



Actual Wellpath Report

Avalanche Unit 3H AWP Proj: 18131'

Page 1 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 3H
Field	Tyler	API	47-095-02604-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Delaset
Scale	0.999604	Report Generated	12/27/2019 at 2:20:27 PM
Convergence at slot	0.13° 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	0.00	0.00	1700256.68	14308700.56	39°24'10.4301"N	80°47'17.3894"W
Facility Reference Pt			1700256.68	14308700.56	39°24'10.4301"N	80°47'17.3894"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 342 (RKB) to Facility Vertical Datum	768.00ft
Horizontal Reference Pt	Slot	Patterson 342 (RKB) to Mean Sea Level	768.00ft
Vertical Reference Pt	Patterson 342 (RKB)	Patterson 342 (RKB) to Ground Level at Slot (Slot #05)	25.00ft
MD Reference Pt	Patterson 342 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	161.81°



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Page 2 of 11



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Slot	Slot #05		

WELLPATH DATA (214 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	0.000	85.570	0.00	0.00	0.00	0.00	1700256.68	14308700.56	39°24'10.4301"N	80°47'17.3894"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.000	85.570	25.00	0.00	0.00	0.00	1700256.68	14308700.56	39°24'10.4301"N	80°47'17.3894"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.210	85.570	100.00	0.03	0.01	0.14	1700256.82	14308700.57	39°24'10.4302"N	80°47'17.3876"W	0.14	85.570	0.28	0.28	0.00	Gyrodata MS Gyro <17-1/2">(100'-355')
125.00	0.140	106.090	125.00	0.06	0.01	0.21	1700256.89	14308700.57	39°24'10.4302"N	80°47'17.3867"W	0.21	88.463	0.37	-0.28	82.08	
150.00	0.210	125.890	150.00	0.12	-0.03	0.28	1700256.96	14308700.53	39°24'10.4298"N	80°47'17.3858"W	0.28	96.073	0.37	0.28	79.20	
175.00	0.210	100.510	175.00	0.17	-0.06	0.36	1700257.04	14308700.50	39°24'10.4295"N	80°47'17.3848"W	0.37	100.192	0.37	0.00	-101.52	
200.00	0.280	113.700	200.00	0.24	-0.10	0.46	1700257.14	14308700.46	39°24'10.4292"N	80°47'17.3835"W	0.47	101.956	0.36	0.28	52.76	
225.00	0.420	101.600	225.00	0.32	-0.14	0.61	1700257.29	14308700.42	39°24'10.4287"N	80°47'17.3816"W	0.62	103.046	0.63	0.56	-48.40	
250.00	0.280	105.530	250.00	0.40	-0.18	0.76	1700257.44	14308700.38	39°24'10.4284"N	80°47'17.3797"W	0.78	103.071	0.57	-0.56	15.72	
275.00	0.390	102.090	275.00	0.48	-0.21	0.90	1700257.58	14308700.35	39°24'10.4281"N	80°47'17.3779"W	0.92	103.143	0.45	0.44	-13.76	
300.00	0.530	100.340	300.00	0.58	-0.25	1.09	1700257.77	14308700.31	39°24'10.4277"N	80°47'17.3754"W	1.12	102.775	0.56	0.56	-7.00	
325.00	0.600	103.340	325.00	0.70	-0.30	1.34	1700258.02	14308700.26	39°24'10.4272"N	80°47'17.3724"W	1.37	102.623	0.30	0.28	12.00	
350.00	0.650	107.040	349.99	0.85	-0.37	1.60	1700258.28	14308700.19	39°24'10.4264"N	80°47'17.3690"W	1.64	103.062	0.26	0.20	14.80	
355.00	0.590	114.070	354.99	0.89	-0.39	1.65	1700258.33	14308700.17	39°24'10.4263"N	80°47'17.3684"W	1.70	103.294	1.94	-1.20	140.60	
447.00	0.540	83.300	446.99	1.29	-0.53	2.51	1700259.19	14308700.03	39°24'10.4248"N	80°47'17.3574"W	2.57	101.963	0.33	-0.05	-33.45	Gyrodata MS Gyro <12-1/4">(355')(447'-839')
540.00	0.770	112.330	539.98	1.78	-0.72	3.53	1700260.20	14308699.84	39°24'10.4230"N	80°47'17.3445"W	3.60	101.521	0.43	0.25	31.22	
568.00	0.720	121.050	567.98	2.04	-0.88	3.85	1700260.53	14308699.68	39°24'10.4214"N	80°47'17.3403"W	3.95	102.885	0.44	-0.18	31.14	
658.00	1.690	81.700	657.96	2.70	-0.98	5.65	1700262.33	14308699.58	39°24'10.4203"N	80°47'17.3174"W	5.73	99.853	1.36	1.08	-43.72	
750.00	3.720	64.320	749.86	2.54	0.51	9.68	1700266.36	14308701.07	39°24'10.4349"N	80°47'17.2660"W	9.69	86.994	2.36	2.21	-18.89	
839.00	5.600	52.100	838.56	0.70	4.43	15.71	1700272.38	14308704.99	39°24'10.4735"N	80°47'17.1891"W	16.32	74.261	2.38	2.11	-13.73	
960.00	8.070	43.720	958.69	-5.29	14.19	26.24	1700282.91	14308714.75	39°24'10.5698"N	80°47'17.0547"W	29.83	61.590	2.20	2.04	-6.93	APS EM <12-1/4">(839')(960'-2593')
1055.00	10.830	37.980	1052.40	-13.40	26.05	36.34	1700293.01	14308726.60	39°24'10.6868"N	80°47'16.9256"W	44.72	54.368	3.07	2.91	-6.04	
1150.00	13.600	38.510	1145.24	-24.51	41.83	48.79	1700305.45	14308742.37	39°24'10.8424"N	80°47'16.7665"W	64.27	49.395	2.92	2.92	0.56	
1245.00	14.460	42.900	1237.41	-36.37	59.26	63.82	1700320.48	14308759.79	39°24'11.0143"N	80°47'16.5746"W	87.09	47.124	1.44	0.91	4.62	
1339.00	15.450	46.430	1328.22	-47.41	76.49	80.88	1700337.53	14308777.02	39°24'11.1842"N	80°47'16.3567"W	111.32	46.601	1.43	1.05	3.76	
1434.00	16.400	45.390	1419.58	-58.81	94.63	99.60	1700356.24	14308795.15	39°24'11.3631"N	80°47'16.1177"W	137.38	46.467	1.04	1.00	-1.09	
1528.00	15.910	45.230	1509.86	-70.47	113.02	118.19	1700374.83	14308813.53	39°24'11.5444"N	80°47'15.8803"W	163.53	46.282	0.52	-0.52	-0.17	
1623.00	16.030	44.610	1601.20	-82.30	131.53	136.65	1700393.28	14308832.04	39°24'11.7269"N	80°47'15.6446"W	189.66	46.094	0.22	0.13	-0.65	
1717.00	17.220	47.000	1691.27	-94.07	150.26	155.94	1700412.56	14308850.76	39°24'11.9116"N	80°47'15.3983"W	216.55	46.063	1.46	1.27	2.54	
1812.00	17.090	51.080	1782.04	-104.91	168.62	177.09	1700433.70	14308869.11	39°24'12.0926"N	80°47'15.1284"W	244.52	46.403	1.27	-0.14	4.29	



