



ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
Field: Tyler
Facility: Heintzman Pad

Slot: Slot B
Well: Leap Unit 2H
Wellbore: Leap Unit 2H PWB



File reference wellbore Leap Unit 2H PWB Rev-B.0	
True vertical depths are referenced to H&P 519 (RKB)	
Reference wellbore measured depths are referenced to H&P 519 (RKB)	
Scale: True distance	
Coordinates are in feet referenced to Slot	
Mean Sea Level to Ground level (At Slot: Slot B) : -1193 feet	
Offset wellbore MDs are referenced to each path's default MD datum	
Created by: edstaylor on 2023-04-07, Database: WA_WFL_EASTERN_US_Dbn	

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Heintzman Pad	1681067.630	14359649.490	80°51'20.8800"W
Slot B	Local E (ft)	Grid East (US ft)	Longitude
13.21	-7.13	1681060.500	80°51'20.8887"W
Leap Unit 2H		14359662.690	
Comment	Leap Unit 2H	30ft	
H&P 519 (RKB) to Ground level (At Slot: Slot B)		-1193ft	
Mean Sea Level to Ground level (At Slot: Slot B)		-1193ft	
H&P 519 (RKB) to Mean Sea Level		1223ft	

Well Profile Data						
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)
Tile On	3365.00	11.090	291.630	3309.55	239.92	-455.48
Proj. to Bottom	3435.00	11.090	291.630	3378.24	244.88	-468.00
Drill Out	3515.00	11.090	291.630	3456.74	250.56	-482.31
End of 3D Arc	3613.31	12.777	296.531	3552.93	258.90	-500.82
Curve KOP	6171.12	12.777	296.531	6047.41	511.57	-1006.92
POE	6952.77	72.539	333.466	6602.00	925.67	-1276.28
Landing Pt.	7171.03	90.000	333.466	6635.00	1117.93	-1374.28
On AZI	7427.08	90.000	341.147	6635.00	1353.98	-1472.99
BHL	23165.19	90.000	341.147	19247.79	6635.00	-6558.49



API: 47-095-02819-0000
BH Job #: 111601060
Rig: H&P 519
Duration: 12/26/2022-12/30/2022

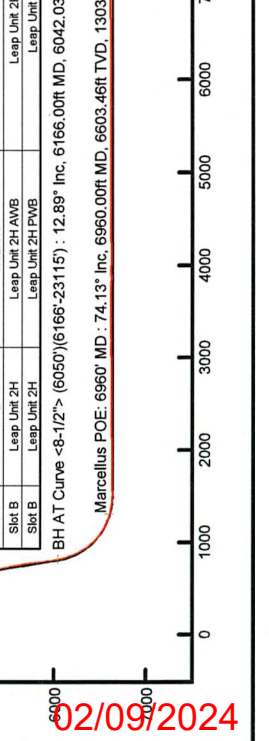
Gyrodata MS Gyro <17-1/2"> (100°-474') : 0.59° Inc, 100.00ft MD, 100.00ft TVD, -0.11ft VS
APS EM <12-1/4"> (474°)(666-3365°) : 0.56° Inc, 666.00ft MD, 665.96ft TVD, -4.24ft VS

Marcellus POE: 6960' MD : 74.13° Inc, 6960.00ft MD, 6603.46ft TVD, 1303.74ft VS
BH AT Curve <8-1/2"> (6050°)(6166°-23115') : 12.89° Inc, 6166.00ft MD, 6042.03ft TVD, 821.16ft VS

Marcellus POE: 6960' MD : 6603.46ft TVD, 940.20ft N, 1281.26ft W
BH AT Curve <8-1/2"> (6050°)(6166°-23115') : 6042.03ft TVD, 527.66ft N, 996.03ft W
APS EM <8-3/4"> (3365°)(3501°-6050°) : 3443.09ft TVD, 248.58ft N, 479.72ft W
APS EM <12-1/4"> (474°)(666-3365°) : 665.96ft TVD, 5.67ft S, 3.50ft W
Gyrodata MS Gyro <17-1/2"> (100°-474') : 100.00ft TVD, 0.22ft S, 0.29ft W

Projected MD at TD: 23140' : 6592.40ft TVD, 16224.81ft N, 6558.73ft W
Projected MD at TD: 23140' : 69.69° Inc, 23140.00ft MD, 6592.40ft TVD, 17473.71ft VS

Vertical Section (ft)
Azimuth 341.15° with reference 0.00 N, 0.00 E



02/06/2024



Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
Facility	Heintzman Pad
Slot	Slot B
Well	Leap Unit 2H
API	47-095-02819-0000
Wellbore	Leap Unit 2H AWB

REPORT SETUP INFORMATION	
Projection System	NAD27 / UTM Zone 17 North, US feet
North Reference	Grid
Scale	0.999602
Convergence at slot	0.09° East
Software System	WellArchitect® 6.0
User	Edsarvar
Report Generated	1/7/2023 at 12:52:35 AM
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	13.21	-7.13	1681060.50	14359662.69	39°32'34.6846"N	80°51'20.9887"W
Facility Reference Pt			1681067.63	14359649.49	39°32'34.5540"N	80°51'20.8980"W
Field Reference Pt			0.00	0.00	0°00'00.0000"	85°29'19.3013"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	H&P 519 (RKB)
MD Reference Pt	H&P 519 (RKB)
Field Vertical Reference	Mean Sea Level
	H&P 519 (RKB) to Facility Vertical Datum
	H&P 519 (RKB) to Mean Sea Level
	H&P 519 (RKB) to Ground Level at Slot (Slot B)
	Section Origin
	Section Azimuth
	1223.00ft
	1223.00ft
	30.00ft
	N 0.00, E 0.00 ft
	341.15°

Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Leap Unit 2H
Field	Tyler	API	47-095-02819-0000
Facility	Heintzman Pad	Wellbore	Leap Unit 2H AWB
Slot	Slot B		

