

ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
 Field: Tyler
 Facility: Neat Pad
 Slot: Slot #07
 Well: Jim Unit 3H
 Wellbore: Jim Unit 3H PWB

API: 47-095-02410-0000
 BHI Job #: 109454866
 Rig: Frontier 22
 Duration: 10/16/2018-10/18/2018

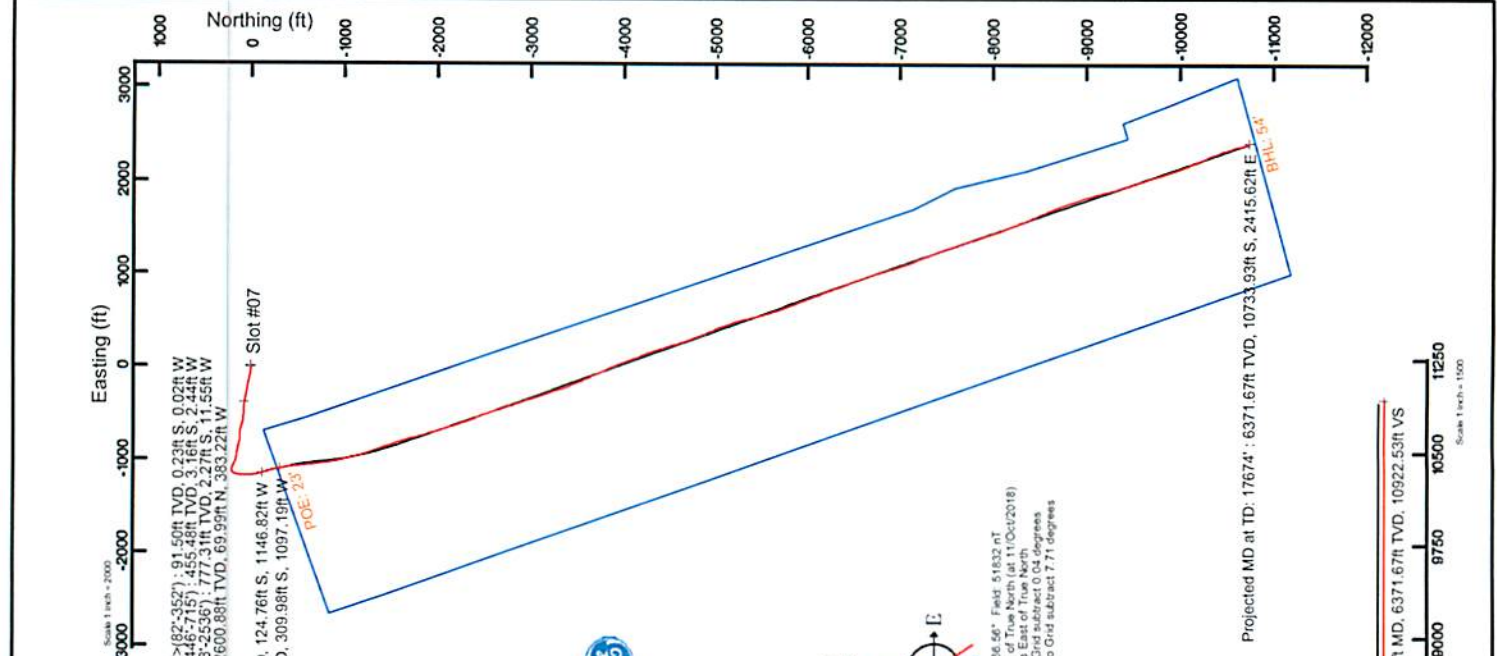
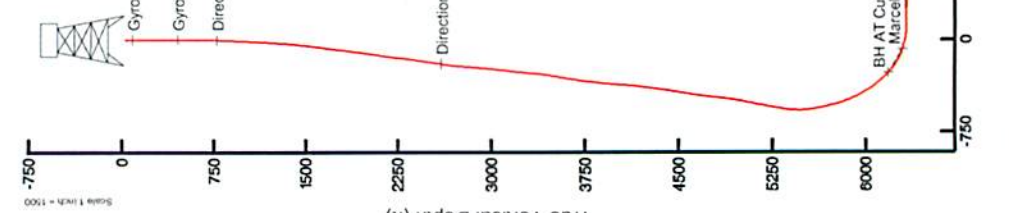


Well Information	
Well Name	Jim Unit 3H PWB Rev-A.0
Well Status	North-South, Grid North
Well Depth	Scale: True distance
Well Type	Drifts are in feet
Well ID	Created by: release on 2018-10-19
Well Code	Database: WA_MF; EasternUS Defn

Location Information				
Neat Pad	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot	1658012.200	14315414.665	39°25'17.450"N	80°56'15.700"W
Slot #07	-5.49	14315406.571	39°25'17.370"N	80°56'15.770"W
Comment	Jim Unit 3H		24.5ft	
Frontier 22 (RNB) to Ground level (At Slot: Slot #07)			-1005ft	
Mean Sea Level to Ground level (At Slot: Slot #07)			1029 ft	

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Top On	6369.50	44.010	166.330	6147.83	-88.61	-1156.72	8.40	-304.35
Prog to Bottom	6437.50	50.000	162.000	6194.19	-136.39	-1143.07	9.96	-254.76
POE	6647.30	71.000	168.000	6297.00	-311.92	-1097.07	10.31	-73.97
Landing Pt	6529.89	90.000	170.000	6327.00	-487.89	-1062.95	10.48	103.26
Lateral Shift	7097.90	90.000	174.020	6327.00	-753.25	-1025.71	1.50	365.74
On Lateral AZI	8005.62	90.000	160.406	6327.00	-1636.37	-825.27	1.50	1264.95
BHL	17644.62	90.000	160.406	6327.00	-10717.21	2497.19	0.00	10003.95

Well Data	
Well	Wellbore
Slot #07	Jim Unit 3H AWB
Slot #07	Jim Unit 3H PWB
Slot #07	Jim Unit 3H PWB Rev-A.0



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Projected MD at TD: 17674.4 ft, 6371.67 ft TVD, 10922.53 ft VS
 Marcellus POE: 6647.7 MD : 71.61° Inc, 6647.00ft MD, 6296.56ft TVD, -75.93ft VS
 BH AT Curve <8-1/2"> (6369.5)(6422-17650) : 47.15° Inc, 6422.00ft MD, 6184.58ft TVD, -266.97ft VS

Scale 1 inch = 2000

Scale 1 inch = 1500

Azimuth 160.41° with reference 0.00 N, 0.00 E

User specified (HDGM) Dip: 66.56° Field: 51832 nT
 Magnetic North is 7.67 degrees West of True North (at 11/Oct/2018)
 Grid North is 0.04 degrees East of True North
 To correct azimuth from Magnetic to Grid subtract 7.71 degrees

Griddata SS Gyro <17-1/2"> (82°352') : 0.40° Inc, 91.50ft MD, 91.50ft TVD, 0.2ft VS
 Gyrodatta SS Gyro <17-1/2"> (82°352') : 0.40° Inc, 91.50ft MD, 91.50ft TVD, 0.2ft VS
 Directional ONE MWD <12-1/4"> (352°)(446°-715) : 1.00° Inc, 455.50ft MD, 455.48ft TVD, 2.16ft VS
 Directional ONE MWD <8-3/4"> (2536°)(2635-6360) : 15.14° Inc, 2644.50ft MD, 2600.88ft TVD, -194.42ft VS
 BH AT Curve <8-1/2"> (6369.5)(6422-17650) : 47.15° Inc, 6422.00ft MD, 6184.58ft TVD, -266.97ft VS
 Marcellus POE: 6647.7 MD : 71.61° Inc, 6647.00ft MD, 6296.56ft TVD, -75.93ft VS

