



Actual Wellpath Report

Gander Unit 1H AWP Proj: 21206'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999601	Report Generated	06/Feb/2022 at 20:55
Convergence at slot	0.08° 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	1675735.17	14223718.08	39°10'10.6030"N	80°52'31.3860"W
Facility Reference Pt			1675735.17	14223718.08	39°10'10.6030"N	80°52'31.3860"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 531 (RKB) to Facility Vertical Datum	1155.00ft
Horizontal Reference Pt	Slot	H&P 531 (RKB) to Mean Sea Level	1155.00ft
Vertical Reference Pt	H&P 531 (RKB)	H&P 531 (RKB) to Ground Level at Slot (Slot A)	30.00ft
MD Reference Pt	H&P 531 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	161.26°



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WELLPATH DATA (236 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†	0.000	312.030	0.00	0.00	0.00	0.00	1675735.17	14223718.08	39°10'10.6030"N	80°52'31.3860"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	312.030	30.00	0.00	0.00	0.00	1675735.17	14223718.08	39°10'10.6030"N	80°52'31.3860"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.300	312.030	100.00	-0.16	0.12	-0.14	1675735.03	14223718.20	39°10'10.6042"N	80°52'31.3877"W	0.18	312.030	0.43	0.43	0.00	Gyrodata MS Gyro <17-1/2"> (100'-563')
200.00	0.070	319.880	200.00	-0.45	0.34	-0.37	1675734.80	14223718.42	39°10'10.6064"N	80°52'31.3906"W	0.51	312.975	0.23	-0.23	7.85	
300.00	0.030	261.730	300.00	-0.51	0.39	-0.44	1675734.73	14223718.47	39°10'10.6068"N	80°52'31.3915"W	0.58	311.690	0.06	-0.04	-58.15	
400.00	0.070	320.150	400.00	-0.57	0.43	-0.50	1675734.67	14223718.51	39°10'10.6073"N	80°52'31.3923"W	0.66	310.731	0.06	0.04	58.42	
500.00	0.150	258.560	500.00	-0.64	0.45	-0.67	1675734.50	14223718.53	39°10'10.6075"N	80°52'31.3944"W	0.81	304.078	0.13	0.08	-61.59	
563.00	0.500	262.440	563.00	-0.71	0.40	-1.02	1675734.15	14223718.48	39°10'10.6070"N	80°52'31.3989"W	1.10	291.353	0.56	0.56	6.16	
689.00	2.040	301.050	688.96	-2.53	1.48	-3.49	1675731.68	14223719.56	39°10'10.6177"N	80°52'31.4302"W	3.79	293.046	1.33	1.22	30.64	APS EM <12-1/4"> (563')(689'-2738')
780.00	5.510	312.350	779.75	-7.59	5.26	-8.11	1675727.07	14223723.34	39°10'10.6551"N	80°52'31.4888"W	9.66	302.998	3.88	3.81	12.42	
870.00	9.080	306.400	869.01	-17.20	12.39	-17.02	1675718.16	14223730.47	39°10'10.7257"N	80°52'31.6018"W	21.05	306.059	4.05	3.97	-6.61	
960.00	12.720	301.430	957.38	-30.64	21.78	-31.19	1675703.99	14223739.85	39°10'10.8187"N	80°52'31.7816"W	38.04	304.918	4.17	4.04	-5.52	
1050.00	14.990	293.910	1044.76	-46.14	31.66	-50.29	1675684.90	14223749.73	39°10'10.9166"N	80°52'32.0240"W	59.43	302.192	3.21	2.52	-8.36	
1145.00	17.130	289.290	1136.05	-63.09	41.26	-74.73	1675660.47	14223759.33	39°10'11.0119"N	80°52'32.3341"W	85.37	298.906	2.62	2.25	-4.86	
1240.00	18.870	284.630	1226.40	-80.16	49.77	-102.81	1675632.40	14223767.83	39°10'11.0963"N	80°52'32.6904"W	114.22	295.831	2.38	1.83	-4.91	
1335.00	20.900	279.970	1315.74	-96.75	56.58	-134.37	1675600.86	14223774.64	39°10'11.1641"N	80°52'33.0910"W	145.79	292.836	2.71	2.14	-4.91	
1430.00	22.270	275.650	1404.08	-112.33	61.29	-168.97	1675566.27	14223779.34	39°10'11.2111"N	80°52'33.5303"W	179.74	289.937	2.21	1.44	-4.55	
1524.00	24.110	272.210	1490.48	-126.55	63.78	-205.89	1675529.37	14223781.84	39°10'11.2362"N	80°52'33.9990"W	215.54	287.213	2.43	1.96	-3.66	
1619.00	26.170	270.760	1576.48	-140.48	64.81	-246.23	1675489.04	14223782.86	39°10'11.2469"N	80°52'34.5112"W	254.61	284.746	2.26	2.17	-1.53	
1714.00	28.660	269.330	1660.81	-154.54	64.82	-289.96	1675445.32	14223782.88	39°10'11.2476"N	80°52'35.0664"W	297.12	282.601	2.71	2.62	-1.51	
1808.00	30.840	268.770	1742.41	-168.79	64.04	-336.60	1675398.71	14223782.09	39°10'11.2405"N	80°52'35.6586"W	342.63	280.772	2.34	2.32	-0.60	
1903.00	29.740	266.300	1824.45	-182.23	62.00	-384.46	1675350.86	14223780.05	39°10'11.2210"N	80°52'36.2663"W	389.43	279.160	1.75	-1.16	-2.60	
1998.00	26.620	261.850	1908.18	-192.26	57.46	-429.06	1675306.28	14223775.51	39°10'11.1767"N	80°52'36.8326"W	432.89	277.627	3.96	-3.28	-4.68	
2093.00	23.710	263.060	1994.16	-200.08	52.13	-469.10	1675266.26	14223770.19	39°10'11.1246"N	80°52'37.3411"W	471.98	276.341	3.11	-3.06	1.27	
2187.00	21.120	272.000	2081.08	-209.94	50.44	-504.80	1675230.58	14223768.50	39°10'11.1083"N	80°52'37.7944"W	507.31	275.706	4.55	-2.76	9.51	
2281.00	22.680	284.990	2168.34	-226.01	55.72	-539.25	1675196.14	14223773.78	39°10'11.1610"N	80°52'38.2318"W	542.12	275.899	5.40	1.66	13.82	
2376.00	23.090	294.300	2255.89	-248.90	68.13	-573.93	1675161.47	14223786.18	39°10'11.2841"N	80°52'38.6719"W	577.96	276.769	3.83	0.43	9.80	
2471.00	25.240	299.700	2342.57	-276.78	85.83	-608.51	1675126.90	14223803.88	39°10'11.4596"N	80°52'39.1107"W	614.54	278.029	3.24	2.26	5.68	
2566.00	28.740	299.960	2427.21	-309.11	107.28	-645.91	1675089.52	14223825.32	39°10'11.6720"N	80°52'39.5851"W	654.75	279.430	3.69	3.68	0.27	
2660.00	31.790	298.410	2508.39	-344.24	130.35	-687.27	1675048.17	14223848.38	39°10'11.9006"N	80°52'40.1099"W	699.53	280.739	3.35	3.24	-1.65	



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Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