WELLPATH DATA (252 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	232.550	0.00	0.00	0.00	0.00	1681060.50	14359662.69	39°32'34.6846"N	80°51'20.9887"W	0.00	0.00	0.00	0.00	0.00	
30.00	0.000	232.550	30.00	0.00	0.00	0.00	1681060.50	14359662.69	39°32'34.6846"N	80°51'20.9887"W	0.00	0.00	0.00	0.00	0.00	
100.00	0.590	232.550	100.00	-0.11	-0.22	-0.29	1681060.21	14359662.47	39°32'34.6824"N	80°51'20.9924"W	0.36	232.550	0.84	0.84	0.84	Gyrodata MS Gyro <17-1/2"> (100'-474')
200.00	0.650	213.140	199.99	-0.63	-1.01	-1.00	1681059.50	14359661.68	39°32'34.6747"N	80°51'21.0016"W	1.42	224.937	0.22	0.06	-19.41	
300.00	0.720	191.940	299.99	-1.52	-2.10	-1.45	1681059.06	14359660.59	39°32'34.6639"N	80°51'21.0072"W	2.55	214.573	0.26	0.07	-21.20	
400.00	0.940	181.880	399.98	-2.82	-3.53	-1.60	1681058.66	14359659.10	39°32'34.6497"N	80°51'21.0093"W	3.88	204.400	0.26	0.22	-10.06	
474.00	0.780	206.190	473.97	-3.75	-4.59	-1.84	1681058.66	14359658.10	39°32'34.6393"N	80°51'21.0124"W	4.95	201.889	0.53	-0.22	32.85	
686.00	0.560	281.820	685.96	-4.24	-5.67	-3.50	1681057.01	14359657.02	39°32'34.6286"N	80°51'21.0335"W	6.66	211.638	0.40	-0.10	35.67	APS EM <12-1/4"> (474')(686'-3365')
776.00	1.990	292.730	775.93	-2.98	-4.98	-5.37	1681055.14	14359657.71	39°32'34.6355"N	80°51'21.0574"W	7.32	227.149	1.60	1.59	12.12	
867.00	3.710	294.650	866.82	0.10	-3.14	-9.50	1681051.00	14359659.55	39°32'34.6537"N	80°51'21.1101"W	10.01	251.709	1.89	1.89	2.11	
958.00	4.360	294.900	957.59	4.52	-0.46	-15.31	1681045.19	14359662.23	39°32'34.6803"N	80°51'21.1842"W	15.32	268.295	0.71	0.71	0.27	
1048.00	5.510	296.980	1047.25	9.98	2.94	-22.27	1681038.24	14359665.63	39°32'34.7141"N	80°51'21.2729"W	22.46	277.534	1.29	1.28	2.31	
1143.00	6.840	307.320	1141.70	17.95	8.44	-30.83	1681029.88	14359671.13	39°32'34.7685"N	80°51'21.3821"W	31.97	285.317	1.82	1.40	10.88	
1237.00	9.900	305.260	1234.69	29.15	16.50	-41.88	1681018.63	14359679.19	39°32'34.8484"N	80°51'21.5230"W	45.02	291.507	3.27	3.28	-2.19	
1332.00	12.870	304.760	1327.81	44.29	27.25	-57.25	1681003.27	14359689.93	39°32'34.9549"N	80°51'21.7189"W	63.40	295.457	3.13	3.13	-0.53	
1427.00	13.670	304.260	1420.29	61.75	39.58	-75.18	1680985.35	14359702.25	39°32'35.0769"N	80°51'21.9476"W	84.96	297.765	0.79	0.78	-0.53	
1521.00	13.670	303.870	1511.64	79.43	51.99	-93.54	1680967.00	14359714.66	39°32'35.2000"N	80°51'22.1817"W	107.02	299.067	0.12	0.06	-0.41	
1616.00	13.150	302.430	1604.05	96.79	64.05	-111.98	1680948.56	14359726.71	39°32'35.3194"N	80°51'22.4169"W	129.00	299.766	0.65	-0.55	-1.52	
1710.00	14.080	301.410	1695.40	113.93	75.74	-130.77	1680929.78	14359738.40	39°32'35.4352"N	80°51'22.6564"W	151.12	300.079	1.02	0.99	-1.09	
1805.00	14.200	300.670	1787.52	131.68	87.71	-150.65	1680909.91	14359750.36	39°32'35.5538"N	80°51'22.9100"W	174.32	300.207	0.23	0.13	-0.78	
1899.00	14.400	299.710	1878.61	149.21	99.38	-170.72	1680889.85	14359762.03	39°32'35.6695"N	80°51'23.1659"W	197.54	300.204	0.33	0.21	-1.02	
1994.00	14.300	297.090	1970.65	166.49	110.58	-191.43	1680869.15	14359773.22	39°32'35.7805"N	80°51'23.4300"W	221.07	300.013	0.69	-0.11	-2.76	
2089.00	14.880	298.130	2062.59	183.84	121.67	-212.63	1680847.96	14359784.31	39°32'35.8905"N	80°51'23.7004"W	244.98	299.779	0.67	0.61	1.09	
2183.00	12.830	299.280	2153.85	200.44	132.47	-232.38	1680828.22	14359795.10	39°32'35.9975"N	80°51'23.9523"W	267.48	299.685	2.20	-2.18	1.22	
2277.00	12.460	298.930	2245.87	215.72	142.48	-250.36	1680810.24	14359805.11	39°32'36.0967"N	80°51'24.1815"W	288.06	299.644	0.40	-0.39	-0.37	
2372.00	12.430	297.560	2338.33	230.72	152.16	-268.39	1680792.22	14359814.79	39°32'36.1927"N	80°51'24.4115"W	308.52	299.551	0.31	-0.03	-1.44	
2466.00	12.320	296.430	2430.15	245.17	161.31	-286.34	1680774.28	14359823.93	39°32'36.2834"N	80°51'24.6405"W	328.65	299.395	0.28	-0.12	-1.20	
2561.00	12.320	296.790	2522.96	259.62	170.39	-304.46	1680756.16	14359833.01	39°32'36.3734"N	80°51'24.8716"W	348.90	299.233	0.08	0.00	0.38	
2655.00	12.490	296.350	2614.77	274.00	179.42	-322.52	1680738.11	14359842.04	39°32'36.4629"N	80°51'25.1020"W	369.07	299.087	0.21	0.18	-0.47	
2750.00	12.450	295.410	2707.53	288.44	188.37	-340.98	1680719.66	14359850.99	39°32'36.5517"N	80°51'25.3374"W	389.55	298.919	0.22	-0.04	-0.99	

Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Well
Facility	Heintzman Pad
Slot	Slot B
	Leap Unit 2H
	47-095-02819-0000
	API
	Wellbore
	Leap Unit 2H AWB

WELLPATH DATA (252 stations)																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [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	
2845.00	12.270	295.370	2800.32	302.63	197.09	-359.35	1680701.29	14359859.70	39°32'36.6382"N	80°51'25.5717"W	409.85	298.744	0.19	-0.19	-0.04	
2939.00	12.120	294.630	2892.20	316.38	205.49	-377.34	1680683.31	14359868.09	39°32'36.7214"N	80°51'25.8012"W	429.67	298.571	0.23	-0.16	-0.79	
3034.00	11.940	294.720	2985.12	330.02	213.75	-395.34	1680685.32	14359876.36	39°32'36.8034"N	80°51'26.0307"W	449.42	298.399	0.19	-0.19	0.09	
3128.00	11.730	293.850	3077.12	343.20	221.68	-412.91	1680647.76	14359884.28	39°32'36.8820"N	80°51'26.2549"W	468.65	298.230	0.29	-0.22	-0.93	
3223.00	10.920	294.380	3170.27	355.91	229.30	-429.94	1680630.74	14359891.90	39°32'36.9576"N	80°51'26.4721"W	487.26	298.073	0.86	-0.85	0.56	
3318.00	11.500	291.730	3263.46	368.24	236.52	-446.93	1680613.75	14359899.12	39°32'37.0292"N	80°51'26.6888"W	505.66	297.888	0.82	0.61	-2.79	
3365.00	11.090	291.630	3309.55	374.22	239.92	-455.48	1680605.20	14359902.52	39°32'37.0630"N	80°51'26.7980"W	514.81	297.778	0.87	-0.87	-0.21	
3501.00	10.730	287.540	3443.09	390.22	248.56	-479.72	1680580.98	14359911.15	39°32'37.1487"N	80°51'27.1071"W	540.29	297.390	0.63	-0.26	-3.01	APS EM <8-3/4" > (3365')(3501'-5050')
3596.00	11.420	293.820	3536.32	401.84	255.02	-496.75	1680563.95	14359917.61	39°32'37.2129"N	80°51'27.3244"W	558.39	297.175	1.46	0.73	6.61	
3690.00	12.880	300.200	3628.22	416.06	264.05	-514.32	1680546.38	14359926.64	39°32'37.3024"N	80°51'27.5485"W	578.14	297.176	2.11	1.55	6.79	
3785.00	12.380	297.590	3720.92	431.44	274.09	-532.50	1680528.21	14359936.67	39°32'37.4019"N	80°51'27.7803"W	598.90	297.236	0.80	-0.53	-2.75	
3879.00	13.870	300.420	3812.46	447.28	284.47	-551.15	1680509.57	14359947.04	39°32'37.5047"N	80°51'28.0182"W	620.23	297.300	1.73	1.59	3.01	
3974.00	14.000	301.090	3904.67	464.71	296.17	-570.81	1680489.92	14359958.74	39°32'37.6207"N	80°51'28.2689"W	643.07	297.423	0.22	0.14	0.71	
4068.00	12.930	296.600	3996.09	480.90	306.75	-589.95	1680470.79	14359969.31	39°32'37.7255"N	80°51'28.5130"W	664.93	297.472	1.59	-1.14	-4.78	
4163.00	14.120	299.530	4088.45	497.14	317.22	-609.54	1680451.21	14359979.78	39°32'37.8293"N	80°51'28.7628"W	687.14	297.494	1.45	1.25	3.08	
4257.00	15.150	301.300	4179.40	515.14	329.25	-630.01	1680430.74	14359991.81	39°32'37.9486"N	80°51'29.0239"W	710.86	297.592	1.19	1.10	1.88	
4352.00	14.070	296.560	4271.33	532.90	340.86	-650.95	1680409.81	14360003.42	39°32'38.0637"N	80°51'29.2909"W	734.79	297.639	1.70	-1.14	-4.99	
4446.00	12.520	292.580	4362.81	547.78	349.89	-670.58	1680390.19	14360012.44	39°32'38.1532"N	80°51'29.5413"W	756.37	297.554	1.91	-1.65	-4.23	
4540.00	13.040	296.060	4454.48	562.01	358.46	-689.51	1680371.27	14360021.00	39°32'38.2362"N	80°51'29.7829"W	777.12	297.469	0.99	0.55	3.70	
4635.00	13.230	298.770	4547.00	577.60	368.40	-708.67	1680352.12	14360030.94	39°32'38.3367"N	80°51'30.0272"W	798.70	297.468	0.68	0.20	2.85	
4729.00	11.560	293.540	4638.81	591.90	377.34	-726.73	1680334.06	14360039.88	39°32'38.4253"N	80°51'30.2576"W	818.85	297.439	2.14	-1.78	-5.56	
4823.00	12.320	298.380	4730.77	605.61	385.87	-744.19	1680316.61	14360048.40	39°32'38.5099"N	80°51'30.4803"W	838.28	297.407	1.34	0.81	5.15	
4917.00	14.360	304.070	4822.24	622.28	397.17	-762.67	1680298.13	14360059.70	39°32'38.6219"N	80°51'30.7160"W	859.89	297.508	2.58	2.17	6.05	
5011.00	12.420	298.340	4913.68	639.00	408.50	-781.23	1680279.58	14360071.02	39°32'38.7341"N	80°51'30.9526"W	881.58	297.605	2.50	-2.06	-6.10	
5105.00	12.640	306.670	5005.45	654.89	419.44	-798.38	1680262.44	14360081.96	39°32'38.8425"N	80°51'31.1713"W	901.85	297.716	1.94	0.23	8.86	
5200.00	13.150	303.440	5098.06	672.01	431.60	-815.73	1680245.10	14360094.12	39°32'38.9630"N	80°51'31.3926"W	922.87	297.883	0.93	0.54	-3.40	
5294.00	10.930	296.750	5189.99	686.84	441.50	-832.61	1680228.22	14360104.02	39°32'39.0612"N	80°51'31.6079"W	942.43	297.935	2.79	-2.36	-7.12	
5389.00	12.390	298.170	5283.02	700.73	450.37	-849.64	1680211.20	14360112.88	39°32'39.1490"N	80°51'31.8251"W	961.63	297.927	1.57	1.54	1.49	
5484.00	12.690	296.160	5375.76	715.56	459.78	-867.99	1680192.85	14360122.29	39°32'39.2423"N	80°51'32.0591"W	982.25	297.911	0.56	0.32	-2.12	
5578.00	12.680	300.130	5467.46	730.65	469.51	-886.18	1680174.67	14360132.02	39°32'39.3388"N	80°51'32.2911"W	1002.88	297.915	0.93	-0.01	4.22	



Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
F-acility	Heintzman Pad
Slot	Slot B
Well	Leap Unit 2H
API	47-095-02819-0000
Wellbore	Leap Unit 2H AWB

WELLPATH DATA (252 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
5673.00	14.590	302.590	5559.78	747.88	481.19	-905.28	1680155.58	14360143.69	39°32'39.4545"N	80°51'32.5347"W	1025.22	297.992	2.10	2.01	2.59	
5767.00	12.810	296.420	5651.11	764.54	492.21	-924.59	1680136.28	14360154.70	39°32'39.5637"N	80°51'32.7810"W	1047.45	298.029	2.45	-1.89	-6.56	
5861.00	10.720	293.300	5743.13	777.81	500.30	-941.96	1680118.92	14360162.79	39°32'39.6440"N	80°51'33.0225"W	1066.58	297.974	2.32	-2.22	-3.32	
5955.00	10.770	298.000	5835.49	790.08	507.89	-957.74	1680103.14	14360170.37	39°32'39.7192"N	80°51'33.2038"W	1084.07	297.937	0.93	0.05	5.00	
6050.00	11.640	298.380	5928.67	803.60	516.61	-974.01	1680086.88	14360179.09	39°32'39.8056"N	80°51'33.4113"W	1102.53	297.941	0.92	0.92	0.40	
6166.00	12.890	295.060	6042.03	821.16	527.65	-996.03	1680064.87	14360190.13	39°32'39.9151"N	80°51'33.6921"W	1127.16	297.913	1.24	1.08	-2.86	BH AT Curve <8-1/2"> (6050')(6166'-23115')
6261.00	19.910	309.070	6133.14	842.25	542.36	-1018.22	1680042.68	14360204.83	39°32'40.0608"N	80°51'33.9751"W	1153.66	298.042	8.43	7.39	14.75	
6355.00	24.860	318.690	6220.05	874.12	567.32	-1043.73	1680017.19	14360229.79	39°32'40.3079"N	80°51'34.3002"W	1187.95	298.527	6.55	5.29	10.23	
6450.00	31.620	322.880	6303.69	916.22	602.10	-1072.16	1679988.77	14360264.55	39°32'40.6521"N	80°51'34.6624"W	1229.65	299.318	7.33	7.09	3.88	
6491.00†	35.191	324.226	6337.91	937.70	620.21	-1085.63	1679975.31	14360282.65	39°32'40.8312"N	80°51'34.8340"W	1250.30	299.739	9.06	8.71	4.50	Sycamore: 6491' MD
6545.00	39.930	326.210	6380.71	969.35	647.25	-1104.37	1679956.57	14360309.68	39°32'41.0988"N	80°51'35.0728"W	1280.07	300.374	9.06	8.78	3.67	
6633.00†	46.902	328.985	6444.60	1028.12	698.32	-1136.68	1679924.28	14360360.73	39°32'41.6041"N	80°51'35.4841"W	1334.05	301.565	8.21	7.92	3.15	Middlesex: 6633' MD
6639.00	47.380	329.150	6448.68	1032.42	702.10	-1138.94	1679922.02	14360364.51	39°32'41.6414"N	80°51'35.5129"W	1337.95	301.552	8.21	7.96	2.76	
6734.00	54.180	329.760	6508.71	1104.46	765.45	-1176.30	1679884.67	14360427.84	39°32'42.2681"N	80°51'35.9886"W	1403.43	303.053	7.18	7.16	0.64	
6775.00†	58.377	329.075	6531.47	1137.84	794.80	-1193.65	1679867.32	14360457.17	39°32'42.5585"N	80°51'36.2095"W	1434.06	303.658	10.33	10.24	-1.67	Burkett: 6775' MD
6810.00†	61.963	328.537	6548.88	1167.49	820.77	-1209.38	1679851.60	14360483.13	39°32'42.8154"N	80°51'36.4097"W	1461.60	304.164	10.33	10.24	-1.54	Tully: 6810' MD
6829.00	63.910	328.260	6557.52	1183.99	835.18	-1218.25	1679842.74	14360497.54	39°32'42.9579"N	80°51'36.5226"W	1477.04	304.433	10.33	10.25	-1.46	
6923.00	72.090	329.160	6592.70	1289.03	909.60	-1263.46	1679797.55	14360571.93	39°32'43.6942"N	80°51'37.0982"W	1556.82	305.751	8.75	8.70	0.96	
6960.00†	74.127	330.431	6603.46	1303.74	940.20	-1281.26	1679779.75	14360602.51	39°32'43.9968"N	80°51'37.3249"W	1589.22	306.271	6.41	5.51	3.43	Marcellus POE: 6960' MD
7017.00	77.280	332.340	6617.53	1358.17	988.68	-1307.71	1679753.32	14360650.98	39°32'44.4764"N	80°51'37.6615"W	1639.39	307.091	6.41	5.53	3.35	
7112.00	85.660	333.950	6631.61	1451.12	1072.43	-1350.09	1679709.95	14360734.69	39°32'45.3047"N	80°51'38.2010"W	1724.20	308.461	8.98	8.82	1.69	
7206.00	90.860	334.020	6634.46	1544.31	1156.84	-1391.29	1679669.77	14360819.06	39°32'46.1396"N	80°51'38.7252"W	1809.41	309.743	5.53	5.53	0.07	
7301.00	90.460	333.900	6633.37	1638.55	1242.19	-1432.99	1679628.08	14360904.38	39°32'46.9838"N	80°51'39.2558"W	1896.44	310.920	0.44	-0.42	-0.13	
7396.00	90.520	336.960	6632.56	1733.07	1328.57	-1472.49	1679588.60	14360990.73	39°32'47.8381"N	80°51'39.7683"W	1983.26	312.059	3.22	0.06	3.22	
7490.00	90.460	341.430	6631.75	1826.98	1416.42	-1505.87	1679555.24	14361078.54	39°32'48.7068"N	80°51'40.1826"W	2067.33	313.247	4.76	-0.06	4.76	
7584.00	90.830	343.160	6630.69	1920.96	1505.96	-1534.45	1679526.66	14361168.04	39°32'49.5922"N	80°51'40.5457"W	2149.99	314.463	1.88	0.39	1.84	
7679.00	90.950	342.150	6629.22	2015.91	1596.62	-1562.77	1679498.36	14361258.67	39°32'50.4887"N	80°51'40.9054"W	2234.16	315.614	1.07	0.13	-1.06	
7773.00	90.770	343.670	6627.81	2109.85	1686.46	-1590.39	1679470.75	14361348.48	39°32'51.3770"N	80°51'41.2563"W	2318.08	316.679	1.63	-0.19	1.62	
7868.00	90.180	341.330	6627.02	2204.82	1777.05	-1618.95	1679442.20	14361439.03	39°32'52.2728"N	80°51'41.6191"W	2403.94	317.665	2.54	-0.62	-2.46	
7962.00	91.020	341.370	6626.03	2298.81	1866.11	-1649.01	1679412.15	14361528.06	39°32'53.1535"N	80°51'42.0011"W	2490.30	318.534	0.89	0.89	0.04	

Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Leap Unit 2H
Field	Tyler	API	47-095-02819-0000
Facility	Heintzman Pad	Wellbore	Leap Unit 2H AWB
Slot	Slot B		

WELLPATH DATA (252 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
8056.00	92.090	342.640	6623.48	2392.76	1955.48	-1678.04	1679383.13	14361617.39	39°32'54.0371"N	80°51'42.3699"W	2576.76	319.366	1.77	1.14	1.35	
8151.00	90.280	342.500	6621.52	2487.71	2046.09	-1706.49	1679354.70	14361707.96	39°32'54.9331"N	80°51'42.7313"W	2664.32	320.171	1.91	-1.91	-0.15	
8245.00	90.060	342.120	6621.24	2581.69	2135.65	-1735.05	1679326.14	14361797.48	39°32'55.8187"N	80°51'43.0942"W	2751.62	320.909	0.47	-0.23	-0.40	
8339.00	90.060	341.950	6621.14	2675.68	2225.06	-1764.04	1679297.16	14361886.86	39°32'56.7028"N	80°51'43.4625"W	2839.50	321.592	0.18	0.00	-0.18	
8434.00	89.880	341.110	6621.19	2770.67	2315.17	-1794.14	1679267.08	14361976.93	39°32'57.5938"N	80°51'43.8450"W	2928.98	322.226	0.90	-0.19	-0.88	
8528.00	89.480	341.440	6621.72	2864.67	2404.19	-1824.32	1679236.91	14362065.92	39°32'58.4741"N	80°51'44.2284"W	3017.99	322.809	0.55	-0.43	0.35	
8623.00	90.770	344.720	6621.51	2959.60	2495.07	-1851.96	1679209.28	14362156.76	39°32'59.3727"N	80°51'44.5796"W	3107.27	323.415	3.71	1.36	3.45	
8718.00	90.710	340.740	6620.28	3054.54	2585.76	-1880.16	1679181.10	14362247.41	39°33'0.2694"N	80°51'44.9377"W	3197.05	323.978	4.19	-0.06	-4.19	
8812.00	89.020	342.400	6620.50	3148.53	2674.93	-1909.87	1679151.39	14362336.55	39°33'1.1512"N	80°51'45.3153"W	3286.77	324.474	2.52	-1.80	1.77	
8907.00	91.450	342.460	6620.11	3243.50	2765.49	-1938.55	1679122.73	14362427.07	39°33'2.0466"N	80°51'45.6796"W	3377.26	324.970	2.56	2.56	0.06	
9001.00	88.920	342.240	6619.81	3337.47	2855.06	-1967.04	1679094.24	14362516.60	39°33'3.9323"N	80°51'46.0417"W	3467.08	325.434	2.70	-2.69	-0.23	
9096.00	91.170	344.370	6619.74	3432.39	2946.04	-1994.33	1679066.97	14362607.55	39°33'3.8319"N	80°51'46.3883"W	3557.60	325.904	3.26	2.37	2.24	
9190.00	89.970	339.990	6618.80	3526.35	3035.50	-2023.09	1679038.22	14362696.98	39°33'4.7165"N	80°51'46.7537"W	3647.90	326.317	4.83	-1.28	-4.66	
9285.00	89.630	343.040	6619.13	3621.33	3125.59	-2053.21	1679008.11	14362787.03	39°33'5.6073"N	80°51'47.1364"W	3739.65	326.699	3.23	-0.36	3.21	
9379.00	89.630	341.810	6619.74	3715.31	3215.20	-2081.59	1678979.74	14362876.60	39°33'6.4934"N	80°51'47.4970"W	3830.21	327.080	1.31	0.00	-1.31	
9474.00	89.290	344.620	6620.63	3810.23	3306.14	-2109.02	1678952.32	14362967.51	39°33'7.3926"N	80°51'47.8454"W	3921.55	327.466	2.98	-0.36	2.96	
9568.00	90.620	341.120	6620.71	3904.17	3395.95	-2136.70	1678924.65	14363057.28	39°33'8.2807"N	80°51'48.1971"W	4012.23	327.822	3.98	1.41	-3.72	
9663.00	89.260	340.240	6620.81	3999.16	3485.60	-2168.13	1678893.24	14363146.90	39°33'9.1671"N	80°51'48.5966"W	4104.90	328.117	1.71	-1.43	-0.93	
9757.00	90.340	341.300	6621.14	4093.16	3574.35	-2199.09	1678862.29	14363235.61	39°33'10.0448"N	80°51'48.9901"W	4196.66	328.398	1.61	1.15	1.13	
9852.00	89.910	340.480	6620.93	4188.16	3664.12	-2230.19	1678831.20	14363325.34	39°33'10.9324"N	80°51'49.3854"W	4289.46	328.673	0.97	-0.45	-0.86	
9946.00	90.370	342.200	6620.70	4282.15	3753.17	-2260.26	1678801.14	14363414.36	39°33'11.8130"N	80°51'49.7676"W	4381.22	328.942	1.89	0.49	1.83	
10041.00	90.800	337.600	6619.73	4377.10	3842.36	-2292.90	1678768.52	14363503.51	39°33'12.6949"N	80°51'50.1826"W	4474.49	329.174	4.86	0.45	-4.84	
10136.00	88.980	338.770	6619.91	4471.97	3930.55	-2328.20	1678733.23	14363591.66	39°33'13.5677"N	80°51'50.6315"W	4568.34	329.360	2.28	-1.92	1.23	
10230.00	91.170	339.480	6619.79	4565.90	4018.37	-2361.70	1678699.75	14363679.45	39°33'14.4355"N	80°51'51.0574"W	4661.00	329.556	2.45	2.33	0.76	
10325.00	89.230	337.980	6619.46	4660.81	4106.89	-2396.16	1678665.30	14363767.94	39°33'15.3109"N	80°51'51.4956"W	4754.80	329.739	2.58	-2.04	-1.58	
10419.00	90.950	339.980	6619.31	4754.73	4194.63	-2429.87	1678631.60	14363855.64	39°33'16.1786"N	80°51'51.9244"W	4847.60	329.917	2.81	1.83	2.13	
10514.00	89.110	336.670	6619.26	4849.60	4282.90	-2464.95	1678596.54	14363943.87	39°33'17.0514"N	80°51'52.3706"W	4941.58	330.078	3.99	-1.94	-3.48	
10609.00	90.920	340.650	6619.23	4944.49	4371.36	-2499.51	1678561.99	14364032.30	39°33'17.9263"N	80°51'52.8101"W	5035.51	330.239	4.60	1.91	4.19	
10704.00	89.910	339.570	6618.55	5039.47	4460.69	-2531.83	1678529.68	14364121.59	39°33'18.8096"N	80°51'53.2210"W	5129.12	330.421	1.56	-1.06	-1.14	
10798.00	90.030	338.460	6618.59	5133.40	4548.45	-2565.49	1678496.03	14364209.32	39°33'19.6775"N	80°51'53.6491"W	5222.09	330.575	1.19	0.13	-1.18	

Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Leap Unit 2H
Field	Tyler	API	47-095-02819-0000
Facility	Heintzman Pad	Wellbore	Leap Unit 2H AWB
Slot	Slot B		

