

Scale: 1 inch = 200 ft.



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

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	6/26/2024 at 6:54:21 PM
Convergence at slot	0.02° West	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	1631724.30	14274277.96	39°18'30.7535"N	81°01'50.6280"W
Facility Reference Pt			1631724.30	14274277.96	39°18'30.7535"N	81°01'50.6280"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	1096.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1096.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot B)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.09°



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Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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	245.370	0.00	0.00	0.00	0.00	1631724.30	14274277.96	39°18'30.7535°N	81°01'50.6280°W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	245.370	30.00	0.00	0.00	0.00	1631724.30	14274277.96	39°18'30.7535°N	81°01'50.6280°W	0.00	0.000	0.00	0.00	0.00	
100.00	0.230	245.370	100.00	-0.01	-0.06	-0.13	1631724.17	14274277.90	39°18'30.7529°N	81°01'50.6297°W	0.14	245.370	0.33	0.33	0.00	Gyrodata MS Gyro <17-1/2"> (100'-900')
200.00	0.210	251.380	200.00	-0.03	-0.20	-0.48	1631723.82	14274277.76	39°18'30.7515°N	81°01'50.6342°W	0.52	247.469	0.03	-0.02	6.01	
300.00	0.180	255.920	300.00	-0.02	-0.30	-0.81	1631723.49	14274277.66	39°18'30.7506°N	81°01'50.6383°W	0.86	249.833	0.03	-0.03	4.54	
400.00	0.130	265.990	400.00	0.02	-0.34	-1.08	1631723.23	14274277.62	39°18'30.7501°N	81°01'50.6417°W	1.13	252.281	0.06	-0.05	10.07	
500.00	0.150	264.180	500.00	0.08	-0.36	-1.32	1631722.98	14274277.60	39°18'30.7499°N	81°01'50.6448°W	1.37	254.538	0.02	0.02	-1.81	
600.00	0.200	276.760	600.00	0.19	-0.36	-1.62	1631722.68	14274277.60	39°18'30.7500°N	81°01'50.6487°W	1.66	257.572	0.06	0.05	12.58	
700.00	0.140	269.740	700.00	0.30	-0.34	-1.92	1631722.38	14274277.62	39°18'30.7502°N	81°01'50.6524°W	1.95	260.018	0.06	-0.06	-7.02	
800.00	0.040	319.380	800.00	0.37	-0.31	-2.06	1631722.24	14274277.65	39°18'30.7504°N	81°01'50.6543°W	2.09	261.410	0.12	-0.10	49.64	
900.00	0.100	97.260	900.00	0.37	-0.30	-2.00	1631722.30	14274277.66	39°18'30.7506°N	81°01'50.6535°W	2.02	261.573	0.13	0.06	137.88	
1038.00	0.130	100.270	1038.00	0.24	-0.34	-1.73	1631722.58	14274277.62	39°18'30.7501°N	81°01'50.6500°W	1.76	258.876	0.02	0.02	2.18	APS EM <12-3/8"> (900')(1038'-3111')
1132.00	0.240	98.910	1132.00	0.09	-0.39	-1.43	1631722.87	14274277.57	39°18'30.7496°N	81°01'50.6462°W	1.48	254.750	0.12	0.12	-1.45	
1227.00	1.510	204.960	1226.99	-0.90	-1.55	-1.76	1631722.54	14274276.41	39°18'30.7381°N	81°01'50.6504°W	2.35	228.510	1.68	1.34	111.63	
1321.00	3.500	211.740	1320.89	-3.61	-5.12	-3.79	1631720.51	14274272.84	39°18'30.7029°N	81°01'50.6762°W	6.37	216.521	2.14	2.12	7.21	
1416.00	5.880	217.130	1415.57	-8.17	-11.46	-8.25	1631716.05	14274266.50	39°18'30.6402°N	81°01'50.7330°W	14.13	215.750	2.55	2.51	5.67	
1510.00	8.270	219.050	1508.84	-14.45	-20.55	-15.42	1631708.89	14274257.41	39°18'30.5503°N	81°01'50.8241°W	25.70	216.877	2.55	2.54	2.04	
1604.00	10.210	218.850	1601.62	-22.48	-32.29	-24.91	1631699.40	14274245.68	39°18'30.4342°N	81°01'50.9448°W	40.78	217.640	2.06	2.06	-0.21	
1698.00	12.770	218.060	1693.73	-32.59	-46.96	-36.54	1631687.78	14274231.01	39°18'30.2892°N	81°01'51.0927°W	59.50	217.883	2.73	2.72	-0.84	
1793.00	16.250	219.480	1785.68	-45.28	-65.50	-51.47	1631672.85	14274212.49	39°18'30.1060°N	81°01'51.2825°W	83.30	218.160	3.68	3.66	1.49	
1887.00	19.700	219.560	1875.08	-60.47	-87.87	-69.92	1631654.40	14274190.13	39°18'29.8848°N	81°01'51.5172°W	112.30	218.512	3.67	3.67	0.09	
1981.00	22.240	215.750	1962.85	-79.04	-114.53	-90.41	1631633.92	14274163.48	39°18'29.6212°N	81°01'51.7778°W	145.91	218.289	3.07	2.70	-4.05	
2076.00	25.540	213.990	2049.70	-101.80	-146.11	-112.37	1631611.97	14274131.91	39°18'29.3090°N	81°01'52.0570°W	184.32	217.564	3.55	3.47	-1.85	
2170.00	25.170	213.170	2134.65	-126.31	-179.64	-134.64	1631589.72	14274098.39	39°18'28.9775°N	81°01'52.3401°W	224.49	216.851	0.54	-0.39	-0.87	
2264.00	24.620	212.340	2219.91	-150.85	-212.92	-156.05	1631568.31	14274065.13	39°18'28.6486°N	81°01'52.6123°W	263.98	216.238	0.69	-0.59	-0.88	
2359.00	24.150	211.550	2306.44	-175.61	-246.20	-176.80	1631547.57	14274031.86	39°18'28.3196°N	81°01'52.8762°W	303.10	215.684	0.60	-0.49	-0.83	
2453.00	25.640	213.250	2391.70	-200.33	-279.59	-198.02	1631526.36	14273998.48	39°18'27.9894°N	81°01'53.1460°W	342.61	215.307	1.76	1.59	1.81	
2548.00	26.260	213.510	2477.13	-225.76	-314.30	-220.89	1631503.50	14273963.78	39°18'27.6463°N	81°01'53.4368°W	384.16	215.099	0.66	0.65	0.27	
2642.00	26.060	212.200	2561.50	-251.40	-349.12	-243.37	1631481.03	14273928.98	39°18'27.3021°N	81°01'53.7227°W	425.57	214.881	0.65	-0.21	-1.39	
2736.00	25.750	211.470	2646.05	-277.39	-384.00	-265.03	1631459.37	14273894.11	39°18'26.9572°N	81°01'53.9981°W	466.59	214.613	0.47	-0.33	-0.78	



