



# Actual Wellpath Report

Kilska Unit 1H AWP Proj: 21644'  
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Area	Tyler County, WV
Field	Tyler
Facility	Dawson Pad
Slot	Slot #12
Well	Kilska Unit 1H
Wellbore	Kilska Unit 1H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999601
Convergence at slot	0.08° East
Software System	WellArchitect@ 5.1
User	Delaset
Report Generated	8/9/2019 at 4:48:29 PM
Database/Source file	WA_MPL_EasternUS_Defn/Kilska_Unit_1H_AWP_Proj_21644_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-228.33	239.04	1676288.67	14300364.28	39°22'48.450"N	80°52'22.990"W
Facility Reference Pt			1676049.73	14300592.52	39°22'50.710"N	80°52'26.030"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM	
Calculation method	H&P 519 (RKB) to Facility Vertical Datum
Horizontal Reference Pt	H&P 519 (RKB) to Mean Sea Level
Vertical Reference Pt	H&P 519 (RKB) to Ground Level at Slot (Slot #12)
MD Reference Pt	Section Origin
Field Vertical Reference	Section Azimuth
	Minimum curvature
	Slot
	H&P 519 (RKB)
	H&P 519 (RKB)
	Mean Sea Level
	1039.00ft
	1039.00ft
	30.00ft
	N 0.00, E 0.00 ft
	161.58°



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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #12
Operator	ANTERO RESOURCES CORPORATION	Well	Kilska Unit 1H
Area	Tyler County, WV	Wellbore	Kilska Unit 1H AWB
Field	Tyler		
Facility	Dawson Pad		

WELLPATH DATA (246 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
0.00	0.00	78.950	0.00	0.00	0.00	0.00	1676288.67	14300364.28	39°22'48.450"N	80°52'22.990"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.00	78.950	30.00	0.00	0.00	0.00	1676288.67	14300364.28	39°22'48.450"N	80°52'22.990"W	0.00	0.000	0.00	0.00	0.00	
115.00	0.660	78.950	115.00	0.06	0.09	0.48	1676289.15	14300364.37	39°22'48.451"N	80°52'22.984"W	0.49	78.950	0.78	0.78	92.98	Gyrodata MS Gyro <17-112>(100'-550')
315.00	0.400	77.510	214.99	0.17	0.28	1.39	1676290.06	14300364.55	39°22'48.453"N	80°52'22.972"W	1.41	78.595	0.26	-0.26	-1.41	
415.00	0.260	132.440	314.99	0.32	0.27	1.82	1676290.49	14300364.55	39°22'48.453"N	80°52'22.967"W	1.84	81.676	0.34	-0.25	54.93	
515.00	0.360	92.390	414.99	0.52	0.17	2.15	1676290.82	14300364.45	39°22'48.452"N	80°52'22.963"W	2.15	85.498	0.17	0.11	-40.05	
565.00	0.700	104.710	564.99	1.10	-0.13	3.09	1676291.76	14300364.30	39°22'48.450"N	80°52'22.956"W	2.66	89.549	0.16	0.10	23.81	
652.00	0.810	133.610	651.98	1.93	-0.69	4.05	1676292.72	14300363.60	39°22'48.443"N	80°52'22.938"W	4.11	99.598	0.45	0.13	33.22	WFT EM <12-114>(550')(637'-2509')
745.00	1.700	209.650	744.96	3.43	-2.34	3.84	1676292.51	14300361.94	39°22'48.427"N	80°52'22.941"W	4.50	121.297	1.83	0.96	81.76	
806.00	2.750	221.220	805.92	4.78	-4.22	2.43	1676291.10	14300360.06	39°22'48.408"N	80°52'22.959"W	4.88	150.061	1.86	1.72	18.97	
934.00	5.180	221.340	933.60	9.24	-10.87	-3.41	1676285.26	14300353.41	39°22'48.343"N	80°52'23.034"W	11.40	197.401	1.90	1.90	0.08	
1029.00	6.400	220.210	1028.11	14.16	-18.14	-9.66	1676279.01	14300346.15	39°22'48.271"N	80°52'23.113"W	20.55	208.038	1.29	1.28	-1.19	
1145.00	6.770	214.500	1143.35	21.64	-28.71	-17.71	1676270.97	14300335.58	39°22'48.166"N	80°52'23.216"W	33.73	211.663	0.65	0.32	-4.92	
1240.00	5.640	206.770	1237.79	28.31	-37.49	-22.98	1676285.70	14300326.80	39°22'48.080"N	80°52'23.283"W	43.97	211.505	1.48	-1.19	-8.14	
1336.00	4.290	201.460	1333.43	34.39	-45.05	-26.42	1676262.26	14300319.25	39°22'48.005"N	80°52'23.327"W	52.22	210.391	1.48	-1.41	-5.53	
1428.00	2.500	204.210	1425.27	38.51	-50.08	-28.50	1676260.18	14300314.22	39°22'47.955"N	80°52'23.354"W	57.82	209.645	1.95	-1.95	2.99	
1523.00	1.910	196.780	1520.20	41.33	-53.48	-29.81	1676258.87	14300310.82	39°22'47.922"N	80°52'23.370"W	61.23	209.131	0.69	-0.62	-7.82	
1619.00	0.520	222.790	1616.17	42.84	-55.34	-30.57	1676258.12	14300308.97	39°22'47.903"N	80°52'23.380"W	63.22	208.914	1.52	-1.45	27.09	
1713.00	1.090	17.220	1710.17	42.32	-54.80	-30.59	1676258.09	14300309.51	39°22'47.909"N	80°52'23.380"W	62.76	209.173	1.68	0.61	164.29	
1808.00	0.840	38.910	1805.15	41.21	-53.39	-29.89	1676258.80	14300310.91	39°22'47.923"N	80°52'23.371"W	61.19	209.238	0.46	-0.26	22.83	
1903.00	0.790	315.410	1900.15	40.25	-52.38	-29.91	1676258.77	14300311.92	39°22'47.933"N	80°52'23.372"W	60.32	209.724	1.14	-0.05	-87.89	
1998.00	2.340	313.510	1995.11	37.95	-50.58	-31.77	1676256.91	14300313.72	39°22'47.951"N	80°52'23.395"W	59.73	212.137	1.63	1.63	-2.00	
2093.00	2.390	323.900	2090.03	34.35	-47.64	-34.35	1676254.34	14300316.65	39°22'47.980"N	80°52'23.428"W	58.73	215.789	0.45	0.05	10.94	
2188.00	3.080	308.790	2184.92	30.32	-44.45	-37.50	1676251.18	14300319.85	39°22'48.011"N	80°52'23.468"W	58.15	220.159	1.04	0.73	-15.91	
2282.00	4.990	289.780	2278.69	25.67	-41.48	-43.32	1676245.37	14300322.82	39°22'48.041"N	80°52'23.542"W	59.98	226.244	2.45	2.03	-20.22	
2377.00	7.230	283.880	2373.14	19.92	-38.65	-53.01	1676236.68	14300325.65	39°22'48.069"N	80°52'23.666"W	65.60	233.908	2.45	2.36	-6.21	
2472.00	7.400	284.820	2467.37	13.37	-35.65	-64.73	1676223.97	14300328.65	39°22'48.099"N	80°52'23.815"W	73.90	241.158	0.22	0.18	0.99	
2524.00	7.290	283.240	2518.94	9.80	-34.04	-71.18	1676217.52	14300330.26	39°22'48.115"N	80°52'23.897"W	78.90	244.445	0.44	-0.21	-3.04	
2638.00	8.070	271.900	2631.93	3.22	-32.11	-86.22	1676202.49	14300332.18	39°22'48.134"N	80°52'24.088"W	92.01	249.571	1.49	0.68	-9.95	WFT EM <8-314>(2509')(2623'-6096')