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Page 3 of 11



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Field	Tyler		API	47-095-02604-0000
Facility	Colorado East Pad		Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05			

WELLPATH DATA (214 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
1907.00	15.890	50.990	1873.13	-114.47	185.57	198.05	1700454.65	14308886.06	39°24'12.2597"N	80°47'14.8608"W	271.41	46.863	1.26	-1.26	-0.09	
2002.00	13.420	47.020	1965.04	-123.72	201.28	216.23	1700472.82	14308901.76	39°24'12.4145"N	80°47'14.6288"W	295.41	47.051	2.81	-2.60	-4.18	
2096.00	12.510	40.310	2056.65	-133.61	216.48	230.79	1700487.38	14308916.95	39°24'12.5644"N	80°47'14.4428"W	316.43	46.833	1.87	-0.97	-7.14	
2191.00	13.550	36.100	2149.20	-145.49	233.32	244.01	1700500.59	14308933.79	39°24'12.7305"N	80°47'14.2739"W	337.61	46.283	1.48	1.09	-4.43	
2286.00	13.260	34.740	2241.61	-158.55	251.26	256.77	1700513.35	14308951.72	39°24'12.9075"N	80°47'14.1108"W	359.26	45.621	0.45	-0.31	-1.43	
2380.00	13.650	38.320	2333.04	-171.17	268.82	269.80	1700526.37	14308969.28	39°24'13.0808"N	80°47'13.9444"W	380.86	45.103	0.98	0.41	3.81	
2475.00	13.390	41.760	2425.40	-182.86	285.82	284.07	1700540.64	14308986.27	39°24'13.2485"N	80°47'13.7620"W	402.98	44.824	0.89	-0.27	3.62	
2569.00	13.510	40.100	2516.83	-194.08	302.34	298.39	1700554.95	14309002.78	39°24'13.4114"N	80°47'13.5790"W	424.79	44.623	0.43	0.13	-1.77	
2593.00	14.080	40.050	2540.13	-197.09	306.72	302.08	1700558.64	14309007.16	39°24'13.4546"N	80°47'13.5320"W	430.50	44.563	2.38	2.37	-0.21	
2678.00	13.770	39.300	2622.64	-207.97	322.46	315.14	1700571.69	14309022.90	39°24'13.6099"N	80°47'13.3651"W	450.88	44.342	0.42	-0.36	-0.88	BHI NaviTrak <8-3/4">(2593')(2678'-4262')
2746.00	13.990	40.500	2688.65	-216.59	334.98	325.60	1700582.15	14309035.40	39°24'13.7333"N	80°47'13.2314"W	467.15	44.187	0.53	0.32	1.76	
2841.00	14.380	46.430	2780.76	-227.62	351.84	341.61	1700598.15	14309052.26	39°24'13.8996"N	80°47'13.0270"W	490.40	44.155	1.58	0.41	6.24	
2936.00	15.100	38.500	2872.64	-239.47	369.66	357.86	1700614.40	14309070.07	39°24'14.0753"N	80°47'12.8195"W	514.50	44.071	2.25	0.76	-8.35	
3030.00	14.680	36.970	2963.48	-253.00	388.76	372.65	1700629.18	14309089.16	39°24'14.2637"N	80°47'12.6305"W	538.51	43.788	0.61	-0.45	-1.63	
3125.00	15.990	42.430	3055.11	-266.30	408.03	388.71	1700645.24	14309108.43	39°24'14.4539"N	80°47'12.4253"W	563.55	43.611	2.05	1.38	5.75	
3220.00	15.570	43.300	3146.52	-278.80	426.97	406.29	1700662.80	14309127.36	39°24'14.6407"N	80°47'12.2008"W	589.38	43.578	0.51	-0.44	0.92	
3315.00	14.870	42.130	3238.19	-290.92	445.29	423.21	1700679.72	14309145.67	39°24'14.8213"N	80°47'11.9847"W	614.32	43.544	0.80	-0.74	-1.23	
3410.00	15.180	45.310	3329.95	-302.51	463.08	440.23	1700696.73	14309163.45	39°24'14.9967"N	80°47'11.7674"W	638.94	43.551	0.93	0.33	3.35	
3504.00	14.860	44.280	3420.73	-313.57	480.36	457.39	1700713.89	14309180.73	39°24'15.1672"N	80°47'11.5482"W	663.29	43.597	0.44	-0.34	-1.10	
3598.00	13.340	43.280	3511.90	-324.32	496.89	473.24	1700729.73	14309197.25	39°24'15.3301"N	80°47'11.3457"W	686.19	43.604	1.64	-1.62	-1.06	
3693.00	13.060	39.270	3604.39	-335.33	513.18	487.55	1700744.04	14309213.53	39°24'15.4908"N	80°47'11.1630"W	707.85	43.533	1.01	-0.29	-4.22	
3787.00	12.500	37.670	3696.06	-346.75	529.45	500.49	1700756.97	14309229.80	39°24'15.6513"N	80°47'10.9977"W	728.57	43.389	0.70	-0.60	-1.70	
3882.00	12.830	45.120	3788.76	-357.26	545.03	514.25	1700770.72	14309245.38	39°24'15.8050"N	80°47'10.8219"W	749.34	43.335	1.75	0.35	7.84	
3977.00	11.770	39.260	3881.58	-367.21	559.98	527.85	1700784.32	14309260.32	39°24'15.9524"N	80°47'10.6481"W	769.55	43.309	1.72	-1.12	-6.17	
4072.00	11.450	35.300	3974.64	-378.04	575.18	539.44	1700795.90	14309275.51	39°24'16.1023"N	80°47'10.5001"W	788.56	43.163	0.90	-0.34	-4.17	
4167.00	10.400	30.130	4067.92	-389.35	590.29	549.19	1700805.65	14309290.61	39°24'16.2515"N	80°47'10.3754"W	806.26	42.934	1.51	-1.11	-5.44	
4262.00	9.390	20.510	4161.51	-401.10	604.97	556.21	1700812.67	14309305.28	39°24'16.3964"N	80°47'10.2856"W	821.80	42.596	2.04	-1.06	-10.13	
4361.00	11.990	37.440	4258.81	-413.21	620.70	565.29	1700821.75	14309321.01	39°24'16.5517"N	80°47'10.1693"W	839.54	42.325	4.09	2.63	17.10	BH AT Curve <8-1/2"> (4262')(4361'-18106')
4456.00	14.780	51.450	4351.24	-423.00	636.08	580.76	1700837.21	14309336.39	39°24'16.7033"N	80°47'9.9718"W	861.33	42.397	4.47	2.92	14.75	
4551.00	16.060	47.740	4442.83	-432.57	652.46	599.96	1700856.40	14309352.76	39°24'16.8648"N	80°47'9.7268"W	886.37	42.599	1.72	1.37	-3.91	



