

ANTERO RESOURCES CORPORATION

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

Slot: Slot #03
 Well: Leeroy Unit 3H
 Wellbore: Leeroy_Unit_3H_PWB

BH AT Curve <8-1/2"> (5957.5)(6010-14163) : 29.54° Inc, 6010.00ft MD, 5951.19ft TVD, 380.83ft N, 105.64ft W

WFT EM <8-3/4"> (2486)(2624-5947) : 2634.04ft TVD, 2.82ft N, 9.37ft W
 WFT EM <12-1/4"> (455)(543-2486) : 543.24ft TVD, 4.95ft N, 0.66ft W
 Gyrodatta MS Gyro <17-1/2"> (100-455) : 110.50ft TVD, 0.42ft S, 0.10ft W
 Marcellus POE: 6629' MD : 6330.81ft TVD, 54.78ft S, 59.98ft E
 Slot #03

API: 47-085-10364-0000
 BHI Job #: 109516211
 Rig: H&P 317
 Duration: 11/25/2018-11/29/2018

Plot reference wellpath is Leeroy_Unit_3H_PWB_Rev-A.0		Grid System: NAD27 / UTM Zone 17 North, US feet	
True vertical depths are referenced to H&P 317 (RKB)		North Reference: Grid north	
Measured depths are referenced to H&P 317 (RKB)		Scale: True distance	
H&P 317 (RKB) to Mean Sea Level: 995.5 feet		Depths are in feet	
Mean Sea Level to Ground level (At Slot: Slot #03) : -970 feet		Created by: delias on 2018-12-03	
Coordinates are in feet referenced to Slot.		Database: WA_MPL_EasternUS_Defn	

Gyrodatta MS Gyro <17-1/2"> (100-455) : 0.58° Inc, 110.50ft MD, 110.50ft TVD, 0.36ft VS

WFT EM <12-1/4"> (455)(543-2486) : 0.48° Inc, 553.50ft MD, 553.47ft TVD, 4.09ft VS

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
Lettie Pad	14294790.024	39°21'53.460"N	80°54'38.290"W
Slot	Local E (ft)	Grid North (US ft)	Longitude
Slot #03	0.01	14294790.034	80°54'38.180"W
Comment	Leeroy Unit 3H		
H&P 317 (RKB) to Ground level (At Slot: Slot #03)			25.5ft
Mean Sea Level to Ground level (At Slot: Slot #03)			-970ft
H&P 317 (RKB) to Mean Sea Level			995.5ft

WFT EM <8-3/4"> (2486)(2624-5947) : 1.80° Inc, 2634.50ft MD, 2634.04ft TVD, -5.82ft VS

Well Profile Data						
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local E (ft)	VS (ft)
Tie On	5957.50	26.580	167.800	5904.87	404.87	-111.26
Proj. To Bottom	6031.50	30.000	161.290	5970.03	371.15	-101.83
End of 3D Arc	6300.53	48.606	156.450	6177.34	213.52	-39.37
POE	6618.30	75.083	160.248	6326.00	-44.94	61.98
Landing Pt.	6795.98	90.000	160.248	6349.00	-210.28	121.35
BHL	14375.29	90.000	160.248	6349.00	-7343.64	2682.82
						0.00
						7818.23

Well Data		
Slot	Well	Wellpath
Slot #03	Leeroy Unit 3H	Leeroy_Unit_3H_AWB
Slot #03	Leeroy Unit 3H	Leeroy_Unit_3H_PWB
		Leeroy_Unit_3H_PWB_Rev-A.0

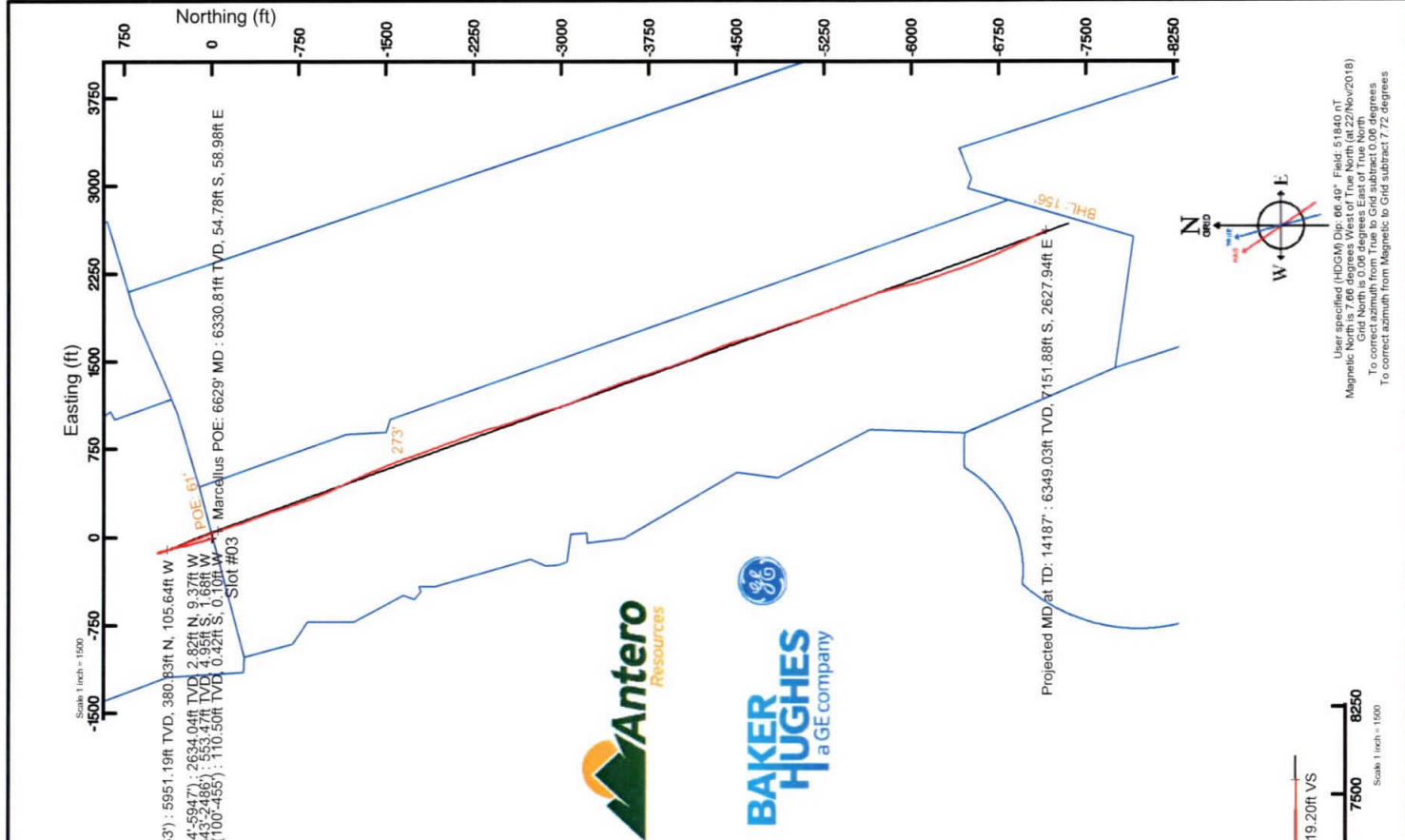
BH AT Curve <8-1/2"> (5957.5)(6010-14163) : 29.54° Inc, 6010.00ft MD, 5951.19ft TVD, -394.12ft VS

