



# ANTERO RESOURCES CORPORATION

Location: Tyler County, WV  
 Slot: Slot #02  
 Well: Houser Unit 1H  
 Wellbore: Houser Unit 1H PWB



<p>Grid System: NAD27 / UTM Zone 17 North, US feet          North Reference: Grid north          Scale: True distance          Depths are in feet          Created by: mcrenbs on 2018-07-17          Database: WA_MPL_EASTERNAUS_Deht</p>		
<p>Plot reference wellpath is Houser Unit 1H PWB Rev-A.0          True vertical depths are referenced to Frontier 22 (RKB)          Measured depths are referenced to Frontier 22 (RKB)          Frontier 22 (RKB) to Mean Sea Level: 935.5 feet          Mean Sea Level to Ground level (At Slot #02): -912 feet          Coordinates are in feet referenced to Slot</p>		
Location Information		
Facility Name	Grid East (US ft)	Grid North (US ft)
Kirk Hadley Pad	14330579.920	39°27'47.384"N
Slot	Local N (ft)	Local E (ft)
Slot #02	9.75	2.02
Frontier 22 (RKB) to Ground level (at Slot #02)	24.5 ft	-912 ft
Mean Sea Level to Ground level (At Slot #02)	935.5 ft	
Frontier 22 (RKB) to Mean Sea Level		

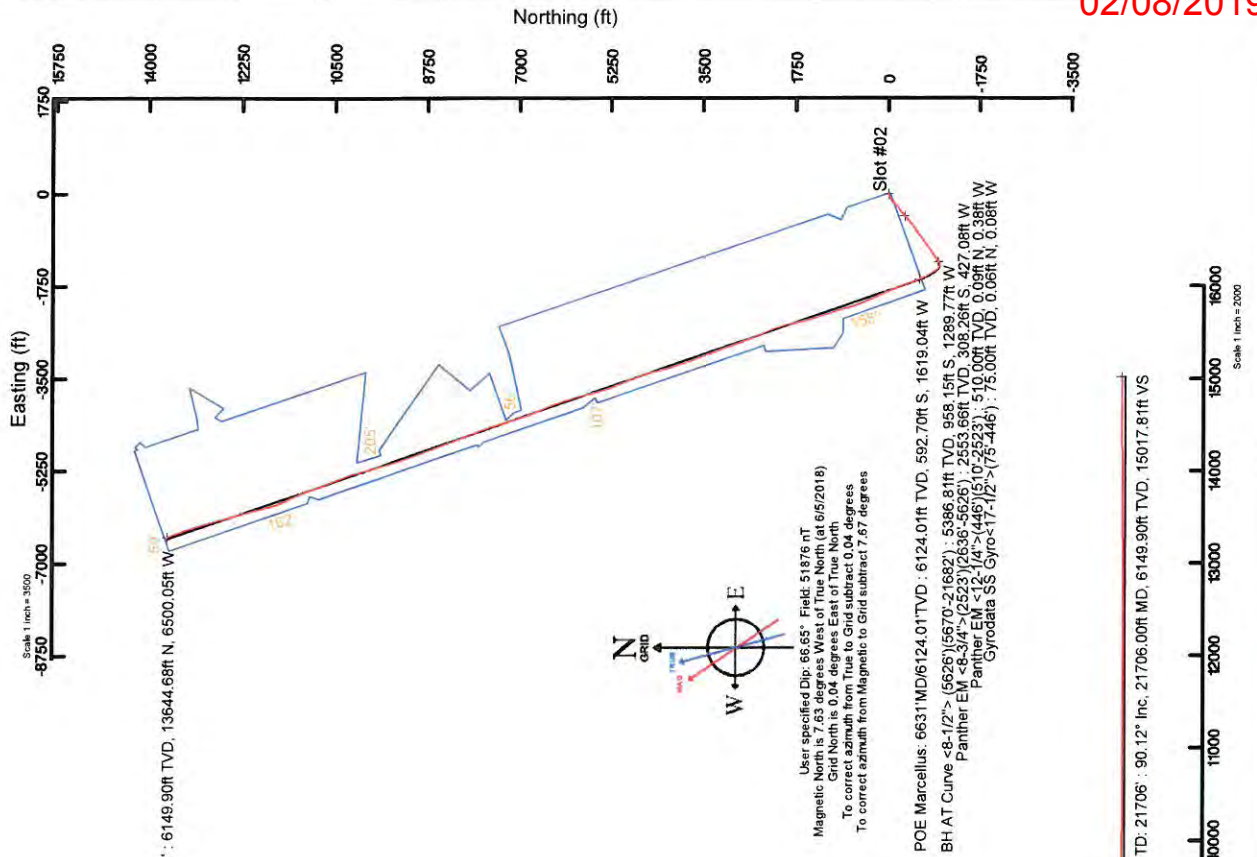
API: 47-095-0248-00000  
 BH Job #: 9179826  
 Rig: Frontier 22  
 Duration: 06/07/2018-06/13/2018

Slot	Well	Wellbore	Wellpath
Slot #02	Houser Unit 1H	Houser Unit 1H AWB	Houser Unit 1H AWP-Prod. 21705
Slot #02	Houser Unit 1H	Houser Unit 1H PWB	Houser Unit 1H PWP Rev-A.0

Well Profile Data				
Design Comment	MD (ft)	Inc. (°)	Az. (°)	TVD (ft)
Tie On	5626.00	19.860	230.470	5345.39
Proj. To Bottom	5696.00	19.860	230.470	5411.22
End of 3D Arc	5706.07	20.271	233.289	5423.49
POE	6671.00	70.162	340.992	6152.00
Landing Pt.	6904.38	90.000	340.992	6192.00
BHL	21716.25	90.000	340.992	6192.00
				Local E (ft)
				-1278.45
				-1296.79
				-1300.32
				-1633.45
				-1707.95
				-5532.23
				VS (ft)
				-480.43
				0.00
				8.04
				8.50
				8.50
				15026.76

BH AT Curve <8-1/2"> (5626)(5670-21682) : 19.48° Inc, 5670.00ft MD, 5386.81ft TVD, -485.78ft VS  
 Burket: 6551MD/6091.53 TVD : 63.74° Inc, 6551.00ft MD, 6091.53ft TVD, -105.86ft VS  
 Tully: 6602MD/6112.91 TVD : 66.65° Inc, 6602.00ft MD, 6112.91ft TVD, -59.74ft VS  
 POE Marcellus: 6631MD/6124.01 TVD : 68.37° Inc, 6631.00ft MD, 6124.01ft TVD, -33.00ft VS



02/08/2019

Vertical Section (ft)  
 Azimuth 340.99° with reference 0.00 N, 0.00 E



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WW	Well	Houser Unit 1H
Field	Tyler	Wellbore	Houser Unit 1H AWB
Facility	Kirk Hadley Pad		

