



# Actual Wellpath Report

Kirk Hadley Unit 1H AWP Proj: 14328'

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REFERENCE WELLPATH IDENTIFICATION		
Operator	ANTERO RESOURCES CORPORATION	Slot #09
Area	Tyler County, WV	Kirk Hadley Unit 1H
Field	Tyler	Kirk Hadley Unit 1H AWB
Facility	Kirk Hadley Pad	

REPORT SETUP INFORMATION		
Projection System	NAD27 / UTM Zone 17 North, US feet	Software System
North Reference	Grid	User
Scale	0.999600	Report Generated
Convergence at slot	0.04° East	Database/Source file
		WA_MPL_EasternUS_Defn/Kirk_Hadley_Unit_1H_AWP_Proj_14328_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	78.87	13.58	1659534.22	14330658.66	39°27'48.163"N	80°55'56.152"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	Patterson 342 (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	Patterson 342 (RKB) to Mean Sea Level
Vertical Reference Pt	Patterson 342 (RKB)	Patterson 342 (RKB) to Ground Level at Slot (Slot #09)
MD Reference Pt	Patterson 342 (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth
		25.00ft
		937.00ft
		25.00ft
		N 0.00, E 0.00 ft
		161.23°



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Area	Tyler County, WV	Well	Kirk Hadley Unit 1H
Field	Tyler	Wellbore	Kirk Hadley Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH DATA (168 stations) f = 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
0.00	0.00	94.66	0.00	0.00	0.00	0.00	1659534.22	14330658.65	39°27'48.163"N	80°55'56.152"W	0.00	0.000	0.00	0.00	0.00	
25.00	0.00	94.66	25.00	0.00	0.00	0.00	1659534.22	14330658.65	39°27'48.163"N	80°55'56.152"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.180	94.66	100.00	0.05	-0.01	0.12	1659534.34	14330658.65	39°27'48.163"N	80°55'56.151"W	0.12	94.660	0.24	0.24	126.21	Gyrodata MS Gyro <17-1/2"> (100-450')
200.00	0.180	116.01	200.00	0.22	-0.09	0.42	1659534.64	14330658.56	39°27'48.162"N	80°55'56.147"W	0.43	102.392	0.07	0.00	21.35	
300.00	0.280	118.79	300.00	0.51	-0.28	0.77	1659534.99	14330658.38	39°27'48.160"N	80°55'56.142"W	0.82	109.828	0.10	0.10	2.78	
380.00	0.320	125.84	380.00	0.84	-0.50	1.12	1659535.34	14330658.15	39°27'48.158"N	80°55'56.138"W	1.23	114.119	0.07	0.05	8.81	
450.00	0.590	103.07	450.00	1.19	-0.70	1.63	1659535.85	14330657.96	39°27'48.156"N	80°55'56.131"W	1.78	113.171	0.46	0.39	-32.53	
534.00	0.200	89.60	533.99	1.46	-0.80	2.20	1659536.42	14330657.86	39°27'48.155"N	80°55'56.124"W	2.34	109.876	0.47	-0.48	-16.04	Gyrodata MS Gyro <12-1/4"> (450)(534-715)
625.00	1.550	291.52	624.98	0.72	-0.34	1.21	1659535.44	14330658.31	39°27'48.160"N	80°55'56.137"W	1.26	105.769	1.91	1.48	-173.71	
715.00	4.210	290.66	714.86	-2.17	1.27	-3.01	1659531.21	14330659.92	39°27'48.176"N	80°55'56.190"W	3.27	292.867	2.96	2.96	-0.96	