Actual Wellpath Report

Jim Unit 3H AWP Proj: 17674'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot #07
Area	Tyler County, WV	Jim Unit 3H
Field	Tyler	Jim Unit 3H AWB
Facility	Neat 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	19/Oct/2018 at 15:38
Convergence at slot	0.04° East	Database/Source file	WA_MPL_EasternUS_Defn/Jim_Unit_3H_AWP_Proj_17674_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-8.10	-5.49	1658006.71	14315406.57	39°25'17.370"N	80°56'15.770"W
Facility Reference Pt			1658012.20	14315414.67	39°25'17.450"N	80°56'15.700"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	Frontier 22 (RKB) to Facility Vertical Datum	1029.50ft
Horizontal Reference Pt	Slot	Frontier 22 (RKB) to Mean Sea Level	1029.50ft
Vertical Reference Pt	Frontier 22 (RKB)	Frontier 22 (RKB) to Ground Level at Slot (Slot #07)	24.50ft
MD Reference Pt	Frontier 22 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.41°

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Area	Tyler County, WV	Jim Unit 3H
Field	Tyler	Jim Unit 3H AWB
Facility	Neat Pad	

WELLPATH DATA (206 stations) * = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments	
0.00	0.00	185.570	0.00	0.00	0.00	1658006.71	14315406.57	39°25'17.370"N	80°56'15.770"W	0.00	0.000	0.00	0.00	0.00		
24.50	0.000	185.570	24.50	0.00	0.00	1658006.71	14315406.57	39°25'17.370"N	80°56'15.770"W	0.00	0.000	0.00	0.00	0.00		
91.50	0.400	185.570	91.50	0.21	-0.23	-0.02	1658006.69	14315406.34	39°25'17.368"N	80°56'15.770"W	0.23	185.570	0.60	0.60	-260.34	Gyrodata SS Gyro <17.172>-(82-352)
109.50	0.400	196.960	109.50	0.32	-0.36	-0.05	1658006.67	14315406.22	39°25'17.366"N	80°56'15.771"W	0.36	187.553	0.44	0.00	63.28	
209.50	0.400	201.410	209.50	0.86	-1.01	-0.28	1658006.44	14315405.56	39°25'17.360"N	80°56'15.774"W	1.05	195.242	0.03	0.00	4.45	
309.50	0.610	224.880	309.49	1.36	-1.72	-0.78	1658005.94	14315404.85	39°25'17.353"N	80°56'15.780"W	1.89	204.422	0.29	0.21	23.47	
361.50	0.870	225.650	361.49	1.64	-2.19	-1.26	1658005.46	14315404.38	39°25'17.348"N	80°56'15.786"W	2.52	209.872	0.50	0.50	1.48	
455.50	1.000	234.770	455.48	2.16	-3.16	-2.44	1658004.28	14315403.41	39°25'17.339"N	80°56'15.801"W	3.99	217.639	0.21	0.14	9.70	Gyrodata SS Gyro <12.114>-(715)(768-2536)
544.50	1.560	242.720	544.45	2.53	-4.16	-4.15	1658002.57	14315402.07	39°25'17.326"N	80°56'15.855"W	5.88	224.894	0.66	0.63	8.93	
634.50	1.810	279.090	634.42	2.01	-4.50	-6.64	1658000.08	14315402.07	39°25'17.326"N	80°56'15.855"W	8.02	235.873	1.20	0.28	40.41	
724.50	2.250	298.720	724.36	0.01	-3.43	-9.59	1657997.12	14315403.14	39°25'17.336"N	80°56'15.892"W	10.19	250.341	0.91	0.49	21.81	
777.50	2.670	301.920	777.31	-1.73	-2.27	-11.55	1657995.16	14315404.30	39°25'17.348"N	80°56'15.917"W	11.78	258.863	0.83	0.79	6.04	Directional ONE MWD <12.114>-(715)(768-2536)
870.50	3.380	295.050	870.18	-5.35	0.03	-15.88	1657990.84	14315406.60	39°25'17.370"N	80°56'15.972"W	15.88	270.114	0.86	0.76	-7.39	
965.50	4.900	281.350	964.93	-9.41	2.02	-22.39	1657984.33	14315408.59	39°25'17.390"N	80°56'16.055"W	22.48	275.144	1.90	1.60	-14.42	
1050.50	6.710	277.810	1059.44	-14.05	3.57	-31.87	1657974.86	14315410.14	39°25'17.405"N	80°56'16.176"W	32.07	276.389	1.94	1.91	-3.73	
1154.50	8.230	276.470	1152.64	-19.53	5.07	-44.00	1657962.74	14315411.64	39°25'17.420"N	80°56'16.331"W	44.29	276.578	1.63	1.62	-1.43	
1249.50	8.970	275.540	1246.57	-25.66	6.55	-58.12	1657948.61	14315413.12	39°25'17.435"N	80°56'16.511"W	58.49	276.434	0.79	0.78	-0.98	
1344.50	9.810	275.470	1340.30	-32.24	8.04	-73.55	1657933.19	14315414.61	39°25'17.450"N	80°56'16.707"W	73.99	276.239	0.88	0.88	-0.07	
1439.50	11.120	281.030	1433.72	-40.33	10.57	-90.60	1657916.15	14315417.13	39°25'17.475"N	80°56'16.924"W	91.21	276.651	1.74	1.38	5.85	
1533.50	12.040	283.080	1525.81	-50.24	14.52	-109.05	1657897.71	14315421.08	39°25'17.514"N	80°56'17.159"W	110.01	277.584	1.07	0.98	2.18	
1628.50	13.310	283.740	1618.49	-61.60	19.36	-129.32	1657877.44	14315425.92	39°25'17.562"N	80°56'17.418"W	130.76	278.513	1.35	1.34	0.69	
1723.50	13.770	283.170	1710.85	-73.72	24.53	-150.95	1657855.82	14315431.09	39°25'17.613"N	80°56'17.693"W	152.93	279.230	0.50	0.48	-0.60	
1818.50	14.160	281.480	1803.04	-85.84	29.42	-173.35	1657833.43	14315435.98	39°25'17.662"N	80°56'17.979"W	175.83	279.632	0.59	0.41	-1.78	
1912.50	14.300	280.180	1894.16	-97.54	33.76	-196.04	1657810.75	14315440.32	39°25'17.705"N	80°56'18.268"W	198.93	279.771	0.37	0.15	-1.38	
2008.50	15.210	279.670	1986.99	-109.58	37.97	-220.13	1657786.67	14315444.53	39°25'17.747"N	80°56'18.575"W	223.38	279.787	0.96	0.95	-0.53	
2102.50	15.540	279.830	2077.63	-121.79	42.19	-244.69	1657762.12	14315448.75	39°25'17.789"N	80°56'18.888"W	248.30	279.783	0.35	0.35	0.17	
2196.50	15.590	280.890	2168.18	-134.38	46.73	-269.50	1657737.32	14315453.28	39°25'17.834"N	80°56'19.204"W	273.52	279.837	0.31	0.05	1.13	
2290.50	14.880	281.060	2258.88	-146.94	51.43	-293.75	1657713.08	14315457.98	39°25'17.880"N	80°56'19.513"W	298.22	279.931	0.76	-0.76	0.18	
2385.50	15.050	281.340	2350.65	-159.50	56.20	-317.82	1657689.03	14315462.74	39°25'17.928"N	80°56'19.819"W	322.75	280.027	0.19	0.18	0.29	
2480.50	15.110	280.720	2442.38	-172.09	60.92	-342.07	1657664.78	14315467.47	39°25'17.974"N	80°56'20.128"W	347.46	280.099	0.18	0.08	-0.65	