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999600
Convergence at slot	0.04° East
Software System	WellArchitect® 5.1
User	Mccrerib
Report Generated	7/17/2018 at 4:17:51 PM
Database/Source file	WA_MPL_EASTERNUS_Defn/Houser_Unit_1H_AWP_Proj_21706_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	9.75	2.02	1659522.67	14330589.57	39°27'47.480"N	80°55'56.300"W
Facility Reference Pt			1659520.65	14330579.82	39°27'47.384"N	80°55'56.326"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 22 (RKB)
MD Reference Pt	Frontier 22 (RKB)
Field Vertical Reference	Mean Sea Level
	Frontier 22 (RKB) to Facility Vertical Datum
	Frontier 22 (RKB) to Mean Sea Level
	Frontier 22 (RKB) to Ground Level at Slot (Slot #02)
	Section Origin
	Section Azimuth
	24.50ft
	936.50ft
	24.50ft
	N 0.00, E 0.00 ft
	340.99°

02/08/2019



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Houser Unit 1H
Field	Tyler	Wellbore	Houser Unit 1H AWB
Facility	Kirk Hadley Pad		

WELLPATH DATA (256 stations) † = interpolated/extrapolated station															
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.000	309.630	0.00	0.00	0.00	0.00	1659522.67	14330589.57	39°27'47.480"N	80°55'56.300"W	0.00	0.000	0.00	0.00	0.00
24.50	0.000	309.630	24.50	0.00	0.00	0.00	1659522.67	14330589.57	39°27'47.480"N	80°55'56.300"W	0.00	0.000	0.00	0.00	0.00
75.00	0.230	309.630	75.00	0.09	0.06	-0.08	1659522.59	14330589.63	39°27'47.481"N	80°55'56.301"W	0.10	309.630	0.46	0.46	-99.74
100.00	0.340	309.620	100.00	0.19	0.14	-0.18	1659522.49	14330589.71	39°27'47.481"N	80°55'56.302"W	0.23	307.656	0.46	0.44	-24.04
125.00	0.090	301.780	125.00	0.26	0.19	-0.26	1659522.41	14330589.76	39°27'47.482"N	80°55'56.303"W	0.32	306.357	1.00	-1.00	-7.36
150.00	0.160	308.610	150.00	0.31	0.22	-0.30	1659522.37	14330589.79	39°27'47.482"N	80°55'56.304"W	0.37	306.327	0.29	0.28	27.32
175.00	0.140	305.960	175.00	0.36	0.26	-0.35	1659522.32	14330589.83	39°27'47.483"N	80°55'56.304"W	0.44	306.483	0.08	-0.08	-10.60
200.00	0.140	328.820	200.00	0.42	0.31	-0.39	1659522.28	14330589.87	39°27'47.483"N	80°55'56.305"W	0.50	307.787	0.22	0.00	91.44
225.00	0.180	346.170	225.00	0.49	0.37	-0.42	1659522.25	14330589.94	39°27'47.484"N	80°55'56.305"W	0.56	311.417	0.25	0.16	69.40
250.00	0.010	117.810	250.00	0.52	0.41	-0.43	1659522.25	14330589.97	39°27'47.484"N	80°55'56.305"W	0.59	313.646	0.75	-0.68	526.56
275.00	0.060	145.650	275.00	0.51	0.39	-0.42	1659522.25	14330589.96	39°27'47.484"N	80°55'56.305"W	0.57	313.434	0.21	0.20	111.36
300.00	0.070	277.740	300.00	0.50	0.39	-0.42	1659522.25	14330589.95	39°27'47.484"N	80°55'56.305"W	0.57	312.267	0.48	0.04	528.36
325.00	0.090	204.400	325.00	0.50	0.37	-0.45	1659522.22	14330589.94	39°27'47.484"N	80°55'56.306"W	0.58	309.569	0.39	0.08	-293.36
350.00	0.040	157.690	350.00	0.47	0.34	-0.45	1659522.22	14330589.91	39°27'47.483"N	80°55'56.306"W	0.57	307.244	0.28	-0.20	-186.84
375.00	0.100	220.940	375.00	0.45	0.32	-0.46	1659522.21	14330589.89	39°27'47.483"N	80°55'56.306"W	0.56	304.577	0.36	0.24	253.00
400.00	0.100	172.910	400.00	0.42	0.28	-0.48	1659522.20	14330589.85	39°27'47.483"N	80°55'56.306"W	0.55	300.633	0.33	0.00	-192.12
425.00	0.060	126.280	425.00	0.39	0.25	-0.46	1659522.21	14330589.82	39°27'47.482"N	80°55'56.306"W	0.53	298.614	0.29	-0.16	-186.52
446.00	0.030	127.850	446.00	0.38	0.24	-0.45	1659522.22	14330589.81	39°27'47.482"N	80°55'56.306"W	0.51	298.350	0.14	-0.14	7.48
510.00	0.270	159.200	510.00	0.21	0.09	-0.38	1659522.29	14330589.66	39°27'47.481"N	80°55'56.305"W	0.39	283.381	0.38	0.37	48.98
602.00	1.400	244.880	601.99	-0.13	-0.59	-1.32	1659521.35	14330588.98	39°27'47.474"N	80°55'56.317"W	1.45	245.997	1.53	1.23	93.13
693.00	2.770	262.000	692.93	0.18	-1.37	-4.51	1659518.17	14330588.20	39°27'47.467"N	80°55'56.357"W	4.71	253.127	1.64	1.51	18.81
786.00	5.040	268.080	785.71	1.81	-1.82	-10.82	1659511.86	14330587.75	39°27'47.462"N	80°55'56.438"W	10.97	250.466	2.48	2.44	6.54
881.00	7.370	266.570	880.15	4.66	-2.32	-21.03	1659501.65	14330587.25	39°27'47.457"N	80°55'56.568"W	21.16	263.708	2.41	2.40	-1.59
976.00	9.210	262.480	974.16	7.80	-3.68	-34.61	1659488.08	14330585.89	39°27'47.444"N	80°55'56.741"W	34.80	263.937	2.08	1.99	-4.31
1070.00	10.350	251.290	1066.80	9.34	-7.37	-50.07	1659472.63	14330582.20	39°27'47.408"N	80°55'56.938"W	50.61	261.627	2.35	1.21	-11.90
1165.00	12.130	249.860	1159.97	9.19	-13.54	-67.52	1659455.18	14330576.03	39°27'47.347"N	80°55'57.161"W	68.87	258.658	1.90	1.22	-1.51
1260.00	14.240	244.560	1252.47	7.68	-22.00	-87.45	1659435.26	14330567.58	39°27'47.263"N	80°55'57.415"W	90.17	255.878	2.56	1.87	-5.58
1355.00	16.430	238.000	1344.09	3.35	-34.14	-109.40	1659413.32	14330555.44	39°27'47.143"N	80°55'57.695"W	114.60	252.667	2.94	2.31	-6.91
1450.00	18.340	230.830	1434.75	-4.82	-50.71	-132.38	1659390.34	14330538.88	39°27'46.980"N	80°55'57.988"W	141.76	249.042	3.02	2.01	-7.55
1543.00	19.950	225.610	1522.61	-16.66	-71.05	-155.07	1659367.67	14330518.55	39°27'46.779"N	80°55'58.278"W	170.57	245.383	2.53	1.73	-5.61