832.00	7.600	286.36	831.22	-9.35	4.97	-14.46	1659519.77	14330663.62	39°27'48.212"N	80°55'56.336"W	15.28	288.956	2.92	2.90	-3.68	WFT EM <12-1/4"> (715)(832-2563)
927.00	10.300	278.68	925.06	-16.88	8.02	-28.88	1659505.35	14330666.67	39°27'48.242"N	80°55'56.520"W	29.97	285.513	3.10	2.84	-8.08	
1021.00	13.010	274.94	1017.12	-25.01	10.20	-47.74	1659486.51	14330668.85	39°27'48.264"N	80°55'56.761"W	48.81	282.058	2.99	2.88	-3.98	
1116.00	16.230	270.45	1109.03	-33.69	11.22	-71.67	1659462.58	14330669.87	39°27'48.274"N	80°55'57.066"W	72.54	278.899	3.59	3.39	-4.73	
1211.00	17.320	266.46	1199.99	-41.77	10.45	-99.06	1659435.20	14330669.10	39°27'48.267"N	80°55'57.415"W	99.61	276.024	1.67	1.15	-4.20	
1306.00	18.200	263.26	1290.46	-48.58	7.84	-127.91	1659406.36	14330666.49	39°27'48.241"N	80°55'57.783"W	128.15	273.507	1.38	0.93	-3.37	
1400.00	17.050	258.42	1380.06	-53.36	3.35	-155.99	1659378.29	14330662.00	39°27'48.197"N	80°55'58.141"W	156.03	271.230	1.98	-1.22	-5.15	
1494.00	14.960	260.47	1470.41	-57.04	-1.43	-181.46	1659352.83	14330657.23	39°27'48.150"N	80°55'58.466"W	181.47	269.550	2.30	-2.22	2.18	
1589.00	13.440	263.62	1562.50	-61.38	-4.68	-204.53	1659329.78	14330653.97	39°27'48.118"N	80°55'58.760"W	204.58	268.688	1.79	-1.60	3.32	
1684.00	13.900	268.50	1654.82	-67.13	-6.21	-226.91	1659307.41	14330652.45	39°27'48.103"N	80°55'59.045"W	226.99	268.433	1.31	0.48	5.14	
1778.00	13.810	263.67	1746.08	-72.90	-7.74	-249.35	1659284.98	14330650.92	39°27'48.088"N	80°55'59.331"W	249.47	268.222	1.23	-0.10	-5.14	
1873.00	13.990	264.92	1838.30	-78.06	-10.01	-272.05	1659262.28	14330648.65	39°27'48.066"N	80°55'59.621"W	272.24	267.893	0.37	0.19	1.32	
1968.00	14.370	267.46	1930.41	-84.07	-11.55	-295.27	1659239.07	14330647.11	39°27'48.051"N	80°55'59.917"W	295.49	267.760	0.77	0.40	2.67	
2062.00	14.710	262.28	2021.40	-89.62	-13.67	-318.75	1659215.60	14330644.99	39°27'48.030"N	80°56'00.216"W	319.04	267.545	1.43	0.36	-5.51	
2157.00	12.820	261.70	2113.67	-93.85	-16.81	-341.13	1659193.23	14330641.85	39°27'47.999"N	80°56'00.502"W	341.55	267.179	1.99	-1.99	-0.61	
2251.00	12.340	267.80	2205.42	-98.61	-18.70	-361.49	1659172.88	14330639.96	39°27'47.981"N	80°56'00.761"W	361.97	267.039	1.50	-0.51	6.49	
2346.00	14.520	272.88	2297.82	-105.90	-18.49	-383.53	1659150.84	14330640.17	39°27'47.983"N	80°56'01.042"W	383.98	267.240	2.61	2.29	5.35	
2441.00	14.370	271.65	2389.81	-114.41	-17.55	-407.21	1659127.18	14330641.11	39°27'47.992"N	80°56'01.344"W	407.59	267.532	0.36	-0.16	-1.29	
2535.00	14.320	267.47	2480.88	-121.73	-17.73	-430.48	1659103.91	14330640.93	39°27'47.991"N	80°56'01.641"W	430.85	267.641	1.10	-0.05	-4.45	
2563.00	14.400	266.31	2508.01	-123.60	-18.11	-437.42	1659096.98	14330640.55	39°27'47.987"N	80°56'01.728"W	437.79	267.629	1.07	0.23	-4.14	