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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Kilska Unit 1H
Field	Tyler	Wellbore	Kilska Unit 1H AWB
Facility	Dawson Pad		

## WELLPATH DATA (246 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
2733.00	7.580	267.820	2726.04	-0.84	-32.13	-99.14	1676189.57	14300332.16	39°22'48.134"N	80°52'24.253"W	104.22	252.044	0.78	-0.52	-4.29	
2828.00	6.780	264.380	2820.30	-3.84	-32.92	-110.99	1676177.73	14300331.37	39°22'48.126"N	80°52'24.404"W	115.77	253.480	0.96	-0.84	-3.62	
2923.00	8.240	263.560	2914.48	-6.49	-34.23	-123.33	1676165.39	14300330.06	39°22'48.113"N	80°52'24.561"W	128.00	254.488	1.54	1.54	-0.86	
3020.00	9.350	265.540	3010.34	-9.84	-35.62	-138.10	1676150.63	14300328.67	39°22'48.100"N	80°52'24.749"W	142.62	255.535	1.19	1.14	2.04	
3115.00	8.880	263.230	3104.14	-13.18	-37.09	-153.07	1676135.66	14300327.21	39°22'48.086"N	80°52'24.940"W	157.50	256.380	0.63	-0.48	2.43	
3210.00	8.150	259.030	3198.09	-15.53	-39.23	-166.96	1676121.77	14300325.06	39°22'48.065"N	80°52'25.117"W	171.51	256.776	1.01	-0.77	-4.42	
3305.00	7.510	256.150	3292.21	-16.90	-42.00	-179.60	1676109.14	14300322.30	39°22'48.010"N	80°52'25.278"W	184.45	256.837	0.79	-0.67	-3.03	
3399.00	8.260	259.200	3385.32	-18.29	-44.74	-192.20	1676096.55	14300319.56	39°22'48.010"N	80°52'25.438"W	197.34	256.897	0.91	0.80	3.24	
3494.00	7.920	256.520	3479.37	-19.75	-47.54	-205.27	1676083.48	14300316.76	39°22'47.983"N	80°52'25.605"W	210.70	256.960	0.53	-0.36	-2.82	
3589.00	8.370	253.360	3573.41	-20.53	-51.05	-218.26	1676070.50	14300313.25	39°22'47.948"N	80°52'25.770"W	224.15	256.836	0.67	0.47	-3.33	
3684.00	7.980	262.880	3667.45	-22.04	-53.84	-231.43	1676057.34	14300310.46	39°22'47.921"N	80°52'26.109"W	237.61	256.902	1.48	-0.41	10.02	
3779.00	8.330	264.450	3761.49	-24.86	-55.33	-244.82	1676043.95	14300308.97	39°22'47.907"N	80°52'26.286"W	250.99	257.265	0.44	0.37	1.65	
3874.00	8.540	269.510	3855.47	-28.57	-56.05	-258.72	1676030.05	14300306.25	39°22'47.900"N	80°52'26.458"W	264.72	257.775	0.81	0.22	5.33	
3969.00	7.840	267.550	3949.50	-32.52	-56.39	-272.25	1676016.53	14300307.91	39°22'47.896"N	80°52'26.625"W	278.03	258.298	0.79	-0.74	-2.06	
4066.00	7.710	268.580	4045.60	-36.25	-56.83	-285.36	1676003.42	14300307.47	39°22'47.892"N	80°52'26.790"W	290.97	258.736	0.20	-0.13	1.07	
4160.00	8.160	270.490	4138.70	-40.25	-56.93	-298.34	1675990.45	14300307.37	39°22'47.891"N	80°52'26.952"W	303.72	259.196	0.55	0.48	2.02	
4252.00	7.730	269.600	4229.82	-44.28	-56.92	-311.05	1675977.74	14300307.38	39°22'47.892"N	80°52'27.123"W	316.22	259.630	0.49	-0.47	-0.97	
4347.00	8.500	270.200	4323.87	-48.50	-56.94	-324.46	1675964.34	14300307.36	39°22'47.892"N	80°52'27.298"W	329.42	260.047	0.82	0.81	0.63	
4441.00	8.320	266.440	4416.86	-52.46	-57.34	-338.20	1675950.61	14300306.97	39°22'47.888"N	80°52'27.481"W	343.02	260.378	0.62	-0.19	-4.00	
4536.00	9.070	269.480	4510.77	-56.53	-57.83	-352.55	1675936.26	14300306.47	39°22'47.883"N	80°52'27.672"W	357.26	260.684	0.93	0.79	3.20	
4631.00	9.190	267.020	4604.56	-60.85	-58.29	-367.61	1675921.21	14300306.01	39°22'47.865"N	80°52'27.858"W	372.20	260.989	0.43	0.13	-2.59	
4725.00	8.720	261.830	4697.42	-64.12	-59.70	-382.16	1675906.66	14300304.61	39°22'47.865"N	80°52'28.032"W	386.79	261.122	0.99	-0.50	-5.52	
4819.00	8.130	266.620	4790.41	-67.11	-61.10	-395.85	1675892.98	14300303.20	39°22'47.852"N	80°52'28.214"W	400.54	261.225	0.97	-0.63	5.10	
4914.00	9.180	273.380	4884.32	-71.67	-61.05	-410.12	1675878.71	14300303.25	39°22'47.852"N	80°52'28.406"W	414.64	261.533	1.54	1.11	7.12	
5008.00	9.290	271.120	4977.11	-76.99	-60.46	-425.19	1675863.65	14300303.84	39°22'47.858"N	80°52'28.601"W	429.47	261.907	0.40	0.12	-2.40	
5103.00	9.260	270.160	5070.86	-81.99	-60.29	-440.50	1675848.35	14300304.01	39°22'47.860"N	80°52'28.790"W	444.61	262.207	0.17	-0.03	-1.01	
5197.00	8.930	265.460	5163.68	-86.15	-60.85	-455.34	1675833.52	14300303.46	39°22'47.855"N	80°52'28.976"W	459.38	262.389	0.86	-0.35	-5.00	
5292.00	8.930	260.570	5257.53	-89.07	-62.64	-469.96	1675818.90	14300301.67	39°22'47.837"N	80°52'29.150"W	474.12	262.408	0.80	0.00	-5.15	
5386.00	8.020	262.270	5350.51	-91.43	-64.72	-483.66	1675805.21	14300299.59	39°22'47.817"N	80°52'29.319"W	487.97	262.379	1.00	-0.97	1.81	
5480.00	8.240	268.080	5443.56	-94.56	-65.82	-496.89	1675791.98	14300298.48	39°22'47.806"N	80°52'29.491"W	501.23	262.454	0.90	0.23	6.18	



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Area	Tyler County, WV		
Field	Tyler		
Facility	Dawson Pad		
	Well	Kiliska Unit 1H	
	Wellbore	Kiliska Unit 1H AWB	

