



ANTERO RESOURCES CORPORATION



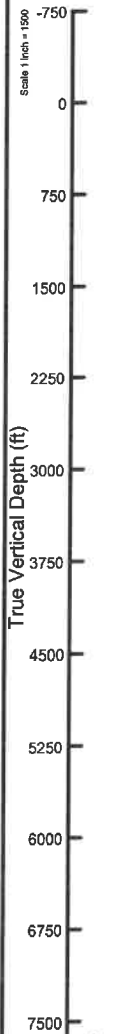
Location: Doddridge Co., WV
 Field: Doddridge
 Facility: Peggy June Pad

Slot: Slot #01
 Well: Fraley Unit 1H
 Wellbore: Fraley Unit 1H PWB

Plot reference wellpath is Fraley Unit 1H PWB Rev-A.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 1305 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot #01): -1275 feet	Depths are in feet
Offset wellpath MDs are referenced to each point's default MD datum	Created by: edward on 2021-02-16; Database: WA_MPL_EASTERNUS_Def



Location Information					
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Peggy June Pad	1712149.550	14272437.390	39°18'11.5750"N	80°44'47.1230"W	
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Longitude
Slot #01	5.15	-39.72	1712109.850	14272442.540	39°18'11.6270"N
Comment: Fraley Unit 1H					
H&P 519 (RKB) to Ground level (At Slot: Slot #01)			30ft		
Mean Sea Level to Ground level (At Slot: Slot #01)			-1275ft		
H&P 519 (RKB) to Mean Sea Level			1305ft		



Gyrodata MS Gyro <17-1/2"> (100°-477"): 0.64° Inc, 115.00ft MD, 115.00ft TVD, -0.37ft VS

Gyrodata MS Gyro <12-1/4"> (492°/569"): 1.11° Inc, 584.00ft MD, 583.97ft TVD, -4.11ft VS
 Premier MWD <12-1/4"> (569°/681°-2491"): 0.91° Inc, 696.00ft MD, 695.95ft TVD, -5.01ft VS

Premier MWD <8-3/4"> (2491°/2641°-6084"): 2.83° Inc, 2656.00ft MD, 2655.51ft TVD, -0.67ft VS

API: 47-017-06896-0000
 BH Job #: 110695237
 Rig: H&P 519
 Duration: 2/10/2021-2/13/2021

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	6099.00	15.620	199.760	6039.49	-486.97	-205.47	2.38	-402.41
Proj. to Bottom	6165.00	15.620	199.760	6103.06	-503.70	-211.48	0.00	-416.55
End of 3D Arc	6977.01	51.407	338.823	6823.29	-287.92	-380.95	7.86	-159.73
POE	7223.06	69.581	342.465	6944.00	-86.57	-451.03	7.50	53.38
Landing Pt.	7478.30	90.000	342.465	6989.00	151.68	-528.31	8.00	303.24
BHL	16033.94	90.000	342.465	6989.00	8309.75	-3104.08	0.00	8858.89

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #01	Fraley Unit 1H	Fraley Unit 1H AWB	Fraley Unit 1H AWP Proj: 16036'
Slot #01	Fraley Unit 1H	Fraley Unit 1H PWB	Fraley Unit 1H PWP Rev-A.0

BH AT Curve <8-1/2"> (6099°/6140°-16011'): 16.93° Inc, 6140.00ft MD, 6078.85ft TVD, -411.52ft VS

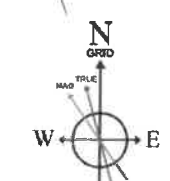
Marcellus POE: 7259' MD : 72.76° Inc, 7259.00ft MD, 6953.44ft TVD, 97.79ft VS

Projected MD at TD: 16036' : 89.51° Inc, 16036.00ft MD, 7081.82ft TVD, 8866.74ft VS

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Marcellus POE: 7259' MD : 6953.44ft TVD, 38.61ft S, 446.63ft W

BH AT Curve <8-1/2"> (6099°/6140°-16011'): 6078.85ft TVD, 497.77ft S, 209.40ft W
 Premier MWD <8-3/4"> (2491°/2641°-6084'): 2655.51ft TVD, 4.29ft S, 11.32ft W
 Premier MWD <12-1/4"> (569°/681°-2491'): 695.95ft TVD, 3.19ft S, 6.52ft E
 Gyrodata MS Gyro <12-1/4"> (492°/569'): 583.97ft TVD, 2.86ft S, 4.57ft E
 Gyrodata MS Gyro <17-1/2"> (100°-477'): 115.00ft TVD, 0.26ft S, 0.40ft E



User specified (HDGM) Dip: 66.28° Field: 51957 nT
 Magnetic North is 7.68 degrees West of True North (at 08/Feb/2021)
 Grid North is 0.16 degrees East of True North
 To correct azimuth from True to Grid subtract 0.16 degrees
 To correct azimuth from Magnetic to Grid subtract 7.74 degrees

Vertical Section (ft)
 Azimuth 342.46° with reference 0.00 N, 0.00 E

Scale 1 inch = 1900



Actual Wellpath Report

Fraley Unit 1H AWP Proj: 16036'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Fraley Unit 1H
Field	Doddridge	API	47-017-06896-0000
Facility	Peggy June Pad	Wellbore	Fraley Unit 1H AWB
Slot	Slot #01		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999606	Report Generated	16/Feb/2021 at 23:21
Convergence at slot	0.16° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	5.15	-39.72	1712109.85	14272442.54	39°18'11.6270"N	80°44'47.6280"W
Facility Reference Pt			1712149.55	14272437.39	39°18'11.5750"N	80°44'47.1230"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	1305.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	1305.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #01)	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	342.46°

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Actual Wellpath Report

Fralely Unit 1H AWP Proj: 16036'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Fralely Unit 1H
Field	Doddridge	API	47-017-06896-0000
Facility	Peggy June Pad	Wellbore	Fralely Unit 1H AWB
Slot	Slot #01		