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Jim Unit 3H AWP Proj: 17674'
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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Jim Unit 3H
Field	Taylor	Wellbore	Jim Unit 3H AWB
Facility	Neat Pad		

WELLPATH DATA (206 stations)																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	VertSect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
2545.50	14.65	282.08	2505.20	-180.68	64.22	-358.44	1657648.42	14315470.76	39°25'18.007"N	80°56'20.337"W	364.14	280.158	0.89	-0.71	2.09	
2644.50	15.14	284.09	2600.88	-194.42	69.99	-383.22	1657623.65	14315476.53	39°25'18.064"N	80°56'20.653"W	389.56	280.350	0.72	0.49	2.03	
2739.50	14.97	279.18	2692.62	-207.21	74.97	-407.36	1657599.51	14315481.51	39°25'18.114"N	80°56'20.960"W	414.21	280.427	1.35	-0.18	-5.17	Directional ONE MWD<-8-3/4">(2536')(2635'-6360)
2834.50	13.41	273.35	2784.72	-217.41	77.57	-430.48	1657576.41	14315484.11	39°25'18.140"N	80°56'21.255"W	437.41	280.214	2.23	-1.64	-6.14	
2928.50	12.70	270.97	2876.29	-225.29	78.38	-451.71	1657555.19	14315484.92	39°25'18.148"N	80°56'21.525"W	458.46	279.844	0.93	-0.73	-2.53	
3023.50	13.74	272.82	2968.77	-233.27	79.11	-473.43	1657533.47	14315485.65	39°25'18.155"N	80°56'21.802"W	480.00	279.487	1.16	1.07	1.95	
3118.50	14.52	273.80	3060.89	-242.30	80.46	-496.58	1657510.33	14315486.99	39°25'18.169"N	80°56'22.097"W	503.06	279.203	0.86	0.82	1.03	
3214.50	13.98	276.59	3153.94	-252.19	82.58	-520.11	1657486.81	14315489.12	39°25'18.190"N	80°56'22.397"W	526.63	279.022	0.91	-0.56	2.91	
3308.50	13.76	275.02	3245.20	-261.86	84.87	-542.53	1657464.40	14315491.40	39°25'18.212"N	80°56'22.682"W	549.13	278.890	0.46	-0.23	-1.67	
3402.50	15.08	273.70	3336.24	-271.35	86.63	-565.87	1657441.07	14315493.17	39°25'18.230"N	80°56'22.980"W	572.46	278.704	1.45	1.40	-1.40	
3497.50	15.51	281.29	3427.88	-282.75	89.92	-590.66	1657416.29	14315496.45	39°25'18.263"N	80°56'23.296"W	597.46	278.656	2.15	0.45	7.99	
3592.50	15.55	287.36	3519.42	-296.93	96.20	-615.27	1657391.69	14315502.74	39°25'18.325"N	80°56'23.609"W	622.75	278.887	1.71	0.04	6.39	
3687.50	15.09	291.13	3611.04	-312.65	104.46	-638.96	1657368.01	14315510.99	39°25'18.407"N	80°56'23.911"W	647.44	279.285	1.15	-0.48	3.97	
3782.50	13.69	284.36	3703.07	-327.00	111.71	-661.39	1657345.59	14315518.23	39°25'18.478"N	80°56'24.197"W	670.75	279.587	2.30	-1.47	-7.13	
3877.50	15.17	280.18	3795.07	-339.45	116.69	-684.51	1657322.48	14315523.22	39°25'18.528"N	80°56'24.491"W	694.39	279.675	1.90	1.56	-4.40	
3972.50	15.60	274.47	3886.67	-350.83	119.89	-709.48	1657297.61	14315526.41	39°25'18.560"N	80°56'24.810"W	719.54	279.591	1.66	0.45	-6.01	
4066.50	13.55	267.75	3977.65	-359.26	120.44	-733.09	1657273.92	14315526.96	39°25'18.565"N	80°56'25.110"W	742.92	279.330	2.82	-2.18	-7.15	
4161.50	13.41	270.24	4070.03	-366.32	120.05	-755.23	1657251.79	14315526.57	39°25'18.562"N	80°56'25.392"W	764.71	279.032	0.63	-0.15	2.62	
4257.50	14.42	273.38	4163.21	-374.76	120.80	-778.30	1657228.73	14315527.32	39°25'18.569"N	80°56'25.686"W	787.61	278.822	1.31	1.05	3.27	
4351.50	15.46	278.43	4254.04	-385.21	123.33	-802.37	1657204.66	14315529.85	39°25'18.594"N	80°56'25.993"W	811.80	278.738	1.77	1.11	5.37	
4446.50	16.71	285.59	4345.33	-399.03	128.85	-828.06	1657178.99	14315535.37	39°25'18.649"N	80°56'26.320"W	838.02	278.845	2.47	1.32	7.54	
4540.50	15.92	284.70	4435.54	-414.08	135.76	-853.54	1657153.51	14315542.27	39°25'18.717"N	80°56'26.645"W	864.27	279.037	0.88	-0.84	-0.95	
4634.50	16.39	283.82	4525.83	-428.65	142.20	-878.89	1657128.17	14315548.71	39°25'18.781"N	80°56'26.968"W	890.32	279.190	0.56	0.50	-0.94	
4730.50	16.75	280.60	4617.84	-443.06	147.98	-905.64	1657101.43	14315554.49	39°25'18.839"N	80°56'27.309"W	917.65	279.280	1.03	0.38	-3.35	
4823.50	15.56	276.30	4707.17	-455.25	151.81	-931.22	1657075.87	14315558.32	39°25'18.877"N	80°56'27.635"W	943.51	279.259	1.81	-1.28	-4.62	
4918.50	16.03	277.29	4798.59	-466.74	154.87	-956.89	1657050.21	14315561.38	39°25'18.907"N	80°56'27.962"W	969.34	279.194	0.57	0.49	1.04	
5013.50	15.78	276.76	4889.95	-478.41	158.06	-982.73	1657024.38	14315564.57	39°25'18.939"N	80°56'28.291"W	995.36	279.137	0.30	-0.26	-0.56	
5107.50	15.81	289.97	4980.43	-492.24	163.94	-1007.47	1656999.65	14315570.44	39°25'18.997"N	80°56'28.606"W	1020.72	279.242	3.82	0.03	14.05	
5200.50	16.04	299.16	5069.88	-509.97	174.53	-1030.60	1656976.53	14315581.03	39°25'19.102"N	80°56'28.901"W	1045.27	279.612	2.72	0.25	9.88	
5296.50	15.48	296.54	5162.27	-529.18	186.71	-1053.64	1656953.50	14315593.21	39°25'19.222"N	80°56'29.194"W	1070.06	280.049	0.94	-0.58	-2.73	

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Area	Tyler County, WV	Well	Jim Unit 3H
Field	Tyler	Wellbore	Jim Unit 3H AWB
Facility	Neat Pad		

