



ANTERO RESOURCES CORPORATION

Location: Ritchie County, WV
 Field: Ritchie
 Facility: Kelly Pad

Wellbore: Duchene Unit 3H PWB
 Slot: Slot #05
 Well: Duchene Unit 3H



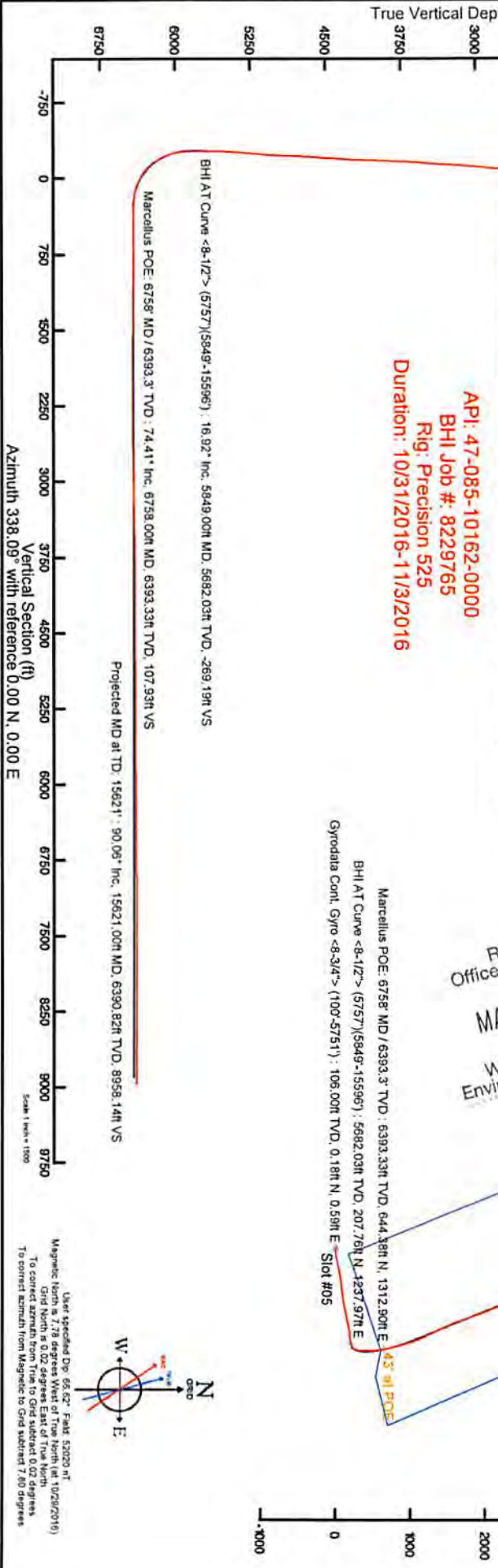
True vertical depth is referenced to PD 525 (R2B)	Grid System: NAD27 / UTM Zone 17 North, US Feet
Measured depths are referenced to PD 525 (R2B)	** Wellbore was transformed from a different geoid datum
PD 525 (R2B) to Mean Sea Level: 1160 Feet	North Reference: GDA North
Mean Sea Level to Mudline (AI Slot Slot #05): 1127 Feet	Scale: True distance
Coordinates are in feet referenced to SIA	Options are in feet
	Created by: edelgar on 2016-11-13
	Databases: VA_MRF_EASTERNUS_Colon

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude
Kelly Pad	1650927.295	1427058.650	39°18'51.320"N
Local N (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
Slot #05	15.20	1650995.000	39°18'51.470"N
Comment	Duchene Unit 3H		Longitude
			80°57'45.740"W
PD 525 (R2B) to Mudline (AI Slot Slot #05)			19ft
Mean Sea Level to Mudline (AI Slot Slot #05)			-1127ft
PD 525 (R2B) to Mean Sea Level			1149ft

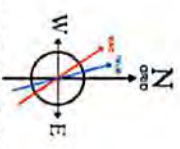
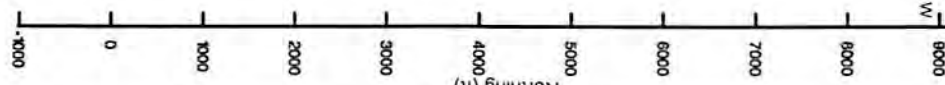
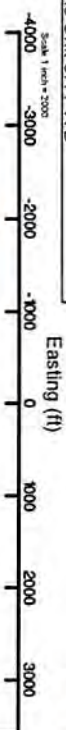
Well Profile Data						
Design Comment	MD (ft)	Inc (°)	Ac (°)	TVD (ft)	Local N (ft)	Local E (ft)
Tie On	5757.00	14.320	71.970	5593.44	209.09	1214.42
Proj to Bottom	5925.00	16.910	71.680	5755.23	214.20	1257.38
Curve KOP	5991.50	16.910	71.680	5818.85	220.28	1275.74
End of 3D Arc	6333.27	31.088	8.977	6134.71	325.05	1337.88
Landing PL	6924.62	90.000	344.000	6416.00	809.33	1273.81
On Admin	7121.50	90.000	335.094	6416.00	994.46	1209.89
BHL	15950.50	90.000	335.094	6416.00	814.83	-1934.91
						0.00
						8900.16

Well Data	Wellbore	Wellbore
Slot #05	Duchene Unit 3H	Duchene Unit 3H AWP Prof: 15621'
Slot #05	Duchene Unit 3H	Duchene Unit 3H PWB

API: 47-085-10162-0000
 BHI Job #: 8229765
 Rig: Precision 525
 Duration: 10/31/2016-11/3/2016



RECEIVED
 Office of Oil and Gas
 MAY 10 2018
 WV Department of
 Environmental Protection



User specified Dip: 68.62° False S2020 at
 Magnetic North is 7.8 degrees West of True North (at 10/20/2016)
 To convert North is 0.02 degree to Grid North (at 10/20/2016)
 To convert Azimuth from Magnetic to Grid add/subtract 7.80 degrees

09/07/2018



Actual Wellpath Report

Duchene Unit 3H AWP Proj: 15621'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Duchene Unit 3H
Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Edsaryar
Scale	0.999600	Report Generated	11/13/2016 at 1:28:25 PM
Convergence at slot	0.03° East	Database/Source file	WA_MPL_EASTERNUS_Defn/Duchene_Unit_3H_AWP_Proj_15621_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	15.20	37.72	1650965.00	14276373.85	39°18'51.470"N	80°57'45.740"W
Facility Reference Pt			1650927.30	14276358.66	39°18'51.320"N	80°57'46.220"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	PD 525 (RKB) to Facility Vertical Datum	19.00ft
Horizontal Reference Pt	Slot	PD 525 (RKB) to Mean Sea Level	1146.00ft
Vertical Reference Pt	PD 525 (RKB)	PD 525 (RKB) to Mud Line at Slot (Slot #05)	19.00ft
MD Reference Pt	PD 525 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	338.09°



