



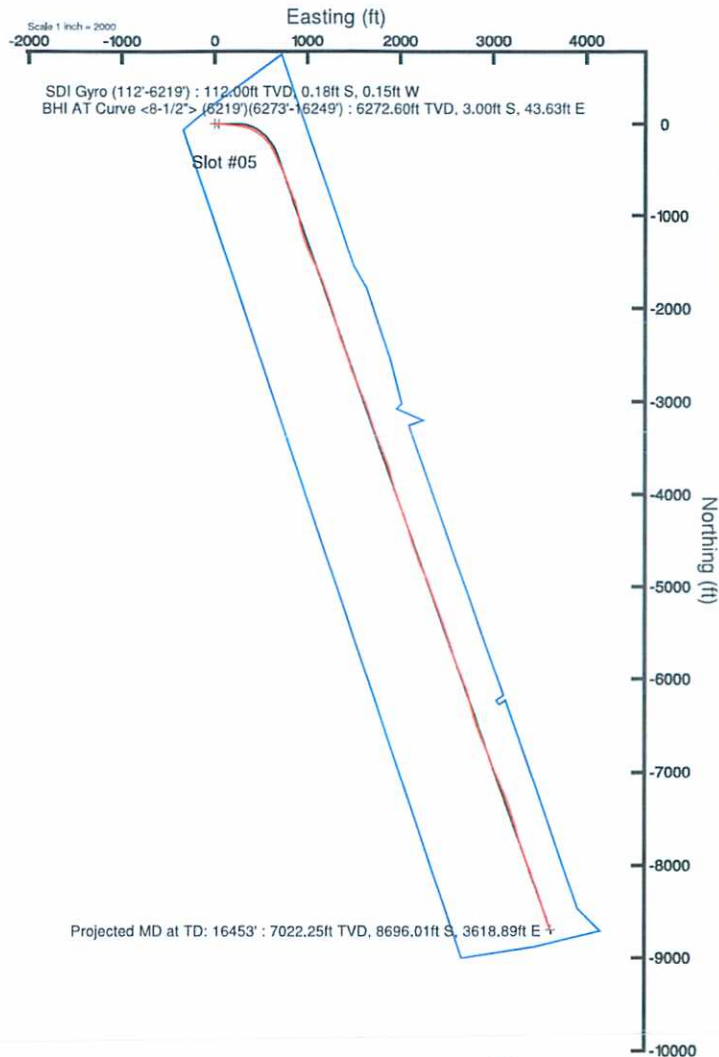
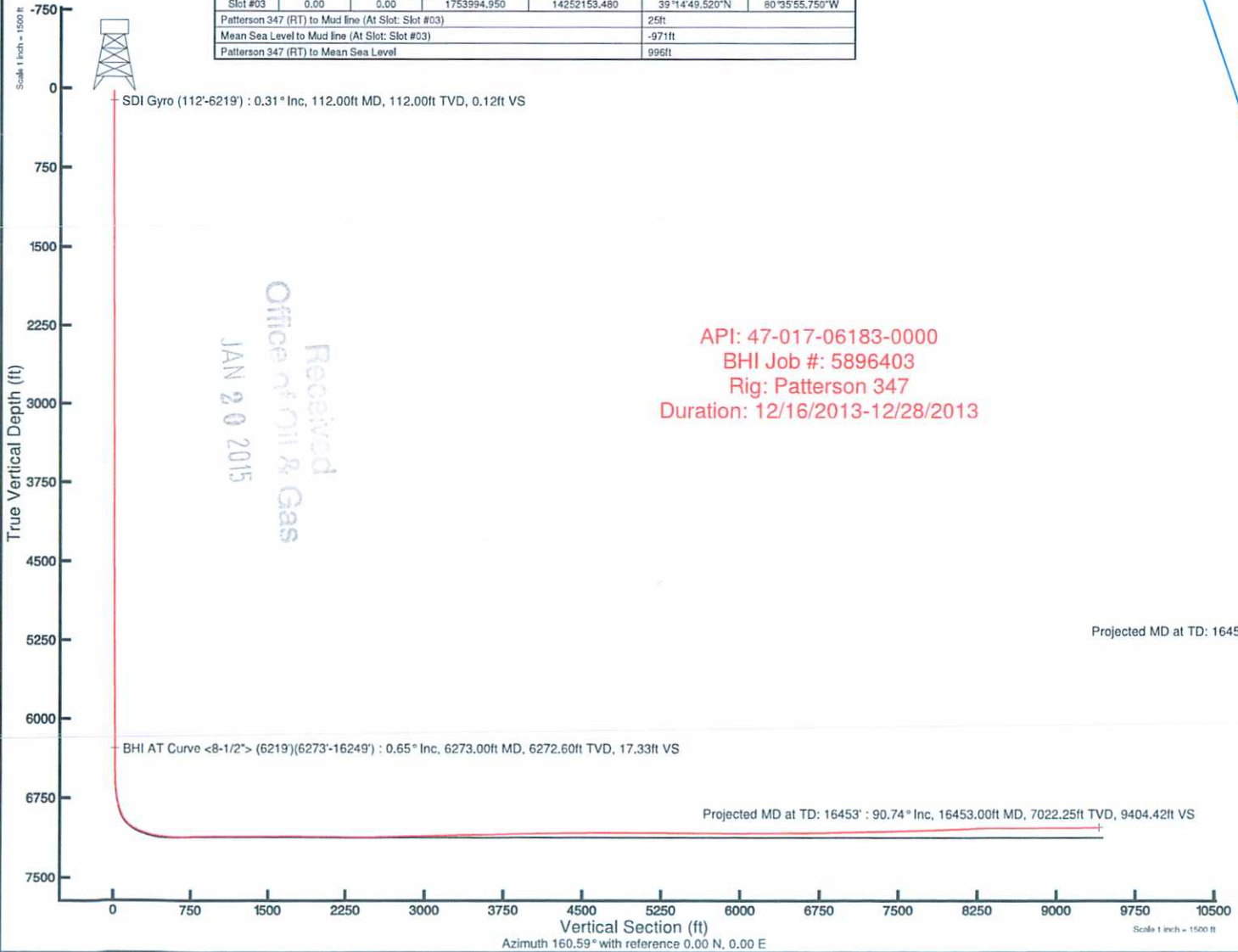
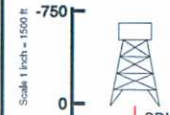
ANTERO RESOURCES