WELLPATH DATA (236 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
2738.00	32.960	295.220	2574.27	-374.04	149.17	-724.54	1675010.92	14223867.19	39°10'12.0871"N	80°52'40.5828"W	739.74	281.634	2.65	1.50	-4.09	
2853.00	34.390	291.580	2669.98	-416.78	174.45	-783.05	1674952.43	14223892.46	39°10'12.3378"N	80°52'41.3253"W	802.25	282.559	2.15	1.24	-3.17	APS EM <8-3/4"> (2738')(2853'-6220')
2948.00	36.150	289.030	2747.55	-451.30	193.46	-834.50	1674901.01	14223911.46	39°10'12.5263"N	80°52'41.9782"W	856.63	283.052	2.42	1.85	-2.68	
3045.00	34.470	284.720	2826.71	-483.97	209.76	-888.11	1674847.42	14223927.76	39°10'12.6882"N	80°52'42.6585"W	912.54	283.289	3.10	-1.73	-4.44	
3140.00	34.370	278.890	2905.10	-511.23	220.74	-940.62	1674794.93	14223938.73	39°10'12.7974"N	80°52'43.3251"W	966.17	283.207	3.47	-0.11	-6.14	
3235.00	35.760	276.020	2982.86	-535.30	227.80	-994.72	1674740.85	14223945.79	39°10'12.8678"N	80°52'44.0119"W	1020.47	282.899	2.27	1.46	-3.02	
3330.00	33.660	273.190	3060.96	-556.76	232.17	-1048.62	1674686.97	14223950.16	39°10'12.9118"N	80°52'44.6962"W	1074.02	282.484	2.79	-2.21	-2.98	
3424.00	32.730	269.070	3139.62	-574.27	233.21	-1100.05	1674635.56	14223951.20	39°10'12.9227"N	80°52'45.3492"W	1124.50	281.970	2.60	-0.99	-4.38	
3519.00	32.190	269.130	3219.78	-589.89	232.41	-1151.03	1674584.60	14223950.40	39°10'12.9155"N	80°52'45.9965"W	1174.26	281.415	0.57	-0.57	0.06	
3614.00	31.190	272.760	3300.62	-606.67	233.21	-1200.91	1674534.74	14223951.20	39°10'12.9241"N	80°52'46.6298"W	1223.34	280.990	2.27	-1.05	3.82	
3708.00	31.160	272.190	3381.05	-624.28	235.31	-1249.52	1674486.15	14223953.30	39°10'12.9455"N	80°52'47.2470"W	1271.49	280.665	0.32	-0.03	-0.61	
3803.00	30.310	272.740	3462.71	-641.83	237.40	-1298.03	1674437.66	14223955.38	39°10'12.9667"N	80°52'47.8628"W	1319.56	280.364	0.94	-0.89	0.58	
3897.00	29.100	276.410	3544.36	-660.24	241.08	-1344.44	1674391.27	14223959.07	39°10'13.0038"N	80°52'48.4521"W	1365.89	280.166	2.32	-1.29	3.90	
3992.00	29.310	275.900	3627.28	-679.75	246.05	-1390.53	1674345.20	14223964.03	39°10'13.0535"N	80°52'49.0371"W	1412.13	280.035	0.34	0.22	-0.54	
4086.00	29.360	271.580	3709.24	-697.35	249.05	-1436.45	1674299.29	14223967.03	39°10'13.0837"N	80°52'49.6202"W	1457.88	279.836	2.25	0.05	-4.60	
4181.00	29.880	271.660	3791.82	-713.68	250.38	-1483.39	1674252.38	14223968.36	39°10'13.0975"N	80°52'50.2161"W	1504.37	279.581	0.55	0.55	0.08	
4275.00	28.640	274.470	3873.83	-730.72	252.82	-1529.26	1674206.53	14223970.79	39°10'13.1221"N	80°52'50.7985"W	1550.01	279.387	1.97	-1.32	2.99	
4370.00	28.470	279.980	3957.29	-750.58	258.51	-1574.26	1674161.54	14223976.49	39°10'13.1790"N	80°52'51.3698"W	1595.35	279.326	2.78	-0.18	5.80	
4464.00	28.060	281.470	4040.08	-772.47	266.79	-1618.00	1674117.82	14223984.77	39°10'13.2614"N	80°52'51.9250"W	1639.84	279.363	0.87	-0.44	1.59	
4558.00	27.900	278.750	4123.10	-793.75	274.54	-1661.40	1674074.43	14223992.51	39°10'13.3385"N	80°52'52.4759"W	1683.93	279.383	1.37	-0.17	-2.89	
4653.00	28.920	276.790	4206.66	-813.91	280.63	-1706.18	1674029.67	14223998.60	39°10'13.3994"N	80°52'53.0444"W	1729.11	279.340	1.45	1.07	-2.06	
4748.00	28.300	276.730	4290.06	-833.49	285.99	-1751.35	1673984.52	14224003.95	39°10'13.4529"N	80°52'53.6179"W	1774.55	279.274	0.65	-0.65	-0.06	
4843.00	29.990	283.810	4373.05	-855.96	294.30	-1796.79	1673939.10	14224012.26	39°10'13.5356"N	80°52'54.1947"W	1820.73	279.302	4.04	1.78	7.45	
4937.00	30.920	283.910	4454.08	-881.63	305.71	-1843.05	1673892.86	14224023.67	39°10'13.6490"N	80°52'54.7818"W	1868.23	279.418	0.99	0.99	0.11	
5032.00	30.890	279.920	4535.60	-906.50	315.78	-1890.77	1673845.16	14224033.74	39°10'13.7492"N	80°52'55.3875"W	1916.96	279.482	2.16	-0.03	-4.20	
5127.00	31.440	281.600	4616.89	-930.71	324.97	-1939.06	1673796.89	14224042.92	39°10'13.8405"N	80°52'56.0005"W	1966.10	279.514	1.08	0.58	1.77	
5221.00	30.630	281.510	4697.44	-955.16	334.67	-1986.54	1673749.42	14224052.62	39°10'13.9371"N	80°52'56.6032"W	2014.53	279.563	0.86	-0.86	-0.10	
5316.00	30.320	275.940	4779.33	-977.36	341.99	-2034.12	1673701.87	14224059.93	39°10'14.0100"N	80°52'57.2072"W	2062.66	279.544	2.99	-0.33	-5.86	
5410.00	30.530	275.330	4860.39	-997.01	346.66	-2081.49	1673654.52	14224064.60	39°10'14.0568"N	80°52'57.8086"W	2110.16	279.455	0.40	0.22	-0.65	
5505.00	32.380	277.750	4941.43	-1018.20	352.33	-2130.72	1673605.30	14224070.27	39°10'14.1135"N	80°52'58.4337"W	2159.66	279.389	2.36	1.95	2.55	



