



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Delaset
Scale	0.999600	Report Generated	5/29/2019 at 1:22:48 PM
Convergence at slot	0.02° East	Database/Source file	WA_MPL_EasternUS_Defn/Winebrenner_Unit_1H_AWP_Proj_22895_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-99.36	-14.25	1648986.73	14313696.75	39°25'00.510"N	80°58'10.760"W
Facility Reference Pt			1649000.97	14313796.07	39°25'01.492"N	80°58'10.578"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 317 (RKB) to Facility Vertical Datum	1011.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1011.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #11)	25.50ft
MD Reference Pt	H&P 317 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	340.09°



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Facility	Rush Fork Pad		

WELLPATH DATA (270 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	201.450	0.00	0.00	0.00	0.00	1648986.73	14313696.75	39°25'00.510"N	80°58'10.760"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	201.450	25.50	0.00	0.00	0.00	1648986.73	14313696.75	39°25'00.510"N	80°58'10.760"W	0.00	0.000	0.00	0.00	0.00	
60.50	0.130	201.450	60.50	-0.03	-0.04	-0.01	1648986.72	14313696.72	39°25'00.510"N	80°58'10.760"W	0.04	201.450	0.37	0.37	-453.00	Gyrodata MS Gyro <17-1/2">(50'-358')
85.50	0.090	233.540	85.50	-0.06	-0.08	-0.04	1648986.69	14313696.68	39°25'00.509"N	80°58'10.761"W	0.09	208.471	0.29	-0.16	128.36	
110.50	0.090	219.970	110.50	-0.07	-0.10	-0.07	1648986.66	14313696.65	39°25'00.509"N	80°58'10.761"W	0.12	214.180	0.09	0.00	-54.28	
135.50	0.140	234.650	135.50	-0.09	-0.13	-0.11	1648986.62	14313696.62	39°25'00.509"N	80°58'10.761"W	0.17	218.412	0.23	0.20	58.72	
160.50	0.240	228.940	160.50	-0.12	-0.19	-0.17	1648986.56	14313696.57	39°25'00.508"N	80°58'10.762"W	0.25	222.515	0.41	0.40	-22.84	
185.50	0.170	234.450	185.50	-0.15	-0.24	-0.24	1648986.49	14313696.51	39°25'00.508"N	80°58'10.763"W	0.34	224.785	0.29	-0.28	22.04	
210.50	0.180	205.440	210.50	-0.18	-0.30	-0.29	1648986.44	14313696.45	39°25'00.507"N	80°58'10.764"W	0.42	223.849	0.35	0.04	-116.04	
235.50	0.090	200.990	235.50	-0.23	-0.35	-0.31	1648986.42	14313696.40	39°25'00.507"N	80°58'10.764"W	0.47	221.412	0.36	-0.36	-17.80	
260.50	0.180	217.640	260.50	-0.26	-0.40	-0.34	1648986.39	14313696.35	39°25'00.506"N	80°58'10.764"W	0.53	220.390	0.39	0.36	66.60	
285.50	0.170	191.890	285.50	-0.31	-0.47	-0.37	1648986.36	14313696.28	39°25'00.505"N	80°58'10.765"W	0.60	218.523	0.31	-0.04	-103.00	
310.50	0.260	191.260	310.50	-0.39	-0.56	-0.39	1648986.34	14313696.19	39°25'00.504"N	80°58'10.765"W	0.69	214.960	0.36	0.36	-2.52	
335.50	0.320	206.960	335.50	-0.49	-0.68	-0.44	1648986.29	14313696.07	39°25'00.503"N	80°58'10.766"W	0.81	212.653	0.40	0.24	62.80	
360.50	0.390	181.430	360.50	-0.62	-0.83	-0.47	1648986.26	14313695.93	39°25'00.502"N	80°58'10.766"W	0.95	209.577	0.68	0.28	-102.12	
368.50	0.390	179.810	368.50	-0.67	-0.88	-0.47	1648986.26	14313695.87	39°25'00.501"N	80°58'10.766"W	1.00	208.065	0.14	0.00	-20.25	
536.50	0.730	106.920	536.49	-1.85	-1.76	0.56	1648987.29	14313694.99	39°25'00.493"N	80°58'10.753"W	1.85	162.521	0.43	0.20	-43.39	WFT EM <12-1/4">(358')(526'-2540')
628.50	3.150	89.840	628.43	-3.05	-1.93	3.64	1648990.37	14313694.82	39°25'00.491"N	80°58'10.714"W	4.12	117.884	2.68	2.63	-18.57	
721.50	5.830	86.850	721.14	-5.28	-1.66	10.92	1648997.64	14313695.09	39°25'00.494"N	80°58'10.621"W	11.04	98.654	2.89	2.88	-3.22	
813.50	7.920	89.250	812.47	-8.71	-1.32	21.92	1649008.64	14313695.43	39°25'00.497"N	80°58'10.481"W	21.96	93.451	2.29	2.27	2.61	
909.50	9.890	86.610	907.31	-13.22	-0.75	36.77	1649023.48	14313696.00	39°25'00.502"N	80°58'10.292"W	36.77	91.165	2.10	2.05	-2.75	
1003.50	11.510	86.630	999.67	-18.19	0.28	54.19	1649040.90	14313697.03	39°25'00.513"N	80°58'10.070"W	54.19	89.703	1.72	1.72	0.02	
1098.50	12.670	90.650	1092.57	-24.55	0.72	74.07	1649060.77	14313697.47	39°25'00.517"N	80°58'09.816"W	74.07	89.443	1.51	1.22	4.23	
1193.50	14.270	94.290	1184.95	-33.01	-0.27	96.16	1649082.86	14313696.48	39°25'00.507"N	80°58'09.535"W	96.16	90.163	1.91	1.68	3.83	
1288.50	16.140	96.550	1276.62	-43.69	-2.66	120.96	1649107.64	14313694.10	39°25'00.483"N	80°58'09.219"W	120.99	91.258	2.06	1.97	2.38	
1382.50	17.320	94.860	1366.64	-55.37	-5.33	147.88	1649134.55	14313691.42	39°25'00.457"N	80°58'08.876"W	147.98	92.065	1.36	1.26	-1.80	
1477.50	17.060	91.570	1457.40	-66.40	-6.91	175.90	1649162.56	14313689.84	39°25'00.441"N	80°58'08.519"W	176.04	92.250	1.06	-0.27	-3.46	
1572.50	18.390	91.870	1547.89	-77.07	-7.78	204.81	1649191.46	14313688.97	39°25'00.432"N	80°58'08.150"W	204.96	92.176	1.40	1.40	0.32	
1667.50	18.440	91.900	1638.02	-88.21	-8.77	234.81	1649221.44	14313687.99	39°25'00.423"N	80°58'07.768"W	234.97	92.139	0.05	0.05	0.03	
1762.50	18.170	92.450	1728.22	-99.43	-9.90	264.62	1649251.25	14313686.85	39°25'00.411"N	80°58'07.388"W	264.81	92.143	0.34	-0.28	0.58	



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Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

