	1874.37	1616.20	-1091.43	1672460.01	14263059.76	39°16'39.648"N	80°53'12.362"W	1950.21	325.969	5.80	0.23	-5.80	
8613.00	90.430	335.540	6464.92	1968.02	1702.84	-1127.85	1672423.60	14263146.37	39°16'40.505"N	80°53'12.824"W	2042.48	326.482	3.53	0.13	-3.53	
8708.00	90.310	333.040	6464.30	2062.15	1788.43	-1169.06	1672382.41	14263231.92	39°16'41.351"N	80°53'13.347"W	2136.63	326.828	2.63	-0.13	-2.63	
8803.00	90.340	339.910	6463.76	2156.65	1875.48	-1206.96	1672344.53	14263318.94	39°16'42.212"N	80°53'13.827"W	2230.28	327.237	7.23	0.03	7.23	
8896.00	90.520	345.470	6463.06	2249.61	1964.23	-1234.62	1672316.88	14263407.65	39°16'43.089"N	80°53'14.178"W	2320.01	327.849	5.98	0.19	5.98	
8991.00	90.620	344.600	6462.12	2344.47	2056.00	-1259.15	1672292.36	14263499.39	39°16'43.997"N	80°53'14.488"W	2410.93	328.516	0.92	0.11	-0.92	
9086.00	90.620	342.770	6461.09	2439.42	2147.17	-1285.83	1672265.68	14263590.52	39°16'44.898"N	80°53'14.826"W	2502.73	329.085	1.93	0.00	-1.93	
9180.00	90.580	340.210	6460.11	2533.40	2236.29	-1315.67	1672235.86	14263679.60	39°16'45.779"N	80°53'15.204"W	2594.61	329.531	2.72	-0.04	-2.72	
9275.00	90.620	337.900	6459.11	2628.27	2325.00	-1349.62	1672201.92	14263768.28	39°16'46.657"N	80°53'15.634"W	2688.33	329.866	2.43	0.04	-2.43	
9369.00	90.650	336.320	6458.07	2721.91	2411.59	-1386.18	1672165.37	14263854.84	39°16'47.513"N	80°53'16.098"W	2781.60	330.110	1.68	0.03	-1.68	
9463.00	89.690	336.550	6457.79	2815.47	2497.75	-1423.76	1672127.81	14263940.96	39°16'48.365"N	80°53'16.575"W	2875.04	330.316	1.05	-1.02	0.24	
9558.00	89.600	338.550	6458.38	2910.18	2585.55	-1460.04	1672091.55	14264028.72	39°16'49.233"N	80°53'17.034"W	2969.30	330.547	2.11	-0.09	2.11	
9652.00	90.090	340.930	6458.63	3004.10	2673.72	-1492.59	1672059.01	14264116.86	39°16'50.105"N	80°53'17.447"W	3062.13	330.828	2.59	0.52	2.53	
9746.00	89.630	341.740	6458.86	3098.09	2762.78	-1522.67	1672028.94	14264205.88	39°16'50.986"N	80°53'17.828"W	3154.59	331.139	0.99	-0.49	0.86	

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**Actual Wellpath Report**  
 O'Donnell Unit 1H AWP Proj: 15932  
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Operator	ANTERO RESOURCES CORPORATION
Area	Doddrige Co., WV
Field	Doddrige
Facility	Alvordre Pad
Well	O'Donnell Unit 1H AWP
Wellbore	O'Donnell Unit 1H AWP
Slot	Slot #08