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(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	("/100ft)	
5599.00	32.570	275.150	5020.73	-1039.67	358.00	-2180.87	1673555.18	14224075.93	39°10'14.1701"N	80°52'59.0702"W	2210.05	279.322	1.50	0.20	-2.77	
5694.00	31.680	273.040	5101.19	-1059.29	361.61	-2231.25	1673504.82	14224079.55	39°10'14.2065"N	80°52'59.7098"W	2260.36	279.206	1.51	-0.94	-2.22	
5788.00	32.310	278.670	5180.92	-1080.01	366.71	-2280.74	1673455.34	14224084.65	39°10'14.2575"N	80°53'0.3382"W	2310.03	279.134	3.24	0.67	5.99	
5883.00	30.750	276.710	5261.90	-1102.14	373.38	-2329.96	1673406.14	14224091.31	39°10'14.3240"N	80°53'0.9631"W	2359.69	279.104	1.96	-1.64	-2.06	
5978.00	29.370	281.830	5344.13	-1124.43	380.99	-2376.90	1673359.23	14224098.92	39°10'14.3999"N	80°53'1.5588"W	2407.24	279.106	3.06	-1.45	5.39	
6073.00	29.410	277.920	5426.91	-1146.75	388.98	-2422.80	1673313.34	14224106.91	39°10'14.4795"N	80°53'2.1416"W	2453.83	279.121	2.02	0.04	-4.12	
6168.00	29.230	274.050	5509.75	-1166.20	393.84	-2469.05	1673267.11	14224111.76	39°10'14.5280"N	80°53'2.7287"W	2500.26	279.063	2.00	-0.19	-4.07	
6220.00	28.960	272.670	5555.19	-1175.71	395.32	-2494.29	1673241.88	14224113.24	39°10'14.5430"N	80°53'3.0491"W	2525.42	279.006	1.39	-0.52	-2.65	
6263.00	28.530	270.700	5592.89	-1182.93	395.93	-2514.96	1673221.22	14224113.85	39°10'14.5493"N	80°53'3.3115"W	2545.93	278.947	2.42	-1.00	-4.58	BH AT Curve <8-1/2"> (6220')(6263'-21181')
6358.00	29.310	268.760	5676.05	-1197.47	395.70	-2560.89	1673175.30	14224113.63	39°10'14.5476"N	80°53'3.8948"W	2591.28	278.784	1.28	0.82	-2.04	
6452.00	24.480	265.550	5759.86	-1209.21	393.69	-2603.34	1673132.87	14224111.62	39°10'14.5283"N	80°53'4.4338"W	2632.94	278.599	5.36	-5.14	-3.41	
6546.00	25.440	260.120	5845.09	-1217.13	388.72	-2642.65	1673093.58	14224106.64	39°10'14.4796"N	80°53'4.9330"W	2671.09	278.368	2.64	1.02	-5.78	
6640.00	25.150	247.580	5930.14	-1218.95	377.63	-2681.03	1673055.21	14224095.56	39°10'14.3705"N	80°53'5.4205"W	2707.50	278.017	5.70	-0.31	-13.34	
6734.00	25.660	231.930	6015.15	-1210.93	357.44	-2715.56	1673020.70	14224075.37	39°10'14.1713"N	80°53'5.8593"W	2738.98	277.498	7.14	0.54	-16.65	
6829.00	28.200	217.640	6099.93	-1191.67	326.94	-2745.50	1672990.77	14224044.89	39°10'13.8703"N	80°53'6.2399"W	2764.90	276.791	7.30	2.67	-15.04	
6923.00	32.070	202.150	6181.33	-1160.44	286.16	-2768.51	1672967.76	14224004.13	39°10'13.4675"N	80°53'6.5327"W	2783.26	275.901	9.21	4.12	-16.48	
6978.00†	34.320	194.165	6227.38	-1136.37	257.59	-2777.82	1672958.47	14223975.56	39°10'13.1852"N	80°53'6.6513"W	2789.73	275.298	8.94	4.09	-14.54	Sycamore: 6978' MD
7018.00	36.250	188.940	6260.03	-1116.43	234.96	-2782.41	1672953.87	14223952.95	39°10'12.9617"N	80°53'6.7100"W	2792.32	274.827	8.94	4.83	-13.04	
7112.00	44.500	177.710	6331.68	-1060.05	174.41	-2785.43	1672950.86	14223892.42	39°10'12.3632"N	80°53'6.7493"W	2790.88	273.583	11.67	8.78	-11.95	
7207.00	51.240	172.500	6395.39	-991.68	104.31	-2779.25	1672957.03	14223822.35	39°10'11.6703"N	80°53'6.6720"W	2781.21	272.149	8.17	7.09	-5.48	
7210.00†	51.433	172.440	6397.27	-989.39	101.99	-2778.94	1672957.34	14223820.03	39°10'11.6473"N	80°53'6.6681"W	2780.81	272.102	6.63	6.44	-1.98	Middlesex: 7210' MD
7301.00	57.310	170.770	6450.26	-916.65	28.86	-2768.11	1672968.17	14223746.93	39°10'10.9244"N	80°53'6.5318"W	2768.26	270.597	6.63	6.46	-1.84	
7348.00	60.410	169.960	6474.56	-876.94	-10.80	-2761.38	1672974.90	14223707.29	39°10'10.5323"N	80°53'6.4469"W	2761.40	269.776	6.76	6.60	-1.72	
7396.00	65.040	169.130	6496.55	-834.73	-52.74	-2753.63	1672982.64	14223665.36	39°10'10.1177"N	80°53'6.3492"W	2754.13	268.903	9.77	9.65	-1.73	
7418.00†	66.968	168.887	6505.50	-814.81	-72.47	-2749.80	1672986.47	14223645.64	39°10'9.9226"N	80°53'6.3009"W	2750.75	268.490	8.82	8.77	-1.10	Burkett: 7418' MD
7443.00	69.160	168.620	6514.83	-791.82	-95.21	-2745.27	1672991.00	14223622.91	39°10'9.6978"N	80°53'6.2438"W	2746.92	268.014	8.82	8.77	-1.07	
7491.00	72.860	168.140	6530.45	-746.79	-139.66	-2736.13	1673000.13	14223578.48	39°10'9.2583"N	80°53'6.1284"W	2739.69	267.078	7.77	7.71	-1.00	
7532.00†	75.974	167.712	6541.46	-707.57	-178.27	-2727.87	1673008.39	14223539.88	39°10'8.8766"N	80°53'6.0242"W	2733.69	266.261	7.66	7.60	-1.04	Tully: 7532' MD
7538.00	76.430	167.650	6542.89	-701.78	-183.97	-2726.63	1673009.63	14223534.19	39°10'8.8203"N	80°53'6.0085"W	2732.83	266.140	7.66	7.60	-1.03	
7585.00	80.140	166.320	6552.44	-656.00	-228.79	-2716.26	1673020.00	14223489.38	39°10'8.3771"N	80°53'5.8776"W	2725.88	265.185	8.37	7.89	-2.83	



Actual Wellpath Report

Gander Unit 1H AWP Proj: 21206'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