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Page 4 of 11



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Slot	Slot #05		

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4645.00	17.890	46.560	4532.73	-444.03	671.14	620.06	1700876.50	14309371.43	39°24'17.0489"N	80°47'9.4701"W	913.73	42.735	1.98	1.95	-1.26	
4740.00	16.730	45.810	4623.43	-456.25	690.70	640.46	1700896.89	14309390.99	39°24'17.2418"N	80°47'9.2096"W	941.95	42.839	1.24	-1.22	-0.79	
4834.00	16.920	44.880	4713.40	-468.38	709.83	659.82	1700916.23	14309410.10	39°24'17.4303"N	80°47'8.9625"W	969.13	42.909	0.35	0.20	-0.99	
4929.00	17.970	44.810	4804.03	-481.29	730.02	679.90	1700936.31	14309430.29	39°24'17.6294"N	80°47'8.7060"W	997.59	42.964	1.11	1.11	-0.07	
5024.00	17.976	49.730	4894.40	-493.46	749.89	701.41	1700957.81	14309450.15	39°24'17.8253"N	80°47'8.4314"W	1026.80	43.087	1.60	0.00	5.18	
5118.00	18.030	58.230	4983.82	-502.32	766.92	724.85	1700981.24	14309467.18	39°24'17.9931"N	80°47'8.1323"W	1055.26	43.384	2.79	0.06	9.04	
5213.00	17.670	63.960	5074.25	-507.74	780.99	750.30	1701006.68	14309481.24	39°24'18.1316"N	80°47'7.8076"W	1083.01	43.852	1.89	-0.38	6.03	
5307.00	18.270	64.920	5163.67	-511.46	793.50	776.46	1701032.84	14309493.75	39°24'18.2546"N	80°47'7.4739"W	1110.20	44.378	0.71	0.64	1.02	
5401.00	18.320	58.540	5252.92	-516.62	807.46	802.41	1701058.77	14309507.70	39°24'18.3919"N	80°47'7.1429"W	1138.36	44.820	2.13	0.05	-6.79	
5496.00	18.390	52.880	5343.10	-524.91	824.30	827.10	1701083.45	14309524.53	39°24'18.5578"N	80°47'6.8279"W	1167.72	45.097	1.88	0.07	-5.96	
5591.00	18.260	47.760	5433.29	-535.84	843.35	850.07	1701106.41	14309543.57	39°24'18.7455"N	80°47'6.5347"W	1197.44	45.227	1.70	-0.14	-5.39	
5685.00	17.100	46.550	5522.84	-547.74	862.75	871.01	1701127.34	14309562.97	39°24'18.9368"N	80°47'6.2674"W	1225.97	45.273	1.29	-1.23	-1.29	
5780.00	16.260	51.500	5613.85	-558.31	880.64	891.56	1701147.88	14309580.85	39°24'19.1131"N	80°47'6.0051"W	1253.15	45.353	1.74	-0.88	5.21	
5874.00	13.100	76.870	5704.86	-561.95	891.26	912.26	1701168.57	14309591.47	39°24'19.2176"N	80°47'5.7411"W	1275.37	45.667	7.54	-3.36	26.99	
5969.00	11.530	112.870	5797.81	-554.75	890.02	931.52	1701187.83	14309590.22	39°24'19.2049"N	80°47'5.4957"W	1288.35	46.305	8.11	-1.65	37.89	
6064.00	15.910	118.890	5890.08	-538.97	880.03	951.68	1701207.98	14309580.24	39°24'19.1057"N	80°47'5.2392"W	1296.20	47.240	4.84	4.61	6.34	
6158.00	21.150	134.400	5979.23	-514.45	861.92	975.10	1701231.40	14309562.14	39°24'18.9261"N	80°47'4.9413"W	1301.43	48.526	7.61	5.57	16.50	
6253.00	26.330	140.260	6066.17	-479.61	833.70	1000.84	1701257.12	14309533.93	39°24'18.6466"N	80°47'4.6143"W	1302.59	50.206	5.99	5.45	6.17	
6347.00	35.760	142.720	6146.62	-434.16	795.73	1030.87	1701287.14	14309495.98	39°24'18.2706"N	80°47'4.2329"W	1302.26	52.335	10.12	10.03	2.62	
6417.00†	41.296	148.762	6201.38	-392.28	759.67	1055.27	1701311.53	14309459.92	39°24'17.9136"N	80°47'3.9232"W	1300.26	54.251	9.56	7.91	8.63	Middlesex: 6417' MD
6442.00	43.340	150.600	6219.87	-375.83	745.14	1063.76	1701320.01	14309445.40	39°24'17.7698"N	80°47'3.8155"W	1298.77	54.990	9.56	8.17	7.35	
6537.00	51.160	155.540	6284.32	-306.94	682.94	1095.14	1701351.38	14309383.23	39°24'17.1544"N	80°47'3.4176"W	1290.63	58.052	9.07	8.23	5.20	
6583.00	56.380	155.950	6311.50	-270.06	649.12	1110.37	1701366.61	14309349.42	39°24'16.8197"N	80°47'3.2245"W	1286.19	59.690	11.37	11.35	0.89	
6631.00	58.890	156.030	6337.20	-229.73	612.09	1126.87	1701383.10	14309312.40	39°24'16.4533"N	80°47'3.0155"W	1282.37	61.490	5.23	5.23	0.17	
6632.00†	58.951	156.084	6337.71	-228.87	611.30	1127.22	1701383.45	14309311.62	39°24'16.4456"N	80°47'3.0111"W	1282.31	61.528	7.64	6.08	5.41	Burkett: 6632' MD
6678.00	61.770	158.500	6360.46	-189.02	574.43	1142.64	1701398.86	14309274.76	39°24'16.0807"N	80°47'2.8158"W	1278.90	63.310	7.64	6.13	5.25	
6691.00†	63.175	159.073	6366.47	-177.51	563.68	1146.81	1701403.03	14309264.01	39°24'15.9744"N	80°47'2.7630"W	1277.85	63.825	11.50	10.81	4.41	Tully: 6691' MD
6726.00	66.970	160.550	6381.22	-145.80	533.89	1157.75	1701413.97	14309234.24	39°24'15.6798"N	80°47'2.6245"W	1274.92	65.243	11.50	10.84	4.22	
6774.00	70.350	161.620	6398.68	-101.10	491.60	1172.24	1701428.45	14309191.97	39°24'15.2615"N	80°47'2.4412"W	1271.15	67.248	7.34	7.04	2.23	
6792.00†	71.460	161.294	6404.57	-84.09	475.48	1177.65	1701433.86	14309175.85	39°24'15.1020"N	80°47'2.3728"W	1270.01	68.013	6.40	6.16	-1.81	Hamilton: 6792' MD