WELLPATH DATA (270 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
1856.50	18.200	90.160	1817.52	-110.04	-10.57	293.95	1649280.56	14313686.19	39°25'00.405"N	80°58'07.015"W	294.14	92.059	0.76	0.03	-2.44	
1951.50	19.280	90.450	1907.49	-120.59	-10.73	324.47	1649311.07	14313686.02	39°25'00.403"N	80°58'06.626"W	324.64	91.895	1.14	1.14	0.31	
2046.50	18.890	91.190	1997.26	-131.58	-11.18	355.52	1649342.11	14313685.58	39°25'00.398"N	80°58'06.230"W	355.70	91.801	0.48	-0.41	0.78	
2141.50	17.180	88.290	2087.60	-141.50	-11.08	384.93	1649371.50	14313685.68	39°25'00.399"N	80°58'05.855"W	385.08	91.648	2.03	-1.80	-3.05	
2235.50	16.280	85.620	2177.62	-149.36	-9.66	411.94	1649398.50	14313687.10	39°25'00.413"N	80°58'05.511"W	412.05	91.343	1.26	-0.96	-2.84	
2330.50	16.560	87.090	2268.74	-156.89	-7.95	438.74	1649425.29	14313688.80	39°25'00.430"N	80°58'05.170"W	438.81	91.038	0.53	0.29	1.55	
2425.50	16.400	88.180	2359.84	-165.01	-6.84	465.66	1649452.21	14313689.92	39°25'00.441"N	80°58'04.827"W	465.71	90.841	0.37	-0.17	1.15	
2550.50	14.380	86.880	2480.35	-174.97	-5.43	498.80	1649485.33	14313691.32	39°25'00.455"N	80°58'04.404"W	498.83	90.624	1.64	-1.62	-1.04	
2657.50	12.570	81.670	2584.41	-181.15	-3.02	523.59	1649510.11	14313693.73	39°25'00.478"N	80°58'04.089"W	523.60	90.331	2.04	-1.69	-4.87	WFT EM <8-3/4">(2540')(2647'-4738')
2752.50	13.660	88.070	2676.93	-186.69	-1.15	545.04	1649531.55	14313695.61	39°25'00.497"N	80°58'03.815"W	545.04	90.121	1.91	1.15	6.74	
2847.50	15.310	91.110	2768.91	-194.65	-1.01	568.79	1649555.29	14313695.74	39°25'00.498"N	80°58'03.513"W	568.79	90.102	1.91	1.74	3.20	
2942.50	16.210	92.460	2860.34	-204.20	-1.82	594.58	1649581.07	14313694.93	39°25'00.490"N	80°58'03.184"W	594.58	90.176	1.02	0.95	1.42	
3037.50	16.150	92.350	2951.58	-214.25	-2.94	621.03	1649607.51	14313693.82	39°25'00.479"N	80°58'02.847"W	621.03	90.271	0.07	-0.06	-0.12	
3136.50	17.210	91.100	3046.41	-224.71	-3.78	649.43	1649635.90	14313692.97	39°25'00.470"N	80°58'02.485"W	649.44	90.334	1.13	1.07	-1.26	
3231.50	16.450	90.930	3137.34	-234.54	-4.27	676.93	1649663.39	14313692.48	39°25'00.465"N	80°58'02.135"W	676.94	90.361	0.80	-0.80	-0.18	
3326.50	15.830	87.300	3228.60	-243.16	-3.88	703.32	1649689.77	14313692.88	39°25'00.469"N	80°58'01.799"W	703.33	90.316	1.25	-0.65	-3.82	
3421.50	16.290	88.350	3319.89	-251.17	-2.88	729.58	1649716.02	14313693.87	39°25'00.479"N	80°58'01.464"W	729.59	90.226	0.57	0.48	1.11	
3515.50	16.600	91.300	3410.05	-260.15	-2.81	756.18	1649742.61	14313693.94	39°25'00.480"N	80°58'01.125"W	756.19	90.213	0.95	0.33	3.14	
3610.50	15.680	89.960	3501.30	-269.43	-3.11	782.59	1649769.00	14313693.65	39°25'00.477"N	80°58'00.789"W	782.60	90.228	1.04	-0.97	-1.41	
3705.50	15.320	92.060	3592.85	-278.49	-3.55	807.97	1649794.37	14313693.20	39°25'00.472"N	80°58'00.465"W	807.98	90.252	0.70	-0.38	2.21	
3800.50	16.190	95.460	3684.28	-288.86	-5.26	833.70	1649820.09	14313691.49	39°25'00.455"N	80°58'00.137"W	833.71	90.362	1.33	0.92	3.58	
3894.50	16.490	95.240	3774.48	-300.14	-7.73	860.03	1649846.41	14313689.03	39°25'00.431"N	80°57'59.802"W	860.06	90.515	0.33	0.32	-0.23	
3989.50	15.540	93.580	3865.79	-310.94	-9.75	886.15	1649872.53	14313687.00	39°25'00.411"N	80°57'59.469"W	886.21	90.631	1.11	-1.00	-1.75	
4084.50	14.920	91.430	3957.46	-320.47	-10.85	911.08	1649897.45	14313685.90	39°25'00.400"N	80°57'59.151"W	911.15	90.682	0.88	-0.65	-2.26	
4178.50	15.000	91.450	4048.27	-329.30	-11.46	935.34	1649921.69	14313685.29	39°25'00.393"N	80°57'58.842"W	935.41	90.702	0.09	0.09	0.02	
4273.50	14.910	91.340	4140.05	-338.21	-12.06	959.85	1649946.19	14313684.70	39°25'00.387"N	80°57'58.530"W	959.92	90.720	0.10	-0.09	-0.12	
4368.50	15.720	90.990	4231.68	-347.23	-12.57	984.93	1649971.27	14313684.19	39°25'00.382"N	80°57'58.210"W	985.01	90.731	0.86	0.85	-0.37	
4463.50	16.520	90.890	4322.94	-356.62	-13.00	1011.31	1649997.63	14313683.76	39°25'00.378"N	80°57'57.874"W	1011.39	90.736	0.84	0.84	-0.11	
4558.50	15.820	90.130	4414.18	-365.85	-13.24	1037.76	1650024.08	14313683.52	39°25'00.375"N	80°57'57.537"W	1037.85	90.731	0.77	-0.74	-0.80	
4653.50	16.540	90.860	4505.42	-375.08	-13.47	1064.23	1650050.54	14313683.29	39°25'00.373"N	80°57'57.200"W	1064.32	90.725	0.79	0.76	0.77	



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4748.50	15.990	90.840	4596.62	-384.51	-13.87	1090.84	1650077.13	14313682.89	39°25'00.369"N	80°57'56.861"W	1090.93	90.728	0.58	-0.58	-0.02	
4807.00	15.610	89.730	4652.91	-390.01	-13.95	1106.76	1650093.05	14313682.81	39°25'00.368"N	80°57'56.658"W	1106.85	90.722	0.83	-0.65	-1.90	BH AT Curve <8-1/2">(4748.5')(4807'-22871')
4903.00	15.720	86.760	4745.34	-398.09	-13.15	1132.67	1650118.94	14313683.61	39°25'00.376"N	80°57'56.328"W	1132.74	90.665	0.84	0.11	-3.09	
4998.00	16.010	85.450	4836.73	-405.25	-11.38	1158.57	1650144.84	14313685.37	39°25'00.393"N	80°57'55.998"W	1158.63	90.563	0.49	0.31	-1.38	
5092.00	15.920	86.440	4927.10	-412.31	-9.56	1184.36	1650170.62	14313687.20	39°25'00.411"N	80°57'55.669"W	1184.40	90.462	0.31	-0.10	1.05	
5187.00	15.420	86.840	5018.57	-419.62	-8.05	1209.98	1650196.22	14313688.71	39°25'00.426"N	80°57'55.343"W	1210.00	90.381	0.54	-0.53	0.42	
5284.00	15.960	86.600	5111.95	-427.13	-6.55	1236.17	1650222.40	14313690.21	39°25'00.441"N	80°57'55.009"W	1236.18	90.304	0.56	0.56	-0.25	
5379.00	16.300	88.330	5203.21	-435.01	-5.39	1262.53	1650248.75	14313691.37	39°25'00.452"N	80°57'54.673"W	1262.54	90.244	0.62	0.36	1.82	
5475.00	15.520	88.140	5295.54	-443.21	-4.58	1288.83	1650275.05	14313692.18	39°25'00.460"N	80°57'54.338"W	1288.84	90.203	0.81	-0.81	-0.20	
5570.00	16.120	88.520	5386.94	-451.31	-3.82	1314.72	1650300.92	14313692.93	39°25'00.468"N	80°57'54.008"W	1314.73	90.167	0.64	0.63	0.40	
5666.00	15.400	80.190	5479.34	-457.76	-1.31	1340.61	1650326.80	14313695.45	39°25'00.492"N	80°57'53.679"W	1340.61	90.056	2.47	-0.75	-8.68	
5713.00	15.290	63.430	5524.69	-458.14	2.53	1352.31	1650338.49	14313699.28	39°25'00.530"N	80°57'53.529"W	1352.31	89.893	9.41	-0.23	-35.66	
5763.00	15.400	46.960	5572.93	-454.77	10.01	1363.06	1650349.24	14313706.76	39°25'00.604"N	80°57'53.392"W	1363.10	89.579	8.69	0.22	-32.94	
5810.00	16.030	34.470	5618.18	-448.53	19.63	1371.30	1650357.47	14313716.37	39°25'00.699"N	80°57'53.287"W	1371.44	89.180	7.31	1.34	-26.57	
5858.00	17.490	23.670	5664.16	-439.45	31.70	1377.94	1650364.12	14313728.44	39°25'00.818"N	80°57'53.203"W	1378.31	88.682	7.15	3.04	-22.50	
5905.00	19.880	14.770	5708.68	-427.75	45.90	1382.82	1650368.99	14313742.63	39°25'00.959"N	80°57'53.140"W	1383.58	88.099	7.90	5.09	-18.94	
5953.00	23.060	9.550	5753.35	-412.85	63.07	1386.46	1650372.63	14313759.80	39°25'01.128"N	80°57'53.094"W	1387.89	87.395	7.72	6.62	-10.87	
6000.00	25.670	6.240	5796.16	-395.70	82.27	1389.09	1650375.27	14313778.99	39°25'01.318"N	80°57'53.060"W	1391.53	86.611	6.27	5.55	-7.04	
6049.00	28.800	2.260	5839.73	-375.23	104.62	1390.71	1650376.89	14313801.33	39°25'01.539"N	80°57'53.040"W	1394.64	85.698	7.39	6.39	-8.12	
6096.00	31.930	357.650	5880.28	-352.89	128.36	1390.65	1650376.82	14313825.06	39°25'01.774"N	80°57'53.040"W	1396.56	84.726	8.30	6.66	-9.81	
6145.00	35.700	354.470	5920.99	-326.67	155.55	1388.74	1650374.91	14313852.24	39°25'02.042"N	80°57'53.064"W	1397.43	83.609	8.50	7.69	-6.49	
6192.00	39.730	351.490	5958.17	-298.65	184.07	1385.20	1650371.37	14313880.75	39°25'02.324"N	80°57'53.110"W	1397.37	82.431	9.41	8.57	-6.34	
6241.00	43.570	350.230	5994.77	-266.67	216.21	1380.01	1650366.19	14313912.88	39°25'02.642"N	80°57'53.175"W	1396.84	81.096	8.02	7.84	-2.57	
6288.00	46.910	350.960	6027.86	-233.86	249.13	1374.56	1650360.74	14313945.78	39°25'02.967"N	80°57'53.245"W	1396.96	79.727	7.19	7.11	1.55	
6336.00	50.230	349.910	6059.62	-198.46	284.61	1368.58	1650354.76	14313981.25	39°25'03.318"N	80°57'53.321"W	1397.86	78.252	7.11	6.92	-2.19	
6342.00†	50.803	349.514	6063.44	-193.89	289.17	1367.75	1650353.93	14313985.80	39°25'03.363"N	80°57'53.331"W	1397.98	78.062	10.82	9.55	-6.60	Middlesex: 6342' MD
6383.00	54.750	346.970	6088.24	-161.59	321.12	1361.08	1650347.26	14314017.74	39°25'03.679"N	80°57'53.416"W	1398.45	76.725	10.82	9.63	-6.21	
6431.00	59.210	345.160	6114.39	-121.57	360.16	1351.38	1650337.56	14314056.77	39°25'04.065"N	80°57'53.540"W	1398.55	75.077	9.81	9.29	-3.77	
6478.00	64.120	345.440	6136.69	-80.38	400.16	1340.88	1650327.07	14314096.76	39°25'04.460"N	80°57'53.673"W	1399.32	73.383	10.46	10.45	0.60	
6525.00†	68.177	345.190	6155.69	-37.58	441.74	1329.99	1650316.18	14314138.31	39°25'04.871"N	80°57'53.812"W	1401.43	71.627	8.65	8.63	-0.53	Burkett: 6525' MD