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Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWP
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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
2830.00	25.580	210.860	2730.78	-303.51	-418.84	-286.10	1631438.31	14273859.29	39°18'26.6128"N	81°01'54.2660"W	507.23	214.336	0.33	-0.18	-0.65	
2924.00	25.090	210.230	2815.74	-329.66	-453.48	-306.55	1631417.88	14273824.66	39°18'26.2704"N	81°01'54.5259"W	547.37	214.058	0.59	-0.52	-0.67	
3019.00	24.830	209.150	2901.87	-356.17	-488.30	-326.40	1631398.03	14273789.85	39°18'25.9261"N	81°01'54.7783"W	587.35	213.761	0.55	-0.27	-1.14	
3111.00	24.490	208.370	2985.48	-382.01	-521.95	-344.87	1631379.56	14273756.22	39°18'25.5935"N	81°01'55.0132"W	625.60	213.454	0.51	-0.37	-0.85	
3174.00	24.270	208.250	3042.86	-399.68	-544.85	-357.21	1631367.24	14273733.33	39°18'25.3672"N	81°01'55.1700"W	651.50	213.249	0.36	-0.35	-0.19	APS EM [OH] <8-3/4"> (3111')(3174'-3739')
3268.00	23.320	212.400	3128.87	-424.44	-577.58	-376.32	1631348.13	14273700.62	39°18'25.0436"N	81°01'55.4130"W	689.36	213.086	2.05	-1.01	4.41	
3363.00	22.060	219.520	3216.53	-445.54	-607.22	-397.76	1631326.70	14273670.98	39°18'24.7505"N	81°01'55.6855"W	725.90	213.226	3.18	-1.33	7.49	
3457.00	18.840	212.830	3304.61	-464.19	-633.60	-417.22	1631307.24	14273644.61	39°18'24.4897"N	81°01'55.9331"W	758.64	213.365	4.23	-3.43	-7.12	
3551.00	18.450	211.130	3393.68	-483.14	-659.09	-433.14	1631291.33	14273619.14	39°18'24.2378"N	81°01'56.1355"W	788.68	213.312	0.71	-0.41	-1.81	APS EM [ST01] <8-3/4"> (3457')(3551'-6006')
3648.00	19.240	215.140	3485.48	-502.38	-685.30	-450.28	1631274.20	14273592.94	39°18'23.9787"N	81°01'56.3533"W	819.99	213.307	1.56	0.81	4.13	
3739.00	20.160	223.240	3571.17	-518.52	-708.99	-469.65	1631254.83	14273569.26	39°18'23.7445"N	81°01'56.5997"W	850.43	213.522	3.16	1.01	8.90	APS EM [ST02] <8-3/4"> (3648')(3739'-6193')
3834.00	17.280	234.860	3661.17	-530.11	-729.05	-492.42	1631232.08	14273549.21	39°18'23.5461"N	81°01'56.8892"W	879.76	214.036	4.95	-3.03	12.23	
3928.00	16.290	243.610	3751.18	-535.73	-742.94	-515.65	1631208.86	14273535.31	39°18'23.4087"N	81°01'57.1847"W	904.36	214.763	2.88	-1.05	9.31	
4023.00	17.630	245.370	3842.04	-538.90	-754.86	-540.66	1631183.85	14273523.40	39°18'23.2908"N	81°01'57.5029"W	928.51	215.612	1.51	1.41	1.85	
4118.00	17.580	244.200	3932.59	-542.06	-767.10	-566.86	1631167.87	14273511.17	39°18'23.1697"N	81°01'57.8335"W	953.70	216.453	0.38	-0.05	-1.23	
4212.00	16.600	240.710	4022.44	-546.18	-779.85	-591.15	1631133.39	14273498.42	39°18'23.0436"N	81°01'58.1450"W	978.58	217.163	1.51	-1.04	-3.71	
4306.00	17.090	245.860	4112.42	-549.86	-792.07	-615.47	1631109.08	14273486.21	39°18'22.9228"N	81°01'58.4543"W	1003.08	217.849	1.67	0.52	5.48	
4401.00	17.500	257.680	4203.15	-549.49	-800.83	-642.17	1631082.39	14273477.45	39°18'22.8361"N	81°01'58.7939"W	1026.50	218.725	3.72	0.43	12.44	
4495.00	17.280	258.680	4292.85	-546.02	-806.58	-669.67	1631054.90	14273471.70	39°18'22.7791"N	81°01'59.1437"W	1048.35	219.701	0.39	-0.23	1.06	
4590.00	17.340	262.720	4383.55	-541.31	-811.15	-697.54	1631027.04	14273467.14	39°18'22.7339"N	81°01'59.4984"W	1069.83	220.694	1.27	0.06	4.25	
4684.00	19.930	277.630	4472.67	-531.32	-810.80	-727.34	1630997.25	14273467.49	39°18'22.7373"N	81°01'59.8774"W	1089.23	221.894	5.75	2.76	15.86	
4779.00	21.820	290.380	4561.47	-512.89	-802.49	-759.96	1630964.65	14273475.79	39°18'22.8192"N	81°02'0.2924"W	1105.23	223.441	5.17	1.99	13.42	
4873.00	25.320	294.040	4647.62	-488.12	-788.21	-794.70	1630929.91	14273490.06	39°18'22.9602"N	81°02'0.7345"W	1119.30	225.235	4.03	3.72	3.89	
4967.00	26.680	291.560	4732.11	-460.73	-772.27	-832.69	1630891.94	14273506.00	39°18'23.1177"N	81°02'1.2178"W	1135.68	227.156	1.85	1.45	-2.64	
5062.00	26.580	292.800	4817.03	-432.74	-756.20	-872.12	1630852.53	14273522.07	39°18'23.2764"N	81°02'1.7195"W	1154.31	229.072	0.59	-0.11	1.31	
5156.00	25.620	293.480	4901.45	-405.05	-739.95	-910.15	1630814.52	14273538.31	39°18'23.4368"N	81°02'2.2033"W	1172.99	230.889	1.07	-1.02	0.72	
5250.00	27.260	294.400	4985.61	-376.58	-722.96	-948.40	1630776.29	14273555.29	39°18'23.6046"N	81°02'2.6900"W	1192.53	232.682	1.80	1.74	0.98	
5345.00	29.000	294.300	5069.39	-345.89	-704.49	-989.20	1630735.50	14273573.75	39°18'23.7870"N	81°02'3.2092"W	1214.42	234.542	1.83	1.83	-0.11	
5439.00	27.670	291.120	5152.13	-316.24	-687.25	-1030.33	1630694.38	14273590.99	39°18'23.9573"N	81°02'3.7325"W	1238.51	236.296	2.14	-1.41	-3.38	
5533.00	27.450	293.450	5235.46	-287.61	-670.76	-1070.57	1630654.16	14273607.47	39°18'24.1201"N	81°02'4.2445"W	1263.34	237.931	1.17	-0.23	2.48	