WELLPATH DATA (206 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)	Bulld Rate (°/100ft)	Turn Rate (°/100ft)	Comments
5390.50	14.870	294.640	5282.99	-546.64	197.35	-1075.83	1656931.32	14315603.84	39°25'19.328"N	80°56'29.477"W	1093.78	280.395	0.84	-0.65	-2.02	
5486.50	14.420	288.590	5345.88	-562.62	206.29	-1098.35	1656908.80	14315612.78	39°25'19.416"N	80°56'29.764"W	1117.56	280.637	1.66	-0.47	-6.30	
5580.50	13.000	259.010	5437.31	-571.44	208.01	-1119.85	1656887.31	14315614.50	39°25'19.433"N	80°56'30.038"W	1139.01	280.523	7.52	-1.51	-31.47	
5643.50	14.290	240.850	5498.56	-571.21	202.87	-1133.61	1656867.36	14315609.36	39°25'19.383"N	80°56'30.213"W	1151.62	280.146	7.07	2.05	-28.83	
5706.50	14.970	217.700	5559.57	-565.52	192.64	-1145.38	1656861.79	14315599.13	39°25'19.281"N	80°56'30.363"W	1161.47	279.547	9.28	1.08	-36.75	
5770.50	15.210	202.070	5621.38	-554.78	178.31	-1153.60	1656853.58	14315584.81	39°25'19.140"N	80°56'30.468"W	1167.30	278.787	6.35	0.38	-24.42	
5832.50	15.910	195.840	5681.12	-541.77	162.60	-1158.97	1656848.21	14315569.10	39°25'18.985"N	80°56'30.537"W	1170.32	277.986	2.92	1.13	-10.05	
5895.50	17.370	192.800	5741.48	-526.80	145.12	-1163.41	1656843.77	14315551.63	39°25'18.812"N	80°56'30.594"W	1172.43	277.110	2.70	2.32	-4.83	
5959.50	20.580	189.680	5801.99	-508.91	124.71	-1167.42	1656839.76	14315531.23	39°25'18.610"N	80°56'30.645"W	1174.06	276.097	5.26	5.02	-4.88	
6022.50	23.300	182.240	5860.44	-487.68	101.33	-1169.77	1656837.41	14315507.86	39°25'18.379"N	80°56'30.675"W	1174.15	274.951	6.17	4.32	-11.81	
6084.50	27.120	179.590	5916.52	-462.94	74.94	-1170.15	1656837.03	14315481.48	39°25'18.118"N	80°56'30.680"W	1172.55	273.664	6.42	6.16	-4.27	
6148.50	30.410	179.760	5972.62	-433.87	44.15	-1169.98	1656837.21	14315450.70	39°25'17.814"N	80°56'30.678"W	1170.81	272.161	5.14	5.14	0.27	
6211.50	34.070	178.820	6025.90	-402.07	10.55	-1169.55	1656837.64	14315417.11	39°25'17.482"N	80°56'30.673"W	1169.59	270.517	5.86	5.81	-1.49	
6274.50	38.970	174.570	6076.52	-366.09	-26.85	-1167.31	1656839.88	14315379.74	39°25'17.112"N	80°56'30.645"W	1167.62	268.683	8.75	7.78	-6.75	
6338.50	42.080	168.890	6125.18	-325.34	-67.95	-1161.27	1656845.91	14315338.65	39°25'16.706"N	80°56'30.568"W	1163.25	266.651	7.54	4.86	-8.88	
6369.50	44.010	166.330	6147.83	-304.35	-88.61	-1156.72	1656850.46	14315318.00	39°25'16.502"N	80°56'30.510"W	1160.11	265.619	8.40	6.23	-8.26	
6409.00†	46.384	163.883	6175.67	-276.43	-115.88	-1149.51	1656857.67	14315290.94	39°25'16.234"N	80°56'30.418"W	1155.31	264.253	7.40	5.96	-6.19	Middlesex: 6409' MD
6422.00	47.150	163.120	6184.58	-266.97	-124.76	-1146.82	1656860.36	14315281.86	39°25'16.145"N	80°56'30.384"W	1153.58	263.791	7.40	6.04	-5.87	BH AT Curve <-8-1/2'> (6369.5')(6422-17650)
6472.00	51.780	162.620	6217.07	-229.02	-161.06	-1135.62	1656887.55	14315245.57	39°25'15.786"N	80°56'30.242"W	1146.99	261.928	9.29	9.29	-1.00	
6518.00	57.390	164.100	6243.71	-191.60	-196.97	-1124.91	1656882.26	14315209.68	39°25'15.431"N	80°56'30.106"W	1142.02	260.088	12.47	12.20	3.22	
6551.00†	61.238	165.338	6280.55	-163.31	-224.34	-1117.44	1656889.73	14315182.32	39°25'15.160"N	80°56'30.011"W	1139.73	258.648	12.10	11.66	3.75	Burkett: 6551' MD
6566.00	62.990	165.870	6287.57	-150.10	-237.18	-1114.14	1656893.02	14315169.48	39°25'15.033"N	80°56'29.969"W	1139.11	257.982	12.10	11.68	3.55	
6606.00†	67.555	166.797	6284.29	-113.97	-272.48	-1105.56	1656901.59	14315134.20	39°25'14.684"N	80°56'29.860"W	1138.65	256.155	11.60	11.41	2.32	July: 6606' MD
6612.00	68.240	166.930	6286.55	-108.45	-277.89	-1104.30	1656902.86	14315128.79	39°25'14.631"N	80°56'29.844"W	1138.73	255.875	11.60	11.42	2.22	
6647.00†	71.615	168.083	6298.56	-75.83	-309.98	-1097.19	1656909.96	14315096.71	39°25'14.314"N	80°56'29.753"W	1140.14	254.224	10.13	9.64	3.30	Marcellus POE: 6647' MD
6660.00	72.870	168.500	6302.53	-63.57	-322.11	-1094.68	1656912.47	14315084.59	39°25'14.194"N	80°56'29.722"W	1141.09	253.604	10.13	9.66	3.20	
6705.00	77.790	170.370	6313.92	-20.59	-364.89	-1078.71	1656920.44	14315041.83	39°25'13.771"N	80°56'29.620"W	1146.33	251.439	11.65	10.93	4.16	
6754.00	82.320	172.640	6322.38	26.75	-412.61	-1079.59	1656927.56	14314994.13	39°25'13.299"N	80°56'29.530"W	1155.75	249.084	10.31	9.24	4.63	
6799.00	86.740	173.910	6326.67	70.41	-457.08	-1074.35	1656932.80	14314949.67	39°25'12.860"N	80°56'29.464"W	1167.54	246.953	10.22	9.82	2.82	
6848.00	89.420	174.730	6328.31	117.94	-505.81	-1069.50	1656937.64	14314900.96	39°25'12.378"N	80°56'29.402"W	1183.08	244.689	5.72	5.47	1.67	

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Actual Wellpath Report

Jim Unit 3H AWP Proj: 17674'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Jim Unit 3H
Taylor County, WV	Wellbore	Jim Unit 3H AWB
Taylor		
Facility		