WELLPATH DATA (246 stations) † = interpolated/extrapolated station																
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
5575.00	8.510	267.130	5537.55	-98.37	-66.40	-510.71	1675778.16	14300297.90	39°22'47.801"N	80°52'29.495"W	515.01	262.592	0.32	0.28	-1.00	
5669.00	9.260	265.010	5630.42	-102.00	-67.41	-525.19	1675763.69	14300296.90	39°22'47.791"N	80°52'29.679"W	529.50	262.686	0.87	0.80	-2.28	
5764.00	9.240	257.680	5724.19	-104.58	-69.70	-540.26	1675748.63	14300294.61	39°22'47.769"N	80°52'29.871"W	544.74	262.649	1.24	-0.02	-7.72	
5796.00	8.530	242.770	5755.81	-104.49	-71.34	-544.88	1675744.01	14300292.97	39°22'47.752"N	80°52'29.930"W	549.53	262.541	7.51	-2.22	-46.56	
5827.00	8.580	227.500	5786.47	-103.19	-73.95	-548.63	1675740.26	14300290.36	39°22'47.727"N	80°52'29.978"W	553.59	262.323	7.31	0.16	-49.26	
5859.00	9.400	213.540	5818.08	-100.61	-77.74	-551.83	1675737.06	14300286.57	39°22'47.689"N	80°52'30.019"W	557.28	261.981	7.26	2.56	-43.61	
5890.00	11.450	202.620	5848.57	-96.73	-82.69	-554.42	1675734.48	14300281.62	39°22'47.640"N	80°52'30.052"W	560.55	261.517	9.16	6.61	-35.23	
5922.00	13.560	191.470	5879.81	-91.08	-89.30	-556.38	1675732.51	14300275.01	39°22'47.575"N	80°52'30.077"W	563.51	260.881	9.99	6.59	-34.84	
5954.00	14.800	182.340	5910.84	-84.00	-97.06	-557.30	1675731.60	14300267.25	39°22'47.498"N	80°52'30.089"W	565.69	260.120	7.98	3.87	-28.53	
5985.00	16.430	175.110	5940.70	-76.04	-105.39	-557.08	1675731.81	14300258.93	39°22'47.416"N	80°52'30.086"W	566.97	259.287	8.18	5.28	-23.32	
6017.00	18.380	171.480	5971.23	-66.67	-114.89	-555.95	1675732.94	14300249.44	39°22'47.322"N	80°52'30.072"W	567.70	258.324	6.97	6.03	-11.34	
6048.00	20.310	167.790	6000.48	-56.50	-124.98	-554.09	1675734.80	14300239.35	39°22'47.222"N	80°52'30.048"W	568.01	257.289	7.37	6.23	-11.90	
6080.00	22.400	165.370	6030.28	-44.90	-136.31	-551.37	1675737.52	14300228.02	39°22'47.110"N	80°52'30.014"W	567.97	256.114	7.09	6.53	-7.56	
6111.00	24.670	163.780	6058.70	-32.54	-148.24	-548.08	1675740.81	14300216.10	39°22'46.992"N	80°52'29.972"W	567.77	254.865	7.60	7.34	-5.13	
6148.00	27.780	162.130	6089.89	-16.19	-163.87	-543.27	1675745.62	14300200.48	39°22'46.838"N	80°52'29.911"W	567.45	253.215	8.63	8.41	-4.48	BH AT Curve <-8-1/2"> (6111)-(6148)-21619)
6223.00	32.450	163.970	6156.75	21.41	-199.86	-532.35	1675756.54	14300164.50	39°22'46.482"N	80°52'29.773"W	568.63	249.422	6.35	6.23	2.45	
6318.00	41.260	168.470	6232.71	78.09	-255.17	-519.02	1675769.86	14300109.21	39°22'45.935"N	80°52'29.604"W	578.35	243.820	9.09	9.21	4.74	
6389.00†	46.403	171.352	6283.91	126.71	-303.56	-510.47	1675778.41	14300060.84	39°22'45.467"N	80°52'29.496"W	593.91	239.261	7.77	7.24	4.05	Middlesex: 6389' MD
6414.00	48.230	172.250	6300.86	144.80	-321.75	-507.85	1675781.03	14300042.66	39°22'45.277"N	80°52'29.463"W	601.19	237.643	7.77	7.31	3.56	
6509.00	56.630	173.550	6388.73	218.55	-396.41	-498.60	1675790.27	14299988.03	39°22'44.539"N	80°52'29.347"W	636.97	231.514	8.91	8.84	1.37	
6604.00	62.930	171.480	6406.53	309.11	-477.74	-487.86	1675801.00	14299886.73	39°22'43.735"N	80°52'29.211"W	682.82	225.600	6.89	6.83	-2.18	
6608.00†	63.199	171.400	6408.34	302.62	-481.27	-487.33	1675801.53	14299883.20	39°22'43.700"N	80°52'29.205"W	684.92	225.359	6.95	6.74	-1.90	Burkett: 6608' MD
6688.00†	68.597	169.950	6441.00	374.71	-553.30	-475.49	1675813.37	14299811.20	39°22'42.988"N	80°52'29.055"W	729.54	220.675	6.95	6.75	-1.83	Tully: 6688' MD
6699.00	69.340	169.760	6444.95	384.87	-563.40	-473.68	1675815.18	14299801.10	39°22'42.888"N	80°52'29.032"W	736.07	220.055	6.95	6.76	-1.74	
6794.00†	77.632	164.592	6471.94	475.41	-652.08	-453.14	1675835.45	14299712.46	39°22'42.011"N	80°52'28.775"W	794.22	214.811	10.16	8.73	-5.44	Marcellus POE: 6794' MD
6795.00	77.720	164.540	6472.16	476.38	-653.02	-453.14	1675835.71	14299711.52	39°22'42.002"N	80°52'28.772"W	794.84	214.757	10.16	8.79	-5.23	
6842.00	80.320	161.330	6481.11	522.50	-697.12	-439.60	1675849.25	14299667.44	39°22'41.566"N	80°52'28.601"W	824.15	212.235	8.69	5.53	-6.83	
6889.00	83.030	160.530	6487.91	569.00	-741.07	-424.41	1675864.43	14299623.51	39°22'41.131"N	80°52'28.408"W	853.99	209.800	6.01	5.77	-1.70	
6936.00	85.130	160.080	6492.76	615.73	-785.08	-408.65	1675880.18	14299579.51	39°22'40.696"N	80°52'28.208"W	885.07	207.498	4.57	4.47	-0.96	
6984.00	87.540	160.030	6495.83	663.61	-830.41	-392.31	1675896.51	14299534.51	39°22'40.251"N	80°52'28.001"W	918.14	205.296	5.02	5.02	-0.10	



# Actual Wellpath Report

Kiliska Unit 1H AWP Proj: 21644'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Kiliska Unit 1H
Field	Tyler	Wellbore	Kiliska Unit 1H AWB
Facility	Dawson Pad		