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Houser Unit 1H
Field	Tyler	Wellbore	Houser Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH DATA (256 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)
1637.00	19.630	220.960	1611.07	-31.44	-94.19	-176.88	1659345.87	14330495.41	39°27'46.550"N	80°55'58.556"W	200.39	241.963	1.71	-0.34	-4.95
1733.00	18.930	221.080	1701.68	-47.27	-118.11	-197.68	1659325.07	14330471.51	39°27'46.314"N	80°55'58.822"W	230.28	239.143	0.73	-0.73	0.13
1828.00	20.720	225.940	1791.05	-62.08	-141.41	-219.89	1659302.87	14330448.21	39°27'46.084"N	80°55'59.105"W	261.43	237.254	2.56	1.88	5.12
1923.00	21.520	231.650	1879.68	-74.96	-163.91	-245.63	1659277.14	14330425.72	39°27'45.862"N	80°55'59.433"W	295.30	236.284	2.32	0.84	6.01
2019.00	21.440	235.760	1969.02	-85.41	-184.71	-273.95	1659248.84	14330404.93	39°27'45.656"N	80°55'59.795"W	330.40	236.010	1.57	-0.08	4.28
2112.00	18.580	234.300	2056.40	-94.13	-202.93	-300.03	1659222.76	14330386.72	39°27'45.477"N	80°56'00.127"W	362.21	235.928	3.12	-3.08	-1.57
2207.00	17.770	229.840	2146.66	-103.71	-221.11	-323.41	1659199.40	14330368.55	39°27'45.297"N	80°56'00.426"W	391.77	235.640	1.69	-0.85	-4.69
2303.00	19.350	227.840	2237.66	-115.24	-241.23	-346.39	1659176.42	14330348.43	39°27'45.098"N	80°56'00.719"W	422.11	235.146	1.77	1.65	-2.08
2396.00	18.840	231.140	2325.55	-126.40	-261.00	-369.51	1659153.31	14330328.68	39°27'44.903"N	80°56'01.014"W	452.39	234.765	1.28	-0.55	3.55
2492.00	18.640	232.240	2416.46	-136.60	-280.12	-393.71	1659129.12	14330309.56	39°27'44.714"N	80°56'01.322"W	483.19	234.569	0.42	-0.21	1.15
2523.00	18.430	231.920	2445.85	-139.79	-286.17	-401.48	1659121.35	14330303.51	39°27'44.655"N	80°56'01.422"W	493.03	234.519	0.75	-0.68	-1.03
2636.00	16.440	226.180	2553.66	-152.34	-308.26	-427.08	1659095.76	14330281.43	39°27'44.436"N	80°56'01.748"W	526.71	234.179	2.33	-1.76	-5.08
2731.00	16.880	225.510	2644.68	-163.91	-327.24	-446.62	1659076.23	14330262.46	39°27'44.249"N	80°56'01.997"W	553.67	233.770	0.51	0.46	-0.71
2828.00	18.410	230.340	2737.11	-175.37	-346.88	-468.46	1659054.40	14330242.82	39°27'44.055"N	80°56'02.276"W	582.91	233.481	2.18	1.58	4.98
2924.00	19.820	233.230	2827.82	-185.68	-366.30	-493.17	1659029.70	14330223.41	39°27'43.863"N	80°56'02.591"W	614.32	233.397	1.77	1.47	3.01
3020.00	21.630	231.770	2917.61	-196.47	-387.00	-520.11	1659002.77	14330202.73	39°27'43.659"N	80°56'02.935"W	648.29	233.348	1.96	1.89	-1.52
3114.00	20.640	227.630	3005.29	-208.75	-408.88	-545.96	1658976.93	14330180.85	39°27'43.443"N	80°56'03.265"W	682.10	233.169	1.90	-1.05	-4.40
3209.00	20.790	228.860	3094.16	-221.72	-431.23	-570.99	1658951.91	14330168.51	39°27'43.222"N	80°56'03.584"W	715.54	232.939	0.47	0.08	1.29
3305.00	20.210	231.420	3184.10	-233.67	-452.75	-596.75	1658926.16	14330137.00	39°27'43.010"N	80°56'03.913"W	749.06	232.813	1.08	-0.54	2.67
3399.00	20.890	230.950	3272.12	-244.86	-473.43	-622.46	1658890.46	14330116.33	39°27'42.805"N	80°56'04.241"W	782.04	232.744	0.74	0.72	-0.50
3494.00	22.010	233.240	3360.54	-256.09	-494.76	-649.88	1658873.06	14330095.01	39°27'42.595"N	80°56'04.591"W	816.78	232.718	1.47	1.18	2.41
3588.00	23.520	235.800	3447.22	-266.37	-515.84	-679.50	1658843.44	14330073.93	39°27'42.387"N	80°56'04.968"W	853.12	232.796	1.92	1.61	2.72
3683.00	24.070	235.770	3534.14	-276.43	-537.40	-711.20	1658811.76	14330052.39	39°27'42.174"N	80°56'05.373"W	891.40	232.925	0.58	0.58	-0.03
3778.00	23.250	236.220	3621.16	-286.29	-558.72	-742.80	1658780.17	14330031.07	39°27'41.963"N	80°56'05.776"W	929.47	233.050	0.88	-0.86	0.47
3874.00	22.830	232.920	3709.50	-296.90	-580.48	-773.41	1658749.57	14330009.32	39°27'41.748"N	80°56'06.166"W	967.02	233.110	1.41	-0.44	-3.44
3969.00	21.790	233.270	3797.39	-307.98	-602.14	-802.25	1658720.75	14329987.67	39°27'41.535"N	80°56'06.534"W	1003.08	233.109	1.10	-1.09	0.37
4063.00	21.220	236.270	3884.85	-317.62	-622.02	-830.38	1658692.63	14329967.80	39°27'41.338"N	80°56'06.893"W	1037.52	233.164	1.32	-0.61	3.19
4158.00	19.650	234.170	3973.87	-326.61	-640.92	-857.63	1658665.39	14329948.90	39°27'41.152"N	80°56'07.241"W	1070.66	233.229	1.82	-1.65	-2.21
4254.00	19.000	230.770	4064.46	-336.68	-660.25	-882.82	1658640.20	14329929.58	39°27'40.961"N	80°56'07.562"W	1102.41	233.208	1.35	-0.68	-3.54
4349.00	19.290	230.240	4154.21	-347.58	-680.07	-906.86	1658616.17	14329909.77	39°27'40.765"N	80°56'07.869"W	1133.53	233.133	0.36	0.31	-0.56



