



Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'

Page 1 of 12



REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Lakota Unit 2H
Field	Doddridge	API	47-017-06893-0000
Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Delaset
Scale	0.999607	Report Generated	12/5/2019 at 4:00:47 PM
Convergence at slot	0.17° East	Database	WA_MPL_EasternUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2.71	9.60	1715814.29	14274030.52	39°18'27.2230"N	80°44'0.4260"W
Facility Reference Pt			1715804.69	14274033.23	39°18'27.2500"N	80°44'0.5480"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 317 (RKB) to Facility Vertical Datum	1308.50ft
Horizontal Reference Pt	Slot	H&P 317 (RKB) to Mean Sea Level	1308.50ft
Vertical Reference Pt	H&P 317 (RKB)	H&P 317 (RKB) to Ground Level at Slot (Slot #05)	25.50ft
MD Reference Pt	H&P 317 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	161.49°

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Page 2 of 12



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Slot	Slot #05		

WELLPATH DATA (247 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
0.00	† 0.000	236.760	0.00	0.00	0.00	0.00	1715814.29	14274030.52	39°18'27.2230"N	80°44'0.4260"W	0.00	0.000	0.00	0.00	0.00	
25.50	0.000	236.760	25.50	0.00	0.00	0.00	1715814.29	14274030.52	39°18'27.2230"N	80°44'0.4260"W	0.00	0.000	0.00	0.00	0.00	
50.00	0.520	236.760	50.00	0.03	-0.06	-0.09	1715814.20	14274030.46	39°18'27.2224"N	80°44'0.4272"W	0.11	236.760	2.12	2.12	0.00	Gyrodata MS Gyro <17-1/2">(50'-483')
75.00	0.530	233.080	75.00	0.09	-0.19	-0.28	1715814.01	14274030.33	39°18'27.2211"N	80°44'0.4295"W	0.34	235.510	0.14	0.04	-14.72	
100.00	0.540	230.000	100.00	0.17	-0.34	-0.46	1715813.83	14274030.18	39°18'27.2196"N	80°44'0.4319"W	0.57	233.889	0.12	0.04	-12.32	
125.00	0.580	235.180	125.00	0.25	-0.49	-0.66	1715813.63	14274030.03	39°18'27.2182"N	80°44'0.4343"W	0.82	233.528	0.26	0.16	-20.72	
150.00	0.540	222.300	150.00	0.34	-0.65	-0.84	1715813.45	14274029.88	39°18'27.2166"N	80°44'0.4367"W	1.06	232.485	0.53	-0.16	-51.52	
175.00	0.550	228.470	174.99	0.45	-0.81	-1.01	1715813.28	14274029.71	39°18'27.2150"N	80°44'0.4388"W	1.30	231.192	0.24	0.04	24.68	
200.00	0.480	215.770	199.99	0.56	-0.98	-1.16	1715813.13	14274029.54	39°18'27.2133"N	80°44'0.4408"W	1.52	229.924	0.53	-0.28	-50.80	
225.00	0.430	211.990	224.99	0.68	-1.14	-1.27	1715813.02	14274029.38	39°18'27.2117"N	80°44'0.4422"W	1.71	228.096	0.23	-0.20	-15.12	
250.00	0.440	224.860	249.99	0.78	-1.29	-1.39	1715812.90	14274029.23	39°18'27.2103"N	80°44'0.4437"W	1.89	227.145	0.39	0.04	51.48	
275.00	0.340	215.870	274.99	0.87	-1.42	-1.50	1715812.79	14274029.10	39°18'27.2090"N	80°44'0.4451"W	2.06	226.636	0.47	-0.40	-35.96	
300.00	0.240	219.340	299.99	0.94	-1.52	-1.58	1715812.71	14274029.00	39°18'27.2080"N	80°44'0.4461"W	2.19	226.099	0.41	-0.40	13.88	
325.00	0.220	210.190	324.99	1.00	-1.60	-1.63	1715812.66	14274028.92	39°18'27.2072"N	80°44'0.4468"W	2.29	225.615	0.17	-0.08	-36.60	
350.00	0.210	209.500	349.99	1.06	-1.68	-1.68	1715812.61	14274028.84	39°18'27.2064"N	80°44'0.4474"W	2.38	225.001	0.04	-0.04	-2.76	
375.00	0.170	206.760	374.99	1.12	-1.75	-1.72	1715812.57	14274028.77	39°18'27.2057"N	80°44'0.4479"W	2.46	224.444	0.16	-0.16	-10.96	
400.00	0.260	201.010	399.99	1.19	-1.84	-1.76	1715812.53	14274028.68	39°18'27.2048"N	80°44'0.4484"W	2.54	223.682	0.37	0.36	-23.00	
425.00	0.360	194.720	424.99	1.30	-1.97	-1.80	1715812.49	14274028.55	39°18'27.2036"N	80°44'0.4489"W	2.67	222.395	0.42	0.40	-25.16	
450.00	0.420	194.880	449.99	1.44	-2.13	-1.84	1715812.45	14274028.39	39°18'27.2019"N	80°44'0.4495"W	2.82	220.792	0.24	0.24	0.64	
483.00	0.590	192.070	482.99	1.69	-2.42	-1.91	1715812.38	14274028.10	39°18'27.1991"N	80°44'0.4503"W	3.08	218.288	0.52	0.52	-8.52	
609.00	0.370	4.780	608.99	1.87	-2.65	-2.01	1715812.28	14274027.88	39°18'27.1969"N	80°44'0.4516"W	3.32	217.218	0.76	-0.17	137.07	APS EM <12-1/4">(483')(609'-2558')
701.00	2.630	14.710	700.95	-0.17	-0.31	-1.45	1715812.84	14274030.21	39°18'27.2200"N	80°44'0.4444"W	1.48	258.025	2.46	2.46	10.79	
794.00	4.990	26.800	793.74	-4.80	5.37	0.92	1715815.21	14274035.89	39°18'27.2760"N	80°44'0.4141"W	5.45	9.701	2.67	2.54	13.00	
888.00	7.500	30.720	887.17	-11.68	14.29	5.90	1715820.18	14274044.81	39°18'27.3640"N	80°44'0.3504"W	15.46	22.416	2.71	2.67	4.17	
983.00	6.850	36.840	981.43	-18.95	24.16	12.46	1715826.74	14274054.67	39°18'27.4614"N	80°44'0.2666"W	27.18	27.285	1.06	-0.68	6.44	
1078.00	6.220	30.500	1075.81	-25.55	33.12	18.47	1715832.75	14274063.63	39°18'27.5498"N	80°44'0.1898"W	37.93	29.142	1.01	-0.66	-6.67	
1173.00	5.630	20.370	1170.31	-32.55	41.93	22.70	1715836.98	14274072.43	39°18'27.6367"N	80°44'0.1356"W	47.68	28.434	1.26	-0.62	-10.66	
1268.00	5.350	26.690	1264.87	-39.30	50.25	26.31	1715840.59	14274080.75	39°18'27.7189"N	80°44'0.0893"W	56.73	27.638	0.70	-0.29	6.65	
1363.00	6.060	37.640	1359.40	-45.21	58.18	31.37	1715845.64	14274088.68	39°18'27.7971"N	80°44'0.0248"W	66.10	28.329	1.36	0.75	11.53	
1457.00	5.060	44.440	1452.96	-49.86	65.07	37.30	1715851.57	14274095.57	39°18'27.8650"N	80°43'59.9490"W	75.00	29.822	1.27	-1.06	7.23	

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Page 3 of 12



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Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