WELLPATH DATA (190 stations) † = interpolated, ‡ = extrapolated station																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	[US ft]	[US ft]			(ft)	(°)	(°/100ft)	(°/100ft)	(°/100ft)	
0.00	0.00	122.750	0.00	0.00	0.00	0.00	1712109.85	14272442.54	39°18'11.6270"N	80°44'47.6280"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.00	122.750	30.00	0.00	0.00	0.00	1712109.85	14272442.54	39°18'11.6270"N	80°44'47.6280"W	0.00	0.000	0.00	0.00	0.00	
115.00	0.640	122.750	115.00	-0.37	-0.26	0.40	1712110.25	14272442.28	39°18'11.6244"N	80°44'47.6229"W	0.47	122.750	0.75	0.75	0.00	Gyrodata MS Gyro <17-1/2"> (100'-477')
140.00	0.620	127.340	140.00	-0.58	-0.41	0.62	1712110.47	14272442.13	39°18'11.6229"N	80°44'47.6201"W	0.75	123.578	0.22	-0.08	18.36	
165.00	0.640	126.350	165.00	-0.81	-0.58	0.84	1712110.69	14272441.96	39°18'11.6212"N	80°44'47.6173"W	1.02	124.452	0.09	0.08	-3.96	
190.00	0.720	121.630	189.99	-1.04	-0.74	1.09	1712110.94	14272441.80	39°18'11.6196"N	80°44'47.6141"W	1.32	124.317	0.39	0.32	-18.88	
215.00	0.540	132.400	214.99	-1.26	-0.91	1.31	1712111.16	14272441.63	39°18'11.6180"N	80°44'47.6113"W	1.59	124.648	0.86	-0.72	43.08	
240.00	0.570	144.040	239.99	-1.48	-1.09	1.47	1712111.32	14272441.45	39°18'11.6162"N	80°44'47.6093"W	1.83	126.440	0.47	0.12	46.56	
265.00	0.570	137.230	264.99	-1.71	-1.28	1.63	1712111.48	14272441.26	39°18'11.6143"N	80°44'47.6073"W	2.07	128.125	0.27	0.00	-27.24	
290.00	0.580	145.040	289.99	-1.94	-1.47	1.79	1712111.63	14272441.07	39°18'11.6124"N	80°44'47.6053"W	2.31	129.523	0.32	0.04	31.24	
315.00	0.520	143.740	314.99	-2.17	-1.67	1.93	1712111.77	14272440.87	39°18'11.6104"N	80°44'47.6036"W	2.55	130.912	0.25	-0.24	-5.20	
340.00	0.460	145.350	339.99	-2.37	-1.84	2.05	1712111.90	14272440.70	39°18'11.6087"N	80°44'47.6020"W	2.76	131.956	0.25	-0.24	6.44	
365.00	0.460	153.190	364.99	-2.57	-2.01	2.15	1712112.00	14272440.53	39°18'11.6070"N	80°44'47.6007"W	2.95	133.114	0.25	0.00	31.36	
390.00	0.550	138.720	389.98	-2.78	-2.19	2.28	1712112.13	14272440.35	39°18'11.6052"N	80°44'47.5991"W	3.16	133.951	0.62	0.36	-57.88	
415.00	0.480	135.800	414.98	-2.98	-2.36	2.43	1712112.28	14272440.18	39°18'11.6036"N	80°44'47.5972"W	3.39	134.177	0.30	-0.28	-11.68	
440.00	0.500	125.770	439.98	-3.16	-2.50	2.59	1712112.44	14272440.04	39°18'11.6022"N	80°44'47.5951"W	3.60	133.970	0.35	0.08	-40.12	
465.00	0.600	105.510	464.98	-3.32	-2.60	2.80	1712112.65	14272439.94	39°18'11.6012"N	80°44'47.5924"W	3.82	132.802	0.87	0.40	-81.04	
492.00	0.730	98.900	491.98	-3.48	-2.66	3.11	1712112.96	14272439.88	39°18'11.6006"N	80°44'47.5885"W	4.09	130.551	0.56	0.48	-24.48	
584.00	1.110	97.210	583.97	-4.11	-2.86	4.57	1712114.42	14272439.68	39°18'11.5986"N	80°44'47.5869"W	5.40	122.055	0.41	0.41	-1.84	Gyrodata MS Gyro <12-1/4"> (492')(569')
696.00	0.910	102.560	695.95	-5.01	-3.19	6.52	1712116.37	14272439.35	39°18'11.5952"N	80°44'47.5452"W	7.26	116.103	0.20	-0.18	4.78	Premier MWD <12-1/4"> (569')(681'-2491')
789.00	0.300	53.010	788.94	-5.30	-3.21	7.43	1712117.28	14272439.33	39°18'11.5951"N	80°44'47.5335"W	8.10	113.341	0.81	-0.66	-53.28	
882.00	0.900	322.870	881.94	-4.53	-2.48	7.19	1712117.03	14272440.06	39°18'11.6023"N	80°44'47.5367"W	7.60	109.030	1.02	0.65	-96.92	
978.00	0.420	297.580	977.93	-3.57	-1.71	6.42	1712116.27	14272440.83	39°18'11.6099"N	80°44'47.5464"W	6.64	104.955	0.57	-0.50	-26.34	
1072.00	0.290	231.580	1071.93	-3.41	-1.70	5.93	1712115.78	14272440.84	39°18'11.6100"N	80°44'47.5526"W	6.17	106.029	0.43	-0.14	-70.21	
1167.00	0.390	150.490	1166.93	-3.81	-2.13	5.90	1712115.75	14272440.41	39°18'11.6057"N	80°44'47.5530"W	6.27	109.887	0.47	0.11	-85.36	
1262.00	1.060	154.350	1261.92	-5.00	-3.21	6.44	1712116.29	14272439.33	39°18'11.5951"N	80°44'47.5462"W	7.19	116.480	0.71	0.71	4.06	
1356.00	0.910	168.680	1355.91	-6.60	-4.72	6.96	1712116.81	14272437.82	39°18'11.5801"N	80°44'47.5396"W	8.41	124.155	0.31	-0.16	15.24	
1451.00	1.050	214.130	1450.90	-7.89	-6.18	6.62	1712116.47	14272436.36	39°18'11.5657"N	80°44'47.5440"W	9.06	133.041	0.81	0.15	47.84	
1545.00	0.980	212.780	1544.88	-8.94	-7.57	5.70	1712115.55	14272434.97	39°18'11.5520"N	80°44'47.5557"W	9.48	143.016	0.08	-0.07	-1.44	
1640.00	0.970	213.890	1639.87	-9.96	-8.92	4.81	1712114.66	14272433.62	39°18'11.5387"N	80°44'47.5671"W	10.14	151.649	0.02	-0.01	1.17	

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Actual Wellpath Report

Fralei Unit 1H AWP Proj: 16036'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Fralei Unit 1H
Field	Doddridge	API	47-017-06896-0000
Facility	Peggy June Pad	Wellbore	Fralei Unit 1H AWB
Slot	Slot #01		