Location: Doddridge Co., WV Slot: Slot #03
 Field: Doddridge Well: Welling Unit 2H
 Facility: Marsden Pad Wellbore: Welling Unit 2H PWB



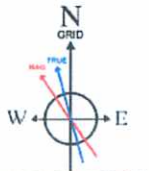
Plot reference wellpath is Welling Unit 2H PWP Rev-C.0	
True vertical depths are referenced to Patterson 347 (RT)	Grid System: NAD27 / UTM Zone 17 North, US feet
Measured depths are referenced to Patterson 347 (RT)	North Reference: Grid north
Patterson 347 (RT) to Mean Sea Level: 996 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #03): -971 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: edsanyar on 1/22/2014

Location Information							
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
Marsden Pad		1753994.950	14252153.480	39°14'49.520"N	80°35'55.750"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
Slot #03	0.00	0.00	1753994.950	14252153.480	39°14'49.520"N	80°35'55.750"W	
Patterson 347 (RT) to Mud line (At Slot: Slot #03)				25ft			
Mean Sea Level to Mud line (At Slot: Slot #03)				-971ft			
Patterson 347 (RT) to Mean Sea Level				996ft			



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BGGM (1945.0 to 2015.0) Dip: 66.83° Field: 52277.5 nT
 Magnetic North is 8.82 degrees West of True North (at 12/4/2013)
 Grid North is 0.25 degrees East of True North
 To correct azimuth from True to Grid subtract 0.25 degrees
 To correct azimuth from Magnetic to Grid subtract 8.87 degrees



Actual Wellpath Report

Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
Facility	Marsden Pad		

17-06183

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	Edsaryar
Scale	0.999615	Report Generated	1/22/2014 at 4:43:10 PM
Convergence at slot	0.25° East	Database/Source file	Well Architect Eastern US/Welling_Unit_2H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	1753994.95	14252153.48	39°14'49.520"N	80°35'55.750"W
Facility Reference Pt			1753994.95	14252153.48	39°14'49.520"N	80°35'55.750"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM

Calculation method	Minimum curvature	Patterson 347 (RT) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Slot	Patterson 347 (RT) to Mean Sea Level	996.00ft
Vertical Reference Pt	Patterson 347 (RT)	Patterson 347 (RT) to Mud Line at Slot (Slot #03)	25.00ft
MD Reference Pt	Patterson 347 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.59°

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Actual Wellpath Report

Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
Facility	Marsden Pad		

WELLPATH DATA (178 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]
0.00†	0.000	221.190	0.00	0.00	0.00	0.00	1753994.95	14252153.48	39°14'49.520"N	80°35'55.750"W	0.00	0.000	0.00	0.00	0.00
25.00	0.000	221.190	25.00	0.00	0.00	0.00	1753994.95	14252153.48	39°14'49.520"N	80°35'55.750"W	0.00	0.000	0.00	0.00	0.00
112.00	0.310	221.190	112.00	0.12	-0.18	-0.15	1753994.79	14252153.30	39°14'49.518"N	80°35'55.752"W	0.24	221.190	0.36	0.36	0.00
212.00	0.190	257.940	212.00	0.23	-0.42	-0.50	1753994.45	14252153.06	39°14'49.516"N	80°35'55.756"W	0.65	230.018	0.19	-0.12	36.75
312.00	0.240	252.000	312.00	0.20	-0.51	-0.86	1753994.09	14252152.97	39°14'49.515"N	80°35'55.761"W	1.00	239.001	0.05	0.05	-5.94