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Area	Tyler County, WV	Well	Kirk Hadley Unit 1H
Field	Tyler	Wellbore	Kirk Hadley Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH DATA (168 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
2664.00	14.400	265.420	2605.84	-129.95	-19.92	-462.47	1659071.94	14330638.74	39°27'47.970"N	80°56'02.049"W	462.90	267.534	0.22	0.00	-0.89	WFT EM <8-3'4">(2663')(2664'-5883')
2759.00	13.890	265.010	2697.96	-135.56	-21.86	-485.60	1659048.81	14330636.81	39°27'47.951"N	80°56'02.344"W	486.09	267.381	1.95	1.79	3.02	
2854.00	15.590	267.880	2789.83	-141.93	-23.32	-509.72	1659024.70	14330635.34	39°27'47.936"N	80°56'02.651"W	510.26	267.394	0.22	-0.18	-0.44	
2948.00	15.420	267.470	2880.41	-149.05	-24.34	-534.83	1658999.61	14330633.33	39°27'47.926"N	80°56'02.971"W	535.38	267.378	0.56	-0.51	-0.94	
3043.00	14.940	266.580	2972.09	-155.82	-25.63	-559.67	1658974.78	14330633.04	39°27'47.914"N	80°56'03.288"W	560.26	267.309	0.58	-0.34	-1.86	
3138.00	14.620	264.810	3063.95	-161.88	-27.44	-583.84	1658950.62	14330631.22	39°27'47.896"N	80°56'03.596"W	584.48	267.278	1.42	-1.11	3.68	
3232.00	13.580	268.270	3155.12	-167.90	-28.85	-606.68	1658927.78	14330629.82	39°27'47.882"N	80°56'03.887"W	607.37	267.288	0.37	-0.13	-1.50	
3326.00	13.460	266.860	3246.51	-174.08	-29.78	-628.64	1658905.84	14330628.69	39°27'47.873"N	80°56'04.167"W	629.34	267.365	1.53	0.81	5.41	
3421.00	14.230	272.000	3338.75	-181.20	-29.98	-651.35	1658883.14	14330628.69	39°27'47.871"N	80°56'04.457"W	652.04	267.510	0.22	-0.01	-0.89	
3516.00	14.220	271.150	3430.84	-189.32	-29.34	-674.68	1658859.81	14330629.33	39°27'47.878"N	80°56'04.754"W	675.32	267.589	0.71	-0.30	-2.65	
3610.00	13.940	268.660	3522.02	-196.64	-29.37	-697.54	1658836.96	14330629.30	39°27'47.878"N	80°56'05.046"W	698.16	267.589	0.82	-0.69	-1.86	
3705.00	13.280	266.890	3614.35	-203.01	-30.23	-719.88	1658814.63	14330628.44	39°27'47.869"N	80°56'05.331"W	720.51	267.569	1.53	1.53	-0.33	
3799.00	14.720	268.580	3705.56	-209.09	-31.53	-742.58	1658791.94	14330627.14	39°27'47.857"N	80°56'05.620"W	743.25	267.504	0.66	-0.31	-2.33	
3894.00	14.430	264.370	3797.50	-214.98	-33.41	-766.41	1658768.12	14330625.26	39°27'47.838"N	80°56'05.924"W	767.14	267.444	0.93	0.70	2.40	
3988.00	15.090	266.630	3888.40	-220.89	-35.28	-790.28	1658744.26	14330623.39	39°27'47.820"N	80°56'06.228"W	791.07	267.387	0.57	-0.12	-2.16	
4085.00	14.970	264.530	3982.08	-227.12	-37.21	-815.36	1658719.19	14330621.46	39°27'47.801"N	80°56'06.548"W	816.21	267.118	1.01	0.06	0.06	
4180.00	14.840	262.020	4073.89	-232.22	-40.07	-839.62	1658694.94	14330618.00	39°27'47.773"N	80°56'06.858"W	840.58	267.268	0.69	-0.14	-2.64	
4274.00	15.790	262.080	4164.55	-236.88	-43.51	-864.21	1658670.36	14330615.17	39°27'47.739"N	80°56'07.171"W	865.30	267.118	1.01	0.06	0.06	
4369.00	16.370	263.930	4255.83	-242.26	-46.70	-890.32	1658644.26	14330611.97	39°27'47.708"N	80°56'07.504"W	891.55	266.997	0.81	0.61	1.95	
4463.00	15.660	265.210	4346.18	-248.24	-49.16	-916.14	1658618.45	14330609.51	39°27'47.684"N	80°56'07.833"W	917.46	266.928	0.84	-0.76	1.36	
4558.00	14.870	267.570	4437.83	-254.76	-50.75	-941.09	1658593.51	14330607.93	39°27'47.668"N	80°56'08.151"W	942.46	266.913	1.06	-0.83	2.48	
4653.00	14.670	271.560	4529.69	-262.37	-50.94	-965.30	1658569.31	14330607.74	39°27'47.667"N	80°56'08.460"W	966.64	266.979	1.09	-0.21	4.20	
4747.00	15.180	270.610	4620.52	-270.59	-50.48	-989.50	1658545.12	14330608.19	39°27'47.671"N	80°56'08.769"W	990.79	267.079	0.60	0.54	-1.01	
4842.00	13.770	272.850	4712.50	-278.89	-49.79	-1013.23	1658521.39	14330608.89	39°27'47.678"N	80°56'09.071"W	1014.46	267.187	1.60	-1.48	2.36	
4936.00	12.900	275.080	4803.97	-287.25	-48.30	-1034.86	1658499.78	14330610.37	39°27'47.693"N	80°56'09.347"W	1035.99	267.328	1.08	-0.93	2.37	
5031.00	12.960	266.670	4896.57	-294.38	-47.98	-1056.06	1658478.59	14330610.69	39°27'47.696"N	80°56'09.617"W	1057.15	267.398	1.48	0.06	-8.85	
5125.00	13.540	261.270	4988.07	-299.10	-50.27	-1077.46	1658457.20	14330608.41	39°27'47.674"N	80°56'09.890"W	1078.63	267.329	1.95	0.62	-5.74	
5220.00	13.880	264.120	5080.36	-303.58	-53.12	-1099.79	1658434.88	14330605.55	39°27'47.646"N	80°56'10.175"W	1101.07	267.235	0.80	0.36	3.00	
5314.00	14.100	267.560	5171.58	-309.32	-54.76	-1122.44	1658412.23	14330603.91	39°27'47.630"N	80°56'10.464"W	1123.78	267.207	0.91	0.23	3.66	
5408.00	14.500	275.130	5263.64	-317.39	-54.19	-1145.85	1658388.83	14330604.48	39°27'47.636"N	80°56'10.762"W	1147.13	267.292	2.01	0.42	7.97	