## WELLPATH DATA (246 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
7031.00	90.180	158.400	6496.77	710.56	-974.03	-375.64	1675913.18	14299490.60	39°22'39.817"N	80°52'27.789"W	951.33	203.257	6.60	5.62	-3.47	
7080.00	90.710	159.240	6496.38	759.50	-919.72	-357.94	1675930.88	14299444.93	39°22'39.365"N	80°52'27.565"W	986.92	201.265	2.03	1.08	1.71	
7175.00	90.220	158.550	6495.61	854.39	-1008.34	-323.73	1675965.07	14299356.34	39°22'38.488"N	80°52'27.130"W	1059.04	197.799	0.89	-0.52	-0.73	
7271.00	90.770	159.860	6494.78	950.30	-1098.03	-289.49	1675999.29	14299286.69	39°22'37.602"N	80°52'26.696"W	1135.55	194.770	1.29	0.57	1.16	
7367.00	90.740	158.670	6493.52	1046.20	-1187.74	-255.35	1676033.42	14299177.02	39°22'36.714"N	80°52'26.263"W	1214.88	192.133	1.03	-0.03	-1.03	
7462.00	90.580	157.670	6492.42	1141.02	-1275.92	-220.03	1676068.73	14299088.87	39°22'35.842"N	80°52'25.815"W	1294.75	189.784	1.07	-0.17	-1.05	
7557.00	90.710	157.490	6491.36	1235.79	-1363.73	-183.80	1676104.95	14298901.09	39°22'34.096"N	80°52'25.355"W	1376.06	187.676	0.23	0.14	-0.19	
7653.00	90.860	157.870	6490.04	1331.56	-1452.53	-147.34	1676141.39	14298712.33	39°22'33.496"N	80°52'24.892"W	1459.99	185.792	0.43	0.16	0.40	
7748.00	90.460	158.590	6488.95	1426.39	-1540.75	-112.11	1676176.60	14298524.15	39°22'32.223"N	80°52'24.445"W	1544.82	184.162	0.87	-0.42	0.76	
7843.00	90.550	158.990	6488.11	1521.27	-1629.31	-77.74	1676210.96	14298335.62	39°22'32.348"N	80°52'24.009"W	1631.17	182.732	0.43	0.09	0.42	
7939.00	90.370	159.550	6487.34	1617.19	-1719.09	-43.76	1676244.92	14298145.88	39°22'31.460"N	80°52'23.578"W	1719.65	181.458	0.61	-0.19	0.58	
8034.00	90.400	161.720	6486.70	1712.17	-1808.71	-12.27	1676276.41	14298556.29	39°22'30.574"N	80°52'23.179"W	1808.75	180.389	2.28	0.03	2.28	
8128.00	90.580	161.500	6485.90	1806.16	-1897.91	17.39	1676306.05	14298467.13	39°22'29.692"N	80°52'22.802"W	1897.99	179.475	0.30	0.19	-0.23	
8224.00	90.520	162.090	6484.97	1902.16	-1989.10	47.38	1676336.03	14298375.98	39°22'28.790"N	80°52'22.422"W	1989.66	178.636	0.62	-0.06	0.61	
8318.00	90.520	161.660	6484.12	1996.15	-2078.43	76.62	1676365.26	14298286.68	39°22'27.907"N	80°52'22.051"W	2079.84	177.889	0.46	0.00	-0.46	
8413.00	90.520	161.810	6483.26	2091.15	-2168.64	106.39	1676395.02	14298196.51	39°22'27.015"N	80°52'21.674"W	2171.25	177.191	0.16	0.00	0.16	
8508.00	90.400	161.130	6482.50	2186.14	-2258.71	136.58	1676425.20	14298106.47	39°22'26.124"N	80°52'21.291"W	2262.84	176.540	0.73	-0.13	-0.72	
8603.00	90.550	161.740	6481.71	2281.14	-2348.76	166.83	1676455.43	14298016.46	39°22'25.234"N	80°52'20.908"W	2354.68	175.937	0.66	0.16	0.64	
8697.00	90.370	162.030	6480.95	2375.14	-2438.10	196.05	1676484.65	14297927.16	39°22'24.350"N	80°52'20.537"W	2445.97	175.403	0.36	-0.19	0.31	
8793.00	90.310	161.470	6480.38	2471.13	-2529.27	226.12	1676514.70	14297836.02	39°22'23.449"N	80°52'20.156"W	2539.36	174.891	0.59	-0.06	-0.58	
8888.00	90.460	161.930	6479.75	2566.13	-2619.46	255.95	1676544.51	14297745.87	39°22'22.557"N	80°52'19.778"W	2631.94	174.419	0.51	0.16	0.48	
8983.00	90.430	161.710	6479.01	2661.13	-2709.72	285.58	1676574.14	14297655.65	39°22'21.664"N	80°52'19.402"W	2724.73	173.984	0.23	-0.03	-0.23	
9078.00	90.460	160.830	6478.27	2756.12	-2799.68	316.09	1676604.63	14297565.72	39°22'20.775"N	80°52'19.015"W	2817.47	173.558	0.93	0.03	-0.93	
9174.00	90.250	161.240	6477.68	2852.12	-2890.47	347.29	1676635.82	14297474.97	39°22'19.877"N	80°52'18.620"W	2911.26	173.149	0.48	-0.22	0.43	
9269.00	90.520	162.870	6477.04	2947.11	-2980.84	376.56	1676665.07	14297384.63	39°22'18.983"N	80°52'18.248"W	3004.53	172.800	1.74	0.28	1.72	
9363.00	90.340	161.900	6476.33	3041.09	-3070.43	405.00	1676693.51	14297295.08	39°22'18.098"N	80°52'17.888"W	3097.03	172.486	1.05	-0.19	-1.03	
9458.00	90.310	161.860	6475.79	3136.09	-3160.72	434.55	1676723.04	14297204.83	39°22'17.205"N	80°52'17.513"W	3190.45	172.172	0.05	-0.03	-0.04	
9553.00	90.370	162.550	6475.23	3231.08	-3251.17	463.58	1676752.06	14297114.41	39°22'16.310"N	80°52'17.145"W	3284.06	171.885	0.73	0.06	0.73	
9649.00	90.310	162.620	6474.66	3321.07	-3342.77	492.31	1676780.78	14297022.85	39°22'15.405"N	80°52'16.781"W	3378.83	171.622	0.10	-0.06	0.07	
9746.00	90.430	162.190	6474.03	3424.05	-3435.23	521.63	1676810.09	14296930.43	39°22'14.490"N	80°52'16.409"W	3474.61	171.366	0.46	0.12	-0.44	



# Actual Wellpath Report

Kiliska Unit 1H AWP Proj: 21644'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Kiliska Unit 1H
Field	Tyler	Wellbore	Kiliska Unit 1H AWB
Facility	Dawson Pad		