WELLPATH DATA (190 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
1735.00	0.780	219.300	1734.86	-10.81	-10.09	3.96	1712113.81	14272432.45	39°18'11.5271"N	80°44'47.5780"W	10.84	158.589	0.22	-0.20	5.69	
1830.00	1.090	232.850	1829.84	-11.47	-11.14	2.83	1712112.68	14272431.41	39°18'11.5168"N	80°44'47.5924"W	11.49	165.757	0.40	0.33	14.26	
1924.00	1.500	239.050	1923.82	-12.06	-12.31	1.06	1712110.91	14272430.24	39°18'11.5053"N	80°44'47.6150"W	12.35	175.082	0.46	0.44	6.60	
2020.00	1.470	246.130	2019.79	-12.48	-13.45	-1.14	1712108.71	14272429.09	39°18'11.4940"N	80°44'47.6430"W	13.50	184.863	0.19	-0.03	7.37	
2114.00	1.150	266.300	2113.76	-12.39	-14.00	-3.19	1712106.66	14272428.54	39°18'11.4887"N	80°44'47.6691"W	14.36	192.828	0.59	-0.34	21.46	
2209.00	1.320	254.210	2208.74	-12.13	-14.36	-5.19	1712104.66	14272428.18	39°18'11.4852"N	80°44'47.6946"W	15.27	199.878	0.33	0.18	-12.73	
2304.00	1.290	275.580	2303.72	-11.68	-14.56	-7.31	1712102.54	14272427.99	39°18'11.4833"N	80°44'47.7215"W	16.29	206.666	0.51	-0.03	22.49	
2398.00	1.300	338.480	2397.70	-10.20	-13.46	-8.75	1712101.10	14272429.08	39°18'11.4942"N	80°44'47.7398"W	16.06	213.038	1.44	0.01	66.91	
2506.00	2.050	342.930	2505.65	-7.04	-10.47	-9.77	1712100.08	14272432.07	39°18'11.5237"N	80°44'47.7527"W	14.32	223.009	0.70	0.69	4.12	
2656.00	2.830	348.060	2655.51	-0.67	-4.29	-11.32	1712098.53	14272438.25	39°18'11.5849"N	80°44'47.7722"W	12.11	249.266	0.54	0.52	3.42	Premier MWD <8-3/4"> (2491')(2641'-6084')
2751.00	0.130	144.130	2750.48	1.56	-2.08	-11.75	1712098.11	14272440.46	39°18'11.6068"N	80°44'47.7775"W	11.93	259.962	3.10	-2.84	164.28	
2845.00	0.970	157.770	2844.47	0.66	-2.90	-11.38	1712098.47	14272439.64	39°18'11.5986"N	80°44'47.7729"W	11.75	255.697	0.90	0.89	14.51	
2940.00	1.110	159.500	2939.46	-1.06	-4.51	-10.76	1712099.10	14272438.03	39°18'11.5827"N	80°44'47.7650"W	11.66	247.260	0.15	0.15	1.82	
3035.00	0.210	29.040	3034.45	-1.86	-5.22	-10.35	1712099.50	14272437.32	39°18'11.5757"N	80°44'47.7598"W	11.59	243.244	1.32	-0.95	-137.33	
3129.00	0.360	5.120	3128.45	-1.47	-4.77	-10.24	1712099.61	14272437.77	39°18'11.5801"N	80°44'47.7584"W	11.30	245.007	0.20	0.16	-25.45	
3226.00	0.210	11.180	3225.45	-1.03	-4.30	-10.18	1712099.68	14272438.25	39°18'11.5848"N	80°44'47.7576"W	11.05	247.119	0.16	-0.15	6.25	
3321.00	0.180	47.070	3320.45	-0.81	-4.02	-10.04	1712099.82	14272438.52	39°18'11.5875"N	80°44'47.7558"W	10.81	248.154	0.13	-0.03	37.78	
3416.00	0.300	107.550	3415.45	-0.89	-4.00	-9.69	1712100.17	14272438.55	39°18'11.5878"N	80°44'47.7514"W	10.48	247.585	0.28	0.13	63.66	
3510.00	1.610	155.000	3509.43	-2.34	-5.27	-8.90	1712100.96	14272437.27	39°18'11.5752"N	80°44'47.7413"W	10.34	239.369	1.52	1.39	50.48	
3605.00	3.150	163.170	3604.35	-8.28	-8.98	-7.58	1712102.28	14272433.57	39°18'11.5385"N	80°44'47.7247"W	11.75	220.167	1.66	1.62	8.60	
3700.00	4.830	173.390	3699.12	-12.81	-15.45	-6.36	1712103.49	14272427.10	39°18'11.4745"N	80°44'47.7094"W	16.71	202.378	1.91	1.77	10.76	
3794.00	6.200	183.830	3792.68	-21.43	-24.44	-6.24	1712103.61	14272418.11	39°18'11.3856"N	80°44'47.7083"W	25.23	194.328	1.80	1.46	11.11	
3889.00	6.830	195.930	3887.07	-30.92	-34.99	-8.14	1712101.72	14272407.56	39°18'11.2813"N	80°44'47.7327"W	35.93	193.089	1.59	0.66	12.74	
3984.00	7.980	201.000	3981.28	-40.79	-46.58	-12.05	1712097.80	14272395.97	39°18'11.1669"N	80°44'47.7829"W	48.12	194.504	1.39	1.21	5.34	
4079.00	9.100	203.910	4075.22	-51.58	-59.61	-17.46	1712092.40	14272382.96	39°18'11.0383"N	80°44'47.8522"W	62.11	196.325	1.26	1.18	3.06	
4173.00	10.460	204.480	4167.86	-63.49	-74.17	-24.01	1712085.85	14272368.40	39°18'10.8946"N	80°44'47.9360"W	77.96	197.936	1.45	1.45	0.61	
4268.00	11.680	206.800	4261.09	-76.79	-90.62	-31.89	1712077.98	14272351.96	39°18'10.7322"N	80°44'48.0369"W	96.06	199.386	1.35	1.28	2.23	
4362.00	13.490	206.040	4352.83	-91.57	-108.98	-40.96	1712068.90	14272333.61	39°18'10.5510"N	80°44'48.1529"W	116.42	200.800	1.93	1.93	-0.60	
4457.00	13.230	201.830	4445.26	-108.00	-129.03	-49.87	1712060.00	14272313.57	39°18'10.3531"N	80°44'48.2670"W	138.33	201.131	1.06	-0.27	-4.43	
4552.00	13.170	202.930	4537.75	-124.63	-149.08	-58.13	1712051.75	14272293.51	39°18'10.1551"N	80°44'48.3727"W	160.02	201.301	0.27	-0.06	1.16	

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Fraley Unit 1H AWP Proj: 16036'
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REFERENCE WELLPATH INFORMATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Fraley Unit 1H
Field	Doddridge		API	47-017-06896-0000
Facility	Peggy June Pad		Wellbore	Fraley Unit 1H AWB
Slot	Slot #01			