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Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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
5628.00	28.410	297.320	5319.40	-256.53	-651.67	-1110.74	1630614.01	14273626.55	39°18'24.3086"N	81°02'4.7556"W	1287.80	239.600	2.16	1.01	4.07	
5722.00	26.630	293.140	5402.77	-226.27	-633.13	-1149.99	1630574.78	14273645.09	39°18'24.4917"N	81°02'5.2550"W	1312.75	241.165	2.79	-1.89	-4.45	
5816.00	25.950	294.940	5487.05	-197.91	-616.18	-1188.01	1630536.77	14273662.03	39°18'24.6591"N	81°02'5.7387"W	1338.30	242.586	1.11	-0.72	1.91	
5911.00	27.170	298.830	5572.03	-167.45	-596.95	-1225.86	1630498.93	14273681.25	39°18'24.8490"N	81°02'6.2204"W	1363.48	244.036	2.24	1.28	4.09	
6005.00	26.070	295.530	5656.07	-137.11	-577.70	-1263.30	1630461.50	14273700.49	39°18'25.0391"N	81°02'6.6968"W	1389.13	245.426	1.96	-1.17	-3.51	
6099.00	26.120	296.450	5740.49	-107.92	-559.58	-1300.47	1630424.35	14273718.60	39°18'25.2181"N	81°02'7.1697"W	1415.75	246.718	0.43	0.05	0.98	
6193.00	29.760	303.820	5823.54	-74.61	-537.37	-1338.40	1630386.44	14273740.81	39°18'25.4375"N	81°02'7.6524"W	1442.25	248.125	5.33	3.87	7.84	
6257.00	32.530	311.690	5878.34	-46.96	-517.07	-1364.46	1630360.39	14273761.10	39°18'25.6380"N	81°02'7.9840"W	1459.15	249.246	7.69	4.33	12.30	BH AT Curve <8-1/2"> (6193')(6257'-23303')
6352.00	36.530	325.830	5956.71	2.67	-476.60	-1399.49	1630325.38	14273801.55	39°18'26.0378"N	81°02'8.4298"W	1478.42	251.193	9.40	4.21	14.88	
6413.00†	40.131	326.512	6004.55	39.22	-445.18	-1420.54	1630304.33	14273832.96	39°18'26.3483"N	81°02'8.6978"W	1488.66	252.600	5.94	5.90	1.12	Sycamore: 6413' MD
6446.00	42.080	326.840	6029.42	60.23	-427.05	-1432.45	1630292.42	14273851.08	39°18'26.5275"N	81°02'8.8495"W	1494.76	253.399	5.94	5.91	0.99	
6538.00†	49.958	328.744	6093.26	124.62	-371.05	-1467.65	1630257.24	14273907.06	39°18'27.0809"N	81°02'9.2975"W	1513.82	255.812	8.69	8.56	2.07	Middlesex: 6538' MD
6540.00	50.130	328.780	6094.54	126.12	-369.73	-1468.44	1630256.45	14273908.37	39°18'27.0938"N	81°02'9.3076"W	1514.27	255.867	8.69	8.58	1.81	
6635.00	58.180	332.760	6150.14	201.81	-302.54	-1505.88	1630219.02	14273975.54	39°18'27.7577"N	81°02'9.7842"W	1535.97	258.640	9.13	8.47	4.19	
6706.00†	63.534	335.591	6184.71	263.35	-246.74	-1532.85	1630192.07	14274031.32	39°18'28.3092"N	81°02'10.1275"W	1552.58	260.856	8.31	7.54	3.99	Burkett: 6706' MD
6729.00	65.280	336.450	6194.65	284.01	-227.78	-1541.28	1630183.64	14274050.27	39°18'28.4965"N	81°02'10.2349"W	1558.02	261.593	8.31	7.59	3.73	
6750.00†	67.232	337.283	6203.10	303.18	-210.11	-1548.83	1630176.10	14274067.94	39°18'28.6712"N	81°02'10.3310"W	1563.01	262.275	9.98	9.29	3.97	Marcellus POE: 6750' MD
6824.00	74.140	340.050	6227.57	372.90	-145.09	-1574.18	1630150.75	14274132.93	39°18'29.3137"N	81°02'10.6539"W	1580.85	264.734	9.98	9.34	3.74	
6918.00	82.910	340.760	6246.25	464.93	-58.39	-1605.04	1630119.91	14274219.59	39°18'30.1705"N	81°02'11.0469"W	1606.10	267.917	9.36	9.33	0.76	
7012.00	90.090	340.120	6251.98	558.68	29.96	-1636.43	1630088.53	14274307.91	39°18'31.0436"N	81°02'11.4467"W	1636.70	271.049	7.67	7.64	-0.68	
7106.00	89.320	340.400	6252.47	652.67	118.44	-1668.18	1630056.79	14274396.35	39°18'31.9179"N	81°02'11.8511"W	1672.38	274.061	0.87	-0.82	0.30	
7201.00	89.480	339.880	6253.46	747.65	207.78	-1700.45	1630024.53	14274485.66	39°18'32.8009"N	81°02'12.2621"W	1713.10	276.967	0.57	0.17	-0.55	
7295.00	89.350	339.980	6254.42	841.63	296.07	-1732.71	1629992.29	14274573.91	39°18'33.6733"N	81°02'12.6729"W	1757.82	279.697	0.17	-0.14	0.11	
7389.00	90.400	340.840	6254.63	935.62	384.63	-1764.22	1629960.79	14274662.43	39°18'34.5485"N	81°02'13.0743"W	1805.66	282.299	1.44	1.12	0.91	
7484.00	90.180	340.740	6254.15	1030.62	474.33	-1795.48	1629929.54	14274752.10	39°18'35.4350"N	81°02'13.4725"W	1857.08	284.798	0.25	-0.23	-0.11	
7578.00	90.180	340.560	6253.85	1124.61	563.02	-1826.62	1629898.41	14274840.76	39°18'36.3115"N	81°02'13.8692"W	1911.43	287.131	0.19	0.00	-0.19	
7672.00	90.180	340.680	6253.56	1218.61	651.70	-1857.82	1629867.23	14274929.40	39°18'37.1878"N	81°02'14.2665"W	1968.80	289.330	0.13	0.00	0.13	
7766.00	90.120	340.550	6253.31	1312.61	740.37	-1889.02	1629836.04	14275018.03	39°18'38.0640"N	81°02'14.6639"W	2028.92	291.402	0.15	-0.06	-0.14	
7861.00	90.150	340.910	6253.09	1407.60	830.05	-1920.37	1629804.70	14275107.67	39°18'38.9502"N	81°02'15.0632"W	2092.08	293.376	0.38	0.03	0.38	
7955.00	90.090	340.670	6252.89	1501.60	918.81	-1951.30	1629773.79	14275196.40	39°18'39.8274"N	81°02'15.4571"W	2156.80	295.214	0.26	-0.06	-0.26	