WELLPATH DATA (247 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
1552.00	4.330	48.910	1547.64	-53.15	70.42	42.94	1715857.21	14274100.91	39°18'27.9177"N	80°43'59.8771"W	82.48	31.371	0.86	-0.77	4.71	
1647.00	4.880	44.540	1642.34	-56.35	75.66	48.47	1715862.74	14274106.15	39°18'27.9693"N	80°43'59.8065"W	89.85	32.647	0.69	0.58	-4.60	
1742.00	3.920	50.800	1737.06	-59.33	80.59	53.82	1715868.09	14274111.08	39°18'28.0179"N	80°43'59.7382"W	96.91	33.738	1.13	-1.01	6.59	
1837.00	2.590	53.350	1831.90	-61.15	83.92	58.06	1715872.33	14274114.41	39°18'28.0507"N	80°43'59.6842"W	102.05	34.677	1.41	-1.40	2.68	
1932.00	0.820	106.770	1926.86	-61.42	85.01	60.44	1715874.70	14274115.49	39°18'28.0614"N	80°43'59.6539"W	104.30	35.410	2.32	-1.86	56.23	
2026.00	1.750	134.010	2020.84	-59.76	83.82	62.11	1715876.38	14274114.30	39°18'28.0496"N	80°43'59.6327"W	104.32	36.540	1.16	0.99	28.98	
2121.00	2.900	137.020	2115.76	-56.29	81.05	64.79	1715879.06	14274111.54	39°18'28.0222"N	80°43'59.5986"W	103.77	38.639	1.22	1.21	3.17	
2216.00	2.130	148.290	2210.66	-52.38	77.79	67.36	1715881.62	14274108.28	39°18'27.9899"N	80°43'59.5661"W	102.90	40.890	0.96	-0.81	11.86	
2311.00	1.090	185.340	2305.63	-49.84	75.39	68.20	1715882.47	14274105.88	39°18'27.9661"N	80°43'59.5555"W	101.66	42.135	1.50	-1.09	39.00	
2406.00	0.570	209.680	2400.62	-48.69	74.08	67.89	1715882.15	14274104.57	39°18'27.9532"N	80°43'59.5596"W	100.48	42.502	0.65	-0.55	25.62	
2501.00	0.600	214.740	2495.61	-48.08	73.26	67.37	1715881.63	14274103.75	39°18'27.9451"N	80°43'59.5662"W	99.53	42.601	0.06	0.03	5.33	
2558.00	0.730	204.770	2552.61	-47.64	72.68	67.05	1715881.31	14274103.18	39°18'27.9394"N	80°43'59.5703"W	98.88	42.689	0.30	0.23	-17.49	
2635.00	0.550	189.860	2629.60	-46.96	71.88	66.78	1715881.04	14274102.37	39°18'27.9314"N	80°43'59.5738"W	98.11	42.894	0.32	-0.23	-19.36	APS EM <8-3/4">(2558')(2635'-6813')
2729.00	2.310	80.570	2723.58	-46.26	71.74	68.57	1715882.83	14274102.23	39°18'27.9300"N	80°43'59.5510"W	99.24	43.705	2.71	1.87	-116.27	
2824.00	4.680	64.130	2818.40	-46.46	73.75	73.95	1715888.21	14274104.24	39°18'27.9497"N	80°43'59.4825"W	104.43	45.078	2.68	2.45	-17.31	
2919.00	4.610	56.460	2913.09	-47.94	77.55	80.62	1715894.87	14274108.04	39°18'27.9871"N	80°43'59.3975"W	111.86	46.112	0.66	-0.07	-8.07	
3014.00	6.050	53.550	3007.67	-50.47	82.63	87.82	1715902.08	14274113.12	39°18'28.0371"N	80°43'59.3056"W	120.59	46.745	1.54	1.52	-3.06	
3111.00	7.890	43.370	3103.96	-55.19	90.51	96.51	1715910.76	14274120.99	39°18'28.1147"N	80°43'59.1948"W	132.31	46.838	2.28	1.90	-10.49	
3206.00	9.720	36.370	3197.83	-62.87	101.71	105.74	1715919.99	14274132.19	39°18'28.2251"N	80°43'59.0769"W	146.72	46.115	2.23	1.93	-7.37	
3301.00	8.720	31.220	3291.61	-72.14	114.32	114.23	1715928.48	14274144.80	39°18'28.3496"N	80°43'58.9685"W	161.61	44.977	1.36	-1.05	-5.42	
3396.00	9.370	37.560	3385.43	-81.12	126.61	122.68	1715936.92	14274157.08	39°18'28.4708"N	80°43'58.8605"W	176.30	44.096	1.25	0.65	6.67	
3490.00	11.010	38.910	3477.94	-90.22	139.66	132.98	1715947.22	14274170.13	39°18'28.5995"N	80°43'58.7290"W	192.85	43.596	1.76	1.74	1.44	
3585.00	12.680	38.770	3570.92	-100.74	154.85	145.21	1715959.44	14274185.31	39°18'28.7492"N	80°43'58.5728"W	212.29	43.159	1.76	1.76	-0.15	
3680.00	12.220	35.240	3663.68	-112.32	171.19	157.54	1715971.77	14274201.65	39°18'28.9104"N	80°43'58.4154"W	232.65	42.622	0.94	-0.48	-3.72	
3775.00	10.810	31.850	3756.77	-123.95	186.97	168.04	1715982.27	14274217.42	39°18'29.0660"N	80°43'58.2811"W	251.39	41.948	1.65	-1.48	-3.57	
3870.00	9.480	27.980	3850.28	-135.02	201.45	176.42	1715990.64	14274231.89	39°18'29.2089"N	80°43'58.1741"W	267.78	41.209	1.57	-1.40	-4.07	
3965.00	8.890	40.100	3944.07	-144.23	213.98	184.82	1715999.03	14274244.41	39°18'29.3324"N	80°43'58.0668"W	282.74	40.818	2.12	-0.62	12.76	
4059.00	10.280	48.040	4036.76	-151.36	225.14	195.73	1716009.94	14274255.57	39°18'29.4425"N	80°43'57.9275"W	298.33	41.003	2.04	1.48	8.45	
4154.00	10.910	39.210	4130.15	-159.53	237.78	207.72	1716021.93	14274268.20	39°18'29.5670"N	80°43'57.7745"W	315.73	41.140	1.83	0.66	-9.29	
4249.00	11.200	35.760	4223.39	-169.72	252.23	218.79	1716033.00	14274282.65	39°18'29.7095"N	80°43'57.6330"W	333.90	40.940	0.76	0.31	-3.63	