WELLPATH DATA (190 stations) † = interpolated, ‡ = extrapolated station																	
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)			(ft)	(°)	("/100ft)	("/100ft)	(°/100ft)		
4646.00	12.960	207.710	4629.32	-140.20	-168.28	-67.20	1712042.68	14272274.33	39°18'9.9656"N	80°44'48.4888"W	181.20	201.769	1.17	-0.22	5.09		
4741.00	13.870	208.940	4721.72	-155.54	-187.68	-77.66	1712032.22	14272254.94	39°18'9.7742"N	80°44'48.6226"W	203.11	202.481	1.00	0.96	1.29		
4835.00	13.820	205.380	4812.99	-171.52	-207.68	-87.93	1712021.96	14272234.94	39°18'9.5768"N	80°44'48.7539"W	225.53	202.947	0.91	-0.05	-3.79		
4930.00	13.510	205.240	4905.30	-187.98	-227.97	-97.52	1712012.36	14272214.66	39°18'9.3765"N	80°44'48.8767"W	247.95	203.161	0.33	-0.33	-0.15		
5025.00	13.050	200.310	4997.77	-204.59	-248.06	-105.98	1712003.91	14272194.57	39°18'9.1781"N	80°44'48.9850"W	269.75	203.133	1.29	-0.48	-5.19		
5119.00	13.600	199.880	5089.24	-221.75	-268.41	-113.42	1711996.47	14272174.24	39°18'8.9772"N	80°44'49.0804"W	291.39	202.907	0.59	0.59	-0.46		
5214.00	13.260	202.800	5181.64	-238.92	-288.96	-121.44	1711988.46	14272153.70	39°18'8.7744"N	80°44'49.1831"W	313.44	202.796	0.80	-0.36	3.07		
5309.00	13.110	208.810	5274.14	-254.67	-308.44	-130.86	1711979.05	14272134.22	39°18'8.5821"N	80°44'49.3036"W	335.05	202.989	1.45	-0.16	6.33		
5404.00	13.610	211.240	5366.57	-269.47	-327.44	-141.84	1711968.06	14272115.23	39°18'8.3946"N	80°44'49.4440"W	356.84	203.422	0.79	0.53	2.56		
5498.00	13.970	207.480	5457.86	-284.78	-346.96	-152.82	1711957.09	14272095.71	39°18'8.2019"N	80°44'49.5843"W	379.13	203.771	1.03	0.38	-4.00		
5593.00	13.880	211.820	5550.07	-300.31	-366.82	-164.12	1711945.80	14272075.87	39°18'8.0060"N	80°44'49.7287"W	401.86	204.104	1.10	-0.09	4.57		
5688.00	14.640	212.150	5642.14	-315.49	-386.67	-176.51	1711933.41	14272056.03	39°18'7.8102"N	80°44'49.8871"W	425.05	204.537	0.80	0.80	0.35		
5783.00	13.790	197.890	5734.26	-332.49	-407.61	-186.38	1711923.54	14272035.09	39°18'7.6034"N	80°44'50.0134"W	448.20	204.572	3.78	-0.89	-15.01		
5877.00	14.790	193.250	5825.36	-351.93	-429.95	-192.57	1711917.35	14272012.76	39°18'7.3828"N	80°44'50.0930"W	471.11	204.127	1.62	1.06	-4.94		
5972.00	15.380	188.470	5917.09	-373.67	-454.22	-197.21	1711912.72	14271988.50	39°18'7.1431"N	80°44'50.1528"W	495.18	203.469	1.45	0.62	-5.03		
6099.00	15.620	199.760	6039.49	-402.41	-486.97	-205.47	1711904.46	14271955.78	39°18'6.8196"N	80°44'50.2591"W	528.55	202.877	2.38	0.19	8.89		
6140.00	16.930	200.170	6078.85	-411.52	-497.77	-209.40	1711900.54	14271944.96	39°18'6.7129"N	80°44'50.3094"W	540.02	202.815	3.21	3.20	1.00	BH AT Curve <8-1/2"> (6099')(6140'-16011')	
6177.00	17.270	201.400	6114.22	-420.06	-507.94	-213.26	1711896.68	14271934.80	39°18'6.6125"N	80°44'50.3589"W	550.90	202.775	1.34	0.92	3.32		
6272.00	12.370	238.080	6206.22	-433.59	-526.50	-227.08	1711882.86	14271916.24	39°18'6.4295"N	80°44'50.5353"W	573.39	203.330	10.89	-5.16	38.61		
6367.00	11.840	287.350	6299.35	-430.53	-528.98	-245.06	1711864.88	14271913.77	39°18'6.4055"N	80°44'50.7642"W	582.99	204.857	10.57	-0.56	51.86		
6461.00	15.440	315.180	6390.78	-413.87	-517.22	-263.11	1711846.84	14271925.53	39°18'6.5223"N	80°44'50.9934"W	580.29	206.963	7.85	3.83	29.61		
6556.00	20.240	331.750	6481.24	-386.46	-493.74	-279.83	1711830.14	14271948.99	39°18'6.7547"N	80°44'51.2052"W	567.52	209.542	7.31	5.05	17.44		
6583.00†	21.792	335.040	6506.44	-376.90	-485.08	-284.15	1711825.81	14271957.65	39°18'6.8404"N	80°44'51.2599"W	562.18	210.361	7.22	5.75	12.19	Sycamore: 6583' MD	
6651.00	25.930	341.600	6568.63	-349.50	-459.52	-294.18	1711815.79	14271983.20	39°18'7.0934"N	80°44'51.3865"W	545.62	212.627	7.22	6.08	9.65		
6746.00	33.100	345.060	6651.25	-302.75	-414.68	-307.44	1711802.53	14272028.02	39°18'7.5369"N	80°44'51.5536"W	516.22	216.553	7.75	7.55	3.64		
6835.00†	39.358	343.604	6723.01	-250.21	-364.08	-321.68	1711788.29	14272078.60	39°18'8.0374"N	80°44'51.7330"W	485.83	221.462	7.10	7.03	-1.64	Middlesex: 6835' MD	
6841.00	39.780	343.520	6727.64	-248.39	-360.41	-322.77	1711787.21	14272082.27	39°18'8.0737"N	80°44'51.7467"W	483.81	221.846	7.10	7.04	-1.40		
6935.00	48.820	341.200	6794.85	-180.81	-297.96	-342.74	1711767.25	14272144.70	39°18'8.6916"N	80°44'51.9985"W	454.15	228.998	9.77	9.62	-2.47		
7030.00	54.760	337.950	6853.59	-106.32	-228.08	-368.85	1711741.14	14272214.55	39°18'9.3829"N	80°44'52.3282"W	433.67	238.269	6.80	6.25	-3.42		
7050.00†	56.106	337.551	6864.94	-89.90	-212.84	-375.09	1711734.91	14272229.79	39°18'9.5337"N	80°44'52.4070"W	431.27	240.428	6.93	6.73	-1.99	Burkett: 7050' MD	

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Field	Doddridge	API	47-017-06896-0000
Facility	Peggy June Pad	Wellbore	Fraleley Unit 1H AWB
Slot	Slot #01		