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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
8049.00	90.150	340.950	6252.69	1595.60	1007.59	-1982.20	1629742.90	14275285.14	39°18'40.7048"N	81°02'15.8507"W	2223.58	296.945	0.30	0.06	0.30	
8143.00	90.150	340.880	6252.45	1689.60	1096.42	-2012.93	1629712.18	14275373.94	39°18'41.5826"N	81°02'16.2422"W	2292.17	298.577	0.07	0.00	-0.07	
8237.00	90.310	341.260	6252.07	1783.60	1185.34	-2043.42	1629681.70	14275462.82	39°18'42.4613"N	81°02'16.6307"W	2362.33	300.117	0.44	0.17	0.40	
8332.00	90.250	341.180	6251.60	1878.60	1275.28	-2074.01	1629651.13	14275552.72	39°18'43.3501"N	81°02'17.0202"W	2434.72	301.587	0.11	-0.06	-0.08	
8426.00	90.340	340.990	6251.12	1972.60	1364.20	-2104.48	1629620.67	14275641.81	39°18'44.2289"N	81°02'17.4084"W	2507.96	302.953	0.22	0.10	-0.20	
8520.00	90.180	341.150	6250.69	2066.60	1453.11	-2134.97	1629590.18	14275730.49	39°18'45.1076"N	81°02'17.7968"W	2582.57	304.240	0.24	-0.17	0.17	
8615.00	90.280	341.120	6250.31	2161.60	1543.01	-2165.69	1629559.48	14275820.35	39°18'45.9959"N	81°02'18.1881"W	2659.15	305.469	0.11	0.11	-0.03	
8709.00	90.460	340.970	6249.71	2255.59	1631.91	-2196.22	1629528.96	14275909.22	39°18'46.8745"N	81°02'18.5771"W	2736.15	306.614	0.25	0.19	-0.16	
8804.00	90.490	341.080	6248.92	2350.59	1721.75	-2227.11	1629498.08	14275999.01	39°18'47.7623"N	81°02'18.9705"W	2815.04	307.707	0.12	0.03	0.12	
8898.00	89.940	340.950	6248.57	2444.59	1810.63	-2257.69	1629467.52	14276087.86	39°18'48.6406"N	81°02'19.3601"W	2894.06	308.729	0.60	-0.59	-0.14	
8993.00	90.680	340.810	6248.05	2539.59	1900.39	-2288.81	1629436.41	14276177.59	39°18'49.5276"N	81°02'19.7565"W	2974.92	309.703	0.79	0.78	-0.15	
9087.00	90.710	341.990	6246.91	2633.58	1989.47	-2318.79	1629406.44	14276266.63	39°18'50.4080"N	81°02'20.1384"W	3055.29	310.629	1.26	0.03	1.26	
9182.00	90.250	341.080	6246.12	2728.57	2079.58	-2348.88	1629376.37	14276356.70	39°18'51.2984"N	81°02'20.5217"W	3137.17	311.520	1.07	-0.48	-0.96	
9276.00	90.340	340.960	6245.63	2822.57	2168.46	-2379.45	1629345.81	14276445.55	39°18'52.1768"N	81°02'20.9111"W	3219.32	312.344	0.16	0.10	-0.13	
9370.00	90.280	340.840	6245.12	2916.57	2257.29	-2410.21	1629315.06	14276534.34	39°18'53.0546"N	81°02'21.3029"W	3302.19	313.124	0.14	-0.08	-0.13	
9465.00	90.460	340.640	6244.51	3011.56	2346.97	-2441.54	1629283.74	14276623.99	39°18'53.9408"N	81°02'21.7021"W	3386.65	313.869	0.28	0.19	-0.21	
9559.00	90.890	341.190	6243.40	3105.55	2435.80	-2472.27	1629253.02	14276712.78	39°18'54.8186"N	81°02'22.0936"W	3470.63	314.574	0.74	0.46	0.59	
9653.00	90.370	340.400	6242.37	3199.55	2524.56	-2503.19	1629222.11	14276801.50	39°18'55.6958"N	81°02'22.4875"W	3555.19	315.243	1.01	-0.55	-0.84	
9748.00	90.090	340.480	6241.99	3294.54	2614.08	-2535.00	1629190.32	14276890.98	39°18'56.5804"N	81°02'22.8927"W	3641.37	315.880	0.31	-0.29	0.08	
9842.00	90.150	341.480	6241.79	3388.54	2702.94	-2565.65	1629159.68	14276979.81	39°18'57.4586"N	81°02'23.2831"W	3726.72	316.493	1.04	0.06	1.04	
9936.00	91.260	341.570	6240.63	3482.53	2792.08	-2595.45	1629129.89	14277068.92	39°18'58.3395"N	81°02'23.6628"W	3812.09	317.090	1.19	1.18	0.12	
10031.00	90.490	342.810	6239.18	3577.50	2882.51	-2624.50	1629100.85	14277159.31	39°18'59.2332"N	81°02'24.0329"W	3898.32	317.682	1.54	-0.81	1.31	
10125.00	90.030	340.630	6238.76	3671.48	2971.76	-2653.98	1629071.38	14277248.53	39°19'0.1152"N	81°02'24.4086"W	3984.34	318.233	2.37	-0.49	-2.32	
10219.00	90.550	341.400	6238.28	3765.48	3060.65	-2684.56	1629040.82	14277337.38	39°19'0.9936"N	81°02'24.7981"W	4071.17	318.745	0.99	0.55	0.82	
10313.00	90.280	340.900	6237.60	3859.48	3149.60	-2714.93	1629010.46	14277426.30	39°19'1.8726"N	81°02'25.1851"W	4158.23	319.239	0.60	-0.29	-0.53	
10408.00	91.230	340.860	6236.35	3954.47	3239.35	-2746.05	1628979.36	14277516.01	39°19'2.7596"N	81°02'25.5814"W	4246.67	319.712	1.00	1.00	-0.04	
10502.00	90.030	341.360	6235.31	4048.46	3328.28	-2776.48	1628948.94	14277604.91	39°19'3.6384"N	81°02'25.9691"W	4334.32	320.165	1.38	-1.28	0.53	
10596.00	90.340	342.130	6235.01	4142.45	3417.55	-2805.92	1628919.51	14277694.14	39°19'4.5205"N	81°02'26.3443"W	4421.86	320.613	0.88	0.33	0.82	
10691.00	89.970	341.820	6234.75	4237.44	3507.89	-2835.32	1628890.12	14277784.44	39°19'5.4133"N	81°02'26.7188"W	4510.47	321.052	0.51	-0.39	-0.33	
10785.00	89.540	340.400	6235.16	4331.44	3596.82	-2865.75	1628859.70	14277873.34	39°19'6.2921"N	81°02'27.1065"W	4598.87	321.454	1.58	-0.46	-1.51	