Marcellus POE: 6629' MD : 76.06° Inc, 6629.00ft MD, 6330.81ft TVD, 71.49ft VS

Projected MD at TD: 14187' : 89.72° Inc, 14187.00ft MD, 6349.03ft TVD, 76.19,20ft VS

Vertical Section (ft)

Azimuth 160.25° with reference 0.00 N, 0.00 E



User specified (HDGM) Dip: 86.49° Field: 51840.0T
 Magnetic North is 7.66 degrees West of True North (at 22Nov2018)
 Grid North is 0.06 degrees East of True North
 To correct azimuth from True to Grid subtract 0.06 degrees
 To correct azimuth from Magnetic to Grid subtract 7.72 degrees





Actual Wellpath Report

Leeroy Unit 3H AWP Proj: 14187

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REFERENCE WELLPATH IDENTIFICATION		
Operator	ANTERO RESOURCES CORPORATION	Slot #03
Area	Ritchie County, WV	Leeroy Unit 3H
Field	Ritchie	Leeroy Unit 3H AWB
Facility	Lettie Pad	

REPORT SETUP INFORMATION		
Projection System	NAD27 / UTM Zone 17 North, US feet	WellArchitect@ 5.1
North Reference	Grid	Delaset
Scale	0.999601	Report Generated
Convergence at slot	0.06° East	Database/Source file
		WA_MPL_EasternUS_Defn/Leeroy_Unit_3H_AWP_Proj_14187_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.01	10.21	1665684.30	14294790.03	39°21'53.460"N	80°54'38.160"W
Facility Reference Pt			1665674.09	14294790.02	39°21'53.460"N	80°54'38.290"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.301"W

WELLPATH DATUM		
Calculation method	Minimum curvature	H&P 317 (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #03)
MD Reference Pt	H&P 317 (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth
		25.50ft
		995.50ft
		25.50ft
		N 0.00, E 0.00 ft
		160.25°

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REFERENCE WELLPATH IDENTIFICATION		Slot
Operator	ANTERO RESOURCES CORPORATION	Slot #03
Area	Ritchie County, WV	Leeroy Unit 3H
Field	Ritchie	Leeroy Unit 3H AWB
Facility	Lettie Pad	

WELLPATH DATA (174 stations) + = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert. Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
0.00H	0.000	193.110	0.00	0.00	0.00	0.00	1665684.29	14294790.03	39°21'53.460"N	80°54'38.160"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	193.110	25.50	0.00	0.00	0.00	1665684.29	14294790.03	39°21'53.460"N	80°54'38.160"W	0.00	0.000	0.00	0.00	0.00	
110.50	0.580	193.110	110.50	0.36	-0.42	-0.10	1665684.20	14294789.62	39°21'53.456"N	80°54'38.161"W	0.43	193.110	0.68	0.68	-196.34	Syrodata MS Gyro <17-1/2">(100'-455')
210.50	0.450	200.980	210.49	1.08	-1.28	-0.35	1665683.94	14294788.76	39°21'53.447"N	80°54'38.165"W	1.33	193.433	0.15	-0.13	7.87	
310.50	0.690	205.290	310.49	1.81	-2.19	-0.75	1665683.54	14294787.85	39°21'53.438"N	80°54'38.170"W	2.31	198.926	0.24	0.24	4.31	
410.50	0.650	199.900	410.48	2.67	-3.27	-1.20	1665683.09	14294786.77	39°21'53.428"N	80°54'38.175"W	3.48	200.183	0.07	-0.04	-5.39	
465.50	0.860	193.600	465.48	3.25	-3.96	-1.40	1665682.89	14294786.07	39°21'53.421"N	80°54'38.178"W	4.20	199.517	0.41	0.38	-11.45	
553.50	0.480	199.340	553.47	4.09	-4.95	-1.68	1665682.61	14294785.08	39°21'53.411"N	80°54'38.181"W	5.23	198.759	0.44	-0.43	6.52	WFT EM <12-1/4">(455')(543'-2486')
647.50	0.950	344.360	647.47	3.62	-4.57	-2.02	1665682.27	14294785.46	39°21'53.415"N	80°54'38.186"W	5.00	203.856	1.46	0.50	154.28	
740.50	2.070	353.520	740.43	1.22	-2.16	-2.42	1665681.88	14294787.87	39°21'53.439"N	80°54'38.191"W	3.24	228.226	1.23	1.20	9.85	
834.50	1.850	1.620	834.38	-1.85	1.04	-2.57	1665681.73	14294791.08	39°21'53.470"N	80°54'38.193"W	2.77	292.085	0.38	-0.23	8.62	
951.50	0.770	31.580	951.35	-4.10	3.60	-2.10	1665682.19	14294793.63	39°21'53.496"N	80°54'38.187"W	4.17	329.704	1.06	-0.92	25.61	
1045.50	0.650	64.960	1045.34	-4.54	4.36	-1.29	1665683.01	14294794.40	39°21'53.503"N	80°54'38.176"W	4.55	343.538	0.45	-0.13	35.51	
1140.50	0.670	84.900	1140.34	-4.45	4.64	-0.25	1665684.05	14294794.67	39°21'53.506"N	80°54'38.163"W	4.65	356.942	0.24	0.02	20.99	
1236.50	0.600	110.430	1236.33	-3.99	4.52	0.78	1665685.08	14294794.55	39°21'53.505"N	80°54'38.150"W	4.58	9.828	0.30	-0.07	26.59	
1331.50	0.830	133.330	1331.32	-3.05	3.87	1.75	1665686.04	14294793.90	39°21'53.498"N	80°54'38.138"W	4.25	24.320	0.38	0.24	24.11	
1425.50	1.110	138.960	1425.31	-1.60	2.72	2.84	1665687.14	14294792.75	39°21'53.487"N	80°54'38.124"W	3.93	46.301	0.31	0.30	5.99	
1520.50	0.710	152.280	1520.30	-0.16	1.50	3.72	1665688.01	14294791.53	39°21'53.475"N	80°54'38.113"W	4.01	68.031	0.47	-0.42	14.02	
1615.50	0.910	267.960	1615.29	0.20	0.95	3.24	1665687.53	14294790.99	39°21'53.469"N	80°54'38.119"W	3.38	73.613	1.45	0.21	121.77	
1710.50	2.100	282.860	1710.26	-0.97	1.31	0.79	1665685.08	14294791.35	39°21'53.473"N	80°54'38.150"W	1.53	30.990	1.31	1.25	15.68	
1805.50	1.720	289.840	1805.20	-2.82	2.18	-2.25	1665682.05	14294792.22	39°21'53.482"N	80°54'38.189"W	3.14	314.163	0.47	-0.40	7.35	
1900.50	0.620	184.370	1900.19	-3.26	2.16	-3.63	1665680.67	14294792.19	39°21'53.481"N	80°54'38.206"W	4.22	300.709	2.08	-1.16	-111.02	
1995.50	1.670	179.920	1995.17	-1.48	0.26	-3.67	1665680.63	14294790.29	39°21'53.463"N	80°54'38.207"W	3.68	274.041	1.11	1.11	-4.68	
2090.50	1.250	212.000	2090.14	0.46	-2.00	-4.21	1665680.08	14294788.03	39°21'53.440"N	80°54'38.214"W	4.67	244.566	0.95	-0.44	33.77	
2184.50	1.000	277.500	2184.13	0.72	-2.77	-5.57	1665678.73	14294787.21	39°21'53.433"N	80°54'38.231"W	6.22	243.590	1.31	-0.27	69.68	
2279.50	0.790	288.970	2279.11	-0.07	-2.45	-7.01	1665677.29	14294787.59	39°21'53.436"N	80°54'38.249"W	7.43	250.774	0.29	-0.22	12.07	
2374.50	0.540	266.570	2374.11	-0.60	-2.26	-8.08	1665676.22	14294787.78	39°21'53.438"N	80°54'38.263"W	8.39	254.375	0.37	-0.26	-23.58	
2469.50	0.940	333.010	2469.10	-1.50	-1.59	-8.88	1665675.42	14294788.44	39°21'53.444"N	80°54'38.273"W	9.02	259.837	0.92	0.42	69.94	
2496.50	1.440	352.400	2496.10	-2.05	-1.06	-9.02	1665675.27	14294788.98	39°21'53.450"N	80°54'38.275"W	9.09	263.313	2.35	1.85	71.81	
2634.50	1.800	356.950	2634.04	-5.82	2.82	-9.37	1665674.93	14294792.86	39°21'53.488"N	80°54'38.279"W	9.79	286.780	0.28	0.26	3.30	WFT EM <8-3/4">(2486')(2624'-5947')