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

WELLPATH DATA (270 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
6527.00	68.350	345.180	6156.43	-35.73	443.53	1329.51	1650315.71	14314140.11	39°25'04.889"N	80°57'53.818"W	1401.54	71.551	8.65	8.63	-0.51	
6574.00	71.040	344.330	6172.74	8.20	486.06	1317.92	1650304.12	14314182.61	39°25'05.309"N	80°57'53.965"W	1404.69	69.756	5.97	5.72	-1.81	
6580.00†	71.366	344.327	6174.67	13.86	491.53	1316.39	1650302.59	14314188.08	39°25'05.363"N	80°57'53.985"W	1405.16	69.525	5.43	5.43	-0.04	Tully: 6580' MD
6598.00†	72.342	344.320	6180.28	30.92	507.99	1311.76	1650297.97	14314204.54	39°25'05.526"N	80°57'54.044"W	1406.69	68.831	5.43	5.43	-0.04	Marcellus POE: 6598' MD
6621.00	73.590	344.310	6187.02	52.85	529.17	1305.82	1650292.02	14314225.71	39°25'05.735"N	80°57'54.119"W	1408.96	67.940	5.43	5.43	-0.04	
6668.00	77.740	345.150	6198.65	98.23	573.09	1293.83	1650280.04	14314269.61	39°25'06.169"N	80°57'54.272"W	1415.07	66.110	9.00	8.83	1.79	
6715.00	81.130	346.700	6207.27	144.18	617.89	1282.60	1650268.82	14314314.40	39°25'06.612"N	80°57'54.415"W	1423.68	64.278	7.91	7.21	3.30	
6762.00	84.760	345.570	6213.04	190.56	663.17	1271.42	1650257.64	14314359.66	39°25'07.060"N	80°57'54.557"W	1433.98	62.454	8.08	7.72	-2.40	
6810.00	88.180	343.450	6215.99	238.31	709.33	1258.63	1650244.85	14314405.80	39°25'07.516"N	80°57'54.720"W	1444.75	60.596	8.38	7.12	-4.42	
6857.00	88.710	341.090	6217.27	285.26	754.08	1244.32	1650230.55	14314450.53	39°25'07.958"N	80°57'54.902"W	1454.98	58.784	5.14	1.13	-5.02	
6905.00	89.850	340.120	6217.87	333.25	799.35	1228.38	1650214.62	14314495.78	39°25'08.406"N	80°57'55.105"W	1465.57	56.947	3.12	2.37	-2.02	
7000.00	89.970	339.000	6218.02	428.25	888.37	1195.21	1650181.46	14314584.76	39°25'09.286"N	80°57'55.527"W	1489.20	53.378	1.19	0.13	-1.18	
7096.00	90.000	336.230	6218.05	524.15	977.12	1158.65	1650144.92	14314673.48	39°25'10.163"N	80°57'55.992"W	1515.67	49.858	2.89	0.03	-2.89	
7192.00	90.220	335.730	6217.86	619.90	1064.81	1119.58	1650105.86	14314761.13	39°25'11.030"N	80°57'56.490"W	1545.08	46.436	0.57	0.23	-0.52	
7288.00	90.370	335.910	6217.37	715.63	1152.38	1080.25	1650066.55	14314848.67	39°25'11.896"N	80°57'56.990"W	1579.54	43.150	0.24	0.16	0.19	
7383.00	90.280	337.590	6216.83	810.47	1239.67	1042.76	1650029.07	14314935.92	39°25'12.759"N	80°57'57.468"W	1619.91	40.069	1.77	-0.09	1.77	
7478.00	90.280	338.220	6216.36	905.39	1327.69	1007.02	1649993.35	14315023.91	39°25'13.629"N	80°57'57.923"W	1666.39	37.180	0.66	0.00	0.66	
7572.00	90.250	339.260	6215.93	999.37	1415.29	972.94	1649959.28	14315111.47	39°25'14.495"N	80°57'58.356"W	1717.45	34.507	1.11	-0.03	1.11	
7667.00	90.310	339.990	6215.47	1094.36	1504.34	939.86	1649926.22	14315200.49	39°25'15.375"N	80°57'58.778"W	1773.81	31.996	0.77	0.06	0.77	
7762.00	90.340	339.810	6214.93	1189.36	1593.56	907.22	1649893.58	14315289.67	39°25'16.257"N	80°57'59.193"W	1833.70	29.653	0.19	0.03	-0.19	
7857.00	90.340	341.880	6214.36	1284.34	1683.29	876.05	1649862.42	14315379.36	39°25'17.144"N	80°57'59.590"W	1897.61	27.494	2.18	0.00	2.18	
7953.00	90.250	341.030	6213.87	1380.31	1774.30	845.51	1649831.91	14315470.34	39°25'18.043"N	80°57'59.978"W	1965.46	25.479	0.89	-0.09	-0.89	
8048.00	90.250	339.430	6213.45	1475.31	1863.70	813.38	1649799.79	14315559.70	39°25'18.927"N	80°58'00.387"W	2033.46	23.578	1.68	0.00	-1.68	
8144.00	90.280	338.880	6213.01	1571.30	1953.41	779.22	1649765.64	14315649.38	39°25'19.814"N	80°58'00.822"W	2103.10	21.747	0.57	0.03	-0.57	
8239.00	90.280	340.190	6212.55	1666.29	2042.42	746.01	1649732.44	14315738.35	39°25'20.694"N	80°58'01.245"W	2174.39	20.065	1.38	0.00	1.38	
8334.00	90.220	341.010	6212.13	1761.28	2132.02	714.45	1649700.90	14315827.92	39°25'21.579"N	80°58'01.647"W	2248.54	18.526	0.87	-0.06	0.86	
8430.00	90.340	342.080	6211.66	1857.25	2223.08	684.06	1649670.52	14315918.94	39°25'22.479"N	80°58'02.034"W	2325.95	17.104	1.12	0.12	1.11	
8526.00	90.250	342.220	6211.17	1953.19	2314.46	654.64	1649641.11	14316010.28	39°25'23.383"N	80°58'02.408"W	2405.26	15.793	0.17	-0.09	0.15	
8622.00	90.400	342.000	6210.62	2049.13	2405.81	625.15	1649611.63	14316101.60	39°25'24.286"N	80°58'02.784"W	2485.71	14.566	0.28	0.16	-0.23	
8718.00	90.220	340.410	6210.10	2145.10	2496.69	594.22	1649580.71	14316192.44	39°25'25.184"N	80°58'03.177"W	2566.43	13.388	1.67	-0.19	-1.66	