Actual Wellpath Report

Avalanche Unit 3H AWP Proj: 18131'
Page 5 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 3H
Field	Tyler	API	47-095-02604-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05		

WELLPATH DATA (214 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
6822.00	73.310	160.760	6413.65	-55.50	448.44	1186.94	1701443.15	14309148.82	39°24'14.8345"N	80°47'2.2552"W	1268.83	69.303	6.40	6.17	-1.78	
6833.00†	74.307	160.950	6416.72	-44.94	438.46	1190.41	1701446.62	14309138.85	39°24'14.7358"N	80°47'2.2114"W	1268.59	69.780	9.21	9.06	1.73	Marcellus POE: 6833' MD
6869.00	77.570	161.560	6425.46	-10.03	405.40	1201.63	1701457.83	14309105.79	39°24'14.4087"N	80°47'2.0696"W	1268.17	71.357	9.21	9.06	1.69	
6916.00	81.070	163.910	6434.17	36.14	361.30	1215.33	1701471.52	14309061.72	39°24'13.9726"N	80°47'1.8963"W	1267.89	73.444	8.92	7.45	5.00	
7010.00	90.060	164.330	6441.43	129.69	271.25	1240.94	1701497.13	14308971.70	39°24'13.0820"N	80°47'1.5727"W	1270.24	77.670	9.57	9.56	0.45	
7105.00	89.850	157.480	6441.51	224.62	181.53	1272.00	1701528.18	14308882.02	39°24'12.1945"N	80°47'1.1798"W	1284.89	81.878	7.21	-0.22	-7.21	
7200.00	89.630	156.970	6441.94	319.32	93.94	1308.78	1701564.94	14308794.46	39°24'11.3279"N	80°47'0.7140"W	1312.14	85.895	0.58	-0.23	-0.54	
7295.00	89.630	157.460	6442.55	414.01	6.35	1345.57	1701601.71	14308706.91	39°24'10.4614"N	80°47'0.2480"W	1345.58	89.729	0.52	0.00	0.52	
7390.00	89.720	157.120	6443.09	508.71	-81.28	1382.24	1701638.37	14308619.31	39°24'9.5944"N	80°46'59.7835"W	1384.63	93.365	0.37	0.09	-0.36	
7484.00	89.630	157.000	6443.63	602.39	-167.84	1418.88	1701675.00	14308532.78	39°24'8.7380"N	80°46'59.3194"W	1428.77	96.746	0.16	-0.10	-0.13	
7580.00	89.690	157.760	6444.20	698.10	-256.46	1455.80	1701711.90	14308444.21	39°24'7.8613"N	80°46'58.8517"W	1478.22	99.991	0.79	0.06	0.79	
7675.00	89.600	158.920	6444.78	792.92	-344.75	1490.87	1701746.95	14308355.95	39°24'6.9878"N	80°46'58.4078"W	1530.21	103.020	1.22	-0.09	1.22	
7769.00	89.480	163.310	6445.54	886.89	-433.66	1521.28	1701777.36	14308267.07	39°24'6.1083"N	80°46'58.0230"W	1581.89	105.911	4.67	-0.13	4.67	
7864.00	89.750	167.090	6446.18	981.70	-525.49	1545.54	1701801.61	14308175.28	39°24'5.2002"N	80°46'57.7168"W	1632.44	108.778	3.99	0.28	3.98	
7958.00	89.780	166.070	6446.56	1075.37	-616.92	1567.36	1701823.42	14308083.88	39°24'4.2960"N	80°46'57.4417"W	1684.40	111.485	1.09	0.03	-1.09	
8052.00	89.690	161.370	6447.00	1169.29	-707.13	1593.70	1701849.75	14307993.71	39°24'3.4038"N	80°46'57.1089"W	1743.54	113.927	5.00	-0.10	-5.00	
8147.00	89.290	160.280	6447.84	1264.27	-796.85	1624.91	1701880.94	14307904.03	39°24'2.5163"N	80°46'56.7142"W	1809.78	116.123	1.22	-0.42	-1.15	
8241.00	89.260	163.990	6449.03	1358.25	-886.30	1653.73	1701909.76	14307814.62	39°24'1.6316"N	80°46'56.3497"W	1876.26	118.188	3.95	-0.03	3.95	
8336.00	89.750	167.570	6449.86	1453.00	-978.37	1677.07	1701933.08	14307722.58	39°24'0.7210"N	80°46'56.0553"W	1941.58	120.258	3.80	0.52	3.77	
8432.00	89.750	168.770	6450.27	1548.41	-1072.32	1696.75	1701952.75	14307628.66	39°23'59.7919"N	80°46'55.8075"W	2007.19	122.292	1.25	0.00	1.25	
8526.00	89.690	166.450	6450.73	1641.92	-1164.13	1716.91	1701972.91	14307536.90	39°23'58.8841"N	80°46'55.5534"W	2074.36	124.139	2.47	-0.06	-2.47	
8620.00	89.570	162.980	6451.34	1735.78	-1254.79	1741.69	1701997.68	14307446.27	39°23'57.9875"N	80°46'55.2406"W	2146.62	125.771	3.69	-0.13	-3.69	
8715.00	89.600	160.530	6452.03	1830.77	-1345.00	1771.43	1702027.40	14307356.09	39°23'57.0951"N	80°46'54.8645"W	2224.18	127.208	2.58	0.03	-2.58	
8809.00	89.600	159.420	6452.69	1924.72	-1433.32	1803.62	1702059.58	14307267.82	39°23'56.2215"N	80°46'54.4572"W	2303.79	128.474	1.18	0.00	-1.18	
8904.00	89.690	158.880	6453.27	2019.62	-1522.09	1837.43	1702093.38	14307179.07	39°23'55.3433"N	80°46'54.0293"W	2385.98	129.638	0.58	0.09	-0.57	
8998.00	89.660	156.170	6453.81	2113.34	-1608.94	1873.36	1702129.29	14307092.26	39°23'54.4840"N	80°46'53.5742"W	2469.45	130.658	2.88	-0.03	-2.88	
9093.00	89.600	159.060	6454.42	2208.08	-1696.77	1909.53	1702165.45	14307004.46	39°23'53.6151"N	80°46'53.1162"W	2554.48	131.624	3.04	-0.06	3.04	
9187.00	89.510	165.010	6455.15	2302.03	-1786.15	1938.51	1702194.42	14306915.12	39°23'52.7311"N	80°46'52.7498"W	2635.93	132.657	6.33	-0.10	6.33	
9282.00	89.720	169.330	6455.79	2396.59	-1878.75	1959.60	1702215.50	14306822.56	39°23'51.8153"N	80°46'52.4840"W	2714.73	133.793	4.55	0.22	4.55	
9377.00	89.660	168.660	6456.30	2490.84	-1972.00	1977.74	1702233.63	14306729.34	39°23'50.8932"N	80°46'52.2559"W	2792.89	134.917	0.71	-0.06	-0.71	