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MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
7075.00	57.790	337.070	6878.57	-69.03	-193.51	-383.17	1711726.83	14272249.11	39°18'9.7250"N	80°44'52.5092"W	429.26	243.206	6.93	6.74	-1.92	
7104.00†	60.209	337.265	6893.51	-44.28	-170.60	-392.82	1711717.19	14272272.01	39°18'9.9517"N	80°44'52.6310"W	428.26	246.525	8.36	8.34	0.67	Tully: 7104' MD
7125.00	61.960	337.400	6903.66	-25.98	-153.64	-399.90	1711710.11	14272288.96	39°18'10.1195"N	80°44'52.7205"W	428.40	248.984	8.36	8.34	0.64	
7170.00	66.290	337.640	6923.30	14.35	-116.23	-415.38	1711694.64	14272326.35	39°18'10.4896"N	80°44'52.9161"W	431.33	254.367	9.63	9.62	0.53	
7219.00	71.190	337.850	6941.06	59.85	-73.98	-432.66	1711677.36	14272368.59	39°18'10.9077"N	80°44'53.1345"W	438.94	260.297	10.01	10.00	0.43	
7259.00†	72.760	339.051	6953.44	97.79	-38.61	-448.63	1711683.39	14272403.95	39°18'11.2577"N	80°44'53.3109"W	448.30	265.060	4.85	3.92	3.00	Marcellus POE: 7259' MD
7314.00	74.930	340.670	6968.74	150.56	10.99	-464.82	1711645.22	14272453.52	39°18'11.7484"N	80°44'53.5405"W	464.95	271.354	4.85	3.95	2.94	
7409.00	81.160	341.380	6988.41	243.42	98.84	-495.02	1711615.03	14272541.34	39°18'12.6175"N	80°44'53.9215"W	504.79	281.291	6.60	6.56	0.75	
7504.00	88.220	341.680	6997.19	337.94	188.50	-524.96	1711585.10	14272630.96	39°18'13.5045"N	80°44'54.2993"W	557.78	289.752	7.44	7.43	0.32	
7598.00	89.200	339.940	6999.31	431.88	277.25	-555.85	1711554.22	14272719.68	39°18'14.3826"N	80°44'54.6891"W	621.16	296.509	2.12	1.04	-1.85	
7693.00	89.600	342.510	7000.31	526.84	367.18	-586.42	1711523.66	14272809.58	39°18'15.2723"N	80°44'55.0748"W	691.89	302.052	2.74	0.42	2.71	
7788.00	89.170	342.120	7001.33	621.84	457.69	-615.28	1711494.81	14272900.05	39°18'16.1676"N	80°44'55.4387"W	766.84	306.644	0.61	-0.45	-0.41	
7883.00	89.970	343.920	7002.04	716.82	548.54	-643.02	1711467.08	14272990.86	39°18'17.0663"N	80°44'55.7884"W	845.21	310.466	2.07	0.84	1.89	
7977.00	88.740	340.400	7003.10	810.80	638.00	-671.81	1711438.30	14273080.28	39°18'17.9512"N	80°44'56.1515"W	926.48	313.521	3.97	-1.31	-3.74	
8072.00	88.770	341.970	7005.16	905.75	727.90	-702.44	1711407.68	14273170.15	39°18'18.8406"N	80°44'56.5380"W	1011.56	316.019	1.65	0.03	1.65	
8167.00	89.320	344.500	7006.74	1000.72	818.84	-729.84	1711380.30	14273261.05	39°18'19.7402"N	80°44'56.8833"W	1096.89	318.289	2.72	0.58	2.66	
8261.00	88.770	341.210	7008.31	1094.69	908.64	-757.54	1711352.61	14273350.82	39°18'20.6285"N	80°44'57.2326"W	1183.00	320.182	3.55	-0.59	-3.50	
8356.00	88.800	341.240	7010.33	1189.65	998.56	-788.11	1711322.05	14273440.71	39°18'21.5181"N	80°44'57.6183"W	1272.10	321.718	0.04	0.03	0.03	
8451.00	89.140	341.720	7012.03	1284.62	1088.63	-818.28	1711291.89	14273530.73	39°18'22.4091"N	80°44'57.9989"W	1361.87	323.069	0.62	0.36	0.51	
8546.00	88.740	341.120	7013.79	1379.59	1178.66	-848.55	1711261.64	14273620.73	39°18'23.2998"N	80°44'58.3807"W	1452.33	324.249	0.76	-0.42	-0.63	
8640.00	88.650	340.810	7015.93	1473.53	1267.50	-879.20	1711231.00	14273709.53	39°18'24.1787"N	80°44'58.7675"W	1542.57	325.253	0.34	-0.10	-0.33	
8735.00	89.200	341.260	7017.71	1568.48	1357.32	-910.06	1711200.15	14273799.32	39°18'25.0673"N	80°44'59.1571"W	1634.18	326.159	0.75	0.58	0.47	
8830.00	88.550	341.230	7019.58	1663.44	1447.26	-940.60	1711169.62	14273889.23	39°18'25.9571"N	80°44'59.5424"W	1726.06	326.979	0.68	-0.68	-0.03	
8924.00	89.480	344.210	7021.20	1757.42	1536.99	-968.52	1711141.72	14273978.92	39°18'26.8447"N	80°44'59.8944"W	1816.69	327.783	3.32	0.99	3.17	
9019.00	90.000	347.810	7021.63	1852.22	1629.16	-991.48	1711118.76	14274071.05	39°18'27.7563"N	80°45'0.1832"W	1907.14	328.676	3.83	0.55	3.79	
9114.00	89.820	342.080	7021.78	1947.09	1720.86	-1016.14	1711094.11	14274162.72	39°18'28.6633"N	80°45'0.4938"W	1998.48	329.439	6.03	-0.19	-6.03	
9208.00	89.940	341.970	7021.97	2041.09	1810.27	-1045.15	1711065.11	14274252.09	39°18'29.5478"N	80°45'0.8597"W	2090.32	330.000	0.17	0.13	-0.12	
9303.00	90.150	341.450	7021.90	2136.08	1900.47	-1074.97	1711035.31	14274342.26	39°18'30.4401"N	80°45'1.2358"W	2183.43	330.506	0.59	0.22	-0.55	
9398.00	90.030	341.520	7021.75	2231.06	1990.55	-1105.13	1711005.15	14274432.31	39°18'31.3313"N	80°45'1.6164"W	2276.76	330.961	0.15	-0.13	0.07	
9493.00	89.970	341.290	7021.75	2326.05	2080.60	-1135.43	1710974.87	14274522.31	39°18'32.2221"N	80°45'1.9987"W	2370.25	331.378	0.25	-0.06	-0.24	