Actual Wellpath Report

Duchene Unit 3H AWP Proj: 15621

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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Duchene Unit 3H
Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

WELLPATH DATA (186 stations) † = interpolated/extended station																	
MD	Inclination	Azimuth	TVD	Vert North	East	Grid East	Grid North	Latitude	Longitude	Closure	Dist	Dir	DLS	Build	Rate	Turn	Comments
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[ft]	[°]	[ft]	[ft]	[ft/100ft]	[ft/100ft]	[ft/100ft]
0.00	0.00	0.00	72.960	0.00	0.00	0.00	0.00	14276373.85	89°18'51.470"N	80°57'45.740"W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19.00	0.00	0.00	72.960	19.00	0.00	0.00	0.00	14276373.85	89°18'51.470"N	80°57'45.740"W	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106.00	0.810	106.00	83.420	106.00	-0.05	0.18	0.59	1650965.59	14276374.03	89°18'51.472"N	80°57'45.733"W	0.61	72.960	0.93	83.86	0.00	Gyrodala Cont. Gyro <8-3/4"> (100-5751)
206.00	0.730	82.420	205.99	-0.28	0.46	1.90	1650966.90	14276374.31	89°18'51.475"N	80°57'45.716"W	1.95	76.357	0.16	-0.08	10.46	0.00	
306.00	0.180	89.160	305.98	-0.51	0.54	2.69	1650967.69	14276374.39	89°18'51.475"N	80°57'45.706"W	2.74	78.724	0.55	-0.55	5.74	0.00	
406.00	0.120	123.020	405.98	-0.65	0.48	2.93	1650967.93	14276374.33	89°18'51.475"N	80°57'45.703"W	2.97	80.684	0.10	-0.06	33.86	0.00	
506.00	0.170	164.190	505.98	-0.88	0.28	3.06	1650968.06	14276374.13	89°18'51.473"N	80°57'45.701"W	3.07	84.751	0.11	0.05	41.17	0.00	
606.00	0.630	241.970	605.98	-1.09	-0.12	2.61	1650967.61	14276373.73	89°18'51.469"N	80°57'45.707"W	2.62	92.628	0.62	0.46	77.78	0.00	
706.00	0.600	245.270	705.98	-1.17	-0.60	1.65	1650966.65	14276373.25	89°18'51.464"N	80°57'45.719"W	1.76	109.861	0.05	-0.03	3.30	0.00	
806.00	1.520	98.360	805.97	-1.87	-1.01	2.49	1650967.49	14276372.84	89°18'51.460"N	80°57'45.708"W	2.69	112.061	2.05	0.92	-146.91	0.00	
906.00	3.540	84.040	905.86	-3.38	-0.88	6.87	1650971.87	14276372.97	89°18'51.461"N	80°57'45.653"W	6.93	97.308	2.10	2.02	-14.32	0.00	
1006.00	5.280	84.140	1005.56	-5.50	-0.09	14.52	1650979.52	14276373.76	89°18'51.469"N	80°57'45.555"W	14.52	90.360	1.74	0.10	0.10	0.00	
1106.00	7.120	86.530	1104.98	-8.74	0.75	25.29	1650990.28	14276374.60	89°18'51.477"N	80°57'45.418"W	25.30	88.293	1.86	1.84	2.39	0.00	
1206.00	9.070	85.210	1203.97	-13.02	1.79	39.33	1651004.31	14276375.64	89°18'51.488"N	80°57'45.240"W	39.37	87.398	1.95	-1.32	1.95	0.00	
1306.00	10.640	83.100	1302.50	-17.73	3.55	56.35	1651021.33	14276377.40	89°18'51.505"N	80°57'45.023"W	56.46	86.391	1.61	-1.57	-2.11	0.00	
1406.00	12.310	79.690	1400.49	-22.26	6.57	76.00	1651040.97	14276380.42	89°18'51.535"N	80°57'44.773"W	76.29	85.058	1.80	1.67	-3.41	0.00	
1506.00	13.580	77.920	1497.95	-26.41	10.94	97.97	1651062.93	14276384.78	89°18'51.578"N	80°57'44.493"W	98.58	83.630	1.33	1.27	-1.77	0.00	
1606.00	15.320	78.010	1594.78	-30.69	16.14	122.38	1651087.33	14276389.98	89°18'51.629"N	80°57'44.183"W	123.44	82.487	1.74	1.74	0.09	0.00	
1706.00	16.140	76.430	1691.04	-34.98	22.14	148.81	1651113.75	14276395.99	89°18'51.688"N	80°57'43.847"W	150.45	81.536	0.93	0.82	-1.58	0.00	
1806.00	16.330	73.760	1787.05	-38.39	29.34	175.82	1651140.75	14276403.18	89°18'51.759"N	80°57'43.503"W	178.25	80.527	0.77	0.19	-2.67	0.00	
1906.00	15.410	75.850	1883.24	-41.57	36.52	202.20	1651167.12	14276410.35	89°18'51.830"N	80°57'43.167"W	205.47	79.763	1.08	-0.92	2.09	0.00	
2006.00	15.470	78.440	1979.63	-45.76	42.44	228.15	1651193.06	14276416.27	89°18'51.889"N	80°57'42.837"W	232.06	79.463	0.69	0.06	2.59	0.00	
2106.00	18.110	83.110	2075.37	-52.19	46.98	256.65	1651221.55	14276420.81	89°18'51.933"N	80°57'42.474"W	260.92	79.628	2.96	2.64	4.67	0.00	
2206.00	17.860	82.550	2170.48	-60.04	50.83	287.29	1651252.17	14276424.66	89°18'51.971"N	80°57'42.085"W	291.75	79.967	0.30	-0.25	-0.56	0.00	
2306.00	15.180	74.180	2266.36	-65.26	56.39	315.10	1651279.97	14276430.22	89°18'52.026"N	80°57'41.731"W	320.11	79.854	3.58	-2.68	-8.37	0.00	
2406.00	14.070	76.690	2363.12	-68.47	62.76	339.53	1651304.39	14276436.58	89°18'52.089"N	80°57'41.420"W	345.28	79.528	1.28	-1.11	2.51	0.00	
2506.00	14.570	82.850	2460.01	-73.49	67.12	363.84	1651328.69	14276440.94	89°18'52.132"N	80°57'41.111"W	369.98	79.548	1.60	0.50	6.16	0.00	
2606.00	14.320	83.520	2556.85	-79.99	70.08	388.60	1651353.45	14276443.90	89°18'52.161"N	80°57'40.795"W	394.87	79.777	0.30	-0.25	0.67	0.00	
2706.00	12.720	78.760	2654.08	-85.32	73.62	411.69	1651376.53	14276447.44	89°18'52.196"N	80°57'40.502"W	418.22	79.861	1.95	-1.60	-4.76	0.00	
2806.00	13.270	84.460	2751.52	-90.59	76.88	433.92	1651398.74	14276450.70	89°18'52.228"N	80°57'40.219"W	440.67	79.953	1.39	0.55	5.70	0.00	