WELLPATH DATA (206 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US RL)	Grid North (US RL)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
6942.00	89.380	174.620	6329.30	209.04	-599.40	-1060.78	1656946.36	14314807.41	39°25'11.453"N	80°56'29.292"W	1218.41	240.531	0.12	-0.04	-0.12	
7036.00	89.320	174.190	6330.36	300.24	-692.94	-1051.61	1656955.52	14314713.90	39°25'10.528"N	80°56'29.176"W	1259.39	236.618	0.46	-0.06	-0.46	
7130.00	89.140	171.920	6331.63	391.95	-786.24	-1040.25	1656966.88	14314620.65	39°25'09.606"N	80°56'29.032"W	1303.95	232.917	2.42	-0.19	-2.41	
7225.00	89.320	168.770	6332.90	485.50	-879.87	-1024.32	1656982.81	14314527.05	39°25'08.681"N	80°56'28.830"W	1350.34	229.338	3.32	0.19	-3.32	
7319.00	89.200	166.460	6334.12	578.75	-971.67	-1004.16	1657002.96	14314435.29	39°25'07.773"N	80°56'28.574"W	1397.31	225.942	2.46	-0.13	-2.46	
7413.00	89.380	166.590	6335.28	672.20	-1063.08	-982.26	1657024.95	14314343.92	39°25'06.870"N	80°56'28.295"W	1447.40	222.737	0.24	0.19	0.14	
7508.00	89.260	165.330	6336.41	766.75	-1155.23	-959.21	1657047.89	14314251.80	39°25'05.959"N	80°56'28.002"W	1501.55	219.704	1.33	-0.13	-1.33	
7602.00	89.980	161.420	6337.85	860.59	-1245.27	-932.33	1657074.76	14314161.80	39°25'05.069"N	80°56'27.661"W	1555.62	216.822	4.17	-0.30	-4.16	
7696.00	89.950	159.040	6339.55	954.57	-1333.71	-900.54	1657106.53	14314073.39	39°25'04.194"N	80°56'27.256"W	1609.27	214.028	2.53	-0.03	-2.53	
7790.00	89.860	160.210	6341.35	1048.54	-1421.81	-867.82	1657139.24	14313985.33	39°25'03.323"N	80°56'26.840"W	1665.73	211.398	1.25	-0.10	1.24	
7885.00	89.860	162.160	6343.24	1143.51	-1511.72	-837.19	1657169.86	14313895.46	39°25'02.435"N	80°56'26.450"W	1728.05	208.978	2.05	0.00	2.05	
7980.00	89.680	162.180	6345.28	1238.45	-1602.13	-808.11	1657199.93	14313805.08	39°25'01.541"N	80°56'26.081"W	1794.40	206.766	0.19	-0.19	0.02	
8075.00	89.920	165.040	6347.27	1333.27	-1693.24	-781.31	1657225.72	14313714.01	39°25'00.640"N	80°56'25.740"W	1864.81	204.770	3.02	0.25	3.01	
8170.00	89.170	164.890	6348.85	1427.95	-1784.98	-756.67	1657250.35	14313622.31	39°24'59.733"N	80°56'25.427"W	1938.73	202.973	0.31	0.28	-0.16	
8265.00	89.980	164.100	6350.39	1522.70	-1876.51	-731.28	1657275.73	14313530.82	39°24'58.828"N	80°56'25.104"W	2013.96	201.291	0.86	-0.20	-0.83	
8359.00	89.980	163.170	6352.05	1616.53	-1966.68	-704.80	1657302.20	14313440.68	39°24'57.937"N	80°56'24.767"W	2089.16	199.716	0.99	0.00	-0.99	
8454.00	89.080	161.900	6353.67	1711.45	-2057.29	-676.29	1657330.70	14313350.11	39°24'57.041"N	80°56'24.405"W	2165.60	198.197	1.34	0.11	-1.34	
8550.00	89.990	161.650	6355.28	1807.41	-2148.46	-646.27	1657360.70	14313258.97	39°24'56.140"N	80°56'24.023"W	2243.56	196.742	0.28	-0.09	-0.26	
8645.00	89.140	160.960	6356.83	1902.39	-2238.43	-615.82	1657391.14	14313169.03	39°24'55.251"N	80°56'23.636"W	2321.60	195.382	0.74	-0.42	-0.73	
8740.00	88.740	160.220	6358.59	1997.37	-2328.02	-584.26	1657422.69	14313079.49	39°24'54.365"N	80°56'23.235"W	2400.22	194.088	0.89	-0.42	-0.78	
8835.00	88.520	159.360	6360.86	2092.34	-2417.14	-551.45	1657455.49	14312990.40	39°24'53.484"N	80°56'22.817"W	2479.25	192.852	0.93	-0.23	-0.91	
8930.00	88.990	160.490	6363.01	2187.31	-2506.35	-518.85	1657488.07	14312901.23	39°24'52.602"N	80°56'22.403"W	2559.49	191.696	1.25	0.39	1.19	
9025.00	88.800	161.200	6364.93	2282.28	-2596.07	-487.68	1657519.23	14312811.54	39°24'51.715"N	80°56'22.006"W	2641.48	190.639	0.75	-0.09	0.75	
9120.00	89.260	161.850	6366.53	2377.25	-2686.16	-457.58	1657549.31	14312721.49	39°24'50.824"N	80°56'21.624"W	2724.86	189.667	0.84	0.48	0.68	
9214.00	89.110	161.570	6367.87	2471.22	-2775.40	-428.09	1657578.80	14312632.28	39°24'49.942"N	80°56'21.249"W	2808.22	188.768	0.34	-0.16	-0.30	
9309.00	89.540	162.090	6368.99	2566.18	-2865.66	-398.46	1657608.42	14312542.07	39°24'49.050"N	80°56'20.872"W	2893.22	187.916	0.70	0.45	0.54	
9404.00	89.660	161.270	6369.65	2661.16	-2955.83	-368.59	1657638.27	14312451.92	39°24'48.158"N	80°56'20.492"W	2978.73	187.108	0.86	0.13	-0.85	
9498.00	89.510	160.860	6370.33	2756.15	-3044.75	-338.10	1657668.75	14312363.04	39°24'47.279"N	80°56'20.105"W	3063.47	186.336	0.44	-0.16	-0.41	
9592.00	89.510	161.440	6371.14	2849.13	-3133.71	-307.75	1657699.09	14312274.12	39°24'46.400"N	80°56'19.719"W	3148.79	185.609	0.60	0.00	0.60	
9686.00	89.600	162.870	6371.87	2943.09	-3223.18	-278.95	1657727.88	14312184.68	39°24'45.516"N	80°56'19.352"W	3235.23	184.946	1.52	0.10	1.52	

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Actual Wellpath Report

Jim Unit 3H AWP Proj: 17674'

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Jim Unit 3H
Tyler County, WV	Wellbore	Jim Unit 3H AWB
Tyler		
Facility		