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Ritchie County, WV	Well	Leeroy Unit 3H
Field	Ritchie	Wellbore	Leeroy Unit 3H AWB
Facility	Lettie Pad		

WELLPATH DATA (174 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
2729.50	2.460	347.940	2728.97	-9.27	6.31	-9.87	1665674.42	14294796.34	39°21'53.522"N	80°54'38.286"W	11.72	302.575	0.78	0.69	-9.48	
2823.50	4.140	346.130	2822.81	-14.65	11.58	-11.11	1665673.19	14294801.61	39°21'53.575"N	80°54'38.301"W	16.04	316.179	1.79	1.79	-1.93	
2918.50	6.730	348.360	2917.38	-23.57	20.36	-13.05	1665671.25	14294810.38	39°21'53.661"N	80°54'38.326"W	24.18	327.331	2.73	2.73	2.35	
3013.50	7.190	347.720	3011.68	-34.98	31.62	-15.44	1665668.86	14294821.64	39°21'53.773"N	80°54'38.356"W	35.19	333.971	0.49	0.48	-0.67	
3202.50	7.860	344.120	3199.05	-59.60	55.61	-21.49	1665662.81	14294845.62	39°21'54.010"N	80°54'38.433"W	59.62	338.867	0.43	0.35	-1.90	
3302.50	9.600	341.290	3297.89	-74.76	70.08	-26.04	1665658.27	14294860.09	39°21'54.153"N	80°54'38.491"W	74.76	339.617	1.79	1.74	-2.83	
3397.50	10.010	343.240	3391.50	-90.93	85.49	-30.96	1665653.35	14294875.49	39°21'54.305"N	80°54'38.553"W	90.93	340.091	0.56	0.43	2.05	
3492.50	9.960	348.660	3485.07	-107.30	101.45	-34.96	1665649.35	14294891.45	39°21'54.463"N	80°54'38.604"W	107.31	340.987	0.99	-0.05	5.71	
3587.50	9.650	347.630	3578.68	-123.32	117.29	-38.28	1665646.03	14294907.27	39°21'54.620"N	80°54'38.646"W	123.37	341.924	0.37	-0.33	-1.08	
3681.50	9.100	344.950	3671.42	-138.54	132.16	-41.90	1665642.41	14294922.14	39°21'54.767"N	80°54'38.692"W	138.64	342.410	0.75	-0.59	-2.85	
3776.50	10.020	340.950	3765.10	-154.30	147.23	-46.55	1665637.77	14294937.20	39°21'54.916"N	80°54'38.751"W	154.41	342.456	1.19	0.97	-4.21	
3871.50	11.370	344.080	3858.45	-171.90	164.05	-51.81	1665632.50	14294954.01	39°21'55.082"N	80°54'38.818"W	172.03	342.472	1.55	1.42	3.29	
3966.50	11.100	344.370	3951.63	-190.37	181.86	-56.84	1665627.47	14294971.82	39°21'55.258"N	80°54'38.881"W	190.53	342.642	0.29	-0.28	0.31	
4060.50	10.540	343.260	4043.96	-207.98	198.80	-61.76	1665622.56	14294988.76	39°21'55.426"N	80°54'38.944"W	208.18	342.743	0.84	-0.60	-1.18	
4155.50	10.280	343.160	4137.40	-225.12	215.24	-66.72	1665617.60	14295005.19	39°21'55.588"N	80°54'39.007"W	225.34	342.778	0.27	-0.27	-0.11	
4250.50	10.270	348.730	4230.87	-241.96	231.66	-70.83	1665613.50	14295021.60	39°21'55.750"N	80°54'39.059"W	242.24	342.999	1.05	-0.01	5.86	
4345.50	10.350	349.730	4324.34	-258.76	248.36	-74.00	1665610.32	14295038.29	39°21'55.915"N	80°54'39.099"W	259.15	343.407	0.21	0.08	1.05	
4440.50	10.610	349.160	4417.76	-275.82	265.35	-77.17	1665607.15	14295055.27	39°21'56.083"N	80°54'39.139"W	276.34	343.784	0.29	0.27	-0.60	
4535.50	10.740	347.110	4511.11	-293.24	282.57	-80.79	1665603.54	14295072.49	39°21'56.254"N	80°54'39.185"W	293.89	344.044	0.42	0.14	-2.16	
4630.50	10.100	346.900	4604.54	-310.31	299.31	-84.65	1665599.68	14295089.22	39°21'56.419"N	80°54'39.234"W	311.05	344.208	0.67	-0.67	-0.22	
4724.50	10.180	347.610	4697.08	-326.73	315.45	-88.30	1665596.03	14295105.36	39°21'56.579"N	80°54'39.280"W	327.58	344.361	0.16	0.09	0.76	
4819.50	9.790	347.450	4790.64	-343.07	331.53	-91.86	1665592.47	14295121.43	39°21'56.738"N	80°54'39.325"W	344.02	344.513	0.41	-0.41	-0.17	
4914.50	9.850	345.900	4884.25	-359.17	347.30	-95.59	1665588.74	14295137.19	39°21'56.893"N	80°54'39.373"W	360.21	344.610	0.29	0.06	-1.63	
5009.50	10.120	342.820	4977.81	-375.60	363.15	-100.04	1665584.30	14295153.04	39°21'57.050"N	80°54'39.429"W	376.68	344.598	0.63	0.28	-3.24	
5104.50	10.580	340.440	5071.26	-392.65	379.34	-105.42	1665578.91	14295169.23	39°21'57.210"N	80°54'39.498"W	393.72	344.469	0.66	0.48	-2.51	
5198.50	10.970	339.260	5163.60	-410.23	395.84	-111.48	1665572.86	14295185.72	39°21'57.373"N	80°54'39.574"W	411.24	344.271	0.48	0.41	-1.26	
5293.50	10.370	337.930	5256.96	-427.81	412.22	-117.89	1665566.45	14295202.09	39°21'57.535"N	80°54'39.656"W	428.74	344.039	0.68	-0.63	-1.40	
5388.50	10.400	343.460	5350.41	-444.91	428.36	-123.55	1665560.80	14295218.22	39°21'57.695"N	80°54'39.728"W	445.82	343.911	1.05	0.03	5.82	
5483.50	11.260	345.650	5443.71	-462.71	445.57	-128.29	1665556.06	14295235.42	39°21'57.865"N	80°54'39.788"W	463.67	343.938	1.00	0.91	2.31	
5546.50	9.460	350.220	5505.69	-473.93	456.63	-130.69	1665553.65	14295252.48	39°21'57.974"N	80°54'39.818"W	474.96	344.028	3.14	-2.86	7.25	

