



ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
Field: Tyler
Facility: Roma Lou Pad

Slot: Slot #07
Well: Loki Unit 1H
Wellbore: Loki Unit 1H PWB



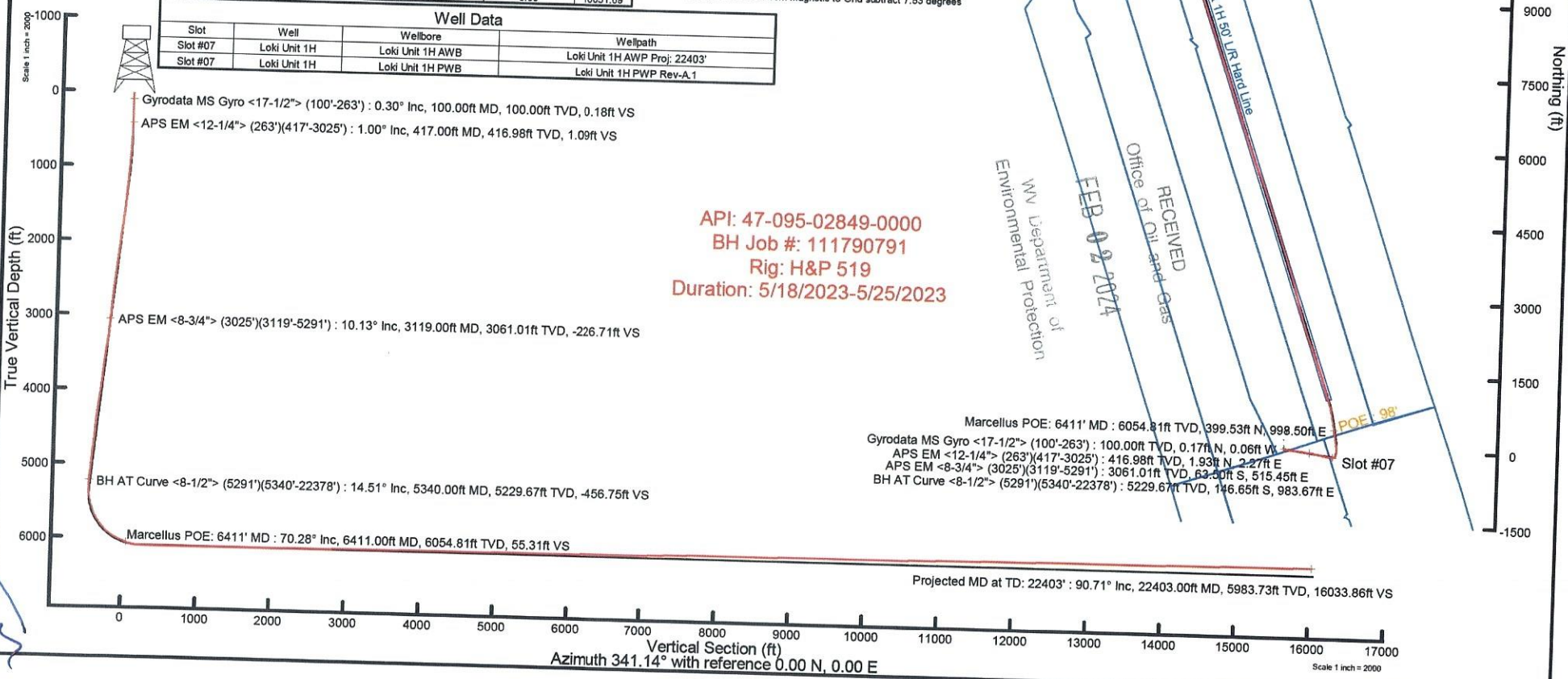
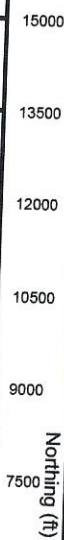
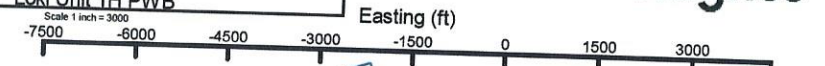
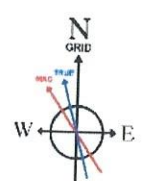
Plot reference wellpath is Loki Unit 1H PWP Rev-A.1	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 913 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot #07): -853 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edstaryar on 2023-05-30; Database: WA_MPL_EASTERNUS_Deth

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Roma Lou Pad	1647741.529	14338818.190	39°29'8.9000"N	80°58'26.6400"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #07	-322.10	-39.98	1647701.570	14338496.220
Comment	Loki Unit 1H - Plat SHL			
H&P 519 (RKB) to Ground level (At Slot: Slot #07)	30ft			
Mean Sea Level to Ground level (At Slot: Slot #07)	-883ft			
H&P 519 (RKB) to Mean Sea Level	913ft			

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	97.890	30.00	0.00	0.00	0.00	0.00
KOP 1	530.00	0.000	97.890	530.00	0.00	0.00	0.00	0.00
End of Build	1161.17	12.623	97.890	1166.08	-9.51	68.59	2.00	-31.17
Curve KOP	5442.28	12.623	97.890	5333.70	-137.94	995.34	0.00	-452.29
POE	6374.59	70.281	349.927	6050.00	351.24	1023.61	8.00	1.49
Landing Pt.	6621.08	90.000	349.927	6092.00	589.17	981.35	8.00	240.31
On AZI	7060.21	90.000	341.144	6092.00	1013.96	871.77	2.00	677.72
BHL	22434.18	90.000	341.144	6092.00	15562.92	-4098.84	0.00	16051.69

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #07	Loki Unit 1H	Loki Unit 1H AWB	Loki Unit 1H AWP Proj: 22403'
Slot #07	Loki Unit 1H	Loki Unit 1H PWB	Loki Unit 1H PWP Rev-A.1

User specified (HDGM) Dip: 66.13° Field: 51284 nT
 Magnetic North is 7.51 degrees West of True North (at 5/17/2023)
 Grid North is 0.02 degrees East of True North
 To correct azimuth from True to Grid subtract 0.02 degrees
 To correct azimuth from Magnetic to Grid subtract 7.53 degrees





Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'

Page 1 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION		Well	Loki Unit 1H
Field	Tyler		API	47-095-02849-0000
Facility	Roma Lou Pad		Wellbore	Loki Unit 1H AWB
Slot	Slot #07			

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet		Software System	WellArchitect® 6.0
North Reference	Grid		User	Edsaryar
Scale	0.999600		Report Generated	5/30/2023 at 5:39:42 PM
Convergence at slot	0.02° 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	-322.10	-39.98	1647701.57	14338496.22	39°29'5.7167"N	80°58'27.0510"W
Facility Reference Pt			1647741.53	14338818.19	39°29'8.9000"N	80°58'26.5400"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 519 (RKB) to Facility Vertical Datum	913.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	913.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #07)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.14°

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Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'
Page 2 of 11



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Operator	ANTERO RESOURCES CORPORATION	Well	Loki Unit 1H
Field	Tyler	API	47-095-02849-0000
Facility	Roma Lou Pad	Wellbore	Loki Unit 1H AWB
Slot	Slot #07		