## WELLPATH DATA (246 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
9840.00	89.630	162.280	6473.98	3518.05	-3524.75	550.31	1676838.76	14296840.94	39°22'13.605"N	80°52'16.046"W	3567.45	171.126	0.86	-0.85	0.10	
9936.00	90.620	162.760	6473.77	3614.03	-3616.31	579.15	1676867.58	14296749.42	39°22'12.700"N	80°52'15.660"W	3662.39	170.901	1.15	1.03	0.50	
10031.00	90.030	162.700	6473.24	3709.01	-3707.03	607.35	1676895.78	14296658.74	39°22'11.803"N	80°52'15.323"W	3758.45	170.695	0.62	-0.62	-0.06	
10126.00	90.180	162.320	6473.06	3804.00	-3797.64	635.90	1676924.32	14296568.17	39°22'10.907"N	80°52'14.961"W	3850.51	170.494	0.43	0.16	-0.40	
10220.00	90.120	162.050	6472.82	3897.99	-3887.13	664.66	1676953.06	14296478.71	39°22'10.022"N	80°52'14.596"W	3943.54	170.297	0.29	-0.06	-0.29	
10315.00	90.090	162.850	6472.64	3992.98	-3977.71	693.30	1676981.70	14296388.17	39°22'09.126"N	80°52'14.233"W	4037.67	170.113	0.84	-0.03	0.84	
10410.00	90.000	161.440	6472.57	4087.97	-4068.13	722.43	1677010.81	14296297.78	39°22'08.232"N	80°52'13.864"W	4131.78	169.930	1.49	-0.09	-1.48	
10505.00	90.060	162.260	6472.52	4182.97	-4158.40	752.02	1677040.39	14296207.55	39°22'07.340"N	80°52'13.489"W	4225.85	169.749	0.87	0.06	0.86	
10601.00	90.920	163.420	6471.70	4278.94	-4250.12	780.35	1677068.70	14296115.86	39°22'06.433"N	80°52'13.130"W	4321.17	169.596	1.50	0.90	1.21	
10697.00	90.220	161.090	6470.74	4374.92	-4341.54	809.60	1677097.95	14296024.48	39°22'05.529"N	80°52'12.759"W	4416.38	169.437	2.53	-0.73	-2.43	
10792.00	91.080	163.720	6469.66	4469.90	-4432.08	838.32	1677126.65	14295933.97	39°22'04.633"N	80°52'12.395"W	4510.67	169.289	2.91	0.91	2.77	
10887.00	90.980	160.550	6467.95	4564.87	-4522.48	867.45	1677155.77	14295843.62	39°22'03.740"N	80°52'12.026"W	4604.92	169.142	3.34	-0.11	-3.34	
10982.00	91.820	165.090	6465.63	4659.79	-4613.19	895.50	1677183.81	14295752.94	39°22'02.843"N	80°52'11.671"W	4699.30	169.015	4.86	0.88	4.78	
11077.00	90.830	162.020	6463.43	4754.70	-4704.26	922.38	1677210.68	14295661.90	39°22'01.942"N	80°52'11.330"W	4793.84	168.907	3.39	-1.04	-3.23	
11171.00	90.890	162.500	6462.07	4848.68	-4793.78	951.02	1677239.31	14295572.42	39°22'01.057"N	80°52'10.967"W	4887.21	168.779	0.51	0.00	0.51	
11266.00	91.780	161.980	6459.91	4943.65	-4884.23	979.99	1677268.27	14295482.01	39°22'00.163"N	80°52'10.600"W	4981.57	168.655	1.14	1.00	-0.55	
11362.00	90.250	160.760	6458.21	5039.63	-4975.18	1010.65	1677298.91	14295391.09	39°21'59.263"N	80°52'10.211"W	5076.79	168.517	2.04	-1.59	-1.27	
11457.00	90.120	162.290	6457.90	5134.62	-5065.28	1040.75	1677329.01	14295301.03	39°21'58.372"N	80°52'09.829"W	5171.10	168.389	1.62	-0.14	1.61	
11552.00	90.650	161.390	6457.26	5229.62	-5155.55	1070.36	1677358.60	14295210.80	39°21'57.480"N	80°52'09.454"W	5265.49	168.271	1.10	0.56	-0.95	
11648.00	90.920	162.450	6455.95	5325.61	-5246.80	1100.15	1677388.38	14295119.58	39°21'56.577"N	80°52'09.078"W	5360.90	168.158	1.14	0.28	1.10	
11742.00	90.580	162.440	6454.72	5419.59	-5336.41	1128.50	1677416.72	14295030.01	39°21'55.691"N	80°52'08.717"W	5454.43	168.059	0.36	-0.36	-0.01	
11837.00	89.940	159.800	6454.29	5514.58	-5426.29	1159.24	1677447.44	14294940.16	39°21'54.803"N	80°52'08.327"W	5548.74	167.941	2.86	-0.67	-2.78	
11933.00	89.820	159.920	6454.49	5610.53	-5516.42	1192.29	1677480.48	14294850.07	39°21'53.911"N	80°52'07.908"W	5643.80	167.804	0.18	-0.12	0.12	
12027.00	91.020	161.960	6453.80	5704.52	-5605.26	1222.99	1677511.17	14294761.27	39°21'53.033"N	80°52'07.519"W	5737.13	167.692	2.52	1.28	2.17	
12122.00	89.450	161.670	6453.41	5799.51	-5695.51	1252.63	1677540.80	14294671.05	39°21'52.140"N	80°52'07.143"W	5831.63	167.596	1.68	-1.65	-0.31	
12217.00	89.540	162.480	6454.25	5894.50	-5785.89	1281.87	1677570.03	14294580.70	39°21'51.247"N	80°52'06.773"W	5926.19	167.508	0.86	0.09	0.85	
12312.00	89.350	158.830	6455.17	5989.47	-5875.51	1313.33	1677601.48	14294491.12	39°21'50.360"N	80°52'06.374"W	6020.50	167.400	3.85	-0.20	-3.84	
12407.00	89.940	159.830	6455.76	6084.39	-5964.39	1346.86	1677635.00	14294402.28	39°21'49.481"N	80°52'05.949"W	6114.58	167.275	1.22	0.62	1.05	
12503.00	89.450	160.550	6456.27	6180.36	-6054.71	1379.40	1677667.52	14294312.00	39°21'48.588"N	80°52'05.536"W	6209.85	167.166	0.91	-0.51	0.75	
12597.00	90.490	161.950	6456.32	6274.36	-6143.72	1409.61	1677697.72	14294222.00	39°21'47.708"N	80°52'05.153"W	6303.35	167.078	1.86	1.11	1.49	



# Actual Wellpath Report

Kiliska Unit 1H AWP Proj: 21644'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Kiliska Unit 1H
Field	Tyler	Wellbore	Kiliska Unit 1H AWB
Facility	Dawson Pad		