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #02
Area	Tyler County, WV	Houser Unit 1H
Field	Tyler	Houser Unit 1H AWB
Facility	Kirk Hadley Pad	

## WELLPATH DATA (256 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 (°/100ft)
4444.00	19.910	231.010	4243.70	-358.67	-700.28	-931.50	1658591.55	14329889.57	39°27'40.566"N	80°56'08.183"W	1165.37	233.065	0.71	0.51	0.81
4537.00	21.310	233.730	4330.75	-369.10	-720.25	-957.43	1658665.62	14329869.61	39°27'40.368"N	80°56'08.514"W	1198.09	233.047	1.82	1.65	2.92
4636.00	22.580	234.250	4422.57	-379.91	-741.99	-987.36	1658635.71	14329847.87	39°27'40.154"N	80°56'08.896"W	1235.09	233.076	1.30	1.28	0.53
4730.00	23.260	231.990	4509.15	-391.15	-763.97	-1016.63	1658606.45	14329825.91	39°27'39.937"N	80°56'09.269"W	1271.69	233.076	1.18	0.72	-2.40
4824.00	23.070	234.550	4595.58	-402.41	-786.08	-1046.26	1658476.83	14329803.80	39°27'39.718"N	80°56'09.647"W	1308.66	233.082	1.09	-0.20	2.72
4919.00	22.890	235.770	4683.04	-412.52	-807.27	-1076.70	1658446.40	14329782.82	39°27'39.509"N	80°56'10.035"W	1345.72	233.139	0.54	-0.19	1.28
5014.00	22.860	240.310	4770.58	-420.79	-826.80	-1108.01	1658415.11	14329763.10	39°27'39.316"N	80°56'10.435"W	1382.49	233.269	1.86	-0.03	4.78
5110.00	21.570	238.800	4859.45	-427.98	-845.18	-1139.30	1658383.83	14329744.73	39°27'39.135"N	80°56'10.834"W	1418.57	233.431	1.47	-1.34	-1.57
5205.00	19.210	234.710	4948.49	-436.05	-863.26	-1167.00	1658356.14	14329726.66	39°27'38.956"N	80°56'11.187"W	1451.59	233.509	2.90	-2.48	-4.31
5300.00	20.310	234.640	5037.90	-445.07	-881.83	-1193.21	1658329.94	14329708.09	39°27'38.773"N	80°56'11.521"W	1483.70	233.534	1.16	1.16	-0.07
5394.00	19.010	231.640	5126.42	-454.74	-900.77	-1218.52	1658304.64	14329689.16	39°27'38.586"N	80°56'11.844"W	1515.31	233.527	1.75	-1.38	-3.19
5489.00	19.090	231.900	5216.22	-464.94	-919.96	-1242.87	1658280.30	14329669.98	39°27'38.397"N	80°56'12.155"W	1546.31	233.492	0.12	0.08	0.27
5526.00	19.860	230.470	5345.38	-480.43	-948.60	-1278.45	1658244.73	14329647.35	39°27'38.114"N	80°56'12.609"W	1591.94	233.425	0.66	0.56	-1.04
5670.00	19.480	229.140	5386.81	-485.78	-958.15	-1289.77	1658233.42	14329631.80	39°27'38.019"N	80°56'12.753"W	1606.72	233.392	1.33	-0.86	-3.02
5752.00	17.830	242.530	5464.54	-492.72	-972.90	-1311.26	1658211.94	14329617.06	39°27'37.874"N	80°56'13.027"W	1632.77	233.426	5.58	-2.01	16.33
5800.00	17.800	256.340	5510.26	-493.11	-978.02	-1324.91	1658198.29	14329611.94	39°27'37.823"N	80°56'13.201"W	1646.79	233.566	8.78	-0.06	28.77
5849.00	18.700	270.190	5556.81	-489.83	-979.77	-1340.05	1658183.16	14329610.20	39°27'37.806"N	80°56'13.394"W	1660.02	233.828	9.02	1.84	28.27
5896.00	20.110	280.150	5601.15	-483.41	-978.32	-1355.55	1658167.67	14329611.64	39°27'37.821"N	80°56'13.592"W	1671.71	234.181	7.64	3.00	21.19
5945.00	21.140	290.350	5647.03	-473.70	-973.76	-1372.13	1658151.09	14329616.20	39°27'37.866"N	80°56'13.803"W	1682.54	234.638	7.62	2.10	20.82
5992.00	23.460	301.930	5690.53	-461.06	-965.86	-1388.02	1658135.20	14329624.10	39°27'37.944"N	80°56'14.006"W	1691.00	235.168	10.55	4.94	24.64
6042.00	25.660	310.050	5736.02	-444.04	-953.62	-1404.76	1658118.47	14329636.33	39°27'38.065"N	80°56'14.219"W	1697.87	235.829	8.05	4.40	16.24
6089.00	29.250	315.300	5777.72	-424.95	-938.91	-1420.64	1658102.60	14329651.04	39°27'38.211"N	80°56'14.421"W	1702.87	236.539	9.21	7.64	11.17
6137.00	32.400	320.900	5818.95	-402.29	-920.58	-1437.01	1658086.24	14329669.36	39°27'38.392"N	80°56'14.630"W	1706.59	237.355	8.87	6.56	11.67
6184.00	35.000	323.320	5858.05	-377.62	-900.00	-1453.00	1658070.25	14329689.93	39°27'38.595"N	80°56'14.834"W	1709.15	238.226	6.23	5.53	6.15
6232.00	37.580	324.970	5896.73	-350.43	-876.97	-1469.63	1658053.63	14329712.95	39°27'38.823"N	80°56'15.046"W	1711.40	239.174	5.75	5.37	3.44
6279.00	41.580	328.190	5932.95	-321.56	-852.26	-1486.54	1658036.73	14329737.95	39°27'39.067"N	80°56'15.261"W	1713.52	240.174	8.67	8.51	2.60
6328.00	46.700	328.260	5968.11	-288.43	-823.57	-1504.98	1658018.29	14329766.33	39°27'39.351"N	80°56'15.496"W	1715.59	241.311	10.85	10.45	4.22
6375.00	50.930	330.370	5999.05	-253.80	-793.15	-1523.01	1658000.27	14329796.74	39°27'39.652"N	80°56'15.725"W	1717.16	242.491	9.61	9.00	4.49
6424.00	55.370	332.260	6028.43	-215.15	-758.75	-1541.81	1657981.48	14329831.12	39°27'39.992"N	80°56'15.965"W	1718.39	243.797	9.57	9.06	3.86
6471.00	60.000	333.830	6053.55	-175.82	-723.35	-1559.79	1657963.50	14329866.51	39°27'40.342"N	80°56'16.194"W	1719.36	245.121	10.25	9.85	3.34