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Page 4 of 12



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4344.00	11.910	37.740	4316.46	-180.55	267.47	230.19	1716044.39	14274297.88	39°18'29.8598"N	80°43'57.4875"W	352.88	40.716	0.86	0.75	2.08	
4439.00	11.930	40.520	4409.41	-191.05	282.68	242.57	1716056.76	14274313.09	39°18'30.0098"N	80°43'57.3295"W	372.49	40.632	0.60	0.02	2.93	
4534.00	12.840	46.090	4502.21	-200.63	297.47	256.55	1716070.74	14274327.87	39°18'30.1556"N	80°43'57.1510"W	392.82	40.776	1.58	0.96	5.86	
4629.00	13.150	52.080	4594.78	-208.75	311.43	272.68	1716086.86	14274341.83	39°18'30.2931"N	80°43'56.9453"W	413.94	41.205	1.45	0.33	6.31	
4724.00	11.930	47.030	4687.51	-216.41	324.77	288.39	1716102.57	14274355.16	39°18'30.4244"N	80°43'56.7449"W	434.33	41.605	1.73	-1.28	-5.32	
4818.00	10.790	40.100	4779.67	-225.02	338.12	301.17	1716115.34	14274368.51	39°18'30.5560"N	80°43'56.5818"W	452.80	41.692	1.89	-1.21	-7.37	
4913.00	9.400	31.350	4873.21	-234.65	351.55	310.94	1716125.10	14274381.93	39°18'30.6885"N	80°43'56.4571"W	469.33	41.492	2.17	-1.46	-9.21	
5008.00	8.030	22.430	4967.11	-244.67	364.31	317.50	1716131.67	14274394.69	39°18'30.8144"N	80°43'56.3731"W	483.25	41.073	2.02	-1.44	-9.39	
5106.00	7.230	18.960	5064.24	-254.73	376.47	322.12	1716136.28	14274406.84	39°18'30.9344"N	80°43'56.3139"W	495.47	40.551	0.94	-0.82	-3.54	
5201.00	6.850	15.240	5158.53	-264.19	387.59	325.55	1716139.71	14274417.96	39°18'31.0443"N	80°43'56.2698"W	506.17	40.028	0.62	-0.40	-3.92	
5296.00	9.180	26.070	5252.60	-274.30	399.86	330.37	1716144.53	14274430.23	39°18'31.1654"N	80°43'56.2080"W	518.69	39.564	2.91	2.45	11.40	
5390.00	9.920	24.640	5345.30	-285.54	413.96	337.04	1716151.20	14274444.32	39°18'31.3046"N	80°43'56.1226"W	533.82	39.152	0.83	0.79	-1.52	
5485.00	11.820	27.570	5438.59	-298.26	430.02	344.96	1716159.11	14274460.37	39°18'31.4631"N	80°43'56.0213"W	551.29	38.736	2.08	2.00	3.08	
5580.00	12.220	22.840	5531.51	-312.56	447.92	353.36	1716167.51	14274478.26	39°18'31.6397"N	80°43'55.9137"W	570.52	38.270	1.12	0.42	-4.98	
5675.00	10.040	23.210	5624.71	-326.29	464.79	360.53	1716174.68	14274495.13	39°18'31.8063"N	80°43'55.8219"W	588.23	37.800	2.30	-2.29	0.39	
5770.00	9.040	34.600	5718.41	-336.95	478.55	368.03	1716182.18	14274508.88	39°18'31.9420"N	80°43'55.7259"W	603.70	37.562	2.24	-1.05	11.99	
5865.00	11.970	46.430	5811.82	-345.61	491.49	379.41	1716193.55	14274521.81	39°18'32.0696"N	80°43'55.5807"W	620.90	37.667	3.81	3.08	12.45	
5960.00	12.630	39.280	5904.64	-355.32	506.32	393.13	1716207.26	14274536.64	39°18'32.2158"N	80°43'55.4056"W	641.02	37.827	1.75	0.69	-7.53	
6055.00	12.350	26.680	5997.41	-368.02	523.44	404.27	1716218.40	14274553.75	39°18'32.3846"N	80°43'55.2633"W	661.38	37.680	2.88	-0.29	-13.26	
6149.00	13.020	28.180	6089.11	-382.37	541.75	413.78	1716227.91	14274572.06	39°18'32.5654"N	80°43'55.1416"W	681.70	37.372	0.79	0.71	1.60	
6244.00	12.460	31.510	6181.78	-396.29	559.93	424.19	1716238.31	14274590.22	39°18'32.7447"N	80°43'55.0084"W	702.46	37.147	0.97	-0.59	3.51	
6339.00	9.350	68.050	6275.16	-403.35	571.56	436.72	1716250.84	14274601.86	39°18'32.8593"N	80°43'54.8486"W	719.31	37.383	7.81	-3.27	38.46	
6434.00	12.650	114.930	6368.57	-396.65	570.06	453.35	1716267.46	14274600.35	39°18'32.8440"N	80°43'54.6371"W	728.35	38.494	9.70	3.47	49.35	
6529.00	13.640	133.040	6461.12	-379.64	558.03	470.98	1716285.08	14274588.32	39°18'32.7245"N	80°43'54.4133"W	730.21	40.165	4.44	1.04	19.06	
6624.00	22.310	149.930	6551.46	-352.05	534.72	488.24	1716302.34	14274565.02	39°18'32.4936"N	80°43'54.1945"W	724.09	42.399	10.56	9.13	17.78	
6718.00	25.420	164.090	6637.48	-314.38	499.84	502.73	1716316.82	14274530.16	39°18'32.1485"N	80°43'54.0115"W	708.92	45.165	6.91	3.31	15.06	
6813.00	31.190	168.930	6721.10	-269.57	456.04	513.05	1716327.14	14274486.38	39°18'31.7153"N	80°43'53.8819"W	686.44	48.367	6.53	6.07	5.09	
6832.00†	32.647	168.609	6737.23	-259.61	446.19	515.01	1716329.09	14274476.53	39°18'31.6179"N	80°43'53.8574"W	681.41	49.095	7.72	7.67	-1.69	Middlesex: 6832' MD
6862.00	34.950	168.150	6762.16	-243.04	429.85	518.37	1716332.46	14274460.20	39°18'31.4562"N	80°43'53.8152"W	673.41	50.334	7.72	7.68	-1.53	BH AT Curve <8-1/2">(6813')(6862'-21402')
6957.00	41.970	165.430	6836.50	-184.25	372.39	531.97	1716346.05	14274402.77	39°18'30.8880"N	80°43'53.6444"W	649.36	55.007	7.60	7.39	-2.86	

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Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'
Page 5 of 12



REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Lakota Unit 2H
Field	Doddridge		API	47-017-06893-0000
Facility	George Scott Pad		Wellbore	Lakota Unit 2H AWB
Slot	Slot #05			