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Operator	ANTERO RESOURCES CORPORATION	Well	Leeroy Unit 3H
Area	Ritchie County, WV	Wellbore	Leeroy Unit 3H AWB
Field	Ritchie		
Facility	Lettie Pad		

WELLPATH DATA (174 stations) † = interpolated/extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	VertSect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (F/100ft)	Build Rate (F/100ft)	Turn Rate (F/100ft)	Comments
5578.50	7.510	355.940	5537.34	-478.54	461.31	-131.29	1665553.06	14295251.16	39°21'58.021"N	80°54'39.826"W	479.63	344.114	6.63	-6.09	17.87	
5609.50	5.540	1.330	5568.13	-481.88	464.82	-131.40	1665552.95	14295254.67	39°21'58.055"N	80°54'39.827"W	483.04	344.215	6.65	-6.35	17.39	
5641.50	3.660	14.630	5600.03	-484.17	467.36	-131.10	1665553.25	14295257.20	39°21'58.080"N	80°54'39.823"W	485.40	344.330	6.72	-5.87	41.56	
5673.50	1.930	53.890	5631.99	-485.16	468.66	-130.41	1665553.94	14295258.51	39°21'58.093"N	80°54'39.815"W	486.47	344.450	7.77	-5.41	122.69	
5704.50	2.730	125.170	5662.97	-484.70	468.55	-129.38	1665554.96	14295258.39	39°21'58.092"N	80°54'39.801"W	486.08	344.563	9.01	2.58	229.94	
5736.50	5.520	147.660	5694.89	-482.58	466.81	-127.94	1665556.41	14295256.65	39°21'58.075"N	80°54'39.783"W	484.02	344.673	9.92	8.72	70.28	
5767.50	8.840	154.830	5725.64	-478.75	463.39	-126.13	1665558.22	14295253.24	39°21'58.041"N	80°54'39.760"W	480.25	344.774	11.07	10.71	23.13	
5799.50	11.960	161.560	5757.11	-472.99	458.02	-124.03	1665560.31	14295247.87	39°21'57.988"N	80°54'39.733"W	474.51	344.848	10.45	9.75	21.03	
5831.50	15.780	161.920	5788.17	-465.32	450.73	-121.63	1665562.71	14295240.59	39°21'57.916"N	80°54'39.703"W	466.85	344.898	11.94	11.94	1.12	
5862.50	19.400	167.060	5817.72	-455.99	441.70	-119.17	1665565.17	14295231.56	39°21'57.827"N	80°54'39.672"W	457.50	344.901	12.70	11.68	16.58	
5894.50	22.550	167.790	5847.60	-444.63	430.52	-116.68	1665567.66	14295220.39	39°21'57.716"N	80°54'39.640"W	446.06	344.836	9.88	9.84	2.28	
5926.50	24.670	168.360	5876.92	-431.93	417.99	-114.03	1665570.31	14295207.85	39°21'57.592"N	80°54'39.607"W	433.26	344.740	6.66	6.63	1.78	
5957.50	26.580	167.800	5904.87	-418.65	404.87	-111.26	1665573.08	14295194.74	39°21'57.463"N	80°54'39.572"W	419.88	344.634	6.21	6.16	-1.81	
6010.00	29.540	165.980	5951.19	-394.12	380.83	-105.64	1665578.69	14295170.71	39°21'57.225"N	80°54'39.500"W	395.21	344.495	5.87	5.64	-3.47	SH AT Curve <8-1/2"> (5957.5')(6010'-14163')
6057.00	31.260	164.700	5991.73	-370.44	357.82	-99.62	1665584.72	14295147.71	39°21'56.998"N	80°54'39.424"W	371.43	344.442	3.91	3.66	-2.72	
6104.00	34.660	160.890	6031.16	-344.90	333.42	-92.02	1665582.31	14295123.32	39°21'56.756"N	80°54'39.327"W	345.89	344.571	8.47	7.23	-8.11	
6151.00	38.400	157.630	6068.93	-316.95	307.28	-82.09	1665602.24	14295097.19	39°21'56.498"N	80°54'39.201"W	318.06	345.043	8.96	7.96	-6.94	
6198.00	40.470	159.120	6105.23	-287.11	279.53	-71.09	1665613.23	14295069.45	39°21'56.223"N	80°54'39.062"W	288.43	345.730	4.84	4.40	3.17	
6245.00	43.410	158.910	6140.18	-255.71	250.20	-59.85	1665624.47	14295040.14	39°21'55.933"N	80°54'38.919"W	257.26	346.548	6.26	6.26	-0.45	
6288.00†	47.253	158.378	6170.41	-225.15	221.73	-48.71	1665635.61	14295011.67	39°21'55.652"N	80°54'38.777"W	227.02	347.611	8.98	8.94	-1.24	Middlesex: 6288' MD
6293.00	47.700	158.320	6173.79	-221.46	218.30	-47.35	1665636.97	14295008.25	39°21'55.618"N	80°54'38.760"W	223.38	347.763	8.98	8.94	-1.15	
6340.00	52.180	157.940	6204.03	-185.52	184.93	-33.95	1665650.36	14294974.89	39°21'55.288"N	80°54'38.590"W	188.02	349.598	9.55	9.53	-0.81	
6388.00	55.030	157.720	6232.50	-146.92	149.15	-19.37	1665664.94	14294939.13	39°21'54.934"N	80°54'38.405"W	150.41	352.602	5.95	5.94	-0.46	
6435.00	58.920	157.840	6258.11	-107.56	112.68	-4.47	1665679.83	14294902.67	39°21'54.574"N	80°54'38.215"W	112.77	357.729	8.28	8.28	0.26	
6463.00†	61.728	158.167	6271.98	-83.26	90.13	4.64	1665688.93	14294880.12	39°21'54.351"N	80°54'38.100"W	90.25	2.948	10.07	10.02	1.17	Burkett: 6463' MD
6483.00	63.730	158.390	6281.14	-65.49	73.61	11.22	1665695.51	14294863.62	39°21'54.187"N	80°54'38.016"W	74.46	8.666	10.07	10.02	1.12	
6530.00	68.020	159.150	6300.35	-22.62	33.64	26.74	1665711.03	14294823.66	39°21'53.792"N	80°54'37.819"W	42.97	38.488	9.25	9.13	1.62	
6551.00†	69.728	159.571	6307.92	-3.04	15.31	33.65	1665717.93	14294805.33	39°21'53.611"N	80°54'37.731"W	36.97	65.539	8.33	8.12	2.01	Tully: 6551' MD
6578.00	71.920	160.100	6316.78	22.46	-8.63	42.44	1665726.72	14294781.41	39°21'53.374"N	80°54'37.620"W	43.31	101.496	8.33	8.13	1.96	
6625.00	75.830	160.430	6329.83	67.61	-51.12	57.68	1665741.95	14294738.93	39°21'52.954"N	80°54'37.426"W	77.07	131.551	8.35	8.32	0.70	