Actual Wellpath Report

Duchene Unit 3H AWP Proj: 15621'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Duchene Unit 3H
Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

WELLPATH DATA (186 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
2906.00	15.210	88.380	2848.45	-98.38	78.36	458.45	1651423.27	14276452.17	39°18'52.243"N	80°57'39.907"W	465.10	80.301	2.17	1.94	3.92	
3006.00	17.600	86.640	2944.37	-107.74	79.61	486.66	1651451.47	14276453.43	39°18'52.255"N	80°57'39.548"W	493.13	80.709	2.44	2.39	-1.74	
3106.00	18.450	84.880	3039.46	-117.12	81.91	517.52	1651482.31	14276455.73	39°18'52.277"N	80°57'39.155"W	523.96	81.006	1.01	0.85	-1.76	
3206.00	18.320	80.820	3134.36	-125.15	85.83	548.80	1651513.57	14276459.65	39°18'52.316"N	80°57'38.757"W	555.47	81.111	1.29	-0.13	-4.06	
3306.00	17.460	78.030	3229.53	-131.20	91.45	578.99	1651543.75	14276465.26	39°18'52.371"N	80°57'38.373"W	586.16	81.024	1.21	-0.86	-2.79	
3406.00	15.220	78.680	3325.48	-136.21	97.14	606.54	1651571.29	14276470.95	39°18'52.428"N	80°57'38.023"W	614.27	80.901	2.25	-2.24	0.65	
3506.00	15.260	82.670	3421.97	-141.93	101.39	632.46	1651597.21	14276475.20	39°18'52.470"N	80°57'37.693"W	640.54	80.892	1.05	0.04	3.99	
3606.00	16.030	86.160	3518.27	-149.53	104.00	659.29	1651624.03	14276477.81	39°18'52.495"N	80°57'37.351"W	667.44	81.036	1.22	0.77	3.49	
3706.00	15.180	83.600	3614.58	-157.31	106.38	686.08	1651650.80	14276480.19	39°18'52.519"N	80°57'37.010"W	694.28	81.186	1.09	-0.85	-2.56	
3806.00	15.050	78.170	3711.13	-163.09	110.50	711.80	1651676.51	14276484.31	39°18'52.559"N	80°57'36.683"W	720.32	81.176	1.42	-0.13	-5.43	
3906.00	15.080	76.110	3807.69	-167.17	116.29	737.13	1651701.84	14276490.09	39°18'52.616"N	80°57'36.361"W	746.25	81.035	0.54	0.03	-2.06	
4006.00	15.190	76.390	3904.22	-170.88	122.49	762.50	1651727.19	14276496.29	39°18'52.678"N	80°57'36.038"W	772.27	80.873	0.13	0.11	0.28	
4106.00	15.830	77.240	4000.58	-174.94	128.59	788.53	1651753.21	14276502.39	39°18'52.738"N	80°57'35.707"W	798.95	80.738	0.68	0.64	0.85	
4206.00	14.560	73.860	4097.08	-178.37	135.10	813.91	1651778.58	14276508.89	39°18'52.802"N	80°57'35.384"W	825.04	80.576	1.55	-1.27	-3.38	
4306.00	13.890	76.850	4194.02	-181.46	141.32	837.67	1651802.34	14276515.11	39°18'52.863"N	80°57'35.082"W	849.51	80.424	0.99	-0.67	2.99	
4406.00	15.710	81.510	4290.70	-186.43	146.05	862.75	1651827.41	14276519.84	39°18'52.910"N	80°57'34.762"W	875.03	80.392	2.17	1.82	4.66	
4506.00	15.980	82.000	4386.90	-192.89	149.97	889.77	1651854.42	14276523.76	39°18'52.948"N	80°57'34.419"W	902.32	80.433	0.30	0.27	0.49	
4606.00	16.560	81.890	4482.90	-199.59	153.89	917.51	1651882.15	14276527.68	39°18'52.987"N	80°57'34.066"W	930.33	80.479	0.58	0.58	-0.11	
4706.00	16.840	80.620	4578.68	-206.14	158.26	945.91	1651910.53	14276532.05	39°18'53.030"N	80°57'33.704"W	959.06	80.502	0.46	0.28	-1.27	
4806.00	16.470	77.730	4674.48	-211.65	163.64	974.06	1651938.67	14276537.42	39°18'53.083"N	80°57'33.346"W	987.71	80.464	0.91	-0.37	-2.89	
4906.00	15.780	78.200	4770.55	-216.41	169.43	1001.22	1651965.82	14276543.21	39°18'53.140"N	80°57'33.001"W	1015.45	80.395	0.70	-0.69	0.47	
5006.00	15.570	76.530	4866.83	-220.77	175.34	1027.58	1651992.17	14276549.12	39°18'53.199"N	80°57'32.665"W	1042.43	80.317	0.50	-0.21	-1.67	
5106.00	15.690	73.770	4963.13	-224.08	182.24	1053.62	1652018.19	14276556.02	39°18'53.267"N	80°57'32.334"W	1069.26	80.187	0.75	0.12	-2.76	
5206.00	15.330	81.590	5059.50	-228.50	187.96	1079.68	1652044.25	14276561.73	39°18'53.323"N	80°57'32.002"W	1095.92	80.125	2.12	-0.36	7.82	
5306.00	15.010	92.060	5156.04	-236.85	189.42	1105.70	1652070.26	14276563.20	39°18'53.337"N	80°57'31.671"W	1121.81	80.279	2.75	-0.32	10.47	
5406.00	15.320	85.060	5252.56	-245.97	190.10	1131.81	1652096.35	14276563.87	39°18'53.344"N	80°57'31.339"W	1147.66	80.466	1.86	0.31	-7.00	
5506.00	14.590	86.960	5349.18	-253.90	191.90	1157.55	1652122.08	14276565.67	39°18'53.362"N	80°57'31.011"W	1173.34	80.587	0.88	-0.73	1.90	
5606.00	13.270	85.500	5446.23	-261.41	193.47	1181.57	1652146.09	14276567.24	39°18'53.377"N	80°57'30.706"W	1197.30	80.701	1.37	-1.32	-1.46	
5706.00	12.130	76.260	5543.79	-266.33	196.87	1203.22	1652167.73	14276570.64	39°18'53.411"N	80°57'30.430"W	1219.22	80.708	2.33	-1.14	-9.24	
5757.00	14.320	71.970	5593.44	-267.52	200.09	1214.42	1652178.93	14276573.86	39°18'53.442"N	80°57'30.288"W	1230.79	80.644	4.70	4.29	-8.41	