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5504.00	15.040	270.420	5355.51	-326.26	-53.04	-1170.02	1658364.67	14330605.64	39°27'47.647"N	80°56'11.070"W	1171.22	267.404	1.39	0.57	-4.93	
5599.00	14.990	243.090	5447.38	-328.57	-58.52	-1193.33	1658341.37	14330600.15	39°27'47.593"N	80°56'11.368"W	1194.77	267.193	7.39	-0.05	-28.77	
5644.00	16.640	227.240	5490.69	-325.13	-65.53	-1203.26	1658331.45	14330593.15	39°27'47.524"N	80°56'11.494"W	1205.04	266.883	10.24	3.67	-35.22	
5693.00	19.450	215.550	5537.29	-317.51	-76.94	-1213.16	1658321.55	14330581.75	39°27'47.411"N	80°56'11.621"W	1215.60	266.371	9.33	5.73	-23.86	
5738.00	21.860	207.510	5579.41	-307.35	-90.47	-1221.39	1658313.33	14330568.22	39°27'47.278"N	80°56'11.726"W	1224.73	265.764	8.26	5.36	-17.87	
5788.00	23.100	199.360	5625.62	-293.20	-107.98	-1228.94	1658305.78	14330550.72	39°27'47.105"N	80°56'11.822"W	1233.68	264.979	6.70	2.48	-16.30	
5833.00	24.230	192.070	5666.84	-278.32	-125.34	-1233.80	1658300.92	14330533.36	39°27'46.933"N	80°56'11.884"W	1240.15	264.199	6.97	2.51	-16.20	
5883.00	26.290	185.210	5712.07	-259.39	-146.41	-1238.95	1658297.77	14330512.30	39°27'46.725"N	80°56'11.925"W	1245.59	263.250	7.15	4.12	-13.72	
5932.00	30.460	181.730	5755.17	-237.83	-169.64	-1238.31	1658296.41	14330489.08	39°27'46.495"N	80°56'11.942"W	1249.88	262.199	9.15	8.51	-7.10	BH AT Curve <8-1/2"> (59833\59932-14304')
5991.00	34.140	177.190	5805.04	-207.89	-201.14	-1237.95	1658296.77	14330457.59	39°27'46.184"N	80°56'11.938"W	1254.19	260.771	7.47	6.24	-7.68	
6086.00	38.710	168.190	5881.52	-152.70	-256.92	-1230.56	1658304.16	14330401.84	39°27'45.633"N	80°56'11.844"W	1257.09	258.207	7.39	4.81	-9.47	
6181.00	42.020	163.740	5953.91	-91.42	-316.55	-1215.57	1658319.14	14330342.24	39°27'45.043"N	80°56'11.653"W	1256.11	255.404	4.62	3.48	-4.68	
6277.00	49.960	161.360	6020.56	-22.46	-382.32	-1194.79	1658339.91	14330276.49	39°27'44.393"N	80°56'11.389"W	1254.47	252.256	8.46	8.27	-2.48	
6278.00†	50.071	161.361	6021.20	-21.69	-383.05	-1194.54	1658340.16	14330275.76	39°27'44.386"N	80°56'11.386"W	1254.46	252.221	11.07	11.07	0.13	Middlesex: 6278' MD
6371.00	60.370	161.470	6074.18	54.59	-455.35	-1170.24	1658364.46	14330203.48	39°27'43.671"N	80°56'11.077"W	1255.71	248.738	11.07	11.07	0.12	
6448.00†	66.063	162.883	6107.64	123.86	-521.32	-1149.06	1658385.63	14330137.54	39°27'43.019"N	80°56'10.807"W	1261.79	245.597	10.13	10.00	1.84	Burkett: 6448' MD
6466.00	69.870	163.190	6114.10	140.65	-537.39	-1144.16	1658390.53	14330121.48	39°27'42.860"N	80°56'10.745"W	1264.07	244.841	10.13	10.01	1.70	
6513.00	73.650	165.150	6128.81	185.22	-580.33	-1131.99	1658402.69	14330078.56	39°27'42.436"N	80°56'10.590"W	1272.08	242.858	8.96	8.04	4.17	
6522.00†	74.393	165.251	6131.29	193.85	-588.69	-1129.78	1658404.90	14330070.20	39°27'42.353"N	80°56'10.562"W	1273.95	242.477	8.32	8.25	1.12	Tully: 6522' MD
6560.00	77.530	165.670	6140.51	230.61	-624.37	-1120.53	1658414.14	14330034.53	39°27'42.000"N	80°56'10.444"W	1282.74	240.873	8.32	8.26	1.10	
6572.00†	78.185	166.045	6143.03	242.31	-635.75	-1117.66	1658417.01	14330023.16	39°27'41.888"N	80°56'10.408"W	1285.82	240.368	6.26	5.46	3.13	Marcellus POE: 6572' MD
6607.00	80.100	167.130	6149.62	276.53	-669.18	-1109.69	1658424.98	14329989.74	39°27'41.557"N	80°56'10.307"W	1295.84	238.909	6.26	5.47	3.10	
6655.00	81.880	169.080	6157.14	323.59	-715.57	-1099.92	1658434.74	14329943.37	39°27'41.099"N	80°56'10.183"W	1312.20	236.953	5.46	3.71	4.06	
6702.00	82.630	170.100	6163.48	369.67	-761.37	-1091.51	1658443.15	14329897.59	39°27'40.646"N	80°56'10.076"W	1330.82	235.103	2.68	1.60	2.17	
6750.00	84.360	170.890	6168.91	416.73	-808.41	-1083.63	1658451.03	14329850.57	39°27'40.181"N	80°56'09.976"W	1351.95	233.277	3.96	3.60	1.65	
6797.00	87.230	170.310	6172.36	462.98	-854.64	-1075.98	1658458.68	14329804.35	39°27'39.724"N	80°56'09.878"W	1374.10	231.540	6.23	6.11	-1.23	
6845.00	87.170	171.840	6174.70	510.21	-902.00	-1068.54	1658466.11	14329757.01	39°27'39.256"N	80°56'09.784"W	1398.35	229.831	3.19	-0.13	3.19	
6892.00	88.250	171.010	6176.58	556.43	-943.44	-1061.54	1658473.11	14329710.59	39°27'38.797"N	80°56'09.695"W	1423.52	228.220	2.90	2.30	-1.77	
6941.00	89.660	167.780	6177.48	604.92	-986.59	-1052.52	1658482.12	14329662.47	39°27'38.321"N	80°56'09.581"W	1449.48	226.564	7.19	2.88	-6.59	
7037.00	89.290	161.940	6178.36	700.68	-1089.21	-1027.46	1658507.17	14329569.88	39°27'37.405"N	80°56'09.262"W	1497.35	223.329	6.10	-0.39	-6.08	