WELLPATH DATA (236 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]	
7632.00	82.930	165.360	6559.35	-609.67	-273.86	-2704.89	1673031.36	14223444.33	39°10'7.9315"N	80°53'5.7339"W	2718.72	264.219	6.27	5.94	-2.04	
7639.00†	83.283	165.192	6560.19	-602.73	-280.59	-2703.12	1673033.13	14223437.61	39°10'7.8650"N	80°53'5.7116"W	2717.65	264.074	5.58	5.04	-2.41	Marcellus POE: 7639' MD
7680.00	85.350	164.210	6564.26	-562.01	-319.94	-2692.36	1673043.89	14223398.27	39°10'7.4759"N	80°53'5.5756"W	2711.30	263.223	5.58	5.04	-2.39	
7775.00	83.770	159.470	6573.27	-467.47	-409.77	-2662.90	1673073.34	14223308.47	39°10'6.5877"N	80°53'5.2029"W	2694.24	261.252	5.24	-1.66	-4.99	
7869.00	88.400	159.860	6579.68	-373.76	-497.68	-2630.32	1673105.91	14223220.60	39°10'5.7183"N	80°53'4.7907"W	2676.99	259.286	4.94	4.93	0.41	
7964.00	90.490	159.410	6580.60	-278.80	-586.73	-2597.26	1673138.95	14223131.58	39°10'4.8377"N	80°53'4.3724"W	2662.71	257.270	2.25	2.20	-0.47	
8058.00	90.430	159.660	6579.85	-184.85	-674.80	-2564.40	1673171.80	14223043.55	39°10'3.9669"N	80°53'3.9566"W	2651.69	255.257	0.27	-0.06	0.27	
8153.00	90.460	159.870	6579.11	-89.88	-763.93	-2531.54	1673204.64	14222954.45	39°10'3.0855"N	80°53'3.5409"W	2644.29	253.208	0.22	0.03	0.22	
8248.00	90.990	160.160	6577.91	5.09	-853.20	-2499.07	1673237.10	14222865.22	39°10'2.2027"N	80°53'3.1301"W	2640.71	251.150	0.64	0.56	0.31	
8343.00	90.520	159.450	6576.66	100.05	-942.36	-2466.28	1673269.88	14222776.10	39°10'1.3211"N	80°53'2.7152"W	2640.18	249.088	0.90	-0.49	-0.75	
8437.00	90.520	159.140	6575.80	193.99	-1030.28	-2433.05	1673303.10	14222688.21	39°10'0.4517"N	80°53'2.2947"W	2642.20	247.050	0.33	0.00	-0.33	
8532.00	90.710	159.460	6574.78	288.92	-1119.14	-2399.47	1673336.66	14222599.39	39°09'59.5730"N	80°53'1.8698"W	2647.63	244.995	0.39	0.20	0.34	
8627.00	90.770	159.530	6573.56	383.87	-1208.12	-2366.20	1673369.92	14222510.45	39°09'58.6931"N	80°53'1.4488"W	2656.77	242.952	0.10	0.06	0.07	
8721.00	90.740	159.570	6572.32	477.82	-1296.18	-2333.36	1673402.75	14222422.41	39°09'57.8222"N	80°53'1.0333"W	2669.20	240.948	0.05	-0.03	0.04	
8816.00	90.740	160.550	6571.09	572.79	-1385.48	-2300.96	1673435.13	14222333.15	39°09'56.9392"N	80°53'0.6235"W	2685.88	238.947	1.03	0.00	1.03	
8910.00	90.340	160.500	6570.21	666.78	-1474.10	-2269.62	1673466.46	14222244.57	39°09'56.0629"N	80°53'0.2271"W	2706.32	236.997	0.43	-0.43	-0.05	
9005.00	89.910	159.780	6570.00	761.76	-1563.45	-2237.35	1673498.72	14222155.26	39°09'55.1794"N	80°52'59.8188"W	2729.49	235.054	0.88	-0.45	-0.76	
9099.00	90.680	160.150	6569.51	855.73	-1651.76	-2205.15	1673530.91	14222066.98	39°09'54.3062"N	80°52'59.4114"W	2755.17	233.165	0.91	0.82	0.39	
9194.00	91.350	161.160	6567.83	950.71	-1741.38	-2173.68	1673562.36	14221977.40	39°09'53.4200"N	80°52'59.0134"W	2785.19	231.301	1.28	0.71	1.06	
9289.00	90.400	160.220	6566.38	1045.69	-1831.02	-2142.27	1673593.76	14221887.79	39°09'52.5335"N	80°52'58.6160"W	2818.15	229.479	1.41	-1.00	-0.99	
9384.00	90.860	160.150	6565.34	1140.67	-1920.39	-2110.07	1673625.94	14221798.46	39°09'51.6498"N	80°52'58.2087"W	2853.12	227.694	0.49	0.48	-0.07	
9478.00	90.860	160.450	6563.92	1234.65	-2008.88	-2078.39	1673657.62	14221710.01	39°09'50.7748"N	80°52'57.8079"W	2890.55	225.974	0.32	0.00	0.32	
9573.00	90.990	159.580	6562.39	1329.61	-2098.15	-2045.92	1673690.07	14221620.78	39°09'49.8921"N	80°52'57.3972"W	2930.53	224.278	0.93	0.14	-0.92	
9667.00	90.710	160.860	6561.00	1423.58	-2186.59	-2014.12	1673721.86	14221532.37	39°09'49.0175"N	80°52'56.9948"W	2972.85	222.649	1.39	-0.30	1.36	
9762.00	90.650	158.380	6559.87	1518.53	-2275.63	-1981.04	1673754.93	14221443.36	39°09'48.1370"N	80°52'56.5764"W	3017.12	221.041	2.61	-0.06	-2.61	
9856.00	90.920	159.920	6558.58	1612.46	-2363.46	-1947.59	1673788.36	14221355.57	39°09'47.2684"N	80°52'56.1531"W	3062.52	219.490	1.66	0.29	1.64	
9951.00	90.580	159.970	6557.34	1707.42	-2452.69	-1915.01	1673820.93	14221266.37	39°09'46.3861"N	80°52'55.7410"W	3111.75	217.982	0.36	-0.36	0.05	
10046.00	90.860	158.900	6556.14	1802.37	-2541.63	-1881.64	1673854.28	14221177.47	39°09'45.5066"N	80°52'55.3189"W	3162.35	216.514	1.16	0.29	-1.13	
10141.00	90.430	161.190	6555.07	1897.33	-2630.92	-1849.23	1673886.68	14221088.22	39°09'44.6237"N	80°52'54.9088"W	3215.80	215.103	2.45	-0.45	2.41	
10236.00	91.170	160.630	6553.75	1992.32	-2720.68	-1818.16	1673917.74	14220998.49	39°09'43.7360"N	80°52'54.5158"W	3272.28	213.754	0.98	0.78	-0.59	



Actual Wellpath Report

Gander Unit 1H AWP Proj: 21206'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