Actual Wellpath Report

Duchene Unit 3H AWP Proj: 15621'

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REFERENCE WELLPATH IDENTIFICATION			
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Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

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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]	Buidl Rate [°/100ft]	Turn Rate [°/100ft]	Comments
5849.00	16.920	71.940	5682.03	-269.19	207.76	1237.97	1652202.47	14276581.53	39°18'53.518"N	80°57'29.988"W	1255.28	80.473	2.83	2.83	-0.03	BHI AT Curve <8-1/2"> (5757')(5849'-15596')
5939.00	16.750	65.560	5768.19	-269.50	217.19	1262.23	1652226.72	14276590.95	39°18'53.611"N	80°57'29.679"W	1280.78	80.237	2.06	-0.19	-7.09	
6029.00	16.510	58.650	5854.43	-266.83	229.21	1284.96	1652249.45	14276602.97	39°18'53.730"N	80°57'29.390"W	1305.25	79.886	2.21	-0.27	-7.68	
6073.00	16.640	51.290	5896.61	-263.98	236.40	1295.22	1652259.70	14276610.16	39°18'53.801"N	80°57'29.260"W	1316.62	79.656	4.78	0.30	-16.73	
6118.00	16.890	46.050	5939.70	-259.67	244.97	1304.95	1652269.43	14276618.72	39°18'53.886"N	80°57'29.136"W	1327.75	79.368	3.40	0.56	-11.64	
6163.00	18.180	31.410	5982.62	-253.02	255.51	1313.32	1652277.79	14276629.25	39°18'53.990"N	80°57'29.029"W	1337.95	78.991	10.18	2.87	-32.53	
6208.00	20.220	20.210	6025.13	-243.05	268.80	1319.67	1652284.14	14276642.54	39°18'54.121"N	80°57'28.948"W	1346.77	78.487	9.34	4.53	-24.89	
6253.00	22.400	13.180	6067.06	-230.26	284.45	1324.31	1652288.78	14276658.19	39°18'54.276"N	80°57'28.889"W	1354.52	77.878	7.46	4.84	-15.62	
6298.00	26.000	8.680	6108.10	-214.75	302.56	1327.76	1652292.22	14276676.29	39°18'54.455"N	80°57'28.845"W	1361.79	77.163	8.98	8.00	-10.00	
6343.00	30.820	4.080	6147.68	-195.88	323.82	1330.07	1652294.53	14276697.54	39°18'54.665"N	80°57'28.816"W	1368.92	76.317	11.76	10.71	-10.22	
6345.00†	31.016	3.965	6149.39	-194.96	324.85	1330.14	1652294.61	14276698.57	39°18'54.675"N	80°57'28.815"W	1369.23	76.276	10.23	9.79	-5.74	Sycamore: 6345' MD / 6149.4' TVD
6387.00	35.150	1.820	6184.58	-174.14	347.74	1331.27	1652295.74	14276721.45	39°18'54.901"N	80°57'28.800"W	1375.94	75.361	10.23	9.84	-5.11	
6432.00	40.150	2.190	6220.20	-149.03	375.20	1332.24	1652296.70	14276748.90	39°18'55.173"N	80°57'28.788"W	1384.06	74.271	11.12	11.11	0.82	
6465.00†	43.406	2.302	6244.80	-128.97	397.16	1333.10	1652297.57	14276770.85	39°18'55.390"N	80°57'28.777"W	1391.01	73.410	9.87	9.87	0.34	Middlesex: 6465' MD / 6244.8' TVD
6477.00	44.590	2.340	6253.43	-121.37	405.49	1333.44	1652297.90	14276779.18	39°18'55.472"N	80°57'28.772"W	1393.73	73.086	9.87	9.87	0.31	
6522.00	50.600	0.680	6283.77	-90.88	438.69	1334.29	1652298.76	14276812.37	39°18'55.800"N	80°57'28.761"W	1404.56	71.800	13.63	13.36	-3.69	
6567.00	54.990	357.980	6310.97	-57.48	474.52	1333.85	1652298.31	14276848.18	39°18'56.154"N	80°57'28.767"W	1415.74	70.417	10.86	9.76	-6.00	
6611.00	59.170	355.240	6334.88	-22.47	511.37	1331.64	1652296.11	14276885.02	39°18'56.518"N	80°57'28.795"W	1426.46	68.992	10.84	9.50	-6.23	
6645.00†	62.190	353.898	6351.53	5.96	540.88	1328.83	1652293.30	14276914.51	39°18'56.810"N	80°57'28.830"W	1434.69	67.852	9.53	8.88	-3.95	Burkett: 6645' MD / 6351.5' TVD
6656.00	63.170	353.480	6356.58	15.37	550.59	1327.76	1652292.23	14276924.22	39°18'56.906"N	80°57'28.844"W	1437.39	67.477	9.53	8.91	-3.80	
6701.00	68.350	351.110	6375.05	55.14	591.23	1322.24	1652286.71	14276964.85	39°18'57.308"N	80°57'28.914"W	1448.41	65.908	12.47	11.51	-5.27	
6703.00†	68.554	351.033	6375.79	56.95	593.07	1321.95	1652286.42	14276966.68	39°18'57.326"N	80°57'28.917"W	1448.89	65.837	10.81	10.21	-3.84	Tully: 6703' MD / 6375.8' TVD
6746.00	72.950	349.430	6389.96	96.63	633.07	1315.06	1652279.53	14277006.66	39°18'57.721"N	80°57'29.005"W	1459.51	64.294	10.81	10.22	-3.73	
6758.00†	74.413	348.930	6393.33	107.93	644.38	1312.90	1652277.37	14277017.97	39°18'57.833"N	80°57'29.032"W	1462.51	63.858	12.83	12.19	-4.16	Marcellus: 6758' MD / 6393.3' TVD
6791.00	78.440	347.590	6401.07	139.50	675.78	1306.37	1652270.85	14277049.36	39°18'58.144"N	80°57'29.115"W	1470.81	62.648	12.83	12.20	-4.06	
6835.00	83.090	346.790	6408.13	182.37	718.11	1296.74	1652261.22	14277091.68	39°18'58.562"N	80°57'29.237"W	1482.30	61.023	10.72	10.57	-1.82	
6880.00	85.810	346.310	6412.49	226.66	761.67	1286.32	1652250.81	14277135.21	39°18'58.993"N	80°57'29.370"W	1494.92	59.369	6.14	6.04	-1.07	
6925.00	88.210	346.140	6414.83	271.15	805.31	1275.62	1652240.11	14277178.84	39°18'59.424"N	80°57'29.506"W	1508.56	57.735	5.35	5.33	-0.38	
7015.00	90.060	344.540	6416.19	360.41	892.37	1252.85	1652217.35	14277265.86	39°19'00.284"N	80°57'29.795"W	1538.17	54.539	2.72	2.06	-1.78	
7105.00	90.060	342.820	6416.10	449.98	978.74	1227.56	1652192.07	14277352.19	39°19'01.138"N	80°57'30.116"W	1569.98	51.435	1.91	0.00	-1.91	