**WELLPATH DATA (186 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
9840.00	341.680	6459.50	3192.09	2852.03	-1552.17	1671999.45	14264295.09	391651.868	N	80°53'18.202	W	3247.04	331.443	0.07	-0.03	-0.06
9935.00	341.510	6459.68	3287.08	2942.17	-1582.16	1671969.47	14264385.20	391652.759	N	80°53'18.582	W	3340.60	331.731	0.64	0.61	-0.18
10029.00	337.420	6459.43	3380.97	3030.18	-1615.13	1671936.52	14264473.17	391653.630	N	80°53'19.000	W	3433.75	331.942	4.35	-0.06	-4.35
10124.00	339.590	6459.43	3475.79	3118.56	-1649.94	1671901.72	14264561.52	391654.504	N	80°53'19.441	W	3528.13	332.118	2.30	-0.25	2.28
10218.00	339.130	6459.60	3569.69	3206.53	-1683.07	1671868.60	14264649.45	391655.373	N	80°53'19.861	W	3621.40	332.306	0.49	0.03	-0.49
10312.00	345.410	6459.73	3663.64	3296.02	-1711.68	1671840.00	14264738.91	391656.258	N	80°53'20.223	W	3713.97	332.556	6.68	0.03	6.68
10407.00	351.660	6459.68	3757.98	3389.08	-1730.56	1671821.14	14264831.93	391657.178	N	80°53'20.627	W	3805.35	332.950	6.58	0.19	6.58
10501.00	350.000	6459.58	3850.86	3481.87	-1745.54	1671806.16	14264924.69	391658.096	N	80°53'20.651	W	3894.91	333.374	1.77	-0.13	-1.77
10596.00	343.570	6459.43	3945.48	3574.31	-1767.24	1671784.47	14265017.09	391659.009	N	80°53'20.926	W	3987.33	333.691	6.77	0.19	-6.77
10690.00	340.070	6459.31	4039.46	3663.60	-1796.57	1671755.15	14265106.34	391659.892	N	80°53'21.297	W	4080.40	333.877	3.73	-0.22	-3.72
10785.00	340.090	6459.31	4134.41	3752.92	-1828.93	1671722.80	14265195.62	391700.776	N	80°53'21.707	W	4174.85	334.018	0.06	0.06	0.02
10879.00	337.590	6459.26	4228.26	3840.57	-1862.86	1671688.88	14265283.24	391701.642	N	80°53'22.138	W	4268.52	334.124	2.66	0.00	-2.66
10973.00	338.230	6459.33	4322.02	3927.67	-1898.21	1671653.55	14265370.31	391702.504	N	80°53'22.586	W	4362.32	334.206	0.70	-0.16	0.68
11067.00	343.000	6459.41	4415.96	4016.32	-1929.40	1671622.37	14265458.92	391703.380	N	80°53'22.981	W	4455.72	334.341	5.08	0.16	5.07
11162.00	344.860	6459.41	4510.93	4107.37	-1956.50	1671595.29	14265549.94	391704.280	N	80°53'23.334	W	4549.55	334.530	0.91	-0.06	0.91
11256.00	344.760	6459.05	4604.86	4197.87	-1981.92	1671569.88	14265640.40	391705.175	N	80°53'23.646	W	4642.21	334.727	1.09	0.52	0.96
11351.00	349.630	6458.19	4699.43	4290.47	-2002.96	1671548.84	14265732.96	391706.091	N	80°53'23.912	W	4734.98	334.975	5.13	0.13	5.13
11445.00	344.260	6457.26	4793.04	4382.01	-2024.19	1671527.62	14265824.46	391706.996	N	80°53'24.181	W	4826.94	335.206	5.71	-0.03	-5.71
11540.00	338.710	6456.60	4888.00	4472.05	-2054.34	1671497.48	14265914.47	391707.886	N	80°53'24.563	W	4921.34	335.327	5.85	-0.32	-5.84
11634.00	336.540	6456.27	4981.72	4558.97	-2090.12	1671461.71	14266001.35	391708.745	N	80°53'25.017	W	5015.26	335.370	2.91	-0.11	-2.31
11728.00	335.930	6456.07	5075.24	4645.00	-2128.00	1671423.85	14266087.35	391709.596	N	80°53'25.497	W	5109.25	335.386	0.65	-0.06	-0.65
11822.00	337.070	6455.85	5168.81	4731.20	-2165.49	1671386.38	14266173.51	391710.449	N	80°53'25.972	W	5203.23	335.406	1.22	0.10	1.21
11917.00	337.480	6455.45	5263.49	4818.82	-2202.18	1671349.70	14266261.10	391711.315	N	80°53'26.438	W	5298.18	335.440	0.45	0.14	0.43
12011.00	336.700	6455.07	5357.14	4905.41	-2238.78	1671313.12	14266347.65	391712.171	N	80°53'26.902	W	5392.14	335.469	0.85	-0.17	-0.83
12105.00	339.190	6454.90	5450.90	4992.52	-2274.07	1671277.84	14266434.73	391713.033	N	80°53'27.349	W	5486.04	335.511	2.65	-0.10	2.65
12200.00	340.580	6454.90	5545.83	5081.72	-2306.74	1671245.18	14266523.90	391713.915	N	80°53'27.764	W	5580.77	335.585	1.47	-0.13	1.46
12295.00	339.300	6455.07	5640.77	5170.96	-2339.33	1671212.61	14266613.10	391714.797	N	80°53'28.177	W	5675.50	335.658	1.35	-0.09	-1.35
12389.00	342.880	6455.34	5734.74	5259.87	-2369.78	1671182.17	14266701.97	391715.676	N	80°53'28.563	W	5769.07	335.747	3.81	-0.03	3.81
12483.00	346.450	6455.44	5828.62	5350.51	-2394.64	1671157.32	14266792.58	391716.573	N	80°53'28.877	W	5861.93	335.889	3.81	0.26	3.80
12578.00	345.820	6455.44	5923.37	5442.74	-2417.40	1671134.56	14266884.77	391717.484	N	80°53'29.166	W	5955.44	336.051	0.88	-0.13	-0.66