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Houser Unit 1H
Field	Tyler	Wellbore	Houser Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH DATA (256 stations)

MB (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)
6519.00	61.800	334.850	6076.89	-134.17	-685.55	-1577.95	1657945.35	14329904.30	39°27'40.716"N	80°56'16.425"W	1720.44	246.517	4.18	3.75	2.13
6566.00	64.650	335.670	6098.06	-92.42	-647.44	-1595.51	1657927.81	14329942.39	39°27'41.092"N	80°56'16.648"W	1721.87	247.913	6.26	6.06	1.74
6615.00	67.380	337.270	6117.98	-47.80	-606.40	-1613.37	1657909.95	14329983.42	39°27'41.498"N	80°56'16.876"W	1723.57	249.401	6.32	5.57	3.27
6662.00	70.290	338.640	6134.95	-4.03	-565.77	-1629.82	1657893.51	14330024.02	39°27'41.900"N	80°56'17.085"W	1725.22	250.856	6.76	6.19	2.91
6711.00	75.090	341.250	6149.53	42.72	-521.84	-1645.84	1657877.49	14330067.93	39°27'42.334"N	80°56'17.289"W	1726.59	252.408	11.04	9.80	5.33
6758.00	80.730	342.110	6159.37	88.66	-478.23	-1660.27	1657863.06	14330111.53	39°27'42.765"N	80°56'17.473"W	1727.78	253.931	12.13	12.00	1.83
6807.00	85.010	340.860	6165.45	137.26	-432.14	-1675.71	1657847.63	14330157.60	39°27'43.221"N	80°56'17.669"W	1730.54	255.539	9.09	8.73	-2.55
6870.00	90.400	340.970	6167.97	200.19	-372.67	-1696.29	1657827.07	14330217.05	39°27'43.809"N	80°56'17.931"W	1736.74	257.609	8.56	8.96	0.17
6903.00	90.860	340.470	6167.61	233.19	-341.53	-1707.18	1657816.17	14330248.18	39°27'44.117"N	80°56'18.070"W	1741.01	258.687	2.06	1.39	-1.52
6998.00	90.220	339.020	6166.71	328.16	-252.41	-1740.07	1657793.30	14330337.26	39°27'44.998"N	80°56'18.488"W	1758.28	261.746	1.67	-0.67	-1.53
7094.00	89.970	339.130	6166.55	424.10	-162.74	-1774.35	1657749.03	14330426.90	39°27'45.894"N	80°56'18.924"W	1781.80	264.760	0.28	-0.26	0.11
7176.00	91.390	339.480	6165.58	506.06	-86.04	-1803.33	1657720.07	14330503.57	39°27'46.642"N	80°56'19.293"W	1805.38	267.268	1.78	1.73	0.43
7272.00	90.740	335.980	6163.79	601.87	2.77	-1839.70	1657693.71	14330592.34	39°27'47.520"N	80°56'19.756"W	1839.70	270.086	3.71	-0.68	-3.65
7366.00	90.520	334.640	6162.76	695.40	88.17	-1878.96	1657644.46	14330677.70	39°27'48.365"N	80°56'20.256"W	1881.03	272.687	1.44	-0.23	-1.43
7460.00	90.550	334.960	6161.88	788.85	173.22	-1918.98	1657604.46	14330762.72	39°27'49.206"N	80°56'20.766"W	1926.78	275.158	0.34	0.03	0.34
7555.00	90.770	335.500	6160.79	883.36	259.48	-1958.78	1657564.68	14330848.94	39°27'50.058"N	80°56'21.272"W	1975.89	277.546	0.61	0.23	0.57
7650.00	91.170	336.330	6159.18	977.98	346.19	-1997.55	1657525.93	14330935.62	39°27'50.916"N	80°56'21.766"W	2027.32	279.832	0.97	0.42	0.87
7745.00	90.370	336.030	6157.90	1072.63	433.09	-2035.91	1657487.58	14331022.62	39°27'51.775"N	80°56'22.254"W	2081.46	282.009	0.90	-0.84	-0.32
7838.00	91.140	340.040	6156.68	1165.48	519.31	-2070.88	1657452.82	14331108.67	39°27'52.627"N	80°56'22.697"W	2134.81	284.079	4.39	0.83	4.31
7933.00	90.430	340.880	6155.38	1260.47	608.83	-2102.45	1657421.06	14331198.16	39°27'53.512"N	80°56'23.101"W	2188.83	286.150	1.16	-0.75	0.88
8031.00	90.310	343.080	6154.74	1358.45	702.02	-2132.77	1657390.76	14331291.30	39°27'54.433"N	80°56'23.487"W	2245.34	288.219	2.25	-0.12	2.24
8125.00	90.920	345.000	6153.73	1452.30	792.39	-2158.61	1657364.93	14331381.64	39°27'55.327"N	80°56'23.816"W	2299.45	290.157	2.14	0.65	2.04
8216.00	90.460	344.690	6152.64	1543.09	880.21	-2182.40	1657341.15	14331469.43	39°27'56.195"N	80°56'24.118"W	2353.22	291.965	0.61	-0.51	-0.34
8311.00	90.580	342.740	6151.78	1637.97	971.39	-2209.04	1657314.52	14331560.57	39°27'57.096"N	80°56'24.457"W	2413.18	293.737	2.06	0.13	-2.05
8406.00	90.430	342.870	6150.94	1732.92	1062.14	-2237.12	1657286.45	14331651.29	39°27'57.993"N	80°56'24.814"W	2476.46	295.398	0.21	-0.16	0.14
8502.00	90.060	340.950	6150.53	1828.90	1153.39	-2266.93	1657266.65	14331742.50	39°27'58.895"N	80°56'25.194"W	2543.48	296.967	2.04	-0.39	-2.00
8597.00	90.860	342.260	6149.77	1923.89	1243.53	-2296.91	1657226.69	14331832.60	39°27'59.786"N	80°56'25.575"W	2611.92	298.431	1.62	0.34	1.38
8694.00	90.550	342.970	6148.57	2020.85	1336.10	-2325.89	1657197.72	14331925.13	39°28'00.701"N	80°56'25.944"W	2682.33	299.875	0.80	-0.32	0.73
8790.00	90.000	342.960	6148.11	2116.79	1427.88	-2354.01	1657169.61	14332016.88	39°28'01.609"N	80°56'26.302"W	2753.22	301.240	0.57	-0.57	-0.01
8885.00	90.090	344.720	6148.04	2211.67	1519.12	-2380.45	1657143.18	14332108.08	39°28'02.511"N	80°56'26.636"W	2823.88	302.945	1.86	0.09	1.85