Actual Wellpath Report

Duchene Unit 3H AWP Proj: 15621'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Duchene Unit 3H
Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

WELLPATH DATA (186 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
7194.00	89.230	338.920	6416.65	538.85	1062.80	1198.40	1652162.92	14277436.23	39°19'01.969"N	80°57'30.487"W	1601.79	48.432	4.48	-0.93	-4.38	
7284.00	89.690	336.680	6417.50	628.84	1146.12	1164.40	1652128.93	14277519.51	39°19'02.793"N	80°57'30.919"W	1633.84	45.453	2.54	0.51	-2.49	
7373.00	89.910	335.470	6417.81	717.79	1227.47	1128.31	1652092.85	14277600.83	39°19'03.597"N	80°57'31.377"W	1667.26	42.590	1.38	0.25	-1.36	
7463.00	89.780	332.820	6418.05	807.56	1308.46	1089.06	1652053.63	14277681.78	39°19'04.398"N	80°57'31.876"W	1702.39	39.772	2.95	-0.14	-2.94	
7552.00	89.720	334.860	6418.44	896.31	1388.34	1049.83	1652014.41	14277761.63	39°19'05.187"N	80°57'32.375"W	1740.58	37.096	2.29	-0.07	2.29	
7642.00	89.290	336.320	6419.22	986.22	1470.28	1012.64	1651977.23	14277843.54	39°19'05.998"N	80°57'32.848"W	1785.26	34.557	1.69	-0.48	1.62	
7732.00	89.350	336.680	6420.29	1076.18	1552.81	976.75	1651941.36	14277926.04	39°19'06.813"N	80°57'33.304"W	1834.47	32.171	0.41	0.07	0.40	
7821.00	89.450	339.030	6421.22	1165.17	1635.24	943.21	1651907.83	14278008.43	39°19'07.628"N	80°57'33.730"W	1887.76	29.976	2.64	0.11	2.64	
7911.00	89.450	340.570	6422.08	1255.12	1719.70	912.13	1651876.77	14278092.86	39°19'08.463"N	80°57'34.125"W	1946.62	27.942	1.71	0.00	1.71	
8001.00	89.450	340.900	6422.95	1345.02	1804.65	882.44	1651847.08	14278177.78	39°19'09.303"N	80°57'34.503"W	2008.85	26.058	0.37	0.00	0.37	
8090.00	89.380	341.450	6423.85	1433.89	1888.89	853.72	1651818.38	14278261.98	39°19'10.136"N	80°57'34.867"W	2072.86	24.322	0.62	-0.08	0.62	
8181.00	89.510	339.660	6424.74	1524.80	1974.69	823.43	1651788.10	14278347.75	39°19'10.984"N	80°57'35.252"W	2139.49	22.636	1.97	0.14	-1.97	
8271.00	89.450	338.430	6425.55	1614.78	2058.73	791.25	1651755.93	14278431.75	39°19'11.815"N	80°57'35.661"W	2205.55	21.024	1.37	-0.07	-1.37	
8360.00	90.250	335.180	6425.79	1703.74	2140.53	756.20	1651720.89	14278513.52	39°19'12.623"N	80°57'36.107"W	2270.17	19.457	3.76	0.90	-3.65	
8450.00	89.940	333.720	6425.64	1793.56	2221.72	717.38	1651682.09	14278594.68	39°19'13.426"N	80°57'36.600"W	2334.67	17.895	1.66	-0.34	-1.62	
8539.00	89.910	334.690	6425.75	1882.35	2301.85	678.65	1651643.38	14278674.78	39°19'14.218"N	80°57'37.093"W	2399.81	16.427	1.09	-0.03	1.09	
8629.00	89.880	332.100	6425.92	1972.04	2382.32	638.35	1651603.10	14278755.21	39°19'15.013"N	80°57'37.605"W	2466.36	15.000	2.88	-0.03	-2.88	
8719.00	89.880	332.430	6426.11	2061.58	2461.98	596.47	1651561.23	14278834.84	39°19'15.801"N	80°57'38.138"W	2533.20	13.619	0.37	0.00	0.37	
8808.00	89.850	336.560	6426.32	2150.38	2542.29	558.15	1651522.93	14278915.11	39°19'16.595"N	80°57'38.625"W	2602.83	12.383	4.64	-0.03	4.64	
8898.00	90.150	339.460	6426.32	2240.37	2625.73	524.46	1651489.25	14278998.52	39°19'17.420"N	80°57'39.053"W	2677.59	11.295	3.24	0.33	3.22	
8988.00	89.940	338.550	6426.25	2330.36	2709.75	492.21	1651457.01	14279082.51	39°19'18.250"N	80°57'39.463"W	2754.09	10.295	1.04	-0.23	-1.01	
9077.00	89.850	340.070	6426.41	2419.34	2793.01	460.77	1651425.58	14279165.74	39°19'19.073"N	80°57'39.862"W	2830.76	9.368	1.71	-0.10	1.71	
9167.00	90.340	338.280	6426.26	2509.32	2877.13	428.77	1651393.60	14279249.82	39°19'19.905"N	80°57'40.269"W	2908.90	8.476	2.06	0.54	-1.99	
9256.00	90.430	335.680	6425.66	2598.29	2959.03	393.97	1651358.81	14279331.69	39°19'20.714"N	80°57'40.711"W	2985.14	7.584	2.92	0.10	-2.92	
9346.00	90.400	334.930	6425.01	2688.18	3040.80	356.37	1651321.23	14279413.42	39°19'21.523"N	80°57'41.189"W	3061.61	6.684	0.83	-0.03	-0.83	
9436.00	90.860	336.810	6424.02	2778.11	3122.92	319.58	1651284.46	14279495.52	39°19'22.335"N	80°57'41.657"W	3139.23	5.843	2.15	0.51	2.09	
9525.00	90.710	345.600	6422.80	2866.88	3207.09	290.94	1651255.82	14279579.65	39°19'23.167"N	80°57'42.021"W	3220.26	5.184	9.88	-0.17	9.88	
9615.00	91.390	346.870	6421.15	2955.95	3294.49	269.53	1651234.42	14279667.01	39°19'24.031"N	80°57'42.293"W	3305.49	4.677	1.60	0.76	1.41	
9705.00	91.390	344.120	6418.97	3045.17	3381.58	247.00	1651211.90	14279754.07	39°19'24.891"N	80°57'42.579"W	3390.59	4.178	3.05	0.00	-3.06	
9794.00	91.230	342.440	6416.93	3133.78	3466.80	221.40	1651186.31	14279839.25	39°19'25.734"N	80°57'42.905"W	3473.86	3.654	1.90	-0.18	-1.89	