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Actual Wellpath Report

Leeroy Unit 3H AWP Proj: 14187

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Ritchie County, WV	Well	Leeroy Unit 3H
Field	Ritchie	Wellbore	Leeroy Unit 3H AWB
Facility	Lettie Pad		

WELLPATH DATA (174 stations) + = interpolated/extrapolated station

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert.Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
6629.00†	76.058	160.525	6330.81	71.49	-54.78	58.98	1665743.25	14294735.28	39°21'52.918"N	80°54'37.410"W	80.49	132.887	6.15	5.70	2.39	Marcellus POE: 6629' MD
6672.00	78.510	161.540	6340.27	113.42	-94.44	72.61	1665756.87	14294695.63	39°21'52.526"N	80°54'37.237"W	119.13	142.448	6.15	5.70	2.36	
6719.00	82.350	162.150	6348.08	159.74	-138.47	87.04	1665771.30	14294651.62	39°21'52.091"N	80°54'37.054"W	163.56	147.847	8.27	8.17	1.30	
6767.00	87.110	163.030	6352.49	207.49	-184.07	101.34	1665785.59	14294606.04	39°21'51.640"N	80°54'36.872"W	210.12	151.165	10.08	9.92	1.83	
6814.00	89.630	162.240	6353.83	254.42	-228.90	115.36	1665799.61	14294561.22	39°21'51.196"N	80°54'36.694"W	266.33	153.253	5.62	5.36	-1.68	
6862.00	89.540	159.670	6354.18	302.41	-274.27	131.02	1665815.26	14294515.87	39°21'50.748"N	80°54'36.495"W	303.96	154.466	5.36	-0.19	-5.35	
6957.00	88.800	158.550	6355.55	397.38	-363.02	164.89	1665849.12	14294427.16	39°21'49.870"N	80°54'36.065"W	398.71	155.571	1.41	-0.78	-1.18	
7052.00	89.540	160.320	6356.93	492.36	-451.95	198.26	1665882.47	14294338.27	39°21'48.991"N	80°54'35.642"W	493.52	156.314	2.02	0.78	1.86	
7147.00	89.480	162.610	6357.74	587.33	-542.01	228.45	1665912.66	14294248.24	39°21'48.101"N	80°54'35.258"W	588.19	157.145	2.41	-0.06	2.41	
7241.00	89.540	162.310	6358.54	681.25	-631.64	256.78	1665940.97	14294158.65	39°21'47.215"N	80°54'34.899"W	681.84	157.877	0.33	0.06	-0.32	
7336.00	89.970	161.850	6358.95	776.20	-722.03	286.01	1665970.19	14294068.30	39°21'46.321"N	80°54'34.528"W	776.61	158.390	0.66	0.45	-0.48	
7431.00	89.970	159.680	6359.00	871.19	-811.72	317.31	1666001.47	14293978.64	39°21'45.434"N	80°54'33.700"W	871.53	158.649	2.28	0.00	-2.28	
7526.00	90.120	158.560	6358.93	966.17	-900.48	351.16	1666035.32	14293889.92	39°21'44.557"N	80°54'33.130"W	966.53	158.695	1.19	0.16	-1.18	
7621.00	89.880	155.930	6358.93	1061.03	-988.08	387.91	1666072.05	14293802.35	39°21'43.690"N	80°54'33.234"W	1061.49	158.566	2.78	-0.25	-2.77	
7715.00	89.820	154.820	6359.17	1154.69	-1073.53	427.07	1666111.20	14293716.94	39°21'42.845"N	80°54'32.736"W	1155.36	158.306	1.18	-0.06	-1.18	
7810.00	89.750	154.640	6359.53	1249.25	-1159.44	467.63	1666151.73	14293631.06	39°21'41.996"N	80°54'32.221"W	1250.19	158.035	0.20	-0.07	-0.19	
7905.00	89.690	155.170	6359.99	1343.84	-1245.47	507.92	1666192.01	14293545.07	39°21'41.145"N	80°54'31.709"W	1345.05	157.814	0.56	-0.06	0.56	
8000.00	89.320	156.830	6360.81	1438.57	-1332.25	546.56	1666230.63	14293458.32	39°21'40.287"N	80°54'31.218"W	1440.00	157.694	1.79	-0.39	1.75	
8095.00	88.340	157.770	6362.75	1533.42	-1419.87	583.21	1666267.27	14293370.74	39°21'39.421"N	80°54'30.753"W	1534.98	157.670	1.43	-1.03	0.99	
8190.00	89.350	158.590	6364.67	1628.34	-1508.04	618.51	1666302.56	14293282.60	39°21'38.549"N	80°54'30.305"W	1629.95	157.699	1.37	1.06	0.86	
8285.00	89.940	160.170	6365.26	1723.32	-1596.95	651.96	1666336.00	14293193.72	39°21'37.670"N	80°54'29.880"W	1724.91	157.792	1.78	0.62	1.66	
8380.00	91.050	161.310	6364.44	1818.31	-1686.63	683.30	1666367.32	14293104.08	39°21'36.783"N	80°54'29.482"W	1819.78	157.946	1.67	1.17	1.20	
8474.00	90.120	159.530	6363.48	1912.30	-1775.18	714.80	1666398.81	14293015.56	39°21'35.908"N	80°54'29.082"W	1913.69	158.067	2.14	-0.99	-1.89	
8569.00	90.250	159.700	6363.17	2007.29	-1864.23	747.89	1666431.88	14292926.55	39°21'35.027"N	80°54'28.662"W	2008.66	158.140	0.23	0.14	0.18	
8664.00	90.180	160.040	6362.81	2102.29	-1953.43	780.58	1666464.56	14292837.39	39°21'34.145"N	80°54'28.247"W	2103.61	158.219	0.37	-0.07	0.36	
8759.00	89.970	159.900	6362.69	2197.29	-2042.58	813.40	1666497.37	14292748.27	39°21'33.264"N	80°54'27.830"W	2198.58	158.286	0.57	-0.22	-0.53	
8853.00	90.400	159.900	6362.39	2291.28	-2130.75	845.98	1666529.94	14292660.14	39°21'32.392"N	80°54'27.417"W	2292.55	158.345	0.60	0.46	0.38	
8948.00	90.090	160.410	6361.98	2386.28	-2220.11	878.23	1666562.17	14292570.82	39°21'31.509"N	80°54'27.007"W	2387.50	158.417	0.63	-0.33	0.54	
9043.00	89.690	162.350	6362.16	2481.26	-2310.13	908.56	1666592.49	14292480.83	39°21'30.619"N	80°54'26.622"W	2482.38	158.531	2.09	-0.42	2.04	
9138.00	90.580	164.340	6361.94	2576.11	-2401.14	935.79	1666619.71	14292389.86	39°21'29.719"N	80°54'26.277"W	2577.05	158.708	2.29	0.94	2.09	