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Houser Unit 1H
Field	Tyler	Wellbore	Houser Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH DATA (256 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]
8980.00	90.490	346.440	6147.56	2306.36	1611.13	-2404.11	1657119.53	14332200.05	39°28'03.420"N	80°56'26.939"W	2894.04	303.828	1.86	0.42	1.81
9074.00	90.800	346.290	6146.50	2399.94	1702.47	-2426.26	1657097.38	14332291.36	39°28'04.323"N	80°56'27.221"W	2963.98	305.057	0.37	0.33	-0.16
9168.00	90.680	347.130	6145.28	2493.46	1793.95	-2447.87	1657075.78	14332382.79	39°28'05.227"N	80°56'27.495"W	3034.85	306.236	0.90	-0.13	0.89
9263.00	91.660	346.210	6143.34	2587.97	1866.37	-2469.77	1657053.90	14332475.18	39°28'06.141"N	80°56'27.774"W	3107.75	307.372	1.41	1.03	-0.97
9357.00	91.660	342.790	6140.62	2681.74	1976.89	-2494.87	1657028.80	14332565.67	39°28'07.036"N	80°56'28.093"W	3183.16	308.393	3.64	0.00	-3.64
9455.00	90.890	340.340	6138.48	2777.70	2067.94	-2525.22	1656998.46	14332656.68	39°28'07.936"N	80°56'28.479"W	3263.91	309.315	2.67	-0.80	-2.55
9547.00	90.520	341.020	6137.33	2871.70	2156.64	-2556.32	1656967.38	14332745.34	39°28'08.813"N	80°56'28.875"W	3344.53	310.153	0.82	-0.38	0.72
9642.00	90.580	339.260	6136.42	2966.68	2245.98	-2588.59	1656935.12	14332834.65	39°28'09.696"N	80°56'29.286"W	3427.13	310.946	1.85	0.00	-1.85
9737.00	90.580	336.610	6135.45	3061.53	2334.01	-2624.27	1656899.45	14332922.64	39°28'10.566"N	80°56'29.740"W	3512.04	311.650	2.79	0.00	-2.79
9832.00	90.490	337.970	6134.57	3156.32	2421.64	-2660.95	1656862.79	14333010.23	39°28'11.432"N	80°56'30.207"W	3597.91	312.304	1.43	-0.08	1.43
9927.00	90.220	338.640	6133.98	3251.22	2509.91	-2696.06	1656827.69	14333098.47	39°28'12.305"N	80°56'30.654"W	3683.53	312.952	0.76	-0.28	0.71
10023.00	90.310	338.290	6133.53	3347.12	2599.20	-2731.30	1656792.47	14333187.73	39°28'13.188"N	80°56'31.103"W	3770.39	313.580	0.38	0.08	-0.36
10118.00	90.370	339.220	6132.97	3442.05	2687.75	-2765.72	1656758.06	14333276.23	39°28'14.063"N	80°56'31.541"W	3856.58	314.181	0.98	0.06	0.98
10213.00	90.550	339.380	6132.21	3537.00	2776.61	-2799.30	1656724.49	14333365.06	39°28'14.942"N	80°56'31.968"W	3942.80	314.767	0.25	0.18	0.17
10309.00	90.280	340.330	6131.51	3632.98	2866.73	-2832.36	1656691.44	14333454.15	39°28'15.833"N	80°56'32.389"W	4029.94	315.346	1.03	-0.28	0.99
10404.00	90.370	340.840	6130.97	3727.98	2956.33	-2863.94	1656659.88	14333544.71	39°28'16.718"N	80°56'32.791"W	4116.07	315.909	0.55	0.08	0.54
10497.00	90.180	339.840	6130.53	3820.97	3043.91	-2895.23	1656628.60	14333632.25	39°28'17.584"N	80°56'33.190"W	4200.92	316.434	1.09	-0.20	-1.08
10593.00	90.250	338.610	6130.17	3916.92	3133.66	-2929.28	1656594.57	14333721.97	39°28'18.471"N	80°56'33.623"W	4289.58	316.931	1.28	0.07	-1.28
10688.00	90.180	340.130	6129.81	4011.88	3222.57	-2962.75	1656561.11	14333810.84	39°28'19.350"N	80°56'34.049"W	4377.54	317.405	1.60	-0.07	1.60
10783.00	90.370	340.540	6129.35	4106.87	3312.02	-2994.72	1656529.15	14333900.26	39°28'20.235"N	80°56'34.458"W	4465.18	317.880	0.48	0.20	0.43
10878.00	90.400	340.430	6128.72	4201.87	3401.56	-3026.45	1656497.43	14333989.77	39°28'21.120"N	80°56'34.860"W	4553.03	318.340	0.12	0.03	-0.12
10974.00	90.310	338.990	6128.12	4297.84	3491.60	-3059.74	1656464.16	14334079.77	39°28'22.010"N	80°56'35.284"W	4642.56	318.771	1.50	-0.09	-1.50
11071.00	90.150	337.580	6127.73	4394.73	3581.72	-3095.63	1656428.28	14334169.85	39°28'22.901"N	80°56'35.741"W	4734.09	319.164	1.46	-0.08	-1.45
11166.00	90.220	338.720	6127.42	4489.61	3669.89	-3130.99	1656392.94	14334257.99	39°28'23.772"N	80°56'36.191"W	4824.02	319.531	1.20	0.07	1.20
11262.00	90.220	341.350	6127.06	4586.59	3760.11	-3163.76	1656360.18	14334346.17	39°28'24.664"N	80°56'36.608"W	4914.05	319.923	2.74	0.00	2.74
11358.00	90.280	341.680	6126.64	4681.58	3851.16	-3194.20	1656329.75	14334439.18	39°28'25.564"N	80°56'36.995"W	5003.43	320.327	0.35	0.06	0.34
11451.00	90.250	341.020	6126.21	4774.58	3939.27	-3223.94	1656300.03	14334527.26	39°28'26.435"N	80°56'37.374"W	5090.35	320.703	0.71	-0.03	-0.71
11546.00	90.400	342.320	6125.67	4869.57	4029.45	-3253.81	1656270.16	14334617.40	39°28'27.327"N	80°56'37.754"W	5179.17	321.079	1.38	0.16	1.37
11641.00	90.250	342.770	6125.13	4964.53	4120.07	-3282.31	1656241.68	14334707.99	39°28'28.223"N	80°56'38.117"W	5267.69	321.457	0.50	-0.16	0.47
11735.00	90.250	344.110	6124.72	5058.44	4210.17	-3309.10	1656214.90	14334798.05	39°28'29.113"N	80°56'38.458"W	5354.97	321.833	1.43	0.00	1.43