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Field	Doddridge	API	47-017-06896-0000
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[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]	[°]	[°]	[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
9588.00	89.970	341.490	7021.80	2421.03	2170.63	-1165.74	1710944.57	14274612.31	39°18'33.1127"N	80°45'2.3812"W	2463.86	331.762	0.21	0.00	0.21	
9682.00	89.880	340.850	7021.92	2515.01	2259.60	-1196.08	1710914.24	14274701.24	39°18'33.9929"N	80°45'2.7641"W	2556.64	332.106	0.69	-0.10	-0.68	
9777.00	89.660	341.370	7022.30	2609.98	2349.48	-1226.84	1710883.50	14274791.09	39°18'34.8821"N	80°45'3.1522"W	2650.51	332.428	0.59	-0.23	0.55	
9872.00	90.000	341.510	7022.59	2704.96	2439.54	-1257.08	1710853.27	14274881.11	39°18'35.7730"N	80°45'3.5337"W	2744.37	332.738	0.39	0.36	0.15	
9967.00	89.690	341.360	7022.84	2799.95	2529.59	-1287.32	1710823.04	14274971.13	39°18'36.6640"N	80°45'3.9154"W	2838.32	333.028	0.36	-0.33	-0.16	
10062.00	88.890	340.030	7024.02	2894.89	2619.24	-1318.73	1710791.65	14275060.74	39°18'37.5509"N	80°45'4.3117"W	2932.49	333.276	1.63	-0.84	-1.40	
10157.00	90.340	341.570	7024.66	2989.84	2708.95	-1349.97	1710760.42	14275150.42	39°18'38.4384"N	80°45'4.7060"W	3026.69	333.511	2.23	1.53	1.62	
10251.00	90.060	341.380	7024.33	3083.83	2798.08	-1379.83	1710730.57	14275239.51	39°18'39.3201"N	80°45'5.0829"W	3119.81	333.750	0.36	-0.30	-0.20	
10346.00	89.880	342.030	7024.38	3178.82	2888.28	-1409.65	1710700.76	14275329.67	39°18'40.2124"N	80°45'5.4591"W	3213.92	333.985	0.71	-0.19	0.68	
10441.00	90.310	342.520	7024.22	3273.82	2978.77	-1438.58	1710671.84	14275420.13	39°18'41.1075"N	80°45'5.8239"W	3307.95	334.222	0.69	0.45	0.52	
10536.00	89.880	342.370	7024.06	3368.82	3069.34	-1467.23	1710643.20	14275510.67	39°18'42.0035"N	80°45'6.1853"W	3402.00	334.451	0.48	-0.45	-0.16	
10631.00	89.690	342.210	7024.42	3463.82	3159.84	-1496.13	1710614.31	14275601.13	39°18'42.8988"N	80°45'6.5498"W	3496.14	334.663	0.26	-0.20	-0.17	
10726.00	90.060	342.410	7024.63	3558.82	3250.35	-1525.00	1710585.46	14275691.60	39°18'43.7941"N	80°45'6.9139"W	3590.31	334.865	0.44	0.39	0.21	
10821.00	89.970	342.440	7024.60	3653.82	3340.91	-1553.68	1710556.78	14275782.13	39°18'44.6900"N	80°45'7.2757"W	3684.51	335.059	0.10	-0.09	0.03	
10915.00	90.060	342.560	7024.58	3747.82	3430.56	-1581.95	1710528.53	14275871.74	39°18'45.5768"N	80°45'7.6322"W	3777.74	335.244	0.16	0.10	0.13	
11010.00	89.850	342.410	7024.65	3842.82	3521.16	-1610.54	1710499.95	14275962.30	39°18'46.4730"N	80°45'7.9928"W	3872.00	335.421	0.27	-0.22	-0.16	
11105.00	90.340	342.340	7024.50	3937.82	3611.70	-1639.30	1710471.20	14276052.81	39°18'47.3686"N	80°45'8.3556"W	3966.32	335.587	0.52	0.52	-0.07	
11200.00	90.250	342.710	7024.01	4032.82	3702.31	-1667.83	1710442.68	14276143.38	39°18'48.2650"N	80°45'8.7154"W	4060.64	335.749	0.40	-0.09	0.39	
11294.00	90.520	342.960	7023.38	4126.81	3792.12	-1695.57	1710414.95	14276233.16	39°18'49.1534"N	80°45'9.0652"W	4153.93	335.909	0.39	0.29	0.27	
11389.00	90.060	342.930	7022.89	4221.81	3882.94	-1723.43	1710387.10	14276323.94	39°18'50.0518"N	80°45'9.4165"W	4248.23	336.066	0.49	-0.48	-0.03	
11484.00	90.090	343.010	7022.77	4316.80	3973.78	-1751.26	1710359.29	14276414.74	39°18'50.9503"N	80°45'9.7673"W	4342.56	336.217	0.09	0.03	0.08	
11579.00	89.420	342.480	7023.18	4411.80	4064.50	-1779.43	1710331.12	14276505.43	39°18'51.8478"N	80°45'10.1227"W	4436.95	336.356	0.90	-0.71	-0.56	
11673.00	89.630	342.330	7023.96	4505.80	4154.10	-1807.85	1710302.72	14276594.99	39°18'52.7341"N	80°45'10.4811"W	4530.44	336.482	0.27	0.22	-0.16	
11768.00	89.140	342.780	7024.98	4600.79	4244.72	-1836.33	1710274.25	14276685.58	39°18'53.6306"N	80°45'10.8403"W	4624.91	336.606	0.70	-0.52	0.47	
11863.00	89.320	342.470	7026.25	4695.78	4335.38	-1864.69	1710245.90	14276776.20	39°18'54.5274"N	80°45'11.1980"W	4719.39	336.727	0.38	0.19	-0.33	
11958.00	88.860	339.520	7027.76	4790.73	4425.18	-1895.62	1710214.98	14276865.97	39°18'55.4158"N	80°45'11.5884"W	4814.11	336.811	3.14	-0.48	-3.11	
12053.00	90.370	342.640	7028.40	4885.68	4515.03	-1926.42	1710184.19	14276955.78	39°18'56.3046"N	80°45'11.9772"W	4908.83	336.894	3.65	1.59	3.28	
12148.00	89.970	342.750	7028.12	4980.68	4605.73	-1954.68	1710155.95	14277046.45	39°18'57.2018"N	80°45'12.3336"W	5003.35	337.004	0.44	-0.42	0.12	
12243.00	89.140	343.100	7028.86	5075.67	4696.54	-1982.57	1710128.06	14277137.22	39°18'58.1001"N	80°45'12.6853"W	5097.85	337.114	0.95	-0.87	0.37	
12337.00	88.860	341.720	7030.50	5169.66	4786.13	-2010.97	1710099.67	14277226.77	39°18'58.9864"N	80°45'13.0436"W	5191.44	337.209	1.50	-0.30	-1.47	

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Fraley Unit 1H AWP Proj: 16036'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Fraley Unit 1H
Field	Doddridge	API	47-017-06896-0000
Facility	Peggy June Pad	Wellbore	Fraley Unit 1H AWB
Slot	Slot #01		