## WELLPATH DATA (246 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 (1/100ft)	Build Rate (1/100ft)	Turn Rate (1/100ft)	Comments
12692.00	90.980	161.710	6455.10	6369.35	-6233.97	1439.23	1677727.33	14294132.80	39°21'46.816"N	80°52'04.777"W	6397.95	167.000	0.57	0.52	-0.25	
12786.00	89.820	160.950	6454.44	6463.34	-6323.02	1469.32	1677757.41	14294043.79	39°21'45.935"N	80°52'04.396"W	6491.50	166.918	1.48	-1.23	-0.81	
12882.00	89.380	160.810	6455.11	6559.33	-6413.72	1500.77	1677788.84	14293953.13	39°21'45.038"N	80°52'03.997"W	6586.97	166.830	0.48	-0.46	-0.15	
12977.00	89.200	161.670	6456.29	6654.32	-6503.67	1531.32	1677819.37	14293863.22	39°21'44.149"N	80°52'03.610"W	6681.52	166.751	0.92	-0.19	0.91	
13072.00	89.660	161.760	6457.23	6749.32	-6593.87	1561.12	1677849.17	14293773.05	39°21'43.257"N	80°52'03.232"W	6776.15	166.680	0.49	0.48	0.09	
13168.00	89.320	161.000	6458.09	6845.31	-6684.84	1591.77	1677879.80	14293682.12	39°21'42.357"N	80°52'02.844"W	6871.74	166.606	0.87	-0.35	-0.79	
13262.00	89.510	161.690	6459.06	6939.31	-6773.89	1621.84	1677909.86	14293593.10	39°21'41.477"N	80°52'02.463"W	6965.34	166.535	0.76	0.20	0.73	
13359.00	89.380	160.580	6459.99	7036.30	-6865.68	1653.20	1677941.21	14293501.35	39°21'40.569"N	80°52'02.065"W	7061.91	166.461	1.15	-0.13	-1.14	
13455.00	90.060	161.800	6460.46	7132.29	-6956.55	1684.15	1677972.15	14293410.52	39°21'39.671"N	80°52'01.673"W	7157.51	166.391	1.45	0.71	1.27	
13551.00	89.940	161.530	6460.46	7228.29	-7047.67	1714.35	1678002.33	14293319.43	39°21'38.769"N	80°52'01.290"W	7253.19	166.328	0.31	-0.12	-0.28	
13645.00	89.910	161.070	6460.58	7322.29	-7136.71	1744.49	1678032.46	14293230.43	39°21'37.889"N	80°52'00.908"W	7346.83	166.264	0.49	-0.03	-0.49	
13740.00	90.180	162.270	6460.51	7417.29	-7226.89	1774.36	1678062.32	14293140.29	39°21'36.997"N	80°52'00.529"W	7441.53	166.205	1.29	0.28	1.26	
13836.00	89.820	161.970	6460.51	7513.28	-7318.25	1803.84	1678091.79	14293048.96	39°21'36.094"N	80°52'00.156"W	7537.28	166.153	0.49	-0.37	-0.31	
13931.00	90.030	161.460	6460.63	7608.28	-7408.46	1833.64	1678121.58	14292958.79	39°21'35.202"N	80°51'59.778"W	7632.00	166.098	0.58	0.22	-0.54	
14027.00	90.220	161.880	6460.42	7704.28	-7499.58	1863.84	1678151.76	14292867.70	39°21'34.301"N	80°51'59.395"W	7727.72	166.043	0.48	0.20	-0.44	
14122.00	89.970	161.320	6460.26	7799.28	-7589.73	1893.82	1678181.73	14292777.59	39°21'33.409"N	80°51'59.015"W	7822.44	165.989	0.65	-0.26	-0.59	
14218.00	90.060	161.400	6460.24	7895.28	-7680.69	1924.51	1678212.40	14292686.67	39°21'32.510"N	80°51'58.626"W	7918.13	165.933	0.13	0.09	0.08	
14312.00	90.370	163.130	6459.88	7989.27	-7770.22	1953.14	1678241.03	14292597.17	39°21'31.625"N	80°51'58.264"W	8011.93	165.890	1.87	0.33	1.84	
14409.00	90.030	162.370	6459.55	8086.25	-7862.86	1981.90	1678269.78	14292504.57	39°21'30.709"N	80°51'57.899"W	8108.79	165.853	0.86	-0.35	-0.78	
14505.00	90.280	159.430	6459.29	8182.23	-7953.56	2013.31	1678301.17	14292413.91	39°21'29.812"N	80°51'57.501"W	8204.42	165.795	3.07	0.26	-3.06	
14601.00	90.250	156.020	6458.84	8278.00	-8042.38	2049.69	1678337.54	14292325.12	39°21'28.933"N	80°51'57.039"W	8299.47	165.702	3.55	-0.03	-3.55	
14695.00	90.280	157.440	6458.41	8371.66	-8128.73	2086.83	1678374.66	14292238.80	39°21'28.079"N	80°51'56.568"W	8392.33	165.602	1.51	0.03	1.51	
14791.00	90.430	158.730	6457.81	8467.48	-8217.79	2122.66	1678410.48	14292149.78	39°21'27.198"N	80°51'56.114"W	8487.51	165.517	1.35	0.16	1.34	
14887.00	90.650	162.710	6456.91	8563.44	-8308.38	2154.35	1678442.16	14292059.22	39°21'26.303"N	80°51'55.712"W	8583.15	165.463	4.15	0.23	4.15	
14982.00	90.490	162.980	6455.96	8658.41	-8399.15	2182.37	1678470.16	14291968.49	39°21'25.405"N	80°51'55.357"W	8678.06	165.435	0.33	-0.17	0.28	
15078.00	90.370	162.640	6455.24	8754.39	-8490.86	2210.74	1678498.52	14291876.82	39°21'24.498"N	80°51'54.998"W	8773.95	165.406	0.38	-0.12	-0.35	
15173.00	90.340	162.900	6454.65	8849.37	-8581.60	2238.88	1678526.65	14291786.12	39°21'23.601"N	80°51'54.641"W	8868.84	165.378	0.28	-0.03	0.27	
15267.00	90.220	163.150	6454.19	8943.34	-8671.50	2266.32	1678554.08	14291696.25	39°21'22.712"N	80°51'54.294"W	8962.76	165.353	0.30	-0.13	0.27	
15362.00	90.220	162.960	6453.83	9038.30	-8762.38	2294.01	1678581.76	14291605.41	39°21'21.813"N	80°51'53.943"W	9057.59	165.329	0.20	0.00	-0.20	
15456.00	89.570	162.450	6453.00	9132.28	-8852.13	2321.95	1678609.69	14291515.70	39°21'20.926"N	80°51'53.589"W	9151.69	165.302	0.88	-0.69	-0.54	



# Actual Wellpath Report

Kilska Unit 1H AWP Proj: 21644'

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #12
Operator	ANTERO RESOURCES CORPORATION	Well	Kilska Unit 1H
Area	Tyler County, WV	Wellbore	Kilska Unit 1H AWB
Field	Tyler		
Facility	Dawson Pad		

WELLPATH DATA (246 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
15551.00	89.600	163.770	6454.69	9227.25	-8943.02	2349.55	1678637.28	14291421.84	39°21'20.027"N	80°51'53.239"W	9216.52	165.280	1.39	0.03	1.39	
15645.00	89.510	161.340	6455.42	9321.22	-9032.69	2377.73	1678665.45	14291335.21	39°21'19.141"N	80°51'52.882"W	9340.40	165.252	2.59	-0.10	-2.59	
15740.00	89.230	161.200	6456.46	9416.22	-9122.65	2408.23	1678695.94	14291245.28	39°21'18.251"N	80°51'52.496"W	9435.17	165.212	0.33	-0.29	-0.15	
15835.00	89.280	162.390	6457.72	9511.21	-9212.89	2437.91	1678725.60	14291155.08	39°21'17.359"N	80°51'52.119"W	9529.99	165.178	1.25	0.03	1.25	
15930.00	89.510	162.760	6458.74	9606.19	-9303.52	2466.36	1678754.04	14291064.48	39°21'16.462"N	80°51'51.759"W	9624.89	165.152	0.47	0.26	0.39	
16025.00	89.510	162.490	6459.55	9701.17	-9394.19	2494.73	1678782.40	14290973.86	39°21'15.566"N	80°51'51.400"W	9719.79	165.128	0.28	0.00	-0.28	
16119.00	89.850	164.070	6460.07	9795.12	-9484.21	2521.77	1678809.43	14290883.37	39°21'14.676"N	80°51'51.057"W	9813.74	165.110	1.72	0.36	1.68	
16214.00	90.350	164.440	6459.74	9890.01	-9575.64	2547.55	1678835.20	14290792.47	39°21'13.772"N	80°51'50.731"W	9908.73	165.102	0.83	0.74	0.39	
16309.00	90.430	163.060	6458.93	9984.94	-9666.84	2574.13	1678861.77	14290701.31	39°21'12.870"N	80°51'50.394"W	10003.70	165.089	1.46	-0.13	-1.45	
16403.00	89.540	161.690	6458.95	10078.93	-9756.42	2602.59	1678890.22	14290611.76	39°21'11.984"N	80°51'50.033"W	10097.59	165.064	1.74	-0.95	-1.46	
16500.00	89.660	163.050	6459.63	10175.91	-9848.86	2631.97	1678919.58	14290519.36	39°21'11.070"N	80°51'49.661"W	10194.48	165.038	1.41	0.12	1.40	
16594.00	89.780	163.320	6460.09	10269.88	-9938.84	2659.16	1678946.76	14290429.42	39°21'10.180"N	80°51'49.317"W	10288.43	165.021	0.31	0.13	0.29	
16689.00	89.880	162.940	6460.37	10364.84	-10029.76	2686.73	1678974.32	14290338.54	39°21'09.281"N	80°51'48.968"W	10383.38	165.004	0.41	0.11	-0.40	
16785.00	90.250	163.110	6460.26	10460.81	-10121.57	2714.76	1679002.34	14290246.76	39°21'08.373"N	80°51'48.613"W	10479.32	164.986	0.42	0.39	0.18	
16881.00	90.430	163.610	6459.69	10556.76	-10213.55	2742.24	1679029.82	14290154.82	39°21'07.464"N	80°51'48.264"W	10575.28	164.971	0.55	0.19	0.52	
16975.00	90.030	163.070	6459.32	10650.72	-10303.60	2769.19	1679056.75	14290064.80	39°21'06.574"N	80°51'47.923"W	10669.24	164.957	0.71	-0.43	-0.57	
17072.00	90.120	162.710	6459.19	10747.69	-10396.31	2797.73	1679085.28	14289972.13	39°21'05.657"N	80°51'47.562"W	10766.18	164.938	0.38	0.09	-0.37	
17167.00	89.910	162.630	6459.16	10842.67	-10487.00	2826.03	1679113.57	14289881.48	39°21'04.760"N	80°51'47.203"W	10861.10	164.918	0.24	-0.22	-0.08	
17261.00	90.430	161.740	6458.89	10936.67	-10576.49	2854.79	1679142.31	14289792.03	39°21'03.875"N	80°51'46.839"W	10955.00	164.895	1.10	0.55	-0.95	
17356.00	90.590	160.750	6458.04	11031.66	-10666.44	2885.33	1679172.85	14289702.11	39°21'02.986"N	80°51'46.452"W	11049.80	164.863	1.06	0.17	-1.04	
17451.00	90.680	159.340	6456.99	11126.62	-10755.73	2917.75	1679205.25	14289612.86	39°21'02.103"N	80°51'46.041"W	11144.46	164.822	1.49	0.09	-1.48	
17546.00	90.580	156.720	6455.94	11221.42	-10843.82	2953.29	1679240.77	14289524.81	39°21'01.232"N	80°51'45.590"W	11238.78	164.765	2.76	-0.11	-2.76	
17642.00	90.580	157.480	6454.97	11317.12	-10932.24	2990.64	1679278.11	14289436.41	39°21'00.357"N	80°51'45.116"W	11333.93	164.700	0.79	0.00	0.79	
17739.00	90.520	158.550	6454.04	11413.93	-11022.19	3026.95	1679314.41	14289346.51	39°20'59.468"N	80°51'44.656"W	11430.27	164.644	1.10	-0.06	1.10	
17834.00	90.060	158.330	6453.56	11508.78	-11110.54	3061.86	1679349.30	14289258.19	39°20'58.594"N	80°51'44.213"W	11524.71	164.593	0.54	-0.48	-0.23	
17928.00	90.030	158.620	6453.48	11602.65	-11197.98	3098.35	1679383.78	14289170.78	39°20'57.729"N	80°51'43.776"W	11618.18	164.543	0.31	-0.03	0.31	
18022.00	90.030	159.320	6453.44	11696.55	-11285.72	3130.08	1679417.50	14289083.08	39°20'56.861"N	80°51'43.348"W	11711.74	164.499	0.74	0.00	0.74	
18116.00	89.970	160.510	6453.44	11790.51	-11374.00	3162.36	1679449.77	14288994.83	39°20'55.988"N	80°51'42.939"W	11805.44	164.462	1.27	-0.06	1.27	
18212.00	90.030	161.450	6453.44	11886.50	-11464.76	3193.65	1679481.04	14288904.11	39°20'55.091"N	80°51'42.543"W	11901.26	164.434	0.98	0.06	0.98	
18306.00	90.060	162.710	6453.36	11980.50	-11554.20	3222.74	1679509.95	14288814.71	39°20'54.206"N	80°51'42.176"W	11995.18	164.416	1.34	0.03	1.34	





