



# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Garmin Unit 1H
Field	Tyler	API	47-095-02598-0000
Facility	Sine Pad	Wellbore	Garmin Unit 1H AWB
Slot	Slot #05		

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	29/May/2020 at 15:25
Convergence at slot	0.03° 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	22.18	-160.91	1652493.03	14313083.25	39°24'54.4300"N	80°57'26.0700"W
Facility Reference Pt			1652653.87	14313061.08	39°24'54.2100"N	80°57'24.0200"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	30.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	829.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #05)	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	340.14°

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WELLPATH DATA (245 stations) † = interpolated, ‡ = extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	(°/100ft)	(°/100ft)	(°/100ft)	
0.00	0.000	230.400	0.00	0.00	0.00	0.00	1652493.03	14313083.25	39°24'54.4300"N	80°57'26.0700"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	230.400	30.00	0.00	0.00	0.00	1652493.03	14313083.25	39°24'54.4300"N	80°57'26.0700"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.010	230.400	100.00	0.00	0.00	0.00	1652493.02	14313083.25	39°24'54.4300"N	80°57'26.0701"W	0.01	230.400	0.01	0.01	0.00	Gyrodatta MS Gyro <17-1/2"> (100'-295')
200.00	0.250	339.670	200.00	0.21	0.20	-0.09	1652492.94	14313083.45	39°24'54.4319"N	80°57'26.0711"W	0.21	335.913	0.25	0.24	109.27	
295.00	0.290	14.290	295.00	0.62	0.62	-0.10	1652492.93	14313083.88	39°24'54.4362"N	80°57'26.0713"W	0.63	350.883	0.17	0.04	36.44	
414.00	0.330	130.780	414.00	0.57	0.69	0.23	1652493.26	14313083.94	39°24'54.4368"N	80°57'26.0670"W	0.73	18.718	0.44	0.03	97.89	APS EM <12-1/4"> (295')(414'-2624')
505.00	0.490	120.350	505.00	0.04	0.32	0.77	1652493.80	14313083.58	39°24'54.4332"N	80°57'26.0602"W	0.83	67.215	0.19	0.18	-11.46	
596.00	2.640	115.490	595.96	-1.75	-0.78	3.00	1652496.02	14313082.48	39°24'54.4223"N	80°57'26.0318"W	3.09	104.521	2.37	2.36	-5.34	
687.00	5.510	113.820	686.72	-6.26	-3.44	8.89	1652501.91	14313079.81	39°24'54.3959"N	80°57'25.9568"W	9.53	111.180	3.16	3.15	-1.84	
778.00	6.220	115.970	777.24	-12.81	-7.37	17.31	1652510.34	14313076.89	39°24'54.3571"N	80°57'25.8494"W	18.82	113.046	0.82	0.78	2.36	
869.00	5.000	116.060	867.80	-19.20	-11.27	25.31	1652518.33	14313071.99	39°24'54.3185"N	80°57'25.7476"W	27.70	113.998	1.34	-1.34	0.10	
959.00	3.930	118.170	957.53	-24.31	-14.45	31.55	1652524.57	14313068.81	39°24'54.2871"N	80°57'25.6681"W	34.70	114.601	1.20	-1.19	2.34	
1049.00	5.660	119.770	1047.21	-29.98	-18.11	38.12	1652531.14	14313065.15	39°24'54.2509"N	80°57'25.5844"W	42.20	115.405	1.93	1.92	1.78	
1144.00	9.970	121.190	1141.31	-39.95	-24.69	49.23	1652542.24	14313058.57	39°24'54.1857"N	80°57'25.4429"W	55.08	116.639	4.54	4.54	1.49	
1238.00	10.570	116.710	1233.80	-52.54	-32.78	63.89	1652556.90	14313050.48	39°24'54.1057"N	80°57'25.2561"W	71.81	117.162	1.06	0.64	-4.77	
1333.00	10.960	113.100	1327.13	-65.02	-40.24	79.98	1652572.98	14313043.03	39°24'54.0319"N	80°57'25.0512"W	89.54	116.709	0.82	0.41	-3.80	
1427.00	12.610	104.070	1419.15	-76.84	-46.24	98.16	1652591.15	14313037.03	39°24'53.9725"N	80°57'24.8196"W	108.51	115.226	2.63	1.76	-9.61	
1522.00	15.620	97.040	1511.28	-88.42	-50.33	120.92	1652613.90	14313032.94	39°24'53.9320"N	80°57'24.5297"W	130.98	112.600	3.64	3.17	-7.40	
1616.00	16.750	99.040	1601.55	-100.69	-54.01	146.86	1652639.82	14313029.26	39°24'53.8955"N	80°57'24.1992"W	156.47	110.194	1.34	1.20	2.13	
1710.00	17.110	104.830	1691.49	-115.11	-59.68	173.60	1652666.56	14313023.60	39°24'53.8393"N	80°57'23.8585"W	183.57	108.972	1.83	0.38	6.16	
1804.00	18.640	103.360	1780.95	-131.21	-66.69	201.59	1652694.53	14313016.59	39°24'53.7699"N	80°57'23.5019"W	212.33	108.306	1.70	1.63	-1.56	
1899.00	18.840	96.100	1870.92	-146.24	-71.83	231.61	1652724.55	14313011.45	39°24'53.7190"N	80°57'23.1194"W	242.50	107.230	2.46	0.21	-7.64	
1993.00	17.250	88.840	1960.31	-157.36	-73.16	260.65	1652753.57	14313010.12	39°24'53.7057"N	80°57'22.7495"W	270.72	105.679	2.93	-1.69	-7.72	
2088.00	15.520	85.060	2051.45	-165.15	-71.78	287.39	1652780.31	14313011.50	39°24'53.7192"N	80°57'22.4087"W	296.22	104.024	2.14	-1.82	-3.98	
2182.00	17.290	81.190	2141.62	-171.06	-68.56	313.73	1652806.63	14313014.72	39°24'53.7509"N	80°57'22.0731"W	321.13	102.327	2.21	1.88	-4.12	
2277.00	18.430	78.120	2232.04	-175.85	-63.31	342.38	1652835.27	14313019.97	39°24'53.8027"N	80°57'21.7081"W	348.18	100.476	1.56	1.20	-3.23	
2371.00	18.170	78.570	2321.29	-180.07	-57.34	371.28	1652864.16	14313025.93	39°24'53.8615"N	80°57'21.3397"W	375.69	98.780	0.31	-0.28	0.48	
2466.00	18.880	79.570	2411.37	-184.76	-51.62	400.92	1652893.79	14313031.65	39°24'53.9179"N	80°57'20.9621"W	404.23	97.337	0.82	0.75	1.05	
2560.00	20.000	82.220	2500.01	-190.61	-46.69	431.80	1652924.66	14313036.58	39°24'53.9664"N	80°57'20.5686"W	434.32	96.172	1.52	1.19	2.82	
2624.00	18.560	80.580	2580.42	-194.75	-43.55	452.70	1652945.54	14313039.72	39°24'53.9975"N	80°57'20.3023"W	454.79	95.495	2.40	-2.25	-2.56	

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Field	Tyler		API	47-095-02598-0000
Facility	Sine Pad		Wellbore	Garmin Unit 1H AWB
Slot	Slot #05			