412.00	0.340	242.050	412.00	0.24	-0.72	-1.32	1753993.63	14252152.76	39°14'49.513"N	80°35'55.767"W	1.50	241.402	0.11	0.10	-9.95
512.00	0.350	241.010	511.99	0.33	-1.01	-1.85	1753993.10	14252152.47	39°14'49.510"N	80°35'55.774"W	2.10	241.437	0.01	0.01	-1.04
612.00	0.240	223.550	611.99	0.48	-1.31	-2.26	1753992.69	14252152.17	39°14'49.507"N	80°35'55.779"W	2.61	239.974	0.14	-0.11	-17.46
712.00	0.110	241.760	711.99	0.59	-1.50	-2.49	1753992.46	14252151.98	39°14'49.505"N	80°35'55.782"W	2.91	238.865	0.14	-0.13	18.21
812.00	0.120	272.350	811.99	0.57	-1.54	-2.68	1753992.27	14252151.94	39°14'49.505"N	80°35'55.784"W	3.09	240.027	0.06	0.01	30.59
912.00	0.180	270.130	911.99	0.48	-1.54	-2.94	1753992.01	14252151.94	39°14'49.505"N	80°35'55.787"W	3.32	242.355	0.06	0.06	-2.22
1012.00	0.120	238.970	1011.99	0.44	-1.59	-3.19	1753991.77	14252151.89	39°14'49.504"N	80°35'55.791"W	3.56	243.433	0.10	-0.06	-31.16
1112.00	0.230	216.620	1111.99	0.58	-1.81	-3.39	1753991.56	14252151.67	39°14'49.502"N	80°35'55.793"W	3.85	241.963	0.13	0.11	-22.35
1212.00	0.230	200.810	1211.99	0.84	-2.16	-3.59	1753991.37	14252151.32	39°14'49.499"N	80°35'55.796"W	4.18	238.977	0.06	0.00	-15.81
1312.00	0.220	199.620	1311.99	1.14	-2.52	-3.72	1753991.23	14252150.96	39°14'49.495"N	80°35'55.797"W	4.50	235.844	0.01	-0.01	-1.19
1412.00	0.210	185.980	1411.99	1.46	-2.89	-3.81	1753991.15	14252150.59	39°14'49.492"N	80°35'55.799"W	4.78	232.801	0.05	-0.01	-13.64
1512.00	0.160	146.790	1511.99	1.76	-3.19	-3.75	1753991.20	14252150.29	39°14'49.489"N	80°35'55.798"W	4.92	229.621	0.13	-0.05	-39.19
1612.00	0.200	188.400	1611.99	2.05	-3.48	-3.70	1753991.25	14252150.00	39°14'49.486"N	80°35'55.797"W	5.07	226.757	0.13	0.04	41.61
1712.00	0.140	165.220	1711.99	2.33	-3.77	-3.69	1753991.26	14252149.71	39°14'49.483"N	80°35'55.797"W	5.27	224.413	0.09	-0.06	-23.18
1812.00	0.280	161.350	1811.99	2.69	-4.12	-3.58	1753991.37	14252149.36	39°14'49.479"N	80°35'55.796"W	5.46	221.022	0.14	0.14	-3.87
1912.00	0.180	131.080	1911.99	3.07	-4.45	-3.39	1753991.57	14252149.03	39°14'49.476"N	80°35'55.793"W	5.59	217.250	0.15	-0.10	-30.27
2012.00	0.180	110.090	2011.99	3.31	-4.61	-3.12	1753991.83	14252148.87	39°14'49.475"N	80°35'55.790"W	5.57	214.089	0.07	0.00	-20.99
2112.00	0.160	109.010	2111.99	3.50	-4.71	-2.84	1753992.11	14252148.77	39°14'49.474"N	80°35'55.786"W	5.50	211.095	0.02	-0.02	-1.08
2212.00	0.130	113.130	2211.99	3.66	-4.80	-2.60	1753992.35	14252148.68	39°14'49.473"N	80°35'55.783"W	5.46	208.482	0.03	-0.03	4.12
2312.00	0.190	130.020	2311.98	3.88	-4.95	-2.37	1753992.58	14252148.53	39°14'49.471"N	80°35'55.780"W	5.49	205.606	0.08	0.06	16.89
2412.00	0.280	166.670	2411.98	4.27	-5.29	-2.19	1753992.76	14252148.19	39°14'49.468"N	80°35'55.778"W	5.73	202.462	0.17	0.09	36.65
2447.00	0.300	121.440	2446.98	4.42	-5.43	-2.09	1753992.86	14252148.06	39°14'49.466"N	80°35'55.777"W	5.81	201.077	0.64	0.06	-129.23
2539.01	0.230	121.110	2538.99	4.75	-5.65	-1.73	1753993.22	14252147.84	39°14'49.464"N	80°35'55.772"W	5.90	197.010	0.08	-0.08	-0.36
3073.01	0.340	76.810	3072.99	5.75	-5.84	0.73	1753995.68	14252147.64	39°14'49.462"N	80°35'55.741"W	5.88	172.844	0.04	0.02	-8.30
3546.01	0.160	88.300	3545.98	6.10	-5.50	2.76	1753997.71	14252147.98	39°14'49.466"N	80°35'55.715"W	6.15	153.349	0.04	-0.04	2.43