WELLPATH DATA (206 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [ft]	Grid North [ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [ft/100ft]	Build Rate [ft/100ft]	Turn Rate [°/100ft]	Comments
9781.00	89.540	162.120	6372.58	3038.02	-3313.78	-250.37	1657756.44	14312094.12	39°24'44.620"N	80°56'18.989"W	3323.23	184.321	0.79	-0.06	-0.79	
9876.00	89.720	159.060	6373.19	3133.01	-3403.37	-218.81	1657788.00	14312004.57	39°24'43.734"N	80°56'18.588"W	3410.40	183.679	3.23	0.19	-3.22	
9970.00	89.320	157.340	6373.98	3226.93	-3490.64	-183.90	1657822.89	14311917.33	39°24'42.871"N	80°56'18.144"W	3495.48	183.016	1.88	-0.43	-1.83	
10064.00	89.540	156.380	6374.92	3320.74	-3577.07	-146.96	1657859.81	14311830.93	39°24'42.017"N	80°56'17.674"W	3580.09	182.353	1.05	0.23	-1.02	
10159.00	89.850	156.270	6375.42	3415.50	-3664.08	-108.82	1657897.94	14311743.97	39°24'41.157"N	80°56'17.189"W	3665.69	181.701	0.35	0.33	-0.12	
10254.00	89.780	155.640	6375.73	3510.21	-3750.83	-70.11	1657936.63	14311657.25	39°24'40.299"N	80°56'16.696"W	3751.49	181.071	0.67	-0.07	-0.66	
10348.00	89.690	156.740	6376.16	3603.95	-3836.83	-32.16	1657974.57	14311571.28	39°24'39.449"N	80°56'16.213"W	3836.96	180.480	1.17	-0.10	1.17	
10444.00	89.850	158.890	6376.55	3699.85	-3925.72	4.09	1658010.80	14311482.43	39°24'38.570"N	80°56'15.752"W	3925.72	179.940	2.25	0.17	2.24	
10538.00	89.780	159.180	6376.85	3793.82	-4013.49	37.72	1658044.42	14311394.69	39°24'37.702"N	80°56'15.325"W	4013.67	179.462	0.32	-0.07	0.31	
10632.00	89.970	159.110	6377.06	3887.80	-4101.33	71.18	1658077.87	14311306.88	39°24'36.834"N	80°56'14.899"W	4101.95	179.006	0.22	0.20	-0.07	
10726.00	90.150	159.120	6376.96	3981.77	-4189.16	104.69	1658111.37	14311219.10	39°24'35.966"N	80°56'14.473"W	4190.47	178.568	0.19	0.19	0.01	
10821.00	89.780	160.220	6377.02	4076.77	-4278.24	137.70	1658144.36	14311130.05	39°24'35.085"N	80°56'14.053"W	4280.45	178.157	1.22	-0.39	1.16	
10915.00	89.880	161.640	6377.30	4170.76	-4367.08	168.41	1658175.06	14311041.25	39°24'34.207"N	80°56'13.663"W	4370.32	177.792	1.51	0.11	1.51	
11009.00	89.750	162.710	6377.60	4264.71	-4456.56	197.18	1658203.82	14310951.80	39°24'33.322"N	80°56'13.297"W	4460.92	177.467	1.15	-0.14	1.14	
11103.00	89.780	163.840	6377.99	4358.59	-4546.58	224.23	1658230.86	14310861.81	39°24'32.432"N	80°56'12.953"W	4552.11	177.176	1.20	0.03	1.20	
11198.00	89.820	162.580	6378.32	4453.48	-4637.53	251.68	1658258.29	14310770.90	39°24'31.533"N	80°56'12.604"W	4644.36	176.894	1.33	0.04	-1.33	
11293.00	89.690	160.490	6378.72	4548.45	-4727.63	281.76	1658288.36	14310680.83	39°24'30.642"N	80°56'12.222"W	4736.02	176.589	2.20	-0.14	-2.20	
11387.00	89.750	158.690	6379.18	4642.44	-4815.73	314.54	1658321.13	14310592.78	39°24'29.772"N	80°56'11.805"W	4825.99	176.263	1.92	0.06	-1.91	
11482.00	89.860	157.070	6379.52	4737.34	-4903.73	350.31	1658356.89	14310504.81	39°24'28.902"N	80°56'11.350"W	4916.23	175.914	1.71	0.11	-1.71	
11577.00	89.820	156.910	6379.79	4832.17	-4991.17	387.45	1658394.01	14310417.40	39°24'28.037"N	80°56'10.878"W	5006.19	175.561	0.17	-0.03	-0.17	
11671.00	89.720	157.900	6380.17	4926.04	-5077.96	423.56	1658430.11	14310330.65	39°24'27.179"N	80°56'10.419"W	5095.59	175.232	1.06	-0.11	1.06	
11766.00	89.720	161.460	6380.63	5021.02	-5167.03	456.55	1658463.08	14310241.62	39°24'26.298"N	80°56'09.999"W	5187.16	174.951	3.75	0.00	3.75	
11860.00	89.970	165.850	6380.88	5114.84	-5257.21	482.99	1658489.51	14310151.47	39°24'25.407"N	80°56'09.663"W	5279.35	174.751	4.68	0.27	4.67	
11955.00	89.940	166.940	6380.96	5209.32	-5349.54	505.34	1658511.85	14310059.18	39°24'24.494"N	80°56'09.379"W	5373.36	174.604	1.15	-0.03	1.15	
12050.00	89.780	165.390	6381.19	5303.84	-5441.78	528.06	1658534.56	14309966.97	39°24'23.582"N	80°56'09.091"W	5467.34	174.458	1.64	-0.17	-1.63	
12145.00	90.060	164.780	6381.32	5398.52	-5533.58	552.51	1658559.00	14309875.21	39°24'22.675"N	80°56'08.780"W	5561.10	174.298	0.71	0.29	-0.64	
12239.00	90.180	163.730	6381.13	5492.31	-5624.05	578.02	1658584.50	14309784.78	39°24'21.781"N	80°56'08.456"W	5653.68	174.132	1.12	0.13	-1.12	
12334.00	90.280	159.870	6380.75	5587.26	-5714.28	607.68	1658614.15	14309694.58	39°24'20.889"N	80°56'08.079"W	5746.50	173.930	4.06	0.11	-4.06	
12428.00	90.250	158.220	6380.31	5681.23	-5802.06	641.30	1658647.75	14309606.84	39°24'20.021"N	80°56'07.651"W	5837.39	173.693	1.76	-0.03	-1.76	
12523.00	90.150	159.270	6379.98	5776.19	-5890.60	675.74	1658682.18	14309518.34	39°24'19.146"N	80°56'07.213"W	5929.23	173.456	1.11	-0.11	1.11	

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Actual Wellpath Report

Jim Unit 3H AWP Proj: 17674'
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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #07
Operator	ANTERO RESOURCES CORPORATION	Well	Jim Unit 3H
Area	Tyler County, WV	Wellbore	Jim Unit 3H AWB
Field	Tyler		
Facility	Noat Pad		