Actual Wellpath Report

Duchene Unit 3H AWP Proj: 15621'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Duchene Unit 3H
Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

WELLPATH DATA (186 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]	
9884.00	91.080	338.720	6415.12	3223.66	3551.64	191.49	1651156.41	14279924.07	39°19'26.573"N	80°57'43.285"W	3556.80	3.086	4.14	-0.17	-4.13	
9973.00	90.860	335.830	6413.61	3312.63	3633.71	157.11	1651122.05	14280006.10	39°19'27.384"N	80°57'43.722"W	3637.11	2.476	3.26	-0.25	-3.25	
10063.00	91.020	336.860	6412.13	3402.57	3716.14	121.01	1651085.96	14280088.50	39°19'28.199"N	80°57'44.181"W	3718.11	1.865	1.16	0.18	1.14	
10153.00	90.890	336.990	6410.63	3492.54	3798.93	85.74	1651050.71	14280171.25	39°19'29.017"N	80°57'44.629"W	3799.89	1.293	0.20	-0.14	0.14	
10242.00	90.920	336.040	6409.23	3581.49	3880.54	50.28	1651015.26	14280252.83	39°19'29.824"N	80°57'45.080"W	3880.87	0.742	1.07	0.03	-1.07	
10332.00	90.340	336.050	6408.24	3671.43	3962.79	13.74	1650978.73	14280335.04	39°19'30.637"N	80°57'45.544"W	3962.81	0.199	0.64	-0.64	0.01	
10421.00	90.180	337.070	6407.83	3760.40	4044.44	-21.66	1650943.34	14280416.66	39°19'31.444"N	80°57'45.994"W	4044.50	359.693	1.16	-0.18	1.15	
10511.00	90.250	339.030	6407.49	3850.39	4127.91	-55.30	1650909.72	14280500.10	39°19'32.269"N	80°57'46.422"W	4128.28	359.232	2.18	0.08	2.18	
10601.00	90.280	340.430	6407.08	3940.35	4212.33	-86.48	1650878.55	14280584.49	39°19'33.104"N	80°57'46.818"W	4213.22	358.824	1.56	0.03	1.56	
10690.00	90.280	339.020	6406.64	4029.31	4295.82	-117.32	1650847.72	14280667.94	39°19'33.929"N	80°57'47.210"W	4297.42	358.436	1.58	0.00	-1.58	
10779.00	90.250	338.810	6406.23	4118.30	4378.86	-149.34	1650815.72	14280750.95	39°19'34.750"N	80°57'47.617"W	4381.40	358.047	0.24	-0.03	-0.24	
10869.00	90.340	338.110	6405.77	4208.30	4462.57	-182.38	1650782.69	14280834.63	39°19'35.577"N	80°57'48.037"W	4466.29	357.660	0.78	0.10	-0.78	
10958.00	90.280	338.910	6405.29	4297.29	4545.38	-214.99	1650750.10	14280917.40	39°19'36.396"N	80°57'48.452"W	4550.46	357.292	0.90	-0.07	0.90	
11048.00	90.000	338.300	6405.07	4387.29	4629.18	-247.82	1650717.28	14281001.17	39°19'37.224"N	80°57'48.869"W	4635.81	356.936	0.75	-0.31	-0.68	
11137.00	90.000	337.500	6405.07	4476.29	4711.64	-281.30	1650683.81	14281083.59	39°19'38.039"N	80°57'49.295"W	4720.03	356.583	0.90	0.00	-0.90	
11227.00	89.970	336.950	6405.09	4566.28	4794.62	-316.14	1650648.99	14281166.54	39°19'38.860"N	80°57'49.738"W	4805.03	356.228	0.61	-0.03	-0.61	
11316.00	90.030	336.450	6405.09	4655.25	4876.36	-351.34	1650613.80	14281248.25	39°19'39.668"N	80°57'50.185"W	4889.00	355.879	0.57	0.07	-0.56	
11406.00	90.090	334.650	6405.00	4745.16	4958.29	-388.59	1650576.56	14281330.14	39°19'40.478"N	80°57'50.659"W	4973.49	355.519	2.00	0.07	-2.00	
11495.00	90.180	334.950	6404.79	4834.01	5038.82	-426.49	1650538.68	14281410.64	39°19'41.274"N	80°57'51.141"W	5056.83	355.162	0.35	0.10	0.34	
11585.00	90.030	336.620	6404.62	4923.94	5120.89	-463.40	1650501.78	14281492.69	39°19'42.085"N	80°57'51.610"W	5141.82	354.829	1.86	-0.17	1.86	
11675.00	90.030	338.620	6404.57	5013.93	5204.11	-497.67	1650467.53	14281575.87	39°19'42.908"N	80°57'52.046"W	5227.85	354.537	2.22	0.00	2.22	
11764.00	90.030	338.680	6404.53	5102.92	5287.00	-530.07	1650435.14	14281658.73	39°19'43.727"N	80°57'52.458"W	5313.51	354.275	0.07	0.00	0.07	
11854.00	90.490	338.270	6404.12	5192.92	5370.73	-563.09	1650402.14	14281742.42	39°19'44.555"N	80°57'52.877"W	5400.16	354.015	0.68	0.51	-0.46	
11943.00	90.280	337.640	6403.52	5281.92	5453.22	-596.49	1650368.75	14281824.88	39°19'45.370"N	80°57'53.302"W	5485.74	353.758	0.75	-0.24	-0.71	
12033.00	90.310	338.450	6403.06	5371.92	5536.69	-630.14	1650335.11	14281908.31	39°19'46.195"N	80°57'53.730"W	5572.43	353.507	0.90	0.03	0.90	
12122.00	90.220	339.190	6402.65	5460.91	5619.67	-662.30	1650302.97	14281991.27	39°19'47.016"N	80°57'54.139"W	5658.57	353.279	0.84	-0.10	0.83	
12212.00	90.370	340.980	6402.18	5550.85	5704.29	-692.95	1650272.33	14282075.85	39°19'47.852"N	80°57'54.528"W	5746.22	353.074	2.00	0.17	1.99	
12301.00	90.490	340.970	6401.52	5639.73	5788.42	-721.96	1650243.33	14282159.95	39°19'48.684"N	80°57'54.897"W	5833.27	352.890	0.14	0.13	-0.01	
12391.00	90.520	338.390	6400.72	5729.69	5872.81	-753.21	1650212.09	14282244.30	39°19'49.518"N	80°57'55.294"W	5920.92	352.691	2.87	0.03	-2.87	
12481.00	90.220	338.000	6400.14	5819.68	5956.37	-786.64	1650178.67	14282327.83	39°19'50.344"N	80°57'55.719"W	6008.09	352.477	0.55	-0.33	-0.43	