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Actual Wellpath Report
Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
Facility	Marsden Pad		

WELLPATH DATA (178 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]
4055.01	0.250	112.140	4054.98	7.06	-5.90	4.50	1753999.45	14252147.59	39°14'49.462"N	80°35'55.693"W	7.42	142.657	0.02	0.02	4.68
4556.01	1.130	77.070	4555.94	8.34	-5.20	10.33	1754005.27	14252148.28	39°14'49.468"N	80°35'55.619"W	11.56	116.740	0.19	0.18	-7.00
4716.01	1.220	74.480	4715.91	8.63	-4.39	13.50	1754008.45	14252149.09	39°14'49.476"N	80°35'55.579"W	14.20	108.022	0.07	0.06	-1.62
4909.01	1.180	84.940	4908.86	9.26	-3.67	17.46	1754012.41	14252149.81	39°14'49.483"N	80°35'55.528"W	17.85	101.864	0.12	-0.02	5.42
5093.01	1.160	82.230	5092.82	10.11	-3.25	21.20	1754016.14	14252150.23	39°14'49.487"N	80°35'55.481"W	21.44	98.716	0.03	-0.01	-1.47
5281.01	1.090	85.270	5280.79	10.95	-2.85	24.86	1754019.80	14252150.64	39°14'49.491"N	80°35'55.434"W	25.03	96.527	0.05	-0.04	1.62
5478.01	1.190	88.990	5477.75	12.07	-2.65	28.78	1754023.72	14252150.83	39°14'49.493"N	80°35'55.384"W	28.90	95.270	0.06	0.05	1.89
5732.01	1.140	88.380	5731.70	13.67	-2.54	33.94	1754028.88	14252150.94	39°14'49.493"N	80°35'55.319"W	34.03	94.274	0.02	-0.02	-0.24
6219.01	0.970	97.650	6218.61	17.03	-2.95	42.87	1754037.80	14252150.53	39°14'49.489"N	80°35'55.205"W	42.97	93.934	0.05	-0.03	1.90
6273.00	0.650	88.140	6272.60	17.33	-3.00	43.63	1754038.56	14252150.48	39°14'49.488"N	80°35'55.196"W	43.73	93.933	0.64	-0.59	-17.61
6363.00	0.710	88.420	6362.59	17.65	-2.97	44.69	1754039.63	14252150.51	39°14'49.489"N	80°35'55.182"W	44.79	93.798	0.07	0.07	0.31
6456.00	0.640	95.840	6455.59	18.05	-3.00	45.79	1754040.72	14252150.48	39°14'49.488"N	80°35'55.168"W	45.89	93.754	0.12	-0.08	7.98
6490.00	0.960	106.670	6489.58	18.30	-3.11	46.25	1754041.18	14252150.38	39°14'49.487"N	80°35'55.162"W	46.35	93.841	1.04	0.94	31.85
6522.00	1.030	133.890	6521.58	18.71	-3.38	46.71	1754041.64	14252150.10	39°14'49.485"N	80°35'55.156"W	46.84	94.140	1.48	0.22	85.06
6554.00	3.100	100.790	6553.56	19.41	-3.74	47.77	1754042.70	14252149.74	39°14'49.481"N	80°35'55.143"W	47.92	94.480	7.21	6.47	-103.44
6585.00	7.640	92.030	6584.41	20.58	-3.97	50.65	1754045.58	14252149.51	39°14'49.479"N	80°35'55.106"W	50.81	94.485	14.84	14.65	-28.26
6617.00	12.250	89.800	6615.92	22.48	-4.04	56.18	1754051.11	14252149.44	39°14'49.478"N	80°35'55.036"W	56.32	94.110	14.45	14.41	-6.97
6648.00	15.940	91.360	6645.99	25.07	-4.13	63.73	1754058.65	14252149.36	39°14'49.476"N	80°35'55.940"W	63.86	93.705	11.97	11.90	5.03
6679.00	18.930	93.680	6675.56	28.55	-4.55	73.00	1754067.92	14252148.93	39°14'49.472"N	80°35'55.822"W	73.14	93.567	9.90	9.65	7.48
6711.00	20.330	93.620	6705.70	32.76	-5.23	83.73	1754078.65	14252148.25	39°14'49.465"N	80°35'55.686"W	83.89	93.577	4.38	4.37	-0.19
6743.00	23.380	93.010	6735.39	37.36	-5.92	95.62	1754090.53	14252147.56	39°14'49.457"N	80°35'55.535"W	95.80	93.542	9.56	9.53	-1.91
6774.00	25.670	94.150	6763.60	42.39	-6.73	108.46	1754103.37	14252146.75	39°14'49.449"N	80°35'55.437"W	108.67	93.549	7.54	7.39	3.68
6805.00	27.980	96.500	6791.26	48.25	-8.04	122.39	1754117.29	14252145.45	39°14'49.435"N	80°35'55.419"W	122.65	93.757	8.20	7.45	7.58
6837.00	31.110	98.140	6819.09	55.36	-10.06	138.03	1754132.93	14252143.43	39°14'49.415"N	80°35'55.996"W	138.40	94.168	10.10	9.78	5.13
6868.00	35.410	98.280	6845.01	63.24	-12.49	154.86	1754149.74	14252141.00	39°14'49.390"N	80°35'55.782"W	155.36	94.610	13.87	13.87	0.45
6899.00	39.560	98.320	6869.60	72.01	-15.21	173.52	1754168.40	14252138.28	39°14'49.362"N	80°35'55.545"W	174.18	95.009	13.39	13.39	0.13
6931.00	44.010	97.210	6893.46	81.74	-18.08	194.64	1754189.52	14252135.41	39°14'49.333"N	80°35'55.277"W	195.48	95.307	14.10	13.91	-3.47
6962.00	48.490	96.130	6914.89	91.57	-20.67	216.88	1754211.74	14252132.81	39°14'49.306"N	80°35'55.2995"W	217.86	95.445	14.67	14.45	-3.48
6993.00	53.320	96.530	6934.43	102.02	-23.33	240.78	1754235.64	14252130.16	39°14'49.279"N	80°35'55.691"W	241.91	95.534	15.61	15.58	1.29
7025.00	58.040	97.970	6952.47	113.88	-26.67	266.99	1754261.84	14252126.82	39°14'49.245"N	80°35'55.358"W	268.32	95.705	15.21	14.75	4.50