WELLPATH DATA (240 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	340.530	0.00	0.00	0.00	0.00	1647701.57	14338496.22	39°29'5.7167"N	80°58'27.0510"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	340.530	30.00	0.00	0.00	0.00	1647701.57	14338496.22	39°29'5.7167"N	80°58'27.0510"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.300	340.530	100.00	0.18	0.17	-0.06	1647701.51	14338496.39	39°29'5.7184"N	80°58'27.0518"W	0.18	340.530	0.43	0.43	0.00	
200.00	0.450	15.710	200.00	0.77	0.80	-0.04	1647701.53	14338497.02	39°29'5.7246"N	80°58'27.0516"W	0.80	356.985	0.27	0.15	35.18	Gyrodata MS Gyro <17-1/2"> (100'-263')
263.00	0.640	48.310	262.99	1.11	1.27	0.29	1647701.86	14338497.49	39°29'5.7292"N	80°58'27.0474"W	1.30	12.767	0.57	0.30	51.75	
417.00	1.000	86.160	416.98	1.09	1.93	2.27	1647703.84	14338498.15	39°29'5.7358"N	80°58'27.0221"W	2.98	49.611	0.41	0.23	24.58	APS EM <12-1/4"> (263')(417'-3025')
596.00	2.790	126.890	595.88	-2.91	-0.58	7.31	1647708.88	14338495.64	39°29'5.7109"N	80°58'26.9577"W	7.34	94.526	1.19	1.00	22.75	
687.00	4.110	123.880	686.71	-7.34	-3.73	11.79	1647713.36	14338492.50	39°29'5.6798"N	80°58'26.9006"W	12.37	107.536	1.46	1.45	-3.31	
777.00	4.800	122.200	776.44	-12.83	-7.53	17.66	1647719.22	14338488.69	39°29'5.6422"N	80°58'26.8259"W	19.20	113.099	0.78	0.77	-1.87	
866.00	5.850	115.710	865.06	-18.91	-11.48	24.89	1647726.45	14338484.74	39°29'5.6031"N	80°58'26.7336"W	27.42	114.762	1.36	1.18	-7.29	
956.00	7.080	106.950	954.49	-25.38	-15.09	34.33	1647735.89	14338481.14	39°29'5.5674"N	80°58'26.6132"W	37.50	113.726	1.75	1.37	-9.73	
1047.00	8.490	100.500	1044.65	-31.95	-17.95	46.30	1647747.86	14338478.28	39°29'5.5392"N	80°58'26.4605"W	49.66	111.188	1.82	1.55	-7.09	
1141.00	10.040	95.760	1137.42	-38.77	-20.04	61.28	1647762.83	14338476.19	39°29'5.5185"N	80°58'26.2695"W	64.47	108.106	1.84	1.65	-5.04	
1236.00	11.740	92.430	1230.70	-45.73	-21.28	79.18	1647780.72	14338474.95	39°29'5.5062"N	80°58'26.0413"W	81.99	105.042	1.91	1.79	-3.51	
1330.00	12.880	89.730	1322.54	-52.54	-21.63	99.21	1647800.74	14338474.60	39°29'5.5026"N	80°58'25.7858"W	101.54	102.301	1.36	1.21	-2.87	
1425.00	13.550	87.810	1415.03	-59.11	-21.16	120.92	1647822.44	14338475.07	39°29'5.5072"N	80°58'25.5089"W	122.76	99.925	0.84	0.71	-2.02	
1519.00	13.450	84.940	1506.43	-64.88	-19.77	142.81	1647844.32	14338476.45	39°29'5.5208"N	80°58'25.2297"W	144.17	97.883	0.72	-0.11	-3.05	
1614.00	15.160	95.960	1598.50	-72.73	-20.09	166.18	1647867.68	14338476.14	39°29'5.5177"N	80°58'24.9317"W	167.39	96.893	3.38	1.80	11.60	
1708.00	15.600	97.480	1689.13	-83.50	-23.01	190.93	1647892.43	14338473.22	39°29'5.4887"N	80°58'24.6159"W	192.32	96.872	0.63	0.47	1.62	
1803.00	16.220	96.580	1780.49	-94.86	-26.19	216.78	1647918.26	14338470.04	39°29'5.4572"N	80°58'24.2863"W	218.36	96.890	0.70	0.65	-0.95	
1897.00	15.900	97.380	1870.83	-106.20	-29.35	242.59	1647944.06	14338466.88	39°29'5.4259"N	80°58'23.9571"W	244.36	96.899	0.41	-0.34	0.85	
1992.00	15.640	97.760	1962.25	-117.69	-32.75	268.19	1647969.65	14338463.48	39°29'5.3922"N	80°58'23.6307"W	270.18	96.963	0.29	-0.27	0.40	
2086.00	15.460	95.140	2052.81	-128.46	-35.59	293.22	1647994.67	14338460.65	39°29'5.3641"N	80°58'23.3115"W	295.37	96.920	0.77	-0.19	-2.79	
2180.00	13.740	97.610	2143.77	-138.53	-38.19	316.76	1648018.21	14338458.05	39°29'5.3384"N	80°58'23.0112"W	319.06	96.874	1.95	-1.83	2.63	
2275.00	13.900	98.450	2236.02	-148.80	-41.36	339.23	1648040.67	14338454.88	39°29'5.3069"N	80°58'22.7246"W	341.75	96.951	0.27	0.17	0.88	
2369.00	13.010	99.570	2327.44	-159.01	-44.78	360.84	1648062.26	14338451.46	39°29'5.2731"N	80°58'22.4491"W	363.60	97.074	0.99	-0.95	1.19	
2463.00	12.520	100.430	2419.12	-169.04	-48.38	381.29	1648082.71	14338447.86	39°29'5.2374"N	80°58'22.1883"W	384.35	97.231	0.56	-0.52	0.91	
2558.00	12.510	98.370	2511.86	-178.78	-51.74	401.60	1648103.00	14338444.50	39°29'5.2041"N	80°58'21.9293"W	404.92	97.342	0.47	-0.01	-2.17	
2652.00	12.440	98.300	2603.64	-188.06	-54.68	421.69	1648123.09	14338441.56	39°29'5.1750"N	80°58'21.6731"W	425.22	97.389	0.08	-0.07	-0.07	
2747.00	12.240	97.120	2696.45	-197.14	-57.41	441.80	1648143.20	14338438.83	39°29'5.1480"N	80°58'21.4165"W	445.52	97.404	0.34	-0.21	-1.24	

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Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'
Page 3 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION			Well	Loki Unit 1H
Field	Tyler			API	47-095-02849-0000
Facility	Roma Lou Pad			Wellbore	Loki Unit 1H AWB
Slot	Slot #07				