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWP
Facility	Rush Fork Pad		

WELLPATH DATA (270 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
8813.00	90.370	340.040	6209.61	2240.10	2586.09	562.08	1649548.58	14316281.80	39°25'26.068"N	80°58'03.586"W	2646.47	12.262	0.42	0.16	-0.39	
8908.00	90.280	340.470	6209.08	2335.10	2675.50	529.99	1649516.50	14316371.18	39°25'26.951"N	80°58'03.995"W	2727.49	11.205	0.46	-0.09	0.45	
9003.00	90.400	339.600	6208.51	2430.10	2764.79	497.55	1649484.08	14316460.43	39°25'27.834"N	80°58'04.408"W	2809.20	10.202	0.92	0.13	-0.92	
9099.00	90.340	338.340	6207.89	2526.07	2854.39	463.10	1649449.65	14316550.00	39°25'28.720"N	80°58'04.846"W	2891.71	9.215	1.31	-0.06	-1.31	
9195.00	90.180	337.950	6207.46	2622.02	2943.49	427.36	1649413.92	14316639.06	39°25'29.601"N	80°58'05.301"W	2974.35	8.261	0.44	-0.17	-0.41	
9291.00	90.340	338.040	6207.02	2717.95	3032.50	391.40	1649377.97	14316728.03	39°25'30.480"N	80°58'05.759"W	3057.65	7.354	0.19	0.17	0.09	
9385.00	90.000	337.850	6206.74	2811.89	3119.62	356.10	1649342.69	14316815.11	39°25'31.342"N	80°58'06.209"W	3139.87	6.512	0.41	-0.36	-0.20	
9480.00	89.970	337.040	6206.77	2906.78	3207.35	319.66	1649306.26	14316902.81	39°25'32.209"N	80°58'06.673"W	3223.24	5.692	0.85	-0.03	-0.85	
9575.00	90.280	335.620	6206.56	3001.58	3294.35	281.52	1649268.14	14316989.78	39°25'33.069"N	80°58'07.158"W	3306.36	4.884	1.53	0.33	-1.49	
9669.00	90.060	334.770	6206.28	3095.23	3379.68	242.09	1649228.72	14317075.07	39°25'33.912"N	80°58'07.661"W	3388.34	4.097	0.93	-0.23	-0.90	
9765.00	89.880	335.910	6206.33	3190.90	3466.92	202.03	1649188.68	14317162.28	39°25'34.775"N	80°58'08.171"W	3472.81	3.335	1.20	-0.19	1.19	
9860.00	89.660	334.350	6206.71	3285.54	3553.11	162.08	1649148.75	14317248.44	39°25'35.627"N	80°58'08.679"W	3556.81	2.612	1.66	-0.23	-1.64	
9955.00	89.660	333.820	6207.28	3380.02	3638.56	120.56	1649107.24	14317333.85	39°25'36.471"N	80°58'09.208"W	3640.55	1.898	0.56	0.00	-0.56	
10050.00	89.510	334.660	6207.96	3474.52	3724.11	79.28	1649065.98	14317419.37	39°25'37.317"N	80°58'09.734"W	3724.96	1.220	0.90	-0.16	0.88	
10146.00	89.540	338.980	6208.76	3570.34	3812.34	41.50	1649028.21	14317507.56	39°25'38.189"N	80°58'10.215"W	3812.56	0.624	4.50	0.03	4.50	
10241.00	89.600	342.550	6209.47	3665.31	3902.02	10.21	1648996.93	14317597.20	39°25'39.076"N	80°58'10.613"W	3902.03	0.150	3.76	0.06	3.76	
10337.00	89.450	345.290	6210.27	3761.09	3994.25	-16.38	1648970.36	14317689.40	39°25'39.987"N	80°58'10.952"W	3994.28	359.765	2.86	-0.16	2.85	
10432.00	89.510	341.290	6211.13	3855.91	4085.22	-43.69	1648943.06	14317780.33	39°25'40.886"N	80°58'11.299"W	4085.45	359.387	4.21	0.06	-4.21	
10527.00	89.450	339.440	6211.99	3950.91	4174.68	-75.61	1648911.15	14317869.76	39°25'41.771"N	80°58'11.706"W	4175.37	358.962	1.95	-0.06	-1.95	
10622.00	89.570	341.580	6212.81	4045.89	4264.23	-107.30	1648879.47	14317959.27	39°25'42.656"N	80°58'12.109"W	4265.58	358.559	2.26	0.13	2.25	
10717.00	89.510	342.220	6213.57	4140.84	4354.53	-136.81	1648849.97	14318049.53	39°25'43.548"N	80°58'12.485"W	4356.68	358.200	0.68	-0.06	0.67	
10811.00	89.690	344.210	6214.23	4234.70	4444.52	-163.96	1648822.84	14318139.48	39°25'44.438"N	80°58'12.830"W	4447.54	357.887	2.13	0.19	2.12	
10907.00	90.000	343.470	6214.49	4330.49	4536.72	-190.67	1648796.13	14318231.65	39°25'45.349"N	80°58'13.170"W	4540.73	357.593	0.84	0.32	-0.77	
11003.00	90.950	341.370	6213.69	4426.40	4628.23	-219.67	1648767.15	14318323.12	39°25'46.254"N	80°58'13.540"W	4633.44	357.283	2.40	0.99	-2.19	
11097.00	89.450	342.830	6213.36	4520.34	4717.67	-248.56	1648738.27	14318412.53	39°25'47.138"N	80°58'13.907"W	4724.22	356.984	2.23	-1.60	1.55	
11192.00	89.420	345.220	6214.30	4615.10	4808.99	-274.70	1648712.14	14318503.81	39°25'48.041"N	80°58'14.240"W	4816.83	356.731	2.52	-0.03	2.52	
11288.00	89.880	346.530	6214.89	4710.61	4902.09	-298.13	1648688.72	14318596.87	39°25'48.961"N	80°58'14.538"W	4911.14	356.520	1.45	0.48	1.36	
11383.00	89.350	346.470	6215.52	4805.01	4994.46	-320.30	1648666.56	14318689.21	39°25'49.874"N	80°58'14.821"W	5004.72	356.331	0.56	-0.56	-0.06	
11478.00	89.110	344.610	6216.80	4899.57	5086.44	-344.02	1648642.85	14318781.15	39°25'50.783"N	80°58'15.122"W	5098.06	356.131	1.97	-0.25	-1.96	
11572.00	89.260	341.480	6218.14	4993.42	5176.33	-371.43	1648615.45	14318871.00	39°25'51.671"N	80°58'15.471"W	5189.64	355.896	3.33	0.16	-3.33	