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# Actual Wellpath Report

O'Donnell Unit 1H AWP Proj: 15932'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #08
Area	Doddridge Co., WV		Well	O'Donnell Unit 1H
Field	Doddridge		Wellbore	O'Donnell Unit 1H AWB
Facility	Alvadore Pad			

WELLPATH DATA (186 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
12672.00	90.000	344.740	6455.49	6017.22	5533.65	-2441.29	1671110.69	14266975.65	39°17'18.383"N	80°53'29.468"W	6048.24	336.194	1.15	0.06	-1.15	
12766.00	89.970	344.520	6455.51	6111.12	5624.29	-2466.20	1671085.78	14267066.25	39°17'19.279"N	80°53'29.783"W	6141.24	336.323	0.24	-0.03	-0.23	
12861.00	89.940	344.930	6455.59	6206.01	5715.94	-2491.23	1671060.77	14267157.86	39°17'20.185"N	80°53'30.100"W	6235.24	336.451	0.43	-0.03	0.43	
12955.00	90.030	344.250	6455.61	6299.91	5806.56	-2516.21	1671035.80	14267248.44	39°17'21.081"N	80°53'30.417"W	6328.30	336.571	0.73	0.10	-0.72	
13050.00	90.060	347.030	6455.54	6394.71	5898.58	-2539.77	1671012.25	14267340.43	39°17'21.991"N	80°53'30.715"W	6422.12	336.705	2.93	0.03	2.93	
13144.00	90.060	351.930	6455.44	6487.89	5990.97	-2556.93	1670995.10	14267432.78	39°17'22.905"N	80°53'30.932"W	6513.80	336.887	5.21	0.00	5.21	
13238.00	90.000	351.770	6455.39	6580.50	6084.02	-2570.25	1670981.78	14267525.79	39°17'23.824"N	80°53'31.100"W	6604.66	337.098	0.18	-0.06	-0.17	
13332.00	90.180	347.100	6455.24	6673.68	6176.40	-2587.48	1670964.55	14267618.14	39°17'24.738"N	80°53'31.317"W	6696.49	337.270	4.97	0.19	-4.97	
13427.00	90.060	346.100	6455.04	6768.38	6268.81	-2609.50	1670942.55	14267710.51	39°17'25.651"N	80°53'31.596"W	6790.25	337.400	1.06	-0.13	-1.05	
13521.00	90.000	343.800	6454.99	6862.25	6359.58	-2633.90	1670918.15	14267801.25	39°17'26.549"N	80°53'31.905"W	6883.44	337.502	2.45	-0.06	-2.45	
13615.00	90.030	337.890	6454.97	6956.18	6448.34	-2664.73	1670887.33	14267889.97	39°17'27.426"N	80°53'32.296"W	6977.24	337.547	6.29	0.03	-6.29	
13709.00	89.910	336.170	6455.02	7049.83	6534.88	-2701.42	1670850.67	14267976.47	39°17'28.282"N	80°53'32.761"W	7071.23	337.541	1.83	-0.13	-1.83	
13803.00	90.280	338.460	6454.86	7143.51	6621.61	-2737.67	1670814.43	14268063.16	39°17'29.140"N	80°53'33.221"W	7165.23	337.538	2.47	0.39	2.44	
13898.00	90.400	337.340	6454.30	7238.26	6709.62	-2773.41	1670778.70	14268151.14	39°17'30.010"N	80°53'33.674"W	7260.22	337.542	1.19	0.13	-1.18	
13993.00	90.550	334.910	6453.51	7332.75	6796.48	-2811.85	1670740.27	14268237.97	39°17'30.869"N	80°53'34.162"W	7355.18	337.524	2.56	0.16	-2.56	
14087.00	90.280	338.640	6452.83	7426.34	6882.85	-2848.91	1670703.23	14268324.30	39°17'31.723"N	80°53'34.632"W	7449.16	337.515	3.98	-0.29	3.97	
14181.00	91.230	349.780	6451.59	7520.11	6973.15	-2874.45	1670677.70	14268414.57	39°17'32.616"N	80°53'34.955"W	7542.37	337.598	11.89	1.01	11.85	
14276.00	90.490	348.520	6450.16	7614.36	7066.44	-2892.33	1670659.83	14268507.82	39°17'33.538"N	80°53'35.181"W	7635.45	337.740	1.54	-0.78	-1.33	
14370.00	91.140	342.140	6448.82	7708.15	7157.32	-2916.12	1670636.05	14268598.66	39°17'34.437"N	80°53'35.483"W	7728.58	337.832	6.82	0.69	-6.79	
14465.00	91.320	342.630	6446.78	7803.12	7247.84	-2944.86	1670607.32	14268689.15	39°17'35.332"N	80°53'35.847"W	7823.26	337.888	0.55	0.19	0.52	
14559.00	91.050	343.160	6444.84	7897.09	7337.67	-2972.50	1670579.69	14268778.93	39°17'36.220"N	80°53'36.197"W	7916.89	337.947	0.63	-0.29	0.56	
14653.00	90.770	342.480	6443.35	7991.07	7427.46	-3000.27	1670551.94	14268868.69	39°17'37.108"N	80°53'36.549"W	8010.54	338.004	0.78	-0.30	-0.72	
14748.00	90.740	337.460	6442.09	8085.97	7516.68	-3032.79	1670519.42	14268957.87	39°17'37.990"N	80°53'36.961"W	8105.45	338.027	5.28	-0.03	-5.28	
14842.00	90.580	336.680	6441.01	8179.61	7603.24	-3069.41	1670482.82	14269044.41	39°17'38.846"N	80°53'37.426"W	8199.43	338.016	0.85	-0.17	-0.83	
14936.00	90.310	339.230	6440.28	8273.37	7690.36	-3104.69	1670447.55	14269131.49	39°17'39.707"N	80°53'37.873"W	8293.42	338.015	2.73	-0.29	2.71	
15031.00	90.180	340.270	6439.88	8368.29	7779.49	-3137.57	1670414.69	14269220.58	39°17'40.589"N	80°53'38.290"W	8388.37	338.035	1.10	-0.14	1.09	
15126.00	90.370	343.560	6439.42	8463.28	7869.78	-3167.06	1670385.21	14269310.84	39°17'41.481"N	80°53'38.664"W	8483.14	338.079	3.47	0.20	3.46	
15220.00	90.520	347.530	6438.69	8557.08	7960.78	-3190.51	1670361.76	14269401.80	39°17'42.381"N	80°53'38.961"W	8576.33	338.160	4.23	0.16	4.22	
15315.00	90.580	345.420	6437.78	8651.78	8053.14	-3212.73	1670339.56	14269494.12	39°17'43.294"N	80°53'39.242"W	8670.33	338.251	2.22	0.06	-2.22	
15409.00	90.430	342.170	6436.95	8745.72	8143.39	-3238.96	1670313.34	14269584.34	39°17'44.186"N	80°53'39.574"W	8763.88	338.310	3.46	-0.16	-3.46	