WELLPATH DATA (240 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
2841.00	11.850	96.010	2788.38	-205.57	-59.66	461.29	1648162.68	14338436.59	39°29'5.1257"N	80°58'21.1680"W	465.13	97.369	0.48	-0.41	-1.18	
2936.00	11.660	94.640	2881.38	-213.50	-61.45	480.56	1648181.94	14338434.79	39°29'5.1079"N	80°58'20.9222"W	484.47	97.287	0.36	-0.20	-1.44	
3025.00	11.150	93.420	2968.63	-220.35	-62.69	498.11	1648199.48	14338433.55	39°29'5.0956"N	80°58'20.6983"W	502.04	97.174	0.63	-0.57	-1.37	
3119.00	10.130	91.820	3061.01	-226.71	-63.50	515.45	1648216.81	14338432.75	39°29'5.0876"N	80°58'20.4772"W	519.35	97.023	1.13	-1.09	-1.70	APS EM <8-3/4"> (3025')(3119'-5291')
3215.00	12.400	98.710	3155.16	-234.47	-65.33	534.08	1648235.43	14338430.92	39°29'5.0694"N	80°58'20.2396"W	538.06	96.974	2.74	2.36	7.18	
3310.00	12.770	106.420	3247.88	-245.25	-69.84	554.23	1648255.58	14338426.41	39°29'5.0248"N	80°58'19.9826"W	558.62	97.182	1.81	0.39	8.12	
3404.00	13.730	101.980	3339.38	-256.97	-75.09	575.11	1648276.45	14338421.16	39°29'4.9728"N	80°58'19.7163"W	579.99	97.439	1.49	1.02	-4.72	
3688.00	13.440	99.260	3615.44	-289.81	-87.40	640.66	1648341.97	14338408.85	39°29'4.8510"N	80°58'18.8804"W	646.59	97.769	0.25	-0.10	-0.96	
3782.00	12.860	101.430	3706.97	-300.23	-91.23	661.69	1648363.00	14338405.02	39°29'4.8130"N	80°58'18.6122"W	667.95	97.850	0.81	-0.62	2.31	
3876.00	13.790	96.260	3798.45	-310.26	-94.53	683.08	1648384.38	14338401.73	39°29'4.7804"N	80°58'18.3394"W	689.59	97.879	1.61	0.99	-5.50	
3971.00	13.430	92.250	3890.78	-319.04	-96.19	705.36	1648406.65	14338400.06	39°29'4.7639"N	80°58'18.0552"W	711.89	97.766	1.06	-0.38	-4.22	
4065.00	13.770	102.020	3982.16	-328.72	-98.95	727.21	1648428.49	14338397.31	39°29'4.7365"N	80°58'17.7765"W	733.92	97.749	2.47	0.36	10.39	
4159.00	13.160	111.240	4073.58	-341.35	-105.16	748.13	1648449.40	14338391.10	39°29'4.6751"N	80°58'17.5098"W	755.49	98.001	2.37	-0.65	9.81	
4254.00	12.830	107.500	4166.15	-354.57	-112.25	768.27	1648469.53	14338384.02	39°29'4.6050"N	80°58'17.2529"W	776.43	98.312	0.95	-0.35	-3.94	
4348.00	12.480	103.520	4257.87	-366.20	-117.76	788.10	1648489.36	14338378.50	39°29'4.5504"N	80°58'17.0001"W	796.85	98.499	1.00	-0.37	-4.23	
4443.00	11.580	100.530	4350.78	-376.38	-121.91	807.46	1648508.70	14338374.36	39°29'4.5094"N	80°58'16.7532"W	816.61	98.585	1.15	-0.95	-3.15	
4537.00	10.920	96.930	4442.98	-384.88	-124.70	825.57	1648526.81	14338371.57	39°29'4.4817"N	80°58'16.5222"W	834.94	98.590	1.02	-0.70	-3.83	
4632.00	10.230	94.270	4536.36	-392.11	-126.42	842.92	1648544.15	14338369.85	39°29'4.4647"N	80°58'16.3010"W	852.34	98.529	0.89	-0.73	-2.80	
4727.00	10.990	100.720	4629.74	-399.89	-128.73	860.23	1648561.45	14338367.54	39°29'4.4418"N	80°58'16.0802"W	869.81	98.511	1.48	0.80	6.79	
4821.00	12.310	104.620	4721.81	-409.84	-132.93	878.73	1648579.95	14338363.35	39°29'4.4003"N	80°58'15.8443"W	888.73	98.602	1.63	1.40	4.15	
4915.00	11.420	100.270	4813.80	-419.90	-137.11	897.58	1648598.79	14338359.16	39°29'4.3588"N	80°58'15.6038"W	908.00	98.685	1.34	-0.95	-4.63	
5010.00	10.630	98.140	4907.04	-428.46	-140.03	915.51	1648616.71	14338356.24	39°29'4.3299"N	80°58'15.3752"W	926.16	98.696	0.94	-0.83	-2.24	
5105.00	9.490	95.520	5000.58	-435.67	-142.03	931.98	1648633.18	14338354.25	39°29'4.3102"N	80°58'15.1651"W	942.74	98.665	1.29	-1.20	-2.76	
5199.00	12.280	94.970	5092.88	-442.91	-143.64	949.66	1648650.84	14338352.64	39°29'4.2942"N	80°58'14.9397"W	960.46	98.601	2.97	2.97	-0.59	
5291.00	14.980	95.760	5182.28	-451.82	-145.68	971.24	1648672.42	14338350.60	39°29'4.2739"N	80°58'14.6645"W	982.10	98.530	2.94	2.93	0.86	
5340.00	14.510	93.120	5229.67	-456.75	-146.65	983.67	1648684.84	14338349.63	39°29'4.2643"N	80°58'14.5059"W	994.54	98.479	1.67	-0.96	-5.39	BH AT Curve <8-1/2"> (5291')(5340'-22378')
5420.00	12.880	76.420	5307.42	-461.33	-145.10	1002.35	1648703.52	14338351.18	39°29'4.2796"N	80°58'14.2677"W	1012.80	98.237	5.32	-2.04	-20.87	
5515.00	15.340	43.240	5399.70	-456.41	-133.44	1021.28	1648722.44	14338362.83	39°29'4.3948"N	80°58'14.0261"W	1029.97	97.444	8.76	2.59	-34.93	
5609.00	18.120	24.700	5489.77	-439.99	-111.08	1035.92	1648737.08	14338385.18	39°29'4.6157"N	80°58'13.8393"W	1041.86	96.120	6.36	2.96	-19.72	
5703.00	21.160	16.880	5578.31	-415.61	-81.55	1046.96	1648748.11	14338414.70	39°29'4.9075"N	80°58'13.6984"W	1050.13	94.454	4.27	3.23	-8.32	

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Page 4 of 11



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Facility	Roma Lou Pad			Wellbore	Loki Unit 1H AWB
Slot	Slot #07				

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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
5798.00	26.070	7.750	5665.36	-383.00	-44.43	1054.76	1648755.91	14338451.81	39°29'5.2744"N	80°58'13.5988"W	1055.70	92.412	6.43	5.17	-9.61	
5892.00	30.980	359.470	5747.95	-341.53	0.28	1057.33	1648758.47	14338496.50	39°29'5.7162"N	80°58'13.5659"W	1057.33	89.985	6.70	5.22	-8.81	
5987.00	38.840	353.480	5825.82	-289.12	54.42	1053.71	1648754.86	14338550.62	39°29'6.2514"N	80°58'13.6118"W	1055.12	87.043	9.02	8.27	-6.31	
6019.00†	41.544	351.573	5850.26	-268.88	74.89	1051.02	1648752.17	14338571.08	39°29'6.4537"N	80°58'13.6460"W	1053.68	85.924	9.28	8.45	-5.96	Sycamore: 6019' MD
6081.00	46.860	348.400	5894.70	-226.18	117.42	1043.45	1648744.60	14338613.60	39°29'7.4827"N	80°58'13.7424"W	1050.04	83.579	9.28	8.57	-5.12	
6162.00†	54.314	351.539	5946.10	-164.42	179.01	1032.65	1648733.81	14338675.15	39°29'7.5949"N	80°58'13.8799"W	1048.05	80.166	9.68	9.20	3.88	Middlesex: 6162' MD
6176.00	55.610	352.020	5954.14	-153.15	190.35	1031.01	1648732.17	14338686.49	39°29'7.5949"N	80°58'13.9007"W	1048.44	79.540	9.68	9.26	3.44	
6271.00	65.820	353.100	6000.55	-72.05	272.41	1020.34	1648721.50	14338768.52	39°29'8.4059"N	80°58'14.0365"W	1056.07	75.052	10.79	10.75	1.14	
6341.00†	66.769	349.882	6028.69	-9.01	335.78	1010.85	1648712.01	14338831.87	39°29'9.0323"N	80°58'14.1573"W	1065.16	71.625	4.42	1.36	-4.60	Burkett: 6341' MD
6365.00	67.110	348.790	6038.10	12.85	357.48	1006.76	1648707.93	14338853.56	39°29'9.2468"N	80°58'14.2093"W	1068.35	70.451	4.42	1.42	-4.55	
6411.00†	70.281	348.985	6054.81	55.31	399.53	998.50	1648699.67	14338895.59	39°29'9.6624"N	80°58'14.3145"W	1075.47	68.192	6.90	6.89	0.42	Marcellus POE: 6411' MD
6459.00	73.590	349.180	6069.69	100.50	444.33	989.86	1648691.03	14338940.37	39°29'10.1052"N	80°58'14.4245"W	1085.02	65.826	6.90	6.89	0.41	
6553.00	83.340	349.470	6088.46	191.55	534.73	972.83	1648674.01	14339030.74	39°29'10.9987"N	80°58'14.6414"W	1110.10	61.204	10.38	10.37	0.31	
6648.00	89.600	348.780	6094.31	285.40	627.80	954.94	1648656.13	14339123.77	39°29'11.9186"N	80°58'14.8691"W	1142.83	56.678	6.63	6.59	-0.73	
6742.00	90.150	349.670	6094.51	378.47	720.14	937.37	1648638.56	14339216.07	39°29'12.8313"N	80°58'15.0928"W	1182.06	52.466	1.11	0.59	0.95	
6837.00	89.350	346.420	6094.93	472.76	813.07	917.69	1648618.90	14339308.96	39°29'13.7498"N	80°58'15.3434"W	1226.07	48.459	3.52	-0.84	-3.42	
6931.00	90.340	344.400	6095.18	566.50	904.03	894.02	1648595.23	14339399.89	39°29'14.6489"N	80°58'15.6450"W	1271.43	44.681	2.39	1.05	-2.15	
7026.00	90.060	342.340	6094.85	661.42	995.05	866.83	1648568.05	14339490.87	39°29'15.5486"N	80°58'15.9914"W	1319.67	41.061	2.19	-0.29	-2.17	
7120.00	89.510	342.080	6095.20	755.40	1084.55	838.11	1648539.35	14339580.34	39°29'16.4332"N	80°58'16.3573"W	1370.65	37.696	0.65	-0.59	-0.28	
7215.00	89.480	342.630	6096.04	850.38	1175.08	809.32	1648510.56	14339670.83	39°29'17.3280"N	80°58'16.7242"W	1426.82	34.556	0.58	-0.03	0.58	
7309.00	90.520	342.630	6096.04	944.34	1264.79	781.25	1648482.51	14339760.51	39°29'18.2148"N	80°58'17.0818"W	1486.63	31.703	1.11	1.11	0.00	
7404.00	90.460	342.380	6095.23	1039.31	1355.40	752.70	1648453.96	14339851.07	39°29'19.1103"N	80°58'17.4457"W	1550.37	29.045	0.27	-0.06	-0.26	
7498.00	90.740	342.080	6094.25	1133.29	1444.91	724.01	1648425.29	14339940.55	39°29'19.9951"N	80°58'17.8112"W	1616.15	26.614	0.44	0.30	-0.32	
7592.00	90.550	341.160	6093.19	1227.28	1534.10	694.37	1648395.66	14340029.71	39°29'20.8768"N	80°58'18.1889"W	1683.93	24.353	1.00	-0.20	-0.98	
7687.00	90.150	340.300	6092.61	1322.27	1623.78	663.02	1648364.32	14340119.35	39°29'21.7631"N	80°58'18.5884"W	1753.93	22.211	1.00	-0.42	-0.91	
7781.00	90.400	339.760	6092.16	1416.25	1712.13	630.92	1648332.23	14340207.66	39°29'22.6364"N	80°58'18.9975"W	1824.67	20.229	0.63	0.27	-0.57	
7876.00	90.090	339.560	6091.75	1511.22	1801.20	597.90	1648299.23	14340296.70	39°29'23.5169"N	80°58'19.4183"W	1897.84	18.363	0.39	-0.33	-0.21	
7970.00	90.150	339.050	6091.55	1605.17	1889.13	564.68	1648266.02	14340384.60	39°29'24.3861"N	80°58'19.8417"W	1971.72	16.642	0.55	0.06	-0.54	
8065.00	90.090	339.180	6091.35	1700.11	1977.89	530.81	1648232.17	14340473.32	39°29'25.2634"N	80°58'20.2733"W	2047.88	15.023	0.15	-0.06	0.14	
8159.00	91.350	338.130	6090.17	1794.01	2065.44	496.60	1648197.97	14340560.83	39°29'26.1287"N	80°58'20.7093"W	2124.30	13.519	1.74	1.34	-1.12	