# Actual Wellpath Report

Kilska Unit 1H AWP Proj: 21644'  
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REFERENCE WELLPATH IDENTIFICATION		Slot #12
Operator	ANTERO RESOURCES CORPORATION	Kilska Unit 1H
Area	Tyler County, WV	Kilska Unit 1H AWB
Field	Tyler	
Facility	Dawson Pad	

WELLPATH DATA (246 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
18401.00	90.090	163.810	6453.24	12075.45	-11645.17	3249.93	1679537.30	14288723.77	39°20'53.307"N	80°51'41.830"W	12090.16	164.407	1.16	0.03	1.16	
18495.00	90.090	163.850	6453.09	12169.38	-11735.45	3276.11	1679563.47	14288633.53	39°20'52.414"N	80°51'41.498"W	12184.16	164.402	0.04	0.00	0.04	
18589.00	89.970	163.730	6453.04	12263.31	-11825.71	3302.35	1679589.70	14288543.30	39°20'51.522"N	80°51'41.166"W	12278.15	164.398	0.18	-0.13	-0.13	
18684.00	90.060	163.080	6453.02	12358.26	-11916.76	3329.48	1679616.82	14288452.30	39°20'50.621"N	80°51'40.822"W	12373.14	164.390	0.69	0.09	-0.68	
18779.00	90.090	163.070	6452.89	12453.23	-12007.64	3357.14	1679644.47	14288361.45	39°20'49.723"N	80°51'40.472"W	12468.11	164.380	0.03	0.03	-0.01	
18873.00	90.000	163.200	6452.82	12547.19	-12097.60	3384.41	1679671.73	14288271.53	39°20'48.833"N	80°51'40.127"W	12562.09	164.371	0.17	-0.10	0.14	
18968.00	90.060	163.030	6452.77	12642.16	-12188.50	3412.00	1679699.31	14288180.66	39°20'47.934"N	80°51'39.777"W	12657.07	164.361	0.19	0.06	-0.18	
19064.00	90.030	162.130	6452.69	12738.14	-12280.10	3440.74	1679728.04	14288089.10	39°20'47.029"N	80°51'39.413"W	12753.02	164.348	0.94	-0.03	-0.94	
19158.00	90.030	161.720	6452.64	12832.14	-12369.46	3469.91	1679757.19	14287999.77	39°20'46.145"N	80°51'39.044"W	12846.94	164.330	0.44	0.00	-0.44	
19254.00	90.060	161.520	6452.57	12928.14	-12460.56	3500.18	1679787.45	14287908.71	39°20'45.244"N	80°51'38.660"W	12942.83	164.310	0.21	0.03	-0.21	
19350.00	90.000	161.230	6452.52	13024.14	-12551.54	3530.84	1679818.09	14287817.77	39°20'44.344"N	80°51'38.272"W	13038.71	164.288	0.31	-0.06	-0.30	
19445.00	90.060	160.880	6452.47	13119.14	-12641.39	3561.68	1679848.92	14287727.95	39°20'43.456"N	80°51'37.881"W	13133.56	164.265	0.37	0.06	-0.37	
19541.00	90.060	160.470	6452.37	13215.13	-12731.98	3593.45	1679880.68	14287637.40	39°20'42.560"N	80°51'37.478"W	13229.37	164.239	0.43	0.00	-0.43	
19636.00	90.060	160.550	6452.27	13310.11	-12821.54	3625.15	1679912.36	14287547.88	39°20'41.674"N	80°51'37.077"W	13324.17	164.212	0.08	0.00	0.08	
19732.00	90.090	160.290	6452.14	13406.09	-12911.98	3657.32	1679944.52	14287457.47	39°20'40.780"N	80°51'36.669"W	13419.96	164.185	0.27	0.03	-0.27	
19827.00	90.090	160.180	6451.99	13501.06	-13001.39	3689.44	1679976.64	14287368.10	39°20'39.896"N	80°51'36.262"W	13514.74	164.157	0.12	0.00	-0.12	
19921.00	90.000	160.040	6451.92	13595.03	-13089.78	3721.42	1680008.60	14287279.74	39°20'39.022"N	80°51'35.856"W	13608.50	164.130	0.18	-0.10	-0.15	
20017.00	90.000	160.120	6451.92	13691.00	-13180.04	3754.13	1680041.30	14287189.52	39°20'38.129"N	80°51'35.442"W	13704.26	164.101	0.08	0.00	0.08	
20112.00	90.060	159.890	6451.87	13785.96	-13269.31	3786.62	1680073.77	14287100.28	39°20'37.246"N	80°51'35.030"W	13799.02	164.073	0.25	0.06	-0.24	
20207.00	89.970	159.450	6451.84	13880.91	-13358.39	3819.62	1680106.76	14287011.24	39°20'36.365"N	80°51'34.612"W	13893.74	164.043	0.47	-0.09	-0.46	
20301.00	89.750	158.930	6452.07	13974.83	-13446.26	3853.02	1680140.14	14286923.41	39°20'35.496"N	80°51'34.189"W	13987.41	164.010	0.60	-0.23	-0.55	
20397.00	89.780	159.090	6452.47	14070.73	-13535.89	3887.40	1680174.52	14286833.81	39°20'34.610"N	80°51'33.753"W	14083.05	163.976	0.17	0.03	0.17	
20492.00	89.350	159.020	6453.19	14165.64	-13624.61	3921.36	1680208.46	14286745.13	39°20'33.733"N	80°51'33.322"W	14177.70	163.943	0.46	-0.45	-0.07	
20587.00	89.380	159.870	6454.24	14260.56	-13713.55	3954.71	1680241.80	14286656.22	39°20'32.853"N	80°51'32.899"W	14272.40	163.913	0.90	0.03	0.89	
20683.00	89.450	161.370	6455.22	14356.54	-13804.11	3986.57	1680273.64	14286566.70	39°20'31.957"N	80°51'32.496"W	14368.23	163.892	1.56	0.07	1.56	
20778.00	89.420	162.040	6456.16	14451.54	-13894.30	4016.39	1680303.45	14286475.54	39°20'31.066"N	80°51'32.118"W	14463.16	163.877	0.71	-0.03	0.71	
20872.00	89.380	162.380	6457.14	14545.52	-13983.80	4045.11	1680332.16	14286386.08	39°20'30.181"N	80°51'31.754"W	14557.11	163.866	0.36	-0.04	0.36	
20968.00	89.420	162.860	6458.15	14641.50	-14075.41	4073.78	1680360.82	14286294.51	39°20'29.275"N	80°51'31.391"W	14653.09	163.858	0.50	0.04	0.50	
21064.00	89.350	162.950	6459.18	14737.47	-14167.17	4102.00	1680389.03	14286202.79	39°20'28.367"N	80°51'31.034"W	14749.07	163.852	0.12	-0.07	0.09	
21159.00	89.380	162.140	6460.23	14832.45	-14257.78	4130.49	1680417.51	14286112.21	39°20'27.471"N	80°51'30.673"W	14844.04	163.844	0.85	0.03	-0.85	