WELLPATH DATA (206 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]	Bulld Rate [°/100ft]	Turn Rate [°/100ft]	Comments
12817.00	90.120	158.770	6379.76	5870.16	-5978.36	709.39	1658715.82	14309430.61	39°24'18.278"N	80°56'06.785"W	6020.31	173.233	0.53	-0.03	-0.53	
12711.00	90.120	158.780	6379.56	5964.12	-6065.99	743.42	1658749.84	14309343.02	39°24'17.412"N	80°56'06.353"W	6111.37	173.013	0.01	0.00	0.01	
12806.00	90.120	159.930	6379.36	6059.11	-6154.89	776.92	1658783.32	14309254.16	39°24'16.533"N	80°56'05.927"W	6203.73	172.806	1.21	0.00	1.21	
12901.00	90.120	159.580	6379.16	6154.10	-6244.02	809.79	1658816.18	14309165.06	39°24'15.652"N	80°56'05.509"W	6296.31	172.611	0.37	0.00	-0.37	
12995.00	90.180	159.930	6378.92	6248.09	-6332.21	842.32	1658848.69	14309076.91	39°24'14.780"N	80°56'05.095"W	6387.99	172.423	0.38	0.06	0.37	
13090.00	89.750	157.650	6378.98	6343.05	-6420.77	876.68	1658883.05	14308988.38	39°24'13.904"N	80°56'04.658"W	6480.34	172.225	2.44	-0.45	-2.40	
13185.00	90.150	159.080	6379.06	6437.99	-6509.07	911.71	1658918.06	14308900.11	39°24'13.031"N	80°56'04.213"W	6572.61	172.027	1.56	0.42	1.51	
13279.00	90.150	160.540	6378.81	6531.98	-6597.29	944.15	1658950.47	14308811.93	39°24'12.159"N	80°56'03.800"W	6664.51	171.856	1.55	0.00	1.55	
13374.00	90.180	161.760	6378.54	6626.97	-6687.20	974.84	1658988.19	14308722.06	39°24'11.270"N	80°56'03.410"W	6757.88	171.706	1.28	0.03	1.28	
13468.00	90.250	163.000	6378.19	6720.91	-6776.78	1003.30	1659009.61	14308632.51	39°24'10.385"N	80°56'03.049"W	6850.65	171.579	1.32	0.07	1.32	
13562.00	90.120	163.190	6377.88	6814.81	-6866.72	1030.63	1659036.93	14308542.61	39°24'09.495"N	80°56'02.701"W	6943.64	171.464	0.24	-0.14	0.20	
13657.00	90.060	162.760	6377.73	6909.71	-6957.56	1058.45	1659064.73	14308451.81	39°24'08.597"N	80°56'02.348"W	7037.61	171.350	0.46	-0.06	-0.45	
13751.00	90.180	161.130	6377.54	7003.67	-7046.93	1087.58	1659093.86	14308362.47	39°24'07.714"N	80°56'01.977"W	7130.36	171.227	1.74	0.13	-1.73	
13845.00	90.120	158.080	6377.29	7097.65	-7135.02	1120.33	1659126.60	14308274.41	39°24'06.843"N	80°56'01.561"W	7222.44	171.076	3.25	-0.06	-3.24	
13940.00	90.220	157.450	6377.01	7192.55	-7222.96	1156.28	1659162.53	14308186.51	39°24'05.974"N	80°56'01.104"W	7314.92	170.905	0.67	0.11	-0.66	
14034.00	90.310	157.650	6376.57	7286.43	-7309.83	1192.18	1659198.41	14308099.67	39°24'05.115"N	80°56'00.647"W	7406.41	170.737	0.23	0.10	0.21	
14129.00	90.060	158.480	6376.27	7381.35	-7397.95	1227.66	1659233.88	14308011.59	39°24'04.244"N	80°56'00.196"W	7499.13	170.578	0.91	-0.26	0.87	
14223.00	89.970	160.000	6376.24	7475.33	-7485.85	1260.98	1659267.19	14307923.73	39°24'03.375"N	80°55'59.773"W	7591.31	170.438	1.62	-0.10	1.62	
14318.00	89.880	161.380	6376.37	7570.33	-7575.90	1292.40	1659298.59	14307834.11	39°24'02.488"N	80°55'59.373"W	7684.95	170.318	1.46	-0.09	1.45	
14413.00	90.120	162.840	6376.37	7665.28	-7665.91	1321.58	1659327.76	14307743.74	39°24'01.595"N	80°55'59.002"W	7778.99	170.219	1.56	0.25	1.54	
14507.00	90.000	161.720	6376.27	7759.23	-7755.44	1350.19	1659356.36	14307654.24	39°24'00.709"N	80°55'58.639"W	7872.10	170.124	1.20	-0.13	-1.19	
14602.00	90.180	161.550	6376.12	7854.21	-7845.61	1380.12	1659386.28	14307564.12	39°23'59.818"N	80°55'58.258"W	7966.07	170.023	0.26	0.19	-0.18	
14697.00	90.340	160.210	6375.69	7949.20	-7935.36	1411.23	1659417.38	14307474.40	39°23'58.931"N	80°55'57.863"W	8059.87	169.916	1.42	0.17	-1.41	
14792.00	90.150	160.470	6375.28	8044.20	-8024.82	1443.20	1659449.33	14307384.97	39°23'58.046"N	80°55'57.457"W	8153.56	169.805	0.34	-0.20	0.27	
14886.00	89.970	159.240	6375.18	8138.19	-8113.07	1475.57	1659481.69	14307296.76	39°23'57.174"N	80°55'57.045"W	8246.16	169.692	1.32	-0.19	-1.31	
14981.00	90.030	159.170	6375.18	8233.17	-8201.88	1509.30	1659515.40	14307207.98	39°23'56.296"N	80°55'56.616"W	8339.60	169.573	0.10	0.06	-0.07	
15075.00	90.060	158.020	6375.11	8327.12	-8289.40	1543.60	1659549.70	14307120.50	39°23'55.431"N	80°55'56.180"W	8431.89	169.452	1.22	0.03	-1.22	
15169.00	89.970	155.430	6375.08	8420.92	-8375.74	1580.74	1659586.82	14307034.19	39°23'54.577"N	80°55'55.708"W	8523.60	169.312	2.76	-0.10	-2.76	
15264.00	90.150	155.270	6374.98	8515.55	-8462.08	1620.36	1659626.43	14306947.89	39°23'53.723"N	80°55'55.204"W	8615.82	169.160	0.25	0.19	-0.17	
15358.00	90.120	156.440	6374.76	8609.25	-8547.86	1658.81	1659664.86	14306862.15	39°23'52.875"N	80°55'54.715"W	8707.33	169.018	1.25	-0.03	1.24	

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REFERENCE WELLPATH IDENTIFICATION		Slot	Slot #07
Operator	ANTERO RESOURCES CORPORATION	Well	Jim Unit 3H
Area	Tyler County, WV	Wellbore	Jim Unit 3H AWP
Field	Tyler		
Facility	Neat Pad		