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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
10879.00	90.120	340.780	6235.43	4425.43	3685.48	-2896.99	1628828.48	14277961.96	39°19'7.1682"N	81°02'27.5045"W	4687.78	321.831	0.74	0.62	0.40	
10974.00	90.280	340.930	6235.10	4520.43	3775.22	-2928.14	1628797.33	14278051.67	39°19'8.0551"N	81°02'27.9014"W	4777.69	322.202	0.23	0.17	0.16	
11068.00	90.620	341.660	6234.36	4614.43	3864.26	-2958.29	1628767.20	14278140.66	39°19'8.9349"N	81°02'28.2855"W	4866.61	322.564	0.86	0.36	0.78	
11163.00	89.970	341.320	6233.88	4709.42	3954.34	-2988.45	1628737.06	14278230.71	39°19'9.8252"N	81°02'28.6698"W	4956.57	322.920	0.77	-0.68	-0.36	
11257.00	91.390	341.330	6232.76	4803.41	4043.38	-3018.54	1628706.97	14278319.72	39°19'10.7051"N	81°02'29.0532"W	5045.84	323.257	1.51	1.51	0.01	
11351.00	89.780	340.870	6231.80	4897.40	4132.31	-3048.99	1628676.54	14278408.61	39°19'11.5838"N	81°02'29.4411"W	5135.39	323.579	1.78	-1.71	-0.49	
11445.00	89.940	340.640	6232.03	4991.40	4221.05	-3079.97	1628645.57	14278497.32	39°19'12.4608"N	81°02'29.8359"W	5225.28	323.883	0.30	0.17	-0.24	
11539.00	90.280	341.390	6231.85	5085.40	4309.94	-3110.55	1628615.00	14278586.17	39°19'13.3392"N	81°02'30.2255"W	5315.18	324.181	0.88	0.36	0.80	
11727.00	90.120	341.110	6231.19	5273.40	4487.96	-3170.98	1628554.59	14278764.12	39°19'15.0985"N	81°02'30.9955"W	5495.17	324.757	0.17	-0.09	-0.15	
11822.00	90.060	341.140	6231.04	5368.40	4577.85	-3201.71	1628523.87	14278853.97	39°19'15.9868"N	81°02'31.3871"W	5586.38	325.031	0.07	-0.06	0.03	
11916.00	89.820	340.900	6231.14	5462.40	4666.74	-3232.29	1628493.31	14278942.83	39°19'16.8652"N	81°02'31.7766"W	5676.81	325.293	0.36	-0.26	-0.26	
12011.00	90.150	341.160	6231.17	5557.40	4756.58	-3263.17	1628462.44	14279032.63	39°19'17.7530"N	81°02'32.1701"W	5768.30	325.549	0.44	0.35	0.27	
12105.00	89.660	340.640	6231.32	5651.40	4845.41	-3293.93	1628431.70	14279121.42	39°19'18.6308"N	81°02'32.5620"W	5859.00	325.792	0.76	-0.52	-0.55	
12199.00	89.910	340.530	6231.68	5745.39	4934.06	-3325.17	1628400.46	14279210.04	39°19'19.5068"N	81°02'32.9601"W	5949.93	326.023	0.29	0.27	-0.12	
12294.00	90.060	340.870	6231.70	5840.39	5023.72	-3356.57	1628369.08	14279299.66	39°19'20.3929"N	81°02'33.3602"W	6041.88	326.251	0.39	0.16	0.36	
12388.00	89.970	340.950	6231.68	5934.39	5112.55	-3387.31	1628338.35	14279388.46	39°19'21.2707"N	81°02'33.7519"W	6132.87	326.474	0.13	-0.10	0.09	
12577.00	89.970	341.360	6231.78	6123.39	5291.42	-3448.36	1628277.32	14279567.25	39°19'23.0383"N	81°02'34.5298"W	6315.88	326.908	0.22	0.00	0.22	
12671.00	90.030	340.960	6231.78	6217.39	5380.38	-3478.72	1628246.98	14279656.18	39°19'23.9174"N	81°02'34.9166"W	6407.03	327.115	0.43	0.06	-0.43	
12766.00	89.910	340.980	6231.82	6312.39	5470.19	-3509.69	1628216.02	14279745.95	39°19'24.8049"N	81°02'35.3113"W	6499.30	327.316	0.13	-0.13	0.02	
12860.00	89.940	340.910	6231.95	6406.39	5559.04	-3540.38	1628185.34	14279834.77	39°19'25.6829"N	81°02'35.7023"W	6590.69	327.508	0.08	0.03	-0.07	
12954.00	89.940	341.180	6232.05	6500.39	5647.94	-3570.92	1628154.82	14279923.63	39°19'26.5615"N	81°02'36.0914"W	6682.12	327.697	0.29	0.00	0.29	
13048.00	89.940	341.280	6232.14	6594.39	5736.94	-3601.16	1628124.59	14280012.60	39°19'27.4410"N	81°02'36.4768"W	6773.54	327.883	0.11	0.00	0.11	
13143.00	89.970	341.170	6232.22	6689.39	5826.89	-3631.74	1628094.02	14280102.51	39°19'28.3298"N	81°02'36.8664"W	6866.01	328.066	0.12	0.03	-0.12	
13237.00	90.030	341.120	6232.22	6783.39	5915.84	-3662.12	1628063.66	14280191.43	39°19'29.2089"N	81°02'37.2535"W	6957.61	328.241	0.08	0.06	-0.05	
13331.00	89.940	340.800	6232.24	6877.39	6004.70	-3692.78	1628033.00	14280280.25	39°19'30.0870"N	81°02'37.6443"W	7049.33	328.409	0.35	-0.10	-0.34	
13425.00	89.910	341.370	6232.37	6971.39	6093.63	-3723.25	1628002.54	14280369.14	39°19'30.9657"N	81°02'38.0326"W	7141.07	328.575	0.61	-0.03	0.61	
13519.00	90.060	341.240	6232.39	7065.39	6182.67	-3753.38	1627972.43	14280458.14	39°19'31.8456"N	81°02'38.4165"W	7232.79	328.739	0.21	0.16	-0.14	
13614.00	89.940	341.460	6232.39	7160.38	6272.68	-3783.76	1627942.06	14280548.12	39°19'32.7351"N	81°02'38.8037"W	7325.53	328.901	0.26	-0.13	0.23	
13708.00	89.970	341.130	6232.47	7254.38	6361.71	-3813.91	1627911.93	14280637.12	39°19'33.6150"N	81°02'39.1876"W	7417.36	329.057	0.35	0.03	-0.35	
13802.00	89.940	341.190	6232.54	7348.38	6450.68	-3844.26	1627881.58	14280726.04	39°19'34.4941"N	81°02'39.5747"W	7509.30	329.207	0.07	-0.03	0.06	



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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
13896.00	90.030	341.080	6232.56	7442.38	6539.63	-3874.66	1627851.20	14280814.96	39°19'35.3731"N	81°02'39.9620"W	7601.29	329.354	0.15	0.10	-0.12	
13990.00	89.940	341.120	6232.59	7536.38	6628.56	-3905.10	1627820.76	14280903.85	39°19'36.2519"N	81°02'40.3500"W	7693.35	329.496	0.10	-0.10	0.04	
14085.00	90.000	340.830	6232.64	7631.38	6718.37	-3936.07	1627789.81	14280993.63	39°19'37.1394"N	81°02'40.7446"W	7786.47	329.635	0.31	0.06	-0.31	
14179.00	89.940	341.200	6232.69	7725.38	6807.26	-3966.65	1627759.24	14281082.48	39°19'38.0178"N	81°02'41.1343"W	7878.65	329.770	0.40	-0.06	0.39	
14274.00	89.820	341.590	6232.89	7820.38	6897.29	-3996.96	1627728.94	14281172.48	39°19'38.9075"N	81°02'41.5206"W	7971.72	329.908	0.43	-0.13	0.41	
14368.00	89.970	341.560	6233.06	7914.38	6986.47	-4026.67	1627699.25	14281261.62	39°19'39.7888"N	81°02'41.8992"W	8063.80	330.043	0.16	0.16	-0.03	
14463.00	89.970	341.170	6233.11	8009.38	7076.49	-4057.03	1627668.90	14281351.61	39°19'40.6784"N	81°02'42.2861"W	8156.97	330.174	0.41	0.00	-0.41	
14557.00	90.060	341.190	6233.08	8103.38	7165.47	-4087.35	1627638.59	14281440.55	39°19'41.5577"N	81°02'42.6725"W	8249.26	330.299	0.10	0.10	0.02	
14652.00	89.880	340.920	6233.13	8198.38	7255.32	-4118.19	1627607.76	14281530.36	39°19'42.4456"N	81°02'43.0656"W	8342.61	330.420	0.34	-0.19	-0.28	
14746.00	89.910	341.020	6233.31	8292.38	7344.18	-4148.84	1627577.12	14281619.19	39°19'43.3237"N	81°02'43.4562"W	8435.04	330.537	0.11	0.03	0.11	
14841.00	90.370	341.340	6233.07	8387.38	7434.10	-4179.49	1627546.49	14281709.07	39°19'44.2123"N	81°02'43.8468"W	8528.42	330.655	0.59	0.48	0.34	
14935.00	90.400	341.290	6232.44	8481.37	7523.15	-4209.60	1627516.39	14281798.08	39°19'45.0922"N	81°02'44.2306"W	8620.82	330.771	0.06	0.03	-0.05	
15030.00	90.250	340.810	6231.90	8576.37	7613.00	-4240.45	1627485.55	14281887.90	39°19'45.9801"N	81°02'44.6237"W	8714.31	330.882	0.53	-0.16	-0.51	
15124.00	90.180	341.190	6231.55	8670.37	7701.87	-4271.06	1627454.96	14281976.74	39°19'46.8584"N	81°02'45.0138"W	8806.86	330.990	0.41	-0.07	0.40	
15218.00	90.250	340.980	6231.20	8764.37	7790.80	-4301.53	1627424.50	14282065.63	39°19'47.7371"N	81°02'45.4021"W	8899.42	331.096	0.24	0.07	-0.22	
15313.00	90.340	341.130	6230.71	8859.37	7880.65	-4332.37	1627393.67	14282155.44	39°19'48.6251"N	81°02'45.7952"W	8993.00	331.200	0.18	0.09	0.16	
15407.00	90.310	341.080	6230.18	8953.37	7969.58	-4362.81	1627363.24	14282244.34	39°19'49.5039"N	81°02'46.1831"W	9085.61	331.302	0.06	-0.03	-0.05	
15502.00	90.830	341.150	6229.23	9048.36	8059.46	-4393.56	1627332.51	14282334.19	39°19'50.3921"N	81°02'46.5750"W	9179.23	331.403	0.55	0.55	0.07	
15596.00	90.460	341.310	6228.17	9142.35	8148.46	-4423.80	1627302.28	14282423.14	39°19'51.2715"N	81°02'46.9605"W	9271.86	331.502	0.43	-0.39	0.17	
15690.00	90.180	341.370	6227.65	9236.35	8237.52	-4453.88	1627272.21	14282512.17	39°19'52.1516"N	81°02'47.3438"W	9364.49	331.601	0.30	-0.30	0.06	
15785.00	90.400	341.450	6227.17	9331.35	8327.56	-4484.16	1627241.94	14282602.17	39°19'53.0414"N	81°02'47.7298"W	9458.12	331.699	0.25	0.23	0.08	
15879.00	90.060	341.060	6226.79	9425.35	8416.57	-4514.37	1627211.74	14282691.15	39°19'53.9210"N	81°02'48.1148"W	9550.82	331.792	0.55	-0.36	-0.41	
15974.00	90.280	341.220	6226.51	9520.35	8506.47	-4545.08	1627181.05	14282781.01	39°19'54.8094"N	81°02'48.5062"W	9644.57	331.884	0.29	0.23	0.17	
16068.00	90.490	341.560	6225.88	9614.34	8595.55	-4575.08	1627151.06	14282870.06	39°19'55.6897"N	81°02'48.8885"W	9737.29	331.975	0.43	0.22	0.36	
16162.00	90.180	341.000	6225.33	9708.34	8684.58	-4605.24	1627120.91	14282959.05	39°19'56.5694"N	81°02'49.2730"W	9830.07	332.064	0.68	-0.33	-0.60	
16257.00	91.260	341.920	6224.13	9803.33	8774.64	-4635.45	1627090.72	14283049.07	39°19'57.4594"N	81°02'49.6580"W	9923.79	332.153	1.49	1.14	0.97	
16351.00	90.340	341.240	6222.82	9897.32	8863.81	-4665.15	1627061.03	14283138.21	39°19'58.3406"N	81°02'50.0366"W	10016.53	332.242	1.22	-0.98	-0.72	
16445.00	91.200	341.820	6221.56	9991.30	8952.96	-4694.92	1627031.26	14283227.32	39°19'59.2216"N	81°02'50.4161"W	10109.29	332.328	1.10	0.91	0.62	
16539.00	90.400	341.600	6220.24	10085.29	9042.20	-4724.42	1627001.78	14283316.53	39°20'0.1034"N	81°02'50.7921"W	10202.04	332.414	0.88	-0.85	-0.23	
16633.00	91.320	341.810	6218.83	10179.27	9131.44	-4753.92	1626972.29	14283405.73	39°20'0.9853"N	81°02'51.1682"W	10294.81	332.498	1.00	0.98	0.22	