# Actual Wellpath Report

Kirk Hadley Unit 1H AWP Proj: 14328'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Tyler County, WV	Well	Kirk Hadley Unit 1H
Field	Tyler	Wellbore	Kirk Hadley Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH DATA (168 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 (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
7132.00	89.630	158.510	6179.25	795.65	-1178.59	-995.33	1658539.30	14329480.54	39°27'36.522"N	80°56'08.853"W	1542.64	220.181	3.63	0.36	-3.61	
7228.00	88.430	158.080	6180.88	891.51	-1267.77	-959.83	1658574.78	14329391.39	39°27'35.640"N	80°56'08.401"W	1590.13	217.129	1.33	-1.25	-0.45	
7323.00	88.980	161.040	6183.03	986.43	-1356.76	-926.66	1658607.93	14329302.44	39°27'34.760"N	80°56'07.979"W	1643.01	214.333	3.17	0.58	3.12	
7418.00	89.170	161.120	6184.56	1081.42	-1446.61	-895.86	1658638.72	14329212.62	39°27'33.872"N	80°56'07.588"W	1701.55	211.769	0.22	0.20	0.08	
7512.00	89.110	161.040	6185.97	1175.41	-1535.52	-865.39	1658669.18	14329123.75	39°27'32.993"N	80°56'07.200"W	1762.59	209.405	0.11	-0.06	-0.09	
7608.00	89.260	162.030	6187.34	1271.39	-1626.57	-834.99	1658699.57	14329032.74	39°27'32.093"N	80°56'06.813"W	1828.37	207.173	1.04	0.16	1.03	
7703.00	89.170	163.360	6188.64	1366.35	-1717.26	-806.73	1658727.82	14328942.08	39°27'31.196"N	80°56'06.454"W	1897.31	205.163	1.40	-0.09	1.40	
7798.00	89.380	162.120	6189.84	1461.31	-1807.97	-778.55	1658755.99	14328851.41	39°27'30.300"N	80°56'06.095"W	1968.48	203.298	1.32	0.22	-1.31	
7892.00	89.750	157.060	6190.55	1555.24	-1896.04	-745.78	1658788.74	14328763.37	39°27'29.429"N	80°56'05.878"W	2037.44	201.471	5.40	0.39	-5.38	
7987.00	89.690	152.110	6191.02	1649.57	-1981.82	-705.02	1658829.49	14328677.63	39°27'28.581"N	80°56'05.159"W	2103.49	199.583	5.21	-0.06	-5.21	
8082.00	89.570	148.310	6191.63	1742.80	-2064.25	-657.83	1658876.66	14328595.23	39°27'27.766"N	80°56'04.558"W	2166.53	197.676	4.00	-0.13	-4.00	
8177.00	89.050	149.160	6192.78	1835.54	-2145.45	-608.53	1658925.94	14328514.07	39°27'26.963"N	80°56'03.931"W	2230.08	195.835	1.05	-0.55	0.89	
8272.00	89.110	149.740	6194.30	1928.53	-2227.25	-560.25	1658974.20	14328432.30	39°27'26.154"N	80°56'03.316"W	2296.63	194.119	0.61	0.06	0.61	
8367.00	89.080	154.440	6195.80	2022.28	-2311.16	-515.80	1659018.63	14328348.42	39°27'25.325"N	80°56'02.750"W	2368.02	192.581	4.95	-0.03	4.95	
8462.00	89.350	158.360	6197.10	2116.92	-2398.19	-477.78	1659056.64	14328261.42	39°27'24.464"N	80°56'02.266"W	2445.32	191.267	4.14	0.28	4.13	
8556.00	89.660	162.000	6197.92	2210.88	-2486.61	-445.91	1659088.49	14328173.05	39°27'23.590"N	80°56'01.861"W	2526.27	190.167	3.89	0.33	3.87	
8650.00	89.540	162.900	6198.57	2304.86	-2576.23	-417.57	1659116.82	14328083.46	39°27'22.704"N	80°56'01.500"W	2609.85	189.207	0.97	-0.13	0.96	
8744.00	89.380	164.480	6199.46	2398.76	-2666.44	-391.17	1659143.21	14327993.29	39°27'21.812"N	80°56'01.164"W	2694.98	188.346	1.69	-0.17	1.68	
8840.00	89.780	166.450	6200.16	2494.49	-2759.36	-367.08	1659167.29	14327900.40	39°27'20.894"N	80°56'00.858"W	2783.67	187.578	2.09	0.42	2.05	
8936.00	89.450	165.990	6200.81	2590.13	-2852.99	-344.21	1659190.15	14327807.21	39°27'19.972"N	80°56'00.568"W	2873.29	186.880	0.59	-0.34	-0.48	
9031.00	89.420	165.110	6201.74	2684.85	-2944.58	-320.51	1659213.84	14327715.26	39°27'19.063"N	80°56'00.266"W	2961.97	186.212	0.93	-0.03	-0.93	
9125.00	89.290	164.490	6202.80	2778.66	-3035.29	-295.87	1659238.48	14327624.59	39°27'18.166"N	80°55'59.953"W	3049.67	185.567	0.67	0.17	-0.66	
9220.00	89.450	161.740	6203.85	2873.60	-3126.18	-268.28	1659266.05	14327533.73	39°27'17.268"N	80°55'59.602"W	3137.67	184.905	2.90	0.17	-2.89	
9315.00	89.350	160.520	6204.84	2968.59	-3216.07	-237.55	1659296.76	14327443.88	39°27'16.379"N	80°55'59.211"W	3224.83	184.224	1.29	-0.11	-1.28	
9411.00	89.380	157.800	6205.91	3064.51	-3305.77	-203.41	1659330.90	14327354.21	39°27'15.492"N	80°55'58.777"W	3312.02	183.521	2.83	0.03	-2.83	
9506.00	89.320	156.190	6206.98	3159.24	-3393.21	-166.28	1659368.01	14327266.81	39°27'14.628"N	80°55'58.304"W	3397.28	182.806	1.70	-0.06	-1.69	
9601.00	89.450	155.700	6208.00	3253.83	-3479.95	-127.56	1659406.71	14327180.10	39°27'13.770"N	80°55'57.812"W	3482.29	182.099	0.53	0.14	-0.52	
9695.00	89.480	155.410	6208.88	3347.37	-3565.52	-88.66	1659445.59	14327094.57	39°27'12.924"N	80°55'57.316"W	3566.62	181.424	0.31	0.03	-0.31	
9789.00	89.380	154.830	6209.82	3440.83	-3650.79	-49.12	1659485.12	14327009.33	39°27'12.081"N	80°55'56.813"W	3651.12	180.771	0.63	-0.11	-0.62	
9884.00	89.320	157.020	6210.89	3535.41	-3737.52	-10.37	1659523.86	14326922.64	39°27'11.224"N	80°55'56.320"W	3737.53	180.159	2.31	-0.06	2.31	