WELLPATH DATA (245 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	("/100ft)	
2751.00	16.680	75.190	2681.46	-200.02	-35.58	490.26	1652983.09	14313047.69	39°24'54.0760"N	80°57'19.8236"W	491.55	94.151	1.96	-1.48	-4.24	APS EM <8-3/4"> (2624')(2751'-5495')
2846.00	17.170	79.090	2772.35	-203.40	-29.44	517.21	1653010.03	14313053.83	39°24'54.1366"N	80°57'19.4802"W	518.05	93.258	1.30	0.52	4.11	
2940.00	19.210	88.760	2861.67	-210.50	-26.48	546.31	1653039.12	14313056.79	39°24'54.1657"N	80°57'19.1095"W	546.95	92.775	3.87	2.17	10.29	
3035.00	20.810	93.610	2950.94	-222.21	-27.20	578.78	1653071.58	14313056.06	39°24'54.1584"N	80°57'18.6958"W	579.42	92.691	2.43	1.68	5.11	
3129.00	22.210	93.240	3038.39	-235.83	-29.26	613.19	1653105.97	14313054.01	39°24'54.1379"N	80°57'18.2574"W	613.88	92.732	1.50	1.49	-0.39	
3224.00	23.170	91.430	3126.04	-249.66	-30.74	649.80	1653142.56	14313052.53	39°24'54.1231"N	80°57'17.7910"W	650.52	92.708	1.25	1.01	-1.91	
3320.00	23.560	89.760	3214.16	-262.96	-31.13	687.86	1653180.61	14313052.14	39°24'54.1190"N	80°57'17.3060"W	688.57	92.591	0.80	0.41	-1.74	
3415.00	23.000	88.960	3301.43	-275.32	-30.71	725.41	1653218.14	14313052.55	39°24'54.1230"N	80°57'16.8276"W	726.06	92.424	0.68	-0.59	-0.84	
3509.00	22.070	88.870	3388.25	-286.92	-30.03	761.42	1653254.15	14313053.23	39°24'54.1295"N	80°57'16.3687"W	762.02	92.269	0.99	-0.99	-0.10	
3604.00	22.490	87.040	3476.16	-297.93	-28.74	797.41	1653290.12	14313054.52	39°24'54.1421"N	80°57'15.9101"W	797.93	92.064	0.85	0.44	-1.93	
3698.00	21.960	87.920	3563.18	-308.53	-27.17	832.93	1653325.63	14313056.09	39°24'54.1574"N	80°57'15.4575"W	833.38	91.869	0.67	-0.56	0.94	
3793.00	22.330	88.410	3651.17	-319.61	-26.03	868.73	1653361.40	14313057.23	39°24'54.1685"N	80°57'15.0015"W	869.12	91.716	0.44	0.39	0.52	
3887.00	21.100	84.750	3738.50	-329.47	-23.99	903.43	1653396.09	14313059.28	39°24'54.1886"N	80°57'14.5593"W	903.75	91.521	1.95	-1.31	-3.89	
3982.00	20.650	86.560	3827.26	-338.52	-21.42	937.18	1653429.83	14313061.85	39°24'54.2138"N	80°57'14.1293"W	937.42	91.309	0.83	-0.47	1.91	
4076.00	20.440	90.390	3915.29	-348.89	-20.53	970.14	1653462.78	14313062.73	39°24'54.2223"N	80°57'13.7094"W	970.36	91.212	1.45	-0.22	4.07	
4171.00	21.180	89.150	4004.09	-360.22	-20.39	1003.89	1653496.51	14313062.87	39°24'54.2236"N	80°57'13.2794"W	1004.09	91.164	0.91	0.78	-1.31	
4265.00	20.400	82.960	4091.98	-369.39	-18.13	1037.13	1653529.74	14313065.13	39°24'54.2457"N	80°57'12.8558"W	1037.29	91.002	2.48	-0.83	-6.59	
4360.00	19.970	86.040	4181.15	-377.51	-14.98	1069.75	1653562.34	14313068.28	39°24'54.2767"N	80°57'12.4402"W	1069.85	90.802	1.21	-0.45	3.24	
4455.00	21.520	88.090	4269.99	-387.32	-13.28	1103.35	1653595.93	14313069.98	39°24'54.2933"N	80°57'12.0120"W	1103.43	90.690	1.80	1.63	2.16	
4549.00	22.720	91.010	4357.07	-399.10	-13.03	1138.73	1653631.30	14313070.23	39°24'54.2957"N	80°57'11.5612"W	1138.81	90.655	1.73	1.28	3.11	
4644.00	22.560	88.750	4444.75	-411.46	-12.95	1175.29	1653667.85	14313070.31	39°24'54.2962"N	80°57'11.0954"W	1175.37	90.631	0.93	-0.17	-2.38	
4739.00	21.380	92.810	4532.86	-421.07	-10.39	1210.70	1653703.24	14313072.87	39°24'54.3214"N	80°57'10.6442"W	1210.74	90.491	2.65	-1.24	-6.25	
4833.00	20.320	76.960	4620.72	-426.77	-4.56	1243.60	1653736.13	14313078.70	39°24'54.3788"N	80°57'10.2250"W	1243.61	90.210	2.48	-1.13	-6.22	
4928.00	19.670	75.030	4709.99	-430.09	3.29	1275.12	1653767.63	14313086.55	39°24'54.4563"N	80°57'9.8234"W	1275.12	89.852	0.97	-0.68	-2.03	
5023.00	19.390	80.950	4799.53	-434.41	9.91	1306.14	1653798.64	14313093.15	39°24'54.5215"N	80°57'9.4280"W	1306.18	89.565	2.10	-0.29	6.23	
5117.00	20.060	85.520	4888.02	-441.61	13.62	1337.63	1653830.12	14313096.87	39°24'54.5580"N	80°57'9.0269"W	1337.69	89.417	1.79	0.71	4.86	
5212.00	19.770	88.840	4977.34	-451.09	15.22	1369.93	1653862.41	14313098.46	39°24'54.5736"N	80°57'8.6152"W	1370.02	89.364	1.23	-0.31	3.49	
5306.00	20.950	85.350	5065.47	-460.59	16.90	1402.58	1653895.04	14313100.15	39°24'54.5901"N	80°57'8.1993"W	1402.68	89.310	1.80	1.26	-3.71	
5401.00	20.840	83.490	5154.23	-468.95	20.19	1436.30	1653928.75	14313103.44	39°24'54.6225"N	80°57'7.7696"W	1436.44	89.194	0.71	-0.12	-1.96	
5495.00	20.740	80.660	5242.11	-475.85	24.79	1469.33	1653961.77	14313108.04	39°24'54.6677"N	80°57'7.3487"W	1469.54	89.033	1.07	-0.11	-3.01	

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[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
5539.00	20.610	79.140	5283.27	-478.48	27.51	1484.63	1653977.06	14313110.76	39°24'54.6946"N	80°57'7.1538"W	1484.88	88.938	1.25	-0.30	-3.45	BH AT Curve <8-1/2"> (5495')(5539'-2243?')
5616.00	20.650	78.430	5355.34	-482.56	32.79	1511.24	1654003.66	14313116.03	39°24'54.7466"N	80°57'6.8147"W	1511.59	88.757	0.33	0.05	-0.92	
5710.00	20.900	68.220	5443.25	-484.39	42.34	1543.06	1654035.46	14313125.58	39°24'54.8408"N	80°57'6.4092"W	1543.64	88.428	3.86	0.27	-10.86	
5804.00	23.570	55.470	5530.31	-479.06	59.23	1574.13	1654066.53	14313142.46	39°24'55.0075"N	80°57'6.0131"W	1575.25	87.845	5.85	2.84	-13.56	
5899.00	25.050	39.370	5616.98	-463.95	85.57	1602.57	1654094.96	14313168.79	39°24'55.2678"N	80°57'5.6506"W	1604.85	86.943	7.13	1.56	-16.95	
5993.00	27.790	27.530	5701.21	-438.91	120.42	1625.34	1654117.72	14313203.62	39°24'55.6120"N	80°57'5.3602"W	1629.80	85.763	6.30	2.91	-12.60	
6088.00	33.720	18.460	5782.86	-403.18	165.13	1643.96	1654136.32	14313248.32	39°24'56.0539"N	80°57'5.1228"W	1652.23	84.264	7.91	6.24	-9.55	
6183.00	41.400	8.550	5858.18	-354.74	221.34	1657.01	1654149.37	14313304.51	39°24'56.6094"N	80°57'4.9561"W	1671.73	82.391	10.26	8.08	-10.43	
6277.00	48.500	1.970	5924.70	-294.62	287.38	1662.85	1654155.21	14313370.52	39°24'57.2620"N	80°57'4.8812"W	1687.50	80.195	9.02	7.55	-7.00	
6301.00†	50.815	1.105	5940.23	-277.59	305.67	1663.34	1654155.70	14313388.80	39°24'57.4427"N	80°57'4.8749"W	1691.19	79.687	10.03	9.65	-3.61	Middlesex: 6301' MD
6371.00	57.600	358.870	5981.15	-224.20	362.41	1663.28	1654155.64	14313445.51	39°24'58.0035"N	80°57'4.8753"W	1702.30	77.708	10.03	9.69	-3.19	
6466.00	65.510	357.320	6026.37	-144.79	445.82	1660.46	1654152.82	14313528.89	39°24'58.8280"N	80°57'4.9106"W	1719.27	74.971	8.45	8.33	-1.63	
6468.00†	65.639	357.347	6027.20	-143.05	447.64	1660.38	1654152.74	14313530.71	39°24'58.8459"N	80°57'4.9116"W	1719.66	74.912	6.58	6.46	1.37	Burkett: 6468' MD
6528.00†	69.516	358.147	6050.08	-90.20	503.05	1658.20	1654150.56	14313586.10	39°24'59.3936"N	80°57'4.9390"W	1732.83	73.124	6.58	6.46	1.33	Tully: 6528' MD
6552.00†	71.068	358.456	6058.17	-68.73	525.63	1657.53	1654149.89	14313608.68	39°24'59.6168"N	80°57'4.9473"W	1738.88	72.405	6.58	6.47	1.28	Marcellus POE: 6552' MD
6561.00	71.650	358.570	6061.05	-60.64	534.16	1657.31	1654149.67	14313617.20	39°24'59.7011"N	80°57'4.9501"W	1741.27	72.136	6.58	6.47	1.27	
6655.00	78.570	359.650	6085.19	25.21	624.93	1655.91	1654148.28	14313707.94	39°25'0.5983"N	80°57'4.9673"W	1769.91	69.324	7.44	7.36	1.15	
6750.00	88.980	356.200	6095.48	115.01	719.17	1652.47	1654144.84	14313802.13	39°25'1.5296"N	80°57'5.0105"W	1802.18	66.481	11.54	10.96	-3.63	
6845.00	90.710	349.670	6095.74	207.60	813.39	1640.79	1654133.16	14313896.32	39°25'2.4609"N	80°57'5.1586"W	1831.34	63.631	7.11	1.82	-6.87	
6939.00	90.520	342.290	6094.73	301.04	904.52	1618.04	1654110.42	14313987.41	39°25'3.3618"N	80°57'5.4479"W	1853.70	60.794	7.85	-0.20	-7.85	
7034.00	90.580	338.400	6093.81	396.02	993.97	1586.09	1654078.48	14314076.82	39°25'4.2459"N	80°57'5.8544"W	1871.81	57.926	4.10	0.06	-4.09	
7128.00	90.680	339.730	6092.78	489.99	1081.75	1552.51	1654044.91	14314164.57	39°25'5.1138"N	80°57'6.2817"W	1892.21	55.132	1.42	0.11	1.41	
7223.00	90.770	341.350	6091.58	584.98	1171.32	1520.86	1654013.28	14314254.10	39°25'5.9991"N	80°57'6.6843"W	1919.64	52.398	1.71	0.09	1.71	
7318.00	90.580	343.300	6090.46	679.90	1261.82	1492.02	1653984.45	14314344.57	39°25'6.8938"N	80°57'7.0512"W	1954.05	49.778	2.06	-0.20	2.05	
7412.00	90.710	347.230	6089.40	773.50	1352.71	1468.12	1653960.56	14314435.42	39°25'7.7922"N	80°57'7.3551"W	1996.29	47.343	4.18	0.14	4.18	
7507.00	90.740	348.560	6088.20	867.62	1445.58	1448.20	1653940.65	14314528.26	39°25'8.7102"N	80°57'7.6083"W	2046.22	45.052	1.40	0.03	1.40	
7602.00	90.980	350.130	6086.77	961.38	1538.93	1430.64	1653923.09	14314621.57	39°25'9.6329"N	80°57'7.8315"W	2101.20	42.911	1.67	0.25	1.65	
7696.00	91.020	346.800	6085.13	1054.37	1631.01	1411.85	1653904.31	14314713.60	39°25'10.5431"N	80°57'8.0703"W	2157.20	40.880	3.54	0.04	-3.54	
7791.00	90.950	342.790	6083.50	1149.02	1722.65	1386.94	1653879.41	14314805.21	39°25'11.4489"N	80°57'8.3870"W	2211.59	38.838	4.22	-0.07	-4.22	
7886.00	91.050	339.070	6081.84	1243.98	1812.41	1355.91	1653848.39	14314894.93	39°25'12.3362"N	80°57'8.7818"W	2263.47	36.801	3.92	0.11	-3.92	