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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
16728.00	91.020	341.180	6216.89	10274.25	9221.51	-4784.07	1626942.15	14283495.76	39°20'1.8753"N	81°02'51.5524"W	10388.63	332.580	0.73	-0.32	-0.66	
16822.00	90.620	340.830	6215.55	10368.24	9310.38	-4814.66	1626911.57	14283584.60	39°20'2.7536"N	81°02'51.9423"W	10481.61	332.655	0.57	-0.43	-0.37	
16917.00	90.860	340.670	6214.32	10463.23	9400.06	-4845.98	1626880.27	14283674.24	39°20'3.6398"N	81°02'52.3415"W	10575.67	332.728	0.30	0.25	-0.17	
17011.00	90.830	341.240	6212.93	10557.22	9488.91	-4876.65	1626849.61	14283763.05	39°20'4.5177"N	81°02'52.7324"W	10668.70	332.800	0.61	-0.03	0.61	
17105.00	90.890	341.740	6211.52	10651.20	9578.03	-4906.49	1626819.78	14283852.14	39°20'5.3985"N	81°02'53.1128"W	10761.62	332.876	0.54	0.06	0.53	
17199.00	90.250	341.020	6210.59	10745.20	9667.11	-4936.50	1626789.78	14283941.18	39°20'6.2787"N	81°02'53.4953"W	10854.59	332.949	1.02	-0.68	-0.77	
17294.00	90.370	340.850	6210.07	10840.19	9756.90	-4967.53	1626758.77	14284030.93	39°20'7.1659"N	81°02'53.8909"W	10948.67	333.018	0.22	0.13	-0.18	
17388.00	90.490	341.280	6209.37	10934.19	9845.81	-4998.03	1626728.28	14284119.81	39°20'8.0445"N	81°02'54.2796"W	11041.75	333.086	0.47	0.13	0.46	
17482.00	90.370	341.180	6208.66	11028.19	9934.81	-5028.28	1626698.04	14284208.77	39°20'8.9240"N	81°02'54.6652"W	11134.81	333.155	0.17	-0.13	-0.11	
17576.00	90.430	341.340	6208.01	11122.19	10023.82	-5058.48	1626667.86	14284297.75	39°20'9.8036"N	81°02'55.0501"W	11227.87	333.222	0.18	0.06	0.17	
17671.00	90.370	341.220	6207.34	11217.18	10113.79	-5088.97	1626637.38	14284387.69	39°20'10.6927"N	81°02'55.4388"W	11321.94	333.290	0.14	-0.06	-0.13	
17860.00	90.370	341.030	6206.12	11406.18	10292.62	-5150.11	1626576.26	14284566.45	39°20'12.4599"N	81°02'56.2182"W	11509.20	333.418	0.10	0.00	-0.10	
17954.00	90.400	341.080	6205.49	11500.18	10381.53	-5180.62	1626545.76	14284655.32	39°20'13.3385"N	81°02'56.6072"W	11602.37	333.480	0.06	0.03	0.05	
18048.00	90.340	341.220	6204.89	11594.18	10470.49	-5210.99	1626515.40	14284744.24	39°20'14.2175"N	81°02'56.9943"W	11695.54	333.541	0.16	-0.06	0.15	
18143.00	90.400	341.140	6204.27	11689.17	10560.41	-5241.64	1626484.77	14284834.12	39°20'15.1061"N	81°02'57.3850"W	11789.70	333.603	0.11	0.06	-0.08	
18237.00	90.340	340.690	6203.66	11783.17	10649.24	-5272.37	1626454.04	14284922.92	39°20'15.9839"N	81°02'57.7767"W	11882.94	333.660	0.48	-0.06	-0.48	
18331.00	90.370	341.110	6203.08	11877.17	10738.06	-5303.13	1626423.30	14285011.71	39°20'16.8616"N	81°02'58.1688"W	11976.19	333.717	0.45	0.03	0.45	
18425.00	90.430	340.810	6202.43	11971.17	10826.92	-5333.80	1626392.65	14285100.52	39°20'17.7397"N	81°02'58.5597"W	12069.45	333.773	0.33	0.06	-0.32	
18519.00	90.340	340.850	6201.79	12065.16	10915.70	-5364.66	1626361.79	14285189.27	39°20'18.6170"N	81°02'58.9532"W	12162.74	333.828	0.10	-0.10	0.04	
18614.00	90.430	341.210	6201.16	12160.16	11005.54	-5395.54	1626330.92	14285279.08	39°20'19.5048"N	81°02'59.3468"W	12256.99	333.883	0.39	0.09	0.38	
18708.00	90.310	340.790	6200.55	12254.16	11094.42	-5426.15	1626300.33	14285367.92	39°20'20.3830"N	81°02'59.7370"W	12350.27	333.937	0.46	-0.13	-0.45	
18803.00	90.340	340.720	6200.01	12349.15	11184.11	-5457.46	1626269.03	14285457.57	39°20'21.2693"N	81°03'0.1361"W	12444.60	333.989	0.08	0.03	-0.07	
18897.00	90.370	341.360	6199.43	12443.15	11273.00	-5488.00	1626238.51	14285546.43	39°20'22.1478"N	81°03'0.5255"W	12537.89	334.042	0.68	0.03	0.68	
18991.00	90.340	341.060	6198.85	12537.15	11361.99	-5518.28	1626208.24	14285635.39	39°20'23.0272"N	81°03'0.9114"W	12631.16	334.095	0.32	-0.03	-0.32	
19085.00	90.520	341.250	6198.14	12631.15	11450.95	-5548.64	1626177.89	14285724.31	39°20'23.9062"N	81°03'1.2985"W	12724.45	334.147	0.28	0.19	0.20	
19180.00	90.280	341.000	6197.48	12726.14	11540.84	-5579.37	1626147.17	14285814.16	39°20'24.7945"N	81°03'1.6903"W	12818.75	334.199	0.36	-0.25	-0.26	
19274.00	90.490	341.210	6196.85	12820.14	11629.77	-5609.81	1626116.74	14285903.06	39°20'25.6733"N	81°03'2.0783"W	12912.07	334.249	0.32	0.22	0.22	
19369.00	90.490	341.280	6196.03	12915.14	11719.73	-5640.35	1626086.21	14285992.98	39°20'26.5622"N	81°03'2.4677"W	13006.37	334.300	0.07	0.00	0.07	
19463.00	90.710	341.130	6195.05	13009.13	11808.71	-5670.64	1626055.94	14286081.92	39°20'27.4415"N	81°03'2.8538"W	13099.68	334.349	0.28	0.23	-0.16	
19557.00	90.550	340.990	6194.01	13103.13	11897.61	-5701.15	1626025.45	14286170.79	39°20'28.3200"N	81°03'3.2428"W	13193.04	334.397	0.23	-0.17	-0.15	