WELLPATH DATA (247 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	Vert Sect (ft)	North (ft)	East (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	Closure Dist (ft)	Closure Dir (°)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	Comments
7023.00†	48.857	163.785	6882.81	-137.34	327.12	544.47	1716358.55	14274357.51	39°18'30.4402"N	80°43'53.4870"W	635.18	59.003	10.58	10.44	-2.49	Burkett: 7023' MD
7052.00	51.890	163.170	6901.30	-115.02	305.71	550.83	1716364.90	14274336.11	39°18'30.2283"N	80°43'53.4070"W	629.97	60.970	10.58	10.46	-2.12	
7069.00†	53.457	162.572	6911.61	-101.51	292.79	554.81	1716368.88	14274323.19	39°18'30.1006"N	80°43'53.3568"W	627.33	62.178	9.63	9.22	-3.52	Tully: 7069' MD
7147.00	60.680	160.100	6953.99	-36.09	230.83	575.80	1716389.86	14274261.26	39°18'29.4876"N	80°43'53.0921"W	620.35	68.155	9.63	9.26	-3.17	
7194.00	65.330	169.990	6975.32	5.76	191.48	590.09	1716404.15	14274221.92	39°18'29.0982"N	80°43'52.9118"W	620.38	72.022	9.90	9.89	-0.23	
7196.00†	65.557	160.034	6976.15	7.58	189.77	590.71	1716404.77	14274220.21	39°18'29.0813"N	80°43'52.9040"W	620.44	72.190	11.54	11.37	2.19	Marcellus POE: 7196' MD
7242.00	70.790	161.000	6993.25	50.26	149.52	604.94	1716418.99	14274179.98	39°18'28.6831"N	80°43'52.7244"W	623.15	76.117	11.54	11.38	2.10	
7337.00	82.500	161.000	7015.15	142.53	62.28	634.98	1716449.02	14274092.78	39°18'27.8199"N	80°43'52.3456"W	638.03	84.398	12.33	12.33	0.00	
7432.00	89.820	157.710	7021.51	237.17	-26.34	668.39	1716482.41	14274004.19	39°18'26.9430"N	80°43'51.9240"W	668.90	92.257	8.44	7.71	-3.46	
7527.00	89.820	155.050	7021.81	331.79	-113.38	706.45	1716520.46	14273917.19	39°18'26.0817"N	80°43'51.4431"W	715.49	99.118	2.80	0.00	-2.80	
7622.00	89.910	157.050	7022.03	426.35	-200.19	745.01	1716559.00	14273830.41	39°18'25.2225"N	80°43'50.9558"W	771.44	105.041	2.11	0.09	2.11	
7717.00	89.940	159.190	7022.16	521.18	-288.34	780.41	1716594.39	14273742.29	39°18'24.3502"N	80°43'50.5088"W	831.97	110.276	2.25	0.03	2.25	
7812.00	89.850	161.220	7022.33	616.15	-377.73	812.58	1716626.55	14273652.94	39°18'23.4659"N	80°43'50.1029"W	896.08	114.931	2.14	-0.09	2.14	
7907.00	89.690	162.020	7022.71	711.15	-467.88	842.53	1716656.49	14273562.83	39°18'22.5739"N	80°43'49.7253"W	963.73	119.044	0.86	-0.17	0.84	
8001.00	90.800	165.210	7022.31	805.07	-558.05	869.05	1716682.99	14273472.69	39°18'21.6820"N	80°43'49.3914"W	1032.79	122.706	3.59	1.18	3.39	
8096.00	88.740	163.330	7022.69	899.95	-649.48	894.80	1716708.73	14273381.30	39°18'20.7775"N	80°43'49.0673"W	1105.66	125.974	2.94	-2.17	-1.98	
8191.00	90.180	162.360	7023.59	994.92	-740.24	922.82	1716736.74	14273290.57	39°18'19.8796"N	80°43'48.7143"W	1183.03	128.735	1.83	1.52	-1.02	
8286.00	90.830	164.930	7022.75	1089.84	-831.39	949.56	1716763.48	14273199.46	39°18'18.9780"N	80°43'48.3775"W	1262.09	131.204	2.79	0.68	2.71	
8381.00	91.420	167.550	7020.88	1184.48	-923.64	972.15	1716786.06	14273107.25	39°18'18.0656"N	80°43'48.0936"W	1340.97	133.534	2.83	0.62	2.76	
8475.00	90.400	164.920	7019.39	1278.14	-1014.92	994.52	1716808.41	14273016.01	39°18'17.1627"N	80°43'47.8126"W	1420.96	135.582	3.00	-1.09	-2.80	
8570.00	90.550	162.640	7018.60	1373.06	-1106.12	1021.05	1716834.94	14272924.83	39°18'16.2605"N	80°43'47.4785"W	1505.34	137.290	2.41	0.16	-2.40	
8665.00	90.520	161.840	7017.72	1468.04	-1196.59	1050.03	1716863.90	14272834.40	39°18'15.3655"N	80°43'47.1134"W	1591.98	138.733	0.84	-0.03	-0.84	
8760.00	90.060	160.960	7017.24	1563.04	-1286.63	1080.33	1716894.19	14272744.40	39°18'14.4747"N	80°43'46.7313"W	1680.04	139.981	1.05	-0.48	-0.93	
8855.00	90.370	160.740	7016.88	1658.03	-1376.37	1111.49	1716925.34	14272654.69	39°18'13.5868"N	80°43'46.3383"W	1769.13	141.077	0.40	0.33	-0.23	
8950.00	89.510	159.190	7016.98	1753.00	-1465.62	1144.04	1716957.87	14272565.48	39°18'12.7037"N	80°43'45.9277"W	1859.26	142.025	1.87	-0.91	-1.63	
9045.00	90.250	158.790	7017.18	1847.90	-1554.30	1178.10	1716991.92	14272476.83	39°18'11.8262"N	80°43'45.4978"W	1950.32	142.839	0.89	0.78	-0.42	
9139.00	90.310	158.850	7016.72	1941.80	-1641.95	1212.06	1717025.87	14272389.22	39°18'10.9589"N	80°43'45.0691"W	2040.85	143.566	0.09	0.06	0.06	
9234.00	90.490	158.960	7016.05	2036.70	-1730.58	1246.25	1717060.05	14272300.62	39°18'10.0819"N	80°43'44.6375"W	2132.62	144.241	0.22	0.19	0.12	
9329.00	90.460	158.090	7015.27	2131.57	-1818.98	1281.03	1717094.81	14272212.26	39°18'9.2071"N	80°43'44.1985"W	2224.80	144.845	0.92	-0.03	-0.92	
9424.00	90.710	157.980	7014.30	2226.39	-1907.08	1316.56	1717130.33	14272124.19	39°18'8.3353"N	80°43'43.7499"W	2317.39	145.381	0.29	0.26	-0.12	

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 Environmental Protection



Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'
Page 6 of 12



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Operator	ANTERO RESOURCES CORPORATION	Well	Lakota Unit 2H
Field	Doddridge	API	47-017-06893-0000
Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