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Actual Wellpath Report

Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
Facility	Marsden Pad		

WELLPATH DATA (178 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]
7056.00	61.370	101.010	6968.11	126.83	-31.09	293.38	1754288.22	14252122.40	39°14'49.200"N	80°35'52.023"W	295.02	96.050	13.68	10.74	9.81
7087.00	61.620	103.910	6982.91	141.21	-36.97	319.98	1754314.80	14252116.52	39°14'49.141"N	80°35'51.685"W	322.11	96.591	8.26	0.81	9.35
7119.00	63.080	107.690	6997.76	157.55	-44.69	347.24	1754342.06	14252108.80	39°14'49.063"N	80°35'51.339"W	350.11	97.334	11.41	4.56	11.81
7150.00	65.830	111.290	7011.13	175.12	-54.03	373.60	1754368.40	14252099.47	39°14'48.970"N	80°35'51.004"W	377.48	98.230	13.73	8.87	11.61
7181.00	68.010	115.380	7023.29	194.47	-65.33	399.77	1754394.57	14252088.17	39°14'48.857"N	80°35'50.672"W	405.07	99.282	14.03	7.03	13.19
7213.00	69.550	119.040	7034.87	216.15	-78.97	426.29	1754421.08	14252074.54	39°14'48.721"N	80°35'50.336"W	433.54	100.496	11.70	4.81	11.44
7244.00	70.760	122.010	7045.40	238.47	-93.78	451.40	1754446.18	14252059.73	39°14'48.573"N	80°35'50.018"W	461.04	101.737	9.82	3.90	9.58
7276.00	71.850	125.710	7055.66	262.76	-110.67	476.57	1754471.33	14252042.85	39°14'48.405"N	80°35'49.699"W	489.25	103.074	11.47	3.41	11.56
7307.00	72.810	128.870	7065.07	287.44	-128.57	500.06	1754494.82	14252024.96	39°14'48.227"N	80°35'49.401"W	516.32	104.418	10.19	3.10	10.19
7338.00	74.210	133.360	7073.87	313.31	-148.11	522.45	1754517.19	14252005.43	39°14'48.033"N	80°35'49.118"W	543.03	105.828	14.60	4.52	14.48
7370.00	75.970	137.340	7082.11	341.28	-170.10	544.17	1754538.91	14251983.44	39°14'47.815"N	80°35'48.843"W	570.14	107.359	13.22	5.50	12.44
7402.00	77.510	140.020	7089.45	370.17	-193.50	564.73	1754559.46	14251960.06	39°14'47.583"N	80°35'48.583"W	596.96	108.913	9.47	4.81	8.38
7433.00	79.270	145.160	7095.69	399.04	-217.61	583.17	1754577.89	14251935.96	39°14'47.344"N	80°35'48.350"W	622.44	110.463	17.20	5.68	16.58
7462.00	80.510	147.760	7100.78	426.72	-241.40	598.94	1754593.65	14251912.17	39°14'47.108"N	80°35'48.151"W	645.76	111.952	9.81	4.28	8.97
7494.00	83.060	151.160	7105.36	457.79	-268.68	615.02	1754609.74	14251884.91	39°14'46.837"N	80°35'47.948"W	671.15	113.598	13.19	7.97	10.63
7525.00	84.390	153.220	7108.75	488.28	-295.93	629.40	1754624.10	14251857.67	39°14'46.567"N	80°35'47.767"W	695.50	115.182	7.88	4.29	6.65
7557.00	85.440	153.890	7111.58	519.91	-324.47	643.59	1754638.29	14251829.14	39°14'46.285"N	80°35'47.588"W	720.76	116.755	3.89	3.28	2.09
7588.00	86.830	154.160	7113.67	550.63	-352.27	657.14	1754651.83	14251801.34	39°14'46.009"N	80°35'47.417"W	745.61	118.194	4.57	4.48	0.87
7619.00	87.780	154.680	7115.13	581.42	-380.20	670.51	1754665.20	14251773.42	39°14'45.733"N	80°35'47.249"W	770.80	119.555	3.49	3.06	1.68
7651.00	88.580	154.650	7116.15	613.23	-409.11	684.19	1754678.88	14251744.53	39°14'45.446"N	80°35'47.077"W	797.18	120.877	2.50	2.50	-0.09
7682.00	89.230	154.760	7116.74	644.06	-437.13	697.44	1754692.12	14251716.52	39°14'45.169"N	80°35'46.910"W	823.11	122.078	2.13	2.10	0.35
7713.00	89.540	155.740	7117.07	674.93	-465.28	710.42	1754705.09	14251688.38	39°14'44.890"N	80°35'46.746"W	849.22	123.223	3.32	1.00	3.16
7745.00	90.460	155.920	7117.07	706.82	-494.48	723.52	1754718.19	14251659.19	39°14'44.601"N	80°35'46.582"W	876.35	124.350	2.93	2.87	0.56
7776.00	90.710	157.040	7116.75	737.73	-522.90	735.89	1754730.55	14251630.78	39°14'44.319"N	80°35'46.426"W	902.75	125.396	3.70	0.81	3.61
7839.00	90.770	157.950	7115.94	800.64	-581.10	760.00	1754754.66	14251572.61	39°14'43.743"N	80°35'46.123"W	956.70	127.402	1.45	0.10	1.44
7932.00	90.620	158.440	7114.81	893.55	-667.44	794.54	1754789.18	14251486.30	39°14'42.888"N	80°35'45.689"W	1037.67	130.031	0.55	-0.16	0.53
8027.00	90.740	159.260	7113.69	988.50	-756.03	828.82	1754823.45	14251397.74	39°14'42.011"N	80°35'45.258"W	1121.84	132.370	0.87	0.13	0.86
8121.00	90.800	156.380	7112.42	1082.37	-843.06	864.30	1754858.91	14251310.75	39°14'41.149"N	80°35'44.812"W	1207.37	134.287	3.06	0.06	-3.06
8215.00	89.720	167.730	7111.99	1176.18	-932.34	893.21	1754887.81	14251221.51	39°14'40.266"N	80°35'44.450"W	1291.15	136.228	12.13	-1.15	12.07
8309.00	89.850	168.850	7112.35	1269.33	-1024.38	912.29	1754906.88	14251129.50	39°14'39.355"N	80°35'44.212"W	1371.72	138.312	1.20	0.14	1.19