Actual Wellpath Report

Duchene Unit 3H AWP Proj: 15621'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Duchene Unit 3H
Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

WELLPATH DATA (186 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
12570.00	90.250	339.170	6399.78	5908.68	6039.22	-819.14	1650146.19	14282410.65	39°19'51.163"N	80°57'56.133"W	6094.52	352.276	1.32	0.03	1.31	
12660.00	90.310	339.720	6399.34	5998.65	6123.49	-850.74	1650114.61	14282494.88	39°19'51.996"N	80°57'56.534"W	6182.31	352.091	0.61	0.07	0.61	
12749.00	90.220	339.420	6398.92	6087.62	6206.89	-881.80	1650083.55	14282578.25	39°19'52.820"N	80°57'56.929"W	6269.22	351.914	0.35	-0.10	-0.34	
12839.00	90.310	338.940	6398.51	6177.60	6291.02	-913.79	1650051.58	14282662.34	39°19'53.652"N	80°57'57.336"W	6357.04	351.735	0.54	0.10	-0.53	
12928.00	90.310	337.670	6398.03	6266.60	6373.71	-946.69	1650018.69	14282745.00	39°19'54.469"N	80°57'57.754"W	6443.63	351.552	1.43	0.00	-1.43	
13018.00	90.250	338.010	6397.59	6356.60	6457.06	-980.64	1649984.76	14282828.32	39°19'55.293"N	80°57'58.186"W	6531.10	351.364	0.38	-0.07	0.38	
13108.00	90.250	337.960	6397.19	6446.60	6540.50	-1014.37	1649951.03	14282911.72	39°19'56.118"N	80°57'58.615"W	6618.69	351.184	0.06	0.00	-0.06	
13198.00	90.280	337.160	6396.78	6536.59	6623.68	-1048.73	1649916.69	14282994.87	39°19'56.940"N	80°57'59.052"W	6706.19	351.003	0.89	0.03	-0.89	
13287.00	90.280	337.880	6396.34	6625.59	6705.92	-1082.76	1649882.68	14283077.07	39°19'57.753"N	80°57'59.484"W	6792.77	350.828	0.81	0.00	0.81	
13377.00	90.250	340.080	6395.93	6715.57	6789.92	-1115.04	1649850.41	14283161.04	39°19'58.584"N	80°57'59.895"W	6880.87	350.674	2.44	-0.03	2.44	
13466.00	90.370	339.720	6395.44	6804.52	6873.50	-1145.62	1649819.84	14283244.59	39°19'59.410"N	80°58'00.284"W	6968.32	350.537	0.43	0.13	-0.40	
13556.00	90.340	338.810	6394.89	6894.50	6957.67	-1177.49	1649787.99	14283328.72	39°20'00.242"N	80°58'00.689"W	7056.60	350.395	1.01	-0.03	-1.01	
13646.00	90.370	337.300	6394.33	6984.50	7041.14	-1211.12	1649754.37	14283412.16	39°20'01.067"N	80°58'01.116"W	7144.54	350.240	1.68	0.03	-1.68	
13736.00	90.220	336.600	6393.87	7074.48	7123.96	-1246.36	1649719.15	14283494.94	39°20'01.886"N	80°58'01.564"W	7232.16	350.076	0.80	-0.17	-0.78	
13825.00	90.250	334.560	6393.50	7163.39	7204.99	-1283.15	1649682.37	14283575.94	39°20'02.687"N	80°58'02.032"W	7318.36	349.902	2.29	0.03	-2.29	
13915.00	90.280	335.410	6393.08	7253.25	7286.54	-1321.20	1649644.33	14283657.47	39°20'03.493"N	80°58'02.516"W	7405.36	349.723	0.95	0.03	0.94	
14005.00	90.280	336.630	6392.64	7343.19	7368.77	-1357.78	1649607.76	14283739.66	39°20'04.306"N	80°58'02.981"W	7492.82	349.560	1.36	0.00	1.36	
14095.00	90.280	338.110	6392.21	7433.18	7451.84	-1392.41	1649573.15	14283822.70	39°20'05.127"N	80°58'03.422"W	7580.81	349.416	1.64	0.00	1.64	
14184.00	90.340	338.650	6391.72	7522.18	7534.58	-1425.20	1649540.37	14283905.40	39°20'05.945"N	80°58'03.839"W	7668.19	349.289	0.61	0.07	0.61	
14274.00	90.250	342.840	6391.26	7612.06	7619.52	-1454.87	1649510.71	14283990.31	39°20'06.784"N	80°58'04.216"W	7757.18	349.190	4.66	-0.10	4.66	
14364.00	90.310	342.380	6390.82	7701.78	7705.41	-1481.77	1649483.82	14284076.16	39°20'07.633"N	80°58'04.558"W	7846.59	349.115	0.52	0.07	-0.51	
14453.00	90.250	341.390	6390.39	7790.58	7790.00	-1509.44	1649456.16	14284160.71	39°20'08.469"N	80°58'04.910"W	7934.89	349.034	1.11	-0.07	-1.11	
14543.00	89.910	337.150	6390.26	7880.54	7874.15	-1541.29	1649424.33	14284244.83	39°20'09.301"N	80°58'05.315"W	8023.58	348.925	4.73	-0.38	-4.71	
14633.00	89.970	335.620	6390.35	7970.50	7956.61	-1577.34	1649388.29	14284327.26	39°20'10.116"N	80°58'05.773"W	8111.45	348.787	1.70	0.07	-1.70	
14722.00	89.880	338.310	6390.47	8059.47	8038.51	-1612.17	1649353.48	14284409.13	39°20'10.926"N	80°58'06.216"W	8198.58	348.659	3.02	-0.10	3.02	
14812.00	89.910	336.240	6390.64	8149.46	8121.51	-1646.93	1649318.73	14284492.10	39°20'11.747"N	80°58'06.658"W	8286.82	348.537	2.30	0.03	-2.30	
14901.00	89.940	336.380	6390.75	8238.42	8203.01	-1682.69	1649282.98	14284573.57	39°20'12.552"N	80°58'07.113"W	8373.82	348.408	0.16	0.03	0.16	
14991.00	89.850	335.640	6390.92	8328.36	8285.24	-1719.28	1649246.41	14284655.76	39°20'13.365"N	80°58'07.578"W	8461.74	348.277	0.83	-0.10	-0.82	
15080.00	89.880	335.790	6391.13	8417.28	8366.36	-1755.89	1649209.82	14284736.85	39°20'14.167"N	80°58'08.043"W	8548.64	348.147	0.17	0.03	0.17	
15170.00	89.910	336.350	6391.29	8507.22	8448.63	-1792.39	1649173.33	14284819.08	39°20'14.980"N	80°58'08.508"W	8636.66	348.022	0.62	0.03	0.62	