Actual Wellpath Report

Avalanche Unit 3H AWP Proj: 18131'
Page 6 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 3H
Field	Tyler	API	47-095-02604-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05		

WELLPATH DATA (214 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
9472.00	90.860	164.280	6455.87	2585.50	-2064.34	1999.96	1702255.84	14306637.04	39°23'49.9801"N	80°46'51.9757"W	2874.25	135.908	4.78	1.26	-4.61	
9567.00	89.600	158.360	6455.49	2680.45	-2154.29	2030.37	1702286.24	14306547.12	39°23'49.0903"N	80°46'51.5911"W	2960.30	136.696	6.37	-1.33	-6.23	
9662.00	89.690	157.130	6456.08	2775.21	-2242.21	2066.35	1702322.20	14306459.24	39°23'48.2205"N	80°46'51.1355"W	3049.15	137.337	1.30	0.09	-1.29	
9756.00	89.690	157.310	6456.59	2868.91	-2328.88	2102.74	1702358.59	14306372.61	39°23'47.3630"N	80°46'50.6746"W	3137.71	137.921	0.19	0.00	0.19	
9851.00	89.880	156.940	6456.94	2963.59	-2416.41	2139.57	1702395.50	14306285.11	39°23'46.4971"N	80°46'50.2069"W	3227.57	138.476	0.44	0.20	-0.39	
9945.00	89.910	156.590	6457.12	3057.23	-2502.78	2176.75	1702432.57	14306198.77	39°23'45.6425"N	80°46'49.7372"W	3316.95	138.985	0.37	0.03	-0.37	
10041.00	89.940	154.960	6457.24	3152.69	-2590.33	2216.14	1702471.94	14306111.26	39°23'44.7763"N	80°46'49.2382"W	3408.97	139.451	1.70	0.03	-1.70	
10136.00	89.850	154.270	6457.42	3246.94	-2676.15	2256.87	1702512.65	14306025.47	39°23'43.9270"N	80°46'48.7221"W	3500.75	139.858	0.73	-0.09	-0.73	
10230.00	89.420	156.130	6458.02	3340.31	-2761.48	2296.30	1702552.06	14305940.18	39°23'43.0828"N	80°46'48.2226"W	3591.48	140.255	2.03	-0.46	1.98	
10325.00	90.550	165.900	6458.04	3435.19	-2851.20	2327.16	1702582.92	14305850.49	39°23'42.1953"N	80°46'47.8322"W	3680.36	140.779	10.35	1.19	10.28	
10419.00	90.620	172.390	6457.08	3528.36	-2943.47	2344.86	1702600.60	14305758.27	39°23'41.2829"N	80°46'47.6097"W	3763.29	141.458	6.90	0.07	6.90	
10513.00	90.620	171.490	6456.06	3620.89	-3036.53	2358.03	1702613.78	14305665.24	39°23'40.3628"N	80°46'47.4447"W	3844.59	142.169	0.96	0.00	-0.96	
10608.00	90.580	168.160	6455.07	3714.94	-3130.02	2374.81	1702630.55	14305571.79	39°23'39.4384"N	80°46'47.2339"W	3928.96	142.812	3.51	-0.04	-3.51	
10703.00	90.400	165.330	6454.25	3809.58	-3222.47	2396.59	1702652.32	14305479.37	39°23'38.5241"N	80°46'46.9594"W	4015.97	143.361	2.98	-0.19	-2.98	
10798.00	90.120	161.890	6453.82	3904.52	-3313.60	2423.39	1702679.11	14305388.28	39°23'37.6228"N	80°46'46.6208"W	4105.21	143.820	3.63	-0.29	-3.62	
10893.00	89.910	158.110	6453.80	3999.45	-3402.85	2455.88	1702711.58	14305299.06	39°23'36.7399"N	80°46'46.2098"W	4196.52	144.182	3.99	-0.22	-3.98	
10988.00	89.940	155.690	6453.92	4094.10	-3490.23	2493.15	1702748.84	14305211.72	39°23'35.8754"N	80°46'45.7378"W	4289.23	144.461	2.55	0.03	-2.55	
11082.00	89.720	157.430	6454.20	4187.70	-3576.47	2530.54	1702786.21	14305125.51	39°23'35.0222"N	80°46'45.2642"W	4381.18	144.719	1.87	-0.23	1.85	
11177.00	89.380	165.530	6454.95	4282.61	-3666.47	2560.69	1702816.35	14305035.55	39°23'34.1319"N	80°46'44.8830"W	4472.15	145.069	8.53	-0.36	8.53	
11271.00	89.850	174.640	6455.58	4375.53	-3758.97	2576.86	1702832.51	14304943.09	39°23'33.2173"N	80°46'44.6800"W	4557.42	145.568	9.70	0.50	9.69	
11366.00	90.800	173.300	6455.04	4468.40	-3853.44	2586.84	1702842.49	14304848.66	39°23'32.2834"N	80°46'44.5558"W	4641.20	146.126	1.73	1.00	-1.41	
11461.00	90.950	163.490	6453.59	4562.65	-3946.37	2605.92	1702861.56	14304755.76	39°23'31.3644"N	80°46'44.3156"W	4729.13	146.562	10.33	0.16	-10.33	
11556.00	90.220	156.660	6452.62	4657.54	-4035.63	2638.28	1702893.91	14304666.54	39°23'30.4815"N	80°46'43.9063"W	4821.49	146.825	7.23	-0.77	-7.19	
11651.00	90.000	155.530	6452.44	4752.07	-4122.47	2676.77	1702932.39	14304579.73	39°23'29.6222"N	80°46'43.4187"W	4915.27	147.004	1.21	-0.23	-1.19	
11746.00	90.520	150.440	6452.00	4845.91	-4207.08	2719.91	1702975.51	14304495.15	39°23'28.7849"N	80°46'42.8719"W	5009.73	147.117	5.39	0.55	-5.36	
11841.00	89.510	149.190	6451.98	4938.83	-4289.20	2767.67	1703023.25	14304413.07	39°23'27.9722"N	80°46'42.2661"W	5104.63	147.167	1.69	-1.06	-1.32	
11936.00	89.880	155.310	6452.49	5032.47	-4373.23	2811.88	1703067.44	14304329.07	39°23'27.1406"N	80°46'41.7056"W	5199.21	147.260	6.45	0.39	6.44	
12030.00	89.970	156.630	6452.61	5125.98	-4459.08	2850.16	1703105.71	14304243.25	39°23'26.2911"N	80°46'41.2208"W	5292.15	147.414	1.41	0.10	1.40	
12125.00	89.910	158.350	6452.71	5220.70	-4546.84	2886.53	1703142.06	14304155.53	39°23'25.4229"N	80°46'40.7603"W	5385.70	147.591	1.81	-0.06	1.81	
12220.00	89.480	164.430	6453.21	5315.65	-4636.83	2916.83	1703172.35	14304065.58	39°23'24.5327"N	80°46'40.3772"W	5477.96	147.828	6.42	-0.45	6.40	