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# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Garmin Unit 1H
Field	Tyler	API	47-095-02598-0000
Facility	Sine Pad	Wellbore	Garmin Unit 1H AWB
Slot	Slot #05		

WELLPATH DATA (245 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
7980.00	90.830	339.140	6080.30	1337.95	1900.21	1322.39	1653814.89	14314982.70	39°25'13.2042"N	80°57'9.2084"W	2315.06	34.835	0.25	-0.23	0.07	
8075.00	90.950	338.520	6078.82	1432.92	1988.79	1288.09	1653780.60	14315071.24	39°25'14.0799"N	80°57'9.6449"W	2369.48	32.930	0.66	0.13	-0.65	
8170.00	90.890	335.650	6077.30	1527.76	2076.27	1251.10	1653743.63	14315158.69	39°25'14.9447"N	80°57'10.1155"W	2424.08	31.072	3.02	-0.06	-3.02	
8264.00	90.890	334.230	6075.84	1621.36	2161.41	1211.30	1653703.84	14315243.80	39°25'15.7863"N	80°57'10.6222"W	2477.69	29.267	1.51	0.00	-1.51	
8358.00	90.920	334.380	6074.35	1714.86	2246.11	1170.54	1653663.10	14315328.46	39°25'16.6236"N	80°57'11.1409"W	2532.82	27.526	0.16	0.03	0.16	
8453.00	90.950	334.210	6072.80	1809.35	2331.69	1129.34	1653621.92	14315414.01	39°25'17.4697"N	80°57'11.6653"W	2590.79	25.843	0.18	0.03	-0.18	
8547.00	90.890	335.470	6071.29	1902.94	2416.76	1089.39	1653581.98	14315499.04	39°25'18.3107"N	80°57'12.1739"W	2650.94	24.264	1.34	-0.06	1.34	
8642.00	90.860	338.050	6069.84	1997.75	2504.04	1051.91	1653544.51	14315586.28	39°25'19.1735"N	80°57'12.6509"W	2716.01	22.787	2.72	-0.03	2.72	
8736.00	90.890	338.730	6068.40	2091.70	2591.42	1017.29	1653509.91	14315673.63	39°25'20.0373"N	80°57'13.0914"W	2783.94	21.433	0.72	0.03	0.72	
8831.00	90.890	337.210	6066.93	2186.61	2679.47	981.67	1653474.30	14315761.65	39°25'20.9077"N	80°57'13.5448"W	2853.63	20.121	1.60	0.00	-1.60	
8926.00	90.830	336.530	6065.50	2281.45	2766.82	944.35	1653437.00	14315848.96	39°25'21.7713"N	80°57'14.0197"W	2923.54	18.845	0.72	-0.06	-0.72	
9020.00	90.800	336.820	6064.17	2375.27	2853.13	907.14	1653399.80	14315935.24	39°25'22.6245"N	80°57'14.4934"W	2993.87	17.638	0.31	-0.03	0.31	
9115.00	90.860	337.730	6062.79	2470.14	2940.75	870.44	1653363.12	14316022.82	39°25'23.4906"N	80°57'14.9604"W	3066.86	16.488	0.96	0.06	0.96	
9209.00	90.830	339.120	6061.40	2564.08	3028.15	835.88	1653328.57	14316110.18	39°25'24.3546"N	80°57'15.4003"W	3141.40	15.431	1.48	-0.03	1.48	
9304.00	90.830	342.130	6060.03	2659.06	3117.75	804.37	1653297.08	14316199.75	39°25'25.2404"N	80°57'15.8012"W	3219.84	14.467	3.17	0.00	3.17	
9398.00	90.580	341.430	6058.87	2753.01	3207.03	774.98	1653267.70	14316288.99	39°25'26.1229"N	80°57'16.1751"W	3299.34	13.585	0.79	-0.27	-0.74	
9493.00	90.890	339.290	6057.65	2848.00	3296.49	743.06	1653235.79	14316378.42	39°25'27.0072"N	80°57'16.5814"W	3379.20	12.703	2.28	0.33	-2.25	
9587.00	90.890	339.380	6056.19	2941.98	3384.43	709.89	1653202.63	14316466.32	39°25'27.8766"N	80°57'17.0035"W	3458.08	11.846	0.10	0.00	0.10	
9682.00	90.920	340.770	6054.69	3036.96	3473.73	677.52	1653170.27	14316555.59	39°25'28.7593"N	80°57'17.4154"W	3539.18	11.036	1.46	0.03	1.46	
9776.00	90.950	343.130	6053.16	3130.90	3563.09	648.40	1653141.17	14316644.91	39°25'29.6426"N	80°57'17.7859"W	3621.60	10.314	2.51	0.03	2.51	
9870.00	90.920	344.080	6051.62	3224.71	3653.25	621.87	1653114.65	14316735.04	39°25'30.5339"N	80°57'18.1234"W	3705.80	9.661	1.01	-0.03	1.01	
9965.00	90.800	342.750	6050.20	3319.54	3744.29	594.76	1653087.55	14316826.03	39°25'31.4338"N	80°57'18.4683"W	3791.23	9.026	1.41	-0.13	-1.40	
10060.00	90.920	342.130	6048.77	3414.46	3834.85	566.10	1653058.90	14316916.56	39°25'32.3290"N	80°57'18.8329"W	3876.41	8.397	0.66	0.13	-0.65	
10154.00	90.890	341.450	6047.29	3508.40	3924.13	536.73	1653029.54	14317005.81	39°25'33.2115"N	80°57'19.2067"W	3960.66	7.788	0.72	-0.03	-0.72	
10248.00	90.860	342.090	6045.85	3602.36	4013.40	507.33	1653000.15	14317095.04	39°25'34.0940"N	80°57'19.5808"W	4045.34	7.204	0.68	-0.03	0.68	
10343.00	90.950	342.020	6044.35	3697.29	4103.77	478.06	1652970.89	14317185.37	39°25'34.9873"N	80°57'19.9532"W	4131.52	6.645	0.12	0.09	-0.07	
10437.00	90.650	343.130	6043.04	3791.19	4193.44	449.91	1652942.76	14317275.01	39°25'35.8737"N	80°57'20.3113"W	4217.51	6.124	1.22	-0.32	1.18	
10532.00	90.680	343.630	6041.94	3886.04	4284.47	422.74	1652915.60	14317366.00	39°25'36.7735"N	80°57'20.6569"W	4305.27	5.635	0.53	0.03	0.53	
10626.00	90.710	344.240	6040.80	3979.82	4374.79	396.73	1652889.60	14317456.29	39°25'37.6663"N	80°57'20.9878"W	4392.74	5.182	0.65	0.03	0.65	
10720.00	90.650	344.200	6039.68	4073.58	4465.24	371.17	1652864.05	14317546.70	38°25'38.5604"N	80°57'21.3130"W	4480.64	4.752	0.08	-0.06	-0.04	