WELLPATH DATA (247 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
9519.00	90.680	158.630	7013.14	2321.24	-1995.35	1351.67	1717165.43	14272035.96	39°18'7.4619"N	80°43'43.3066"W	2410.07	145.886	0.68	-0.03	0.68	
9614.00	90.680	159.460	7012.02	2416.15	-2084.06	1385.65	1717199.39	14271947.29	39°18'6.5842"N	80°43'42.8778"W	2502.66	146.381	0.87	0.00	0.87	
9709.00	90.680	161.440	7010.89	2511.12	-2173.57	1417.43	1717231.16	14271857.81	39°18'5.6985"N	80°43'42.4769"W	2594.90	146.891	2.08	0.00	2.08	
9803.00	90.550	160.870	7009.88	2605.11	-2262.52	1447.79	1717261.51	14271768.89	39°18'4.8184"N	80°43'42.0940"W	2686.10	147.385	0.62	-0.14	-0.61	
9898.00	90.770	162.140	7008.79	2700.10	-2352.61	1477.93	1717291.63	14271678.84	39°18'3.9271"N	80°43'41.7142"W	2778.32	147.863	1.36	0.23	1.34	
9993.00	90.710	163.760	7007.56	2795.06	-2443.42	1505.78	1717319.47	14271588.06	39°18'3.0287"N	80°43'41.3634"W	2870.14	148.356	1.71	-0.06	1.71	
10088.00	90.250	162.670	7006.76	2890.01	-2534.37	1533.21	1717346.89	14271497.15	39°18'2.1290"N	80°43'41.0179"W	2962.06	148.827	1.25	-0.48	-1.15	
10182.00	89.780	160.450	7006.74	2984.01	-2623.54	1562.94	1717376.61	14271408.02	39°18'1.2468"N	80°43'40.6431"W	3053.81	149.216	2.41	-0.50	-2.36	
10277.00	90.180	158.880	7006.77	3078.95	-2712.62	1595.95	1717409.61	14271318.98	39°18'0.3654"N	80°43'40.2266"W	3147.28	149.530	1.71	0.42	-1.65	
10372.00	90.370	158.100	7006.32	3173.82	-2801.00	1630.79	1717444.43	14271230.63	39°17'59.4909"N	80°43'39.7869"W	3241.15	149.791	0.85	0.20	-0.82	
10467.00	90.150	156.600	7005.88	3268.57	-2888.67	1667.37	1717481.00	14271143.00	39°17'58.6233"N	80°43'39.3249"W	3335.34	150.006	1.60	-0.23	-1.58	
10562.00	90.060	156.640	7005.71	3363.23	-2975.87	1705.07	1717518.68	14271055.83	39°17'57.7603"N	80°43'38.8487"W	3429.73	150.189	0.10	-0.09	0.04	
10657.00	90.060	158.690	7005.61	3458.01	-3063.73	1741.17	1717554.77	14270968.00	39°17'56.8908"N	80°43'38.3929"W	3523.94	150.390	2.16	0.00	2.16	
10751.00	90.550	161.070	7005.11	3551.97	-3151.99	1773.50	1717587.09	14270879.78	39°17'56.0175"N	80°43'37.9850"W	3616.68	150.635	2.58	0.52	2.53	
10846.00	90.550	162.380	7004.20	3646.96	-3242.19	1803.29	1717616.86	14270789.61	39°17'55.1251"N	80°43'37.6095"W	3709.94	150.917	1.38	0.00	1.38	
10941.00	90.580	165.410	7003.26	3741.86	-3333.45	1829.64	1717643.20	14270698.39	39°17'54.2224"N	80°43'37.2779"W	3802.56	151.239	3.19	0.03	3.19	
11036.00	90.550	166.140	7002.33	3836.59	-3425.53	1852.98	1717666.54	14270606.34	39°17'53.3116"N	80°43'36.9845"W	3894.59	151.590	0.77	-0.03	0.77	
11131.00	90.620	165.090	7001.36	3931.34	-3517.55	1876.58	1717690.13	14270514.36	39°17'52.4014"N	80°43'36.6879"W	3986.81	151.920	1.11	0.07	-1.11	
11226.00	90.650	164.330	7000.30	4026.18	-3609.18	1901.63	1717715.17	14270422.77	39°17'51.4950"N	80°43'36.3727"W	4079.50	152.216	0.80	0.03	-0.80	
11321.00	90.550	163.330	6999.31	4121.09	-3700.41	1928.06	1717741.61	14270331.57	39°17'50.5925"N	80°43'36.0397"W	4172.60	152.478	1.06	-0.11	-1.05	
11415.00	90.550	163.580	6998.41	4215.03	-3790.52	1954.85	1717768.37	14270241.50	39°17'49.7011"N	80°43'35.7027"W	4264.91	152.719	0.27	0.00	0.27	
11510.00	90.180	161.870	6997.80	4310.01	-3881.23	1983.06	1717796.57	14270150.83	39°17'48.8037"N	80°43'35.3474"W	4358.49	152.936	1.84	-0.39	-1.80	
11605.00	88.830	157.960	6998.62	4404.95	-3970.43	2015.68	1717829.17	14270061.66	39°17'47.9211"N	80°43'34.9360"W	4452.78	153.084	4.35	-1.42	-4.12	
11700.00	90.180	160.980	6999.44	4499.87	-4059.38	2048.99	1717862.47	14269972.75	39°17'47.0410"N	80°43'34.5157"W	4547.18	153.217	3.48	1.42	3.18	
11795.00	90.520	162.470	6998.86	4594.87	-4149.58	2078.77	1717892.24	14269882.58	39°17'46.1486"N	80°43'34.1403"W	4641.16	153.391	1.61	0.36	1.57	
11890.00	90.740	162.720	6997.82	4689.84	-4240.23	2107.19	1717920.65	14269791.97	39°17'45.2518"N	80°43'33.7823"W	4734.95	153.575	0.35	0.23	0.26	
11985.00	90.740	163.300	6996.59	4784.80	-4331.07	2134.95	1717948.39	14269701.16	39°17'44.3531"N	80°43'33.4328"W	4828.68	153.760	0.61	0.00	0.61	
12080.00	90.580	163.250	6995.50	4879.75	-4422.05	2162.28	1717975.72	14269610.22	39°17'43.4531"N	80°43'33.0886"W	4922.40	153.942	0.18	-0.17	-0.05	
12174.00	90.770	163.720	6994.39	4973.68	-4512.16	2189.00	1718002.43	14269520.14	39°17'42.5616"N	80°43'32.7522"W	5015.11	154.120	0.54	0.20	0.50	
12269.00	90.680	165.580	6993.19	5068.53	-4603.76	2214.15	1718027.56	14269428.58	39°17'41.6555"N	80°43'32.4359"W	5108.53	154.315	1.96	-0.09	1.96	

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 Environmental Protection



Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'
Page 7 of 12



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Operator	ANTERO RESOURCES CORPORATION	Well	Lakota Unit 2H
Field	Doddridge	API	47-017-06893-0000
Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