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Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'
Page 5 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Loki Unit 1H
Field	Tyler	API	47-095-02849-0000
Facility	Roma Lou Pad	Wellbore	Loki Unit 1H AWB
Slot	Slot #07		

WELLPATH DATA (240 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
8253.00	90.180	335.990	6088.92	1887.76	2151.99	459.97	1648161.35	14340647.34	39°29'26.9842"N	80°58'21.1762"W	2200.60	12.065	2.59	-1.24	-2.28	
8348.00	90.430	338.830	6088.41	1982.55	2239.69	423.48	1648124.88	14340735.01	39°29'27.8511"N	80°58'21.6413"W	2279.37	10.707	3.00	0.26	2.99	
8442.00	90.340	341.020	6087.78	2076.52	2327.97	391.22	1648092.63	14340823.25	39°29'28.7238"N	80°58'22.0525"W	2360.61	9.539	2.33	-0.10	2.33	
8537.00	90.280	342.000	6087.27	2171.52	2418.06	361.09	1648062.52	14340913.31	39°29'29.6143"N	80°58'22.4364"W	2444.88	8.493	1.03	-0.06	1.03	
8631.00	90.920	343.080	6086.28	2265.48	2507.73	332.89	1648034.32	14341002.94	39°29'30.5005"N	80°58'22.7958"W	2529.72	7.562	1.34	0.68	1.15	
8726.00	89.910	343.870	6085.59	2360.40	2598.80	305.87	1648007.32	14341093.97	39°29'31.4007"N	80°58'23.1401"W	2616.74	6.713	1.35	-1.06	0.83	
8820.00	91.600	344.070	6084.35	2454.27	2689.13	279.91	1647981.37	14341184.27	39°29'32.2936"N	80°58'23.4708"W	2703.66	5.943	1.81	1.80	0.21	
8915.00	90.310	343.880	6082.77	2549.14	2780.42	253.69	1647955.16	14341275.53	39°29'33.1959"N	80°58'23.8049"W	2791.97	5.213	1.37	-1.36	-0.20	
9009.00	90.550	344.720	6082.07	2642.99	2870.91	228.26	1647929.74	14341365.98	39°29'34.0904"N	80°58'24.1290"W	2879.97	4.546	0.93	0.26	0.89	
9104.00	90.310	343.130	6081.35	2737.87	2962.19	201.95	1647903.44	14341457.22	39°29'34.9926"N	80°58'24.4642"W	2969.07	3.900	1.69	-0.25	-1.67	
9198.00	90.770	344.720	6080.47	2831.76	3052.51	175.93	1647877.43	14341547.50	39°29'35.8853"N	80°58'24.7958"W	3057.58	3.299	1.76	0.49	1.69	
9292.00	90.370	344.380	6079.53	2925.58	3143.11	150.89	1647852.40	14341638.07	39°29'36.7808"N	80°58'25.1149"W	3146.73	2.748	0.56	-0.43	-0.36	
9387.00	90.220	344.320	6079.04	3020.43	3234.59	125.26	1647826.78	14341729.51	39°29'37.6850"N	80°58'25.4414"W	3237.01	2.218	0.17	-0.16	-0.06	
9481.00	90.860	343.990	6078.16	3114.30	3325.01	99.60	1647801.13	14341819.89	39°29'38.5787"N	80°58'25.7684"W	3326.50	1.716	0.77	0.68	-0.35	
9576.00	90.580	342.320	6076.96	3209.23	3415.92	72.07	1647773.61	14341910.77	39°29'39.4773"N	80°58'26.1192"W	3416.68	1.209	1.78	-0.29	-1.76	
9670.00	90.400	342.010	6076.16	3303.21	3505.40	43.28	1647744.83	14342000.21	39°29'40.3618"N	80°58'26.4861"W	3505.67	0.707	0.38	-0.19	-0.33	
9764.00	90.280	342.130	6075.60	3397.20	3594.84	14.34	1647715.91	14342089.61	39°29'41.2458"N	80°58'26.8549"W	3594.86	0.229	0.18	-0.13	0.13	
9858.00	90.310	342.140	6075.12	3491.18	3684.30	-14.49	1647687.08	14342179.04	39°29'42.1301"N	80°58'27.2224"W	3684.33	359.775	0.03	0.03	0.01	
9953.00	90.220	342.670	6074.68	3586.16	3774.86	-43.21	1647658.38	14342269.56	39°29'43.0251"N	80°58'27.5884"W	3775.10	359.344	0.57	-0.09	0.56	
10048.00	90.400	342.570	6074.16	3681.12	3865.52	-71.59	1647630.01	14342360.18	39°29'43.9213"N	80°58'27.9500"W	3866.18	358.939	0.22	0.19	-0.11	
10142.00	90.800	340.530	6073.18	3775.11	3954.68	-101.33	1647600.28	14342449.31	39°29'44.8025"N	80°58'28.3292"W	3955.97	358.532	2.21	0.43	-2.17	
10237.00	89.750	340.970	6072.72	3870.11	4044.36	-132.65	1647568.97	14342538.96	39°29'45.6890"N	80°58'28.7283"W	4046.54	358.121	1.20	-1.11	0.46	
10331.00	90.030	340.700	6072.90	3964.10	4133.15	-163.51	1647538.13	14342627.71	39°29'46.5666"N	80°58'29.1217"W	4136.39	357.735	0.41	0.30	-0.29	
10426.00	90.520	340.740	6072.45	4059.10	4222.82	-194.88	1647506.77	14342717.35	39°29'47.4530"N	80°58'29.5215"W	4227.32	357.358	0.52	0.52	0.04	
10520.00	90.370	340.580	6071.72	4153.09	4311.52	-226.01	1647475.65	14342806.00	39°29'48.3297"N	80°58'29.9182"W	4317.44	356.999	0.23	-0.16	-0.17	
10614.00	89.820	340.380	6071.56	4247.09	4400.11	-257.42	1647444.26	14342894.56	39°29'49.2054"N	80°58'30.3186"W	4407.64	356.652	0.62	-0.59	-0.21	
10708.00	90.490	341.090	6071.31	4341.08	4488.85	-288.43	1647413.26	14342983.26	39°29'50.0825"N	80°58'30.7139"W	4498.10	356.324	1.04	0.71	0.76	
10803.00	90.460	341.390	6070.52	4436.08	4578.80	-318.98	1647382.72	14343073.18	39°29'50.9715"N	80°58'31.1033"W	4589.90	356.015	0.32	-0.03	0.32	
10898.00	89.600	339.700	6070.47	4531.07	4668.37	-350.62	1647351.09	14343162.71	39°29'51.8569"N	80°58'31.5066"W	4681.52	355.705	2.00	-0.91	-1.78	
10992.00	90.710	341.060	6070.22	4625.06	4756.91	-382.18	1647319.54	14343251.22	39°29'52.7320"N	80°58'31.9089"W	4772.24	355.407	1.87	1.18	1.45	



Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'
Page 6 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Loki Unit 1H
Field	Tyler	API	47-095-02849-0000
Facility	Roma Lou Pad	Wellbore	Loki Unit 1H AWB
Slot	Slot #07		

WELLPATH DATA (240 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
11087.00	90.680	340.980	6069.06	4720.05	4846.74	-413.08	1647288.66	14343341.01	39°29'53.6199"N	80°58'32.3027"W	4864.31	355.129	0.09	-0.03	-0.08	
11181.00	89.780	341.390	6068.69	4814.05	4935.71	-443.39	1647258.36	14343429.95	39°29'54.4994"N	80°58'32.6891"W	4955.59	354.867	1.05	-0.96	0.44	
11275.00	90.580	340.660	6068.39	4908.05	5024.60	-473.96	1647227.80	14343518.80	39°29'55.3780"N	80°58'33.0787"W	5046.91	354.611	1.15	0.85	-0.78	
11370.00	91.380	339.760	6066.77	5003.02	5113.98	-506.12	1647195.66	14343608.14	39°29'56.2614"N	80°58'33.4886"W	5138.96	354.348	1.27	0.84	-0.95	
11464.00	89.940	339.510	6065.68	5096.98	5202.09	-538.83	1647162.96	14343696.22	39°29'57.1324"N	80°58'33.9056"W	5229.92	354.086	1.55	-1.53	-0.27	
11559.00	90.580	339.810	6065.25	5191.95	5291.17	-571.85	1647129.95	14343785.26	39°29'58.0128"N	80°58'34.3265"W	5321.98	353.832	0.74	0.67	0.32	
11653.00	89.940	340.610	6064.83	5285.93	5379.61	-603.67	1647098.14	14343873.67	39°29'58.8871"N	80°58'34.7322"W	5413.38	353.597	1.09	-0.68	0.85	
11748.00	90.680	339.540	6064.31	5380.91	5468.92	-636.04	1647065.78	14343962.95	39°29'59.7698"N	80°58'35.1449"W	5505.79	353.366	1.37	0.78	-1.13	
11842.00	90.280	337.190	6063.52	5474.79	5556.29	-670.70	1647031.14	14344050.28	39°30'0.6334"N	80°58'35.5867"W	5596.63	353.117	2.54	-0.43	-2.50	
11936.00	90.120	338.100	6063.20	5568.61	5643.23	-706.45	1646995.40	14344137.18	39°30'1.4927"N	80°58'36.0425"W	5687.27	352.865	0.98	-0.17	0.97	
12031.00	90.250	339.900	6062.89	5663.54	5731.91	-740.49	1646961.37	14344225.83	39°30'2.3693"N	80°58'36.4764"W	5779.55	352.639	1.90	0.14	1.89	
12126.00	89.910	338.300	6062.76	5758.48	5820.66	-774.38	1646927.50	14344314.54	39°30'3.2465"N	80°58'36.9085"W	5871.95	352.422	1.72	-0.36	-1.68	
12220.00	90.400	339.810	6062.50	5852.41	5908.44	-807.98	1646893.91	14344402.29	39°30'4.1142"N	80°58'37.3368"W	5963.44	352.213	1.69	0.52	1.61	
12314.00	90.150	340.900	6062.05	5946.40	5996.97	-839.58	1646862.32	14344490.78	39°30'4.9892"N	80°58'37.7397"W	6055.46	352.030	1.19	-0.27	1.16	
12409.00	90.460	341.150	6061.55	6041.40	6086.81	-870.47	1646831.45	14344580.58	39°30'5.8772"N	80°58'38.1335"W	6148.74	351.861	0.42	0.33	0.26	
12503.00	90.580	340.960	6060.69	6135.40	6175.71	-900.99	1646800.94	14344669.45	39°30'6.7559"N	80°58'38.5225"W	6241.09	351.700	0.24	0.13	-0.20	
12597.00	90.370	340.810	6059.91	6229.39	6264.53	-931.77	1646770.17	14344758.23	39°30'7.6338"N	80°58'38.9149"W	6333.44	351.540	0.27	-0.22	-0.16	
12692.00	90.180	340.520	6059.46	6324.39	6354.17	-963.22	1646738.73	14344847.83	39°30'8.5198"N	80°58'39.3158"W	6426.76	351.380	0.36	-0.20	-0.31	
12786.00	90.430	340.860	6058.96	6418.38	6442.88	-994.31	1646707.66	14344936.51	39°30'9.3967"N	80°58'39.7121"W	6519.15	351.227	0.45	0.27	0.36	
12881.00	90.650	341.440	6058.06	6513.38	6532.78	-1025.00	1646676.98	14345026.37	39°30'10.2852"N	80°58'40.1033"W	6612.70	351.083	0.65	0.23	0.61	
12975.00	90.090	340.910	6057.45	6607.38	6621.75	-1055.33	1646646.66	14345115.31	39°30'11.1646"N	80°58'40.4900"W	6705.32	350.945	0.82	-0.60	-0.56	
13069.00	91.020	340.750	6056.54	6701.37	6710.53	-1086.20	1646615.81	14345204.05	39°30'12.0422"N	80°58'40.8835"W	6797.87	350.806	1.00	0.99	-0.17	
13163.00	90.220	340.390	6055.53	6795.36	6799.17	-1117.46	1646584.56	14345292.66	39°30'12.9183"N	80°58'41.2821"W	6890.39	350.667	0.93	-0.85	-0.38	
13258.00	90.120	340.700	6055.24	6890.35	6888.74	-1149.10	1646552.93	14345382.20	39°30'13.8037"N	80°58'41.6855"W	6983.93	350.530	0.34	-0.11	0.33	
13352.00	90.400	340.730	6054.82	6984.35	6977.47	-1180.15	1646521.89	14345470.88	39°30'14.6807"N	80°58'42.0813"W	7076.57	350.400	0.30	0.30	0.03	
13541.00	91.290	340.320	6052.03	7173.32	7155.63	-1243.15	1646458.92	14345564.98	39°30'16.4417"N	80°58'42.8845"W	7262.82	350.144	0.52	0.47	-0.22	
13646.00	92.800	344.800	6048.28	7278.19	7255.71	-1274.60	1646427.49	14345749.02	39°30'17.4309"N	80°58'43.2853"W	7366.82	350.037	4.50	1.44	4.27	
13730.00	93.330	340.720	6043.79	7362.01	7335.81	-1299.45	1646402.64	14345829.08	39°30'18.2225"N	80°58'43.6022"W	7450.01	349.955	4.89	0.63	-4.86	
13825.00	90.060	339.830	6040.98	7456.95	7425.18	-1331.49	1646370.61	14345918.42	39°30'19.1059"N	80°58'44.0107"W	7543.62	349.834	3.57	-3.44	-0.94	
13919.00	90.250	340.740	6040.72	7550.94	7513.67	-1363.20	1646338.91	14346006.87	39°30'19.9806"N	80°58'44.4150"W	7636.33	349.717	0.99	0.20	0.97	

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Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'
Page 7 of 11



REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Loki Unit 1H
Field	Tyler		API	47-095-02849-0000
Facility	Roma Lou Pad		Wellbore	Loki Unit 1H AWB
Slot	Slot #07			

WELLPATH DATA (240 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
14014.00	90.280	340.340	6040.29	7645.93	7603.24	-1394.85	1646307.28	14346096.41	39°30'20.8659"N	80°58'44.8185"W	7730.13	349.604	0.42	0.03	-0.42	
14108.00	90.280	340.460	6039.83	7739.92	7691.80	-1426.38	1646275.76	14346184.92	39°30'21.7412"N	80°58'45.2205"W	7822.93	349.494	0.13	0.00	0.13	
14203.00	90.310	340.370	6039.34	7834.91	7781.30	-1458.23	1646243.93	14346274.39	39°30'22.6258"N	80°58'45.6265"W	7916.76	349.386	0.10	0.03	-0.09	
14297.00	90.340	340.280	6038.80	7928.90	7869.81	-1489.88	1646212.29	14346362.87	39°30'23.5007"N	80°58'46.0300"W	8009.60	349.280	0.10	0.03	-0.10	
14391.00	90.370	340.540	6038.22	8022.89	7958.37	-1521.39	1646180.79	14346451.39	39°30'24.3760"N	80°58'46.4318"W	8102.48	349.177	0.28	0.03	0.28	
14486.00	90.310	340.400	6037.66	8117.88	8047.90	-1553.15	1646149.04	14346540.88	39°30'25.2610"N	80°58'46.8368"W	8196.40	349.077	0.16	-0.06	-0.15	
14580.00	90.310	340.740	6037.15	8211.88	8136.54	-1584.42	1646117.79	14346629.49	39°30'26.1371"N	80°58'47.2354"W	8289.37	348.981	0.36	0.00	0.36	
14674.00	90.430	340.130	6036.54	8305.87	8225.11	-1615.90	1646086.32	14346718.03	39°30'27.0126"N	80°58'47.6368"W	8382.34	348.885	0.66	0.13	-0.65	
14769.00	90.220	340.510	6036.00	8400.86	8314.56	-1647.89	1646054.34	14346807.44	39°30'27.8967"N	80°58'48.0447"W	8476.29	348.790	0.46	-0.22	0.40	
14863.00	90.280	340.670	6035.59	8494.85	8403.22	-1679.13	1646023.12	14346896.06	39°30'28.7730"N	80°58'48.4430"W	8569.34	348.700	0.18	0.06	0.17	
14958.00	90.180	340.660	6035.21	8589.85	8492.86	-1710.58	1645991.68	14346985.67	39°30'29.6590"N	80°58'48.8440"W	8663.42	348.612	0.11	-0.11	-0.01	
15052.00	90.310	340.630	6034.81	8683.84	8581.55	-1741.73	1645960.54	14347074.32	39°30'30.5356"N	80°58'49.2412"W	8756.52	348.527	0.14	0.14	-0.03	
15146.00	90.430	340.530	6034.20	8777.84	8670.20	-1772.99	1645929.29	14347162.93	39°30'31.4118"N	80°58'49.6397"W	8849.62	348.443	0.17	0.13	-0.11	
15241.00	90.280	340.470	6033.61	8872.83	8759.75	-1804.70	1645897.60	14347252.45	39°30'32.2969"N	80°58'50.0441"W	8943.72	348.359	0.17	-0.16	-0.06	
15336.00	90.310	340.590	6033.12	8967.82	8849.31	-1836.36	1645865.94	14347341.98	39°30'33.1822"N	80°58'50.4478"W	9037.84	348.277	0.13	0.03	0.13	
15430.00	90.340	340.630	6032.59	9061.82	8937.98	-1867.57	1645834.75	14347430.61	39°30'34.0586"N	80°58'50.8457"W	9131.01	348.198	0.05	0.03	0.04	
15524.00	90.030	340.500	6032.29	9155.81	9026.62	-1898.85	1645803.49	14347519.22	39°30'34.9348"N	80°58'51.2445"W	9224.18	348.120	0.36	-0.33	-0.14	
15619.00	90.180	340.640	6032.11	9250.81	9116.21	-1930.45	1645771.90	14347608.77	39°30'35.8203"N	80°58'51.6475"W	9318.37	348.044	0.22	0.16	0.15	
15713.00	90.220	340.610	6031.79	9344.80	9204.89	-1961.63	1645740.72	14347697.41	39°30'36.6968"N	80°58'52.0451"W	9411.59	347.970	0.05	0.04	-0.03	
15808.00	90.250	340.650	6031.40	9439.80	9294.51	-1993.14	1645709.23	14347786.99	39°30'37.5826"N	80°58'52.4469"W	9505.82	347.897	0.05	0.03	0.04	
15902.00	90.150	339.990	6031.07	9533.79	9383.02	-2024.80	1645677.59	14347875.47	39°30'38.4574"N	80°58'52.8505"W	9599.00	347.823	0.71	-0.11	-0.70	
15997.00	89.720	339.410	6031.18	9628.76	9472.12	-2057.76	1645644.64	14347964.53	39°30'39.3381"N	80°58'53.2708"W	9693.06	347.743	0.76	-0.45	-0.61	
16091.00	90.580	341.160	6030.93	9722.74	9560.60	-2089.47	1645612.94	14348052.98	39°30'40.2127"N	80°58'53.6751"W	9786.27	347.672	2.07	0.91	1.86	
16185.00	90.680	342.220	6029.90	9816.73	9649.84	-2118.99	1645583.43	14348142.18	39°30'41.0947"N	80°58'54.0516"W	9879.75	347.615	1.13	0.11	1.13	
16280.00	89.880	341.200	6029.43	9911.72	9740.03	-2148.81	1645553.63	14348232.34	39°30'41.9862"N	80°58'54.4318"W	9974.25	347.559	1.36	-0.84	-1.07	
16374.00	90.310	341.550	6029.28	10005.72	9829.11	-2178.83	1645523.62	14348321.38	39°30'42.8666"N	80°58'54.8146"W	10067.71	347.501	0.59	0.46	0.37	
16468.00	90.310	341.980	6028.77	10099.71	9918.39	-2208.24	1645494.22	14348410.62	39°30'43.7490"N	80°58'55.1896"W	10161.24	347.448	0.46	0.00	0.46	
16562.00	90.000	341.760	6028.51	10193.70	10007.72	-2237.49	1645464.98	14348499.92	39°30'44.6320"N	80°58'55.5626"W	10254.80	347.397	0.40	-0.33	-0.23	
16657.00	90.150	341.290	6028.39	10288.70	10097.83	-2267.60	1645434.89	14348589.99	39°30'45.5226"N	80°58'55.9465"W	10349.30	347.343	0.52	0.16	-0.49	
16845.00	88.890	340.910	6029.96	10476.69	10275.68	-2328.49	1645374.02	14348767.77	39°30'47.2805"N	80°58'56.7230"W	10536.20	347.232	0.70	-0.67	-0.20	

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Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'
Page 8 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION			Well	Loki Unit 1H
Field	Tyler			API	47-095-02849-0000
Facility	Roma Lou Pad			Wellbore	Loki Unit 1H AWB
Slot	Slot #07				