# Actual Wellpath Report

Kilska Unit 1H AWP Proj: 21644'

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## REFERENCE WELLPATH IDENTIFICATION

Operator	Slot #12
ANTERO RESOURCES CORPORATION	Kilska Unit 1H
Tyler County, WV	Kilska Unit 1H AWB
Tyler	
Dawson Pad	

## WELLPATH DATA (246 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
21253.00	89.880	162.440	6460.84	14926.44	-14347.33	4159.09	1680446.09	14286022.70	39°20'26.586"N	80°51'30.311"W	14938.00	163.834	0.62	0.53	0.32	
21349.00	89.910	161.360	6461.01	15022.44	-14438.58	4188.91	1680475.90	14285931.49	39°20'25.683"N	80°51'29.933"W	15033.94	163.822	1.13	0.03	-1.13	
21444.00	89.850	160.780	6461.21	15117.44	-14528.44	4219.73	1680506.71	14285841.66	39°20'24.795"N	80°51'29.543"W	15128.83	163.804	0.61	-0.06	-0.61	
21539.00	89.940	161.200	6461.39	15212.43	-14618.26	4250.67	1680537.64	14285751.88	39°20'23.907"N	80°51'29.150"W	15223.72	163.787	0.45	0.09	0.44	
21619.00	89.910	161.380	6461.49	15292.43	-14694.03	4276.34	1680563.29	14285676.14	39°20'23.157"N	80°51'28.825"W	15303.64	163.774	0.23	-0.04	0.22	
21644.00	89.910	161.380	6461.53	15317.43	-14717.72	4284.32	1680571.27	14285652.46	39°20'22.923"N	80°51'28.724"W	15328.62	163.770	0.00	0.00	0.00	Projected MD at TD: 21644'

## HOLE & CASING SECTIONS - Ref Wellbore: Kilska Unit 1H AWB Ref Wellpath: Kilska Unit 1H AWP Proj: 21644'

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	30.00	110.00	80.00	30.00	110.00	0.00	0.00	0.00	0.43
17.5in Open Hole	110.00	589.00	479.00	110.00	588.99	0.08	-0.22	0.43	3.37
13.375in Casing Surface	30.00	589.00	559.00	30.00	588.99	0.00	-0.22	0.00	3.37
12.25in Open Hole	589.00	2608.00	2019.00	588.99	2602.21	-0.22	-32.35	3.37	-82.08
9.625in Casing Intermediate	30.00	2608.00	2578.00	30.00	2602.21	0.00	-32.35	0.00	-82.08
8.75in Open Hole	2608.00	6187.00	3579.00	2602.21	6126.00	-32.35	-181.91	-82.08	-537.64
8.5in Open Hole	6187.00	21644.00	15457.00	6126.00	6461.53	-181.91	-1471.72	-537.64	4284.32
5.5in Casing Production	30.00	21644.00	21614.00	30.00	6461.53	0.00	-1471.72	0.00	4284.32



# Actual Wellpath Report

Kilska Unit 1H AWP Proj: 21644'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #12
Area	Tyler County, WV	Well	Kilska Unit 1H
Field	Tyler	Wellbore	Kilska Unit 1H AWB
Facility	Dawson Pad		

TARGETS								
Name	TVD (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Shape
Kilska Unit 1H - POE - Rev-2	6475.00	-612.58	-436.78	1675852.07	14299751.94	39°22'42.401"N	80°52'28.563"W	point
Kilska Unit 1H - BHL - Rev-2	6500.00	-14707.79	4259.04	1680546.00	14285662.38	39°20'23.022"N	80°51'29.046"W	point
Kilska Unit 1H - LP - Rev-2	6500.00	-784.93	-379.36	1675909.46	14299579.66	39°22'40.697"N	80°52'27.835"W	point

WELLPATH COMPOSITION - Ref Wellbore: Kilska Unit 1H AWB Ref Wellpath: Kilska Unit 1H AWP Proj: 21644'				
Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.00	565.00	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2'> (100'-550')	Kilska Unit 1H AWB
565.00	2524.00	OWSG MWD rev2 + HRGM	02 WFT EM <12-1/4'> (550')(637'-2509')	Kilska Unit 1H AWB
2524.00	6111.00	OWSG MWD rev2 + HRGM	03 WFT EM <8-3/4'> (2509')(2623'-6086')	Kilska Unit 1H AWB
6111.00	21619.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2'> (6111')(6148'-21619')	Kilska Unit 1H AWB
21619.00	21644.00	Blind Drilling (std)	Projection to bit	Kilska Unit 1H AWB



# Actual Wellpath Report

Kilska Unit 1H AWP Proj: 21644'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Slot	Slot #12	
ANTERO RESOURCES CORPORATION	Well	Kilska Unit 1H	
Tyler County, WV	Wellbore	Kilska Unit 1H AWB	
Tyler			
Dawson Pad			

COMMENTS
<p><b>Wellpath general comments</b>            API: 47-095-02582-0000            BHI Job #: 109933277            Rig: H&amp;P 519            Duration: 08/03/2019-08/07/2019            Gyrodatta MS Gyro &lt;17-1/2"&gt;(100'-550')            WFT EM &lt;12-1/4"&gt;(550')(637'-2509')            WFT EM &lt;8-3/4"&gt;(2509')(2623'-6096')            BH AT Curve &lt;8-1/2"&gt; (6111')(6148'-21619')            Middlesex: 6389' MD            Burkett: 6608' MD            Tully: 6688' MD            Marcellus POE: 6794' MD            Projected MD at TD: 21644'</p>