WELLPATH DATA (236 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
10330.00	91.320	161.870	6551.71	2085.30	-2809.67	-1787.95	1673947.93	14220909.54	39°09'42.8561"N	80°52'54.1338"W	3330.32	212.471	1.33	0.16	1.32	
10425.00	90.800	161.500	6549.95	2181.28	-2899.84	-1758.10	1673977.77	14220819.40	39°09'41.9645"N	80°52'53.7564"W	3391.17	211.227	0.67	-0.55	-0.39	
10520.00	90.550	160.200	6548.83	2276.26	-2989.58	-1726.94	1674008.92	14220729.70	39°09'41.0771"N	80°52'53.3623"W	3452.52	210.013	1.39	-0.26	-1.37	
10615.00	91.110	160.910	6547.45	2371.25	-3079.15	-1695.32	1674040.53	14220640.17	39°09'40.1914"N	80°52'52.9623"W	3515.00	208.836	0.95	0.59	0.75	
10709.00	90.950	161.400	6545.76	2465.23	-3168.09	-1664.96	1674070.87	14220551.26	39°09'39.3119"N	80°52'52.5784"W	3578.96	207.724	0.55	-0.17	0.52	
10804.00	91.050	161.530	6544.10	2560.22	-3258.15	-1634.77	1674101.06	14220461.23	39°09'38.4213"N	80°52'52.1965"W	3645.27	206.645	0.17	0.11	0.14	
10899.00	91.320	161.510	6542.14	2655.19	-3348.23	-1604.66	1674131.15	14220371.19	39°09'37.5306"N	80°52'51.8158"W	3712.90	205.606	0.28	0.28	-0.02	
10994.00	91.630	160.740	6539.89	2750.16	-3438.09	-1573.94	1674161.86	14220281.36	39°09'36.6420"N	80°52'51.4273"W	3781.24	204.598	0.87	0.33	-0.81	
11088.00	87.380	159.660	6540.51	2844.12	-3526.51	-1542.11	1674193.68	14220192.98	39°09'35.7677"N	80°52'51.0247"W	3848.95	203.619	4.66	-4.52	-1.15	
11183.00	91.350	161.450	6541.56	2939.08	-3616.07	-1510.49	1674225.28	14220103.46	39°09'34.8821"N	80°52'50.6248"W	3918.87	202.671	4.58	4.18	1.88	
11278.00	90.650	161.380	6539.90	3034.07	-3706.10	-1480.22	1674255.54	14220013.47	39°09'33.9919"N	80°52'50.2420"W	3990.77	201.772	0.74	-0.74	-0.07	
11373.00	90.490	161.510	6538.96	3129.06	-3796.16	-1449.99	1674285.76	14219923.44	39°09'33.1013"N	80°52'49.8597"W	4063.65	200.905	0.22	-0.17	0.14	
11467.00	90.400	161.520	6538.23	3223.06	-3885.30	-1420.19	1674315.55	14219834.33	39°09'32.2198"N	80°52'49.4829"W	4136.73	200.079	0.10	-0.10	0.01	
11562.00	90.180	161.320	6537.75	3318.06	-3975.35	-1389.92	1674345.81	14219744.32	39°09'31.3294"N	80°52'49.1001"W	4211.33	199.271	0.31	-0.23	-0.21	
11657.00	90.120	160.680	6537.50	3413.06	-4065.17	-1358.99	1674376.72	14219654.53	39°09'30.4412"N	80°52'48.7090"W	4286.32	198.485	0.88	-0.06	-0.67	
11752.00	90.710	161.030	6536.81	3508.05	-4154.92	-1327.84	1674407.87	14219564.83	39°09'29.5538"N	80°52'48.3150"W	4361.94	197.723	0.72	0.62	0.37	
11846.00	90.000	160.870	6536.23	3602.05	-4243.77	-1297.16	1674438.53	14219476.01	39°09'28.6752"N	80°52'47.9270"W	4437.59	196.996	0.77	-0.76	-0.17	
11941.00	89.850	161.480	6536.35	3697.05	-4333.68	-1266.50	1674469.18	14219386.13	39°09'27.7860"N	80°52'47.5394"W	4514.96	196.291	0.66	-0.16	0.64	
12036.00	90.090	162.970	6536.40	3792.03	-4424.15	-1237.50	1674498.17	14219295.70	39°09'26.8915"N	80°52'47.1727"W	4593.96	195.627	1.59	0.25	1.57	
12130.00	90.920	160.020	6535.57	3886.01	-4513.27	-1207.67	1674527.98	14219206.61	39°09'26.0102"N	80°52'46.7956"W	4672.06	194.980	3.26	0.88	-3.14	
12225.00	88.950	162.730	6535.68	3981.00	-4603.28	-1177.33	1674558.31	14219116.64	39°09'25.1202"N	80°52'46.4120"W	4751.46	194.346	3.53	-2.07	2.85	
12319.00	90.770	160.800	6535.91	4074.99	-4692.56	-1147.92	1674587.71	14219027.40	39°09'24.2374"N	80°52'46.0401"W	4830.92	193.746	2.82	1.94	-2.05	
12414.00	90.580	162.900	6534.79	4169.97	-4782.82	-1118.33	1674617.28	14218937.18	39°09'23.3449"N	80°52'45.6660"W	4911.82	193.161	2.22	-0.20	2.21	
12508.00	89.720	162.390	6534.54	4263.94	-4872.54	-1090.30	1674645.31	14218847.49	39°09'22.4577"N	80°52'45.3116"W	4993.03	192.613	1.06	-0.91	-0.54	
12603.00	89.820	163.990	6534.93	4358.88	-4963.47	-1062.82	1674672.77	14218756.59	39°09'21.5586"N	80°52'44.9644"W	5075.99	192.086	1.69	0.11	1.68	
12698.00	90.340	162.300	6534.79	4453.83	-5054.39	-1035.28	1674700.31	14218665.72	39°09'20.6596"N	80°52'44.6163"W	5159.33	191.576	1.86	0.55	-1.78	
12793.00	90.430	162.210	6534.15	4548.81	-5144.87	-1006.32	1674729.25	14218575.27	39°09'19.7649"N	80°52'44.2503"W	5242.36	191.067	0.13	0.09	-0.09	
12887.00	90.550	162.600	6533.35	4642.79	-5234.47	-977.91	1674757.65	14218485.71	39°09'18.8790"N	80°52'43.8911"W	5325.03	190.582	0.43	0.13	0.41	
12982.00	86.710	161.950	6535.62	4737.73	-5324.91	-949.00	1674786.55	14218395.30	39°09'17.9846"N	80°52'43.5256"W	5408.82	190.105	4.10	-4.04	-0.68	
13077.00	85.720	165.110	6541.89	4832.43	-5415.80	-922.13	1674813.41	14218304.45	39°09'17.0859"N	80°52'43.1861"W	5493.75	189.663	3.48	-1.04	3.33	



Actual Wellpath Report

Gander Unit 1H AWP Proj: 21206'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