WELLPATH DATA (247 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
12364.00	90.800	164.780	6991.96	5163.32	-4695.59	2238.45	1718051.85	14269336.78	39°17'40.7472"N	80°43'32.1304"W	5201.85	154.512	0.85	0.13	-0.84	
12459.00	90.620	162.040	6990.78	5258.25	-4786.62	2265.56	1718078.96	14269245.79	39°17'39.8466"N	80°43'31.7890"W	5295.71	154.671	2.89	-0.19	-2.88	
12554.00	90.490	159.940	6989.86	5353.24	-4876.43	2296.51	1718109.89	14269156.02	39°17'38.9581"N	80°43'31.3989"W	5390.13	154.782	2.21	-0.14	-2.21	
12649.00	90.490	161.050	6989.05	5448.22	-4965.98	2328.22	1718141.59	14269066.51	39°17'38.0721"N	80°43'30.9989"W	5484.66	154.861	1.17	0.00	1.17	
12743.00	90.430	160.720	6988.29	5542.21	-5054.79	2359.00	1718172.36	14268977.73	39°17'37.1934"N	80°43'30.6108"W	5578.15	154.982	0.36	-0.06	-0.35	
12838.00	90.490	160.650	6987.53	5637.20	-5144.44	2390.43	1718203.77	14268888.11	39°17'36.3064"N	80°43'30.2146"W	5672.69	155.077	0.10	0.06	-0.07	
12933.00	90.490	159.910	6986.72	5732.17	-5233.87	2422.48	1718235.81	14268798.72	39°17'35.4216"N	80°43'29.8104"W	5767.30	155.163	0.78	0.00	-0.78	
13028.00	90.490	158.940	6985.91	5827.11	-5322.80	2455.86	1718269.18	14268709.82	39°17'34.5415"N	80°43'29.3892"W	5862.04	155.232	1.02	0.00	-1.02	
13123.00	90.680	157.730	6984.94	5921.96	-5411.08	2490.93	1718304.24	14268621.58	39°17'33.6679"N	80°43'28.9466"W	5956.89	155.282	1.29	0.20	-1.27	
13218.00	90.620	157.190	6983.86	6016.71	-5498.82	2527.35	1718340.64	14268533.87	39°17'32.7997"N	80°43'28.4868"W	6051.82	155.316	0.57	-0.06	-0.57	
13313.00	90.520	156.620	6982.91	6111.41	-5586.20	2564.61	1718377.89	14268446.53	39°17'31.9349"N	80°43'28.0163"W	6146.78	155.340	0.61	-0.11	-0.60	
13408.00	90.150	156.690	6982.36	6206.07	-5673.42	2602.25	1718415.52	14268359.34	39°17'31.0717"N	80°43'27.5409"W	6241.75	155.360	0.40	-0.39	0.07	
13503.00	90.310	157.820	6981.98	6300.80	-5761.03	2638.98	1718452.23	14268271.76	39°17'30.2047"N	80°43'27.0771"W	6336.70	155.389	1.20	0.17	1.19	
13597.00	90.580	160.420	6981.25	6394.71	-5848.85	2672.48	1718485.72	14268183.98	39°17'29.3357"N	80°43'26.6545"W	6430.49	155.443	2.78	0.29	2.77	
13692.00	90.520	163.040	6980.33	6489.70	-5939.05	2702.26	1718515.48	14268093.82	39°17'28.4433"N	80°43'26.2792"W	6524.92	155.535	2.76	-0.06	2.76	
13787.00	90.310	164.620	6979.65	6584.61	-6030.29	2728.72	1718541.93	14268002.62	39°17'27.5408"N	80°43'25.9463"W	6618.93	155.653	1.68	-0.22	1.66	
13882.00	90.830	166.140	6978.70	6679.39	-6122.20	2752.69	1718565.89	14267910.74	39°17'26.6316"N	80°43'25.6449"W	6712.58	155.790	1.69	0.55	1.60	
13977.00	90.980	167.240	6977.20	6773.98	-6214.64	2774.56	1718587.75	14267818.34	39°17'25.7173"N	80°43'25.3704"W	6805.87	155.941	1.17	0.16	1.16	
14072.00	90.830	166.510	6975.70	6868.55	-6307.14	2796.13	1718609.31	14267725.87	39°17'24.8024"N	80°43'25.0996"W	6899.16	156.091	0.78	-0.16	-0.77	
14167.00	90.980	166.550	6974.20	6963.17	-6399.52	2818.26	1718631.43	14267633.53	39°17'23.8887"N	80°43'24.8218"W	6992.60	156.232	0.16	0.16	0.04	
14262.00	90.950	165.150	6972.60	7057.88	-6491.62	2841.48	1718654.64	14267541.47	39°17'22.9777"N	80°43'24.5301"W	7086.26	156.360	1.47	-0.03	-1.47	
14357.00	90.740	163.790	6971.20	7152.74	-6583.14	2866.91	1718680.06	14267449.98	39°17'22.0724"N	80°43'24.2102"W	7180.31	156.467	1.45	-0.22	-1.43	
14452.00	90.580	160.990	6970.10	7247.71	-6673.67	2895.64	1718708.79	14267359.49	39°17'21.1767"N	80°43'23.8482"W	7274.80	156.544	2.95	-0.17	-2.95	
14547.00	90.060	158.830	6969.57	7342.67	-6762.89	2928.27	1718741.41	14267270.31	39°17'20.2940"N	80°43'23.4367"W	7369.63	156.588	2.34	-0.55	-2.27	
14642.00	90.340	157.770	6969.24	7437.52	-6851.15	2963.40	1718776.52	14267182.08	39°17'19.4205"N	80°43'22.9934"W	7464.58	156.610	1.15	0.29	-1.12	
14736.00	90.430	157.820	6968.61	7531.32	-6938.18	2998.92	1718812.03	14267095.09	39°17'18.5593"N	80°43'22.5450"W	7558.56	156.624	0.11	0.10	0.05	
14831.00	90.520	159.590	6967.82	7626.20	-7026.69	3033.42	1718846.51	14267006.61	39°17'17.6835"N	80°43'22.1097"W	7653.49	156.650	1.87	0.09	1.86	
14926.00	90.520	161.560	6966.96	7721.18	-7116.27	3065.01	1718878.09	14266917.06	39°17'16.7971"N	80°43'21.7114"W	7748.26	156.698	2.07	0.00	2.07	
15021.00	90.430	162.520	6966.17	7816.17	-7206.64	3094.31	1718907.37	14266826.73	39°17'15.9031"N	80°43'21.3424"W	7842.85	156.763	1.01	-0.09	1.01	
15116.00	90.460	162.590	6965.44	7911.16	-7297.26	3122.78	1718935.84	14266736.14	39°17'15.0065"N	80°43'20.9837"W	7937.37	156.832	0.08	0.03	0.07	

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 Environmental Protection



Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'
Page 8 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Lakota Unit 2H
Field	Doddridge	API	47-017-06893-0000
Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

WELLPATH DATA (247 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
15211.00	90.490	163.570	6964.65	8006.11	-7388.15	3150.43	1718963.48	14266645.29	39°17'14.1074"N	80°43'20.6356"W	8031.81	156.906	1.03	0.03	1.03	
15306.00	90.860	164.500	6963.53	8101.01	-7479.48	3176.56	1718989.59	14266554.00	39°17'13.2039"N	80°43'20.3069"W	8126.07	156.989	1.05	0.39	0.98	
15401.00	90.770	162.430	6962.18	8195.94	-7570.53	3203.59	1719016.62	14266462.98	39°17'12.3031"N	80°43'19.9666"W	8220.46	157.064	2.18	-0.09	-2.18	
15496.00	90.650	161.260	6961.00	8290.93	-7660.80	3233.19	1719046.20	14266372.75	39°17'11.4101"N	80°43'19.5937"W	8315.13	157.118	1.24	-0.13	-1.23	
15591.00	89.570	158.110	6960.82	8385.87	-7749.87	3266.17	1719079.17	14266283.71	39°17'10.5287"N	80°43'19.1778"W	8410.02	157.147	3.51	-1.14	-3.32	
15686.00	90.340	158.030	6960.89	8480.70	-7838.00	3301.65	1719114.63	14266195.62	39°17'9.6566"N	80°43'18.7300"W	8505.00	157.157	0.81	0.81	-0.08	
15781.00	90.370	158.740	6960.30	8575.56	-7926.32	3336.64	1719149.61	14266107.34	39°17'8.7826"N	80°43'18.2884"W	8599.98	157.171	0.75	0.03	0.75	
15875.00	90.430	160.310	6959.65	8669.50	-8014.37	3369.52	1719182.48	14266019.32	39°17'7.9113"N	80°43'17.8737"W	8693.90	157.196	1.67	0.06	1.67	
15970.00	90.370	161.320	6958.98	8764.49	-8104.09	3400.74	1719213.68	14265929.63	39°17'7.0236"N	80°43'17.4802"W	8788.71	157.236	1.07	-0.06	1.06	
16065.00	90.310	161.530	6958.42	8859.49	-8194.14	3431.00	1719243.93	14265839.62	39°17'6.1326"N	80°43'17.0989"W	8883.45	157.280	0.23	-0.06	0.22	
16160.00	90.400	162.120	6957.83	8954.48	-8284.40	3460.63	1719273.55	14265749.40	39°17'5.2397"N	80°43'16.7256"W	8978.16	157.328	0.63	0.09	0.62	
16255.00	90.400	163.230	6957.17	9049.46	-8375.09	3488.92	1719301.83	14265658.74	39°17'4.3425"N	80°43'16.3694"W	9072.74	157.384	1.17	0.00	1.17	
16350.00	90.460	162.050	6956.46	9144.43	-8465.76	3517.26	1719330.16	14265568.11	39°17'3.4455"N	80°43'16.0125"W	9167.34	157.439	1.24	0.06	-1.24	
16445.00	90.400	163.000	6955.74	9239.42	-8556.37	3545.79	1719358.68	14265477.54	39°17'2.5490"N	80°43'15.6532"W	9261.97	157.491	1.00	-0.06	1.00	
16540.00	90.370	163.000	6955.10	9334.38	-8647.21	3573.57	1719386.44	14265386.73	39°17'1.6503"N	80°43'15.3036"W	9356.53	157.547	0.03	-0.03	0.00	
16634.00	90.340	162.680	6954.52	9428.35	-8737.03	3601.30	1719414.16	14265296.95	39°17'0.7617"N	80°43'14.9544"W	9450.13	157.599	0.34	-0.03	-0.34	
16729.00	90.310	162.160	6953.98	9523.34	-8827.59	3629.99	1719442.85	14265206.42	39°16'59.8658"N	80°43'14.5931"W	9544.80	157.647	0.55	-0.03	-0.55	
16824.00	90.370	161.720	6953.42	9618.33	-8917.91	3659.44	1719472.29	14265116.14	39°16'58.9722"N	80°43'14.2221"W	9639.53	157.689	0.47	0.06	-0.46	
16919.00	90.400	160.840	6952.78	9713.33	-9007.88	3689.93	1719502.76	14265026.20	39°16'58.0820"N	80°43'13.8379"W	9734.35	157.724	0.93	0.03	-0.93	
17014.00	90.340	160.360	6952.17	9808.32	-9097.48	3721.49	1719534.30	14264936.63	39°16'57.1955"N	80°43'13.4401"W	9829.22	157.752	0.51	-0.06	-0.51	
17109.00	90.400	159.580	6951.55	9903.28	-9186.73	3754.02	1719566.83	14264847.42	39°16'56.3123"N	80°43'13.0298"W	9924.15	157.773	0.82	0.06	-0.82	
17204.00	90.340	160.840	6950.94	9998.25	-9276.12	3786.19	1719598.98	14264758.07	39°16'55.4279"N	80°43'12.6243"W	10019.06	157.796	1.33	-0.06	1.33	
17299.00	90.460	161.520	6950.28	10093.25	-9366.04	3816.83	1719629.61	14264668.19	39°16'54.5382"N	80°43'12.2381"W	10113.90	157.828	0.73	0.13	0.72	
17393.00	90.400	162.810	6949.57	10187.24	-9455.52	3845.62	1719658.39	14264578.74	39°16'53.6530"N	80°43'11.8756"W	10207.62	157.868	1.37	-0.06	1.37	
17489.00	90.280	162.950	6949.00	10283.21	-9547.26	3873.88	1719686.64	14264487.03	39°16'52.7453"N	80°43'11.5198"W	10303.26	157.915	0.19	-0.12	0.15	
17583.00	90.340	163.200	6948.49	10377.17	-9637.19	3901.25	1719713.99	14264397.14	39°16'51.8557"N	80°43'11.1753"W	10396.88	157.961	0.27	0.06	0.27	
17678.00	90.400	162.770	6947.88	10472.13	-9728.03	3929.04	1719741.78	14264306.34	39°16'50.9570"N	80°43'10.8254"W	10491.52	158.007	0.46	0.06	-0.45	
17773.00	90.400	162.020	6947.22	10567.12	-9818.58	3957.78	1719770.50	14264215.83	39°16'50.0612"N	80°43'10.4636"W	10586.24	158.046	0.79	0.00	-0.79	
17868.00	90.370	161.320	6946.58	10662.12	-9908.75	3987.65	1719800.36	14264125.69	39°16'49.1690"N	80°43'10.0872"W	10681.05	158.078	0.74	-0.03	-0.74	
17963.00	90.400	160.660	6945.94	10757.11	-9998.57	4018.60	1719831.30	14264035.91	39°16'48.2803"N	80°43'9.6973"W	10775.92	158.104	0.70	0.03	-0.68	