Actual Wellpath Report

Avalanche Unit 3H AWP Proj: 18131'
Page 7 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 3H
Field	Tyler	API	47-095-02604-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05		

WELLPATH DATA (214 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
12315.00	90.220	167.560	6453.46	5410.39	-4728.99	2939.82	1703195.33	14303973.45	39°23'23.6213"N	80°46'40.0873"W	5568.29	148.132	3.39	0.78	3.29	
12409.00	90.680	163.500	6452.72	5504.17	-4819.99	2963.30	1703218.80	14303882.49	39°23'22.7213"N	80°46'39.7911"W	5658.04	148.417	4.35	0.49	-4.32	
12504.00	90.120	160.460	6452.06	5599.15	-4910.31	2992.68	1703248.17	14303792.20	39°23'21.8279"N	80°46'39.4196"W	5750.42	148.639	3.25	-0.59	-3.20	
12598.00	89.020	163.460	6452.77	5693.14	-4999.68	3021.79	1703277.27	14303702.87	39°23'20.9439"N	80°46'39.0517"W	5841.92	148.851	3.40	-1.17	3.19	
12693.00	89.200	171.890	6454.25	5787.54	-5092.40	3042.05	1703297.52	14303610.19	39°23'20.0271"N	80°46'38.7966"W	5931.82	149.147	8.87	0.19	8.87	
12788.00	90.580	173.030	6454.43	5880.90	-5186.57	3054.51	1703309.98	14303516.05	39°23'19.0960"N	80°46'38.6408"W	6019.18	149.505	1.88	1.45	1.20	
12883.00	91.690	168.550	6452.54	5974.70	-5280.30	3069.71	1703325.17	14303422.36	39°23'18.1692"N	80°46'38.4502"W	6107.76	149.828	4.86	1.17	-4.72	
12977.00	90.370	160.000	6450.85	6068.50	-5370.68	3095.16	1703350.61	14303332.01	39°23'17.2753"N	80°46'38.1289"W	6198.73	150.045	9.20	-1.40	-9.10	
13073.00	90.090	156.320	6450.47	6164.29	-5459.78	3130.87	1703386.30	14303242.96	39°23'16.3939"N	80°46'37.6770"W	6293.76	150.168	3.84	-0.29	-3.83	
13167.00	90.150	151.090	6450.27	6257.32	-5544.02	3172.49	1703427.91	14303158.75	39°23'15.5603"N	80°46'37.1494"W	6387.56	150.220	5.56	0.06	-5.56	
13262.00	89.380	149.480	6450.66	6350.40	-5626.52	3219.58	1703474.98	14303076.28	39°23'14.7437"N	80°46'36.5523"W	6482.55	150.221	1.88	-0.81	-1.69	
13356.00	89.880	156.710	6451.27	6443.25	-5710.29	3262.09	1703517.47	14302992.54	39°23'13.9147"N	80°46'36.0136"W	6576.37	150.262	7.71	0.53	7.69	
13451.00	89.260	160.660	6451.98	6538.09	-5798.77	3296.61	1703551.98	14302904.10	39°23'13.0394"N	80°46'35.5767"W	6670.34	150.382	4.21	-0.65	4.16	
13546.00	89.350	167.340	6453.13	6632.96	-5890.03	3322.78	1703578.14	14302812.87	39°23'12.1367"N	80°46'35.2463"W	6762.65	150.571	7.03	0.09	7.03	
13641.00	91.380	170.810	6452.53	6727.17	-5983.29	3340.78	1703596.13	14302719.65	39°23'11.2146"N	80°46'35.0199"W	6852.78	150.823	4.23	2.14	3.65	
13735.00	90.370	165.340	6451.09	6820.57	-6075.22	3360.20	1703615.54	14302627.76	39°23'10.3056"N	80°46'34.7756"W	6942.56	151.053	5.92	-1.07	-5.82	
13829.00	90.090	165.740	6450.71	6914.36	-6166.24	3383.67	1703639.00	14302536.78	39°23'9.4054"N	80°46'34.4795"W	7033.61	151.245	0.52	-0.30	0.43	
13924.00	90.180	170.700	6450.49	7008.74	-6259.21	3403.06	1703668.38	14302443.84	39°23'8.4861"N	80°46'34.2355"W	7124.50	151.468	5.22	0.09	5.22	
14018.00	90.740	169.810	6449.74	7101.72	-6351.85	3418.97	1703674.29	14302351.24	39°23'7.5701"N	80°46'34.0358"W	7213.55	151.708	1.12	0.60	-0.95	
14113.00	90.950	163.020	6448.33	7196.35	-6444.12	3441.27	1703696.58	14302259.00	39°23'6.6575"N	80°46'33.7547"W	7305.41	151.897	7.15	0.22	-7.15	
14208.00	89.970	158.270	6447.57	7291.29	-6533.72	3472.74	1703728.04	14302169.43	39°23'5.7711"N	80°46'33.3567"W	7399.29	152.009	5.11	-1.03	-5.00	
14303.00	89.970	158.500	6447.62	7386.12	-6622.04	3507.73	1703763.02	14302081.15	39°23'4.8974"N	80°46'32.9138"W	7493.71	152.090	0.24	0.00	0.24	
14398.00	89.970	160.780	6447.67	7481.05	-6711.10	3540.78	1703796.06	14301992.13	39°23'4.0163"N	80°46'32.4957"W	7587.89	152.184	2.40	0.00	2.40	
14493.00	89.380	158.200	6448.21	7575.96	-6800.07	3574.07	1703829.32	14301903.19	39°23'3.1362"N	80°46'32.0747"W	7682.12	152.274	2.79	-0.62	-2.72	
14587.00	90.060	159.490	6448.67	7669.83	-6887.73	3607.99	1703863.23	14301815.57	39°23'2.2690"N	80°46'31.6454"W	7775.50	152.353	1.55	0.72	1.37	
14681.00	89.200	160.300	6449.28	7763.78	-6976.00	3640.30	1703895.53	14301727.33	39°23'1.3958"N	80°46'31.2367"W	7868.70	152.443	1.26	-0.91	0.86	
14776.00	89.320	161.780	6450.50	7858.76	-7065.84	3671.16	1703926.38	14301637.53	39°23'0.5071"N	80°46'30.8465"W	7962.63	152.545	1.56	0.13	1.56	
14870.00	89.170	161.140	6451.74	7952.75	-7154.95	3701.05	1703956.26	14301548.46	39°22'59.6256"N	80°46'30.4687"W	8055.50	152.649	0.70	-0.16	-0.68	
14965.00	89.200	162.190	6453.09	8047.74	-7245.12	3730.93	1703986.12	14301458.32	39°22'58.7337"N	80°46'30.0911"W	8149.33	152.753	1.11	0.03	1.11	
15060.00	89.200	163.720	6454.42	8142.70	-7335.93	3758.77	1704013.96	14301367.54	39°22'57.8354"N	80°46'29.7393"W	8242.83	152.870	1.61	0.00	1.61	