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Actual Wellpath Report

Leeroy Unit 3H AWP Proj: 14187

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REFERENCE WELLPATH IDENTIFICATION

Operator	Slot	Slot #03
ANTERO RESOURCES CORPORATION	Well	Leeroy Unit 3H
Ritchie County, WV	Wellbore	Leeroy Unit 3H AWB
Ritchie		
Lettie Pad		

WELLPATH DATA (174 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
9233.00	90.370	163.590	6361.15	2670.91	-2492.44	962.03	1666645.94	14292298.59	39°21'28.816"N	80°54'25.944"W	2671.66	158.894	0.82	-0.22	-0.79	
9328.00	89.780	161.060	6361.03	2765.84	-2582.95	990.87	1666674.77	14292208.12	39°21'27.921"N	80°54'25.578"W	2766.49	159.012	2.73	-0.62	-2.66	
9423.00	90.430	160.910	6360.85	2860.83	-2672.76	1021.82	1666705.71	14292118.34	39°21'27.033"N	80°54'25.185"W	2861.43	159.078	0.70	0.68	-0.16	
9518.00	89.320	159.910	6361.06	2955.83	-2762.26	1053.67	1666737.55	14292028.88	39°21'26.148"N	80°54'24.781"W	2956.40	159.120	1.57	-1.17	-1.05	
9613.00	91.290	165.490	6360.55	3050.70	-2852.92	1081.91	1666765.77	14291938.26	39°21'25.252"N	80°54'24.422"W	3051.18	159.232	6.23	2.07	5.87	
9707.00	90.710	163.210	6358.91	3144.44	-2943.42	1107.26	1666791.11	14291847.80	39°21'24.357"N	80°54'24.101"W	3144.80	159.385	2.50	-0.62	-2.43	
9802.00	89.910	159.270	6358.40	3239.40	-3033.35	1137.81	1666821.65	14291757.90	39°21'23.488"N	80°54'23.713"W	3239.73	159.439	4.23	-0.84	-4.15	
9897.00	90.580	158.560	6357.99	3334.37	-3121.99	1171.99	1666855.81	14291669.30	39°21'22.592"N	80°54'23.279"W	3334.72	159.424	1.03	0.71	-0.75	
9982.00	89.820	157.700	6357.66	3429.31	-3210.15	1207.37	1666891.18	14291581.17	39°21'21.720"N	80°54'22.830"W	3429.69	159.388	1.21	-0.80	-0.91	
10087.00	89.750	157.960	6358.02	3524.22	-3298.12	1243.22	1666927.02	14291493.23	39°21'20.850"N	80°54'22.375"W	3524.66	159.346	0.28	-0.07	-0.27	
10182.00	90.280	158.990	6357.99	3619.17	-3386.50	1278.08	1666961.86	14291404.90	39°21'19.976"N	80°54'21.932"W	3619.65	159.323	1.22	0.56	1.08	
10276.00	90.280	159.160	6357.53	3713.15	-3474.30	1311.65	1666995.42	14291317.13	39°21'19.108"N	80°54'21.506"W	3713.65	159.317	0.18	0.00	0.18	
10371.00	90.620	161.070	6356.79	3808.15	-3563.63	1343.96	1667027.71	14291227.84	39°21'18.225"N	80°54'21.096"W	3808.63	159.337	2.04	0.36	2.01	
10466.00	90.430	162.100	6355.92	3903.11	-3653.76	1373.97	1667057.71	14291137.74	39°21'17.334"N	80°54'20.715"W	3903.55	159.392	1.10	-0.20	1.08	
10561.00	90.250	161.680	6355.35	3998.07	-3744.05	1403.50	1667087.23	14291047.49	39°21'16.441"N	80°54'20.340"W	3998.46	159.451	0.48	-0.19	-0.44	
10656.00	90.220	161.530	6354.96	4093.05	-3834.19	1433.47	1667117.19	14290957.38	39°21'15.560"N	80°54'19.960"W	4093.40	159.501	0.16	-0.03	-0.16	
10751.00	90.150	161.340	6354.66	4188.02	-3924.25	1463.72	1667147.43	14290867.36	39°21'14.660"N	80°54'19.576"W	4188.34	159.545	0.21	-0.07	-0.20	
10845.00	90.280	160.440	6354.30	4282.02	-4013.07	1494.49	1667178.19	14290778.58	39°21'13.781"N	80°54'19.185"W	4282.32	159.574	0.97	0.14	-0.96	
10940.00	90.220	158.680	6353.89	4377.01	-4102.08	1527.67	1667211.35	14290689.60	39°21'12.901"N	80°54'18.764"W	4377.31	159.574	1.85	-0.06	-1.85	
11035.00	90.120	157.380	6353.61	4471.93	-4190.18	1563.21	1667246.88	14290601.53	39°21'12.030"N	80°54'18.313"W	4472.27	159.541	1.37	-0.11	-1.37	
11130.00	90.090	157.750	6353.43	4566.83	-4277.99	1599.46	1667283.12	14290513.76	39°21'11.162"N	80°54'17.853"W	4567.22	159.500	0.39	-0.03	0.39	
11225.00	90.280	157.420	6353.13	4661.72	-4365.81	1635.69	1667319.33	14290425.97	39°21'10.294"N	80°54'17.393"W	4662.17	159.461	0.40	0.20	-0.35	
11320.00	90.120	162.140	6352.79	4756.69	-4454.93	1668.51	1667352.14	14290338.89	39°21'09.412"N	80°54'16.976"W	4757.14	159.467	4.97	-0.17	4.97	
11415.00	89.970	164.790	6352.72	4851.54	-4545.99	1695.55	1667379.16	14290245.86	39°21'08.512"N	80°54'16.633"W	4851.90	159.546	2.79	-0.16	2.79	
11510.00	89.970	161.830	6352.77	4946.39	-4636.98	1722.83	1667406.43	14290154.91	39°21'07.613"N	80°54'16.287"W	4946.69	159.618	3.12	0.00	-3.12	
11604.00	89.910	160.950	6352.87	5040.37	-4726.07	1752.83	1667436.42	14290065.86	39°21'06.732"N	80°54'15.906"W	5040.65	159.651	0.94	-0.06	-0.94	
11699.00	89.910	160.530	6353.02	5135.37	-4815.75	1784.16	1667467.74	14289976.22	39°21'05.845"N	80°54'15.509"W	5135.63	159.671	0.44	0.00	-0.44	
11794.00	89.940	161.660	6353.14	5230.35	-4905.62	1814.94	1667498.51	14289886.38	39°21'04.966"N	80°54'15.118"W	5230.60	159.697	1.19	0.03	1.19	
11889.00	89.880	161.770	6353.29	5325.32	-4995.83	1844.75	1667528.30	14289796.21	39°21'04.065"N	80°54'14.740"W	5325.54	159.733	0.13	-0.06	0.12	
11984.00	90.060	162.590	6353.34	5420.27	-5086.27	1873.82	1667557.36	14289705.81	39°21'03.170"N	80°54'14.371"W	5420.45	159.776	0.88	0.19	0.86	

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Actual Wellpath Report

Leeroy Unit 3H AWP Proj: 14187

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Ritchie County, WV	Well	Leeroy Unit 3H
Field	Ritchie	Wellbore	Leeroy Unit 3H AWB
Facility	Lettie Pad		

WELLPATH DATA (174 stations)

MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (ft)	Grid North (ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (ft/100ft)	Build Rate (ft/100ft)	Turn Rate (ft/100ft)	Comments
12079.00	90.060	161.700	6353.24	5515.22	-5176.69	1902.95	1667586.48	14289615.42	39°21'02.276"N	80°54'14.002"W	5515.37	159.817	0.94	0.00	-0.94	
12174.00	90.090	160.120	6353.12	5610.21	-5266.46	1934.02	1667617.54	14289525.68	39°21'01.389"N	80°54'13.607"W	5610.35	159.835	1.66	0.03	-1.66	
12269.00	90.090	158.780	6352.97	5705.19	-5355.42	1967.36	1667650.87	14289436.77	39°21'00.509"N	80°54'13.184"W	5705.35	159.829	1.41	0.00	-1.41	
12364.00	90.060	158.920	6352.84	5800.17	-5444.02	2001.64	1667685.13	14289348.20	39°20'59.633"N	80°54'12.749"W	5800.33	159.813	0.15	-0.03	0.15	
12458.00	90.000	159.860	6352.79	5894.15	-5532.00	2034.73	1667718.21	14289260.25	39°20'58.763"N	80°54'12.329"W	5894.33	159.806	1.00	-0.06	1.00	
12553.00	90.090	161.300	6352.72	5989.15	-5621.59	2066.31	1667749.78	14289170.70	39°20'57.877"N	80°54'11.928"W	5989.32	159.818	1.52	0.09	1.52	
12648.00	90.090	163.620	6352.57	6084.07	-5712.17	2094.94	1667778.40	14289080.16	39°20'56.982"N	80°54'11.565"W	6084.21	159.859	2.44	0.00	2.44	
12743.00	89.970	164.570	6352.52	6178.86	-5803.53	2120.98	1667804.42	14288988.83	39°20'56.079"N	80°54'11.235"W	6178.96	159.925	1.01	-0.13	1.00	
12838.00	90.000	165.520	6352.54	6273.52	-5895.31	2145.49	1667828.93	14288897.09	39°20'55.171"N	80°54'10.924"W	6273.58	160.002	1.00	0.03	1.00	
12933.00	90.180	166.060	6352.40	6368.08	-5987.41	2168.81	1667852.24	14288805.03	39°20'54.261"N	80°54'10.628"W	6368.11	160.088	0.60	0.19	0.57	
13027.00	90.090	164.220	6352.17	6461.73	-6078.26	2192.92	1667876.33	14288714.22	39°20'53.363"N	80°54'10.323"W	6461.74	160.162	1.96	-0.10	-1.96	
13122.00	90.520	161.040	6351.67	6556.64	-6168.91	2221.27	1667904.88	14288623.60	39°20'52.466"N	80°54'09.963"W	6556.64	160.197	3.38	0.45	-3.35	
13217.00	89.570	160.130	6351.64	6651.63	-6258.51	2252.85	1667936.24	14288534.04	39°20'51.580"N	80°54'09.562"W	6651.64	160.203	1.43	-1.06	-0.96	
13312.00	89.320	161.730	6352.61	6746.62	-6348.29	2283.89	1667967.27	14288444.29	39°20'50.693"N	80°54'09.168"W	6746.62	160.213	1.70	-0.20	1.68	
13407.00	90.120	160.950	6353.08	6841.60	-6438.21	2314.52	1667997.88	14288354.41	39°20'49.804"N	80°54'08.780"W	6841.60	160.227	1.41	0.84	-1.14	
13502.00	90.970	158.640	6352.21	6936.59	-6527.27	2347.56	1668030.91	14288265.38	39°20'48.923"N	80°54'08.360"W	6936.59	160.219	2.28	0.84	-2.12	
13597.00	90.620	158.550	6350.94	7031.54	-6615.71	2382.23	1668065.57	14288176.98	39°20'48.049"N	80°54'07.920"W	7031.54	160.197	0.33	-0.32	-0.09	
13692.00	89.970	157.360	6350.45	7126.46	-6703.76	2417.88	1668101.21	14288088.97	39°20'47.178"N	80°54'07.468"W	7126.47	160.167	1.43	-0.68	-1.25	
13787.00	89.630	154.010	6350.78	7221.14	-6790.32	2456.99	1668140.30	14288002.44	39°20'46.322"N	80°54'06.971"W	7221.17	160.108	3.54	-0.36	-3.53	
13881.00	90.580	155.420	6350.61	7314.70	-6875.31	2497.14	1668180.43	14287917.48	39°20'45.482"N	80°54'06.461"W	7314.75	160.039	1.81	1.01	1.50	
13976.00	91.570	155.790	6348.83	7409.37	-6961.81	2536.37	1668219.65	14287831.02	39°20'44.626"N	80°54'05.963"W	7409.45	159.982	1.11	1.04	0.39	
14071.00	89.290	153.160	6348.11	7503.87	-7047.52	2577.30	1668260.56	14287745.34	39°20'43.779"N	80°54'05.443"W	7504.00	159.912	3.66	-2.40	-2.77	