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

WELLPATH DATA (270 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
11667.00	89.170	339.220	6219.44	5088.41	5265.79	-403.37	1648583.52	14318960.42	39°25'52.556"N	80°58'15.878"W	5281.21	355.620	2.38	-0.09	-2.38	
11762.00	90.060	337.710	6220.08	5183.36	5354.15	-438.24	1648548.67	14319048.75	39°25'53.429"N	80°58'16.322"W	5372.05	355.321	1.84	0.94	-1.59	
11857.00	90.890	337.840	6219.29	5278.28	5442.09	-474.17	1648512.75	14319136.65	39°25'54.298"N	80°58'16.780"W	5462.71	355.020	0.88	0.87	0.14	
11951.00	90.950	340.390	6217.78	5372.25	5529.89	-507.67	1648479.26	14319224.42	39°25'55.166"N	80°58'17.206"W	5553.15	354.755	2.71	0.06	2.71	
12046.00	90.550	340.780	6216.54	5467.24	5619.48	-539.25	1648447.70	14319313.98	39°25'56.052"N	80°58'17.608"W	5645.30	354.519	0.59	-0.42	0.41	
12141.00	90.620	340.260	6215.57	5562.23	5709.04	-570.93	1648416.03	14319403.50	39°25'56.937"N	80°58'18.012"W	5737.52	354.289	0.55	0.07	-0.55	
12236.00	90.400	337.600	6214.72	5657.20	5797.68	-605.08	1648381.90	14319492.10	39°25'57.813"N	80°58'18.447"W	5829.17	354.042	2.81	-0.23	-2.80	
12330.00	90.830	337.530	6213.71	5751.10	5884.56	-640.95	1648346.04	14319578.94	39°25'58.672"N	80°58'18.903"W	5919.36	353.784	0.46	0.46	-0.07	
12427.00	90.890	337.620	6212.26	5848.00	5974.21	-677.95	1648309.06	14319668.56	39°25'59.558"N	80°58'19.375"W	6012.55	353.526	0.11	0.06	0.09	
12522.00	90.860	338.850	6210.81	5942.93	6062.43	-713.17	1648273.85	14319756.74	39°26'00.430"N	80°58'19.823"W	6104.23	353.291	1.29	-0.03	1.29	
12617.00	90.860	339.430	6209.38	6037.91	6151.19	-746.99	1648240.04	14319845.47	39°26'01.308"N	80°58'20.254"W	6196.38	353.076	0.61	0.00	0.61	
12712.00	90.890	339.070	6207.93	6132.89	6240.02	-780.65	1648206.40	14319934.26	39°26'02.186"N	80°58'20.682"W	6288.66	352.869	0.38	0.03	-0.38	
12806.00	91.480	337.920	6205.99	6226.83	6327.45	-815.10	1648171.96	14320021.66	39°26'03.050"N	80°58'21.121"W	6379.74	352.660	1.37	0.63	-1.22	
12902.00	90.650	339.750	6204.20	6322.78	6416.96	-849.75	1648137.32	14320111.13	39°26'03.935"N	80°58'21.562"W	6472.98	352.457	2.09	-0.86	1.91	
12997.00	90.520	341.190	6203.23	6417.77	6506.48	-881.51	1648105.58	14320200.62	39°26'04.820"N	80°58'21.967"W	6565.93	352.284	1.52	-0.14	1.52	
13092.00	90.430	342.130	6202.44	6512.73	6596.65	-911.40	1648075.70	14320290.76	39°26'05.711"N	80°58'22.347"W	6659.32	352.134	0.99	-0.09	0.99	
13187.00	90.550	341.830	6201.63	6607.68	6686.99	-940.78	1648046.33	14320381.06	39°26'06.604"N	80°58'22.722"W	6752.85	351.992	0.34	0.13	-0.32	
13282.00	88.460	342.440	6202.45	6702.61	6777.40	-969.92	1648017.20	14320471.43	39°26'07.497"N	80°58'23.093"W	6846.45	351.856	2.29	-2.20	0.64	
13377.00	87.810	339.440	6205.54	6797.54	6867.14	-1000.93	1647986.21	14320561.13	39°26'08.384"N	80°58'23.487"W	6939.70	351.707	3.23	-0.68	-3.16	
13472.00	88.310	338.840	6208.76	6892.47	6955.86	-1034.74	1647952.41	14320649.81	39°26'09.261"N	80°58'23.918"W	7032.40	351.539	0.82	0.53	-0.63	
13566.00	87.910	337.520	6211.86	6986.36	7043.07	-1069.65	1647917.51	14320736.99	39°26'10.123"N	80°58'24.363"W	7123.84	351.364	1.47	-0.43	-1.40	
13662.00	88.060	339.870	6215.24	7082.27	7132.45	-1104.51	1647882.66	14320826.34	39°26'11.007"N	80°58'24.807"W	7217.46	351.197	2.45	0.16	2.45	
13756.00	88.030	341.280	6218.44	7176.21	7221.05	-1135.75	1647851.43	14320914.90	39°26'11.883"N	80°58'25.204"W	7309.82	351.062	1.50	-0.03	1.50	
13851.00	87.910	341.420	6221.81	7271.13	7311.00	-1166.11	1647821.09	14321004.82	39°26'12.772"N	80°58'25.591"W	7403.42	350.938	0.19	-0.13	0.15	
13946.00	88.610	340.160	6224.69	7366.07	7400.67	-1197.36	1647789.85	14321094.45	39°26'13.658"N	80°58'25.989"W	7496.90	350.810	1.52	0.74	-1.33	
14041.00	87.910	341.060	6227.58	7461.02	7490.24	-1228.88	1647758.34	14321183.98	39°26'14.543"N	80°58'26.390"W	7590.37	350.683	1.20	-0.74	0.95	
14136.00	88.250	341.040	6230.76	7555.96	7580.04	-1259.71	1647727.52	14321273.74	39°26'15.431"N	80°58'26.783"W	7684.00	350.564	0.36	0.36	-0.02	
14232.00	88.920	342.390	6233.13	7651.89	7671.16	-1289.82	1647697.42	14321364.83	39°26'16.332"N	80°58'27.166"W	7778.84	350.456	1.57	0.70	1.41	
14327.00	89.320	341.210	6234.59	7746.83	7761.39	-1319.49	1647667.77	14321455.03	39°26'17.224"N	80°58'27.544"W	7872.76	350.352	1.31	0.42	-1.24	
14421.00	90.150	341.310	6235.02	7840.81	7850.41	-1349.69	1647637.58	14321544.01	39°26'18.104"N	80°58'27.929"W	7965.59	350.245	0.89	0.88	0.11	



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

WELLPATH DATA (270 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
14517.00	90.000	341.880	6234.90	7936.78	7941.50	-1380.00	1647607.28	14321635.06	39°26'19.004"N	80°58'28.315"W	8060.51	350.142	0.61	-0.16	0.59	
14612.00	90.060	341.190	6234.85	8031.74	8031.61	-1410.09	1647577.21	14321725.13	39°26'19.895"N	80°58'28.698"W	8154.45	350.042	0.73	0.06	-0.73	
14707.00	89.880	340.450	6234.90	8126.74	8121.33	-1441.30	1647546.01	14321814.82	39°26'20.781"N	80°58'29.095"W	8248.24	349.936	0.80	-0.19	-0.78	
14802.00	89.880	339.810	6235.10	8221.74	8210.68	-1473.59	1647513.73	14321904.13	39°26'21.665"N	80°58'29.507"W	8341.86	349.825	0.67	0.00	-0.67	
14896.00	89.880	340.750	6235.29	8315.73	8299.16	-1505.31	1647482.03	14321992.58	39°26'22.539"N	80°58'29.911"W	8434.57	349.719	1.00	0.00	1.00	
14991.00	89.850	341.140	6235.52	8410.72	8388.96	-1536.32	1647451.03	14322082.34	39°26'23.427"N	80°58'30.306"W	8528.47	349.622	0.41	-0.03	0.41	
15086.00	89.780	340.980	6235.83	8505.71	8478.81	-1567.16	1647420.20	14322172.16	39°26'24.315"N	80°58'30.698"W	8622.43	349.528	0.18	-0.07	-0.17	
15180.00	89.880	340.010	6236.10	8599.70	8567.42	-1598.54	1647388.83	14322260.73	39°26'25.191"N	80°58'31.098"W	8715.27	349.431	1.04	0.11	-1.03	
15274.00	89.750	340.280	6236.41	8693.70	8655.83	-1630.47	1647356.92	14322349.10	39°26'26.065"N	80°58'31.505"W	8808.05	349.332	0.32	-0.14	0.29	
15371.00	90.400	340.790	6236.28	8790.70	8747.28	-1662.79	1647324.61	14322440.52	39°26'26.969"N	80°58'31.916"W	8903.92	349.237	0.85	0.67	0.53	
15465.00	90.520	340.110	6235.53	8884.69	8835.86	-1694.24	1647293.17	14322529.06	39°26'27.844"N	80°58'32.317"W	8996.83	349.145	0.73	0.13	-0.72	
15560.00	90.430	340.940	6234.74	8979.69	8925.42	-1725.92	1647261.51	14322618.59	39°26'28.729"N	80°58'32.720"W	9090.76	349.056	0.88	-0.09	0.87	
15655.00	90.430	342.380	6234.03	9074.65	9015.59	-1755.81	1647231.63	14322708.72	39°26'29.621"N	80°58'33.101"W	9184.97	348.979	1.52	0.00	1.52	
15750.00	90.460	342.330	6233.29	9169.57	9106.12	-1784.60	1647202.85	14322799.21	39°26'30.515"N	80°58'33.468"W	9279.34	348.912	0.06	0.03	-0.05	
15846.00	90.400	342.170	6232.57	9265.50	9197.55	-1813.87	1647173.59	14322890.60	39°26'31.419"N	80°58'33.840"W	9374.70	348.844	0.18	-0.06	-0.17	
15942.00	90.430	340.330	6231.87	9361.47	9288.45	-1844.72	1647142.75	14322981.47	39°26'32.318"N	80°58'34.233"W	9469.86	348.767	1.92	0.03	-1.92	
16037.00	90.460	338.580	6231.13	9456.46	9377.40	-1878.06	1647109.42	14323070.38	39°26'33.197"N	80°58'34.658"W	9563.61	348.675	1.84	0.03	-1.84	
16133.00	90.490	337.910	6230.34	9552.41	9466.56	-1913.64	1647073.86	14323159.50	39°26'34.078"N	80°58'35.111"W	9658.04	348.572	0.70	0.03	-0.70	
16228.00	90.460	338.560	6229.55	9647.35	9554.78	-1948.87	1647038.65	14323247.69	39°26'34.950"N	80°58'35.560"W	9751.51	348.472	0.68	-0.03	0.68	
16324.00	90.460	338.880	6228.78	9743.32	9644.23	-1983.71	1647003.82	14323337.11	39°26'35.834"N	80°58'36.004"W	9846.13	348.377	0.33	0.00	0.33	
16418.00	90.490	338.730	6228.00	9837.30	9731.87	-2017.69	1646969.85	14323424.71	39°26'36.701"N	80°58'36.437"W	9938.83	348.287	0.16	0.03	-0.16	
16514.00	90.520	338.940	6227.15	9933.27	9821.39	-2052.35	1646935.21	14323514.20	39°26'37.586"N	80°58'36.878"W	10033.54	348.197	0.22	0.03	0.22	
16610.00	90.580	340.560	6226.23	10029.26	9911.45	-2085.57	1646901.99	14323604.22	39°26'38.476"N	80°58'37.301"W	10128.50	348.117	1.69	0.06	1.69	
16704.00	90.490	341.600	6225.36	10123.24	10000.37	-2116.05	1646871.53	14323693.10	39°26'39.355"N	80°58'37.690"W	10221.79	348.053	1.11	-0.10	1.11	
16800.00	90.400	342.500	6224.61	10219.18	10091.69	-2145.64	1646841.96	14323784.39	39°26'40.257"N	80°58'38.066"W	10317.27	347.997	0.94	-0.09	0.94	
16894.00	90.370	343.210	6223.98	10313.07	10181.51	-2173.35	1646814.26	14323874.17	39°26'41.145"N	80°58'38.419"W	10410.89	347.950	0.76	-0.03	0.76	
16989.00	90.520	342.450	6223.24	10407.96	10272.27	-2201.39	1646786.23	14323964.90	39°26'42.042"N	80°58'38.776"W	10505.51	347.904	0.82	0.16	-0.80	
17085.00	90.430	340.660	6222.44	10503.92	10363.33	-2231.76	1646755.87	14324055.92	39°26'42.942"N	80°58'39.163"W	10600.92	347.847	1.87	-0.09	-1.86	
17179.00	90.520	338.720	6221.66	10597.91	10451.48	-2264.39	1646723.25	14324144.04	39°26'43.814"N	80°58'39.579"W	10693.97	347.775	2.07	0.10	-2.06	
17274.00	90.710	337.530	6220.65	10692.84	10539.64	-2299.78	1646687.88	14324232.15	39°26'44.685"N	80°58'40.030"W	10787.63	347.691	1.27	0.20	-1.25	