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Actual Wellpath Report

Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
Facility	Marsden Pad		

WELLPATH DATA (178 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]
8404.00	89.750	165.920	7112.68	1363.65	-1117.07	933.03	1754927.62	14251036.84	39°14'38.438"N	80°35'43.954"W	1455.47	140.130	3.09	-0.11	-3.08
8498.00	90.060	163.870	7112.83	1457.38	-1207.82	957.53	1754952.11	14250946.13	39°14'37.540"N	80°35'43.648"W	1541.33	141.594	2.21	0.33	-2.18
8592.00	90.650	162.020	7112.25	1551.30	-1297.68	985.09	1754979.66	14250856.30	39°14'36.651"N	80°35'43.302"W	1629.23	142.797	2.07	0.63	-1.97
8686.00	90.430	156.570	7111.37	1645.23	-1385.57	1018.31	1755012.87	14250768.44	39°14'35.781"N	80°35'42.885"W	1719.53	143.686	5.80	-0.23	-5.80
8780.00	89.750	154.730	7111.22	1738.88	-1471.21	1057.07	1755051.61	14250682.84	39°14'34.933"N	80°35'42.398"W	1811.59	144.303	2.09	-0.72	-1.96
8874.00	89.720	153.820	7111.65	1832.31	-1555.89	1097.87	1755092.39	14250598.19	39°14'33.094"N	80°35'41.884"W	1904.23	144.792	0.97	-0.03	-0.97
8968.00	89.480	157.850	7112.31	1925.96	-1641.63	1136.34	1755130.85	14250512.48	39°14'33.245"N	80°35'41.400"W	1996.55	145.309	4.29	-0.26	4.29
9063.00	89.630	159.650	7113.05	2020.91	-1730.17	1170.77	1755165.27	14250423.98	39°14'32.368"N	80°35'40.967"W	2089.06	145.915	1.90	0.16	1.89
9157.00	89.630	161.080	7113.65	2114.90	-1818.70	1202.36	1755196.84	14250335.49	39°14'31.492"N	80°35'40.571"W	2180.21	146.531	1.52	0.00	1.52
9251.00	89.600	158.460	7114.29	2208.88	-1906.89	1234.86	1755229.33	14250247.33	39°14'30.619"N	80°35'40.163"W	2271.80	147.074	2.79	-0.03	-2.79
9346.00	89.510	164.010	7115.02	2303.84	-1996.80	1265.40	1755259.86	14250157.45	39°14'29.729"N	80°35'39.780"W	2363.99	147.637	5.84	-0.09	5.84
9440.00	89.600	163.560	7115.75	2397.69	-2087.06	1291.65	1755286.10	14250067.23	39°14'28.835"N	80°35'39.451"W	2454.42	148.247	0.49	0.10	-0.48
9534.00	91.200	163.650	7115.10	2491.55	-2177.23	1318.18	1755312.62	14249977.09	39°14'27.943"N	80°35'39.119"W	2545.18	148.808	1.70	1.70	0.10
9628.00	91.230	162.740	7113.10	2585.43	-2267.19	1345.35	1755339.78	14249887.16	39°14'27.052"N	80°35'38.779"W	2636.31	149.315	0.97	0.03	-0.97
9722.00	91.260	159.360	7111.06	2679.39	-2356.07	1375.87	1755370.28	14249798.33	39°14'26.173"N	80°35'38.396"W	2728.38	149.716	3.60	0.03	-3.60
9816.00	91.540	159.350	7108.77	2773.34	-2444.00	1409.00	1755403.40	14249710.42	39°14'25.302"N	80°35'37.980"W	2821.07	150.036	0.30	0.30	-0.01
9910.00	91.260	161.930	7106.47	2867.31	-2532.65	1440.15	1755434.54	14249621.81	39°14'24.425"N	80°35'37.589"W	2913.48	150.376	2.76	-0.30	2.74
10004.00	91.260	161.480	7104.40	2961.27	-2621.88	1469.65	1755464.03	14249532.61	39°14'23.541"N	80°35'37.219"W	3005.68	150.728	0.48	0.00	-0.48
10099.00	91.200	158.630	7102.36	3056.23	-2711.15	1502.04	1755496.41	14249443.38	39°14'22.658"N	80°35'36.813"W	3099.43	151.012	3.00	-0.06	-3.00
10193.00	91.140	156.710	7100.44	3150.08	-2798.08	1537.75	1755532.10	14249356.48	39°14'21.797"N	80°35'36.364"W	3192.79	151.208	2.04	-0.06	-2.04
10287.00	91.320	157.020	7098.42	3243.86	-2884.50	1574.67	1755569.01	14249270.09	39°14'20.941"N	80°35'35.899"W	3286.33	151.370	0.38	0.19	0.33
10381.00	91.230	157.760	7096.33	3337.69	-2971.26	1610.80	1755605.13	14249183.38	39°14'20.082"N	80°35'35.445"W	3379.80	151.537	0.79	-0.10	0.79
10475.00	91.110	159.860	7094.41	3431.62	-3058.88	1644.77	1755639.08	14249095.79	39°14'19.214"N	80°35'35.019"W	3473.04	151.733	2.24	-0.13	2.23
10570.00	91.350	163.180	7092.37	3526.58	-3148.94	1674.87	1755669.17	14249005.75	39°14'18.323"N	80°35'34.641"W	3566.66	151.992	3.50	0.25	3.49
10664.00	91.230	161.930	7090.26	3620.50	-3238.60	1703.04	1755697.34	14248916.14	39°14'17.436"N	80°35'34.288"W	3659.08	152.262	1.34	-0.13	-1.33
10758.00	90.920	159.080	7088.49	3714.47	-3327.18	1734.41	1755728.68	14248827.59	39°14'16.559"N	80°35'33.895"W	3752.11	152.468	3.05	-0.33	-3.03
10852.00	91.320	157.580	7086.66	3808.37	-3414.52	1769.11	1755763.37	14248740.28	39°14'15.694"N	80°35'33.459"W	3845.61	152.611	1.65	0.43	-1.60
10946.00	91.230	158.420	7084.56	3902.25	-3501.65	1804.31	1755798.56	14248653.18	39°14'14.831"N	80°35'33.016"W	3939.18	152.739	0.90	-0.10	0.89
11041.00	91.110	157.220	7082.62	3997.12	-3589.60	1840.17	1755834.41	14248565.27	39°14'13.960"N	80°35'32.566"W	4033.79	152.859	1.27	-0.13	-1.26
11135.00	91.170	163.550	7080.75	4091.06	-3678.09	1871.70	1755865.93	14248476.82	39°14'13.084"N	80°35'32.170"W	4126.93	153.029	6.73	0.06	6.73