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# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Garmin Unit 1H
Field	Tyler	API	47-095-02598-0000
Facility	Sine Pad	Wellbore	Garmin Unit 1H AWB
Slot	Slot #05		

WELLPATH DATA (245 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
10815.00	90.400	343.790	6038.81	4168.36	4556.55	344.98	1652837.87	14317637.98	39°25'39.4630"N	80°57'21.6462"W	4569.60	4.330	0.51	-0.26	-0.43	
10909.00	90.460	343.200	6038.10	4262.19	4646.68	318.27	1652811.17	14317728.06	39°25'40.3539"N	80°57'21.9860"W	4657.57	3.918	0.63	0.06	-0.63	
11004.00	90.460	342.710	6037.34	4357.08	4737.50	290.43	1652783.34	14317818.85	39°25'41.2517"N	80°57'22.3403"W	4746.40	3.508	0.52	0.00	-0.52	
11099.00	90.370	339.070	6036.65	4452.05	4827.25	259.33	1652752.26	14317908.56	39°25'42.1389"N	80°57'22.7360"W	4834.21	3.075	3.83	-0.09	-3.83	
11193.00	90.370	337.200	6036.05	4545.99	4914.48	224.33	1652717.27	14317995.76	39°25'43.0012"N	80°57'23.1815"W	4919.60	2.614	1.99	0.00	-1.99	
11287.00	90.430	338.310	6035.39	4639.90	5001.48	188.74	1652681.70	14318082.73	39°25'43.8612"N	80°57'23.6345"W	5005.04	2.161	1.18	0.06	1.18	
11382.00	90.400	337.870	6034.70	4734.84	5089.62	153.30	1652646.26	14318170.83	39°25'44.7325"N	80°57'24.0857"W	5091.93	1.725	0.46	-0.03	-0.46	
11476.00	90.400	338.070	6034.04	4828.77	5176.75	118.04	1652611.02	14318257.93	39°25'45.5938"N	80°57'24.5345"W	5178.10	1.306	0.21	0.00	0.21	
11570.00	90.460	336.010	6033.34	4922.62	5263.30	81.37	1652574.37	14318344.44	39°25'46.4494"N	80°57'25.0012"W	5263.93	0.886	2.19	0.06	-2.19	
11665.00	90.000	335.550	6032.96	5017.35	5349.94	42.40	1652535.41	14318431.04	39°25'47.3058"N	80°57'25.4973"W	5350.10	0.454	0.68	-0.48	-0.48	
11760.00	90.090	336.420	6032.88	5112.10	5436.71	3.74	1652496.76	14318517.78	39°25'48.1637"N	80°57'25.9895"W	5436.71	0.039	0.92	0.09	0.92	
11854.00	90.150	338.050	6032.69	5205.97	5523.39	-32.63	1652460.41	14318604.42	39°25'49.0205"N	80°57'26.4525"W	5523.48	359.661	1.74	0.06	1.73	
11949.00	90.150	339.480	6032.44	5300.94	5611.93	-67.04	1652426.01	14318692.93	39°25'49.8958"N	80°57'26.8905"W	5612.33	359.316	1.51	0.00	1.51	
12044.00	90.370	338.760	6032.01	5395.92	5700.69	-100.90	1652392.17	14318781.65	39°25'50.7732"N	80°57'27.3214"W	5701.59	358.986	0.79	0.23	-0.76	
12139.00	90.370	338.990	6031.39	5490.90	5789.31	-135.14	1652357.94	14318870.23	39°25'51.6492"N	80°57'27.7572"W	5790.88	358.663	0.24	0.00	0.24	
12233.00	90.340	337.750	6030.81	5584.85	5876.68	-169.79	1652323.31	14318957.58	39°25'52.5129"N	80°57'28.1983"W	5879.14	358.345	1.32	-0.03	-1.32	
12328.00	90.580	337.200	6030.05	5679.74	5964.43	-206.18	1652286.93	14319045.29	39°25'53.3804"N	80°57'28.6616"W	5968.00	358.020	0.63	0.25	-0.58	
12422.00	90.460	339.680	6029.19	5773.69	6051.85	-240.72	1652252.41	14319132.67	39°25'54.2445"N	80°57'29.1012"W	6056.63	357.722	2.64	-0.13	2.64	
12517.00	90.370	339.210	6028.51	5868.68	6140.79	-274.07	1652219.07	14319221.58	39°25'55.1238"N	80°57'29.5258"W	6146.91	357.445	0.50	-0.09	-0.49	
12611.00	90.460	341.590	6027.83	5962.67	6229.34	-305.60	1652187.55	14319310.09	39°25'55.9990"N	80°57'29.9270"W	6236.83	357.191	2.53	0.10	2.53	
12706.00	90.490	342.670	6027.04	6057.61	6319.75	-334.75	1652158.41	14319400.47	39°25'56.8928"N	80°57'30.2980"W	6328.61	356.968	1.14	0.03	1.14	
12800.00	90.370	342.530	6026.33	6151.52	6409.45	-362.86	1652130.32	14319490.13	39°25'57.7794"N	80°57'30.6557"W	6419.71	356.760	0.20	-0.13	-0.15	
12895.00	90.340	341.860	6025.74	6246.46	6499.90	-391.91	1652101.28	14319580.54	39°25'58.6735"N	80°57'31.0254"W	6511.70	356.550	0.71	-0.03	-0.71	
12989.00	90.370	341.230	6025.16	6340.43	6589.06	-421.66	1652071.53	14319669.66	39°25'59.5548"N	80°57'31.4041"W	6602.54	356.338	0.67	0.03	-0.67	
13084.00	90.490	341.150	6024.45	6435.41	6678.98	-452.29	1652040.92	14319759.55	39°26'0.4437"N	80°57'31.7939"W	6694.28	356.126	0.15	0.13	-0.08	
13178.00	90.340	339.940	6023.77	6529.40	6767.61	-483.60	1652009.62	14319848.15	39°26'1.3198"N	80°57'32.1924"W	6784.87	355.913	1.30	-0.16	-1.29	
13273.00	89.940	338.680	6023.54	6624.39	6856.48	-517.16	1651976.07	14319936.98	39°26'2.1983"N	80°57'32.6197"W	6875.96	355.687	1.39	-0.42	-1.33	
13367.00	90.030	337.690	6023.56	6718.33	6943.75	-552.09	1651941.16	14320024.21	39°26'3.0610"N	80°57'33.0644"W	6965.66	355.454	1.06	0.10	-1.05	
13461.00	89.970	339.550	6023.56	6812.30	7031.28	-586.36	1651906.90	14320111.71	39°26'3.9262"N	80°57'33.5006"W	7055.68	355.233	1.98	-0.06	1.98	
13556.00	90.030	339.000	6023.56	6907.28	7120.13	-619.98	1651873.30	14320200.52	39°26'4.8046"N	80°57'33.9285"W	7147.07	355.024	0.58	0.06	-0.58	

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# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Garmin Unit 1H
Field	Tyler	API	47-095-02598-0000
Facility	Sine Pad	Wellbore	Garmin Unit 1H AWB
Slot	Slot #05		