WELLPATH DATA (236 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
13172.00	90.920	162.840	6544.68	4927.25	-5507.03	-895.92	1674839.61	14218213.25	39°09'16.1838"N	80°52'42.8549"W	5579.44	189.240	5.97	5.47	-2.39	
13266.00	90.650	162.410	6543.39	5021.21	-5596.74	-867.86	1674867.66	14218123.59	39°09'15.2969"N	80°52'42.5002"W	5663.62	188.814	0.54	-0.29	-0.46	
13361.00	90.890	162.280	6542.11	5116.19	-5687.25	-839.05	1674896.46	14218033.10	39°09'14.4018"N	80°52'42.1360"W	5748.81	188.392	0.29	0.25	-0.14	
13456.00	88.980	161.360	6542.22	5211.18	-5777.51	-809.41	1674926.09	14217942.89	39°09'13.5094"N	80°52'41.7613"W	5833.93	187.975	2.23	-2.01	-0.97	
13550.00	90.770	161.700	6542.43	5305.17	-5866.66	-779.63	1674955.85	14217853.77	39°09'12.6278"N	80°52'41.3848"W	5918.24	187.570	1.94	1.90	0.36	
13645.00	91.350	162.270	6540.67	5400.15	-5956.99	-750.25	1674985.22	14217763.48	39°09'11.7346"N	80°52'41.0135"W	6004.05	187.178	0.86	0.61	0.60	
13740.00	91.320	162.300	6538.46	5495.11	-6047.46	-721.36	1675014.10	14217673.04	39°09'10.8400"N	80°52'40.6482"W	6090.33	186.802	0.04	-0.03	0.03	
13834.00	91.050	162.110	6536.51	5589.07	-6136.94	-692.63	1675042.81	14217583.60	39°09'9.9552"N	80°52'40.2851"W	6175.90	186.439	0.35	-0.29	-0.20	
13929.00	91.450	163.670	6534.44	5684.01	-6227.71	-664.69	1675070.74	14217492.86	39°09'9.0576"N	80°52'39.9320"W	6263.08	186.092	1.69	0.42	1.64	
14023.00	89.750	161.910	6533.46	5777.96	-6317.49	-636.88	1675098.54	14217403.12	39°09'8.1699"N	80°52'39.5805"W	6349.51	185.757	2.60	-1.81	-1.87	
14118.00	89.320	162.560	6534.23	5872.95	-6407.96	-607.90	1675127.52	14217312.69	39°09'7.2753"N	80°52'39.2141"W	6436.73	185.419	0.82	-0.45	0.68	
14213.00	88.800	160.370	6535.78	5967.93	-6498.01	-577.71	1675157.70	14217222.67	39°09'6.3848"N	80°52'38.8324"W	6523.84	185.081	2.37	-0.55	-2.31	
14307.00	91.290	162.140	6535.71	6061.92	-6587.02	-547.50	1675187.89	14217133.70	39°09'5.5047"N	80°52'38.4506"W	6609.73	184.751	3.25	2.65	1.88	
14402.00	88.000	161.150	6536.30	6156.90	-6677.17	-517.59	1675217.79	14217043.59	39°09'4.6133"N	80°52'38.0724"W	6697.20	184.433	3.62	-3.46	-1.04	
14497.00	91.450	161.840	6536.76	6251.88	-6767.24	-487.44	1675247.92	14216953.55	39°09'3.7226"N	80°52'37.6913"W	6784.77	184.120	3.70	3.63	0.73	
14591.00	88.950	158.400	6536.43	6345.84	-6855.62	-455.49	1675279.87	14216865.21	39°09'2.8487"N	80°52'37.2872"W	6870.73	183.801	4.52	-2.66	-3.66	
14686.00	89.940	163.130	6537.35	6440.80	-6945.28	-424.20	1675311.14	14216775.58	39°09'1.9620"N	80°52'36.8916"W	6958.23	183.495	5.09	1.04	4.98	
14780.00	89.940	162.450	6537.45	6534.77	-7035.07	-396.39	1675338.94	14216685.82	39°09'1.0741"N	80°52'36.5401"W	7046.23	183.225	0.72	0.00	-0.72	
14875.00	89.780	162.090	6537.68	6629.75	-7125.56	-367.46	1675367.86	14216595.37	39°09'0.1794"N	80°52'36.1744"W	7135.03	182.952	0.41	-0.17	-0.38	
14970.00	89.690	161.590	6538.12	6724.75	-7215.83	-337.85	1675397.46	14216505.14	39°08'59.2868"N	80°52'35.8002"W	7223.73	182.681	0.53	-0.09	-0.53	
15064.00	91.080	161.750	6537.49	6818.74	-7305.05	-308.29	1675427.00	14216415.95	39°08'58.4045"N	80°52'35.4265"W	7311.56	182.417	1.49	1.48	0.17	
15159.00	86.030	160.930	6539.88	6913.68	-7395.00	-277.91	1675457.37	14216326.04	39°08'57.5150"N	80°52'35.0425"W	7400.22	182.152	5.39	-5.32	-0.88	
15253.00	90.990	163.140	6542.32	7007.60	-7484.36	-248.94	1675486.33	14216236.72	39°08'56.6315"N	80°52'34.6763"W	7488.50	181.905	5.78	5.28	2.35	
15348.00	90.800	162.300	6540.84	7102.56	-7575.06	-220.73	1675514.53	14216146.06	39°08'55.7346"N	80°52'34.3197"W	7578.27	181.669	0.91	-0.20	-0.88	
15442.00	89.850	161.980	6540.31	7196.55	-7664.52	-191.90	1675543.35	14216056.63	39°08'54.8499"N	80°52'33.9554"W	7666.93	181.434	1.07	-1.01	-0.34	
15537.00	90.580	162.100	6539.95	7291.54	-7754.89	-162.61	1675572.63	14215966.29	39°08'53.9563"N	80°52'33.5851"W	7756.60	181.201	0.78	0.77	0.13	
15631.00	90.490	161.980	6539.07	7385.52	-7844.31	-133.62	1675601.60	14215876.91	39°08'53.0721"N	80°52'33.2188"W	7845.45	180.976	0.16	-0.10	-0.13	
15726.00	90.580	161.990	6538.19	7480.51	-7934.65	-104.24	1675630.97	14215786.61	39°08'52.1788"N	80°52'32.8474"W	7935.33	180.753	0.10	0.09	0.01	
15820.00	89.570	162.330	6538.06	7574.50	-8024.13	-75.45	1675659.75	14215697.17	39°08'51.2940"N	80°52'32.4835"W	8024.48	180.539	1.13	-1.07	0.36	
15914.00	89.380	161.920	6538.92	7668.48	-8113.59	-46.60	1675688.59	14215607.74	39°08'50.4094"N	80°52'32.1188"W	8113.72	180.329	0.48	-0.20	-0.44	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