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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
19651.00	90.580	341.080	6193.09	13197.12	11986.51	-5731.69	1625994.91	14286259.65	39°20'29.1985"N	81°03'3.6322"W	13286.41	334.444	0.10	0.03	0.10	
19746.00	90.650	340.790	6192.07	13292.12	12076.29	-5762.72	1625963.89	14286349.40	39°20'30.0857"N	81°03'4.0278"W	13380.80	334.490	0.31	0.07	-0.31	
19840.00	90.550	341.290	6191.08	13386.11	12165.19	-5793.26	1625933.37	14286438.26	39°20'30.9641"N	81°03'4.4171"W	13474.18	334.535	0.54	-0.11	0.53	
19934.00	90.620	341.070	6190.12	13480.11	12254.16	-5823.58	1625903.06	14286527.19	39°20'31.8433"N	81°03'4.8037"W	13567.55	334.581	0.25	0.07	-0.23	
20029.00	90.800	341.300	6188.95	13575.10	12344.07	-5854.22	1625872.43	14286617.07	39°20'32.7318"N	81°03'5.1943"W	13661.92	334.627	0.31	0.19	0.24	
20123.00	90.650	340.830	6187.76	13669.09	12432.98	-5884.72	1625841.94	14286705.94	39°20'33.6103"N	81°03'5.5832"W	13755.32	334.671	0.52	-0.16	-0.50	
20217.00	90.710	340.900	6186.64	13763.08	12521.78	-5915.53	1625811.15	14286794.71	39°20'34.4878"N	81°03'5.9760"W	13848.77	334.713	0.10	0.06	0.07	
20312.00	90.770	341.110	6185.42	13858.08	12611.60	-5946.45	1625780.24	14286884.49	39°20'35.3754"N	81°03'6.3701"W	13943.19	334.756	0.23	0.06	0.22	
20406.00	90.800	341.060	6184.13	13952.07	12700.51	-5976.92	1625749.78	14286973.37	39°20'36.2540"N	81°03'6.7586"W	14036.62	334.798	0.06	0.03	-0.05	
20500.00	90.370	340.800	6183.17	14046.06	12789.35	-6007.63	1625719.09	14287062.17	39°20'37.1319"N	81°03'7.1501"W	14130.08	334.839	0.53	-0.46	-0.28	
20594.00	90.550	340.840	6182.41	14140.06	12878.13	-6038.51	1625688.22	14287150.91	39°20'38.0092"N	81°03'7.5439"W	14223.57	334.878	0.20	0.19	0.04	
20688.00	90.520	341.030	6181.54	14234.05	12966.97	-6069.21	1625657.53	14287239.72	39°20'38.8871"N	81°03'7.9353"W	14317.04	334.918	0.20	-0.03	0.20	
20877.00	91.260	341.060	6178.60	14423.03	13145.70	-6130.60	1625596.17	14287418.37	39°20'40.6532"N	81°03'8.7180"W	14504.95	334.998	0.39	0.39	0.02	
20972.00	90.460	340.980	6177.17	14518.02	13235.52	-6161.49	1625565.28	14287508.16	39°20'41.5408"N	81°03'9.1118"W	14599.42	335.037	0.85	-0.84	-0.08	
21066.00	90.460	340.950	6176.42	14612.01	13324.38	-6192.15	1625534.64	14287596.98	39°20'42.4189"N	81°03'9.5027"W	14692.92	335.075	0.03	0.00	-0.03	
21160.00	90.550	341.010	6175.59	14706.01	13413.24	-6222.78	1625504.02	14287685.81	39°20'43.2970"N	81°03'9.8933"W	14786.42	335.112	0.12	0.10	0.06	
21254.00	90.490	340.930	6174.74	14800.01	13502.10	-6253.43	1625473.38	14287774.64	39°20'44.1751"N	81°03'10.2841"W	14879.92	335.149	0.11	-0.06	-0.09	
21349.00	90.460	340.940	6173.95	14895.00	13591.89	-6284.46	1625442.37	14287864.39	39°20'45.0623"N	81°03'10.6797"W	14974.44	335.186	0.03	-0.03	0.01	
21443.00	90.620	341.090	6173.06	14989.00	13680.77	-6315.04	1625411.80	14287953.23	39°20'45.9406"N	81°03'11.0696"W	15067.95	335.222	0.23	0.17	0.16	
21538.00	90.430	341.020	6172.19	15083.99	13770.62	-6345.88	1625380.97	14288043.05	39°20'46.8285"N	81°03'11.4628"W	15162.46	335.258	0.21	-0.20	-0.07	
21632.00	90.520	341.070	6171.41	15177.99	13859.52	-6376.41	1625350.45	14288131.91	39°20'47.7069"N	81°03'11.8522"W	15255.98	335.294	0.11	0.10	0.05	
21726.00	90.580	340.810	6170.51	15271.99	13948.36	-6407.11	1625319.77	14288220.72	39°20'48.5849"N	81°03'12.2435"W	15349.52	335.329	0.28	0.06	-0.28	
21821.00	90.580	341.010	6169.55	15366.98	14038.13	-6438.18	1625288.71	14288310.45	39°20'49.4719"N	81°03'12.6397"W	15444.07	335.363	0.21	0.00	0.21	
21915.00	90.430	340.870	6168.72	15460.98	14126.98	-6468.87	1625258.03	14288399.26	39°20'50.3498"N	81°03'13.0311"W	15537.63	335.397	0.22	-0.16	-0.15	
22009.00	90.680	341.050	6167.81	15554.97	14215.83	-6499.54	1625227.38	14288488.08	39°20'51.2279"N	81°03'13.4221"W	15631.18	335.430	0.33	0.27	0.19	
22104.00	90.370	340.930	6166.94	15649.97	14305.65	-6530.48	1625196.45	14288577.86	39°20'52.1154"N	81°03'13.8166"W	15725.73	335.463	0.35	-0.33	-0.13	
22198.00	90.460	341.000	6166.26	15743.96	14394.50	-6561.14	1625165.80	14288666.68	39°20'52.9934"N	81°03'14.2075"W	15819.30	335.496	0.12	0.10	0.07	
22293.00	90.370	341.130	6165.57	15838.96	14484.36	-6591.96	1625134.99	14288756.50	39°20'53.8814"N	81°03'14.6006"W	15913.85	335.529	0.17	-0.09	0.14	
22387.00	90.400	341.050	6164.94	15932.96	14573.28	-6622.42	1625104.54	14288845.39	39°20'54.7601"N	81°03'14.9890"W	16007.41	335.562	0.09	0.03	-0.09	
22482.00	90.490	340.960	6164.20	16027.96	14663.11	-6653.34	1625073.63	14288935.18	39°20'55.6477"N	81°03'15.3833"W	16101.98	335.594	0.13	0.09	-0.09	