Actual Wellpath Report

Avalanche Unit 3H AWP Proj: 18131'
Page 8 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 3H
Field	Tyler	API	47-095-02604-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05		

WELLPATH DATA (214 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
15154.00	89.200	164.020	6455.73	8236.63	-7426.22	3784.88	1704040.06	14301277.29	39°22'56.9424"N	80°46'29.4097"W	8335.12	152.994	0.32	0.00	0.32	
15249.00	90.000	164.880	6456.39	8331.53	-7517.74	3810.35	1704065.51	14301185.81	39°22'56.0373"N	80°46'29.0883"W	8428.24	153.122	1.24	0.84	0.91	
15344.00	90.150	160.090	6456.27	8426.50	-7608.31	3838.93	1704094.09	14301095.27	39°22'55.1414"N	80°46'28.7271"W	8521.96	153.226	5.04	0.16	-5.04	
15439.00	90.370	157.770	6455.84	8521.37	-7696.95	3873.08	1704128.22	14301006.67	39°22'54.2645"N	80°46'28.2950"W	8616.49	153.289	2.45	0.23	-2.44	
15534.00	90.370	153.890	6455.22	8615.83	-7783.61	3911.97	1704167.10	14300920.05	39°22'53.4071"N	80°46'27.8025"W	8711.38	153.316	4.08	0.00	-4.08	
15628.00	90.370	150.840	6454.62	8708.54	-7866.87	3955.57	1704210.67	14300836.82	39°22'52.5830"N	80°46'27.2500"W	8805.35	153.306	3.24	0.00	-3.24	
15723.00	90.250	152.010	6454.10	8801.98	-7950.30	4001.01	1704256.09	14300753.43	39°22'51.7574"N	80°46'26.6740"W	8900.30	153.286	1.24	-0.13	1.23	
15817.00	90.250	159.150	6453.69	8895.37	-8035.83	4039.84	1704294.91	14300667.92	39°22'50.9110"N	80°46'26.1822"W	8994.16	153.310	7.60	0.00	7.60	
15912.00	90.400	165.850	6453.15	8990.31	-8126.38	4068.39	1704323.45	14300577.41	39°22'50.0154"N	80°46'25.8215"W	9087.90	153.406	7.05	0.16	7.05	
16007.00	90.280	169.080	6452.59	9084.83	-8219.10	4089.01	1704344.06	14300484.73	39°22'49.0985"N	80°46'25.5619"W	9180.07	153.550	3.40	-0.13	3.40	
16101.00	90.430	168.880	6452.01	9178.09	-8311.37	4106.98	1704362.02	14300392.50	39°22'48.1861"N	80°46'25.3360"W	9270.71	153.704	0.27	0.16	-0.21	
16195.00	90.220	169.210	6451.47	9271.34	-8403.65	4124.84	1704379.88	14300300.25	39°22'47.2736"N	80°46'25.1115"W	9361.39	153.856	0.42	-0.22	0.35	
16290.00	90.550	163.370	6450.84	9366.01	-8495.91	4147.34	1704402.37	14300208.03	39°22'46.3612"N	80°46'24.8278"W	9454.15	153.980	6.16	0.35	-6.15	
16385.00	90.250	158.260	6450.17	9460.96	-8585.60	4178.55	1704433.57	14300118.38	39°22'45.4740"N	80°46'24.4332"W	9548.44	154.048	5.39	-0.32	-5.38	
16479.00	90.490	156.610	6449.56	9554.68	-8672.40	4214.62	1704469.62	14300031.61	39°22'44.6152"N	80°46'23.9767"W	9642.28	154.081	1.77	0.26	-1.76	
16573.00	90.310	155.730	6448.91	9648.22	-8758.38	4252.60	1704507.59	14299945.67	39°22'43.7645"N	80°46'23.4958"W	9736.21	154.101	0.96	-0.19	-0.94	
16668.00	90.280	161.180	6448.42	9743.02	-8846.71	4287.47	1704542.44	14299857.37	39°22'42.8906"N	80°46'23.0546"W	9830.90	154.143	5.74	-0.03	5.74	
16762.00	90.220	167.380	6448.01	9836.89	-8937.15	4312.93	1704567.89	14299766.97	39°22'41.9961"N	80°46'22.7333"W	9923.40	154.239	6.60	-0.06	6.60	
16856.00	90.150	168.030	6447.70	9930.39	-9028.99	4332.94	1704587.90	14299675.16	39°22'41.0879"N	80°46'22.4813"W	10014.84	154.364	0.70	-0.07	0.69	
16951.00	90.460	166.530	6447.20	10024.95	-9121.65	4353.86	1704608.81	14299582.54	39°22'40.1715"N	80°46'22.2179"W	10107.46	154.484	1.61	0.33	-1.58	
17045.00	90.340	163.820	6446.54	10118.78	-9212.51	4377.91	1704632.85	14299491.71	39°22'39.2729"N	80°46'21.9146"W	10199.83	154.582	2.89	-0.13	-2.88	
17140.00	90.310	162.040	6446.00	10213.76	-9303.32	4405.79	1704660.72	14299400.94	39°22'38.3747"N	80°46'21.5624"W	10293.83	154.659	1.87	-0.03	-1.87	
17234.00	90.220	163.020	6445.57	10307.75	-9392.99	4434.01	1704688.93	14299311.31	39°22'37.4878"N	80°46'21.2059"W	10386.95	154.730	1.05	-0.10	1.04	
17329.00	89.970	165.720	6445.41	10402.64	-9484.46	4459.60	1704714.51	14299219.87	39°22'36.5830"N	80°46'20.8830"W	10480.61	154.817	2.85	-0.26	2.84	
17423.00	90.920	164.990	6444.68	10496.46	-9575.41	4483.37	1704738.27	14299128.96	39°22'35.6836"N	80°46'20.5833"W	10573.03	154.910	1.27	1.01	-0.78	
17519.00	90.580	157.110	6443.42	10592.37	-9666.12	4514.52	1704769.40	14299038.28	39°22'34.7862"N	80°46'20.1895"W	10668.40	154.965	8.22	-0.35	-8.21	
17613.00	89.750	159.350	6443.15	10686.18	-9753.41	4549.38	1704804.25	14298951.03	39°22'33.9226"N	80°46'19.7484"W	10762.24	154.994	2.54	-0.88	2.38	
17707.00	90.830	164.880	6442.68	10780.14	-9842.83	4578.23	1704833.09	14298861.64	39°22'33.0381"N	80°46'19.3838"W	10855.49	155.055	5.99	1.15	5.88	
17802.00	90.770	164.990	6441.35	10874.99	-9934.56	4602.92	1704857.77	14298769.95	39°22'32.1309"N	80°46'19.0724"W	10949.08	155.141	0.13	-0.06	0.12	
17897.00	90.650	163.420	6440.17	10969.89	-10025.96	4628.78	1704883.62	14298678.59	39°22'31.2269"N	80°46'18.7461"W	11042.89	155.218	1.66	-0.13	-1.65	