WELLPATH DATA (206 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
15452.00	90.050	155.920	6374.62	8703.00	-8633.85	1696.78	1659702.81	14306776.19	39°23'52.02"N	80°55'54.232"W	8799.00	168.882	0.56	-0.06	-0.55	
15546.00	90.000	158.450	6374.57	8796.84	-8720.49	1733.22	1659739.24	14306689.58	39°23'51.169"N	80°55'53.769"W	8891.06	168.759	2.69	-0.06	-2.69	
15640.00	90.180	160.970	6374.42	8890.82	-8808.65	1765.82	1659771.82	14306601.46	39°23'50.297"N	80°55'53.354"W	8983.90	168.665	2.69	0.19	-2.68	
15735.00	89.910	162.030	6374.34	8985.81	-8898.74	1795.96	1659801.95	14306511.41	39°23'49.406"N	80°55'52.971"W	9078.16	168.590	1.15	-0.28	-1.12	
15829.00	90.120	163.100	6374.32	9079.74	-8988.42	1824.12	1659830.11	14306421.76	39°23'48.520"N	80°55'52.613"W	9171.65	168.528	1.16	0.22	-1.14	
15923.00	90.180	164.380	6374.07	9173.58	-9078.66	1850.44	1659856.41	14306331.56	39°23'47.628"N	80°55'52.279"W	9265.32	168.480	1.36	0.06	1.36	
16018.00	90.280	165.330	6373.69	9268.29	-9170.35	1875.26	1659881.22	14306239.90	39°23'46.721"N	80°55'51.964"W	9360.13	168.443	1.01	0.11	1.00	
16112.00	90.250	165.530	6373.26	9361.93	-9261.33	1898.91	1659904.86	14306148.96	39°23'45.822"N	80°55'51.663"W	9454.00	168.413	0.22	-0.03	0.21	
16205.00	89.880	162.690	6373.15	9454.72	-9350.77	1924.37	1659930.31	14306059.56	39°23'44.938"N	80°55'51.340"W	9546.73	168.371	3.08	-0.40	-3.05	
16300.00	90.030	161.290	6373.23	9549.69	-9441.11	1953.74	1659959.67	14305969.25	39°23'44.045"N	80°55'50.967"W	9641.14	168.308	1.48	0.16	-1.47	
16394.00	90.180	161.120	6373.05	9643.68	-9530.10	1984.03	1659989.94	14305880.30	39°23'43.165"N	80°55'50.582"W	9734.43	168.240	0.24	0.16	-0.18	
16488.00	90.220	161.850	6372.73	9737.66	-9619.23	2013.88	1660019.78	14305791.20	39°23'42.284"N	80°55'50.203"W	9827.78	168.175	0.78	0.04	0.78	
16583.00	89.970	162.220	6372.57	9832.62	-9709.60	2043.18	1660049.07	14305700.87	39°23'41.390"N	80°55'49.830"W	9922.24	168.117	0.47	-0.26	0.39	
16678.00	90.220	162.780	6372.41	9927.56	-9800.20	2071.74	1660077.63	14305610.30	39°23'40.495"N	80°55'49.487"W	10016.79	168.084	0.65	0.26	0.59	
16772.00	90.090	161.800	6372.16	10021.50	-9889.75	2100.34	1660106.21	14305520.80	39°23'39.609"N	80°55'49.104"W	10110.32	168.010	1.05	-0.14	-1.04	
16866.00	90.280	159.400	6371.85	10115.50	-9978.40	2131.56	1660137.42	14305432.18	39°23'38.733"N	80°55'48.707"W	10203.53	167.942	2.56	0.20	-2.55	
16961.00	90.000	158.240	6371.62	10210.46	-10066.98	2165.88	1660171.73	14305343.63	39°23'37.857"N	80°55'48.271"W	10297.34	167.868	1.26	-0.29	-1.22	
17056.00	90.150	157.680	6371.50	10305.37	-10155.04	2201.53	1660207.36	14305255.61	39°23'36.987"N	80°55'47.818"W	10390.94	167.768	0.61	0.16	-0.59	
17152.00	90.030	155.560	6371.35	10401.15	-10243.15	2239.62	1660245.44	14305167.53	39°23'36.115"N	80°55'47.333"W	10485.14	167.667	2.21	-0.12	-2.21	
17247.00	90.180	156.050	6371.17	10495.85	-10329.81	2278.56	1660284.36	14305080.91	39°23'35.259"N	80°55'46.838"W	10578.13	167.561	0.54	0.16	0.52	
17342.00	90.150	160.370	6370.90	10590.75	-10418.00	2313.82	1660319.60	14304992.76	39°23'34.387"N	80°55'46.390"W	10671.85	167.478	4.55	-0.03	4.55	
17436.00	90.250	163.440	6370.57	10684.71	-10507.34	2343.01	1660348.78	14304903.45	39°23'33.504"N	80°55'46.019"W	10765.40	167.429	3.27	0.11	3.27	
17532.00	89.970	163.260	6370.39	10780.58	-10599.31	2370.52	1660376.28	14304811.52	39°23'32.594"N	80°55'45.670"W	10861.16	167.393	0.35	-0.29	-0.20	
17627.00	89.380	160.860	6370.92	10875.54	-10689.68	2399.79	1660405.54	14304721.18	39°23'31.707"N	80°55'45.298"W	10955.74	167.347	2.59	-0.62	-2.52	
17650.00	88.990	160.130	6371.25	10888.53	-10711.36	2407.47	1660413.21	14304699.52	39°23'31.487"N	80°55'45.200"W	10978.57	167.333	3.60	-1.70	-3.17	
17674.00	88.990	160.130	6371.67	10922.53	-10733.93	2415.62	1660421.37	14304676.96	39°23'31.263"N	80°55'45.096"W	11002.38	167.317	0.00	0.00	0.00	Projected MD at TD: 17674'

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Actual Wellpath Report

Jim Unit 3H AWP Proj: 17674'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Jim Unit 3H
Field	Tyler	Wellbore	Jim Unit 3H AWB
Facility	Neat Pad		

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]
	Start MD	End MD	Start TVD	End TVD		Start N/S	Start E/W	End N/S	End E/W				
20in Conductor	24.50	104.50	104.50	80.00	80.00	24.50	104.50	0.00	0.00	0.00	-0.32	-0.04	
17.5in Open Hole	104.50	372.50	372.50	268.00	268.00	104.50	372.49	-0.32	-0.04	-0.04	-2.30	-1.38	
13.375in Casing Surface	24.50	372.50	372.50	348.00	348.00	24.50	372.49	0.00	0.00	0.00	-2.30	-1.38	
12.25in Open Hole	372.50	2618.50	2618.50	2246.00	2246.00	372.49	2575.77	-2.30	-1.38	-1.38	68.37	-376.65	
9.625in Casing Intermediate	24.50	2618.50	2618.50	2594.00	2594.00	24.50	2575.77	0.00	0.00	0.00	68.37	-376.65	
8.75in Open Hole	2618.50	6437.50	6437.50	3819.00	3819.00	2575.77	6194.98	68.37	-376.65	-376.65	-135.75	-1143.46	
8.5in Open Hole	6437.50	17674.00	17674.00	11236.50	11236.50	6194.98	6371.67	-135.75	-1143.46	-1143.46	-10733.93	2415.62	
5.5in Casing Production	24.50	17674.00	17674.00	17649.50	17649.50	24.50	6371.67	0.00	0.00	0.00	-10733.93	2415.62	

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Jim Unit 3H POE Rev-2	6297.00	-311.92	-1097.07	1656910.08	14315094.77	39°25'14.294"N	80°56'29.752"W	point
Jim Unit 3H AZI Rev-2	6327.00	-1636.37	-825.27	1657181.77	14313770.85	39°25'01.202"N	80°56'26.300"W	point
Jim Unit 3H BHL Rev-2	6327.00	-10717.21	2407.19	1660412.94	14304693.67	39°23'31.429"N	80°55'45.204"W	point
Jim Unit 3H LP Rev-2	6327.00	-487.89	-1062.95	1656944.19	14314918.87	39°25'12.555"N	80°56'29.319"W	point

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #07
Area	Tyler County, WV	Well	Jim Unit 3H
Field	Tyler	Wellbore	Jim Unit 3H AWB
Facility	Neat Pad		

WELLPATH COMPOSITION - Ref Wellbore: Jim Unit 3H AWB		Ref Wellpath: Jim Unit 3H AWP Proj: 17674'	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
24.50	361.50	Gyrodata standard - Single-shot	01 Gyrodata SS Gyro <17-1/2">(82'-352)
361.50	724.50	Gyrodata standard - Single-shot	02 Gyrodata SS Gyro <12-1/4">(352')(446'-715')
724.50	2545.50	ISCWSA MWD, Rev. 4 (Standard)	03 Directional ONE MWD <12-1/4">(715')(768'-2536')
2545.50	6369.50	ISCWSA MWD, Rev. 4 (Standard)	04 Directional ONE MWD <8-3/4">(2536')(2635'-6360')
6369.50	17650.00	BHI AutoTrak Curve (Short)	05 BH AT Curve <8-1/2">(6369.5')(6422'-17650')
17650.00	17674.00	Blind Drilling (std)	Projection to bit
			Wellbore

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #07
ANTERO RESOURCES CORPORATION	Well	Jim Unit 3H
Tyler County, WV	Wellbore	Jim Unit 3H AWB
Tyler		
Neat Pad		

COMMENTS

Wellpath general comments

API: 47-095-02410-0000

BHI Job #: 109454866

Rig: Frontier 22

Duration: 10/16/2018-10/18/2018

Gyrodata SS Gyro <17-1/2">(82'-352')

Gyrodata SS Gyro <12-1/4">(352')(446'-715')

Directional ONE MWD <12-1/4">(715')(768'-2536')

Directional ONE MWD<8-3/4">(2536')(2635'-6360')

BH AT Curve <8-1/2">(6369.5')(6422'-17650')

Middlesex: 6409' MD

Burkett: 6551' MD

Tully: 6606' MD

Marcellus POE: 6647' MD

Projected MD at TD: 17674'

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