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

WELLPATH DATA (270 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
17369.00	90.620	335.570	6219.54	10787.65	10626.78	-2337.58	1646650.09	14324319.26	39°26'45.546"N	80°58'40.511"W	10880.84	347.594	2.07	-0.09	-2.06	
17463.00	90.680	335.070	6218.48	10881.32	10712.19	-2376.83	1646610.86	14324404.63	39°26'46.390"N	80°58'41.011"W	10972.71	347.490	0.54	0.06	-0.53	
17559.00	90.620	333.400	6217.39	10976.81	10798.64	-2418.55	1646569.15	14324491.05	39°26'47.245"N	80°58'41.543"W	11066.16	347.376	1.74	-0.06	-1.74	
17654.00	90.650	334.430	6216.33	11071.25	10883.95	-2460.32	1646527.40	14324576.33	39°26'48.088"N	80°58'42.075"W	11158.57	347.262	1.08	0.03	1.08	
17749.00	90.650	336.870	6215.26	11165.95	10970.49	-2499.48	1646488.25	14324662.83	39°26'48.944"N	80°58'42.574"W	11251.62	347.165	2.57	0.00	2.57	
17843.00	90.770	339.380	6214.09	11259.88	11057.71	-2534.50	1646453.25	14324750.02	39°26'49.806"N	80°58'43.020"W	11344.45	347.090	2.67	0.13	2.67	
17938.00	90.620	341.730	6212.94	11354.87	11147.28	-2566.12	1646421.64	14324839.55	39°26'50.691"N	80°58'43.423"W	11438.83	347.036	2.48	-0.16	2.47	
18033.00	90.740	342.620	6211.81	11449.80	11237.71	-2595.20	1646392.57	14324929.94	39°26'51.585"N	80°58'43.793"W	11533.48	346.996	0.95	0.13	0.94	
18128.00	90.740	343.990	6210.58	11544.64	11328.69	-2622.49	1646365.30	14325020.89	39°26'52.484"N	80°58'44.141"W	11628.27	346.966	1.44	0.00	1.44	
18224.00	90.740	344.610	6209.34	11640.37	11421.10	-2648.46	1646339.33	14325113.27	39°26'53.398"N	80°58'44.472"W	11724.16	346.944	0.65	0.00	0.65	
18319.00	90.710	343.460	6208.14	11735.13	11512.43	-2674.59	1646313.21	14325204.56	39°26'54.300"N	80°58'44.805"W	11819.03	346.921	1.21	-0.03	-1.21	
18414.00	90.680	341.630	6206.99	11830.04	11603.05	-2703.08	1646284.73	14325295.14	39°26'55.196"N	80°58'45.167"W	11913.75	346.886	1.93	-0.03	-1.93	
18509.00	90.620	341.230	6205.91	11925.00	11693.09	-2733.34	1646254.49	14325385.15	39°26'56.086"N	80°58'45.553"W	12008.31	346.843	0.43	-0.06	-0.42	
18604.00	90.280	341.960	6205.17	12019.97	11783.23	-2763.33	1646224.51	14325475.25	39°26'56.977"N	80°58'45.935"W	12102.91	346.802	0.85	-0.36	0.77	
18700.00	90.310	341.690	6204.67	12115.92	11874.44	-2793.27	1646194.58	14325566.42	39°26'57.879"N	80°58'46.316"W	12198.55	346.763	0.28	0.03	-0.28	
18796.00	90.280	341.450	6204.18	12211.89	11965.52	-2823.62	1646164.24	14325657.46	39°26'58.779"N	80°58'46.703"W	12294.16	346.722	0.25	-0.03	-0.25	
18893.00	90.280	342.280	6203.70	12308.84	12057.70	-2853.81	1646134.06	14325749.60	39°26'59.690"N	80°58'47.088"W	12390.81	346.684	0.86	0.00	0.86	
18989.00	90.580	341.980	6202.98	12404.78	12149.06	-2883.27	1646104.62	14325840.93	39°27'00.593"N	80°58'47.463"W	12486.51	346.649	0.44	0.31	-0.31	
19083.00	90.620	341.770	6202.00	12498.72	12238.39	-2912.51	1646075.39	14325930.23	39°27'01.476"N	80°58'47.835"W	12580.18	346.614	0.23	0.04	-0.22	
19178.00	90.580	342.290	6201.00	12593.66	12328.75	-2941.82	1646046.09	14326020.55	39°27'02.369"N	80°58'48.209"W	12674.87	346.579	0.55	-0.04	0.55	
19273.00	90.620	341.240	6200.01	12688.62	12418.98	-2971.54	1646016.38	14326110.74	39°27'03.261"N	80°58'48.587"W	12769.53	346.544	1.11	0.04	-1.11	
19367.00	90.580	340.150	6199.02	12782.61	12507.68	-3002.62	1645985.32	14326199.41	39°27'04.138"N	80°58'48.983"W	12863.04	346.501	1.16	-0.04	-1.16	
19462.00	90.550	340.330	6198.09	12877.60	12597.09	-3034.74	1645953.21	14326288.77	39°27'05.021"N	80°58'49.392"W	12957.48	346.455	0.19	-0.03	0.19	
19557.00	90.580	339.790	6197.15	12972.60	12686.39	-3067.13	1645920.83	14326378.04	39°27'05.904"N	80°58'49.805"W	13051.88	346.409	0.57	0.03	-0.57	
19653.00	90.620	339.200	6196.15	13068.58	12776.30	-3100.76	1645887.22	14326467.91	39°27'06.793"N	80°58'50.234"W	13147.19	346.358	0.62	0.04	-0.61	
19748.00	90.620	337.500	6195.12	13163.53	12864.59	-3135.80	1645852.19	14326556.17	39°27'07.665"N	80°58'50.680"W	13241.26	346.301	1.79	0.00	-1.79	
19841.00	90.580	337.710	6194.14	13256.44	12950.57	-3171.23	1645816.77	14326642.12	39°27'08.515"N	80°58'51.132"W	13333.19	346.241	0.23	-0.04	0.23	
19937.00	90.550	338.260	6193.20	13352.37	13039.56	-3207.22	1645780.80	14326731.08	39°27'09.395"N	80°58'51.590"W	13428.20	346.182	0.57	-0.03	0.57	
20032.00	90.580	338.460	6192.26	13447.32	13127.86	-3242.25	1645745.78	14326819.34	39°27'10.268"N	80°58'52.036"W	13522.31	346.127	0.21	0.03	0.21	
20126.00	90.550	338.990	6191.33	13541.29	13215.45	-3276.35	1645711.69	14326906.89	39°27'11.133"N	80°58'52.471"W	13615.53	346.076	0.56	-0.03	0.56	