Actual Wellpath Report

Avalanche Unit 3H AWP Proj: 18131'
Page 9 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 3H
Field	Tyler	API	47-095-02604-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05		

WELLPATH DATA (214 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
17991.00	90.920	161.550	6438.88	11063.87	-10115.59	4657.07	1704911.89	14298588.99	39°22'30.3403"N	80°46'18.3888"W	11136.13	155.279	2.01	0.29	-1.99	
18085.00	90.920	162.160	6437.37	11157.86	-10204.91	4686.34	1704941.15	14298499.72	39°22'29.4569"N	80°46'18.0189"W	11229.51	155.334	0.65	0.00	0.65	
18106.00	91.140	162.160	6437.00	11178.86	-10224.89	4692.77	1704947.58	14298479.74	39°22'29.2592"N	80°46'17.9376"W	11250.36	155.347	1.05	1.05	0.00	
18131.00‡	91.140	162.160	6436.50	11203.85	-10248.69	4700.43	1704955.23	14298455.95	39°22'29.0238"N	80°46'17.8409"W	11275.17	155.362	0.00	0.00	0.00	Projected MD at TD: 18131'

HOLE & CASING SECTIONS - Ref Wellbore: Avalanche Unit 3H AWB Ref Wellpath: Avalanche Unit 3H AWP Proj: 18131'

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	25.00	105.00	80.00	25.00	105.00	0.00	0.00	0.01	0.15
17.5in Open Hole	105.00	441.00	336.00	105.00	440.99	0.01	0.15	-0.54	2.46
13.375in Casing Surface	25.00	431.80	406.80	25.00	431.79	0.00	0.00	-0.54	2.37
12.25in Open Hole	441.00	2663.00	2222.00	440.99	2608.07	-0.54	2.46	319.70	312.87
9.625in Casing Intermediate	25.00	2648.40	2623.40	25.00	2593.89	0.00	0.00	317.00	310.65
8.75in Open Hole	2663.00	4318.00	1655.00	2608.07	4216.65	319.70	312.87	613.72	560.51
8.5in Open Hole	4318.00	18131.00	13813.00	4216.65	6436.50	613.72	560.51	-10248.69	4700.43
5.5in Casing Production	25.00	18131.00	18106.00	25.00	6436.50	0.00	0.00	-10248.69	4700.43



Actual Wellpath Report

Avalanche Unit 3H AWP Proj: 18131'
Page 10 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 3H
Field	Tyler	API	47-095-02604-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Avalanche Unit 3H - POE - Rev-3	6415.00	450.26	1197.76	1701453.96	14309150.64	39°24'14.8522"N	80°47'2.1174"W	point
Avalanche Unit 3H - BHL - Rev-3	6441.00	-10265.79	4718.73	1704973.53	14298438.86	39°22'28.8543"N	80°46'17.6084"W	point
Avalanche Unit 3H - LP - Rev-3	6441.00	268.59	1257.45	1701513.63	14308969.05	39°24'13.0553"N	80°47'1.3625"W	point

WELLPATH COMPOSITION - Ref Wellbore: Avalanche Unit 3H AWB Ref Wellpath: Avalanche Unit 3H AWP Proj: 18131'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.00	355.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2">(100'-355')	Avalanche Unit 3H AWB	
355.00	839.00	Gyrodata 2015 - GC+WIR+DPIPE	02 Gyrodata MS Gyro <12-1/4">(355')(447'-839')	Avalanche Unit 3H AWB	
839.00	2593.00	BH NaviTrak (Axial)	03 APS EM <12-1/4">(839')(960'-2593')	Avalanche Unit 3H AWB	
2593.00	4262.00	BH NaviTrak (2019) (Axial)	04 BHI NaviTrak <8-3/4">(2593')(2678'-4262')	Avalanche Unit 3H AWB	12/16/2019
4262.00	18131.00	BH AutoTrak Curve (2019) (Short spacing)	05 BH AT Curve <8-1/2">(4262')(4361'-18106')	Avalanche Unit 3H AWB	



Actual Wellpath Report

Avalanche Unit 3H AWP Proj: 18131'

Page 11 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Avalanche Unit 3H
Field	Tyler	API	47-095-02604-0000
Facility	Colorado East Pad	Wellbore	Avalanche Unit 3H AWB
Slot	Slot #05		

COMMENTS

Wellpath general comments

API: 47-095-02604-0000

BHI Job #: 110086781B

Rig: Patterson 342

Duration: 11/05/2019-12/23/2019

Gyrodata MS Gyro <17-1/2">(100'-355')

Gyrodata MS Gyro <12-1/4">(355')(447'-839')

APS EM <12-1/4">(839')(960'-2593')

BHI NaviTrak <8-3/4">(2593')(2678'-4262')

BH AT Curve <8-1/2"> (4262')(4361'-18106')

Middlesex: 6417' MD

Burkett: 6632' MD

Tully: 6691' MD

Hamilton: 6792' MD

Marcellus POE: 6833' MD

Projected MD at TD: 18131'