# Actual Wellpath Report

Kirk Hadley Unit 1H AWP Proj: 14328'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #09
Area	Tyler County, WV	Well	Kirk Hadley Unit 1H
Field	Tyler	Wellbore	Kirk Hadley Unit 1H AWB
Facility	Kirk Hadley Pad		

## WELLPATH DATA (168 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)	Comments
9978.00	89.450	159.540	6211.90	3629.27	-3824.83	24.41	1659558.62	14326835.36	39°27'10.360"N	80°55'55.877"W	3824.91	179.634	2.68	0.14	2.68	
10073.00	89.450	162.010	6212.82	3724.26	-3914.52	55.69	1659589.89	14326745.70	39°27'09.474"N	80°55'55.480"W	3914.92	179.185	2.60	0.00	2.60	
10168.00	89.720	166.710	6213.50	3819.09	-4005.98	81.29	1659615.48	14326654.29	39°27'08.570"N	80°55'55.154"W	4006.80	178.837	4.96	0.28	4.95	
10263.00	89.230	167.640	6214.37	3913.57	-4098.60	102.38	1659636.56	14326561.70	39°27'07.054"N	80°55'54.886"W	4099.88	178.569	1.11	-0.52	0.98	
10359.00	89.420	169.830	6215.51	4008.74	-4192.74	121.13	1659655.30	14326467.60	39°27'06.723"N	80°55'54.648"W	4194.49	178.345	2.29	0.20	2.28	
10454.00	89.480	173.720	6216.42	4102.11	-4288.74	134.72	1659668.89	14326373.84	39°27'05.794"N	80°55'54.476"W	4288.86	178.200	4.10	0.06	4.09	
10548.00	89.480	171.510	6217.27	4194.25	-4379.95	148.80	1659680.96	14326280.46	39°27'04.873"N	80°55'54.323"W	4382.41	178.080	2.35	0.00	-2.35	
10644.00	89.570	168.870	6218.07	4289.07	-4474.54	163.15	1659697.31	14326185.92	39°27'03.938"N	80°55'54.115"W	4477.51	177.912	2.75	0.09	-2.75	
10739.00	89.820	164.270	6218.57	4383.63	-4566.91	185.21	1659719.36	14326093.58	39°27'03.025"N	80°55'53.835"W	4570.67	177.678	4.85	0.26	-4.84	
10834.00	90.550	161.600	6218.27	4478.58	-4657.72	213.09	1659747.22	14326002.80	39°27'02.127"N	80°55'53.480"W	4662.59	177.381	2.91	0.77	-2.81	
10929.00	89.820	158.570	6217.96	4573.55	-4747.03	245.44	1659779.57	14325913.53	39°27'01.244"N	80°55'53.089"W	4753.37	177.040	3.28	-0.77	-3.19	
11024.00	89.910	159.310	6218.18	4668.47	-4835.68	279.58	1659813.69	14325824.92	39°27'00.368"N	80°55'52.634"W	4843.76	176.691	0.78	0.09	0.78	
11119.00	89.880	159.660	6218.36	4763.43	-4924.66	312.87	1659846.97	14325735.98	39°26'59.488"N	80°55'52.211"W	4934.58	176.365	0.37	-0.03	0.37	
11213.00	89.820	162.230	6218.60	4857.42	-5013.50	343.56	1659877.64	14325647.17	39°26'58.610"N	80°55'51.820"W	5025.26	176.080	2.73	-0.06	2.73	
11308.00	89.880	163.480	6218.85	4952.38	-5104.27	371.56	1659905.64	14325556.43	39°26'57.712"N	80°55'51.484"W	5117.78	175.837	1.32	0.06	1.32	
11403.00	89.750	164.200	6219.16	5047.28	-5195.52	398.00	1659932.07	14325465.22	39°26'56.810"N	80°55'51.128"W	5210.74	175.619	0.77	-0.14	0.76	
11498.00	89.880	164.120	6219.47	5142.15	-5286.91	423.93	1659957.99	14325373.87	39°26'55.907"N	80°55'50.799"W	5303.88	175.416	0.16	0.14	-0.08	
11594.00	89.420	163.140	6220.05	5238.06	-5379.02	450.99	1659985.03	14325281.80	39°26'54.996"N	80°55'50.455"W	5397.89	175.207	1.13	-0.48	-1.02	
11689.00	89.380	161.440	6221.05	5333.04	-5469.51	479.89	1660013.91	14325191.34	39°26'54.102"N	80°55'50.087"W	5490.52	174.986	1.79	-0.04	-1.79	
11785.00	89.380	159.670	6222.09	5429.02	-5560.02	511.84	1660045.86	14325100.87	39°26'53.207"N	80°55'49.681"W	5583.53	174.740	1.84	0.00	-1.84	
11881.00	89.290	158.580	6223.20	5524.95	-5649.71	548.05	1660080.05	14325011.21	39°26'52.320"N	80°55'49.246"W	5676.04	174.480	1.14	-0.09	-1.14	
11976.00	89.320	157.040	6224.35	5619.77	-5737.67	581.92	1660115.91	14324923.29	39°26'51.451"N	80°55'48.789"W	5767.10	174.209	1.82	0.03	-1.82	
12071.00	89.290	157.360	6225.50	5714.53	-5825.24	618.73	1660152.71	14324835.76	39°26'50.585"N	80°55'48.321"W	5858.01	173.937	0.34	-0.03	0.34	
12165.00	89.320	162.590	6226.67	5808.47	-5913.52	650.91	1660184.87	14324747.51	39°26'49.712"N	80°55'47.911"W	5949.23	173.719	5.56	0.00	5.56	
12260.00	89.320	165.120	6227.82	5903.35	-6004.76	677.32	1660211.27	14324656.31	39°26'48.810"N	80°55'47.576"W	6042.84	173.564	2.66	0.03	2.66	
12354.00	89.350	165.550	6228.91	5997.10	-6095.69	701.12	1660235.06	14324565.41	39°26'47.911"N	80°55'47.273"W	6135.88	173.439	0.46	0.00	0.46	
12449.00	89.350	164.160	6229.99	6091.91	-6187.38	725.93	1660259.86	14324473.76	39°26'47.005"N	80°55'46.958"W	6229.82	173.308	1.46	0.00	-1.46	
12544.00	89.350	161.670	6231.07	6186.85	-6278.18	753.84	1660287.76	14324383.00	39°26'46.107"N	80°55'46.603"W	6323.27	173.153	2.62	0.00	-2.62	
12639.00	89.630	160.440	6231.92	6281.85	-6368.02	784.68	1660318.59	14324293.19	39°26'45.219"N	80°55'46.211"W	6416.19	172.975	1.33	0.29	-1.29	
12733.00	89.380	157.280	6232.73	6375.75	-6455.68	818.58	1660352.47	14324203.56	39°26'44.352"N	80°55'45.760"W	6507.37	172.774	3.37	-0.27	-3.36	