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Actual Wellpath Report

Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
Facility	Marsden Pad		

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WELLPATH DATA (178 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]
11229.00	91.200	164.640	7078.81	4184.86	-3768.47	1897.46	1755891.67	14248386.47	39°14'12.190"N	80°35'31.848"W	4219.20	153.274	1.16	0.03	1.16
11323.00	91.020	166.010	7076.99	4278.52	-3859.38	1921.27	1755915.47	14248295.59	39°14'11.290"N	80°35'31.550"W	4311.16	153.535	1.47	-0.19	1.46
11417.00	90.680	162.360	7075.59	4372.31	-3949.80	1946.88	1755941.07	14248205.21	39°14'10.395"N	80°35'31.230"W	4403.55	153.761	3.90	-0.36	-3.88
11512.00	90.430	160.700	7074.67	4467.29	-4039.90	1976.97	1755971.15	14248115.15	39°14'09.504"N	80°35'30.853"W	4497.68	153.925	1.77	-0.26	-1.75
11606.00	90.250	160.710	7074.11	4561.28	-4128.61	2008.03	1756002.20	14248026.46	39°14'08.625"N	80°35'30.463"W	4591.04	154.063	0.19	-0.19	0.01
11700.00	90.180	159.710	7073.76	4655.28	-4217.06	2039.86	1756034.02	14247938.05	39°14'07.750"N	80°35'30.064"W	4684.51	154.186	1.07	-0.07	-1.06
11794.00	90.310	161.660	7073.36	4749.27	-4305.76	2070.95	1756065.09	14247849.38	39°14'06.872"N	80°35'29.674"W	4777.91	154.314	2.08	0.14	2.07
11889.00	90.120	163.080	7073.00	4844.22	-4396.30	2099.72	1756093.85	14247758.88	39°14'05.976"N	80°35'29.313"W	4871.99	154.470	1.51	-0.20	1.49
11983.00	89.910	161.630	7072.98	4938.18	-4485.88	2128.21	1756122.34	14247669.34	39°14'05.089"N	80°35'28.956"W	4965.11	154.619	1.56	-0.22	-1.54
12077.00	89.820	160.800	7073.20	5032.17	-4574.87	2158.48	1756152.59	14247580.38	39°14'04.208"N	80°35'28.577"W	5058.50	154.741	0.89	-0.10	-0.88
12171.00	89.780	160.650	7073.53	5126.17	-4663.60	2189.51	1756183.61	14247491.69	39°14'03.330"N	80°35'28.187"W	5152.00	154.850	0.17	-0.04	-0.16
12265.00	89.820	159.330	7073.86	5220.16	-4751.92	2221.67	1756215.76	14247403.40	39°14'02.455"N	80°35'27.784"W	5245.62	154.942	1.40	0.04	-1.40
12360.00	89.750	157.090	7074.21	5315.07	-4840.13	2256.93	1756251.01	14247315.23	39°14'01.582"N	80°35'27.341"W	5340.47	155.001	2.36	-0.07	-2.36
12454.00	89.450	158.350	7074.87	5408.95	-4927.10	2292.57	1756286.63	14247228.28	39°14'00.721"N	80°35'26.893"W	5434.36	155.048	1.38	-0.32	1.34
12548.00	89.380	161.690	7075.83	5502.93	-5015.43	2324.68	1756318.73	14247139.99	39°13'59.846"N	80°35'26.490"W	5527.99	155.132	3.55	-0.07	3.55
12642.00	89.290	159.700	7076.92	5596.92	-5104.13	2355.76	1756349.79	14247051.32	39°13'58.968"N	80°35'26.100"W	5621.55	155.225	2.12	-0.10	-2.12
12737.00	89.510	159.250	7077.91	5691.89	-5193.10	2389.06	1756383.09	14246962.39	39°13'58.087"N	80°35'25.682"W	5716.28	155.295	0.53	0.23	-0.47
12831.00	89.420	159.790	7078.79	5785.87	-5281.15	2421.95	1756415.96	14246874.37	39°13'57.215"N	80°35'25.269"W	5810.03	155.364	0.58	-0.10	0.57
12925.00	89.910	161.110	7079.34	5879.87	-5369.73	2453.40	1756447.40	14246785.83	39°13'56.339"N	80°35'24.874"W	5903.66	155.445	1.50	0.52	1.40
13019.00	90.060	158.860	7079.37	5973.86	-5458.05	2485.58	1756479.56	14246697.55	39°13'55.464"N	80°35'24.471"W	5997.36	155.516	2.40	0.16	-2.39
13113.00	90.150	161.650	7079.19	6067.85	-5546.51	2517.33	1756511.30	14246609.12	39°13'54.588"N	80°35'24.072"W	6091.04	155.589	2.97	0.10	2.97
13207.00	90.090	164.080	7079.00	6161.77	-5636.33	2545.02	1756538.99	14246519.33	39°13'53.699"N	80°35'23.725"W	6184.28	155.699	2.59	-0.06	2.59
13301.00	90.150	160.620	7078.80	6255.71	-5725.89	2573.52	1756567.47	14246429.80	39°13'52.813"N	80°35'23.368"W	6277.65	155.798	3.68	0.06	-3.68
13395.00	90.830	161.080	7078.00	6349.70	-5814.69	2604.35	1756598.29	14246341.04	39°13'51.934"N	80°35'22.982"W	6371.28	155.873	0.87	0.72	0.49
13489.00	90.710	159.670	7076.73	6443.69	-5903.22	2635.92	1756629.85	14246252.55	39°13'51.058"N	80°35'22.586"W	6464.99	155.938	1.51	-0.13	-1.50
13583.00	90.680	159.170	7075.59	6537.66	-5991.21	2668.96	1756662.88	14246164.59	39°13'50.186"N	80°35'22.171"W	6558.81	155.988	0.53	-0.03	-0.53
13677.00	90.740	159.120	7074.43	6631.63	-6079.05	2702.42	1756696.32	14246076.79	39°13'49.317"N	80°35'21.751"W	6652.66	156.033	0.08	0.06	-0.05
13771.00	90.860	163.870	7073.11	6725.58	-6168.15	2732.24	1756726.14	14245987.72	39°13'48.435"N	80°35'21.377"W	6746.20	156.109	5.05	0.13	5.05
13865.00	90.740	165.570	7071.80	6819.32	-6258.82	2757.01	1756750.90	14245897.09	39°13'47.538"N	80°35'21.067"W	6839.15	156.226	1.81	-0.13	1.81
13959.00	91.260	164.060	7070.16	6913.05	-6349.52	2781.63	1756775.50	14245806.42	39°13'46.640"N	80°35'20.760"W	6932.09	156.342	1.70	0.55	-1.61



ANTERO RESOURCES

Approved
Office of Oil & Gas
JAN 20 2015

Actual Wellpath Report

Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
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WELLPATH DATA (178 stations)