WELLPATH DATA (245 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
13650.00	90.120	338.440	6023.44	7001.26	7207.72	-654.09	1651839.20	14320288.08	39°26'5.6704"N	80°57'34.3628"W	7237.34	354.815	0.60	0.10	-0.60	
13745.00	90.090	338.480	6023.26	7096.21	7296.09	-688.97	1651804.33	14320376.41	39°26'6.5439"N	80°57'34.8068"W	7328.54	354.606	0.05	-0.03	0.04	
13839.00	89.970	338.760	6023.21	7190.18	7383.62	-723.24	1651770.08	14320463.90	39°26'7.4092"N	80°57'35.2431"W	7418.95	354.406	0.32	-0.13	0.30	
13934.00	90.090	339.250	6023.16	7285.16	7472.31	-757.28	1651736.05	14320552.56	39°26'8.2859"N	80°57'35.6764"W	7510.58	354.213	0.53	0.13	0.52	
14028.00	90.000	340.390	6023.09	7379.16	7560.54	-789.71	1651703.64	14320640.75	39°26'9.1581"N	80°57'36.0892"W	7601.67	354.037	1.22	-0.10	1.21	
14123.00	90.060	340.840	6023.04	7474.16	7650.15	-821.24	1651672.12	14320730.33	39°26'10.0439"N	80°57'36.4905"W	7694.10	353.873	0.48	0.06	0.47	
14217.00	90.000	340.930	6022.99	7568.15	7738.97	-852.02	1651641.35	14320819.11	39°26'10.9219"N	80°57'36.8823"W	7785.73	353.717	0.12	-0.06	0.10	
14312.00	90.000	340.680	6022.99	7663.14	7828.69	-883.25	1651610.13	14320908.79	39°26'11.8087"N	80°57'37.2799"W	7878.35	353.563	0.26	0.00	-0.26	
14406.00	89.970	340.350	6023.02	7757.14	7917.30	-914.61	1651578.79	14320997.38	39°26'12.6847"N	80°57'37.6791"W	7969.96	353.410	0.35	-0.03	-0.35	
14501.00	90.000	340.210	6023.04	7852.14	8006.73	-946.66	1651546.75	14321086.77	39°26'13.5687"N	80°57'38.0871"W	8062.50	353.257	0.15	0.03	-0.15	
14596.00	90.030	340.010	6023.02	7947.14	8096.06	-978.98	1651514.44	14321176.07	39°26'14.4518"N	80°57'38.4985"W	8155.04	353.105	0.21	0.03	-0.21	
14690.00	90.090	341.120	6022.92	8041.13	8184.71	-1010.26	1651483.17	14321264.67	39°26'15.3280"N	80°57'38.8967"W	8246.82	352.963	1.18	0.06	1.18	
14785.00	90.120	341.630	6022.74	8136.11	8274.73	-1040.60	1651452.85	14321354.66	39°26'16.2179"N	80°57'39.2829"W	8339.91	352.832	0.54	0.03	0.54	
14880.00	90.060	341.650	6022.59	8231.08	8364.90	-1070.52	1651422.93	14321444.79	39°26'17.1091"N	80°57'39.6638"W	8433.12	352.707	0.07	-0.06	0.02	
14975.00	90.030	341.250	6022.52	8326.05	8454.96	-1100.75	1651392.72	14321534.82	39°26'17.9994"N	80°57'40.0485"W	8526.31	352.582	0.42	-0.03	-0.42	
15069.00	90.030	342.250	6022.47	8420.02	8544.23	-1130.18	1651363.30	14321624.05	39°26'18.8818"N	80°57'40.4232"W	8618.65	352.465	1.06	0.00	1.06	
15164.00	89.910	341.490	6022.52	8514.97	8634.51	-1159.74	1651333.75	14321714.30	39°26'19.7743"N	80°57'40.7995"W	8712.05	352.350	0.81	-0.13	-0.80	
15258.00	90.060	339.820	6022.54	8608.96	8723.20	-1190.88	1651302.62	14321802.95	39°26'20.6510"N	80°57'41.1958"W	8804.12	352.226	1.78	0.16	-1.78	
15352.00	89.880	340.190	6022.59	8702.96	8811.54	-1223.02	1651270.50	14321891.25	39°26'21.5241"N	80°57'41.6050"W	8896.01	352.098	0.44	-0.19	0.39	
15447.00	89.880	339.180	6022.79	8797.96	8900.63	-1256.01	1651237.53	14321980.30	39°26'22.4048"N	80°57'42.0249"W	8988.81	351.968	1.06	0.00	-1.06	
15542.00	89.820	337.580	6023.04	8892.91	8988.94	-1291.01	1651202.54	14322068.58	39°26'23.2778"N	80°57'42.4706"W	9081.17	351.827	1.69	-0.06	-1.68	
15636.00	89.880	337.230	6023.29	8986.80	9075.72	-1327.12	1651166.44	14322155.33	39°26'24.1357"N	80°57'42.9304"W	9172.24	351.681	0.38	0.06	-0.37	
15731.00	89.880	336.990	6023.49	9081.67	9163.24	-1364.07	1651129.50	14322242.81	39°26'25.0008"N	80°57'43.4009"W	9264.22	351.533	0.25	0.00	-0.25	
15825.00	89.750	336.180	6023.79	9175.49	9249.50	-1401.43	1651092.16	14322329.04	39°26'25.8535"N	80°57'43.8766"W	9355.07	351.384	0.87	-0.14	-0.86	
15920.03	89.540	336.550	6024.38	9270.31	9336.56	-1439.53	1651054.08	14322416.06	39°26'26.7141"N	80°57'44.3617"W	9446.88	351.235	0.45	-0.22	0.39	
16014.00	89.540	337.160	6025.13	9364.12	9422.96	-1476.46	1651017.16	14322502.43	39°26'27.5682"N	80°57'44.8320"W	9537.93	351.095	0.65	0.00	0.65	
16109.00	89.540	339.870	6025.90	9459.07	9511.35	-1511.25	1650982.38	14322590.78	39°26'28.4419"N	80°57'45.2750"W	9630.66	350.972	2.85	0.00	2.85	
16203.00	89.660	342.110	6026.55	9553.05	9600.21	-1541.87	1650951.78	14322679.61	39°26'29.3203"N	80°57'45.6647"W	9723.24	350.876	2.39	0.13	2.38	
16298.00	89.820	343.070	6026.98	9647.97	9690.86	-1570.29	1650923.37	14322770.22	39°26'30.2163"N	80°57'46.0266"W	9817.26	350.796	1.02	0.17	1.01	
16392.00	89.600	342.750	6027.46	9741.85	9780.71	-1597.91	1650895.76	14322860.03	39°26'31.1045"N	80°57'46.3782"W	9910.38	350.721	0.41	-0.23	-0.34	

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# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Garmin Unit 1H
Field	Tyler	API	47-095-02598-0000
Facility	Sine Pad	Wellbore	Garmin Unit 1H AWB
Slot	Slot #05		