# Actual Wellpath Report

Kirk Hadley Unit 1H AWP Proj: 14328'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #09
ANTERO RESOURCES CORPORATION	Kirk Hadley Unit 1H
Tyler County, WV	Kirk Hadley Unit 1H AWB
Tyler	
Kirk Hadley Pad	

## WELLPATH DATA (168 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
12827.00	89.380	155.020	6233.74	6469.37	-6541.65	856.58	1660390.46	14324119.64	39°26'43.503"N	80°55'45.296"W	6597.49	172.540	2.40	0.00	-2.40	
12922.00	89.290	154.040	6234.85	6563.71	-6627.41	897.43	1660431.29	14324033.91	39°26'42.655"N	80°55'44.776"W	6687.89	172.288	1.04	-0.03	-1.03	
13017.00	89.200	153.850	6236.10	6657.94	-6712.74	939.15	1660473.00	14323948.61	39°26'41.811"N	80°55'44.245"W	6778.12	172.036	0.22	-0.03	-0.20	
13112.00	89.200	153.370	6237.43	6752.09	-6797.84	981.37	1660515.20	14323863.55	39°26'40.970"N	80°55'43.708"W	6868.31	171.785	0.51	0.00	-0.51	
13207.00	89.290	154.490	6238.68	6846.31	-6883.16	1023.12	1660556.93	14323778.26	39°26'40.126"N	80°55'43.177"W	6968.78	171.545	1.18	0.00	1.18	
13302.00	89.260	153.950	6239.88	6940.59	-6968.70	1064.43	1660598.23	14323692.75	39°26'39.280"N	80°55'42.651"W	7049.52	171.315	0.57	-0.03	-0.57	
13397.00	88.860	155.400	6241.44	7034.95	-7054.55	1105.06	1660638.84	14323606.93	39°26'38.431"N	80°55'42.134"W	7140.58	171.097	1.58	-0.42	1.53	
13492.00	87.410	159.150	6244.53	7129.66	-7142.11	1141.74	1660675.50	14323519.41	39°26'37.566"N	80°55'41.667"W	7232.80	170.918	4.23	-1.53	3.95	
13586.00	89.290	163.480	6247.24	7223.59	-7231.10	1171.83	1660705.58	14323430.46	39°26'36.686"N	80°55'41.285"W	7325.43	170.795	5.02	2.00	4.61	
13681.00	89.480	164.210	6248.26	7318.49	-7322.34	1198.26	1660732.00	14323339.25	39°26'35.784"N	80°55'40.949"W	7419.74	170.706	0.79	0.20	0.77	
13776.00	89.480	162.320	6249.12	7413.42	-7413.31	1225.61	1660759.34	14323248.32	39°26'34.985"N	80°55'40.601"W	7513.94	170.612	1.99	0.00	-1.99	
13870.00	89.600	161.180	6249.88	7507.41	-7502.58	1255.05	1660788.77	14323159.09	39°26'34.002"N	80°55'40.227"W	7606.83	170.503	1.22	0.13	-1.21	
13965.00	89.630	161.500	6250.51	7602.41	-7592.58	1285.44	1660819.15	14323069.12	39°26'33.112"N	80°55'39.840"W	7700.63	170.391	0.34	0.03	0.34	
14060.00	89.380	161.710	6251.33	7697.40	-7682.72	1315.42	1660849.11	14322979.02	39°26'32.221"N	80°55'39.459"W	7794.52	170.284	0.34	-0.26	0.22	
14155.00	88.920	160.340	6252.74	7792.39	-7772.55	1346.31	1660879.99	14322889.23	39°26'31.333"N	80°55'39.066"W	7888.29	170.173	1.52	-0.48	-1.44	
14250.00	88.710	162.680	6254.71	7887.36	-7862.59	1376.50	1660910.17	14322799.22	39°26'30.443"N	80°55'38.682"W	7982.18	170.070	2.37	-0.22	2.36	