WELLPATH DATA (240 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
16939.00	92.770	345.780	6028.60	10570.57	10365.68	-2355.42	1645347.10	14348857.74	39°30'48.1701"N	80°58'57.0663"W	10629.93	347.198	6.62	4.13	5.18	
17033.00	91.380	341.960	6025.20	10664.38	10455.90	-2381.51	1645321.02	14348947.92	39°30'49.0618"N	80°58'57.3990"W	10723.69	347.169	4.32	-1.48	-4.06	
17128.00	90.580	342.190	6023.57	10759.35	10546.28	-2410.74	1645291.80	14349038.26	39°30'49.9551"N	80°58'57.7718"W	10818.30	347.124	0.88	-0.84	0.24	
17222.00	91.140	341.510	6022.16	10853.33	10635.59	-2440.02	1645262.53	14349127.53	39°30'50.8378"N	80°58'58.1452"W	10911.90	347.079	0.94	0.60	-0.72	
17316.00	90.580	341.960	6020.75	10947.32	10724.84	-2469.48	1645233.08	14349216.75	39°30'51.7200"N	80°58'58.5208"W	11005.48	347.033	0.76	-0.60	0.48	
17411.00	90.770	341.450	6019.63	11042.30	10815.03	-2499.30	1645203.28	14349306.91	39°30'52.6114"N	80°58'58.9011"W	11100.07	346.988	0.57	0.20	-0.54	
17505.00	90.620	341.130	6018.49	11136.30	10904.06	-2529.45	1645173.14	14349395.90	39°30'53.4914"N	80°58'59.2856"W	11193.60	346.940	0.38	-0.16	-0.34	
17599.00	91.020	342.590	6017.15	11230.28	10993.38	-2558.71	1645143.89	14349485.18	39°30'54.3742"N	80°58'59.6587"W	11287.22	346.898	1.61	0.43	1.55	
17693.00	90.030	338.680	6016.28	11324.25	11082.04	-2589.87	1645112.74	14349573.80	39°30'55.2505"N	80°59'0.0561"W	11380.64	346.846	4.29	-1.05	-4.16	
17787.00	90.980	342.160	6015.46	11418.22	11170.58	-2621.37	1645081.26	14349662.31	39°30'56.1257"N	80°59'0.4578"W	11474.04	346.794	3.84	1.01	3.70	
17882.00	90.370	341.640	6014.34	11513.21	11260.87	-2650.88	1645051.76	14349752.57	39°30'57.0181"N	80°59'0.8341"W	11568.68	346.753	0.84	-0.64	-0.55	
17976.00	90.680	340.890	6013.47	11607.20	11349.89	-2681.07	1645021.58	14349841.55	39°30'57.8979"N	80°59'1.2191"W	11662.25	346.709	0.86	0.33	-0.80	
18071.00	90.800	342.050	6012.25	11702.19	11439.96	-2711.26	1644991.40	14349931.58	39°30'58.7881"N	80°59'1.6041"W	11756.85	346.667	1.23	0.13	1.22	
18165.00	90.310	341.270	6011.34	11796.18	11529.18	-2740.83	1644961.84	14350020.76	39°30'59.6700"N	80°59'1.9813"W	11850.49	346.627	0.98	-0.52	-0.83	
18259.00	90.310	341.370	6010.83	11890.18	11618.22	-2770.94	1644931.74	14350109.77	39°31'0.5501"N	80°59'2.3652"W	11944.09	346.586	0.11	0.00	0.11	
18354.00	90.710	341.560	6009.98	11985.17	11708.29	-2801.14	1644901.56	14350199.81	39°31'1.4403"N	80°59'2.7504"W	12038.71	346.545	0.47	0.42	0.20	
18448.00	90.800	341.490	6008.74	12079.16	11797.44	-2830.92	1644871.79	14350288.92	39°31'2.3215"N	80°59'3.1302"W	12132.34	346.506	0.12	0.10	-0.07	
18543.00	90.180	342.590	6007.93	12174.15	11887.80	-2860.21	1644842.51	14350379.25	39°31'3.2146"N	80°59'3.5038"W	12227.05	346.472	1.33	-0.65	1.16	
18637.00	90.460	341.950	6007.41	12268.13	11977.34	-2888.84	1644813.89	14350468.74	39°31'4.0996"N	80°59'3.8688"W	12320.80	346.440	0.74	0.30	-0.68	
18732.00	90.120	340.190	6006.93	12363.12	12067.19	-2919.66	1644783.09	14350558.56	39°31'4.9877"N	80°59'4.2619"W	12415.38	346.399	1.89	-0.36	-1.85	
18826.00	90.430	341.560	6006.48	12457.12	12156.00	-2950.45	1644752.30	14350647.34	39°31'5.8655"N	80°59'4.6546"W	12508.94	346.357	1.49	0.33	1.46	
18921.00	90.030	341.250	6006.09	12552.12	12246.04	-2980.75	1644722.02	14350737.34	39°31'6.7554"N	80°59'5.0410"W	12603.59	346.320	0.53	-0.42	-0.33	
19015.00	90.090	341.550	6006.00	12646.11	12335.13	-3010.73	1644692.05	14350826.40	39°31'7.6360"N	80°59'5.4234"W	12697.24	346.284	0.33	0.06	0.32	
19110.00	90.030	341.750	6005.90	12741.11	12425.30	-3040.64	1644662.16	14350916.53	39°31'8.5272"N	80°59'5.8048"W	12791.94	346.249	0.22	-0.06	0.21	
19204.00	90.090	341.840	6005.80	12835.10	12514.60	-3070.00	1644632.80	14351005.79	39°31'9.4098"N	80°59'6.1793"W	12885.65	346.217	0.12	0.06	0.10	
19299.00	90.250	341.520	6005.52	12930.10	12604.78	-3099.86	1644602.95	14351095.94	39°31'10.3012"N	80°59'6.5602"W	12980.36	346.184	0.38	0.17	-0.34	
19393.00	89.880	341.020	6005.41	13024.10	12693.80	-3130.05	1644572.78	14351184.92	39°31'11.1810"N	80°59'6.9452"W	13074.01	346.148	0.66	-0.39	-0.53	
19488.00	90.150	341.860	6005.38	13119.10	12783.86	-3160.29	1644542.55	14351274.94	39°31'12.0712"N	80°59'7.3308"W	13168.69	346.114	0.93	0.28	0.88	
19583.00	90.250	341.550	6005.05	13214.09	12874.06	-3190.11	1644512.74	14351365.10	39°31'12.9627"N	80°59'7.7112"W	13263.41	346.083	0.34	0.11	-0.33	
19677.00	90.340	342.050	6004.57	13308.08	12963.35	-3219.47	1644483.40	14351454.36	39°31'13.8452"N	80°59'8.0856"W	13357.15	346.053	0.54	0.10	0.53	

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Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'
Page 9 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Loki Unit 1H
Field	Tyler	API	47-095-02849-0000
Facility	Roma Lou Pad	Wellbore	Loki Unit 1H AWB
Slot	Slot #07		