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

WELLPATH DATA (250 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
22576.00	90.340	340.890	6163.52	16121.95	14751.95	-6684.06	1625042.92	14289023.98	39°20'56.5255"N	81°03'15.7750"W	16195.57	335.625	0.18	-0.16	-0.07	
22671.00	90.430	341.040	6162.88	16216.95	14841.75	-6715.05	1625011.95	14289113.74	39°20'57.4129"N	81°03'16.1701"W	16290.16	335.656	0.18	0.09	0.16	
22765.00	90.340	341.250	6162.25	16310.95	14930.70	-6745.42	1624981.59	14289202.66	39°20'58.2919"N	81°03'16.5575"W	16383.73	335.687	0.24	-0.10	0.22	
22859.00	90.430	341.280	6161.62	16404.95	15019.72	-6775.62	1624951.41	14289291.64	39°20'59.1716"N	81°03'16.9425"W	16477.29	335.719	0.10	0.10	0.03	
22953.00	90.370	341.220	6160.96	16498.94	15108.73	-6805.83	1624921.20	14289380.62	39°21'0.0511"N	81°03'17.3278"W	16570.85	335.750	0.09	-0.06	-0.06	
23048.00	90.370	341.030	6160.35	16593.94	15198.62	-6836.56	1624890.48	14289470.47	39°21'0.9394"N	81°03'17.7197"W	16665.43	335.781	0.20	0.00	-0.20	
23142.00	90.340	341.200	6159.77	16687.94	15287.56	-6866.99	1624860.07	14289559.37	39°21'1.8182"N	81°03'18.1077"W	16759.02	335.811	0.18	-0.03	0.18	
23236.00	90.400	341.200	6159.16	16781.94	15376.54	-6897.28	1624829.79	14289648.32	39°21'2.6975"N	81°03'18.4940"W	16852.61	335.841	0.06	0.06	0.00	
23303.00	90.400	341.270	6158.69	16848.94	15439.98	-6918.83	1624808.25	14289711.73	39°21'3.3244"N	81°03'18.7688"W	16919.31	335.862	0.10	0.00	0.10	
23328.00‡	90.400	341.270	6158.52	16873.94	15463.85	-6926.86	1624800.22	14289735.40	39°21'3.5583"N	81°03'18.8712"W	16944.20	335.870	0.00	0.00	0.00	Projected MD at TD: 23328'

HOLE & CASING SECTIONS - Ref Wellbore: McKinney Unit 1H ST02 AWB Ref Wellpath: McKinney Unit 1H ST02 AWP Proj: 23328'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	30.00	130.00	100.00	30.00	130.00	0.00	0.00	-0.11	-0.24
17.5in Open Hole	130.00	979.00	849.00	130.00	979.00	-0.11	-0.24	-0.32	-1.85
13.375in Casing Surface	30.00	959.00	929.00	30.00	959.00	0.00	0.00	-0.31	-1.89
12.375in Open Hole	979.00	3184.00	2205.00	979.00	3051.98	-0.32	-1.85	-548.45	-359.16
9.625in Casing Intermediate	30.00	3154.00	3124.00	30.00	3024.63	0.00	0.00	-537.60	-353.31
8.75in Open Hole	3184.00	3457.00	273.00	3051.98	3304.61	-548.45	-359.16	-633.60	-417.22
8.75in Open Hole	3457.00	3648.00	191.00	3304.61	3485.48	-633.60	-417.22	-685.30	-450.28
8.75in Open Hole	3648.00	6267.00	2619.00	3485.48	5886.75	-685.30	-450.28	-513.42	-1368.44
8.5in Open Hole	6267.00	23328.00	17061.00	5886.75	6158.52	-513.42	-1368.44	15463.65	-6926.86
5.5in Casing Production	30.00	23308.00	23278.00	30.00	6158.66	0.00	0.00	15444.71	-6920.44



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
McKinney Unit 1H POE Rev-3	6206.00	-1081.19	-1262.94	1630461.87	14273197.20	39°18'20.0628"N	81°02'6.6897"W	point
McKinney Unit 1H POE Rev-5	6206.00	-227.81	-1555.22	1630169.71	14274050.24	39°18'28.4962"N	81°02'10.4123"W	point
McKinney Unit 1H BHL Rev-3	6253.00	15464.43	-6929.76	1624797.33	14289736.17	39°21'3.5659"N	81°03'18.9080"W	point
McKinney Unit 1H LP Rev-4	6253.00	-0.69	-1633.01	1630091.95	14274277.27	39°18'30.7407"N	81°02'11.4030"W	point
McKinney Unit 1H 50' L/R Hard Line R-3	6500.00	7618.31	-4242.49	1627483.52	14281893.21	39°19'46.0326"N	81°02'44.6496"W	rectangle
2D Rectangle 16587.1 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: McKinney Unit 1H ST02 AWB Ref Wellpath: McKinney Unit 1H ST02 AWP Proj: 23328'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	900.00	Gyrodatta 2015 - GC+WR+DPIPE	01 Gyrodatta MS Gyro <17-1/2"> (100'-900')	McKinney Unit 1H AWB	4/23/2024
900.00	3111.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-3/8"> (900')(1038'-3111')	McKinney Unit 1H AWB	4/23/2024
3111.00	3457.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (3111')(3174'-3739')	McKinney Unit 1H AWB	5/28/2024
3457.00	3648.00	BH NaviTrak (2019) (Axial Corr+HRGM)	04 APS EM <8-3/4"> (3457')(3551'-6006')	McKinney Unit 1H ST01 AWB	6/3/2024
3648.00	6193.00	BH NaviTrak (2019) (Axial Corr+HRGM)	05 APS EM <8-3/4"> (3648')(3739'-6193')	McKinney Unit 1H ST02 AWB	6/13/2024
6193.00	23328.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	06 BH AT Curve <8-1/2"> (6193')(6257'-23303')	McKinney Unit 1H ST02 AWB	6/13/2024



Actual Wellpath Report

McKinney Unit 1H ST02 AWP Proj: 23328'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	McKinney Unit 1H ST02
Field	Ritchie	API	47-085-10513-0000
Facility	Pinewood Pad	Wellbore	McKinney Unit 1H ST02 AWB
Slot	Slot B	Sidetrack from	McKinney Unit 1H ST01 AWP Proj: 6083' at 3648.00 MD

COMMENTS

Wellpath general comments

API: 47-085-10513-0000

BH Job #: 112220038

Rig: H&P 519

Duration: 6/18/2024-6/24/2024

Gyrodata MS Gyro <17-1/2"> (100'-900')

APS EM <12-3/8"> (900')(1038'-3111')

APS EM [OH] <8-3/4"> (3111')(3174'-3457')

APS EM [ST01] <8-3/4"> (3457')(3551'-3648')

APS EM [ST02] <8-3/4"> (3648')(3739'-6193')

BH AT Curve <8-1/2"> (6193')(6257'-23303')

Sycamore: 6413' MD

Middlesex: 6538' MD

Burkett: 6706' MD

Marcellus POE: 6750' MD

Projected MD at TD: 23328'