WELLPATH DATA (190 stations)																
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Closure Dir	DLS	Build Rate	Turn Rate	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[US ft]	[US ft]			[ft]	[°]	[°/100ft]	[°/100ft]	[°/100ft]	
12432.00	88.280	341.610	7032.87	5264.62	4876.28	-2040.85	1710069.81	14277316.89	39°18'59.8782"N	80°45'13.4205"W	5286.13	337.289	0.62	-0.61	-0.12	
12527.00	90.950	341.960	7033.51	5359.60	4966.51	-2070.54	1710040.13	14277407.08	39°19'0.7707"N	80°45'13.7952"W	5380.83	337.369	2.83	2.81	0.37	
12622.00	88.180	342.610	7034.23	5454.59	5056.99	-2099.44	1710011.24	14277497.53	39°19'1.6658"N	80°45'14.1598"W	5475.47	337.454	2.99	-2.92	0.68	
12717.00	91.720	342.400	7034.31	5549.57	5147.58	-2128.00	1709982.69	14277588.08	39°19'2.5620"N	80°45'14.5200"W	5570.10	337.540	3.73	3.73	-0.22	
12812.00	87.750	338.360	7034.75	5644.47	5237.04	-2159.87	1709950.84	14277677.50	39°19'3.4469"N	80°45'14.9224"W	5664.94	337.588	5.95	-4.18	-4.23	
12906.00	90.430	344.050	7036.24	5738.39	5325.97	-2190.12	1709920.60	14277766.40	39°19'4.3268"N	80°45'15.3042"W	5758.70	337.647	6.67	2.85	6.03	
13001.00	88.430	343.950	7037.19	5833.35	5417.28	-2216.30	1709894.43	14277857.68	39°19'5.2300"N	80°45'15.6342"W	5853.11	337.750	2.11	-2.11	-0.11	
13096.00	90.000	342.790	7038.49	5928.32	5508.30	-2243.48	1709867.25	14277948.66	39°19'6.1302"N	80°45'15.9769"W	5947.65	337.839	2.05	1.65	-1.22	
13190.00	87.660	344.540	7040.41	6022.27	5598.47	-2269.91	1709840.83	14278038.80	39°19'7.0222"N	80°45'16.3101"W	6041.14	337.930	3.11	-2.49	1.86	
13285.00	91.450	344.450	7041.15	6117.19	5690.00	-2295.30	1709815.45	14278130.28	39°19'7.9275"N	80°45'16.6300"W	6135.51	338.031	3.99	3.99	-0.09	
13380.00	86.770	341.420	7042.62	6212.14	5780.77	-2323.17	1709787.60	14278221.02	39°19'8.8254"N	80°45'16.9814"W	6230.12	338.106	5.87	-4.93	-3.19	
13475.00	90.090	345.250	7045.23	6307.06	5871.71	-2350.39	1709760.39	14278311.93	39°19'9.7250"N	80°45'17.3246"W	6324.66	338.184	5.33	3.49	4.03	
13570.00	89.420	344.530	7045.63	6401.97	5963.43	-2375.15	1709735.64	14278403.61	39°19'10.6321"N	80°45'17.6365"W	6419.02	338.283	1.04	-0.71	-0.76	
13665.00	88.400	345.020	7047.44	6496.88	6055.08	-2400.10	1709710.70	14278495.22	39°19'11.5386"N	80°45'17.9507"W	6513.40	338.378	1.19	-1.07	0.52	
13759.00	88.520	342.920	7049.97	6590.80	6145.38	-2426.04	1709684.77	14278585.49	39°19'12.4319"N	80°45'18.2777"W	6606.92	338.457	2.24	0.13	-2.23	
13854.00	88.950	345.040	7052.06	6685.74	6236.67	-2452.25	1709658.57	14278676.74	39°19'13.3348"N	80°45'18.6081"W	6701.46	338.535	2.28	0.45	2.23	
13949.00	87.320	342.730	7055.15	6780.65	6327.88	-2478.60	1709632.23	14278767.91	39°19'14.2370"N	80°45'18.9402"W	6795.99	338.610	2.97	-1.72	-2.43	
14044.00	90.000	344.930	7057.38	6875.59	6419.08	-2505.05	1709605.80	14278859.08	39°19'15.1391"N	80°45'19.2736"W	6890.56	338.682	3.65	2.82	2.32	
14138.00	89.510	344.870	7057.78	6969.50	6509.83	-2529.53	1709581.32	14278949.79	39°19'16.0367"N	80°45'19.5820"W	6984.02	338.765	0.53	-0.52	-0.06	
14233.00	88.060	344.770	7059.79	7064.39	6601.49	-2554.40	1709556.46	14279041.42	39°19'16.9433"N	80°45'19.8953"W	7078.47	338.846	1.53	-1.53	-0.11	
14328.00	88.520	343.150	7062.63	7159.32	6692.75	-2580.64	1709530.23	14279132.64	39°19'17.8460"N	80°45'20.2260"W	7173.05	338.914	1.77	0.48	-1.71	
14423.00	89.750	345.380	7064.06	7254.25	6784.17	-2606.40	1709504.48	14279224.03	39°19'18.7503"N	80°45'20.5506"W	7267.62	338.984	2.68	1.29	2.35	
14518.00	89.450	345.040	7064.73	7349.14	6876.02	-2630.65	1709480.24	14279315.84	39°19'19.6587"N	80°45'20.8560"W	7362.07	339.064	0.48	-0.32	-0.36	
14613.00	89.480	345.700	7065.61	7444.01	6967.94	-2654.64	1709456.26	14279407.72	39°19'20.5678"N	80°45'21.1582"W	7456.49	339.144	0.70	0.03	0.69	
14707.00	88.950	341.020	7066.90	7537.96	7057.97	-2681.55	1709429.36	14279497.71	39°19'21.4584"N	80°45'21.4975"W	7550.21	339.197	5.01	-0.56	-4.98	
14802.00	89.600	342.220	7068.10	7632.94	7148.11	-2711.50	1709399.42	14279587.82	39°19'22.3501"N	80°45'21.8755"W	7645.11	339.227	1.44	0.68	1.26	
14897.00	89.970	343.150	7068.46	7727.94	7238.81	-2739.78	1709371.16	14279678.48	39°19'23.2473"N	80°45'22.2322"W	7739.94	339.269	1.05	0.39	0.98	
14991.00	89.080	341.570	7069.24	7821.93	7328.38	-2768.26	1709342.69	14279768.02	39°19'24.1333"N	80°45'22.5915"W	7833.80	339.306	1.93	-0.95	-1.68	
15086.00	89.350	341.750	7070.54	7916.92	7418.55	-2798.15	1709312.81	14279858.15	39°19'25.0253"N	80°45'22.9688"W	7928.71	339.334	0.34	0.28	0.19	
15181.00	89.200	341.770	7071.74	8011.90	7508.77	-2827.88	1709283.09	14279948.33	39°19'25.9178"N	80°45'23.3440"W	8023.62	339.363	0.16	-0.16	0.02	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Fraleley Unit 1H
Field	Doddridge	API	47-017-06896-0000
Facility	Peggy June Pad	Wellbore	Fraleley Unit 1H AWB
Slot	Slot #01		

WELLPATH DATA (190 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
15276.00	88.180	341.200	7073.91	8106.85	7598.82	-2858.04	1709252.94	14280038.35	39°19'26.8087"N	80°45'23.7247"W	8118.53	339.388	1.23	-1.07	-0.60	
15371.00	88.920	341.450	7076.32	8201.81	7688.79	-2888.45	1709222.55	14280128.29	39°19'27.6987"N	80°45'24.1085"W	8213.44	339.410	0.82	0.78	0.26	
15465.00	89.230	341.450	7077.84	8295.78	7777.90	-2918.35	1709192.66	14280217.36	39°19'28.5802"N	80°45'24.4860"W	8307.37	339.433	0.33	0.33	0.00	
15560.00	89.540	341.940	7078.86	8390.77	7868.08	-2948.18	1709162.83	14280307.51	39°19'29.4723"N	80°45'24.8625"W	8402.29	339.459	0.61	0.33	0.52	
15655.00	89.450	341.690	7079.69	8485.76	7958.34	-2977.83	1709133.20	14280397.72	39°19'30.3651"N	80°45'25.2367"W	8497.21	339.485	0.28	-0.09	-0.26	
15750.00	89.290	341.970	7080.74	8580.75	8048.59	-3007.45	1709103.59	14280487.94	39°19'31.2580"N	80°45'25.6106"W	8592.13	339.511	0.34	-0.17	0.29	
15845.00	89.910	341.900	7081.40	8675.74	8138.91	-3036.91	1709074.14	14280578.22	39°19'32.1514"N	80°45'25.9823"W	8687.04	339.538	0.66	0.65	-0.07	
15940.00	90.120	342.370	7081.38	8770.74	8229.33	-3066.06	1709045.01	14280668.61	39°19'33.0459"N	80°45'26.3501"W	8781.94	339.566	0.54	0.22	0.49	
16011.00	89.510	341.840	7081.60	8841.74	8296.89	-3087.87	1709023.20	14280736.14	39°19'33.7142"N	80°45'26.6254"W	8852.87	339.586	1.14	-0.86	-0.75	
16036.00‡	89.510	341.840	7081.82	8866.74	8320.64	-3095.66	1709015.41	14280759.89	39°19'33.9492"N	80°45'26.7237"W	8877.85	339.592	0.00	0.00	0.00	Projected MD at TD: 16036'