14163.00	89.720	154.740	6348.91	7595.31	-7130.17	2617.70	1668300.94	14287662.72	39°20'42.961"N	80°54'04.930"W	7595.51	159.840	1.78	0.47	1.72	
14187.00	89.720	154.740	6349.03	7619.20	-7151.88	2627.94	1668311.18	14287641.03	39°20'42.747"N	80°54'04.800"W	7619.41	159.824	0.00	0.00	0.00	Projected MD at TD: 14187'

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Actual Wellpath Report

Leeroy Unit 3H AWP Proj: 14187'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Ritchie County, WV	Well	Leeroy Unit 3H
Field	Ritchie	Wellbore	Leeroy Unit 3H AWB
Facility	Lettie Pad		

HOLE & CASING SECTIONS - Ref Wellbore: Leeroy Unit 3H AWB Ref Wellpath: Leeroy Unit 3H AWP Proj: 14187'

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start NIS [ft]	Start E/W [ft]	End NIS [ft]	End E/W [ft]
20in Conductor	25.50	105.50	80.00	25.50	105.50	0.00	0.00	-0.37	-0.09
17.5in Open Hole	105.50	519.40	413.90	105.50	519.37	-0.37	-0.09	-4.64	-1.58
13.375in Casing Surface	25.50	519.40	493.90	25.50	519.37	0.00	0.00	-4.64	-1.58
12.25in Open Hole	519.40	2578.50	2059.10	519.37	2578.07	-4.64	-1.58	1.14	-9.26
9.625in Casing Intermediate	25.50	2578.50	2553.00	25.50	2578.07	0.00	0.00	1.14	-9.26
8.75in Open Hole	2578.50	6031.50	3453.00	2578.07	5969.82	1.14	-9.26	370.43	-102.99
8.5in Open Hole	6031.50	14187.00	8155.50	5969.82	6349.03	370.43	-102.99	-7151.88	2627.94
5.5in Casing Production	25.50	14187.00	14161.50	25.50	6349.03	0.00	0.00	-7151.88	2627.94

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Leeroy Unit 3H POE Rev-2	6326.00	-44.94	61.98	1665746.25	14294745.12	39°21'53.015"N	80°54'37.371"W	point
Leeroy Unit 3H BHL Rev-2	6349.00	-7343.64	2682.82	1668366.04	14287449.34	39°20'40.851"N	80°54'04.104"W	point
Leeroy Unit 3H LP Rev-2	6349.00	-210.28	121.35	1665805.60	14294579.84	39°21'51.380"N	80°54'36.618"W	point

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Operator	ANTERO RESOURCES CORPORATION	Slot	Slot #03
Area	Ritchie County, WV	Well	Leeroy Unit 3H
Field	Ritchie	Wellbore	Leeroy Unit 3H AWB
Facility	Lettie Pad		

WELLPATH COMPOSITION - Ref Wellbore: Leeroy Unit 3H AWB Ref Wellpath: Leeroy Unit 3H AWP Proj: 14187			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
25.50	465.50	Gyrodata standard - Drop gyro or Multi-shot	01 Gyrodata MS Gyro <17-1/2">(100'-455')
465.50	2496.50	ISCWSA MWD, Rev. 4 (Standard)	02_WFT EM <12-1/4">(455')(543'-2486')
2496.50	5957.50	ISCWSA MWD, Rev. 4 (Standard)	03_WFT EM <8-3/4">(2486')(2624'-5947')
5957.50	14163.00	BHI AutoTrak Curve (Short)	04_BH AT Curve <8-1/2"> (5957.5')(6010'-14163')
14163.00	14187.00	Blind Drilling (std)	Projection to bit
			Wellbore

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Area	Ritchie County, WV	Well	Leeroy Unit 3H
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Facility	Lettie Pad		

COMMENTS

Wellpath general comments
 API: 47-085-10364-0000
 BHI Job #: 109516211
 Rig: H&P 317
 Duration: 11/25/2018-11/29/2018
 Gyrodato MS Gyro <17-1/2">(100'-455')
 WFT EM <12-1/4">(455')(543'-2486')
 WFT EM <8-3/4">(2486')(2624'-5947')
 BH AT Curve <8-1/2">(5957.5')(6010'-14163')
 Middlesex: 6288' MD
 Burkett: 6463' MD
 Tully: 6551' MD
 Marcellus POE: 6629' MD
 Projected MD at TD: 14187'

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