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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Slot	Slot #05
Area	Ritchie County, WV		Well	Duchene Unit 3H
Field	Ritchie		Wellbore	Duchene Unit 3H AWP
Facility	Kelly Pad			

WELLPATH DATA (186 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]	
15260.00	89.850	337.210	6391.48	8597.20	8531.34	-1827.88	1649137.86	14284901.76	39°20'15.798"N	80°58'08.959"W	8724.95	347.907	0.96	-0.07	0.96	
15349.00	90.150	338.720	6391.48	8686.20	8613.83	-1861.26	1649104.48	14284984.22	39°20'16.613"N	80°58'09.384"W	8812.63	347.807	1.73	0.34	1.70	
15439.00	90.150	339.590	6391.24	8776.18	8697.94	-1893.29	1649072.47	14285068.29	39°20'17.445"N	80°58'09.791"W	8901.61	347.720	0.97	0.00	0.97	
15528.00	90.180	339.130	6390.99	8865.16	8781.23	-1924.66	1649041.11	14285151.55	39°20'18.268"N	80°58'10.190"W	8989.68	347.637	0.52	0.03	-0.52	
15596.00	90.060	339.000	6390.85	8933.15	8844.74	-1948.96	1649016.82	14285215.03	39°20'18.896"N	80°58'10.499"W	9056.92	347.573	0.26	-0.18	-0.19	
15621.00	90.060	339.000	6390.82	8958.14	8868.08	-1957.92	1649007.87	14285238.36	39°20'19.126"N	80°58'10.613"W	9081.64	347.550	0.00	0.00	0.00	Projected MD at TD: 15621'

TARGETS								
Name	TVD	North	East	Grid East	Grid North	Latitude	Longitude	Shape
	[ft]	[ft]	[ft]	[US ft]	[US ft]			
Duchene Unit 3H POE Rev-1	6392.00	650.42	1312.73	1652277.20	14277024.01	39°18'57.893"N	80°57'29.034"W	point
Duchene Unit 3H Azi Rev-1	6416.00	994.46	1209.89	1652174.40	14277367.91	39°19'01.294"N	80°57'30.341"W	point
Duchene Unit 3H BHL Rev-1	6416.00	8814.83	-1934.91	1649030.87	14285185.14	39°20'18.600"N	80°58'10.320"W	point
Duchene Unit 3H LP Rev-1	6416.00	808.33	1273.81	1652238.30	14277181.86	39°18'59.454"N	80°57'29.529"W	point
Duchene Unit 3H 20' L/R Hard Line	6500.00	4904.64	-362.51	1650602.63	14281276.52	39°19'39.947"N	80°57'50.327"W	rectangle



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Duchene Unit 3H AWP Proj: 15621'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Duchene Unit 3H
Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

WELLPATH COMPOSITION - Ref Wellbore: Duchene Unit 3H AWB Ref Wellpath: Duchene Unit 3H AWP Proj: 15621'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.00	5757.00	Gyrodata standard - Continuous gyro	01 Gyrodata Cont. Gyro <8-3/4"> (100'-5751')	Duchene Unit 3H AWB
5757.00	15596.00	BHI AutoTrak Curve (Axial)	02 BHI AT Curve <8-1/2"> (5757')(5849'-15596')	Duchene Unit 3H AWB
15596.00	15621.00	Blind Drilling (std)	Projection to bit	Duchene Unit 3H AWB



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Duchene Unit 3H AWP Proj: 15621'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #05
Area	Ritchie County, WV	Well	Duchene Unit 3H
Field	Ritchie	Wellbore	Duchene Unit 3H AWB
Facility	Kelly Pad		

COMMENTS

Wellpath general comments

API: 47-085-10162-0000
 BHI Job #: 8229765
 Rig: Precision 525
 Duration: 10/31/2016-11/3/2016
 Gyrodata Cont. Gyro <8-3/4"> (100'-5751')
 BHI AT Curve <8-1/2"> (5757')(5849'-15596')
 Sycamore: 6345' MD
 Middlesex: 6465' MD
 Burkett: 6645' MD
 Tully: 6703' MD
 Marcellus POE: 6758' MD
 Projected MD at TD: 15621'