HOLE & CASING SECTIONS - Ref Wellbore: Fraleley Unit 1H AWB Ref Wellpath: Fraleley Unit 1H AWP Proj: 16036'									
String/Diameter	Start MD (ft)	End MD (ft)	Interval (ft)	Start TVD (ft)	End TVD (ft)	Start N/S (ft)	Start E/W (ft)	End N/S (ft)	End E/W (ft)
20in Conductor	30.00	110.00	80.00	30.00	110.00	0.00	0.00	-0.23	0.35
17.5in Open Hole	110.00	476.40	366.40	110.00	476.38	-0.23	0.35	-2.63	2.93
13.375in Casing Surface	30.00	476.40	446.40	30.00	476.38	0.00	0.00	-2.63	2.93
12.25in Open Hole	476.40	2591.50	2115.10	476.38	2591.08	-2.63	2.93	-7.21	-10.66
9.625in Casing Intermediate	30.00	2591.50	2561.50	30.00	2591.08	0.00	0.00	-7.21	-10.66
8.75in Open Hole	2591.50	6165.00	3573.50	2591.08	6102.75	-7.21	-10.66	-504.63	-211.97
8.5in Open Hole	6165.00	16036.00	9871.00	6102.75	7081.82	-504.63	-211.97	8320.64	-3095.66
5.5in Casing Production	30.00	16036.00	16006.00	30.00	7081.82	0.00	0.00	8320.64	-3095.66

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Fraleley Unit 1H
Field	Doddridge	API	47-017-06896-0000
Facility	Peggy June Pad	Wellbore	Fraleley Unit 1H AWB
Slot	Slot #01		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Fraleley Unit 1H POE Rev-2	6944.00	-86.57	-451.03	1711659.00	14272356.00	39°18'10.7838"N	80°44'53.3686"W	point
Fraleley Unit 1H BHL Rev-2	6989.00	8309.75	-3104.08	1709007.00	14280749.00	39°19'33.8418"N	80°45'26.8312"W	point
Fraleley Unit 1H LP Rev-2	6989.00	151.68	-526.31	1711583.75	14272594.16	39°18'13.1407"N	80°44'54.3178"W	point
Fraleley Unit 1H 50' L/R Hard Line Rev-2	7250.00	4111.59	-1777.56	1710333.00	14276552.50	39°18'52.3131"N	80°45'10.0972"W	rectangle
2D Rectangle 8805.51 x 100.								

WELLPATH COMPOSITION - Ref Wellbore: Fraleley Unit 1H AWB Ref Wellpath: Fraleley Unit 1H AWP Proj: 16036'						
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date	
30.00	492.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2"> (100'-477')	Fraleley Unit 1H AWB	13/Dec/2020	
492.00	584.00	Gyrodata 2015 - GC+WIR+DPIPE	02 Gyrodata MS Gyro <12-1/4"> (492')(569')	Fraleley Unit 1H AWB	13/Dec/2020	
584.00	2506.00	OWSG MWD rev2 + HRGM	03 Premier MWD <12-1/4"> (569')(681'-2491')	Fraleley Unit 1H AWB	13/Dec/2020	
2506.00	6099.00	OWSG MWD rev2 + HRGM	04 Premier MWD <8-3/4"> (2491')(2641'-6084')	Fraleley Unit 1H AWB	13/Dec/2020	
6099.00	16036.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	05 BH AT Curve <8-1/2"> (6099')(6140'-16011')	Fraleley Unit 1H AWB	09/Feb/2021	

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Fraley Unit 1H AWP Proj: 16036'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Fraley Unit 1H
Field	Doddridge	API	47-017-06896-0000
Facility	Peggy June Pad	Wellbore	Fraley Unit 1H AWB
Slot	Slot #01		

COMMENTS
<p>Wellpath general comments API: 47-017-06896-0000 BH Job #: 110695237 Rig: H&P 519 Duration: 2/10/2021-2/13/2021 Gyrodatta MS Gyro <17-1/2"> (100'-477') Gyrodatta MS Gyro <12-1/4"> (492')(569') Premier MWD <12-1/4"> (569')(681'-2491') Premier MWD <8-3/4"> (2491')(2641'-6084') BH AT Curve <8-1/2"> (6099')(6140'-16011') Sycamore: 6583' MD Middlesex: 6835' MD Burkett: 7050' MD Tully: 7104' MD Marcellus POE: 7259' MD Projected MD at TD: 16036'</p>

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	4/13/2021
Job End Date:	4/21/2021
State:	West Virginia
County:	Doddrige
API Number:	47-017-06896-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	FRALEY UNIT 1H
Latitude:	39.30323600
Longitude:	-80.74656000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7,081
Total Base Water Volume (gal):	12,957,426
Total Base Non Water Volume:	0



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Produced Water Mixture	Halliburton	Base Fluid					
			Water	7732-18-5	100.00000	86.38230	Density = 8.50
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.06339	

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HAI-501	Halliburton	Acid Corrosion Inhibitor					
				Listed Below			
Excelerate LX-15	Halliburton	Friction Reducer					
				Listed Below			
FLUID Enviro-Syn HCR-7000-WL	Fluid Energy Group	Acid Replacement					
				Listed Below			
HYDROCHLORIC ACID, 22 BAUME	Halliburton	Solvent					
				Listed Below			
MC B-8614A	MultiChem	Biocide					
				Listed Below			
Sand-Common White-100 Mesh, SSA-2	Halliburton	Proppant					
				Listed Below			
WG-36 GELLING AGENT	Halliburton	Gelling Agent					
				Listed Below			
OPTIFLO-II DELAYED RELEASE BREAKER	Halliburton	Breaker					
				Listed Below			

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Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.

			Crystalline silica, quartz	14808-60-7	100.00000	13.47822	
			Complex Amine Compound	Proprietary	60.00000	0.03049	
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.01524	
			Proprietary	Proprietary	20.00000	0.01043	
			Hydrochloric acid	7647-01-0	30.00000	0.00737	
			Proprietary	Proprietary	10.00000	0.00521	
			Guar gum	9000-30-0	100.00000	0.00349	
			Surfactant	Proprietary	5.00000	0.00254	
			Sorbitan, mono-9-octadecenoate, (Z)	1338-43-8	5.00000	0.00254	
			Glutaraldehyde	111-30-8	30.00000	0.00250	
			Ethoxylated alcohols	Proprietary	5.00000	0.00051	
			Alkoxylated polyhydric alcohol	Proprietary	1.00000	0.00051	
			Organic chloride compound	Proprietary	1.00000	0.00051	
			Alkyl (C12-16) dimethylbenzyl ammonium chloride	68424-85-1	5.00000	0.00042	
			Ammonium persulfate	7727-54-0	100.00000	0.00009	
			Ethanol	64-17-5	1.00000	0.00008	
			Methanol	67-56-1	100.00000	0.00005	
			Oxylated phenolic resin	Proprietary	30.00000	0.00003	
			Modified thiourea polymer	Proprietary	30.00000	0.00001	
			Mixture of dimer and trimer fatty acids of indefinite composition derived from tall oil	61790-12-3	30.00000	0.00001	
			Nitrated acetate salt	Proprietary	0.01000	0.00001	
			Acrylamide	79-06-1	0.01000	0.00001	
			Sodium hydroxide	1310-73-2	0.01000	0.00001	
			Sodium glycolate	2836-32-0	0.01000	0.00001	

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			Organic salt #1	Proprietary	0.01000	0.00001	
			Formaldehyde	50-00-0	0.01000	0.00001	
			Organic salt #2	Proprietary	0.01000	0.00001	
			Propargyl alcohol	107-19-7	5.00000	0.00000	
			Hexadecene	629-73-2	5.00000	0.00000	
			C.I. pigment Orange 5	3468-63-1	1.00000	0.00000	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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