WELLPATH DATA (252 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
10893.00	91.170	341.430	6617.60	5228.36	4637.68	-2598.07	1678463.47	14364298.51	39°33'20.5598"N	80°51'54.0632"W	5315.82	330.742	3.35	1.20	3.13	
10988.00	89.970	338.730	6616.65	5323.33	4726.98	-2630.43	1678431.12	14364387.78	39°33'21.4429"N	80°51'54.4747"W	5409.57	330.905	3.11	-1.26	-2.84	
11082.00	90.030	339.150	6616.65	5417.26	4814.70	-2664.21	1678397.36	14364475.46	39°33'22.3104"N	80°51'54.9042"W	5502.67	331.042	0.45	0.06	0.45	
11177.00	89.940	338.150	6616.68	5512.17	4903.18	-2698.79	1678362.79	14364563.91	39°33'23.1853"N	80°51'55.3441"W	5596.84	331.171	1.06	-0.09	-1.05	
11271.00	89.230	338.870	6617.36	5606.06	4990.64	-2733.23	1678328.37	14364651.33	39°33'24.0502"N	80°51'55.7821"W	5690.08	331.292	1.08	-0.76	0.77	
11366.00	89.970	337.700	6618.02	5700.94	5078.89	-2768.37	1678293.23	14364739.55	39°33'24.9230"N	80°51'56.2291"W	5784.38	331.406	1.46	0.78	-1.23	
11460.00	90.800	339.590	6617.39	5794.84	5166.43	-2802.60	1678259.02	14364827.06	39°33'25.7887"N	80°51'56.6644"W	5877.64	331.522	2.20	0.88	2.01	
11555.00	89.200	339.080	6617.39	5889.79	5255.32	-2836.13	1678225.51	14364915.91	39°33'26.6676"N	80°51'57.0909"W	5971.77	331.646	1.77	-1.68	-0.54	
11649.00	90.000	339.860	6618.05	5983.75	5343.34	-2869.09	1678192.56	14365003.90	39°33'27.5381"N	80°51'57.5099"W	6064.90	331.767	1.19	0.85	0.83	
11744.00	90.090	341.200	6617.97	6078.74	5432.91	-2900.75	1678160.91	14365093.43	39°33'28.4238"N	80°51'57.9125"W	6158.81	331.901	1.41	0.09	1.41	
11838.00	90.370	341.520	6617.60	6172.74	5521.98	-2930.80	1678130.87	14365182.46	39°33'29.3045"N	80°51'58.2944"W	6251.55	332.043	0.45	0.30	0.34	
11933.00	90.620	341.920	6616.78	6267.73	5612.18	-2960.60	1678101.09	14365272.63	39°33'30.1964"N	80°51'58.6731"W	6345.21	332.187	0.50	0.26	0.42	
12027.00	89.570	341.050	6616.62	6361.73	5701.31	-2990.44	1678071.25	14365361.72	39°33'31.0778"N	80°51'59.0525"W	6437.99	332.322	1.45	-1.12	-0.93	
12121.00	91.170	340.610	6616.01	6455.72	5790.10	-3021.31	1678040.40	14365450.47	39°33'31.9557"N	80°51'59.4449"W	6530.97	332.444	1.77	1.70	-0.47	
12216.00	90.060	341.930	6614.99	6550.71	5880.06	-3051.81	1678009.91	14365540.39	39°33'32.8453"N	80°51'59.8326"W	6624.85	332.570	1.82	-1.17	1.39	
12310.00	90.800	341.960	6614.29	6644.70	5969.42	-3080.94	1677980.79	14365629.73	39°33'33.7289"N	80°52'0.2029"N	6717.61	332.701	0.79	0.79	0.03	
12404.00	90.120	342.270	6613.53	6738.68	6058.88	-3109.81	1677951.93	14365719.14	39°33'34.6134"N	80°52'0.5698"W	6810.35	332.830	0.80	-0.72	0.33	
12499.00	90.000	340.800	6613.43	6833.68	6148.98	-3139.90	1677921.86	14365809.21	39°33'35.5044"N	80°52'0.9522"W	6904.27	332.949	1.55	-0.13	-1.55	
12593.00	91.020	343.470	6612.60	6927.65	6238.44	-3168.73	1677893.04	14365898.63	39°33'36.3890"N	80°52'1.3187"W	6997.07	333.072	3.04	1.09	2.84	
12688.00	90.340	341.140	6611.47	7022.62	6328.93	-3197.60	1677864.18	14365989.09	39°33'37.2837"N	80°52'1.6856"W	7090.84	333.195	2.55	-0.72	-2.45	
12783.00	90.550	341.990	6610.73	7117.61	6419.05	-3227.64	1677834.15	14366079.17	39°33'38.1749"N	80°52'2.0674"W	7184.84	333.306	0.92	0.22	0.89	
12877.00	90.340	341.380	6610.00	7211.60	6508.29	-3257.18	1677804.62	14366168.37	39°33'39.0572"N	80°52'2.4429"W	7277.85	333.414	0.69	-0.22	-0.65	
12971.00	90.430	341.420	6609.37	7305.60	6597.38	-3287.16	1677774.65	14366257.43	39°33'39.9381"N	80°52'2.8240"W	7370.94	333.515	0.10	0.10	0.04	
13066.00	90.400	340.760	6608.68	7400.60	6687.25	-3317.95	1677743.88	14366347.26	39°33'40.8268"N	80°52'3.2154"W	7465.12	333.611	0.70	-0.03	-0.69	
13160.00	90.370	341.420	6608.05	7494.59	6776.17	-3348.41	1677713.43	14366436.15	39°33'41.7061"N	80°52'3.6027"W	7558.33	333.704	0.70	-0.03	0.70	
13255.00	90.430	342.110	6607.39	7589.58	6866.40	-3378.14	1677683.71	14366526.34	39°33'42.5983"N	80°52'3.9805"W	7652.40	333.804	0.73	0.06	0.73	
13349.00	90.550	341.830	6606.58	7683.57	6955.78	-3407.23	1677654.63	14366615.68	39°33'43.4821"N	80°52'4.3503"W	7745.46	333.902	0.32	0.13	-0.30	
13443.00	90.620	341.920	6605.62	7777.56	7045.11	-3436.47	1677625.40	14366704.98	39°33'44.3654"N	80°52'4.7220"W	7838.55	333.998	0.12	0.07	0.10	
13538.00	90.150	341.180	6604.98	7872.55	7135.22	-3466.54	1677595.35	14366795.06	39°33'45.2564"N	80°52'5.1042"W	7932.74	334.088	0.92	-0.49	-0.78	
13633.00	90.250	341.820	6604.65	7967.55	7225.31	-3496.68	1677565.22	14366885.11	39°33'46.1472"N	80°52'5.4874"W	8026.95	334.175	0.68	0.11	0.67	

Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
Facility	Heintzman Pad
Slot	Slot B
Well	Leap Unit 2H
API	47-095-02819-0000
Wellbore	Leap Unit 2H AWB