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

WELLPATH DATA (270 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
20221.00	90.580	340.060	6190.40	13636.28	13304.45	-3309.58	1645678.48	14326995.85	39°27'12.013"N	80°58'52.894"W	13709.91	346.031	1.13	0.03	1.13	
20316.00	90.520	340.990	6189.48	13731.27	13394.01	-3341.25	1645646.82	14327085.37	39°27'12.898"N	80°58'53.298"W	13804.47	345.993	0.98	-0.06	0.98	
20410.00	90.580	342.420	6188.58	13825.23	13483.25	-3370.76	1645617.33	14327174.58	39°27'13.780"N	80°58'53.674"W	13898.20	345.964	1.52	0.06	1.52	
20505.00	90.740	342.740	6187.49	13920.13	13573.88	-3399.20	1645588.90	14327265.18	39°27'14.676"N	80°58'54.036"W	13993.03	345.941	0.38	0.17	0.34	
20600.00	90.550	341.750	6186.42	14015.06	13664.35	-3428.17	1645559.94	14327355.61	39°27'15.570"N	80°58'54.405"W	14087.83	345.916	1.06	-0.20	-1.04	
20694.00	90.580	340.170	6185.49	14109.04	13753.20	-3458.83	1645529.29	14327444.43	39°27'16.449"N	80°58'54.796"W	14181.47	345.883	1.68	0.03	-1.68	
20788.00	90.650	337.950	6184.48	14203.01	13840.98	-3492.42	1645495.71	14327532.17	39°27'17.316"N	80°58'55.224"W	14274.80	345.838	2.36	0.07	-2.36	
20882.00	90.550	337.200	6183.50	14296.92	13927.87	-3528.28	1645459.87	14327619.03	39°27'18.175"N	80°58'55.681"W	14367.82	345.785	0.80	-0.11	-0.80	
20976.00	90.650	336.840	6182.51	14390.78	14014.41	-3564.97	1645423.19	14327705.53	39°27'19.030"N	80°58'56.148"W	14460.73	345.728	0.40	0.11	-0.38	
21072.00	90.580	337.620	6181.48	14486.65	14102.92	-3602.12	1645386.05	14327794.00	39°27'19.905"N	80°58'56.622"W	14555.67	345.672	0.82	-0.07	0.81	
21167.00	90.460	338.690	6180.62	14581.59	14191.09	-3637.47	1645350.72	14327882.14	39°27'20.777"N	80°58'57.072"W	14649.86	345.623	1.13	-0.13	1.13	
21261.00	90.550	339.810	6179.79	14675.57	14278.99	-3670.77	1645317.43	14327970.00	39°27'21.646"N	80°58'57.496"W	14743.27	345.583	1.20	0.10	1.19	
21356.00	90.550	340.820	6178.88	14770.57	14368.43	-3702.77	1645285.45	14328059.41	39°27'22.530"N	80°58'57.904"W	14837.87	345.549	1.06	0.00	1.06	
21451.00	90.490	340.250	6178.02	14865.56	14458.00	-3734.43	1645253.80	14328148.94	39°27'23.415"N	80°58'58.307"W	14932.50	345.517	0.60	-0.06	-0.60	
21546.00	90.520	339.470	6177.18	14960.56	14547.19	-3767.14	1645221.11	14328238.09	39°27'24.296"N	80°58'58.724"W	15027.04	345.482	0.82	0.03	-0.82	
21641.00	90.620	339.160	6176.24	15055.54	14636.06	-3800.69	1645187.57	14328326.93	39°27'25.175"N	80°58'59.152"W	15121.49	345.443	0.34	0.11	-0.33	
21736.00	91.260	340.880	6174.68	15150.53	14725.32	-3833.15	1645155.12	14328416.16	39°27'26.057"N	80°58'59.565"W	15216.05	345.409	1.93	0.67	1.81	
21831.00	90.980	339.890	6172.82	15245.50	14814.79	-3865.03	1645123.25	14328505.59	39°27'26.941"N	80°58'59.972"W	15310.67	345.378	1.08	-0.29	-1.04	
21926.00	90.950	339.360	6171.22	15340.49	14903.84	-3898.10	1645090.19	14328594.60	39°27'27.822"N	80°59'00.393"W	15405.18	345.343	0.56	-0.03	-0.56	
22021.00	90.950	338.770	6169.65	15435.46	14992.55	-3932.04	1645056.27	14328683.28	39°27'28.698"N	80°59'00.826"W	15499.60	345.304	0.62	0.00	-0.62	
22115.00	90.770	338.730	6168.23	15529.42	15080.15	-3966.11	1645022.22	14328770.84	39°27'29.564"N	80°59'01.260"W	15592.98	345.265	0.20	-0.19	-0.04	
22210.00	90.770	338.090	6166.96	15624.37	15168.48	-4001.06	1644987.28	14328859.13	39°27'30.437"N	80°59'01.705"W	15687.29	345.223	0.67	0.00	-0.67	
22305.00	90.310	338.780	6166.06	15719.33	15256.82	-4035.98	1644952.38	14328947.44	39°27'31.311"N	80°59'02.150"W	15781.63	345.183	0.87	-0.48	0.73	
22400.00	90.550	339.200	6165.35	15814.31	15345.50	-4070.04	1644918.33	14329036.09	39°27'32.187"N	80°59'02.584"W	15876.07	345.146	0.51	0.25	0.44	
22495.00	90.400	339.400	6164.56	15909.30	15434.37	-4103.61	1644884.77	14329124.92	39°27'33.065"N	80°59'03.012"W	15970.58	345.111	0.26	-0.16	0.21	
22590.00	90.000	339.890	6164.23	16004.29	15523.43	-4136.66	1644851.73	14329213.95	39°27'33.946"N	80°59'03.433"W	16065.15	345.079	0.67	-0.42	0.52	
22685.00	89.820	340.180	6164.38	16099.29	15612.73	-4169.10	1644819.31	14329303.20	39°27'34.828"N	80°59'03.846"W	16159.78	345.049	0.36	-0.19	0.31	
22779.00	89.880	340.230	6164.63	16193.29	15701.17	-4200.93	1644787.49	14329391.61	39°27'35.703"N	80°59'04.252"W	16253.45	345.021	0.08	0.06	0.05	
22871.00	89.880	339.710	6164.82	16285.29	15787.61	-4232.44	1644755.99	14329478.01	39°27'36.557"N	80°59'04.654"W	16345.09	344.993	0.57	0.00	-0.57	
22895.00	89.880	339.710	6164.87	16309.29	15810.12	-4240.76	1644747.67	14329500.51	39°27'36.779"N	80°59'04.760"W	16368.99	344.985	0.00	0.00	0.00	Projected MD at TD: 22895'

HOLE & CASING SECTIONS - Ref Wellbore: Winebrenner Unit 1H AWB Ref Wellpath: Winebrenner Unit 1H AWP Proj: 22895'

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	25.50	105.50	80.00	25.50	105.50	0.00	0.00	-0.10	-0.06
17.5in Open Hole	105.50	386.50	281.00	105.50	386.50	-0.10	-0.06	-1.00	-0.46
13.375in Casing Surface	25.50	386.50	361.00	25.50	386.50	0.00	0.00	-1.00	-0.46
12.25in Open Hole	386.50	2597.50	2211.00	386.50	2525.96	-1.00	-0.46	-4.61	510.12
9.625in Casing Intermediate	25.50	2597.50	2572.00	25.50	2525.96	0.00	0.00	-4.61	510.12
8.75in Open Hole	2597.50	4851.50	2254.00	2525.96	4695.76	-4.61	510.12	-13.75	1118.75
8.5in Open Hole	4851.50	22895.00	18043.50	4695.76	6164.87	-13.75	1118.75	15810.12	-4240.76
5.5in Casing Production	25.50	22895.00	22869.50	25.50	6164.87	0.00	0.00	15810.12	-4240.76

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Winebrenner Unit 1H - POE - Rev-1	6179.00	499.45	1312.80	1650299.00	14314196.00	39°25'05.442"N	80°57'54.030"W	point
Winebrenner Unit 1H - BHL - Rev-1	6217.00	15829.61	-4240.43	1644748.00	14329520.00	39°27'36.972"N	80°59'04.755"W	point
Winebrenner Unit 1H - LP - Rev-1	6217.00	715.88	1234.40	1650220.63	14314412.34	39°25'07.581"N	80°57'55.028"W	point



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

WELLPATH COMPOSITION - Ref Wellbore: Winebrenner Unit 1H AWB Ref Wellpath: Winebrenner Unit 1H AWP Proj: 22895'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.50	368.50	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(50'-358')	Winebrenner Unit 1H AWB
368.50	2550.50	OWSG MWD rev2 + HRGM	02 WFT EM <12-1/4">(358')(526'-2540')	Winebrenner Unit 1H AWB
2550.50	4748.50	OWSG MWD rev2 + HRGM	03 WFT EM <8-3/4">(2540')(2647'-4738')	Winebrenner Unit 1H AWB
4748.50	22871.00	BHI AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(4748.5')(4807'-22871')	Winebrenner Unit 1H AWB
22871.00	22895.00	Blind Drilling (std)	Projection to bit	Winebrenner Unit 1H AWB