WELLPATH DATA (240 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
19771.00	90.740	342.280	6003.68	13402.06	13052.83	-3248.26	1644454.62	14351543.81	39°31'14.7296"N	80°59'8.4528"W	13450.93	346.026	0.49	0.43	0.24	
19866.00	90.250	340.190	6002.86	13497.05	13142.77	-3278.81	1644424.08	14351633.71	39°31'15.6186"N	80°59'8.8425"W	13545.59	345.992	2.26	-0.52	-2.20	
19960.00	90.430	340.780	6002.30	13591.05	13231.37	-3310.21	1644392.69	14351722.27	39°31'16.4943"N	80°59'9.2430"W	13639.16	345.954	0.66	0.19	0.63	
20054.00	89.880	341.720	6002.05	13685.04	13320.38	-3340.43	1644362.49	14351811.25	39°31'17.3740"N	80°59'9.6284"W	13732.85	345.922	1.16	-0.59	1.00	
20149.00	90.490	340.630	6001.74	13780.04	13410.30	-3371.08	1644331.84	14351901.13	39°31'18.2628"N	80°59'10.0194"W	13827.52	345.889	1.31	0.64	-1.15	
20243.00	90.060	340.860	6001.29	13874.04	13499.04	-3402.08	1644300.86	14351989.83	39°31'19.1399"N	80°59'10.4148"W	13921.14	345.855	0.52	-0.46	0.24	
20338.00	90.310	341.180	6000.98	13969.04	13588.87	-3432.98	1644269.97	14352079.63	39°31'20.0278"N	80°59'10.8089"W	14015.81	345.822	0.43	0.26	0.34	
20432.00	90.400	341.290	6000.40	14063.04	13677.88	-3463.21	1644239.75	14352168.60	39°31'20.9075"N	80°59'11.1946"W	14109.50	345.791	0.15	0.10	0.12	
20527.00	90.430	341.740	5999.71	14158.03	13767.97	-3493.33	1644209.64	14352258.66	39°31'21.7979"N	80°59'11.5788"W	14204.24	345.763	0.47	0.03	0.47	
20621.00	90.740	342.200	5998.75	14252.02	13857.35	-3522.43	1644180.56	14352348.00	39°31'22.6813"N	80°59'11.9499"W	14298.03	345.738	0.59	0.33	0.49	
20716.00	89.850	340.780	5998.27	14347.01	13947.43	-3552.59	1644150.41	14352438.05	39°31'23.5717"N	80°59'12.3345"W	14392.77	345.710	1.76	-0.94	-1.49	
20810.00	90.710	341.640	5997.81	14441.01	14036.42	-3582.86	1644120.15	14352527.00	39°31'24.4512"N	80°59'12.7207"W	14486.47	345.681	1.29	0.91	0.91	
20904.00	90.980	342.250	5996.42	14534.99	14125.78	-3611.99	1644091.03	14352616.32	39°31'25.3345"N	80°59'13.0923"W	14580.27	345.657	0.71	0.29	0.65	
20999.00	90.090	341.560	5995.53	14629.97	14216.08	-3641.50	1644061.54	14352706.58	39°31'26.2269"N	80°59'13.4686"W	14675.06	345.632	1.19	-0.94	-0.73	
21094.00	90.680	341.940	5994.89	14724.96	14306.29	-3671.25	1644031.80	14352796.76	39°31'27.1186"N	80°59'13.8481"W	14769.84	345.607	0.74	0.62	0.40	
21188.00	90.830	341.370	5993.66	14818.95	14395.51	-3700.83	1644002.23	14352885.94	39°31'28.0004"N	80°59'14.2255"W	14863.61	345.582	0.63	0.16	-0.61	
21282.00	90.340	341.800	5992.70	14912.94	14484.69	-3730.52	1643972.55	14352975.09	39°31'28.8819"N	80°59'14.6042"W	14957.37	345.557	0.69	-0.52	0.46	
21376.00	90.370	341.530	5992.11	15006.94	14573.92	-3760.09	1643942.99	14353064.28	39°31'29.7637"N	80°59'14.9814"W	15051.16	345.533	0.29	0.03	-0.29	
21470.00	90.430	341.490	5991.46	15100.93	14663.06	-3789.90	1643913.19	14353153.39	39°31'30.6448"N	80°59'15.3617"W	15144.93	345.508	0.08	0.06	-0.04	
21565.00	90.460	341.730	5990.72	15195.93	14753.21	-3819.87	1643883.23	14353243.50	39°31'31.5358"N	80°59'15.7440"W	15239.70	345.484	0.25	0.03	0.25	
21659.00	90.280	341.120	5990.11	15289.92	14842.31	-3849.81	1643853.30	14353332.56	39°31'32.4165"N	80°59'16.1259"W	15333.47	345.459	0.68	-0.19	-0.65	
21753.00	90.220	341.520	5989.70	15383.92	14931.36	-3879.92	1643823.21	14353421.58	39°31'33.2966"N	80°59'16.5100"W	15427.22	345.434	0.43	-0.06	0.43	
21847.00	90.000	340.610	5989.52	15477.92	15020.27	-3910.42	1643792.72	14353510.45	39°31'34.1754"N	80°59'16.8991"W	15520.95	345.407	1.00	-0.23	-0.97	
21942.00	90.620	341.720	5989.01	15572.92	15110.18	-3941.09	1643762.06	14353600.33	39°31'35.0640"N	80°59'17.2903"W	15615.69	345.382	1.34	0.65	1.17	
22036.00	90.520	341.580	5988.07	15666.91	15199.39	-3970.68	1643732.48	14353689.51	39°31'35.9458"N	80°59'17.6678"W	15709.48	345.359	0.18	-0.11	-0.15	
22130.00	90.490	341.830	5987.24	15760.90	15288.64	-4000.19	1643702.99	14353778.71	39°31'36.8279"N	80°59'18.0442"W	15803.29	345.338	0.27	-0.03	0.27	
22225.00	90.680	341.880	5986.27	15855.89	15378.91	-4029.77	1643673.42	14353868.95	39°31'37.7201"N	80°59'18.4216"W	15898.11	345.317	0.21	0.20	0.05	
22319.00	90.980	341.780	5984.91	15949.87	15468.21	-4059.08	1643644.12	14353958.22	39°31'38.6028"N	80°59'18.7955"W	15991.93	345.296	0.34	0.32	-0.11	
22378.00	90.710	341.790	5984.04	16008.86	15524.25	-4077.52	1643625.69	14354014.23	39°31'39.1566"N	80°59'19.0307"W	16050.81	345.283	0.46	-0.46	0.02	
22403.00†	90.710	341.790	5983.73	16033.86	15548.00	-4085.33	1643617.88	14354037.97	39°31'39.3913"N	80°59'19.1304"W	16075.76	345.278	0.00	0.00	0.00	Projected MD at TD: 22403'

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HOLE & CASING SECTIONS - Ref Wellbore: Loki Unit 1H AWB Ref Wellpath: Loki Unit 1H AWP Proj: 22403'

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	0.00	0.00
17.5in Open Hole	130.00	375.00	245.00	130.00	374.99	0.33	-0.10	0.33	-0.10
13.375in Casing Surface	30.00	355.00	325.00	30.00	354.99	0.00	0.00	1.85	1.59
12.25in Open Hole	375.00	3100.00	2725.00	374.99	3042.31	1.85	1.59	-63.38	1.30
9.625in Casing Intermediate	30.00	3070.00	3040.00	30.00	3012.81	0.00	0.00	-63.15	512.08
8.75in Open Hole	3100.00	5365.00	2265.00	3042.31	5253.91	-63.38	512.08	-146.73	989.79
8.5in Open Hole	5365.00	22403.00	17038.00	5253.91	5983.73	-146.73	989.79	15548.00	-4085.33
5.5in Casing Production	30.00	22383.00	22353.00	30.00	5983.98	0.00	0.00	15529.00	-4079.09



Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'
Page 10 of 11



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION		
Field	Tyler	Well	Loki Unit 1H
Facility	Roma Lou Pad	API	47-095-02849-0000
Slot	Slot #07	Wellbore	Loki Unit 1H AWB

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Loki Unit 1H POE Rev-1	6050.00	351.24	1023.61	1648724.77	14338847.32	39°29'9.1850"N	80°58'13.9944"W	point
Loki Unit 1H AZI Rev-1	6092.00	1013.96	871.77	1648572.99	14339509.77	39°29'15.7354"N	80°58'15.9283"W	point
Loki Unit 1H BHL Rev-2	6092.00	15562.92	-4096.84	1643606.38	14354052.88	39°31'39.5388"N	80°59'19.2771"W	point
Loki Unit 1H LP Rev-1	6092.00	589.17	981.35	1648682.52	14339085.15	39°29'11.5367"N	80°58'14.5325"W	point
Loki Unit 1H 50' L/R Hard Line	6250.00	8288.44	-1612.53	1646089.68	14346781.33	39°30'27.6384"N	80°58'47.5937"W	rectangle
2D Rectangle 15374 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Loki Unit 1H AWB Ref Wellpath: Loki Unit 1H AWP Proj: 22403'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	263.00	Gyrodata 2015 - GC+WIR+DPIPE			
263.00	3025.00	BH NaviTrak (2019) (Axial Corr+HRGM)	01 Gyrodata MS Gyro <17-1/2"> (100'-263')	Loki Unit 1H AWB	5/17/2023
3025.00	5291.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (263')(417'-3025')	Loki Unit 1H AWB	5/17/2023
5291.00	22403.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	03 APS EM <8-3/4"> (3025')(3119'-5291')	Loki Unit 1H AWB	5/17/2023
			04 BH AT Curve <8-1/2"> (5291')(5340'-22378')	Loki Unit 1H AWB	5/17/2023

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Actual Wellpath Report

Loki Unit 1H AWP Proj: 22403'

Page 11 of 11



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION		
Field	Tyler	Well	Loki Unit 1H
Facility	Roma Lou Pad	API	47-095-02849-0000
Slot	Slot #07	Wellbore	Loki Unit 1H AWB

COMMENTS

Wellpath general comments
API: 47-095-02849-0000
BH Job #: 111790791
Rig: H&P 519
Duration: 5/18/2023-5/25/2023
Gyrodatta MS Gyro <17-1/2"> (100'-263')
APS EM <12-1/4"> (263')(417'-3025')
APS EM <8-3/4"> (3025')(3119'-5291')
BH AT Curve <8-1/2"> (5291')(5340'-22378')
Sycamore: 6019' MD
Middlesex: 6162' MD
Burkett: 6341' MD
Marcellus POE: 6411' MD
Projected MD at TD: 22403'

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