MWD [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]
14053.00	91.290	162.550	7068.07	7006.92	-6439.53	2808.63	17568802.49	14245716.44	39°13'45.749"N	80°35'20.422"W	7025.38	156.435	1.61	0.03	-1.61
14146.00	91.290	160.010	7069.88	-6527.58	-6616.04	2873.02	17568666.86	14245540.00	39°13'44.877"N	80°35'20.048"W	7118.02	156.499	2.73	0.00	-2.73
14241.00	91.290	157.310	7063.84	7194.79	7063.84	2909.36	1756903.18	14245453.37	39°13'44.002"N	80°35'19.614"W	7212.92	156.527	2.84	0.00	-2.84
14335.00	91.290	157.200	7061.72	7288.61	-6702.70	2909.36	1756903.18	14245453.37	39°13'43.143"N	80°35'19.157"W	7306.89	156.536	0.12	0.00	-0.12
14429.00	91.350	158.810	7059.55	7382.49	-6789.84	2944.55	1756938.36	14245366.27	39°13'42.281"N	80°35'18.715"W	7400.83	156.555	1.71	0.06	1.71
14523.00	91.570	161.220	7057.16	7476.44	-6878.14	2976.67	1756970.46	14245278.00	39°13'41.406"N	80°35'18.312"W	7494.62	156.598	2.57	0.23	2.56
14618.00	91.540	157.680	7054.58	7571.37	-6967.05	3010.00	1757003.78	14245189.13	39°13'40.526"N	80°35'17.893"W	7589.46	156.634	3.73	-0.03	-3.73
14712.00	91.540	157.520	7052.05	7665.21	-7053.93	3045.80	1757039.57	14245102.29	39°13'39.666"N	80°35'17.443"W	7683.41	156.646	0.17	0.00	-0.17
14806.00	91.480	156.970	7049.58	7759.02	-7140.58	3082.15	1757075.91	14245015.67	39°13'38.808"N	80°35'16.987"W	7777.37	156.653	0.59	-0.06	-0.59
14900.00	92.090	157.570	7046.65	7852.82	-7227.24	3118.45	1757112.19	14244929.04	39°13'37.950"N	80°35'16.530"W	7871.32	156.660	0.91	0.65	0.64
14994.00	92.120	158.720	7043.20	7946.66	-7314.42	3153.42	1757147.15	14244841.89	39°13'37.086"N	80°35'16.091"W	7965.22	156.678	1.22	0.03	1.22
15088.00	91.880	162.170	7039.91	8040.59	-7402.93	3184.86	1757178.58	14244753.42	39°13'36.210"N	80°35'15.697"W	8058.95	156.722	3.68	-0.26	3.67
15182.00	92.620	164.110	7036.22	8134.42	-7492.81	3212.10	1757205.81	14244663.57	39°13'35.321"N	80°35'15.356"W	8152.29	156.796	2.21	0.79	2.06
15277.00	92.490	164.370	7031.99	8229.14	-7584.15	3237.88	1757231.57	14244572.26	39°13'34.417"N	80°35'15.033"W	8246.41	156.881	0.31	-0.14	0.27
15371.00	91.230	165.050	7028.94	8322.84	-7674.78	3262.65	1757256.34	14244481.68	39°13'33.520"N	80°35'14.724"W	8339.49	156.969	1.52	-1.34	0.72
15465.00	90.180	162.490	7027.78	8416.68	-7765.01	3288.92	1757282.60	14244391.47	39°13'31.748"N	80°35'14.010"W	8432.82	157.045	2.94	-1.12	-2.72
15559.00	90.180	159.330	7027.49	8510.67	-7853.83	3319.66	1757313.32	14244302.69	39°13'31.145"N	80°35'13.600"W	8526.59	157.087	3.36	0.00	-3.36
15653.00	90.120	159.970	7027.24	8604.65	-7941.96	3352.35	1757346.00	14244214.59	39°13'30.875"N	80°35'13.600"W	8620.50	157.115	0.68	-0.06	0.68
15747.00	90.150	159.850	7027.02	8698.65	-8030.24	3384.64	1757378.28	14244126.34	39°13'30.001"N	80°35'13.194"W	8714.39	157.145	0.13	0.03	-0.13
15839.00	90.150	160.260	7026.78	8790.64	-8116.73	3416.02	1757409.65	14244039.90	39°13'29.145"N	80°35'12.801"W	8806.27	157.176	0.45	0.00	0.45
15933.00	90.220	160.540	7026.47	8884.64	-8205.28	3447.55	1757441.17	14243951.38	39°13'28.268"N	80°35'12.405"W	8900.12	157.210	0.31	0.07	0.30
16027.00	90.150	161.610	7026.17	8978.63	-8294.20	3478.04	1757471.64	14243862.50	39°13'27.388"N	80°35'12.023"W	8993.91	157.250	1.14	-0.07	1.14
16122.00	90.150	161.900	7025.92	9073.61	-8384.42	3507.78	1757501.37	14243772.31	39°13'26.495"N	80°35'11.650"W	9088.62	157.297	0.31	0.00	0.31
16217.00	90.740	161.400	7025.18	9168.59	-8474.59	3537.69	1757531.27	14243682.18	39°13'25.602"N	80°35'11.275"W	9183.35	157.342	0.81	0.62	-0.53
16310.00	90.770	162.010	7023.96	9261.57	-8562.88	3566.88	1757560.45	14243593.92	39°13'24.728"N	80°35'10.910"W	9276.07	157.386	0.66	0.03	0.66
16402.00	90.580	157.050	7022.87	9353.52	-8649.03	3599.04	1757592.60	14243507.79	39°13'23.875"N	80°35'10.506"W	9367.97	157.407	5.39	-0.21	-5.39
16429.00	90.740	157.110	7022.56	9380.46	-8673.90	3609.55	1757603.11	14243482.94	39°13'23.629"N	80°35'10.374"W	9394.97	157.406	0.63	0.59	0.22
16453.00	90.740	157.110	7022.25	9404.42	-8696.01	3618.89	1757612.44	14243460.84	39°13'23.410"N	80°35'10.256"W	9418.97	157.405	0.00	0.00	0.00

17-06183



Actual Wellpath Report

Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
Facility	Marsden Pad		

17.06183

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Welling Unit 2H 20' L/R HARDLINE DO NOT CROSS		7121.00	0.00	0.00	1753994.95	14252153.48	39°14'49.520"N	80°35'55.750"W	polygon
Welling Unit 2H BHL Rev-2		7121.00	-8730.39	3629.00	1757622.54	14243426.47	39°13'23.070"N	80°35'10.130"W	point
Welling Unit 2H LP Rev-2		7121.00	-337.17	671.63	1754666.32	14251816.44	39°14'46.158"N	80°35'47.232"W	point

WELLPATH COMPOSITION - Ref Wellbore: Welling Unit 2H AWB Ref Wellpath: Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	6219.01	Generic gyro - northseeking (Standard)	01_SDI Gyro 112'-6219'	Welling Unit 2H AWB
6219.01	16429.00	NaviTrak (MagCorr)	02_BHI MWD 6273'-16249'	Welling Unit 2H AWB
16429.00	16453.00	Blind Drilling (std)	Projection to bit	Welling Unit 2H AWB

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Actual Wellpath Report

Welling Unit 2H AWP Gyro/MWD (0) 112'-16429' Proj: 16453'
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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES	Slot	Slot #03
Area	Doddridge Co., WV	Well	Welling Unit 2H
Field	Doddridge	Wellbore	Welling Unit 2H AWB
Facility	Marsden Pad		

17-06183

COMMENTS

Wellpath general comments
API: 47-017-06183-0000
BHI Job #: 5896403
Rig: Patterson 347
Duration: 12/16/2013-12/28/2013
SDI Gyro (112'-6219')
BHI AT Curve <8-1/2"> (6219')(6273'-16249')
Projected MD at TD: 16453'

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