Actual Wellpath Report

Winebrenner Unit 1H AWP Proj: 22895'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #11
Area	Tyler County, WV	Well	Winebrenner Unit 1H
Field	Tyler	Wellbore	Winebrenner Unit 1H AWB
Facility	Rush Fork Pad		

COMMENTS
Wellpath general comments API: 47-095-02559-0000 BHI Job #: 109803299 Rig: H&P 317 Duration: 05/14/2019-05/21/2019 Gyrodata MS Gyro <17-1/2">(50'-358') WFT EM <12-1/4">(358')(526'-2540') WFT EM <8-3/4">(2540')(2647'-4738') BH AT Curve <8-1/2">(4748.5')(4807'-22871') Middlesex: 6342' MD Burkett: 6525' MD Tully: 6580' MD Marcellus POE: 6598' MD Projected MD at TD: 22895'

ANTERO RESOURCES CORPORATION

Location: Tyler County, WV

Field: Tyler

Facility: Rush Fork Pad

Slot: Slot #11

Well: Winebrenner Unit 1H

Wellbore: Winebrenner Unit 1H PWB

Plot reference wellpath is Winebrenner Unit 1H PWP Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 317 (RKB)	North Reference: Grid north
Measured depths are referenced to H&P 317 (RKB)	Scale: True distance
H&P 317 (RKB) to Mean Sea Level: 1011.5 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: Slot #11): -986 feet	Created by: delaset on 2019-05-29
Coordinates are in feet referenced to Slot	Database: WA_MPL_EasternUS_Defn

Location Information

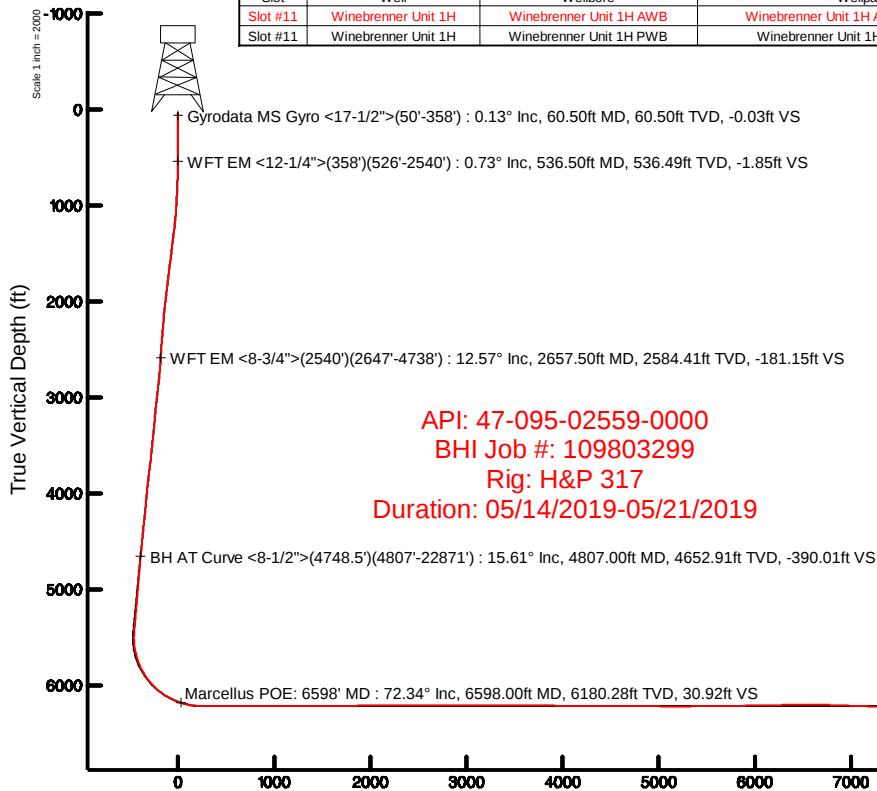
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Rush Fork Pad		1649000.970	14313796.070	39°25'01.492"N	80°58'10.578"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #11	-99.36	-14.25	1648986.730	14313696.752	39°25'00.510"N	80°58'10.760"W
H&P 317 (RKB) to Ground level (At Slot: Slot #11)				25.5ft		
Mean Sea Level to Ground level (At Slot: Slot #11)				-986ft		
H&P 317 (RKB) to Mean Sea Level				1011.5ft		

Well Profile Data

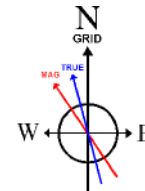
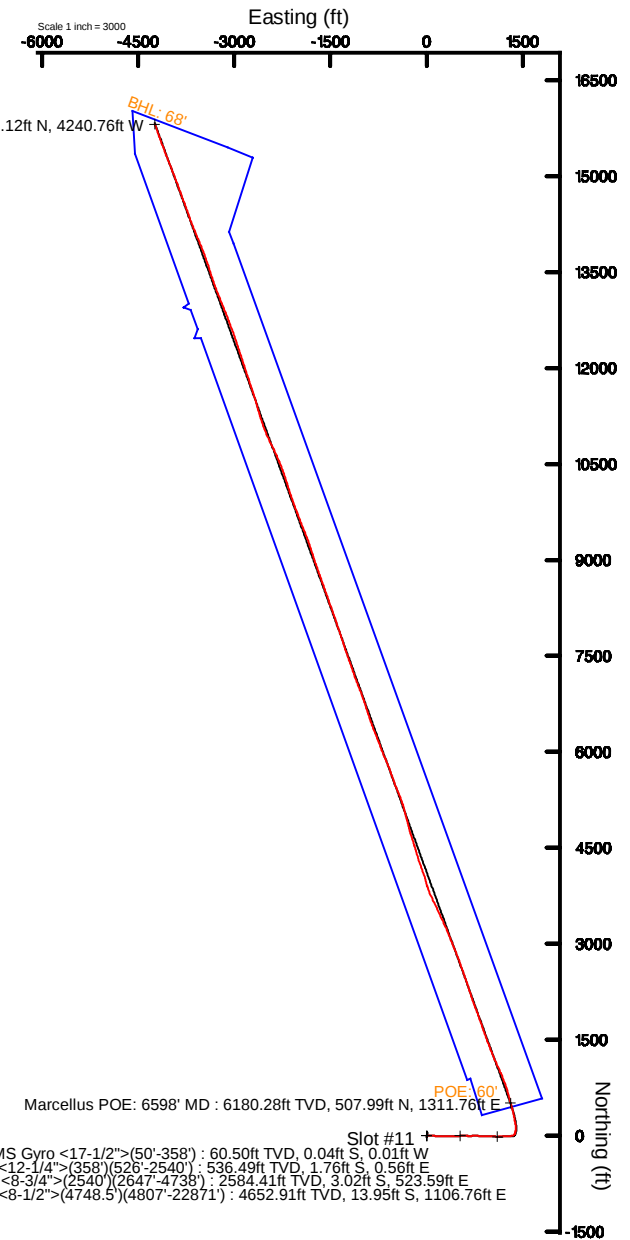
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	4748.50	15.990	90.840	4596.62	-13.87	1090.84	0.58	-384.51
Proj. To Bottom	4851.50	15.550	90.830	4695.74	-14.27	1118.83	0.43	-394.43
End of 3D Arc	4934.46	16.256	89.239	4775.53	-14.28	1141.56	1.00	-402.18
Curve KOP	5633.27	16.256	89.239	5446.40	-11.68	1337.16	0.00	-466.35
POE	6598.24	71.252	340.087	6179.00	499.45	1312.80	8.00	22.53
Landing Pt.	6832.59	90.000	340.087	6217.00	715.88	1234.40	8.00	252.72
BHL	22907.38	90.000	340.087	6217.00	15829.61	-4240.43	0.00	16327.51

Well Data

Slot	Well	Wellbore	Wellpath
Slot #11	Winebrenner Unit 1H	Winebrenner Unit 1H AWB	Winebrenner Unit 1H AWP Proj: 22895'
Slot #11	Winebrenner Unit 1H	Winebrenner Unit 1H PWB	Winebrenner Unit 1H PWP Rev-A.0



Vertical Section (ft)
Azimuth 340.09° with reference 0.00 N, 0.00 E



User specified (HDGM) Dip: 66.48° Field: 51741 nT
Magnetic North is 7.76 degrees West of True North (at 5/10/2019)
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 7.78 degrees

Gyrodata MS Gyro <17-1/2°>(50°-358°) : 60.50ft TVD, 0.04ft S, 0.01ft W
WFT EM <12-1/4°>(358°)(526°-2540°) : 536.49ft TVD, 1.76ft S, 0.56ft E
WFT EM <8-3/4°>(2540°)(2647°-4738°) : 2584.41ft TVD, 3.02ft S, 523.59ft E
BH AT Curve <8-1/2°>(4748.5°)(4807°-22871°) : 4652.91ft TVD, 13.95ft S, 1106.76ft E

Projected MD at TD: 22895' : 89.88° Inc, 22895.00ft MD, 6164.87ft TVD, 16309.29ft VS

Scale 1 inch = 2000'