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 OCT 28 2020



Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'
Page 9 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Lakota Unit 2H
Field	Doddridge	API	47-017-06893-0000
Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

WELLPATH DATA (247 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
18058.00	90.400	162.340	6945.28	10852.10	-10088.65	4048.74	1719861.43	14263945.86	39°16'47.3890"N	80°43'9.3175"W	10970.75	158.134	1.77	0.00	1.77	
18153.00	90.400	161.950	6944.61	10947.10	-10179.08	4077.86	1719890.54	14263855.47	39°16'46.4944"N	80°43'8.9507"W	10965.52	158.168	0.41	0.00	-0.41	
18247.00	90.400	160.770	6943.96	11041.09	-10268.14	4107.91	1719920.57	14263766.44	39°16'45.6132"N	80°43'8.5722"W	11059.37	158.195	1.26	0.00	-1.26	
18342.00	90.400	160.660	6943.29	11136.08	-10357.81	4139.28	1719951.94	14263676.81	39°16'44.7260"N	80°43'8.1767"W	11154.28	158.217	0.12	0.00	-0.12	
18437.00	90.280	159.600	6942.73	11231.05	-10447.15	4171.57	1719984.21	14263587.50	39°16'43.8420"N	80°43'7.7697"W	11249.22	158.233	1.12	-0.13	-1.12	
18532.00	90.220	157.640	6942.32	11325.93	-10535.61	4206.20	1720018.83	14263499.08	39°16'42.9666"N	80°43'7.3328"W	11344.21	158.236	2.06	-0.06	-2.06	
18627.00	89.380	154.020	6942.65	11420.45	-10622.26	4245.09	1720057.70	14263412.46	39°16'42.1090"N	80°43'6.8417"W	11439.11	158.216	3.91	-0.88	-3.81	
18722.00	90.340	157.320	6942.88	11514.94	-10708.81	4284.22	1720096.82	14263325.94	39°16'41.2523"N	80°43'6.3474"W	11534.00	158.195	3.62	1.01	3.47	
18817.00	90.090	159.830	6942.52	11609.81	-10797.24	4318.92	1720131.51	14263237.55	39°16'40.3773"N	80°43'5.9097"W	11628.99	158.198	2.66	-0.26	2.64	
18912.00	90.220	160.990	6942.27	11704.79	-10886.74	4350.77	1720163.34	14263148.09	39°16'39.4917"N	80°43'5.5082"W	11723.92	158.216	1.23	0.14	1.22	
19006.00	90.220	161.050	6941.90	11798.79	-10975.63	4381.35	1720193.90	14263059.23	39°16'38.6122"N	80°43'5.1230"W	11817.81	158.239	0.06	0.00	0.06	
19101.00	90.120	160.340	6941.62	11893.78	-11065.29	4412.75	1720225.30	14262969.61	39°16'37.7251"N	80°43'4.7272"W	11912.72	158.258	0.75	-0.11	-0.75	
19196.00	90.150	161.050	6941.40	11988.77	-11154.94	4444.16	1720256.69	14262879.99	39°16'36.8380"N	80°43'4.3313"W	12007.64	158.278	0.75	0.03	0.75	
19291.00	90.000	161.030	6941.27	12083.76	-11244.79	4475.03	1720287.55	14262790.18	39°16'35.9490"N	80°43'3.9424"W	12102.53	158.299	0.16	-0.16	-0.02	
19386.00	90.150	161.490	6941.15	12178.76	-11334.75	4505.55	1720318.05	14262700.25	39°16'35.0589"N	80°43'3.5579"W	12197.40	158.322	0.51	0.16	0.48	
19480.00	90.090	162.570	6940.95	12272.76	-11424.17	4534.55	1720347.04	14262610.87	39°16'34.1743"N	80°43'3.1926"W	12291.20	158.351	1.15	-0.08	1.15	
19575.00	89.780	162.360	6941.06	12367.74	-11514.75	4563.17	1720375.65	14262520.32	39°16'33.2781"N	80°43'2.8323"W	12385.96	158.382	0.39	-0.33	-0.22	
19670.00	89.780	162.280	6941.43	12462.73	-11605.26	4592.02	1720404.49	14262429.85	39°16'32.3826"N	80°43'2.4690"W	12480.74	158.412	0.08	0.00	-0.08	
19765.00	90.120	164.620	6941.51	12557.67	-11696.32	4619.08	1720431.54	14262338.82	39°16'31.4818"N	80°43'2.1285"W	12575.37	158.450	2.49	0.36	2.46	
19859.00	90.340	165.760	6941.13	12651.47	-11787.20	4643.11	1720455.56	14262247.99	39°16'30.5829"N	80°43'1.8266"W	12668.72	158.500	1.24	0.23	1.21	
19954.00	89.780	161.840	6941.03	12746.38	-11878.41	4669.61	1720482.05	14262156.81	39°16'29.6806"N	80°43'1.4933"W	12763.30	158.539	4.17	-0.59	-4.13	
20049.00	89.570	160.500	6941.57	12841.37	-11968.32	4700.27	1720512.70	14262066.94	39°16'28.7910"N	80°43'1.1070"W	12858.19	158.559	1.43	-0.22	-1.41	
20144.00	89.940	160.370	6941.98	12936.35	-12057.83	4732.08	1720544.50	14261977.46	39°16'27.9052"N	80°43'0.7060"W	12953.14	158.573	0.41	0.39	-0.14	
20239.00	89.540	157.630	6942.41	13031.25	-12146.51	4766.12	1720578.53	14261888.81	39°16'27.0277"N	80°43'0.2767"W	13048.13	158.576	2.91	-0.42	-2.88	
20334.00	90.030	159.480	6942.76	13126.12	-12234.93	4800.85	1720613.24	14261800.43	39°16'26.1527"N	80°42'59.8386"W	13143.12	158.576	2.01	0.52	1.95	
20428.00	89.910	160.350	6942.81	13220.09	-12323.21	4833.13	1720645.51	14261712.18	39°16'25.2792"N	80°42'59.4316"W	13237.10	158.585	0.93	-0.13	0.93	
20523.00	89.940	161.360	6942.94	13315.08	-12412.96	4864.29	1720676.65	14261622.47	39°16'24.3912"N	80°42'59.0391"W	13332.02	158.601	1.06	0.03	1.06	
20618.00	90.400	163.350	6942.66	13410.06	-12503.48	4893.08	1720705.44	14261531.98	39°16'23.4956"N	80°42'58.6765"W	13426.81	158.628	2.15	0.48	2.09	
20713.00	90.340	163.930	6942.04	13504.99	-12594.63	4919.84	1720732.19	14261440.87	39°16'22.5938"N	80°42'58.3399"W	13521.45	158.663	0.61	-0.06	0.61	
20808.00	90.340	164.930	6941.48	13599.87	-12686.15	4945.34	1720757.67	14261349.39	39°16'21.6886"N	80°42'58.0193"W	13615.97	158.703	1.05	0.00	1.05	