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**Actual Wellpath Report**  
 O'Donnell Unit 1H AWP Proj: 15932  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #08
Area	Doddrige Co., WV	Well	O'Donnell Unit 1H
Field	Doddrige	Wellbore	O'Donnell Unit 1H AWB
Facility	Alvadore Pad		

**WELLPATH DATA (186 stations)**

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
15503.00	90.490	338.870	6436.19	8839.67	8231.99	-3270.30	1670282.01	14269672.90	39°17'45.063"N	80°53'39.971"W	8857.80	338.334	3.51	0.06	-3.51	
15697.00	90.550	338.710	6435.34	8933.52	8319.62	-3304.31	1670248.02	14269760.50	39°17'45.929"N	80°53'40.403"W	8951.79	338.338	0.18	0.06	-0.17	
15692.00	90.250	340.930	6434.68	9028.44	8408.78	-3337.08	1670215.26	14269849.62	39°17'46.811"N	80°53'40.818"W	9046.75	338.354	2.36	-0.32	2.34	
15786.00	90.520	340.800	6434.05	9122.42	8487.61	-3367.81	1670184.54	14269938.42	39°17'47.689"N	80°53'41.208"W	9140.66	338.380	0.29	0.29	-0.03	
15905.00	90.480	346.330	6433.00	9241.32	8611.73	-3401.37	1670151.00	14270052.49	39°17'48.817"N	80°53'41.633"W	9259.12	338.448	4.56	-0.03	4.56	
15932.00	90.490	346.330	6432.76	9268.25	8637.97	-3407.75	1670144.62	14270078.72	39°17'49.077"N	80°53'41.714"W	9285.86	338.470	0.00	0.00	0.00	Projected MD at TD: 15932'

Name	TVD (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Shape
O'Donnell Unit 1H BHL - Plat	6392.45	8588.74	-3403.47	1670148.90	14270029.51	39°17'48.590"N	80°53'41.660"W	point
O'Donnell Unit 1H POE Rev-1	6444.00	-108.99	-577.39	1672973.84	14261335.26	39°16'22.590"N	80°53'05.854"W	point
O'Donnell Unit 1H POE - Plat	6450.00	-108.99	-577.39	1672973.84	14261335.26	39°16'22.590"N	80°53'05.854"W	point
O'Donnell Unit 1H BHL Rev-1	6465.00	8588.74	-3403.47	1670148.90	14270029.51	39°17'48.590"N	80°53'41.660"W	point
O'Donnell Unit 1H LP Rev-1	6465.00	24.20	-620.67	1672930.58	14261468.40	39°16'23.907"N	80°53'06.402"W	point

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