WELLPATH DATA (245 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
16486.00	89.660	343.100	6028.07	9835.74	9870.56	-1625.51	1650868.17	14322949.85	39°26'31.9926"N	80°57'46.7295"W	10003.51	350.648	0.38	0.06	0.37	
16581.00	89.480	343.290	6028.78	9930.60	9961.50	-1652.98	1650840.71	14323040.75	39°26'32.8916"N	80°57'47.0791"W	10097.72	350.578	0.28	-0.19	0.20	
16675.00	89.660	343.650	6029.49	10024.44	10051.62	-1679.72	1650813.98	14323130.83	39°26'33.7823"N	80°57'47.4195"W	10191.00	350.513	0.43	0.19	0.38	
16769.00	90.120	342.880	6029.67	10118.30	10141.63	-1706.79	1650786.92	14323220.81	39°26'34.6721"N	80°57'47.7640"W	10284.25	350.447	0.95	0.49	-0.82	
16864.00	91.350	343.280	6028.45	10213.17	10232.51	-1734.44	1650759.29	14323311.65	39°26'35.5704"N	80°57'48.1160"W	10378.47	350.380	1.36	1.29	0.42	
16958.00	89.570	340.140	6027.69	10307.11	10321.74	-1763.93	1650729.81	14323400.85	39°26'36.4524"N	80°57'48.4914"W	10471.38	350.302	3.84	-1.89	-3.34	
17053.00	90.180	340.030	6027.90	10402.11	10411.06	-1796.29	1650697.46	14323490.13	39°26'37.3353"N	80°57'48.9034"W	10564.89	350.211	0.65	0.64	-0.12	
17147.00	89.510	337.560	6028.15	10496.08	10498.69	-1830.29	1650663.48	14323577.73	39°26'38.2015"N	80°57'49.3363"W	10657.04	350.111	2.72	-0.71	-2.63	
17242.00	89.630	337.390	6028.87	10590.97	10586.44	-1866.68	1650627.10	14323665.44	39°26'39.0690"N	80°57'49.7998"W	10749.75	350.000	0.22	0.13	-0.18	
17336.00	89.720	338.080	6029.40	10684.89	10673.43	-1902.29	1650591.50	14323752.40	39°26'39.9289"N	80°57'50.2533"W	10841.63	349.894	0.74	0.10	0.73	
17431.00	89.630	338.790	6029.94	10779.84	10761.78	-1937.21	1650556.60	14323840.71	39°26'40.8022"N	80°57'50.6979"W	10934.75	349.796	0.75	-0.09	0.75	
17525.00	89.140	339.490	6030.95	10873.82	10849.61	-1970.68	1650523.14	14323928.51	39°26'41.6704"N	80°57'51.1241"W	11027.13	349.705	0.91	-0.52	0.74	
17620.00	89.380	340.470	6032.17	10968.81	10938.86	-2003.20	1650490.63	14324017.72	39°26'42.5526"N	80°57'51.5382"W	11120.77	349.623	1.06	0.25	1.03	
17714.00	89.260	342.250	6033.29	11062.78	11027.92	-2033.24	1650460.60	14324106.74	39°26'43.4330"N	80°57'51.9207"W	11213.79	349.554	1.90	-0.13	1.89	
17808.00	89.320	342.200	6034.46	11156.71	11117.43	-2061.94	1650431.92	14324196.21	39°26'44.3177"N	80°57'52.2860"W	11307.02	349.493	0.08	0.06	-0.05	
17903.00	89.200	342.860	6035.68	11251.62	11208.04	-2090.45	1650403.42	14324286.79	39°26'45.2134"N	80°57'52.6490"W	11401.32	349.435	0.71	-0.13	0.69	
17997.00	89.320	343.130	6036.90	11345.50	11297.92	-2117.94	1650375.94	14324376.63	39°26'46.1018"N	80°57'52.9990"W	11494.72	349.382	0.31	0.13	0.29	
18092.00	89.350	343.600	6038.00	11440.34	11388.94	-2145.14	1650348.75	14324467.61	39°26'47.0015"N	80°57'53.3451"W	11589.20	349.333	0.50	0.03	0.49	
18186.00	89.450	343.170	6038.98	11534.18	11479.01	-2172.01	1650321.89	14324557.65	39°26'47.8918"N	80°57'53.6873"W	11682.69	349.285	0.47	0.11	-0.46	
18280.00	89.230	341.760	6040.07	11628.10	11568.63	-2200.33	1650293.58	14324647.24	39°26'48.7777"N	80°57'54.0478"W	11776.02	349.231	1.52	-0.23	-1.50	
18375.00	89.350	340.500	6041.24	11723.07	11658.52	-2231.05	1650262.87	14324737.09	39°26'49.6662"N	80°57'54.4390"W	11870.07	349.166	1.33	0.13	-1.33	
18469.00	89.750	338.490	6041.98	11817.06	11746.55	-2263.98	1650229.96	14324825.09	39°26'50.5364"N	80°57'54.8583"W	11962.74	349.091	2.18	0.43	-2.14	
18564.00	89.820	337.820	6042.34	11912.00	11834.73	-2299.33	1650194.63	14324913.23	39°26'51.4081"N	80°57'55.3084"W	12056.03	349.005	0.71	0.07	-0.71	
18658.00	89.850	336.060	6042.61	12005.85	11921.22	-2336.14	1650157.82	14324999.68	39°26'52.2630"N	80°57'55.7773"W	12147.96	348.913	1.87	0.03	-1.87	
18753.00	89.510	335.530	6043.14	12100.58	12007.86	-2375.09	1650118.89	14325086.29	39°26'53.1195"N	80°57'56.2734"W	12240.50	348.812	0.66	-0.36	-0.56	
18847.00	89.660	336.640	6043.82	12194.34	12093.79	-2413.20	1650080.80	14325172.18	39°26'53.9689"N	80°57'56.7587"W	12332.20	348.715	1.19	0.16	1.18	
18942.00	89.540	338.630	6044.48	12289.24	12181.64	-2449.34	1650044.67	14325259.99	39°26'54.8372"N	80°57'57.2190"W	12425.44	348.631	2.10	-0.13	2.09	
19036.00	89.600	339.730	6045.19	12383.22	12269.49	-2482.75	1650011.27	14325347.82	39°26'55.7057"N	80°57'57.6445"W	12518.17	348.561	1.17	0.06	1.17	
19131.00	89.630	341.150	6045.83	12478.21	12359.01	-2514.56	1649979.48	14325437.30	39°26'56.5905"N	80°57'58.0495"W	12612.22	348.500	1.50	0.03	1.49	
19225.00	89.780	341.950	6046.31	12572.18	12448.17	-2544.30	1649949.75	14325526.43	39°26'57.4719"N	80°57'58.4283"W	12705.53	348.448	0.87	0.16	0.85	





# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'

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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Garmin Unit 1H
Field	Tyler		API	47-095-02598-0000
Facility	Sine Pad		Wellbore	Garmin Unit 1H AWB
Slot	Slot #05			

WELLPATH DATA (245 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	
19320.00	89.750	341.540	6046.70	12667.15	12538.39	-2574.06	1649920.00	14325616.61	39°26'58.3637"N	80°57'58.8072"W	12799.89	348.399	0.43	-0.03	-0.43		
19414.00	90.090	342.060	6046.83	12761.11	12627.69	-2603.42	1649890.65	14325705.87	39°26'59.2464"N	80°57'59.1810"W	12893.27	348.351	0.66	0.36	0.55		
19508.00	90.120	341.810	6046.66	12855.06	12717.06	-2632.57	1649861.52	14325795.20	39°27'0.1297"N	80°57'59.5522"W	12986.68	348.304	0.27	0.03	-0.27		
19603.00	90.220	341.410	6046.38	12950.03	12807.20	-2662.54	1649831.56	14325885.31	39°27'1.0208"N	80°57'59.9338"W	13081.04	348.256	0.43	0.11	-0.42		
19697.00	90.120	341.330	6046.10	13044.01	12896.28	-2692.57	1649801.54	14325974.35	39°27'1.9013"N	80°58'0.3162"W	13174.37	348.207	0.14	-0.11	-0.09		
19792.00	90.060	341.750	6045.95	13138.98	12986.39	-2722.65	1649771.47	14326064.42	39°27'2.7920"N	80°58'0.6992"W	13268.73	348.159	0.45	-0.06	0.44		
19886.00	90.150	341.700	6045.78	13232.94	13075.65	-2752.13	1649742.01	14326153.65	39°27'3.6743"N	80°58'1.0746"W	13362.14	348.114	0.11	0.10	-0.05		
19981.00	90.120	342.300	6045.55	13327.89	13166.00	-2781.48	1649712.66	14326243.96	39°27'4.5673"N	80°58'1.4484"W	13456.60	348.071	0.63	-0.03	0.63		
20075.00	90.150	342.260	6045.33	13421.82	13255.54	-2810.09	1649684.06	14326333.46	39°27'5.4524"N	80°58'1.8127"W	13550.12	348.031	0.05	0.03	-0.04		
20170.00	90.430	341.140	6044.85	13516.79	13345.73	-2839.92	1649654.25	14326423.62	39°27'6.3439"N	80°58'2.1925"W	13644.55	347.987	1.22	0.29	-1.18		
20264.00	90.370	340.940	6044.20	13610.77	13434.63	-2870.46	1649623.72	14326512.48	39°27'7.2227"N	80°58'2.5814"W	13737.86	347.939	0.22	-0.06	-0.21		
20359.00	90.490	341.660	6043.48	13705.75	13524.61	-2900.92	1649593.27	14326602.43	39°27'8.1121"N	80°58'2.9693"W	13832.22	347.894	0.77	0.13	0.76		
20453.00	90.520	342.360	6042.65	13799.70	13614.01	-2929.95	1649564.26	14326691.79	39°27'8.9958"N	80°58'3.3390"W	13925.73	347.854	0.75	0.03	0.74		
20548.00	90.580	341.660	6041.74	13894.64	13704.36	-2959.29	1649534.93	14326782.11	39°27'9.8889"N	80°58'3.7126"W	14020.23	347.815	0.74	0.06	-0.74		
20642.00	90.430	341.310	6040.91	13988.61	13793.49	-2989.14	1649505.09	14326871.20	39°27'10.7699"N	80°58'4.0927"W	14113.66	347.773	0.41	-0.16	-0.37		
20737.00	90.460	339.800	6040.18	14083.60	13883.07	-3020.76	1649473.48	14326960.74	39°27'11.6553"N	80°58'4.4954"W	14207.91	347.725	1.59	0.03	-1.59		
20832.00	90.490	338.210	6039.39	14178.58	13971.75	-3054.80	1649439.46	14327049.39	39°27'12.5320"N	80°58'4.9289"W	14301.81	347.667	1.67	0.03	-1.67		
20926.00	90.250	337.150	6038.78	14272.49	14058.71	-3090.49	1649403.77	14327136.31	39°27'13.3915"N	80°58'5.3836"W	14394.39	347.602	1.16	-0.26	-1.13		
21021.00	90.090	336.840	6038.50	14367.34	14146.15	-3127.62	1649366.66	14327223.72	39°27'14.2559"N	80°58'5.8565"W	14487.78	347.533	0.37	-0.17	-0.33		
21115.00	90.090	336.690	6038.35	14461.18	14232.53	-3164.71	1649329.59	14327310.06	39°27'15.1097"N	80°58'6.3289"W	14580.13	347.464	0.16	0.00	-0.16		
21210.00	90.220	336.580	6038.09	14556.00	14319.74	-3202.38	1649291.93	14327397.24	39°27'15.9718"N	80°58'6.8088"W	14673.45	347.394	0.18	0.14	-0.12		
21304.00	90.090	337.040	6037.84	14649.84	14406.14	-3239.40	1649254.93	14327483.61	39°27'16.8259"N	80°58'7.2803"W	14765.86	347.327	0.51	-0.14	0.49		
21399.00	90.120	337.690	6037.67	14744.73	14493.83	-3275.96	1649218.39	14327571.25	39°27'17.6926"N	80°58'7.7460"W	14859.44	347.264	0.68	0.03	0.68		
21494.00	90.120	339.550	6037.47	14839.69	14582.28	-3310.59	1649183.77	14327659.68	39°27'18.5670"N	80°58'8.1871"W	14953.36	347.209	1.96	0.00	1.96		
21589.00	90.120	340.860	6037.27	14934.69	14671.67	-3342.76	1649151.61	14327749.03	39°27'19.4505"N	80°58'8.5969"W	15047.65	347.165	1.38	0.00	1.38		
21684.00	90.090	341.610	6037.09	15029.67	14761.62	-3373.32	1649121.06	14327838.94	39°27'20.3396"N	80°58'8.9861"W	15142.15	347.128	0.79	-0.03	0.79		
21779.00	90.120	340.850	6036.92	15124.65	14851.56	-3403.89	1649090.51	14327928.85	39°27'21.2287"N	80°58'9.3754"W	15236.65	347.091	0.80	0.03	-0.80		
21873.00	90.180	340.460	6036.67	15218.65	14940.26	-3435.03	1649059.38	14328017.51	39°27'22.1054"N	80°58'9.7720"W	15330.06	347.052	0.42	0.06	-0.41		
21968.00	90.250	339.900	6036.32	15313.65	15029.63	-3467.24	1649027.18	14328106.84	39°27'22.9888"N	80°58'10.1822"W	15424.38	347.010	0.59	0.07	-0.59		
22063.00	90.180	341.050	6035.96	15408.64	15119.16	-3498.99	1648995.45	14328196.34	39°27'23.8738"N	80°58'10.5866"W	15518.76	346.970	1.21	-0.07	1.21		