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Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'
Page 10 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Lakota Unit 2H
Field	Doddridge	API	47-017-06893-0000
Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

WELLPATH DATA (247 stations) † = interpolated, ‡ = extrapolated station																
MD (ft)	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
20903.00	90.370	164.980	6940.89	13694.69	-12777.89	4970.00	1720782.32	14261257.69	39°16'20.7811"N	80°42'57.7095"W	13710.41	158.746	0.06	0.03	0.05	
20998.00	90.340	163.640	6940.30	13789.57	-12869.34	4995.69	1720808.00	14261166.27	39°16'19.8763"N	80°42'57.3864"W	13804.96	158.785	1.41	-0.03	-1.41	
21093.00	90.620	162.230	6939.51	13884.54	-12960.16	5023.57	1720835.87	14261075.49	39°16'18.9779"N	80°42'57.0356"W	13899.71	158.813	1.51	0.29	-1.48	
21188.00	90.430	162.000	6938.64	13979.53	-13050.56	5052.74	1720865.03	14260985.12	39°16'18.0835"N	80°42'56.6683"W	13994.55	158.835	0.31	-0.20	-0.24	
21282.00	90.370	161.970	6937.98	14073.52	-13139.95	5081.81	1720894.09	14260895.77	39°16'17.1991"N	80°42'56.3022"W	14088.40	158.856	0.07	-0.06	-0.03	
21402.00	90.490	161.610	6937.08	14193.52	-13253.94	5119.31	1720931.57	14260781.83	39°16'16.0713"N	80°42'55.8300"W	14208.24	158.881	0.32	0.10	-0.30	
21426.00†	90.490	161.610	6936.87	14217.51	-13276.71	5126.88	1720939.14	14260759.06	39°16'15.8460"N	80°42'55.7346"W	14232.21	158.886	0.00	0.00	0.00	Projected MD at TD: 21426'

HOLE & CASING SECTIONS - Ref Wellbore: Lakota Unit 2H AWB Ref Wellpath: Lakota Unit 2H AWP Proj: 21426'									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	25.50	105.50	80.00	25.50	105.50	0.00	0.00	-0.37	-0.50
17.5in Open Hole	105.50	567.30	461.80	105.50	567.29	-0.37	-0.50	-2.80	-2.01
13.375in Casing Surface	25.50	567.30	541.80	25.50	567.29	0.00	0.00	-2.80	-2.01
12.25in Open Hole	567.30	2630.00	2062.70	567.29	2624.60	-2.80	-2.01	71.92	66.79
9.625in Casing Intermediate	25.50	2610.90	2585.40	25.50	2605.50	0.00	0.00	72.11	66.83
8.75in Open Hole	2630.00	6725.50	4095.50	2624.60	6644.24	71.92	66.79	496.71	503.61
8.5in Open Hole	6725.50	21426.00	14700.50	6644.24	6936.87	496.71	503.61	-13276.71	5126.88
5.5in Casing Production	25.50	21426.00	21400.50	25.50	6936.87	0.00	0.00	-13276.71	5126.88

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Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'
Page 11 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Lakota Unit 2H
Field	Doddridge	API	47-017-06893-0000
Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Lakota Unit 2H - POE - Rev-2	6974.00	149.54	636.96	1716451.00	14274180.00	39°18'28.6823"N	80°43'52.3170"W	point
Lakota Unit 2H - BHL - Rev-2	7020.00	-13281.78	5132.74	1720945.00	14260754.00	39°16'15.7957"N	80°42'55.6603"W	point
Lakota Unit 2H - LP - Rev-2	7020.00	-89.94	717.12	1716531.13	14273940.61	39°18'26.3130"N	80°43'51.3064"W	point

WELLPATH COMPOSITION - Ref Wellbore: Lakota Unit 2H AWB Ref Wellpath: Lakota Unit 2H AWP Proj: 21426'					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
25.50	483.00	Gyrodata 2015 - GC+WIR+DPIPE	01 Gyrodata MS Gyro <17-1/2">(50'-483')	Lakota Unit 2H AWB	
483.00	2558.00	BH NaviTrak (Axial)	02 APS EM <12-1/4">(483')(609'-2558')	Lakota Unit 2H AWB	
2558.00	6813.00	BH NaviTrak (Axial)	03 APS EM <8-3/4">(2558')(2635'-6813')	Lakota Unit 2H AWB	
6813.00	21426.00	BH AutoTrak Curve (Short)	04 BH AT Curve <8-1/2">(6813')(6862'-21402')	Lakota Unit 2H AWB	

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Actual Wellpath Report

Lakota Unit 2H AWP Proj: 21426'
Page 12 of 12



REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Lakota Unit 2H
Field	Doddridge	API	47-017-06893-0000
Facility	George Scott Pad	Wellbore	Lakota Unit 2H AWB
Slot	Slot #05		

COMMENTS
<p>Wellpath general comments API: 47-017-06893-0000 BHI Job #: 110067346B Rig: H&P 317 Duration: 10/04/2019-12/02/2019 Gyrodata MS Gyro <17-1/2">(50'-483') APS EM <12-1/4">(483')(609'-2558') APS EM <8-3/4">(2558')(2635'-6813') BH AT Curve <8-1/2">(6813')(6862'-21402') Middlesex: 6832' MD Burkett: 7023' MD Tully: 7069' MD Marcellus POE: 7196' MD Projected MD at TD: 21426'</p>

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