14304.00	87.720	164.590	6256.39	7941.29	-7914.36	1391.76	1660925.42	14322747.47	39°26'29.931"N	80°55'38.488"W	8035.80	170.026	4.15	-1.83	3.72	
14328.00	87.720	164.590	6257.35	7965.23	-7937.48	1398.13	1660931.79	14322724.36	39°26'29.703"N	80°55'38.407"W	8059.68	170.010	0.00	0.00	0.00	Projected MD at TD: 14328'



# Actual Wellpath Report

Kirk Hadley Unit 1H AWP Proj: 14328'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #09
ANTERO RESOURCES CORPORATION	Well	Kirk Hadley Unit 1H
Tyler County, WV	Wellbore	Kirk Hadley Unit 1H AWB
Tyler		
Kirk Hadley Pad		

## HOLE & CASING SECTIONS - Ref Wellbore: Kirk Hadley Unit 1H AWB Ref Wellpath: Kirk Hadley Unit 1H AWP Proj: 14328'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	End N/S [ft]	Start E/W [ft]	End E/W [ft]
20in Conductor	25.00	105.00	80.00	25.00	105.00	0.00	0.00	0.00	0.13
17.5in Open Hole	105.00	486.00	381.00	105.00	485.99	-0.01	-0.76	0.13	1.94
13.375in Casing Surface	25.00	476.70	451.70	25.00	476.69	0.00	-0.75	0.00	1.87
12.25in Open Hole	486.00	2647.00	2161.00	485.99	2589.37	-0.76	-19.59	1.94	-458.25
9.625in Casing Intermediate	25.00	2632.10	2607.10	25.00	2574.94	0.00	-19.31	0.00	-454.56
8.75in Open Hole	2647.00	5960.00	3313.00	2589.37	5779.09	-19.59	-184.20	-458.25	-1238.46
8.5in Open Hole	5960.00	14328.00	8368.00	5779.09	6257.35	-184.20	-7937.48	-1238.46	1398.13
5.5in Casing Production	25.00	14328.00	14303.00	25.00	6257.35	0.00	-7937.48	0.00	1398.13

## TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Kirk Hadley Unit 1H POE Rev-1	6127.00	-575.85	-1144.20	1658390.48	14330083.04	39°27'42.480"N	80°56'10.746"W	point
Kirk Hadley Unit 1H BHL Rev-1	6162.00	-7945.62	1360.95	1660894.63	14322716.23	39°26'29.623"N	80°55'38.881"W	point
Kirk Hadley Unit 1H LP Rev-1	6162.00	-785.23	-1073.03	1658461.63	14329873.74	39°27'40.410"N	80°56'09.840"W	point







# Actual Wellpath Report

Kirk Hadley Unit 1H AWP Proj: 14328'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #09
ANTERO RESOURCES CORPORATION	Well	Kirk Hadley Unit 1H
Tyler County, WV	Wellbore	Kirk Hadley Unit 1H AWB
Tyler		
Kirk Hadley Pad		

## COMMENTS

Wellpath general comments  
 API: 47-095-02554-0000  
 BHI Job #: 109995030A  
 Rig: Patterson 342  
 Duration: 09/10/2019-09/12/2019  
 Gyrodatta MS Gyro <17-1/2"> (100'-450')  
 Gyrodatta MS Gyro <12-1/4"> (450')(534'-715')  
 WFT EM <12-1/4">(715')(832'-2563')  
 WFT EM <8-3/4">(2563')(2664'-5883')  
 BH AT Curve <8-1/2"> (5883')(5932'-14304')  
 Middlesex: 6278' MD  
 Burkett: 6448' MD  
 Tully: 6522' MD  
 Marcellus POE: 6572' MD  
 Projected MD at TD: 14328'