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #02
ANTERO RESOURCES CORPORATION	Well	Houser Unit 1H
Tyler County, WV	Wellbore	Houser Unit 1H AWB
Tyler		
Kirk Hadley Pad		

## WELLPATH DATA (256 stations)

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	(°/100ft)
11830.00	90.400	345.940	6124.18	5153.20	4301.94	-3333.65	1656190.36	14334889.78	39°28'30.020"N	80°56'38.770"W	5442.42	322.227	1.93	0.16	1.93
11925.00	90.090	346.650	6123.77	5247.79	4394.23	-3386.15	1656167.86	14334982.04	39°28'30.933"N	80°56'39.056"W	5529.29	322.629	0.82	-0.33	0.75
12020.00	90.060	344.360	6123.65	5342.49	4486.20	-3379.93	1656144.10	14335073.97	39°28'31.842"N	80°56'39.359"W	5616.93	323.005	2.41	-0.03	-2.41
12115.00	90.120	343.200	6123.50	5437.38	4577.42	-3406.47	1656117.57	14335165.15	39°28'32.744"N	80°56'39.697"W	5705.86	323.344	1.22	0.06	-1.22
12210.00	90.060	341.380	6123.35	5532.35	4667.91	-3435.36	1656088.69	14335255.61	39°28'33.638"N	80°56'40.064"W	5795.79	323.649	1.92	-0.06	-1.92
12305.00	90.060	339.160	6123.25	5628.33	4758.27	-3467.77	1656056.29	14335345.93	39°28'34.531"N	80°56'40.477"W	5887.83	323.916	2.31	0.00	-2.31
12401.00	89.950	338.370	6123.13	5723.26	4846.82	-3502.18	1656021.90	14335434.44	39°28'35.407"N	80°56'40.915"W	5979.71	324.149	0.83	0.03	-0.83
12496.00	89.750	338.250	6123.26	5818.16	4935.10	-3537.29	1655986.80	14335522.68	39°28'36.279"N	80°56'41.362"W	6071.87	324.368	0.38	-0.36	-0.13
12591.00	89.850	337.890	6123.59	5913.03	5023.22	-3572.77	1655951.34	14335610.77	39°28'37.151"N	80°56'41.814"W	6164.21	324.578	0.39	0.11	-0.38
12687.00	89.720	337.930	6123.95	6008.89	5112.17	-3608.87	1655915.25	14335699.69	39°28'38.030"N	80°56'42.273"W	6257.66	324.780	0.14	-0.14	0.04
12783.00	89.380	338.060	6124.70	6104.76	5201.18	-3644.84	1655879.30	14335788.66	39°28'38.910"N	80°56'42.731"W	6351.15	324.978	0.38	-0.35	0.14
12879.00	89.480	340.830	6125.66	6200.71	5291.05	-3678.54	1655845.61	14335878.50	39°28'39.798"N	80°56'43.161"W	6444.14	325.192	2.89	0.10	2.89
12975.00	89.420	342.910	6126.58	6296.69	5382.28	-3708.41	1655815.75	14335969.68	39°28'40.700"N	80°56'43.541"W	6536.15	325.433	2.17	-0.06	2.17
13070.00	89.510	344.100	6127.47	6391.59	5473.36	-3735.38	1655788.79	14336060.73	39°28'41.600"N	80°56'43.884"W	6626.52	325.688	1.26	0.09	1.25
13166.00	89.450	344.210	6128.34	6487.44	5565.71	-3761.59	1655762.59	14336153.04	39°28'42.513"N	80°56'44.218"W	6717.64	325.947	0.13	-0.06	0.11
13262.00	89.570	345.090	6129.16	6583.24	5658.28	-3787.00	1655737.19	14336245.58	39°28'43.428"N	80°56'44.541"W	6808.64	326.206	0.93	0.12	0.92
13356.00	90.060	345.930	6129.46	6676.95	5749.29	-3810.52	1655713.68	14336336.55	39°28'44.328"N	80°56'44.840"W	6897.42	326.464	1.03	0.52	0.89
13452.00	90.030	344.290	6129.39	6772.70	5842.06	-3835.19	1655689.02	14336429.28	39°28'45.245"N	80°56'45.154"W	6988.45	326.716	1.71	-0.03	-1.71
13547.00	90.860	343.760	6128.65	6867.56	5933.39	-3861.34	1655662.89	14336520.58	39°28'46.148"N	80°56'45.487"W	7079.20	326.945	1.04	0.87	-0.56
13642.00	90.740	342.440	6127.32	6962.48	6024.28	-3888.95	1655635.28	14336611.43	39°28'47.046"N	80°56'45.838"W	7170.48	327.156	1.40	-0.13	-1.39
13737.00	90.550	342.190	6126.26	7057.45	6114.78	-3917.81	1655606.44	14336701.89	39°28'47.941"N	80°56'46.206"W	7262.21	327.352	0.33	-0.20	-0.26
13832.00	90.620	340.780	6125.29	7152.44	6204.86	-3947.97	1655576.28	14336791.93	39°28'48.831"N	80°56'46.590"W	7354.37	327.533	1.49	0.07	-1.48
13927.00	90.090	339.890	6124.70	7247.43	6294.31	-3979.94	1655544.33	14336881.35	39°28'49.716"N	80°56'46.997"W	7447.03	327.695	1.09	-0.56	-0.94
14023.00	90.150	339.310	6124.50	7343.40	6384.29	-4013.40	1655510.88	14336971.30	39°28'50.605"N	80°56'47.423"W	7540.99	327.845	0.61	0.09	-0.60
14119.00	90.120	338.990	6124.27	7439.35	6474.00	-4047.57	1655476.73	14337060.97	39°28'51.492"N	80°56'47.858"W	7635.15	327.986	0.33	-0.03	-0.33
14215.00	86.610	335.660	6127.01	7535.09	6562.52	-4084.55	1655439.76	14337149.46	39°28'52.367"N	80°56'48.329"W	7729.83	328.102	5.04	-3.66	-3.47
14312.00	89.350	337.630	6130.43	7631.74	6651.51	-4122.97	1655401.35	14337238.40	39°28'53.247"N	80°56'48.818"W	7825.69	328.207	3.48	2.82	2.03
14407.00	89.480	338.560	6131.40	7726.61	6739.64	-4158.41	1655365.93	14337326.51	39°28'54.118"N	80°56'49.269"W	7919.29	328.325	0.99	0.14	0.98
14502.00	89.020	341.320	6132.84	7821.57	6828.98	-4190.99	1655333.36	14337415.69	39°28'55.000"N	80°56'49.684"W	8012.35	328.462	2.95	-0.48	2.91
14596.00	88.980	341.640	6134.28	7915.56	6917.98	-4220.85	1655303.52	14337504.77	39°28'55.881"N	80°56'50.064"W	8103.95	328.612	0.34	-0.04	0.34









# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Houser Unit 1H
Field	Tyler	Wellbore	Houser Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH DATA (256 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]
20414.00	90.310	343.690	6158.07	13727.08	12414.61	-6107.89	1653417.23	14342999.19	39°29'50.217"N	80°57'14.095"W	13835.78	333.803	0.40	0.14	-0.37
20509.00	90.890	344.180	6157.08	13821.95	12505.89	-6134.18	1653390.96	14343090.44	39°29'51.119"N	80°57'14.430"W	13929.30	333.872	0.80	0.80	0.52
20604.00	90.490	344.000	6155.93	13916.80	12597.25	-6160.22	1653364.93	14343181.75	39°29'52.022"N	80°57'14.761"W	14022.80	333.941	0.46	-0.42	-0.19
20700.00	90.580	344.240	6155.04	14012.65	12689.58	-6186.49	1653338.67	14343274.05	39°29'52.935"N	80°57'15.096"W	14117.29	334.010	0.27	0.09	0.25
20795.00	90.460	344.290	6154.17	14107.49	12781.01	-6212.25	1653312.92	14343365.45	39°29'53.838"N	80°57'15.424"W	14210.78	334.078	0.14	-0.13	0.05
20891.00	90.550	343.820	6153.33	14203.35	12873.32	-6238.62	1653286.56	14343457.71	39°29'54.751"N	80°57'15.759"W	14305.34	334.144	0.50	0.09	-0.49
20987.00	90.550	344.100	6152.41	14299.22	12965.57	-6265.14	1653260.04	14343549.94	39°29'55.663"N	80°57'16.097"W	14399.94	334.210	0.29	0.00	0.29
21084.00	90.340	343.920	6151.65	14396.08	13058.82	-6291.86	1653233.33	14343643.14	39°29'56.584"N	80°57'16.437"W	14495.53	334.275	0.29	-0.22	-0.19
21179.00	90.150	342.620	6151.25	14491.00	13149.79	-6319.21	1653206.00	14343734.08	39°29'57.484"N	80°57'16.786"W	14589.36	334.333	1.38	-0.20	-1.37
21274.00	90.180	341.120	6150.97	14585.99	13240.08	-6348.77	1653176.45	14343824.33	39°29'58.376"N	80°57'17.162"W	14683.54	334.382	1.58	0.03	-1.58
21369.00	90.250	340.230	6150.62	14680.99	13329.72	-6380.21	1653145.03	14343913.94	39°29'59.262"N	80°57'17.563"W	14777.97	334.422	0.94	0.07	-0.94
21464.00	90.090	339.190	6150.33	14775.96	13418.82	-6413.15	1653112.10	14344003.00	39°30'00.143"N	80°57'17.982"W	14872.57	334.456	1.11	-0.17	-1.09
21559.00	90.090	339.060	6150.19	14870.91	13507.59	-6447.00	1653078.26	14344091.73	39°30'01.021"N	80°57'18.414"W	14967.26	334.485	0.14	0.00	-0.14
21653.00	90.120	338.740	6150.01	14964.85	13595.29	-6480.84	1653044.43	14344179.39	39°30'01.888"N	80°57'18.845"W	15060.98	334.513	0.34	0.03	-0.34
21682.00	90.120	338.760	6149.95	14993.83	13622.31	-6491.35	1653033.93	14344206.41	39°30'02.155"N	80°57'18.979"W	15089.90	334.521	0.07	0.00	0.07
21706.00	90.120	338.760	6149.90	15017.81	13644.68	-6500.05	1653025.23	14344228.77	39°30'02.376"N	80°57'19.089"W	15113.84	334.528	0.00	0.00	0.00



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706'  
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**REFERENCE WELLPATH IDENTIFICATION**

Operator	Slot	Slot #02
ANTERO RESOURCES CORPORATION	Well	Houser Unit 1H
Tyler County, WV	Wellbore	Houser Unit 1H AWB
Tyler		
Kirk Hadley Pad		

**HOLE & CASING SECTIONS - Ref Wellbore: Houser Unit 1H AWB Ref Wellpath: Houser Unit 1H AWP Proj: 21706'**

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	24.50	104.50	80.00	24.50	104.50	0.00	0.00	0.15	-0.20
17.5in Open Hole	104.50	438.70	334.20	104.50	438.70	0.15	-0.20	0.24	-0.45
13.375in Casing Surface	24.50	438.70	414.20	24.50	438.70	0.00	0.00	0.24	-0.45
12.25in Open Hole	438.70	2575.00	2136.30	438.70	2495.32	0.24	-0.45	-296.32	-413.89
9.625in Casing Intermediate	24.50	2575.00	2550.50	24.50	2495.32	0.00	0.00	-963.32	-1296.15
8.75in Open Hole	2575.00	5695.00	3120.00	2495.32	5410.42	-296.32	-413.89	13644.68	-6500.05
8.5in Open Hole	5695.00	21706.00	16011.00	5410.42	6149.90	-963.32	-1296.15	13644.68	-6500.05
5.5in Casing Production	24.50	21706.00	21681.50	24.50	6149.90	0.00	0.00	13644.68	-6500.05

**TARGETS**

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Houser Unit 1H POE - Plat	6152.00	-577.41	-1633.45	1657889.88	14330012.39	39°27'41.785"N	80°56'17.132"W	point
Houser Unit 1H BHL - Plat	6192.00	13643.07	-6532.23	1652993.06	14344227.16	39°30'02.360"N	80°57'19.500"W	point
Houser Unit 1H LP - Rev-1	6192.00	-361.14	-1707.95	1657815.41	14330228.58	39°27'43.923"N	80°56'18.080"W	point



# Actual Wellpath Report

Houser Unit 1H AWP Proj: 21706'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #02
Area	Tyler County, WV	Well	Houser Unit 1H
Field	Tyler	Wellbore	Houser Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH COMPOSITION - Ref Wellbore: Houser Unit 1H AWB Ref Wellpath: Houser Unit 1H AWP Proj: 21706'

Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment	Wellbore
24.50	446.00	Gyrodatta standard - Single-shot	01_Gyrodatta SS Gyro<17-1/2">(75-446)	Houser Unit 1H AWB
446.00	2523.00	ISCWSA MWD, Rev. 4 (Standard)	02_Panther EM <12-1/4">(446)(510-2523)	Houser Unit 1H AWB
2523.00	5626.00	ISCWSA MWD, Rev. 4 (Standard)	03_Panther EM <8-3/4">(2523)(2636-5626)	Houser Unit 1H AWB
5626.00	21682.00	BHI AutoTrak Curve (Short)	04_BH AT Curve <8-1/2">(5626)(5670-21682)	Houser Unit 1H AWB
21682.00	21706.00	Blind Drilling (std)	Projection to bit	Houser Unit 1H AWB