WELLPATH DATA (236 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
16009.00	90.620	162.470	6538.92	7763.47	-8204.03	-17.55	1675717.63	14215517.33	39°08'49.5151"N	80°52'31.7517"W	8204.05	180.123	1.43	1.31	0.58	
16104.00	90.400	162.710	6538.08	7858.44	-8294.68	10.88	1675746.04	14215426.73	39°08'48.6188"N	80°52'31.3925"W	8294.68	179.925	0.34	-0.23	0.25	
16199.00	89.720	162.740	6537.98	7953.41	-8385.39	39.09	1675774.24	14215336.05	39°08'47.7218"N	80°52'31.0360"W	8385.48	179.733	0.72	-0.72	0.03	
16294.00	89.910	162.120	6538.29	8048.39	-8475.96	67.76	1675802.91	14215245.52	39°08'46.8262"N	80°52'30.6736"W	8476.23	179.542	0.68	0.20	-0.65	
16389.00	88.090	159.400	6539.94	8143.36	-8565.63	99.06	1675834.19	14215155.88	39°08'45.9395"N	80°52'30.2779"W	8566.20	179.337	3.44	-1.92	-2.86	
16483.00	90.920	161.170	6540.76	8237.33	-8654.10	130.76	1675865.88	14215067.45	39°08'45.0646"N	80°52'29.8771"W	8655.09	179.134	3.55	3.01	1.88	
16578.00	90.710	161.100	6539.41	8332.32	-8743.99	161.48	1675896.58	14214977.59	39°08'44.1757"N	80°52'29.4888"W	8745.48	178.942	0.23	-0.22	-0.07	
16672.00	90.180	160.810	6538.68	8426.31	-8832.84	192.15	1675927.24	14214888.78	39°08'43.2971"N	80°52'29.1011"W	8834.93	178.754	0.64	-0.56	-0.31	
16766.00	87.450	160.230	6540.62	8520.27	-8921.43	223.49	1675958.57	14214800.22	39°08'42.4211"N	80°52'28.7049"W	8924.23	178.565	2.97	-2.90	-0.62	
16861.00	90.430	160.800	6542.38	8615.24	-9010.97	255.17	1675990.23	14214710.72	39°08'41.5357"N	80°52'28.3044"W	9014.58	178.378	3.19	3.14	0.60	
16956.00	90.090	160.670	6541.95	8710.23	-9100.64	286.51	1676021.56	14214621.08	39°08'40.6489"N	80°52'27.9081"W	9105.15	178.197	0.38	-0.36	-0.14	
17051.00	90.490	160.620	6541.46	8805.23	-9190.27	317.99	1676053.04	14214531.49	39°08'39.7625"N	80°52'27.5101"W	9195.77	178.018	0.42	0.42	-0.05	
17145.00	90.180	161.100	6540.92	8899.22	-9279.08	348.81	1676083.84	14214442.72	39°08'38.8844"N	80°52'27.1205"W	9285.63	177.847	0.61	-0.33	0.51	
17240.00	90.000	161.010	6540.77	8994.22	-9368.93	379.66	1676114.67	14214352.90	39°08'37.9959"N	80°52'26.7306"W	9376.62	177.679	0.21	-0.19	-0.09	
17335.00	90.150	161.110	6540.64	9089.22	-9458.79	410.49	1676145.50	14214263.08	39°08'37.1073"N	80°52'26.3408"W	9467.69	177.515	0.19	0.16	0.11	
17429.00	89.970	160.900	6540.54	9183.22	-9547.67	441.09	1676176.08	14214174.24	39°08'36.2284"N	80°52'25.9540"W	9557.85	177.355	0.29	-0.19	-0.22	
17524.00	90.030	160.800	6540.54	9278.22	-9637.41	472.25	1676207.23	14214084.53	39°08'35.3409"N	80°52'25.5601"W	9648.97	177.195	0.12	0.06	-0.11	
17619.00	89.690	160.170	6540.78	9373.21	-9726.95	503.99	1676238.95	14213995.02	39°08'34.4555"N	80°52'25.1589"W	9740.00	177.034	0.75	-0.36	-0.66	
17713.00	89.850	161.010	6541.15	9467.20	-9815.61	535.22	1676270.18	14213906.40	39°08'33.5788"N	80°52'24.7640"W	9830.19	176.879	0.91	0.17	0.89	
17808.00	90.800	161.920	6540.61	9562.20	-9905.68	565.42	1676300.37	14213816.37	39°08'32.6881"N	80°52'24.3823"W	9921.80	176.733	1.38	1.00	0.96	
17903.00	90.580	161.250	6539.47	9657.19	-9995.81	595.43	1676330.36	14213726.28	39°08'31.7969"N	80°52'24.0030"W	10013.52	176.591	0.74	-0.23	-0.71	
17997.00	89.600	160.960	6539.32	9751.18	-10084.74	625.87	1676360.79	14213637.38	39°08'30.9174"N	80°52'23.6183"W	10104.14	176.449	1.09	-1.04	-0.31	
18092.00	89.880	160.830	6539.75	9846.18	-10174.51	656.96	1676391.87	14213547.65	39°08'30.0298"N	80°52'23.2252"W	10195.69	176.306	0.32	0.29	-0.14	
18187.00	89.970	160.930	6539.88	9941.18	-10264.26	688.08	1676422.97	14213457.93	39°08'29.1422"N	80°52'22.8319"W	10287.30	176.165	0.14	0.09	0.11	
18281.00	90.030	160.700	6539.88	10035.18	-10353.04	718.97	1676453.85	14213369.18	39°08'28.2642"N	80°52'22.4414"W	10377.98	176.027	0.25	0.06	-0.24	
18376.00	90.520	161.240	6539.42	10130.17	-10442.85	749.95	1676484.82	14213279.41	39°08'27.3762"N	80°52'22.0499"W	10469.74	175.892	0.77	0.52	0.57	
18470.00	90.060	161.300	6538.95	10224.17	-10531.87	780.13	1676514.99	14213190.43	39°08'26.4959"N	80°52'21.6684"W	10560.72	175.764	0.49	-0.49	0.06	
18565.00	90.090	161.190	6538.82	10319.17	-10621.83	810.67	1676545.52	14213100.51	39°08'25.6063"N	80°52'21.2823"W	10652.72	175.636	0.12	0.03	-0.12	
18659.00	89.970	160.630	6538.77	10413.17	-10710.66	841.42	1676576.25	14213011.71	39°08'24.7279"N	80°52'20.8938"W	10743.66	175.508	0.61	-0.13	-0.60	
18753.00	90.120	160.950	6538.70	10507.17	-10799.42	872.35	1676607.17	14212922.98	39°08'23.8501"N	80°52'20.5028"W	10834.60	175.382	0.38	0.16	0.34	



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

WELLPATH DATA (236 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]	
18848.00	89.940	160.960	6538.65	10602.16	-10889.22	903.35	1676638.15	14212833.22	39°08'22.9621"N	80°52'20.1110"W	10926.63	175.258	0.19	-0.19	0.01	
18943.00	89.880	161.590	6538.80	10697.16	-10979.19	933.84	1676668.64	14212743.28	39°08'22.0724"N	80°52'19.7255"W	11018.84	175.138	0.67	-0.06	0.66	
19037.00	89.720	160.980	6539.13	10791.16	-11068.22	964.00	1676698.79	14212654.29	39°08'21.1920"N	80°52'19.3443"W	11110.12	175.022	0.67	-0.17	-0.65	
19132.00	90.030	161.110	6539.33	10886.16	-11158.07	994.86	1676729.63	14212564.48	39°08'20.3035"N	80°52'18.9543"W	11202.33	174.905	0.35	0.33	0.14	
19227.00	90.090	161.410	6539.23	10981.16	-11248.03	1025.38	1676760.14	14212474.55	39°08'19.4139"N	80°52'18.5686"W	11294.67	174.791	0.32	0.06	0.32	
19321.00	89.780	160.970	6539.34	11075.16	-11337.01	1055.69	1676790.44	14212385.61	39°08'18.5340"N	80°52'18.1855"W	11386.06	174.680	0.57	-0.33	-0.47	
19416.00	89.630	160.810	6539.83	11170.16	-11426.78	1086.79	1676821.53	14212295.88	39°08'17.6464"N	80°52'17.7924"W	11478.34	174.567	0.23	-0.16	-0.17	
19511.00	89.850	160.780	6540.26	11265.15	-11516.49	1118.04	1676852.76	14212206.20	39°08'16.7592"N	80°52'17.3974"W	11570.63	174.455	0.23	0.23	-0.03	
19605.00	90.180	161.150	6540.24	11359.15	-11605.35	1148.70	1676883.41	14212117.38	39°08'15.8805"N	80°52'17.0099"W	11662.06	174.347	0.53	0.35	0.39	
19700.00	90.090	161.090	6540.01	11454.15	-11695.24	1179.44	1676914.14	14212027.53	39°08'14.9916"N	80°52'16.6214"W	11754.56	174.241	0.11	-0.09	-0.06	
19794.00	89.570	161.130	6540.29	11548.15	-11784.17	1209.87	1676944.56	14211938.63	39°08'14.1122"N	80°52'16.2368"W	11846.12	174.138	0.55	-0.55	0.04	
19889.00	89.380	160.800	6541.16	11643.15	-11873.98	1240.85	1676975.53	14211848.86	39°08'13.2241"N	80°52'15.8452"W	11938.64	174.034	0.40	-0.20	-0.35	
19984.00	90.310	161.770	6541.42	11738.14	-11963.95	1271.34	1677006.00	14211758.92	39°08'12.3344"N	80°52'15.4600"W	12031.31	173.934	1.41	0.98	1.02	
20078.00	89.450	162.080	6541.62	11832.14	-12053.31	1300.50	1677035.15	14211669.60	39°08'11.4507"N	80°52'15.0915"W	12123.27	173.842	0.97	-0.91	0.33	
20173.00	89.230	161.170	6542.71	11927.13	-12143.46	1330.44	1677065.08	14211579.49	39°08'10.5593"N	80°52'14.7131"W	12216.12	173.748	0.99	-0.23	-0.96	
20363.00	89.750	161.130	6544.40	12117.12	-12323.26	1391.83	1677126.44	14211399.76	39°08'8.7813"N	80°52'13.9373"W	12401.61	173.556	0.27	0.27	-0.02	
20457.00	88.710	160.150	6545.66	12211.10	-12411.94	1422.99	1677157.59	14211311.12	39°08'7.9044"N	80°52'13.5435"W	12493.24	173.460	1.52	-1.11	-1.04	
20552.00	89.200	160.920	6547.40	12306.08	-12501.49	1454.64	1677189.23	14211221.60	39°08'7.0188"N	80°52'13.1435"W	12585.83	173.363	0.96	0.52	0.81	
20647.00	89.450	160.860	6548.52	12401.07	-12591.25	1485.74	1677220.31	14211131.88	39°08'6.1312"N	80°52'12.7504"W	12678.60	173.270	0.27	0.26	-0.06	
20742.00	89.350	160.780	6549.51	12496.06	-12680.97	1516.95	1677251.51	14211042.19	39°08'5.2439"N	80°52'12.3560"W	12771.38	173.178	0.13	-0.11	-0.08	
20837.00	89.230	161.180	6550.69	12591.05	-12770.78	1547.90	1677282.45	14210952.42	39°08'4.3558"N	80°52'11.9648"W	12864.24	173.089	0.44	-0.13	0.42	
20932.00	89.690	161.270	6551.58	12686.05	-12860.72	1578.48	1677313.02	14210862.51	39°08'3.4664"N	80°52'11.5784"W	12957.22	173.003	0.49	0.48	0.09	
21026.00	89.780	161.200	6552.02	12780.05	-12949.72	1608.72	1677343.24	14210773.55	39°08'2.5863"N	80°52'11.1963"W	13049.26	172.919	0.12	0.10	-0.07	
21121.00	89.660	161.030	6552.48	12875.04	-13039.61	1639.47	1677373.98	14210683.70	39°08'1.6974"N	80°52'10.8077"W	13142.27	172.834	0.22	-0.13	-0.18	
21181.00	90.000	161.040	6552.66	12935.04	-13096.35	1658.97	1677393.47	14210626.98	39°08'1.1363"N	80°52'10.5613"W	13201.00	172.781	0.57	0.57	0.02	
21206.00†	90.000	161.040	6552.66	12960.04	-13119.99	1667.09	1677401.59	14210603.34	39°08'0.9025"N	80°52'10.4586"W	13225.48	172.759	0.00	0.00	0.00	Projected MD at TD: 21206'