WELLPATH DATA (252 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
13727.00	90.620	341.680	6603.94	8061.54	7314.58	-3526.12	1677535.79	14366974.34	39°33'47.0299"N	80°52'5.8616"W	8120.14	334.263	0.42	0.38	-0.15	
13821.00	90.550	342.630	6602.98	8155.52	7404.05	-3554.92	1677507.00	14367063.78	39°33'47.9146"N	80°52'6.2277"W	8213.25	334.353	1.01	-0.07	1.01	
13916.00	90.090	342.210	6602.45	8250.50	7494.61	-3583.61	1677478.32	14367154.31	39°33'48.8101"N	80°52'6.5923"W	8307.32	334.445	0.66	-0.48	-0.44	
14010.00	90.400	342.000	6602.05	8344.48	7584.07	-3612.50	1677449.45	14367243.72	39°33'49.6946"N	80°52'6.9595"W	8400.49	334.530	0.40	0.33	-0.22	
14105.00	89.910	339.840	6601.79	8439.48	7673.84	-3643.55	1677418.41	14367333.46	39°33'50.5823"N	80°52'7.3543"W	8494.90	334.602	2.33	-0.52	-2.27	
14199.00	91.660	341.620	6600.50	8533.46	7762.56	-3674.57	1677387.40	14367422.14	39°33'51.4595"N	80°52'7.7487"W	8588.35	334.669	2.66	1.86	1.89	
14293.00	89.690	338.580	6599.39	8627.42	7850.93	-3706.56	1677355.43	14367510.47	39°33'52.3333"N	80°52'8.1555"W	8681.91	334.727	3.85	-2.10	-3.23	
14388.00	90.280	341.300	6599.42	8722.39	7940.15	-3739.14	1677322.86	14367599.67	39°33'53.2157"N	80°52'8.5698"W	8776.51	334.784	2.93	0.62	2.86	
14482.00	90.490	340.750	6598.79	8816.39	8029.04	-3769.70	1677292.31	14367688.52	39°33'54.0946"N	80°52'8.9584"W	8869.96	334.850	0.63	0.22	-0.59	
14577.00	90.280	341.330	6598.15	8911.38	8118.89	-3800.57	1677261.45	14367778.33	39°33'54.9830"N	80°52'9.3509"W	8964.41	334.915	0.65	-0.22	0.61	
14671.00	90.220	341.420	6597.74	9005.38	8207.96	-3830.59	1677231.44	14367867.37	39°33'55.8638"N	80°52'9.7326"W	9057.82	334.982	0.12	-0.06	0.10	
14766.00	90.180	341.190	6597.41	9100.38	8297.95	-3861.04	1677201.01	14367957.32	39°33'56.7536"N	80°52'10.1197"W	9152.24	335.047	0.25	-0.04	-0.24	
14860.00	90.550	341.410	6596.81	9194.38	8386.99	-3891.18	1677170.88	14368046.32	39°33'57.6340"N	80°52'10.5029"W	9245.69	335.111	0.46	0.33	0.23	
14955.00	90.280	341.200	6596.12	9289.37	8476.97	-3921.62	1677140.44	14368136.27	39°33'58.5238"N	80°52'10.8900"W	9340.14	335.174	0.36	-0.28	-0.22	
15049.00	91.320	342.540	6594.81	9383.35	8566.29	-3950.87	1677111.21	14368225.55	39°33'59.4070"N	80°52'11.2618"W	9433.49	335.240	1.80	1.11	1.43	
15144.00	90.830	342.080	6593.03	9478.32	8656.78	-3979.73	1677082.36	14368316.01	39°34'0.3018"N	80°52'11.6287"W	9527.76	335.311	0.71	-0.52	-0.48	
15238.00	90.180	341.270	6592.20	9572.31	8746.01	-4009.29	1677052.82	14368405.20	39°34'1.1840"N	80°52'12.0044"W	9621.18	335.373	1.10	-0.69	-0.86	
15332.00	90.740	342.210	6591.44	9666.30	8835.27	-4038.74	1677023.38	14368494.43	39°34'2.0667"N	80°52'12.3788"W	9714.60	335.434	1.16	0.60	1.00	
15427.00	89.880	341.550	6590.93	9761.29	8925.56	-4068.28	1676993.85	14368584.68	39°34'2.9594"N	80°52'12.7544"W	9809.00	335.496	1.14	-0.91	-0.69	
15521.00	90.150	341.260	6590.90	9855.29	9014.65	-4098.26	1676963.88	14368673.74	39°34'3.8404"N	80°52'13.1355"W	9902.51	335.552	0.42	0.29	-0.31	
15616.00	90.460	342.770	6590.40	9950.27	9105.01	-4127.59	1676934.56	14368764.05	39°34'4.7338"N	80°52'13.5084"W	9996.91	335.614	1.62	0.33	1.59	
15711.00	89.750	341.980	6590.22	10045.25	9195.55	-4156.35	1676905.81	14368854.56	39°34'5.6290"N	80°52'13.8740"W	10091.25	335.677	1.12	-0.75	-0.83	
15805.00	89.910	341.660	6590.50	10139.24	9284.85	-4185.68	1676876.49	14368943.83	39°34'6.5121"N	80°52'14.2469"W	10184.71	335.734	0.38	0.17	-0.34	
15900.00	90.490	341.560	6590.17	10234.24	9375.00	-4215.65	1676846.54	14369033.94	39°34'7.4034"N	80°52'14.6279"W	10279.22	335.788	0.62	0.61	-0.11	
15995.00	90.180	341.430	6589.62	10329.24	9465.09	-4245.80	1676816.40	14369123.99	39°34'8.2942"N	80°52'15.0113"W	10373.75	335.840	0.35	-0.33	-0.14	
16089.00	90.340	341.600	6589.19	10423.23	9554.24	-4275.61	1676786.60	14369213.10	39°34'9.1757"N	80°52'15.3902"W	10467.29	335.891	0.25	0.17	0.18	
16184.00	90.680	341.310	6588.34	10518.23	9644.30	-4305.82	1676756.40	14369303.13	39°34'10.0663"N	80°52'15.7744"W	10561.85	335.941	0.47	0.36	-0.31	
16279.00	90.830	341.580	6587.09	10613.22	9734.35	-4336.05	1676726.19	14369393.15	39°34'10.9567"N	80°52'16.1587"W	10656.40	335.990	0.33	0.16	0.28	
16373.00	90.060	341.210	6586.36	10707.21	9823.44	-4366.04	1676696.21	14369482.20	39°34'11.8376"N	80°52'16.5400"W	10749.99	336.037	0.91	-0.82	-0.39	
16468.00	89.720	341.880	6586.54	10802.21	9913.55	-4396.11	1676666.15	14369572.27	39°34'12.7286"N	80°52'16.9224"W	10844.55	336.085	0.79	-0.36	0.71	

Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	TVler
Well	Leap Unit 2H
Facility	Heintzman Pad
Slot	Slot B
API	47-095-02819-0000
Wellbore	Leap Unit 2H AWB

WELLPATH DATA (252 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
16563.00	91.020	341.810	6585.93	10897.20	10003.82	-4425.71	1676636.56	14369662.50	39°34'13.6212"N	80°52'17.2987"W	10939.07	336.135	1.37	1.37	-0.07	
16657.00	90.220	341.410	6584.91	10991.19	10093.01	-4455.36	1676606.92	14369751.66	39°34'14.5031"N	80°52'17.6758"W	11032.64	336.182	0.95	-0.85	-0.43	
16752.00	90.000	341.710	6584.73	11086.19	10183.13	-4485.41	1676576.88	14369841.75	39°34'15.3942"N	80°52'18.0578"W	11127.22	336.228	0.39	-0.23	0.32	
16847.00	89.970	339.920	6584.76	11181.18	10272.85	-4516.63	1676545.68	14369931.43	39°34'16.2814"N	80°52'18.4548"W	11221.92	336.267	1.88	-0.03	-1.88	
16941.00	90.490	341.520	6584.38	11275.17	10361.58	-4547.66	1676514.65	14370020.12	39°34'17.1587"N	80°52'18.8496"W	11315.63	336.303	1.79	0.55	1.70	
17036.00	90.340	340.910	6583.69	11370.17	10451.51	-4578.26	1676484.08	14370110.02	39°34'18.0480"N	80°52'19.2386"W	11410.28	336.344	0.66	-0.16	-0.64	
17130.00	90.770	342.880	6582.78	11464.15	10540.85	-4607.46	1676454.88	14370199.32	39°34'18.9313"N	80°52'19.6099"W	11503.84	336.390	2.14	0.46	2.10	
17225.00	89.510	338.940	6582.55	11559.13	10630.61	-4638.53	1676423.83	14370289.04	39°34'19.8189"N	80°52'20.0050"W	11598.52	336.427	4.35	-1.33	-4.15	
17319.00	90.830	341.700	6582.27	11653.11	10719.11	-4670.18	1676392.19	14370377.51	39°34'20.6939"N	80°52'20.4076"W	11692.30	336.458	3.25	1.40	2.94	
17414.00	90.180	341.660	6581.43	11748.10	10809.29	-4700.04	1676362.34	14370467.65	39°34'21.5856"N	80°52'20.7872"W	11786.90	336.500	0.69	-0.68	-0.04	
17509.00	89.940	341.700	6581.33	11843.10	10899.47	-4729.90	1676332.49	14370557.80	39°34'22.4774"N	80°52'21.1669"W	11881.52	336.541	0.26	-0.25	0.04	
17604.00	90.060	341.480	6581.33	11938.10	10989.61	-4759.90	1676302.50	14370647.90	39°34'23.3687"N	80°52'21.5484"W	11976.15	336.581	0.26	0.13	-0.23	
17698.00	89.910	341.430	6581.36	12032.09	11078.73	-4789.80	1676272.62	14370736.99	39°34'24.2499"N	80°52'21.9286"W	12069.81	336.619	0.17	-0.16	-0.05	
17793.00	89.660	341.680	6581.71	12127.09	11168.85	-4819.86	1676242.57	14370827.07	39°34'25.1409"N	80°52'22.3108"W	12164.46	336.658	0.37	-0.26	0.26	
17888.00	89.910	341.430	6582.07	12222.09	11258.97	-4849.91	1676212.53	14370917.15	39°34'26.0320"N	80°52'22.6930"W	12259.12	336.696	0.37	0.26	-0.26	
17982.00	89.940	340.670	6582.19	12316.09	11347.87	-4880.44	1676182.01	14371006.02	39°34'26.9111"N	80°52'23.0812"W	12352.85	336.729	0.81	0.03	-0.81	
18077.00	90.180	341.310	6582.09	12411.09	11437.69	-4911.38	1676151.08	14371095.80	39°34'27.7992"N	80°52'23.4748"W	12447.59	336.761	0.72	0.25	0.67	
18172.00	90.120	341.410	6581.84	12506.08	11527.71	-4941.75	1676120.73	14371185.78	39°34'28.6893"N	80°52'23.8609"W	12542.28	336.796	0.12	-0.06	0.11	
18267.00	90.280	341.250	6581.51	12601.08	11617.71	-4972.16	1676090.33	14371275.75	39°34'29.5792"N	80°52'24.2477"W	12636.99	336.830	0.24	0.17	-0.17	
18361.00	90.030	341.480	6581.26	12695.08	11706.78	-5002.19	1676060.31	14371364.78	39°34'30.4600"N	80°52'24.6297"W	12730.69	336.863	0.36	-0.27	0.24	
18456.00	90.220	340.400	6581.05	12790.08	11796.57	-5033.22	1676029.30	14371454.54	39°34'31.3478"N	80°52'25.0242"W	12825.45	336.894	1.15	0.20	-1.14	
18550.00	89.690	343.330	6581.13	12884.06	11885.89	-5062.47	1676000.05	14371543.82	39°34'32.2310"N	80°52'25.3962"W	12919.09	336.930	3.17	-0.56	3.12	
18645.00	89.630	340.310	6581.69	12979.04	11976.13	-5092.11	1675970.43	14371634.03	39°34'33.1233"N	80°52'25.7731"W	13013.74	336.965	3.18	-0.06	-3.18	
18739.00	90.030	341.630	6581.97	13073.04	12064.99	-5122.76	1675939.79	14371722.86	39°34'34.0020"N	80°52'26.1629"W	13107.51	336.994	1.47	0.43	1.40	
18834.00	89.880	341.400	6582.04	13168.04	12155.09	-5152.88	1675909.68	14371812.92	39°34'34.8929"N	80°52'26.5459"W	13202.21	337.027	0.29	-0.16	-0.24	
18929.00	89.820	341.360	6582.29	13263.04	12245.12	-5183.21	1675879.36	14371902.91	39°34'35.7830"N	80°52'26.9317"W	13296.94	337.058	0.08	-0.06	-0.04	
19023.00	90.340	341.850	6582.16	13357.03	12334.32	-5212.87	1675849.71	14371992.07	39°34'36.6650"N	80°52'27.3089"W	13390.65	337.090	0.76	0.55	0.52	
19118.00	90.180	342.010	6581.73	13452.02	12424.63	-5242.34	1675820.26	14372082.35	39°34'37.5580"N	80°52'27.6836"W	13485.31	337.124	0.24	-0.17	0.17	
19212.00	90.030	342.310	6581.56	13546.01	12514.11	-5271.14	1675791.47	14372171.79	39°34'38.4427"N	80°52'28.0498"W	13578.95	337.158	0.36	-0.16	0.32	
19306.00	89.570	341.310	6581.88	13640.00	12603.41	-5300.48	1675762.14	14372261.06	39°34'39.3257"N	80°52'28.4229"W	13672.64	337.190	1.17	-0.49	-1.06	

Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION	
Operator	ANTERO RESOURCES CORPORATION
Field	Tyler
Well	Leap Unit 2H
Facility	Heintzman Pad
API	47-095-02819-0000
Wellbore	Leap Unit 2H AWB
Slot	Slot B

WELLPATH DATA (252 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
19401.00	89.600	341.010	6582.57	13735.00	12693.32	-5331.16	1675731.48	14372350.93	39°34'40.2147"N	80°52'28.8131"W	13767.41	337.218	0.32	0.03	-0.32	
19495.00	89.910	341.340	6582.97	13829.00	12782.29	-5361.49	1675701.16	14372439.86	39°34'41.0945"N	80°52'29.1989"W	13861.19	337.245	0.48	0.33	0.35	
19590.00	89.940	341.690	6583.10	13923.99	12872.39	-5391.61	1675671.05	14372529.93	39°34'41.9853"N	80°52'29.5820"W	13955.92	337.274	0.37	0.03	0.37	
19684.00	89.970	341.340	6583.17	14017.99	12961.54	-5421.41	1675641.26	14372619.04	39°34'42.8668"N	80°52'29.9610"W	14049.67	337.302	0.37	0.03	-0.37	
19779.00	89.750	341.380	6583.41	14112.99	13051.55	-5451.78	1675610.90	14372709.02	39°34'43.7569"N	80°52'30.3472"W	14144.43	337.329	0.24	-0.23	0.04	
19873.00	89.910	341.680	6583.68	14206.99	13140.71	-5481.56	1675581.14	14372798.14	39°34'44.6385"N	80°52'30.7259"W	14238.18	337.357	0.36	0.17	0.32	
19968.00	90.000	341.600	6583.76	14301.99	13230.87	-5511.48	1675551.23	14372888.27	39°34'45.5300"N	80°52'31.1065"W	14332.92	337.385	0.13	0.09	-0.08	
20062.00	90.060	341.800	6583.71	14395.98	13320.12	-5541.00	1675521.72	14372977.48	39°34'46.4124"N	80°52'31.4819"W	14426.65	337.413	0.22	0.06	0.21	
20157.00	90.090	341.860	6583.59	14490.97	13410.38	-5570.62	1675492.11	14373067.71	39°34'47.3049"N	80°52'31.8586"W	14521.37	337.442	0.07	0.03	0.06	
20251.00	89.600	342.310	6583.84	14584.96	13499.82	-5599.53	1675463.21	14373157.11	39°34'48.1893"N	80°52'32.2263"W	14615.06	337.472	0.71	-0.52	0.48	
20345.00	89.690	341.940	6584.42	14678.95	13589.29	-5628.39	1675434.37	14373246.54	39°34'49.0738"N	80°52'32.5932"W	14708.75	337.502	0.41	0.10	-0.39	
20440.00	89.570	341.280	6585.04	14773.94	13679.43	-5658.36	1675404.41	14373336.65	39°34'49.9652"N	80°52'32.9744"W	14803.51	337.528	0.71	-0.13	-0.69	
20534.00	89.970	341.240	6585.41	14867.94	13768.45	-5688.56	1675374.22	14373425.63	39°34'50.8454"N	80°52'33.3585"W	14897.31	337.552	0.43	0.43	-0.04	
20628.00	89.600	341.280	6585.77	14961.94	13857.46	-5718.76	1675344.03	14373514.61	39°34'51.7255"N	80°52'33.7426"W	14991.11	337.575	0.40	-0.39	0.04	
20723.00	90.340	340.230	6585.82	15056.93	13947.15	-5750.07	1675312.73	14373604.26	39°34'52.6124"N	80°52'34.1410"W	15085.96	337.595	1.35	0.78	-1.11	
20817.00	90.340	341.070	6585.26	15150.93	14035.84	-5781.21	1675281.60	14373692.91	39°34'53.4893"N	80°52'34.5372"W	15179.83	337.614	0.89	0.00	0.89	
20911.00	89.780	341.040	6585.16	15244.93	14124.75	-5811.73	1675251.09	14373781.79	39°34'54.3684"N	80°52'34.9254"W	15273.66	337.635	0.60	-0.60	-0.03	
21006.00	90.060	340.730	6585.29	15339.93	14214.51	-5842.84	1675220.00	14373871.51	39°34'55.2560"N	80°52'35.3211"W	15368.51	337.655	0.44	0.29	-0.33	
21101.00	90.120	340.870	6585.14	15434.92	14304.23	-5874.08	1675188.77	14373961.19	39°34'56.1431"N	80°52'35.7186"W	15463.37	337.674	0.16	0.09	0.09	
21195.00	89.940	340.220	6585.09	15528.92	14392.86	-5905.39	1675157.47	14374049.79	39°34'57.0195"N	80°52'36.1169"W	15557.25	337.692	0.72	-0.19	-0.69	
21290.00	90.120	340.810	6585.04	15623.91	14482.42	-5937.08	1675125.80	14374139.31	39°34'57.9050"N	80°52'36.5200"W	15652.13	337.709	0.65	0.19	0.62	
21385.00	89.750	340.790	6585.15	15718.91	14572.13	-5968.32	1675094.57	14374228.99	39°34'58.7922"N	80°52'36.9175"W	15747.00	337.727	0.39	-0.39	-0.02	
21479.00	89.970	340.550	6585.38	15812.91	14660.83	-5999.44	1675063.47	14374317.66	39°34'59.6892"N	80°52'37.3133"W	15840.87	337.745	0.35	0.23	-0.26	
21574.00	89.750	340.430	6585.61	15907.90	14750.38	-6031.16	1675031.75	14374407.17	39°35'01.5546"N	80°52'37.7170"W	15935.76	337.761	0.26	-0.23	-0.13	
21668.00	90.120	340.480	6585.72	16001.89	14838.96	-6062.61	1675000.32	14374495.71	39°35'01.4306"N	80°52'38.1171"W	16029.66	337.777	0.40	0.39	0.05	
21763.00	90.000	340.390	6585.62	16096.88	14928.48	-6094.42	1674968.52	14374585.19	39°35'02.3157"N	80°52'38.5219"W	16124.56	337.793	0.16	-0.13	-0.09	
21857.00	89.910	340.490	6585.69	16190.88	15017.05	-6125.89	1674937.06	14374673.73	39°35'03.1915"N	80°52'38.9223"W	16218.46	337.808	0.14	-0.10	0.11	
21952.00	89.820	340.570	6585.92	16285.87	15106.62	-6157.56	1674905.41	14374763.26	39°35'04.0771"N	80°52'39.3251"W	16313.35	337.824	0.13	-0.09	0.08	
22046.00	89.660	339.970	6586.34	16379.86	15195.10	-6189.29	1674873.69	14374851.71	39°35'04.9520"N	80°52'39.7289"W	16407.27	337.838	0.66	-0.17	-0.64	
22141.00	89.630	340.370	6586.93	16474.84	15284.46	-6221.52	1674841.47	14374941.04	39°35'05.8357"N	80°52'40.1389"W	16502.18	337.851	0.42	-0.03	0.42	

Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Leap Unit 2H
Field	Tyler	API	47-095-02819-0000
Facility	Heintzman Pad	Wellbore	Leap Unit 2H AWB
Slot	Slot B		

WELLPATH DATA (252 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
22235.00	89.600	340.490	6587.56	16568.83	15373.03	-6253.00	1674810.00	14375029.57	39°35'6.7114"N	80°52'40.5395"W	16596.09	337.866	0.13	-0.03	0.13	
22330.00	89.380	340.140	6588.41	16663.82	15462.48	-6285.00	1674778.01	14375118.98	39°35'7.5959"N	80°52'40.9467"W	16691.00	337.880	0.44	-0.23	-0.37	
22424.00	89.750	340.290	6589.12	16757.80	15550.92	-6316.82	1674746.21	14375207.39	39°35'8.4705"N	80°52'41.3515"W	16784.92	337.893	0.42	0.39	0.16	
22519.00	89.720	340.070	6589.56	16852.79	15640.30	-6349.03	1674714.01	14375296.73	39°35'9.3542"N	80°52'41.7614"W	16879.84	337.906	0.23	-0.03	-0.23	
22614.00	89.690	339.970	6590.05	16947.77	15729.56	-6381.54	1674681.52	14375385.96	39°35'10.2368"N	80°52'42.1751"W	16974.78	337.917	0.17	-0.03	-0.17	
22708.00	89.850	340.470	6590.43	17041.75	15818.00	-6413.39	1674649.67	14375474.36	39°35'11.1113"N	80°52'42.5804"W	17068.70	337.930	0.62	0.17	0.60	
22803.00	89.780	340.300	6590.74	17136.74	15907.48	-6445.28	1674617.79	14375563.81	39°35'11.9961"N	80°52'42.9882"W	17163.62	337.944	0.19	-0.07	-0.18	
22898.00	89.690	340.310	6591.18	17231.73	15996.92	-6477.30	1674585.79	14375653.21	39°35'12.8805"N	80°52'43.3936"W	17258.53	337.957	0.10	-0.09	0.01	
22992.00	89.720	340.260	6591.66	17325.72	16085.41	-6509.01	1674554.09	14375741.67	39°35'13.7655"N	80°52'43.7971"W	17352.46	337.969	0.06	0.03	-0.05	
23087.00	89.720	340.290	6592.12	17420.71	16174.84	-6541.07	1674522.22	14375831.06	39°35'14.6397"N	80°52'44.2051"W	17447.38	337.982	0.03	0.00	0.03	
23115.00	89.690	340.630	6592.27	17448.71	16201.22	-6550.44	1674512.68	14375857.43	39°35'14.9006"N	80°52'44.3243"W	17475.35	337.986	1.22	-0.11	1.21	
23140.00‡	89.690	340.630	6592.40	17473.71	16224.81	-6558.73	1674504.40	14375881.01	39°35'15.1338"N	80°52'44.4298"W	17500.32	337.989	0.00	0.00	0.00	Projected MD at TD: 23140'

HOLE & CASING SECTIONS - Ref Wellbore: Leap Unit 2H AWB Ref Wellpath: Leap Unit 2H AWP Proj: 23140'

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	-0.42	-0.52
17.5in Open Hole	130.00	584.00	454.00	130.00	583.96	-0.42	-0.52	-5.53	-2.61
13.375in Casing Surface	30.00	564.00	534.00	30.00	563.96	0.00	0.00	-5.42	-2.45
12.25in Open Hole	584.00	3435.00	2851.00	583.96	3378.26	-5.53	-2.61	244.62	-467.98
9.625in Casing Intermediate	30.00	3415.00	3385.00	30.00	3358.62	0.00	0.00	243.33	-464.41
8.75in Open Hole	3435.00	6121.00	2686.00	3378.26	5998.12	244.62	-467.98	523.39	-987.15
8.5in Open Hole	6121.00	23140.00	17019.00	5998.12	6592.40	523.39	-987.15	16224.81	-6558.73
5.5in Casing Production	30.00	23120.00	23090.00	30.00	6592.30	0.00	0.00	16205.94	-6552.10



Actual Wellpath Report

Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Leap Unit 2H
Field	Tyler	API	47-095-02819-0000
Facility	Heintzman Pad	Wellbore	Leap Unit 2H AWB
Slot	Slot B		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Leap Unit 2H POE Rev-2	6602.00	925.67	-1278.28	1679782.73	14360587.99	39°32'43.8532"N	80°51'37.2872"W	point
Leap Unit 2H AZI Rev-2	6635.00	1353.98	-1472.99	1679588.10	14361016.13	39°32'48.0893"N	80°51'39.7642"W	point
Leap Unit 2H BHL Rev-2	6635.00	16247.79	-6558.49	1674504.63	14375903.98	39°35'15.3610"N	80°52'44.4264"W	point
Leap Unit 2H LP Rev-2	6635.00	1117.93	-1374.28	1679686.77	14360780.17	39°32'45.7548"N	80°51'38.5088"W	point
Leap Unit 2H 50' L/R Hard Line	7000.00	8795.26	-4013.82	1677048.29	14368454.43	39°34'1.6708"N	80°52'12.0613"W	rectangle

WELLPATH COMPOSITION - Ref Wellbore: Leap Unit 2H AWB Ref Wellpath: Leap Unit 2H AWP Proj: 23140'

Start MID [ft]	End MID [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	474.00	Gyrodata 2015 - GC+WIR+DPIPE	01_Gyrodata MS Gyro <17-1/2"> (100'-474')	Leap Unit 2H AWB	12/9/2022
474.00	3365.00	BH NavITrak (2019) (Axial Corr+HRGM)	02_APS EM <12-1/4"> (474')(686'-3365')	Leap Unit 2H AWB	12/9/2022
3365.00	6050.00	BH NavITrak (2019) (Axial Corr+HRGM)	03_APS EM <8-3/4"> (3365')(350'-6050')	Leap Unit 2H AWB	12/21/2022
6050.00	23140.00	BH AutoTrak CurvesXpress (2019) (HRGM, Short spacing)	04_BH AT Curve <8-1/2"> (6050')(6166'-23115')	Leap Unit 2H AWB	12/21/2022



Actual Wellpath Report
 Leap Unit 2H AWP Proj: 23140'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Leap Unit 2H
Field	Tyler	API	47-095-02819-0000
Facility	Heintzman Pad	Wellbore	Leap Unit 2H AWB
Slot	Slot B		

COMMENTS

Wellpath general comments
 API: 47-095-02819-0000
 BH Job #: 111601060
 Rig: H&P 519
 Duration: 12/26/2022-12/30/2022
 Gyrodatta MS Gyro <17-1/2"> (100'-474')
 APS EM <12-1/4"> (474')(686'-3365')
 APS EM <8-3/4"> (3365')(3501'-6050')
 BH AT Curve <8-1/2"> (6050')(6166'-23115')
 Sycamore: 6491' MD
 Middlesex: 6633' MD
 Burkett: 6775' MD
 Tully: 6810' MD
 Marcellus POE: 6960' MD
 Projected MD at TD: 23140'