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# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Garmin Unit 1H
Field	Tyler	API	47-095-02598-0000
Facility	Sine Pad	Wellbore	Garmin Unit 1H AWB
Slot	Slot #05		

WELLPATH DATA (245 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
22158.00	90.060	341.680	6035.76	15503.62	15209.18	-3529.34	1648965.10	14328286.32	39°27'24.7636"N	80°58'10.9732"W	15613.31	346.936	0.68	-0.13	0.66	
22252.00	90.150	341.940	6035.59	15597.58	15298.48	-3558.69	1648935.77	14328375.59	39°27'25.6463"N	80°58'11.3469"W	15706.94	346.905	0.29	0.10	0.28	
22347.00	90.280	342.630	6035.23	15692.51	15388.98	-3587.59	1648906.88	14328466.05	39°27'26.5408"N	80°58'11.7151"W	15801.63	346.877	0.74	0.14	0.73	
22437.00	90.150	343.430	6034.90	15782.40	15475.06	-3613.86	1648880.62	14328552.09	39°27'27.3917"N	80°58'12.0496"W	15891.43	346.855	0.90	-0.14	0.89	
22462.00‡	90.150	343.430	6034.83	15807.36	15499.02	-3620.99	1648873.49	14328576.05	39°27'27.6285"N	80°58'12.1404"W	15916.38	346.850	0.00	0.00	0.00	Projected MD at TD: 22462'

HOLE & CASING SECTIONS - Ref Wellbore: Garmin Unit 1H AWB Ref Wellpath: Garmin Unit 1H AWP Proj: 22462'										
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	110.00	80.00	30.00	110.00	0.00	0.00	0.00	-0.01	
17.5in Open Hole	110.00	371.30	261.30	110.00	371.30	0.00	-0.01	0.78	0.07	
13.375in Casing Surface	30.00	371.30	341.30	30.00	371.30	0.00	0.00	0.78	0.07	
12.25in Open Hole	371.30	2696.00	2324.70	371.30	2628.89	0.78	0.07	-39.36	474.56	
9.625in Casing Intermediate	30.00	2675.50	2645.50	30.00	2609.35	0.00	0.00	-40.64	468.49	
8.75in Open Hole	2696.00	5563.00	2867.00	2628.89	5305.74	-39.36	474.56	29.12	1492.92	
8.5in Open Hole	5563.00	22462.00	16899.00	5305.74	6034.83	29.12	1492.92	15499.02	-3620.99	
5.5in Casing Production	30.00	22462.00	22432.00	30.00	6034.83	0.00	0.00	15499.02	-3620.99	

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# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Garmin Unit 1H
Field	Tyler	API	47-095-02598-0000
Facility	Sine Pad	Wellbore	Garmin Unit 1H AWB
Slot	Slot #05		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Garmin Unit 1H - POE - Plat	6057.00	554.97	1761.68	1654254.00	14313638.00	39°24'59.9062"N	80°57'3.6201"W	point
Garmin Unit 1H - POE - Rev-3	6064.00	536.60	1665.57	1654157.93	14313619.64	39°24'59.7252"N	80°57'4.8448"W	point
Garmin Unit 1H - BHL - Plat	6093.00	15506.98	-3640.49	1648854.00	14328584.00	39°27'27.7072"N	80°58'12.3890"W	point
Garmin Unit 1H - BHL - Rev-2	6100.00	15521.72	-3644.42	1648850.07	14328598.74	39°27'27.8530"N	80°58'12.4390"W	point
Garmin Unit 1H - LP - Rev-2	6100.00	759.14	1638.25	1654130.62	14313842.09	39°25'1.9248"N	80°57'5.1915"W	point

WELLPATH COMPOSITION - Ref Wellbore: Garmin Unit 1H AWB Ref Wellpath: Garmin Unit 1H AWP Proj: 22462'						
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date	
30.00	295.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2">(100'-295')	Garmin Unit 1H AWB	29/Apr/2020	
295.00	2624.00	BH NaviTrak (2019) (Axial)	02 APS EM <12-1/4">(295')(414'-2624')	Garmin Unit 1H AWB	29/Apr/2020	
2624.00	5495.00	BH NaviTrak (2019) (Axial)	03 APS EM <8-3/4">(2624')(2751'-5495')	Garmin Unit 1H AWB	29/Apr/2020	
5495.00	22462.00	BH AutoTrak Curve (2019) (Short spacing)	04 BH AT Curve <8-1/2">(5495')(5539'-22437')	Garmin Unit 1H AWB	29/Apr/2020	





# Actual Wellpath Report

Garmin Unit 1H AWP Proj: 22462'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Garmin Unit 1H
Field	Tyler	API	47-095-02598-0000
Facility	Sine Pad	Wellbore	Garmin Unit 1H AWB
Slot	Slot #05		

COMMENTS
<p><b>Wellpath general comments</b> API: 47-095-02598-0000 BH Job #: 110401688-B Rig: H&amp;P 519 Duration: 5/1/2020-5/24/2020 Gyrodatta MS Gyro &lt;17-1/2"&gt; (100'-295') APS EM &lt;12-1/4"&gt; (295')(414'-2624') APS EM &lt;8-3/4"&gt; (2624')(2751'-5495') BH AT Curve &lt;8-1/2"&gt; (5495')(5539'-22437') Middlesex: 6301' MD Burkett: 6468' MD Tully: 6528' MD Marcellus POE: 6552' MD Projected MD at TD: 22462'</p>