Actual Wellpath Report

Gander Unit 1H AWP Proj: 21206'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

HOLE & CASING SECTIONS - Ref Wellbore: Gander Unit 1H AWB Ref Wellpath: Gander Unit 1H AWP Proj: 21206'									
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	30.00	130.00	100.00	30.00	130.00	0.00	0.00	0.22	-0.24
17.5in Open Hole	130.00	600.00	470.00	130.00	599.99	0.22	-0.24	0.46	-1.46
13.375in Casing Surface	30.00	580.00	550.00	30.00	580.00	0.00	0.00	0.40	-1.19
12.25in Open Hole	600.00	2812.00	2212.00	599.99	2836.04	0.46	-1.46	165.75	-761.76
9.625in Casing Intermediate	30.00	2792.00	2762.00	30.00	2819.41	0.00	0.00	161.38	-751.55
8.75in Open Hole	2812.00	6293.00	3481.00	2636.04	5619.22	165.75	-761.76	396.03	-2529.34
8.5in Open Hole	6293.00	21206.00	14913.00	5619.22	6552.66	396.03	-2529.34	-13119.99	1667.09
5.5in Casing Production	30.00	21186.00	21156.00	30.00	6552.66	0.00	0.00	-13101.08	1660.59

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Gander Unit 1H POE Rev-2	6555.00	-251.10	-2690.82	1673045.43	14223467.08	39°10'8.1563"N	80°53'5.5549"W	point
Gander Unit 1H BHL Rev-2	6577.00	-13134.55	1679.68	1677414.18	14210588.79	39°08'0.7584"N	80°52'10.2991"W	point
Gander Unit 1H LP Rev-2	6577.00	-417.91	-2634.23	1673102.00	14223300.33	39°10'6.5068"N	80°53'4.8391"W	point
Gander Unit 1H 50' L/R Hard Line	7000.00	-6692.83	-505.57	1675229.80	14217027.93	39°09'4.4583"N	80°52'37.9201"W	rectangle
2D Rectangle 13604.6 x 100.								



Actual Wellpath Report

Gander Unit 1H AWP Proj: 21206'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

WELLPATH COMPOSITION - Ref Wellbore: Gander Unit 1H AWB Ref Wellpath: Gander Unit 1H AWP Proj: 21206'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	563.00	Gyrodala 2015 - GC+WIR+DPIPE	01 Gyrodala MS Gyro <17-1/2"> (100'-563')	Gander Unit 1H AWB	21/Jan/2022
563.00	2738.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (563')(689'-2738')	Gander Unit 1H AWB	21/Jan/2022
2738.00	6220.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (2738')(2853'-6220')	Gander Unit 1H AWB	21/Jan/2022
6220.00	21206.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (6220')(6263'-21181')	Gander Unit 1H AWB	21/Jan/2022



Actual Wellpath Report

Gander Unit 1H AWP Proj: 21206'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Gander Unit 1H
Field	Ritchie	API	47-085-10416-0000
Facility	Weekley West Pad	Wellbore	Gander Unit 1H AWB
Slot	Slot A		

COMMENTS
<p>Wellpath general comments API: 47-085-10416-0000 BH Job #: 111180563 Rig: H&P 531 Duration: 1/23/2022-1/30/2022 Gyrodata MS Gyro <17-1/2"> (100'-563') APS EM <12-1/4"> (563')(689'-2738') APS EM <8-3/4"> (2738')(2853'-6220') BH AT Curve <8-1/2"> (6220')(6263'-21181') Sycamore: 6978' MD Middlesex: 7210' MD Burkett: 7418' MD Tully: 7532' MD Marcellus POE: 7639' MD Projected MD at TD: 21206'</p>



ANTERO RESOURCES CORPORATION

Location: Ritchie County, WV
Field: Ritchie
Facility: Weekley West Pad

Slot: Slot A
Well: Gander Unit 1H
Wellbore: Gander Unit 1H PWB



Plot reference wellpath is Gander Unit 1H PWP Rev-A.1	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 531 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 531 (RKB)	Scale: True distance
H&P 531 (RKB) to Mean Sea Level: 1155 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot A): -1125 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: csharper on 2022-02-06; Database: WA_NPL_EASTERNUS_Defn

Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Weekley West Pad	1675735.170	14223718.080	39°10'10.6030"N	80°52'31.3860"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot A	0.00	0.00	1675735.170	14223718.080	39°10'10.6030"N
Comment: Gander Unit 1H					
H&P 531 (RKB) to Ground level (At Slot: Slot A)					30ft
Mean Sea Level to Ground level (At Slot: Slot A)					-1125ft
H&P 531 (RKB) to Mean Sea Level					1155ft

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (*/100ft)	VS (ft)
Tie On	30.00	0.000	279.890	30.00	0.00	0.00	0.00	0.00
KOP 1	640.00	0.000	279.890	640.00	0.00	0.00	0.00	0.00
End of Build	1638.15	28.944	279.890	1593.33	43.79	-251.16	3.00	-122.16
Curve KOP	6293.62	29.944	279.890	5627.25	442.90	-2540.41	0.00	-1235.58
POE	7594.54	75.762	161.261	6555.00	-251.10	-2690.82	7.00	-626.70
Landing Pt.	7772.52	90.000	161.261	6577.00	-417.91	-2634.23	8.00	-450.55
BHL	21200.95	90.000	161.261	6577.00	-13134.55	1679.68	0.00	12977.88

Well Data				
Slot	Well	Wellbore	Wellpath	
Slot A	Gander Unit 1H	Gander Unit 1H AWB	Gander Unit 1H AWP Proj 21206'	
Slot A	Gander Unit 1H	Gander Unit 1H PWB	Gander Unit 1H PWP Rev-A.1	