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# ANTERO RESOURCES CORPORATION

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

Slot: Slot #05  
Well: Garmin Unit 1H  
Wellbore: Garmin Unit 1H PWB

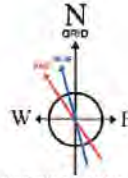
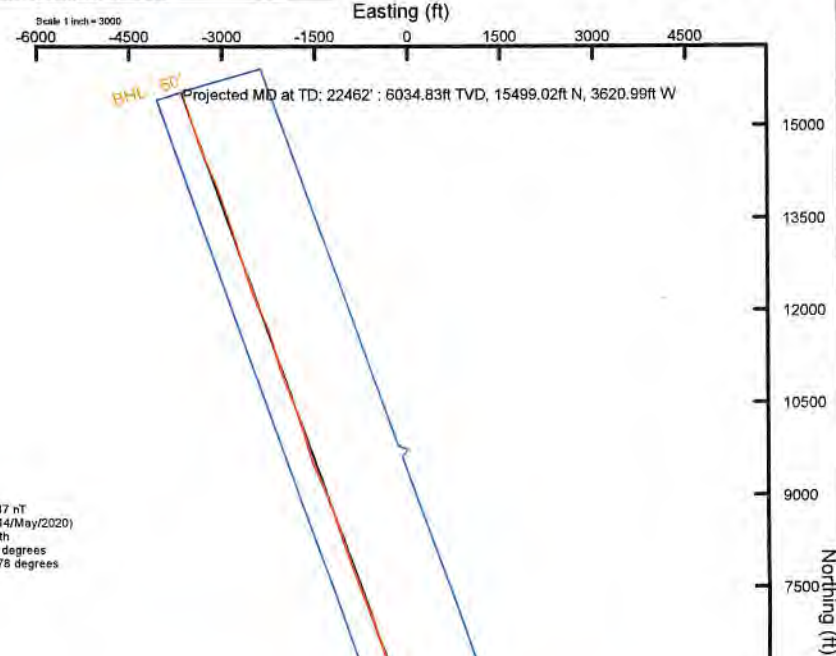


Plot reference wellpath in Garmin Unit 1H PWP Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depth: see referenced to H&P 519 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 829 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot #05): -799 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edward on 2020-05-29, Database: WA_MPL_EASTERN&S_Defn

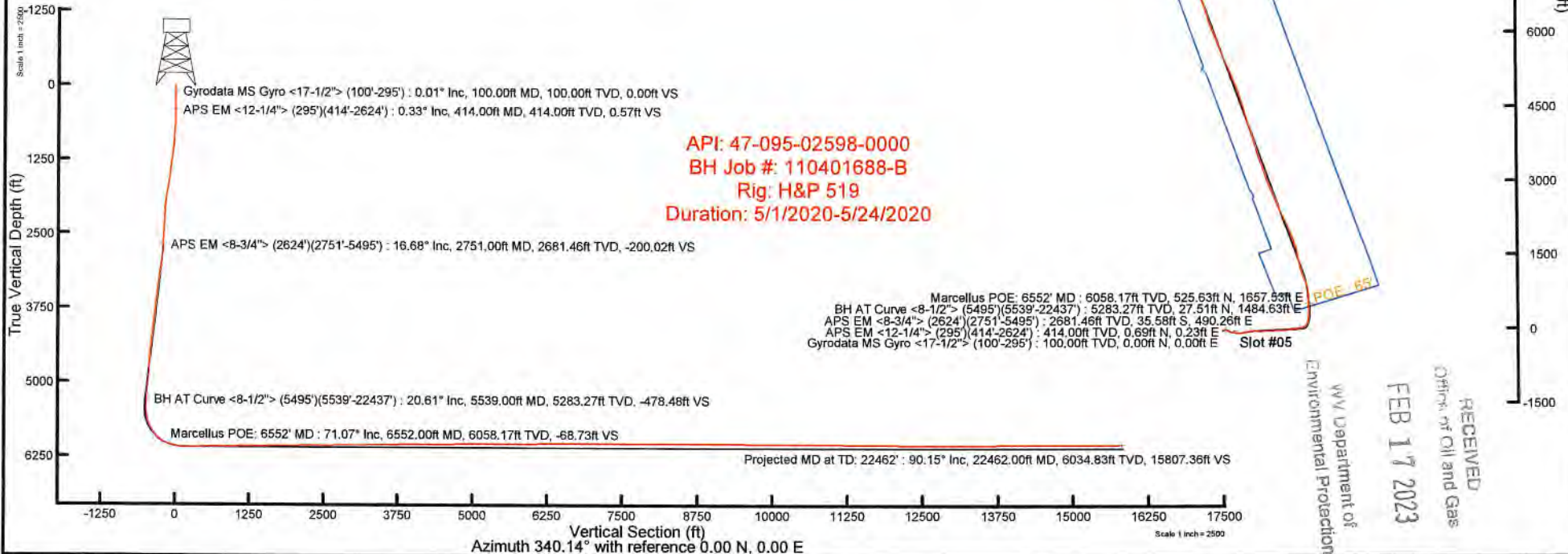
Location Information						
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Sine Pad		1652653.868	14313061.080	39°24'54.2100"N	80°57'24.0200"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #05	22.18	-160.91	1652493.028	14313063.254	39°24'54.4300"N	80°57'26.0700"W
H&P 519 (RKB) to Ground level (At Slot: Slot #05)		30ft				
Mean Sea Level to Ground level (At Slot: Slot #05)		-799ft				
H&P 519 (RKB) to Mean Sea Level		829ft				

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	2624.00	18.560	80.580	2560.42	-43.55	452.70	2.40	-194.75
Proj. To Bottom	2696.00	18.560	80.580	2628.67	-39.80	475.31	0.00	-198.90
Drill Out Csg.	2796.00	18.560	80.580	2723.47	-34.59	506.71	0.00	-204.67
Hold Tangent	2971.78	21.176	87.509	2888.79	-28.63	566.04	2.00	-219.22
Curve KOP	5647.66	21.176	87.509	5383.99	13.38	1531.74	0.00	-507.78
POE	6580.62	71.757	353.000	6064.00	536.60	1665.57	8.00	-81.15
Landing Pt.	6808.66	90.000	353.000	6100.00	759.14	1638.25	8.00	157.44
On Azimuth	7237.49	90.000	340.135	6100.00	1175.36	1538.84	3.00	582.68
BHL	22491.48	90.000	340.135	6100.00	15521.72	-3644.42	0.00	15836.67

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #05	Garmin Unit 1H	Garmin Unit 1H AWB	Garmin Unit 1H AWP Proj. 22462'
Slot #05	Garmin Unit 1H	Garmin Unit 1H PWB	Garmin Unit 1H PWP Rev-B.0



User specified (HDGM) Dip: 66.39° Field: 51647 nT  
 Magnetic North is 7.75 degrees West of True North (at 14/May/2020)  
 Grid North is 0.03 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.03 degrees  
 To correct azimuth from Magnetic to Grid subtract 7.78 degrees



API: 47-095-02598-0000  
 BH Job #: 110401688-B  
 Rig: H&P 519  
 Duration: 5/1/2020-5/24/2020

Gyrodata MS Gyro <17-1/2"> (100'-295') : 0.01° Inc, 100.00ft MD, 100.00ft TVD, 0.00ft VS  
 APS EM <12-1/4"> (295')(414'-2624') : 0.33° Inc, 414.00ft MD, 414.00ft TVD, 0.57ft VS

APS EM <8-3/4"> (2624')(2751'-5495') : 16.68° Inc, 2751.00ft MD, 2681.46ft TVD, -200.02ft VS

BH AT Curve <8-1/2"> (5495')(5539'-22437') : 20.61° Inc, 5539.00ft MD, 5283.27ft TVD, -478.48ft VS

Marcellus POE: 6552' MD : 71.07° Inc, 6552.00ft MD, 6058.17ft TVD, -68.73ft VS

Marcellus POE: 6552' MD : 6058.17ft TVD, 525.63ft N, 1657.53ft E  
 BH AT Curve <8-1/2"> (5495')(5539'-22437') : 5283.27ft TVD, 27.51ft N, 1484.63ft E  
 APS EM <8-3/4"> (2624')(2751'-5495') : 2681.46ft TVD, 35.58ft S, 490.26ft E  
 APS EM <12-1/4"> (295')(414'-2624') : 414.00ft TVD, 0.69ft N, 0.23ft E  
 Gyrodata MS Gyro <17-1/2"> (100'-295') : 100.00ft TVD, 0.00ft N, 0.00ft E

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Vertical Section (ft)  
 Azimuth 340.14° with reference 0.00 N, 0.00 E